



REPORT No.: SZ25110073W03

TEST REPORT

APPLICANT : Shenzhen Tinno Mobile
Technology Corp.

PRODUCT NAME : Smart phone

MODEL NAME : U651DS

BRAND NAME : N/A

FCC ID : XD6U651DS

STANDARD(S) : 47 CFR Part 2
47 CFR Part 90, Subpart S&R

RECEIPT DATE : 2025-12-02

TEST DATE : 2025-12-04 to 2025-12-31

ISSUE DATE : 2026-03-17



Edited by:

Peng Mi

Peng Mi (Rapporteur)

Approved by:

Shen Junsheng

Shen Junsheng (Supervisor)

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MORLAB

Shenzhen Morlab Communications Technology Co., Ltd.
FL.1-3, Building A, FeiYang Science Park, No.8 LongChang Road,
Block67, BaoAn District, ShenZhen, GuangDong Province, P. R. China

Tel: 86-755-36698555

Http://www.morlab.cn

Fax: 86-755-36698525

E-mail: service@morlab.cn





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Change History		
Version	Date	Reason for change
1.0	2026-03-17	First edition



1. Technical Information

Note: Provide by applicant.

1.1. Applicant and Manufacturer Information

Applicant:	Shenzhen Tinno Mobile Technology Corp.
Applicant Address:	27-001, South Side of Tianlong Mobile Headquarters Building, Tongfa South Road, Xili Community, Xili Street, Nanshan District, Shenzhen, PRC
Manufacturer:	Shenzhen Tinno Mobile Technology Corp.
Manufacturer Address:	27-001, South Side of Tianlong Mobile Headquarters Building, Tongfa South Road, Xili Community, Xili Street, Nanshan District, Shenzhen, PRC

1.2. Equipment Under Test (EUT) Description

Product Name:	Smart phone	
Sample No.:	4#, 19#	
Hardware Version:	V1.0	
Software Version:	U651DSV01.22_3.10	
Modulation Type:	QPSK, 16QAM, 64QAM, 256QAM	
Operation Band:	Band 14	
Carrier Aggregation(UL):	Not Support	
Frequency Range:	LTE Band 14	Tx: 788MHz~798MHz
		Rx: 758MHz~768MHz
Channel Bandwidth	LTE Band 14	5MHz, 10MHz
Antenna Type:	PIFA Antenna	
Antenna Gain:	LTE Band 14	-0.6dBi
Accessory Information:	Battery	
	Brand Name:	Highpower
	Model No.:	TM490H1
	Serial No.:	N/A
	Capacity:	4900mAh
	Rated Voltage:	3.87V
	Charge Limit:	4.45V
	Manufacturer:	Guangdong Highpower New Energy Technology



REPORT No.: SZ25110073W03

		Co., Ltd.
	USB Cable	
	Model No.:	T365-011B-1
	Manufacturer:	Shenzhen Yihuaxing Electronics Co. Ltd.

Note 1: The EUT description presented in the report are provided by applicant and/or manufacturer, and the test laboratory is not responsible for the accuracy of the information. For a more detailed description, please refer to Specification or User's Manual supplied by the applicant and/or manufacturer.



1.3. Maximum E.R.P./E.I.R.P. and Emission Designator

LTE Band 14	Maximum E.R.P./E.I.R.P. (W)				Emission Designator (99%OBW)			
BW(MHz)	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
10	0.135	0.112	0.090	0.044	8M96G7D	8M98W7D	8M98W7D	8M97W7D
5	0.128	0.105	0.085	0.042	4M51G7D	4M50W7D	4M51W7D	4M50W7D



1.4. Test Standards and Results

The objective of the report is to perform testing according to Part 2 and Part 90 for the EUT FCC ID Certification:

No	Identity	Document Title
1	47 CFR Part 2	Frequency Allocations and Radio Treaty Matters; General Rules and Regulations
2	47 CFR Part 90	Miscellaneous Wireless Communications Services

Test detailed items/section required by FCC rules and results are as below:

Section	Description	Test Date	Test Engineer	Result	Remark
2.1046, 90.635(b)	Transmitter Conducted Output Power and ERP/EIRP	Dec. 31, 2025	Tan Xiaowei Liu Huiyan	PASS _{Note3}	/
2.1049	Occupied Bandwidth	Dec. 05, 2025	Liu Huiyan	PASS	/
2.1055, 90.213	Frequency Stability	Dec. 08, 2025	Liu Huiyan	PASS	/
2.1051, 90.691	Conducted Spurious Emissions	Dec. 04, 2025	Liu Huiyan	PASS	/
2.1051, 90.691	Band Edge	Dec. 04, 2025	Liu Huiyan	PASS	/
2.1053, 90.691	Radiated Spurious Emissions	Dec. 29 to 31, 2025	Xiong Xianhong	PASS	/

Note 1: The tests were performed according to the method of measurements prescribed in KDB 971168 D01 v03 and ANSI/TIA-603-E-2016.

Note 2: Any additions, deviation, or exclusions from the method shall be noted in the "Remark".

Note 3: The antenna gain presented in the report are provided by applicant and/or manufacturer, and the test laboratory is not responsible for the accuracy of the information.



1.5. Environmental Conditions

During the measurement, the environmental conditions were within the listed ranges:

Temperature (°C):	15-35
Relative Humidity (%):	30-60
Atmospheric Pressure (kPa):	86-106

2.47 CFR Part 2, Part 90R&S Requirements

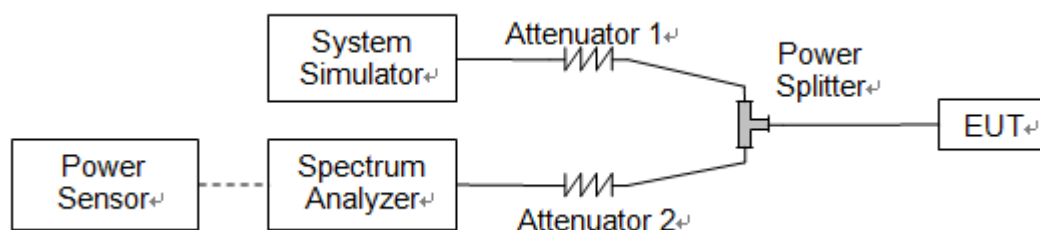
2.1. Transmitter Conducted Output Power and E.R.P./E.I.R.P.

2.1.1. Requirement

According to FCC section 2.1046(a), for transmitters other than single sideband, independent sideband and controlled carrier radiotelephone, power output shall be measured at the RF output terminals when the transmitter is adjusted in accordance with the tune-up procedure to give the values of current and voltage on the circuit elements specified in FCC section 2.1033(c)(8).

According to FCC section 90.635(b) for LTE Band 26, the maximum output power of the transmitter for mobile stations is 100 watts.

2.1.2. Test Description



The EUT is coupled to the Spectrum Analyzer (SA) and the System Simulator (SS) with Attenuators through the Power Splitter; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading. The EUT is commanded by the SS to operate at the maximum output power. A call is established between the EUT and the SS.

2.1.3. Test procedure

KDB 971168 D01v03 Section 5.2 and ANSI/TIA-603-E-2016.

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

$ERP \text{ (dBm)} = EIPR \text{ (dBm)} - 2.15$

**2.1.4. Result****Conducted Output Power**

LTE Band 14						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				/	23330	/
Frequency (MHz)				/	793	/
10	QPSK	1	0	/	24.05	/
10	QPSK	1	25	/	24.00	/
10	QPSK	1	49	/	23.90	/
10	QPSK	25	0	/	23.08	/
10	QPSK	25	12	/	23.00	/
10	QPSK	25	25	/	23.01	/
10	QPSK	50	0	/	23.02	/
10	16QAM	1	0	/	23.17	/
10	16QAM	1	25	/	23.14	/
10	16QAM	1	49	/	23.25	/
10	16QAM	25	0	/	22.11	/
10	16QAM	25	12	/	22.11	/
10	16QAM	25	25	/	22.03	/
10	16QAM	50	0	/	22.07	/
10	64QAM	1	0	/	22.19	/
10	64QAM	1	25	/	22.28	/
10	64QAM	1	49	/	22.22	/
10	64QAM	25	0	/	21.09	/
10	64QAM	25	12	/	21.06	/
10	64QAM	25	25	/	21.10	/
10	64QAM	50	0	/	21.01	/
10	256QAM	1	0	/	19.08	/
10	256QAM	1	25	/	19.17	/
10	256QAM	1	49	/	19.11	/
10	256QAM	25	0	/	18.98	/
10	256QAM	25	12	/	18.95	/
10	256QAM	25	25	/	18.99	/
10	256QAM	50	0	/	18.90	/



LTE Band 14						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				23305	23330	23355
Frequency (MHz)				790.5	793	795.5
5	QPSK	1	0	23.80	23.81	23.78
5	QPSK	1	12	23.75	23.71	23.77
5	QPSK	1	24	23.62	23.59	23.68
5	QPSK	12	0	22.85	22.81	22.82
5	QPSK	12	7	22.80	22.77	22.80
5	QPSK	12	13	22.79	22.77	22.71
5	QPSK	25	0	22.71	22.77	22.71
5	16QAM	1	0	22.94	22.95	22.94
5	16QAM	1	12	22.85	22.91	22.85
5	16QAM	1	24	22.98	22.95	22.96
5	16QAM	12	0	21.85	21.86	21.88
5	16QAM	12	7	21.81	21.82	21.84
5	16QAM	12	13	21.74	21.77	21.80
5	16QAM	25	0	21.83	21.76	21.83
5	64QAM	1	0	21.96	21.90	21.96
5	64QAM	1	12	21.98	22.03	22.05
5	64QAM	1	24	21.91	21.94	21.91
5	64QAM	12	0	21.87	21.87	21.78
5	64QAM	12	7	21.80	21.75	21.82
5	64QAM	12	13	21.87	21.85	21.82
5	64QAM	25	0	21.74	21.77	21.76
5	256QAM	1	0	18.77	18.92	18.85
5	256QAM	1	12	18.91	18.89	18.90
5	256QAM	1	24	18.83	18.80	18.80
5	256QAM	12	0	18.69	18.95	18.67
5	256QAM	12	7	18.68	18.72	18.70
5	256QAM	12	13	18.74	18.76	18.74
5	256QAM	25	0	18.65	18.68	18.65

**Effective Radiated Power and Effective Isotropic Radiated Power**

LTE Band 14				Measured E.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				/		23330		/	
Frequency (MHz)				/		793		/	
				/	/	dBm	W	/	/
10	QPSK	1	0	/	/	21.30	0.135	/	/
10	QPSK	1	25	/	/	21.25	0.133	/	/
10	QPSK	1	49	/	/	21.15	0.130	/	/
10	QPSK	25	0	/	/	20.33	0.108	/	/
10	QPSK	25	12	/	/	20.25	0.106	/	/
10	QPSK	25	25	/	/	20.26	0.106	/	/
10	QPSK	50	0	/	/	20.27	0.106	/	/
10	16QAM	1	0	/	/	20.42	0.110	/	/
10	16QAM	1	25	/	/	20.39	0.109	/	/
10	16QAM	1	49	/	/	20.50	0.112	/	/
10	16QAM	25	0	/	/	19.36	0.086	/	/
10	16QAM	25	12	/	/	19.36	0.086	/	/
10	16QAM	25	25	/	/	19.28	0.085	/	/
10	16QAM	50	0	/	/	19.32	0.086	/	/
10	64QAM	1	0	/	/	19.44	0.088	/	/
10	64QAM	1	25	/	/	19.53	0.090	/	/
10	64QAM	1	49	/	/	19.47	0.089	/	/
10	64QAM	25	0	/	/	18.34	0.068	/	/
10	64QAM	25	12	/	/	18.31	0.068	/	/
10	64QAM	25	25	/	/	18.35	0.068	/	/
10	64QAM	50	0	/	/	18.26	0.067	/	/
10	256QAM	1	0	/	/	16.33	0.043	/	/
10	256QAM	1	25	/	/	16.42	0.044	/	/
10	256QAM	1	49	/	/	16.36	0.043	/	/
10	256QAM	25	0	/	/	16.23	0.042	/	/
10	256QAM	25	12	/	/	16.20	0.042	/	/
10	256QAM	25	25	/	/	16.24	0.042	/	/
10	256QAM	50	0	/	/	16.15	0.041	/	/



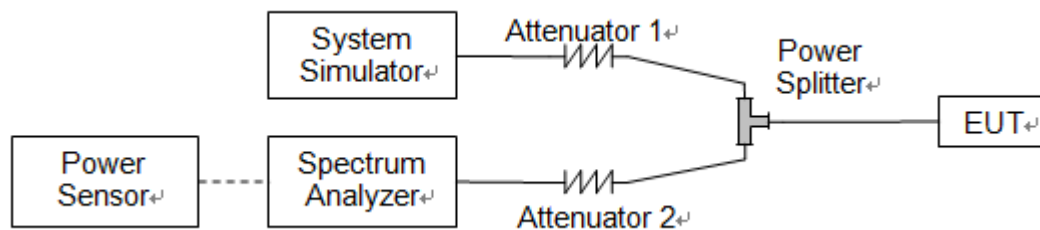
LTE Band 14				Measured E.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				23305		23330		23355	
Frequency (MHz)				790.5		793		795.5	
				dBm	W	dBm	W	dBm	W
5	QPSK	1	0	21.05	0.127	21.06	0.128	21.03	0.127
5	QPSK	1	12	21.00	0.126	20.96	0.125	21.02	0.126
5	QPSK	1	24	20.87	0.122	20.84	0.121	20.93	0.124
5	QPSK	12	0	20.10	0.102	20.06	0.101	20.07	0.102
5	QPSK	12	7	20.05	0.101	20.02	0.100	20.05	0.101
5	QPSK	12	13	20.04	0.101	20.02	0.100	19.96	0.099
5	QPSK	25	0	19.96	0.099	20.02	0.100	19.96	0.099
5	16QAM	1	0	20.19	0.104	20.20	0.105	20.19	0.104
5	16QAM	1	12	20.10	0.102	20.16	0.104	20.10	0.102
5	16QAM	1	24	20.23	0.105	20.20	0.105	20.21	0.105
5	16QAM	12	0	19.10	0.081	19.11	0.081	19.13	0.082
5	16QAM	12	7	19.06	0.081	19.07	0.081	19.09	0.081
5	16QAM	12	13	18.99	0.079	19.02	0.080	19.05	0.080
5	16QAM	25	0	19.08	0.081	19.01	0.080	19.08	0.081
5	64QAM	1	0	19.21	0.083	19.15	0.082	19.21	0.083
5	64QAM	1	12	19.23	0.084	19.28	0.085	19.30	0.085
5	64QAM	1	24	19.16	0.082	19.19	0.083	19.16	0.082
5	64QAM	12	0	19.12	0.082	19.12	0.082	19.03	0.080
5	64QAM	12	7	19.05	0.080	19.00	0.079	19.07	0.081
5	64QAM	12	13	19.12	0.082	19.10	0.081	19.07	0.081
5	64QAM	25	0	18.99	0.079	19.02	0.080	19.01	0.080
5	256QAM	1	0	16.02	0.040	16.17	0.041	16.10	0.041
5	256QAM	1	12	16.16	0.041	16.14	0.041	16.15	0.041
5	256QAM	1	24	16.08	0.041	16.05	0.040	16.05	0.040
5	256QAM	12	0	15.94	0.039	16.20	0.042	15.92	0.039
5	256QAM	12	7	15.93	0.039	15.97	0.040	15.95	0.039
5	256QAM	12	13	15.99	0.040	16.01	0.040	15.99	0.040
5	256QAM	25	0	15.90	0.039	15.93	0.039	15.90	0.039

2.2. Occupied Bandwidth

2.2.1. Requirement

According to FCC section 2.1049, the occupied bandwidth is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission. Occupied bandwidth is also known as the 99% emission bandwidth.

2.2.2. Test Description



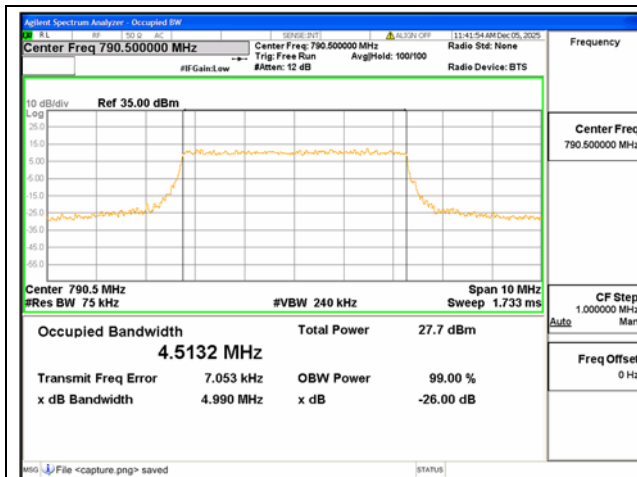
The EUT is coupled to the Spectrum Analyzer (SA) and the System Simulator (SS) with Attenuators through the Power Splitter; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading. The EUT is commanded by the SS to operate at the maximum output power. A call is established between the EUT and the SS.

2.2.3. Test procedure

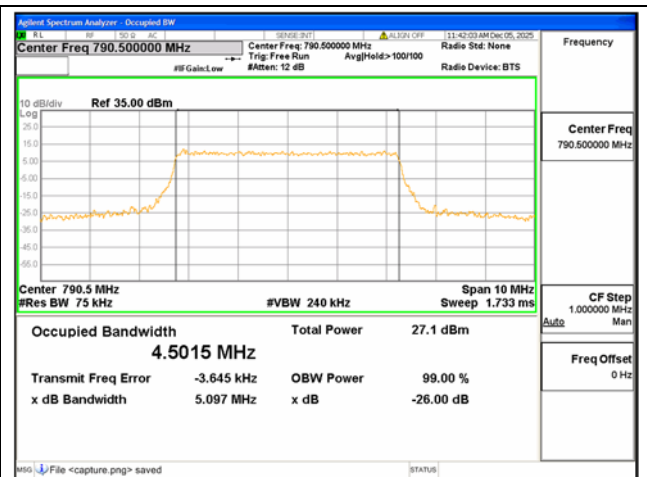
KDB 971168 D01v03 Section 4.1 and ANSI/TIA-603-E-2016.

**2.2.4. Test Result**

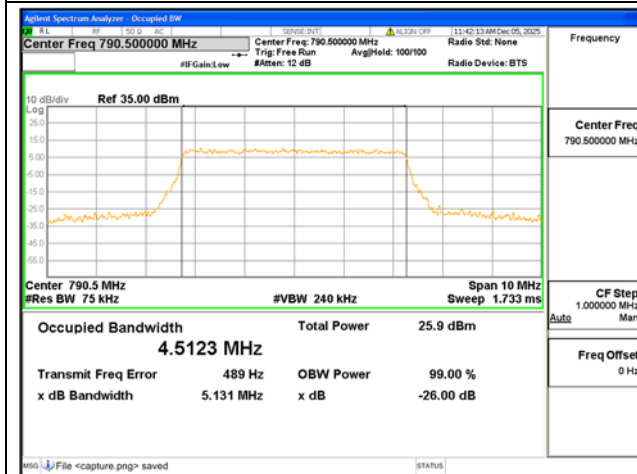
LTE Band	BW(MHz)	Channel Level	Channel	Frequency (MHz)	Modulation	99% BW (MHz)	26dB BW (MHz)	Verdict
B14	5	Low	23305	790.5	QPSK	4.5132	4.9896	PASS
B14	5	Low	23305	790.5	16QAM	4.5015	5.0971	PASS
B14	5	Low	23305	790.5	64QAM	4.5123	5.1314	PASS
B14	5	Low	23305	790.5	256QAM	4.4931	5.0716	PASS
B14	5	Mid	23330	793	QPSK	4.4930	5.1106	PASS
B14	5	Mid	23330	793	16QAM	4.4933	5.0644	PASS
B14	5	Mid	23330	793	64QAM	4.4992	5.0594	PASS
B14	5	Mid	23330	793	256QAM	4.5037	5.0367	PASS
B14	5	High	23355	795.5	QPSK	4.5039	5.0733	PASS
B14	5	High	23355	795.5	16QAM	4.5038	5.0773	PASS
B14	5	High	23355	795.5	64QAM	4.4990	5.0673	PASS
B14	5	High	23355	795.5	256QAM	4.5026	5.0269	PASS
B14	10	Mid	23330	793	QPSK	8.9565	9.9041	PASS
B14	10	Mid	23330	793	16QAM	8.9783	9.9752	PASS
B14	10	Mid	23330	793	64QAM	8.9754	9.8972	PASS
B14	10	Mid	23330	793	256QAM	8.9694	9.9131	PASS



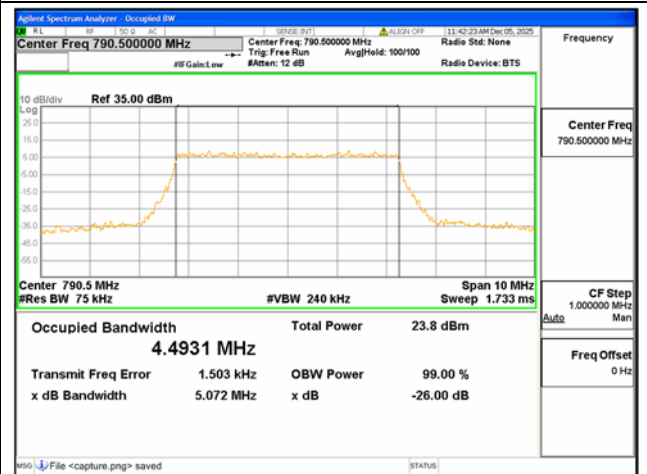
B14 / 5MHz / QPSK/ Low CH



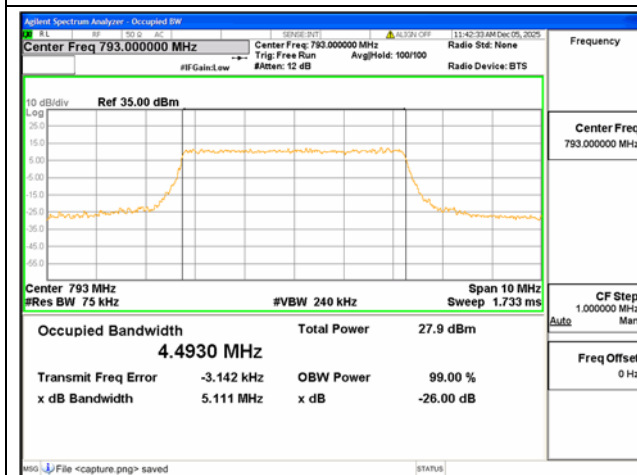
B14 / 5MHz / 16QAM/ Low CH



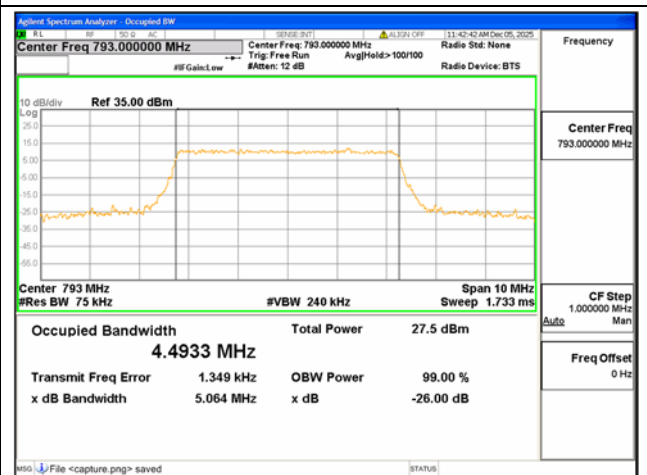
B14 / 5MHz / 64QAM/ Low CH



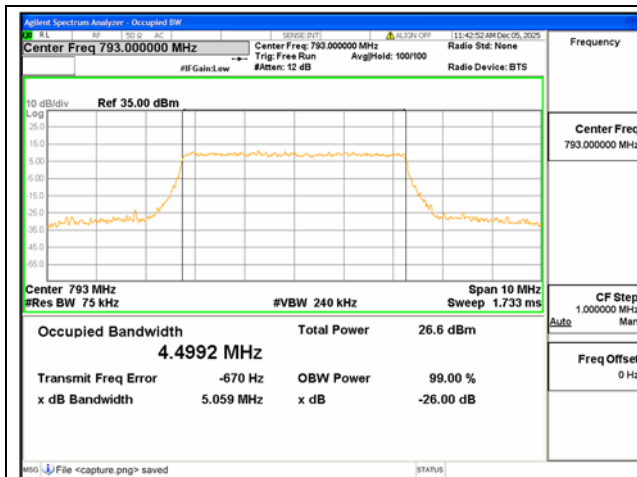
B14 / 5MHz / 256QAM/ Low CH



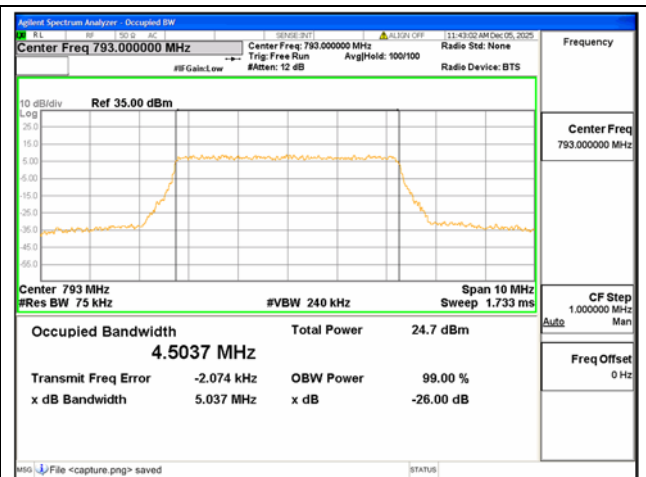
B14 / 5MHz / QPSK/ Mid CH



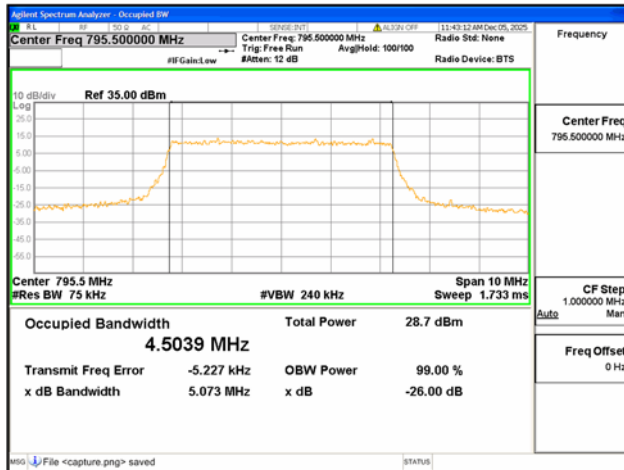
B14 / 5MHz / 16QAM/ Mid CH



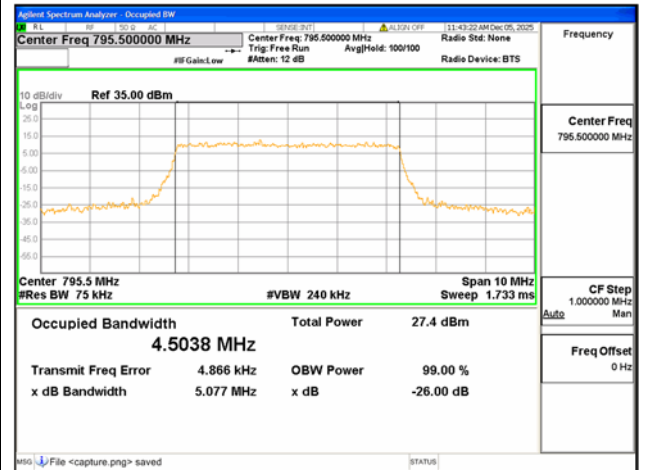
B14 / 5MHz / 64QAM/ Mid CH



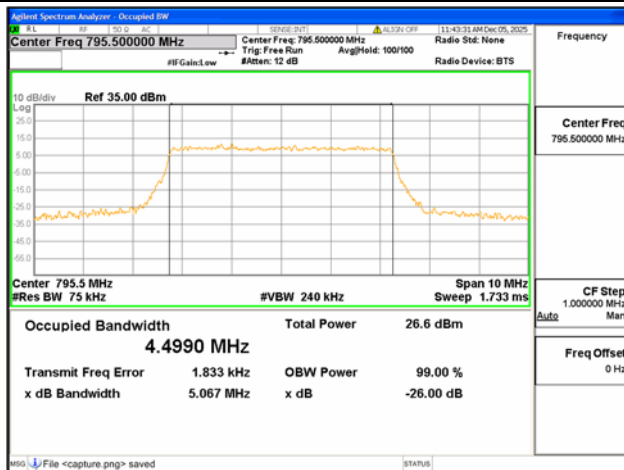
B14 / 5MHz / 256QAM/ Mid CH



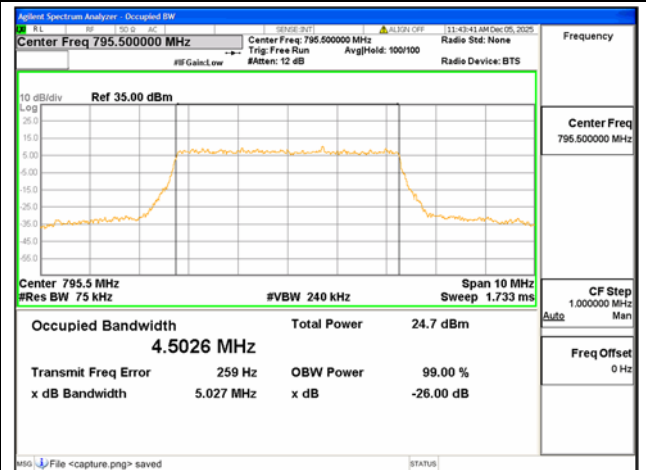
B14 / 5MHz / QPSK/ High CH



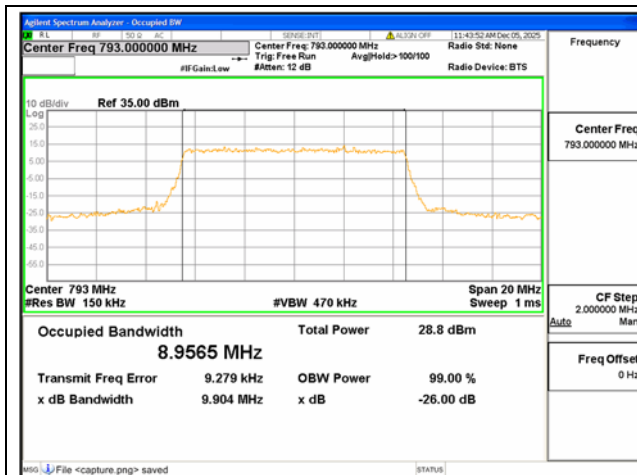
B14 / 5MHz / 16QAM/ High CH



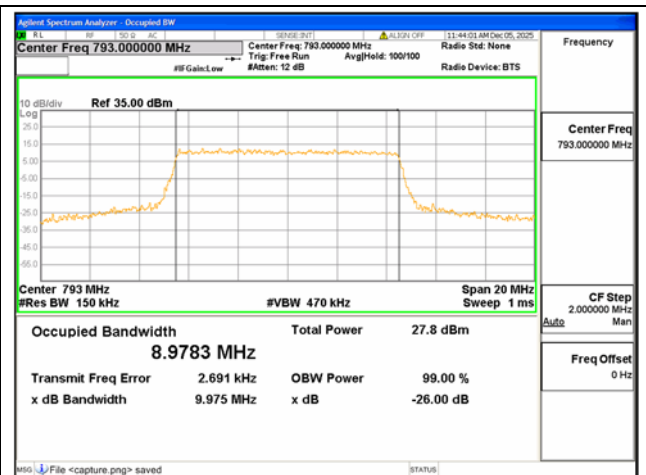
B14 / 5MHz / 64QAM/ High CH



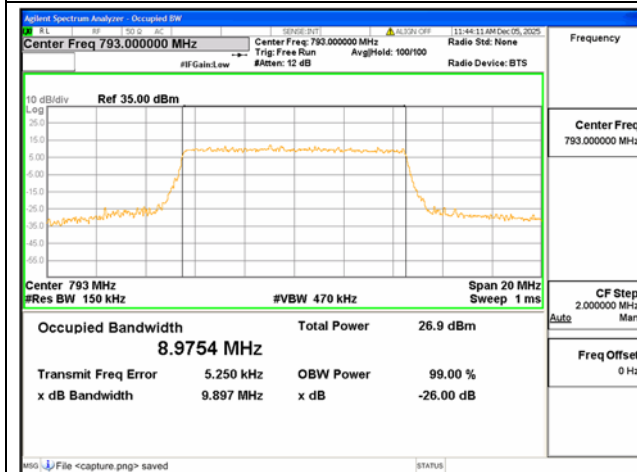
B14 / 5MHz / 256QAM/ High CH



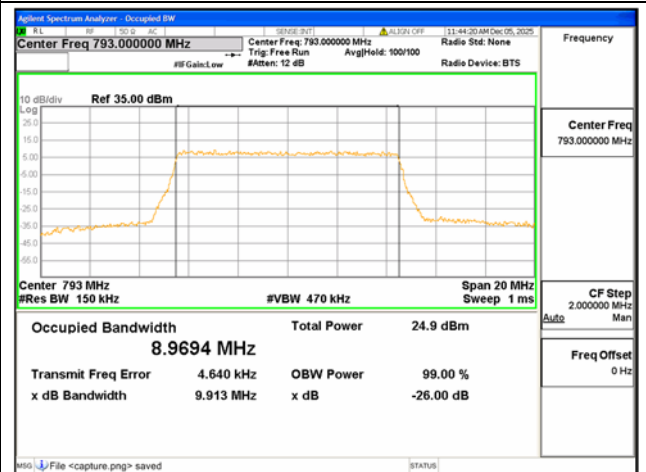
B14 / 10MHz / QPSK / Mid CH



B14 / 10MHz / 16QAM / Mid CH



B14 / 10MHz / 64QAM / Mid CH



B14 / 10MHz / 256QAM / Mid CH

2.3. Frequency Stability

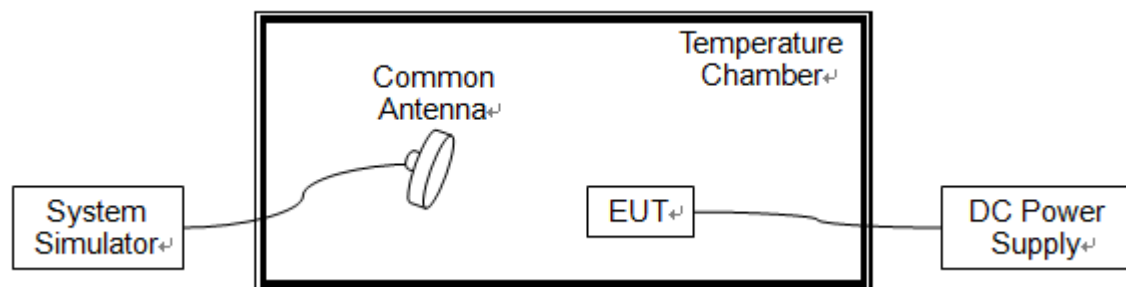
2.3.1. Requirement

According to FCC section 2.1055 & 90.213, the frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block. According to FCC section 2.1055, the test conditions are:

- (a) The temperature is varied from -30°C to +50°C at intervals of not more than 10°C.
- (b) For hand carried battery powered equipment, the primary supply voltage is reduced to the battery operating end point which shall be specified by the manufacture. The supply voltage shall be measured at the input to the cable normally provided with the equipment, or at the power supply terminals if cables are not normally provided.

Note: The operating temperature of EUT is from -10°C to 45°C, which are specified by the applicant.

2.3.2. Test Description



The EUT which is powered by the DC Power Supply directly, is located in the Temperature Chamber. The EUT is commanded by the System Simulator (SS) to operate at the maximum output power. A call is established between the EUT and the SS via a Common Antenna.

2.3.3. Test procedure

KDB 971168 D01v03 Section 9.0 and ANSI/TIA-603-E-2016.



2.3.4. Test Result

The nominal, highest and lowest extreme voltages are separately 3.87V, 4.40V and 3.60V, which are specified by the applicant; the normal temperature here used is 20°C.

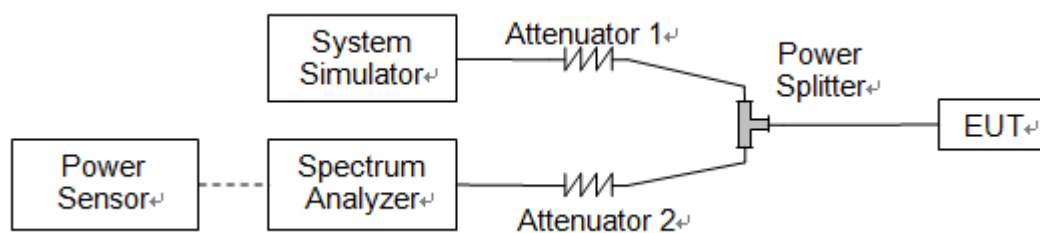
LTE Band 14, 256QAM, Channel 23330, Frequency 793.0MHz					
Limit=±2.5ppm					
Voltage (%)	Power (VDC)	Temp (°C)	Fre. Dev. (Hz)	Deviation (ppm)	Result
Normal	3.87	+20(Ref)	18	0.023	PASS
Normal		-10	16	0.020	
Normal		0	4	0.005	
Normal		+10	16	0.020	
Normal		+20	20	0.025	
Normal		+30	-19	-0.024	
Normal		+40	-14	-0.018	
Normal		+45	22	0.028	
High	4.40	+20	20	0.025	
BATT.ENDPOINT	3.60	+20	-16	-0.020	

2.4. Conducted Spurious Emissions

2.4.1. Requirement

According to FCC section 2.1051, 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 $43 + 10 \cdot \log(P)$ dB. This calculated to be -13dBm.

2.4.2. Test Description



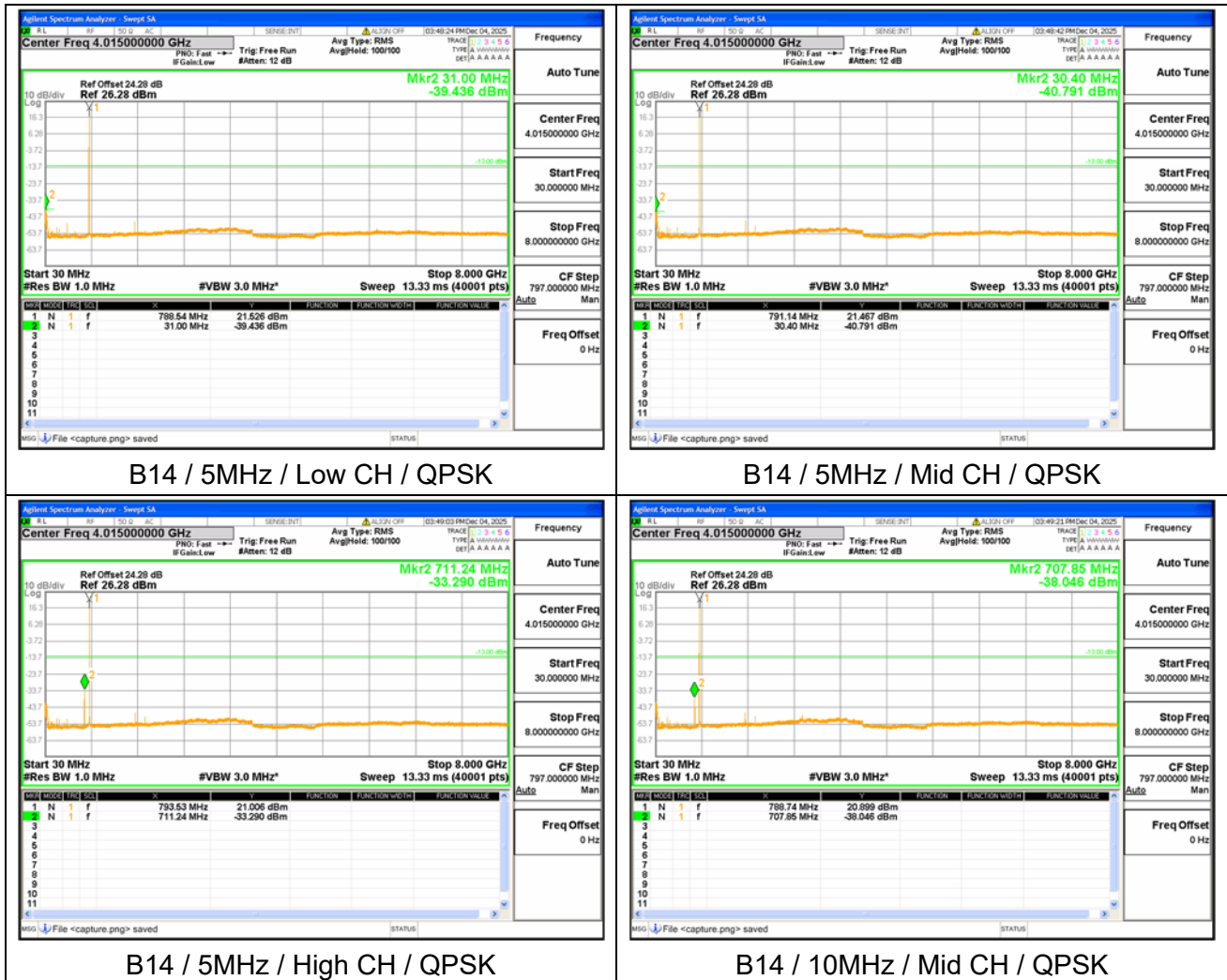
The EUT is coupled to the Spectrum Analyzer (SA) and the System Simulator (SS) with Attenuators through the Power Splitter; the RF load attached to the EUT antenna terminal is 50 Ohm; the path loss as the factor is calibrated to correct the reading. The EUT is commanded by the SS to operate at the maximum output power. A call is established between the EUT and the SS.

2.4.3. Test procedure

KDB 971168 D01v03 Section 6.0 and ANSI/TIA-603-E-2016.



2.4.4. Test Result





2.5.1. Requirement

According to FCC section 90.543(e), for operations in the 758-768 MHz and the 788-798 MHz bands, the power of any emission outside the 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, in accordance with the following:

- Band 26

According to FCC section 90.961(a), the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB.

The diagram shows a measurement setup. A 'System Simulator' block is connected to 'Attenuator 1'. A 'Power Sensor' block is connected via a dashed line to a 'Spectrum Analyzer' block. The 'Spectrum Analyzer' is connected to 'Attenuator 2'. The outputs of both attenuators are connected to a 'Power Splitter', which then connects to an 'EUT' (Equipment Under Test) block.

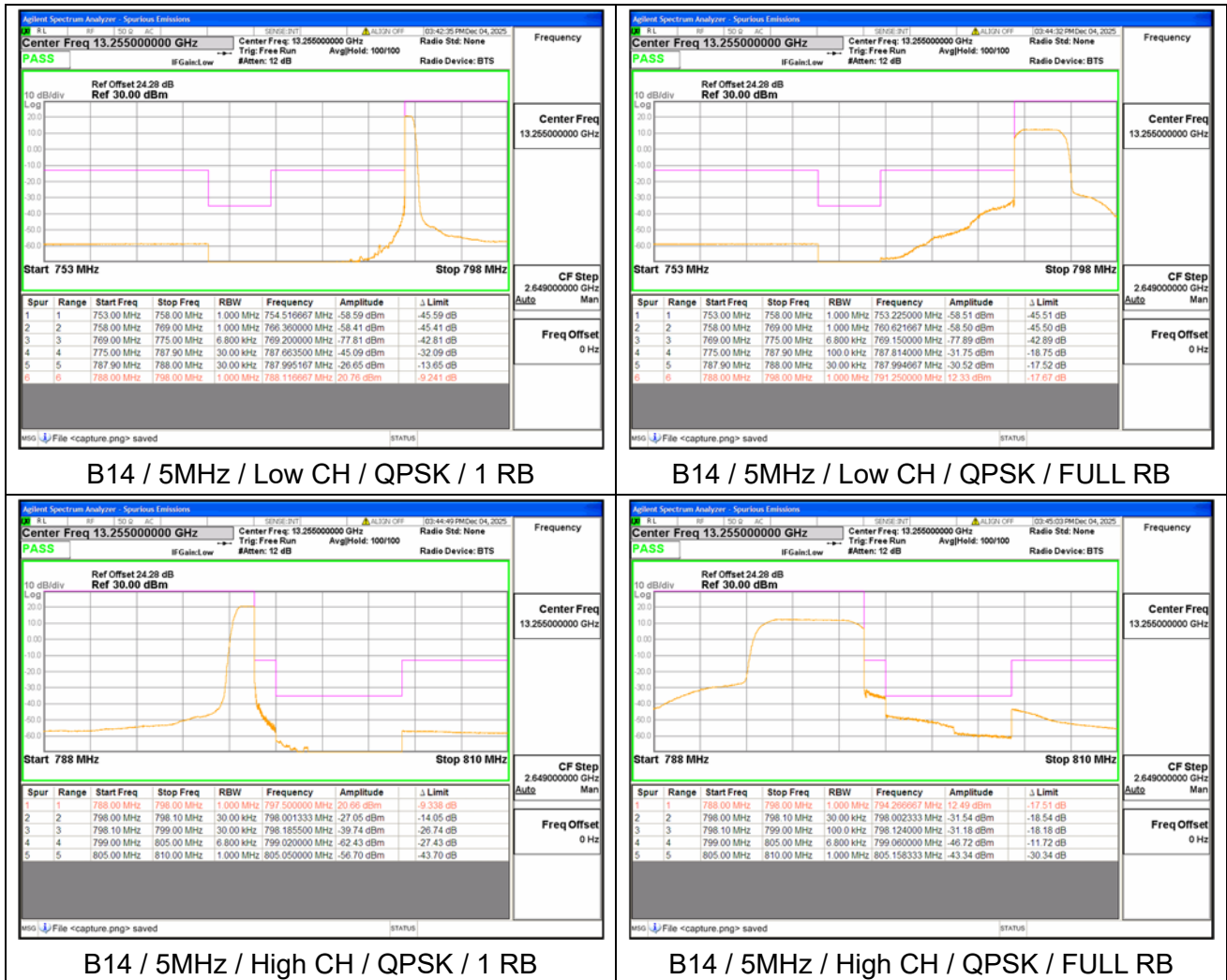
The EUT is coupled to the Spectrum Analyzer (SA) and the System Simulator (SS) with Attenuators through the Power Splitter; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading. The EUT is commanded by the SS to operate at the maximum output power. A call is established between the EUT and the SS.

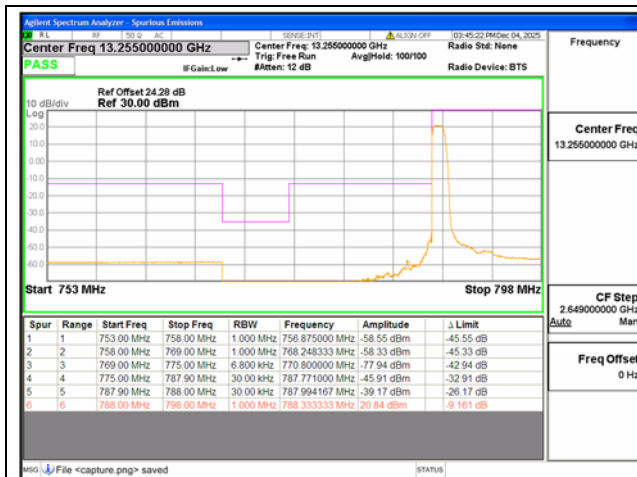


2.5.3. Test procedure

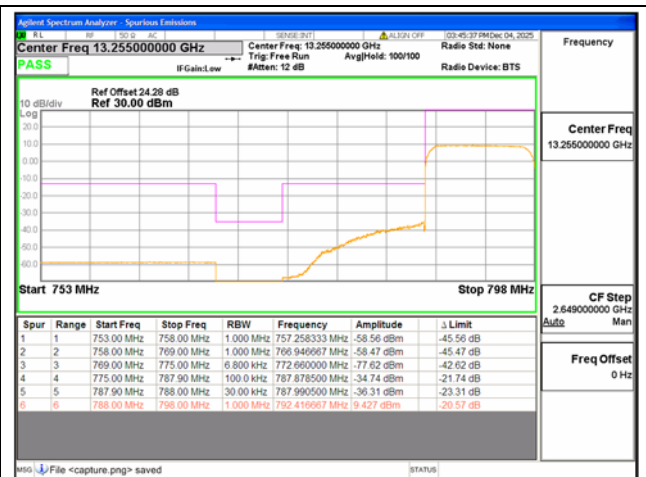
KDB 971168 D01v03 Section 6.0 and ANSI/TIA-603-E-2016.

2.5.4. Test Result

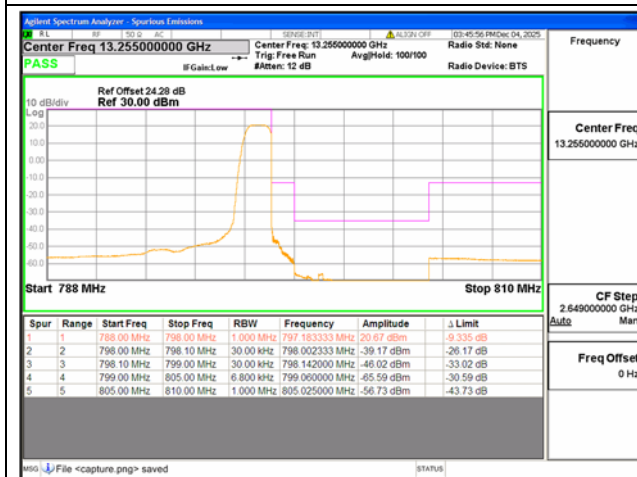




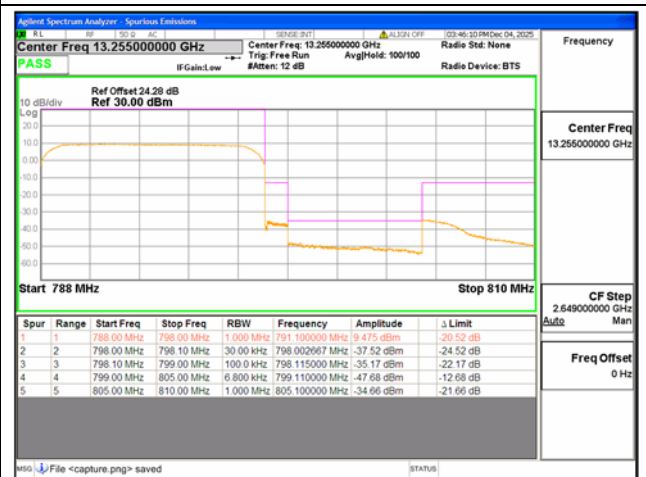
B14 / 10MHz / Low CH / QPSK / 1 RB



B14 / 10MHz / Low CH / QPSK / FULL RB



B14 / 10MHz / High CH / QPSK / 1 RB



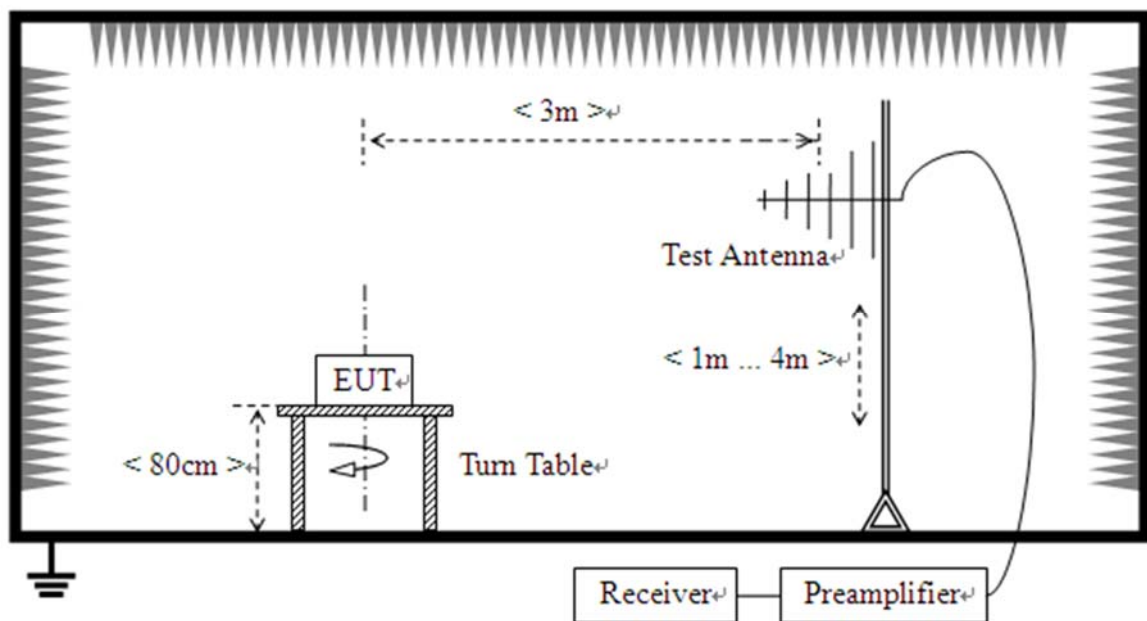
B14 / 10MHz / High CH / QPSK / FULL RB

2.6. Radiated Spurious Emissions

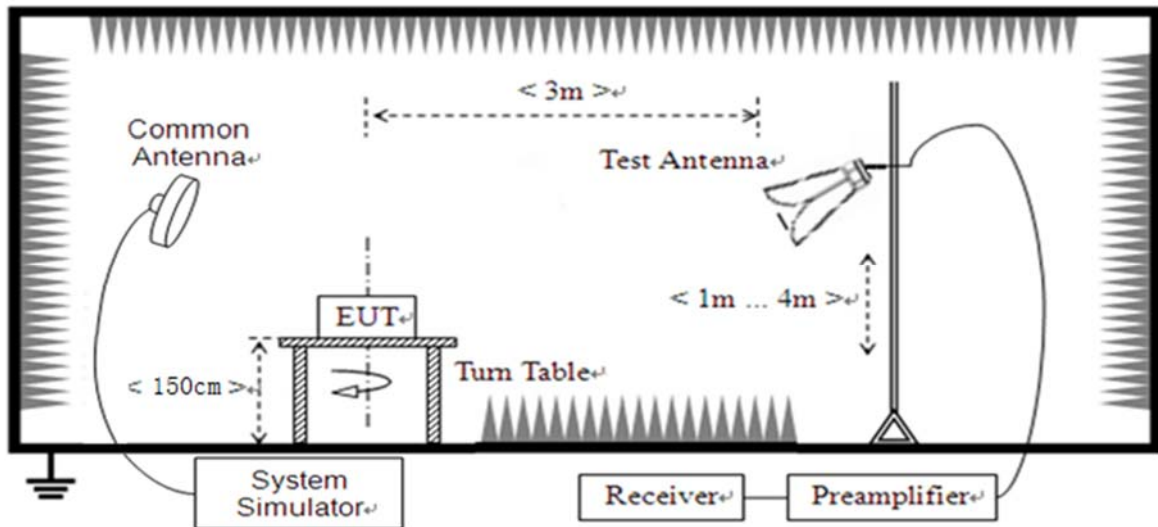
2.6.1. Requirement

According to FCC section 2.1051, the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43+10\log(P)$ dB. This calculated to be -13dBm.

2.6.2. Test Description



(For the test frequency from 30MHz to 1GHz)



(For the test frequency above 1GHz)

The EUT is located in a 3m Full-Anechoic Chamber, the cable loss, air loss and so on of the site as factors are pre-calibrated using the "Substitution" method, and calculated to correct the reading. A call is established between the EUT and the SS via a Common Antenna. The EUT is commanded by the SS to operate at the maximum and minimum output power, and only the test result of the maximum output power was recorded.

In the frequency range above 30MHz, Bi-Log Test Antenna (30MHz to 1GHz) and Horn Test Antenna (above 1GHz) are used. Test Antenna is 3m away from the EUT. Test Antenna height is varied from 1m to 4m above the ground and the Turn Table is actuated to turn from 0° to 360° to determine the maximum value of the radiated power. The emission levels at both horizontal and vertical polarizations should be tested. The Filters consists of Notch Filters and High Pass Filter.

Note: when doing measurements above 1GHz, the EUT has been within the 3dB cone width of the horn antenna during horizontal antenna.

2.6.3. Test procedure

KDB 971168 D01v03 Section 5.8 and ANSI/TIA-603-E-2016.

For measurements below 1GHz the resolution bandwidth is set to 100kHz for peak detection measurements.

For measurements above 1GHz the resolution bandwidth is set to 1MHz, the video band width is set to 3MHz for peak measurements.



2.6.4. Test Result

The measurement frequency range is from 30MHz to the 10th harmonic of the fundamental frequency. The Turn Table is actuated to turn from 0° to 360°, and both horizontal and vertical polarizations of the Test Antenna are used to find the maximum radiated power. The lowest, middle and highest channels are tested to verify the out of band emissions.

The substitution corrections are obtained as described below:

$$A_{\text{SUBST}} = P_{\text{SUBST_TX}} - P_{\text{SUBST_RX}} - L_{\text{SUBST_CABLES}} + G_{\text{SUBST_TX_ANT}}$$

$$A_{\text{TOT}} = L_{\text{CABLES}} + A_{\text{SUBST}}$$

Where A_{SUBST} is the final substitution correction including receive antenna gain.

$P_{\text{SUBST_TX}}$ is signal generator level,

$P_{\text{SUBST_RX}}$ is receiver level,

$L_{\text{SUBST_CABLES}}$ is cable losses including TX cable,

$G_{\text{SUBST_TX_ANT}}$ is substitution antenna gain.

A_{TOT} is total correction factor including cable loss and substitution correction

During the test, the data of A_{TOT} was added in the test spectrum analyze, so spectrum analyze reading is the final values which contain the data of A_{TOT} .

Note1: The power of the EUT transmitting frequency should be ignored.

Note2: All Spurious Emission tests were performed in X, Y, Z axis direction. And only the worst axis test condition was recorded in this test report.

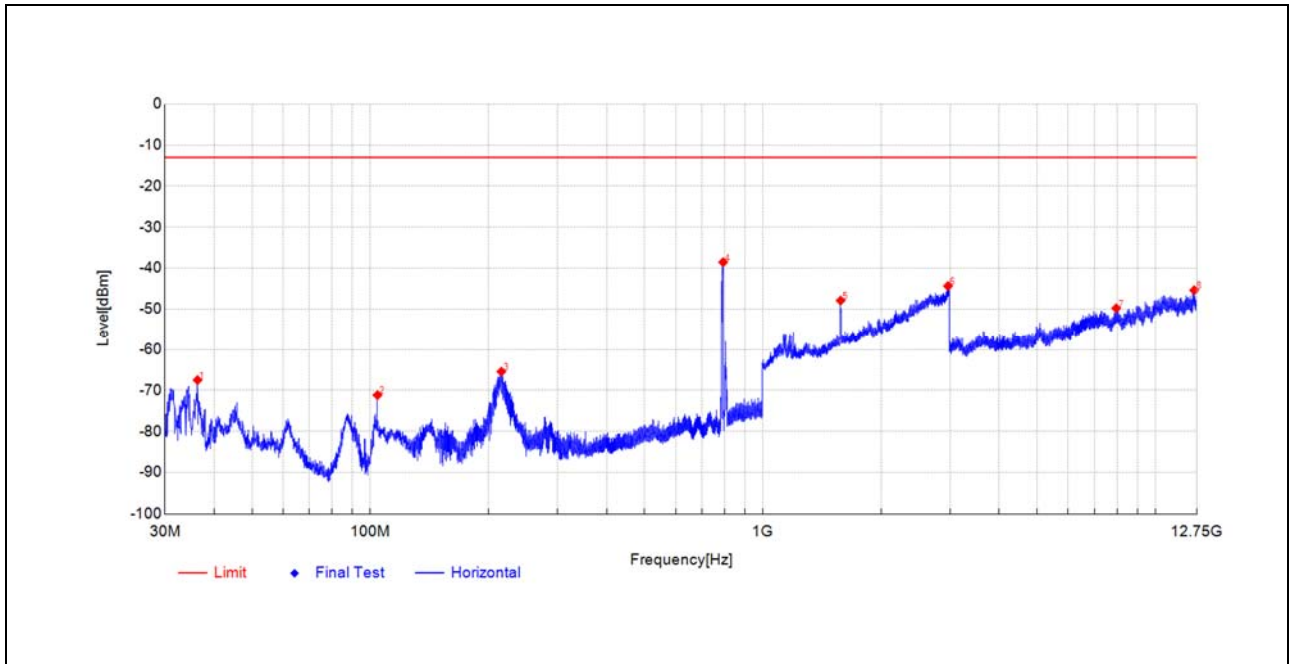
Note3: All bandwidth and modulation were considered and evaluated respectively by performing full test for each band, only the worst cases (Max Bandwidth and QPSK mode) were recorded in this test report.

Note4: N/A means the frequency is the basic frequency or the base station frequency, they are no need to verdict.

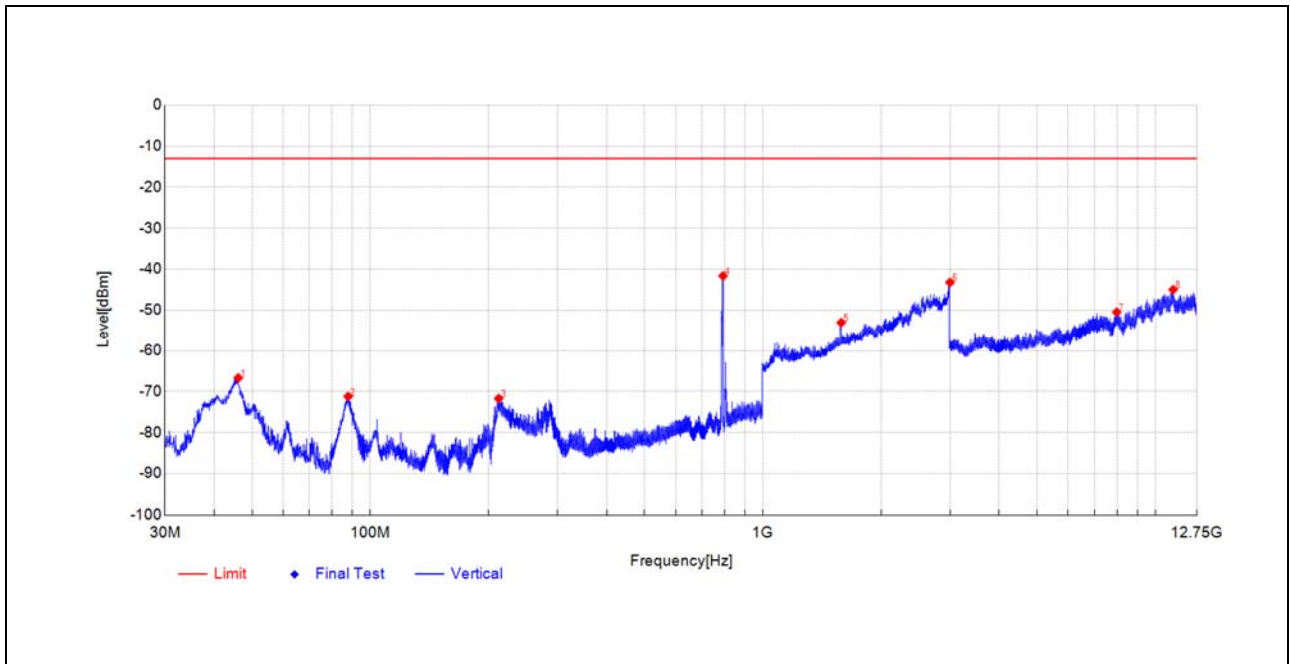
Note5: The amplitude of emissions (18GHz to 10th harmonics) which are attenuated more than 20 dB below the limit are not be reported.

LTE Band 14

Plot for Low Channel

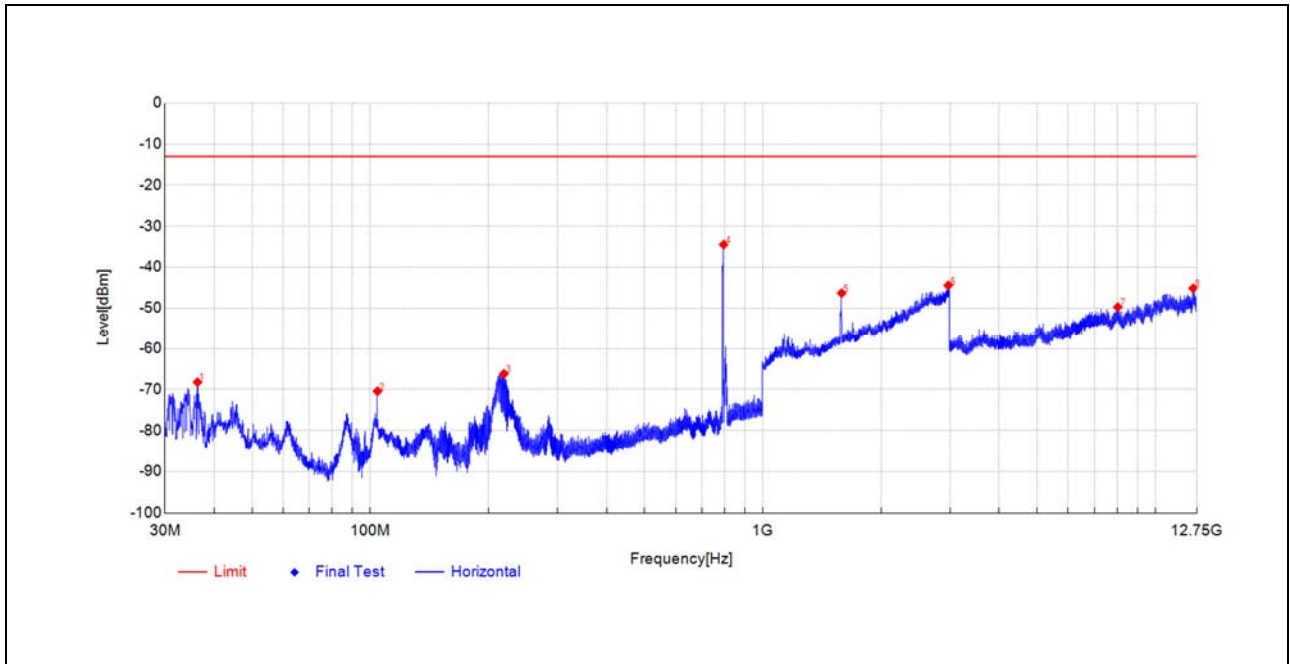


Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
36.3053	-52.42	-67.49	-15.1	-13.0	54.5	Horizontal	PK	PASS
104.3057	-48.72	-71.16	-22.4	-13.0	58.2	Horizontal	PK	PASS
215.7158	-49.83	-65.43	-15.6	-13.0	52.4	Horizontal	PK	PASS
792.3611	-31.37	-38.52	-7.2	-	-	Horizontal	PK	NA
1578.5157	-50.41	-47.89	2.5	-13.0	34.9	Horizontal	PK	PASS
2962.7926	-59.35	-44.34	15.0	-13.0	31.3	Horizontal	PK	PASS
7951.2976	-62.98	-49.75	13.2	-13.0	36.8	Horizontal	PK	PASS
12563.278	-68.66	-45.36	23.3	-13.0	32.4	Horizontal	PK	PASS

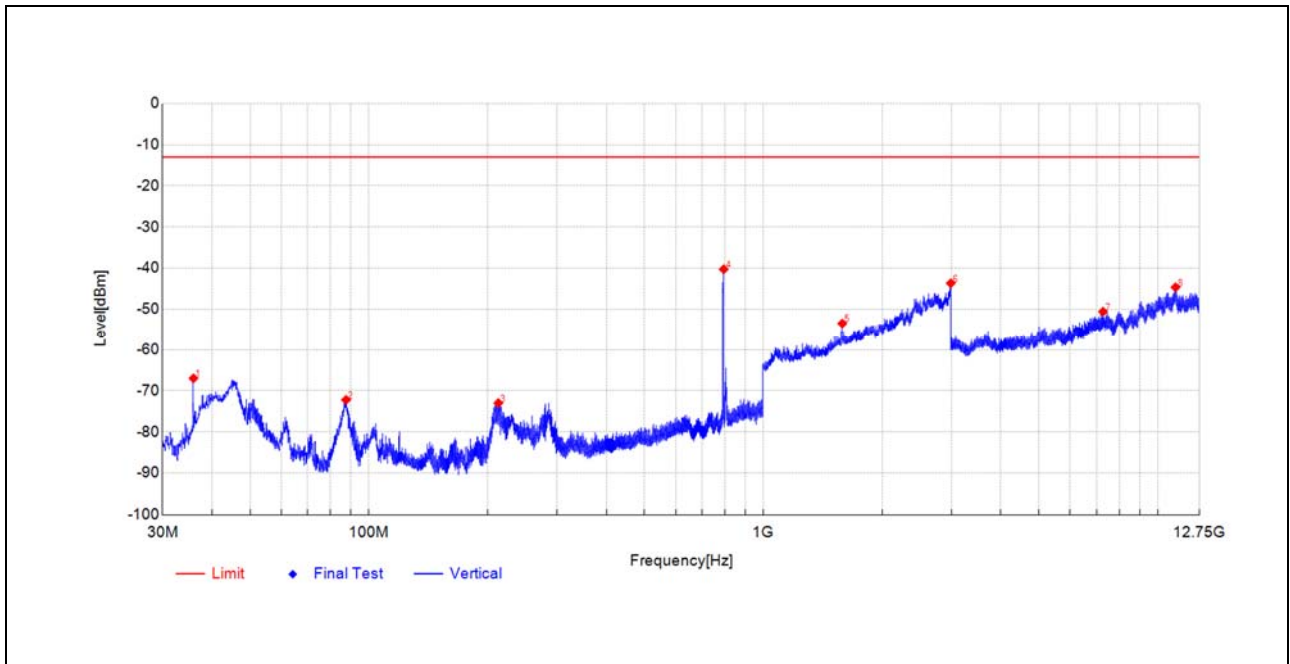


Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
46.1028	-47.05	-66.68	-19.6	-13.0	53.7	Vertical	PK	PASS
87.8149	-48.87	-71.21	-22.3	-13.0	58.2	Vertical	PK	PASS
212.3691	-51.78	-71.72	-19.9	-13.0	58.7	Vertical	PK	PASS
791.9731	-34.78	-41.61	-6.8	-	-	Vertical	PK	NA
1583.7167	-55.40	-53.02	2.4	-13.0	40.0	Vertical	PK	PASS
2998.3997	-60.71	-43.19	17.5	-13.0	30.2	Vertical	PK	PASS
7974.2112	-63.32	-50.44	12.9	-13.0	37.4	Vertical	PK	PASS
11102.167	-67.33	-44.95	22.4	-13.0	32.0	Vertical	PK	PASS

Plot for Mid Channel

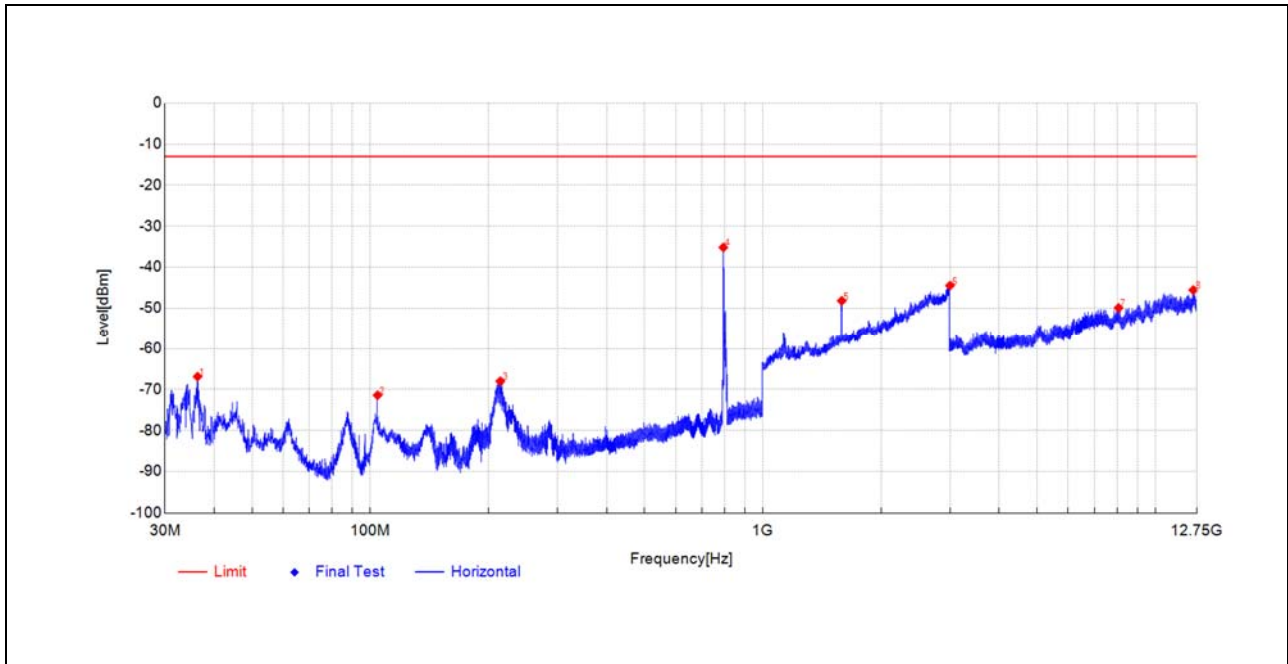


Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
36.3053	-53.16	-68.23	-15.1	-13.0	55.2	Horizontal	PK	PASS
104.3057	-48.00	-70.44	-22.4	-13.0	57.4	Horizontal	PK	PASS
218.8684	-50.85	-66.22	-15.4	-13.0	53.2	Horizontal	PK	PASS
794.7862	-27.34	-34.46	-7.1	-	-	Horizontal	PK	NA
1588.1176	-48.81	-46.29	2.5	-13.0	33.3	Horizontal	PK	PASS
2967.1934	-59.38	-44.42	15.0	-13.0	31.4	Horizontal	PK	PASS
8025.8888	-63.14	-49.70	13.4	-13.0	36.7	Horizontal	PK	PASS
12482.349	-68.13	-45.11	23.0	-13.0	32.1	Horizontal	PK	PASS

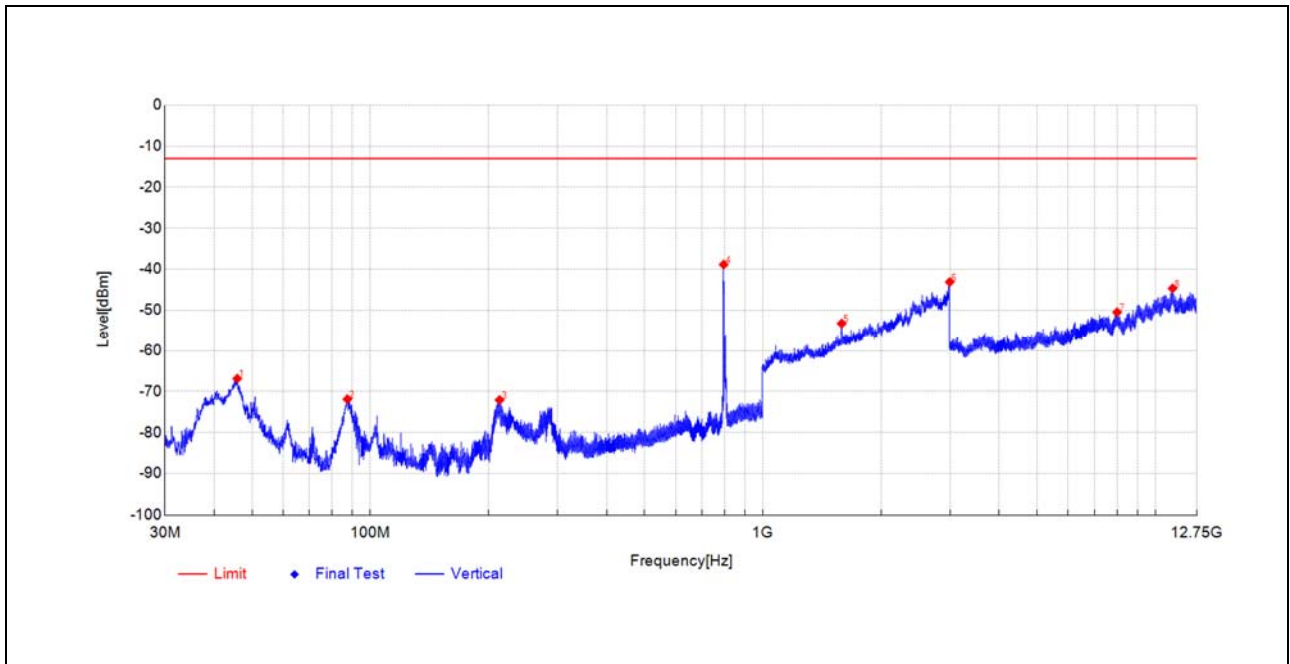


Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
35.9173	-43.90	-66.98	-23.1	-13.0	54.0	Vertical	PK	PASS
87.5239	-49.85	-72.21	-22.4	-13.0	59.2	Vertical	PK	PASS
212.9026	-53.11	-72.99	-19.9	-13.0	60.0	Vertical	PK	PASS
793.9132	-33.46	-40.24	-6.8	-	-	Vertical	PK	NA
1586.1172	-55.86	-53.45	2.4	-13.0	40.5	Vertical	PK	PASS
2987.9976	-59.87	-43.64	16.2	-13.0	30.6	Vertical	PK	PASS
7268.7634	-62.46	-50.57	11.9	-13.0	37.6	Vertical	PK	PASS
11098.267	-67.03	-44.63	22.4	-13.0	31.6	Vertical	PK	PASS

Plot for High Channel

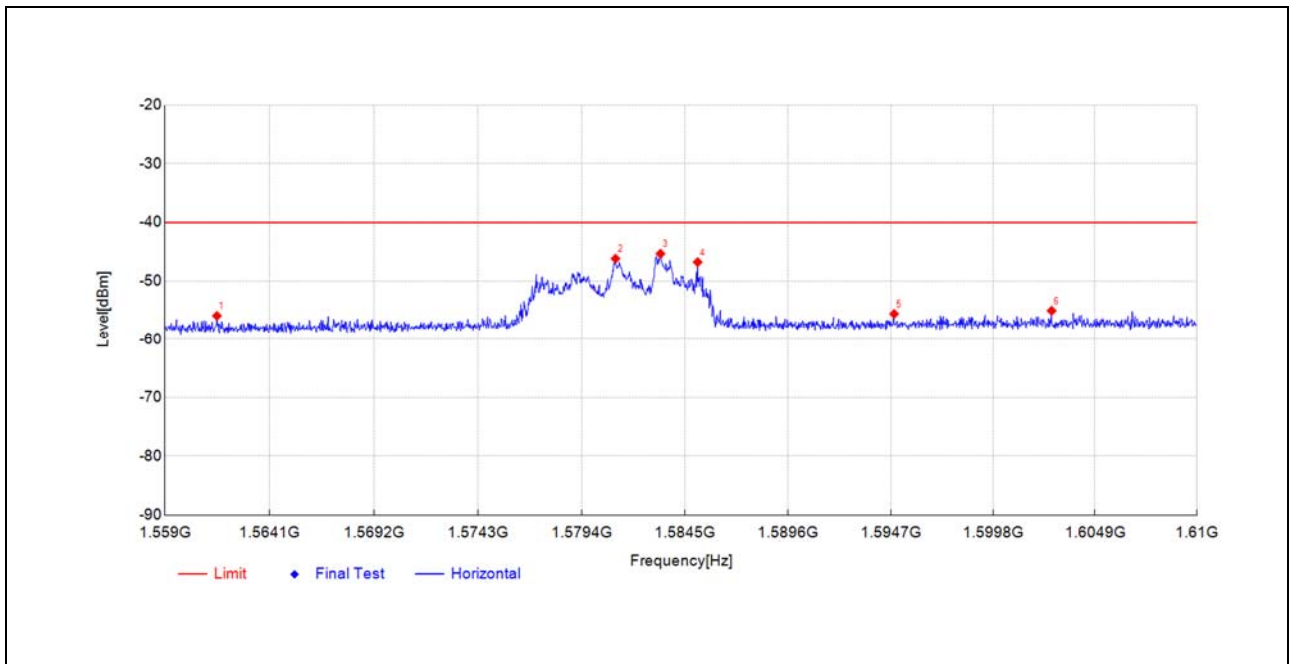


Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
36.3053	-51.81	-66.88	-15.1	-13.0	53.9	Horizontal	PK	PASS
104.3542	-48.98	-71.42	-22.4	-13.0	58.4	Horizontal	PK	PASS
214.4062	-52.31	-68.01	-15.7	-13.0	55.0	Horizontal	PK	PASS
793.5252	-28.03	-35.16	-7.1	-	-	Horizontal	PK	NA
1588.9178	-50.69	-48.17	2.5	-13.0	35.2	Horizontal	PK	PASS
2998.3997	-59.91	-44.46	15.5	-13.0	31.5	Horizontal	PK	PASS
8062.4531	-63.39	-49.90	13.5	-13.0	36.9	Horizontal	PK	PASS
12494.537	-68.85	-45.54	23.3	-13.0	32.5	Horizontal	PK	PASS

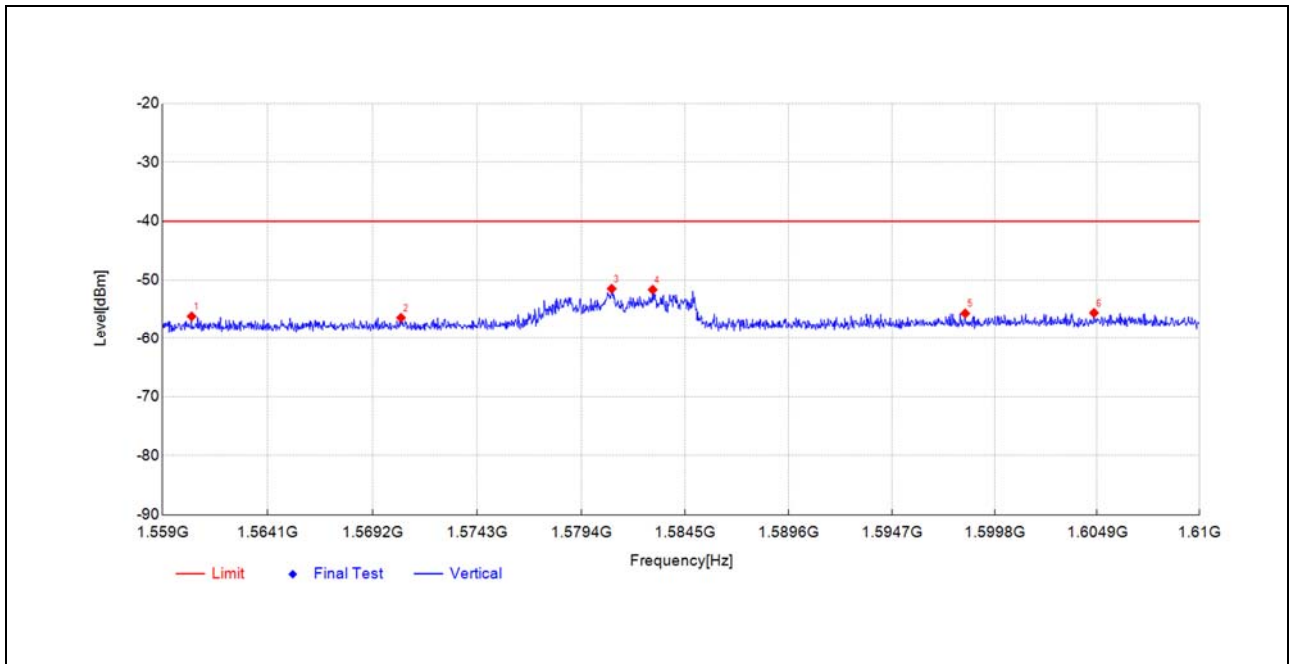


Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
45.8118	-47.13	-66.86	-19.7	-13.0	53.9	Vertical	PK	PASS
87.4269	-49.51	-71.89	-22.4	-13.0	58.9	Vertical	PK	PASS
213.4847	-52.25	-72.08	-19.8	-13.0	59.1	Vertical	PK	PASS
795.1258	-32.08	-38.83	-6.8	-	-	Vertical	PK	NA
1588.5177	-55.68	-53.23	2.5	-13.0	40.2	Vertical	PK	PASS
2994.3989	-60.11	-43.08	17.0	-13.0	30.1	Vertical	PK	PASS
7996.1498	-63.48	-50.47	13.0	-13.0	37.5	Vertical	PK	PASS
11066.090	-66.90	-44.64	22.3	-13.0	31.6	Vertical	PK	PASS

Plot for 1559MHz-1610MHz



Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1561.5258	-58.44	-55.95	2.5	-40.0	16.0	Horizontal	PK	PASS
1581.0685	-48.71	-46.18	2.5	-40.0	6.2	Horizontal	PK	PASS
1583.2881	-47.87	-45.34	2.5	-40.0	5.3	Horizontal	PK	PASS
1585.1251	-49.30	-46.77	2.5	-40.0	6.8	Horizontal	PK	PASS
1594.8709	-58.12	-55.61	2.5	-40.0	15.6	Horizontal	PK	PASS
1602.7289	-57.57	-55.07	2.5	-40.0	15.1	Horizontal	PK	PASS



Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1560.4032	-58.84	-56.18	2.7	-40.0	16.2	Vertical	PK	PASS
1570.5828	-58.91	-56.42	2.5	-40.0	16.4	Vertical	PK	PASS
1580.8899	-53.84	-51.49	2.4	-40.0	11.5	Vertical	PK	PASS
1582.9055	-54.02	-51.65	2.4	-40.0	11.7	Vertical	PK	PASS
1598.3407	-58.26	-55.68	2.6	-40.0	15.7	Vertical	PK	PASS
1604.7444	-58.25	-55.59	2.7	-40.0	15.6	Vertical	PK	PASS



Annex A Test Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for test performed on the EUT as specified in CISPR 16-1-2:

Test items	Uncertainty
Output Power	± 2.22 dB
Bandwidth	$\pm 5\%$
Conducted Spurious Emission	± 2.77 dB
Band Edge	± 2.77 dB
Equivalent Isotropic Radiated Power	± 2.22 dB
Radiated Spurious Emissions	± 6 dB

This uncertainty represent an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=2$.



Annex B Testing Laboratory Information

1. Identification of the Responsible Testing Laboratory

Laboratory Name:	Shenzhen Morlab Communications Technology Co., Ltd.
Laboratory Address:	FL.3, Building A, FeiYang Science Park, No.8 LongChang Road, Block 67, BaoAn District, ShenZhen, GuangDong Province, P. R. China
Telephone:	+86 755 36698555
Facsimile:	+86 755 36698525

2. Identification of the Responsible Testing Location

Name:	Shenzhen Morlab Communications Technology Co., Ltd.
Address:	FL.3, Building A, FeiYang Science Park, No.8 LongChang Road, Block 67, BaoAn District, ShenZhen, GuangDong Province, P. R. China

3. Facilities and Accreditations

All measurement facilities used to collect the measurement data are located at FL.3, Building A, FeiYang Science Park, Block 67, BaoAn District, Shenzhen, 518101 P. R. China. The test site is constructed in conformance with the requirements of ANSI C63.10-2020 and CISPR Publication 22; the FCC designation number is CN1192, the test firm registration number is 226174.



4. Test Equipment Utilized

4.1 Conducted Test Equipment

Equipment	Serial No.	Type	Manufacturer	Cal. Date	Due Date
Signal Analyzer	MY51511149	N9020A	Agilent	2025.05.15	2026.05.14
Communication Test Station	6200995016	MT8820C	Anritsu	2025.09.02	2026.09.01
Temperature Chamber	S022177101 00089002	KMT-36LF 1A0	KOMEG	2025.09.02	2026.09.01

4.2 List of Software Used

Description	Manufacturer	Software Version
MOR-2023E Test System	MORLAB	V7.99
JS36-RSE	Tonscend	5.0.0

**4.3 Radiated Test Equipment**

Equipment	Serial No.	Type	Manufacturer	Cal. Date	Due Date
System Simulator	152038	CMW500	R&S	2025.09.03	2026.09.02
Receiver	MY56060145	N9020A	Agilent	2025.05.13	2026.05.12
Test Antenna - Bi-Log	9163-519	VULB 9163	Schwarzbeck	2025.06.22	2026.06.21
Test Antenna - Horn	9120D-963	BBHA 9120D	Schwarzbeck	2025.05.16	2026.05.15
RF Coaxial Cable (DC-18GHz)	MRE001	PE330	Pasternack	2025.05.13	2026.05.12
RF Coaxial Cable (DC-18GHz)	MRE002	CLU18	Pasternack	2025.05.13	2026.05.12
RF Coaxial Cable (DC-18GHz)	MRE003	CLU18	Pasternack	2025.05.13	2026.05.12
RF Coaxial Cable (DC-40GHz)	22290045	QA360-40-KK- 0.5	Qualwave	2025.09.03	2026.09.02
RF Coaxial Cable (DC-40GHz)	22290046	QA360-40-KK F-2	Qualwave	2025.09.03	2026.09.02
Preamplifier (10MHz-6GHz)	46732	S10M100L380 2	LUCIX CORP.	2025.09.03	2026.09.02
Preamplifier (2GHz-18GHz)	61171/61172	S020180L320 3	LUCIX CORP.	2025.05.13	2026.05.12
Preamplifier (18GHz-40GHz)	DS77209	DCLNA0118-4 0C-S	Decentest	2025.05.13	2026.05.12
Notch Filter	N/A	WRCGV -LTE B14	Wainwright	N/A	N/A
Anechoic Chamber	N/A	9m*6m*6m	CRT	2025.06.21	2028.06.20
Anechoic Chamber	N/A	9m*6m*6m	CRT	2025.04.19	2028.04.18



Notes

1. The report shall have report stamp or our company stamp.
2. The report shall be invalid without all the signatures of the editor and approver.
3. The report shall not be changed.
4. Any objections must be raised to Morlab within 15 days since the date when the report is received. It will not be taken into consideration beyond this limit.
5. Conformity declaration:

- ☒ Morlab issues a statement of conformity based on the corresponding standards (default)
- ☐ Morlab issues a statement of conformity based on the applicant requirement

6. Use of uncertainty of measurement for decisions on conformity (decision rule):

No decision rule is specified by the testing standard, when comparing the measurement result with the applicable limit according to the specification in that standard. The decisions on conformity are made without applying the measurement uncertainty ("simple acceptance" decision rule).

_____ END OF REPORT _____