

# FCC Radio Test Report

## FCC ID:X4YNBL300P

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

**Project No.** : 1705C094  
**Equipment** : Wireless-N Broadband Router  
**Model Name** : ARN02304U6  
**Applicant** : NEXXT SOLUTIONS  
**Address** : 3505 N.W 107TH AVE. MIAMI FLORIDA 33178  
U.S.A

**Date of Receipt** : May 10, 2017  
**Date of Test** : May 10, 2017 ~ May 23, 2017  
**Issued Date** : May 24, 2017  
**Tested by** : BTL Inc.

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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.

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## REPORT ISSUED HISTORY

Issued No.	Description	Issued Date
BTL-FCCP-1-1705C094	Original Issue.	May 24, 2017

## 1. CERTIFICATION

Equipment : Wireless-N Broadband Router  
Brand Name : NEXXT  
Model Name : ARN02304U6  
Applicant : NEXXT SOLUTIONS  
Manufacturer : NEXXT SOLUTIONS  
Address : 3505 N.W 107TH AVE. MIAMI FLORIDA 33178 U.S.A  
Date of Test : May 10, 2017 ~ May 23, 2017  
Test Sample : Engineering Sample  
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-1-1705C094) were obtained utilizing the test procedures, test instruments, test sites that has been accredited by the Authority of TAF according to the ISO-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)	6dB Bandwidth	PASS	
15.247(b)(3)	Peak 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: 319330

## 2.2 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2. The BTL measurement uncertainty is less than the CISPR 16-4-2  $U_{\text{CISPR}}$  requirement.

The reported uncertainty of measurement  $y \pm U$ , where expanded uncertainty  $U$  is based on a standard uncertainty multiplied by a coverage factor of  $k=2$ , providing a level of confidence of approximately 95 %.

### A. Conducted Measurement:

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

### B. Radiated Measurement:

Test Site	Method	Measurement Frequency Range	Ant. H / V	U, (dB)
DG-CB03	CISPR	9KHz~30MHz	V	3.79
		9KHz~30MHz	H	3.57
		30MHz ~ 200MHz	V	3.82
		30MHz ~ 200MHz	H	3.78
		200MHz ~ 1,000MHz	V	4.10
		200MHz ~ 1,000MHz	H	4.06
		1GHz~18GHz	V	3.12
		1GHz~18GHz	H	3.68
		18GHz~40GHz	V	4.15
		18GHz~40GHz	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	Wireless-N Broadband Router	
Brand Name	NEXXT	
Model Name	ARN02304U6	
Model Difference	N/A	
Product Description	Operation Frequency	2412~2462 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: 27.09dBm 802.11g: 28.86dBm 802.11n(20MHz): 29.81dBm 802.11n(40MHz): 29.52dBm
Power Source	DC voltage supplied from AC/DC adapter.	
Power Rating	DC 9V  600mA	

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(20MHz) CH03 – CH09 for 802.11n(40MHz)							
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)	Note
1	N/A	N/A	Dipole	N/A	5	N/A
2	N/A	N/A	Dipole	N/A	5	N/A

### 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-20MHZ MODE CHANNEL 01/06/11
Mode 4	TX N-40MHZ 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 6	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-20MHZ MODE CHANNEL 01/06/11
Mode 4	TX N-40MHZ 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-20MHZ MODE CHANNEL 01/06/11
Mode 4	TX N-40MHZ MODE CHANNEL 03/06/09

6dB 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-20MHZ MODE CHANNEL 01/06/11
Mode 4	TX N-40MHZ MODE CHANNEL 03/06/09

Maximum Conducted 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-20MHZ MODE CHANNEL 01/06/11
Mode 4	TX N-40MHZ 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-20MHZ MODE CHANNEL 01/06/11
Mode 4	TX N-40MHZ MODE CHANNEL 03/06/09

Note:

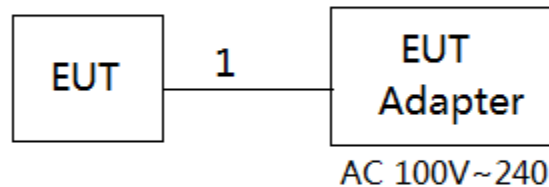
- (1) The measurements are performed at the high, middle, low available channels.
- (2) 802.11b mode: DBPSK (1Mbps)  
 802.11g mode: OFDM (6Mbps)  
 802.11n HT20 mode : BPSK (13Mbps)  
 802.11n HT40 mode : BPSK (27Mbps)  
 For radiated emission tests, the highest output powers were set for final test.
- (3) For radiated below 1G 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	MPTOOL		
Frequency (MHz)	2412	2437	2462
802.11b	56	56	52
802.11g	52	63	51
802.11n (20MHz)	51	63	50
Frequency	2422	2437	2452
802.11n (40MHz)	46	54	46

### 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.
-	-	-	-	-	-

Item	Shielded Type	Ferrite Core	Length	Note
1	NO	NO	1.2m	DC Cable

## 4. EMC EMISSION TEST

### 4.1 CONDUCTED EMISSION MEASUREMENT

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

Frequency of Emission (MHz)	Conducted Limit (dBμV)	
	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 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

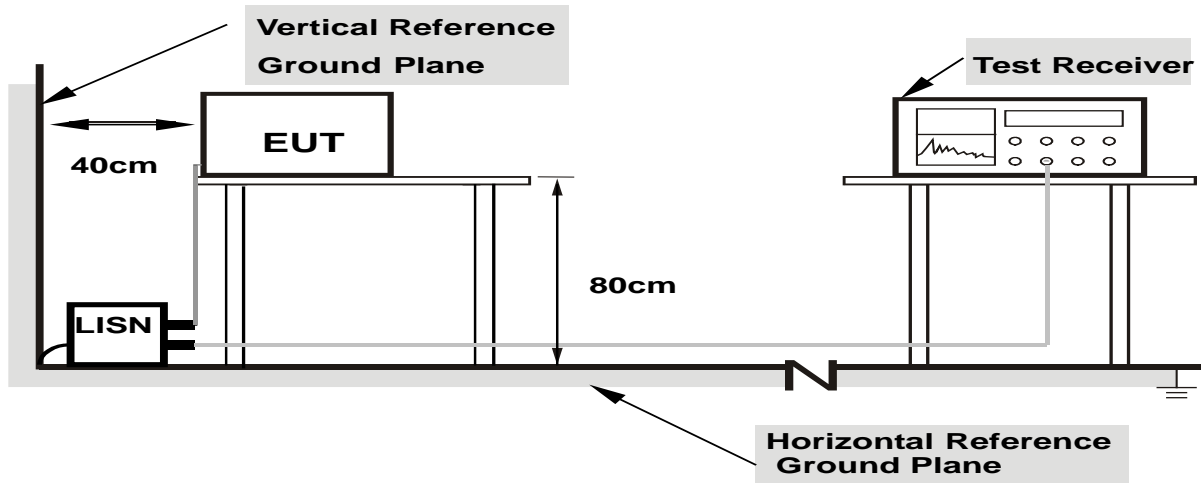
#### 4.1.2 TEST PROCEDURE

- 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 equipments 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



- Note:** 1.Support units were connected to second LISN.  
2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

#### 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: 55%    Test Voltage: AC 120V/60Hz

#### 4.1.7 TEST RESULTS

Please refer to the Attachment 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 (9KHz-1000MHz)

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 1000MHz)

Frequency (MHz)	(dBuV/m) (at 3 meters)	
	PEAK	AVERAGE
Above 1000	74	54

#### Notes:

- (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)	1MHz / 3MHz for Peak, 1MHz / 1/T for Average

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

#### 4.2.2 TEST PROCEDURE

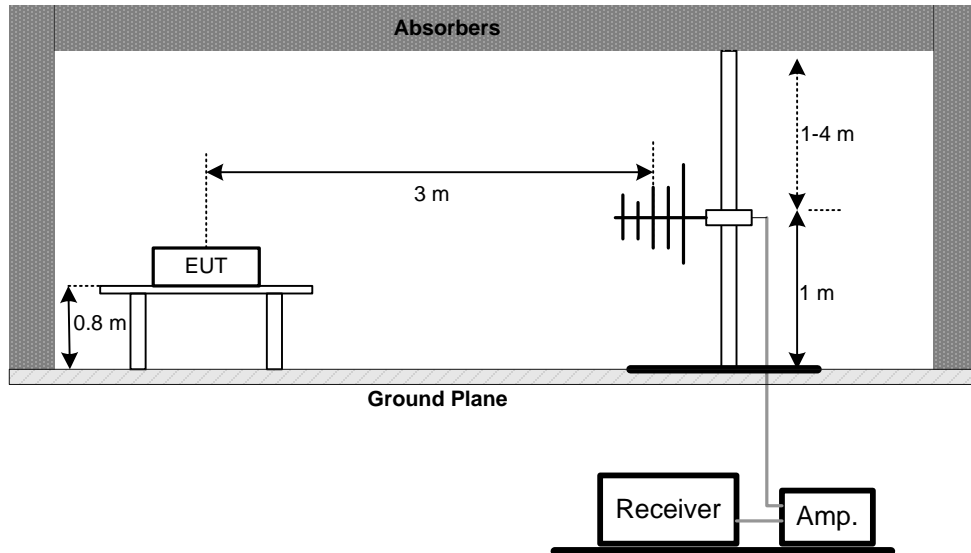
- The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(below 1GHz)
- The measuring distance of 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 1GHz)
- 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.
- 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).
- The receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1GHz.
- 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.
- 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 1GHz)
- 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 1GHz)
- For the actual test configuration, please refer to the related Item –EUT Test Photos.

#### 4.2.3 DEVIATION FROM TEST STANDARD

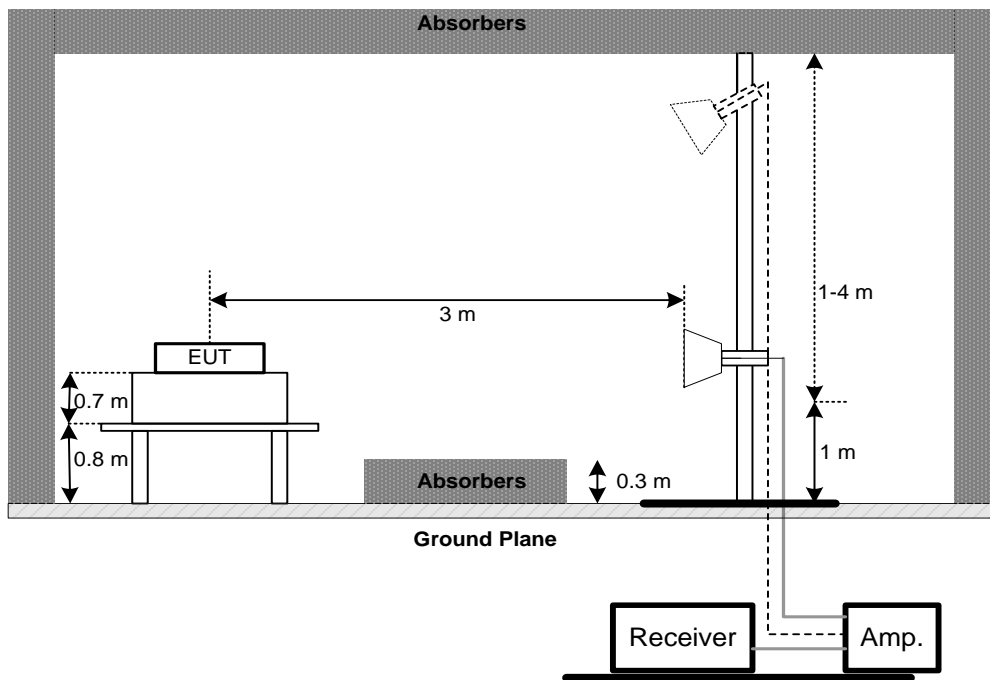
No deviation

#### 4.2.4 TEST SETUP

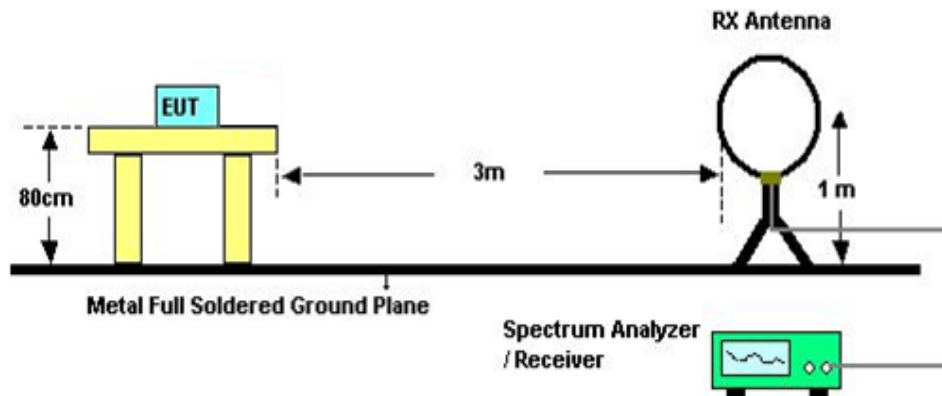
##### (A) Radiated Emission Test Set-Up Frequency Below 1 GHz



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



(C) For Radiated Emissions Below 30MHz



#### 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: 55% Test Voltage: AC 120V/60Hz

#### 4.2.7 TEST RESULTS (9KHZ TO 30MHZ)

Please refer to the Attachment 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 (30MHZ TO 1000 MHZ)

Please refer to the Attachment C.

#### 4.2.9 TEST RESULTS (ABOVE 1000 MHZ)

Please refer to the Attachment 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

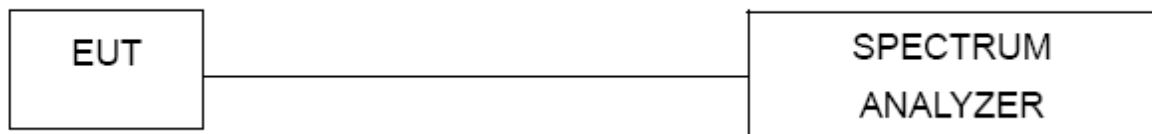
#### 5.1.1 TEST PROCEDURE

- The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
- Spectrum Setting: RBW= 100KHz, VBW=300KHz, Sweep time = 2.5 ms.

#### 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: 25°C    Relative Humidity: 55%    Test Voltage: AC 120V/60Hz

#### 5.1.6 TEST RESULTS

Please refer to the Attachment E.

## 6. MAXIMUM PEAK CONDUCTED 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 30dBm	2400-2483.5	PASS

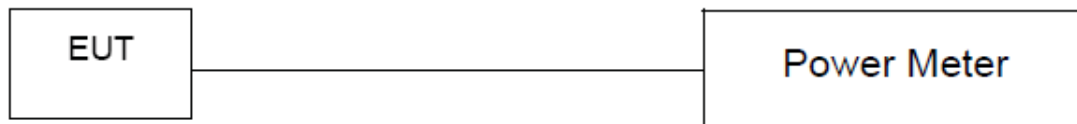
### 6.1.1 TEST PROCEDURE

- 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 9.1.2 of FCC KDB 558074 D01 DTS Meas Guidance and FCC KDB 662911 D01 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: 25°C    Relative Humidity: 55%    Test Voltage: AC 120V/60Hz

### 6.1.6 TEST RESULTS

Please refer to the Attachment 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 device is operating, the RF power that is produced 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 that the transmitter demonstrates compliance with the peak conducted power limits.

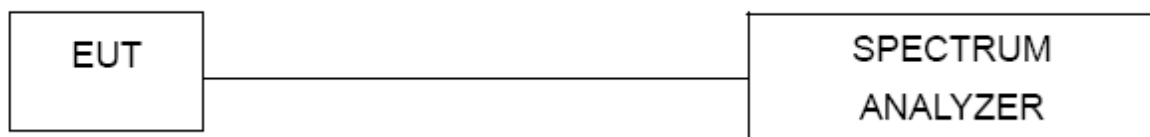
#### 7.1.1 TEST PROCEDURE

- The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
- Spectrum Setting: RBW= 100KHz, VBW=300KHz, Sweep time = Auto.
- Offset=antenna gain+cable loss

#### 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: 25°C    Relative Humidity: 55%    Test Voltage: AC 120V/60Hz

#### 7.1.6 TEST RESULTS

Please refer to the Attachment 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 3KHz)	2400-2483.5	PASS

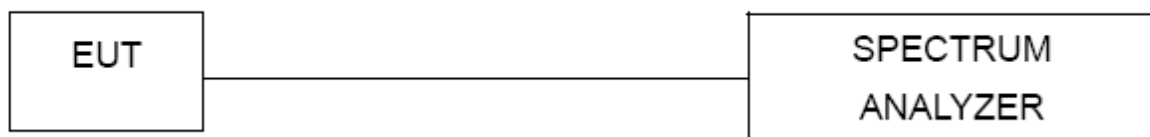
#### 8.1.1 TEST PROCEDURE

- The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
- Spectrum Setting: RBW=3KHz, VBW=10KHz, Sweep time = Auto.

#### 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: 25°C    Relative Humidity: 55%    Test Voltage: AC 120V/60Hz

#### 8.1.6 TEST RESULTS

Please refer to the Attachment H.

## 9. MEASUREMENT INSTRUMENTS LIST

Conducted Emission Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	50Ω Terminator	SHX	TF2-3G-A	8122901	Mar. 26, 2018
2	TWO-LINE V-NETWORK	R&S	ENV216	100526	Mar. 26, 2018
3	EMI Test Receiver	R&S	ESR3	101862	Sep. 04, 2017
4	Artificial-Mains Network	SCHWARZBECK	NSLK 8127	8127685	Sep. 04, 2017
5	Cable	N/A	RG400 12m	N/A	Mar. 09, 2018
6	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A

Radiated Emission Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Antenna	Schwarbeck	VULB9160	9160-3232	Mar. 26, 2018
2	Amplifier	HP	8447D	2944A09673	Oct. 20, 2017
3	Receiver	Agilent	N9038A	MY52130039	Sep. 04, 2017
4	Cable	emci	LMR-400(30MHz-1GHz)(8m+5m)	N/A	Jun. 27, 2017
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
8	Amplifier	Agilent	8449B	3008A02274	Mar. 09, 2018
9	Receiver	Agilent	N9038A	MY52130039	Sep. 04, 2017
10	Antenna	EM	EM-6876-1	230	Jul. 08, 2017
11	Controller	CT	SC100	N/A	N/A
12	Controller	MF	MF-7802	MF780208416	N/A
13	Cable	emci	EMC104-SM-S M-12000(12m)	N/A	Jul. 06, 2017
14	Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	9170319	Apr. 23, 2017
15	Spectrum Analyzer	R&S	FSP40	100185	Sep. 04, 2017
16	Microwave Preamplifier With Adaptor	EMC INSTRUMENT	EMC2654045	980039 & HA01	Mar. 26, 2018



6dB Bandwidth Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP40	100185	Sep. 04, 2017

Peak Output Power Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Power Meter	ANRITSU	ML2495A	1128009	Mar. 26, 2018
2	Pulse Power Sensor	ANRITSU	MA 2411B	1027500	Mar. 26, 2018

Antenna Conducted Spurious Emission Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP40	100185	Sep. 04, 2017

Power Spectral Density Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP40	100185	Sep. 04, 2017

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

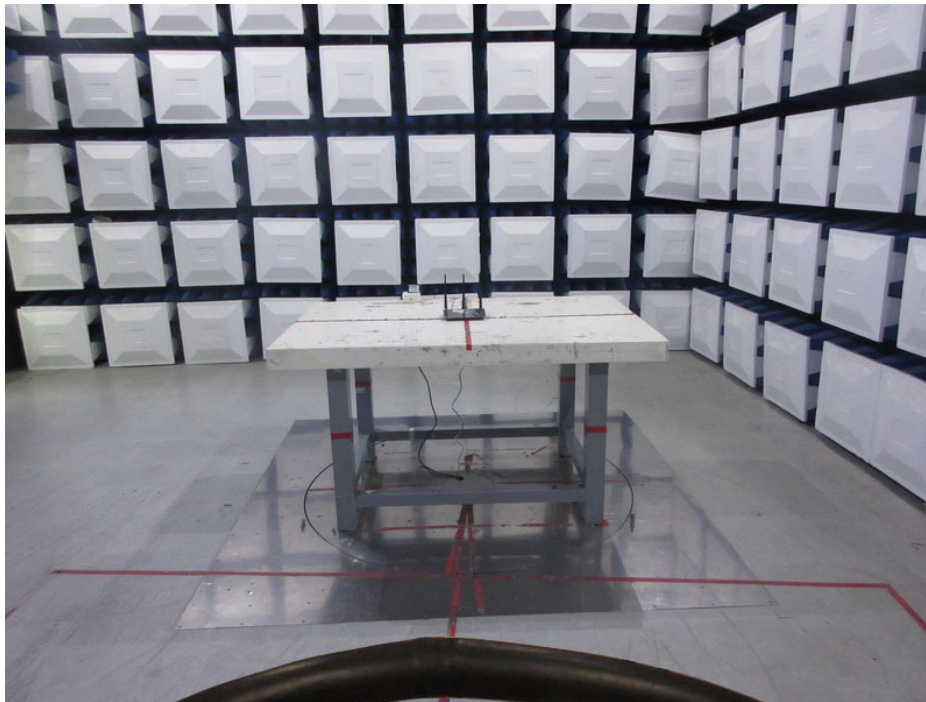
## 10. EUT TEST PHOTO

### Conducted Measurement Photos



## Radiated Measurement Photos

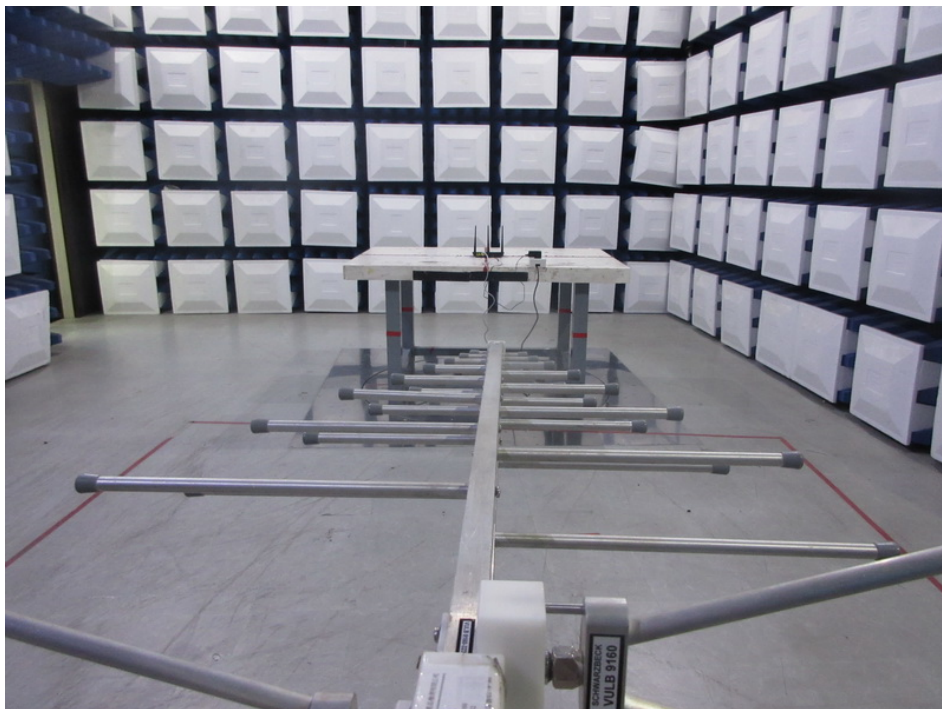
9KHz to 30MHz





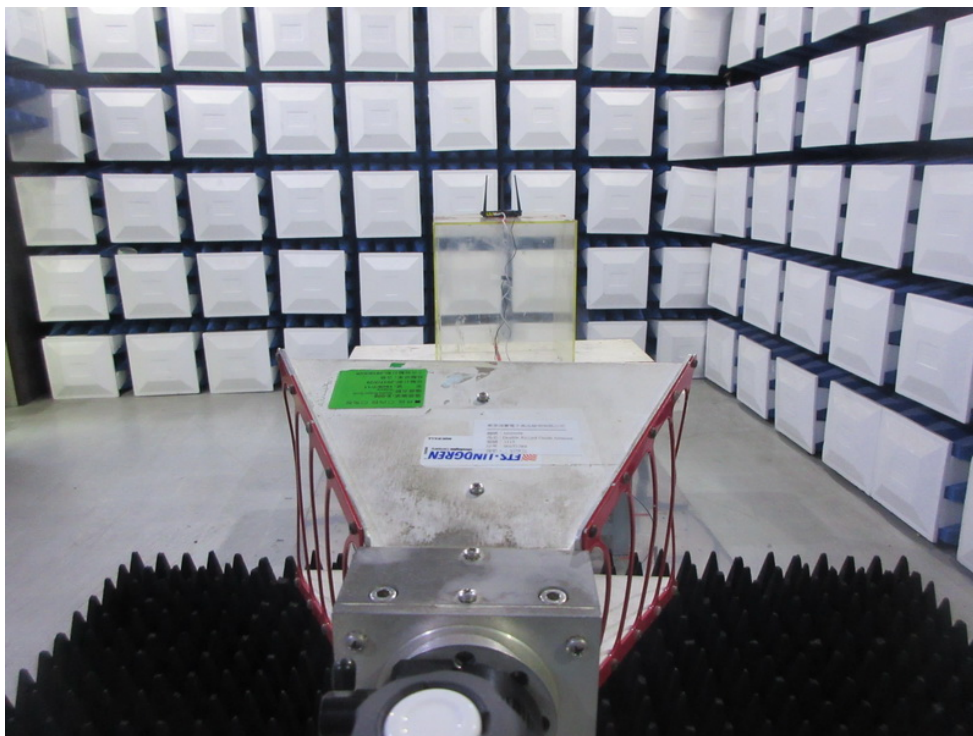
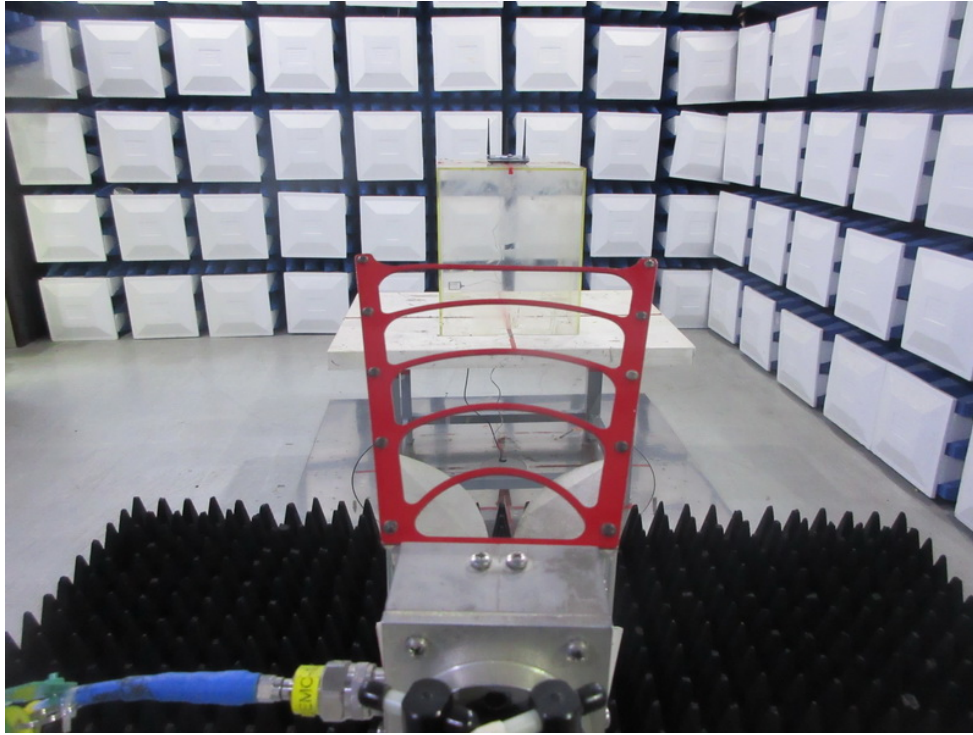
## Radiated Measurement Photos

30MHz to 1000MHz



## Radiated Measurement Photos

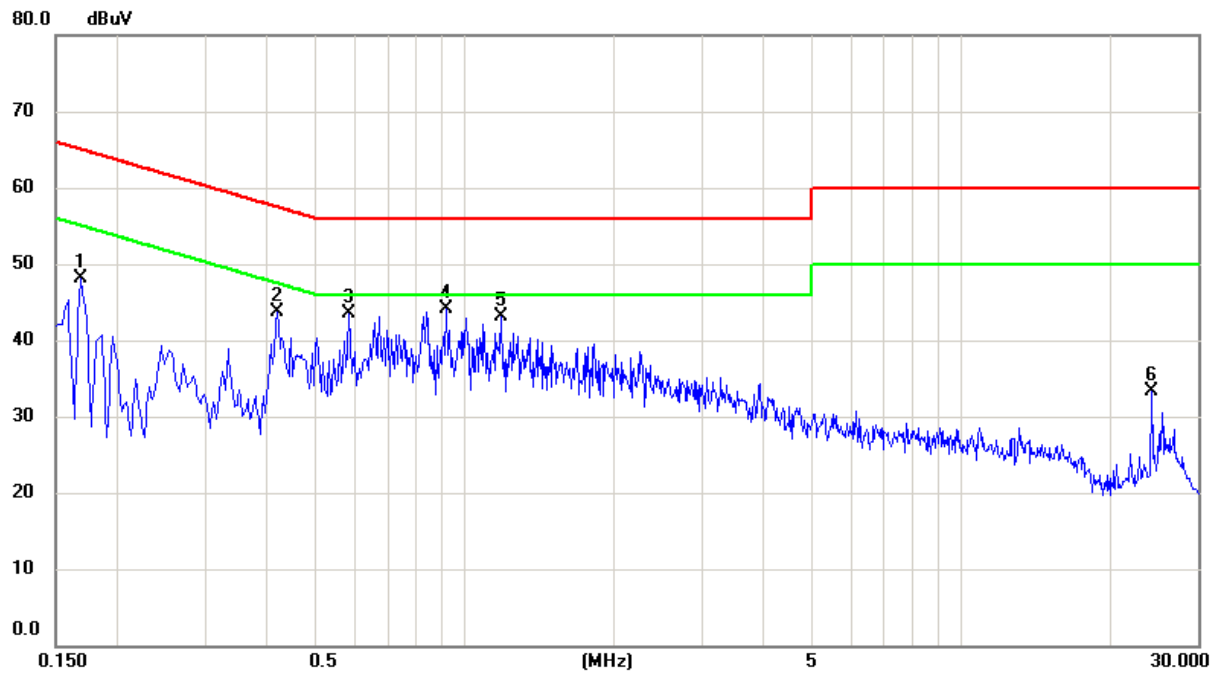
Above 1000MHz



## ATTACHMENT A - CONDUCTED EMISSION

Test Mode : TX Mode

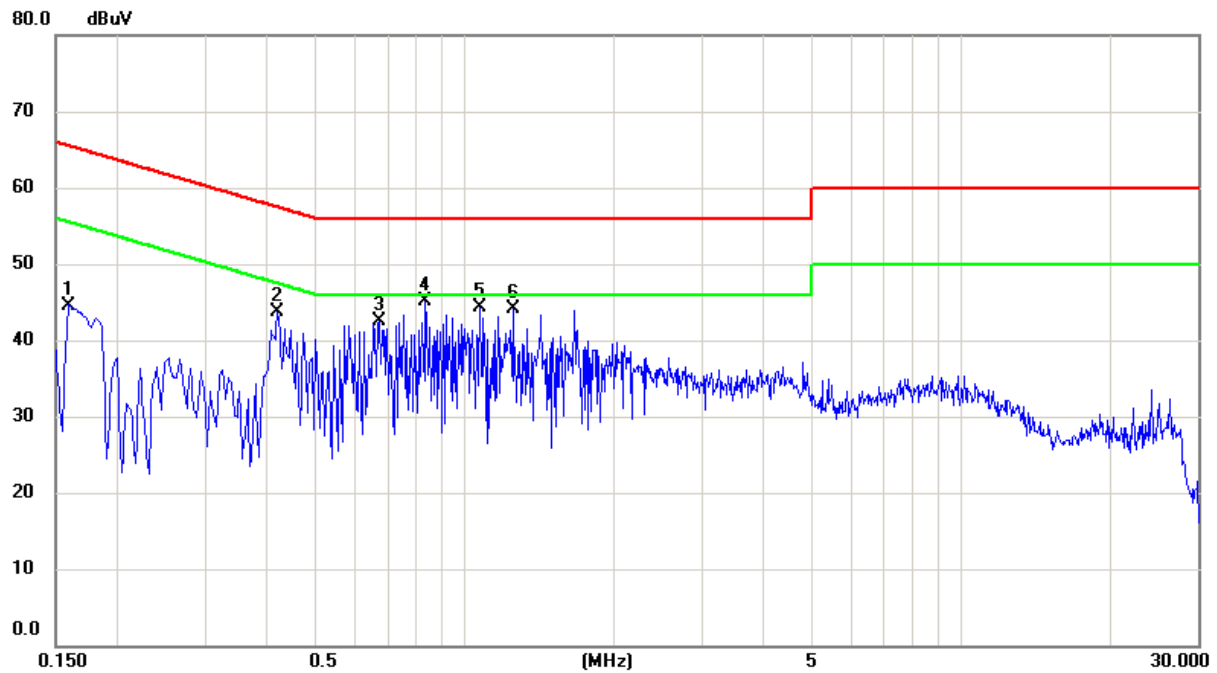
# Line



No.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1	0.1680	38.34	9.70	48.04	65.06	-17.02	Peak	
2	0.4200	33.92	9.71	43.63	57.45	-13.82	Peak	
3	0.5864	33.73	9.73	43.46	56.00	-12.54	Peak	
4 *	0.9194	34.29	9.76	44.05	56.00	-11.95	Peak	
5	1.1849	33.33	9.80	43.13	56.00	-12.87	Peak	
6	24.2430	22.43	10.80	33.23	60.00	-26.77	Peak	

Test Mode : TX Mode

### Neutral



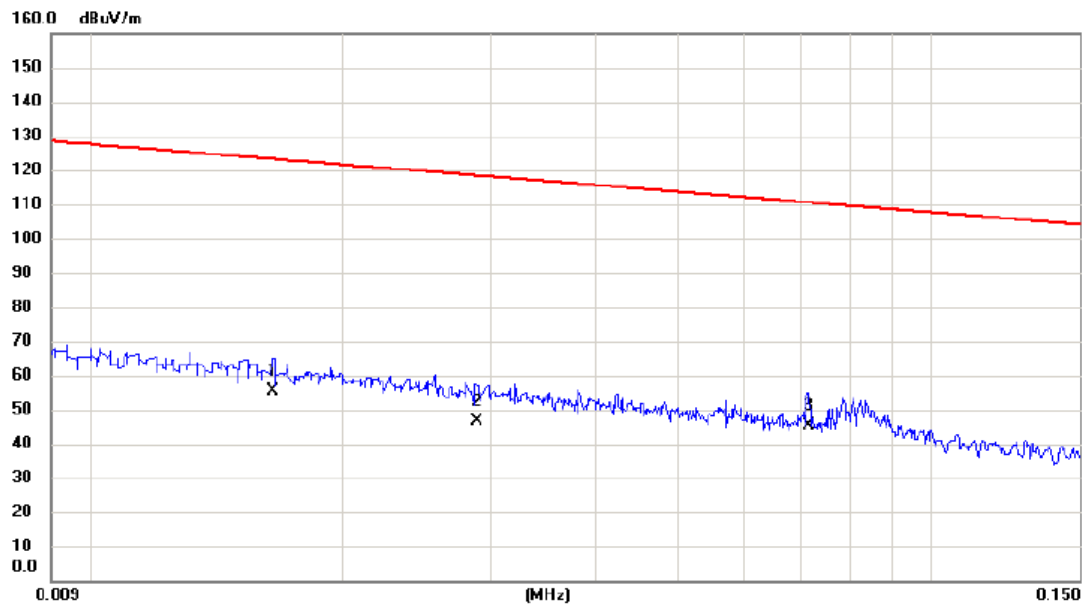
No.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1	0.1598	34.87	9.67	44.54	65.47	-20.93	Peak	
2	0.4200	33.98	9.70	43.68	57.45	-13.77	Peak	
3	0.6720	32.76	9.73	42.49	56.00	-13.51	Peak	
4 *	0.8340	35.46	9.73	45.19	56.00	-10.81	Peak	
5	1.0723	34.53	9.77	44.30	56.00	-11.70	Peak	
6	1.2524	34.37	9.80	44.17	56.00	-11.83	Peak	



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

Test Mode: TX B MODE CHANNEL 01

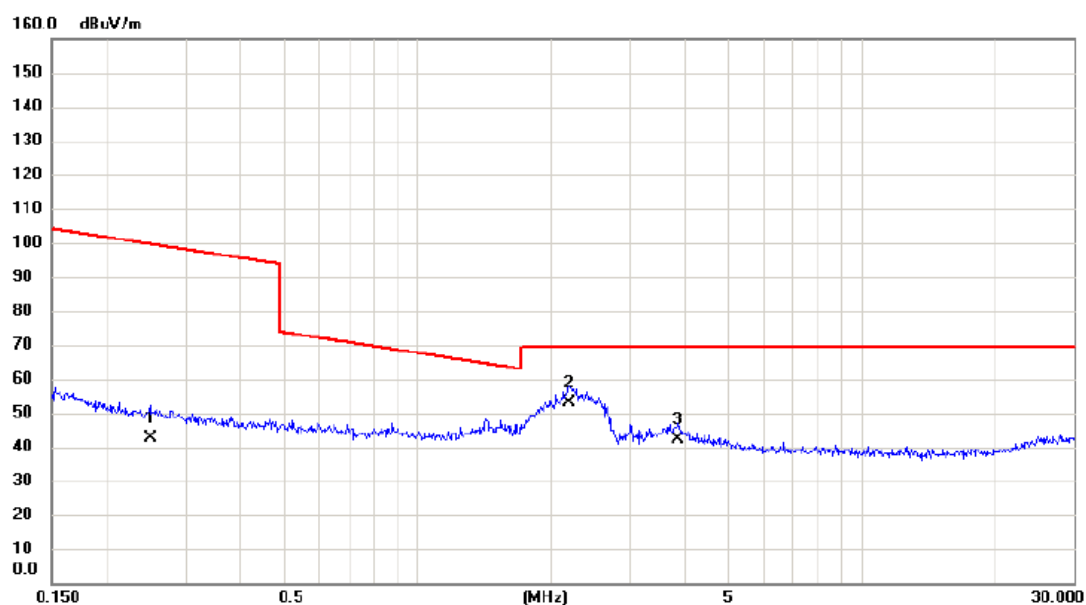
Ant 0°



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		0.017	35.51	20.07	55.58	123.26	-67.68	AVG	
2		0.029	27.25	19.36	46.61	118.42	-71.81	AVG	
3	*	0.072	26.91	18.30	45.21	110.51	-65.30	AVG	

Test Mode: TX B MODE CHANNEL 01

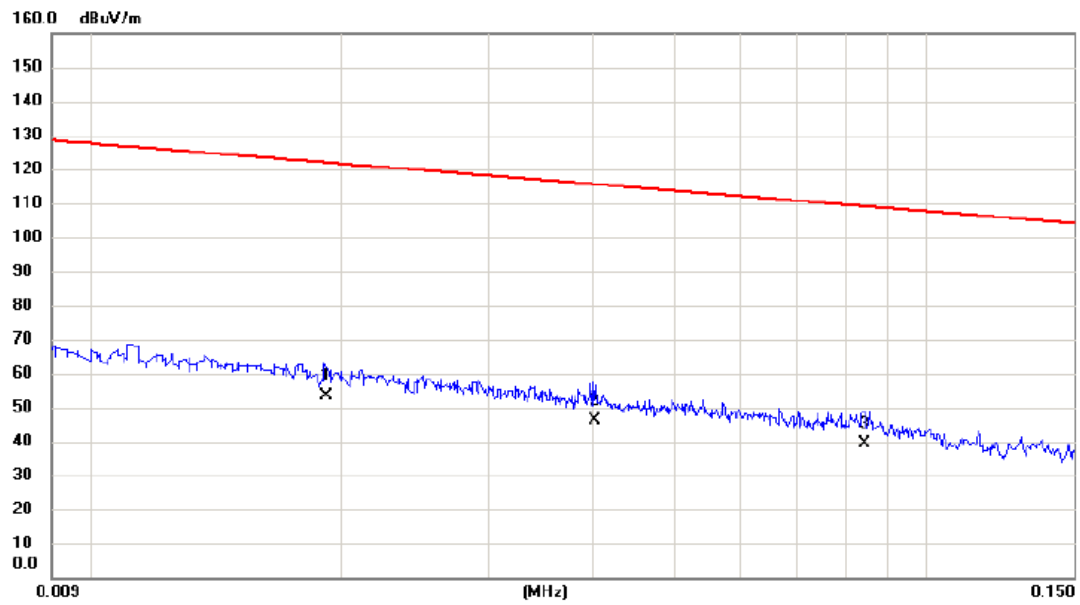
Ant 0°



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		0.251	25.84	16.65	42.49	99.62	-57.13	AVG	
2	*	2.190	37.61	15.45	53.06	69.54	-16.48	QP	
3		3.860	27.12	14.99	42.11	69.54	-27.43	QP	

Test Mode: TX B MODE CHANNEL 01

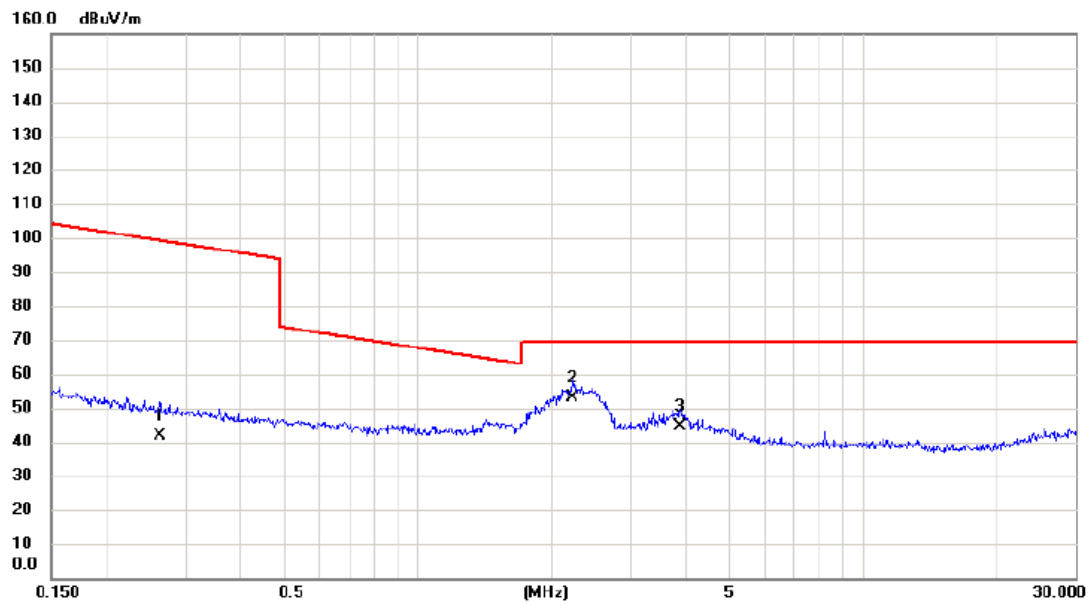
Ant 90°



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	0.019	33.52	19.72	53.24	121.94	-68.70	AVG	
2		0.040	27.11	19.02	46.13	115.54	-69.41	AVG	
3		0.084	21.36	18.00	39.36	109.08	-69.72	AVG	

Test Mode: TX B MODE CHANNEL 01

Ant 90°



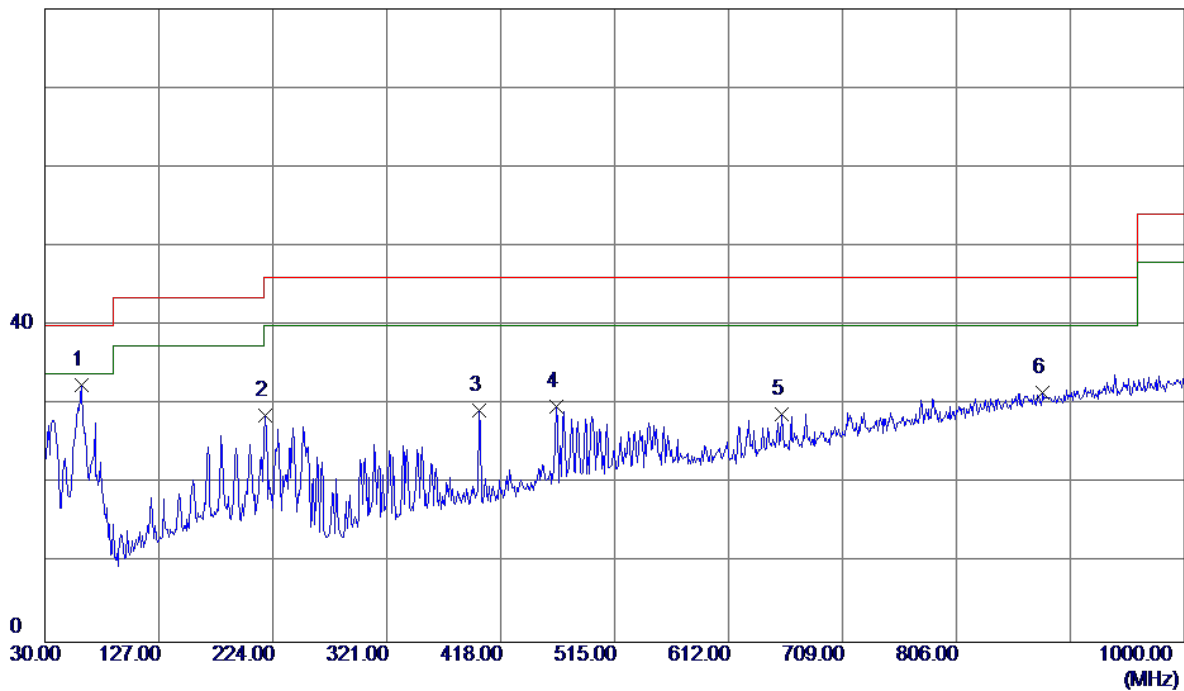
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		0.263	25.15	16.64	41.79	99.21	-57.42	AVG	
2	*	2.225	37.69	15.44	53.13	69.54	-16.41	QP	
3		3.881	29.44	14.99	44.43	69.54	-25.11	QP	

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

Test Mode: TX B MODE CHANNEL 01

Vertical

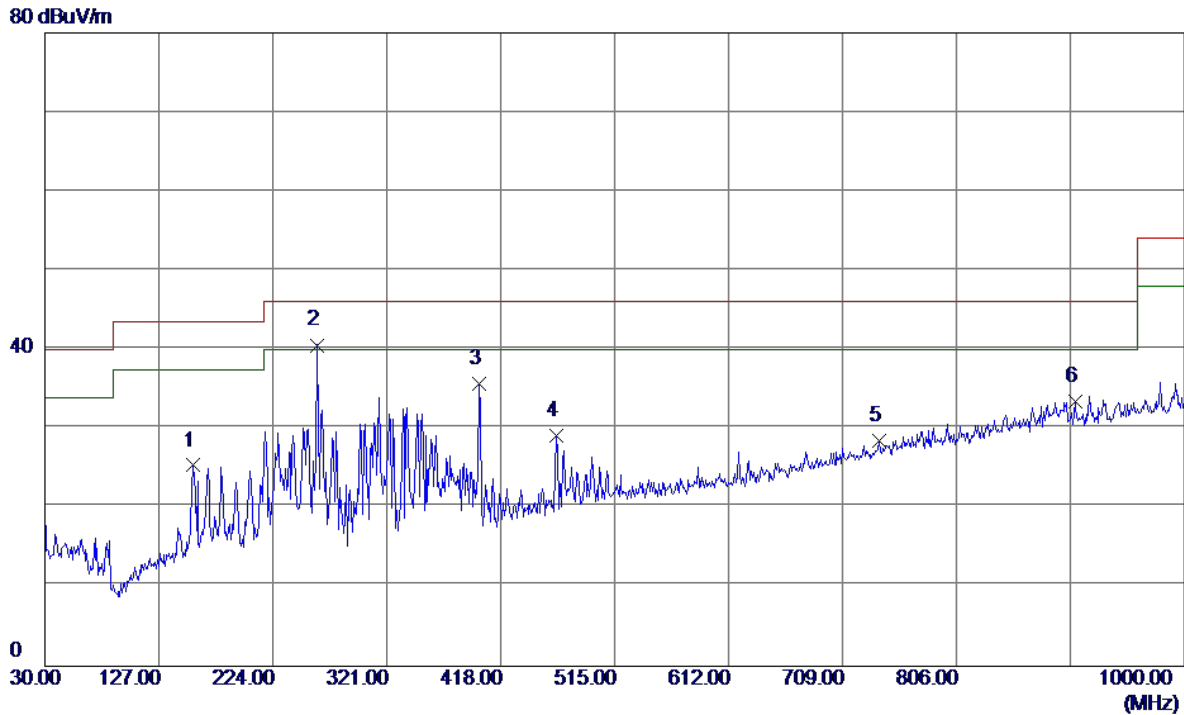
80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	61.0400	46.61	-14.20	32.41	40.00	-7.59	Peak	
2	217.2100	42.09	-13.49	28.60	46.00	-17.40	Peak	
3	399.5700	39.95	-10.71	29.24	46.00	-16.76	Peak	
4	465.5300	38.61	-8.82	29.79	46.00	-16.21	Peak	
5	657.5900	33.13	-4.26	28.87	46.00	-17.13	Peak	
6	879.7200	29.74	1.77	31.51	46.00	-14.49	Peak	

Test Mode: TX B MODE CHANNEL 01

### Horizontal



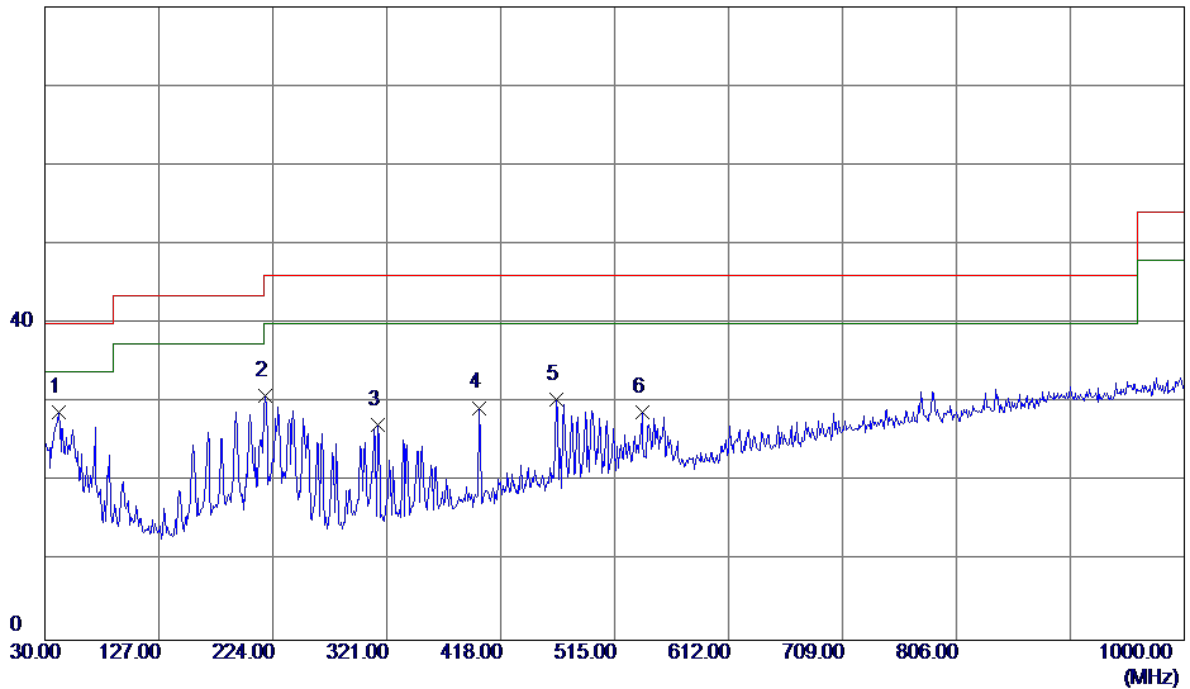
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	156.1000	38.15	-12.79	25.36	43.50	-18.14	Peak	
2 *	261.8299	55.80	-15.24	40.56	46.00	-5.44	Peak	
3	399.5700	46.45	-10.71	35.74	46.00	-10.26	Peak	
4	465.5300	37.91	-8.82	29.09	46.00	-16.91	Peak	
5	740.0400	30.12	-1.70	28.42	46.00	-17.58	Peak	
6	906.8800	31.09	2.35	33.44	46.00	-12.56	Peak	



Test Mode: TX B MODE CHANNEL 06

Vertical

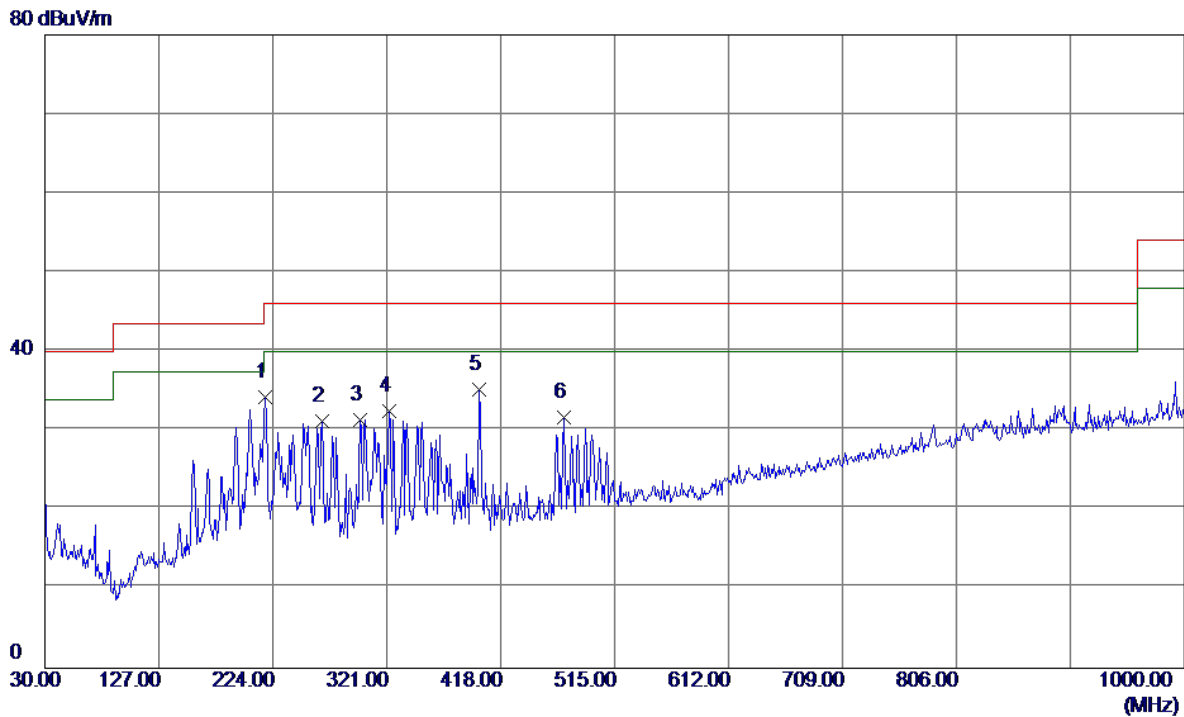
80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	41.6400	42.19	-13.46	28.73	40.00	-11.27	Peak	
2	217.2100	44.43	-13.49	30.94	46.00	-15.06	Peak	
3	313.2400	39.18	-12.03	27.15	46.00	-18.85	Peak	
4	399.5700	40.07	-10.71	29.36	46.00	-16.64	Peak	
5	465.5300	39.21	-8.82	30.39	46.00	-15.61	Peak	
6	538.2800	35.87	-7.11	28.76	46.00	-17.24	Peak	

Test Mode: TX B MODE CHANNEL 06

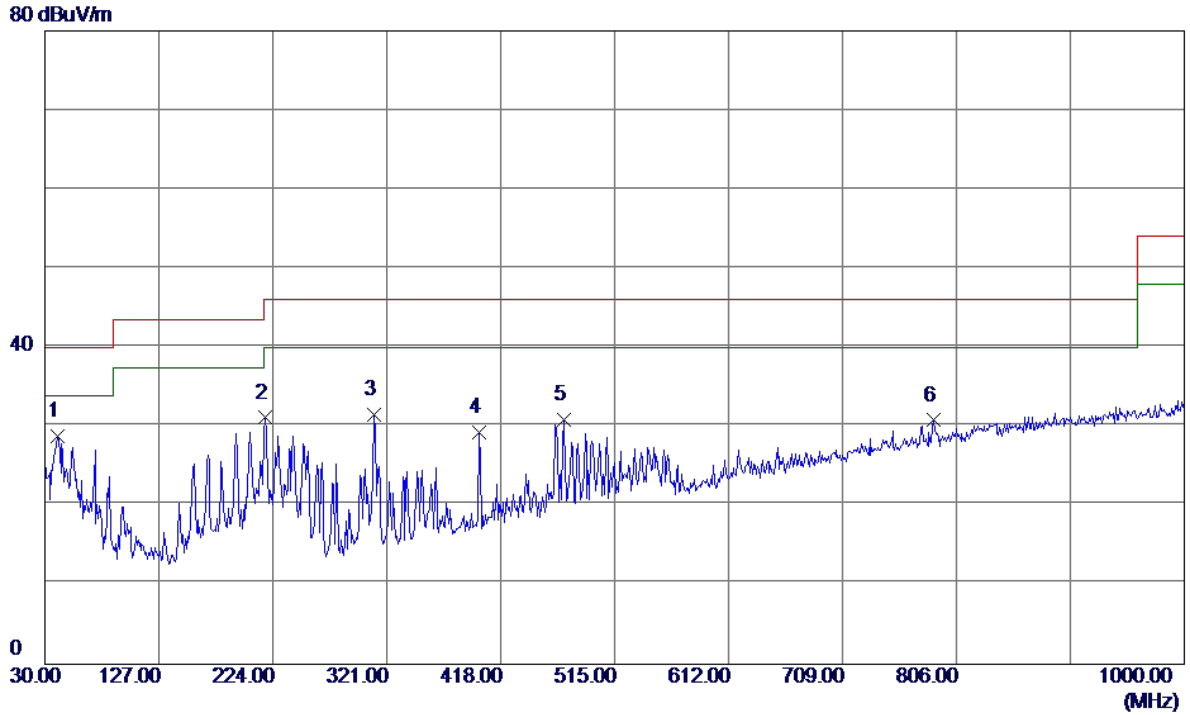
### Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	217.2100	47.68	-13.49	34.19	46.00	-11.81	Peak	
2	265.7100	46.45	-15.29	31.16	46.00	-14.84	Peak	
3	298.6900	43.86	-12.46	31.40	46.00	-14.60	Peak	
4	322.9400	44.31	-11.85	32.46	46.00	-13.54	Peak	
5 *	399.5700	45.96	-10.71	35.25	46.00	-10.75	Peak	
6	471.3500	40.40	-8.67	31.73	46.00	-14.27	Peak	

Test Mode: TX B MODE CHANNEL 11

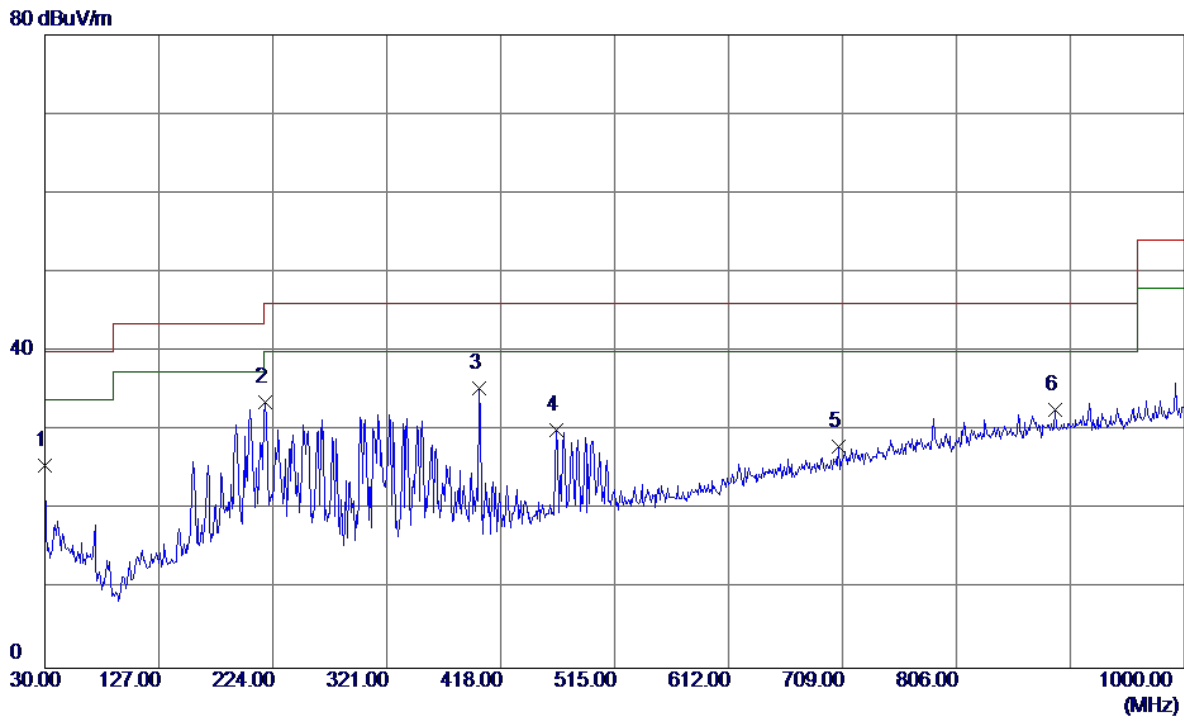
Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	40.6699	42.39	-13.62	28.77	40.00	-11.23	Peak	
2	217.2100	44.61	-13.49	31.12	46.00	-14.88	Peak	
3	310.3299	43.64	-12.09	31.55	46.00	-14.45	Peak	
4	399.5700	39.93	-10.71	29.22	46.00	-16.78	Peak	
5	471.3500	39.52	-8.67	30.85	46.00	-15.15	Peak	
6	786.6000	31.37	-0.57	30.80	46.00	-15.20	Peak	

Test Mode: TX B MODE CHANNEL 11

### Horizontal

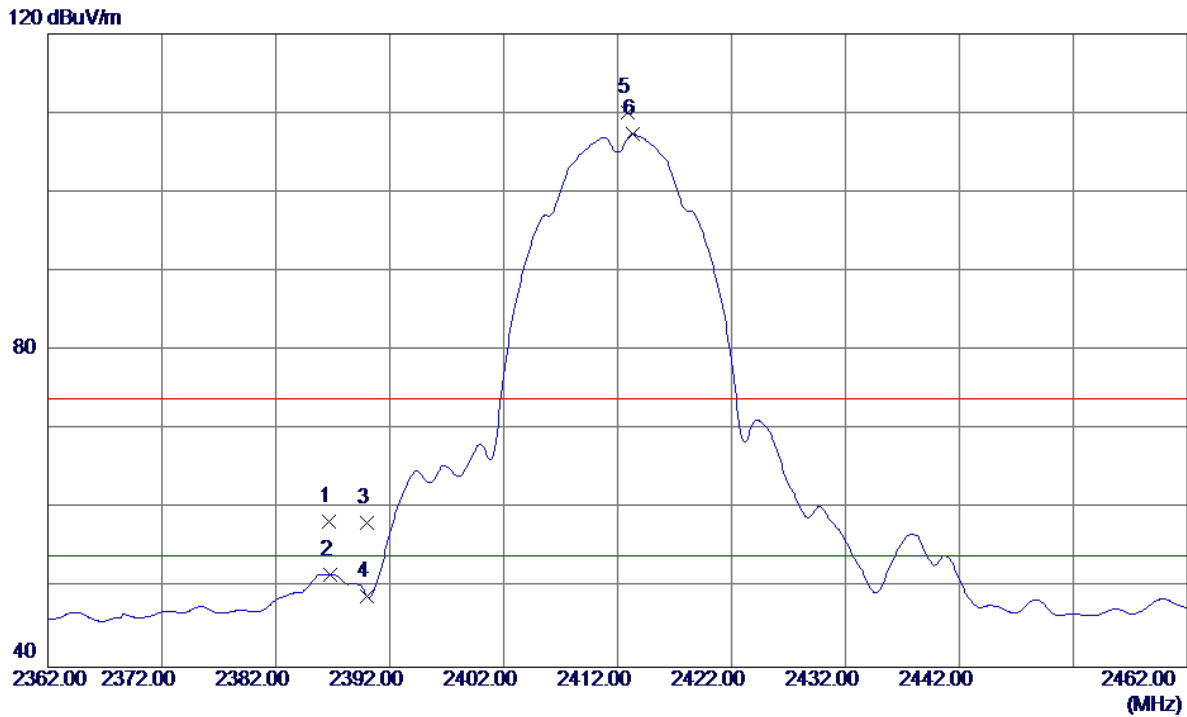


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	30.0000	40.71	-15.04	25.67	40.00	-14.33	Peak	
2	217.2100	47.08	-13.49	33.59	46.00	-12.41	Peak	
3 *	399.5700	46.00	-10.71	35.29	46.00	-10.71	Peak	
4	465.5300	38.85	-8.82	30.03	46.00	-15.97	Peak	
5	706.0900	30.71	-2.73	27.98	46.00	-18.02	Peak	
6	890.3900	30.70	2.00	32.70	46.00	-13.30	Peak	

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

Orthogonal Axis :	X
Test Mode :	TX B MODE 2412MHz

### Vertical

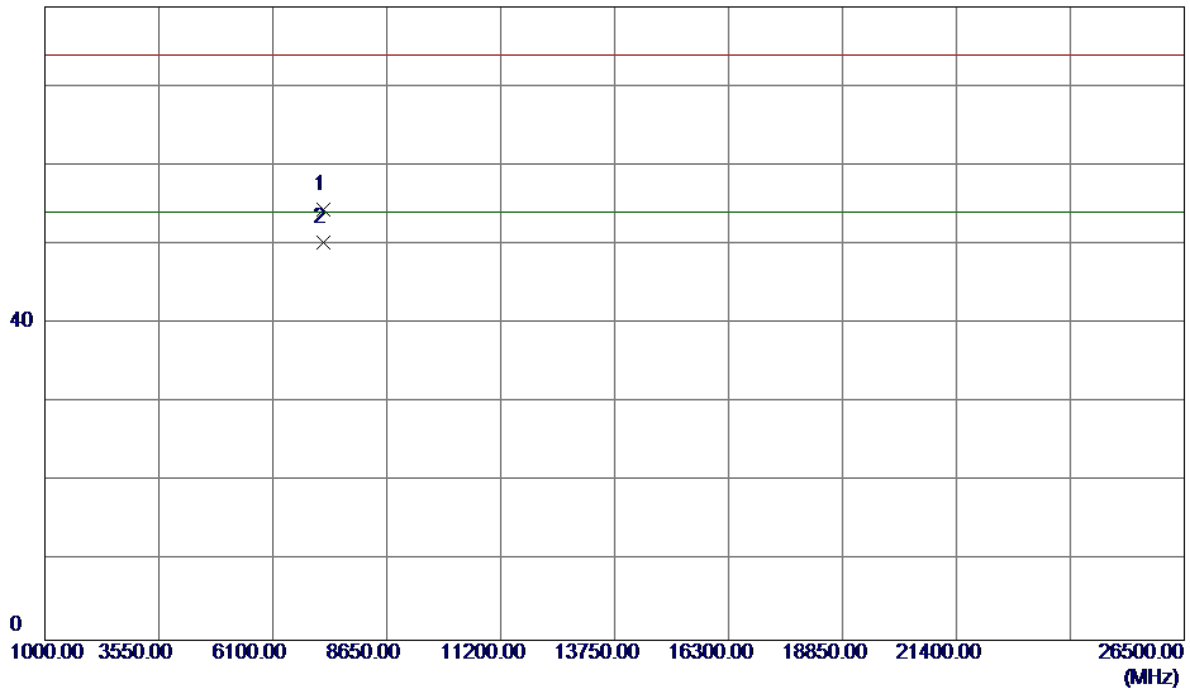


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2386.6800	26.03	32.36	58.39	74.00	-15.61	Peak	
2	2386.8000	19.38	32.36	51.74	54.00	-2.26	AVG	
3	2390.0000	25.80	32.38	58.18	74.00	-15.82	Peak	
4	2390.0000	16.54	32.38	48.92	54.00	-5.08	AVG	
5	2412.9000	77.61	32.46	110.07	74.00	36.07	Peak	No Limint
6 *	2413.3000	74.90	32.46	107.36	54.00	53.36	AVG	No Limint

Orthogonal Axis :	X
Test Mode :	TX B MODE 2412MHz

**Vertical**

80 dBuV/m

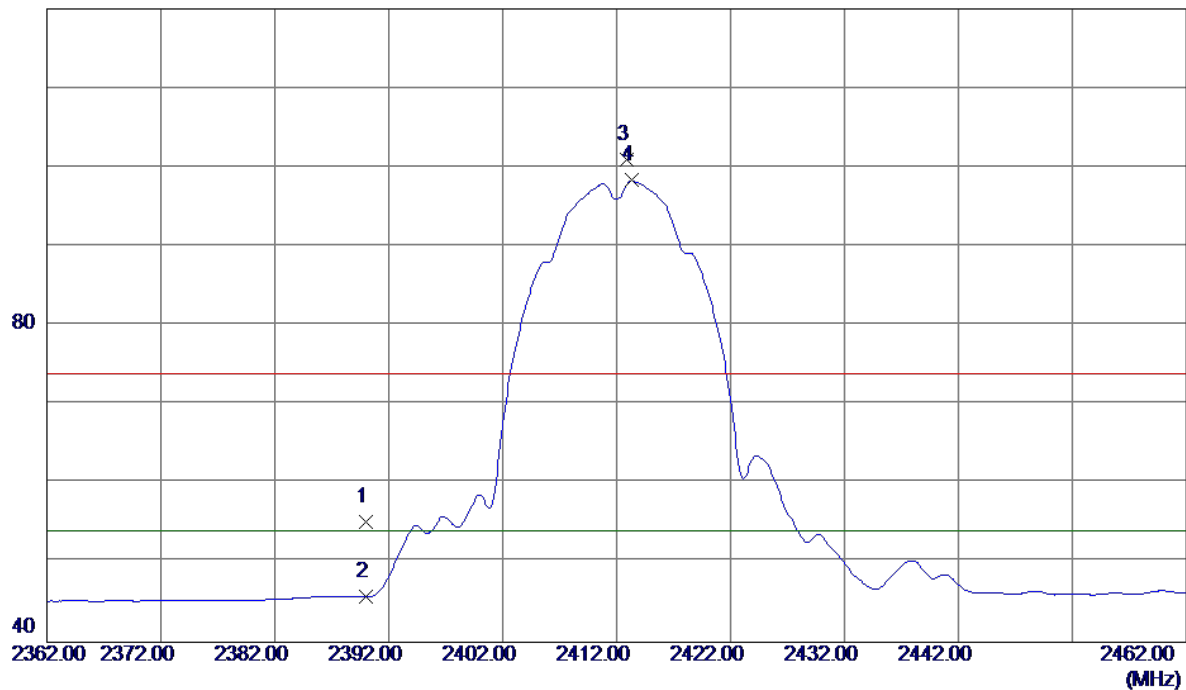


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	7236.3460	45.63	8.77	54.40	74.00	-19.60	Peak	
2 *	7237.4800	41.46	8.77	50.23	54.00	-3.77	AVG	

Orthogonal Axis :	X
Test Mode :	TX B MODE 2412MHz

### Horizontal

120 dBuV/m

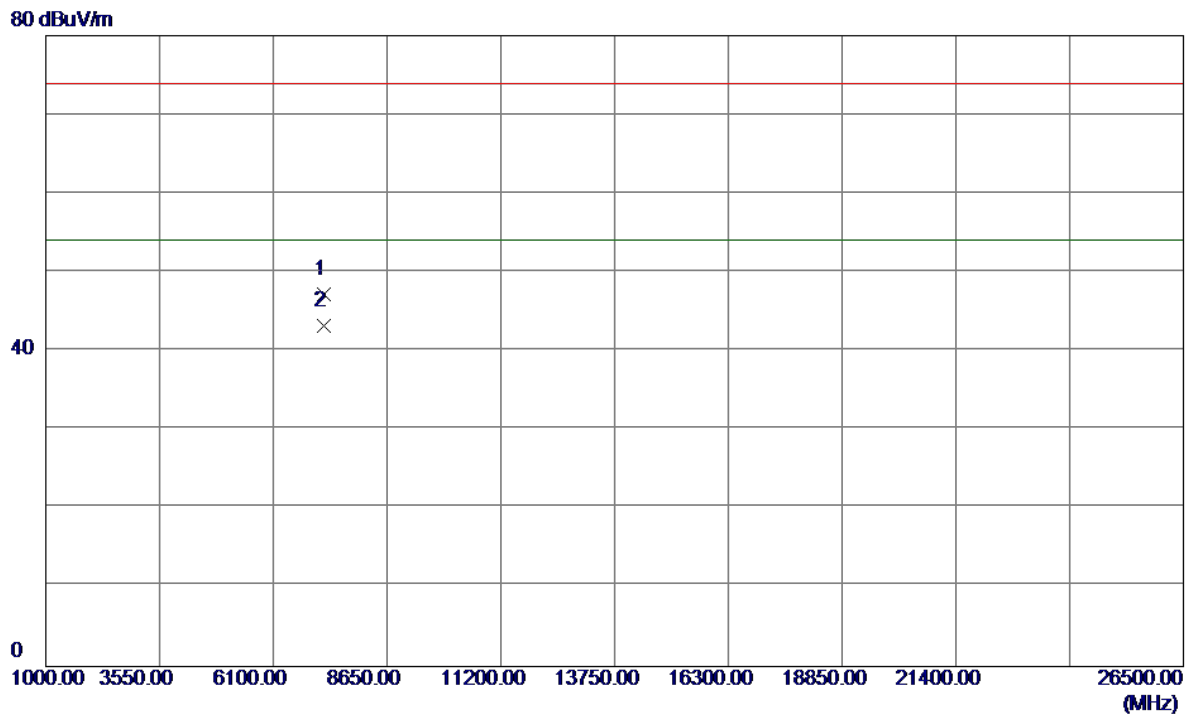


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	22.86	32.38	55.24	74.00	-18.76	Peak	
2	2390.0000	13.33	32.38	45.71	54.00	-8.29	AVG	
3	2412.9000	68.49	32.46	100.95	74.00	26.95	Peak	No Limint
4 *	2413.3000	65.87	32.46	98.33	54.00	44.33	AVG	No Limint



Orthogonal Axis :	X
Test Mode :	TX B MODE 2412MHz

### Horizontal

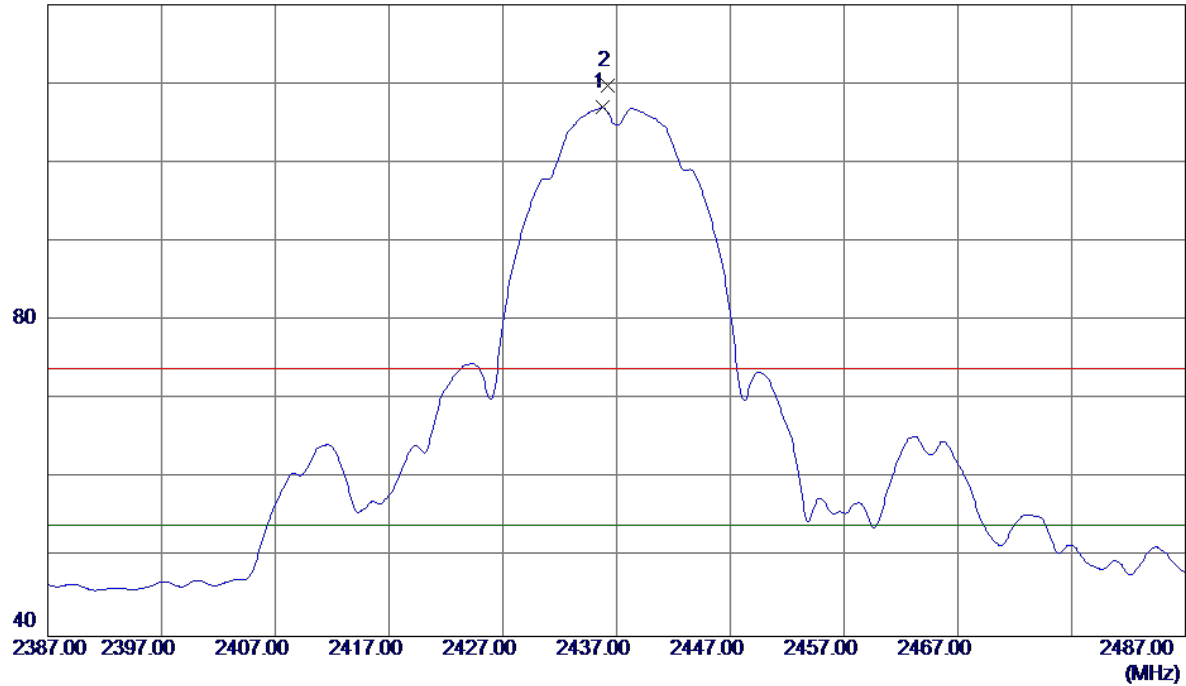


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	7236.3490	38.37	8.77	47.14	74.00	-26.86	Peak	
2 *	7237.3900	34.47	8.77	43.24	54.00	-10.76	AVG	

Orthogonal Axis :	X
Test Mode :	TX B MODE 2437MHz

**Vertical**

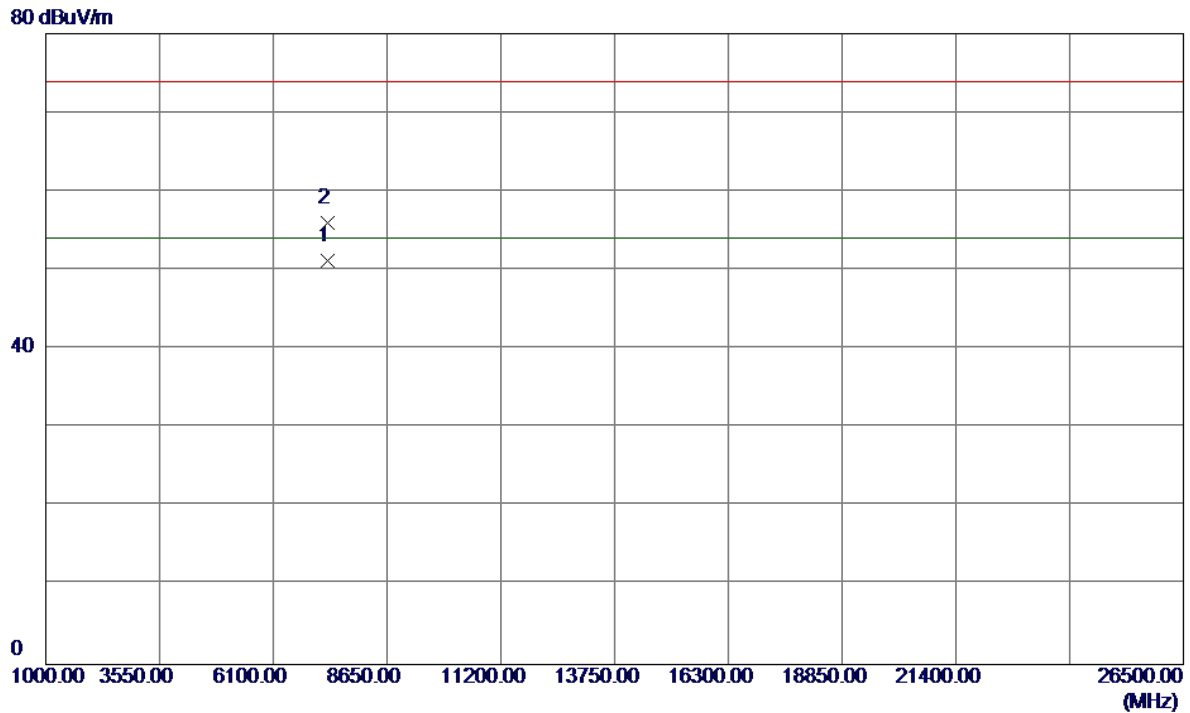
120 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2435.8000	74.43	32.54	106.97	54.00	52.97	AVG	No Limint
2	2436.2000	77.15	32.54	109.69	74.00	35.69	Peak	No Limint

Orthogonal Axis :	X
Test Mode :	TX B MODE 2437MHz

### Vertical

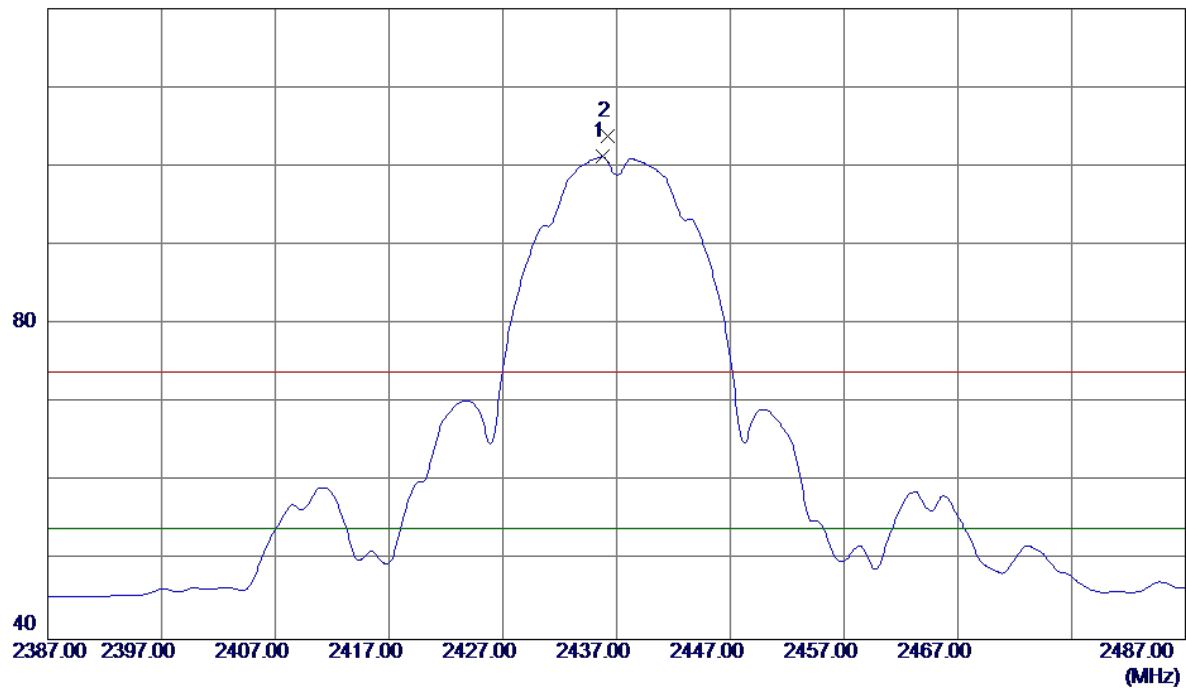


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	7310.3580	42.15	8.98	51.13	54.00	-2.87	AVG	
2	7310.1120	46.99	8.98	55.97	74.00	-18.03	Peak	

Orthogonal Axis :	X
Test Mode :	TX B MODE 2437MHz

### Horizontal

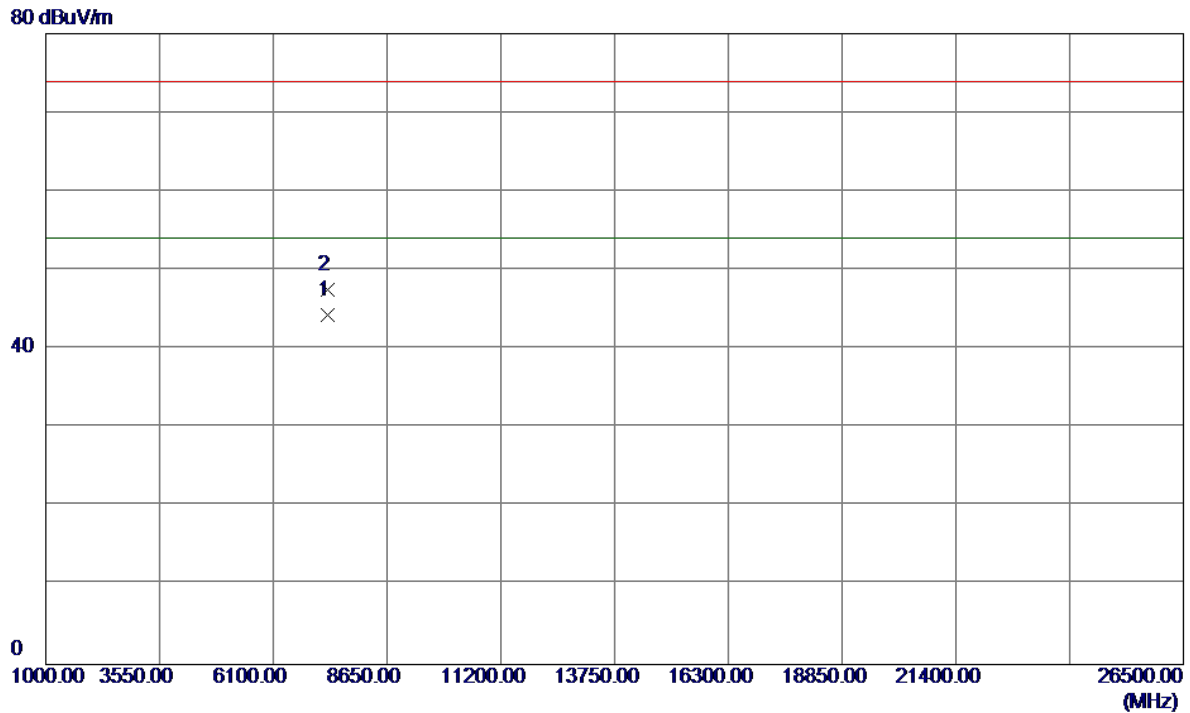
120 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2435.8000	68.68	32.54	101.22	54.00	47.22	AVG	No Limint
2	2436.2000	71.37	32.54	103.91	74.00	29.91	Peak	No Limint

Orthogonal Axis :	X
Test Mode :	TX B MODE 2437MHz

### Horizontal

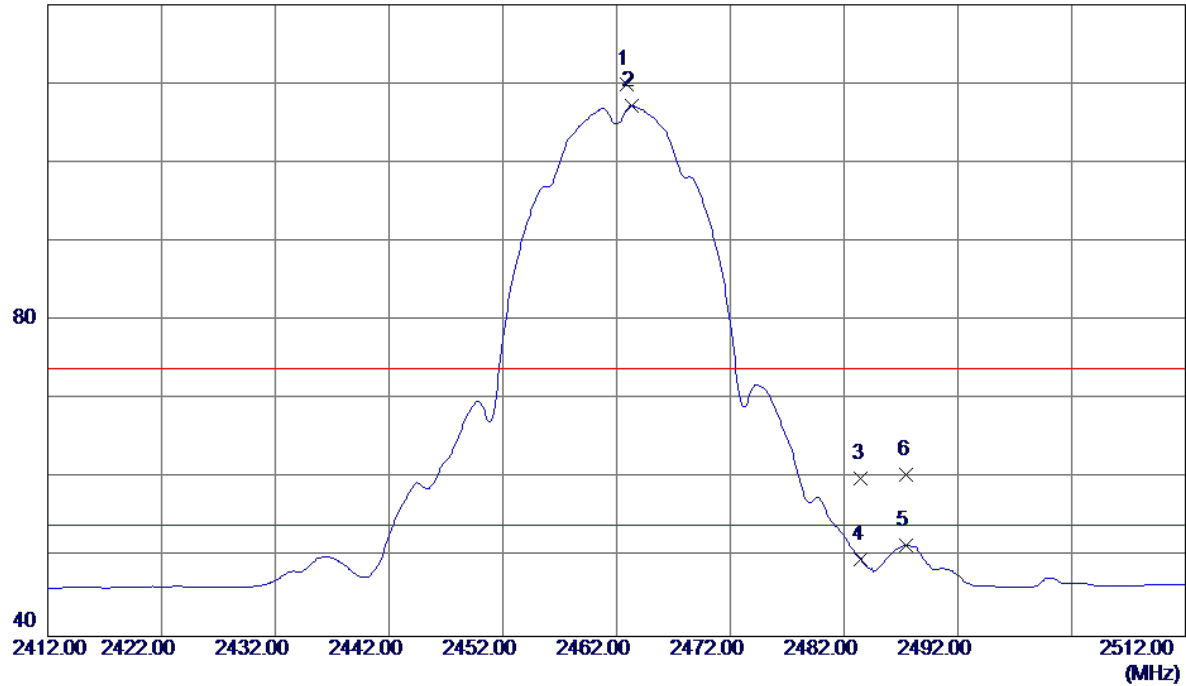


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	7310.5900	35.38	8.98	44.36	54.00	-9.64	AVG	
2	7310.3470	38.47	8.98	47.45	74.00	-26.55	Peak	

Orthogonal Axis :	X
Test Mode :	TX B MODE 2462MHz

### Vertical

120 dBuV/m

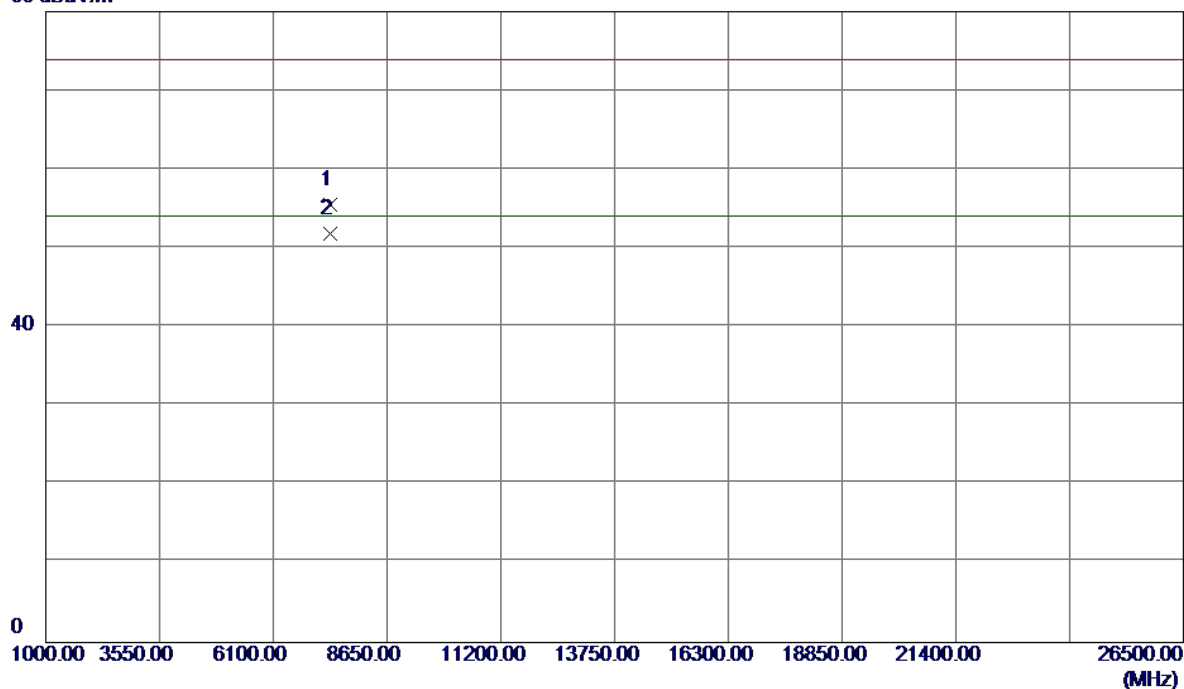


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2462.9000	77.35	32.64	109.99	74.00	35.99	Peak	No Limint
2 *	2463.3000	74.59	32.64	107.23	54.00	53.23	AVG	No Limint
3	2483.5000	27.35	32.71	60.06	74.00	-13.94	Peak	
4	2483.5000	17.02	32.71	49.73	54.00	-4.27	AVG	
5	2487.4000	18.80	32.72	51.52	54.00	-2.48	AVG	
6	2487.5000	27.79	32.73	60.52	74.00	-13.48	Peak	

Orthogonal Axis :	X
Test Mode :	TX B MODE 2462MHz

### Vertical

80 dBuV/m

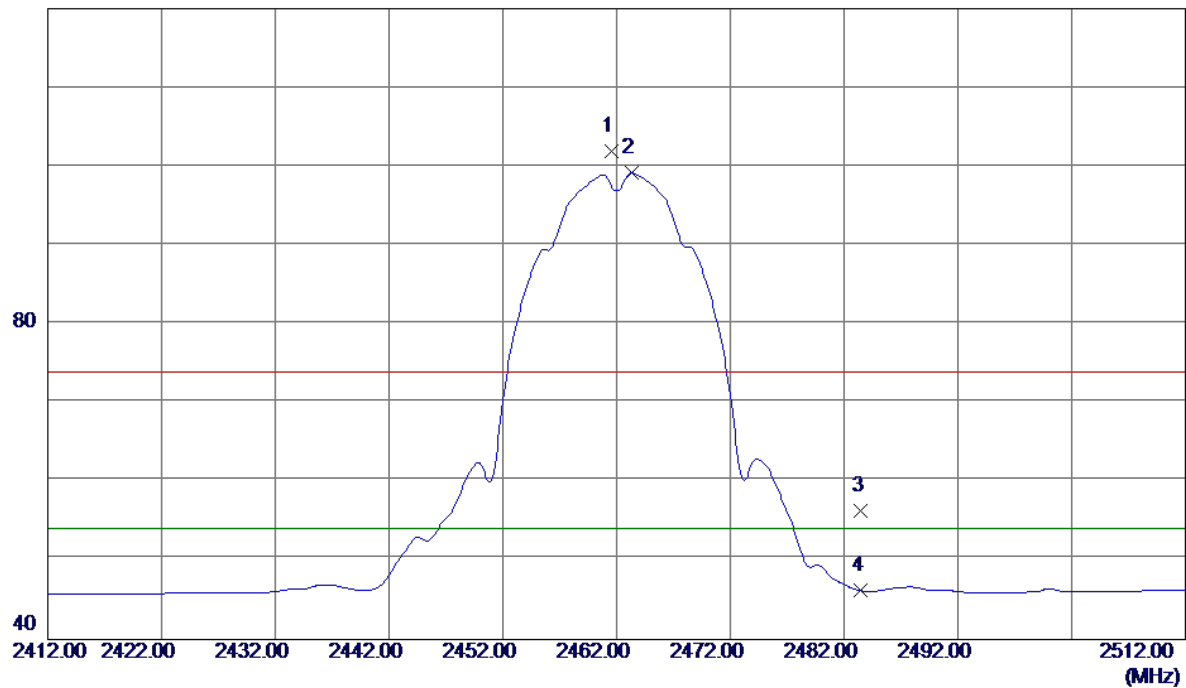


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	7386.4890	46.35	9.20	55.55	74.00	-18.45	Peak	
2 *	7386.6800	42.68	9.20	51.88	54.00	-2.12	AVG	

Orthogonal Axis :	X
Test Mode :	TX B MODE 2462MHz

### Horizontal

120 dBuV/m

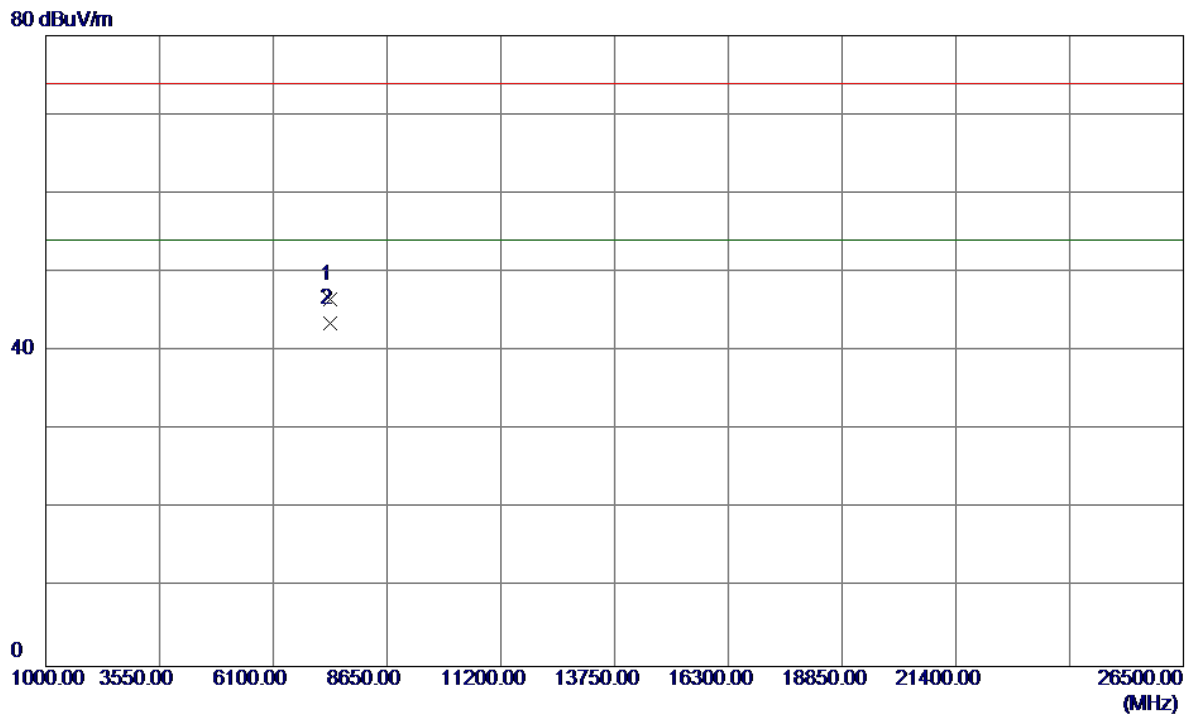


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2461.6000	69.31	32.63	101.94	74.00	27.94	Peak	No Limint
2 *	2463.3000	66.55	32.64	99.19	54.00	45.19	AVG	No Limint
3	2483.5000	23.58	32.71	56.29	74.00	-17.71	Peak	
4	2483.5000	13.47	32.71	46.18	54.00	-7.82	AVG	



Orthogonal Axis :	X
Test Mode :	TX B MODE 2462MHz

### Horizontal

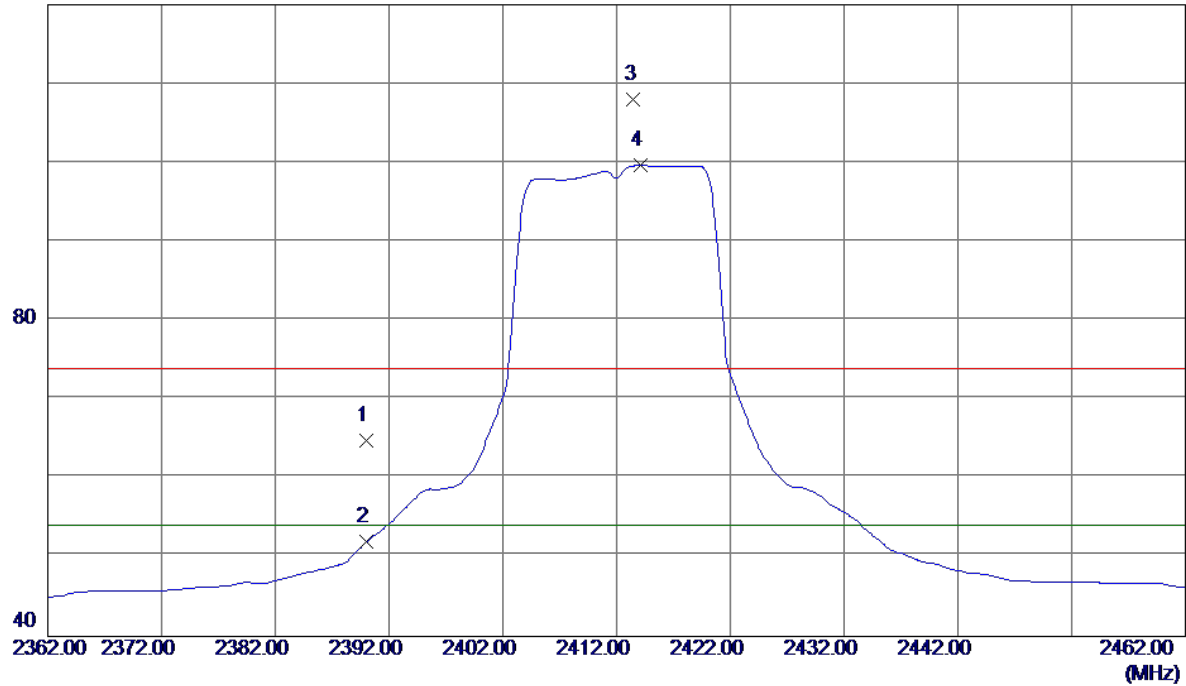


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	7386.3600	37.35	9.20	46.55	74.00	-27.45	Peak	
2 *	7386.1800	34.26	9.20	43.46	54.00	-10.54	AVG	

Orthogonal Axis :	X
Test Mode :	TX G MODE 2412MHz

### Vertical

120 dBuV/m

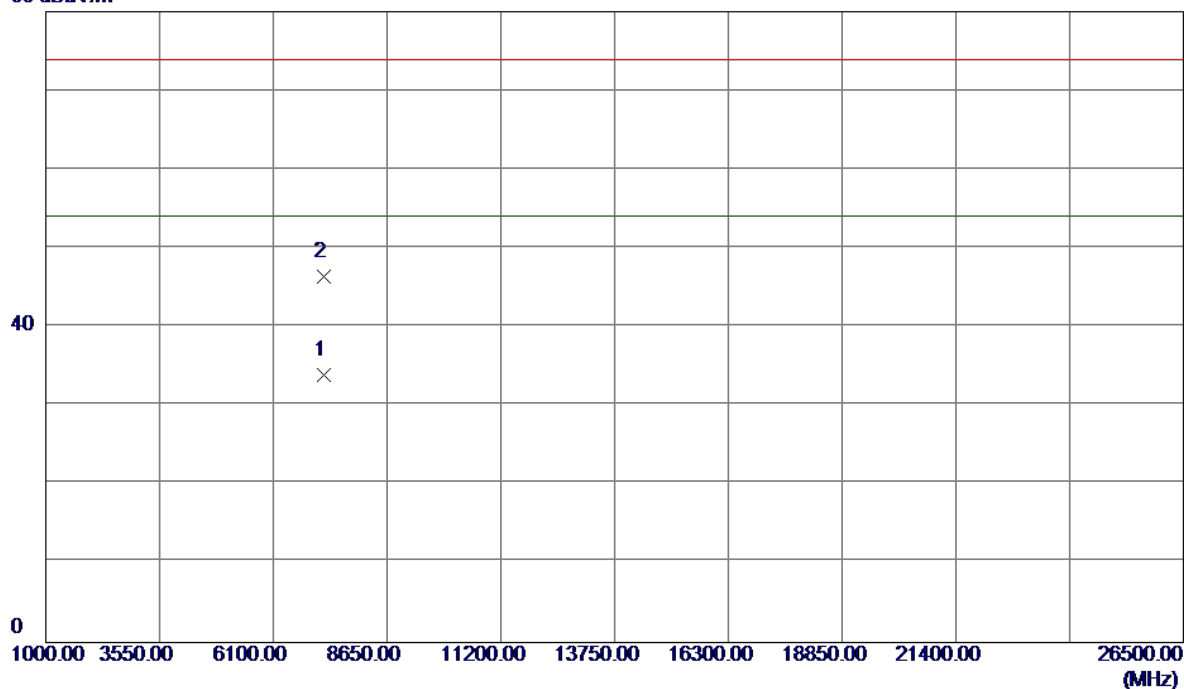


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	32.41	32.38	64.79	74.00	-9.21	Peak	
2	2390.0000	19.55	32.38	51.93	54.00	-2.07	AVG	
3	2413.5000	75.61	32.46	108.07	74.00	34.07	Peak	No Limint
4 *	2414.1000	67.19	32.46	99.65	54.00	45.65	AVG	No Limint

Orthogonal Axis :	X
Test Mode :	TX G MODE 2412MHz

### Vertical

80 dBuV/m

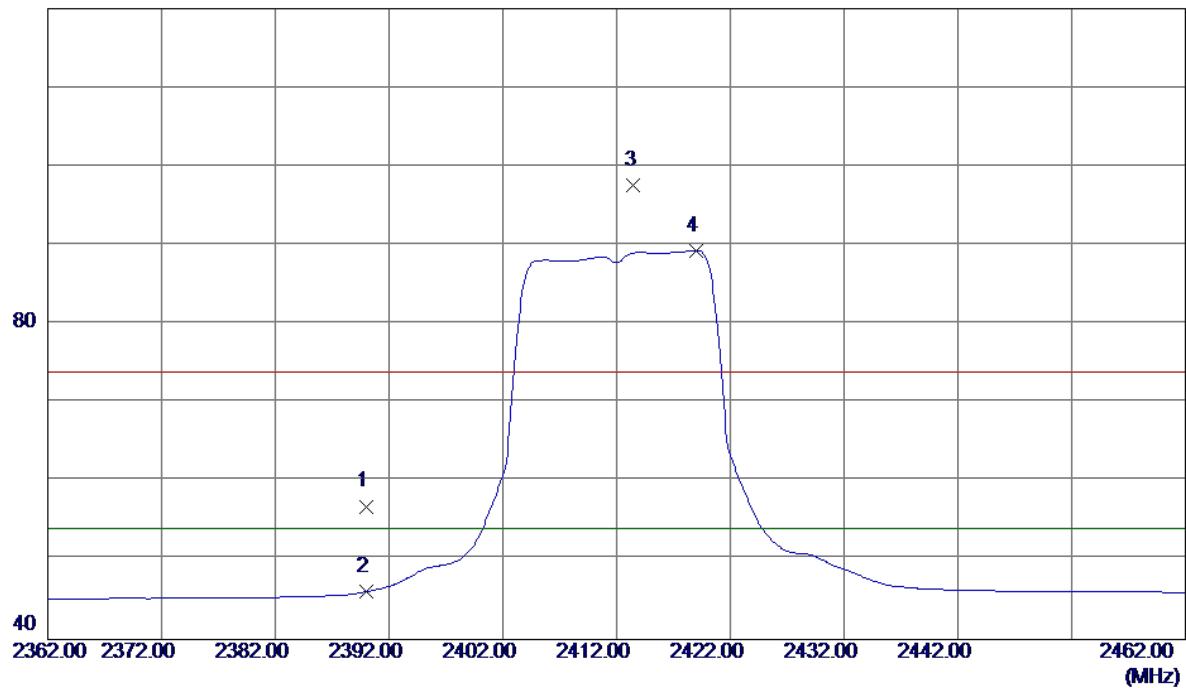


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	7233.4680	25.23	8.76	33.99	54.00	-20.01	AVG	
2	7237.5600	37.56	8.77	46.33	74.00	-27.67	Peak	

Orthogonal Axis :	X
Test Mode :	TX G MODE 2412MHz

### Horizontal

120 dBuV/m

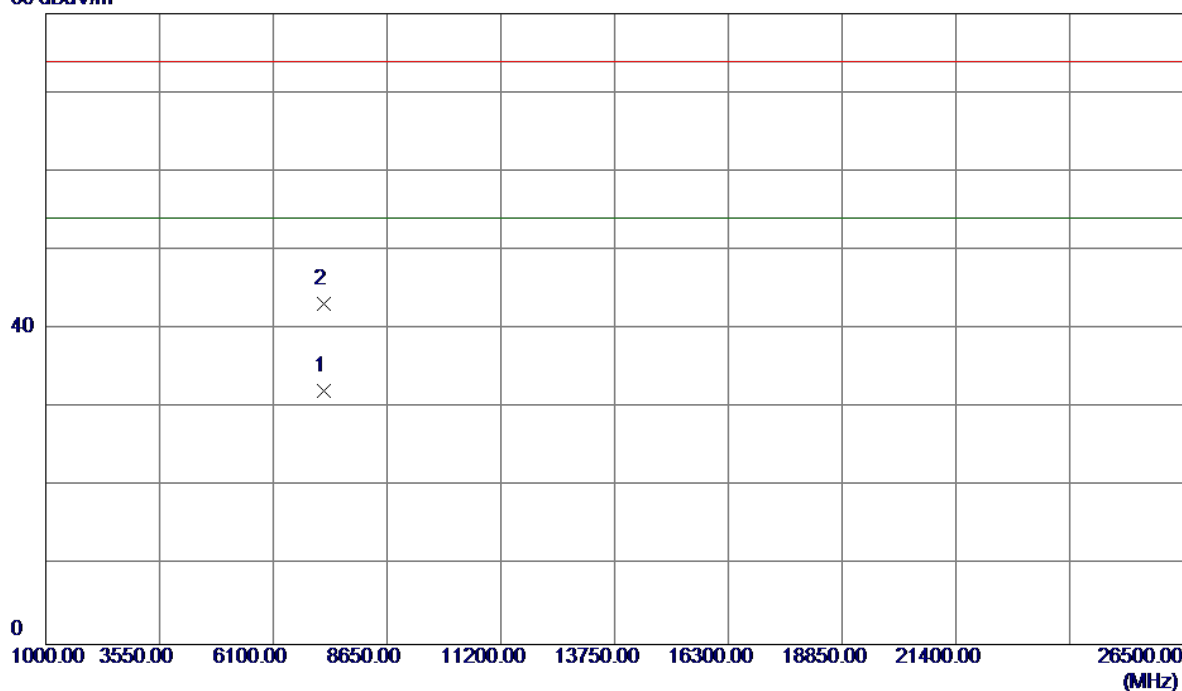


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	24.50	32.38	56.88	74.00	-17.12	Peak	
2	2390.0000	13.67	32.38	46.05	54.00	-7.95	AVG	
3	2413.5000	65.17	32.46	97.63	74.00	23.63	Peak	No Limint
4 *	2419.0000	56.82	32.48	89.30	54.00	35.30	AVG	No Limint

Orthogonal Axis :	X
Test Mode :	TX G MODE 2412MHz

### Horizontal

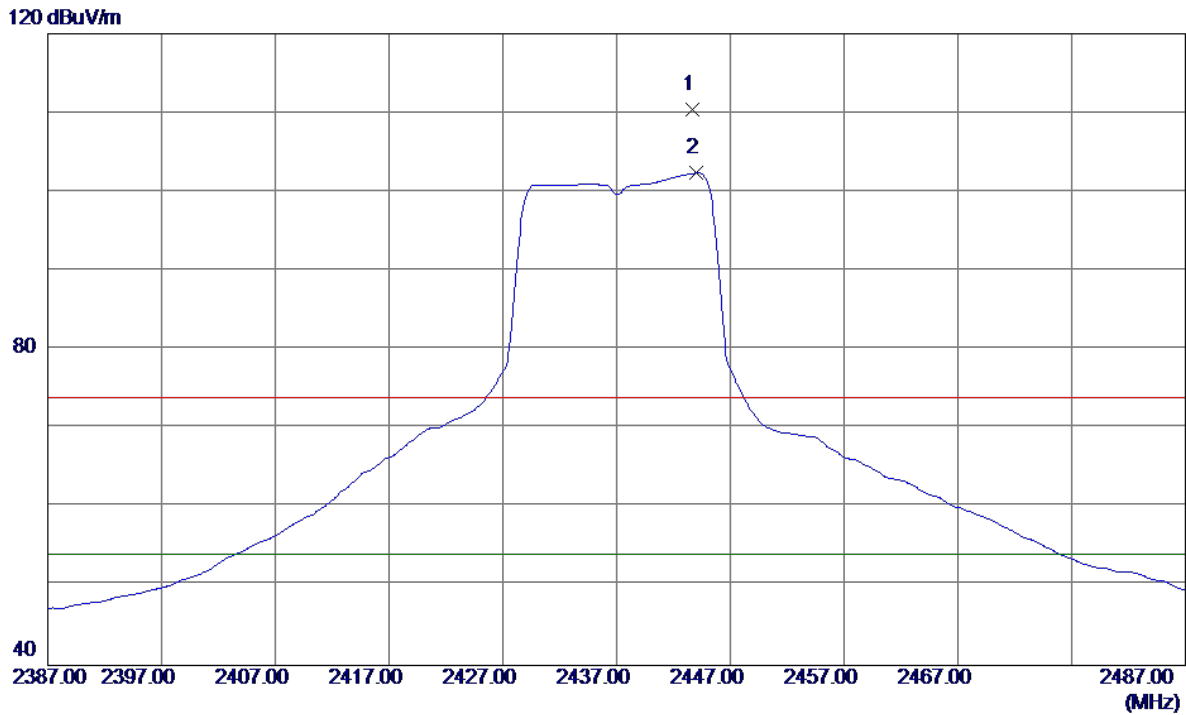
80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	7233.1250	23.42	8.76	32.18	54.00	-21.82	AVG	
2	7237.7430	34.47	8.77	43.24	74.00	-30.76	Peak	

Orthogonal Axis :	X
Test Mode :	TX G MODE 2437MHz

**Vertical**

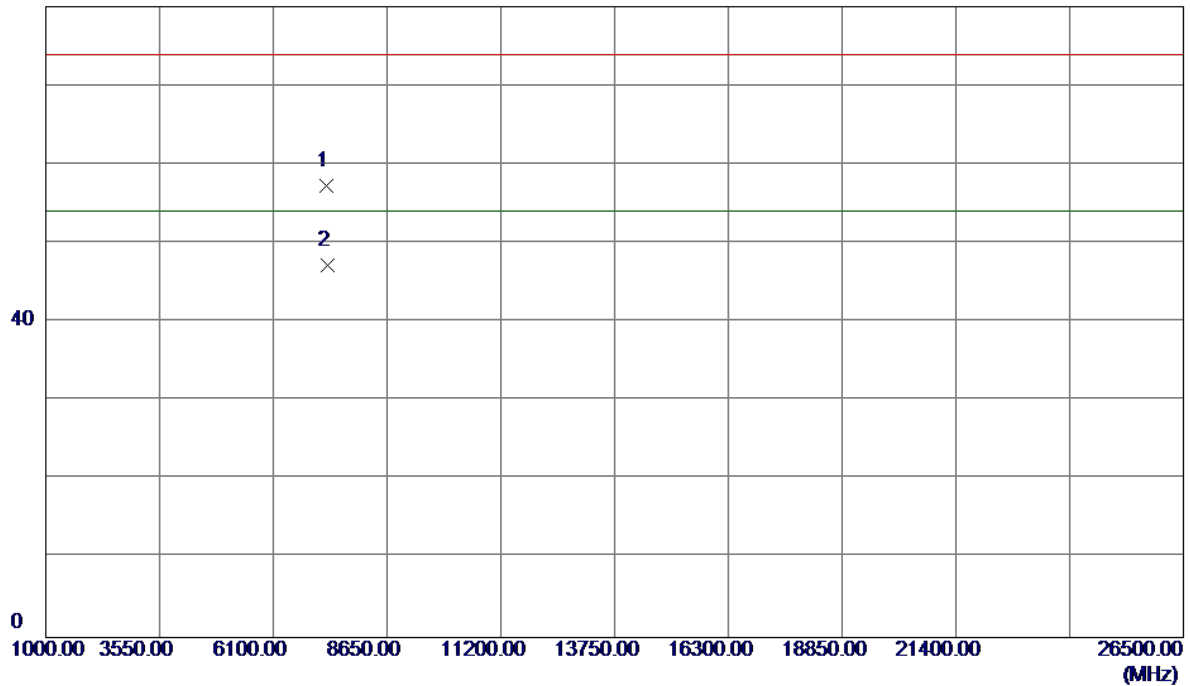


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2443.7000	77.89	32.57	110.46	74.00	36.46	Peak	No Limint
2 *	2444.0000	69.77	32.57	102.34	54.00	48.34	AVG	No Limint

Orthogonal Axis :	X
Test Mode :	TX G MODE 2437MHz

**Vertical**

80 dBuV/m

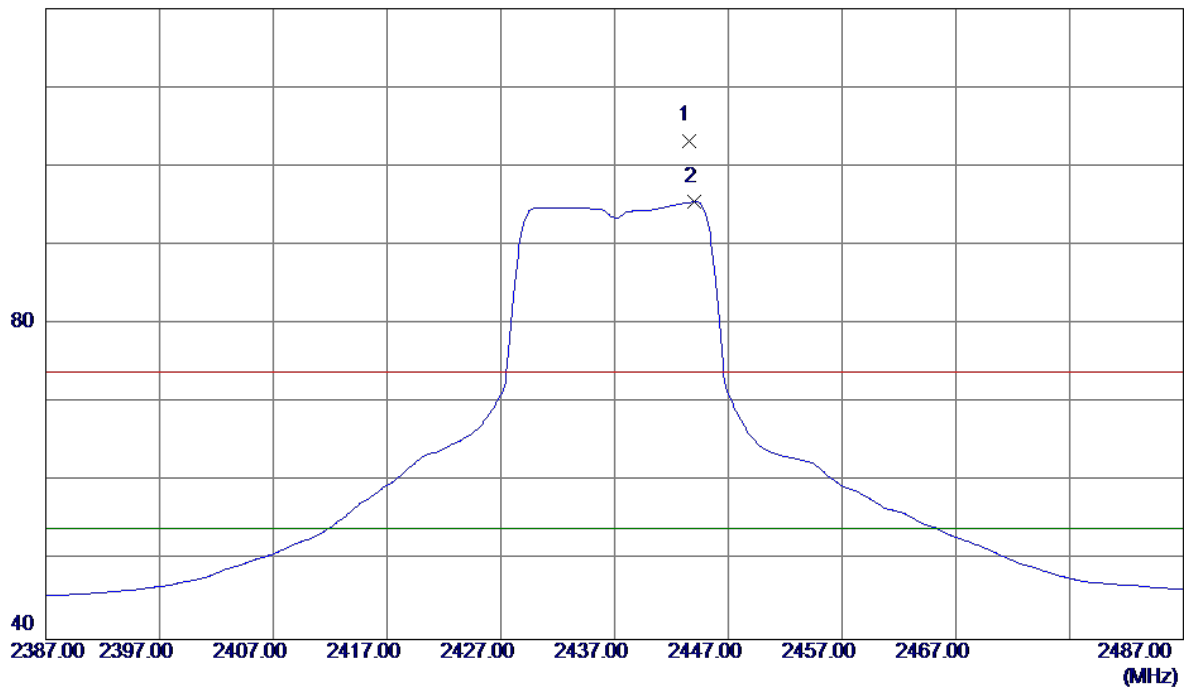


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	7302.4580	48.35	8.96	57.31	74.00	-16.69	Peak	
2 *	7305.6680	38.23	8.97	47.20	54.00	-6.80	AVG	

Orthogonal Axis :	X
Test Mode :	TX G MODE 2437MHz

### Horizontal

120 dBuV/m

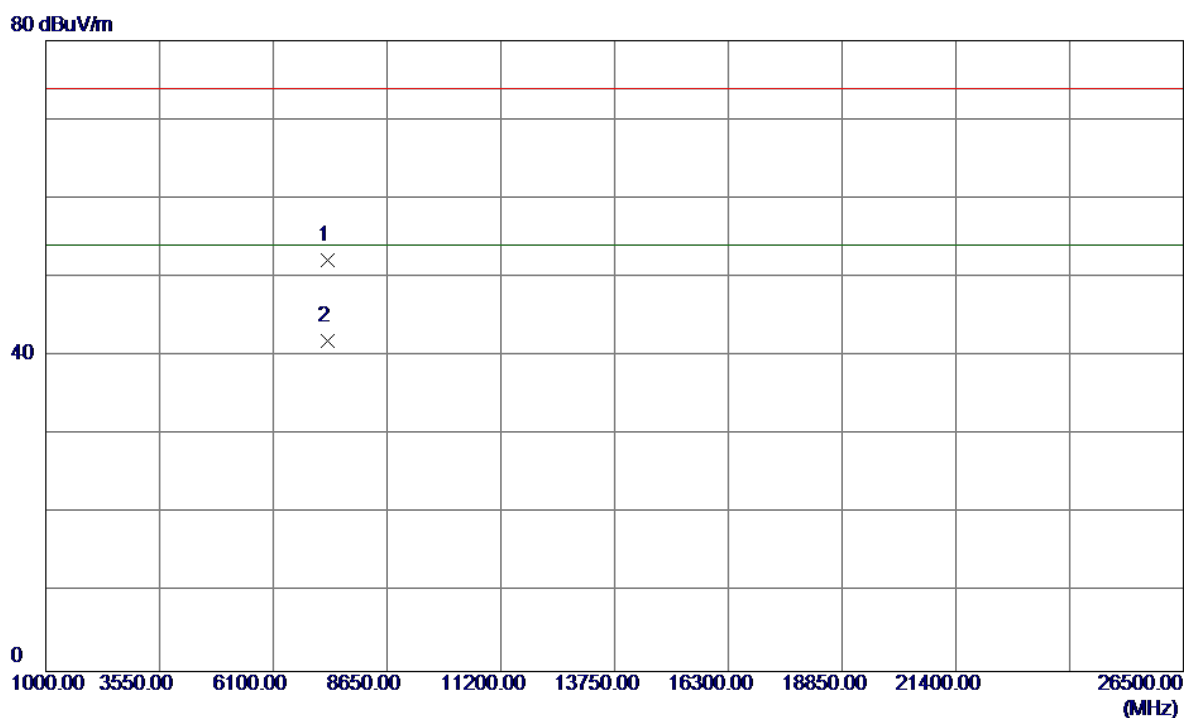


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2443.5000	70.71	32.57	103.28	74.00	29.28	Peak	No Limint
2 *	2444.0000	62.91	32.57	95.48	54.00	41.48	AVG	No Limint



Orthogonal Axis :	X
Test Mode :	TX G MODE 2437MHz

### Horizontal

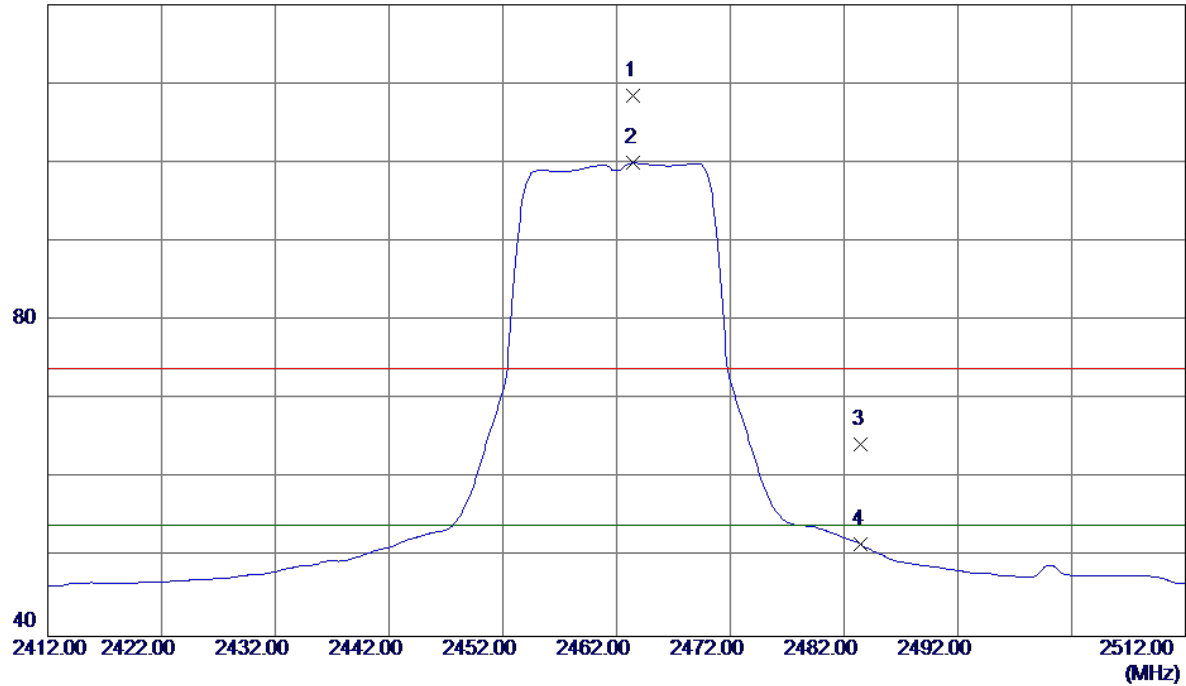


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	7305.3480	43.17	8.97	52.14	74.00	-21.86	Peak	
2 *	7315.3740	32.94	9.00	41.94	54.00	-12.06	AVG	

Orthogonal Axis :	X
Test Mode :	TX G MODE 2462MHz

**Vertical**

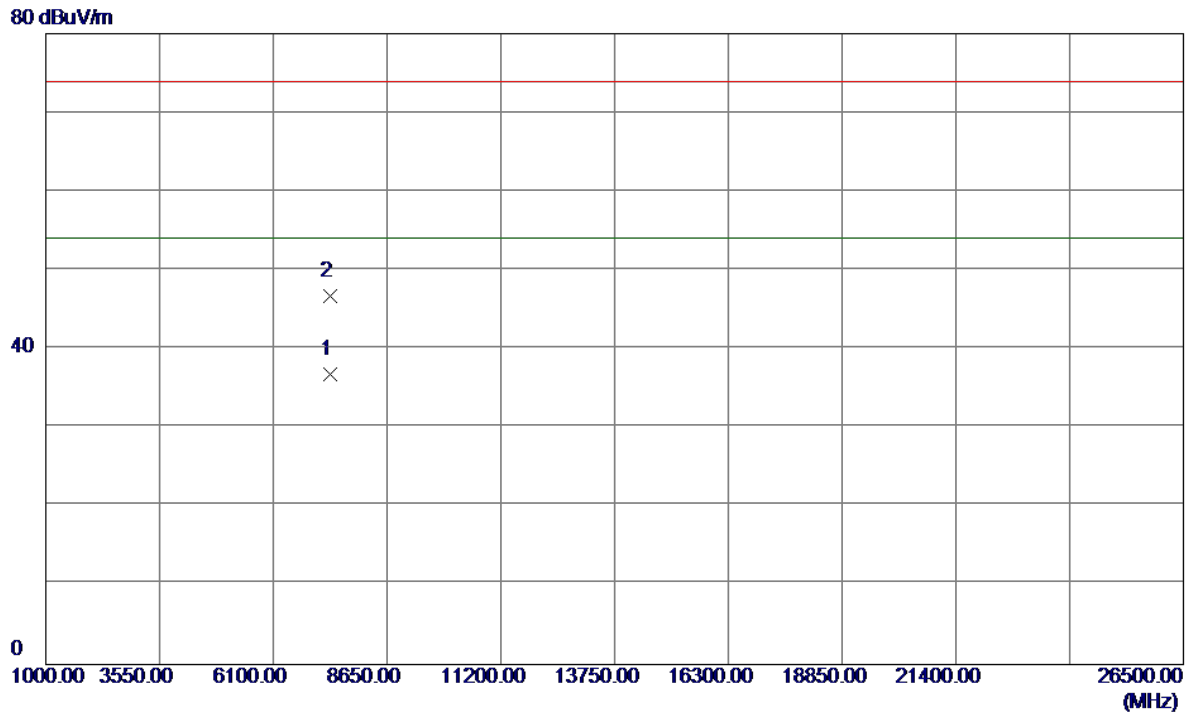
120 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2463.5000	75.80	32.64	108.44	74.00	34.44	Peak	No Limint
2 *	2463.5000	67.31	32.64	99.95	54.00	45.95	AVG	No Limint
3	2483.5000	31.62	32.71	64.33	74.00	-9.67	Peak	
4	2483.5000	18.90	32.71	51.61	54.00	-2.39	AVG	

Orthogonal Axis :	X
Test Mode :	TX G MODE 2462MHz

### Vertical

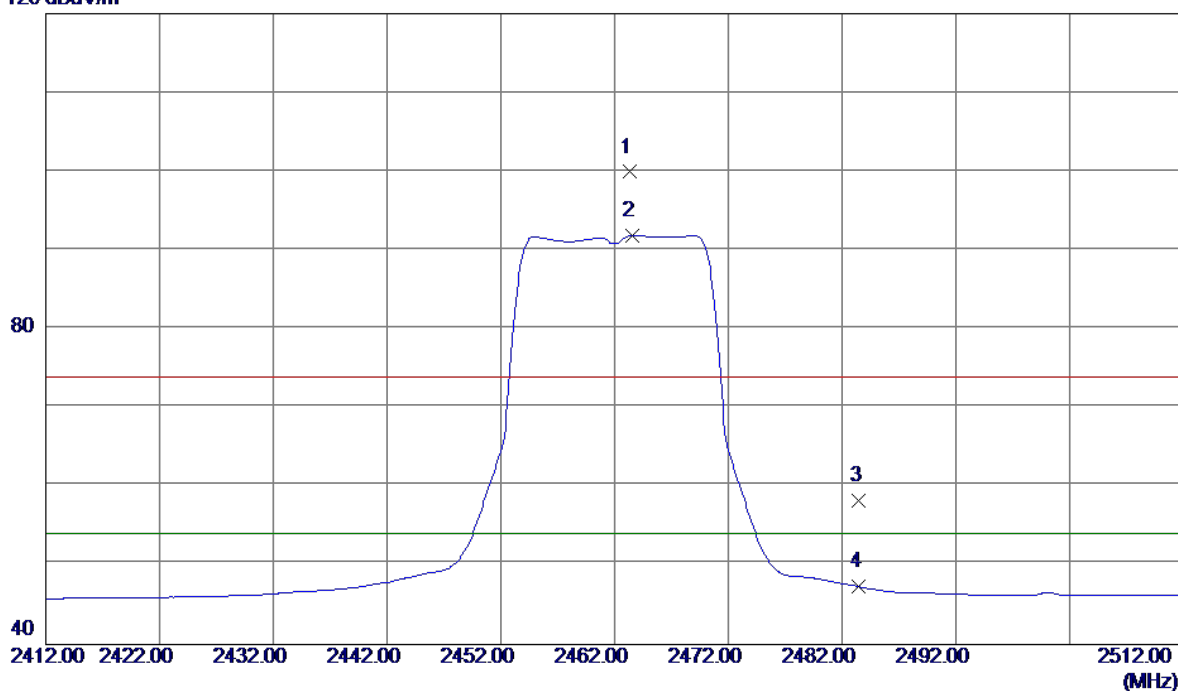


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	7385.3590	27.67	9.20	36.87	54.00	-17.13	AVG	
2	7387.2470	37.51	9.21	46.72	74.00	-27.28	Peak	

Orthogonal Axis :	X
Test Mode :	TX G MODE 2462MHz

### Horizontal

120 dBuV/m

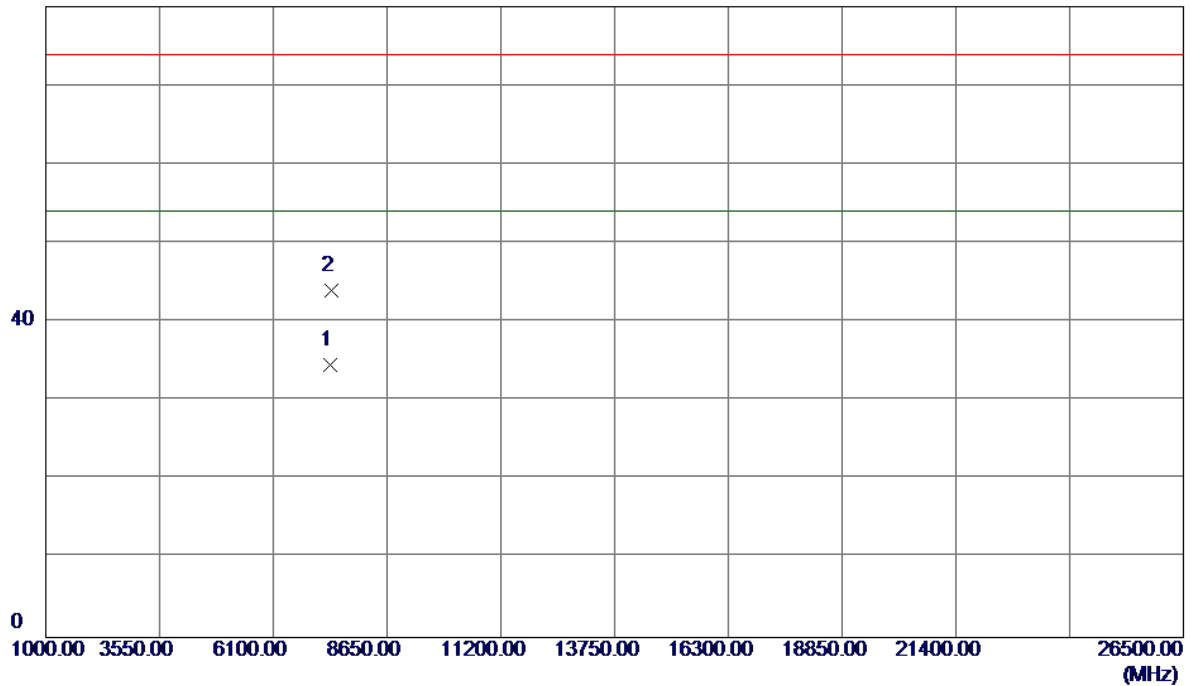


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2463.3000	67.28	32.64	99.92	74.00	25.92	Peak	No Limint
2 *	2463.6000	59.22	32.64	91.86	54.00	37.86	AVG	No Limint
3	2483.5000	25.51	32.71	58.22	74.00	-15.78	Peak	
4	2483.5000	14.61	32.71	47.32	54.00	-6.68	AVG	

Orthogonal Axis :	X
Test Mode :	TX G MODE 2462MHz

### Horizontal

80 dBuV/m

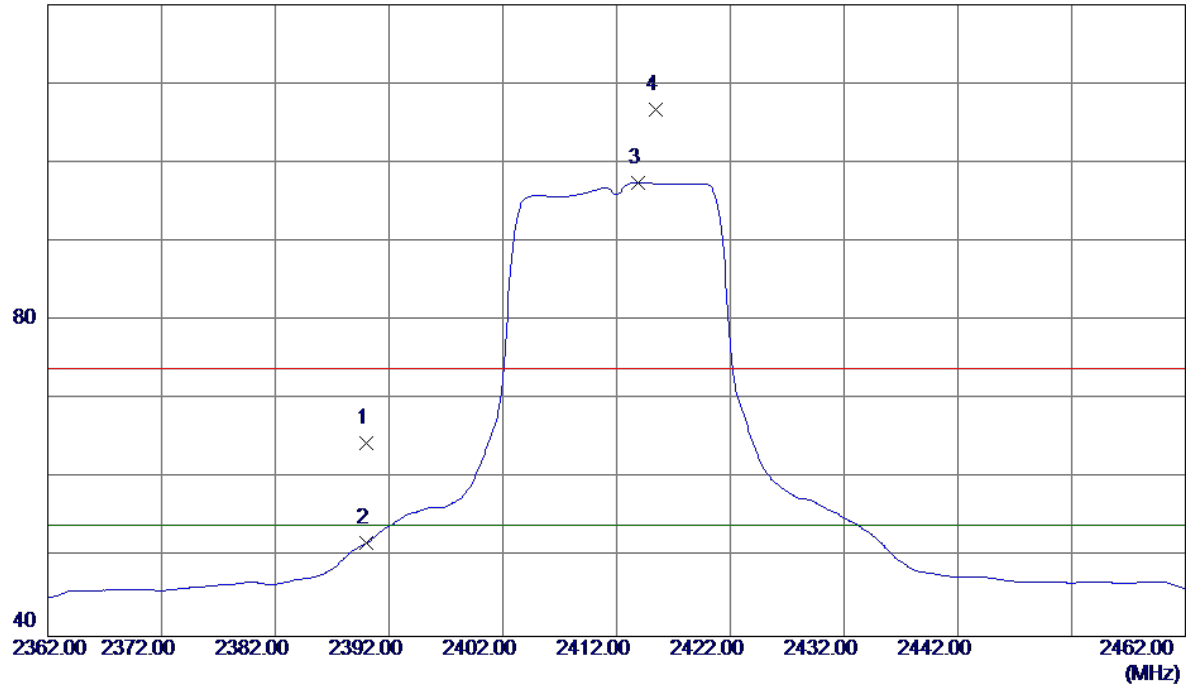


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	7384.3480	25.35	9.20	34.55	54.00	-19.45	AVG	
2	7390.1210	34.83	9.21	44.04	74.00	-29.96	Peak	

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

**Vertical**

120 dBuV/m

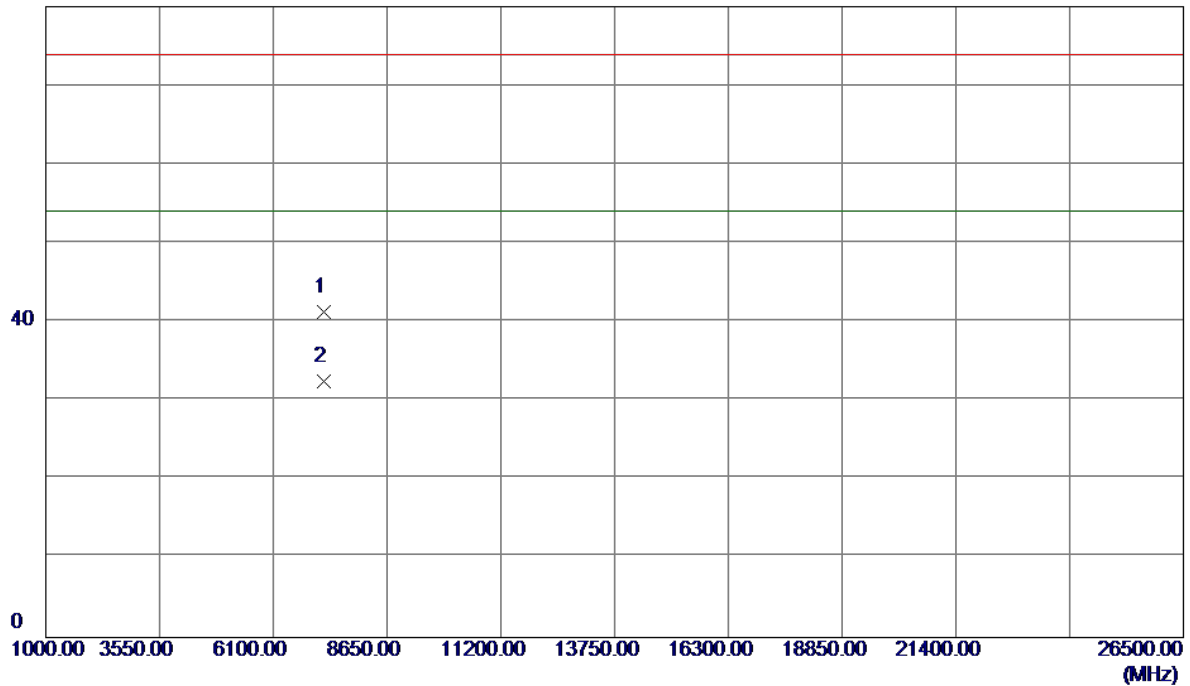


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	32.16	32.38	64.54	74.00	-9.46	Peak	
2	2390.0000	19.43	32.38	51.81	54.00	-2.19	AVG	
3 *	2413.9000	64.98	32.46	97.44	54.00	43.44	AVG	No Limint
4	2415.4000	74.19	32.47	106.66	74.00	32.66	Peak	No Limint

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

### Vertical

80 dBuV/m

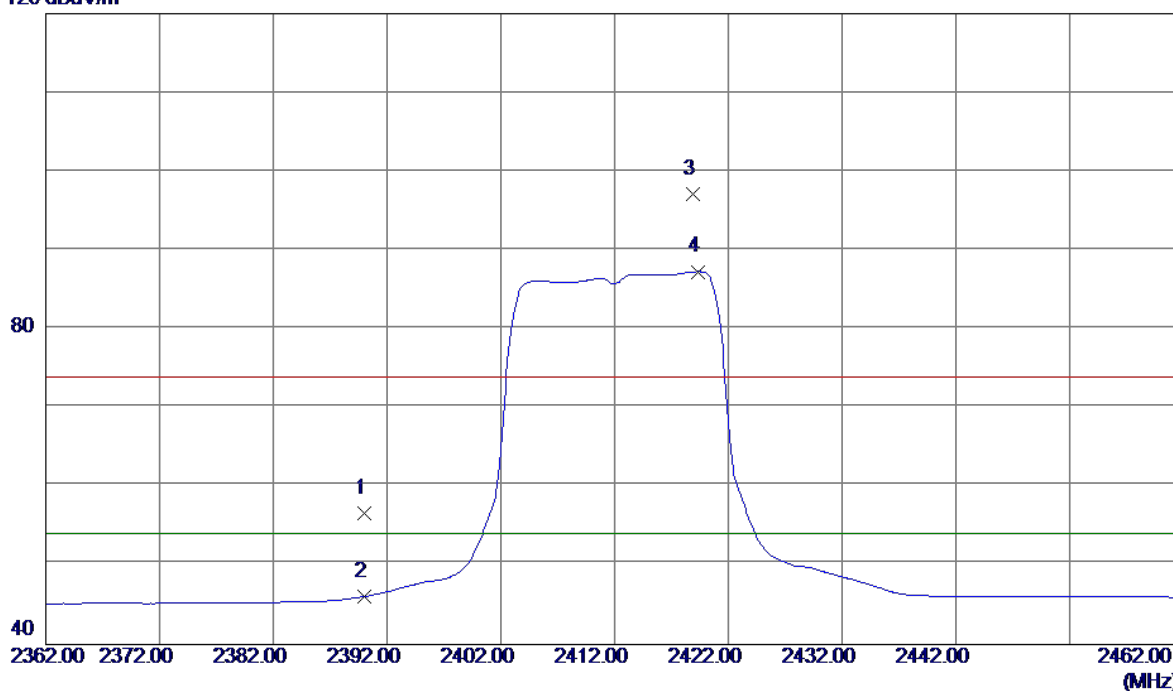


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	7234.8000	32.56	8.77	41.33	74.00	-32.67	Peak	
2 *	7237.4100	23.69	8.77	32.46	54.00	-21.54	AVG	

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

### Horizontal

120 dBuV/m

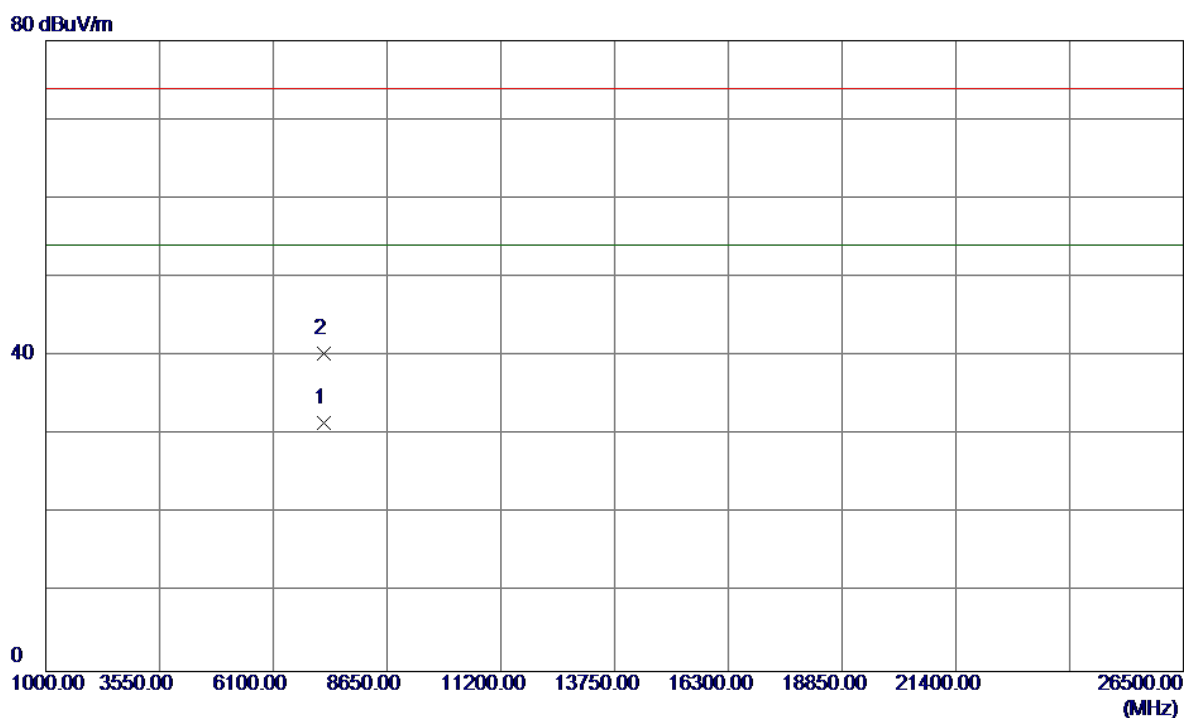


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	24.21	32.38	56.59	74.00	-17.41	Peak	
2	2390.0000	13.68	32.38	46.06	54.00	-7.94	AVG	
3	2418.9000	64.62	32.48	97.10	74.00	23.10	Peak	No Limint
4 *	2419.3000	54.80	32.48	87.28	54.00	33.28	AVG	No Limint



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

### Horizontal

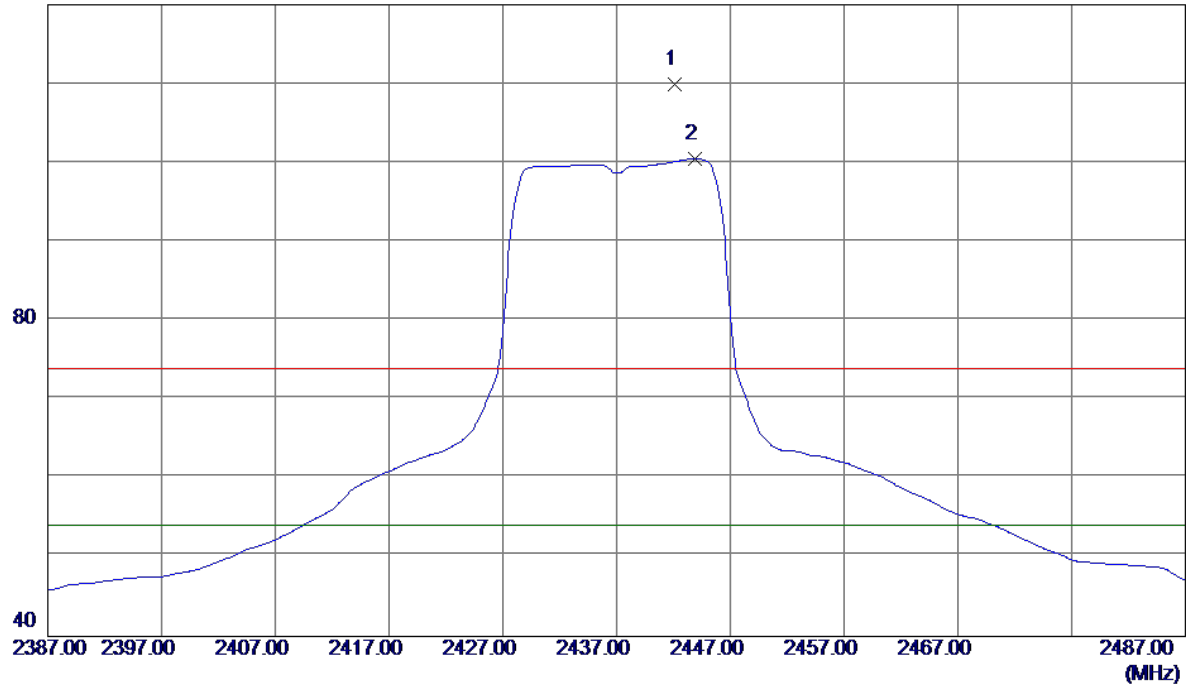


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	7233.4830	22.73	8.76	31.49	54.00	-22.51	AVG	
2	7244.6620	31.55	8.79	40.34	74.00	-33.66	Peak	

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

**Vertical**

120 dBuV/m

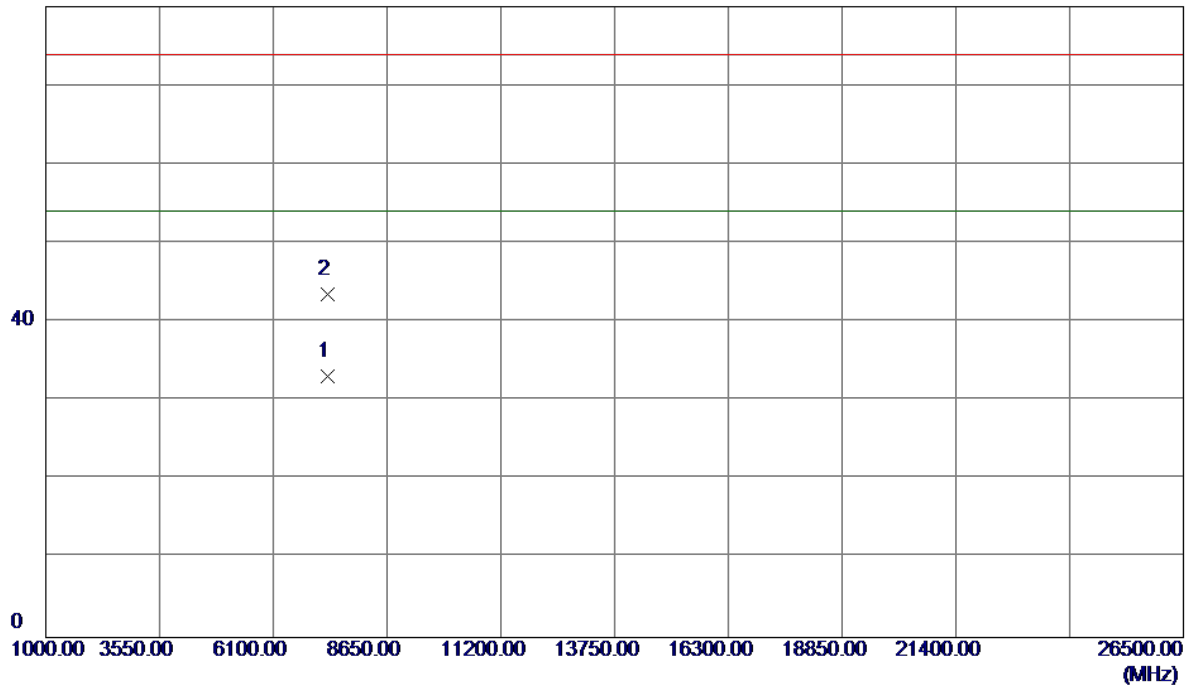


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2442.1000	77.30	32.56	109.86	74.00	35.86	Peak	No Limint
2 *	2443.9000	67.88	32.57	100.45	54.00	46.45	AVG	No Limint

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

**Vertical**

80 dBuV/m

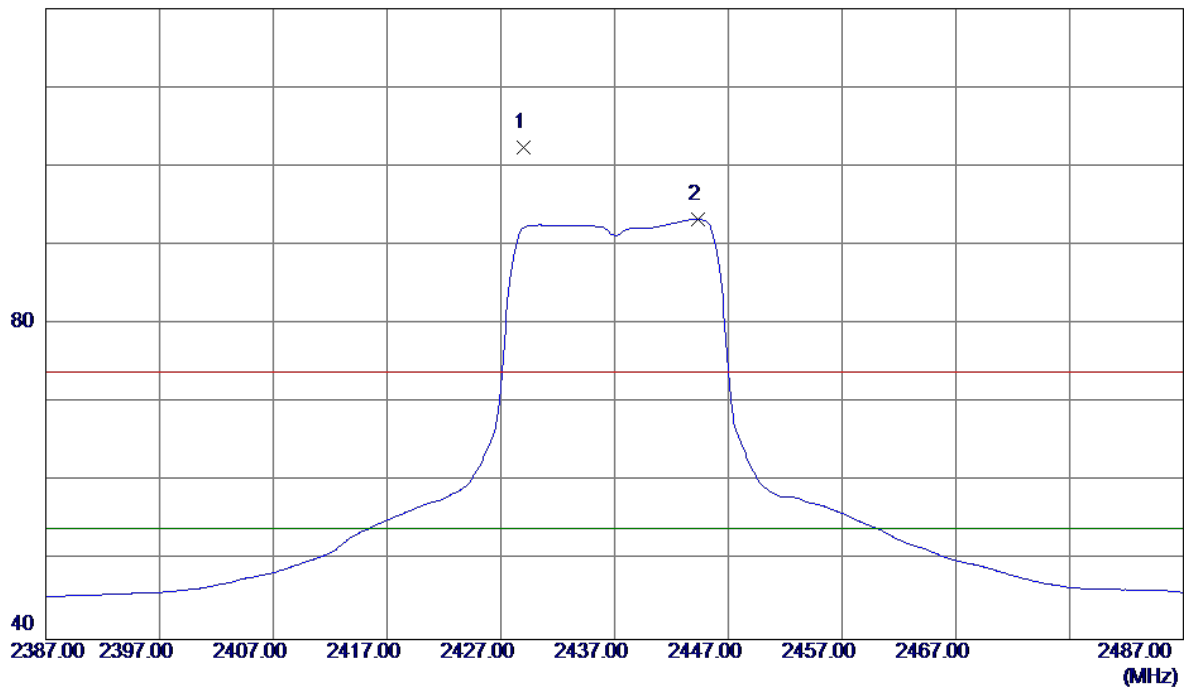


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	7305.6370	24.15	8.97	33.12	54.00	-20.88	AVG	
2	7310.7370	34.53	8.98	43.51	74.00	-30.49	Peak	

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

### Horizontal

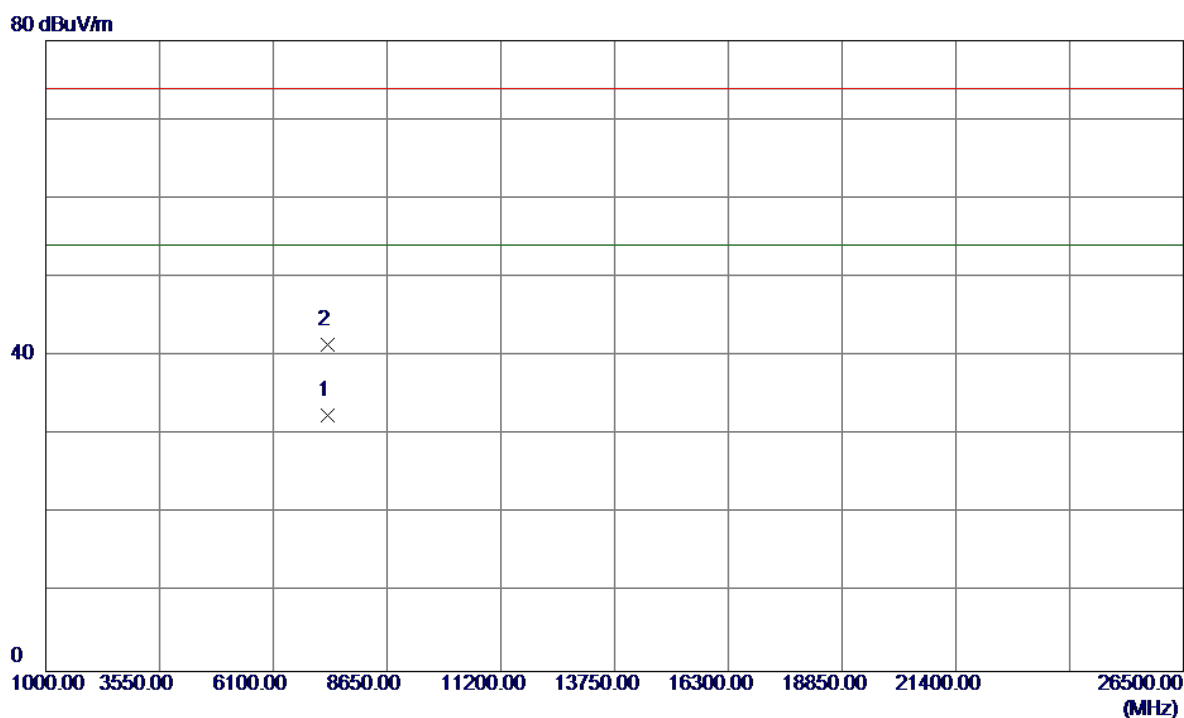
120 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2429.0000	69.86	32.52	102.38	74.00	28.38	Peak	No Limint
2 *	2444.3000	60.71	32.57	93.28	54.00	39.28	AVG	No Limint

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

### Horizontal

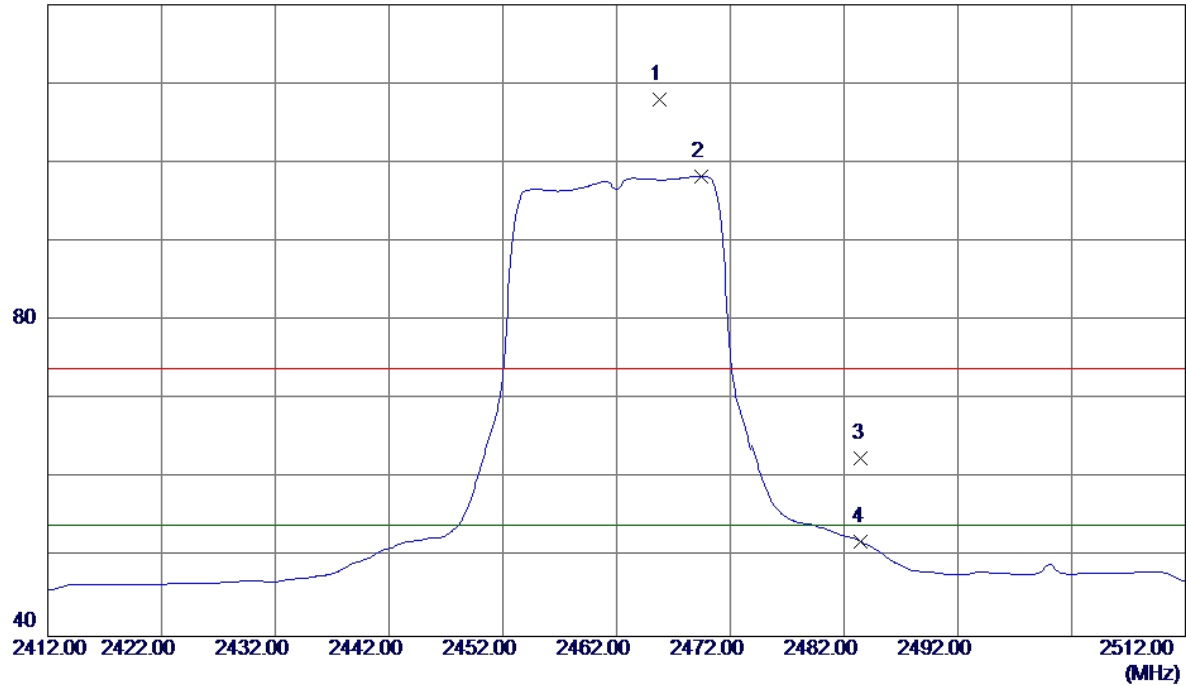


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	7308.6370	23.51	8.98	32.49	54.00	-21.51	AVG	
2	7316.7260	32.43	9.00	41.43	74.00	-32.57	Peak	

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

**Vertical**

120 dBuV/m

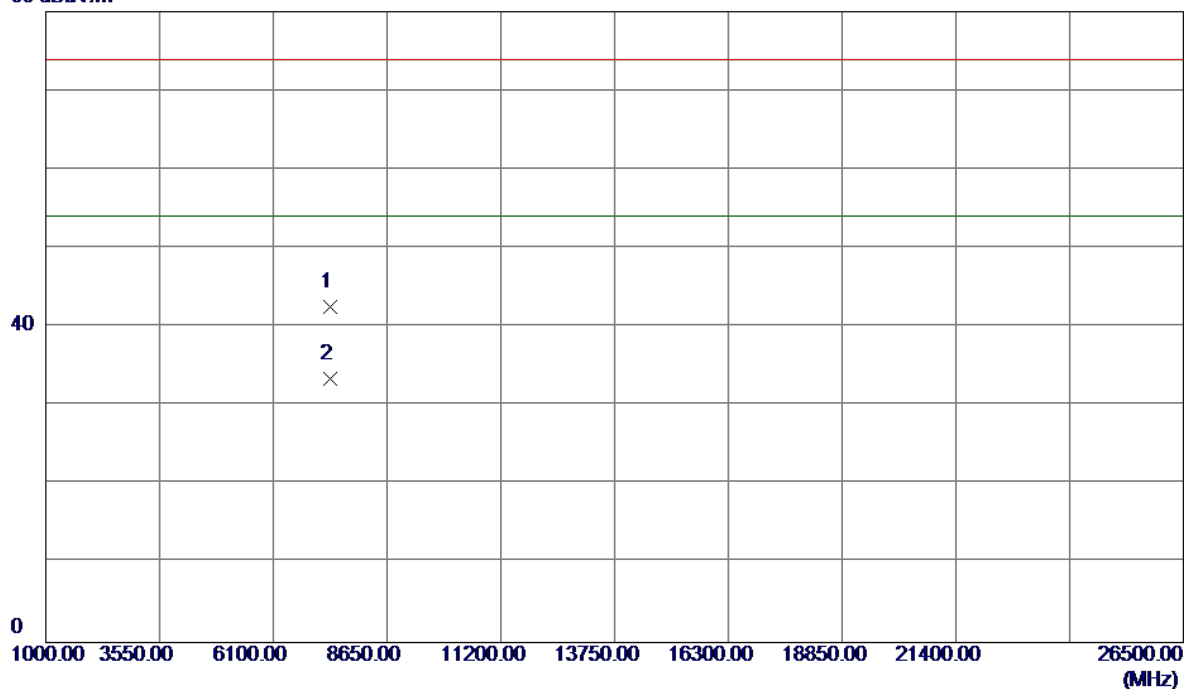


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2465.8000	75.27	32.65	107.92	74.00	33.92	Peak	No Limint
2 *	2469.4000	65.64	32.66	98.30	54.00	44.30	AVG	No Limint
3	2483.5000	29.82	32.71	62.53	74.00	-11.47	Peak	
4	2483.5000	19.25	32.71	51.96	54.00	-2.04	AVG	

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

### Vertical

80 dBuV/m

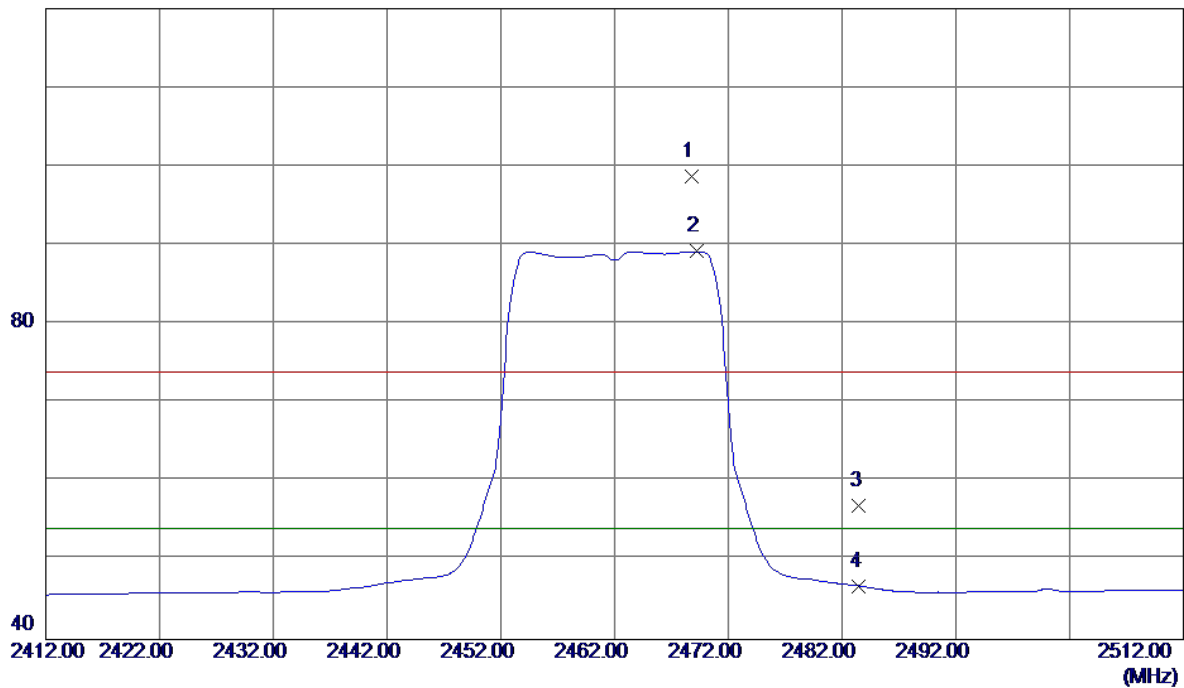


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	7374.4680	33.45	9.17	42.62	74.00	-31.38	Peak	
2 *	7385.3780	24.23	9.20	33.43	54.00	-20.57	AVG	

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

### Horizontal

120 dBuV/m



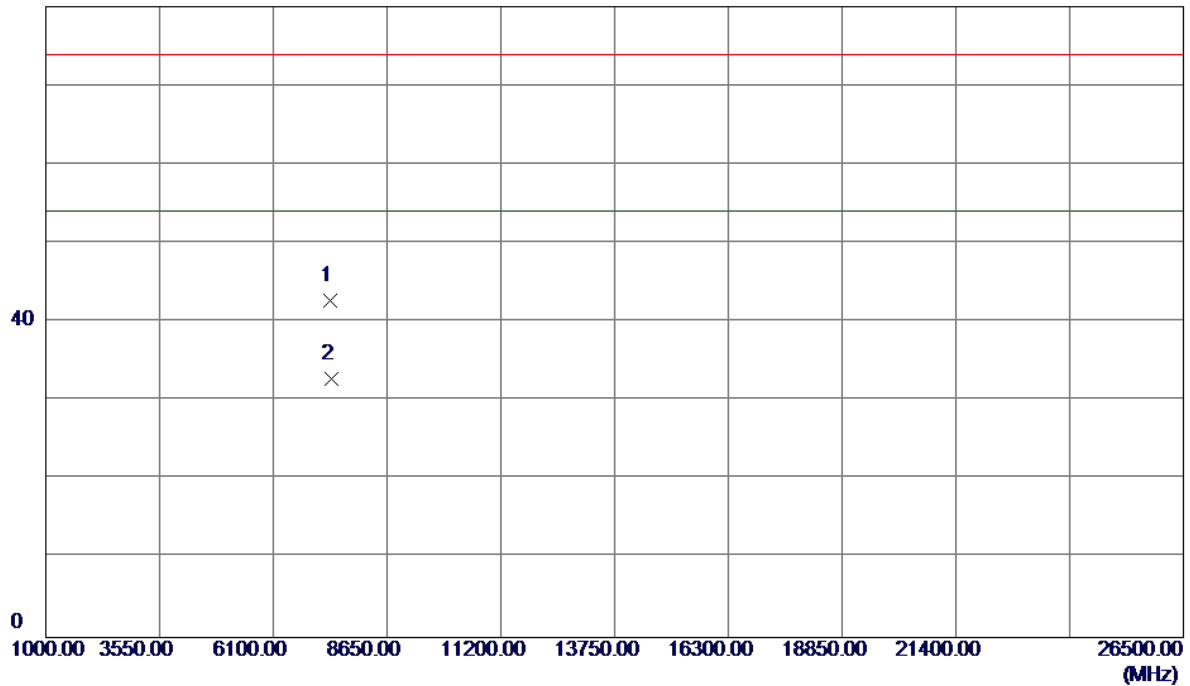
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2468.8000	66.10	32.66	98.76	74.00	24.76	Peak	No Limint
2 *	2469.2000	56.54	32.66	89.20	54.00	35.20	AVG	No Limint
3	2483.5000	24.18	32.71	56.89	74.00	-17.11	Peak	
4	2483.5000	14.07	32.71	46.78	54.00	-7.22	AVG	



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

### Horizontal

80 dBuV/m

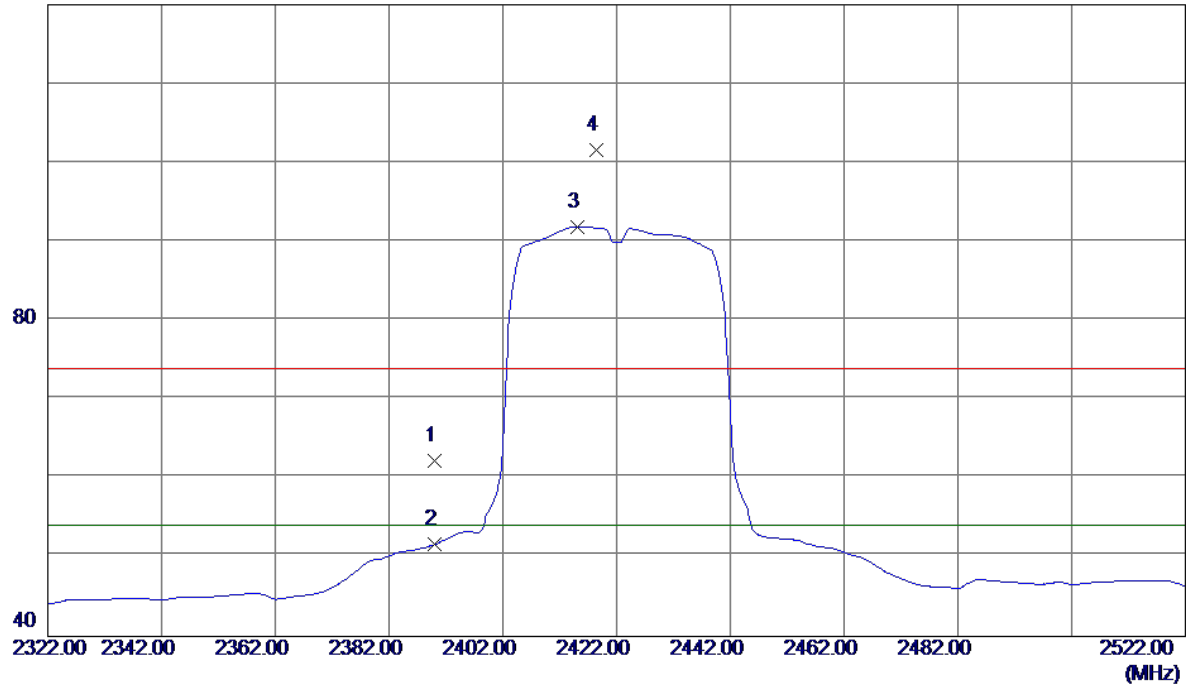


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	7383.5380	33.55	9.19	42.74	74.00	-31.26	Peak	
2 *	7390.9320	23.61	9.22	32.83	54.00	-21.17	AVG	

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

### Vertical

120 dBuV/m

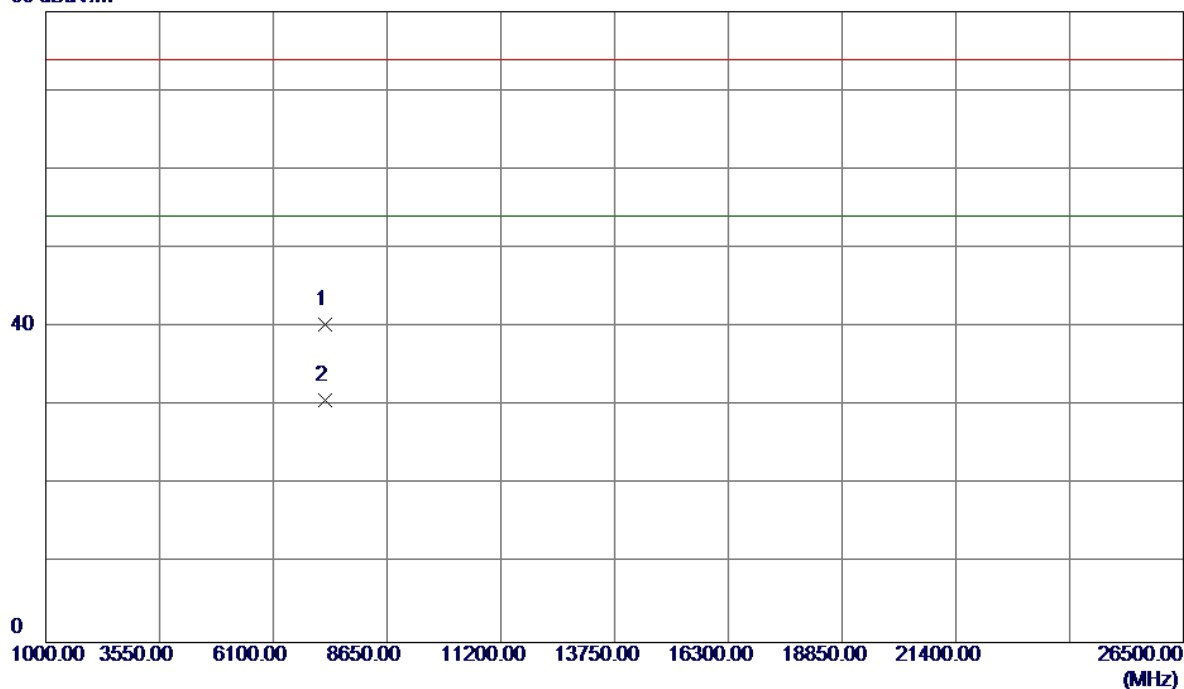


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	29.92	32.38	62.30	74.00	-11.70	Peak	
2	2390.0000	19.23	32.38	51.61	54.00	-2.39	AVG	
3 *	2415.2000	59.42	32.47	91.89	54.00	37.89	AVG	No Limint
4	2418.4000	69.06	32.48	101.54	74.00	27.54	Peak	No Limint

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

### Vertical

80 dBuV/m

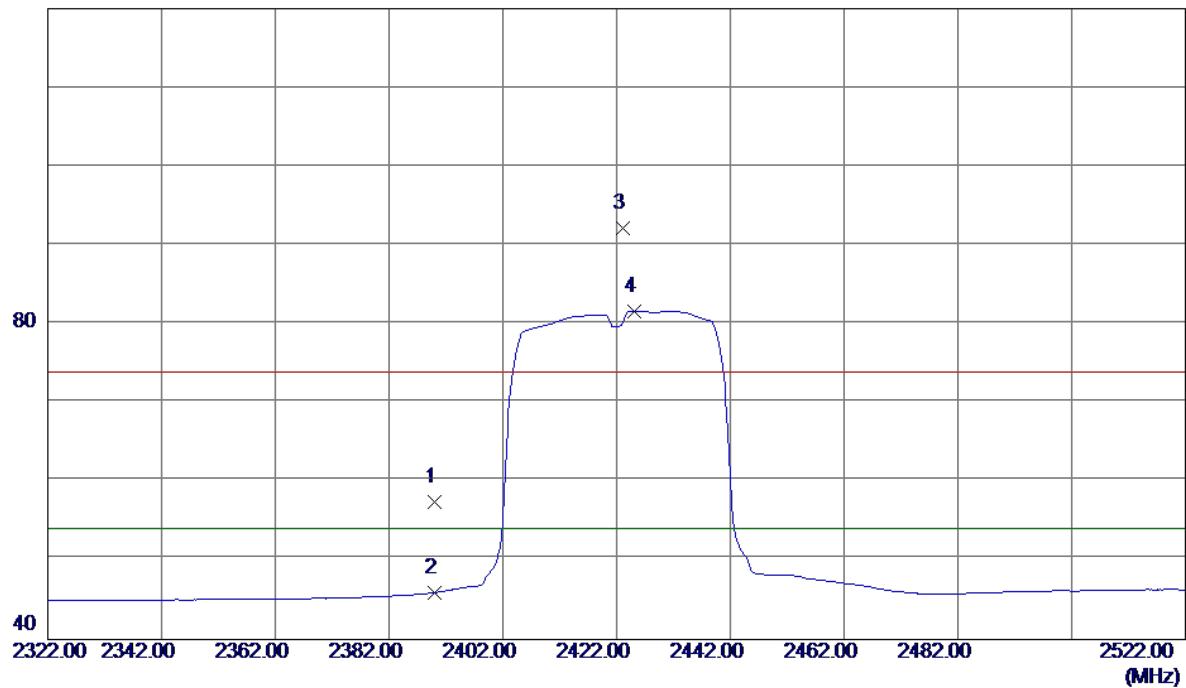


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	7264.5720	31.54	8.85	40.39	74.00	-33.61	Peak	
2 *	7266.7530	21.88	8.86	30.74	54.00	-23.26	AVG	

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

### Horizontal

120 dBuV/m

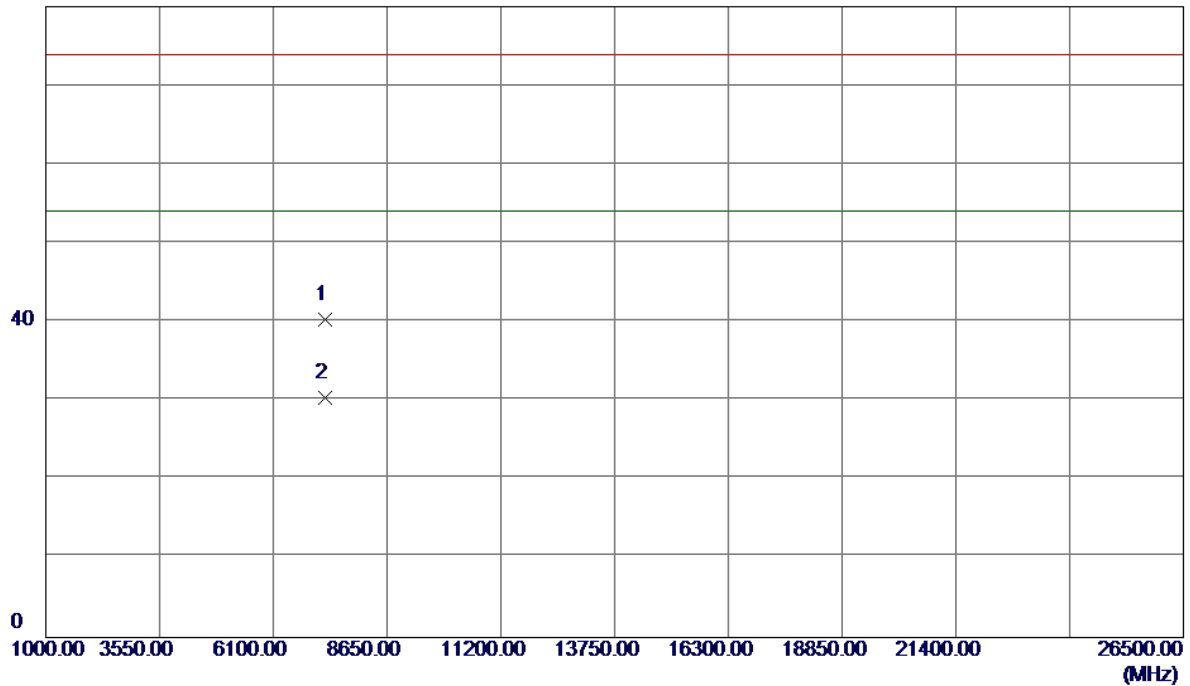


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	25.11	32.38	57.49	74.00	-16.51	Peak	
2	2390.0000	13.56	32.38	45.94	54.00	-8.06	AVG	
3	2423.2000	59.68	32.49	92.17	74.00	18.17	Peak	No Limint
4 *	2425.2000	49.17	32.50	81.67	54.00	27.67	AVG	No Limint

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

### Horizontal

80 dBuV/m

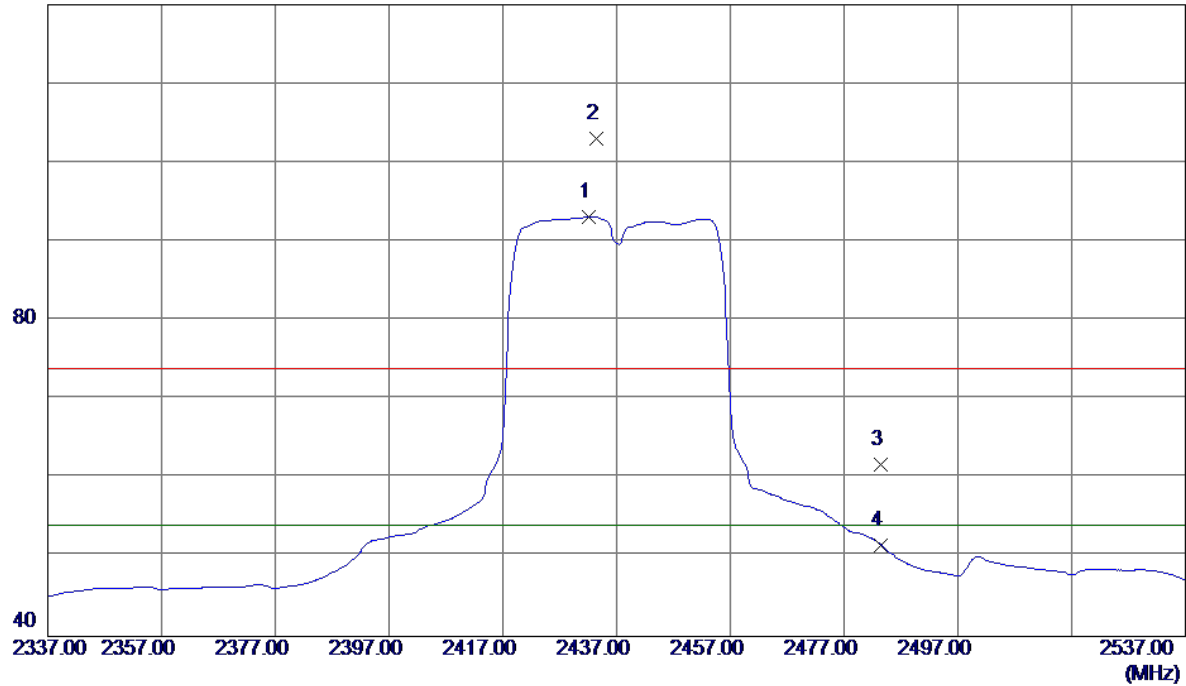


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	7263.4230	31.53	8.85	40.38	74.00	-33.62	Peak	
2 *	7266.5250	21.55	8.86	30.41	54.00	-23.59	AVG	

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

### Vertical

120 dBuV/m

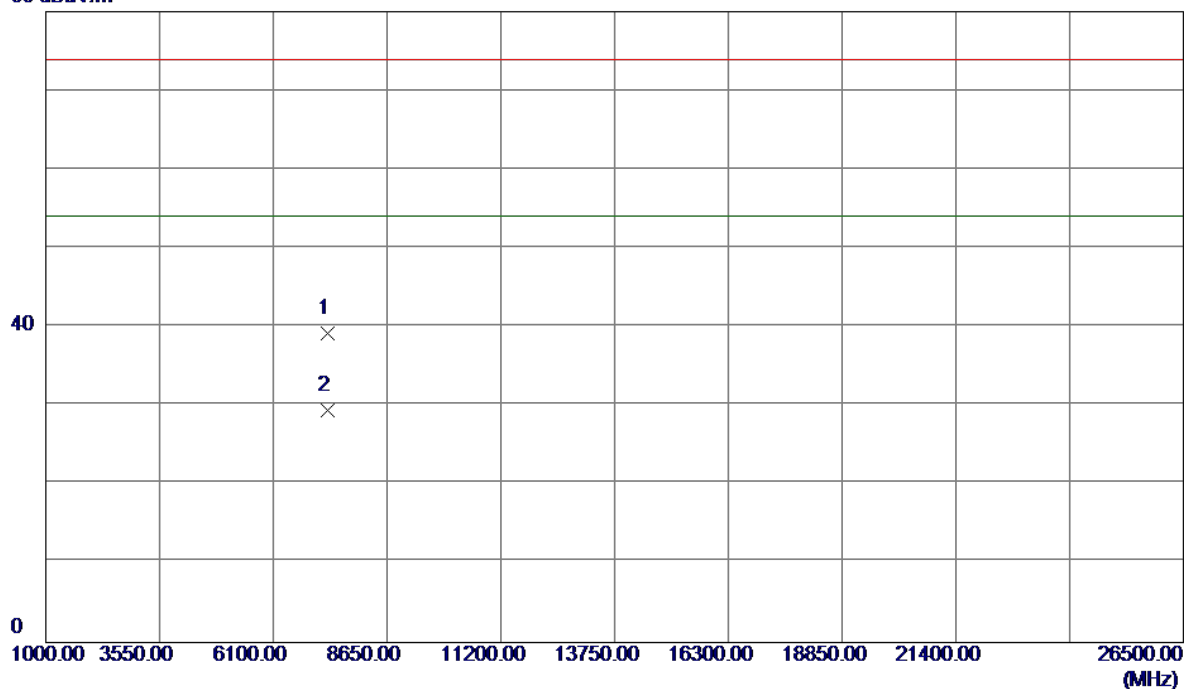


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2432.2000	60.59	32.53	93.12	54.00	39.12	AVG	No Limint
2	2433.4000	70.58	32.53	103.11	74.00	29.11	Peak	No Limint
3	2483.5000	29.10	32.71	61.81	74.00	-12.19	Peak	
4	2483.5000	18.82	32.71	51.53	54.00	-2.47	AVG	

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

### Vertical

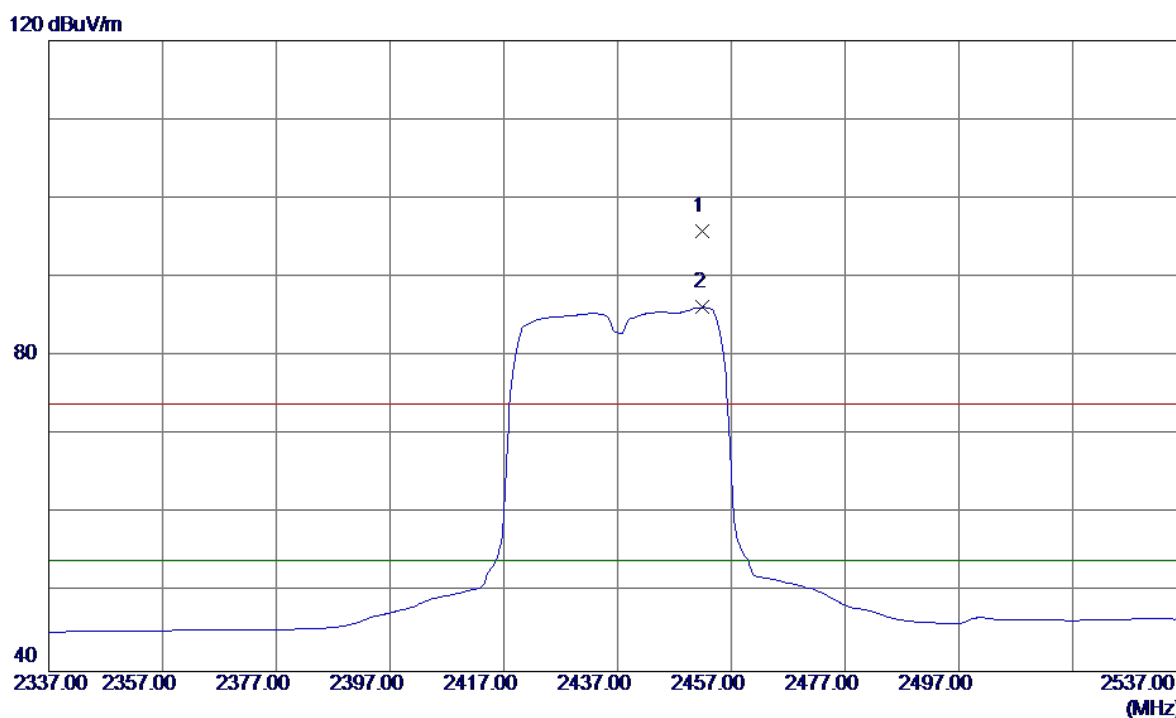
80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	7309.4520	30.26	8.98	39.24	74.00	-34.76	Peak	
2 *	7310.4660	20.48	8.98	29.46	54.00	-24.54	AVG	

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

### Horizontal

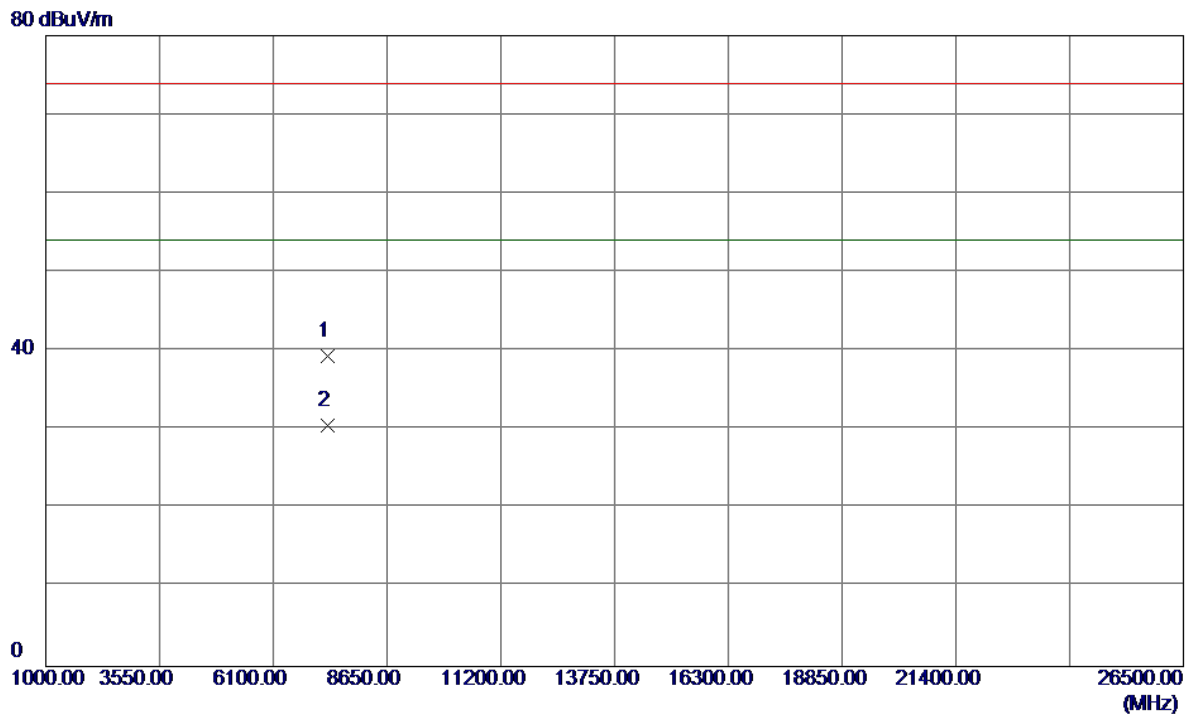


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2451.8000	63.23	32.60	95.83	74.00	21.83	Peak	No Limint
2 *	2452.0000	53.57	32.60	86.17	54.00	32.17	AVG	No Limint



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

### Horizontal

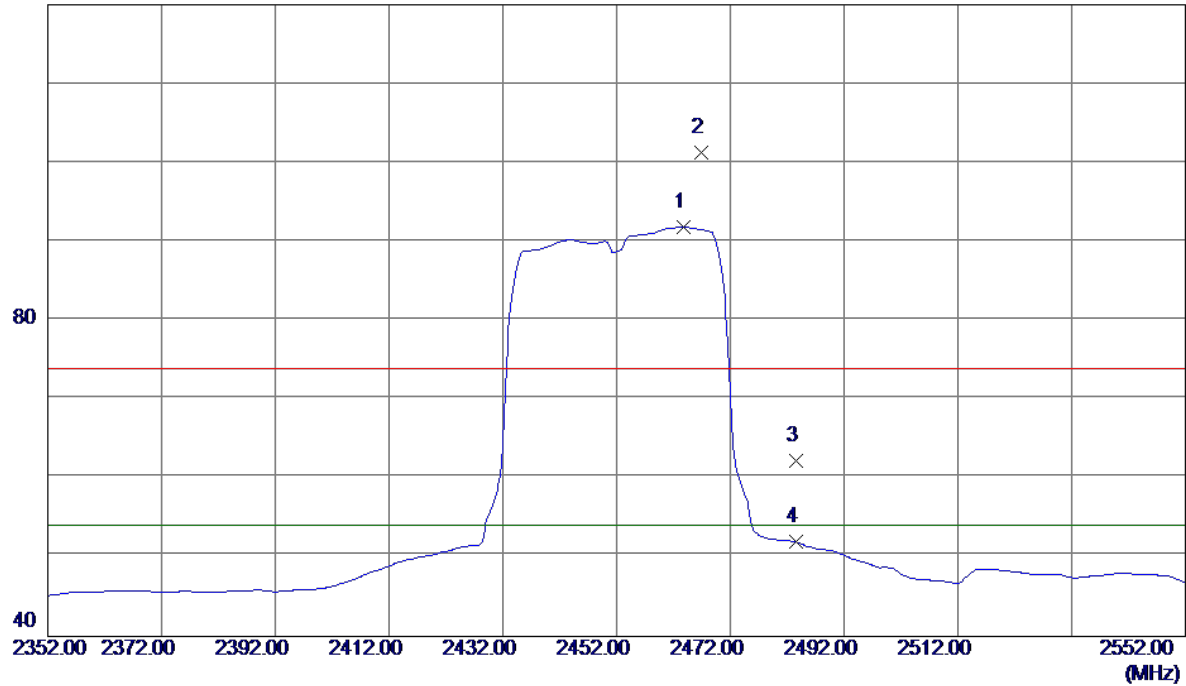


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	7309.3990	30.42	8.98	39.40	74.00	-34.60	Peak	
2 *	7310.4620	21.64	8.98	30.62	54.00	-23.38	AVG	

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

### Vertical

120 dBuV/m

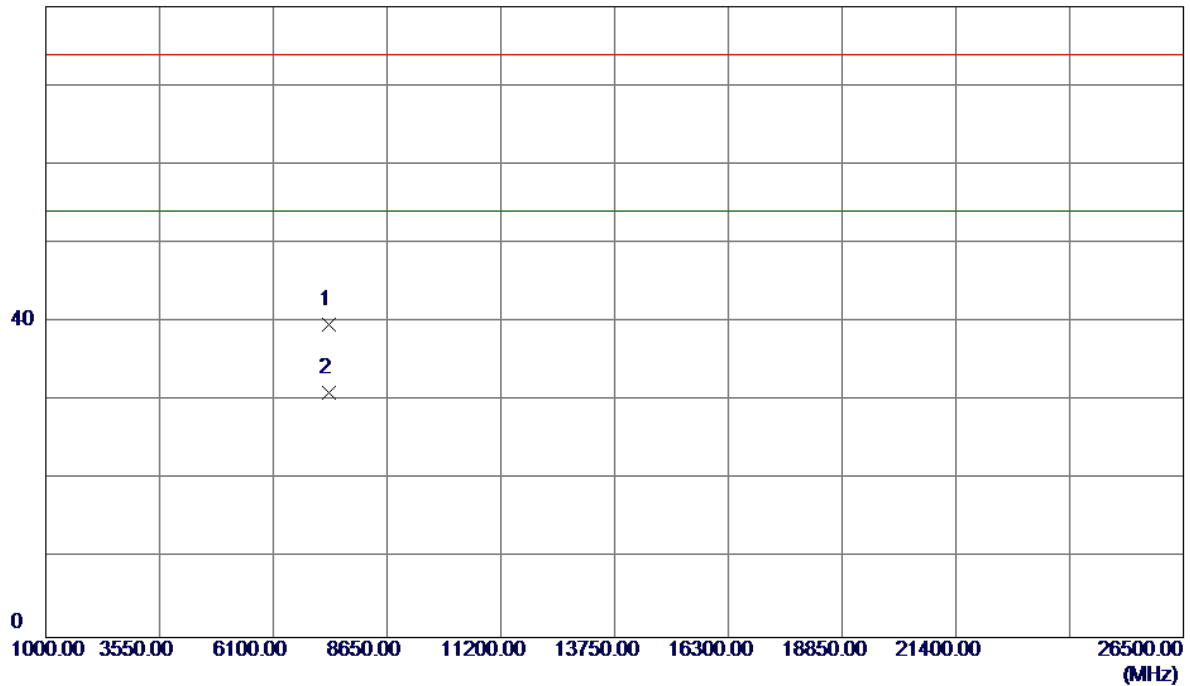


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2463.8000	59.17	32.64	91.81	54.00	37.81	AVG	No Limint
2	2466.8000	68.57	32.65	101.22	74.00	27.22	Peak	No Limint
3	2483.5000	29.60	32.71	62.31	74.00	-11.69	Peak	
4	2483.5000	19.23	32.71	51.94	54.00	-2.06	AVG	

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

### Vertical

80 dBuV/m

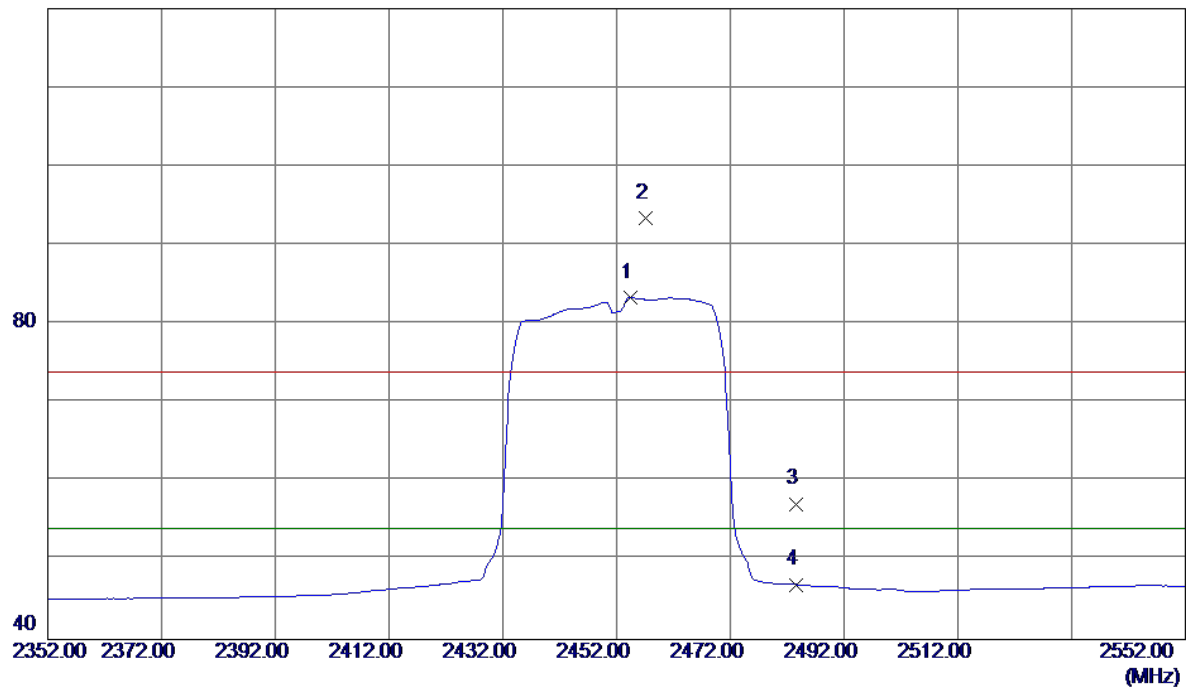


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	7356.4530	30.61	9.12	39.73	74.00	-34.27	Peak	
2 *	7356.6670	21.89	9.12	31.01	54.00	-22.99	AVG	

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

### Horizontal

120 dBuV/m

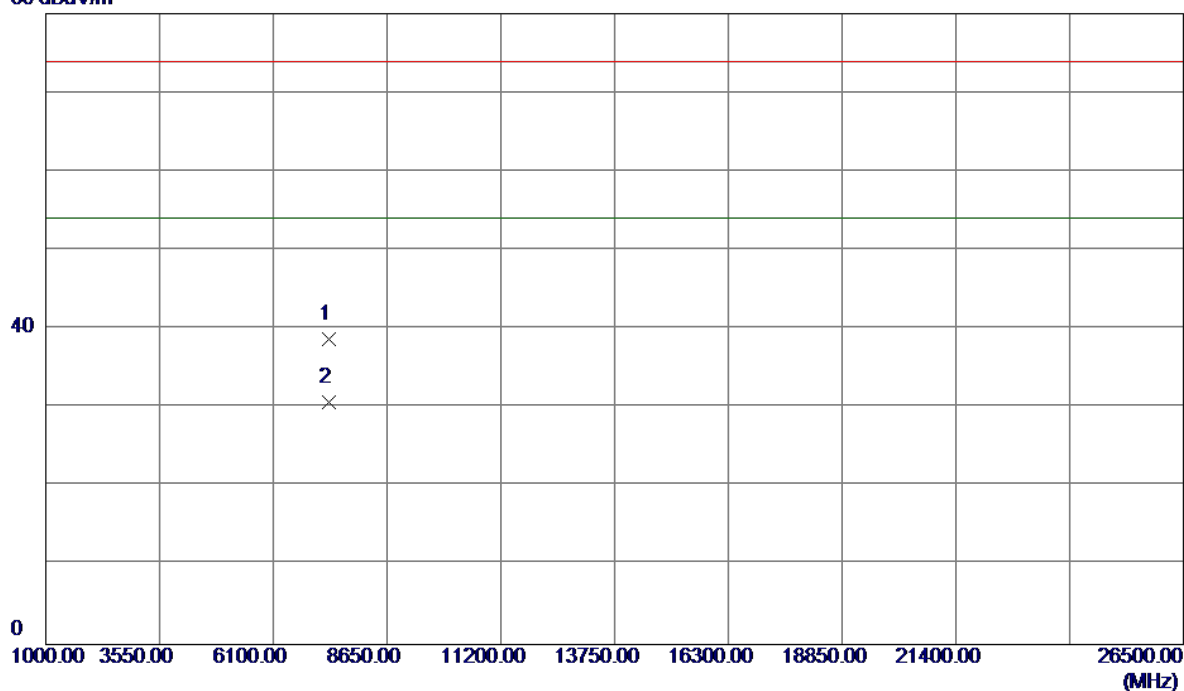


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2454.4000	50.76	32.61	83.37	54.00	29.37	AVG	No Limint
2	2457.2000	60.79	32.62	93.41	74.00	19.41	Peak	No Limint
3	2483.5000	24.49	32.71	57.20	74.00	-16.80	Peak	
4	2483.5000	14.25	32.71	46.96	54.00	-7.04	AVG	

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

### Horizontal

80 dBuV/m



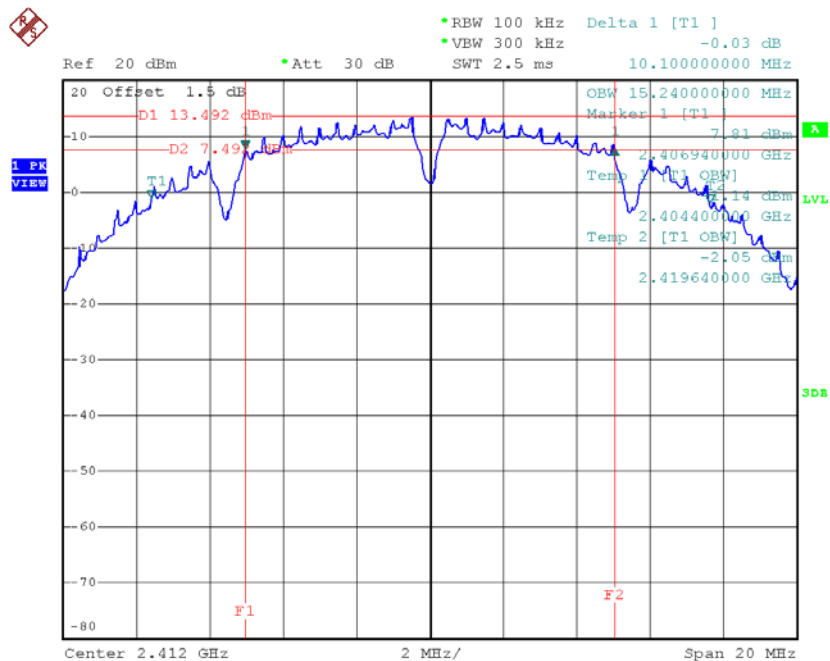
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	7355.6680	29.57	9.11	38.68	74.00	-35.32	Peak	
2 *	7356.9270	21.63	9.12	30.75	54.00	-23.25	AVG	

## ATTACHMENT E - BANDWIDTH

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

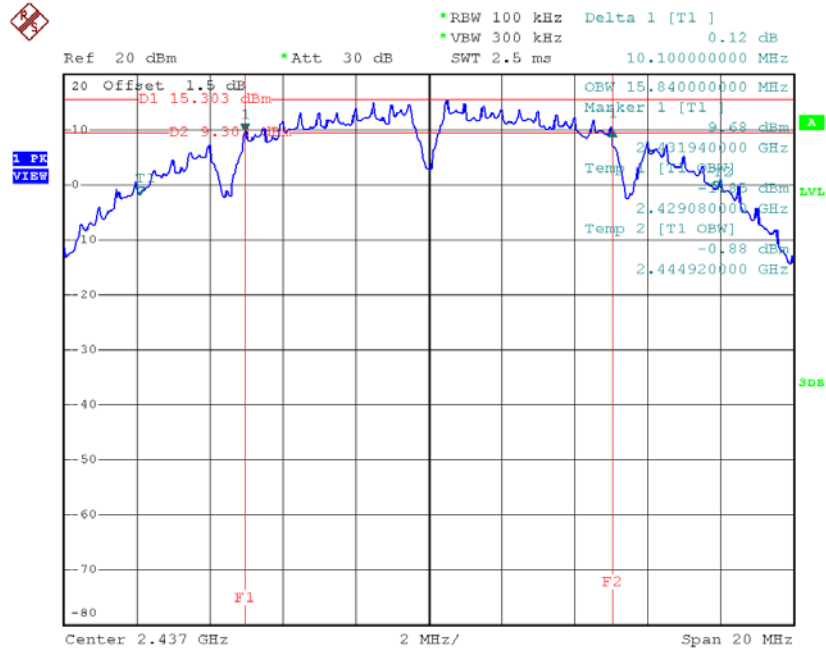
Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied BW (MHz)	Min. Limit (kHz)	Test Result
2412	10.10	15.24	500	Complies
2437	10.10	15.84	500	Complies
2462	10.08	15.24	500	Complies

TX CH01



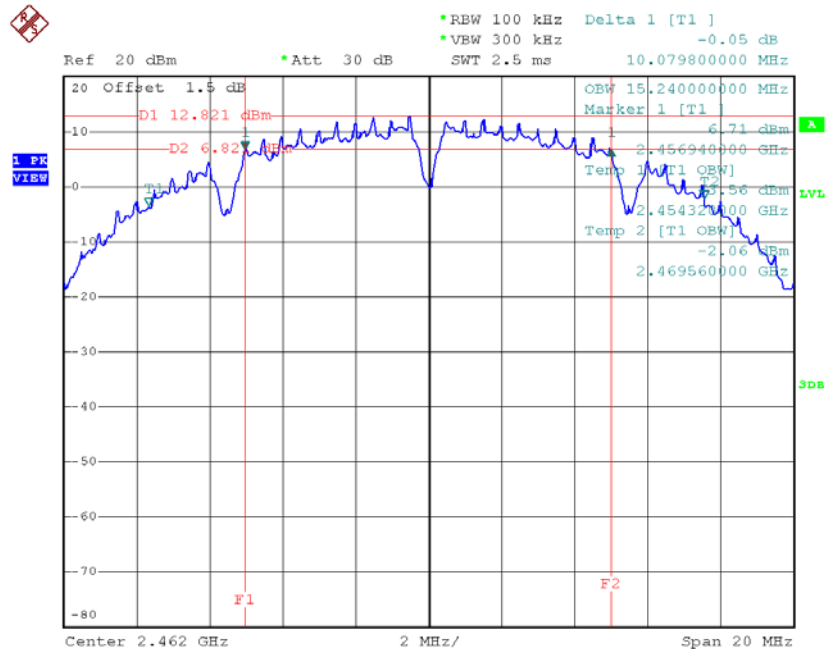
Date: 22.MAY.2017 12:17:52

### TX CH06



Date: 22.MAY.2017 12:20:17

### TX CH11



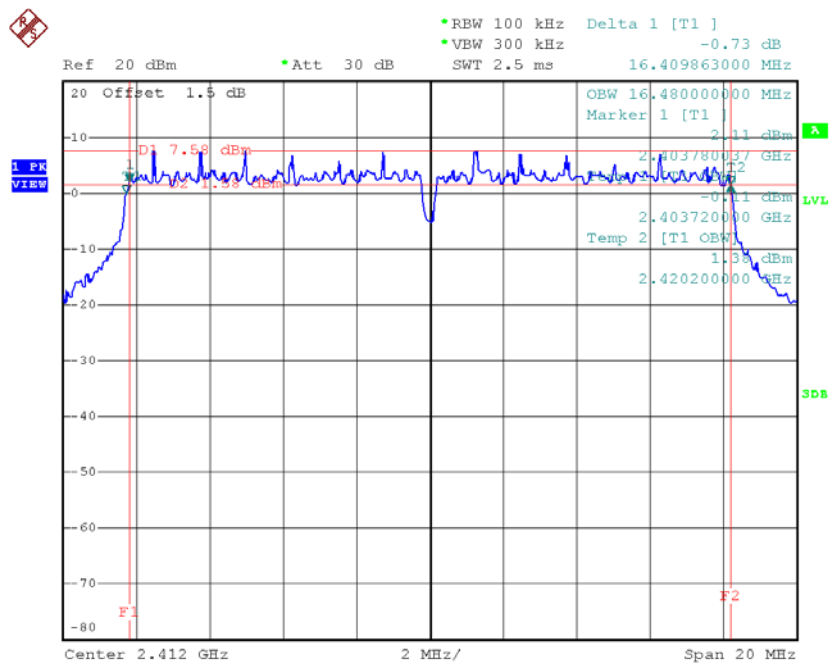
Date: 22.MAY.2017 12:23:11



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

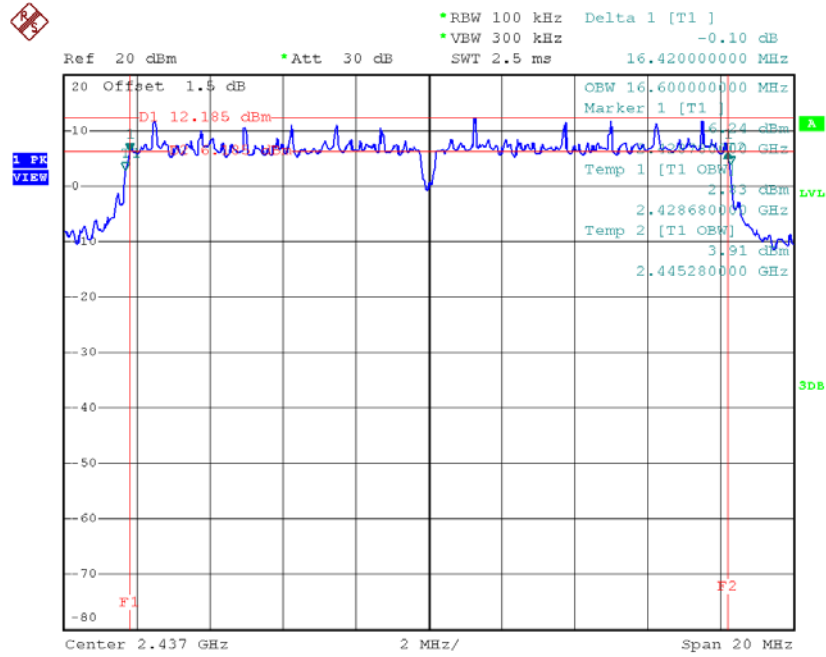
Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied BW (MHz)	Min. Limit (kHz)	Test Result
2412	16.41	16.48	500	Complies
2437	16.42	16.60	500	Complies
2462	16.42	16.48	500	Complies

TX CH01



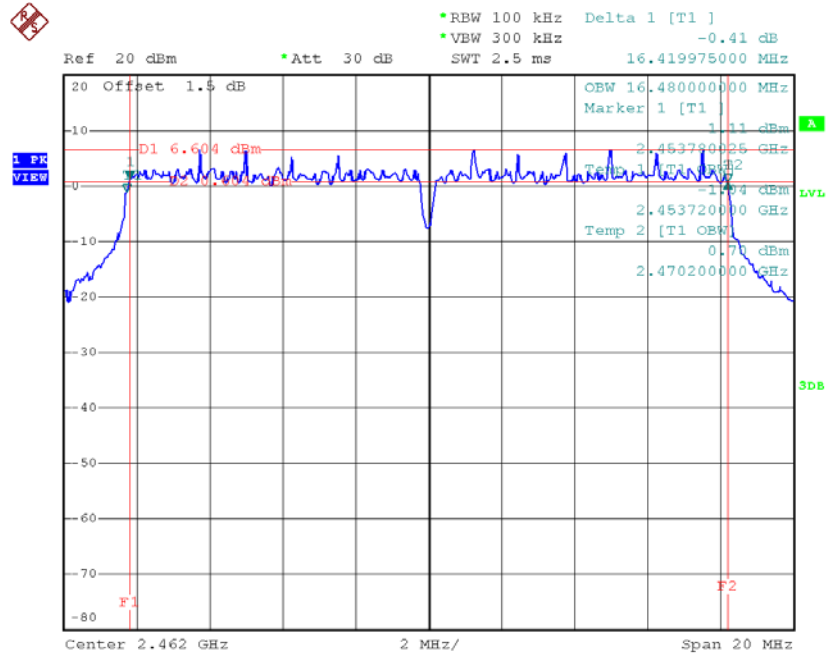
Date: 22.MAY.2017 11:51:59

### TX CH06



Date: 22.MAY.2017 11:53:39

### TX CH11

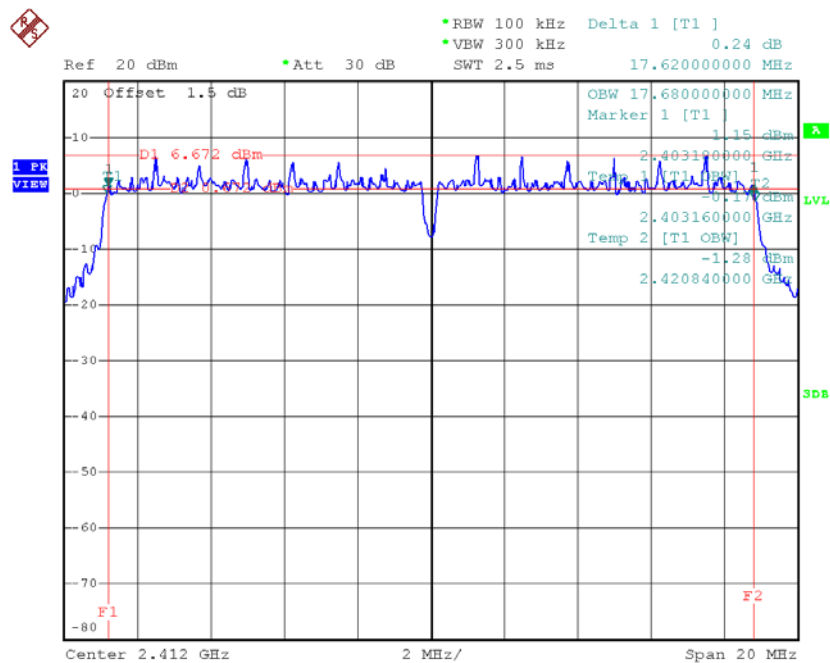


Date: 22.MAY.2017 11:54:52

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

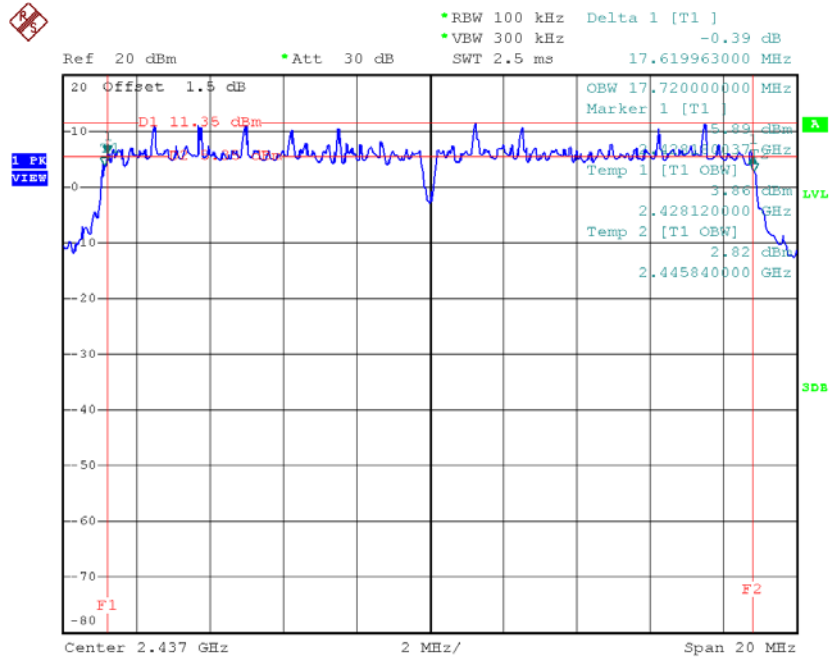
Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied BW (MHz)	Min. Limit (kHz)	Test Result
2412	17.62	17.68	500	Complies
2437	17.62	17.72	500	Complies
2462	17.62	17.68	500	Complies

**TX CH01**



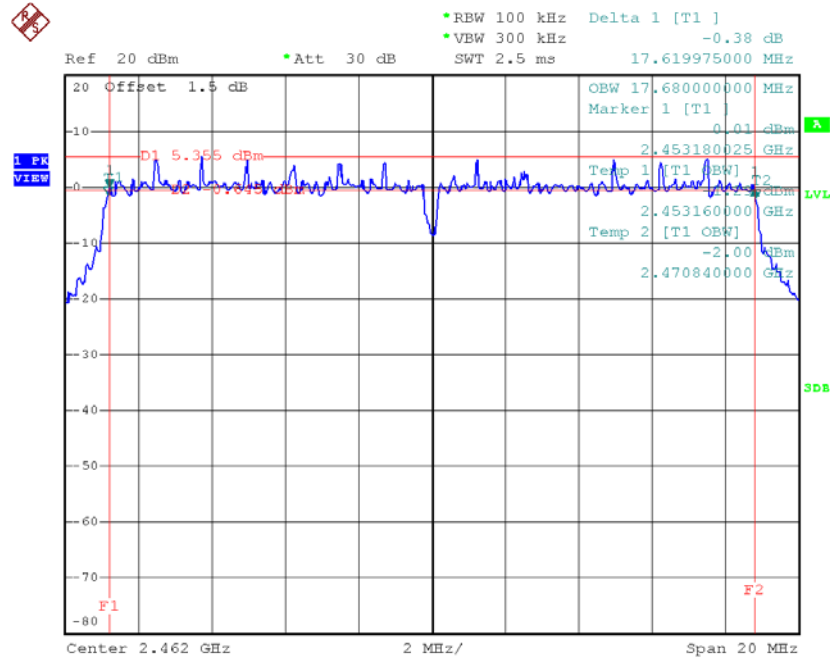
Date: 22.MAY.2017 11:56:16

### TX CH06



Date: 22.MAY.2017 11:57:58

### TX CH11

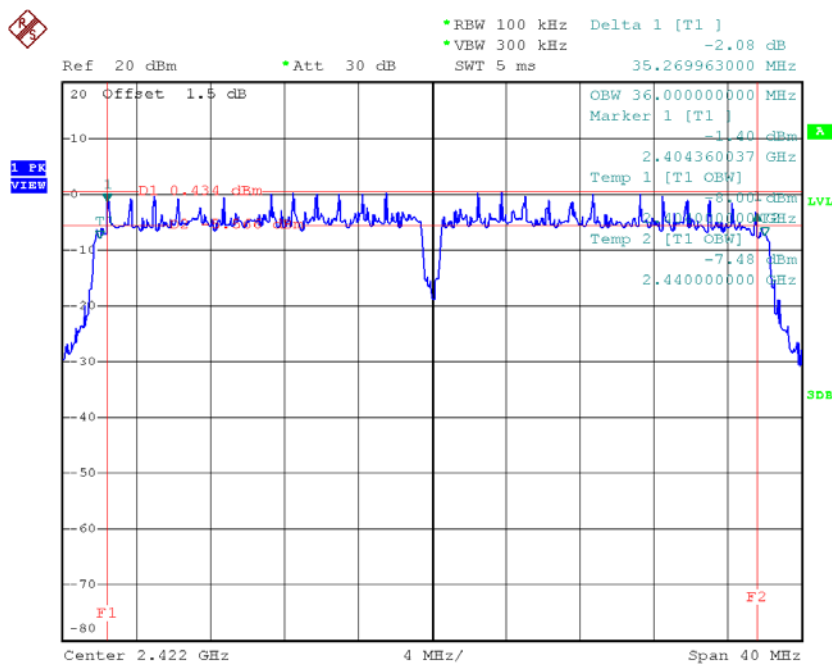


Date: 22.MAY.2017 11:59:10

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

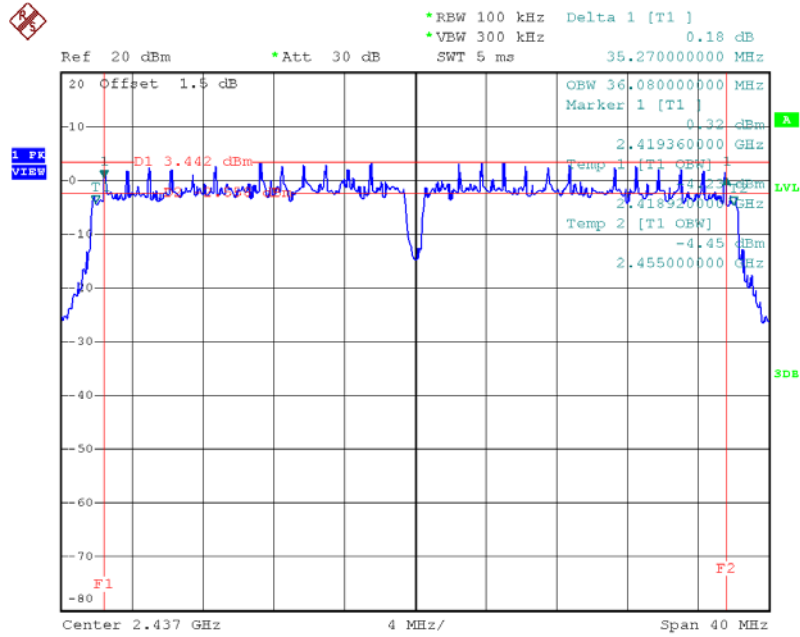
Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied BW (MHz)	Min. Limit (kHz)	Test Result
2422	35.27	36.00	500	Complies
2437	35.27	36.08	500	Complies
2452	35.76	36.16	500	Complies

**TX CH03**



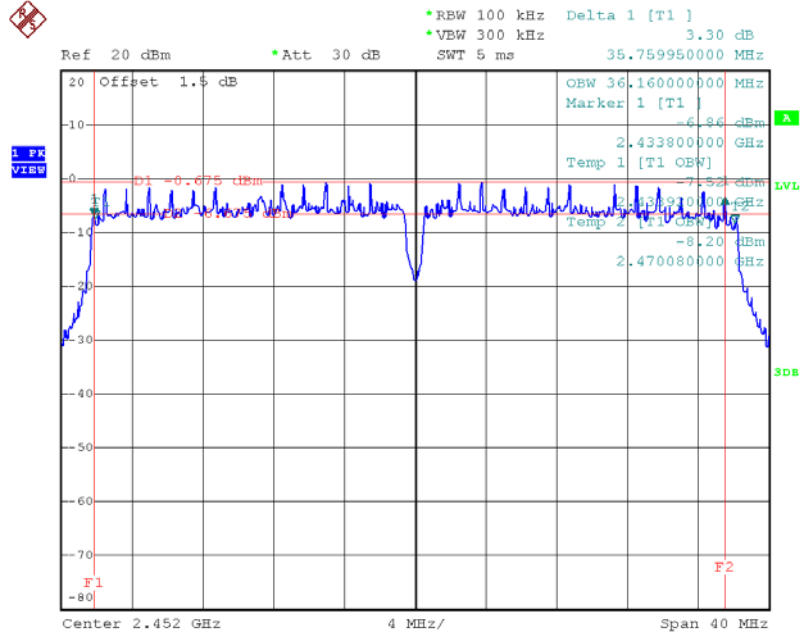
Date: 22.MAY.2017 12:07:43

### TX CH06



Date: 22.MAY.2017 12:09:18

### TX CH09



Date: 22.MAY.2017 12:10:43

## ATTACHMENT F – MAXIMUM PEAK CONDUCTED OUTPUT POWER

Test Mode :TX B Mode_CH01/06/11_ANT 1					
Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2412	27.09	0.51	30.00	1.00	Complies
2437	27.06	0.51	30.00	1.00	Complies
2462	26.46	0.44	30.00	1.00	Complies

Test Mode :TX G Mode_CH01/06/11_ANT 1					
Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2412	28.41	0.69	30.00	1.00	Complies
2437	28.86	0.77	30.00	1.00	Complies
2462	28.06	0.64	30.00	1.00	Complies



Test Mode :TX N20 Mode_CH01/06/11_ANT 1					
Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2412	26.79	0.48	30.00	1.00	Complies
2437	26.68	0.47	30.00	1.00	Complies
2462	25.77	0.38	30.00	1.00	Complies

Test Mode :TX N20 Mode_CH01/06/11_ANT 2					
Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2412	26.81	0.48	30.00	1.00	Complies
2437	26.78	0.48	30.00	1.00	Complies
2462	26.94	0.49	30.00	1.00	Complies

Test Mode :TX N20 Mode_CH01/06/11_Total					
Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2412	29.81	0.96	30.00	1.00	Complies
2437	29.74	0.94	30.00	1.00	Complies
2462	29.40	0.87	30.00	1.00	Complies

Test Mode :TX N40 Mode_CH03/06/09_ANT 1					
Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2422	23.89	0.24	30.00	1.00	Complies
2437	26.07	0.40	30.00	1.00	Complies
2452	23.14	0.21	30.00	1.00	Complies

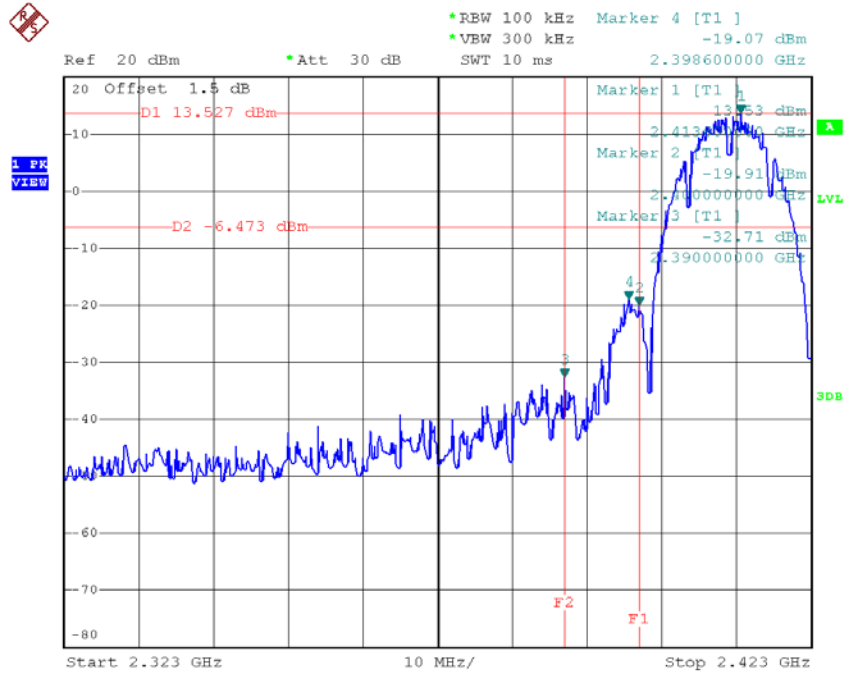
Test Mode :TX N40 Mode_CH03/06/09_ANT 2					
Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2422	23.91	0.25	30.00	1.00	Complies
2437	26.91	0.49	30.00	1.00	Complies
2452	24.29	0.27	30.00	1.00	Complies

Test Mode :TX N40 Mode_CH03/06/09_Total					
Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2422	26.91	0.49	30.00	1.00	Complies
2437	29.52	0.90	30.00	1.00	Complies
2452	26.76	0.47	30.00	1.00	Complies

## ATTACHMENT G - ANTENNA CONDUCTED SPURIOUS EMISSION

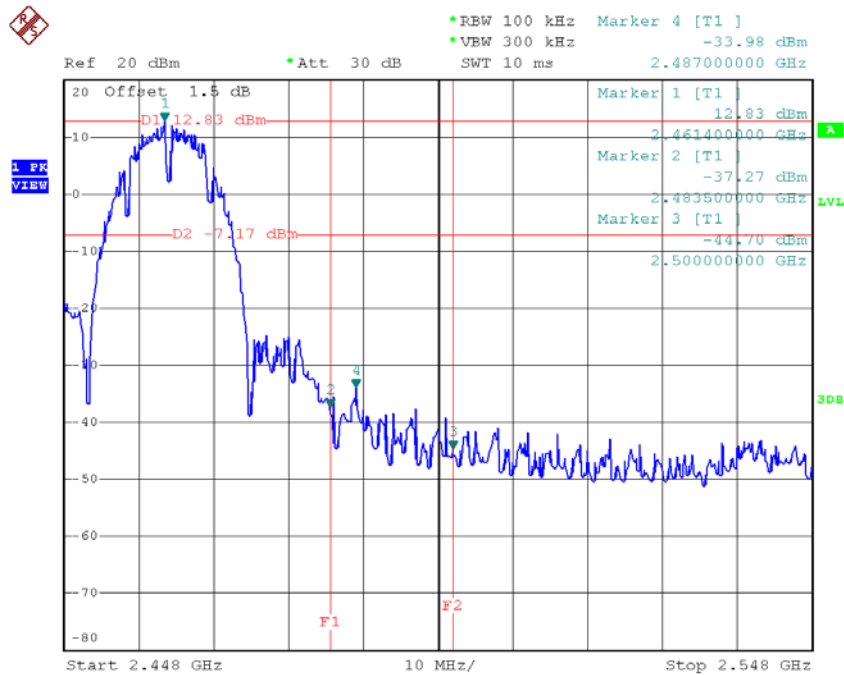
Test Mode : TX B Mode

### TX B mode CH01



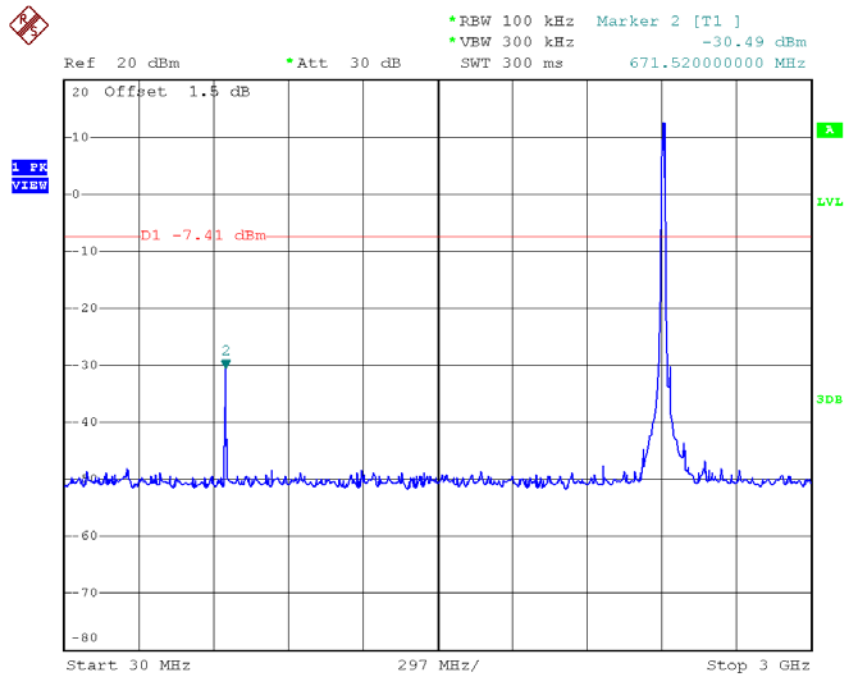
Date: 22.MAY.2017 12:18:31

### TX B mode CH11

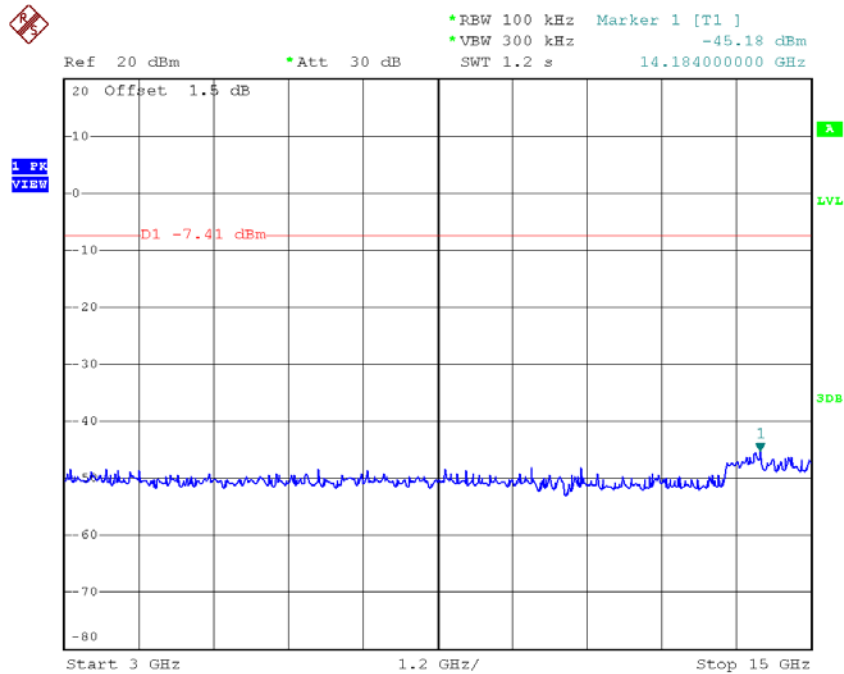


Date: 22.MAY.2017 12:23:50

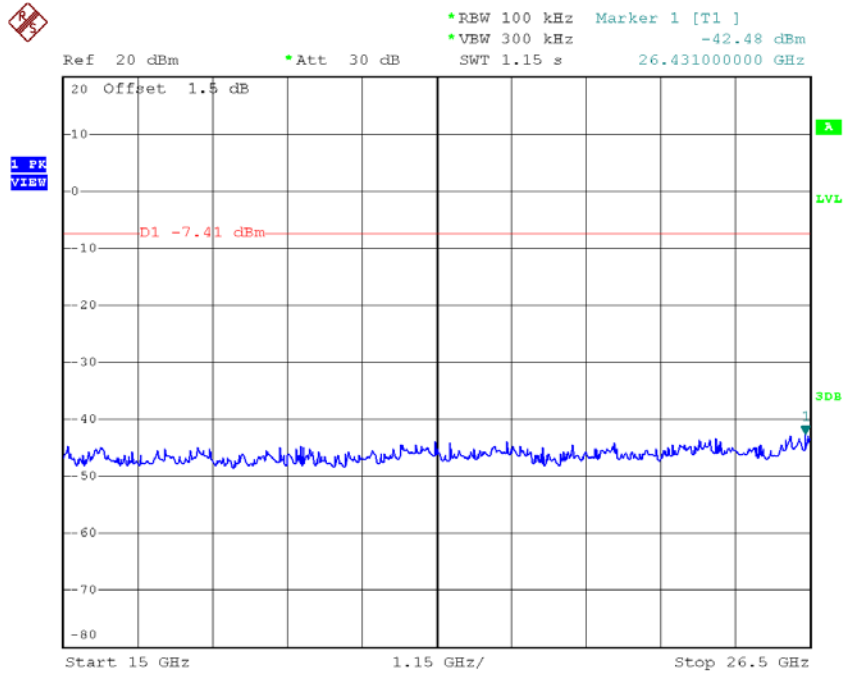
### TX B mode CH01 (10 Harmonic of the frequency)



Date: 22.MAY.2017 12:18:06

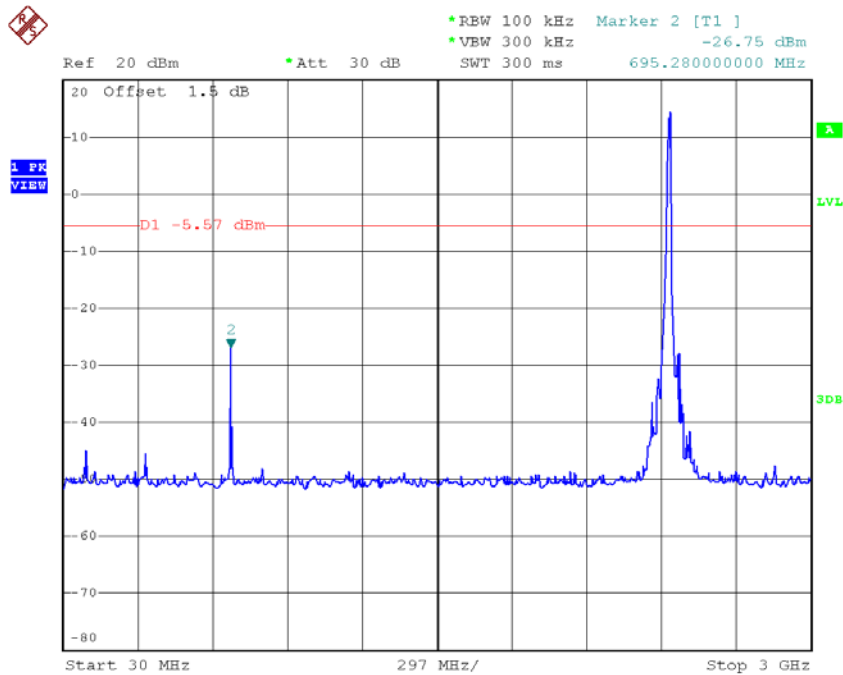


Date: 22.MAY.2017 12:18:14



Date: 22.MAY.2017 12:18:23

### TX B mode CH06 (10 Harmonic of the frequency)



Date: 22.MAY.2017 12:20:31