FCC Part 15, Subpart C
Test Report

FCC ID:	2AR2SAX700
Applicant:	MMD Hong Kong Holding Limited
Address:	Units 1208-11, 12th Floor, C-Bons International Center, 108 Wai Yip Street, Kwun Tong, Kowloon, Hong Kong
Manufacturer:	MMD Hong Kong Holding Limited
Address:	Units 1208-11, 12th Floor, C-Bons International Center, 108 Wai Yip Street, Kwun Tong, Kowloon, Hong Kong
Product:	Party Speaker
Brand:	AOC
Test Model(s):	AX700W/10
Series Model(s):	AX701B/10, AX701U/10, AX700x/yy,AX701x/yy (x=A-Z or NiL , yy=00-99 or NiL for country code)
Test Date:	Jan. 10, 2023~ Feb. 20, 2023
Issued Date:	Mar. 13, 2023
Issued By:	Hwa-Hsing (Dongguan) Testing Co., Ltd.
Address:	No.101, Bld. N1, Yuyuan 2Rd, Yuyuan Industrial Park, HuangJiang Town, Dongguan, China
Test Firm Registration No.:	915896
Standards:	47 CFR FCC Part 15, Subpart C (Section 15.247) ANSI C63.10:2013

The above equipment has been tested by **Hwa-Hsing (Dongguan) Testing Co., Ltd.**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

Prepared by : Niny Zhang — *Niny Zhang*

Reviewed by : Tank Tan — *Tank Tan*

Approved by : Scott He — *Scott He*

HWA-HSING (DONGGUAN) TESTING CO., LTD. TESTREPORT

Table of Contents

Release Control Record

Issue No.	Description	Date Issued
221226KH23-RF-US-02	Original Release	Mar. 13, 2023

1. Summary of Test Results

47 CFR FCC Part 15, Subpart C (Section 15.247) KDB 558074 D01 15.247 Meas Guidance v05r02 ANSI C63.10:2013			
Clause	Test Item	Result	Remarks
15.207	AC Power Conducted Emission	Pass	Meet the requirement of limit.
15.205 & 209	Radiated Emissions	Pass	Meet the requirement of limit.
15.247(d)	Band Edge Measurement	Pass	Meet the requirement of limit.
15.247(d)	Antenna Port Emission	Pass	Meet the requirement of limit.
15.247(a)(2)	6dB Bandwidth	Pass	Meet the requirement of limit.
---	Occupied Bandwidth Measurement	Pass	Reference only
15.247(b)	Conducted power	Pass	Meet the requirement of limit.
15.247(e)	Power Spectral Density	Pass	Meet the requirement of limit.
15.203	Antenna Requirement	Pass	No antenna connector is used. The device is professionally installed

Note: The EUT has been verified to comply with the requirements of FCC Part 15, Subpart B, Class B (DoC). The test report has been issued separately.

1.1 Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:
The listed uncertainties are the worst cases uncertainty for the entire range of measurement. Please note that the uncertainty values are provided for informational purposes only and are not used in determining the PASS/FAIL results.

Measurement	Frequency	Expended Uncertainty (k=2) (±)
Radiated Emissions up to 1 GHz	9KHz ~ 30MHz	2.16 dB
	30MHz ~ 1000MHz	3.47 dB
Radiated Emissions above 1 GHz	1GHz ~ 18GHz	4.84 dB
	18GHz ~ 40GHz	4.67 dB

1.2 Modification Record

There were no modifications required for compliance.

2. General Information

2.1 General Description of EUT

Product	Party Speaker
Test Model(s)	AX700W/10
Sample No.	HS230111-02-01
Series Model(s)	AX701B/10, AX701U/10, AX700x/yy,AX701x/yy (x=A-Z or NiL , yy=00-99 or NiL for country code)
Status of EUT	Engineering Prototype
Power Supply Rating	AC 100-240V~ 50/60Hz 50W
Modulation Type	GFSK for DTS
Transfer Rate	1 Mbps, 2Mbps
Operating Frequency	2402 ~ 2480MHz
Number of Channel	40
Maximum Output Power	8.101dBm (Peak)
Antenna Type	FPC Antenna
Antenna Gain	2.14dBi Gain
Antenna Connector	N/A
Accessory Device	N/A

Note:

1. Please refer to the EUT photo document (Reference No.: 221226KH23-01&02) for detailed product photo.
2. The above EUT information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or User's Manual.
3. Model difference:

Model name	**Differences**
AX700W/10, AX700x/yy (x=A-Z or NiL, yy=00-99 or NiL for country code)	With Light effect, without cart
AX701B/10, AX701U/10, AX701x/yy (x=A-Z or NiL, yy=00-99 or NiL for country code)	Without Light effect, with cart
All models are identical except for the differences described above and color.	

2.2 Description of Test Channels

40 channels are provided to this EUT:

Channel	Freq. (MHz)	Channel	Freq. (MHz)	Channel	Freq. (MHz)	Channel	Freq. (MHz)
0	**2400**	10	2422	20	2442	30	2462
1	2404	11	2424	21	2444	31	2464
2	2406	12	2462	22	2446	32	2466
3	2408	13	2428	23	2448	33	2468
4	2410	14	2430	24	2450	34	2470
5	2412	15	2432	25	2452	35	2472
6	2414	16	2434	26	2454	36	2474
7	2416	17	2436	27	2456	37	2476
8	2418	18	2438	28	2458	38	2478
9	2420	**19**	**2440**	29	2460	**39**	**2480**

Note: BLE 2M does not open channels 0, 12, and 39.

2.3 Test Mode Applicability and Tested Channel Detail

EUT Configure Mode	Applicable test items	X-Axis	Y-Axis	Z-Axis	Voltage Supply
Radiated	AC Power Conducted Emission	N/A	N/A	N/A	AC 230/50Hz
Radiated	Radiated Emissions	√	√	√	
Antenna Port Conducted Measurement	Band Edge Measurement	N/A	N/A	N/A	
	Antenna Port Emission	N/A	N/A	N/A	
	6dB Bandwidth	N/A	N/A	N/A	
	Occupied Bandwidth Measurement	N/A	N/A	N/A	
	Conducted power	N/A	N/A	N/A	
	Power Spectral Density	N/A	N/A	N/A	

1. *: The EUT had been pre-tested on the positioned of each 3 Axis. The worst case was found when positioned on **Z-plane**.
2. "N/A" means no effect.

Test Condition:

Applicable test items	Environmental Conditions	Test Date	Tested by
Radiated Emissions	22.8deg. C, 54%RH	2023-02-19	Dragon Long
Antenna Port Conducted Measurement	22.1deg. C, 50%RH	2023-02-15	Dragon Long

- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture). Following channel(s) was (were) selected for the final test as listed below.

Radiated Emission Test (Above 1GHz):

EUT Configure Mode	Available Channel	Tested Channel	Modulation Type	Data Rate (Mbps)
-	0 to 39	1, 19, 39	GFSK	2
-	0 to 39	0, 19, 39	GFSK	1

Radiated Emission Test (Below 1GHz):

EUT Configure Mode	Available Channel	Tested Channel	Modulation Type	Data Rate (Mbps)
-	0 to 39	39	GFSK	2
-	0 to 39	0	GFSK	1

Power Line Conducted Emission Test:

EUT Configure Mode	Available Channel	Tested Channel	Modulation Type	Data Rate (Mbps)
-	0 to 39	39	GFSK	2
-	0 to 39	39	GFSK	1

Antenna Port Conducted Measurement:

*This item includes all test value of each mode, but only includes spectrum plot of worst value of each mode.

EUT Configure Mode	Available Channel	Tested Channel	Modulation Type	Data Rate (Mbps)
-	0 to 39	0, 19, 39	GFSK	2
-	0 to 39	0, 19, 39	GFSK	1

2.4 Description of Support Units

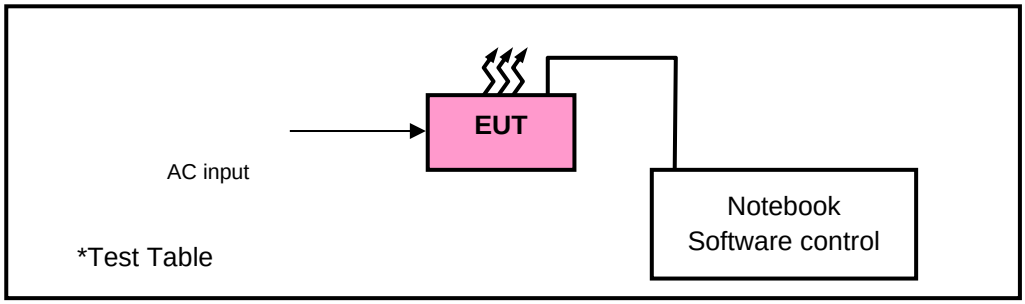
The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

No.	Product	Brand	Model No.	Serial No.	FCC ID
1.	Notebook	DELL	Latitude 5300	N/A	N/A

Insert Cable Connections to/from EUT provided by test team.

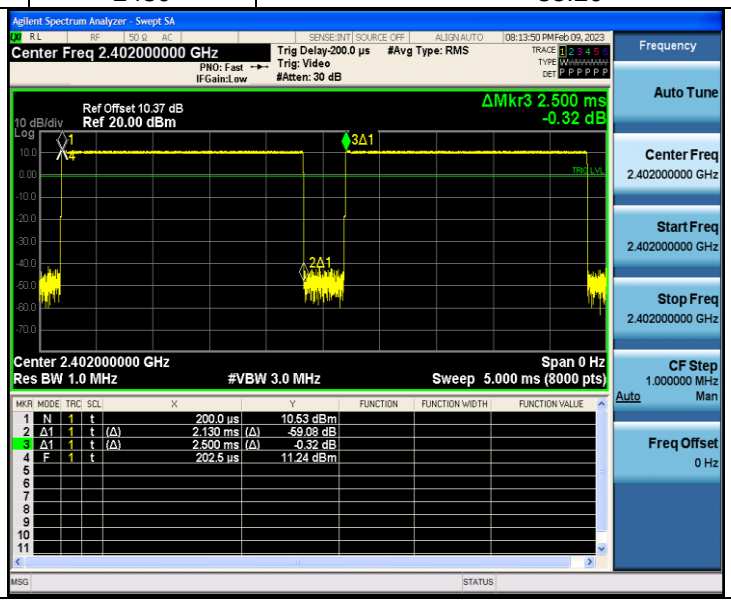
No.	Signal Cable Description of The Above Support Units
1.	USB serial cable Un-shielding 1.2m

2.5 Configuration of System under Test

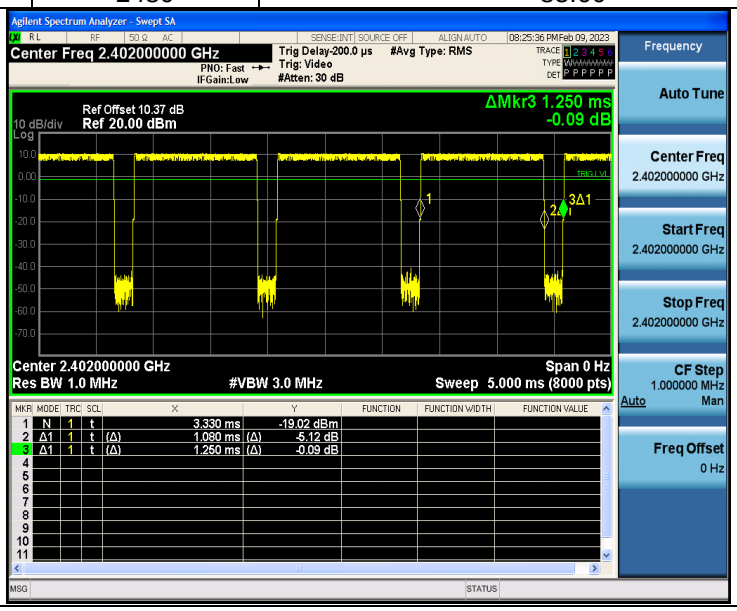


2.6 Duty Cycle of Test Signal

Test Mode	Channel	Duty Cycle [%]
GFSK-1MHz	2402	85.20
	2440	85.20
	2480	85.20



Test Mode	Channel	Duty Cycle [%]
GFSK-2MHz	2402	86.40
	2440	86.40
	2480	85.60



3. Test Types and Results

3.1 Radiated Emission and Band-edge Measurement

3.1.1 Limits of radiated emission and band-edge measurement

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table. Other emissions shall be at least 20dB below the highest level of the desired power:

Frequencies (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 ~ 0.490	2400/F(kHz)	300
0.490 ~ 1.705	24000/F(kHz)	30
1.705 ~ 30.0	30	30
30 ~ 88	100	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3
* DTS emissions in non-restricted frequency bands Subclause 11.11 of ANSI C63.10 is applicable. * DTS emissions in restricted frequency bands Subclause 11.12 of ANSI C63.10 is applicable		

Note:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. For frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.

3.1.2 Test Instruments

Radiated emission below 30MHz:

Equipment	Manufacturer	Model No.	Serial No.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESR7	100962	2023-12-27
3m Semi-anechoic Chamber	MAORUI	9m*6m*6m	NSEMC003	2023-04-15*
Test software	FARAD	FARAD	EZ_EMCV1.1.4.2	N/A
Loop Antenna	EMCI	HLA 6121	45745	2023-04-15*
Pre-Amplifier	EMCI	EMC 184045SE	980201	2023-04-15
Antenna Tower	MF	MFA-440H	NA	NA
Turn Table	MF	MFT-201SS	NA	NA
Antenna Tower&Turn Table Controller	MF	MF-7802	NA	NA

Frequency Range below 1GHz:

Equipment	Manufacturer	Model No.	Serial No.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESR7	100962	2023-12-27
Broadband antenna	Schwarzbeck	VULB 9168	00937	2023-09-12*
3m Semi-anechoic Chamber	MAORUI	9m*6m*6m	NSEMC003	2023-04-15*
Signal Amplifier	Com-power	PAM-103	18020051	2023-08-25
Attenuator	Rohde&Schwarz	TS2GA-6dB	18101101	N/A
Test software	FARAD	FARAD	EZ_EMCV1.1.4.2	N/A

Frequency Range 1-18GHz:

Equipment	Manufacturer	Model No.	Serial No.	Next Cal.
3m Semi-anechoic Chamber	MAORUI	9m*6m*6m	NSEMC003	2023-04-15*
Horn Antenna	Schwarzbeck	BBHA 9170	974	2024-05-04
Broadband Coaxial Preamplifier	Schwarzbeck	PAM-118A	1804003	2023-08-25
Spectrum	Keysight	N9020A	MY51240612	2023-08-25
Antenna Tower	MF	MFA-440H	NA	NA
Turn Table	MF	MFT-201SS	NA	NA
Antenna Tower&Turn Table Controller	MF	MF-7802	NA	NA

Frequency Range 18-40GHz:

Equipment	Manufacturer	Model No.	Serial No.	Next Cal.
3m Semi-anechoic Chamber	MAORUI	9m*6m*6m	NSEMC003	2023-04-15*
Spectrum Analyzer	Rohde&Schwarz	FSV-40N	101783	2023-12-27
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170242	2023-04-10*
Pre-Amplifier	EMCI	EMC 184045	980102	2023-12-27
Antenna Tower	MF	MFA-440H	NA	NA
Turn Table	MF	MFT-201SS	NA	NA
Antenna Tower&Turn Table Controller	MF	MF-7802	NA	NA

Note: 1. The calibration interval of the above test instruments is 12 months or 24 months (*).

2. The test was performed in 966.

3.1.3 Test Procedures

a. Peak emission levels are measured by setting the instrument as follow:

1) RBW & VBW setting as a function of frequency:

Frequency	RBW	VBW
9kHz~150kHz	200Hz	600Hz
0.15MHz~30MHz	9kHz	30kHz
30MHz~1000MHz	120kHz	300kHz
>1000MHz	1MHz	3MHz

2) Detector = peak.
3) Sweep time = auto.
4) Trace mode = max hold.
5) Allow sweeps to continue until the trace stabilizes. (Note that the required measurement time may be lengthened for low-duty-cycle applications.)

Note: If the peak-detected amplitude can be shown to comply with the average limit, then it is not necessary to perform a separate average measurement

b. Average emission levels are measured by setting the instrument as follow:

- **Trace averaging with continuous EUT transmission at full power**

If the EUT can be configured or modified to transmit continuously (D ≥ 98%). then the average emission levels shall be measured using the following method (with EUT transmitting continuously):

1) RBW=1 MHz (unless otherwise specified).
2) VBW ≥ 3 *RBW.
3) Detector =RMS
4) Sweep time = auto.
5) Perform a trace average of at least 100 traces.

- **Trace averaging across ON and OFF times of the EUT transmissions followed by duty cycle correction**

If continuous transmission of the EUT (D ≥ 98%) cannot be achieved and the duty cycle is constant (duty cycle variations are less than ±2%). then the following procedure shall be used

1) The EUT shall be configured to operate at the maximum achievable duty cycle.
2) Measure the duty cycle D of the transmitter output signal as described in 11.6.
3) RBW=1 MHz (unless otherwise specified).
4) VBW ≥ 3 *RBW.
5) Detector =RMS
6) Sweep time = auto.
7) Perform a trace average of at least 100 traces.

A correction factor shall be added to the measurement results prior to comparing with the emission limit to compute the emission level that would have been measured had the test been performed at 100% duty cycle. The correction factor is computed as follows:

*If power averaging (rms) mode was used in step 5). then the applicable correction factor is [10 10g (1/ D)], where D is the duty cycle.

**If linear voltage averaging mode was used in step f). then the applicable correction factor is [20 10g (1/D)], where D is the duty cycle.

***If a specific emission is demonstrated to be continuous (D > 98%) rather than turning ON and OFF with the transmit cycle, then no duty cycle correction is required for that

- **Reduced VBW Averaqing across ON and OFF times of the EUT transmissions with max hold**

If continuous transmission of the EUT (D > 98%) cannot be achieved and the duty cycle is not constant (duty cycle variations exceed ±2%), then the following procedure shall be used:

1) RBW = 1 MHz.
2) VBW ≥ 1/T.
3) Detector =peak
4) Sweep time = auto.
5) Trace mode = max hold.
6) Allow max hold to run for at least [50 x (1/ D)] traces

c. The EUT was placed on the top of a rotating table 0.8 meters (below 1GHz) / 1.5 meters (1-18GHz) / 1.5 meters (18-40GHz) above the reference ground. The table was rotated 360 degrees to determine the position of the highest radiation.
d. The EUT was set 3 meters away from the interference-receiving antenna (Below 1GHz) & (Above 1-18GHz), which was mounted on the top of a variable-height antenna tower. The EUT was set 1meters away from the interference-receiving antenna (18-40GHz).
e. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
f. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
g. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.
h. The test-receiver system was set to peak and average detected function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

Note:

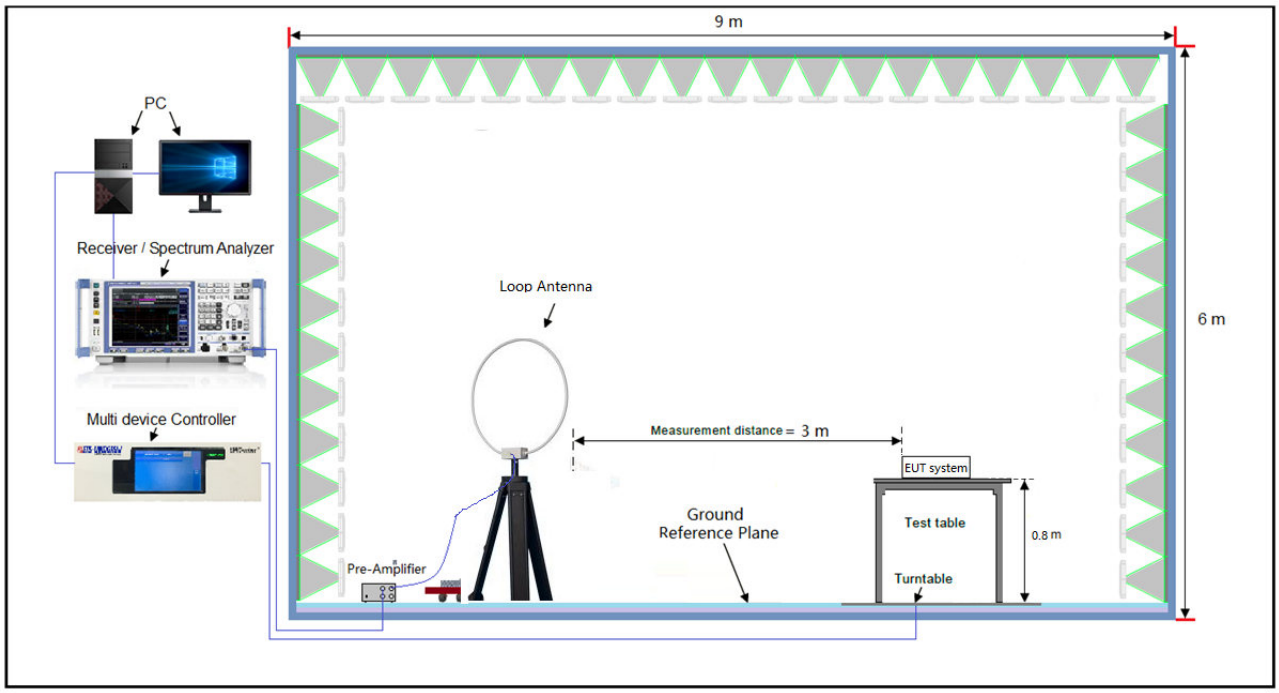
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 kHz & 360kHz for Quasi-peak detection (QP) at frequency below 1 GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth =3 MHz for Peak detection (PK) at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth =1/T for Average (Duty cycle < 98 %) detection at frequency above 1 GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is =10Hz (Duty cycle ≥ 98%) for Average detection (AV) at frequency above 1GHz.
5. All modes of operation were investigated and the worst-case emissions are reported.

3.1.4 Deviation from Test Standard

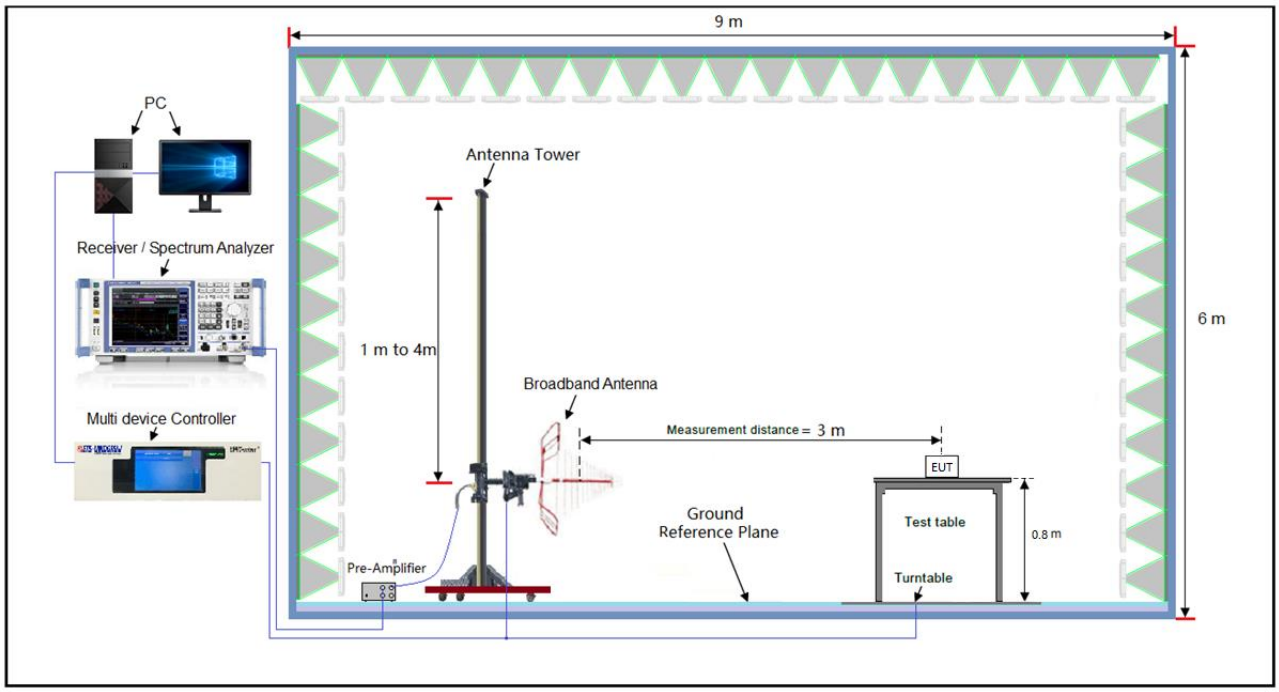
No deviation.

3.1.5 Test Setup

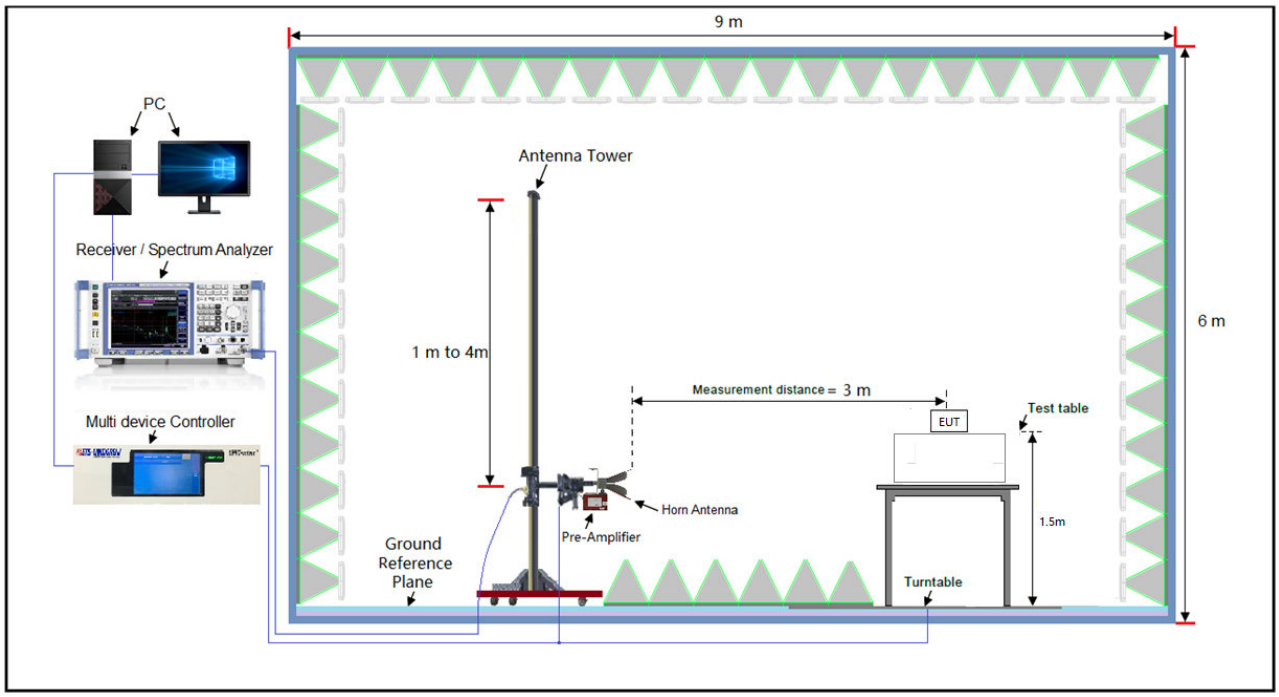
Radiated emission below 30MHz:



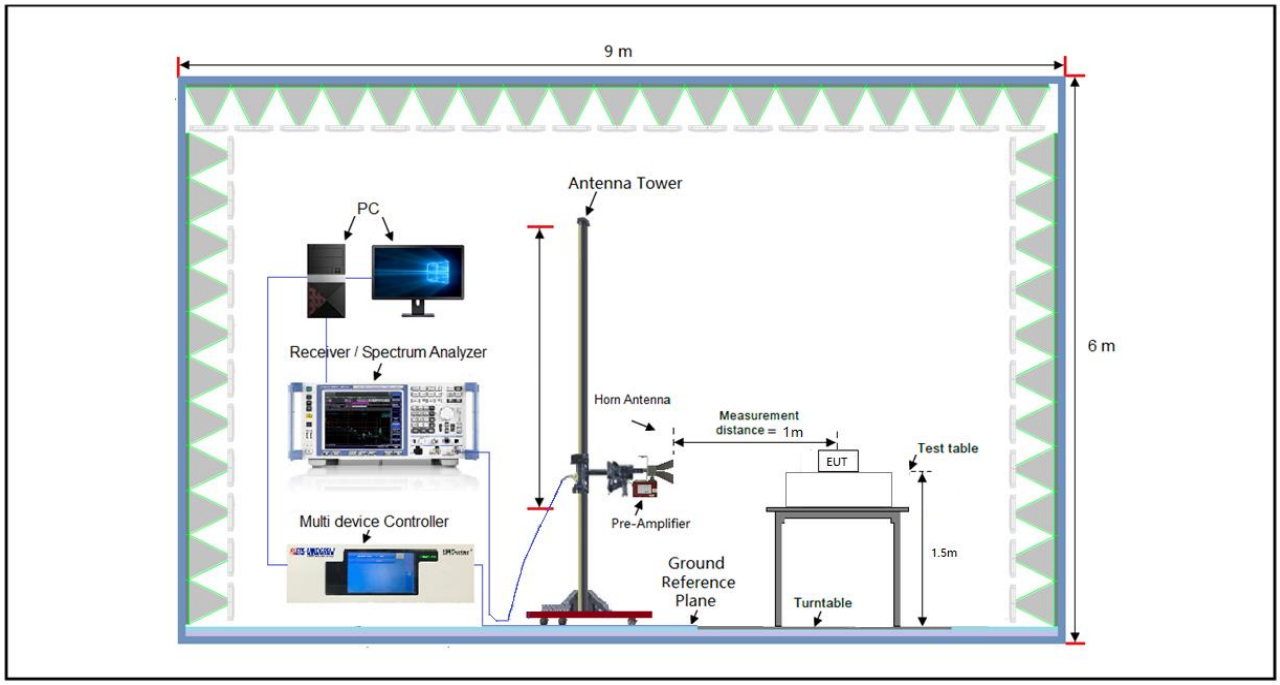
Frequency Range below 1GHz:



Frequency Range 1-18GHz:



Frequency Range 18-40GHz:



For the actual test configuration, please refer to the attached file (Test Setup Photo).

3.1.6 EUT Operating Conditions

a. Placed the EUT on the testing table.

b. Set the EUT under transmission condition continuously at specific channel frequency.

3.1.7 Test Results

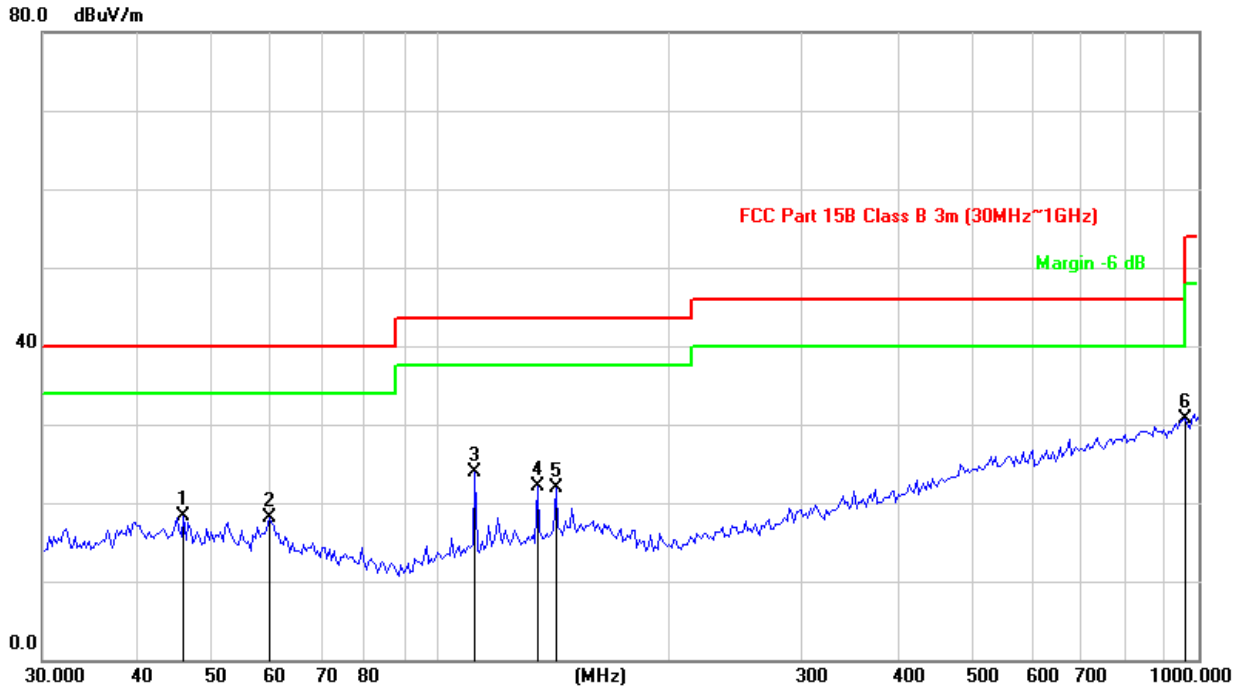
9kHz ~ 30MHz Data:

The amplitude of spurious emissions attenuated more than 20dB below the permissible value is not required to be report.

30MHz ~ 1GHz Worst-Case Data:

Test Channel	Channel 0	Frequency Range	30MHz ~ 1GHz
Detector Function	Peak (PK) Quasi-peak (QP)	Tested By	Dragon

Antennal Polarity &Test Distance: Horizontal at 3m



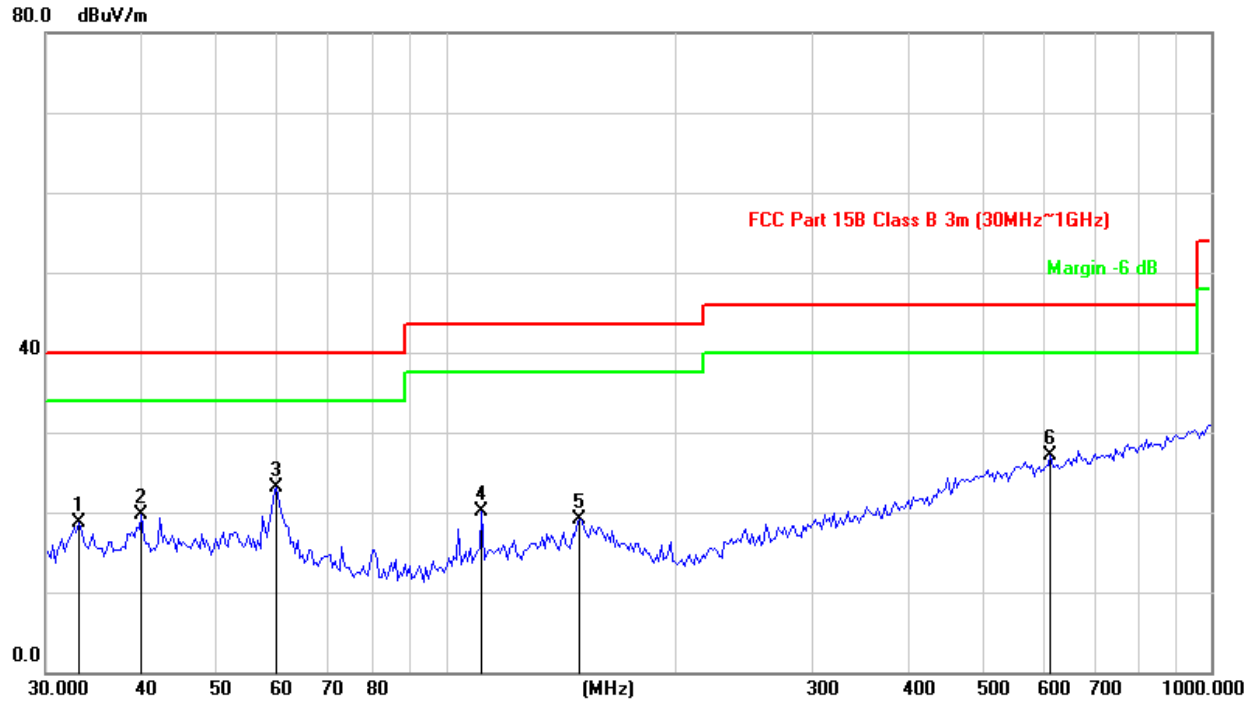
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Height (cm)	Table Angle (Degree)
1	46.0164	33.28	-15.00	18.28	40.00	-21.72	peak	150	165
2	59.6493	34.27	-16.10	18.17	40.00	-21.83	peak	200	189
3	111.3468	40.83	-16.93	23.90	43.50	-19.60	peak	100	100
4	134.5592	37.39	-15.21	22.18	43.50	-21.32	peak	120	316
5	142.3243	36.68	-14.78	21.90	43.50	-21.60	peak	120	257
6	958.7943	30.26	0.39	30.65	46.00	-15.35	peak	100	126

Remarks:

1. Emission Level = Read Level + Factor (Antenna Factor + Cable Loss - Preamp Factor)
2. Margin value = Emission level – Limit value

Test Channel	Channel 0	Frequency Range	30MHz ~ 1GHz
Detector Function	Peak (PK) Quasi-peak (QP)	Tested By	Dragon

Antennal Polarity& Test Distance: Vertical at 3m



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Height (cm)	Table Angle (Degree)
1	33.0950	34.59	-15.89	18.70	40.00	-21.30	peak	100	123
2	39.9942	34.61	-14.86	19.75	40.00	-20.25	peak	120	29
3	60.0691	39.29	-16.16	23.13	40.00	-16.87	peak	200	100
4	111.3468	37.04	-16.93	20.11	43.50	-23.39	peak	100	200
5	149.4857	33.49	-14.45	19.04	43.50	-24.46	peak	200	145
6	616.3718	31.91	-4.86	27.05	46.00	-18.95	peak	150	123

Remarks:

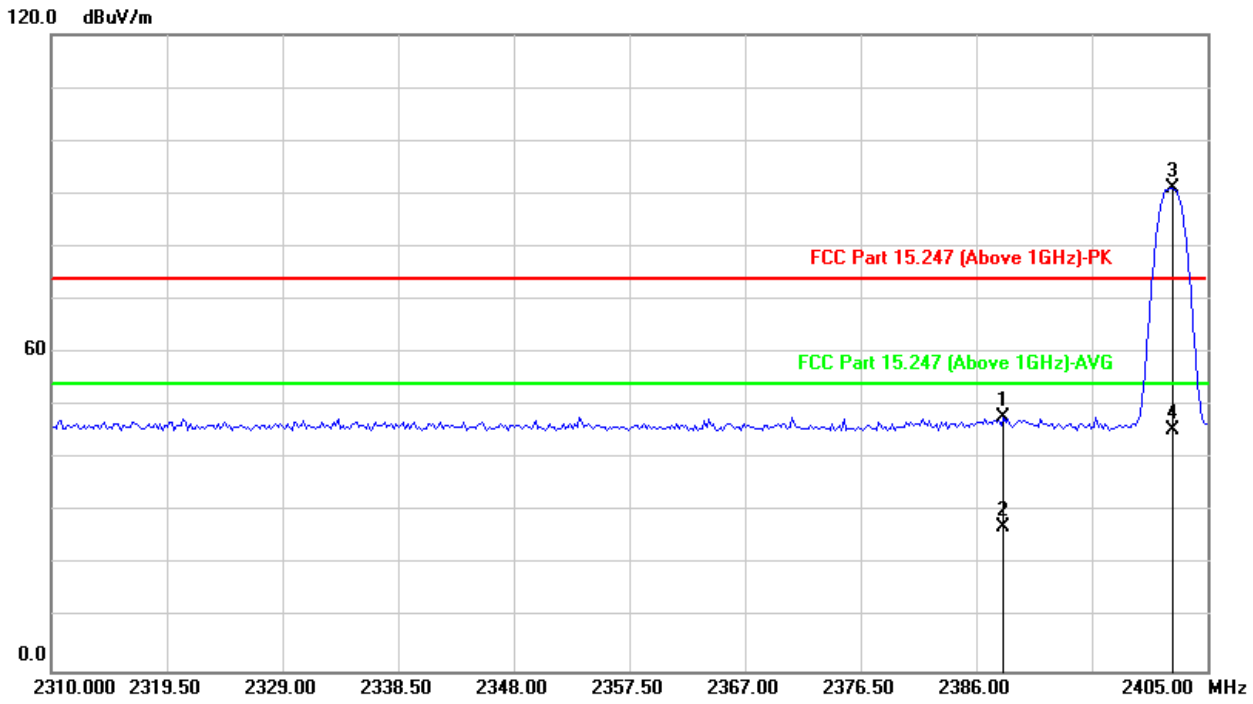
1. Emission Level = Read Level + Factor (Antenna Factor + Cable Loss - Preamp Factor)
2. Margin value = Emission level – Limit value

Above 1GHz Data:

BLE-1Mbps

Test channel	Channel 0	Frequency Range	1GHz ~ 25GHz
Detector Function	Peak (PK) Average (AVG)	Tested By	Dragon

Antennal Polarity& Test distance: Horizontal at 3 M



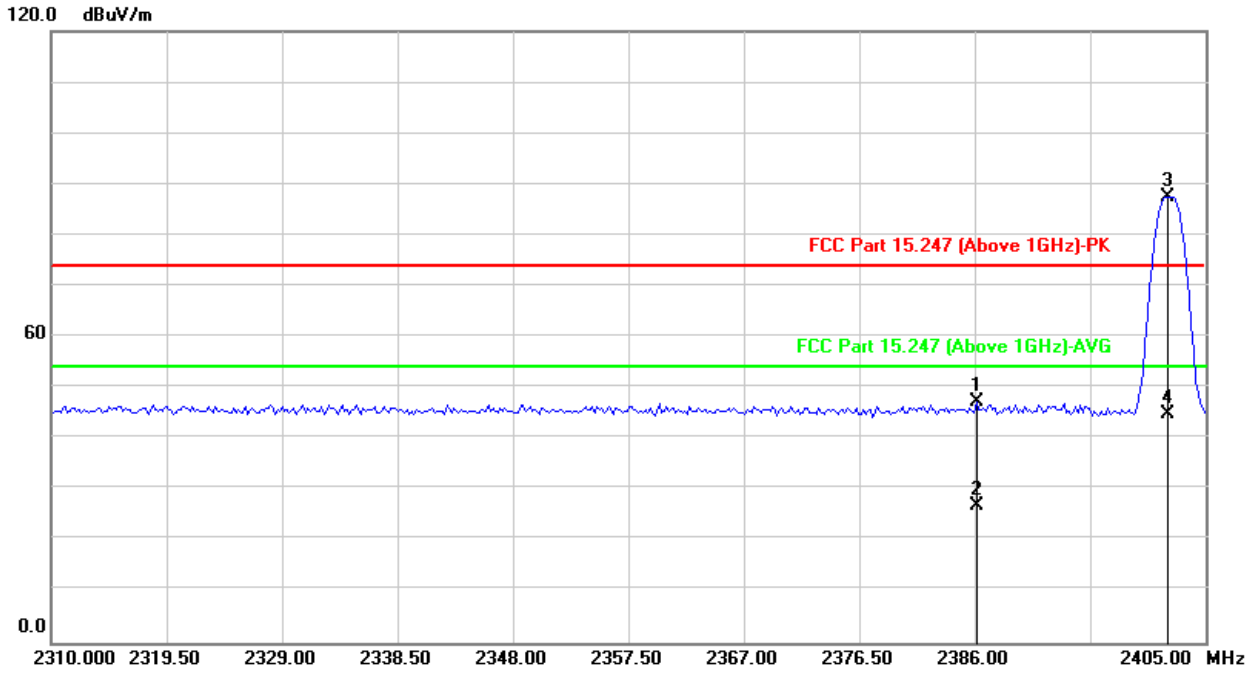
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Height (cm)	Table Angle (Degree)
1	2388.247	47.47	0.34	47.81	74.00	-26.19	peak	100	165
2	2388.247	26.73	0.34	27.07	54.00	-26.93	AVG	100	165
3 #	2402.144	90.64	0.31	90.95			peak	100	165
4 #	2402.144	45.13	0.31	45.44			AVG	100	165
5	4804.000	42.71	6.59	49.30	74.00	-24.70	peak	150	55
6	4804.000	32.91	6.59	39.50	54.00	-14.50	AVG	150	55
7	7206.000	39.97	9.80	49.77	74.00	-24.23	peak	100	155
8	7206.000	30.52	9.80	40.32	54.00	-13.68	AVG	100	155
9	9608.000	41.11	13.57	54.68	74.00	-19.32	peak	320	236
10	9608.000	29.09	13.57	42.66	54.00	-11.34	AVG	320	236

Remarks:

1. Emission Level = Read Level + Factor (Antenna Factor + Cable Loss - Preamp Factor)
2. Margin value = Emission level – Limit value
3. #2402MHz: Fundamental frequency.

Test channel	Channel 0	Frequency Range	1GHz ~ 25GHz
Detector Function	Peak (PK) Average (AVG)	Tested By	Dragon

Antennal Polarity& Test Distance: Vertical at 3m



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Height (cm)	Table Angle (Degree)
1	2386.152	46.81	0.34	47.15	74.00	-26.85	peak	351	266
2	2386.152	26.50	0.34	26.84	54.00	-27.16	AVG	351	266
3 #	2401.954	87.14	0.32	87.46			peak	351	266
4 #	2401.954	44.44	0.32	44.76			AVG	351	266
5	4804.000	48.28	6.59	54.87	74.00	-19.13	peak	254	125
6	4804.000	35.10	6.59	41.69	54.00	-12.31	AVG	254	125
7	7206.000	42.47	9.80	52.27	74.00	-21.73	peak	100	247
8	7206.000	32.84	9.80	42.64	54.00	-11.36	AVG	100	247
9	9608.000	44.07	13.57	57.64	74.00	-16.36	peak	100	164
10	9608.000	30.79	13.57	44.36	54.00	-9.64	AVG	100	164

Remarks:

1. Emission Level = Read Level + Factor (Antenna Factor + Cable Loss - Preamp Factor)
2. Margin value = Emission level – Limit value
3. #2402MHz: Fundamental frequency.

Test channel	Channel 19	Frequency Range	1GHz ~ 25GHz
Detector Function	Peak (PK) Average (AVG)	Tested By	Dragon

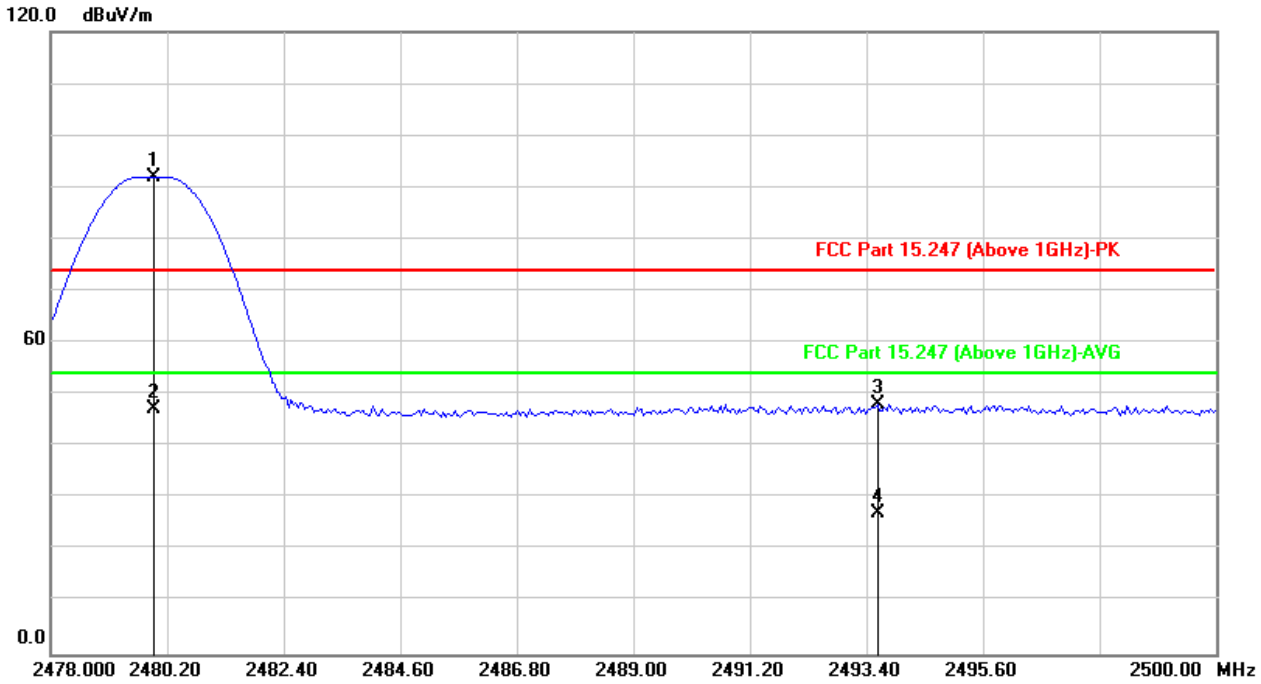
Antennal Polarity& Test Distance: Horizontal at 3m									
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Height (cm)	Table Angle (Degree)
1 #	2440.000	93.44	-2.11	91.33			peak	100	165
2 #	2440.000	48.31	-2.11	46.20			AVG	100	165
3	4880.000	44.40	3.61	48.01	74.00	-25.99	peak	100	233
4	4880.000	35.89	3.61	39.50	54.00	-14.50	AVG	100	233
5	7320.000	39.03	11.31	50.34	74.00	-23.66	peak	100	185
6	7320.000	28.79	11.31	40.10	54.00	-13.90	AVG	100	185
7	9760.000	40.13	15.60	55.73	74.00	-18.27	peak	230	155
8	9760.000	24.75	15.60	40.35	54.00	-13.65	AVG	230	155
Antennal Polarity& Test Distance: Vertical at 3 M									
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Height (cm)	Table Angle (Degree)
1 #	2440.000	88.70	-2.11	86.59			peak	130	200
2 #	2440.000	47.07	-2.11	44.96			AVG	130	200
3	4880.000	45.51	3.61	49.12	74.00	-24.88	peak	100	135
4	4880.000	36.72	3.61	40.33	54.00	-13.67	AVG	100	135
5	7320.000	40.31	11.31	51.62	74.00	-22.38	peak	100	255
6	7320.000	30.79	11.31	42.10	54.00	-11.90	AVG	100	255
7	9760.000	42.03	15.60	57.63	74.00	-16.37	peak	118	174
8	9760.000	26.50	15.60	42.10	54.00	-11.90	AVG	118	174

Remarks:

1. Emission Level = Read Level + Factor (Antenna Factor + Cable Loss - Preamp Factor)
2. Margin value = Emission level – Limit value
3. #2440MHz: Fundamental frequency.

Test channel	Channel 39	Frequency Range	1GHz ~ 25GHz
Detector Function	Peak (PK) Average (AVG)	Tested By	Dragon

Antennal Polarity& Test Distance: Horizontal at 3 M



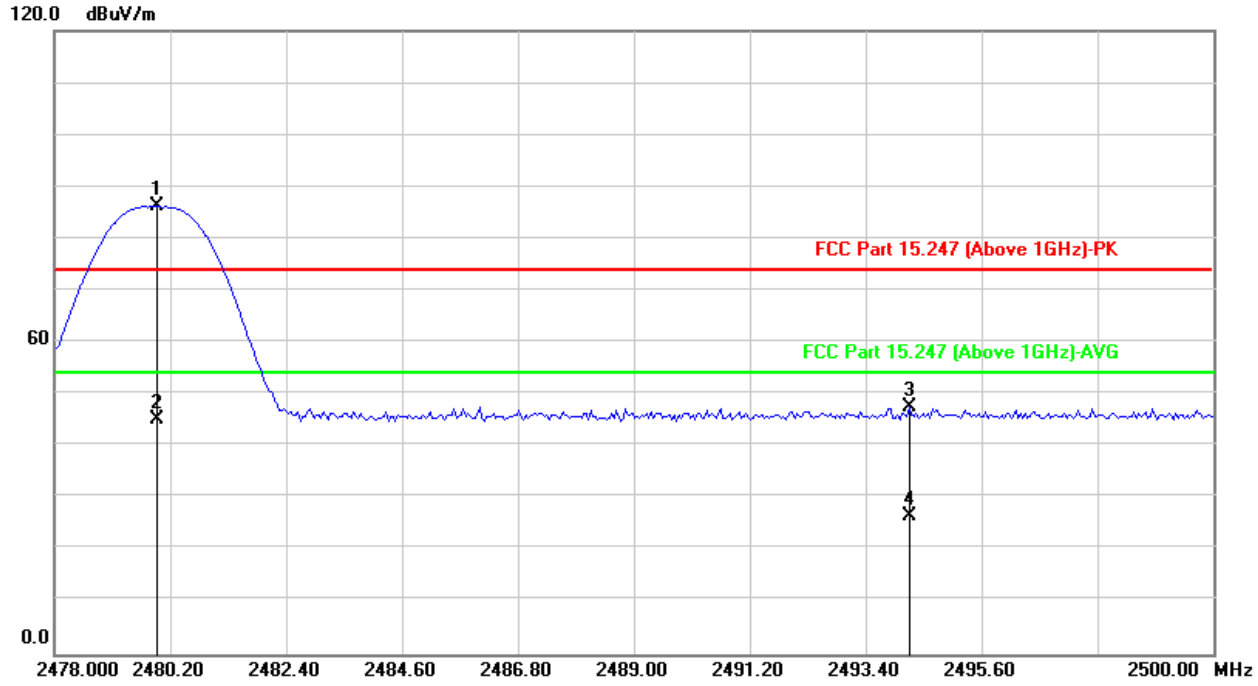
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Height (cm)	Table Angle (Degree)
1#	2479.940	91.83	0.20	92.03			peak	300	139
2#	2479.940	46.93	0.20	47.13			AVG	300	139
3	2493.607	48.10	0.18	48.28	74.00	-25.72	peak	300	139
4	2493.607	27.09	0.18	27.27	54.00	-26.73	AVG	300	139
5	4960.000	45.06	3.57	48.63	74.00	-25.37	peak	100	230
6	4960.000	36.68	3.57	40.25	54.00	-13.75	AVG	100	230
7	7440.000	39.53	11.57	51.10	74.00	-22.90	peak	150	155
8	7440.000	29.99	11.57	41.56	54.00	-12.44	AVG	150	155
9	9920.000	38.96	16.05	55.01	74.00	-18.99	peak	300	320
10	9920.000	26.90	16.05	42.95	54.00	-11.05	AVG	300	320

Remarks:

1. Emission Level = Read Level + Factor (Antenna Factor + Cable Loss - Preamp Factor)
2. Margin value = Emission level – Limit value
3. #2480MHz: Fundamental frequency.

Test channel	Channel 39	Frequency Range	1GHz ~ 25GHz
Detector Function	Peak (PK) Average (AVG)	Tested By	Dragon

Antennal Polarity& Test Distance: Vertical at 3 M



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Height (cm)	Table Angle (Degree)
1#	2479.940	85.98	0.20	86.18			peak	100	266
2#	2479.940	44.82	0.20	45.02			AVG	100	266
3	2494.224	47.50	0.17	47.67	74.00	-26.33	peak	100	266
4	2494.224	26.33	0.17	26.50	54.00	-27.50	AVG	100	266
5	4960.000	48.50	3.57	52.07	74.00	-21.93	peak	155	198
6	4960.000	38.09	3.57	41.66	54.00	-12.34	AVG	155	198
7	7440.000	38.27	11.57	49.84	74.00	-24.16	peak	100	132
8	7440.000	28.69	11.57	40.26	54.00	-13.74	AVG	100	132
9	9920.000	40.58	16.05	56.63	74.00	-17.37	peak	255	230
10	9920.000	27.05	16.05	43.10	54.00	-10.90	AVG	255	230

Remarks:

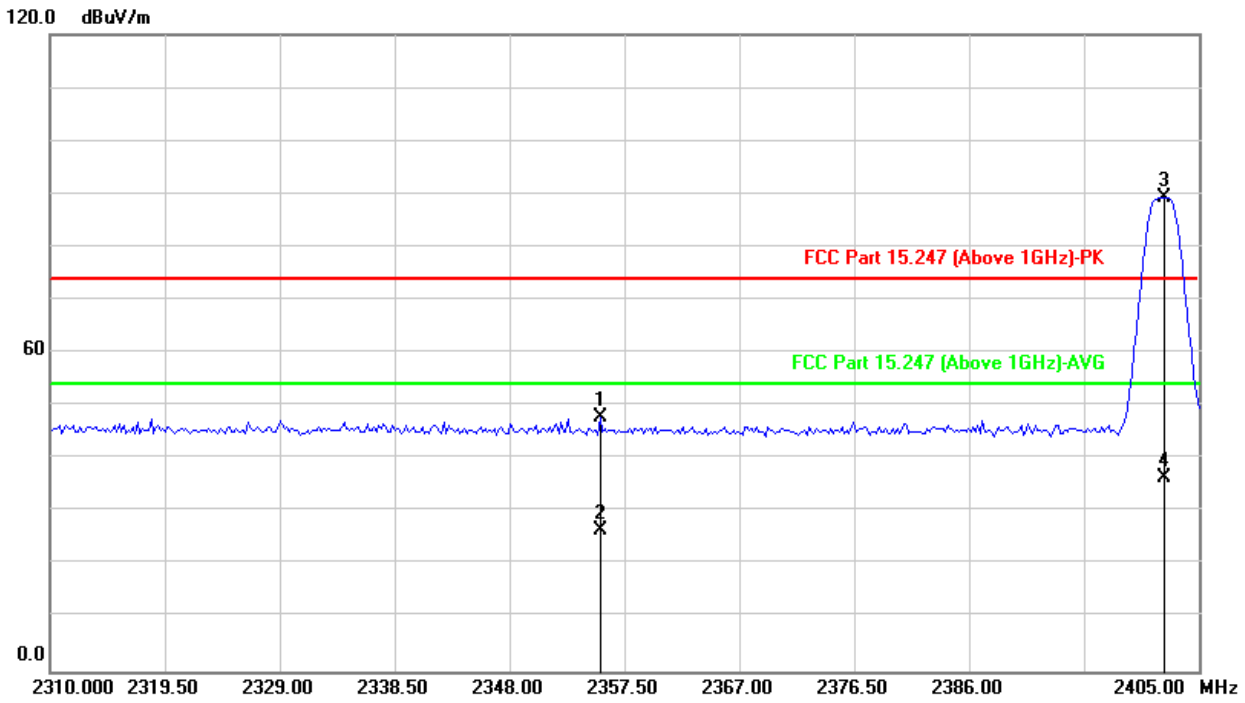
4. Emission Level = Read Level + Factor (Antenna Factor + Cable Loss - Preamp Factor)
5. Margin value = Emission level – Limit value
6. #2480MHz: Fundamental frequency.

Above 1GHz Data:

BLE-2Mbps

Test channel	Channel 0	Frequency Range	1GHz ~ 25GHz
Detector Function	Peak (PK) Average (AVG)	Tested By	Dragon

Antennal Polarity& Test distance: Horizontal at 3 M



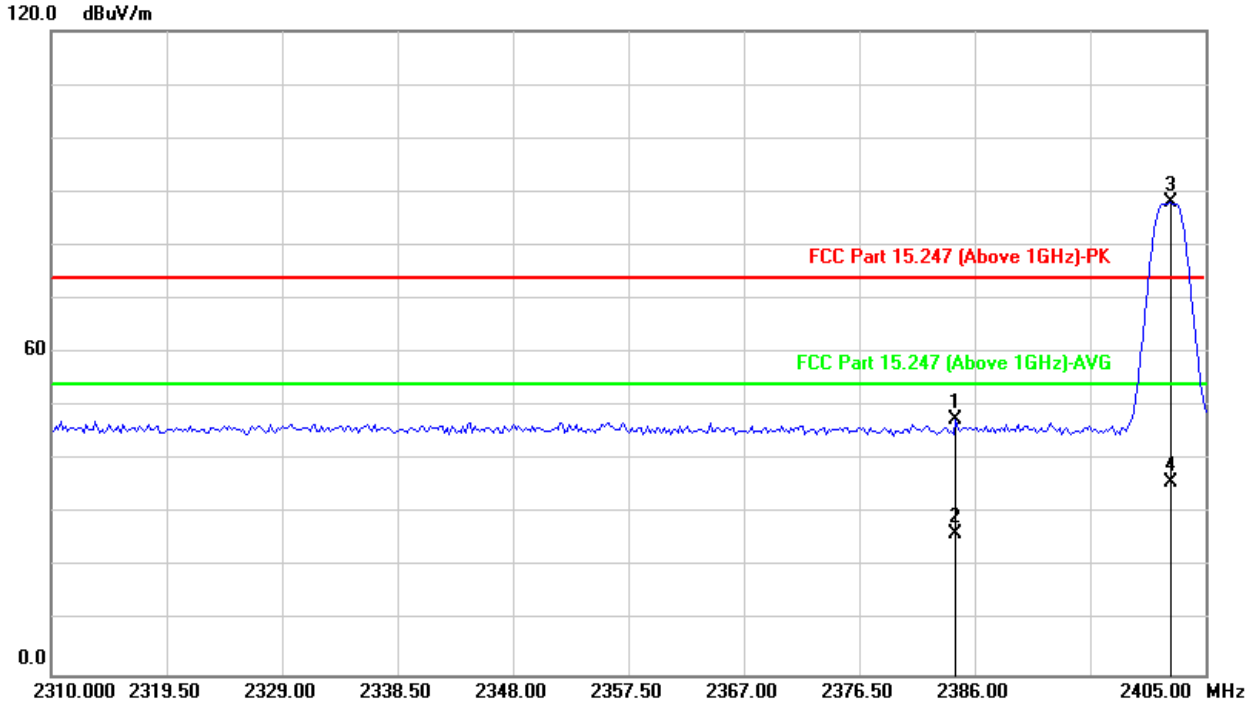
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Height (cm)	Table Angle (Degree)
1	2355.501	47.40	0.38	47.78	74.00	-26.22	peak	322	95
2	2355.501	26.12	0.38	26.50	54.00	-27.50	AVG	322	95
3 #	2402.144	88.93	0.31	89.24			peak	322	95
4 #	2402.144	36.00	0.31	36.31			AVG	322	95
5	4804.000	42.26	6.59	48.85	74.00	-25.15	peak	130	255
6	4804.000	33.96	6.59	40.55	54.00	-13.45	AVG	130	255
7	7206.000	40.70	9.80	50.50	74.00	-23.50	peak	100	135
8	7206.000	30.43	9.80	40.23	54.00	-13.77	AVG	100	135
9	9608.000	40.69	13.57	54.26	74.00	-19.74	peak	100	146
10	9608.000	28.49	13.57	42.06	54.00	-11.94	AVG	100	146

Remarks:

4. Emission Level = Read Level + Factor (Antenna Factor + Cable Loss - Preamp Factor)
5. Margin value = Emission level – Limit value
6. #2402MHz: Fundamental frequency.

Test channel	Channel 0	Frequency Range	1GHz ~ 25GHz
Detector Function	Peak (PK) Average (AVG)	Tested By	Dragon

Antennal Polarity& Test Distance: Vertical at 3m



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Height (cm)	Table Angle (Degree)
1	2384.439	47.12	0.34	47.46	74.00	-26.54	peak	235	316
2	2384.439	25.96	0.34	26.30	54.00	-27.70	AVG	235	316
3 #	2402.144	87.60	0.31	87.91			peak	235	316
4 #	2402.144	35.68	0.31	35.99			AVG	235	316
5	4804.000	43.54	6.59	50.13	74.00	-23.87	peak	130	288
6	4804.000	33.73	6.59	40.32	54.00	-13.68	AVG	130	288
7	7206.000	40.74	9.80	50.54	74.00	-23.46	peak	100	236
8	7206.000	31.72	9.80	41.52	54.00	-12.48	AVG	100	236
9	9608.000	42.93	13.57	56.50	74.00	-17.50	peak	100	190
10	9608.000	29.26	13.57	42.83	54.00	-11.17	AVG	100	190

Remarks:

4. Emission Level = Read Level + Factor (Antenna Factor + Cable Loss - Preamp Factor)
5. Margin value = Emission level – Limit value
6. #2402MHz: Fundamental frequency.

Test channel	Channel 19	Frequency Range	1GHz ~ 25GHz
Detector Function	Peak (PK) Average (AVG)	Tested By	Dragon

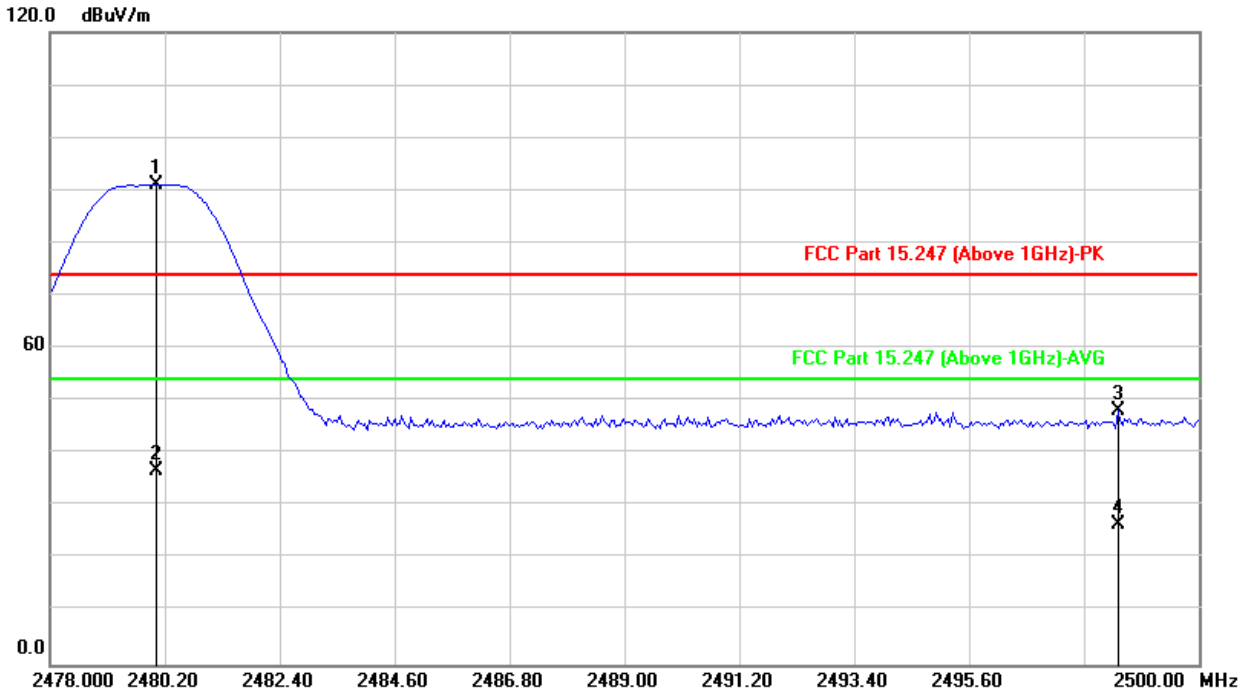
Antennal Polarity& Test Distance: Horizontal at 3m									
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Height (cm)	Table Angle (Degree)
1 #	2440.000	92.21	-2.11	90.10			peak	100	152
2 #	2440.000	45.66	-2.11	43.55			AVG	100	152
3	4880.000	46.69	3.61	50.30	74.00	-23.70	peak	120	135
4	4880.000	36.89	3.61	40.50	54.00	-13.50	AVG	120	135
5	7320.000	39.99	11.31	51.30	74.00	-22.70	peak	155	156
6	7320.000	28.24	11.31	39.55	54.00	-14.45	AVG	155	156
7	9760.000	43.04	15.60	58.64	74.00	-15.36	peak	150	200
8	9760.000	26.09	15.60	41.69	54.00	-12.31	AVG	150	200
Antennal Polarity& Test Distance: Vertical at 3 M									
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Height (cm)	Table Angle (Degree)
1 #	2440.000	92.61	-2.11	90.50			peak	100	125
2 #	2440.000	47.21	-2.11	45.10			AVG	100	125
3	4880.000	45.42	3.61	49.03	74.00	-24.97	peak	100	135
4	4880.000	36.89	3.61	40.50	54.00	-13.50	AVG	100	135
5	7320.000	38.82	11.31	50.13	74.00	-23.87	peak	100	255
6	7320.000	31.70	11.31	43.01	54.00	-10.99	AVG	100	255
7	9760.000	44.94	15.60	60.54	74.00	-13.46	peak	118	174
8	9760.000	26.90	15.60	42.50	54.00	-11.50	AVG	118	174

Remarks:

4. Emission Level = Read Level + Factor (Antenna Factor + Cable Loss - Preamp Factor)
5. Margin value = Emission level – Limit value
6. #2440MHz: Fundamental frequency.

Test channel	Channel 39	Frequency Range	1GHz ~ 25GHz
Detector Function	Peak (PK) Average (AVG)	Tested By	Dragon

Antennal Polarity& Test Distance: Horizontal at 3 M



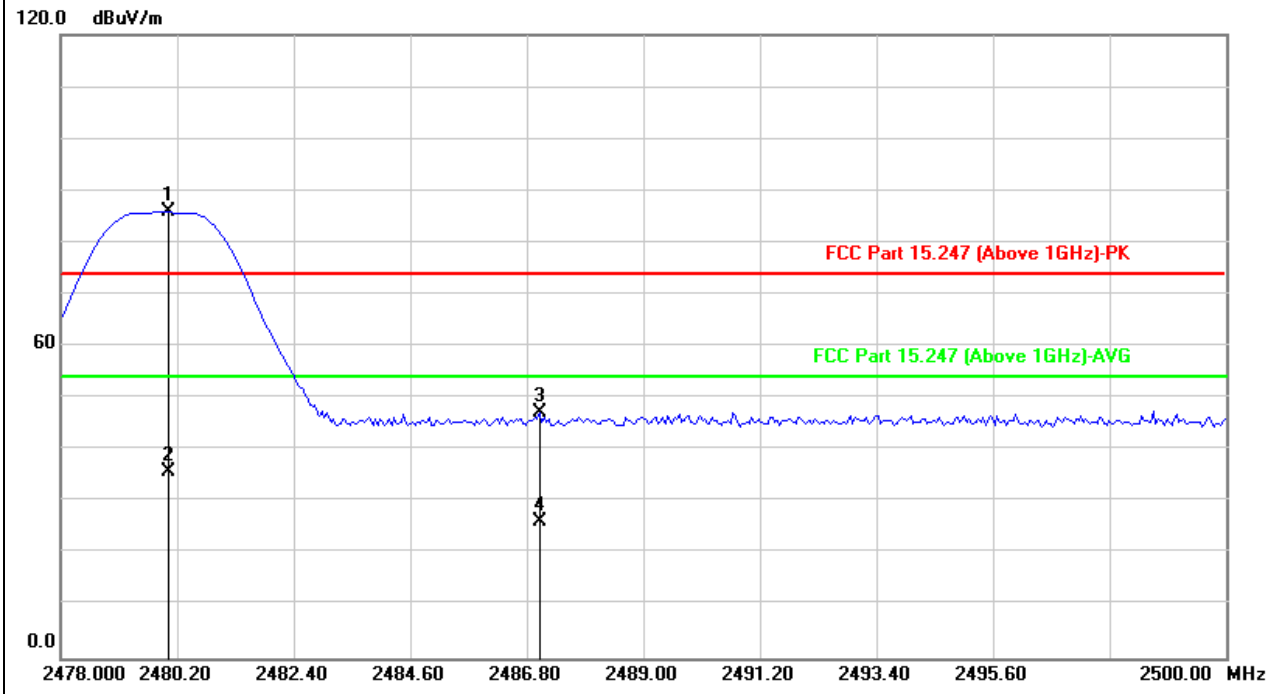
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Height (cm)	Table Angle (Degree)
1#	2480.028	90.87	0.20	91.07			peak	324	136
2#	2480.028	36.67	0.20	36.87			AVG	324	136
3	2498.457	48.05	0.17	48.22	74.00	-25.78	peak	324	136
4	2498.457	26.48	0.17	26.65	54.00	-27.35	AVG	324	136
5	4960.000	46.39	3.57	49.96	74.00	-24.04	peak	250	199
6	4960.000	38.06	3.57	41.63	54.00	-12.37	AVG	250	199
7	7440.000	39.36	11.57	50.93	74.00	-23.07	peak	100	236
8	7440.000	29.95	11.57	41.52	54.00	-12.48	AVG	100	236
9	9920.000	41.34	16.05	57.39	74.00	-16.61	peak	100	169
10	9920.000	27.45	16.05	43.50	54.00	-10.50	AVG	100	169

Remarks:

7. Emission Level = Read Level + Factor (Antenna Factor + Cable Loss - Preamp Factor)
8. Margin value = Emission level – Limit value
9. #2480MHz: Fundamental frequency.

Test channel	Channel 39	Frequency Range	1GHz ~ 25GHz
Detector Function	Peak (PK) Average (AVG)	Tested By	Dragon

Antennal Polarity& Test Distance: Vertical at 3 M



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Height (cm)	Table Angle (Degree)
1#	2480.028	85.68	0.20	85.88			peak	316	272
2#	2480.028	35.70	0.20	35.90			AVG	316	272
3	2487.038	47.18	0.19	47.37	74.00	-26.63	peak	316	272
4	2487.038	25.95	0.19	26.14	54.00	-27.86	AVG	316	272
5	4960.000	47.44	3.57	51.01	74.00	-22.99	peak	300	236
6	4960.000	38.73	3.57	42.30	54.00	-11.70	AVG	300	236
7	7440.000	40.33	11.57	51.90	74.00	-22.10	peak	200	135
8	7440.000	31.08	11.57	42.65	54.00	-11.35	AVG	200	135
9	9920.000	41.72	16.05	57.77	74.00	-16.23	peak	355	205
10	9920.000	28.08	16.05	44.13	54.00	-9.87	AVG	355	205

Remarks:

10.Emission Level = Read Level + Factor (Antenna Factor + Cable Loss - Preamp Factor)

11.Margin value = Emission level – Limit value

12.#2480MHz: Fundamental frequency.

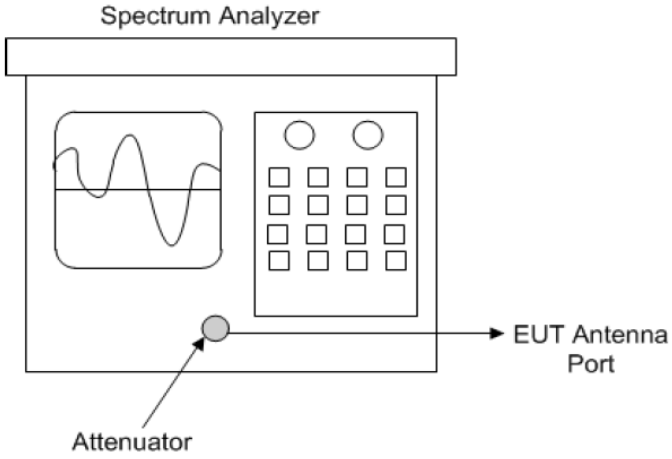
3.2 6dB Bandwidth Measurement

3.2.1 Limits of 6dB Bandwidth Measurement

The minimum of 6dB Bandwidth Measurement is 0.5MHz.

3.2.2 Test Setup

Subclause 11.8 of ANSI C63.10 is applicable.



Spectrum analyzer test configuration

3.2.3 Test Instruments

Refer to section 5 to get information of above instrument.

3.2.4 Test Procedure

Option 1:

a. Set resolution bandwidth (RBW) = 30kHz
b. Set the video bandwidth (VBW) ≥ 3 x RBW
c. Detector = Peak.
d. Trace mode = max hold.
e. Sweep = auto couple.
f. Allow the trace to stabilize.
g. Measure the maximum width of the emission that is constrained by the frequencies associated with the two amplitude points (upper and lower) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission

Option 2:

The automatic bandwidth measurement capability of an instrument may be employed using the dB bandwidth mode with *X* set to 6 dB. if the functionality described in 11.8.1 (i.e. RBW= 100 kHz. VBW ≥ 3*RBW. and peak detector with maximum hold) is implemented by the instrumentation function. When using this capability. care shall be taken so that the bandwidth measurement is not influenced by any intermediate power nulls in the fundamental emission that might be ≥6 dB

3.2.5 Deviation from Test Standard

No deviation.

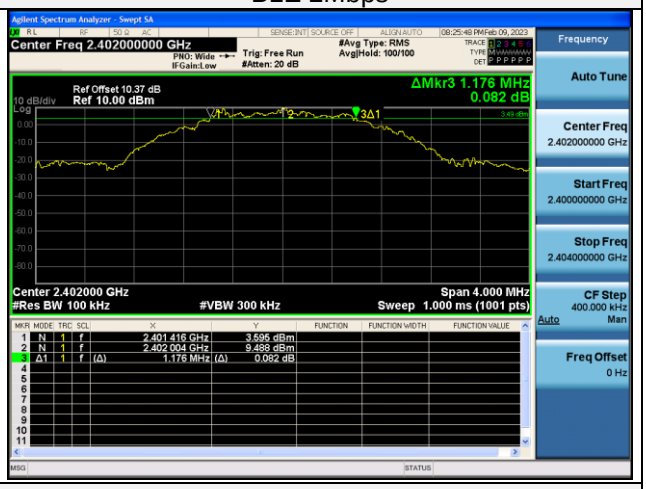
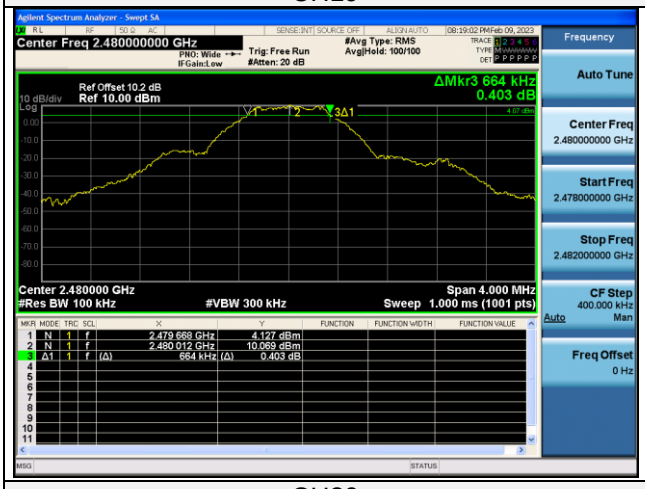
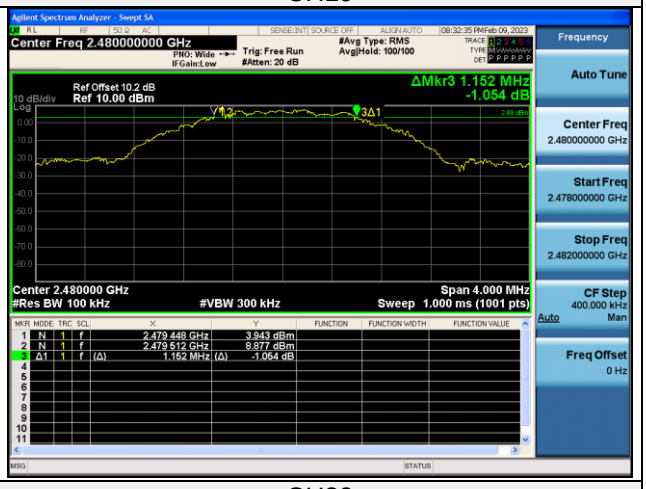
3.2.6 EUT Operating Conditions

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

3.2.7 Test Result

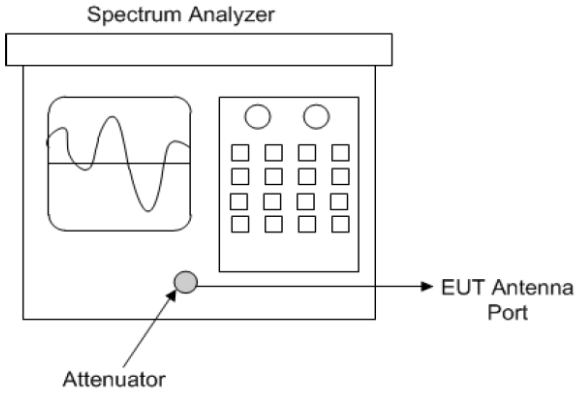
BLE-1Mbps			
Operation Channel	Frequency	Occupied Bandwidth (MHz)	
		Result	Limit
0	2402MHz	0.668	>0.5
19	2440MHz	0.692	>0.5
39	2480MHz	0.664	>0.5

BLE-2Mbps			
Operation Channel	Frequency	Occupied Bandwidth (MHz)	
		Result	Limit
0	2402MHz	1.176	>0.5
19	2440MHz	1.160	>0.5
39	2480MHz	1.152	>0.5

BLE 1Mbps	BLE 2Mbps
	
CH0	CH0
	
CH19	CH19
	
CH39	CH39

3.3 Occupied Bandwidth Measurement

3.3.1 Test Setup



3.3.2 Test Instruments

Refer to section 5 to get information of above instrument.

3.3.3 Test Procedure

The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with resolution bandwidth in the range of 1% to 5% of the anticipated emission bandwidth, and a video bandwidth at least 3x the resolution bandwidth and set the detector to peak. The width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5 %of the total mean power of a given emission.

3.3.4 Deviation from Test Standard

No deviation.

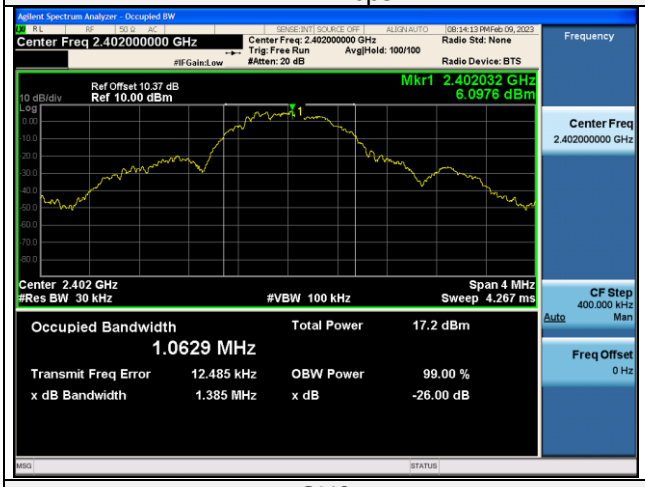
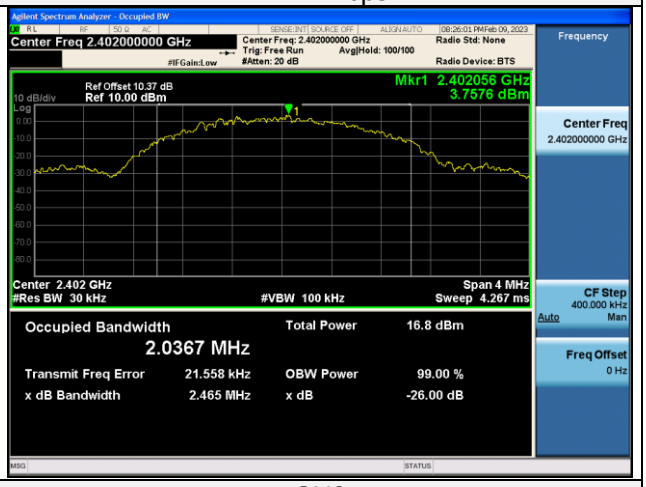
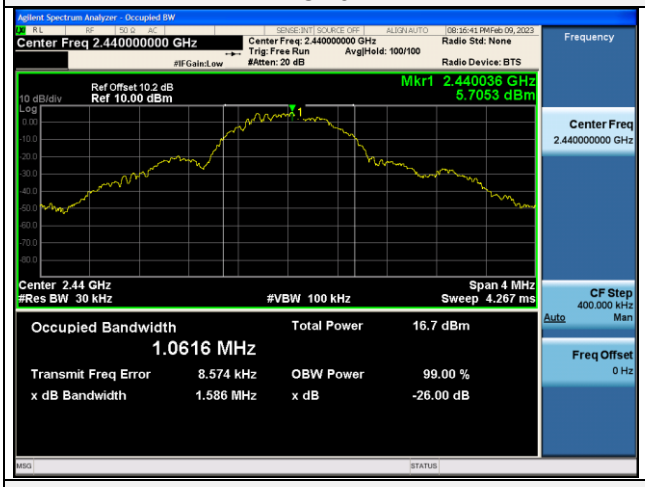
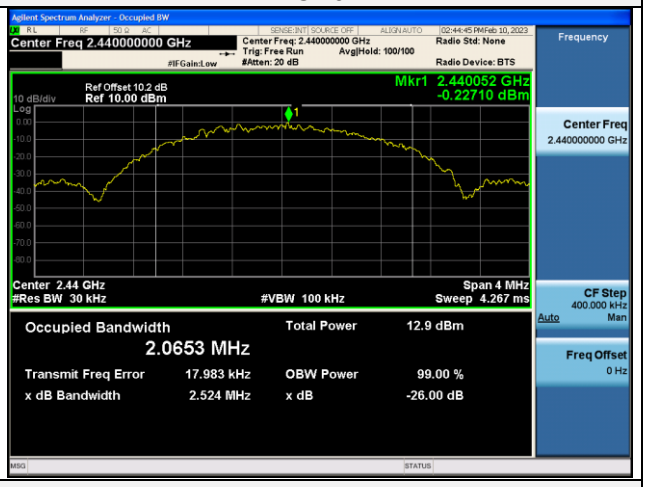
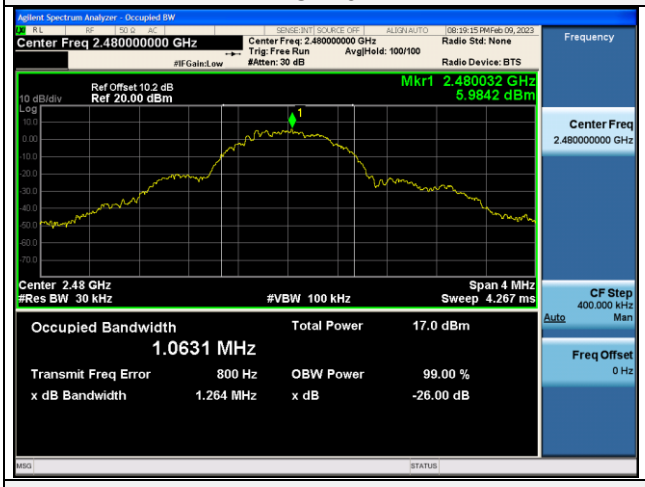
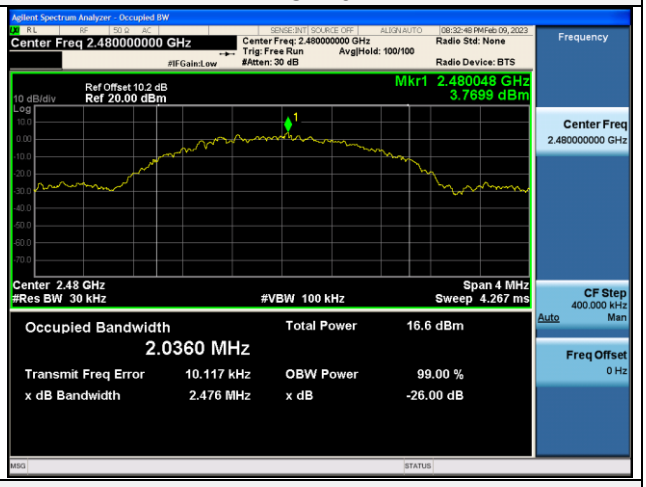
3.3.5 EUT Operating Conditions

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

3.3.6 Test Results

BLE-1Mbps			
Operation Channel	Frequency	Occupied Bandwidth (MHz)	
		Result	Limit
0	2402MHz	1.0629	2400~2483.5
19	2440MHz	1.0616	2400~2483.5
39	2480MHz	1.0631	2400~2483.6

BLE-2Mbps			
Operation Channel	Frequency	Occupied Bandwidth (MHz)	
		Result	Limit
0	2402MHz	2.0367	2400~2483.5
19	2440MHz	2.0653	2400~2483.5
39	2480MHz	2.0360	2400~2483.6

BLE 1Mbps	BLE 2Mbps
	
CH0	CH0
	
CH19	CH19
	
CH39	CH39

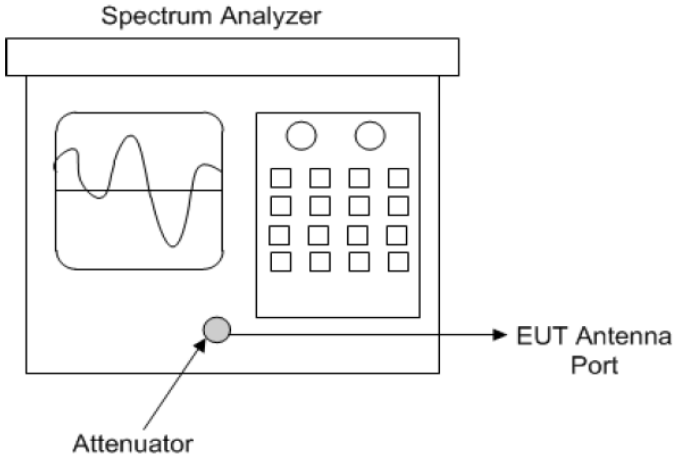
3.4 Conducted Output Power Measurement

3.4.1 Limits of Conducted Output Power Measurement

For systems using digital modulation in the 2400–2483.5 MHz bands: 1 Watt (30dBm)

3.4.2 Test Setup

- Measurement using a spectrum analyzer (SA) Subclause 11.9.2.2 of ANSI C63.10 is applicable



Spectrum analyzer output power test configuration

3.4.3 Test Instruments

Refer to section 5 to get information of above instrument.

3.4.4 Test Procedures

Measurement using a spectrum analyzer (SA)，Selection of test method：

The proper test method is selected based on the following criteria:

a) **Method AVGSA-1 or method AVGSA-1A (alternative)** shall be applied if either of the following conditions can be satisfied:
1) The EUT transmits continuously (or with a D> 98%).
2) Sweep triggering can be implemented in such a way that the device transmits at the maximum power control level throughout the duration of each of the instrument sweeps to be averaged. This condition can generally be achieved by triggering the instrument's sweep if the duration of the sweep (with the instrument configured as in method AVGSA-1) is equal to or shorter than the duration T of each transmission from the EUT, and if those transmissions exhibit full power throughout their durations.

b) **Method AVGSA-2 or method AVGSA-2A (alternative)** shall be applied if the conditions of the preceding item a) cannot be achieved and the transmissions exhibit a constant duty cycle during the measurement duration. Duty cycle will be considered to be constant if variations are less than +2%.

c) **Method AVGSA-3 or method AVGSA-3A** (alternative) shall be applied if the conditions of the preceding item a) and item b) cannot be achieved.

Method AVGSA-3 or method AVGSA-3A:

a) Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
b) Turn on the EUT and connect it to measurement instrument. Then set it to any one convenient frequency within its operating range. Set a reference level on the measuring instrument equal to the highest peak value.
c) SA Setting:
1* Set span to at least 1.5 times the OBW
2* Set sweep trigger to "free run."
3* Set RBW= 1% to 5% of the OBW. not to exceed 1MHz.
4* Set VBW ≥ 3 x RBW
5* Number of points in sweep≥ 2 x span /RBW. (This gives bin-to-bin spacing ≤ RBW / 2. so that narrowband signals are not lost between frequency bins).
6* Sweep time ≤ (number of points in sweep) x T. where T is defined in 11.6. If this gives a sweep time less than the auto sweep time of the instrument. then method AVGSA-3 shall not be used (use AVGSA-3A). The purpose of this step is so that the averaging time in each bin is less than or equal to the minimum time of a transmission.
7* Detector =RMS (power averaging).
8* Trace mode =max hold.
9* Allow max hold to run for at least 60 s or longer as needed to allow the trace to stabilize.
10* Compute power by integrating the spectrum across the OBW of the signal using the instrument's band power measurement function with band limits set equal to the OBW band edges. If the instrument does not have a band power function. then sum the spectrum levels (in power units) at intervals equal to the RBW extending across the entire OBW
d. Measure the captured power within the band and recording the plot.
e. Repeat above procedures until all frequencies required were complete.

3.4.5 Deviation from Test Standard

No deviation.

3.4.6 EUT Operating Conditions

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

3.4.7 Test Results

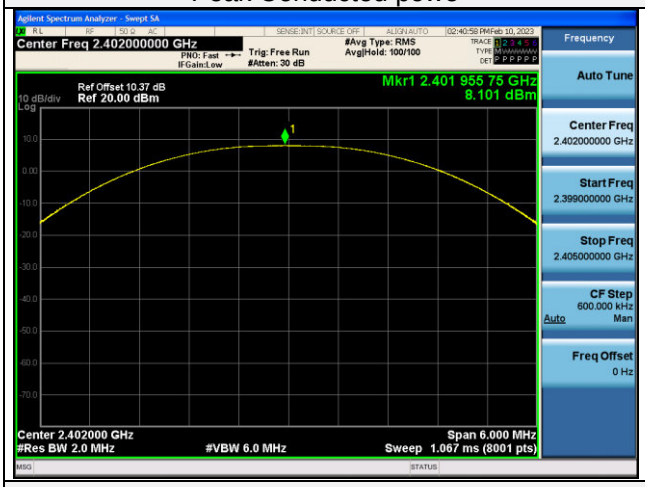
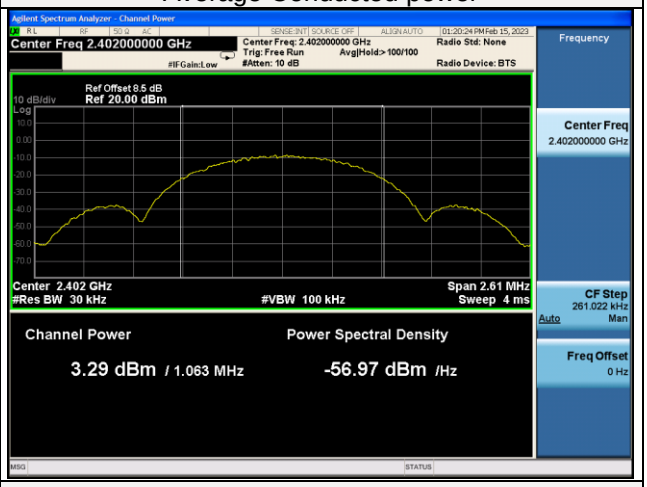
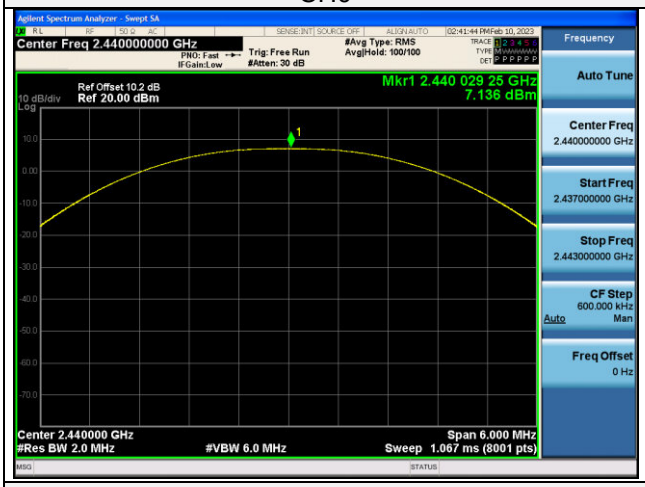
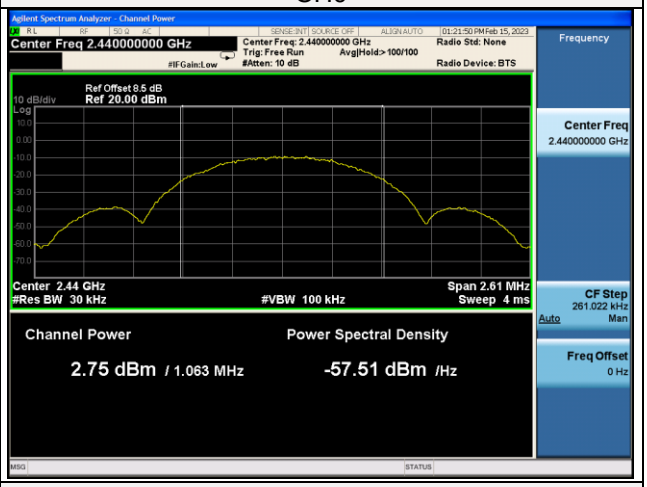
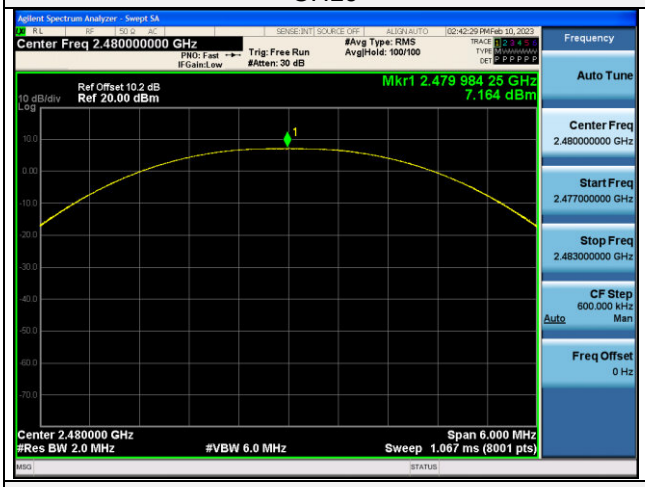
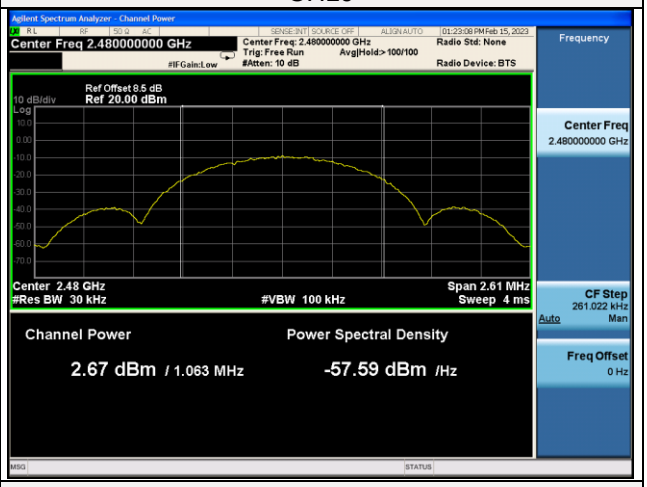
BLE-1Mbps						
Peak Power						
Channel	Freq.	RF Output Power		Limit (mW)		Verdict
No.	(MHz)	(dBm)	(mW)	Rss-247	FCC	
0	2402	8.101	6.458	<125	<1000	Pass
19	2440	7.136	5.171	<125	<1000	Pass
39	2480	7.164	5.205	<125	<1000	Pass

BLE-1Mbps						
Average Power						
Channel	Freq.	RF Output Power		Limit (mW)		Verdict
No.	(MHz)	(dBm)	(mW)	Rss-247	FCC	
0	2402	3.290	2.133	<125	<1000	Pass
19	2440	2.750	1.884	<125	<1000	Pass
39	2480	2.670	1.849	<125	<1000	Pass

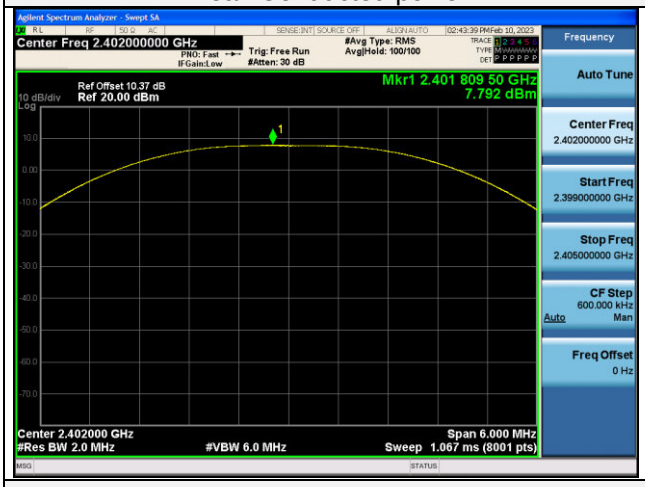
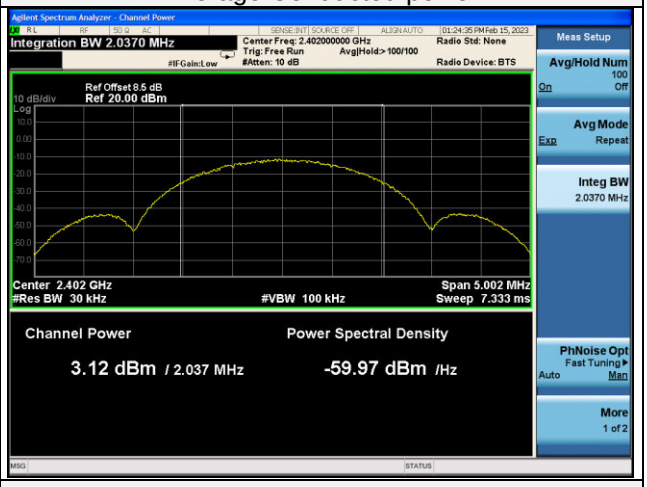
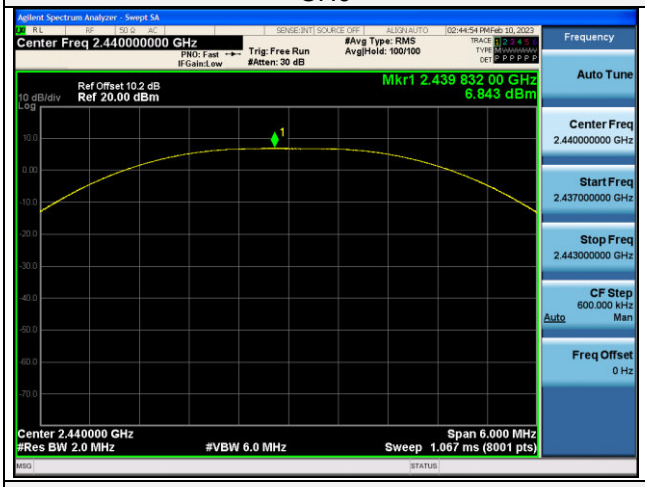
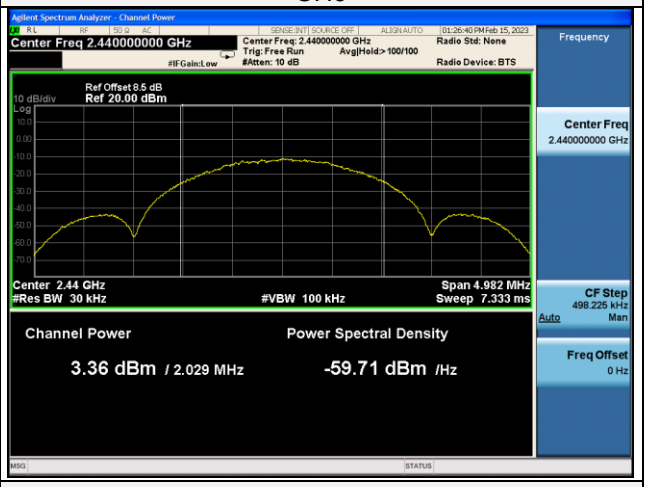
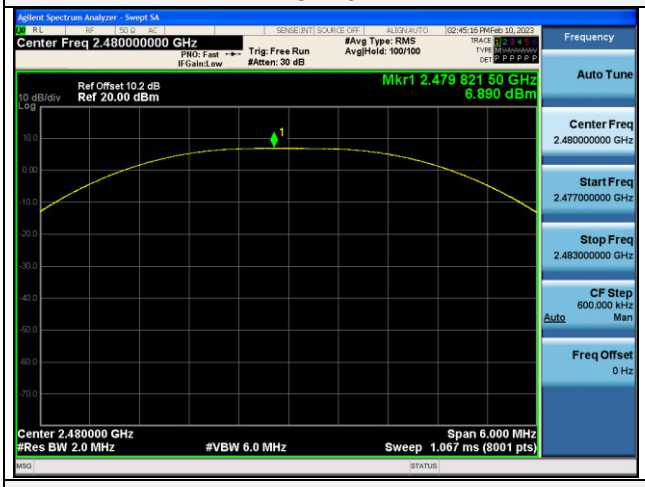
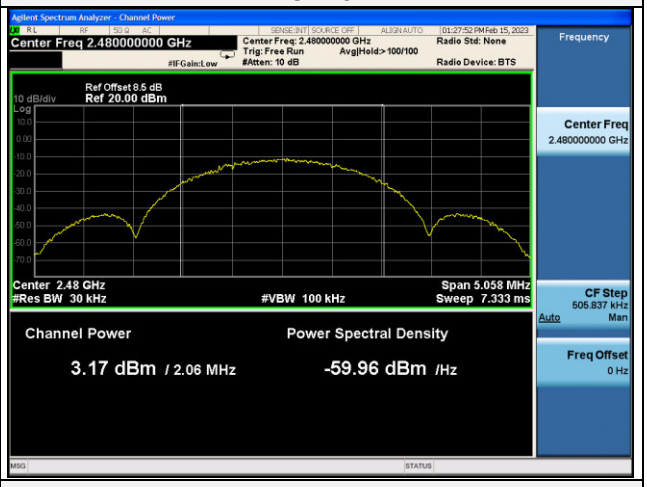
BLE-2Mbps						
Peak Power						
Channel	Freq.	RF Output Power		Limit (mW)		Verdict
No.	(MHz)	(dBm)	(mW)	Rss-247	FCC	
0	2402	7.792	6.015	<125	<1000	Pass
19	2440	6.843	4.834	<125	<1000	Pass
39	2480	6.890	4.887	<125	<1000	Pass

BLE-2Mbps						
Average Power						
Channel	Freq.	RF Output Power		Limit (mW)		Verdict
No.	(MHz)	(dBm)	(mW)	Rss-247	FCC	
0	2402	3.120	2.051	<125	<1000	Pass
19	2440	3.360	2.168	<125	<1000	Pass
39	2480	3.170	2.075	<125	<1000	Pass

1Mbps

Peak Conducted powe	Average Conducted power
	
CH0	CH0
	
CH19	CH19
	
CH39	CH39

2Mbps

Peak Conducted powe	Average Conducted power
	
CH0	CH0
	
CH19	CH19
	
CH39	CH39

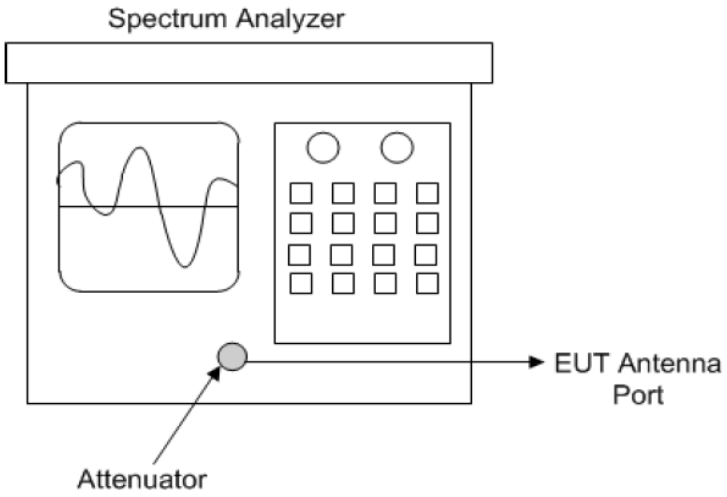
3.5 Power Spectral Density Measurement

3.5.1 Limits of Power Spectral Density Measurement

The Maximum of Power Spectral Density Measurement is 8dBm/3kHz.

3.5.2 Test Setup

- DTS maximum power spectral density level in the fundamental emission Subclause 11.10 of ANSI C63.10 is applicable



Spectrum analyzer test configuration

3.5.3 Test Instruments

Refer to section 5 to get information of above instrument.

3.5.4 Test Procedure

a. **Method AVGPSD-1 or method AVGPSD-1A (alternative)** shall be applied if either of the following conditions can be satisfied:
   1) The EUT transmits continuously (or with a D ≥98%).
   2) Sweep triggering can be implemented in such a way that the device transmits at the maximum power control level throughout the duration of each of the instrument sweeps to be averaged. This condition can generally be achieved by triggering the instrument's sweep if the duration of the sweep is equal to or shorter than the duration I of each transmission from the EUT, and if those transmissions exhibit full power throughout these durations.

b. **Method AVGPSD-2 or method AVGPSD-2A (alternative)** shall be applied if the conditions of the preceding item a) cannot be achieved. and the transmissions exhibit a constant duty cycle during the measurement duration. Duty cycle will be considered to be constant if variations are less than ±2%.

c. **Method AVGPSD-3 or method AVGPSD-3A (alternative)** shall be applied if the conditions of the preceding paragraphs a) and b) cannot be achieved.

Method AVGPSD-3:

Method AVGPSD-3 uses mms detection across ON and OFE times of the EUT with max hold. The following procedure is applicable when the EUT cannot be configured to transmit continuously (i.e. D<98%), when sweep triggering/signal gating cannot be used to measure only when the EUT is transmitting at its maximum power control level. and when the transmission duty cycle is not constant (i.e., duty cycle variations exceed ±2%),

SA Setting:

a. Set the instrument span to a minimum of 1.5 times the OBW.
b. Set sweep trigger to "free run."
c. Set the RBW = 3 kHz, VBW =10 kHz,
d. Detector = RMS (power averaging).
e. Sweep time = Auto couple,
f. Allow max hold to run for at least 60 s or longer as needed to allow the trace to stabilize.
g. Use the peak marker function to determine the maximum PSD level

- If the measured value exceeds requirement, then reduce RBW (but no less than 3 kHz) and repeat (note that this may require zooming in on the emission of interest and reducing the span to meet the minimum measurement point requirement as the RBW is reduced).

3.5.5 Deviation from Test Standard

No deviation.

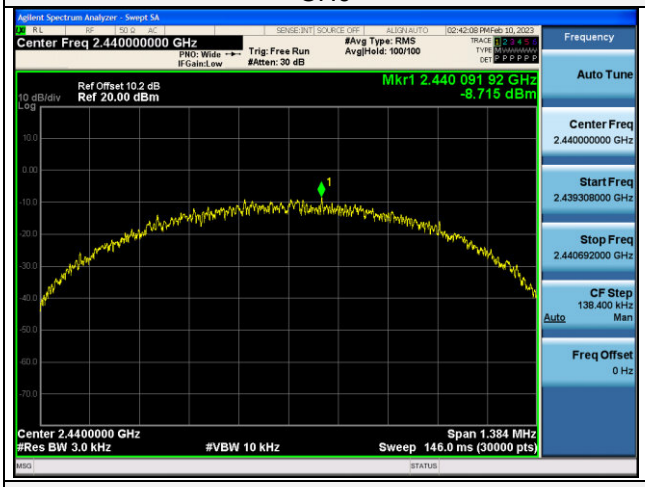
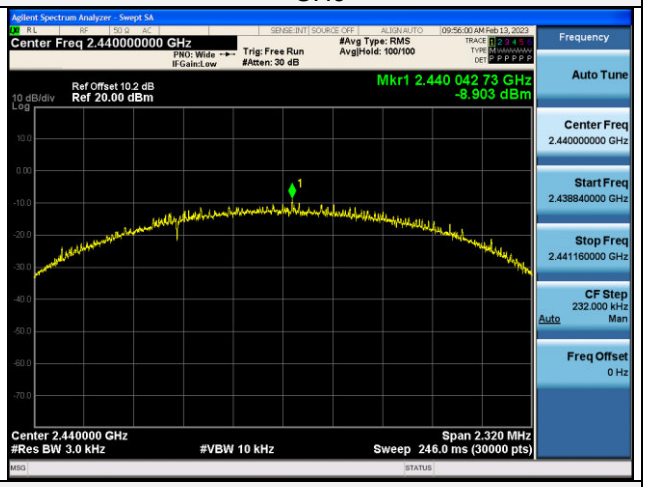
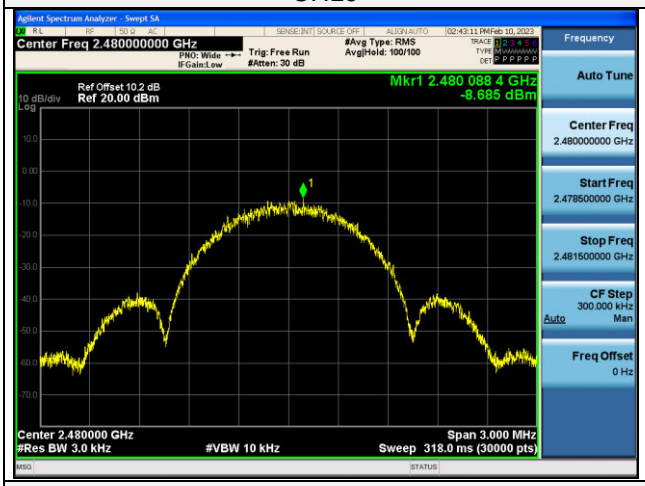
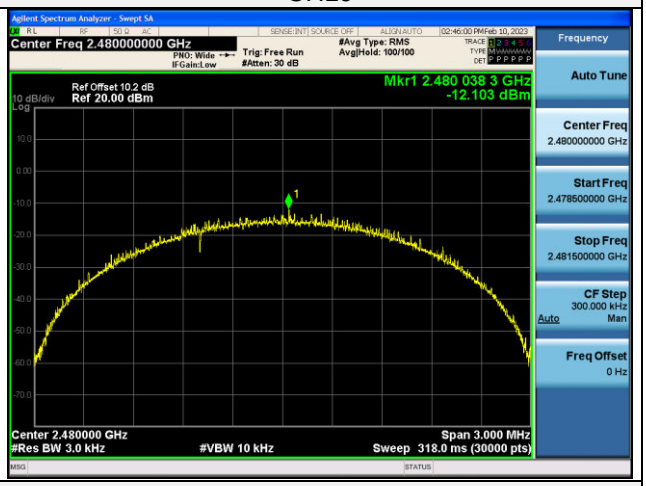
3.5.6 EUT Operating Condition

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

3.5.7 Test Results

BLE-1Mbps	Power Density		
Test Channel	Channel Frequency	Test Result (dBm/10kHz)	Limit (dBm/3kHz)
0	2402MHz	**-7.831**	<8
19	2440MHz	-8.715	<8
39	2480MHz	-8.685	<8

BLE-2Mbps	Power Density		
Test Channel	Channel Frequency	Test Result (dBm/10kHz)	Limit (dBm/3kHz)
0	2402MHz	**-11.208**	<8
19	2440MHz	-8.590	<8
39	2480MHz	-12.103	<8

BLE 1Mbps	BLE 2Mbps
	
CH0	CH0
	
CH19	CH19
	
CH39	CH39

3.6 Conducted Out of Band Emission Measurement

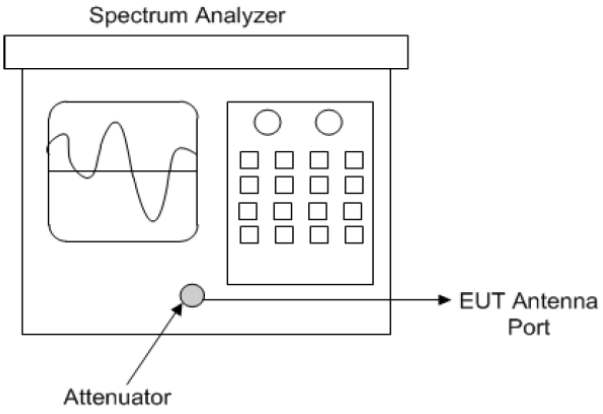
3.6.1 Limits of Conducted Out of Band Emission Measurement

a. **If the maximum peak conducted output power procedure was used to determine compliance as described in 11.9.1**, then the peak output power measured in any 100 kHz bandwidth outside of the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum in-band peak PSD level in 100 kHz (i.e., 20 dBc).

b. **If maximum conducted (average) output power was used to determine compliance as described in 11.9.2**. then the peak power in any 100 kHz bandwidth outside of the authorized frequency band shall be attenuated by at least 30 dB relative to the maximum in-band peak PSD level in 100 kHz (i.e., 30 dBc).

3.6.2 Test Setup

- DTS emissions in non-restricted frequency bands Subclause 11.11 of ANSI C63.10 is applicable.
- DTS emissions in restricted frequency bands Subclause 11.12 of ANSI C63.10 is applicable



Spectrum analyzer test configuration

3.6.3 Test Instruments

Refer to section 5 to get information of above instrument.

3.6.4 Test Procedure

a. Establish a reference level by using the following procedure:

1) Set instrument center frequency to DTS channel center frequency.
2) Set the span to 21.5 times the DTS bandwidth)
3) Set the RBW= 100 kHz)
4) Set the VBW ≥3 x RBW
5) Detector = peak
6) Sweep time = auto coupling
7) Trace mode =max hold
8) Allow trace to fully stabilize
9) Use the peak marker function to determine the maximum PSD level.

Note that the channel found to contain the maximum PSD level can be used to establish the reference level.

b. Establish an emission level by using the following procedure:

1) Set the center frequency and span to encompass frequency range to be measured.
2) Set the RBW = 100 kHz
3) Set the VBW ≥ 300 kHz.
4) Detector = peak.
5) Sweep time = auto couple.
6) Trace mode = max hold.
7) Allow trace to fully stabilize.
8) Use the peak marker function to determine the maximum power level in any 100 kHz band segment within the fundamental EBW.

3.6.5 Deviation from Test Standard

No deviation.

3.6.6 EUT Operating Condition

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.