

FCC Test Report

Report No.: AGC00931171110FE03

FCC ID : OYC-WBT026
APPLICATION PURPOSE : Original Equipment
PRODUCT DESIGNATION : Wireless speaker
BRAND NAME : iKano, Taide, Merkury, Tronsmart
MODEL NAME : WBT026, MERKURY_SB260, T7, BT026
CLIENT : Dongguan Taide Industrial Co., Ltd
DATE OF ISSUE : Jan. 16, 2018
STANDARD(S) : FCC Part 15 Subpart C Section 15.249
TEST PROCEDURE(S)
REPORT VERSION : V1.0

Attestation of Global Compliance (Shenzhen) Co., Ltd

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Report Revise Record

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0	/	Jan. 16, 2018	Valid	Initial Release

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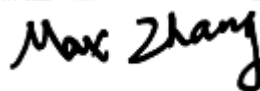
1. VERIFICATION OF CONFORMITY

Applicant	Dongguan Taide Industrial Co., Ltd
Address	Taide Technology Park, Phase 2, Jinfenghuang Industrial District, Huangdong Village, Fenggang Town, Dongguan City, China.
Manufacturer	Dongguan Taide Industrial Co., Ltd
Address	Taide Technology Park, Phase 2, Jinfenghuang Industrial District, Huangdong Village, Fenggang Town, Dongguan City, China.
Product Designation	Wireless speaker
Brand Name	iKanoo, Taide, Merkury, Tronsmart
Test Model	WBT026
Series Model	MERKURY_SB260, T7, BT026
Model Difference	All the same except for appearance.
Date of test	Jan. 05, 2017 to Jan 16, 2018
Deviation	None
Condition of Test Sample	Normal
Test Result	Pass
Report Template	AGCRT-US-BR/RF

We hereby certify that:

The above equipment was tested by Attestation of Global Compliance (Shenzhen) Co., Ltd. The test data, the energy emitted by the sample tested as described in this report is in compliance with the requirements of FCC Rules Part 15.249. The test results of this report relate only to the tested sample identified in this report.

Tested By



Max Zhang(Zhang Yi) Jan 16, 2018

Reviewed By



Bart Xie(Xie Xiaobin) Jan 16, 2018

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2. GENERAL INFORMATION

2.1. PRODUCT DESCRIPTION

A major technical description of EUT is described as following

Operation Frequency	2.402 GHz to 2.480GHz
RF Output Power	83.28dBuV/m(AV)@3m
Bluetooth Version	V 2.1+EDR
Modulation	BR ☒ GFSK, EDR ☒ π /4-DQPSK, ☒ 8DPSK BLE ☐ GFSK
Number of channels	79 for BR/EDR
Hardware Version	WBT026_AP8064_6220_REV 2.2B
Software Version	V1.0
Antenna Designation	PCB Antenna
Antenna Gain	0dBi
Power Supply	DC 3.7V

2.2. TABLE OF CARRIER FREQUENCIES

BR/EDR channel List

Frequency Band	Channel Number	Frequency
2400~2483.5MHz	0	2402MHz
	1	2403MHz
	:	:
	38	2440 MHz
	39	2441 MHz
	40	2442 MHz
	:	:
	77	2479 MHz
	78	2480 MHz

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3. MEASUREMENT UNCERTAINTY

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

- Uncertainty of Conducted Emission, $U_c = \pm 3.2$ dB
- Uncertainty of Radiated Emission below 1GHz, $U_c = \pm 3.9$ dB
- Uncertainty of Radiated Emission above 1GHz, $U_c = \pm 4.8$ dB

4. DESCRIPTION OF TEST MODES

NO.	TEST MODE DESCRIPTION
1	Low channel GFSK
2	Middle channel GFSK
3	High channel GFSK
4	Low channel $\pi/4$ -DQPSK
5	Middle channel $\pi/4$ -DQPSK
6	High channel $\pi/4$ -DQPSK
7	Low channel 8DPSK
8	Middle channel 8DPSK
9	High channel 8DPSK

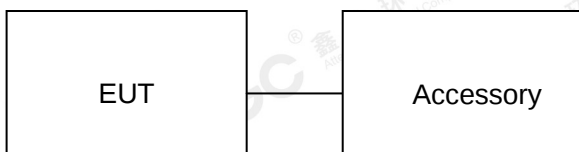
Note:

1. All the test modes can be supply by battery, only the result of the worst case was recorded in the report, if no other cases.
2. For Radiated Emission, 3axis were chosen for testing for each applicable mode.
3. The EUT used fully-charged battery when tested.

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5. SYSTEM TEST CONFIGURATION

5.1. CONFIGURATION OF EUT SYSTEM



5.2. EQUIPMENT USED IN EUT SYSTEM

Item	Equipment	manufacturer	Model	Remark
1	PC	DELL	Vostro 2421	Support
2	USB cable	N/A	N/A	Micro-USB
3	Earphone	N/A	N/A	1m unshielded

5.3. SUMMARY OF TEST RESULTS

FCC RULES	DESCRIPTION OF TEST	RESULT
§15.249&15.209	Radiated Emission	Compliant
§15.249	Band Edges	Compliant
§15.215	20dB bandwidth	Compliant
§15.207	Line Conduction Emission	Compliant

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6. TEST FACILITY

Test Site	Attestation of Global Compliance (Shenzhen) Co., Ltd
Location	1-2F., Bldg.2, No.1-4, Chaxi Sanwei Technical Industrial Park, Gushu, Xixiang, Bao'an District B112-B113, Bldg.12, Baoan Bldg Materials Center, No.1 of Xixiang Inner Ring Road, Baoan District, Shenzhen 518012
NVLAP Lab Code	600153-0
Designation Number	CN5028
Test Firm Registration Number	682566
Description	Attestation of Global Compliance(Shenzhen) Co., Ltd is accredited by National Voluntary Laboratory Accreditation program, NVLAP Code 600153-0

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7. TEST METHOD

All measurements contained in this report were conducted with ANSI C63.10-2013

8. TEST EQUIPMENT LIST

TEST EQUIPMENT OF CONDUCTED EMISSION TEST

Equipment	Manufacturer	Model	S/N	Cal. Date	Cal. Due
TEST RECEIVER	R&S	ESPI	101206	Jun.20, 2017	Jun.19, 2018
LISN	R&S	ESH2-Z5	100086	Aug.21, 2017	Aug.20, 2018

TEST EQUIPMENT OF RADIATED EMISSION TEST

Equipment	Manufacturer	Model	S/N	Cal. Date	Cal. Due
TEST RECEIVER	R&S	ESCI	10096	Jun.20, 2017	Jun.19, 2018
EXA Signal Analyzer	Aglient	N9010A	MY53470504	Dec.08, 2017	Dec.07, 2018
Horn antenna	SCHWARZBECK	BBHA 9170	#768	Sep.20, 2017	Sep.19, 2018
preamplifier	ChengYi	EMC184045SE	980508	Sep.15, 2017	Sep.14, 2018
Double-Ridged Waveguide Horn	ETS LINDGREN	3117	00034609	May 18, 2017	May 17, 2019
Broadband Preamplifier	SCHWARZBECK	BBV 9718	9718-205	Jun.20, 2017	Jun.19, 2018
ANTENNA	SCHWARZBECK	VULB9168	D69250	Sep.28, 2017	Sep.27, 2018
Loop Antenna	A.H.Systems,Inc	SAS-562B	--	Mar. 01, 2016	Feb. 28, 2018

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9. RADIATED EMISSION

9.1 TEST LIMIT

Standard FCC15.249

Fundamental Frequency	Field Strength of Fundamental (millivolts/meter)	Field Strength of Harmonics (microvolts/meter)
900-928MHz	50	500
2400-2483.5MHz	50	500
5725-5875MHz	50	500
24.0-24.25GHz	250	2500

Standard FCC 15.209

Frequency (MHz)	Distance Meters	Field Strengths Limit	
		μ V/m	dB(μ V)/m
0.009 ~ 0.490	300	2400/F(kHz)	---
0.490 ~ 1.705	30	24000/F(kHz)	---
1.705 ~ 30	30	30	---
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
960 ~ 1000	3	500	54.0
Above 1000	3	Other: 74.0 dB(μ V)/m (Peak) 54.0 dB(μ V)/m (Average)	

Remark:

- (1) Emission level $\text{dB}\mu$ V = 20 log Emission level μ V/m
- (2) The smaller limit shall apply at the cross point between two frequency bands.
- (3) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.

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9.2. MEASUREMENT PROCEDURE

1. The measuring distance of 3m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation(Below 1GHz)
2. The measuring distance of 3m shall used for measurements. The EUT was placed on the top of a rotating table 1.5 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation(Above 1GHz)
3. The height of the test antenna shall vary between 1m to 4m.Both horizontal and vertical polarization Of the antenna are set to make the measurement.
4. The initial step in collecting radiated emission data is a receive peak detector mode. Pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
5. All readings are peak unless otherwise stated QP in column of Note. Peak denoted that the Peak reading compliance with the QP limits and then QP Mode measurement didn't perform(Below 1GHz)
6. All readings are Peak mode value unless otherwise stated AVG in column of Note. If the Peak mode measured value compliance with the Peak limits and lower than AVG Limits, the EUT shall be deemed to meet Peak & AVG limits and then only Peak mode was measured, but AVG mode didn't perform.(Above 1GHz)

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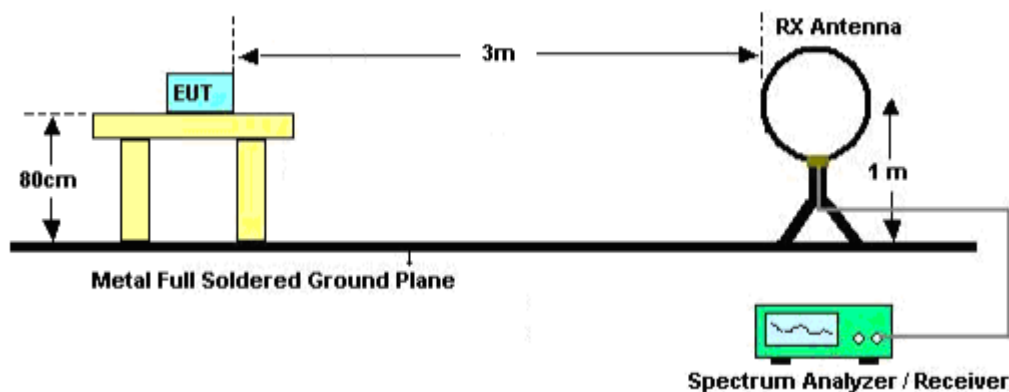
The following table is the setting of spectrum analyzer and receiver.

Spectrum Parameter	Setting
Start ~Stop Frequency	9KHz~150KHz/RB 200Hz for QP
Start ~Stop Frequency	150KHz~30MHz/RB 9KHz for QP
Start ~Stop Frequency	30MHz~1000MHz/RB 120KHz for QP
Start ~Stop Frequency	1GHz~26.5GHz RBW 2MHz/ VBW 6MHz for Peak, RBW 1.5MHz/ VBW 10Hz for Average
Receiver Parameter	Setting
Start ~Stop Frequency	9KHz~150KHz/RB 200Hz for QP
Start ~Stop Frequency	150KHz~30MHz/RB 9KHz for QP
Start ~Stop Frequency	30MHz~1000MHz/RB 120KHz for QP

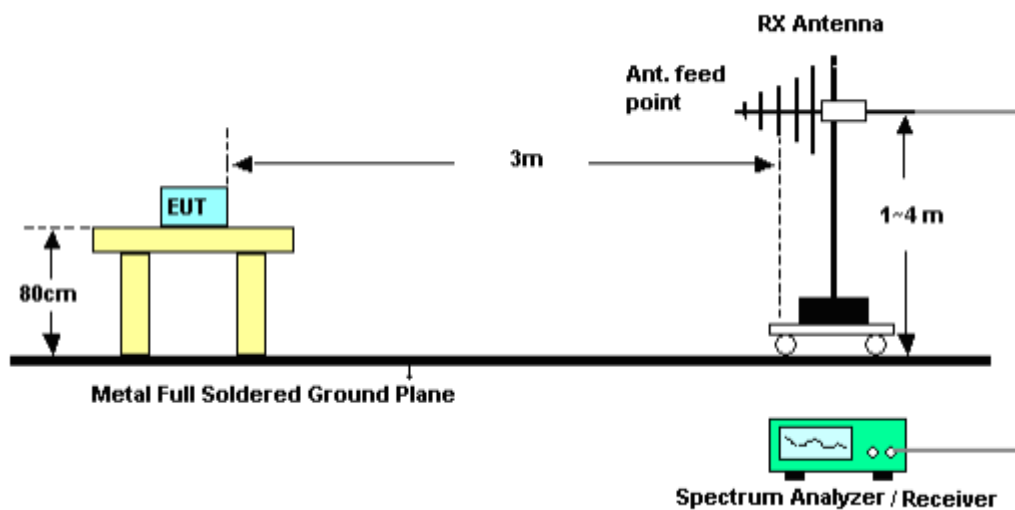
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9.3. TEST SETUP

Radiated Emission Test-Setup Frequency Below 30MHz

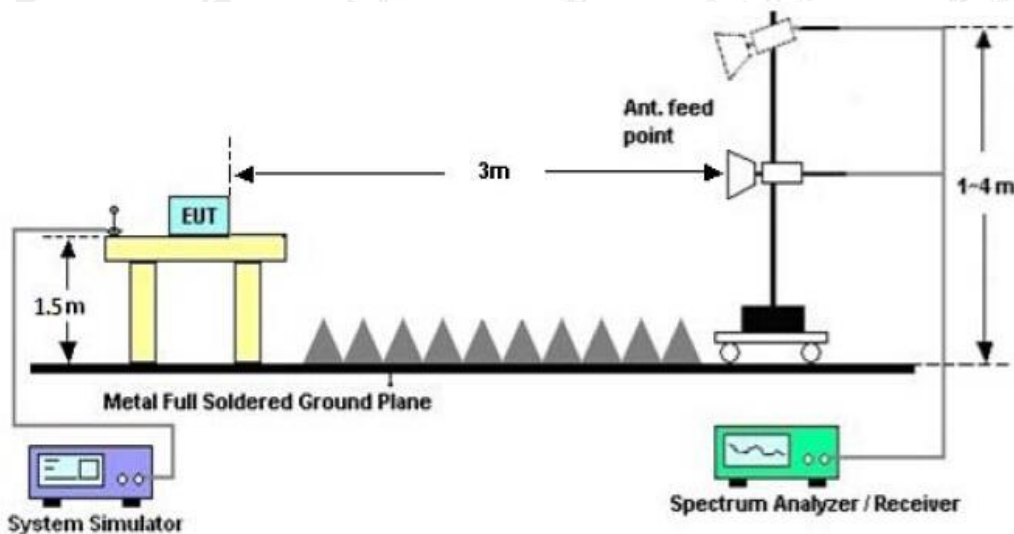


RADIATED EMISSION TEST SETUP 30MHz-1000MHz



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RADIATED EMISSION TEST SETUP ABOVE 1000MHz



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9.4. TEST RESULT

(Worst modulation: GFSK)

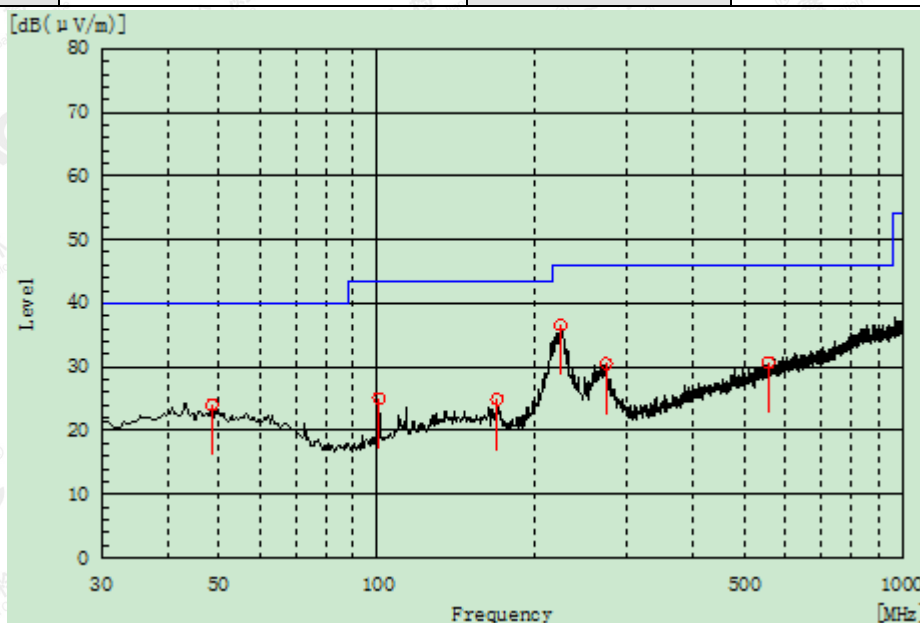
FOR BR/EDR

RADIATED EMISSION BELOW 30MHZ

No emission found between lowest internal used/generated frequencies to 30MHz.

RADIATED EMISSION 30MHZ- 1GHZ

EUT :	Wireless speaker	Model Name	WBT026
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	Mode 1	Polarization :	Horizontal

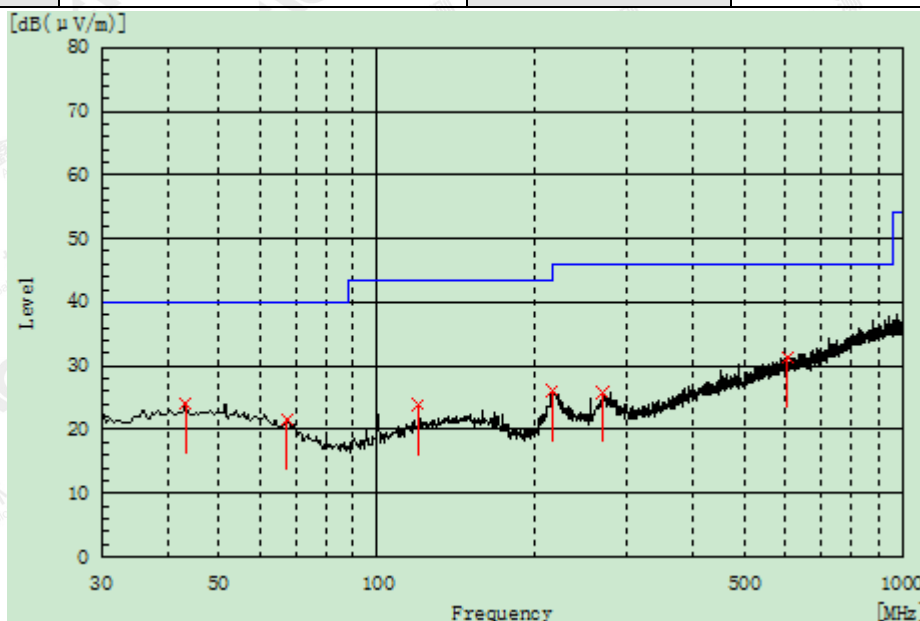


Frequency MHz	Polarization	Reading dB(μV)	Factor dB (1/m)	Level dB(μV/m) PK	Limit dB(μV/m) QP	Margin dB	Pass/Fail	Height cm	Angle deg
100.810	H	11.5	13.5	25.0	43.5	18.5	Pass	200.0	187.0
223.515	H	21.5	15.1	36.6	46.0	9.4	Pass	150.0	255.5
48.430	H	6.9	17.1	24.0	40.0	16.0	Pass	100.0	118.8
169.195	H	8.9	16.0	24.9	43.5	18.6	Pass	200.0	69.9
272.985	H	13.3	17.2	30.5	46.0	15.5	Pass	100.0	101.3
556.225	H	6.7	24.0	30.7	46.0	15.3	Pass	100.0	97.0

RESULT: PASS

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EUT :	Wireless speaker	Model Name	WBT026
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	Mode 1	Polarization :	Vertical



Frequency MHz	Polarization	Reading dB(μV)	Factor dB (1/m)	Level dB(μV/m) PK	Limit dB(μV/m) QP	Margin dB	Pass/Fail	Height cm	Angle deg
43.095	V	6.7	17.4	24.1	40.0	15.9	Pass	100.0	288.2
119.725	V	8.4	15.4	23.8	43.5	19.7	Pass	150.0	357.7
67.345	V	6.6	15.1	21.7	40.0	18.3	Pass	200.0	65.0
216.240	V	11.8	14.4	26.2	46.0	19.8	Pass	200.0	172.8
269.105	V	9.2	16.7	25.9	46.0	20.1	Pass	200.0	81.6
603.755	V	6.3	25.0	31.3	46.0	14.7	Pass	200.0	230.4

RESULT: PASS

Note:

Factor=Antenna Factor + Cable loss, Margin=Result-Limit.

The "Factor" value can be calculated automatically by software of measurement system.

The mode 1 is the worst case, and only the data of the worst case recorded in this test report.

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RADIATED EMISSION ABOVE 1GHZ

EUT :	Wireless speaker	Model Name	WBT026
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	Mode 1	Polarization :	Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
2402.008	92.65	-9.37	83.28	114	-30.72	peak
2402.008	88.36	-9.37	78.99	94	-15.01	AVG
4804.016	42.78	3.74	46.52	74	-27.48	peak
4804.016	37.23	3.74	40.97	54	-13.03	AVG
7206.024	40.79	8.14	48.93	74	-25.07	peak
7206.024	35.33	8.14	43.47	54	-10.53	AVG

Remark:

Factor = Antenna Factor + Cable Loss – Pre-amplifier.

EUT :	Wireless speaker	Model Name	WBT026
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	Mode 1	Polarization :	Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
2402.011	92.21	-9.37	82.84	114	-31.16	peak
2402.011	86.46	-9.37	77.09	94	-16.91	AVG
4804.022	41.65	3.74	45.39	74	-28.61	peak
4804.022	36.14	3.74	39.88	54	-14.12	AVG
7206.033	40.73	8.14	48.87	74	-25.13	peak
7206.033	34.81	8.14	42.95	54	-11.05	AVG

Remark:

Factor = Antenna Factor + Cable Loss – Pre-amplifier.

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EUT :	Wireless speaker	Model Name	WBT026
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	Mode 2	Polarization :	Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
2440.018	91.34	-9.63	81.71	114	-32.29	peak
2440.018	88.35	-9.63	78.72	94	-15.28	AVG
4880.036	42.41	3.76	46.17	74	-27.83	peak
4880.036	37.09	3.76	40.85	54	-13.15	AVG
7320.054	40.53	8.17	48.7	74	-25.3	peak
7320.054	34.88	8.17	43.05	54	-10.95	AVG

Remark:

Factor = Antenna Factor + Cable Loss – Pre-amplifier.

EUT :	Wireless speaker	Model Name	WBT026
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	Mode 2	Polarization :	Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
2440.010	90.94	-9.63	81.31	114	-32.69	peak
2440.010	86.18	-9.63	76.55	94	-17.45	AVG
4880.020	42.21	3.76	45.97	74	-28.03	peak
4880.020	36.79	3.76	40.55	54	-13.45	AVG
7320.030	40.63	8.17	48.8	74	-25.2	peak
7320.030	34.71	8.17	42.88	54	-11.12	AVG

Remark:

Factor = Antenna Factor + Cable Loss – Pre-amplifier.

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EUT :	Wireless speaker	Model Name	WBT026
Temperature :	20 °C	Relative Humiditytity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	Mode 3	Polarization :	Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
2480.021	90.12	-9.61	80.51	114	-33.49	peak
2480.021	88.21	-9.61	78.6	94	-15.4	AVG
4960.042	41.86	3.83	45.69	74	-28.31	peak
4960.042	36.63	3.83	40.46	54	-13.54	AVG
7440.063	40.42	8.21	48.63	74	-25.37	peak
7440.063	34.57	8.21	42.78	54	-11.22	AVG
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

EUT :	Wireless speaker	Model Name	WBT026
Temperature :	20 °C	Relative Humiditytity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	Mode 3	Polarization :	Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
2480.020	90.66	-9.61	81.05	114	-32.95	peak
2480.020	88.11	-9.61	78.5	94	-15.5	AVG
4960.040	41.78	3.83	45.61	74	-28.39	peak
4960.040	36.53	3.83	40.36	54	-13.64	AVG
7440.060	40.32	8.21	48.53	74	-25.47	peak
7440.060	34.51	8.21	42.72	54	-11.28	AVG
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Note: Other emission from 8G to 25 GHz are considered as ambient noise. No recording in the test report.

Factor=Antenna Factor + Cable loss - Amplifier gain, Margin=Measurement-Limit.

The “Factor” value can be calculated automatically by software of measurement system.

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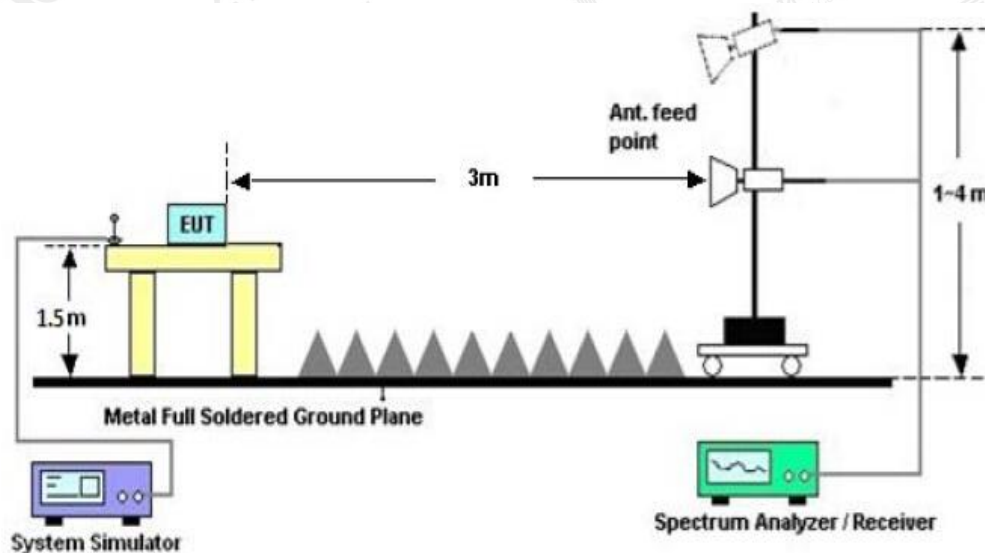
10. BAND EDGE EMISSION

10.1. MEASUREMENT PROCEDURE

1. The EUT operates at transmitting mode. The operate channel is tested to verify the largest transmission and spurious emissions power at the continuous transmission mode.
2. Set the spectrum analyzer in the following setting in order to capture the lower and upper band-edges of the emission: (a) PEAK: RBW=VBW=1MHz / Sweep=AUTO
(b) AVERAGE: RBW=1MHz ; VBW=1/on time(1KHz) / Sweep=AUTO
3. Other procedures refer to clause 7.2.

10.2 TEST SETUP

RADIATED EMISSION TEST SETUP



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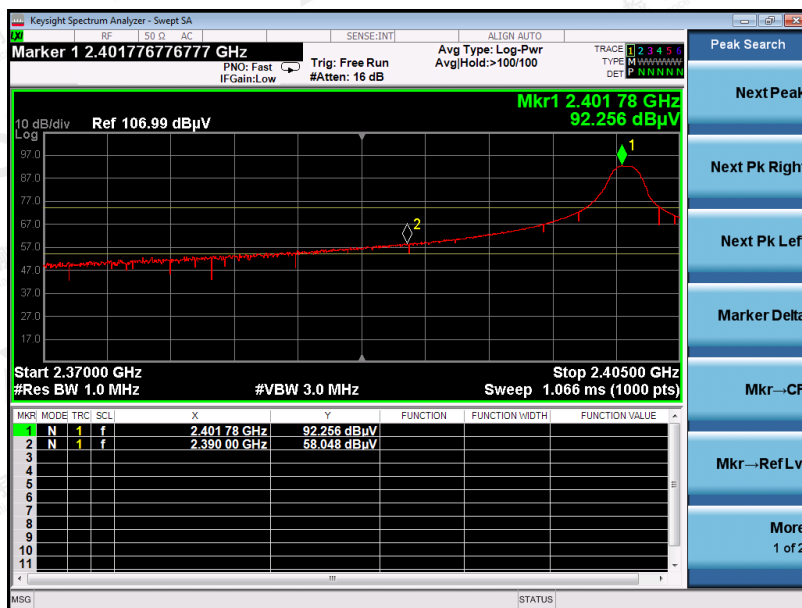
10.3 RADIATED TEST RESULT

(Worst modulation: GFSK)

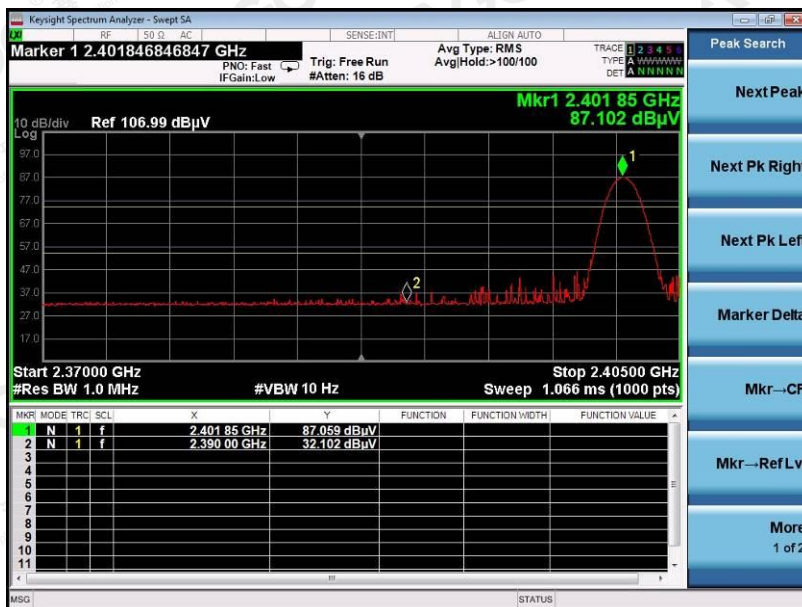
FOR BR/EDR

EUT :	Wireless speaker	Model Name	WBT026
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	Mode 1	Polarization :	Horizontal

PK Value



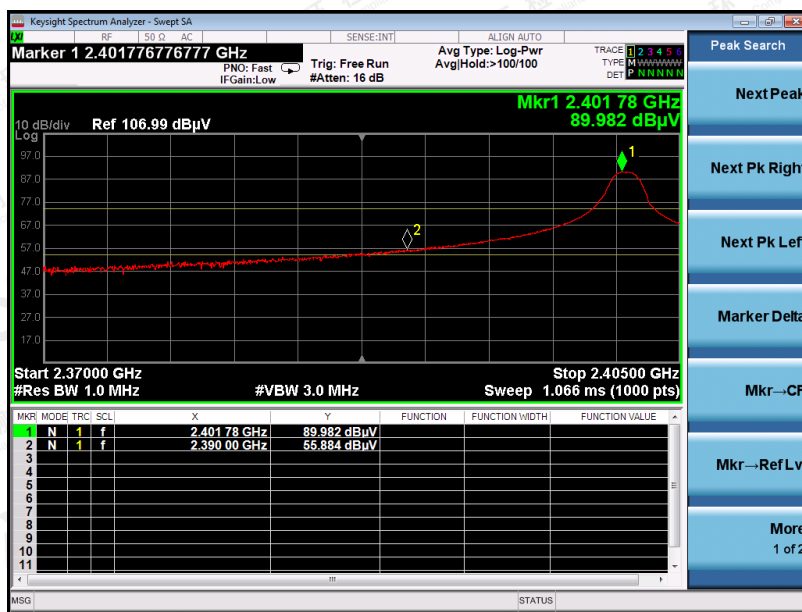
AV Value



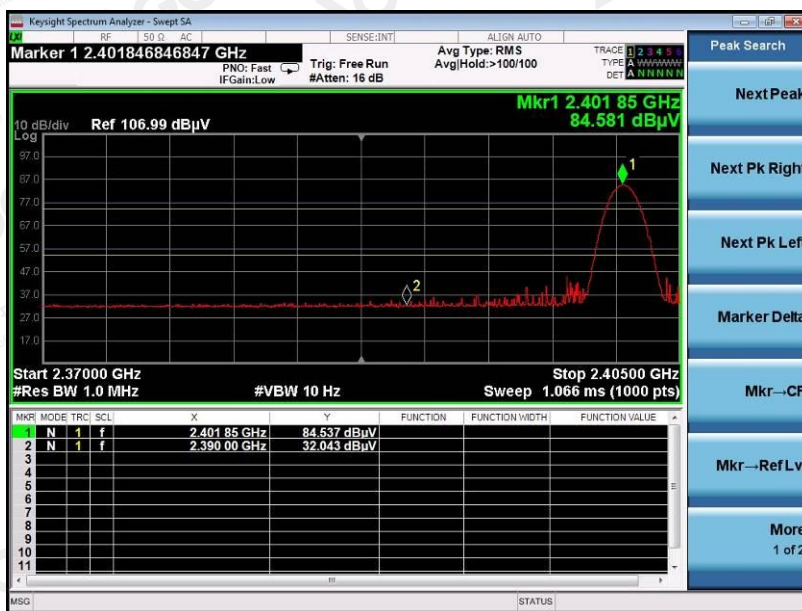
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EUT :	Wireless speaker	Model Name	WBT026
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	Mode 1	Polarization :	Vertical

PK Value



AV Value



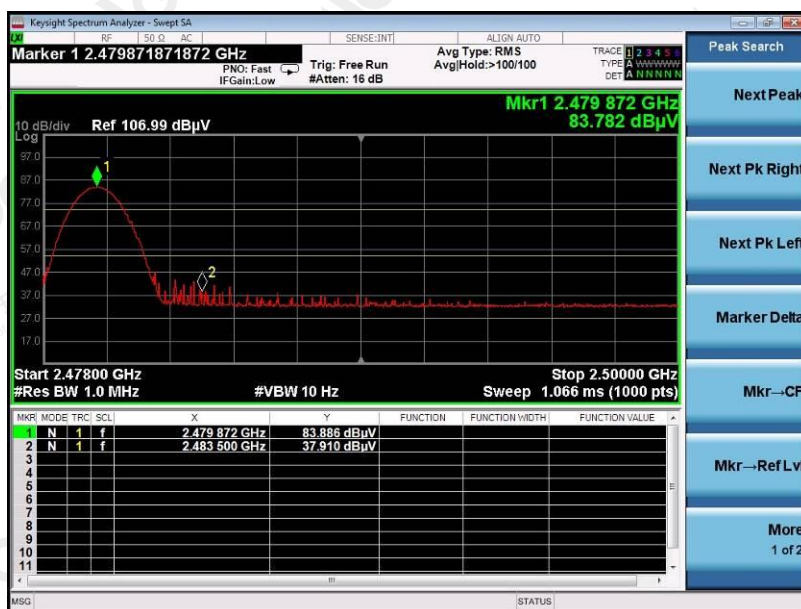
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EUT :	Wireless speaker	Model Name	WBT026
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	Mode 3	Polarization :	Horizontal

PK Value



AV Value



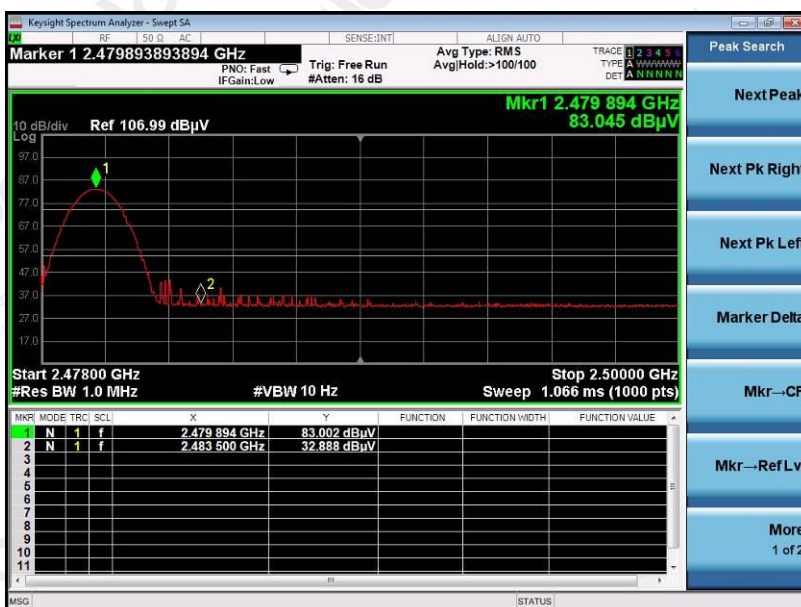
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EUT :	Wireless speaker	Model Name	WBT026
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	Mode 3	Polarization :	Vertical

PK Value



AV Value



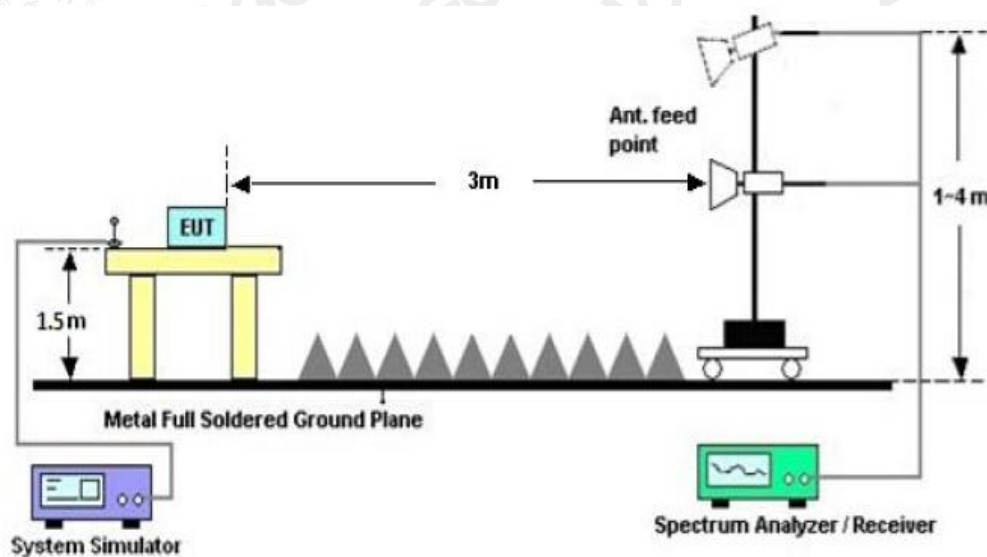
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11. 20DB BANDWIDTH

11.1. MEASUREMENT PROCEDURE

1. Set the EUT Work on the top, the middle and the bottom operation frequency individually.
2. Set Span = approximately 2 to 3 times the 20 dB bandwidth, centered on a hopping channel
RBW $\geq$ 1% of the 20 dB bandwidth, VBW $\geq$ 3RBW; Sweep = auto; Detector function = peak
3. Set SPA Trace 1 Max hold, then View.

11.2. TEST SET-UP



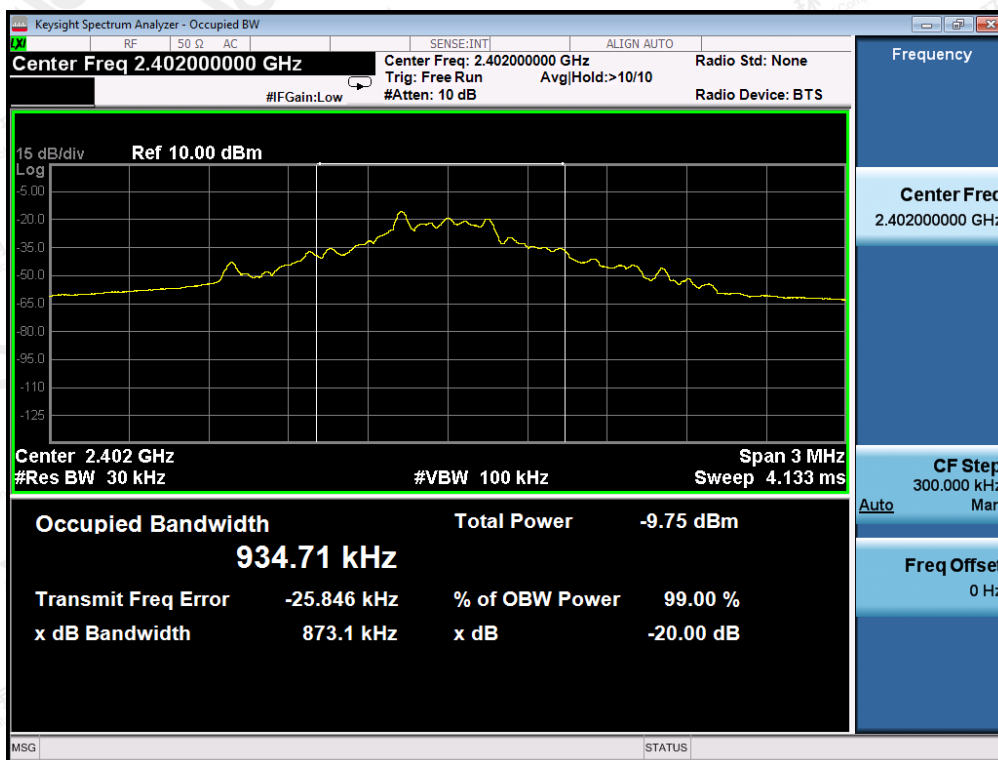
11.3. LIMITS AND MEASUREMENT RESULTS

TEST ITEM	20DB BANDWIDTH
TEST MODULATION	GFSK

channel	KHz	Criteria
Low Channel	873.1	PASS
Middle Channel	831.5	PASS
High Channel	827.8	PASS

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TEST PLOT OF BANDWIDTH FOR LOW CHANNEL



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TEST PLOT OF BANDWIDTH FOR MIDDLE CHANNEL



TEST PLOT OF BANDWIDTH FOR HIGH CHANNEL

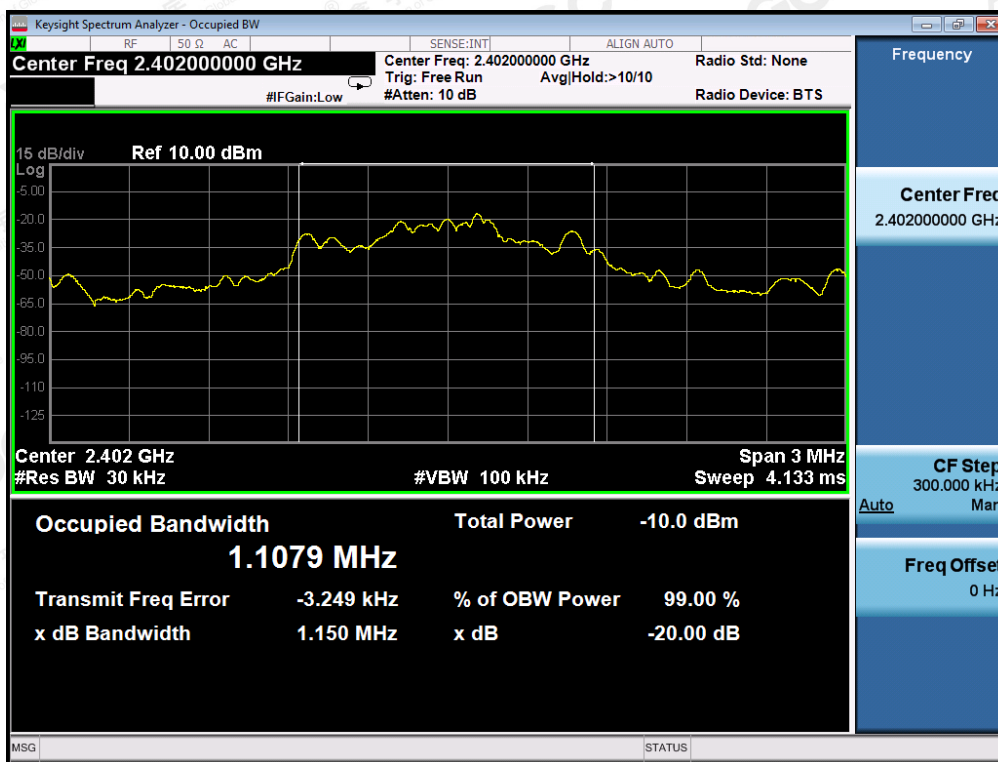


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TEST ITEM	20DB BANDWIDTH
TEST MODULATION	$\pi/4$ -DQPSK

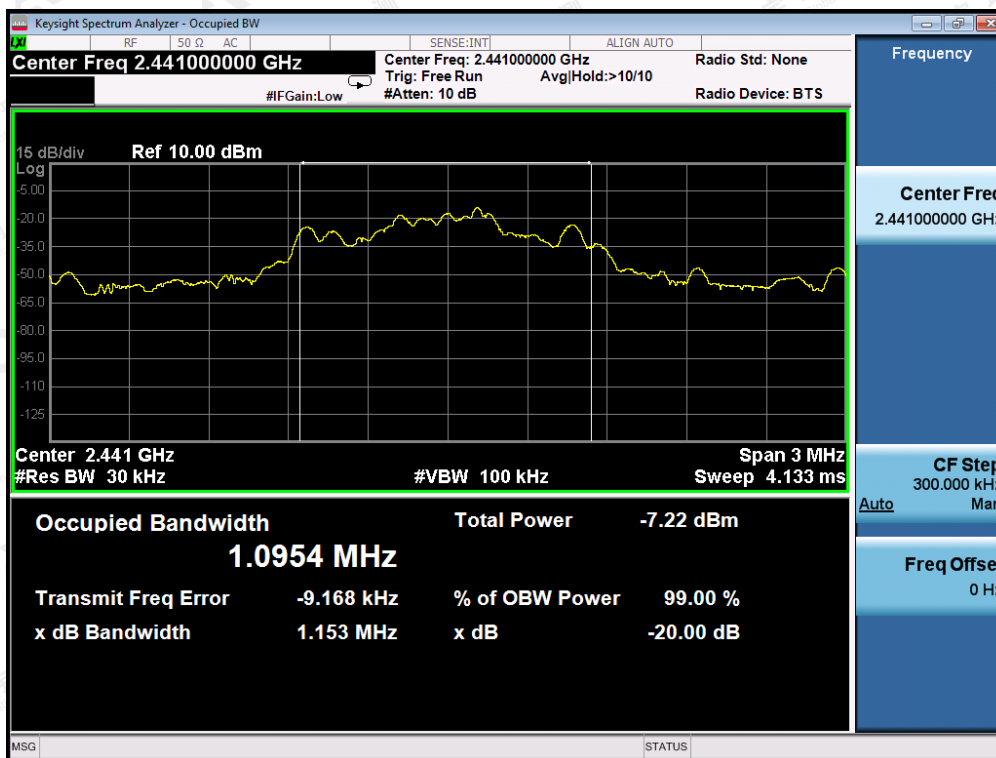
channel	MHz	Criteria
Low Channel	1.150	PASS
Middle Channel	1.153	PASS
High Channel	1.154	PASS

TEST PLOT OF BANDWIDTH FOR LOW CHANNEL

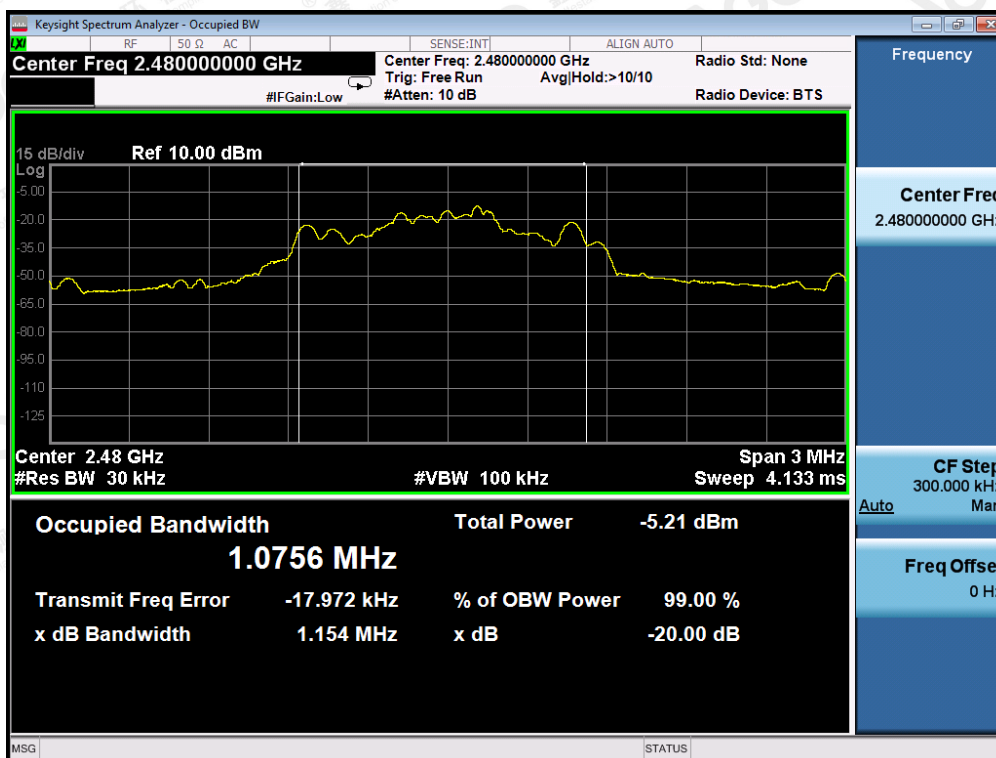


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TEST PLOT OF BANDWIDTH FOR MIDDLE CHANNEL



TEST PLOT OF BANDWIDTH FOR HIGH CHANNEL

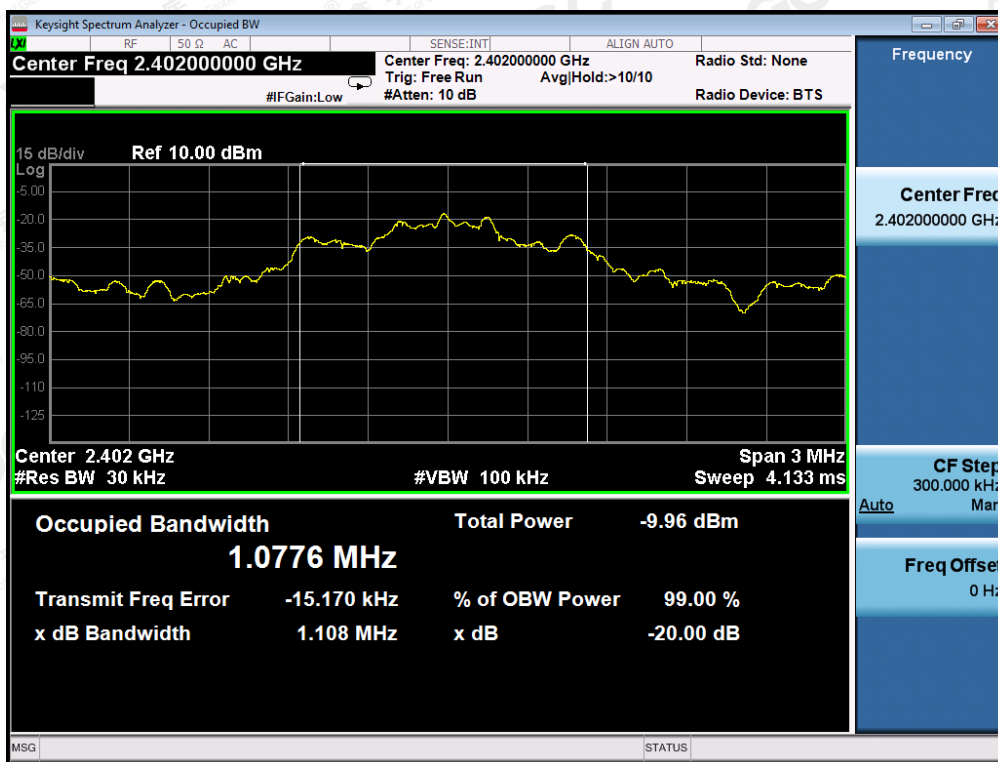


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TEST ITEM	20DB BANDWIDTH
TEST MODULATION	8-DPSK

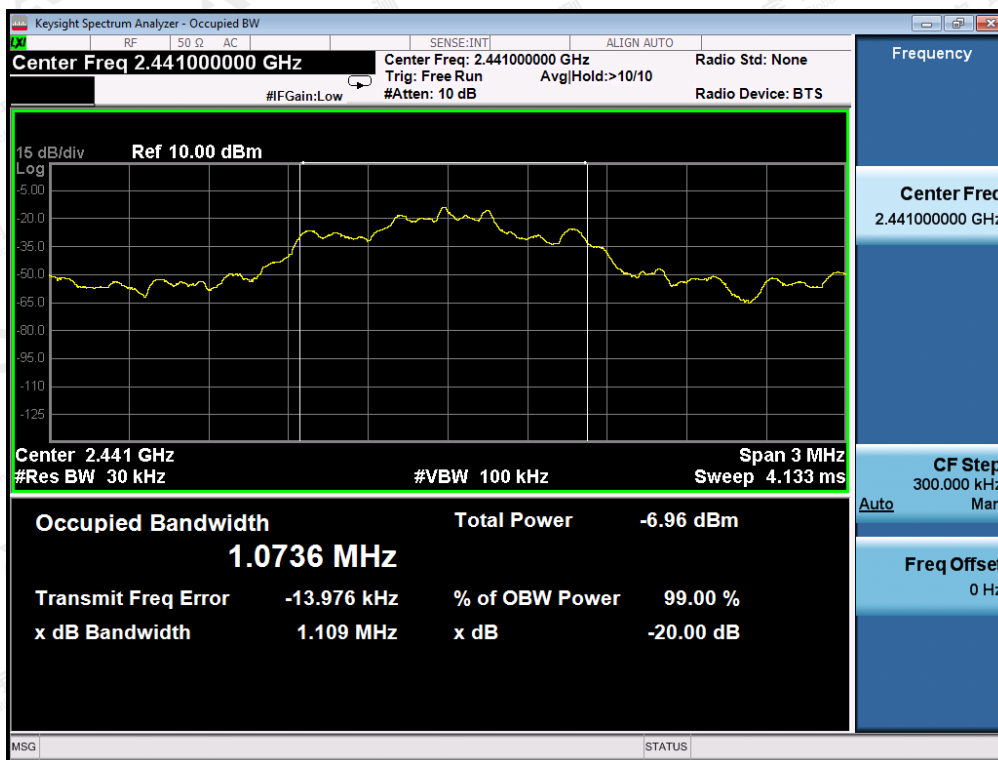
channel	MHz	Criteria
Low Channel	1.108	PASS
Middle Channel	1.109	PASS
High Channel	1.114	PASS

TEST PLOT OF BANDWIDTH FOR LOW CHANNEL

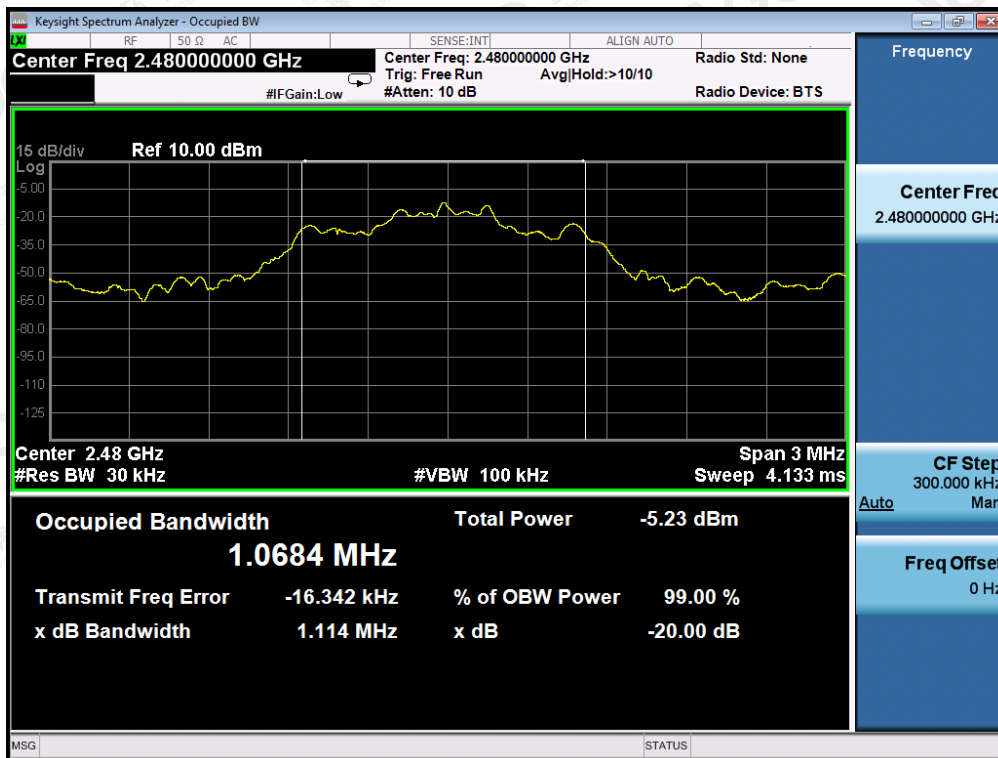


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TEST PLOT OF BANDWIDTH FOR MIDDLE CHANNEL



TEST PLOT OF BANDWIDTH FOR HIGH CHANNEL



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12. FCC LINE CONDUCTED EMISSION TEST

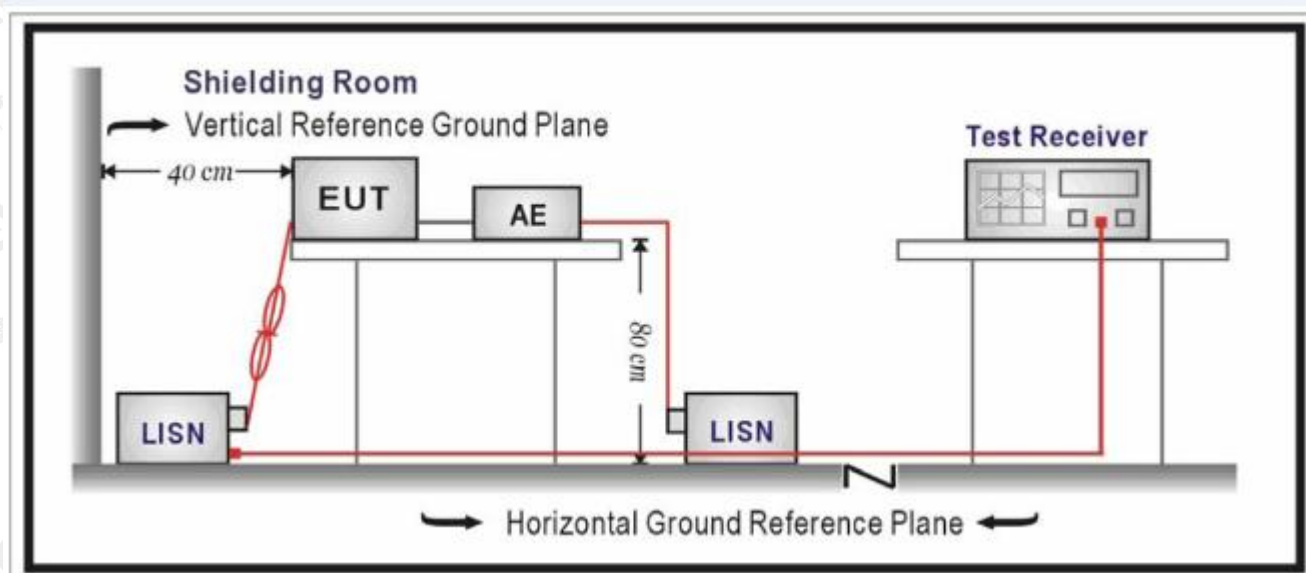
12.1. LIMITS OF LINE CONDUCTED EMISSION TEST

Frequency	Maximum RF Line Voltage	
	Q.P.(dBuV)	Average(dBuV)
150kHz~500kHz	66-56	56-46
500kHz~5MHz	56	46
5MHz~30MHz	60	50

Note:

1. The lower limit shall apply at the transition frequency.
2. The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz.

12.2. BLOCK DIAGRAM OF LINE CONDUCTED EMISSION TEST



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12.3. PRELIMINARY PROCEDURE OF LINE CONDUCTED EMISSION TEST

1. The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. When the EUT is a tabletop system, a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.10 (see Test Facility for the dimensions of the ground plane used). When the EUT is a floor-standing equipment, it is placed on the ground plane which has a 3-12 mm non-conductive covering to insulate the EUT from the ground plane.
2. Support equipment, if needed, was placed as per ANSI C63.10.
3. All I/O cables were positioned to simulate typical actual usage as per ANSI C63.10.
4. All support equipments received AC120V/60Hz power from a LISN, if any.
5. The EUT received DC charging voltage by adapter or PC which received 120V/60Hz power by a LISN.
6. The test program was started. Emissions were measured on each current carrying line of the EUT using a spectrum Analyzer / Receiver connected to the LISN powering the EUT. The LISN has two monitoring points: Line 1 (Hot Side) and Line 2 (Neutral Side). Two scans were taken: one with Line 1 connected to Analyzer / Receiver and Line 2 connected to a 50 ohm load; the second scan had Line 1 connected to a 50 ohm load and Line 2 connected to the Analyzer / Receiver.
7. Analyzer / Receiver scanned from 150 kHz to 30MHz for emissions in each of the test modes.
8. During the above scans, the emissions were maximized by cable manipulation.
9. The test mode(s) were scanned during the preliminary test.

Then, the EUT configuration and cable configuration of the above highest emission level were recorded for reference of final testing.

12.4. FINAL PROCEDURE OF LINE CONDUCTED EMISSION TEST

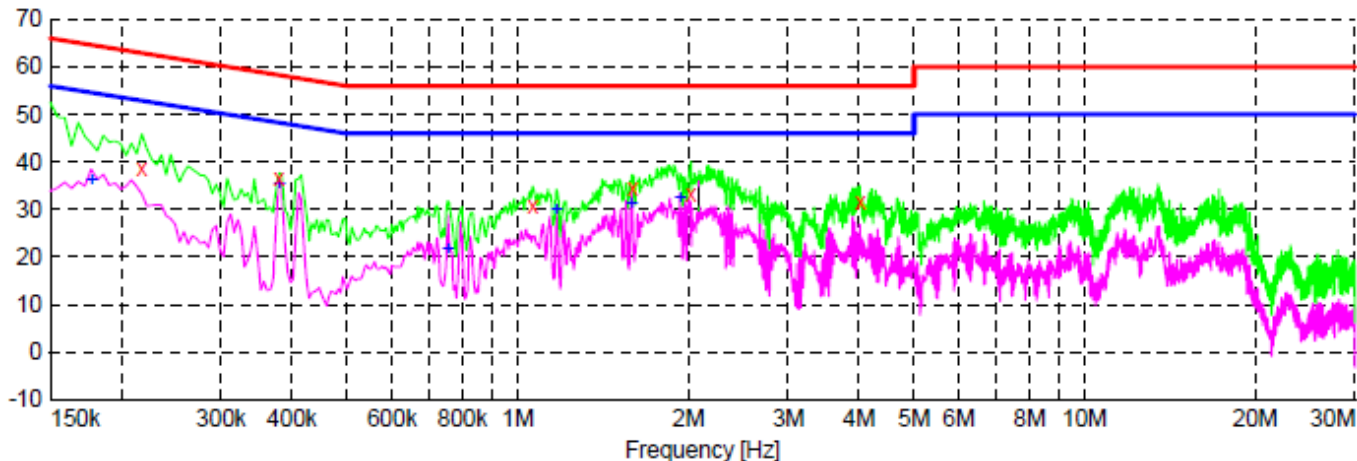
1. EUT and support equipment was set up on the test bench as per step 2 of the preliminary test.
2. A scan was taken on both power lines, Line 1 and Line 2, recording at least the six highest emissions. Emission frequency and amplitude were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit. If EUT emission level was less -2dB to the A.V. limit in Peak mode, then the emission signal was re-checked using Q.P and Average detector.
3. The test data of the worst case condition(s) was reported on the Summary Data page.

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12.5. TEST RESULT OF LINE CONDUCTED EMISSION TEST

By PC(worst case)

FOR BR/EDR LINE CONDUCTED EMISSION TEST-L

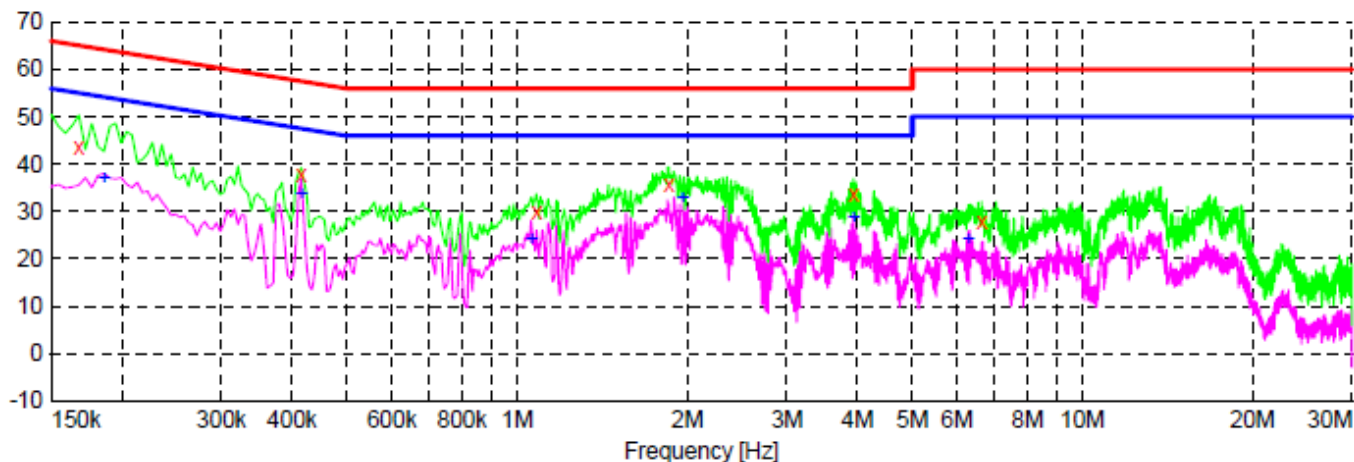


Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.217500	38.40	11.4	63	24.5	QP	L1	FLO
0.379500	36.50	11.3	58	21.8	QP	L1	FLO
1.063500	30.90	11.3	56	25.1	QP	L1	FLO
1.594500	34.60	11.3	56	21.4	QP	L1	FLO
2.022000	33.30	11.3	56	22.7	QP	L1	FLO
4.015500	31.40	11.4	56	24.6	QP	L1	FLO

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.177000	36.30	11.4	55	18.3	AV	L1	FLO
0.379500	35.40	11.3	48	12.9	AV	L1	FLO
0.753000	21.70	11.4	46	24.3	AV	L1	FLO
1.171500	29.80	11.3	46	16.2	AV	L1	FLO
1.590000	31.10	11.3	46	14.9	AV	L1	FLO
1.936500	32.30	11.3	46	13.7	AV	L1	FLO

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LINE CONDUCTED EMISSION TEST-N



Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.168000	43.70	11.4	65	21.4	QP	N	FLO
0.415500	37.90	11.4	58	19.6	QP	N	FLO
1.081500	30.10	11.3	56	25.9	QP	N	FLO
1.855500	35.60	11.3	56	20.4	QP	N	FLO
3.939000	33.80	11.4	56	22.2	QP	N	FLO
6.634500	27.70	11.2	60	32.3	QP	N	FLO

Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.186000	37.10	11.4	54	17.1	AV	N	FLO
0.415500	33.80	11.4	48	13.7	AV	N	FLO
1.059000	23.90	11.3	46	22.1	AV	N	FLO
1.968000	33.00	11.3	46	13.0	AV	N	FLO
3.939000	28.50	11.4	46	17.5	AV	N	FLO
6.288000	24.10	11.3	50	25.9	AV	N	FLO

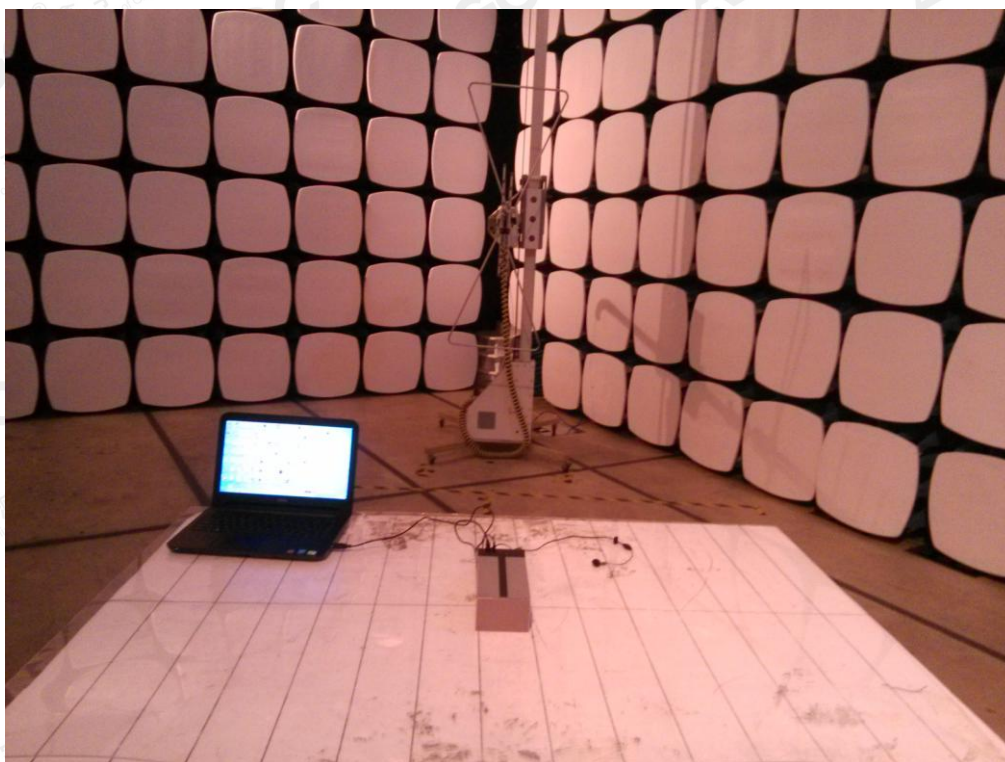
RESULT: PASS

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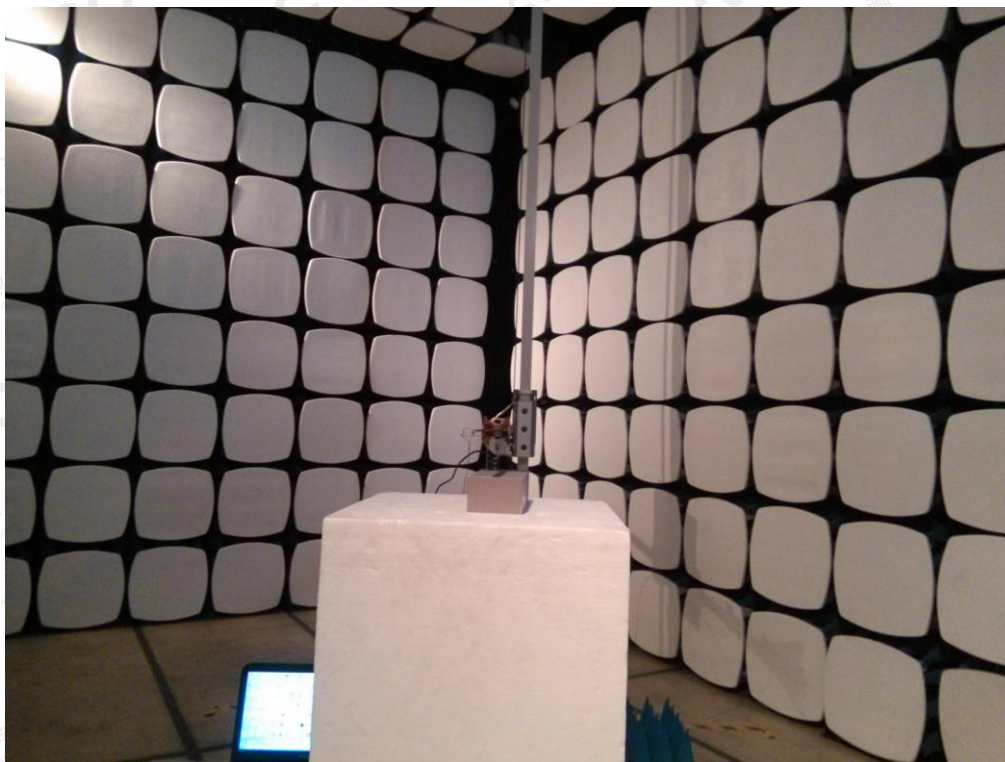
APPENDIX A: PHOTOGRAPHS OF TEST SETUP
FCC LINE CONDUCTED EMISSION TEST SETUP



FCC RADIATED EMISSION TEST SETUP



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-----END OF REPORT-----

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