

Inter Lab

Final Report on

TOBY-R202

FCC ID: XPY1EHQ24NN

IC: 8595A-1EHQ24NN

Report Reference: MDE_UBLOX_1601_FCCa according to:

FCC Part 22 Subpart H, Part 24 subpart E, Part 27 Subpart C

Date: September 01, 2016

Test Laboratory:

7layers GmbH Borsigstraße 11 40880 Ratingen Germany



Note:

The following test results relate only to the devices specified in this document. This report shall not be reproduced in parts without the written approval of the test laboratory.

7layers GmbH

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1 **Administrative Data**

1.1 **Project Data**

Project Responsible: Patrick Lomax Date Of Test Report: 2016/09/01 Date of first test: 2016/08/01 Date of last test: 2016/08/26

1.2 **Applicant Data**

Country:

Company Name: u-blox AG

Street: Zürcherstrasse 68,

CH-8800 Thalwil Switzerland

Contact Person: Mr. Giulio Comar

Certification Manager Function:

Department: Cellular Product Certification

+41 44 722 7462 Phone: +41 44 722 7447 Fax:

giulio.comar@u-blox.com E-Mail:

1.3 **Test Laboratory Data**

The following list shows all places and laboratories involved for test result generation:

7 layers DE

7layers GmbH Company Name: Street : Borsigstrasse 11 City: 40880 Ratingen Country: Germany

Contact Person : Mr. Michael Albert +49 2102 749 201 Phone: +49 2102 749 444 Fax :

E Mail : Michael.Albert@7Layers.com

Laboratory Details

Lab ID	Identification	Responsible	Accreditation Info
Lab 1	Radiated Emissions	Mr. Marco Kullik Mr. Jens Dörwald	DAkkS-Registration no. D-PL-12140-01-01
Lab 2	Radio Lab	Mr. Dobrin Dobrinov Mr. Daniel Gall	DAkkS-Registration no. D-PL-12140-01-01



1.4 Signature of the Testing Responsible

Patrick Lomax

responsible for tests performed in: Lab 1, Lab 2

1.5 Signature of the Accreditation Responsible

Accreditation scope responsible person responsible for Lab 1, Lab 2

2 Test Object Data

2.1 General OUT Description

The following section lists all OUTs (Object's Under Test) involved during testing.

OUT: TOBY-R202

Type / Model / Family:

TOBY-R202

FCC ID:XPY1EHQ24NN

IC:8595A-1EHQ24NN

Product Category:

Module

Manufacturer:

Company Name:

See applicant data

Contact Person:

Parameter List:

Parameter name

Value

Parameter for Scope FCC_v2:

AC Power Supply

120v / 60Hz

Antenna gain

Module does not include an antenna.

DC Power Supply

12v via ac/dc power adapter

highest channel

4233 (846.6MHz) for FDD5, 9538 (1907.6MHz) for FDD2 4132 (826.4MHz) for FDD5, 9262 (1852.4MHz)for FDD2

lowest channel LTE_Operating Frequencies

See Annex

mid channel

4183 (836.6MHz) for FDD5, 9400 (1880MHz) for FDD2



2.2 Detailed Description of OUT Samples

Sample: AF03

OUT IdentifierTOBY-R202Sample DescriptionRF and protocolSerial No.351778080012608

 HW Status
 257CA0

 SW Status
 30.05

 Date of Receipt
 2016/07/27

Sample: AQ04

OUT IdentifierTOBY-R202Sample DescriptionRF and protocolSerial No.351778080012202

 HW Status
 257CA0

 SW Status
 30.10

 Date of Receipt
 2016/08/01



2.3 OUT Features

Features for OUT: TOBY-R202

Designation Description Supported Value(s)

Features for scope: AT-CMD_v1

Α

Features for scope: FCC_v2

AC The OUT is powered by or connected to AC Mains

Eant removable antenna supplied and type tested with the radio

equipment, designed as an indispensable part of the

equipment

eFDD2 eFDD4 eFDD5 eFDD12

HSDPA-FDD5

HSUPA-FDD2

FDD2 EUT supports UMTS FDD2 in the band 1850 MHz - 1910 MHz
FDD5 EUT supports UMTS FDD5 in the band 824 MHz - 849 MHz
HSDPA-FDD2 EUT supports UMTS FDD2 HSDPA in the band 1850 MHz 1910 MHz

EUT supports UMTS FDD5 HSDPA in the band 824 MHz - 849

MHz

EUT supports UMTS FDD2 HSUPA in the band 1850 MHz - 1910 MHz

HSUPA-FDD5 EUT supports UMTS FDD5 HSUPA in the band 824 MHz - 849

MHz

TantC temporary antenna connector, which may be only built-in for

testing, designed as an example part of the equipment

2.4 Auxiliary Equipment

AE No.	Type Designation	Serial No.	HW Status	SW Status	Description
AE 02	EVB-WL3		NO_EVK_CS_1 1A00	9	Evaluation test board
AE 01	UUX324-1215	E09-0291984			AC/DC converter

2.5 Setups used for Testing

For each setup a relation is given to determine if and which samples and auxiliary equipment is used. The left side list all OUT samples and the right side lists all auxiliary equipment for the given setup.

Setup No. List of OU	Setup No. List of OUT samples List of auxiliary equipment			
Sample No.	Sample Description	AE No.	AE Description	
S01_AF03				
Sample: AF03	RF and protocol	AE 02	Evaluation test board	
		AE 01	AC/DC converter	
S01_AQ04				
Sample: AQ04	RF and protocol	AE 02	Evaluation test board	
		AE 01	AC/DC converter	



3 Results

3.1 General

Documentation of tested

devices:

Available at the test laboratory.

Interpretation of the

test results:

The results of the inspection are described on the following pages, where 'Conformity' or 'Passed' means that the certification criteria were verified and that the tested device is

conform to the applied standard.

In cases where 'Declaration' is printed, the required documents are available in the manufacturers product documentation.

In cases where 'not applicable' is printed, the test case requirements are not relevant to the specific equipment

implementation.

Note: 1. All tests are performed under environmental conditions within

the requirements of the specifications. Environmental conditions

are available at the laboratory.

3.2 List of the Applicable Body

(Bodies for Scope: FCC_v2)

Designation Description

FCC47CFRChIPART22PUBLIC MOBILE Part 22, Subpart H - Cellular Radiotelephone Service

SERVICES

FCC47CFRChIPART24PERSONAL COMMUNICATIONS SERVICES

Part 24, Subpart E - Broadband PCS

FCC47CFRChIPART27MISCELLANEOU Part 27, Subpart C - Technical Standards

S WIRELESS COMMUNICATIONS

SERVICES

3.3 List of Test Specification

Test Specification: FCC part 2
Version 10-1-13 Edition

Title: PART 02 - GENERAL RULES AND REGULATIONS

Test Specification: FCC part 2 and 22
Version 10-1-13 Edition

Title: PART 2 - GENERAL RULES AND REGULATIONS

PART 22 - PUBLIC MOBILE SERVICES

Test Specification: FCC part 2 and 24
Version 10-1-13 Edition

Title: PART 2 - GENERAL RULES AND REGULATIONS

PART 24 - PERSONAL COMMUNICATIONS SERVICES

Test Specification: FCC part 2 and 27
Version 10-1-13 Edition

Title: PART 2 - GENERAL RULES AND REGULATIONS

PART 27 - MISCELLANEOUS WIRELESS COMMUNICATIONS SERVICES



Lab

3.4 Summary

Test Case Identifier / Name

Test Case Identifier / Name			Lab	
Test (condition)	Result	Date of Test	Ref.	Setup
Test Specification: FCC part 2				
22.7 Peak-to-Average ratio §2.1046 22.7; _Peak-to-Average Ratio Summary	Passed	2016/08/18	Lab 2	S01_AF03
§2.1046 22.7; Frequency Band = eFDD5, Mode = 16QAM 1.4MHz, Channel = 20407, Frequency	Passed	2016/08/10	Lab 2	S01_AF03
= 824.7MHz, Method = conducted 22.7; Frequency Band = eFDD5, Mode = 16QAM 1.4MHz, Channel = 20525, Frequency	Passed	2016/08/10	Lab 2	S01_AF03
= 836.5MHz, Method = conducted 22.7; Frequency Band = eFDD5, Mode = 16QAM 1.4MHz, Channel = 20643, Frequency = 848.3MHz, Method = conducted	Passed	2016/08/10	Lab 2	S01_AF03
22.7; Frequency Band = eFDD5, Mode = QPSK 1.4MHz, Channel = 20407, Frequency = 824.7MHz, Method = conducted	Passed	2016/08/10	Lab 2	S01_AF03
22.7; Frequency Band = eFDD5, Mode = QPSK 1.4MHz, Channel = 20525, Frequency = 836.5MHz, Method = conducted	Passed	2016/08/10	Lab 2	S01_AF03
22.7; Frequency Band = eFDD5, Mode = QPSK 1.4MHz, Channel = 20643, Frequency = 848.3MHz, Method = conducted	Passed	2016/08/10	Lab 2	S01_AF03
Test Specification: FCC part 2 and 22				
22.1 RF Power Output §2.1046, §22.913				
22.1; _RF Power Output Summary §2.1046, §22.913	Passed	2016/08/18	Lab 2	S01_AF03
22.1; Frequency Band = eFDD5, Mode = 16QAM 1.4MHz, Channel = 20407, Frequency = 824.7MHz, Method = conducted	Passed	2016/08/10	Lab 2	S01_AF03
22.1; Frequency Band = eFDD5, Mode = 16QAM 1.4MHz, Channel = 20525, Frequency = 836.5MHz, Method = conducted	Passed	2016/08/10	Lab 2	S01_AF03
22.1; Frequency Band = eFDD5, Mode = 16QAM 1.4MHz, Channel = 20643, Frequency = 848.3MHz, Method = conducted	Passed	2016/08/10	Lab 2	S01_AF03
22.1; Frequency Band = eFDD5, Mode = 16QAM 10MHz, Channel = 20450, Frequency = 829MHz, Method = conducted	Passed	2016/08/10	Lab 2	S01_AF03
22.1; Frequency Band = eFDD5, Mode = 16QAM 10MHz, Channel = 20525, Frequency = 836.5MHz, Method = conducted	Passed	2016/08/10	Lab 2	S01_AF03
22.1; Frequency Band = eFDD5, Mode = 16QAM 10MHz, Channel = 20600, Frequency = 844MHz, Method = conducted	Passed	2016/08/10	Lab 2	S01_AF03
22.1; Frequency Band = eFDD5, Mode = 16QAM 3MHz, Channel = 20415, Frequency = 825.5MHz, Method = conducted	Passed	2016/08/10	Lab 2	S01_AF03
22.1; Frequency Band = eFDD5, Mode = 16QAM 3MHz, Channel = 20525, Frequency = 836.5MHz, Method = conducted	Passed	2016/08/10	Lab 2	S01_AF03
22.1; Frequency Band = eFDD5, Mode = 16QAM 3MHz, Channel = 20635, Frequency = 847.5MHz, Method = conducted	Passed	2016/08/10	Lab 2	S01_AF03
22.1; Frequency Band = eFDD5, Mode = 16QAM 5MHz, Channel = 20425, Frequency = 826.5MHz, Method = conducted	Passed	2016/08/10	Lab 2	S01_AF03
22.1; Frequency Band = eFDD5, Mode = 16QAM 5MHz, Channel = 20525, Frequency = 836.5MHz, Method = conducted	Passed	2016/08/10	Lab 2	S01_AF03



		eference: MDE_UBLOX_ , Subpart H, Part 24, sul		
Test Case Identifier / Name		·	Lab	·
Test (condition)	Result	Date of Test	Ref.	Setup
22.1 RF Power Output §2.1046, §22.913				
22.1; Frequency Band = eFDD5, Mode = 16QAM 5MHz, Channel = 20625, Frequency = 846.5MHz, Method = conducted	Passed	2016/08/10	Lab 2	S01_AF03
22.1; Frequency Band = eFDD5, Mode = QPSK 1.4MHz, Channel = 20407, Frequency =	Passed	2016/08/10	Lab 2	S01_AF03
824.7MHz, Method = conducted 22.1; Frequency Band = eFDD5, Mode = QPSK 1.4MHz, Channel = 20525, Frequency = 836.5MHz, Method = conducted	Passed	2016/08/10	Lab 2	S01_AF03
22.1; Frequency Band = eFDD5, Mode = QPSK 1.4MHz, Channel = 20643, Frequency = 848.3MHz, Method = conducted	Passed	2016/08/10	Lab 2	S01_AF03
22.1; Frequency Band = eFDD5, Mode = QPSK 10MHz, Channel = 20450, Frequency = 829MHz, Method = conducted	Passed	2016/08/10	Lab 2	S01_AF03
22.1; Frequency Band = eFDD5, Mode = QPSK 10MHz, Channel = 20525, Frequency = 836.5MHz, Method = conducted	Passed	2016/08/10	Lab 2	S01_AF03
22.1; Frequency Band = eFDD5, Mode = QPSK 10MHz, Channel = 20600, Frequency = 844MHz, Method = conducted	Passed	2016/08/10	Lab 2	S01_AF03
22.1; Frequency Band = eFDD5, Mode = QPSK 3MHz, Channel = 20415, Frequency = 825.5MHz, Method = conducted	Passed	2016/08/10	Lab 2	S01_AF03
22.1; Frequency Band = eFDD5, Mode = QPSK 3MHz, Channel = 20525, Frequency = 836.5MHz, Method = conducted	Passed	2016/08/10	Lab 2	S01_AF03
22.1; Frequency Band = eFDD5, Mode = QPSK 3MHz, Channel = 20635, Frequency = 847.5MHz, Method = conducted	Passed	2016/08/10	Lab 2	S01_AF03
22.1; Frequency Band = eFDD5, Mode = QPSK 5MHz, Channel = 20425, Frequency = 826.5MHz, Method = conducted	Passed	2016/08/10	Lab 2	S01_AF03
22.1; Frequency Band = eFDD5, Mode = QPSK 5MHz, Channel = 20525, Frequency = 836.5MHz, Method = conducted	Passed	2016/08/10	Lab 2	S01_AF03
22.1; Frequency Band = eFDD5, Mode = QPSK 5MHz, Channel = 20625, Frequency = 846.5MHz, Method = conducted	Passed	2016/08/10	Lab 2	S01_AF03
22.1; Frequency Band = FDD5, Mode = HSDPA_subtest_1, Channel = 4132, Frequency = 826.4MHz, Method = conducted	Passed	2016/08/10	Lab 2	S01_AF03
22.1; Frequency Band = FDD5, Mode = HSDPA_subtest_1, Channel = 4183, Frequency = 836.6MHz, Method = conducted	Passed	2016/08/10	Lab 2	S01_AF03
22.1; Frequency Band = FDD5, Mode = HSDPA_subtest_1, Channel = 4233, Frequency = 846.6MHz, Method = conducted	Passed	2016/08/10	Lab 2	S01_AF03
22.1; Frequency Band = FDD5, Mode = HSDPA_subtest_2, Channel = 4132, Frequency = 826.4MHz, Method = conducted	Passed	2016/08/10	Lab 2	S01_AF03
22.1; Frequency Band = FDD5, Mode = HSDPA_subtest_2, Channel = 4183, Frequency = 836.6MHz, Method = conducted	Passed	2016/08/10	Lab 2	S01_AF03
22.1; Frequency Band = FDD5, Mode = HSDPA_subtest_2, Channel = 4233, Frequency = 846.6MHz, Method = conducted	Passed	2016/08/10	Lab 2	S01_AF03
22.1; Frequency Band = FDD5, Mode = HSDPA_subtest_3, Channel = 4132, Frequency = 826.4MHz, Method = conducted	Passed	2016/08/10	Lab 2	S01_AF03
22.1; Frequency Band = FDD5, Mode = HSDPA_subtest_3, Channel = 4183, Frequency = 836.6MHz, Method = conducted	Passed	2016/08/10	Lab 2	S01_AF03
22.1; Frequency Band = FDD5, Mode = HSDPA_subtest_3, Channel = 4233, Frequency = 846.6MHz, Method = conducted	Passed	2016/08/10	Lab 2	S01_AF03



		ference: MDE_UBLOX_´ Subpart H, Part 24, sul	opart E, Pa	
Test Case Identifier / Name Test (condition)	Result	Date of Test	Lab Ref.	Setup
22.1 RF Power Output §2.1046, §22.913				
22.1; Frequency Band = FDD5, Mode = HSDPA_subtest_4, Channel = 4132,	Passed	2016/08/10	Lab 2	S01_AF03
Frequency = 826.4MHz, Method = conducted 22.1; Frequency Band = FDD5, Mode = HSDPA_subtest_4, Channel = 4183,	Passed	2016/08/10	Lab 2	S01_AF03
Frequency = 836.6MHz, Method = conducted 22.1; Frequency Band = FDD5, Mode = HSDPA_subtest_4, Channel = 4233,	Passed	2016/08/10	Lab 2	S01_AF03
Frequency = 846.6MHz, Method = conducted 22.1; Frequency Band = FDD5, Mode = HSUPA_subtest_1, Channel = 4132,	Passed	2016/08/10	Lab 2	S01_AF03
Frequency = 826.4MHz, Method = conducted 22.1; Frequency Band = FDD5, Mode = HSUPA_subtest_1, Channel = 4183,	Passed	2016/08/10	Lab 2	S01_AF03
Frequency = 836.6MHz, Method = conducted 22.1; Frequency Band = FDD5, Mode = HSUPA_subtest_1, Channel = 4233,	Passed	2016/08/10	Lab 2	S01_AF03
Frequency = 846.6MHz, Method = conducted 22.1; Frequency Band = FDD5, Mode = HSUPA_subtest_2, Channel = 4132,	Passed	2016/08/10	Lab 2	S01_AF03
Frequency = 826.4MHz, Method = conducted 22.1; Frequency Band = FDD5, Mode = HSUPA_subtest_2, Channel = 4183,	Passed	2016/08/10	Lab 2	S01_AF03
Frequency = 836.6MHz, Method = conducted 22.1; Frequency Band = FDD5, Mode = HSUPA_subtest_2, Channel = 4233,	Passed	2016/08/10	Lab 2	S01_AF03
Frequency = 846.6MHz, Method = conducted 22.1; Frequency Band = FDD5, Mode = HSUPA_subtest_3, Channel = 4132,	Passed	2016/08/10	Lab 2	S01_AF03
Frequency = 826.4MHz, Method = conducted 22.1; Frequency Band = FDD5, Mode = HSUPA_subtest_3, Channel = 4183,	Passed	2016/08/10	Lab 2	S01_AF03
Frequency = 836.6MHz, Method = conducted 22.1; Frequency Band = FDD5, Mode = HSUPA_subtest_3, Channel = 4233,	Passed	2016/08/10	Lab 2	S01_AF03
Frequency = 846.6MHz, Method = conducted 22.1; Frequency Band = FDD5, Mode = HSUPA_subtest_4, Channel = 4132,	Passed	2016/08/10	Lab 2	S01_AF03
Frequency = 826.4MHz, Method = conducted 22.1; Frequency Band = FDD5, Mode = HSUPA_subtest_4, Channel = 4183,	Passed	2016/08/10	Lab 2	S01_AF03
Frequency = 836.6MHz, Method = conducted 22.1; Frequency Band = FDD5, Mode = HSUPA_subtest_4, Channel = 4233,	Passed	2016/08/10	Lab 2	S01_AF03
Frequency = 846.6MHz, Method = conducted 22.1; Frequency Band = FDD5, Mode = HSUPA_subtest_5, Channel = 4132,	Passed	2016/08/10	Lab 2	S01_AF03
Frequency = 826.4MHz, Method = conducted 22.1; Frequency Band = FDD5, Mode = HSUPA_subtest_5, Channel = 4183,	Passed	2016/08/10	Lab 2	S01_AF03
Frequency = 836.6MHz, Method = conducted 22.1; Frequency Band = FDD5, Mode = HSUPA_subtest_5, Channel = 4233,	Passed	2016/08/10	Lab 2	S01_AF03
Frequency = 846.6MHz, Method = conducted 22.1; Frequency Band = FDD5, Mode = W-CDMA, Channel = 4132, Frequency =	Passed	2016/08/10	Lab 2	S01_AF03
826.4MHz, Method = conducted 22.1; Frequency Band = FDD5, Mode = W- CDMA, Channel = 4183, Frequency =	Passed	2016/08/10	Lab 2	S01_AF03
836.6MHz, Method = conducted 22.1; Frequency Band = FDD5, Mode = W- CDMA, Channel = 4233, Frequency = 846.6MHz, Method = conducted	Passed	2016/08/10	Lab 2	S01_AF03
22.2 Frequency stability §2.1055				
22.2; _Frequency stability Summary §2.1055	Passed	2016/08/18	Lab 2	S01_AF03



		erence: MDE_UBLOX_ Subpart H, Part 24, su		
Test Case Identifier / Name	100141122, 0	345part 11, 1 art 24, 34	Lab	art 27 Subpart C
Test (condition)	Result	Date of Test	Ref.	Setup
22.3 Spurious emissions at antenna term	inals §2.1051, §	22.917		
22.3; Frequency Band = eFDD5, Mode = QPSK 5MHz, Channel = 20425, Frequency = 826.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
22.3; Frequency Band = eFDD5, Mode = QPSK 5MHz, Channel = 20525, Frequency = 836.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
22.3; Frequency Band = eFDD5, Mode = QPSK 5MHz, Channel = 20625, Frequency = 846.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
22.3; Frequency Band = FDD5, Mode = HSDPA, Channel = 4132, Frequency = 826.4MHz	Passed	2016/08/11	Lab 2	S01_AF03
22.3; Frequency Band = FDD5, Mode = HSDPA, Channel = 4183, Frequency = 836.6MHz	Passed	2016/08/11	Lab 2	S01_AF03
22.3; Frequency Band = FDD5, Mode = HSDPA, Channel = 4233, Frequency = 846.6MHz	Passed	2016/08/11	Lab 2	S01_AF03
22.3; Frequency Band = FDD5, Mode = HSUPA, Channel = 4132, Frequency = 826.4MHz	Passed	2016/08/11	Lab 2	S01_AF03
22.3; Frequency Band = FDD5, Mode = HSUPA, Channel = 4183, Frequency = 836.6MHz	Passed	2016/08/11	Lab 2	S01_AF03
22.3; Frequency Band = FDD5, Mode = HSUPA, Channel = 4233, Frequency = 846.6MHz	Passed	2016/08/11	Lab 2	S01_AF03
22.3; Frequency Band = FDD5, Mode = W-CDMA, Channel = 4132, Frequency = 826.4MHz	Passed	2016/08/11	Lab 2	S01_AF03
22.3; Frequency Band = FDD5, Mode = W-CDMA, Channel = 4183, Frequency = 836.6MHz	Passed	2016/08/11	Lab 2	S01_AF03
22.3; Frequency Band = FDD5, Mode = W-CDMA, Channel = 4233, Frequency = 846.6MHz	Passed	2016/08/11	Lab 2	S01_AF03



		erence: MDE_UBLOX_1 Subpart H, Part 24, sub		
Test Case Identifier / Name	TCC Fart 22,	Subpart 11, Fart 24, Sui	Lab	art 27 Subpart C
Test (condition)	Result	Date of Test	Ref.	Setup
22.4 Field strength of spurious radiation §	2.1053, §22.9	17		
22.4; Frequency Band = eFDD5, Mode = 16QAM 5MHz, Channel = 20425, Frequency = 826.5MHz, Method = radiated	Passed	2016/08/18	Lab 1	S01_AQ04
22.4; Frequency Band = eFDD5, Mode = 16QAM 5MHz, Channel = 20525, Frequency = 836.5MHz, Method = radiated	Passed	2016/08/18	Lab 1	S01_AQ04
22.4; Frequency Band = eFDD5, Mode = 16QAM 5MHz, Channel = 20625, Frequency = 846.5MHz, Method = radiated	Passed	2016/08/18	Lab 1	S01_AQ04
22.4; Frequency Band = eFDD5, Mode = QPSK 5MHz, Channel = 20425, Frequency = 826.5MHz, Method = radiated	Passed	2016/08/08	Lab 1	S01_AQ04
22.4; Frequency Band = eFDD5, Mode = QPSK 5MHz, Channel = 20525, Frequency = 836.5MHz, Method = radiated	Passed	2016/08/08	Lab 1	S01_AQ04
22.4; Frequency Band = eFDD5, Mode = QPSK 5MHz, Channel = 20625, Frequency = 846.5MHz, Method = radiated	Passed	2016/08/08	Lab 1	S01_AQ04
22.4; Frequency Band = FDD5, Mode = HSDPA, Channel = 4132, Frequency = 826.4MHz	Passed	2016/08/08	Lab 1	S01_AQ04
22.4; Frequency Band = FDD5, Mode = HSDPA, Channel = 4183, Frequency = 836.6MHz	Passed	2016/08/08	Lab 1	S01_AQ04
22.4; Frequency Band = FDD5, Mode = HSDPA, Channel = 4233, Frequency = 846.6MHz	Passed	2016/08/08	Lab 1	S01_AQ04
22.4; Frequency Band = FDD5, Mode = HSUPA, Channel = 4132, Frequency = 826.4MHz	Passed	2016/08/08	Lab 1	S01_AQ04
22.4; Frequency Band = FDD5, Mode = HSUPA, Channel = 4183, Frequency = 836.6MHz	Passed	2016/08/08	Lab 1	S01_AQ04
22.4; Frequency Band = FDD5, Mode = HSUPA, Channel = 4233, Frequency = 846.6MHz	Passed	2016/08/08	Lab 1	S01_AQ04
22.4; Frequency Band = FDD5, Mode = W- CDMA, Channel = 4132, Frequency = 826.4MHz	Passed	2016/08/08	Lab 1	S01_AQ04
22.4; Frequency Band = FDD5, Mode = W-CDMA, Channel = 4183, Frequency = 836.6MHz	Passed	2016/08/08	Lab 1	S01_AQ04
22.4; Frequency Band = FDD5, Mode = W-CDMA, Channel = 4233, Frequency = 846.6MHz	Passed	2016/08/08	Lab 1	S01_AQ04



	Refe	rence: MDE_UBLOX_1	1601 FCC	a according to:
		ubpart H, Part 24, sul		
Test Case Identifier / Name			Lab	
Test (condition)	Result	Date of Test	Ref.	Setup
22.5 Emission and Occupied Bandwidth §2.	.1049, §22.917			
22.5; _Emission and Occupied Bandwidth	Passed	2016/08/18	Lab 2	S01_AF03
Summary §2.1049, §22.917	Doored	2017/00/10	Lab 2	CO1 AFO2
22.5; Frequency Band = eFDD5, Mode = 16QAM 1.4MHz, Channel = 20407, Frequency	Passed	2016/08/10	Lab 2	S01_AF03
= 824.7MHz, Method = conducted				
22.5; Frequency Band = eFDD5, Mode =	Passed	2016/08/10	Lab 2	S01_AF03
16QAM 1.4MHz, Channel = 20525, Frequency				
= 836.5MHz, Method = conducted	Passed	2016/08/10	Lab 2	SO1 AEO2
22.5; Frequency Band = eFDD5, Mode = 16QAM 1.4MHz, Channel = 20643, Frequency	rasseu	2010/00/10	Lab 2	S01_AF03
= 848.3MHz, Method = conducted				
22.5; Frequency Band = eFDD5, Mode =	Passed	2016/08/10	Lab 2	S01_AF03
16QAM 10MHz, Channel = 20450, Frequency				
= 829MHz, Method = conducted	Daggad	2017/00/10	Lab 2	CO1 AFO2
22.5; Frequency Band = eFDD5, Mode = 16QAM 10MHz, Channel = 20525, Frequency	Passed	2016/08/10	Lab 2	S01_AF03
= 836.5MHz, Method = conducted				
22.5; Frequency Band = eFDD5, Mode =	Passed	2016/08/10	Lab 2	S01_AF03
16QAM 10MHz, Channel = 20600, Frequency				
= 844MHz, Method = conducted	Decemb	2017/00/10	1 -1- 0	CO1 AFO2
22.5; Frequency Band = eFDD5, Mode = 16QAM 3MHz, Channel = 20415, Frequency =	Passed	2016/08/10	Lab 2	S01_AF03
825.5MHz, Method = conducted				
22.5; Frequency Band = eFDD5, Mode =	Passed	2016/08/10	Lab 2	S01_AF03
16QAM 3MHz, Channel = 20525, Frequency =				
836.5MHz, Method = conducted	December	2017/00/10	1 -1- 0	601 4500
22.5; Frequency Band = eFDD5, Mode =	Passed	2016/08/10	Lab 2	S01_AF03
16QAM 3MHz, Channel = 20635, Frequency = 847.5MHz, Method = conducted				
22.5; Frequency Band = eFDD5, Mode =	Passed	2016/08/10	Lab 2	S01_AF03
16QAM 5MHz, Channel = 20525, Frequency =				
836.5MHz, Method = conducted		004//00/40		004 4500
22.5; Frequency Band = eFDD5, Mode =	Passed	2016/08/10	Lab 2	S01_AF03
16QAM 5MHz, Channel = 20625, Frequency = 846.5MHz, Method = conducted				
22.5; Frequency Band = eFDD5, Mode =	Passed	2016/08/10	Lab 2	S01_AF03
QPSK 1.4MHz, Channel = 20407, Frequency =				
824.7MHz, Method = conducted		004//00/40		004 4500
22.5; Frequency Band = eFDD5, Mode =	Passed	2016/08/10	Lab 2	S01_AF03
QPSK 1.4MHz, Channel = 20525, Frequency = 836.5MHz, Method = conducted				
22.5; Frequency Band = eFDD5, Mode =	Passed	2016/08/10	Lab 2	S01_AF03
QPSK 1.4MHz, Channel = 20643, Frequency =				
848.3MHz, Method = conducted		0047,100140		004 4500
22.5; Frequency Band = eFDD5, Mode = QPSK 10MHz, Channel = 20450, Frequency =	Passed	2016/08/10	Lab 2	S01_AF03
829MHz, Method = conducted				
22.5; Frequency Band = eFDD5, Mode =	Passed	2016/08/10	Lab 2	S01_AF03
QPSK 10MHz, Channel = 20525, Frequency =				
836.5MHz, Method = conducted		0047,100140		004 4500
22.5; Frequency Band = eFDD5, Mode = QPSK 10MHz, Channel = 20600, Frequency =	Passed	2016/08/10	Lab 2	S01_AF03
844MHz, Method = conducted				
22.5; Frequency Band = eFDD5, Mode =	Passed	2016/08/10	Lab 2	S01_AF03
QPSK 3MHz, Channel = 20415, Frequency =				
825.5MHz, Method = conducted		0047,100140		004 4500
22.5; Frequency Band = eFDD5, Mode = QPSK 3MHz, Channel = 20525, Frequency =	Passed	2016/08/10	Lab 2	S01_AF03
836.5MHz, Method = conducted				
22.5; Frequency Band = eFDD5, Mode =	Passed	2016/08/10	Lab 2	S01_AF03
QPSK 3MHz, Channel = 20635, Frequency =				
847.5MHz, Method = conducted	Desert	2017 /00 /10	Lab O	CO1 4500
22.5; Frequency Band = eFDD5, Mode = QPSK 5MHz, Channel = 20425, Frequency =	Passed	2016/08/10	Lab 2	S01_AF03
826.5MHz, Method = conducted				



		rence: MDE_UBLOX_ ubpart H, Part 24, su	_	9
Test Case Identifier / Name		·	Lab	·
Test (condition)	Result	Date of Test	Ref.	Setup
22.5 Emission and Occupied Bandwidtl	n §2.1049, §22.917			
22.5; Frequency Band = eFDD5, Mode = QPSK 5MHz, Channel = 20525, Frequency = 836.5MHz, Method = conducted	Passed	2016/08/10	Lab 2	S01_AF03
22.5; Frequency Band = eFDD5, Mode = QPSK 5MHz, Channel = 20625, Frequency = 846.5MHz, Method = conducted	Passed	2016/08/10	Lab 2	S01_AF03
22.5; Frequency Band = FDD5, Mode = HSDPA, Channel = 4132, Frequency = 826.4MHz	Passed	2016/08/10	Lab 2	S01_AF03
22.5; Frequency Band = FDD5, Mode = HSDPA, Channel = 4183, Frequency = 836.6MHz	Passed	2016/08/10	Lab 2	S01_AF03
22.5; Frequency Band = FDD5, Mode = HSDPA, Channel = 4233, Frequency = 846.6MHz	Passed	2016/08/10	Lab 2	S01_AF03
22.5; Frequency Band = FDD5, Mode = HSUPA, Channel = 4132, Frequency = 826.4MHz	Passed	2016/08/10	Lab 2	S01_AF03
22.5; Frequency Band = FDD5, Mode = HSUPA, Channel = 4183, Frequency = 836.6MHz	Passed	2016/08/10	Lab 2	S01_AF03
22.5; Frequency Band = FDD5, Mode = HSUPA, Channel = 4233, Frequency = 846.6MHz	Passed	2016/08/10	Lab 2	S01_AF03
22.5; Frequency Band = FDD5, Mode = W-CDMA, Channel = 4132, Frequency = 826.4MHz	Passed	2016/08/10	Lab 2	S01_AF03
22.5; Frequency Band = FDD5, Mode = W-CDMA, Channel = 4183, Frequency = 836.6MHz	Passed	2016/08/10	Lab 2	S01_AF03
22.5; Frequency Band = FDD5, Mode = W-CDMA, Channel = 4233, Frequency = 846.6MHz	Passed	2016/08/10	Lab 2	S01_AF03



- 10 11 11 1N	FCC Part	Reference: MDE_UBLOX_ 22, Subpart H, Part 24, s	ubpart E, Pa	0
Test Case Identifier / Name Test (condition)	Result	Date of Test	Lab Ref.	Setup
22.6 Band edge compliance §2.1053, §22.	917			
22.6; _Band edge compliance Summary §2.1053, §22.917	Passed	2016/08/18	Lab 2	S01_AF03
22.6; Frequency Band = eFDD5, Mode = 16QAM 1.4MHz, Channel = 20407, Frequency = 824.7MHz, Method = conducted	Passed	2016/08/10	Lab 2	S01_AF03
22.6; Frequency Band = eFDD5, Mode = 16QAM 1.4MHz, Channel = 20643, Frequency = 848.3MHz, Method = conducted	Passed	2016/08/10	Lab 2	S01_AF03
22.6; Frequency Band = eFDD5, Mode = 16QAM 10MHz, Channel = 20450, Frequency = 829MHz, Method = conducted	Passed	2016/08/10	Lab 2	S01_AF03
22.6; Frequency Band = eFDD5, Mode = 16QAM 10MHz, Channel = 20600, Frequency = 844MHz, Method = conducted	Passed	2016/08/10	Lab 2	S01_AF03
22.6; Frequency Band = eFDD5, Mode = 16QAM 3MHz, Channel = 20415, Frequency = 825.5MHz, Method = conducted	Passed	2016/08/10	Lab 2	S01_AF03
22.6; Frequency Band = eFDD5, Mode = 16QAM 3MHz, Channel = 20635, Frequency = 847.5MHz, Method = conducted	Passed	2016/08/10	Lab 2	S01_AF03
22.6; Frequency Band = eFDD5, Mode = 16QAM 5MHz, Channel = 20425, Frequency = 826.5MHz, Method = conducted	Passed	2016/08/10	Lab 2	S01_AF03
22.6; Frequency Band = eFDD5, Mode = 16QAM 5MHz, Channel = 20625, Frequency = 846.5MHz, Method = conducted	Passed	2016/08/10	Lab 2	S01_AF03
22.6; Frequency Band = eFDD5, Mode = QPSK 1.4MHz, Channel = 20407, Frequency = 824.7MHz, Method = conducted	Passed	2016/08/10	Lab 2	S01_AF03
22.6; Frequency Band = eFDD5, Mode = QPSK 1.4MHz, Channel = 20643, Frequency = 848.3MHz, Method = conducted	Passed	2016/08/10	Lab 2	S01_AF03
22.6; Frequency Band = eFDD5, Mode = QPSK 10MHz, Channel = 20450, Frequency = 829MHz, Method = conducted	Passed	2016/08/10	Lab 2	S01_AF03
22.6; Frequency Band = eFDD5, Mode = QPSK 10MHz, Channel = 20600, Frequency = 844MHz, Method = conducted	Passed	2016/08/10	Lab 2	S01_AF03
22.6; Frequency Band = eFDD5, Mode = QPSK 3MHz, Channel = 20415, Frequency = 825.5MHz, Method = conducted	Passed	2016/08/10	Lab 2	S01_AF03
22.6; Frequency Band = eFDD5, Mode = QPSK 3MHz, Channel = 20635, Frequency = 847.5MHz, Method = conducted	Passed	2016/08/10	Lab 2	S01_AF03
22.6; Frequency Band = eFDD5, Mode = QPSK 5MHz, Channel = 20425, Frequency = 826.5MHz, Method = conducted	Passed	2016/08/10	Lab 2	S01_AF03
22.6; Frequency Band = eFDD5, Mode = QPSK 5MHz, Channel = 20625, Frequency = 846.5MHz, Method = conducted	Passed	2016/08/10	Lab 2	S01_AF03
22.6; Frequency Band = FDD5, Mode = HSDPA, Channel = 4132, Frequency = 826.4MHz	Passed	2016/08/10	Lab 2	S01_AF03
22.6; Frequency Band = FDD5, Mode = HSDPA, Channel = 4233, Frequency = 346.6MHz	Passed	2016/08/10	Lab 2	S01_AF03
22.6; Frequency Band = FDD5, Mode = HSUPA, Channel = 4132, Frequency = 826.4MHz	Passed	2016/08/10	Lab 2	S01_AF03
22.6; Frequency Band = FDD5, Mode = HSUPA, Channel = 4233, Frequency = 846.6MHz	Passed	2016/08/10	Lab 2	S01_AF03
22.6; Frequency Band = FDD5, Mode = W- CDMA, Channel = 4132, Frequency = 826.4MHz	Passed	2016/08/10	Lab 2	S01_AF03



	Refe	erence: MDE_UBLOX_	1601_FCC	a according to:
	FCC Part 22, S	Subpart H, Part 24, su	bpart E, Pa	art 27 Subpart C
Test Case Identifier / Name			Lab	·
Test (condition)	Result	Date of Test	Ref.	Setup
22.6 Band edge compliance §2.1053, §22	.917			
22.6; Frequency Band = FDD5, Mode = W- CDMA, Channel = 4233, Frequency = 846.6MHz	Passed	2016/08/10	Lab 2	S01_AF03

Test Specification: FCC part 2 and 24



Test Case Identifier / Name		erence: MDE_UBLOX_1 Subpart H, Part 24, sub		
Test (condition)	Result	Date of Test	Ref.	Setup
		2410 07 7001		
24.1 RF Power Output §2.1046, §24.232 24.1; RF Power Output Summary §2.1046, §24.232	Passed	2016/08/11	Lab 2	S01_AF03
24.1; Frequency Band = eFDD2, Mode = 16QAM 1.4MHz, Channel = 18607, Frequency	Passed	2016/08/11	Lab 2	S01_AF03
= 1850.7MHz, Method = conducted 24.1; Frequency Band = eFDD2, Mode = 16QAM 1.4MHz, Channel = 18900, Frequency	Passed	2016/08/11	Lab 2	S01_AF03
= 1880MHz, Method = conducted24.1; Frequency Band = eFDD2, Mode =16QAM 1.4MHz, Channel = 19193, Frequency	Passed	2016/08/11	Lab 2	S01_AF03
= 1909.3MHz, Method = conducted 24.1; Frequency Band = eFDD2, Mode = 16QAM 10MHz, Channel = 18650, Frequency	Passed	2016/08/11	Lab 2	S01_AF03
= 1855MHz, Method = conducted 24.1; Frequency Band = eFDD2, Mode = 16QAM 10MHz, Channel = 18900, Frequency	Passed	2016/08/11	Lab 2	S01_AF03
= 1880MHz, Method = conducted 24.1; Frequency Band = eFDD2, Mode = 16QAM 10MHz, Channel = 19150, Frequency	Passed	2016/08/11	Lab 2	S01_AF03
= 1905MHz, Method = conducted 24.1; Frequency Band = eFDD2, Mode = 16QAM 15MHz, Channel = 18675, Frequency = 1857.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
24.1; Frequency Band = eFDD2, Mode = 16QAM 15MHz, Channel = 18900, Frequency = 1880MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
24.1; Frequency Band = eFDD2, Mode = 16QAM 15MHz, Channel = 19125, Frequency = 1902.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
24.1; Frequency Band = eFDD2, Mode = 16QAM 20MHz, Channel = 18700, Frequency = 1860MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
24.1; Frequency Band = eFDD2, Mode = 16QAM 20MHz, Channel = 18900, Frequency = 1880MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
24.1; Frequency Band = eFDD2, Mode = 16QAM 20MHz, Channel = 19100, Frequency = 1900MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
24.1; Frequency Band = eFDD2, Mode = 16QAM 3MHz, Channel = 18615, Frequency = 1851.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
24.1; Frequency Band = eFDD2, Mode = 16QAM 3MHz, Channel = 18900, Frequency = 1880MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
24.1; Frequency Band = eFDD2, Mode = 16QAM 3MHz, Channel = 19185, Frequency = 1908.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
24.1; Frequency Band = eFDD2, Mode = 16QAM 5MHz, Channel = 18625, Frequency = 1852.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
24.1; Frequency Band = eFDD2, Mode = 16QAM 5MHz, Channel = 18900, Frequency = 1880MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
24.1; Frequency Band = eFDD2, Mode = 16QAM 5MHz, Channel = 19175, Frequency = 1907.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
24.1; Frequency Band = eFDD2, Mode = QPSK 1.4MHz, Channel = 18900, Frequency = 1880MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
24.1; Frequency Band = eFDD2, Mode = QPSK 1.4MHz, Channel = 19193, Frequency = 1909.3MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
24.1; Frequency Band = eFDD2, Mode = QPSK 10MHz, Channel = 18650, Frequency = 1855MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03



		ference: MDE_UBLOX_1 Subpart H, Part 24, sub		
Test Case Identifier / Name Test (condition)	Result	Date of Test	Lab Ref.	Setup
	resur	Date of Yest	1107.	
24.1 RF Power Output §2.1046, §24.232 24.1; Frequency Band = eFDD2, Mode = QPSK 10MHz, Channel = 18900, Frequency =	Passed	2016/08/11	Lab 2	S01_AF03
1880MHz, Method = conducted 24.1; Frequency Band = eFDD2, Mode = QPSK 10MHz, Channel = 19150, Frequency =	Passed	2016/08/11	Lab 2	S01_AF03
1905MHz, Method = conducted 24.1; Frequency Band = eFDD2, Mode = QPSK 15MHz, Channel = 18675, Frequency = 1857.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
24.1; Frequency Band = eFDD2, Mode = QPSK 15MHz, Channel = 18900, Frequency = 1880MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
24.1; Frequency Band = eFDD2, Mode = QPSK 15MHz, Channel = 19125, Frequency = 1902.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
24.1; Frequency Band = eFDD2, Mode = OPSK 20MHz, Channel = 18700, Frequency = 1860MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
24.1; Frequency Band = eFDD2, Mode = QPSK 20MHz, Channel = 18900, Frequency = 1880MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
24.1; Frequency Band = eFDD2, Mode = QPSK 20MHz, Channel = 19100, Frequency = 1900MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
24.1; Frequency Band = eFDD2, Mode = QPSK 3MHz, Channel = 18615, Frequency = 1851.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
24.1; Frequency Band = eFDD2, Mode = QPSK 3MHz, Channel = 18900, Frequency = 1880MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
24.1; Frequency Band = eFDD2, Mode = QPSK 3MHz, Channel = 19185, Frequency = 1908.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
24.1; Frequency Band = eFDD2, Mode = QPSK 5MHz, Channel = 18625, Frequency = 1852.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
24.1; Frequency Band = eFDD2, Mode = QPSK 5MHz, Channel = 18900, Frequency = 1880MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
24.1; Frequency Band = eFDD2, Mode = QPSK 5MHz, Channel = 19175, Frequency = 1907.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
24.1; Frequency Band = FDD2, Mode = HSDPA_subtest_1, Channel = 9262, Frequency = 1852.4MHz, Method = conducted	Passed	2016/08/10	Lab 2	S01_AF03
24.1; Frequency Band = FDD2, Mode = HSDPA_subtest_1, Channel = 9400, Frequency = 1880MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
24.1; Frequency Band = FDD2, Mode = HSDPA_subtest_1, Channel = 9538, Frequency = 1907.6MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
24.1; Frequency Band = FDD2, Mode = HSDPA_subtest_2, Channel = 9262, Frequency = 1852.4MHz, Method = conducted	Passed	2016/08/10	Lab 2	S01_AF03
24.1; Frequency Band = FDD2, Mode = HSDPA_subtest_2, Channel = 9400, Frequency = 1880MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
24.1; Frequency Band = FDD2, Mode = HSDPA_subtest_2, Channel = 9538, Frequency = 1907.6MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
24.1; Frequency Band = FDD2, Mode = HSDPA_subtest_3, Channel = 9262, Frequency = 1852.4MHz, Method = conducted	Passed	2016/08/10	Lab 2	S01_AF03
24.1; Frequency Band = FDD2, Mode = HSDPA_subtest_3, Channel = 9400, Frequency = 1880MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03



Test Case Identifier / Name Test (condition)	Result			art 27 Subpart C
	Result	Date of Test	Lab Ref.	Setup
24.1 RF Power Output §2.1046, §24.232				
24.1; Frequency Band = FDD2, Mode = HSDPA_subtest_3, Channel = 9538,	Passed	2016/08/11	Lab 2	S01_AF03
Frequency = 1907.6MHz, Method = conducted 24.1; Frequency Band = FDD2, Mode = HSDPA_subtest_4, Channel = 9262,	Passed	2016/08/11	Lab 2	S01_AF03
Frequency = 1852.4MHz, Method = conducted 24.1; Frequency Band = FDD2, Mode = HSDPA_subtest_4, Channel = 9400,	Passed	2016/08/11	Lab 2	S01_AF03
Frequency = 1880MHz, Method = conducted 24.1; Frequency Band = FDD2, Mode = HSDPA_subtest_4, Channel = 9538,	Passed	2016/08/11	Lab 2	S01_AF03
Frequency = 1907.6MHz, Method = conducted 24.1; Frequency Band = FDD2, Mode = HSUPA_subtest_1, Channel = 9262,	Passed	2016/08/11	Lab 2	S01_AF03
Frequency = 1852.4MHz, Method = conducted 24.1; Frequency Band = FDD2, Mode = HSUPA_subtest_1, Channel = 9400,	Passed	2016/08/11	Lab 2	S01_AF03
Frequency = 1880MHz, Method = conducted 24.1; Frequency Band = FDD2, Mode = HSUPA_subtest_1, Channel = 9538,	Passed	2016/08/11	Lab 2	S01_AF03
Frequency = 1907.6MHz, Method = conducted 24.1; Frequency Band = FDD2, Mode = HSUPA_subtest_2, Channel = 9262,	Passed	2016/08/11	Lab 2	S01_AF03
Frequency = 1852.4MHz, Method = conducted 24.1; Frequency Band = FDD2, Mode = HSUPA_subtest_2, Channel = 9400,	Passed	2016/08/11	Lab 2	S01_AF03
Frequency = 1880MHz, Method = conducted 24.1; Frequency Band = FDD2, Mode = HSUPA_subtest_2, Channel = 9538,	Passed	2016/08/11	Lab 2	S01_AF03
Frequency = 1907.6MHz, Method = conducted 24.1; Frequency Band = FDD2, Mode = HSUPA_subtest_3, Channel = 9262,	Passed	2016/08/11	Lab 2	S01_AF03
Frequency = 1852.4MHz, Method = conducted 24.1; Frequency Band = FDD2, Mode = HSUPA_subtest_3, Channel = 9400,	Passed	2016/08/11	Lab 2	S01_AF03
Frequency = 1880MHz, Method = conducted 24.1; Frequency Band = FDD2, Mode = HSUPA_subtest_3, Channel = 9538,	Passed	2016/08/11	Lab 2	S01_AF03
Frequency = 1907.6MHz, Method = conducted 24.1; Frequency Band = FDD2, Mode = HSUPA_subtest_4, Channel = 9262,	Passed	2016/08/11	Lab 2	S01_AF03
Frequency = 1852.4MHz, Method = conducted 24.1; Frequency Band = FDD2, Mode = HSUPA_subtest_4, Channel = 9400,	Passed	2016/08/11	Lab 2	S01_AF03
Frequency = 1880MHz, Method = conducted 24.1; Frequency Band = FDD2, Mode = HSUPA_subtest_4, Channel = 9538,	Passed	2016/08/11	Lab 2	S01_AF03
Frequency = 1907.6MHz, Method = conducted 24.1; Frequency Band = FDD2, Mode = HSUPA_subtest_5, Channel = 9262,	Passed	2016/08/11	Lab 2	S01_AF03
Frequency = 1852.4MHz, Method = conducted 24.1; Frequency Band = FDD2, Mode = HSUPA_subtest_5, Channel = 9400,	Passed	2016/08/11	Lab 2	S01_AF03
Frequency = 1880MHz, Method = conducted 24.1; Frequency Band = FDD2, Mode = HSUPA_subtest_5, Channel = 9538,	Passed	2016/08/11	Lab 2	S01_AF03
Frequency = 1907.6MHz, Method = conducted 24.1; Frequency Band = FDD2, Mode = W-CDMA, Channel = 9262, Frequency =	Passed	2016/08/11	Lab 2	S01_AF03
1852.4MHz, Method = conducted 24.1; Frequency Band = FDD2, Mode = W- CDMA, Channel = 9400, Frequency =	Passed	2016/08/11	Lab 2	S01_AF03
1880MHz, Method = conducted 24.1; Frequency Band = FDD2, Mode = W- CDMA, Channel = 9538, Frequency = 1907.6MHz, Method = conducted	Passed	2016/08/10	Lab 2	S01_AF03



		Reference: MDE_UBLOX_ 2, Subpart H, Part 24, su		
Test Case Identifier / Name			Lab	•
Test (condition)	Result	Date of Test	Ref.	Setup
24.2 Frequency stability §2.1055, §24.235				
24.2; Frequency stability Summary §2.1055, 24.235	Passed	2016/08/11	Lab 2	S01_AF03
24.2; Frequency Band = eFDD2, Mode = QPSK, Channel = 18900, Frequency = 1880MHz	Passed	2016/08/11	Lab 2	S01_AF03
24.2; Frequency Band = FDD2, Mode = HSDPA, Channel = 9400, Frequency = 1880MHz	Passed	2016/08/11	Lab 2	S01_AF03
24.2; Frequency Band = FDD2, Mode = HSUPA, Channel = 9400, Frequency = 1880MHz	Passed	2016/08/11	Lab 2	S01_AF03
24.2; Frequency Band = FDD2, Mode = W- CDMA, Channel = 9400, Frequency = 1880MHz	Passed	2016/08/11	Lab 2	S01_AF03
24.3 Spurious emissions at antenna termir	nals §2.105	1. §24.238		
24.3; Frequency Band = eFDD2, Mode = QPSK 5MHz, Channel = 18625, Frequency = 1852.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
24.3; Frequency Band = eFDD2, Mode = QPSK 5MHz, Channel = 18900, Frequency = 1880MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
24.3; Frequency Band = eFDD2, Mode = QPSK 5MHz, Channel = 19175, Frequency = 1907.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
24.3; Frequency Band = FDD2, Mode = HSDPA, Channel = 9262, Frequency = 1852.4MHz	Passed	2016/08/11	Lab 2	S01_AF03
24.3; Frequency Band = FDD2, Mode = HSDPA, Channel = 9400, Frequency = 1880MHz	Passed	2016/08/11	Lab 2	S01_AF03
24.3; Frequency Band = FDD2, Mode = HSDPA, Channel = 9538, Frequency = 1907.6MHz	Passed	2016/08/11	Lab 2	S01_AF03
24.3; Frequency Band = FDD2, Mode = HSUPA, Channel = 9262, Frequency = 1852.4MHz	Passed	2016/08/11	Lab 2	S01_AF03
24.3; Frequency Band = FDD2, Mode = HSUPA, Channel = 9400, Frequency = 1880MHz	Passed	2016/08/11	Lab 2	S01_AF03
24.3; Frequency Band = FDD2, Mode = HSUPA, Channel = 9538, Frequency = 1907.6MHz	Passed	2016/08/11	Lab 2	S01_AF03
24.3; Frequency Band = FDD2, Mode = W- CDMA, Channel = 9262, Frequency = 1852.4MHz	Passed	2016/08/11	Lab 2	S01_AF03
24.3; Frequency Band = FDD2, Mode = W- CDMA, Channel = 9400, Frequency = 1880MHz	Passed	2016/08/11	Lab 2	S01_AF03
24.3; Frequency Band = FDD2, Mode = W-CDMA, Channel = 9538, Frequency = 1907.6MHz	Passed	2016/08/11	Lab 2	S01_AF03



		rence: MDE_UBLOX_		
Test Case Identifier / Name	FCC Part 22, S	ubpart H, Part 24, su	bpart E, Pa Lab	art 27 Subpart C
Test (condition)	Result	Date of Test	Ref.	Setup
24.4 Field strength of spurious radiation	§2.1053, §24.23	8		
24.4; Frequency Band = eFDD2, Mode = QPSK 5MHz, Channel = 18625, Frequency = 1852.5MHz, Method = radiated	Passed	2016/08/08	Lab 1	S01_AQ04
24.4; Frequency Band = eFDD2, Mode = QPSK 5MHz, Channel = 18900, Frequency = 1880MHz, Method = radiated	Passed	2016/08/08	Lab 1	S01_AQ04
24.4; Frequency Band = eFDD2, Mode = QPSK 5MHz, Channel = 19175, Frequency = 1907.5MHz, Method = radiated	Passed	2016/08/08	Lab 1	S01_AQ04
24.4; Frequency Band = FDD2, Mode = HSDPA, Channel = 9262, Frequency = 1852.4MHz	Passed	2016/08/08	Lab 1	S01_AQ04
24.4; Frequency Band = FDD2, Mode = HSDPA, Channel = 9400, Frequency = 1880MHz	Passed	2016/08/08	Lab 1	S01_AQ04
24.4; Frequency Band = FDD2, Mode = HSDPA, Channel = 9538, Frequency = 1907.6MHz	Passed	2016/08/08	Lab 1	S01_AQ04
24.4; Frequency Band = FDD2, Mode = HSUPA, Channel = 9262, Frequency = 1852.4MHz	Passed	2016/08/08	Lab 1	S01_AQ04
24.4; Frequency Band = FDD2, Mode = HSUPA, Channel = 9400, Frequency = 1880MHz	Passed	2016/08/08	Lab 1	S01_AQ04
24.4; Frequency Band = FDD2, Mode = HSUPA, Channel = 9538, Frequency = 1907.6MHz	Passed	2016/08/08	Lab 1	S01_AQ04
24.4; Frequency Band = FDD2, Mode = W-CDMA, Channel = 9262, Frequency = 1852.4MHz	Passed	2016/08/08	Lab 1	S01_AQ04
24.4; Frequency Band = FDD2, Mode = W-CDMA, Channel = 9400, Frequency = 1880MHz	Passed	2016/08/08	Lab 1	S01_AQ04
24.4; Frequency Band = FDD2, Mode = W-CDMA, Channel = 9538, Frequency = 1907.6MHz	Passed	2016/08/08	Lab 1	S01_AQ04



(7)					
Test (Case Identifier / Name		Reference: MDE_UBLOX_ 2, Subpart H, Part 24, si		
	t (condition)	Result	Date of Test	Ref.	Setup
24.5	Emission and Occupied Bandwidth §2	1049 824	738		
24.5	5; Emission and Occupied Bandwidth nmary §2.1049, §24.238	Passed	2016/08/11	Lab 2	S01_AF03
24.5	5; Frequency Band = eFDD2, Mode = NAM 1.4MHz, Channel = 18607, Frequency	Passed	2016/08/11	Lab 2	S01_AF03
= 18 24.5	850.7MHz, Method = conducted 5; Frequency Band = eFDD2, Mode = 2AM 1.4MHz, Channel = 18900, Frequency	Passed	2016/08/11	Lab 2	S01_AF03
= 18 24.5 160	880MHz, Method = conducted 5; Frequency Band = eFDD2, Mode = 2AM 1.4MHz, Channel = 19193, Frequency	Passed	2016/08/11	Lab 2	S01_AF03
24.5 160	909.3MHz, Method = conducted 5; Frequency Band = eFDD2, Mode = AMM 10MHz, Channel = 18650, Frequency	Passed	2016/08/11	Lab 2	S01_AF03
24.5 16Q	855MHz, Method = conducted 5; Frequency Band = eFDD2, Mode = 2AM 10MHz, Channel = 18900, Frequency 880MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
24.5 16Q	5; Frequency Band = conducted by Frequency Band = eFDD2, Mode = by MM 10MHz, Channel = 19150, Frequency by 905MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
24.5 160	755 Frequency Band = eFDD2, Mode = 15 Frequency Band = eFDD2, Mode = 15 Frequency 15 Frequency 16 Frequency 16 Frequency 17 Frequency	Passed	2016/08/11	Lab 2	S01_AF03
24.5 160	5; Frequency Band = eFDD2, Mode = AMM 15MHz, Channel = 18900, Frequency 880MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
24.5 160	5; Frequency Band = eFDD2, Mode = AAM 15MHz, Channel = 19125, Frequency 902.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
24.5 160	5; Frequency Band = eFDD2, Mode = 2AM 20MHz, Channel = 18700, Frequency 860MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
24.5 160	5; Frequency Band = eFDD2, Mode = AAM 20MHz, Channel = 18900, Frequency 880MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
24.5 160	5; Frequency Band = eFDD2, Mode = 2AM 20MHz, Channel = 19100, Frequency 900MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
160	5; Frequency Band = eFDD2, Mode = 2AM 3MHz, Channel = 18615, Frequency = 1.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
160	5; Frequency Band = eFDD2, Mode = AAM 3MHz, Channel = 18900, Frequency = OMHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
160	5; Frequency Band = eFDD2, Mode = 2AM 3MHz, Channel = 19185, Frequency = 8.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
160	5; Frequency Band = eFDD2, Mode = 2AM 5MHz, Channel = 18625, Frequency = 2.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
24.5 160	5; Frequency Band = eFDD2, Mode = AAM 5MHz, Channel = 18900, Frequency = OMHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
160	5; Frequency Band = eFDD2, Mode = AMM 5MHz, Channel = 19175, Frequency = 7.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
24.5 QPS	5; Frequency Band = eFDD2, Mode = K 1.4MHz, Channel = 18607, Frequency = 0.7MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
24.5 QPS	5; Frequency Band = eFDD2, Mode = SK 1.4MHz, Channel = 18900, Frequency = OMHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
24.5 QPS	5; Frequency Band = eFDD2, Mode = SK 1.4MHz, Channel = 19193, Frequency = 9.3MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03



Test Case Identifier / Name		nce: MDE_UBLOX_ opart H, Part 24, su		
Test (condition)	Result	Date of Test	Ref.	Setup
24.5 Emission and Occupied Bandwidth §2	2.1049, §24.238			
24.5; Frequency Band = eFDD2, Mode = QPSK 10MHz, Channel = 18650, Frequency = 1855MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
24.5; Frequency Band = eFDD2, Mode = QPSK 10MHz, Channel = 18900, Frequency =	Passed	2016/08/11	Lab 2	S01_AF03
1880MHz, Method = conducted 24.5; Frequency Band = eFDD2, Mode = QPSK 10MHz, Channel = 19150, Frequency = 1905MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
24.5; Frequency Band = eFDD2, Mode = QPSK 15MHz, Channel = 18675, Frequency =	Passed	2016/08/11	Lab 2	S01_AF03
1857.5MHz, Method = conducted 24.5; Frequency Band = eFDD2, Mode = QPSK 15MHz, Channel = 18900, Frequency =	Passed	2016/08/11	Lab 2	S01_AF03
1880MHz, Method = conducted 24.5; Frequency Band = eFDD2, Mode = QPSK 15MHz, Channel = 19125, Frequency =	Passed	2016/08/11	Lab 2	S01_AF03
1902.5MHz, Method = conducted 24.5; Frequency Band = eFDD2, Mode = QPSK 20MHz, Channel = 18700, Frequency =	Passed	2016/08/11	Lab 2	S01_AF03
1860MHz, Method = conducted 24.5; Frequency Band = eFDD2, Mode = QPSK 20MHz, Channel = 18900, Frequency =	Passed	2016/08/11	Lab 2	S01_AF03
1880MHz, Method = conducted 24.5; Frequency Band = eFDD2, Mode = QPSK 20MHz, Channel = 19100, Frequency =	Passed	2016/08/11	Lab 2	S01_AF03
1900MHz, Method = conducted 24.5; Frequency Band = eFDD2, Mode = QPSK 3MHz, Channel = 18615, Frequency = 1851.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
24.5; Frequency Band = eFDD2, Mode = QPSK 3MHz, Channel = 18900, Frequency = 1880MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
24.5; Frequency Band = eFDD2, Mode = QPSK 3MHz, Channel = 19185, Frequency = 1908.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
24.5; Frequency Band = eFDD2, Mode = QPSK 5MHz, Channel = 18625, Frequency = 1852.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
24.5; Frequency Band = eFDD2, Mode = QPSK 5MHz, Channel = 18900, Frequency = 1880MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
24.5; Frequency Band = eFDD2, Mode = QPSK 5MHz, Channel = 19175, Frequency = 1907.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
24.5; Frequency Band = FDD2, Mode = HSDPA, Channel = 9262, Frequency = 1852.4MHz	Passed	2016/08/11	Lab 2	S01_AF03
24.5; Frequency Band = FDD2, Mode = HSDPA, Channel = 9400, Frequency = 1880MHz	Passed	2016/08/11	Lab 2	S01_AF03
24.5; Frequency Band = FDD2, Mode = HSDPA, Channel = 9538, Frequency =	Passed	2016/08/11	Lab 2	S01_AF03
1907.6MHz 24.5; Frequency Band = FDD2, Mode = HSUPA, Channel = 9262, Frequency =	Passed	2016/08/11	Lab 2	S01_AF03
1852.4MHz 24.5; Frequency Band = FDD2, Mode = HSUPA, Channel = 9400, Frequency = 1880MHz	Passed	2016/08/11	Lab 2	S01_AF03
24.5; Frequency Band = FDD2, Mode = HSUPA, Channel = 9538, Frequency =	Passed	2016/08/11	Lab 2	S01_AF03
1907.6MHz 24.5; Frequency Band = FDD2, Mode = W- CDMA, Channel = 9262, Frequency = 1852.4MHz	Passed	2016/08/11	Lab 2	S01_AF03



		ference: MDE_UBLOX_^	_		
	FCC Part 22,	Subpart H, Part 24, sul	bpart E, Pa	art 27 Subpart C	
Test Case Identifier / Name			Lab		
Test (condition)	Result	Date of Test	Ref.	Setup	
24.5 Emission and Occupied Bandwidth §2.1049, §24.238					
24.5; Frequency Band = FDD2, Mode = W-CDMA, Channel = 9400, Frequency =	Passed	2016/08/11	Lab 2	S01_AF03	
1880MHz 24.5; Frequency Band = FDD2, Mode = W- CDMA, Channel = 9538, Frequency = 1907.6MHz	Passed	2016/08/11	Lab 2	S01_AF03	



Test Case Identifier / Name		Reference: MDE_UBLOX_ 2, Subpart H, Part 24, su		
Test (condition)	Result	Date of Test	Ref.	Setup
24.6 Band edge compliance §2.1053, §24.3	238			
24.6; Band edge compliance summary §2.1053, §24.238	Passed	2016/08/11	Lab 2	S01_AF03
24.6; Band edge compliance summary §2.1053, §24.238	Passed	2016/08/11	Lab 2	S01_AF03
24.6; Frequency Band = eFDD2, Mode = 16QAM 1.4MHz, Channel = 18607, Frequency = 1850.7MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
24.6; Frequency Band = eFDD2, Mode = 16QAM 1.4MHz, Channel = 19193, Frequency = 1909.3MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
24.6; Frequency Band = eFDD2, Mode = 16QAM 10MHz, Channel = 18650, Frequency = 1855MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
24.6; Frequency Band = eFDD2, Mode = 16QAM 10MHz, Channel = 19150, Frequency = 1905MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
24.6; Frequency Band = eFDD2, Mode = 16QAM 15MHz, Channel = 18675, Frequency = 1857.5MHz, Method = conducted	Passed	2016/08/01	Lab 2	S01_AF03
24.6; Frequency Band = eFDD2, Mode = 16QAM 15MHz, Channel = 19125, Frequency	Passed	2016/08/11	Lab 2	S01_AF03
= 1902.5MHz, Method = conducted 24.6; Frequency Band = eFDD2, Mode = 16QAM 20MHz, Channel = 18700, Frequency	Passed	2016/08/11	Lab 2	S01_AF03
= 1860MHz, Method = conducted 24.6; Frequency Band = eFDD2, Mode = 16QAM 20MHz, Channel = 19100, Frequency	Passed	2016/08/11	Lab 2	S01_AF03
= 1900MHz, Method = conducted 24.6; Frequency Band = eFDD2, Mode = 16QAM 3MHz, Channel = 18615, Frequency =	Passed	2016/08/11	Lab 2	S01_AF03
1851.5MHz, Method = conducted 24.6; Frequency Band = eFDD2, Mode = 16QAM 3MHz, Channel = 19185, Frequency =	Passed	2016/08/11	Lab 2	S01_AF03
1908.5MHz, Method = conducted 24.6; Frequency Band = eFDD2, Mode = 16QAM 5MHz, Channel = 18625, Frequency =	Passed	2016/08/11	Lab 2	S01_AF03
1852.5MHz, Method = conducted 24.6; Frequency Band = eFDD2, Mode = 16QAM 5MHz, Channel = 19175, Frequency =	Passed	2016/08/11	Lab 2	S01_AF03
1907.5MHz, Method = conducted 24.6; Frequency Band = eFDD2, Mode = QPSK 1.4MHz, Channel = 18607, Frequency = 1850.7MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
24.6; Frequency Band = eFDD2, Mode = QPSK 1.4MHz, Channel = 19193, Frequency =	Passed	2016/08/11	Lab 2	S01_AF03
1909.3MHz, Method = conducted 24.6; Frequency Band = eFDD2, Mode = QPSK 10MHz, Channel = 18650, Frequency =	Passed	2016/08/11	Lab 2	S01_AF03
1855MHz, Method = conducted 24.6; Frequency Band = eFDD2, Mode = QPSK 10MHz, Channel = 19150, Frequency =	Passed	2016/08/11	Lab 2	S01_AF03
1905MHz, Method = conducted 24.6; Frequency Band = eFDD2, Mode = QPSK 15MHz, Channel = 18675, Frequency =	Passed	2016/08/11	Lab 2	S01_AF03
1857.5MHz, Method = conducted 24.6; Frequency Band = eFDD2, Mode = QPSK 15MHz, Channel = 19125, Frequency =	Passed	2016/08/11	Lab 2	S01_AF03
1902.5MHz, Method = conducted 24.6; Frequency Band = eFDD2, Mode = QPSK 20MHz, Channel = 18700, Frequency =	Passed	2016/08/11	Lab 2	S01_AF03
1860MHz, Method = conducted 24.6; Frequency Band = eFDD2, Mode = QPSK 20MHz, Channel = 19100, Frequency = 1900MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03



Test Case Identifier / Name		erence: MDE_UBLOX_ Subpart H, Part 24, sul	opart E, Pa	
Test (candition)	Dogult	Data of Toot	Lab	Catur
Test (condition)	Result	Date of Test	Ref.	Setup
24.6 Band edge compliance §2.1053, §24	.238			
24.6; Frequency Band = eFDD2, Mode = QPSK 3MHz, Channel = 18615, Frequency =	Passed	2016/08/11	Lab 2	S01_AF03
1851.5MHz, Method = conducted 24.6; Frequency Band = eFDD2, Mode = QPSK 3MHz, Channel = 19185, Frequency = 1908.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
24.6; Frequency Band = eFDD2, Mode = QPSK 5MHz, Channel = 18625, Frequency = 1852.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
24.6; Frequency Band = eFDD2, Mode = QPSK 5MHz, Channel = 19175, Frequency = 1907.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
24.6; Frequency Band = FDD2, Mode = HSDPA, Channel = 9262, Frequency = 1852.4MHz	Passed	2016/08/11	Lab 2	S01_AF03
24.6; Frequency Band = FDD2, Mode = HSDPA, Channel = 9538, Frequency = 1907.6MHz	Passed	2016/08/11	Lab 2	S01_AF03
24.6; Frequency Band = FDD2, Mode = HSUPA, Channel = 9262, Frequency = 1852.4MHz	Passed	2016/08/11	Lab 2	S01_AF03
24.6; Frequency Band = FDD2, Mode = HSUPA, Channel = 9538, Frequency = 1907.6MHz	Passed	2016/08/11	Lab 2	S01_AF03
24.6; Frequency Band = FDD2, Mode = W- CDMA, Channel = 9262, Frequency = 1852.4MHz	Passed	2016/08/11	Lab 2	S01_AF03
24.6; Frequency Band = FDD2, Mode = W-CDMA, Channel = 9538, Frequency = 1907.6MHz	Passed	2016/08/11	Lab 2	S01_AF03
24.7 Peak-to-Average ratio §2.1046, §24	.232			
24.7; Peak-to-Average Ratio Summary §2.1046, §24.232	Passed	2016/08/11	Lab 2	S01_AF03
24.7; Frequency Band = eFDD2, Mode = 16QAM 1.4MHz, Channel = 18607, Frequency = 1850.7MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
24.7; Frequency Band = eFDD2, Mode = 16QAM 1.4MHz, Channel = 18900, Frequency = 1880MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
24.7; Frequency Band = eFDD2, Mode = 16QAM 1.4MHz, Channel = 19193, Frequency = 1909.3MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
24.7; Frequency Band = eFDD2, Mode = QPSK 1.4MHz, Channel = 18900, Frequency = 1880MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
24.7; Frequency Band = eFDD2, Mode = QPSK 1.4MHz, Channel = 19193, Frequency = 1909.3MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03

Test Specification: FCC part 2 and 27



Test Case Identifier / Name		erence: MDE_UBLOX_1 Subpart H, Part 24, sub		
Test (condition)	Result	Date of Test	Ref.	Setup
27.1 RF Power Output §2.1046, §27.250 27.1; RF Power Output Summary §2.1046, §27.250	Passed	2016/08/11	Lab 2	S01_AF03
27.1; Frequency Band = eFDD12, Mode = 16QAM 1.4MHz, Channel = 23017, Frequency	Passed	2016/08/11	Lab 2	S01_AF03
= 699.7MHz, Method = conducted 27.1; Frequency Band = eFDD12, Mode = 16QAM 1.4MHz, Channel = 23095, Frequency	Passed	2016/08/11	Lab 2	S01_AF03
= 707.5MHz, Method = conducted 27.1; Frequency Band = eFDD12, Mode = 16QAM 1.4MHz, Channel = 23173, Frequency	Passed	2016/08/11	Lab 2	S01_AF03
= 715.3MHz, Method = conducted 27.1; Frequency Band = eFDD12, Mode = 16QAM 10MHz, Channel = 23060, Frequency	Passed	2016/08/11	Lab 2	S01_AF03
= 704MHz, Method = conducted 27.1; Frequency Band = eFDD12, Mode = 16QAM 10MHz, Channel = 23095, Frequency	Passed	2016/08/11	Lab 2	S01_AF03
= 707.5MHz, Method = conducted 27.1; Frequency Band = eFDD12, Mode = 16QAM 10MHz, Channel = 23130, Frequency	Passed	2016/08/11	Lab 2	S01_AF03
= 711MHz, Method = conducted 27.1; Frequency Band = eFDD12, Mode = 16QAM 3MHz, Channel = 23025, Frequency =	Passed	2016/08/11	Lab 2	S01_AF03
700.5MHz, Method = conducted 27.1; Frequency Band = eFDD12, Mode = 16QAM 3MHz, Channel = 23095, Frequency =	Passed	2016/08/11	Lab 2	S01_AF03
707.5MHz, Method = conducted 27.1; Frequency Band = eFDD12, Mode = 16QAM 3MHz, Channel = 23165, Frequency =	Passed	2016/08/11	Lab 2	S01_AF03
714.5MHz, Method = conducted 27.1; Frequency Band = eFDD12, Mode = 16QAM 5MHz, Channel = 23035, Frequency =	Passed	2016/08/11	Lab 2	S01_AF03
701.5MHz, Method = conducted 27.1; Frequency Band = eFDD12, Mode = 16QAM 5MHz, Channel = 23095, Frequency =	Passed	2016/08/11	Lab 2	S01_AF03
707.5MHz, Method = conducted 27.1; Frequency Band = eFDD12, Mode = 16QAM 5MHz, Channel = 23155, Frequency =	Passed	2016/08/11	Lab 2	S01_AF03
713.5MHz, Method = conducted 27.1; Frequency Band = eFDD12, Mode = QPSK 1.4MHz, Channel = 23017, Frequency = 699.7MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.1; Frequency Band = eFDD12, Mode = QPSK 1.4MHz, Channel = 23095, Frequency = 707.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.1; Frequency Band = eFDD12, Mode = QPSK 1.4MHz, Channel = 23173, Frequency = 715.3MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.1; Frequency Band = eFDD12, Mode = QPSK 10MHz, Channel = 23060, Frequency = 704MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.1; Frequency Band = eFDD12, Mode = QPSK 10MHz, Channel = 23095, Frequency = 707.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.1; Frequency Band = eFDD12, Mode = QPSK 10MHz, Channel = 23130, Frequency = 711MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.1; Frequency Band = eFDD12, Mode = QPSK 3MHz, Channel = 23025, Frequency = 700.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.1; Frequency Band = eFDD12, Mode = QPSK 3MHz, Channel = 23095, Frequency = 707.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.1; Frequency Band = eFDD12, Mode = QPSK 3MHz, Channel = 23165, Frequency = 714.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03



		Reference: MDE_UBLOX_ 2, Subpart H, Part 24, su		
Test Case Identifier / Name Test (condition)	Result	Date of Test	Lab Ref.	Setup
	Result	Date of Test	NOI.	Эстар
27.1 RF Power Output §2.1046, §27.250 27.1; Frequency Band = eFDD12, Mode = QPSK 5MHz, Channel = 23035, Frequency =	Passed	2016/08/11	Lab 2	S01_AF03
701.5MHz, Method = conducted 27.1; Frequency Band = eFDD12, Mode = QPSK 5MHz, Channel = 23095, Frequency =	Passed	2016/08/11	Lab 2	S01_AF03
707.5MHz, Method = conducted 27.1; Frequency Band = eFDD12, Mode = QPSK 5MHz, Channel = 23155, Frequency =	Passed	2016/08/11	Lab 2	S01_AF03
713.5MHz, Method = conducted 27.1; Frequency Band = eFDD4, Mode = 16QAM 1.4MHz, Channel = 19957, Frequency = 1710.7MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.1; Frequency Band = eFDD4, Mode = 16QAM 1.4MHz, Channel = 20175, Frequency = 1732.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.1; Frequency Band = eFDD4, Mode = 16QAM 1.4MHz, Channel = 20393, Frequency = 1754.3MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.1; Frequency Band = eFDD4, Mode = 16QAM 10MHz, Channel = 20000, Frequency = 1715MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.1; Frequency Band = eFDD4, Mode = 16QAM 10MHz, Channel = 20175, Frequency = 1732.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.1; Frequency Band = eFDD4, Mode = 16QAM 10MHz, Channel = 20350, Frequency = 1750MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.1; Frequency Band = eFDD4, Mode = 16QAM 15MHz, Channel = 20025, Frequency = 1717.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.1; Frequency Band = eFDD4, Mode = 16QAM 15MHz, Channel = 20175, Frequency = 1732.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.1; Frequency Band = eFDD4, Mode = 16QAM 15MHz, Channel = 20325, Frequency = 1747.50MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.1; Frequency Band = eFDD4, Mode = 16QAM 20MHz, Channel = 20050, Frequency = 1720MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.1; Frequency Band = eFDD4, Mode = 16QAM 20MHz, Channel = 20175, Frequency = 1732.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.1; Frequency Band = eFDD4, Mode = 16QAM 20MHz, Channel = 20300, Frequency = 1745MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.1; Frequency Band = eFDD4, Mode = 16QAM 3MHz, Channel = 19965, Frequency = 1711.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.1; Frequency Band = eFDD4, Mode = 16QAM 3MHz, Channel = 20175, Frequency = 1732.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.1; Frequency Band = eFDD4, Mode = 16QAM 3MHz, Channel = 20385, Frequency = 1753.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.1; Frequency Band = eFDD4, Mode = 16QAM 5MHz, Channel = 19975, Frequency = 1712.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.1; Frequency Band = eFDD4, Mode = 16QAM 5MHz, Channel = 20175, Frequency = 1732.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.1; Frequency Band = eFDD4, Mode = 16QAM 5MHz, Channel = 20375, Frequency = 1752.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.1; Frequency Band = eFDD4, Mode = QPSK 1.4MHz, Channel = 20175, Frequency = 1732.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03



	F	Reference: MDE_UBLOX_	1601_FCC	a according to:
Test Case Identifier / Name		2, Subpart H, Part 24, su		
Test (condition)	Result	Date of Test	Ref.	Setup
27.1 RF Power Output §2.1046, §27.250				_
27.1; Frequency Band = eFDD4, Mode = QPSK 1.4MHz, Channel = 20393, Frequency = 1754.3MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.1; Frequency Band = eFDD4, Mode = QPSK 10MHz, Channel = 20000, Frequency = 1715MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.1; Frequency Band = eFDD4, Mode = QPSK 10MHz, Channel = 20175, Frequency = 1732.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.1; Frequency Band = eFDD4, Mode = QPSK 10MHz, Channel = 20350, Frequency = 1750MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.1; Frequency Band = eFDD4, Mode = QPSK 15MHz, Channel = 20025, Frequency = 1717.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.1; Frequency Band = eFDD4, Mode = QPSK 15MHz, Channel = 20175, Frequency = 1732.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.1; Frequency Band = eFDD4, Mode = QPSK 15MHz, Channel = 20325, Frequency = 1747.50MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.1; Frequency Band = eFDD4, Mode = QPSK 20MHz, Channel = 20050, Frequency = 1720MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.1; Frequency Band = eFDD4, Mode = QPSK 20MHz, Channel = 20175, Frequency = 1732.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.1; Frequency Band = eFDD4, Mode = QPSK 20MHz, Channel = 20300, Frequency = 1745MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.1; Frequency Band = eFDD4, Mode = QPSK 3MHz, Channel = 19965, Frequency = 1711.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.1; Frequency Band = eFDD4, Mode = QPSK 3MHz, Channel = 20175, Frequency = 1732.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.1; Frequency Band = eFDD4, Mode = QPSK 3MHz, Channel = 20385, Frequency = 1753.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.1; Frequency Band = eFDD4, Mode = QPSK 5MHz, Channel = 19975, Frequency = 1712.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.1; Frequency Band = eFDD4, Mode = QPSK 5MHz, Channel = 20175, Frequency = 1732.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.1; Frequency Band = eFDD4, Mode = QPSK 5MHz, Channel = 20375, Frequency = 1752.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.2 Frequency stability §2.1055, §27.54	D 1	004 / 100 /4 :	1-1-0	604 4500
27.2; Frequency stability Summary §2.1055, §27.54	Passed	2016/08/11	Lab 2	S01_AF03



		rence: MDE_UBLOX_		
Took Coop Identifier / Name	FCC Part 22, S	Subpart H, Part 24, sul		art 27 Subpart C
Test Case Identifier / Name	5 "	D / CT /	Lab	0.1
Test (condition)	Result	Date of Test	Ref.	Setup
27.3 Spurious emissions at antenna termi	inals §2.1051, §	27.53		
27.3; Frequency Band = eFDD12, Mode = QPSK 5MHz, Channel = 23035, Frequency = 701.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.3; Frequency Band = eFDD12, Mode = QPSK 5MHz, Channel = 23095, Frequency = 707.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.3; Frequency Band = eFDD12, Mode = QPSK 5MHz, Channel = 23155, Frequency = 713.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.3; Frequency Band = eFDD4, Mode = QPSK 5MHz, Channel = 19975, Frequency = 1712.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.3; Frequency Band = eFDD4, Mode = QPSK 5MHz, Channel = 20175, Frequency = 1732.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.3; Frequency Band = eFDD4, Mode = QPSK 5MHz, Channel = 20375, Frequency = 1752.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.4 Field strength of spurious radiation §	§2.1053, §27.53			
27.4; Frequency Band = eFDD12, Mode = QPSK 5MHz, Channel = 23035, Frequency = 701.5MHz, Method = radiated	Passed	2016/08/08	Lab 1	S01_AQ04
27.4; Frequency Band = eFDD12, Mode = QPSK 5MHz, Channel = 23095, Frequency = 707.5MHz, Method = radiated	Passed	2016/08/08	Lab 1	S01_AQ04
27.4; Frequency Band = eFDD12, Mode = QPSK 5MHz, Channel = 23155, Frequency = 713.5MHz, Method = radiated	Passed	2016/08/08	Lab 1	S01_AQ04
27.4; Frequency Band = eFDD4, Mode = QPSK 5MHz, Channel = 19975, Frequency = 1712.5MHz, Method = radiated	Passed	2016/08/08	Lab 1	S01_AQ04
27.4; Frequency Band = eFDD4, Mode = QPSK 5MHz, Channel = 20175, Frequency = 1732.5MHz, Method = radiated	Passed	2016/08/08	Lab 1	S01_AQ04
27.4; Frequency Band = eFDD4, Mode = QPSK 5MHz, Channel = 20375, Frequency = 1752.5MHz, Method = radiated	Passed	2016/08/08	Lab 1	S01_AQ04



testing for a smarter world				
Test Case Identifier / Name		erence: MDE_UBLOX_ Subpart H, Part 24, su		
Test (condition)	Result	Date of Test	Ref.	Setup
27.5 Emission and Occupied Bandwidth §2	1040			·
27.5 Emission and Occupied Bandwidth §2 27.5; Emission and Occupied Bandwidth Summary §2.1049	Passed	2016/08/11	Lab 2	S01_AF03
27.5; Frequency Band = eFDD12, Mode = 16QAM 1.4MHz, Channel = 23017, Frequency	Passed	2016/08/11	Lab 2	S01_AF03
= 699.7MHz, Method = conducted 27.5; Frequency Band = eFDD12, Mode = 16QAM 1.4MHz, Channel = 23095, Frequency	Passed	2016/08/11	Lab 2	S01_AF03
= 707.5MHz, Method = conducted 27.5; Frequency Band = eFDD12, Mode = 16QAM 1.4MHz, Channel = 23173, Frequency	Passed	2016/08/11	Lab 2	S01_AF03
= 715.3MHz, Method = conducted 27.5; Frequency Band = eFDD12, Mode = 16QAM 10MHz, Channel = 23060, Frequency	Passed	2016/08/11	Lab 2	S01_AF03
= 704MHz, Method = conducted 27.5; Frequency Band = eFDD12, Mode = 16QAM 10MHz, Channel = 23095, Frequency	Passed	2016/08/11	Lab 2	S01_AF03
= 707.5MHz, Method = conducted 27.5; Frequency Band = eFDD12, Mode = 16QAM 10MHz, Channel = 23130, Frequency	Passed	2016/08/11	Lab 2	S01_AF03
= 711MHz, Method = conducted 27.5; Frequency Band = eFDD12, Mode = 16QAM 3MHz, Channel = 23025, Frequency =	Passed	2016/08/11	Lab 2	S01_AF03
700.5MHz, Method = conducted 27.5; Frequency Band = eFDD12, Mode = 16QAM 3MHz, Channel = 23095, Frequency =	Passed	2016/08/11	Lab 2	S01_AF03
707.5MHz, Method = conducted 27.5; Frequency Band = eFDD12, Mode = 16QAM 3MHz, Channel = 23165, Frequency =	Passed	2016/08/11	Lab 2	S01_AF03
714.5MHz, Method = conducted 27.5; Frequency Band = eFDD12, Mode = 16QAM 5MHz, Channel = 23035, Frequency =	Passed	2016/08/11	Lab 2	S01_AF03
701.5MHz, Method = conducted 27.5; Frequency Band = eFDD12, Mode = 16QAM 5MHz, Channel = 23095, Frequency =	Passed	2016/08/11	Lab 2	S01_AF03
707.5MHz, Method = conducted 27.5; Frequency Band = eFDD12, Mode = 16QAM 5MHz, Channel = 23155, Frequency =	Passed	2016/08/11	Lab 2	S01_AF03
713.5MHz, Method = conducted 27.5; Frequency Band = eFDD12, Mode = QPSK 1.4MHz, Channel = 23017, Frequency =	Passed	2016/08/11	Lab 2	S01_AF03
699.7MHz, Method = conducted 27.5; Frequency Band = eFDD12, Mode = QPSK 1.4MHz, Channel = 23095, Frequency =	Passed	2016/08/11	Lab 2	S01_AF03
707.5MHz, Method = conducted 27.5; Frequency Band = eFDD12, Mode = QPSK 1.4MHz, Channel = 23173, Frequency =	Passed	2016/08/11	Lab 2	S01_AF03
715.3MHz, Method = conducted 27.5; Frequency Band = eFDD12, Mode = QPSK 10MHz, Channel = 23060, Frequency =	Passed	2016/08/11	Lab 2	S01_AF03
704MHz, Method = conducted 27.5; Frequency Band = eFDD12, Mode = QPSK 10MHz, Channel = 23095, Frequency =	Passed	2016/08/11	Lab 2	S01_AF03
707.5MHz, Method = conducted 27.5; Frequency Band = eFDD12, Mode = QPSK 10MHz, Channel = 23130, Frequency =	Passed	2016/08/11	Lab 2	S01_AF03
711MHz, Method = conducted 27.5; Frequency Band = eFDD12, Mode = QPSK 3MHz, Channel = 23025, Frequency =	Passed	2016/08/11	Lab 2	S01_AF03
700.5MHz, Method = conducted 27.5; Frequency Band = eFDD12, Mode = QPSK 3MHz, Channel = 23095, Frequency =	Passed	2016/08/11	Lab 2	S01_AF03
707.5MHz, Method = conducted 27.5; Frequency Band = eFDD12, Mode = QPSK 3MHz, Channel = 23165, Frequency =	Passed	2016/08/11	Lab 2	S01_AF03
714.5MHz, Method = conducted				



Test Case Identifier / Name	FCC Part	Reference: MDE_UBLOX 22, Subpart H, Part 24, s		9
Test (condition)	Result	Date of Test	Ref.	Setup
27.5 Emission and Occupied Bandwidth §2	.1049			
27.5; Frequency Band = eFDD12, Mode = QPSK 5MHz, Channel = 23035, Frequency = 701.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.5; Frequency Band = eFDD12, Mode = QPSK 5MHz, Channel = 23095, Frequency = 707.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.5; Frequency Band = eFDD12, Mode = QPSK 5MHz, Channel = 23155, Frequency = 713.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.5; Frequency Band = eFDD4, Mode = 16QAM 1.4MHz, Channel = 19957, Frequency = 1710.7MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.5; Frequency Band = eFDD4, Mode = 16QAM 1.4MHz, Channel = 20175, Frequency = 1732.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.5; Frequency Band = eFDD4, Mode = 16QAM 1.4MHz, Channel = 20393, Frequency = 1754.3MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.5; Frequency Band = eFDD4, Mode = 16QAM 10MHz, Channel = 20000, Frequency = 1715MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.5; Frequency Band = eFDD4, Mode = 16QAM 10MHz, Channel = 20175, Frequency = 1732.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.5; Frequency Band = eFDD4, Mode = 16QAM 10MHz, Channel = 20350, Frequency = 1750MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.5; Frequency Band = eFDD4, Mode = 16QAM 15MHz, Channel = 20025, Frequency = 1717.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.5; Frequency Band = eFDD4, Mode = 16QAM 15MHz, Channel = 20175, Frequency = 1732.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.5; Frequency Band = eFDD4, Mode = 16QAM 15MHz, Channel = 20325, Frequency = 1747.50MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.5; Frequency Band = eFDD4, Mode = 16QAM 20MHz, Channel = 20050, Frequency = 1720MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.5; Frequency Band = eFDD4, Mode = 16QAM 20MHz, Channel = 20175, Frequency = 1732.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.5; Frequency Band = eFDD4, Mode = 16QAM 20MHz, Channel = 20300, Frequency = 1745MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.5; Frequency Band = eFDD4, Mode = 16QAM 3MHz, Channel = 19965, Frequency = 1711.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.5; Frequency Band = eFDD4, Mode = 16QAM 3MHz, Channel = 20175, Frequency = 1732.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.5; Frequency Band = eFDD4, Mode = 16QAM 3MHz, Channel = 20385, Frequency = 1753.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.5; Frequency Band = eFDD4, Mode = 16QAM 5MHz, Channel = 19975, Frequency = 1712.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.5; Frequency Band = eFDD4, Mode = 16QAM 5MHz, Channel = 20175, Frequency = 1732.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.5; Frequency Band = eFDD4, Mode = 16QAM 5MHz, Channel = 20375, Frequency = 1752.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.5; Frequency Band = eFDD4, Mode = QPSK 1.4MHz, Channel = 19957, Frequency = 1710.7MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03



		Reference: MDE_UBLO	X_1601_FCCa	according to:
Test Case Identifier / Name	FCC Part	22, Subpart H, Part 24,	subpart E, Par Lab	t 27 Subpart C
Test (condition)	Result	Date of Test		Setup
27.5 Emission and Occupied Bandwidth §2	.1049			
27.5; Frequency Band = eFDD4, Mode = QPSK 1.4MHz, Channel = 20175, Frequency = 1732.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.5; Frequency Band = eFDD4, Mode = QPSK 1.4MHz, Channel = 20393, Frequency = 1754.3MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.5; Frequency Band = eFDD4, Mode = QPSK 10MHz, Channel = 20000, Frequency = 1715MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.5; Frequency Band = eFDD4, Mode = QPSK 10MHz, Channel = 20175, Frequency = 1732.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.5; Frequency Band = eFDD4, Mode = QPSK 10MHz, Channel = 20350, Frequency = 1750MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.5; Frequency Band = eFDD4, Mode = QPSK 15MHz, Channel = 20025, Frequency = 1717.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.5; Frequency Band = eFDD4, Mode = QPSK 15MHz, Channel = 20175, Frequency = 1732.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.5; Frequency Band = eFDD4, Mode = QPSK 15MHz, Channel = 20325, Frequency = 1747.50MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.5; Frequency Band = eFDD4, Mode = QPSK 20MHz, Channel = 20050, Frequency = 1720MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.5; Frequency Band = eFDD4, Mode = QPSK 20MHz, Channel = 20175, Frequency = 1732.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.5; Frequency Band = eFDD4, Mode = QPSK 20MHz, Channel = 20300, Frequency = 1745MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.5; Frequency Band = eFDD4, Mode = QPSK 3MHz, Channel = 19965, Frequency = 1711.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.5; Frequency Band = eFDD4, Mode = QPSK 3MHz, Channel = 20175, Frequency = 1732.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.5; Frequency Band = eFDD4, Mode = QPSK 3MHz, Channel = 20385, Frequency = 1753.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.5; Frequency Band = eFDD4, Mode = QPSK 5MHz, Channel = 19975, Frequency = 1712.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.5; Frequency Band = eFDD4, Mode = QPSK 5MHz, Channel = 20175, Frequency = 1732.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.5; Frequency Band = eFDD4, Mode = QPSK 5MHz, Channel = 20375, Frequency = 1752.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03



Test Case Identifier / Name		Reference: MDE_UBLOX_ 2, Subpart H, Part 24, su		
Test (condition)	Result	Date of Test	Ref.	Setup
27.6 Band edge compliance §2.1053, §27.5	3			
27.6; Band edge compliance summary §2.1053, §27.53	Passed	2016/08/26	Lab 2	S01_AF03
27.6; Frequency Band = eFDD12, Mode = 16QAM 1.4MHz, Channel = 23017, Frequency	Passed	2016/08/11	Lab 2	S01_AF03
= 699.7MHz, Method = conducted 27.6; Frequency Band = eFDD12, Mode = 16QAM 1.4MHz, Channel = 23173, Frequency	Passed	2016/08/11	Lab 2	S01_AF03
= 715.3MHz, Method = conducted 27.6; Frequency Band = eFDD12, Mode = 16QAM 10MHz, Channel = 23060, Frequency	Passed	2016/08/11	Lab 2	S01_AF03
= 704MHz, Method = conducted 27.6; Frequency Band = eFDD12, Mode = 16QAM 10MHz, Channel = 23130, Frequency = 711MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.6; Frequency Band = eFDD12, Mode = 16QAM 3MHz, Channel = 23025, Frequency = 700.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.6; Frequency Band = eFDD12, Mode = 16QAM 3MHz, Channel = 23165, Frequency = 714.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.6; Frequency Band = eFDD12, Mode = 16QAM 5MHz, Channel = 23035, Frequency = 701.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.6; Frequency Band = eFDD12, Mode = 16QAM 5MHz, Channel = 23155, Frequency = 713.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.6; Frequency Band = eFDD12, Mode = QPSK 1.4MHz, Channel = 23017, Frequency = 699.7MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.6; Frequency Band = eFDD12, Mode = QPSK 1.4MHz, Channel = 23173, Frequency = 715.3MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.6; Frequency Band = eFDD12, Mode = QPSK 10MHz, Channel = 23060, Frequency = 704MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.6; Frequency Band = eFDD12, Mode = QPSK 10MHz, Channel = 23130, Frequency = 711MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.6; Frequency Band = eFDD12, Mode = QPSK 3MHz, Channel = 23025, Frequency = 700.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.6; Frequency Band = eFDD12, Mode = QPSK 3MHz, Channel = 23165, Frequency = 714.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.6; Frequency Band = eFDD12, Mode = QPSK 5MHz, Channel = 23035, Frequency = 701.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.6; Frequency Band = eFDD12, Mode = QPSK 5MHz, Channel = 23155, Frequency = 713.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.6; Frequency Band = eFDD4, Mode = 16QAM 1.4MHz, Channel = 19957, Frequency = 1710.7MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.6; Frequency Band = eFDD4, Mode = 16QAM 1.4MHz, Channel = 20393, Frequency = 1754.3MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.6; Frequency Band = eFDD4, Mode = 16QAM 10MHz, Channel = 20000, Frequency = 1715MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.6; Frequency Band = eFDD4, Mode = 16QAM 10MHz, Channel = 20350, Frequency = 1750MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03
27.6; Frequency Band = eFDD4, Mode = 16QAM 15MHz, Channel = 20025, Frequency = 1717.5MHz, Method = conducted	Passed	2016/08/11	Lab 2	S01_AF03



		rence: MDE_UBLOX_		
		ubpart H, Part 24, su	bpart E, Pa	
Test Case Identifier / Name			Lab	
Test (condition)	Result	Date of Test	Ref.	Setup
27.6 Band edge compliance §2.1053, §	527.53			
27.6; Frequency Band = eFDD4, Mode =	Passed	2016/08/11	Lab 2	S01_AF03
16QAM 15MHz, Channel = 20325, Frequency		2010/00/11	Lub L	001_71100
= 1747.50MHz, Method = conducted				
27.6; Frequency Band = eFDD4, Mode =	Passed	2016/08/11	Lab 2	S01_AF03
16QAM 20MHz, Channel = 20050, Frequency	1			_
= 1720MHz, Method = conducted				
27.6; Frequency Band = eFDD4, Mode =	Passed	2016/08/11	Lab 2	S01_AF03
16QAM 20MHz, Channel = 20300, Frequency	1			
= 1745MHz, Method = conducted				
27.6; Frequency Band = eFDD4, Mode =	Passed	2016/08/11	Lab 2	S01_AF03
16QAM 3MHz, Channel = 19965, Frequency	=			
1711.5MHz, Method = conducted				
27.6; Frequency Band = eFDD4, Mode =	Passed	2016/08/11	Lab 2	S01_AF03
16QAM 3MHz, Channel = 20385, Frequency	=			
1753.5MHz, Method = conducted	Danad	2017/00/11	1 -1- 0	CO4 AFO2
27.6; Frequency Band = eFDD4, Mode = 16QAM 5MHz, Channel = 19975, Frequency	Passed	2016/08/11	Lab 2	S01_AF03
1712.5MHz, Method = conducted	=			
27.6; Frequency Band = eFDD4, Mode =	Passed	2016/08/11	Lab 2	S01_AF03
16QAM 5MHz, Channel = 20375, Frequency		2010/00/11	Lab Z	301_AL03
1752.5MHz, Method = conducted	_			
27.6; Frequency Band = eFDD4, Mode =	Passed	2016/08/11	Lab 2	S01_AF03
QPSK 1.4MHz, Channel = 19957, Frequency		2010/00/11	Lub L	001_71100
1710.7MHz, Method = conducted				
27.6; Frequency Band = eFDD4, Mode =	Passed	2016/08/11	Lab 2	S01_AF03
QPSK 1.4MHz, Channel = 20393, Frequency	=			_
1754.3MHz, Method = conducted				
27.6; Frequency Band = eFDD4, Mode =	Passed	2016/08/11	Lab 2	S01_AF03
QPSK 10MHz, Channel = 20000, Frequency =	=			
1715MHz, Method = conducted				
27.6; Frequency Band = eFDD4, Mode =	Passed	2016/08/11	Lab 2	S01_AF03
QPSK 10MHz, Channel = 20350, Frequency =	=			
1750MHz, Method = conducted				
27.6; Frequency Band = eFDD4, Mode =	Passed	2016/08/11	Lab 2	S01_AF03
QPSK 15MHz, Channel = 20025, Frequency =	=			
1717.5MHz, Method = conducted	Doored	2017/00/11	1	CO1 AFO2
27.6; Frequency Band = eFDD4, Mode = QPSK 15MHz, Channel = 20325, Frequency =	Passed	2016/08/11	Lab 2	S01_AF03
1747.50MHz, Method = conducted	=			
27.6; Frequency Band = eFDD4, Mode =	Passed	2016/08/11	Lab 2	S01_AF03
QPSK 20MHz, Channel = 20050, Frequency =		2010/00/11	Lab Z	301_A103
1720MHz, Method = conducted	_			
27.6; Frequency Band = eFDD4, Mode =	Passed	2016/08/11	Lab 2	S01_AF03
QPSK 20MHz, Channel = 20300, Frequency =		20.07.007	200 2	00,00
1745MHz, Method = conducted				
27.6; Frequency Band = eFDD4, Mode =	Passed	2016/08/11	Lab 2	S01_AF03
QPSK 3MHz, Channel = 19965, Frequency =				
1711.5MHz, Method = conducted				
27.6; Frequency Band = eFDD4, Mode =	Passed	2016/08/11	Lab 2	S01_AF03
QPSK 3MHz, Channel = 20385, Frequency =				
1753.5MHz, Method = conducted				
27.6; Frequency Band = eFDD4, Mode =	Passed	2016/08/11	Lab 2	S01_AF03
QPSK 5MHz, Channel = 19975, Frequency =				
1712.5MHz, Method = conducted		001/10=1::		001 1
27.6; Frequency Band = eFDD4, Mode =	Passed	2016/08/11	Lab 2	S01_AF03
QPSK 5MHz, Channel = 20375, Frequency =				
1752.5MHz, Method = conducted				



3.5 Detailed Results

3.5.1 22.1 RF Power Output §2.1046, §22.913

Test: 22.1; _RF Power Output Summary §2.1046, §22.913

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/18 14:34FCC part 2 and 22



Detailed Results:

Radio Technology	Channel	Ressource Blocks	Bandwidth (MHz)	Peak Conducted Power (dBm)	Average Conducted Power (dBm)	RMS Conducted Power (dBm)	FCC EIRP Limit (W)	IC EIRP Limit (W)	Maximum Antenna Gain (dBi)
FDD V	low	-	5	28.7	22.93	23.06	11.48	11.5	17.54
FDD V	mid	-	5	28.44	22.93	23.14	11.48	11.5	17.46
FDD V	high	-	5	28.58	22.88	23.08	11.48	11.5	17.52
FDD V HSDPA Subtest 1	low	-	5	28.7	23.36	23.6	11.48	11.5	17
FDD V HSDPA Subtest 1	mid	-	5	28.32	23.32	23.67	11.48	11.5	16.93
FDD V HSDPA Subtest 1	high	-	5	28.58	23.22	23.46	11.48	11.5	17.14
FDD V HSDPA Subtest 2	low	-	5	29.67	23.16	23.26	11.48	11.5	17.34
FDD V HSDPA Subtest 2	mid	-	5	29.09	22.71	23.93	11.48	11.5	16.67
FDD V HSDPA Subtest 2	high	-	5	29.53	22.79	23.9	11.48	11.5	16.7
FDD V HSDPA Subtest 3	low	-	5	29.09	23.09	23.3	11.48	11.5	17.3
FDD V HSDPA Subtest 3	mid	-	5	29.31	22.6	23.28	11.48	11.5	17.32
FDD V HSDPA Subtest 3	high	-	5	29.31	23.44	23.84	11.48	11.5	16.76
FDD V HSDPA Subtest 4	low	-	5	29.09	22.51	23.31	11.48	11.5	17.29
FDD V HSDPA Subtest 4	mid	-	5	28.7	22.5	23.05	11.48	11.5	17.55
FDD V HSDPA Subtest 4	high	-	5	29.09	22.82	23.11	11.48	11.5	17.49
FDD V HSUPA Subtest 1	low	-	5	29.09	23.02	23.3	11.48	11.5	17.3
FDD V HSUPA Subtest 1	mid	-	5	28.7	22.77	23.24	11.48	11.5	17.36
FDD V HSUPA Subtest 1	high	-	5	29.09	23.04	23.24	11.48	11.5	17.36
FDD V HSUPA Subtest 2	low	-	5	30.17	21.18	22.46	11.48	11.5	18.14
FDD V HSUPA Subtest 2	mid	-	5	29.31	22.25	22.78	11.48	11.5	17.82
FDD V HSUPA Subtest 2	high	-	5	30.09	22.1	22.81	11.48	11.5	17.79
FDD V HSUPA Subtest 3	low	-	5	29.09	22.5	23.31	11.48	11.5	17.29
FDD V HSUPA Subtest 3	mid	-	5	30.17	23.13	23.96	11.48	11.5	16.64
FDD V HSUPA Subtest 3	high	-	5	30.39	23.24	23.87	11.48	11.5	16.73
FDD V HSUPA Subtest 4	low	-	5	27.93	21.05	21.81	11.48	11.5	18.79
FDD V HSUPA Subtest 4	mid	-	5	30.72	21.66	22.59	11.48	11.5	18.01
FDD V HSUPA Subtest 4	high	-	5	28.83	20.98	21.98	11.48	11.5	18.62
FDD V HSUPA Subtest 5	low	-	5	29.79	24.03	24.44	11.48	11.5	16.16
FDD V HSUPA Subtest 5	mid	-	5	30.39	23.94	24.52	11.48	11.5	16.08
FDD V HSUPA Subtest 5	high	-	5	29.79	23.8	24.21	11.48	11.5	16.39



		1	1	FCC Part 2	2, Subpart I	1, Part 24, 3	subpai t	E, Part	27 Subpar
Radio Technology	Channel	Ressource Blocks	Bandwidth (MHz)	Peak Conducted Power (dBm)	Average Conducted Power (dBm)	RMS Conducted Power (dBm)	FCC EIRP Limit (W)	IC EIRP Limit (W)	Maximum Antenna Gain (dBi)
eFDD 5 QPSK	low	1	1.4	-	-	21.09	11.48	11.5	19.51
eFDD 5 QPSK	low	3	1.4	-	-	20.84	11.48	11.5	19.76
eFDD 5 QPSK	low	6	1.4	-	-	19.87	11.48	11.5	20.73
eFDD 5 QPSK	mid	1	1.4	-	-	20.97	11.48	11.5	19.63
eFDD 5 QPSK	mid	3	1.4	-	-	20.68	11.48	11.5	19.92
eFDD 5 QPSK	mid	6	1.4	_	-	19.71	11.48	11.5	20.89
eFDD 5 QPSK	high	1	1.4	-	-	20.81	11.48	11.5	19.79
eFDD 5 QPSK	high	3	1.4	_	_	20.64	11.48	11.5	19.96
eFDD 5 QPSK	high	6	1.4	_	_	19.52	11.48	11.5	21.08
eFDD 5 16QAM	low	1	1.4	_	_	20	11.48	11.5	20.6
eFDD 5 16QAM	low	6	1.4	_	_	18.79	11.48	11.5	21.81
eFDD 5 16QAM	mid	1	1.4		_	19.89	11.48	11.5	20.71
	1								21.93
eFDD 5 16QAM	mid	6	1.4	-	-	18.67	11.48	11.5	
eFDD 5 16QAM	high	1	1.4	-	-	19.61	11.48	11.5	20.99
eFDD 5 16QAM	high	6	1.4	-	-	18.45	11.48	11.5	22.15
eFDD 5 QPSK	low	1	3	-	-	21.38	11.48	11.5	19.22
eFDD 5 QPSK	low	15	3	-	-	20.16	11.48	11.5	20.44
eFDD 5 QPSK	mid	1	3	-	-	21.32	11.48	11.5	19.28
eFDD 5 QPSK	mid	15	3	-	-	20.05	11.48	11.5	20.55
eFDD 5 QPSK	high	1	3	-	-	21.26	11.48	11.5	19.34
eFDD 5 QPSK	high	15	3	-	-	19.82	11.48	11.5	20.78
eFDD 5 16QAM	low	1	3	-	-	20.31	11.48	11.5	20.29
eFDD 5 16QAM	low	15	3	-	-	18.14	11.48	11.5	22.46
eFDD 5 16QAM	mid	1	3	_	_	20.24	11.48	11.5	20.36
eFDD 5 16QAM	mid	15	3	-	_	18.07	11.48	11.5	22.53
eFDD 5 16QAM	high	1	3		_	20.02	11.48	11.5	20.58
eFDD 5 16QAM	high	15	3		_	17.83	11.48	11.5	22.77
eFDD 5 QPSK	low	1	5	_	_	21.37	11.48	11.5	19.23
			5						
eFDD 5 QPSK	low	12		-	-	20.15	11.48	11.5	20.45
eFDD 5 QPSK	low	25	5	-	-	20.14	11.48	11.5	20.46
eFDD 5 QPSK	mid	1	5	-	-	21.36	11.48	11.5	19.24
eFDD 5 QPSK	mid	12	5	-	-	19.99	11.48	11.5	20.61
eFDD 5 QPSK	mid	25	5	-	-	20.04	11.48	11.5	20.56
eFDD 5 QPSK	high	1	5	-	-	21.37	11.48	11.5	19.23
eFDD 5 QPSK	high	12	5	-	-	19.83	11.48	11.5	20.77
eFDD 5 QPSK	high	25	5	-	-	19.81	11.48	11.5	20.79
eFDD 5 16QAM	low	1	5	-	-	20.39	11.48	11.5	20.21
eFDD 5 16QAM	low	25	5	-	-	18.09	11.48	11.5	22.51
eFDD 5 16QAM	mid	1	5	-	-	20.23	11.48	11.5	20.37
eFDD 5 16QAM	mid	25	5	-	-	17.99	11.48	11.5	22.61
eFDD 5 16QAM	high	1	5	_	_	20.33	11.48	11.5	20.27
eFDD 5 16QAM	high	25	5	_	-	17.79	11.48	11.5	22.81
eFDD 5 QPSK	low	1	10	_	_	21.59	11.48	11.5	19.01
eFDD 5 QPSK	1								
	low	50	10	-	-	20.48	11.48	11.5	20.12 19.09
eFDD 5 QPSK	mid	1	10	-	-	21.51	11.48	11.5	
eFDD 5 QPSK	mid	50	10	-	-	20.4	11.48	11.5	20.2
eFDD 5 QPSK	high	1	10	-	-	21.49	11.48	11.5	19.11
eFDD 5 QPSK	high	50	10	-	-	20.23	11.48	11.5	20.37
eFDD 5 16QAM	low	1	10	-	-	20.45	11.48	11.5	20.15
eFDD 5 16QAM	low	50	10	-	-	18.53	11.48	11.5	22.07
eFDD 5 16QAM	mid	1	10	-	-	20.25	11.48	11.5	20.35
eFDD 5 16QAM	mid	50	10	-	-	18.41	11.48	11.5	22.19
eFDD 5 16QAM	high	1	10	-	-	20.08	11.48	11.5	20.52
eFDD 5 16QAM	high	50	10	_	-	18.28	11.48	11.5	22.32

Test: 22.1; Frequency Band = eFDD5, Mode = 16QAM 1.4MHz, Channel = 20407, Frequency = 824.7MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 12:08FCC part 2 and 22



Test: 22.1; Frequency Band = eFDD5, Mode = 16QAM 1.4MHz, Channel = 20525, Frequency = 836.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 12:09FCC part 2 and 22

Test: 22.1; Frequency Band = eFDD5, Mode = 16QAM 1.4MHz, Channel = 20643, Frequency = 848.3MHz, Method = conducted

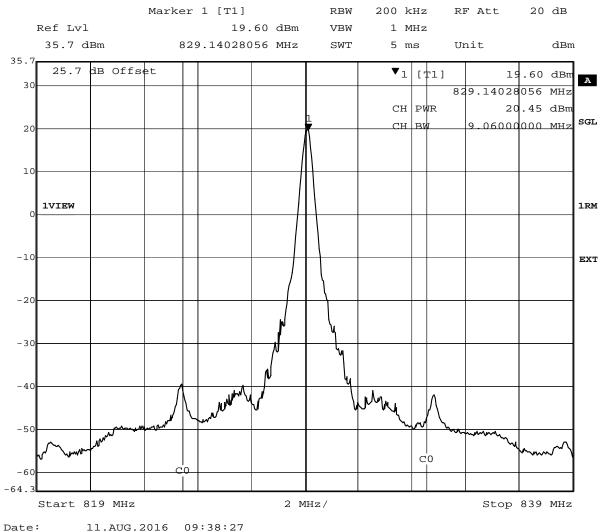
ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 12:10FCC part 2 and 22

Test: 22.1; Frequency Band = eFDD5, Mode = 16QAM 10MHz, Channel = 20450, Frequency = 829MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 14:24FCC part 2 and 22



Detailed Results:



Test: 22.1; Frequency Band = eFDD5, Mode = 16QAM 10MHz, Channel = 20525, Frequency = 836.5MHz, Method = conducted

Result	Setup No.	Date of Test	Test Specification:
Passed	S01_AF03	2016/08/10 14:25	FCC part 2 and 22

Test: 22.1; Frequency Band = eFDD5, Mode = 16QAM 10MHz, Channel = 20600, Frequency = 844MHz, Method = conducted

Result	Setup No.	Date of Test	Test Specification:
Passed	S01_AF03	2016/08/10 14:26	FCC part 2 and 22



Test: 22.1; Frequency Band = eFDD5, Mode = 16QAM 3MHz, Channel = 20415, Frequency = 825.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 12:16FCC part 2 and 22

Test: 22.1; Frequency Band = eFDD5, Mode = 16QAM 3MHz, Channel = 20525, Frequency = 836.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 12:46FCC part 2 and 22

Test: 22.1; Frequency Band = eFDD5, Mode = 16QAM 3MHz, Channel = 20635, Frequency = 847.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 12:46FCC part 2 and 22

Test: 22.1; Frequency Band = eFDD5, Mode = 16QAM 5MHz, Channel = 20425, Frequency = 826.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 13:45FCC part 2 and 22

Test: 22.1; Frequency Band = eFDD5, Mode = 16QAM 5MHz, Channel = 20525, Frequency = 836.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 13:46FCC part 2 and 22

Test: 22.1; Frequency Band = eFDD5, Mode = 16QAM 5MHz, Channel = 20625, Frequency = 846.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 13:46FCC part 2 and 22

Test: 22.1; Frequency Band = eFDD5, Mode = QPSK 1.4MHz, Channel = 20407, Frequency = 824.7MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 11:58FCC part 2 and 22



Test: 22.1; Frequency Band = eFDD5, Mode = QPSK 1.4MHz, Channel = 20525, Frequency = 836.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:Passed\$01_AF032016/08/10 12:04FCC part 2 and 22

Test: 22.1; Frequency Band = eFDD5, Mode = QPSK 1.4MHz, Channel = 20643, Frequency = 848.3MHz, Method = conducted

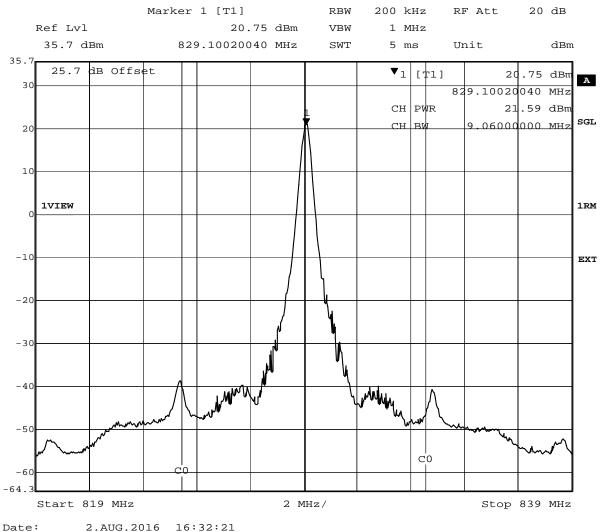
ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 12:05FCC part 2 and 22

Test: 22.1; Frequency Band = eFDD5, Mode = QPSK 10MHz, Channel = 20450, Frequency = 829MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 14:22FCC part 2 and 22



Detailed Results:



Test: 22.1; Frequency Band = eFDD5, Mode = QPSK 10MHz, Channel = 20525, Frequency = 836.5MHz, Method = conducted

Result	Setup No.	Date of Test	Test Specification:
Passed	S01_AF03	2016/08/10 14:23	FCC part 2 and 22

Test: 22.1; Frequency Band = eFDD5, Mode = QPSK 10MHz, Channel = 20600, Frequency = 844MHz, Method = conducted

Result	Setup No.	Date of Test	Test Specification:
Passed	S01_AF03	2016/08/10 14:23	FCC part 2 and 22



Test: 22.1; Frequency Band = eFDD5, Mode = QPSK 3MHz, Channel = 20415, Frequency = 825.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 12:11FCC part 2 and 22

Test: 22.1; Frequency Band = eFDD5, Mode = QPSK 3MHz, Channel = 20525, Frequency = 836.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 12:14FCC part 2 and 22

Test: 22.1; Frequency Band = eFDD5, Mode = QPSK 3MHz, Channel = 20635, Frequency = 847.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 12:14FCC part 2 and 22

Test: 22.1; Frequency Band = eFDD5, Mode = QPSK 5MHz, Channel = 20425, Frequency = 826.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 13:39FCC part 2 and 22

Test: 22.1; Frequency Band = eFDD5, Mode = QPSK 5MHz, Channel = 20525, Frequency = 836.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 13:41FCC part 2 and 22

Test: 22.1; Frequency Band = eFDD5, Mode = QPSK 5MHz, Channel = 20625, Frequency = 846.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 13:41FCC part 2 and 22

Test: 22.1; Frequency Band = FDD5, Mode = HSDPA_subtest_1, Channel = 4132, Frequency = 826.4MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 10:38FCC part 2 and 22



Test: 22.1; Frequency Band = FDD5, Mode = HSDPA_subtest_1, Channel = 4183, Frequency = 836.6MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 10:37FCC part 2 and 22

Test: 22.1; Frequency Band = FDD5, Mode = HSDPA_subtest_1, Channel = 4233, Frequency = 846.6MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 10:38FCC part 2 and 22

Test: 22.1; Frequency Band = FDD5, Mode = HSDPA_subtest_2, Channel = 4132, Frequency = 826.4MHz, Method = conducted

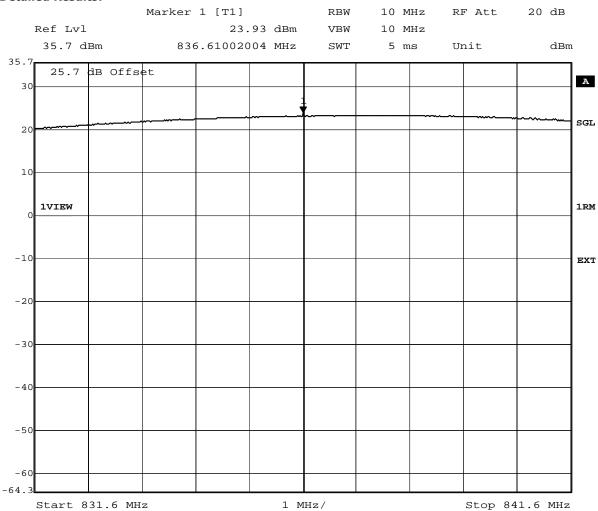
ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 10:53FCC part 2 and 22

Test: 22.1; Frequency Band = FDD5, Mode = HSDPA_subtest_2, Channel = 4183, Frequency = 836.6MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 10:52FCC part 2 and 22



Detailed Results:



Date: 8.AUG.2016 11:41:54

Test: 22.1; Frequency Band = FDD5, Mode = HSDPA_subtest_2, Channel = 4233, Frequency = 846.6MHz, Method = conducted

Result	Setup No.	Date of Test	Test Specification:
Passed	S01_AF03	2016/08/10 10:54	FCC part 2 and 22

Test: 22.1; Frequency Band = FDD5, Mode = HSDPA_subtest_3, Channel = 4132, Frequency = 826.4MHz, Method = conducted

Result	Setup No.	Date of Test	Test Specification:
Passed	S01 AF03	2016/08/10 11:06	FCC part 2 and 22



Test: 22.1; Frequency Band = FDD5, Mode = HSDPA_subtest_3, Channel = 4183, Frequency = 836.6MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 11:05FCC part 2 and 22

Test: 22.1; Frequency Band = FDD5, Mode = HSDPA_subtest_3, Channel = 4233, Frequency = 846.6MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 11:04FCC part 2 and 22

Test: 22.1; Frequency Band = FDD5, Mode = HSDPA_subtest_4, Channel = 4132, Frequency = 826.4MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 11:09FCC part 2 and 22

Test: 22.1; Frequency Band = FDD5, Mode = HSDPA_subtest_4, Channel = 4183, Frequency = 836.6MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 11:10FCC part 2 and 22

Test: 22.1; Frequency Band = FDD5, Mode = HSDPA_subtest_4, Channel = 4233, Frequency = 846.6MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 11:11FCC part 2 and 22

Test: 22.1; Frequency Band = FDD5, Mode = HSUPA_subtest_1, Channel = 4132, Frequency = 826.4MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 10:34FCC part 2 and 22

Test: 22.1; Frequency Band = FDD5, Mode = HSUPA_subtest_1, Channel = 4183, Frequency = 836.6MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 10:35FCC part 2 and 22



Test: 22.1; Frequency Band = FDD5, Mode = HSUPA_subtest_1, Channel = 4233, Frequency = 846.6MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 10:36FCC part 2 and 22

Test: 22.1; Frequency Band = FDD5, Mode = HSUPA_subtest_2, Channel = 4132, Frequency = 826.4MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 10:39FCC part 2 and 22

Test: 22.1; Frequency Band = FDD5, Mode = HSUPA_subtest_2, Channel = 4183, Frequency = 836.6MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 10:41FCC part 2 and 22

Test: 22.1; Frequency Band = FDD5, Mode = HSUPA_subtest_2, Channel = 4233, Frequency = 846.6MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 10:40FCC part 2 and 22

Test: 22.1; Frequency Band = FDD5, Mode = HSUPA_subtest_3, Channel = 4132, Frequency = 826.4MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 10:55FCC part 2 and 22

Test: 22.1; Frequency Band = FDD5, Mode = HSUPA_subtest_3, Channel = 4183, Frequency = 836.6MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 10:54FCC part 2 and 22

Test: 22.1; Frequency Band = FDD5, Mode = HSUPA_subtest_3, Channel = 4233, Frequency = 846.6MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 10:56FCC part 2 and 22



Test: 22.1; Frequency Band = FDD5, Mode = HSUPA_subtest_4, Channel = 4132, Frequency = 826.4MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 11:08FCC part 2 and 22

Test: 22.1; Frequency Band = FDD5, Mode = HSUPA_subtest_4, Channel = 4183, Frequency = 836.6MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 11:06FCC part 2 and 22

Test: 22.1; Frequency Band = FDD5, Mode = HSUPA_subtest_4, Channel = 4233, Frequency = 846.6MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 11:08FCC part 2 and 22

Test: 22.1; Frequency Band = FDD5, Mode = HSUPA_subtest_5, Channel = 4132, Frequency = 826.4MHz, Method = conducted

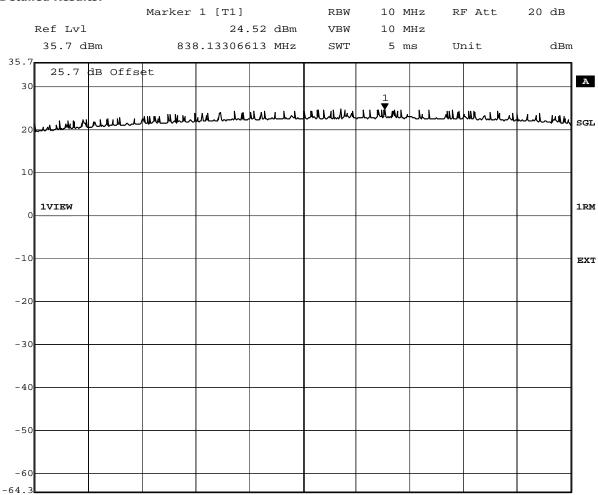
ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 11:50FCC part 2 and 22

Test: 22.1; Frequency Band = FDD5, Mode = HSUPA_subtest_5, Channel = 4183, Frequency = 836.6MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 11:51FCC part 2 and 22



Detailed Results:



Date: 5.AUG.2016 16:39:38

Start 831.6 MHz

Test: 22.1; Frequency Band = FDD5, Mode = HSUPA_subtest_5, Channel = 4233, Frequency = 846.6MHz, Method = conducted

1 MHz/

Result	Setup No.	Date of Test	Test Specification:
Passed	S01_AF03	2016/08/10 11:52	FCC part 2 and 22

Test: 22.1; Frequency Band = FDD5, Mode = W-CDMA, Channel = 4132, Frequency = 826.4MHz, Method = conducted

Result	Setup No.	Date of Test	Test Specification:
Passed	S01 AF03	2016/08/10 10:33	FCC part 2 and 22

Stop 841.6 MHz

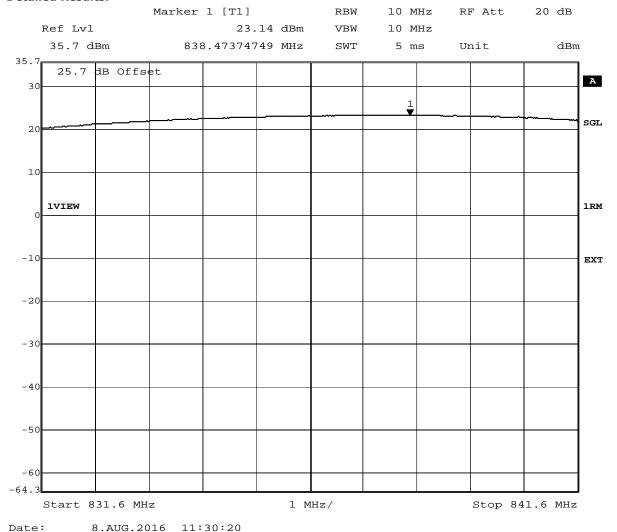


Test: 22.1; Frequency Band = FDD5, Mode = W-CDMA, Channel = 4183, Frequency = 836.6MHz, Method = conducted

Result	Setup No.	Date of Test	Test Specification:
Passed	S01_AF03	2016/08/10 10:32	FCC part 2 and 22

Detailed Results:

Date:



Test: 22.1; Frequency Band = FDD5, Mode = W-CDMA, Channel = 4233, Frequency = 846.6MHz, Method = conducted

Result	Setup No.	Date of Test	Test Specification:
Passed	S01 AF03	2016/08/10 10:33	FCC part 2 and 22



3.5.2 22.2 Frequency stability §2.1055

Test: 22.2; _Frequency stability Summary §2.1055

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/18 14:35FCC part 2 and 22



Detailed Results:

Detailed Res	uits.			-					
D!!-		т		Frequenc	D i - ti	1. 1 14			
Radio	\	Temp	Frequenc	y Error	Deviation	Limit	\		
Technology	Voltage		y (MHz)	(Hz)	(ppm)	(Hz)	Verdict		
	100%	-30	836.5	12	0.01		Passed		
	100%	-20	836.5	8	0.01		Passed		
	100%	-10	836.5	-7	-0.01	2091	Passed		
	100%	0	836.5	-9	-0.01		Passed		
	100%	10	836.5	-8	-0.01	2091	Passed		
FDD V	100%	20	836.5	-10	-0.01		Passed		
	100%	30	836.5	-8	-0.01	2091	Passed		
	100%	40	836.5	-9	-0.01	2091	Passed		
	100%	50	836.5	-8	-0.01	2091	Passed		
	85%	20	836.5	-8	-0.01	2091	Passed		
	115%	20	836.5	-10	-0.01		Passed		
	1.070		000.0		0.0.	2071	. accou		
				Frequenc					
Radio		Temp	Frequenc	y Error	Deviation	Limit			
	Voltage		y (MHz)	(Hz)			Verdict		
Technology				, ,	(ppm)	(Hz)			
	100%	-30	836.5	103	0.12		Passed		
	100%	-20	836.5	-61	-0.07		Passed		
	100%	-10	836.5	-89	-0.11		Passed		-
	100%	0	836.5	-65	-0.08		Passed		
	100%	10	836.5	54	0.06		Passed		
FDD V HSDPA	100%	20	836.5	-72	-0.09	2091	Passed		
Subtest 1	100%	30	836.5	89	0.11	2091	Passed		
	100%	40	836.5	109	0.13	2091	Passed		
	100%	50	836.5	-75	-0.09	2091	Passed		
	85%	20	836.5	-48	-0.06	2091	Passed		
	115%	20	836.5	-72	-0.09		Passed		
				Frequenc					
Radio		Temp		y Error	Deviation	Limit			
Technology	Voltage		y (MHz)	(Hz)	(ppm)	(Hz)	Verdict		
recrimenegy	100%	-30	836.5	69	0.08	` '	Passed		
	100%	-20	836.5	87	0.10		Passed		
	100%	-10	836.5	51	0.06		Passed		
	100%		836.5	22	0.03				
		0					Passed		
	100%	10	836.5	50	0.06		Passed		
FDD V HSUPA	100%	20	836.5	67	0.08		Passed		
Subtest 1	100%	30	836.5	47	0.06		Passed		
	100%	40	836.5	37	0.04		Passed		
	100%	50	836.5	79	0.09		Passed		
	85%	20	836.5	64	0.08	2001	Passed	l	
	115%			87			Passed		
Radio				87					
Radio Technology		20 Temp	836.5	87 Frequenc	0.10	2091			
	115%	Temp	836.5 Frequenc y (MHz)	87 Frequenc y Error	0.10 Deviation (ppm)	2091 Limit (Hz)	Passed Verdict		
	Voltage	Temp (°C)	836.5 Frequenc y (MHz) 836.5	Frequenc y Error (Hz)	Deviation (ppm)	2091 Limit (Hz) 2091	Verdict Passed		
	115% Voltage 100% 100%	Temp (°C) -30 -20	836.5 Frequenc y (MHz) 836.5 836.5	Frequenc y Error (Hz) 14	0.10 Deviation (ppm) 0.02 0.01	2091 Limit (Hz) 2091 2091	Verdict Passed Passed		
	Voltage 100% 100% 100%	Temp (°C) -30 -20	836.5 Frequenc y (MHz) 836.5 836.5	Frequenc y Error (Hz) 14 7	0.10 Deviation (ppm) 0.02 0.01 0.01	2091 Limit (Hz) 2091 2091 2091	Verdict Passed Passed Passed		
	Voltage 100% 100% 100% 100%	Temp (°C) -30 -20 -10	836.5 Frequenc y (MHz) 836.5 836.5 836.5	Frequenc y Error (Hz) 14 7 9	0.10 Deviation (ppm) 0.02 0.01 0.01 0.01	2091 Limit (Hz) 2091 2091 2091	Verdict Passed Passed Passed Passed		
Technology	Voltage 100% 100% 100% 100% 100%	Temp (°C) -30 -20 -10 0	836.5 Frequenc y (MHz) 836.5 836.5 836.5 836.5	Frequenc y Error (Hz) 14 7 9 8	0.10 Deviation (ppm) 0.02 0.01 0.01 0.01 0.01	2091 Limit (Hz) 2091 2091 2091 2091	Verdict Passed Passed Passed Passed Passed Passed		
Technology eFDD 5 QPSK	Voltage 100% 100% 100% 100% 100% 100%	Temp (°C) -30 -20 -10 0 10	836.5 Frequenc y (MHz) 836.5 836.5 836.5 836.5 836.5	Frequenc y Error (Hz) 14 7 9 8 9 10	0.10 Deviation (ppm) 0.02 0.01 0.01 0.01 0.01 0.01	2091 Limit (Hz) 2091 2091 2091 2091 2091 2091	Verdict Passed Passed Passed Passed Passed Passed Passed Passed		
Technology	Voltage 100% 100% 100% 100% 100% 100%	Temp (°C) -30 -20 -10 0 10 20	836.5 Frequenc y (MHz) 836.5 836.5 836.5 836.5 836.5 836.5	87 Frequenc y Error (Hz) 14 7 9 8 9 10	0.10 Deviation (ppm) 0.02 0.01 0.01 0.01 0.01 0.01 0.01	Limit (Hz) 2091 2091 2091 2091 2091 2091 2091 2091	Verdict Passed		
Technology eFDD 5 QPSK	Voltage 100% 100% 100% 100% 100% 100% 100%	Temp (°C) -30 -20 -10 0 10 20 30	836.5 Frequenc y (MHz) 836.5 836.5 836.5 836.5 836.5 836.5 836.5	87 Frequenc y Error (Hz) 14 7 9 8 9 10 8 10	0.10 Deviation (ppm) 0.02 0.01 0.01 0.01 0.01 0.01 0.01 0.01	Limit (Hz) 2091 2091 2091 2091 2091 2091 2091 2091	Verdict Passed		
Technology eFDD 5 QPSK	Voltage 100% 100% 100% 100% 100% 100% 100% 100	Temp (°C) -30 -20 -10 0 10 20 30 40	836.5 Frequenc y (MHz) 836.5 836.5 836.5 836.5 836.5 836.5 836.5 836.5	87 Frequenc y Error (Hz) 14 7 9 8 9 10 8 10 7	0.10 Deviation (ppm) 0.02 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01	Limit (Hz) 2091 2091 2091 2091 2091 2091 2091 2091	Verdict Passed		
Technology eFDD 5 QPSK	Voltage 100% 100% 100% 100% 100% 100% 100%	Temp (°C) -30 -20 -10 0 10 20 30	836.5 Frequenc y (MHz) 836.5 836.5 836.5 836.5 836.5 836.5 836.5	87 Frequenc y Error (Hz) 14 7 9 8 9 10 8 10	0.10 Deviation (ppm) 0.02 0.01 0.01 0.01 0.01 0.01 0.01 0.01	Limit (Hz) 2091 2091 2091 2091 2091 2091 2091 2091	Verdict Passed		



3.5.3 22.3 Spurious emissions at antenna terminals §2.1051, §22.917

Test: 22.3; Frequency Band = eFDD5, Mode = QPSK 5MHz, Channel = 20425, Frequency = 826.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 14:33FCC part 2 and 22



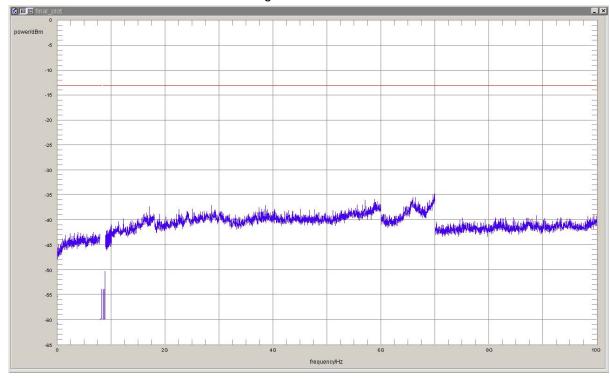
Test: 22.3; Frequency Band = eFDD5, Mode = QPSK 5MHz, Channel = 20525, Frequency = 836.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 14:36FCC part 2 and 22

Detailed Results:

detector	trace	resolution bandwidth /kHz	frequency /MHz	peak value /dBm	margin to limit /dB	limit /dBm	verdict
peak	maxhold	100	6991.984	-34.72	21.72	-13	passed

no further values have been found with a margin of less than 20 dB



Test: 22.3; Frequency Band = eFDD5, Mode = QPSK 5MHz, Channel = 20625, Frequency = 846.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 14:38FCC part 2 and 22

Test: 22.3; Frequency Band = FDD5, Mode = HSDPA, Channel = 4132, Frequency = 826.4MHz

Result Setup No. Date of Test Test Specification:
Passed S01_AF03 2016/08/11 14:31 FCC part 2 and 22



Test: 22.3; Frequency Band = FDD5, Mode = HSDPA, Channel = 4183, Frequency = 836.6MHz

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 14:28FCC part 2 and 22

Detailed Results:

detector	trace	resolution bandwidth /kHz	frequency /MHz	peak value /dBm	margin to limit /dB	limit /dBm	verdict
rms	maxhold	100	880.06	-30.1	17.1	-13.0	passed

no further values have been found with a margin of less than 20 dB



Test: 22.3; Frequency Band = FDD5, Mode = HSDPA, Channel = 4233, Frequency = 846.6MHz

Result Setup No. Date of Test Test Specification:
Passed S01_AF03 2016/08/11 14:29 FCC part 2 and 22

Test: 22.3; Frequency Band = FDD5, Mode = HSUPA, Channel = 4132, Frequency = 826.4MHz

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 14:25FCC part 2 and 22

Test: 22.3; Frequency Band = FDD5, Mode = HSUPA, Channel = 4183, Frequency = 836.6MHz

Result Setup No. Date of Test Test Specification:
Passed S01_AF03 2016/08/11 14:24 FCC part 2 and 22



Detailed Results:

detector	trace	resolution bandwidth /kHz	frequency /MHz	peak value /dBm	margin to limit /dB	limit /dBm	verdict
rms	maxhold	1	0.030	-55.50	42.50	-13	passed

no further values have been found with a margin of less than 20 dB



Test: 22.3; Frequency Band = FDD5, Mode = HSUPA, Channel = 4233, Frequency = 846.6MHz

Result	Setup No.	Date of Test	Test Specification:
Passed	S01_AF03	2016/08/11 14:25	FCC part 2 and 22

Test: 22.3; Frequency Band = FDD5, Mode = W-CDMA, Channel = 4132, Frequency = 826.4MHz

Result	Setup No.	Date of Test	Test Specification:
Passed	S01_AF03	2016/08/11 14:21	FCC part 2 and 22

Test: 22.3; Frequency Band = FDD5, Mode = W-CDMA, Channel = 4183, Frequency = 836.6MHz

Result	Setup No.	Date of Test	Test Specification:
Passed	S01_AF03	2016/08/11 14:20	FCC part 2 and 22



Detailed Results:

detector	trace	resolution bandwidth /kHz	frequency /MHz	peak value /dBm	margin to limit /dB	limit /dBm	verdict
rms	maxhold	3	0.034	-46.30	33.30	-13	passed

no further values have been found with a margin of less than 20 dB



Test: 22.3; Frequency Band = FDD5, Mode = W-CDMA, Channel = 4233, Frequency = 846.6MHz

Result	Setup No.	Date of Test	Test Specification:
Passed	S01_AF03	2016/08/11 14:22	FCC part 2 and 22



3.5.4 22.4 Field strength of spurious radiation §2.1053, §22.917

Test: 22.4; Frequency Band = eFDD5, Mode = 16QAM 5MHz, Channel = 20425, Frequency = 826.5MHz, Method = radiated

ResultSetup No.Date of TestTest Specification:PassedS01_AQ042016/08/18 10:50FCC part 2 and 22

Test: 22.4; Frequency Band = eFDD5, Mode = 16QAM 5MHz, Channel = 20525, Frequency = 836.5MHz, Method = radiated

ResultSetup No.Date of TestTest Specification:PassedS01_AQ042016/08/18 10:51FCC part 2 and 22

Test: 22.4; Frequency Band = eFDD5, Mode = 16QAM 5MHz, Channel = 20625, Frequency = 846.5MHz, Method = radiated

ResultSetup No.Date of TestTest Specification:PassedS01_AQ042016/08/18 10:51FCC part 2 and 22

Test: 22.4; Frequency Band = eFDD5, Mode = QPSK 5MHz, Channel = 20425, Frequency = 826.5MHz, Method = radiated

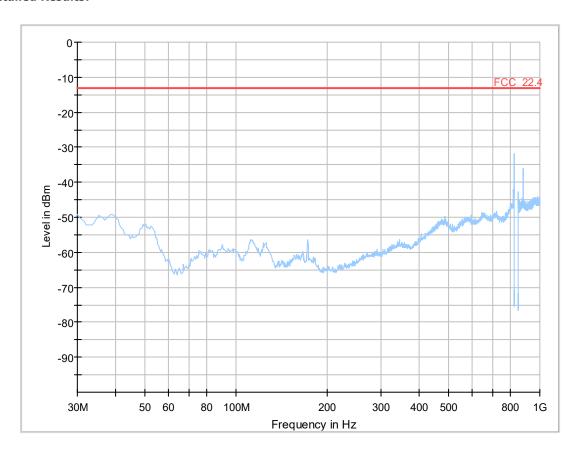
ResultSetup No.Date of TestTest Specification:PassedS01_AQ042016/08/08 11:02FCC part 2 and 22

Test: 22.4; Frequency Band = eFDD5, Mode = QPSK 5MHz, Channel = 20525, Frequency = 836.5MHz, Method = radiated

ResultSetup No.Date of TestTest Specification:PassedS01_AQ042016/08/08 11:05FCC part 2 and 22



Detailed Results:



Critical Freqs

<u> </u>									
Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)

(continuation of the "Critical_Freqs" table from column $\,$ 16 ...)

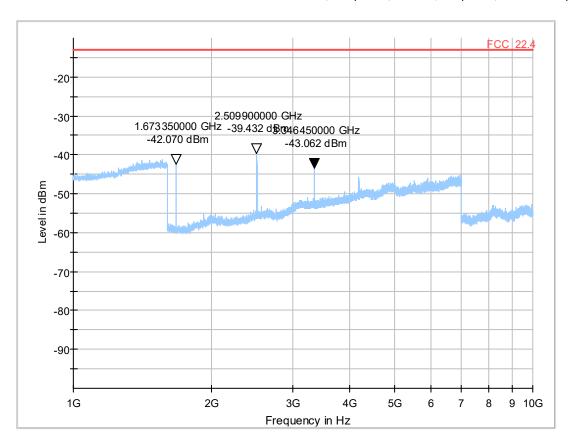
Frequency	Corr.
(MHz)	(dB)

Final_Result

	Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)
L										

Frequ (MF	Corr. (dB)





Critical Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)

(continuation of the "Critical_Freqs" table from column 16 ...)

(WITZ) (UD)	Frequency (MHz)	Corr. (dB)
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Final_Result

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)
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	Frequency (MHz)	Corr. (dB)
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Test: 22.4; Frequency Band = eFDD5, Mode = QPSK 5MHz, Channel = 20625, Frequency = 846.5MHz, Method = radiated

ResultSetup No.Date of TestTest Specification:PassedS01_AQ042016/08/08 11:08FCC part 2 and 22

Test: 22.4; Frequency Band = FDD5, Mode = HSDPA, Channel = 4132, Frequency = 826.4MHz

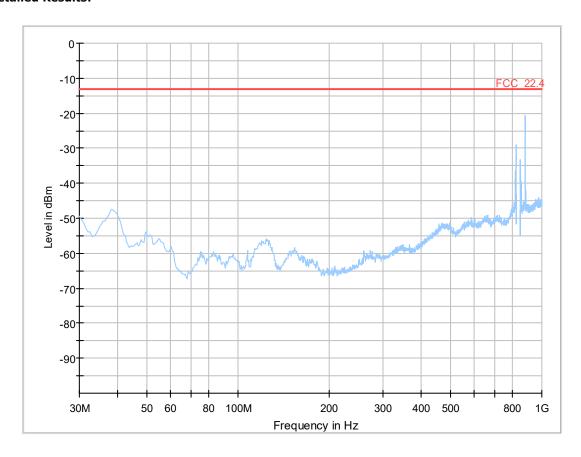
ResultSetup No.Date of TestTest Specification:PassedS01_AQ042016/08/08 11:58FCC part 2 and 22

Test: 22.4; Frequency Band = FDD5, Mode = HSDPA, Channel = 4183, Frequency = 836.6MHz

ResultSetup No.Date of TestTest Specification:PassedS01_AQ042016/08/08 12:00FCC part 2 and 22



Detailed Results:



Critical Freqs

<u> </u>									
Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)

(continuation of the "Critical_Freqs" table from column $\,$ 16 ...)

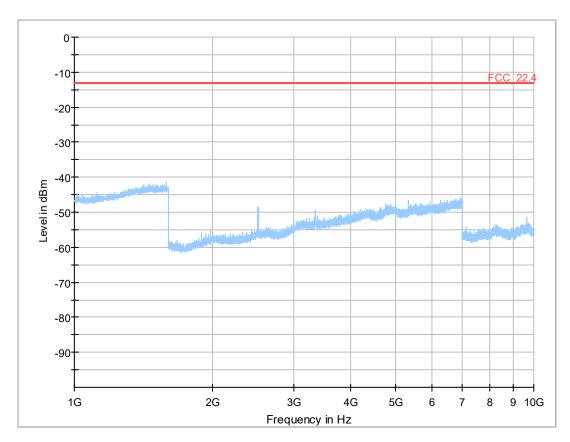
Frequency	Corr.
(MHz)	(dB)

Final_Result

F	requency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)

Frequency	Corr.
(MHz)	(dB)





Critical Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)

(continuation of the "Critical_Freqs" table from column 16 ...)

Frequency	Corr.
(MHz)	(dB)

Final_Result

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)
	I				1				

Frequency	Corr.
(MHz)	(dB)



Test: 22.4; Frequency Band = FDD5, Mode = HSDPA, Channel = 4233, Frequency = 846.6MHz

ResultSetup No.Date of TestTest Specification:PassedS01_AQ042016/08/08 12:02FCC part 2 and 22

Test: 22.4; Frequency Band = FDD5, Mode = HSUPA, Channel = 4132, Frequency = 826.4MHz

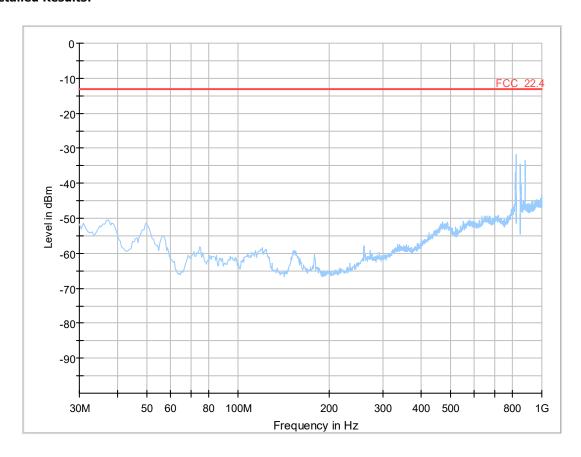
ResultSetup No.Date of TestTest Specification:PassedS01_AQ042016/08/08 11:36FCC part 2 and 22

Test: 22.4; Frequency Band = FDD5, Mode = HSUPA, Channel = 4183, Frequency = 836.6MHz

ResultSetup No.Date of TestTest Specification:PassedS01_AQ042016/08/08 11:35FCC part 2 and 22



Detailed Results:



Critical Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)

(continuation of the "Critical_Freqs" table from column $\,$ 16 ...)

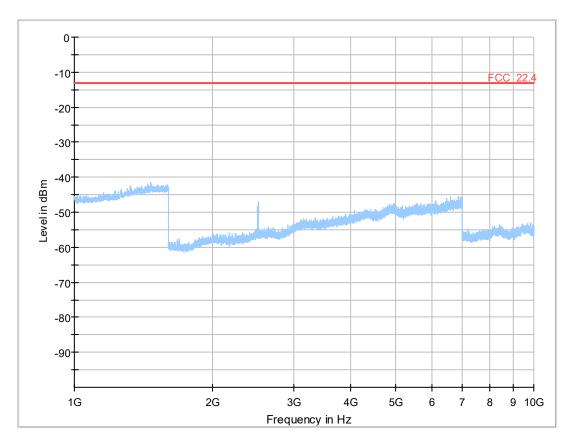
Frequency	Corr.
(MHz)	(dB)

Final_Result

F	requency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)

Frequency	Corr.
(MHz)	(dB)





Critical Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)

(continuation of the "Critical_Freqs" table from column 16 ...)

(WITZ) (UD)	Frequency (MHz)	Corr. (dB)
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Final_Result

Fr	requency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)

Frequency (MHz)	Corr. (dB)
· · · · ·	



Test: 22.4; Frequency Band = FDD5, Mode = HSUPA, Channel = 4233, Frequency = 846.6MHz

ResultSetup No.Date of TestTest Specification:PassedS01_AQ042016/08/08 11:37FCC part 2 and 22

Test: 22.4; Frequency Band = FDD5, Mode = W-CDMA, Channel = 4132, Frequency = 826.4MHz

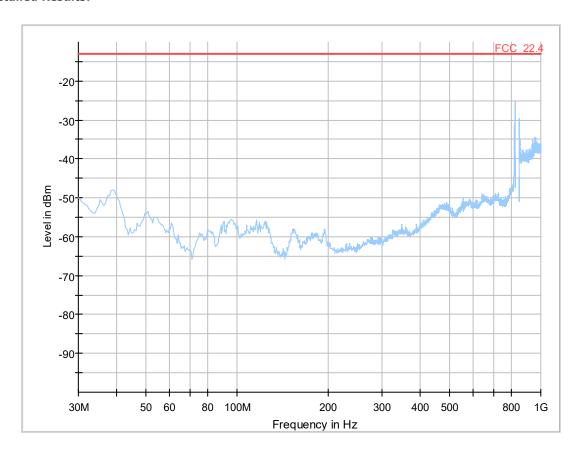
ResultSetup No.Date of TestTest Specification:PassedS01_AQ042016/08/08 11:16FCC part 2 and 22

Test: 22.4; Frequency Band = FDD5, Mode = W-CDMA, Channel = 4183, Frequency = 836.6MHz

ResultSetup No.Date of TestTest Specification:PassedS01_AQ042016/08/08 11:14FCC part 2 and 22



Detailed Results:



Critical Freqs

<u> </u>									
Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)

(continuation of the "Critical_Freqs" table from column $\,$ 16 ...)

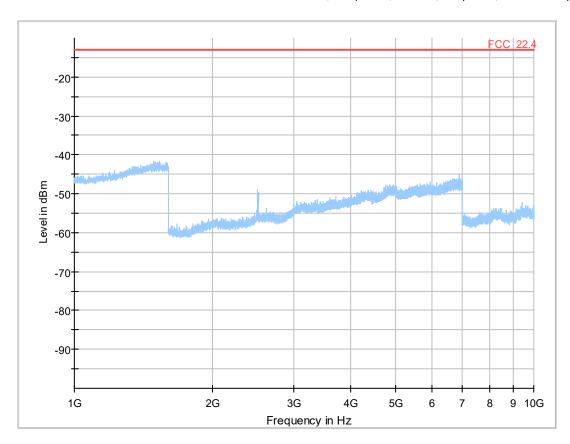
Frequency	Corr.
(MHz)	(dB)

Final_Result

F	requency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)

Freque (MHz	 Corr. (dB)





Critical Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)

(continuation of the "Critical_Freqs" table from column 16 ...)

Frequency	Corr.
(MHz)	(dB)

Final_Result

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)
	I				1				

Frequency (MHz)	Corr. (dB)
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Test: 22.4; Frequency Band = FDD5, Mode = W-CDMA, Channel = 4233, Frequency = 846.6MHz

ResultSetup No.Date of TestTest Specification:PassedS01_AQ042016/08/08 11:18FCC part 2 and 22



3.5.5 22.5 Emission and Occupied Bandwidth §2.1049, §22.917

Test: 22.5; _Emission and Occupied Bandwidth Summary §2.1049, §22.917

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/18 14:36FCC part 2 and 22

Detailed Results:

Radio Technology	Channel	Ressource Blocks	Bandwidth (MHz)	Nominal BW [MHz]	26 dB BW [kHz]	99 % BW [kHz]
FDD V	low	-	5	5	4669.3	4088.2
FDD V	mid	-	5	5	4709.4	4088.2
FDD V	high	-	5	5	4689.4	4088.2
FDD V HSDPA Subtest 1	low	-	5	5	4689.4	4088.2
FDD V HSDPA Subtest 1	mid	-	5	5	4789.6	4108.2
FDD V HSDPA Subtest 1	high	-	5	5	4689.4	4088.2
FDD V HSUPA Subtest 1	low	-	5	5	4729.5	4088.2
FDD V HSUPA Subtest 1	mid	-	5	5	4729.5	4108.2
FDD V HSUPA Subtest 1	high	-	5	5	4829.7	4128.3
FDD V HSUPA Subtest 5	low	-	5	5	4829.6	4148.3
FDD V HSUPA Subtest 5	mid	-	5	5	4949.9	4168.3
FDD V HSUPA Subtest 5	high	-	5	5	4769.5	4148.3
eFDD 5 QPSK	low	6	1.4	1.4	-	1112.2
eFDD 5 QPSK	mid	6	1.4	1.4	-	1112.2
eFDD 5 QPSK	high	6	1.4	1.4	-	1118.2
eFDD 5 16QAM	low	6	1.4	1.4	-	1118.2
eFDD 5 16QAM	mid	6	1.4	1.4	-	1100.2
eFDD 5 16QAM	high	6	1.4	1.4	-	1106.2
eFDD 5 QPSK	low	15	3	3	1	2765.5
eFDD 5 QPSK	mid	15	3	3	-	2765.5
eFDD 5 QPSK	high	15	3	3	ı	2765.5
eFDD 5 16QAM	low	15	3	3	-	2765.5
eFDD 5 16QAM	mid	15	3	3	-	2765.5
eFDD 5 16QAM	high	15	3	3	1	2765.5
eFDD 5 QPSK	low	25	5	5	ı	4529.1
eFDD 5 QPSK	mid	25	5	5	-	4549.1
eFDD 5 QPSK	high	25	5	5	-	4509
eFDD 5 16QAM	low	25	5	5	ı	4529.1
eFDD 5 16QAM	mid	25	5	5	-	4549.1
eFDD 5 16QAM	high	25	5	5	-	4549.1
eFDD 5 QPSK	low	50	10	10	-	9058.1
eFDD 5 QPSK	mid	50	10	10	-	9058.1
eFDD 5 QPSK	high	50	10	10	-	9018
eFDD 5 16QAM	low	50	10	10	-	9058.1
eFDD 5 16QAM	mid	50	10	10	-	9058.1
eFDD 5 16QAM	high	50	10	10	-	9018



Test: 22.5; Frequency Band = eFDD5, Mode = 16QAM 1.4MHz, Channel = 20407, Frequency = 824.7MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 14:53FCC part 2 and 22

Test: 22.5; Frequency Band = eFDD5, Mode = 16QAM 1.4MHz, Channel = 20525, Frequency = 836.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 14:53FCC part 2 and 22

Test: 22.5; Frequency Band = eFDD5, Mode = 16QAM 1.4MHz, Channel = 20643, Frequency = 848.3MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 14:54FCC part 2 and 22

Test: 22.5; Frequency Band = eFDD5, Mode = 16QAM 10MHz, Channel = 20450, Frequency = 829MHz, Method = conducted

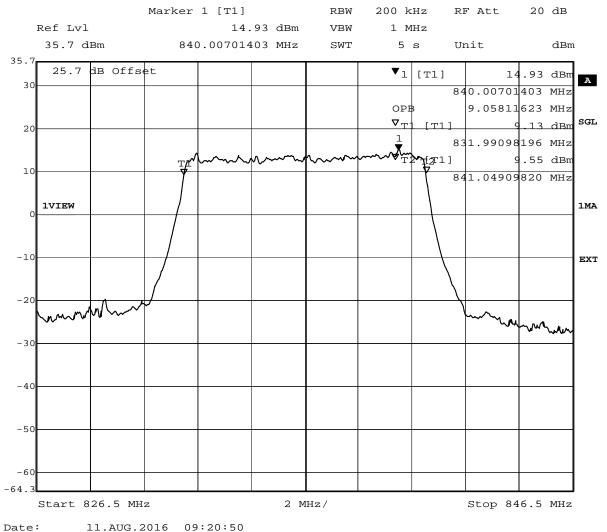
ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 15:09FCC part 2 and 22

Test: 22.5; Frequency Band = eFDD5, Mode = 16QAM 10MHz, Channel = 20525, Frequency = 836.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 15:06FCC part 2 and 22



Detailed Results:



Test: 22.5; Frequency Band = eFDD5, Mode = 16QAM 10MHz, Channel = 20600, Frequency = 844MHz, Method = conducted

Result	Setup No.	Date of Test	Test Specification:
Passed	S01_AF03	2016/08/10 15:10	FCC part 2 and 22

Test: 22.5; Frequency Band = eFDD5, Mode = 16QAM 3MHz, Channel = 20415, Frequency = 825.5MHz, Method = conducted

Result	Setup No.	Date of Test	Test Specification:
Passed	S01_AF03	2016/08/10 14:57	FCC part 2 and 22



Test: 22.5; Frequency Band = eFDD5, Mode = 16QAM 3MHz, Channel = 20525, Frequency = 836.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 14:58FCC part 2 and 22

Test: 22.5; Frequency Band = eFDD5, Mode = 16QAM 3MHz, Channel = 20635, Frequency = 847.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 15:03FCC part 2 and 22

Test: 22.5; Frequency Band = eFDD5, Mode = 16QAM 5MHz, Channel = 20525, Frequency = 836.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 15:04FCC part 2 and 22

Test: 22.5; Frequency Band = eFDD5, Mode = 16QAM 5MHz, Channel = 20625, Frequency = 846.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 15:09FCC part 2 and 22

Test: 22.5; Frequency Band = eFDD5, Mode = QPSK 1.4MHz, Channel = 20407, Frequency = 824.7MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 14:51FCC part 2 and 22

Test: 22.5; Frequency Band = eFDD5, Mode = QPSK 1.4MHz, Channel = 20525, Frequency = 836.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 14:51FCC part 2 and 22

Test: 22.5; Frequency Band = eFDD5, Mode = QPSK 1.4MHz, Channel = 20643, Frequency = 848.3MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 14:50FCC part 2 and 22



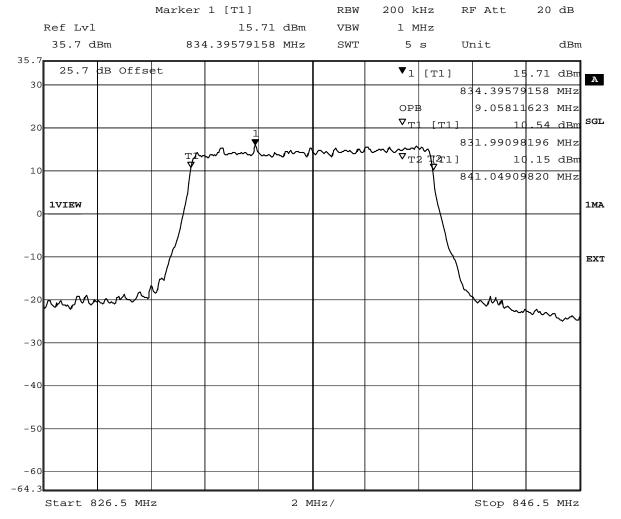
Test: 22.5; Frequency Band = eFDD5, Mode = QPSK 10MHz, Channel = 20450, Frequency = 829MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 15:09FCC part 2 and 22

Test: 22.5; Frequency Band = eFDD5, Mode = QPSK 10MHz, Channel = 20525, Frequency = 836.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 15:06FCC part 2 and 22

Detailed Results:





Test: 22.5; Frequency Band = eFDD5, Mode = QPSK 10MHz, Channel = 20600, Frequency = 844MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 15:10FCC part 2 and 22

Test: 22.5; Frequency Band = eFDD5, Mode = QPSK 3MHz, Channel = 20415, Frequency = 825.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 14:56FCC part 2 and 22

Test: 22.5; Frequency Band = eFDD5, Mode = QPSK 3MHz, Channel = 20525, Frequency = 836.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 14:55FCC part 2 and 22

Test: 22.5; Frequency Band = eFDD5, Mode = QPSK 3MHz, Channel = 20635, Frequency = 847.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 14:56FCC part 2 and 22

Test: 22.5; Frequency Band = eFDD5, Mode = QPSK 5MHz, Channel = 20425, Frequency = 826.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 15:11FCC part 2 and 22

Test: 22.5; Frequency Band = eFDD5, Mode = QPSK 5MHz, Channel = 20525, Frequency = 836.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 15:04FCC part 2 and 22

Test: 22.5; Frequency Band = eFDD5, Mode = QPSK 5MHz, Channel = 20625, Frequency = 846.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 15:08FCC part 2 and 22

Test: 22.5; Frequency Band = FDD5, Mode = HSDPA, Channel = 4132, Frequency = 826.4MHz

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 14:34FCC part 2 and 22

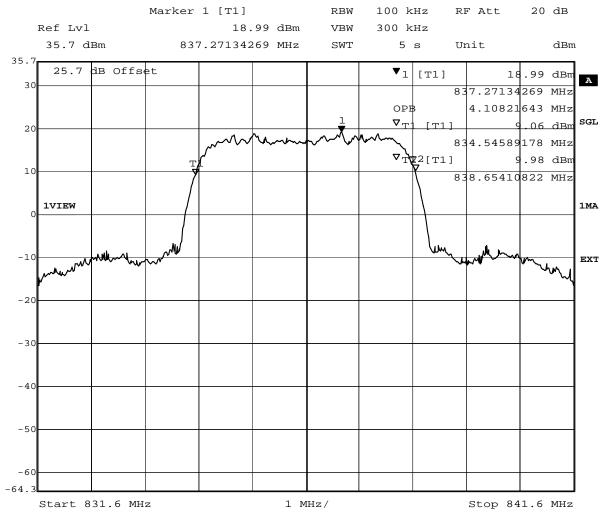


Test: 22.5; Frequency Band = FDD5, Mode = HSDPA, Channel = 4183, Frequency = 836.6MHz

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 14:33FCC part 2 and 22



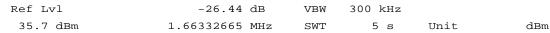
Detailed Results:

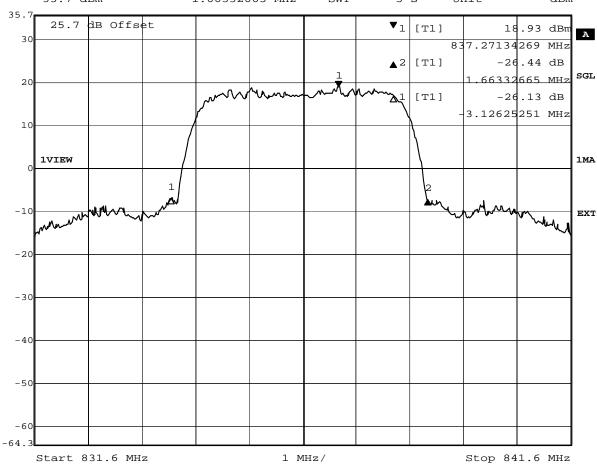


Date: 8.AUG.2016 11:17:56



Delta 2 [T1] RBW 100 kHz RF Att 20 dB





Date: 8.AUG.2016 11:18:27

Test: 22.5; Frequency Band = FDD5, Mode = HSDPA, Channel = 4233, Frequency = 846.6MHz

Result Setup No. Date of Test Test Specification:
Passed S01_AF03 2016/08/10 14:38 FCC part 2 and 22

Test: 22.5; Frequency Band = FDD5, Mode = HSUPA, Channel = 4132, Frequency = 826.4MHz

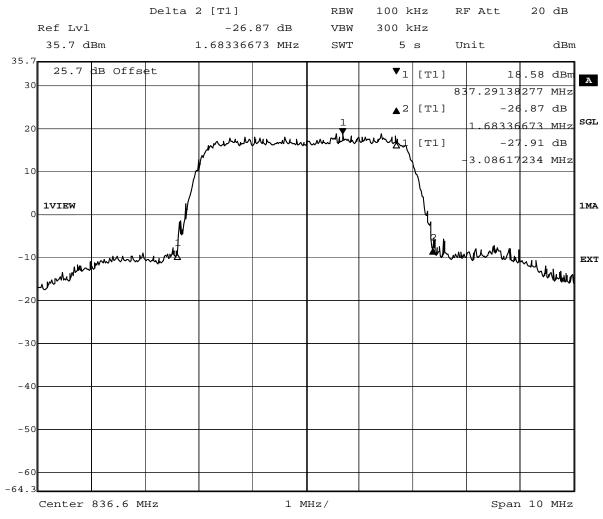
ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 14:48FCC part 2 and 22

Test: 22.5; Frequency Band = FDD5, Mode = HSUPA, Channel = 4183, Frequency = 836.6MHz

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 14:47FCC part 2 and 22



Detailed Results:



Date: 11.AUG.2016 16:48:26

Subtest_5

Test: 22.5; Frequency Band = FDD5, Mode = HSUPA, Channel = 4233, Frequency = 846.6MHz

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 14:48FCC part 2 and 22

Test: 22.5; Frequency Band = FDD5, Mode = W-CDMA, Channel = 4132, Frequency = 826.4MHz

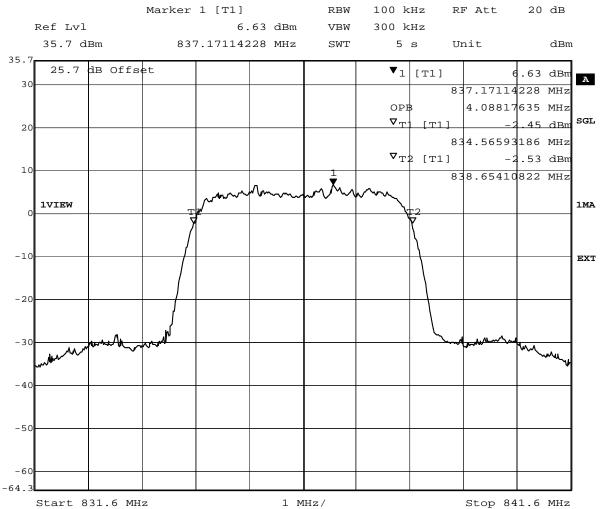
ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 14:29FCC part 2 and 22

Test: 22.5; Frequency Band = FDD5, Mode = W-CDMA, Channel = 4183, Frequency = 836.6MHz

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 14:28FCC part 2 and 22



Detailed Results:



Date: 8.AUG.2016 11:09:05



Date:

Reference: MDE_UBLOX_1601_FCCa according to: FCC Part 22, Subpart H, Part 24, subpart E, Part 27 Subpart C 20 dB Delta 2 [T1] RBW 100 kHz RF Att Ref Lvl -26.18 dB VBW 300 kHz 35.7 dBm 3.22645291 MHz SWT 5 s Unit dBm 25.7 dB Offset **▼**1 [T1] 6.55 dBm Α 30 835.72825651 MHz ▲2 [T1] -26.18 dB SGL 22645291 MHz 20 ∆1 [T1] -26.79 dB 1.48296593 MHz 10 1VIEW 1MA -10 EXT -20 -30 -50 -64.3 Start 831.6 MHz 1 MHz/ Stop 841.6 MHz

Test: 22.5; Frequency Band = FDD5, Mode = W-CDMA, Channel = 4233, Frequency = 846.6MHz

Result	Setup No.	Date of Test	Test Specification:
Passed	S01 AF03	2016/08/10 14:29	FCC part 2 and 22

8.AUG.2016 11:09:36



3.5.6 22.6 Band edge compliance §2.1053, §22.917

Test: 22.6; _Band edge compliance Summary §2.1053, §22.917

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/18 14:42FCC part 2 and 22

Detailed Results:

Radio Technology	Channel	Nominal BW	Ressource Blocks	Peak [dBm]	Averag e [dBm]	RMS [dBm]	Limit /dBm	Margin to Limit /dB
FDD V	low	5	-	-19.3	-28.74	-27.8	-13	14.82
FDD V	high	5	-	-18.98	-28.74	-28.04	-13	15.04
FDD V HSDPA Subtest 1	low	5	-	-16.4	-26.61	-25.4	-13	12.38
FDD V HSDPA Subtest 1	high	5	-	-18.1	-27.61	-27	-13	14
FDD V HSUPA Subtest 1	low	5	-	-14.63	-24.9	-24.02	-13	11.02
FDD V HSUPA Subtest 1	high	5	-	-14.2	-23.88	-23	-13	9.96
FDD V HSUPA Subtest 5	low	5	-	-15.74	-25.38	-24.45	-13	11.45
FDD V HSUPA Subtest 5	high	5	-	-15.24	-25.55	-24.3	-13	11.3
eFDD 5 QPSK	low	1.4	6	-15.5	-28.43	-26.9	-13	13.88
eFDD 5 QPSK	high	1.4	6	-19.4	-29.04	-27.65	-13	14.65
eFDD 5 16QAM	low	1.4	6	-16.7	-29.76	-27.8	-13	14.82
eFDD 5 16QAM	high	1.4	6	-19.12	-29.76	-28.27	-13	15.27
eFDD 5 QPSK	low	3	15	-15.5	-30.62	-27.82	-13	14.82
eFDD 5 QPSK	high	3	15	-16.87	-31.24	-29.24	-13	16.24
eFDD 5 16QAM	low	3	15	-16.83	-31.91	-29.24	-13	16.24
eFDD 5 16QAM	high	3	15	-19.28	-33.84	-31.24	-13	18.24
eFDD 5 QPSK	low	5	25	-13.11	-32.26	-28.74	-13	15.74
eFDD 5 QPSK	high	5	25	-14.78	-33.42	-30.32	-13	17.32
eFDD 5 16QAM	low	5	25	-16.97	-34.29	-30.92	-13	17.92
eFDD 5 16QAM	high	5	25	-17.61	-35.26	-31.91	-13	18.91
eFDD 5 QPSK	low	10	50	-13.69	-33.42	-29.76	-13	16.76
eFDD 5 QPSK	high	10	50	-15.68	-35.78	-32.26	-13	19.26
eFDD 5 16QAM	low	10	50	-15.89	-35.26	-31.57	-13	18.57
eFDD 5 16QAM	high	10	50	-16.97	-37.59	-34.29	-13	21.29

Test: 22.6; Frequency Band = eFDD5, Mode = 16QAM 1.4MHz, Channel = 20407, Frequency = 824.7MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 15:23FCC part 2 and 22



100 kHz

RF Att

20 dB

RBW

Test: 22.6; Frequency Band = eFDD5, Mode = 16QAM 1.4MHz, Channel = 20643, Frequency = 848.3MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 15:24FCC part 2 and 22

Test: 22.6; Frequency Band = eFDD5, Mode = 16QAM 10MHz, Channel = 20450, Frequency = 829MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 15:22FCC part 2 and 22

Marker 1 [T1]

Detailed Results:

Ref Lvl VBW 100 kHz -53.84 dBm 35.7 dBm 824.00000000 MHz SWT 5 s Unit dBm 35.7 25.7 dB Offset A 30 SGL 20 10 1VIEW 1AV -10 EXT REC -20 -30 -40 -50F -60 F1 -64.31.1 MHz/ Start 823 MHz Stop 834 MHz

Date: 2.AUG.2016 15:38:53



Test: 22.6; Frequency Band = eFDD5, Mode = 16QAM 10MHz, Channel = 20600, Frequency = 844MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 15:29FCC part 2 and 22

Test: 22.6; Frequency Band = eFDD5, Mode = 16QAM 3MHz, Channel = 20415, Frequency = 825.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 15:25FCC part 2 and 22

Test: 22.6; Frequency Band = eFDD5, Mode = 16QAM 3MHz, Channel = 20635, Frequency = 847.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 15:26FCC part 2 and 22

Test: 22.6; Frequency Band = eFDD5, Mode = 16QAM 5MHz, Channel = 20425, Frequency = 826.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 15:30FCC part 2 and 22

Test: 22.6; Frequency Band = eFDD5, Mode = 16QAM 5MHz, Channel = 20625, Frequency = 846.5MHz, Method = conducted

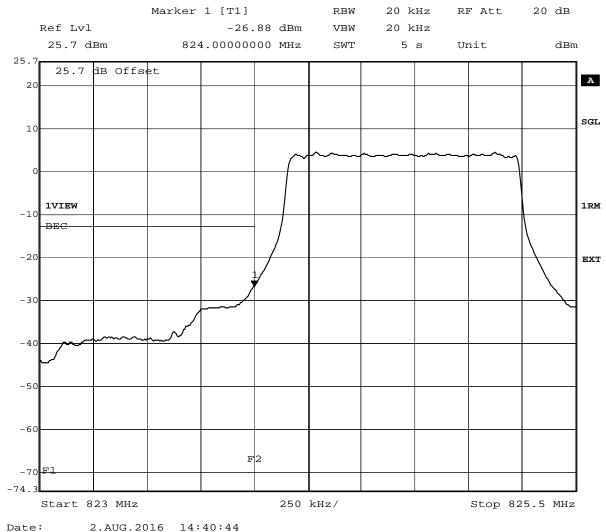
ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 15:31FCC part 2 and 22

Test: 22.6; Frequency Band = eFDD5, Mode = QPSK 1.4MHz, Channel = 20407, Frequency = 824.7MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 15:21FCC part 2 and 22



Detailed Results:



Test: 22.6; Frequency Band = eFDD5, Mode = QPSK 1.4MHz, Channel = 20643, Frequency = 848.3MHz, Method = conducted

Result	Setup No.	Date of Test	Test Specification:
Passed	S01_AF03	2016/08/10 15:24	FCC part 2 and 22

Test: 22.6; Frequency Band = eFDD5, Mode = QPSK 10MHz, Channel = 20450, Frequency = 829MHz, Method = conducted

Result	Setup No.	Date of Test	Test Specification:
Passed	S01_AF03	2016/08/10 15:31	FCC part 2 and 22



Test: 22.6; Frequency Band = eFDD5, Mode = QPSK 10MHz, Channel = 20600, Frequency = 844MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 15:30FCC part 2 and 22

Test: 22.6; Frequency Band = eFDD5, Mode = QPSK 3MHz, Channel = 20415, Frequency = 825.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 15:24FCC part 2 and 22

Test: 22.6; Frequency Band = eFDD5, Mode = QPSK 3MHz, Channel = 20635, Frequency = 847.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 15:26FCC part 2 and 22

Test: 22.6; Frequency Band = eFDD5, Mode = QPSK 5MHz, Channel = 20425, Frequency = 826.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 15:28FCC part 2 and 22

Test: 22.6; Frequency Band = eFDD5, Mode = QPSK 5MHz, Channel = 20625, Frequency = 846.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 15:30FCC part 2 and 22

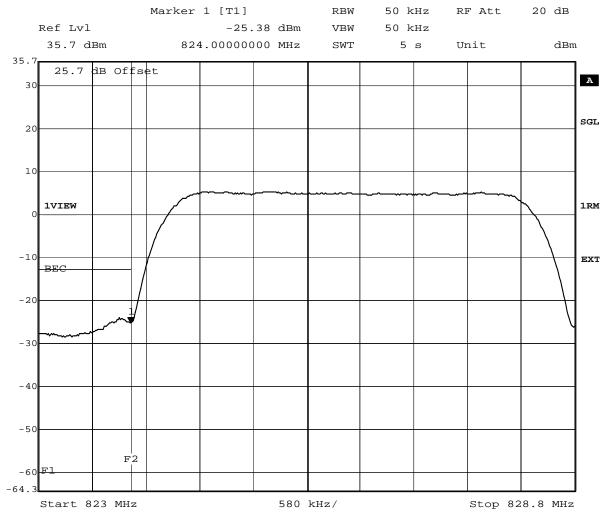
Test: 22.6; Frequency Band = FDD5, Mode = HSDPA, Channel = 4132, Frequency = 826.4MHz

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 15:17FCC part 2 and 22



Detailed Results:

Date:



Test: 22.6; Frequency Band = FDD5, Mode = HSDPA, Channel = 4233, Frequency = 846.6MHz

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 15:18FCC part 2 and 22

8.AUG.2016 10:57:57

Test: 22.6; Frequency Band = FDD5, Mode = HSUPA, Channel = 4132, Frequency = 826.4MHz

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 15:19FCC part 2 and 22

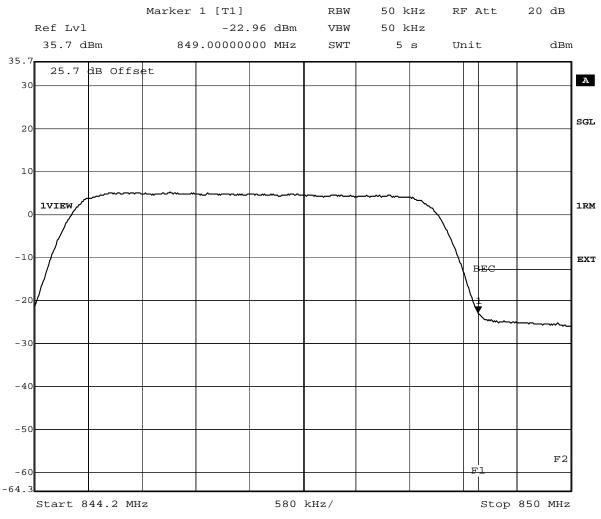
Test: 22.6; Frequency Band = FDD5, Mode = HSUPA, Channel = 4233, Frequency = 846.6MHz

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 15:19FCC part 2 and 22



Detailed Results:

Date:



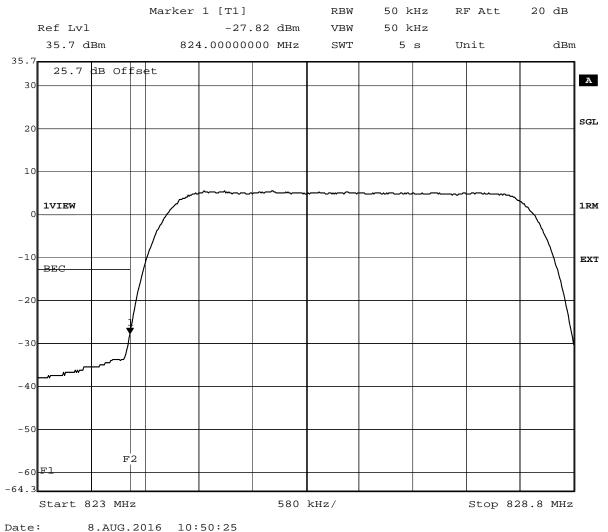
Test: 22.6; Frequency Band = FDD5, Mode = W-CDMA, Channel = 4132, Frequency = 826.4MHz

Result	Setup No.	Date of Test	Test Specification:
Passed	S01_AF03	2016/08/10 15:12	FCC part 2 and 22

5.AUG.2016 15:42:20



Detailed Results:



Test: 22.6; Frequency Band = FDD5, Mode = W-CDMA, Channel = 4233, Frequency = 846.6MHz

Result	Setup No.	Date of Test	Test Specification:
Passed	S01_AF03	2016/08/10 15:13	FCC part 2 and 22



3.5.7 22.7 Peak-to-Average ratio §2.1046

Test: 22.7; _Peak-to-Average Ratio Summary §2.1046

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/18 14:33FCC part 2

Detailed Results:

Radio Technology	Channel	Ressource Blocks	Bandwidth (MHz)	Peak to Average Ratio	Limit (IC) (dB)
FDD V	low	1	5	5.77	13
FDD V	mid	-	5	5.51	13
FDD V	high	-	5	5.7	13
FDD V HSDPA Subtest 1	low	1	5	5.34	13
FDD V HSDPA Subtest 1	mid	1	5	5	13
FDD V HSDPA Subtest 1	high	-	5	5.36	13
FDD V HSUPA Subtest 1	low	1	5	6.07	13
FDD V HSUPA Subtest 1	mid	-	5	5.93	13
FDD V HSUPA Subtest 1	high	1	5	6.05	13
FDD V HSUPA Subtest 5	low	-	5	5.76	13
FDD V HSUPA Subtest 5	mid	1	5	6.45	13
FDD V HSUPA Subtest 5	high	1	5	5.99	13
eFDD 5 QPSK	low	6	1.4	6.03	13
eFDD 5 QPSK	mid	6	1.4	5.62	13
eFDD 5 QPSK	high	6	1.4	6.09	13
eFDD 5 16QAM	low	6	1.4	6.46	13
eFDD 5 16QAM	mid	6	1.4	6.81	13
eFDD 5 16QAM	high	6	1.4	6.67	13

Test: 22.7; Frequency Band = eFDD5, Mode = 16QAM 1.4MHz, Channel = 20407, Frequency = 824.7MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 15:34FCC part 2



Test: 22.7; Frequency Band = eFDD5, Mode = 16QAM 1.4MHz, Channel = 20525, Frequency = 836.5MHz, Method = conducted

Result Setup No. Date of Test Test Specification:

Passed S01_AF03 2016/08/10 15:36 FCC part 2

Test: 22.7; Frequency Band = eFDD5, Mode = 16QAM 1.4MHz, Channel = 20643, Frequency = 848.3MHz, Method = conducted

Result Setup No. Date of Test Test Specification:

Passed S01_AF03 2016/08/10 15:36 FCC part 2

Test: 22.7; Frequency Band = eFDD5, Mode = QPSK 1.4MHz, Channel = 20407, Frequency = 824.7MHz, Method = conducted

Result Setup No. Date of Test Test Specification:

Passed S01_AF03 2016/08/10 15:34 FCC part 2

Test: 22.7; Frequency Band = eFDD5, Mode = QPSK 1.4MHz, Channel = 20525, Frequency = 836.5MHz, Method = conducted

Result Setup No. Date of Test Test Specification:

Passed S01_AF03 2016/08/10 15:35 FCC part 2

Test: 22.7; Frequency Band = eFDD5, Mode = QPSK 1.4MHz, Channel = 20643, Frequency = 848.3MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 15:35FCC part 2

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3.5.8 24.1 RF Power Output §2.1046, §24.232

Test: 24.1; RF Power Output Summary §2.1046, §24.232

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 11:50FCC part 2 and 24



Detailed Results:

Radio Technology	Channel	Ressource Blocks	Bandwidth (MHz)	Peak Conducted Power (dBm)	Average Conducted Power (dBm)	RMS Conducted Power (dBm)	FCC / IC EIRP Limit (W)	Maximu m Antenna Gain (dBi)
FDD II	low	-	5	28.32	22.8	23.04	2	9.96
FDD II	mid	-	5	28.19	22.83	23.04	2	9.96
FDD II	high	-	5	28.56	22.69	22.93	2	10.07
FDD II HSDPA Subtest 1	low	-	5	28.69	23.26	23.96	2	9.04
FDD II HSDPA Subtest 1	mid	-	5	28.56	23.54	23.86	2	9.14
FDD II HSDPA Subtest 1	high	-	5	29.33	23.38	23.67	2	9.33
FDD II HSDPA Subtest 2	low	-	5	28.94	23.56	24.16	2	8.84
FDD II HSDPA Subtest 2	mid	-	5	29.59	23.58	24.16	2	8.84
FDD II HSDPA Subtest 2	high	-	5	29.44	23.4	23.82	2	9.18
FDD II HSDPA Subtest 3	low	-	5	28.94	23.56	24.49	2	8.51
FDD II HSDPA Subtest 3	mid	-	5	30.17	23.32	24.12	2	8.88
FDD II HSDPA Subtest 3	high	-	5	30.03	23.32	24.07	2	8.93
FDD II HSDPA Subtest 4	low	-	5	29.08	23.38	24.1	2	8.9
FDD II HSDPA Subtest 4	mid	-	5	29.33	23.34	24.16	2	8.84
FDD II HSDPA Subtest 4	high	-	5	29.44	23.02	23.93	2	9.07
FDD II HSUPA Subtest 1	low	-	5	28.43	22.15	22.61	2	10.39
FDD II HSUPA Subtest 1	mid	-	5	29.08	22.31	22.75	2	10.25
FDD II HSUPA Subtest 1	high	-	5	28.43	21.98	22.42	2	10.58
FDD II HSUPA Subtest 2	low	-	5	28.05	21.03	22.06	2	10.94
FDD II HSUPA Subtest 2	mid	-	5	30.03	22.17	22.83	2	10.17
FDD II HSUPA Subtest 2	high	-	5	29.81	21.57	22.68	2	10.32
FDD II HSUPA Subtest 3	low	-	5	28.69	22.11	22.39	2	10.61
FDD II HSUPA Subtest 3	mid	-	5	28.82	22.02	22.58	2	10.42
FDD II HSUPA Subtest 3	high	-	5	29.44	22.68	23.29	2	9.71
FDD II HSUPA Subtest 4	low	-	5	27.52	20.46	21.35	2	11.65
FDD II HSUPA Subtest 4	mid	-	5	26.23	18.37	21.43	2	11.57
FDD II HSUPA Subtest 4	high	-	5	29.08	21.31	22.33	2	10.67
FDD II HSUPA Subtest 5	low	-	5	28.94	23.01	23.38	2	9.62
FDD II HSUPA Subtest 5	mid	-	5	26.23	18.37	21.43	2	11.57
FDD II HSUPA Subtest 5	high	-	5	29.44	22.95	23.26	2	9.74



			10010	art 22, Subp I		L+, Subpart	FCC /	Maximu
				Peak	Average	RMS	IC	m
Radio Technology	Channel	Ressource	Bandwidth	Conducted	_	Conducted	EIRP	Antenna
		Blocks	(MHz)	Power	Power	Power	Limit	Gain
				(dBm)	(dBm)	(dBm)	(W)	(dBi)
eFDD 2 QPSK	low	1	1.4	-	-	20.92	2	12.08
eFDD 2 QPSK	low	3	1.4	_	_	20.71	2	12.29
eFDD 2 QPSK	low	6	1.4	-	-	19.63	2	13.37
eFDD 2 QPSK	mid	1	1.4	_	_	21.26	2	11.74
eFDD 2 QPSK	mid	3	1.4	-	-	20.86	2	12.14
eFDD 2 QPSK	mid	6	1.4	-	-	19.83	2	13.17
eFDD 2 QPSK	high	1	1.4	-	-	20.77	2	12.23
eFDD 2 QPSK	high	3	1.4	-	-	20.65	2	12.35
eFDD 2 QPSK	high	6	1.4	-	-	19.55	2	13.45
eFDD 2 16QAM	low	1	1.4	-	-	20.41	2	12.59
eFDD 2 16QAM	low	6	1.4	-	-	19.09	2	13.9
eFDD 2 16QAM	mid	1	1.4	-	-	20.47	2	12.53
eFDD 2 16QAM	mid	6	1.4	-	-	19.33	2	13.6
eFDD 2 16QAM	high	1	1.4	-	-	20.38	2	12.6
eFDD 2 16QAM	high	6	1.4	-	-	19.03	2	13.9
eFDD 2 QPSK	low	1	3	-	-	21.32	2	11.6
eFDD 2 QPSK	low	15	3	-	-	20.05	2	12.9
eFDD 2 QPSK	mid	1	3	-	-	21.45	2	11.5
eFDD 2 QPSK	mid	15	3	-	-	20.16	2	12.8
eFDD 2 QPSK	high	1	3	-	-	21.29	2	11.7
eFDD 2 QPSK	high	15	3	-	-	19.94	2	13.0
eFDD 2 16QAM	low	1	3	-	-	20.59	2	12.4
eFDD 2 16QAM	low	15	3	-	-	18.42	2	14.5
eFDD 2 16QAM	mid	1	3	-	-	20.86	2	12.1
eFDD 2 16QAM	mid	15	3	-	-	18.57	2	14.4
eFDD 2 16QAM	high	1	3	-	-	20.58	2	12.4
eFDD 2 16QAM	high	15	3	-	-	18.31	2	14.6
eFDD 2 QPSK	low	1	5	-	-	21.34	2	11.6
eFDD 2 QPSK	low	12	5	-	-	19.97	2	13.0
eFDD 2 QPSK	low	25	5	-	-	20.09	2	12.9
eFDD 2 QPSK	mid	1	5	-	-	21.46	2	11.5
eFDD 2 QPSK	mid	12	5	-	-	20.17	2	12.8
eFDD 2 QPSK	mid	25	5	-	-	20.14	2	12.8
eFDD 2 QPSK	high	1	5	-	-	21.29	2	11.7
eFDD 2 QPSK	high	12	5	-	-	19.94	2	13.0
eFDD 2 QPSK	high	25	5	-	-	19.89	2	13.1
eFDD 2 16QAM	low	1	5	-	-	20.68	2	12.3
eFDD 2 16QAM	low	25	5	-	-	18.35	2	14.6
eFDD 2 16QAM	mid	1	5	-	-	20.9	2	12.
eFDD 2 16QAM	mid	25	5	-	-	18.5	2	14.
eFDD 2 16QAM	high	1	5	-	-	20.78	2	12.2
eFDD 2 16QAM	high	25	5	-	-	18.33	2	14.6



	1	1	TCC F	art 22, 300p	t 22, Subpart H, Part 2		FCC /	Maximu	
				Peak	Average	RMS	IC /	m	
Radio Technology	Channel	Ressource	Bandwidth	Conducted	Conducted	Conducted	EIRP	Antenna	
Radio reciniology	Chamici	Blocks	(MHz)	Power	Power	Power	Limit	Gain	
				(dBm)	(dBm)	(dBm)	(W)	(dBi)	
eFDD 2 QPSK	low	1	10	-	-	21.5	2	11.5	
eFDD 2 QPSK	low	50	10	_	_	20.44	2	12.56	
eFDD 2 QPSK	mid	1	10	-	-	21.7	2	11.3	
eFDD 2 QPSK	mid	50	10	-	-	20.56	2	12.44	
eFDD 2 QPSK	high	1	10	-	-	21.5	2	11.5	
eFDD 2 QPSK	high	50	10	-	-	20.44	2	12.56	
eFDD 2 16QAM	low	1	10	-	-	20.77	2	12.23	
eFDD 2 16QAM	low	50	10	-	-	18.55	2	14.45	
eFDD 2 16QAM	mid	1	10	-	-	20.98	2	12.02	
eFDD 2 16QAM	mid	50	10	-	-	18.41	2	14.59	
eFDD 2 16QAM	high	1	10	-	-	20.98	2	12.02	
eFDD 2 16QAM	high	50	10	-	-	18.5	2	14.5	
eFDD 2 QPSK	low	1	15	-	-	21.6	2	11.4	
eFDD 2 QPSK	low	36	15	-	-	20.84	2	12.16	
eFDD 2 QPSK	low	75	15	-	-	20.75	2	12.25	
eFDD 2 QPSK	mid	1	15	-	-	21.77	2	11.23	
eFDD 2 QPSK	mid	36	15	-	-	20.93	2	12.07	
eFDD 2 QPSK	mid	75	15	-	-	20.8	2	12.2	
eFDD 2 QPSK	high	1	15	-	-	21.66	2	11.34	
eFDD 2 QPSK	high	36	15	-	-	20.83	2	12.17	
eFDD 2 QPSK	high	75	15	-	-	20.71	2	12.29	
eFDD 2 16QAM	low	1	15	-	-	21.13	2	11.87	
eFDD 2 16QAM	low	75	15	-	-	19.09	2	13.91	
eFDD 2 16QAM	mid	1	15	-	-	21.18	2	11.82	
eFDD 2 16QAM	mid	75	15	-	-	19.22	2	13.78	
eFDD 2 16QAM	high	1	15	-	-	21	2	12	
eFDD 2 16QAM	high	75	15	-	-	19.05	2	13.95	
eFDD 2 QPSK	low	1	20	-	-	21.44	2	11.56	
eFDD 2 QPSK	low	100	20	-	-	20.65	2	12.35	
eFDD 2 QPSK	mid	1	20	-	-	21.57	2	11.43	
eFDD 2 QPSK	mid	100	20	-	-	20.74	2	12.26	
eFDD 2 QPSK	high	1	20	-	-	21.47	2	11.53	
eFDD 2 QPSK	high	100	20	-	-	20.61	2	12.39	
eFDD 2 16QAM	low	1	20	-	-	20.82	2	12.18	
eFDD 2 16QAM	low	100	20	-	-	19.05	2	13.95	
eFDD 2 16QAM	mid	1	20	-	-	20.98	2	12.02	
eFDD 2 16QAM	mid	100	20	-	-	19.15	2	13.85	
eFDD 2 16QAM	high	1	20	-	-	20.73	2	12.27	
eFDD 2 16QAM	high	100	20	-	-	19.05	2	13.95	

Test: 24.1; Frequency Band = eFDD2, Mode = 16QAM 1.4MHz, Channel = 18607, Frequency = 1850.7MHz, Method = conducted

Result	Setup No.	Date of Test	Test Specification:
Passed	S01_AF03	2016/08/11 16:39	FCC part 2 and 24



Test: 24.1; Frequency Band = eFDD2, Mode = 16QAM 1.4MHz, Channel = 18900, Frequency = 1880MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 16:13FCC part 2 and 24

Test: 24.1; Frequency Band = eFDD2, Mode = 16QAM 1.4MHz, Channel = 19193, Frequency = 1909.3MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 16:38FCC part 2 and 24

Test: 24.1; Frequency Band = eFDD2, Mode = 16QAM 10MHz, Channel = 18650, Frequency = 1855MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 16:34FCC part 2 and 24

Test: 24.1; Frequency Band = eFDD2, Mode = 16QAM 10MHz, Channel = 18900, Frequency = 1880MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 16:21FCC part 2 and 24

Test: 24.1; Frequency Band = eFDD2, Mode = 16QAM 10MHz, Channel = 19150, Frequency = 1905MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 16:34FCC part 2 and 24

Test: 24.1; Frequency Band = eFDD2, Mode = 16QAM 15MHz, Channel = 18675, Frequency = 1857.5MHz, Method = conducted

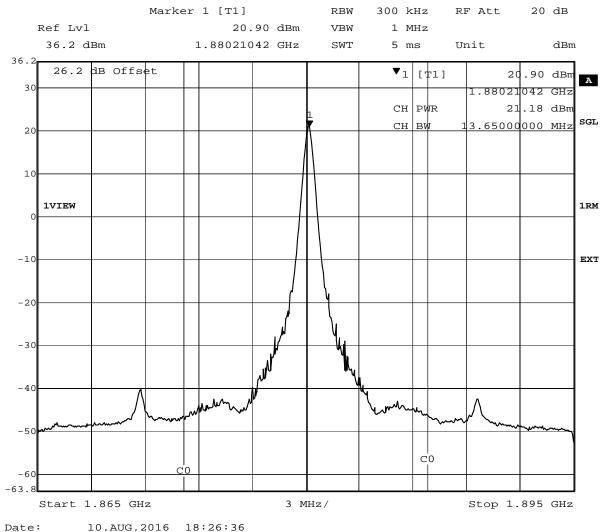
ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 16:33FCC part 2 and 24

Test: 24.1; Frequency Band = eFDD2, Mode = 16QAM 15MHz, Channel = 18900, Frequency = 1880MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 16:25FCC part 2 and 24



Detailed Results:



Test: 24.1; Frequency Band = eFDD2, Mode = 16QAM 15MHz, Channel = 19125, Frequency = 1902.5MHz, Method = conducted

Result	Setup No.	Date of Test	Test Specification:
Passed	S01_AF03	2016/08/11 16:32	FCC part 2 and 24

Test: 24.1; Frequency Band = eFDD2, Mode = 16QAM 20MHz, Channel = 18700, Frequency = 1860MHz, Method = conducted

Result	Setup No.	Date of Test	Test Specification:
Passed	S01_AF03	2016/08/11 16:31	FCC part 2 and 24



Test: 24.1; Frequency Band = eFDD2, Mode = 16QAM 20MHz, Channel = 18900, Frequency = 1880MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 16:29FCC part 2 and 24

Test: 24.1; Frequency Band = eFDD2, Mode = 16QAM 20MHz, Channel = 19100, Frequency = 1900MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 16:30FCC part 2 and 24

Test: 24.1; Frequency Band = eFDD2, Mode = 16QAM 3MHz, Channel = 18615, Frequency = 1851.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 16:30FCC part 2 and 24

Test: 24.1; Frequency Band = eFDD2, Mode = 16QAM 3MHz, Channel = 18900, Frequency = 1880MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 16:16FCC part 2 and 24

Test: 24.1; Frequency Band = eFDD2, Mode = 16QAM 3MHz, Channel = 19185, Frequency = 1908.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 16:37FCC part 2 and 24

Test: 24.1; Frequency Band = eFDD2, Mode = 16QAM 5MHz, Channel = 18625, Frequency = 1852.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 16:36FCC part 2 and 24

Test: 24.1; Frequency Band = eFDD2, Mode = 16QAM 5MHz, Channel = 18900, Frequency = 1880MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 16:19FCC part 2 and 24



Test: 24.1; Frequency Band = eFDD2, Mode = 16QAM 5MHz, Channel = 19175, Frequency = 1907.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 16:35FCC part 2 and 24

Test: 24.1; Frequency Band = eFDD2, Mode = QPSK 1.4MHz, Channel = 18900, Frequency = 1880MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 16:10FCC part 2 and 24

Test: 24.1; Frequency Band = eFDD2, Mode = QPSK 1.4MHz, Channel = 19193, Frequency = 1909.3MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 16:38FCC part 2 and 24

Test: 24.1; Frequency Band = eFDD2, Mode = QPSK 10MHz, Channel = 18650, Frequency = 1855MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 16:35FCC part 2 and 24

Test: 24.1; Frequency Band = eFDD2, Mode = QPSK 10MHz, Channel = 18900, Frequency = 1880MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 16:20FCC part 2 and 24

Test: 24.1; Frequency Band = eFDD2, Mode = QPSK 10MHz, Channel = 19150, Frequency = 1905MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 16:34FCC part 2 and 24

Test: 24.1; Frequency Band = eFDD2, Mode = QPSK 15MHz, Channel = 18675, Frequency = 1857.5MHz, Method = conducted

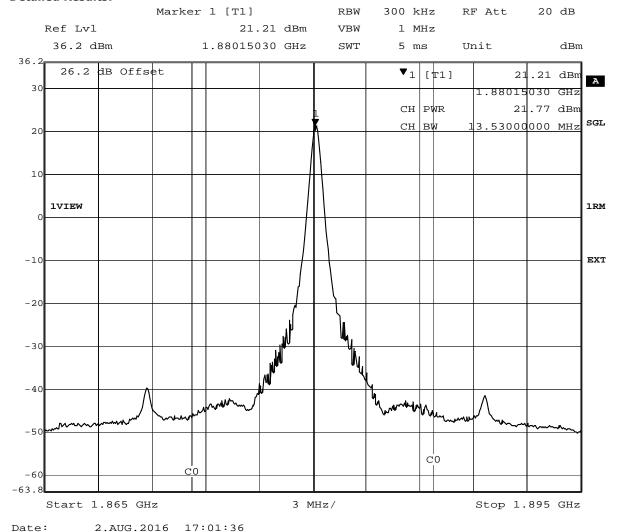
ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 16:33FCC part 2 and 24



Test: 24.1; Frequency Band = eFDD2, Mode = QPSK 15MHz, Channel = 18900, Frequency = 1880MHz, Method = conducted

Result	Setup No.	Date of Test	Test Specification:
Passed	S01 AF03	2016/08/11 16:23	FCC part 2 and 24

Detailed Results:



Test: 24.1; Frequency Band = eFDD2, Mode = QPSK 15MHz, Channel = 19125, Frequency = 1902.5MHz, Method = conducted

Result	Setup No.	Date of Test	Test Specification:
Passed	S01 AF03	2016/08/11 16:32	FCC part 2 and 24



Test: 24.1; Frequency Band = eFDD2, Mode = QPSK 20MHz, Channel = 18700, Frequency = 1860MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 16:32FCC part 2 and 24

Test: 24.1; Frequency Band = eFDD2, Mode = QPSK 20MHz, Channel = 18900, Frequency = 1880MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 16:31FCC part 2 and 24

Test: 24.1; Frequency Band = eFDD2, Mode = QPSK 20MHz, Channel = 19100, Frequency = 1900MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 16:27FCC part 2 and 24

Test: 24.1; Frequency Band = eFDD2, Mode = QPSK 3MHz, Channel = 18615, Frequency = 1851.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 16:38FCC part 2 and 24

Test: 24.1; Frequency Band = eFDD2, Mode = QPSK 3MHz, Channel = 18900, Frequency = 1880MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 16:15FCC part 2 and 24

Test: 24.1; Frequency Band = eFDD2, Mode = QPSK 3MHz, Channel = 19185, Frequency = 1908.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 16:37FCC part 2 and 24

Test: 24.1; Frequency Band = eFDD2, Mode = QPSK 5MHz, Channel = 18625, Frequency = 1852.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 16:36FCC part 2 and 24



Test: 24.1; Frequency Band = eFDD2, Mode = QPSK 5MHz, Channel = 18900, Frequency = 1880MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 16:18FCC part 2 and 24

Test: 24.1; Frequency Band = eFDD2, Mode = QPSK 5MHz, Channel = 19175, Frequency = 1907.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 16:35FCC part 2 and 24

Test: 24.1; Frequency Band = FDD2, Mode = HSDPA_subtest_1, Channel = 9262, Frequency = 1852.4MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 15:49FCC part 2 and 24

Test: 24.1; Frequency Band = FDD2, Mode = HSDPA_subtest_1, Channel = 9400, Frequency = 1880MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 15:57FCC part 2 and 24

Test: 24.1; Frequency Band = FDD2, Mode = HSDPA_subtest_1, Channel = 9538, Frequency = 1907.6MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 15:57FCC part 2 and 24

Test: 24.1; Frequency Band = FDD2, Mode = HSDPA_subtest_2, Channel = 9262, Frequency = 1852.4MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 15:51FCC part 2 and 24

Test: 24.1; Frequency Band = FDD2, Mode = HSDPA_subtest_2, Channel = 9400, Frequency = 1880MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 15:56FCC part 2 and 24



Test: 24.1; Frequency Band = FDD2, Mode = HSDPA_subtest_2, Channel = 9538, Frequency = 1907.6MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 15:56FCC part 2 and 24

Test: 24.1; Frequency Band = FDD2, Mode = HSDPA_subtest_3, Channel = 9262, Frequency = 1852.4MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 15:52FCC part 2 and 24

Marker 1 [T1]

Detailed Results:

Ref Lvl VBW 10 MHz 24.49 dBm 36.2 dBm 1.85343206 GHz SWT 5 ms Unit dBm 36.2 26.2 dB Offset A 30 SGL 20 10 **1VIEW** 1RM EXT -10 -20 -30 -40-50 -60 -63.8 Start 1.8474 GHz 1 MHz/ Stop 1.8574 GHz

RBW

10 MHz

RF Att

20 dB

Date: 8.AUG.2016 12:23:15



Test: 24.1; Frequency Band = FDD2, Mode = HSDPA_subtest_3, Channel = 9400, Frequency = 1880MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 15:55FCC part 2 and 24

Test: 24.1; Frequency Band = FDD2, Mode = HSDPA_subtest_3, Channel = 9538, Frequency = 1907.6MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 15:55FCC part 2 and 24

Test: 24.1; Frequency Band = FDD2, Mode = HSDPA_subtest_4, Channel = 9262, Frequency = 1852.4MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 15:54FCC part 2 and 24

Test: 24.1; Frequency Band = FDD2, Mode = HSDPA_subtest_4, Channel = 9400, Frequency = 1880MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 15:53FCC part 2 and 24

Test: 24.1; Frequency Band = FDD2, Mode = HSDPA_subtest_4, Channel = 9538, Frequency = 1907.6MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 15:54FCC part 2 and 24

Test: 24.1; Frequency Band = FDD2, Mode = HSUPA_subtest_1, Channel = 9262, Frequency = 1852.4MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 15:59FCC part 2 and 24

Test: 24.1; Frequency Band = FDD2, Mode = HSUPA_subtest_1, Channel = 9400, Frequency = 1880MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 15:58FCC part 2 and 24



Test: 24.1; Frequency Band = FDD2, Mode = HSUPA_subtest_1, Channel = 9538, Frequency = 1907.6MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 15:59FCC part 2 and 24

Test: 24.1; Frequency Band = FDD2, Mode = HSUPA_subtest_2, Channel = 9262, Frequency = 1852.4MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 16:02FCC part 2 and 24

Test: 24.1; Frequency Band = FDD2, Mode = HSUPA_subtest_2, Channel = 9400, Frequency = 1880MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 16:00FCC part 2 and 24

Test: 24.1; Frequency Band = FDD2, Mode = HSUPA_subtest_2, Channel = 9538, Frequency = 1907.6MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 16:01FCC part 2 and 24

Test: 24.1; Frequency Band = FDD2, Mode = HSUPA_subtest_3, Channel = 9262, Frequency = 1852.4MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 16:03FCC part 2 and 24

Test: 24.1; Frequency Band = FDD2, Mode = HSUPA_subtest_3, Channel = 9400, Frequency = 1880MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 16:04FCC part 2 and 24

Test: 24.1; Frequency Band = FDD2, Mode = HSUPA_subtest_3, Channel = 9538, Frequency = 1907.6MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 16:03FCC part 2 and 24



Test: 24.1; Frequency Band = FDD2, Mode = HSUPA_subtest_4, Channel = 9262, Frequency = 1852.4MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 16:05FCC part 2 and 24

Test: 24.1; Frequency Band = FDD2, Mode = HSUPA_subtest_4, Channel = 9400, Frequency = 1880MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 16:06FCC part 2 and 24

Test: 24.1; Frequency Band = FDD2, Mode = HSUPA_subtest_4, Channel = 9538, Frequency = 1907.6MHz, Method = conducted

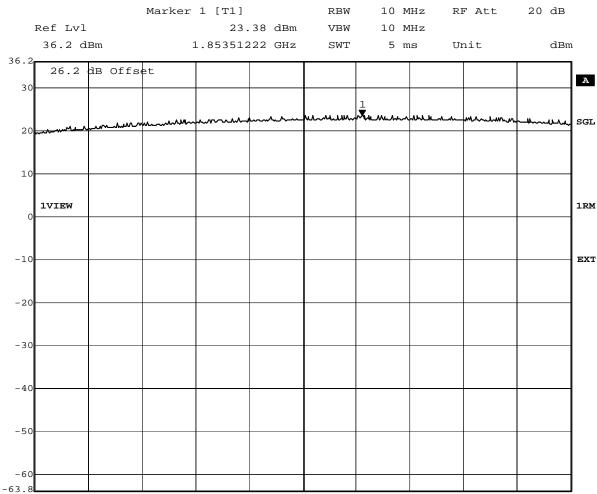
ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 16:04FCC part 2 and 24

Test: 24.1; Frequency Band = FDD2, Mode = HSUPA_subtest_5, Channel = 9262, Frequency = 1852.4MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 16:06FCC part 2 and 24



Detailed Results:



Date: 5.AUG.2016 17:56:57

Start 1.8474 GHz

Test: 24.1; Frequency Band = FDD2, Mode = HSUPA_subtest_5, Channel = 9400, Frequency = 1880MHz, Method = conducted

1 MHz/

Result	Setup No.	Date of Test	Test Specification:
Passed	S01_AF03	2016/08/11 16:08	FCC part 2 and 24

Test: 24.1; Frequency Band = FDD2, Mode = HSUPA_subtest_5, Channel = 9538, Frequency = 1907.6MHz, Method = conducted

Result	Setup No.	Date of Test	Test Specification:
Passed	S01_AF03	2016/08/11 16:07	FCC part 2 and 24

Stop 1.8574 GHz

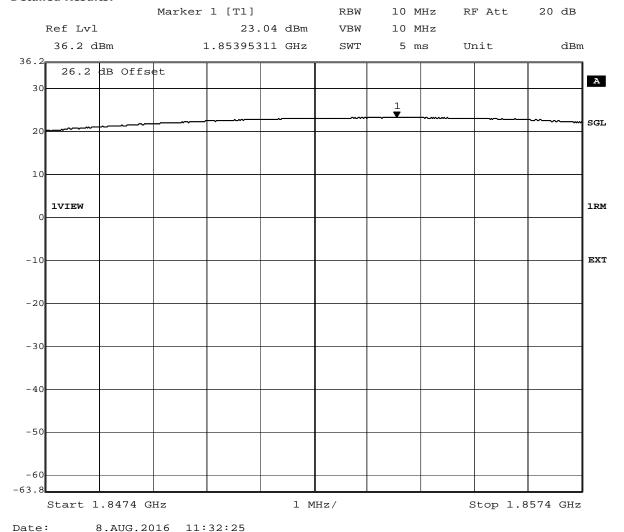


Test: 24.1; Frequency Band = FDD2, Mode = W-CDMA, Channel = 9262, Frequency = 1852.4MHz, Method = conducted

Result	Setup No.	Date of Test	Test Specification:
Passed	S01 AF03	2016/08/11 15:39	FCC part 2 and 24

Detailed Results:

Date:



Test: 24.1; Frequency Band = FDD2, Mode = W-CDMA, Channel = 9400, Frequency = 1880MHz, Method = conducted

Result	Setup No.	Date of Test	Test Specification:
Passed	S01 AF03	2016/08/11 15:47	FCC part 2 and 24



Test: 24.1; Frequency Band = FDD2, Mode = W-CDMA, Channel = 9538, Frequency = 1907.6MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/10 15:47FCC part 2 and 24



3.5.9 24.2 Frequency stability §2.1055, §24.235

Test: 24.2; Frequency stability Summary §2.1055, 24.235

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 11:52FCC part 2 and 24



Detailed Results:

Detailed Resu	163.					
				Frequency		
Radio		Temp	Frequency	Error	Deviation	Limit
Technology	Voltage	(°C)	(MHz)	(Hz)	(ppm)	(Hz)
	100%	-30	1880	17	0.01	4700
	100%	-20	1880	11	0.01	4700
	100%	-10	1880	12	0.01	4700
	100%	0	1880	-13	-0.01	4700
	100%	10	1880	-14	-0.01	4700
FDD II	100%	20	1880	-16	-0.01	4700
I DD II	100%	30	1880	-14	-0.01	4700
			1880	10		4700
	100%	40			0.01	
	100%	50	1880	11	0.01	4700
	85%	20	1880	-16	-0.01	4700
	115%	20	1880	12	0.01	4700
				Frequency		
Radio		Temp	Frequency	Error	Deviation	Limit
Technology	Voltage	(°C)	(MHz)	(Hz)	(ppm)	(Hz)
	100%	-30	1880	-113	-0.06	4700
	100%	-20	1880	-60	-0.03	4700
	100%	-10	1880	59	0.03	4700
	100%	0	1880	-109	-0.06	4700
	100%	10	1880	70	0.04	4700
FDD II HSDPA	100%	20	1880	45	0.02	4700
Subtest 1	100%	30	1880	89	0.05	4700
	100%	40	1880	90	0.05	4700
	100%	50	1880	-72	-0.04	4700
	85%	20	1880	-47	-0.03	4700
	115%	20	1880	35	0.02	4700
				Frequency		
Radio		Temp	Frequency	Frequency Error	Deviation	Limit
Radio Technology	Voltage	Temp (°C)	Frequency (MHz)		Deviation (ppm)	Limit (Hz)
	Voltage 100%			Error		
	100%	(°C) -30	(MHz) 1880	Error (Hz)	(ppm) 0.02	(Hz) 4700
	100% 100%	(°C) -30 -20	(MHz) 1880 1880	Error (Hz) 32 44	(ppm) 0.02 0.02	(Hz) 4700 4700
	100% 100% 100%	-30 -20 -10	(MHz) 1880 1880 1880	Error (Hz) 32 44 65	(ppm) 0.02 0.02 0.03	(Hz) 4700 4700 4700
	100% 100% 100% 100%	-30 -20 -10	(MHz) 1880 1880 1880 1880	Error (Hz) 32 44 65 39	(ppm) 0.02 0.02 0.03 0.02	(Hz) 4700 4700 4700 4700
Technology	100% 100% 100% 100% 100%	-30 -20 -10 0	(MHz) 1880 1880 1880 1880 1880	Error (Hz) 32 44 65 39 42	(ppm) 0.02 0.02 0.03 0.02 0.02	(Hz) 4700 4700 4700 4700 4700
Technology FDD II HSUPA	100% 100% 100% 100% 100% 100%	-30 -20 -10 0 10	(MHz) 1880 1880 1880 1880 1880	Error (Hz) 32 44 65 39 42	(ppm) 0.02 0.03 0.03 0.02 0.02	(Hz) 4700 4700 4700 4700 4700
Technology	100% 100% 100% 100% 100% 100%	(°C) -30 -20 -10 0 10 20 30	(MHz) 1880 1880 1880 1880 1880 1880 1880	Error (Hz) 32 44 65 39 42 59	(ppm) 0.02 0.03 0.02 0.02 0.03 0.02 0.03	(Hz) 4700 4700 4700 4700 4700 4700 4700
Technology FDD II HSUPA	100% 100% 100% 100% 100% 100% 100%	(°C) -30 -20 -10 0 10 20 30 40	(MHz) 1880 1880 1880 1880 1880 1880 1880 18	Error (Hz) 32 44 65 39 42 59 28	0.02 0.03 0.02 0.03 0.02 0.02 0.03 0.01 -0.03	(Hz) 4700 4700 4700 4700 4700 4700 4700 470
Technology FDD II HSUPA	100% 100% 100% 100% 100% 100% 100% 100%	-30 -20 -10 0 10 20 30 40	(MHz) 1880 1880 1880 1880 1880 1880 1880 18	Error (Hz) 32 44 65 39 42 59 28 -47	(ppm) 0.02 0.03 0.02 0.02 0.03 0.01 -0.03 0.02	(Hz) 4700 4700 4700 4700 4700 4700 4700 470
Technology FDD II HSUPA	100% 100% 100% 100% 100% 100% 100% 100%	-30 -20 -10 0 10 20 30 40 50	(MHz) 1880 1880 1880 1880 1880 1880 1880 18	Error (Hz) 32 44 65 39 42 59 28 -47 39	(ppm) 0.02 0.03 0.02 0.03 0.02 0.03 0.01 -0.03 0.02 0.02 0.02	(Hz) 4700 4700 4700 4700 4700 4700 4700 470
Technology FDD II HSUPA	100% 100% 100% 100% 100% 100% 100% 100%	-30 -20 -10 0 10 20 30 40	(MHz) 1880 1880 1880 1880 1880 1880 1880 18	Error (Hz) 32 44 65 39 42 59 28 -47 39	(ppm) 0.02 0.03 0.02 0.02 0.03 0.01 -0.03 0.02	(Hz) 4700 4700 4700 4700 4700 4700 4700 470
Technology FDD II HSUPA	100% 100% 100% 100% 100% 100% 100% 100%	-30 -20 -10 0 10 20 30 40 50	(MHz) 1880 1880 1880 1880 1880 1880 1880 18	Error (Hz) 32 44 65 39 42 59 28 -47 39	(ppm) 0.02 0.03 0.02 0.03 0.02 0.03 0.01 -0.03 0.02 0.02 0.02	(Hz) 4700 4700 4700 4700 4700 4700 4700 470
Technology FDD II HSUPA	100% 100% 100% 100% 100% 100% 100% 100%	-30 -20 -10 0 10 20 30 40 50	(MHz) 1880 1880 1880 1880 1880 1880 1880 18	Error (Hz) 32 44 65 39 42 59 28 -47 39 37 59	(ppm) 0.02 0.03 0.02 0.03 0.02 0.03 0.01 -0.03 0.02 0.02 0.02	(Hz) 4700 4700 4700 4700 4700 4700 4700 470
Technology FDD II HSUPA	100% 100% 100% 100% 100% 100% 100% 100%	-30 -20 -10 0 10 20 30 40 50	(MHz) 1880 1880 1880 1880 1880 1880 1880 18	Error (Hz) 32 44 65 39 42 59 28 -47 39	(ppm) 0.02 0.03 0.02 0.03 0.02 0.03 0.01 -0.03 0.02 0.02 0.02	(Hz) 4700 4700 4700 4700 4700 4700 4700 470
Technology FDD II HSUPA	100% 100% 100% 100% 100% 100% 100% 100%	-30 -20 -10 0 10 20 30 40 50	(MHz) 1880 1880 1880 1880 1880 1880 1880 18	Error (Hz) 32 44 65 39 42 59 28 -47 39 37 59	(ppm) 0.02 0.03 0.02 0.03 0.02 0.03 0.01 -0.03 0.02 0.02 0.02	(Hz) 4700 4700 4700 4700 4700 4700 4700 470
FDD II HSUPA Subtest 1	100% 100% 100% 100% 100% 100% 100% 100%	(°C) -30 -20 -10 0 10 20 30 40 20 20	(MHz) 1880 1880 1880 1880 1880 1880 1880 18	Error (Hz) 32 44 65 39 42 59 28 -47 39 37 59 Frequency	(ppm) 0.02 0.03 0.02 0.03 0.01 -0.03 0.02 0.02 0.03	(Hz) 4700 4700 4700 4700 4700 4700 4700 470
FDD II HSUPA Subtest 1	100% 100% 100% 100% 100% 100% 100% 100%	(°C) -30 -20 -10 0 10 20 30 40 50 20 Temp (°C)	(MHz) 1880 1880 1880 1880 1880 1880 1880 18	Error (Hz) 32 44 65 39 42 59 28 -47 39 37 59 Frequency Error	(ppm) 0.02 0.03 0.02 0.03 0.01 -0.03 0.02 0.02 0.03	(Hz) 4700 4700 4700 4700 4700 4700 4700 470
FDD II HSUPA Subtest 1	100% 100% 100% 100% 100% 100% 100% 100%	(°C) -30 -20 -10 0 10 20 30 40 50 20 Temp (°C) -30	(MHz) 1880 1880 1880 1880 1880 1880 1880 18	Error (Hz) 32 44 65 39 42 59 28 -47 39 37 59 Frequency Error (Hz) -13	(ppm) 0.02 0.03 0.02 0.03 0.01 -0.03 0.02 0.02 0.03	(Hz) 4700 4700 4700 4700 4700 4700 4700 470
FDD II HSUPA Subtest 1	100% 100% 100% 100% 100% 100% 100% 100%	(°C) -30 -20 -10 0 10 20 30 40 50 20 Temp (°C) -30 -20	(MHz) 1880 1880 1880 1880 1880 1880 1880 18	Error (Hz) 32 44 65 39 42 59 28 -47 39 37 59 Frequency Error (Hz) -13	(ppm) 0.02 0.03 0.02 0.03 0.01 -0.03 0.02 0.02 0.03 0.01 -0.03	(Hz) 4700 4700 4700 4700 4700 4700 4700 470
FDD II HSUPA Subtest 1	100% 100% 100% 100% 100% 100% 100% 100%	(°C) -30 -20 -10 0 10 20 30 40 50 20 Temp (°C) -30 -20 -10	(MHz) 1880 1880 1880 1880 1880 1880 1880 18	Error (Hz) 32 44 65 39 42 59 28 -47 39 37 59 Frequency Error (Hz) -13 11	(ppm) 0.02 0.03 0.02 0.03 0.01 -0.03 0.02 0.02 0.03 0.01 -0.03	(Hz) 4700 4700 4700 4700 4700 4700 4700 470
FDD II HSUPA Subtest 1	100% 100% 100% 100% 100% 100% 100% 100%	(°C) -30 -20 -10 0 10 20 30 40 50 20 Temp (°C) -30 -20 -10 0	(MHz) 1880 1880 1880 1880 1880 1880 1880 18	Error (Hz) 32 44 65 39 42 59 28 -47 39 37 59 Frequency Error (Hz) -13 11 13 -13	(ppm) 0.02 0.03 0.02 0.03 0.01 -0.03 0.02 0.02 0.03 0.01 -0.01 0.01 0.01 -0.01	(Hz) 4700 4700 4700 4700 4700 4700 4700 470
FDD II HSUPA Subtest 1 Radio Technology	100% 100% 100% 100% 100% 100% 100% 100%	(°C) -30 -20 -10 0 10 20 30 40 50 20 Temp (°C) -30 -20 -10 0 10	(MHz) 1880 1880 1880 1880 1880 1880 1880 18	Error (Hz) 32 44 65 39 42 59 28 -47 39 37 59 Frequency Error (Hz) -13 11 13 -13	(ppm) 0.02 0.03 0.02 0.03 0.01 -0.03 0.02 0.02 0.03 Deviation (ppm) -0.01 0.01 -0.01 0.01	(Hz) 4700 4700 4700 4700 4700 4700 4700 470
FDD II HSUPA Subtest 1 Radio Technology eFDD 2 QPSK	100% 100% 100% 100% 100% 100% 100% 100%	(°C) -30 -20 -10 0 10 20 30 40 50 20 Temp (°C) -30 -20 -10 0 10 20	(MHz) 1880 1880 1880 1880 1880 1880 1880 18	Error (Hz) 32 44 65 39 42 59 28 -47 39 37 59 Frequency Error (Hz) -13 11 13 -13 14	(ppm) 0.02 0.03 0.02 0.03 0.01 -0.03 0.02 0.02 0.03 0.01 -0.01 0.01 0.01 0.01 0.01	(Hz) 4700 4700 4700 4700 4700 4700 4700 470
FDD II HSUPA Subtest 1 Radio Technology	100% 100% 100% 100% 100% 100% 100% 100%	(°C) -30 -20 -10 0 10 20 30 40 50 20 Temp (°C) -30 -20 -10 0 10 20 30	(MHz) 1880 1880 1880 1880 1880 1880 1880 18	Error (Hz) 32 44 65 39 42 59 28 -47 39 37 59 Frequency Error (Hz) -13 11 13 -13 14 12	(ppm) 0.02 0.03 0.03 0.01 -0.03 0.02 0.02 0.03 0.01 -0.01 0.01 0.01 0.01 0.01	(Hz) 4700 4700 4700 4700 4700 4700 4700 470
FDD II HSUPA Subtest 1 Radio Technology eFDD 2 QPSK	100% 100% 100% 100% 100% 100% 100% 100%	(°C) -30 -20 -10 0 10 20 30 40 50 20 Temp (°C) -30 -20 -10 0 10 20 30 40	(MHz) 1880 1880 1880 1880 1880 1880 1880 18	Error (Hz) 32 44 65 39 42 59 28 -47 39 37 59 Frequency Error (Hz) -13 11 13 -13 14 12 14	(ppm) 0.02 0.03 0.03 0.01 -0.03 0.02 0.02 0.03 0.01 -0.01 0.01 0.01 0.01 0.01 0.01	(Hz) 4700 4700 4700 4700 4700 4700 4700 470
FDD II HSUPA Subtest 1 Radio Technology eFDD 2 QPSK	100% 100% 100% 100% 100% 100% 100% 100%	(°C) -30 -20 -10 0 10 20 30 40 50 20 Temp (°C) -30 -20 -10 0 10 20 30	(MHz) 1880 1880 1880 1880 1880 1880 1880 18	Error (Hz) 32 44 65 39 42 59 28 -47 39 37 59 Frequency Error (Hz) -13 11 13 -13 14 12	(ppm) 0.02 0.03 0.03 0.01 -0.03 0.02 0.02 0.03 0.01 -0.01 0.01 0.01 0.01 0.01	(Hz) 4700 4700 4700 4700 4700 4700 4700 470
FDD II HSUPA Subtest 1 Radio Technology eFDD 2 QPSK	100% 100% 100% 100% 100% 100% 100% 100%	(°C) -30 -20 -10 0 10 20 30 40 50 20 Temp (°C) -30 -20 -10 0 10 20 30 40	(MHz) 1880 1880 1880 1880 1880 1880 1880 18	Error (Hz) 32 44 65 39 42 59 28 -47 39 37 59 Frequency Error (Hz) -13 11 13 -13 14 12 14	(ppm) 0.02 0.03 0.03 0.01 -0.03 0.02 0.02 0.03 0.01 -0.01 0.01 0.01 0.01 0.01 0.01	(Hz) 4700 4700 4700 4700 4700 4700 4700 470



Test: 24.2; Frequency Band = eFDD2, Mode = QPSK, Channel = 18900, Frequency = 1880MHz

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 13:40FCC part 2 and 24



Test: 24.2; Frequency Band = FDD2, Mode = HSDPA, Channel = 9400, Frequency = 1880MHz

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 13:40FCC part 2 and 24

Test: 24.2; Frequency Band = FDD2, Mode = HSUPA, Channel = 9400, Frequency = 1880MHz

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 13:41FCC part 2 and 24

Test: 24.2; Frequency Band = FDD2, Mode = W-CDMA, Channel = 9400, Frequency = 1880MHz

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 13:41FCC part 2 and 24



3.5.10 24.3 Spurious emissions at antenna terminals §2.1051, §24.238

Test: 24.3; Frequency Band = eFDD2, Mode = QPSK 5MHz, Channel = 18625, Frequency = 1852.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 14:51FCC part 2 and 24

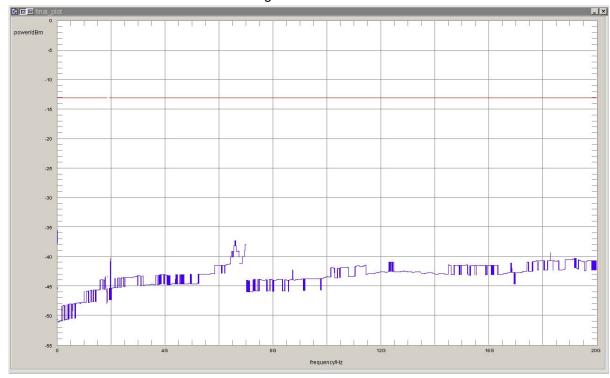
Test: 24.3; Frequency Band = eFDD2, Mode = QPSK 5MHz, Channel = 18900, Frequency = 1880MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 14:48FCC part 2 and 24

Detailed Results:

detector	trace	resolution bandwidth /kHz	frequency /MHz	peak value /dBm	margin to limit /dB	limit /dBm	verdict
rms	maxhold	1	0.030	-35.50	22.50	-13	passed

no further values have been found with a margin of less than 20 dB



Test: 24.3; Frequency Band = eFDD2, Mode = QPSK 5MHz, Channel = 19175, Frequency = 1907.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 14:52FCC part 2 and 24



Test: 24.3; Frequency Band = FDD2, Mode = HSDPA, Channel = 9262, Frequency = 1852.4MHz

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 14:45FCC part 2 and 24

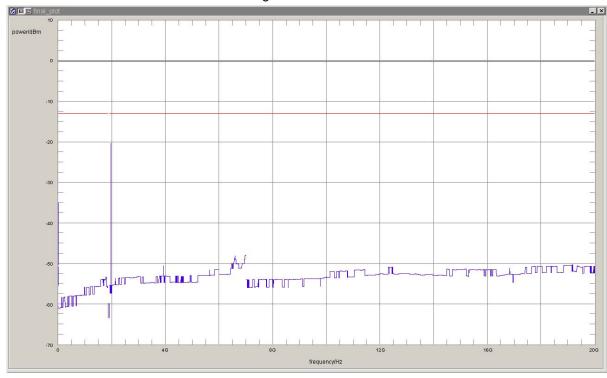
Test: 24.3; Frequency Band = FDD2, Mode = HSDPA, Channel = 9400, Frequency = 1880MHz

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 14:46FCC part 2 and 24

Detailed Results:

detector	trace	resolution bandwidth /kHz	frequency /MHz	peak value /dBm	margin to limit /dB	limit /dBm	verdict
rms	maxhold	1000	1961.1	-20.3	7.3	-13.0	passed

no further values have been found with a margin of less than 20 dB



Test: 24.3; Frequency Band = FDD2, Mode = HSDPA, Channel = 9538, Frequency = 1907.6MHz

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 14:45FCC part 2 and 24

Test: 24.3; Frequency Band = FDD2, Mode = HSUPA, Channel = 9262, Frequency = 1852.4MHz

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 14:43FCC part 2 and 24



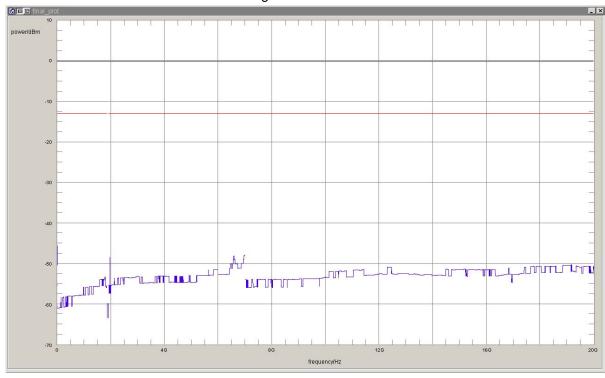
Test: 24.3; Frequency Band = FDD2, Mode = HSUPA, Channel = 9400, Frequency = 1880MHz

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 14:44FCC part 2 and 24

Detailed Results:

detector	trace	resolution bandwidth /kHz	frequency /MHz	peak value /dBm	margin to limit /dB	limit /dBm	verdict
rms	maxhold	1	0.030	-45.50	32.50	-13	passed

no further values have been found with a margin of less than 20 dB



Test: 24.3; Frequency Band = FDD2, Mode = HSUPA, Channel = 9538, Frequency = 1907.6MHz

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 14:42FCC part 2 and 24

Test: 24.3; Frequency Band = FDD2, Mode = W-CDMA, Channel = 9262, Frequency = 1852.4MHz

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 14:41FCC part 2 and 24

Test: 24.3; Frequency Band = FDD2, Mode = W-CDMA, Channel = 9400, Frequency = 1880MHz

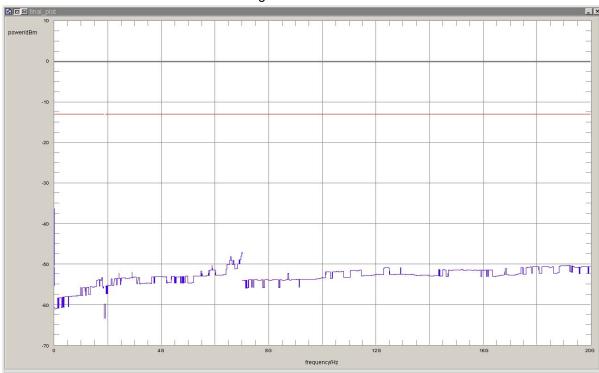
Result Setup No. Date of Test Test Specification:
Passed S01_AF03 2016/08/11 14:41 FCC part 2 and 24



Detailed Results:

detector	trace	resolution bandwidth /kHz	frequency /MHz	peak value /dBm	margin to limit /dB	limit /dBm	verdict
rms	maxhold	3	0.034	-36.30	23.30	-13	passed

no further values have been found with a margin of less than 20 dB



Test: 24.3; Frequency Band = FDD2, Mode = W-CDMA, Channel = 9538, Frequency = 1907.6MHz

Result	Setup No.	Date of Test	Test Specification:
Passed	S01 AF03	2016/08/11 14:39	FCC part 2 and 24



3.5.11 24.4 Field strength of spurious radiation §2.1053, §24.238

Test: 24.4; Frequency Band = eFDD2, Mode = QPSK 5MHz, Channel = 18625, Frequency = 1852.5MHz, Method = radiated

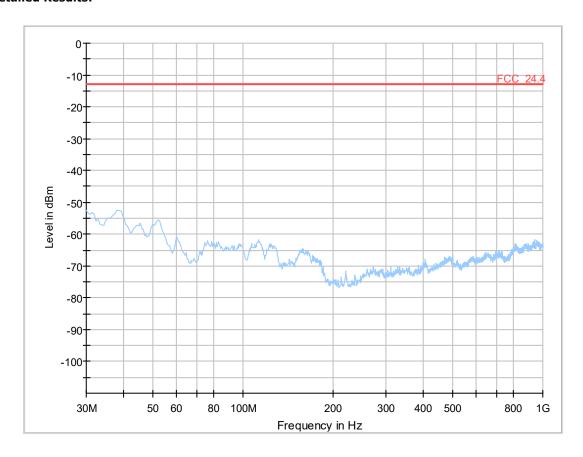
ResultSetup No.Date of TestTest Specification:PassedS01_AQ042016/08/08 10:09FCC part 2 and 24

Test: 24.4; Frequency Band = eFDD2, Mode = QPSK 5MHz, Channel = 18900, Frequency = 1880MHz, Method = radiated

ResultSetup No.Date of TestTest Specification:PassedS01_AQ042016/08/08 10:01FCC part 2 and 24



Detailed Results:



Critical Freqs

<u> </u>									
Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)

(continuation of the "Critical_Freqs" table from column $\,$ 16 ...)

Frequency	Corr.
(MHz)	(dB)
	-

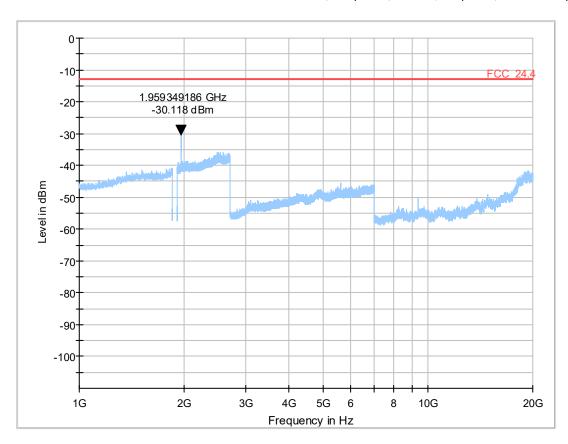
Final_Result

F	requency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)

(continuation of the "Final_Result" table from column $\,$ 16 ...)

Frequency	Corr.
(MHz)	(dB)





Critical Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)

(continuation of the "Critical_Freqs" table from column 16 ...)

Frequency	Corr.
(MHz)	(dB)

Final_Result

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)
	I				1				

(continuation of the "Final_Result" table from column $\,$ 16 ...)

Frequency	Corr.
(MHz)	(dB)



Test: 24.4; Frequency Band = eFDD2, Mode = QPSK 5MHz, Channel = 19175, Frequency = 1907.5MHz, Method = radiated

ResultSetup No.Date of TestTest Specification:PassedS01_AQ042016/08/08 10:10FCC part 2 and 24

Test: 24.4; Frequency Band = FDD2, Mode = HSDPA, Channel = 9262, Frequency = 1852.4MHz

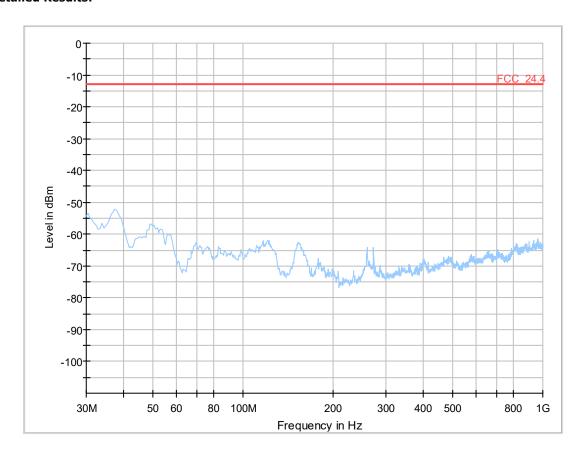
ResultSetup No.Date of TestTest Specification:PassedS01_AQ042016/08/089:00FCC part 2 and 24

Test: 24.4; Frequency Band = FDD2, Mode = HSDPA, Channel = 9400, Frequency = 1880MHz

ResultSetup No.Date of TestTest Specification:PassedS01_AQ042016/08/08 9:02FCC part 2 and 24



Detailed Results:



Critical Freqs

<u> </u>									
Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)

(continuation of the "Critical_Freqs" table from column $\,$ 16 ...)

Frequency	Corr.
(MHz)	(dB)

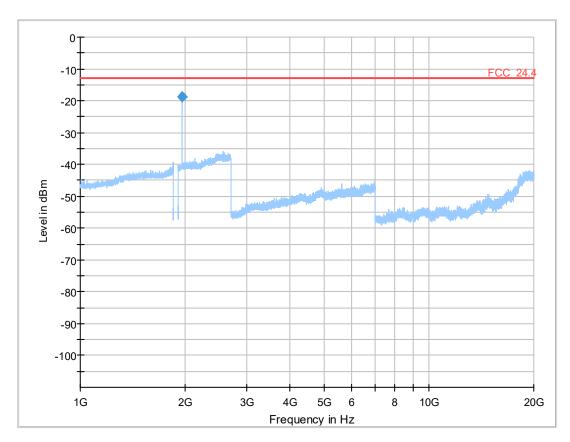
Final_Result

F	requency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)

(continuation of the "Final_Result" table from column $\,$ 16 ...)

Frequency (MHz)	Corr. (dB)





Critical Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)
1958.833125	-18.88	-13.00	5.88	1000.0	1000.000	150.0	V	0.0	90.0

(continuation of the "Critical_Freqs" table from column 16 ...)

Frequency	Corr.
(MHz)	(dB)
1958.833125	-62.7

Final_Result

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)
1958.83312	-18.88	-13.00	5.88	1000.0	1000.000	150.0	V	0.0	90.0

(continuation of the "Final_Result" table from column $\,$ 16 ...)

Frequency	Corr.
(MHz)	(dB)
1958 833125	-62 7



Test: 24.4; Frequency Band = FDD2, Mode = HSDPA, Channel = 9538, Frequency = 1907.6MHz

ResultSetup No.Date of TestTest Specification:PassedS01_AQ042016/08/088:57FCC part 2 and 24

Test: 24.4; Frequency Band = FDD2, Mode = HSUPA, Channel = 9262, Frequency = 1852.4MHz

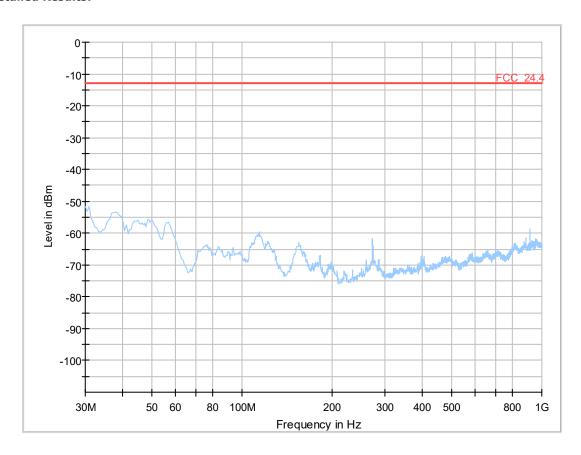
ResultSetup No.Date of TestTest Specification:PassedS01_AQ042016/08/089:07FCC part 2 and 24

Test: 24.4; Frequency Band = FDD2, Mode = HSUPA, Channel = 9400, Frequency = 1880MHz

ResultSetup No.Date of TestTest Specification:PassedS01_AQ042016/08/08 9:08FCC part 2 and 24



Detailed Results:



Critical Freqs

<u> </u>									
Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)

(continuation of the "Critical_Freqs" table from column $\,$ 16 ...)

Frequency	Corr.
(MHz)	(dB)

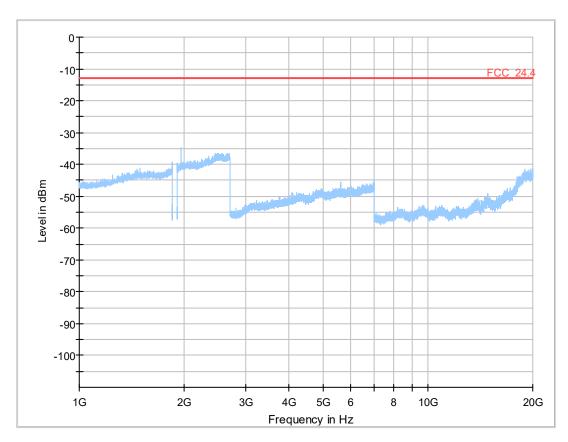
Final_Result

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)
					-				

(continuation of the "Final_Result" table from column 16 ...)

Frequency	Corr.
(MHz)	(dB)





Critical Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)

(continuation of the "Critical_Freqs" table from column 16 ...)

Frequency	Corr.
(MHz)	(dB)
	l

Final_Result

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)
	I				1				

(continuation of the "Final_Result" table from column $\,$ 16 ...)

Frequency (MHz)	Corr. (dB)
· · · · · ·	



Test: 24.4; Frequency Band = FDD2, Mode = HSUPA, Channel = 9538, Frequency = 1907.6MHz

ResultSetup No.Date of TestTest Specification:PassedS01_AQ042016/08/089:05FCC part 2 and 24

Test: 24.4; Frequency Band = FDD2, Mode = W-CDMA, Channel = 9262, Frequency = 1852.4MHz

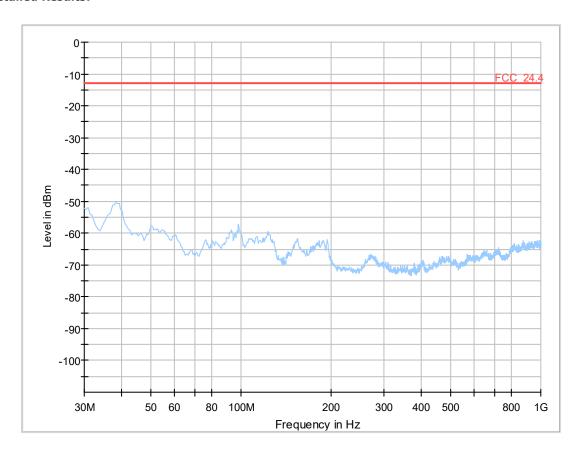
ResultSetup No.Date of TestTest Specification:PassedS01_AQ042016/08/08 12:23FCC part 2 and 24

Test: 24.4; Frequency Band = FDD2, Mode = W-CDMA, Channel = 9400, Frequency = 1880MHz

ResultSetup No.Date of TestTest Specification:Passed\$01_AQ042016/08/08 12:25FCC part 2 and 24



Detailed Results:



Critical Freqs

<u> </u>									
Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)

(continuation of the "Critical_Freqs" table from column $\,$ 16 ...)

Frequency	Corr.
(MHz)	(dB)

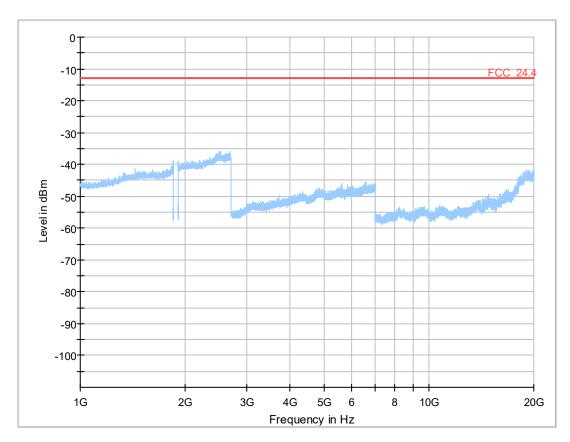
Final_Result

F	requency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)

(continuation of the "Final_Result" table from column $\,$ 16 ...)

Frequency (MHz)	Corr. (dB)





Critical Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)

(continuation of the "Critical_Freqs" table from column 16 ...)

Frequency	Corr.
(MHz)	(dB)

Final_Result

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)
	I				1				

(continuation of the "Final_Result" table from column $\,$ 16 ...)

Frequency (MHz)	Corr. (dB)
· · · · · ·	



Test: 24.4; Frequency Band = FDD2, Mode = W-CDMA, Channel = 9538, Frequency = 1907.6MHz

ResultSetup No.Date of TestTest Specification:PassedS01_AQ042016/08/08 12:19FCC part 2 and 24



3.5.12 24.5 Emission and Occupied Bandwidth §2.1049, §24.238

Test: 24.5; Emission and Occupied Bandwidth Summary §2.1049, §24.238

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 12:08FCC part 2 and 24



Detailed Results:

		_		Nominal	26 dB	99 %
Radio Technology	Channel	Ressourc	Bandwidth	BW	BW	BW
		e Blocks	(MHz)	[MHz]	[kHz]	[kHz]
FDD II	low	-	5	5	4689.4	4088.2
FDD II	mid	-	5	5	4689.4	4088.2
FDD II	high	-	5	5	4709.4	4088.2
FDD II HSDPA Subtest 1	low	-	5	5	4709.4	4088.2
FDD II HSDPA Subtest 1	mid	-	5	5	4709.4	4088.2
FDD II HSDPA Subtest 1	high	-	5	5	4769.5	4088.2
FDD II HSUPA Subtest 1	low	-	5	5	4689.4	4108.2
FDD II HSUPA Subtest 1	mid	-	5	5	4669.3	4088.2
FDD II HSUPA Subtest 1	high	-	5	5	4689.4	4108.2
FDD II HSUPA Subtest 5	low	-	5	5	4709.4	4088.2
FDD II HSUPA Subtest 5	mid	-	5	5	4709.4	4108.2
FDD II HSUPA Subtest 5	high	_	5	5	4749.5	4108.2
eFDD 2 QPSK	low	6	1.4	1.4	-	1118.2
eFDD 2 QPSK	mid	6	1.4	1.4	_	1118.2
eFDD 2 QPSK	high	6	1.4	1.4	_	1118.2
eFDD 2 16QAM	low	6	1.4	1.4	_	1124.3
eFDD 2 16QAM	mid	6	1.4	1.4	_	1100.2
eFDD 2 16QAM	high	6	1.4	1.4	_	1124.3
eFDD 2 QPSK	low	15	3	3	_	2765.5
eFDD 2 QPSK	mid	15	3	3	-	2753.5
eFDD 2 QPSK		15	3	3	-	2765.5
eFDD 2 QPSK eFDD 2 16QAM	high	15	3	3		2777.5
eFDD 2 16QAM	low mid	15	3	3	-	2753.5
		15	3	3	-	2765.5
eFDD 2 16QAM eFDD 2 QPSK	high low	25	5	5	-	4549.1
			5	5	-	
eFDD 2 QPSK	mid	25		5	-	4529.1
eFDD 2 QPSK	high	25	5 5	5	-	4509
eFDD 2 16QAM	low	25		5	-	4529.1
eFDD 2 16QAM	mid	25	5	5	-	4549.1
eFDD 2 16QAM	high	25	5		-	4529.1
eFDD 2 QPSK	low	50	10	10	-	9018
eFDD 2 QPSK	mid	50	10	10	-	9018
eFDD 2 QPSK	high	50	10	10	-	9058.1
eFDD 2 16QAM	low	50	10	10	-	9058.1
eFDD 2 16QAM	mid	50	10	10	-	9058.1
eFDD 2 16QAM	high	50	10	10	-	9018
eFDD 2 QPSK	low	75	15	15	-	13707.4
eFDD 2 QPSK	mid	75	15	15	-	13527.1
eFDD 2 QPSK	high	75 	15	15	-	13587.2
eFDD 2 16QAM	low	75 	15	15	-	13587.2
eFDD 2 16QAM	mid	75	15	15	-	13647.3
eFDD 2 16QAM	high	75	15	15	-	13587.2
eFDD 2 QPSK	low	100	20	20	-	18116.2
eFDD 2 QPSK	mid	100	20	20	-	18276.6
eFDD 2 QPSK	high	100	20	20	-	18276.6
eFDD 2 16QAM	low	100	20	20	-	18196.4
eFDD 2 16QAM	mid	100	20	20	-	18276.6
eFDD 2 16QAM	high	100	20	20	-	18276.6



Test: 24.5; Frequency Band = eFDD2, Mode = 16QAM 1.4MHz, Channel = 18607, Frequency = 1850.7MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 17:07FCC part 2 and 24



Test: 24.5; Frequency Band = eFDD2, Mode = 16QAM 1.4MHz, Channel = 18900, Frequency = 1880MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 17:06FCC part 2 and 24

Test: 24.5; Frequency Band = eFDD2, Mode = 16QAM 1.4MHz, Channel = 19193, Frequency = 1909.3MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 17:05FCC part 2 and 24

Test: 24.5; Frequency Band = eFDD2, Mode = 16QAM 10MHz, Channel = 18650, Frequency = 1855MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 17:24FCC part 2 and 24

Test: 24.5; Frequency Band = eFDD2, Mode = 16QAM 10MHz, Channel = 18900, Frequency = 1880MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 17:22FCC part 2 and 24

Test: 24.5; Frequency Band = eFDD2, Mode = 16QAM 10MHz, Channel = 19150, Frequency = 1905MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 17:25FCC part 2 and 24

Test: 24.5; Frequency Band = eFDD2, Mode = 16QAM 15MHz, Channel = 18675, Frequency = 1857.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 17:29FCC part 2 and 24

Test: 24.5; Frequency Band = eFDD2, Mode = 16QAM 15MHz, Channel = 18900, Frequency = 1880MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 17:28FCC part 2 and 24



Test: 24.5; Frequency Band = eFDD2, Mode = 16QAM 15MHz, Channel = 19125, Frequency = 1902.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 17:30FCC part 2 and 24

Test: 24.5; Frequency Band = eFDD2, Mode = 16QAM 20MHz, Channel = 18700, Frequency = 1860MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:Passed\$01_AF032016/08/11 17:33FCC part 2 and 24

Test: 24.5; Frequency Band = eFDD2, Mode = 16QAM 20MHz, Channel = 18900, Frequency = 1880MHz, Method = conducted

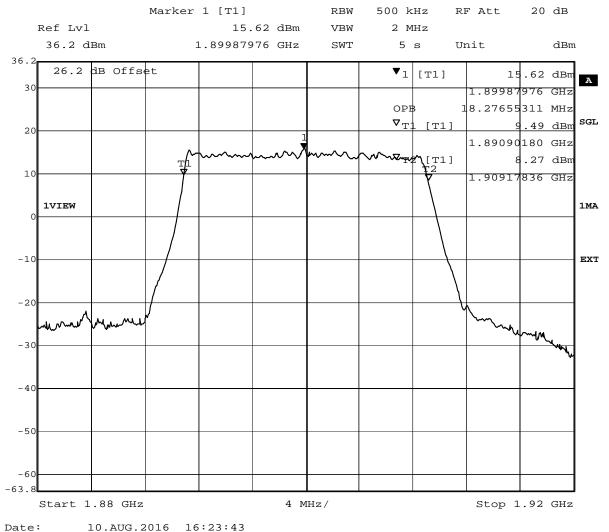
ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 17:32FCC part 2 and 24

Test: 24.5; Frequency Band = eFDD2, Mode = 16QAM 20MHz, Channel = 19100, Frequency = 1900MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 17:33FCC part 2 and 24



Detailed Results:



Test: 24.5; Frequency Band = eFDD2, Mode = 16QAM 3MHz, Channel = 18615, Frequency = 1851.5MHz, Method = conducted

Result	Setup No.	Date of Test	Test Specification:
Passed	S01_AF03	2016/08/11 17:11	FCC part 2 and 24

Test: 24.5; Frequency Band = eFDD2, Mode = 16QAM 3MHz, Channel = 18900, Frequency = 1880MHz, Method = conducted

Result	Setup No.	Date of Test	Test Specification:
Passed	S01_AF03	2016/08/11 17:13	FCC part 2 and 24



Test: 24.5; Frequency Band = eFDD2, Mode = 16QAM 3MHz, Channel = 19185, Frequency = 1908.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 17:09FCC part 2 and 24

Test: 24.5; Frequency Band = eFDD2, Mode = 16QAM 5MHz, Channel = 18625, Frequency = 1852.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 17:19FCC part 2 and 24

Test: 24.5; Frequency Band = eFDD2, Mode = 16QAM 5MHz, Channel = 18900, Frequency = 1880MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 17:17FCC part 2 and 24

Test: 24.5; Frequency Band = eFDD2, Mode = 16QAM 5MHz, Channel = 19175, Frequency = 1907.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 17:20FCC part 2 and 24

Test: 24.5; Frequency Band = eFDD2, Mode = QPSK 1.4MHz, Channel = 18607, Frequency = 1850.7MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 17:08FCC part 2 and 24

Test: 24.5; Frequency Band = eFDD2, Mode = QPSK 1.4MHz, Channel = 18900, Frequency = 1880MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 17:04FCC part 2 and 24

Test: 24.5; Frequency Band = eFDD2, Mode = QPSK 1.4MHz, Channel = 19193, Frequency = 1909.3MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 17:06FCC part 2 and 24



Test: 24.5; Frequency Band = eFDD2, Mode = QPSK 10MHz, Channel = 18650, Frequency = 1855MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 17:24FCC part 2 and 24

Test: 24.5; Frequency Band = eFDD2, Mode = QPSK 10MHz, Channel = 18900, Frequency = 1880MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 17:23FCC part 2 and 24

Test: 24.5; Frequency Band = eFDD2, Mode = QPSK 10MHz, Channel = 19150, Frequency = 1905MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 17:21FCC part 2 and 24

Test: 24.5; Frequency Band = eFDD2, Mode = QPSK 15MHz, Channel = 18675, Frequency = 1857.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 17:26FCC part 2 and 24

Test: 24.5; Frequency Band = eFDD2, Mode = QPSK 15MHz, Channel = 18900, Frequency = 1880MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 17:29FCC part 2 and 24

Test: 24.5; Frequency Band = eFDD2, Mode = QPSK 15MHz, Channel = 19125, Frequency = 1902.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 17:30FCC part 2 and 24

Test: 24.5; Frequency Band = eFDD2, Mode = QPSK 20MHz, Channel = 18700, Frequency = 1860MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 17:32FCC part 2 and 24

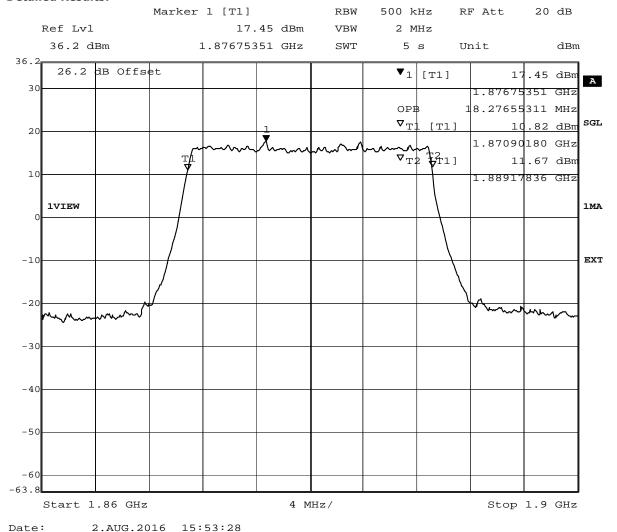


Test: 24.5; Frequency Band = eFDD2, Mode = QPSK 20MHz, Channel = 18900, Frequency = 1880MHz, Method = conducted

Result	Setup No.	Date of Test	Test Specification:
Passed	S01_AF03	2016/08/11 17:31	FCC part 2 and 24

Detailed Results:

Date:



Test: 24.5; Frequency Band = eFDD2, Mode = QPSK 20MHz, Channel = 19100, Frequency = 1900MHz, Method = conducted

Result	Setup No.	Date of Test	Test Specification:
Passed	S01_AF03	2016/08/11 17:33	FCC part 2 and 24



Test: 24.5; Frequency Band = eFDD2, Mode = QPSK 3MHz, Channel = 18615, Frequency = 1851.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 17:12FCC part 2 and 24

Test: 24.5; Frequency Band = eFDD2, Mode = QPSK 3MHz, Channel = 18900, Frequency = 1880MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 17:12FCC part 2 and 24

Test: 24.5; Frequency Band = eFDD2, Mode = QPSK 3MHz, Channel = 19185, Frequency = 1908.5MHz, Method = conducted

 Result
 Setup No.
 Date of Test
 Test Specification:

 Passed
 S01_AF03
 2016/08/11 17:10
 FCC part 2 and 24

Test: 24.5; Frequency Band = eFDD2, Mode = QPSK 5MHz, Channel = 18625, Frequency = 1852.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 17:16FCC part 2 and 24

Test: 24.5; Frequency Band = eFDD2, Mode = QPSK 5MHz, Channel = 18900, Frequency = 1880MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 17:19FCC part 2 and 24

Test: 24.5; Frequency Band = eFDD2, Mode = QPSK 5MHz, Channel = 19175, Frequency = 1907.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 17:18FCC part 2 and 24

Test: 24.5; Frequency Band = FDD2, Mode = HSDPA, Channel = 9262, Frequency = 1852.4MHz

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 16:49FCC part 2 and 24

Test: 24.5; Frequency Band = FDD2, Mode = HSDPA, Channel = 9400, Frequency = 1880MHz

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 16:49FCC part 2 and 24

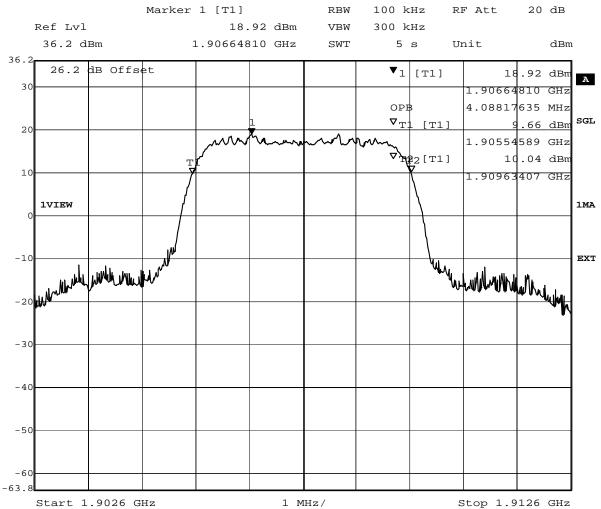


Test: 24.5; Frequency Band = FDD2, Mode = HSDPA, Channel = 9538, Frequency = 1907.6MHz

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 16:48FCC part 2 and 24



Detailed Results:



Date: 8.AUG.2016 11:22:48



-30

-40

-60

Date:

Reference: MDE_UBLOX_1601_FCCa according to: FCC Part 22, Subpart H, Part 24, subpart E, Part 27 Subpart C Delta 2 [T1] RBW 100 kHz RF Att 20 dB Ref Lvl -26.59 dB VBW 300 kHz 36.2 dBm 1.68336673 MHz SWT 5 s Unit dBm 36.2 26.2 dB Offset ▼₁|_[T1] 18.84 dBm Α 3.0 1.90827134 GHz **▲**2 [T1] -26.59 dB SGL 68336673 MHz 20 **1** [T1] -26.95 dB 3.08617234 MHz 10 1VIEW 1MA Theybe will will be the warden EXT -10 munder when

-63 8 Start 1.9026 GHz Stop 1.9126 GHz 1 MHz/

Test: 24.5; Frequency Band = FDD2, Mode = HSUPA, Channel = 9262, Frequency = 1852.4MHz

Result Setup No. Date of Test Test Specification: Passed S01_AF03 2016/08/11 16:51 FCC part 2 and 24

8.AUG.2016 11:23:18

Test: 24.5; Frequency Band = FDD2, Mode = HSUPA, Channel = 9400, Frequency = 1880MHz

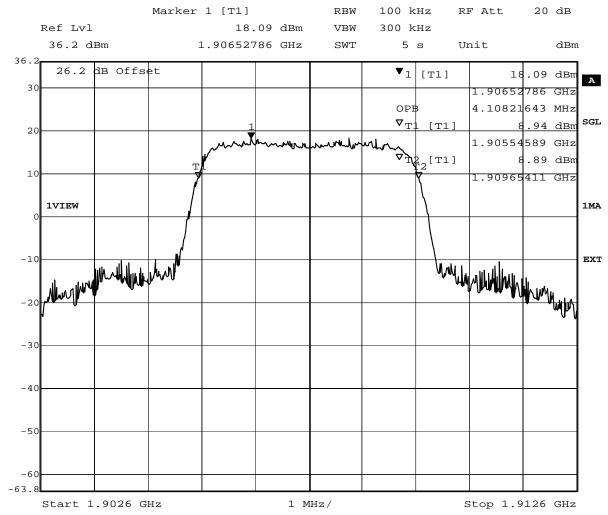
Result Setup No. Date of Test Test Specification: Passed S01_AF03 2016/08/11 16:52 FCC part 2 and 24

Test: 24.5; Frequency Band = FDD2, Mode = HSUPA, Channel = 9538, Frequency = 1907.6MHz

Result Setup No. Date of Test Test Specification: Passed S01_AF03 2016/08/11 16:50 FCC part 2 and 24



Detailed Results:



Date: 11.AUG.2016 16:23:03



-60 -63 8

Reference: MDE_UBLOX_1601_FCCa according to: FCC Part 22, Subpart H, Part 24, subpart E, Part 27 Subpart C Delta 2 [T1] RBW 100 kHz RF Att 20 dB Ref Lvl -26.66 dB VBW 300 kHz 36.2 dBm 3.46693387 MHz SWT 5 s Unit dBm 36.2 26.2 dB Offset ▼₁|_[T1] 18.31 dBm Α 3.0 1.90648778 GHz [T1] -26.66 dB SGL 46693387 MHz 20 [T1] -26.89 dB 1.28256513 MHz 10 1VIEW 1MA

EXT -10 -30 -40

Start 1.9026 GHz 1 MHz/ Date: 11.AUG.2016 16:23:34

Test: 24.5; Frequency Band = FDD2, Mode = W-CDMA, Channel = 9262, Frequency = 1852.4MHz

Result Setup No. Date of Test Test Specification: Passed S01_AF03 2016/08/11 16:46 FCC part 2 and 24

Test: 24.5; Frequency Band = FDD2, Mode = W-CDMA, Channel = 9400, Frequency = 1880MHz

Result Setup No. Date of Test Test Specification: Passed S01_AF03 2016/08/11 16:47 FCC part 2 and 24

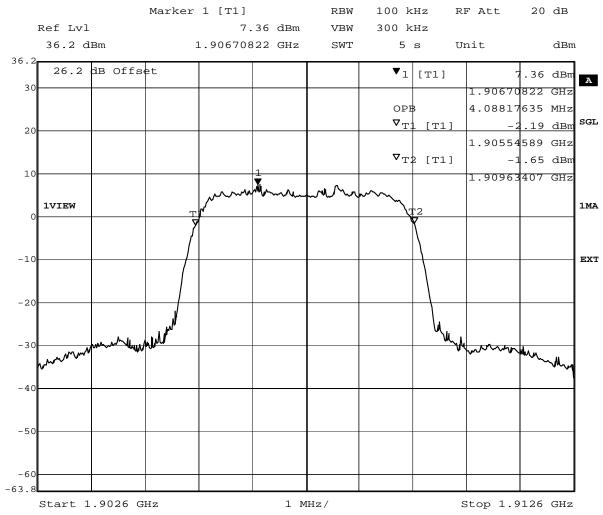
Test: 24.5; Frequency Band = FDD2, Mode = W-CDMA, Channel = 9538, Frequency = 1907.6MHz

Result Setup No. Date of Test Test Specification: Passed S01_AF03 2016/08/11 16:44 FCC part 2 and 24

Stop 1.9126 GHz



Detailed Results:



Date: 8.AUG.2016 11:14:34



Reference: MDE_UBLOX_1601_FCCa according to: FCC Part 22, Subpart H, Part 24, subpart E, Part 27 Subpart C 20 dB Delta 2 [T1] RBW 100 kHz RF Att Ref Lvl -26.69 dB VBW 300 kHz 36.2 dBm 3.22645291 MHz SWT 5 s Unit dBm 36.2 26.2 dB Offset **▼**1 [T1] .41 dBm Α 30 1.90670822 GHz ▲2 [T1] -26.69 dB SGL 22645291 MHz 20 **∆**1 [T1] -27.98 dB 1.48296593 MHz 10 **1VIEW** 1MA EXT -10 -20 -30 -40 -50

1 MHz/

Date: 8.AUG.2016 11:15:05

Start 1.9026 GHz

-60 -63.8

Stop 1.9126 GHz



3.5.13 24.6 Band edge compliance §2.1053, §24.238

Test: 24.6; Band edge compliance summary §2.1053, §24.238

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 11:38FCC part 2 and 24

Detailed Results:

Detailed Results:								Margin
Radio Technology	Channel	Nominal	Ressourc	Peak	Average	RMS	Limit	to
Radio Technology	Chamilei	BW	e Blocks	[dBm]	[dBm]	[dBm]	/dBm	Limit
								/dB
FDD II	low	5	-	-20.35	-30.42	-29.26	-13	16.26
FDD II	high	5	-	-19.37	-34.76	-33.34	-13	20.34
FDD II HSDPA Subtest 1	low	5	-	-16.39	-26.7	-25.92	-13	12.92
FDD II HSDPA Subtest 1	high	5	-	-15.8	-27.54	-26.3	-13	13.3
FDD II HSUPA Subtest 1	low	5	-	-16.85	-29.54	-28.74	-13	15.74
FDD II HSUPA Subtest 1	high	5	-	-18.72	-31.76	-31.07	-13	18.07
FDD II HSUPA Subtest 5	low	5	-	-16.22	-29	-28	-13	15
FDD II HSUPA Subtest 5	high	5	ı	-16.8	-29.26	-28	-13	15
eFDD 2 QPSK	low	1.4	6	-18.02	-29.26	-27.32	-13	14.32
eFDD 2 QPSK	high	1.4	6	-17.75	-29.54	-27.54	-13	14.54
eFDD 2 16QAM	low	1.4	6	-15.73	-29.54	-27.54	-13	14.54
eFDD 2 16QAM	high	1.4	6	-18.69	-29.54	-27.77	-13	14.77
eFDD 2 QPSK	low	3	15	-16.57	-31.41	-28.48	-13	15.48
eFDD 2 QPSK	high	3	15	-17.9	-32.13	-29.54	-13	16.54
eFDD 2 16QAM	low	3	15	-16.3	-31.41	-28.24	-13	15.24
eFDD 2 16QAM	high	3	15	-17.68	-31.76	-29.54	-13	16.54
eFDD 2 QPSK	low	5	25	-14.45	-33.79	-29.54	-13	16.54
eFDD 2 QPSK	high	5	25	-15.26	-33.79	-30.42	-13	17.42
eFDD 2 16QAM	low	5	25	-16.51	-34.76	-31.07	-13	18.07
eFDD 2 16QAM	high	5	25	-14.95	-33.34	-29.82	-13	16.82
eFDD 2 QPSK	low	10	50	-14.59	-37.09	-31.76	-13	18.76
eFDD 2 QPSK	high	10	50	-15.91	-35.28	-31.76	-13	18.76
eFDD 2 16QAM	low	10	50	-17.17	-38.54	-34.26	-13	21.26
eFDD 2 16QAM	high	10	50	-16.22	-37.09	-33.34	-13	20.34
eFDD 2 QPSK	low	15	75	-9.88	-36.44	-31.04	-13	18.04
eFDD 2 QPSK	high	15	75	-11.48	-33.79	-29.82	-13	16.82
eFDD 2 16QAM	low	15	75	-11.95	-36.44	-30.74	-13	17.74
eFDD 2 16QAM	high	15	75	-11.23	-33.79	-30.12	-13	17.12
eFDD 2 QPSK	low	20	100	-15.82	-38.54	-33.79	-13	20.79
eFDD 2 QPSK	high	20	100	-15.09	-34.26	-31.76	-13	18.76
eFDD 2 16QAM	low	20	100	-15.45	-39.37	-34.76	-13	21.76
eFDD 2 16QAM	high	20	100	-13.81	-35.28	-32.92	-13	19.92

Test: 24.6; Band edge compliance summary §2.1053, §24.238

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 17:37FCC part 2 and 24



Test: 24.6; Frequency Band = eFDD2, Mode = 16QAM 1.4MHz, Channel = 18607, Frequency = 1850.7MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 17:47FCC part 2 and 24

Test: 24.6; Frequency Band = eFDD2, Mode = 16QAM 1.4MHz, Channel = 19193, Frequency = 1909.3MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 17:48FCC part 2 and 24

Test: 24.6; Frequency Band = eFDD2, Mode = 16QAM 10MHz, Channel = 18650, Frequency = 1855MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 17:54FCC part 2 and 24

Test: 24.6; Frequency Band = eFDD2, Mode = 16QAM 10MHz, Channel = 19150, Frequency = 1905MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 17:53FCC part 2 and 24

Test: 24.6; Frequency Band = eFDD2, Mode = 16QAM 15MHz, Channel = 18675, Frequency = 1857.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/01 17:52FCC part 2 and 24

Test: 24.6; Frequency Band = eFDD2, Mode = 16QAM 15MHz, Channel = 19125, Frequency = 1902.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 17:52FCC part 2 and 24

Test: 24.6; Frequency Band = eFDD2, Mode = 16QAM 20MHz, Channel = 18700, Frequency = 1860MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 17:51FCC part 2 and 24



Test: 24.6; Frequency Band = eFDD2, Mode = 16QAM 20MHz, Channel = 19100, Frequency = 1900MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 17:50FCC part 2 and 24

Test: 24.6; Frequency Band = eFDD2, Mode = 16QAM 3MHz, Channel = 18615, Frequency = 1851.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 17:49FCC part 2 and 24

Test: 24.6; Frequency Band = eFDD2, Mode = 16QAM 3MHz, Channel = 19185, Frequency = 1908.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 17:55FCC part 2 and 24

Test: 24.6; Frequency Band = eFDD2, Mode = 16QAM 5MHz, Channel = 18625, Frequency = 1852.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 17:57FCC part 2 and 24

Test: 24.6; Frequency Band = eFDD2, Mode = 16QAM 5MHz, Channel = 19175, Frequency = 1907.5MHz, Method = conducted

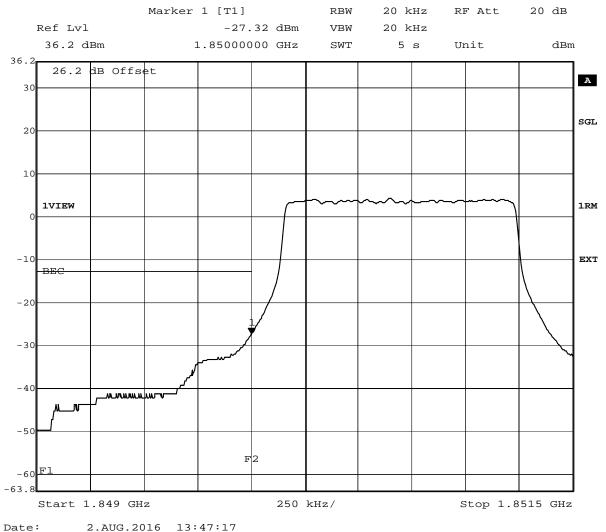
ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 17:56FCC part 2 and 24

Test: 24.6; Frequency Band = eFDD2, Mode = QPSK 1.4MHz, Channel = 18607, Frequency = 1850.7MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 17:46FCC part 2 and 24



Detailed Results:



Test: 24.6; Frequency Band = eFDD2, Mode = QPSK 1.4MHz, Channel = 19193, Frequency = 1909.3MHz, Method = conducted

Result	Setup No.	Date of Test	Test Specification:
Passed	S01_AF03	2016/08/11 17:48	FCC part 2 and 24

Test: 24.6; Frequency Band = eFDD2, Mode = QPSK 10MHz, Channel = 18650, Frequency = 1855MHz, Method = conducted

Result	Setup No.	Date of Test	Test Specification:
Passed	S01_AF03	2016/08/11 17:55	FCC part 2 and 24



Test: 24.6; Frequency Band = eFDD2, Mode = QPSK 10MHz, Channel = 19150, Frequency = 1905MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 17:54FCC part 2 and 24

Test: 24.6; Frequency Band = eFDD2, Mode = QPSK 15MHz, Channel = 18675, Frequency = 1857.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 17:53FCC part 2 and 24

Test: 24.6; Frequency Band = eFDD2, Mode = QPSK 15MHz, Channel = 19125, Frequency = 1902.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 17:52FCC part 2 and 24

Test: 24.6; Frequency Band = eFDD2, Mode = QPSK 20MHz, Channel = 18700, Frequency = 1860MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 17:51FCC part 2 and 24

Test: 24.6; Frequency Band = eFDD2, Mode = QPSK 20MHz, Channel = 19100, Frequency = 1900MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 17:50FCC part 2 and 24

Test: 24.6; Frequency Band = eFDD2, Mode = QPSK 3MHz, Channel = 18615, Frequency = 1851.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 17:49FCC part 2 and 24

Test: 24.6; Frequency Band = eFDD2, Mode = QPSK 3MHz, Channel = 19185, Frequency = 1908.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 17:50FCC part 2 and 24



Test: 24.6; Frequency Band = eFDD2, Mode = QPSK 5MHz, Channel = 18625, Frequency = 1852.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 17:55FCC part 2 and 24

Test: 24.6; Frequency Band = eFDD2, Mode = QPSK 5MHz, Channel = 19175, Frequency = 1907.5MHz, Method = conducted

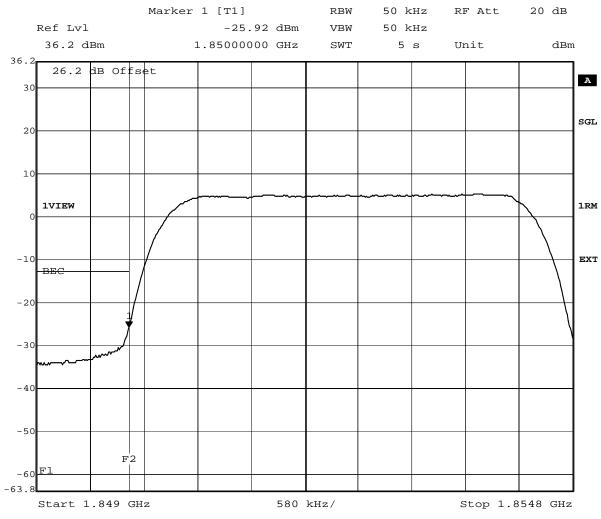
ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 17:56FCC part 2 and 24

Test: 24.6; Frequency Band = FDD2, Mode = HSDPA, Channel = 9262, Frequency = 1852.4MHz

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 17:41FCC part 2 and 24



Detailed Results:



Date:

8.AUG.2016 11:02:04

Test: 24.6; Frequency Band = FDD2, Mode = HSDPA, Channel = 9538, Frequency = 1907.6MHz

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 17:42FCC part 2 and 24

Test: 24.6; Frequency Band = FDD2, Mode = HSUPA, Channel = 9262, Frequency = 1852.4MHz

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 17:43FCC part 2 and 24

Test: 24.6; Frequency Band = FDD2, Mode = HSUPA, Channel = 9538, Frequency = 1907.6MHz

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 17:44FCC part 2 and 24



Test: 24.6; Frequency Band = FDD2, Mode = W-CDMA, Channel = 9262, Frequency = 1852.4MHz

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 17:40FCC part 2 and 24

Test: 24.6; Frequency Band = FDD2, Mode = W-CDMA, Channel = 9538, Frequency = 1907.6MHz

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 17:38FCC part 2 and 24



3.5.14 24.7 Peak-to-Average ratio §2.1046, §24.232

Test: 24.7; Peak-to-Average Ratio Summary §2.1046, §24.232

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 12:10FCC part 2 and 24

Detailed Results:

Radio Technology	Channel	Ressource Blocks	Bandwidth (MHz)	Peak to Averag e Ratio	Limit (IC) (dB)
eFDD 2 QPSK	low	6	1.4	5.68	13
eFDD 2 QPSK	mid	6	1.4	5.62	13
eFDD 2 QPSK	high	6	1.4	5.51	13
eFDD 2 16QAM	low	6	1.4	6.38	13
eFDD 2 16QAM	mid	6	1.4	6.58	13
eFDD 2 16QAM	high	6	1.4	6.29	13

Test: 24.7; Frequency Band = eFDD2, Mode = 16QAM 1.4MHz, Channel = 18607, Frequency = 1850.7MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 8:35FCC part 2 and 24

Test: 24.7; Frequency Band = eFDD2, Mode = 16QAM 1.4MHz, Channel = 18900, Frequency = 1880MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/118:34FCC part 2 and 24

Test: 24.7; Frequency Band = eFDD2, Mode = 16QAM 1.4MHz, Channel = 19193, Frequency = 1909.3MHz, Method = conducted

Result Setup No. Date of Test Test Specification:
Passed S01_AF03 2016/08/11 8:33 FCC part 2 and 24

Test: 24.7; Frequency Band = eFDD2, Mode = QPSK 1.4MHz, Channel = 18900, Frequency = 1880MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/118:34FCC part 2 and 24



Test: 24.7; Frequency Band = eFDD2, Mode = QPSK 1.4MHz, Channel = 19193, Frequency = 1909.3MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/118:33FCC part 2 and 24



3.5.15 27.1 RF Power Output §2.1046, §27.250

Test: 27.1; RF Power Output Summary §2.1046, §27.250

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 12:16FCC part 2 and 27



Detailed Results:

Radio Technology	Channel	Ressource Blocks	Bandwidth (MHz)	RMS Conducted Power (dBm)	EIRP Limit (dBm)	Result
eFDD 4 QPSK	low	1	1.4	21.01	30	Passed
eFDD 4 QPSK	low	3	1.4	20.78	30	Passed
eFDD 4 QPSK	low	6	1.4	19.89	30	Passed
eFDD 4 QPSK	mid	1	1.4	21.16	30	Passed
eFDD 4 QPSK	mid	3	1.4	20.77	30	Passed
eFDD 4 QPSK	mid	6	1.4	19.92	30	Passed
eFDD 4 QPSK	high	1	1.4	20.93	30	Passed
eFDD 4 QPSK	high	3	1.4	20.79	30	Passed
eFDD 4 QPSK	high	6	1.4	19.79	30	Passed
eFDD 4 16QAM	low	1	1.4	20.34	30	Passed
eFDD 4 16QAM	low	6	1.4	19.02	30	Passed
eFDD 4 16QAM	mid	1	1.4	20.42	30	Passed
eFDD 4 16QAM	mid	6	1.4	19.01	30	Passed
eFDD 4 16QAM	high	1	1.4	20.24	30	Passed
eFDD 4 16QAM	high	6	1.4	18.81	30	Passed
eFDD 4 QPSK	low	1	3	21.5	30	Passed
eFDD 4 QPSK	low	15	3	19.24	30	Passed
eFDD 4 QPSK	mid	1	3	21.5	30	Passed
eFDD 4 QPSK	mid	15	3	19.23	30	Passed
eFDD 4 QPSK	high	1	3	21.54	30	Passed
eFDD 4 QPSK	high	15	3	19.14	30	Passed
eFDD 4 16QAM	low	1	3	20.65	30	Passed
eFDD 4 16QAM	low	15	3	18.48	30	Passed
eFDD 4 16QAM	mid	1	3	20.64	30	Passed
eFDD 4 16QAM	mid	15	3	18.46	30	Passed
eFDD 4 16QAM	high	1	3	20.72	30	Passed
eFDD 4 16QAM	high	15	3	18.3	30	Passed
eFDD 4 QPSK	low	1	5	21.56	30	Passed
eFDD 4 QPSK	low	12	5	19.33	30	Passed
eFDD 4 QPSK	low	25	5	19.39	30	Passed
eFDD 4 QPSK	mid	1	5	21.66	30	Passed
eFDD 4 QPSK	mid	12	5	19.35	30	Passed
eFDD 4 QPSK	mid	25	5	19.38	30	Passed
eFDD 4 QPSK	high	1	5	21.4	30	Passed
eFDD 4 QPSK	high	12	5	19.19	30	Passed
eFDD 4 QPSK	high	25	5	19.17	30	Passed
eFDD 4 16QAM	low	1	5	20.89	30	Passed
eFDD 4 16QAM	low	25	5	18.49	30	Passed
eFDD 4 16QAM	mid	1	5	20.84	30	Passed
eFDD 4 16QAM	mid	25	5	18.49	30	Passed
eFDD 4 16QAM	high	1	5	20.81	30	Passed
	9	l	5	18.44	30	



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Radio Technology	Channel	Ressource Blocks	Bandwidth (MHz)		EIRP Limit (dBm)	Result
eFDD 4 QPSK	low	1	10	21.91	30	Passed
eFDD 4 QPSK	low	50	10	19.85	30	Passed
eFDD 4 QPSK	mid	1	10	21.91	30	Passed
eFDD 4 QPSK	mid	50	10	19.78	30	Passed
eFDD 4 QPSK	high	1	10	21.86	30	Passed
eFDD 4 QPSK	high	50	10	19.7	30	Passed
eFDD 4 16QAM	low	1	10	21.19	30	Passed
eFDD 4 16QAM	low	50	10	18.93	30	Passed
eFDD 4 16QAM	mid	1	10	20.93	30	Passed
eFDD 4 16QAM	mid	50	10	18.88	30	Passed
eFDD 4 16QAM	high	1	10	21.13	30	Passed
eFDD 4 16QAM	high	50	10	18.78	30	Passed
eFDD 4 QPSK	low	1	15	22.11	30	Passed
eFDD 4 QPSK	low	36	15	20.12	30	Passed
eFDD 4 QPSK	low	75	15	19.93	30	Passed
eFDD 4 QPSK	mid	1	15	21.97	30	Passed
eFDD 4 QPSK	mid	36	15	20.08	30	Passed
eFDD 4 QPSK	mid	75	15	19.95	30	Passed
eFDD 4 QPSK	high	1	15	21.99	30	Passed
eFDD 4 QPSK	high	36	15	20.03	30	Passed
eFDD 4 QPSK	high	75	15	19.86	30	Passed
eFDD 4 16QAM	low	1	15	21.26	30	Passed
eFDD 4 16QAM	low	75	15	19.03	30	Passed
eFDD 4 16QAM	mid	1	15	21.21	30	Passed
eFDD 4 16QAM	mid	75	15	19.11	30	Passed
eFDD 4 16QAM	high	1	15	21.28	30	Passed
eFDD 4 16QAM	high	75	15	18.88	30	Passed
eFDD 4 QPSK	low	1	20	21.67	30	Passed
eFDD 4 QPSK	low	100	20	19.87	30	Passed
eFDD 4 QPSK	mid	1	20	21.72	30	Passed
eFDD 4 QPSK	mid	100	20	19.77	30	Passed
eFDD 4 QPSK	high	1	20	21.64	30	Passed
eFDD 4 QPSK	high	100	20	19.73	30	Passed
eFDD 4 16QAM	low	1	20	20.93	30	Passed
eFDD 4 16QAM	low	100	20	19.08	30	Passed
eFDD 4 16QAM	mid	1	20	20.89	30	Passed
eFDD 4 16QAM	mid	100	20	18.93	30	Passed
eFDD 4 16QAM	high	1	20	20.75	30	Passed
eFDD 4 16QAM	high	100	20	18.89	30	Passed



			FCC	Part 22, Sub	Part 24,	
				RMS		
Dadia Taskaslasa	Charana I	Ressource	Bandwidth	Conducted	EIRP	D la
Radio Technology	Channel	Blocks	(MHz)	Power	Limit	Result
				(dBm)	(dBm)	
eFDD 12 QPSK	low	1	1.4	21.49	36.91	Passed
eFDD 12 QPSK	low	3	1.4	21.15	36.91	Passed
eFDD 12 QPSK	+		1.4	20.22	36.91	Passed
	low	6				
eFDD 12 QPSK	mid	1	1.4	21.53	36.91	Passed
eFDD 12 QPSK	mid	3	1.4	21.12	36.91	Passed
eFDD 12 QPSK	mid	6	1.4	20.16	36.91	Passed
eFDD 12 QPSK	high	1	1.4	21.3	36.91	Passed
eFDD 12 QPSK	high	3	1.4	21.03	36.91	Passed
eFDD 12 QPSK	high	6	1.4	20.01	36.91	Passed
eFDD 12 16QAM	low	1	1.4	21.01	36.91	Passed
eFDD 12 16QAM	low	6	1.4	19.67	36.91	Passed
eFDD 12 16QAM	mid	1	1.4	21.03	36.91	Passed
eFDD 12 16QAM	mid	6	1.4	19.58	36.91	Passed
eFDD 12 16QAM	high	1	1.4	20.81	36.91	Passed
eFDD 12 16QAM	high	6	1.4	19.55	36.91	Passed
eFDD 12 QPSK	low	1	3	21.82	36.91	Passed
		<u> </u>				
eFDD 12 QPSK	low	15	3	19.5	36.91	Passed
eFDD 12 QPSK	mid	1	3	21.69	36.91	Passed
eFDD 12 QPSK	mid	15	3	19.52	36.91	Passed
eFDD 12 QPSK	high	1	3	21.76	36.91	Passed
eFDD 12 QPSK	high	15	3	19.32	36.91	Passed
eFDD 12 16QAM	low	1	3	21.21	36.91	Passed
eFDD 12 16QAM	low	15	3	18.91	36.91	Passed
eFDD 12 16QAM	mid	1	3	21.34	36.91	Passed
eFDD 12 16QAM	mid	15	3	18.92	36.91	Passed
eFDD 12 16QAM	high	1	3	21.24	36.91	Passed
eFDD 12 16QAM	high	15	3	18.8	36.91	Passed
eFDD 12 QPSK	low	1	5	21.88	36.91	Passed
eFDD 12 QPSK	low	12	5	19.51	36.91	Passed
eFDD 12 QPSK	low	25	5	19.51	36.91	Passed
eFDD 12 QPSK	mid	1	5	21.87	36.91	Passed
eFDD 12 QPSK	mid	12	5	19.43	36.91	Passed
eFDD 12 QPSK	mid	25	5	19.45	36.91	Passed
eFDD 12 QPSK	high	1	5	21.72	36.91	Passed
eFDD 12 QPSK	high	12	5	19.35	36.91	Passed
eFDD 12 QPSK	high	25	5	19.4	36.91	Passed
eFDD 12 16QAM	low	1	5	21.29	36.91	Passed
eFDD 12 16QAM	low	25	5	18.14	36.91	Passed
eFDD 12 16QAM	mid	1	5	21.42	36.91	Passed
eFDD 12 16QAM	mid	25	5	18.87	36.91	Passed
eFDD 12 16QAM	high	1	5	21.3	36.91	Passed
eFDD 12 16QAM	high	25	5	18.81	36.91	Passed
	 	1		22		
eFDD 12 QPSK	low	1	10		36.91	Passed
eFDD 12 QPSK	low	50	10	19.87	36.91	Passed
eFDD 12 QPSK	mid	1	10	21.92	36.91	Passed
eFDD 12 QPSK	mid	50	10	19.79	36.91	Passed
eFDD 12 QPSK	high	1	10	21.96	36.91	Passed
eFDD 12 QPSK	high	50	10	19.75	36.91	Passed
eFDD 12 16QAM	low	1	10	21.61	36.91	Passed
eFDD 12 16QAM	low	50	10	19.29	36.91	Passed
eFDD 12 16QAM	mid	1	10	21.48	36.91	Passed
eFDD 12 16QAM	mid	50	10	19.26	36.91	Passed
eFDD 12 16QAM	high	1	10	21.51	36.91	Passed
eFDD 12 16QAM	high	50	10	19.2	36.91	Passed



Test: 27.1; Frequency Band = eFDD12, Mode = 16QAM 1.4MHz, Channel = 23017, Frequency = 699.7MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/119:27FCC part 2 and 27



Test: 27.1; Frequency Band = eFDD12, Mode = 16QAM 1.4MHz, Channel = 23095, Frequency = 707.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/119:22FCC part 2 and 27

Test: 27.1; Frequency Band = eFDD12, Mode = 16QAM 1.4MHz, Channel = 23173, Frequency = 715.3MHz, Method = conducted

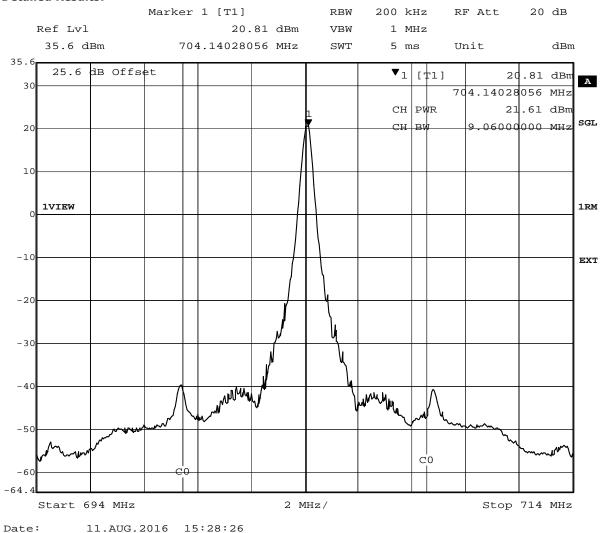
ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/119:27FCC part 2 and 27

Test: 27.1; Frequency Band = eFDD12, Mode = 16QAM 10MHz, Channel = 23060, Frequency = 704MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/119:42FCC part 2 and 27



Detailed Results:



Test: 27.1; Frequency Band = eFDD12, Mode = 16QAM 10MHz, Channel = 23095, Frequency = 707.5MHz, Method = conducted

Result	Setup No.	Date of Test	Test Specification:
Passed	S01_AF03	2016/08/11 9:43	FCC part 2 and 27

Test: 27.1; Frequency Band = eFDD12, Mode = 16QAM 10MHz, Channel = 23130, Frequency = 711MHz, Method = conducted

Result	Setup No.	Date of Test	Test Specification:
Passed	S01 AF03	2016/08/11 9:43	FCC part 2 and 27



Test: 27.1; Frequency Band = eFDD12, Mode = 16QAM 3MHz, Channel = 23025, Frequency = 700.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/119:33FCC part 2 and 27

Test: 27.1; Frequency Band = eFDD12, Mode = 16QAM 3MHz, Channel = 23095, Frequency = 707.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/119:30FCC part 2 and 27

Test: 27.1; Frequency Band = eFDD12, Mode = 16QAM 3MHz, Channel = 23165, Frequency = 714.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/119:33FCC part 2 and 27

Test: 27.1; Frequency Band = eFDD12, Mode = 16QAM 5MHz, Channel = 23035, Frequency = 701.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/119:39FCC part 2 and 27

Test: 27.1; Frequency Band = eFDD12, Mode = 16QAM 5MHz, Channel = 23095, Frequency = 707.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/119:37FCC part 2 and 27

Test: 27.1; Frequency Band = eFDD12, Mode = 16QAM 5MHz, Channel = 23155, Frequency = 713.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/119:38FCC part 2 and 27

Test: 27.1; Frequency Band = eFDD12, Mode = QPSK 1.4MHz, Channel = 23017, Frequency = 699.7MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/119:25FCC part 2 and 27



Test: 27.1; Frequency Band = eFDD12, Mode = QPSK 1.4MHz, Channel = 23095, Frequency = 707.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/119:25FCC part 2 and 27

Test: 27.1; Frequency Band = eFDD12, Mode = QPSK 1.4MHz, Channel = 23173, Frequency = 715.3MHz, Method = conducted

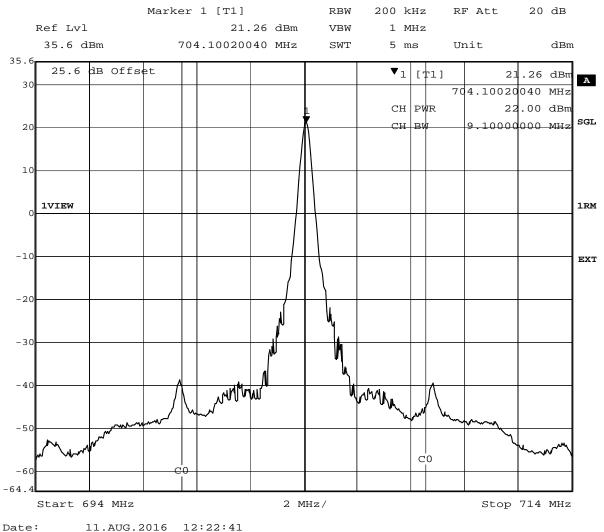
ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/119:26FCC part 2 and 27

Test: 27.1; Frequency Band = eFDD12, Mode = QPSK 10MHz, Channel = 23060, Frequency = 704MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/119:44FCC part 2 and 27



Detailed Results:



Test: 27.1; Frequency Band = eFDD12, Mode = QPSK 10MHz, Channel = 23095, Frequency = 707.5MHz, Method = conducted

Result	Setup No.	Date of Test	Test Specification:
Passed	S01_AF03	2016/08/11 9:44	FCC part 2 and 27

Test: 27.1; Frequency Band = eFDD12, Mode = QPSK 10MHz, Channel = 23130, Frequency = 711MHz, Method = conducted

Result	Setup No.	Date of Test	Test Specification:
Passed	S01_AF03	2016/08/11 9:41	FCC part 2 and 27



Test: 27.1; Frequency Band = eFDD12, Mode = QPSK 3MHz, Channel = 23025, Frequency = 700.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:Passed\$01_AF032016/08/119:29FCC part 2 and 27

Test: 27.1; Frequency Band = eFDD12, Mode = QPSK 3MHz, Channel = 23095, Frequency = 707.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/119:34FCC part 2 and 27

Test: 27.1; Frequency Band = eFDD12, Mode = QPSK 3MHz, Channel = 23165, Frequency = 714.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/119:34FCC part 2 and 27

Test: 27.1; Frequency Band = eFDD12, Mode = QPSK 5MHz, Channel = 23035, Frequency = 701.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/119:35FCC part 2 and 27

Test: 27.1; Frequency Band = eFDD12, Mode = QPSK 5MHz, Channel = 23095, Frequency = 707.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/119:39FCC part 2 and 27

Test: 27.1; Frequency Band = eFDD12, Mode = QPSK 5MHz, Channel = 23155, Frequency = 713.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/119:40FCC part 2 and 27

Test: 27.1; Frequency Band = eFDD4, Mode = 16QAM 1.4MHz, Channel = 19957, Frequency = 1710.7MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/118:45FCC part 2 and 27



Test: 27.1; Frequency Band = eFDD4, Mode = 16QAM 1.4MHz, Channel = 20175, Frequency = 1732.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:Passed\$01_AF032016/08/118:44FCC part 2 and 27

Test: 27.1; Frequency Band = eFDD4, Mode = 16QAM 1.4MHz, Channel = 20393, Frequency = 1754.3MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/118:46FCC part 2 and 27

Test: 27.1; Frequency Band = eFDD4, Mode = 16QAM 10MHz, Channel = 20000, Frequency = 1715MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/118:58FCC part 2 and 27

Test: 27.1; Frequency Band = eFDD4, Mode = 16QAM 10MHz, Channel = 20175, Frequency = 1732.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/118:59FCC part 2 and 27

Test: 27.1; Frequency Band = eFDD4, Mode = 16QAM 10MHz, Channel = 20350, Frequency = 1750MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/119:00FCC part 2 and 27

Test: 27.1; Frequency Band = eFDD4, Mode = 16QAM 15MHz, Channel = 20025, Frequency = 1717.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/119:04FCC part 2 and 27

Test: 27.1; Frequency Band = eFDD4, Mode = 16QAM 15MHz, Channel = 20175, Frequency = 1732.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/119:05FCC part 2 and 27



Test: 27.1; Frequency Band = eFDD4, Mode = 16QAM 15MHz, Channel = 20325, Frequency = 1747.50MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/119:03FCC part 2 and 27

Detailed Results:

anca Results.								_
	Marker 1 [T			300 k	Hz F	RF Att	20 0	dB
Ref Lvl		21.00 dBm	VBW	1 M	Hz			
	1.747	71042 GHz	SWT	5 m	s (Jnit	(dBm
.2 26.2 dB Of	fset.			V ₁	[T1]	7.	1.00 c	1D
30				, т	[11]	1		
					L	1.74771		
			1		PWR		.28 d	
20		A	\longleftrightarrow	СН	BW	13.65000	000 M	/IHz
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Test: 27.1; Frequency Band = eFDD4, Mode = 16QAM 20MHz, Channel = 20050, Frequency = 1720MHz, Method = conducted

Result	Setup No.	Date of Test	Test Specification:
Passed	S01 AF03	2016/08/11 9:07	FCC part 2 and 27

Date: 11.AUG.2016 14:24:10



Test: 27.1; Frequency Band = eFDD4, Mode = 16QAM 20MHz, Channel = 20175, Frequency = 1732.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/119:08FCC part 2 and 27

Test: 27.1; Frequency Band = eFDD4, Mode = 16QAM 20MHz, Channel = 20300, Frequency = 1745MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/119:09FCC part 2 and 27

Test: 27.1; Frequency Band = eFDD4, Mode = 16QAM 3MHz, Channel = 19965, Frequency = 1711.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/118:50FCC part 2 and 27

Test: 27.1; Frequency Band = eFDD4, Mode = 16QAM 3MHz, Channel = 20175, Frequency = 1732.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/118:50FCC part 2 and 27

Test: 27.1; Frequency Band = eFDD4, Mode = 16QAM 3MHz, Channel = 20385, Frequency = 1753.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/118:49FCC part 2 and 27

Test: 27.1; Frequency Band = eFDD4, Mode = 16QAM 5MHz, Channel = 19975, Frequency = 1712.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/118:53FCC part 2 and 27

Test: 27.1; Frequency Band = eFDD4, Mode = 16QAM 5MHz, Channel = 20175, Frequency = 1732.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/118:54FCC part 2 and 27



Test: 27.1; Frequency Band = eFDD4, Mode = 16QAM 5MHz, Channel = 20375, Frequency = 1752.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:Passed\$01_AF032016/08/118:55FCC part 2 and 27

Test: 27.1; Frequency Band = eFDD4, Mode = QPSK 1.4MHz, Channel = 20175, Frequency = 1732.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/118:43FCC part 2 and 27

Test: 27.1; Frequency Band = eFDD4, Mode = QPSK 1.4MHz, Channel = 20393, Frequency = 1754.3MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/118:46FCC part 2 and 27

Test: 27.1; Frequency Band = eFDD4, Mode = QPSK 10MHz, Channel = 20000, Frequency = 1715MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/118:57FCC part 2 and 27

Test: 27.1; Frequency Band = eFDD4, Mode = QPSK 10MHz, Channel = 20175, Frequency = 1732.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/118:59FCC part 2 and 27

Test: 27.1; Frequency Band = eFDD4, Mode = QPSK 10MHz, Channel = 20350, Frequency = 1750MHz, Method = conducted

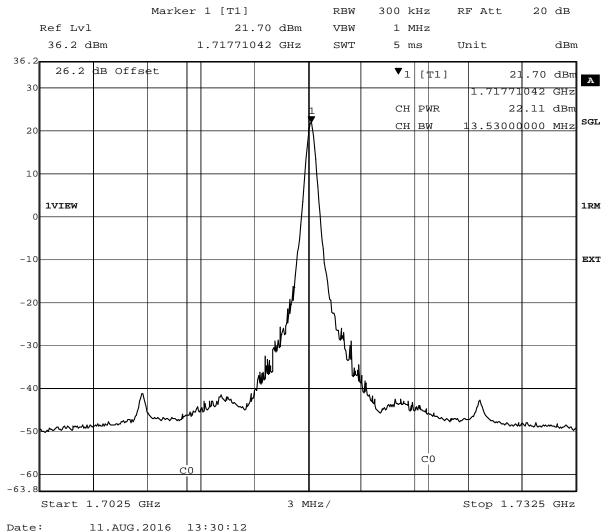
ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/119:00FCC part 2 and 27

Test: 27.1; Frequency Band = eFDD4, Mode = QPSK 15MHz, Channel = 20025, Frequency = 1717.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/119:02FCC part 2 and 27



Detailed Results:



Test: 27.1; Frequency Band = eFDD4, Mode = QPSK 15MHz, Channel = 20175, Frequency = 1732.5MHz, Method = conducted

Result	Setup No.	Date of Test	Test Specification:
Passed	S01_AF03	2016/08/11 9:04	FCC part 2 and 27

Test: 27.1; Frequency Band = eFDD4, Mode = QPSK 15MHz, Channel = 20325, Frequency = 1747.50MHz, Method = conducted

Result	Setup No.	Date of Test	Test Specification:
Passed	S01_AF03	2016/08/11 9:05	FCC part 2 and 27



Test: 27.1; Frequency Band = eFDD4, Mode = QPSK 20MHz, Channel = 20050, Frequency = 1720MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/119:08FCC part 2 and 27

Test: 27.1; Frequency Band = eFDD4, Mode = QPSK 20MHz, Channel = 20175, Frequency = 1732.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/119:06FCC part 2 and 27

Test: 27.1; Frequency Band = eFDD4, Mode = QPSK 20MHz, Channel = 20300, Frequency = 1745MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/119:09FCC part 2 and 27

Test: 27.1; Frequency Band = eFDD4, Mode = QPSK 3MHz, Channel = 19965, Frequency = 1711.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/118:49FCC part 2 and 27

Test: 27.1; Frequency Band = eFDD4, Mode = QPSK 3MHz, Channel = 20175, Frequency = 1732.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/118:50FCC part 2 and 27

Test: 27.1; Frequency Band = eFDD4, Mode = QPSK 3MHz, Channel = 20385, Frequency = 1753.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/118:47FCC part 2 and 27

Test: 27.1; Frequency Band = eFDD4, Mode = QPSK 5MHz, Channel = 19975, Frequency = 1712.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/118:54FCC part 2 and 27



Test: 27.1; Frequency Band = eFDD4, Mode = QPSK 5MHz, Channel = 20175, Frequency = 1732.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/118:52FCC part 2 and 27

Test: 27.1; Frequency Band = eFDD4, Mode = QPSK 5MHz, Channel = 20375, Frequency = 1752.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/118:54FCC part 2 and 27



3.5.16 27.2 Frequency stability §2.1055, §27.54

Test: 27.2; Frequency stability Summary §2.1055, §27.54

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 14:03FCC part 2 and 27

Detailed Results:

Detailed Results				Frequenc			
Radio		Temp	Frequenc	y Error	Deviation	Limit	
Technology	Voltage	•	y (MHz)	(Hz)	(ppm)	(Hz)	Verdict
reciliology	100%	-30	<i>y</i> ,	-15	-0.01	4331	
	100%	-20		-12	-0.01		
	100%	-10	1732.5	-13	-0.01	4331	
	100%	0	1732.5	-17	-0.01		Passed
	100%	10	1732.5	10	0.01	4331	
eFDD 4 QPSK	100%	20	1732.5	-13	-0.01		Passed
1.4 MHz, 6RI		30	1732.5	15	0.01	4331	
1.4 MITZ, OKI	100%	40	1732.5	-14	-0.01		Passed
	100%	50	1732.5	13	0.01		Passed
				-13			
	85%	20	1732.5		-0.01		Passed
	115%	20	1732.5	-17	-0.01	4331	Passed
				Fraguesa			
Radio		Tomn	Fraguesa	Frequenc	Deviation	Limit	
	Voltage	Temp	Frequenc y (MHz)	y Error (Hz)			Verdict
Technology		(°C)	<i>y</i> ,		(ppm)	(Hz)	
	100%	-30	707.5	8	0.01		Passed
	100%	-20		10	0.01		Passed
	100%	-10	707.5	7	0.01		Passed
	100%	0	707.5	9	0.01		Passed
	100%	10	707.5	8	0.01		Passed
eFDD 12 QPSK	100%	20	707.5	9	0.01		Passed
1.4 MHz, 6RI		30	707.5	9	0.01		Passed
	100%	40	707.5	8	0.01		Passed
	100%	50	707.5	10	0.01		Passed
	85%	20	707.5	9	0.01		Passed
	115%	20	707.5	8	0.01		Passed



3.5.17 27.3 Spurious emissions at antenna terminals §2.1051, §27.53

Test: 27.3; Frequency Band = eFDD12, Mode = QPSK 5MHz, Channel = 23035, Frequency = 701.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 15:05FCC part 2 and 27

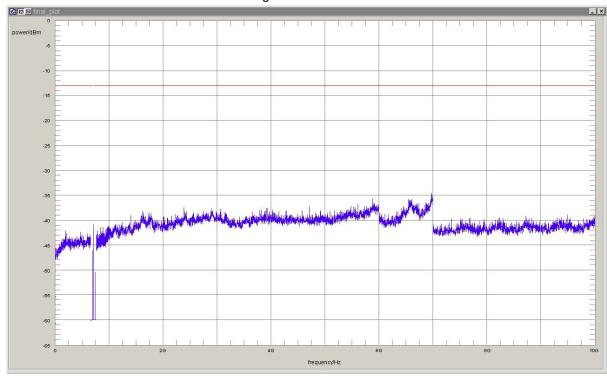
Test: 27.3; Frequency Band = eFDD12, Mode = QPSK 5MHz, Channel = 23095, Frequency = 707.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 15:04FCC part 2 and 27

Detailed Results:

detector	trace	resolution bandwidth /kHz	frequency /MHz	peak value /dBm	margin to limit /dB	limit /dBm	verdict
rms	maxhold	100	696.77	-29.6	16.6	-13.0	passed

no further values have been found with a margin of less than 20 dB



Test: 27.3; Frequency Band = eFDD12, Mode = QPSK 5MHz, Channel = 23155, Frequency = 713.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 15:06FCC part 2 and 27



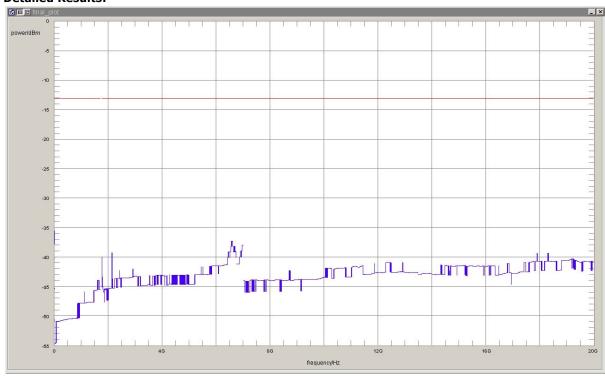
Test: 27.3; Frequency Band = eFDD4, Mode = QPSK 5MHz, Channel = 19975, Frequency = 1712.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 15:02FCC part 2 and 27

Test: 27.3; Frequency Band = eFDD4, Mode = QPSK 5MHz, Channel = 20175, Frequency = 1732.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 15:01FCC part 2 and 27

Detailed Results:



detector	trace	resolution bandwidth /kHz	frequency /MHz	peak value /dBm	margin to limit /dB	limit /dBm	verdict
rms	maxhold	1	0.030	-35.50	22.50	-13	passed

no further values have been found with a margin of less than 20 dB

Test: 27.3; Frequency Band = eFDD4, Mode = QPSK 5MHz, Channel = 20375, Frequency = 1752.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 14:59FCC part 2 and 27



3.5.18 27.4 Field strength of spurious radiation §2.1053, §27.53

Test: 27.4; Frequency Band = eFDD12, Mode = QPSK 5MHz, Channel = 23035, Frequency = 701.5MHz, Method = radiated

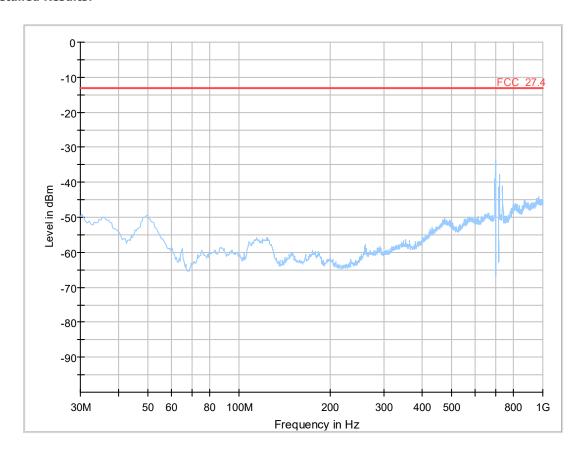
ResultSetup No.Date of TestTest Specification:PassedS01_AQ042016/08/08 10:23FCC part 2 and 27

Test: 27.4; Frequency Band = eFDD12, Mode = QPSK 5MHz, Channel = 23095, Frequency = 707.5MHz, Method = radiated

ResultSetup No.Date of TestTest Specification:PassedS01_AQ042016/08/08 10:25FCC part 2 and 27



Detailed Results:



Critical Freqs

<u> </u>									
Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)

(continuation of the "Critical_Freqs" table from column $\,$ 16 ...)

Frequency	Corr.
(MHz)	(dB)

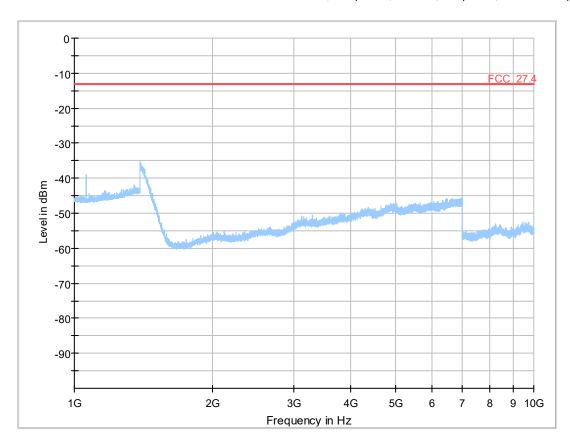
Final_Result

F	requency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)

(continuation of the "Final_Result" table from column 16 ...)

Frequency (MHz)	Corr. (dB)





Critical Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)

(continuation of the "Critical_Freqs" table from column 16 ...)

Frequency	Corr.
(MHz)	(dB)

Final_Result

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)
	I				1				

(continuation of the "Final_Result" table from column $\,$ 16 ...)

Frequency (MHz)	Corr. (dB)
· · · · ·	



Test: 27.4; Frequency Band = eFDD12, Mode = QPSK 5MHz, Channel = 23155, Frequency = 713.5MHz, Method = radiated

ResultSetup No.Date of TestTest Specification:PassedS01_AQ042016/08/08 10:26FCC part 2 and 27

Test: 27.4; Frequency Band = eFDD4, Mode = QPSK 5MHz, Channel = 19975, Frequency = 1712.5MHz, Method = radiated

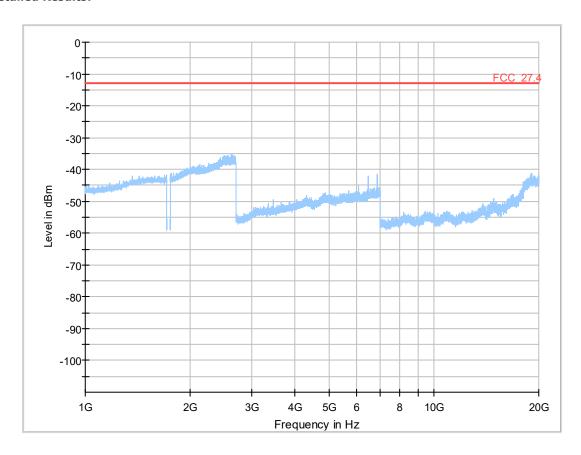
ResultSetup No.Date of TestTest Specification:PassedS01_AQ042016/08/08 10:16FCC part 2 and 27

Test: 27.4; Frequency Band = eFDD4, Mode = QPSK 5MHz, Channel = 20175, Frequency = 1732.5MHz, Method = radiated

ResultSetup No.Date of TestTest Specification:PassedS01_AQ042016/08/08 10:14FCC part 2 and 27



Detailed Results:



Critical Freqs

<u> </u>									
Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)

(continuation of the "Critical_Freqs" table from column $\,$ 16 ...)

Frequency	Corr.
(MHz)	(dB)

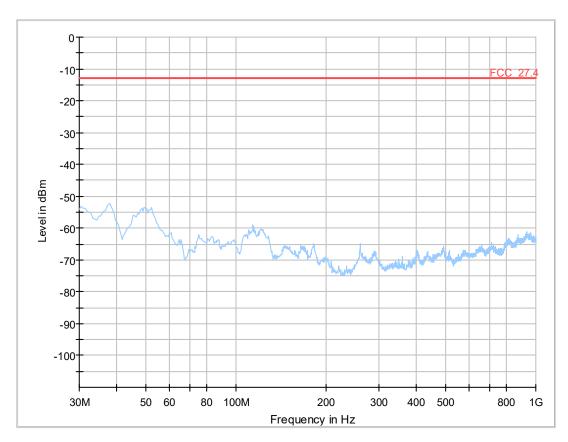
Final_Result

F	requency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)

(continuation of the "Final_Result" table from column $\,$ 16 ...)

Frequency	Corr.
(MHz)	(dB)





Critical Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)

(continuation of the "Critical_Freqs" table from column 16 ...)

Frequency	Corr.
(MHz)	(dB)

Final_Result

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)
	I				1				

(continuation of the "Final_Result" table from column $\,$ 16 ...)

Frequency (MHz)	Corr. (dB)
· · · · ·	



Test: 27.4; Frequency Band = eFDD4, Mode = QPSK 5MHz, Channel = 20375, Frequency = 1752.5MHz, Method = radiated

ResultSetup No.Date of TestTest Specification:PassedS01_AQ042016/08/08 10:18FCC part 2 and 27



3.5.19 27.5 Emission and Occupied Bandwidth §2.1049

Test: 27.5; Emission and Occupied Bandwidth Summary §2.1049

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 12:37FCC part 2 and 27



Detailed Results:

Radio Technology	Channel	Ressource Blocks	Bandwidth (MHz)	Nominal BW [MHz]	26 dB BW [kHz]	99 % BW [kHz]
eFDD 4 QPSK	low	6	1.4	1.4	-	1112.2
eFDD 4 QPSK	mid	6	1.4	1.4	-	1112.2
eFDD 4 QPSK	high	6	1.4	1.4	-	1112.2
eFDD 4 16QAM	low	6	1.4	1.4	-	1118.2
eFDD 4 16QAM	mid	6	1.4	1.4	-	1106.2
eFDD 4 16QAM	high	6	1.4	1.4	-	1106.2
eFDD 4 QPSK	low	15	3	3	-	2765.5
eFDD 4 QPSK	mid	15	3	3	-	2765.5
eFDD 4 QPSK	high	15	3	3	-	2765.5
eFDD 4 16QAM	low	15	3	3	-	2777.6
eFDD 4 16QAM	mid	15	3	3	-	2753.6
eFDD 4 16QAM	high	15	3	3	-	2777.6
eFDD 4 QPSK	low	25	5	5	-	4549.1
eFDD 4 QPSK	mid	25	5	5	-	4529.1
eFDD 4 QPSK	high	25	5	5	-	4509
eFDD 4 16QAM	low	25	5	5	-	4529.1
eFDD 4 16QAM	mid	25	5	5	-	4549.1
eFDD 4 16QAM	high	25	5	5	-	4549.1
eFDD 4 QPSK	low	50	10	10	-	9058.1
eFDD 4 QPSK	mid	50	10	10	-	9058.1
eFDD 4 QPSK	high	50	10	10	-	9018
eFDD 4 16QAM	low	50	10	10	-	9058.1
eFDD 4 16QAM	mid	50	10	10	-	9058.1
eFDD 4 16QAM	high	50	10	10	-	9058.1
eFDD 4 QPSK	low	75	15	15	-	13527.1
eFDD 4 QPSK	mid	75	15	15	-	13587.2
eFDD 4 QPSK	high	75	15	15	-	13647.3
eFDD 4 16QAM	low	75	15	15	-	13587.2
eFDD 4 16QAM	mid	75	15	15	-	13647.3
eFDD 4 16QAM	high	75	15	15	-	13647.3
eFDD 4 QPSK	low	100	20	20	-	18196.4
eFDD 4 QPSK	mid	100	20	20	-	18276.6
eFDD 4 QPSK	high	100	20	20	-	18116.2
eFDD 4 16QAM	low	100	20	20	-	18196.4
eFDD 4 16QAM	mid	100	20	20	-	18276.6
eFDD 4 16QAM	high	100	20	20	-	18276.6



	1	T CC I	Part 22, Subpart i			
		Ressource	Bandwidth	Nominal	26 dB	99 %
Radio Technology	Channel	Blocks	(MHz)	BW	BW	BW
		BIOCKS	(MH2)	[MHz]	[kHz]	[kHz]
eFDD 12 QPSK	low	6	1.4	1.4	ı	1112.2
eFDD 12 QPSK	mid	6	1.4	1.4	1	1118.2
eFDD 12 QPSK	high	6	1.4	1.4	1	1118.2
eFDD 12 16QAM	low	6	1.4	1.4	1	1118.2
eFDD 12 16QAM	mid	6	1.4	1.4	ı	1100.2
eFDD 12 16QAM	high	6	1.4	1.4	1	1112.2
eFDD 12 QPSK	low	15	3	3	ı	2765.5
eFDD 12 QPSK	mid	15	3	3	ı	2765.5
eFDD 12 QPSK	high	15	3	3	1	2765.5
eFDD 12 16QAM	low	15	3	3	1	2765.5
eFDD 12 16QAM	mid	15	3	3	1	2753.5
eFDD 12 16QAM	high	15	3	3	ı	2777.6
eFDD 12 QPSK	low	25	5	5	ı	4529.1
eFDD 12 QPSK	mid	25	5	5	1	4549.1
eFDD 12 QPSK	high	25	5	5	ı	4529.1
eFDD 12 16QAM	low	25	5	5	-	4529.1
eFDD 12 16QAM	mid	25	5	5	1	4549.1
eFDD 12 16QAM	high	25	5	5	-	4549.1
eFDD 12 QPSK	low	50	10	10	1	9098.2
eFDD 12 QPSK	mid	50	10	10	ı	9018
eFDD 12 QPSK	high	50	10	10	-	9018
eFDD 12 16QAM	low	50	10	10	-	9058.1
eFDD 12 16QAM	mid	50	10	10	-	9058.1
eFDD 12 16QAM	high	50	10	10	-	9018

Test: 27.5; Frequency Band = eFDD12, Mode = 16QAM 1.4MHz, Channel = 23017, Frequency = 699.7MHz, Method = conducted

Result	Setup No.	Date of Test	Test Specification:
Passed	S01_AF03	2016/08/11 10:41	FCC part 2 and 27



Test: 27.5; Frequency Band = eFDD12, Mode = 16QAM 1.4MHz, Channel = 23095, Frequency = 707.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 10:42FCC part 2 and 27

Test: 27.5; Frequency Band = eFDD12, Mode = 16QAM 1.4MHz, Channel = 23173, Frequency = 715.3MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 10:42FCC part 2 and 27

Test: 27.5; Frequency Band = eFDD12, Mode = 16QAM 10MHz, Channel = 23060, Frequency = 704MHz, Method = conducted

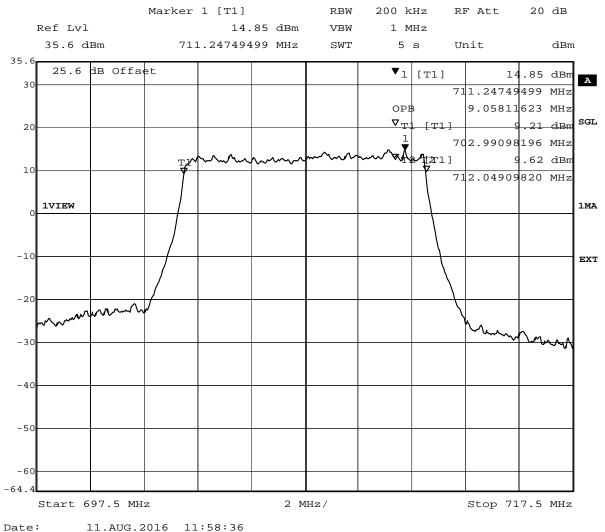
ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 11:00FCC part 2 and 27

Test: 27.5; Frequency Band = eFDD12, Mode = 16QAM 10MHz, Channel = 23095, Frequency = 707.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 10:59FCC part 2 and 27



Detailed Results:



Test: 27.5; Frequency Band = eFDD12, Mode = 16QAM 10MHz, Channel = 23130, Frequency = 711MHz, Method = conducted

Result	Setup No.	Date of Test	Test Specification:
Passed	S01_AF03	2016/08/11 11:01	FCC part 2 and 27

Test: 27.5; Frequency Band = eFDD12, Mode = 16QAM 3MHz, Channel = 23025, Frequency = 700.5MHz, Method = conducted

Result	Setup No.	Date of Test	Test Specification:
Passed	S01_AF03	2016/08/11 10:53	FCC part 2 and 27



Test: 27.5; Frequency Band = eFDD12, Mode = 16QAM 3MHz, Channel = 23095, Frequency = 707.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 10:53FCC part 2 and 27

Test: 27.5; Frequency Band = eFDD12, Mode = 16QAM 3MHz, Channel = 23165, Frequency = 714.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 10:52FCC part 2 and 27

Test: 27.5; Frequency Band = eFDD12, Mode = 16QAM 5MHz, Channel = 23035, Frequency = 701.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 10:57FCC part 2 and 27

Test: 27.5; Frequency Band = eFDD12, Mode = 16QAM 5MHz, Channel = 23095, Frequency = 707.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 10:56FCC part 2 and 27

Test: 27.5; Frequency Band = eFDD12, Mode = 16QAM 5MHz, Channel = 23155, Frequency = 713.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 10:57FCC part 2 and 27

Test: 27.5; Frequency Band = eFDD12, Mode = QPSK 1.4MHz, Channel = 23017, Frequency = 699.7MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 10:43FCC part 2 and 27

Test: 27.5; Frequency Band = eFDD12, Mode = QPSK 1.4MHz, Channel = 23095, Frequency = 707.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 10:39FCC part 2 and 27



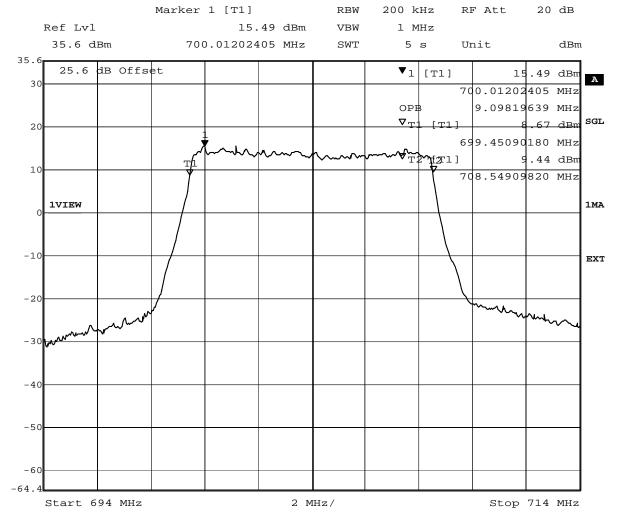
Test: 27.5; Frequency Band = eFDD12, Mode = QPSK 1.4MHz, Channel = 23173, Frequency = 715.3MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 10:43FCC part 2 and 27

Test: 27.5; Frequency Band = eFDD12, Mode = QPSK 10MHz, Channel = 23060, Frequency = 704MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 10:58FCC part 2 and 27

Detailed Results:





Test: 27.5; Frequency Band = eFDD12, Mode = QPSK 10MHz, Channel = 23095, Frequency = 707.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 10:58FCC part 2 and 27

Test: 27.5; Frequency Band = eFDD12, Mode = QPSK 10MHz, Channel = 23130, Frequency = 711MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 10:59FCC part 2 and 27

Test: 27.5; Frequency Band = eFDD12, Mode = QPSK 3MHz, Channel = 23025, Frequency = 700.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 10:46FCC part 2 and 27

Test: 27.5; Frequency Band = eFDD12, Mode = QPSK 3MHz, Channel = 23095, Frequency = 707.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 10:45FCC part 2 and 27

Test: 27.5; Frequency Band = eFDD12, Mode = QPSK 3MHz, Channel = 23165, Frequency = 714.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 10:46FCC part 2 and 27

Test: 27.5; Frequency Band = eFDD12, Mode = QPSK 5MHz, Channel = 23035, Frequency = 701.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 10:55FCC part 2 and 27

Test: 27.5; Frequency Band = eFDD12, Mode = QPSK 5MHz, Channel = 23095, Frequency = 707.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 10:54FCC part 2 and 27



Test: 27.5; Frequency Band = eFDD12, Mode = QPSK 5MHz, Channel = 23155, Frequency = 713.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 10:55FCC part 2 and 27

Test: 27.5; Frequency Band = eFDD4, Mode = 16QAM 1.4MHz, Channel = 19957, Frequency = 1710.7MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 10:14FCC part 2 and 27

Test: 27.5; Frequency Band = eFDD4, Mode = 16QAM 1.4MHz, Channel = 20175, Frequency = 1732.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 10:13FCC part 2 and 27

Test: 27.5; Frequency Band = eFDD4, Mode = 16QAM 1.4MHz, Channel = 20393, Frequency = 1754.3MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 10:14FCC part 2 and 27

Test: 27.5; Frequency Band = eFDD4, Mode = 16QAM 10MHz, Channel = 20000, Frequency = 1715MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 10:28FCC part 2 and 27

Test: 27.5; Frequency Band = eFDD4, Mode = 16QAM 10MHz, Channel = 20175, Frequency = 1732.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 10:30FCC part 2 and 27

Test: 27.5; Frequency Band = eFDD4, Mode = 16QAM 10MHz, Channel = 20350, Frequency = 1750MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 10:29FCC part 2 and 27



Test: 27.5; Frequency Band = eFDD4, Mode = 16QAM 15MHz, Channel = 20025, Frequency = 1717.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 10:34FCC part 2 and 27

Test: 27.5; Frequency Band = eFDD4, Mode = 16QAM 15MHz, Channel = 20175, Frequency = 1732.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 10:33FCC part 2 and 27

Test: 27.5; Frequency Band = eFDD4, Mode = 16QAM 15MHz, Channel = 20325, Frequency = 1747.50MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 10:32FCC part 2 and 27

Test: 27.5; Frequency Band = eFDD4, Mode = 16QAM 20MHz, Channel = 20050, Frequency = 1720MHz, Method = conducted

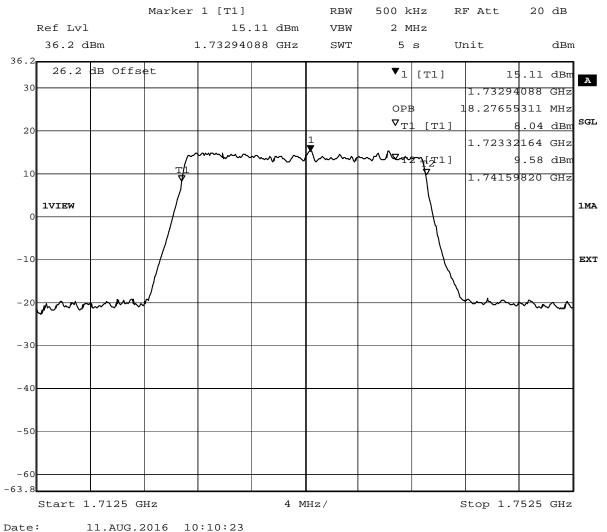
ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 10:37FCC part 2 and 27

Test: 27.5; Frequency Band = eFDD4, Mode = 16QAM 20MHz, Channel = 20175, Frequency = 1732.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 10:36FCC part 2 and 27



Detailed Results:



Test: 27.5; Frequency Band = eFDD4, Mode = 16QAM 20MHz, Channel = 20300, Frequency = 1745MHz, Method = conducted

Result	Setup No.	Date of Test	Test Specification:
Passed	S01_AF03	2016/08/11 10:38	FCC part 2 and 27

Test: 27.5; Frequency Band = eFDD4, Mode = 16QAM 3MHz, Channel = 19965, Frequency = 1711.5MHz, Method = conducted

Result	Setup No.	Date of Test	Test Specification:
Passed	S01_AF03	2016/08/11 10:17	FCC part 2 and 27



Test: 27.5; Frequency Band = eFDD4, Mode = 16QAM 3MHz, Channel = 20175, Frequency = 1732.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 10:18FCC part 2 and 27

Test: 27.5; Frequency Band = eFDD4, Mode = 16QAM 3MHz, Channel = 20385, Frequency = 1753.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 10:20FCC part 2 and 27

Test: 27.5; Frequency Band = eFDD4, Mode = 16QAM 5MHz, Channel = 19975, Frequency = 1712.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 10:23FCC part 2 and 27

Test: 27.5; Frequency Band = eFDD4, Mode = 16QAM 5MHz, Channel = 20175, Frequency = 1732.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 10:22FCC part 2 and 27

Test: 27.5; Frequency Band = eFDD4, Mode = 16QAM 5MHz, Channel = 20375, Frequency = 1752.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 10:25FCC part 2 and 27

Test: 27.5; Frequency Band = eFDD4, Mode = QPSK 1.4MHz, Channel = 19957, Frequency = 1710.7MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 11:19FCC part 2 and 27

Test: 27.5; Frequency Band = eFDD4, Mode = QPSK 1.4MHz, Channel = 20175, Frequency = 1732.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 10:12FCC part 2 and 27



Test: 27.5; Frequency Band = eFDD4, Mode = QPSK 1.4MHz, Channel = 20393, Frequency = 1754.3MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 10:14FCC part 2 and 27

Test: 27.5; Frequency Band = eFDD4, Mode = QPSK 10MHz, Channel = 20000, Frequency = 1715MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 10:27FCC part 2 and 27

Test: 27.5; Frequency Band = eFDD4, Mode = QPSK 10MHz, Channel = 20175, Frequency = 1732.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 10:29FCC part 2 and 27

Test: 27.5; Frequency Band = eFDD4, Mode = QPSK 10MHz, Channel = 20350, Frequency = 1750MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 10:29FCC part 2 and 27

Test: 27.5; Frequency Band = eFDD4, Mode = QPSK 15MHz, Channel = 20025, Frequency = 1717.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 10:33FCC part 2 and 27

Test: 27.5; Frequency Band = eFDD4, Mode = QPSK 15MHz, Channel = 20175, Frequency = 1732.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 10:34FCC part 2 and 27

Test: 27.5; Frequency Band = eFDD4, Mode = QPSK 15MHz, Channel = 20325, Frequency = 1747.50MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 10:31FCC part 2 and 27



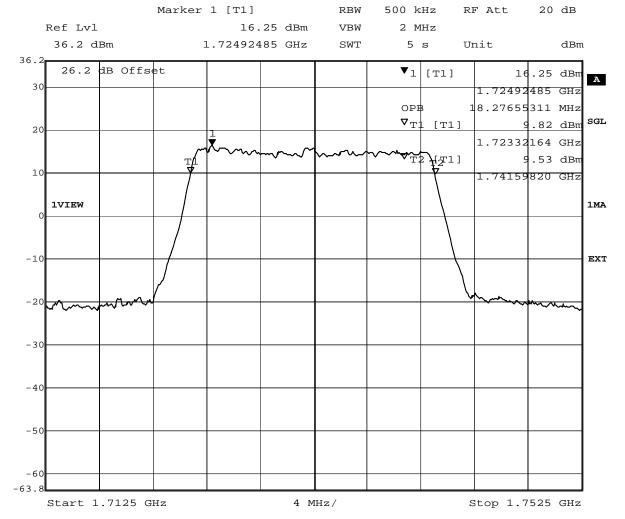
Test: 27.5; Frequency Band = eFDD4, Mode = QPSK 20MHz, Channel = 20050, Frequency = 1720MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 10:36FCC part 2 and 27

Test: 27.5; Frequency Band = eFDD4, Mode = QPSK 20MHz, Channel = 20175, Frequency = 1732.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 10:35FCC part 2 and 27

Detailed Results:



Date: 11.AUG.2016 13:04:54



Test: 27.5; Frequency Band = eFDD4, Mode = QPSK 20MHz, Channel = 20300, Frequency = 1745MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 10:37FCC part 2 and 27

Test: 27.5; Frequency Band = eFDD4, Mode = QPSK 3MHz, Channel = 19965, Frequency = 1711.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 10:18FCC part 2 and 27

Test: 27.5; Frequency Band = eFDD4, Mode = QPSK 3MHz, Channel = 20175, Frequency = 1732.5MHz, Method = conducted

Result Setup No. Date of Test Test Specification:
Passed S01_AF03 2016/08/11 10:15 FCC part 2 and 27

Test: 27.5; Frequency Band = eFDD4, Mode = QPSK 3MHz, Channel = 20385, Frequency = 1753.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 10:19FCC part 2 and 27

Test: 27.5; Frequency Band = eFDD4, Mode = QPSK 5MHz, Channel = 19975, Frequency = 1712.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 10:21FCC part 2 and 27

Test: 27.5; Frequency Band = eFDD4, Mode = QPSK 5MHz, Channel = 20175, Frequency = 1732.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 10:24FCC part 2 and 27

Test: 27.5; Frequency Band = eFDD4, Mode = QPSK 5MHz, Channel = 20375, Frequency = 1752.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 10:24FCC part 2 and 27



3.5.20 27.6 Band edge compliance §2.1053, §27.53

Test: 27.6; Band edge compliance summary §2.1053, §27.53

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/26 12:42FCC part 2 and 27

Detailed Results:

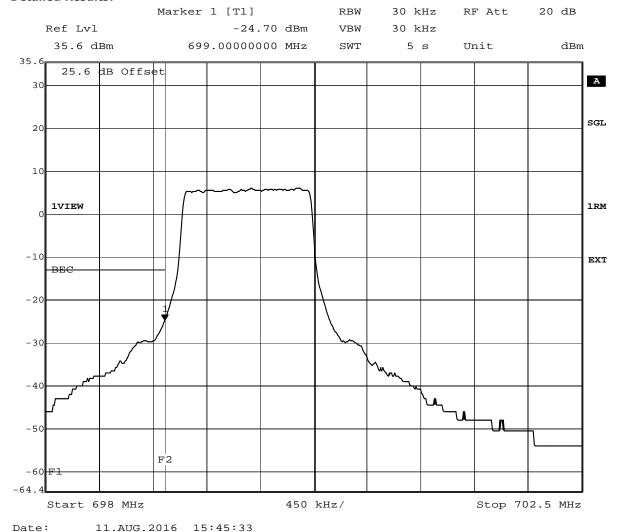
Radio Technology	Channel	Nominal BW	Ressource Blocks	Peak [dBm]	Avera ge [dBm]	RMS [dBm]	Limit /dBm	Margin to Limit /dB
eFDD 4 QPSK	low	1.4	6	-17.34	-28.58	-27	-13	14
eFDD 4 QPSK	high	1.4	6	-17.43	-29.64	-27.87	-13	14.87
eFDD 4 16QAM	low	1.4	6	-17.01	-29.92	-27.87	-13	14.87
eFDD 4 16QAM	high	1.4	6	-19.88	-30.52	-28.84	-13	15.84
eFDD 4 QPSK	low	3	15	-16.45	-32.23	-29.36	-13	16.36
eFDD 4 QPSK	high	3	15	-18.13	-33.44	-30.52	-13	17.52
eFDD 4 16QAM	low	3	15	-17.86	-32.62	-29.64	-13	16.64
eFDD 4 16QAM	high	3	15	-18.45	-33.89	-30.84	-13	17.84
eFDD 4 QPSK	low	5	25	-14.93	-34.36	-29.92	-13	16.92
eFDD 4 QPSK	high	5	25	-15.55	-35.38	-31.51	-13	18.51
eFDD 4 16QAM	low	5	25	-13.92	-31.86	-27.87	-13	14.87
eFDD 4 16QAM	high	5	25	-16.92	-34.86	-30.52	-13	17.52
eFDD 4 QPSK	low	10	50	-16.04	-37.19	-32.62	-13	19.62
eFDD 4 QPSK	high	10	50	-15.59	-37.19	-32.62	-13	19.62
eFDD 4 16QAM	low	10	50	-16.72	-37.88	-33.44	-13	20.44
eFDD 4 16QAM	high	10	50	-14.78	-36.54	-32.23	-13	19.23
eFDD 4 QPSK	low	15	75	-10.5	-36.54	-31.86	-13	18.86
eFDD 4 QPSK	high	15	75	-11.75	-33.02	-29.36	-13	16.36
eFDD 4 16QAM	low	15	75	-11.99	-36.54	-30.52	-13	17.52
eFDD 4 16QAM	high	15	75	-10.75	-32.62	-29.1	-13	16.1
eFDD 4 QPSK	low	20	100	-16.3	-37.88	-33.89	-13	20.89
eFDD 4 QPSK	high	20	100	-15	-33.44	-31.17	-13	18.17
eFDD 4 16QAM	low	20	100	-16.66	-37.88	-33.89	-13	20.89
eFDD 4 16QAM	high	20	100	-12.07	-32.62	-30.22	-13	17.22
eFDD 12 QPSK	low	1.4	6	-12.65	-26.71	-24.26	-13	11.26
eFDD 12 QPSK	high	1.4	6	-13.09	-26.9	-24.7	-13	11.7
eFDD 12 16QAM	low	1.4	6	-10.63	-27.3	-24.7	-13	11.7
eFDD 12 16QAM	high	1.4	6	-13.57	-27.71	-25.48	-13	12.48
eFDD 12 QPSK	low	3	15	-15.69	-30.72	-28.14	-13	15.14
eFDD 12 QPSK	high	3	15	-17.17	-31.67	-29.6	-13	16.6
eFDD 12 16QAM	low	3	15	-17.29	-31.34	-28.84	-13	15.84
eFDD 12 16QAM	high	3	15	-17.51	-32.01	-30.14	-13	17.14
eFDD 12 QPSK	low	5	25	-14.41	-32.36	-29.08	-13	16.08
eFDD 12 QPSK	high	5	25	-15.28	-33.12	-30.42	-13	17.42
eFDD 12 16QAM	low	5	25	-17.48	-33.94	-31.02	-13	18.02
eFDD 12 16QAM	high	5	25	-16.5	-33.52	-30.72	-13	17.72
eFDD 12 QPSK	low	10	50	-7.5	-29.34	-26.34	-13	13.34
eFDD 12 QPSK	high	10	50	-10.22	-32.01	-29.08	-13	16.08
eFDD 12 16QAM	low	10	50	-9.84	-31.02	-27.92	-13	14.92
eFDD 12 16QAM	high	10	50	-11.92	-32.01	-29.08	-13	16.08



Test: 27.6; Frequency Band = eFDD12, Mode = 16QAM 1.4MHz, Channel = 23017, Frequency = 699.7MHz, Method = conducted

Result	Setup No.	Date of Test	Test Specification:
Passed	S01 AF03	2016/08/11 11:31	FCC part 2 and 27

Detailed Results:



Test: 27.6; Frequency Band = eFDD12, Mode = 16QAM 1.4MHz, Channel = 23173, Frequency = 715.3MHz, Method = conducted

Result	Setup No.	Date of Test	Test Specification:
Passed	S01 AF03	2016/08/11 11:33	FCC part 2 and 27



Test: 27.6; Frequency Band = eFDD12, Mode = 16QAM 10MHz, Channel = 23060, Frequency = 704MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 11:33FCC part 2 and 27

Test: 27.6; Frequency Band = eFDD12, Mode = 16QAM 10MHz, Channel = 23130, Frequency = 711MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 11:34FCC part 2 and 27

Test: 27.6; Frequency Band = eFDD12, Mode = 16QAM 3MHz, Channel = 23025, Frequency = 700.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 11:34FCC part 2 and 27

Test: 27.6; Frequency Band = eFDD12, Mode = 16QAM 3MHz, Channel = 23165, Frequency = 714.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 11:34FCC part 2 and 27

Test: 27.6; Frequency Band = eFDD12, Mode = 16QAM 5MHz, Channel = 23035, Frequency = 701.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 11:35FCC part 2 and 27

Test: 27.6; Frequency Band = eFDD12, Mode = 16QAM 5MHz, Channel = 23155, Frequency = 713.5MHz, Method = conducted

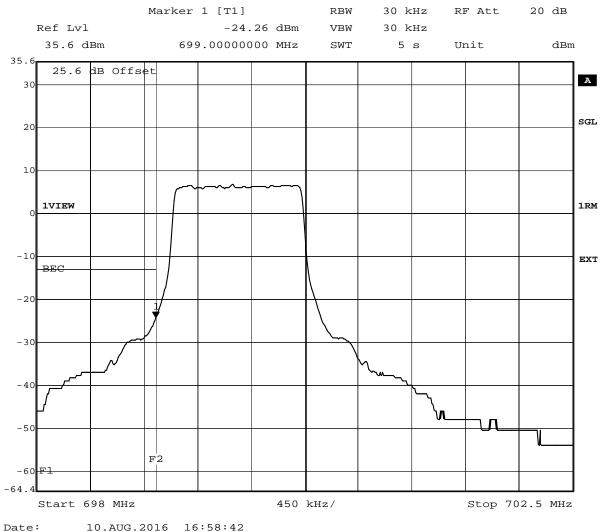
ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 11:35FCC part 2 and 27

Test: 27.6; Frequency Band = eFDD12, Mode = QPSK 1.4MHz, Channel = 23017, Frequency = 699.7MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 11:32FCC part 2 and 27



Detailed Results:



Test: 27.6; Frequency Band = eFDD12, Mode = QPSK 1.4MHz, Channel = 23173, Frequency = 715.3MHz, Method = conducted

Result	Setup No.	Date of Test	Test Specification:
Passed	S01_AF03	2016/08/11 11:38	FCC part 2 and 27

Test: 27.6; Frequency Band = eFDD12, Mode = QPSK 10MHz, Channel = 23060, Frequency = 704MHz, Method = conducted

Result	Setup No.	Date of Test	Test Specification:
Passed	S01_AF03	2016/08/11 11:37	FCC part 2 and 27



Test: 27.6; Frequency Band = eFDD12, Mode = QPSK 10MHz, Channel = 23130, Frequency = 711MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:Passed\$01_AF032016/08/11 11:37FCC part 2 and 27

Test: 27.6; Frequency Band = eFDD12, Mode = QPSK 3MHz, Channel = 23025, Frequency = 700.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 11:37FCC part 2 and 27

Test: 27.6; Frequency Band = eFDD12, Mode = QPSK 3MHz, Channel = 23165, Frequency = 714.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 11:36FCC part 2 and 27

Test: 27.6; Frequency Band = eFDD12, Mode = QPSK 5MHz, Channel = 23035, Frequency = 701.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 11:36FCC part 2 and 27

Test: 27.6; Frequency Band = eFDD12, Mode = QPSK 5MHz, Channel = 23155, Frequency = 713.5MHz, Method = conducted

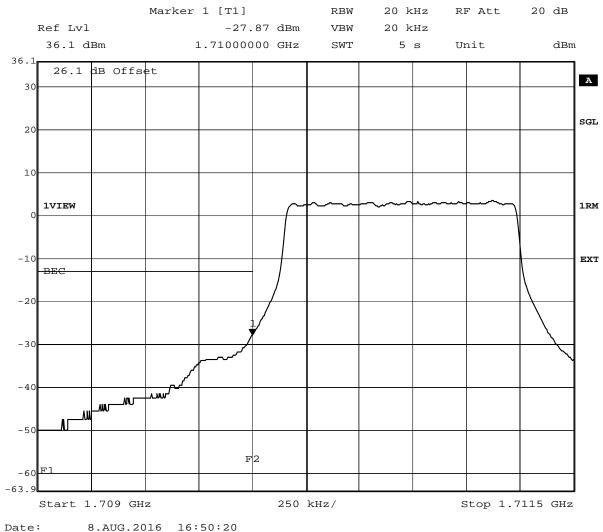
ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 11:35FCC part 2 and 27

Test: 27.6; Frequency Band = eFDD4, Mode = 16QAM 1.4MHz, Channel = 19957, Frequency = 1710.7MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 11:14FCC part 2 and 27



Detailed Results:



Test: 27.6; Frequency Band = eFDD4, Mode = 16QAM 1.4MHz, Channel = 20393, Frequency = 1754.3MHz, Method = conducted

Result	Setup No.	Date of Test	Test Specification:
Passed	S01_AF03	2016/08/11 11:21	FCC part 2 and 27

Test: 27.6; Frequency Band = eFDD4, Mode = 16QAM 10MHz, Channel = 20000, Frequency = 1715MHz, Method = conducted

Result	Setup No.	Date of Test	Test Specification:
Passed	S01_AF03	2016/08/11 11:27	FCC part 2 and 27



Test: 27.6; Frequency Band = eFDD4, Mode = 16QAM 10MHz, Channel = 20350, Frequency = 1750MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 11:28FCC part 2 and 27

Test: 27.6; Frequency Band = eFDD4, Mode = 16QAM 15MHz, Channel = 20025, Frequency = 1717.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 11:29FCC part 2 and 27

Test: 27.6; Frequency Band = eFDD4, Mode = 16QAM 15MHz, Channel = 20325, Frequency = 1747.50MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 11:27FCC part 2 and 27

Test: 27.6; Frequency Band = eFDD4, Mode = 16QAM 20MHz, Channel = 20050, Frequency = 1720MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 11:26FCC part 2 and 27

Test: 27.6; Frequency Band = eFDD4, Mode = 16QAM 20MHz, Channel = 20300, Frequency = 1745MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 11:25FCC part 2 and 27

Test: 27.6; Frequency Band = eFDD4, Mode = 16QAM 3MHz, Channel = 19965, Frequency = 1711.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 11:23FCC part 2 and 27

Test: 27.6; Frequency Band = eFDD4, Mode = 16QAM 3MHz, Channel = 20385, Frequency = 1753.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 11:22FCC part 2 and 27



Test: 27.6; Frequency Band = eFDD4, Mode = 16QAM 5MHz, Channel = 19975, Frequency = 1712.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 11:24FCC part 2 and 27

Test: 27.6; Frequency Band = eFDD4, Mode = 16QAM 5MHz, Channel = 20375, Frequency = 1752.5MHz, Method = conducted

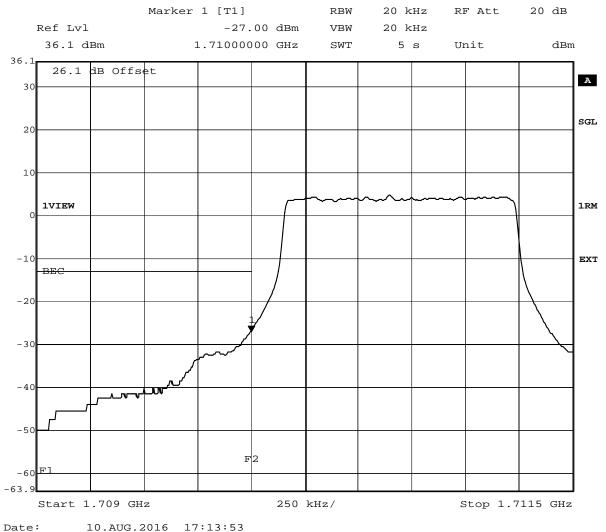
ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 11:23FCC part 2 and 27

Test: 27.6; Frequency Band = eFDD4, Mode = QPSK 1.4MHz, Channel = 19957, Frequency = 1710.7MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 11:20FCC part 2 and 27



Detailed Results:



Test: 27.6; Frequency Band = eFDD4, Mode = QPSK 1.4MHz, Channel = 20393, Frequency = 1754.3MHz, Method = conducted

Result	Setup No.	Date of Test	Test Specification:
Passed	S01_AF03	2016/08/11 11:21	FCC part 2 and 27

Test: 27.6; Frequency Band = eFDD4, Mode = QPSK 10MHz, Channel = 20000, Frequency = 1715MHz, Method = conducted

Result	Setup No.	Date of Test	Test Specification:
Passed	S01_AF03	2016/08/11 11:23	FCC part 2 and 27



Test: 27.6; Frequency Band = eFDD4, Mode = QPSK 10MHz, Channel = 20350, Frequency = 1750MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 11:28FCC part 2 and 27

Test: 27.6; Frequency Band = eFDD4, Mode = QPSK 15MHz, Channel = 20025, Frequency = 1717.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 11:28FCC part 2 and 27

Test: 27.6; Frequency Band = eFDD4, Mode = QPSK 15MHz, Channel = 20325, Frequency = 1747.50MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 11:29FCC part 2 and 27

Test: 27.6; Frequency Band = eFDD4, Mode = QPSK 20MHz, Channel = 20050, Frequency = 1720MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 11:26FCC part 2 and 27

Test: 27.6; Frequency Band = eFDD4, Mode = QPSK 20MHz, Channel = 20300, Frequency = 1745MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 11:25FCC part 2 and 27

Test: 27.6; Frequency Band = eFDD4, Mode = QPSK 3MHz, Channel = 19965, Frequency = 1711.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 11:21FCC part 2 and 27

Test: 27.6; Frequency Band = eFDD4, Mode = QPSK 3MHz, Channel = 20385, Frequency = 1753.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 11:22FCC part 2 and 27



Test: 27.6; Frequency Band = eFDD4, Mode = QPSK 5MHz, Channel = 19975, Frequency = 1712.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 11:24FCC part 2 and 27

Test: 27.6; Frequency Band = eFDD4, Mode = QPSK 5MHz, Channel = 20375, Frequency = 1752.5MHz, Method = conducted

ResultSetup No.Date of TestTest Specification:PassedS01_AF032016/08/11 11:24FCC part 2 and 27



4 Test Equipment Details

4.1 List of Used Test Equipment

The calibration, hardware and software states are shown for the testing period.

Test Equipment Anechoic Chamber

Lab ID: Lab 1

Description: Anechoic Chamber for radiated testing

Calibration Details Last Execution Next Execution

ISA (FCC) 2014/01/09 2017/01/09

Single Devices for Anechoic Chamber

Single Device Name	Туре	Serial Number	Manufacturer
Air compressor	none	-	
Anechoic Chamber	10.58 x 6.38 x 6.00 m ³ Calibration Details	none	Last Execution Next Execution
	FCC listing 96716 3m Part15/18		2014/01/09 2017/01/08
Anechoic Chamber	8.8m x 4.6m x 4.05 m	B83117-S40- X191	Albatross Projects GmbH
Controller Maturo	MCU	961208	Maturo GmbH
EMC camera	CE-CAM/1	-	
EMC camera Nr.2	CCD-400E	0005033	
Filter ISDN	B84312-C110-E1		
Filter Universal 1A	BB4312-C30-H3	-	



Test Equipment Auxiliary Equipment for Radiated emissions

Lab ID: Lab 1

Description: Equipment for emission measurements

Serial Number: see single devices

Single Devices for Auxiliary Equipment for Radiated emissions

Single Device Name	Туре	Serial Number	Manufacturer
Antenna mast	AM 4.0	AM4.0/180/11920 513	Maturo GmbH
Biconical Broadband Antenna	SBA 9119	9119-005	
Biconical dipole	VUBA 9117	9117-108	
Broadband Amplifier 1 GHz - 4 GHz	AFS4-01000400-1Q-10P-4	-	
Broadband Amplifier 18 GHz - 26 GHz	JS4-18002600-32-5P	849785	
Broadband Amplifier 30 MHz - 18 GHz	JS4-00101800-35-5P	896037	
Cable "ESI to EMI Antenna"	EcoFlex10	W18.01- 2+W38.01-2	
Cable "ESI to Horn Antenna"	SucoFlex	W18.02- 2+W38.02-2	
Double-ridged horn	HF 906	357357/002	Rohde & Schwarz GmbH & Co. KG
	Calibration Details		Last Execution Next Execution
	Standard Calibration		2015/06/23 2018/06/22
Double-ridged horn	HF 907	102444	Rohde & Schwarz GmbH & Co. KG
	Calibration Details		Last Execution Next Execution
	Standard Calibration		2015/05/11 2018/05/10
Double-ridged horn- duplicated 2015-07- 15 10:47:55	HF 906	357357/001	Rohde & Schwarz GmbH & Co. KG
High Pass Filter	4HC1600/12750-1.5-KK	9942011	
High Pass Filter	5HC2700/12750-1.5-KK	9942012	
High Pass Filter	5HC3500/18000-1.2-KK	200035008	
High Pass Filter	WHKX 7.0/18G-8SS	09	
Horn Antenna Schwarzbeck 15-26.5 GHz BBHA 9170	BBHA 9170	BBHA9170262	
Logper. Antenna	HL 562 Ultralog	100609	Rohde & Schwarz GmbH & Co. KG
Logper. Antenna (upgraded)	HL 562 Ultralog new biconicals	830547/003	Rohde & Schwarz GmbH & Co. KG
	Calibration Details		Last Execution Next Execution
	Standard Calibration		2015/06/30 2018/06/29
Loop Antenna	HFH2-Z2	829324/006	Rohde & Schwarz GmbH & Co. KG
	Calibration Details		Last Execution Next Execution
	DKD Calibration		2014/11/27 2017/11/27



Single Devices for Auxiliary Equipment for Radiated emissions (continued)

Single Device Name Type Serial Number Manufacturer

Standard Gain / 3160-10 00086675

Pyramidal Horn
Antenna 40 GHz

Tilt device Maturo (Rohacell) TD1.5-10kg TD1.5- Maturo GmbH 10kg/024/379070

Test Equipment Auxiliary Test Equipment

Lab ID: Lab 1, Lab 2

Description: Single Devices for various Test Equipment

Type: various Serial Number: none

Single Devices for Auxiliary Test Equipment

Single Device Name	Туре	Serial Number	Manufacturer
Broadband Power Divider N (Aux)	1506A / 93459	LM390	
Broadband Power Divider SMA	WA1515	A855	
Digital Multimeter 03 (Multimeter)	Fluke 177	86670383	
,	Calibration Details		Last Execution Next Execution
	DAkkS Calibration		2016/02/04 2018/02/28
Digital Multimeter 13 (Clamp Meter)	Fluke 325	31270091WS	FLUKE
` ' '	Calibration Details		Last Execution Next Execution
	DAkkS-Calibration		2016/02/04 2019/02/28
Fibre optic link Satellite (Aux)	FO RS232 Link	181-018	
Fibre optic link Transceiver (Aux)	FO RS232 Link	182-018	
Isolating Transformer	LTS 604	1888	
Notch Filter Ultra Stable (Aux)	WRCA800/960-6EEK	24	
Signal Analyzer	FSV30	103005	Rohde & Schwarz GmbH & Co. KG
	Calibration Details		Last Execution Next Execution
	DKD calibration		2016/02/25 2018/02/24
Spectrum Analyser	FSU26 Calibration Details	200418	Last Execution Next Execution
	Standard calibration		2015/10/20 2016/10/19
Spectrum Analyzer	FSP3	836722/011	Rohde & Schwarz GmbH & Co. KG
	Calibration Details		Last Execution Next Execution
	DKD calibration		2015/06/23 2018/06/22
Vector Signal Generator	SMIQ 03B	832492/061	



Test Equipment Digital Signalling Devices

Lab ID: Lab 1, Lab 2

Description: Signalling equipment for various wireless technologies.

Single Devices for Digital Signalling Devices

Single Device Name	Туре	Serial Number	Manufacturer		
CMW500	CMW500 107500 Calibration Details		Last Executio	n Next Execution	
	Standard calibration		2015/07/13	2017/07/14	
Digital Radio Communication Tester	CMD 55	831050/020	Rohde & Schu Co. KG	Rohde & Schwarz GmbH &	
	Calibration Details		Last Executio	n Next Execution	
	DKD calibration		2014/12/02	2017/12/01	
Universal Radio Communication Tester		837983/052	Rohde & Sch		
	Calibration Details			n Next Execution	
	DKD calibration		2014/12/03	2017/12/02	
	HW/SW Status		Date of Start	Date of End	
	HW options: B11, B21V14, B21-2, B41, B52 B54V14, B56V14, B68 3v04, B6 SW options: K21 4v11, K22 4v11, K23 4v11 K28 4v10, K42 4v11, K43 4v11 K66 4v10, K68 4v10, Firmware: μP1 8v40 01.12.05	95, PCMCIA, U65V02 1, K24 4v11, K27 4v10,	2007/01/02		
	 SW: K62, K69		2008/11/03		
Vector Signal Generator	SMU200A	100912	Rohde & Schu Co. KG	warz GmbH &	



Test Equipment Emission measurement devices

Lab ID: Lab 1

Description: Equipment for emission measurements

Serial Number: see single devices

Single Devices for Emission measurement devices

Single Device Name	Туре	Serial Number	Manufacturer		
EMI Receiver / Spectrum Analyzer	ESR 7	101424			
opeon unit / inalyzer	Calibration Details		Last Execution	n Next Execution	
	Initial Factory Calibration		2014/11/13	2016/11/12	
Personal Computer	Dell	30304832059			
Power Meter	NRVD	828110/016			
	Calibration Details		Last Execution	n Next Execution	
	Standard calibration		2016/05/24	2017/05/23	
Sensor Head A	NRV-Z1	827753/005			
	Calibration Details	Last Execution Next Execution			
	Standard calibration		2016/05/27	2017/05/26	
Signal Generator	SMR 20 846834/008		Rohde & Schwarz GmbH &		
			Co. KG		
	Calibration Details		Last Execution	n Next Execution	
	Standard Calibration		2014/06/24	2017/06/23	
Spectrum Analyzer	ESIB 26 830482/004		Rohde & Schwarz GmbH & Co. KG		
	Calibration Details		Last Execution Next Execution		
	DAkkS Calibration (DK)		2015/12/09	2017/12/08	
	HW/SW Status		Date of Start	Date of End	
	Firmware-Update 4.34.4 from 3.4	45 during calibration	2009/12/03		
Spectrum Analyzer	FSW 43	103779			
	Calibration Details		Last Execution	n Next Execution	
	Initial Factory Calibration		2014/11/17	2016/11/16	

Test Equipment Multimeter 03

Lab ID:Lab 1, Lab 2Description:Fluke 177Serial Number:86670383

Single Devices for Multimeter 03

Single Device Name	Туре	Serial Number	Manufacturer
Digital Multimeter 03 (Multimeter)	Fluke 177	86670383	
,	Calibration Details		Last Execution Next Execution
	DAkkS Calibration		2016/02/04 2018/02/28



Test Equipment Radio Lab Test Equipment

Lab ID: Lab 2

Description: Radio Lab Test Equipment

Single Devices for Radio Lab Test Equipment

Single Device Name	Туре	Serial Number	Manufacturer		
Broadband Power Divider SMA	WA1515	A856			
Coax Attenuator 10dB SMA 2W	4T-10	F9401			
Coax Attenuator 10dB SMA 2W	56-10	W3702			
Coax Attenuator 10dB SMA 2W	56-10	W3711			
Coax Cable Huber&Suhner	Sucotest 2,0m		Huber&Suhner		
Coax Cable Rosenberger Micro Coax FA210A0010003030 SMA/SMA 1,0m	FA210A0010003030	54491-2			
Power Meter	NRVD Calibration Details	828110/016	Last Execution Next Execution		
	Standard calibration		2016/05/24 2017/05/23		
RF Step Attenuator RSP	RSP	833695/001			
Rubidium Frequency Standard	Datum, Model: MFS	5489/001			
	Calibration Details		Last Execution Next Execution		
	DAkks Calibration		2016/06/22 2017/06/23		
Sensor Head A	NRV-Z1 Calibration Details	827753/005	Last Execution Next Execution		
	Standard calibration		2016/05/27 2017/05/26		
Signal Generator SME	SME03	827460/016			
· ·	Calibration Details		Last Execution Next Execution		
	Standard calibration		2014/12/02 2017/12/01		
Signal Generator SMP	SMP02	833286/0014	Rohde & Schwarz GmbH & Co. KG		
	Calibration Details		Last Execution Next Execution		
	Standard calibration		2016/05/24 2019/05/23		



Test Equipment T/A Logger 13

Lab ID: Lab 1, Lab 2 Lufft Opus10 TPR Description: Opus10 TPR Type: Serial Number: 13936

Single Devices for T/A Logger 13

Single Device Name Serial Number Manufacturer Type ThermoAirpressure Opus10 TPR (8253.00) 13936 Datalogger 13 (Environ) Calibration Details Last Execution Next Execution Customized calibration 2015/02/27 2017/02/26

Test Equipment T/H Logger 03

Single Device Name

Lab ID: Lab 2 Lufft Opus10 Description: Serial Number: 7482

Single Devices for T/H Logger 03

Type

ThermoHygro Opus10 THI (8152.00) 7482 Datalogger 03 (Environ) Calibration Details Last Execution Next Execution

Customized calibration 2015/02/27 2017/02/26

Serial Number

Manufacturer

Test Equipment T/H Logger 12

Lab ID: Lab 1 Lufft Opus10 Description: Serial Number: 12482

Single Devices for T/H Logger 12

Single Device Name Serial Number Manufacturer Type ThermoHygro Opus10 THI (8152.00) 12482 Datalogger 12 (Environ) Calibration Details Last Execution Next Execution **Customized calibration** 2015/03/10 2017/03/09

Test Equipment Temperature Chamber 05

Lab ID: Lab 2

Description: Temperature Chamber VT4002

Type: Vötsch

Serial Number: see single devices

Single Devices for Temperature Chamber 05

Single Device Name Type Serial Number Manufacturer Temperature VT 4002 58566080550010 Chamber Vötsch 05 Calibration Details Last Execution Next Execution 2016/03/09 2018/03/08 Customized calibration



5 Annex

5.1 Additional Information for OUT Description

			RF Channel					RF Channel	
TEST MODE	TX / RX	Low	Mid	High	TEST MODE	TX / RX	Low	Mid	High
		18607	18900	19193			19957	20175	20393
	TX (1.4M)	1850.7 MHz	1880 MHz	1909.3 MHz		TX (1.4M)	1710.7MHz	1732.5MHz	1754.3MHz
		CH 18615	CH 18900	CH 19185			CH 19965	CH 20175	CH 20385
	TX (3M)	1851.5 MHz	1880 MHz	1908.5 MHz		TX (3M)	1711.50 MHz	1732.50 MHz	1753.50 MHz
		CH 18625	CH 18900	CH 19175			CH 19975	CH 20175	CH 20375
	TX (5M)	1852.5 MHz	1880 MHz	1907.5 MHz		TX (5M)	1712.50 MHz	1732.50 MHz	1752.50 MHz
		CH 18650	CH 18900	CH 19150			CH 20000	CH 20175	CH 20350
	TX (10)	1855 MHz	1880 MHz	1905 MHz		TX (10)	1715.00 MHz	1732.50 MHz	1750.00 MHz
		CH 18675	CH 18900	CH 19125			CH 20025	CH 20175	CH 20325
	TX (15M)	1857.5 MHz	1880 MHz	1902.5 MHz		TX (15M)	1717.50 MHz	1732.50 MHz	1747.50 MHz
		CH 18700	CH 18900	CH 19100			CH 20050	CH 20175	CH 20300
LTE - EDD 3	TX (20M)	1860 MHz	1880 MHz	1900 MHz	LTE - EDD 4	TX (20M)	1720.00 MHz	1732.50 MHz	1745.00 MHz
LTE eFDD 2		CH 607	CH 900	CH 1193	LTE eFDD 4		CH 1957	CH 2175	CH 2393
	RX (1.4M)	1930.7 MHz	1960 MHz	1989.3 MHz		RX (1.4M)	2110.70 MHz	2132.50 MHz	2154.30 MHz
		CH 615	CH 900	CH 1185			CH 1965	CH 2175	CH 2385
	RX (3M)	1931.5 MHz	1960 MHz	1988.5 MHz	,	,	2111.50 MHz	2132.50 MHz	2153.50 MHz
		CH 625	CH 900	CH 1175			CH 1975	CH 2175	CH 2375
	RX (5M)	1932.50 MHz	1880.00 MHz	1987.5 MHz			2112.50 MHz	2132.50 MHz	2152.50 MHz
		CH 650	CH 900	CH 1150			CH 2000	CH 2175	CH 2350
	RX (10M)	1935.00 MHz	1960.00 MHz	1985.00 MHz		RX (10M)	2115.00 MHz	2132.50 MHz	2150.00 MHz
		CH 675	CH 900	CH 1125			CH 2025	CH 2175	CH 2325
	RX (15M)	1937.50 MHz	1960.00 MHz	1982.50 MHz		RX (15M)	2117.50 MHz	2132.50 MHz	2147.50 MHz
		CH 700	CH 900	CH 1100			CH 2050	CH 2175	CH 2300
	RX (20M)	1940.00 MHz	1960.00 MHz	1980.00 MHz		RX (20M)	2120.00 MHz	2132.50 MHz	2145.00 MHz
			RF Channel				RF Channel		
TEST MODE	TX / RX	Low	Mid	High	TEST MODE	TX / RX	Low Mid High		High
		20407	20525	20643			CH 23017	CH 23095	CH 23173
	TX (1.4M)	824.7	836.5	848.3		TX (1.4M)	699.70 MHz	707.50 MHz	715.30 MHz
		CH 20415	CH 20525	CH 20635			CH 23025	CH 23095	CH 23165
	TX (3M)	825.50 MHz	836.50 MHz	847.50 MHz		TX (3M)	700.50 MHz	707.50 MHz	714.50 MHz
		CH 20425	CH 20525	CH 20625			CH 23035	CH 23095	CH 23155
	TX (5M)	826.50 MHz	836.50 MHz	846.50 MHz		TX (5M)	701.50 MHz	707.50 MHz	713.50 MHz
		CH 20450	CH 20525	CH 20600			CH 23060	CH 23095	CH 23130
LTE eFDD 5	TX (10)	829.00 MHz	836.50 MHz	844.00 MHz	LTE eFDD	TX (10)	704.00 MHz	707.50 MHz	711.00 MHz
LILEIDDS		CH 2407	CH 20525	CH 2643	12		CH 5017	CH 5095	CH 5173
	RX (1.4M)	869.70 MHz	881.50 MHz	893.70 MHz		RX (1.4M)	729.70 MHz	737.50 MHz	745.30 MHz
		CH 2415	CH 20525	CH 2635			CH 5025	CH 5095	CH 5165
	RX (3M)	870.50 MHz	881.50 MHz	892.50 MHz		RX (3M)	730.50 MHz	737.50 MHz	744.50 MHz
		CH 2425	CH 2525	CH 2625			CH 5035	CH 5095	CH 5155
	RX (5M)	871.50 MHz	881.50 MHz	891.50 MHz		RX (5M)	731.50 MHz	737.50 MHz	743.50 MHz
		CH 2450	CH 2525	CH 2600			CH 5060	CH 5095	CH 5130
	RX (10M)	874.00 MHz	881.50 MHz	889.00 MHz		RX (10M)	734.00 MHz	737.50 MHz	741.00 MHz

just a test



5.2 Additional Information for Report



Standard

FCC Part 22, Subpart H The test was performed according to: FCC §2.1046

Reference: MDE_UBLOX_1601_FCCa according to: FCC Part 22, Subpart H, Part 24, subpart E, Part 27 Subpart C

Summary of Test Results
The EUT complied with all performed tests as listed in the summary section of this report.
Technical Report Summary
Type of Authorization :
Certification for a GSM/WCDMA/CDMA2000 cellular radiotelephone device
Applicable FCC Rules
Prepared in accordance with the requirements of FCC Rules and Regulations as listed in 47 CFR Ch.1 Parts 0 to 69. The following subparts are applicable to the results in this test report.
Part 2, Subpart J - Equipment Authorization Procedures, Certification
§ 2.1046 Measurement required: RF power output § 2.1049 Measurement required: Occupied bandwidth § 2.1051 Measurement required: Spurious emissions at antenna terminals § 2.1053 Measurement required: Field strength of spurious radiation § 2.1055 Measurement required: Frequency stability § 2.1057 Frequency spectrum to be investigated
Part 22, Subpart C – Operational and Technical Requirements
§ 22.355 Frequency tolerance
Part 22, Subpart H – Cellular Radiotelephone Service
§ 22.913 Effective radiated power limits § 22.917 Emission limitations for cellular equipment
additional documents
ANSI TIA-603-D-2004
Description of Methods of Measurements
RF Power Output



Test Description (conducted measurement procedure)

- 1) The EUT was coupled to a Spectrum Analyser and a Digital Communication Tester through a Power Divider. Refer to chapter "Setup Drawings".
- 2) The total insertion losses for signal path 1 and signal path 2 were measured. The values were used to correct the readings from the Spectrum Analyser and the Digital Communication Tester.
- 3) A call was established on a Traffic Channel between the EUT and the Digital Communication Tester. Important Settings:
- Channel (Frequency): please refer to the detailed results
- 4) The transmitted power of the EUT was recorded by using a spectrum analyser.

Test Description (radiated measurement procedure)

- 1) The EUT was placed inside an anechoic chamber. Refer to chapter "Setup Drawings". The EUT was coupled to a Digital Communication Tester which was located outside the chamber via a small signalling antenna.
- 2) A call was established on a Traffic Channel between the EUT and the Digital Communication Tester. Important Settings:
- Output Power: Maximum
- Channel: please refer to the detailed results
- 3) A substitution procedure is used so that the readings from the spectrum analyser are corrected and represent directly the equivalent radiated power (related to a lamda/2 dipole).
- 4) The output power was measured in both vertical and horizontal antenna polarisation during the call is established on the lowest channel, mid channel and on the highest channel. To find the worst case power all orientations (X, Y, Z) of the EUT have been measured.
- 5) The test procedure according to TIA-603-C-2004 has been considered.

Test Requirements / Limits

§2.1046 Measurements Required: RF Power Output

- (a) For transmitters other than single sideband, independent sideband and controlled carrier radiotelephone, power output shall be measured at the RF output terminals when the transmitter is adjusted in accordance with the tune-up procedure to give the values of current and voltage on the circuit elements specified in § 2.1033(c)(8). The electrical characteristics of the output terminals when this test is made shall be stated. §22.913 Effective radiated power limits
- (a)(2) Maximum ERP. ... The ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 Watts.

Emission and Occupied Bandwidth

Standard FCC Part 22, Subpart H

The test was performed according to: FCC §2.1049

Test Description

- 1) The EUT was coupled to a Spectrum Analyser and a Digital Communication Tester through a Power Divider. Refer to chapter "Setup Drawings".
- 2) The total insertion losses for signal path 1 and signal path 2 were measured. The values were used to correct the readings from the Spectrum Analyser and the Digital Communication Tester.
- 3) A call was established on a Traffic Channel between the EUT and the Digital Communication Tester. Important Settings:
- Output Power: Maximum
- Channel: please refer to the detailed results
- 4) Important Analyser Settings:
- Resolution Bandwidth: >1% of the manufacturer's stated occupied bandwidth
- 5) The maximum spectral level of the modulated signal was recorded as the reference.
- 6) The emission bandwidth is measured as follows:

the two furthest frequencies above and below the frequency of the maximum reference level where the spectrum is -26 dB down have to be found.

7) The occupied bandwidth (99% Bandwidth) is measured as follows:

the occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers are each equal to 0.5 percent of the total mean power.



Test Requirements / Limits

§ 2.1049 Measurements required: Occupied bandwidth

The occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission shall be measured under the following conditions (as applicable):

(h) Transmitters employing digital modulation techniques - when modulated by an input signal such that its amplitude and symbol rate represent the maximum rated conditions under which the equipment will be operated. The signal shall be applied through any filter networks, pseudo-random generators or other devices required in normal service. Additionally, the occupied bandwidth shall be shown for operation with any devices used for modifying the spectrum when such devices are optional at the discretion of the user.

Spurious emissions at antenna terminals

Standard FCC Part 22, Subpart H

The test was performed according to FCC §2.1051

Test Description

- 1) The EUT was coupled to a Spectrum Analyser and a Digital Communication Tester through a Power Divider. Refer to chapter "Setup Drawings".
- 2) The total insertion losses for signal path 1 and signal path 2 were measured. The values were used to correct the readings from the Spectrum Analyser and the Digital Communication Tester.
- 3) A call was established on a Traffic Channel between the EUT and the Digital Communication Tester. Important Settings:
- Output Power: Maximum
- Channel: please refer to the detailed results
- 4) Important Analyser Settings
- [Resolution Bandwidth]:
- a) [>=1% of wanted signal bandwidth] in the Span of 1 MHz directly below and above the PCS-Band,
- b) otherwise [100 kHz] (or [1 MHz] for accelerated sweep times)
- c) [reduced resolution bandwidth] in case the curve of the analyser IF-Filter or the wanted EUT signal leads to an exceeding of the limit, in this case a correction factor was used
- Sweep Time: depending on the transmitting signal, the span and the resolution bandwidth
- 5) The spurious emissions peaks were measured in the frequency range from 9 kHz to 10 GHz (up to the 10th harmonic) during the call was established

Test Requirements / Limits

§ 2.1051 Spurious emissions at antenna terminals

The radio frequency voltage or power generated within the equipment and appearing on a spurious frequency shall be checked at the equipment output terminals when properly loaded with a suitable artificial antenna. Curves or equivalent data shall show the magnitude of each harmonic and other spurious emission that can be detected when the equipment is operated under the conditions specified in Sec. 2.1049 as appropriate. The magnitude of spurious emissions which are attenuated more than 20 dB below the permissible value need not be specified.

- § 2.1057 Frequency spectrum to be investigated.
- (a) In all of the measurements set forth in Secs. 2.1051 and 2.1053, the spectrum shall be investigated from the lowest radio frequency signal generated in the equipment, without going below 9 kHz, up to at least the frequency shown below:
- (1) If the equipment operates below 10 GHz: to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower.
- (b) Particular attention should be paid to harmonics and subharmonics of the carrier frequency as well as to those frequencies removed from the carrier by multiples of the oscillator frequency. Radiation at the frequencies of multiplier stages should also be checked.
- (c) The amplitude of spurious emissions which are attenuated more than 20 dB below the permissible value



need not be reported.

(d) Unless otherwise specified, measurements above 40 GHz shall be performed using a minimum resolution bandwidth of 1 MHz.

§ 22.917 Emission limitations for cellular equipment

- (a) The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB. Remark of the test laboratory: This is calculated to be -13 dBm.
- (b) Compliance with these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater. In the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e. 100 kHz or 1 percent of emission bandwidth, as specified). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.
- (c) Licensees in this service may establish an alternative out of band emission limit to be used at specified band edge(s) in specified geographical areas [...].
- (d) If any emission from a transmitter operating in this service results in interference to users of another radio service, the FCC may require a greater attenuation of that emission than specified in this section.

For reporting only spurious emission levels reaching to the 20dB margin to limit were noted.

Field strength of spurious radiation

Standard FCC Part 22, Subpart H

The test was performed according to: FCC §2.1053

Test Description

- 1) The EUT was placed inside an anechoic chamber. Refer to chapter "Setup Drawings". The EUT was coupled to a Digital Communication Tester which was located outside the chamber via a small signalling antenna.
- 2) A call was established on a Traffic Channel between the EUT and the Digital Communication Tester. Important Settings:
- Output Power: Maximum
- Channel: please refer to the detailed results
- 3) A pre-calibration procedure is used so that the readings from the spectrum analyser are corrected and represent directly the equivalent radiated power (related to a lamda/2 dipole).
- 4) All spurious radiation measurements were made with spectrum analyser and the appropriate calibrated antennas for the frequency range of 30 MHz to 10 GHz (up to the 10th harmonic of the transmit frequency). The frequency range from 9 kHz to 30 MHz has been examined during the conducted spurious emission measurements.
- 5) Important Analyser Settings
- [Resolution Bandwidth / Video Bandwidth]:
- a) [3 kHz / 10 kHz] in the Span of 1 MHz directly below and above the Band,
- b) [10 kHz / 30 kHz] in case the curve of the analyser IF-Filter leads to an exceeding of the limit, in this case a worst case correction factor of 20 dB (1 MHz \rightarrow 10 kHz) was used
- c) [1 MHz / 3 MHz] otherwise
- Sweep Time: depending on the transmitting signal, the span and the resolution bandwidth
- 6) The spurious emissions peaks were measured in both vertical and horizontal antenna polarization during the call is established on the lowest channel, mid channel and on the highest channel. To find the worst case peaks all orientations (X, Y, Z) of the EUT have been measured.
- 7) After this initial test, a final test according to TIA-603-C 2.2.12 Unwanted Emissions is performed on signals which are identified as being close to the limit. For any emissions found to be within 10 dB of the limit, a specific signal substitution measurement is performed at the frequency of the emission to determine the exact e.i.r.p. value.

Test Requirements / Limits

§ 2.1053 Measurements required: Field strength of spurious radiation.



Measurements shall be made to detect spurious emissions that may be radiated directly from the cabinet, control circuits, power leads, or intermediate circuit elements under normal conditions of installation and operation. Curves or equivalent data shall be supplied showing the magnitude of each harmonic and other spurious emission. For this test, single sideband, independent sideband, and controlled carrier transmitters shall be modulated under the conditions specified in paragraph (c) of Sec. 2.1049, as appropriate. For equipment operating on frequencies below 890 MHz, an open field test is normally required, with the measuring instrument antenna located in the far-field at all test frequencies. In the event it is either impractical or impossible to make open field measurements (e.g. a broadcast transmitter installed in a building) measurements will be accepted of the equipment as installed. Such measurements must be accompanied by a description of the site where the measurements were made showing the location of any possible source of reflections which might distort the field strength measurements. Information submitted shall include the relative radiated power of each spurious emission with reference to the rated power output of the transmitter, assuming all emissions are radiated from halfwave dipole antennas.

- (b) The measurements specified in paragraph (a) of this section shall be made for the following equipment:
- (2) All equipment operating on frequencies higher than 25 MHz.
- § 2.1057 Frequency spectrum to be investigated.
- (a) In all of the measurements set forth in Secs. 2.1051 and 2.1053, the spectrum shall be investigated from the lowest radio frequency signal generated in the equipment, without going below 9 kHz, up to at least the frequency shown below:
- (1) If the equipment operates below 10 GHz: to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower.
- (b) Particular attention should be paid to harmonics and subharmonics of the carrier frequency as well as to those frequencies removed from the carrier by multiples of the oscillator frequency. Radiation at the frequencies of multiplier stages should also be checked.
- (c) The amplitude of spurious emissions which are attenuated more than 20 dB below the permissible value need not be reported.
- (d) Unless otherwise specified, measurements above 40 GHz shall be performed using a minimum resolution bandwidth of 1 MHz.
- § 22.917 Emission limitations for cellular equipment
- (a) The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB. This is calculated to be -13 dBm (effective radiated power) which corresponds to 84.6 dB μ V/m (field strength) in a distance of 3 m.
- (b) Compliance with these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater. In the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e. 100 kHz or 1 percent of emission bandwidth, as specified). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.
- (c) Licensees in this service may establish an alternative out of band emission limit to be used at specified band edge(s) in specified geographical areas [...].
- (d) If any emission from a transmitter operating in this service results in interference to users of another radio service, the FCC may require a greater attenuation of that emission than specified in this section.

For reporting only spurious emission levels reaching to the 20dB margin to limit were noted.

Frequency stability

Standard FCC Part 22, Subpart H

The test was performed according to FCC §2.1055

Test Description

- 1) The EUT was placed inside a temperature chamber.
- 2) The EUT was coupled to a Digital Communication Tester. Refer to chapter "Setup Drawings".



- 3) The climatic chamber was cycled down/up to a certain temperature, starting with the EUT minimum temperature.
- 4) After the temperature was stabilized the EUT was switched on and a call was established on a Traffic Channel between the EUT and the Digital Communication Tester.

 Important Settings:
- Output Power: Maximum
- Mid Channel
- 5) The frequency error of the EUT was recorded by using an internal measurement function of the Digital Communication Tester immediately after the call was established, five minutes after the call was established and ten minutes after the call was established.
- 6) This measurement procedure was performed for temperature variation from -30° C to $+50^{\circ}$ C in increments of 10° C, if not otherwise stated in the detailed results.

When the EUT did not operate at certain temperature levels, these measurements were left out.

Test Requirements / Limits

§2.1055 Measurements required: Frequency stability

- (a) The frequency stability shall be measured with variation of ambient temperature as follows:
- (1) From -30° to $+50^{\circ}$ centigrade for all equipment except that specified in paragraphs (a) (2) and (3) of this section.
- (b) Frequency measurements shall be made at the extremes of the specified temperature range and at intervals of not more than 10° centigrade through the range. A period of time sufficient to stabilize all of the components of the oscillator circuit at each temperature level shall be allowed prior to frequency measurement. The short term transient effects on the frequency of the transmitter due to keying (except for broadcast transmitters) and any heating element cycling normally occurring at each ambient temperature level also shall be shown. Only the portion or portions of the transmitter containing the frequency determining and stabilizing circuitry need be subjected to the temperature variation test.
- (d) The frequency stability shall be measured with variation of primary supply voltage as follows:
- (1) Vary primary supply voltage from 85 to 115 percent of the nominal value for other than hand carried battery equipment.
- (2) For hand carried, battery powered equipment, reduce primary supply voltage to the battery operating end point which shall be specified by the manufacturer.
- (3) The supply voltage shall be measured at the input to the cable normally provided with the equipment, or at the power supply terminals if cables are not normally provided. Effects on frequency of transmitter keying (except for broadcast transmitters) and any heating element cycling at the nominal supply voltage and at each extreme also shall be shown.

§22.355 Frequency tolerance

...the carrier frequency of each transmitter in the Public Mobile Service must be maintained within the tolerances given in table C-1 of this section.

Table C-1.- Frequency Tolerance for Transmitters in the Public Mobile Services

Frequency range (MHz)	Base, fixed (ppm)	Mobile up to 3 watts (ppm)	Mobile above 3 watts (ppm)
25 to 50	20.0	20.0	50.0
50 to 450	5.0	5.0	50.0
450 to 512	2.5	5.0	5.0
821 to 896	1.5	2.5	2.5
928 to 929	5.0	n/a	n/a
929 to 960	1.5	n/a	n/a
2110 to 2220	10.0	n/a	n/aFor the mid

channel (836.6 MHz) the frequency tolerance is 2.5 ppm (2091.5 Hz).

Band edge compliance

Standard FCC Part 22, Subpart H

The test was performed according to: FCC §22.913

Test Description

1) The EUT was coupled to a Spectrum Analyser and a Digital Communication Tester through a Power



Divider. Refer to chapter "Setup Drawings".

- 2) The total insertion losses for signal path 1 and signal path 2 were measured. The values were used to correct the readings from the Spectrum Analyser and the Digital Communication Tester.
- 3) A call was established on a Traffic Channel between the EUT and the Digital Communication Tester. Important Settings:
- Output Power: Maximum
- Channel: please refer to the detailed results
- 4) Important Analyser Settings:
- Resolution Bandwidth = Video Bandwidth: >1% of the manufacturer's stated occupied bandwidth

Test Requirements / Limits

§ 22.917 Emission limitations for cellular equipment

Refer to chapter "Field strength of spurious radiation".

Summary of Test Results
The EUT complied with all performed tests as listed in the summary section of this report.
Technical Report Summary
 _
Type of Authorization :
Certification for a GSM/WCDMA/CDMA2000 cellular radiotelephone device

Applicable FCC Rules

Prepared in accordance with the requirements of FCC Rules and Regulations as listed in 47 CFR Ch.1 Parts 0 to 69. The following subparts are applicable to the results in this test report.

Part 2, Subpart J - Equipment Authorization Procedures, Certification

§ 2.1046 Measurement required: RF power output

§ 2.1049 Measurement required: Occupied bandwidth

§ 2.1051 Measurement required: Spurious emissions at antenna terminals

§ 2.1053 Measurement required: Field strength of spurious radiation

§ 2.1055 Measurement required: Frequency stability

§ 2.1057 Frequency spectrum to be investigated

Part 24, Subpart E - Broadband PCS

§ 24.232 Power and antenna height limits

§ 24.235 Frequency stability

§ 24.236 Field strength limits

§ 24.238 Emission limitations for Broadband PCS equipment

additional documents



ANSI TIA-603-D-2004

Description of Methods of Measurements					
RF Power Output					

Standard: FCC Part 24, Subpart E

The test was performed according to: FCC §2.1046

Test Description (conducted measurement procedure)

- 1) The EUT was coupled to a Spectrum Analyser and a Digital Communication Tester through a Power Divider. Refer to chapter "Setup Drawings".
- 2) The total insertion losses for signal path 1 and signal path 2 were measured. The values were used to correct the readings from the Spectrum Analyser and the Digital Communication Tester.
- 3) A call was established on a Traffic Channel between the EUT and the Digital Communication Tester. Important Settings:
- Channel (Frequency): please refer to the detailed results
- 4) The transmitted power of the EUT was recorded by using a spectrum analyser.

Test Description (radiated measurement procedure)

- 1) The EUT was placed inside an anechoic chamber. Refer to chapter "Setup Drawings". The EUT was coupled to a Digital Communication Tester which was located outside the chamber via a small signalling antenna.

 2) A call was established on a Traffic Channel between the EUT and the Digital Communication Tester. Important Settings:
- Output Power: Maximum
- Channel: please refer to the detailed results
- 3) A substitution procedure is used so that the readings from the spectrum analyser are corrected and represent directly the equivalent radiated power (related to a lamda/2 dipole).
- 4) The output power was measured in both vertical and horizontal antenna polarisation during the call is established on the lowest channel, mid channel and on the highest channel. To find the worst case power all orientations (X, Y, Z) of the EUT have been measured.
- 5) The test procedure according to TIA-603-C-2004 has been considered.

Test Requirements / Limits

- §2.1046 Measurements Required: RF Power Output
- (a) For transmitters other than single sideband, independent sideband and controlled carrier radiotelephone, power output shall be measured at the RF output terminals when the transmitter is adjusted in accordance with the tune-up procedure to give the values of current and voltage on the circuit elements specified in § 2.1033(c)(8). The electrical characteristics of the output terminals when this test is made shall be stated. §24.232 Power and antenna height limits
- (c) Mobile/portable stations are limited to 2 watts EIRP peak power and the equipment must employ means to limit the power to the minimum necessary for successful communications.
- (e) Peak transmit power must be measured over any interval of continuous transmission using instrumentation calibrated in terms of an rms-equivalent voltage. The measurement results shall be properly adjusted for any instrument limitations, such as detector response times, limited resolution bandwidth capability when compared to the emission bandwidth, sensitivity, etc., so as to obtain a true peak measurement for the emission in question over the full bandwidth of the channel.

Emission and Occupied Bandwidth



Standard: FCC Part 24, Subpart E

The test was performed according to: FCC §2.1049

Test Description

- 1) The EUT was coupled to a Spectrum Analyser and a Digital Communication Tester through a Power Divider. Refer to chapter "Setup Drawings".
- 2) The total insertion losses for signal path 1 and signal path 2 were measured. The values were used to correct the readings from the Spectrum Analyser and the Digital Communication Tester.
- 3) A call was established on a Traffic Channel between the EUT and the Digital Communication Tester. Important Settings:
- Output Power: Maximum
- Channel: please refer to the detailed results
- 4) Important Analyser Settings:
- Resolution Bandwidth: >1% of the manufacturer's stated occupied bandwidth
- 5) The maximum spectral level of the modulated signal was recorded as the reference.
- 6) The emission bandwidth is measured as follows:

the two furthest frequencies above and below the frequency of the maximum reference level where the spectrum is –26 dB down have to be found.

7) The occupied bandwidth (99% Bandwidth) is measured as follows:

the occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers are each equal to 0.5 percent of the total mean power.

Test Requirements / Limits

§ 2.1049 Measurements required: Occupied bandwidth

The occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission shall be measured under the following conditions (as applicable):

(h) Transmitters employing digital modulation techniques - when modulated by an input signal such that its amplitude and symbol rate represent the maximum rated conditions under which the equipment will be operated. The signal shall be applied through any filter networks, pseudo-random generators or other devices required in normal service. Additionally, the occupied bandwidth shall be shown for operation with any devices used for modifying the spectrum when such devices are optional at the discretion of the user.

Spurious emissions at antenna terminals

Standard: FCC Part 24, Subpart E

The test was performed according to FCC §2.1051

Test Description

- 1) The EUT was coupled to a Spectrum Analyser and a Digital Communication Tester through a Power Divider. Refer to chapter "Setup Drawings".
- 2) The total insertion losses for signal path 1 and signal path 2 were measured. The values were used to correct the readings from the Spectrum Analyser and the Digital Communication Tester.
- 3) A call was established on a Traffic Channel between the EUT and the Digital Communication Tester. Important Settings:
- Output Power: Maximum
- Channel: please refer to the detailed results
- 4) Important Analyser Settings
- [Resolution Bandwidth]:
- a) [>=1% of wanted signal bandwidth] in the Span of 1 MHz directly below and above the Band,
- b) otherwise [1 MHz]
- c) [reduced resolution bandwidth] in case the curve of the analyser IF-Filter or the wanted EUT signal leads to an exceeding of the limit, in this case a correction factor was used
- Sweep Time: depending on the transmitting signal, the span and the resolution bandwidth
- 5) The spurious emissions peaks were measured in the frequency range from 9 kHz to 20 GHz (up to the 10th harmonic) during the call was established



Test Requirements / Limits

§ 2.1051 Spurious emissions at antenna terminals

The radio frequency voltage or power generated within the equipment and appearing on a spurious frequency shall be checked at the equipment output terminals when properly loaded with a suitable artificial antenna. Curves or equivalent data shall show the magnitude of each harmonic and other spurious emission that can be detected when the equipment is operated under the conditions specified in Sec. 2.1049 as appropriate. The magnitude of spurious emissions which are attenuated more than 20 dB below the permissible value need not be specified.

§ 2.1057 Frequency spectrum to be investigated.

- (a) In all of the measurements set forth in Secs. 2.1051 and 2.1053, the spectrum shall be investigated from the lowest radio frequency signal generated in the equipment, without going below 9 kHz, up to at least the frequency shown below:
- (1) If the equipment operates below 10 GHz: to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower.
- (b) Particular attention should be paid to harmonics and subharmonics of the carrier frequency as well as to those frequencies removed from the carrier by multiples of the oscillator frequency. Radiation at the frequencies of multiplier stages should also be checked.
- (c) The amplitude of spurious emissions which are attenuated more than 20 dB below the permissible value need not be reported.
- (d) Unless otherwise specified, measurements above 40 GHz shall be performed using a minimum resolution bandwidth of 1 MHz.
- § 24.238 Emission limitations for Broadband PCS equipment
- (a) The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB. Remark of the test laboratory: This is calculated to be -13 dBm.
- (b) Compliance with these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 1 MHz or greater. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e. 1 MHz or 1 percent of emission bandwidth, as specified). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.
- (c) Licensees in this service may establish an alternative out of band emission limit to be used at specified band edge(s) in specified geographical areas [...].
- (d) If any emission from a transmitter operating in this service results in interference to users of another radio service, the FCC may require a greater attenuation of that emission than specified in this section.

For reporting only spurious emission levels reaching to the 20dB margin to limit were noted.

Field strength of spurious radiation

Standard: FCC Part 24, Subpart E

The test was performed according to: FCC §2.1053

Test Description

- 1) The EUT was placed inside an anechoic chamber. Refer to chapter "Setup Drawings". The EUT was coupled to a Digital Communication Tester which was located outside the chamber via a small signalling antenna.

 2) A call was established on a Traffic Channel between the EUT and the Digital Communication Tester.
- Important Settings:
- Output Power: Maximum
- Channel: please refer to the detailed results
- 3) A pre-calibration procedure is used so that the readings from the spectrum analyser are corrected and represent directly the equivalent radiated power (related to a lamda/2 dipole).



- 4) All spurious radiation measurements were made with spectrum analyser and the appropriate calibrated antennas for the frequency range of 30 MHz to 20 GHz (up to the 10th harmonic of the transmit frequency). The frequency range from 9 kHz to 30 MHz has been examined during the conducted spurious emission measurements.
- 5) Important Analyser Settings
- [Resolution Bandwidth / Video Bandwidth]:
- a) [3 kHz / 10 kHz] in the Span of 1 MHz directly below and above the Band,
- b) [10 kHz / 30 kHz] in case the curve of the analyser IF-Filter leads to an exceeding of the limit, in this case a worst case correction factor of 20 dB (1 MHz \rightarrow 10 kHz) was used
- c) [1 MHz / 3 MHz] otherwise
- Sweep Time: depending on the transmitting signal, the span and the resolution bandwidth
- 6) The spurious emissions peaks were measured in both vertical and horizontal antenna polarisation during the call is established on the lowest channel, mid channel and on the highest channel. To find the worst case peaks all orientations (X, Y, Z) of the EUT have been measured.
- 7) After this initial test, a final test according to TIA-603-C 2.2.12 Unwanted Emissions is performed on signals which are identified as being close to the limit. For any emissions found to be within 10 dB of the limit, a specific signal substitution measurement is performed at the frequency of the emission to determine the exact e.i.r.p. value.

Test Requirements / Limits

§ 2.1053 Measurements required: Field strength of spurious radiation.

Measurements shall be made to detect spurious emissions that may be radiated directly from the cabinet, control circuits, power leads, or intermediate circuit elements under normal conditions of installation and operation. Curves or equivalent data shall be supplied showing the magnitude of each harmonic and other spurious emission. For this test, single sideband, independent sideband, and controlled carrier transmitters shall be modulated under the conditions specified in paragraph (c) of Sec. 2.1049, as appropriate. For equipment operating on frequencies below 890 MHz, an open field test is normally required, with the measuring instrument antenna located in the far-field at all test frequencies. In the event it is either impractical or impossible to make open field measurements (e.g. a broadcast transmitter installed in a building) measurements will be accepted of the equipment as installed. Such measurements must be accompanied by a description of the site where the measurements were made showing the location of any possible source of reflections which might distort the field strength measurements. Information submitted shall include the relative radiated power of each spurious emission with reference to the rated power output of the transmitter, assuming all emissions are radiated from halfwave dipole antennas.

- (b) The measurements specified in paragraph (a) of this section shall be made for the following equipment:
- (2) All equipment operating on frequencies higher than 25 MHz.
- § 2.1057 Frequency spectrum to be investigated.
- (a) In all of the measurements set forth in Secs. 2.1051 and 2.1053, the spectrum shall be investigated from the lowest radio frequency signal generated in the equipment, without going below 9 kHz, up to at least the frequency shown below:
- (1) If the equipment operates below 10 GHz: to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower.
- (b) Particular attention should be paid to harmonics and subharmonics of the carrier frequency as well as to those frequencies removed from the carrier by multiples of the oscillator frequency. Radiation at the frequencies of multiplier stages should also be checked.
- (c) The amplitude of spurious emissions which are attenuated more than 20 dB below the permissible value need not be reported.
- (d) Unless otherwise specified, measurements above 40 GHz shall be performed using a minimum resolution bandwidth of 1 MHz.
- § 24.238 Emission limitations for Broadband PCS equipment
- (a) The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P) \, dB$. This is calculated to be -13 dBm (effective radiated power) which corresponds to 84.6 dB μ V/m (field strength) in a distance of 3 m.
- (b) Compliance with these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 1 MHz or greater. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e. 1 MHz or 1 percent of emission bandwidth, as specified). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB



below the transmitter power.

- (c) Licensees in this service may establish an alternative out of band emission limit to be used at specified band edge(s) in specified geographical areas [...].
- (d) If any emission from a transmitter operating in this service results in interference to users of another radio service, the FCC may require a greater attenuation of that emission than specified in this section.

For reporting only spurious emission levels reaching to the 20dB margin to limit were noted.

Frequency stability

Standard: FCC Part 24, Subpart E

The test was performed according to FCC §2.1055

Test Description

- 1) The EUT was placed inside a temperature chamber.
- 2) The EUT was coupled to a Digital Communication Tester. Refer to chapter "Setup Drawings".
- 3) The climatic chamber was cycled down/up to a certain temperature, starting with the EUT minimum temperature.
- 4) After the temperature was stabilized the EUT was switched on and a call was established on a Traffic Channel between the EUT and the Digital Communication Tester.

 Important Settings:
- Output Power: Maximum
- Mid Channel
- 5) The frequency error of the EUT was recorded by using an internal measurement function of the Digital Communication Tester immediately after the call was established, five minutes after the call was established and ten minutes after the call was established.
- 6) This measurement procedure was performed for temperature variation from -30° C to $+50^{\circ}$ C in increments of 10° C, if not otherwise stated in the detailed results.

When the EUT did not operate at certain temperature levels, these measurements were left out.

Test Requirements / Limits

§2.1055 Measurements required: Frequency stability

- (a) The frequency stability shall be measured with variation of ambient temperature as follows:
- (1) From -30° to +50° centigrade for all equipment except that specified in paragraphs
- (a) (2) and (3) of this section.
- (b) Frequency measurements shall be made at the extremes of the specified temperature range and at intervals of not more than 10° centigrade through the range. A period of time sufficient to stabilize all of the components of the oscillator circuit at each temperature level shall be allowed prior to frequency measurement. The short term transient effects on the frequency of the transmitter due to keying (except for broadcast transmitters) and any heating element cycling normally occurring at each ambient temperature level also shall be shown. Only the portion or portions of the transmitter containing the frequency determining and stabilizing circuitry need be subjected to the temperature variation test.
- (d) The frequency stability shall be measured with variation of primary supply voltage as follows:
- (1) Vary primary supply voltage from 85 to 115 percent of the nominal value for other than hand carried battery equipment.
- (2) For hand carried, battery powered equipment, reduce primary supply voltage to the battery operating end point which shall be specified by the manufacturer.
- (3) The supply voltage shall be measured at the input to the cable normally provided with the equipment, or at the power supply terminals if cables are not normally provided. Effects on frequency of transmitter keying (except for broadcast transmitters) and any heating element cycling at the nominal supply voltage and at each extreme also shall be shown.

§24.235 Frequency stability

The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

7Layers interpretation of limit:



To ensure that the frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block following limit was used:

+/- 2.5 ppm = 4700 Hz for a frequency of 1880.0 MHz

in accordance with FCC Part 22, Subpart H, §22.355, table C-1: Frequency tolerance for the carrier frequency of mobile transmitters in the Public Mobile Service in the frequency range 821 to 896 MHz.

Band edge compliance

Standard: FCC Part 24, Subpart E

The test was performed according to: FCC §24.238

Test Description

- 1) The EUT was coupled to a Spectrum Analyser and a Digital Communication Tester through a Power Divider. Refer to chapter "Setup Drawings".
- 2) The total insertion losses for signal path 1 and signal path 2 were measured. The values were used to correct the readings from the Spectrum Analyser and the Digital Communication Tester.
- 3) A call was established on a Traffic Channel between the EUT and the Digital Communication Tester. Important Settings:
- Output Power: Maximum
- Channel: please refer to the detailed results
- 4) Important Analyser Settings:
- Resolution Bandwidth = Video Bandwidth: >1% of the manufacturer's stated occupied bandwidth

Test Requirements / Limits

§ 24.238 Effective radiated power limits

Refer to chapter "Field strength of spurious radiation".



Subtests HSDPA

Sub- test	βс	β d	βd (SF)	βc/βd	β HS (Note1, Note 2)	CM (dB) (Note 3)	MPR (dB) (Note 3)
1	2/15	15/15	64	2/15	4/15	0.0	0.0
2	12/15 (Note 4)	15/15 (Note 4)	64	12/15 (Note 4)	24/15	1.0	0.0
3	15/15	8/15	64	15/8	30/15	1.5	0.5
4	15/15	4/15	64	15/4	30/15	1.5	0.5

?_{ACK}, ?_{NACK} and ?_{CQI} = 30/15 with $\,eta_{hs}$ = 30/15 * $\,eta_c$. Note 1:

For the HS-DPCCH power mask requirement test in clause 5.2C, 5.7A, and the Error Vector Note 2: Magnitude (EVM) with HS-DPCCH test in clause 5.13.1A, and HSDPA EVM with phase discontinuity in clause 5.13.1AA, ?_{ACK} and ?_{NACK} = 30/15 with β_{hs} = 30/15 * β_c , and ?_{CQI} = 24/15

with β_{hs} = 24/15 * β_c .

CM = 1 for β_{c}/β_{d} =12/15, β_{hs}/β_{c} =24/15. For all other combinations of DPDCH, DPCCH and HSDPCCH the MPR is based on the relative CM difference. This is applicable for only UEs that support Note 3: HSDPA in release 6 and later releases.

For subtest 2 the $\beta_\text{d}/\beta_\text{d}$ ratio of 12/15 for the TFC during the measurement period (TF1, TF0) is Note 4: achieved by setting the signalled gain factors for the reference TFC (TF1, TF1) to β_c = 11/15 and β_d

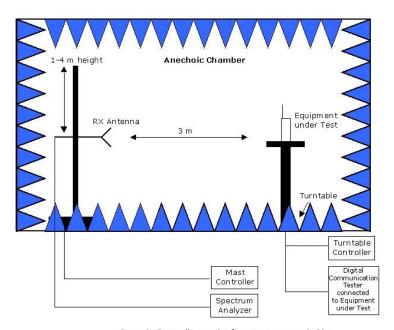
Subtests HSUPA

Subtest	Mode	Loopback Mode	Rel99 RMC	HSDPA FRC	HSUPA Test	Number of E- DPDCH Channels
			12.2kbps			
1	Rel6 HSUPA	Test Mode 1	RMC	H-Set1	HSUPA Loopback	1
			12.2kbps			
2	Rel6 HSUPA	Test Mode 1	RMC	H-Set1	HSUPA Loopback	1
			12.2kbps			
3	Rel6 HSUPA	Test Mode 1	RMC	H-Set1	HSUPA Loopback	2
			12.2kbps			
4	Rel6 HSUPA	Test Mode 1	RMC	H-Set1	HSUPA Loopback	1
			12.2kbps			
5	Rel6 HSUPA	Test Mode 1	RMC	H-Set1	HSUPA Loopback	1

Subtest	Max UL Data Rate (kb/s)	βc/βd	βhs	βed	СМ
1	242.1	11/15	22/15	1309/225	1
2	161.3	6/15	12/15	94/75	3
3	524.7	15/9	30/15	47/15	2
4	197.6	2/15	4/15	56/75	3
5	299.6	15/15	30/15	134/15	1



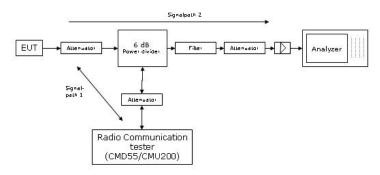
Setup Drawings



<u>Remark:</u> Depending on the frequency range suitable antenna types, attenuators or preamplifiers are used.

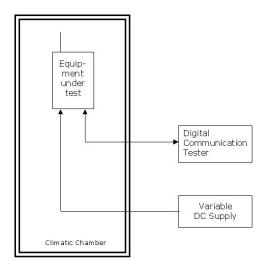
Principle set-up for radiated measurements





Remark: Depending on the frequency range suitable attenuators and/or filters and/or amplifiers are used.

Principle set-up for conducted measurements under nominal conditions



Principle set-up for tests under extreme test conditions



Correlation of measurement requirements for Cellular Equipment from FCC and IC

FCC Rule / IC Standard	Part 22	RSS-132 Issue 3, 2016	Part 24	RSS-133 Issue 6, 2013	Part 27	RSS-139 Issue 3, 2015	RSS-130 Issue 1, 2013
Effective (isotropic) Radiated Power	§2.1046 §22.913	RSS-GEN, §6.12 RSS-132, §5.4	§2.1046 §24.232	RSS-GEN, §6.12 RSS-133, §6.4	§2.1046 §27.50	RSS-GEN, §6.12 RSS-139; §6.4	RSS-GEN, §6.12 RSS-130; §4.4
Emission and Occupied Bandwidth	§2.1049	RSS-GEN §6.6	§2.1049	RSS-GEN §6.6	§2.1049	RSS-GEN §6.6	RSS-GEN §6.6
" <u>Spuri</u> " at Antenna Terminal	§2.1051 §22.917	RSS-GEN, §6.13 RSS-132, §5.5	§2.1051 §24.238	RSS-GEN, §6.13 RSS-132, §6.5	§2.1051 §27.53	RSS-GEN, §6.13 RSS-139, §6.5	RSS-GEN, §6.13 RSS-130, §4.6
Band Edge compliance	§2.1051 §22.917	RSS-GEN, §6.13	§2.1051 §24.238	RSS-GEN, §6.13	§2.1051 §27.53	RSS-GEN, §6.13	RSS-GEN, §6.13
Frequency Stability	§2.1055 §22.355	RSS-GEN, §6.11	§2.1055 §24.235	RSS-GEN, §6.11 RSS-132, §6.3	§2.1055 §27.51	RSS-GEN, §6.11 RSS-139, §6.3	RSS-GEN, §6.11 RSS-130, §4.3
Peak to Average Ratio	N/A	RSS-132, §5.3	§2.1046 §24.232	RSS-133, §6.4	§2.1046 §27.50	RSS-139, §6.4	RSS-130; §4.4
Field Strength of Spurious Radiation	§2.1053 §22.917	RSS-GEN, §6.13 RSS-132, §5.2	§2.1053 §24.235	RSS-GEN, §6.13 RSS-133, §6.5	§2.1053 §27.51	RSS-GEN, §6.13 RSS-139, §6.5	RSS-GEN, §6.13 RSS-130, §4.6

^{*)} Receivers which are part of Transceivers are exempted with respect to Notice 2012-DRS0126.



			RF Channel				RF Channel		
TEST MODE	TX / RX	Low	Mid	High	TEST MODE	TX / RX	Low	Mid	High
	TX (1.4M)	18607	18900	19193	1231 111022	TX (1.4M)	19957	20175	20393
		1850.7 MHz	1880 MHz	1909.3 MHz			1710.7MHz	1732.5MHz	1754.3MHz
	(=: :::,	CH 18615	CH 18900	CH 19185		(=:)	CH 19965	CH 20175	CH 20385
	TX (3M)	1851.5 MHz	1880 MHz	1908.5 MHz		TX (3M)			1753.50 MHz
	(- /	CH 18625	CH 18900	CH 19175		(- /	CH 19975	CH 20175	CH 20375
	TX (5M)	1852.5 MHz	1880 MHz	1907.5 MHz		TX (5M)	1712.50 MHz	1732.50 MHz	1752.50 MHz
	, ,	CH 18650	CH 18900	CH 19150		` ,	CH 20000	CH 20175	CH 20350
	TX (10)	1855 MHz	1880 MHz	1905 MHz		TX (10)	1715.00 MHz	1732.50 MHz	1750.00 MHz
		CH 18675	CH 18900	CH 19125			CH 20025	CH 20175	CH 20325
	TX (15M)	1857.5 MHz	1880 MHz	1902.5 MHz		TX (15M)	1717.50 MHz	1732.50 MHz	1747.50 MHz
	, ,	CH 18700	CH 18900	CH 19100			CH 20050	CH 20175	CH 20300
LTE - EDD 3	TX (20M)	1860 MHz	1880 MHz	1900 MHz	LTE - EDD 4	TX (20M)	1720.00 MHz	1732.50 MHz	1745.00 MHz
LTE eFDD 2		CH 607	CH 900	CH 1193	LTE eFDD 4	, ,	CH 1957	CH 2175	CH 2393
	RX (1.4M)	1930.7 MHz	1960 MHz	1989.3 MHz		RX (1.4M)	2110.70 MHz		2154.30 MHz
		CH 615	CH 900	CH 1185			CH 1965	CH 2175	CH 2385
	RX (3M)	1931.5 MHz	1960 MHz	1988.5 MHz		RX (3M)	2111.50 MHz	2132.50 MHz	2153.50 MHz
		CH 625	CH 900	CH 1175			CH 1975	CH 2175	CH 2375
	RX (5M)	1932.50 MHz	1880.00 MHz	1987.5 MHz		RX (5M)	2112.50 MHz	2132.50 MHz	2152.50 MHz
		CH 650	CH 900	CH 1150			CH 2000	CH 2175	CH 2350
	RX (10M)	1935.00 MHz	1960.00 MHz	1985.00 MHz		RX (10M)	2115.00 MHz	2132.50 MHz	2150.00 MHz
	RX (15M)	CH 675	CH 900	CH 1125		RX (15M)	CH 2025	CH 2175	CH 2325
		1937.50 MHz	1960.00 MHz	1982.50 MHz			2117.50 MHz	2132.50 MHz	2147.50 MHz
		CH 700	CH 900	CH 1100			CH 2050	CH 2175	CH 2300
	RX (20M)	1940.00 MHz	1960.00 MHz	1980.00 MHz		RX (20M)	2120.00 MHz	2132.50 MHz	2145.00 MHz
			RF Channel				RF Channel		
TEST MODE	TX / RX	Low	Mid	High	TEST MODE	TX / RX	Low	Mid	High
	TX (1.4M)	20407	20525	20643		TX (1.4M)	CH 23017	CH 23095	CH 23173
		824.7	836.5	848.3			699.70 MHz	707.50 MHz	715.30 MHz
		CH 20415	CH 20525	CH 20635			CH 23025	CH 23095	CH 23165
	TX (3M)	825.50 MHz	836.50 MHz	847.50 MHz		TX (3M)	700.50 MHz	707.50 MHz	714.50 MHz
LTE eFDD 5		CH 20425	CH 20525	CH 20625			CH 23035	CH 23095	CH 23155
	TX (5M)	826.50 MHz	836.50 MHz	846.50 MHz		TX (5M)	701.50 MHz	707.50 MHz	713.50 MHz
		CH 20450	CH 20525	CH 20600			CH 23060	CH 23095	CH 23130
	TX (10)	829.00 MHz	836.50 MHz	844.00 MHz	LTE eFDD	TX (10)	704.00 MHz	707.50 MHz	711.00 MHz
		CH 2407	CH 20525	CH 2643	12		CH 5017	CH 5095	CH 5173
	RX (1.4M)	869.70 MHz	881.50 MHz	893.70 MHz		RX (1.4M)	729.70 MHz	737.50 MHz	745.30 MHz
		CH 2415	CH 20525	CH 2635			CH 5025	CH 5095	CH 5165
	RX (3M)	870.50 MHz	881.50 MHz	892.50 MHz		RX (3M)	730.50 MHz	737.50 MHz	744.50 MHz
	RX (5M)	CH 2425	CH 2525	CH 2625		RX (5M)	CH 5035	CH 5095	CH 5155
		871.50 MHz	881.50 MHz	891.50 MHz			731.50 MHz	737.50 MHz	743.50 MHz
		CH 2450	CH 2525	CH 2600			CH 5060	CH 5095	CH 5130
	RX (10M)	874.00 MHz	881.50 MHz	889.00 MHz		RX (10M)	734.00 MHz	737.50 MHz	741.00 MHz

List the test channels used for LTE



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Reference: MDE_UBLOX_1601_FCCa FCC Part 22, Subpart H, Part 24, subpart E, Par 3.5.20 27.6 Band edge compliance §2.1053, §27.53	0
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