



中国认可  
国际互认  
检测  
TESTING  
CNAS L3163

## CE Radio Test Report

**Project No.** : 2307C104  
**Equipment** : N300 Wi-Fi 4G LTE Router  
**Brand Name** : Tenda  
**Test Model** : 4G03 Pro  
**Series Model** : 4G05  
**Applicant** : SHENZHEN TENDA TECHNOLOGY CO.,LTD.  
**Address** : 6-8 Floor, Tower E3, No. 1001, Zhongshanyuan Road, Nanshan District, Shenzhen, China. 518052  
**Manufacturer** : SHENZHEN TENDA TECHNOLOGY CO.,LTD.  
**Address** : 6-8 Floor, Tower E3, No. 1001, Zhongshanyuan Road, Nanshan District, Shenzhen, China. 518052  
**Date of Receipt** : Jul. 12, 2023  
**Date of Test** : Jul. 14, 2023 ~ Jul. 26, 2023  
**Issued Date** : Aug. 01, 2023  
**Report Version** : R00  
**Test Sample** : Engineering Sample No.: DG20230712320 and DG20230712323  
**Standard(s)** : ETSI EN 301 908-1 V15.1.1 (2021-09)  
ETSI EN 301 908-13 V13.2.1 (2022-02)

The above equipment has been tested and found compliance with the requirement of the relative standards by BTL Inc.(Dongguan).

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**Declaration**

**BTL** represents to the client that testing is done in accordance with standard procedures as applicable and that test instruments used has been calibrated with standards traceable to international standard(s) and/or national standard(s).

**BTL's** reports apply only to the specific samples tested under conditions. It is manufacture's responsibility to ensure that additional production units of this model are manufactured with the identical electrical and mechanical components. **BTL** shall have no liability for any declarations, inferences or generalizations drawn by the client or others from **BTL** issued reports.

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**BTL's** laboratory quality assurance procedures are in compliance with the **ISO/IEC 17025** requirements, and accredited by the conformity assessment authorities listed in this test report.

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The information, data and test plan are provided by manufacturer which may affect the validity of results, so it is manufacturer's responsibility to ensure that the apparatus meets the essential requirements of applied standards and in all the possible configurations as representative of its intended use.

**Limitation**

For the use of the authority's logo is limited unless the Test Standard(s)/Scope(s)/Item(s) mentioned in this test report is (are) included in the conformity assessment authorities acceptance respective.

Please note that the measurement uncertainty is provided for informational purpose only and are not use in determining the Pass/Fail results.

<b>Table of Contents</b>	<b>Page</b>
REPORT ISSUED HISTORY	4
1 . TEST SUMMARY	5
2 . TEST ENVIRONMENT AND DESCRIPTION	7
2.1 TEST FACILITY	7
2.2 MEASUREMENT UNCERTAINTY	7
3 . GENERAL INFORMATION	8
3.1 GENERAL DESCRIPTION OF EUT	8
3.2 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED	9
3.3 DESCRIPTION OF SUPPORT UNITS	9
3.4 EUT OPERATING CONDITIONS	9
4 . RADIATED EMISSIONS (UE)	10
4.1 LIMITS	10
4.2 CONFORMANCE	10
4.3 TEST CONDITION	11
4.4 TEST PROCEDURE	12
4.5 TEST CONDITIONS	12
4.6 RADIATED EMISSIONS TRAFFIC MODE MEASUREMENT (UE) RESULTS	13
4.7 RADIATED EMISSIONS IDLE MODE MEASUREMENT (UE) RESULTS	16
5 . MEASUREMENT INSTRUMENTS LIST	19
6 . EUT TEST PHOTO	20

**REPORT ISSUED HISTORY**

Report No.	Version	Description	Issued Date	Note
BTL-ETSP-5-2307C104	R00	Original Report.	Aug. 01, 2023	Valid

## 1. TEST SUMMARY

ETSI EN 301 908-1 V15.1.1 (2021-09) and ETSI EN 301 908-13 V13.2.1 (2022-02)			
(See Note 3)			
Sub clause	Description of Test		Verdict
4.2.2	Radiated Emissions (UE)		Pass
6.2.2	Transmitter Maximum Output Power		Pass
6.6.2.1	Transmitter Spectrum Emission Mask	General Spectrum Emission Mask	Pass
6.6.2.2		Additional Spectrum Emission Mask	Pass
6.6.3.1	Transmitter Spurious Emissions	General Spurious Emissions	Pass
6.6.3.2		Spurious emission band UE co-existence	
6.6.3.3		Additional spurious emissions	Pass
6.3.2	Transmitter Minimum Output Power		Pass
7.5	Receiver Adjacent Channel Selectivity (ACS)		Pass
7.6.1	Receiver Blocking Characteristics	In Band	Pass
7.6.2		Out Band	Pass
7.6.3		Narrow Band	Pass
7.7	Receiver Spurious Response		Pass
7.8.1	Receiver Intermodulation Characteristics		Pass
7.9	Receiver Spurious Emissions		Pass
6.6.2.3	Transmitter Adjacent Channel Leakage Power Ratio		Pass
7.3	Receiver Reference Sensitivity Level		Pass
4.2.4	Control and monitoring functions (UE)		Pass (Note 5)
4.2.13	Receiver Total Radiated Sensitivity (TRS)		N/A (Note 4)
4.2.14	Total Radiated Power (TRP)		N/A (Note 4)

### Note:

- For the verdict, the "N/A" denotes "not applicable", the "N/T" denotes "not tested".
- EUT Orthogonal Axis:  
"X" - denotes Laid on Table; "Y" - denotes Vertical Stand; "Z" - denotes Side Stand.
- Normative References:  
ETSI TS 136 521-1 V16.9.0 (2021-03)  
ETSI TS 136 508 V16.8.0 (2021-03)  
ETSI TS 136 101 V13.21.0 (2021-03)  
ETSI TS 137 544 V16.1.0 (2021-03)  
Note: The standards in note 3 are the reference standards for the standards shown on page 1, and all of them are not listed in the CNAS scope.
- The present requirement applies to handheld phones/DUTs that are wider than or equal to 56 mm and narrower than or equal to 72 mm.

5. The RF module of this N300 Wi-Fi 4G LTE Router has been tested and certified. Please refer to the module report as listed in the below table for the test results of the RF module.

RF Module Model	Module Function	Report Number	Standard
EC200A-EL	WCDMA, LTE	2211RSU025-E5	ETSI EN 301 908-2 V13.1.1 (2020-06) ETSI EN 301 908-13 V13.2.1 (2022-02)
		2211RSU025-E2	ETSI EN 301 908-1 V15.1.1 (2021-09)

Based on the RF module the antennas for this N300 Wi-Fi 4G LTE Router were updated as below table:

Ant. Model Name	Type	Brand	Antenna Gain(dBi)	Note
N/A	Dipole	Tenda	0.90	Band 5
			2.50	Band 41

- (1) Compared with module report (2211RSU025-E5, 2211RSU025-E2), the output power has been re-evaluated. It was found that the output power of module was the worst case. Thus, only the radiated spurious emissions was evaluated and recorded in this report. For the test results of all other test items please refer to above module test report.
- (2) The antenna gain is provided by the manufacturer.

## 2. TEST ENVIRONMENT AND DESCRIPTION

### 2.1 TEST FACILITY

The test facilities used to collect the test data of radiated in this report is **DG-CB12** at the location of No.3, Jinshagang 1st Road, Dalang, Dongguan, Guangdong, China.


### 2.2 MEASUREMENT UNCERTAINTY

Measurement Uncertainty for a Level of Confidence of 95 %,  $U=2 \times U_c(y)$

Parameter	Uncertainty
Spurious Emissions, Radiated $30 \text{ MHz} \leq f \leq 1000 \text{ MHz}$	$\pm 3.58 \text{ dB}$
Spurious Emissions, Radiated $1 \text{ GHz} < f \leq 18 \text{ GHz}$	$\pm 3.78 \text{ dB}$

### 3. GENERAL INFORMATION

#### 3.1 GENERAL DESCRIPTION OF EUT

Equipment	N300 Wi-Fi 4G LTE Router	
Brand Name	Tenda	
Test Model	4G03 Pro	
Series Model	4G05	
Model Difference(s)	Only differ in model name.	
RF Module Model	EC200A-EL	
Power Source	DC Voltage supplied from AC adapter. 1# Model: BN003-A05009E(EU) 2# Model: BN003-A05009B(UK) Only differ in plug.	
Power Rating	I/P: 100-240V ~ 50/60Hz 0.3A O/P: 9V  0.6A	
Operation frequency Bands	LTE Band 5: Uplink: 824-849 MHz, Downlink: 869-894 MHz LTE Band 41: Uplink: 2535-2675 MHz, Downlink: 2535-2675 MHz	
Operation Bands	LTE Band 5 / LTE Band 41	
Modulation Type	UL: QPSK, 16QAM DL: QPSK, 16QAM, 64QAM	
Power Class	3	
IMEI NO.	Radiated	864995060015480 / 864995060084627

Note:

- For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.

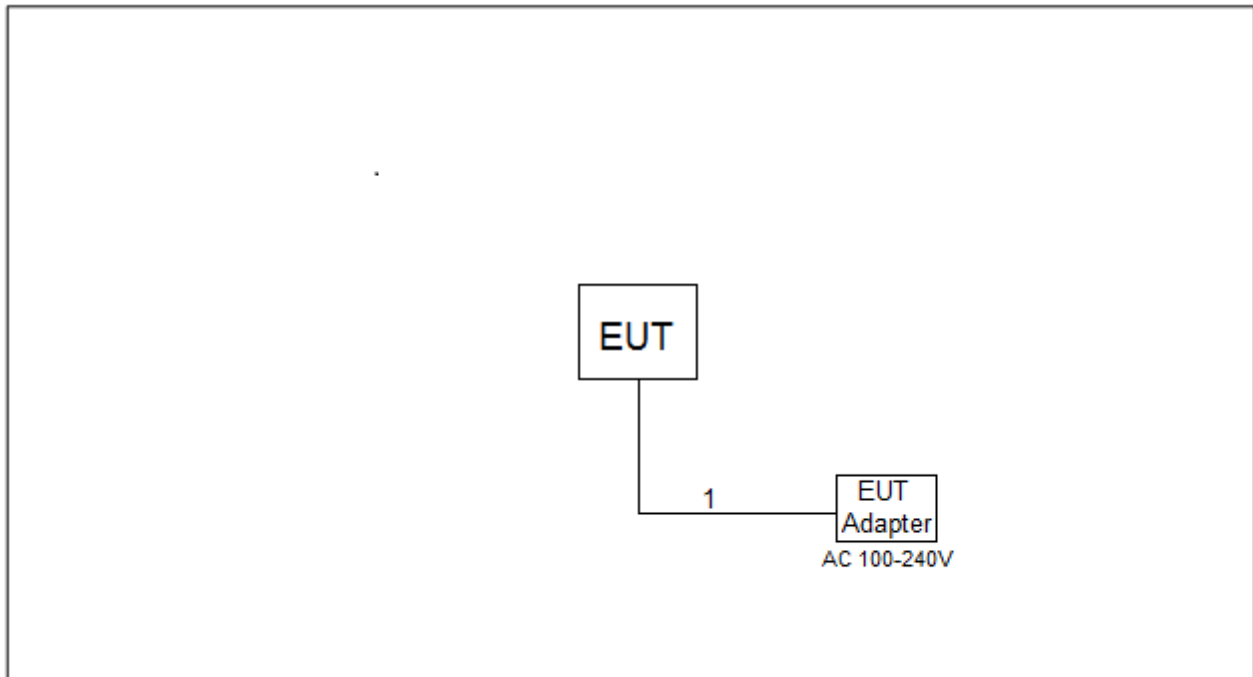
#### 2. Channel List:

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

Band	Bandwidth	Low Channel	Mid Channel	High Channel	Low Frequency	Mid Frequency	High Frequency
41	5	40065	40740	41415	2537.5	2605	2672.5
41	10	40090	40740	41390	2540	2605	2670
41	15	40115	40740	41365	2542.5	2605	2667.5
41	20	40140	40740	41340	2545	2605	2665



### 3.2 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



### 3.3 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Brand	Model No.	Series No.
-	-	-	-	-

Item	Cable Type	Shielded Type	Ferrite Core	Length
1	DC Cable	NO	NO	1.5m

### 3.4 EUT OPERATING CONDITIONS

The EUT was configured for testing in a typical function (as a customer would normally use it).The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

## 4. RADIATED EMISSIONS (UE)

### 4.1 LIMITS

The frequency boundary and reference bandwidths for the detailed transitions of the limits between the requirements for out-of-band emissions and spurious emissions are based on Recommendations ITU-R SM.329-12 [1] and SM.1539-1 [i.6].

The requirements shown in table 4.2.2.2-1 are only applicable for frequencies in the spurious domain.

**Table 4.2.2.2-1: Radiated spurious emissions requirements (UE)**

Frequency	Minimum requirement (e.r.p.)/ reference bandwidth idle mode	Minimum requirement (e.r.p.)/ reference bandwidth traffic mode	Applicability
$30 \text{ MHz} \leq f < 1\,000 \text{ MHz}$	-57 dBm/100 kHz	-36 dBm/100 kHz	All
$1 \text{ GHz} \leq f < 12,75 \text{ GHz}$	-47 dBm/1 MHz	-30 dBm/1 MHz	All
$12,75 \text{ GHz} \leq f < 5^{\text{th}}$ harmonic of the upper frequency edge of the Uplink operating band in GHz	-47 dBm/1 MHz	-30 dBm/1 MHz	All (note 3)
$12,75 \text{ GHz} < f < 26 \text{ GHz}$	-47 dBm/1 MHz	-30 dBm/1 MHz	All (note 4)
$f_c - 2,5 \times 5 \text{ MHz} < f < f_c + 2,5 \times 5 \text{ MHz}$ (note 1 and note 2)	Not defined	Not defined	UTRA FDD, UTRA TDD, 3,84 Mcps option, cdma2000, spreading rate 3
$f_c - 2,5 \times \text{BW}_{\text{Channel}} \text{ MHz} < f < f_c + 2,5 \times \text{BW}_{\text{Channel}} \text{ MHz}$ (note 1 and note 2)	Not defined	Not defined	E-UTRA FDD, E-UTRA TDD, Mobile WiMAX™
$f_c - (1,5 \times \text{BW}_{\text{Channel}} + 5) \text{ MHz} < f < f_c + (1,5 \times \text{BW}_{\text{Channel}} + 5) \text{ MHz}$ (note 1)	Not defined	Not defined	NR operating in FR1
$f_c - 2,5 \times 10 \text{ MHz} < f < f_c + 2,5 \times 10 \text{ MHz}$ (note 1 and note 2)	Not defined	Not defined	UTRA TDD, 7,68 Mcps option
$f_c - 4 \text{ MHz} < f < f_c + 4 \text{ MHz}$ (note 1 and note 2)	Not defined	Not defined	UTRA TDD, 1,28 Mcps option cdma2000, spreading rate 1

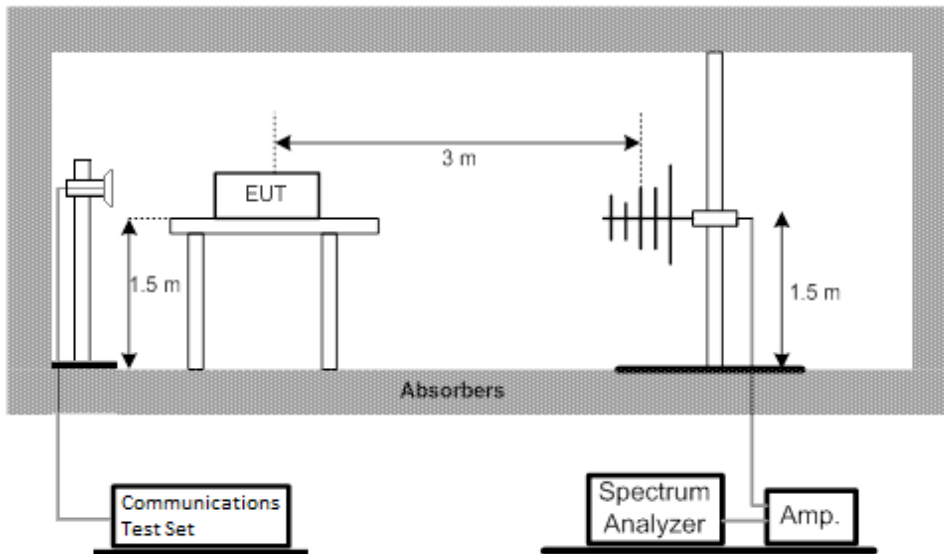
NOTE 1:  $f_c$  is the UE transmit centre frequency.  
NOTE 2: This frequency range is not in the spurious domain, no requirement is then defined for this frequency range.  
NOTE 3: Applies for Band that the upper frequency edge of the Uplink Band more than 2,69 GHz.  
NOTE 4: Applies for Band that the upper frequency edge of the Uplink Band more than 5,2 GHz.

### 4.2 CONFORMANCE

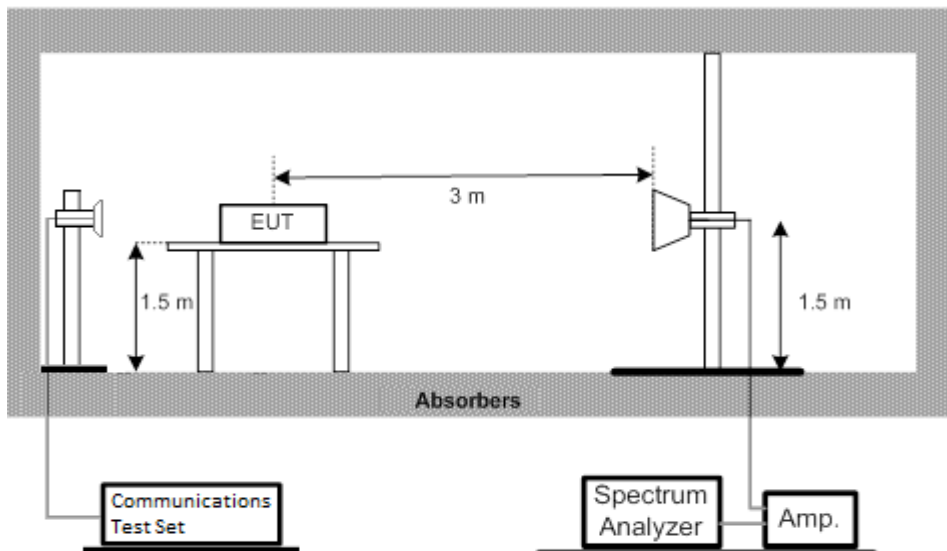
Conformance tests described in EN 301 908-1 clause 5.3.1 shall be carried out.

### 4.3 TEST CONDITION

Radiated Emission Test Set-Up Frequency 30 MHz ~ 1 GHz



Radiated Emission Test Set-Up Frequency Above 1 GHz



#### 4.4 TEST PROCEDURE

##### Step 1:

The measurement is carried out in the fully anechoic chamber. EUT was placed on a 1.50 meter high nonconductive table at a 3 meter test distance from the test receive antenna. A receiving antenna was placed on the antenna mast 3 meters from the EUT. The height of receiving antenna is 1.50 m and varies in certain range to find the maximum power value. Connect the EUT to the BTS simulator via the air interface. The measurement is carried out using a spectrum analyzer or receiver. Then the antenna height and turn table rotation is adjusted till the maximum power value is founded on spectrum analyzer or receiver. A filter is necessary in the band near to the carrier frequency. A filter is needed to avoid the distortion of the testing equipment in the band above the carrier frequency.

##### Step 2:

A log-periodic antenna or double-ridged waveguide 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.

Calculation procedure:

The data of cable loss, antenna gain and air loss has been calibrated in full testing frequency range before the testing.

The power of the Radiated Spurious Emissions is calculated by adding the cable loss, antenna gain and air loss. The basic equation with a sample calculation is as followed:

$$P=PR+LC+LA-G$$

Where

P: Power of the Radiated Spurious Emissions (dBm)

PR: reading of the receiver (dBm)

LC: Cable Lose and power amilifer gain and filter cable loss (dB)

LA: Air loss (dB)

G: Antenna Gain (dBi)

#### 4.5 TEST CONDITIONS

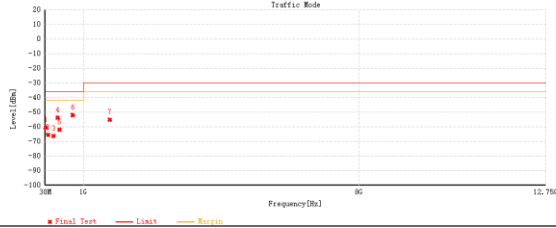
Band	Test Conditions	Bandwidth (MHz)	RB	Test Mode	Test Channel	Result
LTE Band 5	NTC	1.4	1	Traffic/Idle	Mid-Channel	Pass
		5	1	Traffic/Idle	Mid-Channel	Pass
		10	1	Traffic/Idle	Mid-Channel	Pass
LTE Band 41	NTC	5	1	Traffic/Idle	Mid-Channel	Pass
		20	1	Traffic/Idle	Mid-Channel	Pass

Note: After evaluated the maximum power, 1 RB was the worst case so only records it.

## 4.6 RADIATED EMISSIONS TRAFFIC MODE MEASUREMENT (UE) RESULTS

Test Mode : LTE\_1.4M 1RB\_Traffic Mode\_  
Mid-Channel\_Band 5

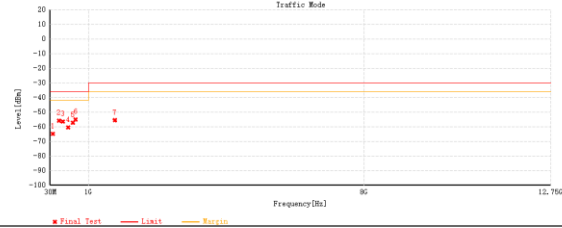
Vertical



SR	Freq. [MHz]	Reading [dBm]	Factor [dB]	Level [dBm]	Limit [dBm]	Margin [dB]	Detector	Polarity
1	45.035	-71.65	11.24	-60.41	-36	24.41	RMS	Vertical
2	103.623	-72.85	7.31	-65.54	-36	29.54	RMS	Vertical
3	245.146	-72.1	5.89	-66.21	-36	30.21	RMS	Vertical
4	350.003	-62.38	8.62	-53.76	-36	17.76	RMS	Vertical
5	393.265	-71.58	9.66	-61.92	-36	25.92	RMS	Vertical
6	732.862	-69.32	17.32	-52	-36	16	RMS	Vertical
7	1672.688	-55.99	0.88	-55.11	-30	25.11	RMS	Vertical

Test Mode : LTE\_1.4M 1RB\_Traffic Mode\_  
Mid-Channel\_Band 5

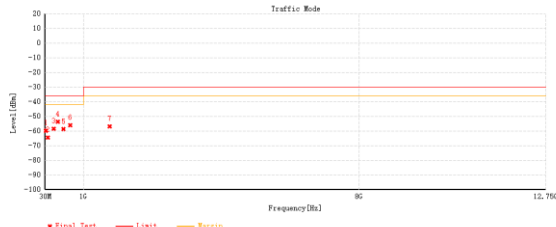
Horizontal



SR	Freq. [MHz]	Reading [dBm]	Factor [dB]	Level [dBm]	Limit [dBm]	Margin [dB]	Detector	Polarity
1	98.385	-71.31	6.51	-64.8	-36	28.8	RMS	Horizontal
2	249.996	-61.87	6.11	-55.76	-36	19.76	RMS	Horizontal
3	350.003	-64.95	8.49	-56.46	-36	20.46	RMS	Horizontal
4	482.214	-71.75	11.38	-60.37	-36	24.37	RMS	Horizontal
5	602.591	-71.22	14.09	-57.13	-36	21.13	RMS	Horizontal
6	673.498	-70.2	15.29	-54.91	-36	18.91	RMS	Horizontal
7	1672.688	-56.13	0.64	-55.49	-30	25.49	RMS	Horizontal

Test Mode : LTE\_5M 1RB\_Traffic Mode\_  
Mid-Channel\_Band 5

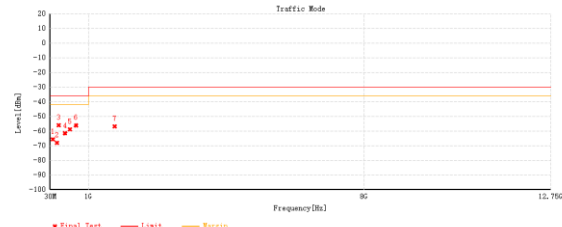
Vertical



SR	Freq. [MHz]	Reading [dBm]	Factor [dB]	Level [dBm]	Limit [dBm]	Margin [dB]	Detector	Polarity
1	50.079	-71.4	11.66	-59.74	-36	23.74	RMS	Vertical
2	97.512	-72.21	7.83	-64.38	-36	28.38	RMS	Vertical
3	249.996	-64.53	6.13	-58.4	-36	22.4	RMS	Vertical
4	350.003	-62.16	8.62	-53.54	-36	17.54	RMS	Vertical
5	495.309	-70.65	11.98	-58.67	-36	22.67	RMS	Vertical
6	664.768	-71.28	15.36	-55.92	-36	19.92	RMS	Vertical
7	1668.575	-57.55	0.84	-56.71	-30	26.71	RMS	Vertical

Test Mode : LTE\_5M 1RB\_Traffic Mode\_  
Mid-Channel\_Band 5

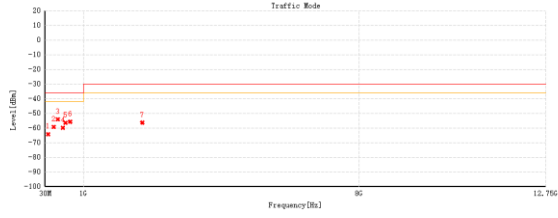
Horizontal



SR	Freq. [MHz]	Reading [dBm]	Factor [dB]	Level [dBm]	Limit [dBm]	Margin [dB]	Detector	Polarity
1	95.669	-71.56	5.88	-65.68	-36	29.68	RMS	Horizontal
2	200.041	-71.34	3.41	-67.93	-36	31.93	RMS	Horizontal
3	249.996	-62.1	6.11	-55.99	-36	19.99	RMS	Horizontal
4	404.905	-71.4	9.87	-61.53	-36	25.53	RMS	Horizontal
5	531.878	-70.96	12.12	-58.84	-36	22.84	RMS	Horizontal
6	687.569	-71.58	15.52	-56.06	-36	20.06	RMS	Horizontal
7	1668.575	-57.34	0.5	-56.84	-30	26.84	RMS	Horizontal

Test Mode : LTE\_10M 1RB\_Traffic Mode\_  
Mid-Channel\_Band 5

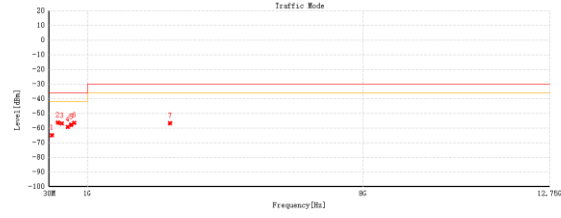
## Vertical



No.	Freq. (MHz)	Reading (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Detector	Polarity
1	101.198	-72.07	7.89	-64.18	-36	28.18	EWS	Vertical
2	249.996	-65.33	6.13	-59.2	-36	23.2	EWS	Vertical
3	350.003	-62.57	8.62	-53.95	-36	17.95	EWS	Vertical
4	482.117	-71.06	11.33	-59.73	-36	23.73	EWS	Vertical
5	550.017	-66.71	12.3	-54.41	-36	20.41	EWS	Vertical
6	660.791	-70.91	15.29	-55.62	-36	19.62	EWS	Vertical
7	2495.775	-63.73	7.44	-56.29	-30	26.29	EWS	Vertical

Test Mode : LTE\_10M 1RB\_Traffic Mode\_  
Mid-Channel\_Band 5

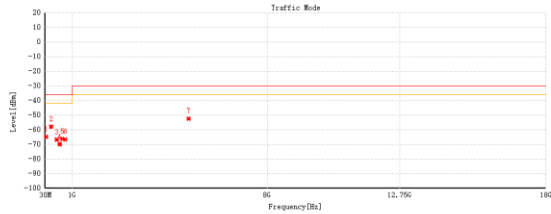
## Horizontal



No.	Freq. (MHz)	Reading (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Detector	Polarity
1	100.519	-71.66	6.78	-64.88	-36	28.88	EWS	Horizontal
2	249.996	-62.38	6.11	-56.27	-36	20.27	EWS	Horizontal
3	350.003	-65.17	8.49	-56.68	-36	20.68	EWS	Horizontal
4	499.383	-71.23	12.09	-59.14	-36	23.14	EWS	Horizontal
5	591.145	-71.5	13.71	-57.79	-36	21.79	EWS	Horizontal
6	671.655	-71.66	15.26	-56.4	-36	20.4	EWS	Horizontal
7	3103.25	-67	10.38	-56.62	-30	26.62	EWS	Horizontal

Test Mode : LTE\_5M 1RB\_Traffic Mode\_  
Mid-Channel\_Band 41

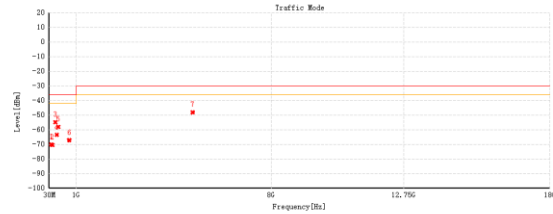
## Vertical



No.	Freq. (MHz)	Reading (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Detector	Polarity
1	61.429	-64.58	-0.34	-64.92	-36	28.92	EWS	Vertical
2	249.996	-54.13	-3.69	-57.82	-36	21.82	EWS	Vertical
3	450.01	-66.75	0.02	-66.73	-36	30.73	EWS	Vertical
4	550.017	-72.34	2.54	-69.8	-36	33.8	EWS	Vertical
5	650.024	-71.29	5.39	-66.46	-36	30.2	EWS	Vertical
6	750.031	-74.6	8.14	-66.46	-36	30.46	EWS	Vertical
7	5181.75	-61.34	8.96	-52.38	-30	22.38	EWS	Vertical

Test Mode : LTE\_5M 1RB\_Traffic Mode\_  
Mid-Channel\_Band 41

## Horizontal

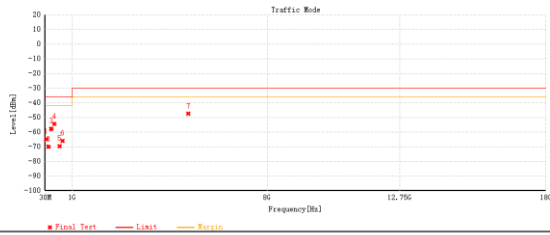


No.	Freq. (MHz)	Reading (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Detector	Polarity
1	100.034	-66.96	-2.98	-69.94	-36	33.94	EWS	Horizontal
2	149.989	-61.93	-8.54	-70.47	-36	34.47	EWS	Horizontal
3	249.996	-51.02	-3.71	-54.73	-36	18.73	EWS	Horizontal
4	300.048	-60.48	-2.95	-63.43	-36	27.43	EWS	Horizontal
5	350.003	-56.75	-1.25	-58	-36	22	EWS	Horizontal
6	750.031	-75.07	7.9	-67.17	-36	31.17	EWS	Horizontal
7	5181.75	-56.91	8.79	-48.12	-30	18.12	EWS	Horizontal

Test Mode : LTE\_20M 1RB\_Traffic Mode\_  
Mid-Channel\_Band 41

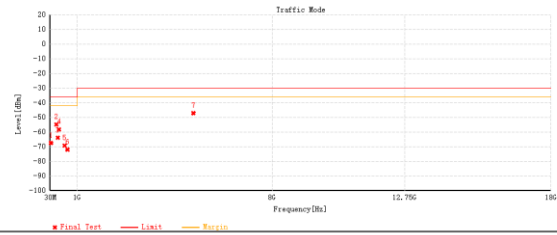
Test Mode : LTE\_20M 1RB\_Traffic Mode\_  
Mid-Channel\_Band 41

## Vertical



NO.	Freq. (MHz)	Reading (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Detector	Polarity
1	61.816	-64.45	-0.5	-64.95	-36	28.95	EWS	Vertical
2	149.989	-63	-6.89	-69.89	-36	33.89	EWS	Vertical
3	249.996	-54.1	-3.69	-57.79	-36	21.79	EWS	Vertical
4	350.003	-53.28	-1.12	-54.4	-36	18.4	EWS	Vertical
5	550.017	-72.14	2.54	-69.6	-36	33.6	EWS	Vertical
6	850.024	-71.41	5.39	-66.02	-36	30.02	EWS	Vertical
7	5168.25	-56.27	8.87	-47.4	-30	17.4	EWS	Vertical

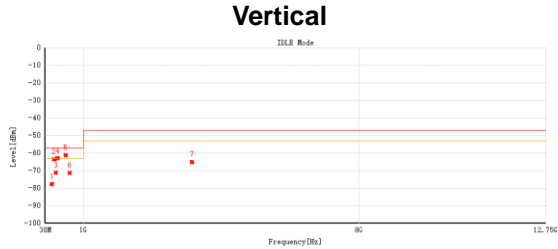
## Horizontal



NO.	Freq. (MHz)	Reading (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Detector	Polarity
1	61.825	-63.21	-4.19	-67.4	-36	31.4	EWS	Horizontal
2	249.996	-51.06	-3.71	-54.77	-36	18.77	EWS	Horizontal
3	300.048	-60.9	-2.95	-63.85	-36	27.85	EWS	Horizontal
4	350.003	-56.88	-1.25	-58.13	-36	22.13	EWS	Horizontal
5	550.017	-71.71	2.47	-69.24	-36	33.24	EWS	Horizontal
6	850.024	-77.02	5.16	-71.86	-36	35.86	EWS	Horizontal
7	5168.25	-55.85	8.71	-47.14	-30	17.14	EWS	Horizontal

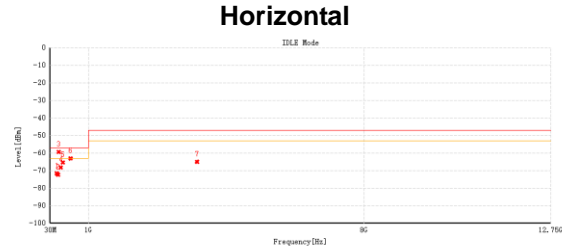
## 4.7 RADIATED EMISSIONS IDLE MODE MEASUREMENT (UE) RESULTS

Test Mode : LTE\_1.4M 1RB\_Idle\_Mid-Channel\_Band 5



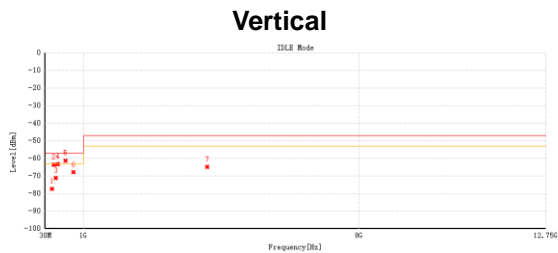
NO.	Freq. [MHz]	Reading [dBm]	Factor [dB]	Level [dBm]	Limit [dBm]	Margin [dB]	Detector	Polarity
1	199.944	-71.48	-6.08	-77.56	-57	20.56	RMS	Vertical
2	249.996	-59.86	-3.69	-63.55	-57	6.55	RMS	Vertical
3	299.951	-67.95	-3.3	-71.25	-57	14.25	RMS	Vertical
4	350.003	-61.72	-1.12	-62.84	-57	5.84	RMS	Vertical
5	550.017	-63.73	2.54	-61.19	-57	4.19	RMS	Vertical
6	650.024	-76.7	5.39	-71.31	-57	14.31	RMS	Vertical
7	3758.313	-61.4	-3.66	-65.06	-47	18.06	RMS	Vertical

Test Mode : LTE\_1.4M 1RB\_Idle\_Mid-Channel\_Band 5



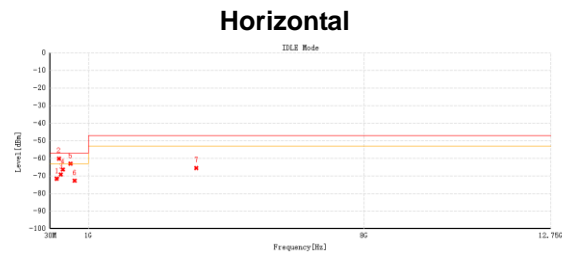
NO.	Freq. [MHz]	Reading [dBm]	Factor [dB]	Level [dBm]	Limit [dBm]	Margin [dB]	Detector	Polarity
1	199.944	-65.09	-6.45	-71.54	-57	14.54	RMS	Horizontal
2	249.996	-67.74	-4.55	-72.29	-57	15.29	RMS	Horizontal
3	299.951	-55.62	-3.71	-59.33	-57	2.33	RMS	Horizontal
4	350.003	-65.2	-2.95	-68.15	-57	11.15	RMS	Horizontal
5	550.017	-63.98	-1.25	-65.23	-57	8.23	RMS	Horizontal
6	650.024	-65.54	2.47	-63.07	-57	6.07	RMS	Horizontal
7	3750.663	-60.63	-4.29	-64.92	-47	17.92	RMS	Horizontal

Test Mode : LTE\_5M 1RB\_Idle\_Mid-Channel\_Band 5



NO.	Freq. [MHz]	Reading [dBm]	Factor [dB]	Level [dBm]	Limit [dBm]	Margin [dB]	Detector	Polarity
1	199.944	-71.26	-6.08	-77.34	-57	20.34	RMS	Vertical
2	249.996	-59.88	-3.69	-63.57	-57	6.57	RMS	Vertical
3	299.951	-67.92	-3.3	-71.22	-57	14.22	RMS	Vertical
4	350.003	-62.07	-1.12	-63.19	-57	6.19	RMS	Vertical
5	550.017	-63.82	2.54	-61.28	-57	4.28	RMS	Vertical
6	750.031	-76.04	8.14	-67.9	-57	10.9	RMS	Vertical
7	4144.888	-61.94	-2.96	-64.9	-47	17.9	RMS	Vertical

Test Mode : LTE\_5M 1RB\_Idle\_Mid-Channel\_Band 5

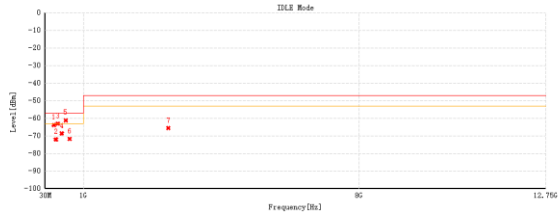


NO.	Freq. [MHz]	Reading [dBm]	Factor [dB]	Level [dBm]	Limit [dBm]	Margin [dB]	Detector	Polarity
1	199.944	-65.06	-6.45	-71.51	-57	14.51	RMS	Horizontal
2	249.996	-56.44	-3.71	-60.15	-57	3.15	RMS	Horizontal
3	299.951	-66.11	-2.95	-69.06	-57	12.06	RMS	Horizontal
4	350.003	-64.98	-1.25	-66.23	-57	9.23	RMS	Horizontal
5	550.017	-65.44	2.47	-62.97	-57	5.97	RMS	Horizontal
6	650.024	-77.85	5.16	-72.69	-57	15.69	RMS	Horizontal
7	3745.975	-61.08	-4.41	-65.49	-47	18.49	RMS	Horizontal



Test Mode : LTE\_10M 1RB\_Idle\_Mid-Channel\_  
Band 5

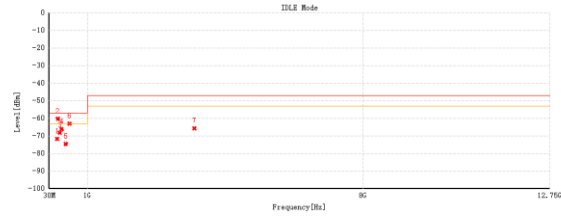
## Vertical



NO.	Freq. [MHz]	Reading[dBm]	Factor[dB]	Level[dBm]	Limit[dBm]	Margin[dB]	Detector	Polarity
1	249.996	-65.08	-3.69	-61.77	-57	6.77	RMS	Vertical
2	299.951	-66.68	-3.3	-71.98	-57	14.98	RMS	Vertical
3	350.003	-61.9	-1.12	-63.02	-57	6.02	RMS	Vertical
4	450.01	-66.64	0.02	-68.62	-57	11.62	RMS	Vertical
5	550.017	-63.68	2.54	-61.14	-57	4.14	RMS	Vertical
6	650.024	-77.01	5.39	-71.62	-57	14.62	RMS	Vertical
7	3198.475	-60.35	-5.17	-65.52	-47	18.52	RMS	Vertical

Test Mode : LTE\_10M 1RB\_Idle\_Mid-Channel\_  
Band 5

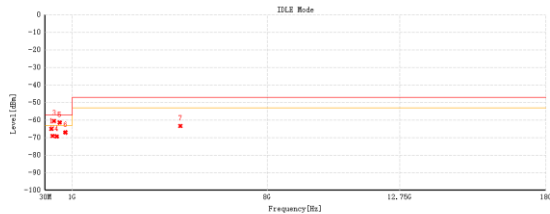
## Horizontal



NO.	Freq. [MHz]	Reading[dBm]	Factor[dB]	Level[dBm]	Limit[dBm]	Margin[dB]	Detector	Polarity
1	234.67	-67.11	-4.57	-71.68	-57	14.68	RMS	Horizontal
2	249.996	-56.5	-3.71	-60.21	-57	3.21	RMS	Horizontal
3	299.951	-65.31	-2.95	-68.26	-57	11.26	RMS	Horizontal
4	350.003	-64.89	-1.25	-66.14	-57	9.14	RMS	Horizontal
5	450.01	-74.92	0.3	-74.62	-57	17.62	RMS	Horizontal
6	550.017	-65.51	2.47	-63.04	-57	6.04	RMS	Horizontal
7	3720.712	-61.12	-4.61	-65.73	-47	18.73	RMS	Horizontal

Test Mode : LTE\_5M 1RB\_Idle\_Mid-Channel\_  
Band 41

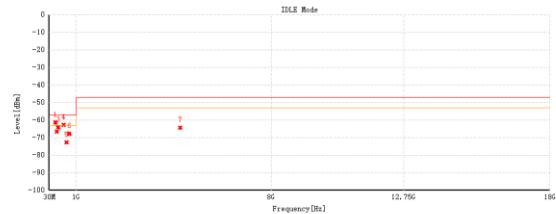
## Vertical



NO.	Freq. [MHz]	Reading[dBm]	Factor[dB]	Level[dBm]	Limit[dBm]	Margin[dB]	Detector	Polarity
1	249.996	-61.3	-3.69	-64.99	-57	7.99	RMS	Vertical
2	299.951	-65.69	-3.3	-68.99	-57	11.99	RMS	Vertical
3	350.003	-59.36	-1.12	-60.48	-57	3.48	RMS	Vertical
4	450.01	-69.32	0.02	-69.3	-57	12.3	RMS	Vertical
5	550.017	-63.98	2.54	-61.44	-57	4.44	RMS	Vertical
6	750.031	-75.13	8.14	-66.99	-57	9.99	RMS	Vertical
7	4894.5	-63.39	0.05	-63.34	-47	16.34	RMS	Vertical

Test Mode : LTE\_5M 1RB\_Idle\_Mid-Channel\_  
Band 41

## Horizontal

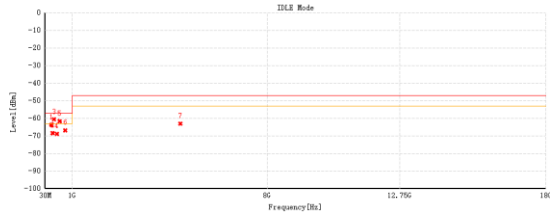


NO.	Freq. [MHz]	Reading[dBm]	Factor[dB]	Level[dBm]	Limit[dBm]	Margin[dB]	Detector	Polarity
1	249.996	-57.54	-3.71	-61.25	-57	4.25	RMS	Horizontal
2	299.951	-63.51	-2.95	-66.46	-57	9.46	RMS	Horizontal
3	350.003	-62.76	-1.25	-64.01	-57	7.01	RMS	Horizontal
4	550.017	-65.1	2.47	-62.63	-57	5.63	RMS	Horizontal
5	650.024	-77.89	5.16	-72.72	-57	15.72	RMS	Horizontal
6	750.031	-75.59	7.9	-67.68	-57	10.68	RMS	Horizontal
7	4729.8	-63.02	-1.35	-64.37	-47	17.37	RMS	Horizontal

Test Mode : LTE\_20M 1RB\_Idle\_Mid-Channel\_  
Band 41

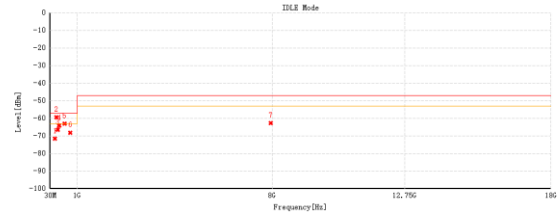
Test Mode : LTE\_20M 1RB\_Idle\_Mid-Channel\_  
Band 41

## Vertical



NO.	Freq. [MHz]	Reading [dBm]	Factor [dB]	Level [dBm]	Limit [dBm]	Margin [dB]	Detector	Polarity
1	249.996	-65.07	-3.69	-68.76	-57	6.76	RMS	Vertical
2	299.951	-65.09	-3.3	-68.39	-57	11.39	RMS	Vertical
3	350.003	-65.43	-1.12	-66.55	-57	3.55	RMS	Vertical
4	450.01	-66.8	0.02	-66.78	-57	11.78	RMS	Vertical
5	550.017	-64.09	2.54	-61.55	-57	4.55	RMS	Vertical
6	750.031	-74.86	8.14	-66.72	-57	9.72	RMS	Vertical
7	4896.2	-63.08	0.06	-63.02	-47	16.02	RMS	Vertical

## Horizontal



NO.	Freq. [MHz]	Reading [dBm]	Factor [dB]	Level [dBm]	Limit [dBm]	Margin [dB]	Detector	Polarity
1	199.944	-65.05	-6.45	-71.5	-57	14.5	RMS	Horizontal
2	249.996	-55.57	-3.71	-59.28	-57	2.28	RMS	Horizontal
3	299.951	-63.46	-2.95	-66.41	-57	9.41	RMS	Horizontal
4	350.003	-62.81	-1.25	-64.06	-57	7.06	RMS	Horizontal
5	550.017	-65.55	2.47	-63.08	-57	6.08	RMS	Horizontal
6	750.031	-75.98	7.9	-68.08	-57	11.08	RMS	Horizontal
7	7948.75	-66.29	3.57	-62.72	-47	15.72	RMS	Horizontal

## 5. MEASUREMENT INSTRUMENTS LIST

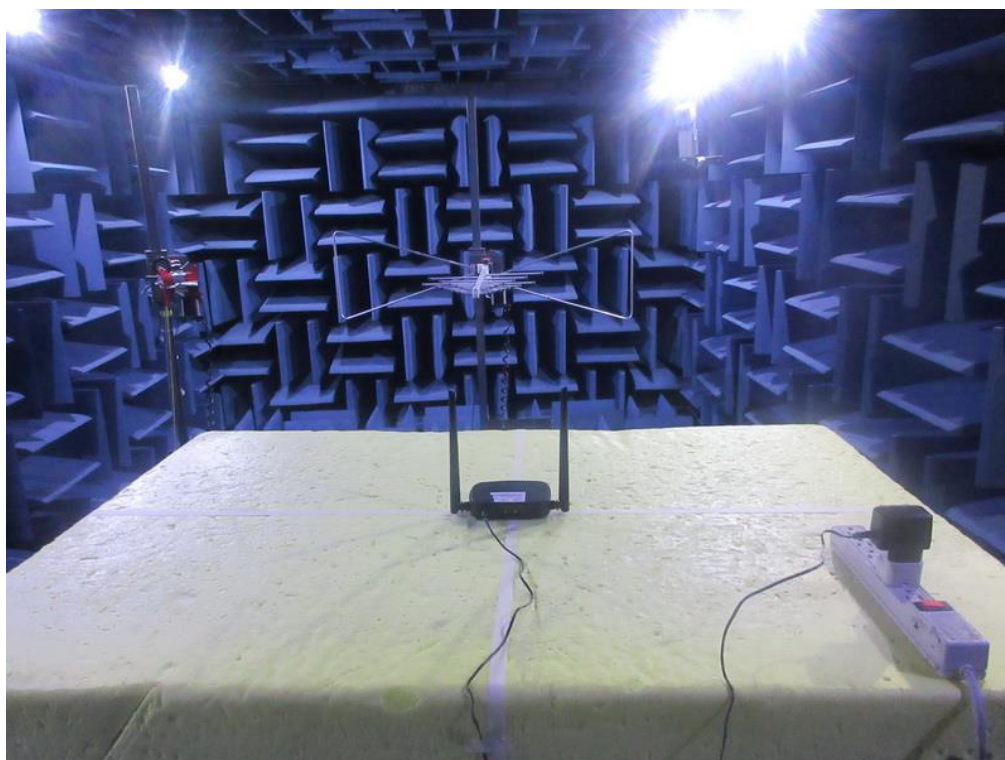
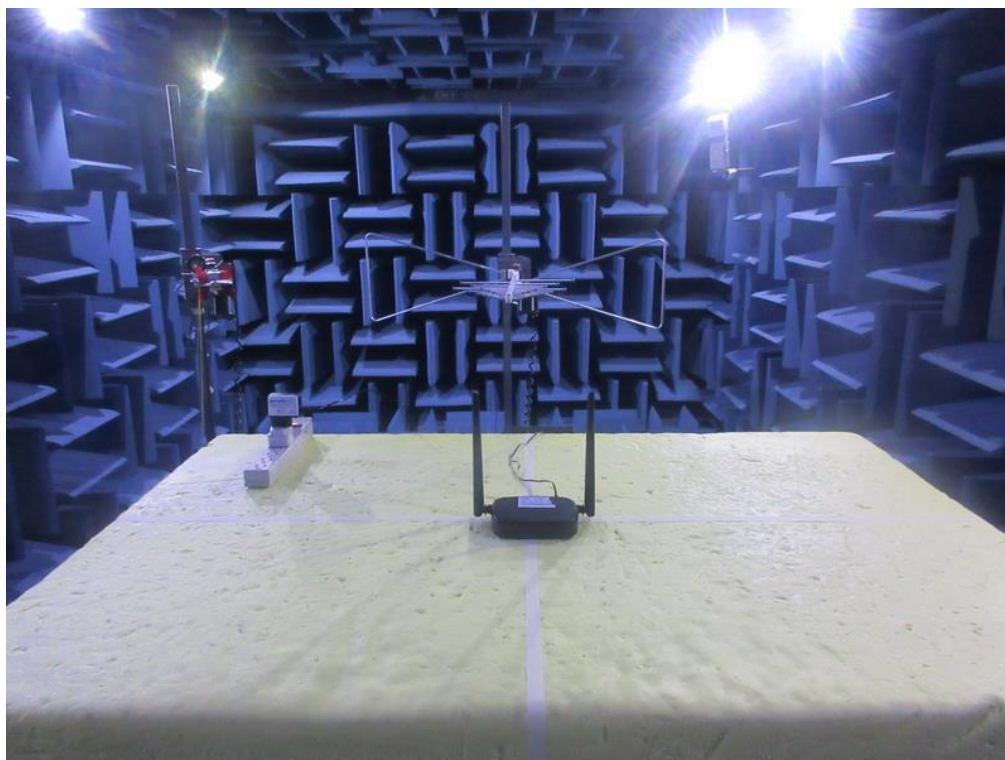
DETAILS FOR RADIATED EMISSIONS					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Antenna	Schwarzbeck	VULB9160	9160-3231	Apr. 02, 2024
2	Amplifier	HP	8447D	2944A08908	Jan. 08, 2024
3	Controller	ETS-Lindgren	2090	N/A	N/A
4	Double-Ridged Waveguide Horn Antennas	ETS-LINDGREN	3117-PA	224172	Sep. 19, 2023
5	Preamplifier	ETS-LINDGREN	3117-PA	224172	Jun. 18, 2024
6	Automatic switching unit of high and low frequency line wave device	Tonscend	JS0806-S	20E8060252	N/A
7	FSV Signal Analyzer	R&S	FSV7	101908	Jan. 08, 2024
8	FSV Signal Analyzer	R&S	FSV40	101423	Jun. 17, 2024
9	Measurement Software	Tonscend	JS36-RSE 2.5.1.5	N/A	N/A
10	wideband radio communication tester	R&S	CMW500	152372	Jan. 08, 2024

Remark: "N/A" denotes no model name, serial no. or calibration specified.

All calibration period of equipment list is one year.

## 6. EUT TEST PHOTO

### Radiated Emissions Test Photos



**End of Test Report**