

# FCC Radio Test Report

## FCC ID: Q78-ZXHNH168N

This report concerns (check one):  Original Grant  Class I Change  Class II Change

**Project No.** : 1811H005  
**Equipment** : VDSL CPE  
**Test Model** : ZXHN H168N  
**Series Model** : N/A  
**Applicant** : ZTE Corporation  
**Address** : ZTE Plaza, Hi-Tech Park, Nanshan District,  
Shenzhen, Guangdong, P.R.China

**Date of Receipt** : Dec. 03, 2018  
**Date of Test** : Dec. 03, 2018~Dec. 12, 2018  
**Issued Date** : Dec. 20, 2018  
**Tested by** : BTL Inc.

**Testing Engineer** : Rose Liu  
(Rose Liu)

**Technical Manager** : David Mao  
(David Mao)

**Authorized Signatory** : Steven Lu  
(Steven Lu)

# **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

**Declaration**

**BTL** represents to the client that testing is done in accordance with standard procedures as applicable and that test instruments used has been calibrated with standards traceable to international standard(s) and/or national standard(s).

**BTL's** reports apply only to the specific samples tested under conditions. It is manufacture's responsibility to ensure that additional production units of this model are manufactured with the identical electrical and mechanical components. **BTL** shall have no liability for any declarations, inferences or generalizations drawn by the client or others from **BTL** issued reports.

The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, A2LA, or any agency of the U.S. Government.

This report is the confidential property of the client. As a mutual protection to the clients, the public and ourselves, the test report shall not be reproduced, except in full, without our written approval.

**BTL's** laboratory quality assurance procedures are in compliance with the **ISO/IEC 17025** requirements, and accredited by the conformity assessment authorities listed in this test report.

**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.

Table of Contents	Page
<b>1 . GENERAL SUMMARY</b>	<b>6</b>
<b>2 . SUMMARY OF TEST RESULTS</b>	<b>7</b>
2.1 TEST FACILITY	8
2.2 MEASUREMENT UNCERTAINTY	8
<b>3 . GENERAL INFORMATION</b>	<b>9</b>
3.1 GENERAL DESCRIPTION OF EUT	9
3.2 DESCRIPTION OF TEST MODES	11
3.3 TABLE OF PARAMETERS OF TEXT SOFTWARE SETTING	13
3.4 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED	14
3.5 DESCRIPTION OF SUPPORT UNITS	14
<b>4 . EMC EMISSION TEST</b>	<b>15</b>
4.1 CONDUCTED EMISSION MEASUREMENT	15
4.1.1 POWER LINE CONDUCTED EMISSION LIMITS	15
4.1.2 TEST PROCEDURE	15
4.1.3 DEVIATION FROM TEST STANDARD	15
4.1.4 TEST SETUP	16
4.1.5 EUT OPERATING CONDITIONS	16
4.1.6 EUT TEST CONDITIONS	16
4.1.7 TEST RESULTS	16
4.2 RADIATED EMISSION MEASUREMENT	17
4.2.1 RADIATED EMISSION LIMITS	17
4.2.2 TEST PROCEDURE	18
4.2.3 DEVIATION FROM TEST STANDARD	18
4.2.4 TEST SETUP	19
4.2.5 EUT OPERATING CONDITIONS	20
4.2.6 EUT TEST CONDITIONS	20
4.2.7 TEST RESULTS (9 KHZ TO 30 MHZ)	20
4.2.8 TEST RESULTS (30 MHZ TO 1000 MHZ)	20
4.2.9 TEST RESULTS (ABOVE 1000 MHZ)	20
<b>5 . BANDWIDTH TEST</b>	<b>21</b>
5.1 APPLIED PROCEDURES	21
5.1.1 TEST PROCEDURE	21
5.1.2 DEVIATION FROM STANDARD	21
5.1.3 TEST SETUP	21
5.1.4 EUT OPERATION CONDITIONS	21
5.1.5 EUT TEST CONDITIONS	21
5.1.6 TEST RESULTS	21
<b>6 . MAXIMUM OUTPUT POWER TEST</b>	<b>22</b>

<b>Table of Contents</b>	<b>Page</b>
<b>6.1 APPLIED PROCEDURES / LIMIT</b>	<b>22</b>
6.1.1 TEST PROCEDURE	22
6.1.2 DEVIATION FROM STANDARD	22
6.1.3 TEST SETUP	22
6.1.4 EUT OPERATION CONDITIONS	22
6.1.5 EUT TEST CONDITIONS	22
6.1.6 TEST RESULTS	22
<b>7 . ANTENNA CONDUCTED SPURIOUS EMISSION</b>	<b>23</b>
7.1 APPLIED PROCEDURES / LIMIT	23
7.1.1 TEST PROCEDURE	23
7.1.2 DEVIATION FROM STANDARD	23
7.1.3 TEST SETUP	23
7.1.4 EUT OPERATION CONDITIONS	23
7.1.5 EUT TEST CONDITIONS	23
7.1.6 TEST RESULTS	23
<b>8 . POWER SPECTRAL DENSITY TEST</b>	<b>24</b>
8.1 APPLIED PROCEDURES / LIMIT	24
8.1.1 TEST PROCEDURE	24
8.1.2 DEVIATION FROM STANDARD	24
8.1.3 TEST SETUP	24
8.1.4 EUT OPERATION CONDITIONS	24
8.1.5 EUT TEST CONDITIONS	24
8.1.6 TEST RESULTS	24
<b>9 . MEASUREMENT INSTRUMENTS LIST</b>	<b>25</b>
<b>10 . EUT TEST PHOTO</b>	<b>27</b>
<b>APPENDIX A - CONDUCTED EMISSION</b>	<b>31</b>
<b>APPENDIX B - RADIATED EMISSION (9 KHZ TO 30 MHZ)</b>	<b>36</b>
<b>APPENDIX C - RADIATED EMISSION (30 MHZ TO 1000 MHZ)</b>	<b>45</b>
<b>APPENDIX D - RADIATED EMISSION (ABOVE 1000 MHZ)</b>	<b>58</b>
<b>APPENDIX E - BANDWIDTH</b>	<b>107</b>
<b>APPENDIX F - MAXIMUM OUTPUT POWER</b>	<b>116</b>
<b>APPENDIX G - ANTENNA CONDUCTED SPURIOUS EMISSION</b>	<b>120</b>
<b>APPENDIX H - POWER SPECTRAL DENSITY</b>	<b>157</b>

### REPORT ISSUED HISTORY

Report Version	Description	Issued Date
R00	Original Issue.	

## 1. GENERAL SUMMARY

Equipment : VDSL CPE  
Brand Name : ZTE  
Test Model : ZXHN H168N  
Series Model : N/A  
Applicant : ZTE Corporation  
Manufacturer : ZTE Corporation  
Address : ZTE Plaza, Hi-Tech Park, Nanshan District, Shenzhen, Guangdong, P.R.China  
Date of Test : Dec. 03, 2018~Dec. 12, 2018  
Test Sample : Engineering Sample No.: D181211058 for conducted; D181211059 for radiated  
Standard(s) : FCC Part15, Subpart C (15.247) / ANSI C63.10-2013

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-1-1811H005) 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):

Applied Standard(s): FCC Part15 (15.247) , Subpart C			
Standard(s) Section	Test Item	Judgment	Remark
15.207	Conducted Emission	PASS	
15.247(d)	Antenna conducted Spurious Emission	PASS	
15.247(a)(2)	6 dB Bandwidth	PASS	
15.247(b)(3)	Maximum output power	PASS	
15.247(e)	Power Spectral Density	PASS	
15.203	Antenna Requirement	PASS	
15.247(d)/ 15.205/ 15.209	Transmitter Radiated Emissions	PASS	

Note:

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

## 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 number for FCC: 854385

BTL's designation number for FCC: CN5020

## 2.2 MEASUREMENT UNCERTAINTY

The measurement uncertainty figures shall be calculated according the methods described in the ETSI TR 100 028 and shall correspond to an expansion factor (coverage factor)  $k=1.96$  or  $k=2$ (which provide confidence levels of respectively 90% and 95.45% in the case where the distributions characterizing the actual measurement uncertainties are normal (Gaussian)). Measurement Uncertainty for a Level of Confidence of 95 %,  $U=2xUc(y)$ .

The BTL measurement uncertainty as below table:

### A. Conducted Measurement:

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

### B. Radiated Measurement:

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 MH~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	VDSL CPE	
Brand Name	ZTE	
Test Model	ZXHN H168N	
Series Model	N/A	
Model Difference(s)	N/A	
Software Version	V3.5.0	
Hardware Version	V3.5.0	
Product Description	Operation Frequency	2412 MHz ~2462 MHz
	Modulation Technology	802.11b:DSSS 802.11g:OFDM 802.11n:OFDM
	Bit Rate of Transmitter	802.11b: 11/5.5/2/1 Mbps 802.11g: 54/48/36/24/18/12/9/6 Mbps 802.11n up to 300 Mbps
	Output Power (Max.)	802.11b: 18.46 dBm 802.11g: 25.98 dBm 802.11n(20 MHz): 28.19 dBm 802.11n(40 MHz): 27.49 dBm
Power Source	DC voltage supplied from AC/DC adapter. #1 Model: RD1201000-C55-91MG #2 Model: RD1200500-C55-16MG	
Power Rating	#1 I/P: 100-240V~ 50/60Hz 0.6A MAX O/P:12V --- 1A #2 I/P: 100-240V~ 50/60Hz 250mA O/P:12V --- 0.5A	

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 802.11b, 802.11g, 802.11n(20 MHz) CH03 - CH09 for 802.11n(40 MHz)							
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. Table for Filed Antenna

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	N/A	N/A	PCB	N/A	3
2	N/A	N/A	PIFA	N/A	3

Note:

This EUT supports MIMO 2X2, any transmit signals are correlated with each other, so Directional gain =  $G_{ANT}+10\log(N)$ dBi, that is Directional gain= $3+10\log(2)$ dBi=6.01; Antenna Gain=6.01 dBi. So, the out power limit is  $30-6.01+6=29.99$ , the power density limit is  $8-6.01+6=7.99$ .

### 4.

Operating Mode TX Mode	1TX	2TX
	802.11b	V (ANT 1)
802.11g	V (ANT 1)	-
802.11n(20 MHz)	-	V (ANT 1 + ANT 2)
802.11n(40 MHz)	-	V (ANT 1 + ANT 2)

### 3.2 DESCRIPTION OF TEST MODES

To investigate the maximum EMI emission characteristics generated from EUT, the test system was pre-scanning tested based on the consideration of following EUT operation mode or test configuration mode which possibly have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Pretest Mode	Description
Mode 1	TX B Mode Channel 01/06/11
Mode 2	TX G Mode Channel 01/06/11
Mode 3	TX N-20 MHz Mode Channel 01/06/11
Mode 4	TX N-40 MHz Mode Channel 03/06/09
Mode 5	TX Mode

The EUT system operated these modes were found to be the worst case during the pre-scanning test as following:

For Conducted Test	
Final Test Mode:	Description
Mode 5	TX Mode

For Radiated Test	
Final Test Mode:	Description
Mode 1	TX B Mode Channel 01/06/11
Mode 2	TX G Mode Channel 01/06/11
Mode 3	TX N-20 MHz Mode Channel 01/06/11
Mode 4	TX N-40 MHz Mode Channel 03/06/09

For Band Edge Test	
Final Test Mode:	Description
Mode 1	TX B Mode Channel 01/06/11
Mode 2	TX G Mode Channel 01/06/11
Mode 3	TX N-20 MHz Mode Channel 01/06/11
Mode 4	TX N-40 MHz Mode Channel 03/06/09

6 dB Spectrum Bandwidth	
Final Test Mode:	Description
Mode 1	TX B Mode Channel 01/06/11
Mode 2	TX G Mode Channel 01/06/11
Mode 3	TX N-20 MHz Mode Channel 01/06/11
Mode 4	TX N-40 MHz Mode Channel 03/06/09

Maximum Output Power	
Final Test Mode:	Description
Mode 1	TX B Mode Channel 01/06/11
Mode 2	TX G Mode Channel 01/06/11
Mode 3	TX N-20 MHz Mode Channel 01/06/11
Mode 4	TX N-40 MHz Mode Channel 03/06/09

Power Spectral Density	
Final Test Mode:	Description
Mode 1	TX B Mode Channel 01/06/11
Mode 2	TX G Mode Channel 01/06/11
Mode 3	TX N-20 MHz Mode Channel 01/06/11
Mode 4	TX N-40 MHz Mode Channel 03/06/09

**Note:**

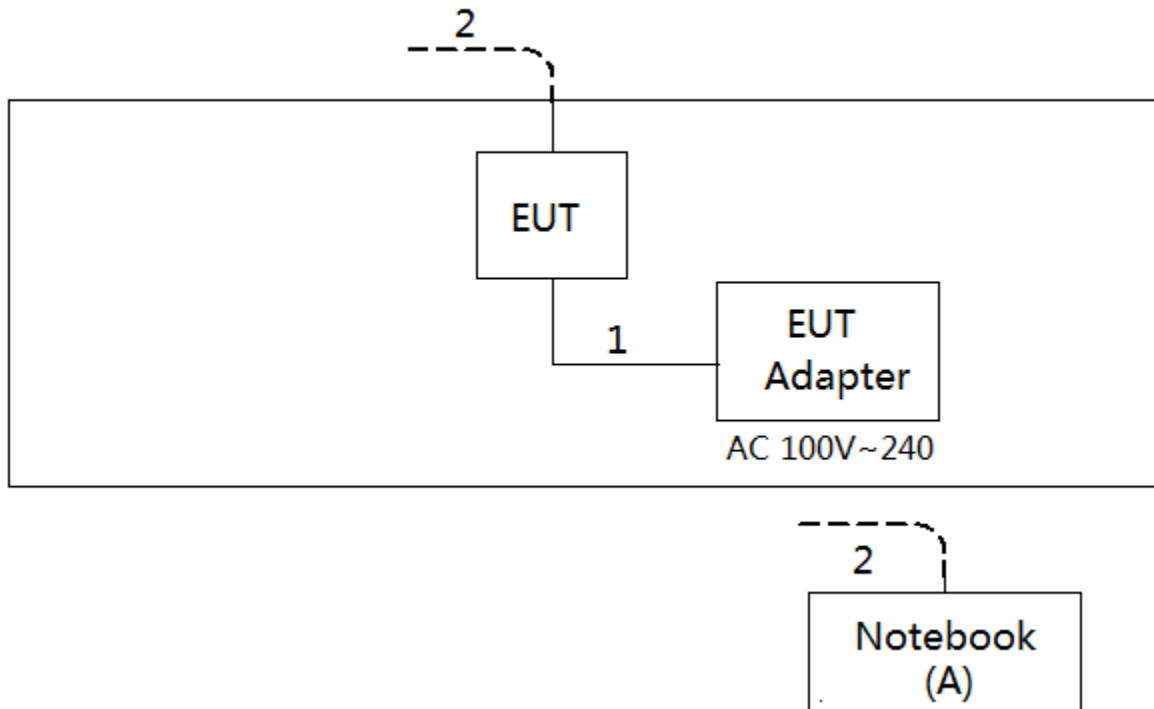
- (1) The measurements are performed at the high, middle, low available channels.
- (2) 802.11b mode: DBPSK (1 Mbps)  
 802.11g mode: OFDM (6 Mbps)  
 802.11n HT20 mode : BPSK (13 Mbps)  
 802.11n HT40 mode : BPSK (27 Mbps)  
 For radiated emission tests, the highest output powers were set for final test.
- (3) For radiated 30 MHz to 1000 MHz test, the 802.11b is found to be the worst case and recorded.
- (4) The EUT was programmed to be in continuously transmitting mode and the transmit duty cycle is not less than 98%.

### 3.3 TABLE OF PARAMETERS OF TEXT SOFTWARE SETTING

During testing, channel & power controlling software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product power parameters of WLAN

Test software version	QA Tool_0.0.1.76		
Frequency (MHz)	2412	2437	2462
802.11b	1E	1F	1F
802.11g	1F	23	1D
802.11n (20 MHz)	1D	22	1C
Frequency (MHz)	2422	2437	2452
802.11n (40 MHz)	17	22	19

### 3.4 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



### 3.5 DESCRIPTION OF SUPPORT UNITS

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

Item	Equipment	Mfr/Brand	Model/Type No.	FCC ID	Series No.
A	Notebook	Dell	DCSM	DOC	G7K832X

Item	Shielded Type	Ferrite Core	Length	Note
1	N/A	N/A	1.5m	Power Cable
2	N/A	N/A	10m	RJ45 Cable

## 4. EMC EMISSION TEST

### 4.1 CONDUCTED EMISSION MEASUREMENT

#### 4.1.1 POWER LINE CONDUCTED EMISSION LIMITS (Frequency Range 150 kHz-30 MHz)

Frequency of Emission (MHz)	Conducted Limit (dB $\mu$ V)	
	Quasi-peak	Average
0.15 - 0.50	66 to 56*	56 to 4
0.50 - 5.0	56	46
5.0 - 30.0	60	50

Note:

- (1) The limit of " \* " decreases with the logarithm of the frequency
- (2) The test result calculated as following:  
 Measurement Value = Reading Level + Correct Factor  
 Correct Factor = Insertion Loss + Cable Loss + Attenuator Factor(if use)  
 Margin Level = Measurement Value - Limit Value

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

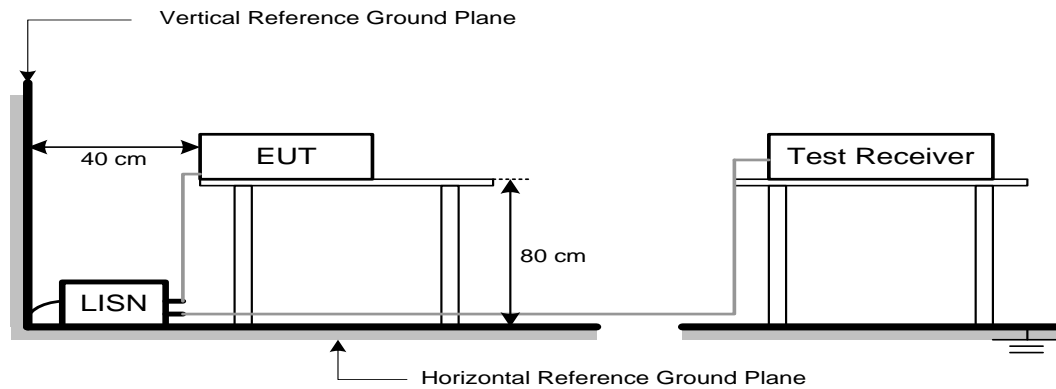
#### 4.1.2 TEST PROCEDURE

- 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.

#### 4.1.3 DEVIATION FROM TEST STANDARD

No deviation

#### 4.1.4 TEST SETUP



#### 4.1.5 EUT OPERATING CONDITIONS

The EUT was placed on the test table and programmed in normal function.

#### 4.1.6 EUT TEST CONDITIONS

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

#### 4.1.7 TEST RESULTS

Please refer to the Appendix A.



## 4.2 RADIATED EMISSION MEASUREMENT

### 4.2.1 RADIATED EMISSION LIMITS

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
960~1000	500	3

#### LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000 MHz)

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

Note:

- (1) The limit for radiated test was performed according to FCC PART 15C.
- (2) The tighter limit applies at the band edges.
- (3) Emission level (dBuV/m)=20log Emission level (uV/m).
- (4) The test result calculated as following:  
 Measurement Value = Reading Level + Correct Factor  
 Correct Factor = Antenna Factor + Cable Loss - Amplifier Gain(if use)  
 Margin Level = Measurement Value - Limit Value

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

Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9 kHz~90 kHz for PK/AVG detector
Start ~ Stop Frequency	90 kHz~110 kHz for QP detector
Start ~ Stop Frequency	110 kHz~490 kHz for PK/AVG detector
Start ~ Stop Frequency	490 kHz~30 MHz for QP detector
Start ~ Stop Frequency	30 MHz~1000 MHz for QP detector

#### 4.2.2 TEST PROCEDURE

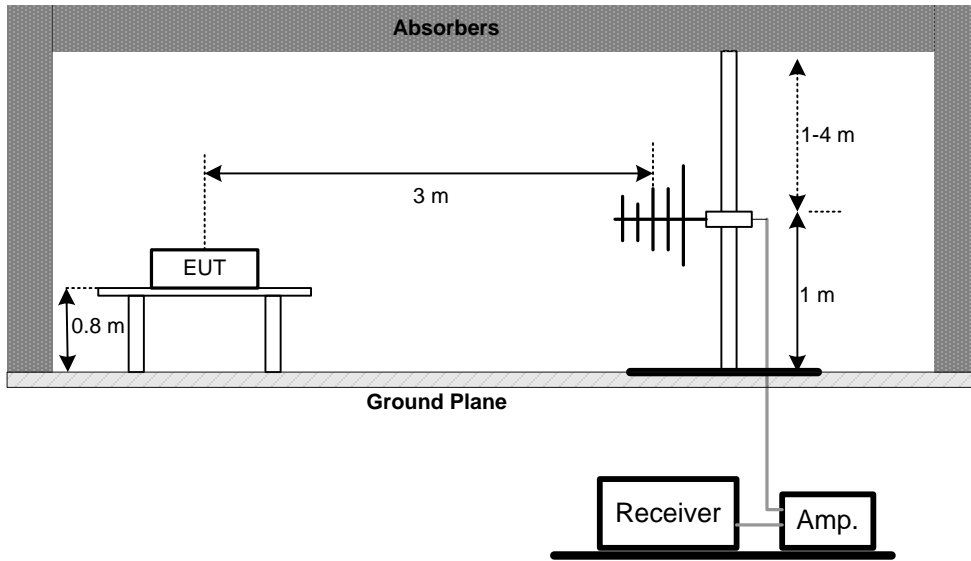
- a. The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(below 1 GHz)
- b. The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 1.5 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(above 1 GHz)
- c. The height of the equipment or of the substitution antenna shall be 0.8m or 1.5m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights find the maximum reading (used Bore sight function).
- e. The receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz.
- f. The initial step in collecting radiated emission data is a receiver peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- g. All readings are Peak unless otherwise stated QP in column of Note. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform. (below 1 GHz)
- h. All readings are Peak Mode value unless otherwise stated AVG in column of Note. If the Peak Mode Measured value compliance with the Peak Limits and lower than AVG Limits, the EUT shall be deemed to meet both Peak & AVG Limits and then only Peak Mode was measured, but AVG Mode didn't perform. (above 1 GHz)
- i. For the actual test configuration, please refer to the related Item -EUT Test Photos.

#### 4.2.3 DEVIATION FROM TEST STANDARD

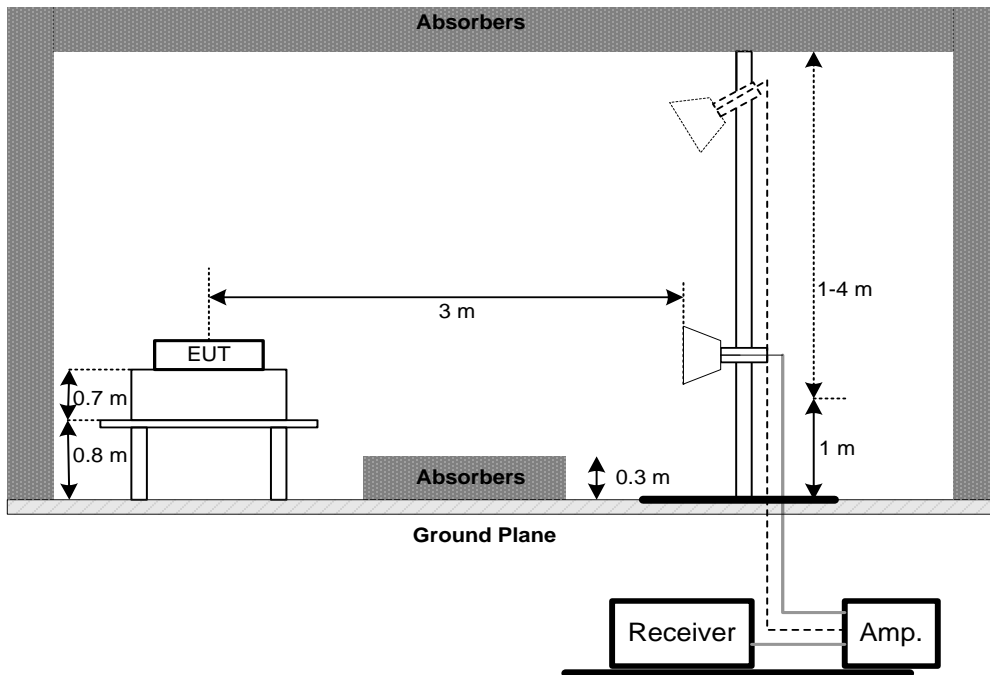
No deviation

**4.2.4 TEST SETUP**

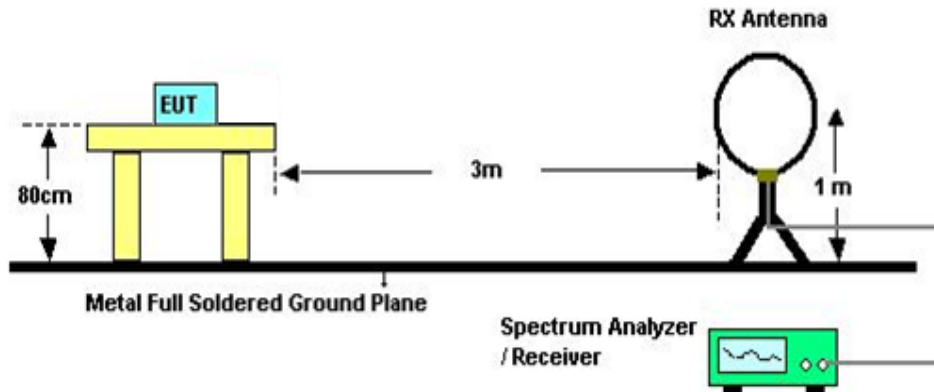
(A) Radiated Emission Test Set-Up Frequency 30 MHz-1000 MHz



(B) Radiated Emission Test Set-Up Frequency Above 1 GHz



(C) For Radiated Emissions 9 kHz-30 MHz



#### 4.2.5 EUT OPERATING CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

#### 4.2.6 EUT TEST CONDITIONS

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

#### 4.2.7 TEST RESULTS (9 kHz TO 30 MHz)

Please refer to the Appendix B

Remark:

- (1) The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.
- (2) Distance extrapolation factor =  $40 \log (\text{specific distance} / \text{test distance})$  (dB).
- (3) Limit line = specific limits (dBuV) + distance extrapolation factor.

#### 4.2.8 TEST RESULTS (30 MHz TO 1000 MHz)

Please refer to the Appendix C.

#### 4.2.9 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.

## 5. BANDWIDTH TEST

### 5.1 APPLIED PROCEDURES

FCC Part15 (15.247) , Subpart C			
Section	Test Item	Frequency Range (MHz)	Result
15.247(a)(2)	Bandwidth	2400-2483.5	PASS

#### 5.1.1 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 = 2.5 ms.
- c. The bandwidth was performed in accordance with method 11.8 of ANSI C63.10-2013.

#### 5.1.2 DEVIATION FROM STANDARD

No deviation.

#### 5.1.3 TEST SETUP



#### 5.1.4 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

#### 5.1.5 EUT TEST CONDITIONS

Temperature: 24.8°C    Relative Humidity: 63.5%    Test Voltage: AC 120V 60Hz

#### 5.1.6 TEST RESULTS

Please refer to the Appendix E.

## 6. MAXIMUM OUTPUT POWER TEST

### 6.1 APPLIED PROCEDURES / LIMIT

FCC Part15 (15.247) , Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247(b)(3)	Maximum Output Power	1 Watt or 30 dBm	2400-2483.5	PASS

#### 6.1.1 TEST PROCEDURE

- a. The EUT was directly connected to the power meter and antenna output port as show in the block diagram below.
- b. The maximum peak conducted output power was performed in accordance with method 11.9.2.3 of ANSI C63.10-2013. and FCC KDB 662911 D01 v02r01 Multiple Transmitter Output.

#### 6.1.2 DEVIATION FROM STANDARD

No deviation.

#### 6.1.3 TEST SETUP



#### 6.1.4 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

#### 6.1.5 EUT TEST CONDITIONS

Temperature: 24.8°C    Relative Humidity: 63.5%    Test Voltage: AC 120V 60Hz

#### 6.1.6 TEST RESULTS

Please refer to the Appendix F.

## 7. ANTENNA CONDUCTED SPURIOUS EMISSION

### 7.1 APPLIED PROCEDURES / 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. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

#### 7.1.1 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.

#### 7.1.2 DEVIATION FROM STANDARD

No deviation.

#### 7.1.3 TEST SETUP



#### 7.1.4 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

#### 7.1.5 EUT TEST CONDITIONS

Temperature: 24.8°C    Relative Humidity: 63.5%    Test Voltage: AC 120V 60Hz

#### 7.1.6 TEST RESULTS

Please refer to the Appendix G.

## 8. POWER SPECTRAL DENSITY TEST

### 8.1 APPLIED PROCEDURES / LIMIT

FCC Part15 (15.247) , Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247(e)	Power Spectral Density	8 dBm (in any 3 kHz)	2400-2483.5	PASS

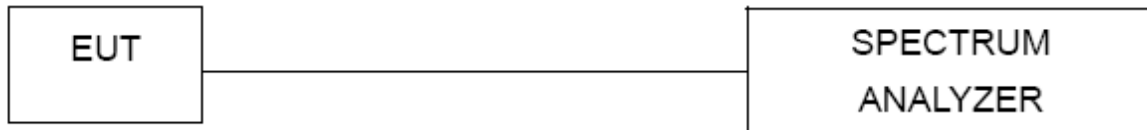
#### 8.1.1 TEST PROCEDURE

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

#### 8.1.2 DEVIATION FROM STANDARD

No deviation.

#### 8.1.3 TEST SETUP



#### 8.1.4 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

#### 8.1.5 EUT TEST CONDITIONS

Temperature: 24.8°C    Relative Humidity: 63.5%    Test Voltage: AC 120V 60Hz

#### 8.1.6 TEST RESULTS

Please refer to the Appendix H.



## 9. MEASUREMENT INSTRUMENTS LIST

Conducted Emission Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	EMI Test Receiver	R&S	ESCI	100382	Mar. 11, 2019
2	LISN	EMCO	3816/2	52765	Mar. 11, 2019
3	50Ω Terminator	SHX	TF2-3G-A	8122901	Mar. 11, 2019
4	TWO-LINE V-NETWORK	R&S	ENV216	101447	Mar. 11, 2019
5	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
6	Cable	N/A	RG223	12m	Mar. 23, 2019

Radiated Emission Measurement-9 kHz TO 30 MHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Loop Antenna	EM	EM-6876-1	230	Feb. 07, 2019
2	Cable	N/A	RG 213/U	C-102	Jun. 01, 2019
3	EMI Test Receiver	R&S	ESCI	100382	Mar. 11, 2019
4	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A

Radiated Emission Measurement-30 MHz TO 1000 MHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Antenna	Schwarbeck	VULB9160	9160-3232	Mar. 11, 2019
2	Amplifier	HP	8447D	2944A09673	Aug. 11, 2019
3	Receiver	Agilent	N9038A	MY52130039	Aug. 11, 2019
4	Cable	emci	LMR-400(30MHz-1 GHz)(8m+5m)	N/A	May 25, 2019
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 Emission Measurement - Above 1GHz**

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Double Ridged Guide Antenna	ETS	3115	75789	Mar. 11, 2019
2	Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	9170319	Jun. 30, 2019
3	Amplifier	Agilent	8449B	3008A02274	Mar. 11, 2019
4	Microwave Preamplifier With Adaptor	EMC INSTRUMENT	EMC2654045	980039 & HA01	Mar. 11, 2019
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

**6 dB Bandwidth**

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP40	100185	Aug. 11, 2019

**Maximum output power**

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Power Meter	ANRITSU	ML2495A	1128009	Mar. 11, 2019
2	Pulse Power Sensor	ANRITSU	MA 2411B	1027500	Mar. 11, 2019

**Antenna Conducted Spurious Emission**

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP40	100185	Aug. 11, 2019

**Power Spectral Density**

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP40	100185	Aug. 11, 2019

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

**10. EUT TEST PHOTO**

**Conducted Measurement Photos**



**Radiated Measurement Photos**

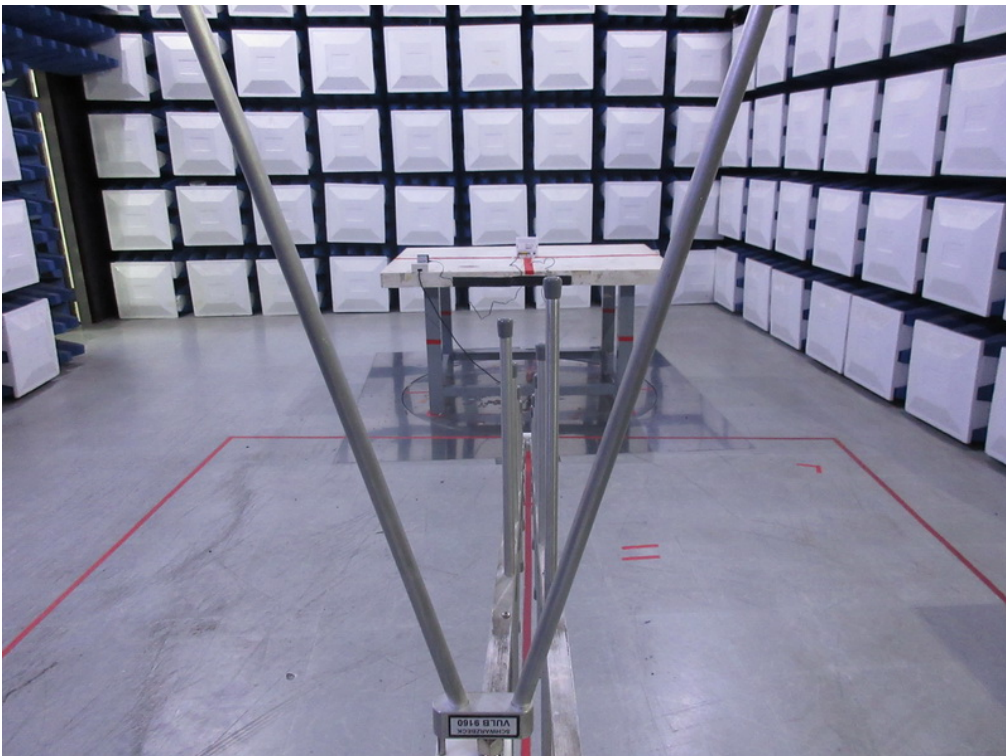
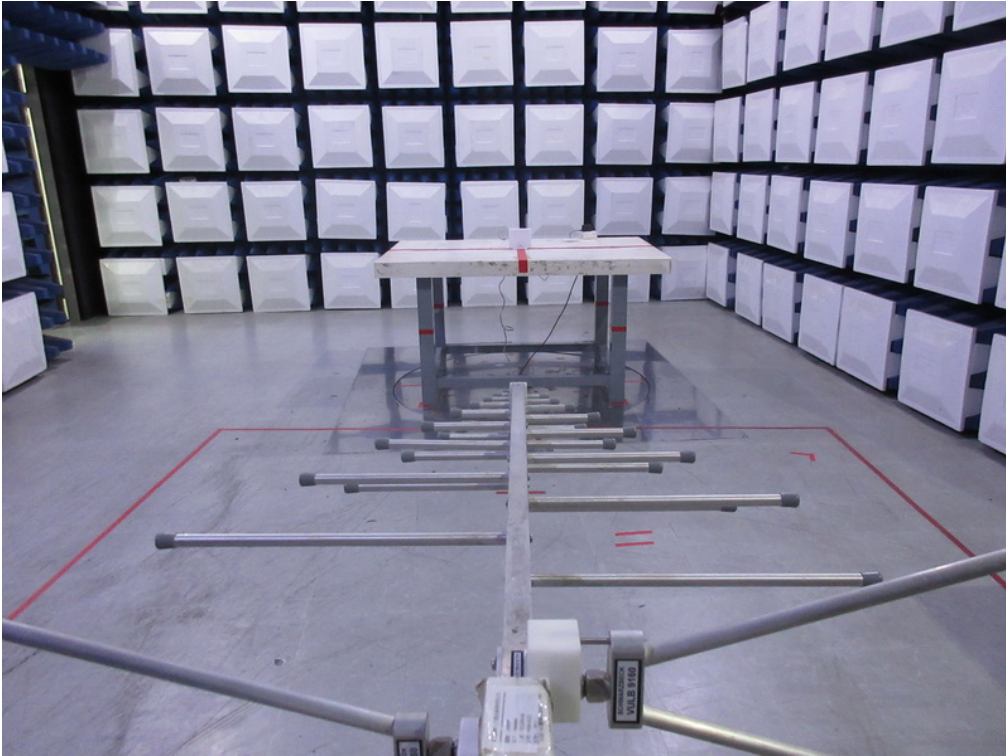
**9 kHz to 30 MHz**





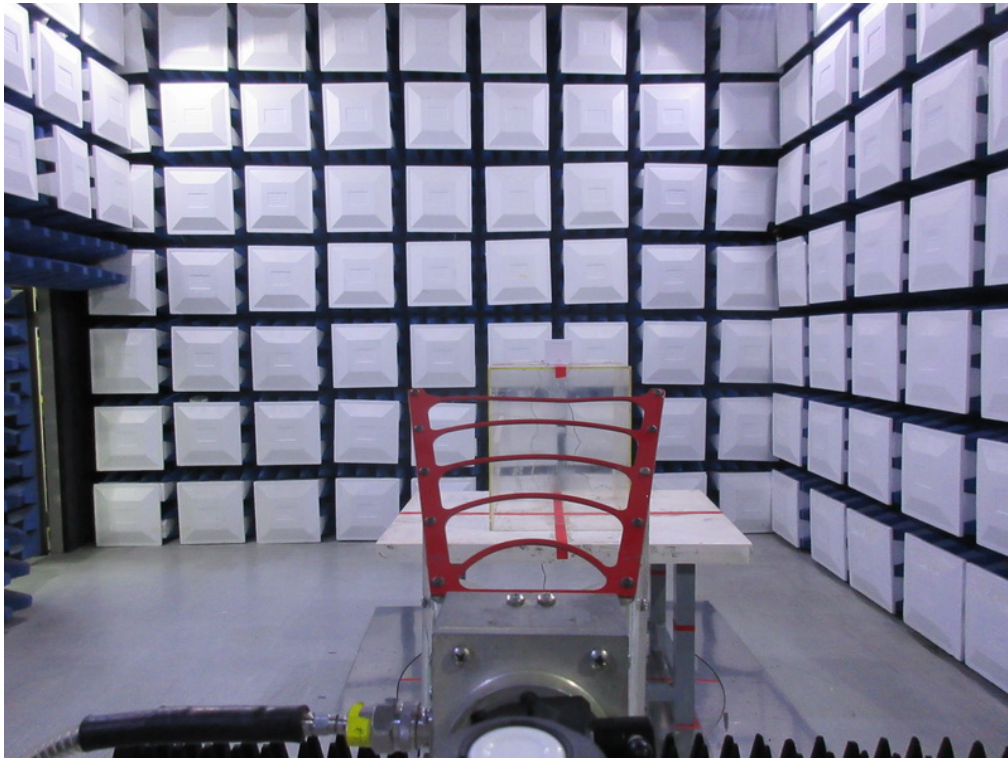
**Radiated Measurement Photos**

**30 MHz to 1000 MHz**



**Radiated Measurement Photos**

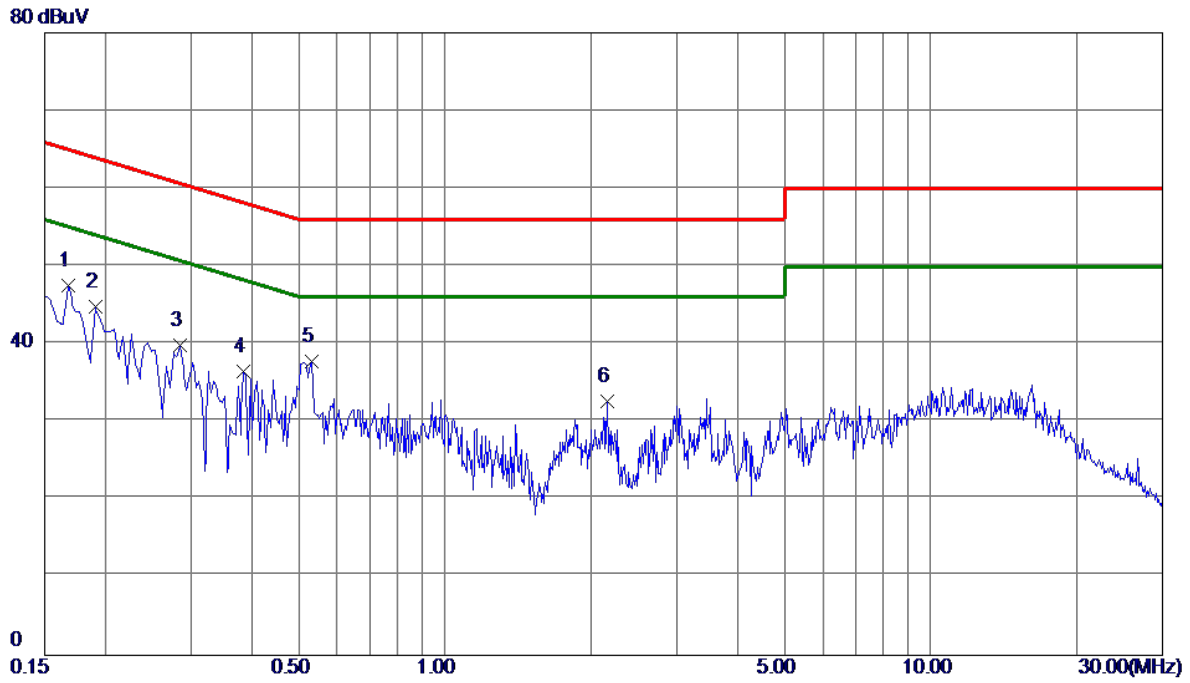
**Above 1000 MHz**



## APPENDIX A - CONDUCTED EMISSION

Test Mode: TX Mode\_Adapter:RD1200500-C55-16MG

**Line**

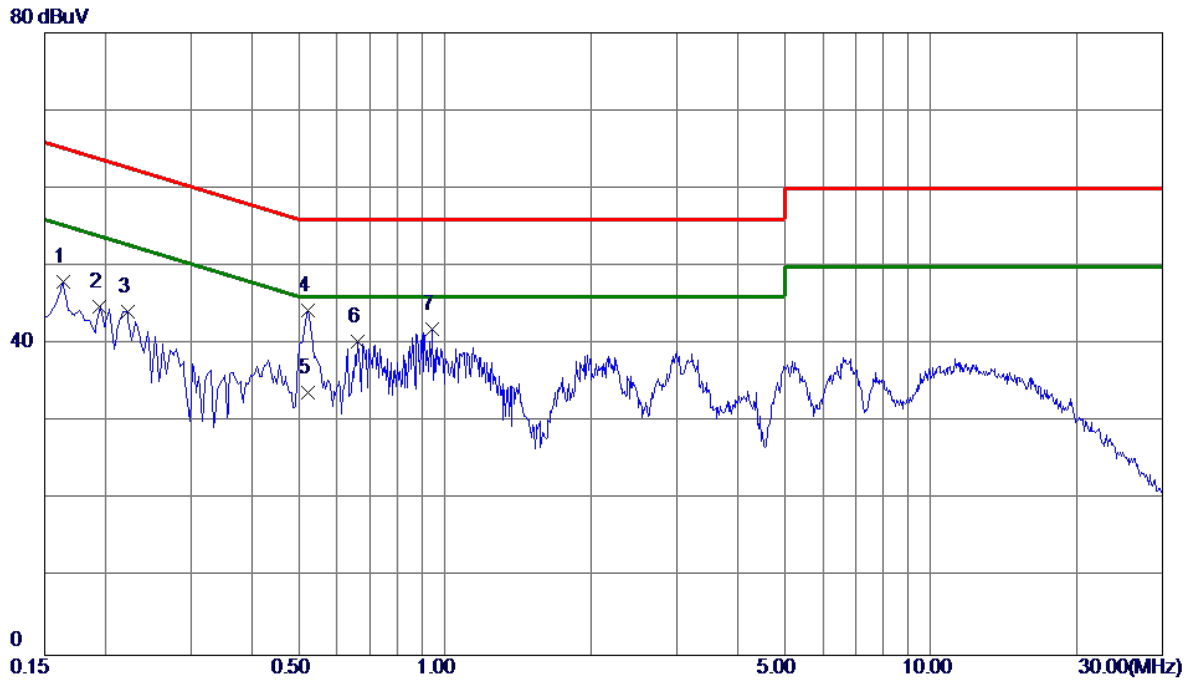


No.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1 *	0.1680	37.72	9.82	47.54	65.06	-17.52	Peak	
2	0.1905	35.04	9.82	44.86	64.01	-19.15	Peak	
3	0.2850	30.01	9.82	39.83	60.67	-20.84	Peak	
4	0.3840	26.69	9.81	36.50	58.19	-21.69	Peak	
5	0.5325	27.89	9.80	37.69	56.00	-18.31	Peak	
6	2.1614	22.70	10.01	32.71	56.00	-23.29	Peak	



Test Mode: TX Mode\_ Adapter:RD1200500-C55-16MG

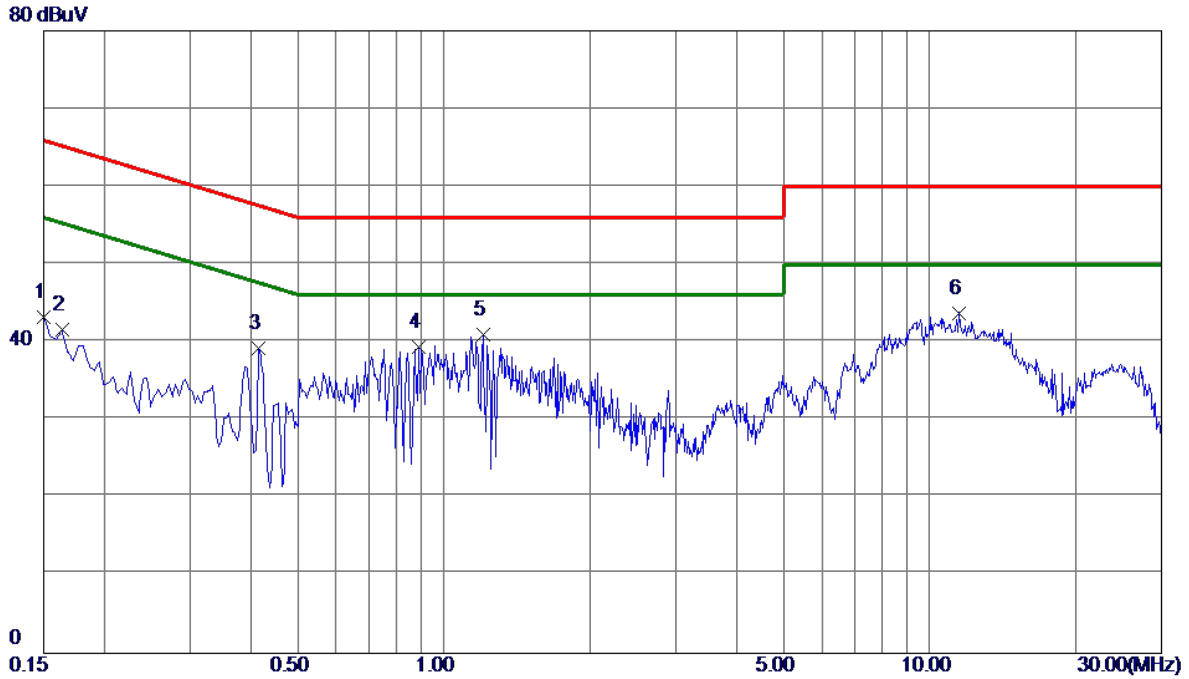
### Neutral



No.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1	0.1635	38.11	9.91	48.02	65.28	-17.26	Peak	
2	0.1949	34.96	9.91	44.87	63.83	-18.96	Peak	
3	0.2220	34.23	9.91	44.14	62.74	-18.60	Peak	
4 *	0.5235	34.41	9.95	44.36	56.00	-11.64	Peak	
5	0.5235	23.80	9.95	33.75	46.00	-12.25	AVG	
6	0.6630	30.24	10.02	40.26	56.00	-15.74	Peak	
7	0.9420	31.87	10.11	41.98	56.00	-14.02	Peak	

Test Mode: TX Mode\_Adapter: RD1201000-C55-91MG

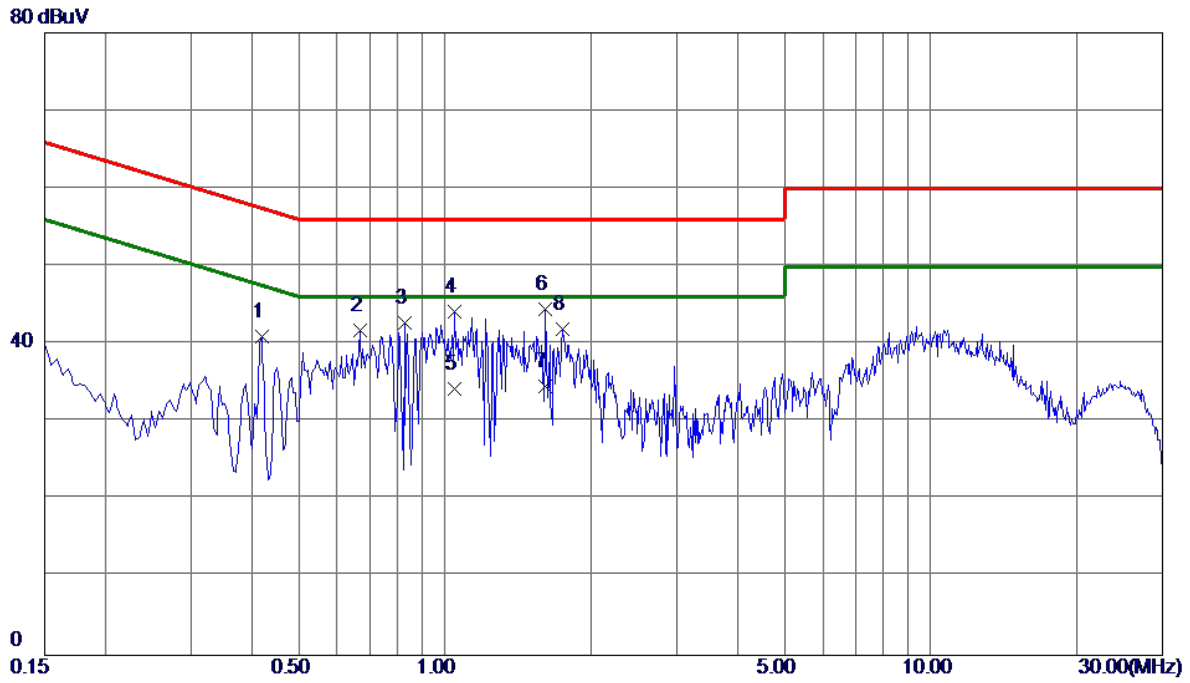
**Line**



No.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1	0.1500	33.45	9.82	43.27	66.00	-22.73	Peak	
2	0.1635	31.73	9.82	41.55	65.28	-23.73	Peak	
3	0.4155	29.46	9.81	39.27	57.54	-18.27	Peak	
4	0.8880	29.38	9.91	39.29	56.00	-16.71	Peak	
5 *	1.2030	31.10	9.93	41.03	56.00	-14.97	Peak	
6	11.4990	33.19	10.57	43.76	60.00	-16.24	Peak	

Test Mode: TX Mode\_ Adapter: RD1201000-C55-91MG

### Neutral

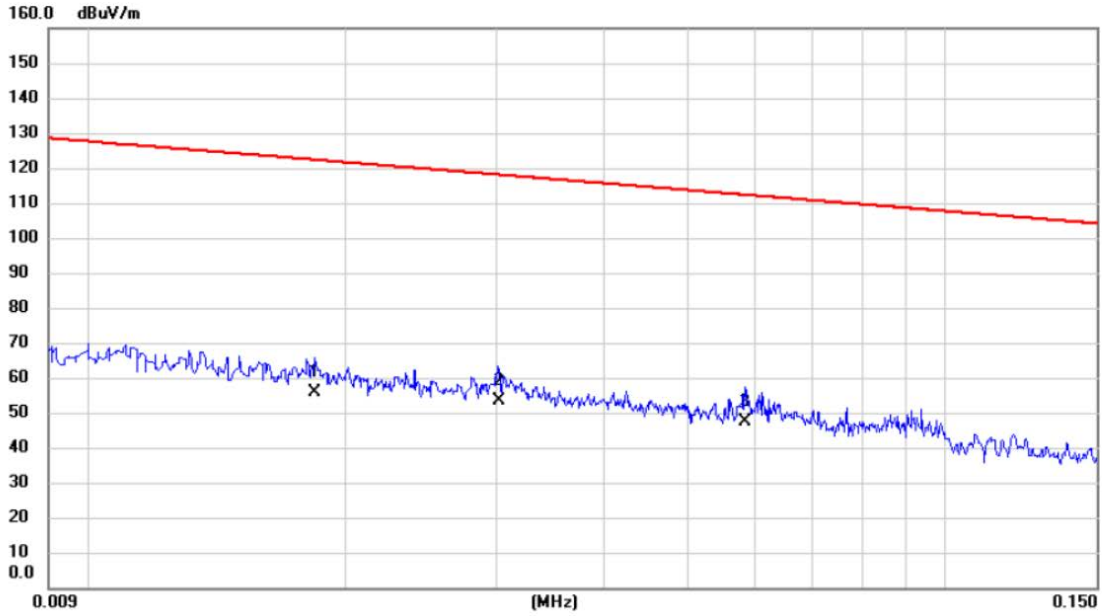


No.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1	0.4200	31.04	9.95	40.99	57.45	-16.46	Peak	
2	0.6675	31.74	10.02	41.76	56.00	-14.24	Peak	
3	0.8250	32.63	10.09	42.72	56.00	-13.28	Peak	
4	1.0455	34.04	10.12	44.16	56.00	-11.84	Peak	
5	1.0455	24.10	10.12	34.22	46.00	-11.78	AVG	
6	1.6125	34.39	10.16	44.55	56.00	-11.45	Peak	
7 *	1.6125	24.40	10.16	34.56	46.00	-11.44	AVG	
8	1.7475	31.77	10.17	41.94	56.00	-14.06	Peak	

## APPENDIX B - RADIATED EMISSION (9 KHZ TO 30 MHZ)

Test Mode: TX Mode \_Adapter:RD1200500-C55-16MG

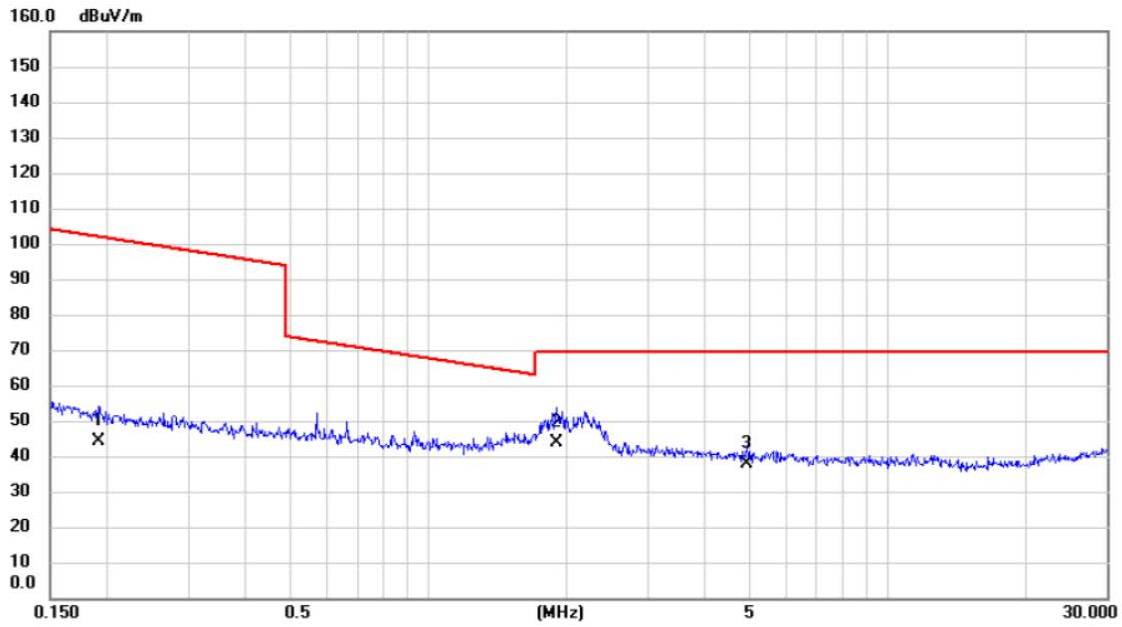
Ant 0°



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Detector	Comment
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1		0.0184	35.40	20.24	55.64	122.31	-66.67	AVG	
2	*	0.0302	33.40	19.85	53.25	118.00	-64.75	AVG	
3		0.0584	28.10	19.36	47.46	112.28	-64.82	AVG	

Test Mode: TX Mode\_Adapter:RD1200500-C55-16MG

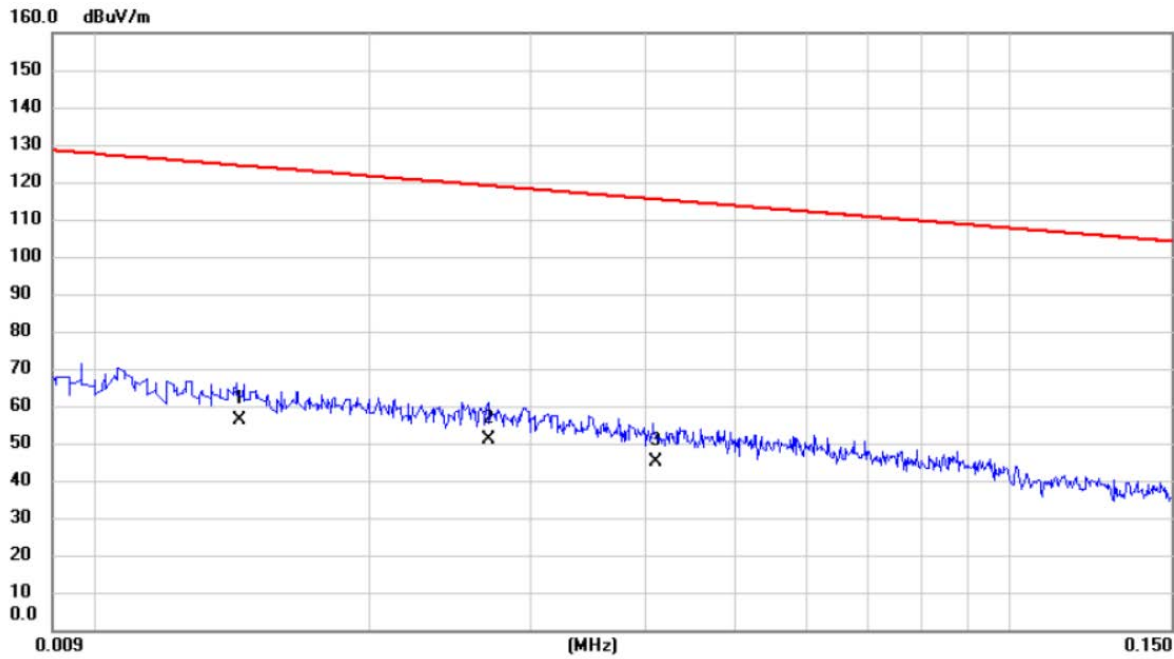
Ant 0°



No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	0.1914	27.10	17.18	44.28	101.97	-57.69	AVG	
2 *	1.8980	26.80	17.06	43.86	69.54	-25.68	QP	
3	4.9257	22.60	15.20	37.80	69.54	-31.74	QP	

Test Mode: TX Mode\_Adapter:RD1200500-C55-16MG

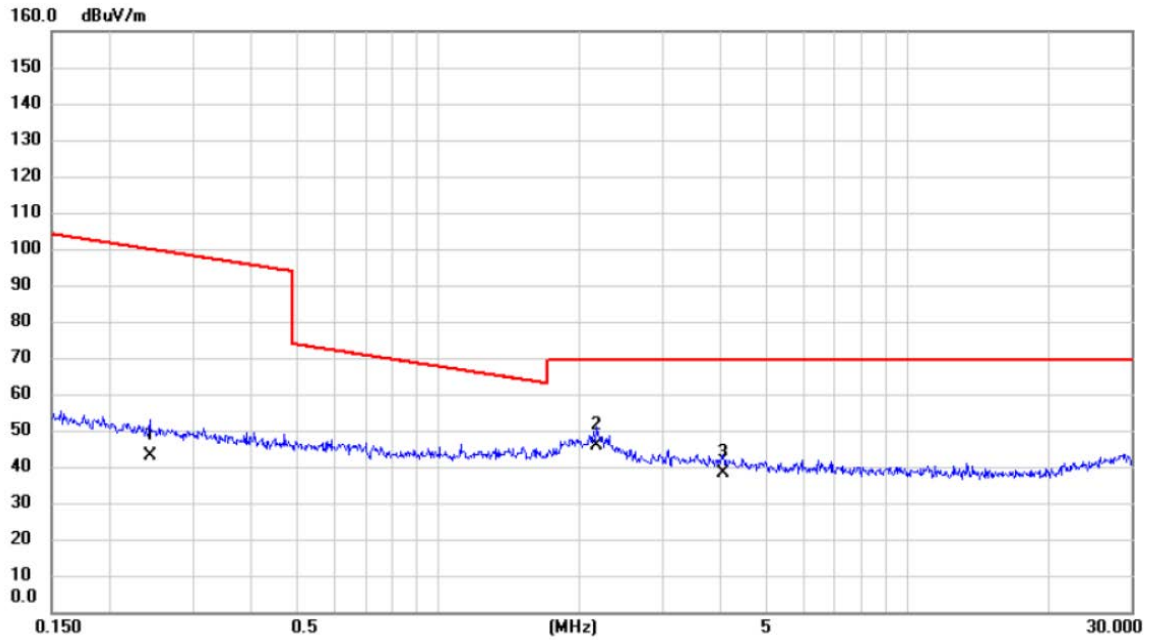
Ant 90°



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		0.0144	35.30	20.80	56.10	124.44	-68.34	AVG	
2	*	0.0270	31.10	19.90	51.00	118.98	-67.98	AVG	
3		0.0410	25.50	19.68	45.18	115.35	-70.17	AVG	

Test Mode: TX Mode\_Adapter:RD1200500-C55-16MG

Ant 90°

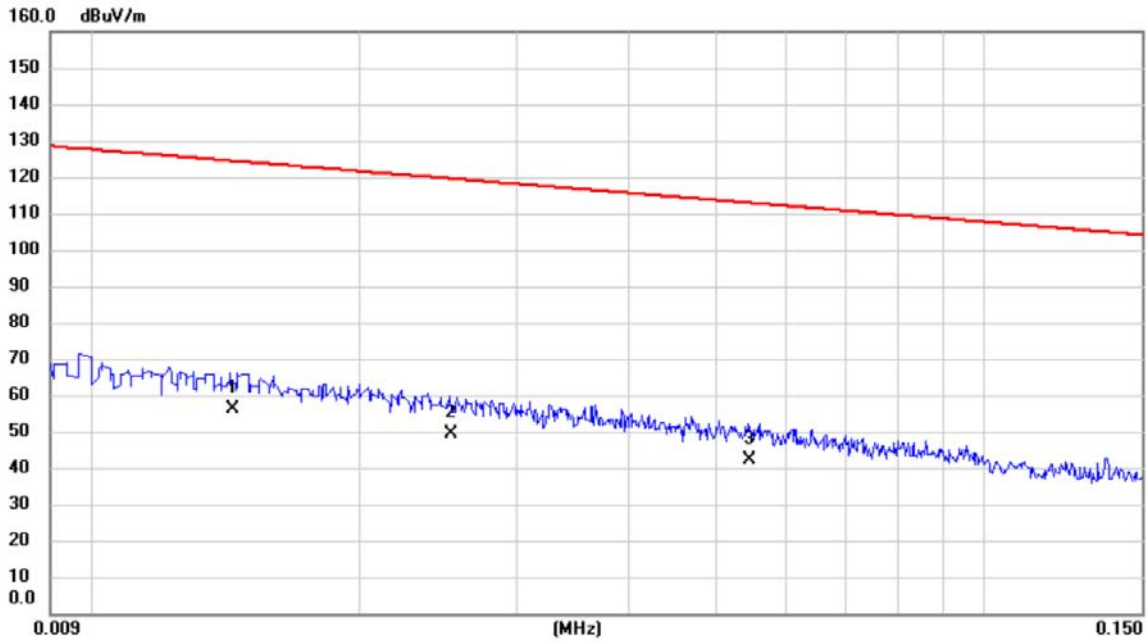


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		0.2430	25.80	17.07	42.87	99.89	-57.02	AVG	
2	*	2.1783	28.80	17.01	45.81	69.54	-23.73	QP	
3		4.0490	22.60	15.72	38.32	69.54	-31.22	QP	



Test Mode: TX Mode\_ Adapter: RD1201000-C55-91MG

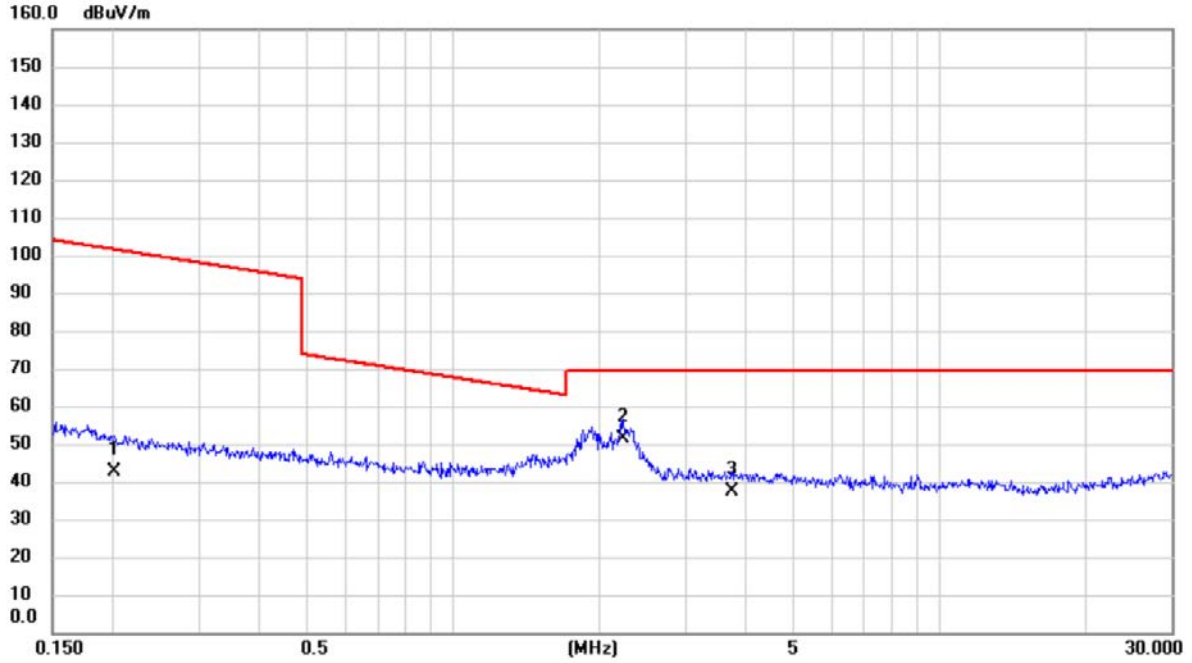
Ant 0°



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	0.0144	35.30	20.80	56.10	124.44	-68.34	AVG	
2		0.0253	29.60	19.93	49.53	119.54	-70.01	AVG	
3		0.0545	22.80	19.44	42.24	112.88	-70.64	AVG	

Test Mode: TX Mode \_ Adapter: RD1201000-C55-91MG

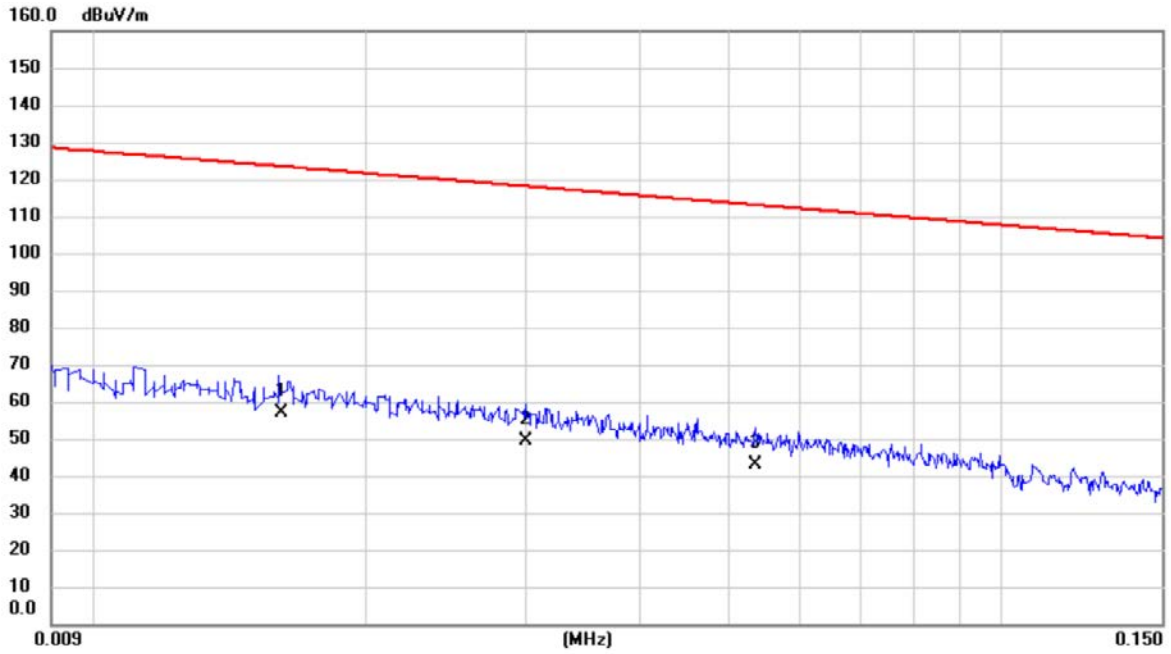
Ant 0°



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		0.2017	25.30	17.16	42.46	101.51	-59.05	AVG	
2	*	2.2367	34.60	16.98	51.58	69.54	-17.96	QP	
3		3.7395	21.60	15.95	37.55	69.54	-31.99	QP	

Test Mode: TX Mode \_ Adapter: RD1201000-C55-91MG

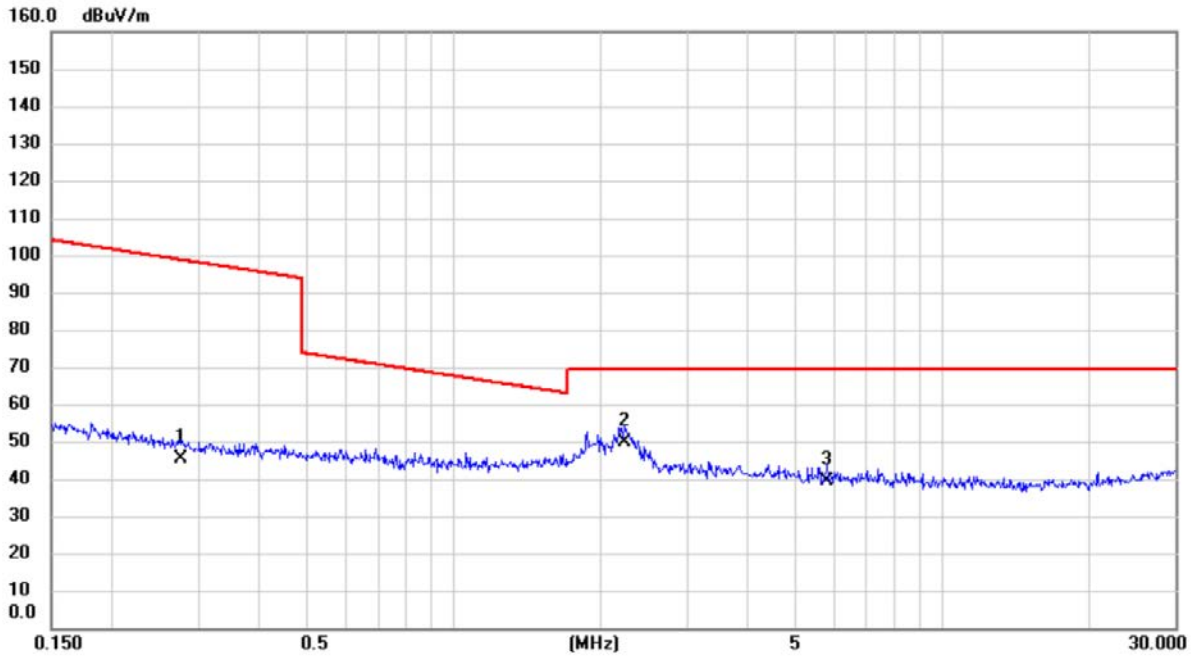
Ant 90°



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	0.0161	36.30	20.57	56.87	123.47	-66.60	AVG	
2		0.0300	29.66	19.85	49.51	118.06	-68.55	AVG	
3		0.0536	23.50	19.46	42.96	113.02	-70.06	AVG	

Test Mode: TX Mode \_ Adapter: RD1201000-C55-91MG

Ant 90°



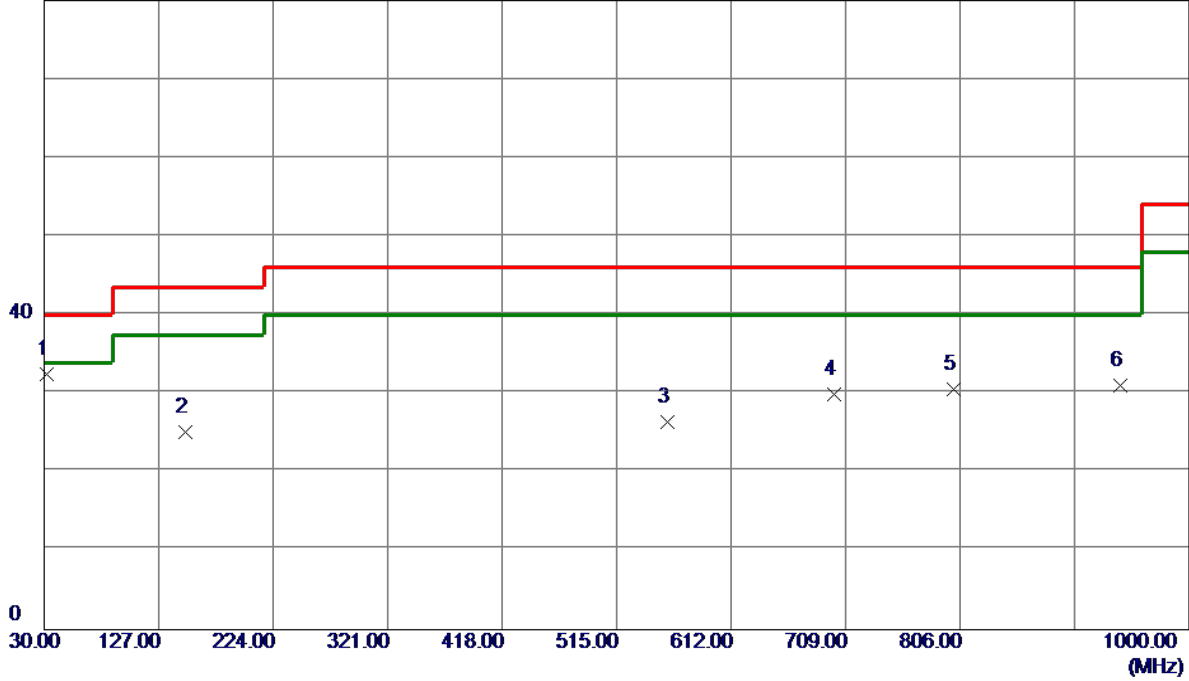
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		0.2773	28.50	17.05	45.55	98.75	-53.20	AVG	
2	*	2.2367	32.70	16.98	49.68	69.54	-19.86	QP	
3		5.8050	24.30	15.03	39.33	69.54	-30.21	QP	

## APPENDIX C - RADIATED EMISSION (30 MHZ TO 1000 MHZ)

Test Mode: TX B Mode Channel 01 \_Adapter: RD1200500-C55-16MG

**Vertical**

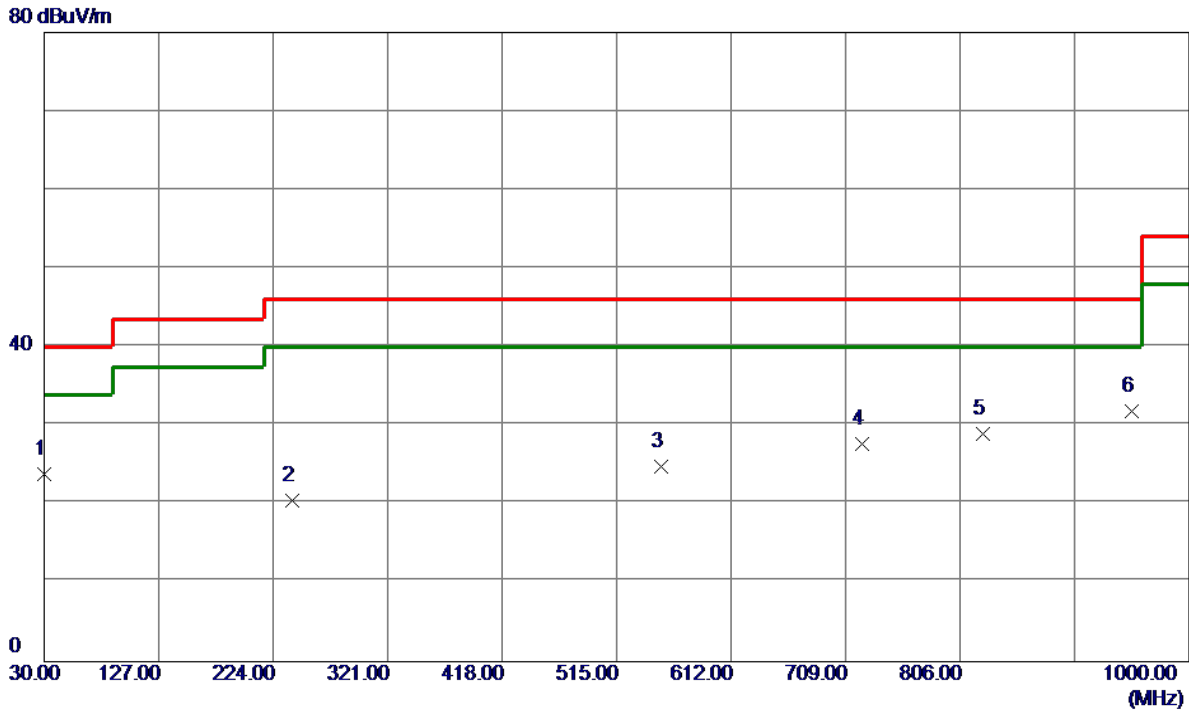
80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	32.4250	47.54	-14.99	32.55	40.00	-7.45	Peak	
2	149.7950	36.63	-11.51	25.12	43.50	-18.38	Peak	
3	557.6800	31.94	-5.59	26.35	46.00	-19.65	Peak	
4	699.7849	32.64	-2.76	29.88	46.00	-16.12	Peak	
5	800.1800	31.66	-1.04	30.62	46.00	-15.38	Peak	
6	941.8000	29.94	1.08	31.02	46.00	-14.98	Peak	

Test Mode: TX B Mode Channel 01 \_Adapter: RD1200500-C55-16MG

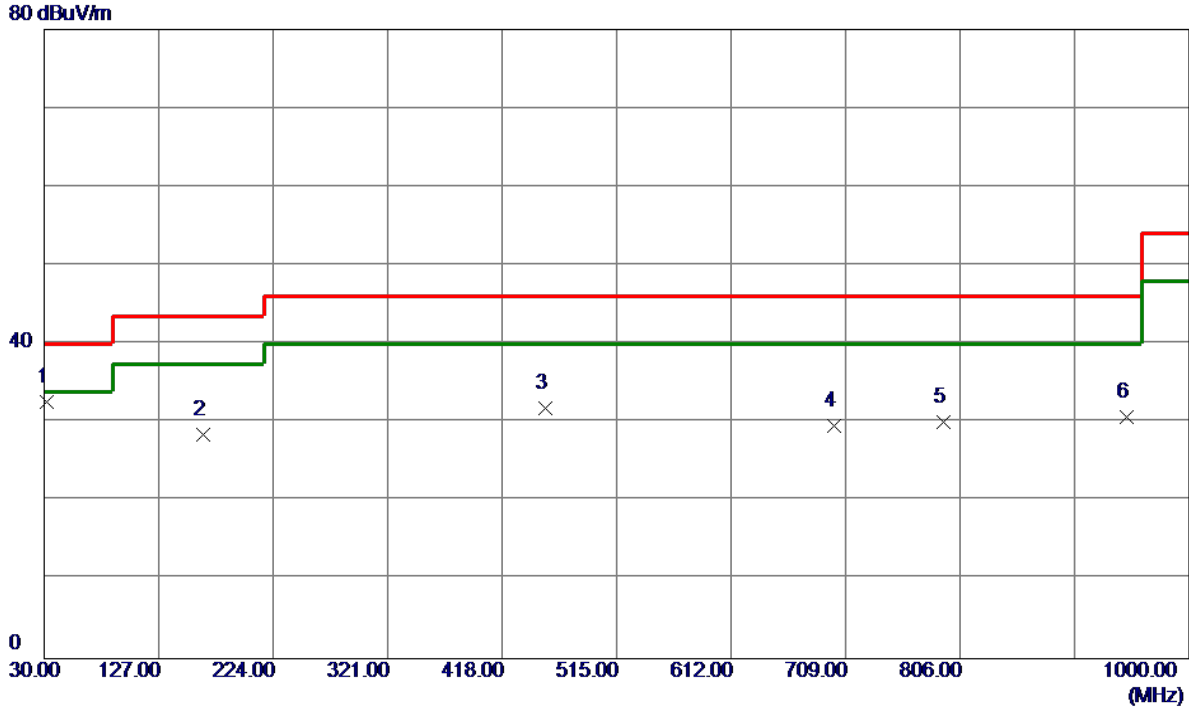
### Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	30.0000	38.87	-14.97	23.90	40.00	-16.10	Peak	
2	240.0050	35.12	-14.67	20.45	46.00	-25.55	Peak	
3	552.8300	30.33	-5.51	24.82	46.00	-21.18	Peak	
4	723.0650	30.99	-3.34	27.65	46.00	-18.35	Peak	
5	825.4000	30.34	-1.44	28.90	46.00	-17.10	Peak	
6 *	951.9850	30.44	1.36	31.80	46.00	-14.20	Peak	

Test Mode: TX B Mode Channel 06 \_Adapter: RD1200500-C55-16MG

**Vertical**

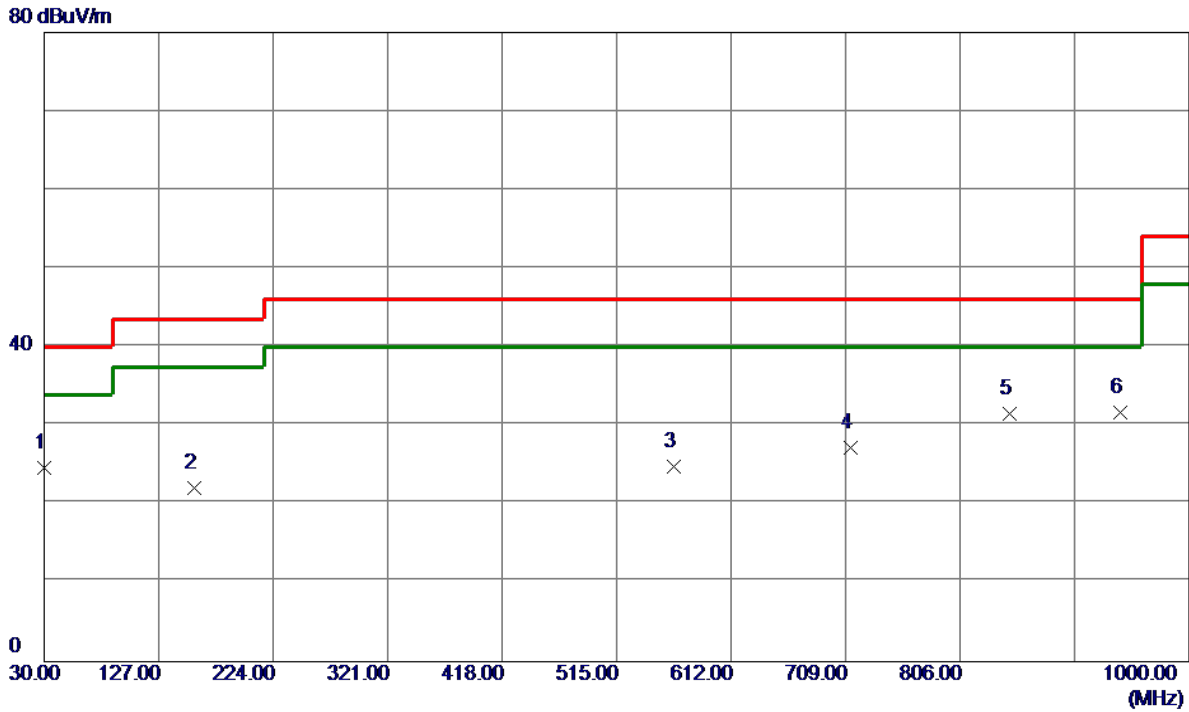


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	31.9400	47.67	-15.04	32.63	40.00	-7.37	Peak	
2	164.3450	39.32	-10.86	28.46	43.50	-15.04	Peak	
3	454.8600	39.38	-7.51	31.87	46.00	-14.13	Peak	
4	699.7849	32.29	-2.76	29.53	46.00	-16.47	Peak	
5	791.9350	31.66	-1.52	30.14	46.00	-15.86	Peak	
6	947.6200	29.46	1.31	30.77	46.00	-15.23	Peak	



Test Mode: TX B Mode Channel 06 \_Adapter: RD1200500-C55-16MG

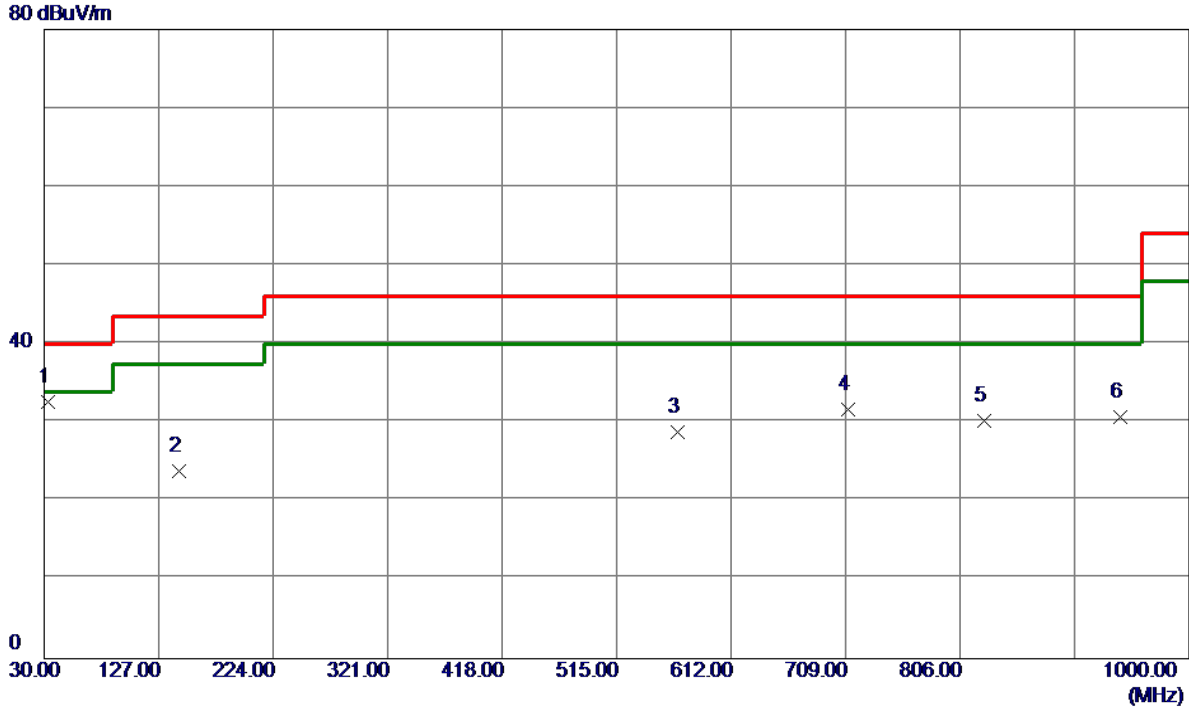
**Horizontal**



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	30.0000	39.61	-14.97	24.64	40.00	-15.36	Peak	
2	157.5549	32.96	-10.82	22.14	43.50	-21.36	Peak	
3	563.0150	30.44	-5.68	24.76	46.00	-21.24	Peak	
4	712.8800	30.33	-3.08	27.25	46.00	-18.75	Peak	
5	847.7100	33.35	-1.78	31.57	46.00	-14.43	Peak	
6 *	941.3150	30.69	1.06	31.75	46.00	-14.25	Peak	

Test Mode: TX B Mode Channel 11\_Adapter: RD1200500-C55-16MG

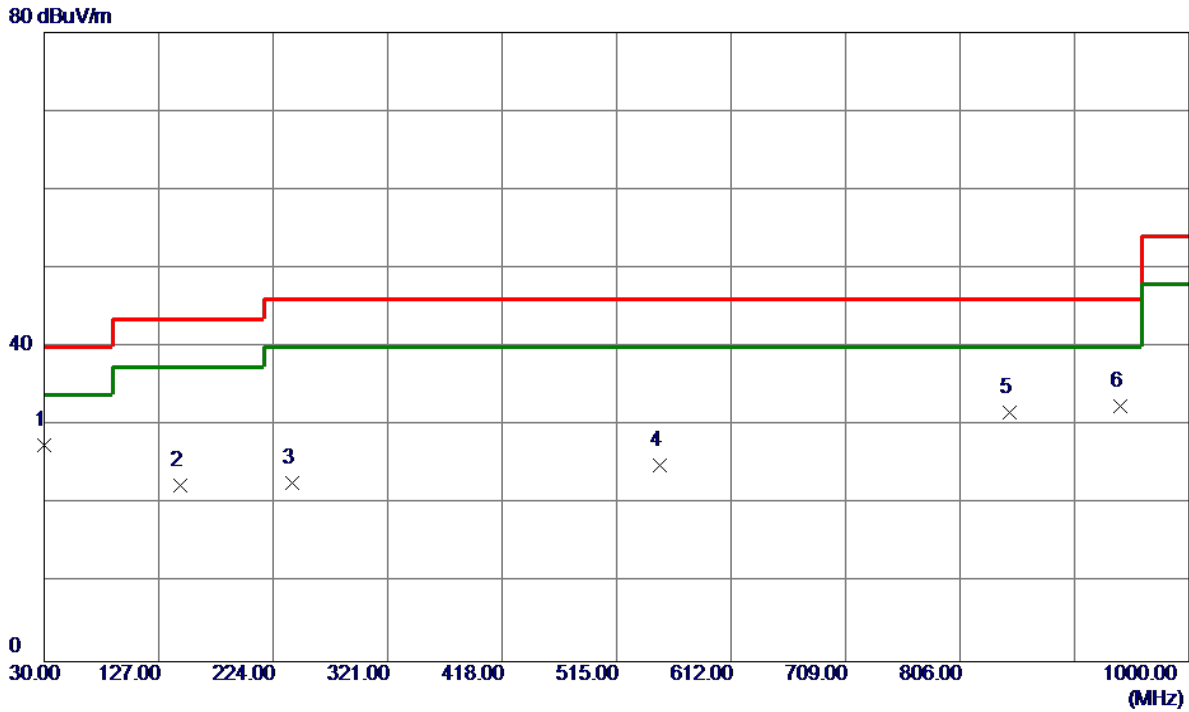
Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	32.9100	47.51	-14.94	32.57	40.00	-7.43	Peak	
2	144.4600	35.72	-11.83	23.89	43.50	-19.61	Peak	
3	566.4099	34.48	-5.74	28.74	46.00	-17.26	Peak	
4	711.4250	34.75	-3.04	31.71	46.00	-14.29	Peak	
5	826.3700	31.76	-1.45	30.31	46.00	-15.69	Peak	
6	941.8000	29.64	1.08	30.72	46.00	-15.28	Peak	

Test Mode: TX B Mode Channel 11\_Adapter: RD1200500-C55-16MG

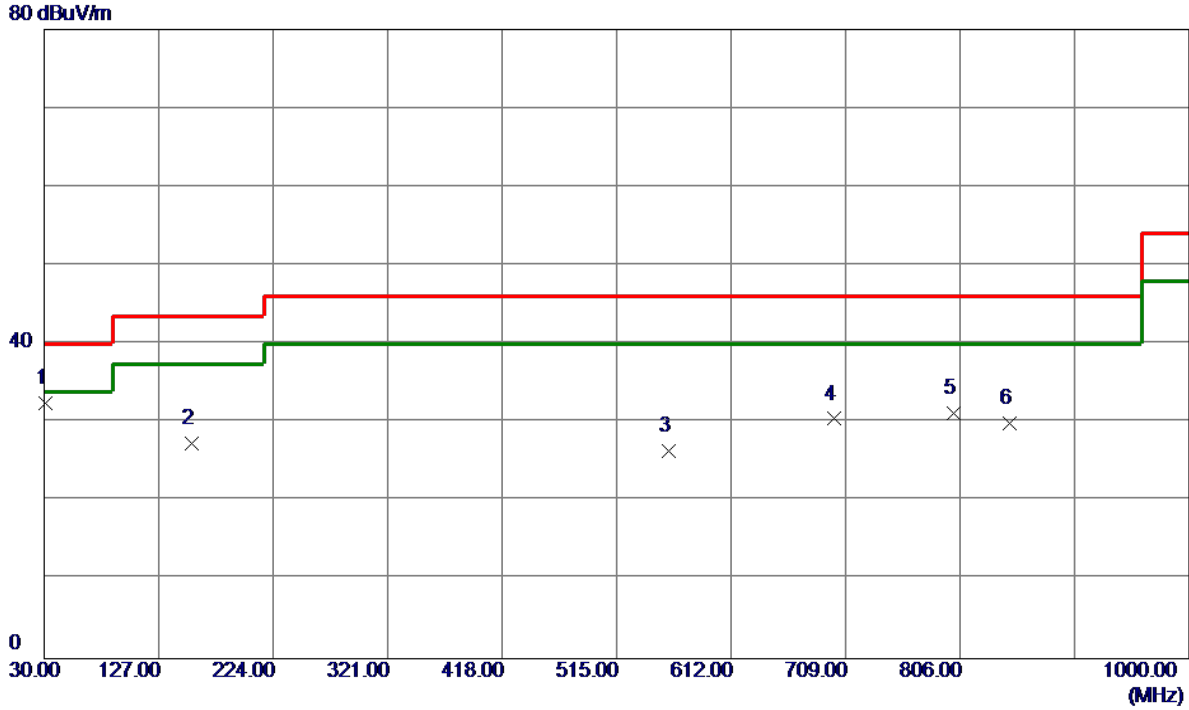
**Horizontal**



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	30.0000	42.52	-14.97	27.55	40.00	-12.45	Peak	
2	144.9450	34.14	-11.80	22.34	43.50	-21.16	Peak	
3	240.0050	37.46	-14.67	22.79	46.00	-23.21	Peak	
4	551.8600	30.40	-5.49	24.91	46.00	-21.09	Peak	
5	847.7100	33.44	-1.78	31.66	46.00	-14.34	Peak	
6	941.3150	31.36	1.06	32.42	46.00	-13.58	Peak	

Test Mode: TX B Mode Channel 01\_Adapter: RD1201000-C55-91MG

**Vertical**

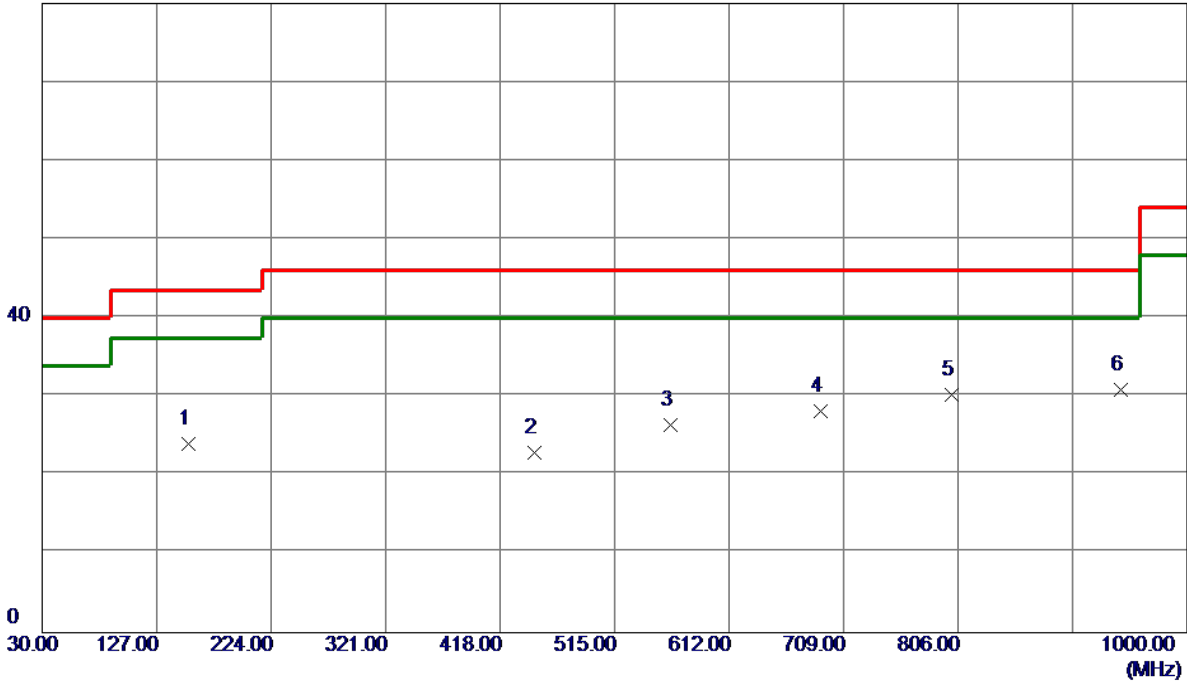


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	31.4550	47.56	-15.02	32.54	40.00	-7.46	Peak	
2	154.6450	38.50	-11.08	27.42	43.50	-16.08	Peak	
3	559.1350	31.99	-5.62	26.37	46.00	-19.63	Peak	
4	699.7849	33.24	-2.76	30.48	46.00	-15.52	Peak	
5	800.1800	32.17	-1.04	31.13	46.00	-14.87	Peak	
6	847.7100	31.63	-1.78	29.85	46.00	-16.15	Peak	

Test Mode: TX B Mode Channel 01\_Adapter: RD1201000-C55-91MG

**Horizontal**

80 dBuV/m

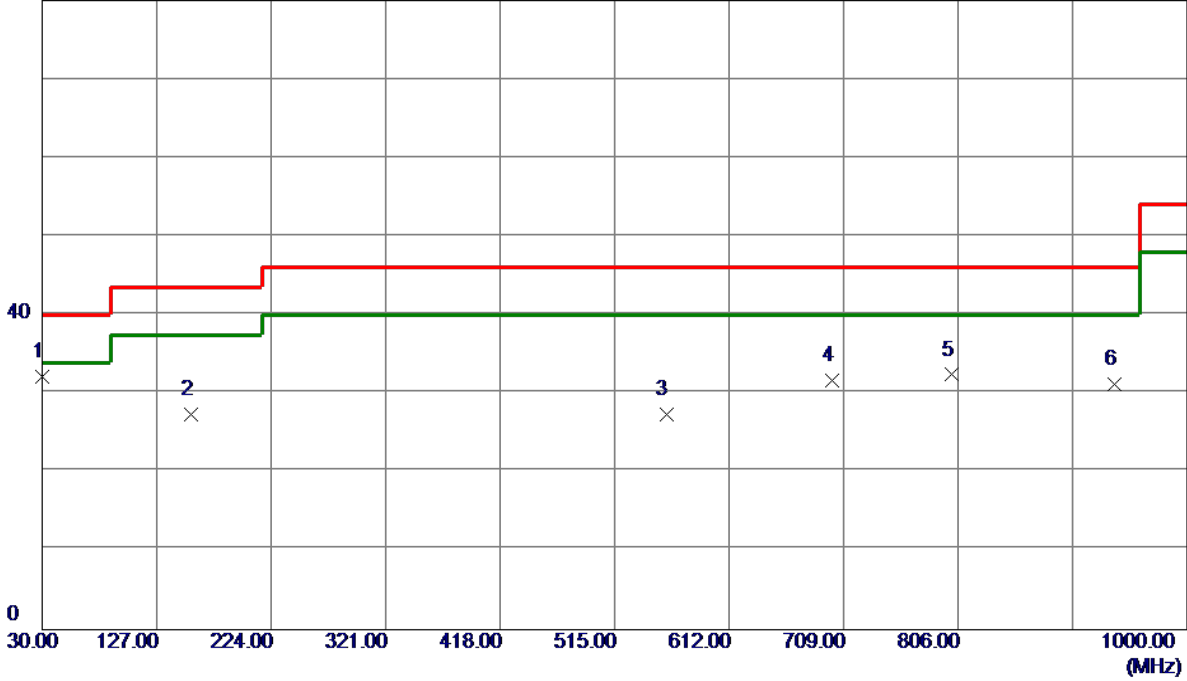


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	153.6750	35.20	-11.17	24.03	43.50	-19.47	Peak	
2	447.1000	30.42	-7.52	22.90	46.00	-23.10	Peak	
3	562.0450	32.05	-5.66	26.39	46.00	-19.61	Peak	
4	690.0850	31.41	-3.23	28.18	46.00	-17.82	Peak	
5	800.1800	31.31	-1.04	30.27	46.00	-15.73	Peak	
6 *	943.7400	29.77	1.16	30.93	46.00	-15.07	Peak	

Test Mode: TX B Mode Channel 06\_Adapter: RD1201000-C55-91MG

**Vertical**

80 dBuV/m

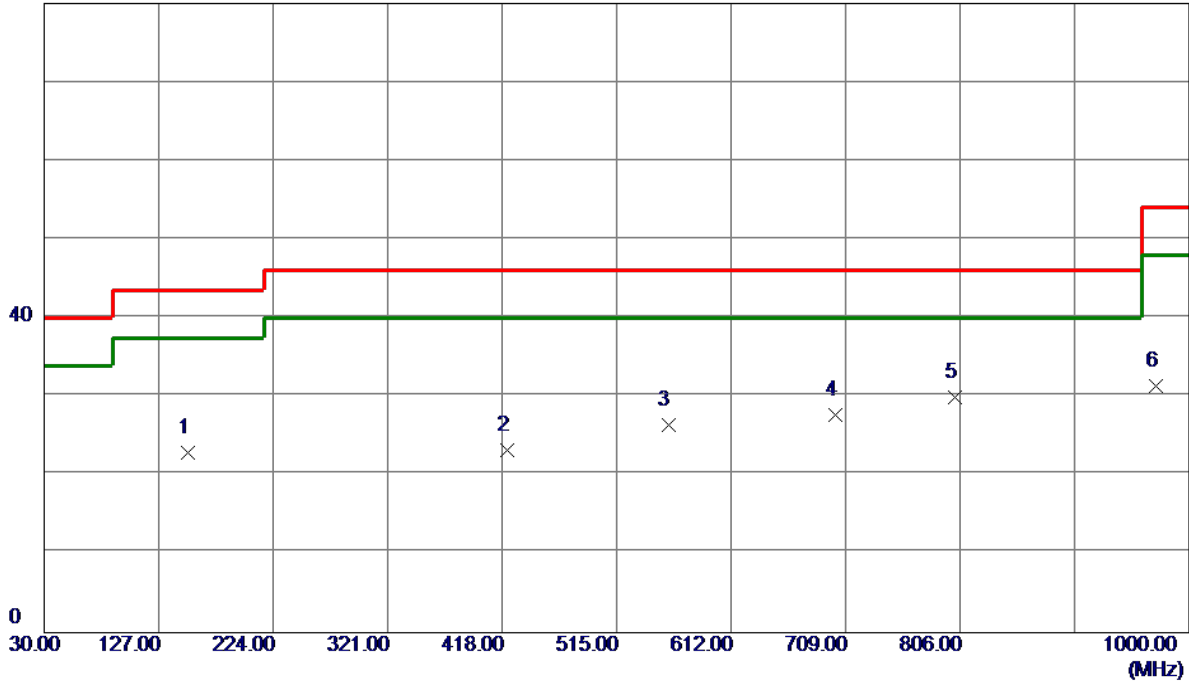


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	30.0000	47.13	-14.97	32.16	40.00	-7.84	Peak	
2	155.6150	38.28	-10.99	27.29	43.50	-16.21	Peak	
3	558.6500	33.02	-5.61	27.41	46.00	-18.59	Peak	
4	699.7849	34.38	-2.76	31.62	46.00	-14.38	Peak	
5	800.1800	33.44	-1.04	32.40	46.00	-13.60	Peak	
6	938.4050	30.28	0.94	31.22	46.00	-14.78	Peak	

Test Mode: TX B Mode Channel 06 \_Adapter: RD1201000-C55-91MG

**Horizontal**

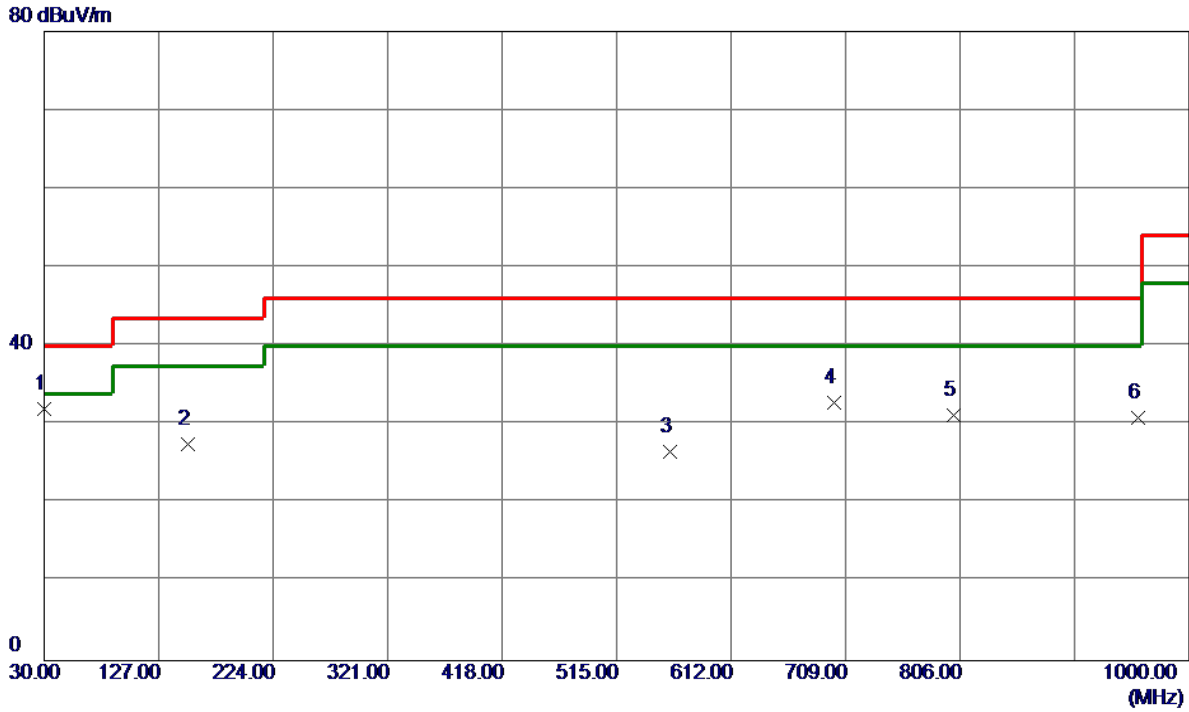
80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	152.2200	34.19	-11.30	22.89	43.50	-20.61	Peak	
2	422.3650	31.63	-8.50	23.13	46.00	-22.87	Peak	
3	558.6500	32.02	-5.61	26.41	46.00	-19.59	Peak	
4	700.2700	30.47	-2.75	27.72	46.00	-18.28	Peak	
5 *	802.1200	30.93	-1.07	29.86	46.00	-16.14	Peak	
6	971.8700	30.52	0.89	31.41	54.00	-22.59	Peak	

Test Mode: TX B Mode Channel 11 \_Adapter: RD1201000-C55-91MG

**Vertical**



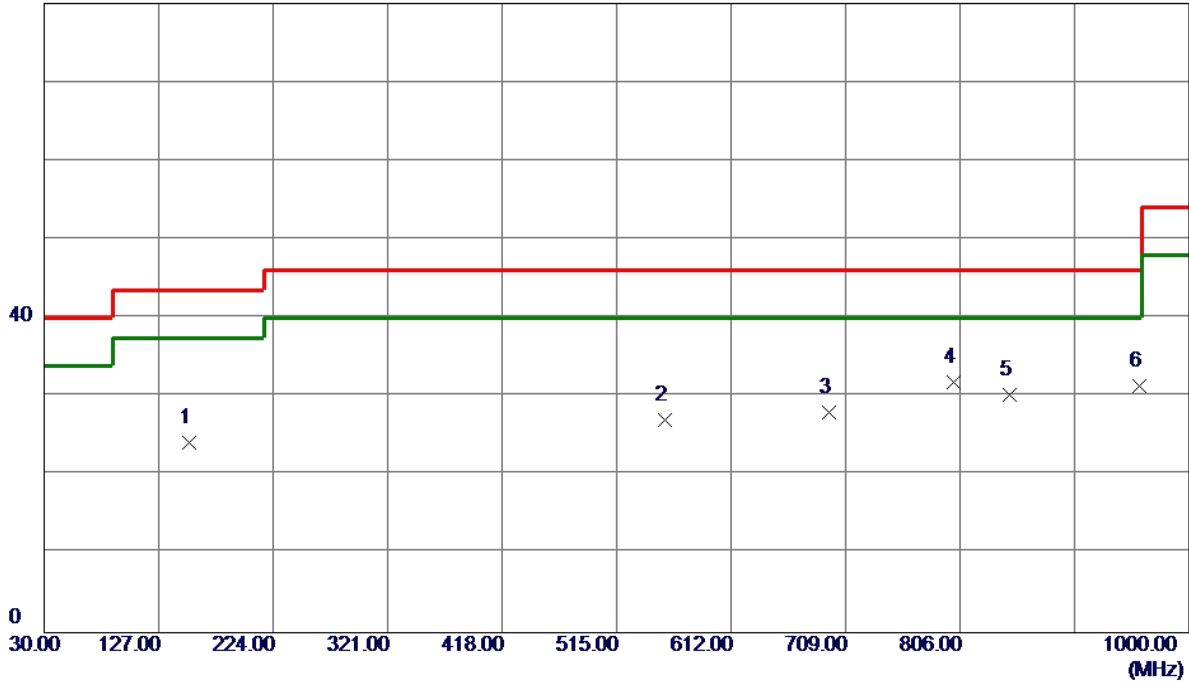
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	30.0000	46.92	-14.97	31.95	40.00	-8.05	Peak	
2	151.7350	38.83	-11.34	27.49	43.50	-16.01	Peak	
3	560.1050	32.26	-5.63	26.63	46.00	-19.37	Peak	
4	699.7849	35.53	-2.76	32.77	46.00	-13.23	Peak	
5	800.1800	32.20	-1.04	31.16	46.00	-14.84	Peak	
6	957.3200	29.62	1.24	30.86	46.00	-15.14	Peak	



Test Mode: TX B Mode Channel 11 \_Adapter: RD1201000-C55-91MG

### Horizontal

80 dBuV/m



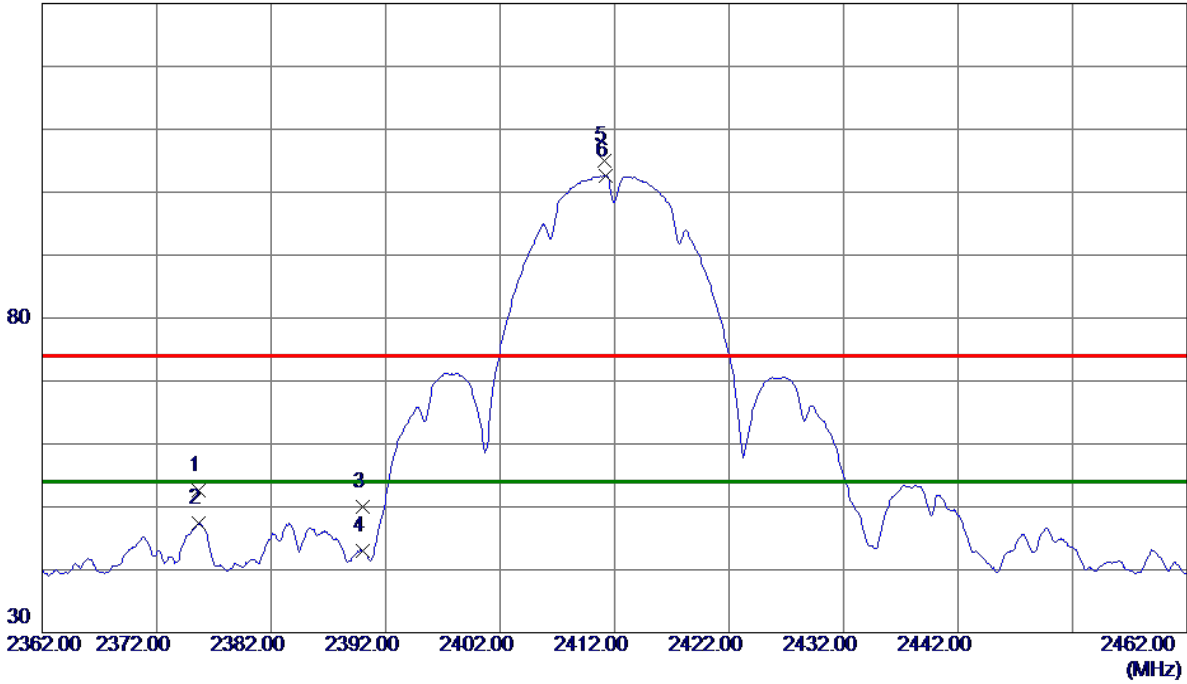
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	153.1900	35.38	-11.21	24.17	43.50	-19.33	Peak	
2	556.2250	32.65	-5.57	27.08	46.00	-18.92	Peak	
3	695.4200	30.99	-2.97	28.02	46.00	-17.98	Peak	
4 *	800.1800	32.95	-1.04	31.91	46.00	-14.09	Peak	
5	847.7100	32.04	-1.78	30.26	46.00	-15.74	Peak	
6	957.8050	30.19	1.22	31.41	46.00	-14.59	Peak	

## APPENDIX D - RADIATED EMISSION (ABOVE 1000 MHZ)

Orthogonal Axis	X
Test Mode:	TX B Mode 2412 MHz

**Vertical**

130 dBuV/m

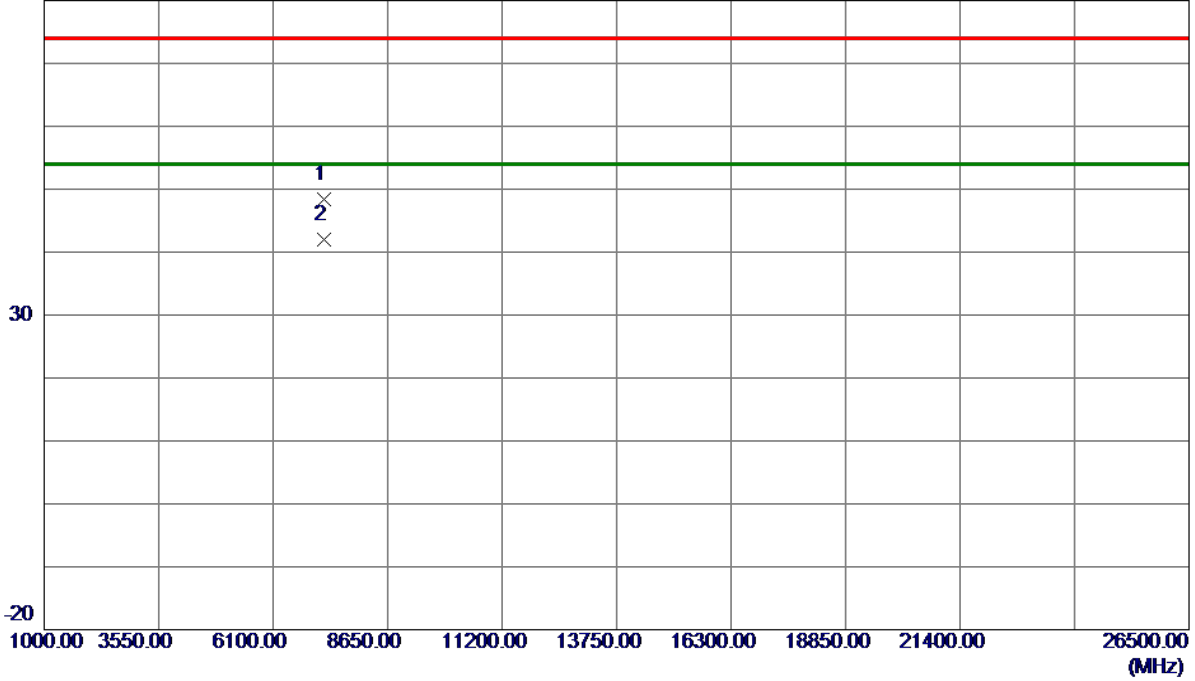


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2375.7000	46.02	6.62	52.64	74.00	-21.36	Peak	
2	2375.7000	40.72	6.62	47.34	54.00	-6.66	AVG	
3	2390.0000	43.35	6.62	49.97	74.00	-24.03	Peak	
4	2390.0000	36.30	6.62	42.92	54.00	-11.08	AVG	
5	2411.1500	98.29	6.62	104.91	74.00	30.91	Peak	No Limit
6 *	2411.2000	96.07	6.62	102.69	54.00	48.69	AVG	No Limit

Orthogonal Axis	X
Test Mode:	TX B Mode 2412 MHz

**Vertical**

80 dBuV/m

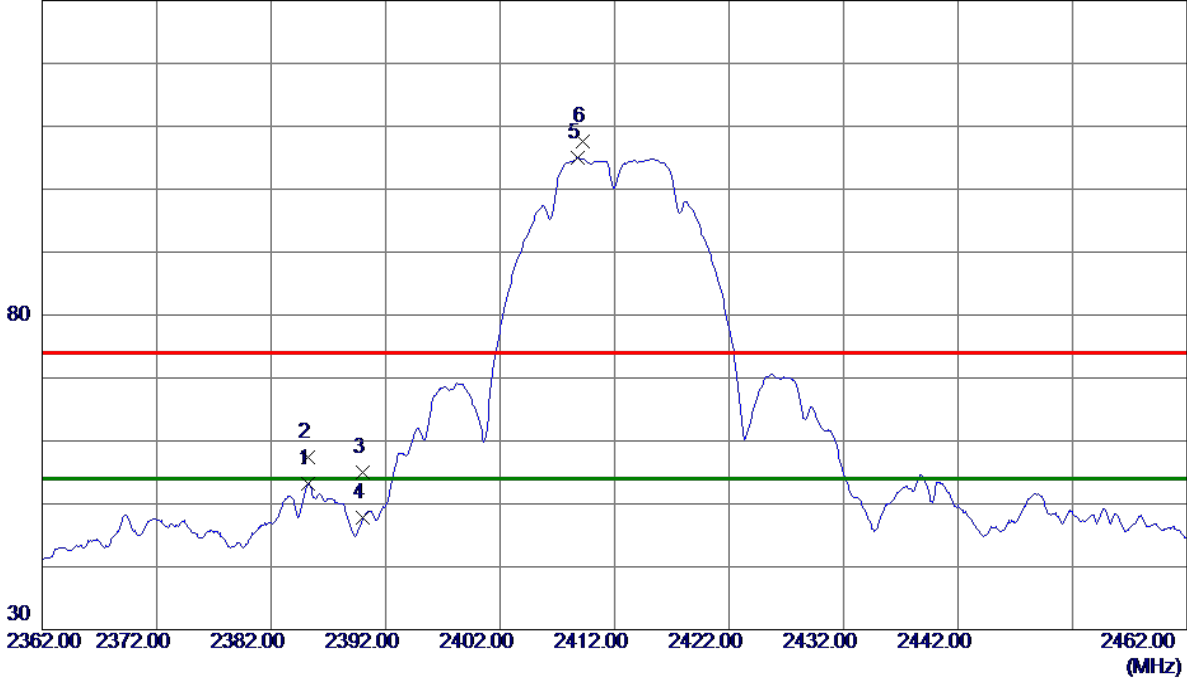


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	7234.8300	39.03	9.45	48.48	74.00	-25.52	Peak	
2 *	7235.1100	32.49	9.45	41.94	54.00	-12.06	AVG	

Orthogonal Axis	X
Test Mode:	TX B Mode 2412 MHz

**Horizontal**

130 dBuV/m

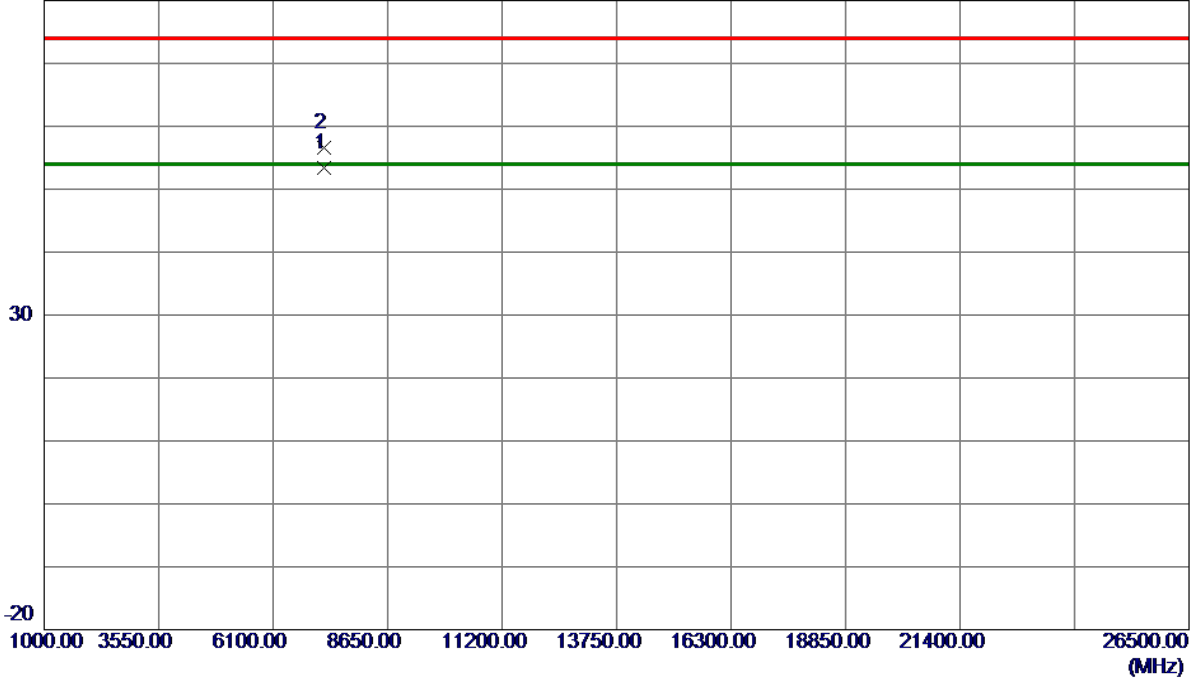


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2385.2500	46.58	6.62	53.20	74.00	-20.80	Peak	
2	2385.2500	50.87	6.62	57.49	74.00	-16.51	Peak	
3	2390.0000	48.32	6.62	54.94	74.00	-19.06	Peak	
4	2390.0000	41.18	6.62	47.80	54.00	-6.20	AVG	
5 *	2408.7500	98.40	6.62	105.02	54.00	51.02	AVG	No Limit
6	2409.2500	100.96	6.62	107.58	74.00	33.58	Peak	No Limit

Orthogonal Axis	X
Test Mode:	TX B Mode 2412 MHz

### Horizontal

80 dBuV/m

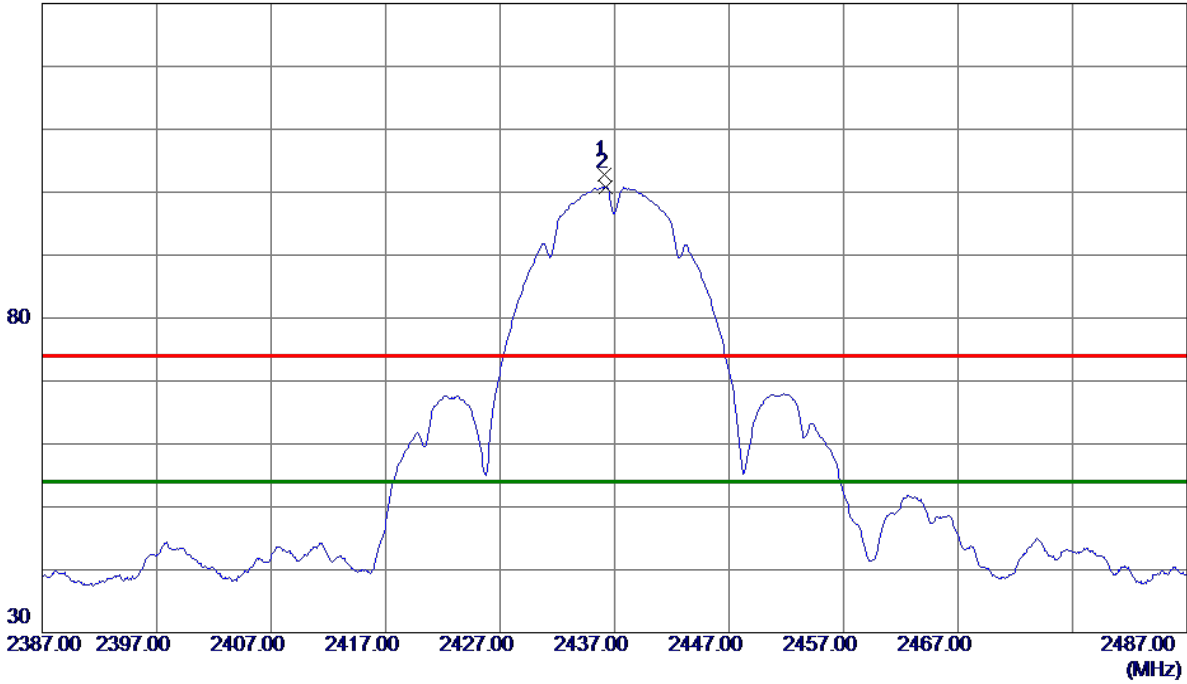


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	7235.1600	43.96	9.45	53.41	54.00	-0.59	AVG	
2	7236.7900	47.08	9.46	56.54	74.00	-17.46	Peak	

Orthogonal Axis	X
Test Mode:	TX B Mode 2437 MHz

**Vertical**

130 dBuV/m

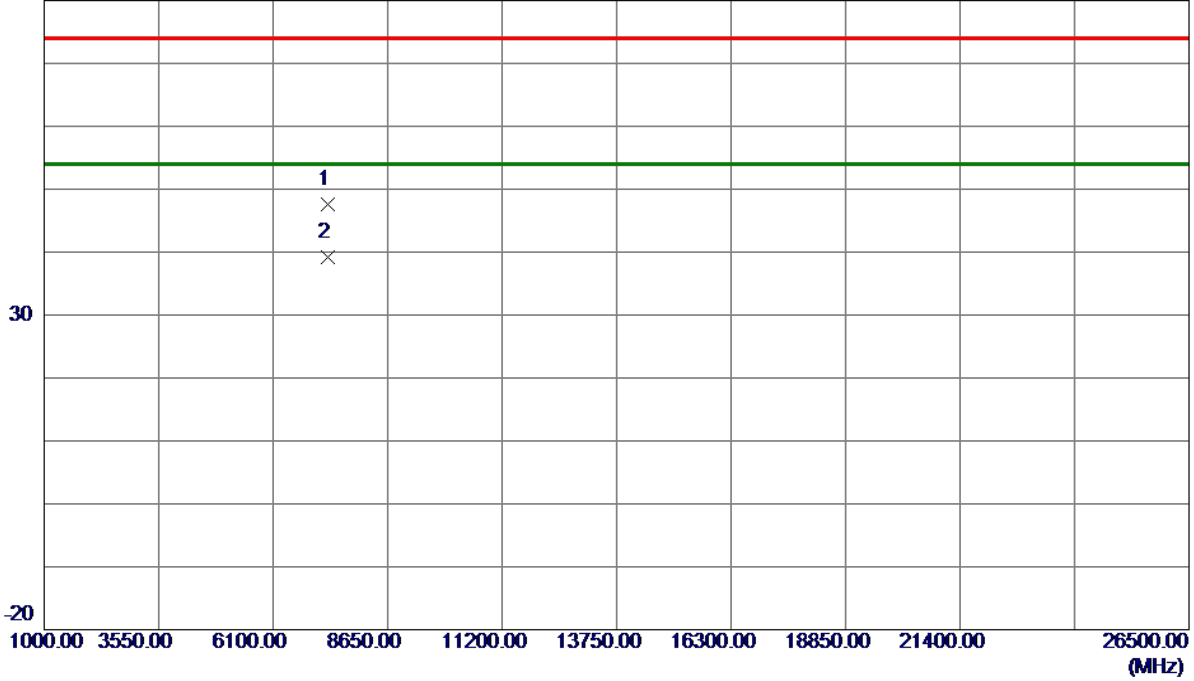


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2436.1000	96.17	6.61	102.78	74.00	28.78	Peak	No Limit
2 *	2436.2000	94.26	6.61	100.87	54.00	46.87	AVG	No Limit

Orthogonal Axis	X
Test Mode:	TX B Mode 2437 MHz

**Vertical**

80 dBuV/m

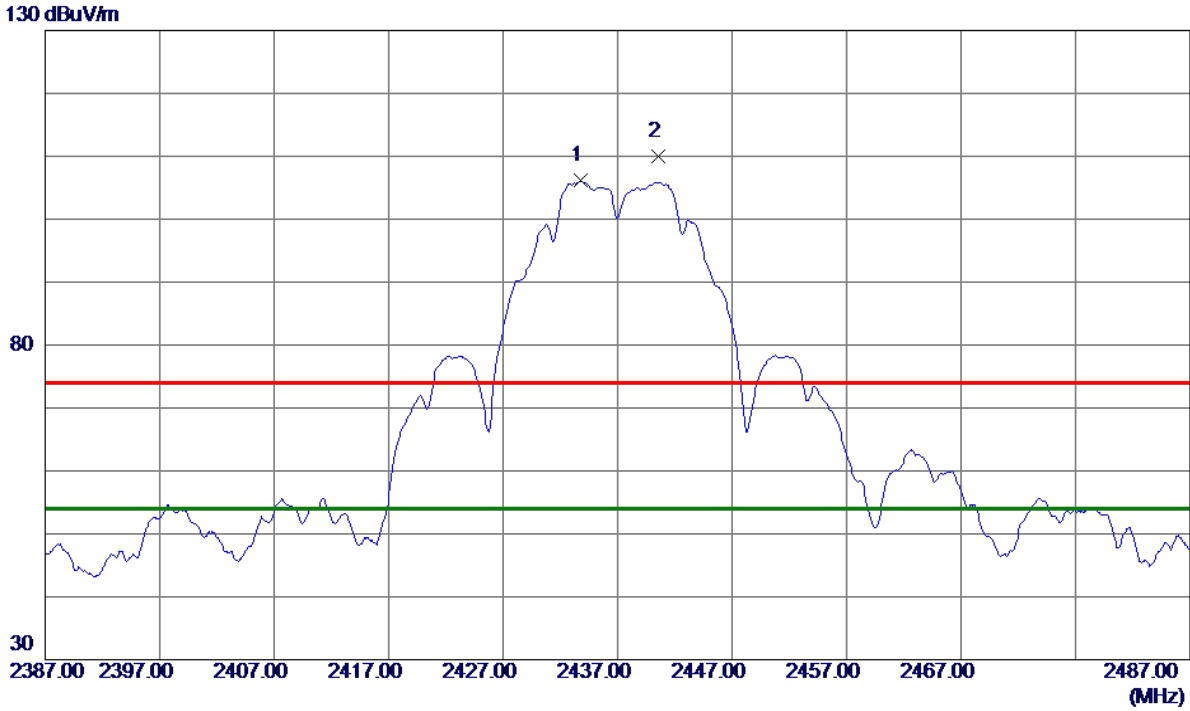


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	7309.0700	37.93	9.64	47.57	74.00	-26.43	Peak	
2 *	7311.7500	29.64	9.64	39.28	54.00	-14.72	AVG	



Orthogonal Axis	X
Test Mode:	TX B Mode 2437 MHz

### Horizontal

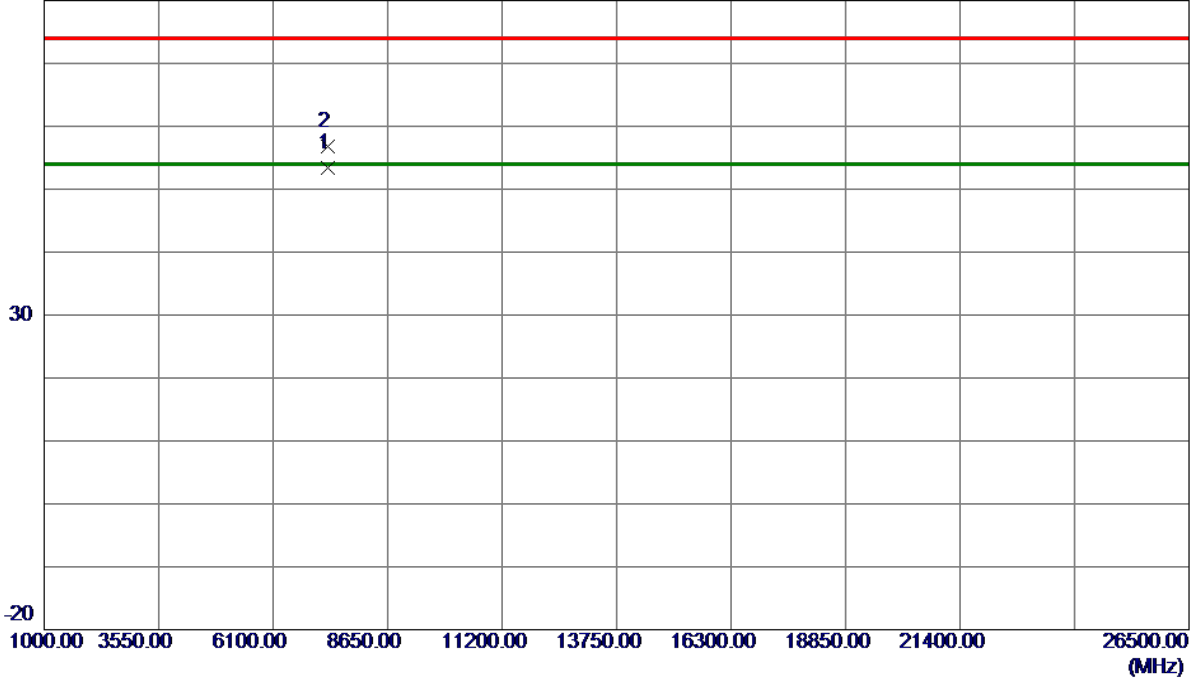


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2433.7500	99.50	6.61	106.11	54.00	52.11	AVG	No Limit
2	2440.6000	103.35	6.61	109.96	74.00	35.96	Peak	No Limit

Orthogonal Axis	X
Test Mode:	TX B Mode 2437 MHz

**Horizontal**

80 dBuV/m

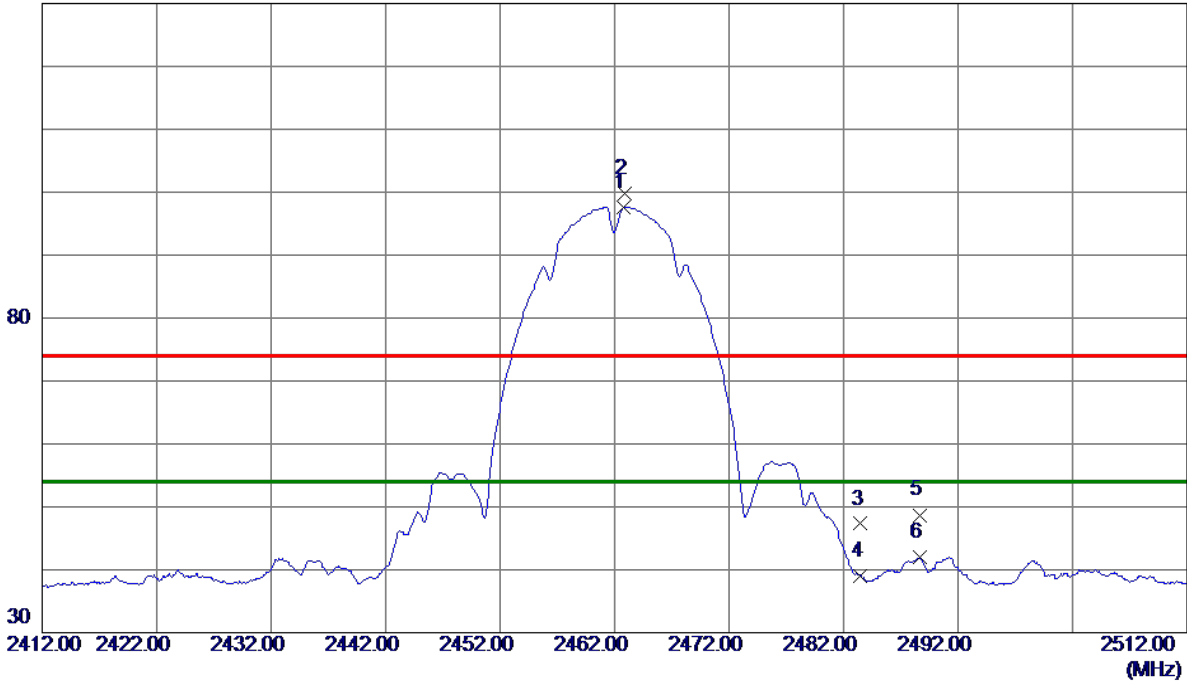


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	7311.7500	43.77	9.64	53.41	54.00	-0.59	AVG	
2	7311.8300	47.17	9.64	56.81	74.00	-17.19	Peak	

Orthogonal Axis	X
Test Mode:	TX B Mode 2462 MHz

**Vertical**

130 dBuV/m

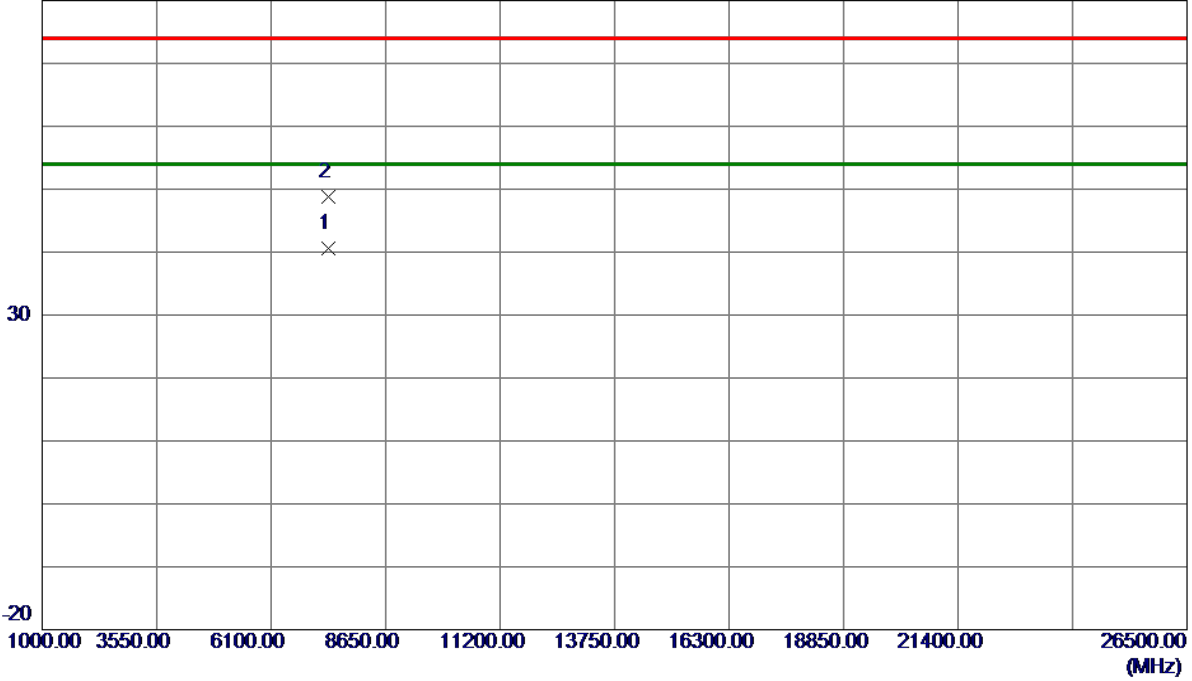


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2462.7500	91.08	6.61	97.69	54.00	43.69	AVG	No Limit
2	2462.9000	93.14	6.61	99.75	74.00	25.75	Peak	No Limit
3	2483.5000	40.69	6.61	47.30	74.00	-26.70	Peak	
4	2483.5000	32.37	6.61	38.98	54.00	-15.02	AVG	
5	2488.6500	42.09	6.61	48.70	74.00	-25.30	Peak	
6	2488.6500	35.35	6.61	41.96	54.00	-12.04	AVG	

Orthogonal Axis	X
Test Mode:	TX B Mode 2462 MHz

**Vertical**

80 dBuV/m

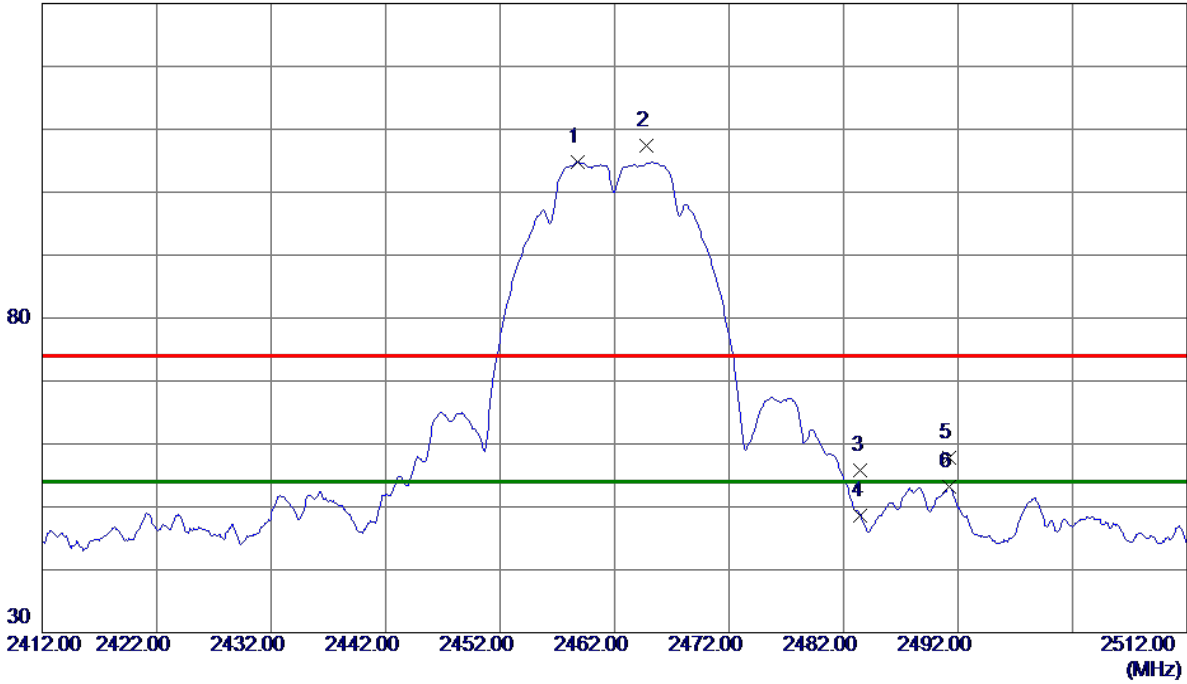


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	7385.1900	30.68	9.83	40.51	54.00	-13.49	AVG	
2	7386.4400	39.01	9.83	48.84	74.00	-25.16	Peak	

Orthogonal Axis	X
Test Mode:	TX B Mode 2462 MHz

### Horizontal

130 dBuV/m

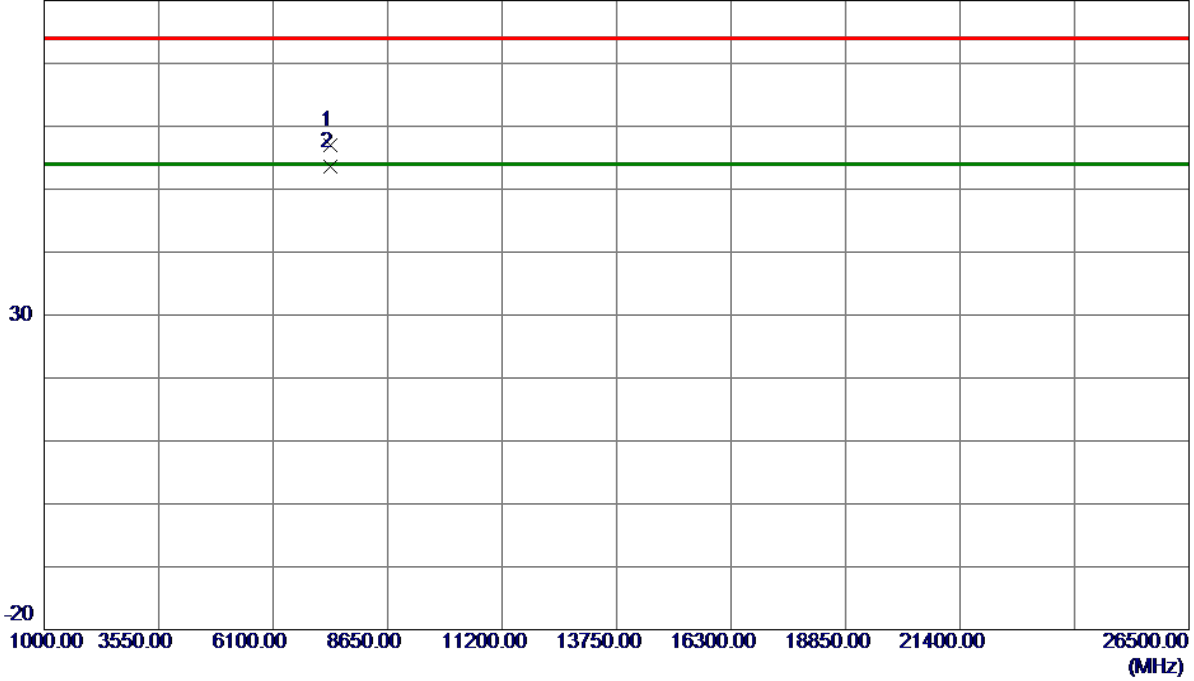


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2458.7500	98.22	6.61	104.83	54.00	50.83	AVG	No Limit
2	2464.8000	100.79	6.61	107.40	74.00	33.40	Peak	No Limit
3	2483.5000	49.27	6.61	55.88	74.00	-18.12	Peak	
4	2483.5000	41.90	6.61	48.51	54.00	-5.49	AVG	
5	2491.2000	51.10	6.61	57.71	74.00	-16.29	Peak	
6	2491.2000	46.50	6.61	53.11	54.00	-0.89	AVG	

Orthogonal Axis	X
Test Mode:	TX B Mode 2462 MHz

### Horizontal

80 dBuV/m

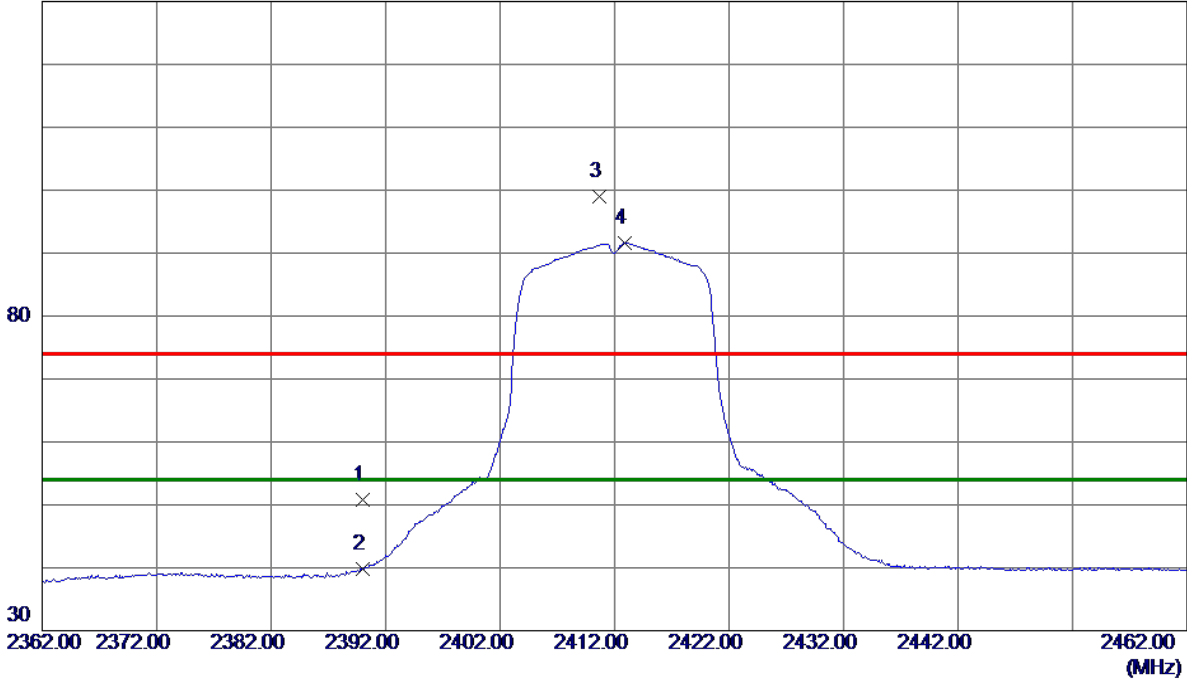


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	7384.9300	47.12	9.82	56.94	74.00	-17.06	Peak	
2 *	7385.2100	43.77	9.83	53.60	54.00	-0.40	AVG	

Orthogonal Axis	X
Test Mode:	TX G Mode 2412 MHz

**Vertical**

130 dBuV/m

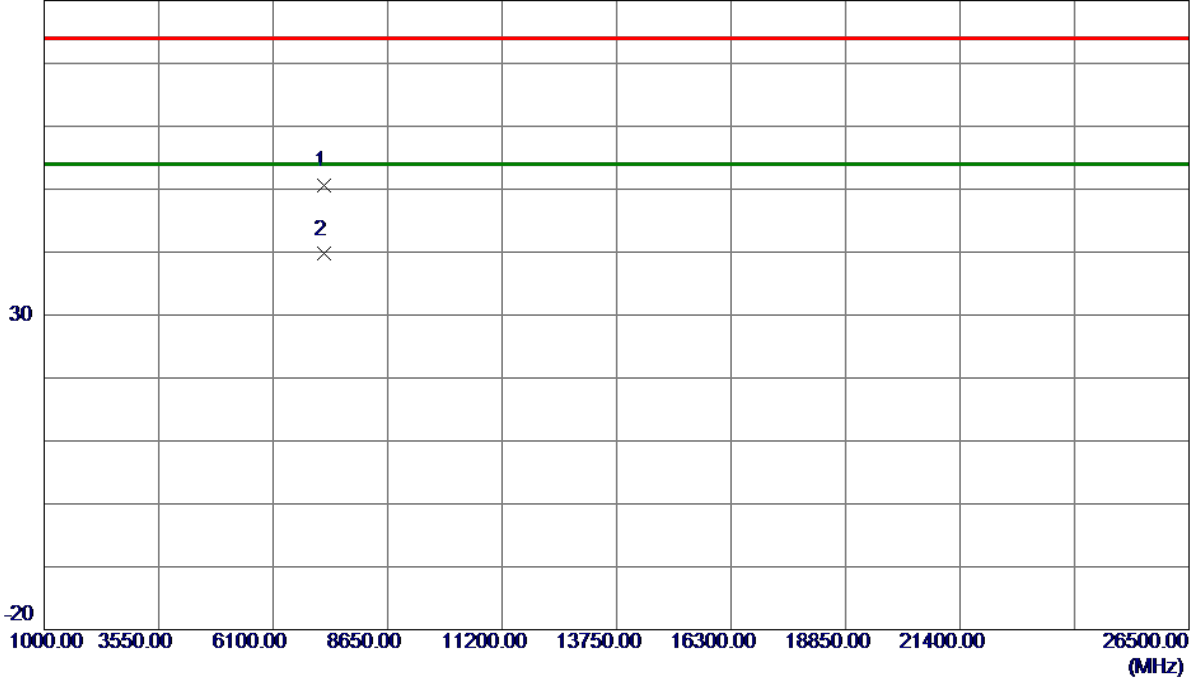


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	44.10	6.62	50.72	74.00	-23.28	Peak	
2	2390.0000	33.18	6.62	39.80	54.00	-14.20	AVG	
3	2410.7000	92.43	6.62	99.05	74.00	25.05	Peak	No Limit
4 *	2412.9000	84.99	6.62	91.61	54.00	37.61	AVG	No Limit

Orthogonal Axis	X
Test Mode:	TX G Mode 2412 MHz

**Vertical**

80 dBuV/m

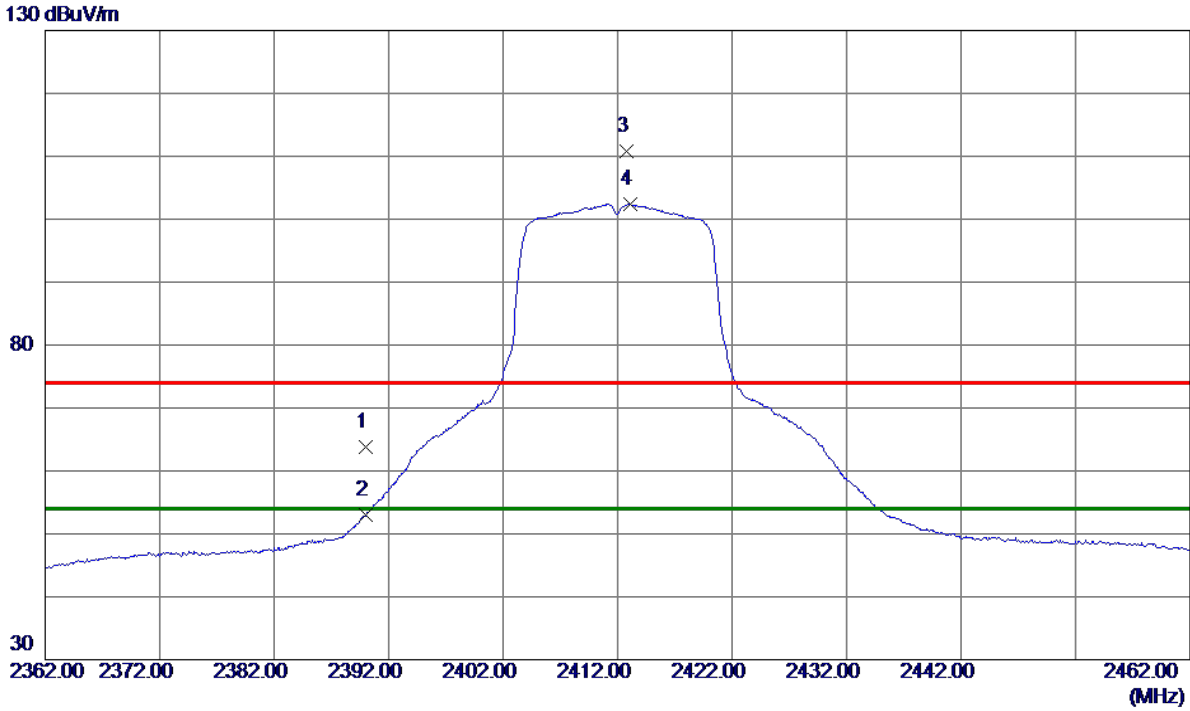


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	7230.0900	41.13	9.44	50.57	74.00	-23.43	Peak	
2 *	7235.7500	30.25	9.45	39.70	54.00	-14.30	AVG	



Orthogonal Axis	X
Test Mode:	TX G Mode 2412 MHz

### Horizontal

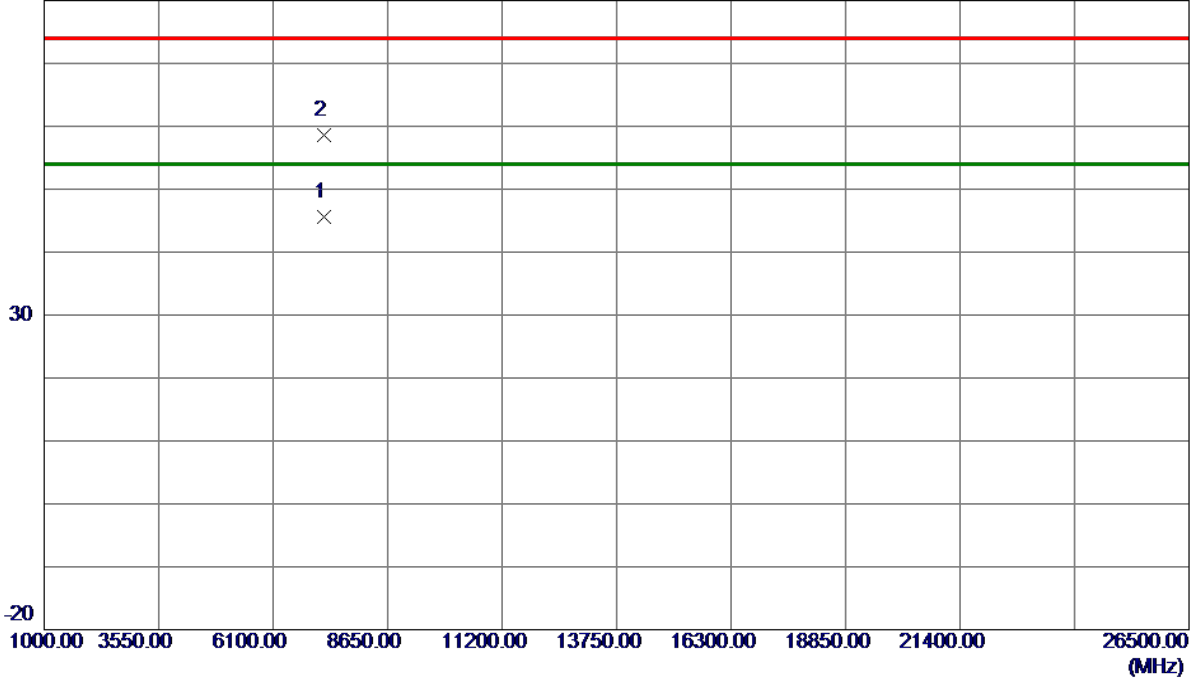


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	57.26	6.62	63.88	74.00	-10.12	Peak	
2	2390.0000	46.46	6.62	53.08	54.00	-0.92	AVG	
3	2412.8000	104.13	6.62	110.75	74.00	36.75	Peak	No Limit
4 *	2413.1500	95.83	6.62	102.45	54.00	48.45	AVG	No Limit

Orthogonal Axis	X
Test Mode:	TX G Mode 2412 MHz

### Horizontal

80 dBuV/m

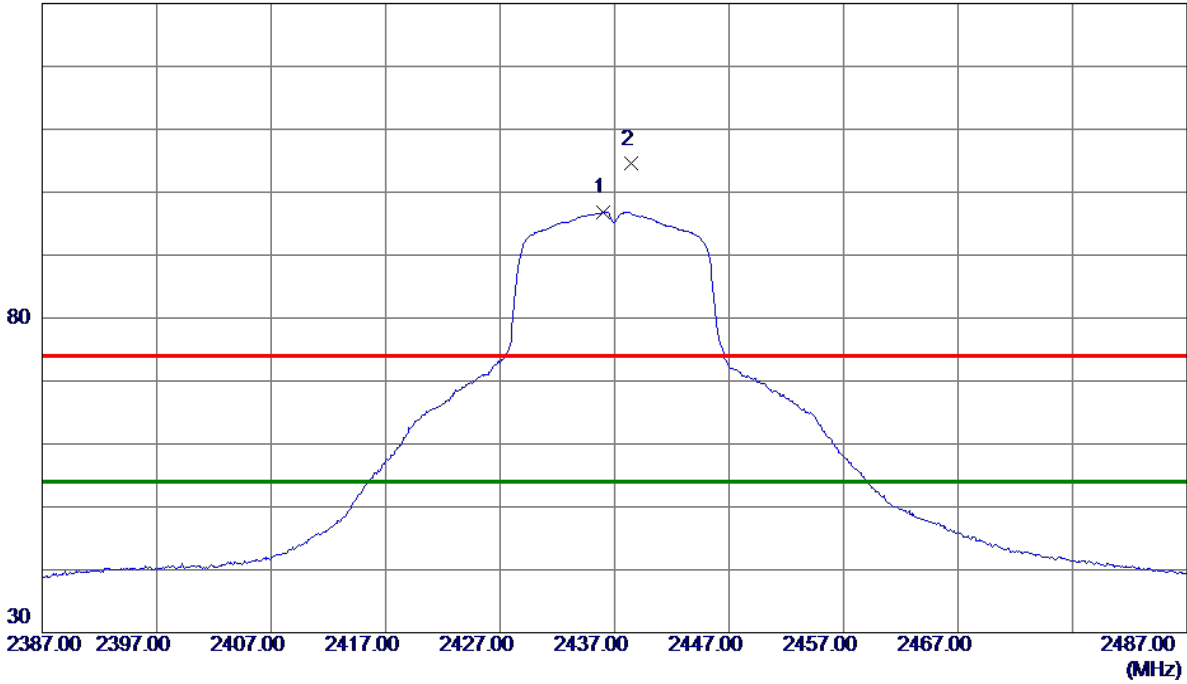


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	7238.4200	36.23	9.46	45.69	54.00	-8.31	AVG	
2	7239.6900	49.16	9.46	58.62	74.00	-15.38	Peak	

Orthogonal Axis	X
Test Mode:	TX G Mode 2437 MHz

**Vertical**

130 dBuV/m

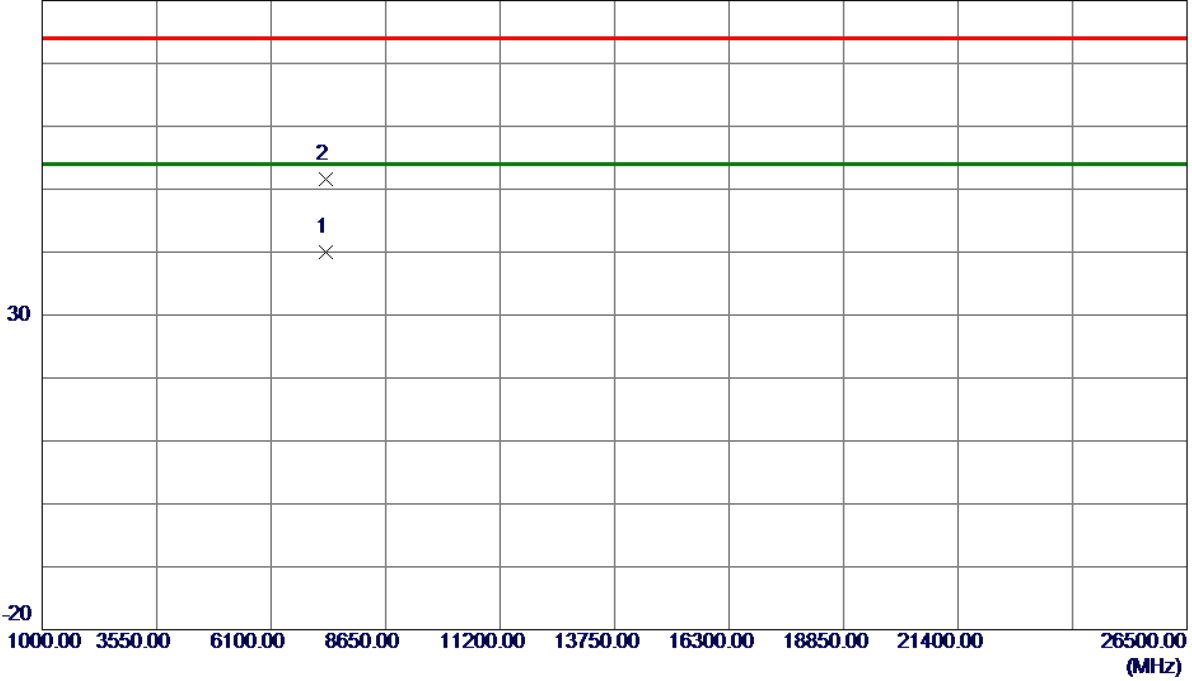


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2436.0500	90.26	6.61	96.87	54.00	42.87	AVG	No Limit
2	2438.4000	97.89	6.61	104.50	74.00	30.50	Peak	No Limit

Orthogonal Axis	X
Test Mode:	TX G Mode 2437 MHz

**Vertical**

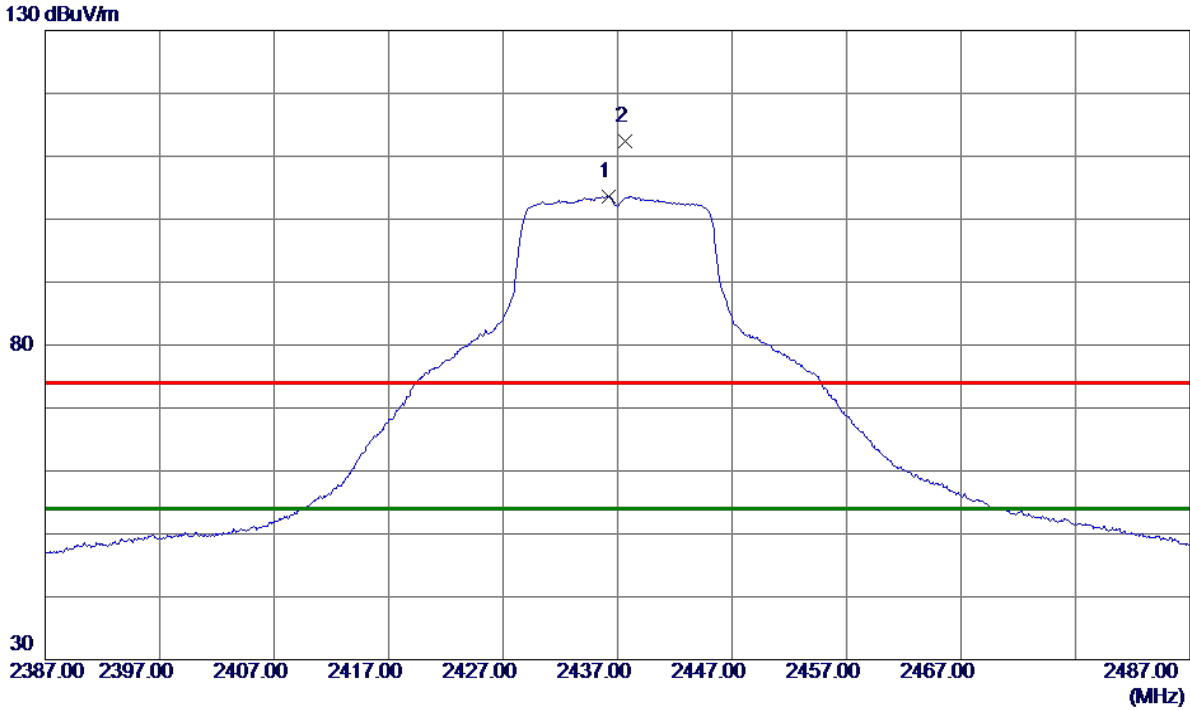
80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	7314.2500	30.28	9.65	39.93	54.00	-14.07	AVG	
2	7314.8100	42.03	9.65	51.68	74.00	-22.32	Peak	

Orthogonal Axis	X
Test Mode:	TX G Mode 2437 MHz

**Horizontal**

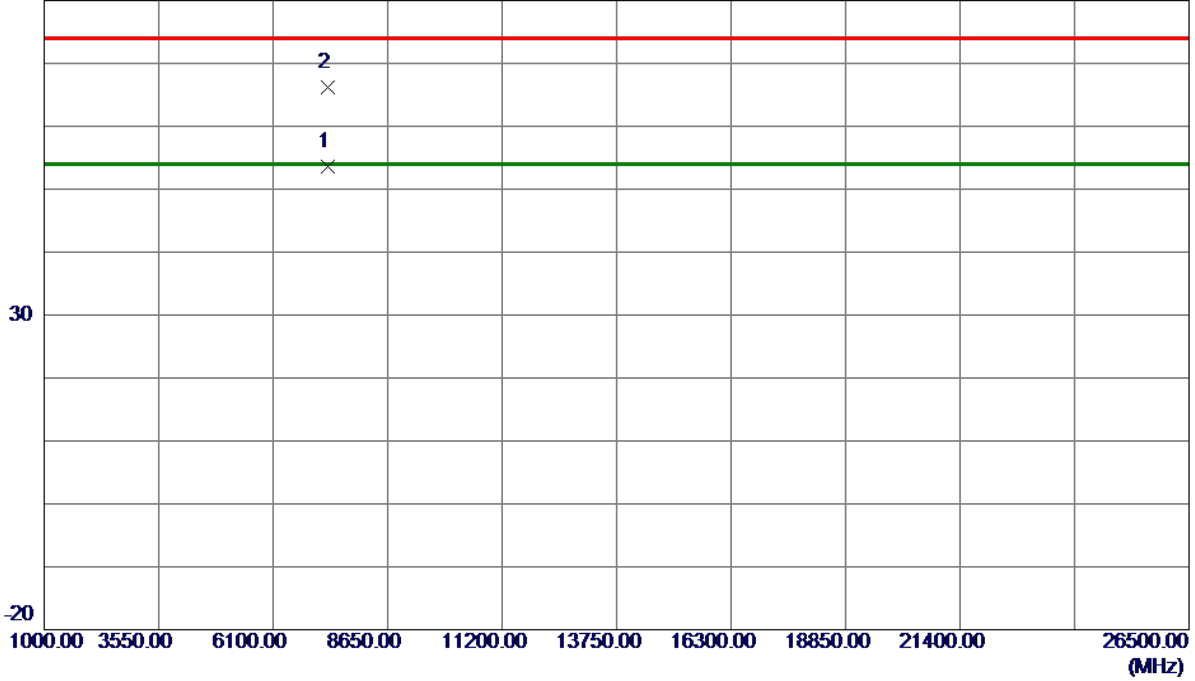


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2436.2000	97.08	6.61	103.69	54.00	49.69	AVG	No Limit
2	2437.6500	105.84	6.61	112.45	74.00	38.45	Peak	No Limit

Orthogonal Axis	X
Test Mode:	TX G Mode 2437 MHz

### Horizontal

80 dBuV/m

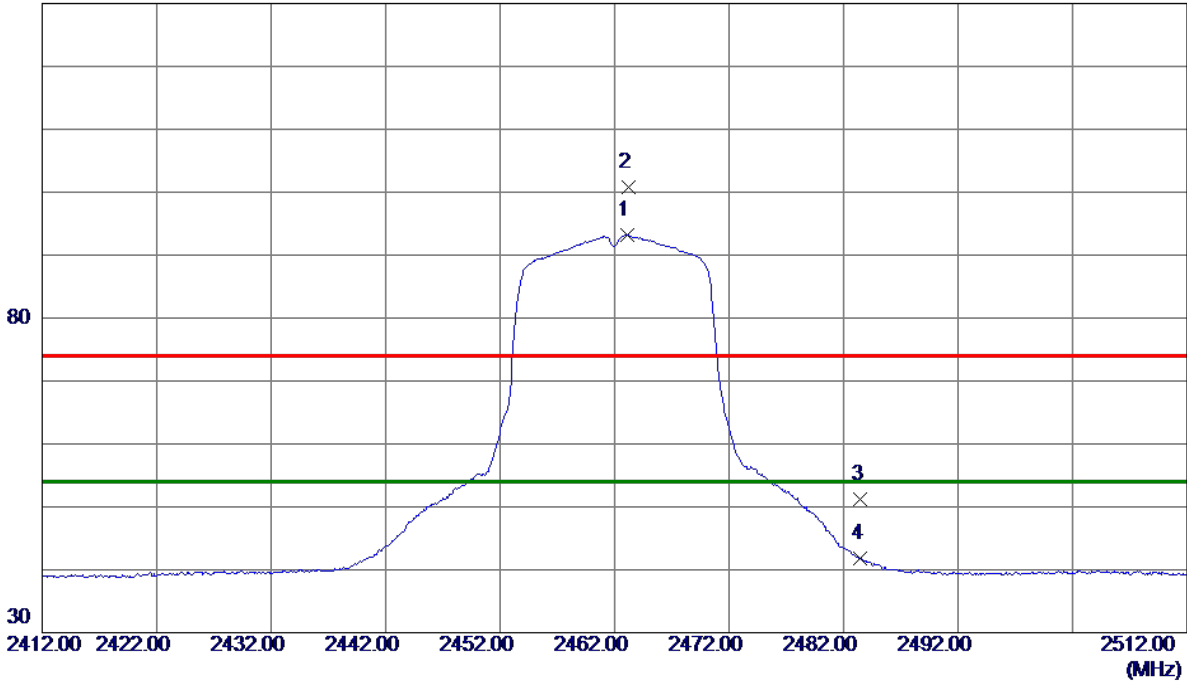


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	7313.6100	44.03	9.65	53.68	54.00	-0.32	AVG	
2	7314.6400	56.60	9.65	66.25	74.00	-7.75	Peak	

Orthogonal Axis	X
Test Mode:	TX G Mode 2462 MHz

**Vertical**

130 dBuV/m

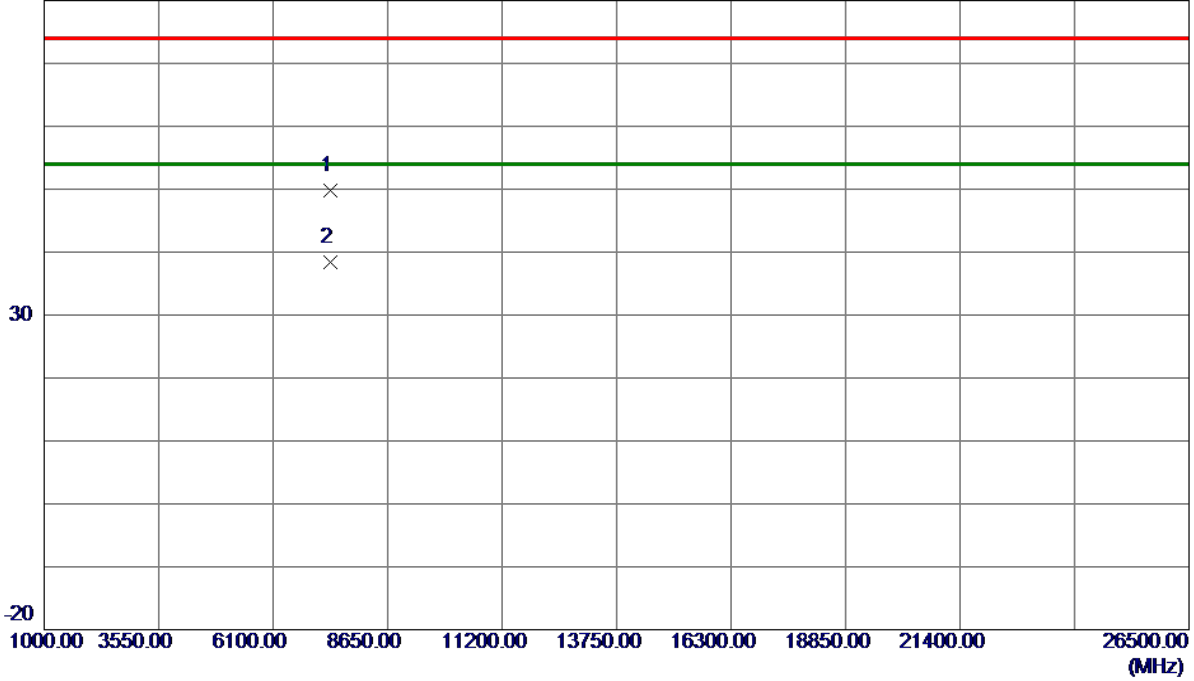


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2463.1500	86.56	6.61	93.17	54.00	39.17	AVG	No Limit
2	2463.2000	94.26	6.61	100.87	74.00	26.87	Peak	No Limit
3	2483.5000	44.65	6.61	51.26	74.00	-22.74	Peak	
4	2483.5000	35.20	6.61	41.81	54.00	-12.19	AVG	

Orthogonal Axis	X
Test Mode:	TX G Mode 2462 MHz

**Vertical**

80 dBuV/m

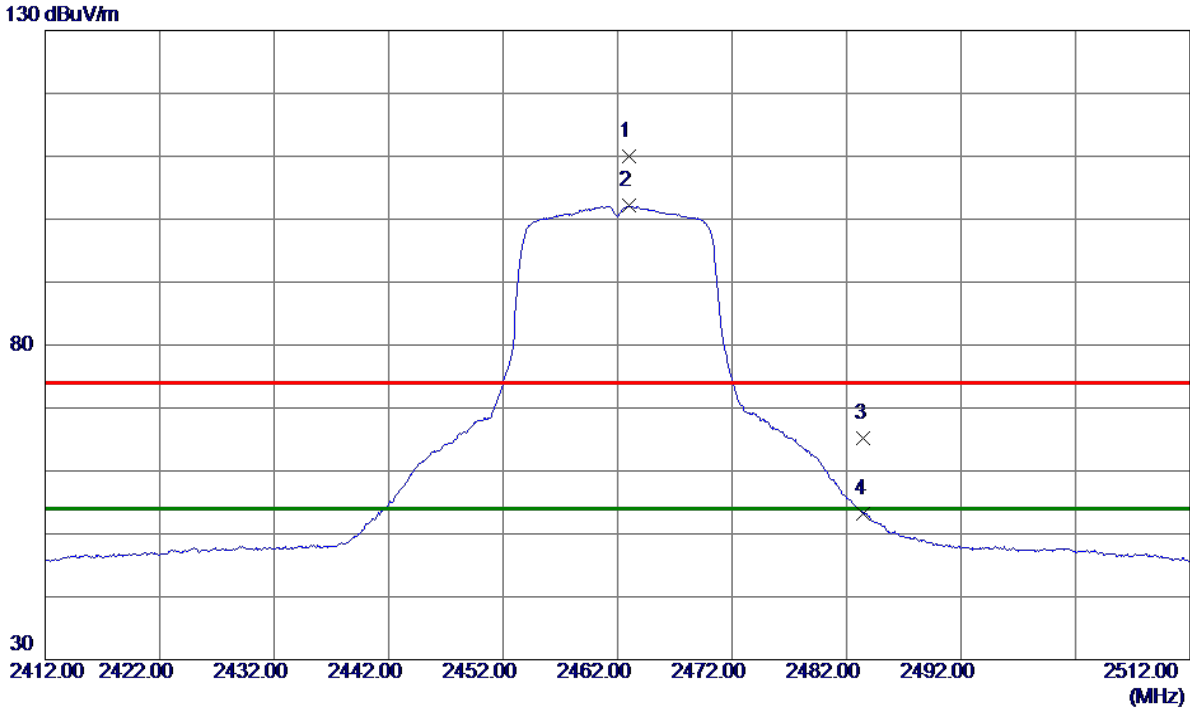


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	7381.7750	39.91	9.82	49.73	74.00	-24.27	Peak	
2 *	7385.3000	28.66	9.83	38.49	54.00	-15.51	AVG	



Orthogonal Axis	X
Test Mode:	TX G Mode 2462 MHz

### Horizontal

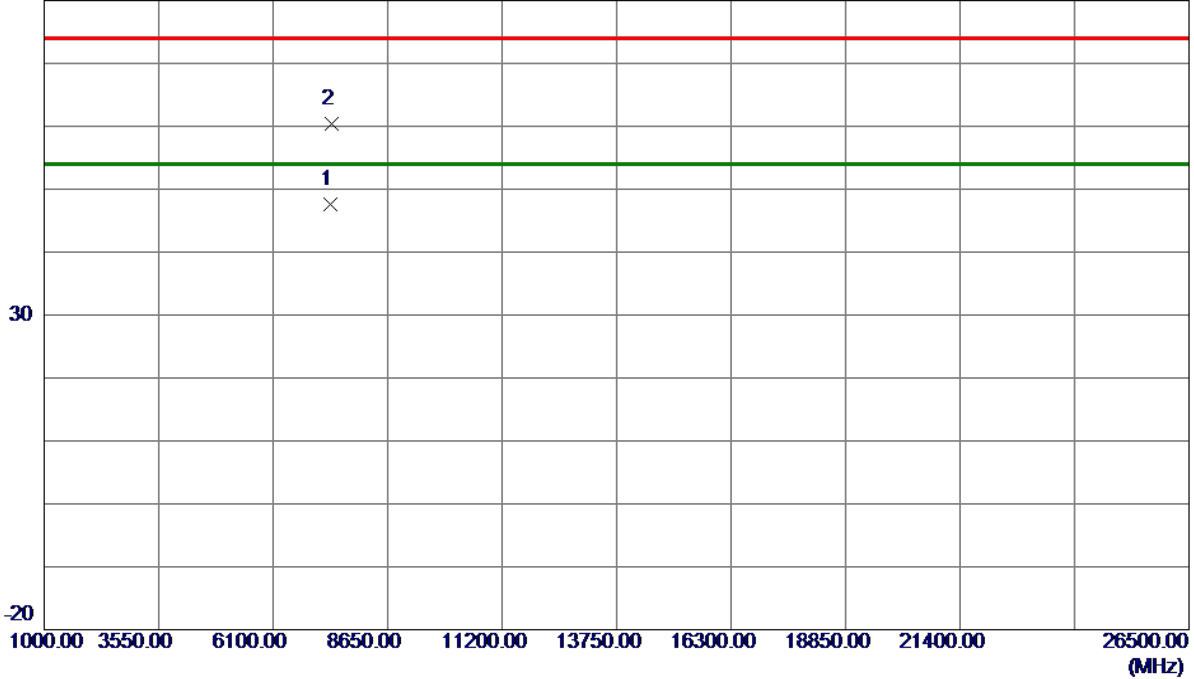


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2463.0000	103.29	6.61	109.90	74.00	35.90	Peak	No Limit
2 *	2463.0500	95.50	6.61	102.11	54.00	48.11	AVG	No Limit
3	2483.5000	58.62	6.61	65.23	74.00	-8.77	Peak	
4	2483.5000	46.62	6.61	53.23	54.00	-0.77	AVG	

Orthogonal Axis	X
Test Mode:	TX G Mode 2462 MHz

**Horizontal**

80 dBuV/m

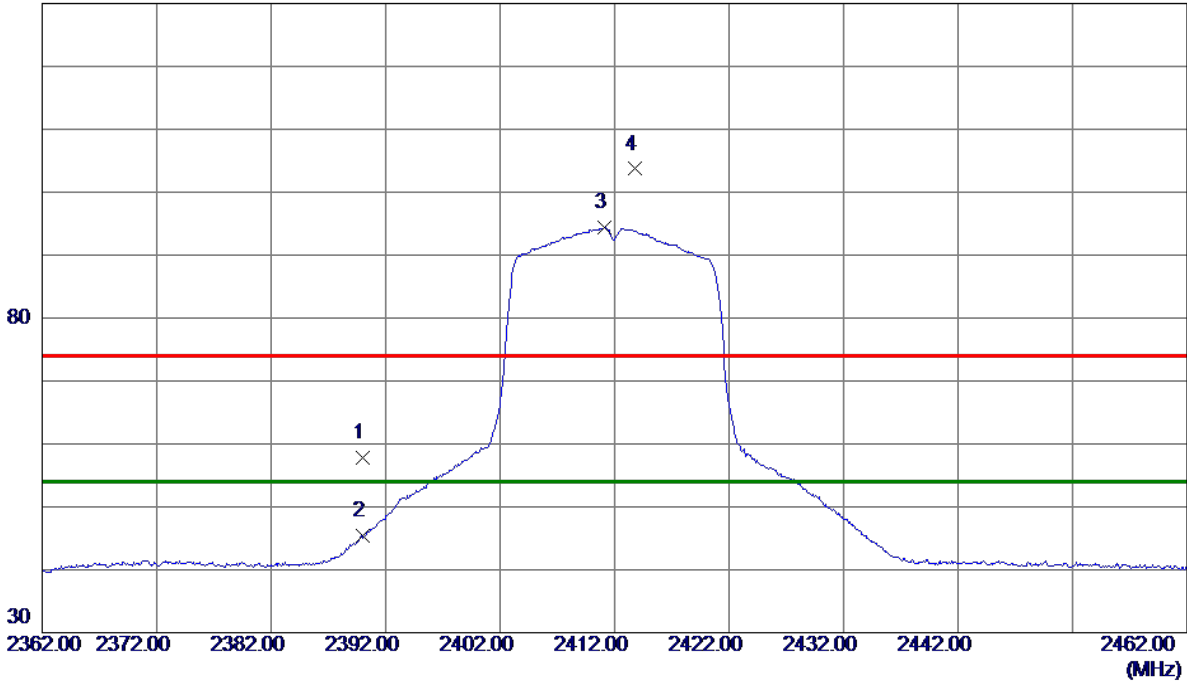


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	7388.6000	37.78	9.83	47.61	54.00	-6.39	AVG	
2	7389.7100	50.52	9.84	60.36	74.00	-13.64	Peak	

Orthogonal Axis	X
Test Mode:	TX N-20M Mode 2412 MHz

**Vertical**

130 dBuV/m

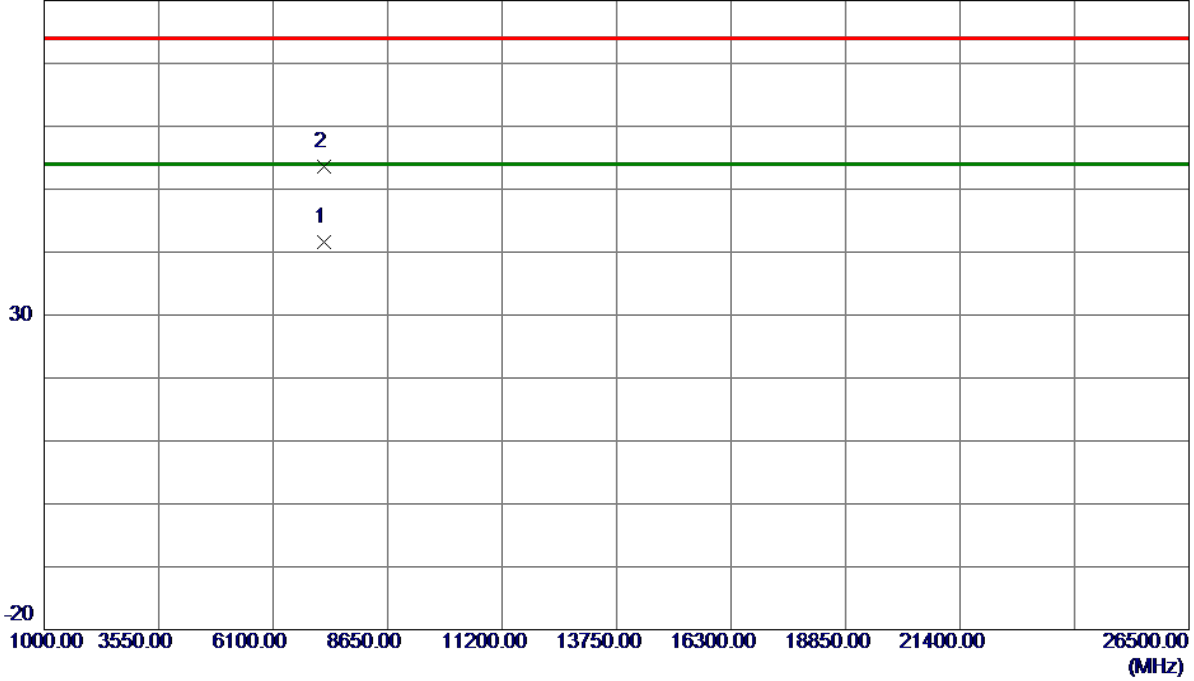


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	51.20	6.62	57.82	74.00	-16.18	Peak	
2	2390.0000	38.73	6.62	45.35	54.00	-8.65	AVG	
3 *	2411.1500	87.77	6.62	94.39	54.00	40.39	AVG	No Limit
4	2413.7500	97.08	6.62	103.70	74.00	29.70	Peak	No Limit

Orthogonal Axis	X
Test Mode:	TX N-20M Mode 2412 MHz

**Vertical**

80 dBuV/m

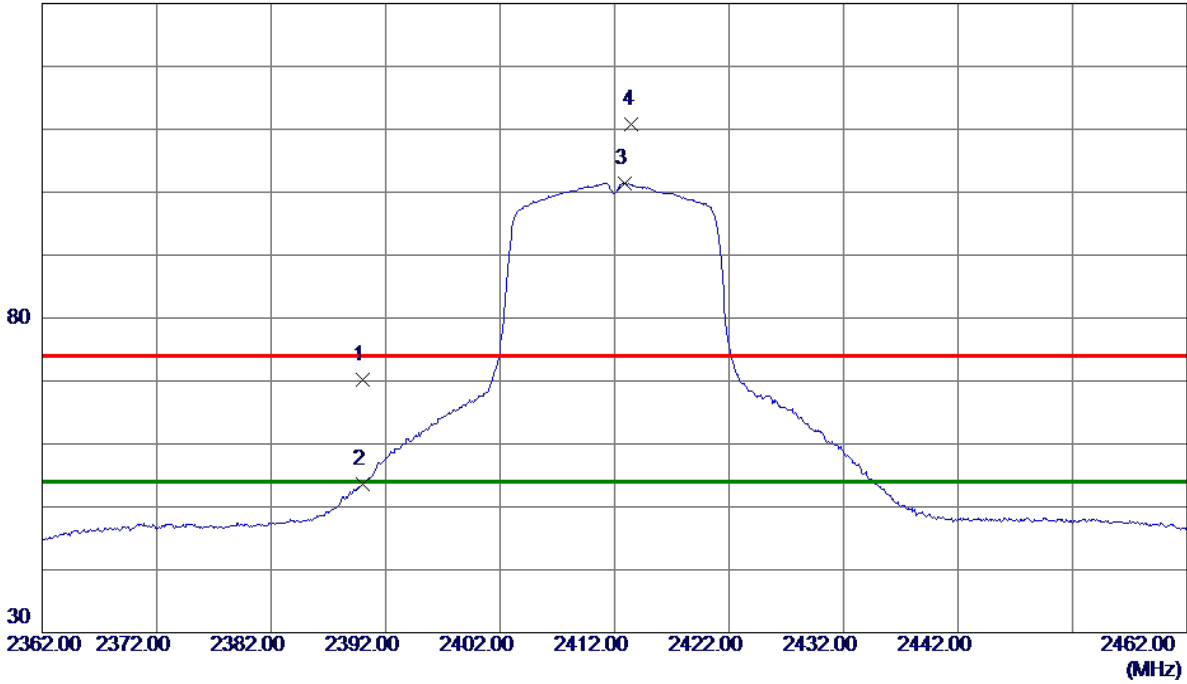


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	7232.3750	32.06	9.45	41.51	54.00	-12.49	AVG	
2	7237.0750	44.12	9.46	53.58	74.00	-20.42	Peak	

Orthogonal Axis	X
Test Mode:	TX N-20M Mode 2412 MHz

### Horizontal

130 dBuV/m

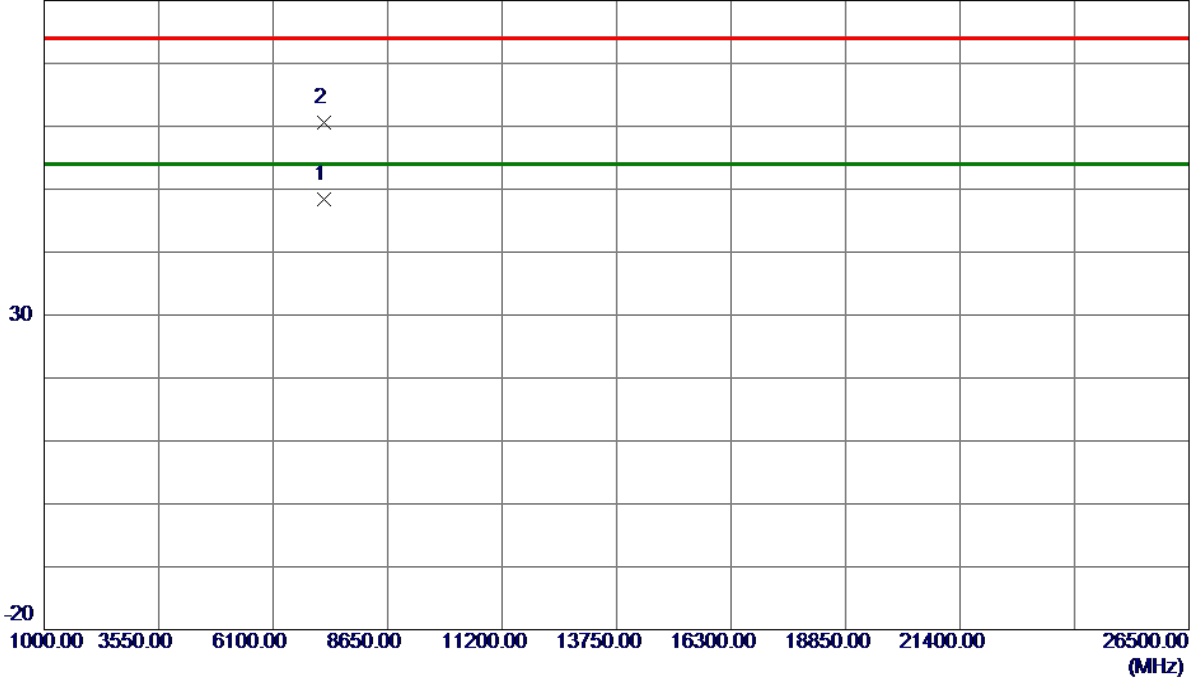


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	63.57	6.62	70.19	74.00	-3.81	Peak	
2	2390.0000	47.00	6.62	53.62	54.00	-0.38	AVG	
3 *	2412.8500	94.85	6.62	101.47	54.00	47.47	AVG	No Limit
4	2413.5000	104.13	6.62	110.75	74.00	36.75	Peak	No Limit

Orthogonal Axis	X
Test Mode:	TX N-20M Mode 2412 MHz

### Horizontal

80 dBuV/m

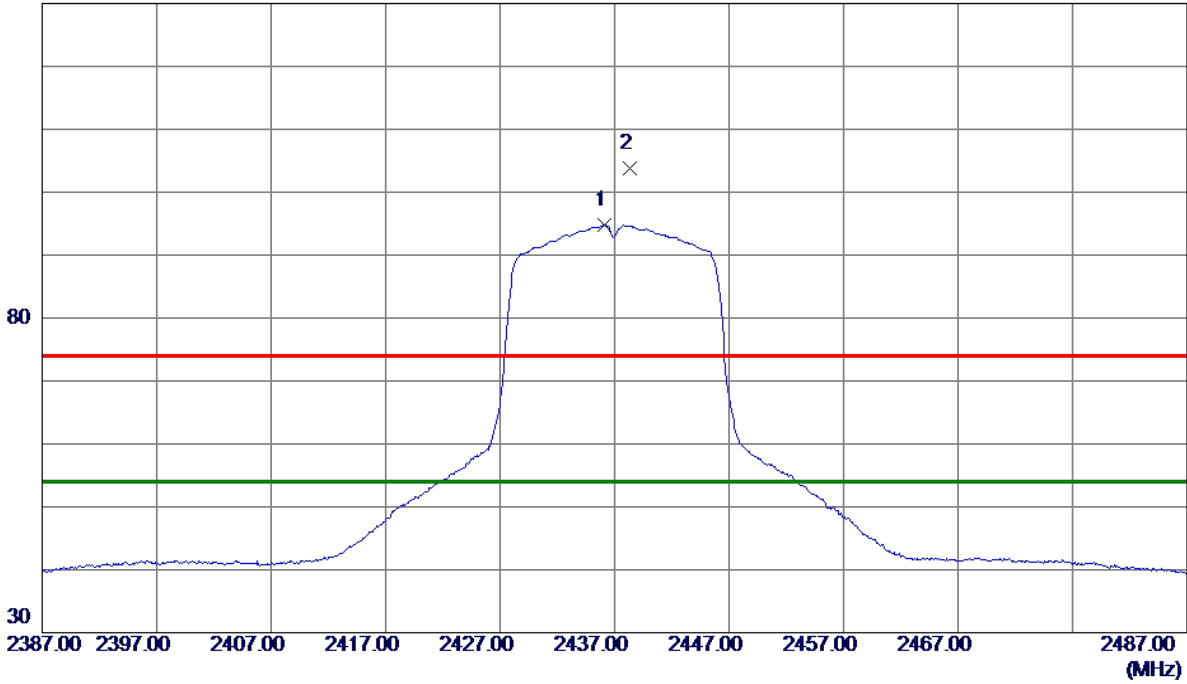


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	7234.0900	38.96	9.45	48.41	54.00	-5.59	AVG	
2	7241.2400	51.09	9.47	60.56	74.00	-13.44	Peak	

Orthogonal Axis	X
Test Mode:	TX N-20M Mode 2437 MHz

**Vertical**

130 dBuV/m

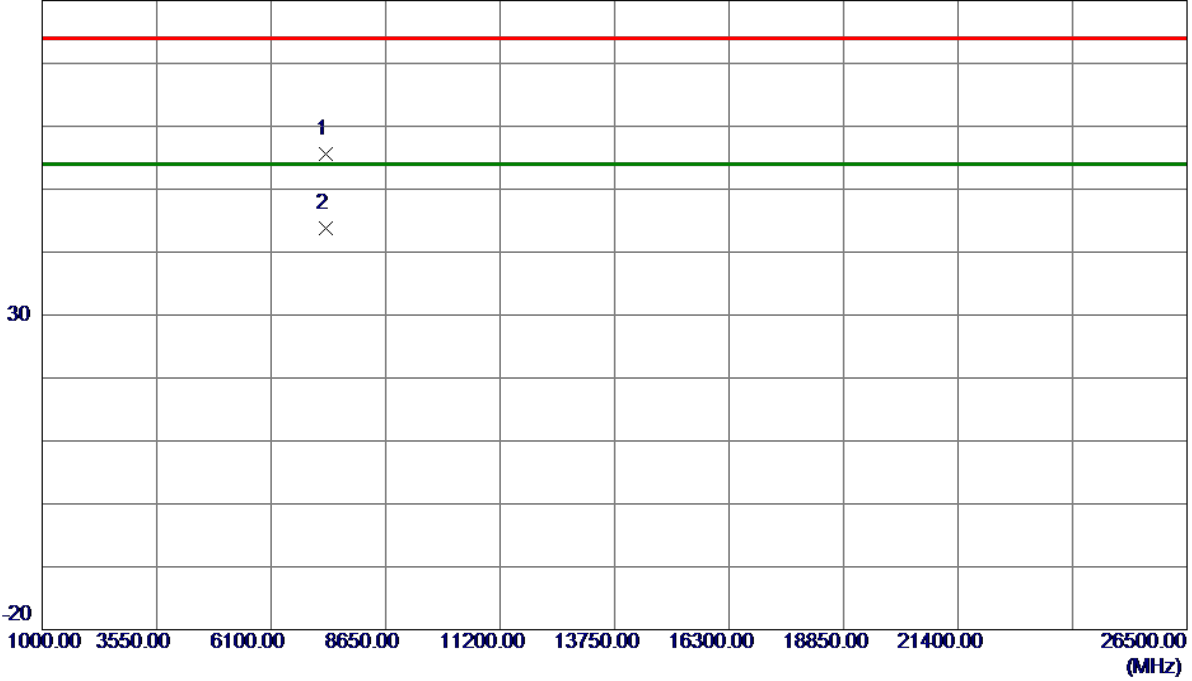


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2436.1000	88.15	6.61	94.76	54.00	40.76	AVG	No Limit
2	2438.3500	97.24	6.61	103.85	74.00	29.85	Peak	No Limit

Orthogonal Axis	X
Test Mode:	TX N-20M Mode 2437 MHz

**Vertical**

80 dBuV/m

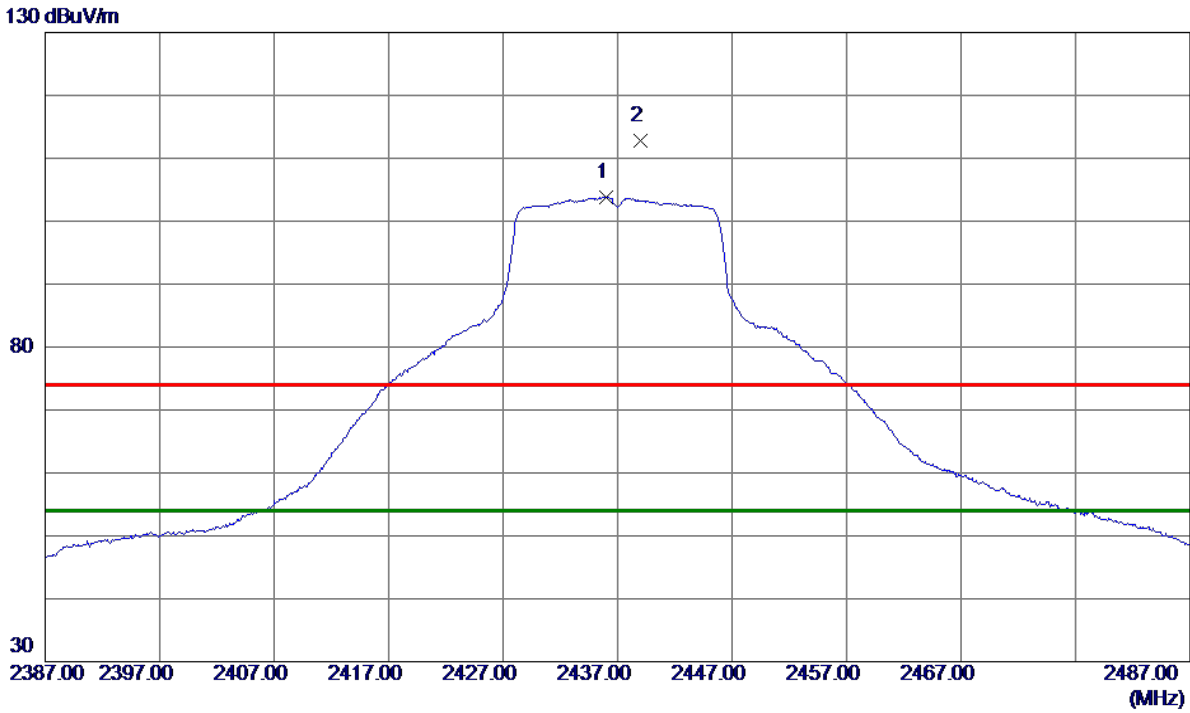


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	7312.3750	45.90	9.64	55.54	74.00	-18.46	Peak	
2 *	7313.3500	34.10	9.65	43.75	54.00	-10.25	AVG	



Orthogonal Axis	X
Test Mode:	TX N-20M Mode 2437 MHz

**Horizontal**

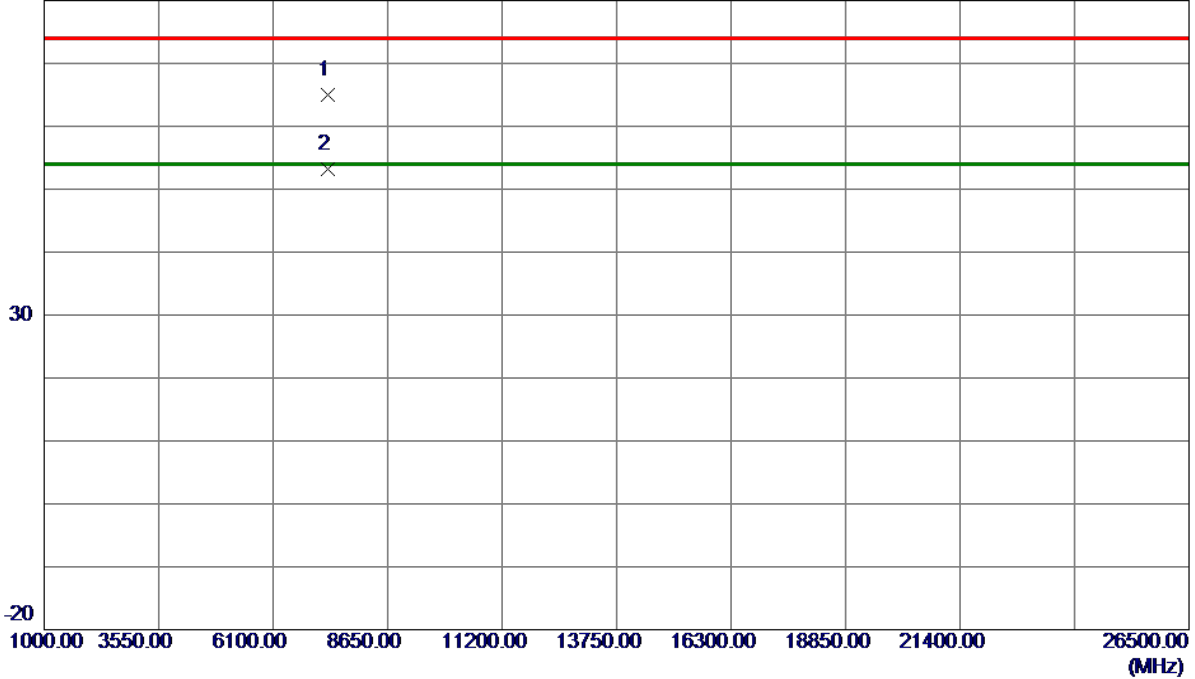


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2435.9500	97.21	6.61	103.82	54.00	49.82	AVG	No Limit
2	2439.0500	106.17	6.61	112.78	74.00	38.78	Peak	No Limit

Orthogonal Axis	X
Test Mode:	TX N-20M Mode 2437 MHz

### Horizontal

80 dBuV/m

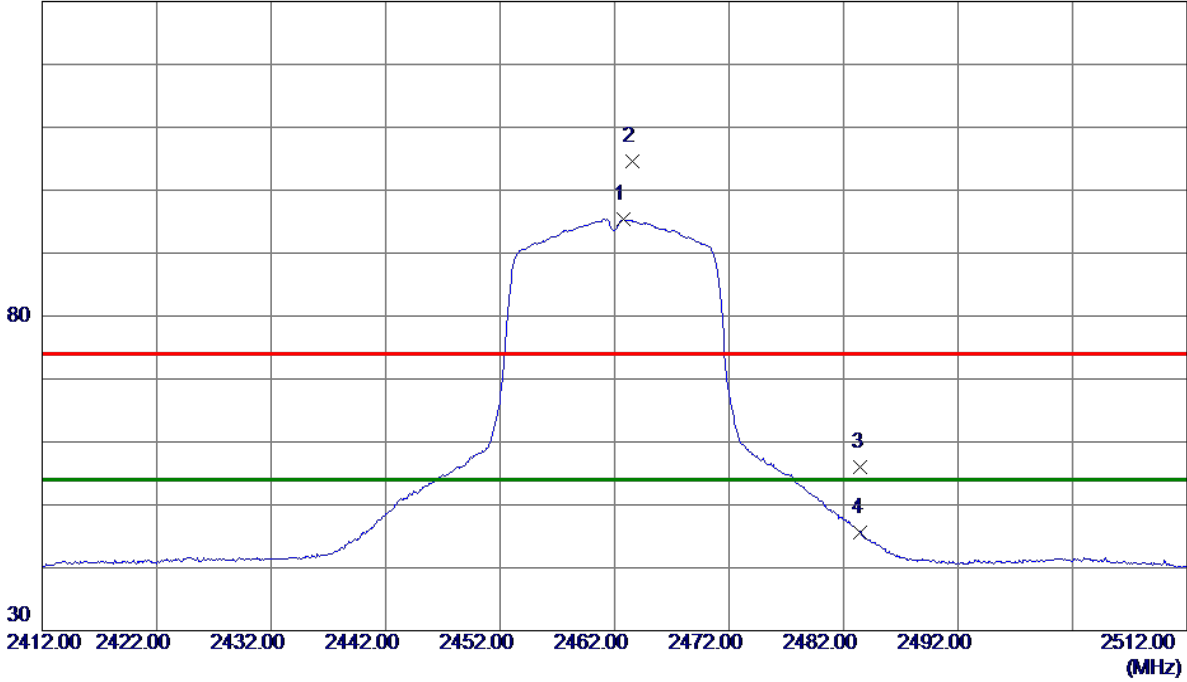


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	7306.7400	55.37	9.63	65.00	74.00	-9.00	Peak	
2 *	7309.1500	43.51	9.64	53.15	54.00	-0.85	AVG	

Orthogonal Axis	X
Test Mode:	TX N-20M Mode 2462 MHz

**Vertical**

130 dBuV/m

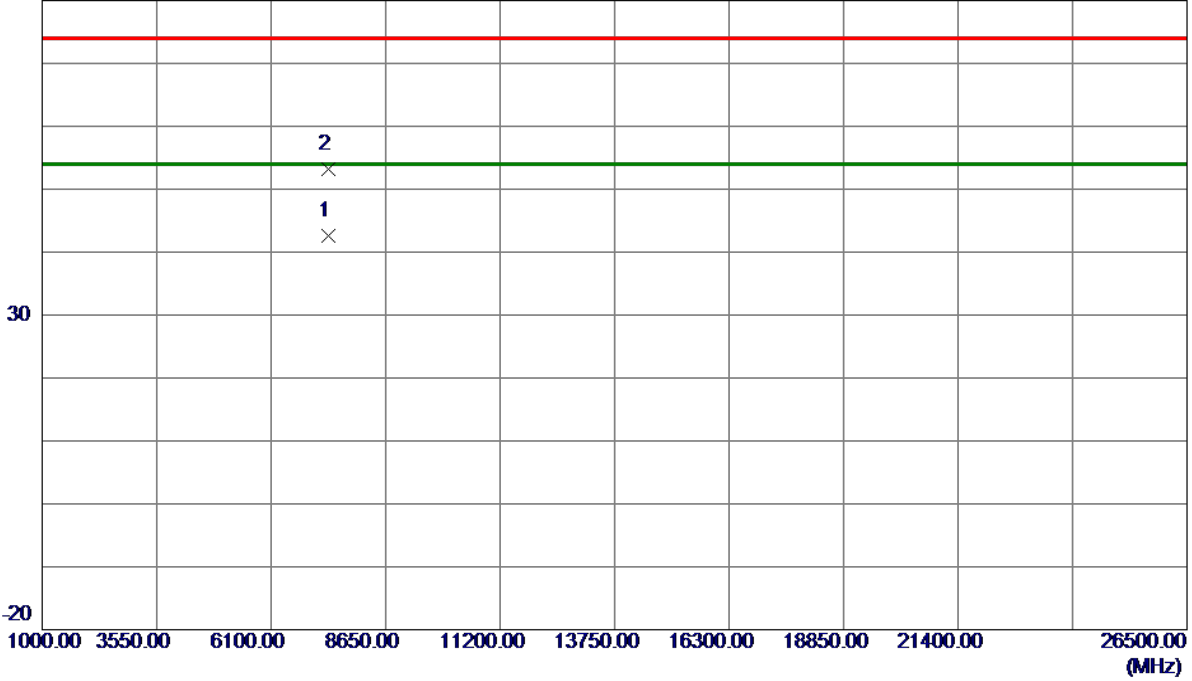


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2462.7500	88.82	6.61	95.43	54.00	41.43	AVG	No Limit
2	2463.5500	97.95	6.61	104.56	74.00	30.56	Peak	No Limit
3	2483.5000	49.48	6.61	56.09	74.00	-17.91	Peak	
4	2483.5000	38.92	6.61	45.53	54.00	-8.47	AVG	

Orthogonal Axis	X
Test Mode:	TX N-20M Mode 2462 MHz

**Vertical**

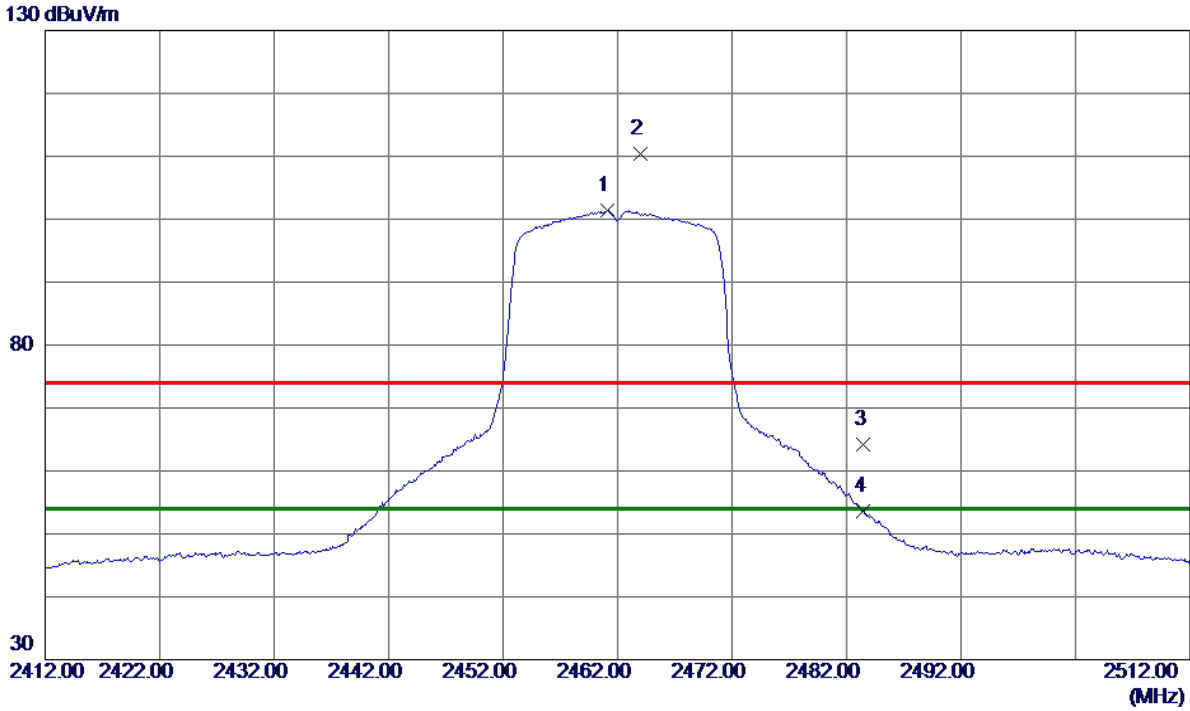
80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	7384.8250	32.71	9.82	42.53	54.00	-11.47	AVG	
2	7386.9500	43.30	9.83	53.13	74.00	-20.87	Peak	

Orthogonal Axis	X
Test Mode:	TX N-20M Mode 2462 MHz

**Horizontal**

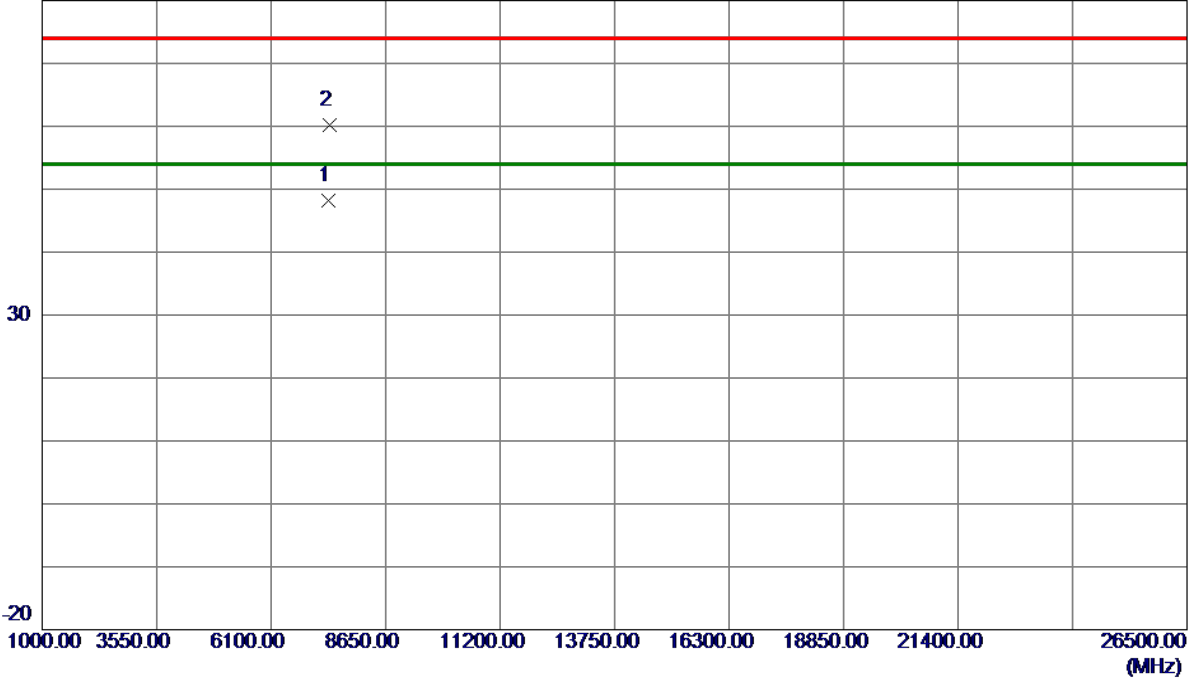


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2461.1500	94.81	6.61	101.42	54.00	47.42	AVG	No Limit
2	2463.9500	103.86	6.61	110.47	74.00	36.47	Peak	No Limit
3	2483.5000	57.51	6.61	64.12	74.00	-9.88	Peak	
4	2483.5000	46.97	6.61	53.58	54.00	-0.42	AVG	

Orthogonal Axis	X
Test Mode:	TX N-20M Mode 2462 MHz

**Horizontal**

80 dBuV/m

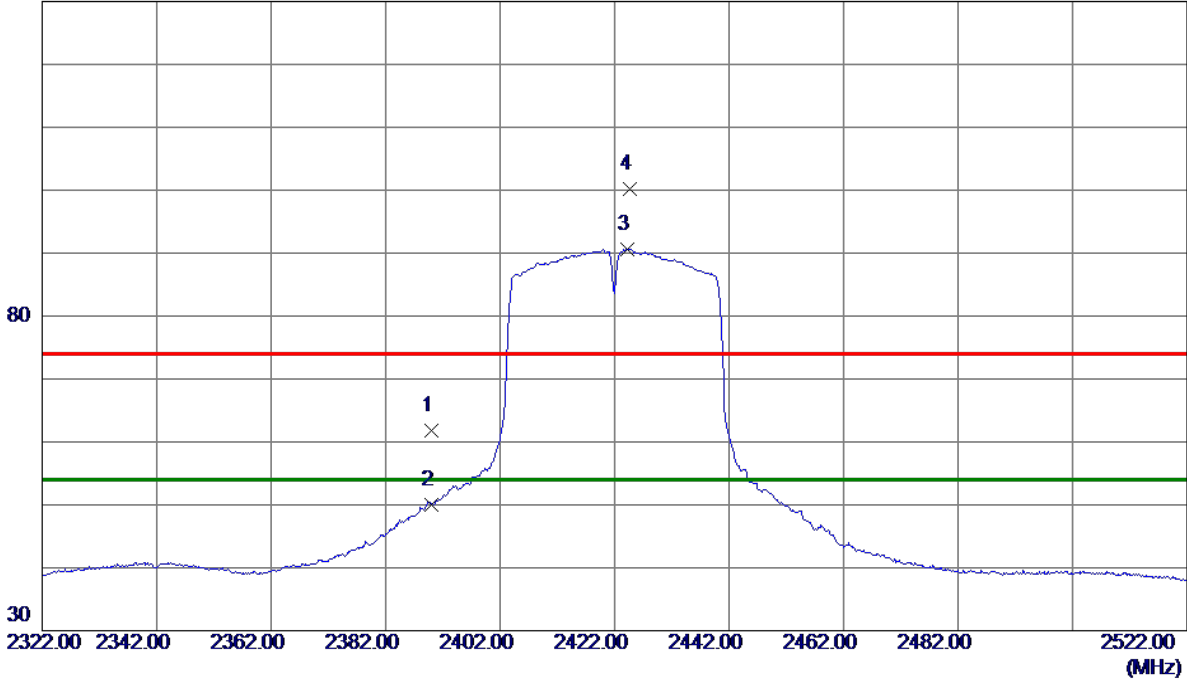


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	7386.5300	38.37	9.83	48.20	54.00	-5.80	AVG	
2	7391.1800	50.36	9.84	60.20	74.00	-13.80	Peak	

Orthogonal Axis	X
Test Mode:	TX N-40M Mode 2422MHz

**Vertical**

130 dBuV/m

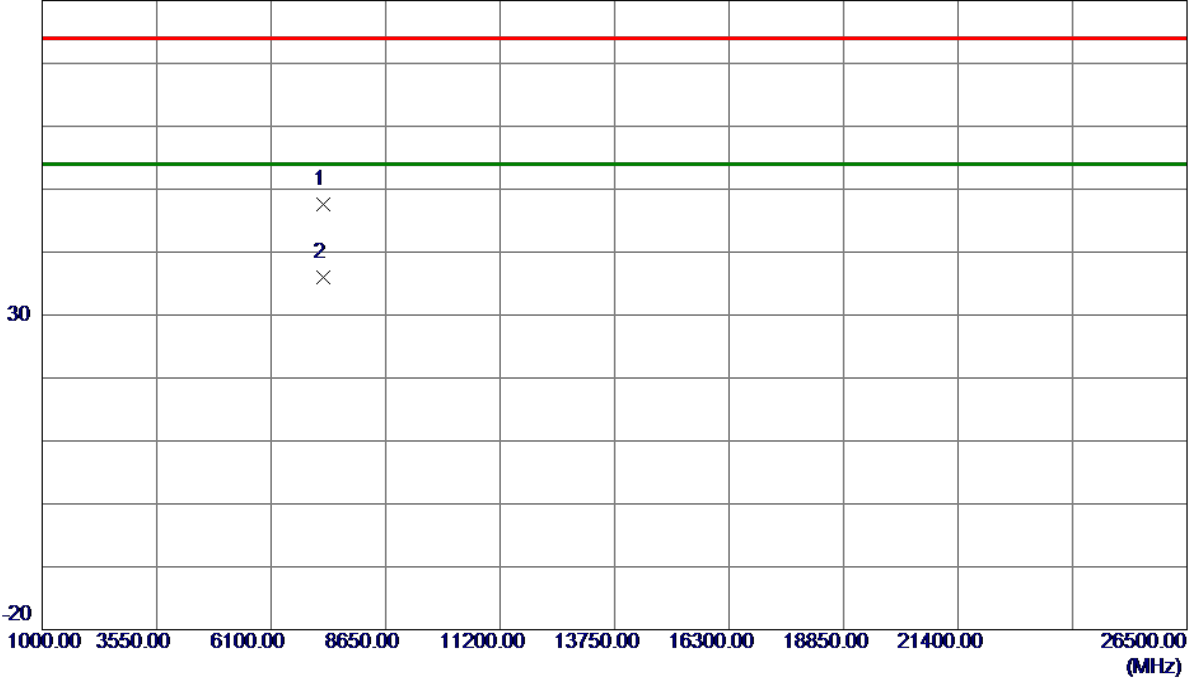


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	55.16	6.62	61.78	74.00	-12.22	Peak	
2	2390.0000	43.36	6.62	49.98	54.00	-4.02	AVG	
3 *	2424.2000	84.00	6.62	90.62	54.00	36.62	AVG	No Limit
4	2424.6000	93.65	6.62	100.27	74.00	26.27	Peak	No Limit

Orthogonal Axis	X
Test Mode:	TX N-40M Mode 2422MHz

**Vertical**

80 dBuV/m

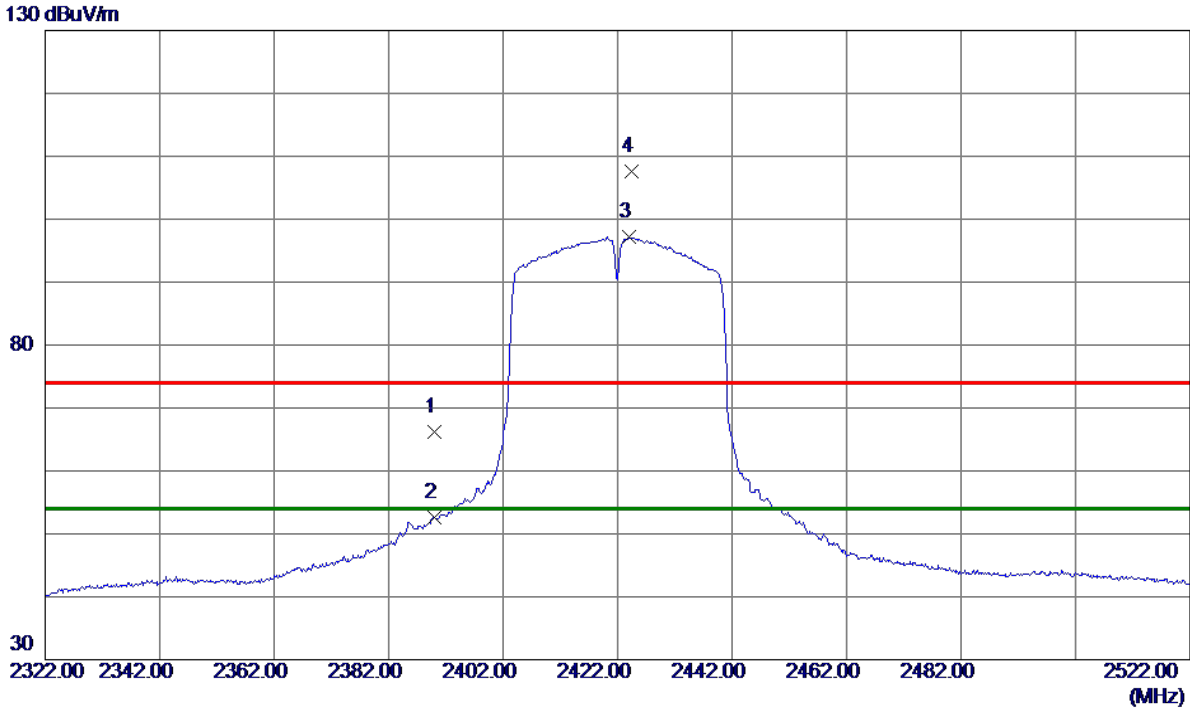


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	7261.6400	38.14	9.52	47.66	74.00	-26.34	Peak	
2 *	7268.8000	26.50	9.54	36.04	54.00	-17.96	AVG	



Orthogonal Axis	X
Test Mode:	TX N-40M Mode 2422MHz

**Horizontal**

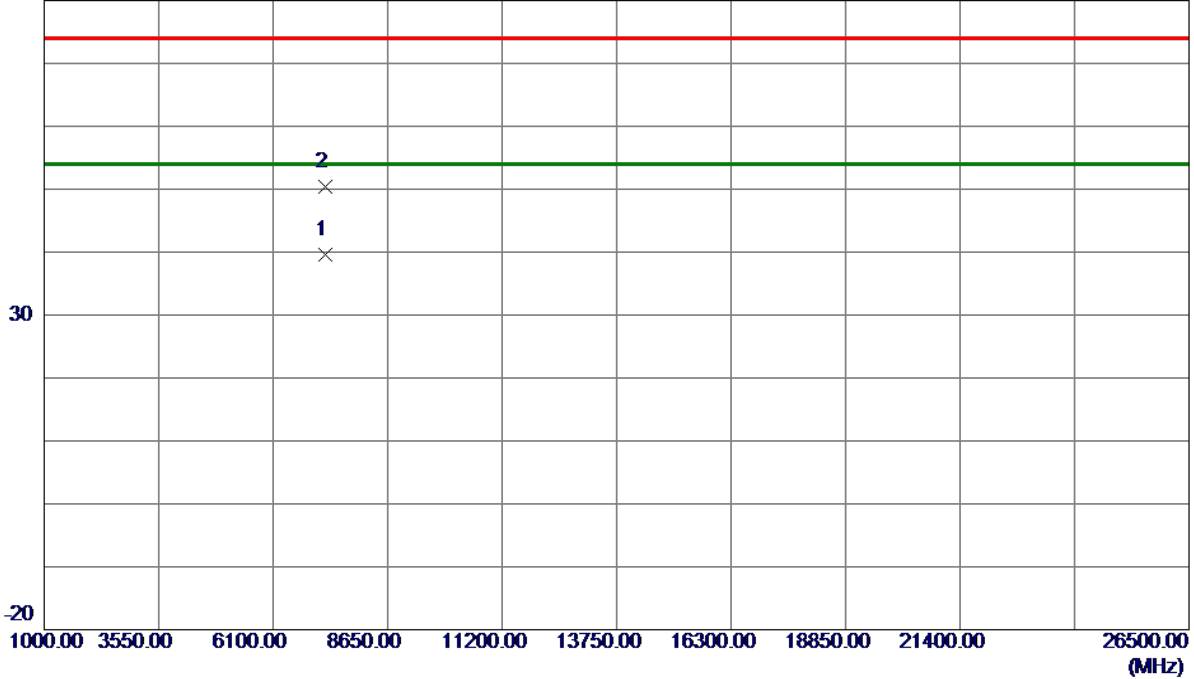


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	59.53	6.62	66.15	74.00	-7.85	Peak	
2	2390.0000	45.94	6.62	52.56	54.00	-1.44	AVG	
3 *	2424.1000	90.51	6.62	97.13	54.00	43.13	AVG	No Limit
4	2424.5000	100.95	6.62	107.57	74.00	33.57	Peak	No Limit

Orthogonal Axis	X
Test Mode:	TX N-40M Mode 2422MHz

### Horizontal

80 dBuV/m

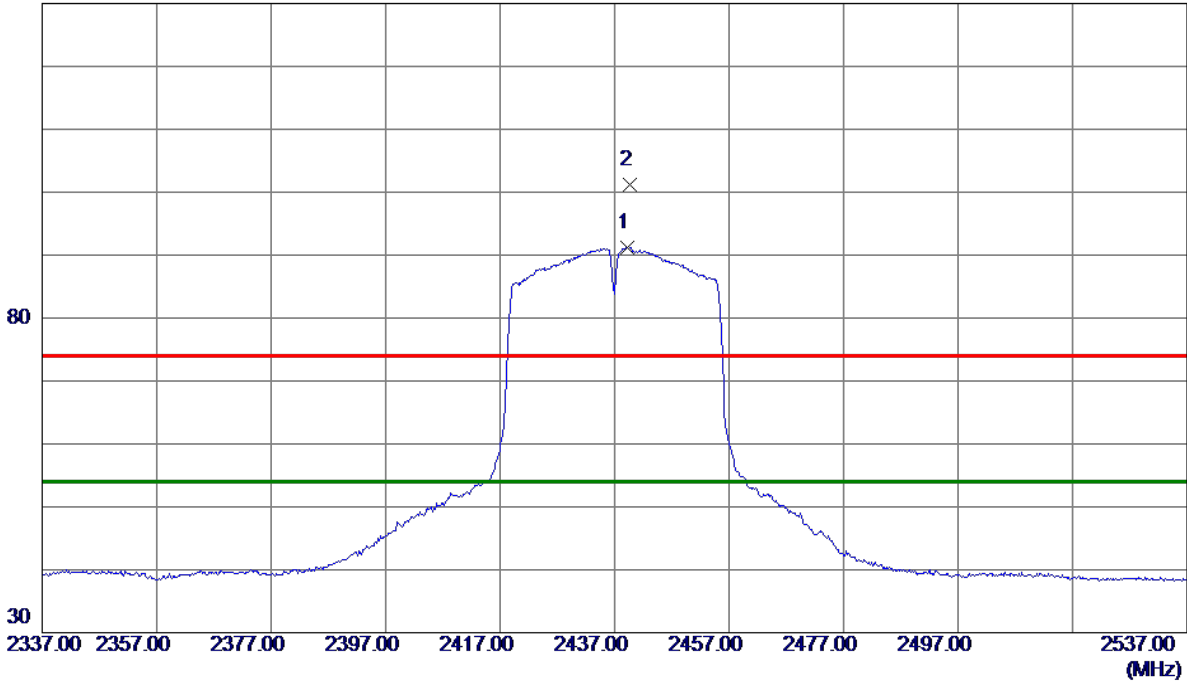


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	7270.5500	30.11	9.54	39.65	54.00	-14.35	AVG	
2	7272.1000	40.83	9.54	50.37	74.00	-23.63	Peak	

Orthogonal Axis	X
Test Mode:	TX N-40M Mode 2437 MHz

**Vertical**

130 dBuV/m

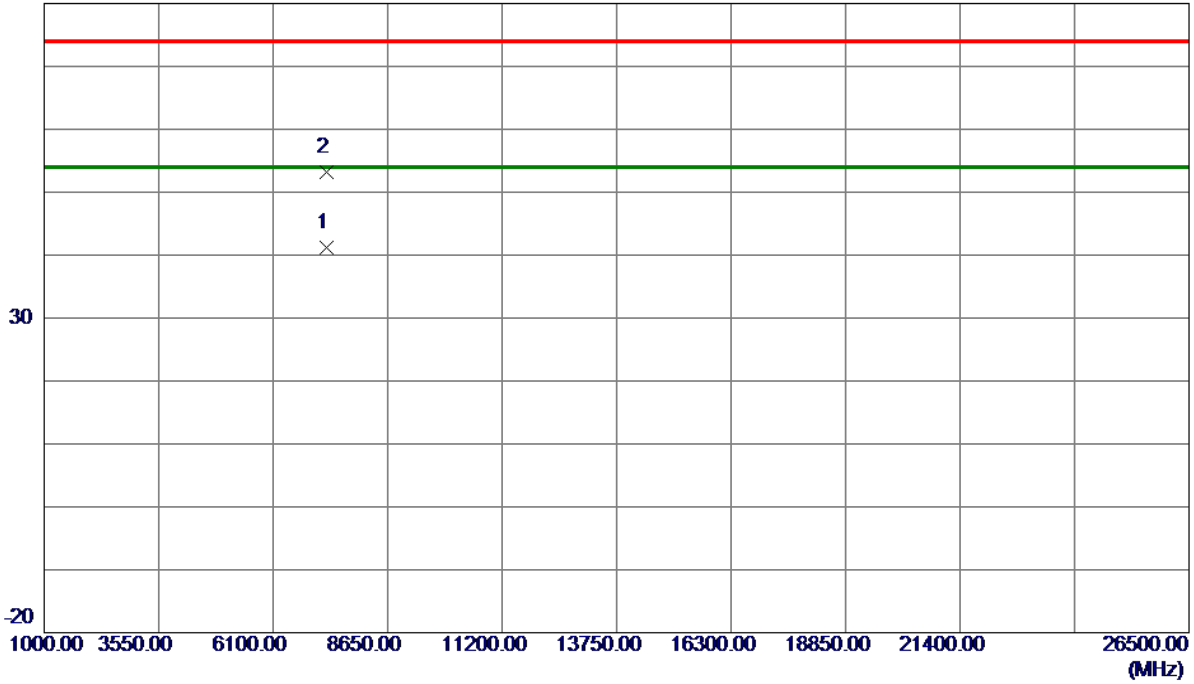


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2439.2000	84.55	6.61	91.16	54.00	37.16	AVG	No Limit
2	2439.6000	94.68	6.61	101.29	74.00	27.29	Peak	No Limit

Orthogonal Axis	X
Test Mode:	TX N-40M Mode 2437 MHz

**Vertical**

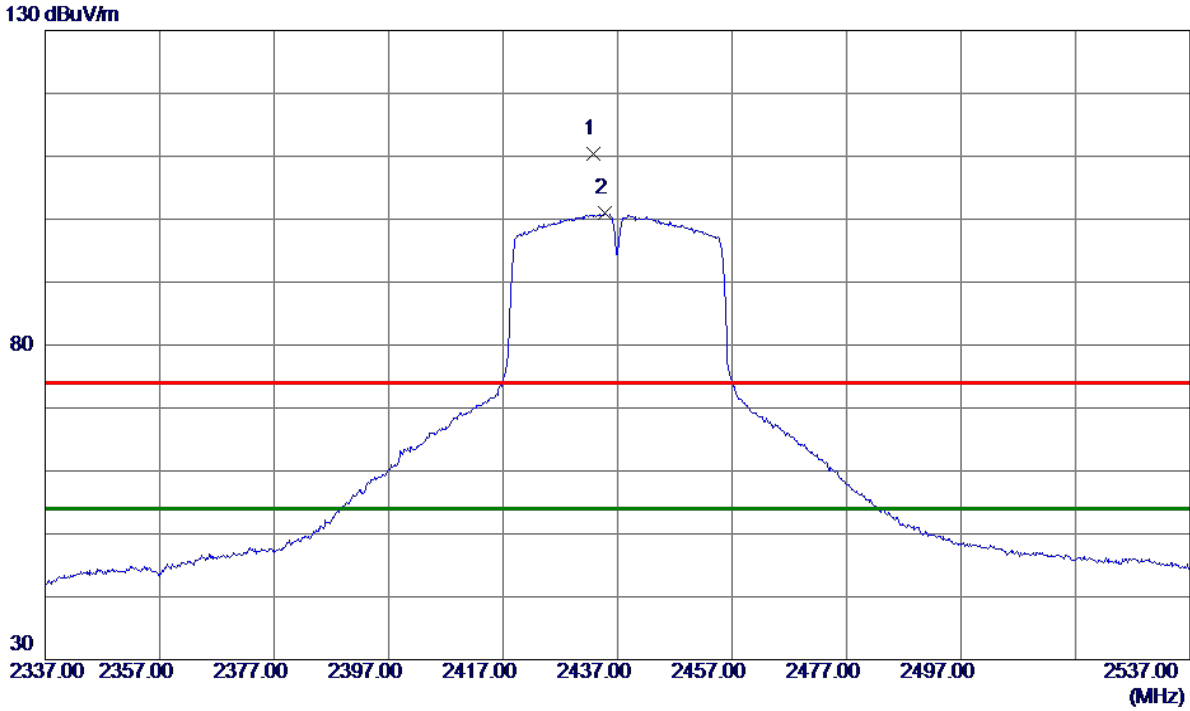
80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	7301.1500	31.64	9.62	41.26	54.00	-12.74	AVG	
2	7301.3200	43.67	9.62	53.29	74.00	-20.71	Peak	

Orthogonal Axis	X
Test Mode:	TX N-40M Mode 2437 MHz

### Horizontal

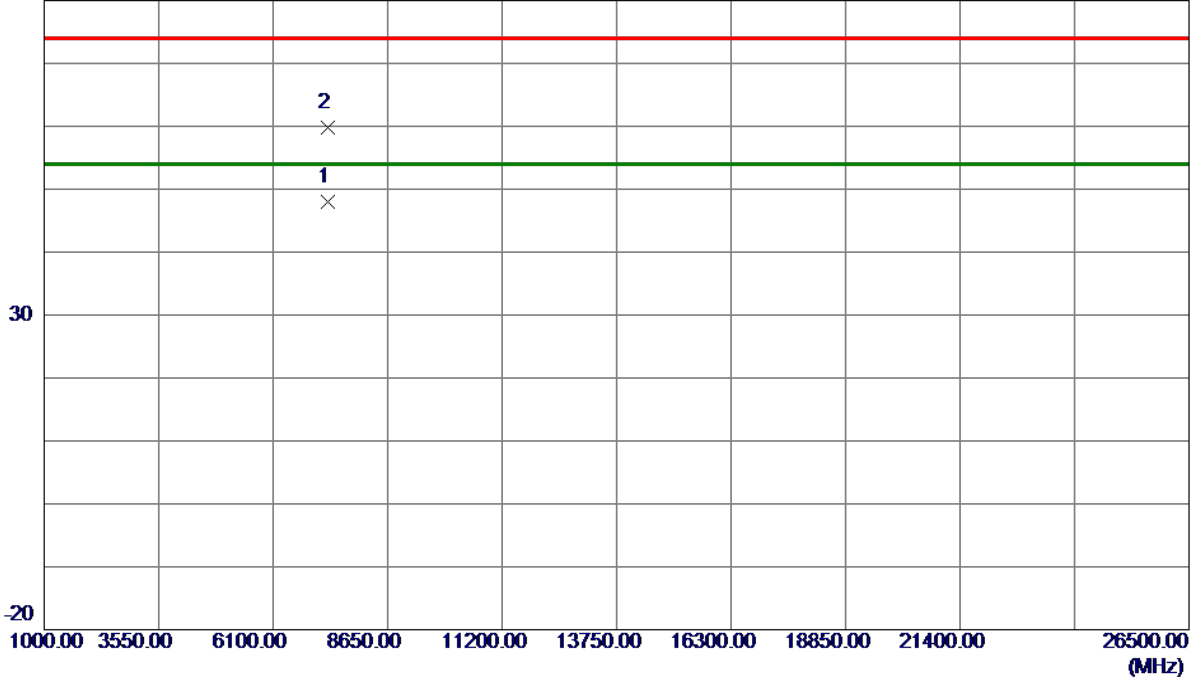


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2432.8000	103.75	6.62	110.37	74.00	36.37	Peak	No Limit
2 *	2434.8000	94.34	6.61	100.95	54.00	46.95	AVG	No Limit

Orthogonal Axis	X
Test Mode:	TX N-40M Mode 2437 MHz

**Horizontal**

80 dBuV/m

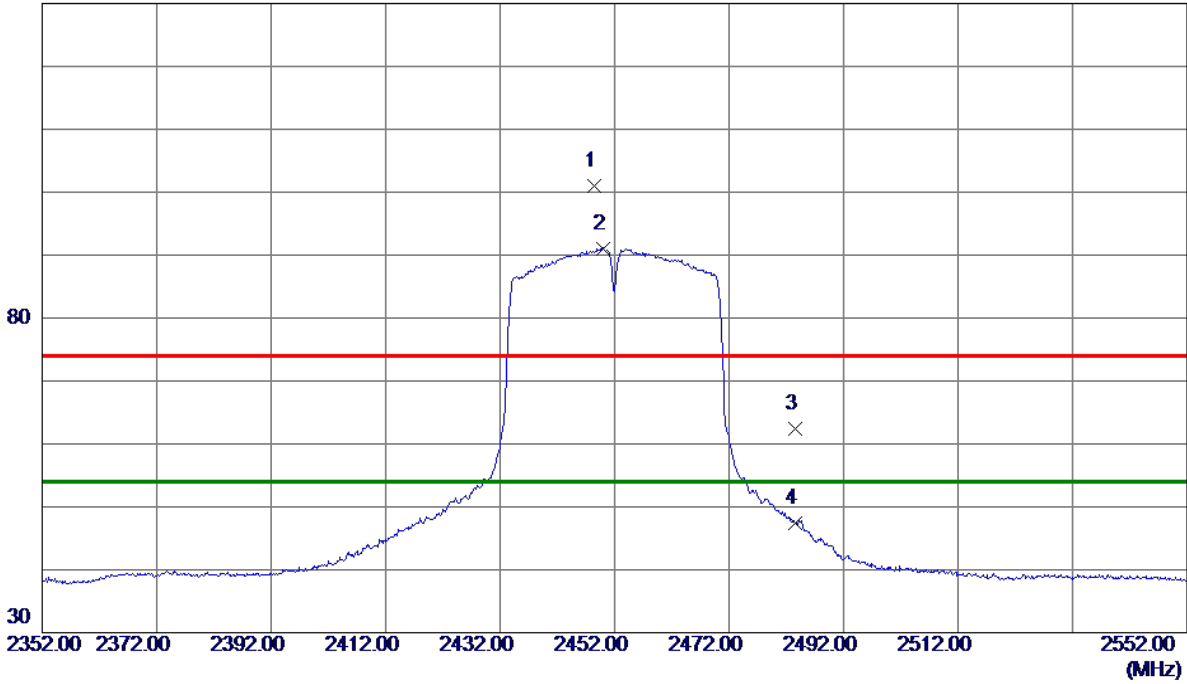


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	7315.2000	38.42	9.65	48.07	54.00	-5.93	AVG	
2	7317.2000	50.17	9.66	59.83	74.00	-14.17	Peak	

Orthogonal Axis	X
Test Mode:	TX N-40M Mode 2452MHz

**Vertical**

130 dBuV/m

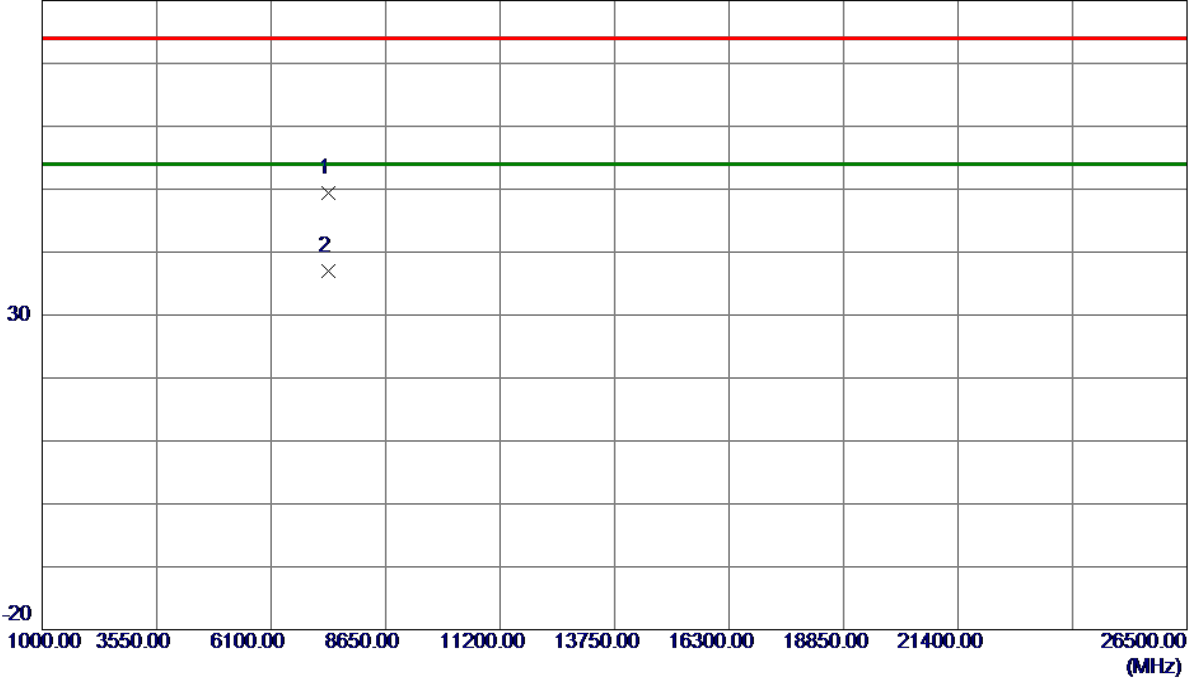


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2448.4000	94.32	6.61	100.93	74.00	26.93	Peak	No Limit
2 *	2449.9000	84.49	6.61	91.10	54.00	37.10	AVG	No Limit
3	2483.5000	55.75	6.61	62.36	74.00	-11.64	Peak	
4	2483.5000	40.72	6.61	47.33	54.00	-6.67	AVG	

Orthogonal Axis	X
Test Mode:	TX N-40M Mode 2452MHz

**Vertical**

80 dBuV/m



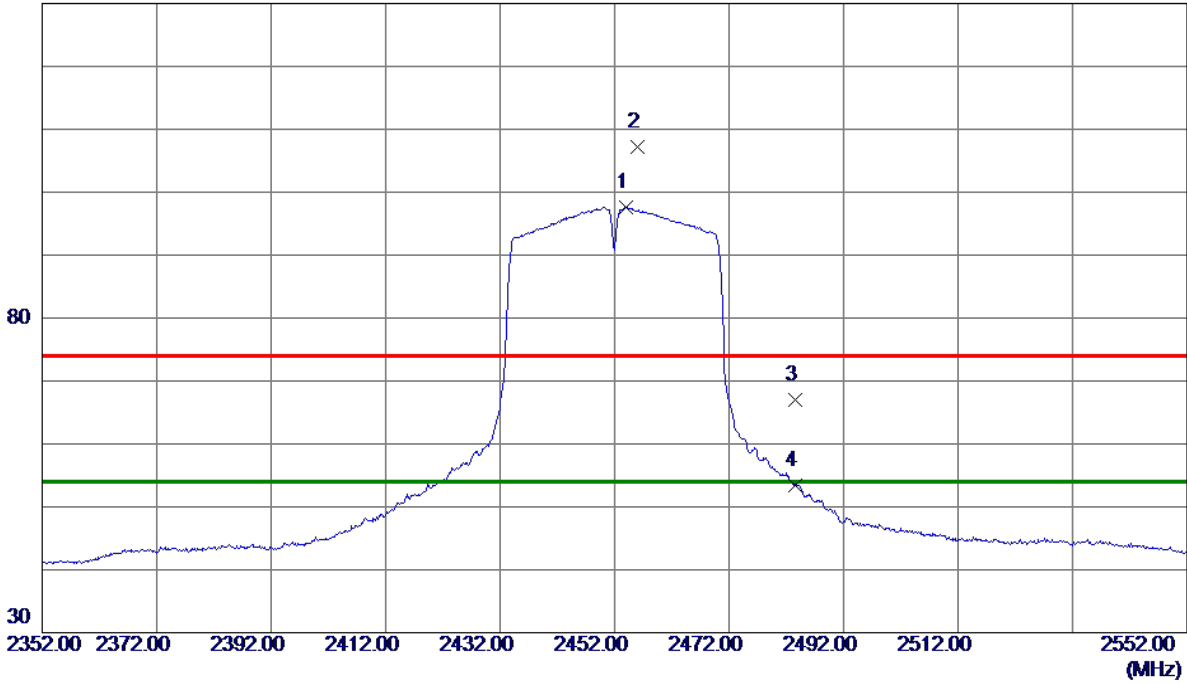
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	7381.9250	39.54	9.82	49.36	74.00	-24.64	Peak	
2 *	7382.1500	27.27	9.82	37.09	54.00	-16.91	AVG	



Orthogonal Axis	X
Test Mode:	TX N-40M Mode 2452MHz

**Horizontal**

130 dBuV/m

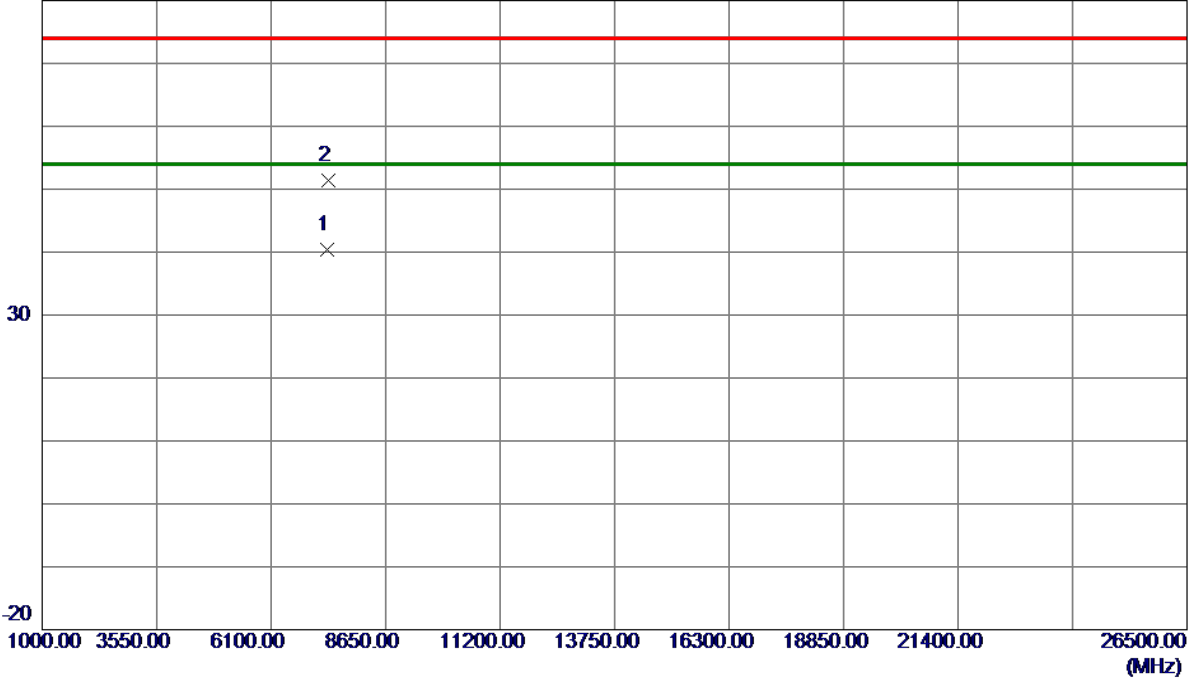


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2454.1000	90.96	6.61	97.57	54.00	43.57	AVG	No Limit
2	2455.9000	100.62	6.61	107.23	74.00	33.23	Peak	No Limit
3	2483.5000	60.41	6.61	67.02	74.00	-6.98	Peak	
4	2483.5000	46.87	6.61	53.48	54.00	-0.52	AVG	

Orthogonal Axis	X
Test Mode:	TX N-40M Mode 2452MHz

**Horizontal**

80 dBuV/m



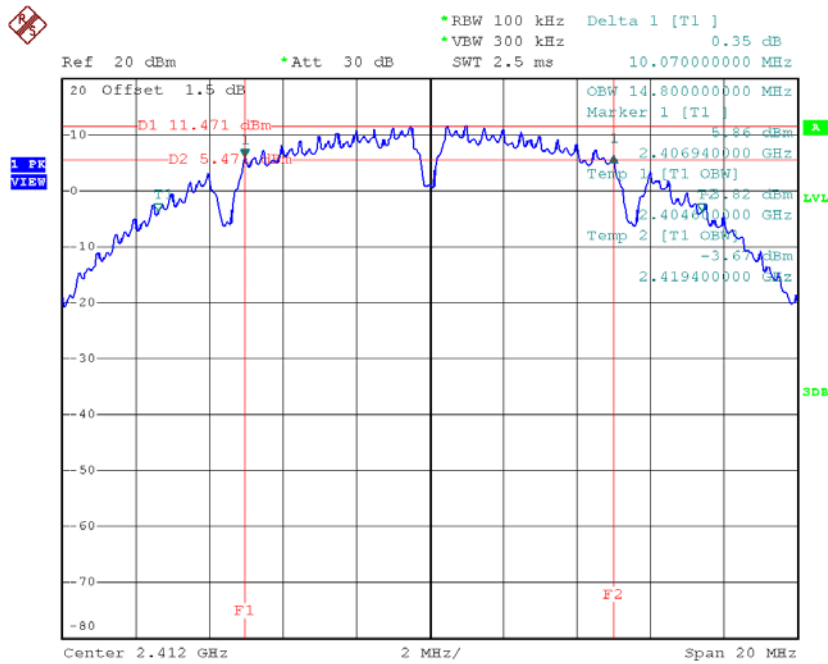
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	7360.7500	30.58	9.76	40.34	54.00	-13.66	AVG	
2	7366.2500	41.61	9.78	51.39	74.00	-22.61	Peak	

## APPENDIX E - BANDWIDTH

**Test Mode: TX B Mode\_CH01/06/11**

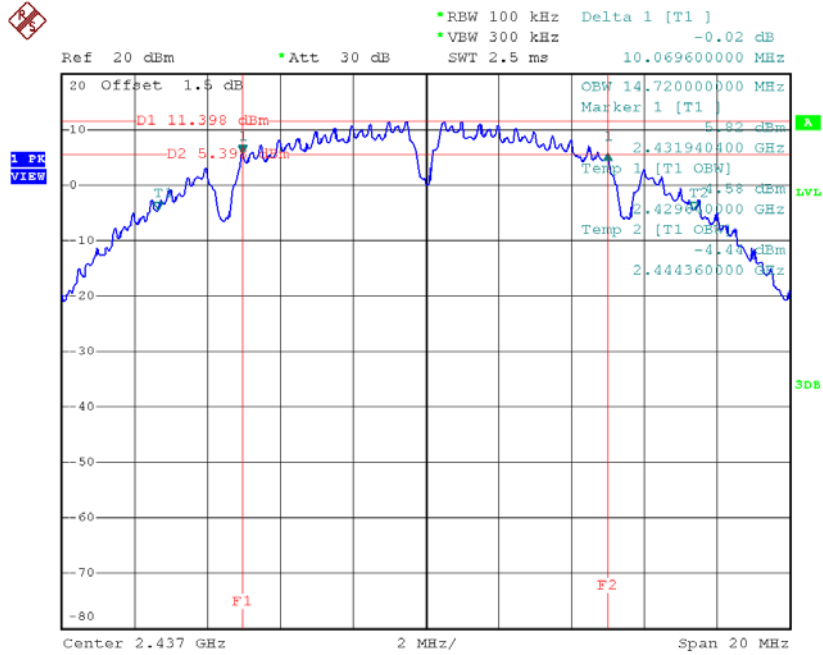
Frequency (MHz)	6 dB Bandwidth (MHz)	99% Occupied BW (MHz)	Min. Limit (kHz)	Test Result
2412	10.07	14.80	500	Complies
2437	10.07	14.72	500	Complies
2462	10.08	14.68	500	Complies

**TX CH01**



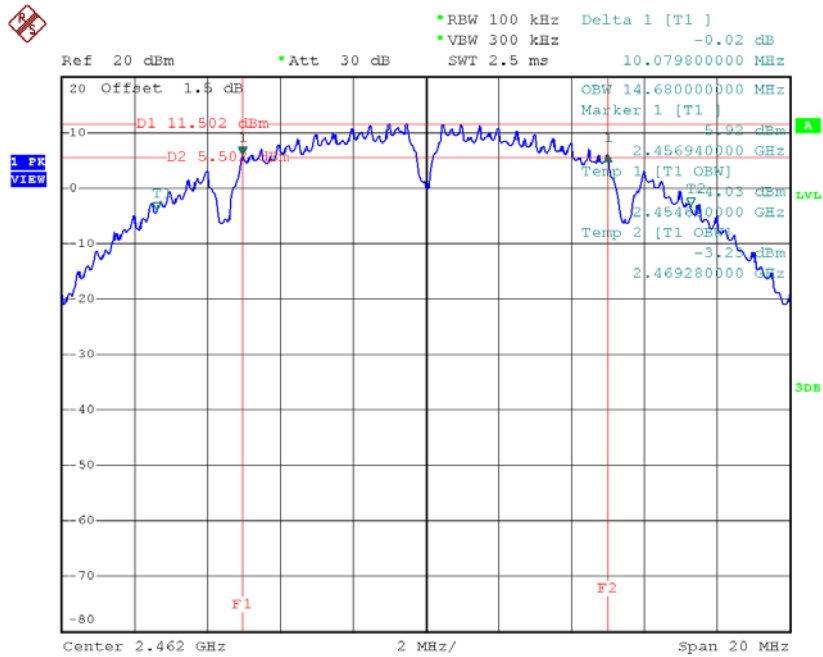
Date: 6.DEC.2018 13:23:10

### TX CH06



Date: 6.DEC.2018 13:27:21

### TX CH11

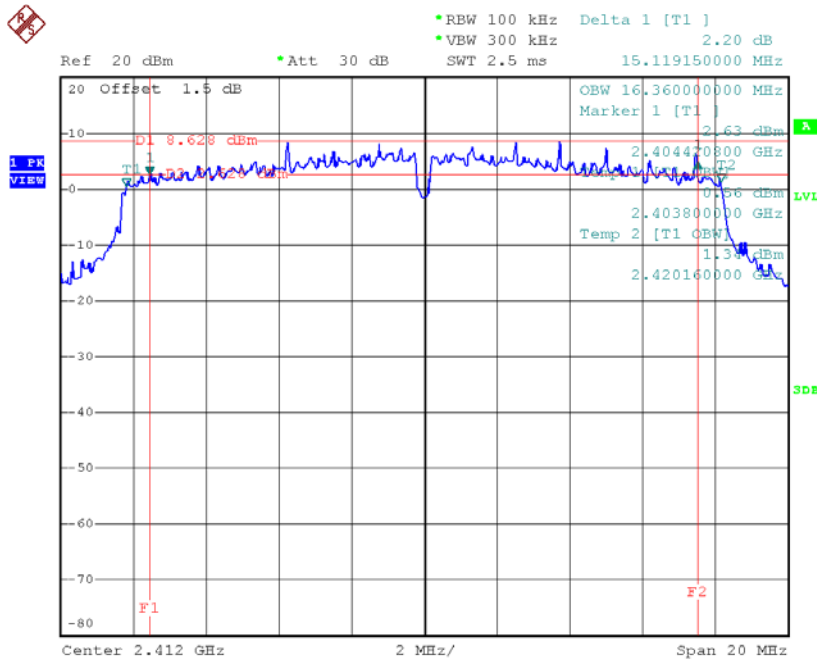


Date: 6.DEC.2018 13:31:15

**Test Mode: TX G Mode\_CH01/06/11**

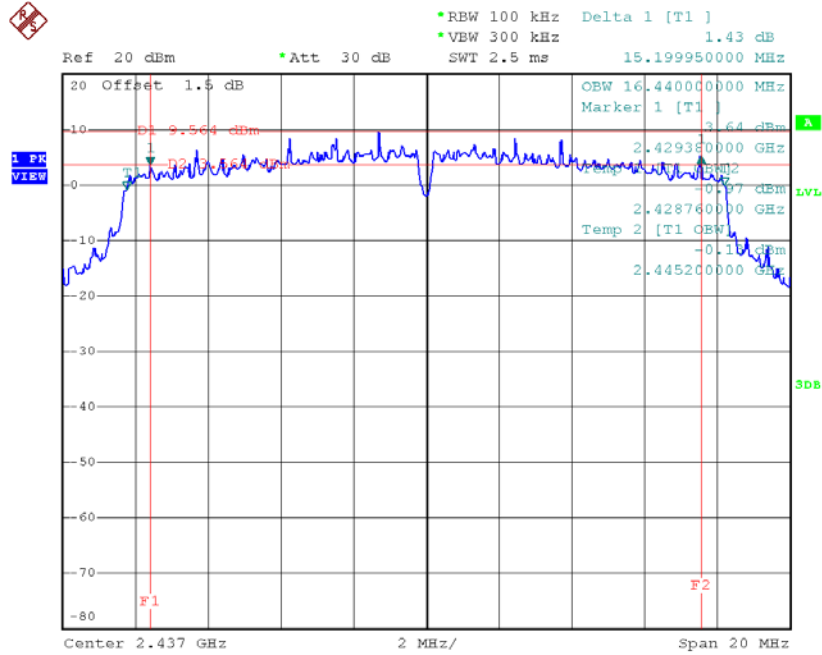
Frequency (MHz)	6 dB Bandwidth (MHz)	99% Occupied BW (MHz)	Min. Limit (kHz)	Test Result
2412	15.12	16.36	500	Complies
2437	15.20	16.44	500	Complies
2462	15.15	16.36	500	Complies

**TX CH01**



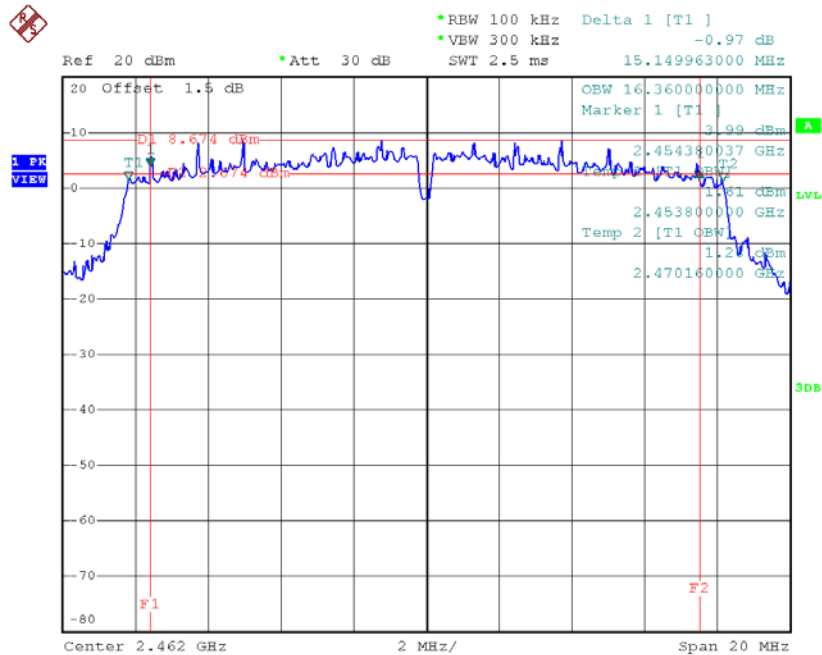
Date: 6.DEC.2018 13:34:14

### TX CH06



Date: 6.DEC.2018 13:35:55

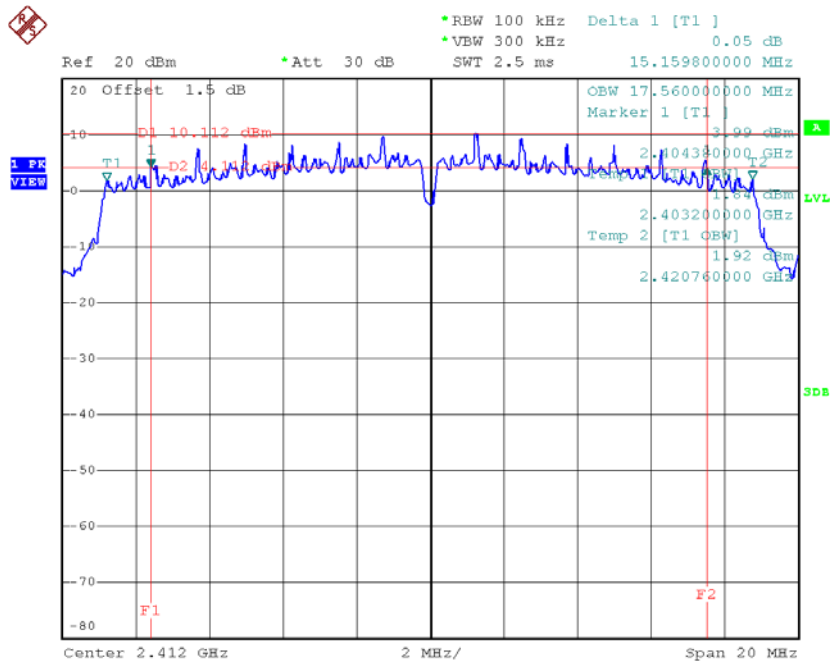
### TX CH11



Date: 6.DEC.2018 13:37:31

**Test Mode: TX N-20MHz Mode\_CH01/06/11**

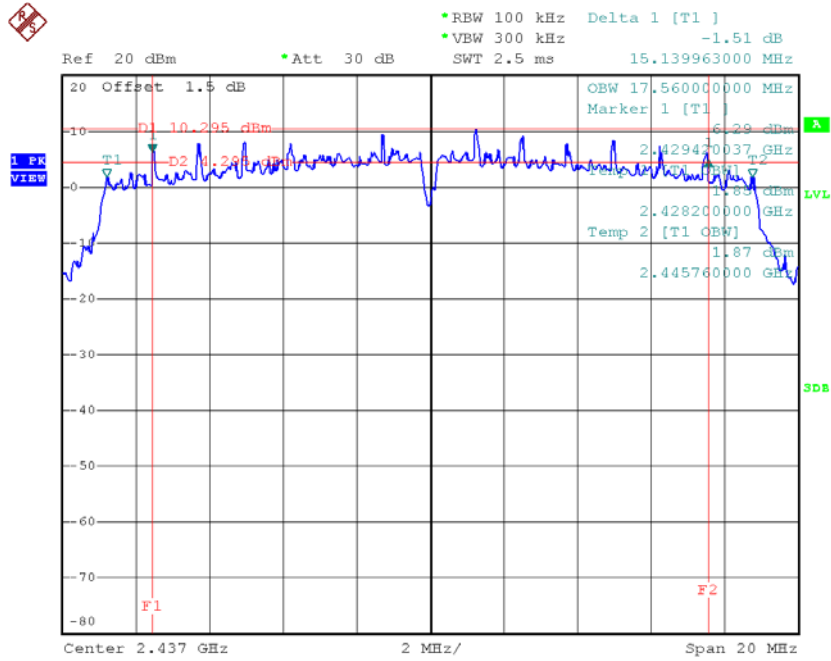
Frequency (MHz)	6 dB Bandwidth (MHz)	99% Occupied BW (MHz)	Min. Limit (kHz)	Test Result
2412	15.16	17.56	500	Complies
2437	15.14	17.56	500	Complies
2462	15.14	17.56	500	Complies

**TX CH01**


Date: 6.DEC.2018 13:45:36

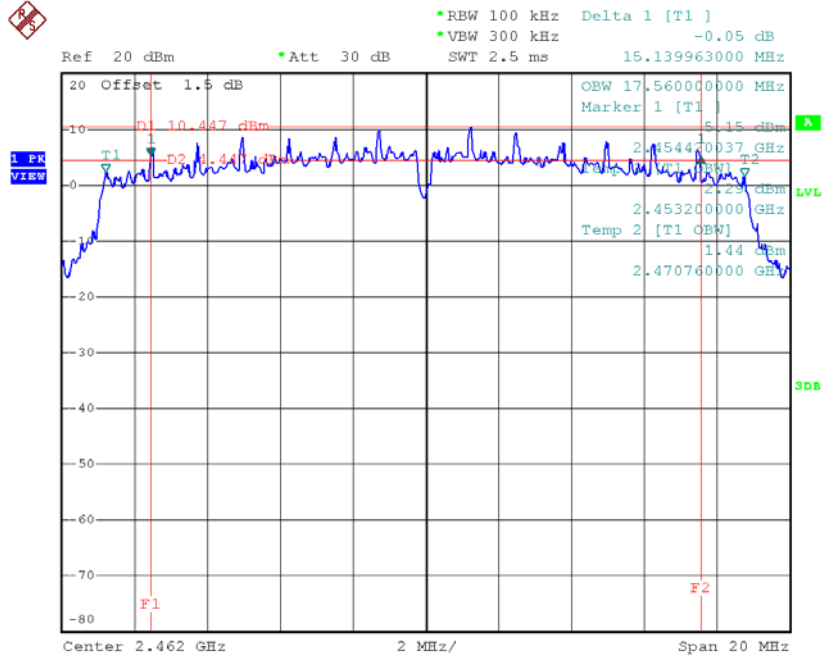


**TX CH06**



Date: 6.DEC.2018 13:47:44

**TX CH11**

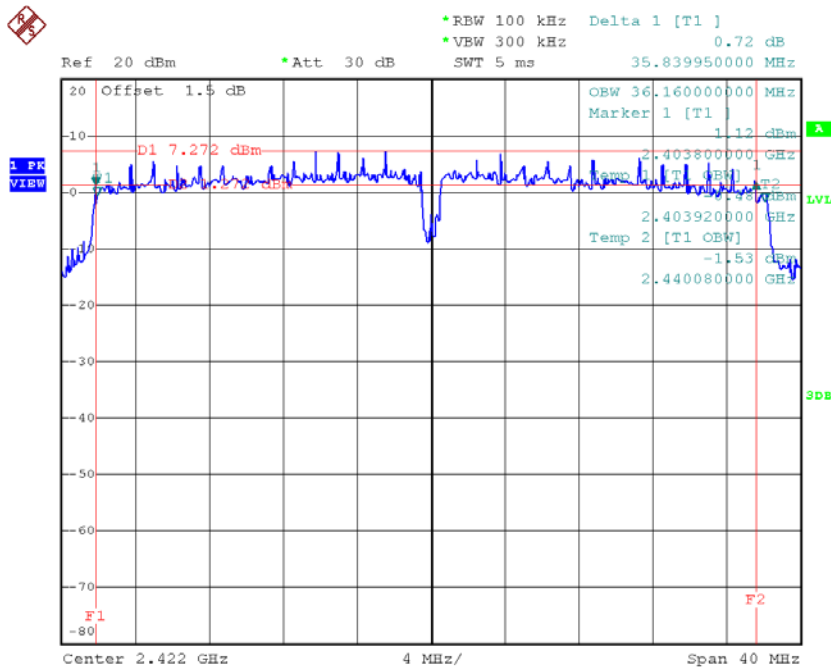


Date: 6.DEC.2018 13:49:16

**Test Mode: TX N-40MHz Mode\_CH03/06/09**

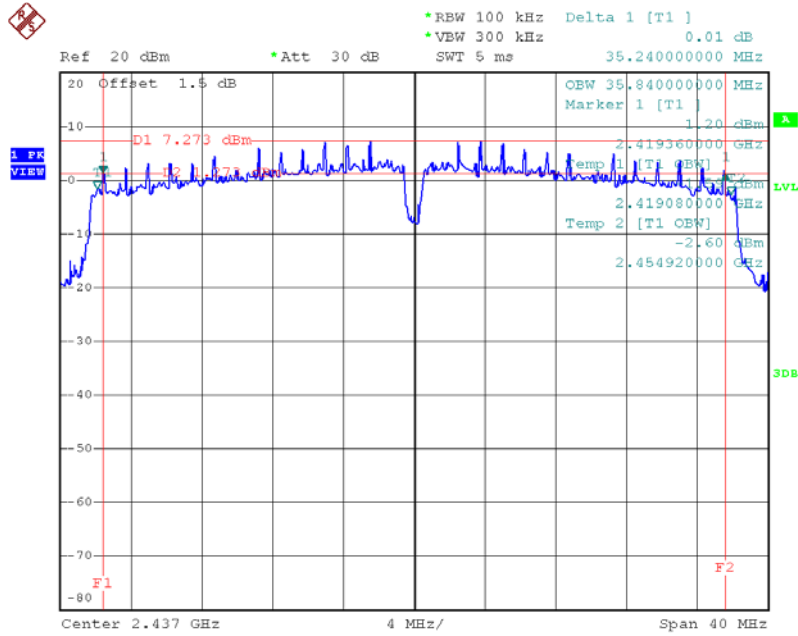
Frequency (MHz)	6 dB Bandwidth (MHz)	99% Occupied BW (MHz)	Min. Limit (kHz)	Test Result
2422	35.84	36.16	500	Complies
2437	35.24	35.84	500	Complies
2452	34.00	35.84	500	Complies

**TX CH03**



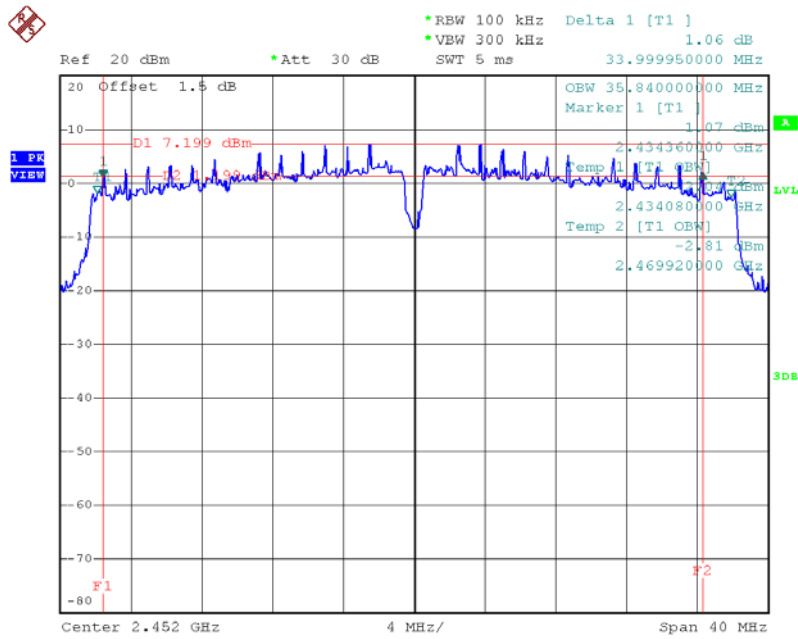
Date: 11.DEC.2018 11:04:02

### TX CH06



Date: 6.DEC.2018 13:53:10

### TX CH09



Date: 6.DEC.2018 13:54:44

## APPENDIX F - MAXIMUM OUTPUT POWER

Test Mode: TX B Mode_CH01/06/11					
Frequency (MHz)	Output Power (dBm)	Output Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2412	17.87	0.06	30.00	1.00	Complies
2437	18.32	0.07	30.00	1.00	Complies
2462	18.46	0.07	30.00	1.00	Complies

Test Mode: TX G Mode_CH01/06/11					
Frequency (MHz)	Output Power (dBm)	Output Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2412	24.79	0.30	30.00	1.00	Complies
2437	25.98	0.40	30.00	1.00	Complies
2462	24.46	0.28	30.00	1.00	Complies

Test Mode: TX N20 Mode_CH01/06/11_ANT 1					
Frequency (MHz)	Output Power (dBm)	Output Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2412	24.31	0.27	29.99	1.00	Complies
2437	25.51	0.36	29.99	1.00	Complies
2462	24.42	0.28	29.99	1.00	Complies

Test Mode: TX N20 Mode_CH01/06/11_ANT 2					
Frequency (MHz)	Output Power (dBm)	Output Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2412	23.74	0.24	29.99	1.00	Complies
2437	24.82	0.30	29.99	1.00	Complies
2462	23.77	0.24	29.99	1.00	Complies

Test Mode: TX N20 Mode_CH01/06/11_Total					
Frequency (MHz)	Output Power (dBm)	Output Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2412	27.04	0.51	29.99	1.00	Complies
2437	28.19	0.66	29.99	1.00	Complies
2462	27.12	0.51	29.99	1.00	Complies

Test Mode: TX N40 Mode_CH03/06/09_ANT 1					
Frequency (MHz)	Output Power (dBm)	Output Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2422	21.21	0.13	29.99	1.00	Complies
2437	24.82	0.30	29.99	1.00	Complies
2452	21.91	0.16	29.99	1.00	Complies

Test Mode: TX N40 Mode_CH03/06/09_ANT 2					
Frequency (MHz)	Output Power (dBm)	Output Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2422	20.25	0.11	29.99	1.00	Complies
2437	24.11	0.26	29.99	1.00	Complies
2452	21.22	0.13	29.99	1.00	Complies

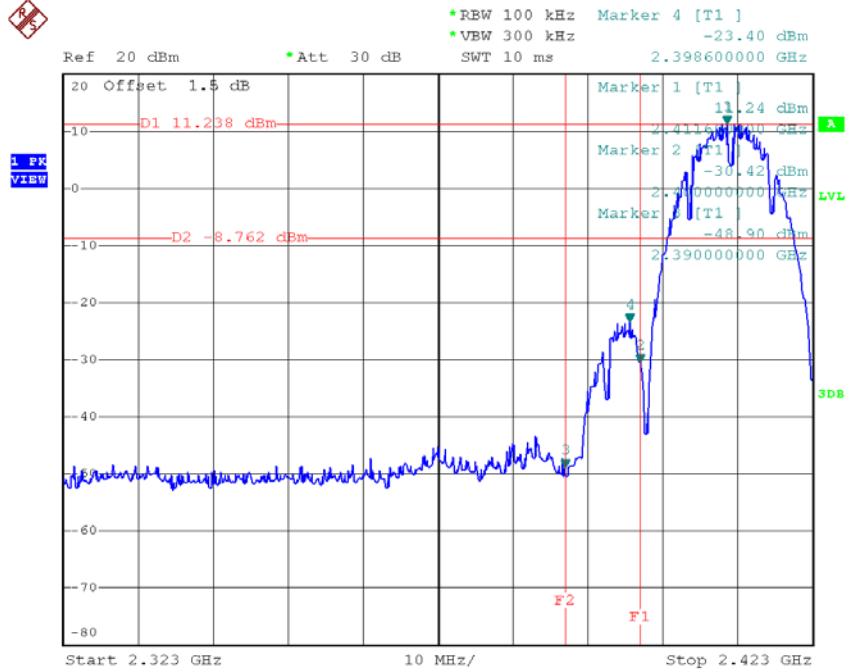
Test Mode: TX N40 Mode_CH03/06/09_Total					
Frequency (MHz)	Output Power (dBm)	Output Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2422	23.77	0.24	29.99	1.00	Complies
2437	27.49	0.56	29.99	1.00	Complies
2452	24.59	0.29	29.99	1.00	Complies

## APPENDIX G - ANTENNA CONDUCTED SPURIOUS EMISSION



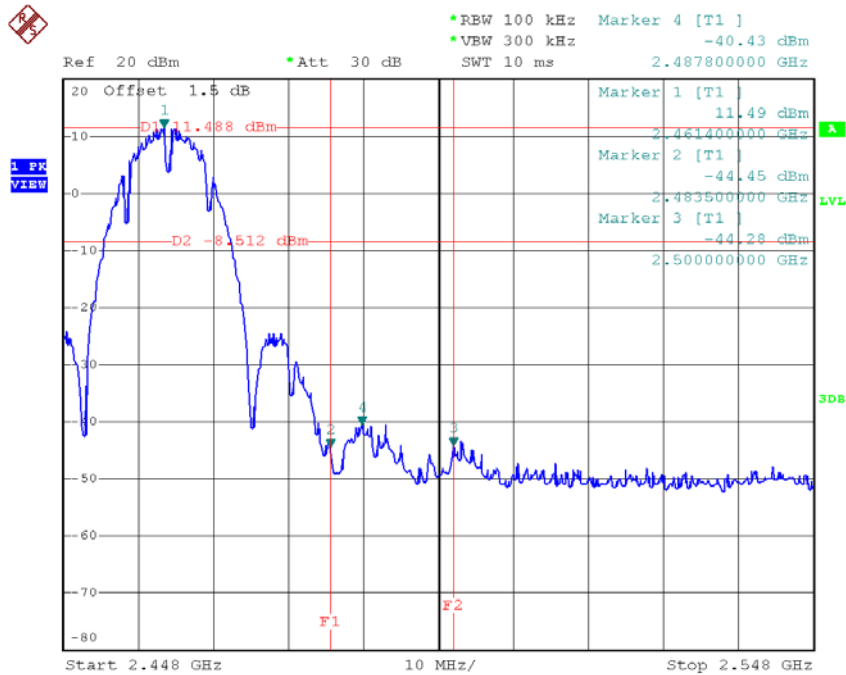
Test Mode: TX B Mode

### TX B mode CH01



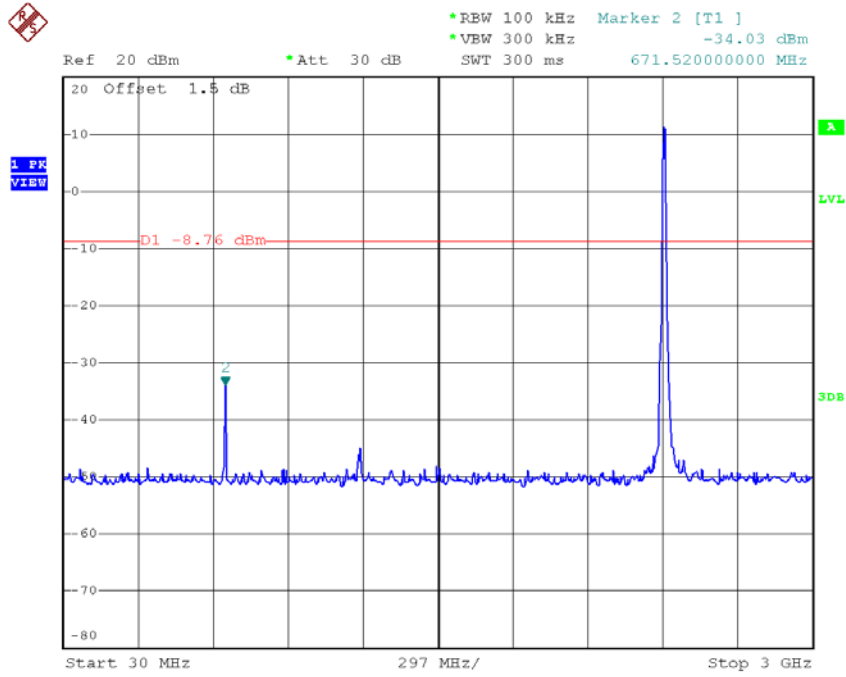
Date: 6.DEC.2018 13:22:02

### TX B mode CH11

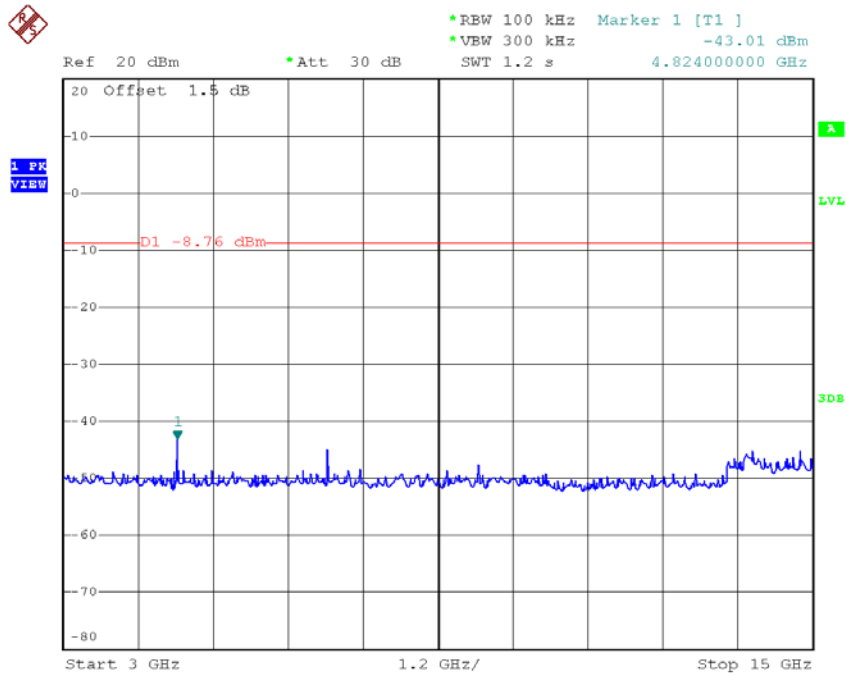


Date: 6.DEC.2018 13:29:54

### TX B mode CH01 (10 Harmonic of the frequency)



Date: 6.DEC.2018 13:22:17



Date: 6.DEC.2018 13:22:25