

FCC Test Report

Report No.: AGC07308171201FE03

FCC ID : 2AJ8C-CM900
APPLICATION PURPOSE : Original Equipment
PRODUCT DESIGNATION : MULTIMEDIA NAVIGATION
BRAND NAME : BLAUPUNKT
MODEL NAME : Costa Mesa 900
CLIENT : BLAUPUNKT INDIA PVT LTD
DATE OF ISSUE : Feb. 27, 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	/	Feb. 27, 2018	Valid	Initial Release

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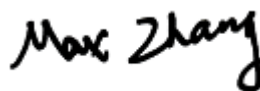
1. VERIFICATION OF CONFORMITY

Applicant	BLAUPUNKT INDIA PVT LTD
Address	47, Atlanta Society, Nariman Point, Mumbai 400 021. India, Mumbai, India
Manufacturer	Shenzhen Soling Industrial Co., Ltd.
Address	28/F, Block B, Dachong Business Center, Nanshan District, Shenzhen, Guangdong, China
Product Designation	MULTIMEDIA NAVIGATION
Brand Name	BLAUPUNKT
Test Model	Costa Mesa 900
Date of test	Jan. 02, 2018 to Feb. 27, 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)

Feb. 27, 2018

Reviewed By



Bart Xie(Xie Xiaobin)

Feb. 27, 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
Maximum field strength	91.46dBuV/m(AV)@3m
Bluetooth Version	V 2.1+EDR
Modulation	BR ☒ GFSK, EDR ☒ $\pi/4$ -DQPSK, ☒ 8DPSK BLE ☐ GFSK
Number of channels	79 for BR/EDR
Hardware Version	VER:A
Software Version	Android 6.0.1
Antenna Designation	PCB Antenna
Antenna Gain	1.0dBi
Power Supply	DC12V

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

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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

EQUIPMENT USED IN EUT SYSTEM

Device Type	Manufacturer	Model Name	Data Cable
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EQUIPMENT SUPPORT IN EUT SYSTEM

Device Type	Manufacturer	Model Name	S/N
Storage battery	MAINTENANCE-FREE	55D23L-MF	--

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	N/A

Note: N/A means the test item is not applicable.

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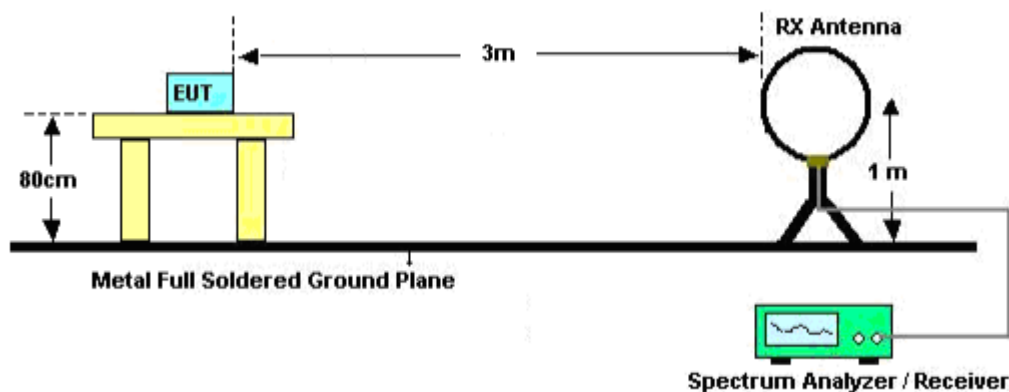
The following table is the setting of spectrum analyzer and receiver.

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 For fundamental signal RBW 2MHz/ VBW 6MHz for Peak, RBW 2M Hz/ VBW 10Hz for Average For harmonic signal RBW 1MHz/ VBW 3MHz for Peak, RBW 1MHz/ 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

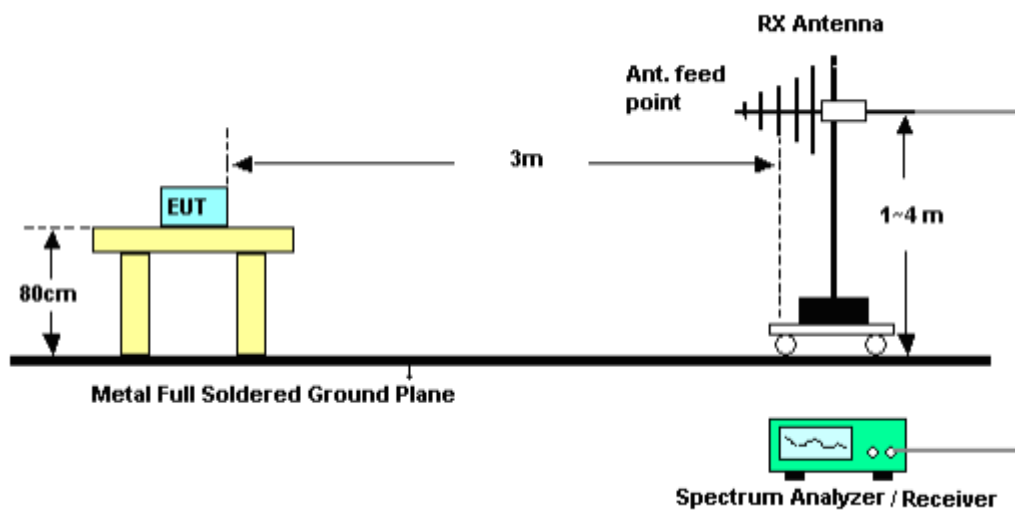
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9.3. TEST SETUP

Radiated Emission Test-Setup Frequency Below 30MHz

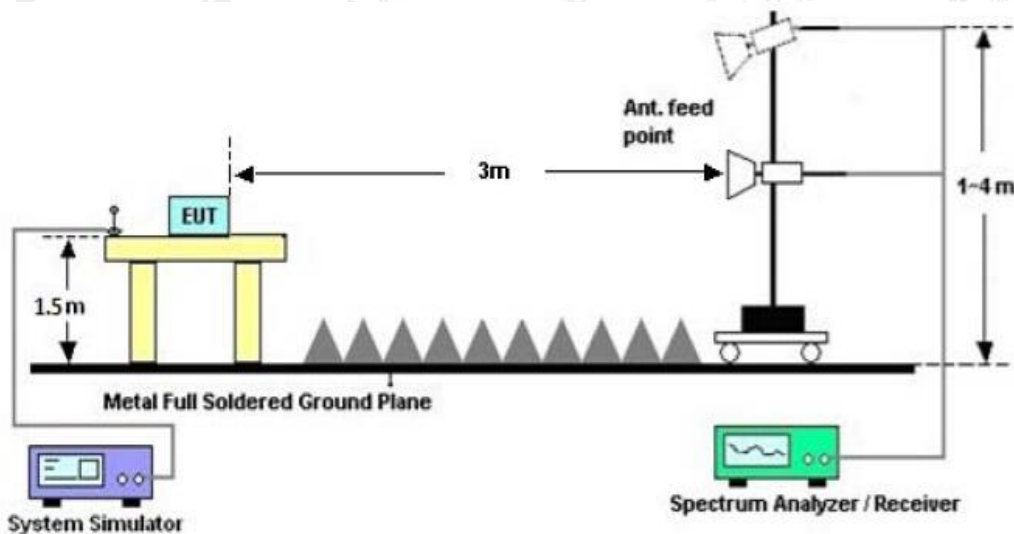


RADIATED EMISSION TEST SETUP 30MHz-1000MHz



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RADIATED EMISSION TEST SETUP ABOVE 1000MHz



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9.4. TEST RESULT

(Worst modulation: GFSK)

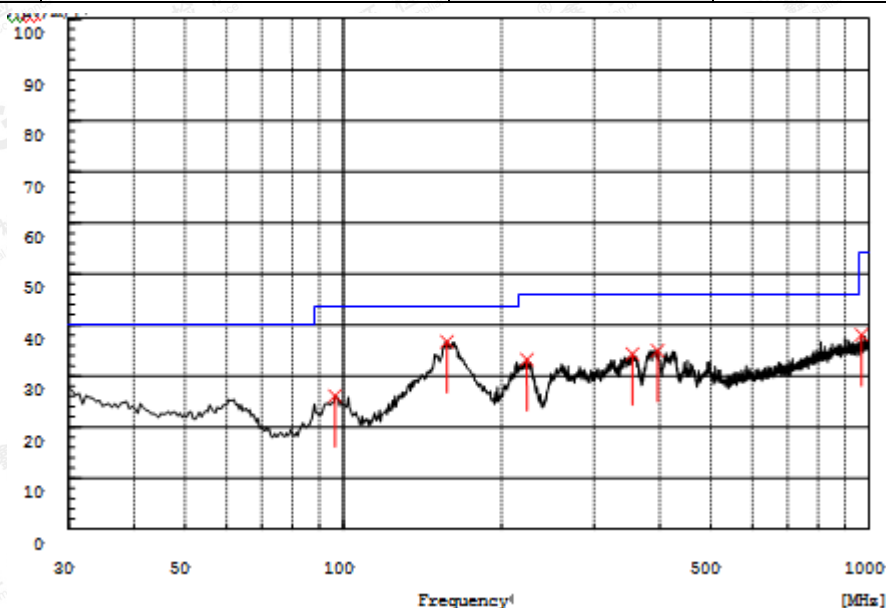
FOR BR/EDR

RADIATED EMISSION BELOW 30MHZ

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

RADIATED EMISSION 30MHZ- 1GHZ

EUT :	MULTIMEDIA NAVIGATION	Model Name	Costa Mesa 900
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 12V
Test Mode :	Mode 1	Polarization :	Horizontal

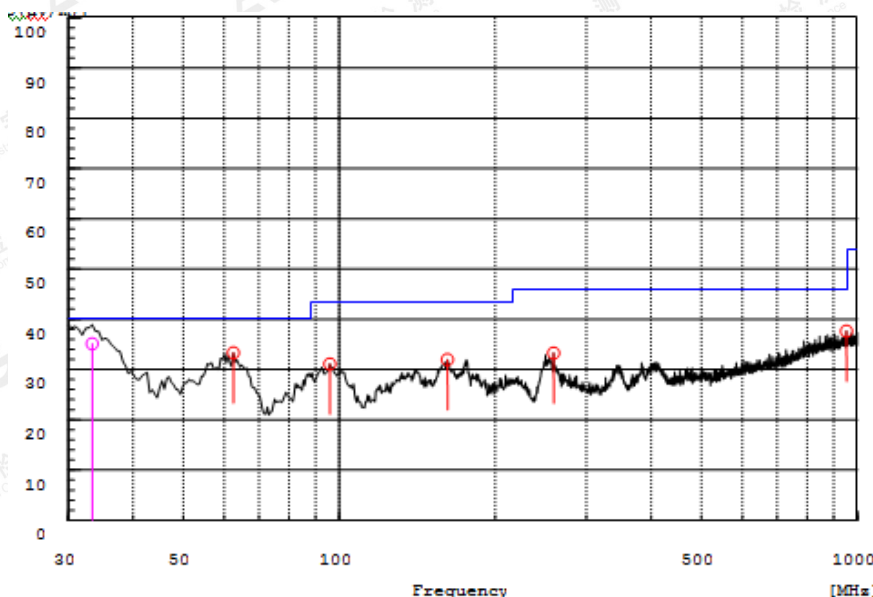


Frequency, MHz	Polarization	Reading, dB(uV)	Factor, dB, (1/m)	Level, dB(uV/m), PK	Limit, dB(uV/m), QP	Margin, dB	Pass/Fail	Height, cm	Angle, deg
96.445	H	13.2	12.9	26.1	43.5	17.4	Pass	200.0	251.4
157.555	H	20.1	16.6	36.7	43.5	6.8	Pass	200.0	34.2
223.515	H	18.1	15.1	33.2	46.0	12.8	Pass	100.0	322.1
354.950	H	15.2	19.1	34.3	46.0	11.7	Pass	100.0	133.9
396.175	H	14.3	20.7	35.0	46.0	11.0	Pass	100.0	167.9
967.505	H	7.2	30.8	38.0	54.0	16.0	Pass	100.0	240.4

RESULT: PASS

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EUT :	MULTIMEDIA NAVIGATION	Model Name	Costa Mesa 900
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 12V
Test Mode :	Mode 1	Polarization :	Vertical



Frequency, MHz	Polarization	Reading, dB(uV)	Factor, dB, (1/m)	Level, dB(uV/m), PK	Limit, dB(uV/m), QP	Margin, dB	Pass/Fail	Height, cm	Angle, deg
62.495	V	17.4	15.9	33.3	40.0	6.7	Pass	100.0	18.4
95.960	V	18.3	12.8	31.1	43.5	12.4	Pass	150.0	163.9
161.920	V	15.3	16.6	31.9	43.5	11.6	Pass	150.0	340.2
259.405	V	17.3	15.9	33.2	46.0	12.8	Pass	100.0	9.7
952.955	V	6.9	30.7	37.6	46.0	8.4	Pass	150.0	332.5

Frequency, MHz	Polarization	Reading, dB(uV), QP	Factor, dB, (1/m)	Level, dB(uV/m), QP	Limit, dB(uV/m), QP	Margin, dB	Pass/Fail	Height, cm	Angle, deg
33.395	V	19.2	15.9	35.1	40.0	4.9	Pass	100.0	27.1

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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FIELD STRENGTH OF FUNDAMENTAL FOR BR/EDR

EUT :	MULTIMEDIA NAVIGATION	Model Name. :	COSTA MESA 900
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC12V
Test Modulation :	GFSK	Polarization :	Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
2402.013	103.59	-9.37	94.22	114	-19.78	peak
2402.013	100.29	-9.37	90.92	94	-3.08	AVG
2441.016	102.78	-9.63	93.15	114	-20.85	peak
2441.016	99.23	-9.63	89.6	94	-4.4	AVG
2480.021	102.36	-9.61	92.75	114	-21.25	peak
2480.021	98.45	-9.61	88.84	94	-5.16	AVG

Remark:

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

EUT :	MULTIMEDIA NAVIGATION	Model Name. :	COSTA MESA 900
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC12V
Test Modulation :	GFSK	Polarization :	Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
2402.013	103.45	-9.37	94.08	114	-19.92	peak
2402.013	100.41	-9.37	91.04	94	-2.96	AVG
2441.016	102.49	-9.63	92.86	114	-21.14	peak
2441.016	99.33	-9.63	89.7	94	-4.3	AVG
2480.021	102.74	-9.61	93.13	114	-20.87	peak
2480.021	98.36	-9.61	88.75	94	-5.25	AVG

Remark:

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

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EUT :	MULTIMEDIA NAVIGATION	Model Name. :	COSTA MESA 900
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC12V
Test Modulation :	$\pi/4$ -DQPSK	Polarization :	Horizontal

Frequency (MHz)	Meter Reading (dB μ V)	Factor (dB)	Emission Level (dB μ V/m)	Limits (dB μ V/m)	Margin (dB)	Value Type
2402.008	102.87	-9.37	93.5	114	-20.5	peak
2402.008	100.26	-9.37	90.89	94	-3.11	AVG
2441.011	102.84	-9.63	93.21	114	-20.79	peak
2441.011	99.65	-9.63	90.02	94	-3.98	AVG
2480.014	102.15	-9.61	92.54	114	-21.46	peak
2480.014	98.55	-9.61	88.94	94	-5.06	AVG
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

EUT :	MULTIMEDIA NAVIGATION	Model Name. :	COSTA MESA 900
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC12V
Test Modulation :	$\pi/4$ -DQPSK	Polarization :	Vertical

Frequency (MHz)	Meter Reading (dB μ V)	Factor (dB)	Emission Level (dB μ V/m)	Limits (dB μ V/m)	Margin (dB)	Value Type
2402.009	103.21	-9.37	93.84	114	-20.16	peak
2402.009	100.33	-9.37	90.96	94	-3.04	AVG
2441.010	102.19	-9.63	92.56	114	-21.44	peak
2441.010	99.2	-9.63	89.57	94	-4.43	AVG
2480.014	102.41	-9.61	92.8	114	-21.2	peak
2480.014	97.48	-9.61	87.87	94	-6.13	AVG
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

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EUT :	MULTIMEDIA NAVIGATION	Model Name. :	COSTA MESA 900
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC12V
Test Modulation :	8DPSK	Polarization :	Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
2402.007	103.24	-9.37	93.87	114	-20.13	peak
2402.007	100.83	-9.37	91.46	94	-2.54	AVG
2441.015	102.44	-9.63	92.81	114	-21.19	peak
2441.015	98.45	-9.63	88.82	94	-5.18	AVG
2480.014	102.63	-9.61	93.02	114	-20.98	peak
2480.014	96.38	-9.61	86.77	94	-7.23	AVG

Remark:

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

EUT :	MULTIMEDIA NAVIGATION	Model Name. :	COSTA MESA 900
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC12V
Test Modulation :	8DPSK	Polarization :	Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
2402.008	102.98	-9.37	93.61	114	-20.39	peak
2402.008	100.33	-9.37	90.96	94	-3.04	AVG
2441.011	102.21	-9.63	92.58	114	-21.42	peak
2441.011	98.15	-9.63	88.52	94	-5.48	AVG
2480.004	102.45	-9.61	92.84	114	-21.16	peak
2480.004	97.22	-9.61	87.61	94	-6.39	AVG

Remark:

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

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RADIATED EMISSION ABOVE 1GHZ

EUT :	MULTIMEDIA NAVIGATION	Model Name	Costa Mesa 900
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 12V
Test Mode :	Mode 1	Polarization :	Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
4804.120	57.48	3.74	61.22	74	-12.78	peak
4804.120	44.64	3.74	48.38	54	-5.62	AVG
7206.180	49.39	8.14	57.53	74	-16.47	peak
7206.180	37.74	8.14	45.88	54	-8.12	AVG
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

EUT :	MULTIMEDIA NAVIGATION	Model Name	Costa Mesa 900
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 12V
Test Mode :	Mode 1	Polarization :	Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
4804.014	56.48	3.74	60.22	74	-13.78	peak
4804.014	44.69	3.74	48.43	54	-5.57	AVG
7206.021	48.62	8.14	56.76	74	-17.24	peak
7206.021	36.25	8.14	44.39	54	-9.61	AVG
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

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EUT :	MULTIMEDIA NAVIGATION	Model Name	Costa Mesa 900
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 12V
Test Mode :	Mode 2	Polarization :	Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
4882.010	56.63	3.76	60.39	74	-13.61	peak
4882.010	43.65	3.76	47.41	54	-6.59	AVG
7323.015	48.52	8.17	56.69	74	-17.31	peak
7323.015	37.58	8.17	45.75	54	-8.25	AVG
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

EUT :	MULTIMEDIA NAVIGATION	Model Name	Costa Mesa 900
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 12V
Test Mode :	Mode 2	Polarization :	Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
4882.012	56.25	3.76	60.01	74	-13.99	peak
4882.012	44.67	3.76	48.43	54	-5.57	AVG
7323.018	49.37	8.17	57.54	74	-16.46	peak
7323.018	37.53	8.17	45.7	54	-8.3	AVG
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

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EUT :	MULTIMEDIA NAVIGATION	Model Name	Costa Mesa 900
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 12V
Test Mode :	Mode 3	Polarization :	Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
4960.018	55.84	3.83	59.67	74	-14.33	peak
4960.018	43.74	3.83	47.57	54	-6.43	AVG
7440.027	48.61	8.21	56.82	74	-17.18	peak
7440.027	36.26	8.21	44.47	54	-9.53	AVG
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

EUT :	MULTIMEDIA NAVIGATION	Model Name	Costa Mesa 900
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 12V
Test Mode :	Mode 3	Polarization :	Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
4960.012	55.29	3.83	59.12	74	-14.88	peak
4960.012	43.28	3.83	47.11	54	-6.89	AVG
7440.018	48.54	8.21	56.75	74	-17.25	peak
7440.018	36.71	8.21	44.92	54	-9.08	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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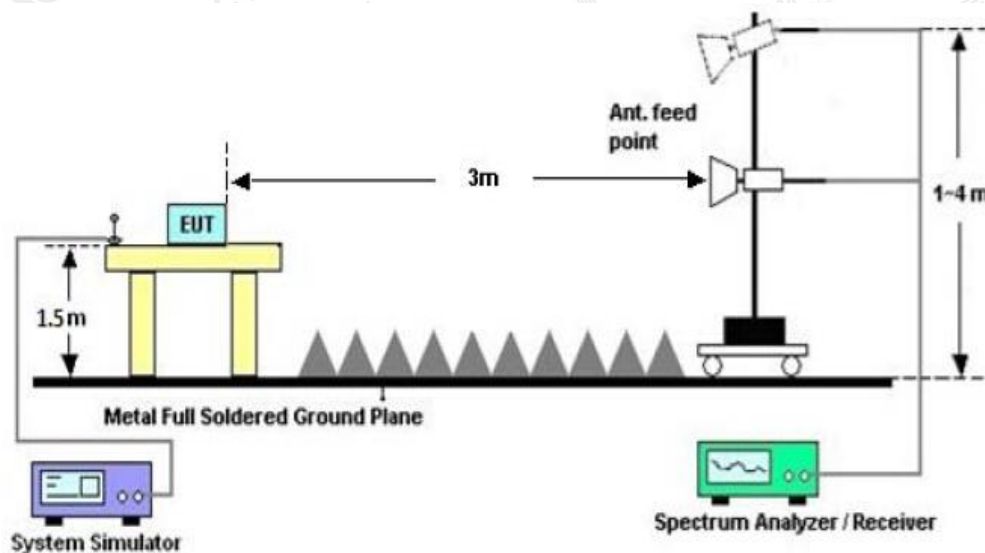
10. BAND EDGE EMISSION

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=1MHz, VBW=3MHz / 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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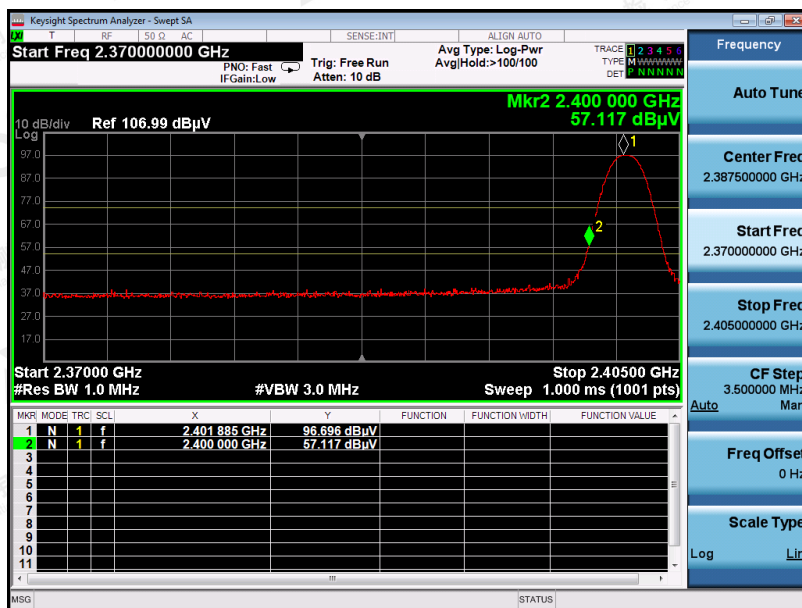
10.3 RADIATED TEST RESULT

(Worst modulation: GFSK)

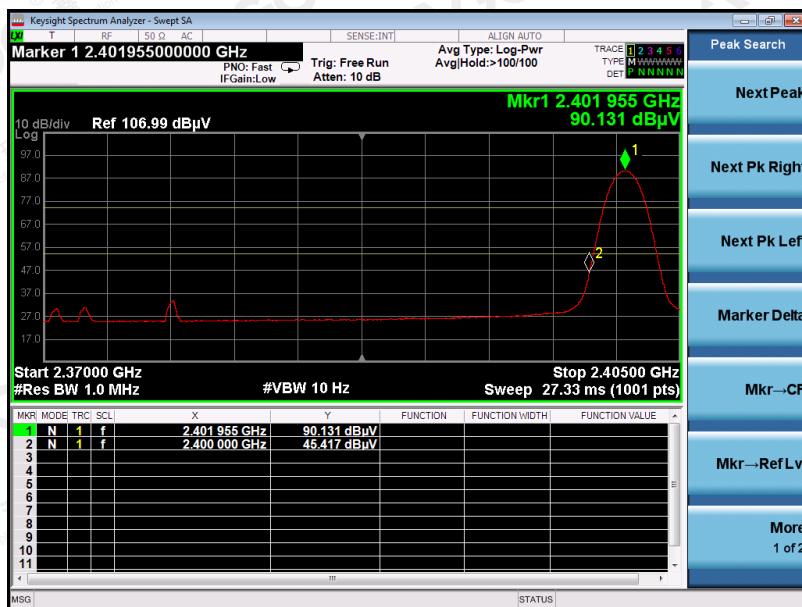
FOR BR/EDR

EUT :	MULTIMEDIA NAVIGATION	Model Name	Costa Mesa 900
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 12V
Test Mode :	Mode 1	Polarization :	Horizontal

PK Value



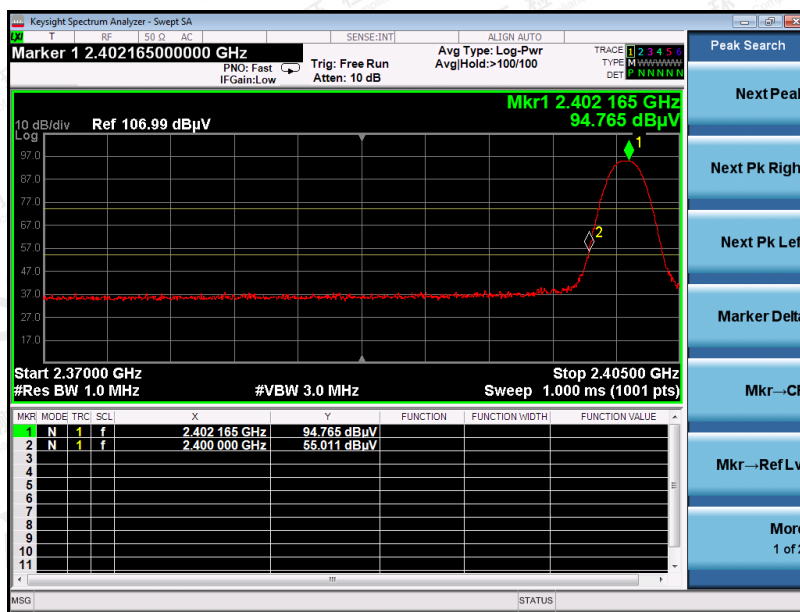
AV Value



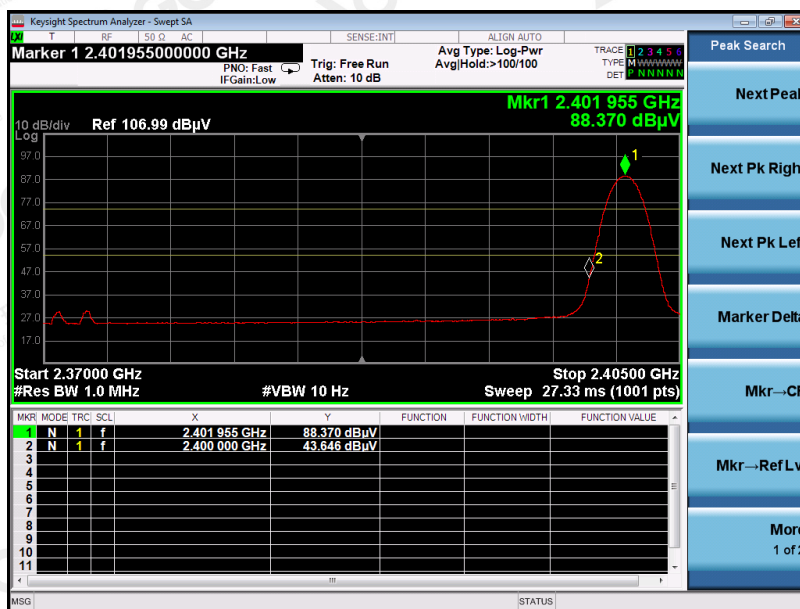
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EUT :	MULTIMEDIA NAVIGATION	Model Name	Costa Mesa 900
Temperature :	20 °C	Relative Humidityt :	48%
Pressure :	1010 hPa	Test Voltage :	DC 12V
Test Mode :	Mode 1	Polarization :	Vertical

PK Value



AV Value



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EUT :	MULTIMEDIA NAVIGATION	Model Name	Costa Mesa 900
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 12V
Test Mode :	Mode 3	Polarization :	Horizontal

PK Value



AV Value



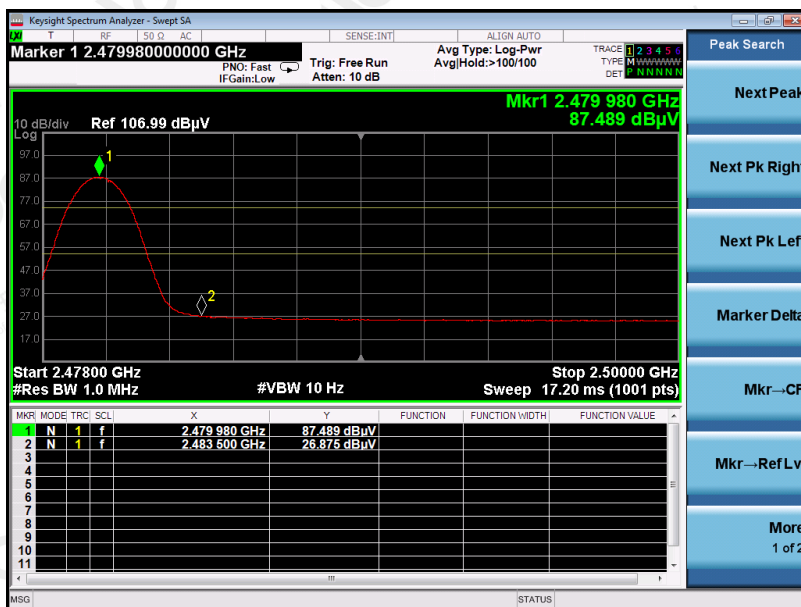
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EUT :	MULTIMEDIA NAVIGATION	Model Name	Costa Mesa 900
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 12V
Test Mode :	Mode 3	Polarization :	Vertical

PK Value



AV Value



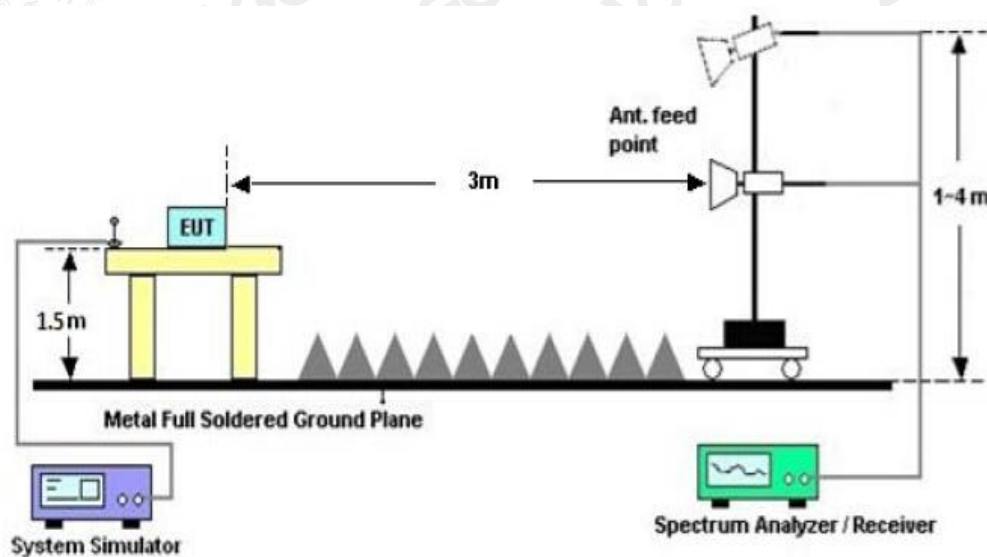
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11. 20DB BANDWIDTH

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



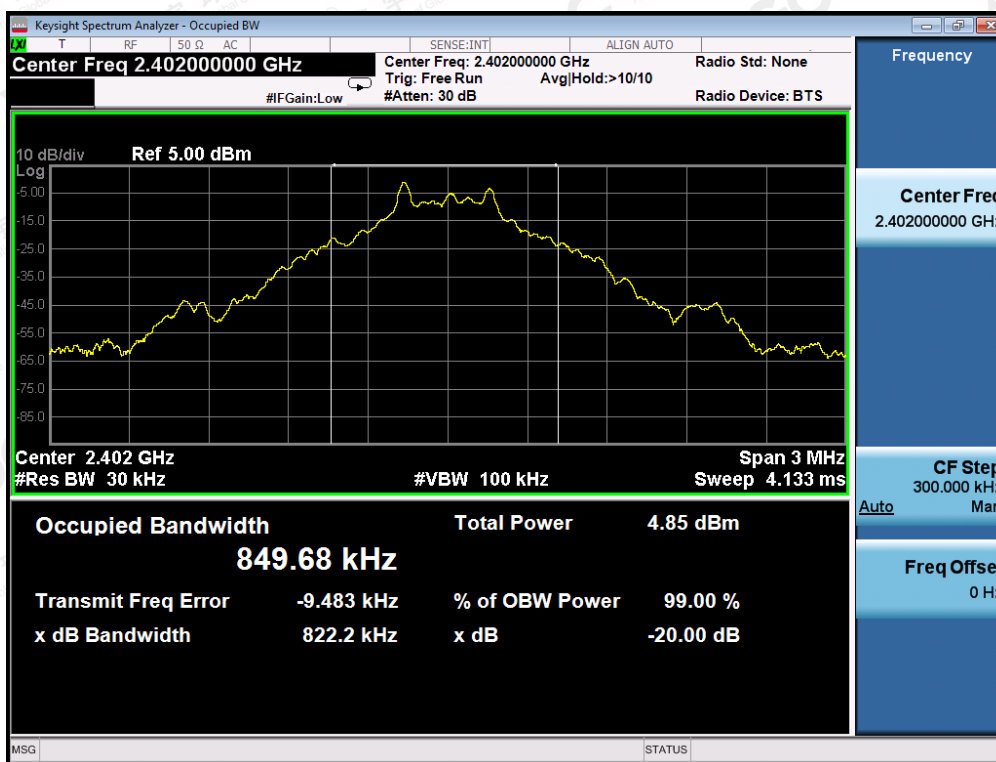
The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by AGC, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at <http://www.agc-cert.com>.

11.3. LIMITS AND MEASUREMENT RESULTS

TEST ITEM	20DB BANDWIDTH
TEST MODULATION	GFSK

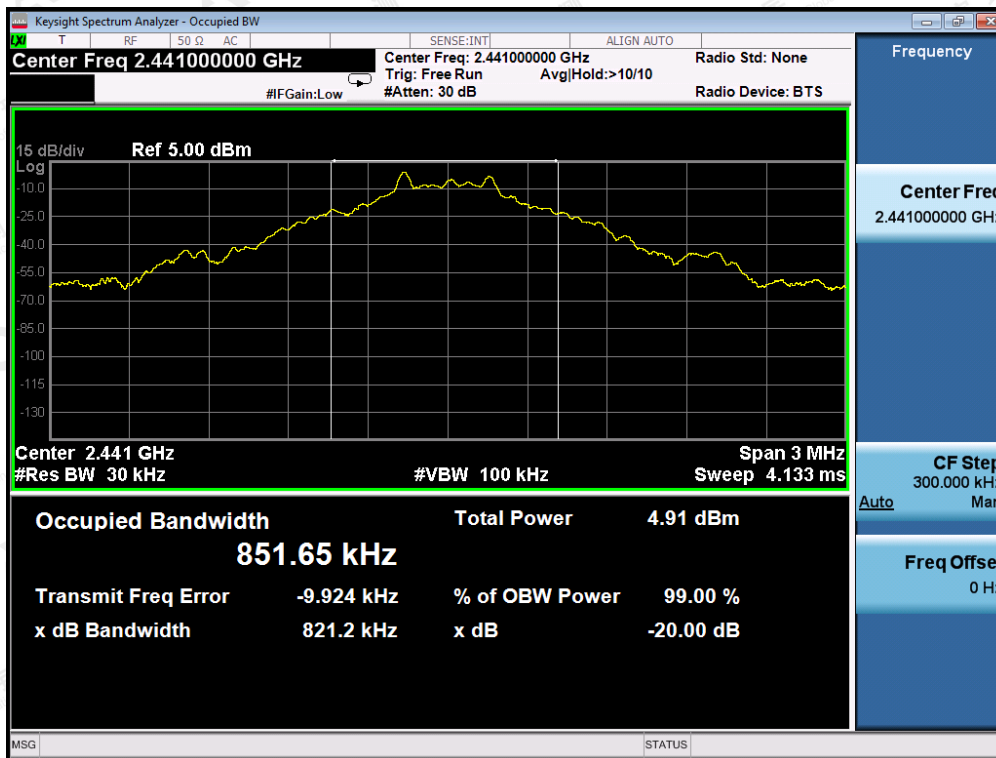
channel	MHz	Criteria
Low Channel	0.8222	PASS
Middle Channel	0.8212	PASS
High Channel	0.7360	PASS

TEST PLOT OF BANDWIDTH FOR LOW CHANNEL

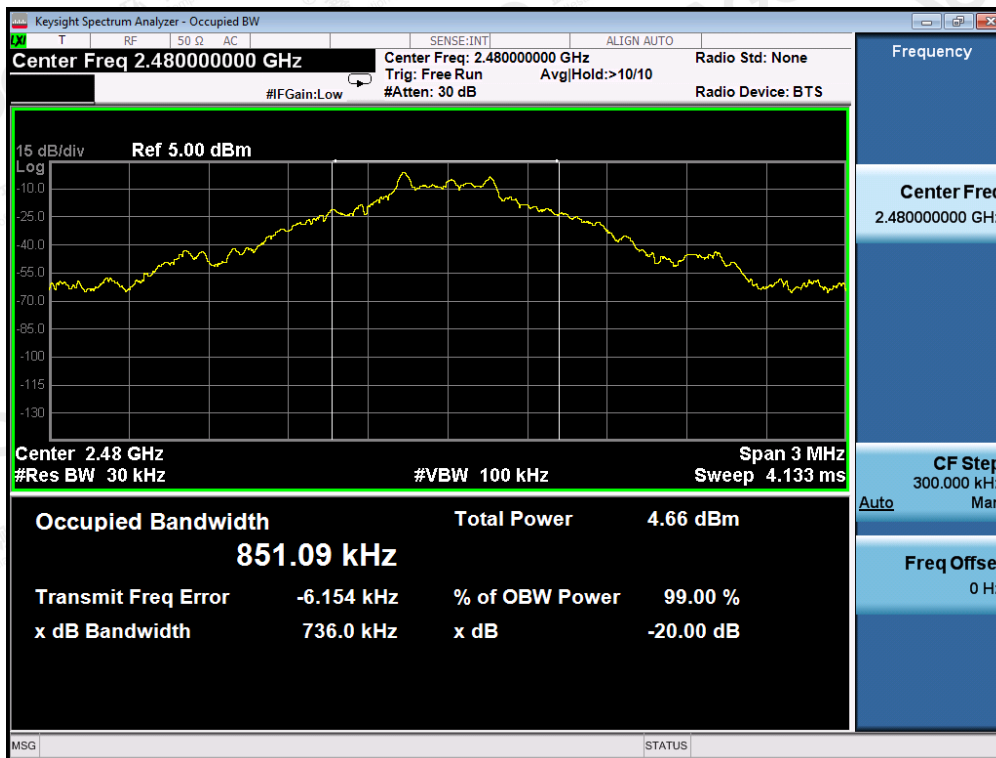


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TEST PLOT OF BANDWIDTH FOR MIDDLE CHANNEL



TEST PLOT OF BANDWIDTH FOR HIGH CHANNEL

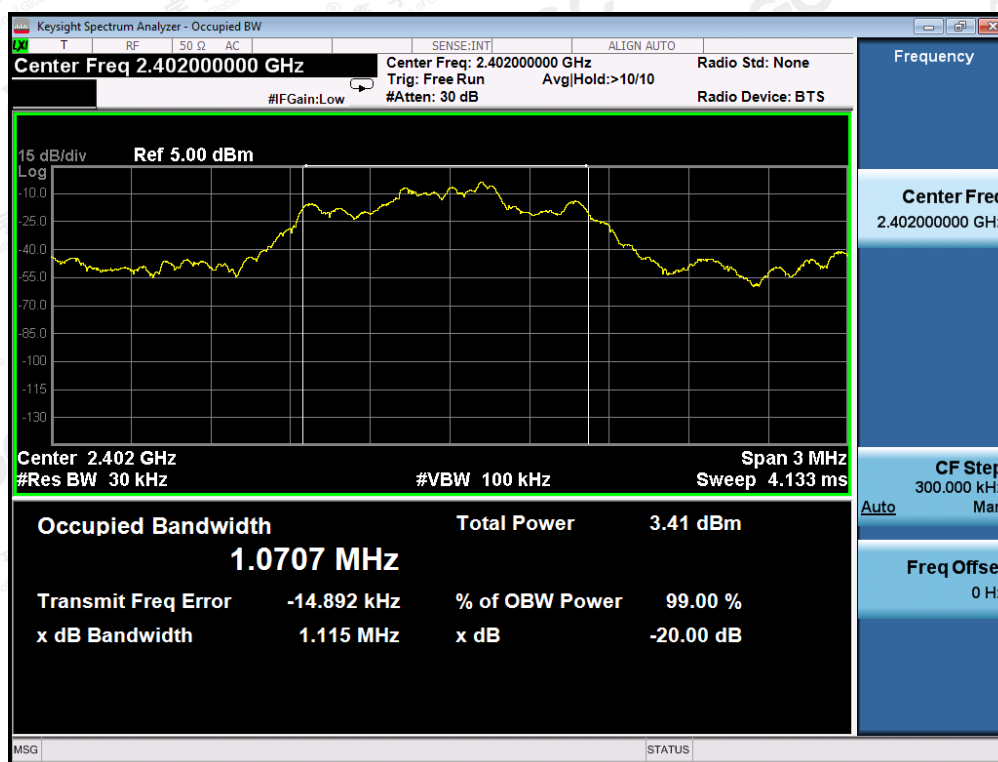


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TEST ITEM	20DB BANDWIDTH
TEST MODULATION	$\pi/4$ -DQPSK

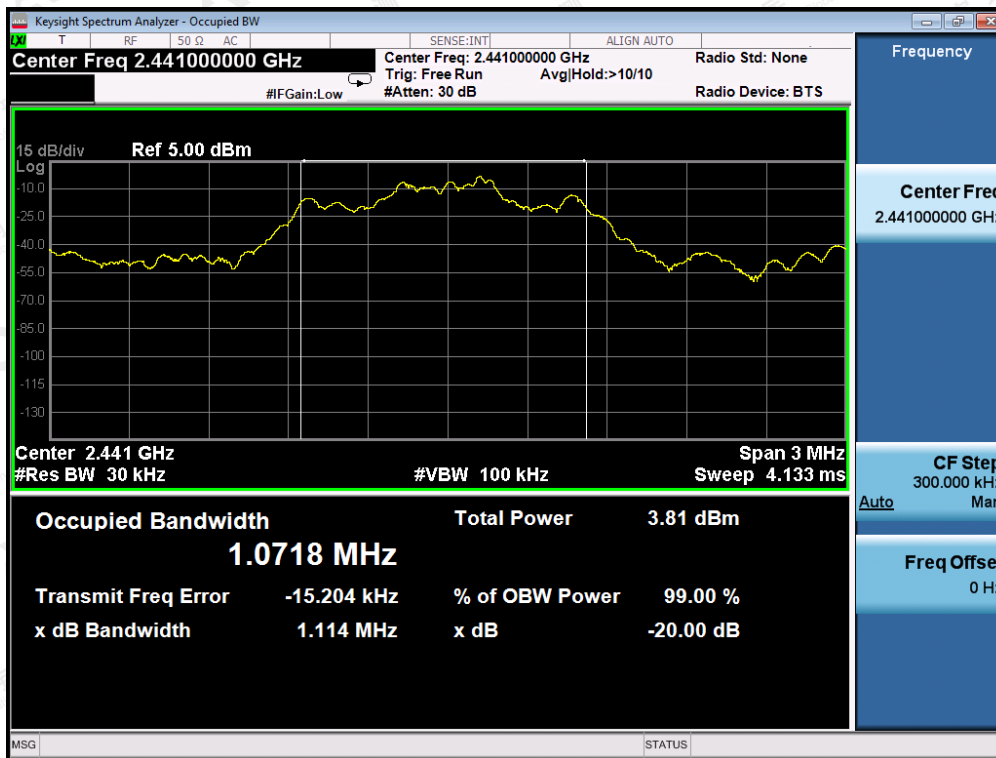
channel	MHz	Criteria
Low Channel	1.115	PASS
Middle Channel	1.114	PASS
High Channel	1.111	PASS

TEST PLOT OF BANDWIDTH FOR LOW CHANNEL

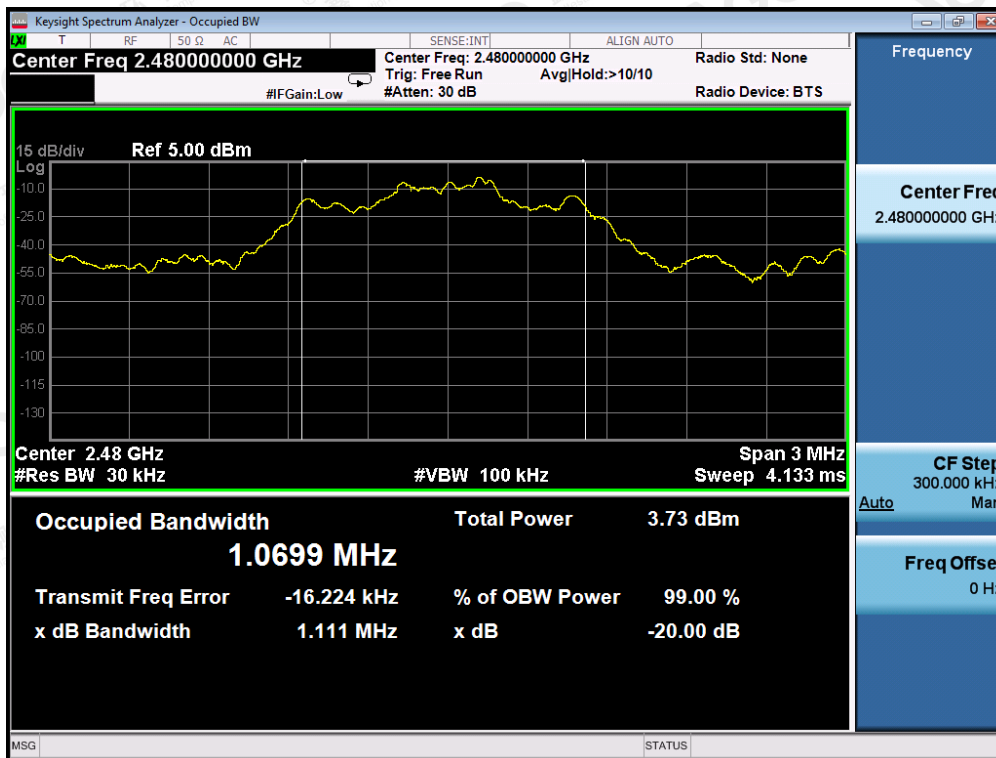


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TEST PLOT OF BANDWIDTH FOR MIDDLE CHANNEL



TEST PLOT OF BANDWIDTH FOR HIGH CHANNEL

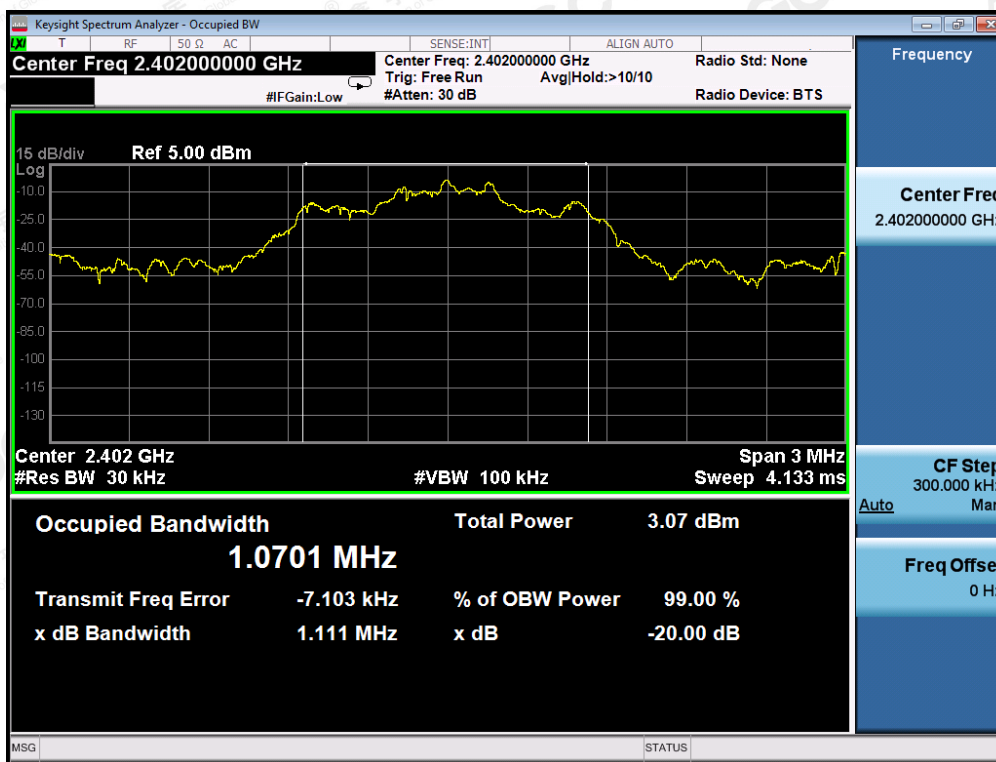


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TEST ITEM	20DB BANDWIDTH
TEST MODULATION	8-DPSK

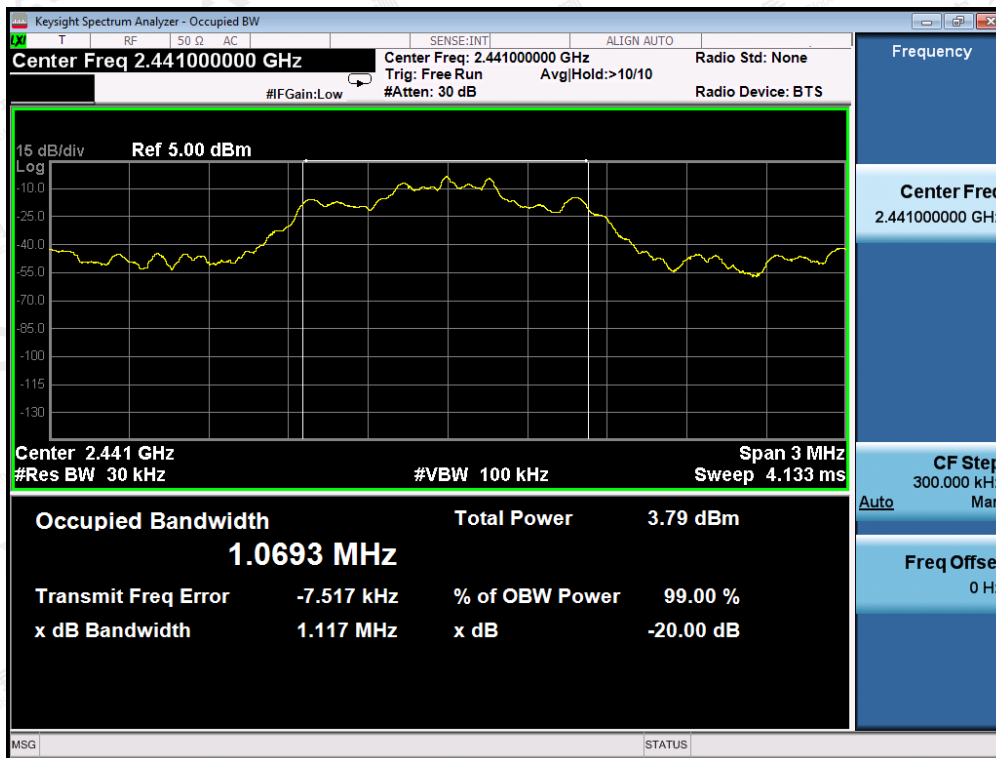
channel	MHz	Criteria
Low Channel	1.111	PASS
Middle Channel	1.117	PASS
High Channel	1.099	PASS

TEST PLOT OF BANDWIDTH FOR LOW CHANNEL

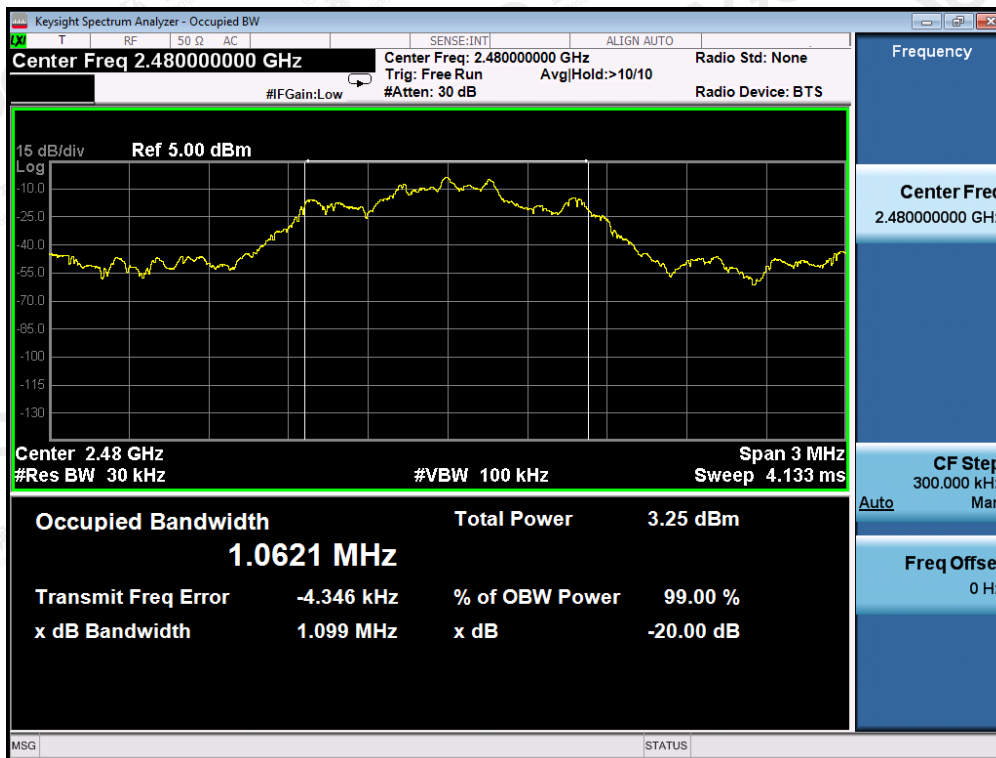


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TEST PLOT OF BANDWIDTH FOR MIDDLE CHANNEL

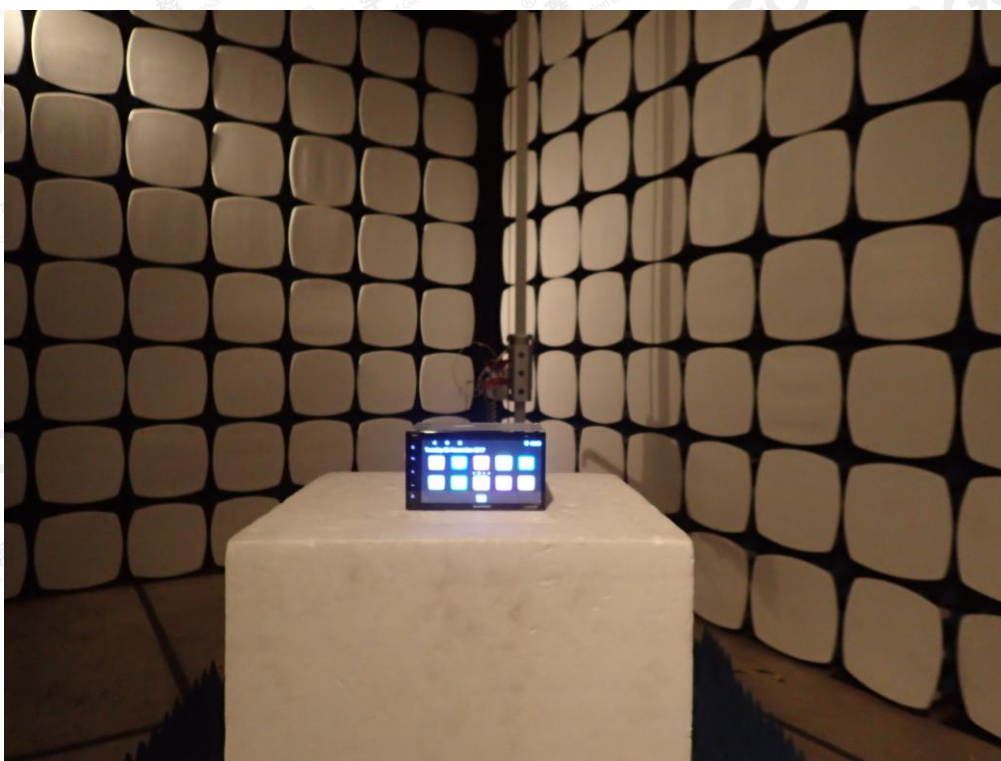
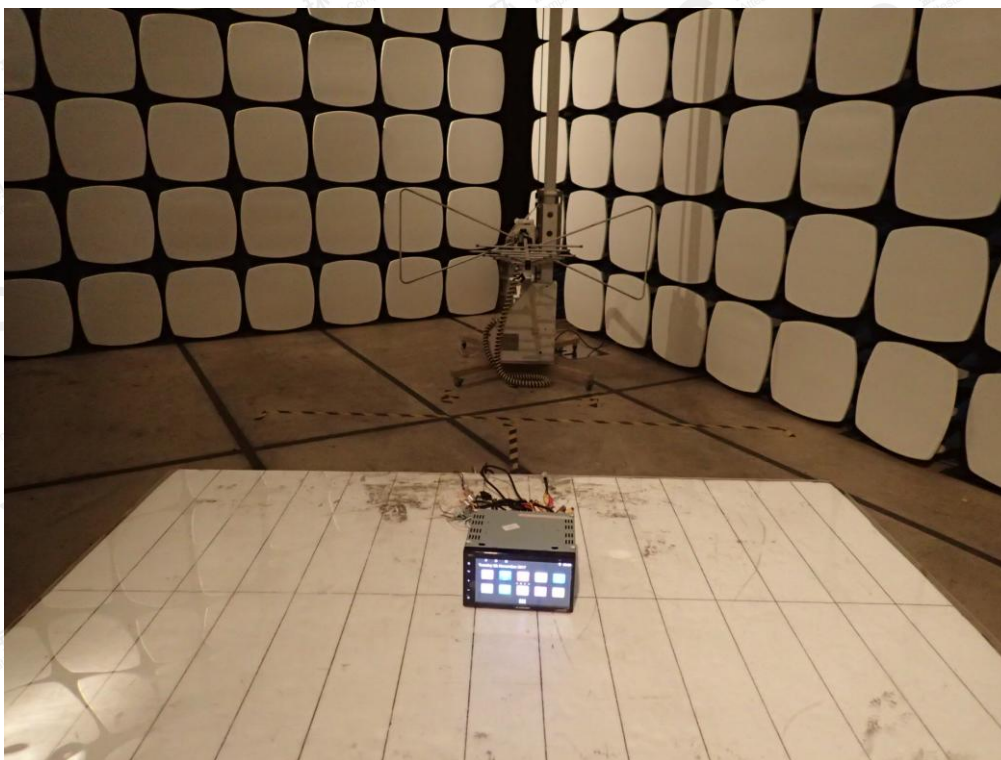


TEST PLOT OF BANDWIDTH FOR HIGH CHANNEL



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APPENDIX A: PHOTOGRAPHS OF TEST SETUP
FCC RADIATED EMISSION TEST SETUP



----END OF REPORT----

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