Product Name: Groaming Call	**Report No: FCC022022-05748RF1**
Product Model: Groaming Call 1.0A, Groaming Call 1.0B	**Security Classification: Open**
Version: V1.0	**Total Page: 127**

TIRT Testing Report

Prepared By:	**Checked By:**	**Approved By:**	
Stone Tang	Randy Lv	Daniel Chen	
Stone Tang	Randy LV	Daniel chen	

FCC Radio Test Report

FCC ID: 2BAD3SWT-GROAMING

This report concerns: Original Report

Equipment	:	Groaming Call
Brand Name	:	Groaming Call
Test Model	:	Groaming Call 1.0B
Series Model	:	Groaming Call 1.0A
Applicant	:	Chengdu Shuweitong Technology Co., Ltd.
Address	:	No. 2, F 24, Unit 2, Building 1, No. 2, Section 3, Jianshe North Road, Chenghua District, Chengdu, Sichuan, China
Manufacturer	:	Chengdu Shuweitong Technology Co., Ltd.
Address	:	No. 2, F 24, Unit 2, Building 1, No. 2, Section 3, Jianshe North Road, Chenghua District, Chengdu, Sichuan, China
Date of Receipt	:	2022.11.03
Date of Test	:	2022.11.01 ~ 2023.02.03
Issued Date	:	2023.02.13
Report Version	:	V1.0
Test Sample	:	Engineering Sample No.: 20221103019328
Standard(s)	:	FCC CFR Title 47, Part 15, Subpart C FCC KDB 558074 D01 15.247 Meas Guidance v05r02 ANSI C63.10-2013

- The test result referred exclusively to the presented test model /sample.
- Without written approval of TIRT Inc. the test report shall not reproduced except in full.

Lab: Beijing TIRT Technology Service Co.,Ltd Shenzhen

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REPORT ISSUED HISTORY

Report No.	Version	Description	Issued Date	Note
FCC022022-05748RF1	V1.0		2023.02.13	Valid

1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standard(s):

FCC CFR Title 47, Part 15, Subpart C			
Standard(s) Section	**Test Item**	**Test Result**	**Remark**
15.207	AC Power Line Conducted Emissions	PASS	------
15.247(d) 15.205(a) 15.209(a)	Radiated Emissions	PASS	------
15.247(a)(2)	Bandwidth	PASS	------
15.247(b)(3)	Maximum Output Power	PASS	------
15.247(d)	Conducted Spurious Emissions	PASS	------
15.247(e)	Power Spectral Density	PASS	------
15.203	Antenna Requirement	PASS	Note(2)

Note:

(1) “N/A” denotes test is not applicable in this test report.

(2) The device what use a permanently attached antenna were considered sufficient to comply with the provisions of 15.203.

1.1 TEST LOCATION

Company:	Beijing TIRT Technology Service Co.,Ltd Shenzhen
Address:	101, 3 # Factory Building, Gongjin Electronics, Shatin Community, Kengzi Street, Pingshan District, Shenzhen City, China
CNAS Registration Number:	CNAS L14158
A2LA Registration Number	6049.01
Telephone:	+86-0755-27087573

1.2 MEASUREMENT UNCERTAINTY

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2))
The TIRT measurement uncertainty as below table:

Uncertainty	
Parameter	Uncertainty
Occupied Channel Bandwidth	±142.12 kHz
RF power conducted	±0.74 dB
RF power radiated	±3.25dB
Spurious emissions, conducted	±1.78dB
Spurious emissions, radiated (30MHz～1GHz)	±4.6dB
Spurious emissions, radiated (1GHz ~ 18GHz)	±4.9dB
Conduction Emissions(150kHz~30MHz)	±3.1 dB
Humidity	±4.6%
Temperature	±0.7°C
Time	±1.25%

Note: Unless specifically mentioned, the uncertainty of measurement has not been taken into account to declare the compliance or non-compliance to the specification.

1.3 TEST ENVIRONMENT CONDITIONS

Test Item	Temperature	Humidity	Test Voltage	Tested By
AC Power Line Conducted Emissions	24.4°C	54%	AC 120V/60Hz	Stone Tang
Radiated Emissions-9 kHz to 30 MHz	24.7°C	51%	AC 120V/60Hz	Stone Tang
Radiated Emissions-30 MHz to 1000 MHz	24.7°C	51%	AC 120V/60Hz	Stone Tang
Radiated Emissions-Above 1000 MHz	24.7°C	51%	AC 120V/60Hz	Stone Tang
Bandwidth	24.6°C	54%	DC 12V	Stone Tang
Maximum Output Power	24.6°C	54%	DC 12V	Stone Tang
Conducted Spurious Emissions	24.6°C	54%	DC 12V	Stone Tang
Power Spectral Density	24.6°C	54%	DC 12V	Stone Tang

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Equipment	Groaming Call
Brand Name	Groaming Call
Test Model	Groaming Call 1.0B
Series Model	Groaming Call 1.0A
Model Difference(s)	Groaming Call 1.0A is based on Groaming Call 1.0B, removed 4G module and external 4G antenna, the other is the same.
Software Version	5
Hardware Version	1.2.4
Power Source	DC voltage supplied from AC adapter.
Power Rating	I/P: 100-240V~ 50/60Hz 0.3A O/P: 12V ⎓ 1.0A
Operation Frequency	2412 MHz ~ 2462 MHz
Modulation Type	IEEE 802.11b: DSSS IEEE 802.11g: OFDM IEEE 802.11n: OFDM
Bit Rate of Transmitter	IEEE 802.11b: 11/5.5/2/1 Mbps IEEE 802.11g: 54/48/36/24/18/12/9/6 Mbps IEEE 802.11n: up to 150 Mbps
Maximum Output Power	IEEE 802.11b: 19.40 dBm (0.0871 W)

Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.

2. Channel List:

CH01 - CH11 for IEEE 802.11b, IEEE 802.11g, IEEE 802.11n(HT20) CH03 - CH09 for IEEE 802.11n(HT40),							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
01	2412	04	2427	07	2442	10	2457
02	2417	05	2432	08	2447	11	2462
03	2422	06	2437	09	2452		

3. Antenna Specification:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	N/A	N/A	PCB	N/A	2.99

The antenna gain is provided by the manufacturer.

4.

Operating Mode / TX Mode	1TX
IEEE 802.11b	Ant. 1
IEEE 802.11g	Ant.1
IEEE 802.11n(HT20)	Ant. 1
IEEE 802.11n(HT40)	Ant. 1

2.2 DESCRIPTION OF TEST MODES

The test system was pre-tested based on the consideration of all possible combinations of EUT operation mode.

Pretest Mode	Description
Mode 1	TX B Mode Channel 01/06/11
Mode 2	TX G Mode Channel 01/06/11
Mode 3	TX N(HT20) Mode Channel 01/06/11
Mode 4	TX N(HT40) Mode Channel 03/06/09
Mode 5	TX B Mode Channel 11
Mode 6	TX B Mode Channel 01/11
Mode 7	TX G Mode Channel 01/11
Mode 8	TX N(HT20) Mode Channel 01/11
Mode 9	TX N(HT40) Mode Channel 03/09

Following mode(s) was (were) found to be the worst case(s) and selected for the final test.

AC power line conducted emissions	
Final Test Mode	Description
Mode 5	TX B Mode Channel 11

Radiated emissions test - Below 1GHz	
Final Test Mode	Description
Mode 5	TX B Mode Channel 11

Radiated emissions test- Above 1GHz(Harmonic)	
Final Test Mode	Description
Mode 1	TX B Mode Channel 01/06/11
Mode 2	TX G Mode Channel 01/06/11
Mode 3	TX N(HT20) Mode Channel 01/06/11
Mode 4	TX N(HT40) Mode Channel 03/06/09

Radiated emissions test- Above 1GHz(Bandedge)	
Final Test Mode	Description
Mode 6	TX B Mode Channel 01/11
Mode 7	TX G Mode Channel 01/11
Mode 8	TX N(HT20) Mode Channel 01/11
Mode 9	TX N(HT40) Mode Channel 03/09

Maximun Output Power	
Final Test Mode	Description
Mode 1	TX B Mode Channel 01/06/11
Mode 2	TX G Mode Channel 01/06/11
Mode 3	TX N(HT20) Mode Channel 01/06/11
Mode 4	TX N(HT40) Mode Channel 03/06/09

NOTE:
(1) All the bit rate of transmitter have been tested and found the lowest rate is found to be the worst case and recorded.
(2) For AC power line conducted emissions and radiated emission below 1 GHz test, Two samples were pre-scanned, the TX b Mode Channel 11 is found to be the worst case and recorded the worst results for Groaming Call 1.0B.
(3) For radiated emission above 1 GHz test, the spurious points of 1GHz~18GHz and 18GHz~26.5GHz have been pre-tested and in this report only recorded the worst case. The remaining spurious points are all below the limit value of 20dB.

2.3 PARAMETERS OF TEST SOFTWARE

Test Software Version	CMD		
Frequency (MHz)	2412	2437	2462
IEEE 802.11b	default	default	default
IEEE 802.11g	default	default	default
IEEE 802.11n(HT20)	default	default	default
Frequency (MHz)	2422	2437	2452
IEEE 802.11n(HT40)	default	default	default

2.4 DUTY CYCLE

If duty cycle is ≥ 98 %, duty factor is not required.
If duty cycle is < 98 %, duty factor shall be considered.
The output power = measured power + duty factor.

Test Result

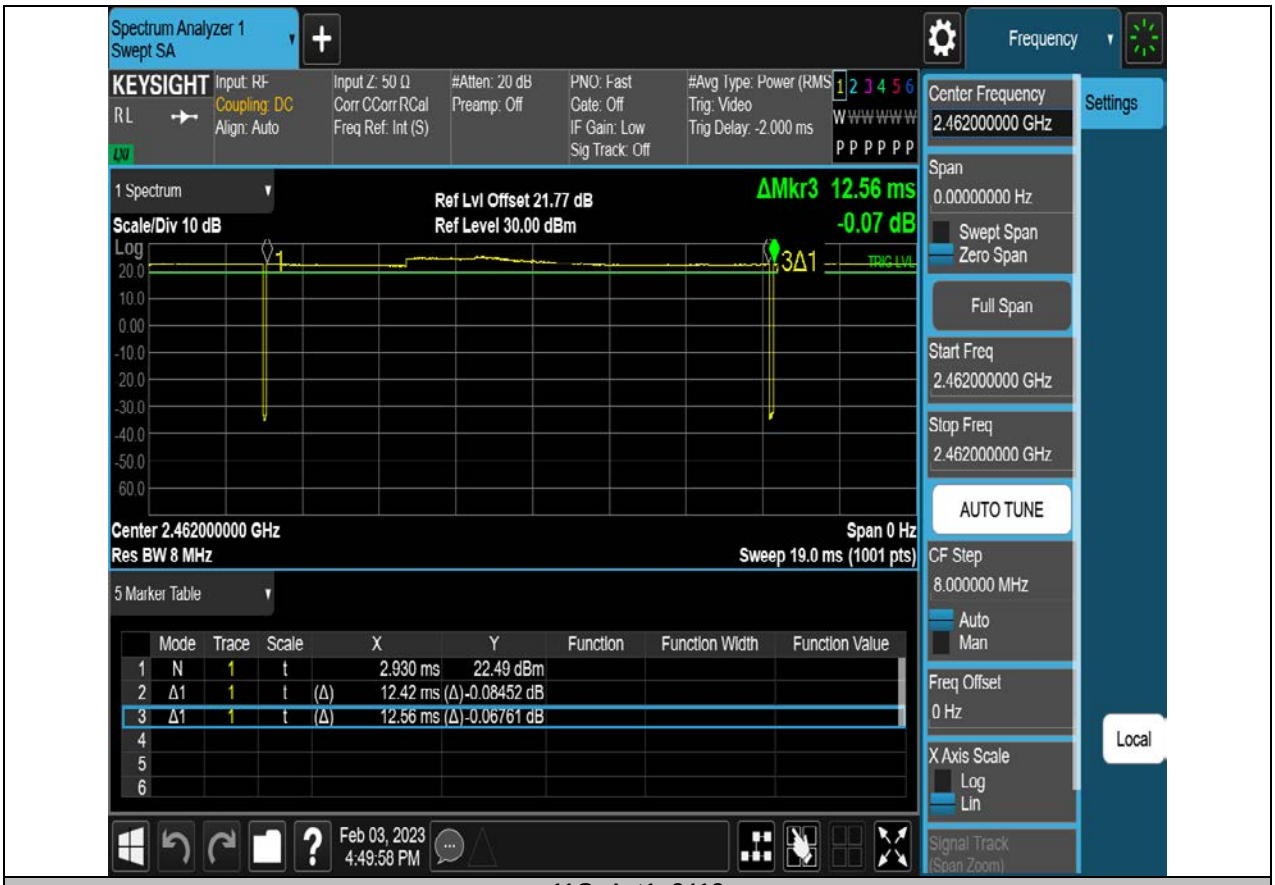
Test Mode	Antenna	Frequency[MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]
11B	Ant1	2412	12.42	12.50	99.36
		2437	12.41	12.51	99.20
		2462	12.42	12.56	98.89
11G	Ant1	2412	2.07	2.13	97.18
		2437	2.07	2.10	98.57
		2462	2.06	2.16	95.37
11N20SISO	Ant1	2412	0.23	0.39	58.97
		2437	0.23	0.34	67.65
		2462	0.23	0.40	57.50
11N40SISO	Ant1	2422	0.13	0.28	46.43
		2437	0.13	0.27	48.15
		2452	0.13	0.26	50.00

Test Graphs

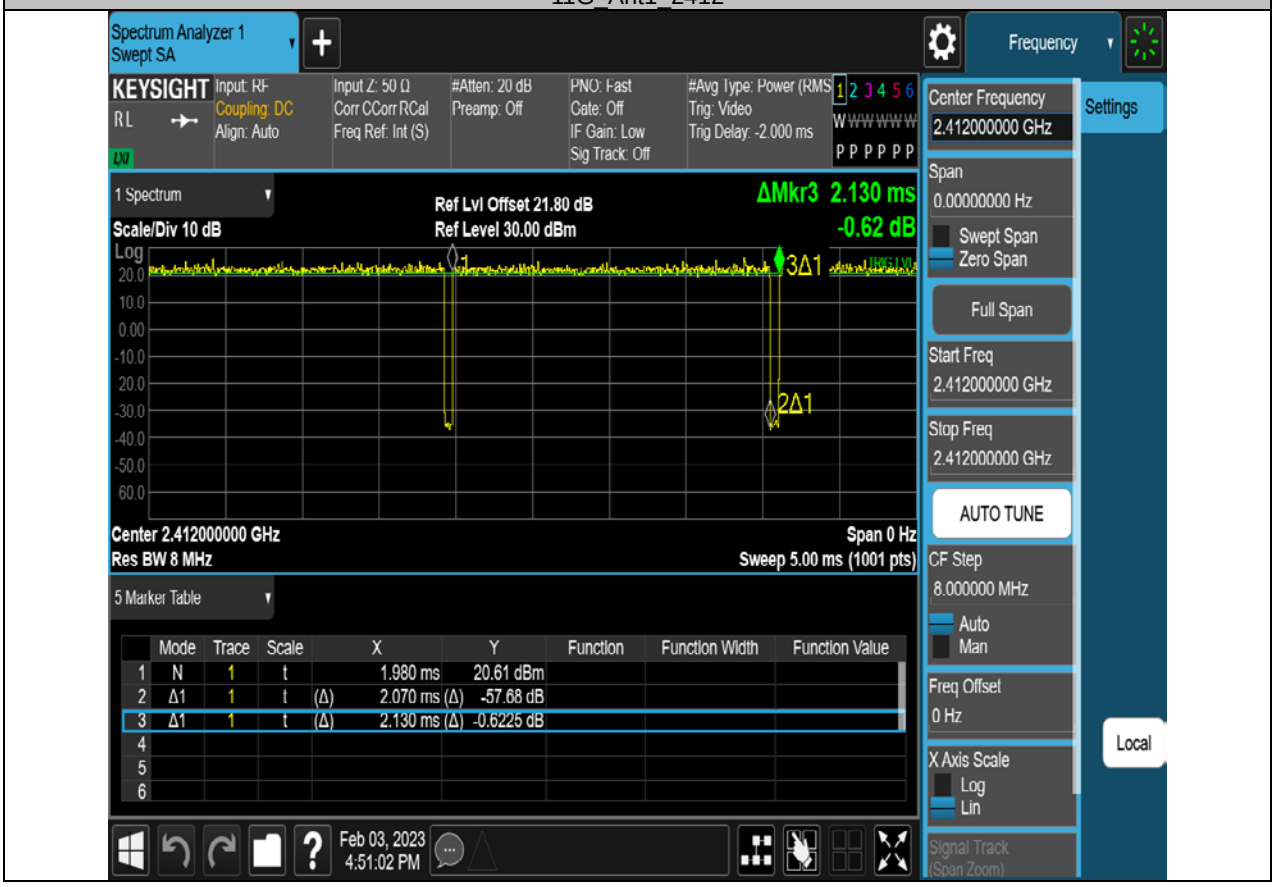
11B_Ant1_2412

11B_Ant1_2437

11B_Ant1_2462



11G_Ant1_2412



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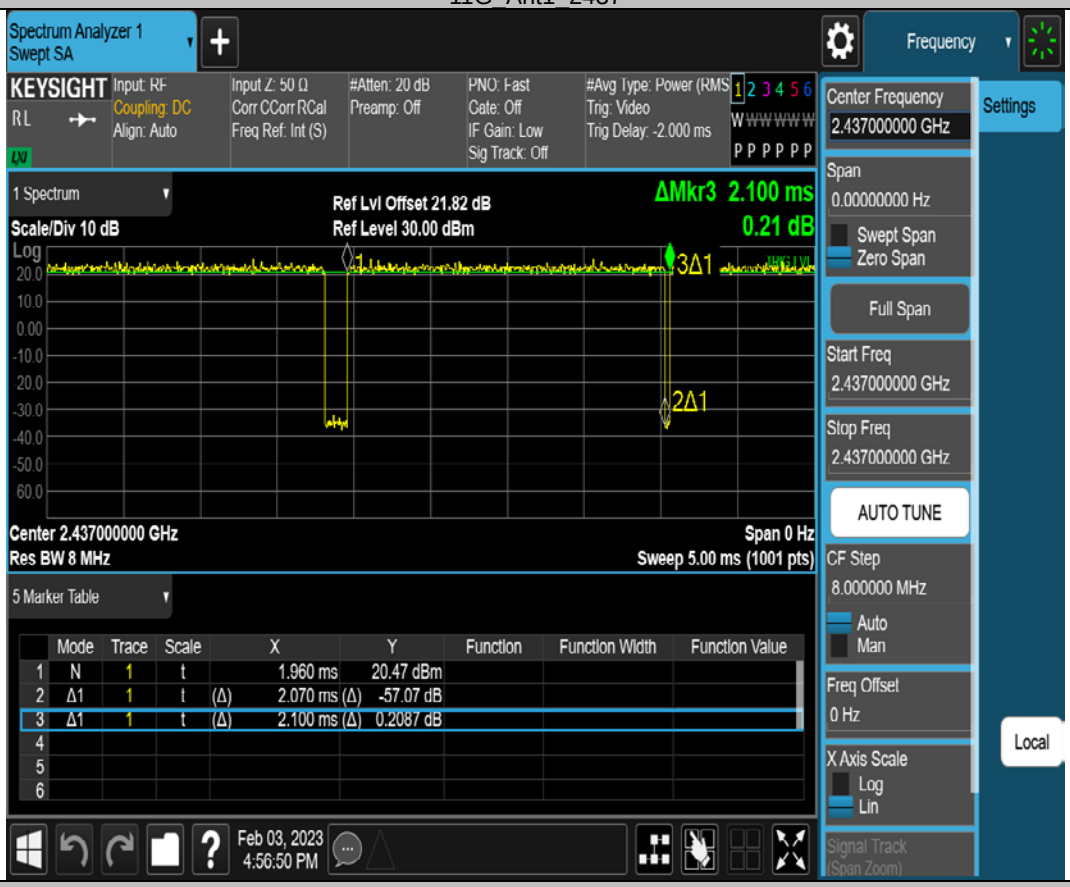
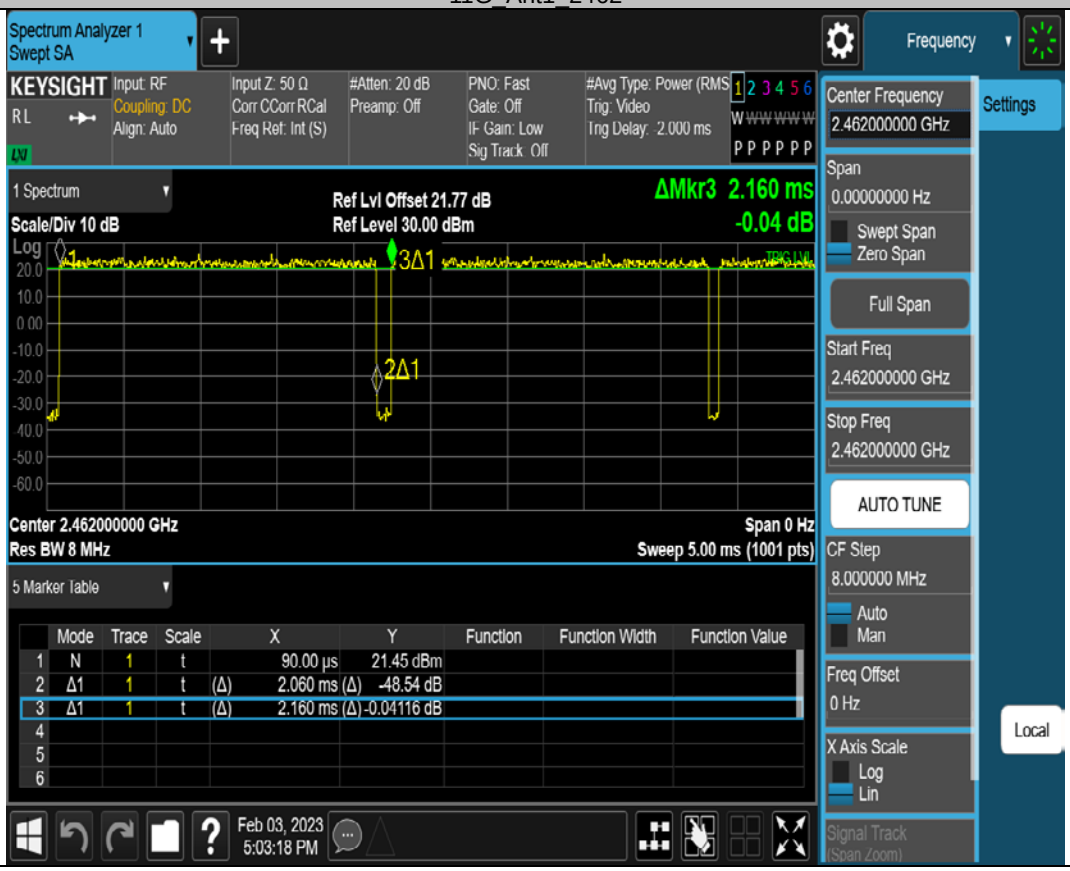


11G_Ant1_2462



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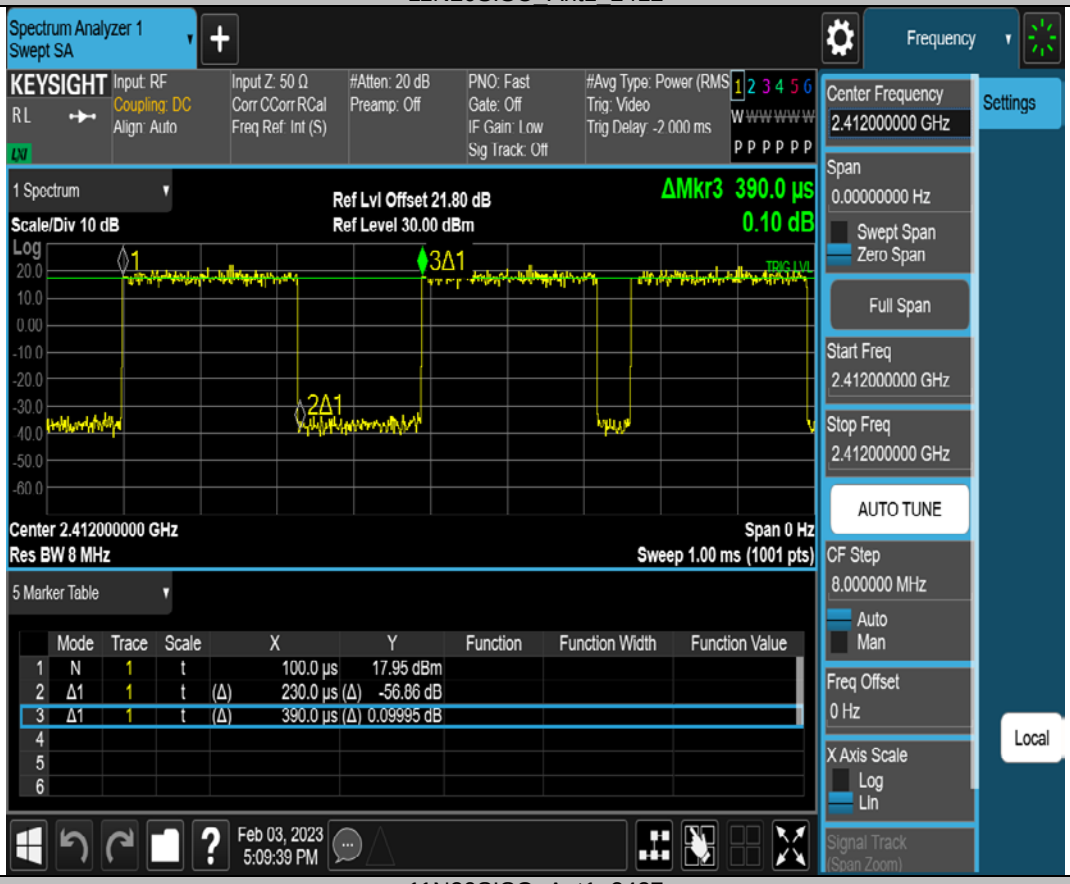

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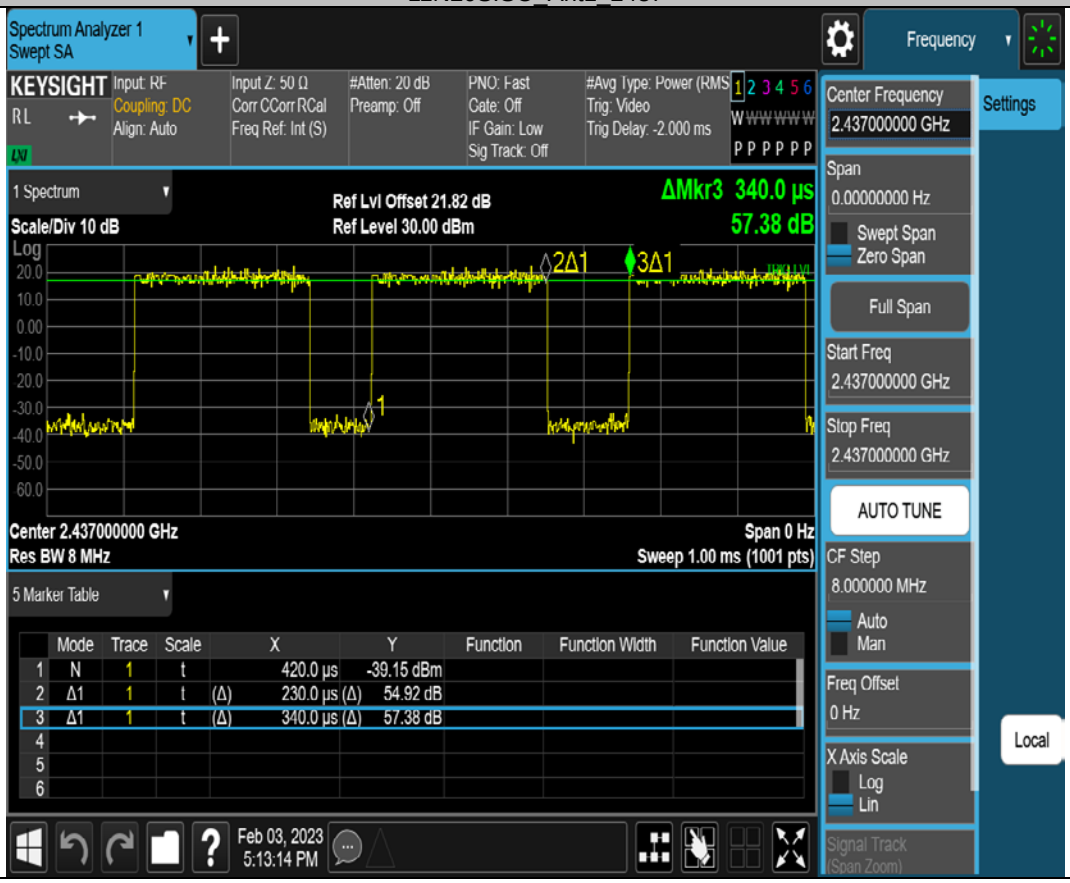

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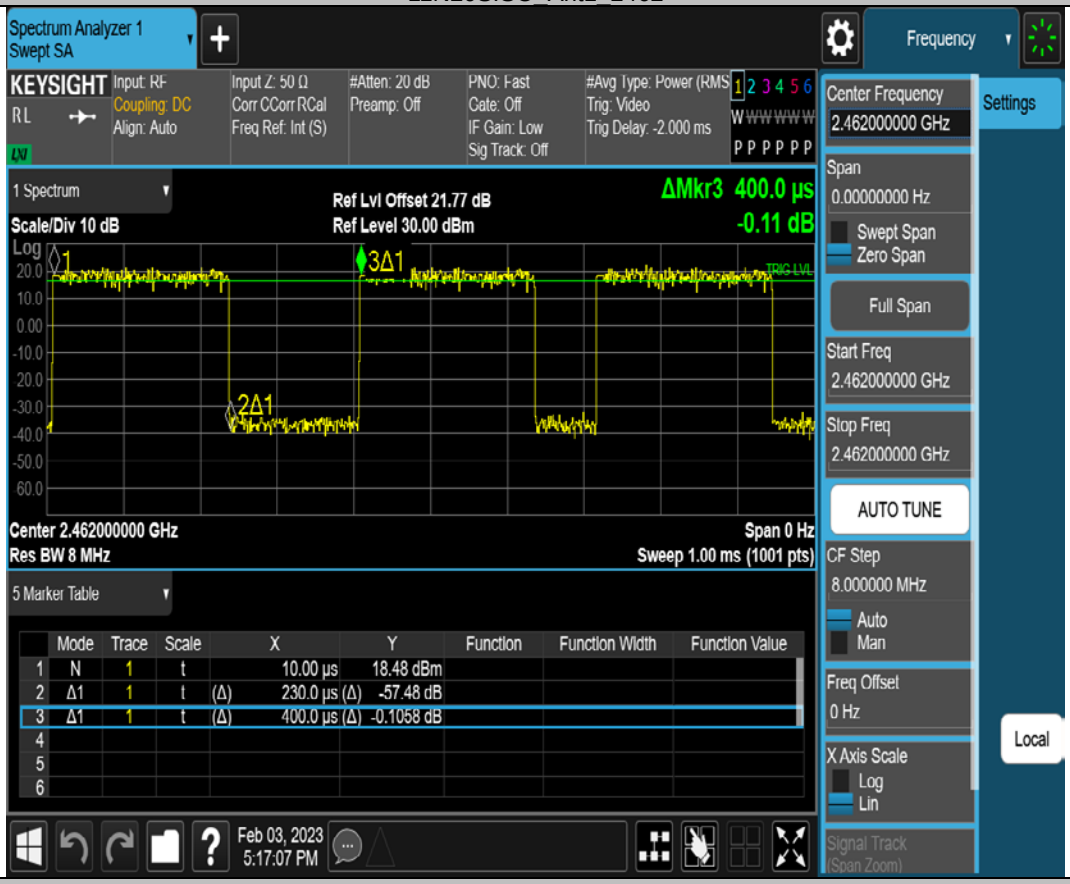

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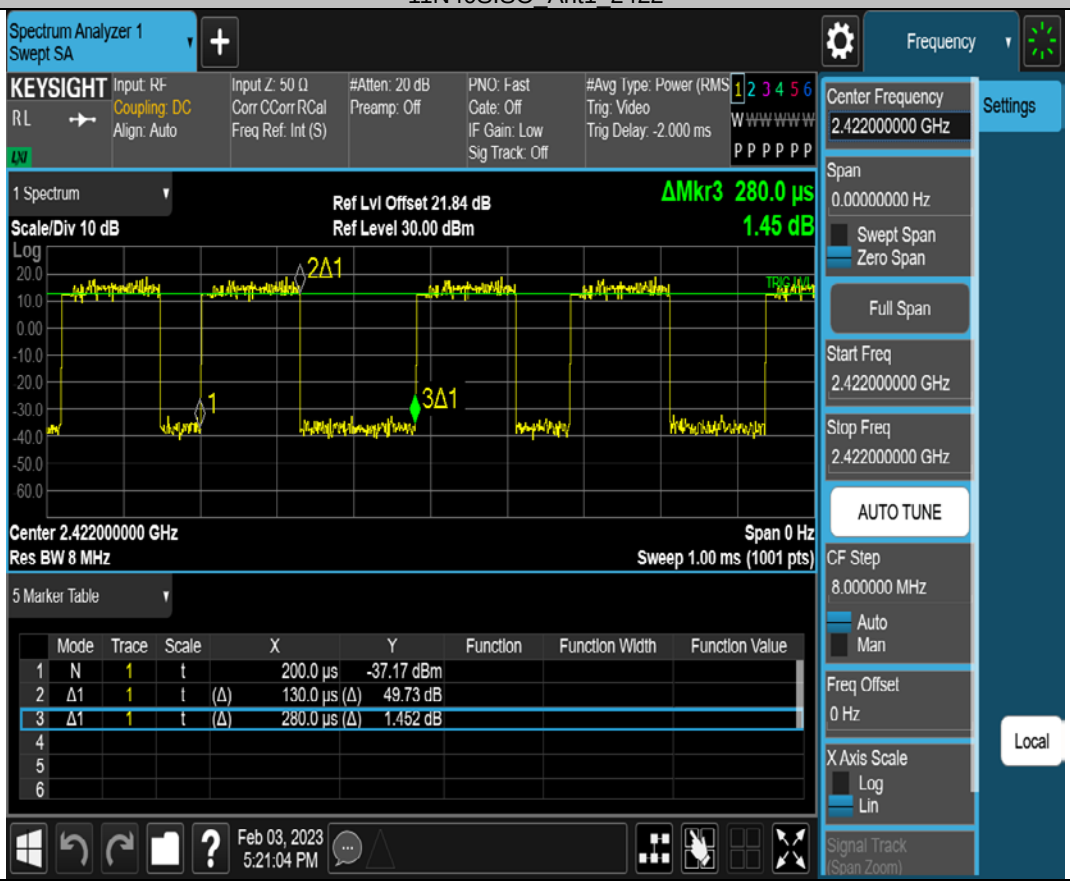
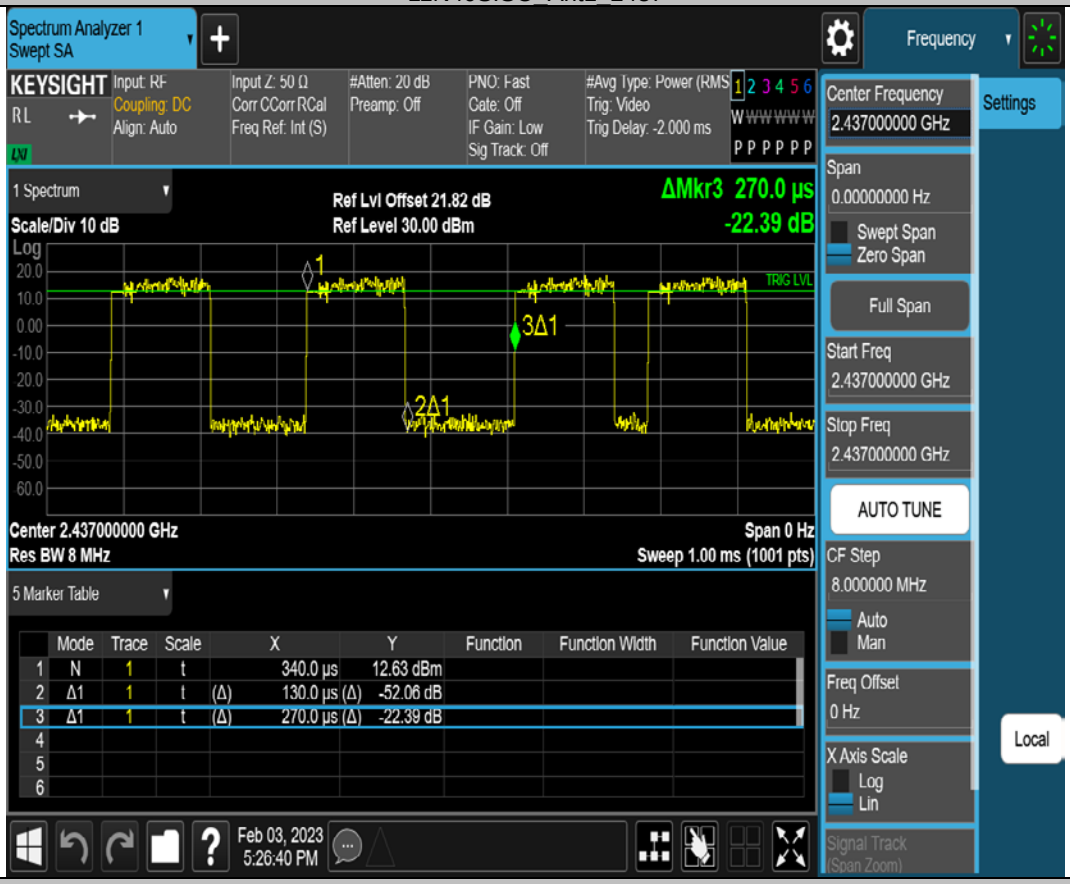
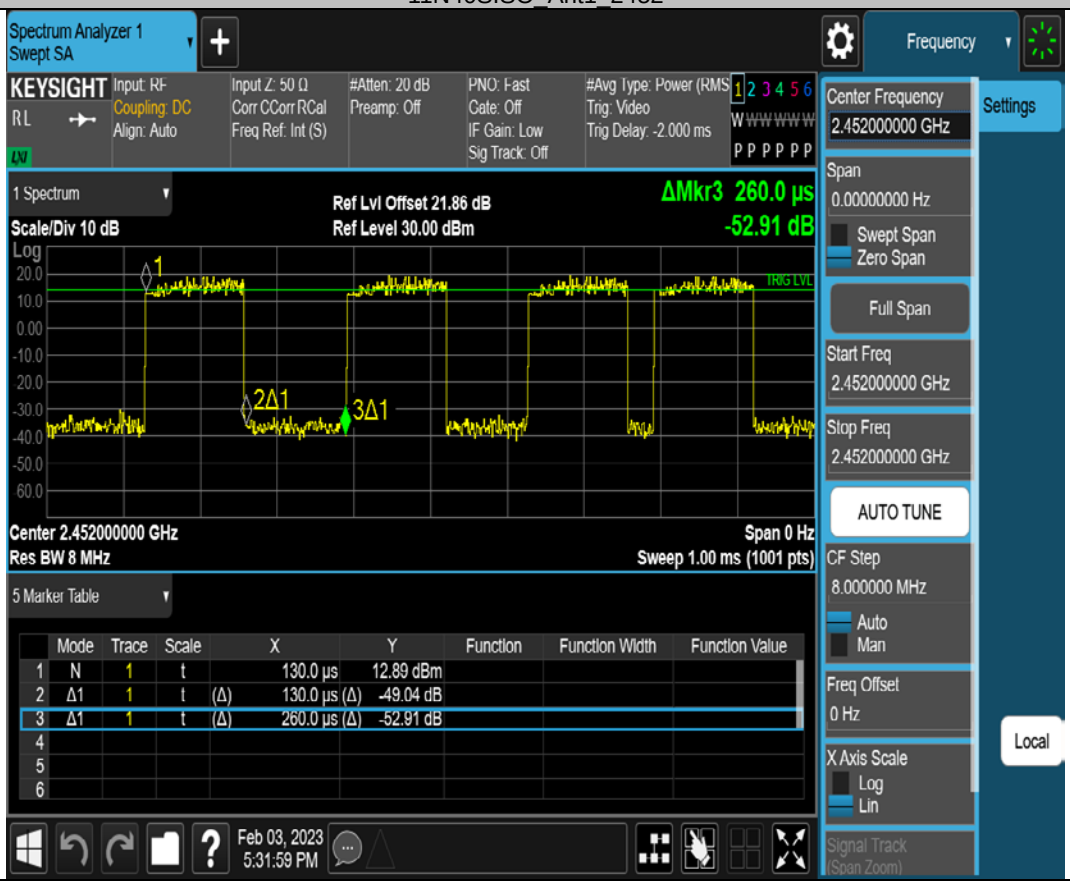


11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



2.5 SUPPORT UNITS

Support Equipment				
No.	Equipment	Brand Name	Model Name	Remarks
1	TF Card	/	/	/
2	SIM Card	/	LTE 4G Card	/
3	USB disk	Kingston	/	/
4	Telephone	Fanvil	X1	/
5	Lan Cable	/	/	10m,Unshielding
6	Telephone Cable	/	/	10m,Unshielding

3. AC POWER LINE CONDUCTED EMISSIONS

3.1 LIMIT

Frequency of Emission (MHz)	Limit (dBμV)	
	Quasi-peak	Average
0.15 - 0.5	66 to 56*	56 to 46*
0.5 - 5.0	56	46
5.0 - 30.0	60	50

NOTE:

(1) The tighter limit applies at the band edges.
(2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

3.2 TEST PROCEDURE

a. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipment powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
d. LISN at least 80 cm from nearest part of EUT chassis.
e. For the actual test configuration, please refer to the related Item -EUT Test Photos.

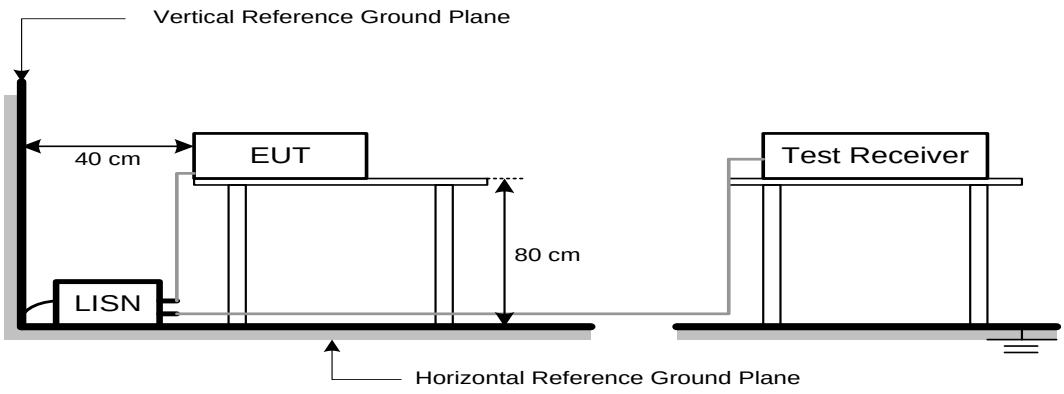
The following table is the setting of the receiver:

Receiver Parameters	Setting
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

3.3 DEVIATION FROM TEST STANDARD

No deviation.

3.4 TEST SETUP



3.5 EUT OPERATION CONDITIONS

EUT was programmed to be in continuously transmitting mode.

3.6 TEST RESULTS

Please refer to the APPENDIX A.

4. RADIATED EMISSIONS

4.1 LIMIT

In case the emission fall within the restricted band specified on 15.205(a) and RSS-Gen 8.10, then the 15.209(a) and RSS-Gen 8.9 limit in the table below has to be followed.

LIMITS OF RADIATED EMISSION MEASUREMENT (9 kHz-1000 MHz)

Frequency (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

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000 MHz)

Frequency (MHz)	(dBuV/m at 3 m)	
	Peak	Average
Above 1000	74	54

NOTE:

(1) The limit for radiated test was performed according to FCC CFR Title 47, Part 15, Subpart C.

(2) The tighter limit applies at the band edges.

(3) Emission level (dBuV/m)=20log Emission level (uV/m).

4.2 TEST PROCEDURE

a. The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(below 1 GHz)
b. The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 1.5 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(above 1 GHz)
c. The height of the equipment or of the substitution antenna shall be 0.8m or 1.5m; the height of the test antenna shall vary between 1 m to 4 m. 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 find the maximum reading (used Bore sight function).
e. The receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz.
f. The initial step in collecting radiated emission data is a receiver peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
g. All readings are Peak unless otherwise stated QP in column of Note. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn‘t perform. (below 1 GHz)
h. All readings are Peak Mode value unless otherwise stated AVG in column of Note. If the Peak Mode Measured value compliance with the Peak Limits and lower than AVG Limits, the EUT shall be deemed to meet both Peak & AVG Limits and then only Peak Mode was measured, but AVG Mode didn‘t perform. (above 1 GHz)
i. For the actual test configuration, please refer to the related Item -EUT Test Photos.

The following table is the setting of the receiver:

Spectrum Parameters	Setting
Start ~ Stop Frequency	9 kHz~150 kHz for RBW 200 Hz
Start ~ Stop Frequency	0.15 MHz~30 MHz for RBW 9 kHz
Start ~ Stop Frequency	30 MHz~1000 MHz for RBW 100 kHz

Spectrum Parameters	Setting
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic
RBW / VBW (Emission in restricted band)	1 MHz / 3 MHz for PK value 1 MHz / 1/T Hz for AVG value

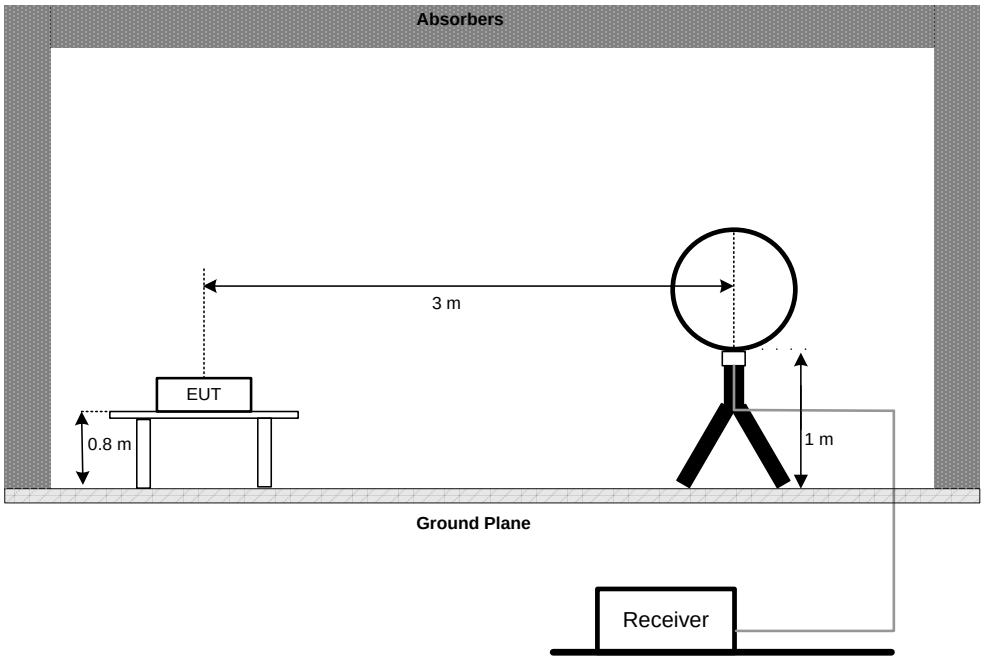
Receiver Parameters	Setting
Start ~ Stop Frequency	9 kHz~90 kHz for PK/AVG detector
Start ~ Stop Frequency	90 kHz~110 kHz for QP detector
Start ~ Stop Frequency	110 kHz~490 kHz for PK/AVG detector
Start ~ Stop Frequency	490 kHz~30 MHz for QP detector
Start ~ Stop Frequency	30 MHz~1000 MHz for QP detector
Start ~ Stop Frequency	1 GHz~26.5 GHz for PK/AVG detector

4.3 DEVIATION FROM TEST STANDARD

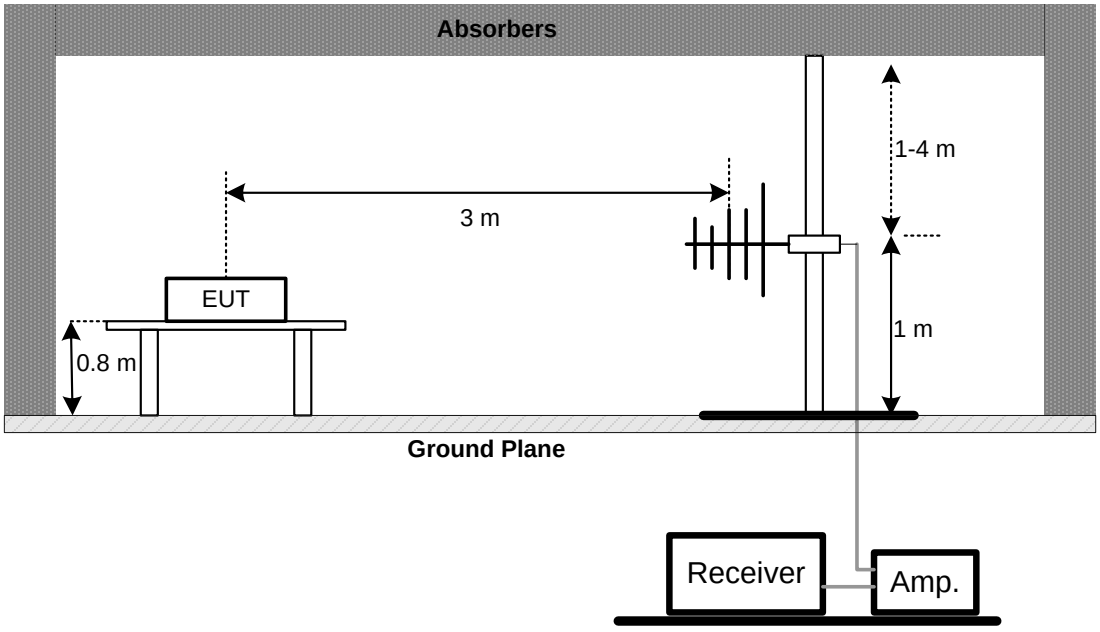
No deviation.

4.4 TEST SETUP

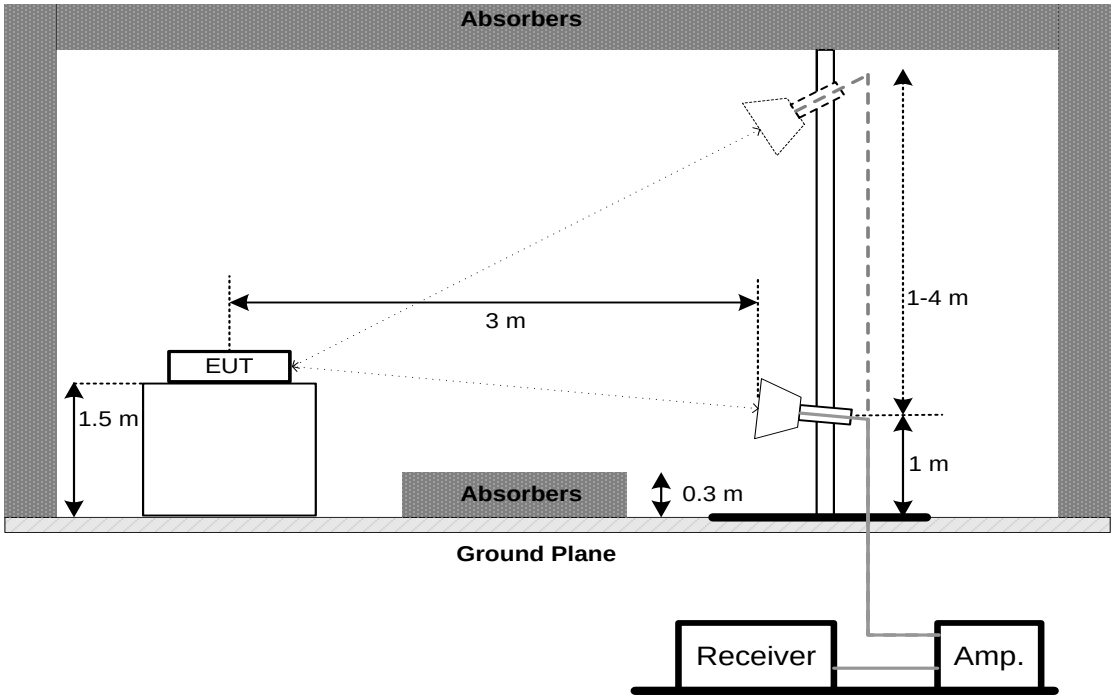
9 kHz to 30 MHz



30 MHz to 1 GHz



Above 1 GHz



4.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

4.6 TEST RESULTS - 9 KHZ TO 30 MHZ

Please refer to the APPENDIX B.

Remark:

(1) Distance extrapolation factor = 40 log (specific distance / test distance) (dB).
(2) Limit line = specific limits (dBuV) + distance extrapolation factor.

4.7 TEST RESULTS - 30 MHZ TO 1000 MHZ

Please refer to the APPENDIX C.

4.8 TEST RESULTS - ABOVE 1000 MHZ

Please refer to the Appendix D.

Remark:

(1) No limit: This is fundamental signal, the judgment is not applicable.
For fundamental signal judgment was referred to Peak output test.

5. BANDWIDTH

5.1 LIMIT

Section	Test Item	Limit
FCC 15.247(a)(2)	6 dB Bandwidth	Minimum 500 kHz
	99% Emission Bandwidth	-

5.2 TEST PROCEDURE

a. The EUT was directly connected to the tonscend test system and antenna output port as show in the block diagram below.
b. The following table is the setting of the spectrum analyzer:

For 6 dB Bandwidth:

Spectrum Parameters	Setting
Span Frequency	> Measurement Bandwidth
RBW	100 kHz
VBW	300 kHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

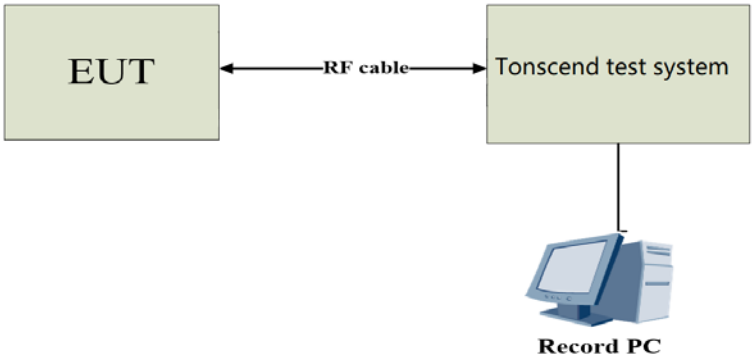
For 99% Emission Bandwidth:

Spectrum Parameters	Setting
Span Frequency	Between 1.5 times and 5.0 times the OBW
RBW	430 kHz For 20MHz 820 kHz For 40MHz
VBW	1.3 MHz For 20MHz 2.7 MHz For 40MHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

5.3 DEVIATION FROM STANDARD

No deviation.

5.4 TEST SETUP



5.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

5.6 TEST RESULTS

Please refer to the Appendix E.

6. MAXIMUM OUTPUT POWER

6.1 LIMIT

Section	Test Item	Limit
FCC 15.247(b)(3)	Maximum Output Power	1.0000 Watt or 30.00 dBm

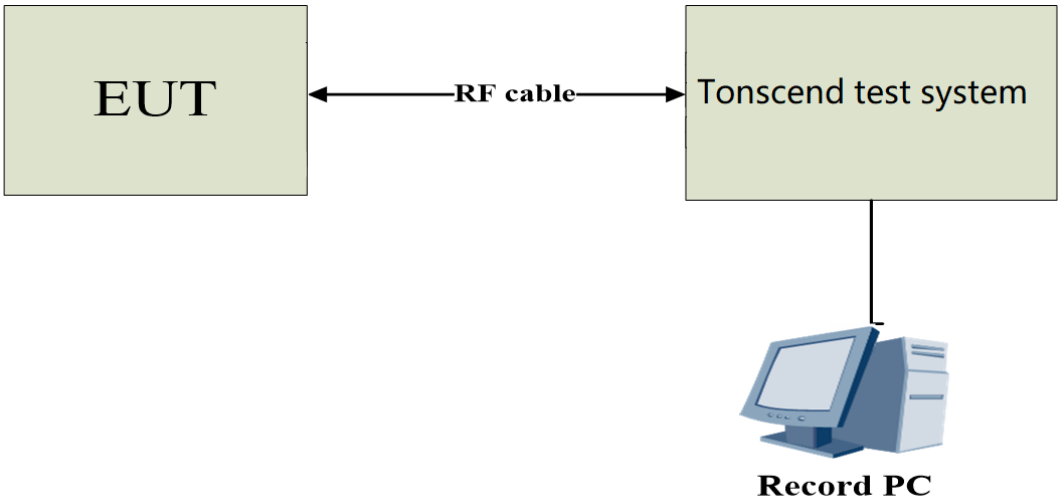
6.2 TEST PROCEDURE

a. The EUT was directly connected to the tonscend test system and antenna output port as show in the block diagram below.
b. The maximum conducted output power was performed in accordance with method 11.9.2.3.1 (for AVG power) of ANSI C63.10-2013 and FCC KDB 662911 D01 v02r01 Multiple Transmitter Output.

6.3 DEVIATION FROM STANDARD

No deviation.

6.4 TEST SETUP



6.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

6.6 TEST RESULTS

Please refer to the APPENDIX F.

7. CONDUCTED SPURIOUS EMISSIONS

7.1 LIMIT

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak Output Power limits. If the transmitter complies with the Output Power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in Section 15.209(a) is not required.

7.2 TEST PROCEDURE

a. The EUT was directly connected to the tonscend test system and antenna output port as show in the block diagram below.
b. The following table is the setting of the spectrum analyzer:

Reference level

Spectrum Parameters	Setting
Span	30 MHz for 20MHz, 60 MHz for 40MHz
RBW	100 kHz
VBW	300 kHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

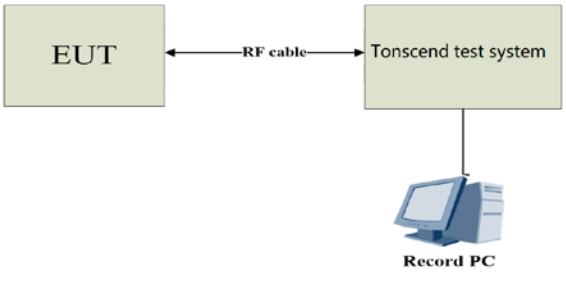
Conducted Spurious Emission

Spectrum Parameters	Setting
Start Frequency	30 MHz
Stop Frequency	26.5 GHz
RBW	100 kHz
VBW	300 kHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

7.3 DEVIATION FROM STANDARD

No deviation.

7.4 TEST SETUP



7.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

7.6 TEST RESULTS

Please refer to the Appendix G.

8. POWER SPECTRAL DENSITY

8.1 LIMIT

Section	Test Item	Limit
FCC 15.247(e)	Power Spectral Density	8 dBm (in any 3 kHz)

8.2 TEST PROCEDURE

a. The EUT was directly connected to the tonscend test system and antenna output port as show in the block diagram below.

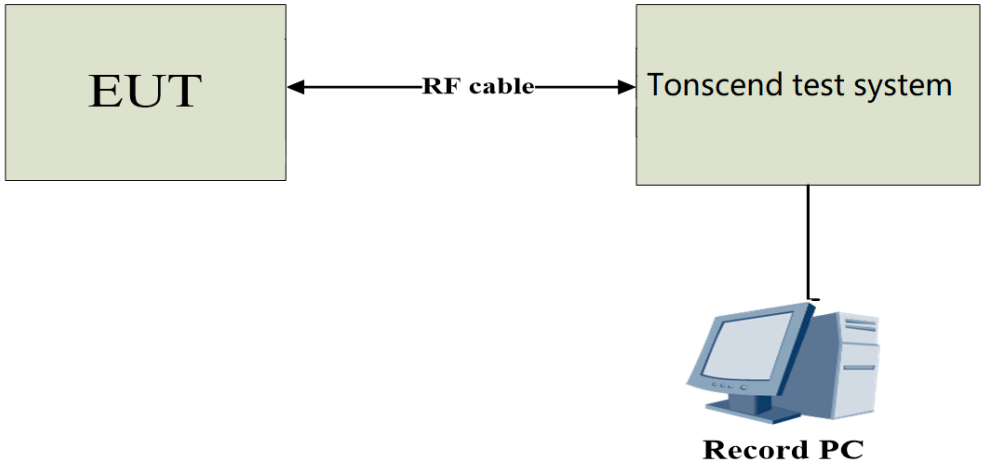
b. The following table is the setting of the spectrum analyzer:

Spectrum Parameters	Setting
Span Frequency	1.5 times the DTS bandwidth
RBW	3 kHz
VBW	10 kHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

8.3 DEVIATION FROM STANDARD

No deviation.

8.4 TEST SETUP



8.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

8.6 TEST RESULTS

Please refer to the Appendix H.

9. MEASUREMENT INSTRUMENTS LIST

No.	Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	EMI Receiver	Rohde&Schwarz	ESCI	1166.5950.03	2023/10/14
2	AMN	Rohde&Schwarz	ENV216	3560.6550.05	2023/10/14
3	AMN	Schwarzbeck	NSLK8127	#829	2023/10/14
4	ECSI RF IN RF Cable	Rohde&Schwarz	RP-X1	\	2023/10/14
5	ECSI RF IN RF Cable	Rohde&Schwarz	Sapre sm	\	2023/10/14
6	EMI Receiver	Rohde&Schwarz	ESR7	102013	2023/10/14
7	Spectrum analyzer	Rohde&Schwarz	FSV30	103741	2023/10/17
8	EMI receiver	Rohde&Schwarz	ESU	100184	2023/07/20
9	Spectrum analyzer	KEYSIGHT	N9010A-44	MY51440158	2023/10/17
10	Loop Antenna*	Schwarzbeck	FMZB1519B	00029	2025/07/03
11	Integral Antenna	Schwarzbeck	VULB 9163	VULB 9163-361	2023/10/20
12	Integral Antenna	Schwarzbeck	BBHA 9120D	BBHA 9120D 1201	2023/10/15
13	Integral Antenna	Schwarzbeck	BBHA 9170	9170#685	2023/10/15
14	Preamplifier	CD Systems Inc	PAP-03036-30	85060000	2023/10/15
15	Preamplifier	Schwarzbeck	BBV9721	9721-019	2023/10/15
16	Preamplifier	emci	EMC012645 SE	980417	2023/10/16
17	ECSI RF IN RF Cable	Rohde&Schwarz	AP-X1	\	2023/10/16
18	Spectrum Analyzer	Agilent	N9010A	MY52221119	2023/10/17
19	Power Collection Unit	Tonscend	JS0806-2	188060134	2023/10/16
20	Tonscend Test System	Tonscend	2.6.77.0518	NA	N/A
21	10dB Attenuator	Tonscend	10dB	NA	N/A
22	Temp&Humidity Recorder	Anymetre	JR900	NA	2023/10/16
23	Temp&Humidity Chamber	ETOMA	NTH1100-30 A	16080628	2023/10/16
24	Filter	STI	STI15-9845	N/A	N/A
25	Filter	STI	5.1G	N/A	N/A
26	Filter	STI	STI15-9845	N/A	N/A
27	Testing Software	EZ-EMC	TW-03A2	N/A	N/A

Remark: ”N/A” denotes no model name, serial no. or calibration specified.

“*” calibration period of equipment list is three year.

Except * item, all calibration period of equipment list is one year.

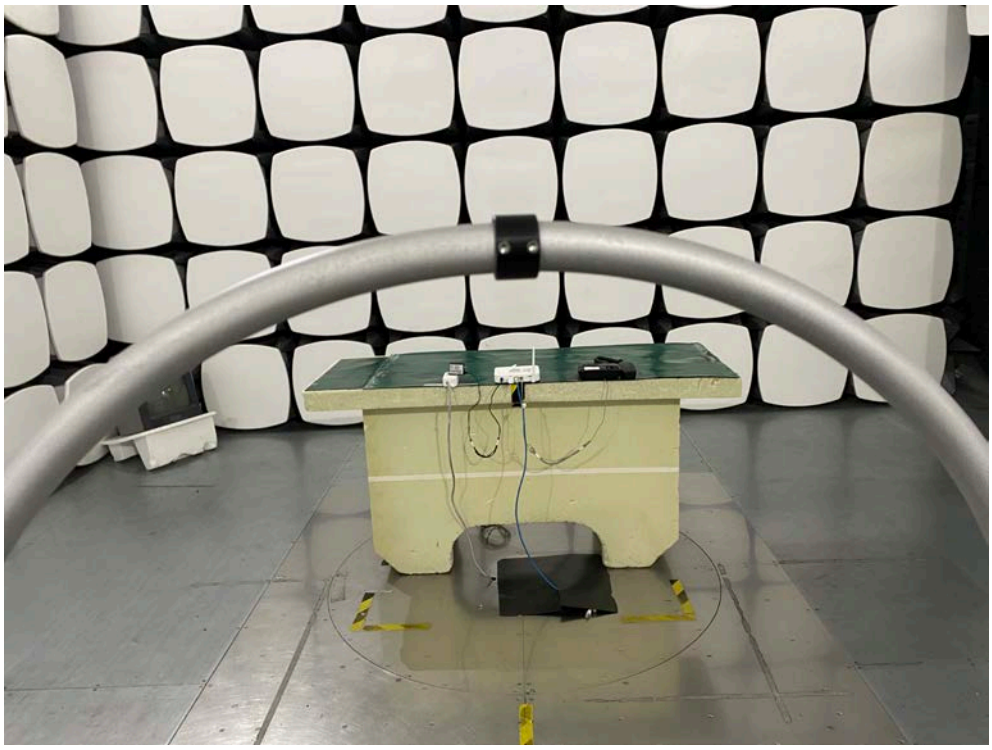
10. EUT TEST PHOTO

AC Power Line Conducted Emissions Test Photos

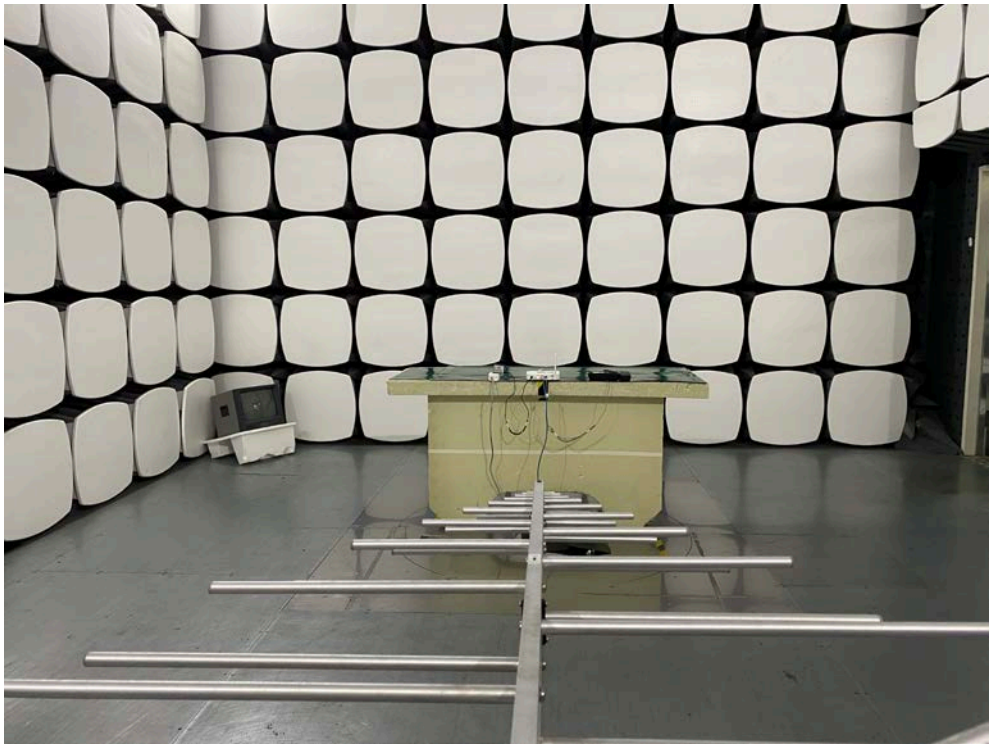
Conducted Test Photos

Radiated Emissions Test Photos

9 kHz to 30 MHz

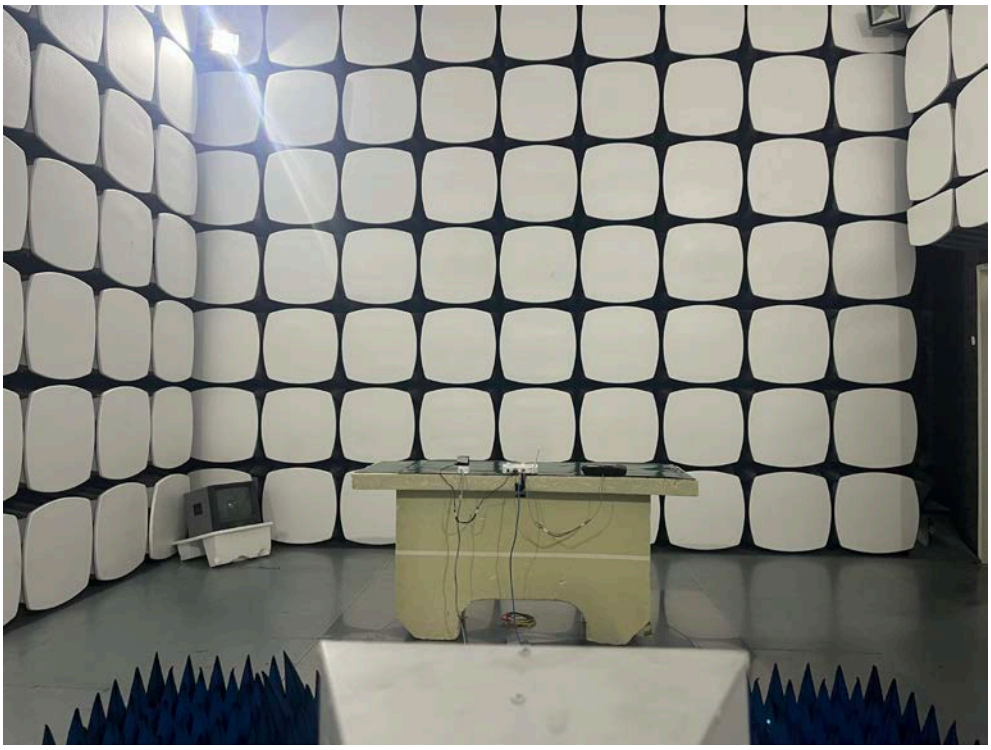


30 MHz to 1000 MHz



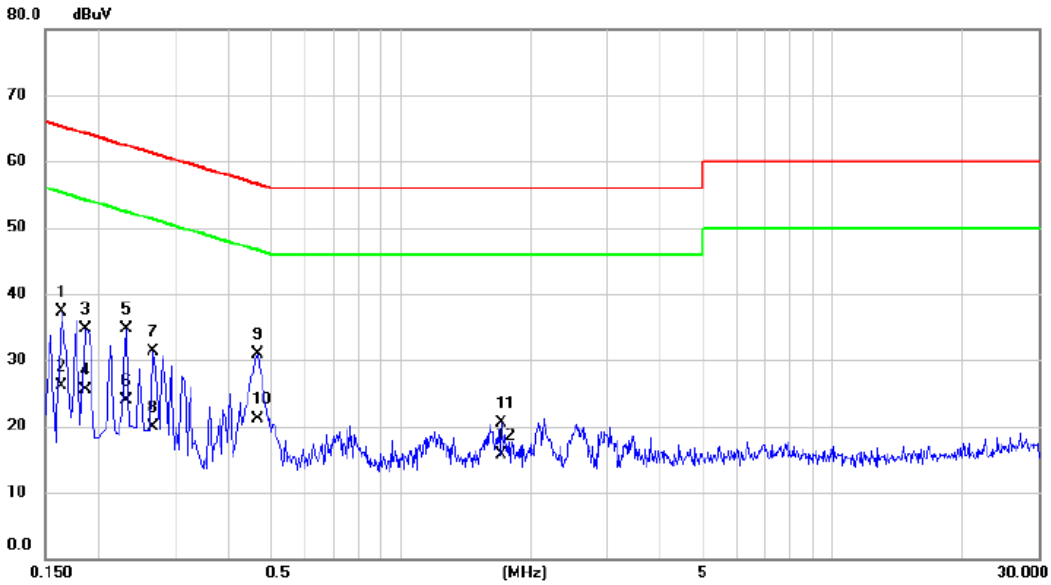
Radiated Emissions Test Photos

Above 1 GHz



APPENDIX A - AC POWER LINE CONDUCTED EMISSIONS

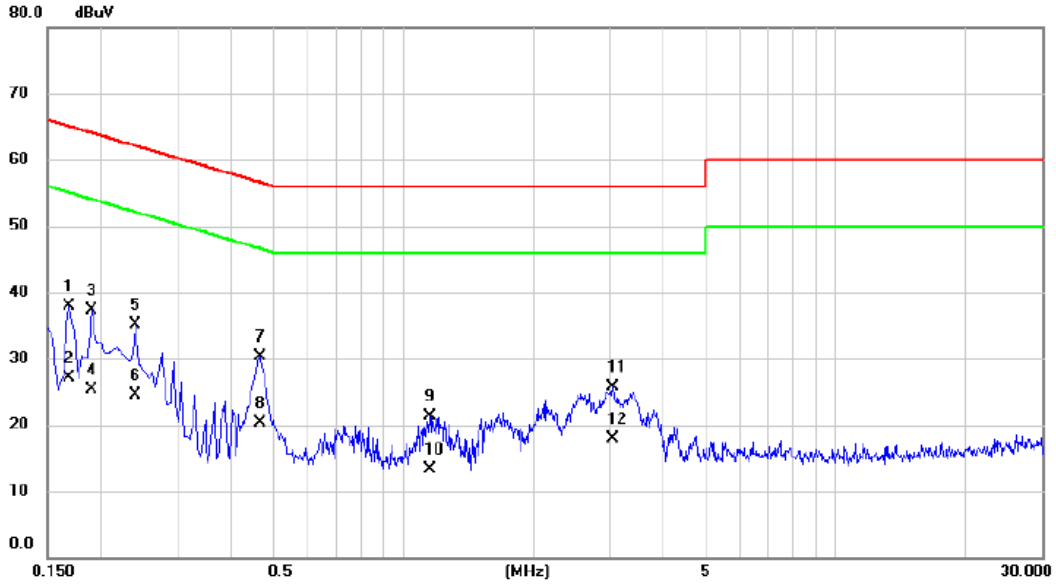
Test Mode	TX B Mode Channel 11	Phase	Line



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1635	27.68	9.67	37.35	65.28	-27.93	QP	
2		0.1635	16.50	9.67	26.17	55.28	-29.11	AVG	
3		0.1860	25.10	9.69	34.79	64.21	-29.42	QP	
4		0.1860	15.80	9.69	25.49	54.21	-28.72	AVG	
5		0.2310	24.91	9.70	34.61	62.41	-27.80	QP	
6		0.2310	14.20	9.70	23.90	52.41	-28.51	AVG	
7		0.2670	21.61	9.71	31.32	61.21	-29.89	QP	
8		0.2670	10.20	9.71	19.91	51.21	-31.30	AVG	
9		0.4650	21.16	9.76	30.92	56.60	-25.68	QP	
10	*	0.4650	11.30	9.76	21.06	46.60	-25.54	AVG	
11		1.7070	10.68	9.86	20.54	56.00	-35.46	QP	
12		1.7070	5.90	9.86	15.76	46.00	-30.24	AVG	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Test Mode	TX B Mode Channel 11	Phase	Neutral



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1680	28.15	9.71	37.86	65.06	-27.20	QP	
2		0.1680	17.30	9.71	27.01	55.06	-28.05	AVG	
3		0.1905	27.62	9.73	37.35	64.01	-26.66	QP	
4		0.1905	15.60	9.73	25.33	54.01	-28.68	AVG	
5		0.2400	25.30	9.74	35.04	62.10	-27.06	QP	
6		0.2400	14.70	9.74	24.44	52.10	-27.66	AVG	
7		0.4650	20.49	9.79	30.28	56.60	-26.32	QP	
8	*	0.4650	10.50	9.79	20.29	46.60	-26.31	AVG	
9		1.1490	11.47	9.87	21.34	56.00	-34.66	QP	
10		1.1490	3.50	9.87	13.37	46.00	-32.63	AVG	
11		3.0570	15.71	10.00	25.71	56.00	-30.29	QP	
12		3.0570	7.90	10.00	17.90	46.00	-28.10	AVG	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

APPENDIX B - RADIATED EMISSION - 9 KHZ TO 30 MHZ

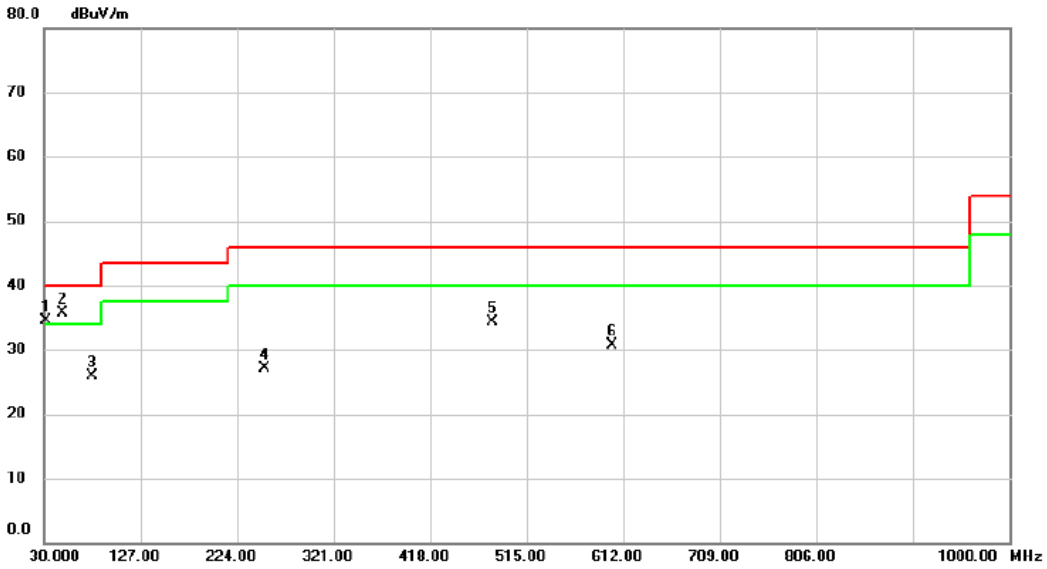
Radiated emission: 9KHz-30MHz

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line was not reported.

There is a comparison data of both open-field test site and semi-Anechoic chamber, and the result came out very similar.

APPENDIX C - RADIATED EMISSION - 30 MHZ TO 1000 MHZ

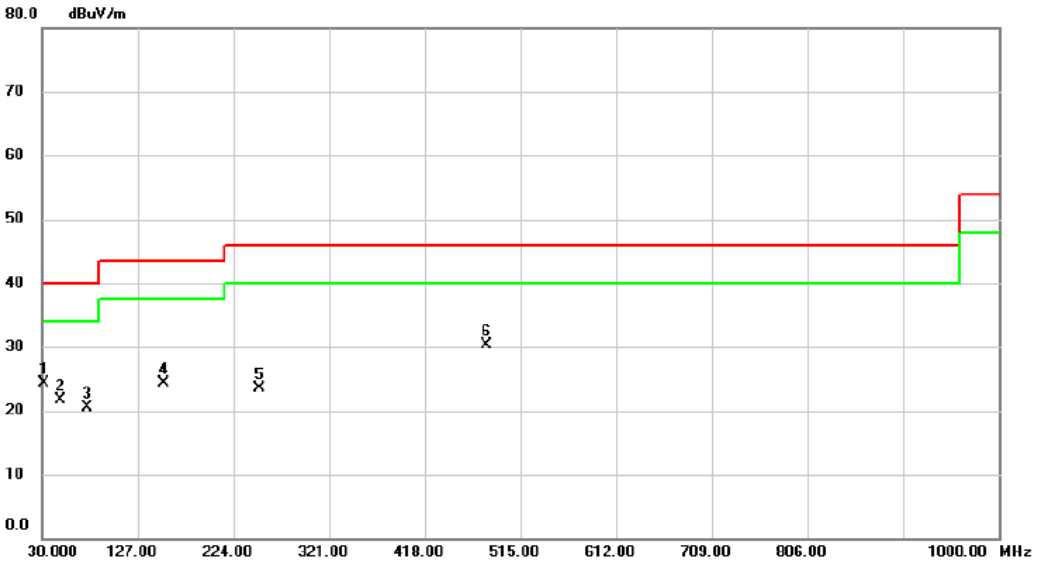
Test Mode	TX B Mode Channel 11	Polarization	Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	!	31.9400	50.15	-15.74	34.41	40.00	-5.59	peak	
2	*	48.4300	49.93	-14.29	35.64	40.00	-4.36	peak	
3		78.5000	44.10	-18.12	25.98	40.00	-14.02	peak	
4		252.1300	40.31	-13.12	27.19	46.00	-18.81	peak	
5		480.0800	41.44	-7.12	34.32	46.00	-11.68	peak	
6		600.3600	35.51	-4.79	30.72	46.00	-15.28	peak	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Test Mode	TX B Mode Channel 11	Polarization	Horizontal

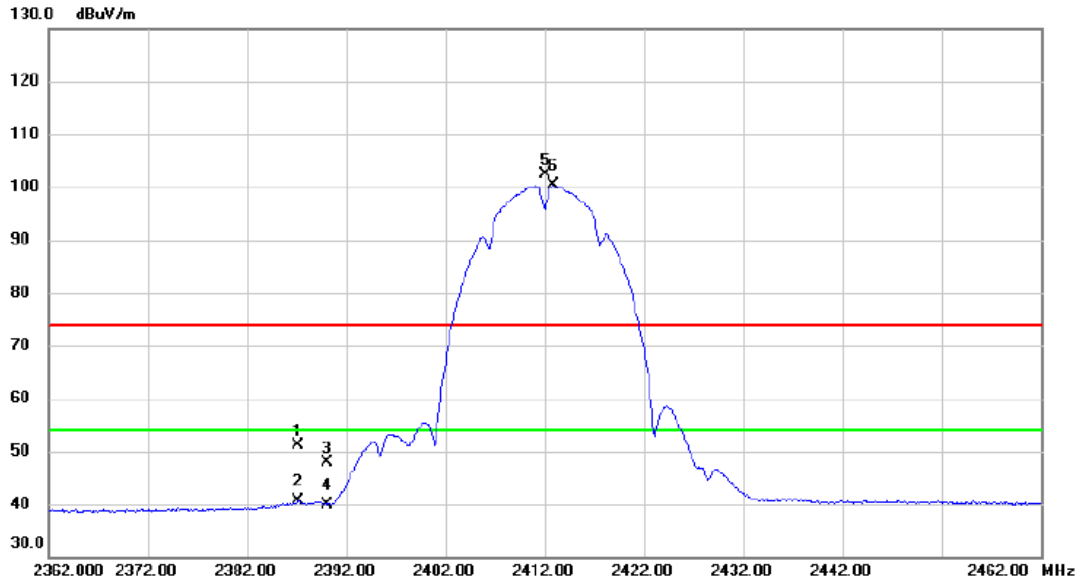


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	31.9400	40.06	-15.74	24.32	40.00	-15.68	peak	
2		48.4300	35.94	-14.29	21.65	40.00	-18.35	peak	
3		75.5900	37.98	-17.53	20.45	40.00	-19.55	peak	
4		153.1900	37.09	-12.72	24.37	43.50	-19.13	peak	
5		250.1900	36.77	-13.17	23.60	46.00	-22.40	peak	
6		480.0800	37.35	-7.12	30.23	46.00	-15.77	peak	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

APPENDIX D - RADIATED EMISSION- ABOVE 1000 MHZ

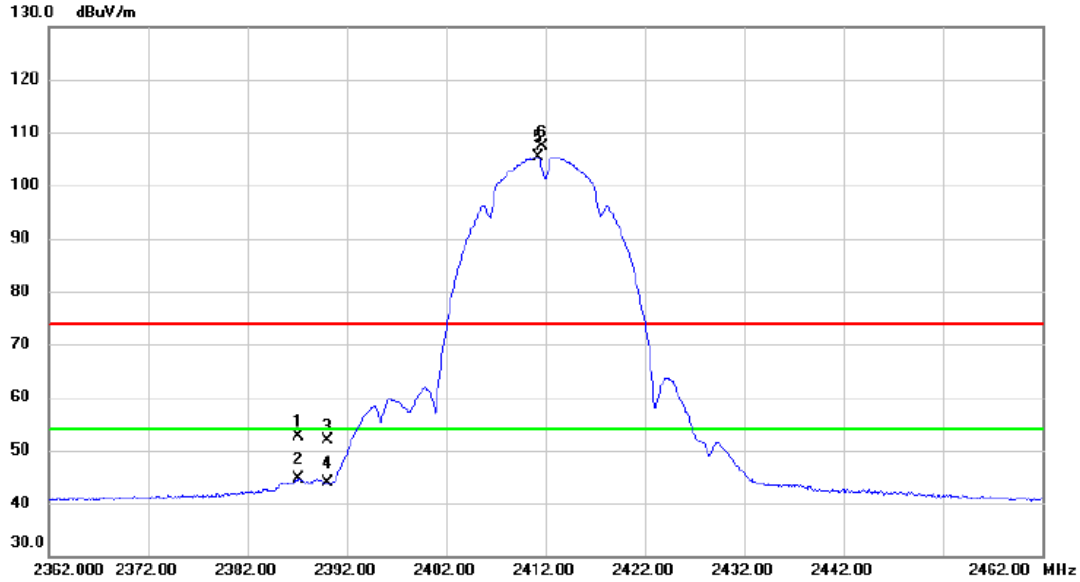
Test Mode	TX B Mode 2412 MHz	Polarization	Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		2387.200	43.90	7.16	51.06	74.00	-22.94	peak	
2		2387.200	33.45	7.16	40.61	54.00	-13.39	AVG	
3		2390.000	40.68	7.17	47.85	74.00	-26.15	peak	
4		2390.000	32.67	7.17	39.84	54.00	-14.16	AVG	
5	X	2412.100	95.19	7.17	102.36	74.00	28.36	peak	No Limit
6	*	2412.800	93.14	7.17	100.31	54.00	46.31	AVG	No Limit

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

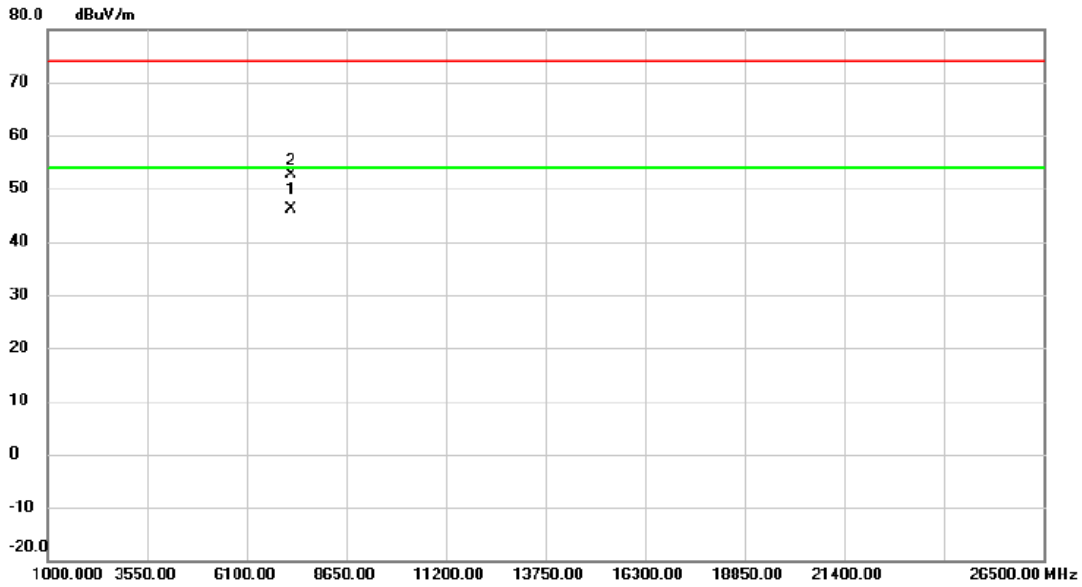
Test Mode	TX B Mode 2412 MHz	Polarization	Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		2387.200	45.40	7.16	52.56	74.00	-21.44	peak	
2		2387.200	37.48	7.16	44.64	54.00	-9.36	AVG	
3		2390.000	44.72	7.17	51.89	74.00	-22.11	peak	
4		2390.000	36.62	7.17	43.79	54.00	-10.21	AVG	
5	*	2411.300	98.28	7.17	105.45	54.00	51.45	AVG	No Limit
6	X	2411.700	100.32	7.17	107.49	74.00	33.49	peak	No Limit

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

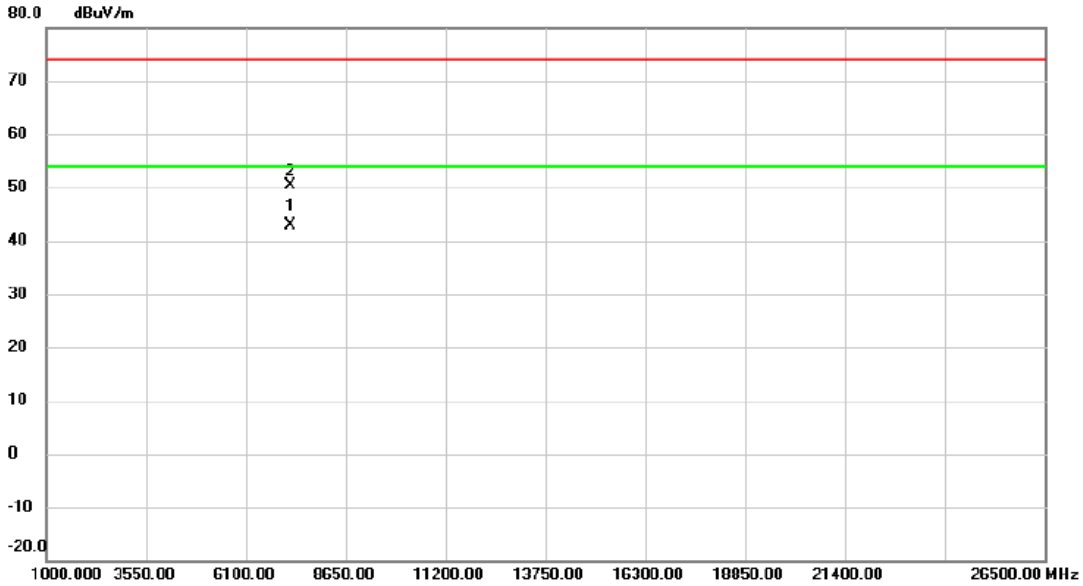
Test Mode	TX B Mode 2412 MHz	Polarization	Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	7235.250	36.27	9.79	46.06	54.00	-7.94	AVG	
2		7236.780	42.76	9.79	52.55	74.00	-21.45	peak	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

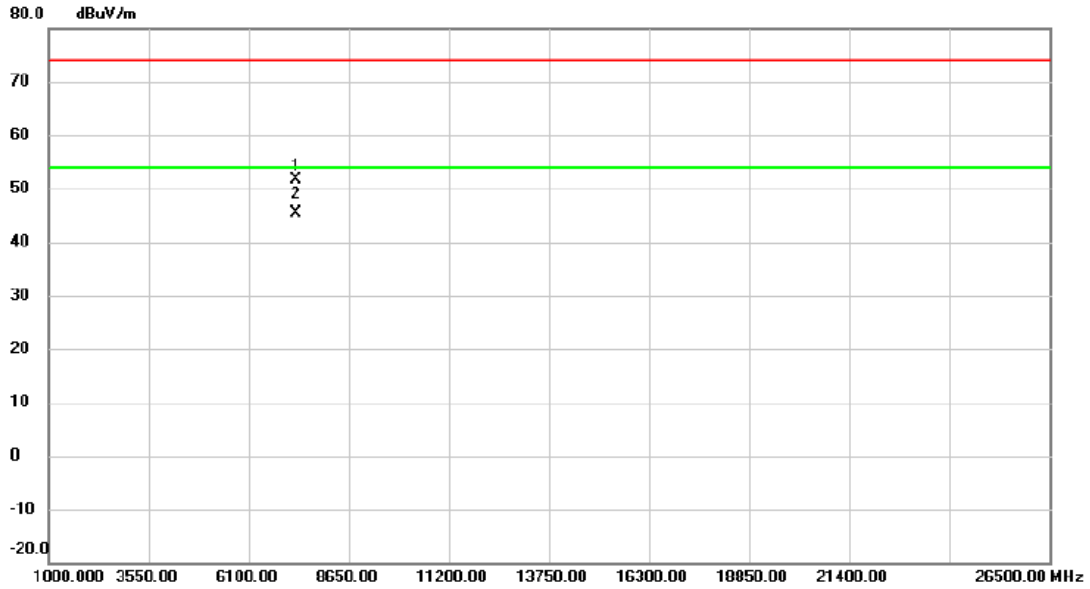
Test Mode	TX B Mode 2412 MHz	Polarization	Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	7231.640	32.99	9.79	42.78	54.00	-11.22	AVG	
2		7231.790	40.68	9.79	50.47	74.00	-23.53	peak	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

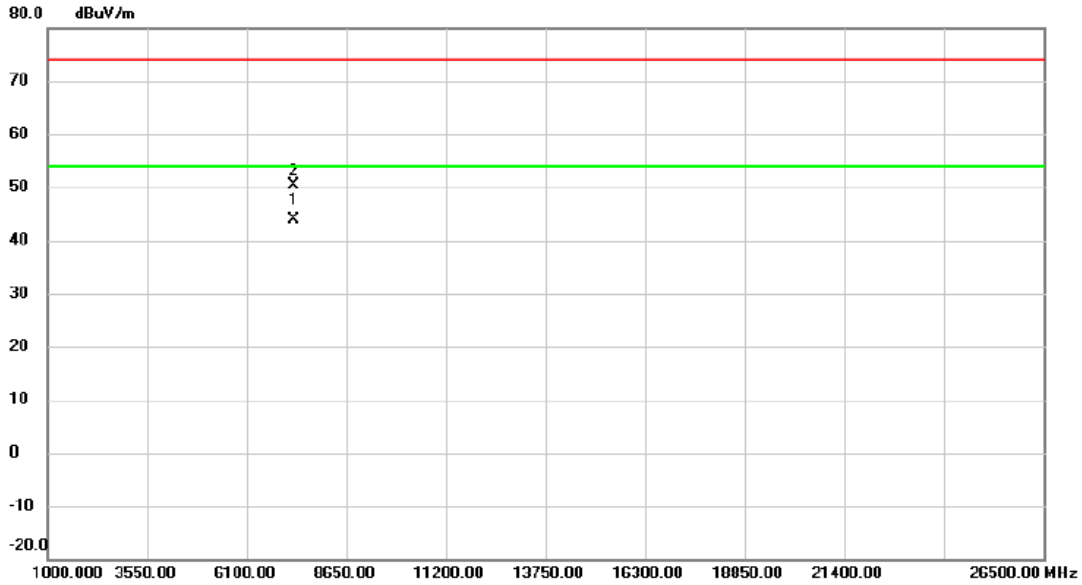
Test Mode	TX B Mode 2437 MHz	Polarization	Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		7309.460	41.74	9.86	51.60	74.00	-22.40	peak	
2	*	7311.790	35.51	9.86	45.37	54.00	-8.63	AVG	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

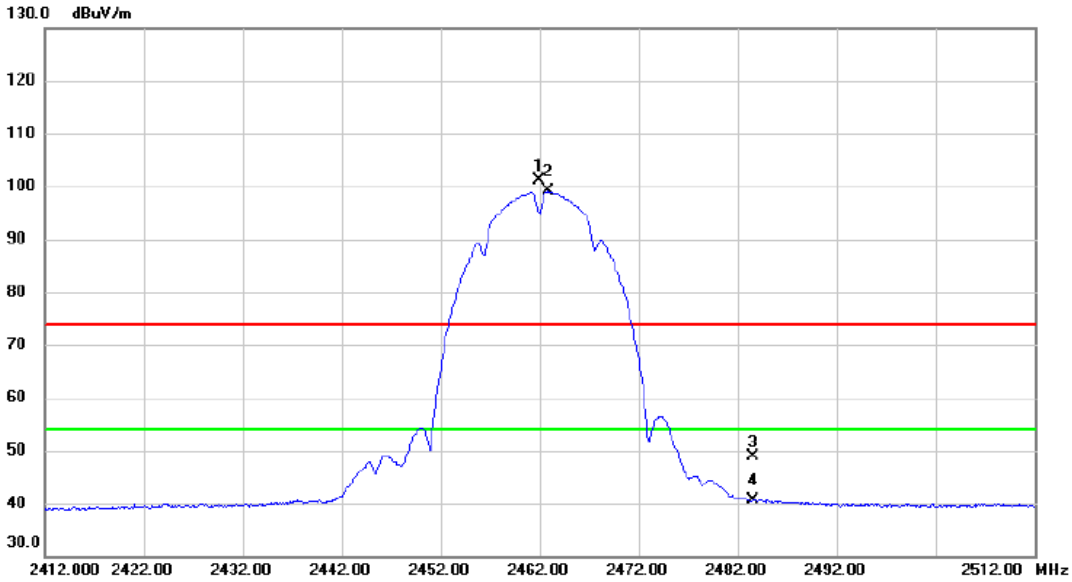
Test Mode	TX B Mode 2437 MHz	Polarization	Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	7310.210	34.09	9.86	43.95	54.00	-10.05	AVG	
2		7310.310	40.58	9.86	50.44	74.00	-23.56	peak	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

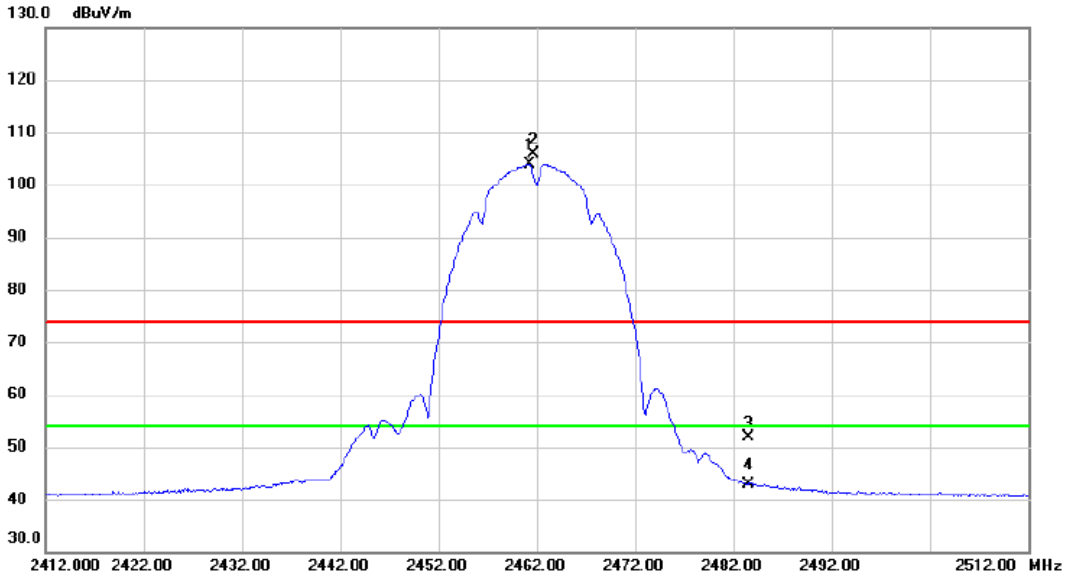
Test Mode	TX B Mode 2462 MHz	Polarization	Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	X	2461.900	93.87	7.18	101.05	74.00	27.05	peak	No Limit
2	*	2462.800	91.83	7.18	99.01	54.00	45.01	AVG	No Limit
3		2483.500	41.60	7.20	48.80	74.00	-25.20	peak	
4		2483.500	33.31	7.20	40.51	54.00	-13.49	AVG	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

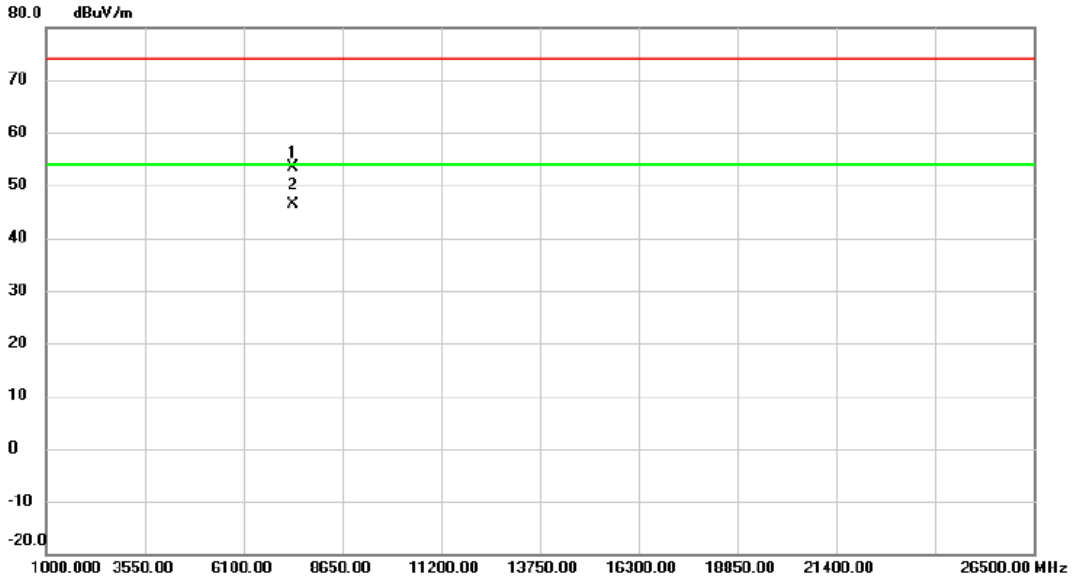
Test Mode	TX B Mode 2462 MHz	Polarization	Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	2461.300	96.79	7.18	103.97	54.00	49.97	AVG	No Limit
2	X	2461.700	98.77	7.18	105.95	74.00	31.95	peak	No Limit
3		2483.500	44.78	7.20	51.98	74.00	-22.02	peak	
4		2483.500	35.77	7.20	42.97	54.00	-11.03	AVG	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

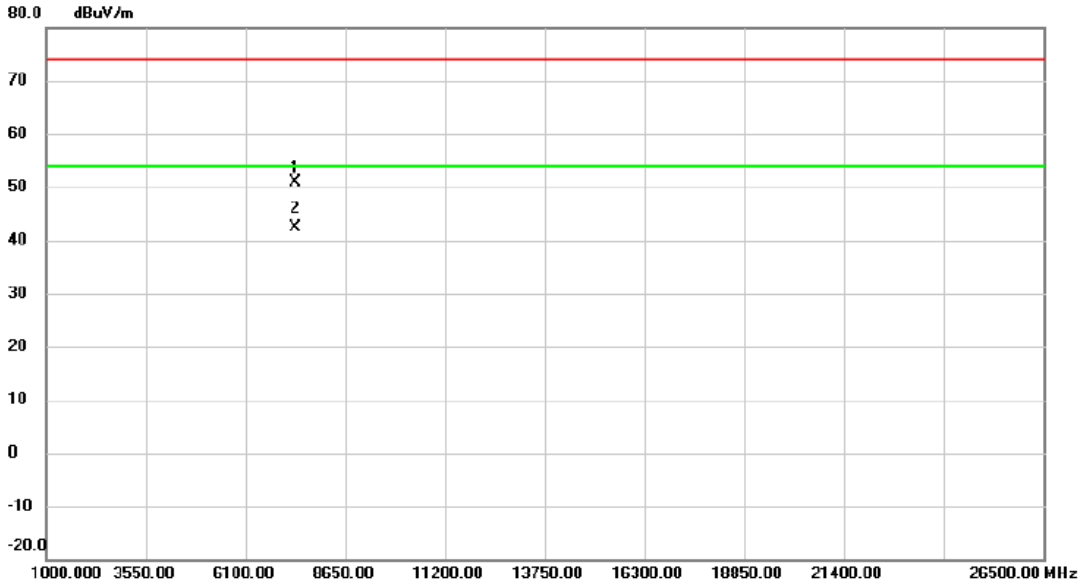
Test Mode	TX B Mode 2462 MHz	Polarization	Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		7389.850	43.45	9.93	53.38	74.00	-20.62	peak	
2	*	7390.620	36.36	9.93	46.29	54.00	-7.71	AVG	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

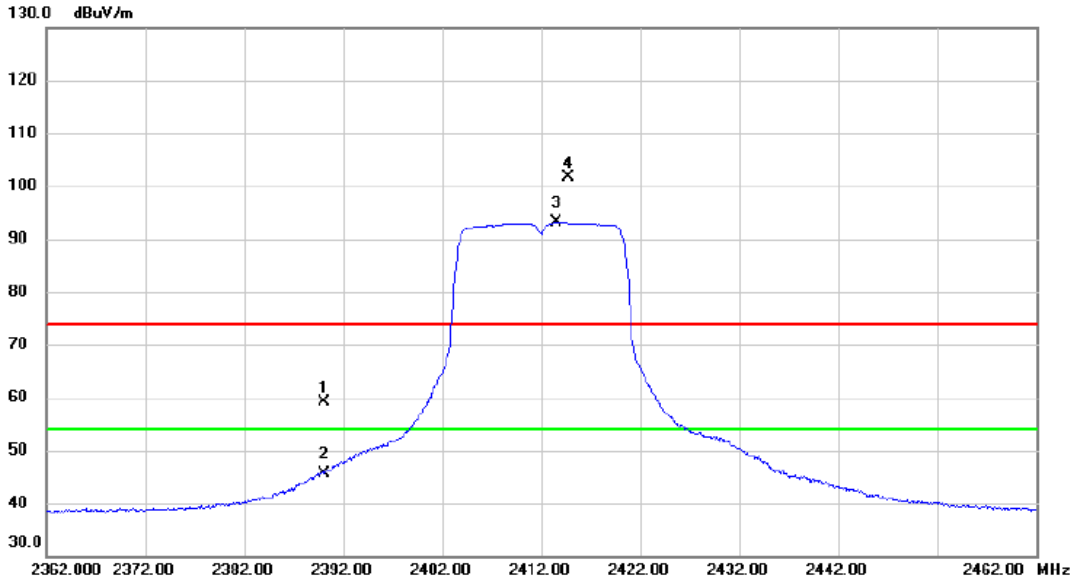
Test Mode	TX B Mode 2462 MHz	Polarization	Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		7383.560	40.88	9.93	50.81	74.00	-23.19	peak	
2	*	7384.040	32.43	9.93	42.36	54.00	-11.64	AVG	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

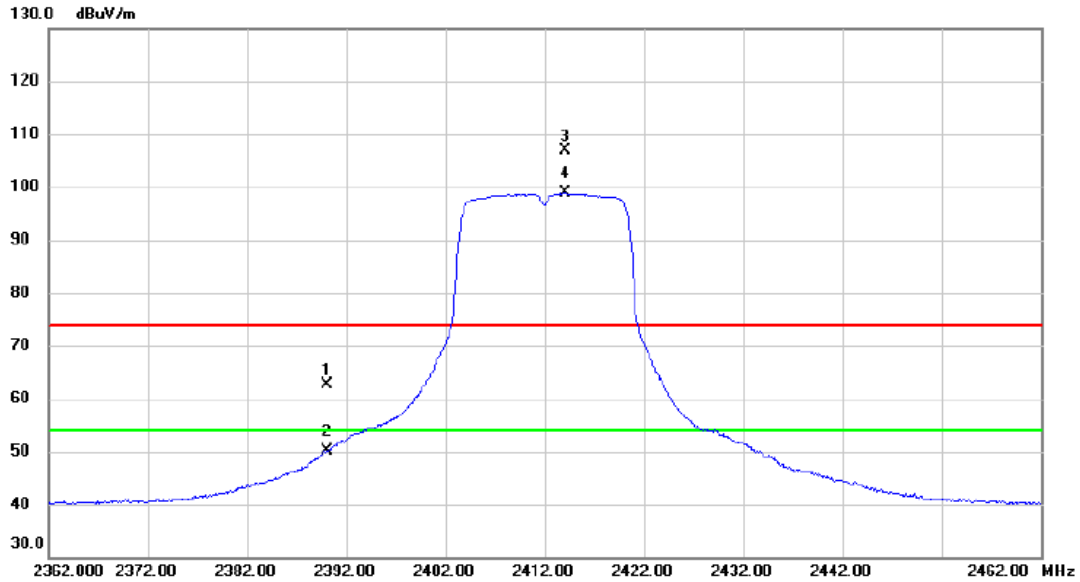
Test Mode	TX G Mode 2412 MHz	Polarization	Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		2390.000	51.88	7.17	59.05	74.00	-14.95	peak	
2		2390.000	38.56	7.17	45.73	54.00	-8.27	AVG	
3	*	2413.600	86.03	7.17	93.20	54.00	39.20	AVG	No Limit
4	X	2414.700	94.38	7.17	101.55	74.00	27.55	peak	No Limit

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Test Mode	TX G Mode 2412 MHz	Polarization	Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		2390.000	55.37	7.17	62.54	74.00	-11.46	peak	
2		2390.000	42.99	7.17	50.16	54.00	-3.84	AVG	
3	X	2414.000	99.60	7.17	106.77	74.00	32.77	peak	No Limit
4	*	2414.000	91.64	7.17	98.81	54.00	44.81	AVG	No Limit

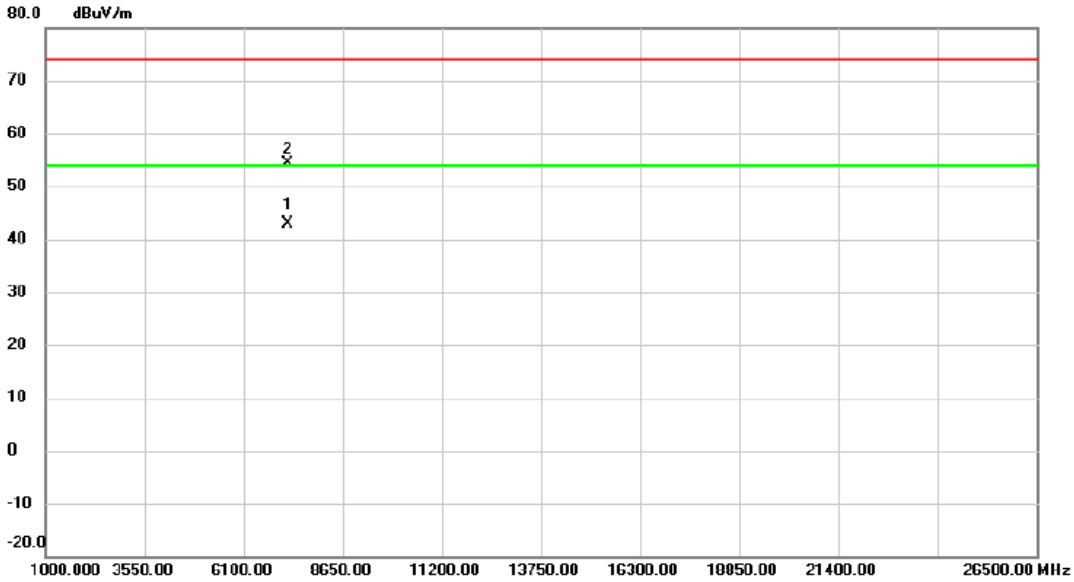
REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Test Mode	TX G Mode 2412 MHz	Polarization	Vertical

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	7233.880	35.16	9.79	44.95	54.00	-9.05	AVG	
2		7239.280	45.67	9.79	55.46	74.00	-18.54	peak	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

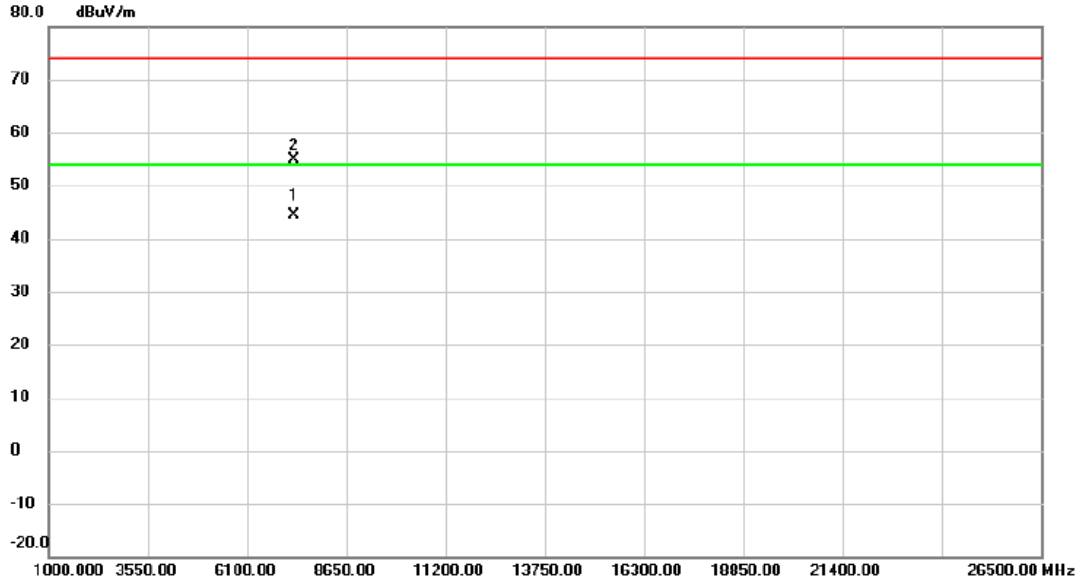
Test Mode	TX G Mode 2412 MHz	Polarization	Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	7231.840	33.02	9.79	42.81	54.00	-11.19	AVG	
2		7236.620	44.62	9.79	54.41	74.00	-19.59	peak	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

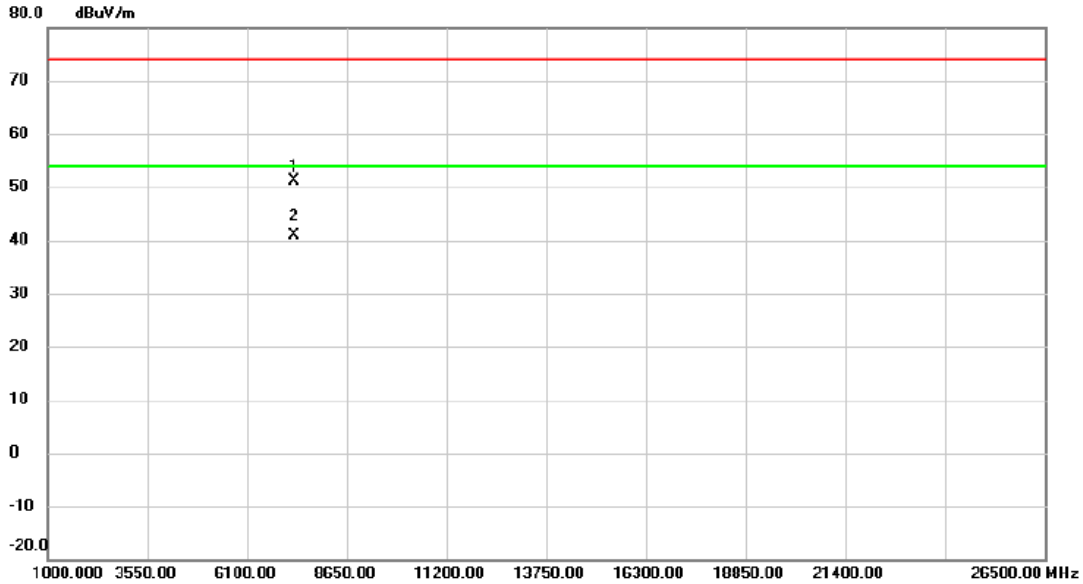
Test Mode	TX G Mode 2437 MHz	Polarization	Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	7309.470	34.44	9.86	44.30	54.00	-9.70	AVG	
2		7315.970	44.99	9.86	54.85	74.00	-19.15	peak	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

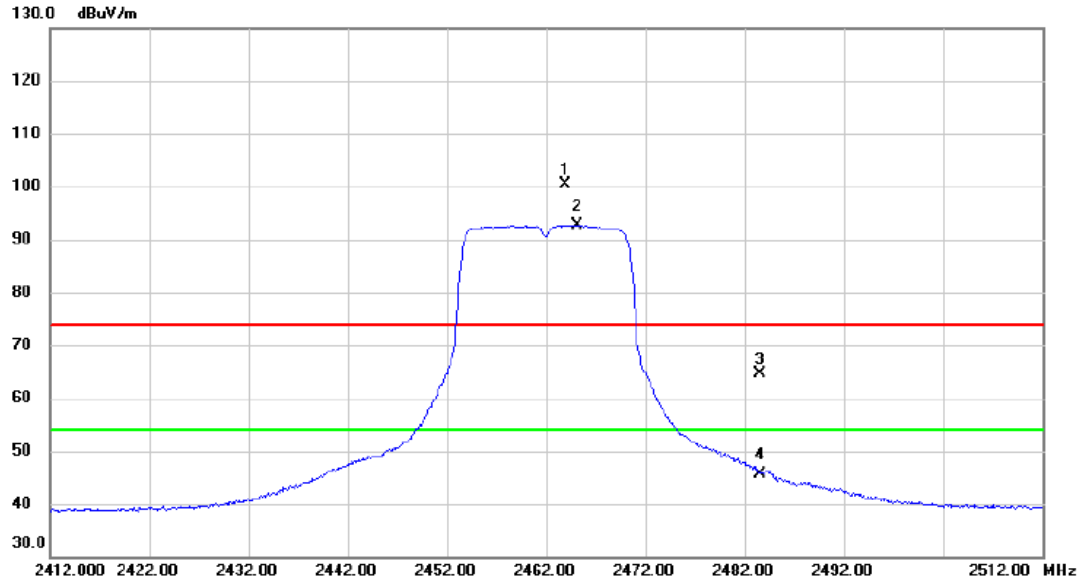
Test Mode	TX G Mode 2437 MHz	Polarization	Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		7307.900	41.34	9.85	51.19	74.00	-22.81	peak	
2	*	7308.980	31.07	9.86	40.93	54.00	-13.07	AVG	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

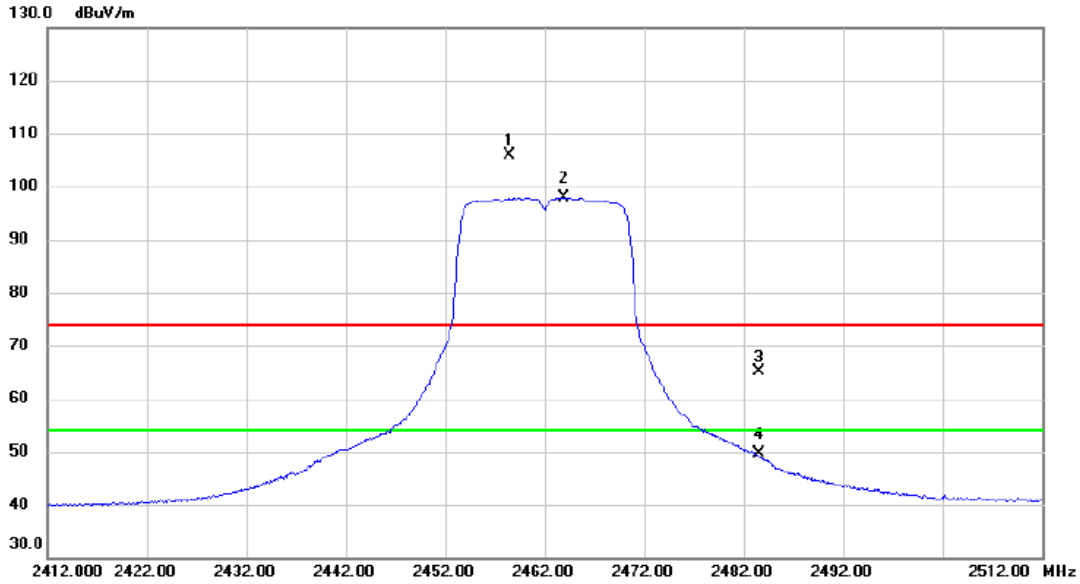
Test Mode	TX G Mode 2462 MHz	Polarization	Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	X	2463.900	93.25	7.18	100.43	74.00	26.43	peak	No Limit
2	*	2465.100	85.50	7.18	92.68	54.00	38.68	AVG	No Limit
3		2483.500	57.46	7.20	64.66	74.00	-9.34	peak	
4		2483.500	38.55	7.20	45.75	54.00	-8.25	AVG	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Test Mode	TX G Mode 2462 MHz	Polarization	Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	X	2458.400	98.57	7.19	105.76	74.00	31.76	peak	No Limit
2	*	2463.900	90.78	7.18	97.96	54.00	43.96	AVG	No Limit
3		2483.500	57.98	7.20	65.18	74.00	-8.82	peak	
4		2483.500	42.34	7.20	49.54	54.00	-4.46	AVG	

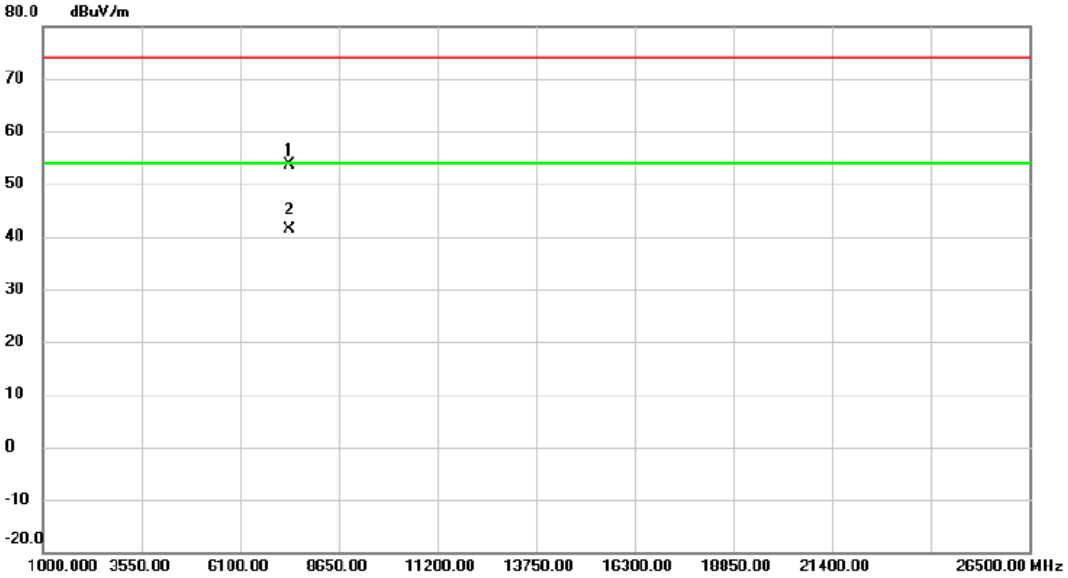
REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Test Mode	TX G Mode 2462 MHz	Polarization	Vertical

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		7385.960	46.44	9.93	56.37	74.00	-17.63	peak	
2	*	7386.400	35.22	9.93	45.15	54.00	-8.85	AVG	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

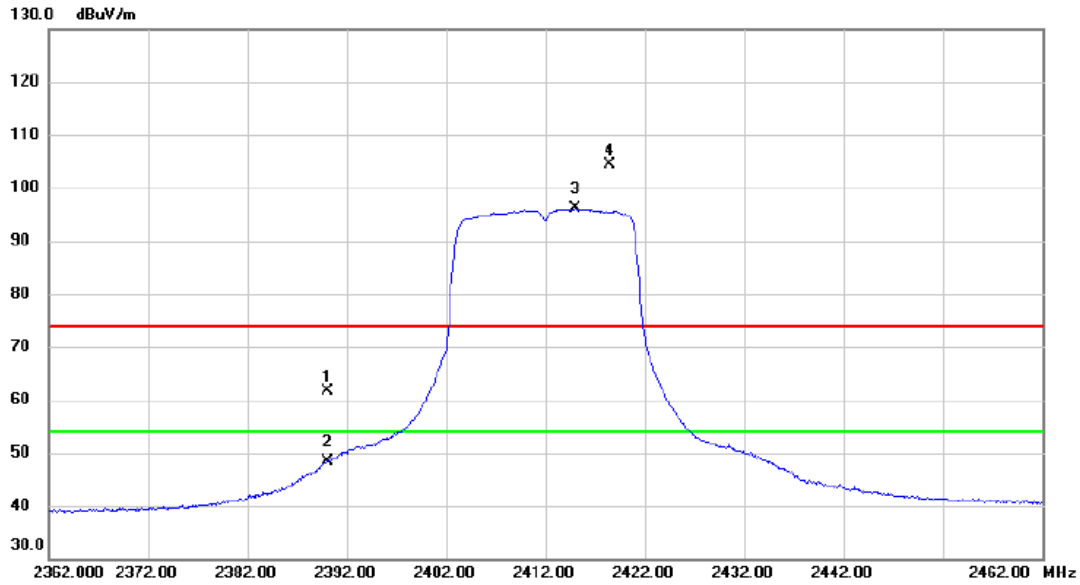
Test Mode	TX G Mode 2462 MHz	Polarization	Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		7382.730	43.81	9.93	53.74	74.00	-20.26	peak	
2	*	7386.320	31.33	9.93	41.26	54.00	-12.74	AVG	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

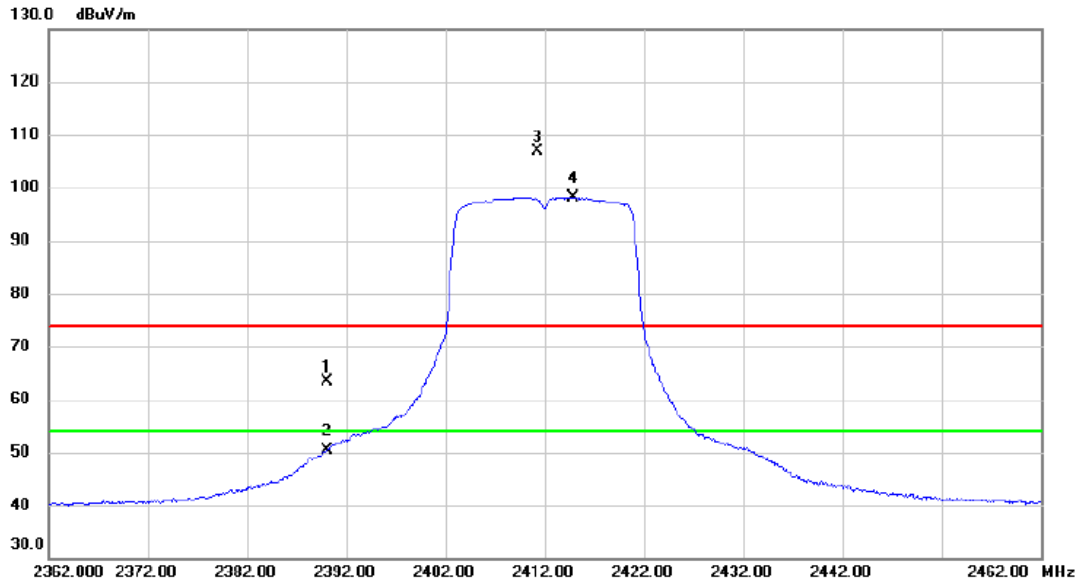
Test Mode	TX N(HT20) Mode 2412 MHz	Polarization	Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		2390.000	54.54	7.17	61.71	74.00	-12.29	peak	
2		2390.000	41.14	7.17	48.31	54.00	-5.69	AVG	
3	*	2415.000	88.84	7.17	96.01	54.00	42.01	AVG	No Limit
4	X	2418.500	97.14	7.18	104.32	74.00	30.32	peak	No Limit

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Test Mode	TX N(HT20) Mode 2412 MHz	Polarization	Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		2390.000	56.12	7.17	63.29	74.00	-10.71	peak	
2		2390.000	43.19	7.17	50.36	54.00	-3.64	AVG	
3	X	2411.300	99.79	7.17	106.96	74.00	32.96	peak	No Limit
4	*	2414.900	91.05	7.17	98.22	54.00	44.22	AVG	No Limit

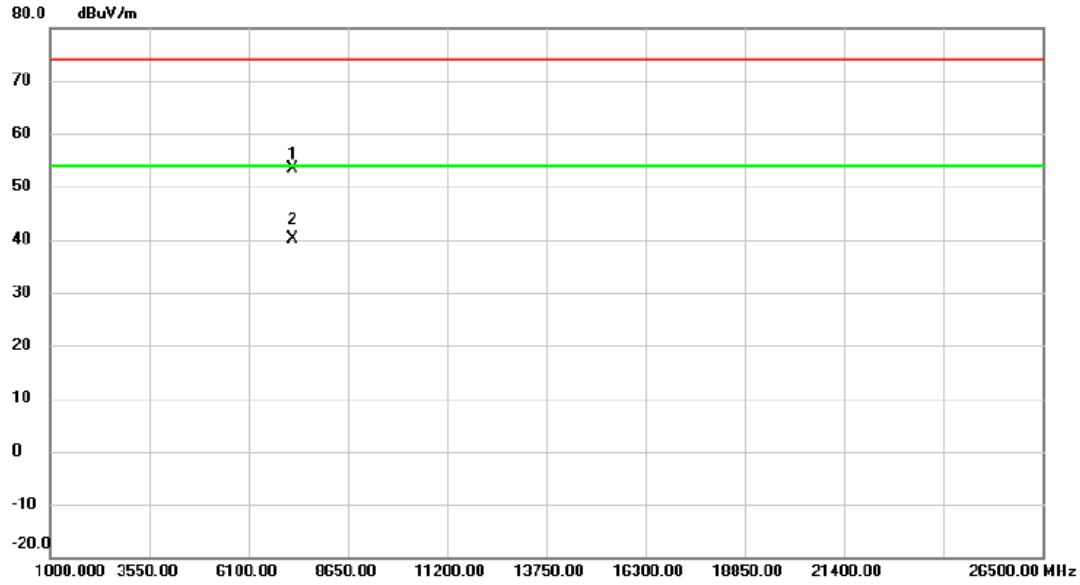
REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Test Mode	TX N(HT20) Mode 2412 MHz	Polarization	Vertical

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		7232.020	44.14	9.79	53.93	74.00	-20.07	peak	
2	*	7234.840	33.54	9.79	43.33	54.00	-10.67	AVG	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

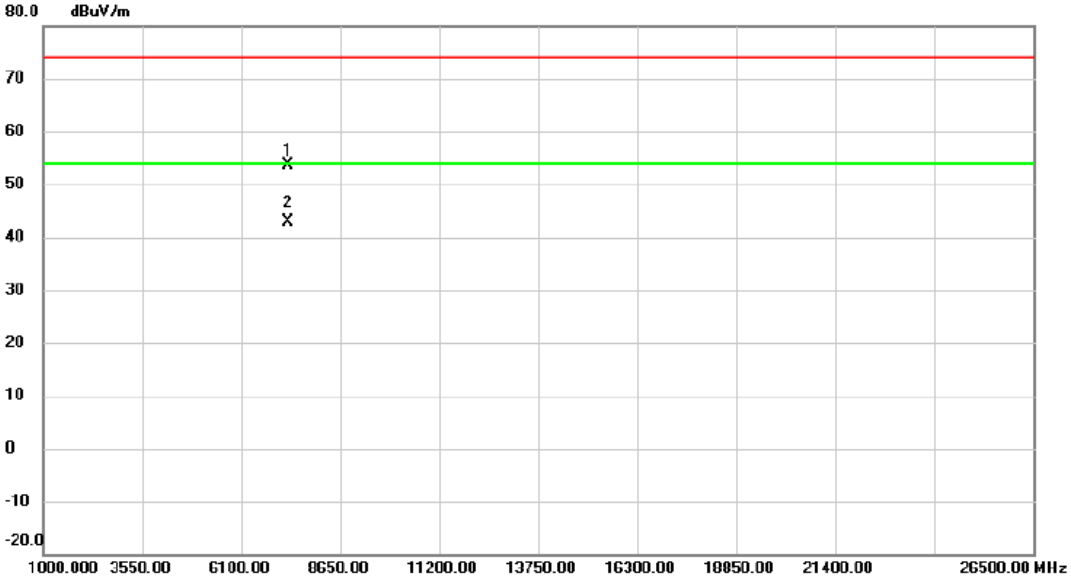
Test Mode	TX N(HT20) Mode 2412 MHz	Polarization	Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		7234.170	43.53	9.79	53.32	74.00	-20.68	peak	
2	*	7236.190	30.43	9.79	40.22	54.00	-13.78	AVG	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

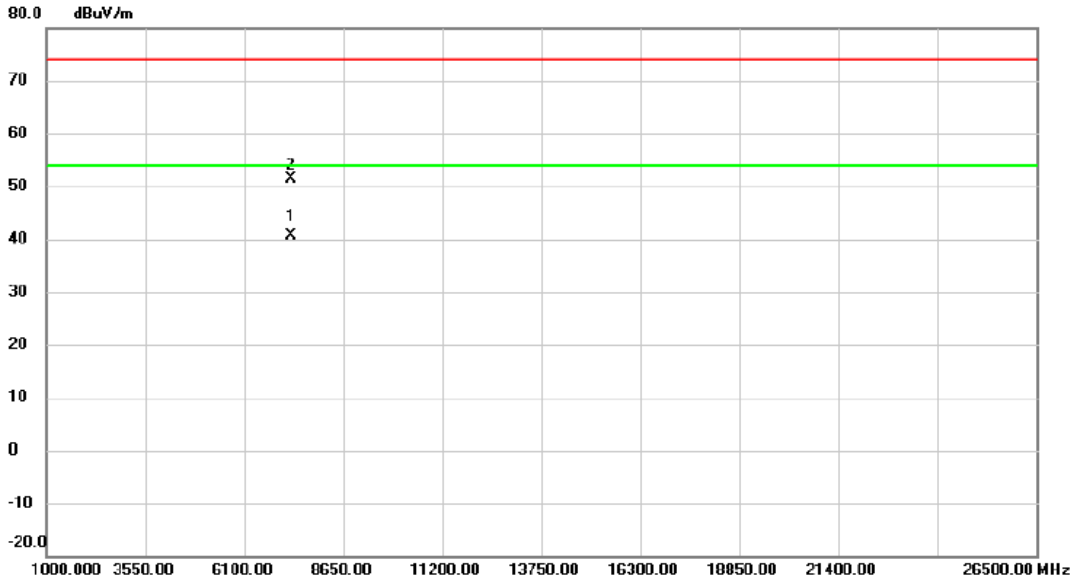
Test Mode	TX N(HT20) Mode 2437 MHz	Polarization	Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		7307.230	43.79	9.85	53.64	74.00	-20.36	peak	
2	*	7315.850	33.00	9.86	42.86	54.00	-11.14	AVG	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

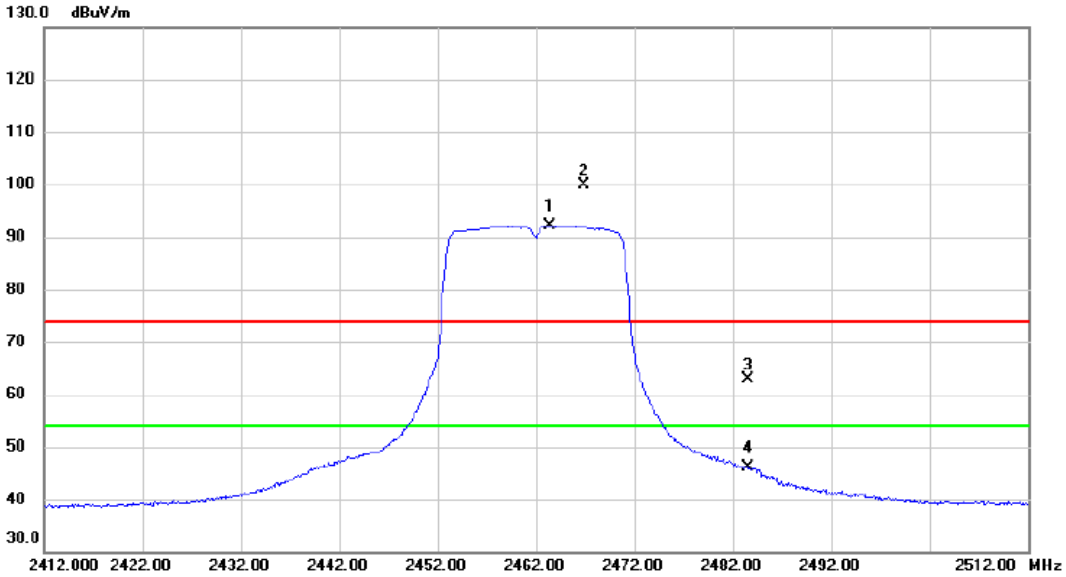
Test Mode	TX N(HT20) Mode 2437 MHz	Polarization	Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	7310.940	30.83	9.86	40.69	54.00	-13.31	AVG	
2		7315.520	41.56	9.86	51.42	74.00	-22.58	peak	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

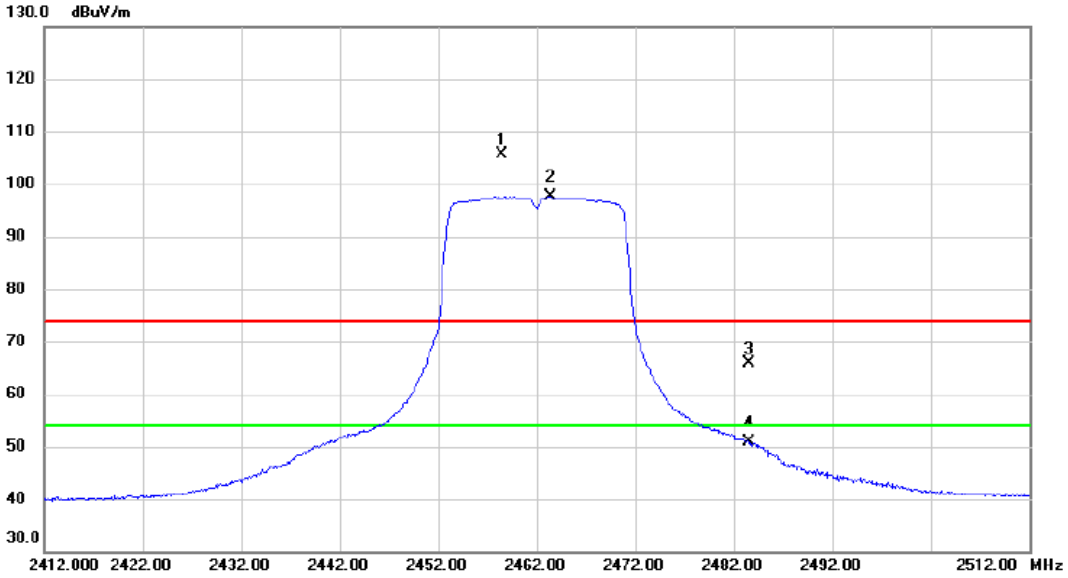
Test Mode	TX N(HT20) Mode 2462 MHz	Polarization	Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	2463.400	85.03	7.18	92.21	54.00	38.21	AVG	No Limit
2	X	2466.800	92.80	7.18	99.98	74.00	25.98	peak	No Limit
3		2483.500	55.62	7.20	62.82	74.00	-11.18	peak	
4		2483.500	38.85	7.20	46.05	54.00	-7.95	AVG	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

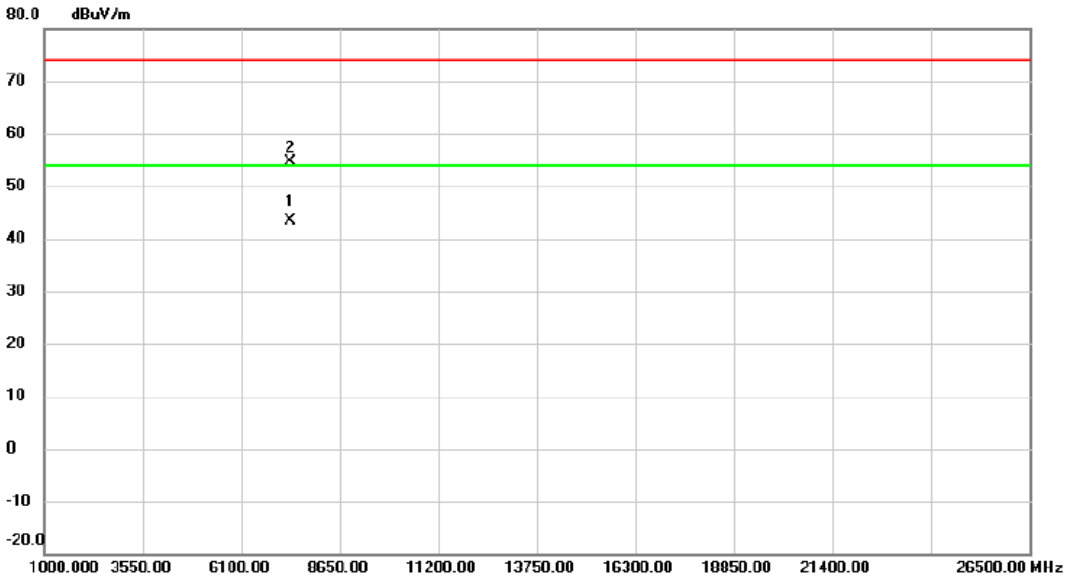
Test Mode	TX N(HT20) Mode 2462 MHz	Polarization	Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	X	2458.400	98.42	7.19	105.61	74.00	31.61	peak	No Limit
2	*	2463.400	90.44	7.18	97.62	54.00	43.62	AVG	No Limit
3		2483.500	58.61	7.20	65.81	74.00	-8.19	peak	
4		2483.500	43.65	7.20	50.85	54.00	-3.15	AVG	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

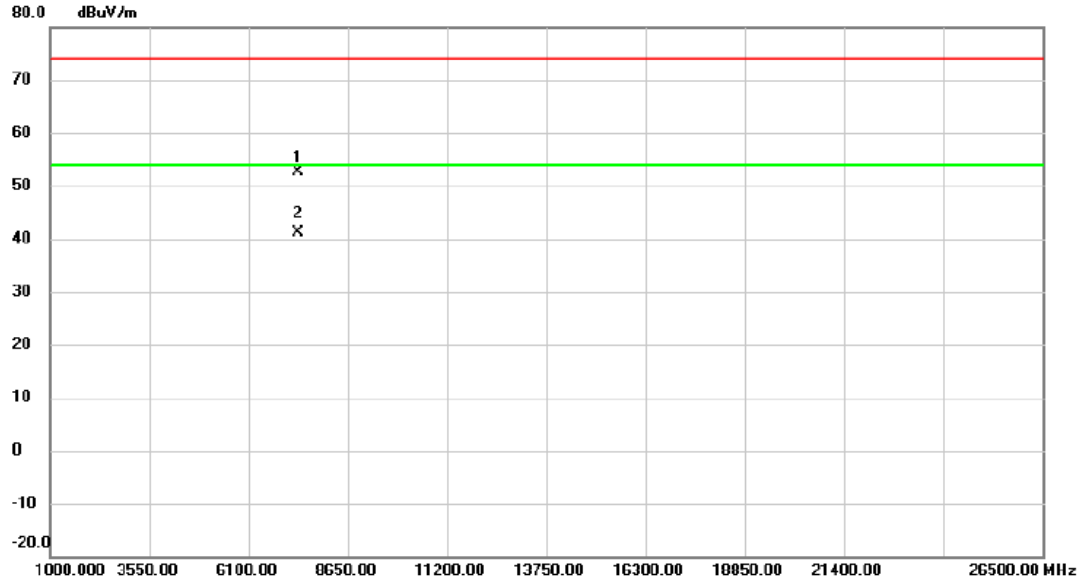
Test Mode	TX N(HT20) Mode 2462 MHz	Polarization	Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	7386.450	33.43	9.93	43.36	54.00	-10.64	AVG	
2		7388.270	44.64	9.93	54.57	74.00	-19.43	peak	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

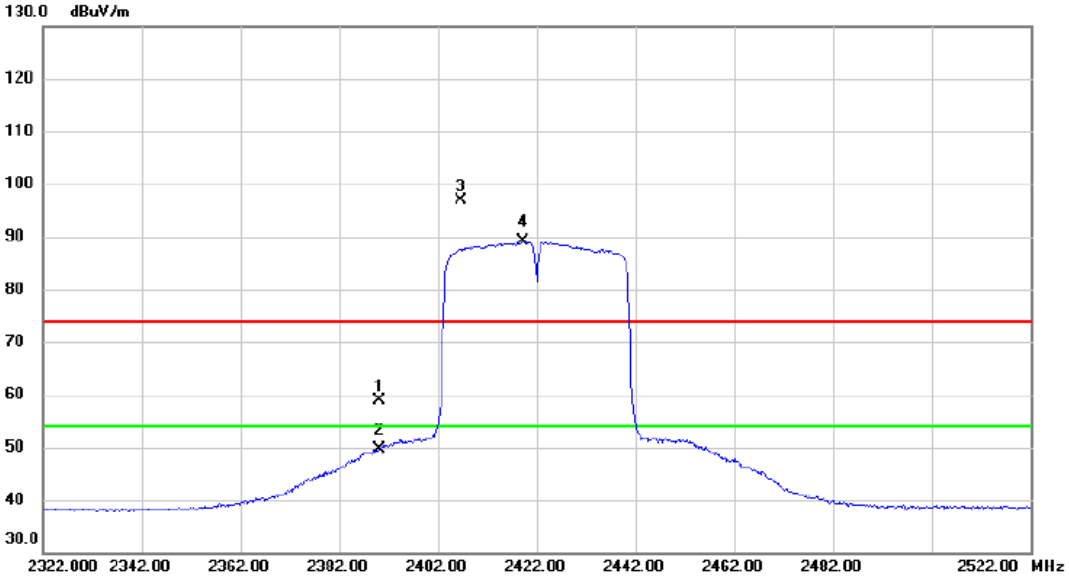
Test Mode	TX N(HT20) Mode 2462 MHz	Polarization	Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		7381.030	42.59	9.93	52.52	74.00	-21.48	peak	
2	*	7386.580	31.28	9.93	41.21	54.00	-12.79	AVG	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

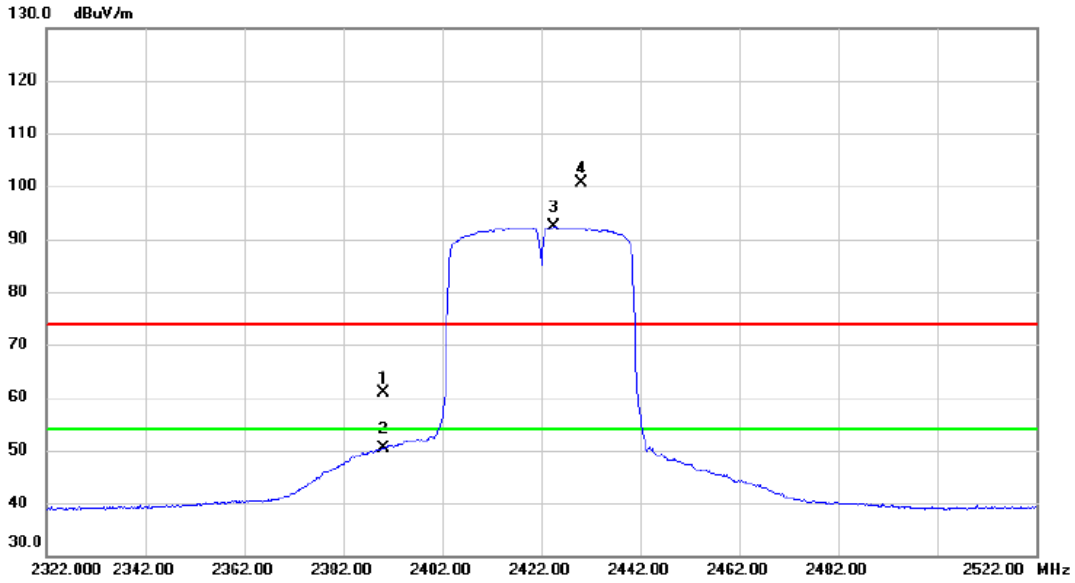
Test Mode	TX N(HT40) Mode 2422 MHz	Polarization	Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		2390.000	51.63	7.17	58.80	74.00	-15.20	peak	
2		2390.000	42.35	7.17	49.52	54.00	-4.48	AVG	
3	X	2406.600	89.77	7.17	96.94	74.00	22.94	peak	No Limit
4	*	2419.200	81.84	7.18	89.02	54.00	35.02	AVG	No Limit

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

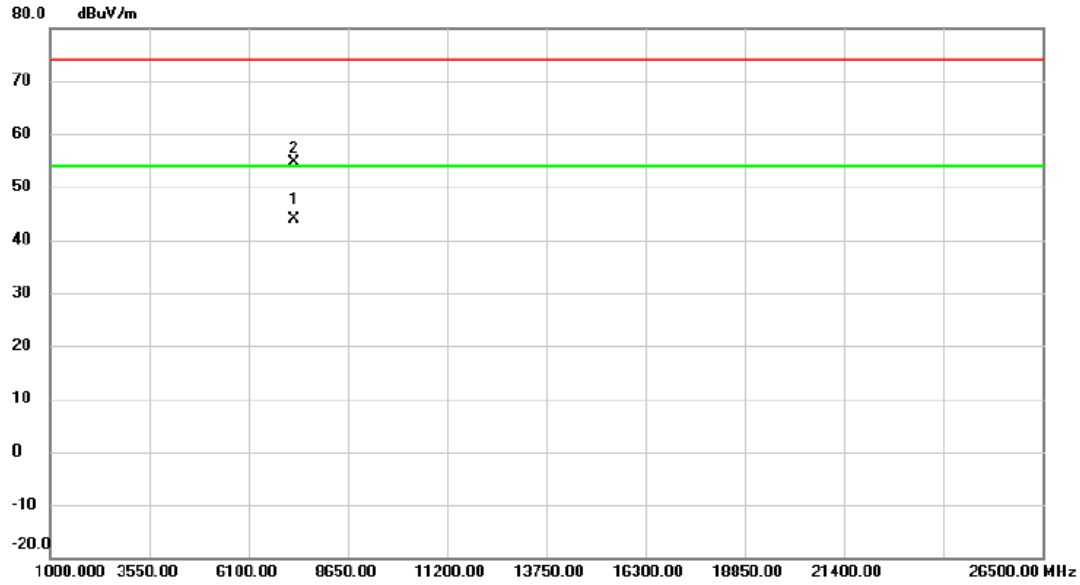
Test Mode	TX N(HT40) Mode 2422 MHz	Polarization	Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		2390.000	53.62	7.17	60.79	74.00	-13.21	peak	
2		2390.000	43.30	7.17	50.47	54.00	-3.53	AVG	
3	*	2424.600	85.13	7.18	92.31	54.00	38.31	AVG	No Limit
4	X	2430.000	93.53	7.18	100.71	74.00	26.71	peak	No Limit

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

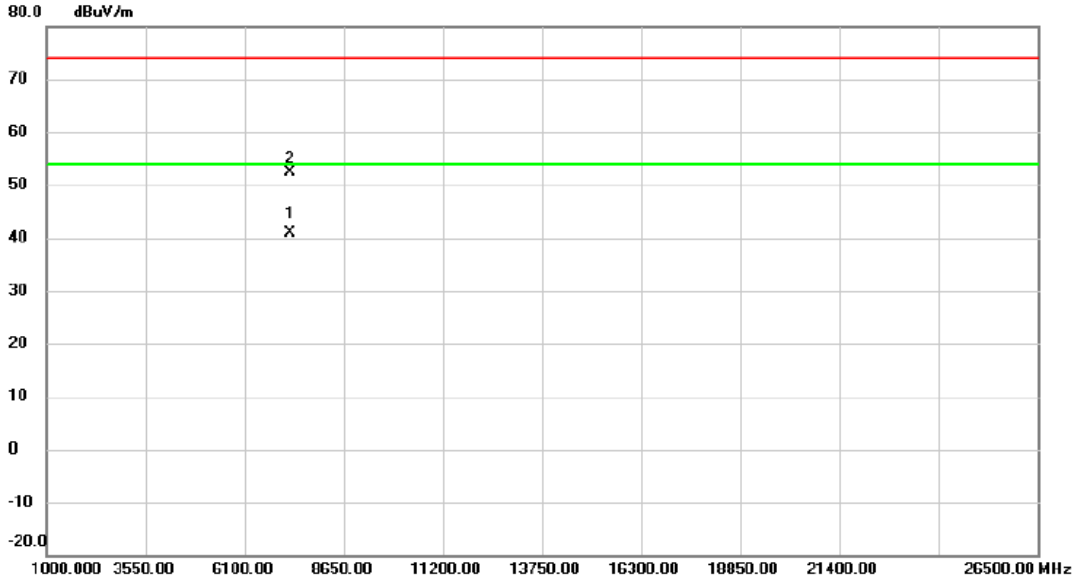
Test Mode	TX N(HT40) Mode 2422 MHz	Polarization	Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	7264.200	34.16	9.82	43.98	54.00	-10.02	AVG	
2		7266.340	44.75	9.82	54.57	74.00	-19.43	peak	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

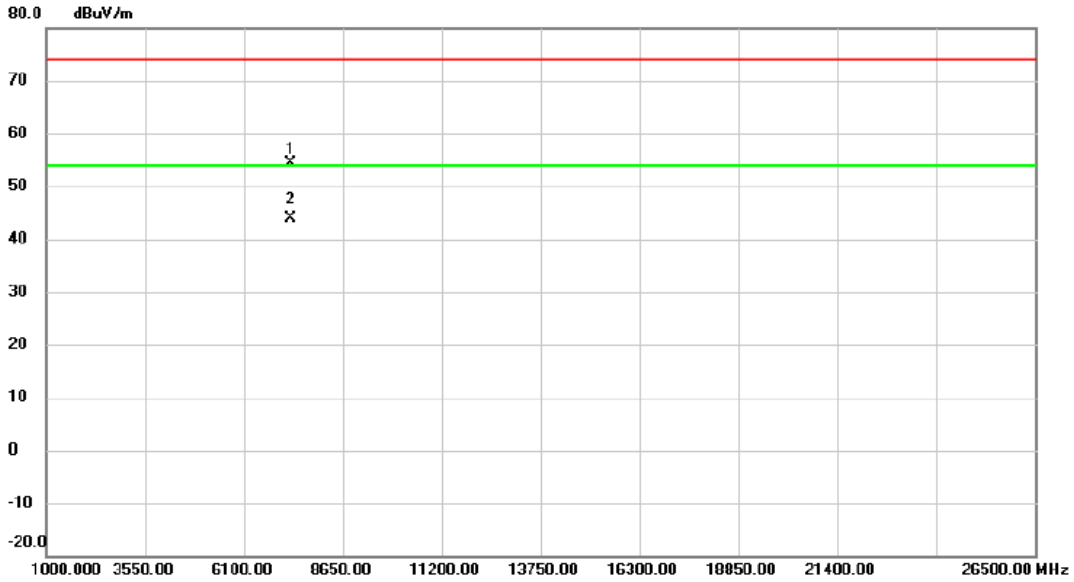
Test Mode	TX N(HT40) Mode 2422 MHz	Polarization	Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	7262.810	31.03	9.82	40.85	54.00	-13.15	AVG	
2		7264.350	42.47	9.82	52.29	74.00	-21.71	peak	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Test Mode	TX N(HT40) Mode 2437 MHz	Polarization	Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		7306.850	44.49	9.85	54.34	74.00	-19.66	peak	
2	*	7315.350	34.09	9.86	43.95	54.00	-10.05	AVG	

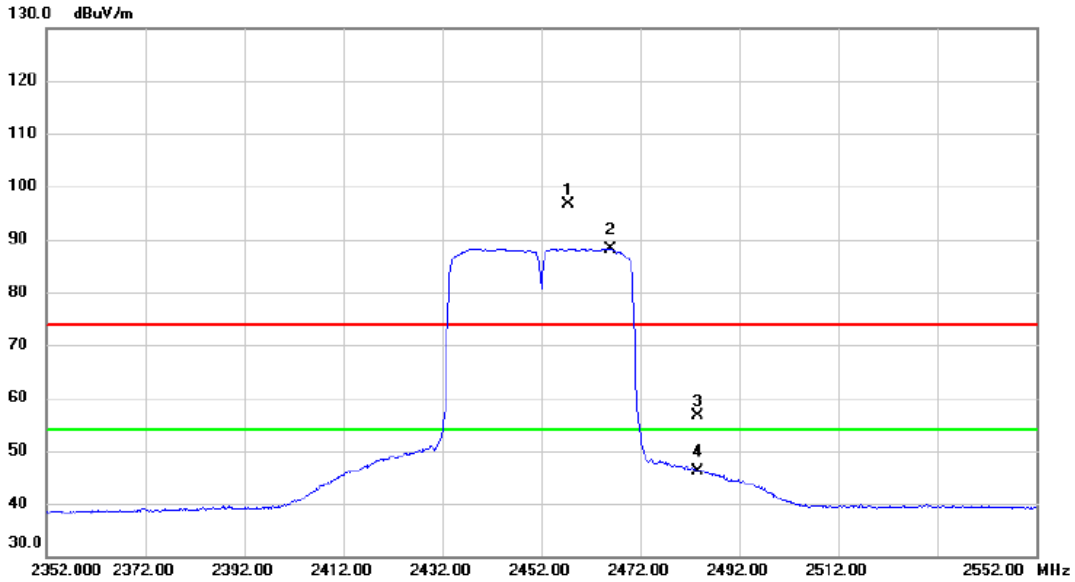
REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Test Mode	TX N(HT40) Mode 2437 MHz	Polarization	Horizontal

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		7309.020	41.61	9.86	51.47	74.00	-22.53	peak	
2	*	7313.610	31.12	9.86	40.98	54.00	-13.02	AVG	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

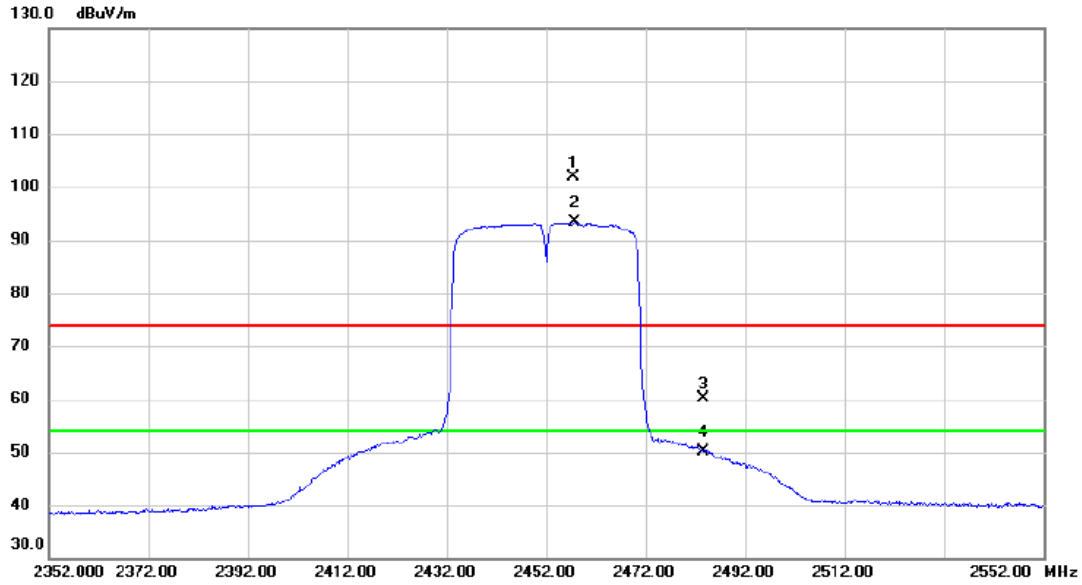
Test Mode	TX N(HT40) Mode 2452 MHz	Polarization	Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	X	2457.600	89.53	7.19	96.72	74.00	22.72	peak	No Limit
2	*	2466.000	81.04	7.18	88.22	54.00	34.22	AVG	No Limit
3		2483.500	49.46	7.20	56.66	74.00	-17.34	peak	
4		2483.500	38.95	7.20	46.15	54.00	-7.85	AVG	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

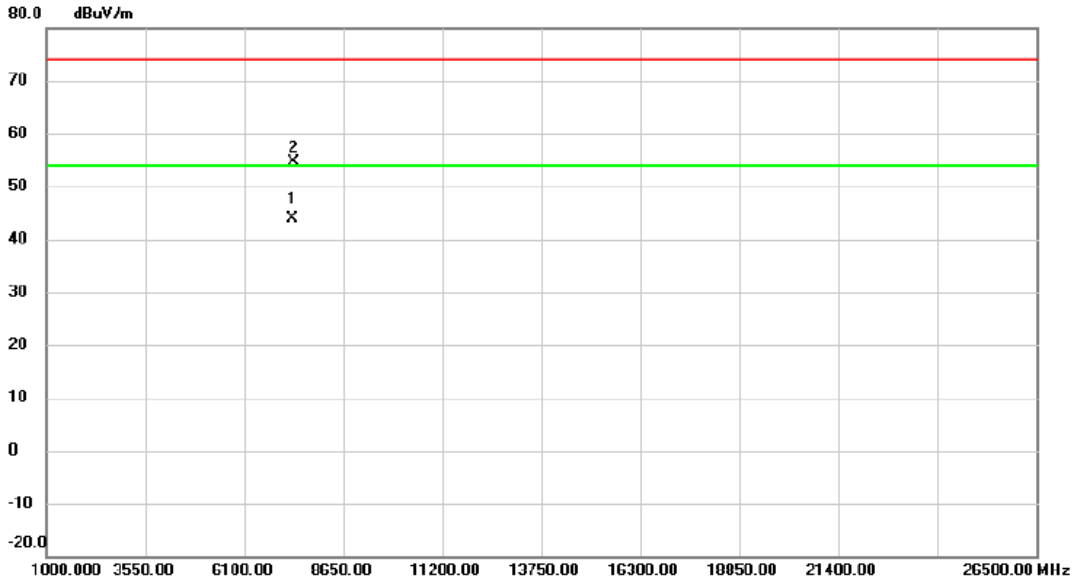
Test Mode	TX N(HT40) Mode 2452 MHz	Polarization	Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	X	2457.400	94.61	7.19	101.80	74.00	27.80	peak	No Limit
2	*	2457.800	86.12	7.19	93.31	54.00	39.31	AVG	No Limit
3		2483.500	52.94	7.20	60.14	74.00	-13.86	peak	
4		2483.500	42.91	7.20	50.11	54.00	-3.89	AVG	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

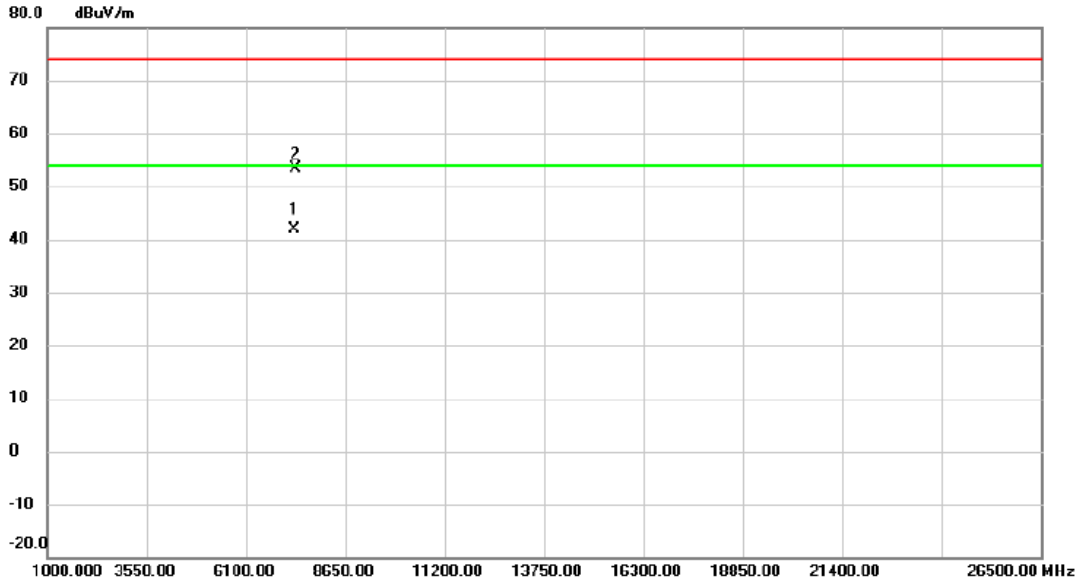
Test Mode	TX N(HT40) Mode 2452 MHz	Polarization	Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	7351.820	33.99	9.90	43.89	54.00	-10.11	AVG	
2		7360.730	44.61	9.91	54.52	74.00	-19.48	peak	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Test Mode	TX N(HT40) Mode 2452 MHz	Polarization	Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	7356.520	32.04	9.90	41.94	54.00	-12.06	AVG	
2		7358.810	43.36	9.91	53.27	74.00	-20.73	peak	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

APPENDIX E - BANDWIDTH

DTS Bandwidth

Test Result

Test Mode	Antenna	Frequency [MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	9.000	2407.480	2416.480	0.5	PASS
		2437	9.560	2431.960	2441.520	0.5	PASS
		2462	10.080	2456.960	2467.040	0.5	PASS
11G	Ant1	2412	16.320	2403.840	2420.160	0.5	PASS
		2437	16.320	2428.840	2445.160	0.5	PASS
		2462	16.320	2453.840	2470.160	0.5	PASS
11N20SISO	Ant1	2412	17.600	2403.200	2420.800	0.5	PASS
		2437	17.600	2428.200	2445.800	0.5	PASS
		2462	17.400	2453.160	2470.560	0.5	PASS
11N40SISO	Ant1	2422	35.680	2404.400	2440.080	0.5	PASS
		2437	35.200	2419.400	2454.600	0.5	PASS
		2452	35.360	2434.400	2469.760	0.5	PASS

Test Graphs

11B_Ant1_2412

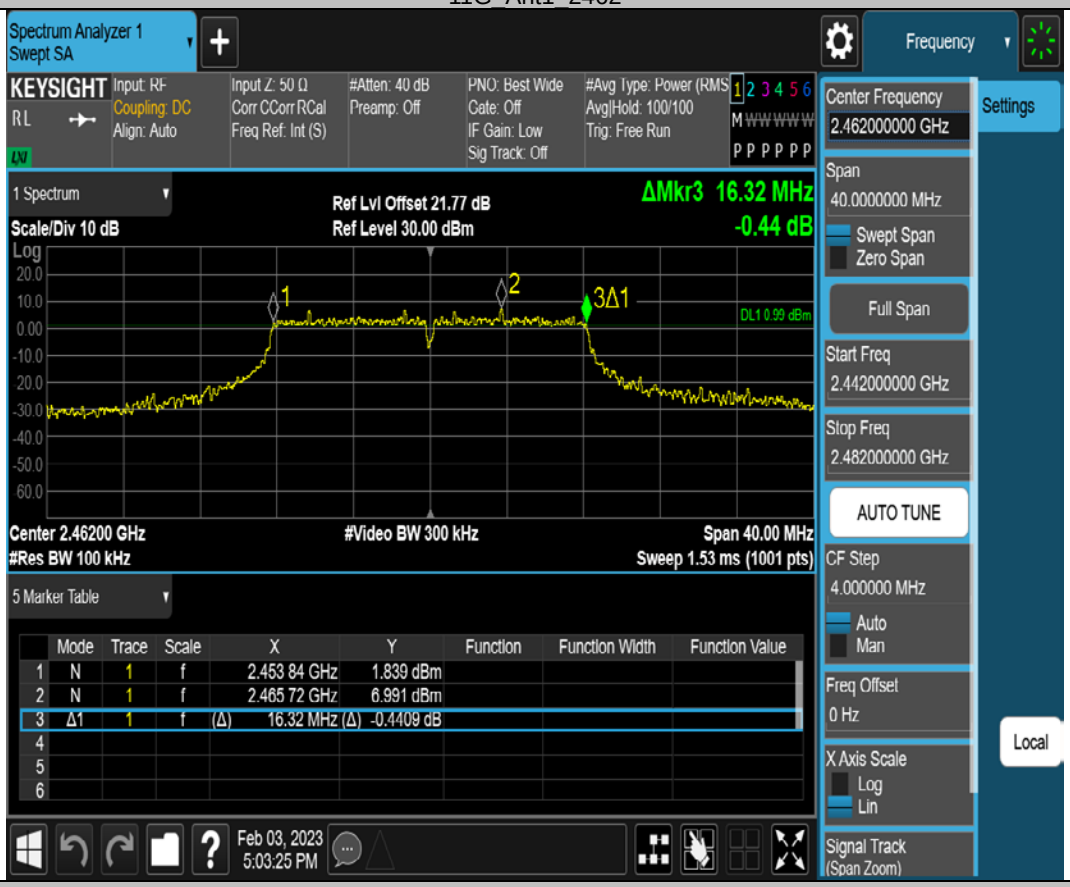
11B_Ant1_2437

11B_Ant1_2462

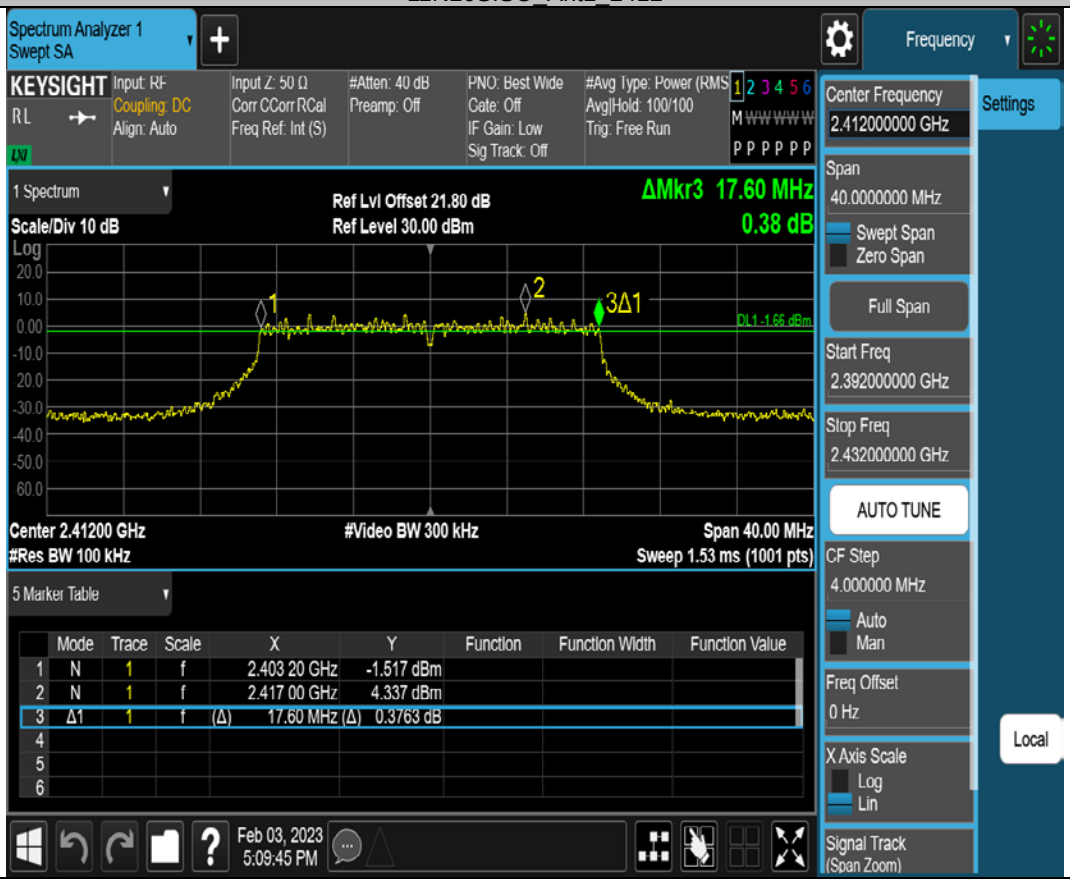
11G_Ant1_2412

11G_Ant1_2437

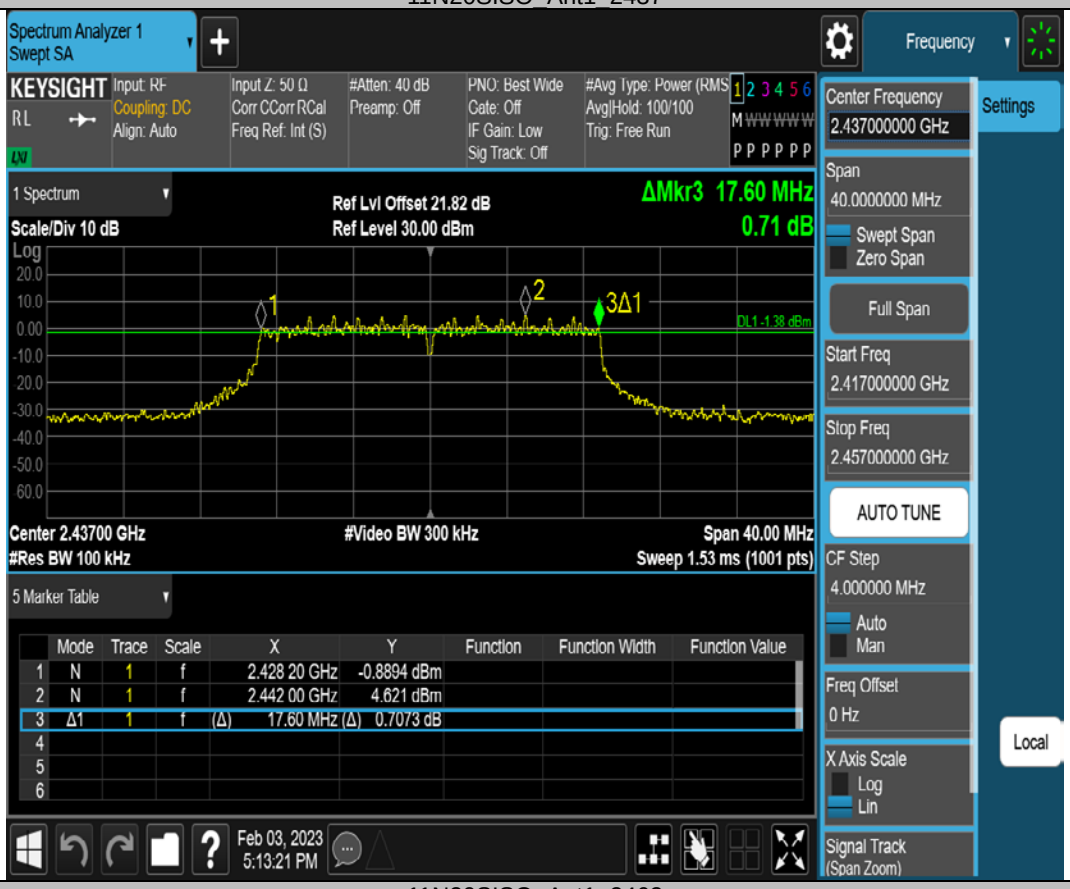
11G_Ant1_2462



11N20SISO_Ant1_2412



11N20SISO_Ant1_2437



11N20SISO_Ant1_2462