



# RF TEST REPORT

**Applicant** Hytera Communications  
Corporation Limited

**FCC ID** YAMPNC380S

**Product** PoC Radio

**Brand** Hytera

**Model** PNC380S

**Report No.** R2004A0208-R1

**Issue Date** June 18, 2020

TA Technology (Shanghai) Co., Ltd. tested the above equipment in accordance with the requirements in **FCC CFR47 Part 2 (2019)/ FCC CFR 47 Part 22H (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

No.	Test Case	Clause in FCC rules	Verdict
1	RF Power Output and Effective Radiated Power	2.1046 22.913(a)(5)	PASS
2	Radiates Spurious Emission	2.1053 / 22.917 (a)	PASS
Date of Testing: April 25, 2020~ June 4, 2020			
Note: 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.			

**There is only tested RF power output, Effective Radiated Power and Radiates Spurious Emission in this report. For other conducted test results please refers to the module report(Report No.: FG741007A) and (Report No.: FG741007B).**



## 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  
City: Shanghai  
Post code: 201201  
Country: P. R. China  
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## 2. General Description of Equipment under Test

### 2.3. Applicant and Manufacturer Information

Applicant	Hytera Communications Corporation Limited
Applicant address	Hytera Tower, Hi-Tech Industrial Park North, 9108# Beihuan Road, Nanshan District, Shenzhen, People's Republic of China
Manufacturer	Hytera Communications Corporation Limited
Manufacturer address	Hytera Tower, Hi-Tech Industrial Park North, 9108# Beihuan Road, Nanshan District, Shenzhen, People's Republic of China

### 2.4. General Information

EUT Description			
Model	PNC380S		
IMEI	860046040051346		
Hardware Version	5001010053083		
Software Version	V1.0.02.000.01		
Power Supply	Battery/AC adapter		
Antenna Type	Internal Antenna		
Antenna Gain	0.1dBi		
Test Mode(s)	GSM 850; WCDMA Band V; LTE Band 5/26;		
Test Modulation	(GSM/GPRS)GMSK, (EGPRS) GMSK/8PSK; (WCDMA) BPSK, QPSK, 16QAM; (LTE)QPSK 16QAM;		
GPRS Multislot Class	33		
EGPRS Multislot Class	33		
HSDPA UE Category	24		
HSUPA UE Category	6		
DC-HSDPA UE Category	24		
HSPA+ UE Category	6		
LTE Category	4		
Maximum E.R.P.	GSM 850:	31.37dBm	
	WCDMA Band V:	23.19dBm	
	LTE Band 5:	21.31dBm	
	LTE Band 26:	21.17dBm	
Rated Power Supply Voltage	3.8V		
Extreme Voltage	Minimum: 3.3V    Maximum: 4.4V		
Extreme Temperature	Lowest: -20°C    Highest: +60°C		
Operating Frequency Range(s)	Band	Tx (MHz)	Rx (MHz)
	GSM850	824 ~ 849	869 ~ 894
	WCDMA Band V	824 ~ 849	869 ~ 894



	LTE Band 5	824 ~ 849	869 ~ 894
	LTE Band 26	824 ~ 849	869 ~ 894
<b>EUT Accessory</b>			
Adapter	Manufacturer: HUIZHOU GOLDEN LAKE INDUSTRIAL CO., LTD. Model: S010WU0500200		
Battery	Manufacturer: FPR Connectivity Technology Inc. Model: BP4006		
USB Cable	10cm 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 CFR 47 Part 22H (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 were investigated. Subsequently, only the worst case emissions are reported.

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

Test modes are chosen to be reported as the worst case configuration below:

Test items	Modes/Modulation	
	GSM 850	WCDMA Band V
RF Power Output and Effective Radiated power	GSM GPRS EGPRS	RMC HSDPA/HSUPA DC-HSDPA/HSPA+
Radiates Spurious Emission	GSM	RMC

Test modes are chosen as the worst case configuration below for LTE Band 5/26

Test items	Modes	Bandwidth (MHz)					Modulation		RB			Test Channel		
		1.4	3	5	10	15	QPSK	16QAM	1	50%	100%	L	M	H
RF power output and Effective Radiated power	LTE 5	O	O	O	O	-	O	O	O	O	O	O	O	O
	LTE 26	O	O	O	O	O	O	O	O	O	O	O	O	O
Radiates Spurious Emission	LTE 5	O	-	O	O	-	O	-	O	-	-	-	O	-
	LTE 26	O	-	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

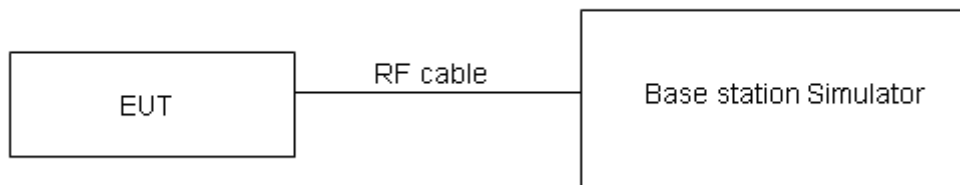
During the process of the testing, The EUT is controlled by the Base Station Simulator to ensure max power transmission and proper modulation.

The testing follows FCC KDB 971168 v03r01 Section 5.8 and ANSI C63.26 (2015).

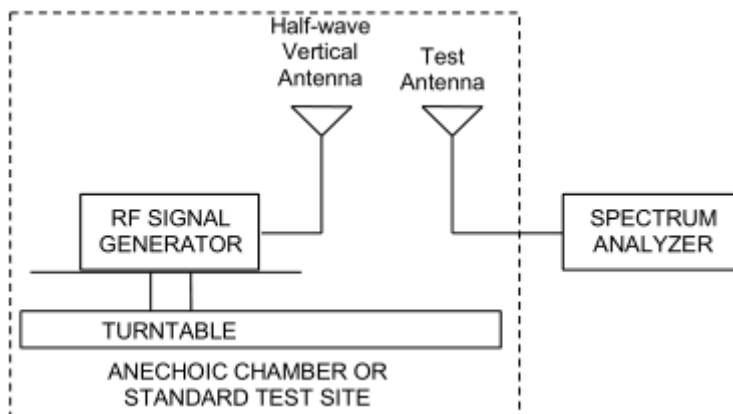
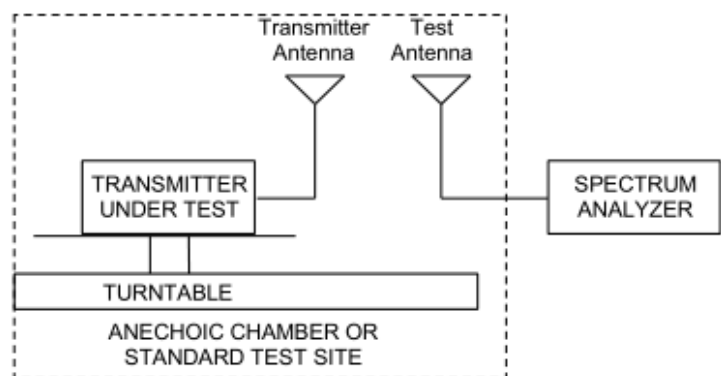
- a) Connect the equipment as illustrated. Mount the equipment with the manufacturer specified antenna in a vertical orientation on a manufacturer specified mounting surface located on a non-conducting rotating platform of a RF anechoic chamber (preferred) or a standard radiation site.
- b) Key the transmitter, 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.  $LOSS = \text{Generator Output Power (dBm)} - \text{Analyzer reading (dBm)}$
- e) Determine the effective radiated output power at each angular position from the readings in steps b) and d) using the following equation:  $ERP \text{ (dBm)} = \text{LVL (dBm)} + \text{LOSS (dB)}$
- 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:  
 $EIRP \text{ (dBm)} = \text{Output Power (dBm)} - \text{Losses (dB)} + \text{Antenna Gain (dBi)}$   
 where: dBd refers to gain relative to an ideal dipole.  
 $EIRP \text{ (dBm)} = ERP \text{ (dBm)} + 2.15 \text{ (dB.)}$

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.



**Limits**

No specific RF power output requirements in part 2.1046.

Rule Part 22.913(a)(5) specifies that "Mobile/portable stations are limited to 7 watts ERP".

Limit	$\leq 7 \text{ W}$ (38.45 dBm)
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**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 .

**Test Results**

GSM 850		Conducted Power (dBm)			ERP (dBm)		
		Channel 128	Channel 190	Channel 251	Channel 128	Channel 190	Channel 251
		824.2 (MHz)	836.6 (MHz)	848.8 (MHz)	824.2 (MHz)	836.6 (MHz)	848.8 (MHz)
GPRS (GMSK)	1TXslot	33.42	33.33	33.34	31.37	31.28	31.29
	2TXslots	33.26	33.18	33.24	31.21	31.13	31.19
	3TXslots	31.48	31.57	31.52	29.43	29.52	29.47
	4TXslots	30.13	30.11	30.07	28.08	28.06	28.02
EGPRS (8PSK)	1TXslot	27.76	27.72	27.59	25.71	25.67	25.54
	2TXslots	27.04	27.12	27.17	24.99	25.07	25.12
	3TXslots	26.96	27.02	26.95	24.91	24.97	24.90
	4TXslots	26.47	26.72	26.87	24.42	24.67	24.82

WCDMA Band V		Conducted Power (dBm)			ERP (dBm)		
		Channel 4132	Channel 4183	Channel 4233	Channel 4132	Channel 4183	Channel 4233
		826.4 (MHz)	836.6 (MHz)	846.6 (MHz)	826.4 (MHz)	836.6 (MHz)	846.6 (MHz)
<b>RMC</b>		23.19	23.28	23.21	23.19	21.23	21.16
<b>HSDPA</b>	Sub - Test 1	22.65	22.70	22.65	22.65	20.65	20.60
	Sub - Test 2	22.64	22.72	22.62	22.64	20.67	20.57
	Sub - Test 3	22.11	22.22	22.14	22.11	20.17	20.09
	Sub - Test 4	22.12	22.23	22.12	22.12	20.18	20.07
<b>HSUPA</b>	Sub - Test 1	22.61	22.69	22.60	22.61	20.64	20.55
	Sub - Test 2	21.60	21.67	21.59	21.60	19.62	19.54
	Sub - Test 3	22.07	22.15	22.08	22.07	20.10	20.03
	Sub - Test 4	21.53	21.64	21.56	21.53	19.59	19.51
	Sub - Test 5	22.54	22.62	22.54	22.54	20.57	20.49
<b>DC-HSDPA</b>	Sub - Test 1	22.53	22.64	22.55	22.53	20.59	20.50
	Sub - Test 2	22.52	22.63	22.54	22.52	20.58	20.49
	Sub - Test 3	22.10	22.12	22.05	22.10	20.07	20.00
	Sub - Test 4	22.09	22.11	22.04	22.09	20.06	19.99
<b>HSPA+</b>	16QAM	22.08	22.19	22.11	22.08	20.14	20.06



Band	Bandwidth (MHz)	UL Channel	RB Size	RB Position	Modulation	Power (dBm)	ERP (dBm)	Verdict
LTE Band5	1.4	20407	1	#0	QPSK	23.03	20.98	PASS
LTE Band5	1.4	20407	1	#Mid	QPSK	23.15	21.10	PASS
LTE Band5	1.4	20407	1	#Max	QPSK	22.99	20.94	PASS
LTE Band5	1.4	20407	3	#0	QPSK	23.09	21.04	PASS
LTE Band5	1.4	20407	3	#Mid	QPSK	22.98	20.93	PASS
LTE Band5	1.4	20407	3	#Max	QPSK	23.02	20.97	PASS
LTE Band5	1.4	20407	6	#0	QPSK	22.08	20.03	PASS
LTE Band5	1.4	20407	1	#0	QAM16	22.04	19.99	PASS
LTE Band5	1.4	20407	1	#Mid	QAM16	22.25	20.20	PASS
LTE Band5	1.4	20407	1	#Max	QAM16	22.10	20.05	PASS
LTE Band5	1.4	20407	3	#0	QAM16	21.83	19.78	PASS
LTE Band5	1.4	20407	3	#Mid	QAM16	21.82	19.77	PASS
LTE Band5	1.4	20407	3	#Max	QAM16	22.01	19.96	PASS
LTE Band5	1.4	20407	6	#0	QAM16	21.03	18.98	PASS
LTE Band5	1.4	20525	1	#0	QPSK	23.19	21.14	PASS
LTE Band5	1.4	20525	1	#Mid	QPSK	23.26	21.21	PASS
LTE Band5	1.4	20525	1	#Max	QPSK	23.09	21.04	PASS
LTE Band5	1.4	20525	3	#0	QPSK	23.25	21.20	PASS
LTE Band5	1.4	20525	3	#Mid	QPSK	23.25	21.20	PASS
LTE Band5	1.4	20525	3	#Max	QPSK	23.15	21.10	PASS
LTE Band5	1.4	20525	6	#0	QPSK	22.20	20.15	PASS
LTE Band5	1.4	20525	1	#0	QAM16	22.30	20.25	PASS
LTE Band5	1.4	20525	1	#Mid	QAM16	22.40	20.35	PASS
LTE Band5	1.4	20525	1	#Max	QAM16	22.22	20.17	PASS
LTE Band5	1.4	20525	3	#0	QAM16	22.09	20.04	PASS
LTE Band5	1.4	20525	3	#Mid	QAM16	21.92	19.87	PASS
LTE Band5	1.4	20525	3	#Max	QAM16	21.86	19.81	PASS
LTE Band5	1.4	20525	6	#0	QAM16	20.92	18.87	PASS
LTE Band5	1.4	20643	1	#0	QPSK	23.00	20.95	PASS
LTE Band5	1.4	20643	1	#Mid	QPSK	23.13	21.08	PASS
LTE Band5	1.4	20643	1	#Max	QPSK	22.93	20.88	PASS
LTE Band5	1.4	20643	3	#0	QPSK	23.07	21.02	PASS
LTE Band5	1.4	20643	3	#Mid	QPSK	23.06	21.01	PASS
LTE Band5	1.4	20643	3	#Max	QPSK	22.97	20.92	PASS
LTE Band5	1.4	20643	6	#0	QPSK	22.11	20.06	PASS
LTE Band5	1.4	20643	1	#0	QAM16	22.00	19.95	PASS
LTE Band5	1.4	20643	1	#Mid	QAM16	22.03	19.98	PASS
LTE Band5	1.4	20643	1	#Max	QAM16	21.88	19.83	PASS
LTE Band5	1.4	20643	3	#0	QAM16	21.85	19.80	PASS
LTE Band5	1.4	20643	3	#Mid	QAM16	21.85	19.80	PASS



LTE Band5	1.4	20643	3	#Max	QAM16	21.76	19.71	PASS
LTE Band5	1.4	20643	6	#0	QAM16	21.12	19.07	PASS
LTE Band5	3	20415	1	#0	QPSK	23.04	20.99	PASS
LTE Band5	3	20415	1	#Mid	QPSK	22.99	20.94	PASS
LTE Band5	3	20415	1	#Max	QPSK	23.08	21.03	PASS
LTE Band5	3	20415	8	#0	QPSK	22.22	20.17	PASS
LTE Band5	3	20415	8	#Mid	QPSK	22.21	20.16	PASS
LTE Band5	3	20415	8	#Max	QPSK	22.11	20.06	PASS
LTE Band5	3	20415	15	#0	QPSK	22.18	20.13	PASS
LTE Band5	3	20415	1	#0	QAM16	22.23	20.18	PASS
LTE Band5	3	20415	1	#Mid	QAM16	21.85	19.80	PASS
LTE Band5	3	20415	1	#Max	QAM16	21.81	19.76	PASS
LTE Band5	3	20415	8	#0	QAM16	21.26	19.21	PASS
LTE Band5	3	20415	8	#Mid	QAM16	21.29	19.24	PASS
LTE Band5	3	20415	8	#Max	QAM16	21.19	19.14	PASS
LTE Band5	3	20415	15	#0	QAM16	21.11	19.06	PASS
LTE Band5	3	20525	1	#0	QPSK	23.04	20.99	PASS
LTE Band5	3	20525	1	#Mid	QPSK	22.89	20.84	PASS
LTE Band5	3	20525	1	#Max	QPSK	23.03	20.98	PASS
LTE Band5	3	20525	8	#0	QPSK	22.18	20.13	PASS
LTE Band5	3	20525	8	#Mid	QPSK	22.18	20.13	PASS
LTE Band5	3	20525	8	#Max	QPSK	22.14	20.09	PASS
LTE Band5	3	20525	15	#0	QPSK	22.21	20.16	PASS
LTE Band5	3	20525	1	#0	QAM16	22.41	20.36	PASS
LTE Band5	3	20525	1	#Mid	QAM16	22.10	20.05	PASS
LTE Band5	3	20525	1	#Max	QAM16	22.33	20.28	PASS
LTE Band5	3	20525	8	#0	QAM16	21.40	19.35	PASS
LTE Band5	3	20525	8	#Mid	QAM16	21.40	19.35	PASS
LTE Band5	3	20525	8	#Max	QAM16	21.27	19.22	PASS
LTE Band5	3	20525	15	#0	QAM16	21.25	19.20	PASS
LTE Band5	3	20635	1	#0	QPSK	23.06	21.01	PASS
LTE Band5	3	20635	1	#Mid	QPSK	22.96	20.91	PASS
LTE Band5	3	20635	1	#Max	QPSK	23.09	21.04	PASS
LTE Band5	3	20635	8	#0	QPSK	22.13	20.08	PASS
LTE Band5	3	20635	8	#Mid	QPSK	22.13	20.08	PASS
LTE Band5	3	20635	8	#Max	QPSK	22.10	20.05	PASS
LTE Band5	3	20635	15	#0	QPSK	22.22	20.17	PASS
LTE Band5	3	20635	1	#0	QAM16	22.11	20.06	PASS
LTE Band5	3	20635	1	#Mid	QAM16	22.05	20.00	PASS
LTE Band5	3	20635	1	#Max	QAM16	22.03	19.98	PASS
LTE Band5	3	20635	8	#0	QAM16	21.29	19.24	PASS
LTE Band5	3	20635	8	#Mid	QAM16	21.30	19.25	PASS
LTE Band5	3	20635	8	#Max	QAM16	21.26	19.21	PASS



LTE Band5	3	20635	15	#0	QAM16	21.20	19.15	PASS
LTE Band5	5	20425	1	#0	QPSK	23.13	21.08	PASS
LTE Band5	5	20425	1	#Mid	QPSK	23.01	20.96	PASS
LTE Band5	5	20425	1	#Max	QPSK	23.11	21.06	PASS
LTE Band5	5	20425	12	#0	QPSK	22.26	20.21	PASS
LTE Band5	5	20425	12	#Mid	QPSK	22.27	20.22	PASS
LTE Band5	5	20425	12	#Max	QPSK	22.09	20.04	PASS
LTE Band5	5	20425	25	#0	QPSK	22.22	20.17	PASS
LTE Band5	5	20425	1	#0	QAM16	21.65	19.60	PASS
LTE Band5	5	20425	1	#Mid	QAM16	21.50	19.45	PASS
LTE Band5	5	20425	1	#Max	QAM16	21.56	19.51	PASS
LTE Band5	5	20425	12	#0	QAM16	21.19	19.14	PASS
LTE Band5	5	20425	12	#Mid	QAM16	21.21	19.16	PASS
LTE Band5	5	20425	12	#Max	QAM16	21.14	19.09	PASS
LTE Band5	5	20425	25	#0	QAM16	21.13	19.08	PASS
LTE Band5	5	20525	1	#0	QPSK	23.04	20.99	PASS
LTE Band5	5	20525	1	#Mid	QPSK	22.99	20.94	PASS
LTE Band5	5	20525	1	#Max	QPSK	23.36	21.31	PASS
LTE Band5	5	20525	12	#0	QPSK	22.22	20.17	PASS
LTE Band5	5	20525	12	#Mid	QPSK	22.22	20.17	PASS
LTE Band5	5	20525	12	#Max	QPSK	22.14	20.09	PASS
LTE Band5	5	20525	25	#0	QPSK	22.19	20.14	PASS
LTE Band5	5	20525	1	#0	QAM16	22.26	20.21	PASS
LTE Band5	5	20525	1	#Mid	QAM16	21.85	19.80	PASS
LTE Band5	5	20525	1	#Max	QAM16	22.07	20.02	PASS
LTE Band5	5	20525	12	#0	QAM16	20.86	18.81	PASS
LTE Band5	5	20525	12	#Mid	QAM16	20.86	18.81	PASS
LTE Band5	5	20525	12	#Max	QAM16	20.77	18.72	PASS
LTE Band5	5	20525	25	#0	QAM16	20.77	18.72	PASS
LTE Band5	5	20625	1	#0	QPSK	22.93	20.88	PASS
LTE Band5	5	20625	1	#Mid	QPSK	22.85	20.80	PASS
LTE Band5	5	20625	1	#Max	QPSK	23.07	21.02	PASS
LTE Band5	5	20625	12	#0	QPSK	22.19	20.14	PASS
LTE Band5	5	20625	12	#Mid	QPSK	22.20	20.15	PASS
LTE Band5	5	20625	12	#Max	QPSK	22.15	20.10	PASS
LTE Band5	5	20625	25	#0	QPSK	22.15	20.10	PASS
LTE Band5	5	20625	1	#0	QAM16	22.31	20.26	PASS
LTE Band5	5	20625	1	#Mid	QAM16	22.18	20.13	PASS
LTE Band5	5	20625	1	#Max	QAM16	22.34	20.29	PASS
LTE Band5	5	20625	12	#0	QAM16	21.31	19.26	PASS
LTE Band5	5	20625	12	#Mid	QAM16	21.31	19.26	PASS
LTE Band5	5	20625	12	#Max	QAM16	21.26	19.21	PASS
LTE Band5	5	20625	25	#0	QAM16	21.18	19.13	PASS



LTE Band5	10	20450	1	#0	QPSK	23.12	21.07	PASS
LTE Band5	10	20450	1	#Mid	QPSK	22.97	20.92	PASS
LTE Band5	10	20450	1	#Max	QPSK	23.05	21.00	PASS
LTE Band5	10	20450	25	#0	QPSK	22.29	20.24	PASS
LTE Band5	10	20450	25	#Mid	QPSK	22.29	20.24	PASS
LTE Band5	10	20450	25	#Max	QPSK	22.11	20.06	PASS
LTE Band5	10	20450	50	#0	QPSK	22.16	20.11	PASS
LTE Band5	10	20450	1	#0	QAM16	21.95	19.90	PASS
LTE Band5	10	20450	1	#Mid	QAM16	22.03	19.98	PASS
LTE Band5	10	20450	1	#Max	QAM16	21.96	19.91	PASS
LTE Band5	10	20450	25	#0	QAM16	21.22	19.17	PASS
LTE Band5	10	20450	25	#Mid	QAM16	21.22	19.17	PASS
LTE Band5	10	20450	25	#Max	QAM16	21.02	18.97	PASS
LTE Band5	10	20450	50	#0	QAM16	21.08	19.03	PASS
LTE Band5	10	20525	1	#0	QPSK	23.14	21.09	PASS
LTE Band5	10	20525	1	#Mid	QPSK	22.98	20.93	PASS
LTE Band5	10	20525	1	#Max	QPSK	22.89	20.84	PASS
LTE Band5	10	20525	25	#0	QPSK	22.20	20.15	PASS
LTE Band5	10	20525	25	#Mid	QPSK	22.20	20.15	PASS
LTE Band5	10	20525	25	#Max	QPSK	22.08	20.03	PASS
LTE Band5	10	20525	50	#0	QPSK	22.22	20.17	PASS
LTE Band5	10	20525	1	#0	QAM16	22.50	20.45	PASS
LTE Band5	10	20525	1	#Mid	QAM16	22.40	20.35	PASS
LTE Band5	10	20525	1	#Max	QAM16	22.20	20.15	PASS
LTE Band5	10	20525	25	#0	QAM16	21.09	19.04	PASS
LTE Band5	10	20525	25	#Mid	QAM16	21.00	18.95	PASS
LTE Band5	10	20525	25	#Max	QAM16	21.04	18.99	PASS
LTE Band5	10	20525	50	#0	QAM16	21.03	18.98	PASS
LTE Band5	10	20600	1	#0	QPSK	23.21	21.16	PASS
LTE Band5	10	20600	1	#Mid	QPSK	23.05	21.00	PASS
LTE Band5	10	20600	1	#Max	QPSK	23.16	21.11	PASS
LTE Band5	10	20600	25	#0	QPSK	22.20	20.15	PASS
LTE Band5	10	20600	25	#Mid	QPSK	22.15	20.10	PASS
LTE Band5	10	20600	25	#Max	QPSK	22.18	20.13	PASS
LTE Band5	10	20600	50	#0	QPSK	22.31	20.26	PASS
LTE Band5	10	20600	1	#0	QAM16	22.22	20.17	PASS
LTE Band5	10	20600	1	#Mid	QAM16	21.96	19.91	PASS
LTE Band5	10	20600	1	#Max	QAM16	22.07	20.02	PASS
LTE Band5	10	20600	25	#0	QAM16	21.40	19.35	PASS
LTE Band5	10	20600	25	#Mid	QAM16	21.41	19.36	PASS
LTE Band5	10	20600	25	#Max	QAM16	21.38	19.33	PASS
LTE Band5	10	20600	50	#0	QAM16	21.30	19.25	PASS



Band	Bandwidth (MHz)	UL Channel	RB Size	RB Position	Modulation	Power (dBm)	ERP (dBm)	Verdict
LTE Band26	1.4	26797	1	#0	QPSK	23.18	21.13	PASS
LTE Band26	1.4	26797	1	#Mid	QPSK	23.18	21.13	PASS
LTE Band26	1.4	26797	1	#Max	QPSK	23.02	20.97	PASS
LTE Band26	1.4	26797	3	#0	QPSK	23.04	20.99	PASS
LTE Band26	1.4	26797	3	#Mid	QPSK	23.04	20.99	PASS
LTE Band26	1.4	26797	3	#Max	QPSK	22.91	20.86	PASS
LTE Band26	1.4	26797	6	#0	QPSK	22.07	20.02	PASS
LTE Band26	1.4	26797	1	#0	QAM16	22.12	20.07	PASS
LTE Band26	1.4	26797	1	#Mid	QAM16	22.24	20.19	PASS
LTE Band26	1.4	26797	1	#Max	QAM16	22.09	20.04	PASS
LTE Band26	1.4	26797	3	#0	QAM16	21.85	19.80	PASS
LTE Band26	1.4	26797	3	#Mid	QAM16	22.19	20.14	PASS
LTE Band26	1.4	26797	3	#Max	QAM16	22.17	20.12	PASS
LTE Band26	1.4	26797	6	#0	QAM16	21.06	19.01	PASS
LTE Band26	1.4	26915	1	#0	QPSK	22.84	20.79	PASS
LTE Band26	1.4	26915	1	#Mid	QPSK	23.00	20.95	PASS
LTE Band26	1.4	26915	1	#Max	QPSK	22.86	20.81	PASS
LTE Band26	1.4	26915	3	#0	QPSK	23.01	20.96	PASS
LTE Band26	1.4	26915	3	#Mid	QPSK	23.01	20.96	PASS
LTE Band26	1.4	26915	3	#Max	QPSK	22.92	20.87	PASS
LTE Band26	1.4	26915	6	#0	QPSK	22.03	19.98	PASS
LTE Band26	1.4	26915	1	#0	QAM16	21.96	19.91	PASS
LTE Band26	1.4	26915	1	#Mid	QAM16	22.15	20.10	PASS
LTE Band26	1.4	26915	1	#Max	QAM16	21.95	19.90	PASS
LTE Band26	1.4	26915	3	#0	QAM16	21.93	19.88	PASS
LTE Band26	1.4	26915	3	#Mid	QAM16	21.93	19.88	PASS
LTE Band26	1.4	26915	3	#Max	QAM16	21.87	19.82	PASS
LTE Band26	1.4	26915	6	#0	QAM16	21.05	19.00	PASS
LTE Band26	1.4	27033	1	#0	QPSK	22.79	20.74	PASS
LTE Band26	1.4	27033	1	#Mid	QPSK	22.92	20.87	PASS
LTE Band26	1.4	27033	1	#Max	QPSK	22.72	20.67	PASS
LTE Band26	1.4	27033	3	#0	QPSK	22.85	20.80	PASS
LTE Band26	1.4	27033	3	#Mid	QPSK	22.85	20.80	PASS
LTE Band26	1.4	27033	3	#Max	QPSK	22.76	20.71	PASS
LTE Band26	1.4	27033	6	#0	QPSK	21.93	19.88	PASS
LTE Band26	1.4	27033	1	#0	QAM16	21.81	19.76	PASS
LTE Band26	1.4	27033	1	#Mid	QAM16	21.84	19.79	PASS
LTE Band26	1.4	27033	1	#Max	QAM16	21.69	19.64	PASS
LTE Band26	1.4	27033	3	#0	QAM16	21.76	19.71	PASS
LTE Band26	1.4	27033	3	#Mid	QAM16	21.76	19.71	PASS
LTE Band26	1.4	27033	3	#Max	QAM16	21.66	19.61	PASS





LTE Band26	1.4	27033	6	#0	QAM16	20.96	18.91	PASS
LTE Band26	3	26805	1	#0	QPSK	23.07	21.02	PASS
LTE Band26	3	26805	1	#Mid	QPSK	22.84	20.79	PASS
LTE Band26	3	26805	1	#Max	QPSK	22.87	20.82	PASS
LTE Band26	3	26805	8	#0	QPSK	22.10	20.05	PASS
LTE Band26	3	26805	8	#Mid	QPSK	22.10	20.05	PASS
LTE Band26	3	26805	8	#Max	QPSK	21.99	19.94	PASS
LTE Band26	3	26805	15	#0	QPSK	22.05	20.00	PASS
LTE Band26	3	26805	1	#0	QAM16	22.10	20.05	PASS
LTE Band26	3	26805	1	#Mid	QAM16	21.65	19.60	PASS
LTE Band26	3	26805	1	#Max	QAM16	21.79	19.74	PASS
LTE Band26	3	26805	8	#0	QAM16	21.21	19.16	PASS
LTE Band26	3	26805	8	#Mid	QAM16	21.22	19.17	PASS
LTE Band26	3	26805	8	#Max	QAM16	21.20	19.15	PASS
LTE Band26	3	26805	15	#0	QAM16	21.00	18.95	PASS
LTE Band26	3	26915	1	#0	QPSK	23.16	21.11	PASS
LTE Band26	3	26915	1	#Mid	QPSK	22.90	20.85	PASS
LTE Band26	3	26915	1	#Max	QPSK	23.16	21.11	PASS
LTE Band26	3	26915	8	#0	QPSK	22.14	20.09	PASS
LTE Band26	3	26915	8	#Mid	QPSK	22.14	20.09	PASS
LTE Band26	3	26915	8	#Max	QPSK	22.03	19.98	PASS
LTE Band26	3	26915	15	#0	QPSK	22.09	20.04	PASS
LTE Band26	3	26915	1	#0	QAM16	22.32	20.27	PASS
LTE Band26	3	26915	1	#Mid	QAM16	22.04	19.99	PASS
LTE Band26	3	26915	1	#Max	QAM16	22.29	20.24	PASS
LTE Band26	3	26915	8	#0	QAM16	21.13	19.08	PASS
LTE Band26	3	26915	8	#Mid	QAM16	21.13	19.08	PASS
LTE Band26	3	26915	8	#Max	QAM16	21.01	18.96	PASS
LTE Band26	3	26915	15	#0	QAM16	21.16	19.11	PASS
LTE Band26	3	27025	1	#0	QPSK	22.92	20.87	PASS
LTE Band26	3	27025	1	#Mid	QPSK	22.80	20.75	PASS
LTE Band26	3	27025	1	#Max	QPSK	22.91	20.86	PASS
LTE Band26	3	27025	8	#0	QPSK	22.00	19.95	PASS
LTE Band26	3	27025	8	#Mid	QPSK	22.00	19.95	PASS
LTE Band26	3	27025	8	#Max	QPSK	21.88	19.83	PASS
LTE Band26	3	27025	15	#0	QPSK	21.99	19.94	PASS
LTE Band26	3	27025	1	#0	QAM16	22.14	20.09	PASS
LTE Band26	3	27025	1	#Mid	QAM16	21.41	19.36	PASS
LTE Band26	3	27025	1	#Max	QAM16	21.33	19.28	PASS
LTE Band26	3	27025	8	#0	QAM16	21.08	19.03	PASS
LTE Band26	3	27025	8	#Mid	QAM16	21.09	19.04	PASS
LTE Band26	3	27025	8	#Max	QAM16	20.97	18.92	PASS
LTE Band26	3	27025	15	#0	QAM16	21.19	19.14	PASS



LTE Band26	5	26815	1	#0	QPSK	23.02	20.97	PASS
LTE Band26	5	26815	1	#Mid	QPSK	22.85	20.80	PASS
LTE Band26	5	26815	1	#Max	QPSK	22.95	20.90	PASS
LTE Band26	5	26815	12	#0	QPSK	22.10	20.05	PASS
LTE Band26	5	26815	12	#Mid	QPSK	22.09	20.04	PASS
LTE Band26	5	26815	12	#Max	QPSK	22.00	19.95	PASS
LTE Band26	5	26815	25	#0	QPSK	22.14	20.09	PASS
LTE Band26	5	26815	1	#0	QAM16	21.72	19.67	PASS
LTE Band26	5	26815	1	#Mid	QAM16	21.63	19.58	PASS
LTE Band26	5	26815	1	#Max	QAM16	21.64	19.59	PASS
LTE Band26	5	26815	12	#0	QAM16	20.88	18.83	PASS
LTE Band26	5	26815	12	#Mid	QAM16	20.98	18.93	PASS
LTE Band26	5	26815	12	#Max	QAM16	21.08	19.03	PASS
LTE Band26	5	26815	25	#0	QAM16	21.25	19.20	PASS
LTE Band26	5	26915	1	#0	QPSK	23.00	20.95	PASS
LTE Band26	5	26915	1	#Mid	QPSK	22.94	20.89	PASS
LTE Band26	5	26915	1	#Max	QPSK	22.86	20.81	PASS
LTE Band26	5	26915	12	#0	QPSK	22.11	20.06	PASS
LTE Band26	5	26915	12	#Mid	QPSK	22.11	20.06	PASS
LTE Band26	5	26915	12	#Max	QPSK	22.02	19.97	PASS
LTE Band26	5	26915	25	#0	QPSK	22.05	20.00	PASS
LTE Band26	5	26915	1	#0	QAM16	22.13	20.08	PASS
LTE Band26	5	26915	1	#Mid	QAM16	21.46	19.41	PASS
LTE Band26	5	26915	1	#Max	QAM16	21.66	19.61	PASS
LTE Band26	5	26915	12	#0	QAM16	20.87	18.82	PASS
LTE Band26	5	26915	12	#Mid	QAM16	20.86	18.81	PASS
LTE Band26	5	26915	12	#Max	QAM16	20.80	18.75	PASS
LTE Band26	5	26915	25	#0	QAM16	20.96	18.91	PASS
LTE Band26	5	27015	1	#0	QPSK	22.81	20.76	PASS
LTE Band26	5	27015	1	#Mid	QPSK	22.64	20.59	PASS
LTE Band26	5	27015	1	#Max	QPSK	22.83	20.78	PASS
LTE Band26	5	27015	12	#0	QPSK	22.12	20.07	PASS
LTE Band26	5	27015	12	#Mid	QPSK	22.12	20.07	PASS
LTE Band26	5	27015	12	#Max	QPSK	21.96	19.91	PASS
LTE Band26	5	27015	25	#0	QPSK	22.09	20.04	PASS
LTE Band26	5	27015	1	#0	QAM16	21.91	19.86	PASS
LTE Band26	5	27015	1	#Mid	QAM16	21.60	19.55	PASS
LTE Band26	5	27015	1	#Max	QAM16	21.66	19.61	PASS
LTE Band26	5	27015	12	#0	QAM16	21.08	19.03	PASS
LTE Band26	5	27015	12	#Mid	QAM16	21.08	19.03	PASS
LTE Band26	5	27015	12	#Max	QAM16	20.82	18.77	PASS
LTE Band26	5	27015	25	#0	QAM16	20.80	18.75	PASS
LTE Band26	10	26840	1	#0	QPSK	23.12	21.07	PASS



LTE Band26	10	26840	1	#Mid	QPSK	22.90	20.85	PASS
LTE Band26	10	26840	1	#Max	QPSK	23.01	20.96	PASS
LTE Band26	10	26840	25	#0	QPSK	22.14	20.09	PASS
LTE Band26	10	26840	25	#Mid	QPSK	22.15	20.10	PASS
LTE Band26	10	26840	25	#Max	QPSK	22.03	19.98	PASS
LTE Band26	10	26840	50	#0	QPSK	22.09	20.04	PASS
LTE Band26	10	26840	1	#0	QAM16	22.28	20.23	PASS
LTE Band26	10	26840	1	#Mid	QAM16	21.98	19.93	PASS
LTE Band26	10	26840	1	#Max	QAM16	21.98	19.93	PASS
LTE Band26	10	26840	25	#0	QAM16	21.20	19.15	PASS
LTE Band26	10	26840	25	#Mid	QAM16	21.21	19.16	PASS
LTE Band26	10	26840	25	#Max	QAM16	21.10	19.05	PASS
LTE Band26	10	26840	50	#0	QAM16	20.95	18.90	PASS
LTE Band26	10	26915	1	#0	QPSK	23.22	21.17	PASS
LTE Band26	10	26915	1	#Mid	QPSK	22.99	20.94	PASS
LTE Band26	10	26915	1	#Max	QPSK	22.86	20.81	PASS
LTE Band26	10	26915	25	#0	QPSK	22.22	20.17	PASS
LTE Band26	10	26915	25	#Mid	QPSK	22.21	20.16	PASS
LTE Band26	10	26915	25	#Max	QPSK	21.99	19.94	PASS
LTE Band26	10	26915	50	#0	QPSK	22.12	20.07	PASS
LTE Band26	10	26915	1	#0	QAM16	22.51	20.46	PASS
LTE Band26	10	26915	1	#Mid	QAM16	22.35	20.30	PASS
LTE Band26	10	26915	1	#Max	QAM16	22.21	20.16	PASS
LTE Band26	10	26915	25	#0	QAM16	21.22	19.17	PASS
LTE Band26	10	26915	25	#Mid	QAM16	21.22	19.17	PASS
LTE Band26	10	26915	25	#Max	QAM16	21.00	18.95	PASS
LTE Band26	10	26915	50	#0	QAM16	21.03	18.98	PASS
LTE Band26	10	26990	1	#0	QPSK	22.90	20.85	PASS
LTE Band26	10	26990	1	#Mid	QPSK	23.04	20.99	PASS
LTE Band26	10	26990	1	#Max	QPSK	22.85	20.80	PASS
LTE Band26	10	26990	25	#0	QPSK	22.19	20.14	PASS
LTE Band26	10	26990	25	#Mid	QPSK	22.12	20.07	PASS
LTE Band26	10	26990	25	#Max	QPSK	22.04	19.99	PASS
LTE Band26	10	26990	50	#0	QPSK	22.15	20.10	PASS
LTE Band26	10	26990	1	#0	QAM16	21.47	19.42	PASS
LTE Band26	10	26990	1	#Mid	QAM16	21.70	19.65	PASS
LTE Band26	10	26990	1	#Max	QAM16	21.41	19.36	PASS
LTE Band26	10	26990	25	#0	QAM16	21.30	19.25	PASS
LTE Band26	10	26990	25	#Mid	QAM16	21.22	19.17	PASS
LTE Band26	10	26990	25	#Max	QAM16	21.15	19.10	PASS
LTE Band26	10	26990	50	#0	QAM16	21.04	18.99	PASS
LTE Band26	15	26865	1	#0	QPSK	23.18	21.13	PASS
LTE Band26	15	26865	1	#Mid	QPSK	22.96	20.91	PASS



LTE Band26	15	26865	1	#Max	QPSK	22.92	20.87	PASS
LTE Band26	15	26865	36	#0	QPSK	22.08	20.03	PASS
LTE Band26	15	26865	36	#Mid	QPSK	22.07	20.02	PASS
LTE Band26	15	26865	36	#Max	QPSK	22.00	19.95	PASS
LTE Band26	15	26865	75	#0	QPSK	22.09	20.04	PASS
LTE Band26	15	26865	1	#0	QAM16	22.29	20.24	PASS
LTE Band26	15	26865	1	#Mid	QAM16	21.86	19.81	PASS
LTE Band26	15	26865	1	#Max	QAM16	22.04	19.99	PASS
LTE Band26	15	26865	36	#0	QAM16	21.08	19.03	PASS
LTE Band26	15	26865	36	#Mid	QAM16	21.08	19.03	PASS
LTE Band26	15	26865	36	#Max	QAM16	20.99	18.94	PASS
LTE Band26	15	26865	75	#0	QAM16	20.98	18.93	PASS
LTE Band26	15	26915	1	#0	QPSK	23.20	21.15	PASS
LTE Band26	15	26915	1	#Mid	QPSK	22.93	20.88	PASS
LTE Band26	15	26915	1	#Max	QPSK	23.02	20.97	PASS
LTE Band26	15	26915	36	#0	QPSK	22.14	20.09	PASS
LTE Band26	15	26915	36	#Mid	QPSK	22.14	20.09	PASS
LTE Band26	15	26915	36	#Max	QPSK	22.00	19.95	PASS
LTE Band26	15	26915	75	#0	QPSK	22.08	20.03	PASS
LTE Band26	15	26915	1	#0	QAM16	22.54	20.49	PASS
LTE Band26	15	26915	1	#Mid	QAM16	21.98	19.93	PASS
LTE Band26	15	26915	1	#Max	QAM16	22.31	20.26	PASS
LTE Band26	15	26915	36	#0	QAM16	20.97	18.92	PASS
LTE Band26	15	26915	36	#Mid	QAM16	20.94	18.89	PASS
LTE Band26	15	26915	36	#Max	QAM16	20.99	18.94	PASS
LTE Band26	15	26915	75	#0	QAM16	21.02	18.97	PASS
LTE Band26	15	26965	1	#0	QPSK	23.08	21.03	PASS
LTE Band26	15	26965	1	#Mid	QPSK	22.88	20.83	PASS
LTE Band26	15	26965	1	#Max	QPSK	22.90	20.85	PASS
LTE Band26	15	26965	36	#0	QPSK	22.08	20.03	PASS
LTE Band26	15	26965	36	#Mid	QPSK	22.09	20.04	PASS
LTE Band26	15	26965	36	#Max	QPSK	22.01	19.96	PASS
LTE Band26	15	26965	75	#0	QPSK	22.12	20.07	PASS
LTE Band26	15	26965	1	#0	QAM16	22.14	20.09	PASS
LTE Band26	15	26965	1	#Mid	QAM16	21.77	19.72	PASS
LTE Band26	15	26965	1	#Max	QAM16	21.77	19.72	PASS
LTE Band26	15	26965	36	#0	QAM16	21.16	19.11	PASS
LTE Band26	15	26965	36	#Mid	QAM16	21.15	19.10	PASS
LTE Band26	15	26965	36	#Max	QAM16	21.01	18.96	PASS
LTE Band26	15	26965	75	#0	QAM16	21.20	19.15	PASS

## 5.2. Radiates Spurious Emission

### Ambient condition

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

### Method of Measurement

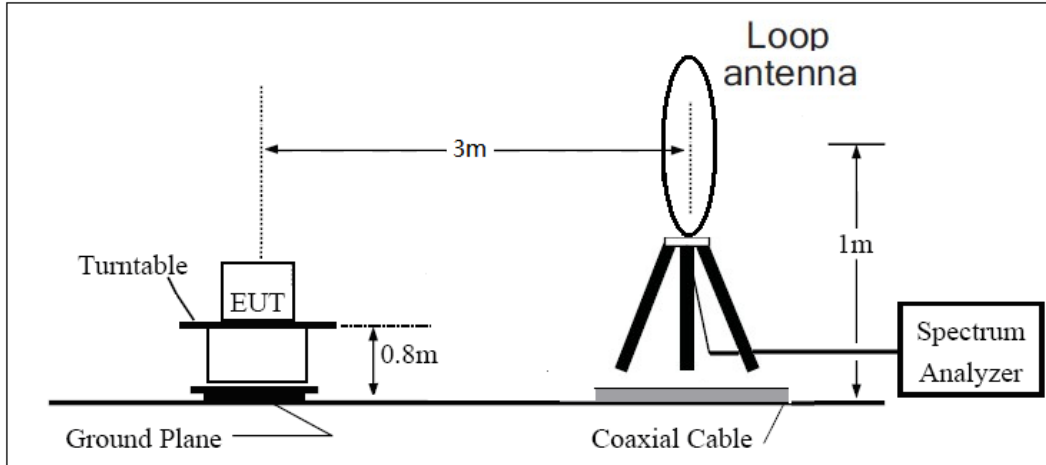
1. The testing follows FCC KDB 971168 v03r01 Section 5.8 and ANSI C63.26 (2015).
2. Below 1GHz: The EUT is placed on a turntable 0.8 meters above the ground in the chamber, 3 meter away from the antenna. The maximal emission value is acquired by adjusting the antenna height, polarisation and turntable 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,  $ERP = EIRP - 2.15\text{dBi}$ .

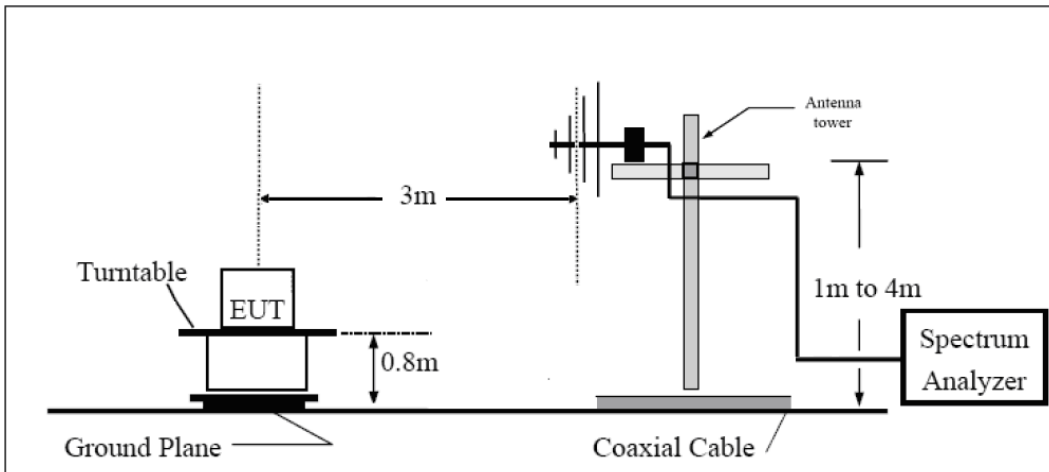
The modulation mode and RB allocation refer to section 5.1, using the maximum output power configuration.

**Test setup**

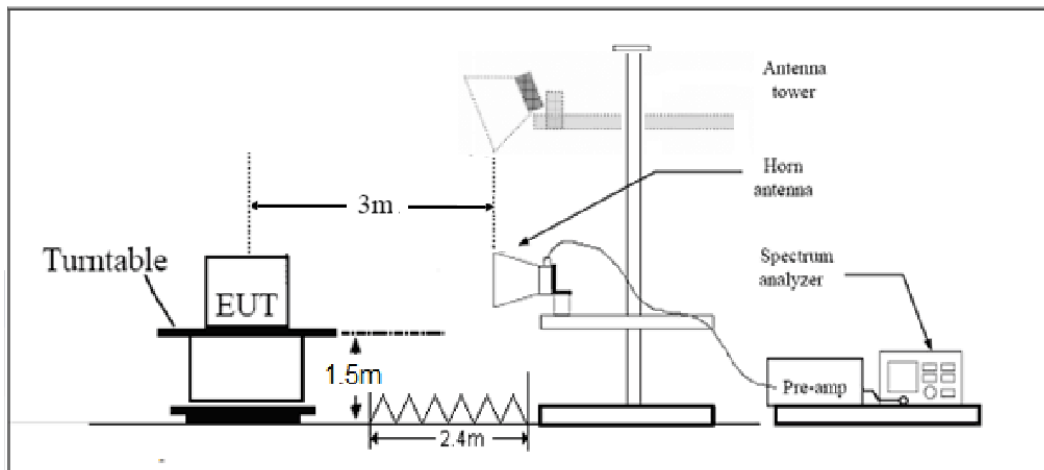
**9KHz ~ 30MHz**



**30MHz ~ 1GHz**



**Above 1GHz**





Note: Area side:2.4mX3.6m

### Limits

Rule Part 22.917(a) specifies that “The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $43 + 10 \log (P)$  dB.”

Limit	-13 dBm
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### 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.

## GSM 850 CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1673.2	-48.92	2.00	10.75	Horizontal	-42.32	-13.00	29.32	135
3	2509.8	-35.65	2.51	11.05	Horizontal	-29.26	-13.00	16.26	315
4	3346.4	-45.26	4.20	11.15	Horizontal	-40.46	-13.00	27.46	45
5	4183.0	-42.20	5.20	11.15	Horizontal	-38.40	-13.00	25.40	135
6	5019.6	-52.10	5.50	11.95	Horizontal	-47.80	-13.00	34.80	225
7	5856.2	-51.00	5.70	13.55	Horizontal	-45.30	-13.00	32.30	0
8	6692.8	-54.90	6.30	13.75	Horizontal	-49.60	-13.00	36.60	90
9	7529.4	-53.00	6.80	13.85	Horizontal	-48.10	-13.00	35.10	270
10	8366.0	-54.00	6.90	14.25	Horizontal	-48.80	-13.00	35.80	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.

## WCDMA Band V CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1673.2	-58.80	2.00	10.75	Horizontal	-52.20	-13.00	39.20	0
3	2509.8	-54.37	2.51	11.05	Horizontal	-47.98	-13.00	34.98	45
4	3346.4	-57.50	4.20	11.15	Horizontal	-52.70	-13.00	39.70	90
5	4183.0	-54.90	5.20	11.15	Horizontal	-51.10	-13.00	38.10	135
6	5019.6	-54.30	5.50	11.95	Horizontal	-50.00	-13.00	37.00	225
7	5856.2	-55.80	5.70	13.55	Horizontal	-50.10	-13.00	37.10	90
8	6692.8	-57.10	6.30	13.75	Horizontal	-51.80	-13.00	38.80	45
9	7529.4	-51.80	6.80	13.85	Horizontal	-46.90	-13.00	33.90	270
10	8366.0	-53.90	6.90	14.25	Horizontal	-48.70	-13.00	35.70	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 5 1.4MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1673.0	-44.60	2.00	10.75	Horizontal	-38.00	-13.00	25.00	270
3	2509.5	-43.59	2.51	11.05	Horizontal	-37.20	-13.00	24.20	135
4	3346.0	-57.38	4.20	11.15	Horizontal	-52.58	-13.00	39.58	180
5	4182.5	-54.58	5.20	11.15	Horizontal	-50.78	-13.00	37.78	90
6	5019.0	-54.98	5.50	11.95	Horizontal	-50.68	-13.00	37.68	90
7	5855.5	-56.53	5.70	13.55	Horizontal	-50.83	-13.00	37.83	90
8	6692.0	-58.06	6.30	13.75	Horizontal	-52.76	-13.00	39.76	135
9	7528.5	-54.81	6.80	13.85	Horizontal	-49.91	-13.00	36.91	270
10	8365.0	-54.37	6.90	14.25	Horizontal	-49.17	-13.00	36.17	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.

LTE Band 5 5MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1668.6	-45.02	2.00	10.75	Horizontal	-38.42	-13.00	25.42	90
3	2503.3	-44.34	2.51	11.05	Horizontal	-37.95	-13.00	24.95	90
4	3337.2	-57.64	4.20	11.15	Horizontal	-52.84	-13.00	39.84	315
5	4171.5	-52.29	5.20	11.15	Horizontal	-48.49	-13.00	35.49	135
6	5005.8	-54.10	5.50	11.95	Horizontal	-49.80	-13.00	36.80	180
7	5840.1	-56.31	5.70	13.55	Horizontal	-50.61	-13.00	37.61	135
8	6674.4	-57.15	6.30	13.75	Horizontal	-51.85	-13.00	38.85	315
9	7508.7	-54.15	6.80	13.85	Horizontal	-49.25	-13.00	36.25	180
10	8343.0	-54.34	6.90	14.25	Horizontal	-49.14	-13.00	36.14	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 5 10MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1664.4	-43.80	2.00	10.75	Horizontal	-37.20	-13.00	24.20	225
3	2496.6	-45.09	2.51	11.05	Horizontal	-38.70	-13.00	25.70	45
4	3328.0	-57.69	4.20	11.15	Horizontal	-52.89	-13.00	39.89	315
5	4160.0	-52.12	5.20	11.15	Horizontal	-48.32	-13.00	35.32	315
6	4992.0	-54.62	5.50	11.95	Horizontal	-50.32	-13.00	37.32	225
7	5824.0	-56.55	5.70	13.55	Horizontal	-50.85	-13.00	37.85	135
8	6656.0	-57.51	6.30	13.75	Horizontal	-52.21	-13.00	39.21	225
9	7488.0	-54.33	6.80	13.85	Horizontal	-49.43	-13.00	36.43	270
10	8320.0	-54.88	6.90	14.25	Horizontal	-49.68	-13.00	36.68	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 26 1.4MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1673.00	-45.50	2.00	10.75	Horizontal	-38.90	-13.00	25.90	0
3	2509.50	-46.89	2.51	11.05	Horizontal	-40.50	-13.00	27.50	270
4	3346.00	-54.20	4.20	11.15	Horizontal	-49.40	-13.00	36.40	90
5	4182.50	-50.50	5.20	11.15	Horizontal	-46.70	-13.00	33.70	45
6	5019.00	-51.70	5.50	11.95	Horizontal	-47.40	-13.00	34.40	270
7	5855.50	-56.00	5.70	13.55	Horizontal	-50.30	-13.00	37.30	90
8	6692.00	-57.10	6.30	13.75	Horizontal	-51.80	-13.00	38.80	45
9	7528.50	-52.10	6.80	13.85	Horizontal	-47.20	-13.00	34.20	135
10	8365.00	-53.19	6.90	14.25	Horizontal	-47.99	-13.00	34.99	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 26 5MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1673.00	-47.20	2.00	10.75	Horizontal	-40.60	-13.00	27.60	135
3	2509.50	-44.99	2.51	11.05	Horizontal	-38.60	-13.00	25.60	225
4	3346.00	-54.77	4.20	11.15	Horizontal	-49.97	-13.00	36.97	315
5	4182.50	-48.10	5.20	11.15	Horizontal	-44.30	-13.00	31.30	45
6	5019.00	-53.20	5.50	11.95	Horizontal	-48.90	-13.00	35.90	0
7	5855.50	-56.10	5.70	13.55	Horizontal	-50.40	-13.00	37.40	225
8	6692.00	-55.60	6.30	13.75	Horizontal	-50.30	-13.00	37.30	90
9	7528.50	-52.87	6.80	13.85	Horizontal	-47.97	-13.00	34.97	45
10	8365.00	-53.30	6.90	14.25	Horizontal	-48.10	-13.00	35.10	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.

LTE Band 26 15MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1673.00	-45.30	2.00	10.75	Horizontal	-38.70	-13.00	25.70	90
3	2509.50	-45.89	2.51	11.05	Horizontal	-39.50	-13.00	26.50	225
4	3326.00	-57.65	4.20	11.15	Horizontal	-52.85	-13.00	39.85	180
5	3346.00	-53.90	5.20	11.15	Horizontal	-50.10	-13.00	37.10	0
6	4182.50	-51.50	5.50	11.95	Horizontal	-47.20	-13.00	34.20	45
7	5019.00	-50.50	5.70	13.55	Horizontal	-44.80	-13.00	31.80	135
8	5855.50	-55.20	6.30	13.75	Horizontal	-49.90	-13.00	36.90	180
9	6692.00	-55.30	6.80	13.85	Horizontal	-50.40	-13.00	37.40	90
10	7528.50	-53.20	6.90	14.25	Horizontal	-48.00	-13.00	35.00	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	2019-05-19	2020-05-18
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	2019-05-19	2020-05-18
Spectrum Analyzer	Key sight	N9010A	MY50210259	2020-05-18	2021-05-17
Universal Radio Communication Tester	Key sight	E5515C	MY48367192	2019-05-19	2020-05-18
Universal Radio Communication Tester	Key sight	E5515C	MY48367192	2020-05-18	2021-05-17
Signal Analyzer	R&S	FSV30	100815	2019-12-15	2020-12-14
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
Signal generator	R&S	SMB 100A	102594	2019-05-19	2020-05-18
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
Preampfier	R&S	SCU18	102327	2019-05-19	2020-05-18
Preampfier	R&S	SCU18	102327	2020-05-18	2021-05-17
MOB COMMS DC SUPPLY	Keysight	66319D	MY43004105	2019-05-20	2020-05-19
MOB COMMS DC SUPPLY	Keysight	66319D	MY43004105	2020-05-19	2021-05-18
RF Cable	Agilent	SMA 15cm	0001	2019-12-13	2020-06-12



Software	R&S	EMC32	9.26.0	/	/
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\*\*\*\*\*END OF REPORT \*\*\*\*\*