RF TEST REPORT

Applicant	KAISSEN TECHNOLOGY LLC
FCC ID	SIT-KT570
Product	MOBILE POS DEVICE
Model	KT570
Report No.	R1912A0735-R3V2
Issue Date	June 24, 2020

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.

Performed by: Peng Tao *Approved by: Kai Xu*

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Summary of Measurement Results

Number	Test Case	Clause in FCC rules	Verdict
1	RF power output and Effective Radiated Power	2.1046 /27.50(d)(4) /27.50(c)(10)	PASS
2	Occupied Bandwidth	2.1049	Refer to the Module report (Report No.: RTWK160705001-00 and RKS160908001-00A)
3	Band Edge Compliance	27.53(h) /27.53(g)	Refer to the Module report (Report No.: RTWK160705001-00 and RKS160908001-00A)
4	Peak-to-Average Power Ratio	27.50(d)/KDB971168 D01(5.7)	Refer to the Module report (Report No.: RTWK160705001-00 and RKS160908001-00A)
5	Frequency Stability	2.1055 / 27.54	Refer to the Module report (Report No.: RTWK160705001-00 and RKS160908001-00A)
6	Spurious Emissions at Antenna Terminals	2.1051 /27.53(h) /27.53(g)	Refer to the Module report (Report No.: RTWK160705001-00 and RKS160908001-00A)
7	Radiates Spurious Emission	2.1053 /27.53(h) /27.53(g)	PASS
Date of Testing: December 16, 2019 ~ December 30, 2019			
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.			

Only Conducted Power, Radiated Spurious Emissions and Effective Radiated Power are tested for KT570 in this report. Other test items refer to the Module(FCC ID: XMR201605EC25A)report (Report No.: RTWK160705001-00 and RKS160908001-00A).

Note: This revised report (Report No.: R1912A0735-R3V2) supersedes and replaces the previously issued report (Report No.: R1912A0735-R3V1). Please discard or destroy the previously issued report and dispose of it accordingly.

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

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
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2 General Description of Equipment under Test

2.1 Applicant and Manufacturer Information

Applicant	KAISSEN TECHNOLOGY LLC
Applicant address	7412 sw 48 st suite b MIAMI 33155, USA
Manufacturer	Asiatelco Technologies Co.
Manufacturer address	No. 68 Huatuo Road, Building-8, Zhangjiang Hi-Tech Park, Pudong, Shanghai 201203, China

2.2 General information

EUT Description			
Model	KT570		
SN	1#		
Hardware Version	725-0741-001-2		
Software Version	8.1.0		
Power Supply	AC adapter		
Antenna Type	Internal Antenna		
Antenna Gain	WCDMA Band IV/ LTE Band 4	1.2 dBi	
	LTE Band 12	-1.5	
Test Mode(s)	WCDMA Band IV; LTE Band 4; LTE Band 12		
Test Modulation	(WCDMA) BPSK, QPSK, 16QAM; (LTE)QPSK 16QAM;		
HSDPA UE Category	14		
HSUPA UE Category	6		
DC-HSDPA UE Category	20		
HSPA+ UE Category	6		
LTE Category	4		
Maximum E.I.R.P./ E.R.P.	WCDMA Band IV:	23.68 dBm	
	LTE Band 4:	24.32 dBm	
	LTE Band 12:	19.16 dBm	
Rated Power Supply Voltage:	5V		
Extreme Voltage	Minimum: 4.6V Maximum: 5.4V		
Extreme Temperature	Lowest: -10°C Highest: +55°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

EUT Accessory	
Adapter	Manufacturer: Aquilstar Precision Industry (Shenzhen) Co., Ltd. Model: ASSA55a-050200
USB Extend Cable	Model: WT10200663 800mm±30 Cable, Shielded
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 detailin 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 HSDPA/HSUPA DC-HSDPA
Radiates Spurious Emission	RMC

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

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
Radiates Spurious Emission	LTE 4	O	-	O	-	-	O	O	-	O	-	-	-	O	-
	LTE 12	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 Radiated Power

Ambient condition

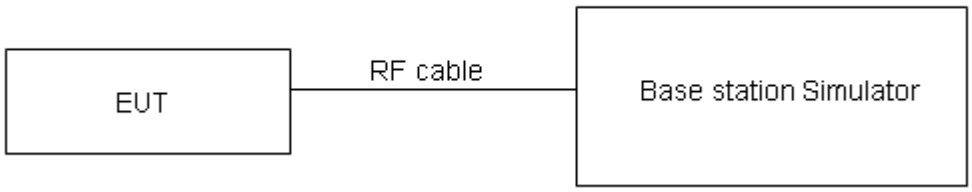
Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

Methods of Measurement

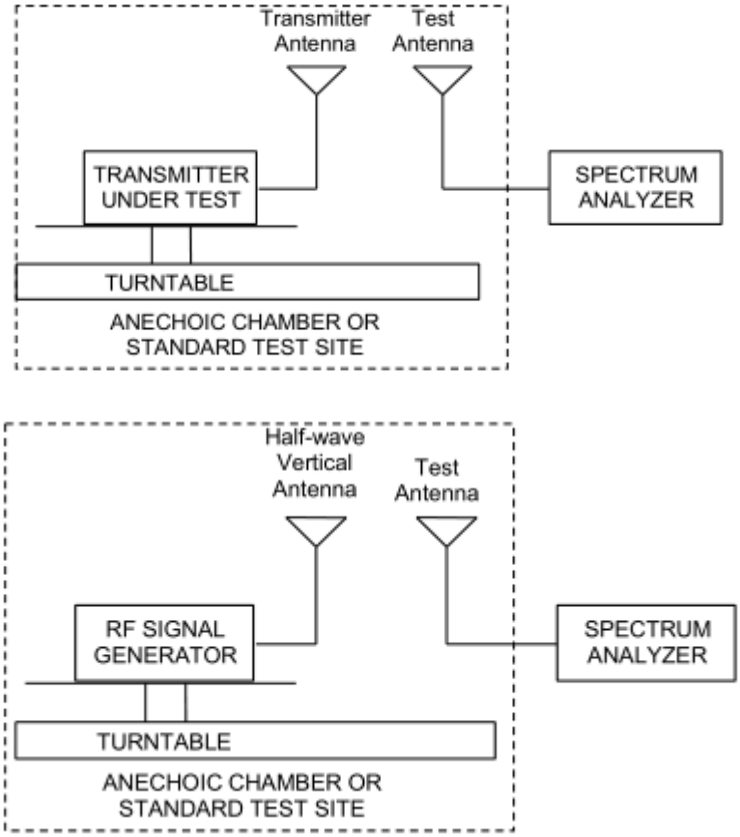
During the process of the testing, The EUT is controlled by the Base Station Simulator to ensure max power transmission and proper modulation.

1. The testing follows FCC KDB 971168 D01 v03r01 Section 5.8 and ANSI C63.26 (2015).
a) Connect the equipment as illustrated. Mount the equipment with the manufacturer specified antenna in a vertical orientation on a manufacturer specified mounting surface located on a non-conducting rotating platform of a RF anechoic chamber (preferred) or a standard radiation site.
b) Key the transmitter, then rotate the EUT 360° azimuthally and record spectrum analyzer power level (LVL) measurements at angular increments that are sufficiently small to permit resolution of all peaks. If a standard radiation test site is used, raise and lower the test antenna to obtain a maximum reading at each angular increment. (Note: several batteries may be needed to offset the effect of battery voltage droop, which should not exceed 5% of the manufactured specified battery voltage during transmission).
c) Replace the transmitter under test with a vertically polarized half-wave dipole (or an antenna whose gain is known relative to an ideal half-wave dipole). The center of the antenna should be at the same location as the center of the antenna under test.
d) Connect the antenna to a signal generator with a known output power and record the path loss (in dB) as LOSS. If a standard radiation test site is used, raise and lower the test antenna to obtain a maximum reading.LOSS = Generator Output Power (dBm) – Analyzer reading (dBm)
e) Determine the effective radiated output power at each angular position from the readings in steps b) and d) using the following equation:ERP (dBm) = LVL (dBm) + LOSS (dB)
f) The maximum ERP is the maximum value determined in the preceding step.
g) When calculating ERP, in addition to knowing the antenna radiation and matching characteristics, it is necessary to know the loss values of all elements (e.g.transmission line attenuation, mismatches, filters, combiners) interposed between the point where transmitter output power is measured, and the point where power is applied to the antenna. ERP can then be calculated as follows:
EIRP (dBm) = Output Power (dBm) - Losses (dB) + Antenna Gain (dBi)
where:dBd refers to gain relative to an ideal dipole.
EIRP (dBm) = ERP (dBm) + 2.15 (dB.)
The RB allocation refers to section 5.1, using the maximum output power configuration.

Test Setup



The loss between RF output port of the EUT and the input port of the tester has been taken into consideration.



Note: Area side:2.4mX3.6m

The radiated emission was measured in the following position: EUT stand-up position (Z axis), lie-down position (X, Y axis). The worst emission was found in stand-up position (Z axis) and the worst case was recorded.

Limits

No specific RF power output requirements in part 2.1046.

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(c)(10)Limit	⩽ 3 W (34.77 dBm)
Part 27.50(d)(4)Limit	⩽ 1 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 dB for RF power output, k = 2, U= 1.19 dB for EIRP.

Test Results

WCDMA Band IV		Conducted Power (dBm)			EIRP (dBm)		
		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)
RMC		22.21	22.46	22.48	23.41	23.66	23.68
HSDPA	Sub - Test 1	21.67	21.88	22.09	22.87	23.08	23.29
	Sub - Test 2	21.66	21.90	22.06	22.86	23.10	23.26
	Sub - Test 3	21.13	21.40	21.58	22.33	22.60	22.78
	Sub - Test 4	21.14	21.41	21.56	22.34	22.61	22.76
HSUPA	Sub - Test 1	21.63	21.87	22.04	22.83	23.07	23.24
	Sub - Test 2	20.62	20.85	21.03	21.82	22.05	22.23
	Sub - Test 3	21.09	21.33	21.52	22.29	22.53	22.72
	Sub - Test 4	20.55	20.82	21.00	21.75	22.02	22.20
	Sub - Test 5	21.56	21.80	21.98	22.76	23.00	23.18
DC-HSDPA	Sub - Test 1	21.55	21.82	21.99	22.75	23.02	23.19
	Sub - Test 2	21.54	21.81	21.98	22.74	23.01	23.18
	Sub - Test 3	21.12	21.30	21.49	22.32	22.50	22.69
	Sub - Test 4	21.11	21.29	21.48	22.31	22.49	22.68
HSPA+	16QAM	21.10	21.37	21.55	22.30	22.57	22.75

Band	Bandwidth (MHz)	UL Channel	RB Size	RB Position	Modulation	Power (dBm)	EIRP
LTE Band4	1.4	19957	1	#0	QPSK	22.45	23.65
LTE Band4	1.4	19957	1	#Mid	QPSK	22.67	23.87
LTE Band4	1.4	19957	1	#Max	QPSK	22.53	23.73
LTE Band4	1.4	19957	3	#0	QPSK	22.13	23.33
LTE Band4	1.4	19957	3	#Mid	QPSK	22.13	23.33
LTE Band4	1.4	19957	3	#Max	QPSK	22.17	23.37
LTE Band4	1.4	19957	6	#0	QPSK	21.22	22.42
LTE Band4	1.4	19957	1	#0	QAM16	21.30	22.50
LTE Band4	1.4	19957	1	#Mid	QAM16	21.52	22.72
LTE Band4	1.4	19957	1	#Max	QAM16	21.40	22.60
LTE Band4	1.4	19957	3	#0	QAM16	21.35	22.55
LTE Band4	1.4	19957	3	#Mid	QAM16	21.17	22.37
LTE Band4	1.4	19957	3	#Max	QAM16	21.33	22.53
LTE Band4	1.4	19957	6	#0	QAM16	20.16	21.36
LTE Band4	1.4	20175	1	#0	QPSK	22.30	23.50
LTE Band4	1.4	20175	1	#Mid	QPSK	22.17	23.37
LTE Band4	1.4	20175	1	#Max	QPSK	22.06	23.26

LTE Band4	1.4	20175	3	#0	QPSK	22.48	23.68
LTE Band4	1.4	20175	3	#Mid	QPSK	22.41	23.61
LTE Band4	1.4	20175	3	#Max	QPSK	22.09	23.29
LTE Band4	1.4	20175	6	#0	QPSK	21.37	22.57
LTE Band4	1.4	20175	1	#0	QAM16	20.99	22.19
LTE Band4	1.4	20175	1	#Mid	QAM16	21.08	22.28
LTE Band4	1.4	20175	1	#Max	QAM16	20.70	21.90
LTE Band4	1.4	20175	3	#0	QAM16	21.30	22.50
LTE Band4	1.4	20175	3	#Mid	QAM16	21.30	22.50
LTE Band4	1.4	20175	3	#Max	QAM16	21.32	22.52
LTE Band4	1.4	20175	6	#0	QAM16	20.62	21.82
LTE Band4	1.4	20393	1	#0	QPSK	22.62	23.82
LTE Band4	1.4	20393	1	#Mid	QPSK	22.84	24.04
LTE Band4	1.4	20393	1	#Max	QPSK	22.64	23.84
LTE Band4	1.4	20393	3	#0	QPSK	22.53	23.73
LTE Band4	1.4	20393	3	#Mid	QPSK	22.53	23.73
LTE Band4	1.4	20393	3	#Max	QPSK	22.45	23.65
LTE Band4	1.4	20393	6	#0	QPSK	21.77	22.97
LTE Band4	1.4	20393	1	#0	QAM16	21.48	22.68
LTE Band4	1.4	20393	1	#Mid	QAM16	21.63	22.83
LTE Band4	1.4	20393	1	#Max	QAM16	21.46	22.66
LTE Band4	1.4	20393	3	#0	QAM16	21.55	22.75
LTE Band4	1.4	20393	3	#Mid	QAM16	21.55	22.75
LTE Band4	1.4	20393	3	#Max	QAM16	21.52	22.72
LTE Band4	1.4	20393	6	#0	QAM16	20.82	22.02
LTE Band4	3	19965	1	#0	QPSK	22.21	23.41
LTE Band4	3	19965	1	#Mid	QPSK	22.36	23.56
LTE Band4	3	19965	1	#Max	QPSK	22.15	23.35
LTE Band4	3	19965	8	#0	QPSK	21.13	22.33
LTE Band4	3	19965	8	#Mid	QPSK	21.23	22.43
LTE Band4	3	19965	8	#Max	QPSK	21.27	22.47
LTE Band4	3	19965	15	#0	QPSK	21.16	22.36
LTE Band4	3	19965	1	#0	QAM16	20.78	21.98
LTE Band4	3	19965	1	#Mid	QAM16	21.00	22.20
LTE Band4	3	19965	1	#Max	QAM16	21.09	22.29
LTE Band4	3	19965	8	#0	QAM16	19.99	21.19
LTE Band4	3	19965	8	#Mid	QAM16	19.99	21.19
LTE Band4	3	19965	8	#Max	QAM16	20.35	21.55
LTE Band4	3	19965	15	#0	QAM16	20.32	21.52
LTE Band4	3	20175	1	#0	QPSK	22.33	23.53
LTE Band4	3	20175	1	#Mid	QPSK	21.97	23.17
LTE Band4	3	20175	1	#Max	QPSK	21.98	23.18
LTE Band4	3	20175	8	#0	QPSK	21.31	22.51

LTE Band4	3	20175	8	#Mid	QPSK	21.31	22.51
LTE Band4	3	20175	8	#Max	QPSK	21.17	22.37
LTE Band4	3	20175	15	#0	QPSK	21.41	22.61
LTE Band4	3	20175	1	#0	QAM16	21.49	22.69
LTE Band4	3	20175	1	#Mid	QAM16	21.08	22.28
LTE Band4	3	20175	1	#Max	QAM16	20.91	22.11
LTE Band4	3	20175	8	#0	QAM16	20.45	21.65
LTE Band4	3	20175	8	#Mid	QAM16	20.46	21.66
LTE Band4	3	20175	8	#Max	QAM16	20.09	21.29
LTE Band4	3	20175	15	#0	QAM16	20.41	21.61
LTE Band4	3	20385	1	#0	QPSK	22.27	23.47
LTE Band4	3	20385	1	#Mid	QPSK	22.40	23.60
LTE Band4	3	20385	1	#Max	QPSK	22.44	23.64
LTE Band4	3	20385	8	#0	QPSK	21.49	22.69
LTE Band4	3	20385	8	#Mid	QPSK	21.61	22.81
LTE Band4	3	20385	8	#Max	QPSK	21.74	22.94
LTE Band4	3	20385	15	#0	QPSK	21.56	22.76
LTE Band4	3	20385	1	#0	QAM16	21.16	22.36
LTE Band4	3	20385	1	#Mid	QAM16	21.30	22.50
LTE Band4	3	20385	1	#Max	QAM16	21.47	22.67
LTE Band4	3	20385	8	#0	QAM16	20.62	21.82
LTE Band4	3	20385	8	#Mid	QAM16	20.49	21.69
LTE Band4	3	20385	8	#Max	QAM16	20.57	21.77
LTE Band4	3	20385	15	#0	QAM16	20.62	21.82
LTE Band4	5	19975	1	#0	QPSK	22.26	23.46
LTE Band4	5	19975	1	#Mid	QPSK	22.06	23.26
LTE Band4	5	19975	1	#Max	QPSK	22.03	23.23
LTE Band4	5	19975	12	#0	QPSK	21.12	22.32
LTE Band4	5	19975	12	#Mid	QPSK	21.12	22.32
LTE Band4	5	19975	12	#Max	QPSK	21.19	22.39
LTE Band4	5	19975	25	#0	QPSK	21.09	22.29
LTE Band4	5	19975	1	#0	QAM16	21.00	22.20
LTE Band4	5	19975	1	#Mid	QAM16	21.01	22.21
LTE Band4	5	19975	1	#Max	QAM16	20.98	22.18
LTE Band4	5	19975	12	#0	QAM16	20.05	21.25
LTE Band4	5	19975	12	#Mid	QAM16	20.05	21.25
LTE Band4	5	19975	12	#Max	QAM16	20.05	21.25
LTE Band4	5	19975	25	#0	QAM16	20.06	21.26
LTE Band4	5	20175	1	#0	QPSK	22.43	23.63
LTE Band4	5	20175	1	#Mid	QPSK	22.14	23.34
LTE Band4	5	20175	1	#Max	QPSK	22.08	23.28
LTE Band4	5	20175	12	#0	QPSK	21.41	22.61
LTE Band4	5	20175	12	#Mid	QPSK	21.33	22.53

LTE Band4	5	20175	12	#Max	QPSK	21.20	22.40
LTE Band4	5	20175	25	#0	QPSK	21.33	22.53
LTE Band4	5	20175	1	#0	QAM16	21.74	22.94
LTE Band4	5	20175	1	#Mid	QAM16	20.88	22.08
LTE Band4	5	20175	1	#Max	QAM16	21.35	22.55
LTE Band4	5	20175	12	#0	QAM16	20.35	21.55
LTE Band4	5	20175	12	#Mid	QAM16	20.37	21.57
LTE Band4	5	20175	12	#Max	QAM16	19.98	21.18
LTE Band4	5	20175	25	#0	QAM16	20.48	21.68
LTE Band4	5	20375	1	#0	QPSK	22.37	23.57
LTE Band4	5	20375	1	#Mid	QPSK	22.74	23.94
LTE Band4	5	20375	1	#Max	QPSK	22.87	24.07
LTE Band4	5	20375	12	#0	QPSK	21.56	22.76
LTE Band4	5	20375	12	#Mid	QPSK	21.55	22.75
LTE Band4	5	20375	12	#Max	QPSK	21.88	23.08
LTE Band4	5	20375	25	#0	QPSK	21.71	22.91
LTE Band4	5	20375	1	#0	QAM16	21.72	22.92
LTE Band4	5	20375	1	#Mid	QAM16	21.93	23.13
LTE Band4	5	20375	1	#Max	QAM16	22.12	23.32
LTE Band4	5	20375	12	#0	QAM16	20.67	21.87
LTE Band4	5	20375	12	#Mid	QAM16	20.67	21.87
LTE Band4	5	20375	12	#Max	QAM16	20.91	22.11
LTE Band4	5	20375	25	#0	QAM16	20.67	21.87
LTE Band4	10	20000	1	#0	QPSK	22.39	23.59
LTE Band4	10	20000	1	#Mid	QPSK	22.32	23.52
LTE Band4	10	20000	1	#Max	QPSK	22.32	23.52
LTE Band4	10	20000	25	#0	QPSK	21.23	22.43
LTE Band4	10	20000	25	#Mid	QPSK	21.22	22.42
LTE Band4	10	20000	25	#Max	QPSK	21.34	22.54
LTE Band4	10	20000	50	#0	QPSK	21.22	22.42
LTE Band4	10	20000	1	#0	QAM16	21.33	22.53
LTE Band4	10	20000	1	#Mid	QAM16	21.89	23.09
LTE Band4	10	20000	1	#Max	QAM16	22.02	23.22
LTE Band4	10	20000	25	#0	QAM16	20.31	21.51
LTE Band4	10	20000	25	#Mid	QAM16	20.31	21.51
LTE Band4	10	20000	25	#Max	QAM16	20.43	21.63
LTE Band4	10	20000	50	#0	QAM16	20.24	21.44
LTE Band4	10	20175	1	#0	QPSK	22.59	23.79
LTE Band4	10	20175	1	#Mid	QPSK	22.24	23.44
LTE Band4	10	20175	1	#Max	QPSK	22.07	23.27
LTE Band4	10	20175	25	#0	QPSK	21.48	22.68
LTE Band4	10	20175	25	#Mid	QPSK	21.49	22.69
LTE Band4	10	20175	25	#Max	QPSK	21.31	22.51

LTE Band4	10	20175	50	#0	QPSK	21.54	22.74
LTE Band4	10	20175	1	#0	QAM16	22.00	23.20
LTE Band4	10	20175	1	#Mid	QAM16	21.81	23.01
LTE Band4	10	20175	1	#Max	QAM16	21.80	23.00
LTE Band4	10	20175	25	#0	QAM16	20.55	21.75
LTE Band4	10	20175	25	#Mid	QAM16	20.56	21.76
LTE Band4	10	20175	25	#Max	QAM16	20.18	21.38
LTE Band4	10	20175	50	#0	QAM16	20.47	21.67
LTE Band4	10	20350	1	#0	QPSK	22.49	23.69
LTE Band4	10	20350	1	#Mid	QPSK	22.80	24.00
LTE Band4	10	20350	1	#Max	QPSK	23.12	24.32
LTE Band4	10	20350	25	#0	QPSK	21.33	22.53
LTE Band4	10	20350	25	#Mid	QPSK	21.32	22.52
LTE Band4	10	20350	25	#Max	QPSK	21.55	22.75
LTE Band4	10	20350	50	#0	QPSK	21.42	22.62
LTE Band4	10	20350	1	#0	QAM16	20.98	22.18
LTE Band4	10	20350	1	#Mid	QAM16	21.13	22.33
LTE Band4	10	20350	1	#Max	QAM16	21.41	22.61
LTE Band4	10	20350	25	#0	QAM16	20.43	21.63
LTE Band4	10	20350	25	#Mid	QAM16	20.42	21.62
LTE Band4	10	20350	25	#Max	QAM16	20.53	21.73
LTE Band4	10	20350	50	#0	QAM16	20.45	21.65
LTE Band4	15	20025	1	#0	QPSK	22.20	23.40
LTE Band4	15	20025	1	#Mid	QPSK	22.16	23.36
LTE Band4	15	20025	1	#Max	QPSK	22.41	23.61
LTE Band4	15	20025	36	#0	QPSK	21.20	22.40
LTE Band4	15	20025	36	#Mid	QPSK	21.20	22.40
LTE Band4	15	20025	36	#Max	QPSK	21.44	22.64
LTE Band4	15	20025	75	#0	QPSK	21.22	22.42
LTE Band4	15	20025	1	#0	QAM16	21.27	22.47
LTE Band4	15	20025	1	#Mid	QAM16	21.95	23.15
LTE Band4	15	20025	1	#Max	QAM16	22.21	23.41
LTE Band4	15	20025	36	#0	QAM16	19.99	21.19
LTE Band4	15	20025	36	#Mid	QAM16	20.06	21.26
LTE Band4	15	20025	36	#Max	QAM16	20.38	21.58
LTE Band4	15	20025	75	#0	QAM16	20.05	21.25
LTE Band4	15	20175	1	#0	QPSK	22.54	23.74
LTE Band4	15	20175	1	#Mid	QPSK	21.94	23.14
LTE Band4	15	20175	1	#Max	QPSK	22.15	23.35
LTE Band4	15	20175	36	#0	QPSK	21.47	22.67
LTE Band4	15	20175	36	#Mid	QPSK	21.47	22.67
LTE Band4	15	20175	36	#Max	QPSK	21.13	22.33
LTE Band4	15	20175	75	#0	QPSK	21.24	22.44

LTE Band4	15	20175	1	#0	QAM16	21.92	23.12
LTE Band4	15	20175	1	#Mid	QAM16	21.72	22.92
LTE Band4	15	20175	1	#Max	QAM16	21.87	23.07
LTE Band4	15	20175	36	#0	QAM16	20.54	21.74
LTE Band4	15	20175	36	#Mid	QAM16	20.58	21.78
LTE Band4	15	20175	36	#Max	QAM16	20.03	21.23
LTE Band4	15	20175	75	#0	QAM16	20.30	21.50
LTE Band4	15	20325	1	#0	QPSK	22.46	23.66
LTE Band4	15	20325	1	#Mid	QPSK	22.32	23.52
LTE Band4	15	20325	1	#Max	QPSK	22.72	23.92
LTE Band4	15	20325	36	#0	QPSK	21.07	22.27
LTE Band4	15	20325	36	#Mid	QPSK	21.17	22.37
LTE Band4	15	20325	36	#Max	QPSK	21.45	22.65
LTE Band4	15	20325	75	#0	QPSK	21.23	22.43
LTE Band4	15	20325	1	#0	QAM16	21.01	22.21
LTE Band4	15	20325	1	#Mid	QAM16	21.00	22.20
LTE Band4	15	20325	1	#Max	QAM16	21.28	22.48
LTE Band4	15	20325	36	#0	QAM16	20.07	21.27
LTE Band4	15	20325	36	#Mid	QAM16	20.09	21.29
LTE Band4	15	20325	36	#Max	QAM16	20.54	21.74
LTE Band4	15	20325	75	#0	QAM16	20.27	21.47
LTE Band4	20	20050	1	#0	QPSK	21.96	23.16
LTE Band4	20	20050	1	#Mid	QPSK	22.48	23.68
LTE Band4	20	20050	1	#Max	QPSK	22.04	23.24
LTE Band4	20	20050	50	#0	QPSK	21.05	22.25
LTE Band4	20	20050	50	#Mid	QPSK	21.03	22.23
LTE Band4	20	20050	50	#Max	QPSK	21.49	22.69
LTE Band4	20	20050	100	#0	QPSK	21.26	22.46
LTE Band4	20	20050	1	#0	QAM16	21.25	22.45
LTE Band4	20	20050	1	#Mid	QAM16	21.80	23.00
LTE Band4	20	20050	1	#Max	QAM16	21.47	22.67
LTE Band4	20	20050	50	#0	QAM16	20.20	21.40
LTE Band4	20	20050	50	#Mid	QAM16	20.19	21.39
LTE Band4	20	20050	50	#Max	QAM16	20.45	21.65
LTE Band4	20	20050	100	#0	QAM16	20.31	21.51
LTE Band4	20	20175	1	#0	QPSK	22.42	23.62
LTE Band4	20	20175	1	#Mid	QPSK	22.27	23.47
LTE Band4	20	20175	1	#Max	QPSK	22.33	23.53
LTE Band4	20	20175	50	#0	QPSK	21.48	22.68
LTE Band4	20	20175	50	#Mid	QPSK	21.49	22.69
LTE Band4	20	20175	50	#Max	QPSK	21.09	22.29
LTE Band4	20	20175	100	#0	QPSK	21.33	22.53
LTE Band4	20	20175	1	#0	QAM16	21.14	22.34

LTE Band4	20	20175	1	#Mid	QAM16	20.46	21.66
LTE Band4	20	20175	1	#Max	QAM16	20.73	21.93
LTE Band4	20	20175	50	#0	QAM16	20.50	21.70
LTE Band4	20	20175	50	#Mid	QAM16	20.36	21.56
LTE Band4	20	20175	50	#Max	QAM16	20.11	21.31
LTE Band4	20	20175	100	#0	QAM16	20.38	21.58
LTE Band4	20	20300	1	#0	QPSK	22.07	23.27
LTE Band4	20	20300	1	#Mid	QPSK	22.40	23.60
LTE Band4	20	20300	1	#Max	QPSK	22.73	23.93
LTE Band4	20	20300	50	#0	QPSK	21.25	22.45
LTE Band4	20	20300	50	#Mid	QPSK	21.25	22.45
LTE Band4	20	20300	50	#Max	QPSK	21.34	22.54
LTE Band4	20	20300	100	#0	QPSK	21.27	22.47
LTE Band4	20	20300	1	#0	QAM16	21.16	22.36
LTE Band4	20	20300	1	#Mid	QAM16	21.34	22.54
LTE Band4	20	20300	1	#Max	QAM16	21.63	22.83
LTE Band4	20	20300	50	#0	QAM16	20.24	21.44
LTE Band4	20	20300	50	#Mid	QAM16	20.34	21.54
LTE Band4	20	20300	50	#Max	QAM16	20.48	21.68
LTE Band4	20	20300	100	#0	QAM16	20.23	21.43

Band	Bandwidth (MHz)	UL Channel	RB Size	RB Position	Modulation	Power (dBm)	EIRP
LTE Band12	1.4	23017	1	#0	QPSK	22.47	18.82
LTE Band12	1.4	23017	1	#Mid	QPSK	22.54	18.89
LTE Band12	1.4	23017	1	#Max	QPSK	22.45	18.80
LTE Band12	1.4	23017	3	#0	QPSK	22.23	18.58
LTE Band12	1.4	23017	3	#Mid	QPSK	22.23	18.58
LTE Band12	1.4	23017	3	#Max	QPSK	22.12	18.47
LTE Band12	1.4	23017	6	#0	QPSK	21.36	17.71
LTE Band12	1.4	23017	1	#0	QAM16	21.28	17.63
LTE Band12	1.4	23017	1	#Mid	QAM16	21.58	17.93
LTE Band12	1.4	23017	1	#Max	QAM16	21.39	17.74
LTE Band12	1.4	23017	3	#0	QAM16	21.41	17.76
LTE Band12	1.4	23017	3	#Mid	QAM16	21.22	17.57
LTE Band12	1.4	23017	3	#Max	QAM16	21.06	17.41
LTE Band12	1.4	23017	6	#0	QAM16	20.27	16.62
LTE Band12	1.4	23095	1	#0	QPSK	22.47	18.82
LTE Band12	1.4	23095	1	#Mid	QPSK	22.66	19.01
LTE Band12	1.4	23095	1	#Max	QPSK	22.42	18.77
LTE Band12	1.4	23095	3	#0	QPSK	22.11	18.46
LTE Band12	1.4	23095	3	#Mid	QPSK	22.10	18.45
LTE Band12	1.4	23095	3	#Max	QPSK	22.27	18.62

LTE Band12	1.4	23095	6	#0	QPSK	21.36	17.71
LTE Band12	1.4	23095	1	#0	QAM16	21.31	17.66
LTE Band12	1.4	23095	1	#Mid	QAM16	21.65	18.00
LTE Band12	1.4	23095	1	#Max	QAM16	21.76	18.11
LTE Band12	1.4	23095	3	#0	QAM16	21.09	17.44
LTE Band12	1.4	23095	3	#Mid	QAM16	21.09	17.44
LTE Band12	1.4	23095	3	#Max	QAM16	21.31	17.66
LTE Band12	1.4	23095	6	#0	QAM16	20.03	16.38
LTE Band12	1.4	23173	1	#0	QPSK	22.46	18.81
LTE Band12	1.4	23173	1	#Mid	QPSK	22.48	18.83
LTE Band12	1.4	23173	1	#Max	QPSK	22.30	18.65
LTE Band12	1.4	23173	3	#0	QPSK	22.11	18.46
LTE Band12	1.4	23173	3	#Mid	QPSK	22.14	18.49
LTE Band12	1.4	23173	3	#Max	QPSK	22.19	18.54
LTE Band12	1.4	23173	6	#0	QPSK	21.28	17.63
LTE Band12	1.4	23173	1	#0	QAM16	20.78	17.13
LTE Band12	1.4	23173	1	#Mid	QAM16	21.15	17.50
LTE Band12	1.4	23173	1	#Max	QAM16	21.21	17.56
LTE Band12	1.4	23173	3	#0	QAM16	21.15	17.50
LTE Band12	1.4	23173	3	#Mid	QAM16	21.11	17.46
LTE Band12	1.4	23173	3	#Max	QAM16	21.46	17.81
LTE Band12	1.4	23173	6	#0	QAM16	20.39	16.74
LTE Band12	3	23025	1	#0	QPSK	22.12	18.47
LTE Band12	3	23025	1	#Mid	QPSK	22.08	18.43
LTE Band12	3	23025	1	#Max	QPSK	21.98	18.33
LTE Band12	3	23025	8	#0	QPSK	21.37	17.72
LTE Band12	3	23025	8	#Mid	QPSK	21.27	17.62
LTE Band12	3	23025	8	#Max	QPSK	21.05	17.40
LTE Band12	3	23025	15	#0	QPSK	21.25	17.60
LTE Band12	3	23025	1	#0	QAM16	21.21	17.56
LTE Band12	3	23025	1	#Mid	QAM16	21.02	17.37
LTE Band12	3	23025	1	#Max	QAM16	20.61	16.96
LTE Band12	3	23025	8	#0	QAM16	20.74	17.09
LTE Band12	3	23025	8	#Mid	QAM16	20.74	17.09
LTE Band12	3	23025	8	#Max	QAM16	19.79	16.14
LTE Band12	3	23025	15	#0	QAM16	20.22	16.57
LTE Band12	3	23095	1	#0	QPSK	22.59	18.94
LTE Band12	3	23095	1	#Mid	QPSK	22.47	18.82
LTE Band12	3	23095	1	#Max	QPSK	22.39	18.74
LTE Band12	3	23095	8	#0	QPSK	21.35	17.70
LTE Band12	3	23095	8	#Mid	QPSK	21.30	17.65
LTE Band12	3	23095	8	#Max	QPSK	21.55	17.90
LTE Band12	3	23095	15	#0	QPSK	21.33	17.68

LTE Band12	3	23095	1	#0	QAM16	21.70	18.05
LTE Band12	3	23095	1	#Mid	QAM16	22.44	18.79
LTE Band12	3	23095	1	#Max	QAM16	22.43	18.78
LTE Band12	3	23095	8	#0	QAM16	20.08	16.43
LTE Band12	3	23095	8	#Mid	QAM16	20.08	16.43
LTE Band12	3	23095	8	#Max	QAM16	20.67	17.02
LTE Band12	3	23095	15	#0	QAM16	20.39	16.74
LTE Band12	3	23165	1	#0	QPSK	22.26	18.61
LTE Band12	3	23165	1	#Mid	QPSK	22.45	18.80
LTE Band12	3	23165	1	#Max	QPSK	22.81	19.16
LTE Band12	3	23165	8	#0	QPSK	21.41	17.76
LTE Band12	3	23165	8	#Mid	QPSK	21.43	17.78
LTE Band12	3	23165	8	#Max	QPSK	21.34	17.69
LTE Band12	3	23165	15	#0	QPSK	21.26	17.61
LTE Band12	3	23165	1	#0	QAM16	21.15	17.50
LTE Band12	3	23165	1	#Mid	QAM16	21.16	17.51
LTE Band12	3	23165	1	#Max	QAM16	21.41	17.76
LTE Band12	3	23165	8	#0	QAM16	20.16	16.51
LTE Band12	3	23165	8	#Mid	QAM16	20.18	16.53
LTE Band12	3	23165	8	#Max	QAM16	20.36	16.71
LTE Band12	3	23165	15	#0	QAM16	20.05	16.40
LTE Band12	5	23035	1	#0	QPSK	22.04	18.39
LTE Band12	5	23035	1	#Mid	QPSK	22.00	18.35
LTE Band12	5	23035	1	#Max	QPSK	22.10	18.45
LTE Band12	5	23035	12	#0	QPSK	21.22	17.57
LTE Band12	5	23035	12	#Mid	QPSK	21.23	17.58
LTE Band12	5	23035	12	#Max	QPSK	21.06	17.41
LTE Band12	5	23035	25	#0	QPSK	21.20	17.55
LTE Band12	5	23035	1	#0	QAM16	20.96	17.31
LTE Band12	5	23035	1	#Mid	QAM16	20.78	17.13
LTE Band12	5	23035	1	#Max	QAM16	20.81	17.16
LTE Band12	5	23035	12	#0	QAM16	19.99	16.34
LTE Band12	5	23035	12	#Mid	QAM16	20.05	16.40
LTE Band12	5	23035	12	#Max	QAM16	19.96	16.31
LTE Band12	5	23035	25	#0	QAM16	20.31	16.66
LTE Band12	5	23095	1	#0	QPSK	22.10	18.45
LTE Band12	5	23095	1	#Mid	QPSK	22.21	18.56
LTE Band12	5	23095	1	#Max	QPSK	22.27	18.62
LTE Band12	5	23095	12	#0	QPSK	21.32	17.67
LTE Band12	5	23095	12	#Mid	QPSK	21.31	17.66
LTE Band12	5	23095	12	#Max	QPSK	21.48	17.83
LTE Band12	5	23095	25	#0	QPSK	21.14	17.49
LTE Band12	5	23095	1	#0	QAM16	21.40	17.75

LTE Band12	5	23095	1	#Mid	QAM16	21.73	18.08
LTE Band12	5	23095	1	#Max	QAM16	21.72	18.07
LTE Band12	5	23095	12	#0	QAM16	19.93	16.28
LTE Band12	5	23095	12	#Mid	QAM16	19.92	16.27
LTE Band12	5	23095	12	#Max	QAM16	20.14	16.49
LTE Band12	5	23095	25	#0	QAM16	20.18	16.53
LTE Band12	5	23155	1	#0	QPSK	22.16	18.51
LTE Band12	5	23155	1	#Mid	QPSK	22.28	18.63
LTE Band12	5	23155	1	#Max	QPSK	22.53	18.88
LTE Band12	5	23155	12	#0	QPSK	21.27	17.62
LTE Band12	5	23155	12	#Mid	QPSK	21.30	17.65
LTE Band12	5	23155	12	#Max	QPSK	21.23	17.58
LTE Band12	5	23155	25	#0	QPSK	21.34	17.69
LTE Band12	5	23155	1	#0	QAM16	21.18	17.53
LTE Band12	5	23155	1	#Mid	QAM16	20.37	16.72
LTE Band12	5	23155	1	#Max	QAM16	21.18	17.53
LTE Band12	5	23155	12	#0	QAM16	20.21	16.56
LTE Band12	5	23155	12	#Mid	QAM16	20.24	16.59
LTE Band12	5	23155	12	#Max	QAM16	19.98	16.33
LTE Band12	5	23155	25	#0	QAM16	20.12	16.47
LTE Band12	10	23060	1	#0	QPSK	22.17	18.52
LTE Band12	10	23060	1	#Mid	QPSK	22.16	18.51
LTE Band12	10	23060	1	#Max	QPSK	22.26	18.61
LTE Band12	10	23060	25	#0	QPSK	21.09	17.44
LTE Band12	10	23060	25	#Mid	QPSK	21.09	17.44
LTE Band12	10	23060	25	#Max	QPSK	21.45	17.80
LTE Band12	10	23060	50	#0	QPSK	21.28	17.63
LTE Band12	10	23060	1	#0	QAM16	21.28	17.63
LTE Band12	10	23060	1	#Mid	QAM16	20.89	17.24
LTE Band12	10	23060	1	#Max	QAM16	21.25	17.60
LTE Band12	10	23060	25	#0	QAM16	20.10	16.45
LTE Band12	10	23060	25	#Mid	QAM16	20.10	16.45
LTE Band12	10	23060	25	#Max	QAM16	20.31	16.66
LTE Band12	10	23060	50	#0	QAM16	20.15	16.50
LTE Band12	10	23095	1	#0	QPSK	22.16	18.51
LTE Band12	10	23095	1	#Mid	QPSK	22.47	18.82
LTE Band12	10	23095	1	#Max	QPSK	22.06	18.41
LTE Band12	10	23095	25	#0	QPSK	21.22	17.57
LTE Band12	10	23095	25	#Mid	QPSK	21.21	17.56
LTE Band12	10	23095	25	#Max	QPSK	21.29	17.64
LTE Band12	10	23095	50	#0	QPSK	21.25	17.60
LTE Band12	10	23095	1	#0	QAM16	21.88	18.23
LTE Band12	10	23095	1	#Mid	QAM16	22.00	18.35

LTE Band12	10	23095	1	#Max	QAM16	21.66	18.01
LTE Band12	10	23095	25	#0	QAM16	20.16	16.51
LTE Band12	10	23095	25	#Mid	QAM16	20.26	16.61
LTE Band12	10	23095	25	#Max	QAM16	20.44	16.79
LTE Band12	10	23095	50	#0	QAM16	20.09	16.44
LTE Band12	10	23130	1	#0	QPSK	22.13	18.48
LTE Band12	10	23130	1	#Mid	QPSK	22.70	19.05
LTE Band12	10	23130	1	#Max	QPSK	22.01	18.36
LTE Band12	10	23130	25	#0	QPSK	21.48	17.83
LTE Band12	10	23130	25	#Mid	QPSK	21.38	17.73
LTE Band12	10	23130	25	#Max	QPSK	21.17	17.52
LTE Band12	10	23130	50	#0	QPSK	21.38	17.73
LTE Band12	10	23130	1	#0	QAM16	20.84	17.19
LTE Band12	10	23130	1	#Mid	QAM16	21.31	17.66
LTE Band12	10	23130	1	#Max	QAM16	20.59	16.94
LTE Band12	10	23130	25	#0	QAM16	20.29	16.64
LTE Band12	10	23130	25	#Mid	QAM16	20.27	16.62
LTE Band12	10	23130	25	#Max	QAM16	20.25	16.60
LTE Band12	10	23130	50	#0	QAM16	20.26	16.61

5.2 Radiates Spurious Emission

Ambient condition

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

Method of Measurement

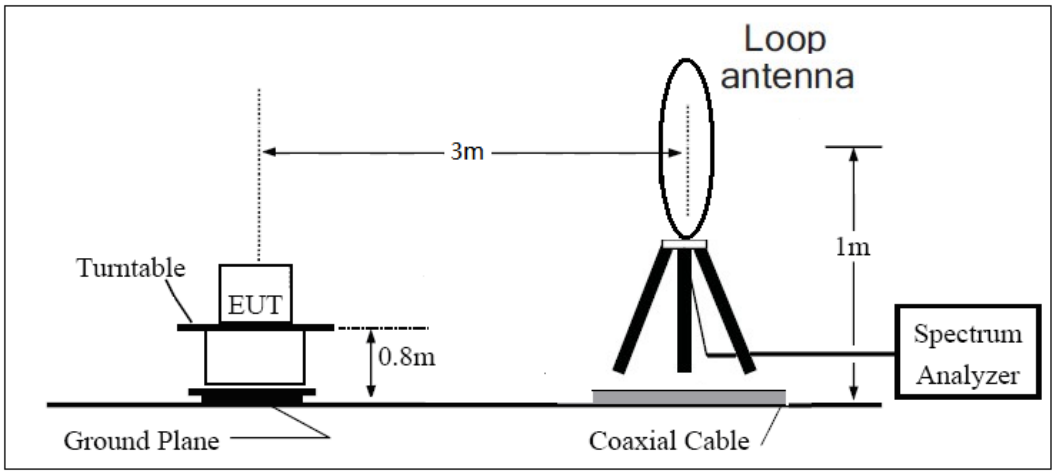
1. The testing follows FCC KDB 971168 D01 v03r01 Section 5.8 and ANSI C63.26 (2015).
2. Below 1GHz: The EUT is placed on a turntable 0.8 meters above the ground in the chamber, 3 meter away from the antenna. The maximal emission value is acquired by adjusting the antenna height, polarisation and turntable 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 9kHz150kHz , 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:
Power(EIRP)=PMea- PAg - Pcl + Ga
The measurement results are amend as described below:
Power(EIRP)=PMea- Pcl + 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.

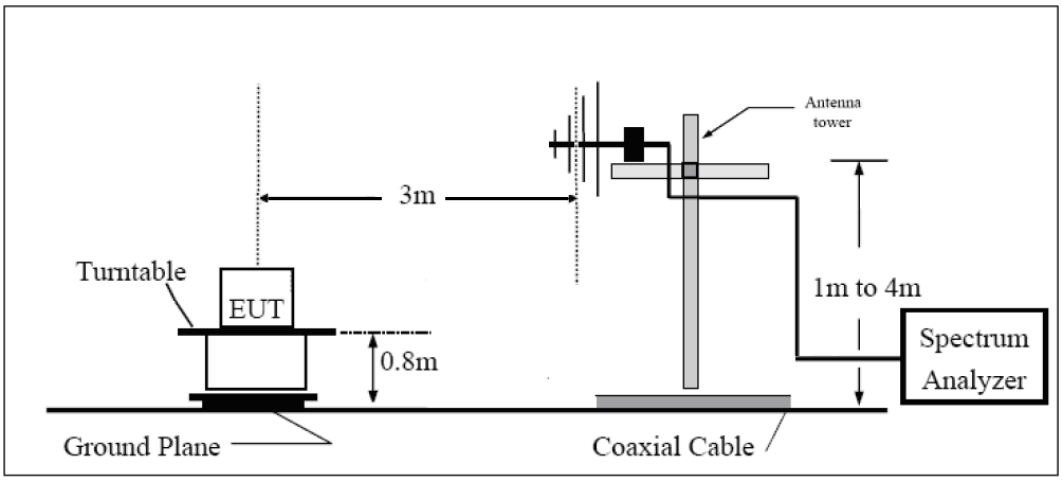
The modulation mode and RB allocation refer to section 5.1, using the maximum output power configuration.

Test setup

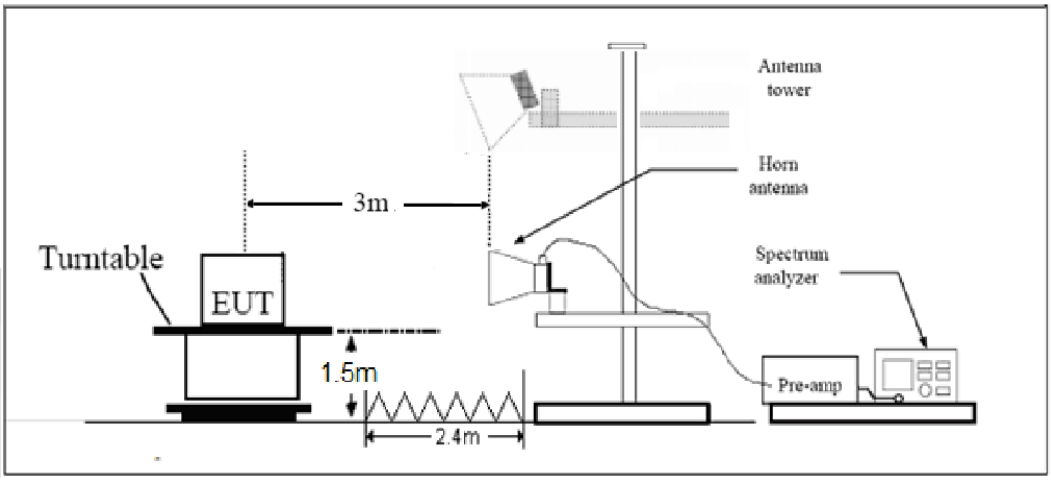
9KHz ~ 30MHz



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 log10 (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.

Part 27.53 (h)/(g) Limit	-13 dBm

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95％ confidence level for the normal distribution is with the coverage factor k = ±1.96, U= ±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	-62.33	2.6	10.75	Horizontal	-54.18	-13.00	41.18	225
3	5197.80	-57.11	2.4	11.05	Horizontal	-48.46	-13.00	35.46	90
4	6930.40	-61.42	4.5	11.15	Horizontal	-54.77	-13.00	41.77	180
5	8663.00	-55.73	5.1	11.35	Horizontal	-49.48	-13.00	36.48	0
6	10395.60	-51.48	5.3	11.95	Horizontal	-44.83	-13.00	31.83	315
7	12128.20	-53.00	5.5	13.55	Horizontal	-44.95	-13.00	31.95	270
8	13860.80	-51.03	6.3	13.75	Horizontal	-43.58	-13.00	30.58	135
9	15593.40	-46.99	6.7	13.85	Horizontal	-39.84	-13.00	26.84	45
10	17326.00	-44.05	6.8	14.25	Horizontal	-36.60	-13.00	23.60	270
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	-59.99	2.6	10.75	Horizontal	-51.84	-13.00	38.84	90
3	5197.50	-55.97	2.4	11.05	Horizontal	-47.32	-13.00	34.32	135
4	6930.00	-61.56	4.5	11.15	Horizontal	-54.91	-13.00	41.91	270
5	8662.50	-55.69	5.1	11.35	Horizontal	-49.44	-13.00	36.44	45
6	10395.00	-52.06	5.3	11.95	Horizontal	-45.41	-13.00	32.41	135
7	12127.50	-53.09	5.5	13.55	Horizontal	-45.04	-13.00	32.04	180
8	13860.00	-51.30	6.3	13.75	Horizontal	-43.85	-13.00	30.85	90
9	15592.50	-47.56	6.7	13.85	Horizontal	-40.41	-13.00	27.41	225
10	17325.00	-43.82	6.8	14.25	Horizontal	-36.37	-13.00	23.37	270
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	-59.02	2.6	10.75	Horizontal	-50.87	-13.00	37.87	225
3	5191.50	-54.88	2.4	11.05	Horizontal	-46.23	-13.00	33.23	90
4	6930.00	-60.61	4.5	11.15	Horizontal	-53.96	-13.00	40.96	180
5	8662.50	-55.15	5.1	11.35	Horizontal	-48.90	-13.00	35.90	270
6	10395.00	-51.85	5.3	11.95	Horizontal	-45.20	-13.00	32.20	315
7	12127.50	-53.56	5.5	13.55	Horizontal	-45.51	-13.00	32.51	225
8	13860.00	-51.21	6.3	13.75	Horizontal	-43.76	-13.00	30.76	45
9	15592.50	-48.69	6.7	13.85	Horizontal	-41.54	-13.00	28.54	135
10	17325.00	-44.51	6.8	14.25	Horizontal	-37.06	-13.00	24.06	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 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	3447.00	-57.29	2.6	10.75	Horizontal	-49.14	-13.00	36.14	45
3	5170.88	-53.90	2.4	11.05	Horizontal	-45.25	-13.00	32.25	180
4	6930.00	-61.03	4.5	11.15	Horizontal	-54.38	-13.00	41.38	0
5	8662.50	-55.51	5.1	11.35	Horizontal	-49.26	-13.00	36.26	225
6	10395.00	-51.76	5.3	11.95	Horizontal	-45.11	-13.00	32.11	90
7	12127.50	-53.00	5.5	13.55	Horizontal	-44.95	-13.00	31.95	315
8	13860.00	-51.31	6.3	13.75	Horizontal	-43.86	-13.00	30.86	45
9	15592.50	-48.87	6.7	13.85	Horizontal	-41.72	-13.00	28.72	225
10	17325.00	-44.38	6.8	14.25	Horizontal	-36.93	-13.00	23.93	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 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	-75.16	2.00	10.75	Horizontal	-68.56	-13.00	55.56	225
3	2122.50	-35.89	2.51	11.05	Horizontal	-29.50	-13.00	16.50	315
4	2830.00	-45.49	4.20	11.15	Horizontal	-40.69	-13.00	27.69	180
5	3537.50	-47.40	5.20	11.15	Horizontal	-43.60	-13.00	30.60	180
6	4245.00	-55.31	5.50	11.95	Horizontal	-51.01	-13.00	38.01	135
7	4952.50	-57.13	5.70	13.55	Horizontal	-51.43	-13.00	38.43	0
8	5660.00	-57.57	6.30	13.75	Horizontal	-52.27	-13.00	39.27	270
9	6367.50	-58.57	6.80	13.85	Horizontal	-53.67	-13.00	40.67	45
10	7075.00	-58.50	6.90	14.25	Horizontal	-53.30	-13.00	40.30	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 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	1415.00	-73.36	2.00	10.75	Horizontal	-66.76	-13.00	53.76	45
3	2122.50	-37.44	2.51	11.05	Horizontal	-31.05	-13.00	18.05	0
4	2830.00	-48.13	4.20	11.15	Horizontal	-43.33	-13.00	30.33	135
5	3537.50	-47.54	5.20	11.15	Horizontal	-43.74	-13.00	30.74	0
6	4245.00	-56.44	5.50	11.95	Horizontal	-52.14	-13.00	39.14	135
7	4952.50	-57.64	5.70	13.55	Horizontal	-51.94	-13.00	38.94	45
8	5660.00	-57.34	6.30	13.75	Horizontal	-52.04	-13.00	39.04	180
9	6367.50	-58.39	6.80	13.85	Horizontal	-53.49	-13.00	40.49	90
10	7075.00	-58.40	6.90	14.25	Horizontal	-53.20	-13.00	40.20	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 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	1415.00	-76.53	2.00	10.75	Horizontal	-69.93	-13.00	56.93	45
3	2122.50	-45.86	2.51	11.05	Horizontal	-39.47	-13.00	26.47	225
4	2830.00	-48.87	4.20	11.15	Horizontal	-44.07	-13.00	31.07	90
5	3537.50	-47.15	5.20	11.15	Horizontal	-43.35	-13.00	30.35	270
6	4245.00	-54.50	5.50	11.95	Horizontal	-50.20	-13.00	37.20	90
7	4952.50	-57.99	5.70	13.55	Horizontal	-52.29	-13.00	39.29	180
8	5660.00	-57.01	6.30	13.75	Horizontal	-51.71	-13.00	38.71	225
9	6367.50	-58.63	6.80	13.85	Horizontal	-53.73	-13.00	40.73	45
10	7075.00	-58.94	6.90	14.25	Horizontal	-53.74	-13.00	40.74	135
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	2019-05-19	2020-05-18
Power Splitter	Hua Xiang	SHX-GF2-2-13	10120101	/	/
Spectrum Analyzer	Key sight	N9010A	MY50210259	2019-05-19	2020-05-18
Signal Analyzer	R&S	FSV30	100815	2018-12-16	2020-12-15
Loop Antenna	SCHWARZBECK	FMZB1519	1519-047	2017-09-26	2020-09-25
Trilog Antenna	SCHWARZBECK	VUBL 9163	9163-201	2017-11-18	2020-11-17
Horn Antenna	R&S	HF907	100126	2018-07-07	2020-07-06
Horn Antenna	ETS-Lindgren	3160-09	00102643	2018-06-20	2020-06-19
Horn Antenna	STEATITE	QSH-SL-26-40-K-15	16779	2017-07-20	2020-07-19
Signal generator	R&S	SMB 100A	102594	2019-05-19	2020-05-18
Climatic Chamber	ESPEC	SU-242	93000506	2017-12-17	2020-12-16
Preampflier	R&S	SCU18	102327	2019-05-19	2020-05-18
MOB COMMS DC SUPPLY	Keysight	66319D	MY43004105	2019-05-19	2020-05-18
RF Cable	Agilent	SMA 15cm	0001	2019-12-13	2020-06-12
Software	R&S	EMC32	9.26.0	/	/

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