No.:
FCCSZ2024-0006-RF2

TEST REPORT

FCC ID	:	**2AUTE-4TS24A**
NAME OF SAMPLE	:	**Photo Printer**
APPLICANT	:	**Xiamen Hanin Co., Ltd.**
CLASSIFICATION OF TEST	:	**N/A**

CVC Testing Technology (Shenzhen) Co., Ltd.

Applicant	**Name: Xiamen Hanin Co., Ltd.** **Address: Room 305A, Angye Buildling, Pioneering Park,Torch High-tech Zone,Xiamen,China**
Manufacturer	**Name: Xiamen Hanin Co., Ltd.** **Address: Room 305A, Angye Buildling, Pioneering Park,Torch High-tech Zone,Xiamen,China**
Equipment Under Test	**Name: Photo Printer** **Model/Type: HCP-4TS24A** **Additional Models/Types: CP4100** **Brand: N/A** **Serial NO.: N/A** **Sample NO.: 4-1**

Date of Receipt.	**2024.01.23**	Date of Testing	**2024.01.24 ～ 2024.03.01**

Test Specification	**Test Result**
FCC Part 15, Subpart C, Section 15.247	PASS

Evaluation of Test Result	The equipment under test was found to comply with the requirements of the standards applied. Seal of CVC **Issue Date: 2024.03.01**

Tested by:	Reviewed by:	Approved by:
Zhu Yulin	**Huang Meng**	**Dong Sanbi**
Name Signature	Name Signature	Name Signature

Other Aspects: NONE.

Abbreviations:OK, Pass= passed Fail = failed N/A= not applicable EUT= equipment, sample(s) under tested

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
FCCSZ2024-0006-RF2	Original release	2024.03.01

1 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC Part 15 Subpart C			
STANDARD SECTION	**TEST TYPE AND LIMIT**	**RESULT**	**REMARK**
FCC Part 15.207	AC Power Conducted Emission	PASS	Meet the requirement of limit.
FCC Part 15.247(d) FCC Part 15.209	Radiated Emission and Restricted bands Measurements	PASS	Meet the requirement of limit.
FCC Part 15.247(d)	Out of band Emission and Band edge measurements	PASS	Meet the requirement of limit.
FCC Part 15.247(a)(2)	6dB Bandwidth Measurement	PASS	Meet the requirement of limit.
---	Occupied Channel Bandwidth	N/A	For reference
FCC Part 15.247(b)	Conducted Output power	PASS	Meet the requirement of limit.
FCC Part 15.247(e)	Power Spectral Density	PASS	Meet the requirement of limit.
FCC Part 15.203 FCC Part 15.247(b)	Antenna Requirement	PASS	Meet the requirement of limit.

1.1 LIST OF TEST AND MEASUREMENT INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial Number	Cal. interval	Cal. Due
Antenna Port Conducted Test					
Signal&Spectrum Analyzer	Rohde&Schwarz	FSV 30	104408	1 year	2024.5.21
#3Shielding room	MORI	443	N/A	3 year	2026.5.16
Wideband radio communication tester	Rohde&Schwarz	CMW 500	168778	1 year	2024.5.25
Analog signal Generator (100kHz ~ 40GHz)	Rohde&Schwarz	SMB 100A	181934	1 year	2024.5.21
Vector signal Generator (9kHz ~ 6GHz)	Keysight	N5182B	MY57301451	1 year	2024.4.25
Vector signal Generator (9kHz ~ 6GHz)	Rohde&Schwarz	SGT 100A	111724	1 year	2024.5.21
RF control unit(BT/WiFi)	Tonscend	JS0806-2-8CH	20E8060261	1 year	2024.5.21
Temperature and humidity meter	/	C193561457	C193561457	1 year	2024.5.21
Radiation Spurious Test - 3M Chamber #2					
Signal&Spectrum Analyzer	Rohde&Schwarz	FSV 40	101898	1 year	2024.5.21
EMI Test Receiver	Rohde&Schwarz	ESR3	102693	1 year	2024.5.25
Antenna(30MHz~1001MHz)	SCHWARZBECK	VULB 9168	1133	1 year	2024.5.21
Horn antenna(1GHz-18GHz)	ETS	3117	227611	1 year	2024.3.25
Horn antenna(18GHz-40GHz)	QMS	QMS-00880	22051	1 year	2024.3.25
3m anechoic chamber	MORI	966	CS0300011	3 year	2026.5.18
Filter group(RSE-BT/WiFi)	Rohde&Schwarz	WiFi /BT Variant 1	100820	1 year	2024.5.21
Filter group(RSE-Cellular)	Rohde&Schwarz	Cellular Variant 1	100768	1 year	2024.5.21
Preamplifier(10kHz-1GHz)	Rohde&Schwarz	SCU-01F	100299	1 year	2024.5.21
Preamplifier(1GHz-18GHz)	Rohde&Schwarz	SCU-18F	100799	1 year	2024.5.21
Preamplifier(1GHz-18GHz)	Rohde&Schwarz	SCU-18F	100801	1 year	2024.5.21
Preamplifier(18Gz-40GHz)	Rohde&Schwarz	SCU-40A	101209	1 year	2024.5.21
#2 control room	MORI	433	CS0300028	3 year	2024.5.21
Temperature and humidity meter	/	C193561517	C193561517	1 year	2024.5.21
Radiation Spurious Test - 3M Chamber #1					
EMI Test Receiver	Rohde&Schwarz	ESR 26	101718	1 year	2024.5.25
Loop antenna（8.3k~30MHz）	Rohde&Schwarz	HFH2-Z2E	100951	1 year	2024.5.26
Antenna(30MHz~1000MHz)	SCHWARZBECK	VULB 9168	1132	1 year	2024.5.21
Horn antenna(1GHz-18GHz)	ETS	3117	227634	1 year	2024.3.25
Horn antenna(18GHz-40GHz)	SCHWARZBECK	BBHA 9170	01003	1 year	2024.3.25
3m anechoic chamber	MORI	966	CS0200019	3 year	2026.5.18
Attenuator	/	SJ-5dB	607684	1 year	2024.5.21
#1 control room	MORI	433	CS0300028	3 year	2026.5.16
Temperature and humidity meter	/	C193561473	CS0200071	1 year	2024.5.21

1.2 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:

No.	Item	Measurement Uncertainty
1	Occupied Channel Bandwidth	±1.86 %
2	RF output power, conducted	±0.9 dB
3	Power Spectral Density, conducted	±0.8 dB
4	Conducted emission test	+/-2.7 dB
5	Radiated emission 9kHz-30MHz	+/-5.6 dB
	Radiated emission 30MHz-1GHz	+/-4.6 dB
	Radiated emission 1GHz-18GHz	+/-4.4 dB
	Radiated emission 18GHz-40GHz	+/-5.1 dB
6	Temperature	±0.73 °C
7	Humidity	±3.90 %
8	Supply voltages	±0.37 %
9	Time	±0.27 %
Remark: 95% Confidence Levels, k=2.		

1.3 TEST LOCATION

The tests and measurements refer to this report were performed by EMC testing Lab of CVC Testing Technology (Shenzhen) Co., Ltd.

Lab Address: No. 1301, Guanguang Road, Xinlan Community, Guanlan Street, Longhua District, Shenzhen City, Guangdong Province 518110 P.R.China

Post Code：518110 Tel：0755-23763060-8805
Fax：0755-23763060 E-mail：sz-kf@cvc.org.cn
FCC(Test firm designation number：CN1363)
IC(Test firm CAB identifier number：CN0137)
CNAS(Test firm designation number：L16091)

2 GENERAL INFORMATION

2.1 GENERAL PRODUCT INFORMATION

PRODUCT	Photo Printer
BRAND	N/A
MODEL	HCP-4TS24A
ADDITIONAL MODEL (Remark 6)	CP4100
FCC ID	2AUTE-4TS24A
POWER SUPPLY	DC 24V from Adapter
MODULATIONTECHNOLOGY	DSSS, GFKS, OFDM
MODULATION TYPE	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM GKSK for BT-LE
OPERATING FREQUENCY	2412MHz ~ 2462MHz for 11b/g/n(HT20) 2402MHz ~ 2480MHz for BT-LE (1Mbps)
NUMBER OF CHANNEL	802.11b/g/n (HT20): 11 BT-LE GFSK (1Mbps): 40
PEAK OUTPUT POWER	WLAN 2.4G: 15.83dBm (Maximum) BT-LE: 6.18dBm (Maximum)
ANTENNA TYPE AND GAIN (Remark 4/5)	WLAN 2.4G: FPC Antenna, with 2.26dBi gain BT-LE: FPC Antenna, with 2.26dBi gain
HARDWARE VERSION:	CP6000MB
SOFTWARE VERSION:	CP4100_V1.X.X.X
I/O PORTS	Refer to user's manual
CABLE SUPPLIED	N/A

Remark:

1. For more detailed features description, please refer to the manufacturer's specifications or the User's Manual.
2. For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.
3. Please refer to the EUT photo document for detailed product photo. (Report NO.: FCCSZ2024-0006-EUT)
4. Please refer to the antenna report.
5. Since the above data and/or information is provided by the client relevant results or conclusions of this report are only made for these data and/or information, CVC is not responsible for the authenticity, integrity and results of the data and information and/or the validity of the conclusion.
6. the only difference is the model name.
7. The EUT have SISO function, provides 1 completed transmitter and 1 receiver.

MODULATION MODE	TX FUNCTION
802.11b	1TX/1RX
802.11g	1TX/1RX
802.11n (HT20)	1TX/1RX

2.2 DESCRIPTION OF ACCESSORIES

Adapter	
Brand	N/A
Model No.:	AP053U-24200
Input:	100-240V~50/60Hz 1.5A
Output:	24.0V ⎓ 2.0A 48.0W
SN	KX202126000264
AC Cable:	N/A
DC Cable:	Shielded with one ferrite

2.3 OPERATING FREQUENCY OF EACH CHANNEL

2.4G WIFI					
802.11b/g/n (HT20)					
CHANNEL	**FREQ. (MHz)**	**CHANNEL**	**FREQ. (MHz)**	**CHANNEL**	**FREQ. (MHz)**
1	**2412**	5	2432	9	2452
2	2417	6	2437	10	2457
3	2422	**7**	**2442**	**11**	**2462**
4	2427	8	2447		

BT-LE (1Mbps)							
CHANNEL	**FREQ. (MHz)**	**CHANNEL**	**FREQ. (MHz)**	**CHANNEL**	**FREQ. (MHz)**	**CHANNEL**	**FREQ. (MHz)**
0	**2402**	10	2422	20	2442	30	2462
1	2404	11	2424	21	2444	31	2464
2	2406	12	2426	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**

The channels which were indicated in bold type of the above channel list were selected as representative test channel. Therefore, only the data of the test channels were recorded in this report.

2.4 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

Pre-scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates, xyz axis and antenna ports

EUT CONFIGURE MODE	APPLICABLE TEST ITEMS				DESCRIPTION
	RE<1G	RE≥1G	PLC	APCM	
A	√	√	√	√	2.4G WIFI Function
B	√	√	√	√	BT Function

Where **RE < 1G:** Radiated Emission below 1GHz **RE ≥ 1G:** Radiated Emission above 1GHz
PLC: Power Line Conducted Emission **APCM:** Antenna Port Conducted Measurement

RADIATED EMISSION TEST (BELOW 1 GHz):

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, XYZ axis, antenna ports (if EUT with antenna diversity architecture) and packet type.

☒ The worst case was found when positioned on x axis for radiated emission. Following channel(s) was (were) selected for the final test as listed below:

EUT CONFIGURE MODE	MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A	802.11b	1 to 11	1	DSSS	DBPSK	1.0

For the test results, only the worst case was shown in test report.

RADIATED EMISSION TEST (ABOVE 1 GHz):

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, XYZ axis, antenna ports (if EUT with antenna diversity architecture) and packet type.

☒ The worst case was found when positioned on x axis for radiated emission. Following channel(s) was (were) selected for the final test as listed below:

EUT CONFIGURE MODE	MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE PARAMETER
A	802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1.0 Mbps
A	802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6.0 Mbps
A	802.11n(HT20)	1 to 11	1, 6, 11	OFDM	BPSK	MCS0
B	BT-LE	0 to 39	0,19, 39	DTS	GFSK	1.0 Mbps

POWER LINE CONDUCTED EMISSION TEST:

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, antenna ports (if EUT with antenna diversity architecture), and packet types.

☒ Following channel(s) was (were) selected for the final test as listed below.

EUT CONFIGURE MODE	TESTED CONDITION
A	WiFi Link + BT Link

ANTENNA PORT CONDUCTED MEASUREMENT:

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

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, antenna ports (if EUT with antenna diversity architecture), and packet types.

☒ Following channel(s) was (were) selected for the final test as listed below.

EUT CONFIGURE MODE	MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE PARAMETER
A	802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1.0 Mbps
A	802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6.0 Mbps
A	802.11n(HT20)	1 to 11	1, 6, 11	OFDM	BPSK	MCS0
B	BT-LE	0 to 39	0,19, 39	DTS	GFSK	1.0 Mbps

TEST CONDITION:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	TEST VOLTAGE (SYSTEM)	TESTED BY
RSE<1G	25.3deg. C, 59%RH	DC 24V from Adapter	Liu Yuan
RSE≥1G	25.3deg. C, 59%RH	DC 24V from Adapter	Liu Yuan
PLC	25.7deg. C, 54%RH	DC 24V from Adapter	Zhu Yulin
APCM	25.7deg. C, 54%RH	DC 24V from Adapter	Zhu Yulin

2.5 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a RF product, according to the specifications of the manufacturers. It must comply with the requirements of the following standards:

FCC PART 15, Subpart C. Section 15.247

KDB 558074 D01 15.247 Meas Guidance v05r02

ANSI C63.10-2020

All test items have been performed and recorded as per the above standards

2.6 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.

Support Equipment					
NO	Description	Brand	Model No.	Serial Number	Supplied by
1	Mobile phone	MIYU	MIYU R17-X25	N/A	Lab

Support Cable							
NO	Description	Quantity (Number)	Length (cm)	Detachable (Yes/ No)	Shielded (Yes/ No)	Cores (Number)	Supplied by
1	N/A	N/A	N/A	N/A	N/A	N/A	N/A

3 TEST TYPES AND RESULTS

3.1 CONDUCTED EMISSION MEASUREMENT

3.1.1 Limit

Frequency (MHz)	Conducted Limits(dBμV)	
	Quasi-peak	Average
0.15 - 0.5	66 to 56 *	56 to 46*
0.5 - 5	56	46
5 - 30	60	50
NOTE: 1. The lower limit shall apply at the transition frequencies. NOTE: 2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.		

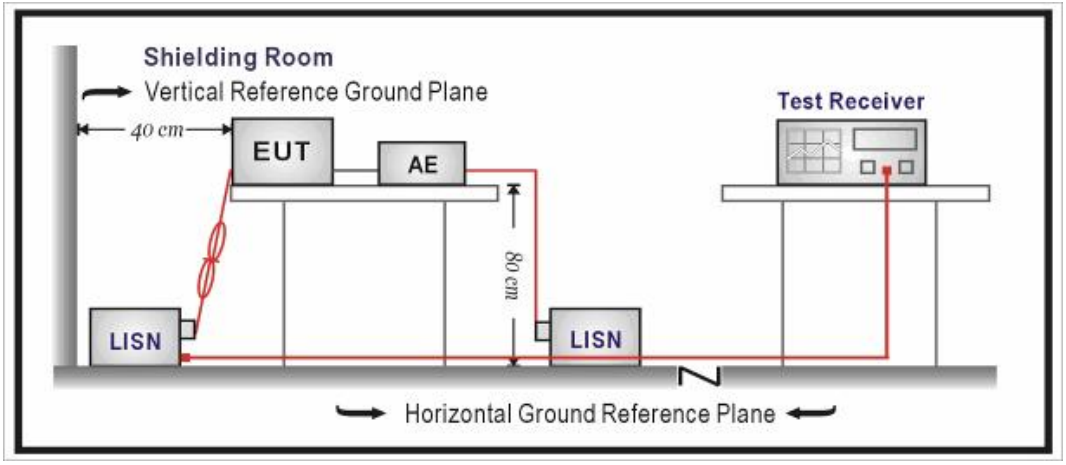
3.1.2 Measurement procedure

a. The EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The vertical conducting plane was located 40 cm to the rear of the EUT. All other surfaces of EUT were at least 80 cm from any other grounded conducting surface. The EUT and simulators are connected to the main power through a line impedance stabilization network (LISN). The LISN provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN. (Please refer to the Test photographs) Each current-carrying conductor of the EUT power cord, except the ground (safety) conductor, was individually connected through a LISN to the input power source.The equipment under test shall be placed on a support of non-metallic material, the height of which shall be1.5m above the ground,

b. The excess length of the power cord between the EUT and the LISN receptacle were folded back and forth at the center of the lead to form a bundle not exceeding 40 cm in length.

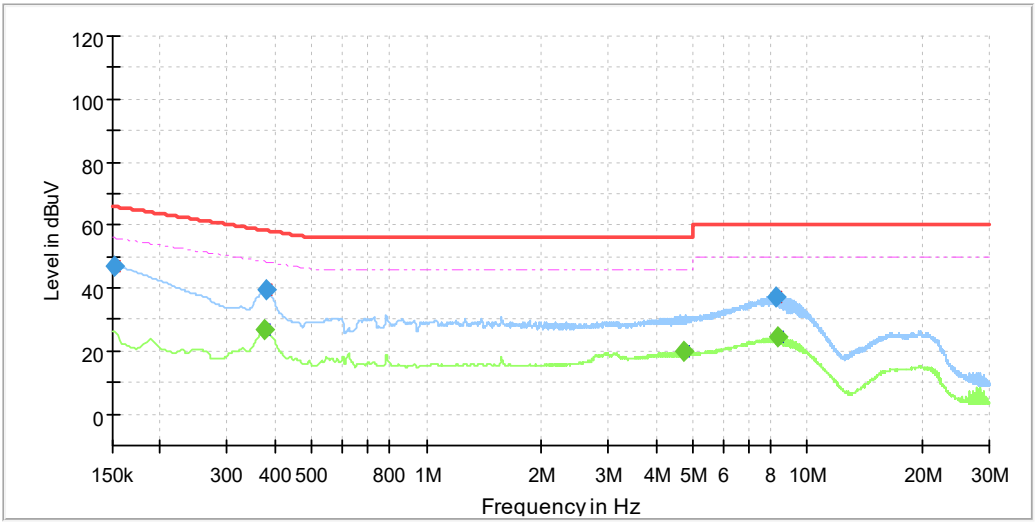
c. Conducted emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9 kHz.

3.1.3 Test setup



3.1.4 Test results

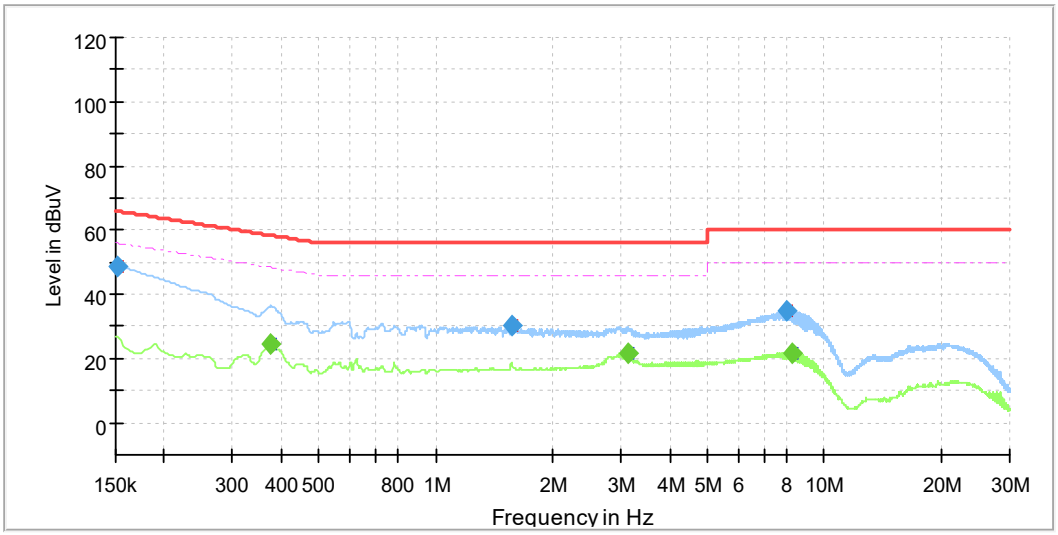
Test Mode	WiFi Link + BT Link	Frequency Range	150KHz ~ 30MHz
PHASE	Line (L)		



NO	Frequency (MHz)	QuasiPeak (dBuV)	Average (dBuV)	Limit (dBuV)	Margin (dB)	Line	Corr.Factor (dB)
1	0.152	46.9	---	65.9	19.0	L	10.0
2	0.377	---	26.6	48.3	21.7	L	9.9
3	0.380	39.3	---	58.3	19.0	L	9.9
4	4.724	---	19.7	46.0	26.3	L	10.2
5	8.279	37.4	---	60.0	22.6	L	10.3
6	8.342	---	24.3	50.0	25.7	L	10.3

Remark: The emission levels of other frequencies were very low against the limit.

Test Mode	**WiFi Link + BT Link**	**Frequency Range**	150KHz ~ 30MHz
PHASE	Line (N)		



NO	Frequency (MHz)	QuasiPeak (dBuV)	Average (dBuV)	Limit (dBuV)	Margin (dB)	Line	Corr.Factor (dB)
1	**0.152**	**48.7**	**---**	**65.9**	**17.2**	**N**	**10.0**
2	0.377	---	24.4	48.3	23.9	N	9.9
3	1.565	30.3	---	56.0	25.7	N	10.0
4	3.127	---	21.5	46.0	24.5	N	10.1
5	8.036	34.7	---	60.0	25.3	N	10.3
6	8.277	---	21.9	50.0	28.1	N	10.3

Remark: The emission levels of other frequencies were very low against the limit.

3.2 RADIATED EMISSION AND RESTRICTED BANDS MEASUREMENTS

3.2.1 Limit

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a).

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

NOTE: 1. The lower limit shall apply at the transition frequencies.
NOTE: 2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
NOTE: 3. As shown in 15.35(b), 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.

3.2.2 Measurement procedure

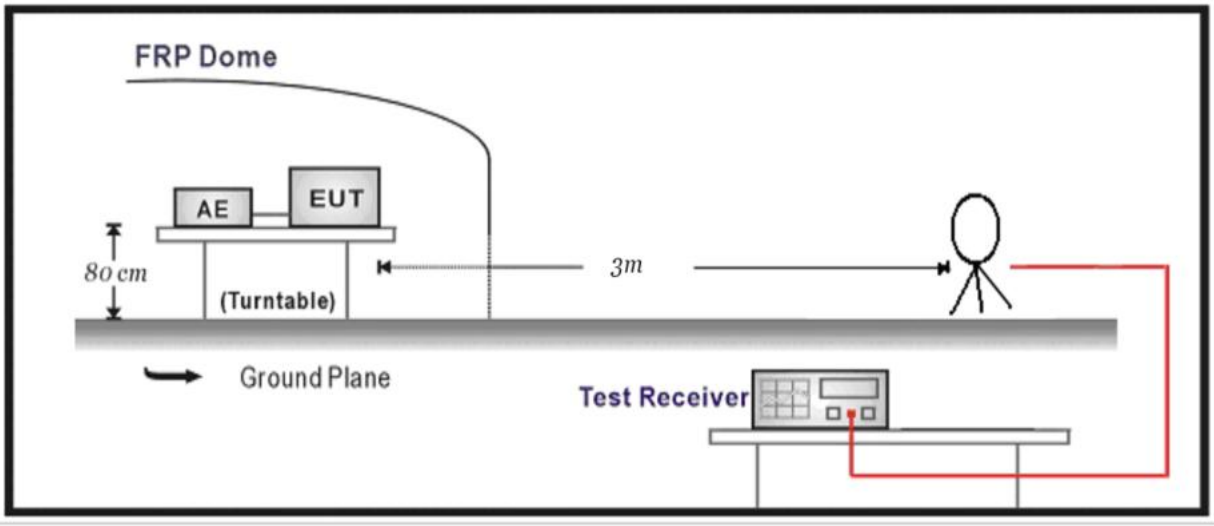
a. The EUT was placed on the top of a rotating table 1.5 meters(above 1GHz) and 0.8 meters(below 1GHz) above the ground at a 3 meters semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
c. For below 1GHz was used bilog antenna, and above 1GHz was used horn antenna, and its height 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.
d. 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.
e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
f. For below 30MHz, a loop antenna with its vertical plane is place 3m from the EUT and rotated about its vertical axis for maximum response at each azimuth about the EUT. And the centre of the loop shall be 1m above the ground.
g. During the test, each emission was maximized by: having the EUT continuously working, investigated all operating modes, rotated about all 3 axis (X, Y & Z) and considered typical configuration to obtain worst position, manipulating interconnecting cables, For battery operated equipment, the equipment tests shall be perform using fresh batteries. The turntable was rotated to maximize the emission level.

NOTE:

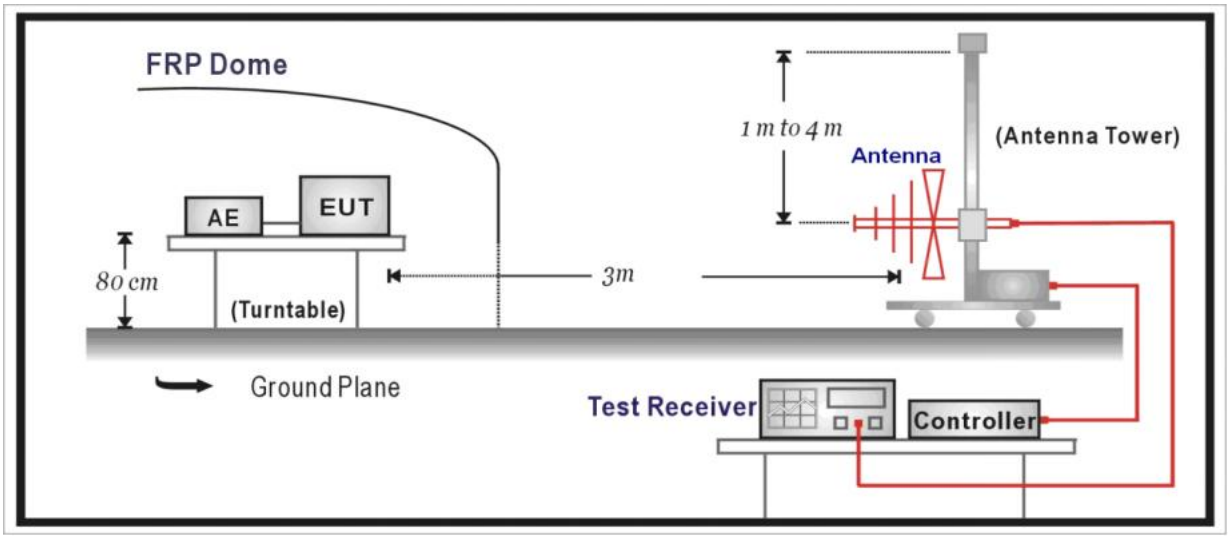
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is ⩾ 1/T (Duty cycle < 98%) or 10Hz(Duty cycle > 98%) for Average detection (AV) at frequency above 1GHz.
4. All modes of operation were investigated and the worst-case emissions are reported.
5. The testing of the EUT was performed on all 3 orthogonal axes; the worst-case test configuration was reported on the file test setup photo.

3.2.3 Test setup

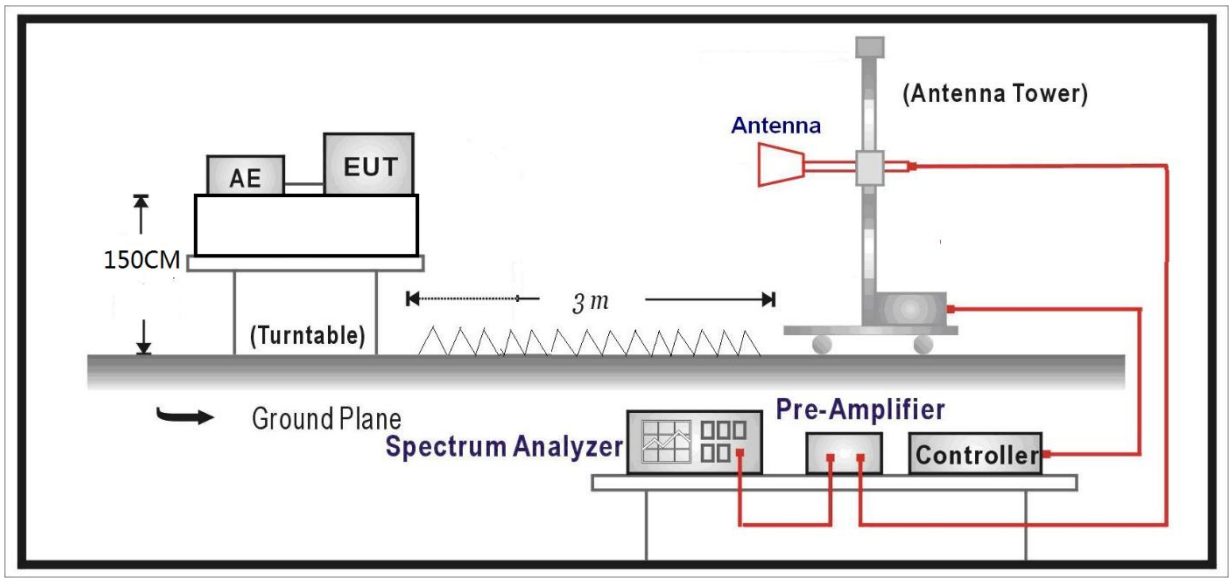
Below 30MHz Test Setup:



Below 1GHz Test Setup:



Above 1GHz Test Setup:

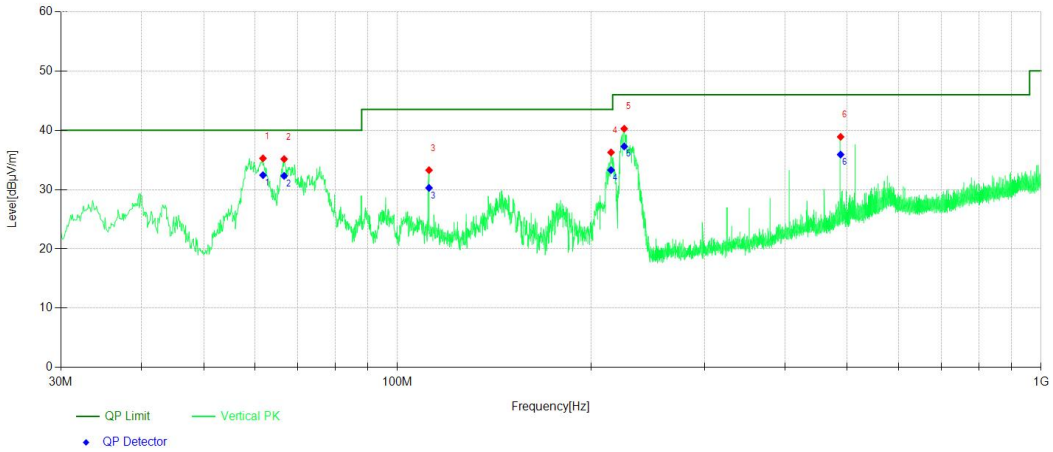


3.2.4 Test results

BELOW 1GHz WORST-CASE DATA

Worst Test Mode	802.11b	Channel	CH 1
Frequency Range	9KHz ~ 1GHz	Detector Function	Quasi-Peak (QP)

Horizontal

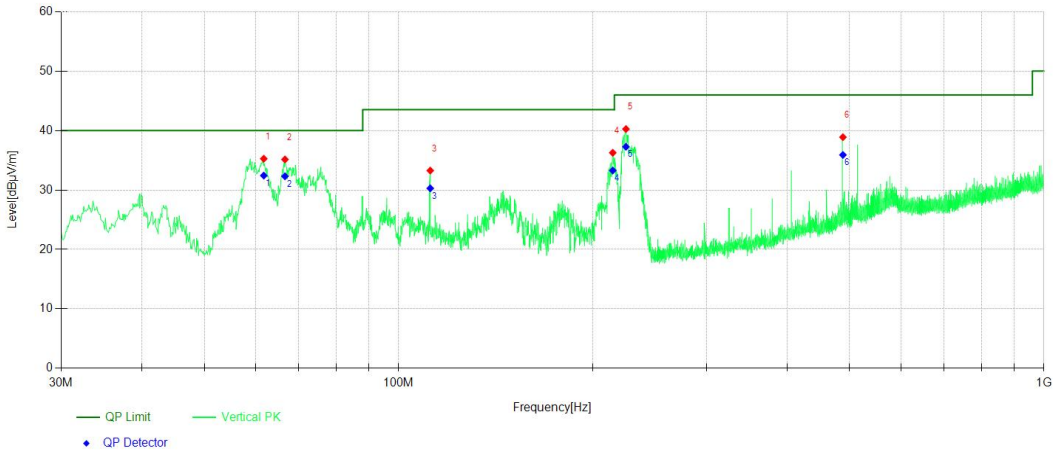


NO.	Freq. [MHz]	Level [dBµV/m]	Reading [dBµV]	Factor [dB/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]
1	43.387	26.93	6.80	20.13	40.00	13.07	100	246
2	67.931	25.74	8.42	17.32	40.00	14.26	100	71
3	111.973	27.32	8.53	18.79	43.50	16.18	200	347
4	215.871	35.73	17.84	17.89	43.50	7.77	100	304
5	226.348	41.73	23.60	18.13	46.00	4.27	100	141
6	406.786	37.52	14.43	23.09	46.00	8.48	100	12

Remark: 1. 9KHz~30MHz have been test and test data more than 20dB margin.
2. The emission levels of other frequencies were greater than 20dB margin.
3. Level (dBuV/m) = Reading (dBuV/m) + Factor (dB).
4. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
5. Margin(dB) = Limit[dBµV/m] - Level [dBµV/m]

Worst Test Mode	**802.11b**	**Channel**	CH 1
Frequency Range	9KHz ~ 1GHz	**Detector Function**	Quasi-Peak (QP)

Vertical



NO.	Freq. [MHz]	Level [dBµV/m]	Reading [dBµV]	Factor [dB/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]
1	61.819	35.26	16.67	18.59	40.00	4.74	100	2
2	66.670	35.14	17.55	17.59	40.00	4.86	100	9
3	111.973	33.27	14.48	18.79	43.50	10.23	100	184
4	214.707	36.27	18.41	17.86	43.50	7.23	100	21
5	225.087	40.26	22.15	18.11	46.00	5.74	100	21
6	488.177	38.89	13.94	24.95	46.00	7.11	100	255

Remark: 1. 9KHz~30MHz have been test and test data more than 20dB margin.
2. The emission levels of other frequencies were greater than 20dB margin.
3. Level (dBuV/m) = Reading (dBuV/m) + Factor (dB).
4. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
5. Margin(dB) = Limit[dBµV/m] - Level [dBµV/m]

ABOVE 1GHz DATA

All modes have been tested, and the worst-case was recorded in this report.

Channel	**802.11b CH 1**	**Frequency**	2412MHz
Frequency Range	Above 1G	**Detector Function**	PK/AV

Horizontal

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector
1	2389.29	46.15	-0.16	45.99	54.00	8.01	AV
2	2389.37	53.69	-0.16	53.53	74.00	20.47	PK
3	2390.00	44.45	-0.15	44.30	54.00	9.70	AV
4	2390.00	51.81	-0.15	51.66	74.00	22.34	PK
5	2412.81	101.99	0.16	102.15			AV
6	2412.96	104.42	0.17	104.59			PK
7	4824.00	36.43	9.68	46.11	54.00	7.89	AV
8	4824.00	43.69	9.68	53.37	74.00	20.63	PK
9	7236.00	28.61	12.39	41.00	54.00	13.00	AV
10	7236.00	33.93	12.39	46.32	74.00	27.68	PK
11	9648.00	32.05	13.14	45.19	74.00	28.81	PK
12	9648.00	27.60	13.14	40.74	54.00	13.26	AV

Vertical

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector
1	2360.86	52.71	0.04	52.75	74.00	21.25	PK
2	2362.28	41.47	-0.01	41.46	54.00	12.54	AV
3	2390.00	50.24	-0.15	50.09	74.00	23.91	PK
4	2390.00	42.51	-0.15	42.36	54.00	11.64	AV
5	2411.25	99.04	0.15	99.19			AV
6	2412.94	101.27	0.17	101.44			PK
7	4824.00	35.66	9.68	45.34	54.00	8.66	AV
8	4824.00	43.20	9.68	52.88	74.00	21.12	PK
9	7236.00	40.48	12.39	52.87	74.00	21.13	PK
10	7236.00	36.06	12.39	48.45	54.00	5.55	AV
11	9648.00	33.89	13.14	47.03	74.00	26.97	PK
12	9648.00	29.79	13.14	42.93	54.00	11.07	AV

Remark: 1. The emission levels of other frequencies were greater than 20dB margin.
2. Level (dBuV/m) = Reading (dBuV/m) + Factor (dB).
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
4. Margin(dB) = Limit[dBμV/m] - Level [dBμV/m].

Channel	802.11b CH 6	Frequency	2437MHz
Frequency Range	Above 1G	Detector Function	PK/AV

Horizontal

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector
1	4824.00	35.28	9.71	44.99	54.00	9.01	AV
2	4874.00	42.42	9.71	52.13	74.00	21.87	PK
3	7236.00	34.84	11.03	45.87	74.00	28.13	PK
4	7311.00	28.92	11.03	39.95	54.00	14.05	AV
5	9748.00	24.84	13.24	38.08	54.00	15.92	AV
6	9748.33	30.91	13.24	44.15	74.00	29.85	PK

Vertical

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector
1	4874.00	43.51	9.71	53.22	74.00	20.78	PK
2	4874.00	34.93	9.71	44.64	54.00	9.36	AV
3	7311.00	36.26	11.03	47.29	54.00	6.71	AV
4	7311.00	40.12	11.03	51.15	74.00	22.85	PK
5	9748.00	33.37	13.24	46.61	74.00	27.39	PK
6	9748.00	26.64	13.24	39.88	54.00	14.12	AV

Remark: 1. The emission levels of other frequencies were greater than 20dB margin.
2. Level (dBuV/m) = Reading (dBuV/m) + Factor (dB).
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
4. Margin(dB) = Limit[dBμV/m] - Level [dBμV/m]

Channel	802.11b CH 11	Frequency	2462MHz
Frequency Range	Above 1G	Detector Function	PK/AV

Horizontal

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector
1	2461.38	103.04	0.60	103.64			AV
2	2462.94	104.96	0.64	105.60			PK
3	2483.50	52.29	0.45	52.74	74.00	21.26	PK
4	2483.50	43.23	0.45	43.68	54.00	10.32	AV
5	2484.59	54.91	0.50	55.41	74.00	18.59	PK
6	2485.25	48.32	0.53	48.85	54.00	5.15	AV
7	4824.00	42.53	10.07	52.60	74.00	21.40	PK
8	4824.00	34.35	10.07	44.42	54.00	9.58	AV
9	7236.00	33.14	9.80	42.94	74.00	31.06	PK
10	7236.00	27.89	9.80	37.69	54.00	16.31	AV
11	9648.00	24.48	13.24	37.72	54.00	16.28	AV
12	9648.00	30.15	13.24	43.39	74.00	30.61	PK

Vertical

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector
1	2462.82	102.44	0.64	103.08			AV
2	2462.94	104.21	0.64	104.85			PK
3	2483.50	44.03	0.45	44.48	54.00	9.52	AV
4	2483.50	51.65	0.45	52.10	74.00	21.90	PK
5	2484.91	56.26	0.52	56.78	74.00	17.22	PK
6	2485.14	48.16	0.53	48.69	54.00	5.31	AV
7	4824.00	42.67	10.07	52.74	74.00	21.26	PK
8	4824.00	34.28	10.07	44.35	54.00	9.65	AV
9	7236.00	33.77	9.80	43.57	54.00	10.43	AV
10	7236.00	37.10	9.80	46.90	74.00	27.10	PK
11	9648.00	29.04	13.24	42.28	54.00	11.72	AV
12	9648.00	33.05	13.24	46.29	74.00	27.71	PK

Remark: 1. The emission levels of other frequencies were greater than 20dB margin.
2. Level (dBuV/m) = Reading (dBuV/m) + Factor (dB).
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
4. Margin(dB) = Limit[dBμV/m] - Level [dBμV/m]

All modes have been tested, and the worst-case was recorded in this report.

Channel	**BT-LE(1Mbps) CH0**	**Frequency**	2402MHz
Frequency Range	Above 1G	**Detector Function**	PK/AV

Horizontal

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector
1	2374.81	40.37	-0.27	40.10	54.00	13.90	AV
2	2375.41	49.92	-0.27	49.65	74.00	24.35	PK
3	2390.00	39.16	-0.15	39.01	54.00	14.99	AV
4	2390.00	48.56	-0.15	48.41	74.00	25.59	PK
5	2402.01	100.12	-0.04	100.08			AV
6	2402.24	100.95	-0.02	100.93			PK
7	4804.00	37.64	9.29	46.93	54.00	7.07	AV
8	4804.00	44.05	9.29	53.34	74.00	20.66	PK
9	7205.67	24.88	12.82	37.70	54.00	16.30	AV
10	7206.00	30.96	12.81	43.77	74.00	30.23	PK
11	9608.00	27.87	13.32	41.19	74.00	32.81	PK
12	9608.00	19.87	13.32	33.19	54.00	20.81	AV

Vertical

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector
1	2353.16	51.29	-0.08	51.21	74.00	22.79	PK
2	2354.42	40.60	-0.05	40.55	54.00	13.45	AV
3	2390.00	39.73	-0.15	39.58	54.00	14.42	AV
4	2390.00	48.79	-0.15	48.64	74.00	25.36	PK
5	2402.01	98.85	-0.04	98.81			AV
6	2402.24	99.66	-0.02	99.64			PK
7	4804.00	36.91	9.29	46.20	54.00	7.80	AV
8	4804.00	42.79	9.29	52.08	74.00	21.92	PK
9	7206.00	25.98	12.81	38.79	74.00	35.21	PK
10	7206.00	20.98	12.81	33.79	54.00	20.21	AV
11	9608.00	19.96	13.32	33.28	54.00	20.72	AV
12	9608.00	28.30	13.32	41.62	74.00	32.38	PK

Remark: 1. The emission levels of other frequencies were greater than 20dB margin.
2. Level (dBuV/m) = Reading (dBuV/m) + Factor (dB).
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
4. Margin(dB) = Limit[dBμV/m] - Level [dBμV/m]

Channel	BT-LE(1Mbps) CH19	Frequency	2440MHz
Frequency Range	Above 1G	Detector Function	PK/AV

Horizontal

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector
1	4880.00	36.85	9.79	46.64	54.00	7.36	AV
2	4880.00	44.22	9.79	54.01	74.00	19.99	PK
3	7320.00	30.73	11.02	41.75	74.00	32.25	PK
4	7320.00	24.13	11.02	35.15	54.00	18.85	AV
5	9760.00	18.79	13.25	32.04	54.00	21.96	AV
6	9760.00	26.04	13.25	39.29	74.00	34.71	PK

Vertical

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector
1	4880.00	46.23	9.79	56.02	74.00	17.98	PK
2	4880.00	37.21	9.79	47.00	54.00	7.00	AV
3	7320.00	39.67	11.02	50.69	74.00	23.31	PK
4	7320.00	33.07	11.02	44.09	54.00	9.91	AV
5	9760.00	28.02	13.25	41.27	74.00	32.73	PK
6	9760.00	18.90	13.25	32.15	54.00	21.85	AV

Remark: 1. The emission levels of other frequencies were greater than 20dB margin.
2. Level (dBuV/m) = Reading (dBuV/m) + Factor (dB).
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
4. Margin(dB) = Limit[dBμV/m] - Level [dBμV/m]

Channel	BT-LE(1Mbps) CH39	Frequency	2480MHz
Frequency Range	Above 1G	Detector Function	PK/AV

Horizontal

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector
1	2479.75	103.69	0.32	104.01			PK
2	2479.77	102.98	0.32	103.30			AV
3	2483.50	46.84	0.45	47.29	54.00	6.71	PK
4	2483.50	38.88	0.45	39.33	54.00	14.67	AV
5	2484.18	40.92	0.47	41.39	54.00	12.61	AV
6	2484.33	48.65	0.49	49.14	74.00	24.86	PK
7	4960.00	36.72	10.70	47.42	54.00	6.58	AV
8	4960.00	43.16	10.70	53.86	74.00	20.14	PK
9	7440.00	30.58	9.75	40.33	74.00	33.67	PK
10	7440.00	22.09	9.75	31.84	54.00	22.16	AV
11	9920.00	19.38	13.83	33.21	54.00	20.79	AV
12	9920.00	27.26	13.83	41.09	74.00	32.91	PK

Vertical

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector
1	2479.88	104.30	0.32	104.62			AV
2	2480.23	104.97	0.32	105.29			PK
3	2483.50	47.45	0.45	47.90	74.00	26.10	PK
4	2483.50	40.02	0.45	40.47	54.00	13.53	AV
5	2484.14	41.87	0.48	42.35	54.00	11.65	AV
6	2484.25	49.40	0.48	49.88	74.00	24.12	PK
7	4960.00	35.74	10.70	46.44	54.00	7.56	AV
8	4960.00	44.83	10.70	55.53	74.00	18.47	PK
9	7439.69	30.53	9.73	40.26	54.00	13.74	AV
10	7440.00	36.77	9.75	46.52	74.00	27.48	PK
11	9920.00	27.71	13.83	41.54	74.00	32.46	PK
12	9920.00	19.39	13.83	33.22	54.00	20.78	AV

Remark: 1. The emission levels of other frequencies were greater than 20dB margin.
2. Level (dBuV/m) = Reading (dBuV/m) + Factor (dB).
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
4. Margin(dB) = Limit[dBμV/m] - Level [dBμV/m]

3.3 6dB BANDWIDTH MEASUREMENT

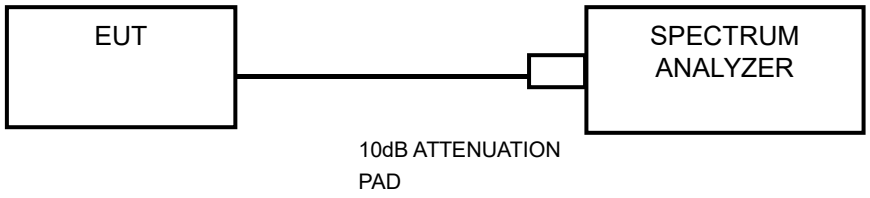
3.3.1 Limits

The minimum of 6dB Bandwidth Measurement is 0.5 MHz.

3.3.2 Measurement procedure

a. Set resolution bandwidth (RBW) = 100KHz
b. Set the video bandwidth (VBW) ≥ 3 x RBW, Detector = Peak.
c. Trace mode = max hold.
d. Sweep = auto couple.
e. Measure the maximum width of the emission that is constrained by the frequencies associatedwith the two amplitude points (upper and lower) that are attenuated by 6 dB relative to themaximum level measured in the fundamental emission.

3.3.3 Test setup



3.3.4 Test result

Please refer Annex A

3.4 CONDUCTED OUTPUT POWER

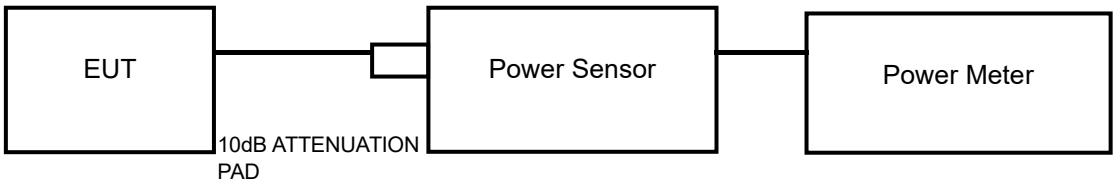
3.4.1 Limits

Forsystems using digital modulation in the 2400–2483.5 MHz band: 1 Watt (30dBm).

3.4.2 Measurement procedure

a. A peak power sensor was used on the output port of the EUT. A power meter was used to read the response of the peak power sensor and set the detector to PEAK. Record the power level.
b. Anaverage power sensor was used on the output port of the EUT. A power meter was used to read the response of the average power senso and set the detector to AVERAGE. Record the power level.

3.4.3 Test setup



3.4.4 Test result

Please refer Annex A.

3.5 POWER SPECTRAL DENSITY MEASUREMENT

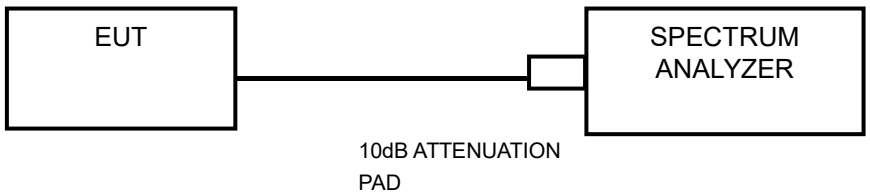
3.5.1 Limits

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

3.5.2 Measurement procedure

a. Set instrument center frequency to DTS channel center frequency.
b. Set the span to 1.5 times the DTS bandwidth.
c. Set RBW to: 3KHz
d. Set VBW ≥3 x RBW.
e. Detector = peak
f. Ensure that the number of measurement points in the sweep ≥ 2 x span/RBW.
g. Sweep time = auto couple.
h. Use the peak marker function to determine the maximum amplitude level.

3.5.3 Test setup



3.5.4 Test result

Please refer Annex A.

3.6 OUT OF BAND EMISSION AND BAND EDGE MEASUREMENTS

3.6.1 Limits

Below –20dB of the highest emission level of operating band (in 100kHz Resolution Bandwidth).

3.6.2 Measurement procedure

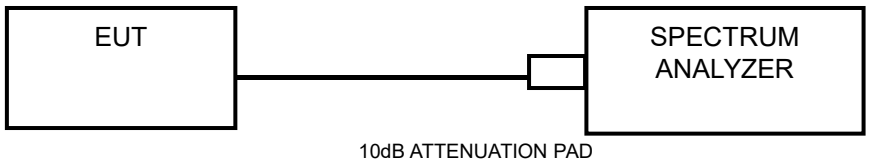
Measurement Procedure -Reference Level

a. Set the RBW = 100 kHz.
b. Set the VBW ≥ 300 kHz.
c. Detector = peak.
d. Sweep time = auto couple.
e. Trace mode = max hold.
f. Allow trace to fully stabilize.
g. Use the peak marker function to determine the maximum power level in any 100 kHzband segment within the fundamental EBW.

Measurement Procedure –Unwanted Emission Level

a. Set RBW = 100 kHz.
b. Set VBW ≥ 300 kHz.
c. Set span to encompass the spectrum to be examined
d. Detector = peak.
e. Trace Mode = max hold.
f. Sweep = auto couple.

3.6.3 Test setup



3.6.4 Test result

Please refer Annex A.

3.7 OCCUPIED BANDWIDTH MEASUREMENT

3.7.1 Measurement procedure

The transmitter antenna output was connected to the spectrum analyzer through an attenuator. The resolution bandwidth shall be set to the range of 1% to 5% of the anticipated emission bandwidth, and a video bandwidth at least 3x the resolution bandwidth.
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.

3.7.2 Test setup

3.7.3 Test result

Please refer Annex A.

3.8 ANTENNA REQUIREMENT

3.8.1 LIMITS OFFREQUENCY STABILITY

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. And according to FCC 47 CFR Section 15.247 (b) , if transmitting antennas of directional gain greater than 6 dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

3.8.2 ANTENNA ANTI-REPLACEMENT CONSTRUCTION

The antenna used for this product is FPC Antenna and that no antenna other than that furnished by the responsible party shall be used with the device

3.8.3 ANTENNA GAIN

The maximum peak gain of the transmit antenna is 2.26 dBi.

4 PHOTOGRAPHS OF TEST SETUP

Please refer to the attached file (Test Setup Photo).

5 PHOTOGRAPHS OF THE EUT

Please refer to the attached file (External Photos report and Internal Photos).

6 Appendix A (Please refer to the following pages for test results.)

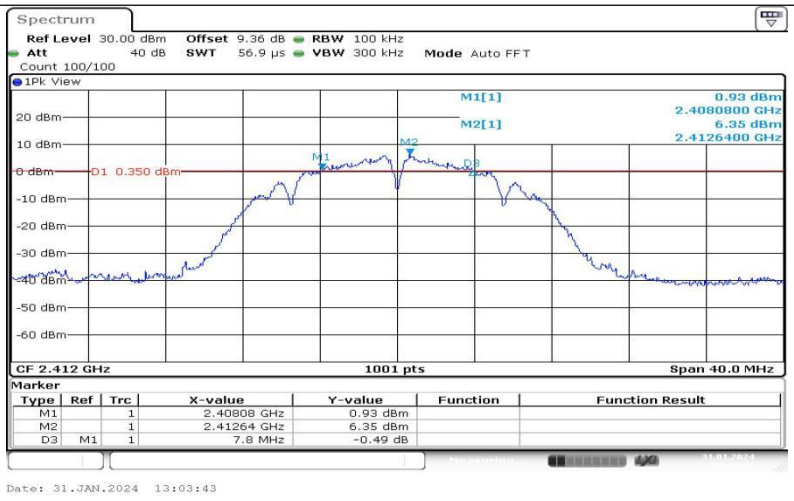
6.1 6db Bandwidth Measurement

6.1.1 Test Result

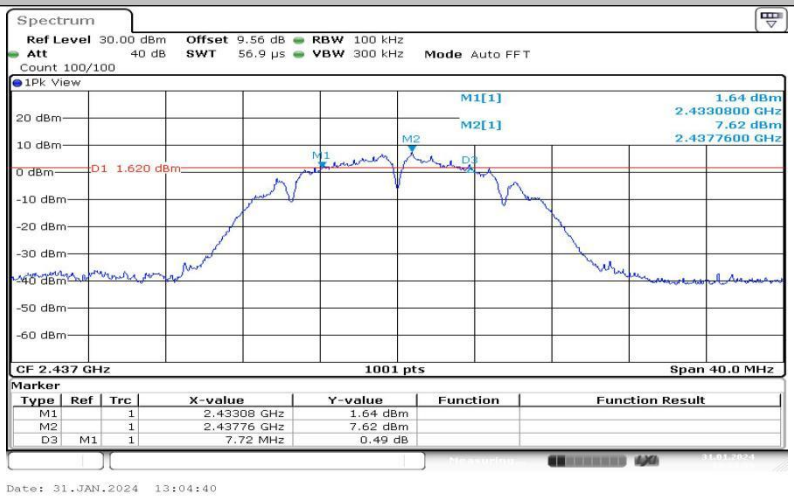
TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	7.80	2408.08	2415.88	0.5	PASS
11B	Ant1	2437	7.72	2433.08	2440.80	0.5	PASS
11B	Ant1	2462	8.68	2458.12	2466.80	0.5	PASS
11G	Ant1	2412	16.00	2403.88	2419.88	0.5	PASS
11G	Ant1	2437	15.12	2429.44	2444.56	0.5	PASS
11G	Ant1	2462	15.08	2454.48	2469.56	0.5	PASS
11N20SISO	Ant1	2412	15.12	2404.44	2419.56	0.5	PASS
11N20SISO	Ant1	2437	13.88	2430.68	2444.56	0.5	PASS
11N20SISO	Ant1	2462	16.44	2454.08	2470.52	0.5	PASS

TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.73	2401.63	2402.36	0.5	PASS
BLE_1M	Ant1	2440	0.73	2439.63	2440.36	0.5	PASS
BLE_1M	Ant1	2480	0.73	2479.63	2480.36	0.5	PASS

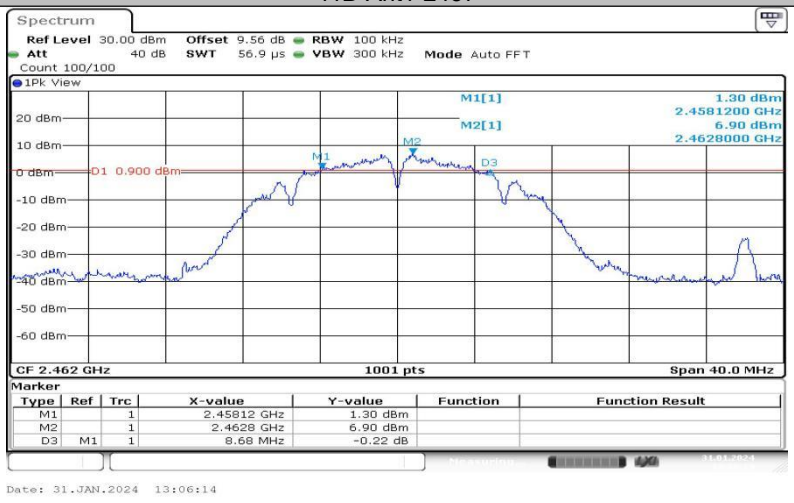
6.1.2 Test Graphs



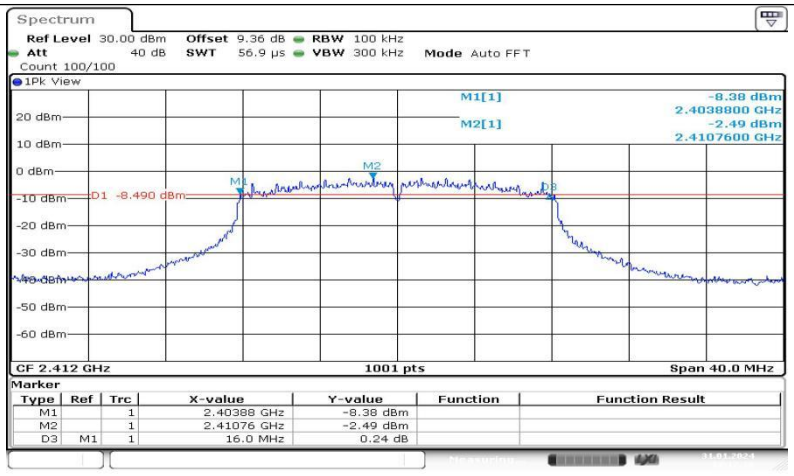
11B-Ant1-2412



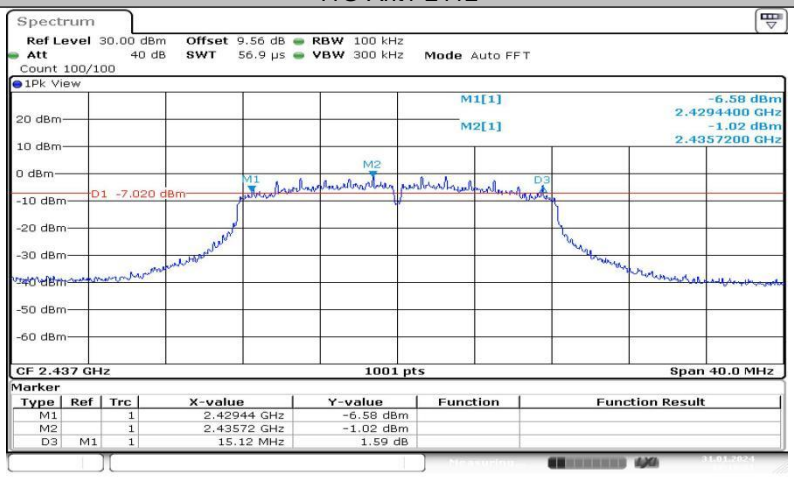
11B-Ant1-2437



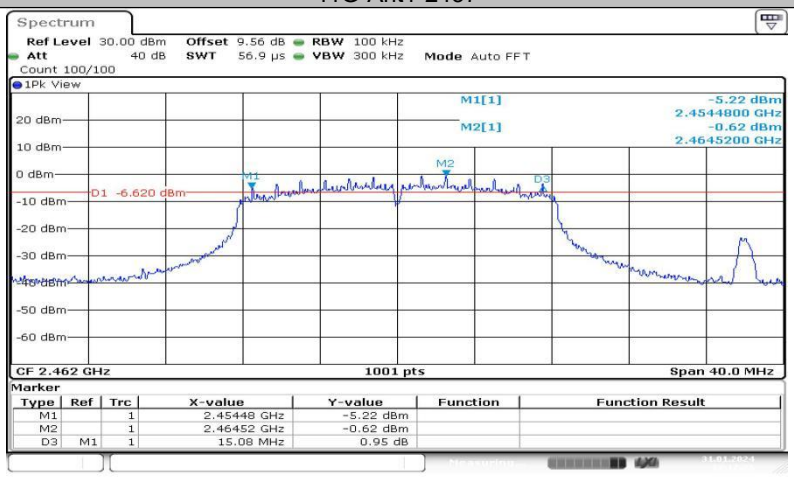
11B-Ant1-2462



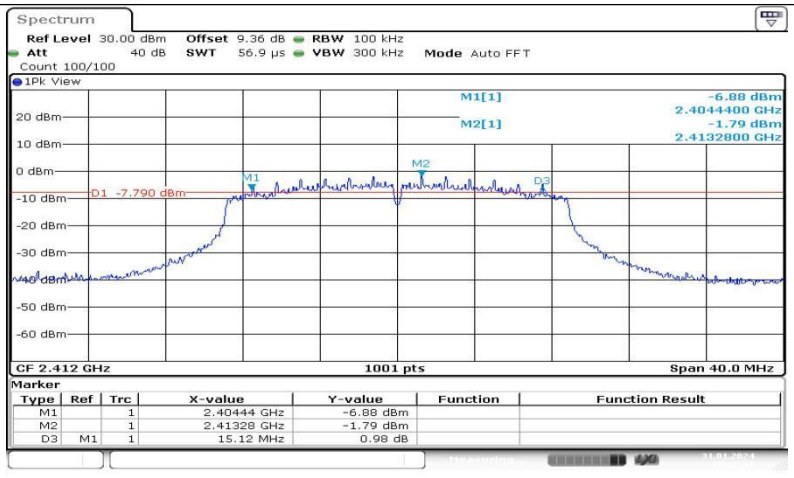
11G-Ant1-2412



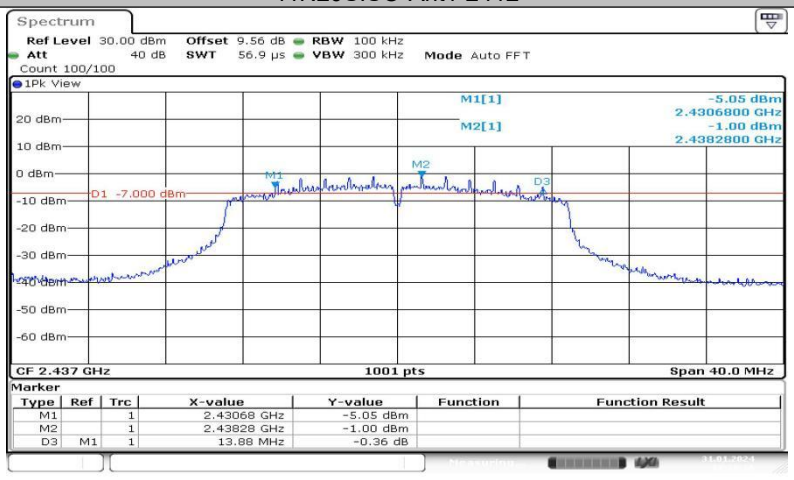
11G-Ant1-2437



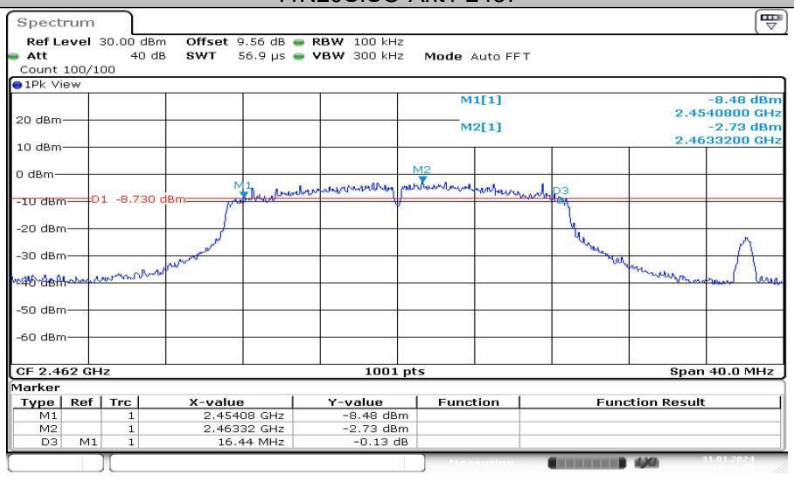
11G-Ant1-2462



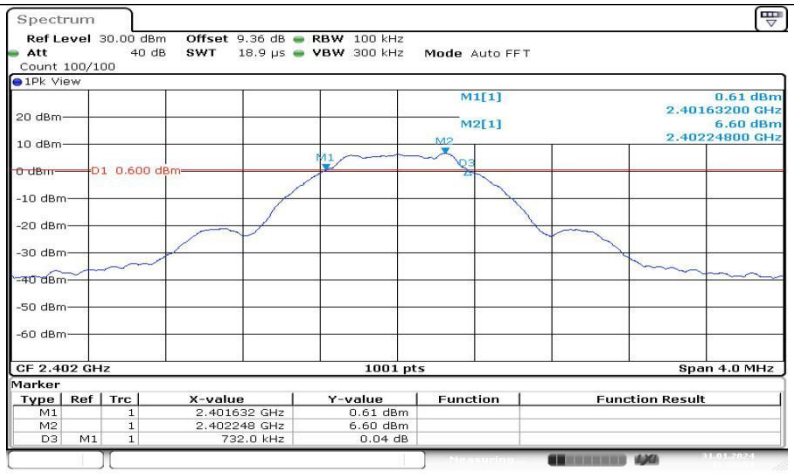
11N20SISO-Ant1-2412



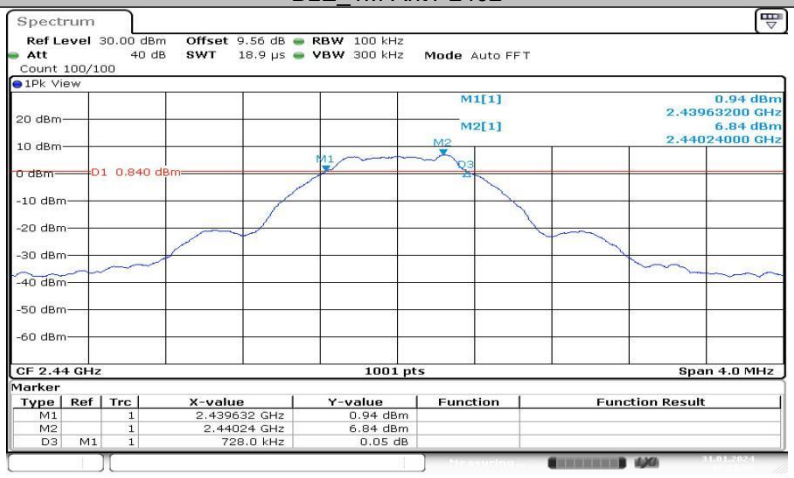
11N20SISO-Ant1-2437



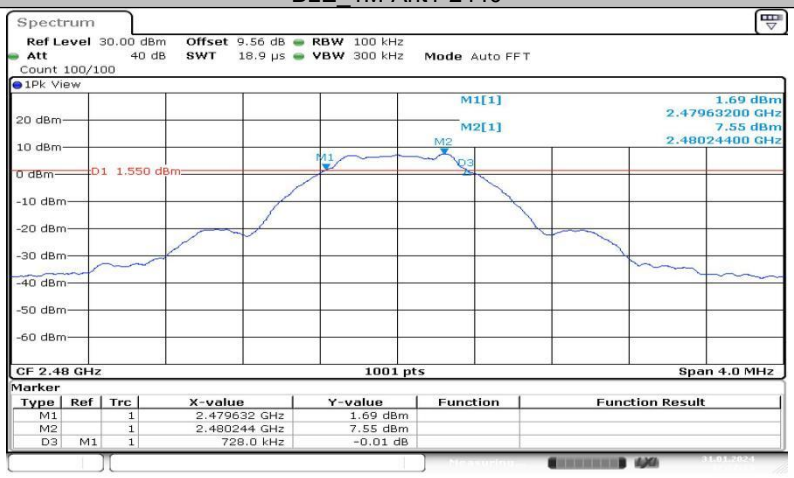
11N20SISO-Ant1-2462



BLE_1M-Ant1-2402



BLE_1M-Ant1-2440



BLE_1M-Ant1-2480

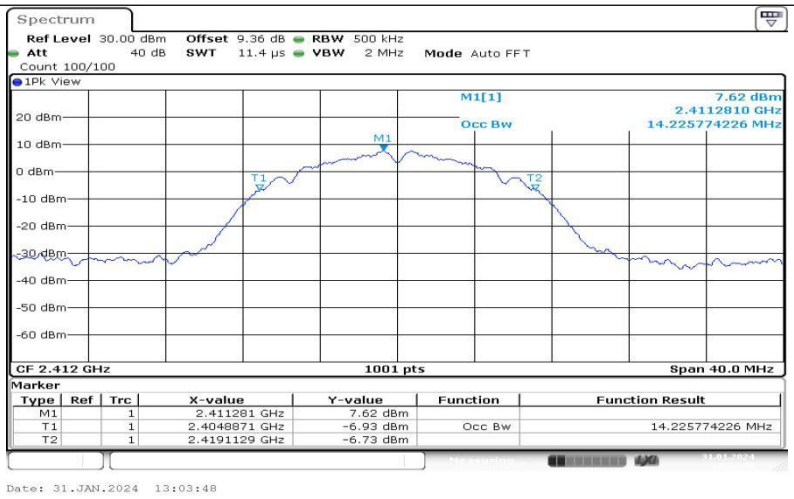
6.2 Occupied Channel Bandwidth (For reference)

6.2.1 Test Result

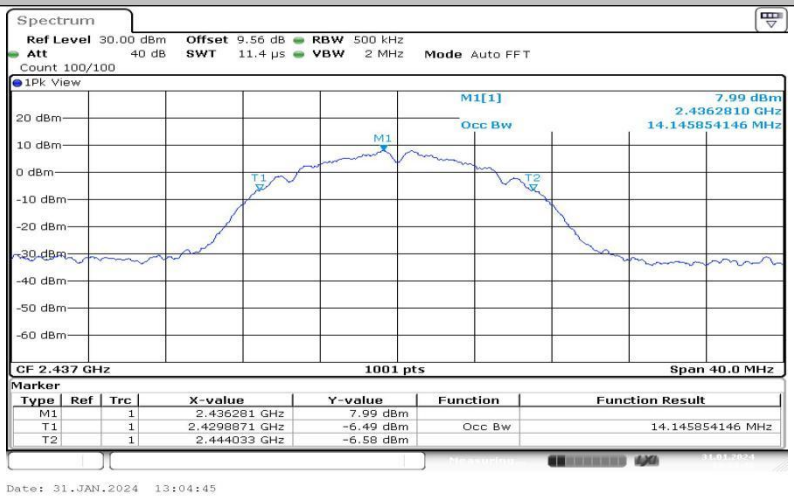
TestMode	Antenna	Channel Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	14.226	2404.8871	2419.1129	---	---
11B	Ant1	2437	14.146	2429.8871	2444.0330	---	---
11B	Ant1	2462	14.186	2455.0070	2469.1928	---	---
11G	Ant1	2412	16.703	2403.7283	2420.4316	---	---
11G	Ant1	2437	16.703	2428.5684	2445.2717	---	---
11G	Ant1	2462	16.823	2453.6883	2470.5115	---	---
11N20SISO	Ant1	2412	17.902	2403.0090	2420.9111	---	---
11N20SISO	Ant1	2437	17.982	2427.9291	2445.9111	---	---
11N20SISO	Ant1	2462	18.022	2453.1289	2471.1508	---	---

TestMode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.079	2401.4645	2402.5435	---	---
BLE_1M	Ant1	2440	1.087	2439.4565	2440.5435	---	---
BLE_1M	Ant1	2480	1.083	2479.4565	2480.5395	---	---

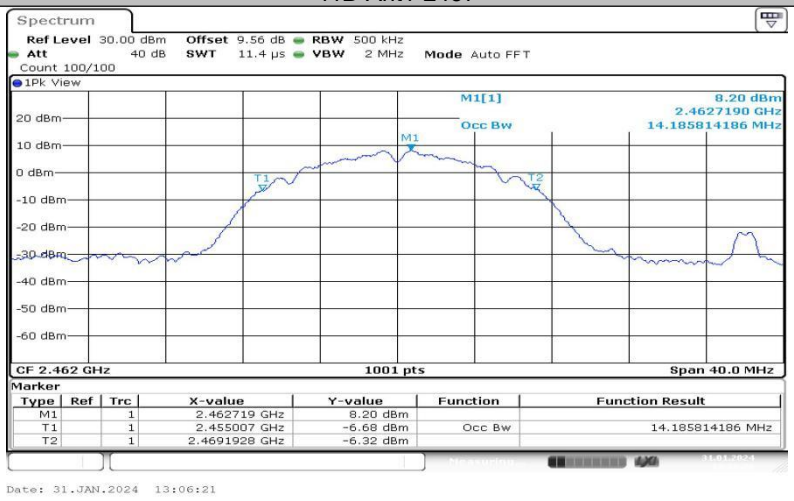
6.2.2 Test Graphs



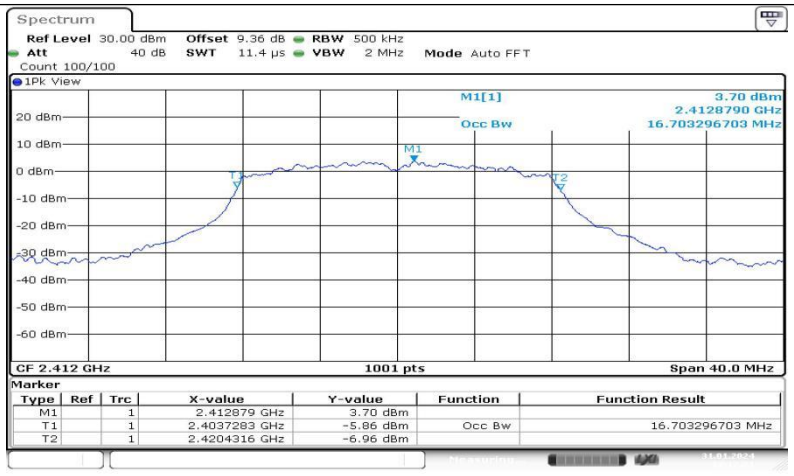
11B-Ant1-2412



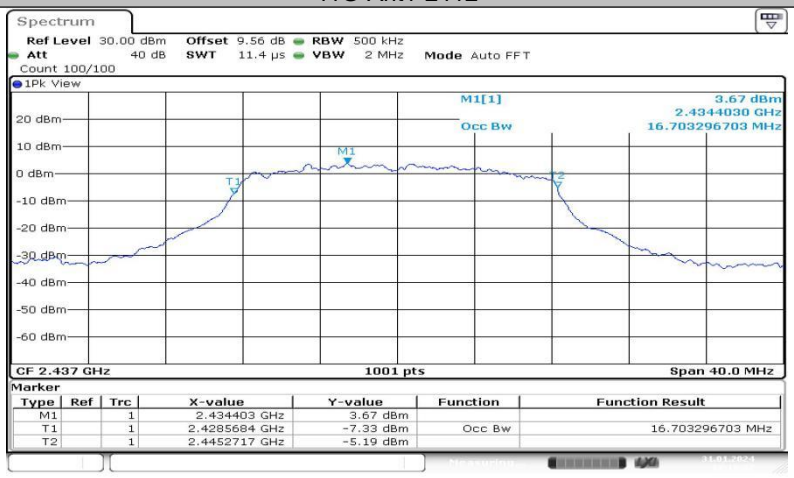
11B-Ant1-2437



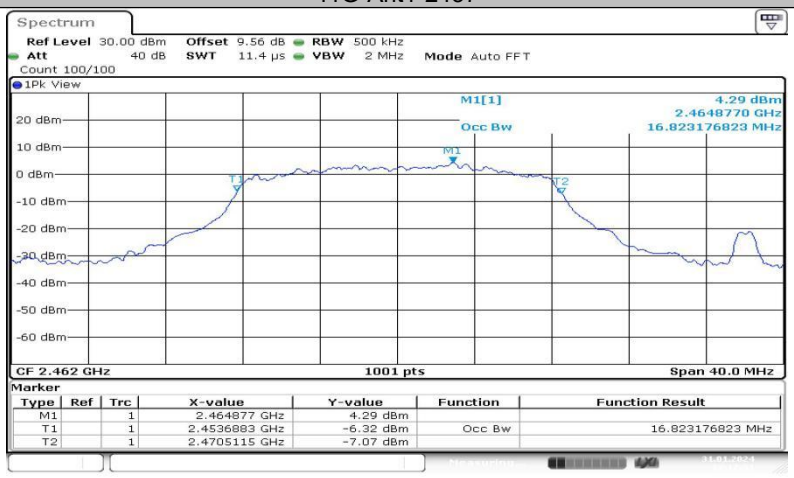
11B-Ant1-2462



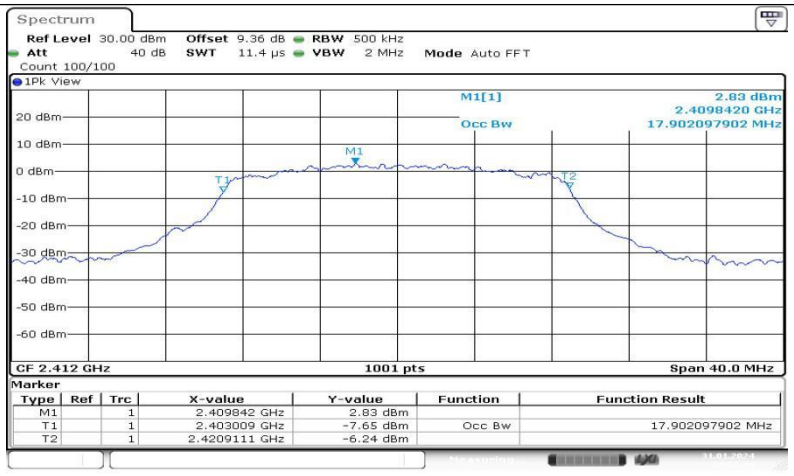
11G-Ant1-2412



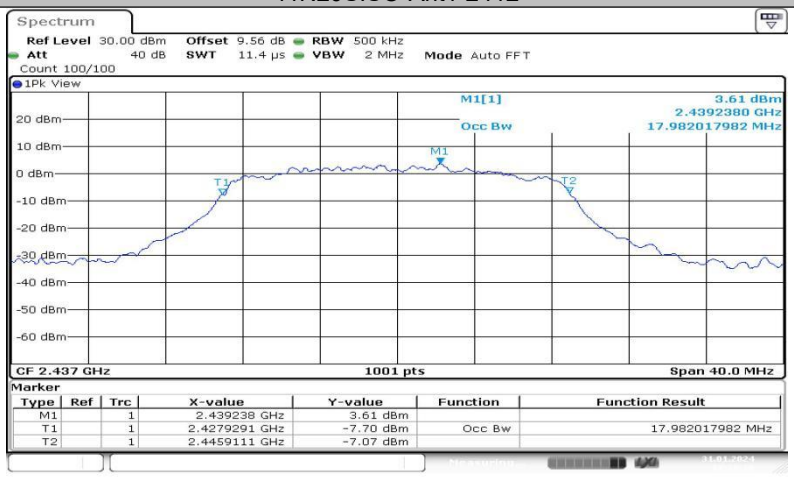
11G-Ant1-2437



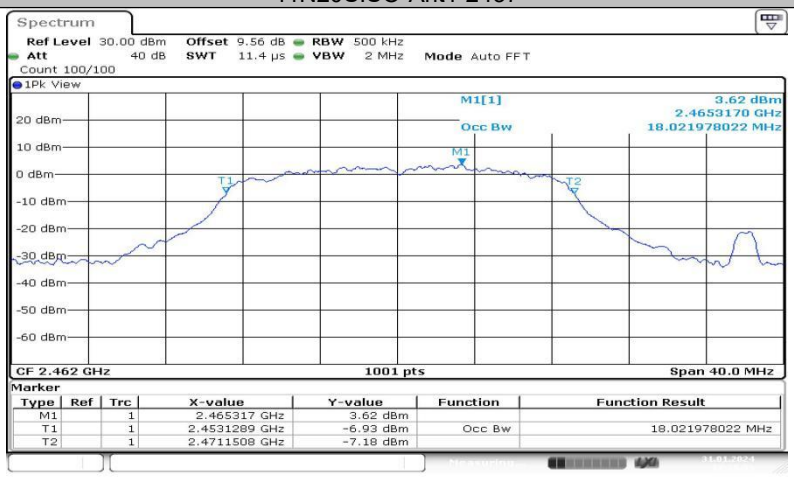
11G-Ant1-2462



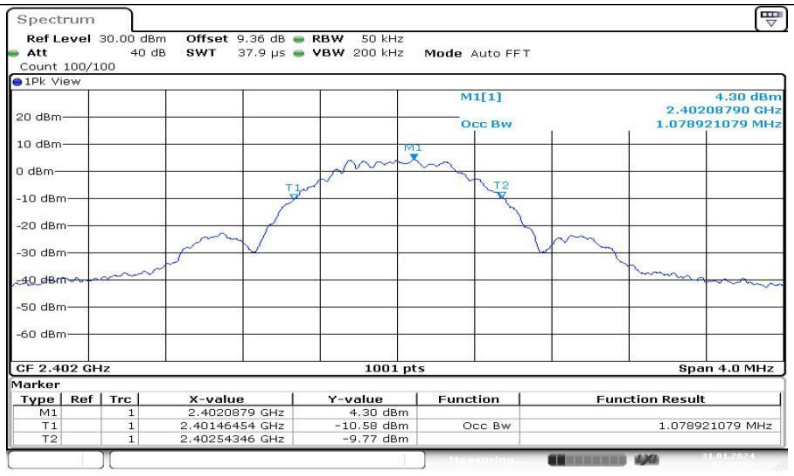
11N20SISO-Ant1-2412



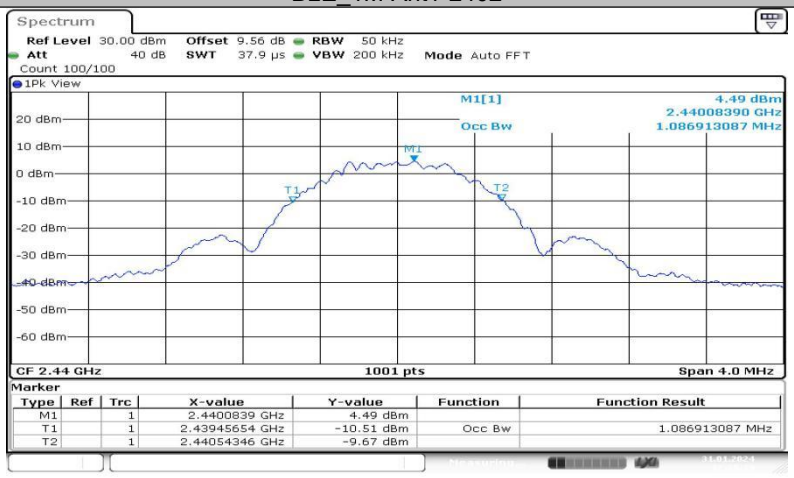
11N20SISO-Ant1-2437



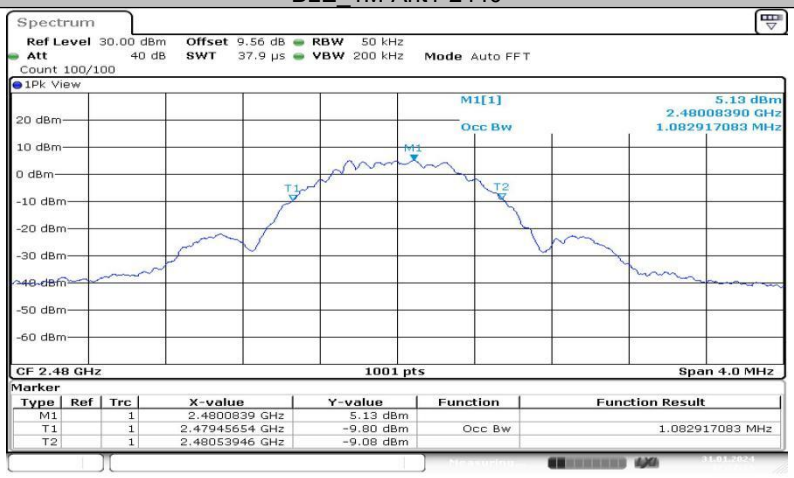
11N20SISO-Ant1-2462



BLE_1M-Ant1-2402



BLE_1M-Ant1-2440



BLE_1M-Ant1-2480

6.3 Conducted Output Power

6.3.1 Test Result Peak

Test Mode	Antenna	Frequency[MHz]	Conducted Peak Powert [dBm]	Conducted Limit[dBm]	Gain [dBi]	EIRP [dBm]	EIRP Limit [dBm]	Verdict
11B	Ant1	2412	14.77	≤30.00	2.26	17.03	≤36.00	PASS
11B	Ant1	2437	15.34	≤30.00	2.26	17.60	≤36.00	PASS
11B	Ant1	2462	15.83	≤30.00	2.26	18.09	≤36.00	PASS
11G	Ant1	2412	15.08	≤30.00	2.26	17.34	≤36.00	PASS
11G	Ant1	2437	14.93	≤30.00	2.26	17.19	≤36.00	PASS
11G	Ant1	2462	15.13	≤30.00	2.26	17.39	≤36.00	PASS
11N20SISO	Ant1	2412	14.30	≤30.00	2.26	16.56	≤36.00	PASS
11N20SISO	Ant1	2437	14.41	≤30.00	2.26	16.67	≤36.00	PASS
11N20SISO	Ant1	2462	15.00	≤30.00	2.26	17.26	≤36.00	PASS

TestMode	Antenna	Frequency[MHz]	Conducted Peak Powert [dBm]	Conducted Limit[dBm]	Gain [dBi]	EIRP[dBm]	EIRP Limit[dBm]	Verdict
BLE_1M	Ant1	2402	5.26	≤30	2.26	7.52	≤36	PASS
BLE_1M	Ant1	2440	5.51	≤30	2.26	7.77	≤36	PASS
BLE_1M	Ant1	2480	6.18	≤30	2.26	8.44	≤36	PASS

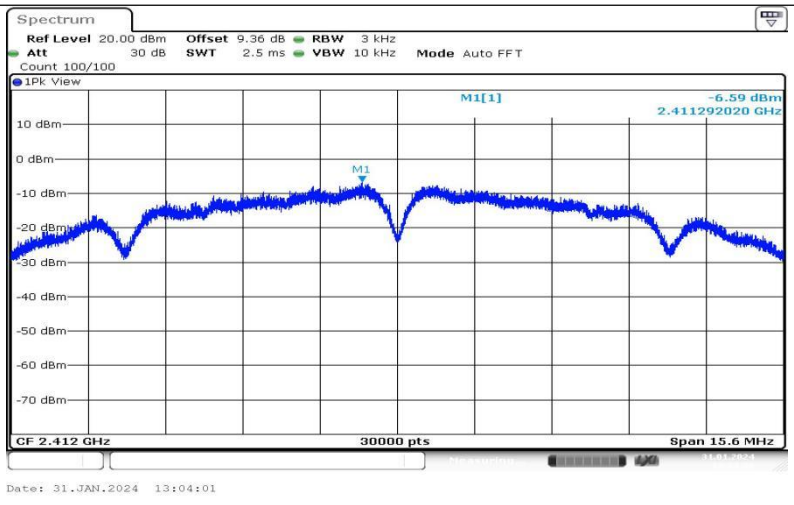
6.4 Power Spectral Density Measurement

6.4.1 Test Result

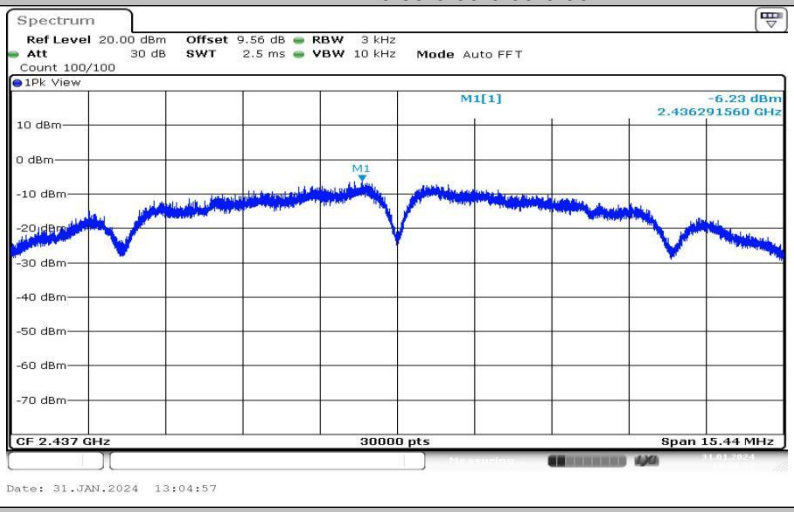
TestMode	Antenna	Frequency[MHz]	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-6.59	≤8.00	PASS
11B	Ant1	2437	-6.23	≤8.00	PASS
11B	Ant1	2462	-6.19	≤8.00	PASS
11G	Ant1	2412	-14.17	≤8.00	PASS
11G	Ant1	2437	-14.76	≤8.00	PASS
11G	Ant1	2462	-13.94	≤8.00	PASS
11N20SISO	Ant1	2412	-14.25	≤8.00	PASS
11N20SISO	Ant1	2437	-14.01	≤8.00	PASS
11N20SISO	Ant1	2462	-14.14	≤8.00	PASS

TestMode	Antenna	Frequency[MHz]	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-9.9	≤8.00	PASS
BLE_1M	Ant1	2440	-9.46	≤8.00	PASS
BLE_1M	Ant1	2480	-8.96	≤8.00	PASS

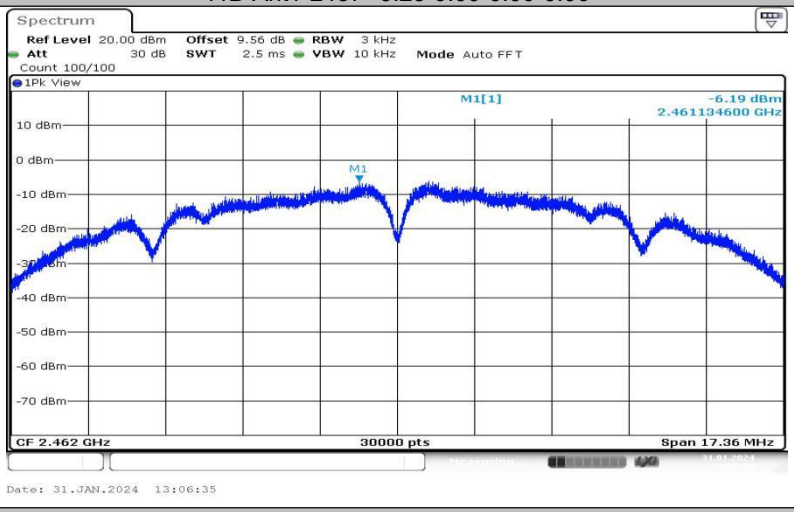
6.4.2 Test Graphs



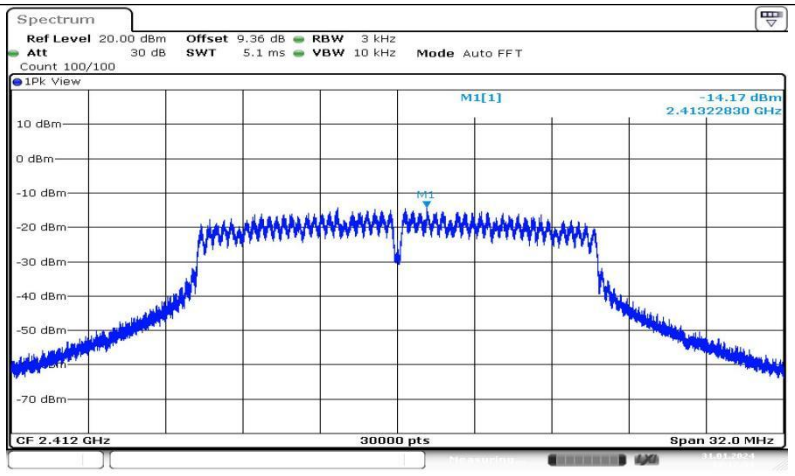
11B-Ant1-2412--6.59-0.00-0.00-0.00



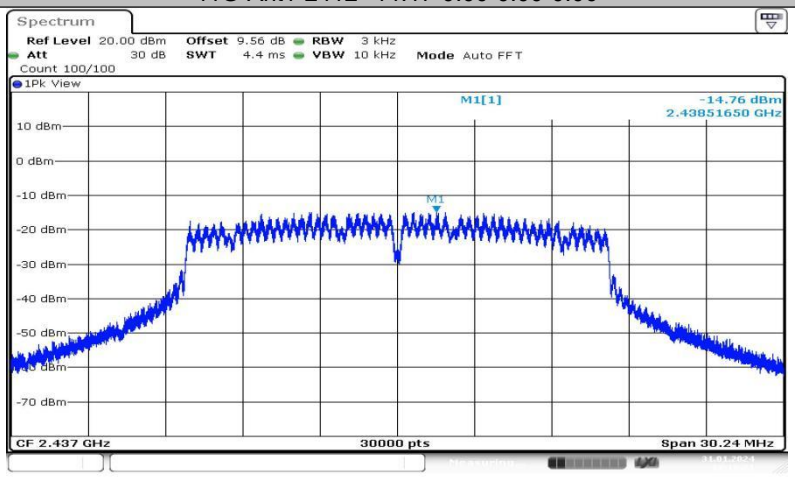
11B-Ant1-2437--6.23-0.00-0.00-0.00



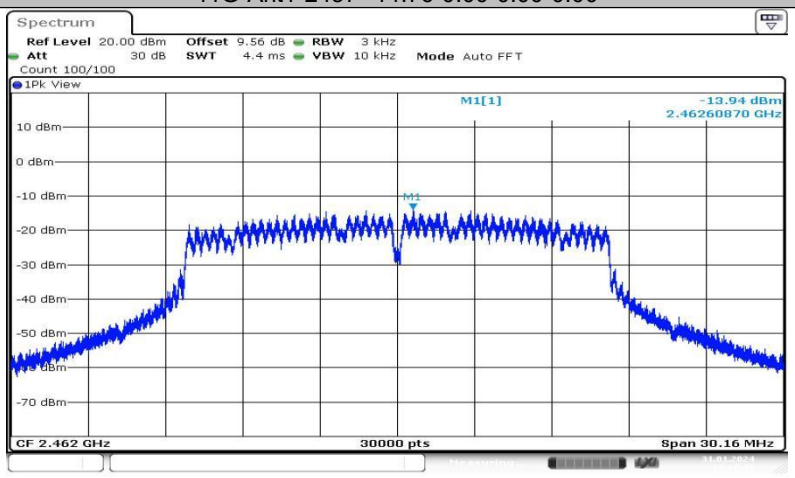
11B-Ant1-2462--6.19-0.00-0.00-0.00



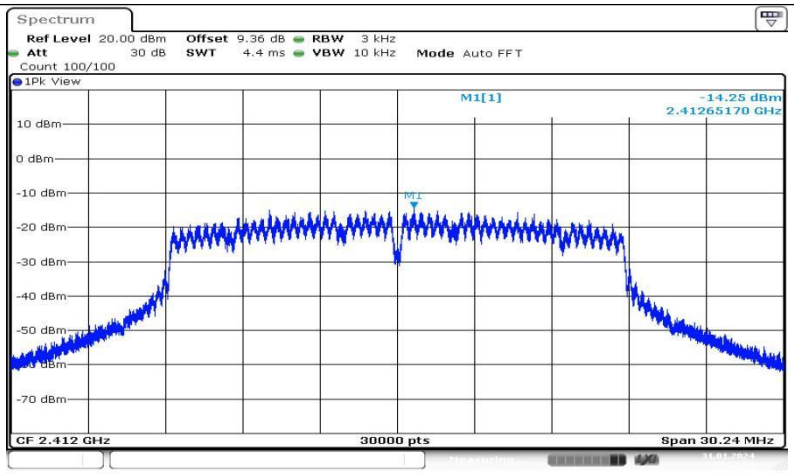
11G-Ant1-2412--14.17-0.00-0.00-0.00



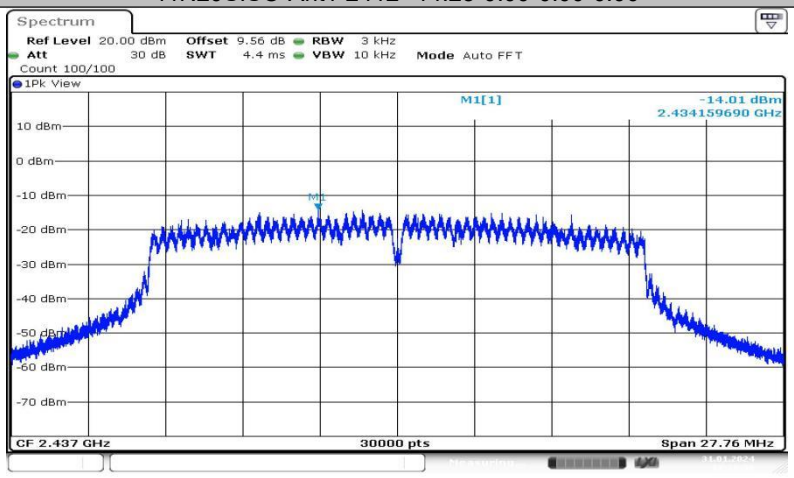
11G-Ant1-2437--14.76-0.00-0.00-0.00



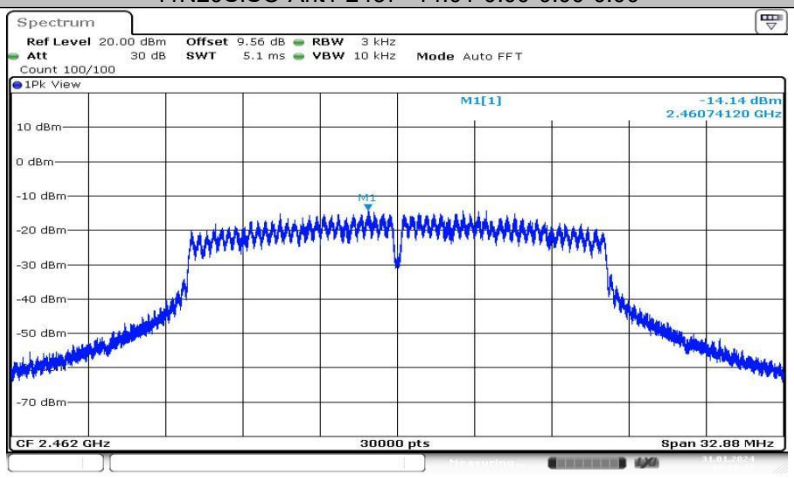
11G-Ant1-2462--13.94-0.00-0.00-0.00



11N20SISO-Ant1-2412--14.25-0.00-0.00-0.00



11N20SISO-Ant1-2437--14.01-0.00-0.00-0.00



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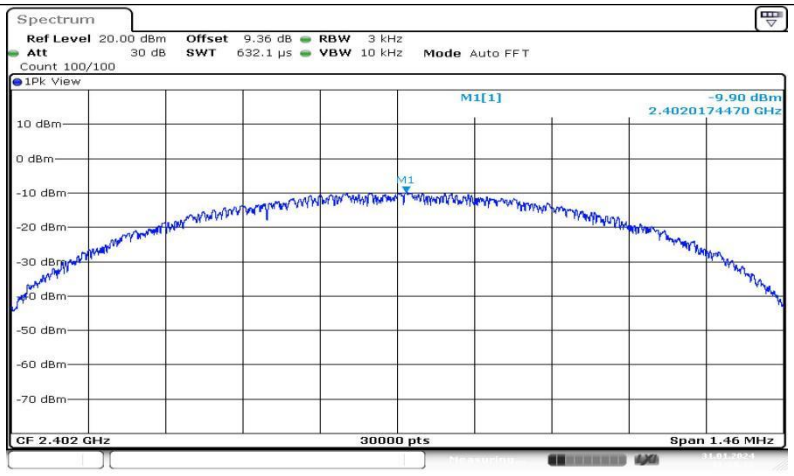
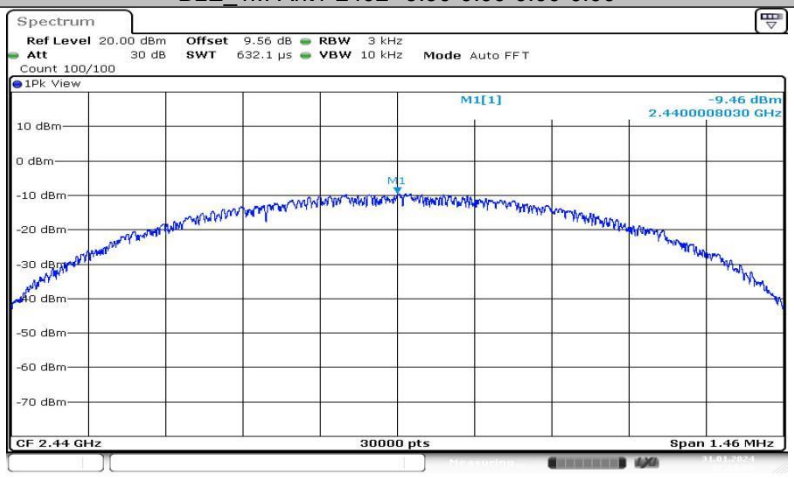
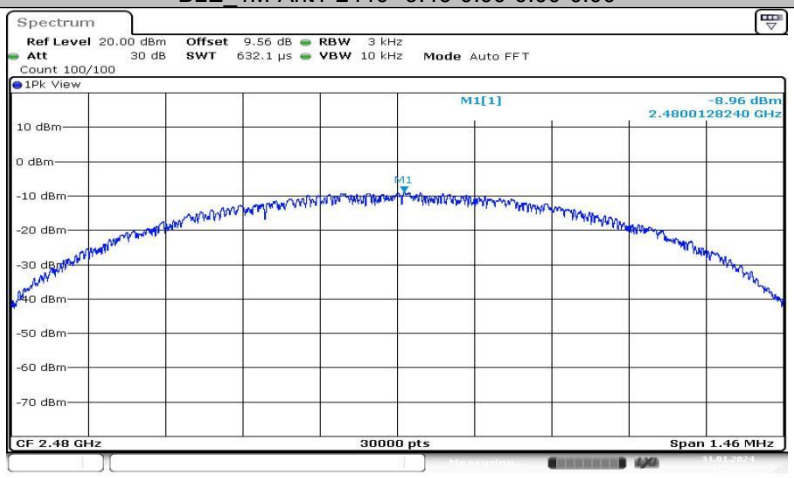


BLE_1M-Ant1-2402--9.90-0.00-0.00-0.00



BLE_1M-Ant1-2440--9.46-0.00-0.00-0.00



BLE_1M-Ant1-2480--8.96-0.00-0.00-0.00