



RF TEST REPORT

Applicant Positioning Universal Inc
FCC ID 2AHRH-FT750
Product In-cab advanced telematics tracker
Model FT750-L43Q-GL
Report No. R2010A0681-R4V1
Issue Date April 2, 2021

TA Technology (Shanghai) Co., Ltd. tested the above equipment in accordance with the requirements in **FCC CFR47 Part 2 (2019)/ FCC CFR47 Part 27C (2019)**. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Prepared by: Peng Tao

Approved by: Kai Xu

TA Technology (Shanghai) Co., Ltd.

No.145, Jintang Rd, Tangzhen Industry Park, Pudong Shanghai, China

TEL: +86-021-50791141/2/3

FAX: +86-021-50791141/2/3-8000



TABLE OF CONTENT

1	Test Laboratory.....	5
1.1	Notes of the Test Report	5
1.2.	Test facility	5
1.3	Testing Location.....	5
2	General Description of Equipment under Test.....	6
2.1	Applicant and Manufacturer Information.....	6
2.2	General information.....	6
3	Applied Standards	7
4	Test Configuration	8
5	Test Case Results	9
5.1	RF Power Output and Effective Isotropic Radiated Power	9
5.2	Radiates Spurious Emission	22
6	Main Test Instruments	30
	ANNEX A: The EUT Appearance.....	31
	ANNEX B: Test Setup Photos.....	32



Version	Revision description	Issue Date
Rev.0	Initial issue of report.	January 18, 2021
Rev.1	Update description	April 2, 2021
Note: This revised report (Report No. R2010A0681-R4V1) supersedes and replaces the previously issued report (Report No. R2010A0681-R4). Please discard or destroy the previously issued report and dispose of it accordingly.		

Summary of Measurement Results

Number	Test Case	Clause in FCC rules	Verdict
1	RF Power Output and Effective Isotropic Radiated Power	2.1046 27.50(d)(4) /27.50(b)(10) /27.50(c)(10)	PASS
2	Radiates Spurious Emission	2.1053 /27.53(h) /27.53(g) /27.53(f)	PASS
Date of Testing: October 15, 2020 ~ November 2, 2020			
Date of Sample Received: October 13, 2020			
Note: PASS: The EUT complies with the essential requirements in the standard. FAIL: The EUT does not comply with the essential requirements in the standard. All indications of Pass/Fail in this report are opinions expressed by TA Technology (Shanghai) Co., Ltd. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only.			

This report only tests Radiates Spurious Emission and recalculates Effective Radiated Power. The test value of the conduction part is referred to the module report. (Report No. HR/2019/1001601)



1 Test Laboratory

1.1 Notes of the Test Report

This report shall not be reproduced in full or partial, without the written approval of **TA technology (shanghai) co., Ltd.** The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. Measurement Uncertainties were not taken into account and are published for informational purposes only. This report is written to support regulatory compliance of the applicable standards stated above.

1.2. Test facility

FCC (Designation number: CN1179, Test Firm Registration Number: 446626)

TA Technology (Shanghai) Co., Ltd. has been listed on the US Federal Communications Commission list of test facilities recognized to perform electromagnetic emissions measurements.

A2LA (Certificate Number: 3857.01)

TA Technology (Shanghai) Co., Ltd. has been listed by American Association for Laboratory Accreditation to perform electromagnetic emission measurement.

1.3 Testing Location

Company: TA Technology (Shanghai) Co., Ltd.
Address: No.145, Jintang Rd, Tangzhen Industry Park, Pudong Shanghai, China
City: Shanghai
Post code: 201201
Country: P. R. China
Contact: Xu Kai
Telephone: +86-021-50791141/2/3
Fax: +86-021-50791141/2/3-8000
Website: <http://www.ta-shanghai.com>
E-mail: xukai@ta-shanghai.com

2 General Description of Equipment under Test

2.1 Applicant and Manufacturer Information

Applicant	Positioning Universal Inc
Applicant address	4660 La Jolla Village Drive Suite 1100, San Diego, California, United States
Manufacturer	Positioning Universal Inc
Manufacturer address	4660 La Jolla Village Drive Suite 1100, San Diego, California, United States

2.2 General information

EUT Description			
Model	FT750-L43Q-GL		
IMEI	015937000000030		
Hardware Version	P0		
Software Version	2.4.17		
Power Supply	External Power Supply		
Antenna Type	Internal Antenna/External Antenna		
Antenna Gain	Internal Antenna: WCDMA Band IV / LTE Band 4: 1dBi LTE Band 12/13: 0dBi External Antenna: 2dBi		
Test Mode(s)	WCDMA Band IV; LTE Band 4; LTE Band 12, LTE Band 13;		
Test Modulation	(WCDMA) BPSK, QPSK,16QAM; (LTE)QPSK 16QAM;		
Maximum E.I.R.P./ E.R.P.	WCDMA Band IV:	25.82dBm	
	LTE Band 4:	26.91dBm	
	LTE Band 12:	24.00dBm	
	LTE Band 13:	23.98dBm	
Rated Power Supply Voltage:	12V		
Extreme Voltage	Minimum: 6V Maximum: 48V		
Extreme Temperature	Lowest: -30°C Highest: +50°C		
Operating Voltage	Minimum: 6V Maximum: 48V		
Operating Temperature	Lowest: -40°C Highest: +85°C		
Operating Frequency Range(s)	Mode	Tx (MHz)	Rx (MHz)
	WCDMA Band IV	1710 ~ 1755	2110 ~ 2155
	LTE Band 4	1710 ~ 1755	2110 ~ 2155
	LTE Band 12	699 ~ 716	729 ~ 746
	LTE Band 13	777 ~ 787	746 ~ 756
Note: 1. The EUT is sent from the applicant to TA and the information of the EUT is declared by the applicant.			



3 Applied Standards

According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

Test standards:

FCC CFR47 Part 27C (2019)

ANSI C63.26 (2015)

Reference standard:

FCC CFR47 Part 2 (2019)

KDB 971168 D01 Power Meas License Digital Systems v03r01

4 Test Configuration

Radiated measurements are performed by rotating the EUT in three different orthogonal test planes. EUT stand-up position (Z axis), lie-down position (X, Y axis). Receiver antenna polarization (horizontal and vertical), the worst emission was found in position (Z axis, horizontal polarization) and the worst case was recorded.

All mode and data rates and positions and RB size and modulations were investigated.

Subsequently, only the worst case emissions are reported.

The following testing in WCDMA/LTE is set based on the maximum RF Output Power.

The following testing in different Bandwidth is set to detail in the following table:

Test modes are chosen to be reported as the worst case configuration below for WCDMA Band IV:

Test items	Modes/Modulation
	WCDMA Band IV
RF Power Output and Effective Isotropic Radiated Power	RMC
Radiates Spurious Emission	RMC

Test modes are chosen to be reported as the worst case configuration below for LTE Band 4/12/13:

Test items	Modes	Bandwidth (MHz)						Modulation		RB			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	1	50%	100%	L	M	H
RF Power Output and Effective Isotropic Radiated Power	LTE 4	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	LTE 12	O	O	O	O	-	-	O	O	O	O	O	O	O	O
	LTE 13	-	-	O	O	-	-	O	O	O	O	O	O	O	O
Radiates Spurious Emission	LTE 4	O	-	O	-	-	O	O	-	O	-	-	-	O	-
	LTE 12	O	-	O	O	-	-	O	-	O	-	-	-	O	-
	LTE 13	-	-	O	O	-	-	O	-	O	-	-	-	O	-
Note	1. The mark "O" means that this configuration is chosen for testing. 2. The mark "-" means that this configuration is not testing.														

5 Test Case Results

5.1 RF Power Output and Effective Isotropic Radiated Power

Ambient condition

Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

Methods of Measurement

During the process of the testing, The EUT was connected to the Base Station Simulator with a known loss. The EUT is controlled by the Base Station Simulator test set to ensure max power transmission with proper modulation.

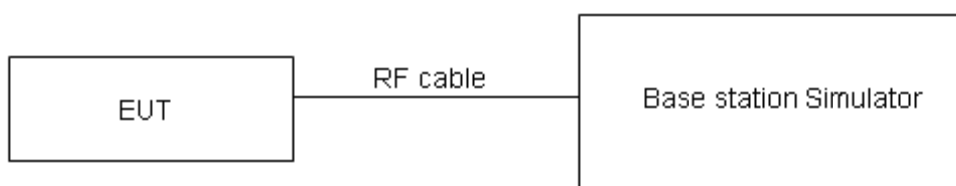
ERP can then be calculated as follows:

$$\text{EIRP (dBm)} = \text{Output Power (dBm)} - \text{Losses (dB)} + \text{Antenna Gain (dBi)}$$

where:dBd refers to gain relative to an ideal dipole.

$$\text{EIRP (dBm)} = \text{ERP (dBm)} + 2.15 \text{ (dB.)}$$

Test Setup



Limits

No specific RF power output requirements in part 2.1046.

Rule Part 27.50(b) (10) specifies that “Portable stations (hand-held devices) transmitting in the 746-757 MHz, 776-788 MHz, and 805-806 MHz bands are limited to 3 watts ERP”

Rule Part 27.50(c) (10) specifies that “Portable stations (hand-held devices) in the 600 MHz uplink band and the 698-746 MHz band, and fixed and mobile stations in the 600 MHz uplink band are limited to 3 watts ERP”

Rule Part 27.50(d) (4) specifies that “Fixed, mobile and portable (hand-held) stations operating in the 1710–1755 MHz band are limited to 1 watt EIRP”

Part 27.50(b)(10)Limit	$\leq 3 \text{ W}$ (34.77 dBm)
Part 27.50(c)(10)Limit	$\leq 3 \text{ W}$ (34.77 dBm)
Part 27.50(d)(4)Limit	$\leq 1 \text{ W}$ (30 dBm)

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = 2$, $U=0.4 \text{ dB}$ for RF power output, $k = 2$, $U= 1.19 \text{ dB}$ for ERP/EIRP.



Test Results

WCDMA Band IV		Maximum Output Power (dBm)			EIRP (dBm) Internal Antenna			EIRP (dBm) External Antenna		
		Channel 1312	Channel 1413	Channel 1513	Channel 1312	Channel 1413	Channel 1513	Channel 1312	Channel 1413	Channel 1513
		1712.4 (MHz)	1732.6 (MHz)	1752.6 (MHz)	1712.4 (MHz)	1732.6 (MHz)	1752.6 (MHz)	1712.4 (MHz)	1732.6 (MHz)	1752.6 (MHz)
RMC	12.2k	23.82	23.74	23.64	24.82	24.74	24.64	25.82	25.74	25.64

Band	Bandwidth	Modulation	Channel	RB Configuration	Maximum Output Power(dBm)	EIRP (dBm) Internal Antenna	EIRP (dBm) External Antenna	Verdict
LTE Band 4	1.4M	QPSK	19957	1RB#0	23.04	24.04	25.04	PASS
LTE Band 4	1.4M	QPSK	19957	1RB#2	23.12	24.12	25.12	PASS
LTE Band 4	1.4M	QPSK	19957	1RB#5	23.21	24.21	25.21	PASS
LTE Band 4	1.4M	QPSK	19957	3RB#0	23.18	24.18	25.18	PASS
LTE Band 4	1.4M	QPSK	19957	3RB#1	23.37	24.37	25.37	PASS
LTE Band 4	1.4M	QPSK	19957	3RB#3	23.41	24.41	25.41	PASS
LTE Band 4	1.4M	QPSK	19957	6RB#0	22.41	23.41	24.41	PASS
LTE Band 4	1.4M	QPSK	20175	1RB#0	23.03	24.03	25.03	PASS
LTE Band 4	1.4M	QPSK	20175	1RB#2	23.11	24.11	25.11	PASS
LTE Band 4	1.4M	QPSK	20175	1RB#5	23.14	24.14	25.14	PASS
LTE Band 4	1.4M	QPSK	20175	3RB#0	23.06	24.06	25.06	PASS
LTE Band 4	1.4M	QPSK	20175	3RB#1	23.31	24.31	25.31	PASS
LTE Band 4	1.4M	QPSK	20175	3RB#3	23.25	24.25	25.25	PASS
LTE Band 4	1.4M	QPSK	20175	6RB#0	22.17	23.17	24.17	PASS
LTE Band 4	1.4M	QPSK	20393	1RB#0	22.97	23.97	24.97	PASS
LTE Band 4	1.4M	QPSK	20393	1RB#2	23.11	24.11	25.11	PASS
LTE Band 4	1.4M	QPSK	20393	1RB#5	23.02	24.02	25.02	PASS
LTE Band 4	1.4M	QPSK	20393	3RB#0	23.04	24.04	25.04	PASS
LTE Band 4	1.4M	QPSK	20393	3RB#1	23.27	24.27	25.27	PASS
LTE Band 4	1.4M	QPSK	20393	3RB#3	23.24	24.24	25.24	PASS
LTE Band 4	1.4M	QPSK	20393	6RB#0	22.23	23.23	24.23	PASS
LTE Band 4	1.4M	16QAM	19957	1RB#0	21.94	22.94	23.94	PASS
LTE Band 4	1.4M	16QAM	19957	1RB#2	22.07	23.07	24.07	PASS
LTE Band 4	1.4M	16QAM	19957	1RB#5	21.96	22.96	23.96	PASS
LTE Band 4	1.4M	16QAM	19957	3RB#0	22.47	23.47	24.47	PASS
LTE Band 4	1.4M	16QAM	19957	3RB#1	22.59	23.59	24.59	PASS
LTE Band 4	1.4M	16QAM	19957	3RB#3	22.43	23.43	24.43	PASS
LTE Band 4	1.4M	16QAM	19957	6RB#0	21.45	22.45	23.45	PASS



LTE Band 4	1.4M	16QAM	20175	1RB#0	21.76	22.76	23.76	PASS
LTE Band 4	1.4M	16QAM	20175	1RB#2	22.03	23.03	24.03	PASS
LTE Band 4	1.4M	16QAM	20175	1RB#5	21.77	22.77	23.77	PASS
LTE Band 4	1.4M	16QAM	20175	3RB#0	22.44	23.44	24.44	PASS
LTE Band 4	1.4M	16QAM	20175	3RB#2	22.41	23.41	24.41	PASS
LTE Band 4	1.4M	16QAM	20175	3RB#3	22.44	23.44	24.44	PASS
LTE Band 4	1.4M	16QAM	20175	6RB#0	21.26	22.26	23.26	PASS
LTE Band 4	1.4M	16QAM	20393	1RB#0	21.72	22.72	23.72	PASS
LTE Band 4	1.4M	16QAM	20393	1RB#2	21.84	22.84	23.84	PASS
LTE Band 4	1.4M	16QAM	20393	1RB#5	21.70	22.70	23.70	PASS
LTE Band 4	1.4M	16QAM	20393	3RB#0	22.29	23.29	24.29	PASS
LTE Band 4	1.4M	16QAM	20393	3RB#2	22.53	23.53	24.53	PASS
LTE Band 4	1.4M	16QAM	20393	3RB#3	22.48	23.48	24.48	PASS
LTE Band 4	1.4M	16QAM	20393	6RB#0	21.42	22.42	23.42	PASS
LTE Band 4	3M	QPSK	19965	1RB#0	23.14	24.14	25.14	PASS
LTE Band 4	3M	QPSK	19965	1RB#7	23.26	24.26	25.26	PASS
LTE Band 4	3M	QPSK	19965	1RB#14	23.07	24.07	25.07	PASS
LTE Band 4	3M	QPSK	19965	8RB#0	22.36	23.36	24.36	PASS
LTE Band 4	3M	QPSK	19965	8RB#4	22.35	23.35	24.35	PASS
LTE Band 4	3M	QPSK	19965	8RB#7	22.23	23.23	24.23	PASS
LTE Band 4	3M	QPSK	19965	15RB#0	22.41	23.41	24.41	PASS
LTE Band 4	3M	QPSK	20175	1RB#0	23.10	24.10	25.10	PASS
LTE Band 4	3M	QPSK	20175	1RB#7	23.09	24.09	25.09	PASS
LTE Band 4	3M	QPSK	20175	1RB#14	23.16	24.16	25.16	PASS
LTE Band 4	3M	QPSK	20175	8RB#0	22.24	23.24	24.24	PASS
LTE Band 4	3M	QPSK	20175	8RB#4	22.26	23.26	24.26	PASS
LTE Band 4	3M	QPSK	20175	8RB#7	22.14	23.14	24.14	PASS
LTE Band 4	3M	QPSK	20175	15RB#0	22.16	23.16	24.16	PASS
LTE Band 4	3M	QPSK	20385	1RB#0	23.06	24.06	25.06	PASS
LTE Band 4	3M	QPSK	20385	1RB#7	22.77	23.77	24.77	PASS
LTE Band 4	3M	QPSK	20385	1RB#14	22.97	23.97	24.97	PASS
LTE Band 4	3M	QPSK	20385	8RB#0	22.12	23.12	24.12	PASS
LTE Band 4	3M	QPSK	20385	8RB#4	22.07	23.07	24.07	PASS
LTE Band 4	3M	QPSK	20385	8RB#7	22.12	23.12	24.12	PASS
LTE Band 4	3M	QPSK	20385	15RB#0	22.13	23.13	24.13	PASS
LTE Band 4	3M	16QAM	19965	1RB#0	21.95	22.95	23.95	PASS
LTE Band 4	3M	16QAM	19965	1RB#7	21.88	22.88	23.88	PASS
LTE Band 4	3M	16QAM	19965	1RB#14	21.98	22.98	23.98	PASS
LTE Band 4	3M	16QAM	19965	8RB#0	21.21	22.21	23.21	PASS
LTE Band 4	3M	16QAM	19965	8RB#4	21.29	22.29	23.29	PASS
LTE Band 4	3M	16QAM	19965	8RB#7	21.26	22.26	23.26	PASS
LTE Band 4	3M	16QAM	19965	15RB#0	21.37	22.37	23.37	PASS
LTE Band 4	3M	16QAM	20175	1RB#0	21.80	22.80	23.80	PASS



LTE Band 4	3M	16QAM	20175	1RB#7	21.76	22.76	23.76	PASS
LTE Band 4	3M	16QAM	20175	1RB#14	21.77	22.77	23.77	PASS
LTE Band 4	3M	16QAM	20175	8RB#0	21.14	22.14	23.14	PASS
LTE Band 4	3M	16QAM	20175	8RB#4	21.10	22.10	23.10	PASS
LTE Band 4	3M	16QAM	20175	8RB#7	21.16	22.16	23.16	PASS
LTE Band 4	3M	16QAM	20175	15RB#0	21.30	22.30	23.30	PASS
LTE Band 4	3M	16QAM	20385	1RB#0	21.61	22.61	23.61	PASS
LTE Band 4	3M	16QAM	20385	1RB#7	21.73	22.73	23.73	PASS
LTE Band 4	3M	16QAM	20385	1RB#14	21.82	22.82	23.82	PASS
LTE Band 4	3M	16QAM	20385	8RB#0	21.10	22.10	23.10	PASS
LTE Band 4	3M	16QAM	20385	8RB#4	21.00	22.00	23.00	PASS
LTE Band 4	3M	16QAM	20385	8RB#7	21.04	22.04	23.04	PASS
LTE Band 4	3M	16QAM	20385	15RB#0	21.30	22.30	23.30	PASS
LTE Band 4	5M	QPSK	19975	1RB#0	23.07	24.07	25.07	PASS
LTE Band 4	5M	QPSK	19975	1RB#13	22.84	23.84	24.84	PASS
LTE Band 4	5M	QPSK	19975	1RB#24	22.91	23.91	24.91	PASS
LTE Band 4	5M	QPSK	19975	12RB#0	22.43	23.43	24.43	PASS
LTE Band 4	5M	QPSK	19975	12RB#6	22.25	23.25	24.25	PASS
LTE Band 4	5M	QPSK	19975	12RB#13	22.23	23.23	24.23	PASS
LTE Band 4	5M	QPSK	19975	25RB#0	22.27	23.27	24.27	PASS
LTE Band 4	5M	QPSK	20175	1RB#0	22.99	23.99	24.99	PASS
LTE Band 4	5M	QPSK	20175	1RB#13	23.18	24.18	25.18	PASS
LTE Band 4	5M	QPSK	20175	1RB#24	23.13	24.13	25.13	PASS
LTE Band 4	5M	QPSK	20175	12RB#0	22.16	23.16	24.16	PASS
LTE Band 4	5M	QPSK	20175	12RB#6	22.23	23.23	24.23	PASS
LTE Band 4	5M	QPSK	20175	12RB#13	22.32	23.32	24.32	PASS
LTE Band 4	5M	QPSK	20175	25RB#0	22.15	23.15	24.15	PASS
LTE Band 4	5M	QPSK	20375	1RB#0	23.08	24.08	25.08	PASS
LTE Band 4	5M	QPSK	20375	1RB#13	23.09	24.09	25.09	PASS
LTE Band 4	5M	QPSK	20375	1RB#24	22.85	23.85	24.85	PASS
LTE Band 4	5M	QPSK	20375	12RB#0	22.22	23.22	24.22	PASS
LTE Band 4	5M	QPSK	20375	12RB#6	22.14	23.14	24.14	PASS
LTE Band 4	5M	QPSK	20375	12RB#13	22.13	23.13	24.13	PASS
LTE Band 4	5M	QPSK	20375	25RB#0	22.29	23.29	24.29	PASS
LTE Band 4	5M	16QAM	19975	1RB#0	21.94	22.94	23.94	PASS
LTE Band 4	5M	16QAM	19975	1RB#13	22.25	23.25	24.25	PASS
LTE Band 4	5M	16QAM	19975	1RB#24	21.89	22.89	23.89	PASS
LTE Band 4	5M	16QAM	19975	12RB#0	21.27	22.27	23.27	PASS
LTE Band 4	5M	16QAM	19975	12RB#6	21.24	22.24	23.24	PASS
LTE Band 4	5M	16QAM	19975	12RB#13	21.13	22.13	23.13	PASS
LTE Band 4	5M	16QAM	19975	25RB#0	21.35	22.35	23.35	PASS
LTE Band 4	5M	16QAM	20175	1RB#0	21.82	22.82	23.82	PASS
LTE Band 4	5M	16QAM	20175	1RB#13	22.26	23.26	24.26	PASS



LTE Band 4	5M	16QAM	20175	1RB#24	21.80	22.80	23.80	PASS
LTE Band 4	5M	16QAM	20175	12RB#0	21.13	22.13	23.13	PASS
LTE Band 4	5M	16QAM	20175	12RB#6	21.16	22.16	23.16	PASS
LTE Band 4	5M	16QAM	20175	12RB#13	21.11	22.11	23.11	PASS
LTE Band 4	5M	16QAM	20175	25RB#0	21.10	22.10	23.10	PASS
LTE Band 4	5M	16QAM	20375	1RB#0	21.68	22.68	23.68	PASS
LTE Band 4	5M	16QAM	20375	1RB#13	21.92	22.92	23.92	PASS
LTE Band 4	5M	16QAM	20375	1RB#24	21.97	22.97	23.97	PASS
LTE Band 4	5M	16QAM	20375	12RB#0	21.20	22.20	23.20	PASS
LTE Band 4	5M	16QAM	20375	12RB#6	21.06	22.06	23.06	PASS
LTE Band 4	5M	16QAM	20375	12RB#13	21.25	22.25	23.25	PASS
LTE Band 4	5M	16QAM	20375	25RB#0	21.27	22.27	23.27	PASS
LTE Band 4	10M	QPSK	20000	1RB#0	23.23	24.23	25.23	PASS
LTE Band 4	10M	QPSK	20000	1RB#25	23.69	24.69	25.69	PASS
LTE Band 4	10M	QPSK	20000	1RB#49	22.79	23.79	24.79	PASS
LTE Band 4	10M	QPSK	20000	25RB#0	23.86	24.86	25.86	PASS
LTE Band 4	10M	QPSK	20000	25RB#13	22.55	23.55	24.55	PASS
LTE Band 4	10M	QPSK	20000	25RB#25	22.20	23.20	24.20	PASS
LTE Band 4	10M	QPSK	20000	50RB#0	22.43	23.43	24.43	PASS
LTE Band 4	10M	QPSK	20175	1RB#0	22.96	23.96	24.96	PASS
LTE Band 4	10M	QPSK	20175	1RB#25	23.83	24.83	25.83	PASS
LTE Band 4	10M	QPSK	20175	1RB#49	22.83	23.83	24.83	PASS
LTE Band 4	10M	QPSK	20175	25RB#0	22.31	23.31	24.31	PASS
LTE Band 4	10M	QPSK	20175	25RB#13	22.47	23.47	24.47	PASS
LTE Band 4	10M	QPSK	20175	25RB#25	22.25	23.25	24.25	PASS
LTE Band 4	10M	QPSK	20175	50RB#0	22.14	23.14	24.14	PASS
LTE Band 4	10M	QPSK	20350	1RB#0	22.86	23.86	24.86	PASS
LTE Band 4	10M	QPSK	20350	1RB#25	23.43	24.43	25.43	PASS
LTE Band 4	10M	QPSK	20350	1RB#49	22.65	23.65	24.65	PASS
LTE Band 4	10M	QPSK	20350	25RB#0	22.41	23.41	24.41	PASS
LTE Band 4	10M	QPSK	20350	25RB#13	22.31	23.31	24.31	PASS
LTE Band 4	10M	QPSK	20350	25RB#25	22.13	23.13	24.13	PASS
LTE Band 4	10M	QPSK	20350	50RB#0	22.24	23.24	24.24	PASS
LTE Band 4	10M	16QAM	20000	1RB#0	22.09	23.09	24.09	PASS
LTE Band 4	10M	16QAM	20000	1RB#25	22.20	23.20	24.20	PASS
LTE Band 4	10M	16QAM	20000	1RB#49	22.09	23.09	24.09	PASS
LTE Band 4	10M	16QAM	20000	25RB#0	21.51	22.51	23.51	PASS
LTE Band 4	10M	16QAM	20000	25RB#13	21.40	22.40	23.40	PASS
LTE Band 4	10M	16QAM	20000	25RB#25	21.32	22.32	23.32	PASS
LTE Band 4	10M	16QAM	20000	50RB#0	21.53	22.53	23.53	PASS
LTE Band 4	10M	16QAM	20175	1RB#0	21.80	22.80	23.80	PASS
LTE Band 4	10M	16QAM	20175	1RB#25	22.06	23.06	24.06	PASS
LTE Band 4	10M	16QAM	20175	1RB#49	21.84	22.84	23.84	PASS



LTE Band 4	10M	16QAM	20175	25RB#0	21.34	22.34	23.34	PASS
LTE Band 4	10M	16QAM	20175	25RB#13	21.43	22.43	23.43	PASS
LTE Band 4	10M	16QAM	20175	25RB#25	21.33	22.33	23.33	PASS
LTE Band 4	10M	16QAM	20175	50RB#0	21.20	22.20	23.20	PASS
LTE Band 4	10M	16QAM	20350	1RB#0	21.94	22.94	23.94	PASS
LTE Band 4	10M	16QAM	20350	1RB#25	21.85	22.85	23.85	PASS
LTE Band 4	10M	16QAM	20350	1RB#49	22.10	23.10	24.10	PASS
LTE Band 4	10M	16QAM	20350	25RB#0	21.27	22.27	23.27	PASS
LTE Band 4	10M	16QAM	20350	25RB#13	21.25	22.25	23.25	PASS
LTE Band 4	10M	16QAM	20350	25RB#25	21.30	22.30	23.30	PASS
LTE Band 4	10M	16QAM	20350	50RB#0	21.15	22.15	23.15	PASS
LTE Band 4	15M	QPSK	20025	1RB#0	23.11	24.11	25.11	PASS
LTE Band 4	15M	QPSK	20025	1RB#38	23.76	24.76	25.76	PASS
LTE Band 4	15M	QPSK	20025	1RB#74	22.72	23.72	24.72	PASS
LTE Band 4	15M	QPSK	20025	36RB#0	23.66	24.66	25.66	PASS
LTE Band 4	15M	QPSK	20025	36RB#18	22.58	23.58	24.58	PASS
LTE Band 4	15M	QPSK	20025	36RB#39	22.26	23.26	24.26	PASS
LTE Band 4	15M	QPSK	20025	75RB#0	22.59	23.59	24.59	PASS
LTE Band 4	15M	QPSK	20175	1RB#0	22.97	23.97	24.97	PASS
LTE Band 4	15M	QPSK	20175	1RB#38	24.91	25.91	26.91	PASS
LTE Band 4	15M	QPSK	20175	1RB#74	22.88	23.88	24.88	PASS
LTE Band 4	15M	QPSK	20175	36RB#0	22.33	23.33	24.33	PASS
LTE Band 4	15M	QPSK	20175	36RB#18	22.46	23.46	24.46	PASS
LTE Band 4	15M	QPSK	20175	36RB#39	22.39	23.39	24.39	PASS
LTE Band 4	15M	QPSK	20175	75RB#0	22.25	23.25	24.25	PASS
LTE Band 4	15M	QPSK	20325	1RB#0	23.15	24.15	25.15	PASS
LTE Band 4	15M	QPSK	20325	1RB#38	23.34	24.34	25.34	PASS
LTE Band 4	15M	QPSK	20325	1RB#74	22.74	23.74	24.74	PASS
LTE Band 4	15M	QPSK	20325	36RB#0	22.58	23.58	24.58	PASS
LTE Band 4	15M	QPSK	20325	36RB#18	22.29	23.29	24.29	PASS
LTE Band 4	15M	QPSK	20325	36RB#39	22.07	23.07	24.07	PASS
LTE Band 4	15M	QPSK	20325	75RB#0	22.27	23.27	24.27	PASS
LTE Band 4	15M	16QAM	20025	1RB#0	21.99	22.99	23.99	PASS
LTE Band 4	15M	16QAM	20025	1RB#38	21.95	22.95	23.95	PASS
LTE Band 4	15M	16QAM	20025	1RB#74	21.95	22.95	23.95	PASS
LTE Band 4	15M	16QAM	20025	36RB#0	21.43	22.43	23.43	PASS
LTE Band 4	15M	16QAM	20025	36RB#18	21.42	22.42	23.42	PASS
LTE Band 4	15M	16QAM	20025	36RB#39	21.45	22.45	23.45	PASS
LTE Band 4	15M	16QAM	20025	75RB#0	21.48	22.48	23.48	PASS
LTE Band 4	15M	16QAM	20175	1RB#0	21.84	22.84	23.84	PASS
LTE Band 4	15M	16QAM	20175	1RB#38	21.74	22.74	23.74	PASS
LTE Band 4	15M	16QAM	20175	1RB#74	21.78	22.78	23.78	PASS
LTE Band 4	15M	16QAM	20175	36RB#0	21.27	22.27	23.27	PASS



LTE Band 4	15M	16QAM	20175	36RB#18	21.26	22.26	23.26	PASS
LTE Band 4	15M	16QAM	20175	36RB#39	21.20	22.20	23.20	PASS
LTE Band 4	15M	16QAM	20175	75RB#0	21.30	22.30	23.30	PASS
LTE Band 4	15M	16QAM	20325	1RB#0	22.06	23.06	24.06	PASS
LTE Band 4	15M	16QAM	20325	1RB#38	21.97	22.97	23.97	PASS
LTE Band 4	15M	16QAM	20325	1RB#74	22.05	23.05	24.05	PASS
LTE Band 4	15M	16QAM	20325	36RB#0	21.35	22.35	23.35	PASS
LTE Band 4	15M	16QAM	20325	36RB#18	21.26	22.26	23.26	PASS
LTE Band 4	15M	16QAM	20325	36RB#39	21.33	22.33	23.33	PASS
LTE Band 4	15M	16QAM	20325	75RB#0	21.27	22.27	23.27	PASS
LTE Band 4	20M	QPSK	20050	1RB#0	22.98	23.98	24.98	PASS
LTE Band 4	20M	QPSK	20050	1RB#50	23.61	24.61	25.61	PASS
LTE Band 4	20M	QPSK	20050	1RB#99	22.79	23.79	24.79	PASS
LTE Band 4	20M	QPSK	20050	50RB#0	23.45	24.45	25.45	PASS
LTE Band 4	20M	QPSK	20050	50RB#25	22.67	23.67	24.67	PASS
LTE Band 4	20M	QPSK	20050	50RB#50	22.37	23.37	24.37	PASS
LTE Band 4	20M	QPSK	20050	100RB#0	22.51	23.51	24.51	PASS
LTE Band 4	20M	QPSK	20175	1RB#0	22.46	23.46	24.46	PASS
LTE Band 4	20M	QPSK	20175	1RB#50	24.89	25.89	26.89	PASS
LTE Band 4	20M	QPSK	20175	1RB#99	23.18	24.18	25.18	PASS
LTE Band 4	20M	QPSK	20175	50RB#0	22.42	23.42	24.42	PASS
LTE Band 4	20M	QPSK	20175	50RB#25	22.53	23.53	24.53	PASS
LTE Band 4	20M	QPSK	20175	50RB#50	22.36	23.36	24.36	PASS
LTE Band 4	20M	QPSK	20175	100RB#0	22.25	23.25	24.25	PASS
LTE Band 4	20M	QPSK	20300	1RB#0	23.14	24.14	25.14	PASS
LTE Band 4	20M	QPSK	20300	1RB#50	23.89	24.89	25.89	PASS
LTE Band 4	20M	QPSK	20300	1RB#99	22.00	23.00	24.00	PASS
LTE Band 4	20M	QPSK	20300	50RB#0	22.19	23.19	24.19	PASS
LTE Band 4	20M	QPSK	20300	50RB#25	22.41	23.41	24.41	PASS
LTE Band 4	20M	QPSK	20300	50RB#50	21.89	22.89	23.89	PASS
LTE Band 4	20M	QPSK	20300	100RB#0	22.42	23.42	24.42	PASS
LTE Band 4	20M	16QAM	20050	1RB#0	22.11	23.11	24.11	PASS
LTE Band 4	20M	16QAM	20050	1RB#50	22.17	23.17	24.17	PASS
LTE Band 4	20M	16QAM	20050	1RB#99	22.07	23.07	24.07	PASS
LTE Band 4	20M	16QAM	20050	50RB#0	21.57	22.57	23.57	PASS
LTE Band 4	20M	16QAM	20050	50RB#25	21.52	22.52	23.52	PASS
LTE Band 4	20M	16QAM	20050	50RB#50	21.55	22.55	23.55	PASS
LTE Band 4	20M	16QAM	20050	100RB#0	21.61	22.61	23.61	PASS
LTE Band 4	20M	16QAM	20175	1RB#0	21.72	22.72	23.72	PASS
LTE Band 4	20M	16QAM	20175	1RB#50	22.01	23.01	24.01	PASS
LTE Band 4	20M	16QAM	20175	1RB#99	21.96	22.96	23.96	PASS
LTE Band 4	20M	16QAM	20175	50RB#0	21.35	22.35	23.35	PASS
LTE Band 4	20M	16QAM	20175	50RB#25	21.33	22.33	23.33	PASS



LTE Band 4	20M	16QAM	20175	50RB#50	21.33	22.33	23.33	PASS
LTE Band 4	20M	16QAM	20175	100RB#0	21.18	22.18	23.18	PASS
LTE Band 4	20M	16QAM	20300	1RB#0	22.05	23.05	24.05	PASS
LTE Band 4	20M	16QAM	20300	1RB#50	21.71	22.71	23.71	PASS
LTE Band 4	20M	16QAM	20300	1RB#99	21.87	22.87	23.87	PASS
LTE Band 4	20M	16QAM	20300	50RB#0	21.49	22.49	23.49	PASS
LTE Band 4	20M	16QAM	20300	50RB#25	21.38	22.38	23.38	PASS
LTE Band 4	20M	16QAM	20300	50RB#50	21.36	22.36	23.36	PASS
LTE Band 4	20M	16QAM	20300	100RB#0	21.53	22.53	23.53	PASS

Band	Band width	Modulation	Channel	RB Configuration	Maximum Output Power(dBm)	ERP (dBm) Internal Antenna	ERP (dBm) External Antenna	Verdict
LTEBand12	1.4M	QPSK	23017	1RB#0	23.22	21.07	22.92	PASS
LTEBand12	1.4M	QPSK	23017	1RB#2	23.50	21.35	23.20	PASS
LTEBand12	1.4M	QPSK	23017	1RB#5	23.34	21.19	23.04	PASS
LTEBand12	1.4M	QPSK	23017	3RB#0	23.62	21.47	23.32	PASS
LTEBand12	1.4M	QPSK	23017	3RB#2	23.56	21.41	23.26	PASS
LTEBand12	1.4M	QPSK	23017	3RB#3	23.46	21.31	23.16	PASS
LTEBand12	1.4M	QPSK	23017	6RB#0	22.54	20.39	22.24	PASS
LTEBand12	1.4M	QPSK	23095	1RB#0	23.42	21.27	23.12	PASS
LTEBand12	1.4M	QPSK	23095	1RB#2	23.64	21.49	23.34	PASS
LTEBand12	1.4M	QPSK	23095	1RB#5	23.54	21.39	23.24	PASS
LTEBand12	1.4M	QPSK	23095	3RB#0	23.44	21.29	23.14	PASS
LTEBand12	1.4M	QPSK	23095	3RB#2	23.61	21.46	23.31	PASS
LTEBand12	1.4M	QPSK	23095	3RB#3	23.65	21.50	23.35	PASS
LTEBand12	1.4M	QPSK	23095	6RB#0	22.55	20.40	22.25	PASS
LTEBand12	1.4M	QPSK	23173	1RB#0	23.22	21.07	22.92	PASS
LTEBand12	1.4M	QPSK	23173	1RB#2	23.39	21.24	23.09	PASS
LTEBand12	1.4M	QPSK	23173	1RB#5	23.49	21.34	23.19	PASS
LTEBand12	1.4M	QPSK	23173	3RB#0	23.40	21.25	23.10	PASS
LTEBand12	1.4M	QPSK	23173	3RB#2	23.49	21.34	23.19	PASS
LTEBand12	1.4M	QPSK	23173	3RB#3	23.48	21.33	23.18	PASS
LTEBand12	1.4M	QPSK	23173	6RB#0	22.47	20.32	22.17	PASS
LTEBand12	1.4M	16QAM	23017	1RB#0	22.20	20.05	21.90	PASS
LTEBand12	1.4M	16QAM	23017	1RB#2	22.21	20.06	21.91	PASS
LTEBand12	1.4M	16QAM	23017	1RB#5	22.01	19.86	21.71	PASS
LTEBand12	1.4M	16QAM	23017	3RB#0	22.82	20.67	22.52	PASS
LTEBand12	1.4M	16QAM	23017	3RB#2	22.64	20.49	22.34	PASS
LTEBand12	1.4M	16QAM	23017	3RB#3	22.60	20.45	22.30	PASS
LTEBand12	1.4M	16QAM	23017	6RB#0	21.47	19.32	21.17	PASS
LTEBand12	1.4M	16QAM	23095	1RB#0	21.96	19.81	21.66	PASS



LTETestBand12	1.4M	16QAM	23095	1RB#2	22.20	20.05	21.90	PASS
LTETestBand12	1.4M	16QAM	23095	1RB#5	21.91	19.76	21.61	PASS
LTETestBand12	1.4M	16QAM	23095	3RB#0	22.71	20.56	22.41	PASS
LTETestBand12	1.4M	16QAM	23095	3RB#2	22.78	20.63	22.48	PASS
LTETestBand12	1.4M	16QAM	23095	3RB#3	22.68	20.53	22.38	PASS
LTETestBand12	1.4M	16QAM	23095	6RB#0	21.46	19.31	21.16	PASS
LTETestBand12	1.4M	16QAM	23173	1RB#0	22.07	19.92	21.77	PASS
LTETestBand12	1.4M	16QAM	23173	1RB#2	22.18	20.03	21.88	PASS
LTETestBand12	1.4M	16QAM	23173	1RB#5	21.95	19.80	21.65	PASS
LTETestBand12	1.4M	16QAM	23173	3RB#0	22.68	20.53	22.38	PASS
LTETestBand12	1.4M	16QAM	23173	3RB#2	22.59	20.44	22.29	PASS
LTETestBand12	1.4M	16QAM	23173	3RB#3	22.61	20.46	22.31	PASS
LTETestBand12	1.4M	16QAM	23173	6RB#0	21.31	19.16	21.01	PASS
LTETestBand12	3M	QPSK	23025	1RB#0	23.57	21.42	23.27	PASS
LTETestBand12	3M	QPSK	23025	1RB#7	23.49	21.34	23.19	PASS
LTETestBand12	3M	QPSK	23025	1RB#14	23.28	21.13	22.98	PASS
LTETestBand12	3M	QPSK	23025	8RB#0	22.39	20.24	22.09	PASS
LTETestBand12	3M	QPSK	23025	8RB#4	22.43	20.28	22.13	PASS
LTETestBand12	3M	QPSK	23025	8RB#7	22.46	20.31	22.16	PASS
LTETestBand12	3M	QPSK	23025	15RB#0	22.50	20.35	22.20	PASS
LTETestBand12	3M	QPSK	23095	1RB#0	23.47	21.32	23.17	PASS
LTETestBand12	3M	QPSK	23095	1RB#7	23.62	21.47	23.32	PASS
LTETestBand12	3M	QPSK	23095	1RB#14	23.36	21.21	23.06	PASS
LTETestBand12	3M	QPSK	23095	8RB#0	22.54	20.39	22.24	PASS
LTETestBand12	3M	QPSK	23095	8RB#4	22.59	20.44	22.29	PASS
LTETestBand12	3M	QPSK	23095	8RB#7	22.51	20.36	22.21	PASS
LTETestBand12	3M	QPSK	23095	15RB#0	22.54	20.39	22.24	PASS
LTETestBand12	3M	QPSK	23165	1RB#0	23.38	21.23	23.08	PASS
LTETestBand12	3M	QPSK	23165	1RB#7	23.18	21.03	22.88	PASS
LTETestBand12	3M	QPSK	23165	1RB#14	23.27	21.12	22.97	PASS
LTETestBand12	3M	QPSK	23165	8RB#0	22.47	20.32	22.17	PASS
LTETestBand12	3M	QPSK	23165	8RB#4	22.33	20.18	22.03	PASS
LTETestBand12	3M	QPSK	23165	8RB#7	22.35	20.20	22.05	PASS
LTETestBand12	3M	QPSK	23165	15RB#0	22.47	20.32	22.17	PASS
LTETestBand12	3M	16QAM	23025	1RB#0	22.07	19.92	21.77	PASS
LTETestBand12	3M	16QAM	23025	1RB#7	21.96	19.81	21.66	PASS
LTETestBand12	3M	16QAM	23025	1RB#14	22.14	19.99	21.84	PASS
LTETestBand12	3M	16QAM	23025	8RB#0	21.18	19.03	20.88	PASS
LTETestBand12	3M	16QAM	23025	8RB#4	21.32	19.17	21.02	PASS
LTETestBand12	3M	16QAM	23025	8RB#7	21.53	19.38	21.23	PASS
LTETestBand12	3M	16QAM	23025	15RB#0	21.71	19.56	21.41	PASS
LTETestBand12	3M	16QAM	23095	1RB#0	22.06	19.91	21.76	PASS
LTETestBand12	3M	16QAM	23095	1RB#7	21.95	19.80	21.65	PASS



LTEBand12	3M	16QAM	23095	1RB#14	22.04	19.89	21.74	PASS
LTEBand12	3M	16QAM	23095	8RB#0	21.23	19.08	20.93	PASS
LTEBand12	3M	16QAM	23095	8RB#4	21.22	19.07	20.92	PASS
LTEBand12	3M	16QAM	23095	8RB#7	21.37	19.22	21.07	PASS
LTEBand12	3M	16QAM	23095	15RB#0	21.66	19.51	21.36	PASS
LTEBand12	3M	16QAM	23165	1RB#0	21.88	19.73	21.58	PASS
LTEBand12	3M	16QAM	23165	1RB#7	22.15	20.00	21.85	PASS
LTEBand12	3M	16QAM	23165	1RB#14	21.99	19.84	21.69	PASS
LTEBand12	3M	16QAM	23165	8RB#0	21.17	19.02	20.87	PASS
LTEBand12	3M	16QAM	23165	8RB#4	21.23	19.08	20.93	PASS
LTEBand12	3M	16QAM	23165	8RB#7	21.23	19.08	20.93	PASS
LTEBand12	3M	16QAM	23165	15RB#0	21.28	19.13	20.98	PASS
LTEBand12	5M	QPSK	23035	1RB#0	23.37	21.22	23.07	PASS
LTEBand12	5M	QPSK	23035	1RB#13	23.30	21.15	23.00	PASS
LTEBand12	5M	QPSK	23035	1RB#24	23.47	21.32	23.17	PASS
LTEBand12	5M	QPSK	23035	12RB#0	22.44	20.29	22.14	PASS
LTEBand12	5M	QPSK	23035	12RB#6	22.49	20.34	22.19	PASS
LTEBand12	5M	QPSK	23035	12RB#13	22.47	20.32	22.17	PASS
LTEBand12	5M	QPSK	23035	25RB#0	22.43	20.28	22.13	PASS
LTEBand12	5M	QPSK	23095	1RB#0	23.24	21.09	22.94	PASS
LTEBand12	5M	QPSK	23095	1RB#13	23.81	21.66	23.51	PASS
LTEBand12	5M	QPSK	23095	1RB#24	23.18	21.03	22.88	PASS
LTEBand12	5M	QPSK	23095	12RB#0	22.47	20.32	22.17	PASS
LTEBand12	5M	QPSK	23095	12RB#6	22.66	20.51	22.36	PASS
LTEBand12	5M	QPSK	23095	12RB#13	22.43	20.28	22.13	PASS
LTEBand12	5M	QPSK	23095	25RB#0	22.53	20.38	22.23	PASS
LTEBand12	5M	QPSK	23155	1RB#0	23.32	21.17	23.02	PASS
LTEBand12	5M	QPSK	23155	1RB#13	23.22	21.07	22.92	PASS
LTEBand12	5M	QPSK	23155	1RB#24	22.80	20.65	22.50	PASS
LTEBand12	5M	QPSK	23155	12RB#0	22.44	20.29	22.14	PASS
LTEBand12	5M	QPSK	23155	12RB#6	22.35	20.20	22.05	PASS
LTEBand12	5M	QPSK	23155	12RB#13	22.26	20.11	21.96	PASS
LTEBand12	5M	QPSK	23155	25RB#0	22.45	20.30	22.15	PASS
LTEBand12	5M	16QAM	23035	1RB#0	22.02	19.87	21.72	PASS
LTEBand12	5M	16QAM	23035	1RB#13	22.34	20.19	22.04	PASS
LTEBand12	5M	16QAM	23035	1RB#24	22.07	19.92	21.77	PASS
LTEBand12	5M	16QAM	23035	12RB#0	21.45	19.30	21.15	PASS
LTEBand12	5M	16QAM	23035	12RB#6	21.55	19.40	21.25	PASS
LTEBand12	5M	16QAM	23035	12RB#13	21.40	19.25	21.10	PASS
LTEBand12	5M	16QAM	23035	25RB#0	21.55	19.40	21.25	PASS
LTEBand12	5M	16QAM	23095	1RB#0	22.00	19.85	21.70	PASS
LTEBand12	5M	16QAM	23095	1RB#13	22.60	20.45	22.30	PASS
LTEBand12	5M	16QAM	23095	1RB#24	21.88	19.73	21.58	PASS



LTEBand12	5M	16QAM	23095	12RB#0	21.45	19.30	21.15	PASS
LTEBand12	5M	16QAM	23095	12RB#6	21.51	19.36	21.21	PASS
LTEBand12	5M	16QAM	23095	12RB#13	21.17	19.02	20.87	PASS
LTEBand12	5M	16QAM	23095	25RB#0	21.64	19.49	21.34	PASS
LTEBand12	5M	16QAM	23155	1RB#0	22.05	19.90	21.75	PASS
LTEBand12	5M	16QAM	23155	1RB#13	22.30	20.15	22.00	PASS
LTEBand12	5M	16QAM	23155	1RB#24	22.01	19.86	21.71	PASS
LTEBand12	5M	16QAM	23155	12RB#0	21.27	19.12	20.97	PASS
LTEBand12	5M	16QAM	23155	12RB#6	21.45	19.30	21.15	PASS
LTEBand12	5M	16QAM	23155	12RB#13	21.18	19.03	20.88	PASS
LTEBand12	5M	16QAM	23155	25RB#0	21.35	19.20	21.05	PASS
LTEBand12	10M	QPSK	23060	1RB#0	23.19	21.04	22.89	PASS
LTEBand12	10M	QPSK	23060	1RB#25	23.97	21.82	23.67	PASS
LTEBand12	10M	QPSK	23060	1RB#49	23.27	21.12	22.97	PASS
LTEBand12	10M	QPSK	23060	25RB#0	22.42	20.27	22.12	PASS
LTEBand12	10M	QPSK	23060	25RB#13	22.68	20.53	22.38	PASS
LTEBand12	10M	QPSK	23060	25RB#25	22.48	20.33	22.18	PASS
LTEBand12	10M	QPSK	23060	50RB#0	22.46	20.31	22.16	PASS
LTEBand12	10M	QPSK	23095	1RB#0	23.25	21.10	22.95	PASS
LTEBand12	10M	QPSK	23095	1RB#25	24.30	22.15	24.00	PASS
LTEBand12	10M	QPSK	23095	1RB#49	22.87	20.72	22.57	PASS
LTEBand12	10M	QPSK	23095	25RB#0	22.66	20.51	22.36	PASS
LTEBand12	10M	QPSK	23095	25RB#13	22.80	20.65	22.50	PASS
LTEBand12	10M	QPSK	23095	25RB#25	22.41	20.26	22.11	PASS
LTEBand12	10M	QPSK	23095	50RB#0	22.47	20.32	22.17	PASS
LTEBand12	10M	QPSK	23130	1RB#0	23.36	21.21	23.06	PASS
LTEBand12	10M	QPSK	23130	1RB#25	24.01	21.86	23.71	PASS
LTEBand12	10M	QPSK	23130	1RB#49	22.72	20.57	22.42	PASS
LTEBand12	10M	QPSK	23130	25RB#0	22.73	20.58	22.43	PASS
LTEBand12	10M	QPSK	23130	25RB#13	22.57	20.42	22.27	PASS
LTEBand12	10M	QPSK	23130	25RB#25	22.39	20.24	22.09	PASS
LTEBand12	10M	QPSK	23130	50RB#0	22.41	20.26	22.11	PASS
LTEBand12	10M	16QAM	23060	1RB#0	22.04	19.89	21.74	PASS
LTEBand12	10M	16QAM	23060	1RB#25	22.14	19.99	21.84	PASS
LTEBand12	10M	16QAM	23060	1RB#49	22.02	19.87	21.72	PASS
LTEBand12	10M	16QAM	23060	25RB#0	21.51	19.36	21.21	PASS
LTEBand12	10M	16QAM	23060	25RB#13	21.59	19.44	21.29	PASS
LTEBand12	10M	16QAM	23060	25RB#25	21.49	19.34	21.19	PASS
LTEBand12	10M	16QAM	23060	50RB#0	21.61	19.46	21.31	PASS
LTEBand12	10M	16QAM	23095	1RB#0	22.06	19.91	21.76	PASS
LTEBand12	10M	16QAM	23095	1RB#25	22.28	20.13	21.98	PASS
LTEBand12	10M	16QAM	23095	1RB#49	22.11	19.96	21.81	PASS
LTEBand12	10M	16QAM	23095	25RB#0	21.60	19.45	21.30	PASS



LTEBand12	10M	16QAM	23095	25RB#13	21.55	19.40	21.25	PASS
LTEBand12	10M	16QAM	23095	25RB#25	21.39	19.24	21.09	PASS
LTEBand12	10M	16QAM	23095	50RB#0	21.50	19.35	21.20	PASS
LTEBand12	10M	16QAM	23130	1RB#0	22.23	20.08	21.93	PASS
LTEBand12	10M	16QAM	23130	1RB#25	22.25	20.10	21.95	PASS
LTEBand12	10M	16QAM	23130	1RB#49	21.94	19.79	21.64	PASS
LTEBand12	10M	16QAM	23130	25RB#0	21.63	19.48	21.33	PASS
LTEBand12	10M	16QAM	23130	25RB#13	21.54	19.39	21.24	PASS
LTEBand12	10M	16QAM	23130	25RB#25	21.46	19.31	21.16	PASS
LTEBand12	10M	16QAM	23130	50RB#0	21.41	19.26	21.11	PASS

Band	Bandwidth	Modulation	Channel	RB Configuration	Maximum Output Power(dBm)	ERP (dBm) Internal Antenna	ERP (dBm) External Antenna	Verdict
LTE Band13	5M	QPSK	23205	1RB#0	23.68	21.53	23.53	PASS
LTE Band13	5M	QPSK	23205	1RB#13	23.28	21.13	23.13	PASS
LTE Band13	5M	QPSK	23205	1RB#24	23.63	21.48	23.48	PASS
LTE Band13	5M	QPSK	23205	12RB#0	22.62	20.47	22.47	PASS
LTE Band13	5M	QPSK	23205	12RB#6	22.61	20.46	22.46	PASS
LTE Band13	5M	QPSK	23205	12RB#13	22.55	20.40	22.40	PASS
LTE Band13	5M	QPSK	23205	25RB#0	22.65	20.50	22.50	PASS
LTE Band13	5M	QPSK	23230	1RB#0	23.67	21.52	23.52	PASS
LTE Band13	5M	QPSK	23230	1RB#13	23.85	21.70	23.70	PASS
LTE Band13	5M	QPSK	23230	1RB#24	23.82	21.67	23.67	PASS
LTE Band13	5M	QPSK	23230	12RB#0	22.54	20.39	22.39	PASS
LTE Band13	5M	QPSK	23230	12RB#6	22.74	20.59	22.59	PASS
LTE Band13	5M	QPSK	23230	12RB#13	22.72	20.57	22.57	PASS
LTE Band13	5M	QPSK	23230	25RB#0	22.60	20.45	22.45	PASS
LTE Band13	5M	QPSK	23255	1RB#0	23.62	21.47	23.47	PASS
LTE Band13	5M	QPSK	23255	1RB#13	24.13	21.98	23.98	PASS
LTE Band13	5M	QPSK	23255	1RB#24	23.75	21.60	23.60	PASS
LTE Band13	5M	QPSK	23255	12RB#0	22.52	20.37	22.37	PASS
LTE Band13	5M	QPSK	23255	12RB#6	22.67	20.52	22.52	PASS
LTE Band13	5M	QPSK	23255	12RB#13	22.65	20.50	22.50	PASS
LTE Band13	5M	QPSK	23255	25RB#0	22.58	20.43	22.43	PASS
LTE Band13	5M	16QAM	23205	1RB#0	22.19	20.04	22.04	PASS
LTE Band13	5M	16QAM	23205	1RB#13	22.60	20.45	22.45	PASS
LTE Band13	5M	16QAM	23205	1RB#24	21.89	19.74	21.74	PASS
LTE Band13	5M	16QAM	23205	12RB#0	21.54	19.39	21.39	PASS
LTE Band13	5M	16QAM	23205	12RB#6	21.56	19.41	21.41	PASS
LTE Band13	5M	16QAM	23205	12RB#13	21.61	19.46	21.46	PASS
LTE Band13	5M	16QAM	23205	25RB#0	21.68	19.53	21.53	PASS



LTE Band13	5M	16QAM	23230	1RB#0	22.11	19.96	21.96	PASS
LTE Band13	5M	16QAM	23230	1RB#13	22.29	20.14	22.14	PASS
LTE Band13	5M	16QAM	23230	1RB#24	22.04	19.89	21.89	PASS
LTE Band13	5M	16QAM	23230	12RB#0	21.66	19.51	21.51	PASS
LTE Band13	5M	16QAM	23230	12RB#6	21.64	19.49	21.49	PASS
LTE Band13	5M	16QAM	23230	12RB#13	21.50	19.35	21.35	PASS
LTE Band13	5M	16QAM	23230	25RB#0	21.72	19.57	21.57	PASS
LTE Band13	5M	16QAM	23255	1RB#0	22.23	20.08	22.08	PASS
LTE Band13	5M	16QAM	23255	1RB#13	22.44	20.29	22.29	PASS
LTE Band13	5M	16QAM	23255	1RB#24	22.19	20.04	22.04	PASS
LTE Band13	5M	16QAM	23255	12RB#0	21.48	19.33	21.33	PASS
LTE Band13	5M	16QAM	23255	12RB#6	21.55	19.40	21.40	PASS
LTE Band13	5M	16QAM	23255	12RB#13	21.31	19.16	21.16	PASS
LTE Band13	5M	16QAM	23255	25RB#0	21.51	19.36	21.36	PASS
LTE Band13	10M	QPSK	23230	1RB#0	23.60	21.45	23.45	PASS
LTE Band13	10M	QPSK	23230	1RB#25	23.95	21.80	23.80	PASS
LTE Band13	10M	QPSK	23230	1RB#49	23.62	21.47	23.47	PASS
LTE Band13	10M	QPSK	23230	25RB#0	22.53	20.38	22.38	PASS
LTE Band13	10M	QPSK	23230	25RB#13	22.71	20.56	22.56	PASS
LTE Band13	10M	QPSK	23230	25RB#25	22.50	20.35	22.35	PASS
LTE Band13	10M	QPSK	23230	50RB#0	22.58	20.43	22.43	PASS
LTE Band13	10M	16QAM	23230	1RB#0	22.30	20.15	22.15	PASS
LTE Band13	10M	16QAM	23230	1RB#25	22.34	20.19	22.19	PASS
LTE Band13	10M	16QAM	23230	1RB#49	22.31	20.16	22.16	PASS
LTE Band13	10M	16QAM	23230	25RB#0	21.59	19.44	21.44	PASS
LTE Band13	10M	16QAM	23230	25RB#13	21.58	19.43	21.43	PASS
LTE Band13	10M	16QAM	23230	25RB#25	21.60	19.45	21.45	PASS
LTE Band13	10M	16QAM	23230	50RB#0	21.70	19.55	21.55	PASS

Note: All conducted power has been calculated for line loss.

5.2 Radiates Spurious Emission

Ambient condition

Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

Method of Measurement

1. The testing follows FCC KDB 971168 D01 v03r01 Section 5.8 and ANSI C63.26 (2015).
2. Below 1GHz: The EUT is placed on a turntable 0.8 meters above the ground in the chamber, 3 meter away from the antenna. The maximal emission value is acquired by adjusting the antenna height, polarisation and turntable azimuth. Normally, the height range of antenna is 1 m to 4 m, the azimuth range of turntable is 0° to 360°, and the receive antenna has two polarizations Vertical (V) and Horizontal (H). Above 1GHz: (Note: the FCC's permission to use 1.5m as an alternative per TCBC Conf call of Dec. 2, 2014.) The EUT is placed on a turntable 1.5 meters above the ground in the chamber, 3 meter away from the antenna. The maximal emission value is acquired by adjusting the antenna height, polarisation and turntable azimuth. Normally, the height range of antenna is 1 m to 4 m, the azimuth range of turntable is 0° to 360°, and the receive antenna has two polarizations Vertical (V) and Horizontal (H).
3. A loop antenna, A log-periodic antenna or horn antenna shall be substituted in place of the EUT. The log-periodic antenna will be driven by a signal generator and the level will be adjusted till the same power value on the spectrum analyzer or receiver. The level of the spurious emissions can be calculated through the level of the signal generator, cable loss, the gain of the substitution antenna and the reading of the spectrum analyzer or receiver.
4. The EUT is then put into continuously transmitting mode at its maximum power level during the test. Set Test Receiver or Spectrum RBW=200Hz,VBW=600Hz for 9kHz-150kHz , RBW=10kHz, VBW=30kHz 150kHz-30MHz ,RBW=100kHz,VBW=300kHz for 30MHz to 1GHz and RBW=1MHz, VBW=3MHz for above 1GHz And the maximum value of the receiver should be recorded as (Pr).
5. The EUT shall be replaced by a substitution antenna. In the chamber, an substitution antenna for the frequency band of interest is placed at the reference point of the chamber. An RF Signal source for the frequency band of interest is connected to the substitution antenna with a cable that has been constructed to not interfere with the radiation pattern of the antenna. A power (PMea) is applied to the input of the substitution antenna, and adjust the level of the signal generator output until the value of the receiver reach the previously recorded (Pr). The power of signal source (PMea) is recorded. The test should be performed by rotating the test item and adjusting the receiving antenna polarization.
6. A amplifier should be connected to the Signal Source output port. And the cable should be connect between the Amplifier and the Substitution Antenna. The cable loss (Pcl) ,the Substitution Antenna Gain (Ga) and the Amplifier Gain (PAg) should be recorded after test.
7. The measurement results are obtained as described below:

$$\text{Power(EIRP)} = \text{PMea} - \text{PAg} - \text{Pcl} + \text{Ga}$$
The measurement results are amend as described below:

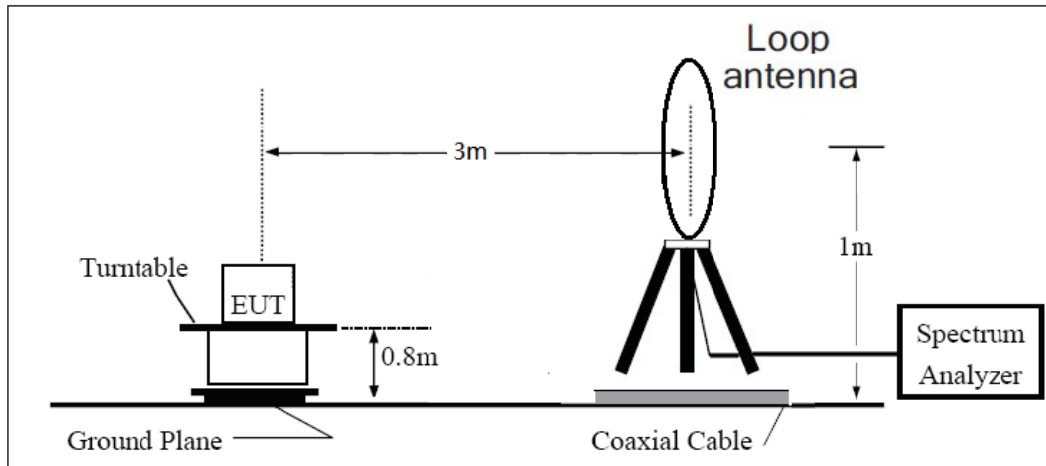
$$\text{Power(EIRP)} = \text{PMea} - \text{Pcl} + \text{Ga}$$
8. This value is EIRP since the measurement is calibrated using an antenna of known gain (2.15 dBi) and known input power. ERP can be calculated from EIRP by subtracting the gain of the dipole, ERP

= EIRP-2.15dBi.

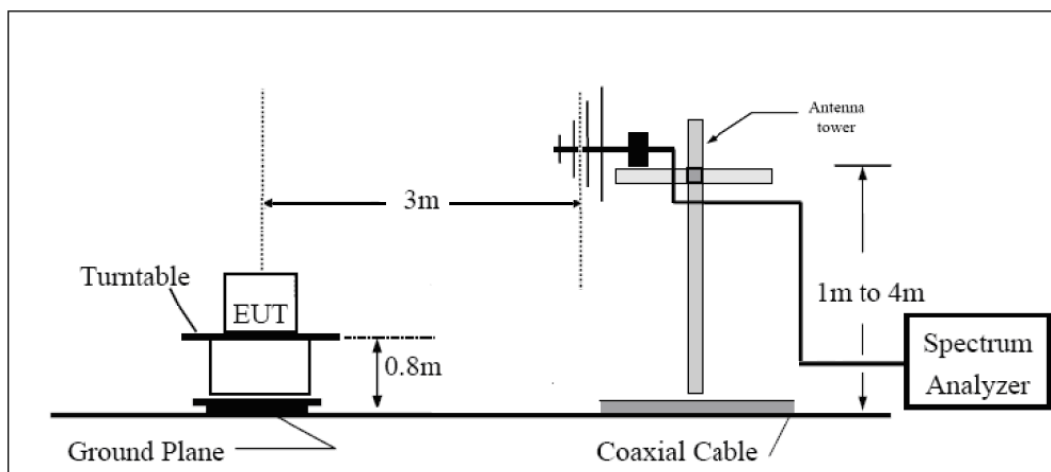
The modulation mode and RB allocation refer to section 5.1, using the maximum output power configuration.

Test setup

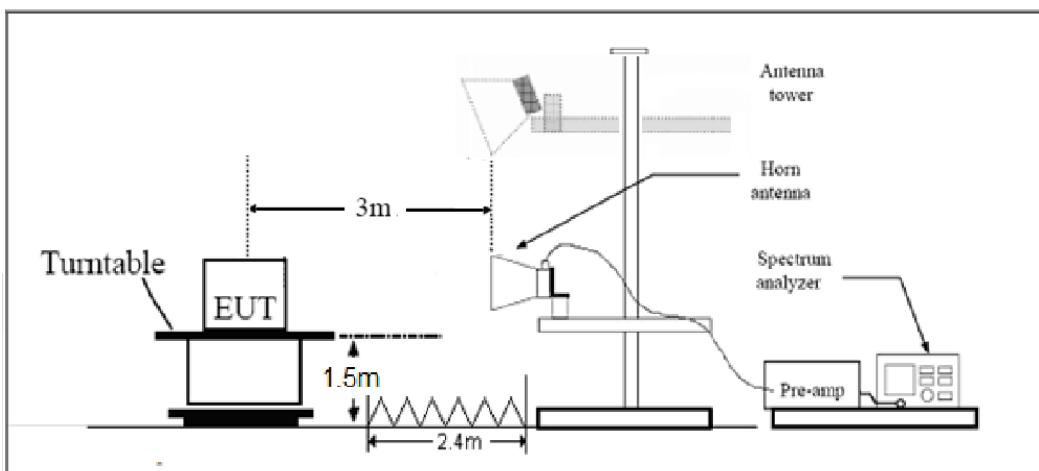
9KHz ~ 30MHz



30MHz ~ 1GHz



Above 1GHz



Note: Area side:2.4mX3.6m

Limits

Rule Part 27.53(h) specifies that “for operations in the 1695-1710 MHz, 1710-1755 MHz, 1755-1780 MHz, 1915-1920 MHz, 1995-2000 MHz, 2000-2020 MHz, 2110-2155 MHz, 2155-2180 MHz, and 2180-2200 bands, 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.”

Rule Part 27.53 (g) For operations in the 600 MHz band and the 698-746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least $43 + 10 \log (P)$ dB. Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kilohertz or greater. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

Rule Part 27.53(f) For operations in the 746-758 MHz, 775-788 MHz, and 805-806 MHz bands, emissions in the band 1559-1610 MHz shall be limited to -70 dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals, and -80 dBW EIRP for discrete emissions of less than 700 Hz bandwidth. For the purpose of equipment authorization, a transmitter shall be tested with an antenna that is representative of the type that will be used with the equipment in normal operation.

Part 27.53(a)/(h)/(g) Limit		-13 dBm
Part 27.53(f) Limit	Limit out of the band 1559-1610 MHz	-13 dBm
	Limit in the band 1559-1610 MHz	-40 dBm
Part 27.53(m) Limit		-25 dBm

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = \pm 1.96$, $U = \pm 3.55$ dB.

**Test Result**

Sweep the whole frequency band through the range from 9kHz to the 10th harmonic of the carrier, the emissions below the noise floor will not be recorded in the report.

WCDMA Band IV CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3465.20	-61.72	2.6	10.75	Horizontal	-53.57	-13.00	40.57	180
3	5197.80	-62.93	2.4	11.05	Horizontal	-54.28	-13.00	41.28	0
4	6930.40	-58.54	4.5	11.15	Horizontal	-51.89	-13.00	38.89	45
5	8663.00	-56.37	5.1	11.35	Horizontal	-50.12	-13.00	37.12	315
6	10395.60	-53.88	5.3	11.95	Horizontal	-47.23	-13.00	34.23	270
7	12128.20	-54.06	5.5	13.55	Horizontal	-46.01	-13.00	33.01	180
8	13860.80	-50.60	6.3	13.75	Horizontal	-43.15	-13.00	30.15	0
9	15593.40	-53.86	6.7	13.85	Horizontal	-46.71	-13.00	33.71	45
10	17326.00	-50.80	6.8	14.25	Horizontal	-43.35	-13.00	30.35	315
Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor. 2. The worst emission was found in the antenna is Horizontal position.									

LTE Band 4 QPSK 1.4MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3464.25	-60.09	2.6	10.75	Horizontal	-51.94	-13.00	38.94	45
3	5197.50	-60.16	2.4	11.05	Horizontal	-51.51	-13.00	38.51	315
4	6930.00	-49.31	4.5	11.15	Horizontal	-42.66	-13.00	29.66	225
5	8661.00	-45.70	5.1	11.35	Horizontal	-39.45	-13.00	26.45	0
6	10392.00	-54.84	5.3	11.95	Horizontal	-48.19	-13.00	35.19	180
7	12123.75	-63.68	5.5	13.55	Horizontal	-55.63	-13.00	42.63	90
8	13856.25	-56.54	6.3	13.75	Horizontal	-49.09	-13.00	36.09	45
9	15588.75	-53.32	6.7	13.85	Horizontal	-46.17	-13.00	33.17	0
10	17320.50	-60.41	6.8	14.25	Horizontal	-52.96	-13.00	39.96	315
Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor. 2. The worst emission was found in the antenna is Horizontal position.									



LTE Band 4 QPSK 5MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3460.50	-60.77	2.6	10.75	Horizontal	-52.62	-13.00	39.62	45
3	5191.50	-60.67	2.4	11.05	Horizontal	-52.02	-13.00	39.02	0
4	6921.00	-50.11	4.5	11.15	Horizontal	-43.46	-13.00	30.46	135
5	8651.25	-47.05	5.1	11.35	Horizontal	-40.80	-13.00	27.80	225
6	10382.25	-53.51	5.3	11.95	Horizontal	-46.86	-13.00	33.86	0
7	12112.50	-63.65	5.5	13.55	Horizontal	-55.60	-13.00	42.60	315
8	13842.75	-56.39	6.3	13.75	Horizontal	-48.94	-13.00	35.94	270
9	15573.00	-55.03	6.7	13.85	Horizontal	-47.88	-13.00	34.88	225
10	17304.00	-60.66	6.8	14.25	Horizontal	-53.21	-13.00	40.21	45
Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor. 2. The worst emission was found in the antenna is Horizontal position.									

LTE Band 4 QPSK 20MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3465.00	-62.81	2.6	10.75	Horizontal	-54.66	-13.00	41.66	45
3	5170.88	-62.28	2.4	11.05	Horizontal	-53.63	-13.00	40.63	135
4	6930.00	-53.19	4.5	11.15	Horizontal	-46.54	-13.00	33.54	180
5	8662.50	-50.76	5.1	11.35	Horizontal	-44.51	-13.00	31.51	225
6	10395.00	-55.05	5.3	11.95	Horizontal	-48.40	-13.00	35.40	315
7	12127.50	-63.51	5.5	13.55	Horizontal	-55.46	-13.00	42.46	0
8	13860.00	-59.37	6.3	13.75	Horizontal	-51.92	-13.00	38.92	90
9	15592.50	-58.29	6.7	13.85	Horizontal	-51.14	-13.00	38.14	45
10	17325.00	-59.79	6.8	14.25	Horizontal	-52.34	-13.00	39.34	225
Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor. 2. The worst emission was found in the antenna is Horizontal position.									



LTE Band 12 QPSK 1.4MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1415.00	-53.99	2.00	10.75	Horizontal	-47.39	-13.00	34.39	135
3	2122.50	-61.90	2.51	11.05	Horizontal	-55.51	-13.00	42.51	270
4	2830.00	-61.41	4.20	11.15	Horizontal	-56.61	-13.00	43.61	90
5	3537.50	-60.95	5.20	11.15	Horizontal	-57.15	-13.00	44.15	0
6	4245.00	-58.61	5.50	11.95	Horizontal	-54.31	-13.00	41.31	45
7	4952.50	-61.24	5.70	13.55	Horizontal	-55.54	-13.00	42.54	180
8	5660.00	-60.12	6.30	13.75	Horizontal	-54.82	-13.00	41.82	90
9	6367.50	-58.47	6.80	13.85	Horizontal	-53.57	-13.00	40.57	315
10	7075.00	-55.03	6.90	14.25	Horizontal	-49.83	-13.00	36.83	180

Note: 1. The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is Horizontal position.

LTE Band 12 QPSK 5MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1410.60	-57.34	2.00	10.75	Horizontal	-50.74	-13.00	37.74	45
3	2115.90	-62.03	2.51	11.05	Horizontal	-55.64	-13.00	42.64	270
4	2821.20	-60.57	4.20	11.15	Horizontal	-55.77	-13.00	42.77	45
5	3537.50	-61.34	5.20	11.15	Horizontal	-57.54	-13.00	44.54	315
6	4245.00	-61.28	5.50	11.95	Horizontal	-56.98	-13.00	43.98	90
7	4952.50	-60.31	5.70	13.55	Horizontal	-54.61	-13.00	41.61	0
8	5660.00	-61.16	6.30	13.75	Horizontal	-55.86	-13.00	42.86	45
9	6367.50	-58.00	6.80	13.85	Horizontal	-53.10	-13.00	40.10	315
10	7075.00	-54.38	6.90	14.25	Horizontal	-49.18	-13.00	36.18	180

Note: 1. The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is Horizontal position.



LTE Band 12 QPSK 10MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1406.40	-59.53	2.00	10.75	Horizontal	-52.93	-13.00	39.93	225
3	2109.60	-62.12	2.51	11.05	Horizontal	-55.73	-13.00	42.73	45
4	2812.80	-60.99	4.20	11.15	Horizontal	-56.19	-13.00	43.19	135
5	3537.50	-60.99	5.20	11.15	Horizontal	-57.19	-13.00	44.19	180
6	4245.00	-60.99	5.50	11.95	Horizontal	-56.69	-13.00	43.69	225
7	4952.50	-60.88	5.70	13.55	Horizontal	-55.18	-13.00	42.18	0
8	5660.00	-60.43	6.30	13.75	Horizontal	-55.13	-13.00	42.13	90
9	6367.50	-58.60	6.80	13.85	Horizontal	-53.70	-13.00	40.70	45
10	7075.00	-54.73	6.90	14.25	Horizontal	-49.53	-13.00	36.53	315

Note: 1. The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is Horizontal position.

LTE Band 13 QPSK 5MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1559.63	-57.89	2.00	10.75	Horizontal	-49.14	-40.00	9.14	45
Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
3	2339.63	-46.66	2.51	11.05	Horizontal	-40.27	-13.00	27.27	315
4	3138.00	-60.72	4.20	11.15	Horizontal	-55.92	-13.00	42.92	45
5	3922.50	-55.79	5.20	11.15	Horizontal	-51.99	-13.00	38.99	315
6	4707.00	-56.87	5.50	11.95	Horizontal	-52.57	-13.00	39.57	225
7	5491.50	-55.91	5.70	13.55	Horizontal	-50.21	-13.00	37.21	180
8	6276.00	-57.38	6.30	13.75	Horizontal	-52.08	-13.00	39.08	0
9	7060.50	-54.05	6.80	13.85	Horizontal	-49.15	-13.00	36.15	90
10	7845.00	-54.69	6.90	14.25	Horizontal	-49.49	-13.00	36.49	45

Note: 1. The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is Horizontal position.



LTE Band 13 QPSK 10MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1555.13	-43.50	2.00	10.75	Horizontal	-36.90	-13.00	23.90	225
3	2332.69	-55.55	2.51	11.05	Horizontal	-49.16	-13.00	36.16	45
4	3128.00	-57.43	4.20	11.15	Horizontal	-52.63	-13.00	39.63	45
5	3910.00	-54.82	5.20	11.15	Horizontal	-51.02	-13.00	38.02	315
6	4692.00	-56.69	5.50	11.95	Horizontal	-52.39	-13.00	39.39	225
7	5474.00	-57.53	5.70	13.55	Horizontal	-51.83	-13.00	38.83	180
8	6256.00	-55.97	6.30	13.75	Horizontal	-50.67	-13.00	37.67	0
9	7038.00	-52.89	6.80	13.85	Horizontal	-47.99	-13.00	34.99	90
10	7820.00	-54.63	6.90	14.25	Horizontal	-49.43	-13.00	36.43	45

Note: 1. The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is Horizontal position.



6 Main Test Instruments

Name	Manufacturer	Type	Serial Number	Calibration Date	Expiration Date
Base Station Simulator	R&S	CMW500	113824	2020-05-18	2021-05-17
Power Splitter	Hua Xiang	SHX-GF2-2-13	10120101	/	/
Spectrum Analyzer	Key sight	N9010A	MY50210259	2020-05-18	2021-05-17
Signal Analyzer	R&S	FSV30	100815	2019-12-15	2020-12-14
Loop Antenna	SCHWARZBECK	FMZB1519	1519-047	2020-04-02	2023-04-01
Trilog Antenna	SCHWARZBECK	VUBL 9163	391	2019-12-16	2022-12-15
Horn Antenna	R&S	HF907	102723	2018-08-11	2021-08-10
Horn Antenna	ETS-Lindgren	3160-09	00102643	2018-06-20	2021-06-19
Signal generator	R&S	SMB 100A	102594	2020-05-18	2021-05-17
Climatic Chamber	ESPEC	SU-242	93000506	2017-12-17	2020-12-16
Preamplifier	R&S	SCU18	102327	2020-05-18	2021-05-17
MOB COMMS DC SUPPLY	Keysight	66319D	MY43004105	2020-05-18	2021-05-17
RF Cable	Agilent	SMA 15cm	0001	2020-06-12	2020-12-11
Software	R&S	EMC32	9.26.0	/	/

*****END OF REPORT *****



ANNEX A: The EUT Appearance

The EUT Appearance are submitted separately.



ANNEX B: Test Setup Photos

The Test Setup Photos are submitted separately.