

FCC Radio Test Report

FCC ID: KA2IRX1870A1

This report concerns: Original Grant

Project No. : 2007H027
Equipment : AX1800 Mesh Wi-Fi 6 Router
Brand Name : D-Link
Test Model : DIR-X1870
Series Model : N/A
Applicant : D-Link Corporation
Address : 17595 Mt. Herrmann, Fountain Valley, California United State 92708
Manufacturer : D-Link Corporation
Address : 17595 Mt. Herrmann, Fountain Valley, California United State 92708
Factory : N/A
Address : N/A
Date of Receipt : Jul. 16, 2020
Date of Test : Jul. 16, 2020~Aug. 28, 2020
Issued Date : Sep. 10, 2020
Report Version : R01
Test Sample : Engineering Sample No.: SH20200716113-1, SH20200716113-6
Standard(s) : FCC Part15, Subpart C (15.247)
ANSI C63.10-2013
KDB 558074 D01 15.247 Meas Guidance v05r02
KDB 662911 D01 Multiple Transmitter Output v02r01

The above equipment has been tested and found compliance with the requirement of the relative standards by BTL Inc.

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Limitation

For the use of the authority's logo is limited unless the Test Standard(s)/Scope(s)/Item(s) mentioned in this test report is (are) included in the conformity assessment authorities acceptance respective.

Please note that the measurement uncertainty is provided for informational purpose only and are not use in determining the Pass/Fail results.

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REPORT ISSUED HISTORY

Report Version	Description	Issued Date
R00	Original Issue.	Sep. 08, 2020
R01	Revised report to address TCB's comments.	Sep. 10, 2020

1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standard(s):

FCC Part15, Subpart C (15.247)				
Standard(s) Section	Test Item	Test Result	Judgment	Remark
15.207	AC Power Line Conducted Emissions	APPENDIX A	PASS	-----
15.247(d) 15.205(a) 15.209(a)	Radiated Emissions	APPENDIX B APPENDIX C APPENDIX D	PASS	-----
15.247(a)(2)	Bandwidth	APPENDIX E	PASS	-----
15.247(b)(3)	Maximum Output Power	APPENDIX F	PASS	-----
15.247(d)	Conducted Spurious Emissions	APPENDIX G	PASS	-----
15.247(e)	Power Spectral Density	APPENDIX H	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 FACILITY

The test facilities used to collect the test data in this report is at the location of No. 29, Jintang Road, Tangzhen Industry Park, Pudong New Area, Shanghai 201210, China
BTL's Test Firm Registration Number for FCC: 476765
BTL's Designation Number for FCC: CN1241

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 BTL measurement uncertainty as below table:

A. Radiated emissions test:

Test Site	Method	Measurement Frequency Range	Ant. H / V	U, (dB)
SH-CB01	CISPR	9 KHz~30 MHz	V	3.79
		9 KHz~30 MHz	H	3.57
		30 MHz~200 MHz	V	4.04
		30 MHz~200 MHz	H	3.76
		200 MHz~1,000 MHz	V	4.24
		200 MHz~1,000 MHz	H	3.84
		1 GHz~18 GHz	V	4.46
		1 GHz~18 GHz	H	4.40
		18 GHz~40 GHz	V	3.95
		18 GHz~40 GHz	H	3.95

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

1.2 TEST ENVIRONMENT CONDITIONS

Test Item	Temperature	Humidity	Test Voltage	Tested By
AC Power Line Conducted Emissions	23°C	52%	AC 120V/60Hz	Forest
Radiated Emissions-30 MHz to 1GHz	23°C	52%	AC 120V/60Hz	Forest
Radiated Emissions-Above 1000 MHz	23°C	52%	AC 120V/60Hz	Forest
Bandwidth	24°C	56%	AC 120V/60Hz	Forest
Maximum output power	24°C	56%	AC 120V/60Hz	Forest
Conducted Spurious Emissions	24°C	56%	AC 120V/60Hz	Forest
Power Spectral Density	24°C	56%	AC 120V/60Hz	Forest

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Equipment	AX1800 Mesh Wi-Fi 6 Router
Brand Name	D-Link
Test Model	DIR-X1870
Series Model	N/A
Model Difference(s)	N/A
Software Version	1
Hardware Version	A1
Power Source	DC voltage supplied from AC/DC adapter. 1#Brand/Mode: S12A12-120A100-CJ 2#Brand/Mode: WB-12G12R
Power Rating	1# I/P: 100V-240V ~ 50Hz/60Hz Max0.5A, O/P:12V === 1A. 2# I/P: 100V-240V ~ 50Hz/60Hz 0.3A Max, O/P:12V === 1.0A.12W
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 300 Mbps
Maximum Output Power CDD-For 1TX	IEEE 802.11b: 21.59dBm (0.1442W) IEEE 802.11g: 21.81 dBm (0.1517W)
Maximum Output Power CDD-For 2TX	IEEE 802.11n (HT20): 23.76 dBm (0.2377 W) IEEE 802.11n (HT40): 19.87 dBm (0.0971 W)
Maximum Output Power Beamforming-For 2TX	IEEE 802.11n (HT20): 23.62 dBm (0.2301 W) IEEE 802.11n (HT40): 19.68 dBm (0.0929 W)

Note:

- For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.
- 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)	Note
1	N/A	N/A	Dipole	N/A	5	N/A
2	N/A	N/A	Dipole	N/A	5	N/A

Note:

(1) Beamforming:

All antennas have the same gain, Directional gain = $G_{ANT} + 10 \log(N_{ANT})$ dBi,

that is Directional gain = $5 + 10 \log(2)$ dBi = 8.01;

So output power limit is $30 - 8.01 + 6 = 27.99$, the power density limit is $8 - (8.01 - 6) = 5.99$.

(2) CDD:

All antennas have the same gain, Directional gain = $G_{ANT} + \text{Array Gain}$,

For power spectral density measurements, $N_{ANT} = 2$, $N_{SS} = 1$. So Directional gain = $G_{ANT} + \text{Array Gain} = 10 \log(N_{ANT}/N_{SS})$ dB = $5 + 10 \log(2/1)$ dBi = 8.01. Then, the power density limit is $8 - (8.01 - 6) = 5.99$.

For power measurements, Array Gain = 0 dB ($N_{ANT} \leq 4$), so the Directional gain = 5.

4. Table for Antenna Configuration:

Operating Mode TX Mode	Ant. 1	Ant. 2	Ant. 1 + Ant. 2
802.11b	✓	✓	✗
802.11g	✓	✓	✗
802.11n(20 MHz)	✓	✓	✓
802.11n(40 MHz)	✓	✓	✓

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-20 MHz Mode Channel 01/06/11
Mode 4	TX N-40 MHz Mode Channel 03/06/09
Mode 5	TX N20 Mode Channel 06

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

AC power line conducted emissions test	
Final Test Mode:	Description
Mode 5	TX N20 Mode Channel 06

Radiated emissions test - Below 1GHz	
Final Test Mode:	Description
Mode 5	TX N20 Mode Channel 06

Radiated emissions test- Above 1GHz	
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-20 MHz Mode Channel 01/06/11
Mode 4	TX N-40 MHz Mode Channel 03/06/09

Conducted test	
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-20 MHz Mode Channel 01/06/11
Mode 4	TX N-40 MHz Mode Channel 03/06/09

NOTE:

- (1) The measurements are performed at the high, middle, low available channels.
- (2) 802.11b mode: CCK (1 Mbps)
802.11g mode: OFDM (6 Mbps)
802.11n HT20 mode : BPSK (13 Mbps)
802.11n HT40 mode : BPSK (27 Mbps)
For radiated emission tests, the highest output powers were set for final test.
- (3) For radiated emission below 1 GHz test, the IEEE 802.11n20 Channel 06 is found to be the worst case and recorded.
- (4) For radiated emission above 1 GHz test, 1GHz~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

CDD

Test Software	accessMTool.3.1.0.6		
Frequency (MHz)	2412	2437	2462
IEEE 802.11b	80	84	82
IEEE 802.11g	70	86	67
IEEE 802.11n (HT20)	64	82	64
Frequency (MHz)	2422	2437	2452
IEEE 802.11n (HT40)	60	66	62

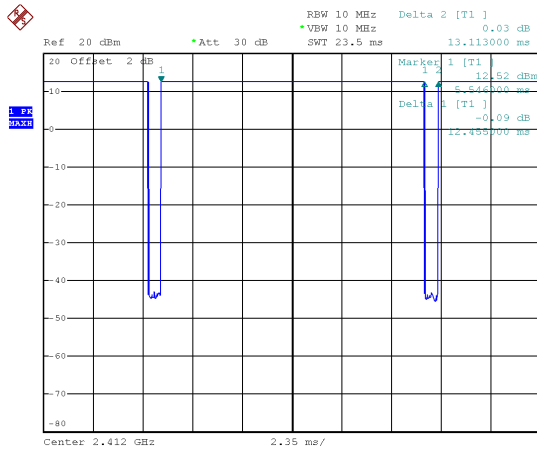
Beamforming

Test Software	accessMTool.3.1.0.6		
Frequency (MHz)	2412	2437	2462
IEEE 802.11n (HT20)	64	82	64
Frequency (MHz)	2422	2437	2452
IEEE 802.11n (HT40)	60	66	62

2.4 DUTY CYCLE

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

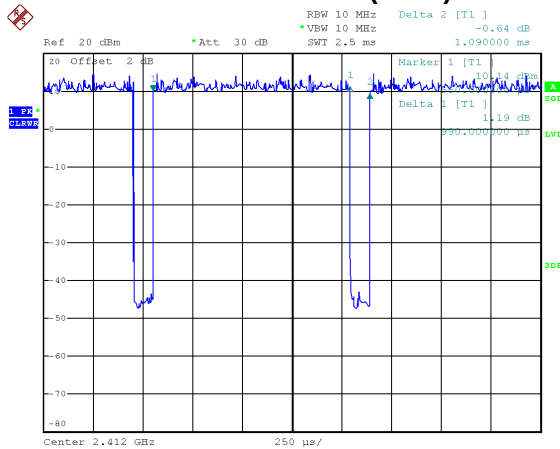
IEEE 802.11b



Date: 21.JUL.2020 12:25:17

Duty cycle = 12.455 ms / 13.113 ms = 94.98%
 Duty Factor = $10 \log(1/\text{Duty cycle}) = 0.22$

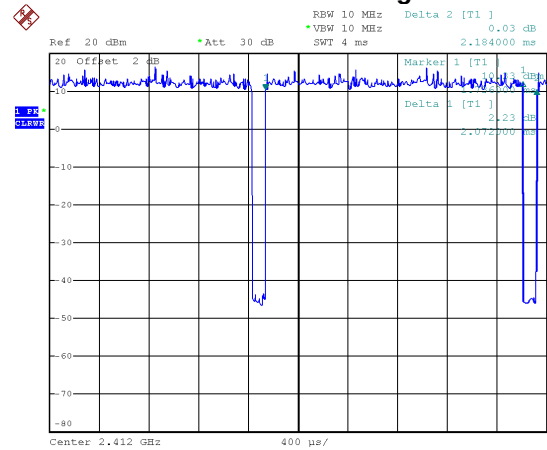
IEEE 802.11n (HT20)



Date: 21.JUL.2020 12:26:30

Duty cycle = 0.990 ms / 1.090 ms = 90.83%
 Duty Factor = $10 \log(1/\text{Duty cycle}) = 0.42$

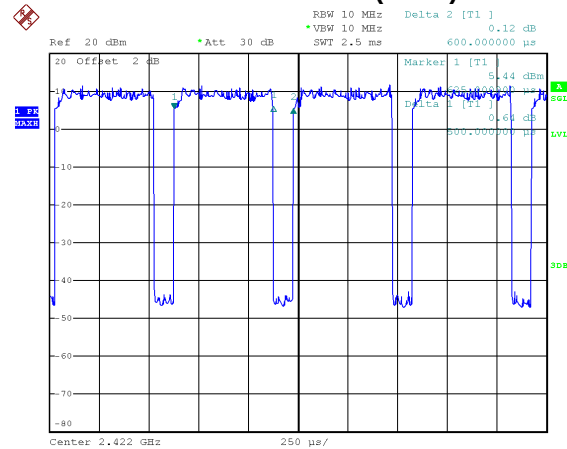
IEEE 802.11g



Date: 21.JUL.2020 12:26:00

Duty cycle = 2.072 ms / 2.184 ms = 94.87%
 Duty Factor = $10 \log(1/\text{Duty cycle}) = 0.23$

IEEE 802.11n (HT40)



Date: 21.JUL.2020 12:27:25

Duty cycle = 0.500 ms / 0.600 ms = 83.33%
 Duty Factor = $10 \log(1/\text{Duty cycle}) = 0.79$

NOTE:

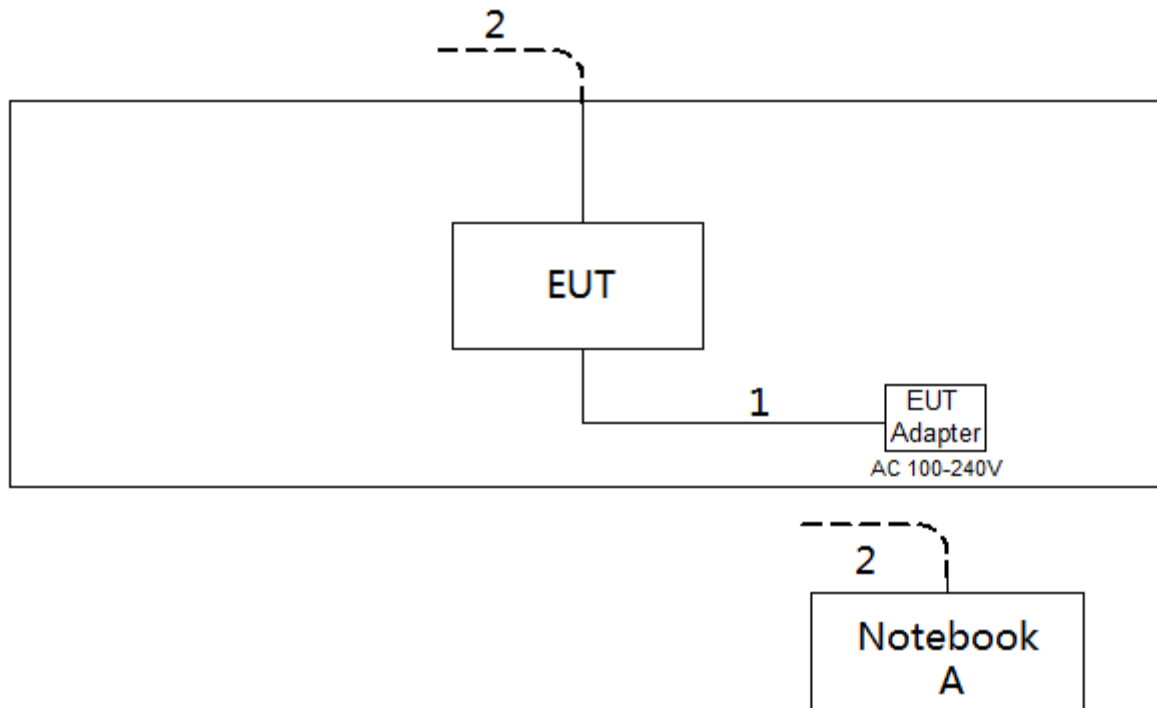
For IEEE 802.11g and IEEE 802.11n (HT20):

For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 1 kHz (Duty cycle $< 98\%$).

For IEEE 802.11n (HT40):

For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 2 kHz (Duty cycle $< 98\%$).

2.5 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



2.6 SUPPORT UNITS

Item	Equipment	Brand	Model No.	Series No.
A	Notebook	Lenovo	#P152014	N/A

Item	Cable Type	Shielded Type	Ferrite Core	Length
1	DC Cable	NO	NO	1.5m
2	RJ45 Cable	NO	NO	10m

3. AC POWER LINE CONDUCTED EMISSIONS TEST

3.1 LIMIT

Frequency of Emission (MHz)	Limit (dB μ V)	
	Quasi-peak	Average
0.15 - 0.50	66 to 56*	56 to 46*
0.50 - 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.

The following table is the setting of the receiver

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

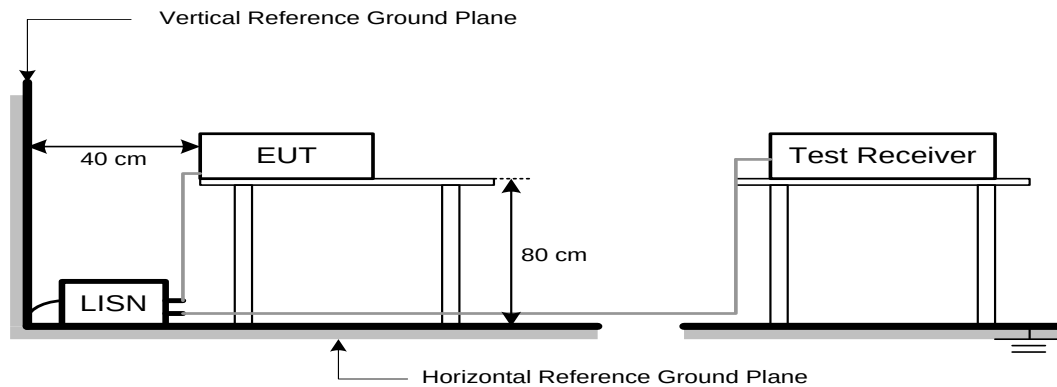
3.2 TEST PROCEDURE

- 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.

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 TEST

4.1 LIMIT

In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) 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 PART 15C.
- (2) The tighter limit applies at the band edges.
- (3) Emission level (dBuV/m)=20log Emission level (uV/m).
- (4) The test result calculated as following:
Measurement Value = Reading Level + Correct Factor
Correct Factor = Antenna Factor + Cable Loss - Amplifier Gain(if use)
Margin Level = Measurement Value - Limit Value

Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic
RBW / VBW (Emission in restricted band)	1 MHz / 3 MHz for Peak, 1 MHz / 1/T for Average

Receiver Parameter	Setting
Attenuation	Auto
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

4.2 TEST PROCEDURE

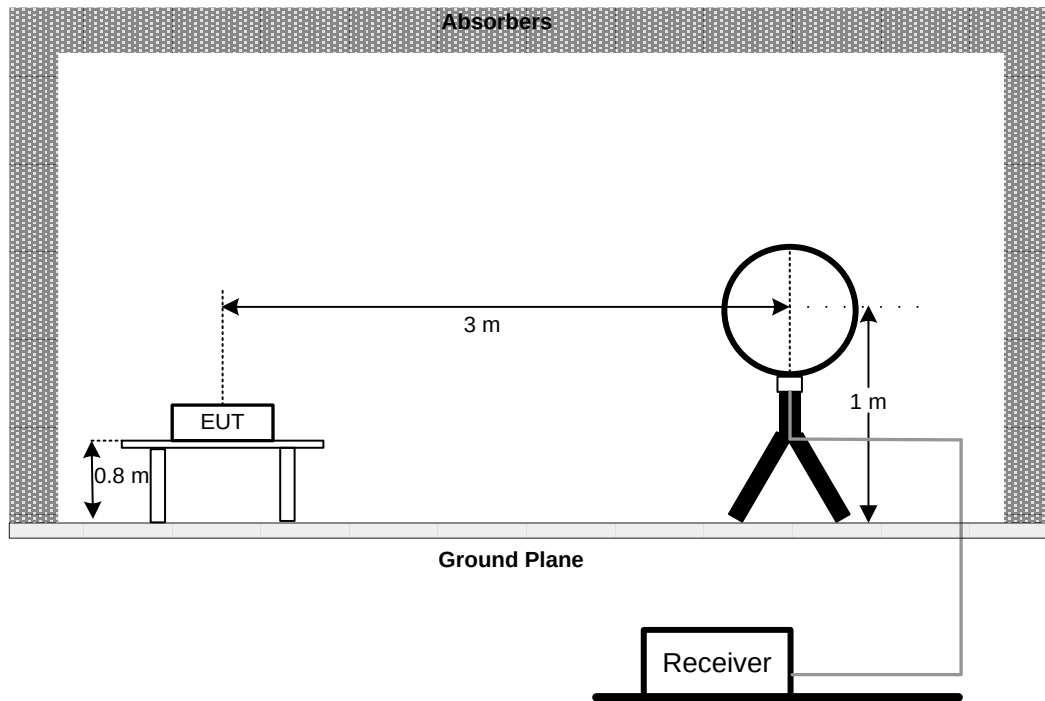
- a. The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(below 1 GHz)
- b. The measuring distance 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.

4.3 DEVIATION FROM TEST STANDARD

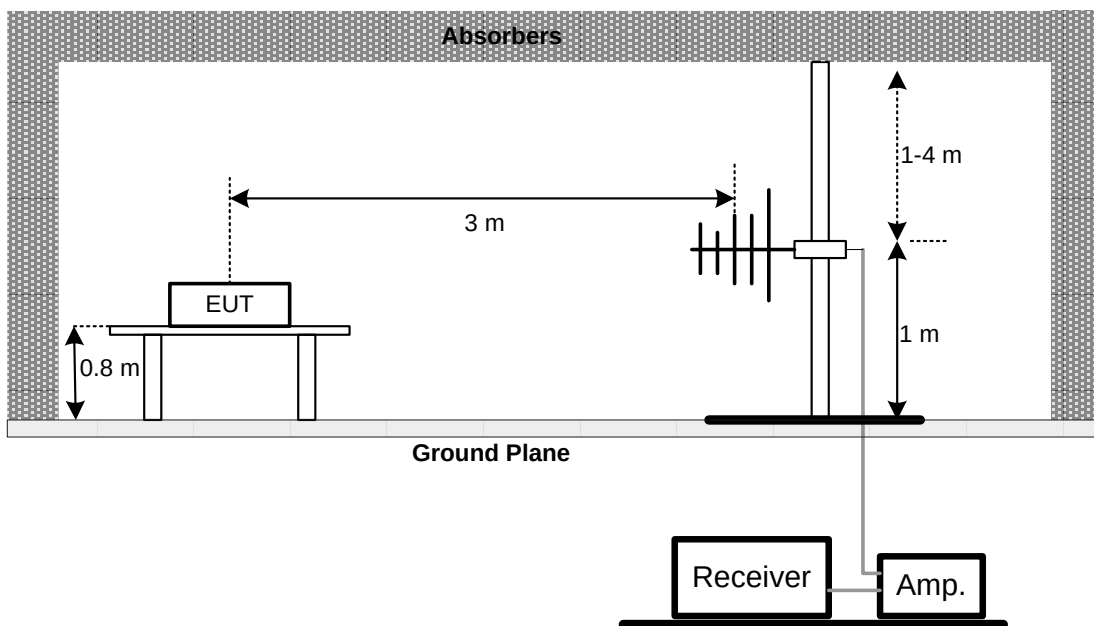
No deviation

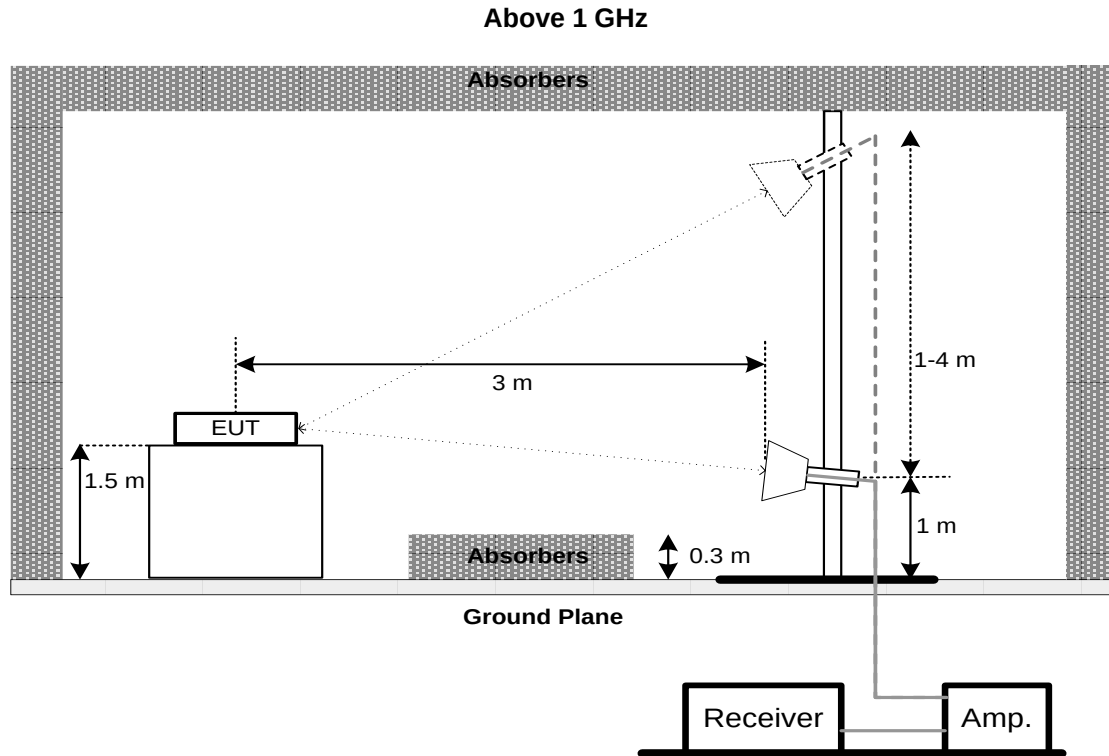
4.4 TEST SETUP

9 kHz-30 MHz



30 MHz to 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 = $40 \log (\text{specific distance} / \text{test distance})$ (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 TEST

5.1 LIMIT

FCC Part15, Subpart C (15.247)		
Section	Test Item	Limit
15.247(a)(2)	6 dB Bandwidth	Minimum 500 kHz
	99% Emission Bandwidth	-

5.2 TEST PROCEDURE

- The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- Spectrum Setting:
 - For 6 dB Bandwidth : RBW= 100 kHz, VBW=300 kHz, Sweep time = auto.
 - For 99% Emission Bandwidth B/G/N-20 Mode: RBW= 300 KHz, VBW=1 MHz, Sweep time = 2.5 ms.
 - For 99% Emission Bandwidth N-40 Mode: RBW= 1 MHz, VBW=3 MHz, Sweep time = 2.5 ms.
- The bandwidth was performed in accordance with method 11.8.1 of ANSI C63.10-2013.

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 TEST

6.1 LIMIT

FCC Part15, Subpart C (15.247)		
Section	Test Item	Limit
15.247(b)(3)	Maximum Output Power	1 Watt or 30dBm

6.2 TEST PROCEDURE

- The EUT was directly connected to the power meter and antenna output port as show in the block diagram below.
- The maximum conducted output power was performed in accordance with method 11.9.1.3 (for peak power) or 11.9.2.3.1 (for AVG power) of ANSI C63.10-2013.

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

- The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- Spectrum Setting: RBW= 100 kHz, VBW=300 kHz, 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 TEST

8.1 LIMIT

FCC Part15, Subpart C (15.247)		
Section	Test Item	Limit
15.247(e)	Power Spectral Density	8 dBm (in any 3 kHz)

8.2 TEST PROCEDURE

- The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- Spectrum Setting: RBW=3 kHz, VBW=10 kHz, Sweep time = Auto.
- The Power Spectral Density was performed in accordance with method 11.10.2 of ANSI C63.10-2013.

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

AC Power Line Conducted Emissions					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Line Impedance Stabilisation Network	Schwarzbeck	NNLK 8121	8121-822	Mar. 21, 2021
2	TWO-LINE V-NETWORK	R&S	ENV216	101340	Sep. 01, 2020
3	Test Cable	emci	EMCRG400-BM-N M-10000	170628	Jul. 15, 2021
4	EMI Test Receiver	R&S	ESCI	100082	Mar. 21, 2021
5	50Ω Terminator	SHX	TF2-1G-A	17051602	Mar. 21, 2021
6	50Ω coaxial switch	Anritsu	MP59B	6201750902	Mar. 21, 2021
7	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A

Radiated Emissions - 9 kHz to 30 MHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Loop Antenna	EMCI	EMCI LPA600	275	Apr. 02, 2021
2	EMI Test Receiver	R&S	ESCI	100082	Mar. 21, 2021
3	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A

Radiated Emissions - 30 MHz to 1 GHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	TRILOG Broadband Antenna	Schwarzbeck	VULB 9168	719	Apr. 02, 2021
2	Pre-Amplifier	emci	EMC9135	980400	Mar. 21, 2021
3	MXE EMI Receiver	Keysight	N9038A	MY57150106	May. 06, 2021
4	Test Cable	emci	EMC104-SM-SM-7 000	170330	Apr. 13, 2021
5	Test Cable	emci	EMC104-SM-SM-1 000	170331	Apr. 13, 2021
6	Test Cable	emci	EMC104-SM-NM-3 500	170621	Apr. 13, 2021
7	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A

Radiated Emissions - Above 1 GHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Double-Ridged Waveguide Horn Antenna	ETS-Lindgren	9120D	00206960	Apr. 02, 2021
2	Pre-Amplifier	emci	EMC012645SE	980421	May. 11, 2021
3	EXA Spectrum Analyzer	Keysight	N9010A	MY56480545	Mar. 21, 2021
4	Test Cable	emci	EMC104-SM-SM-7000	170330	Apr. 13, 2021
5	Test Cable	emci	EMC104-SM-SM-1000	170331	Apr. 13, 2021
6	Test Cable	emci	EMC104-SM-NM-3500	170621	Apr. 13, 2021
7	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
8	MXE EMI Receiver	Keysight	N9038A	MY57150106	May. 06, 2021
9	Double-Ridged Waveguide Horn Antenna	ETS-Lindgren	3116C	00203919	Mar. 21, 2021
10	Pre-Amplifier	emci	EMC184045SE	980409	Mar. 21, 2021
11	EXA Spectrum Analyzer	Keysight	N9010A	MY56480579	Mar. 21, 2021
12	Test Cable	emci	EMC102-KM-KM-800	170654	Mar. 21, 2021
13	Test Cable	emci	Super Reliable-40G-SS11-7000	W0030860001	Mar. 21, 2021
14	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A

Bandwidth					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP40	100626	Mar. 06, 2021

Maximum Output Power					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Peak Power Analyze	Keysight	8990B	MY51000507	Mar. 21, 2021
2	Wideband Power Sensor	Keysight	N9123A	MY58310003	Mar. 21, 2021

Antenna Conducted Spurious Emissions					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP40	100626	Mar. 06, 2021

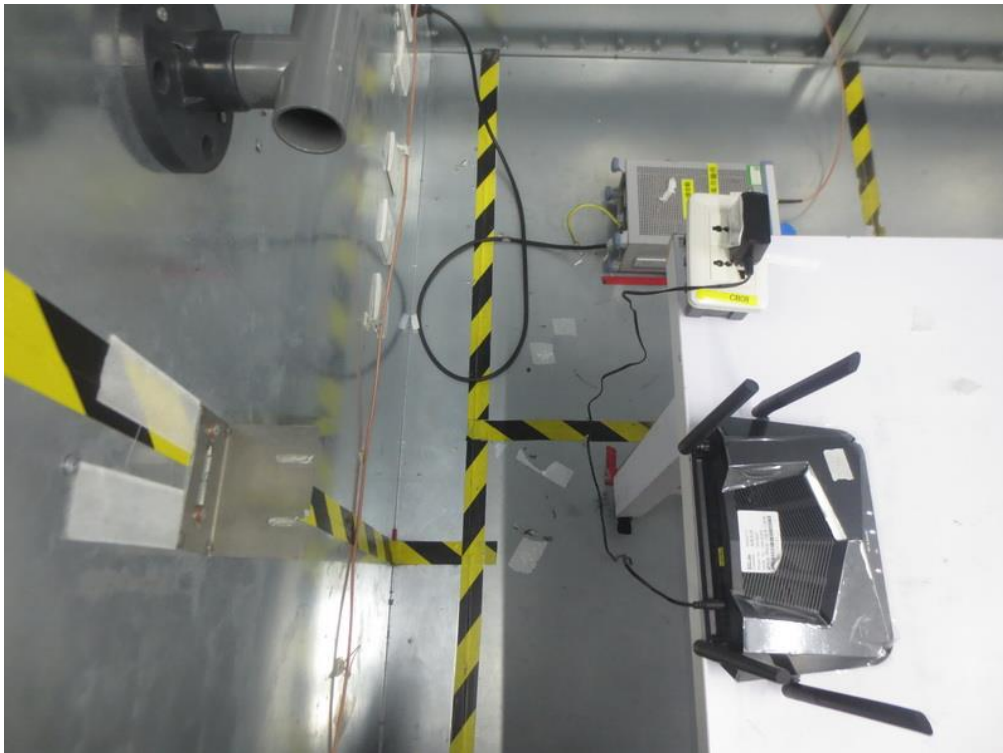
Power Spectral Density					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP40	100626	Mar. 06, 2021

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

All calibration period of equipment list is one year.

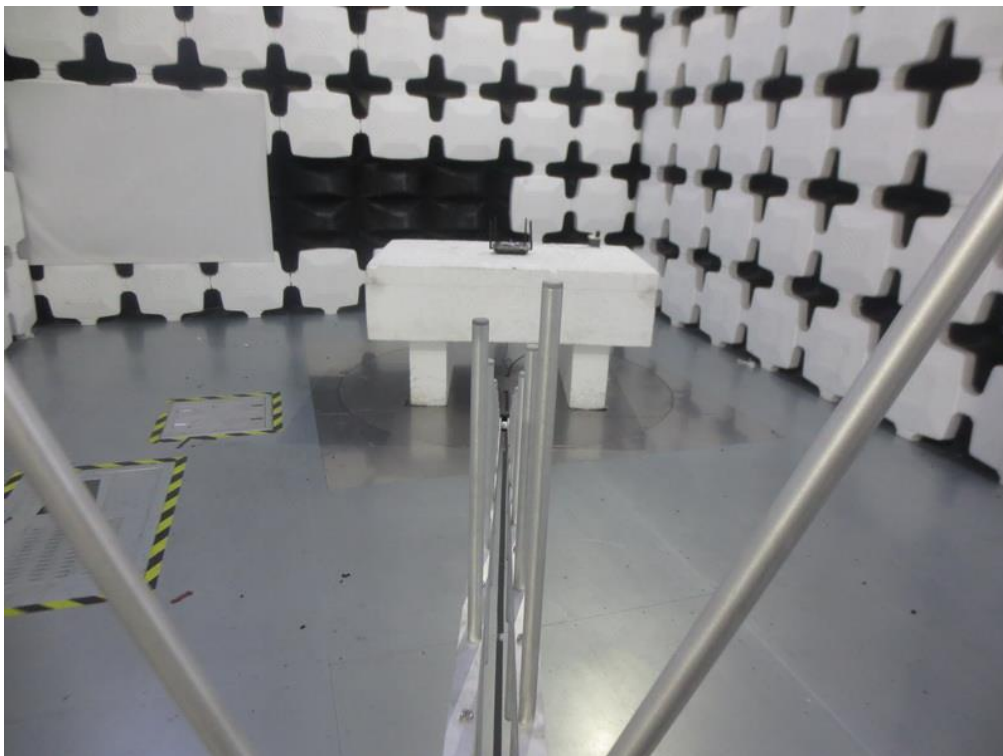
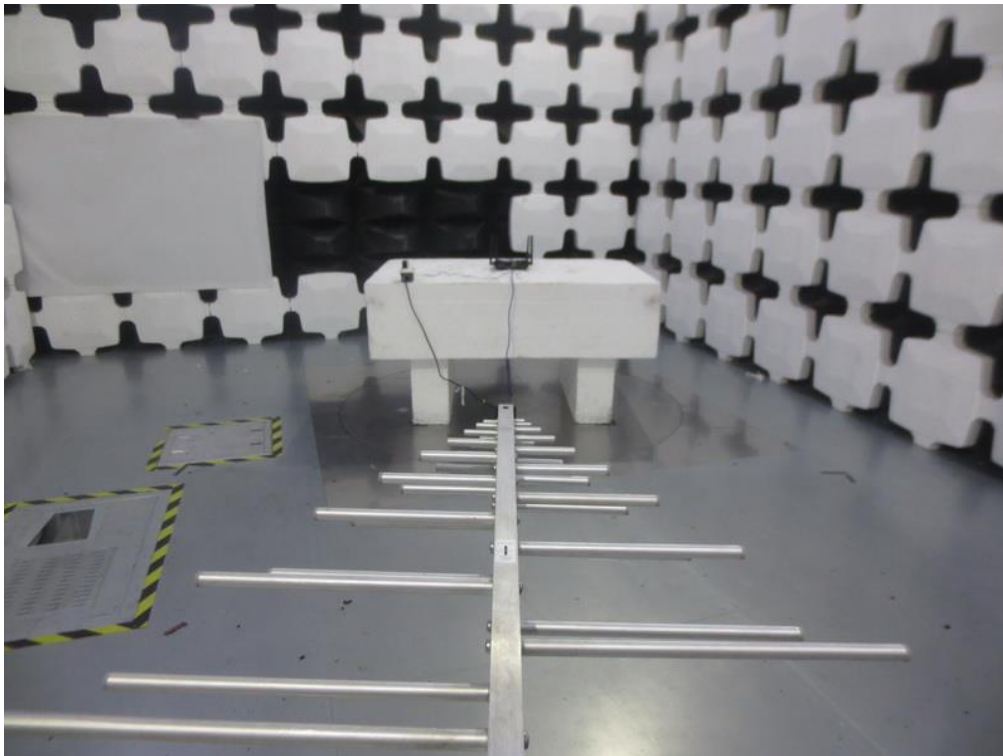
10. EUT TEST PHOTO

Conducted Emissions Test Photos



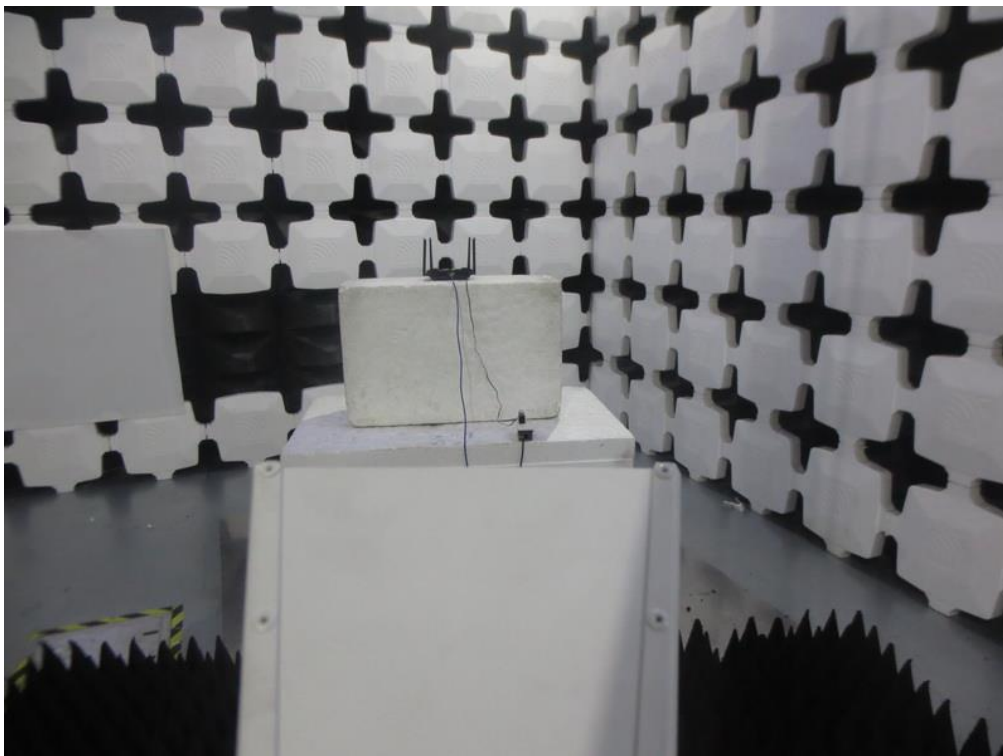
Radiated Emissions Test Photos

30 MHz to 1 GHz



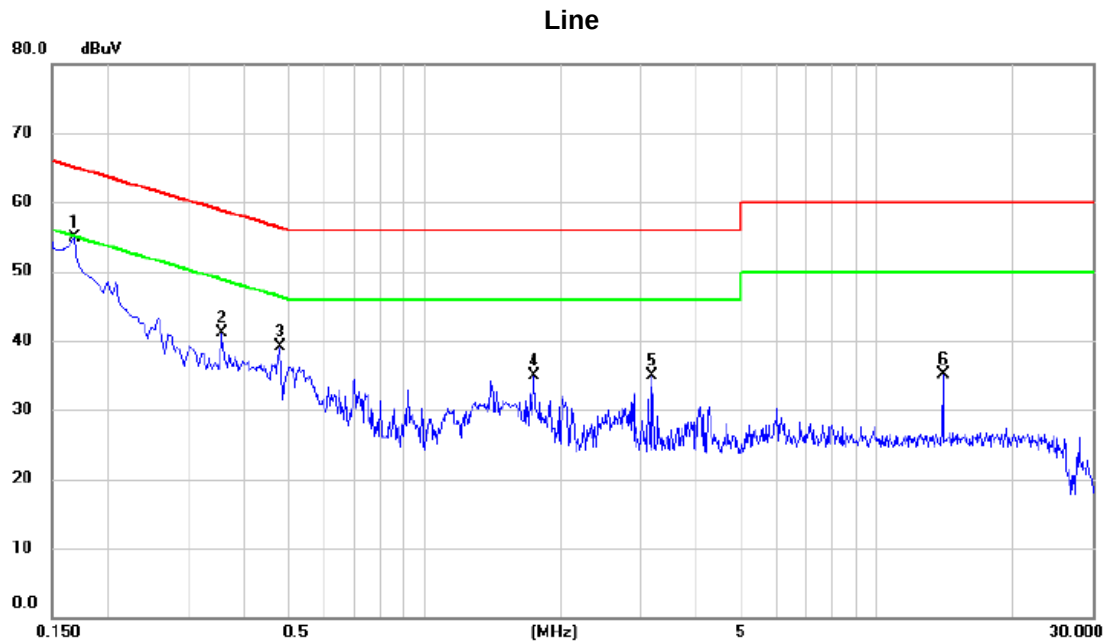
Radiated Emissions Test Photos

Above 1 GHz



APPENDIX A - AC POWER LINE CONDUCTED EMISSIONS

Test Mode: TX N20 Mode Channel 06

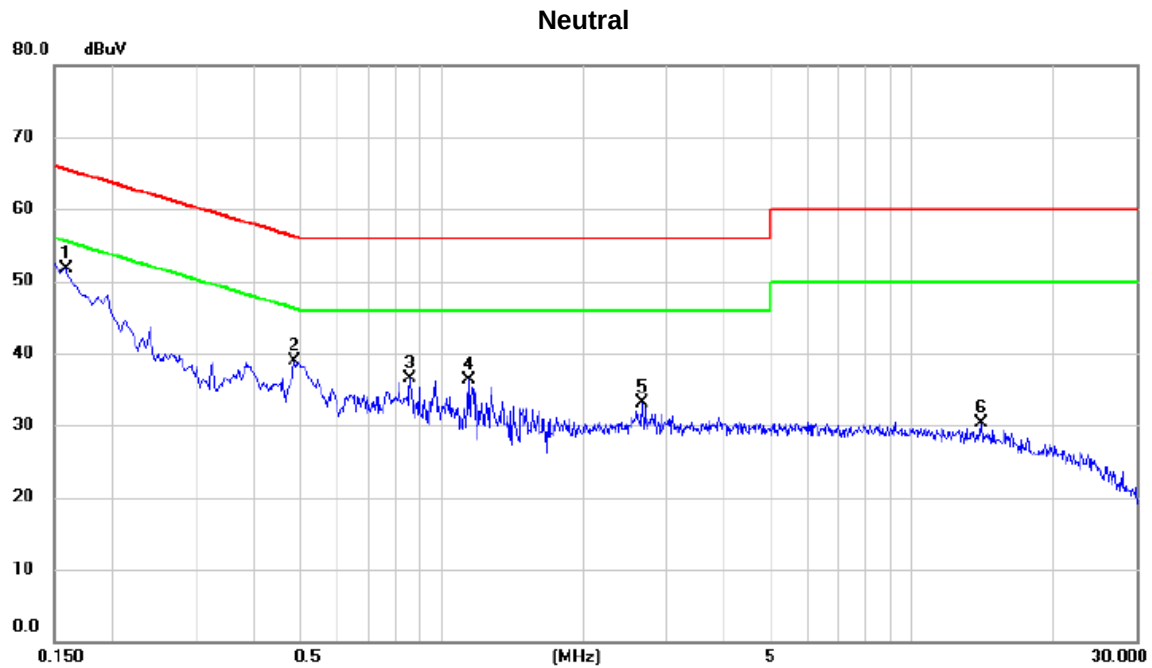


No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Margin		
		MHz	Level	Factor	ment			Detector	Comment
			dBuV	dB	dBuV	dBuV	dB		
1	*	0.1680	45.18	9.74	54.92	65.06	-10.14	peak	
2		0.3570	31.27	9.85	41.12	58.80	-17.68	peak	
3		0.4784	29.27	9.89	39.16	56.37	-17.21	peak	
4		1.7520	25.18	9.79	34.97	56.00	-21.03	peak	
5		3.1920	24.96	9.87	34.83	56.00	-21.17	peak	
6		14.0010	24.82	10.19	35.01	60.00	-24.99	peak	

REMARKS:

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

Test Mode: TX N20 Mode Channel 06



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.1590	42.09	9.61	51.70	65.52	-13.82	peak	
2		0.4874	29.27	9.69	38.96	56.21	-17.25	peak	
3		0.8564	26.79	9.72	36.51	56.00	-19.49	peak	
4		1.1400	26.63	9.73	36.36	56.00	-19.64	peak	
5		2.6700	23.19	9.83	33.02	56.00	-22.98	peak	
6		14.0010	20.06	10.15	30.21	60.00	-29.79	peak	

REMARKS:

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

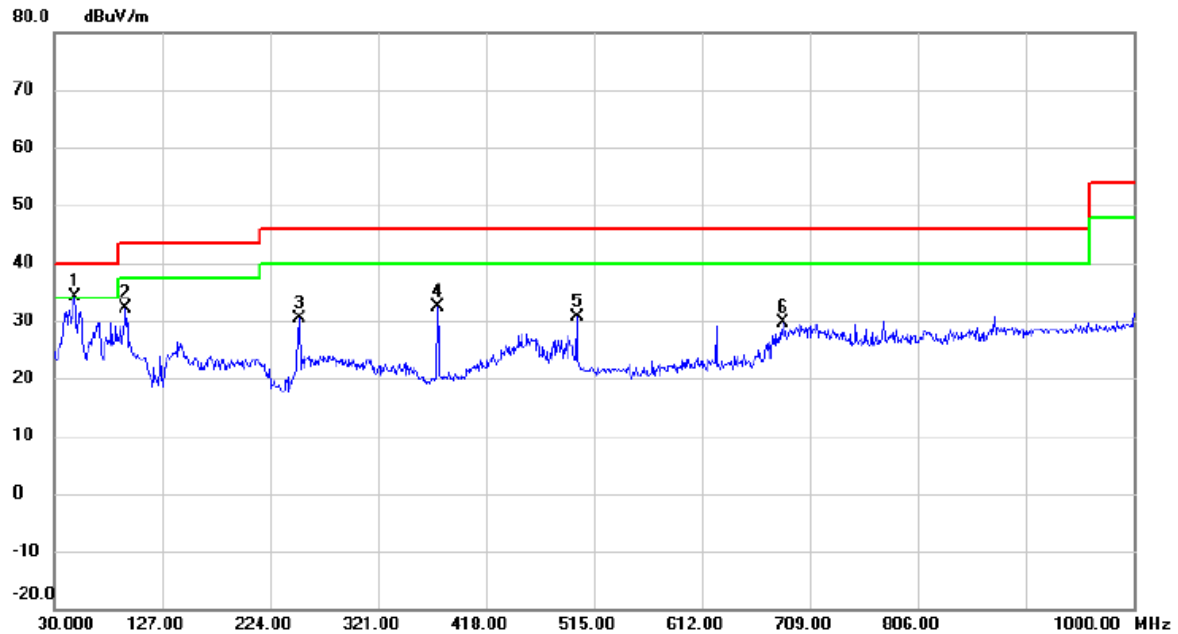
APPENDIX B - RADIATED EMISSION - 9 KHZ TO 30 MHZ

Note: The measured value have enough margin over 20dB than the limit, therefore they are not reported.

APPENDIX C - RADIATED EMISSION - 30 MHZ TO 1000 MHZ

Test Mode: TX N20 Mode Channel 06

Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	48.4300	50.59	-16.49	34.10	40.00	-5.90	peak	
2		94.5050	53.49	-21.48	32.01	43.50	-11.49	peak	
3		250.1900	46.93	-16.67	30.26	46.00	-15.74	peak	
4		374.8350	45.47	-13.11	32.36	46.00	-13.64	peak	
5		499.9650	41.05	-10.32	30.73	46.00	-15.27	peak	
6		684.7500	36.58	-6.98	29.60	46.00	-16.40	peak	

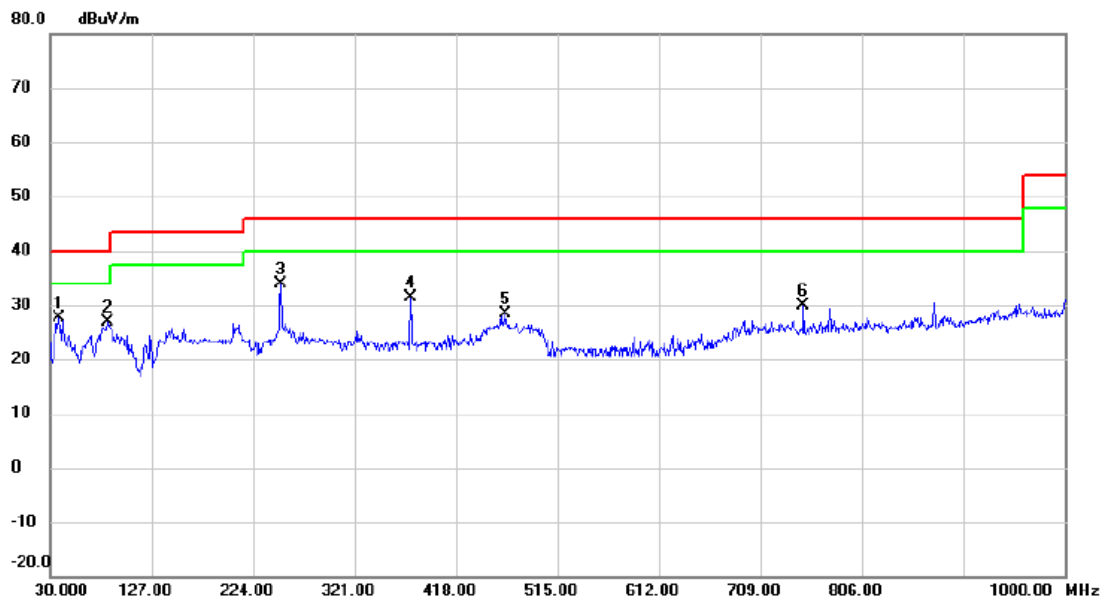
REMARKS:

(1) Measurement Value = Reading Level + Correct Factor.

(2) Margin Level = Measurement Value - Limit Value.

Test Mode: TX N20 Mode Channel 06

Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		38.2450	44.89	-17.35	27.54	40.00	-12.46	peak	
2		84.3200	48.16	-21.34	26.82	40.00	-13.18	peak	
3	*	250.1900	50.54	-16.67	33.87	46.00	-12.13	peak	
4		374.8350	44.53	-13.11	31.42	46.00	-14.58	peak	
5		465.5300	39.15	-10.80	28.35	46.00	-17.65	peak	
6		750.2250	35.62	-5.82	29.80	46.00	-16.20	peak	

REMARKS:

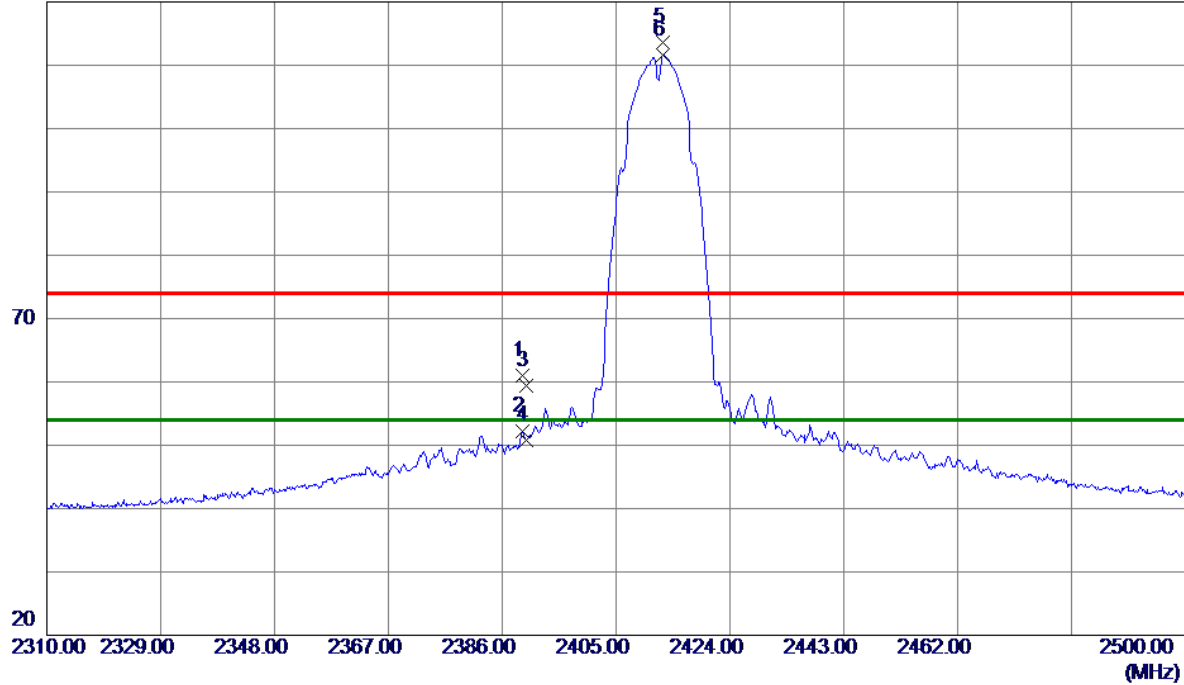
- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

APPENDIX D - RADIATED EMISSION- ABOVE 1000 MHZ

Test Mode: TX B Mode 2412 MHz

Vertical

120 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2389.4200	29.27	31.74	61.01	74.00	-12.99	Peak	
2	2389.4200	20.50	31.74	52.24	54.00	-1.76	AVG	
3	2390.0000	27.68	31.74	59.42	74.00	-14.58	Peak	
4	2390.0000	19.11	31.74	50.85	54.00	-3.15	AVG	
5	2412.8850	81.84	31.72	113.56	74.00	39.56	Peak	No limit
6 *	2412.8850	79.94	31.72	111.66	54.00	57.66	AVG	No limit

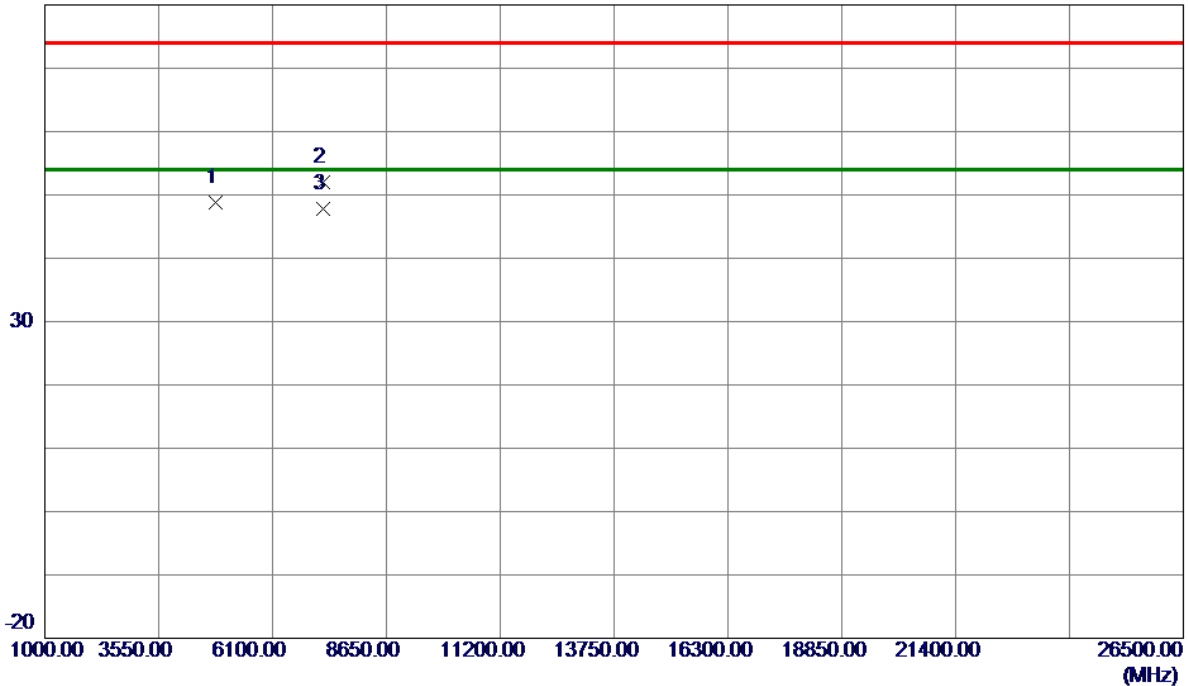
REMARKS:

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

Test Mode: TX B Mode 2412 MHz

Vertical

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4825.0000	64.77	-16.03	48.74	74.00	-25.26	Peak	
2	7234.7500	62.93	-10.85	52.08	74.00	-21.92	Peak	
3 *	7235.1800	58.70	-10.85	47.85	54.00	-6.15	AVG	

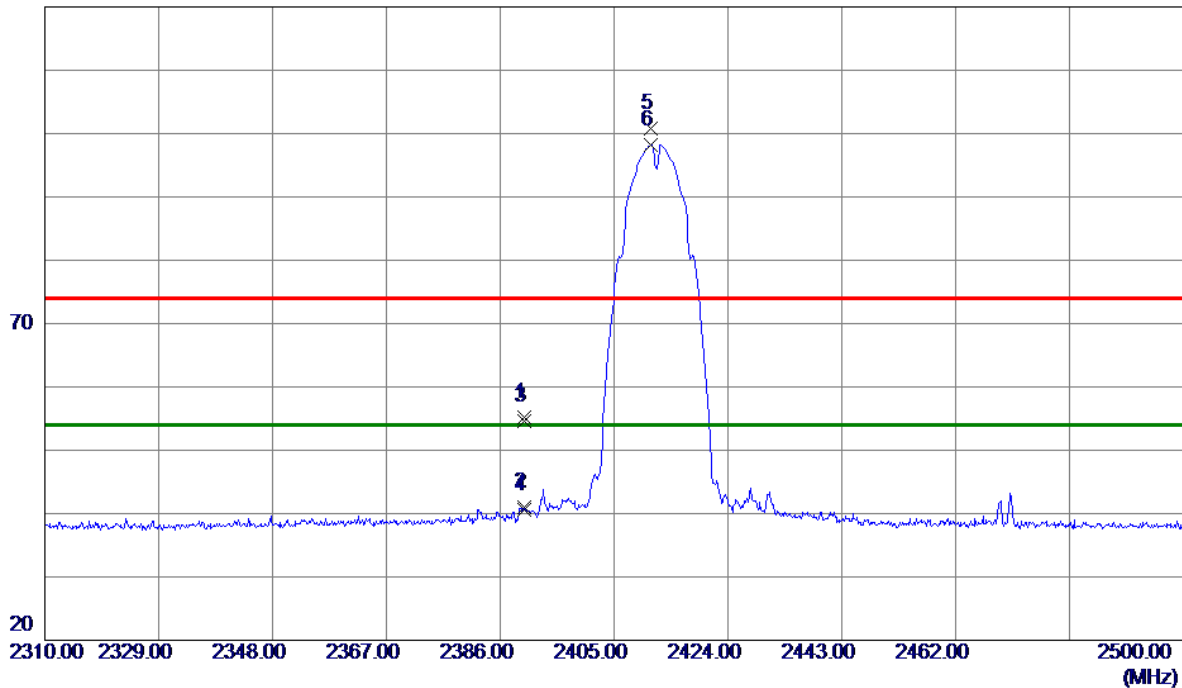
REMARKS:

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

Test Mode: TX B Mode 2412 MHz

Horizontal

120 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2389.9900	23.51	31.74	55.25	74.00	-18.75	Peak	
2	2389.9900	9.30	31.74	41.04	54.00	-12.96	AVG	
3	2390.0000	22.91	31.74	54.65	74.00	-19.35	Peak	
4	2390.0000	8.93	31.74	40.67	54.00	-13.33	AVG	
5	2411.1750	68.99	31.72	100.71	74.00	26.71	Peak	No limit
6 *	2411.1750	66.55	31.72	98.27	54.00	44.27	AVG	No limit

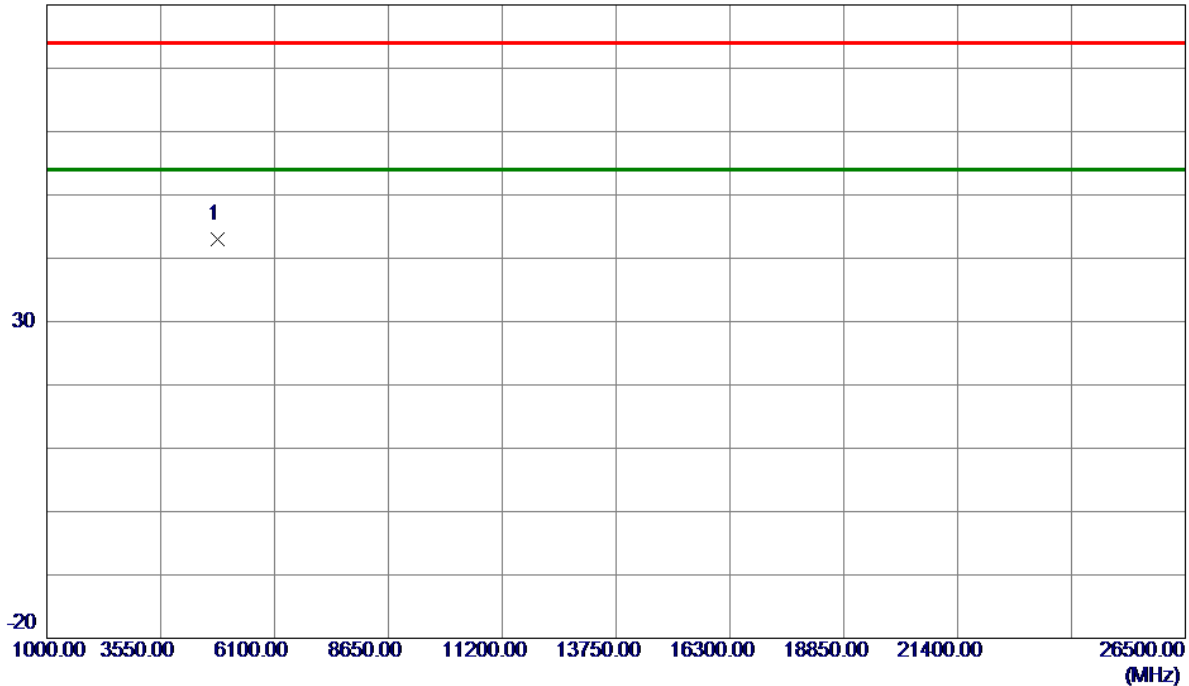
REMARKS:

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

Test Mode:	TX B Mode 2412 MHz
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Horizontal

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	4825.0000	58.97	-16.03	42.94	74.00	-31.06	Peak	

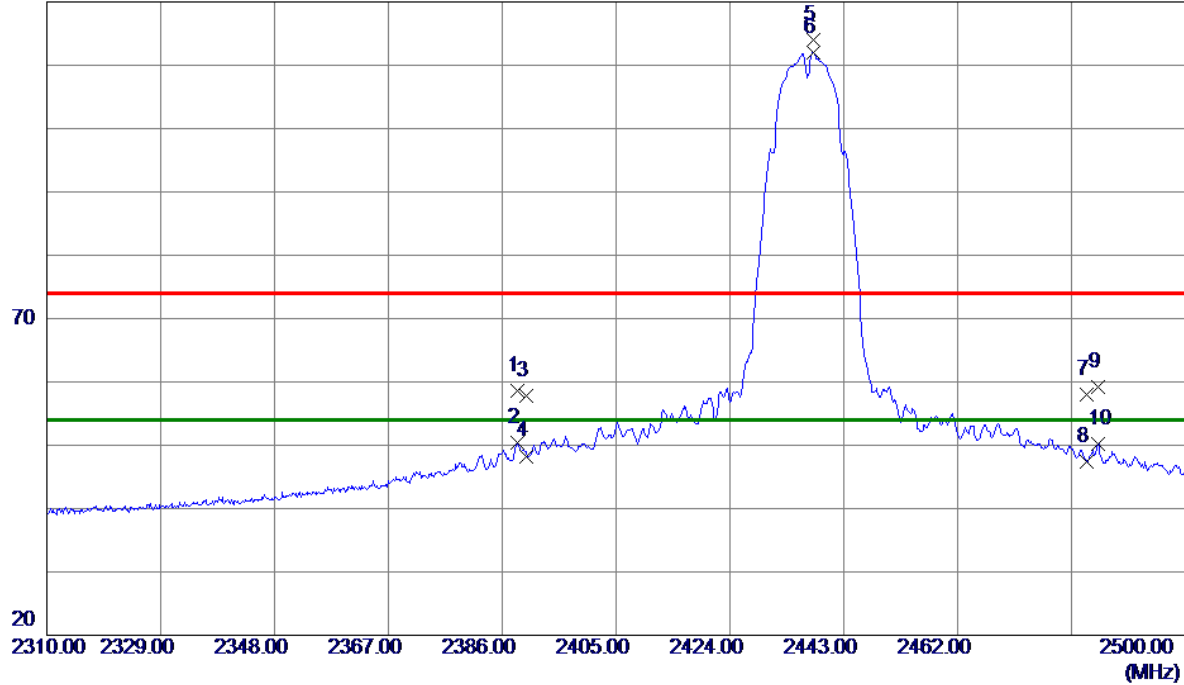
REMARKS:

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

Test Mode: TX B Mode 2437 MHz

Vertical

120 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2388.5650	26.83	31.74	58.57	74.00	-15.43	Peak	
2	2388.5650	18.62	31.74	50.36	54.00	-3.64	AVG	
3	2390.0000	26.00	31.74	57.74	74.00	-16.26	Peak	
4	2390.0000	16.56	31.74	48.30	54.00	-5.70	AVG	
5	2437.8700	82.28	31.72	114.00	74.00	40.00	Peak	No limit
6 *	2437.8700	80.24	31.72	111.96	54.00	57.96	AVG	No limit
7	2483.5000	26.38	31.71	58.09	74.00	-15.91	Peak	
8	2483.5000	15.76	31.71	47.47	54.00	-6.53	AVG	
9	2485.4650	27.47	31.71	59.18	74.00	-14.82	Peak	
10	2485.4650	18.52	31.71	50.23	54.00	-3.77	AVG	

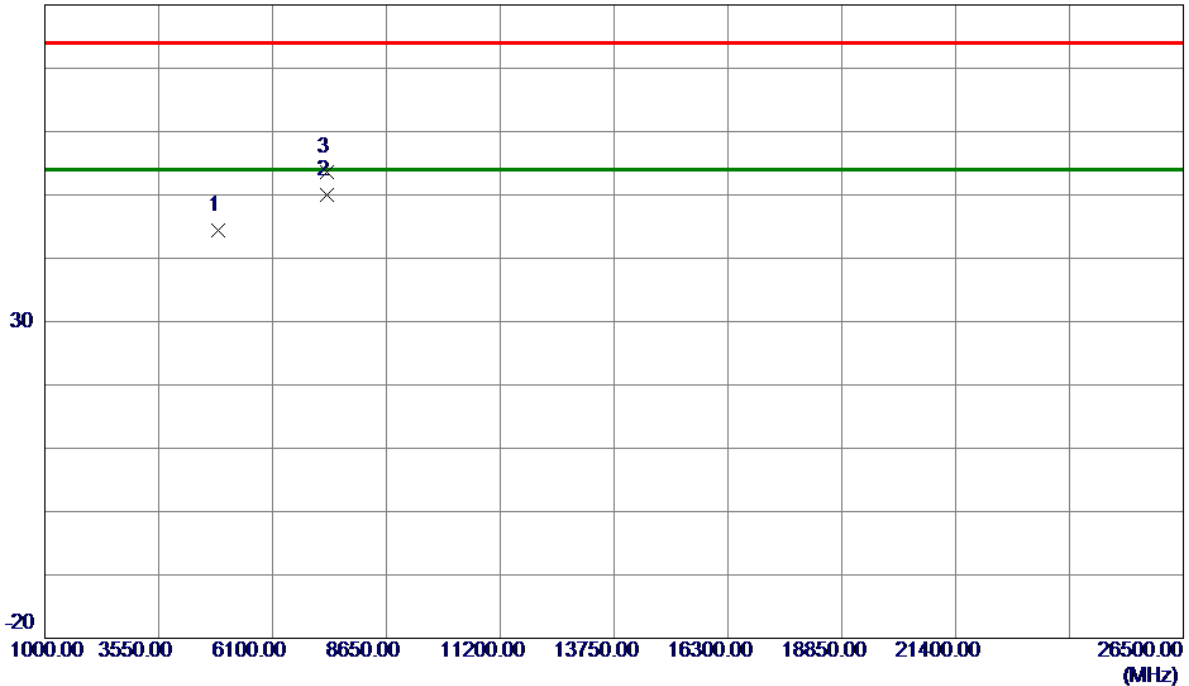
REMARKS:

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

Test Mode: TX B Mode 2437 MHz

Vertical

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4876.0000	60.30	-15.96	44.34	74.00	-29.66	Peak	
2 *	7310.2350	60.77	-10.82	49.95	54.00	-4.05	AVG	
3	7311.2500	64.46	-10.82	53.64	74.00	-20.36	Peak	

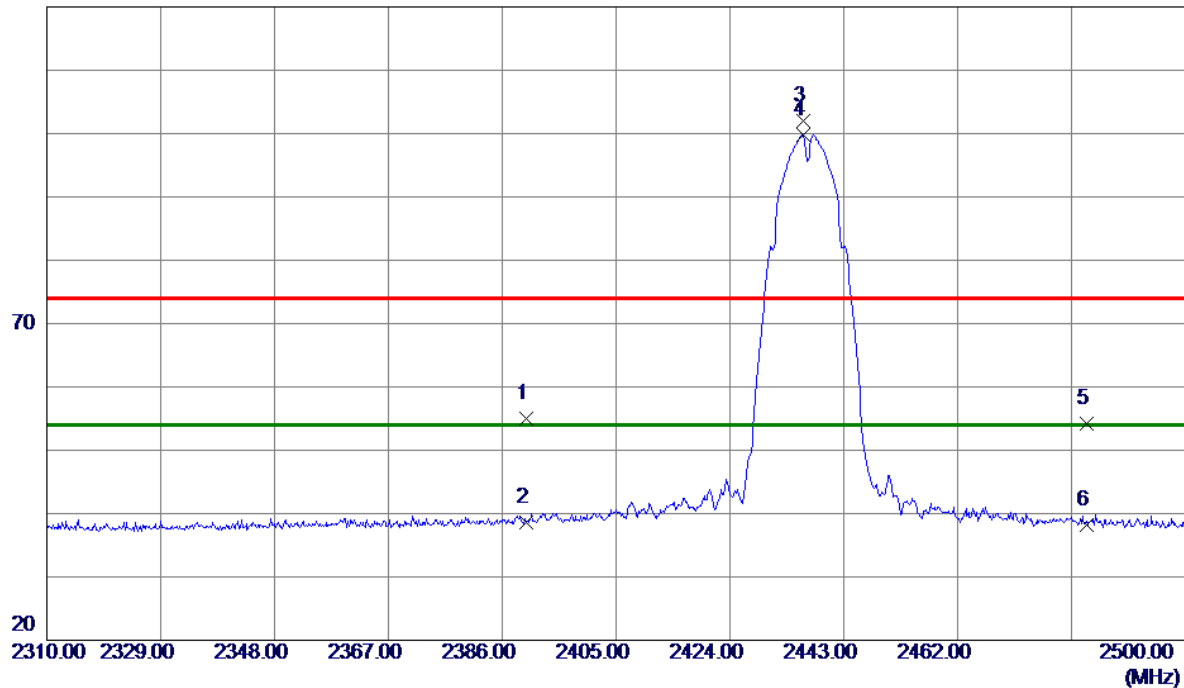
REMARKS:

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

Test Mode: TX B Mode 2437 MHz

Horizontal

120 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	23.21	31.74	54.95	74.00	-19.05	Peak	
2	2390.0000	6.89	31.74	38.63	54.00	-15.37	AVG	
3	2436.2549	70.28	31.72	102.00	74.00	28.00	Peak	No limit
4 *	2436.2549	68.16	31.72	99.88	54.00	45.88	AVG	No limit
5	2483.5000	22.55	31.71	54.26	74.00	-19.74	Peak	
6	2483.5000	6.42	31.71	38.13	54.00	-15.87	AVG	

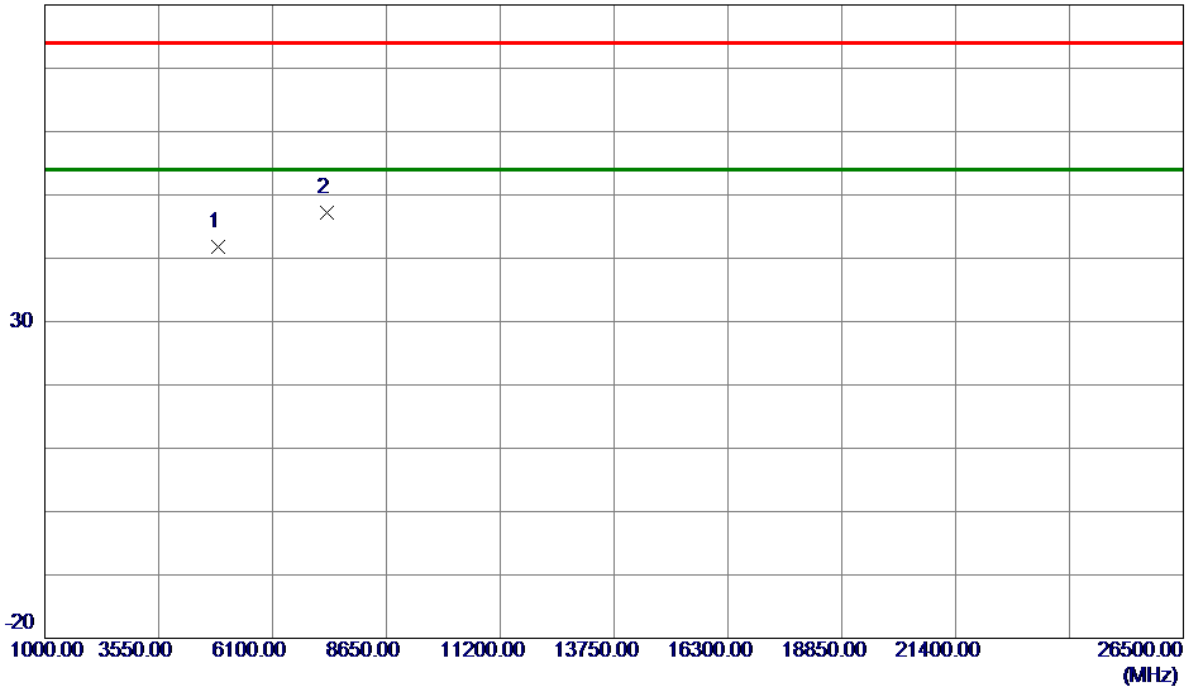
REMARKS:

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

Test Mode:	TX B Mode 2437 MHz
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Horizontal

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4876.0000	57.73	-15.96	41.77	74.00	-32.23	Peak	
2 *	7311.2500	57.94	-10.82	47.12	74.00	-26.88	Peak	

REMARKS:

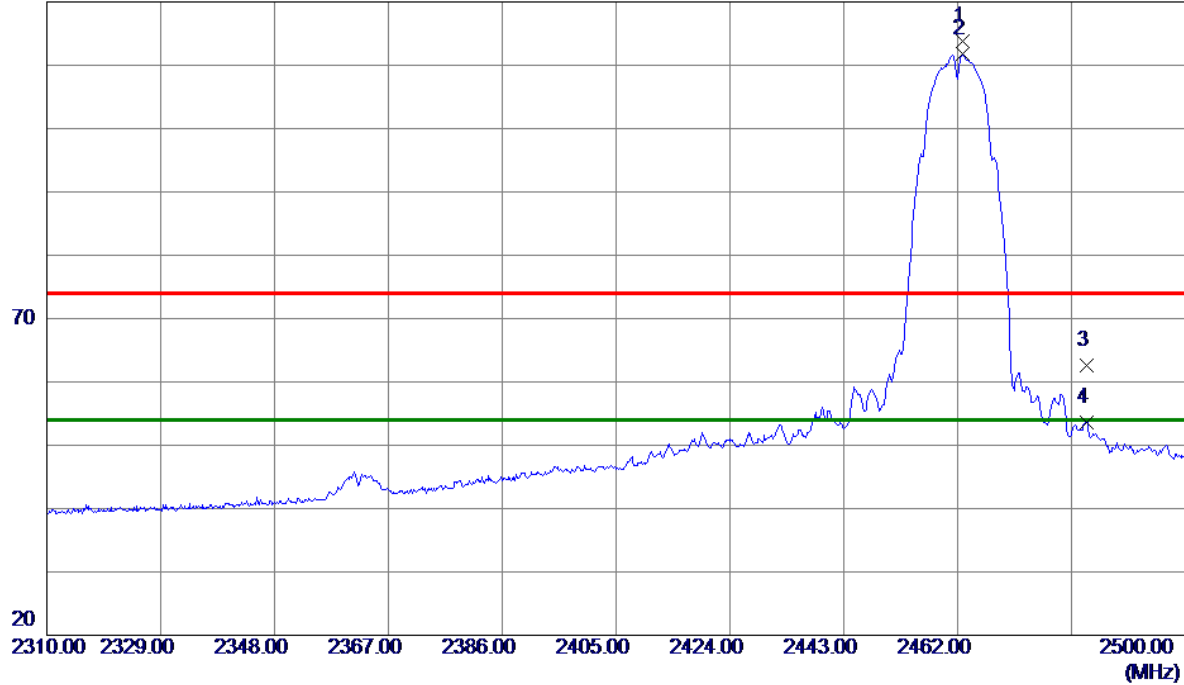
(1) Measurement Value = Reading Level + Correct Factor.

(2) Margin Level = Measurement Value - Limit Value.

Test Mode: TX B Mode 2462 MHz

Vertical

120 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2462.8550	82.04	31.71	113.75	74.00	39.75	Peak	No limit
2 *	2462.8550	80.05	31.71	111.76	54.00	57.76	AVG	No limit
3	2483.5000	30.91	31.71	62.62	74.00	-11.38	Peak	
4	2483.5000	21.85	31.71	53.56	54.00	-0.44	AVG	

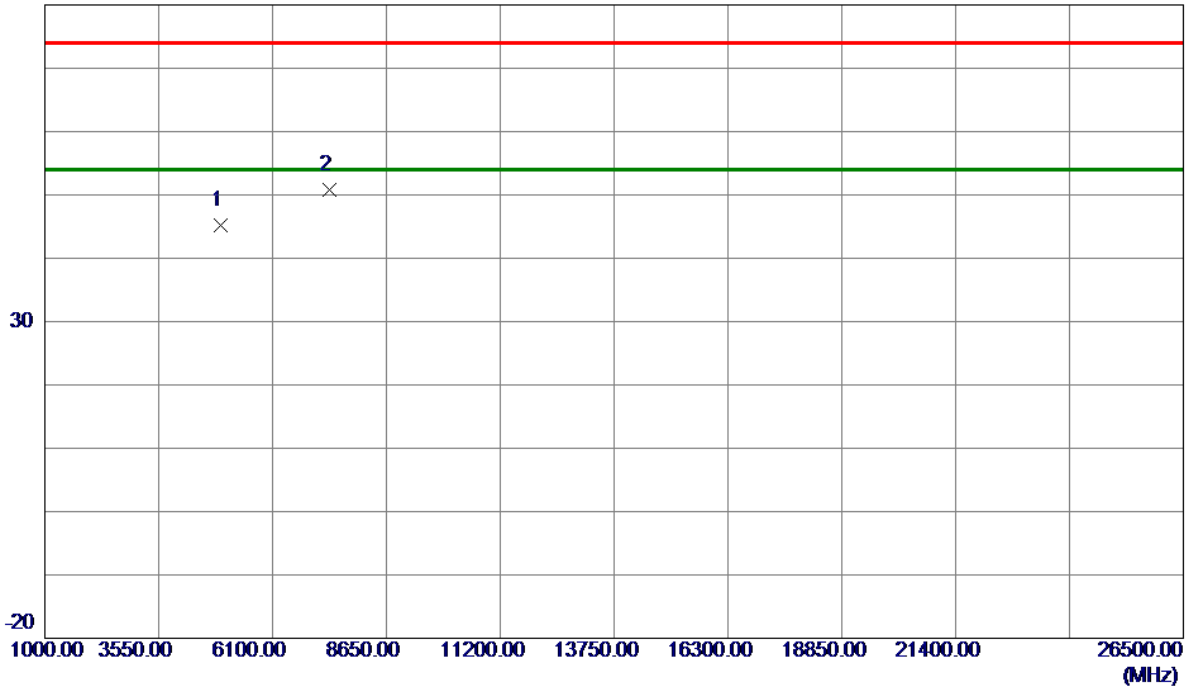
REMARKS:

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

Test Mode: TX B Mode 2462 MHz

Vertical

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4927.0000	60.96	-15.82	45.14	74.00	-28.86	Peak	
2 *	7387.7500	61.56	-10.79	50.77	74.00	-23.23	Peak	

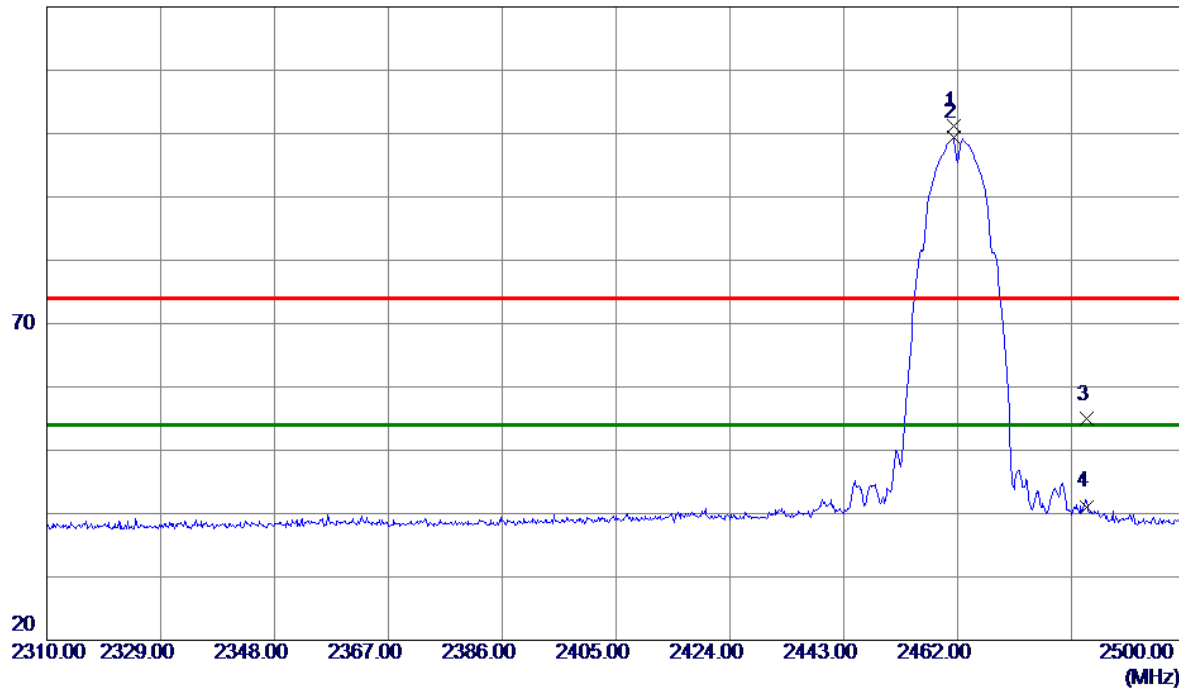
REMARKS:

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

Test Mode: TX B Mode 2462 MHz

Horizontal

120 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2461.3350	69.48	31.71	101.19	74.00	27.19	Peak	No limit
2 *	2461.3350	67.67	31.71	99.38	54.00	45.38	AVG	No limit
3	2483.5000	23.19	31.71	54.90	74.00	-19.10	Peak	
4	2483.5000	9.39	31.71	41.10	54.00	-12.90	AVG	

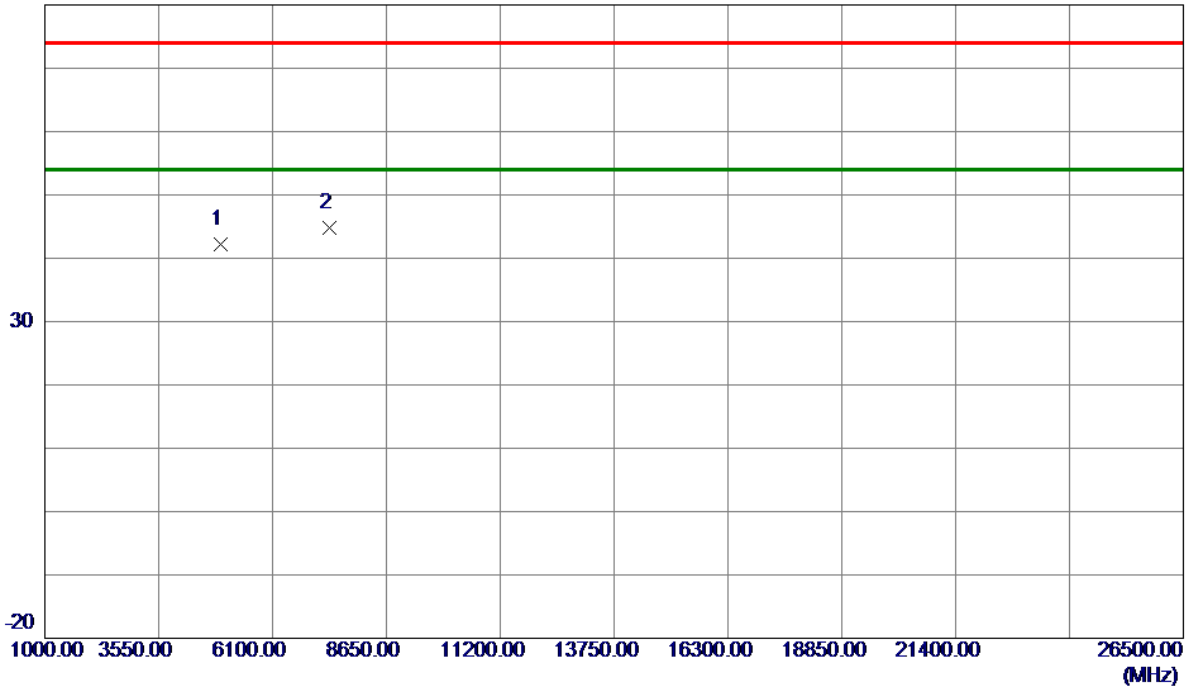
REMARKS:

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

Test Mode: TX B Mode 2462 MHz

Horizontal

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4927.0000	58.11	-15.82	42.29	74.00	-31.71	Peak	
2 *	7387.7500	55.61	-10.79	44.82	74.00	-29.18	Peak	

REMARKS:

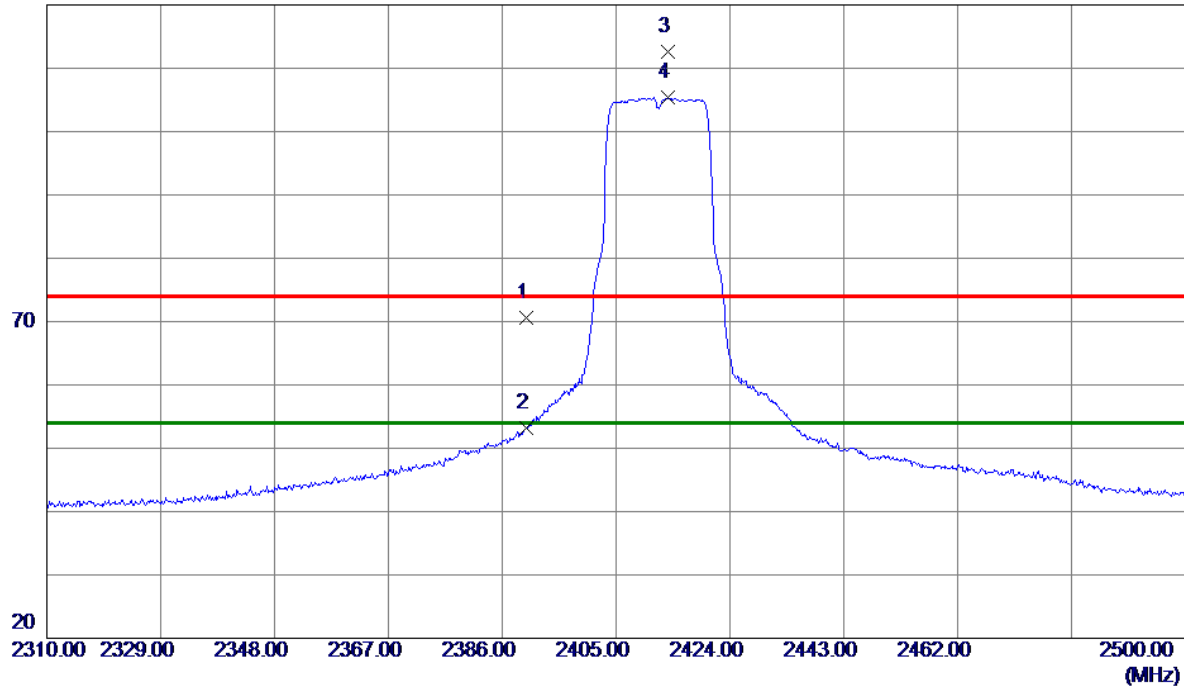
(1) Measurement Value = Reading Level + Correct Factor.

(2) Margin Level = Measurement Value - Limit Value.

Test Mode: TX G Mode 2412 MHz

Vertical

120 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	38.85	31.74	70.59	74.00	-3.41	Peak	
2	2390.0000	21.49	31.74	53.23	54.00	-0.77	AVG	
3	2413.7400	80.91	31.72	112.63	74.00	38.63	Peak	No limit
4 *	2413.7400	73.62	31.72	105.34	54.00	51.34	AVG	No limit

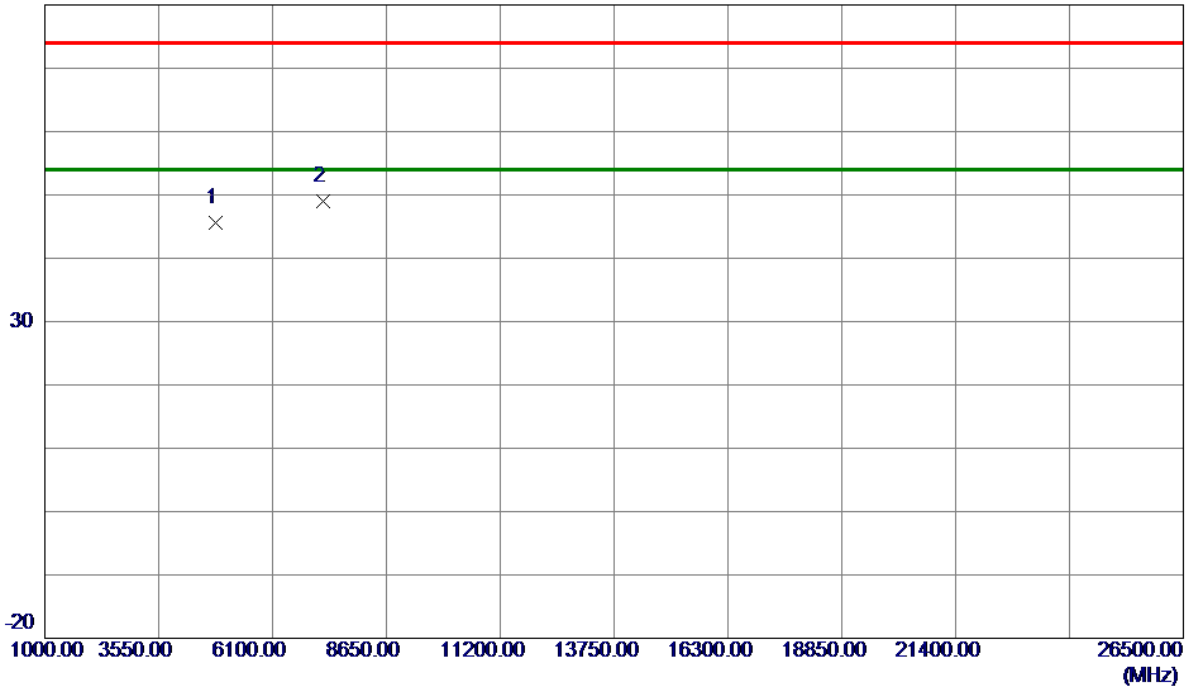
REMARKS:

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

Test Mode: TX G Mode 2412 MHz

Vertical

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4825.0000	61.71	-16.03	45.68	74.00	-28.32	Peak	
2 *	7234.7500	59.88	-10.85	49.03	74.00	-24.97	Peak	

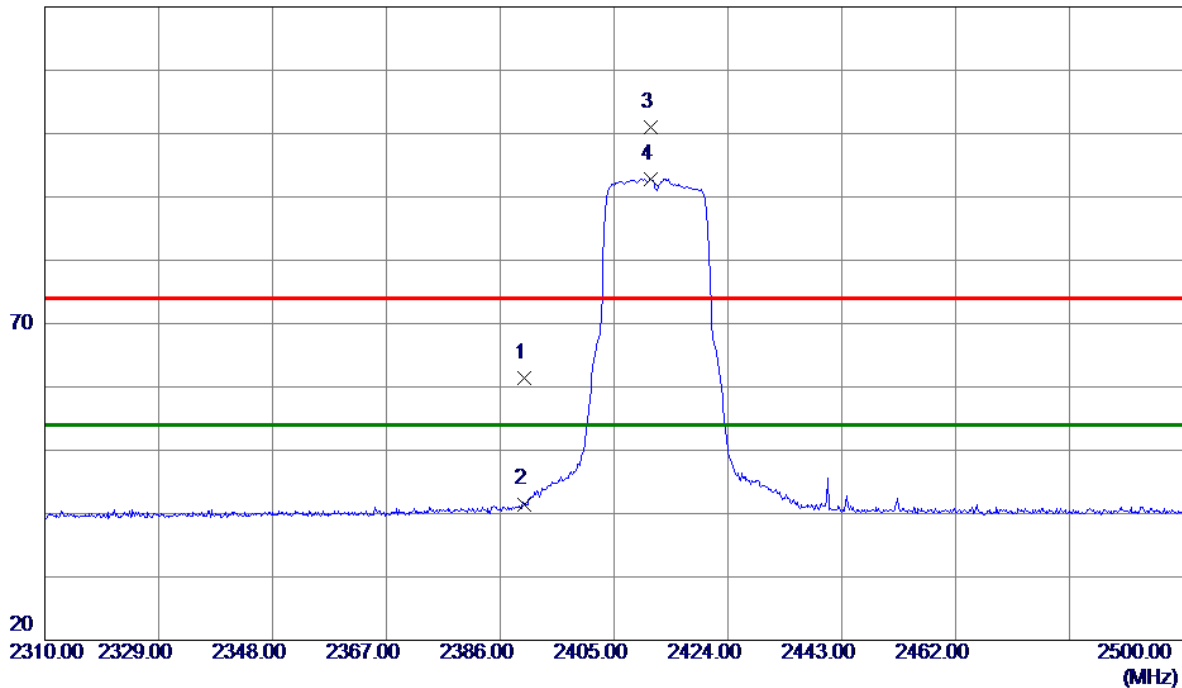
REMARKS:

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

Test Mode: TX G Mode 2412 MHz

Horizontal

120 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	29.74	31.74	61.48	74.00	-12.52	Peak	
2	2390.0000	9.76	31.74	41.50	54.00	-12.50	AVG	
3	2411.1750	69.30	31.72	101.02	74.00	27.02	Peak	No limit
4 *	2411.1750	61.12	31.72	92.84	54.00	38.84	AVG	No limit

REMARKS:

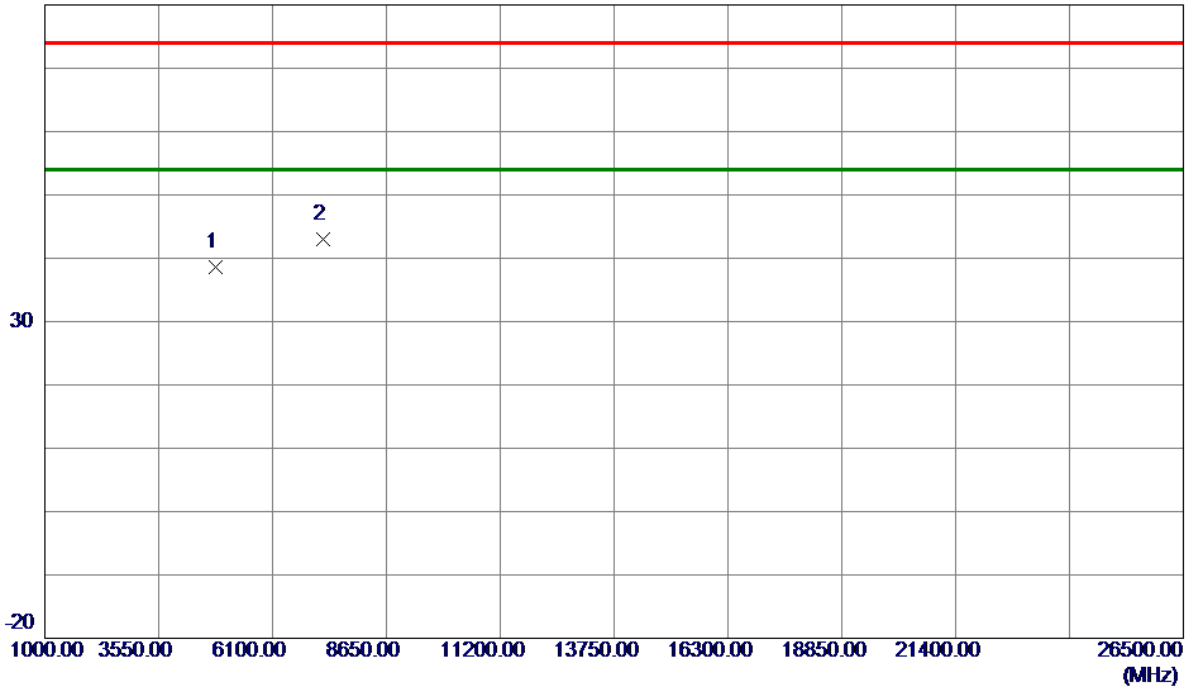
(1) Measurement Value = Reading Level + Correct Factor.

(2) Margin Level = Measurement Value - Limit Value.

Test Mode:	TX G Mode 2412 MHz
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Horizontal

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4825.0000	54.69	-16.03	38.66	74.00	-35.34	Peak	
2 *	7234.7500	53.84	-10.85	42.99	74.00	-31.01	Peak	

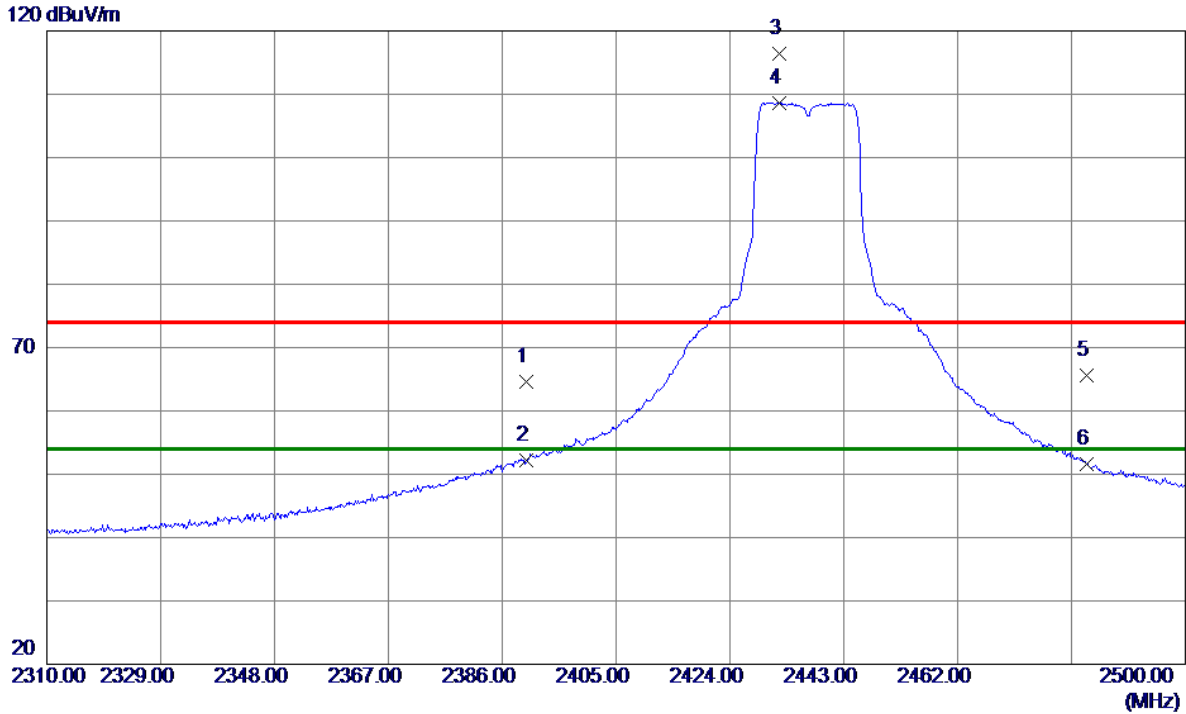
REMARKS:

(1) Measurement Value = Reading Level + Correct Factor.

(2) Margin Level = Measurement Value - Limit Value.

Test Mode: TX G Mode 2437 MHz

Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	32.85	31.74	64.59	74.00	-9.41	Peak	
2	2390.0000	20.45	31.74	52.19	54.00	-1.81	AVG	
3	2432.1700	84.71	31.72	116.43	74.00	42.43	Peak	No limit
4 *	2432.1700	76.97	31.72	108.69	54.00	54.69	AVG	No limit
5	2483.5000	33.87	31.71	65.58	74.00	-8.42	Peak	
6	2483.5000	19.82	31.71	51.53	54.00	-2.47	AVG	

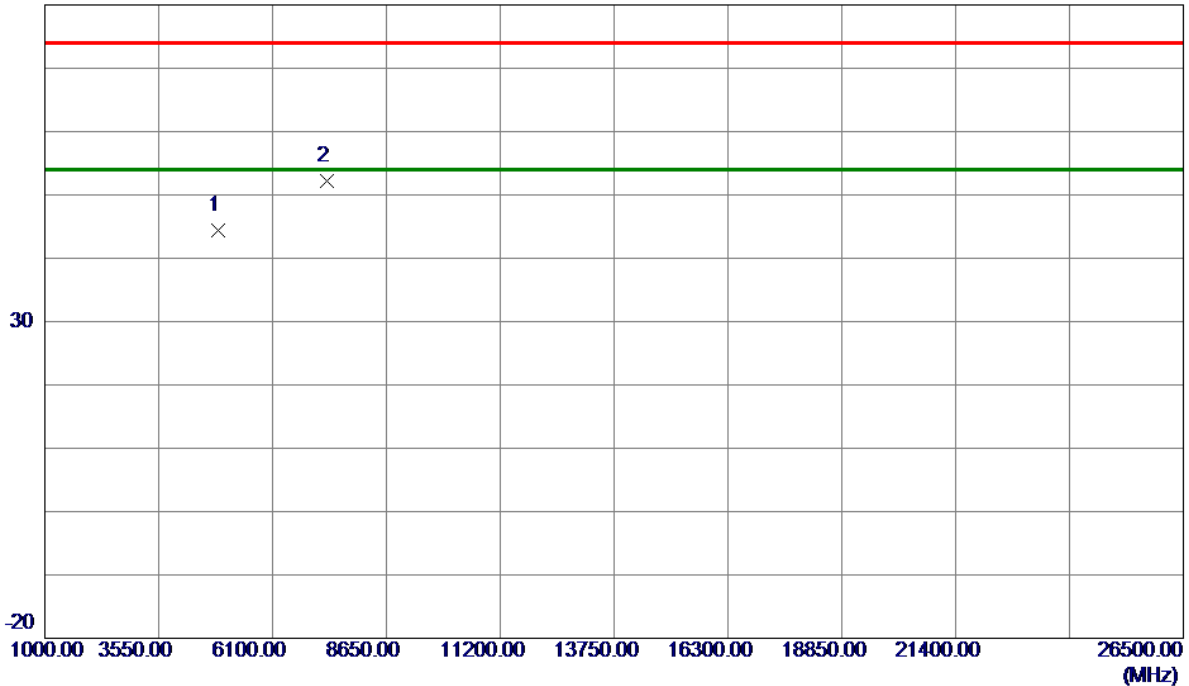
REMARKS:

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

Test Mode: TX G Mode 2437 MHz

Vertical

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4876.0000	60.30	-15.96	44.34	74.00	-29.66	Peak	
2 *	7311.2500	63.00	-10.82	52.18	74.00	-21.82	Peak	

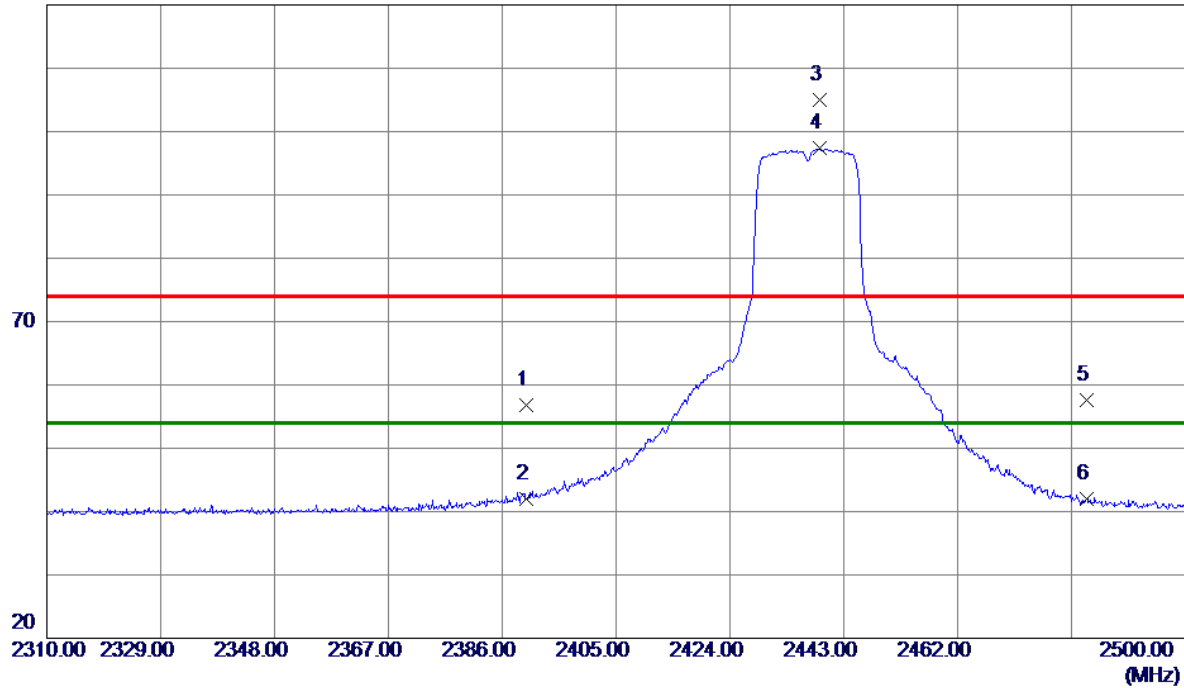
REMARKS:

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

Test Mode: TX G Mode 2437 MHz

Horizontal

120 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	24.99	31.74	56.73	74.00	-17.27	Peak	
2	2390.0000	10.31	31.74	42.05	54.00	-11.95	AVG	
3	2438.9150	73.23	31.72	104.95	74.00	30.95	Peak	No limit
4 *	2438.9150	65.65	31.72	97.37	54.00	43.37	AVG	No limit
5	2483.5000	25.90	31.71	57.61	74.00	-16.39	Peak	
6	2483.5000	10.29	31.71	42.00	54.00	-12.00	AVG	

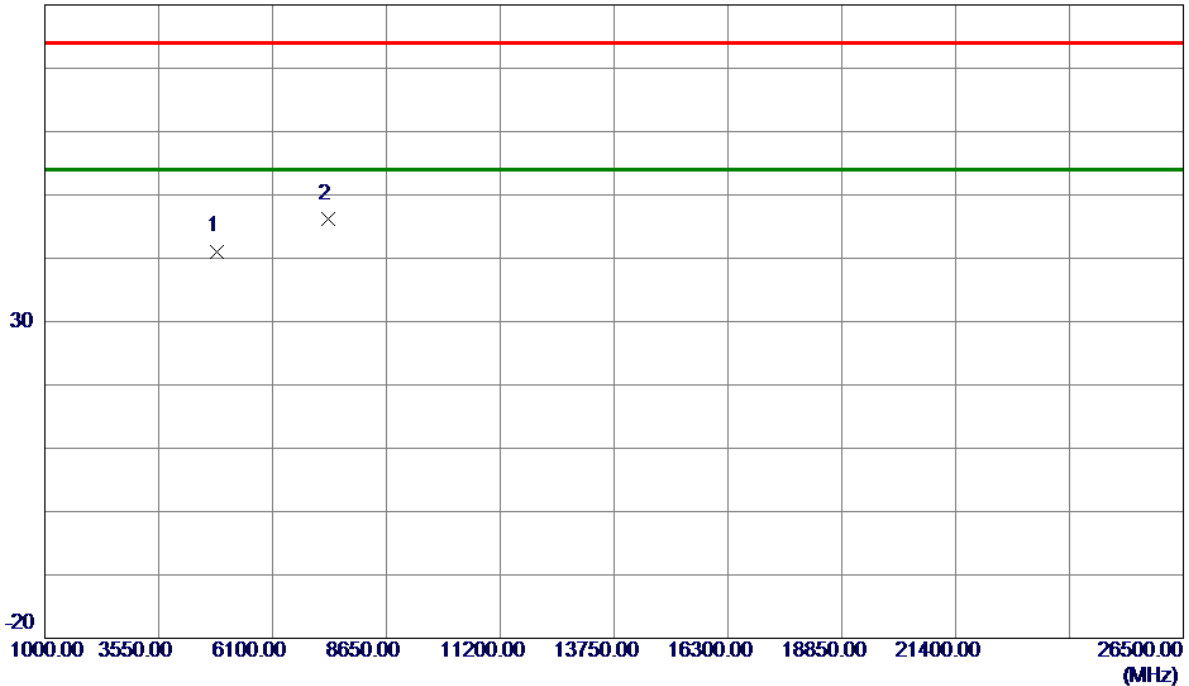
REMARKS:

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

Test Mode: TX G Mode 2437 MHz

Horizontal

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4863.2500	57.08	-15.98	41.10	74.00	-32.90	Peak	
2 *	7336.7500	57.04	-10.81	46.23	74.00	-27.77	Peak	

REMARKS:

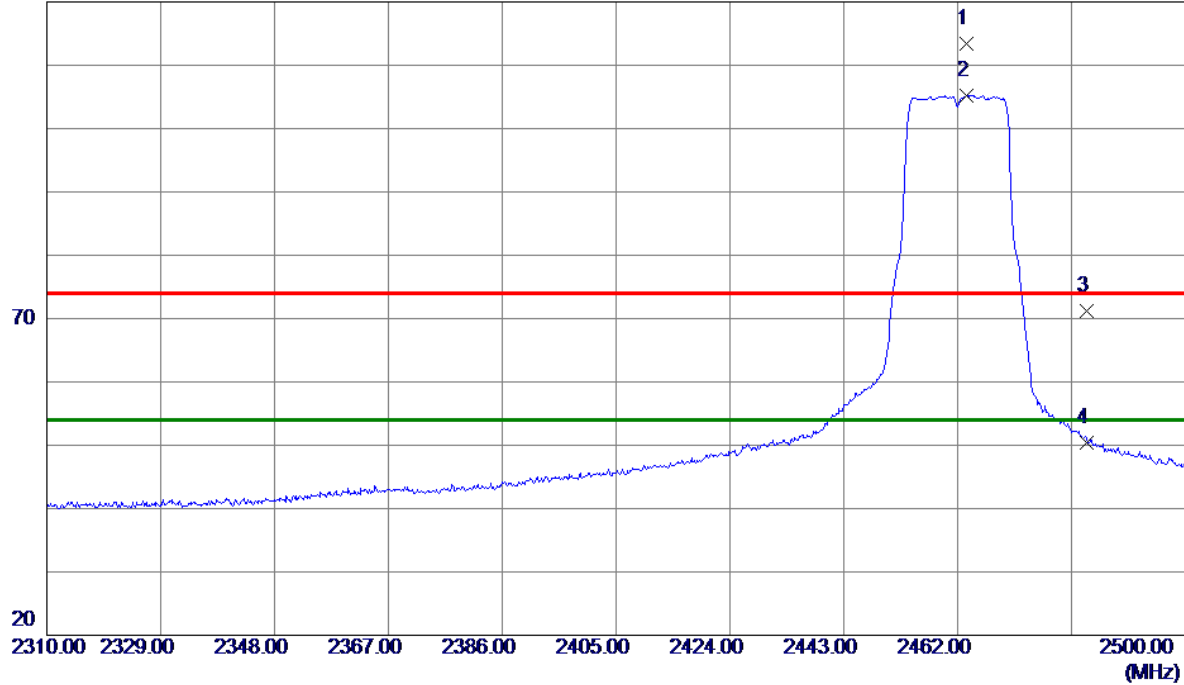
(1) Measurement Value = Reading Level + Correct Factor.

(2) Margin Level = Measurement Value - Limit Value.

Test Mode: TX G Mode 2462 MHz

Vertical

120 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2463.5200	81.68	31.71	113.39	74.00	39.39	Peak	No limit
2 *	2463.5200	73.50	31.71	105.21	54.00	51.21	AVG	No limit
3	2483.5000	39.54	31.71	71.25	74.00	-2.75	Peak	
4	2483.5000	18.76	31.71	50.47	54.00	-3.53	AVG	

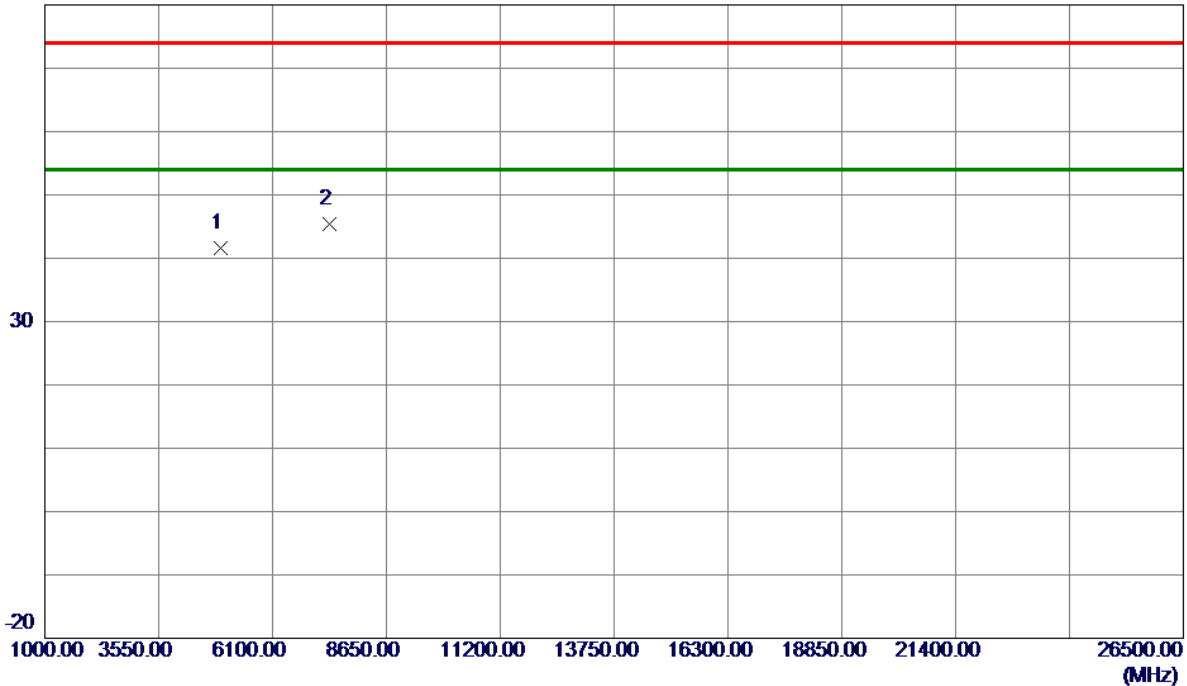
REMARKS:

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

Test Mode:	TX G Mode 2462 MHz
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Vertical

80 dBuV/m



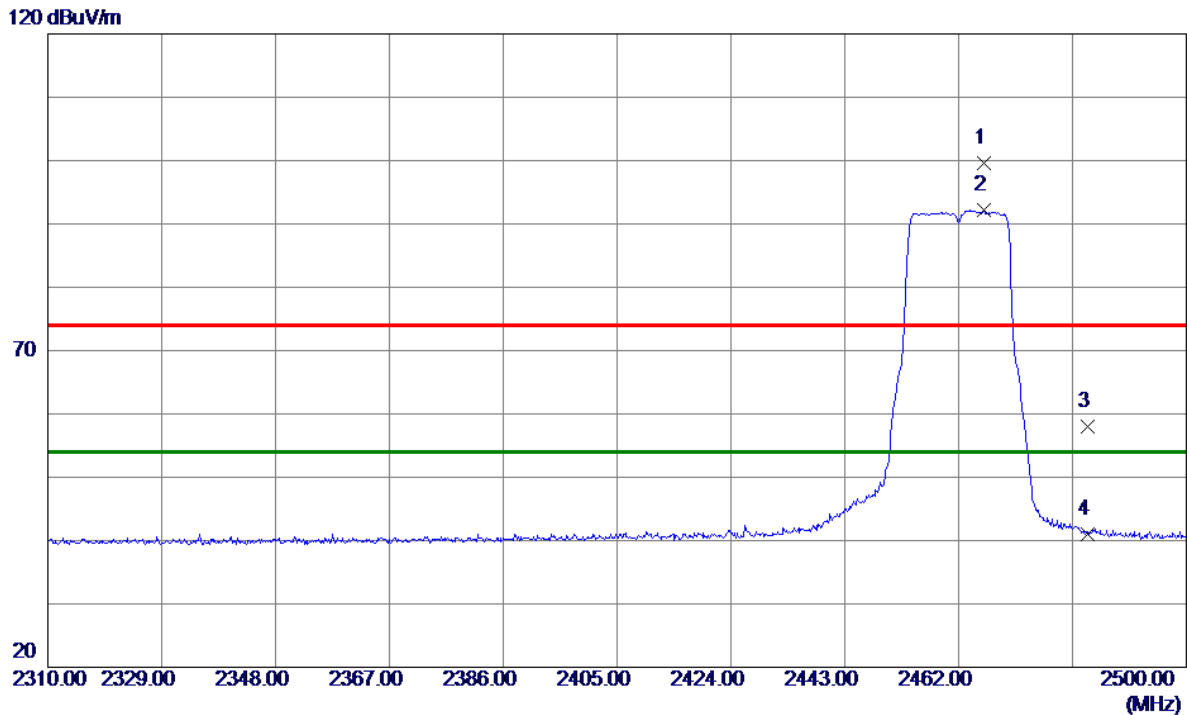
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4927.0000	57.37	-15.82	41.55	74.00	-32.45	Peak	
2 *	7375.0000	56.27	-10.79	45.48	74.00	-28.52	Peak	

REMARKS:

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

Test Mode: TX G Mode 2462 MHz

Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2466.1800	67.91	31.71	99.62	74.00	25.62	Peak	No limit
2 *	2466.1800	60.45	31.71	92.16	54.00	38.16	AVG	No limit
3	2483.5000	26.24	31.71	57.95	74.00	-16.05	Peak	
4	2483.5000	9.27	31.71	40.98	54.00	-13.02	AVG	

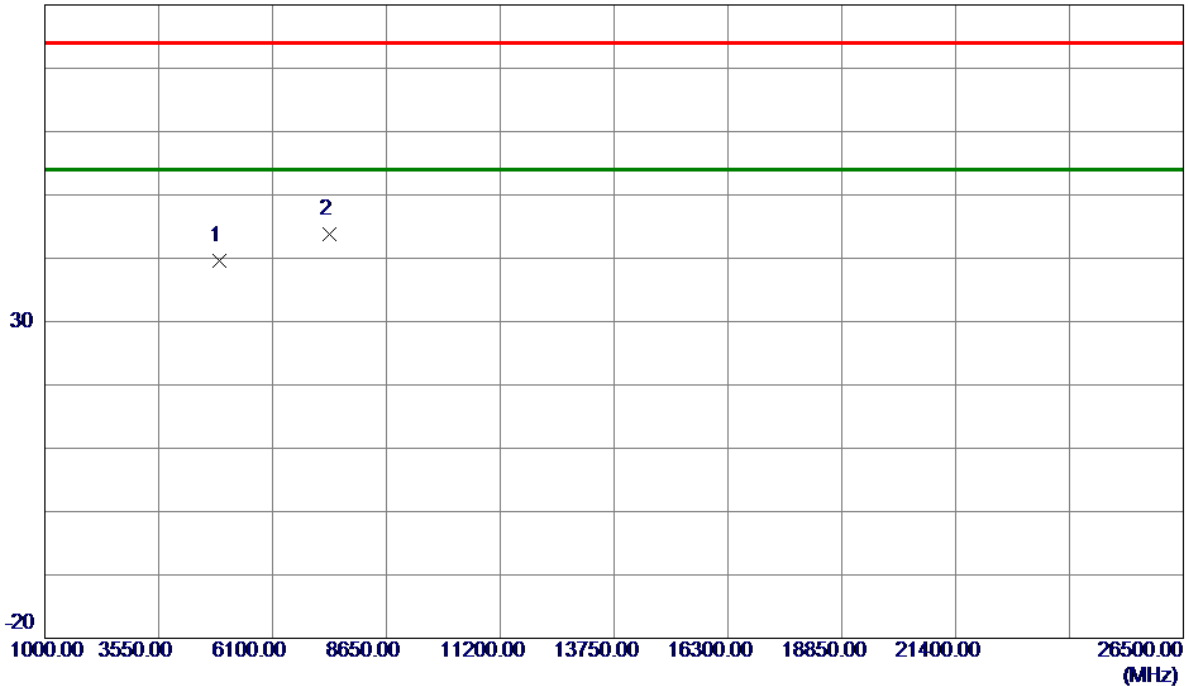
REMARKS:

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

Test Mode: TX G Mode 2462 MHz

Horizontal

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4914.2500	55.56	-15.87	39.69	74.00	-34.31	Peak	
2 *	7375.0000	54.56	-10.79	43.77	74.00	-30.23	Peak	

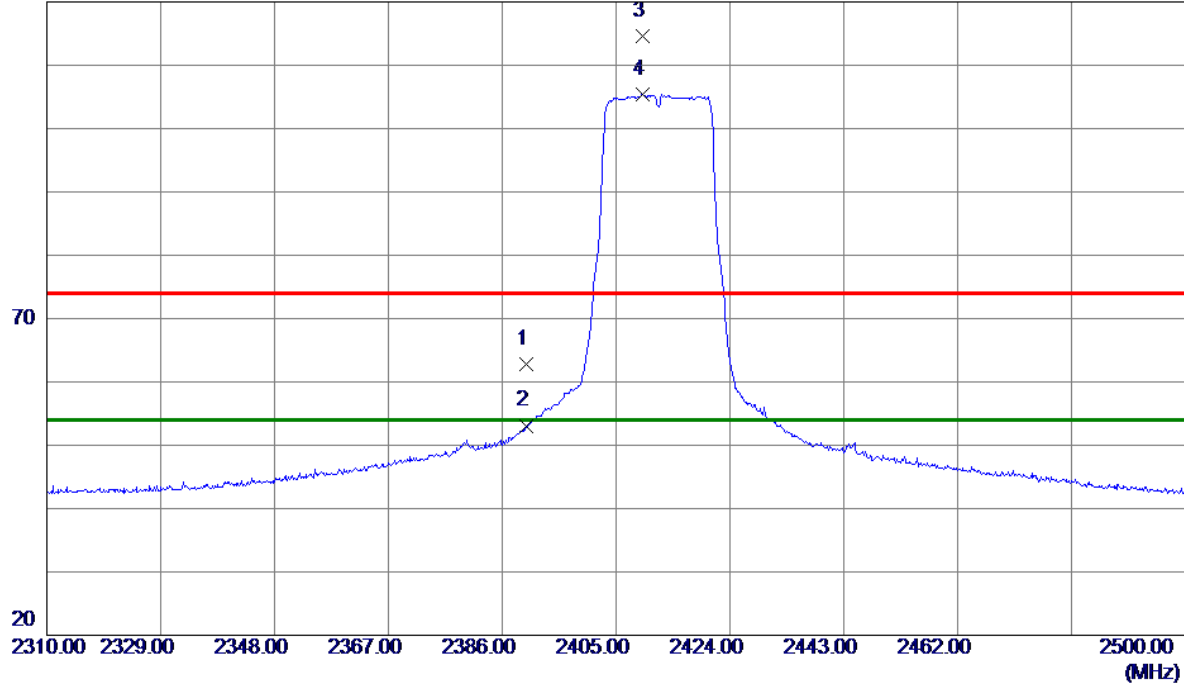
REMARKS:

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

Test Mode: TX N-20M Mode 2412 MHz

Vertical

120 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	31.10	31.74	62.84	74.00	-11.16	Peak	
2	2390.0000	21.36	31.74	53.10	54.00	-0.90	AVG	
3	2409.4650	82.91	31.72	114.63	74.00	40.63	Peak	No limit
4 *	2409.4650	73.69	31.72	105.41	54.00	51.41	AVG	No limit

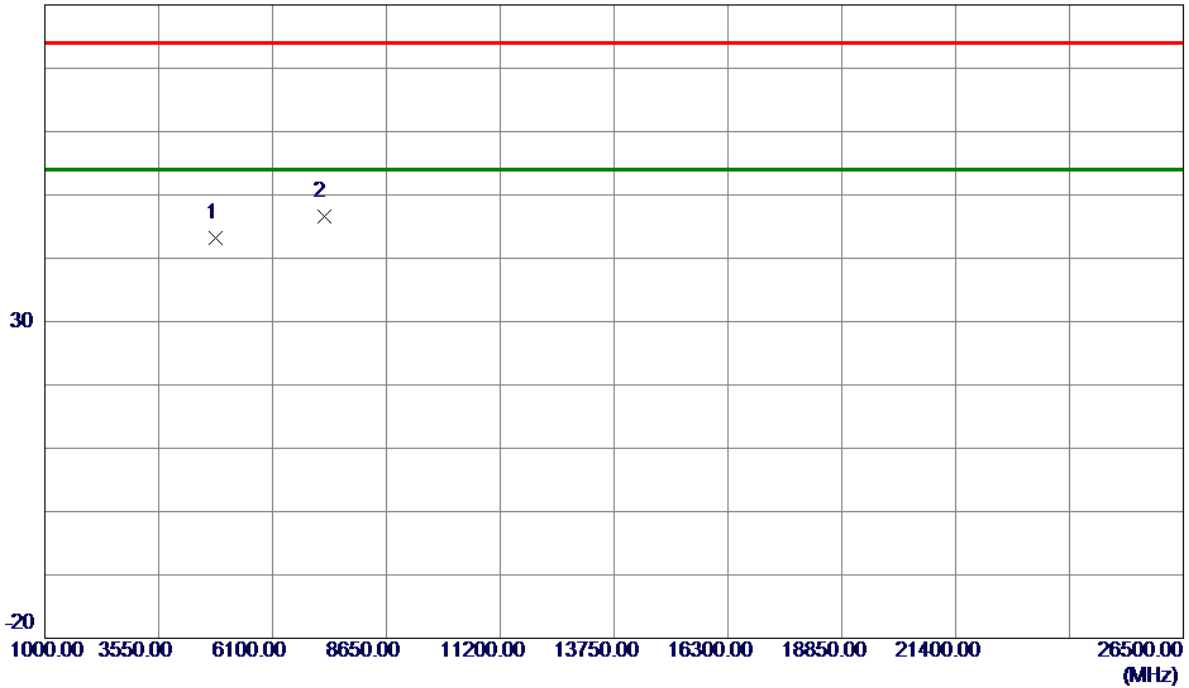
REMARKS:

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

Test Mode: TX N-20M Mode 2412 MHz

Vertical

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4825.0000	59.23	-16.03	43.20	74.00	-30.80	Peak	
2 *	7247.5000	57.45	-10.84	46.61	74.00	-27.39	Peak	

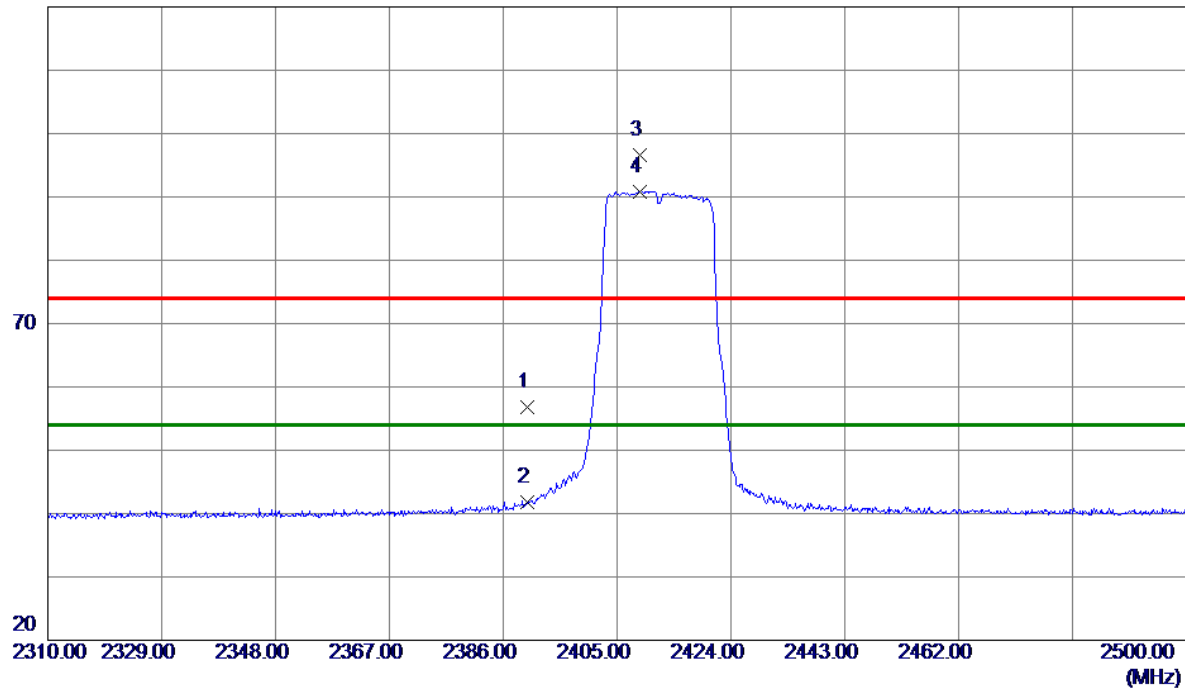
REMARKS:

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

Test Mode: TX N-20M Mode 2412 MHz

Horizontal

120 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	25.05	31.74	56.79	74.00	-17.21	Peak	
2	2390.0000	10.05	31.74	41.79	54.00	-12.21	AVG	
3	2408.8950	64.95	31.72	96.67	74.00	22.67	Peak	No limit
4 *	2408.8950	59.15	31.72	90.87	54.00	36.87	AVG	No limit

REMARKS:

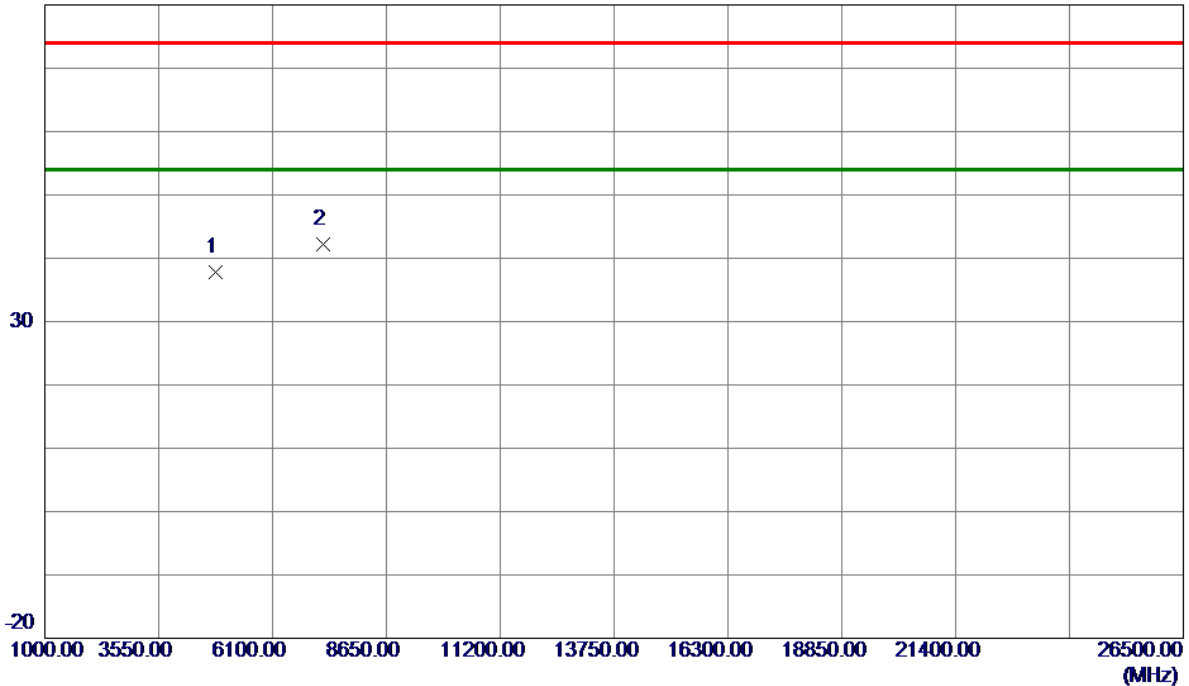
(1) Measurement Value = Reading Level + Correct Factor.

(2) Margin Level = Measurement Value - Limit Value.

Test Mode: TX N-20M Mode 2412 MHz

Horizontal

80 dBuV/m



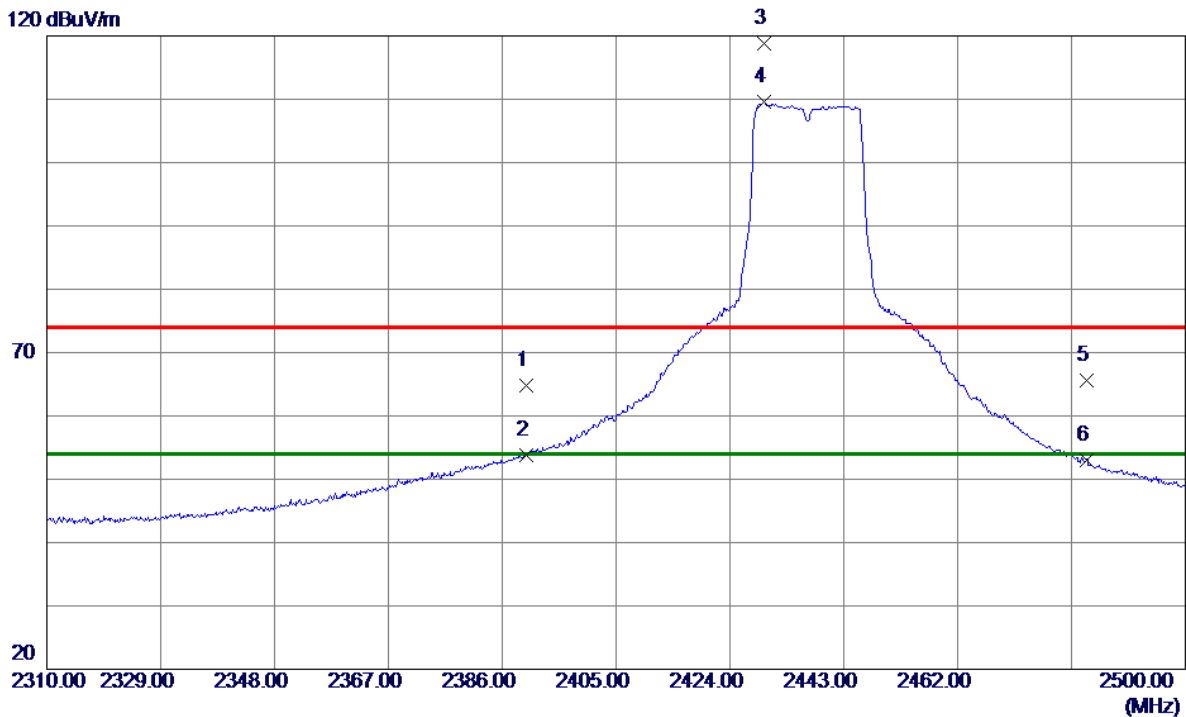
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4824.0000	53.81	-16.04	37.77	74.00	-36.23	Peak	
2 *	7236.0000	53.09	-10.85	42.24	74.00	-31.76	Peak	

REMARKS:

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

Test Mode: TX N-20M Mode 2437 MHz

Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	33.09	31.74	64.83	74.00	-9.17	Peak	
2	2390.0000	22.10	31.74	53.84	54.00	-0.16	AVG	
3	2429.7950	87.00	31.72	118.72	74.00	44.72	Peak	No limit
4 *	2429.7950	77.85	31.72	109.57	54.00	55.57	AVG	No limit
5	2483.5000	33.88	31.71	65.59	74.00	-8.41	Peak	
6	2483.5000	21.32	31.71	53.03	54.00	-0.97	AVG	

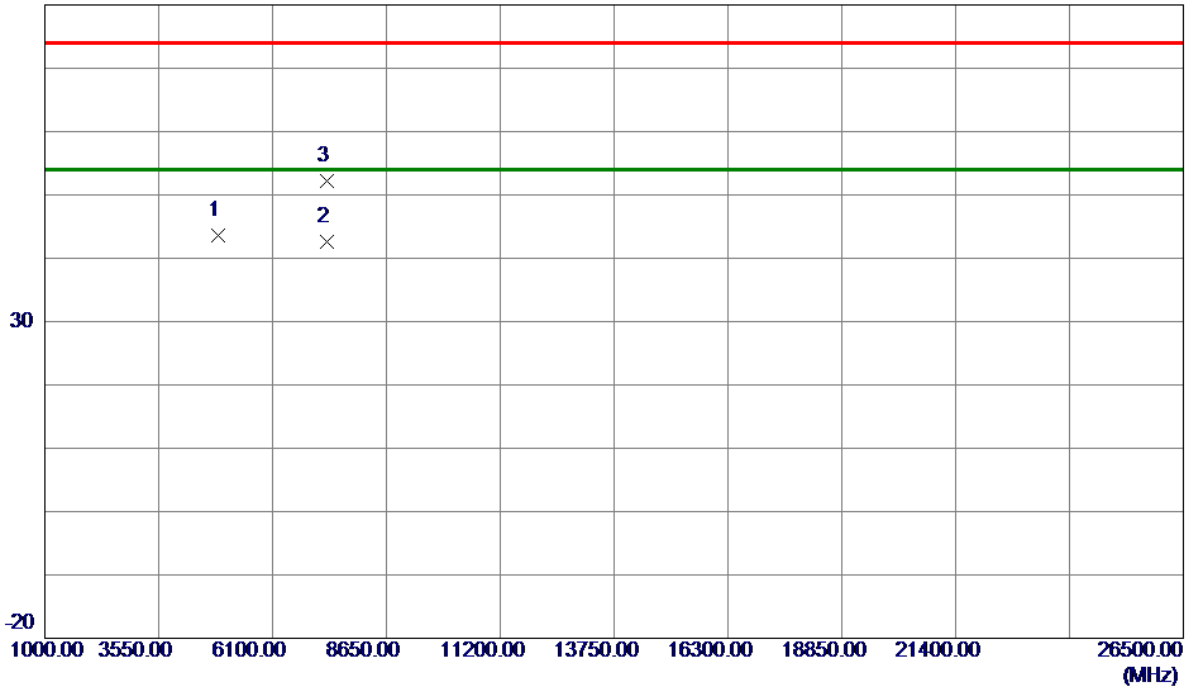
REMARKS:

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

Test Mode: TX N-20M Mode 2437 MHz

Vertical

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4876.0000	59.52	-15.96	43.56	74.00	-30.44	Peak	
2 *	7310.9600	53.46	-10.82	42.64	54.00	-11.36	AVG	
3	7311.2500	62.99	-10.82	52.17	74.00	-21.83	Peak	

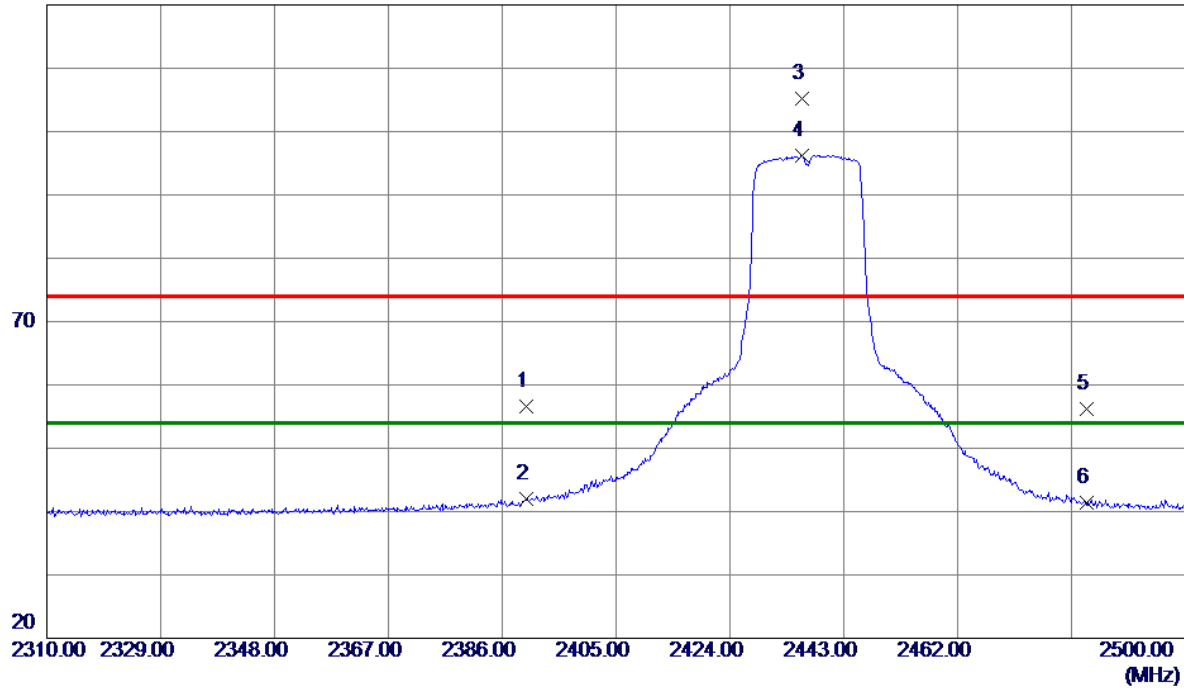
REMARKS:

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

Test Mode: TX N-20M Mode 2437 MHz

Horizontal

120 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	24.82	31.74	56.56	74.00	-17.44	Peak	
2	2390.0000	10.32	31.74	42.06	54.00	-11.94	AVG	
3	2436.0650	73.46	31.72	105.18	74.00	31.18	Peak	No limit
4 *	2436.0650	64.51	31.72	96.23	54.00	42.23	AVG	No limit
5	2483.5000	24.43	31.71	56.14	74.00	-17.86	Peak	
6	2483.5000	9.62	31.71	41.33	54.00	-12.67	AVG	

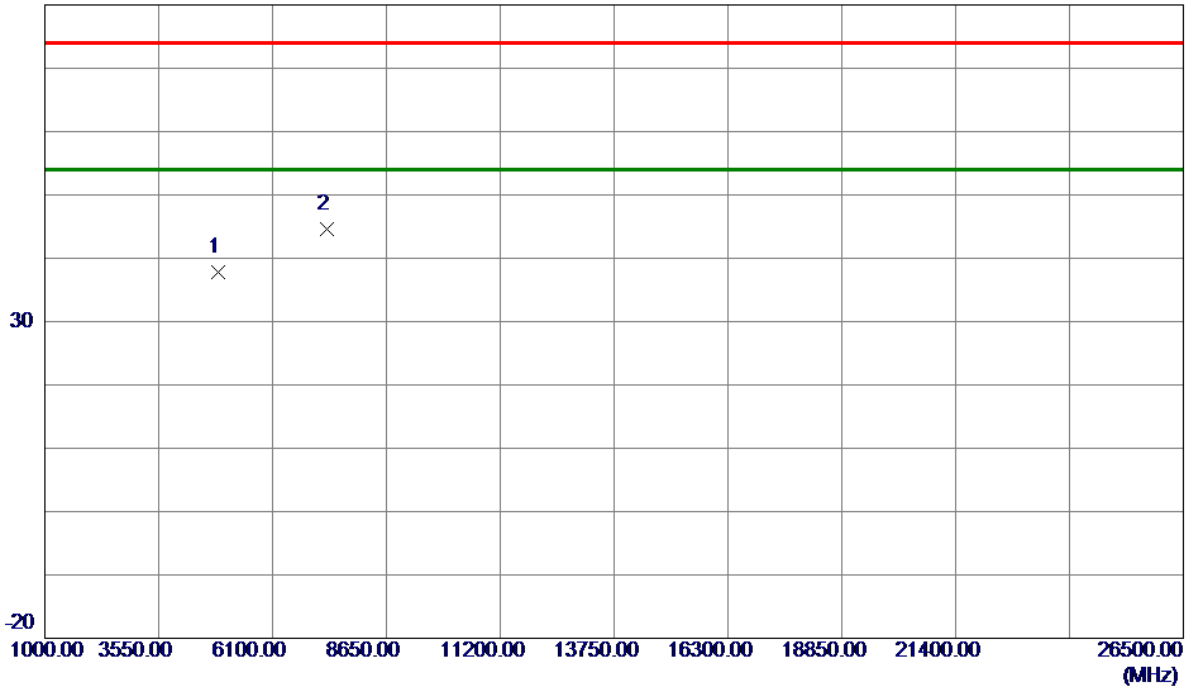
REMARKS:

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

Test Mode: TX N-20M Mode 2437 MHz

Horizontal

80 dBuV/m



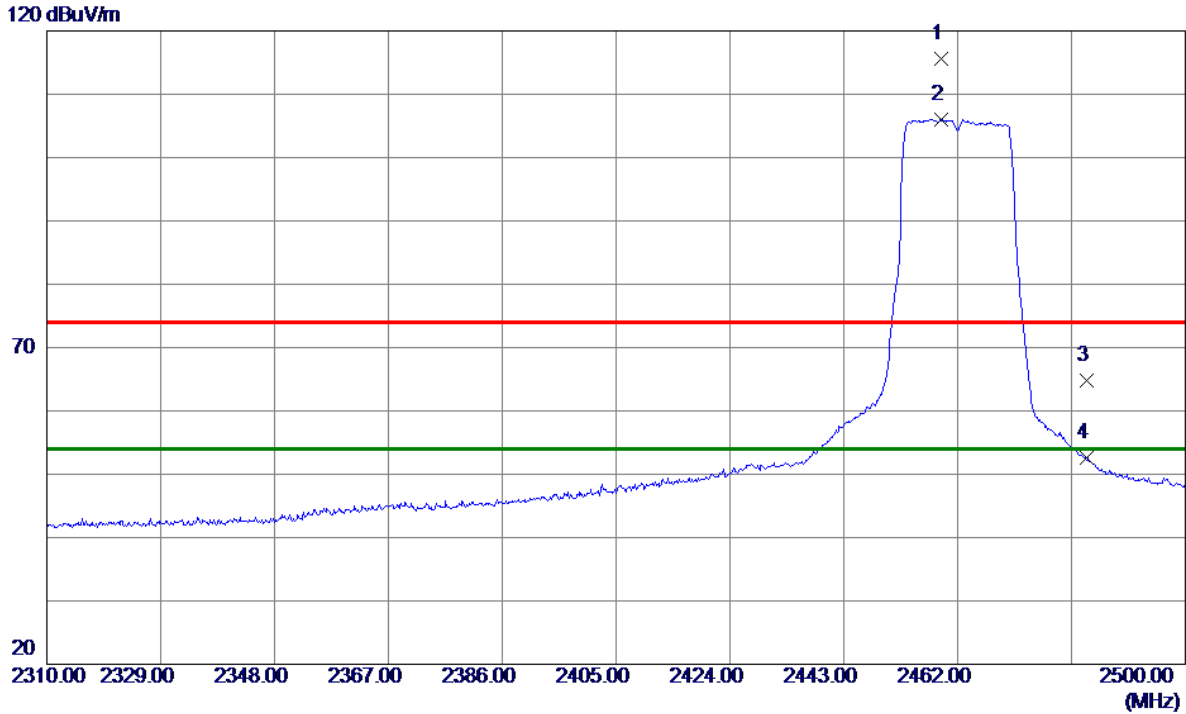
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4874.0000	53.80	-15.96	37.84	74.00	-36.16	Peak	
2 *	7324.0000	55.35	-10.81	44.54	74.00	-29.46	Peak	

REMARKS:

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

Test Mode: TX N-20M Mode 2462 MHz

Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2459.1500	83.98	31.71	115.69	74.00	41.69	Peak	No limit
2 *	2459.1500	74.37	31.71	106.08	54.00	52.08	AVG	No limit
3	2483.5000	33.14	31.71	64.85	74.00	-9.15	Peak	
4	2483.5000	20.84	31.71	52.55	54.00	-1.45	AVG	

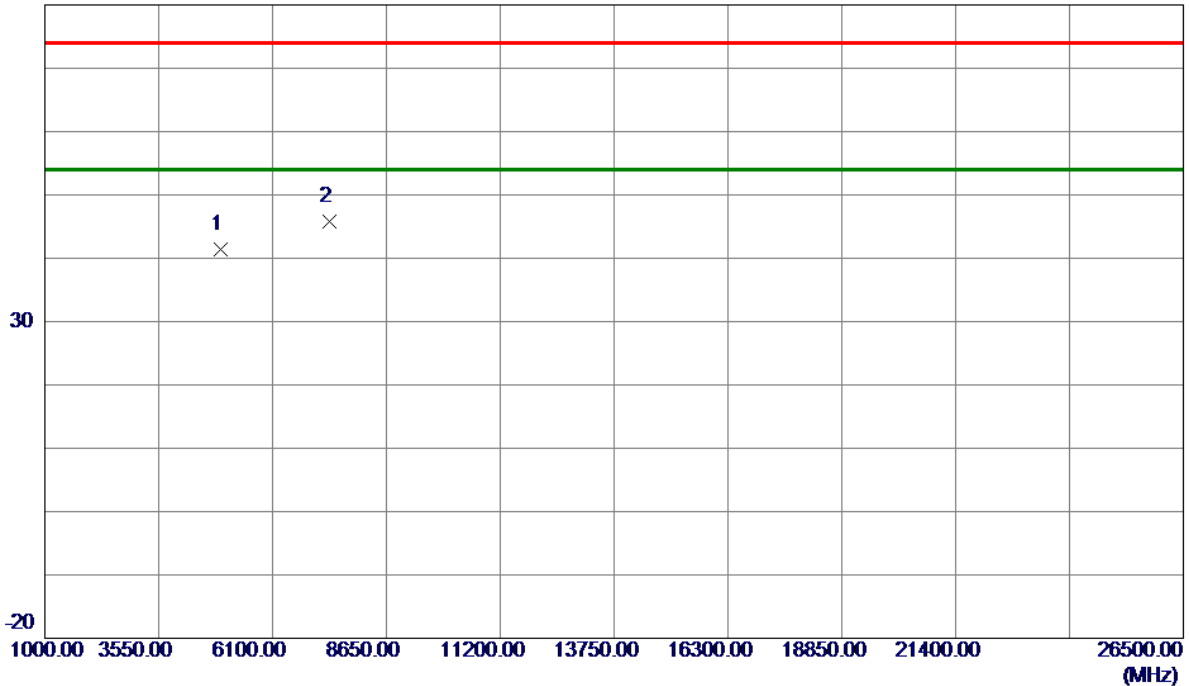
REMARKS:

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

Test Mode: TX N-20M Mode 2462 MHz

Vertical

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4927.0000	57.30	-15.82	41.48	74.00	-32.52	Peak	
2 *	7387.7500	56.67	-10.79	45.88	74.00	-28.12	Peak	

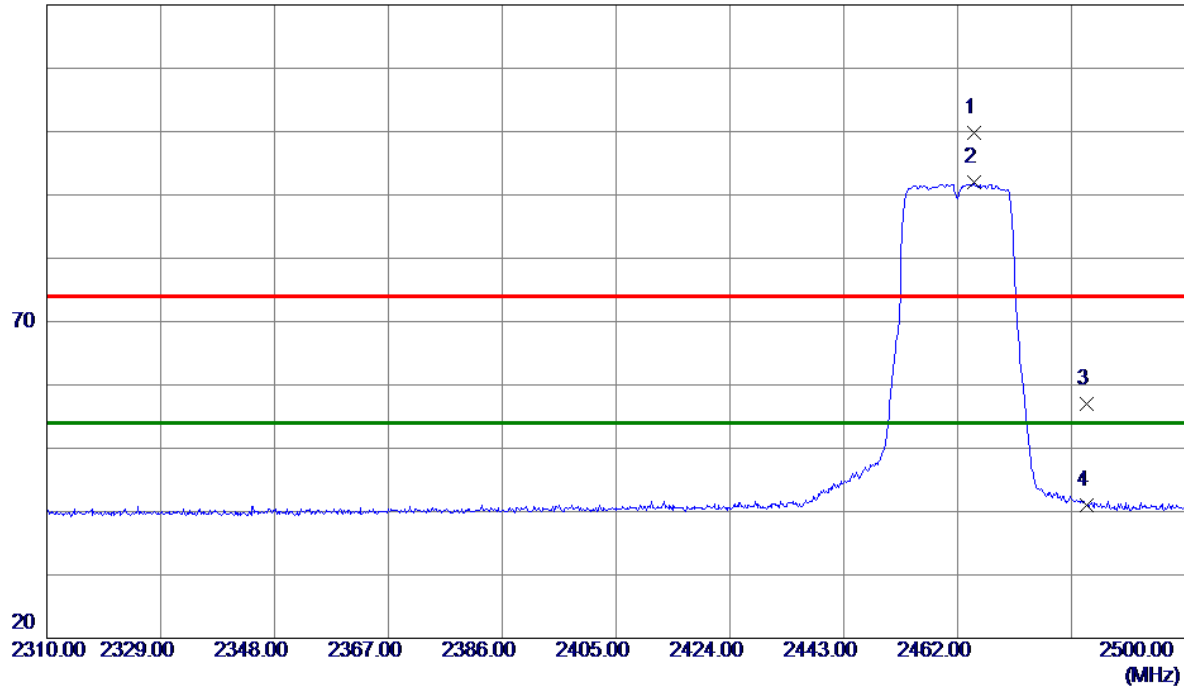
REMARKS:

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

Test Mode: TX N-20M Mode 2462 MHz

Horizontal

120 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2464.7549	68.11	31.71	99.82	74.00	25.82	Peak	No limit
2 *	2464.7549	60.19	31.71	91.90	54.00	37.90	AVG	No limit
3	2483.5000	25.24	31.71	56.95	74.00	-17.05	Peak	
4	2483.5000	9.32	31.71	41.03	54.00	-12.97	AVG	

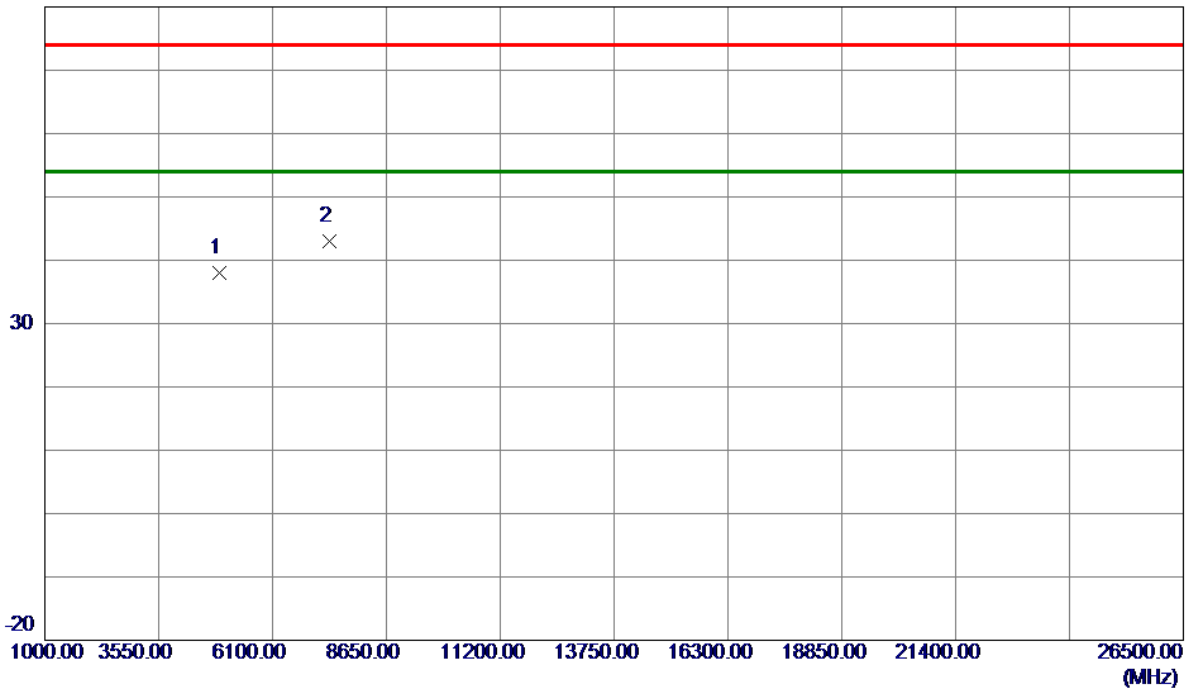
REMARKS:

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

Test Mode: TX N-20M Mode 2462 MHz

Horizontal

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4924.0000	53.89	-15.84	38.05	74.00	-35.95	Peak	
2 *	7387.1100	53.75	-10.79	42.96	74.00	-31.04	Peak	

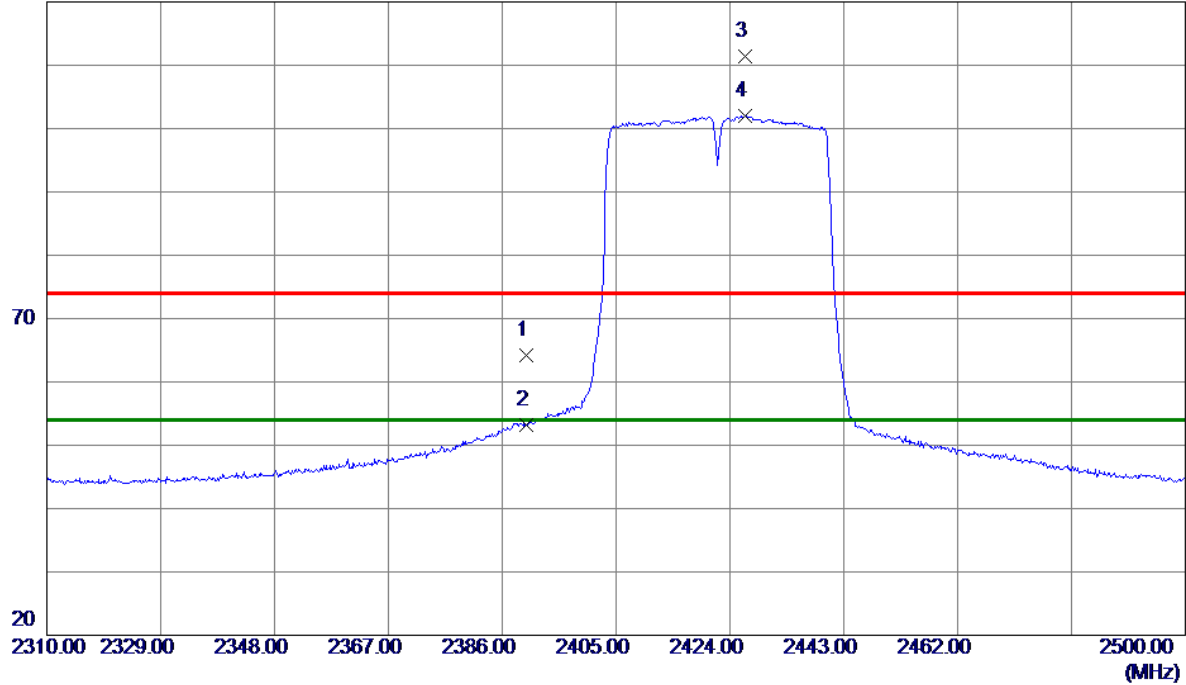
REMARKS:

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

Test Mode: TX N-40M Mode 2422MHz

Vertical

120 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	32.37	31.74	64.11	74.00	-9.89	Peak	
2	2390.0000	21.49	31.74	53.23	54.00	-0.77	AVG	
3	2426.4700	79.73	31.72	111.45	74.00	37.45	Peak	No limit
4 *	2426.4700	70.31	31.72	102.03	54.00	48.03	AVG	No limit

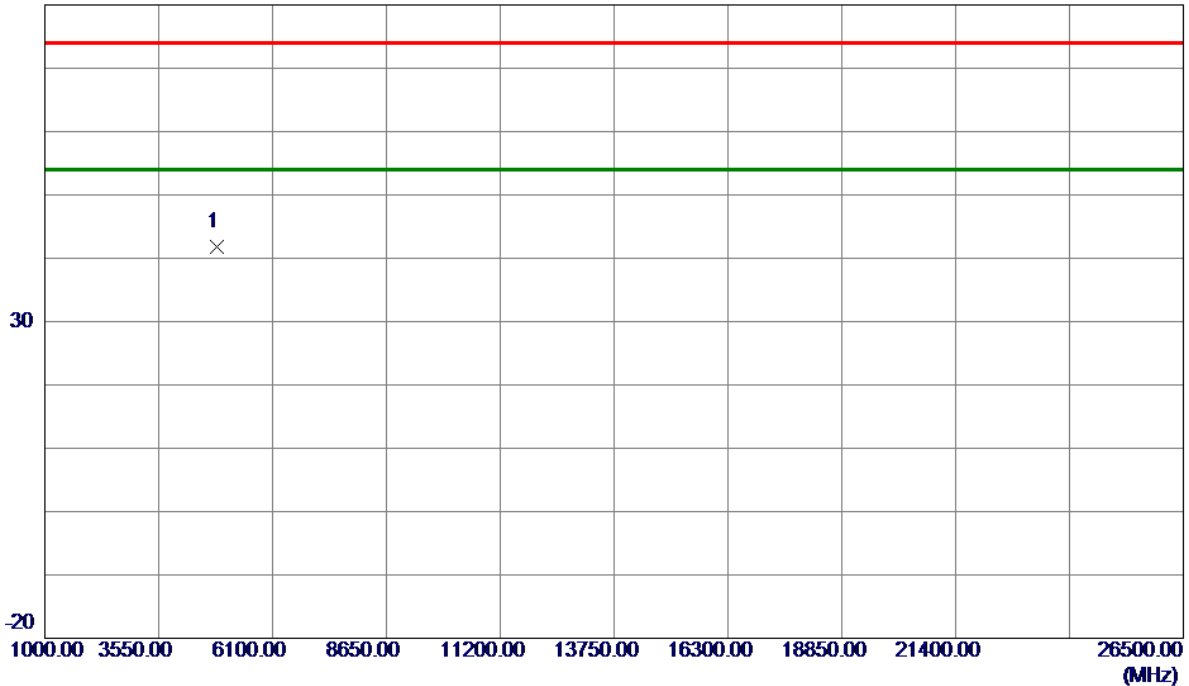
REMARKS:

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

Test Mode: TX N-40M Mode 2422MHz

Vertical

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	4842.8500	57.78	-16.01	41.77	74.00	-32.23	Peak	

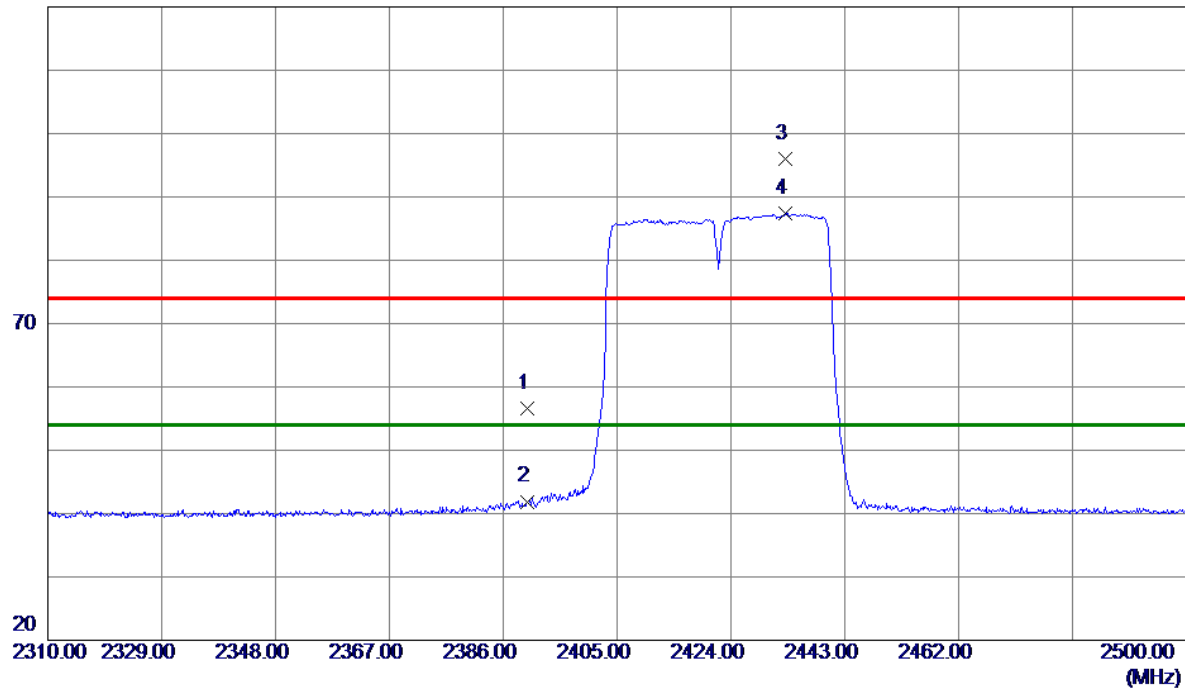
REMARKS:

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

Test Mode: TX N-40M Mode 2422MHz

Horizontal

120 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	24.77	31.74	56.51	74.00	-17.49	Peak	
2	2390.0000	10.16	31.74	41.90	54.00	-12.10	AVG	
3	2433.1200	64.30	31.72	96.02	74.00	22.02	Peak	No limit
4 *	2433.1200	55.59	31.72	87.31	54.00	33.31	AVG	No limit

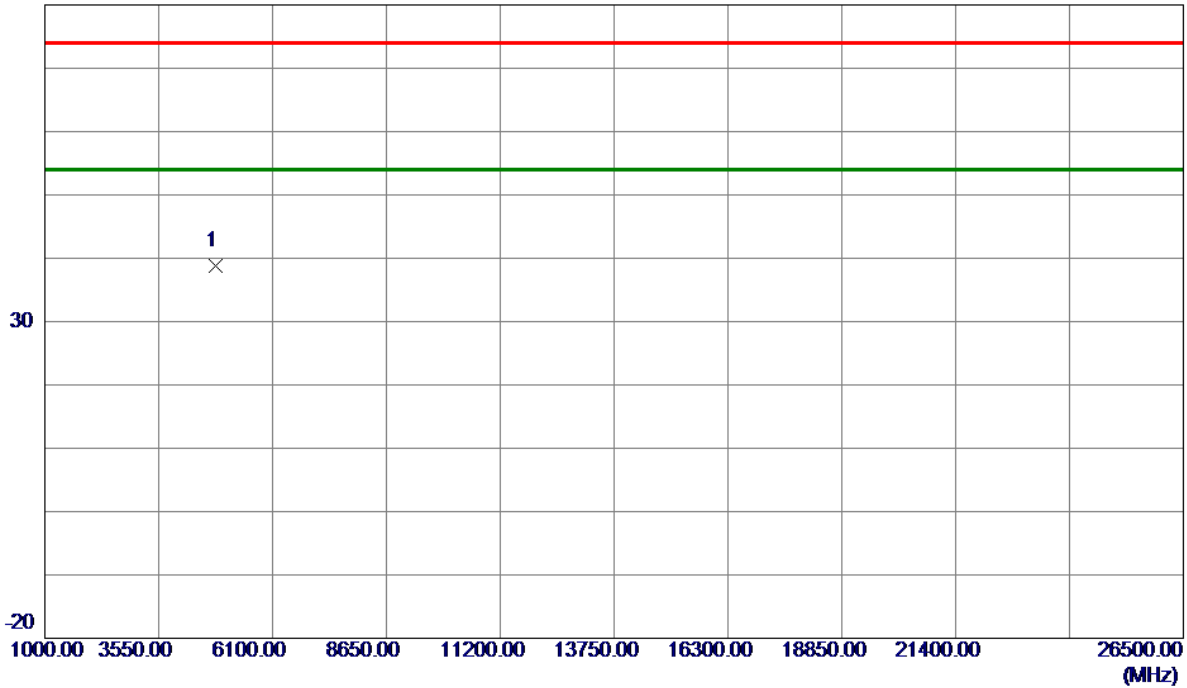
REMARKS:

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

Test Mode:	TX N-40M Mode 2422MHz
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Horizontal

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	4837.7500	54.89	-16.02	38.87	74.00	-35.13	Peak	

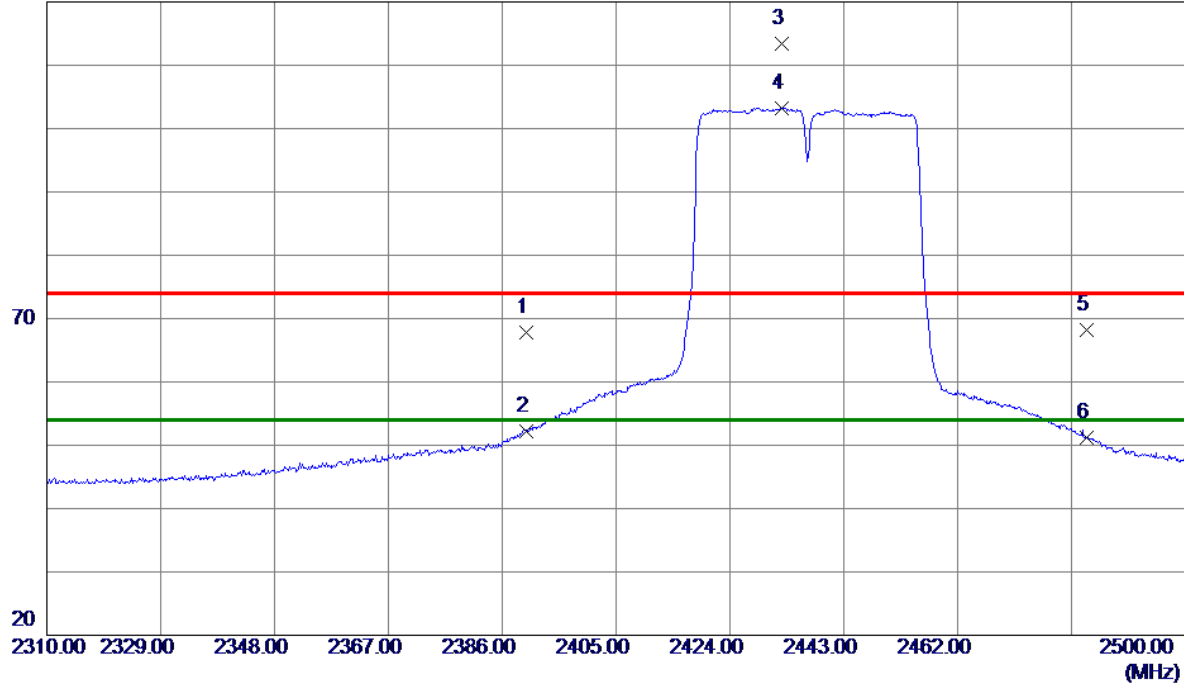
REMARKS:

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

Test Mode: TX N-40M Mode 2437 MHz

Vertical

120 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	35.99	31.74	67.73	74.00	-6.27	Peak	
2	2390.0000	20.43	31.74	52.17	54.00	-1.83	AVG	
3	2432.6450	81.68	31.72	113.40	74.00	39.40	Peak	No limit
4 *	2432.6450	71.51	31.72	103.23	54.00	49.23	AVG	No limit
5	2483.5000	36.58	31.71	68.29	74.00	-5.71	Peak	
6	2483.5000	19.52	31.71	51.23	54.00	-2.77	AVG	

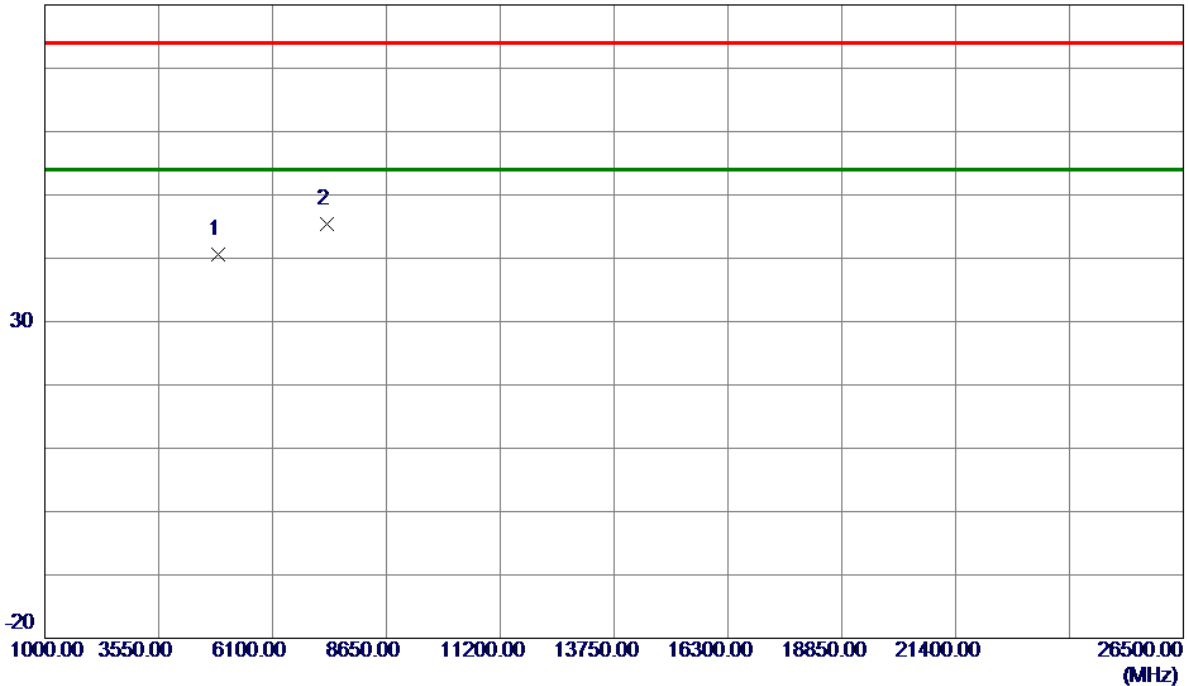
REMARKS:

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

Test Mode: TX N-40M Mode 2437 MHz

Vertical

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4873.4500	56.65	-15.96	40.69	74.00	-33.31	Peak	
2 *	7318.9000	56.30	-10.82	45.48	74.00	-28.52	Peak	

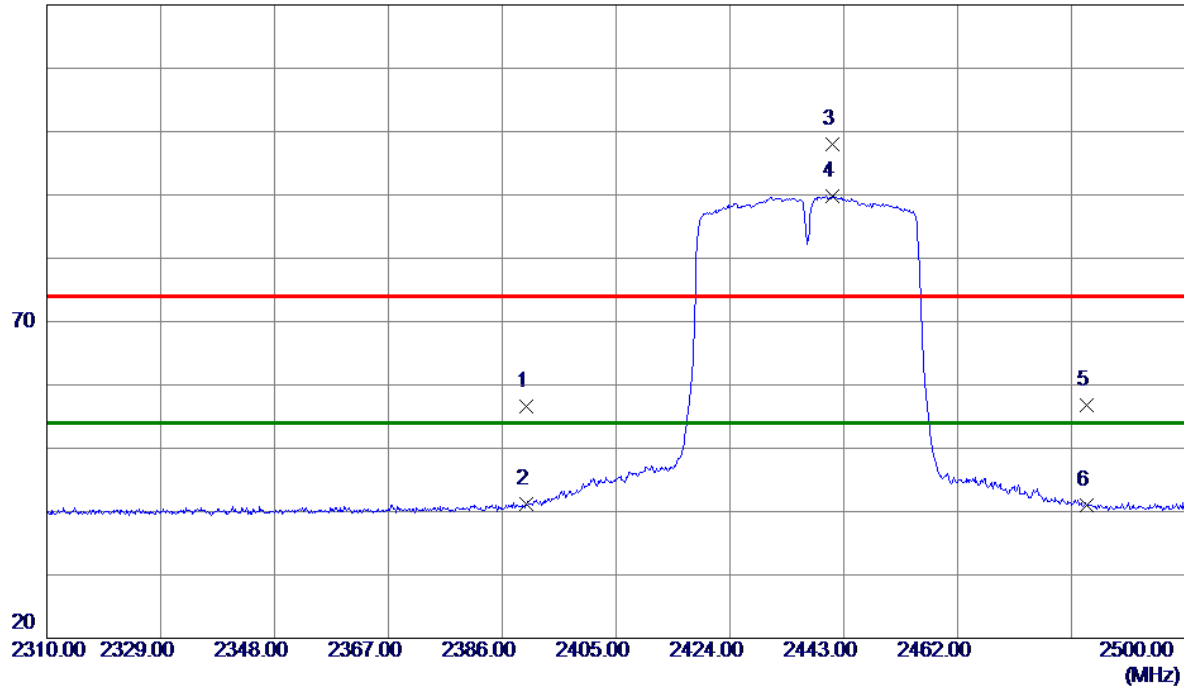
REMARKS:

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

Test Mode: TX N-40M Mode 2437 MHz

Horizontal

120 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	24.92	31.74	56.66	74.00	-17.34	Peak	
2	2390.0000	9.50	31.74	41.24	54.00	-12.76	AVG	
3	2441.1950	66.29	31.72	98.01	74.00	24.01	Peak	No limit
4 *	2441.1950	58.09	31.72	89.81	54.00	35.81	AVG	No limit
5	2483.5000	25.09	31.71	56.80	74.00	-17.20	Peak	
6	2483.5000	9.30	31.71	41.01	54.00	-12.99	AVG	

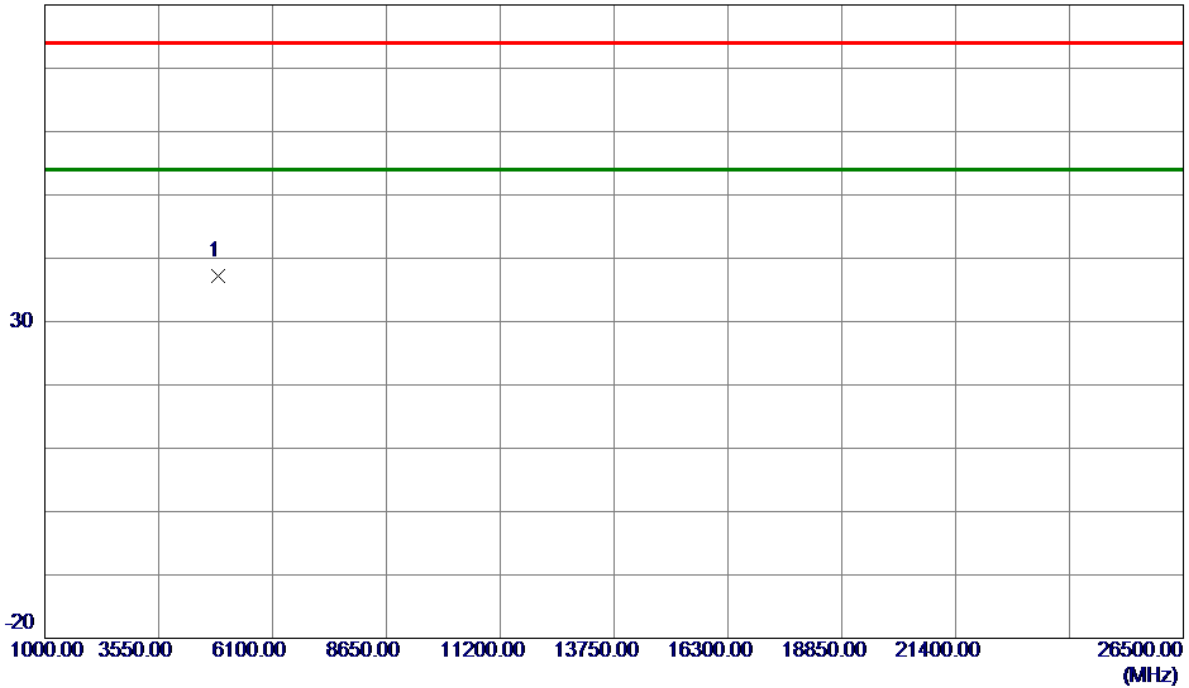
REMARKS:

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

Test Mode: TX N-40M Mode 2437 MHz

Horizontal

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	4874.0000	53.09	-15.96	37.13	74.00	-36.87	Peak	

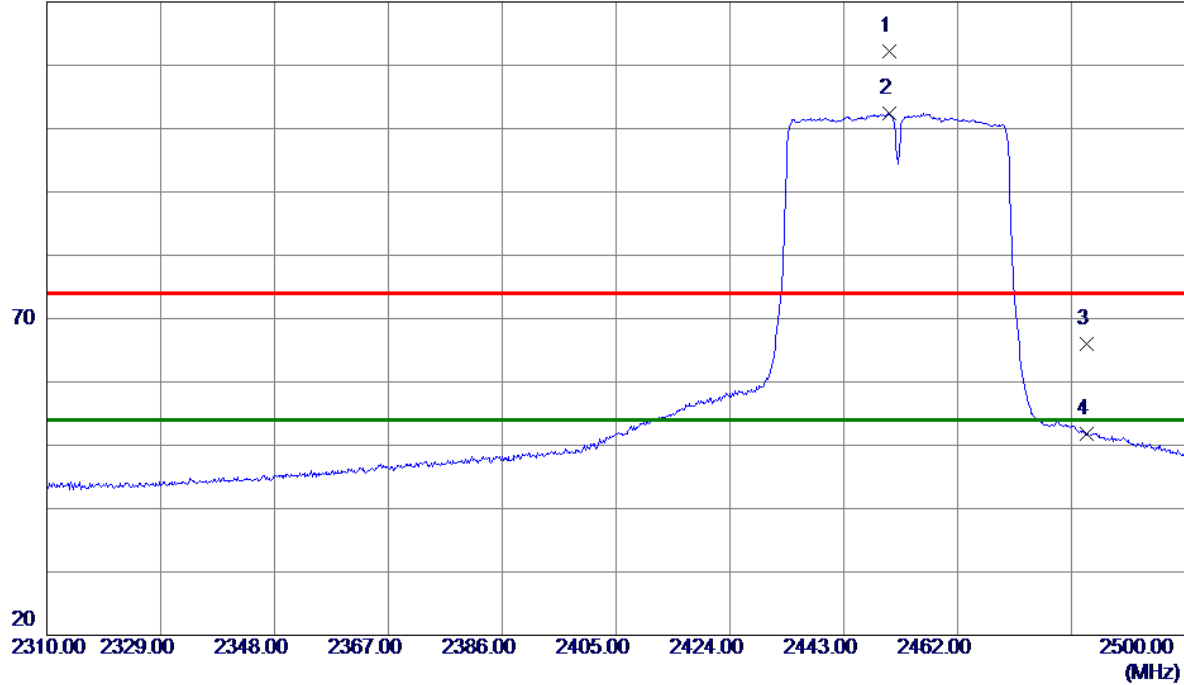
REMARKS:

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

Test Mode: TX N-40M Mode 2452 MHz

Vertical

120 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2450.6000	80.42	31.71	112.13	74.00	38.13	Peak	No limit
2 *	2450.6000	70.72	31.71	102.43	54.00	48.43	AVG	No limit
3	2483.5000	34.25	31.71	65.96	74.00	-8.04	Peak	
4	2483.5000	20.16	31.71	51.87	54.00	-2.13	AVG	

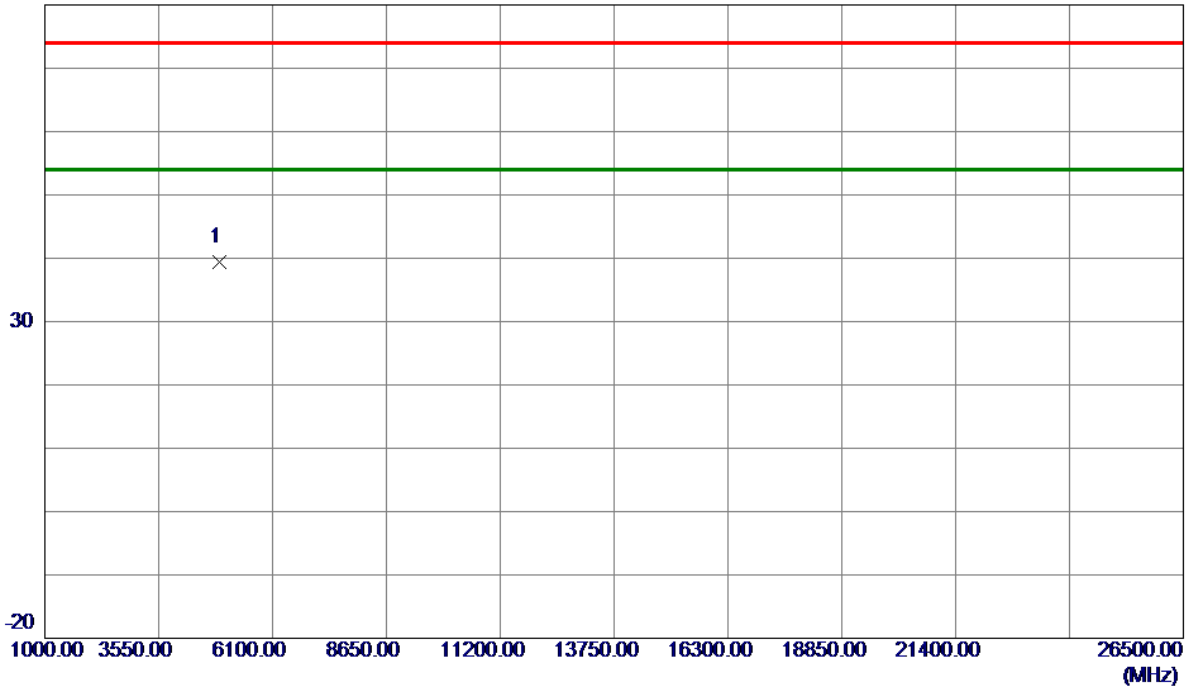
REMARKS:

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

Test Mode: TX N-40M Mode 2452 MHz

Vertical

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	4909.1500	55.21	-15.89	39.32	74.00	-34.68	Peak	

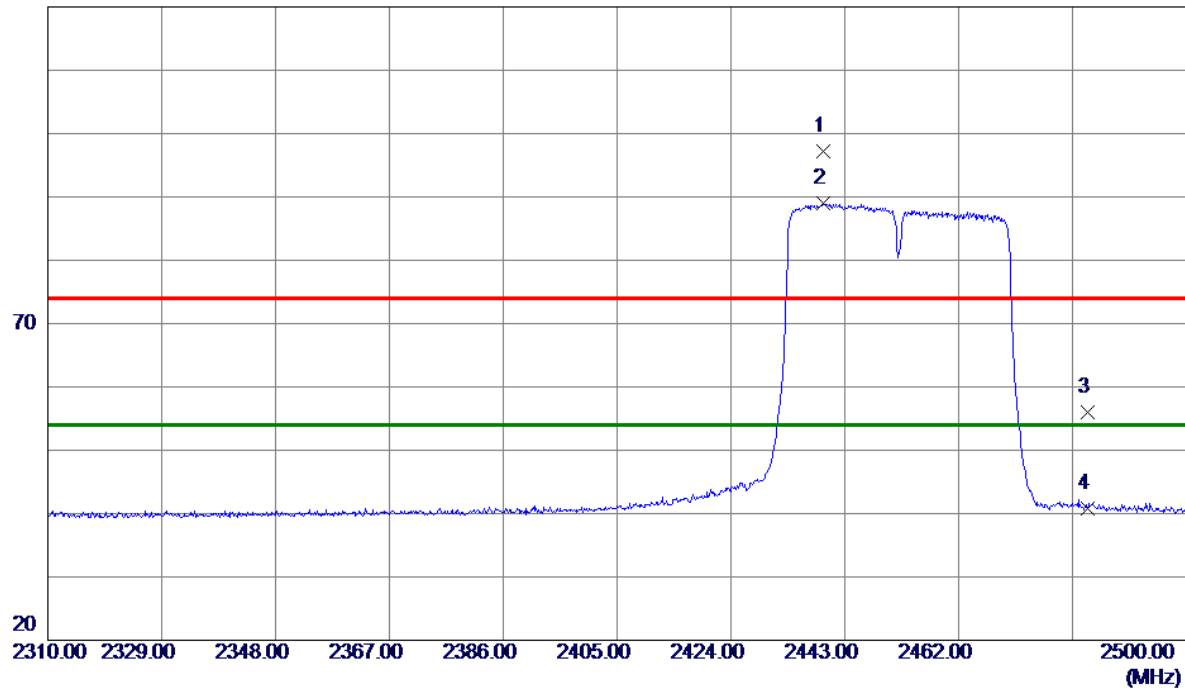
REMARKS:

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

Test Mode: TX N-40M Mode 2452 MHz

Horizontal

120 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2439.4850	65.50	31.72	97.22	74.00	23.22	Peak	No limit
2 *	2439.4850	57.31	31.72	89.03	54.00	35.03	AVG	No limit
3	2483.5000	24.24	31.71	55.95	74.00	-18.05	Peak	
4	2483.5000	9.09	31.71	40.80	54.00	-13.20	AVG	

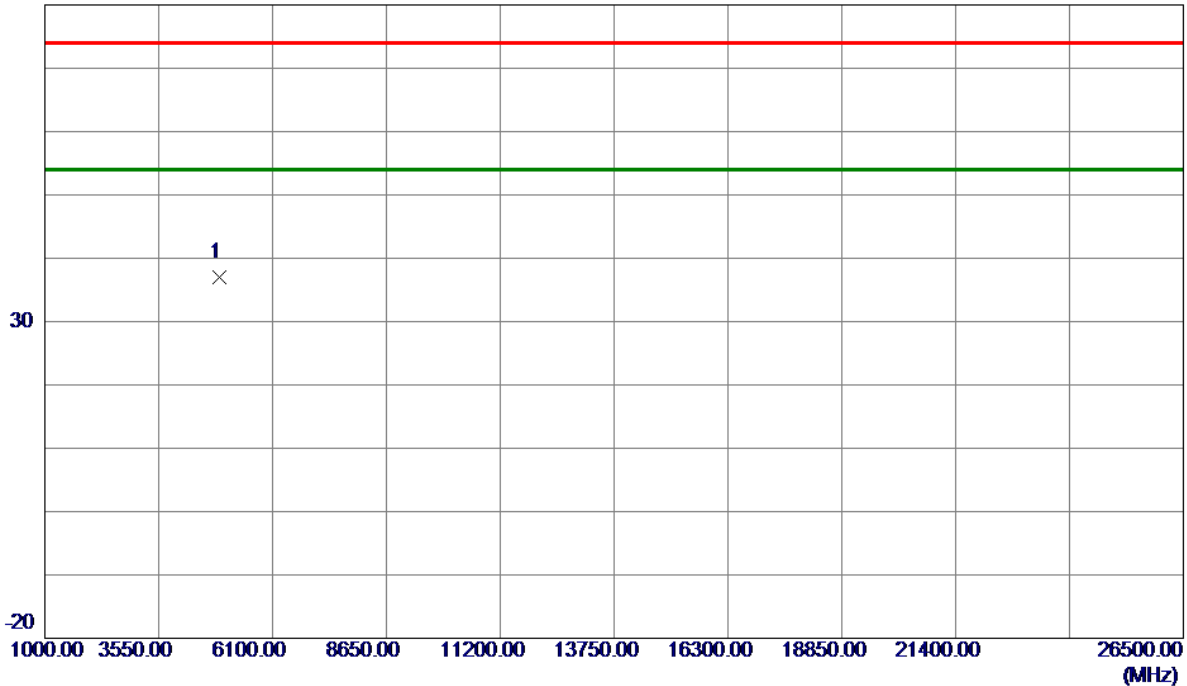
REMARKS:

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

Test Mode:	TX N-40M Mode 2452 MHz
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Horizontal

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	4904.0000	52.83	-15.91	36.92	74.00	-37.08	Peak	

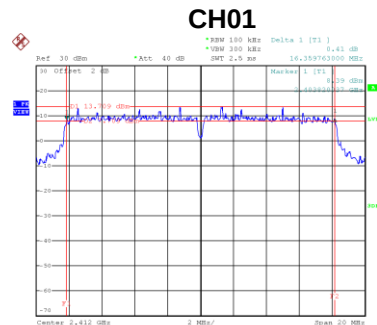
REMARKS:

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

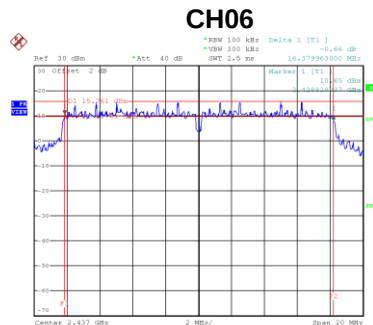
APPENDIX E - BANDWIDTH

Test Mode	TX G Mode
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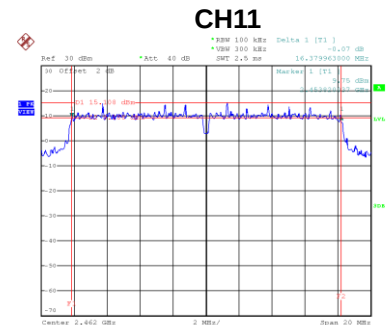
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
01	2412	16.36	500	Complies
06	2437	16.38	500	Complies
11	2462	16.38	500	Complies



Date: 22.JUL.2020 18:23:16

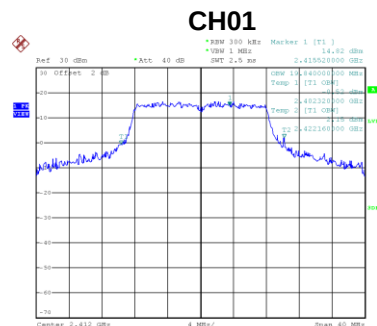


Date: 22.JUL.2020 18:33:21

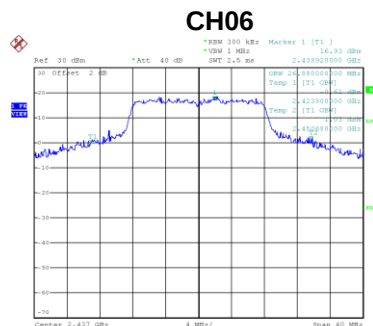


Date: 22.JUL.2020 18:33:16

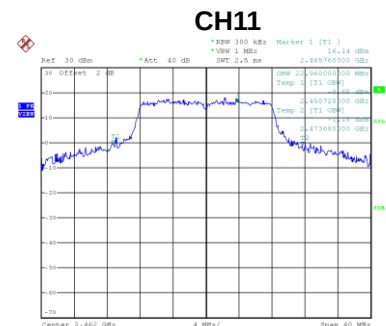
Channel	Frequency (MHz)	99 % Emission Bandwidth (MHz)	Result
01	2412	19.84	Complies
06	2437	26.88	Complies
11	2462	22.96	Complies



Date: 22.JUL.2020 18:23:23



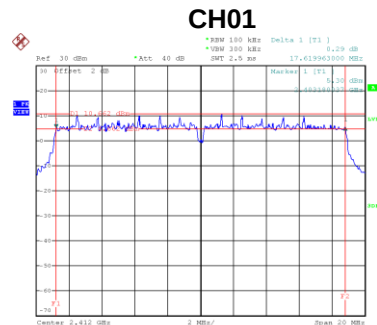
Date: 22.JUL.2020 18:33:28



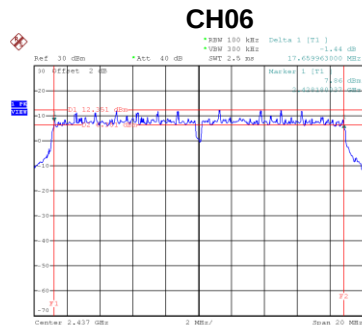
Date: 22.JUL.2020 18:33:23

Test Mode	TX N-20M Mode
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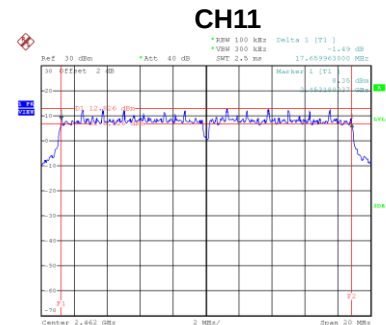
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
01	2412	17.62	500	Complies
06	2437	17.66	500	Complies
11	2462	17.66	500	Complies



Date: 22.JUL.2020 18:36:18

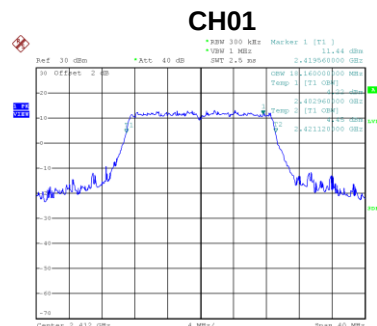


Date: 22.JUL.2020 18:41:14

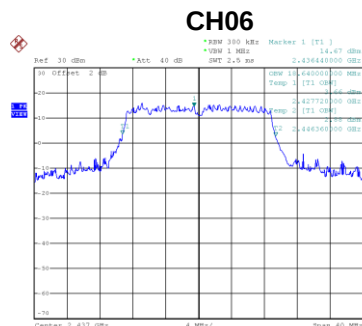


Date: 23.JUL.2020 10:31:23

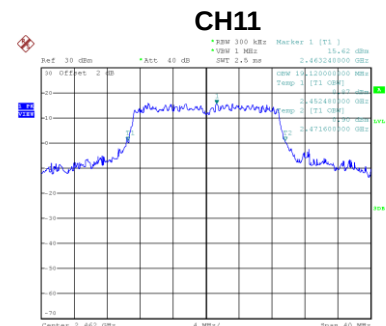
Channel	Frequency (MHz)	99 % Emission Bandwidth (MHz)	Result
01	2412	18.16	Complies
06	2437	18.64	Complies
11	2462	19.12	Complies



Date: 22.JUL.2020 18:36:44



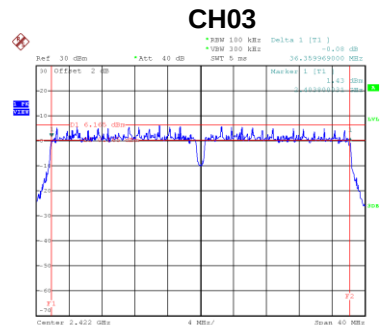
Date: 22.JUL.2020 18:41:21



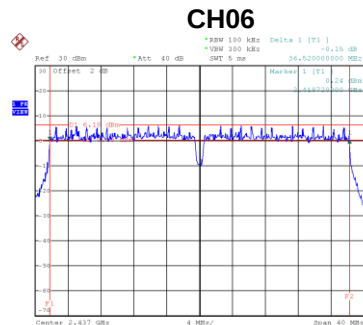
Date: 23.JUL.2020 10:31:30

Test Mode	TX N-40M Mode
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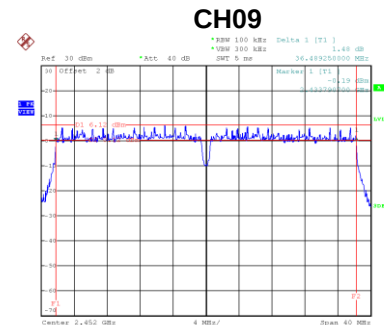
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
03	2422	36.36	500	Complies
06	2437	36.52	500	Complies
09	2452	36.49	500	Complies



Date: 23.JUL.2020 10:39:40

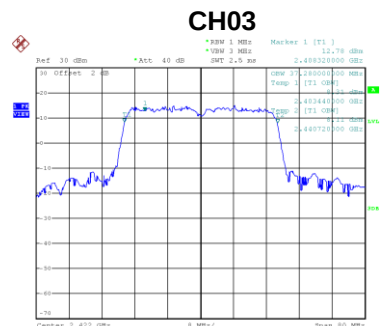


Date: 23.JUL.2020 10:43:23

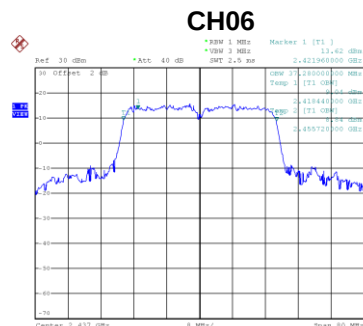


Date: 23.JUL.2020 10:48:00

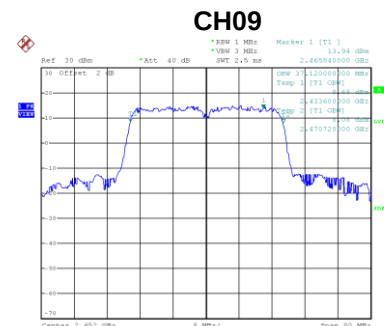
Channel	Frequency (MHz)	99 % Emission Bandwidth (MHz)	Result
03	2422	37.28	Complies
06	2437	37.28	Complies
09	2452	37.12	Complies



Date: 23.JUL.2020 10:39:46



Date: 23.JUL.2020 10:43:30



Date: 23.JUL.2020 10:48:06

APPENDIX F - MAXIMUM OUTPUT POWER

For 1T1R

CDD

Test Mode	TX B Mode
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Channel	Frequency (MHz)	Avg Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	20.36	0.22	20.58	30.00	1.0000	Complies
06	2437	21.37	0.22	21.59	30.00	1.0000	Complies
11	2462	20.58	0.22	20.80	30.00	1.0000	Complies

Test Mode	TX G Mode
-----------	-----------

Channel	Frequency (MHz)	Avg Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	17.64	0.23	17.87	30.00	1.0000	Complies
06	2437	21.58	0.23	21.81	30.00	1.0000	Complies
11	2462	16.91	0.23	17.14	30.00	1.0000	Complies

For 2T2R-2

CDD

Test Mode	TX N-20M Mode_Ant. 1
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Channel	Frequency (MHz)	Avg Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	16.19	0.42	16.61	30.00	1.0000	Complies
06	2437	20.61	0.42	21.03	30.00	1.0000	Complies
11	2462	16.09	0.42	16.51	30.00	1.0000	Complies

Test Mode	TX N-20M Mode_Ant. 2
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Channel	Frequency (MHz)	Avg Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	16.02	0.42	16.44	30.00	1.0000	Complies
06	2437	20.04	0.42	20.46	30.00	1.0000	Complies
11	2462	15.73	0.42	16.15	30.00	1.0000	Complies

Test Mode	TX N-20M Mode_Total
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Channel	Frequency (MHz)	Avg Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	19.53	30.00	1.0000	Complies
06	2437	23.76	30.00	1.0000	Complies
11	2462	19.34	30.00	1.0000	Complies

Test Mode	TX N-40M Mode_Ant. 1
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Channel	Frequency (MHz)	Avg Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	14.79	0.79	15.58	30.00	1.0000	Complies
06	2437	16.21	0.79	17.00	30.00	1.0000	Complies
09	2452	15.29	0.79	16.08	30.00	1.0000	Complies

Test Mode	TX N-40M Mode_Ant. 2
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Channel	Frequency (MHz)	Avg Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	14.75	0.79	15.54	30.00	1.0000	Complies
06	2437	15.93	0.79	16.72	30.00	1.0000	Complies
09	2452	14.83	0.79	15.62	30.00	1.0000	Complies

Test Mode	TX N-40M Mode_Total
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Channel	Frequency (MHz)	Avg Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	18.57	30.00	1.0000	Complies
06	2437	19.87	30.00	1.0000	Complies
09	2452	18.87	30.00	1.0000	Complies

For 2T2R-2

Beamforming

Test Mode	TX N-20M Mode_Ant. 1
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Channel	Frequency (MHz)	Avg Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	16.01	0.42	16.43	27.99	0.6295	Complies
06	2437	20.48	0.42	20.90	27.99	0.6295	Complies
11	2462	15.91	0.42	16.33	27.99	0.6295	Complies

Test Mode	TX N-20M Mode_Ant. 2
-----------	----------------------

Channel	Frequency (MHz)	Avg Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	15.83	0.42	16.25	27.99	0.6295	Complies
06	2437	19.89	0.42	20.31	27.99	0.6295	Complies
11	2462	15.59	0.42	16.01	27.99	0.6295	Complies

Test Mode	TX N-20M Mode_Total
-----------	---------------------

Channel	Frequency (MHz)	Avg Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	19.35	27.99	0.6295	Complies
06	2437	23.62	27.99	0.6295	Complies
11	2462	19.18	27.99	0.6295	Complies

Test Mode	TX N-40M Mode_Ant. 1
-----------	----------------------

Channel	Frequency (MHz)	Avg Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	14.57	0.79	15.36	27.99	0.6295	Complies
06	2437	16.06	0.79	16.85	27.99	0.6295	Complies
09	2452	15.18	0.79	15.97	27.99	0.6295	Complies

Test Mode	TX N-40M Mode_Ant. 2
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Channel	Frequency (MHz)	Avg Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	14.55	0.79	15.34	27.99	0.6295	Complies
06	2437	15.68	0.79	16.47	27.99	0.6295	Complies
09	2452	14.71	0.79	15.50	27.99	0.6295	Complies

Test Mode	TX N-40M Mode_Total
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Channel	Frequency (MHz)	Avg Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	18.36	27.99	0.6295	Complies
06	2437	19.68	27.99	0.6295	Complies
09	2452	18.75	27.99	0.6295	Complies

APPENDIX G - CONDUCTED SPURIOUS EMISSIONS

Test Mode	TX B Mode
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Date: 22.JUL.2020 18:11:30



Date: 22.JUL.2020 18:15:34

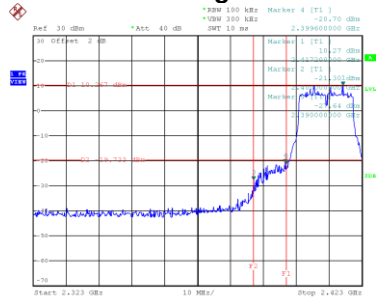


Date: 22.JUL.2020 18:17:51



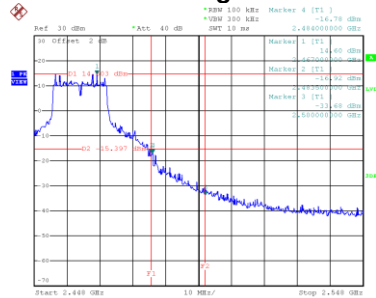
Test Mode TX G Mode

Bandedge-CH01



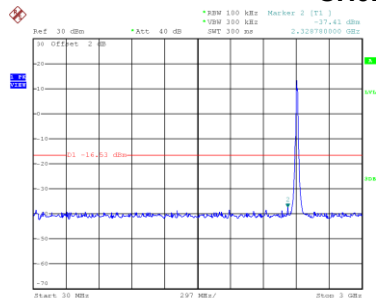
Date: 22.JUL.2020 18:27:20

Bandedge-CH11

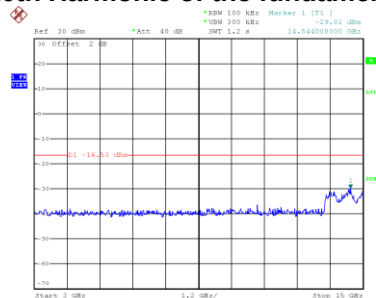


Date: 22.JUL.2020 18:33:00

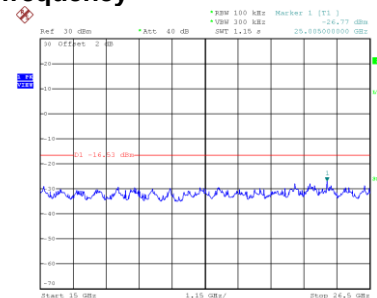
CH01 – 10th Harmonic of the fundamental frequency



Date: 22.JUL.2020 18:23:43

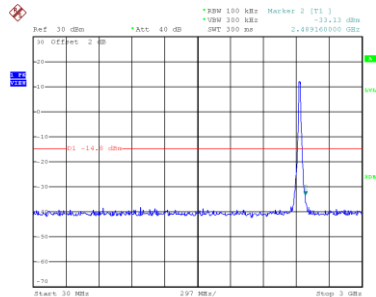


Date: 22.JUL.2020 18:23:50

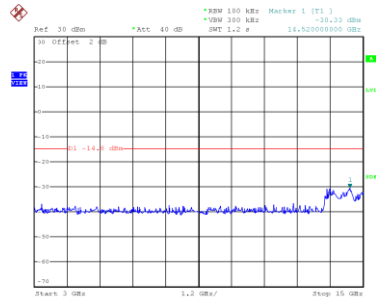


Date: 22.JUL.2020 18:23:56

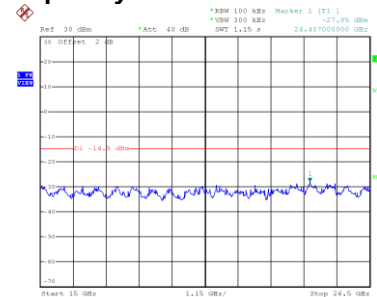
CH06 – 10th Harmonic of the fundamental frequency



Date: 22.JUL.2020 18:33:141

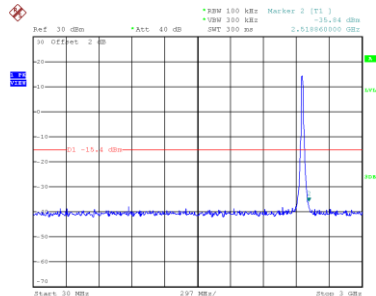


Date: 22.JUL.2020 18:33:147

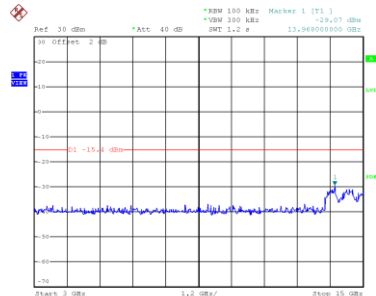


Date: 22.JUL.2020 18:33:154

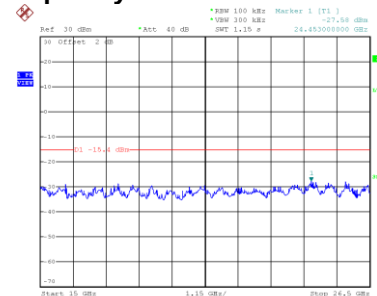
CH11 – 10th Harmonic of the fundamental frequency



Date: 22.JUL.2020 18:33:136



Date: 22.JUL.2020 18:33:143

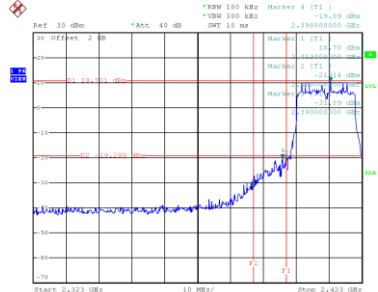


Date: 22.JUL.2020 18:33:149

For 2T2R-2 CDD

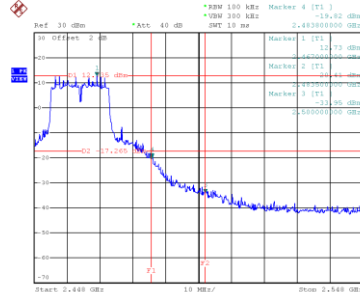
Test Mode TX N-20M Mode_Ant. 1

Bandedge-CH01



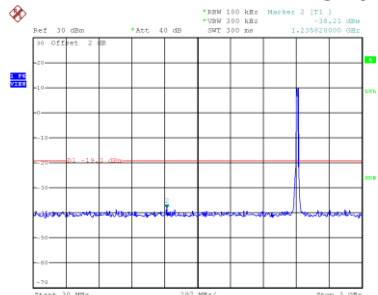
Date: 22.JUL.2020 18136125

Bandedge-CH11

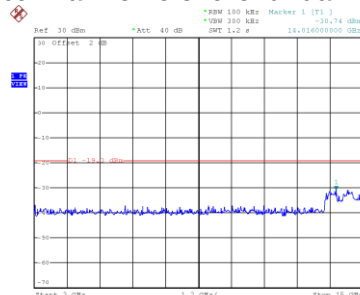


Date: 23.JUL.2020 10131110

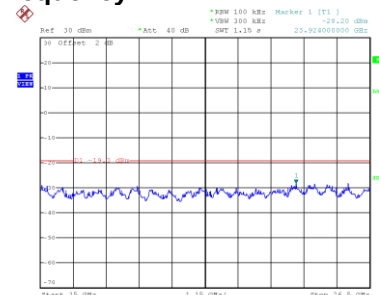
CH01 – 10th Harmonic of the fundamental frequency



Date: 22.JUL.2020 18136157

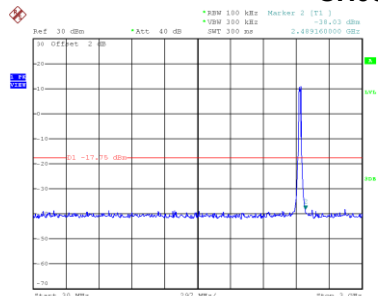


Date: 22.JUL.2020 18137104

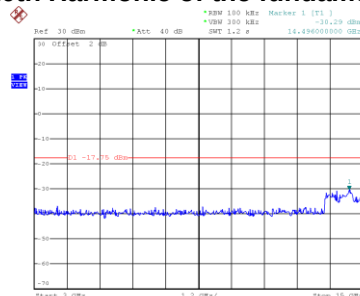


Date: 22.JUL.2020 18137111

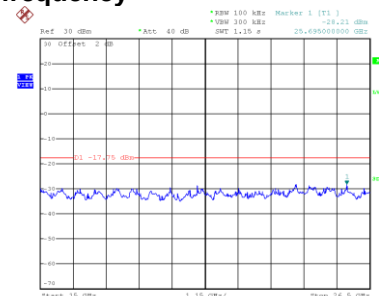
CH06 – 10th Harmonic of the fundamental frequency



Date: 22.JUL.2020 18141134

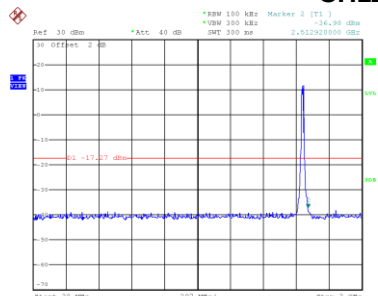


Date: 22.JUL.2020 18141141

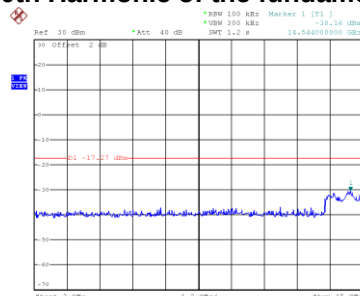


Date: 22.JUL.2020 18141148

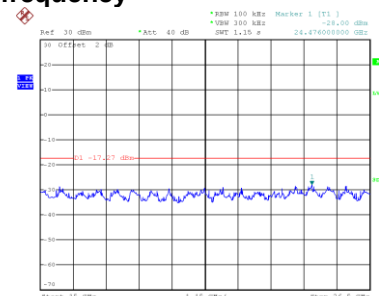
CH11 – 10th Harmonic of the fundamental frequency



Date: 23.JUL.2020 10131143



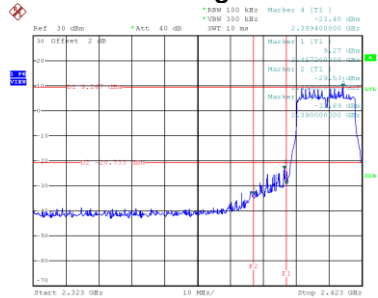
Date: 23.JUL.2020 10131150



Date: 23.JUL.2020 10131157

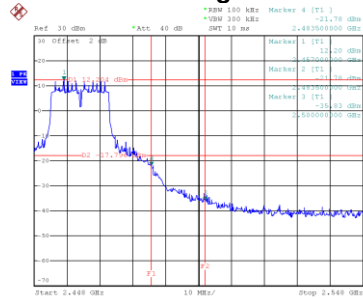
Test Mode TX N-20M Mode_Ant. 2

Bandedge-CH01



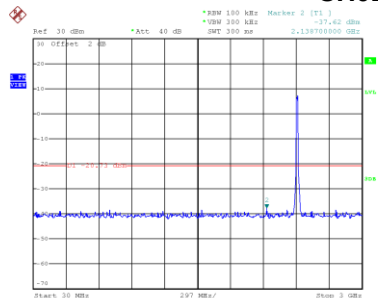
Date: 22.JUL.2020 18138126

Bandedge-CH11

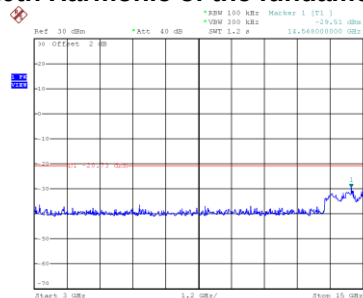


Date: 23.JUL.2020 10133103

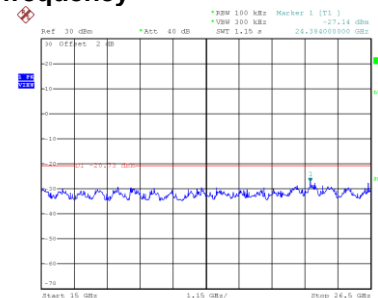
CH01 – 10th Harmonic of the fundamental frequency



Date: 22.JUL.2020 18138158

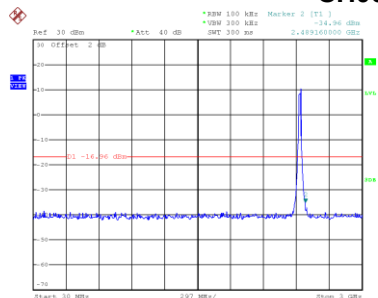


Date: 22.JUL.2020 18139105

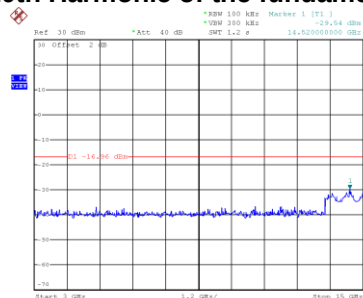


Date: 22.JUL.2020 18139112

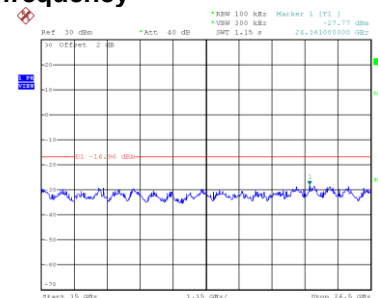
CH06 – 10th Harmonic of the fundamental frequency



Date: 22.JUL.2020 18142156

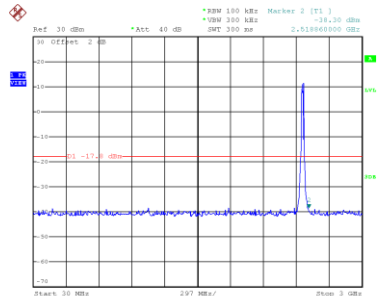


Date: 22.JUL.2020 18143102

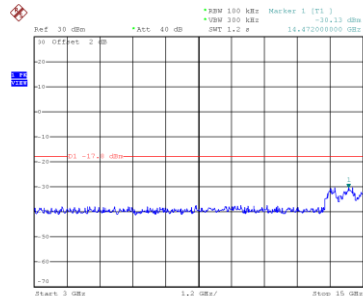


Date: 22.JUL.2020 18143109

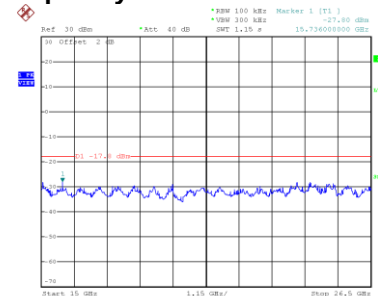
CH11 – 10th Harmonic of the fundamental frequency



Date: 23.JUL.2020 10133136



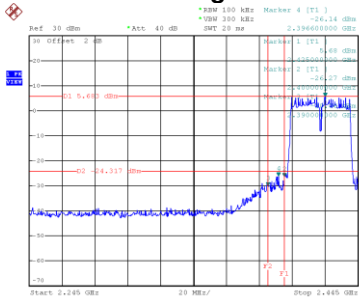
Date: 23.JUL.2020 10133143



Date: 23.JUL.2020 10133150

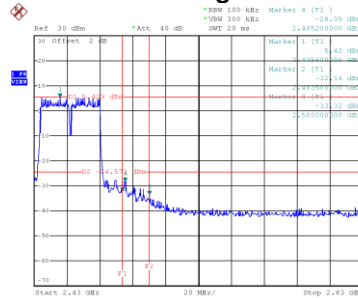
Test Mode TX N-40M Mode_Ant. 1

Bandedge-CH03



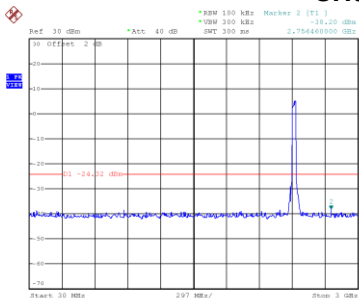
Date: 23.JUL.2020 10:39:28

Bandedge-CH09

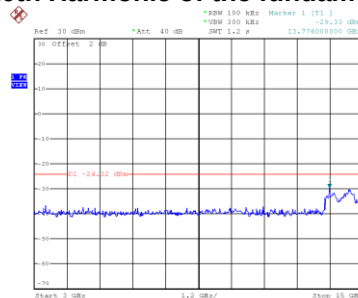


Date: 23.JUL.2020 10:47:49

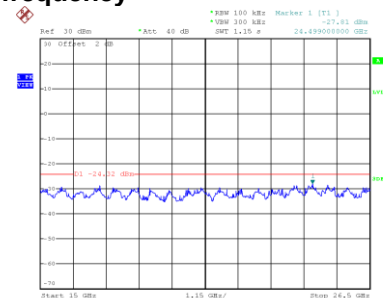
CH03 – 10th Harmonic of the fundamental frequency



Date: 23.JUL.2020 10:40:00

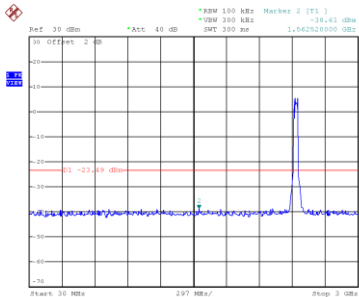


Date: 23.JUL.2020 10:40:07

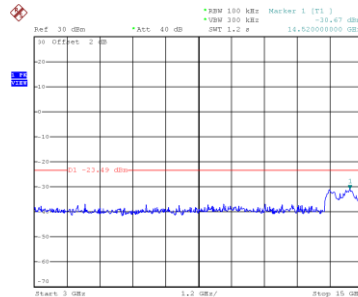


Date: 23.JUL.2020 10:40:14

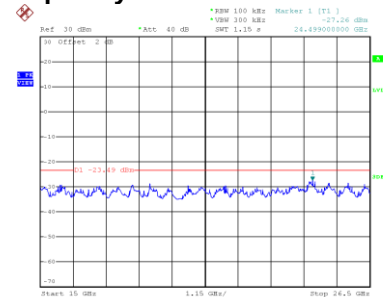
CH06 – 10th Harmonic of the fundamental frequency



Date: 23.JUL.2020 10:43:43

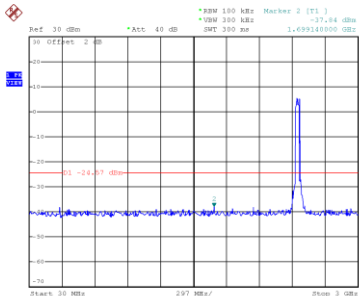


Date: 23.JUL.2020 10:43:50

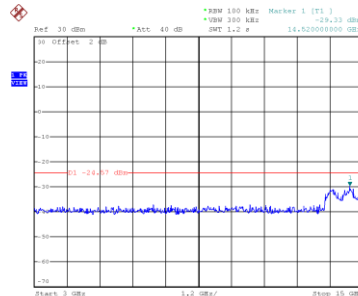


Date: 23.JUL.2020 10:43:58

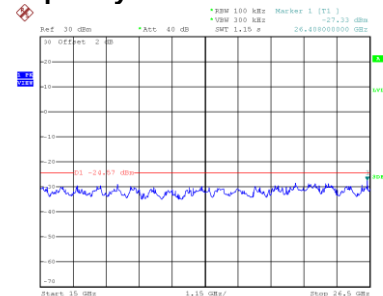
CH09 – 10th Harmonic of the fundamental frequency



Date: 23.JUL.2020 10:48:19



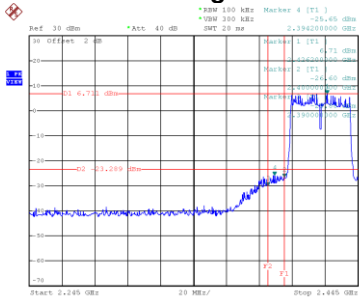
Date: 23.JUL.2020 10:48:27



Date: 23.JUL.2020 10:48:34

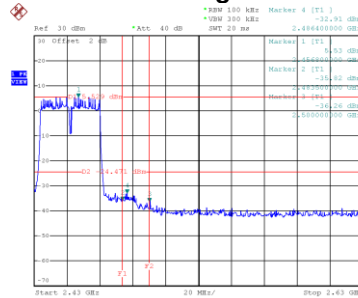
Test Mode TX N-40M Mode_Ant. 2

Bandedge-CH03



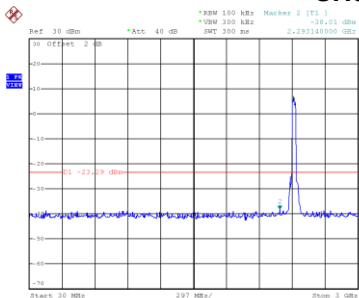
Date: 23.JUL.2020 10:37:13

Bandedge-CH09

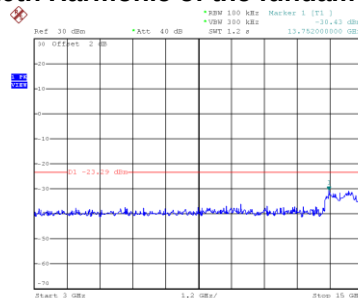


Date: 23.JUL.2020 10:52:25

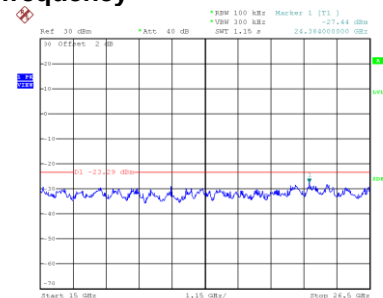
CH03 – 10th Harmonic of the fundamental frequency



Date: 23.JUL.2020 10:37:45

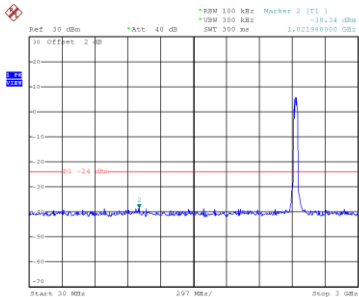


Date: 23.JUL.2020 10:37:52

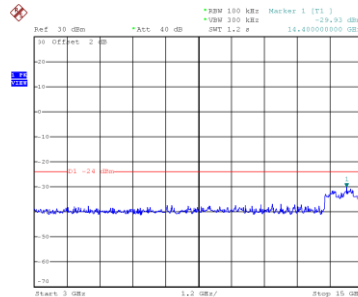


Date: 23.JUL.2020 10:37:59

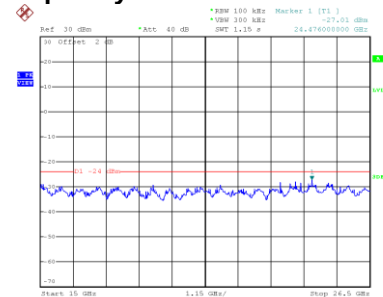
CH06 – 10th Harmonic of the fundamental frequency



Date: 23.JUL.2020 10:45:28

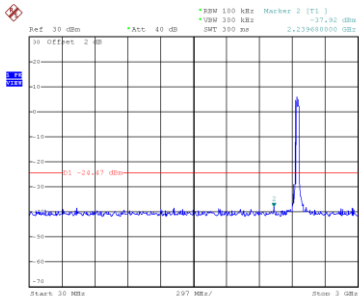


Date: 23.JUL.2020 10:45:35

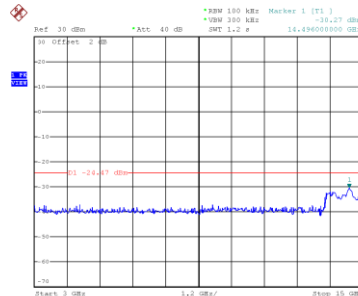


Date: 23.JUL.2020 10:45:42

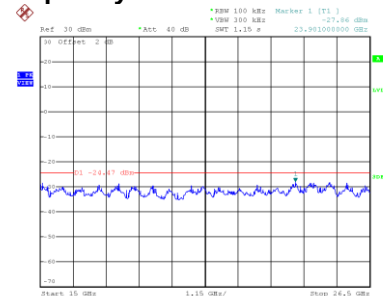
CH09 – 10th Harmonic of the fundamental frequency



Date: 23.JUL.2020 10:52:16



Date: 23.JUL.2020 10:53:03



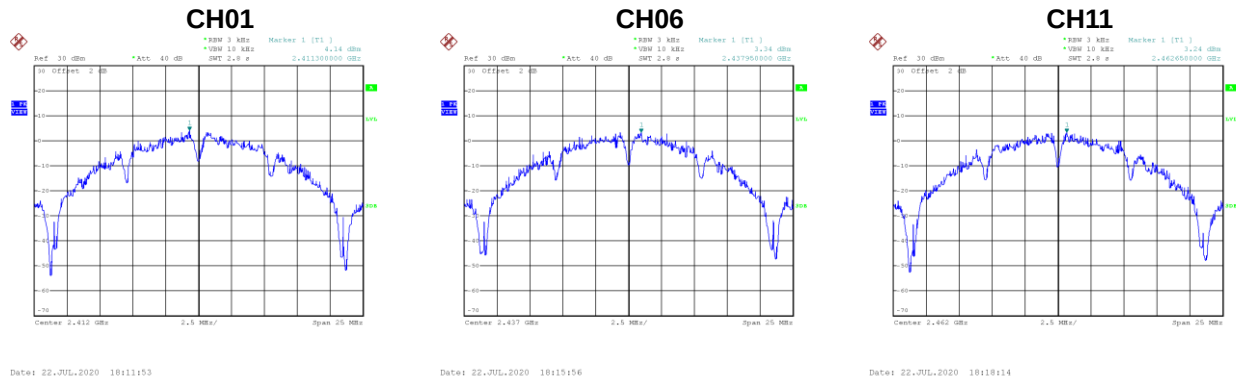
Date: 23.JUL.2020 10:53:11

APPENDIX H - POWER SPECTRAL DENSITY

For 1T1R CDD

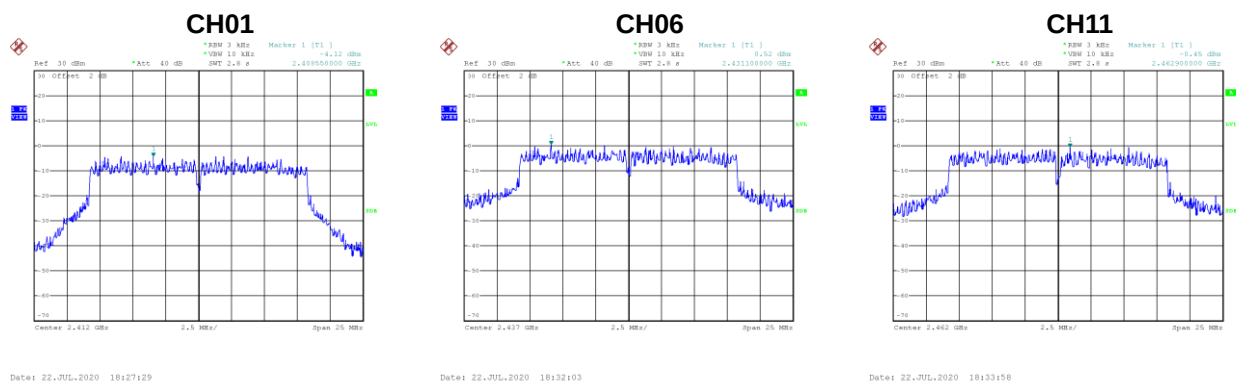
Test Mode	TX B Mode
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Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
01	2412	4.14	8	Complies
06	2437	3.34	8	Complies
11	2462	3.24	8	Complies



Test Mode	TX G Mode
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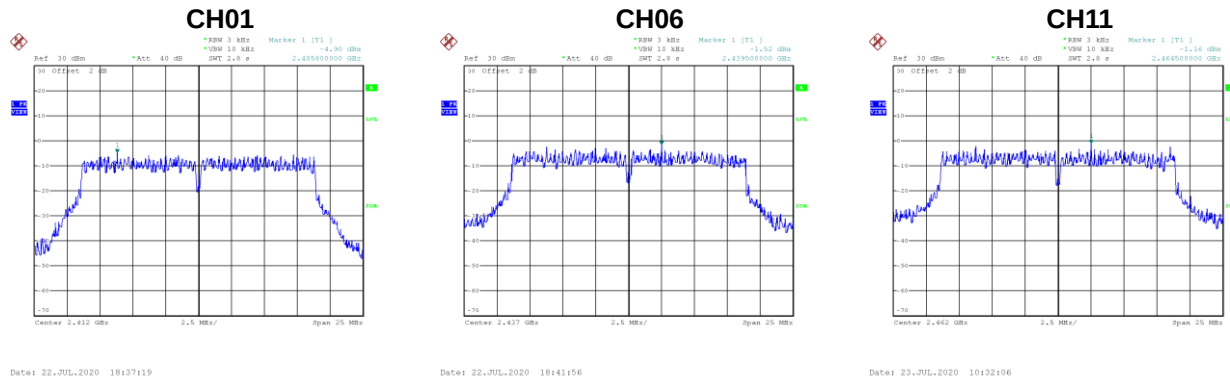
Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
01	2412	-4.12	8	Complies
06	2437	0.52	8	Complies
11	2462	-0.45	8	Complies



For 2T2R-2 CDD

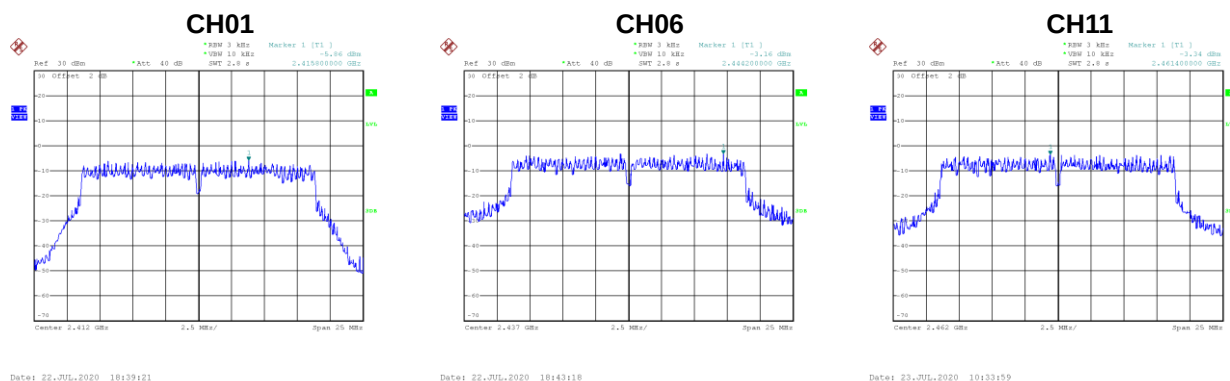
Test Mode	TX N-20M Mode_Ant. 1
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Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
01	2412	-4.90	5.99	Complies
06	2437	-1.52	5.99	Complies
11	2462	-1.16	5.99	Complies



Test Mode	TX N-20M Mode_Ant. 2
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Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
01	2412	-5.86	5.99	Complies
06	2437	-3.16	5.99	Complies
11	2462	-3.34	5.99	Complies

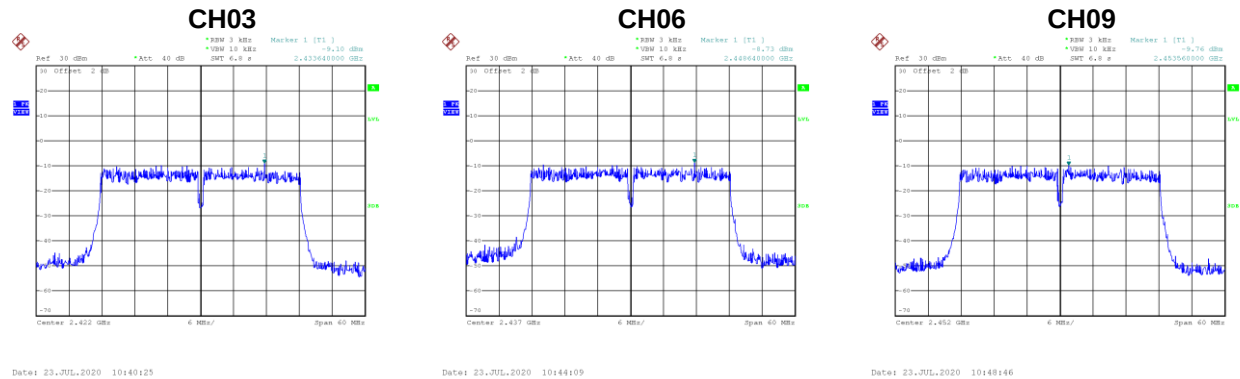


Test Mode	TX N-20M Mode_Total
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Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
01	2412	-2.34	5.99	Complies
06	2437	0.75	5.99	Complies
11	2462	0.90	5.99	Complies

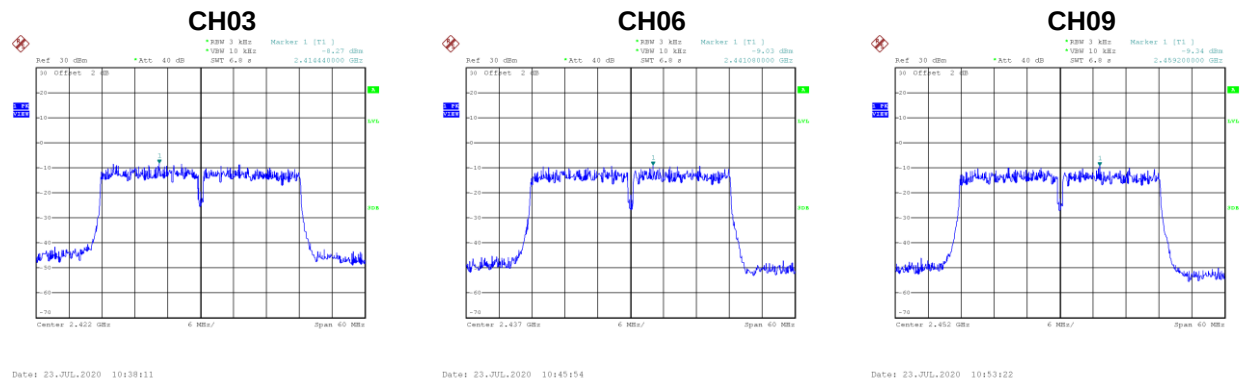
Test Mode	TX N-40M Mode_Ant. 1
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Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
03	2422	-9.10	5.99	Complies
06	2437	-8.73	5.99	Complies
09	2452	-9.76	5.99	Complies



Test Mode	TX N-40M Mode_Ant. 2
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Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
03	2422	-8.27	5.99	Complies
06	2437	-9.03	5.99	Complies
09	2452	-9.34	5.99	Complies



Test Mode	TX N-40M Mode_Total
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Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
03	2422	-5.65	5.99	Complies
06	2437	-5.87	5.99	Complies
09	2452	-6.53	5.99	Complies

End of Test Report