

RF Test Report

Applicant : D-Link Corporation
Product Type : Wireless AC1200 4G LTE Router
Trade Name : D-Link
Model Number : DWR-961
Test Specification : FCC 47 CFR PART 22H
FCC 47 CFR PART 24E
FCC 47 CFR PART 27
ANSI/TIA-603-D 2010

Receive Date : Aug. 18, 2017
Test Period : Sep. 13~ Sep. 20, 2017
Issue Date : Oct. 12, 2017

Issue by

A Test Lab Techno Corp.
No. 140-1, Changan Street, Bade District,
Taoyuan City 33465, Taiwan (R.O.C)
Tel : +886-3-2710188 / Fax : +886-3-2710190



Taiwan Accreditation Foundation accreditation number: 1330

Test Firm MRA designation number: TW0010

Note: This report shall not be reproduced except in full, without the written approval of A Test Lab Techno Corp. This document may be altered or revised by A Test Lab Techno Corp. personnel only, and shall be noted in the revision section of the document. The client should not use it to claim product endorsement by TAF, or any government agencies. The test results in the report only apply to the tested sample.



Revision History

Rev.	Issue Date	Revisions	Revised By
00	Sep. 25, 2017	Initial Issue	Nina Lin
01	Oct. 12, 2017	Revised report information	Nina Lin

Verification of Compliance

Issued Date: Oct. 12, 2017

Applicant : D-Link Corporation
Product Type : Wireless AC1200 4G LTE Router
Trade Name : D-Link
Model Number : DWR-961
FCC ID : KA2WR961C1
EUT Rated Voltage : DC 12.0V, 1.5A
Test Voltage : 120 Vac / 60 Hz
Applicable Standard : FCC 47 CFR PART 22H
FCC 47 CFR PART 24E
FCC 47 CFR PART 27
ANSI/TIA-603-D 2010

Test Result : Complied

Performing Lab. : A Test Lab Techno Corp.
No. 140-1, Changan Street, Bade District,
Taoyuan City 33465, Taiwan (R.O.C)
Tel : +886-3-2710188 / Fax : +886-3-2710190



Taiwan Accreditation Foundation accreditation number: 1330
<http://www.atl-lab.com.tw/e-index.htm>

A Test Lab Techno Corp. tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by A Test Lab Techno Corp. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Approved By

: Fly Lu

(Manager)

(Fly Lu)

Reviewed By

: Eric Ou Yang

(Testing Engineer)

(Eric Ou Yang)

TABLE OF CONTENTS

1	General Information.....	5
1.1.	EUT Description.....	5
1.2.	Mode of Operation	10
1.3.	EUT Exercise Software	15
1.4.	Configuration of Test System Details	15
1.5.	Test Instruments.....	16
1.6.	Test Site Environment	17
1.7.	Summary of Test Result.....	18
2	Measurement Procedure	19
2.1.	Conducted Output Average Power Test	19
2.2.	Effective Radiated Power / Equivalent Isotropic Radiated Power Test.....	20
2.3.	Frequency Stability Test	23
2.4.	Emission Bandwidth & Occupied Bandwidth Test	24
2.5.	Peak to Average Ratio Test.....	25
2.6.	Band Edge Test.....	26
2.7.	Conducted Spurious Emission Test.....	28
2.8.	Radiated Emission Test.....	30
3	Test Results	32
	Conducted Output Average Power	32
	Effective Radiated Power / Equivalent Isotropic Radiated Power	62
	Radiated Emission.....	66
	Appendix : Frequency Stability/ Emission Bandwidth & Occupied Bandwidth/ Peak to Average Ratio/ Band Edge/ Conducted Spurious Emission.....	146



1 General Information

1.1. EUT Description

Applicant	D-Link Corporation 17595 Mt. Herrmann, Fountain Valley, California, 92708, United States		
Manufacturer	CAMEO COMMUNICATIONS,INC. 5F, No.158, Ruihu St., Neihu Dist., Taipei City 114, Taiwan (R.O.C.)		
Product Type	Wireless AC1200 4G LTE Router		
Trade Name	D-Link		
Model Number	DWR-961		
FCC ID	KA2WR961C1		
IMEI No.	359073060110107		
Operate Band	Frequency Range (MHz)	Modulation	Channel Bandwidth
LTE Band 2	UL: 1850.7 ~ 1909.3	QPSK, 16QAM	1.4M, 3M, 5MHz, 10MHz, 15MHz, 20MHz
	DL: 1930.7 ~ 1989.3	QPSK, 16QAM	
LTE Band 4	UL: 1710.7 ~ 1754.3	QPSK, 16QAM	1.4M, 3M, 5MHz, 10MHz, 15MHz, 20MHz
	DL: 2110.7 ~ 2154.3	QPSK, 16QAM	
LTE Band 5	UL: 824.7 ~ 848.3	QPSK, 16QAM	1.4M, 3M, 5MHz, 10MHz
	DL: 869.7 ~ 893.3	QPSK, 16QAM	
LTE Band 12	UL: 699 ~ 716	QPSK, 16QAM	1.4M, 3M, 5MHz, 10MHz
	DL: 729 ~ 746	QPSK, 16QAM	
Type of Antenna	External Antenna		
Antenna Gain	Main	LTE Band 2	3.01 dBi
		LTE Band 4	3.02 dBi
		LTE Band 5	2.39 dBi
		LTE Band 12	1.20 dBi
	Diversity	LTE Band 2	3.02 dBi
		LTE Band 4	3.02 dBi
		LTE Band 5	1.04 dBi
		LTE Band 12	-1.35 dBi
Operate Temp. Range	0 ~ 40 ℃		



Band	Channel Bandwidth	Modulation	Average Power	E.R.P. /E.I.R.P.
			(W)	(W)
LTE Band2	1.4MHz	QPSK	0.182	0.177
LTE Band2	1.4MHz	16QAM	0.151	0.112
LTE Band2	3MHz	QPSK	0.188	0.187
LTE Band2	3MHz	16QAM	0.157	0.117
LTE Band2	5MHz	QPSK	0.183	0.185
LTE Band2	5MHz	16QAM	0.157	0.115
LTE Band2	10MHz	QPSK	0.188	0.189
LTE Band2	10MHz	16QAM	0.152	0.121
LTE Band2	15MHz	QPSK	0.187	0.188
LTE Band2	15MHz	16QAM	0.156	0.113
LTE Band2	20MHz	QPSK	0.187	0.192
LTE Band2	20MHz	16QAM	0.158	0.122
LTE Band4	1.4MHz	QPSK	0.203	0.196
LTE Band4	1.4MHz	16QAM	0.171	0.122
LTE Band4	3MHz	QPSK	0.203	0.198
LTE Band4	3MHz	16QAM	0.177	0.120
LTE Band4	5MHz	QPSK	0.201	0.200
LTE Band4	5MHz	16QAM	0.173	0.121
LTE Band4	10MHz	QPSK	0.205	0.195
LTE Band4	10MHz	16QAM	0.165	0.120
LTE Band4	15MHz	QPSK	0.195	0.194
LTE Band4	15MHz	16QAM	0.167	0.120
LTE Band4	20MHz	QPSK	0.195	0.191
LTE Band4	20MHz	16QAM	0.162	0.125
LTE Band5	1.4MHz	QPSK	0.195	0.193
LTE Band5	1.4MHz	16QAM	0.166	0.126
LTE Band5	3MHz	QPSK	0.197	0.192
LTE Band5	3MHz	16QAM	0.168	0.118
LTE Band5	5MHz	QPSK	0.194	0.195
LTE Band5	5MHz	16QAM	0.169	0.124
LTE Band5	10MHz	QPSK	0.198	0.191
LTE Band5	10MHz	16QAM	0.164	0.125



Band	Channel Bandwidth	Modulation	Average Power	E.R.P. /E.I.R.P.
			(W)	(W)
LTE Band12	1.4MHz	QPSK	0.199	0.190
LTE Band12	1.4MHz	16QAM	0.172	0.121
LTE Band12	3MHz	QPSK	0.199	0.195
LTE Band12	3MHz	16QAM	0.173	0.120
LTE Band12	5MHz	QPSK	0.195	0.197
LTE Band12	5MHz	16QAM	0.172	0.115
LTE Band12	10MHz	QPSK	0.196	0.194
LTE Band12	10MHz	16QAM	0.163	0.116



Band	Channel Bandwidth	Modulation	Emission Designator Occupied Bandwidth (MHz)	
LTE Band2	1.4MHz	QPSK	1.0781	1M08G7D
LTE Band2	1.4MHz	16QAM	1.0820	1M08W7D
LTE Band2	3MHz	QPSK	2.6856	2M69G7D
LTE Band2	3MHz	16QAM	2.6821	2M68W7D
LTE Band2	5MHz	QPSK	4.4766	4M48G7D
LTE Band2	5MHz	16QAM	4.4754	4M48W7D
LTE Band2	10MHz	QPSK	8.9332	8M93G7D
LTE Band2	10MHz	16QAM	8.9398	8M94W7D
LTE Band2	15MHz	QPSK	13.409	13M4G7D
LTE Band2	15MHz	16QAM	13.404	13M4W7D
LTE Band2	20MHz	QPSK	17.871	17M9G7D
LTE Band2	20MHz	16QAM	17.883	17M9W7D
LTE Band4	1.4MHz	QPSK	1.0777	1M08G7D
LTE Band4	1.4MHz	16QAM	1.0805	1M08W7D
LTE Band4	3MHz	QPSK	2.6833	2M68G7D
LTE Band4	3MHz	16QAM	2.6883	2M69W7D
LTE Band4	5MHz	QPSK	4.4755	4M48G7D
LTE Band4	5MHz	16QAM	4.4790	4M48W7D
LTE Band4	10MHz	QPSK	8.9455	8M95G7D
LTE Band4	10MHz	16QAM	8.9370	8M94W7D
LTE Band4	15MHz	QPSK	13.431	13M4G7D
LTE Band4	15MHz	16QAM	13.422	13M4W7D
LTE Band4	20MHz	QPSK	17.889	17M9G7D
LTE Band4	20MHz	16QAM	17.875	17M9W7D
LTE Band5	1.4MHz	QPSK	1.0780	1M08G7D
LTE Band5	1.4MHz	16QAM	1.0795	1M08W7D
LTE Band5	3MHz	QPSK	2.6907	2M69G7D
LTE Band5	3MHz	16QAM	2.6856	2M69W7D
LTE Band5	5MHz	QPSK	4.4730	4M47G7D
LTE Band5	5MHz	16QAM	4.4777	4M48W7D
LTE Band5	10MHz	QPSK	8.9465	8M95G7D
LTE Band5	10MHz	16QAM	8.9446	8M94W7D



Band	Channel Bandwidth	Modulation	Emission Designator Occupied Bandwidth (MHz)	
LTE Band12	1.4MHz	QPSK	1.0809	1M08G7D
LTE Band12	1.4MHz	16QAM	1.0816	1M08W7D
LTE Band12	3MHz	QPSK	2.6828	2M68G7D
LTE Band12	3MHz	16QAM	2.6887	2M69W7D
LTE Band12	5MHz	QPSK	4.4839	4M48G7D
LTE Band12	5MHz	16QAM	4.4856	4M49W7D
LTE Band12	10MHz	QPSK	8.9595	8M96G7D
LTE Band12	10MHz	16QAM	8.9613	8M96W7D

1.2. Mode of Operation

Three channels had been tested for each channel bandwidth.

LTE Band 2						
Channel Bandwidth	1.4MHz		3MHz		5MHz	
	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
Low CH	18607	1850.7	18615	1851.5	18625	1852.5
Middle CH	18900	1880.0	18900	1880.0	18900	1880.0
High CH	19193	1909.3	19185	1908.5	19175	1907.5
Channel Bandwidth	10MHz		15MHz		20MHz	
	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
Low CH	18650	1855.0	18675	1857.5	18700	1860.0
Middle CH	18900	1880.0	18900	1880.0	18900	1880.0
High CH	19150	1905.0	19125	1902.5	19100	1900.0

LTE Band 4						
Channel Bandwidth	1.4MHz		3MHz		5MHz	
	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
Low CH	19957	1710.7	19965	1711.5	19975	1712.5
Middle CH	20175	1732.5	20175	1732.5	20175	1732.5
High CH	20393	1754.3	20385	1753.5	20375	1752.5
Channel Bandwidth	10MHz		15MHz		20MHz	
	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
Low CH	20000	1715.0	20025	1717.5	20050	1720.0
Middle CH	20175	1732.5	20175	1732.5	20175	1732.5
High CH	20350	1750.0	20325	1747.5	20300	1745.0

Note: Regards to the frequency band operation: the lowest, middle and highest frequency of channel were selected to perform the test, then shown on this report.

LTE Band 5				
Channel Bandwidth	1.4MHz		3MHz	
	Channel	Frequency (MHz)	Channel	Frequency (MHz)
Low CH	20407	824.7	20415	825.5
Middle CH	20525	836.5	20525	836.5
High CH	20643	848.3	20635	847.5
Channel Bandwidth	5MHz		10MHz	
	Channel	Frequency (MHz)	Channel	Frequency (MHz)
Low CH	20425	826.5	20450	829.0
Middle CH	20525	836.5	20525	836.5
High CH	20625	846.5	20600	844.0

LTE Band 12				
Channel Bandwidth	1.4MHz		3MHz	
	Channel	Frequency (MHz)	Channel	Frequency (MHz)
Low CH	23017	699.7	23025	700.5
Middle CH	23095	707.5	23095	707.5
High CH	23173	715.3	23165	714.5
Channel Bandwidth	5MHz		10MHz	
	Channel	Frequency (MHz)	Channel	Frequency (MHz)
Low CH	23035	701.5	23060	704.0
Middle CH	23095	707.5	23095	707.5
High CH	23155	713.5	23130	711.0

Note: Regards to the frequency band operation: the lowest, middle and highest frequency of channel were selected to perform the test, then shown on this report.

During all testing, EUT is in link mode with base station emulator at maximum power level. The spurious emission measurements were carried out in semi-anechoic chamber with 3-meter test range, and EUT is rotated on three test planes to find out the worst emission.

Frequency range investigated for radiated emission: 30MHz to 26.5 GHz.

Band	Channel Bandwidth	Test Modes	
LTE Band 2	1.4 MHz	☐ LTE(RB Size 1, RB Offset 0) Link ☒ LTE(RB Size 1, RB Offset 2) Link ☐ LTE(RB Size 1, RB Offset 5) Link ☐ LTE(RB Size 3, RB Offset 0) Link ☐ LTE(RB Size 3, RB Offset 1) Link ☐ LTE(RB Size 3, RB Offset 3) Link ☐ LTE(RB Size 6, RB Offset 0) Link	QPSK
	3 MHz	☐ LTE(RB Size 1, RB Offset 0) Link ☒ LTE(RB Size 1, RB Offset 7) Link ☐ LTE(RB Size 1, RB Offset 14) Link ☐ LTE(RB Size 8, RB Offset 0) Link ☐ LTE(RB Size 8, RB Offset 3) Link ☐ LTE(RB Size 8, RB Offset 7) Link ☐ LTE(RB Size 15, RB Offset 0) Link	QPSK
	5 MHz	☒ LTE(RB Size 1, RB Offset 0) Link ☐ LTE(RB Size 1, RB Offset 12) Link ☐ LTE(RB Size 1, RB Offset 24) Link ☐ LTE(RB Size 12, RB Offset 0) Link ☐ LTE(RB Size 12, RB Offset 6) Link ☐ LTE(RB Size 12, RB Offset 13) Link ☐ LTE(RB Size 25, RB Offset 0) Link	QPSK
	10 MHz	☐ LTE(RB Size 1, RB Offset 0) Link ☒ LTE(RB Size 1, RB Offset 24) Link ☐ LTE(RB Size 1, RB Offset 49) Link ☐ LTE(RB Size 25, RB Offset 0) Link ☐ LTE(RB Size 25, RB Offset 12) Link ☐ LTE(RB Size 25, RB Offset 25) Link ☐ LTE(RB Size 50, RB Offset 0) Link	QPSK
	15 MHz	☐ LTE(RB Size 1, RB Offset 0) Link ☒ LTE(RB Size 1, RB Offset 37) Link ☐ LTE(RB Size 1, RB Offset 74) Link ☐ LTE(RB Size 36, RB Offset 0) Link ☐ LTE(RB Size 36, RB Offset 19) Link ☐ LTE(RB Size 36, RB Offset 39) Link ☐ LTE(RB Size 75, RB Offset 0) Link	QPSK
	20 MHz	☐ LTE(RB Size 1, RB Offset 0) Link ☒ LTE(RB Size 1, RB Offset 49) Link ☐ LTE(RB Size 1, RB Offset 99) Link ☐ LTE(RB Size 50, RB Offset 0) Link ☐ LTE(RB Size 50, RB Offset 25) Link ☐ LTE(RB Size 50, RB Offset 50) Link ☐ LTE(RB Size 100, RB Offset 0) Link	QPSK



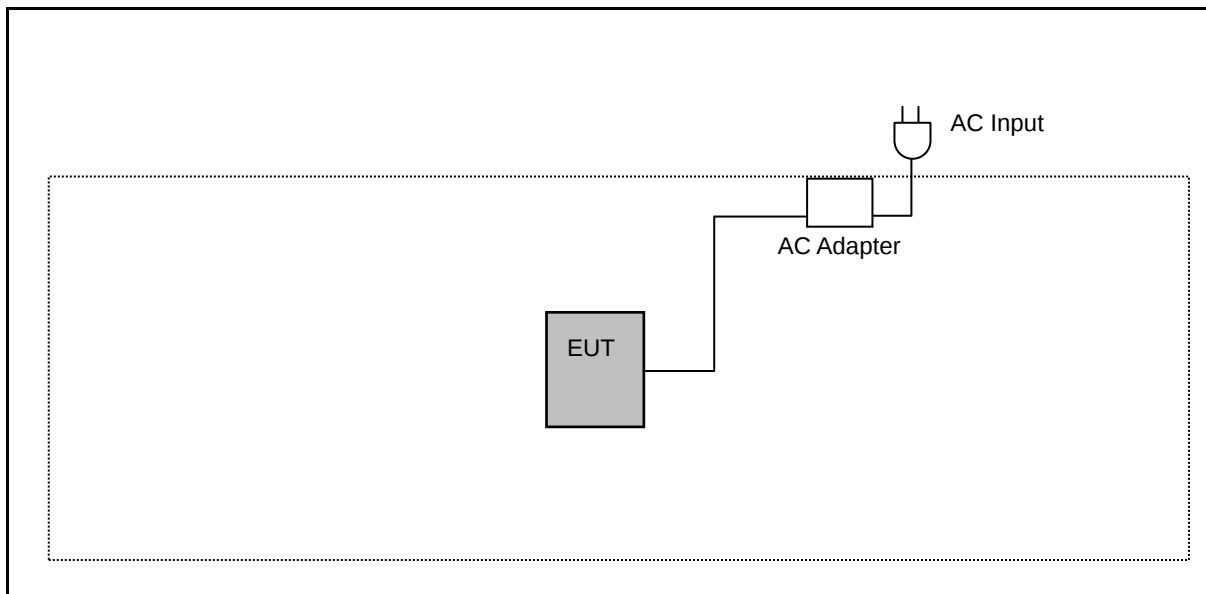
Band	Channel Bandwidth	Test Modes	
LTE Band 4	1.4 MHz	☐ LTE(RB Size 1, RB Offset 0) Link ☒ LTE(RB Size 1, RB Offset 2) Link ☐ LTE(RB Size 1, RB Offset 5) Link ☐ LTE(RB Size 3, RB Offset 0) Link ☐ LTE(RB Size 3, RB Offset 1) Link ☐ LTE(RB Size 3, RB Offset 3) Link ☐ LTE(RB Size 6, RB Offset 0) Link	QPSK
	3 MHz	☐ LTE(RB Size 1, RB Offset 0) Link ☒ LTE(RB Size 1, RB Offset 7) Link ☐ LTE(RB Size 1, RB Offset 14) Link ☐ LTE(RB Size 8, RB Offset 0) Link ☐ LTE(RB Size 8, RB Offset 3) Link ☐ LTE(RB Size 8, RB Offset 7) Link ☐ LTE(RB Size 15, RB Offset 0) Link	QPSK
	5 MHz	☒ LTE(RB Size 1, RB Offset 0) Link ☐ LTE(RB Size 1, RB Offset 12) Link ☐ LTE(RB Size 1, RB Offset 24) Link ☐ LTE(RB Size 12, RB Offset 0) Link ☐ LTE(RB Size 12, RB Offset 6) Link ☐ LTE(RB Size 12, RB Offset 13) Link ☐ LTE(RB Size 25, RB Offset 0) Link	QPSK
	10 MHz	☐ LTE(RB Size 1, RB Offset 0) Link ☒ LTE(RB Size 1, RB Offset 24) Link ☐ LTE(RB Size 1, RB Offset 49) Link ☐ LTE(RB Size 25, RB Offset 0) Link ☐ LTE(RB Size 25, RB Offset 12) Link ☐ LTE(RB Size 25, RB Offset 25) Link ☐ LTE(RB Size 50, RB Offset 0) Link	QPSK
	15 MHz	☒ LTE(RB Size 1, RB Offset 0) Link ☐ LTE(RB Size 1, RB Offset 37) Link ☐ LTE(RB Size 1, RB Offset 74) Link ☐ LTE(RB Size 36, RB Offset 0) Link ☐ LTE(RB Size 36, RB Offset 19) Link ☐ LTE(RB Size 36, RB Offset 39) Link ☐ LTE(RB Size 75, RB Offset 0) Link	QPSK
	20 MHz	☐ LTE(RB Size 1, RB Offset 0) Link ☒ LTE(RB Size 1, RB Offset 49) Link ☐ LTE(RB Size 1, RB Offset 99) Link ☐ LTE(RB Size 50, RB Offset 0) Link ☐ LTE(RB Size 50, RB Offset 25) Link ☐ LTE(RB Size 50, RB Offset 50) Link ☐ LTE(RB Size 100, RB Offset 0) Link	QPSK

Band	Channel Bandwidth	Test Modes	
LTE Band 5	1.4 MHz	☒ LTE(RB Size 1, RB Offset 0) Link ☐ LTE(RB Size 1, RB Offset 2) Link ☐ LTE(RB Size 1, RB Offset 5) Link ☐ LTE(RB Size 3, RB Offset 0) Link ☐ LTE(RB Size 3, RB Offset 1) Link ☐ LTE(RB Size 3, RB Offset 3) Link ☐ LTE(RB Size 6, RB Offset 0) Link	QPSK
	3 MHz	☐ LTE(RB Size 1, RB Offset 0) Link ☒ LTE(RB Size 1, RB Offset 7) Link ☐ LTE(RB Size 1, RB Offset 14) Link ☐ LTE(RB Size 8, RB Offset 0) Link ☐ LTE(RB Size 8, RB Offset 3) Link ☐ LTE(RB Size 8, RB Offset 7) Link ☐ LTE(RB Size 15, RB Offset 0) Link	QPSK
	5 MHz	☒ LTE(RB Size 1, RB Offset 0) Link ☐ LTE(RB Size 1, RB Offset 12) Link ☐ LTE(RB Size 1, RB Offset 24) Link ☐ LTE(RB Size 12, RB Offset 0) Link ☐ LTE(RB Size 12, RB Offset 6) Link ☐ LTE(RB Size 12, RB Offset 13) Link ☐ LTE(RB Size 25, RB Offset 0) Link	QPSK
	10 MHz	☐ LTE(RB Size 1, RB Offset 0) Link ☒ LTE(RB Size 1, RB Offset 24) Link ☐ LTE(RB Size 1, RB Offset 49) Link ☐ LTE(RB Size 25, RB Offset 0) Link ☐ LTE(RB Size 25, RB Offset 12) Link ☐ LTE(RB Size 25, RB Offset 25) Link ☐ LTE(RB Size 50, RB Offset 0) Link	QPSK
LTE Band 12	1.4 MHz	☒ LTE(RB Size 1, RB Offset 0) Link ☐ LTE(RB Size 1, RB Offset 2) Link ☐ LTE(RB Size 1, RB Offset 5) Link ☐ LTE(RB Size 3, RB Offset 0) Link ☐ LTE(RB Size 3, RB Offset 1) Link ☐ LTE(RB Size 3, RB Offset 3) Link ☐ LTE(RB Size 6, RB Offset 0) Link	QPSK
	3 MHz	☐ LTE(RB Size 1, RB Offset 0) Link ☒ LTE(RB Size 1, RB Offset 7) Link ☐ LTE(RB Size 1, RB Offset 14) Link ☐ LTE(RB Size 8, RB Offset 0) Link ☐ LTE(RB Size 8, RB Offset 3) Link ☐ LTE(RB Size 8, RB Offset 7) Link ☐ LTE(RB Size 15, RB Offset 0) Link	QPSK
	5 MHz	☐ LTE(RB Size 1, RB Offset 0) Link ☐ LTE(RB Size 1, RB Offset 12) Link ☒ LTE(RB Size 1, RB Offset 24) Link ☐ LTE(RB Size 12, RB Offset 0) Link ☐ LTE(RB Size 12, RB Offset 6) Link ☐ LTE(RB Size 12, RB Offset 13) Link ☐ LTE(RB Size 25, RB Offset 0) Link	QPSK
	10 MHz	☐ LTE(RB Size 1, RB Offset 0) Link ☒ LTE(RB Size 1, RB Offset 24) Link ☐ LTE(RB Size 1, RB Offset 49) Link ☐ LTE(RB Size 25, RB Offset 0) Link ☐ LTE(RB Size 25, RB Offset 12) Link ☐ LTE(RB Size 25, RB Offset 25) Link ☐ LTE(RB Size 50, RB Offset 0) Link	QPSK

1.3. EUT Exercise Software

1	Setup the EUT shown on “Configuration of Test System Details”.
2	Turn on the power of all equipment.
3	EUT run test program test.

1.4. Configuration of Test System Details





1.5. Test Instruments

For Conducted

Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Cal. Cycle
Wideband Radio Communication Tester	R & S	CMW500	103168	11/04/2016	1 year
Spectrum Analyzer	Agilent	N9030A	MY53120541	12/22/2016	1 year
Power divider	Agilent	87302C	3239A00760	N.C.R.	-----
Temperature & Humidity Chamber	TAICHY	MHU-225LA	980729	04/17/2017	1 year
Test Site	ATL	TE05	TE05	N.C.R.	-----

For Spurious Radiation

Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Cal. Cycle
RF Pre-selector	Agilent	N9039A	MY46520256	04/24/2017	1 year
Spectrum Analyzer	Agilent	E4446A	MY46180578	04/24/2017	1 year
Pre Amplifier	Agilent	8449B	3008A02237	10/11/2016	1 year
Pre Amplifier	Agilent	8447D	2944A11119	01/12/2017	1 year
Pre Amplifier (26.5~40GHz)	EMCI	EMC2654045	980028	08/29/2017	1 year
Pre Amplifier (1~26.5GHz)	EMCI	EMC012645SE	980289	01/16/2017	1 year
Broadband Antenna	Schwarzbeck	VULB9168	416	10/13/2016	1 year
Horn Antenna (1~18GHz)	SCHWARZBECK MESS-ELEKTRONIK	BBHA9120D	9120D-550	06/20/2017	1 year
Horn Antenna (18~40GHz)	ETS	3116	00086467	09/11/2017	1 year
Microwave Cable	EMCI	EMC102-KM-KM-14000	151001	02/20/2017	1 year
Microwave Cable	EMCI	EMC-104-SM-SM-14000	140202	02/20/2017	1 year
Microwave Cable	EMCI	EMC104-SM-SM-600	140301	02/20/2017	1 year
Signal Generator	Agilent	E8257D	MY44320425	03/02/2017	1 year
Test Site	ATL	TE01	888001	08/29/2017	1 year

Note: N.C.R. = No Calibration Request.

1.6. Test Site Environment

Items	Required (IEC 68-1)	Actual
Temperature (°C)	15-35	26
Humidity (%RH)	25-75	60
Barometric pressure (mbar)	860-1060	950

Test Setting Condition		
L.V.	Low Voltage	AC 102V
N.V.	Normal Voltage	AC 120V
H.V.	High Voltage	AC 138V
L.T.	Low Temperature	0 °C
N.T.	Normal Temperature	+25 °C
H.T.	High Temperature	+40 °C



1.7. Summary of Test Result

FCC Rule	Description	Result
§2.1046	Conducted Output Average Power	Pass
§22.913 §24.232 §27.50 §27.50	Equivalent Isotropic Radiated Power / Equivalent Radiated Power	Pass
§2.1055 §22.355 §24.235 §27.54	Frequency Stability	Pass
§2.1049	Emission Bandwidth & Occupied Bandwidth	Pass
§24.232 §27.50	Peak to average ratio	Pass
§2.1051 §22.917 §24.238 §27.53	Band Edge	Pass
§2.1051 §22.917 §24.238 §27.53	Conducted Spurious Emissions	Pass
§2.1053 §22.917 §24.238 §27.53	Radiated Spurious Emissions	Pass

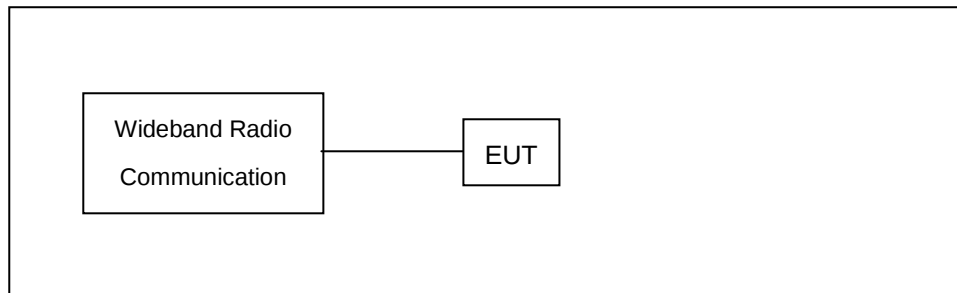
2 Measurement Procedure

2.1. Conducted Output Average Power Test

■ **Limit**

N/A

■ **Test Setup**



■ **Test Procedure**

- a. The EUT was set up for the maximum power with simulator.
- b. Set the EUT to transmit under low, middle and high channel and record the power level shown on simulator.

■ **Uncertainty**

The measurement uncertainty is defined as for Conducted Power measurement is 1.2 dB.

2.2. Effective Radiated Power / Equivalent Isotropic Radiated Power Test

■ Limit

For FCC Part 27: The EIRP of mobile transmitters and auxiliary test transmitters must not exceed 1 Watts.

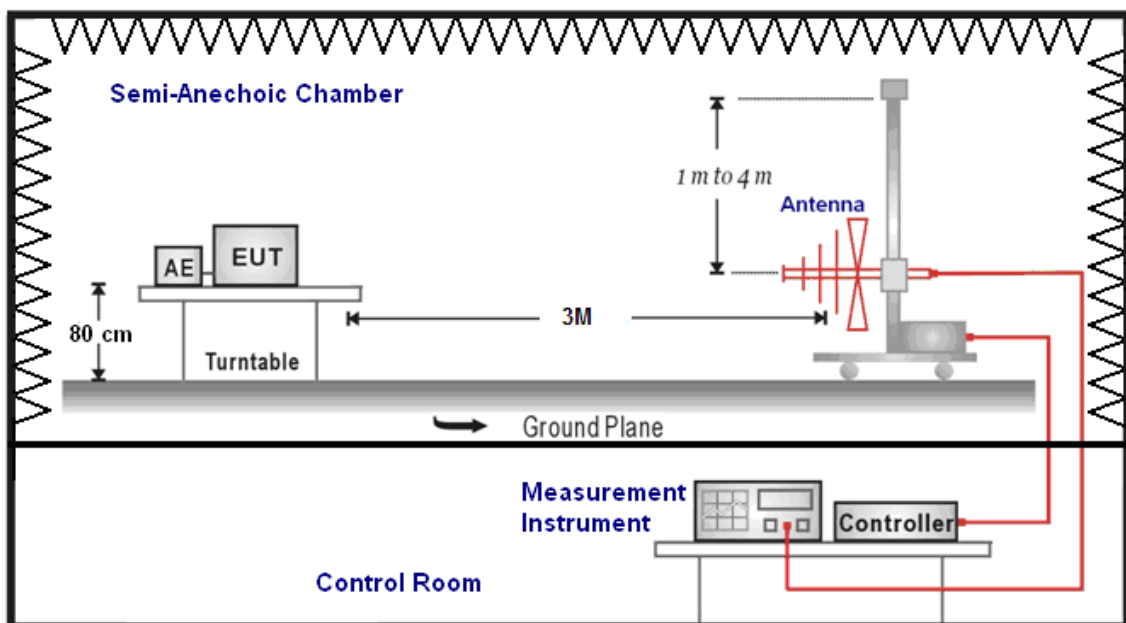
For FCC Part 27.50(c)(9): Control and mobile stations in the 698-746 MHz band are limited to 30 watts ERP.

For FCC Part 22.913(a)(2): The ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 Watts.

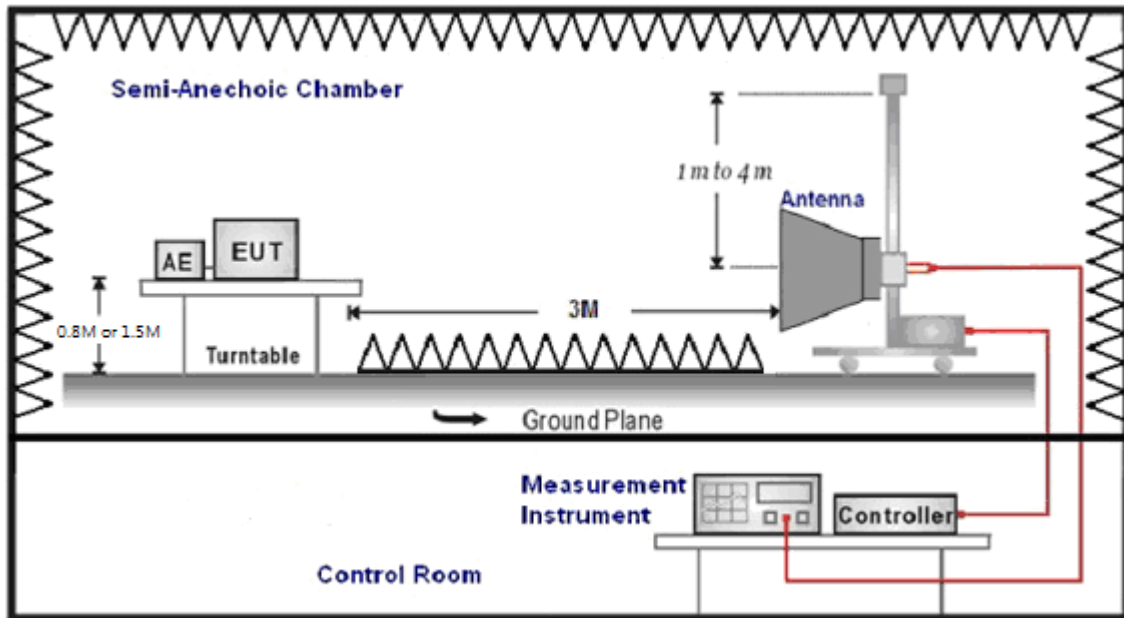
For FCC Part 24.232(b): The EIRP of mobile transmitters and auxiliary test transmitters must not exceed 2 Watts.

■ Test Setup

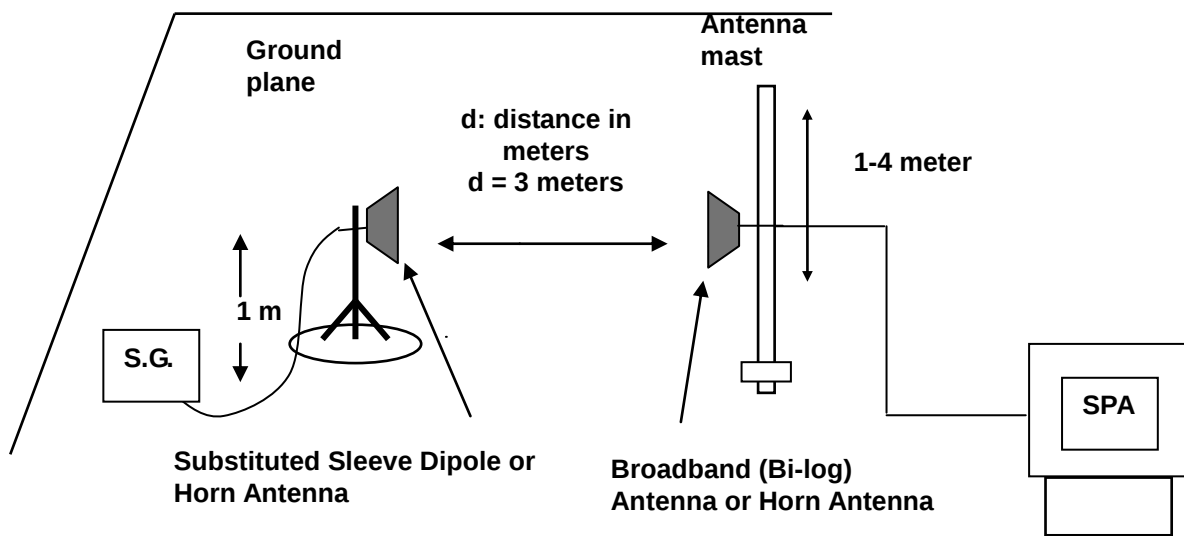
Below 1 GHz



Above 1 GHz



For Substituted Method Test Set-UP



■ Test Procedure

- a. The EUT was set up for the maximum power with wwan link data modulation. The power was measured with Spectrum Analyzer. All measurements were done at 3 channels (low, middle and high operational frequency range).
- b. E.I.R.P power measurement. In the semi-anechoic chamber, EUT placed on the 0.8m height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1m to 4m to find the maximum polar radiated power. The “Read Value” is the spectrum reading the maximum power value.
- c. The substitution antenna (Note:1 & 2) is substituted for EUT at the same position and signals generator export the CW signal to the substitution antenna via a TX cable. Rotated the Turn Table and moved receiving antenna to find the maximum radiation power. Adjust output power level of S.G to get a Value of spectrum reading equal to “Read Value” of step a. Record the power level of S.G.
- d. $E.I.R.P. = \text{Output power level of S.G} - \text{TX cable loss} + \text{Antenna gain of substitution horn}$
- e. $E.R.P. = E.I.R.P. - 2.15 \text{ dB}$

Note: 1. Below 1 GHz Substituted Method Test : Sleeve dipole antenna to Bi-Log Antenna

2. Above 1 GHz Substituted Method Test : Horn antenna to Horn Antenna

■ Uncertainty

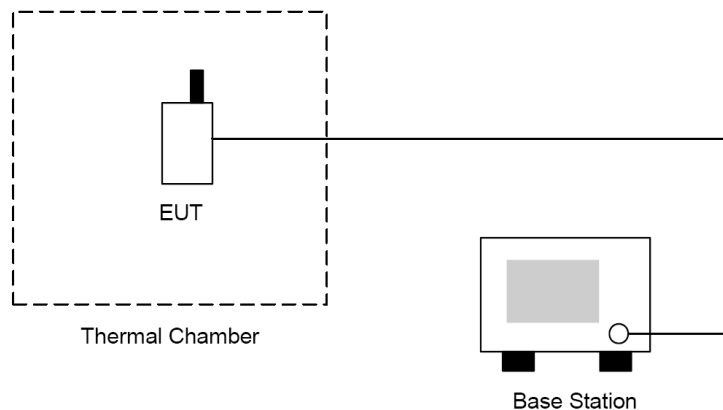
The measurement uncertainty is defined as for Field Strength of Spurious Radiation measurement is $\pm 3.072 \text{ dB}$.

2.3. Frequency Stability Test

■ Limit

According to the FCC rule shall be tested the frequency stability. The rule is defined that” The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation. The test extreme voltage is according to the 2.1055(d)(1) Vary primary supply voltage from 85 to 115 percent of the nominal value for other than hand carried battery equipment and the extreme temperature rule is comply with the 2.1055(a)(1) $-30^{\circ}\text{C} \sim 50^{\circ}\text{C}$.

■ Setup



■ Test Procedure

1. The EUT and test equipment were set up as shown on the following section.
2. With all power removed, the temperature was decreased to -30°C and permitted to stabilize for three hours. Power was applied and the maximum change in frequency was note within one minute.
3. With power OFF, the temperature was raised in 10°C steps. The sample was permitted to stabilize at each step for at least one-half hour. Power was applied and the maximum frequency change was noted within one minute.
4. The EUT was placed in a temperature chamber at $25 \pm 5^{\circ}\text{C}$ and connected as the following section.
5. The power supply voltage to the EUT was varied from BEP to 115% of the nominal value measured at the input to the EUT.
6. The temperature tests were performed for the worst case.
7. Test data was recorded.

■ Uncertainty

The measurement uncertainty is defined as for Frequency Stability measurement is $\pm 10\text{Hz}$.

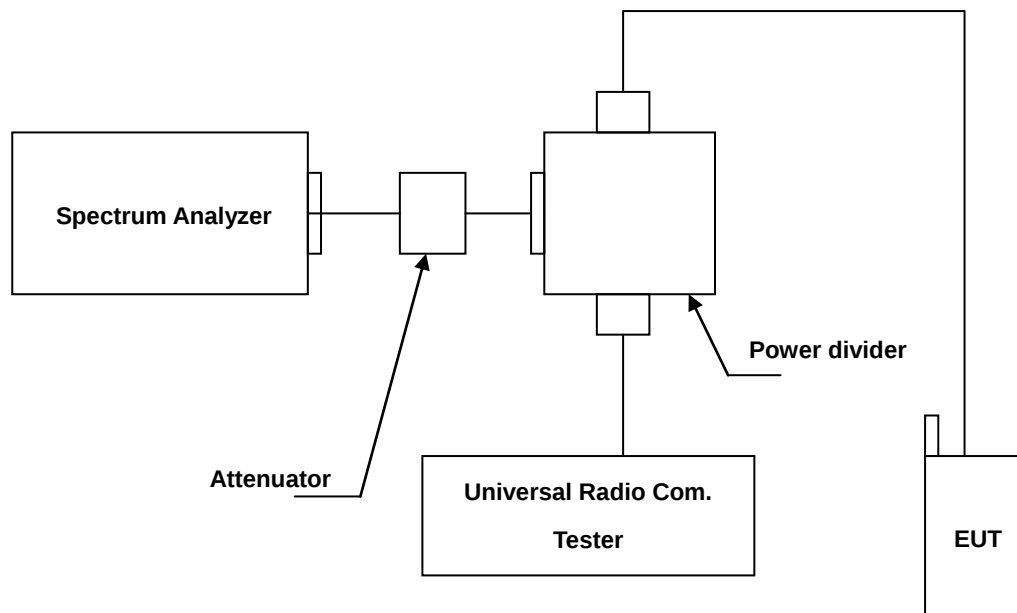
2.4. Emission Bandwidth & Occupied Bandwidth Test

■ Limit

The width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5 %of the total mean power of a given emission.

The emission bandwidth is defined as the width of the signal between two points, located at the 2 sides of the carrier frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

■ Setup



■ Test Procedure

- The EUT makes a phone call to the communication simulator. The power was measured with R&S Spectrum Analyzer. All measurements were done at 3 channels. (low, middle and high operational frequency range.)
- The conducted occupied bandwidth used the power splitter via EUT RF power connector between simulation base station and spectrum analyzer.
- The communication simulator station system controlled a EUT to export maximum output power under transmission mode and specific channel frequency. Use OBW measurement function of Spectrum analyzer to measure 99 % occupied bandwidth.

■ Uncertainty

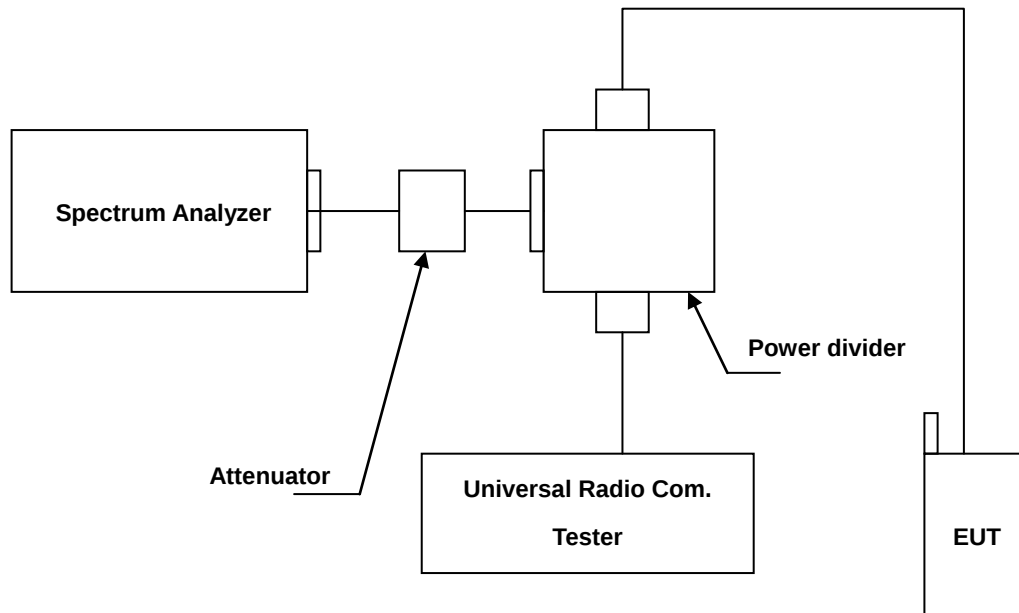
The measurement uncertainty is defined as $\pm 10\text{Hz}$

2.5. Peak to Average Ratio Test

■ Limit

In measuring transmissions in this band using an average power technique, the peak to-average ratio (PAR) of the transmission may not exceed 13 dB.

■ Setup



■ Test Procedure

- Set resolution/measurement bandwidth signal's occupied bandwidth;
- Set the number of counts to a value that stabilizes the measured CCDF curve;
- Record the maximum PAPR level associated with a probability of 0.1%.

■ Uncertainty

The measurement uncertainty is defined as for Conducted Power measurement is 1.2 dB.



2.6. Band Edge Test

■ Limit

The Band Edge Limit:

§22.917(a), §24.238(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.

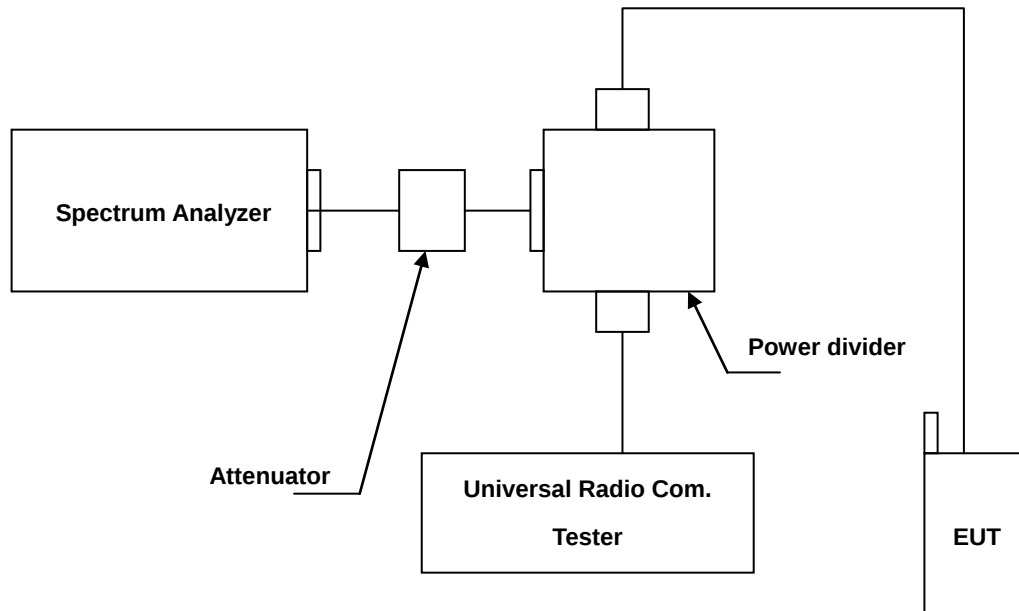
§27.53(g)

The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least $43 + 10 \log_{10} (P)$ dB.

§90.691

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 $50 + 10\log_{10} (P[\text{Watts}])$ at Band Edge and for all out-of-band emissions within 37.5Khz of Block Edge.

■ Setup



■ Test Procedure

- The EUT was set up for the maximum peak power with WWAN link data modulation. The power was measured with Spectrum Analyzer. All measurements were done at 2 channels (low and high operational frequency range.)
- The band edge measurement used the power splitter via EUT RF power connector between simulation base station and spectrum analyzer. This splitter loss and cable loss are the worst loss in the transmitted path track.
- The center frequency of spectrum is the band edge frequency and span is 10 MHz. RB of the resolution bandwidth of at least one percent of the emission bandwidth.
- Record the max trace plot into the test report.

■ Uncertainty

The measurement uncertainty is defined as for Conducted Power measurement is 1.2 dB.

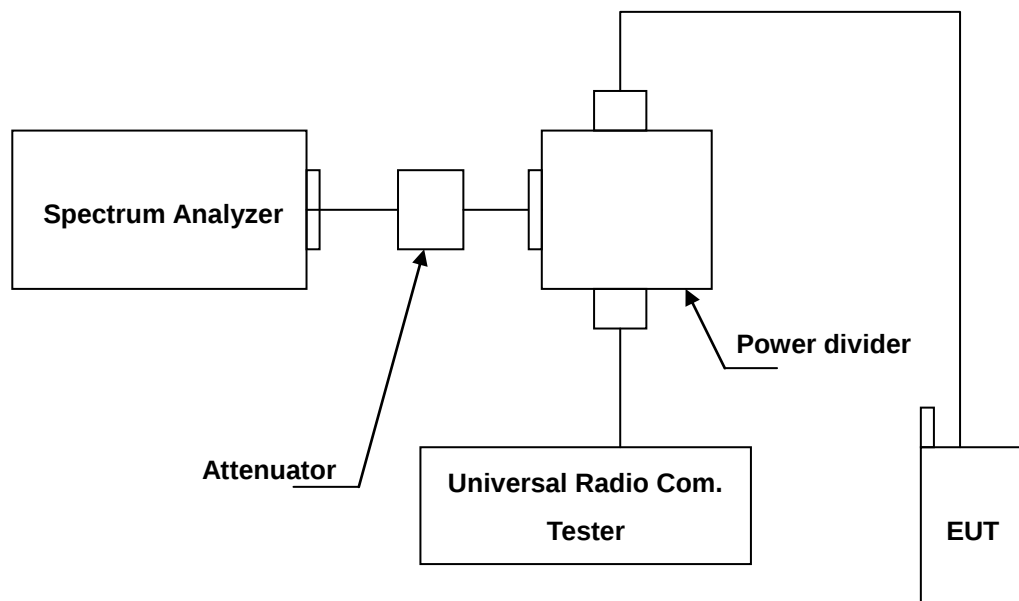
2.7. Conducted Spurious Emission Test

■ Limit

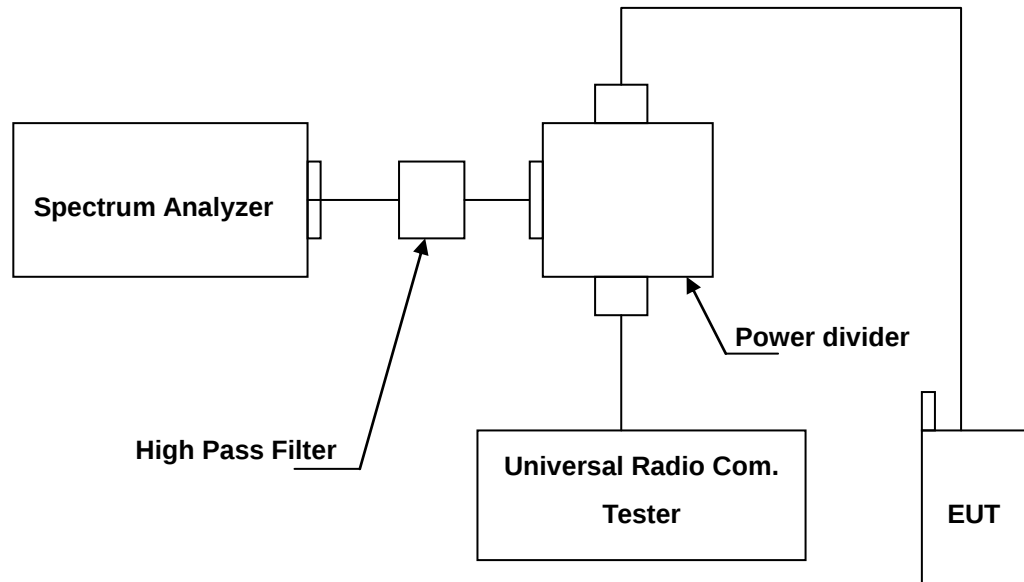
The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least $43 + 10 \log_{10}(P)$ dB. The limit of emission equal to -13dBm

■ Setup

Below 2.8GHz



Above 2.8GHz



■ Test Procedure

- The EUT was set up for the maximum peak power with WWAN link data modulation. The power was measured with Spectrum Analyzer. All measurements were done at 3 channels (low, middle and high operational frequency range.).
- The conducted spurious emission used the power splitter via EUT RF power connector between simulation base station and spectrum analyzer.
- When the spectrum scanned from 10MHz to 2.5GHz (Band 7 and Band 41: scanned from 10MHz to 4GHz), it shall be connected to the band reject filter attenuated the carried frequency. The spectrum set RB=1MHz, VB=1MHz.
- When the spectrum scanned from 2.5GHz to 10th harmonic (Band 7 and Band 41: scanned from 4GHz to 10th harmonic), it shall be connected to the high pass filter attenuated the carried frequency. The spectrum set RB=1MHz, VB=1MHz.

■ Uncertainty

The measurement uncertainty is evaluated as ± 2.24 dB.

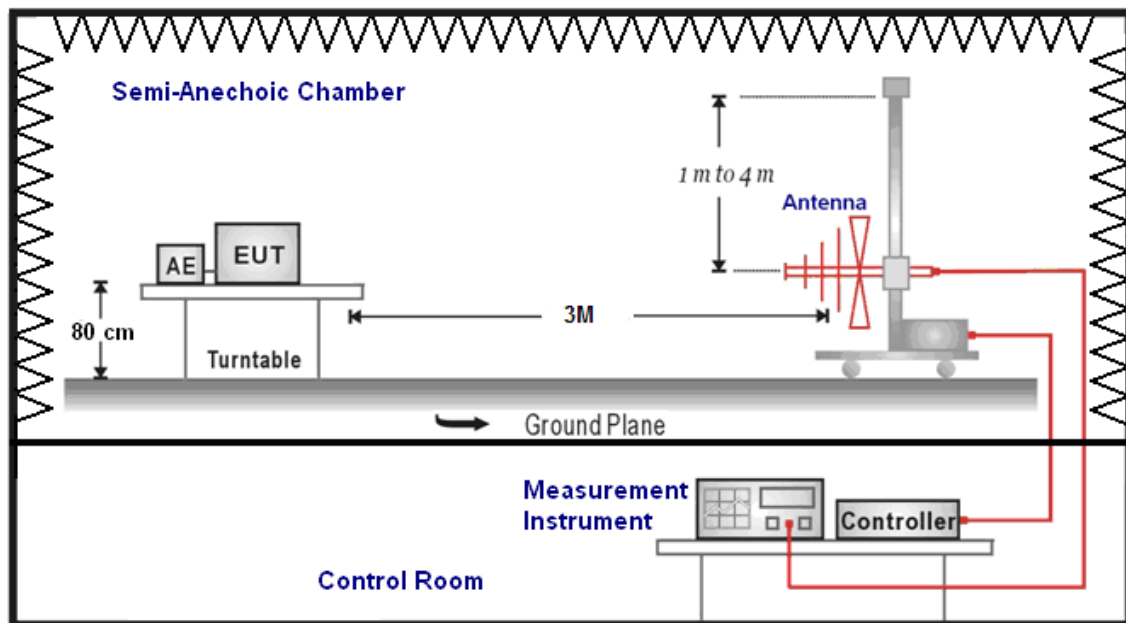
2.8. Radiated Emission Test

■ Limit

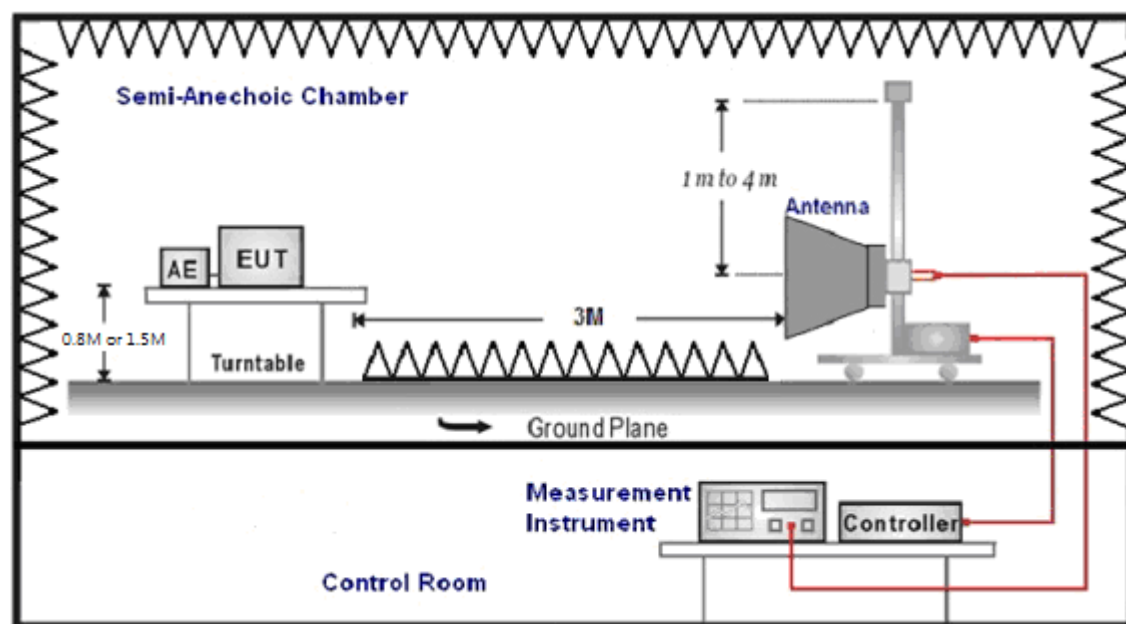
The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least $43 + 10 \log_{10}(P)$ dB. The limit of emission equal to -13dBm

■ Setup

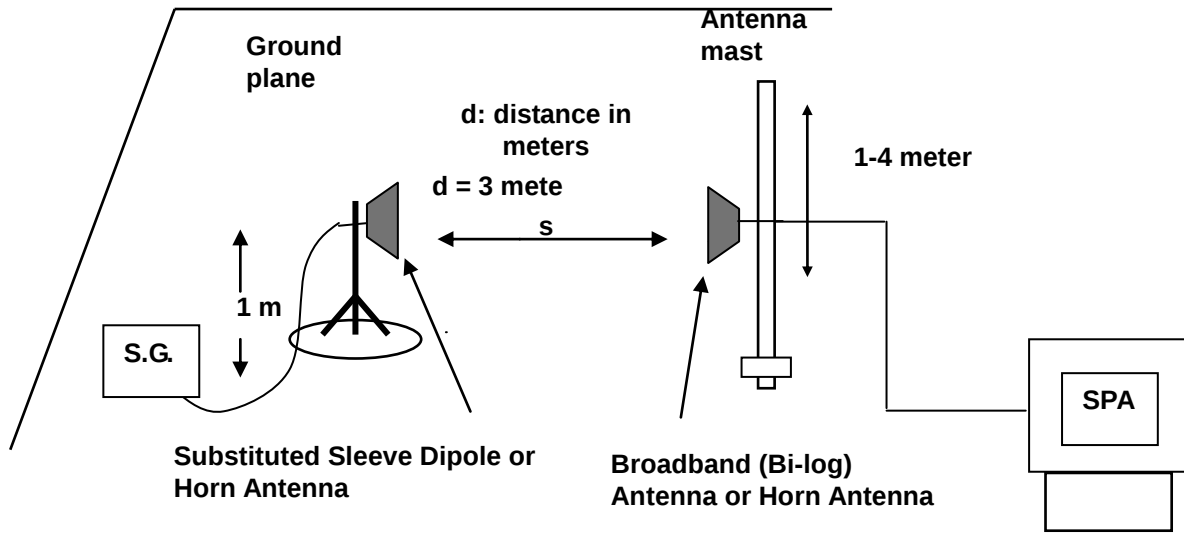
Below 1GHz



Above 1GHz



For Substituted Method Test Set-UP



■ Test Procedure

- The EUT was set up for the maximum power with wwan link data modulation. The power was measured with Spectrum Analyzer. All measurements were done at 3 channels (low, middle and high operational frequency range).
- Radiation Emission measurement. In the semi-anechoic chamber, EUT placed on the 0.8m height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1m to 4m to find the maximum polar radiated power. The "Read Value" is the spectrum reading the maximum power value.
- The substitution antenna (Note:1 & 2) is substituted for EUT at the same position and signals generator export the CW signal to the substitution antenna via a TX cable. Rotated the Turn Table and moved receiving antenna to find the maximum radiation power. Adjust output power level of S.G to get a Value of spectrum reading equal to "Read Value" of step a. Record the power level of S.G.
- $E.I.R.P. = \text{Output power level of S.G} - \text{TX cable loss} + \text{Antenna gain of substitution horn}$
- $E.R.P. = E.I.R.P. - 2.15 \text{ dB}$

Note: 1. Below 1 GHz Substituted Method Test : Sleeve dipole antenna to Bi-Log Antenna

2. Above 1 GHz Substituted Method Test : Horn antenna to Horn Antenn

■ Uncertainty

The measurement uncertainty is defined as for Field Strength of Spurious Radiation measurement is $\pm 3.072 \text{ dB}$.



3 Test Results

Conducted Output Average Power

Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band2	1.4MHz	QPSK	18607	1850.7	1	0	22.49	0.177
					1	2	22.58	0.181
					1	5	22.52	0.179
					3	0	22.44	0.175
					3	1	22.56	0.180
					3	3	22.46	0.176
					6	0	21.46	0.140
			18900	1880.0	1	0	22.54	0.179
					1	2	22.49	0.177
					1	5	22.47	0.177
					3	0	22.38	0.173
					3	1	22.47	0.177
					3	3	22.40	0.174
					6	0	21.38	0.137
			19193	1909.3	1	0	22.53	0.179
					1	2	22.61	0.182
					1	5	22.47	0.177
					3	0	22.45	0.176
					3	1	22.59	0.182
					3	3	22.51	0.178
					6	0	21.45	0.140
		16QAM	18607	1850.7	1	0	21.65	0.146
					1	2	21.77	0.150
					1	5	21.80	0.151
					3	0	21.63	0.146
					3	1	21.65	0.146
					3	3	21.64	0.146
					6	0	20.56	0.114
			18900	1880.0	1	0	21.69	0.148
					1	2	21.72	0.149
					1	5	21.77	0.150
					3	0	21.51	0.142
					3	1	21.56	0.143
					3	3	21.54	0.143
					6	0	20.46	0.111
			19193	1909.3	1	0	21.73	0.149
					1	2	21.79	0.151
					1	5	21.80	0.151
					3	0	21.62	0.145
					3	1	21.63	0.146
					3	3	21.63	0.146
					6	0	20.69	0.117

Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band2	3MHz	QPSK	18615	1851.5	1	0	22.65	0.184
					1	7	22.75	0.188
					1	14	22.67	0.185
					8	0	21.52	0.142
					8	3	21.55	0.143
					8	7	21.54	0.143
					15	0	21.54	0.143
			18900	1880.0	1	0	22.48	0.177
					1	7	22.43	0.175
					1	14	22.48	0.177
					8	0	21.42	0.139
					8	3	21.48	0.141
					8	7	21.46	0.140
					15	0	21.48	0.141
			19185	1908.5	1	0	22.49	0.177
					1	7	22.58	0.181
					1	14	22.55	0.180
					8	0	21.48	0.141
					8	3	21.57	0.144
					8	7	21.59	0.144
					15	0	21.51	0.142
		16QAM	18615	1851.5	1	0	21.93	0.156
					1	7	21.95	0.157
					1	14	21.83	0.152
					8	0	20.56	0.114
					8	3	20.59	0.115
					8	7	20.61	0.115
					15	0	20.50	0.112
			18900	1880.0	1	0	21.79	0.151
					1	7	21.92	0.156
					1	14	21.74	0.149
					8	0	20.45	0.111
					8	3	20.46	0.111
					8	7	20.45	0.111
					15	0	20.42	0.110
			19185	1908.5	1	0	21.70	0.148
					1	7	21.83	0.152
					1	14	21.82	0.152
					8	0	20.51	0.112
					8	3	20.59	0.115
					8	7	20.59	0.115
					15	0	20.48	0.112

Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band2	5MHz	QPSK	18625	1852.5	1	0	22.63	0.183
					1	12	22.49	0.177
					1	24	22.59	0.182
					12	0	21.62	0.145
					12	6	21.67	0.147
					12	13	21.68	0.147
					25	0	21.60	0.145
			18900	1880.0	1	0	22.50	0.178
					1	12	22.38	0.173
					1	24	22.59	0.182
					12	0	21.47	0.140
					12	6	21.48	0.141
					12	13	21.50	0.141
					25	0	21.43	0.139
			19175	1907.5	1	0	22.60	0.182
					1	12	22.40	0.174
					1	24	22.53	0.179
					12	0	21.50	0.141
					12	6	21.51	0.142
					12	13	21.50	0.141
					25	0	21.49	0.141
		16QAM	18625	1852.5	1	0	21.86	0.153
					1	12	21.95	0.157
					1	24	21.79	0.151
					12	0	20.66	0.116
					12	6	20.62	0.115
					12	13	20.64	0.116
					25	0	20.61	0.115
			18900	1880.0	1	0	21.76	0.150
					1	12	21.83	0.152
					1	24	21.78	0.151
					12	0	20.49	0.112
					12	6	20.49	0.112
					12	13	20.49	0.112
					25	0	20.43	0.110
			19175	1907.5	1	0	21.87	0.154
					1	12	21.83	0.152
					1	24	21.87	0.154
					12	0	20.55	0.114
					12	6	20.56	0.114
					12	11	20.56	0.114
					25	0	20.52	0.113

Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band2	10MHz	QPSK	18650	1855.0	1	0	22.65	0.184
					1	24	22.68	0.185
					1	49	22.62	0.183
					25	0	21.52	0.142
					25	12	21.56	0.143
					25	25	21.48	0.141
					50	0	21.57	0.144
			18900	1880.0	1	0	22.52	0.179
					1	24	22.56	0.180
					1	49	22.50	0.178
					25	0	21.48	0.141
					25	12	21.45	0.140
					25	25	21.57	0.144
					50	0	21.46	0.140
			19150	1905.0	1	0	22.65	0.184
					1	24	22.74	0.188
					1	49	22.56	0.180
					25	0	21.59	0.144
					25	12	21.65	0.146
					25	25	21.51	0.142
					50	0	21.63	0.146
		16QAM	18650	1855.0	1	0	21.83	0.152
					1	24	21.79	0.151
					1	49	21.72	0.149
					25	0	20.58	0.114
					25	12	20.60	0.115
					25	25	20.52	0.113
					50	0	20.59	0.115
			18900	1880.0	1	0	21.64	0.146
					1	24	21.68	0.147
					1	49	21.73	0.149
					25	0	20.49	0.112
					25	12	20.46	0.111
					25	25	20.56	0.114
					50	0	20.47	0.111
			19150	1905.0	1	0	21.65	0.146
					1	24	21.82	0.152
					1	49	21.72	0.149
					25	0	20.59	0.115
					25	12	20.63	0.116
					25	25	20.59	0.115
					50	0	20.68	0.117



Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band2	15MHz	QPSK	18675	1857.5	1	0	22.63	0.183
					1	37	22.58	0.181
					1	74	22.33	0.171
					36	0	21.65	0.146
					36	19	21.66	0.147
					36	39	21.45	0.140
					75	0	21.48	0.141
			18900	1880.0	1	0	22.54	0.179
					1	37	22.72	0.187
					1	74	22.40	0.174
					36	0	21.65	0.146
					36	19	21.71	0.148
					36	39	21.62	0.145
					75	0	21.62	0.145
			19125	1902.5	1	0	22.66	0.185
					1	37	22.68	0.185
					1	74	22.62	0.183
					36	0	21.69	0.148
					36	19	21.86	0.153
					36	39	21.71	0.148
					75	0	21.74	0.149
		16QAM	18675	1857.5	1	0	21.94	0.156
					1	37	21.92	0.156
					1	74	21.64	0.146
					36	0	20.62	0.115
					36	19	20.60	0.115
					36	39	20.50	0.112
					75	0	20.52	0.113
			18900	1880.0	1	0	21.82	0.152
					1	37	21.91	0.155
					1	74	21.70	0.148
					36	0	20.61	0.115
					36	19	20.68	0.117
					36	39	20.63	0.116
					75	0	20.56	0.114
			19125	1902.5	1	0	21.88	0.154
					1	37	21.92	0.156
					1	74	21.86	0.153
					36	0	20.70	0.117
					36	19	20.86	0.122
					36	39	20.65	0.116
					75	0	20.64	0.116

Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band2	20MHz	QPSK	18700	1860.0	1	0	22.63	0.183
					1	49	22.58	0.181
					1	99	22.27	0.169
					50	0	21.57	0.144
					50	25	21.60	0.145
					50	50	21.44	0.139
					100	0	21.53	0.142
			18900	1880.0	1	0	22.55	0.180
					1	49	22.70	0.186
					1	99	22.36	0.172
					50	0	21.68	0.147
					50	25	21.75	0.150
					50	50	21.62	0.145
					100	0	21.66	0.147
			19100	1900.0	1	0	22.60	0.182
					1	49	22.71	0.187
					1	99	22.45	0.176
					50	0	21.73	0.149
					50	25	21.78	0.151
					50	50	21.58	0.144
					100	0	21.64	0.146
		16QAM	18700	1860.0	1	0	21.77	0.150
					1	49	21.80	0.151
					1	99	21.32	0.136
					50	0	20.55	0.114
					50	25	20.61	0.115
					50	50	20.45	0.111
					100	0	20.59	0.115
			18900	1880.0	1	0	21.78	0.151
					1	49	21.98	0.158
					1	99	21.62	0.145
					50	0	20.70	0.117
					50	25	20.72	0.118
					50	50	20.62	0.115
					100	0	20.62	0.115
			19100	1900.0	1	0	21.74	0.149
					1	49	21.84	0.153
					1	99	21.64	0.146
					50	0	20.59	0.115
					50	25	20.64	0.116
					50	50	20.55	0.114
					100	0	20.63	0.116

Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band4	1.4MHz	QPSK	19957	1710.7	1	0	23.01	0.200
					1	2	23.07	0.203
					1	5	22.95	0.197
					3	0	22.82	0.191
					3	1	22.99	0.199
					3	3	22.86	0.193
					6	0	21.92	0.156
			20175	1732.5	1	0	22.71	0.187
					1	2	22.82	0.191
					1	5	22.75	0.188
					3	0	22.70	0.186
					3	1	22.79	0.190
					3	3	22.67	0.185
					6	0	21.62	0.145
			20393	1754.3	1	0	22.82	0.191
					1	2	22.82	0.191
					1	5	22.73	0.187
					3	0	22.71	0.187
					3	1	22.79	0.190
					3	3	22.71	0.187
					6	0	21.68	0.147
		16QAM	19957	1710.7	1	0	22.18	0.165
					1	2	22.34	0.171
					1	5	22.32	0.171
					3	0	21.98	0.158
					3	1	22.11	0.163
					3	3	22.05	0.160
					6	0	20.98	0.125
			20175	1732.5	1	0	21.96	0.157
					1	2	22.04	0.160
					1	5	21.98	0.158
					3	0	21.81	0.152
					3	1	21.84	0.153
					3	3	21.79	0.151
					6	0	20.66	0.116
			20393	1754.3	1	0	22.01	0.159
					1	2	22.05	0.160
					1	5	22.15	0.164
					3	0	21.85	0.153
					3	1	21.87	0.154
					3	3	21.88	0.154
					6	0	20.74	0.119



Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band4	3MHz	QPSK	19965	1711.5	1	0	22.94	0.197
					1	7	23.08	0.203
					1	14	22.99	0.199
					8	0	21.95	0.157
					8	3	21.94	0.156
					8	7	21.97	0.157
					15	0	22.04	0.160
			20175	1732.5	1	0	22.85	0.193
					1	7	22.78	0.190
					1	14	22.69	0.186
					8	0	21.77	0.150
					8	3	21.69	0.148
					8	7	21.67	0.147
					15	0	21.68	0.147
			20385	1753.5	1	0	22.76	0.189
					1	7	22.82	0.191
					1	14	22.80	0.191
					8	0	21.75	0.150
					8	3	21.77	0.150
					8	7	21.73	0.149
					15	0	21.77	0.150
		16QAM	19965	1711.5	1	0	22.27	0.169
					1	7	22.49	0.177
					1	14	22.28	0.169
					8	0	20.97	0.125
					8	3	20.93	0.124
					8	7	20.96	0.125
					15	0	20.93	0.124
			20175	1732.5	1	0	22.01	0.159
					1	7	22.26	0.168
					1	14	21.96	0.157
					8	0	20.80	0.120
					8	3	20.70	0.117
					8	7	20.68	0.117
					15	0	20.63	0.116
			20385	1753.5	1	0	22.03	0.160
					1	7	22.28	0.169
					1	14	21.93	0.156
					8	0	20.73	0.118
					8	3	20.76	0.119
					8	7	20.74	0.119
					15	0	20.72	0.118



Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band4	5MHz	QPSK	19975	1712.5	1	0	23.03	0.201
					1	12	22.85	0.193
					1	24	23.01	0.200
					12	0	21.87	0.154
					12	6	21.91	0.155
					12	13	21.84	0.153
					25	0	21.89	0.155
			20175	1732.5	1	0	22.79	0.190
					1	12	22.64	0.184
					1	24	22.71	0.187
					12	0	21.66	0.147
					12	6	21.67	0.147
					12	13	21.66	0.147
					25	0	21.65	0.146
			20375	1752.5	1	0	22.85	0.193
					1	12	22.77	0.189
					1	24	22.84	0.192
					12	0	21.87	0.154
					12	6	21.83	0.152
					12	13	21.80	0.151
					25	0	21.84	0.153
		16QAM	19975	1712.5	1	0	22.18	0.165
					1	12	22.30	0.170
					1	24	22.22	0.167
					12	0	20.86	0.122
					12	6	20.89	0.123
					12	13	20.88	0.122
					25	0	20.86	0.122
			20175	1732.5	1	0	22.02	0.159
					1	12	22.16	0.164
					1	24	21.91	0.155
					12	0	20.69	0.117
					12	6	20.65	0.116
					12	13	20.70	0.117
					25	0	20.67	0.117
			20375	1752.5	1	0	22.04	0.160
					1	12	22.39	0.173
					1	24	21.98	0.158
					12	0	20.84	0.121
					12	6	20.81	0.121
					12	11	20.77	0.119
					25	0	20.80	0.120

Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band4	10MHz	QPSK	20000	1715.0	1	0	23.09	0.204
					1	24	23.11	0.205
					1	49	22.98	0.199
					25	0	22.00	0.158
					25	12	21.95	0.157
					25	25	21.83	0.152
			20175	1732.5	50	0	21.94	0.156
					1	0	22.85	0.193
					1	24	22.85	0.193
					1	49	22.67	0.185
					25	0	21.71	0.148
					25	12	21.75	0.150
					25	25	21.65	0.146
					50	0	21.66	0.147
			20350	1750.0	1	0	23.00	0.200
					1	24	22.90	0.195
					1	49	22.67	0.185
					25	0	21.70	0.148
					25	12	21.76	0.150
					25	25	21.72	0.149
					50	0	21.67	0.147
		16QAM	20000	1715.0	1	0	22.18	0.165
					1	24	22.11	0.163
					1	49	22.03	0.160
					25	0	20.94	0.124
					25	12	20.91	0.123
					25	25	20.86	0.122
			20175	1732.5	50	0	20.87	0.122
					1	0	21.98	0.158
					1	24	21.93	0.156
					1	49	21.79	0.151
					25	0	20.70	0.117
					25	12	20.77	0.119
					25	25	20.68	0.117
			20350	1750.0	50	0	20.67	0.117
					1	0	21.99	0.158
					1	24	21.89	0.155
					1	49	21.83	0.152
					25	0	20.67	0.117
					25	12	20.72	0.118
					25	25	20.72	0.118
					50	0	20.66	0.116

Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band4	15MHz	QPSK	20025	1717.5	1	0	22.91	0.195
					1	37	22.70	0.186
					1	74	22.66	0.185
					36	0	21.93	0.156
					36	19	21.90	0.155
					36	39	21.91	0.155
			20175	1732.5	75	0	21.87	0.154
					1	0	22.86	0.193
					1	37	22.76	0.189
					1	74	22.48	0.177
					36	0	21.74	0.149
					36	19	21.79	0.151
					36	39	21.65	0.146
					75	0	21.74	0.149
			20325	1747.5	1	0	22.76	0.189
					1	37	22.76	0.189
					1	74	22.49	0.177
					36	0	21.78	0.151
					36	19	21.76	0.150
					36	39	21.66	0.147
					75	0	21.77	0.150
		16QAM	20025	1717.5	1	0	22.23	0.167
					1	37	22.14	0.164
					1	74	21.92	0.156
					36	0	20.89	0.123
					36	19	20.87	0.122
					36	39	20.86	0.122
			20175	1732.5	75	0	20.87	0.122
					1	0	22.05	0.160
					1	37	21.88	0.154
					1	74	21.70	0.148
					36	0	20.70	0.117
					36	19	20.76	0.119
					36	39	20.63	0.116
			20325	1747.5	75	0	20.68	0.117
					1	0	22.01	0.159
					1	37	21.90	0.155
					1	74	21.78	0.151
					36	0	20.72	0.118
					36	19	20.75	0.119
					36	39	20.60	0.115
					75	0	20.73	0.118

Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band4	20MHz	QPSK	20050	1720.0	1	0	22.86	0.193
					1	49	22.89	0.195
					1	99	22.50	0.178
					50	0	21.85	0.153
					50	25	21.99	0.158
					50	50	21.81	0.152
					100	0	21.87	0.154
			20175	1732.5	1	0	22.72	0.187
					1	49	22.76	0.189
					1	99	22.39	0.173
					50	0	21.81	0.152
					50	25	21.72	0.149
					50	50	21.64	0.146
					100	0	21.75	0.150
			20300	1745.0	1	0	22.72	0.187
					1	49	22.79	0.190
					1	99	22.39	0.173
					50	0	21.80	0.151
					50	25	21.75	0.150
					50	50	21.68	0.147
					100	0	21.72	0.149
		16QAM	20050	1720.0	1	0	22.08	0.161
					1	49	22.10	0.162
					1	99	21.62	0.145
					50	0	20.79	0.120
					50	25	20.96	0.125
					50	50	20.75	0.119
					100	0	20.91	0.123
			20175	1732.5	1	0	21.86	0.153
					1	49	21.94	0.156
					1	99	21.54	0.143
					50	0	20.76	0.119
					50	25	20.70	0.117
					50	50	20.64	0.116
					100	0	20.74	0.119
			20300	1745.0	1	0	21.90	0.155
					1	49	21.98	0.158
					1	99	21.60	0.145
					50	0	20.80	0.120
					50	25	20.73	0.118
					50	50	20.64	0.116
					100	0	20.69	0.117



Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band5	1.4MHz	QPSK	20407	824.7	1	0	22.84	0.192
					1	2	22.87	0.194
					1	5	22.78	0.190
					3	0	22.77	0.189
					3	1	22.86	0.193
					3	3	22.70	0.186
					6	0	21.71	0.148
			20525	836.5	1	0	22.91	0.195
					1	2	22.89	0.195
					1	5	22.79	0.190
					3	0	22.72	0.187
					3	1	22.81	0.191
					3	3	22.76	0.189
					6	0	21.74	0.149
			20643	848.3	1	0	22.88	0.194
					1	2	22.86	0.193
					1	5	22.64	0.184
					3	0	22.80	0.191
					3	1	22.89	0.195
					3	3	22.76	0.189
					6	0	21.79	0.151
		16QAM	20407	824.7	1	0	22.01	0.159
					1	2	22.05	0.160
					1	5	22.02	0.159
					3	0	21.94	0.156
					3	1	21.92	0.156
					3	3	21.86	0.153
					6	0	20.78	0.120
			20525	836.5	1	0	22.08	0.161
					1	2	22.07	0.161
					1	5	22.20	0.166
					3	0	21.92	0.156
					3	1	21.95	0.157
					3	3	21.91	0.155
					6	0	20.80	0.120
			20643	848.3	1	0	22.18	0.165
					1	2	22.17	0.165
					1	5	22.01	0.159
					3	0	21.98	0.158
					3	1	22.04	0.160
					3	3	21.96	0.157
					6	0	20.83	0.121

Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band5	3MHz	QPSK	20415	825.5	1	0	22.72	0.187
					1	7	22.95	0.197
					1	14	22.74	0.188
					8	0	21.72	0.149
					8	3	21.79	0.151
					8	7	21.66	0.147
					15	0	21.73	0.149
			20525	836.5	1	0	22.81	0.191
					1	7	22.94	0.197
					1	14	22.77	0.189
					8	0	21.75	0.150
					8	3	21.81	0.152
					8	7	21.72	0.149
					15	0	21.73	0.149
			20635	847.5	1	0	22.78	0.190
					1	7	22.93	0.196
					1	14	22.74	0.188
					8	0	21.83	0.152
					8	3	21.89	0.155
					8	7	21.90	0.155
					15	0	21.83	0.152
		16QAM	20415	825.5	1	0	22.05	0.160
					1	7	22.16	0.164
					1	14	22.07	0.161
					8	0	20.76	0.119
					8	3	20.83	0.121
					8	7	20.74	0.119
					15	0	20.71	0.118
			20525	836.5	1	0	22.01	0.159
					1	7	22.23	0.167
					1	14	22.04	0.160
					8	0	20.74	0.119
					8	3	20.77	0.119
					8	7	20.77	0.119
					15	0	20.72	0.118
			20635	847.5	1	0	22.03	0.160
					1	7	22.26	0.168
					1	14	21.99	0.158
					8	0	20.87	0.122
					8	3	20.88	0.122
					8	7	20.88	0.122
					15	0	20.77	0.119

Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band5	5MHz	QPSK	20425	826.5	1	0	22.69	0.186
					1	12	22.69	0.186
					1	24	22.65	0.184
					12	0	21.71	0.148
					12	6	21.74	0.149
					12	13	21.75	0.150
					25	0	21.76	0.150
			20525	836.5	1	0	22.71	0.187
					1	12	22.80	0.191
					1	24	22.83	0.192
					12	0	21.70	0.148
					12	6	21.76	0.150
					12	13	21.70	0.148
					25	0	21.82	0.152
			20625	846.5	1	0	22.87	0.194
					1	12	22.67	0.185
					1	24	22.78	0.190
					12	0	21.87	0.154
					12	6	21.84	0.153
					12	13	21.73	0.149
					25	0	21.82	0.152
		16QAM	20425	826.5	1	0	22.25	0.168
					1	12	21.74	0.149
					1	24	22.25	0.168
					12	0	20.75	0.119
					12	6	20.78	0.120
					12	13	20.80	0.120
					25	0	20.74	0.119
			20525	836.5	1	0	22.29	0.169
					1	12	22.23	0.167
					1	24	22.20	0.166
					12	0	20.71	0.118
					12	6	20.79	0.120
					12	13	20.74	0.119
					25	0	20.81	0.121
			20625	846.5	1	0	22.26	0.168
					1	12	22.28	0.169
					1	24	22.07	0.161
					12	0	20.87	0.122
					12	6	20.82	0.121
					12	11	20.84	0.121
					25	0	20.81	0.121

Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band5	10MHz	QPSK	20450	829.0	1	0	22.84	0.192
					1	24	22.75	0.188
					1	49	22.66	0.185
					25	0	21.76	0.150
					25	12	21.82	0.152
					25	25	21.70	0.148
			20525	836.5	50	0	21.65	0.146
					1	0	22.89	0.195
					1	24	22.85	0.193
					1	49	22.80	0.191
					25	0	21.71	0.148
					25	12	21.83	0.152
					25	25	21.74	0.149
					50	0	21.70	0.148
			20600	844.0	1	0	22.82	0.191
					1	24	22.97	0.198
					1	49	22.83	0.192
					25	0	21.85	0.153
					25	12	21.84	0.153
					25	25	21.84	0.153
					50	0	21.90	0.155
		16QAM	20450	829.0	1	0	22.16	0.164
					1	24	22.02	0.159
					1	49	21.85	0.153
					25	0	20.70	0.117
					25	12	20.72	0.118
					25	25	20.62	0.115
			20525	836.5	50	0	20.68	0.117
					1	0	22.12	0.163
					1	24	22.02	0.159
					1	49	22.12	0.163
					25	0	20.69	0.117
					25	12	20.83	0.121
					25	25	20.74	0.119
			20600	844.0	50	0	20.71	0.118
					1	0	22.13	0.163
					1	24	22.15	0.164
					1	49	22.16	0.164
					25	0	20.88	0.122
					25	12	20.86	0.122
					25	25	20.87	0.122
					50	0	20.91	0.123

Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band12	1.4MHz	QPSK	23017	699.7	1	0	22.98	0.199
					1	2	22.89	0.195
					1	5	22.92	0.196
					3	0	22.72	0.187
					3	1	22.86	0.193
					3	3	22.70	0.186
			23095	707.5	6	0	21.71	0.148
					1	0	22.96	0.198
					1	2	22.88	0.194
					1	5	22.86	0.193
					3	0	22.75	0.188
					3	1	22.81	0.191
					3	3	22.77	0.189
					6	0	21.68	0.147
			23173	715.3	1	0	22.82	0.191
					1	2	22.80	0.191
					1	5	22.65	0.184
					3	0	22.68	0.185
					3	1	22.79	0.190
					3	3	22.61	0.182
					6	0	21.53	0.142
		16QAM	23017	699.7	1	0	22.28	0.169
					1	2	22.32	0.171
					1	5	22.36	0.172
					3	0	21.92	0.156
					3	1	21.97	0.157
					3	3	21.93	0.156
			23095	707.5	6	0	20.74	0.119
					1	0	22.20	0.166
					1	2	22.11	0.163
					1	5	22.20	0.166
					3	0	21.87	0.154
					3	1	21.85	0.153
					3	3	21.91	0.155
					6	0	20.81	0.121
			23173	715.3	1	0	22.14	0.164
					1	2	21.97	0.157
					1	5	22.07	0.161
					3	0	21.80	0.151
					3	1	21.84	0.153
					3	3	21.69	0.148
					6	0	20.86	0.122

Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band12	3MHz	QPSK	23025	700.5	1	0	22.87	0.194
					1	7	22.93	0.196
					1	14	22.85	0.193
					8	0	21.77	0.150
					8	3	21.77	0.150
					8	7	21.69	0.148
					15	0	21.79	0.151
			23095	707.5	1	0	22.76	0.189
					1	7	22.99	0.199
					1	14	22.74	0.188
					8	0	21.75	0.150
					8	3	21.80	0.151
					8	7	21.73	0.149
					15	0	21.71	0.148
			23165	714.5	1	0	22.59	0.182
					1	7	22.97	0.198
					1	14	22.62	0.183
					8	0	21.68	0.147
					8	3	21.70	0.148
					8	7	21.75	0.150
					15	0	21.68	0.147
		16QAM	23025	700.5	1	0	22.14	0.164
					1	7	22.35	0.172
					1	14	22.10	0.162
					8	0	20.80	0.120
					8	3	20.80	0.120
					8	7	20.76	0.119
					15	0	20.74	0.119
			23095	707.5	1	0	22.11	0.163
					1	7	22.39	0.173
					1	14	21.99	0.158
					8	0	20.78	0.120
					8	3	20.85	0.122
					8	7	20.81	0.121
					15	0	20.72	0.118
			23165	714.5	1	0	21.89	0.155
					1	7	22.34	0.171
					1	14	21.80	0.151
					8	0	20.68	0.117
					8	3	20.71	0.118
					8	7	20.78	0.120
					15	0	20.62	0.115

Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band12	5MHz	QPSK	23035	701.5	1	0	22.76	0.189
					1	12	22.56	0.180
					1	24	22.91	0.195
					12	0	21.72	0.149
					12	6	21.85	0.153
					12	13	21.78	0.151
					25	0	21.84	0.153
			23095	707.5	1	0	22.76	0.189
					1	12	22.68	0.185
					1	24	22.79	0.190
					12	0	21.71	0.148
					12	6	21.81	0.152
					12	13	21.71	0.148
					25	0	21.71	0.148
			23155	713.5	1	0	22.73	0.187
					1	12	22.56	0.180
					1	24	22.67	0.185
					12	0	21.59	0.144
					12	6	21.65	0.146
					12	13	21.65	0.146
					25	0	21.67	0.147
		16QAM	23035	701.5	1	0	22.13	0.163
					1	12	21.91	0.155
					1	24	22.36	0.172
					12	0	20.72	0.118
					12	6	20.83	0.121
					12	13	20.81	0.121
					25	0	20.83	0.121
			23095	707.5	1	0	22.25	0.168
					1	12	22.32	0.171
					1	24	22.13	0.163
					12	0	20.75	0.119
					12	6	20.84	0.121
					12	13	20.73	0.118
					25	0	20.74	0.119
			23155	713.5	1	0	22.22	0.167
					1	12	21.83	0.152
					1	24	22.00	0.158
					12	0	20.63	0.116
					12	6	20.69	0.117
					12	11	20.72	0.118
					25	0	20.62	0.115

Band	Channel Bandwidth	Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power	
					Size	Offset	(dBm)	(W)
LTE Band12	10MHz	QPSK	23060	704.0	1	0	22.89	0.195
					1	24	22.83	0.192
					1	49	22.84	0.192
					25	0	21.80	0.151
					25	12	21.82	0.152
					25	25	21.78	0.151
			23095	707.5	50	0	21.84	0.153
					1	0	22.89	0.195
					1	24	22.92	0.196
					1	49	22.81	0.191
					25	0	21.80	0.151
					25	12	21.73	0.149
					25	25	21.78	0.151
					50	0	21.71	0.148
			23130	711.0	1	0	22.83	0.192
					1	24	22.80	0.191
					1	49	22.72	0.187
					25	0	21.71	0.148
					25	12	21.73	0.149
					25	25	21.60	0.145
					50	0	21.75	0.150
		16QAM	23060	704.0	1	0	22.04	0.160
					1	24	21.96	0.157
					1	49	22.11	0.163
					25	0	20.79	0.120
					25	12	20.84	0.121
					25	25	20.79	0.120
			23095	707.5	50	0	20.84	0.121
					1	0	22.03	0.160
					1	24	22.03	0.160
					1	49	22.04	0.160
					25	0	20.83	0.121
					25	12	20.81	0.121
					25	25	20.82	0.121
					50	0	20.74	0.119
			23130	711.0	1	0	22.08	0.161
					1	24	21.99	0.158
					1	49	21.94	0.156
					25	0	20.71	0.118
					25	12	20.70	0.117
					25	25	20.66	0.116
					50	0	20.72	0.118

LTE Band2A+2A_DL CA

Test freq. ID	NRB_agg	Maximum Average Power (dBm)	Intra-Band non-contiguous PCC (B2)					
			EARFCN	Freq. (MHz)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
Max W Gap	Lowest	22.68	18700	1860.0	QPSK	20MHz	1	0
	Highest	22.37	18700	1860.0	QPSK	20MHz	8	0
	Lowest	22.54	18700	1860.0	QPSK	20MHz	1	0
	Highest	22.23	18700	1860.0	QPSK	20MHz	18	0

Intra-Band non-continuous SCC (B2)					
EARFCN	Freq. (MHz)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
19175	1907.5	QPSK	5MHz	0	0
19175	1907.5	QPSK	5Mhz	0	0
19100	1900.0	QPSK	20MHz	0	0
19100	1900.0	QPSK	20MHz	0	0

DL CA Note :

For others DL CA configurations, RX usually will not affect the TX function. The single band power is already worst-case.



LTE Band2A+5A_DL CA

Test freq. ID	NRB_agg	Maximum Average Power (dBm)	Inter-Band PCC (B2)					
			EARFCN	Freq. (MHz)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
Low	Lowest	22.45	18625	1852.5	QPSK	5MHz	1	0
		22.43	18625	1852.5	QPSK	5MHz	1	24
	Highest	22.36	18625	1852.5	QPSK	5MHz	8	0
		22.29	18625	1852.5	QPSK	5MHz	8	17
High	Lowest	22.19	19175	1907.5	QPSK	5MHz	1	0
		22.38	19175	1907.5	QPSK	5MHz	1	24
	Highest	22.28	19175	1907.5	QPSK	5MHz	8	0
		22.21	19175	1907.5	QPSK	5MHz	8	17
Low	Lowest	22.65	18650	1855.0	QPSK	10MHz	1	0
		22.63	18650	1855.0	QPSK	10MHz	1	49
	Highest	22.63	18650	1855.0	QPSK	10MHz	12	0
		22.56	18650	1855.0	QPSK	10MHz	12	38
High	Lowest	22.67	19150	1905.0	QPSK	10MHz	1	0
		22.63	19150	1905.0	QPSK	10MHz	1	49
	Highest	22.59	19150	1905.0	QPSK	10MHz	12	0
		22.51	19150	1905.0	QPSK	10MHz	12	38
Low	Lowest	22.60	18700	1860.0	QPSK	20MHz	1	0
		22.56	18700	1860.0	QPSK	20MHz	1	99
	Highest	22.53	18700	1860.0	QPSK	20MHz	18	0
		22.50	18700	1860.0	QPSK	20MHz	18	82
High	Lowest	22.48	19100	1900.0	QPSK	20MHz	1	0
		22.55	19100	1900.0	QPSK	20MHz	1	99
	Highest	22.39	19100	1900.0	QPSK	20MHz	18	0
		22.42	19100	1900.0	QPSK	20MHz	18	82

Inter-Band SCC (B5)					
EARFCN	Freq. (MHz)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
20425	826.5	QPSK	5MHz	1	0
20425	826.5	QPSK	5MHz	1	24
20425	826.5	QPSK	5MHz	8	0
20425	826.5	QPSK	5MHz	8	17
20625	846.5	QPSK	5MHz	1	0
20625	846.5	QPSK	5MHz	1	24
20625	846.5	QPSK	5MHz	8	0
20625	846.5	QPSK	5MHz	8	17
20450	829.0	QPSK	10MHz	1	0
20450	829.0	QPSK	10MHz	1	49
20450	829.0	QPSK	10MHz	12	0
20450	829.0	QPSK	10MHz	12	38
20600	844.0	QPSK	10MHz	1	0
20600	844.0	QPSK	10MHz	1	49
20600	844.0	QPSK	10MHz	12	0
20600	844.0	QPSK	10MHz	12	38
20450	829.0	QPSK	10MHz	1	0
20450	829.0	QPSK	10MHz	1	49
20450	829.0	QPSK	10MHz	12	0
20450	829.0	QPSK	10MHz	12	38
20600	844.0	QPSK	10MHz	1	0
20600	844.0	QPSK	10MHz	1	49
20600	844.0	QPSK	10MHz	12	0
20600	844.0	QPSK	10MHz	12	38



LTE Band2A+12A_DL CA

Test freq. ID	NRB_agg	Maximum Average Power (dBm)	Inter-Band PCC (B2)					
			EARFCN	Freq. (MHz)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
Low	Lowest	22.44	18625	1852.5	QPSK	5MHz	1	0
		22.34	18625	1852.5	QPSK	5MHz	1	24
	Highest	22.32	18625	1852.5	QPSK	5MHz	8	0
		22.39	18625	1852.5	QPSK	5MHz	8	17
High	Lowest	22.15	19175	1907.5	QPSK	5MHz	1	0
		22.35	19175	1907.5	QPSK	5MHz	1	24
	Highest	22.26	19175	1907.5	QPSK	5MHz	8	0
		22.27	19175	1907.5	QPSK	5MHz	8	17
Low	Lowest	22.65	18650	1855.0	QPSK	10MHz	1	0
		22.73	18650	1855.0	QPSK	10MHz	1	49
	Highest	22.73	18650	1855.0	QPSK	10MHz	12	0
		22.56	18650	1855.0	QPSK	10MHz	12	38
High	Lowest	22.69	19150	1905.0	QPSK	10MHz	1	0
		22.57	19150	1905.0	QPSK	10MHz	1	49
	Highest	22.61	19150	1905.0	QPSK	10MHz	12	0
		22.57	19150	1905.0	QPSK	10MHz	12	38
Low	Lowest	22.70	18700	1860.0	QPSK	20MHz	1	0
		22.50	18700	1860.0	QPSK	20MHz	1	99
	Highest	22.58	18700	1860.0	QPSK	20MHz	18	0
		22.53	18700	1860.0	QPSK	20MHz	18	82
High	Lowest	22.50	19100	1900.0	QPSK	20MHz	1	0
		22.63	19100	1900.0	QPSK	20MHz	1	99
	Highest	22.31	19100	1900.0	QPSK	20MHz	18	0
		22.42	19100	1900.0	QPSK	20MHz	18	82

Inter-Band SCC (B12)					
EARFCN	Freq. (MHz)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
23025	700.5	QPSK	3MHz	1	0
23025	700.5	QPSK	3MHz	1	14
23025	700.5	QPSK	3MHz	5	0
23025	700.5	QPSK	3MHz	5	10
23165	714.5	QPSK	3MHz	1	0
23165	714.5	QPSK	3MHz	1	14
23165	714.5	QPSK	3MHz	5	0
23165	714.5	QPSK	3MHz	5	10
23060	704.0	QPSK	10MHz	1	0
23060	704.0	QPSK	10MHz	1	49
23060	704.0	QPSK	10MHz	12	0
23060	704.0	QPSK	10MHz	12	38
23130	711.0	QPSK	10MHz	1	0
23130	711.0	QPSK	10MHz	1	49
23130	711.0	QPSK	10MHz	12	0
23130	711.0	QPSK	10MHz	12	38
23060	704.0	QPSK	10MHz	1	0
23060	704.0	QPSK	10MHz	1	49
23060	704.0	QPSK	10MHz	12	0
23060	704.0	QPSK	10MHz	12	38
23130	711.0	QPSK	10MHz	1	0
23130	711.0	QPSK	10MHz	1	49
23130	711.0	QPSK	10MHz	12	0
23130	711.0	QPSK	10MHz	12	38



LTE Band4A+4A_DL CA

Test freq. ID	NRB_agg	Maximum Average Power (dBm)	Intra-Band non-contiguous PCC (B4)					
			EARFCN	Freq. (MHz)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
Low W Gap	Lowest	22.73	20050	1720.0	QPSK	20MHz	1	0
	Highest	22.49	20050	1720.0	QPSK	20MHz	18	0
Max W Gap	Lowest	22.74	20050	1720.0	QPSK	20MHz	1	0
	Highest	22.46	20050	1720.0	QPSK	20MHz	18	0
	Lowest	22.78	20050	1720.0	QPSK	20MHz	1	0
	Highest	22.51	20050	1720.0	QPSK	20MHz	8	0

Intra-Band non-continuous SCC (B4)					
EARFCN	Freq. (MHz)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
20300	1745.0	QPSK	20MHz	0	0
20300	1745.0	QPSK	20MHz	0	0
20300	1745.0	QPSK	20MHz	0	0
20300	1745.0	QPSK	20MHz	0	0
20375	1752.5	QPSK	5MHz	0	0
20375	1752.5	QPSK	5Mhz	0	0



LTE Band4A+5A_DL CA

Test freq. ID	NRB_agg	Maximum Average Power (dBm)	Inter-Band PCC (B4)					
			EARFCN	Freq. (MHz)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
Low	Lowest	22.88	19975	1712.5	QPSK	5MHz	1	0
		22.94	19975	1712.5	QPSK	5MHz	1	24
	Highest	22.86	19975	1712.5	QPSK	5MHz	8	0
		22.90	19975	1712.5	QPSK	5MHz	8	17
High	Lowest	22.84	20375	1752.5	QPSK	5MHz	1	0
		22.67	20375	1752.5	QPSK	5MHz	1	24
	Highest	22.64	20375	1752.5	QPSK	5MHz	8	0
		22.62	20375	1752.5	QPSK	5MHz	8	17
Low	Lowest	22.99	20000	1715.0	QPSK	10MHz	1	0
		22.88	20000	1715.0	QPSK	10MHz	1	49
	Highest	22.86	20000	1715.0	QPSK	10MHz	12	0
		22.87	20000	1715.0	QPSK	10MHz	12	38
High	Lowest	22.88	20350	1750.0	QPSK	10MHz	1	0
		22.85	20350	1750.0	QPSK	10MHz	1	49
	Highest	22.72	20350	1750.0	QPSK	10MHz	12	0
		22.66	20350	1750.0	QPSK	10MHz	12	38
Low	Lowest	22.77	20050	1720.0	QPSK	20MHz	1	0
		22.64	20050	1720.0	QPSK	20MHz	1	99
	Highest	22.53	20050	1720.0	QPSK	20MHz	18	0
		22.57	20050	1720.0	QPSK	20MHz	18	82
High	Lowest	22.59	20300	1745.0	QPSK	20MHz	1	0
		22.49	20300	1745.0	QPSK	20MHz	1	99
	Highest	22.35	20300	1745.0	QPSK	20MHz	18	0
		22.36	20300	1745.0	QPSK	20MHz	18	82

Inter-Band SCC (B5)					
EARFCN	Freq. (MHz)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
20425	826.5	QPSK	5MHz	1	0
20425	826.5	QPSK	5MHz	1	24
20425	826.5	QPSK	5MHz	8	0
20425	826.5	QPSK	5MHz	8	17
20625	846.5	QPSK	5MHz	1	0
20625	846.5	QPSK	5MHz	1	24
20625	846.5	QPSK	5MHz	8	0
20625	846.5	QPSK	5MHz	8	17
20450	829.0	QPSK	10MHz	1	0
20450	829.0	QPSK	10MHz	1	49
20450	829.0	QPSK	10MHz	12	0
20450	829.0	QPSK	10MHz	12	38
20600	844.0	QPSK	10MHz	1	0
20600	844.0	QPSK	10MHz	1	49
20600	844.0	QPSK	10MHz	12	0
20600	844.0	QPSK	10MHz	12	38
20600	844.0	QPSK	10MHz	1	0
20600	844.0	QPSK	10MHz	1	49
20600	844.0	QPSK	10MHz	12	0
20600	844.0	QPSK	10MHz	12	38
20600	844.0	QPSK	10MHz	1	0
20600	844.0	QPSK	10MHz	1	49
20600	844.0	QPSK	10MHz	12	0
20600	844.0	QPSK	10MHz	12	38



LTE Band4A+12A_DL CA

Test freq. ID	NRB_agg	Maximum Average Power (dBm)	Inter-Band PCC (B4)					
			EARFCN	Freq. (MHz)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
Low	Lowest	22.84	19957	1710.7	QPSK	1.4MHz	1	0
		22.91	19957	1710.7	QPSK	1.4MHz	1	5
	Highest	22.88	19957	1710.7	QPSK	1.4MHz	5	0
		22.95	19957	1710.7	QPSK	1.4MHz	5	1
High	Lowest	22.79	20393	1754.3	QPSK	1.4MHz	1	0
		22.65	20393	1754.3	QPSK	1.4MHz	1	5
	Highest	22.69	20393	1754.3	QPSK	1.4MHz	5	0
		22.59	20393	1754.3	QPSK	1.4MHz	5	1
Low	Lowest	22.94	20000	1715.0	QPSK	10MHz	1	0
		22.91	20000	1715.0	QPSK	10MHz	1	49
	Highest	22.85	20000	1715.0	QPSK	10MHz	12	0
		22.86	20000	1715.0	QPSK	10MHz	12	38
High	Lowest	22.92	20350	1750.0	QPSK	10MHz	1	0
		22.80	20350	1750.0	QPSK	10MHz	1	49
	Highest	22.78	20350	1750.0	QPSK	10MHz	12	0
		22.72	20350	1750.0	QPSK	10MHz	12	38
Low	Lowest	22.83	20050	1720.0	QPSK	20MHz	1	0
		22.74	20050	1720.0	QPSK	20MHz	1	99
	Highest	22.60	20050	1720.0	QPSK	20MHz	18	0
		22.64	20050	1720.0	QPSK	20MHz	18	82
High	Lowest	22.63	20300	1745.0	QPSK	20MHz	1	0
		22.44	20300	1745.0	QPSK	20MHz	1	99
	Highest	22.36	20300	1745.0	QPSK	20MHz	18	0
		22.28	20300	1745.0	QPSK	20MHz	18	82

Inter-Band SCC (B12)					
EARFCN	Freq. (MHz)	Modulation	Bandwidth	# of Resource Blocks	Resource Block Offset
23035	701.5	QPSK	5MHz	1	0
23035	701.5	QPSK	5MHz	1	24
23035	701.5	QPSK	5MHz	8	0
23035	701.5	QPSK	5MHz	8	17
23155	713.5	QPSK	5MHz	1	0
23155	713.5	QPSK	5MHz	1	24
23155	713.5	QPSK	5MHz	8	0
23155	713.5	QPSK	5MHz	8	17
23060	704.0	QPSK	10MHz	1	0
23060	704.0	QPSK	10MHz	1	49
23060	704.0	QPSK	10MHz	12	0
23060	704.0	QPSK	10MHz	12	38
23130	711.0	QPSK	10MHz	1	0
23130	711.0	QPSK	10MHz	1	49
23130	711.0	QPSK	10MHz	12	0
23130	711.0	QPSK	10MHz	12	38
23060	704.0	QPSK	10MHz	1	0
23060	704.0	QPSK	10MHz	1	49
23060	704.0	QPSK	10MHz	12	0
23060	704.0	QPSK	10MHz	12	38
23130	711.0	QPSK	10MHz	1	0
23130	711.0	QPSK	10MHz	1	49
23130	711.0	QPSK	10MHz	12	0
23130	711.0	QPSK	10MHz	12	38

Effective Radiated Power / Equivalent Isotropic Radiated Power

Band 2								
Channel Bandwidth	Modulation	Frequency (MHz)	Ant. Polar.	Read Level (dBm)	Correction Factor (dBm)	E.I.R.P.		Limit (W)
						(dBm)	(W)	
1.4M	QPSK	1850.7	H	12.40	8.01	20.41	0.110	< 2
			V	14.36	8.01	22.37	0.173	< 2
		1880.0	H	12.44	8.13	20.57	0.114	< 2
			V	14.25	8.13	22.38	0.173	< 2
		1909.3	H	12.45	8.23	20.68	0.117	< 2
			V	14.24	8.23	22.47	0.177	< 2
	16QAM	1880.0	H	10.69	8.13	18.82	0.076	< 2
			V	12.38	8.13	20.51	0.112	< 2
3M	QPSK	1851.5	H	12.58	8.01	20.59	0.115	< 2
			V	14.70	8.01	22.71	0.187	< 2
		1880.0	H	12.27	8.12	20.39	0.109	< 2
			V	14.32	8.12	22.44	0.175	< 2
		1908.5	H	12.22	8.24	20.46	0.111	< 2
			V	14.06	8.24	22.30	0.170	< 2
	16QAM	1880.0	H	10.74	8.12	18.86	0.077	< 2
			V	12.56	8.12	20.68	0.117	< 2
5M	QPSK	1852.5	H	12.54	8.01	20.55	0.114	< 2
			V	14.67	8.01	22.68	0.185	< 2
		1880.0	H	12.36	8.12	20.48	0.112	< 2
			V	14.44	8.12	22.56	0.180	< 2
		1907.5	H	12.27	8.23	20.50	0.112	< 2
			V	14.23	8.23	22.46	0.176	< 2
	16QAM	1880.0	H	10.60	8.12	18.72	0.074	< 2
			V	12.50	8.12	20.62	0.115	< 2
10M	QPSK	1855.0	H	12.54	8.01	20.55	0.114	< 2
			V	14.48	8.01	22.49	0.177	< 2
		1880.0	H	12.44	8.12	20.56	0.114	< 2
			V	14.47	8.12	22.59	0.182	< 2
		1905.0	H	12.25	8.21	20.46	0.111	< 2
			V	14.55	8.21	22.76	0.189	< 2
	16QAM	1880.0	H	10.81	8.12	18.93	0.078	< 2
			V	12.72	8.12	20.84	0.121	< 2
15M	QPSK	1857.5	H	12.52	8.01	20.53	0.113	< 2
			V	14.64	8.01	22.65	0.184	< 2
		1880.0	H	12.69	8.11	20.80	0.120	< 2
			V	14.65	8.10	22.75	0.188	< 2
		1902.5	H	12.28	8.19	20.47	0.111	< 2
			V	14.30	8.19	22.49	0.177	< 2
	16QAM	1880.0	H	10.94	8.11	19.05	0.080	< 2
			V	12.42	8.10	20.52	0.113	< 2
20M	QPSK	1860.0	H	12.30	8.02	20.32	0.108	< 2
			V	14.48	8.02	22.50	0.178	< 2
		1880.0	H	12.35	8.08	20.43	0.110	< 2
			V	14.48	8.08	22.56	0.180	< 2
		1900.0	H	12.53	8.18	20.71	0.118	< 2
			V	14.66	8.18	22.84	0.192	< 2
	16QAM	1880.0	H	10.52	8.09	18.61	0.073	< 2
			V	12.79	8.09	20.88	0.122	< 2

Band 4								
Channel Bandwidth	Modulation	Frequency (MHz)	Ant. Polar.	Read Level (dBm)	Correction Factor (dBm)	E.I.R.P.		Limit (W)
						(dBm)	(W)	
1.4M	QPSK	1710.7	H	13.44	7.45	20.89	0.123	< 1
			V	15.48	7.45	22.93	0.196	< 1
		1732.5	H	13.01	7.54	20.55	0.114	< 1
			V	15.15	7.54	22.69	0.186	< 1
		1754.3	H	13.02	7.63	20.65	0.116	< 1
			V	15.02	7.63	22.65	0.184	< 1
	16QAM	1732.5	H	11.22	7.54	18.76	0.075	< 1
			V	13.34	7.54	20.88	0.122	< 1
3M	QPSK	1711.5	H	13.44	7.45	20.89	0.123	< 1
			V	15.52	7.45	22.97	0.198	< 1
		1732.5	H	13.04	7.54	20.58	0.114	< 1
			V	15.15	7.54	22.69	0.186	< 1
		1753.5	H	12.75	7.61	20.36	0.109	< 1
			V	14.81	7.61	22.42	0.175	< 1
	16QAM	1732.5	H	11.36	7.54	18.90	0.078	< 1
			V	13.25	7.53	20.78	0.120	< 1
5M	QPSK	1712.5	H	13.49	7.45	20.94	0.124	< 1
			V	15.57	7.45	23.02	0.200	< 1
		1732.5	H	13.15	7.53	20.68	0.117	< 1
			V	14.99	7.53	22.52	0.179	< 1
		1752.5	H	12.96	7.61	20.57	0.114	< 1
			V	15.05	7.61	22.66	0.185	< 1
	16QAM	1732.5	H	11.28	7.53	18.81	0.076	< 1
			V	13.31	7.53	20.84	0.121	< 1
10M	QPSK	1715.0	H	13.41	7.45	20.86	0.122	< 1
			V	15.46	7.45	22.91	0.195	< 1
		1732.5	H	13.21	7.51	20.72	0.118	< 1
			V	15.28	7.51	22.79	0.190	< 1
		1750.0	H	13.05	7.59	20.64	0.116	< 1
			V	15.12	7.59	22.71	0.187	< 1
	16QAM	1732.5	H	11.42	7.51	18.93	0.078	< 1
			V	13.29	7.51	20.80	0.120	< 1
15M	QPSK	1717.5	H	13.25	7.44	20.69	0.117	< 1
			V	15.42	7.45	22.87	0.194	< 1
		1732.5	H	13.29	7.51	20.80	0.120	< 1
			V	15.37	7.51	22.88	0.194	< 1
		1747.5	H	13.26	7.56	20.82	0.121	< 1
			V	15.12	7.56	22.68	0.185	< 1
	16QAM	1732.5	H	11.31	7.51	18.82	0.076	< 1
			V	13.28	7.51	20.79	0.120	< 1
20M	QPSK	1720.0	H	13.40	7.45	20.85	0.122	< 1
			V	15.36	7.45	22.81	0.191	< 1
		1732.5	H	13.08	7.50	20.58	0.114	< 1
			V	15.26	7.51	22.77	0.189	< 1
		1745.0	H	12.96	7.55	20.51	0.112	< 1
			V	15.07	7.55	22.62	0.183	< 1
	16QAM	1732.5	H	11.31	7.51	18.82	0.076	< 1
			V	13.46	7.50	20.96	0.125	< 1

Band 5								
Channel Bandwidth	Modulation	Frequency (MHz)	Ant. Polar.	Read Level (dBm)	Correction Factor (dBm)	E.R.P.		Limit (W)
						(dBm)	(W)	
1.4M	QPSK	824.7	H	9.84	10.90	20.74	0.119	< 7
			V	11.91	10.89	22.80	0.191	< 7
		836.5	H	9.81	11.09	20.90	0.123	< 7
			V	11.76	11.10	22.86	0.193	< 7
		848.3	H	9.49	11.28	20.77	0.119	< 7
			V	11.28	11.28	22.56	0.180	< 7
	16QAM	836.5	H	8.04	11.08	19.12	0.082	< 7
			V	9.92	11.10	21.02	0.126	< 7
3M	QPSK	825.5	H	9.88	10.89	20.77	0.119	< 7
			V	11.94	10.89	22.83	0.192	< 7
		836.5	H	9.41	11.07	20.48	0.112	< 7
			V	11.46	11.07	22.53	0.179	< 7
		847.5	H	9.31	11.24	20.55	0.114	< 7
			V	11.32	11.24	22.56	0.180	< 7
	16QAM	836.5	H	7.85	11.07	18.92	0.078	< 7
			V	9.65	11.07	20.72	0.118	< 7
5M	QPSK	826.5	H	9.55	10.91	20.46	0.111	< 7
			V	11.45	10.90	22.35	0.172	< 7
		836.5	H	9.64	11.07	20.71	0.118	< 7
			V	11.63	11.07	22.70	0.186	< 7
		846.5	H	9.73	11.22	20.95	0.124	< 7
			V	11.68	11.21	22.89	0.195	< 7
	16QAM	836.5	H	7.77	11.07	18.84	0.077	< 7
			V	9.85	11.07	20.92	0.124	< 7
10M	QPSK	829.0	H	9.66	10.91	20.57	0.114	< 7
			V	11.50	10.91	22.41	0.174	< 7
		836.5	H	9.58	11.04	20.62	0.115	< 7
			V	11.68	11.03	22.71	0.187	< 7
		844.0	H	9.59	11.15	20.74	0.119	< 7
			V	11.66	11.14	22.80	0.191	< 7
	16QAM	836.5	H	8.05	11.03	19.08	0.081	< 7
			V	9.94	11.04	20.98	0.125	< 7

Band 12								
Channel Bandwidth	Modulation	Frequency (MHz)	Ant. Polar.	Read Level (dBm)	Correction Factor (dBm)	E.R.P.		Limit (W)
						(dBm)	(W)	
1.4M	QPSK	699.7	H	11.97	8.88	20.85	0.122	< 3
			V	13.91	8.88	22.79	0.190	< 3
		707.5	H	11.53	9.03	20.56	0.114	< 3
			V	13.43	9.03	22.46	0.176	< 3
		715.3	H	11.14	9.17	20.31	0.107	< 3
			V	13.24	9.16	22.40	0.174	< 3
	16QAM	707.5	H	9.85	9.01	18.86	0.077	< 3
			V	11.80	9.03	20.83	0.121	< 3
3M	QPSK	700.5	H	11.60	8.88	20.48	0.112	< 3
			V	13.73	8.88	22.61	0.182	< 3
		707.5	H	11.93	9.01	20.94	0.124	< 3
			V	13.88	9.01	22.89	0.195	< 3
		714.5	H	11.53	9.14	20.67	0.117	< 3
			V	13.65	9.14	22.79	0.190	< 3
	16QAM	707.5	H	9.85	9.01	18.86	0.077	< 3
			V	11.78	9.00	20.78	0.120	< 3
5M	QPSK	701.5	H	11.87	8.88	20.75	0.119	< 3
			V	14.07	8.88	22.95	0.197	< 3
		707.5	H	11.67	8.99	20.66	0.116	< 3
			V	13.60	8.99	22.59	0.182	< 3
		713.5	H	11.36	9.10	20.46	0.111	< 3
			V	13.54	9.09	22.63	0.183	< 3
	16QAM	707.5	H	9.73	8.99	18.72	0.074	< 3
			V	11.62	8.99	20.61	0.115	< 3
10M	QPSK	704.0	H	11.83	8.88	20.71	0.118	< 3
			V	13.60	8.88	22.48	0.177	< 3
		707.5	H	11.83	8.95	20.78	0.120	< 3
			V	13.93	8.95	22.88	0.194	< 3
		711.0	H	11.71	9.01	20.72	0.118	< 3
			V	13.65	9.01	22.66	0.185	< 3
	16QAM	707.5	H	9.97	8.95	18.92	0.078	< 3
			V	11.70	8.95	20.65	0.116	< 3



Radiated Emission

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1850.7MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 2_1.4M_QPSK_CH18607	Date:	09/18/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3701.400	-51.32	-0.51	-51.83	-13.00	-38.83	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1850.7MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 2_1.4M_QPSK_CH18607	Date:	09/18/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3701.400	-52.70	-0.51	-53.21	-13.00	-40.21	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1880MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 2_1.4M_QPSK_CH18900	Date:	09/18/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3760.000	-50.65	-0.37	-51.02	-13.00	-38.02	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1880MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 2_1.4M_QPSK_CH18900	Date:	09/18/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3760.000	-51.01	-0.37	-51.38	-13.00	-38.38	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1909.3MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 2_1.4M_QPSK_CH19193	Date:	09/18/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3818.600	-49.00	-0.21	-49.21	-13.00	-36.21	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1909.3MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 2_1.4M_QPSK_CH19193	Date:	09/18/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3818.600	-50.78	-0.21	-50.99	-13.00	-37.99	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1880MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 2_1.4M-16QAM_CH18900	Date:	09/18/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3760.000	-52.26	-0.37	-52.63	-13.00	-39.63	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1880MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 2_1.4M-16QAM_CH18900	Date:	09/18/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3760.000	-53.85	-0.37	-54.22	-13.00	-41.22	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1855MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 2_10M_QPSK_CH18650	Date:	09/18/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3710.000	-51.35	-0.49	-51.84	-13.00	-38.84	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1855MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 2_10M_QPSK_CH18650	Date:	09/18/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3710.000	-52.64	-0.49	-53.13	-13.00	-40.13	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1880MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 2_10M_QPSK_CH18900	Date:	09/18/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3760.000	-52.33	-0.37	-52.70	-13.00	-39.70	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1880MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 2_10M_QPSK_CH18900	Date:	09/18/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3760.000	-52.77	-0.37	-53.14	-13.00	-40.14	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1905MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 2_10M_QPSK_CH19150	Date:	09/18/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3810.000	-51.78	-0.23	-52.01	-13.00	-39.01	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1905MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 2_10M_QPSK_CH19150	Date:	09/18/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3810.000	-51.09	-0.23	-51.32	-13.00	-38.32	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1880MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 2_10M-16QAM_CH18900	Date:	09/18/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3760.000	-51.76	-0.37	-52.13	-13.00	-39.13	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1880MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 2_10M-16QAM_CH18900	Date:	09/18/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3760.000	-55.54	-0.37	-55.91	-13.00	-42.91	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1857.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 2_15M_QPSK_CH18675	Date:	09/18/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3715.000	-52.64	-0.49	-53.13	-13.00	-40.13	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1857.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 2_15M_QPSK_CH18675	Date:	09/18/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3715.000	-52.25	-0.49	-52.74	-13.00	-39.74	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1880MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 2_15M_QPSK_CH18900	Date:	09/18/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3760.000	-52.24	-0.37	-52.61	-13.00	-39.61	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1880MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 2_15M_QPSK_CH18900	Date:	09/18/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3760.000	-51.61	-0.37	-51.98	-13.00	-38.98	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1902.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 2_15M_QPSK_CH19125	Date:	09/18/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3805.000	-52.84	-0.24	-53.08	-13.00	-40.08	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1902.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 2_15M_QPSK_CH19125	Date:	09/18/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3805.000	-51.70	-0.24	-51.94	-13.00	-38.94	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1880MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 2_15M-16QAM_CH18900	Date:	09/18/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3760.000	-55.26	-0.37	-55.63	-13.00	-42.63	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1880MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 2_15M-16QAM_CH18900	Date:	09/18/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3760.000	-55.11	-0.37	-55.48	-13.00	-42.48	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1860MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 2_20M_QPSK_CH18700	Date:	09/18/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3720.000	-50.70	-0.47	-51.17	-13.00	-38.17	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1860MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 2_20M_QPSK_CH18700	Date:	09/18/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3720.000	-51.71	-0.47	-52.18	-13.00	-39.18	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1880MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 2_20M_QPSK_CH18900	Date:	09/18/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3760.000	-52.69	-0.37	-53.06	-13.00	-40.06	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1880MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 2_20M_QPSK_CH18900	Date:	09/18/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3760.000	-51.70	-0.37	-52.07	-13.00	-39.07	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1900MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 2_20M_QPSK_CH19100	Date:	09/18/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3800.000	-52.10	-0.26	-52.36	-13.00	-39.36	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1900MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 2_20M_QPSK_CH19100	Date:	09/18/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3800.000	-51.62	-0.26	-51.88	-13.00	-38.88	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1880MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 2_20M-16QAM_CH18900	Date:	09/18/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3760.000	-54.54	-0.37	-54.91	-13.00	-41.91	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1880MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 2_20M-16QAM_CH18900	Date:	09/18/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3760.000	-53.79	-0.37	-54.16	-13.00	-41.16	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1851.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 2_3M_QPSK_CH18615	Date:	09/18/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3703.000	-50.81	-0.51	-51.32	-13.00	-38.32	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1851.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 2_3M_QPSK_CH18615	Date:	09/18/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3703.000	-52.45	-0.51	-52.96	-13.00	-39.96	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1880MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 2_3M_QPSK_CH18900	Date:	09/18/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3760.000	-50.57	-0.37	-50.94	-13.00	-37.94	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1880MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 2_3M_QPSK_CH18900	Date:	09/18/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3760.000	-47.48	-0.37	-47.85	-13.00	-34.85	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1908.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 2_3M_QPSK_CH19185	Date:	09/18/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3817.000	-48.90	-0.21	-49.11	-13.00	-36.11	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1908.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 2_3M_QPSK_CH19185	Date:	09/18/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3817.000	-51.12	-0.21	-51.33	-13.00	-38.33	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1880MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 2_3M-16QAM_CH18900	Date:	09/18/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3760.000	-52.98	-0.37	-53.35	-13.00	-40.35	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1880MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 2_3M-16QAM_CH18900	Date:	09/18/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3760.000	-53.54	-0.37	-53.91	-13.00	-40.91	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1852.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 2_5M_QPSK_CH18625	Date:	09/18/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3705.000	-52.64	-0.51	-53.15	-13.00	-40.15	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1852.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 2_5M_QPSK_CH18625	Date:	09/18/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3705.000	-51.22	-0.51	-51.73	-13.00	-38.73	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1880MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 2_5M_QPSK_CH18900	Date:	09/18/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3760.000	-49.98	-0.37	-50.35	-13.00	-37.35	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1880MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 2_5M_QPSK_CH18900	Date:	09/18/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3760.000	-50.01	-0.37	-50.38	-13.00	-37.38	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1907.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 2_5M_QPSK_CH19175	Date:	09/18/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3815.000	-52.41	-0.22	-52.63	-13.00	-39.63	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1907.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 2_5M_QPSK_CH19175	Date:	09/18/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3815.000	-52.29	-0.22	-52.51	-13.00	-39.51	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1880MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 2_5M-16QAM_CH18900	Date:	09/18/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3760.000	-51.66	-0.37	-52.03	-13.00	-39.03	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1880MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 2_5M-16QAM_CH18900	Date:	09/18/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3760.000	-52.30	-0.37	-52.67	-13.00	-39.67	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1710.7MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 4_1.4M_QPSK_CH19957	Date:	09/18/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3421.400	-52.23	-1.18	-53.41	-13.00	-40.41	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1710.7MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 4_1.4M_QPSK_CH19957	Date:	09/18/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3421.400	-54.04	-1.18	-55.22	-13.00	-42.22	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1732.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 4_1.4M_QPSK_CH20175	Date:	09/18/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3465.000	-48.12	-1.11	-49.23	-13.00	-36.23	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1732.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 4_1.4M_QPSK_CH20175	Date:	09/18/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3465.000	-42.53	-1.11	-43.64	-13.00	-30.64	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1754.3MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 4_1.4M_QPSK_CH20393	Date:	09/18/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3508.600	-46.75	-1.03	-47.78	-13.00	-34.78	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1754.3MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 4_1.4M_QPSK_CH20393	Date:	09/18/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3508.600	-42.16	-1.03	-43.19	-13.00	-30.19	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1732.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 4_1.4M-16QAM_CH20175	Date:	09/18/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3465.000	-54.78	-1.11	-55.89	-13.00	-42.89	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1732.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 4_1.4M-16QAM_CH20175	Date:	09/18/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3465.000	-54.64	-1.11	-55.75	-13.00	-42.75	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1715MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 4_10M_QPSK_CH20000	Date:	09/18/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3430.000	-52.45	-1.18	-53.63	-13.00	-40.63	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1715MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 4_10M_QPSK_CH20000	Date:	09/18/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3430.000	-45.99	-1.18	-47.17	-13.00	-34.17	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1732.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 4_10M_QPSK_CH20175	Date:	09/18/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3465.000	-46.60	-1.11	-47.71	-13.00	-34.71	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1732.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 4_10M_QPSK_CH20175	Date:	09/18/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3465.000	-39.53	-1.11	-40.64	-13.00	-27.64	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1750MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 4_10M_QPSK_CH20350	Date:	09/18/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3500.000	-53.89	-1.06	-54.95	-13.00	-41.95	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1750MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 4_10M_QPSK_CH20350	Date:	09/18/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3500.000	-51.91	-1.06	-52.97	-13.00	-39.97	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1732.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 4_10M-16QAM_CH20175	Date:	09/18/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3465.000	-52.04	-1.11	-53.15	-13.00	-40.15	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1732.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 4_10M-16QAM_CH20175	Date:	09/18/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3465.000	-55.11	-1.11	-56.22	-13.00	-43.22	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1717.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 4_15M_QPSK_CH20025	Date:	09/18/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3435.000	-52.27	-1.16	-53.43	-13.00	-40.43	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1717.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 4_15M_QPSK_CH20025	Date:	09/18/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3435.000	-48.41	-1.16	-49.57	-13.00	-36.57	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1732.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 4_15M_QPSK_CH20175	Date:	09/18/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3465.000	-47.39	-1.11	-48.50	-13.00	-35.50	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1732.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 4_15M_QPSK_CH20175	Date:	09/18/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3465.000	-41.11	-1.11	-42.22	-13.00	-29.22	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1747.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 4_15M_QPSK_CH20325	Date:	09/18/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3495.000	-52.57	-1.06	-53.63	-13.00	-40.63	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1747.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 4_15M_QPSK_CH20325	Date:	09/18/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3495.000	-45.03	-1.06	-46.09	-13.00	-33.09	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1732.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 4_15M-16QAM_CH20175	Date:	09/18/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3465.000	-51.81	-1.11	-52.92	-13.00	-39.92	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1732.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 4_15M-16QAM_CH20175	Date:	09/18/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3465.000	-54.23	-1.11	-55.34	-13.00	-42.34	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1720MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 4_20M_QPSK_CH20050	Date:	09/18/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3440.000	-52.95	-1.16	-54.11	-13.00	-41.11	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1720MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 4_20M_QPSK_CH20050	Date:	09/18/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3440.000	-46.91	-1.16	-48.07	-13.00	-35.07	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1732.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 4_20M_QPSK_CH20175	Date:	09/18/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3465.000	-46.60	-1.11	-47.71	-13.00	-34.71	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1732.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 4_20M_QPSK_CH20175	Date:	09/18/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3465.000	-42.41	-1.11	-43.52	-13.00	-30.52	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1745MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 4_20M_QPSK_CH20300	Date:	09/18/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3490.000	-52.21	-1.08	-53.29	-13.00	-40.29	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1745MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 4_20M_QPSK_CH20300	Date:	09/18/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3490.000	-40.61	-1.08	-41.69	-13.00	-28.69	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1732.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 4_20M-16QAM_CH20175	Date:	09/18/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3465.000	-54.10	-1.11	-55.21	-13.00	-42.21	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1732.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 4_20M-16QAM_CH20175	Date:	09/18/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3465.000	-51.22	-1.11	-52.33	-13.00	-39.33	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1711.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 4_3M_QPSK_CH19965	Date:	09/18/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3423.000	-51.41	-1.19	-52.60	-13.00	-39.60	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1711.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 4_3M_QPSK_CH19965	Date:	09/18/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3423.000	-47.25	-1.19	-48.44	-13.00	-35.44	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1732.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 4_3M_QPSK_CH20175	Date:	09/18/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3465.000	-46.53	-1.11	-47.64	-13.00	-34.64	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1732.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 4_3M_QPSK_CH20175	Date:	09/18/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3465.000	-40.58	-1.11	-41.69	-13.00	-28.69	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1753.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 4_3M_QPSK_CH20385	Date:	09/18/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3507.000	-46.66	-1.03	-47.69	-13.00	-34.69	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1753.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 4_3M_QPSK_CH20385	Date:	09/18/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3507.000	-43.60	-1.03	-44.63	-13.00	-31.63	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1732.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 4_3M-16QAM_CH20175	Date:	09/18/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3465.000	-53.70	-1.11	-54.81	-13.00	-41.81	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1732.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 4_3M-16QAM_CH20175	Date:	09/18/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3465.000	-54.26	-1.11	-55.37	-13.00	-42.37	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1712.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 4_5M_QPSK_CH19975	Date:	09/18/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3425.000	-52.30	-1.18	-53.48	-13.00	-40.48	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1712.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 4_5M_QPSK_CH19975	Date:	09/18/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3425.000	-46.85	-1.18	-48.03	-13.00	-35.03	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1732.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 4_5M_QPSK_CH20175	Date:	09/18/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3465.000	-53.00	-1.11	-54.11	-13.00	-41.11	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1732.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 4_5M_QPSK_CH20175	Date:	09/18/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3465.000	-45.60	-1.11	-46.71	-13.00	-33.71	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1752.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 4_5M_QPSK_CH20375	Date:	09/18/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3505.000	-52.72	-1.05	-53.77	-13.00	-40.77	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1752.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 4_5M_QPSK_CH20375	Date:	09/18/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3505.000	-51.50	-1.05	-52.55	-13.00	-39.55	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1732.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 4_5M-16QAM_CH20175	Date:	09/18/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3465.000	-54.07	-1.11	-55.18	-13.00	-42.18	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	1732.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 4_5M-16QAM_CH20175	Date:	09/18/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	3465.000	-53.57	-1.11	-54.68	-13.00	-41.68	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	824.7MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 5_1.4M_QPSK_CH20407	Date:	09/19/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1649.400	-52.54	-6.18	-58.72	-13.00	-45.72	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	824.7MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 5_1.4M_QPSK_CH20407	Date:	09/19/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1649.400	-52.74	-6.18	-58.92	-13.00	-45.92	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	836.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 5_1.4M_QPSK_CH20525	Date:	09/19/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1673.000	-53.14	-6.10	-59.24	-13.00	-46.24	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	836.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 5_1.4M_QPSK_CH20525	Date:	09/19/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1673.000	-52.78	-6.10	-58.88	-13.00	-45.88	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	848.3MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 5_1.4M_QPSK_CH20643	Date:	09/19/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1696.600	-53.65	-6.04	-59.69	-13.00	-46.69	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	848.3MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 5_1.4M_QPSK_CH20643	Date:	09/19/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1696.600	-53.48	-6.04	-59.52	-13.00	-46.52	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	836.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 5_1.4M-16QAM_CH20525	Date:	09/19/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1673.000	-52.02	-6.10	-58.12	-13.00	-45.12	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	836.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 5_1.4M-16QAM_CH20525	Date:	09/19/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1673.000	-50.58	-6.10	-56.68	-13.00	-43.68	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	829MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 5_10M_QPSK_CH20450	Date:	09/19/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1658.000	-53.28	-6.16	-59.44	-13.00	-46.44	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	829MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 5_10M_QPSK_CH20450	Date:	09/19/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1658.000	-52.36	-6.16	-58.52	-13.00	-45.52	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	836.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 5_10M_QPSK_CH20525	Date:	09/19/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1673.000	-52.16	-6.10	-58.26	-13.00	-45.26	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	836.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 5_10M_QPSK_CH20525	Date:	09/19/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1673.000	-51.91	-6.10	-58.01	-13.00	-45.01	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	844MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 5_10M_QPSK_CH20600	Date:	09/19/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1688.000	-53.40	-6.06	-59.46	-13.00	-46.46	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	844MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 5_10M_QPSK_CH20600	Date:	09/19/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1688.000	-52.53	-6.06	-58.59	-13.00	-45.59	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	836.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 5_10M-16QAM_CH20525	Date:	09/19/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1673.000	-52.89	-6.10	-58.99	-13.00	-45.99	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	836.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 5_10M-16QAM_CH20525	Date:	09/19/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1673.000	-53.69	-6.10	-59.79	-13.00	-46.79	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	825.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 5_3M_QPSK_CH20415	Date:	09/19/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1651.000	-52.17	-6.17	-58.34	-13.00	-45.34	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	825.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 5_3M_QPSK_CH20415	Date:	09/19/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1651.000	-51.88	-6.17	-58.05	-13.00	-45.05	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	836.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 5_3M_QPSK_CH20525	Date:	09/19/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1673.000	-51.75	-6.10	-57.85	-13.00	-44.85	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	836.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 5_3M_QPSK_CH20525	Date:	09/19/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1673.000	-53.06	-6.10	-59.16	-13.00	-46.16	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	847.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 5_3M_QPSK_CH20635	Date:	09/19/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1695.000	-51.95	-6.03	-57.98	-13.00	-44.98	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	847.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 5_3M_QPSK_CH20635	Date:	09/19/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1695.000	-51.95	-6.03	-57.98	-13.00	-44.98	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	836.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 5_3M-16QAM_CH20525	Date:	09/19/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1673.000	-52.04	-6.10	-58.14	-13.00	-45.14	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	836.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 5_3M-16QAM_CH20525	Date:	09/19/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1673.000	-52.00	-6.10	-58.10	-13.00	-45.10	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	826.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 5_5M_QPSK_CH20425	Date:	09/19/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1653.000	-53.06	-6.17	-59.23	-13.00	-46.23	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	826.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 5_5M_QPSK_CH20425	Date:	09/19/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1653.000	-52.44	-6.17	-58.61	-13.00	-45.61	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	836.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 5_5M_QPSK_CH20525	Date:	09/19/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1673.000	-52.26	-6.10	-58.36	-13.00	-45.36	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	836.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 5_5M_QPSK_CH20525	Date:	09/19/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1673.000	-51.99	-6.10	-58.09	-13.00	-45.09	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	846.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 5_5M_QPSK_CH20625	Date:	09/19/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1693.000	-53.42	-6.04	-59.46	-13.00	-46.46	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	846.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 5_5M_QPSK_CH20625	Date:	09/19/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1693.000	-51.65	-6.04	-57.69	-13.00	-44.69	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	836.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 5_5M-16QAM_CH20525	Date:	09/19/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1673.000	-52.56	-6.10	-58.66	-13.00	-45.66	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	836.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 5_5M-16QAM_CH20525	Date:	09/19/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1673.000	-52.22	-6.10	-58.32	-13.00	-45.32	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	699.7MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 12_1.4M_QPSK_CH23017	Date:	09/19/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1399.400	-50.97	-7.09	-58.06	-13.00	-45.06	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	699.7MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 12_1.4M_QPSK_CH23017	Date:	09/19/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1399.400	-50.98	-7.09	-58.07	-13.00	-45.07	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	707.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 12_1.4M_QPSK_CH23095	Date:	09/19/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1415.000	-51.80	-7.02	-58.82	-13.00	-45.82	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	707.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 12_1.4M_QPSK_CH23095	Date:	09/19/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1415.000	-53.66	-7.02	-60.68	-13.00	-47.68	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	715.3MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 12_1.4M_QPSK_CH23173	Date:	09/19/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1430.600	-51.57	-6.96	-58.53	-13.00	-45.53	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	715.3MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 12_1.4M_QPSK_CH23173	Date:	09/19/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1430.600	-50.69	-6.96	-57.65	-13.00	-44.65	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	707.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 12_1.4M-16QAM_CH23095	Date:	09/19/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1415.000	-52.49	-7.02	-59.51	-13.00	-46.51	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	707.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 12_1.4M-16QAM_CH23095	Date:	09/19/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1415.000	-51.31	-7.02	-58.33	-13.00	-45.33	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	704MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 12_10M_QPSK_CH23060	Date:	09/19/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1408.000	-52.00	-7.05	-59.05	-13.00	-46.05	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	704MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 12_10M_QPSK_CH23060	Date:	09/19/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1408.000	-51.04	-7.05	-58.09	-13.00	-45.09	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	707.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 12_10M_QPSK_CH23095	Date:	09/19/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1415.000	-51.91	-7.02	-58.93	-13.00	-45.93	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	707.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 12_10M_QPSK_CH23095	Date:	09/19/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1415.000	-52.66	-7.02	-59.68	-13.00	-46.68	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	711MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 12_10M_QPSK_CH23130	Date:	09/19/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1422.000	-49.50	-6.99	-56.49	-13.00	-43.49	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	711MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 12_10M_QPSK_CH23130	Date:	09/19/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1422.000	-50.66	-6.99	-57.65	-13.00	-44.65	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	707.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 12_10M-16QAM_CH23095	Date:	09/19/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1415.000	-50.93	-7.02	-57.95	-13.00	-44.95	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	707.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 12_10M-16QAM_CH23095	Date:	09/19/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1415.000	-50.75	-7.02	-57.77	-13.00	-44.77	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	700.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 12_3M_QPSK_CH23025	Date:	09/19/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1401.000	-52.26	-7.08	-59.34	-13.00	-46.34	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	700.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 12_3M_QPSK_CH23025	Date:	09/19/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1401.000	-53.18	-7.08	-60.26	-13.00	-47.26	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	707.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 12_3M_QPSK_CH23095	Date:	09/19/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1415.000	-51.91	-7.02	-58.93	-13.00	-45.93	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	707.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 12_3M_QPSK_CH23095	Date:	09/19/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1415.000	-51.45	-7.02	-58.47	-13.00	-45.47	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	714.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 12_3M_QPSK_CH23165	Date:	09/19/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1429.000	-51.43	-6.96	-58.39	-13.00	-45.39	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	714.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 12_3M_QPSK_CH23165	Date:	09/19/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1429.000	-52.58	-6.96	-59.54	-13.00	-46.54	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	707.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 12_3M-16QAM_CH23095	Date:	09/19/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1415.000	-51.01	-7.02	-58.03	-13.00	-45.03	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	707.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 12_3M-16QAM_CH23095	Date:	09/19/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1415.000	-51.84	-7.02	-58.86	-13.00	-45.86	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	701.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 12_5M_QPSK_CH23035	Date:	09/19/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1403.000	-52.43	-7.07	-59.50	-13.00	-46.50	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	701.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 12_5M_QPSK_CH23035	Date:	09/19/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1403.000	-51.59	-7.07	-58.66	-13.00	-45.66	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	707.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 12_5M_QPSK_CH23095	Date:	09/19/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1415.000	-51.70	-7.02	-58.72	-13.00	-45.72	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	707.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 12_5M_QPSK_CH23095	Date:	09/19/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1415.000	-50.31	-7.02	-57.33	-13.00	-44.33	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	713.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 12_5M_QPSK_CH23155	Date:	09/19/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1427.000	-50.49	-6.96	-57.45	-13.00	-44.45	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	713.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 12_5M_QPSK_CH23155	Date:	09/19/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1427.000	-50.05	-6.96	-57.01	-13.00	-44.01	peak



Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	707.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 12_5M-16QAM_CH23095	Date:	09/19/2017
Ant.Polar.:	Horizontal		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1415.000	-52.66	-7.02	-59.68	-13.00	-46.68	peak

Standard:	Part 22H&24E&27	Test Distance:	3m
Test item:	Harmonic	Power:	AC 120V/60Hz
Frequency:	707.5MHz	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	4G_BAND 12_5M-16QAM_CH23095	Date:	09/19/2017
Ant.Polar.:	Vertical		

No.	Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	1415.000	-52.10	-7.02	-59.12	-13.00	-46.12	peak



Appendix : Frequency Stability/ Emission Bandwidth & Occupied Bandwidth/ Peak to Average Ratio/ Band Edge/ Conducted Spurious Emission

The equipment passed the requirement of this clause, the detail results refer to "Test Results_Band2/Band4/Band5/Band12.