

FCC Radio Test Report

FCC ID: TE7KP303

This report concerns: **Original Grant**

Project No. : 1906C039
Equipment : Kasa Smart Wi-Fi Power Strip, 3-Outlets
Test Model : KP303
Series Model : N/A
Applicant : TP-Link Technologies Co., Ltd.
Address : Building 24(floors1,3,4,5) and 28(floors1-4) Central Science and Technology Park, Shennan Rd, Nanshan, Shenzhen, China

Date of Receipt : Jun. 17, 2019
Date of Test : Jun. 18, 2019 ~ Jul. 08, 2019
Issued Date : Aug. 15, 2019
Tested by : BTL Inc.

Testing Engineer : Mandy Wang
 (Mandy Wang)

Technical Manager : Steven Lu
 (Steven Lu)

Authorized Signatory : Ethan Ma
 (Ethan Ma)

B T L I N C .

No.3, Jinshagang 1st Road, Shixia, Dalang Town, Dongguan, Guangdong, China.

TEL: +86-769-8318-3000 FAX: +86-769-8319-6000



Certificate #5123.02

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BTL is not responsible for the sampling stage, so the results only apply to the sample as received.

The information, data and test plan are provided by manufacturer which may affect the validity of results, so it is manufacturer's responsibility to ensure that the apparatus meets the essential requirements of applied standards and in all the possible configurations as representative of its intended use.

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.

Table of Contents	Page
REPORT ISSUED HISTORY	6
1 . GENERAL SUMMARY	7
2 . SUMMARY OF TEST RESULTS	8
2.1 TEST FACILITY	9
2.2 MEASUREMENT UNCERTAINTY	9
3 . GENERAL INFORMATION	10
3.1 GENERAL DESCRIPTION OF EUT	10
3.2 DESCRIPTION OF TEST MODES	11
3.3 PARAMETERS OF TEST SOFTWARE	12
3.4 DUTY CYCLE	13
3.5 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED	14
3.6 SUPPORT UNITS	14
4 . AC POWER LINE CONDUCTED EMISSIONS TEST	15
4.1 LIMIT	15
4.2 TEST PROCEDURE	15
4.3 DEVIATION FROM TEST STANDARD	15
4.4 TEST SETUP	16
4.5 EUT OPERATION CONDITIONS	16
4.6 EUT TEST CONDITIONS	16
4.7 TEST RESULTS	16
5 . RADIATED EMISSIONS TEST	17
5.1 LIMIT	17
5.2 TEST PROCEDURE	18
5.3 DEVIATION FROM TEST STANDARD	18
5.4 TEST SETUP	19
5.5 EUT OPERATION CONDITIONS	20
5.6 EUT TEST CONDITIONS	20
5.7 TEST RESULTS – 9 KHZ TO 30 MHZ	20
5.8 TEST RESULTS – 30 MHZ TO 1000 MHZ	20
5.9 TEST RESULTS – ABOVE 1000 MHZ	20
6 . BANDWIDTH TEST	21
6.1 LIMIT	21
6.2 TEST PROCEDURE	21

Table of Contents	Page
6.3 DEVIATION FROM STANDARD	21
6.4 TEST SETUP	21
6.5 EUT OPERATION CONDITIONS	21
6.6 EUT TEST CONDITIONS	21
6.7 TEST RESULTS	21
7 . MAXIMUM PEAK OUTPUT POWER & AVERAGE POWER TEST	22
7.1 LIMIT	22
7.2 TEST PROCEDURE	22
7.3 DEVIATION FROM STANDARD	22
7.4 TEST SETUP	22
7.5 EUT OPERATION CONDITIONS	22
7.6 EUT TEST CONDITIONS	22
7.7 TEST RESULTS	22
8 . CONDUCTED SPURIOUS EMISSIONS	23
8.1 LIMIT	23
8.2 TEST PROCEDURE	23
8.3 DEVIATION FROM STANDARD	23
8.4 TEST SETUP	23
8.5 EUT OPERATION CONDITIONS	23
8.6 EUT TEST CONDITIONS	23
8.7 TEST RESULTS	23
9 . POWER SPECTRAL DENSITY TEST	24
9.1 LIMIT	24
9.2 TEST PROCEDURE	24
9.3 DEVIATION FROM STANDARD	24
9.4 TEST SETUP	24
9.5 EUT OPERATION CONDITIONS	24
9.6 EUT TEST CONDITIONS	24
9.7 TEST RESULTS	24
10 . MEASUREMENT INSTRUMENTS LIST	25
11 . EUT TEST PHOTO	27
APPENDIX A – AC POWER LINE CONDUCTED EMISSIONS	31
APPENDIX B – RADIATED EMISSION – 9 KHZ TO 30 MHZ	34

Table of Contents**Page**

APPENDIX C – RADIATED EMISSION – 30 MHZ TO 1000 MHZ	39
APPENDIX D – RADIATED EMISSION- ABOVE 1000 MHZ	42
APPENDIX E – BANDWIDTH	103
APPENDIX F – MAXIMUM PEAK OUTPUT POWER & AVERAGE POWER	107
APPENDIX G – CONDUCTED SPURIOUS EMISSIONS	110
APPENDIX H – POWER SPECTRAL DENSITY	114

REPORT ISSUED HISTORY

Report Version	Description	Issued Date
R00	Original Issue.	Jul. 17, 2019
R01	Added the description in Section 3.2 note(6) and updated the data for Radiated Emissions 30MHz to 1000MHz.	Aug. 15, 2019

1. GENERAL SUMMARY

Equipment : Kasa Smart Wi-Fi Power Strip, 3-Outlets
Brand Name : tp-link
Test Model : KP303
Series Model : N/A
Applicant : TP-Link Technologies Co., Ltd.
Manufacturer : TP-Link Technologies Co., Ltd.
Address : Building 24(floors1,3,4,5) and 28(floors1-4) Central Science and Technology Park, Shennan Rd, Nanshan, Shenzhen, China
Date of Test : Jun. 18, 2019 ~ Jul. 08, 2019
Test Sample : Engineering Sample No.: DG19062145 for conducted, DG1906129 for radiated
Standard(s) : FCC Part15, Subpart C (15.247)
ANSI C63.10-2013
FCC KDB 558074 D01 DTS Meas Guidance v05r02

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

The test data, data evaluation, and equipment configuration contained in our test report (Ref No. BTL-FCCP-1-1906C039) were obtained utilizing the test procedures, test instruments, test sites that has been accredited by the Authority of A2LA according to the ISO/IEC 17025 quality assessment standard and technical standard(s).

2. 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 Peak Output Power & Average Power	APPENDIX F	PASS	-----
15.247(d)	Conducted Spurious Emissions	APPENDIX G	PASS	-----
15.247€	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.

2.1 TEST FACILITY

The test facilities used to collect the test data in this report is at the location of No.3,Jinshagang 1st Road, Shixia, Dalang Town, Dongguan, Guangdong, China.

BTL's Test Firm Registration Number for FCC: 357015

BTL's Designation Number for FCC: CN1240

2.2 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 BTL measurement uncertainty as below table:

A. AC power line conducted emissions test:

Test Site	Method	Measurement Frequency Range	U, (dB)
DG-C02	CISPR	150 kHz ~ 30 MHz	2.32

B. Radiated emissions test:

Test Site	Method	Measurement Frequency Range	Ant. H / V	U, (dB)
DG-CB03	CISPR	9 KHz~30 MHz	V	3.79
		9 KHz~30 MHz	H	3.57
		30 MHz~200 MHz	V	3.82
		30 MHz~200 MHz	H	3.78
		200 MHz~1,000 MHz	V	4.10
		200 MHz~1,000 MHz	H	4.06
		1 GHz~18 GHz	V	3.12
		1 GHz~18 GHz	H	3.68
		18 GHz~40 GHz	V	4.15
18 GHz~40 GHz	H	4.14		

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

3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

Equipment	Kasa Smart Wi-Fi Power Strip, 3-Outlets
Brand Name	tp-link
Test Model	KP303
Series Model	N/A
Model Difference(s)	N/A
Power Source	AC Mains.
Power Rating	AC 120V/60Hz
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 72.2 Mbps
Maximum Peak Output Power	IEEE 802.11b: 21.65 dBm (0.1462 W) IEEE 802.11g: 24.25 dBm (0.2661 W) IEEE 802.11n (HT20): 24.22 dBm (0.2642 W)
Maximum Average Power	IEEE 802.11b: 19.98 dBm (0.1000 W) IEEE 802.11g: 20.05 dBm (0.1012 W) IEEE 802.11n (HT20): 19.83 dBm (0.0962 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)							
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	Integral	N/A	4.37

3.2 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 G Mode Channel 06
Mode 5	TX B Mode Channel 01/02/06/10/11
Mode 6	TX G Mode Channel 01/02/06/10/11
Mode 7	TX N-20 MHz Mode Channel 01/02/06/10/11

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 4	TX G Mode Channel 06

Radiated emissions test – Below 1GHz	
Final Test Mode	Description
Mode 4	TX G Mode Channel 06

Radiated emissions test – Above 1GHz	
Final Test Mode	Description
Mode 5	TX B Mode Channel 01/02/06/10/11
Mode 6	TX G Mode Channel 01/02/06/10/11
Mode 7	TX N-20 MHz Mode Channel 01/02/06/10/11

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

NOTE:

- (1) The measurements are performed at the high, middle, low available channels.
- (2) 802.11b mode: DSSS (1 Mbps)
 802.11g mode: BPSK (6 Mbps)
 802.11n HT20 mode : BPSK (6.5 Mbps)
 For all tests, the highest output powers were set for final test.
- (3) For radiated emission below 1 GHz test, the IEEE 802.11g is found to be the worst case and recorded.
- (4) All the bit rate of transmitter have been tested and found the lowest rate is found to be the worst case and recorded.
- (5) 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.
- (6) The test items are tested at fixed frequency and during the test a load is added to verify while it does not affect the test result, so the test photo is not going to be updated. The added load is evaluated in the EMC test of this product.

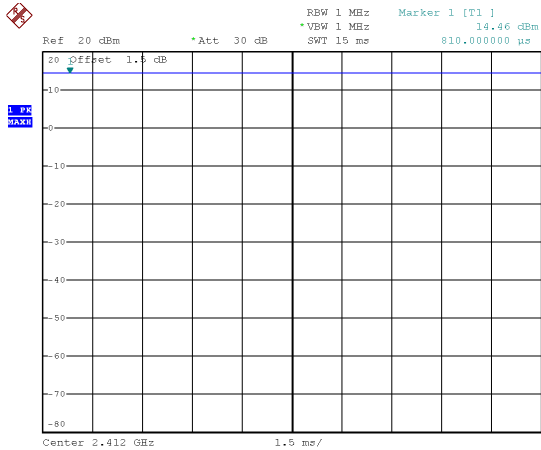
3.3 PARAMETERS OF TEST SOFTWARE

Test Software	WiFi_QA_Tool_v3.2.0		
Frequency (MHz)	2412	2437	2462
IEEE 802.11b	21	22	24
IEEE 802.11g	1F	27	25
IEEE 802.11n (HT20)	1F	29	25

3.4 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.

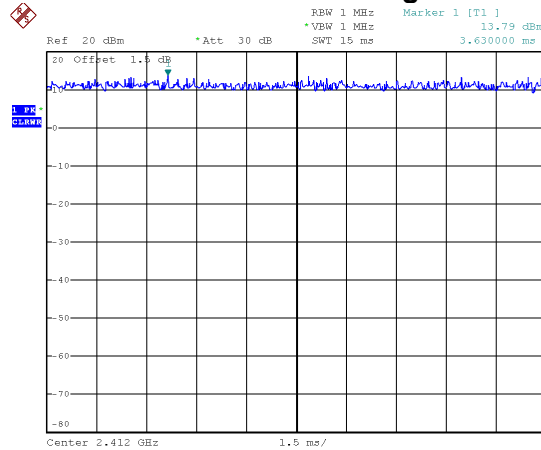
IEEE 802.11b



Date: 1.JUL.2019 14:55:05

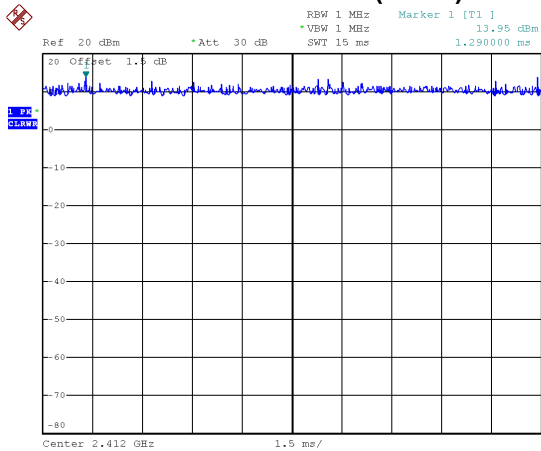
Duty cycle = 15 ms / 15 ms = 100.00%
 Duty Factor = $10 \log(1/\text{Duty cycle}) = 0.00$
IEEE 802.11n (HT20)

IEEE 802.11g



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Duty cycle = 15 ms / 15 ms = 100.00%
 Duty Factor = $10 \log(1/\text{Duty cycle}) = 0.00$



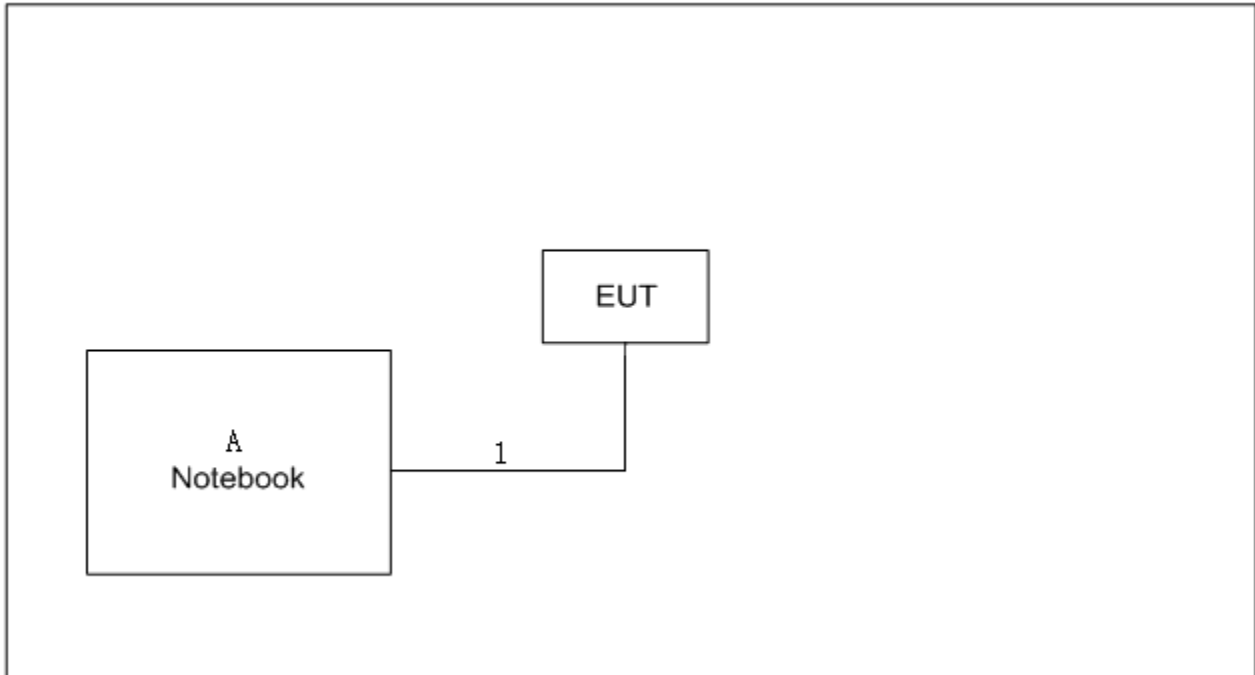
Date: 1.JUL.2019 14:58:20

Duty cycle = 15 ms / 15 ms = 100.00%
 Duty Factor = $10 \log(1/\text{Duty cycle}) = 0.00$

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 $< 98\%$).

3.5 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



3.6 SUPPORT UNITS

Item	Equipment	Brand	Model No.	Series No.
A	Notebook	Dell	Inspiron 15-7559	N/A

Item	Cable Type	Shielded Type	Ferrite Core	Length
1	USB Cable	NO	NO	0.8m

4. AC POWER LINE CONDUCTED EMISSIONS TEST

4.1 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

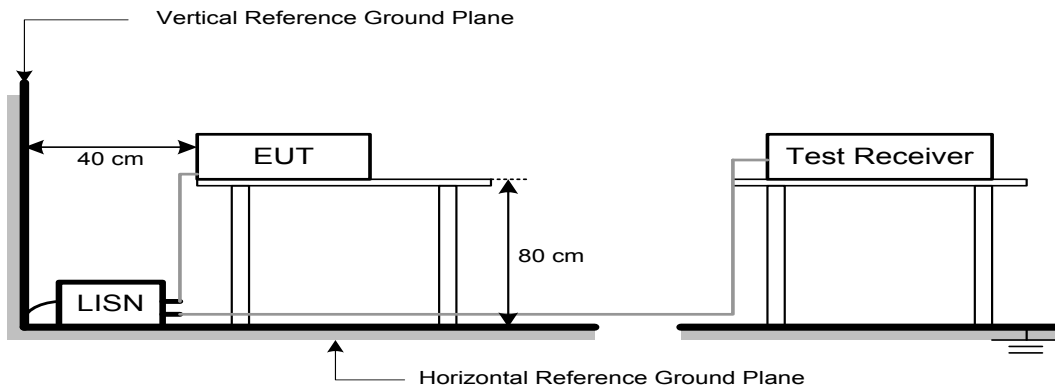
4.2 TEST PROCEDURE

- 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.

4.3 DEVIATION FROM TEST STANDARD

No deviation

4.4 TEST SETUP



4.5 EUT OPERATION CONDITIONS

EUT was programmed to be in continuously transmitting mode.

4.6 EUT TEST CONDITIONS

Temperature: 25°C Relative Humidity: 53% Test Voltage: AC 120V/60Hz

4.7 TEST RESULTS

Please refer to the APPENDIX A.

5. RADIATED EMISSIONS TEST

5.1 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

5.2 TEST PROCEDURE

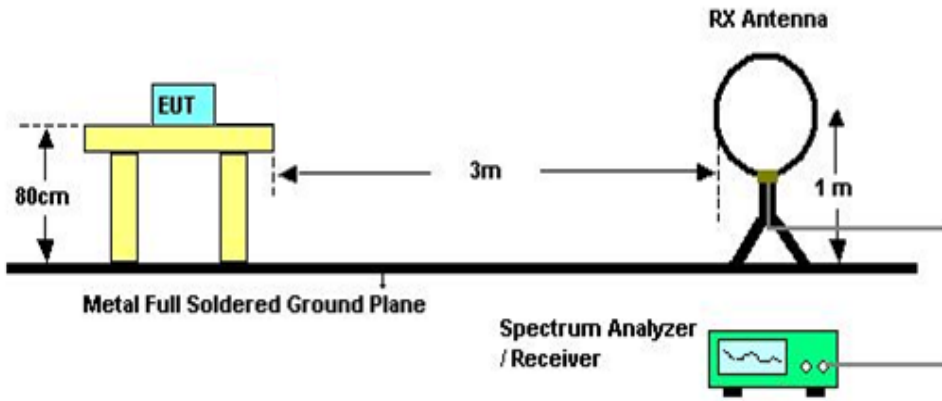
- a. The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(below 1 GHz)
- b. The measuring distance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

5.3 DEVIATION FROM TEST STANDARD

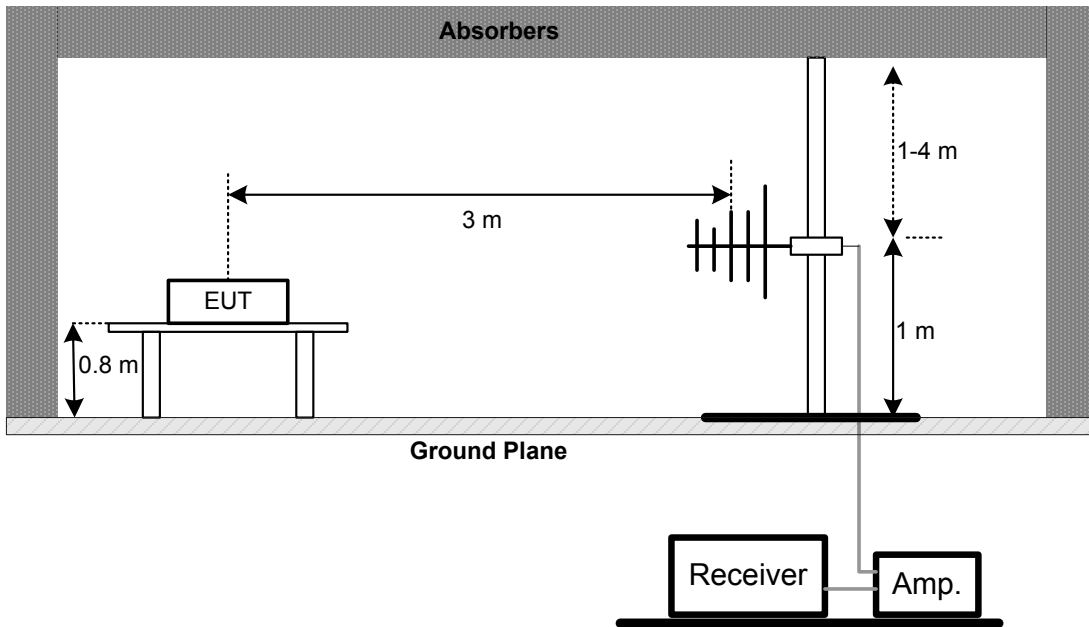
No deviation

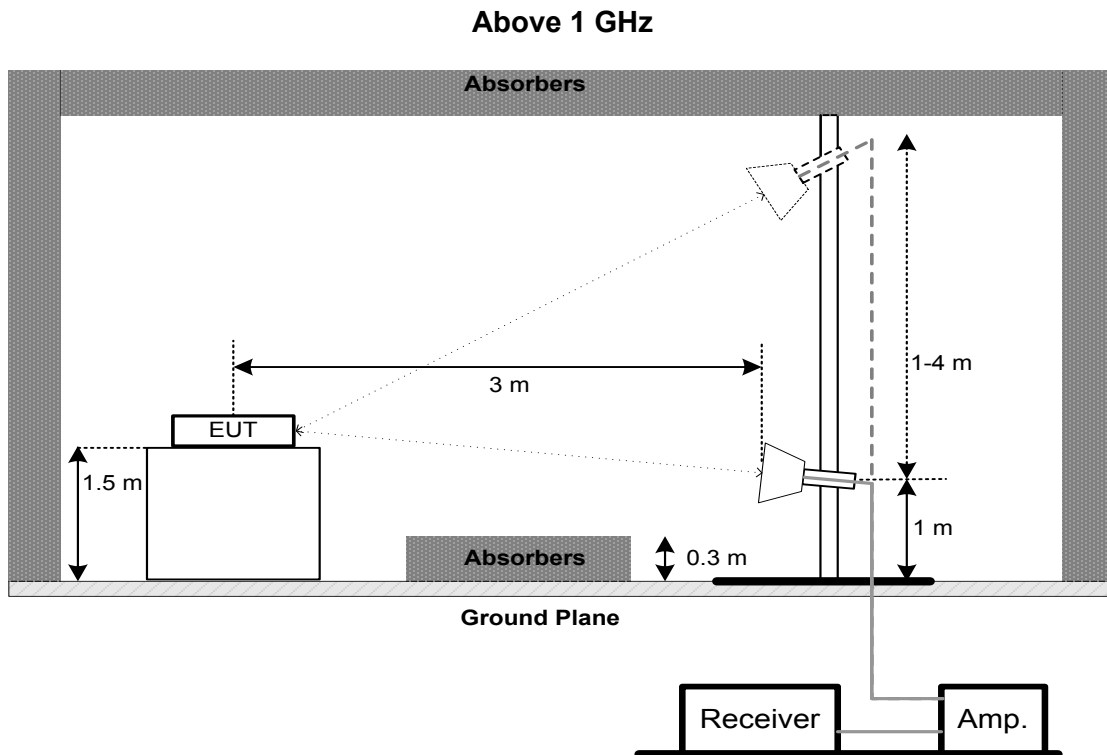
5.4 TEST SETUP

9 kHz-30 MHz



30 MHz to 1 GHz





5.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

5.6 EUT TEST CONDITIONS

Temperature: 24°C Relative Humidity: 68% Test Voltage: AC 120V/60Hz

5.7 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.

5.8 TEST RESULTS - 30 MHZ TO 1000 MHZ

Please refer to the APPENDIX C.

5.9 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.

6. BANDWIDTH TEST

6.1 LIMIT

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

6.2 TEST PROCEDURE

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- b. For 6dB Bandwidth Spectrum setting: RBW= 100KHz, VBW=300KHz, Sweep time = 2.5 ms.
For 99% OBW Spectrum Setting: For B,G,N20 mode: RBW= 300KHz, VBW=1MHz, Sweep time = 2.5 ms.
- c. The bandwidth was performed in accordance with method 11.8.1 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 EUT TEST CONDITIONS

Temperature: 25°C Relative Humidity: 53% Test Voltage: AC 120V/60Hz

6.7 TEST RESULTS

Please refer to the APPENDIX E.

7. MAXIMUM PEAK OUTPUT POWER & AVERAGE POWER TEST

7.1 LIMIT

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

7.2 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 Average Power) of ANSI C63.10-2013.

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 EUT TEST CONDITIONS

Temperature: 25°C Relative Humidity: 53% Test Voltage: AC 120V/60Hz

7.7 TEST RESULTS

Please refer to the APPENDIX F.

8. CONDUCTED SPURIOUS EMISSIONS

8.1 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.

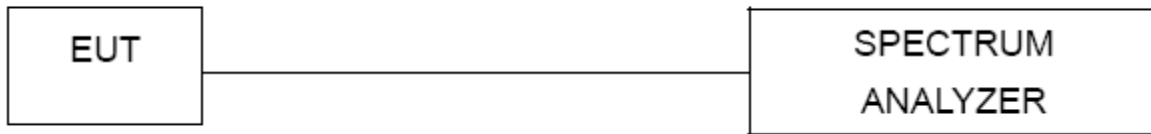
8.2 TEST PROCEDURE

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

Temperature: 25°C Relative Humidity: 53% Test Voltage: AC 120V/60Hz

8.7 TEST RESULTS

Please refer to the APPENDIX G.

9. POWER SPECTRAL DENSITY TEST

9.1 LIMIT

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

9.2 TEST PROCEDURE

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

9.3 DEVIATION FROM STANDARD

No deviation.

9.4 TEST SETUP



9.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

9.6 EUT TEST CONDITIONS

Temperature: 25°C Relative Humidity: 53% Test Voltage: AC 120V/60Hz

9.7 TEST RESULTS

Please refer to the APPENDIX H.

10. MEASUREMENT INSTRUMENTS LIST

AC Power Line Conducted Emissions					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	EMI Test Receiver	R&S	ESCI	100382	Mar. 10, 2020
2	LISN	EMCO	3816/2	52765	Mar. 10, 2020
3	TWO-LINE V-NETWORK	R&S	ENV216	101447	May. 19, 2020
4	50Ω Terminator	SHX	TF5-3	15041305	Mar. 10, 2020
5	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
6	Cable	N/A	RG223	12m	Mar. 12, 2020

Radiated Emissions - 9 kHz to 30 MHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Loop Antenna	EM	EM-6876-1	230	Jan. 15, 2020
2	Cable	N/A	RG 213/U	C-102	May 31, 2020
3	EMI Test Receiver	R&S	ESCI	100895	Mar. 10, 2020
4	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	Antenna	Schwarzbeck	VULB9160	9160-3232	Mar. 09, 2020
2	Amplifier	HP	8447D	2944A09673	Aug. 11, 2019
3	Receiver	Agilent	N9038A	MY52130039	Aug. 11, 2019
4	Cable	emci	LMR-400(30MHz- 1GHz)(8m+5m)	N/A	May 24, 2020
5	Controller	CT	SC100	N/A	N/A
6	Controller	MF	MF-7802	MF780208416	N/A
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 Guide Antenna	ETS	3115	75789	Mar. 09, 2020
2	Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	9170319	Jun. 23, 2020
3	Amplifier	Agilent	8449B	3008A02333	Mar. 10, 2020
4	Microwave Preampifier With Adaptor	EMC INSTRUMENT	EMC2654045	980039 & HA01	Mar. 10, 2020
5	Receiver	Agilent	N9038A	MY52130039	Aug. 11, 2019
6	Controller	CT	SC100	N/A	N/A
7	Controller	MF	MF-7802	MF780208416	N/A
8	Cable	mitron	B10-01-01-12M	18072744	Jul. 30, 2019
9	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A

Bandwidth & Antenna Conducted Spurious Emissions & Power Spectral Density					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP40	100185	Aug. 11, 2019

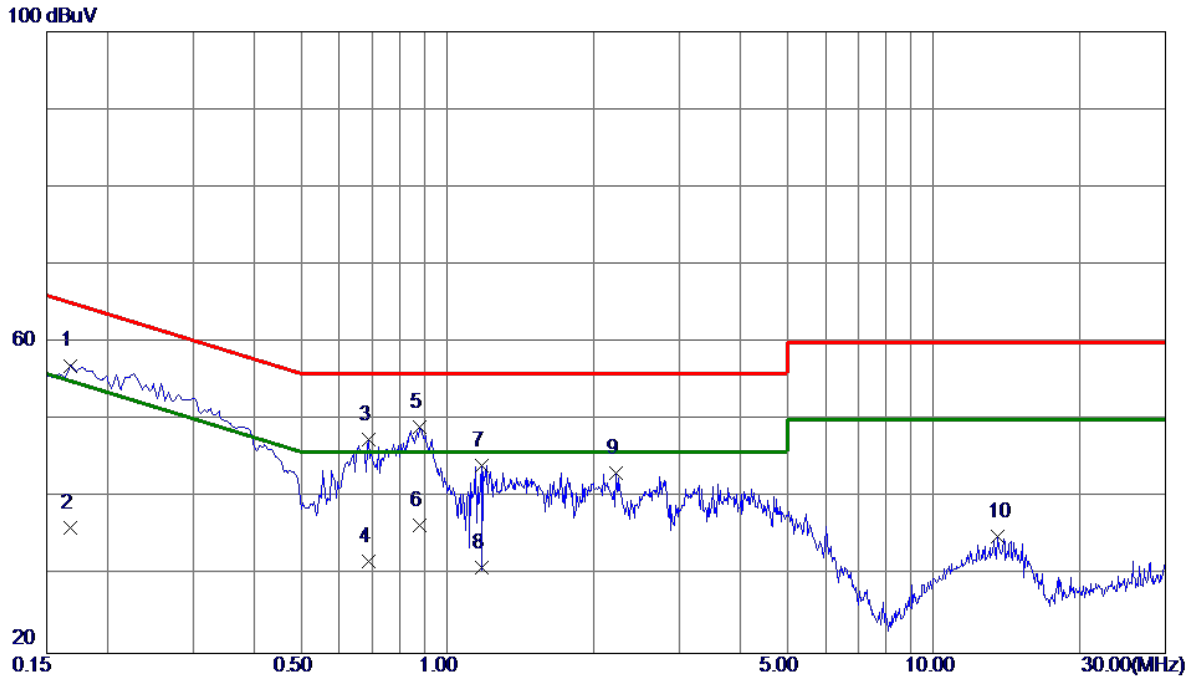
Maximum Peak Output Power & Average Power					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	P-series power meter	Agilent	N1911A	MY45100473	Aug. 11, 2019
2	wideband power sensor	Agilent	N1921A	MY51100041	Aug. 11, 2019

Remark: "N/A" denotes no model name, serial no. or calibration specified.
 All calibration period of equipment list is one year.

APPENDIX A - AC POWER LINE CONDUCTED EMISSIONS

Test Mode: TX G Mode Channel 06

Line



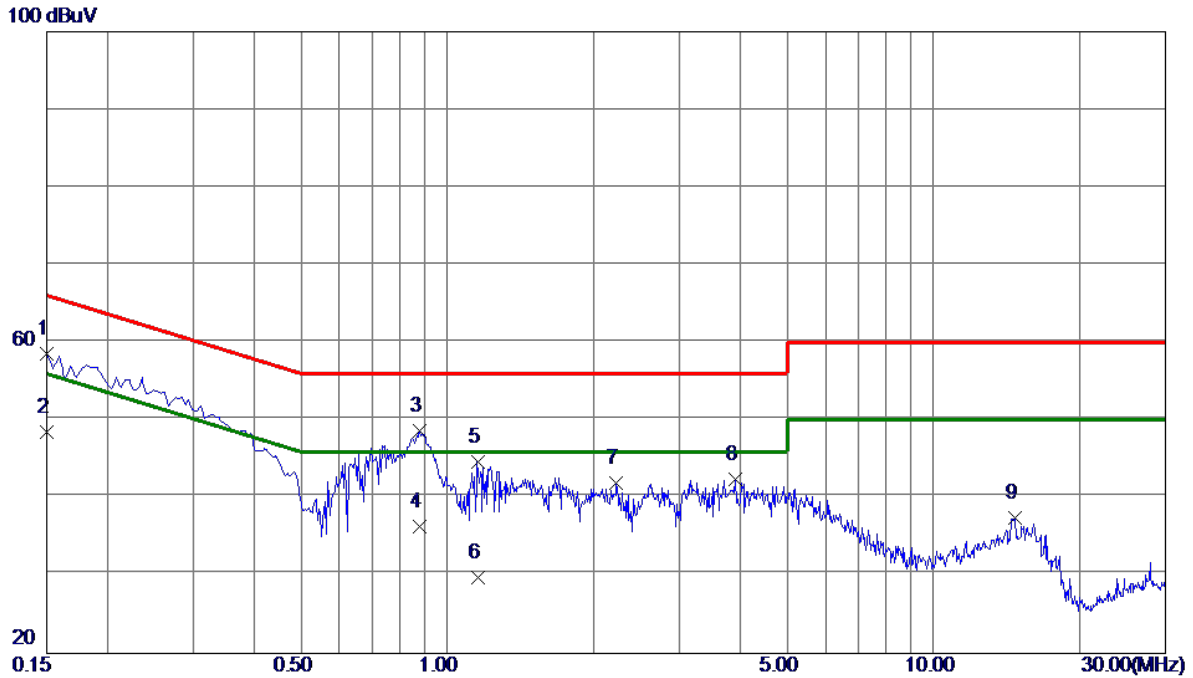
No.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1	0.1680	47.22	9.82	57.04	65.06	-8.02	Peak	
2	0.1680	26.40	9.82	36.22	55.06	-18.84	AVG	
3	0.6900	37.66	9.90	47.56	56.00	-8.44	Peak	
4	0.6900	22.00	9.90	31.90	46.00	-14.10	AVG	
5 *	0.8790	39.16	9.91	49.07	56.00	-6.93	Peak	
6	0.8790	26.50	9.91	36.41	46.00	-9.59	AVG	
7	1.1760	34.20	9.93	44.13	56.00	-11.87	Peak	
8	1.1760	21.10	9.93	31.03	46.00	-14.97	AVG	
9	2.2200	33.15	10.01	43.16	56.00	-12.84	Peak	
10	13.5645	24.36	10.67	35.03	60.00	-24.97	Peak	

REMARKS:

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

Test Mode: TX G Mode Channel 06

Neutral



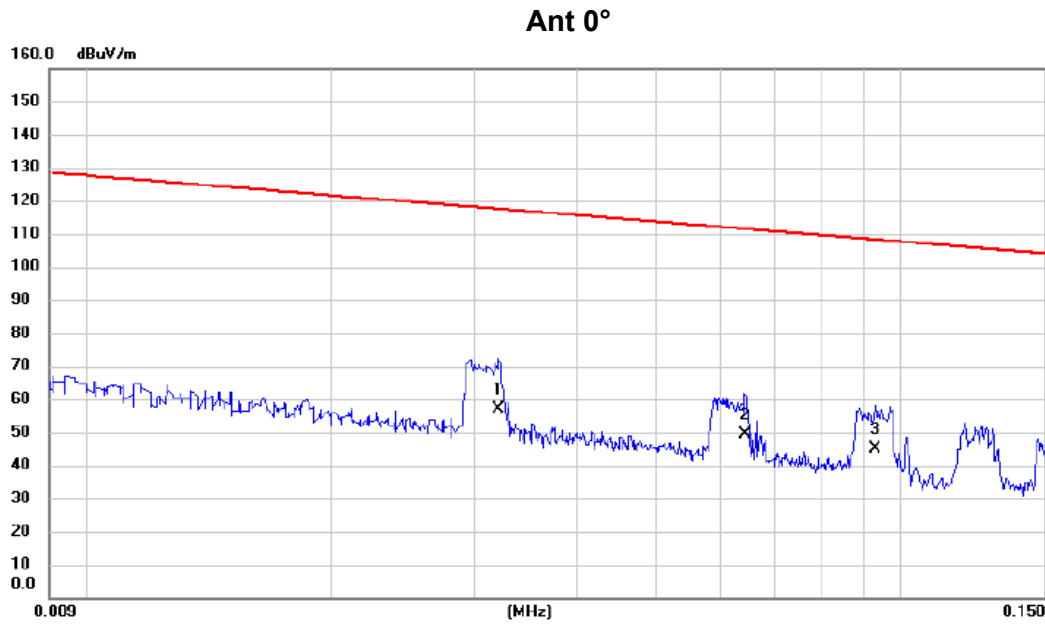
No.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measurement dBuV	Limit dBuV	Margin dB	Detector	Comment
1 *	0.1500	48.72	9.91	58.63	66.00	-7.37	Peak	
2	0.1500	38.60	9.91	48.51	56.00	-7.49	AVG	
3	0.8790	38.49	10.09	48.58	56.00	-7.42	Peak	
4	0.8790	26.30	10.09	36.39	46.00	-9.61	AVG	
5	1.1535	34.45	10.13	44.58	56.00	-11.42	Peak	
6	1.1535	19.70	10.13	29.83	46.00	-16.17	AVG	
7	2.2290	31.72	10.20	41.92	56.00	-14.08	Peak	
8	3.9120	32.05	10.31	42.36	56.00	-13.64	Peak	
9	14.7165	26.34	11.06	37.40	60.00	-22.60	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

Test Mode: TX G Mode Channel 06

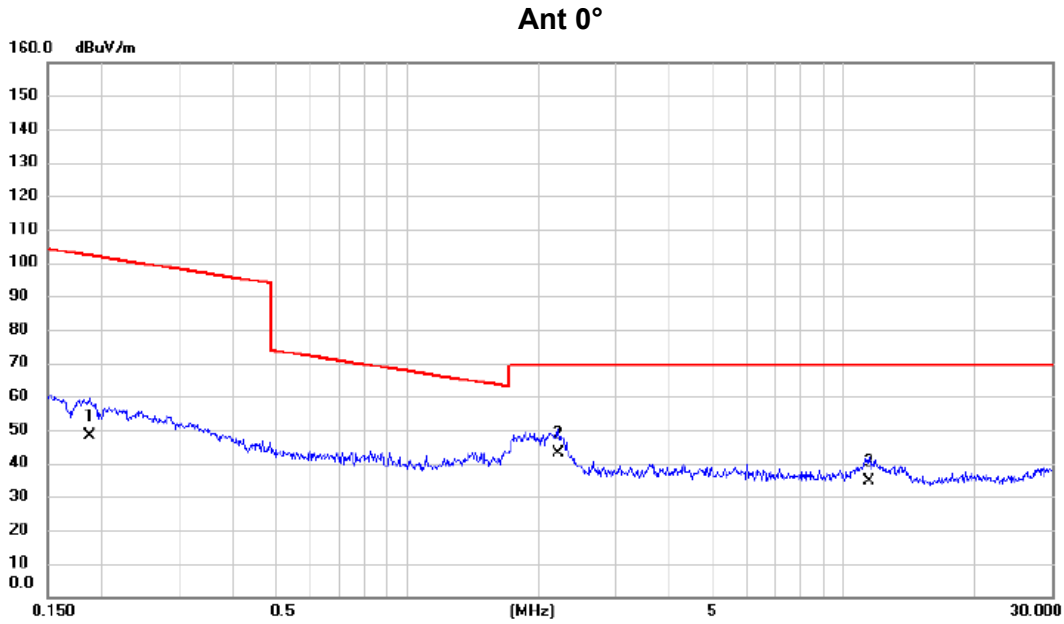


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	0.0321	43.10	13.84	56.94	117.47	-60.53	AVG	
2		0.0644	35.60	13.67	49.27	111.43	-62.16	AVG	
3		0.0930	31.50	13.50	45.00	108.24	-63.24	QP	

REMARKS:

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

Test Mode: TX G Mode Channel 06



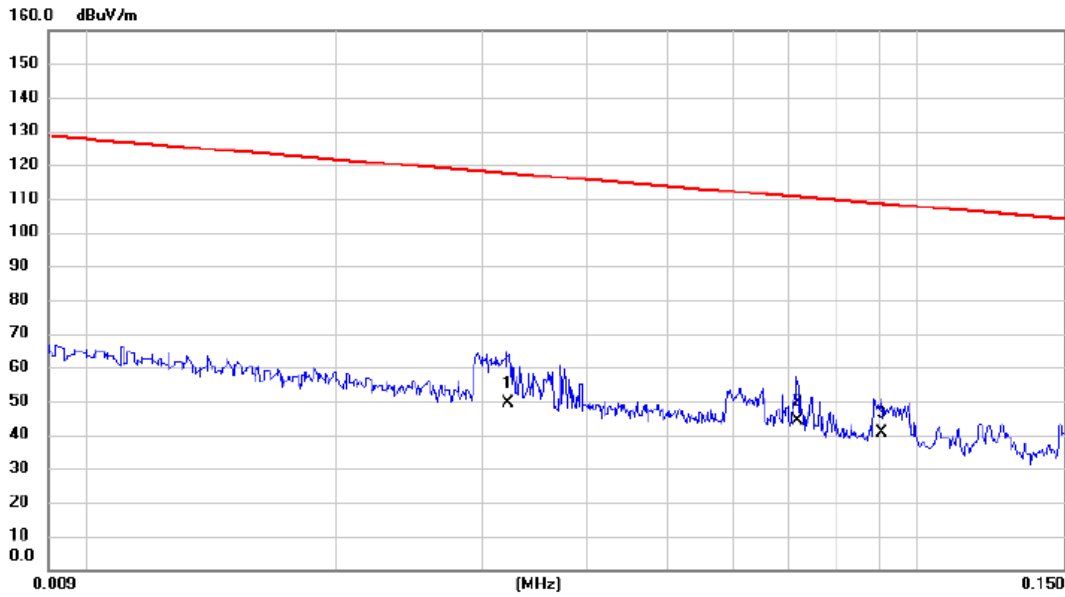
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		0.1874	34.60	13.54	48.14	102.15	-54.01	AVG	
2	*	2.2250	31.51	11.56	43.07	69.54	-26.47	QP	
3		11.4376	23.20	11.37	34.57	69.54	-34.97	QP	

REMARKS:

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

Test Mode: TX G Mode Channel 06

Ant 90°



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Detector	Comment
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1		0.0322	35.60	13.84	49.44	117.45	-68.01	AVG	
2	*	0.0718	30.80	13.55	44.35	110.48	-66.13	AVG	
3		0.0907	27.10	13.50	40.60	108.45	-67.85	QP	

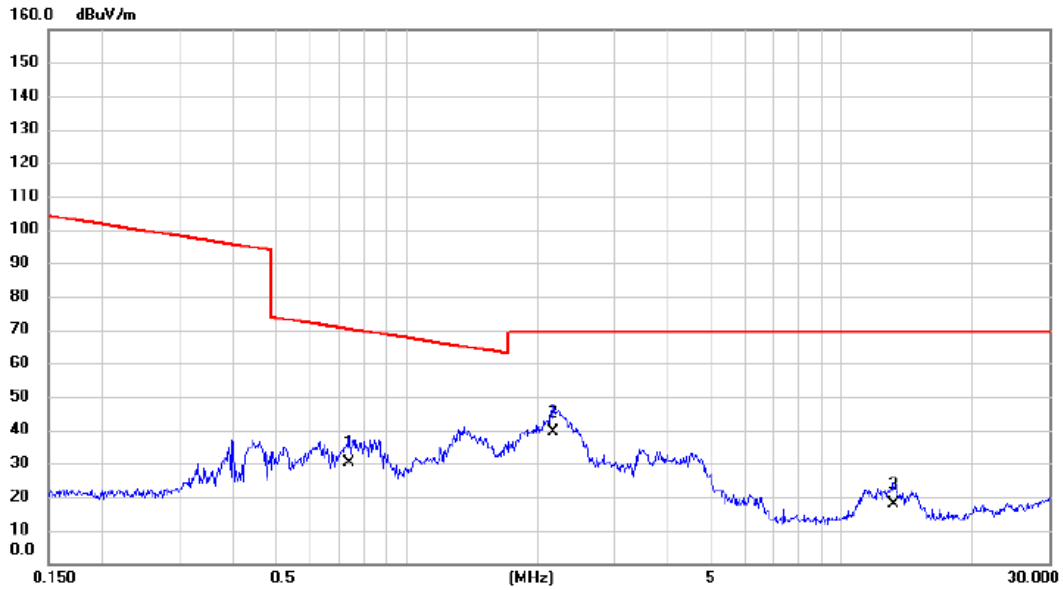
REMARKS:

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

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

Test Mode: TX G Mode Channel 06

Ant 90°



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		0.7352	17.80	12.53	30.33	70.28	-39.95	QP	
2	*	2.1783	28.00	11.59	39.59	69.54	-29.95	QP	
3		13.1270	6.60	11.34	17.94	69.54	-51.60	QP	

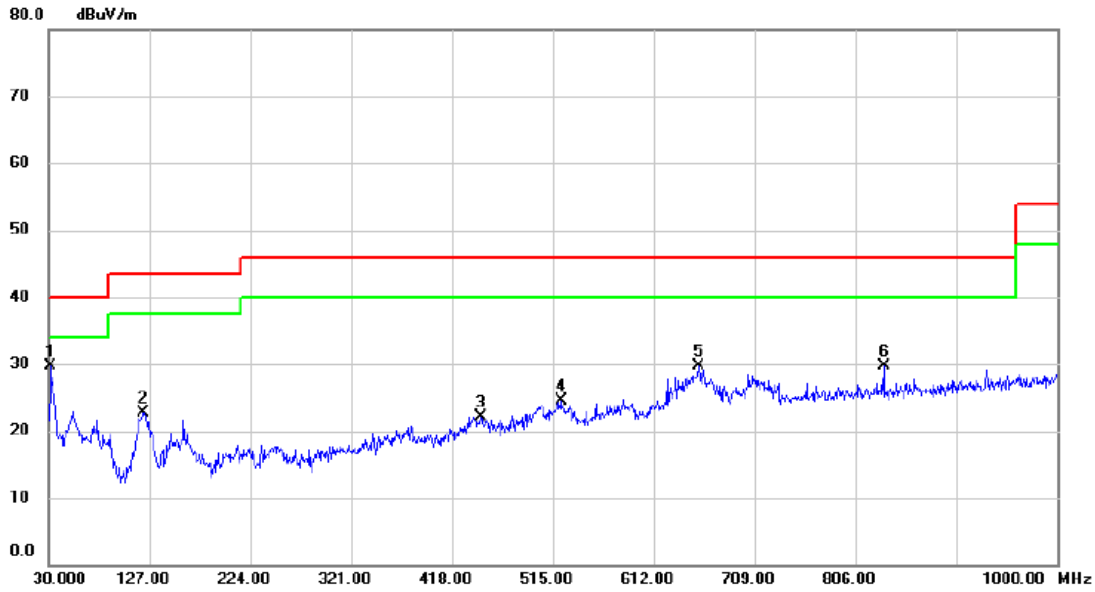
REMARKS:

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

APPENDIX C - RADIATED EMISSION - 30 MHZ TO 1000 MHZ

Test Mode: TX G Mode Channel 06

Vertical



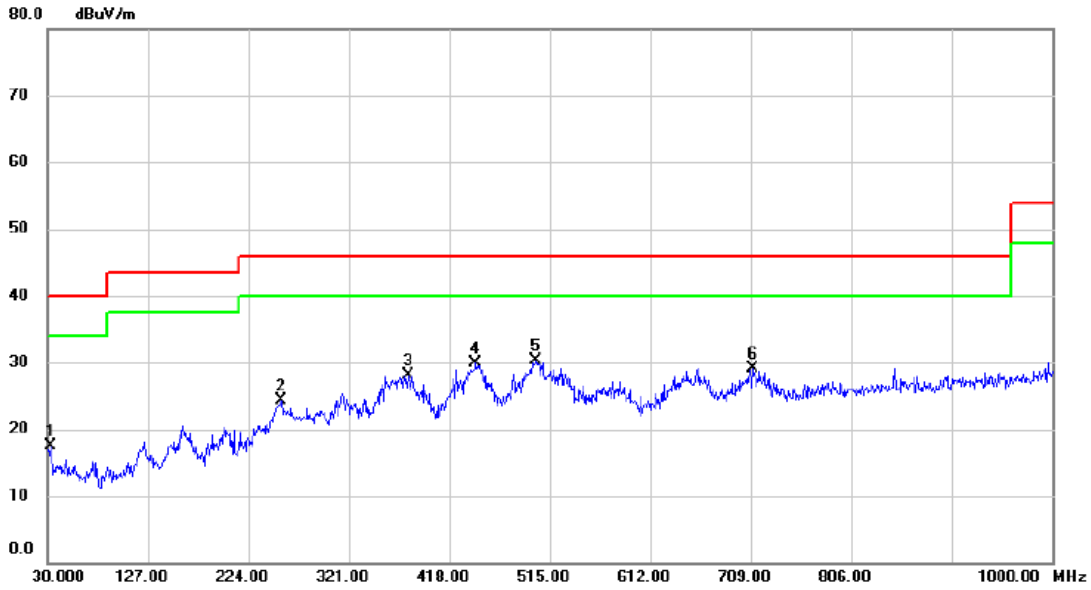
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	31.940	44.43	-14.79	29.64	40.00	-10.36	peak	
2		121.665	35.82	-13.04	22.78	43.50	-20.72	peak	
3		445.645	30.39	-8.19	22.20	46.00	-23.80	peak	
4		522.760	32.01	-7.46	24.55	46.00	-21.45	peak	
5		654.680	34.24	-4.61	29.63	46.00	-16.37	peak	
6		833.645	32.35	-2.57	29.78	46.00	-16.22	peak	

REMARKS:

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

Test Mode: TX G 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		32.910	32.35	-14.94	17.41	40.00	-22.59	peak	
2		256.010	37.35	-13.08	24.27	46.00	-21.73	peak	
3		378.230	38.13	-9.99	28.14	46.00	-17.86	peak	
4		443.705	38.19	-8.25	29.94	46.00	-16.06	peak	
5	*	501.905	38.00	-7.66	30.34	46.00	-15.66	peak	
6		711.425	33.11	-3.93	29.18	46.00	-16.82	peak	

REMARKS:

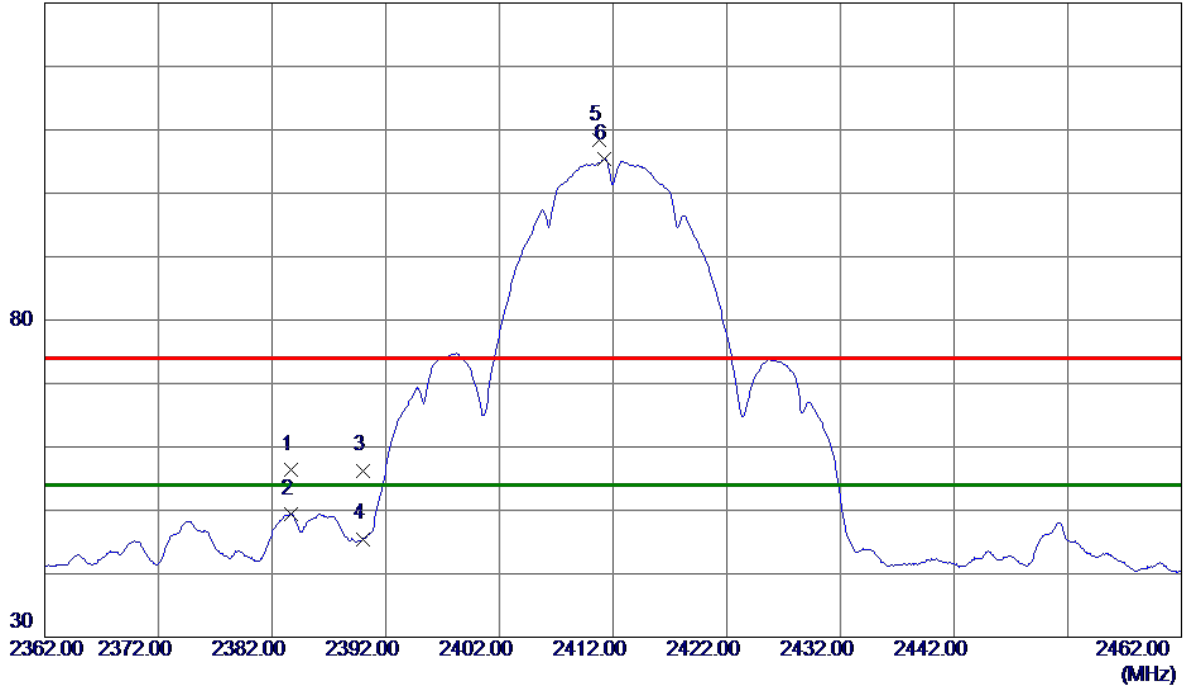
- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

APPENDIX D - RADIATED EMISSION- ABOVE 1000 MHZ

Test Mode: TX B Mode 2412 MHz

Vertical

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2383.6500	48.78	7.54	56.32	74.00	-17.68	Peak	
2	2383.6500	41.92	7.54	49.46	54.00	-4.54	AVG	
3	2390.0000	48.74	7.56	56.30	74.00	-17.70	Peak	
4	2390.0000	37.94	7.56	45.50	54.00	-8.50	AVG	
5	2410.8000	100.78	7.63	108.41	74.00	34.41	Peak	No Limit
6 *	2411.2500	97.67	7.64	105.31	54.00	51.31	AVG	No Limit

REMARKS:

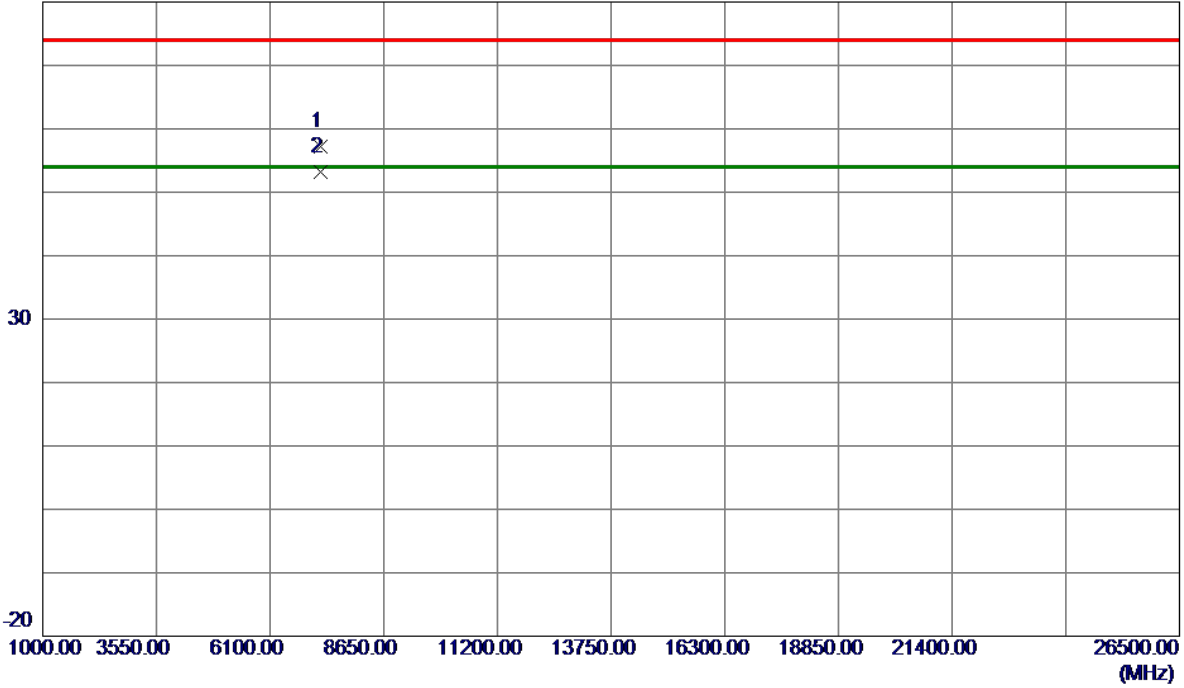
(1) Measurement Value = Reading Level + Correct Factor.

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

Test Mode: TX B Mode 2412 MHz

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	7235.0170	49.45	7.81	57.26	74.00	-16.74	Peak	
2 *	7236.7730	45.36	7.81	53.17	54.00	-0.83	AVG	

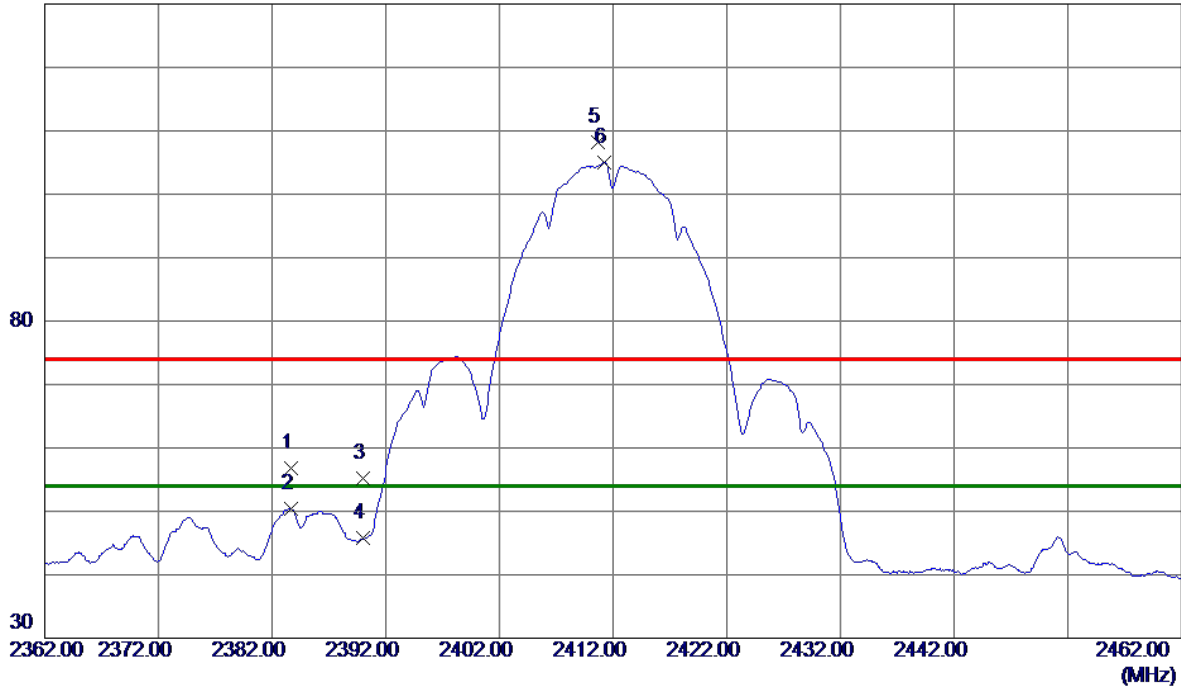
REMARKS:

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

Test Mode: TX B Mode 2412 MHz

Horizontal

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2383.7000	49.17	7.54	56.71	74.00	-17.29	Peak	
2	2383.7000	42.82	7.54	50.36	54.00	-3.64	AVG	
3	2390.0000	47.68	7.56	55.24	74.00	-18.76	Peak	
4	2390.0000	38.22	7.56	45.78	54.00	-8.22	AVG	
5	2410.6500	100.58	7.63	108.21	74.00	34.21	Peak	No Limit
6 *	2411.2000	97.37	7.64	105.01	54.00	51.01	AVG	No Limit

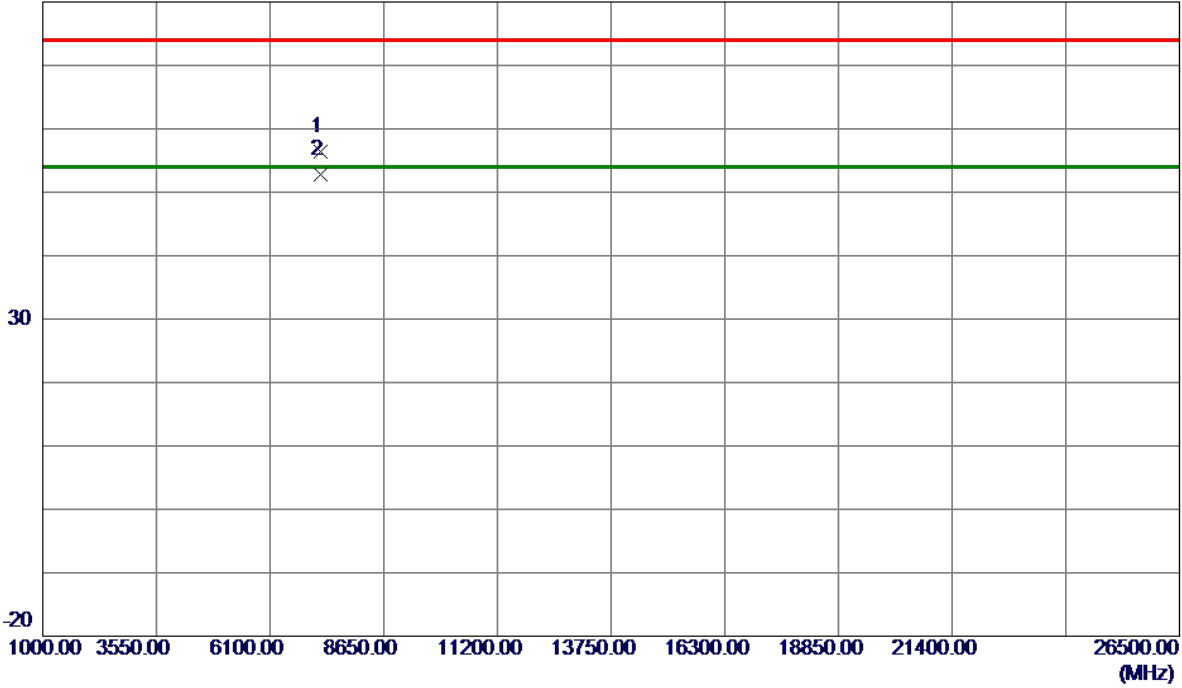
REMARKS:

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

Test Mode: TX B Mode 2412 MHz

Horizontal

80 dBuV/m



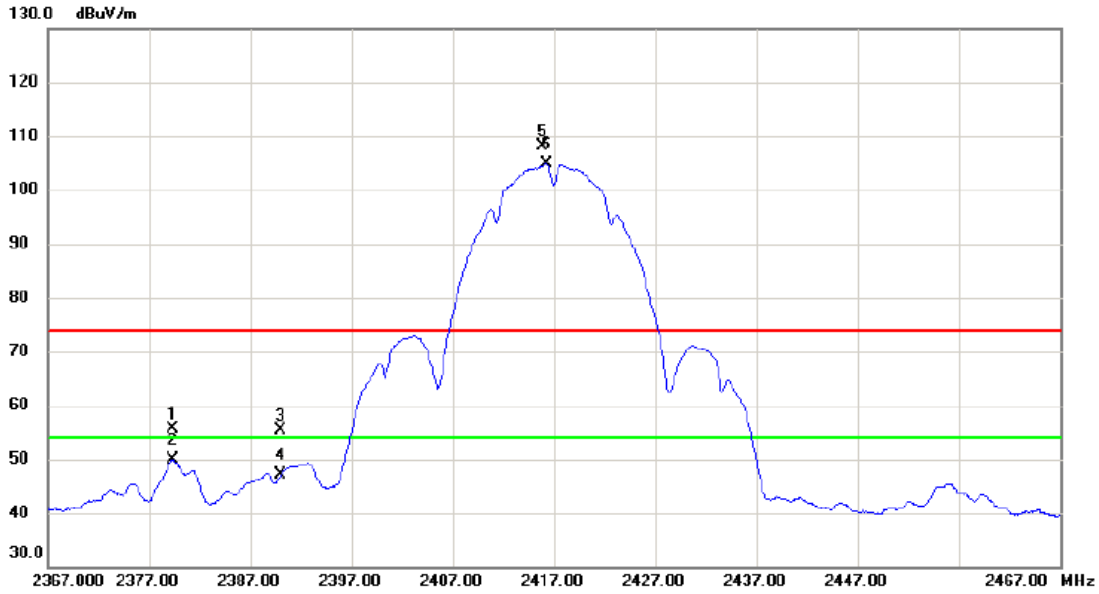
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	7236.0840	48.56	7.81	56.37	74.00	-17.63	Peak	
2 *	7236.7710	45.04	7.81	52.85	54.00	-1.15	AVG	

REMARKS:

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

Test Mode: TX B Mode 2417 MHz

Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		2379.350	48.13	7.52	55.65	74.00	-18.35	peak	
2		2379.350	42.42	7.52	49.94	54.00	-4.06	AVG	
3		2390.000	47.80	7.57	55.37	74.00	-18.63	peak	
4		2390.000	39.67	7.57	47.24	54.00	-6.76	AVG	
5	X	2415.850	100.38	7.65	108.03	74.00	34.03	peak	No Limit
6	*	2416.300	97.27	7.66	104.93	54.00	50.93	AVG	No Limit

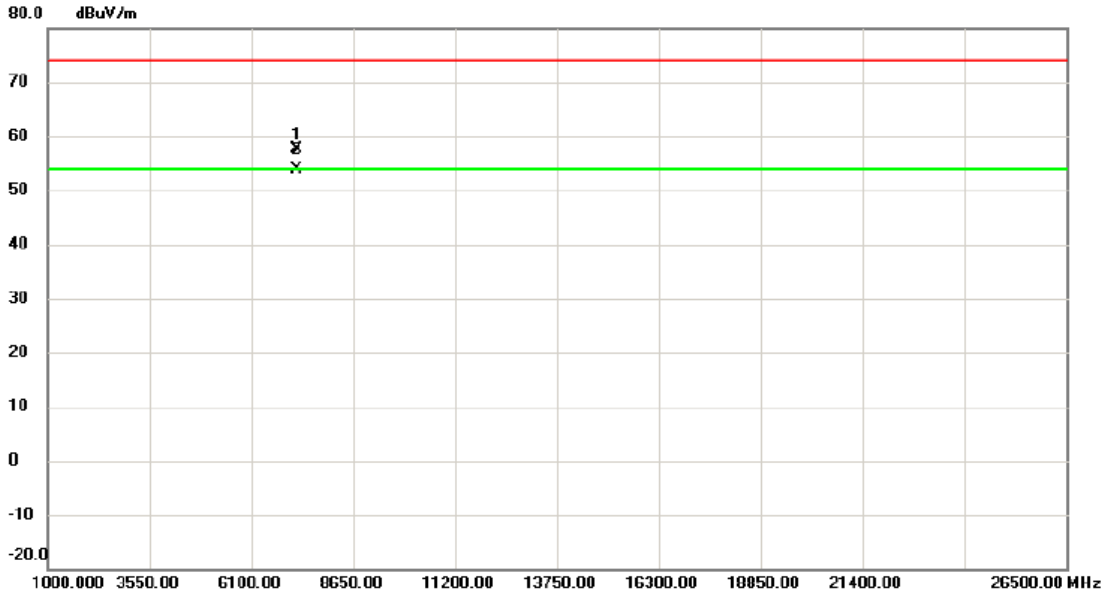
REMARKS:

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

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

Test Mode: TX B Mode 2417 MHz

Vertical



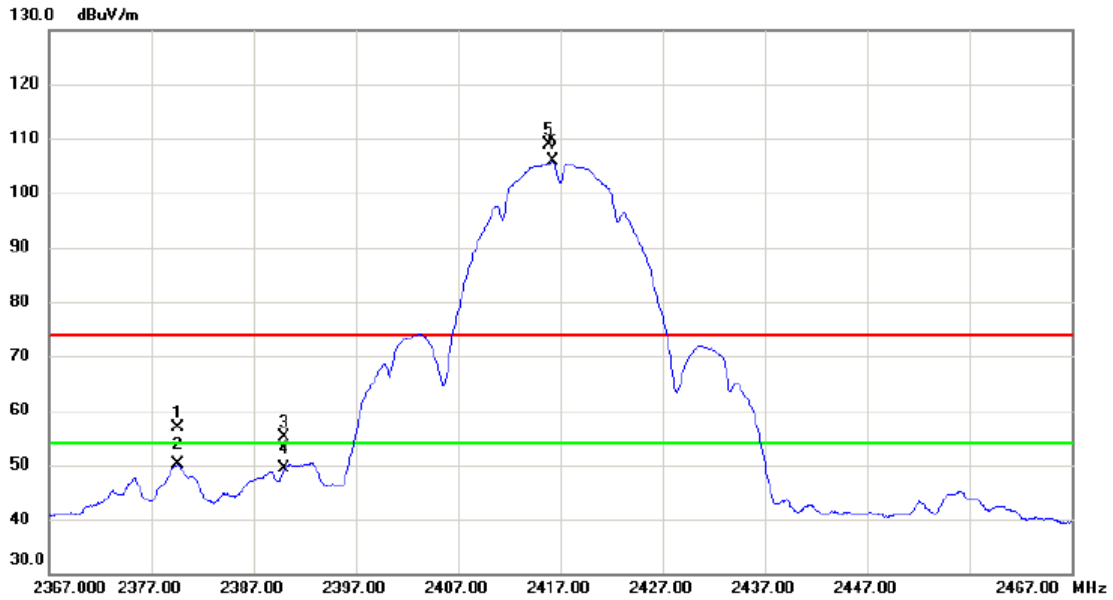
No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measurement dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	7249.415	49.83	7.83	57.66	74.00	-16.34	peak	
2 *	7251.727	45.96	7.82	53.78	54.00	-0.22	AVG	

REMARKS:

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

Test Mode: TX B Mode 2417 MHz

Horizontal



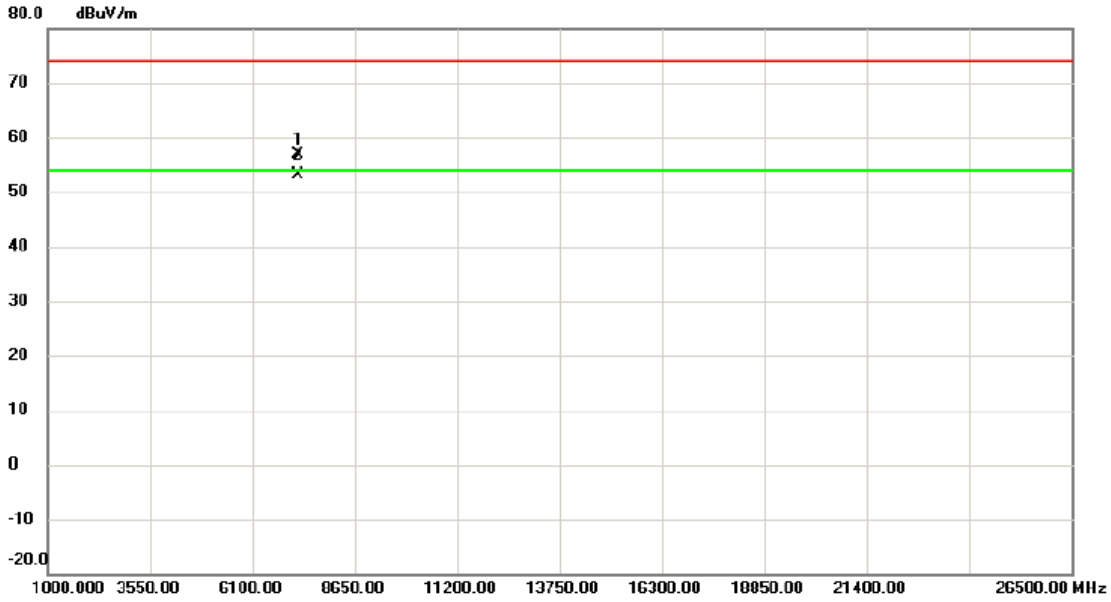
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		2379.550	49.42	7.53	56.95	74.00	-17.05	peak	
2		2379.550	42.56	7.53	50.09	54.00	-3.91	AVG	
3		2390.000	47.67	7.57	55.24	74.00	-18.76	peak	
4		2390.000	41.79	7.57	49.36	54.00	-4.64	AVG	
5	X	2415.800	101.34	7.65	108.99	74.00	34.99	peak	No Limit
6	*	2416.250	98.13	7.66	105.79	54.00	51.79	AVG	No Limit

REMARKS:

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

Test Mode: TX B Mode 2417 MHz

Horizontal



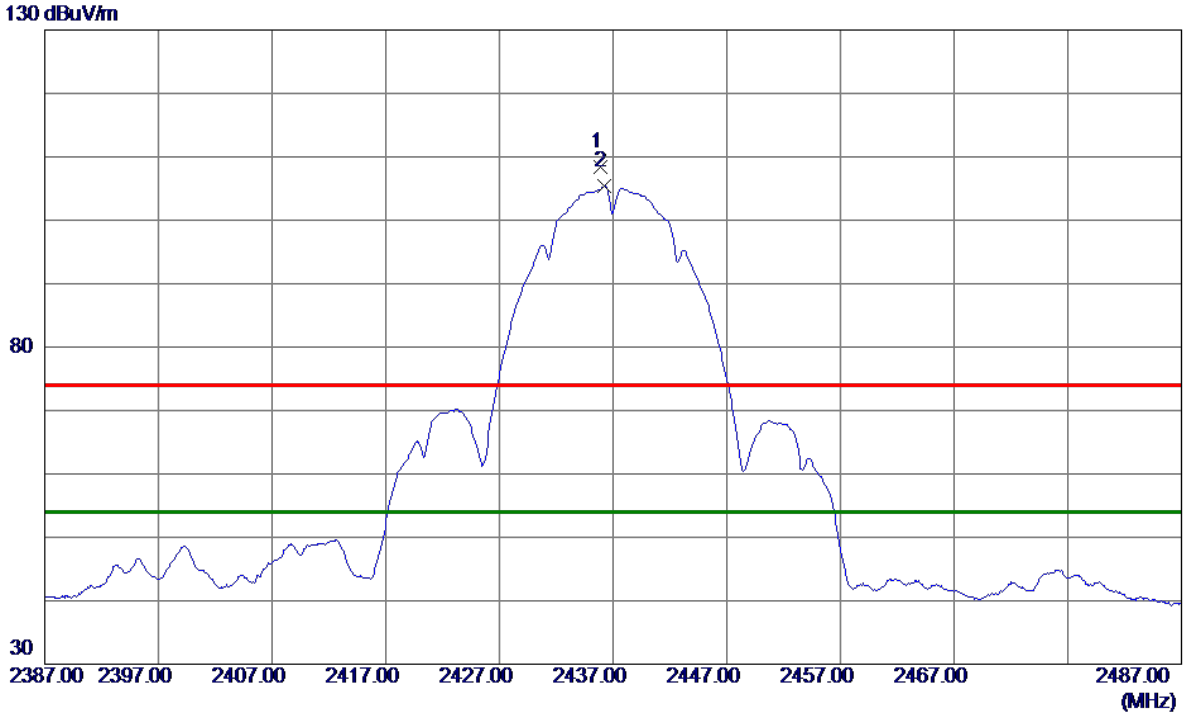
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		7249.415	49.06	7.83	56.89	74.00	-17.11	peak	
2	*	7251.727	45.20	7.82	53.02	54.00	-0.98	AVG	

REMARKS:

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

Test Mode: TX B 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	2435.8500	100.64	7.72	108.36	74.00	34.36	Peak	No Limit
2 *	2436.2500	97.63	7.72	105.35	54.00	51.35	AVG	No Limit

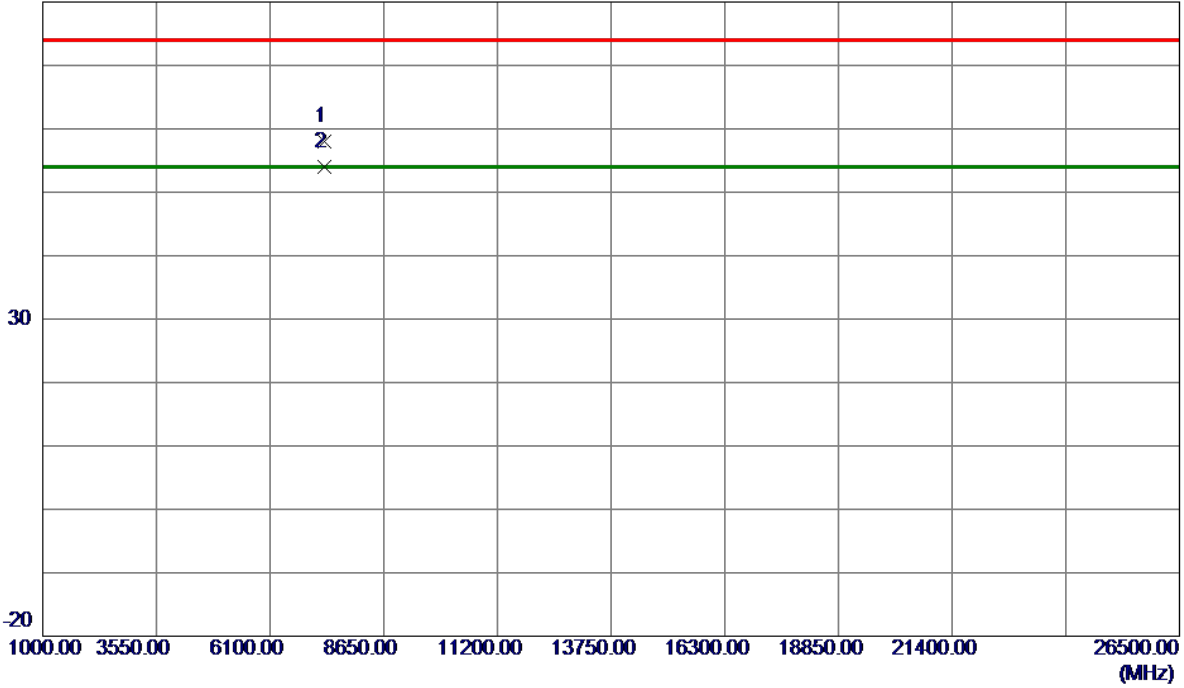
REMARKS:

- (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	7309.7050	50.03	7.90	57.93	74.00	-16.07	Peak	
2 *	7310.2000	46.09	7.90	53.99	54.00	-0.01	AVG	

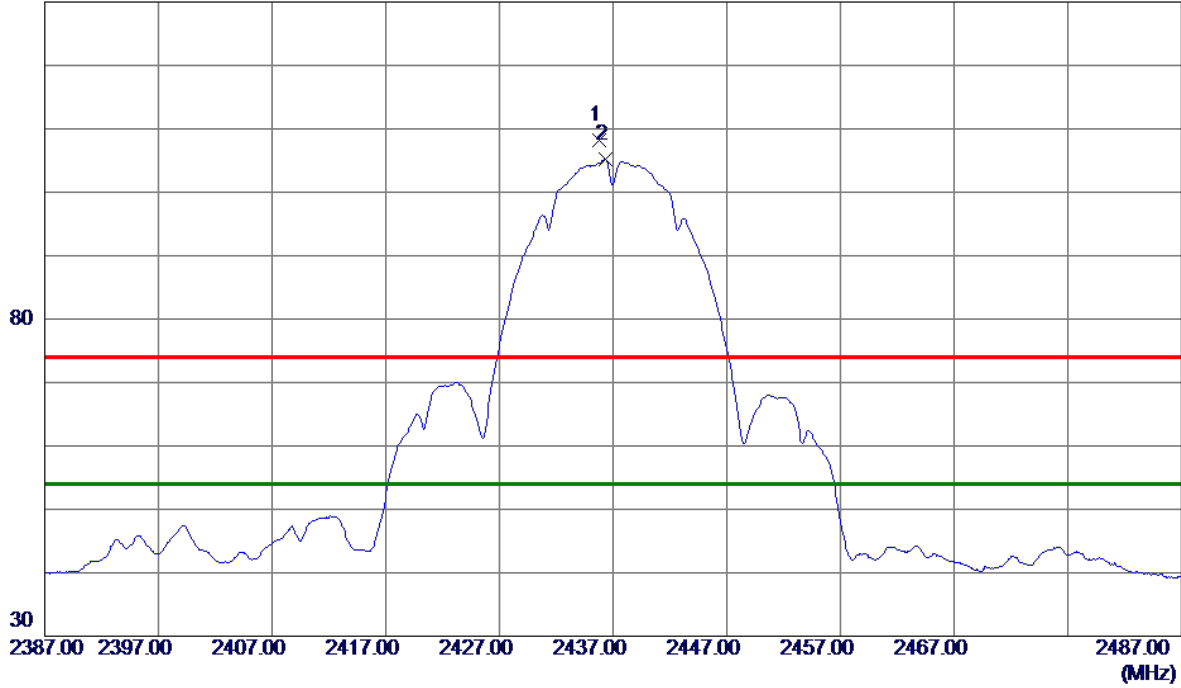
REMARKS:

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

Test Mode: TX B Mode 2437 MHz

Horizontal

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2435.7500	100.53	7.72	108.25	74.00	34.25	Peak	No Limit
2 *	2436.3000	97.42	7.72	105.14	54.00	51.14	AVG	No Limit

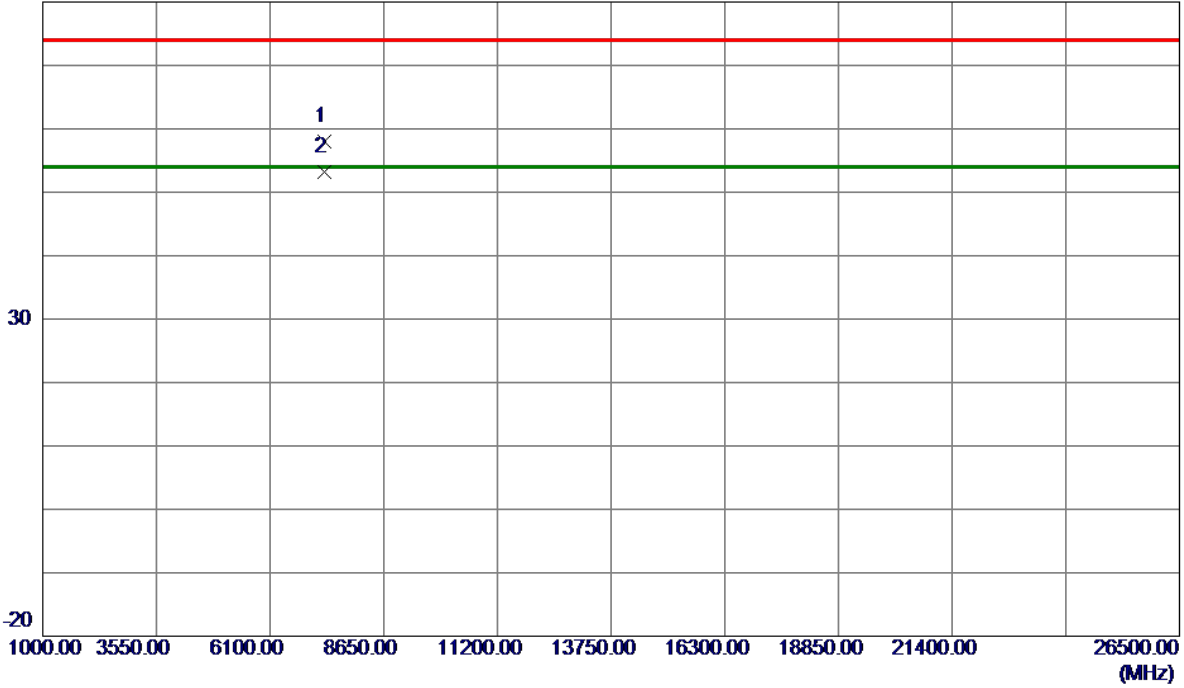
REMARKS:

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

Test Mode: TX B Mode 2437 MHz

Horizontal

80 dBuV/m



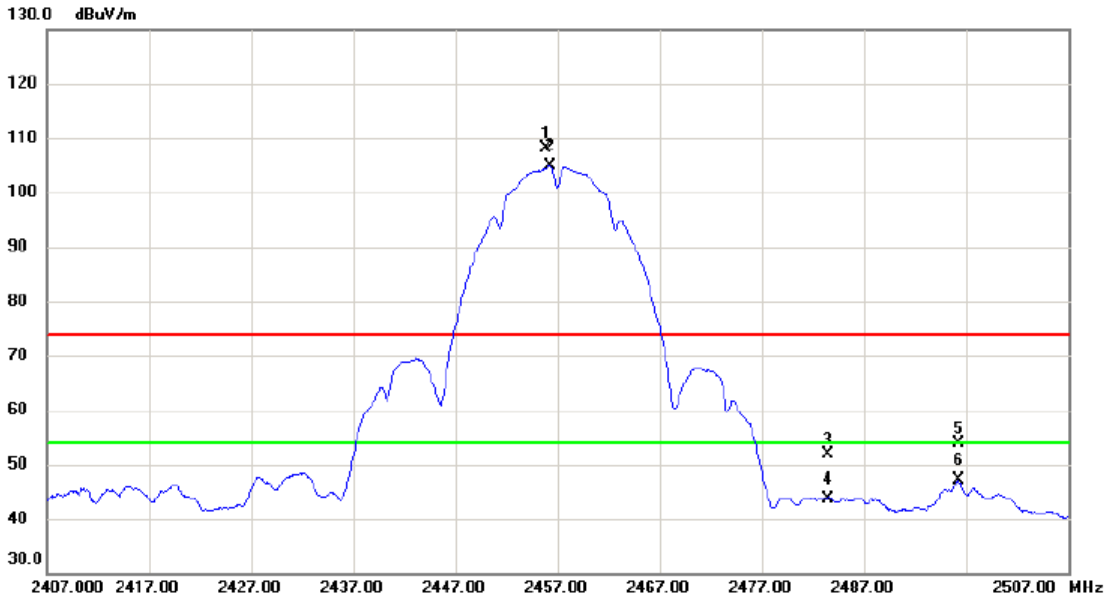
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	7309.5550	50.11	7.90	58.01	74.00	-15.99	Peak	
2 *	7310.2100	45.34	7.90	53.24	54.00	-0.76	AVG	

REMARKS:

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

Test Mode: TX B Mode 2457 MHz

Vertical



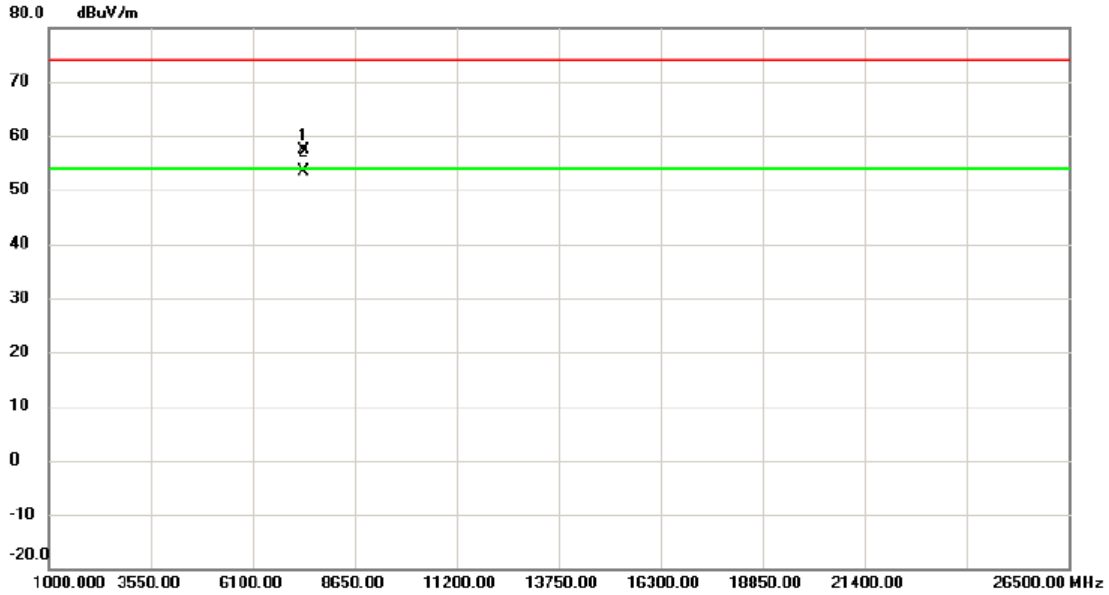
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	X	2455.850	100.23	7.78	108.01	74.00	34.01	peak	No Limit
2	*	2456.250	97.17	7.78	104.95	54.00	50.95	AVG	No Limit
3		2483.500	44.09	7.87	51.96	74.00	-22.04	peak	
4		2483.500	35.69	7.87	43.56	54.00	-10.44	AVG	
5		2496.250	45.99	7.92	53.91	74.00	-20.09	peak	
6		2496.250	39.14	7.92	47.06	54.00	-6.94	AVG	

REMARKS:

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

Test Mode: TX B Mode 2457 MHz

Vertical



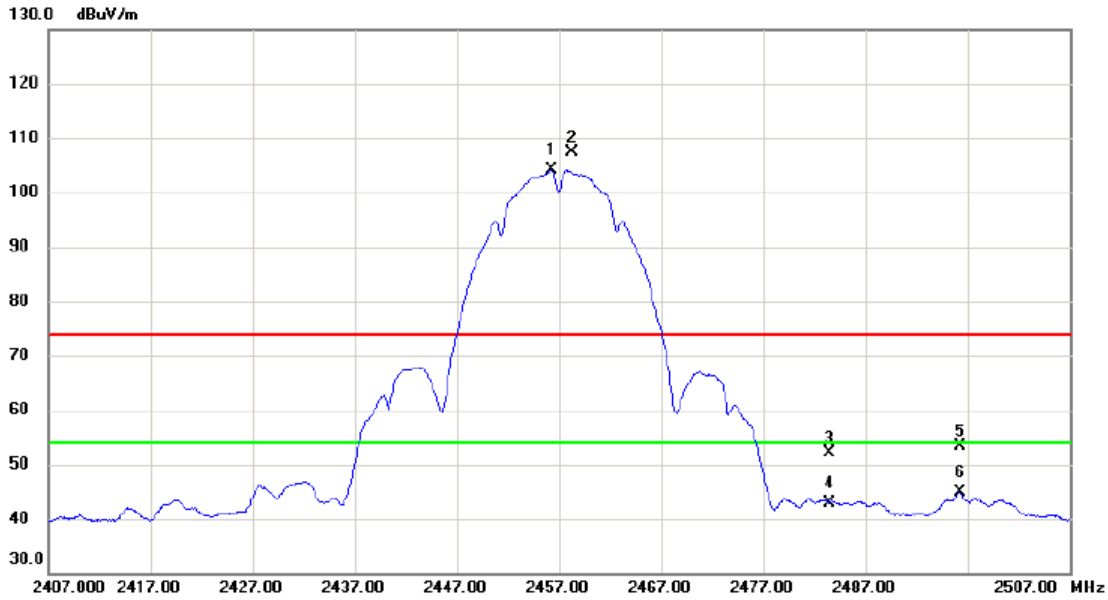
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		7369.805	49.43	7.98	57.41	74.00	-16.59	peak	
2	*	7370.150	45.43	7.98	53.41	54.00	-0.59	AVG	

REMARKS:

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

Test Mode: TX B Mode 2457 MHz

Horizontal



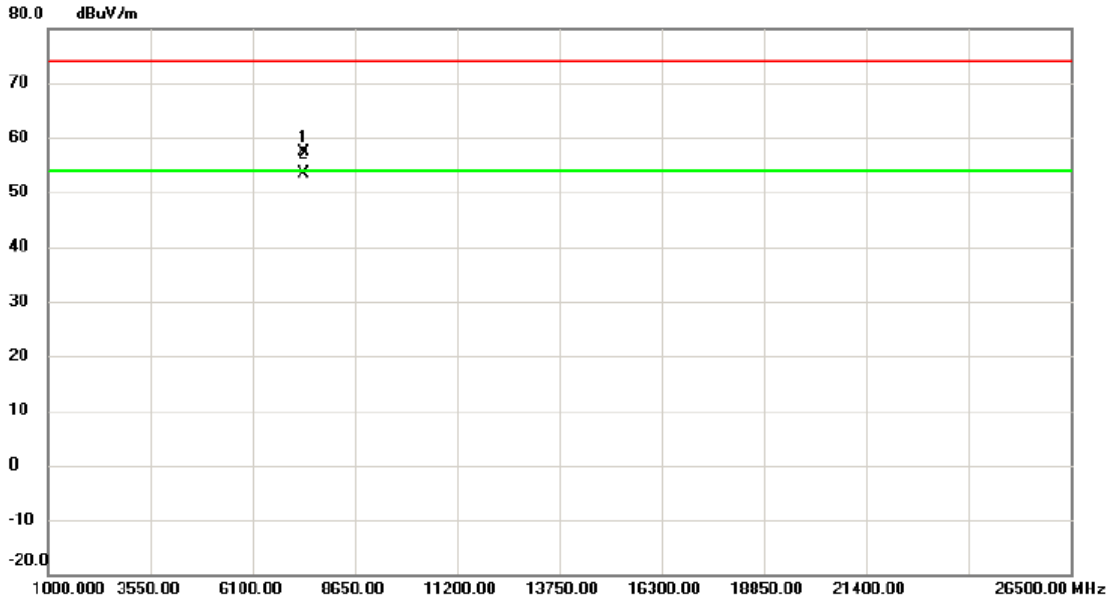
No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2456.250	96.38	7.78	104.16	54.00	50.16	AVG	No Limit
2 X	2458.250	99.51	7.79	107.30	74.00	33.30	peak	No Limit
3	2483.500	44.15	7.87	52.02	74.00	-21.98	peak	
4	2483.500	35.12	7.87	42.99	54.00	-11.01	AVG	
5	2496.250	45.53	7.92	53.45	74.00	-20.55	peak	
6	2496.250	36.98	7.92	44.90	54.00	-9.10	AVG	

REMARKS:

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

Test Mode: TX B Mode 2457 MHz

Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		7369.460	49.52	7.98	57.50	74.00	-16.50	peak	
2	*	7371.640	45.29	7.98	53.27	54.00	-0.73	AVG	

REMARKS:

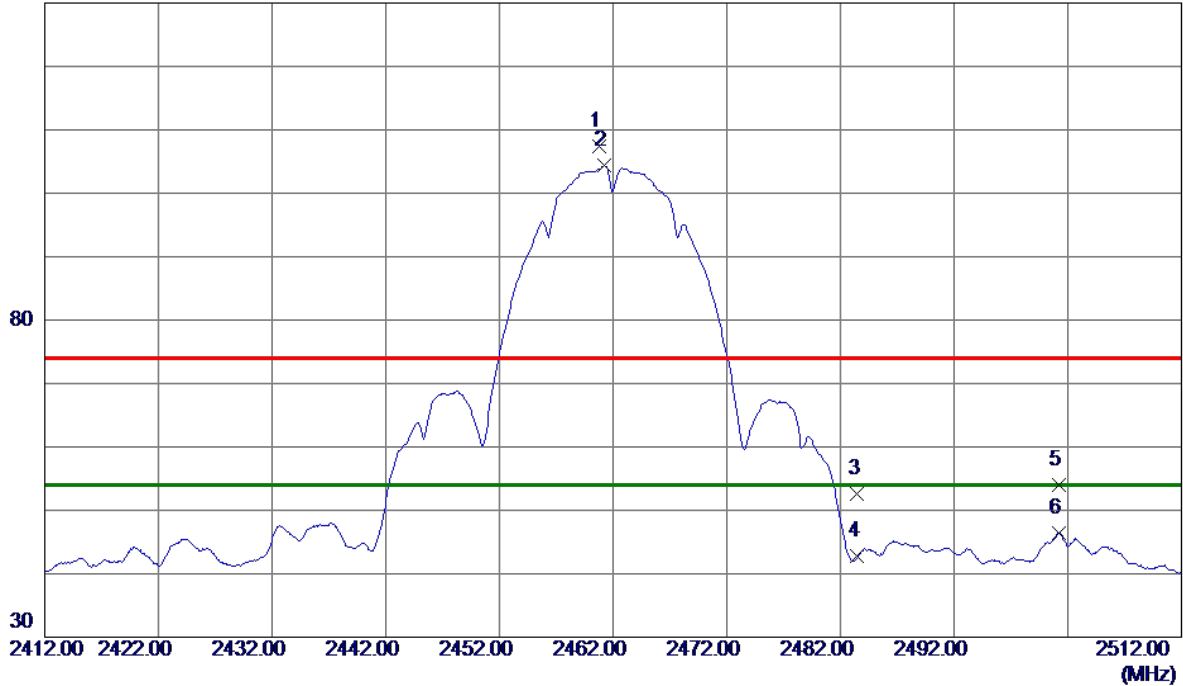
(1) Measurement Value = Reading Level + Correct Factor.

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

Test Mode: TX B Mode 2462 MHz

Vertical

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2460.7500	99.55	7.80	107.35	74.00	33.35	Peak	No Limit
2 *	2461.2500	96.51	7.80	104.31	54.00	50.31	AVG	No Limit
3	2483.5000	44.64	7.88	52.52	74.00	-21.48	Peak	
4	2483.5000	34.83	7.88	42.71	54.00	-11.29	AVG	
5	2501.2000	46.05	7.94	53.99	74.00	-20.01	Peak	
6	2501.2000	38.46	7.94	46.40	54.00	-7.60	AVG	

REMARKS:

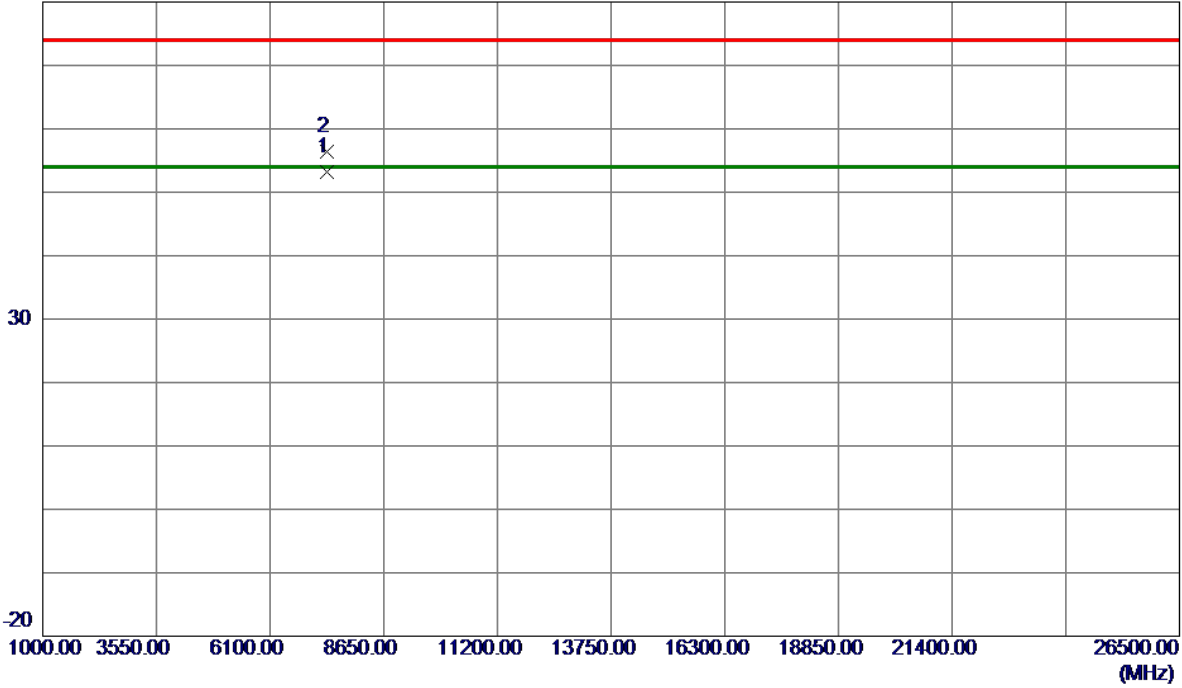
(1) Measurement Value = Reading Level + Correct Factor.

(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 *	7385.2000	45.28	8.00	53.28	54.00	-0.72	AVG	
2	7387.0800	48.46	8.00	56.46	74.00	-17.54	Peak	

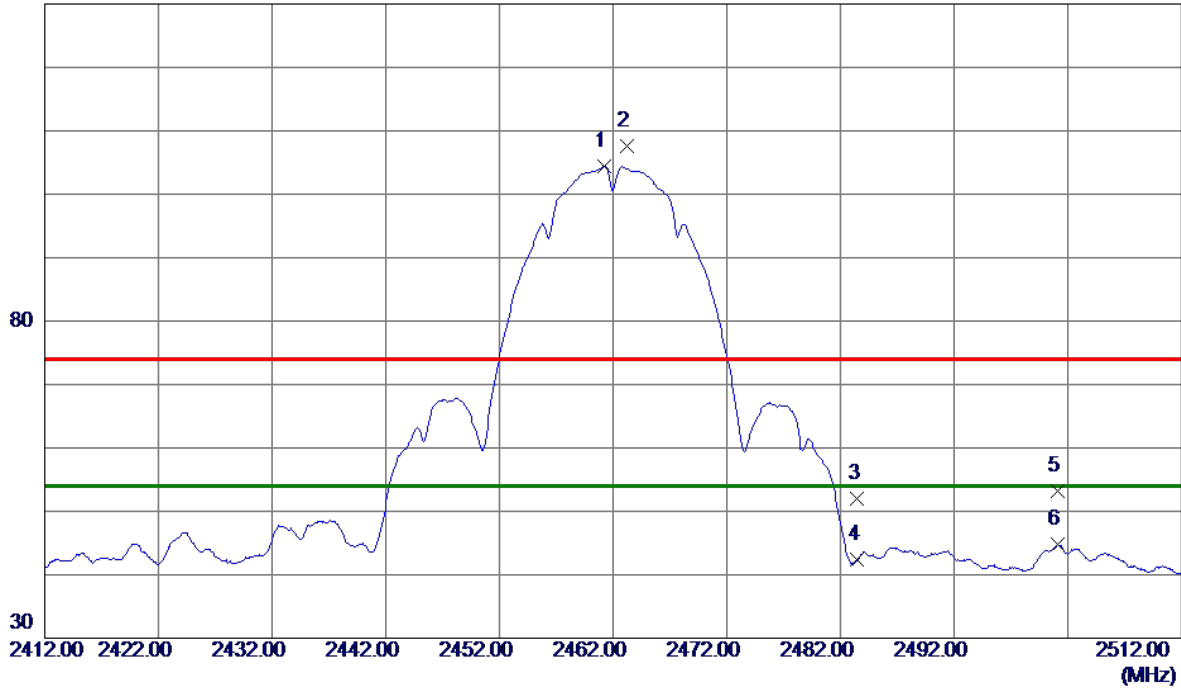
REMARKS:

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

Test Mode: TX B Mode 2462 MHz

Horizontal

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2461.2500	96.64	7.80	104.44	54.00	50.44	AVG	No Limit
2	2463.2500	99.81	7.81	107.62	74.00	33.62	Peak	No Limit
3	2483.5000	44.10	7.88	51.98	74.00	-22.02	Peak	
4	2483.5000	34.57	7.88	42.45	54.00	-11.55	AVG	
5	2501.1000	45.24	7.93	53.17	74.00	-20.83	Peak	
6	2501.1000	36.78	7.93	44.71	54.00	-9.29	AVG	

REMARKS:

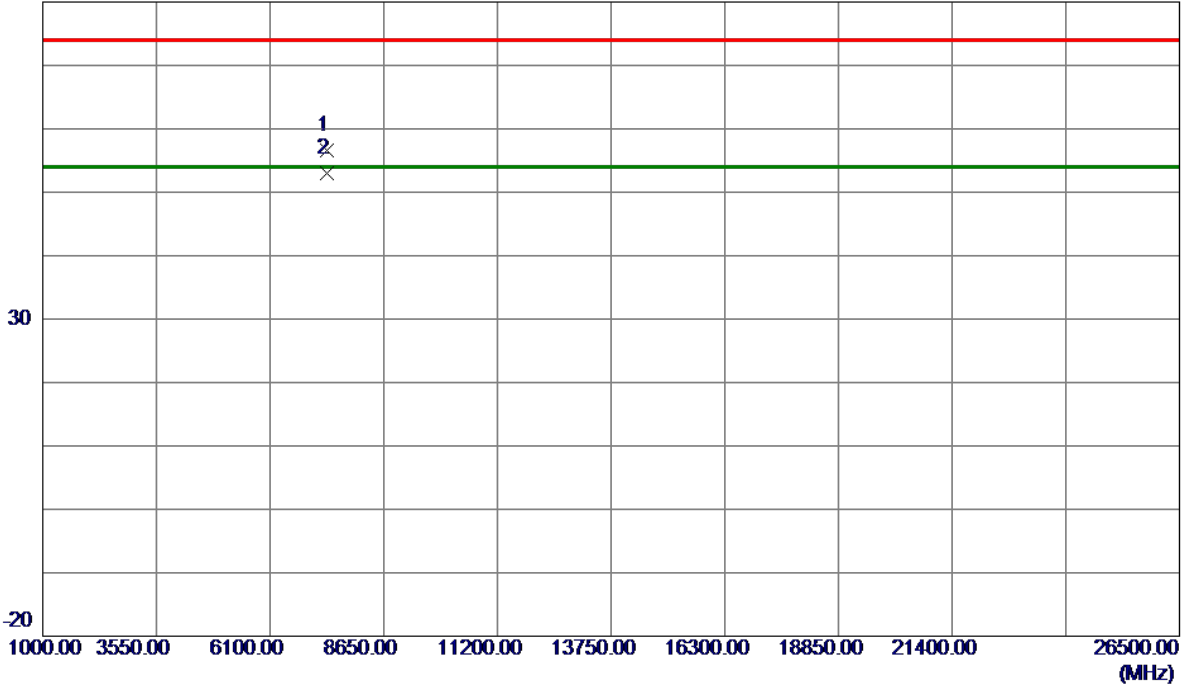
(1) Measurement Value = Reading Level + Correct Factor.

(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	7384.8600	48.63	7.99	56.62	74.00	-17.38	Peak	
2 *	7385.1900	44.98	8.00	52.98	54.00	-1.02	AVG	

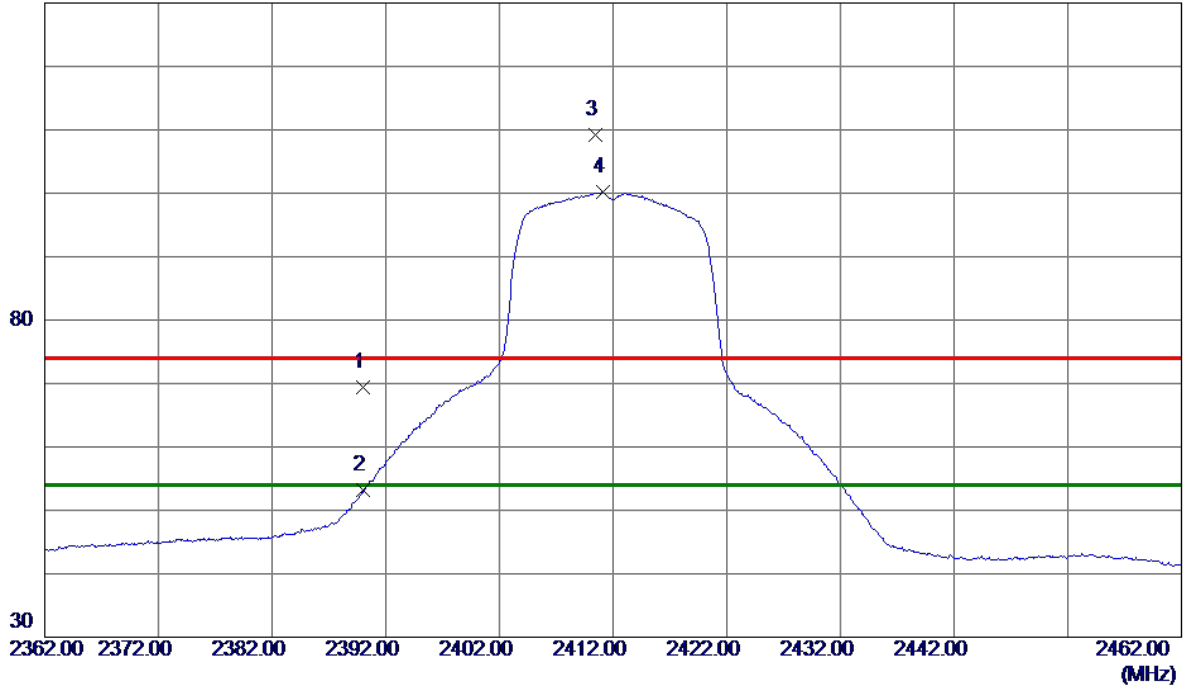
REMARKS:

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

Test Mode: TX G Mode 2412 MHz

Vertical

130 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	61.81	7.56	69.37	74.00	-4.63	Peak	
2	2390.0000	45.62	7.56	53.18	54.00	-0.82	AVG	
3	2410.4500	101.64	7.63	109.27	74.00	35.27	Peak	No Limit
4 *	2411.1000	92.55	7.63	100.18	54.00	46.18	AVG	No Limit

REMARKS:

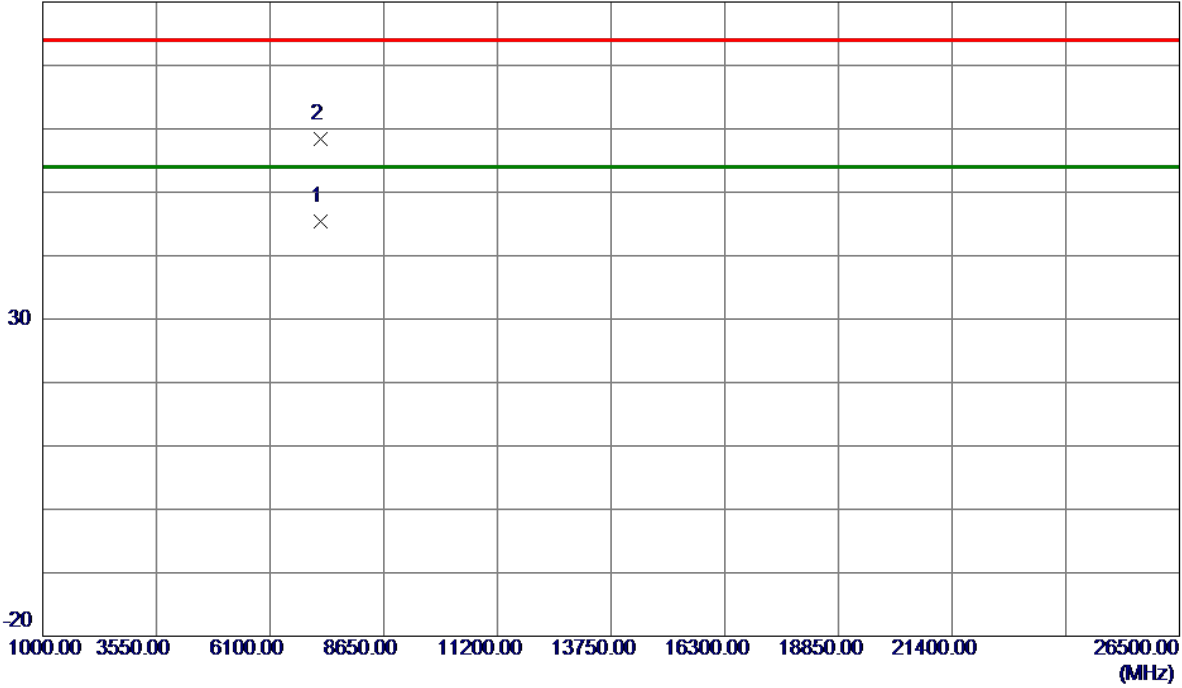
(1) Measurement Value = Reading Level + Correct Factor.

(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 *	7235.8000	37.56	7.81	45.37	54.00	-8.63	AVG	
2	7236.0750	50.56	7.81	58.37	74.00	-15.63	Peak	

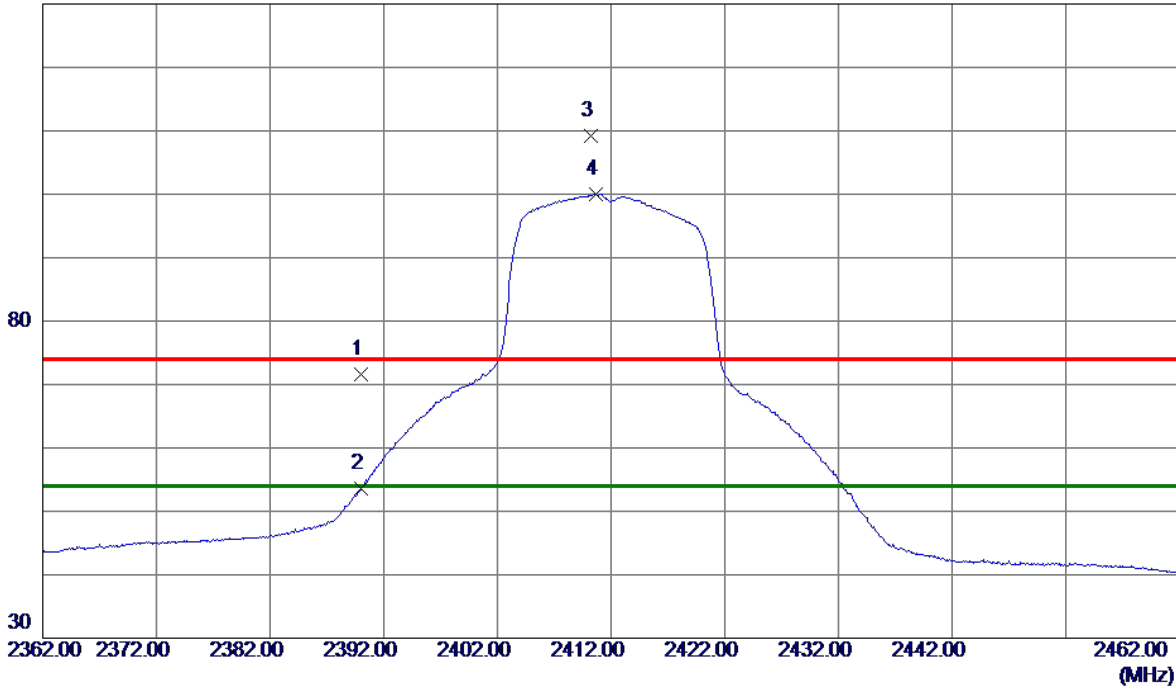
REMARKS:

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

Test Mode: TX G Mode 2412 MHz

Horizontal

130 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	63.98	7.56	71.54	74.00	-2.46	Peak	
2	2390.0000	46.11	7.56	53.67	54.00	-0.33	AVG	
3	2410.2500	101.58	7.63	109.21	74.00	35.21	Peak	No Limit
4 *	2410.7000	92.37	7.63	100.00	54.00	46.00	AVG	No Limit

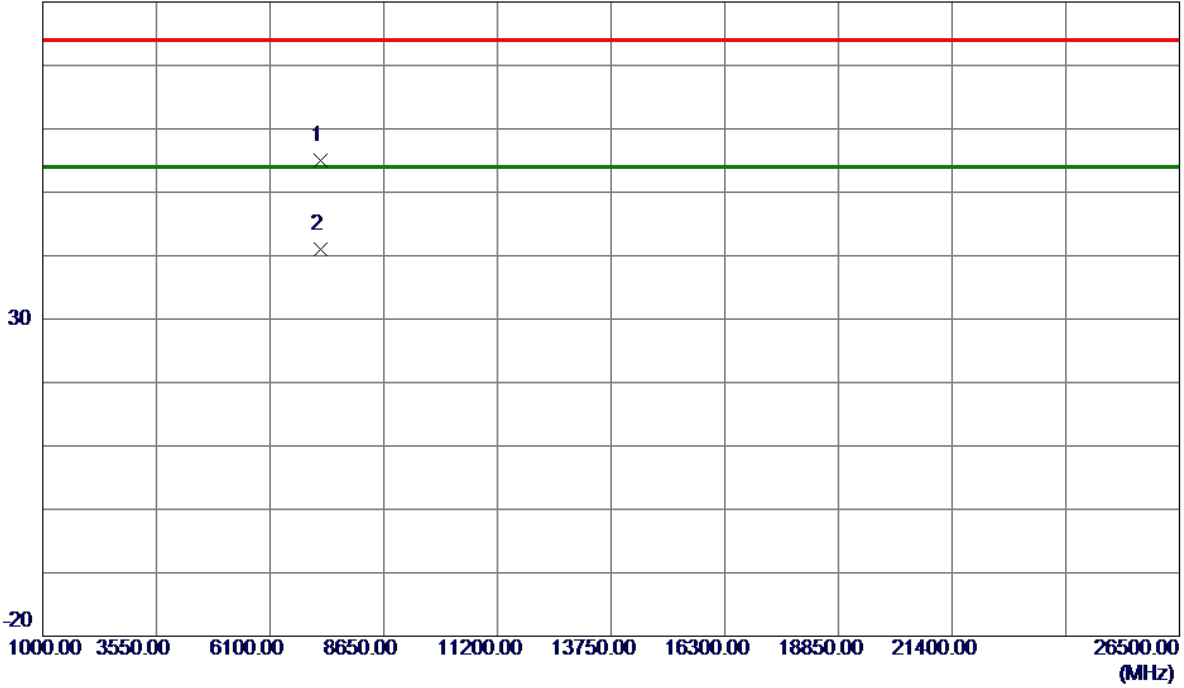
REMARKS:

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

Test Mode: TX G Mode 2412 MHz

Horizontal

80 dBuV/m



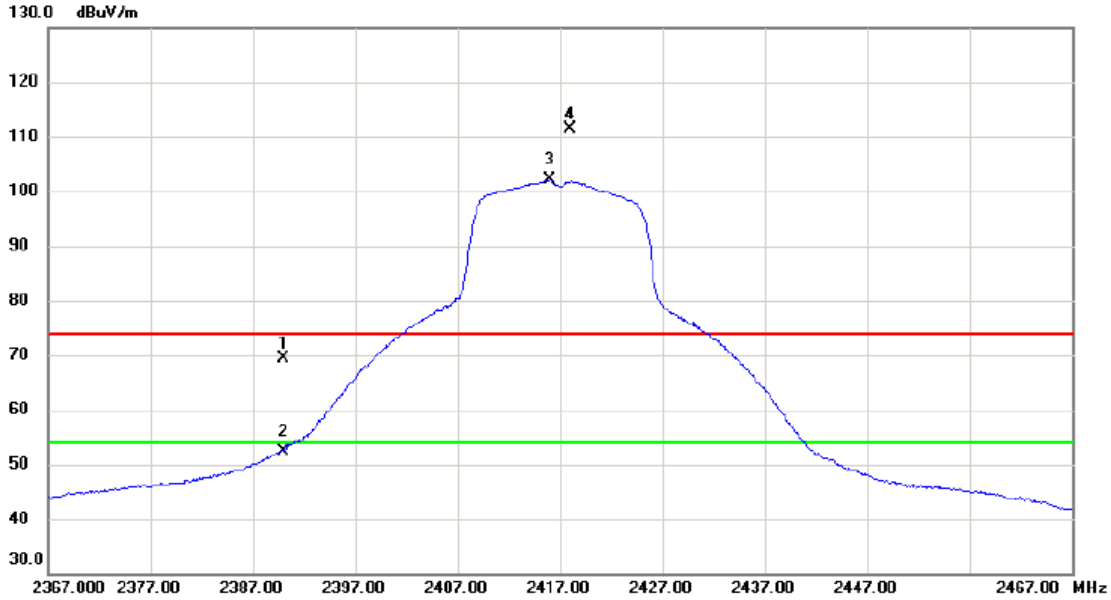
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	7233.5000	47.15	7.80	54.95	74.00	-19.05	Peak	
2 *	7235.9000	33.21	7.81	41.02	54.00	-12.98	AVG	

REMARKS:

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

Test Mode: TX G Mode 2417 MHz

Vertical



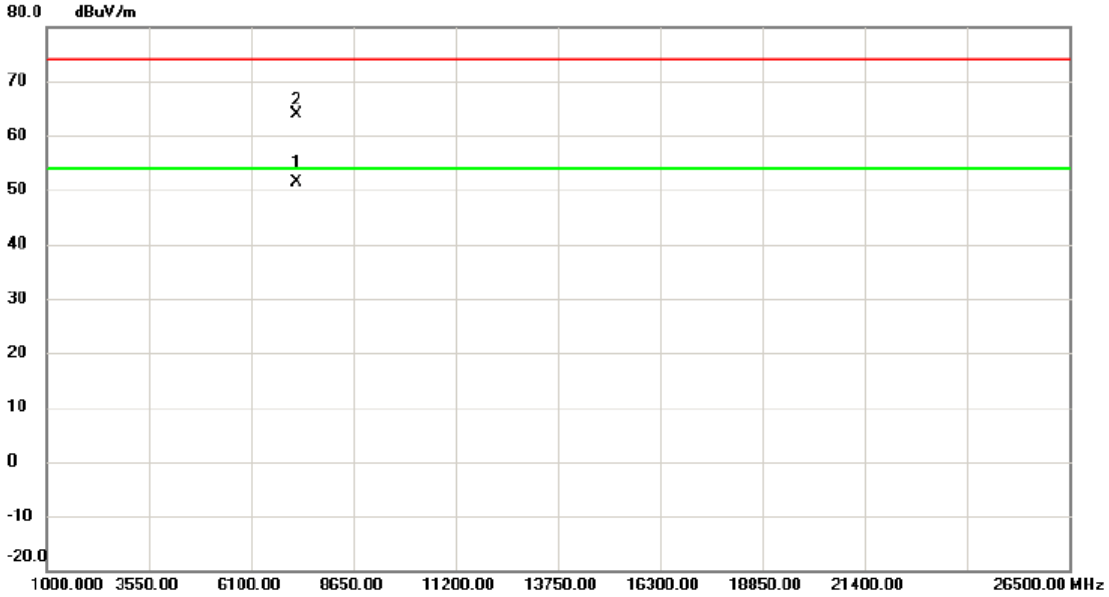
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		2390.000	61.89	7.57	69.46	74.00	-4.54	peak	
2		2390.000	44.90	7.57	52.47	54.00	-1.53	AVG	
3	*	2416.000	94.43	7.66	102.09	54.00	48.09	AVG	No Limit
4	X	2417.950	103.76	7.66	111.42	74.00	37.42	peak	No Limit

REMARKS:

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

Test Mode: TX G Mode 2417 MHz

Vertical



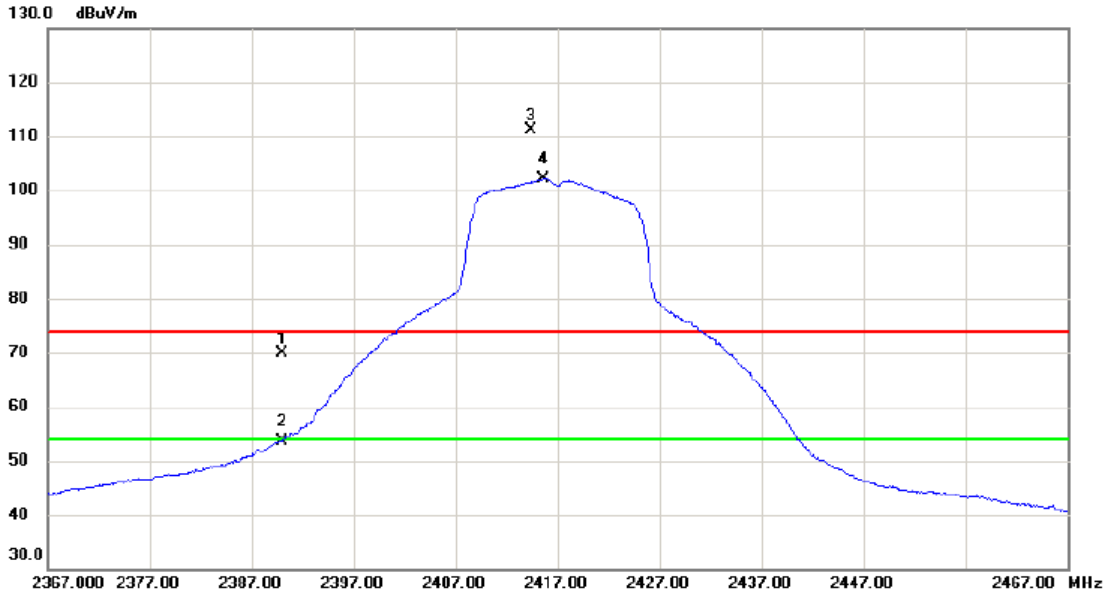
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	7253.900	43.59	7.82	51.41	54.00	-2.59	AVG	
2		7254.200	56.09	7.82	63.91	74.00	-10.09	peak	

REMARKS:

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

Test Mode: TX G Mode 2417 MHz

Horizontal



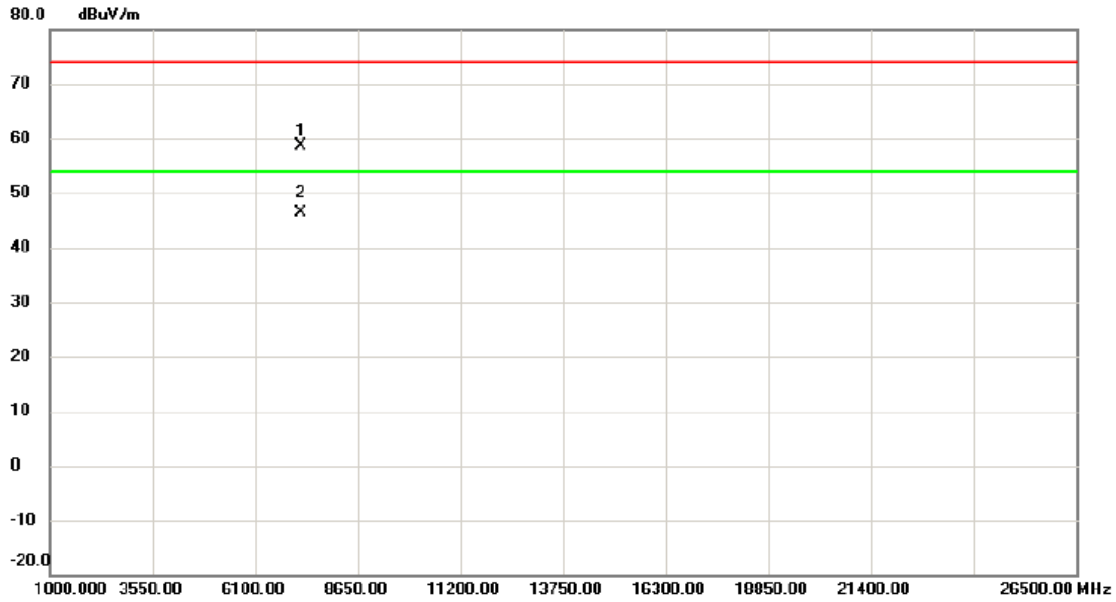
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		2390.000	62.21	7.57	69.78	74.00	-4.22	peak	
2		2390.000	46.12	7.57	53.69	54.00	-0.31	AVG	
3	X	2414.350	103.46	7.65	111.11	74.00	37.11	peak	No Limit
4	*	2415.600	94.43	7.65	102.08	54.00	48.08	AVG	No Limit

REMARKS:

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

Test Mode: TX G Mode 2417 MHz

Horizontal



No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	7250.700	50.85	7.82	58.67	74.00	-15.33	peak	
2 *	7252.575	38.53	7.82	46.35	54.00	-7.65	AVG	

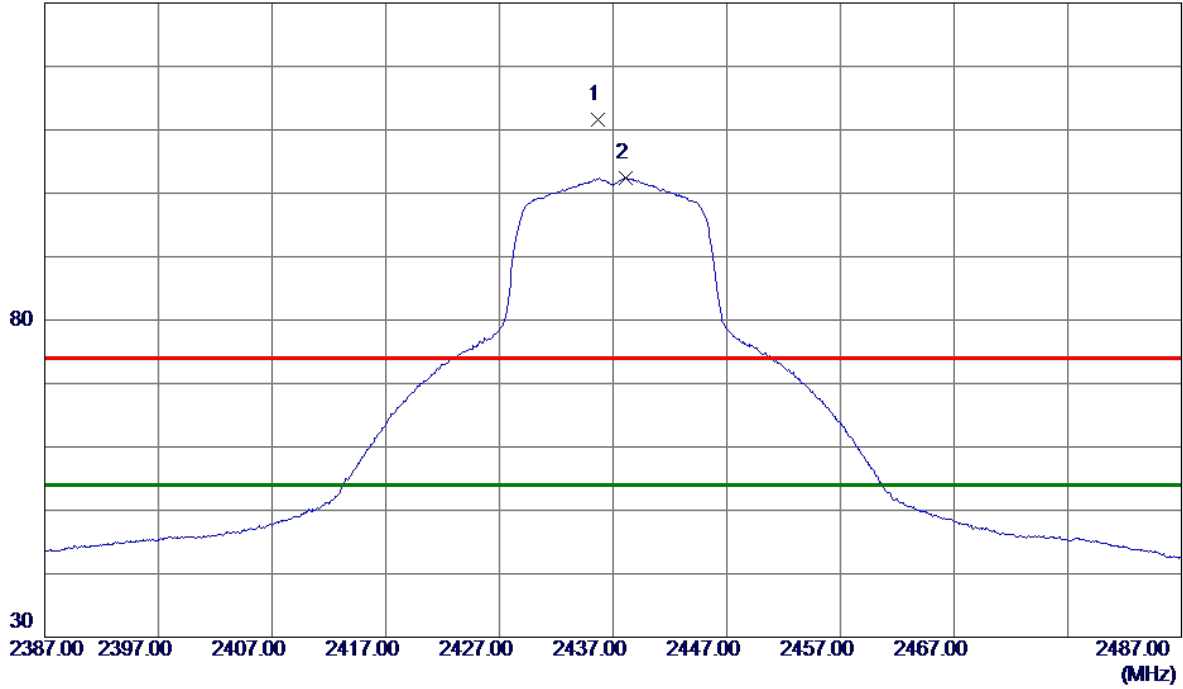
REMARKS:

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

Test Mode: TX G Mode 2437 MHz

Vertical

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2435.7000	103.89	7.72	111.61	74.00	37.61	Peak	No Limit
2 *	2438.1000	94.68	7.72	102.40	54.00	48.40	AVG	No Limit

REMARKS:

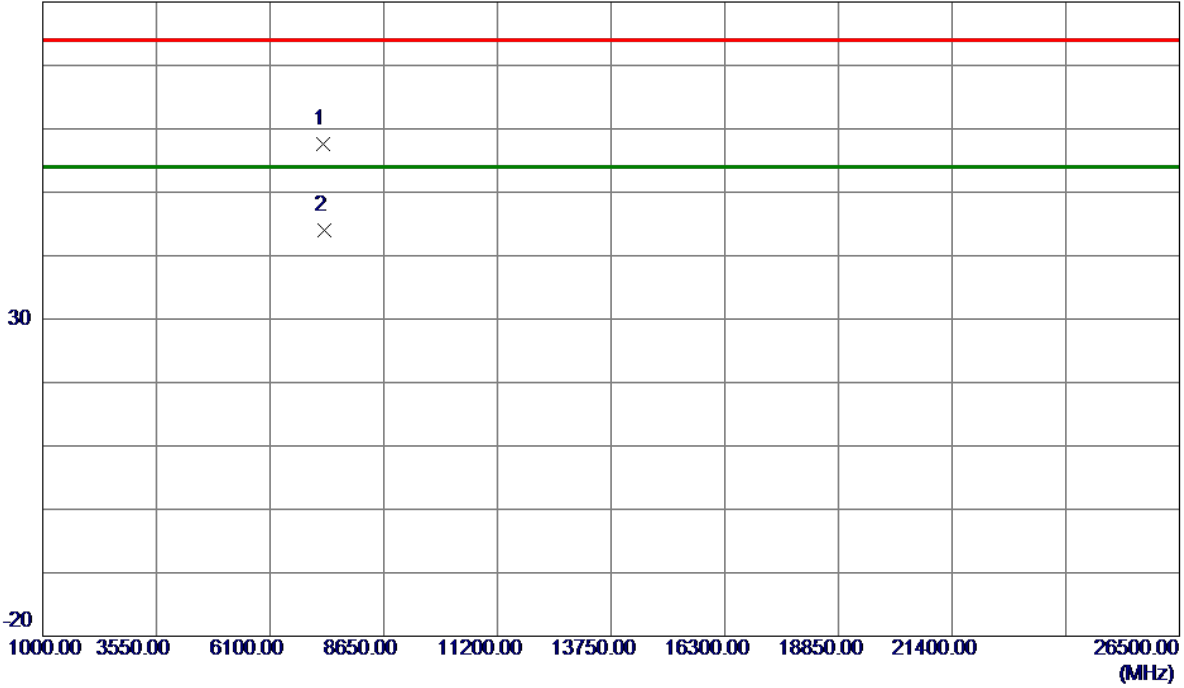
(1) Measurement Value = Reading Level + Correct Factor.

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

Test Mode: TX G Mode 2437 MHz

Vertical

80 dBuV/m



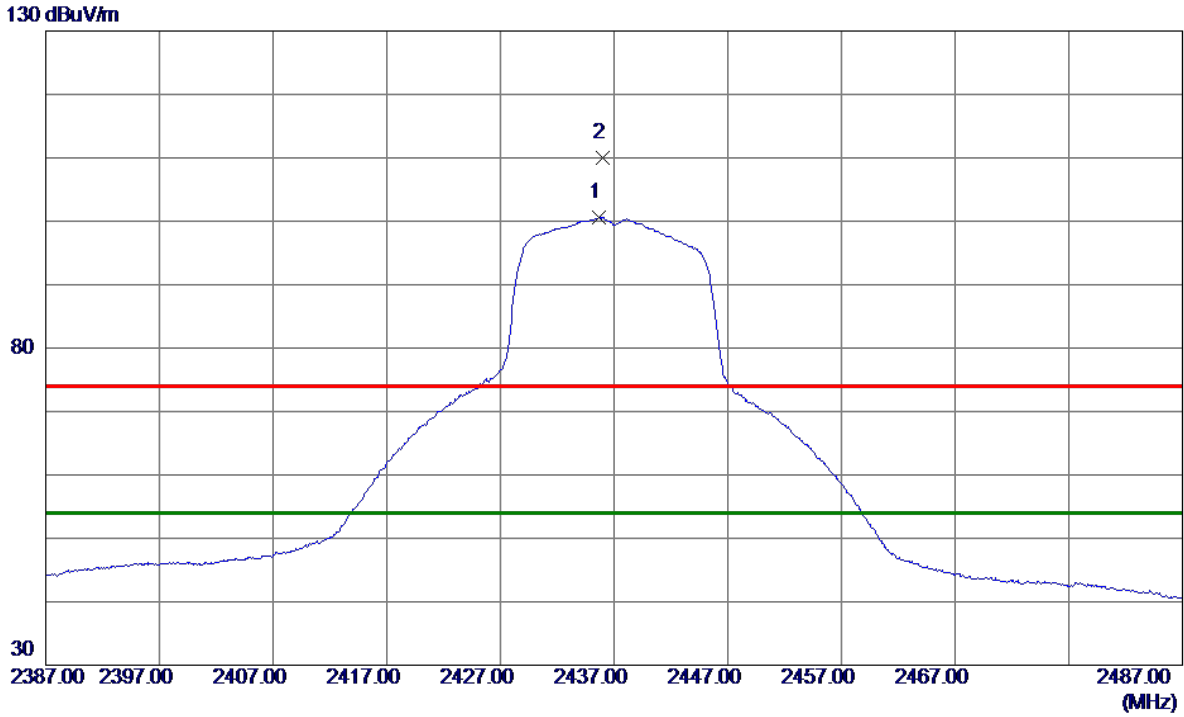
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	7303.8000	49.77	7.89	57.66	74.00	-16.34	Peak	
2 *	7310.6750	36.12	7.90	44.02	54.00	-9.98	AVG	

REMARKS:

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

Test Mode: TX G Mode 2437 MHz

Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2435.6500	92.89	7.72	100.61	54.00	46.61	AVG	No Limit
2	2435.9500	102.32	7.72	110.04	74.00	36.04	Peak	No Limit

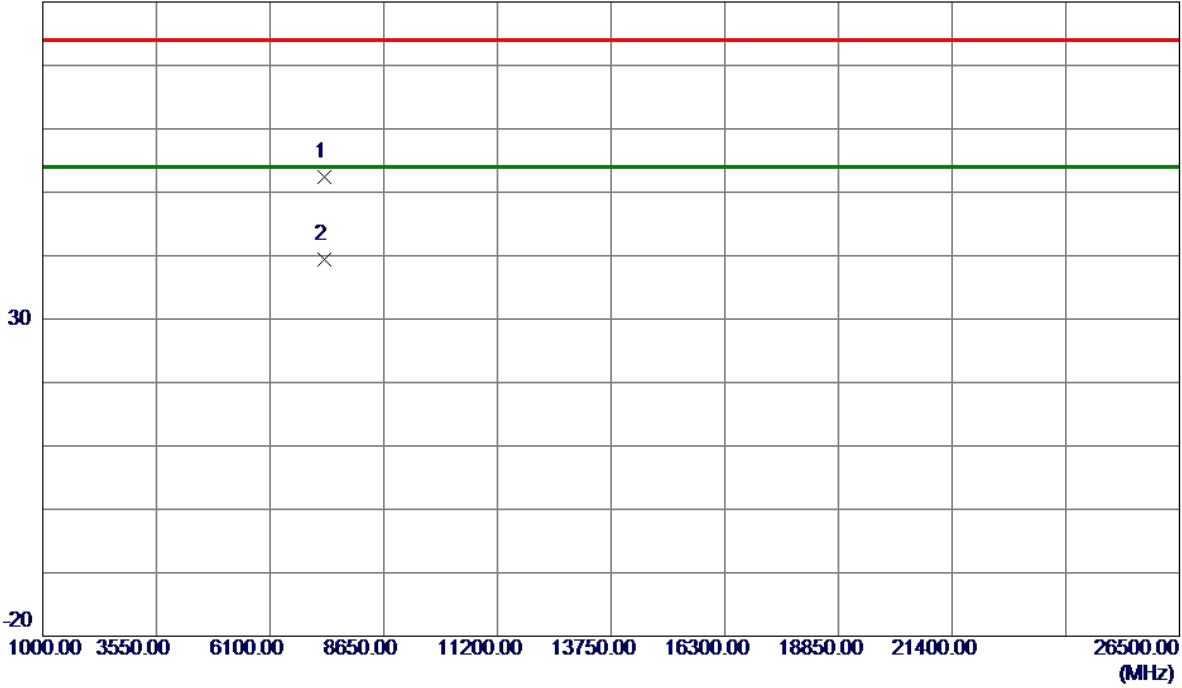
REMARKS:

- (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



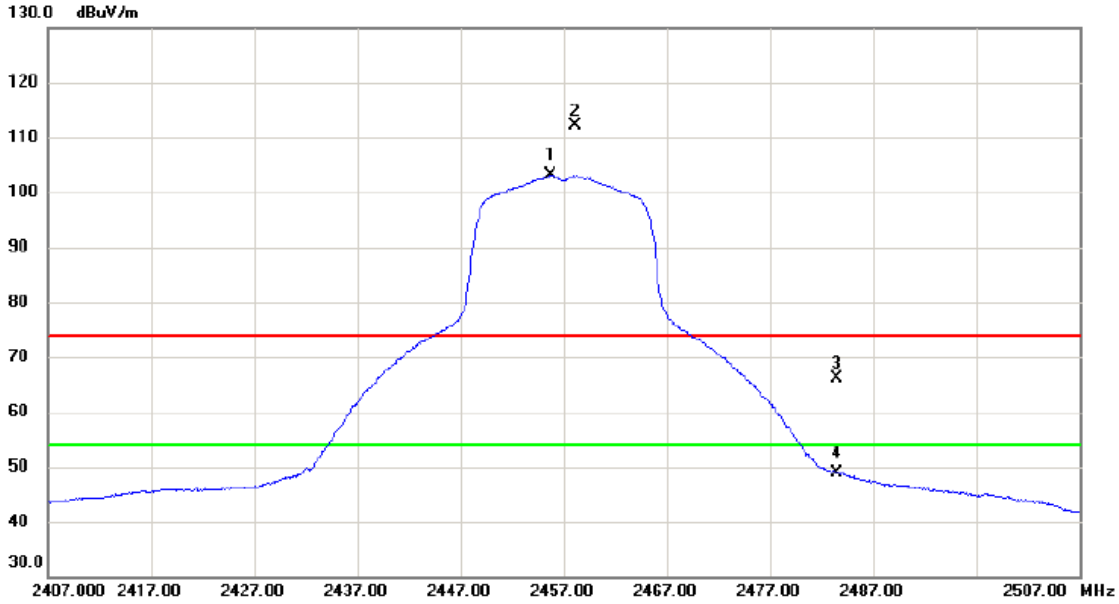
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	7305.8000	44.57	7.90	52.47	74.00	-21.53	Peak	
2 *	7310.8500	31.58	7.90	39.48	54.00	-14.52	AVG	

REMARKS:

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

Test Mode: TX G Mode 2457 MHz

Vertical



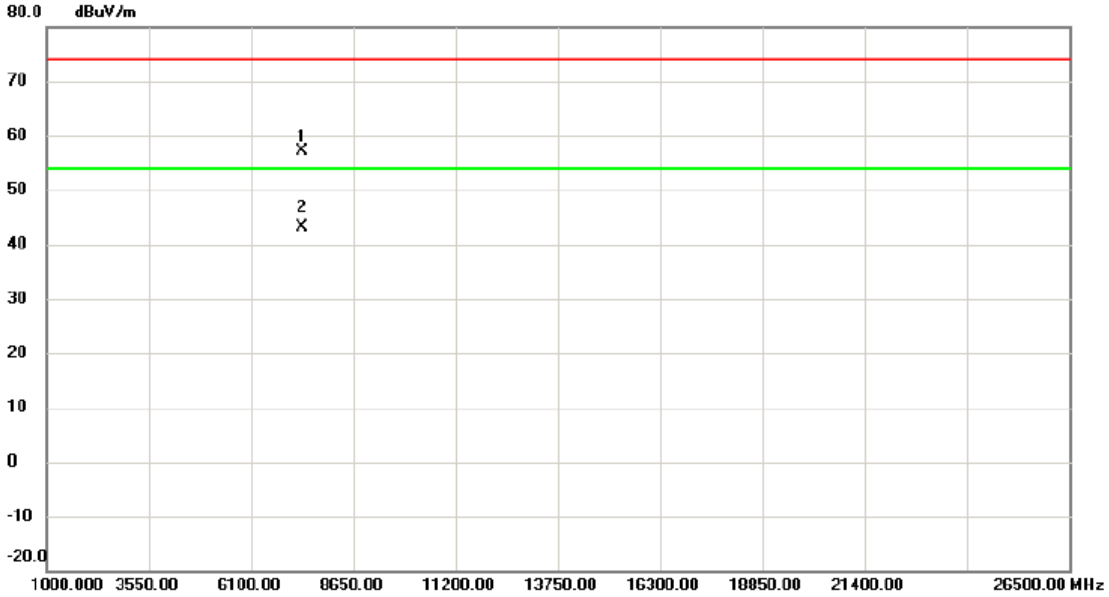
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	2455.700	95.29	7.78	103.07	54.00	49.07	AVG	No Limit
2	X	2458.200	104.30	7.79	112.09	74.00	38.09	peak	No Limit
3		2483.500	58.19	7.87	66.06	74.00	-7.94	peak	
4		2483.500	41.04	7.87	48.91	54.00	-5.09	AVG	

REMARKS:

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

Test Mode: TX G Mode 2457 MHz

Vertical



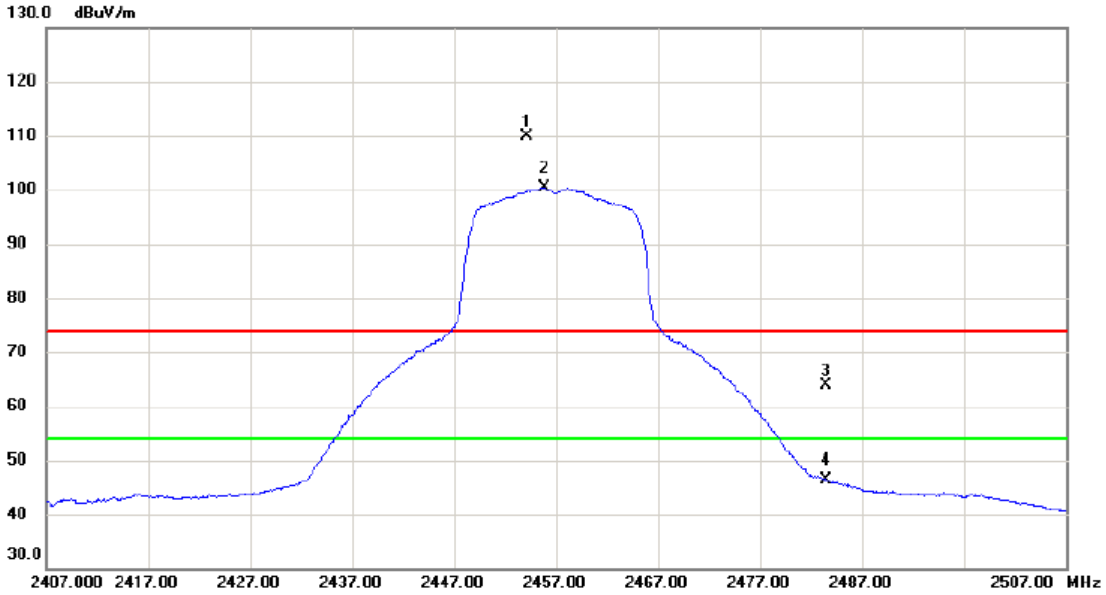
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		7372.350	49.05	7.98	57.03	74.00	-16.97	peak	
2	*	7372.900	35.07	7.98	43.05	54.00	-10.95	AVG	

REMARKS:

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

Test Mode: TX G Mode 2457 MHz

Horizontal



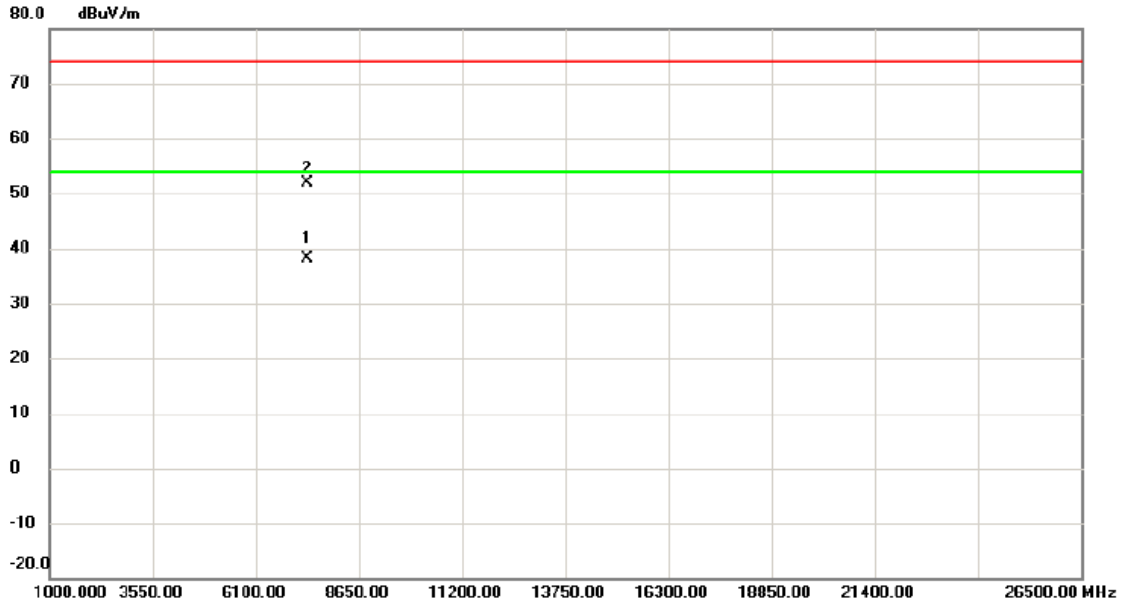
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	X	2454.200	102.07	7.78	109.85	74.00	35.85	peak	No Limit
2	*	2455.800	92.72	7.78	100.50	54.00	46.50	AVG	No Limit
3		2483.500	55.90	7.87	63.77	74.00	-10.23	peak	
4		2483.500	38.63	7.87	46.50	54.00	-7.50	AVG	

REMARKS:

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

Test Mode: TX G Mode 2457 MHz

Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	7373.500	30.18	7.98	38.16	54.00	-15.84	AVG	
2		7374.650	43.96	7.98	51.94	74.00	-22.06	peak	

REMARKS:

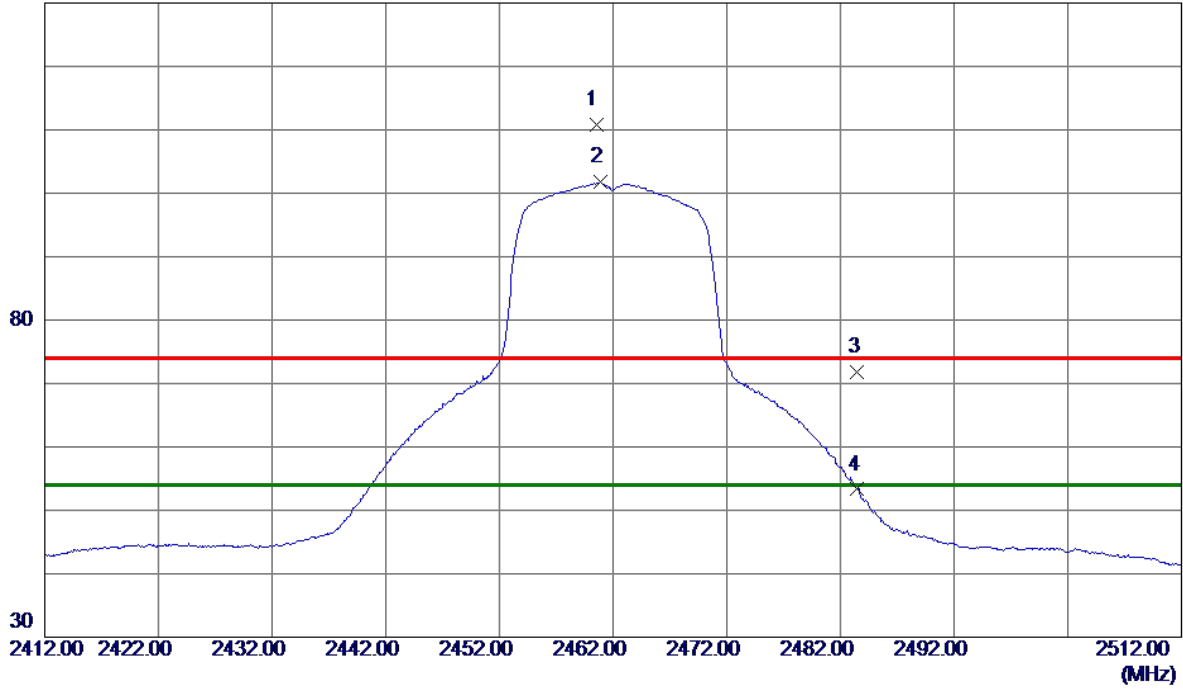
(1) Measurement Value = Reading Level + Correct Factor.

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

Test Mode: TX G Mode 2462 MHz

Vertical

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2460.5000	103.02	7.80	110.82	74.00	36.82	Peak	No Limit
2 *	2460.9000	93.99	7.80	101.79	54.00	47.79	AVG	No Limit
3	2483.5000	63.84	7.88	71.72	74.00	-2.28	Peak	
4	2483.5000	45.42	7.88	53.30	54.00	-0.70	AVG	

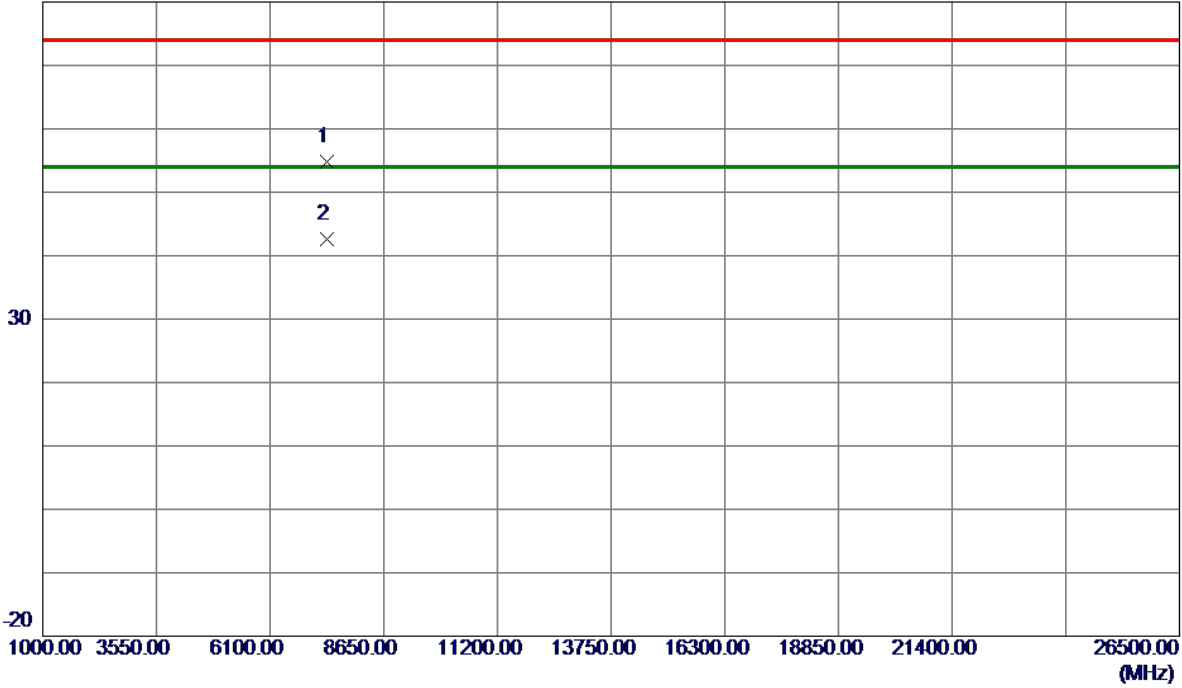
REMARKS:

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

Test Mode: TX G 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	7385.5500	46.88	8.00	54.88	74.00	-19.12	Peak	
2 *	7388.1500	34.68	8.00	42.68	54.00	-11.32	AVG	

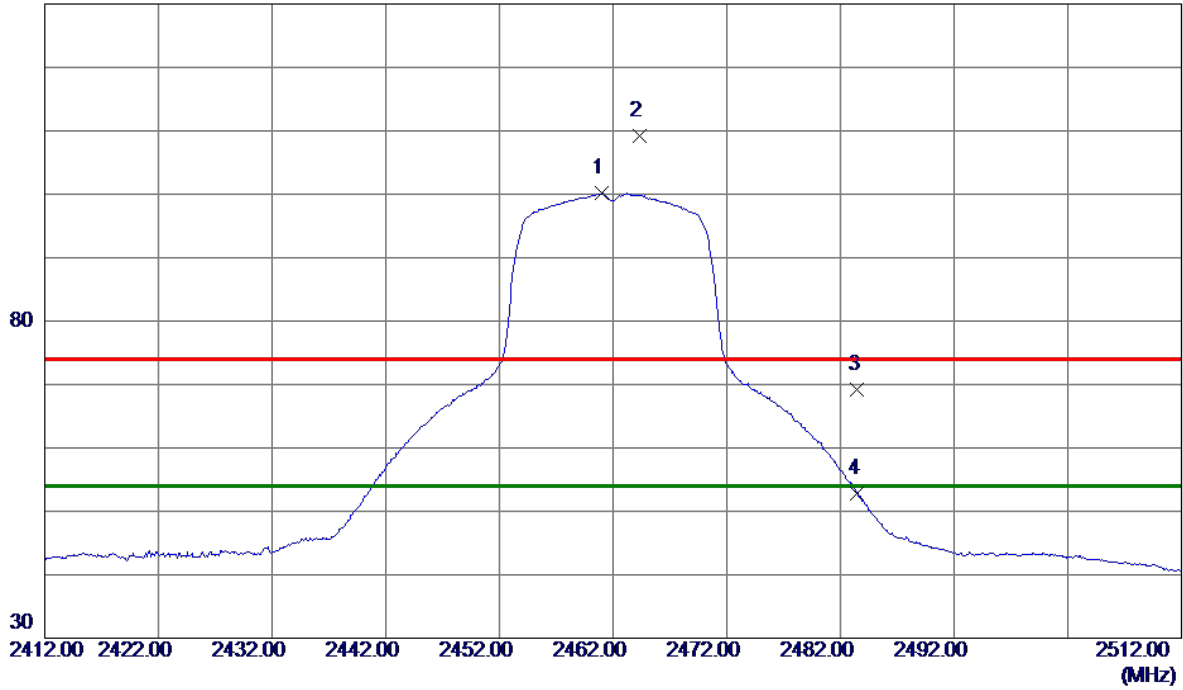
REMARKS:

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

Test Mode: TX G Mode 2462 MHz

Horizontal

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2461.0500	92.33	7.80	100.13	54.00	46.13	AVG	No Limit
2	2464.3000	101.48	7.81	109.29	74.00	35.29	Peak	No Limit
3	2483.5000	61.35	7.88	69.23	74.00	-4.77	Peak	
4	2483.5000	44.89	7.88	52.77	54.00	-1.23	AVG	

REMARKS:

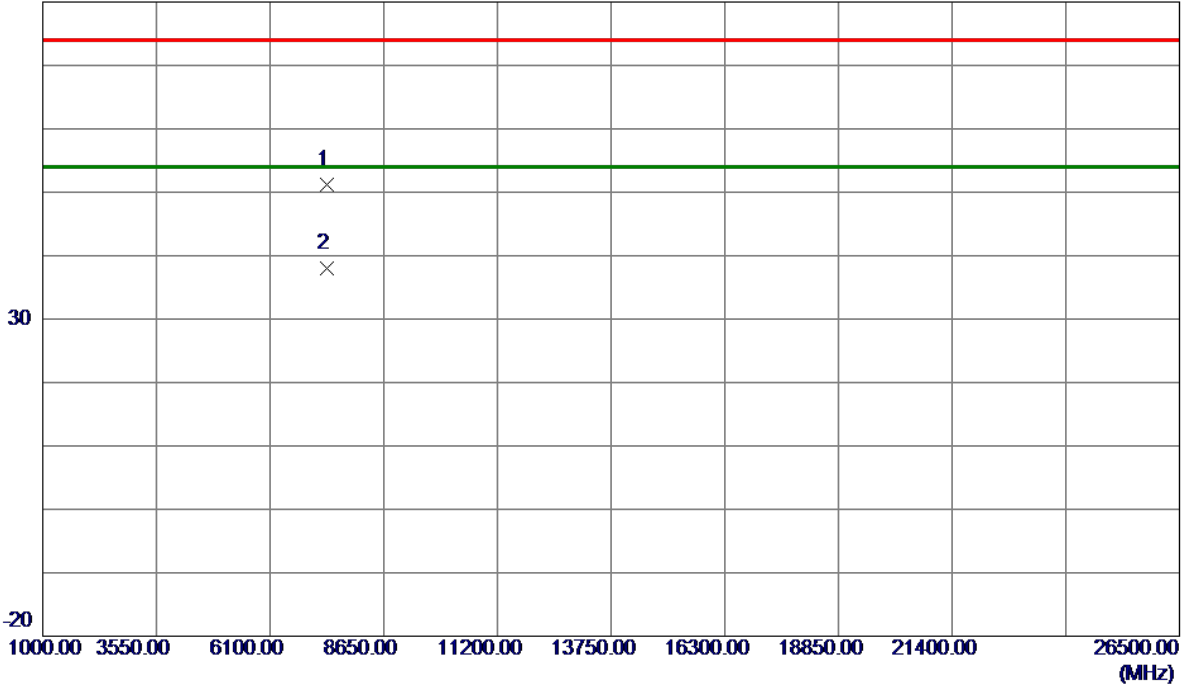
(1) Measurement Value = Reading Level + Correct Factor.

(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	7387.6750	43.14	8.00	51.14	74.00	-22.86	Peak	
2 *	7388.1500	30.08	8.00	38.08	54.00	-15.92	AVG	

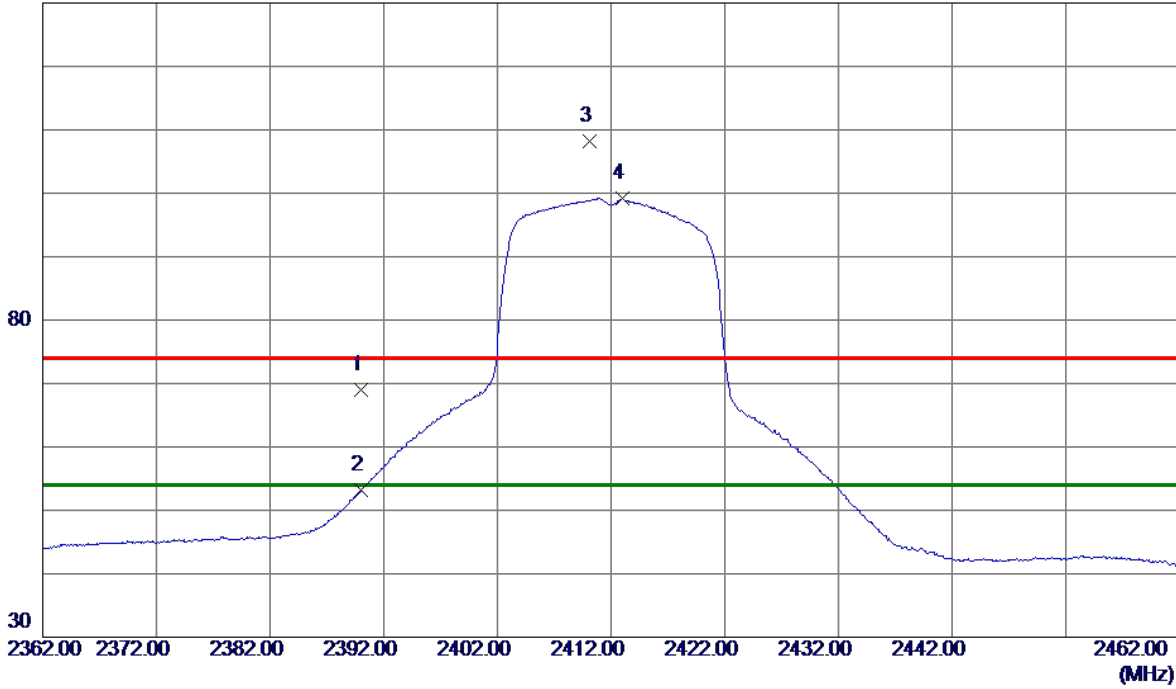
REMARKS:

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

Test Mode: TX N-20M Mode 2412 MHz

Vertical

130 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	61.45	7.56	69.01	74.00	-4.99	Peak	
2	2390.0000	45.71	7.56	53.27	54.00	-0.73	AVG	
3	2410.1500	100.59	7.63	108.22	74.00	34.22	Peak	No Limit
4 *	2413.0000	91.58	7.64	99.22	54.00	45.22	AVG	No Limit

REMARKS:

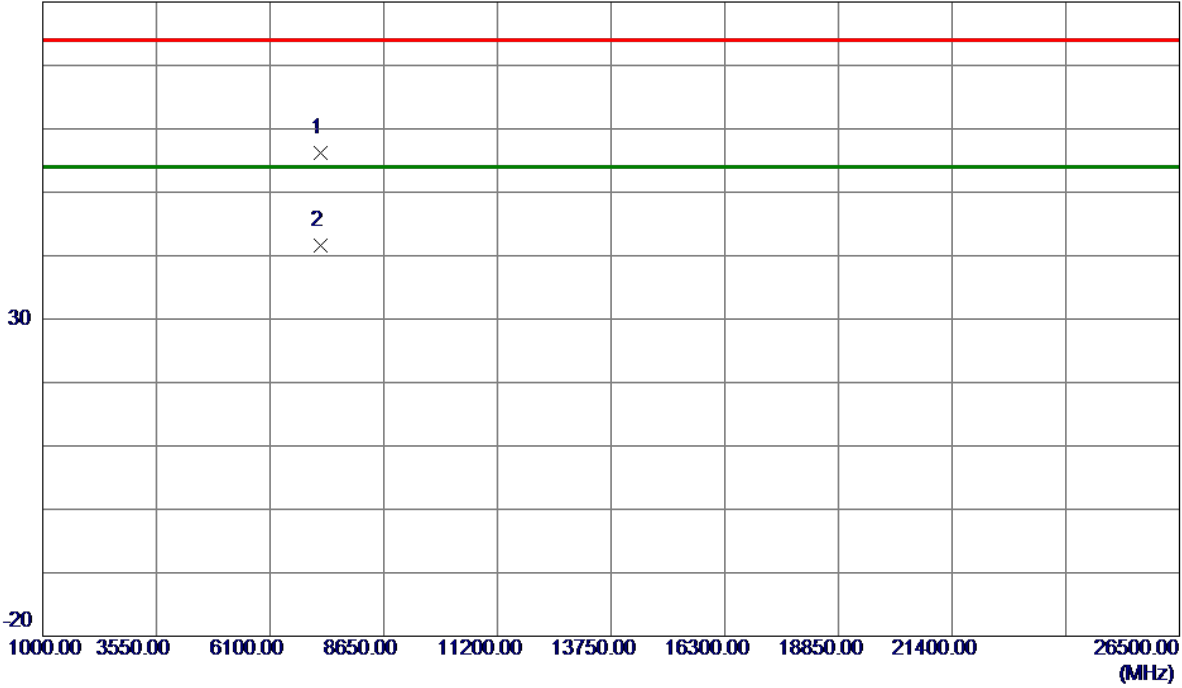
(1) Measurement Value = Reading Level + Correct Factor.

(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	7233.0000	48.36	7.80	56.16	74.00	-17.84	Peak	
2 *	7235.5250	33.71	7.81	41.52	54.00	-12.48	AVG	

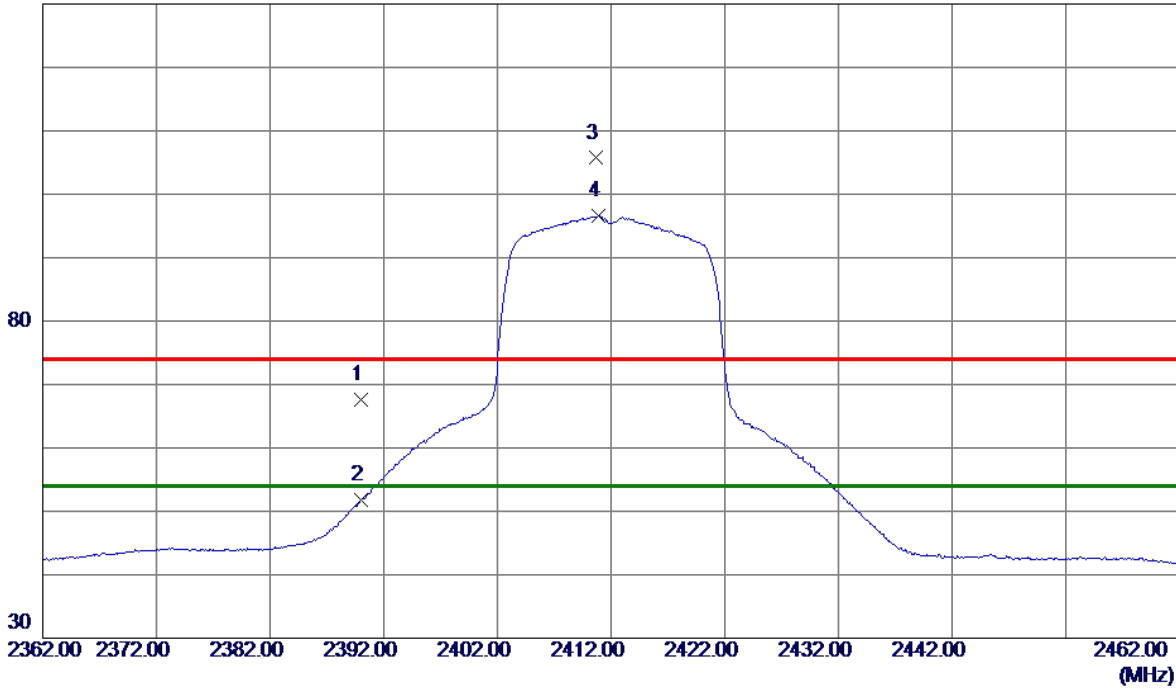
REMARKS:

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

Test Mode: TX N-20M Mode 2412 MHz

Horizontal

130 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	60.04	7.56	67.60	74.00	-6.40	Peak	
2	2390.0000	44.24	7.56	51.80	54.00	-2.20	AVG	
3	2410.7000	98.07	7.63	105.70	74.00	31.70	Peak	No Limit
4 *	2410.9000	88.91	7.63	96.54	54.00	42.54	AVG	No Limit

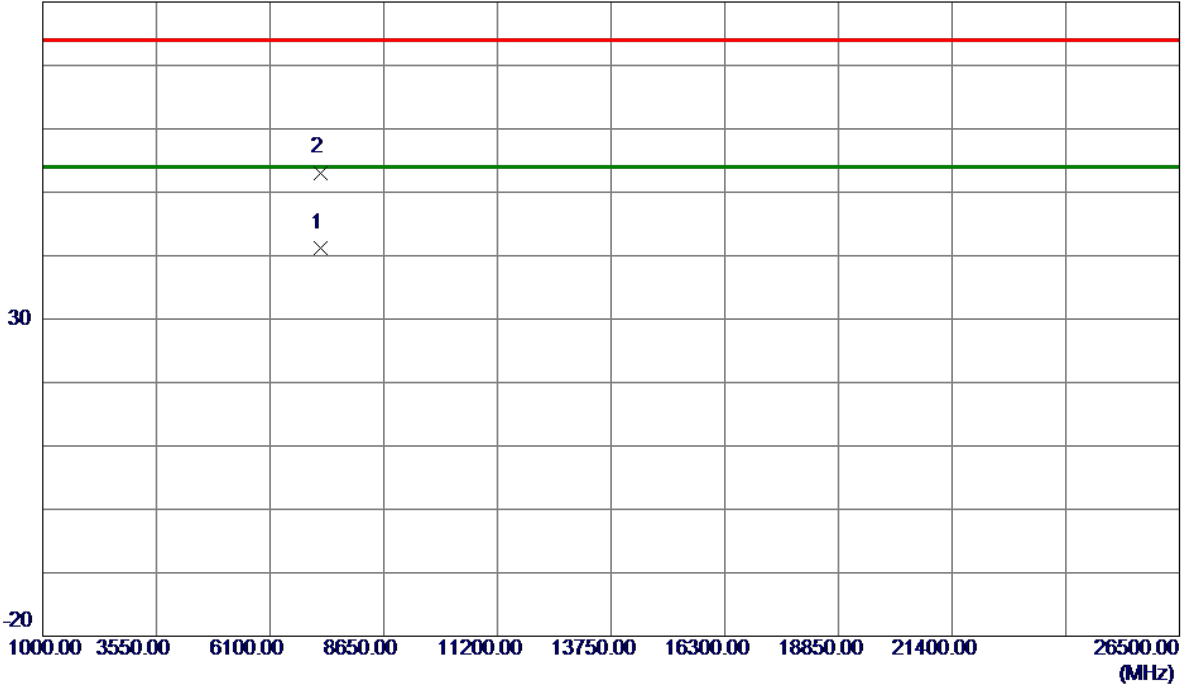
REMARKS:

- (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



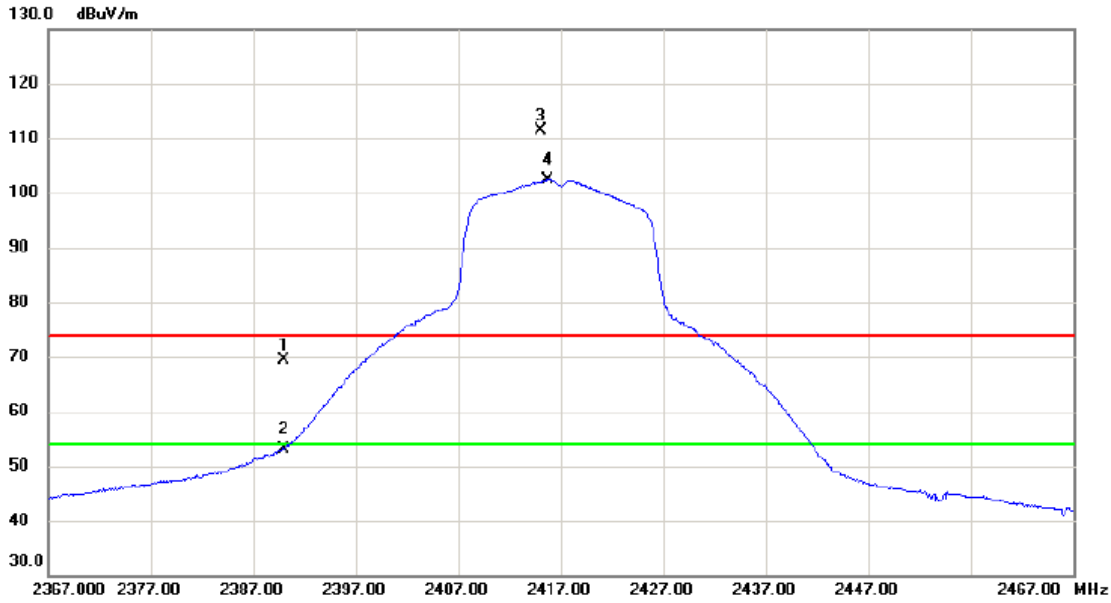
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	7235.5750	33.38	7.81	41.19	54.00	-12.81	AVG	
2	7242.0500	45.29	7.81	53.10	74.00	-20.90	Peak	

REMARKS:

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

Test Mode: TX N-20M Mode 2417 MHz

Vertical



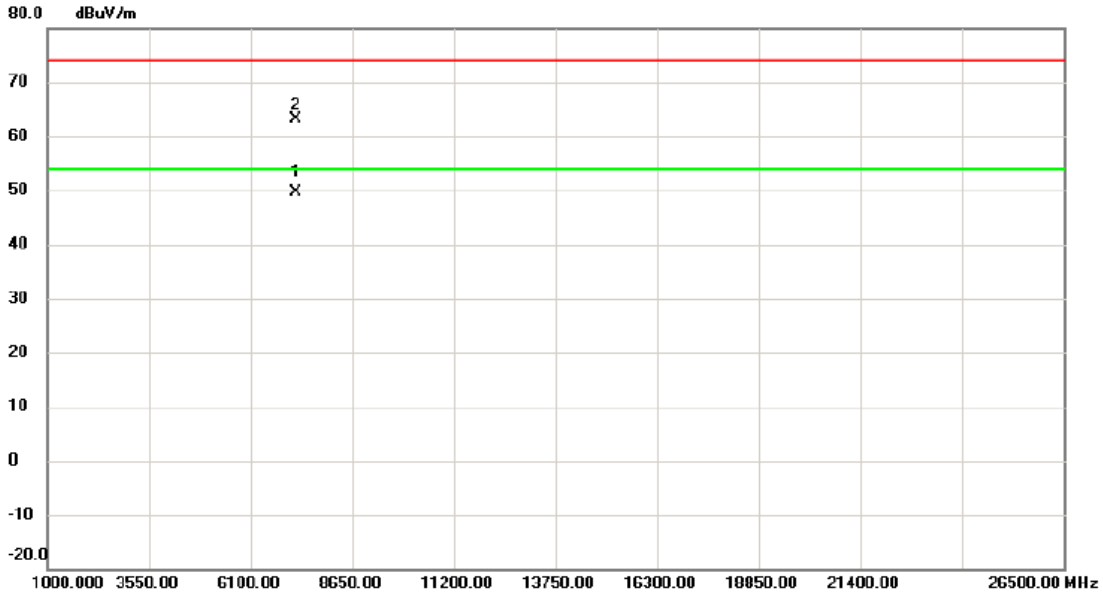
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		2390.000	61.93	7.57	69.50	74.00	-4.50	peak	
2		2390.000	45.51	7.57	53.08	54.00	-0.92	AVG	
3	X	2415.100	103.78	7.65	111.43	74.00	37.43	peak	No Limit
4	*	2415.700	94.83	7.65	102.48	54.00	48.48	AVG	No Limit

REMARKS:

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

Test Mode: TX N-20M Mode 2417 MHz

Vertical



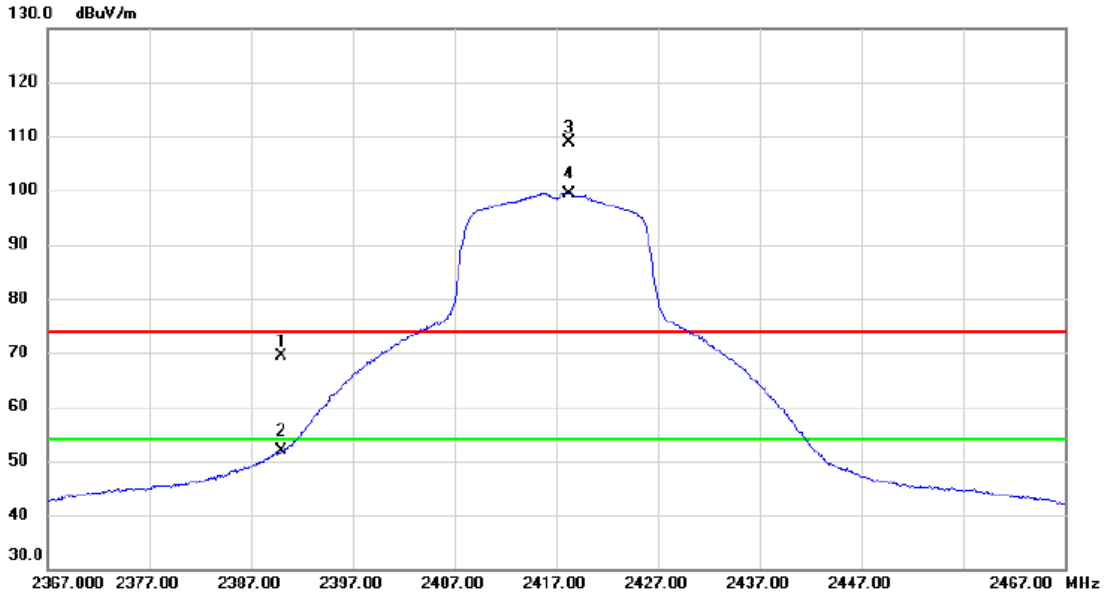
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	7252.175	41.88	7.82	49.70	54.00	-4.30	AVG	
2		7255.625	55.33	7.83	63.16	74.00	-10.84	peak	

REMARKS:

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

Test Mode: TX N-20M Mode 2417 MHz

Horizontal



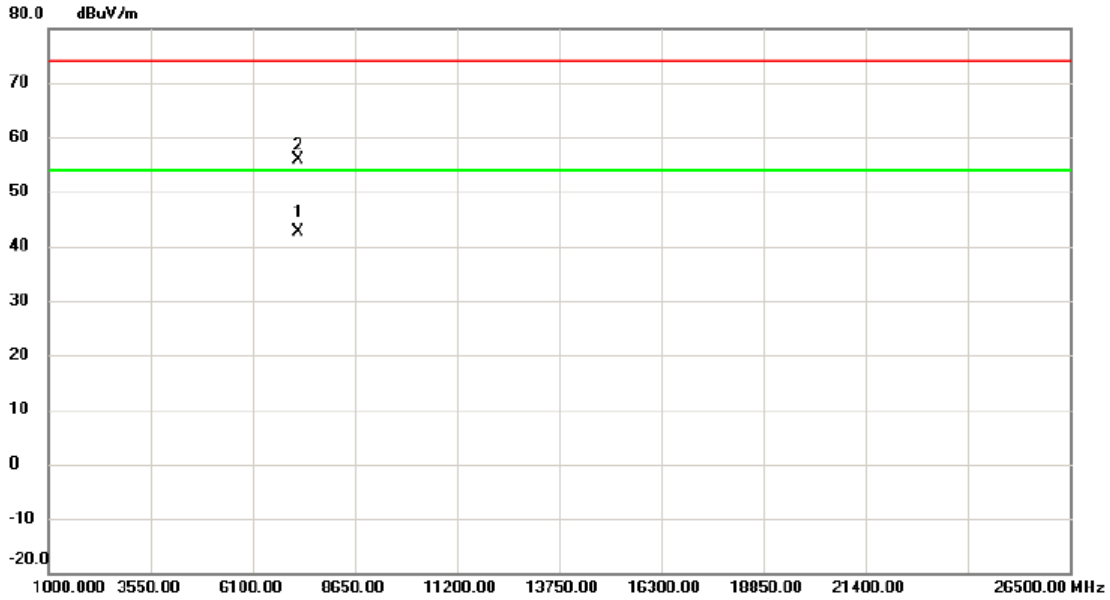
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		2390.000	61.74	7.57	69.31	74.00	-4.69	peak	
2		2390.000	44.33	7.57	51.90	54.00	-2.10	AVG	
3	X	2418.250	101.15	7.66	108.81	74.00	34.81	peak	No Limit
4	*	2418.300	91.80	7.66	99.46	54.00	45.46	AVG	No Limit

REMARKS:

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

Test Mode: TX N-20M Mode 2417 MHz

Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	7246.725	34.73	7.83	42.56	54.00	-11.44	AVG	
2		7247.850	48.04	7.83	55.87	74.00	-18.13	peak	

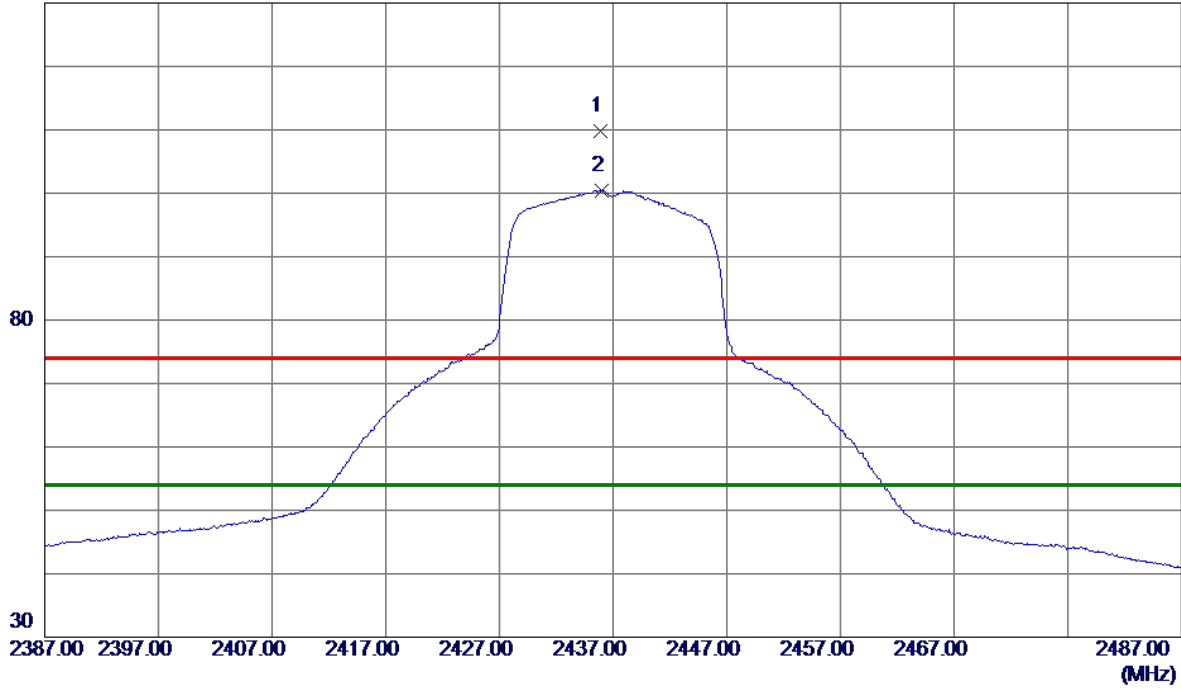
REMARKS:

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

Test Mode: TX N-20M Mode 2437 MHz

Vertical

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2435.8500	101.99	7.72	109.71	74.00	35.71	Peak	No Limit
2 *	2436.0000	92.69	7.72	100.41	54.00	46.41	AVG	No Limit

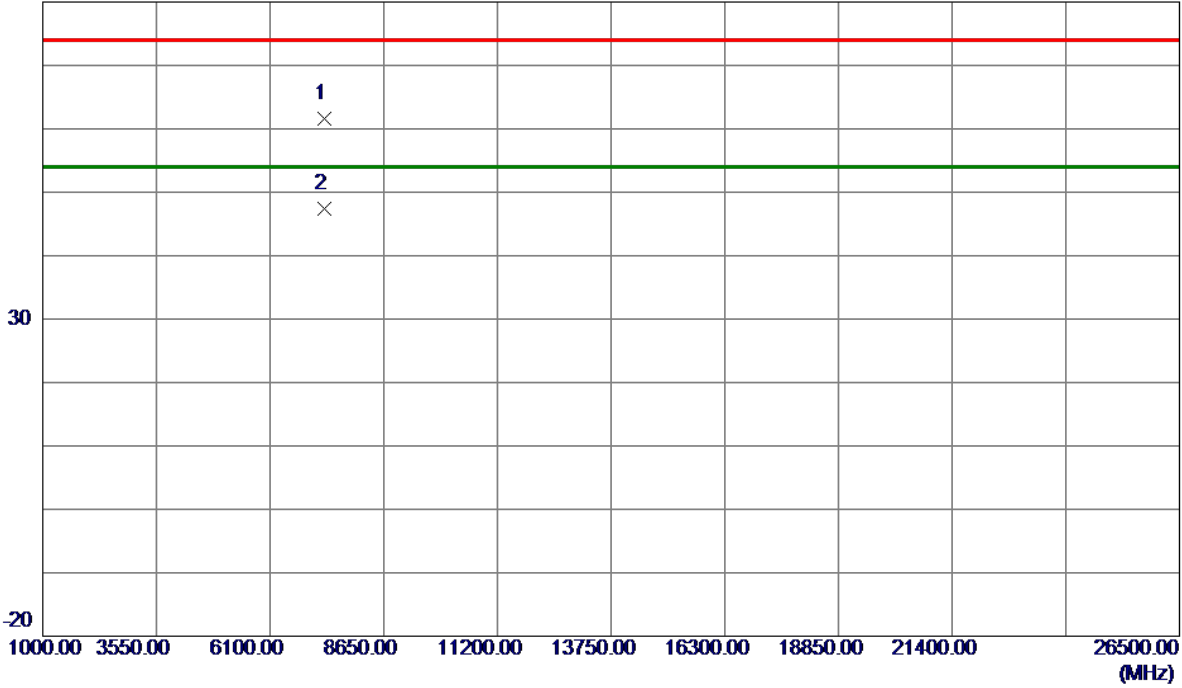
REMARKS:

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

Test Mode: TX N-20M Mode 2437 MHz

Vertical

80 dBuV/m



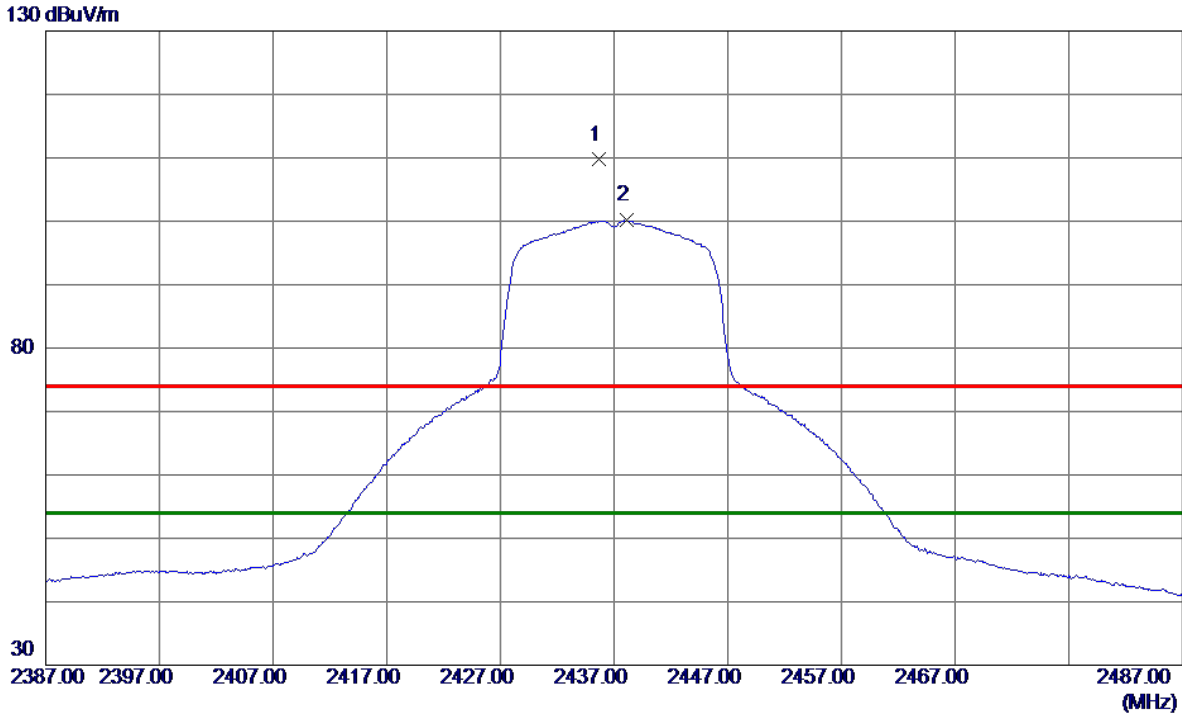
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	7307.7500	53.65	7.90	61.55	74.00	-12.45	Peak	
2 *	7311.1000	39.56	7.90	47.46	54.00	-6.54	AVG	

REMARKS:

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

Test Mode: TX N-20M Mode 2437 MHz

Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2435.7000	101.98	7.72	109.70	74.00	35.70	Peak	No Limit
2 *	2438.1500	92.45	7.72	100.17	54.00	46.17	AVG	No Limit

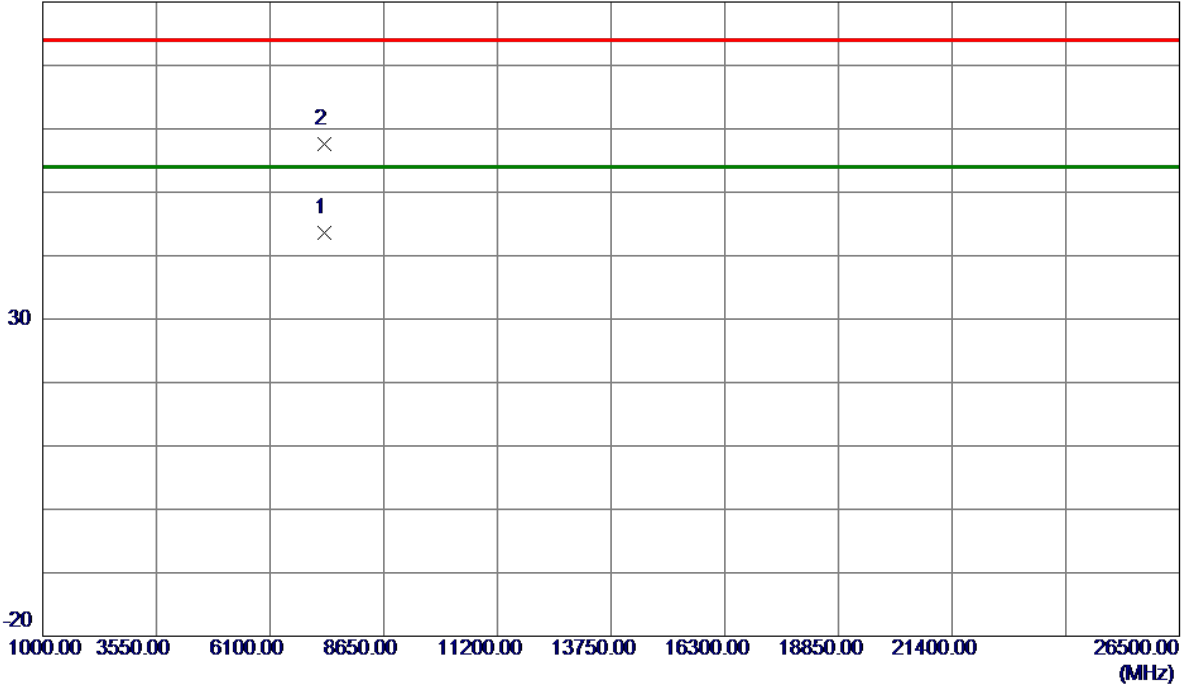
REMARKS:

- (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 *	7306.8250	35.69	7.90	43.59	54.00	-10.41	AVG	
2	7309.5750	49.72	7.90	57.62	74.00	-16.38	Peak	

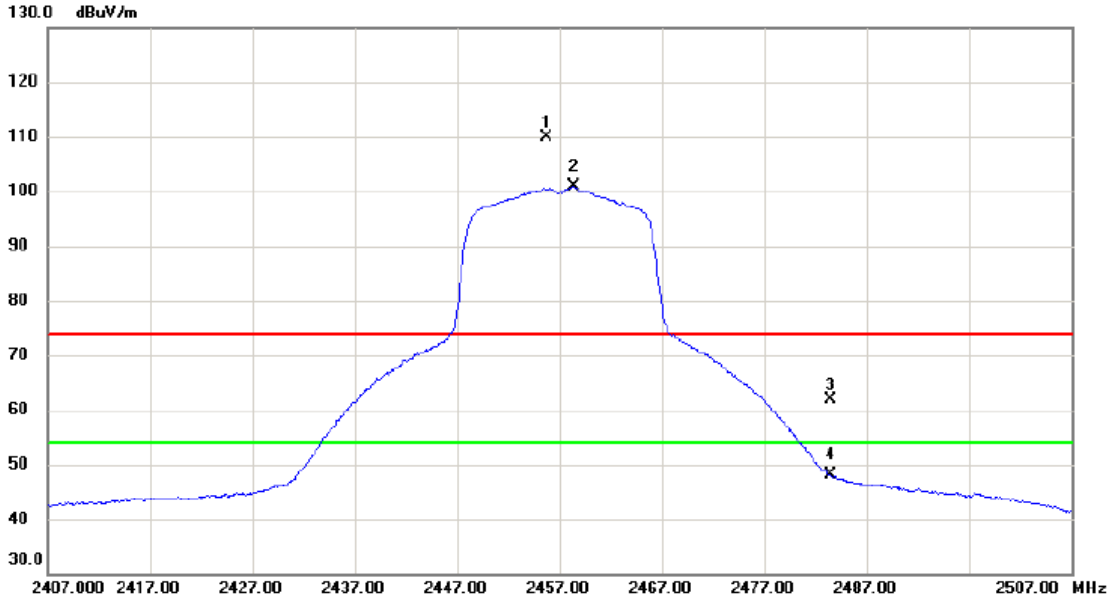
REMARKS:

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

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

Test Mode: TX N-20M Mode 2457 MHz

Vertical



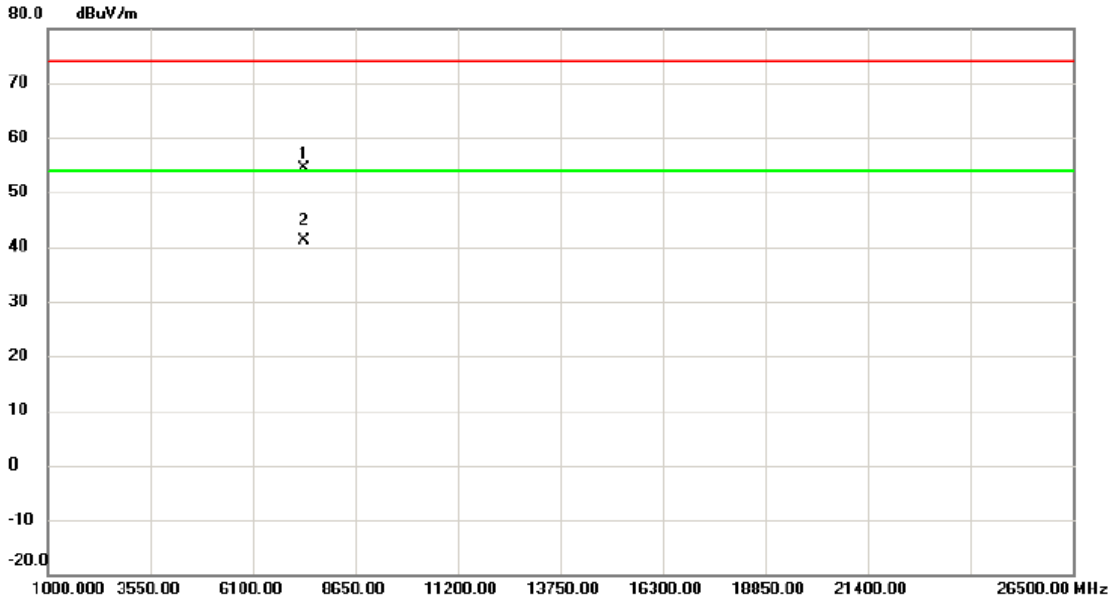
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	X	2455.700	102.00	7.78	109.78	74.00	35.78	peak	No Limit
2	*	2458.450	93.05	7.79	100.84	54.00	46.84	AVG	No Limit
3		2483.500	54.13	7.87	62.00	74.00	-12.00	peak	
4		2483.500	40.30	7.87	48.17	54.00	-5.83	AVG	

REMARKS:

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

Test Mode: TX N-20M Mode 2457 MHz

Vertical



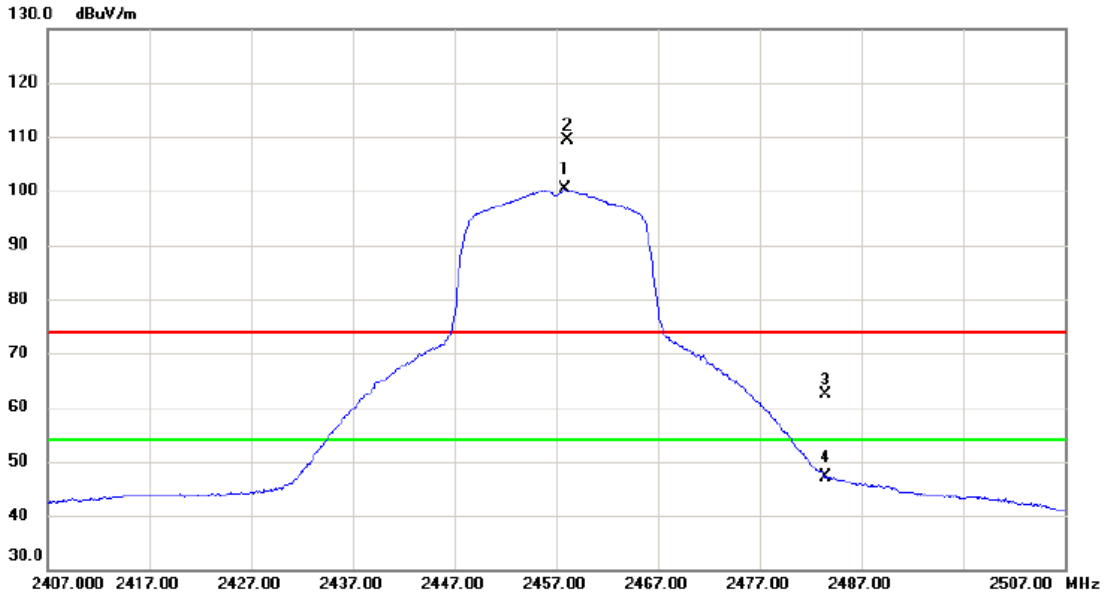
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		7365.575	46.36	7.97	54.33	74.00	-19.67	peak	
2	*	7367.350	33.17	7.98	41.15	54.00	-12.85	AVG	

REMARKS:

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

Test Mode: TX N-20M Mode 2457 MHz

Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	2457.800	92.52	7.79	100.31	54.00	46.31	AVG	No Limit
2	X	2458.150	101.63	7.79	109.42	74.00	35.42	peak	No Limit
3		2483.500	54.44	7.87	62.31	74.00	-11.69	peak	
4		2483.500	39.30	7.87	47.17	54.00	-6.83	AVG	

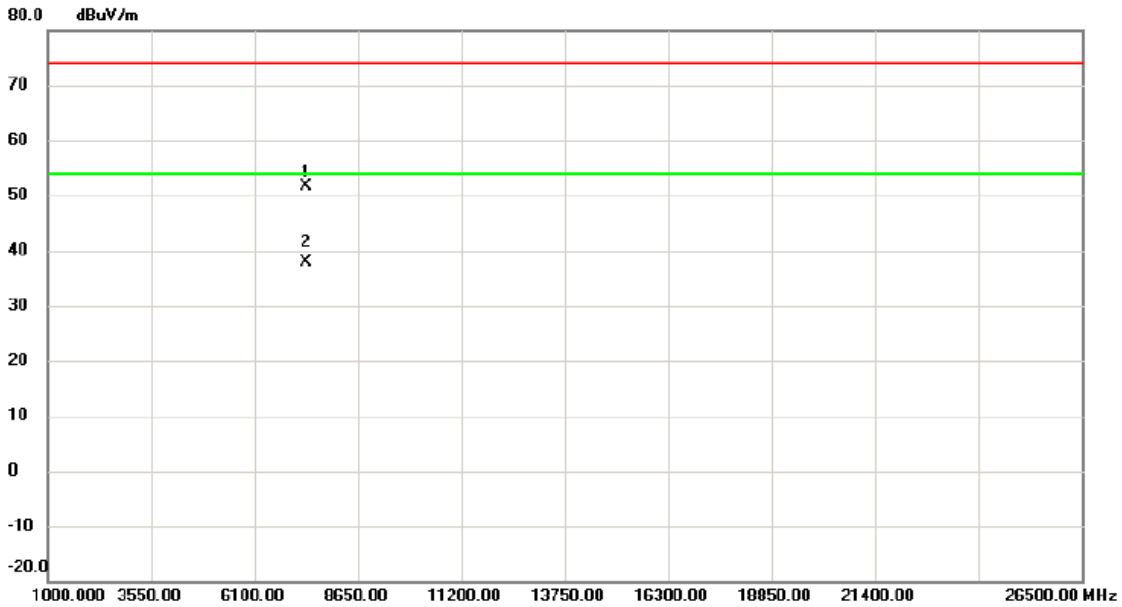
REMARKS:

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

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

Test Mode: TX N-20M Mode 2457 MHz

Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		7368.675	43.56	7.98	51.54	74.00	-22.46	peak	
2	*	7370.925	29.83	7.98	37.81	54.00	-16.19	AVG	

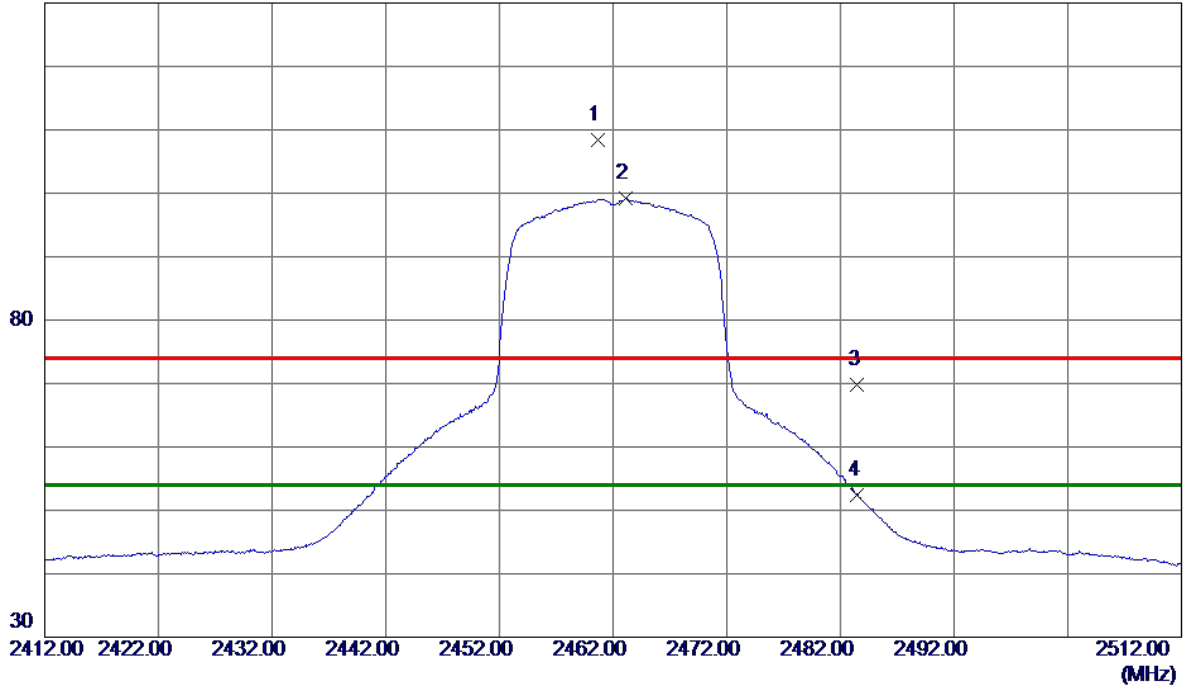
REMARKS:

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

Test Mode: TX N-20M Mode 2462 MHz

Vertical

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2460.6500	100.62	7.80	108.42	74.00	34.42	Peak	No Limit
2 *	2463.1000	91.38	7.81	99.19	54.00	45.19	AVG	No Limit
3	2483.5000	61.86	7.88	69.74	74.00	-4.26	Peak	
4	2483.5000	44.58	7.88	52.46	54.00	-1.54	AVG	

REMARKS:

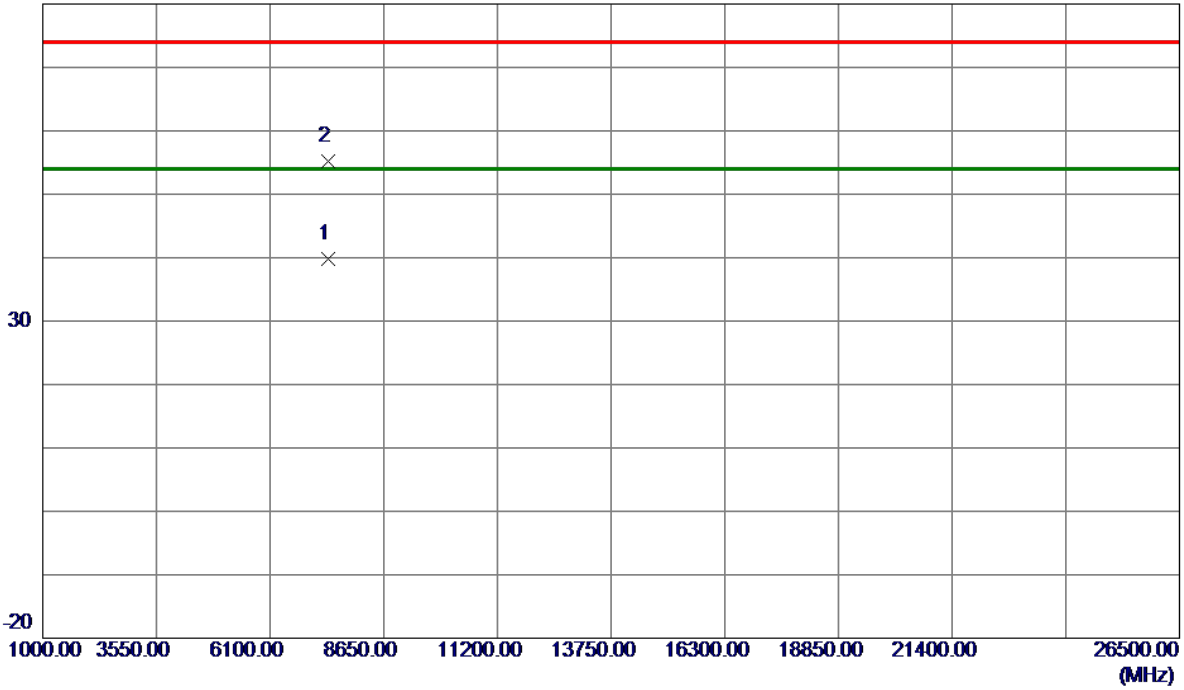
(1) Measurement Value = Reading Level + Correct Factor.

(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 *	7389.2250	31.86	8.00	39.86	54.00	-14.14	AVG	
2	7393.7500	47.11	8.01	55.12	74.00	-18.88	Peak	

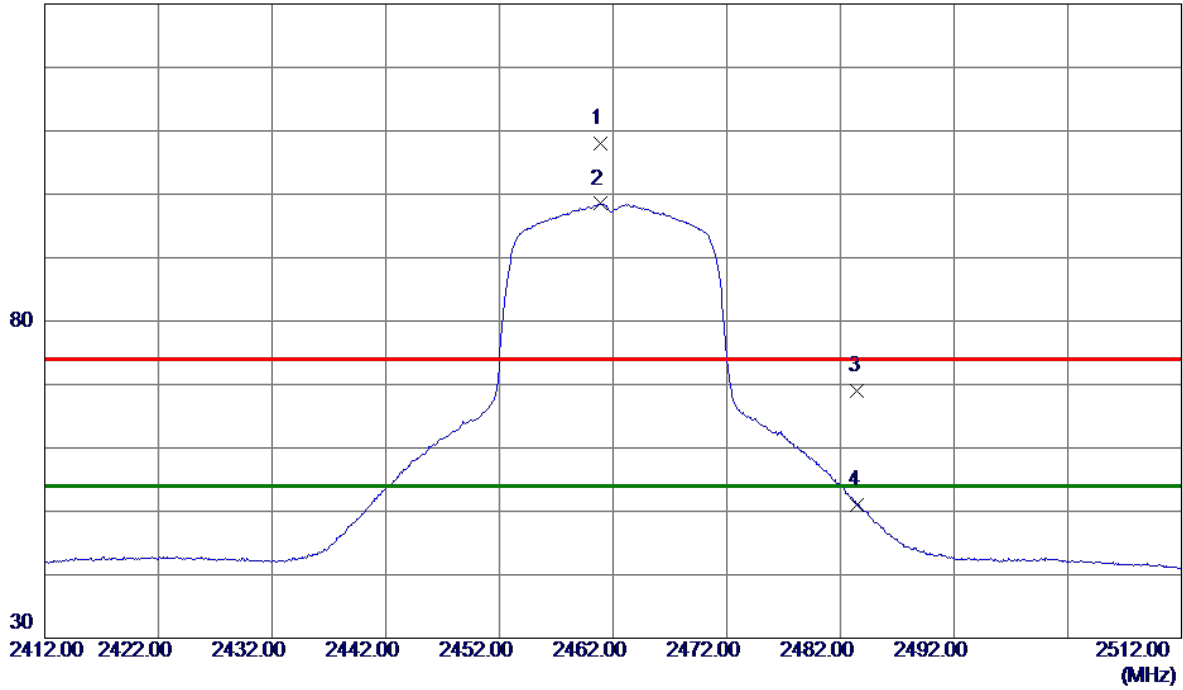
REMARKS:

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

Test Mode: TX N-20M Mode 2462 MHz

Horizontal

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2460.8500	100.24	7.80	108.04	74.00	34.04	Peak	No Limit
2 *	2460.8500	90.70	7.80	98.50	54.00	44.50	AVG	No Limit
3	2483.5000	61.11	7.88	68.99	74.00	-5.01	Peak	
4	2483.5000	43.21	7.88	51.09	54.00	-2.91	AVG	

REMARKS:

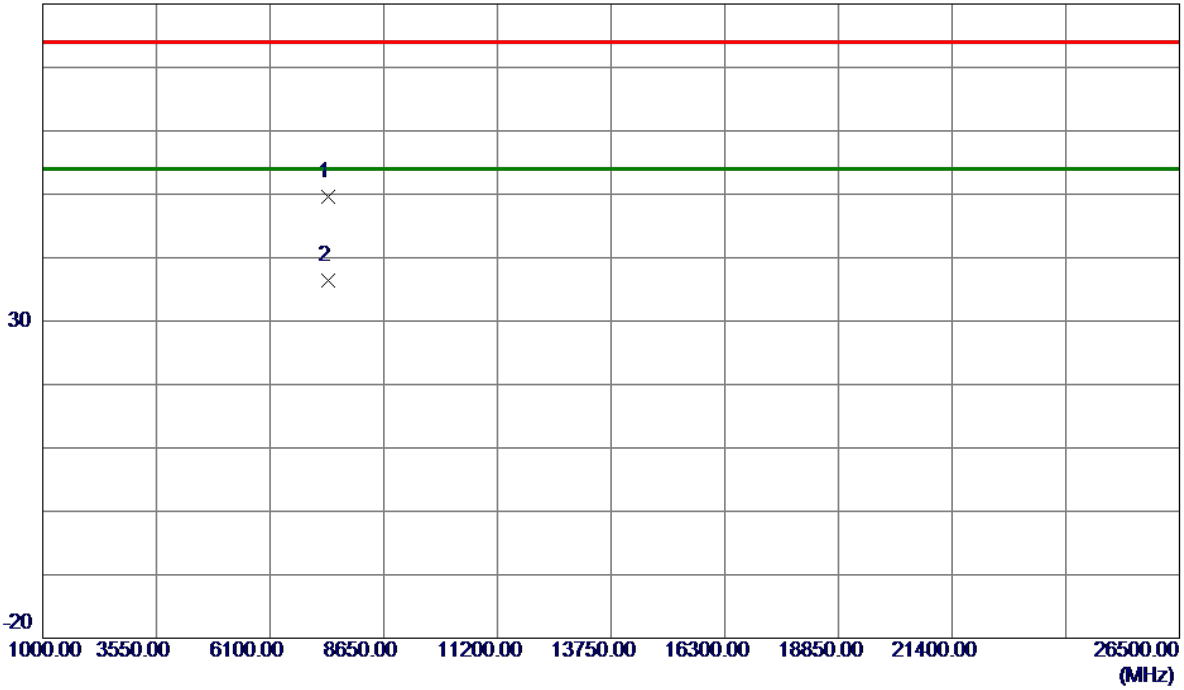
(1) Measurement Value = Reading Level + Correct Factor.

(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	7389.9250	41.53	8.00	49.53	74.00	-24.47	Peak	
2 *	7390.6750	28.45	8.00	36.45	54.00	-17.55	AVG	

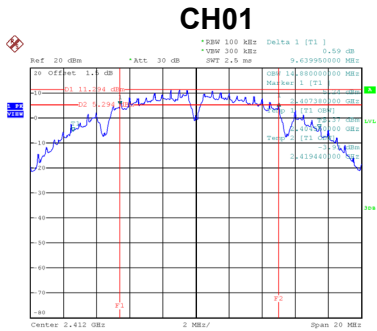
REMARKS:

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

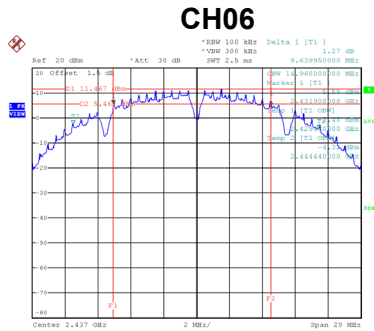
APPENDIX E - BANDWIDTH

Test Mode	TX B Mode
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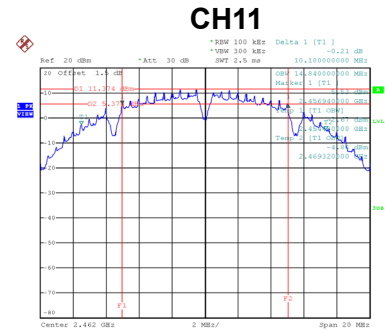
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
01	2412	9.64	500	Complies
06	2437	9.64	500	Complies
11	2462	10.10	500	Complies



Date: 4.JUL.2019 09:13:40

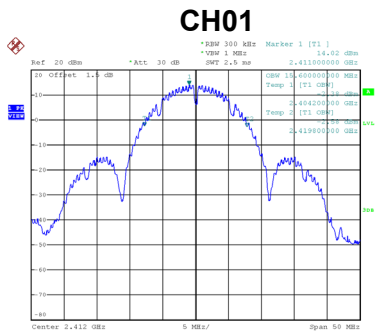


Date: 4.JUL.2019 09:17:26

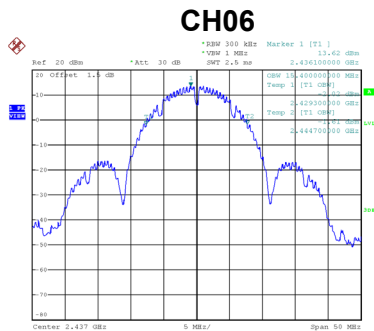


Date: 4.JUL.2019 09:19:19

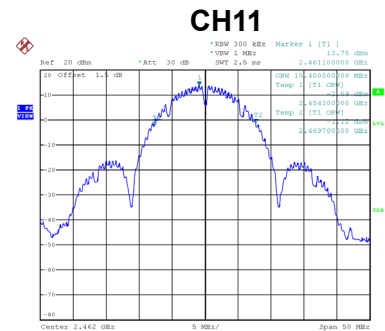
Channel	Frequency (MHz)	99 % Emission Bandwidth (MHz)	Result
01	2412	15.60	Complies
06	2437	15.40	Complies
11	2462	15.40	Complies



Date: 25.JUN.2019 10:49:09



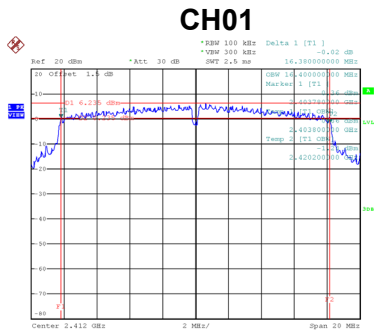
Date: 25.JUN.2019 10:48:43



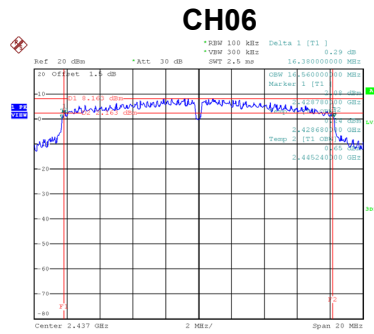
Date: 25.JUN.2019 10:48:13

Test Mode TX G Mode

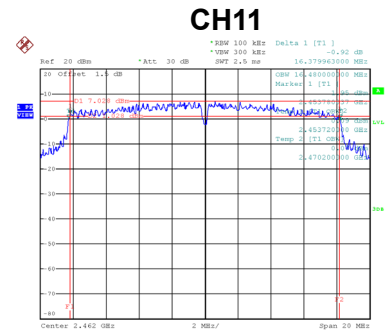
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
01	2412	16.38	500	Complies
06	2437	16.38	500	Complies
11	2462	16.38	500	Complies



Date: 4.JUL.2019 14:13:31

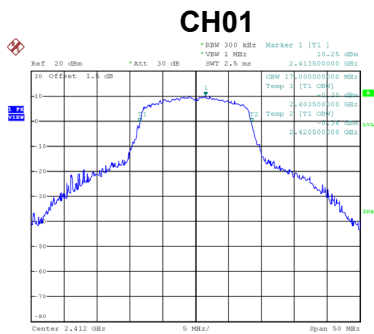


Date: 4.JUL.2019 09:26:32

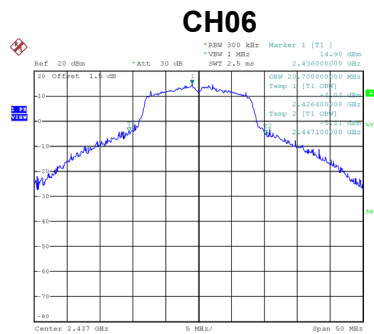


Date: 4.JUL.2019 09:28:46

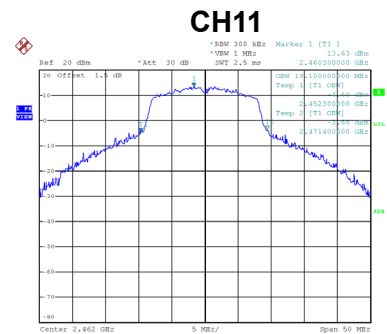
Channel	Frequency (MHz)	99 % Emission Bandwidth (MHz)	Result
01	2412	17.00	Complies
06	2437	20.70	Complies
11	2462	19.10	Complies



Date: 25.JUN.2019 10:45:14



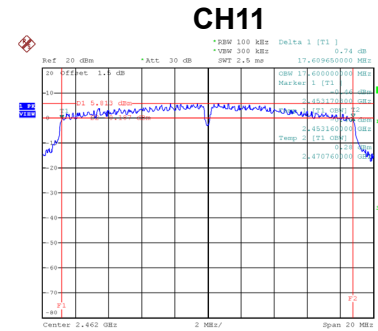
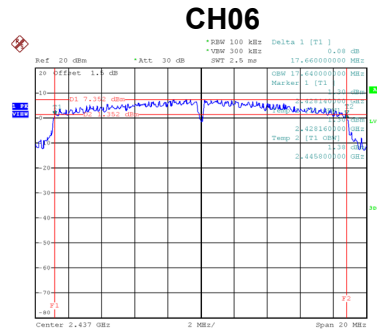
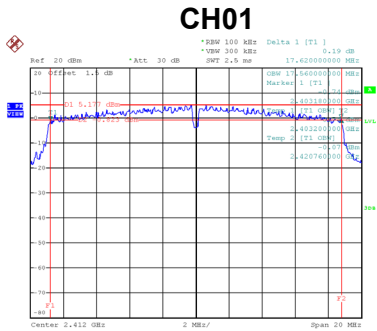
Date: 25.JUN.2019 10:46:09



Date: 25.JUN.2019 10:46:49

Test Mode TX N-20M Mode

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	17.61	500	Complies

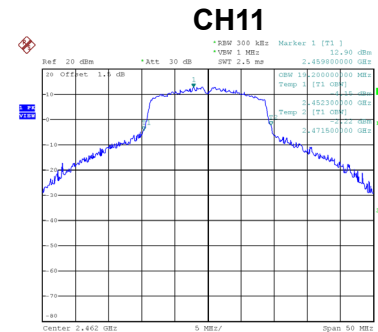
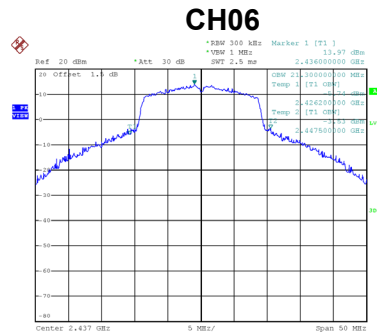
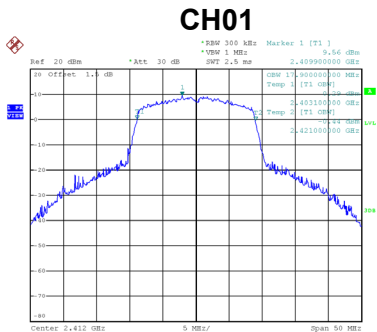


Date: 4.JUL.2019 14:15:03

Date: 4.JUL.2019 09:34:55

Date: 4.JUL.2019 09:36:19

Channel	Frequency (MHz)	99 % Emission Bandwidth (MHz)	Result
01	2412	17.90	Complies
06	2437	21.30	Complies
11	2462	19.20	Complies



Date: 25.JUN.2019 10:43:41

Date: 25.JUN.2019 10:42:53

Date: 25.JUN.2019 10:41:44

APPENDIX F - MAXIMUM PEAK OUTPUT POWER & AVERAGE POWER

Test Mode	TX B Mode
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Channel	Frequency (MHz)	Peak Output Power (dBm)	Peak Output Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	21.53	0.1422	30.00	1.0000	Complies
06	2437	21.59	0.1442	30.00	1.0000	Complies
11	2462	21.65	0.1462	30.00	1.0000	Complies

Test Mode	TX G Mode
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Channel	Frequency (MHz)	Peak Output Power (dBm)	Peak Output Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	23.53	0.2254	30.00	1.0000	Complies
06	2437	24.25	0.2661	30.00	1.0000	Complies
11	2462	24.04	0.2535	30.00	1.0000	Complies

Test Mode	TX N-20M Mode
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Channel	Frequency (MHz)	Peak Output Power (dBm)	Peak Output Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	23.27	0.2123	30.00	1.0000	Complies
06	2437	24.22	0.2642	30.00	1.0000	Complies
11	2462	23.95	0.2483	30.00	1.0000	Complies

Test Mode	TX B Mode
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Channel	Frequency (MHz)	Average Power (dBm)	Duty Factor	Average Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	19.22	0.00	19.22	30.00	1.0000	Complies
06	2437	19.98	0.00	19.98	30.00	1.0000	Complies
11	2462	19.81	0.00	19.81	30.00	1.0000	Complies

Test Mode	TX G Mode
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Channel	Frequency (MHz)	Average Power (dBm)	Duty Factor	Average Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	17.93	0.00	17.93	30.00	1.0000	Complies
06	2437	20.05	0.00	20.05	30.00	1.0000	Complies
11	2462	18.89	0.00	18.89	30.00	1.0000	Complies

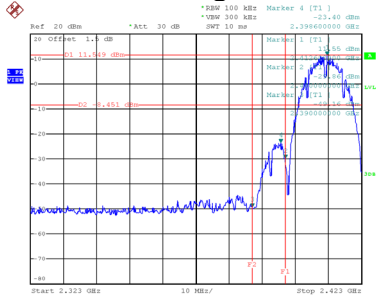
Test Mode	TX N-20M Mode
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Channel	Frequency (MHz)	Average Power (dBm)	Duty Factor	Average Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	16.87	0.00	16.87	30.00	1.0000	Complies
06	2437	19.83	0.00	19.83	30.00	1.0000	Complies
11	2462	18.33	0.00	18.33	30.00	1.0000	Complies

APPENDIX G - CONDUCTED SPURIOUS EMISSIONS

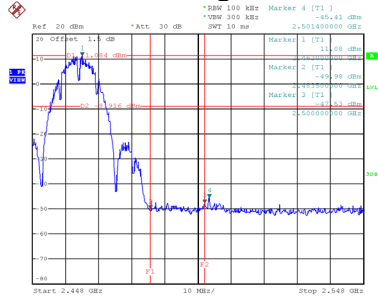
Test Mode TX B Mode

Bandedge-CH01



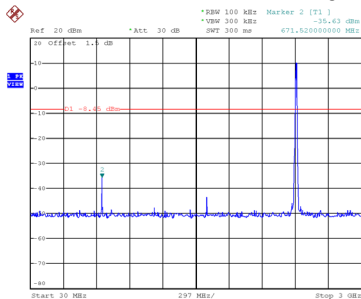
Date: 4.JUL.2019 09:13:48

Bandedge-CH11

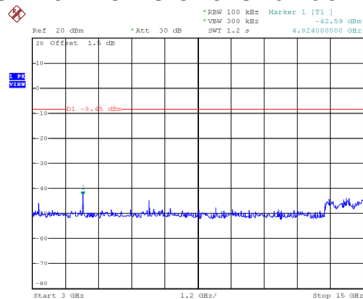


Date: 4.JUL.2019 09:19:26

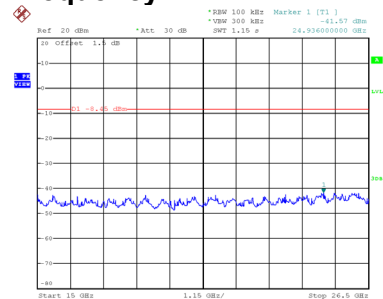
CH01 – 10th Harmonic of the fundamental frequency



Date: 4.JUL.2019 09:14:00

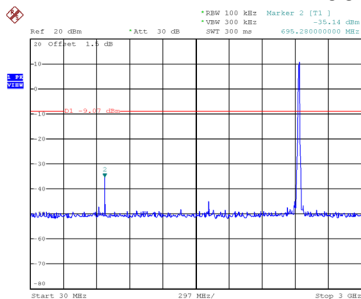


Date: 4.JUL.2019 09:14:07

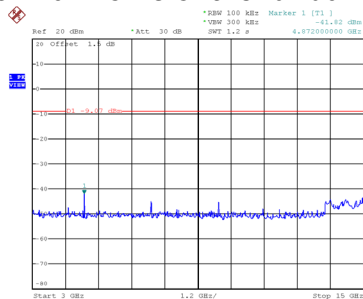


Date: 4.JUL.2019 09:14:14

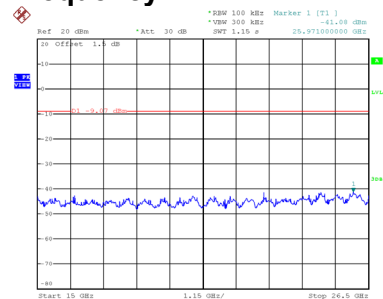
CH06 – 10th Harmonic of the fundamental frequency



Date: 4.JUL.2019 09:17:47

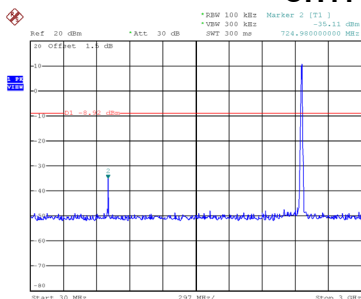


Date: 4.JUL.2019 09:17:54

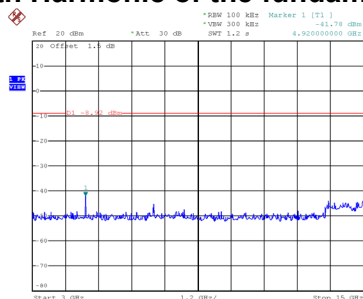


Date: 4.JUL.2019 09:18:01

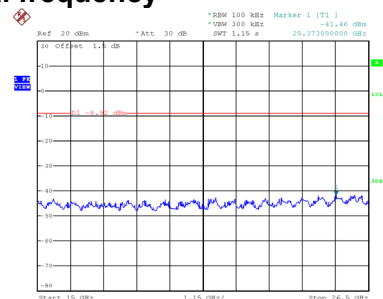
CH11 – 10th Harmonic of the fundamental frequency



Date: 4.JUL.2019 09:19:39



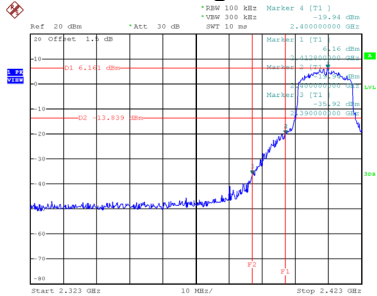
Date: 4.JUL.2019 09:19:46



Date: 4.JUL.2019 09:19:52

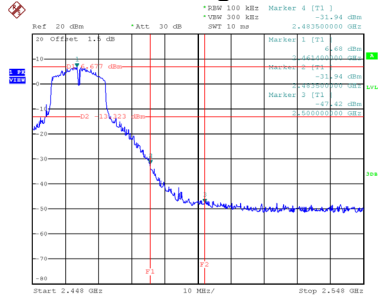
Test Mode TX G Mode

Bandedge-CH01



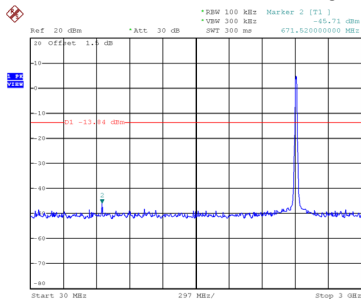
Date: 4.JUL.2019 14:13:39

Bandedge-CH11

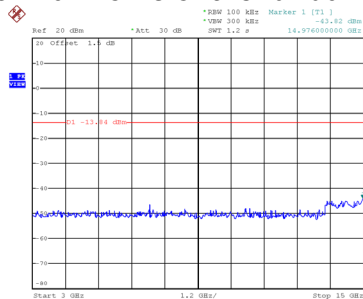


Date: 4.JUL.2019 09:28:53

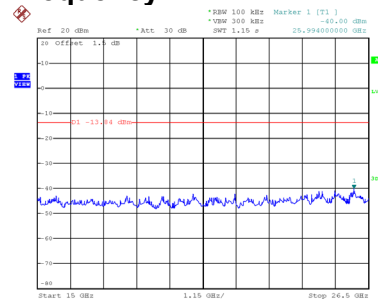
CH01 – 10th Harmonic of the fundamental frequency



Date: 4.JUL.2019 14:13:51

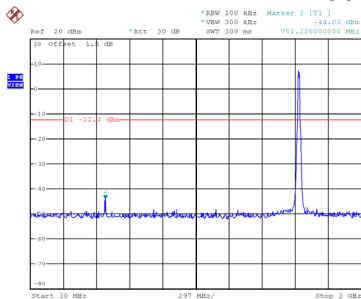


Date: 4.JUL.2019 14:13:58

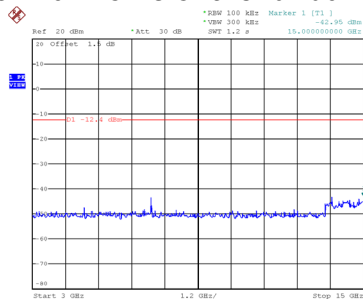


Date: 4.JUL.2019 14:14:05

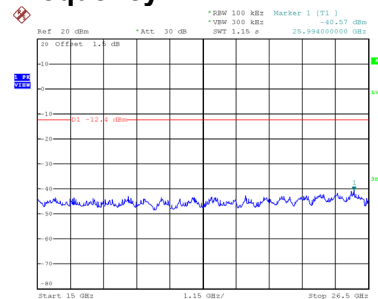
CH06 – 10th Harmonic of the fundamental frequency



Date: 4.JUL.2019 09:26:52

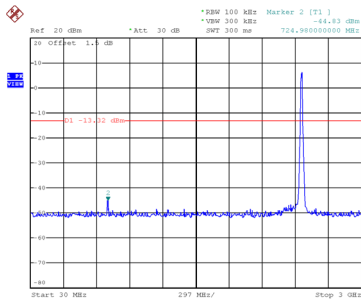


Date: 4.JUL.2019 09:26:59

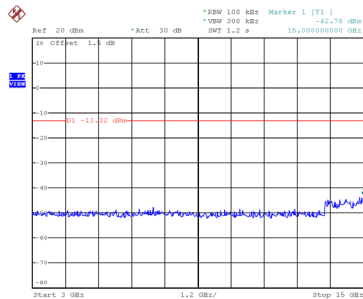


Date: 4.JUL.2019 09:27:05

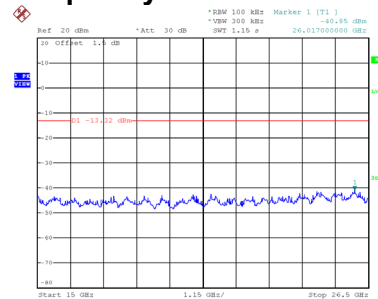
CH11 – 10th Harmonic of the fundamental frequency



Date: 4.JUL.2019 09:29:06



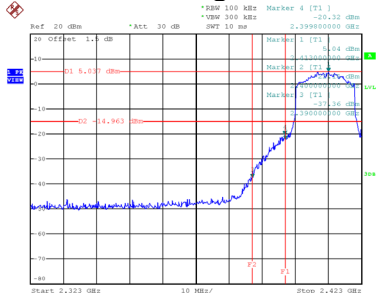
Date: 4.JUL.2019 09:29:13



Date: 4.JUL.2019 09:29:19

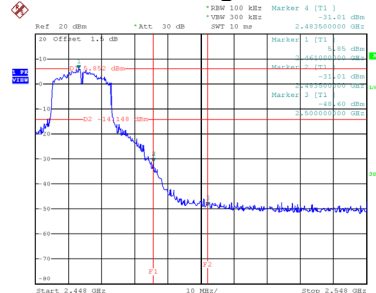
Test Mode TX N-20M Mode

Bandedge-CH01



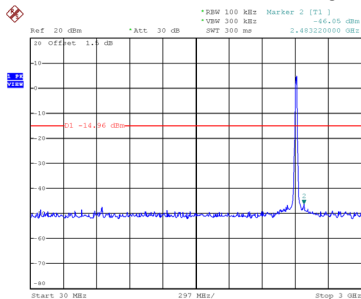
Date: 4.JUL.2019 14:15:10

Bandedge-CH11

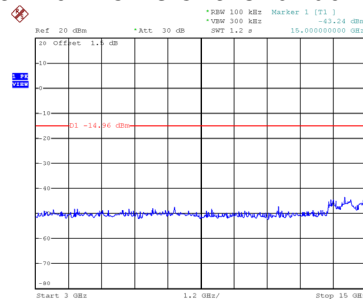


Date: 4.JUL.2019 09:36:26

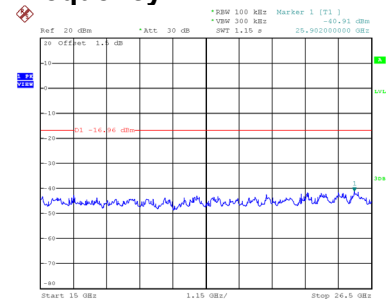
CH01 – 10th Harmonic of the fundamental frequency



Date: 4.JUL.2019 14:15:23

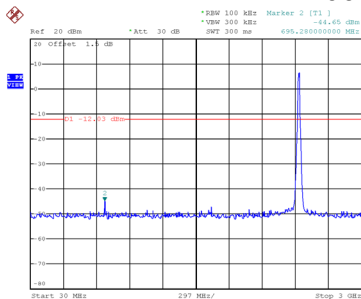


Date: 4.JUL.2019 14:15:29

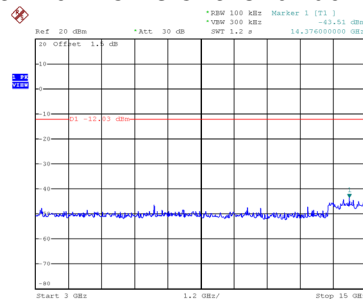


Date: 4.JUL.2019 09:33:46

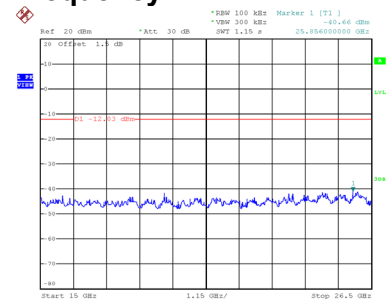
CH06 – 10th Harmonic of the fundamental frequency



Date: 4.JUL.2019 09:35:14

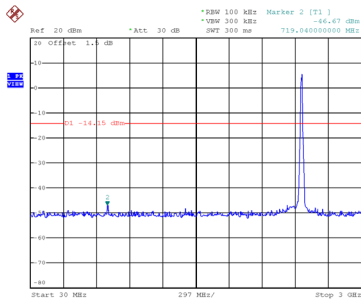


Date: 4.JUL.2019 09:35:21

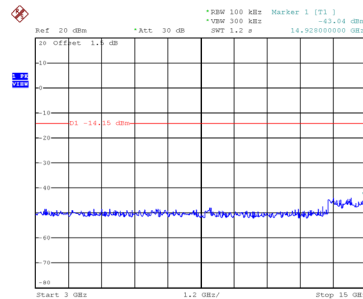


Date: 4.JUL.2019 09:35:28

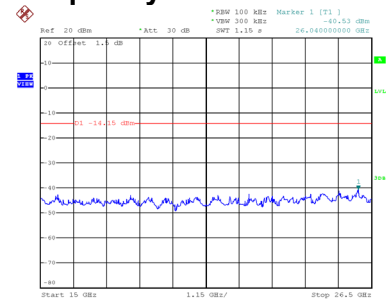
CH11 – 10th Harmonic of the fundamental frequency



Date: 4.JUL.2019 09:36:39



Date: 4.JUL.2019 09:36:46

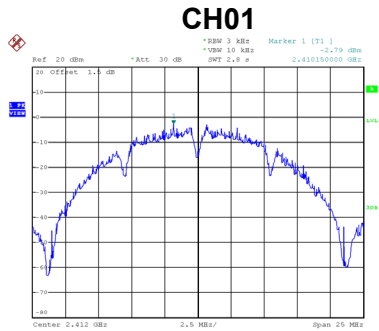


Date: 4.JUL.2019 09:36:53

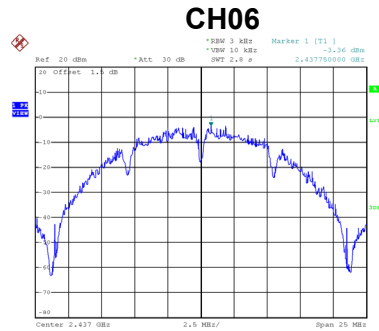
APPENDIX H - POWER SPECTRAL DENSITY

Test Mode	TX B Mode
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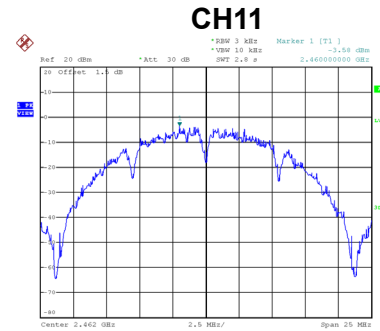
Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
01	2412	-2.79	8	Complies
06	2437	-3.36	8	Complies
11	2462	-3.58	8	Complies



Date: 4.JUL.2019 09:14:22



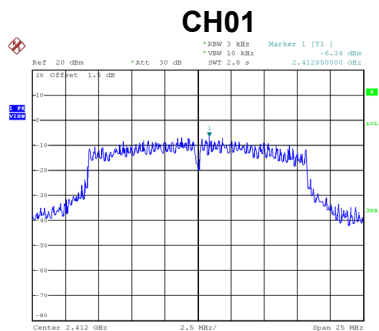
Date: 4.JUL.2019 09:18:09



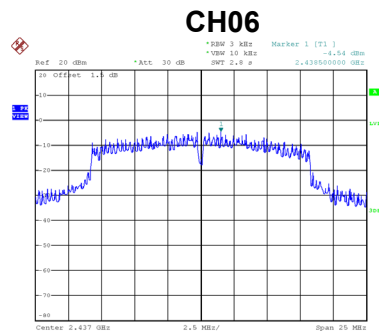
Date: 4.JUL.2019 09:20:01

Test Mode	TX G Mode
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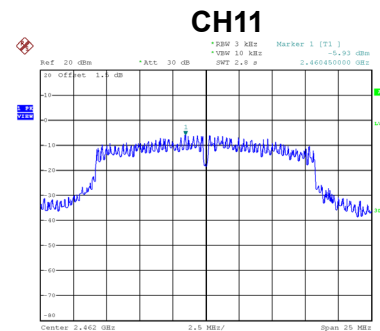
Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
01	2412	-6.34	8	Complies
06	2437	-4.54	8	Complies
11	2462	-5.93	8	Complies



Date: 4.JUL.2019 14:13:19



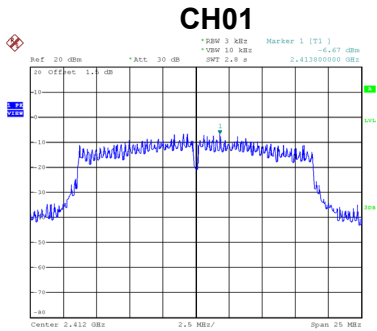
Date: 4.JUL.2019 09:27:14



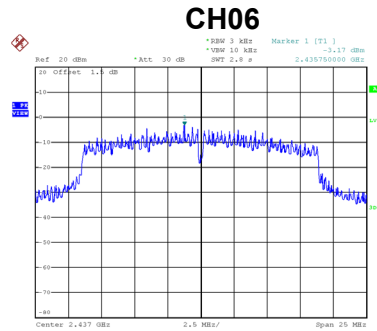
Date: 4.JUL.2019 09:29:28

Test Mode	TX N-20M Mode
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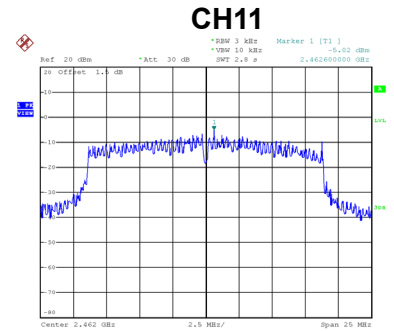
Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
01	2412	-6.67	8	Complies
06	2437	-3.17	8	Complies
11	2462	-5.02	8	Complies



Date: 4.JUL.2019 14:14:53



Date: 4.JUL.2019 09:35:37



Date: 4.JUL.2019 09:37:01

End of Test Report