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Certificate #4338.01

FCC TEST REPORT

Report No: STS2305074W01

Issued for

Music Tribe Commercial MY Sdn. Bhd.

1-17-02, Suntech @ Penang Cybercity, LinTang Mayang Pasir
3, Bayan Baru, Pulau Pinang, Malaysia

Product Name:	UHF Wireless System with Handheld Microphone
Brand:	Behringer
Model Number:	XTM1-35 DUAL VOCAL SET
Series Model(s):	XTM1-35 VOCAL SET
FCC ID:	QWHXTM1-35
Test Standard:	FCC Part 15.236

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Shenzhen STS Test Services Co., Ltd.

A 1/F, Building B, Zhuoke Science Park, No.190 Chongqing Road, HepingShequ,
Fuyong Sub-District, Bao'an District, Shenzhen, Guang Dong, China

TEL: +86-755 3688 6288 FAX: +86-755 3688 6277 E-mail: sts@stsapp.com





TEST RESULT CERTIFICATION

Applicant's Name : Music Tribe Commercial MY Sdn. Bhd.
Address : 1-17-02, Suntech @ Penang Cybercity, LinTang Mayang Pasir 3,
Bayan Baru, Pulau Pinang, Malaysia
Manufacturer's Name..... : Music Tribe Commercial MY Sdn. Bhd.
Address : 1-17-02, Suntech @ Penang Cybercity, LinTang Mayang Pasir 3,
Bayan Baru, Pulau Pinang, Malaysia

Product Description

Product Name : UHF Wireless System with Handheld Microphone
Brand : Behringer
Model Number..... : XTM1-35 DUAL VOCAL SET
Series Model(s) : XTM1-35 VOCAL SET

Test Standards..... : FCC Part 15.236

Test Procedure : ANSI C63.10-2013

This device described above has been tested by STS, the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

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Date of Test :
Date of receipt of test item : 11 May 2023
Date of performance of tests..... : 11 May 2023 ~ 14 June 2023
Date of Issue : 14 June 2023
Test Result : Pass

Testing Engineer :

(Chris Chen)

Technical Manager :

(Sean she)

Authorized Signatory :

(Bovey Yang)





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**Revision History**

Rev.	Issue Date	Report NO.	Effect Page	Contents
00	14 June 2023	STS2305074W01	ALL	Initial Issue





1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

The EUT has been tested according to FCC CFR 47:

Part 15.236: Operation of wireless microphones in the bands 54-72 MHz, 76-88 MHz, 174-216 MHz, 470-608 MHz and 614-698 MHz.

Emission			
Standard	Item	Limit	Result
FCC 15.236(g)	Radiated Spurious Emission	Refer to 300 422-1 V1.4.2 (8.4)	PASS
FCC 15.236(d)(1)	EIRP	≤50 mW	PASS
FCC 15.215	Occupied Bandwidth	--	PASS
FCC 15.236(f)(3)	Frequency tolerance	±0.005%	PASS
FCC 15.236(g)	Necessary Bandwidth (Mask)	Refer to 300 422-1 V1.4.2 (8.3)	PASS

NOTE:

(1) "N/A" denotes test is not applicable in this Test Report.



1.1 TEST FACTORY

SHENZHEN STS TEST SERVICES CO., LTD

Add. : A 1/F, Building B, Zhuoke Science Park, No.190 Chongqing Road, HepingShequ, Fuyong Sub-District, Bao'an District, Shenzhen, Guang Dong, China

FCC test Firm Registration Number: 625569

IC test Firm Registration Number: 12108A

A2LA Certificate No.: 4338.01

1.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement $y \pm U$, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately 95 %.

No.	Item	Uncertainty
1	RF output power, conducted	$\pm 1.197\text{dB}$
2	Unwanted Emissions, conducted	$\pm 2.896\text{dB}$
3	All emissions, radiated 9K-30MHz	$\pm 3.84\text{dB}$
4	All emissions, radiated 30M-1GHz	$\pm 3.94\text{dB}$
5	All emissions, radiated 1G-6GHz	$\pm 4.59\text{dB}$
6	All emissions, radiated >6G	$\pm 5.22\text{dB}$
7	Conducted Emission (9KHz-150KHz)	$\pm 2.14\text{dB}$
8	Conducted Emission (150KHz-30MHz)	$\pm 2.54\text{dB}$



2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF THE EUT

Product Name:	UHF Wireless System with Handheld Microphone
Brand:	Behringer
Model Number:	XTM1-35 DUAL VOCAL SET
Series Model(s):	XTM1-35 VOCAL SET
Model Difference description:	XTM1-35 DUAL VOCAL SET is UHF Wireless System with 2 Handheld Microphones and Dual-Channel Receiver. XTM1-35 VOCAL SET is UHF Wireless System with Handheld Microphone and Single-Channel Receiver. USA and Australia versions: XTM1-35 VOCAL SET:(584 - 608MHz) XTM1-35 DUAL VOCAL SET:(584 - 608MHz) EU and UK versions: XTM1-35 VOCAL SET:(863 - 865MHz) XTM1-35 DUAL VOCAL SET:(823 - 832MHz & 863 - 865MHz) Frequency tuning in the software is different
Emission Bandwidth:	32.291KHz
Rating:	UHF Wireless System Input: DC 12V,600mA Handheld Microphone Input: DC 3V
Adapter:	Input: 100-240V~50/60Hz 0.6A Output:12.0V=0.6A, 7.2W
Operation Frequency Range	584 - 608 MHz
Antenna Type	Auger-type
Antenna Gain	-1.5dBi
Maximum Transmitter Power:	0.00959W(9.82dBm)
Modulation mode / type:	FM
Frequency Tolerance:	0.0003%
Temperature Range:	-20°C-50°C
Test frequency list:	Please refer to the Note 4.
Software version number:	N/A
Hardware version number:	N/A
Connecting I/O Port(s):	Please refer to the Note 1.

Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the User Manual.
2. The antenna information refer the manufacturer provide report, applicable only to the tested sample identified in the report. Due to the incorrect antenna information, a series of problems such as the accuracy of the test results will be borne by the customer.



3. Frequency band: 584 - 608 MHz (for USA & Australia)

Channel List							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
01	584100	25	590100	49	596000	73	602000
02	584350	26	590350	50	596250	74	602250
03	584600	27	590600	51	596500	75	602500
04	584850	28	590850	52	596750	76	602750
05	585100	29	591100	53	597000	77	603000
06	585350	30	591350	54	597250	78	603250
07	585600	31	591600	55	597500	79	603500
08	585850	32	591850	56	597750	80	603750
09	586100	33	592100	57	598000	81	604000
10	586350	34	592350	58	598250	82	604250
11	586600	35	592600	59	598500	83	604500
12	586850	36	592850	60	598750	84	604750
13	587100	37	593100	61	599000	85	605000
14	587350	38	593350	62	599250	86	605250
15	587600	39	593600	63	599500	87	605500
16	587850	40	593850	64	599750	88	605750
17	588100	41	594100	65	600000	89	606000
18	588350	42	594350	66	600250	90	606250
19	588600	43	594600	67	600500	91	606500
20	588850	44	594850	68	600750	92	606750
21	589100	45	595100	69	601000	93	607000
22	589350	46	595350	70	601250	94	607250
23	589600	47	595600	71	601500	95	607500
24	589850	48	595850	72	601750	96	607750

4. Test frequency list

Test Channel List	
Test Channel	Test Frequency (MHz)
L	584.10
M	596.00
H	607.75

Note:

In section 15.31(m), regards to the operating frequency range over 10 MHz, the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, please see the above listed frequency for testing.

2.2 DESCRIPTION OF THE TEST MODES

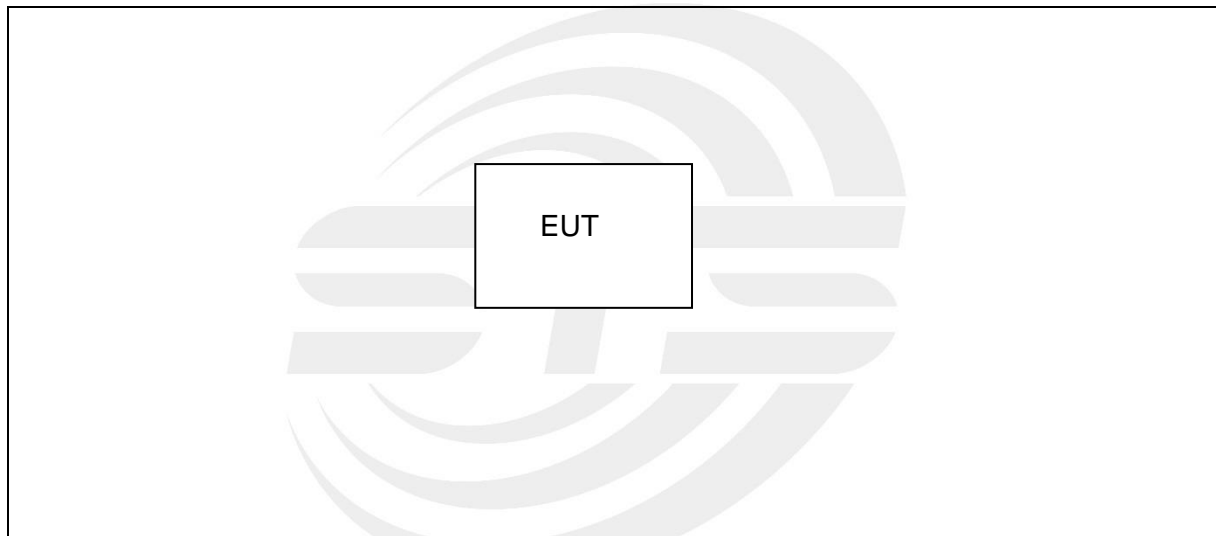
To investigate the maximum EMI emission characteristics generated from EUT, the test system was pre-scanning tested based on the consideration of following EUT operation mode or test configuration mode which possibly have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Pretest Mode	Description
Mode 1	Low Channel
Mode 2	Middle Channel
Mode 3	High Channel

Note:

(1) Due to the different configuration and test, in this list only some worse mode. The worst test data of the worse mode is reported by this report.

2.3 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED





2.4 DESCRIPTION OF NECESSARY ACCESSORIES AND 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.

Necessary accessories

Item	Equipment	Mfr/Brand	Model/Type No.	Length	Note
N/A	N/A	N/A	N/A	N/A	N/A

Support units

Item	Equipment	Mfr/Brand	Model/Type No.	Length	Note
N/A	N/A	N/A	N/A	N/A	N/A

Note:

- (1) For detachable type I/O cable should be specified the length in cm in 『Length』 column.



2.5 TEST EQUIPMENT

RF Radiation Test Equipment					
Kind of Equipment	Manufacturer	Type No.	Serial No.	Last Calibration	Calibrated Until
Temperature & Humidity	SW-108	SuWei	N/A	2023.03.03	2024.03.02
Wireless Communications Test Set	R&S	CMW 500	117239	2023.03.01	2024.02.29
Pre-Amplifier(0.1M-3GHz)	EM	EM330	060665	2022.07.04	2023.07.03
Pre-Amplifier (1G-18GHz)	SKET	LNPA-01018G-45	SK2018080901	2022.09.29	2023.09.28
Positioning Controller	MF	MF-7802	MF-780208587	N/A	N/A
Signal Analyzer	R&S	FSV 40-N	101823	2022.09.29	2023.09.28
Switch Control Box	N/A	N/A	N/A	N/A	N/A
Filter Box	BALUN Technology	SU319E	BL-SZ1530051	N/A	N/A
Video Controller	SKET	FCS C-3	N/A	N/A	N/A
Bilog Antenna	TESEQ	CBL6111D	34678	2022.09.30	2024.09.29
Horn Antenna	SCHWARZBECK	BBHA 9120D	02014	2021.10.11	2023.10.10
Antenna Mast	MF	MFA-440H	N/A	N/A	N/A
Turn Table	MF	N/A	N/A	N/A	N/A
AC Power Source	APC	KDF-11010G	F214050035	N/A	N/A
DC Power Supply	Zhaoxin	RXN 605D	20R605D11010081	N/A	N/A
Test SW	EMC Test Software	15.2.0.339			
RF Connected Test Equipment					
Kind of Equipment	Manufacturer	Type No.	Serial No.	Last Calibration	Calibrated Until
Temperature & Humidity	SW-108	SuWei	N/A	2023.03.03	2024.03.02
Universal Radio communication tester	R&S	CMU200	111058	2022.09.28	2023.09.27
Signal Generator	Agilent	N5182A	MY46240556	2022.09.28	2023.09.27
Signal Analyzer	Agilent	N9020A	MY52440124	2023.03.01	2024.02.29
Audio analyzer	R&S	UPL	N/A	2023.02.28	2024.02.27
Temperature & Humidity Test Chamber	Safety test	AG80L	171200018	2023.03.01	2024.02.29
Programmable Power Supply	Agilent	E3642A	MY40002025	2022.09.29	2023.09.28
Attenuator	HP	8494B	DC-18G	2023.03.02	2024.03.01
AC Power Source	APC	KDF-11010G	F214050035	N/A	N/A

3. Part 15.236 REQUIREMENTS

3.1 RADIATED SPURIOUS EMISSION

TEST LIMITS

According to Part 15.236 (g) and ETSI EN 300 422-1 V1.4.2 section 8.4.3, the limit will following below table.

Table 3: Limits for spurious emissions

State	Frequency		
	47 MHz to 74 MHz 87,5 MHz to 137 MHz 174 MHz to 230 MHz 470 MHz to 862 MHz	Other Frequencies below 1 000 MHz	Frequencies above 1 000 MHz
Operation	4 nW	250 nW	1 μ W
Standby	2 nW	2 nW	20 nW

3.2 EMISSION MASK

TEST LIMITS

- a. - According to Part 15.236 (g) and ETSI EN 300 422-1 V1.4.2 Clause 8.3.1.2,
The transmitter output spectrum shall be within the mask defined in figure 3 where B is the declared channel bandwidth

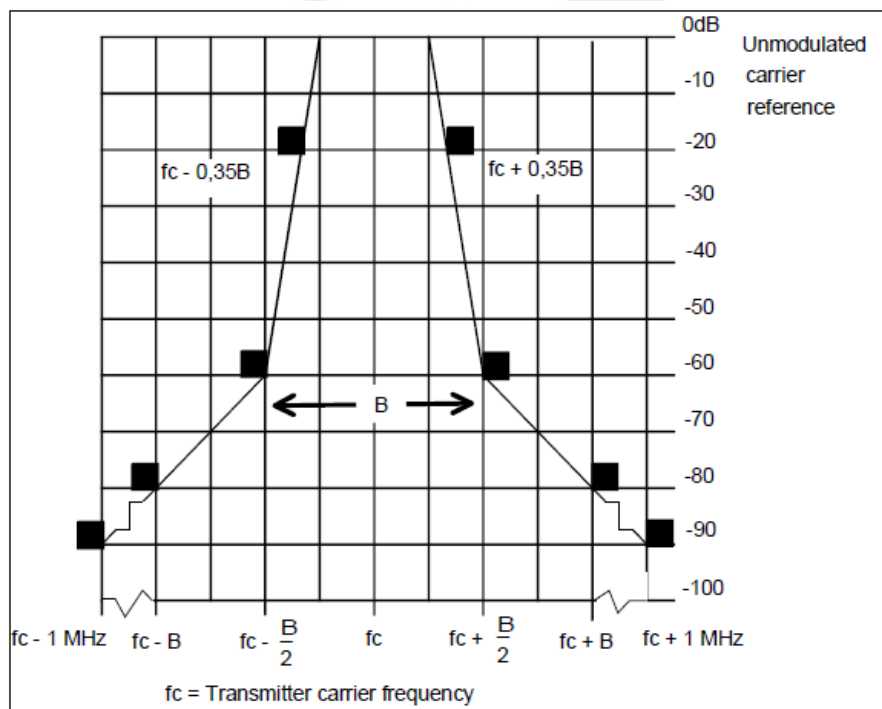


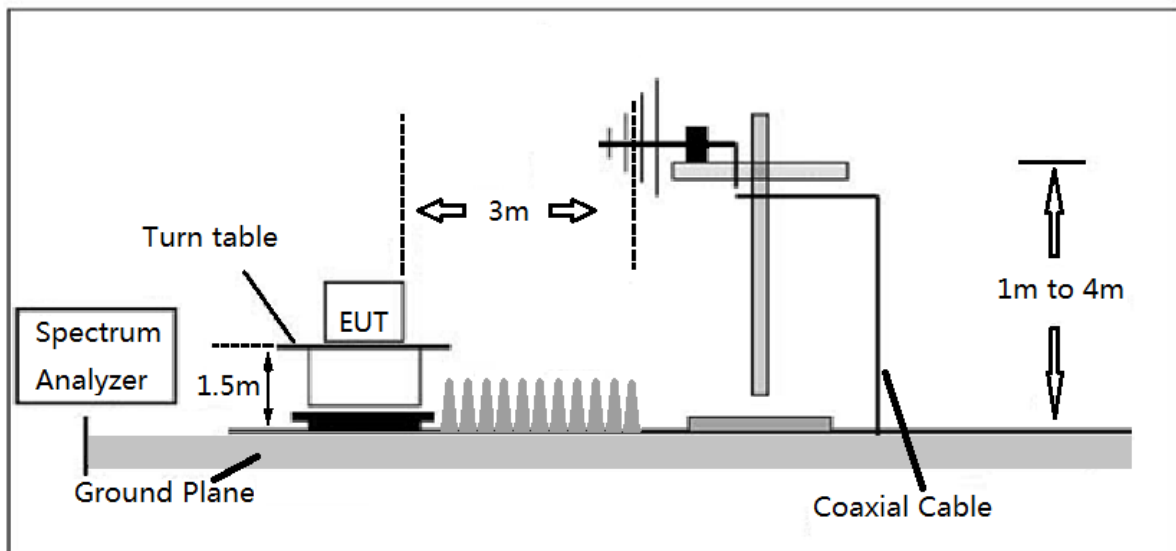
Figure 3: Spectrum mask for analogue systems in all bands

TEST PROCEDURE

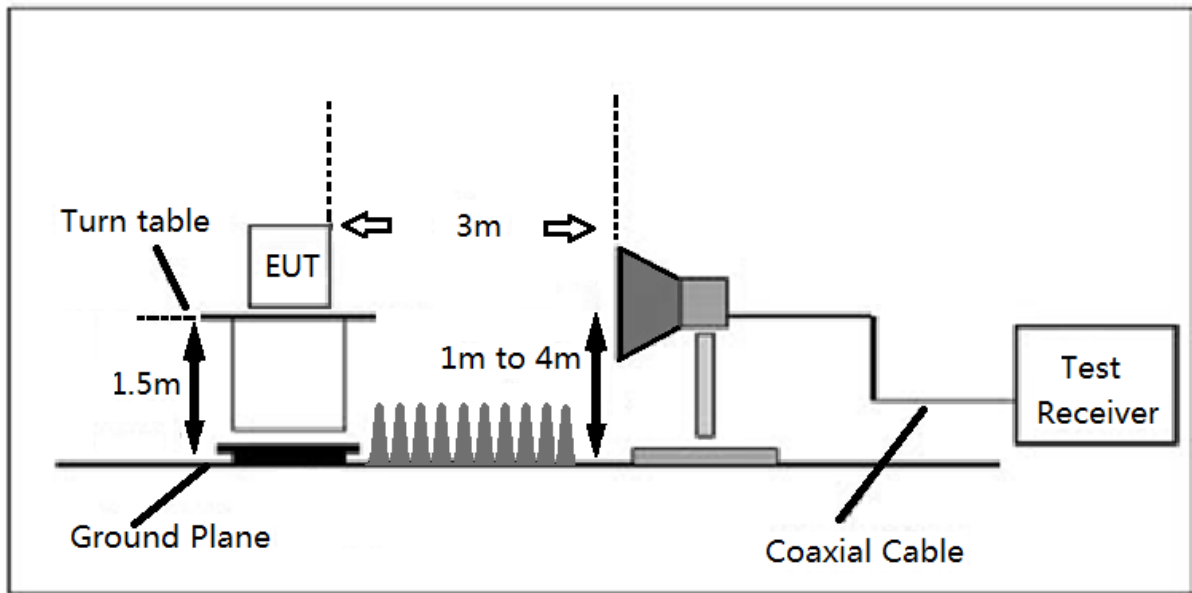
- a. On a test site, the EUT shall be placed on a turntable and in the position closest to the normal use as declared by the user.
- b. The test antenna shall be oriented initially for vertical polarization located 3m from the EUT to correspond to the transmitter.
- c. The output of the antenna shall be connected to the measuring receiver and either a peak or quasi-peak detector was used for the measurement as indicated on the report. The detector selection is based on how close the emission level was approaching the limit.
- d. The transmitter shall be switched on; if possible, without the modulation and the measurement receiver shall be tuned to the frequency of the transmitter under test.
- e. The test antenna shall be raised and lowered through the specified range of height until the measuring receiver detects a maximum signal level.
- f. The transmitter shall then be rotated through 360° in the horizontal plane, until the maximum signal level is detected by the measuring receiver.
- g. The test antenna shall be raised and lowered again through the specified range of height until the measuring receiver detects a maximum signal level.
- h. The maximum signal level detected by the measuring receiver shall be noted.
- i. The measurement shall be repeated with the test antenna set to horizontal polarization.
- j. Replace the antenna with a proper Antenna (substitution antenna).
- k. The substitution antenna shall be oriented for vertical polarization and, if necessary, the length of the substitution antenna shall be adjusted to correspond to the frequency of transmitting.
- l. The substitution antenna shall be connected to a calibrated signal generator.
- m. If necessary, the input attenuator setting of the measuring receiver shall be adjusted in order to increase the sensitivity of the measuring receiver.
- n. The test antenna shall be raised and lowered through the specified range of the height to ensure that the maximum signal is received.
- o. The input signal to substitution antenna shall be adjusted to the level that produces a level detected by the measuring receiver, that is equal to the level noted while the transmitter radiated power was measured, corrected for the change of input attenuation setting of the measuring receiver.
- p. The input level to the substitution antenna shall be recorded as power level in dBm, corrected for any change of input attenuator setting of the measuring receiver.
- q. The measurement shall be repeated with the test antenna and the substitution antenna oriented for horizontal polarization.

TEST CONFIGURATION

(A) Radiated Emission Test-Up Frequency Above 30MHz



(B) Radiated Emission Test-Up Frequency Above 1GHz

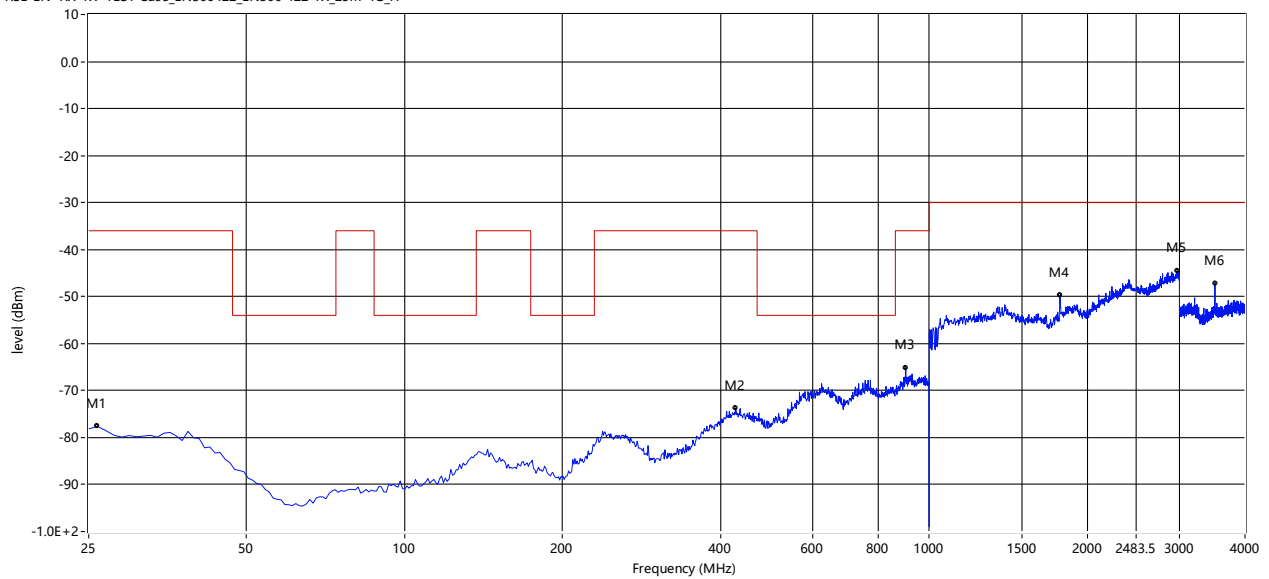


**TEST RESULTS**

Radiated Spurious Emission:

Low channel
Horizontal

RSE-EN RX-TX TEST Case_EN300422_EN300 422-TX_25M-4G_H

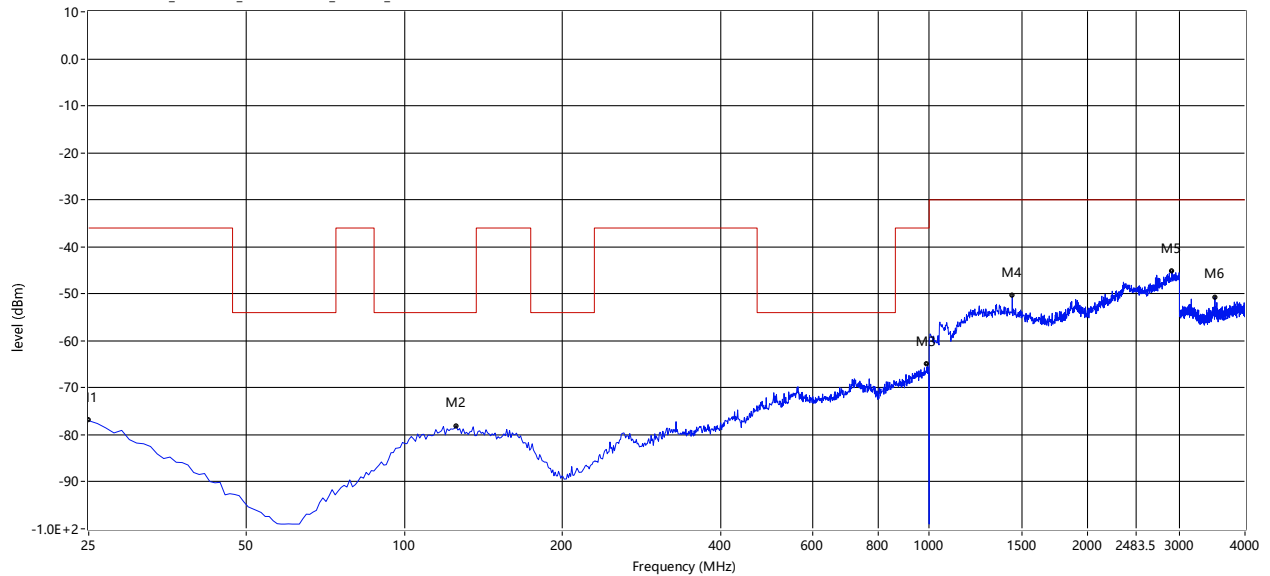


Frequency (MHz)	Result (dBm)	Factor (dB)	PK Limit (dBm)	Over Limit (dB)	Table (o)	ANT	EUT	Verdict
25.975	-77.63	-1.95	-36.0	-41.63	327.80	Horizontal	Vertical	Pass
427.675	-73.79	3.17	-36.0	-37.79	72.40	Horizontal	Vertical	Pass
902.500	-65.14	8.92	-36.0	-29.14	348.80	Horizontal	Vertical	Pass
1776.000	-49.74	13.14	-30.0	-19.74	169.00	Horizontal	Vertical	Pass
2968.000	-44.60	21.08	-30.0	-14.60	34.40	Horizontal	Vertical	Pass
3505.000	-47.27	3.74	-30.0	-17.27	172.10	Horizontal	Vertical	Pass



Vertical

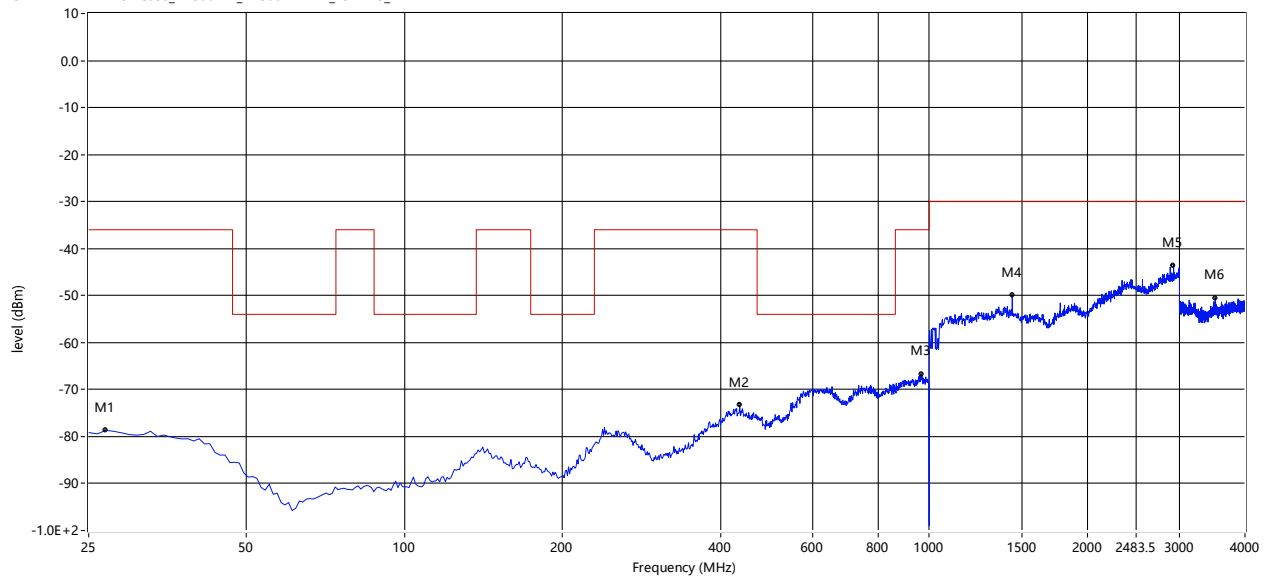
RSE-EN RX-TX TEST Case_EN300422_EN300 422-TX_25M-4G_V



Frequency (MHz)	Result (dBm)	Factor (dB)	PK Limit (dBm)	Over Limit (dB)	Table (o)	ANT	EUT	Verdict
25.000	-76.99	-0.46	-36.0	-40.99	84.40	Vertical	Vertical	Pass
125.425	-78.13	-1.69	-54.0	-24.13	45.20	Vertical	Vertical	Pass
992.200	-65.03	10.56	-36.0	-29.03	174.00	Vertical	Vertical	Pass
1440.000	-50.47	13.50	-30.0	-20.47	242.60	Vertical	Vertical	Pass
2904.000	-45.25	20.25	-30.0	-15.25	312.40	Vertical	Vertical	Pass
3505.000	-50.74	2.80	-30.0	-20.74	106.00	Vertical	Vertical	Pass

Mid channel
Horizontal

RSE-EN RX-TX TEST Case_EN300422_EN300 422-TX_25M-4G_H

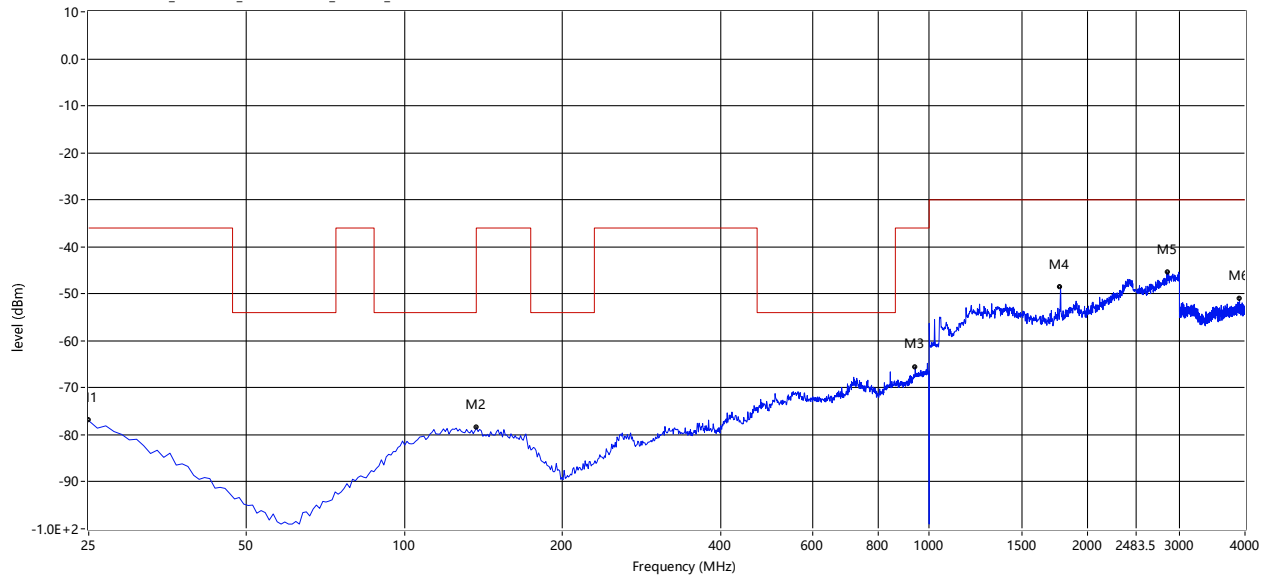


Frequency (MHz)	Result (dBm)	Factor (dB)	PK Limit (dBm)	Over Limit (dB)	Table (o)	ANT	EUT	Verdict
26.950	-78.68	-1.94	-36.0	-42.68	21.40	Horizontal	Vertical	Pass
435.475	-73.27	3.62	-36.0	-37.27	350.60	Horizontal	Vertical	Pass
968.800	-66.86	9.37	-36.0	-30.86	121.80	Horizontal	Vertical	Pass
1440.000	-50.02	13.58	-30.0	-20.02	180.20	Horizontal	Vertical	Pass
2924.000	-43.71	20.81	-30.0	-13.71	195.90	Horizontal	Vertical	Pass
3512.000	-50.52	3.69	-30.0	-20.52	153.60	Horizontal	Vertical	Pass



Vertical

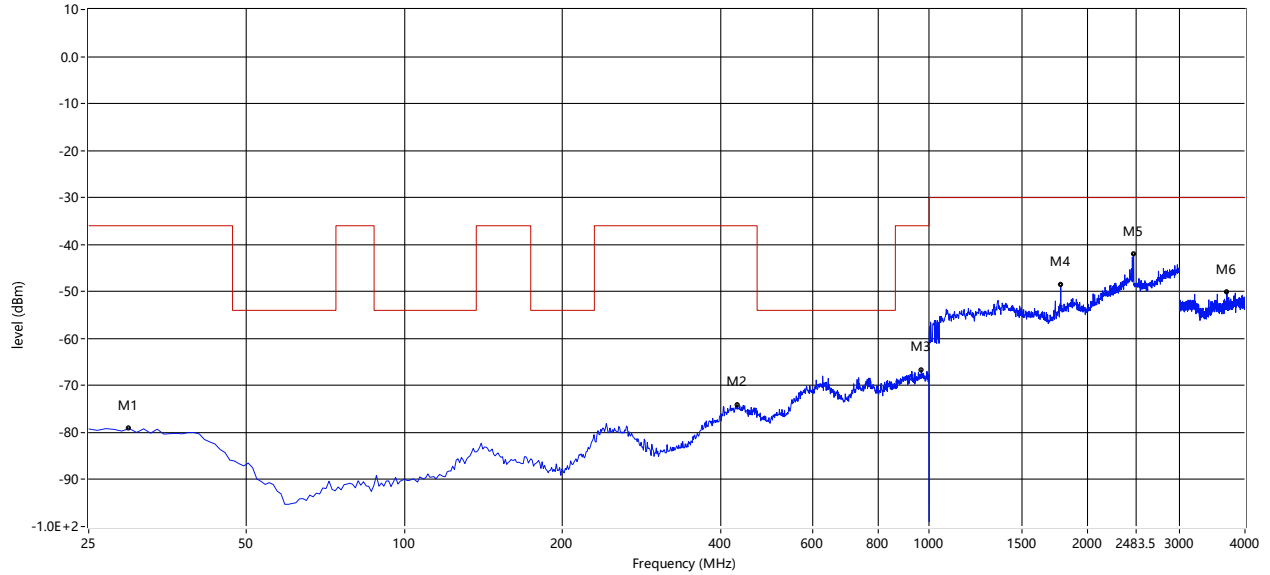
RSE-EN RX-TX TEST Case_EN300422_EN300 422-TX_25M-4G_V



Frequency (MHz)	Result (dBm)	Factor (dB)	PK Limit (dBm)	Over Limit (dB)	Table (o)	ANT	EUT	Verdict
25.000	-76.98	-0.46	-36.0	-40.98	44.40	Vertical	Vertical	Pass
137.125	-78.50	-1.25	-36.0	-42.50	109.50	Vertical	Vertical	Pass
940.525	-65.58	10.17	-36.0	-29.58	7.10	Vertical	Vertical	Pass
1780.000	-48.77	12.21	-30.0	-18.77	104.20	Vertical	Vertical	Pass
2846.000	-45.54	19.99	-30.0	-15.54	252.10	Vertical	Vertical	Pass
3905.000	-51.16	3.18	-30.0	-21.16	358.70	Vertical	Vertical	Pass

High channel
Horizontal

RSE-EN RX-TX TEST Case_EN300422_EN300 422-TX_25M-4G_H

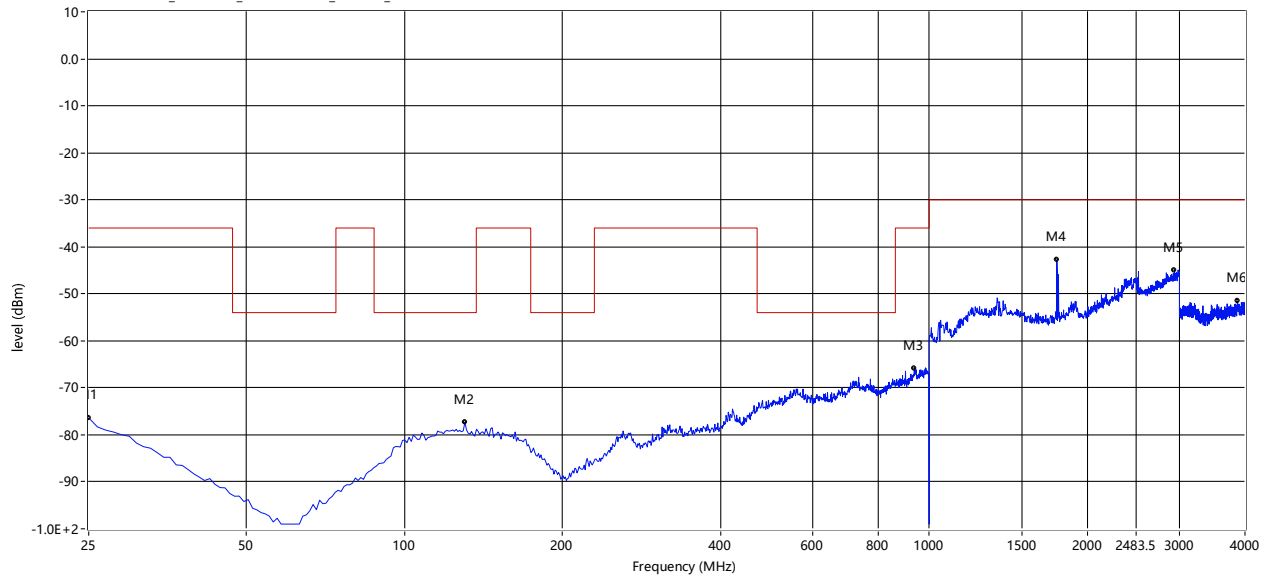


Frequency (MHz)	Result (dBm)	Factor (dB)	PK Limit (dBm)	Over Limit (dB)	Table (o)	ANT	EUT	Verdict
29.875	-79.14	-1.92	-36.0	-43.14	206.10	Horizontal	Vertical	Pass
430.600	-74.11	3.34	-36.0	-38.11	288.30	Horizontal	Vertical	Pass
965.875	-66.85	9.46	-36.0	-30.85	148.40	Horizontal	Vertical	Pass
1782.000	-48.69	13.24	-30.0	-18.69	29.80	Horizontal	Vertical	Pass
2454.000	-42.17	19.32	-30.0	-12.17	354.80	Horizontal	Vertical	Pass
3695.000	-50.12	3.63	-30.0	-20.12	124.60	Horizontal	Vertical	Pass



Vertical

RSE-EN RX-TX TEST Case_EN300422_EN300 422-TX_25M-4G_V

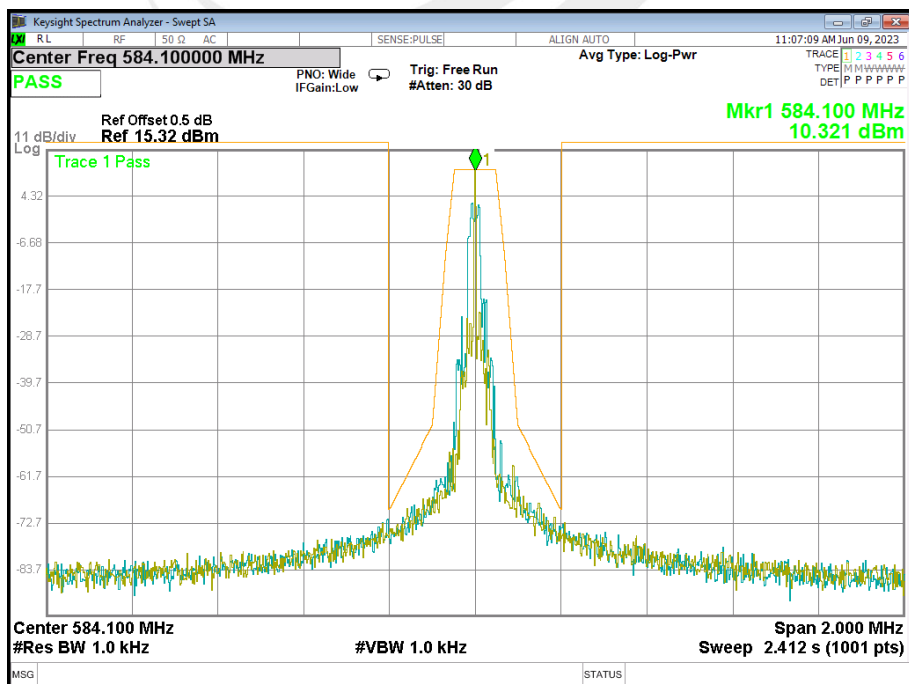
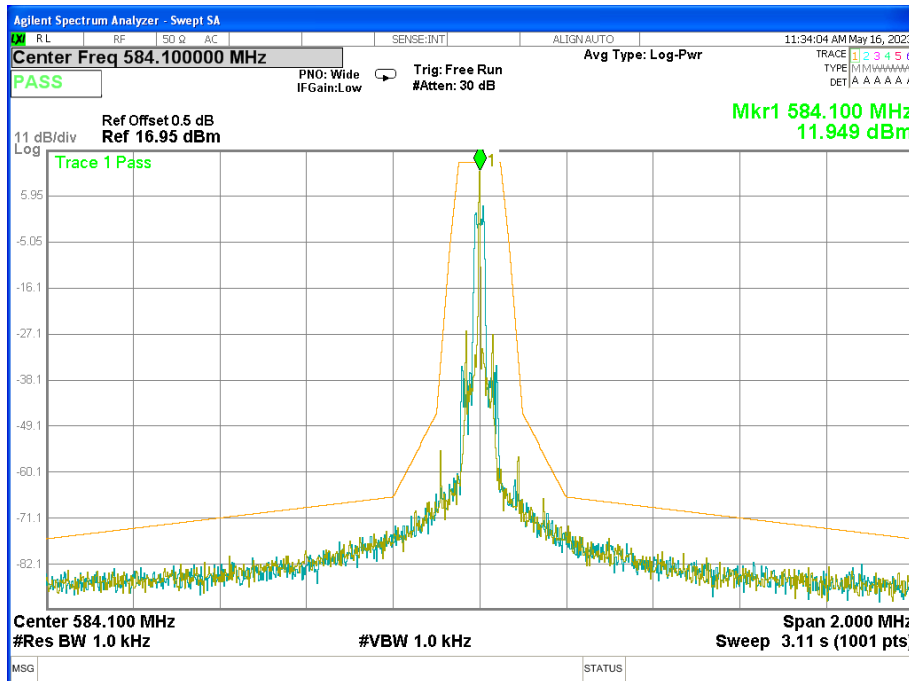


Frequency (MHz)	Result (dBm)	Factor (dB)	PK Limit (dBm)	Over Limit (dB)	Table (o)	ANT	EUT	Verdict
25.000	-76.37	-0.46	-36.0	-40.37	90.30	Vertical	Vertical	Pass
130.300	-77.40	-1.51	-54.0	-23.40	314.20	Vertical	Vertical	Pass
936.625	-65.96	9.96	-36.0	-29.96	321.90	Vertical	Vertical	Pass
1752.000	-42.79	12.26	-30.0	-12.79	23.00	Vertical	Vertical	Pass
2936.000	-45.07	20.32	-30.0	-15.07	229.60	Vertical	Vertical	Pass
3873.000	-51.57	3.09	-30.0	-21.57	56.00	Vertical	Vertical	Pass

**Emission Mask**

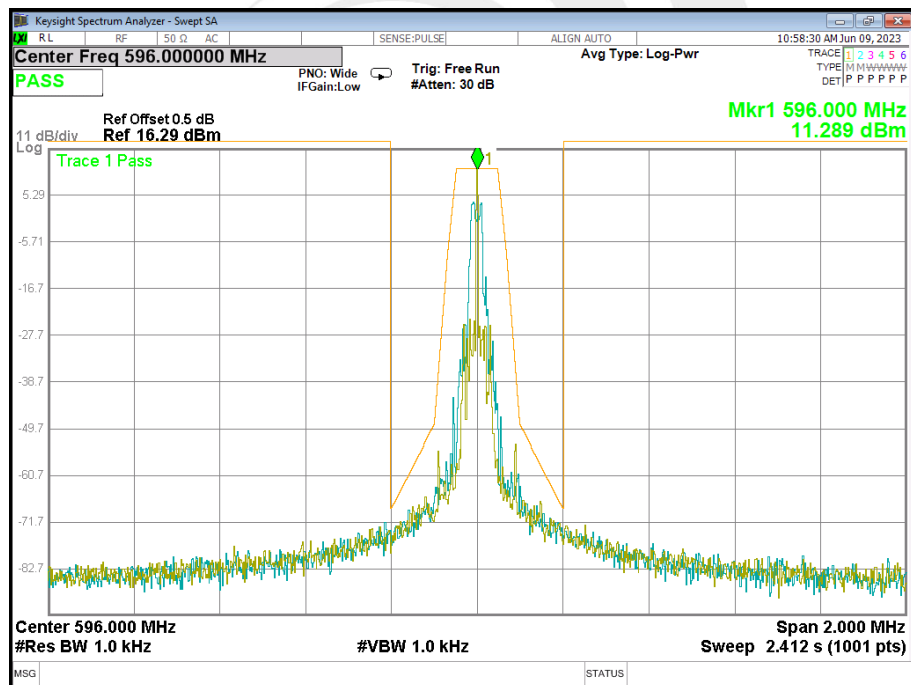
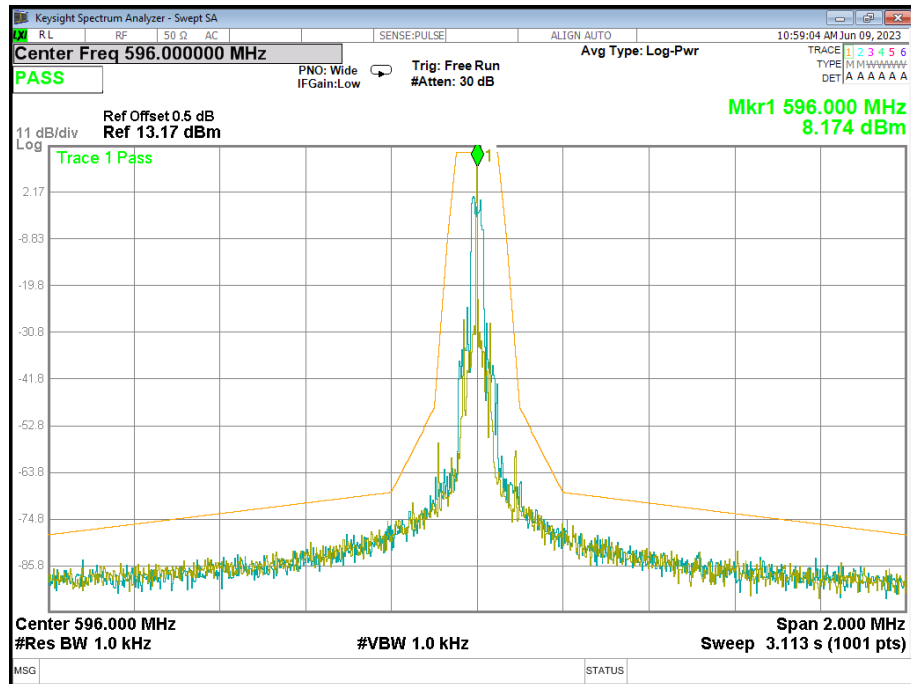
ETSI EN 300 422-1 V1.4.2 Clause 8.3.1.2 The Maximum Measurement of Necessary Bandwidth Test Plot:

Frequency(MHz)	Declared Bandwidth	B/2	0.35B
584.10	200K	100K	70K
596.00	200K	100K	70K
607.75	200K	100K	70K

Low CH

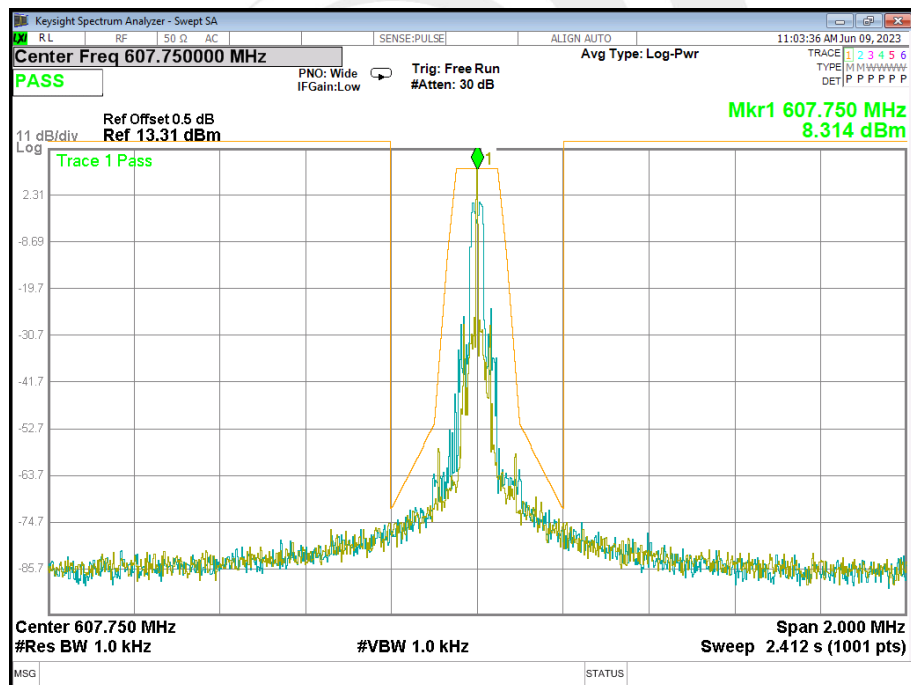
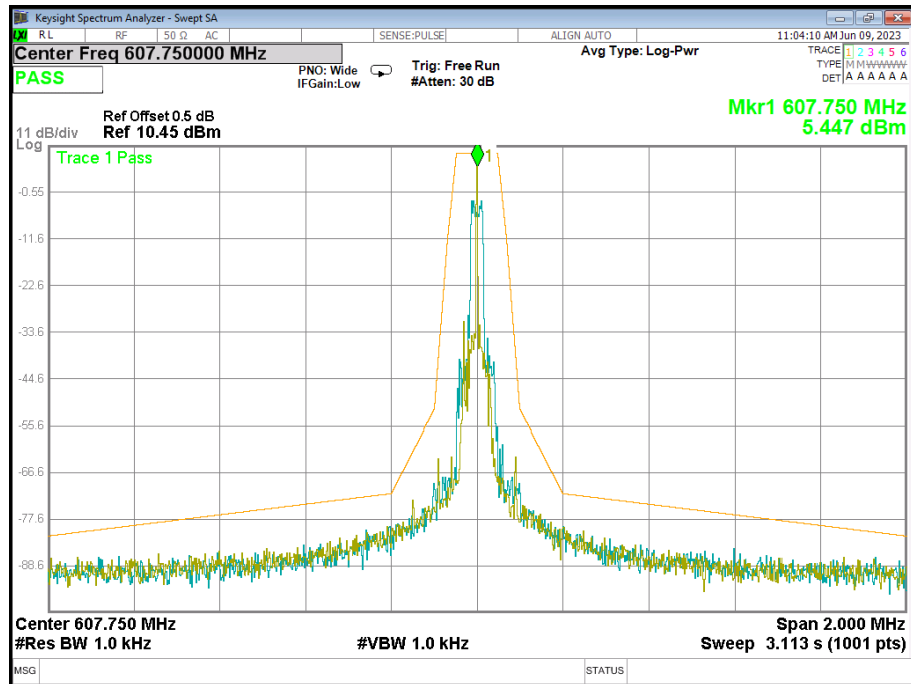


Mid CH





High CH

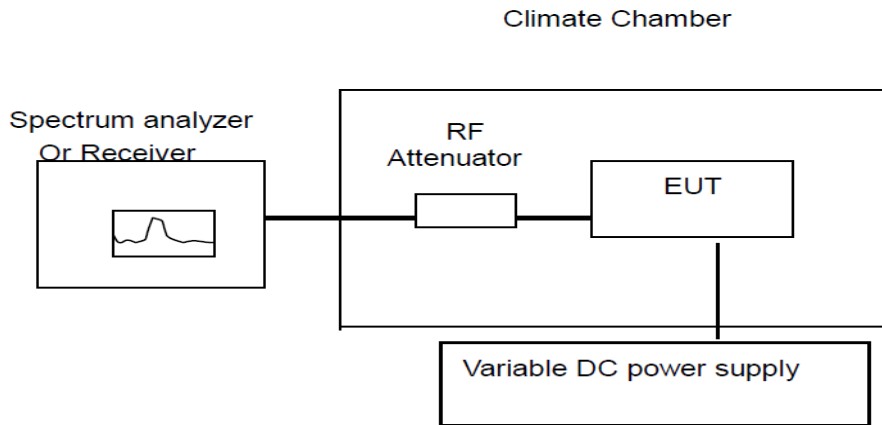


3.3 FREQUENCY STABILITY VS. TEMPERATURE & VOLTAGE

TEST LIMIT

According to Part 15.236 (f)(3), the frequency tolerance of the carrier signal shall be maintained within $\pm 0.005\%$ of the operating frequency over a temperature variation of -20 degrees to $+50$ degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C. Battery operated equipment shall be tested using a new battery.

TEST CONFIGURATION



TEST PROCEDURE

The EUT was connected to an external DC power supply and the RF output was connected to a frequency counter via feed through attenuators. The EUT was placed inside the temperature a chamber. The DC leads and the RF output cable, exited the chamber through an opening made for that purpose.

After the temperature stabilized the frequency output was recorded form the counter.

An external variable DC power supply was connected to the battery terminals of the equipment under test.

- b. For hand carried, battery powered equipment primary supply voltage was reduced to the battery operating end point as specified by the manufacturer. The output frequency was recorded for each battery voltage.

**TEST RESULTS**

- (1) Frequency stability versus input voltage (Supply Nominal voltage is DC 12V)
- (2) Frequency stability versus input voltage (Supply battery operating end point which shall be specified by the manufacturer DC 3.3V)

Reference Frequency: 584.10MHz					
Power Supply	Environment Temperature (°C)	Frequency Error (Hz)	Frequency Error (%)	Limit (%)	Results
3.45	20	1733	0.0003	±0.005	PASS
3.00	20	1744	0.0003		
2.55	20	1734	0.0003		
BEP	20	1729	0.0003		

Reference Frequency: 584.10MHz				
Environment Temperature(°C)	Frequency Deviation measured with time Elapse(30 minutes)			
	Frequency Error (Hz)	Frequency Error (%)	Limit (%)	Results
50	1692	0.0003	±0.005	PASS
40	1705	0.0003		
30	1702	0.0003		
20	1700	0.0003		
10	1715	0.0003		
0	1713	0.0003		
-10	1705	0.0003		
-20	1702	0.0003		



Reference Frequency: 596.00MHz					
Power Supply	Environment Temperature (°C)	Frequency Error (Hz)	Frequency Error (%)	Limit (%)	Results
3.45	20	1529	0.0003	±0.005	PASS
3.00	20	1545	0.0003		
2.55	20	1532	0.0003		
BEP	20	1533	0.0003		

Reference Frequency: 596.00MHz				
Environment Temperature(°C)	Frequency Deviation measured with time Elapse(30 minutes)			
	Frequency Error (Hz)	Frequency Error (%)	Limit (%)	Results
50	1465	0.0002	±0.005	PASS
40	1478	0.0002		
30	1482	0.0002		
20	1464	0.0002		
10	1459	0.0002		
0	1471	0.0002		
-10	1466	0.0002		
-20	1457	0.0002		



Reference Frequency: 607.75MHz					
Power Supply	Environment Temperature (°C)	Frequency Error (Hz)	Frequency Error (%)	Limit (%)	Results
3.45	20	2351	0.0004	±0.005	PASS
3.00	20	2339	0.0004		
2.55	20	2333	0.0004		
BEP	20	2345	0.0004		

Reference Frequency: 607.75MHz				
Environment Temperature(°C)	Frequency Deviation measured with time Elapse(30 minutes)			
	Frequency Error (Hz)	Frequency Error (%)	Limit (%)	Results
50	2037	0.0003	±0.005	PASS
40	2030	0.0003		
30	2024	0.0003		
20	2026	0.0003		
10	2027	0.0003		
0	2015	0.0003		
-10	2015	0.0003		
-20	2019	0.0003		



3.4 OCCUPIED BANDWIDTH

TEST PROCEDURE

- The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- Spectrum Setting : RBW= 3KHz, VBW \geq RBW, Sweep time = Auto.

TEST CONFIGURATION



EUT OPERATION CONDITIONS

TX mode.

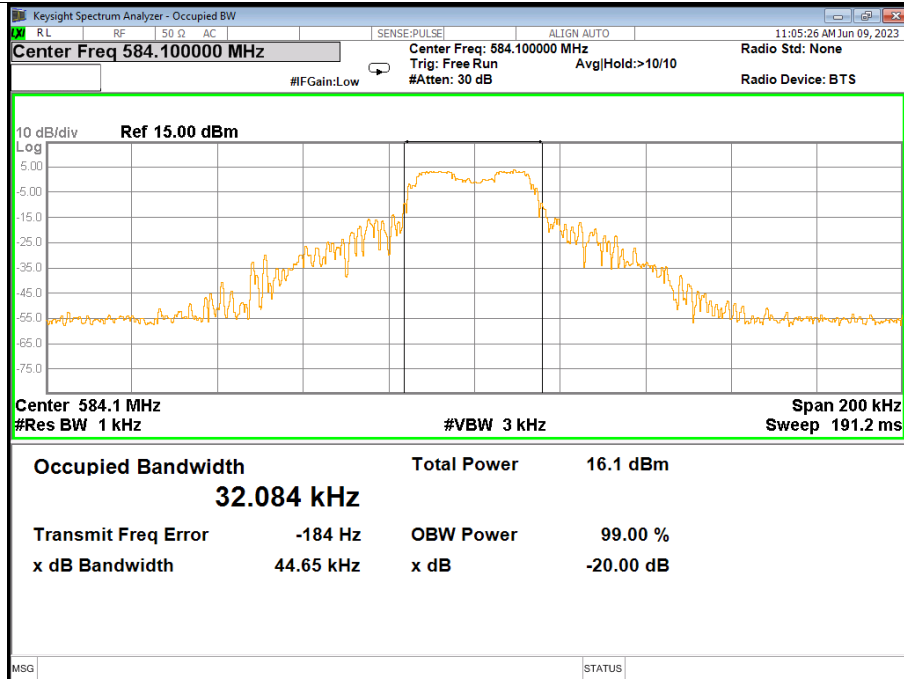




TEST RESULT

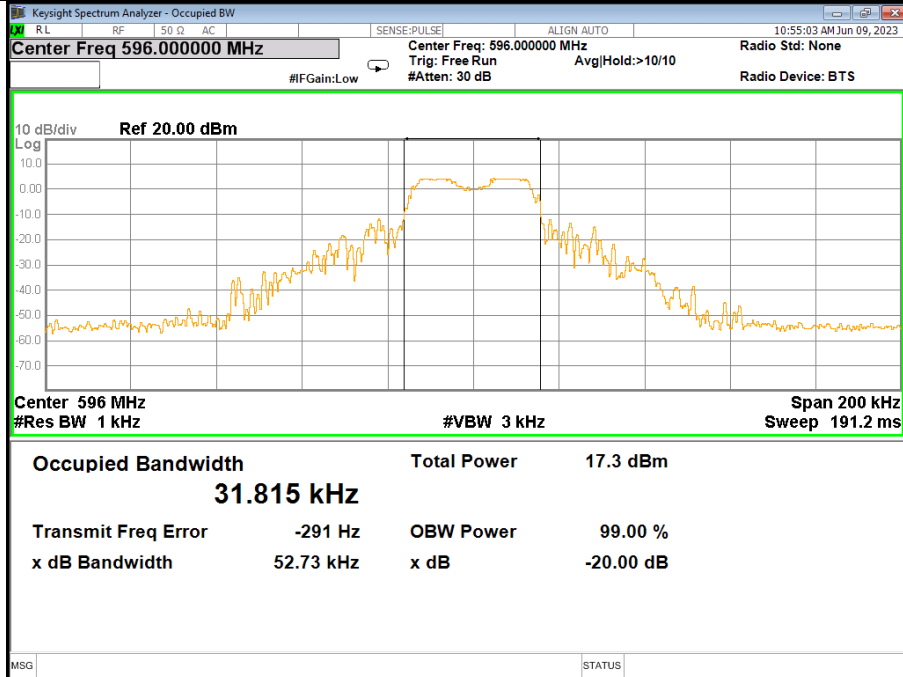
Frequency(MHz)	20 dB Bandwidth(KHz)	Result
584.10	44.65	Pass
596.00	52.73	Pass
607.75	55.62	Pass

Occupied bandwidth of Low Channel (Maximum)

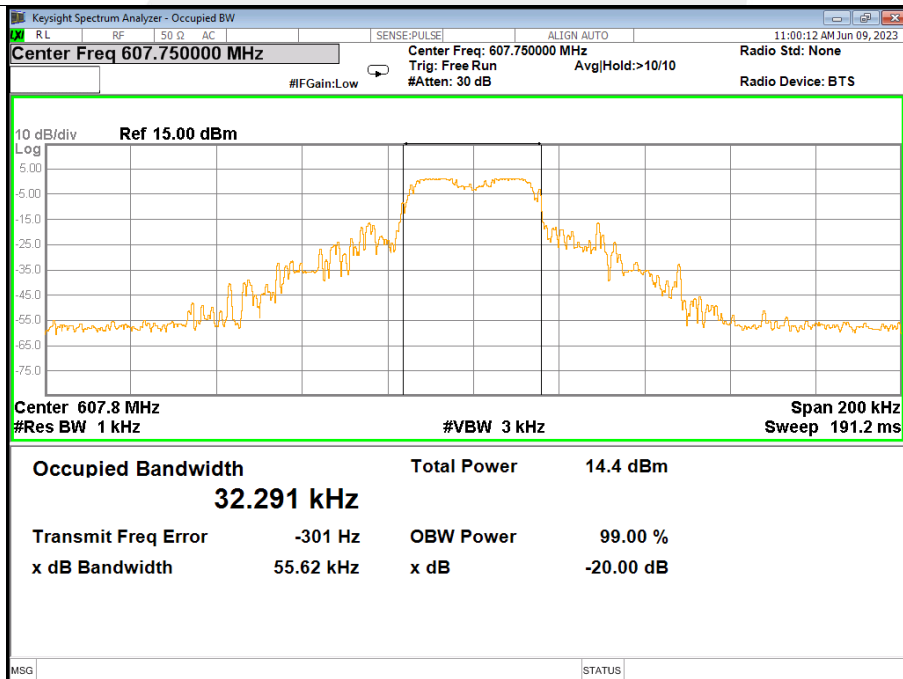




Occupied bandwidth of Mid Channel (Maximum)



Occupied bandwidth of High Channel (Maximum)



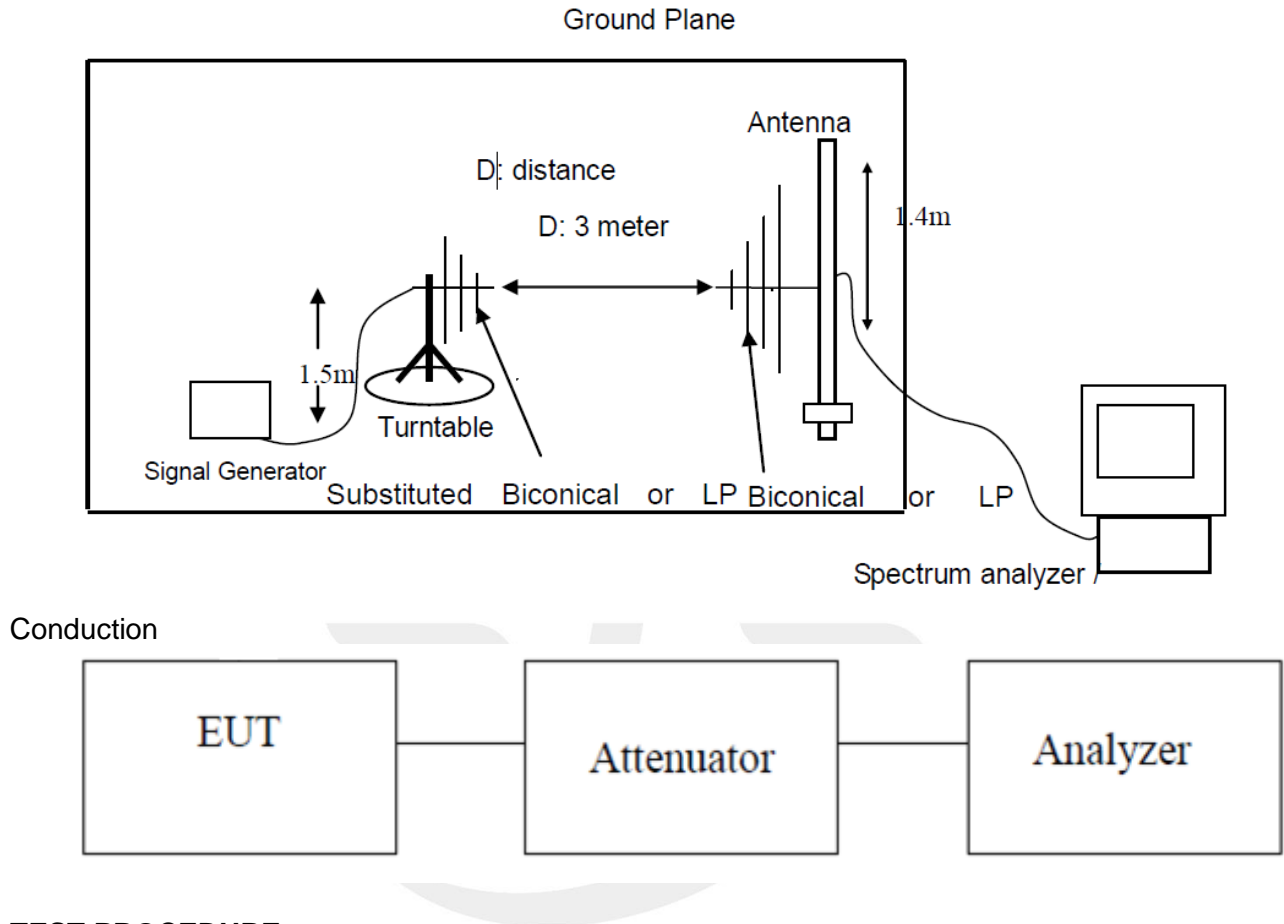
3.5 RADIATED POWER

TEST LIMIT

According to Part 15.236(d), the maximum radiated power shall not exceed the following:

- (1) In the bands allocated and assigned for broadcast television and in the 600 MHz service band: 50 mW EIRP
- (2) In the 600 MHz guard band and the 600 MHz duplex gap: 20 mW EIRP.

TEST CONFIGURATION



TEST PROCEDURE

- a. On a test site, the EUT shall be placed on a turntable and in the position closest to the normal use as declared by the user.
- b. The test antenna shall be oriented initially for vertical polarization located 3m from the EUT to correspond to the transmitter.
- c. The output of the antenna shall be connected to the measuring receiver and either a peak or quasi-peak detector was used for the measurement as indicated on the report. The detector selection is based on how close the emission level was approaching the limit.
- d. The transmitter shall be switched on; if possible, without the modulation and the measurement receiver shall be tuned to the frequency of the transmitter under test.
- e. The test antenna shall be raised and lowered through the specified range of height until the measuring receiver detects a maximum signal level.
- f. The transmitter shall then be rotated through 360° in the horizontal plane, until the maximum signal level is detected by the measuring receiver.
- g. The test antenna shall be raised and lowered again through the specified range of height until the measuring receiver detects a maximum signal level.
- h. The maximum signal level detected by the measuring receiver shall be noted.
- i. The measurement shall be repeated with the test antenna set to horizontal polarization.



- j Replace the antenna with a proper Antenna (substitution antenna).
- k The substitution antenna shall be oriented for vertical polarization and, if necessary, the length of the substitution antenna shall be adjusted to correspond to the frequency of transmitting.
- l The substitution antenna shall be connected to a calibrated signal generator.
- m If necessary, the input attenuator setting of the measuring receiver shall be adjusted in order to increase the sensitivity of the measuring receiver.
- n The test antenna shall be raised and lowered through the specified range of the height to ensure that the maximum signal is received.
- o The input signal to substitution antenna shall be adjusted to the level that produces a level detected by the measuring receiver, that is equal to the level noted while the transmitter radiated power was measured, corrected for the change of input attenuation setting of the measuring receiver.
- p The input level to the substitution antenna shall be recorded as power level in dBm, corrected for any change of input attenuator setting of the measuring receiver.
- q The measurement shall be repeated with the test antenna and the substitution antenna oriented for horizontal polarization.

TEST PROCEDURE (Conduction)

- a. The RF output of the transceiver was connected to the input of the spectrum analyzer through sufficient attenuation.
- b. Set the RBW $> 20\text{BW}$, VBW $> 3 \times \text{RBW}$.
- c. Detector = peak.
- d. Sweep time = auto couple.
- e. Trace mode = max hold.
- f. Allow trace to fully stabilize.
- g. Use the peak marker function to determine the maximum amplitude level.

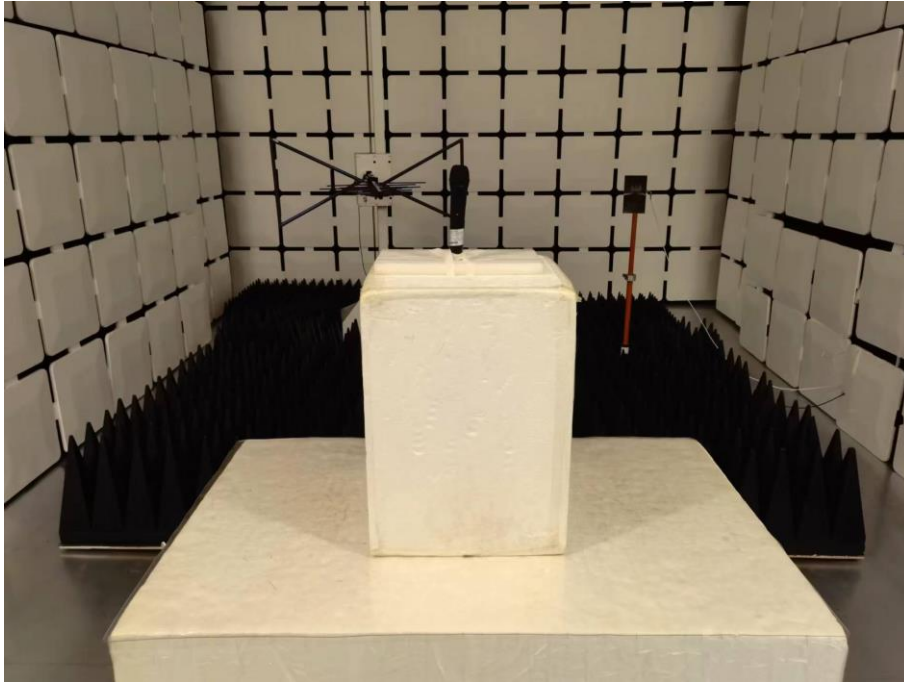
**TEST RESULT**

Maximum Equivalent Isotropically Radiated Power								
Ambient temperature: 22 °C			Relative humidity: 55%					
Frequency	S.G.Lev	Ant	Loss	EIRP	EIRP	Limit	Polarity	Result
(MHz)	(dBm)	(dBi)	(dB)	(dBm)	(mW)	(mW)		
584.10	6.89	3.00	1.6	8.29	6.75	50.00	H	Pass
584.10	7.46	3.00	1.6	8.86	7.69	50.00	V	Pass

Maximum Equivalent Isotropically Radiated Power								
Ambient temperature: 22 °C			Relative humidity: 55%					
Frequency	S.G.Lev	Ant	Loss	EIRP	EIRP	Limit	Polarity	Result
(MHz)	(dBm)	(dBi)	(dB)	(dBm)	(mW)	(mW)		
596.00	8.03	3.00	1.6	9.43	8.77	50.00	H	Pass
596.00	8.42	3.00	1.6	9.82	9.59	50.00	V	Pass

Maximum Equivalent Isotropically Radiated Power								
Ambient temperature: 22 °C			Relative humidity: 55%					
Frequency	S.G.Lev	Ant	Loss	EIRP	EIRP	Limit	Polarity	Result
(MHz)	(dBm)	(dBi)	(dB)	(dBm)	(mW)	(mW)		
607.75	4.91	3.10	1.6	6.41	4.38	50.00	H	Pass
607.75	5.36	3.10	1.6	6.86	4.85	50.00	V	Pass

PHOTOS OF TEST SETUP



※※※※※END OF THE REPORT※※※※※