

# FCC Radio Test Report

## FCC ID: V7TW18E

This report concerns: Original Grant

**Project No.** : 1904C032  
**Equipment** : AC1200 Gigabit Wireless Hotspot Router  
**Test Model** : W18E  
**Series Model** : N/A  
**Applicant** : SHENZHEN TENDA TECHNOLOGY CO.,LTD  
**Address** : 6-8 Floor, Tower E3, No. 1001, Zhongshanyuan Road, Nanshan District, Shenzhen, China. 518052

**Date of Receipt** : Apr. 09, 2019  
**Date of Test** : Apr. 11, 2019 ~ Apr. 30, 2019  
**Issued Date** : May 28, 2019  
**Tested by** : BTL Inc.

**Testing Engineer** :   
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Certificate #5123.02

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**BTL**'s reports apply only to the specific samples tested under conditions. It is manufacturer'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.

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**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.

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

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**REPORT ISSUED HISTORY**

Report Version	Description	Issued Date
R00	Original Issue.	May 28, 2019

## 1. GENERAL SUMMARY

Equipment : AC1200 Gigabit Wireless Hotspot Router  
Brand Name : Tenda  
Test Model : W18E  
Series Model : N/A  
Applicant : SHENZHEN TENDA TECHNOLOGY CO.,LTD  
Manufacturer : SHENZHEN TENDA TECHNOLOGY CO.,LTD  
Address : 6-8 Floor, Tower E3, No. 1001, Zhongshanyuan Road, Nanshan District, Shenzhen, China. 518052  
Date of Test : Apr. 11, 2019 ~ Apr. 30, 2019  
Test Sample : Engineering Sample No.: D190403603  
Standard(s) : FCC Part15, Subpart C (15.247)  
ANSI C63.10-2013  
KDB 558074 D01 15.247 Meas Guidance

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-1-1904C032) 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).

**Test results included in this report are only for the WLAN 2.4 GHz part.**

## 2. SUMMARY OF TEST RESULTS

Test procedures according to the technical standard(s):

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

Note:

- (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 Registration Number for FCC: 357015

BTL's Designation Number for FCC: CN1240

## 2.2 MEASUREMENT UNCERTAINTY

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

The BTL measurement uncertainty as below table:

A. AC power line conducted emissions test:

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

B. Radiated emissions test:

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

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

### 3. GENERAL INFORMATION

#### 3.1 GENERAL DESCRIPTION OF EUT

Equipment	AC1200 Gigabit Wireless Hotspot Router
Brand Name	Tenda
Test Model	W18E
Series Model	N/A
Model Difference(s)	N/A
Power Source	DC voltage supplied from AC/DC adapter. Model:BN036-A12012U
Power Rating	I/P: 100-240V~ 50/60Hz 0.4A    O/P: 12V - - - 1.0A
Operation Frequency	2412 MHz ~ 2462 MHz
Modulation Type	IEEE 802.11b: DSSS IEEE 802.11g: OFDM IEEE 802.11n: OFDM
Bit Rate of Transmitter	IEEE 802.11b: 11/5.5/2/1 Mbps IEEE 802.11g: 54/48/36/24/18/12/9/6 Mbps IEEE 802.11n: up to 300 Mbps
Maximum Output Power_ Non-Beamforming	IEEE 802.11b: 28.86 dBm (0.7691 W) IEEE 802.11g: 28.58 dBm (0.7211 W) IEEE 802.11n (HT20): 25.44 dBm (0.3499 W) IEEE 802.11n (HT40): 25.50 dBm (0.3548 W)
Maximum Output Power_ With Beamforming	IEEE 802.11n (HT20): 25.35 dBm (0.3428 W) IEEE 802.11n (HT40): 24.88 dBm (0.3076 W)

Note:

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

#### 2. Channel List:

CH01 - CH11 for 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. Antenna Specification:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	N/A	N/A	Dipole	N/A	5
2	N/A	N/A	Dipole	N/A	5

Note:

(1) For Non-Beamforming Function:

Antenna Gain=5 dBi. 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 = $5+10\log(2)$ dBi=8.01. So, the output power limit is  $30-8.01+6=27.99$ , the power spectral density limit is  $8-8.01+6=5.99$ .

(2) For Beamforming Function:

Beamforming Gain=3 dBi, Directional gain=3+5=8 dBi. So, the output power limit is  $30-8+6=28$ , the power spectral density limit is  $8-8+6=6$ .

### 3.2 DESCRIPTION OF TEST MODES

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

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

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

AC power line conducted emissions test	
Final Test Mode:	Description
Mode 5	TX G Mode Channel 11

Radiated emissions test – Below 1GHz	
Final Test Mode:	Description
Mode 5	TX G Mode Channel 11

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

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

**NOTE:**

- (1) The measurements are performed at the high, middle, low available channels.
- (2) 802.11b mode: 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 emission below 1 GHz test, the IEEE 802.11g channel 11 is found to be the worst case and recorded.
- (4) For radiated emission above 1 GHz test, 1GHz~26.5GHz have been pre-tested and in this report only recorded the worst case. The remaining spurious points are all below the limit value of 20dB.

### 3.3 PARAMETERS OF TEST SOFTWARE

#### Non-Beamforming

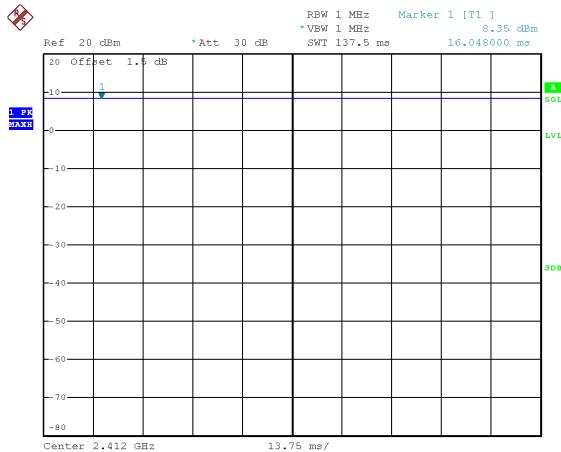
Test Software	cart		
Frequency (MHz)	2412	2437	2462
IEEE 802.11b	24	25.5	25
IEEE 802.11g	19	19	19.5
IEEE 802.11n (HT20)	14	14	14.5
Frequency (MHz)	2422	2437	2452
IEEE 802.11n (HT40)	14	15	14

#### With Beamforming

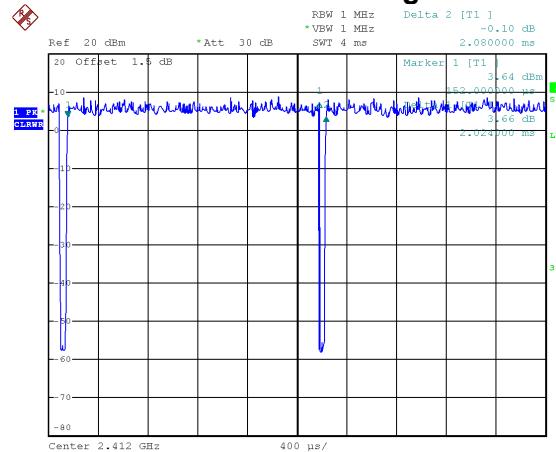
Test Software	cart		
Frequency (MHz)	2412	2437	2462
IEEE 802.11n (HT20)	13	14	14.5
Frequency (MHz)	2422	2437	2452
IEEE 802.11n (HT40)	13	15	13

### 3.4 DUTY CYCLE

**IEEE 802.11b**



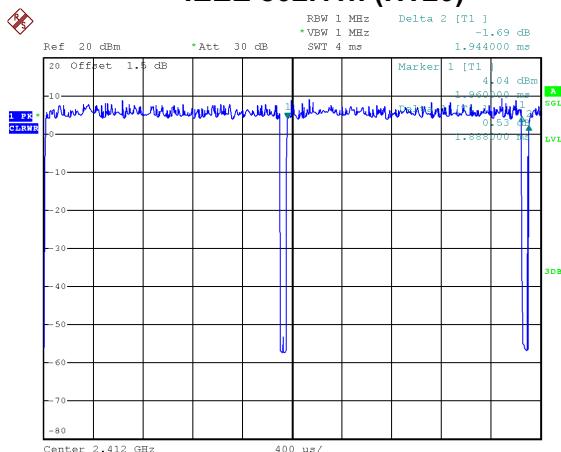
**IEEE 802.11g**



Date: 1.JAN.2003 02:43:55

Duty cycle = 0.000 ms / 0.000 ms = 0.00%  
 Duty Factor =  $10 \log(1/\text{Duty cycle}) = 0.00$

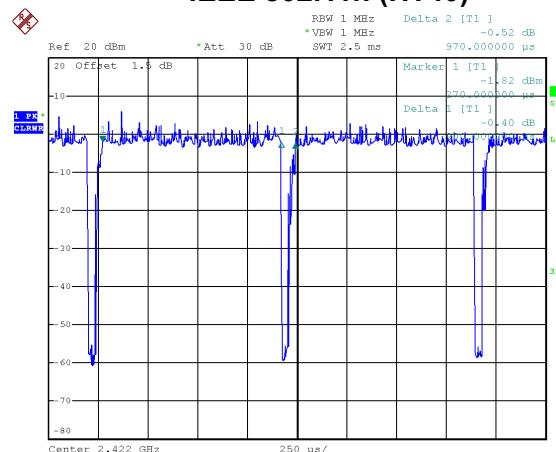
**IEEE 802.11n (HT20)**



Date: 1.JAN.2003 02:44:47

Duty cycle = 2.024 ms / 2.080 ms = 97.31%  
 Duty Factor =  $10 \log(1/\text{Duty cycle}) = 0.12$

**IEEE 802.11n (HT40)**



Date: 1.JAN.2003 02:45:11

Duty cycle = 1.888 ms / 1.944 ms = 97.12%  
 Duty Factor =  $10 \log(1/\text{Duty cycle}) = 0.13$ ,

Date: 1.JAN.2003 02:45:30

Duty cycle = 0.900 ms / 0.970 ms = 92.78%  
 Duty Factor =  $10 \log(1/\text{Duty cycle}) = 0.33$

#### NOTE:

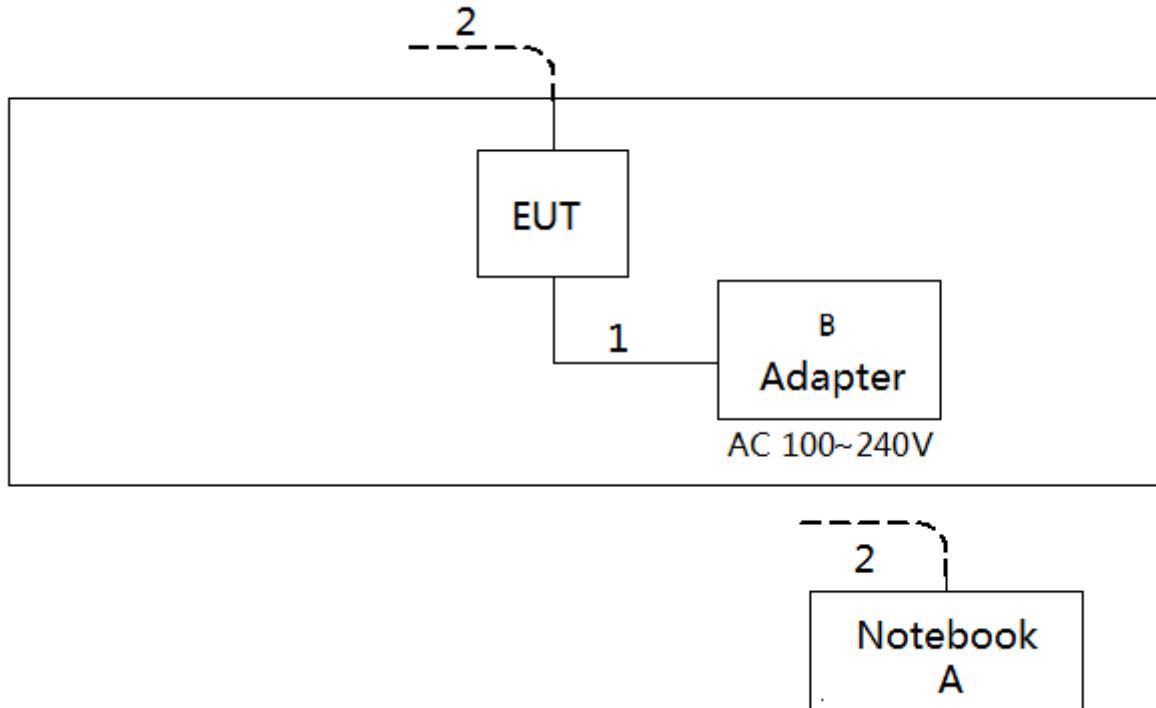
For IEEE 802.11g and IEEE 802.11n (HT20):

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

For IEEE 802.11n (HT40):

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

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



### 3.6 SUPPORT UNITS

Item	Equipment	Mfr/Brand	Model/Type No.	Series No.
A	Notebook	Lenovo	G410	N/A
B	Adapter	N/A	N/A	N/A

Item	Shielded Type	Ferrite Core	Length	Note
1	NO	NO	1.2m	DC Cable
2	NO	NO	10m	RJ45 Cable

## 4. AC POWER LINE CONDUCTED EMISSIONS TEST

### 4.1 LIMIT

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

NOTE:

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

The following table is the setting of the receiver

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

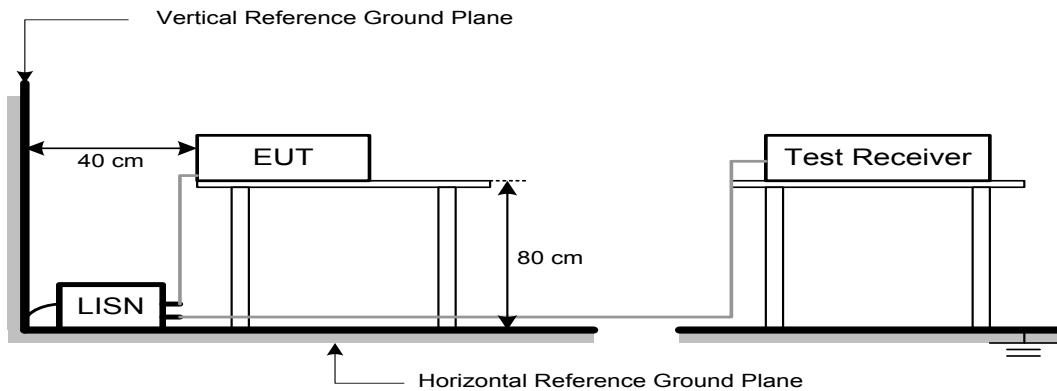
### 4.2 TEST PROCEDURE

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

### 4.3 DEVIATION FROM TEST STANDARD

No deviation

#### 4.4 TEST SETUP



#### 4.5 EUT OPERATION CONDITIONS

EUT was programmed to be in continuously transmitting mode.

#### 4.6 EUT TEST CONDITIONS

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

#### 4.7 TEST RESULTS

Please refer to the APPENDIX A.

## 5. RADIATED EMISSIONS TEST

### 5.1 LIMIT

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

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

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

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

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

#### NOTE:

- (1) The limit for radiated test was performed according to FCC PART 15C.
- (2) The tighter limit applies at the band edges.
- (3) Emission level (dBuV/m)=20log Emission level (uV/m).
- (4) The test result calculated as following:

Measurement Value = Reading Level + Correct Factor

Correct Factor = Antenna Factor + Cable Loss - Amplifier Gain(if use)

Margin Level = Measurement Value - Limit Value

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

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

## 5.2 TEST PROCEDURE

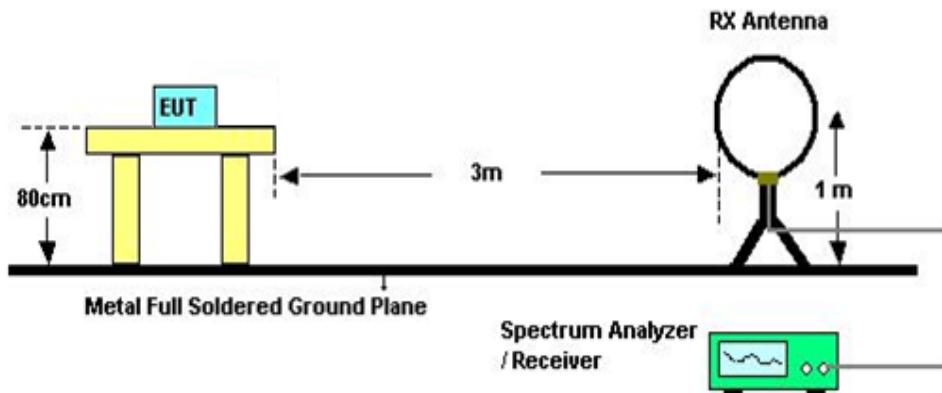
- The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(below 1 GHz)
- The measuring distance 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)
- 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 1 GHz.
- 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 1 GHz)
- 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)
- For the actual test configuration, please refer to the related Item -EUT Test Photos.

## 5.3 DEVIATION FROM TEST STANDARD

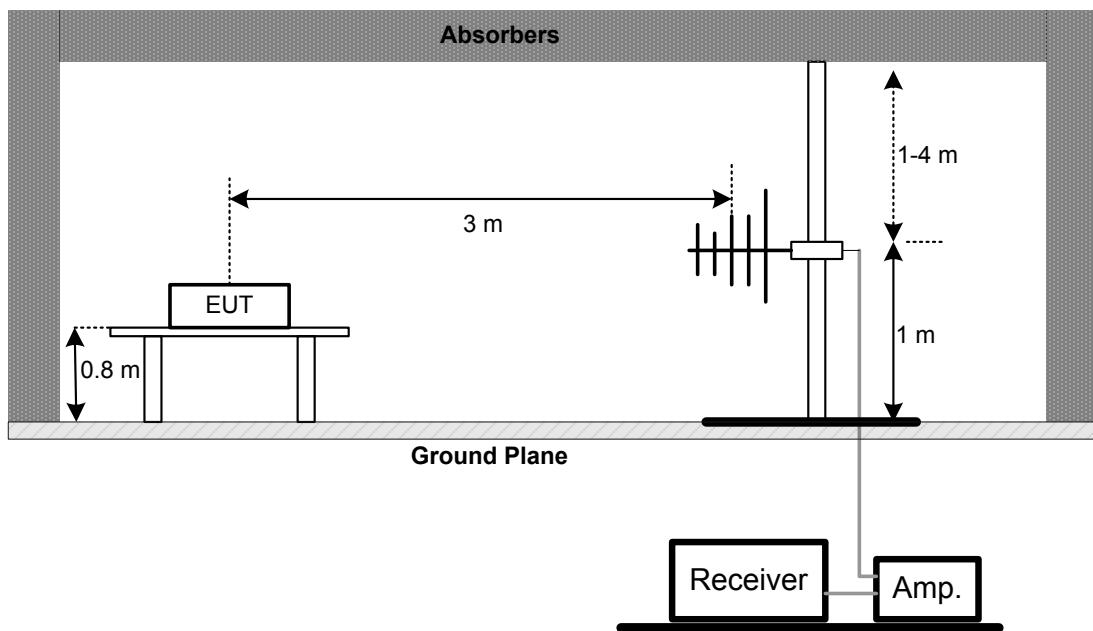
No deviation

#### 5.4 TEST SETUP

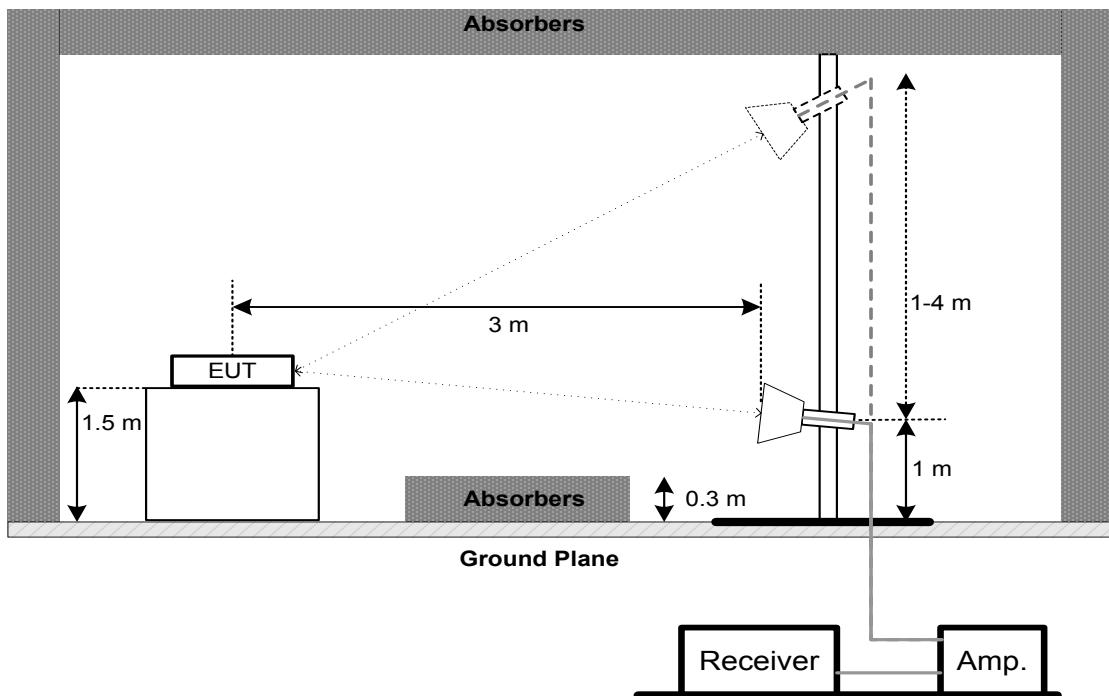
9 kHz-30 MHz



30 MHz to 1 GHz



### Above 1 GHz



### 5.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

### 5.6 EUT TEST CONDITIONS

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

### 5.7 TEST RESULTS - 9 KHZ TO 30 MHZ

Please refer to the APPENDIX B

Remark:

- (1) Distance extrapolation factor =  $40 \log (\text{specific distance} / \text{test distance})$  (dB).
- (2) Limit line = specific limits (dBuV) + distance extrapolation factor.

### 5.8 TEST RESULTS - 30 MHZ TO 1000 MHZ

Please refer to the APPENDIX C.

### 5.9 TEST RESULTS - ABOVE 1000 MHZ

Please refer to the APPENDIX D.

Remark:

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

## 6. BANDWIDTH TEST

### 6.1 LIMIT

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

### 6.2 TEST PROCEDURE

- The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- Spectrum Setting: RBW= 100 kHz, VBW=300 kHz, Sweep time = 2.5 ms.
- The bandwidth was performed in accordance with method 11.8 of ANSI C63.10-2013.

### 6.3 DEVIATION FROM STANDARD

No deviation.

### 6.4 TEST SETUP



### 6.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

### 6.6 EUT TEST CONDITIONS

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

### 6.7 TEST RESULTS

Please refer to the APPENDIX E.

## 7. MAXIMUM OUTPUT POWER TEST

### 7.1 LIMIT

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

### 7.2 TEST PROCEDURE

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

### 7.3 DEVIATION FROM STANDARD

No deviation.

### 7.4 TEST SETUP



### 7.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

### 7.6 EUT TEST CONDITIONS

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

### 7.7 TEST RESULTS

Please refer to the APPENDIX F.

## 8. CONDUCTED SPURIOUS EMISSIONS

### 8.1 LIMIT

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

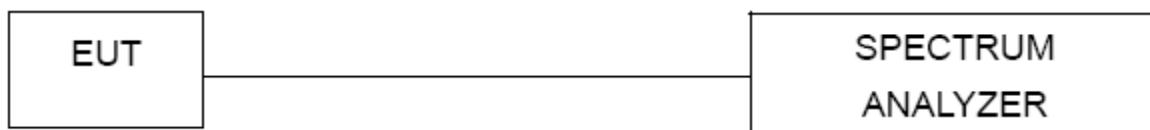
### 8.2 TEST PROCEDURE

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

### 8.3 DEVIATION FROM STANDARD

No deviation.

### 8.4 TEST SETUP



### 8.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

### 8.6 EUT TEST CONDITIONS

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

### 8.7 TEST RESULTS

Please refer to the APPENDIX G.

## 9. POWER SPECTRAL DENSITY TEST

### 9.1 LIMIT

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

### 9.2 TEST PROCEDURE

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

### 9.3 DEVIATION FROM STANDARD

No deviation.

### 9.4 TEST SETUP



### 9.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

### 9.6 EUT TEST CONDITIONS

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

### 9.7 TEST RESULTS

Please refer to the APPENDIX H.

## 10. MEASUREMENT INSTRUMENTS LIST

AC Power Line Conducted Emissions					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	EMI Test Receiver	R&S	ESCI	100382	Mar. 10, 2020
2	LISN	EMCO	3816/2	52765	Mar. 10, 2020
3	50ohm Terminator	SHX	TF5-3	15041305	Mar. 10, 2020
4	Artificial-Mains Network	SCHWARZBECK	NSLK 8127	8127685	Mar. 10, 2020
5	TRANSIENT LIMITER	EM	EM-7600	772	Mar. 10, 2020
6	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
7	Cable	N/A	RG223	12m	Mar. 12, 2020

Radiated Emissions - 9 kHz to 30 MHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Loop Antenna	EM	EM-6876-1	230	Jan. 15, 2020
2	Cable	N/A	RG 213/U	C-102	Jun. 01, 2019
3	EMI Test Receiver	R&S	ESCI	100895	Mar. 10, 2020
4	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A

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

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

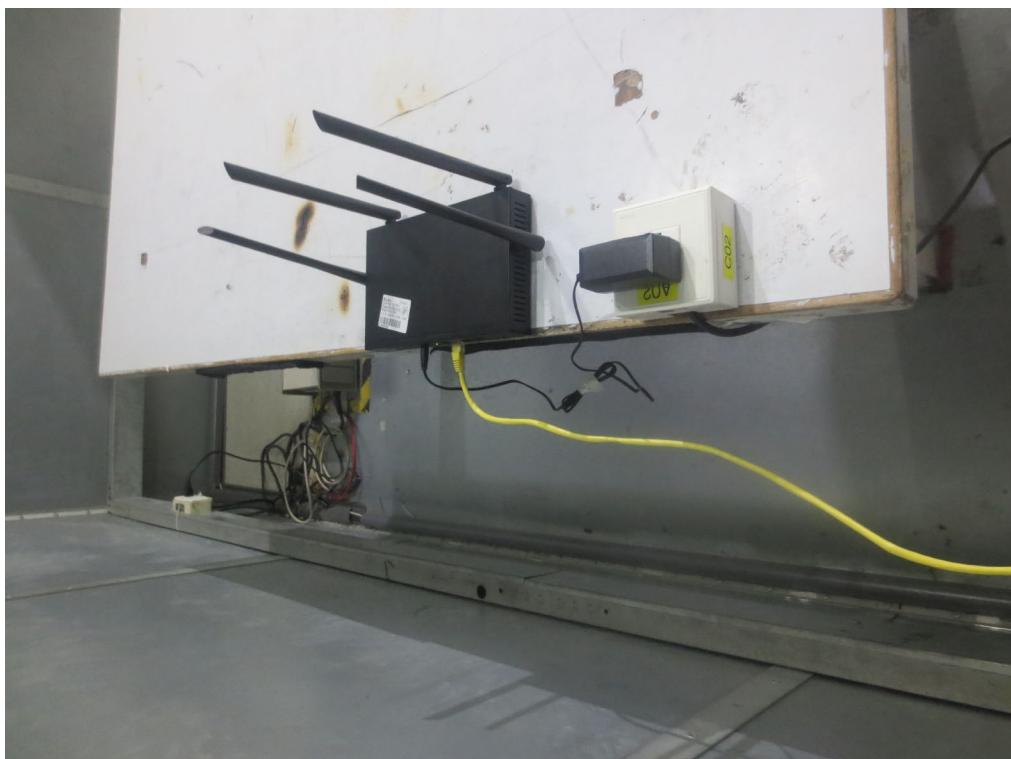
<b>Maximum Output Power</b>					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	P-series power meter	Agilent	N1911A	MY45100473	Aug. 11, 2019
2	wideband power sensor	Agilent	N1921A	MY51100041	Aug. 11, 2019

<b>Antenna Conducted Spurious Emissions</b>					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP40	100185	Aug. 11, 2019

<b>Power Spectral Density</b>					
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.

**11. EUT TEST PHOTO****AC Power Line Conducted Emissions Test Photos**

**Radiated Emissions Test Photos****9 kHz to 30 MHz**

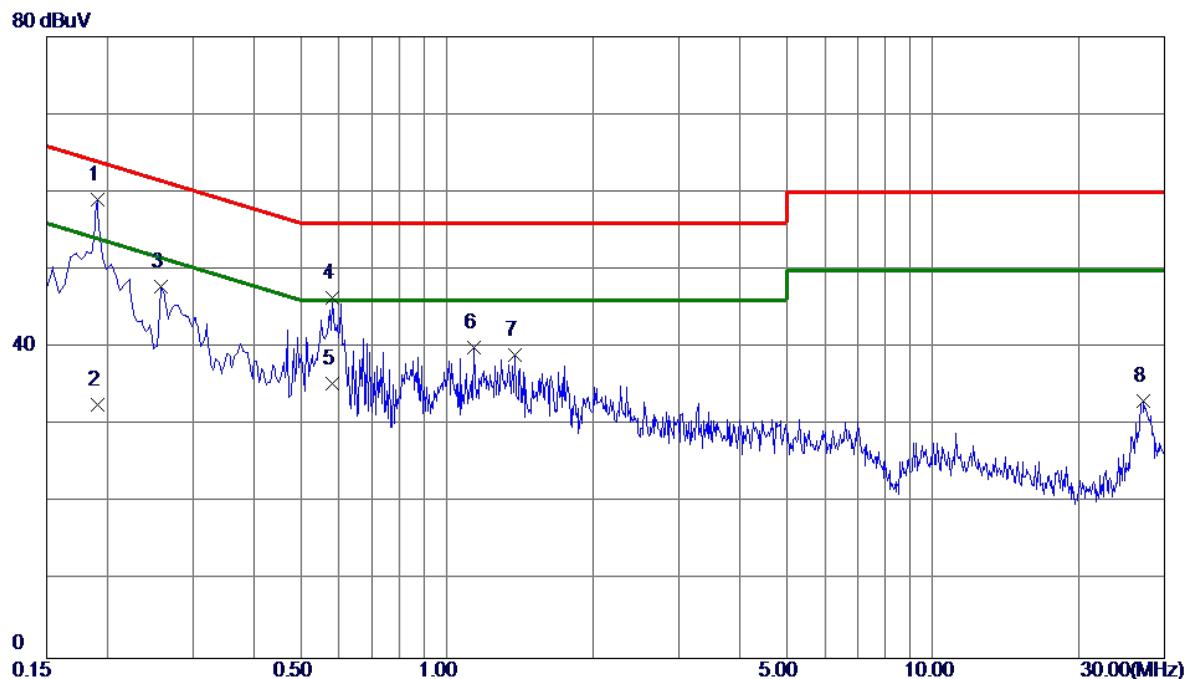
**Radiated Emissions Test Photos****30 MHz to 1 GHz**

**Radiated Emissions Test Photos****Above 1 GHz**

## APPENDIX A - AC POWER LINE CONDUCTED EMISSIONS

Test Mode: TX G MODE CHANNEL 11

### Line



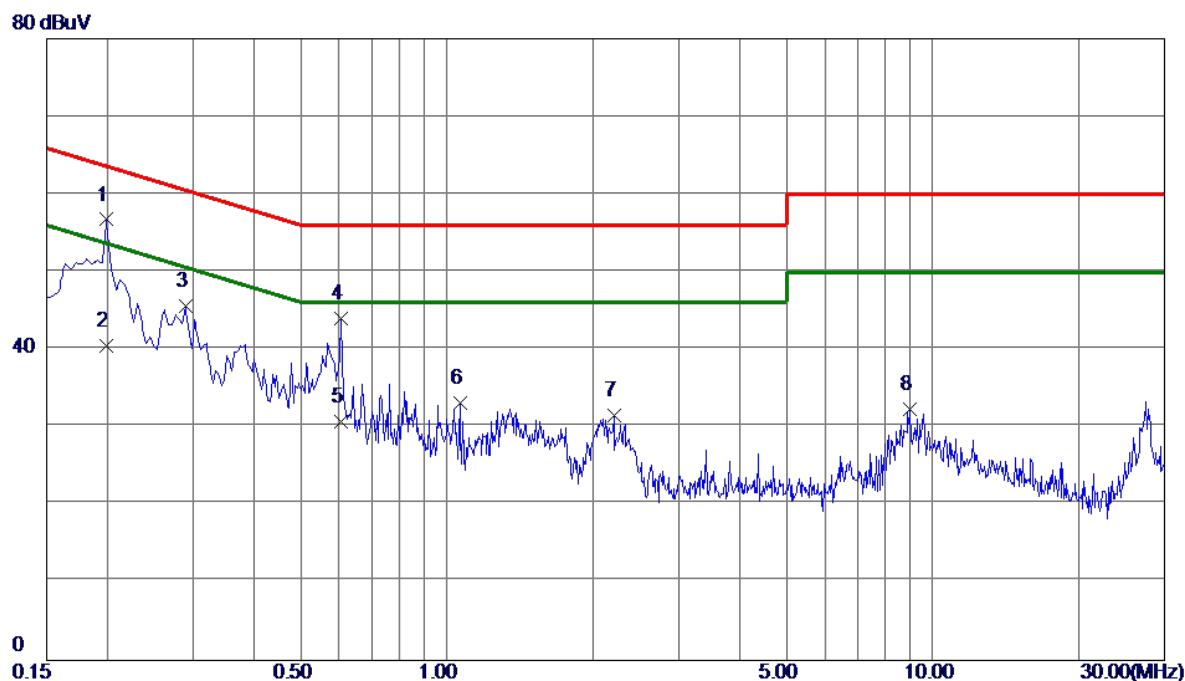
No.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1 *	0.1905	48.49	10.48	58.97	64.01	-5.04	Peak	
2	0.1905	22.20	10.48	32.68	54.01	-21.33	Avg	
3	0.2580	37.45	10.47	47.92	61.50	-13.58	Peak	
4	0.5820	35.84	10.52	46.36	56.00	-9.64	Peak	
5	0.5820	24.80	10.52	35.32	46.00	-10.68	Avg	
6	1.1355	29.37	10.58	39.95	56.00	-16.05	Peak	
7	1.3829	28.49	10.59	39.08	56.00	-16.92	Peak	
8	27.1095	22.16	11.00	33.16	60.00	-26.84	Peak	

### REMARKS:

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

Test Mode:	TX G MODE CHANNEL 11
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### Neutral



No.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1 *	0.1995	46.27	10.45	56.72	63.63	-6.91	Peak	
2	0.1995	30.10	10.45	40.55	53.63	-13.08	Avg	
3	0.2895	35.09	10.46	45.55	60.54	-14.99	Peak	
4	0.6044	33.53	10.49	44.02	56.00	-11.98	Peak	
5	0.6044	20.30	10.49	30.79	46.00	-15.21	Avg	
6	1.0634	22.63	10.51	33.14	56.00	-22.86	Peak	
7	2.2110	20.94	10.61	31.55	56.00	-24.45	Peak	
8	8.9700	21.48	10.86	32.34	60.00	-27.66	Peak	

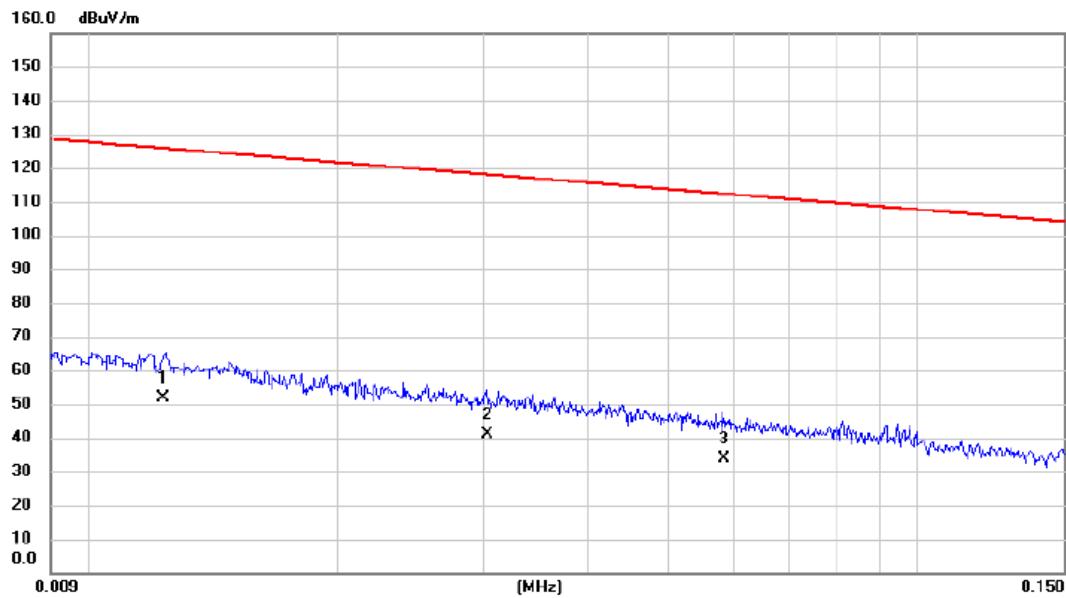
#### REMARKS:

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

**APPENDIX B - RADIATED EMISSION - 9 KHZ TO 30 MHZ**

Test Mode: TX G MODE CHANNEL 11

Ant 0°



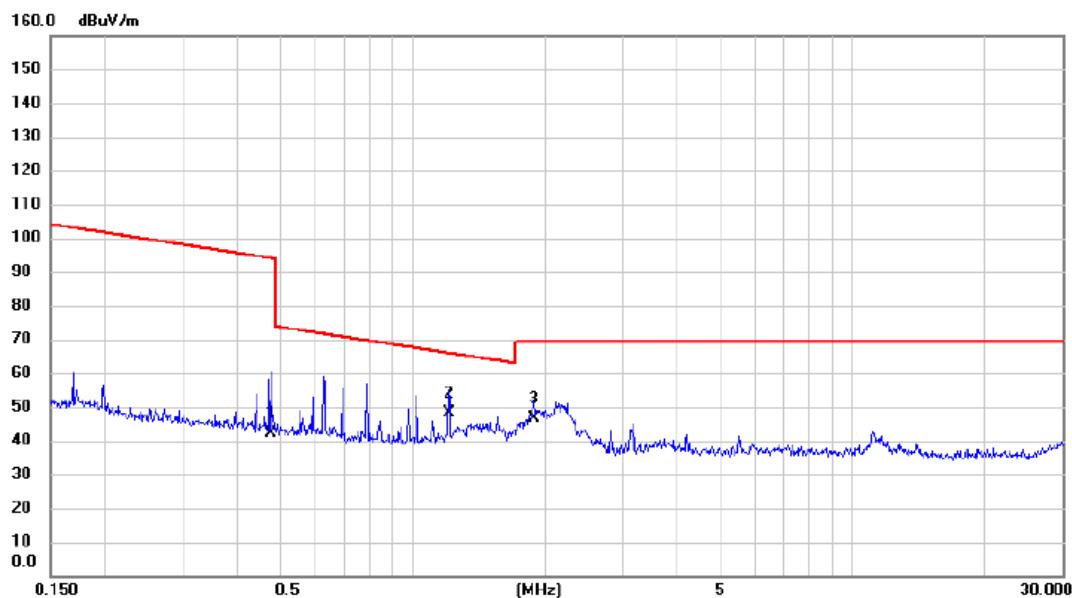
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dB	Margin Detector	Comment
1	*	0.0123	35.67	16.13	51.80	125.81	-74.01	AVG
2		0.0303	27.10	13.85	40.95	117.98	-77.03	AVG
3		0.0583	20.10	13.80	33.90	112.29	-78.39	AVG

## REMARKS:

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

Test Mode: TX G MODE CHANNEL 11

Ant 0°



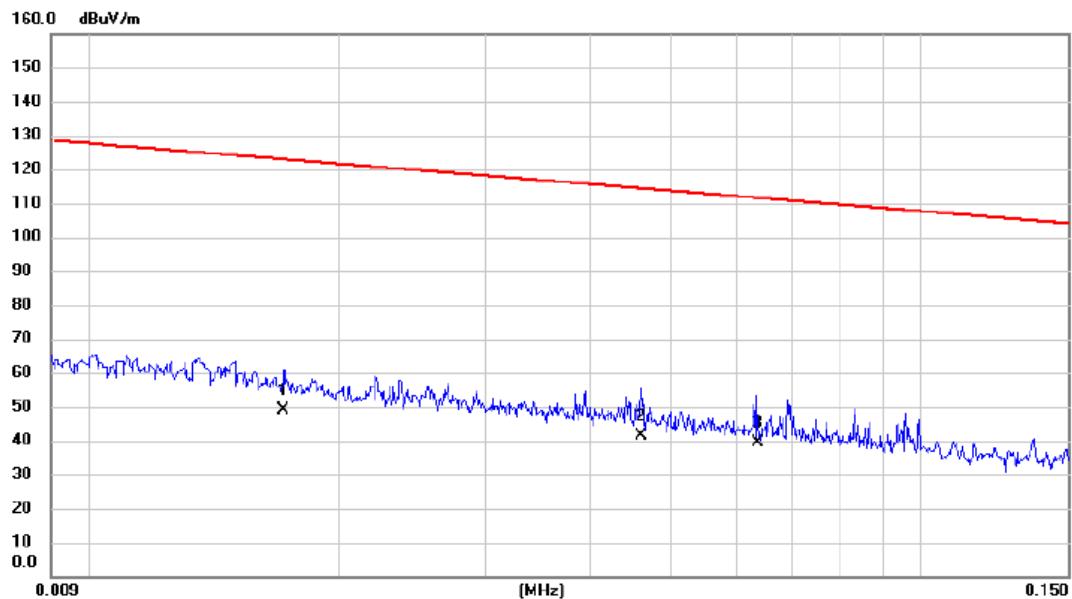
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		0.4761	28.90	13.12	42.02	94.05	-52.03	AVG	
2	*	1.2098	35.90	12.35	48.25	65.95	-17.70	QP	
3		1.8880	34.60	11.89	46.49	69.54	-23.05	QP	

## REMARKS:

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

Test Mode: TX G MODE CHANNEL 11

Ant 90°



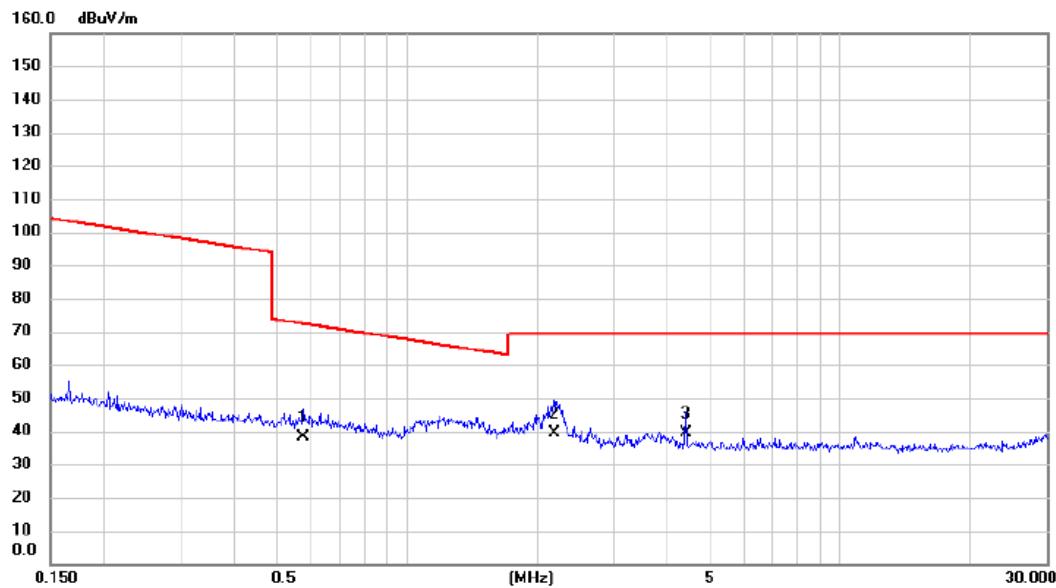
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dB	Margin Detector	Comment
1		0.0171	34.47	14.69	49.16	122.94	-73.78	AVG
2		0.0461	27.30	13.92	41.22	114.33	-73.11	AVG
3 *		0.0636	25.70	13.71	39.41	111.54	-72.13	AVG

## REMARKS:

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

Test Mode: TX G MODE CHANNEL 11

Ant 90°



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dB	Margin Detector	Comment
1		0.5762	25.30	12.92	38.22	72.39	-34.17	QP
2	*	2.1898	27.60	11.71	39.31	69.54	-30.23	QP
3		4.4071	28.30	10.91	39.21	69.54	-30.33	QP

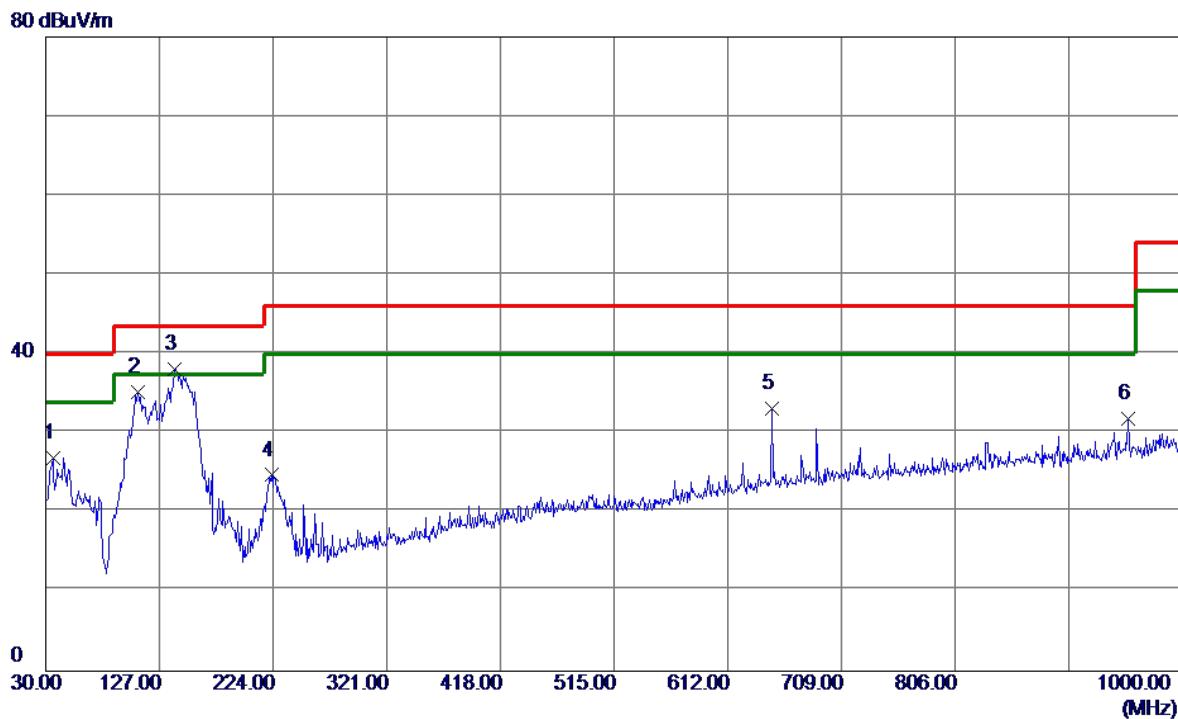
## REMARKS:

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

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

Test Mode:	TX G MODE CHANNEL 11
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### Vertical



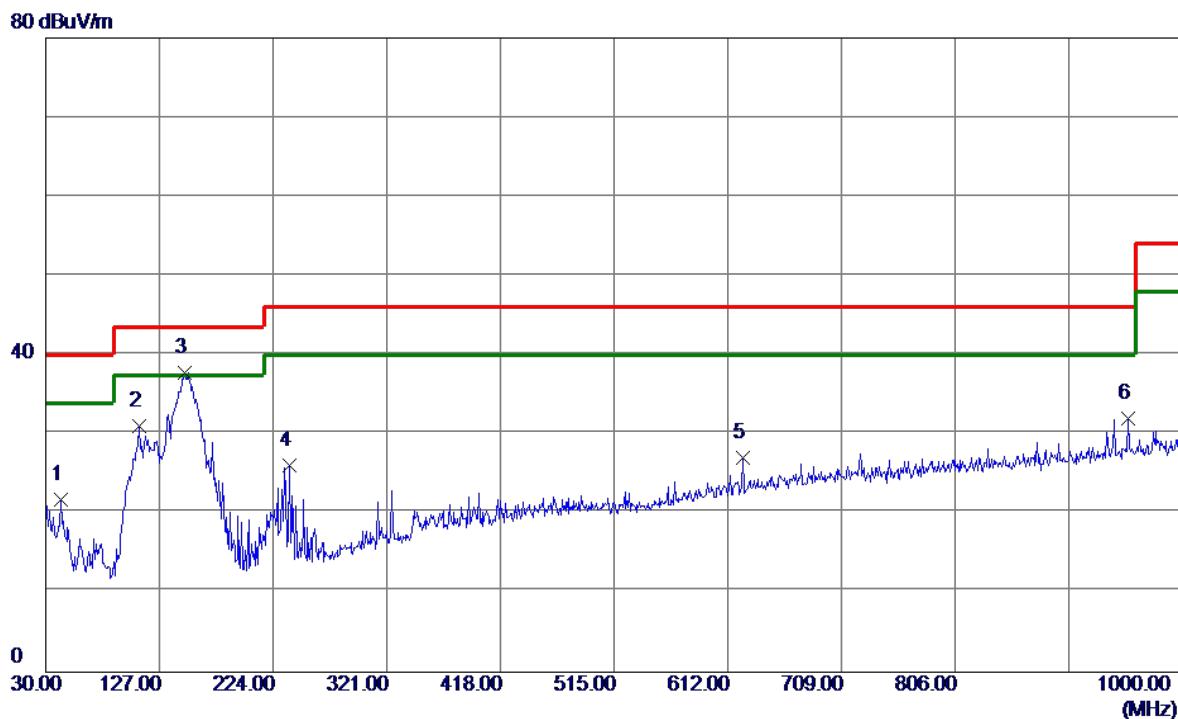
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure- ment dBuV/m	Limit dB	Margin Detector	Comment
1	36.3050	41.58	-14.64	26.94	40.00	-13.06	Peak
2	108.5700	49.94	-14.68	35.26	43.50	-8.24	Peak
3 *	140.0950	51.06	-12.93	38.13	43.50	-5.37	Peak
4	222.5450	39.33	-14.61	24.72	46.00	-21.28	Peak
5	649.8300	37.91	-4.72	33.19	46.00	-12.81	Peak
6	953.9250	32.46	-0.64	31.82	46.00	-14.18	Peak

### REMARKS:

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

Test Mode:	TX G MODE CHANNEL 11
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### Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	42.6100	36.22	-14.51	21.71	40.00	-18.29	Peak	
2	109.5400	45.60	-14.61	30.99	43.50	-12.51	Peak	
3 *	148.8250	50.24	-12.42	37.82	43.50	-5.68	Peak	
4	237.5800	40.24	-14.13	26.11	46.00	-19.89	Peak	
5	625.0949	32.36	-5.26	27.10	46.00	-18.90	Peak	
6	953.9250	32.64	-0.64	32.00	46.00	-14.00	Peak	

#### REMARKS:

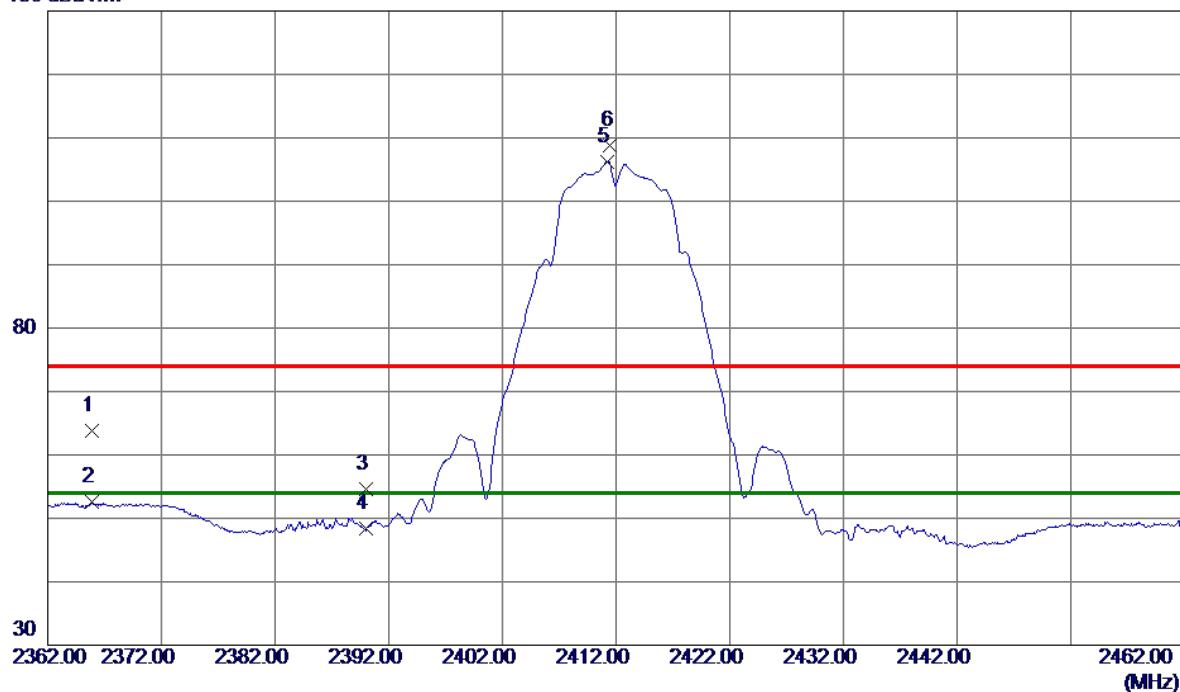
- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

**APPENDIX D - RADIATED EMISSION- ABOVE 1000 MHZ**

Orthogonal Axis	X
Test Mode:	TX B Mode 2412 MHz

**Vertical**

130 dBuV/m

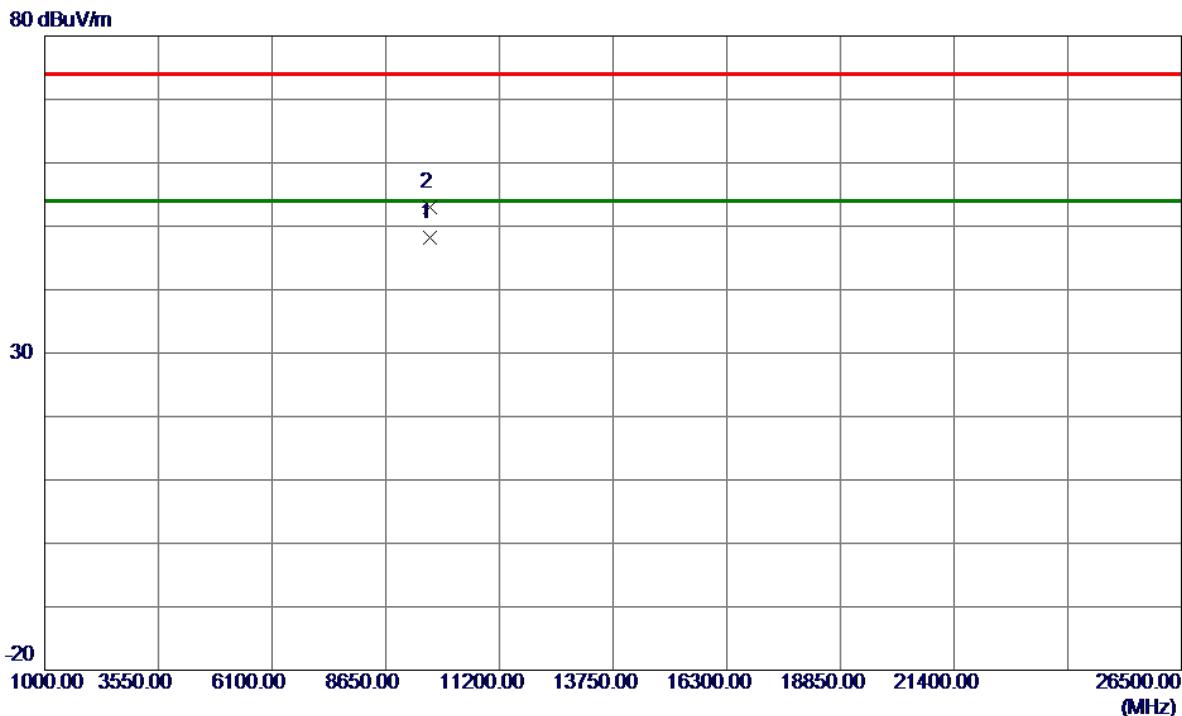


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2365.8500	57.22	6.56	63.78	74.00	-10.22	Peak	
2	2365.8500	46.06	6.56	52.62	54.00	-1.38	AVG	
3	2390.0000	48.05	6.53	54.58	74.00	-19.42	Peak	
4	2390.0000	41.91	6.53	48.44	54.00	-5.56	AVG	
5 *	2411.2000	99.63	6.51	106.14	54.00	52.14	AVG	No Limit
6	2411.5000	102.34	6.51	108.85	74.00	34.85	Peak	No Limit

**REMARKS:**

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

Orthogonal Axis	X
Test Mode:	TX B Mode 2412 MHz

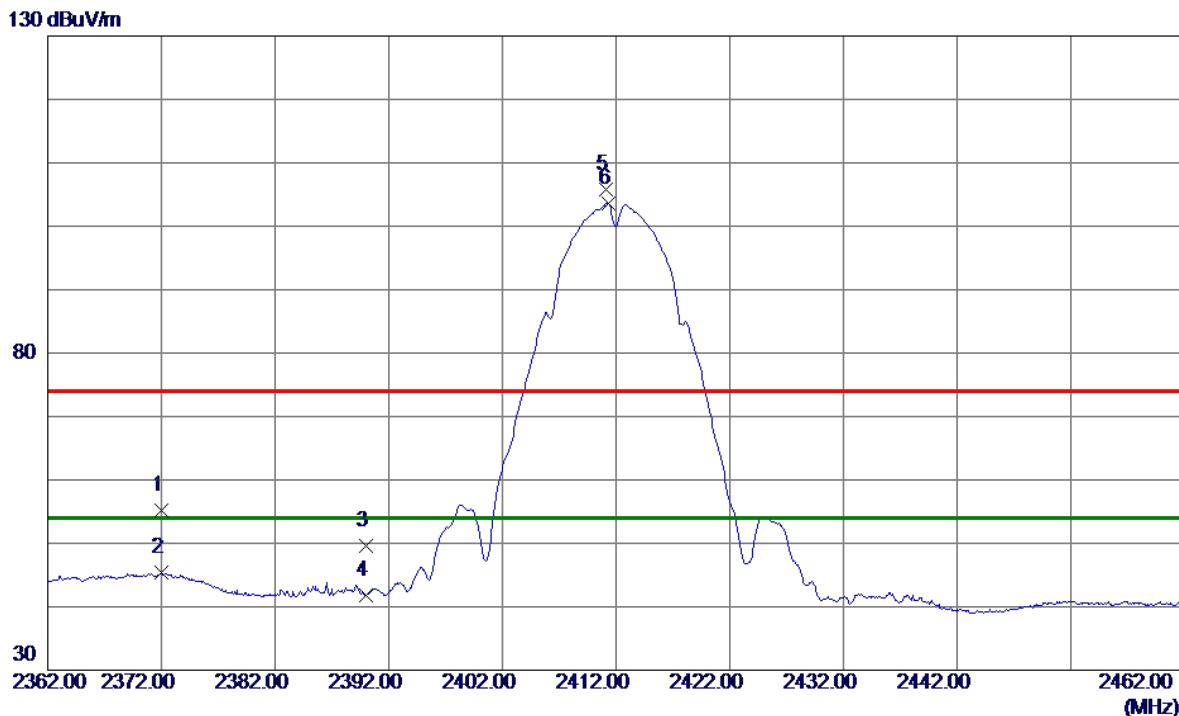
**Vertical**

No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	9647.8960	37.53	10.70	48.23	54.00	-5.77	AVG	
2	9648.0580	42.32	10.70	53.02	74.00	-20.98	Peak	

**REMARKS:**

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

Orthogonal Axis	X
Test Mode:	TX B Mode 2412 MHz

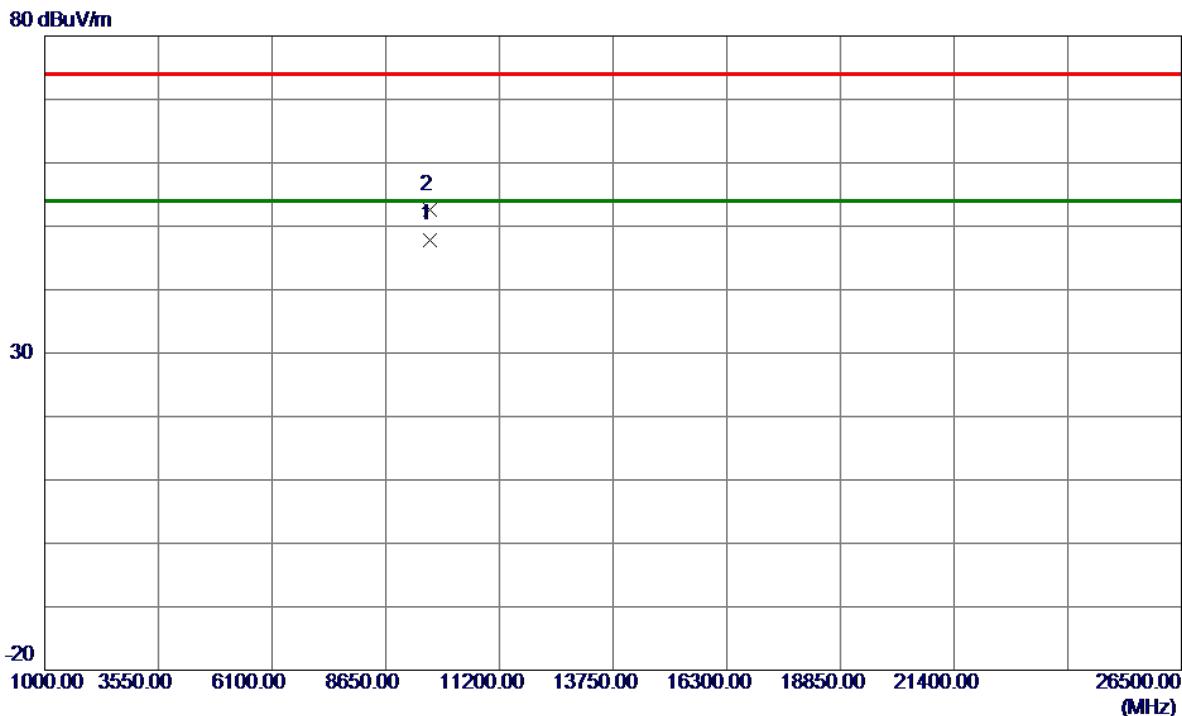
**Horizontal**

No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2372.0000	48.68	6.55	55.23	74.00	-18.77	Peak	
2	2372.0000	38.83	6.55	45.38	54.00	-8.62	AVG	
3	2390.0000	42.99	6.53	49.52	74.00	-24.48	Peak	
4	2390.0000	35.24	6.53	41.77	54.00	-12.23	AVG	
5	2411.1500	99.22	6.51	105.73	74.00	31.73	Peak	No Limit
6 *	2411.3000	97.14	6.51	103.65	54.00	49.65	AVG	No Limit

**REMARKS:**

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

Orthogonal Axis	X
Test Mode:	TX B 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 *	9647.9130	37.20	10.70	47.90	54.00	-6.10	AVG	
2	9647.9470	41.97	10.70	52.67	74.00	-21.33	Peak	

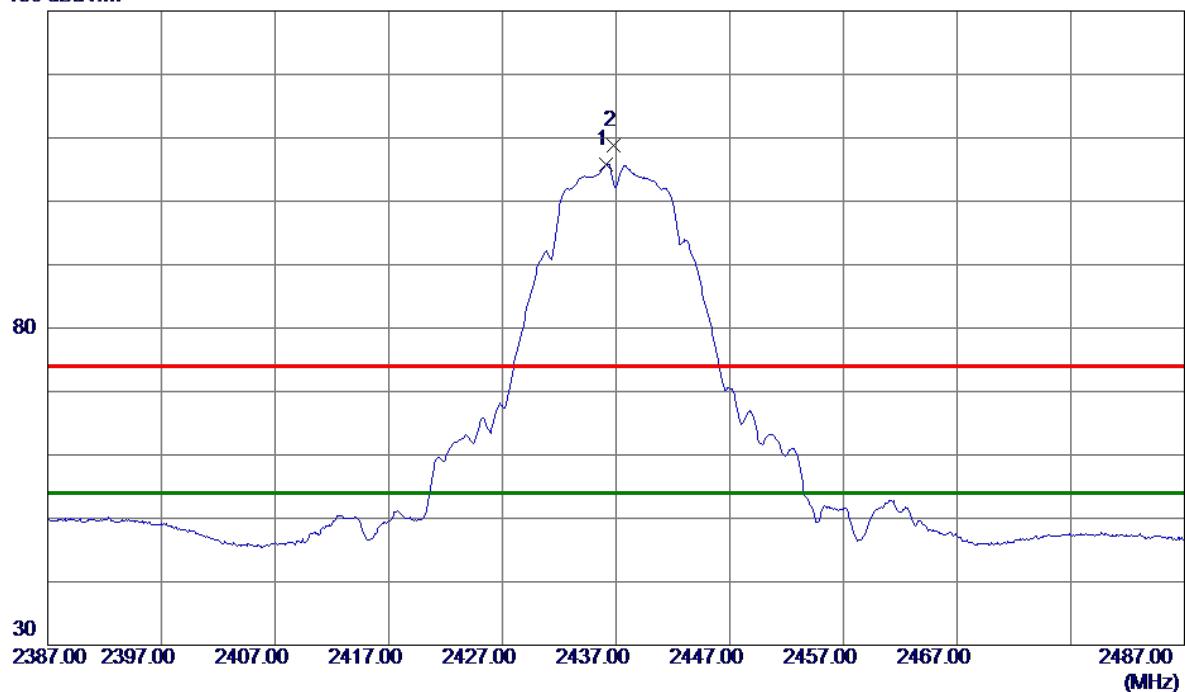
**REMARKS:**

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

Orthogonal Axis	X
Test Mode:	TX B Mode 2437 MHz

**Vertical**

130 dBuV/m

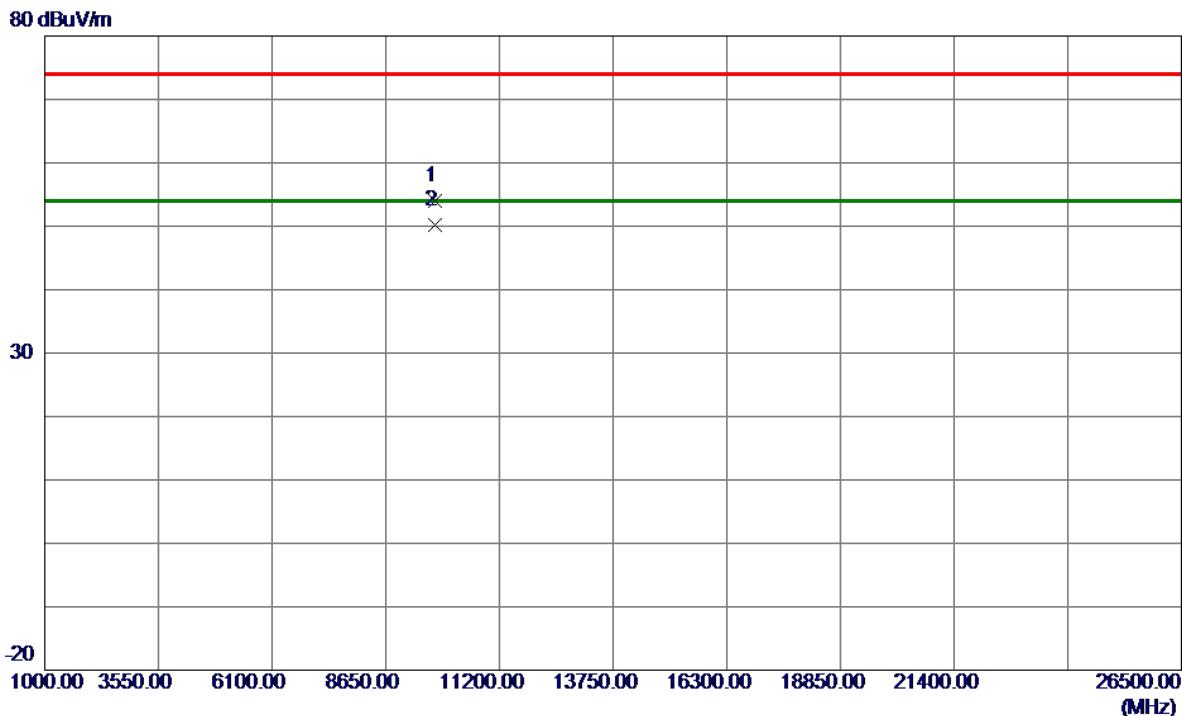


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector		Comment
							Detector	Comment	
1 *	2436.1500	99.32	6.48	105.80	54.00	51.80	AVG	No Limit	
2	2436.7500	102.28	6.48	108.76	74.00	34.76	Peak	No Limit	

**REMARKS:**

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

Orthogonal Axis	X
Test Mode:	TX B Mode 2437 MHz

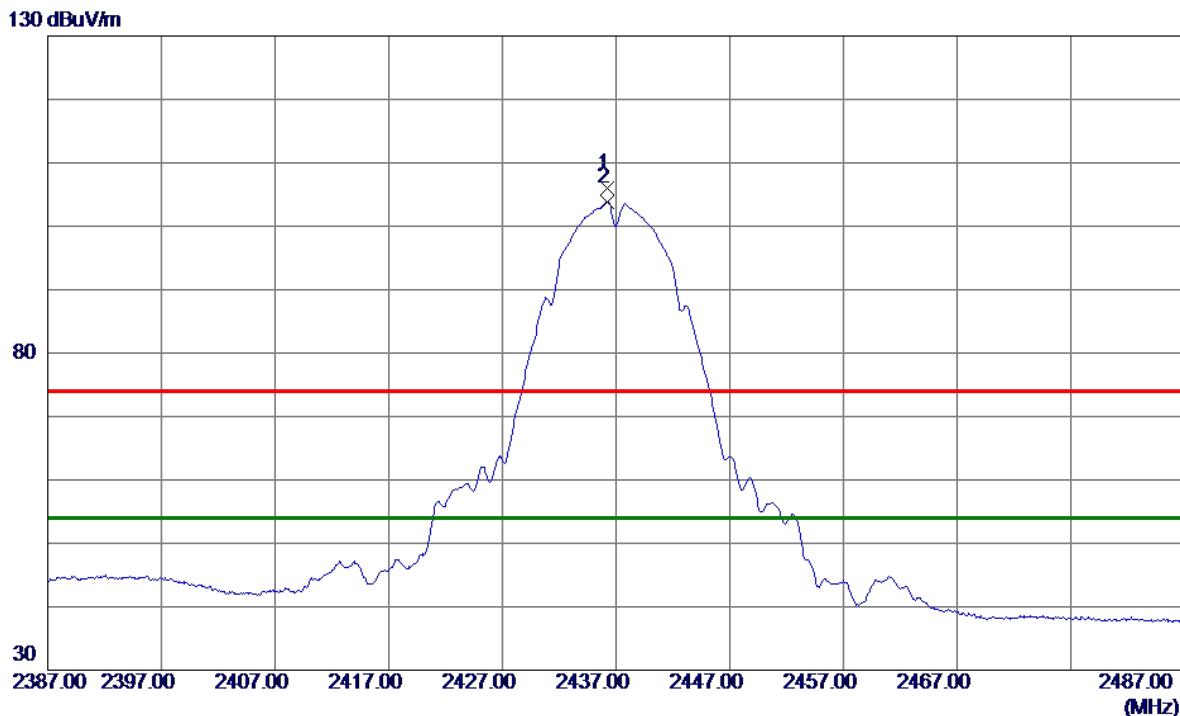
**Vertical**

No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	9747.8320	43.23	10.70	53.93	74.00	-20.07	Peak	
2 *	9747.9180	39.45	10.70	50.15	54.00	-3.85	AVG	

**REMARKS:**

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

Orthogonal Axis	X
Test Mode:	TX B Mode 2437 MHz

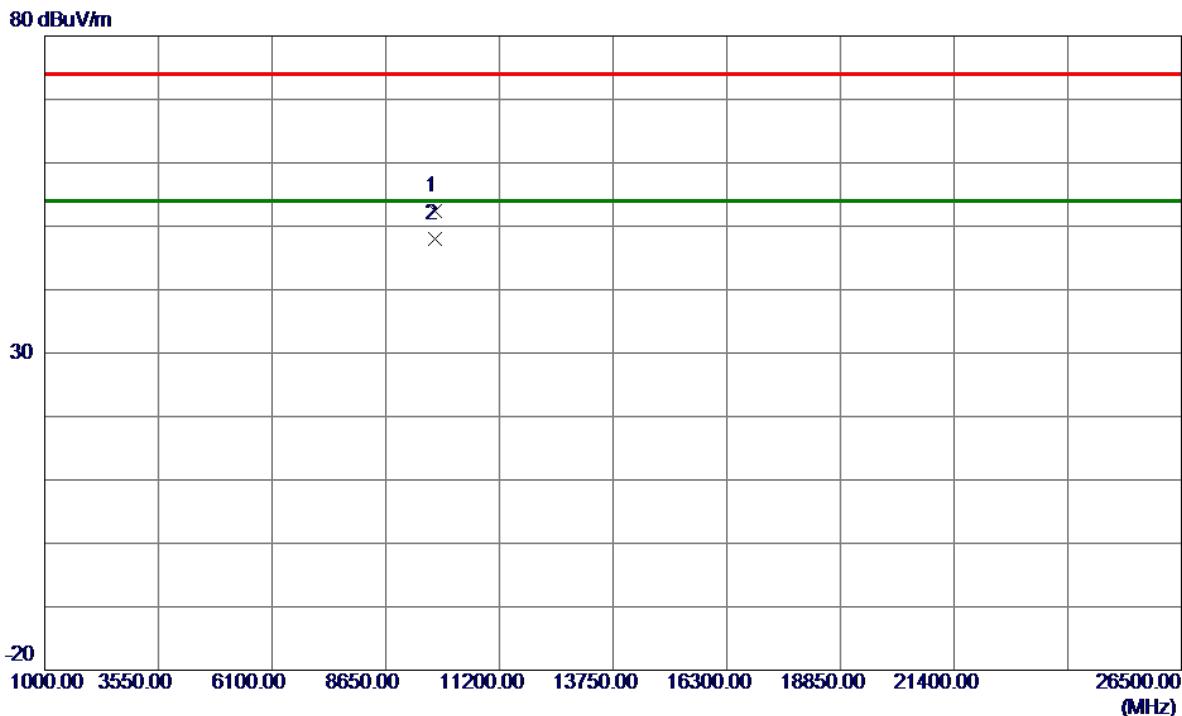
**Horizontal**

No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2436.2000	99.46	6.48	105.94	74.00	31.94	Peak	No Limit
2 *	2436.2000	97.41	6.48	103.89	54.00	49.89	AVG	No Limit

**REMARKS:**

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

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	9747.8530	41.73	10.70	52.43	74.00	-21.57	Peak	
2 *	9747.9100	37.21	10.70	47.91	54.00	-6.09	AVG	

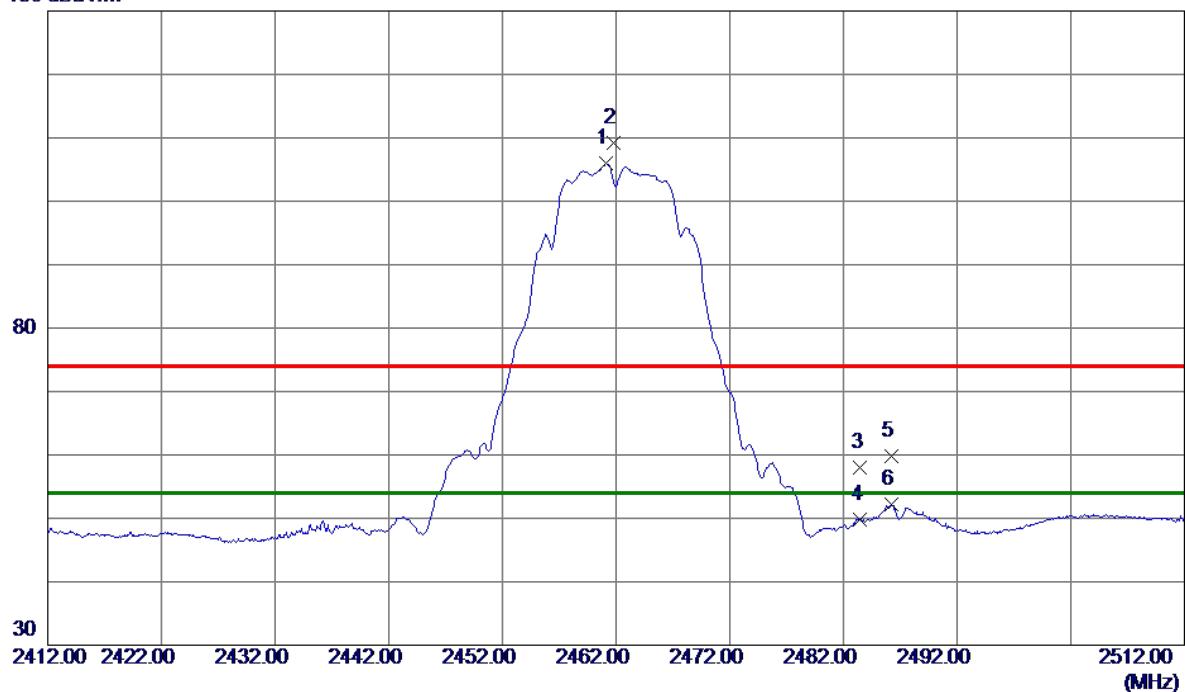
**REMARKS:**

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

Orthogonal Axis	X
Test Mode:	TX B Mode 2462 MHz

**Vertical**

130 dBuV/m

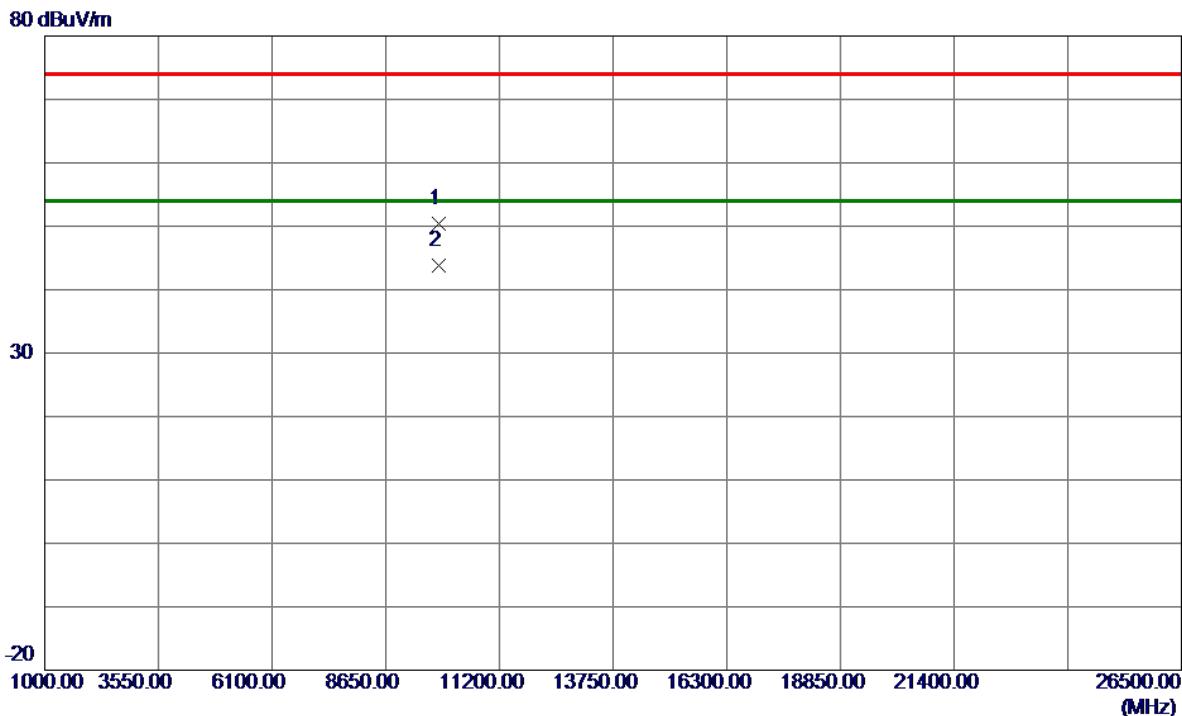


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2461.1500	99.49	6.45	105.94	54.00	51.94	AVG	No Limit
2	2461.7500	102.76	6.45	109.21	74.00	35.21	Peak	No Limit
3	2483.5000	51.61	6.42	58.03	74.00	-15.97	Peak	
4	2483.5000	43.45	6.42	49.87	54.00	-4.13	AVG	
5	2486.2500	53.39	6.42	59.81	74.00	-14.19	Peak	
6	2486.2500	45.74	6.42	52.16	54.00	-1.84	AVG	

**REMARKS:**

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

Orthogonal Axis	X
Test Mode:	TX B Mode 2462 MHz

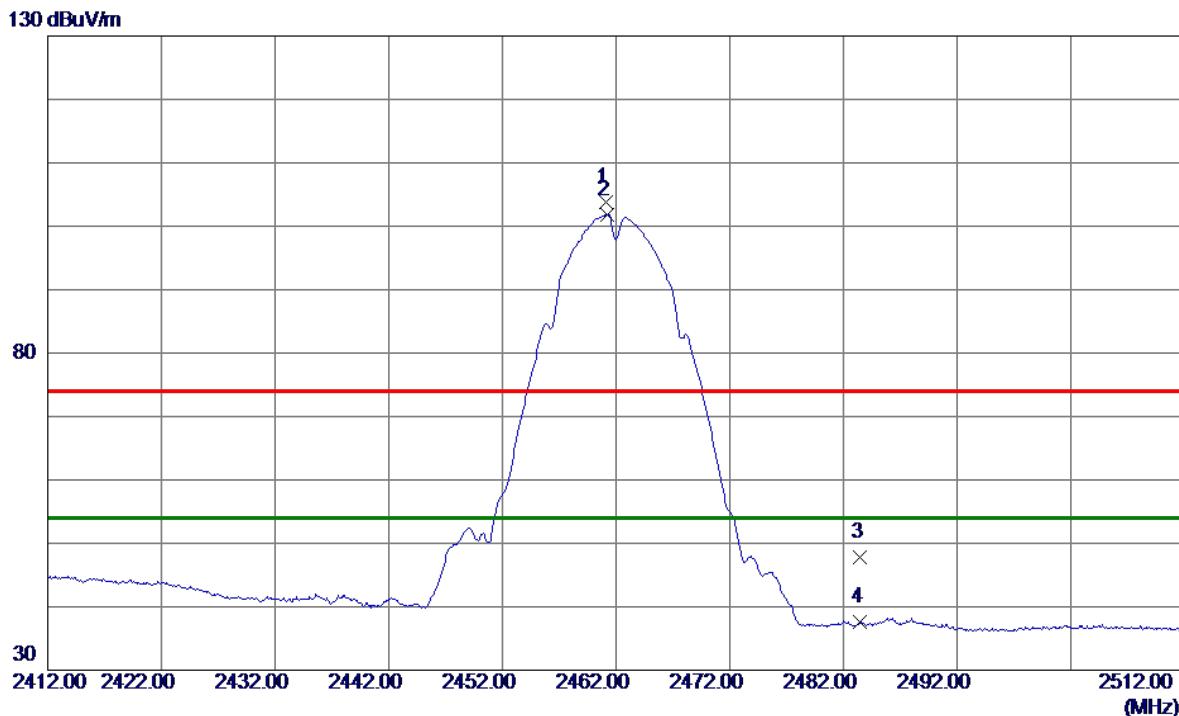
**Vertical**

No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	9847.8880	39.72	10.69	50.41	74.00	-23.59	Peak	
2 *	9847.9560	33.12	10.69	43.81	54.00	-10.19	AVG	

**REMARKS:**

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

Orthogonal Axis	X
Test Mode:	TX B Mode 2462 MHz

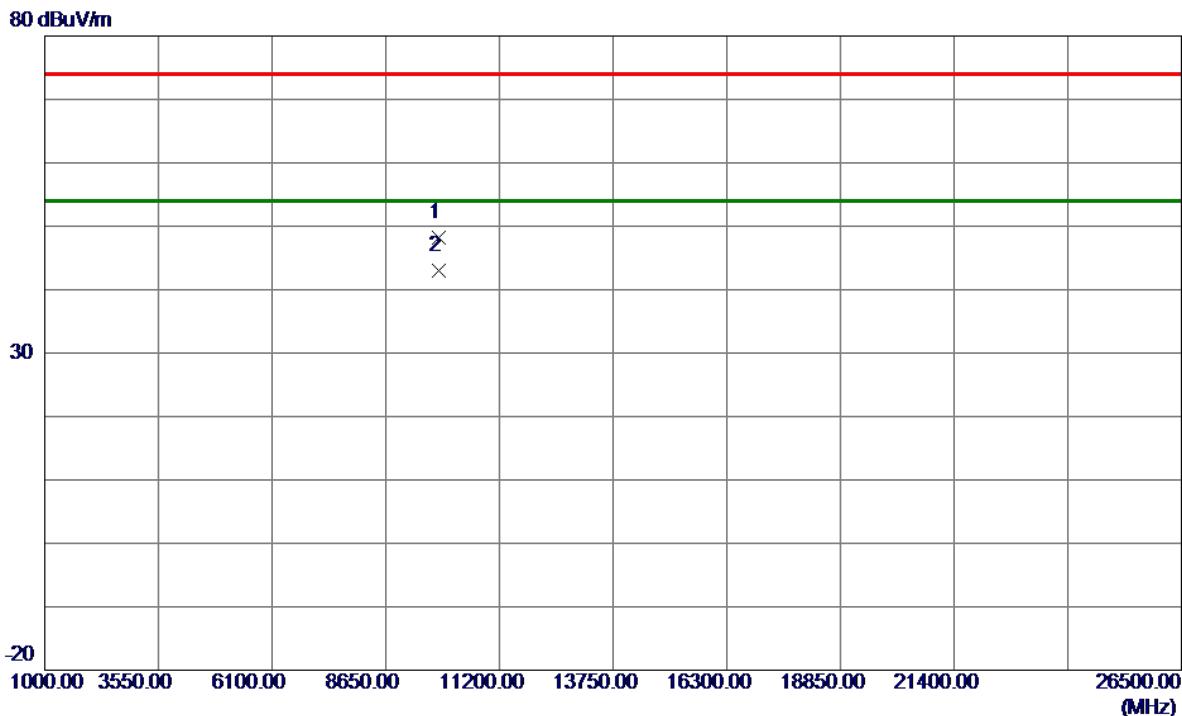
**Horizontal**

No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2461.1500	97.40	6.45	103.85	74.00	29.85	Peak	No Limit
2 *	2461.2500	95.42	6.45	101.87	54.00	47.87	AVG	No Limit
3	2483.5000	41.35	6.42	47.77	74.00	-26.23	Peak	
4	2483.5000	31.10	6.42	37.52	54.00	-16.48	AVG	

**REMARKS:**

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

Orthogonal Axis	X
Test Mode:	TX B 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	9847.8120	37.46	10.69	48.15	74.00	-25.85	Peak	
2 *	9847.9450	32.33	10.69	43.02	54.00	-10.98	AVG	

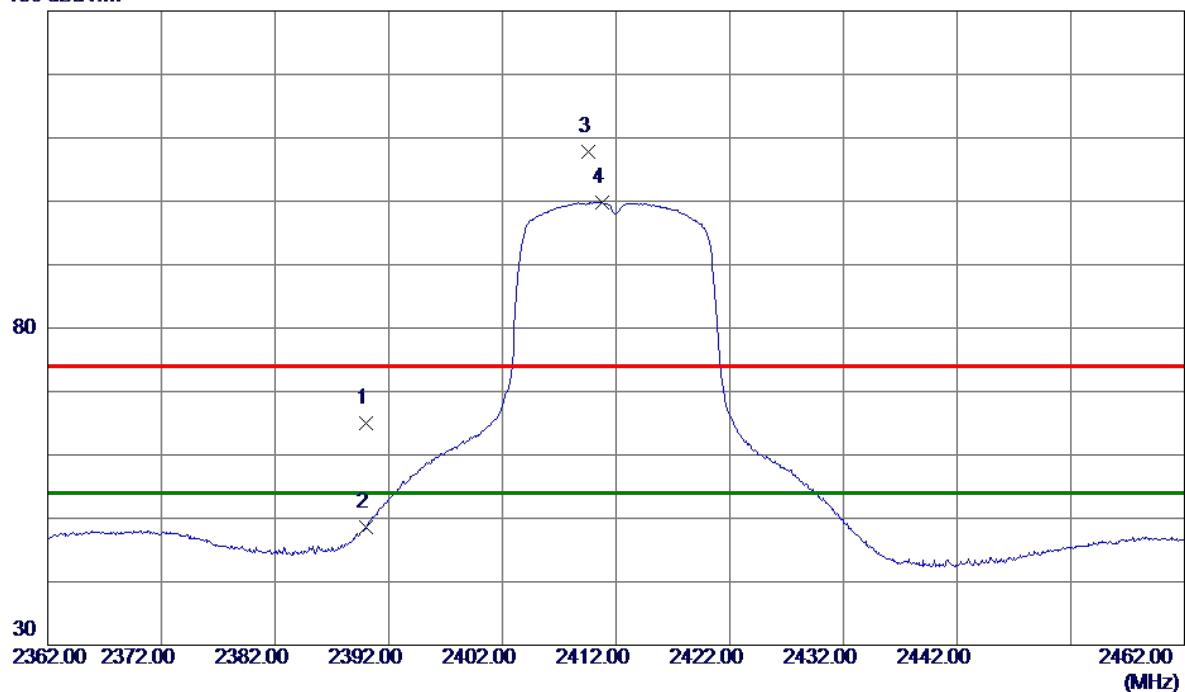
**REMARKS:**

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

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	2390.000	58.45	6.53	64.98	74.00	-9.02	Peak	
2	2390.000	42.10	6.53	48.63	54.00	-5.37	AVG	
3	2409.600	101.35	6.51	107.86	74.00	33.86	Peak	No Limit
4 *	2410.750	93.35	6.51	99.86	54.00	45.86	AVG	No Limit

**REMARKS:**

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

Orthogonal Axis	X
Test Mode:	TX G Mode 2412 MHz

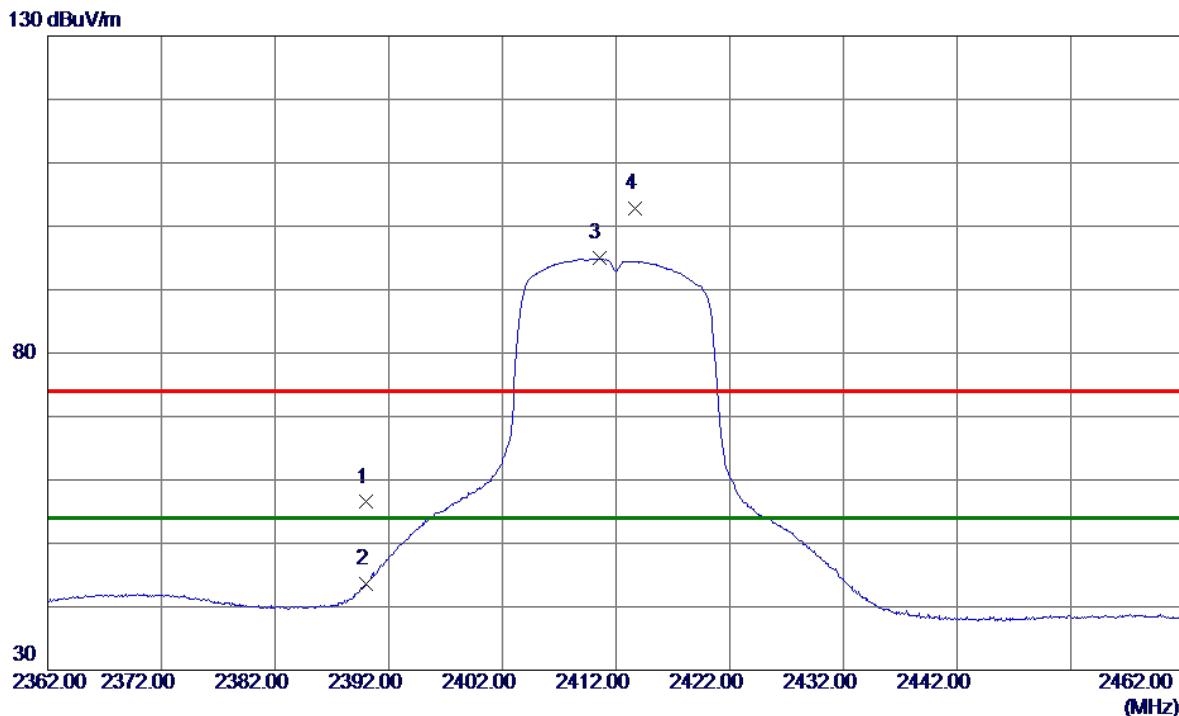
**Vertical**

No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	9644.9349	24.39	10.70	35.09	54.00	-18.91	AVG	
2	9652.3900	34.26	10.70	44.96	74.00	-29.04	Peak	

**REMARKS:**

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

Orthogonal Axis	X
Test Mode:	TX G Mode 2412 MHz

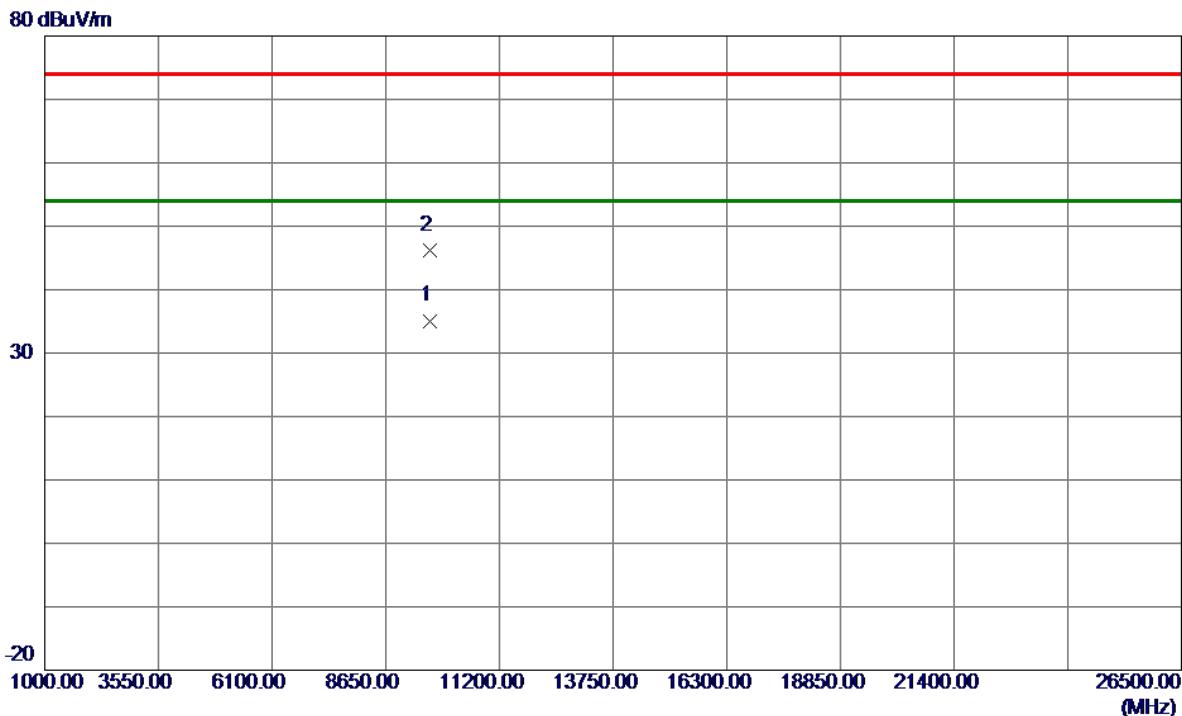
**Horizontal**

No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	49.97	6.53	56.50	74.00	-17.50	Peak	
2	2390.0000	37.01	6.53	43.54	54.00	-10.46	AVG	
3 *	2410.5000	88.39	6.51	94.90	54.00	40.90	AVG	No Limit
4	2413.6500	96.23	6.50	102.73	74.00	28.73	Peak	No Limit

**REMARKS:**

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

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 *	9648.5000	24.40	10.70	35.10	54.00	-18.90	AVG	
2	9649.0350	35.49	10.70	46.19	74.00	-27.81	Peak	

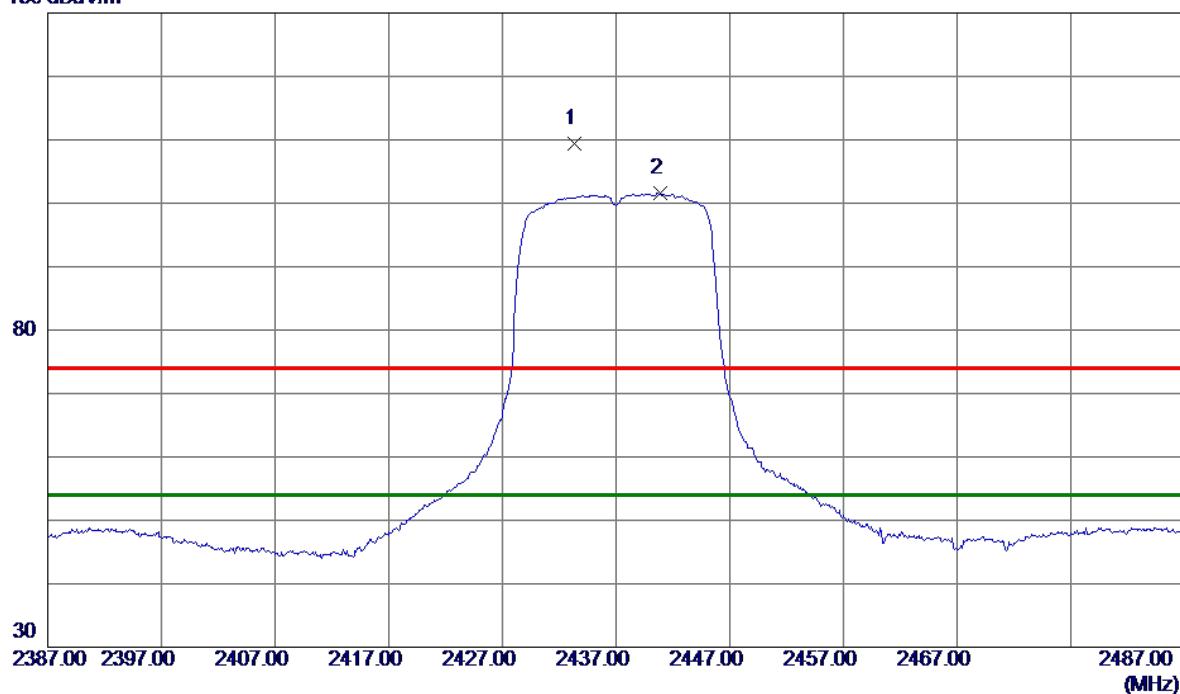
**REMARKS:**

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

Orthogonal Axis	X
Test Mode:	TX G Mode 2437 MHz

**Vertical**

130 dBuV/m

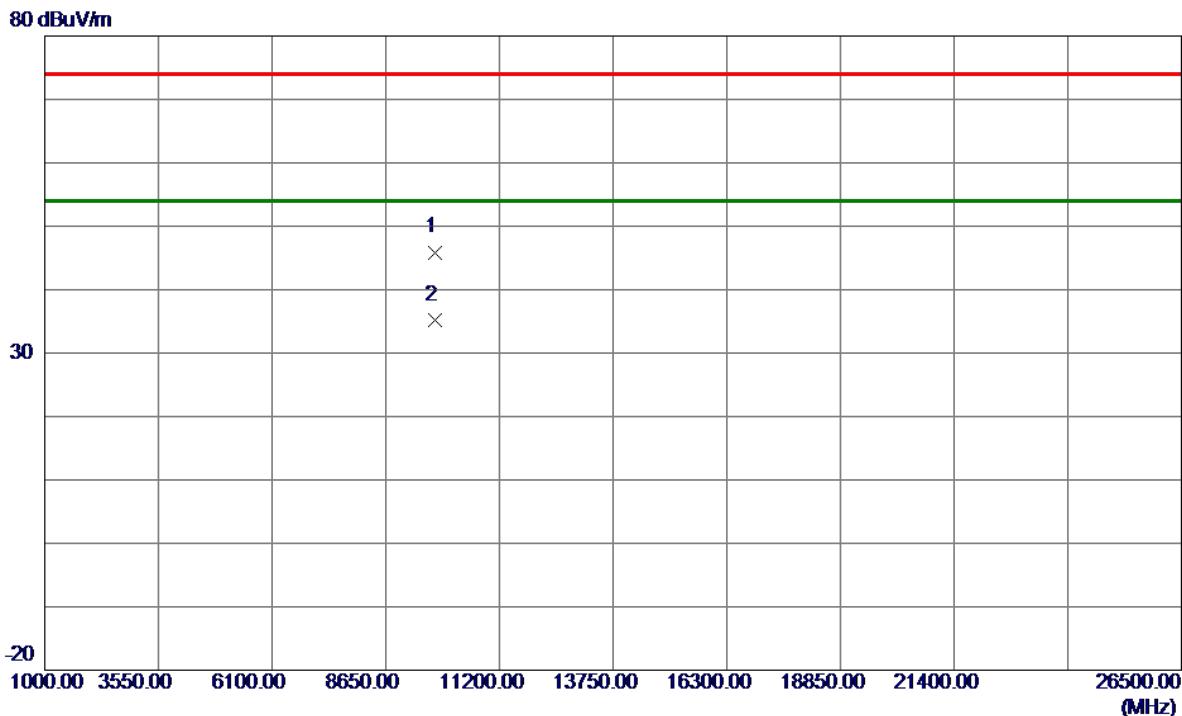


No.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Detector	Comment
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB		
1	2433.3000	102.96	6.48	109.44	74.00	35.44	Peak	No Limit
2 *	2440.8500	95.06	6.47	101.53	54.00	47.53	AVG	No Limit

**REMARKS:**

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

Orthogonal Axis	X
Test Mode:	TX G Mode 2437 MHz

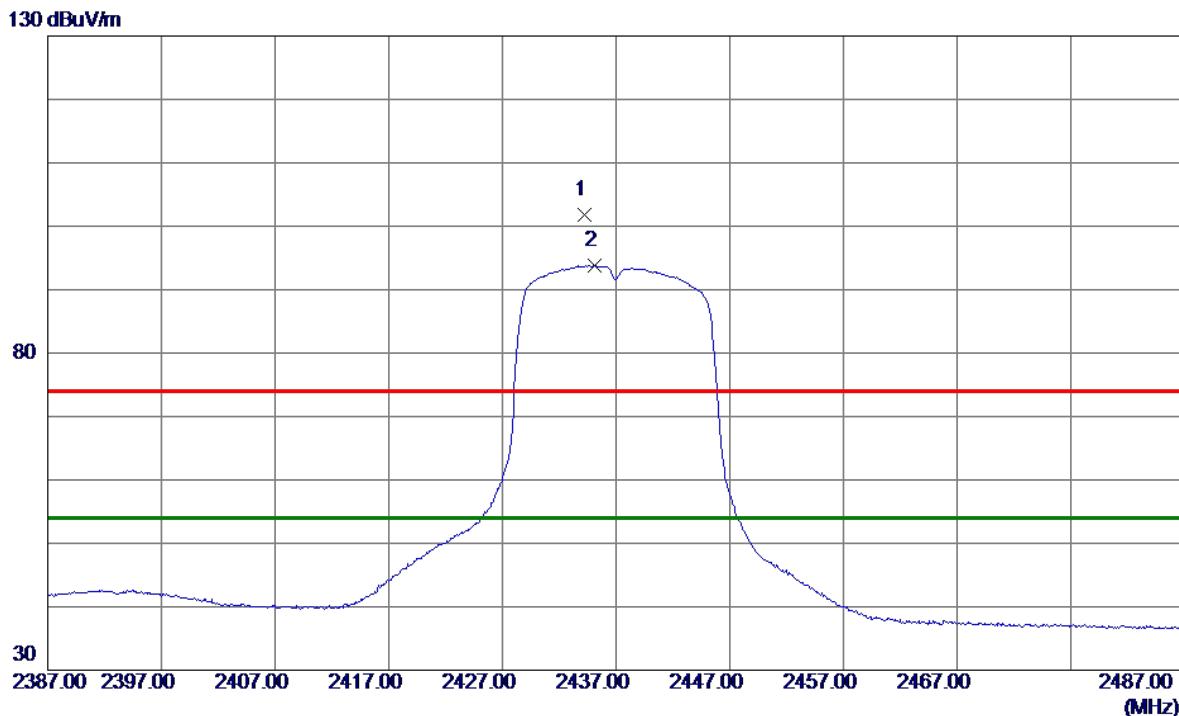
**Vertical**

No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	9745.7450	35.20	10.70	45.90	74.00	-28.10	Peak	
2 *	9752.0100	24.52	10.70	35.22	54.00	-18.78	AVG	

**REMARKS:**

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

Orthogonal Axis	X
Test Mode:	TX G Mode 2437 MHz

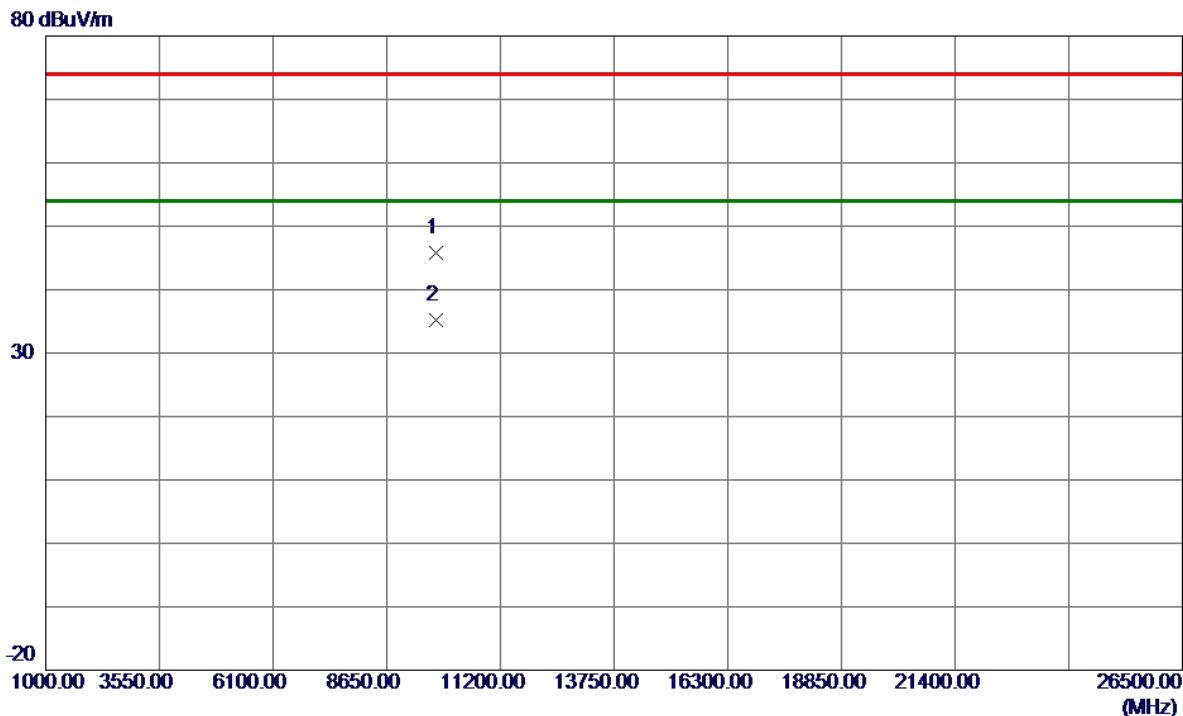
**Horizontal**

No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2434.2000	95.40	6.48	101.88	74.00	27.88	Peak	No Limit
2 *	2435.1500	87.32	6.48	93.80	54.00	39.80	AVG	No Limit

**REMARKS:**

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

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	9746.0500	35.16	10.70	45.86	74.00	-28.14	Peak	
2 *	9750.2950	24.59	10.70	35.29	54.00	-18.71	AVG	

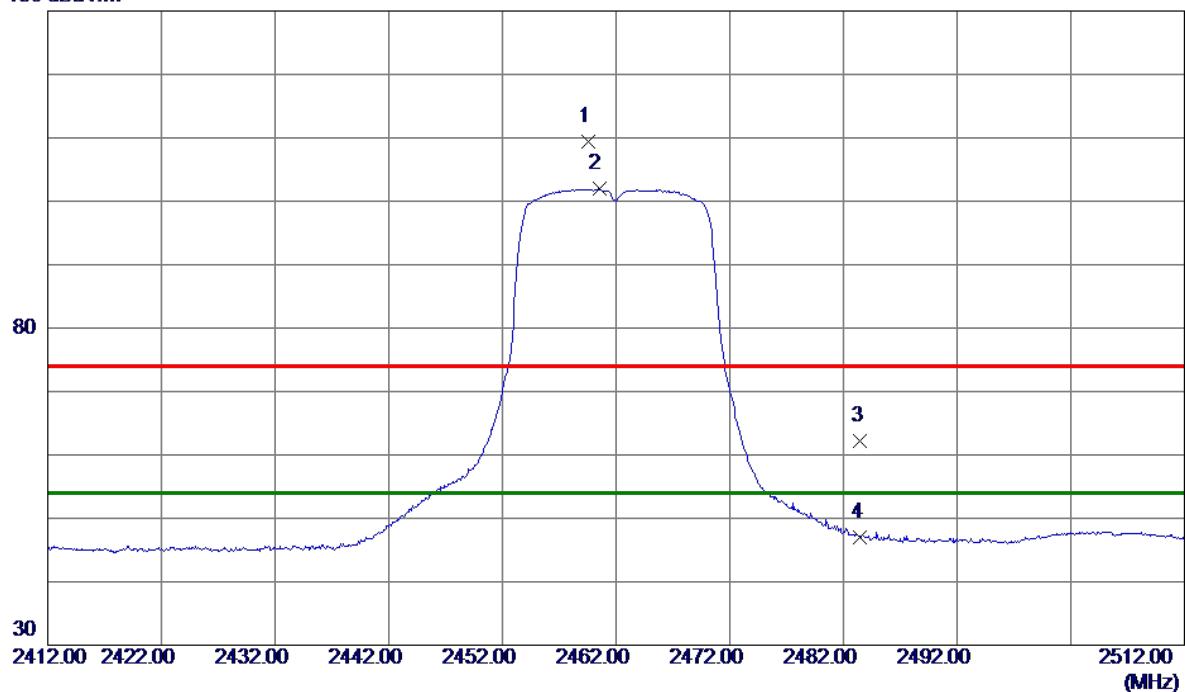
**REMARKS:**

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

Orthogonal Axis	X
Test Mode:	TX G Mode 2462 MHz

**Vertical**

130 dBuV/m

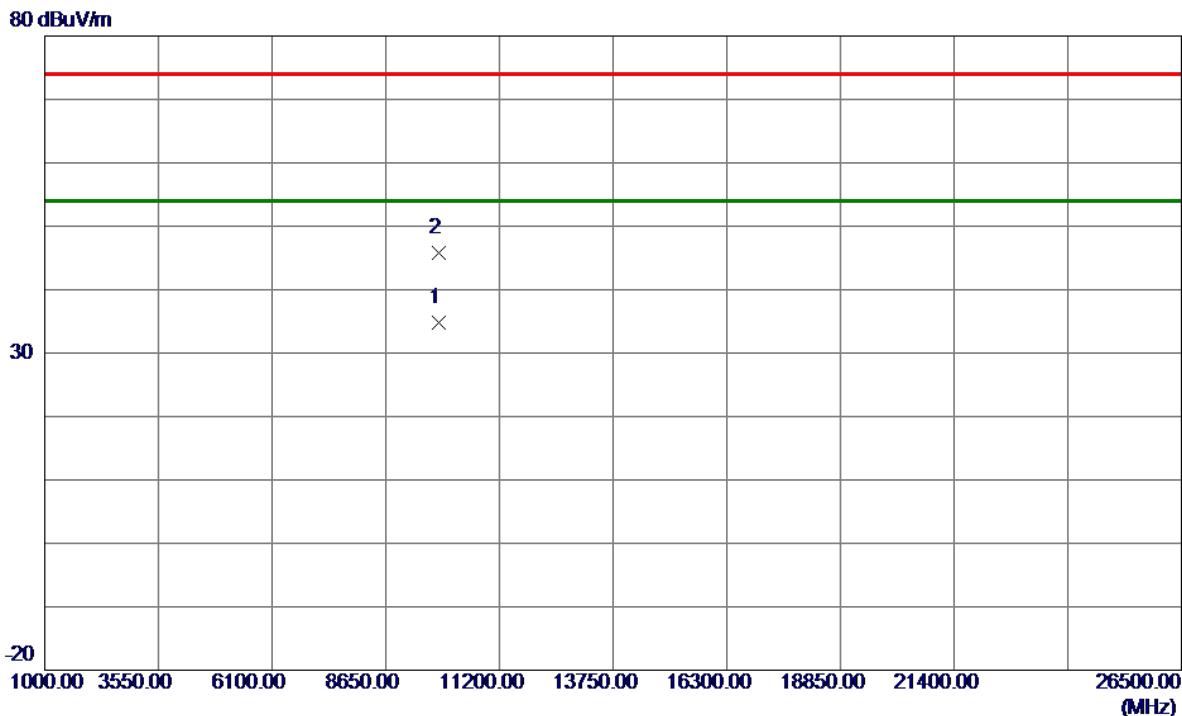


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2459.5500	102.99	6.45	109.44	74.00	35.44	Peak	No Limit
2 *	2460.5000	95.47	6.45	101.92	54.00	47.92	AVG	No Limit
3	2483.5000	55.75	6.42	62.17	74.00	-11.83	Peak	
4	2483.5000	40.61	6.42	47.03	54.00	-6.97	AVG	

**REMARKS:**

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

Orthogonal Axis	X
Test Mode:	TX G Mode 2462 MHz

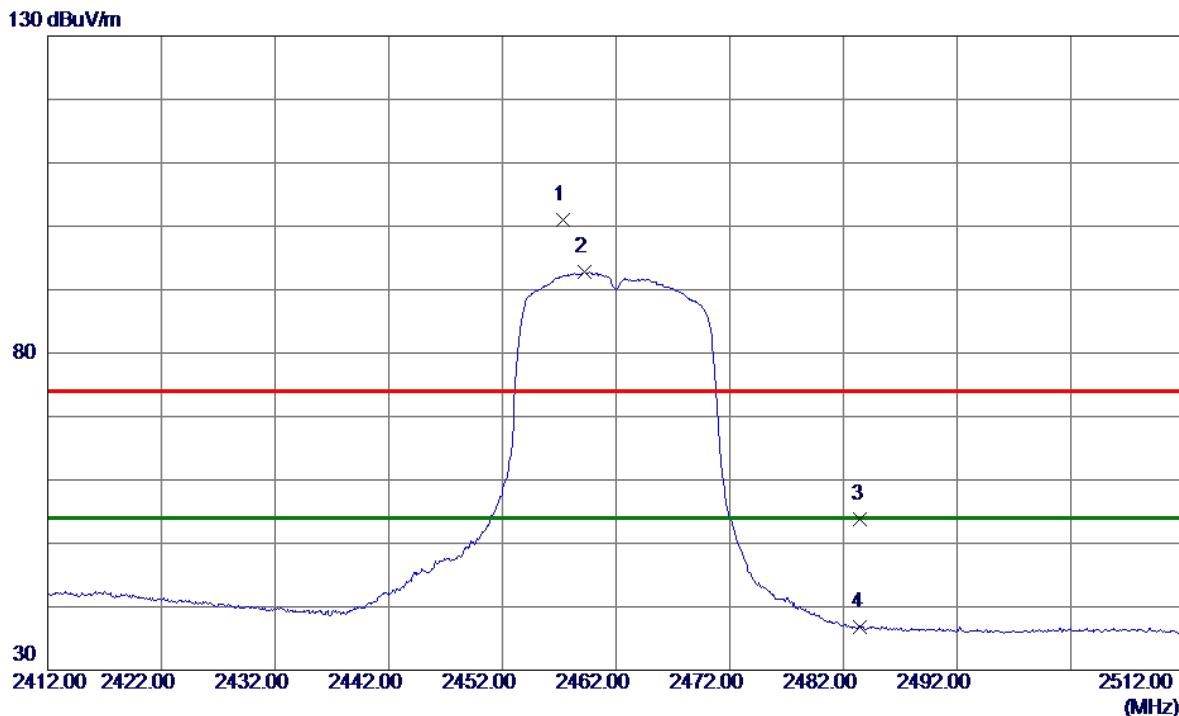
**Vertical**


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	9847.5750	24.17	10.69	34.86	54.00	-19.14	AVG	
2	9848.1430	35.15	10.69	45.84	74.00	-28.16	Peak	

**REMARKS:**

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

Orthogonal Axis	X
Test Mode:	TX G Mode 2462 MHz

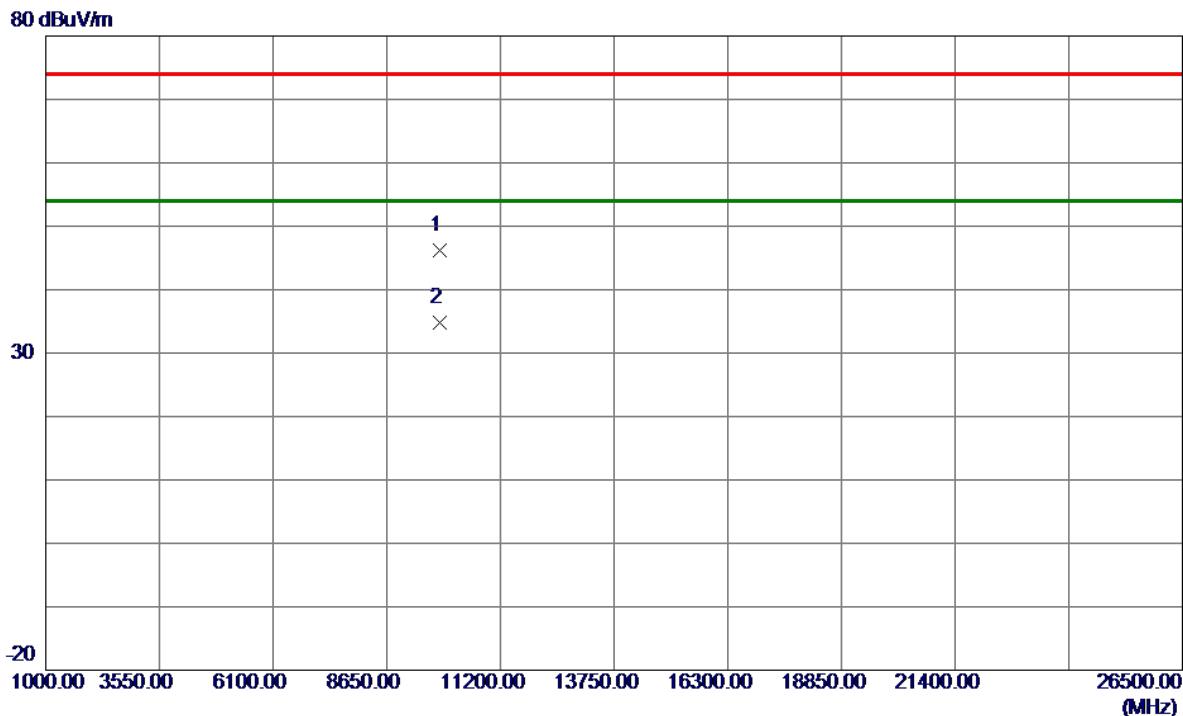
**Horizontal**

No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2457.3000	94.63	6.45	101.08	74.00	27.08	Peak	No Limit
2 *	2459.2500	86.27	6.45	92.72	54.00	38.72	AVG	No Limit
3	2483.5000	47.44	6.42	53.86	74.00	-20.14	Peak	
4	2483.5000	30.45	6.42	36.87	54.00	-17.13	AVG	

**REMARKS:**

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

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	9847.6529	35.46	10.69	46.15	74.00	-27.85	Peak	
2 *	9847.9140	24.17	10.69	34.86	54.00	-19.14	AVG	

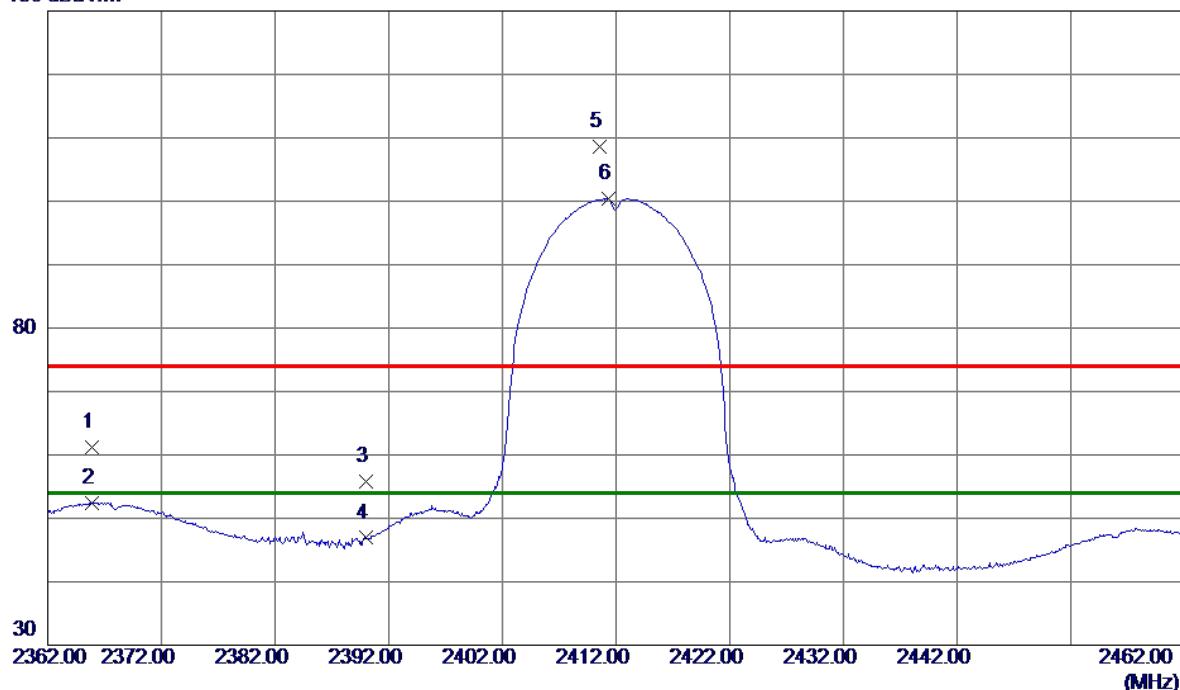
**REMARKS:**

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

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

**Vertical**

130 dBuV/m

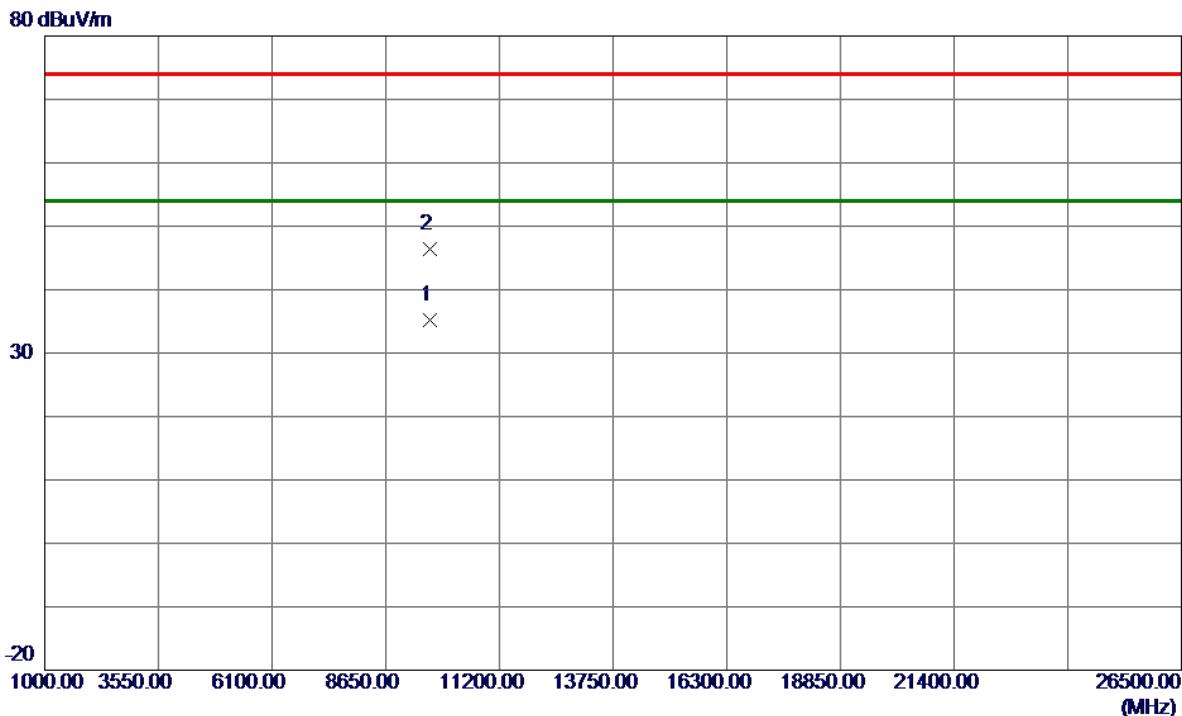


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2365.9000	54.68	6.56	61.24	74.00	-12.76	Peak	
2	2365.9000	45.92	6.56	52.48	54.00	-1.52	AVG	
3	2390.0000	49.32	6.53	55.85	74.00	-18.15	Peak	
4	2390.0000	40.37	6.53	46.90	54.00	-7.10	AVG	
5	2410.6000	102.12	6.51	108.63	74.00	34.63	Peak	No Limit
6 *	2411.3000	93.92	6.51	100.43	54.00	46.43	AVG	No Limit

**REMARKS:**

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

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

**Vertical**

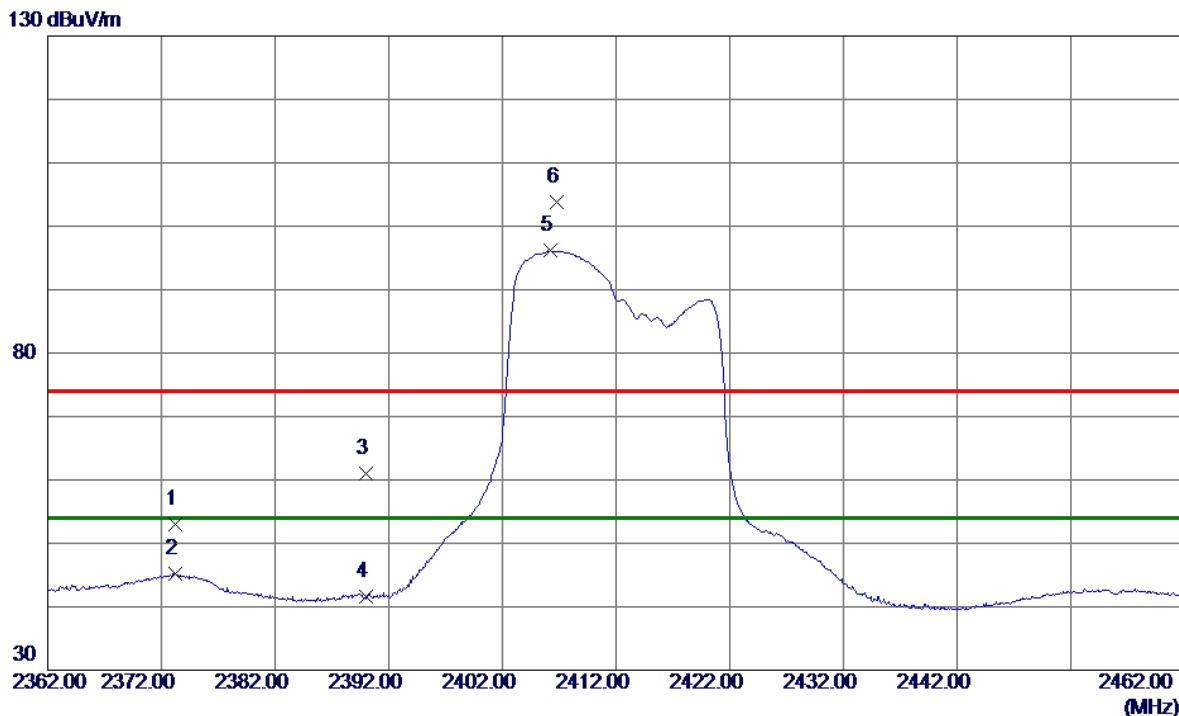
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	9645.5100	24.53	10.70	35.23	54.00	-18.77	AVG	
2	9646.3400	35.65	10.70	46.35	74.00	-27.65	Peak	

**REMARKS:**

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

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

### Horizontal

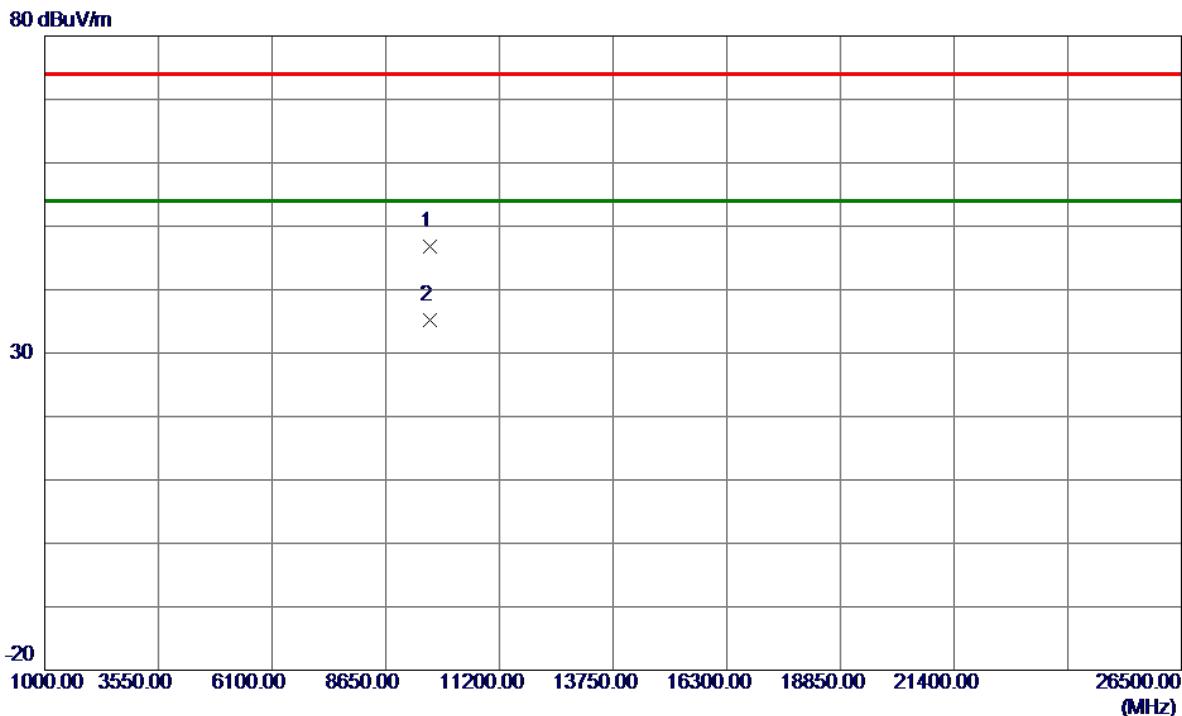


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2373.2000	46.54	6.55	53.09	74.00	-20.91	Peak	
2	2373.2000	38.67	6.55	45.22	54.00	-8.78	Avg	
3	2390.0000	54.55	6.53	61.08	74.00	-12.92	Peak	
4	2390.0000	35.00	6.53	41.53	54.00	-12.47	Avg	
5 *	2406.2500	89.69	6.51	96.20	54.00	42.20	Avg	No Limit
6	2406.7500	97.37	6.51	103.88	74.00	29.88	Peak	No Limit

#### REMARKS:

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

Orthogonal Axis	X
Test Mode:	TX N-20M 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	9644.7050	36.01	10.70	46.71	74.00	-27.29	Peak	
2 *	9648.9500	24.57	10.70	35.27	54.00	-18.73	AVG	

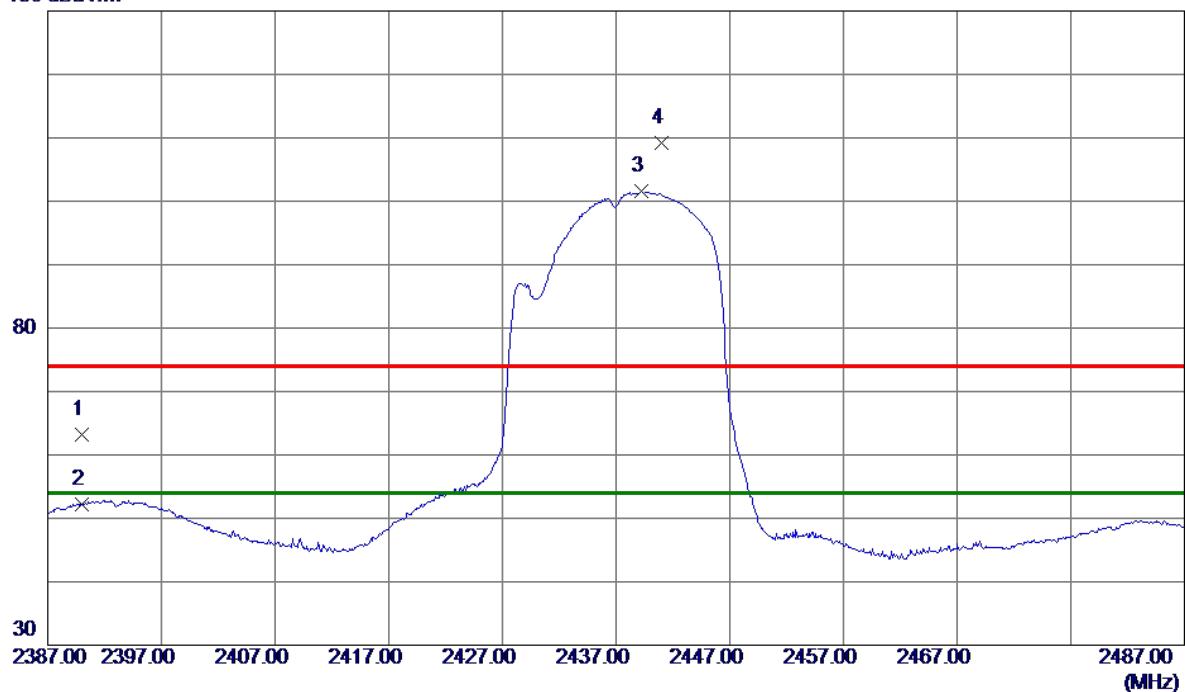
**REMARKS:**

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

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

**Vertical**

130 dBuV/m

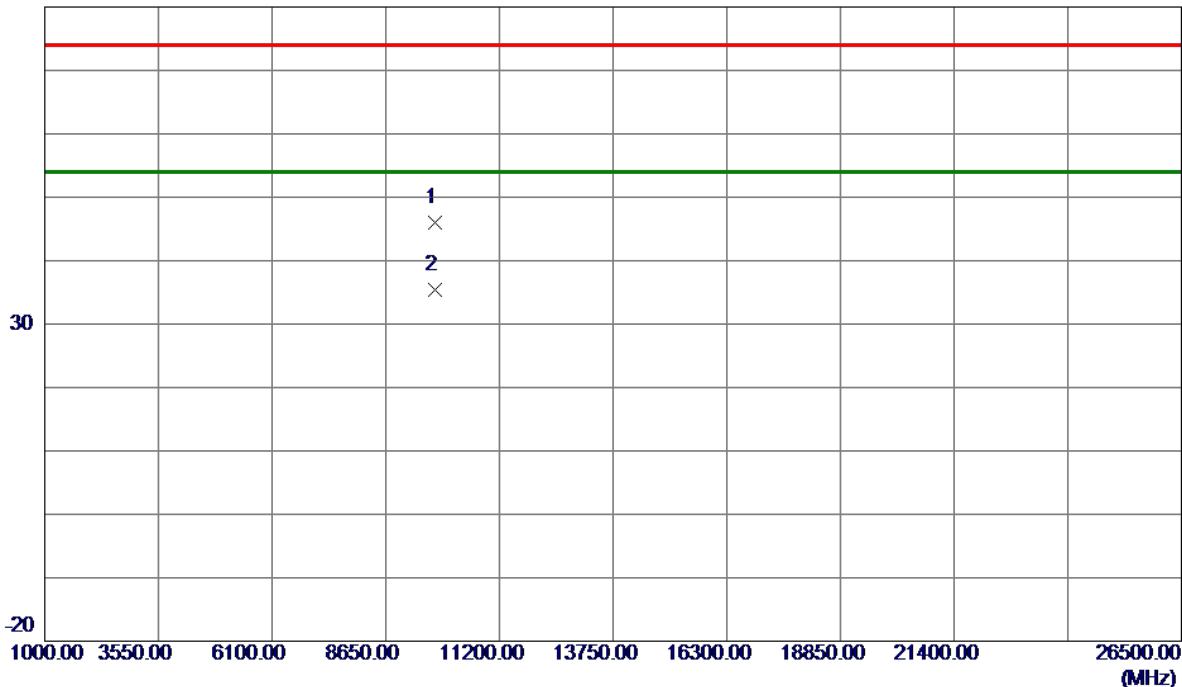


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	56.76	6.53	63.29	74.00	-10.71	Peak	
2	2390.0000	45.76	6.53	52.29	54.00	-1.71	Avg	
3 *	2439.2000	95.17	6.47	101.64	54.00	47.64	Avg	No Limit
4	2441.0500	102.79	6.47	109.26	74.00	35.26	Peak	No Limit

**REMARKS:**

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

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

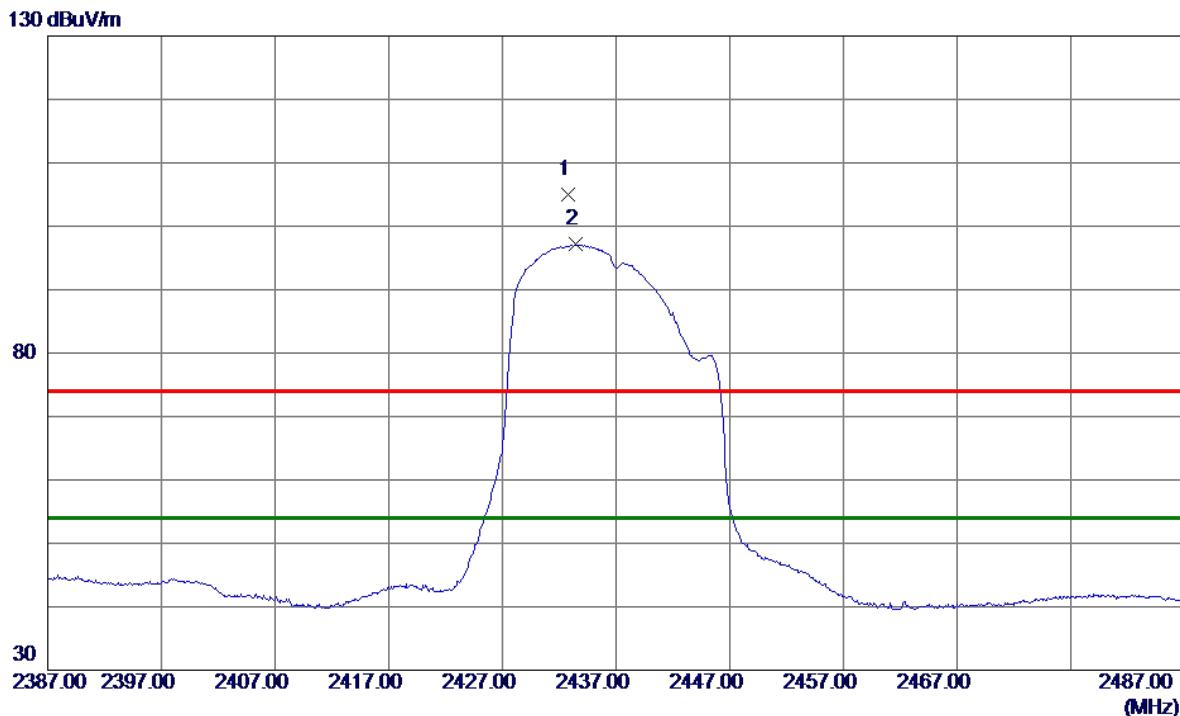
**Vertical**
**80 dBuV/m**


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	9745.3200	35.35	10.70	46.05	74.00	-27.95	Peak	
2 *	9752.0750	24.69	10.70	35.39	54.00	-18.61	AVG	

**REMARKS:**

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

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

**Horizontal**

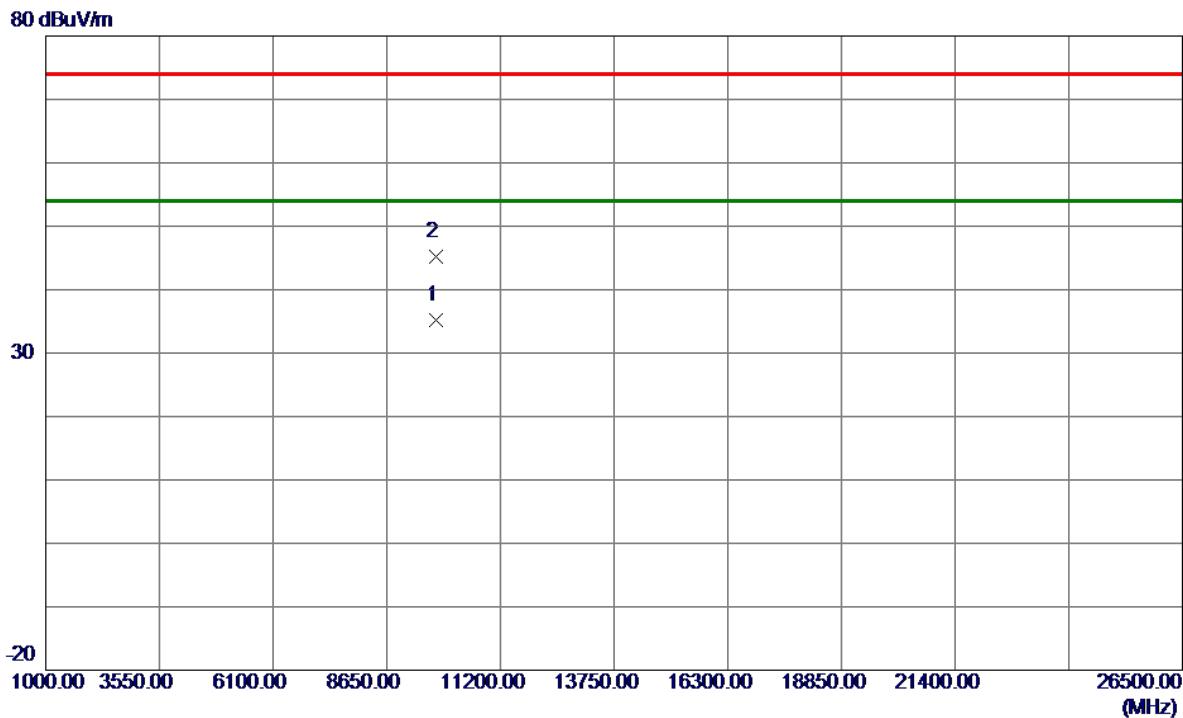
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2432.8000	98.48	6.48	104.96	74.00	30.96	Peak	No Limit
2 *	2433.4000	90.70	6.48	97.18	54.00	43.18	AVG	No Limit

**REMARKS:**

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

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 *	9744.1550	24.51	10.70	35.21	54.00	-18.79	AVG	
2	9745.4250	34.54	10.70	45.24	74.00	-28.76	Peak	

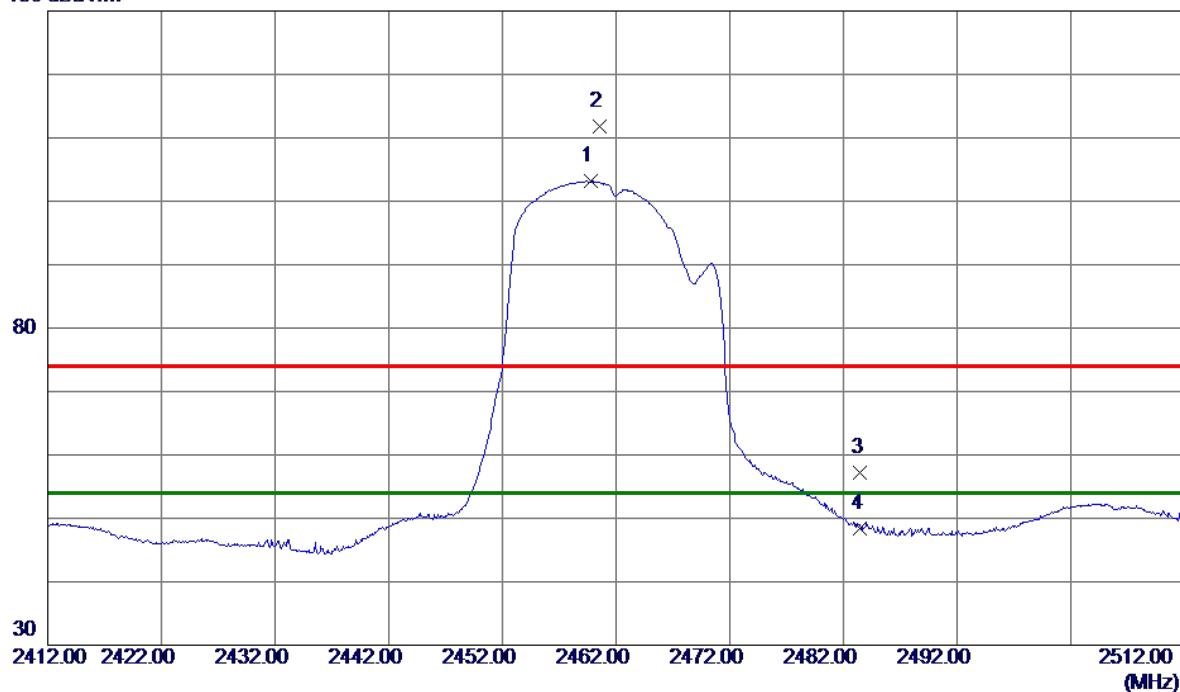
#### REMARKS:

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

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

**Vertical**

130 dBuV/m

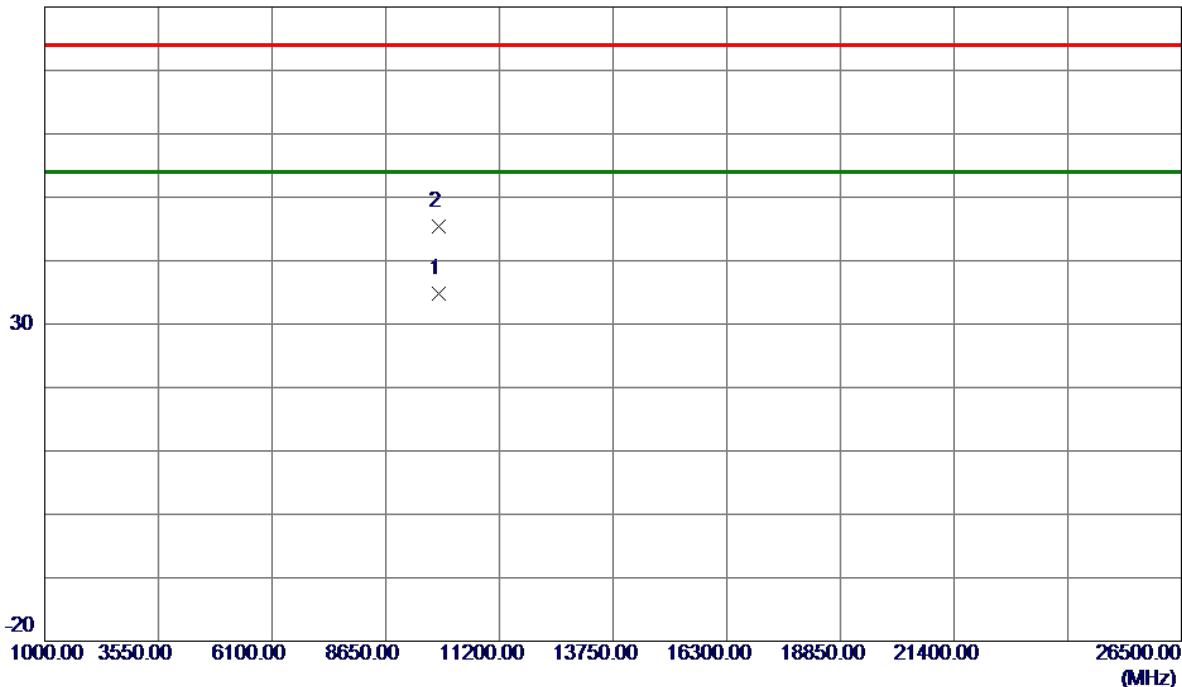


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure- ment dBuV/m	Limit dB	Margin dB	Detector	Comment
1 *	2459.8000	96.70	6.45	103.15	54.00	49.15	AVG	No Limit
2	2460.6000	105.33	6.45	111.78	74.00	37.78	Peak	No Limit
3	2483.5000	50.85	6.42	57.27	74.00	-16.73	Peak	
4	2483.5000	41.98	6.42	48.40	54.00	-5.60	AVG	

**REMARKS:**

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

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

**Vertical**
**80 dBuV/m**

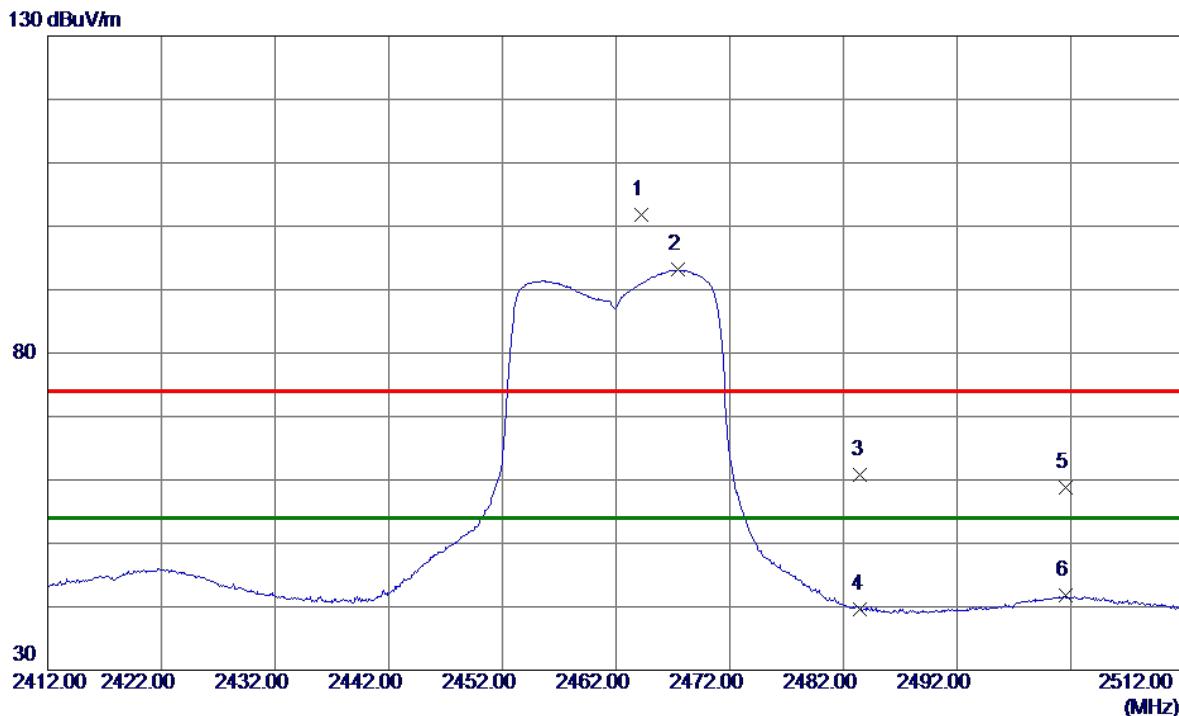
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	9843.0150	24.19	10.69	34.88	54.00	-19.12	AVG	
2	9852.4349	34.78	10.69	45.47	74.00	-28.53	Peak	

**REMARKS:**

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

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

### Horizontal



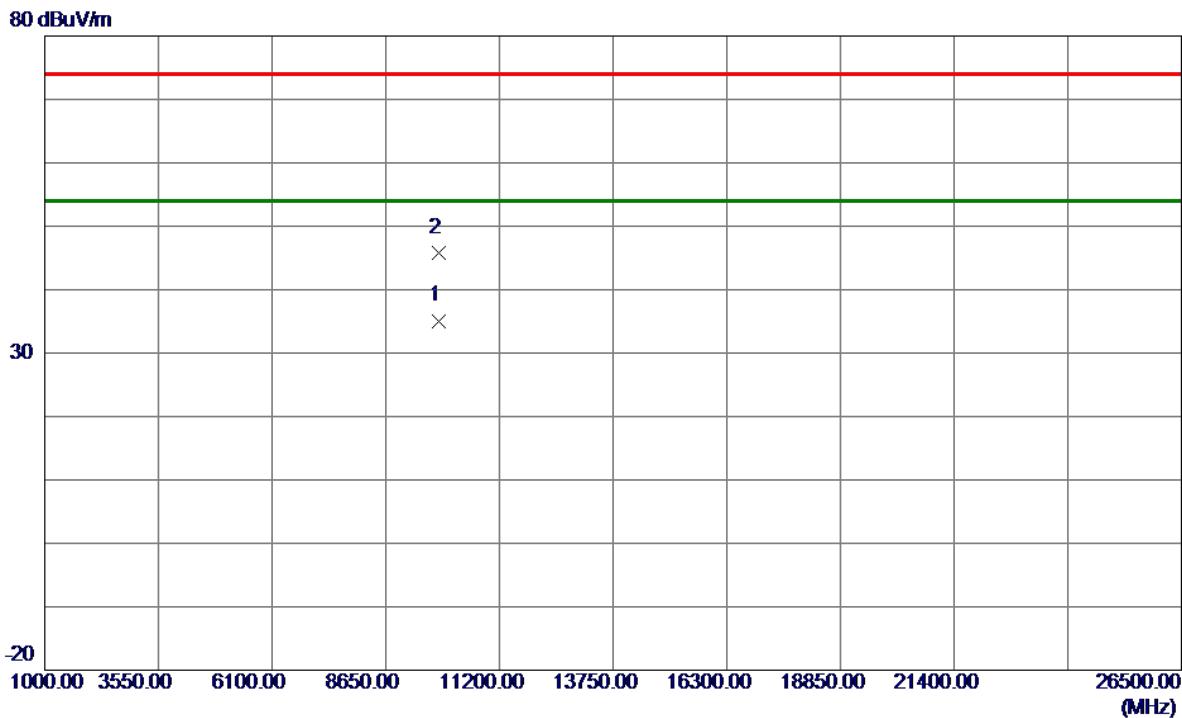
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2464.2000	95.41	6.45	101.86	74.00	27.86	Peak	No Limit
2 *	2467.4500	86.72	6.44	93.16	54.00	39.16	AVG	No Limit
3	2483.5000	54.31	6.42	60.73	74.00	-13.27	Peak	
4	2483.5000	33.15	6.42	39.57	54.00	-14.43	AVG	
5	2501.6000	52.37	6.41	58.78	74.00	-15.22	Peak	
6	2501.6000	35.44	6.41	41.85	54.00	-12.15	AVG	

#### REMARKS:

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

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 *	9847.0750	24.41	10.69	35.10	54.00	-18.90	AVG	
2	9848.7850	35.12	10.69	45.81	74.00	-28.19	Peak	

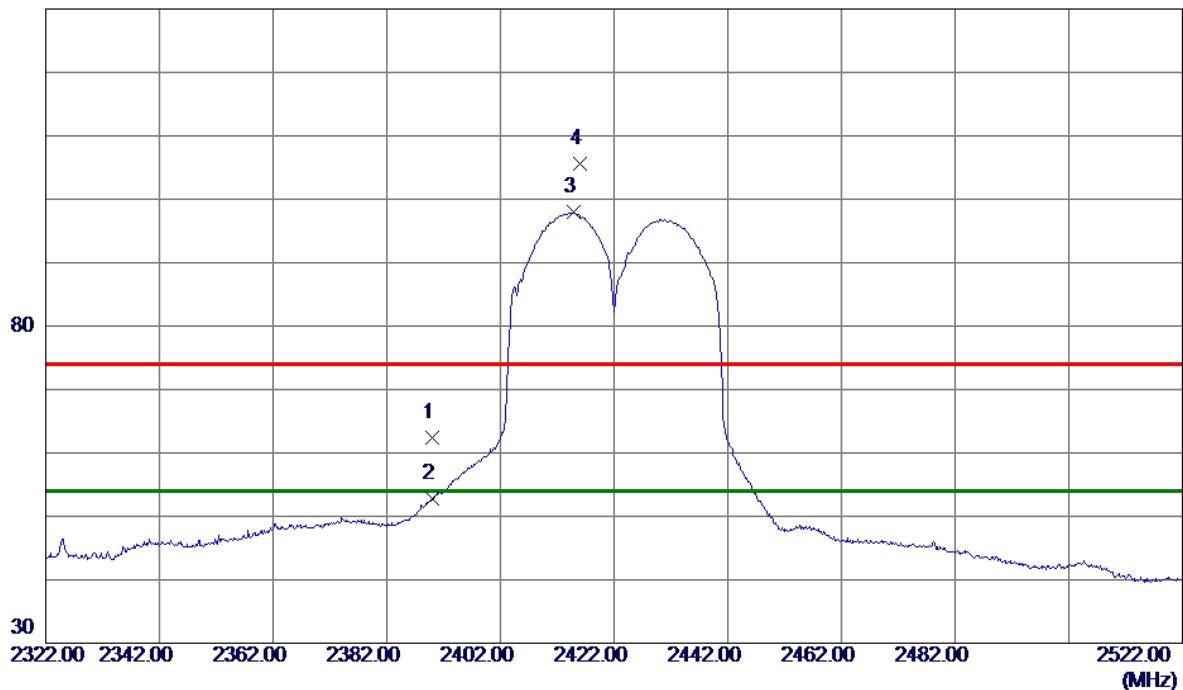
#### REMARKS:

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

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

**Vertical**

130 dBuV/m



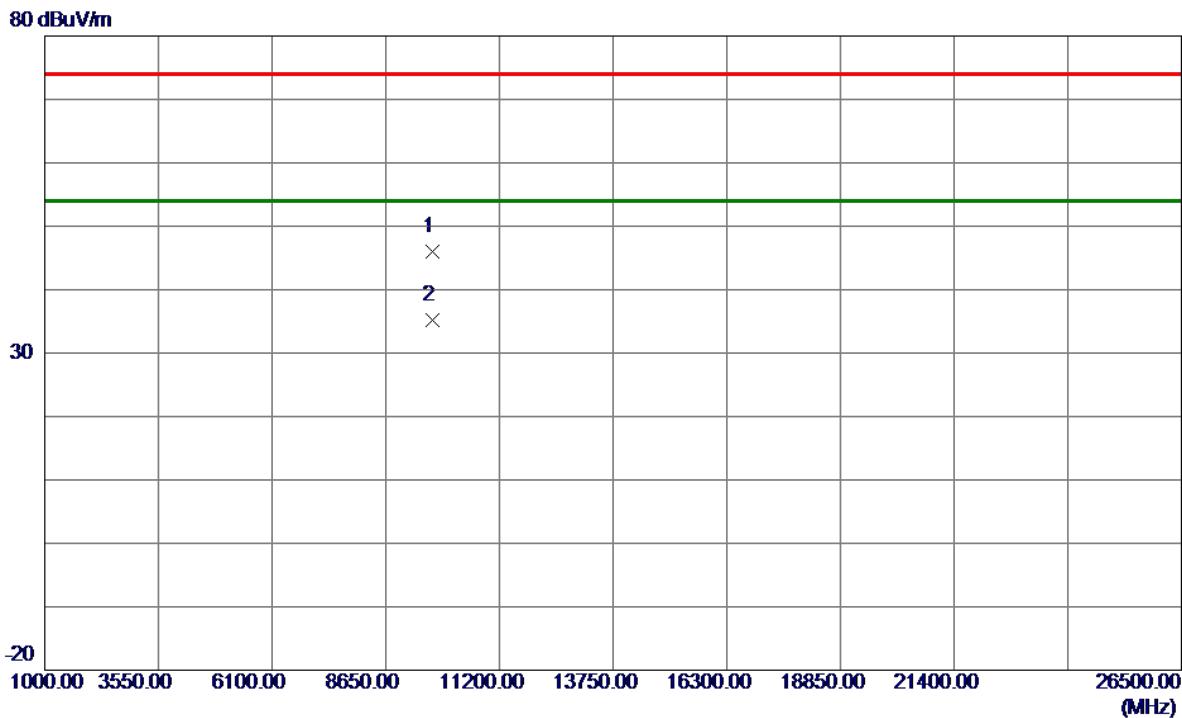
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	55.91	6.53	62.44	74.00	-11.56	Peak	
2	2390.0000	46.20	6.53	52.73	54.00	-1.27	Avg	
3 *	2414.8000	91.41	6.50	97.91	54.00	43.91	Avg	No Limit
4	2416.1000	99.16	6.50	105.66	74.00	31.66	Peak	No Limit

**REMARKS:**

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

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

### Vertical



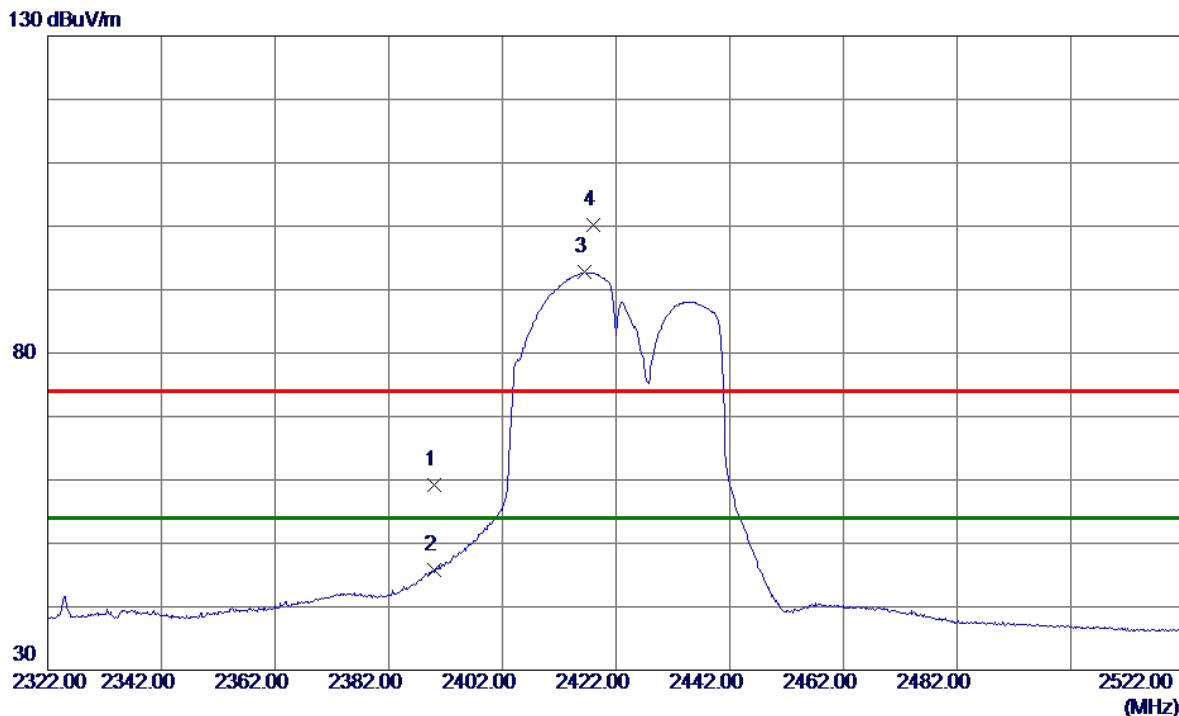
No.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Detector	Comment
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB		
1	9689.0150	35.34	10.70	46.04	74.00	-27.96	Peak	
2 *	9690.0279	24.46	10.70	35.16	54.00	-18.84	AVG	

### REMARKS:

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

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

### Horizontal

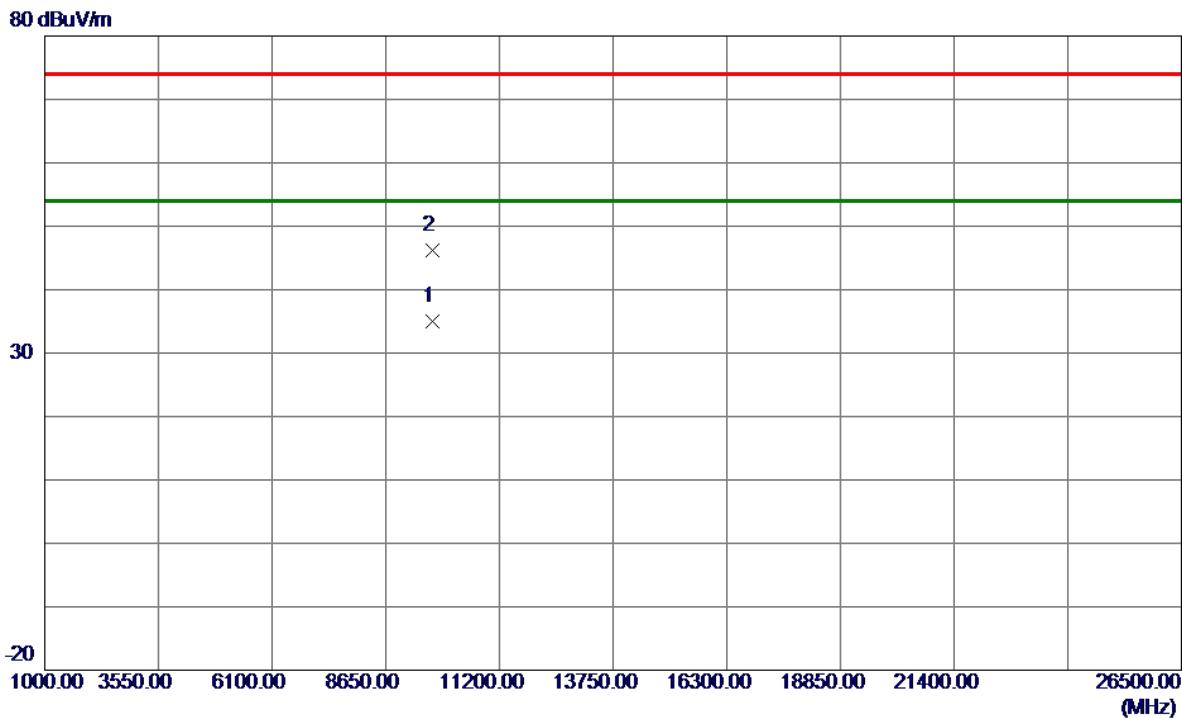


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	52.72	6.53	59.25	74.00	-14.75	Peak	
2	2390.0000	39.26	6.53	45.79	54.00	-8.21	Avg	
3 *	2416.5000	86.25	6.50	92.75	54.00	38.75	Avg	No Limit
4	2418.0000	93.61	6.50	100.11	74.00	26.11	Peak	No Limit

#### REMARKS:

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

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

**Horizontal**

No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	9687.1830	24.39	10.70	35.09	54.00	-18.91	AVG	
2	9687.9250	35.41	10.70	46.11	74.00	-27.89	Peak	

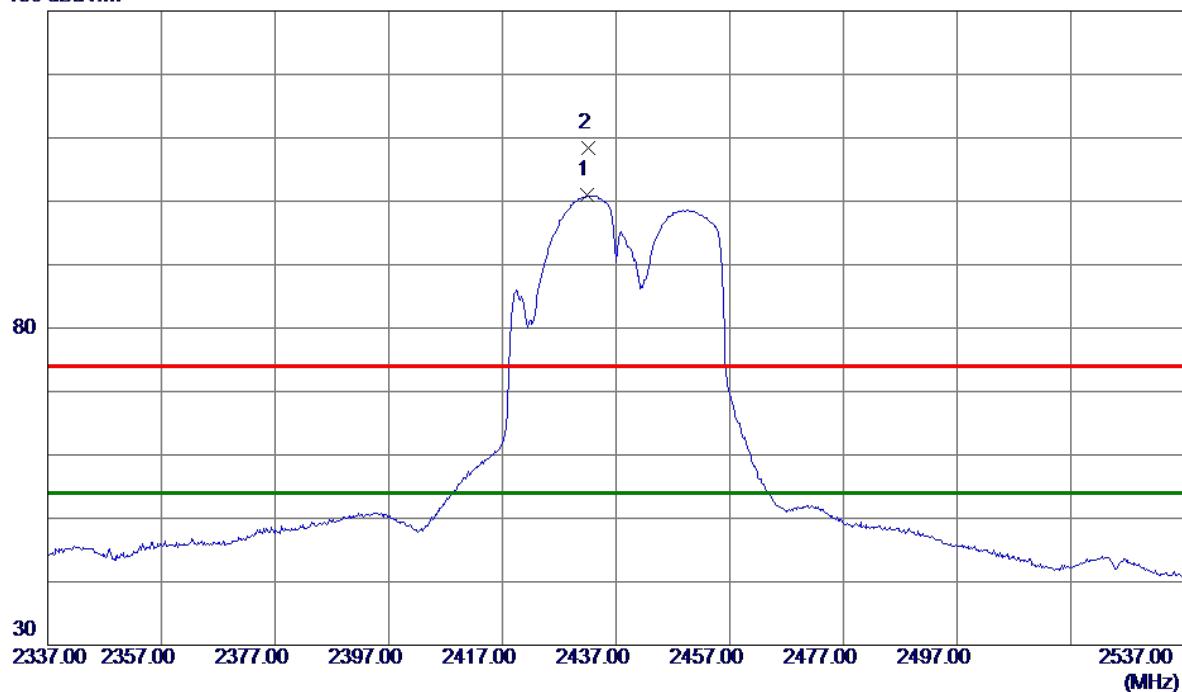
**REMARKS:**

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

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

**Vertical**

130 dBuV/m

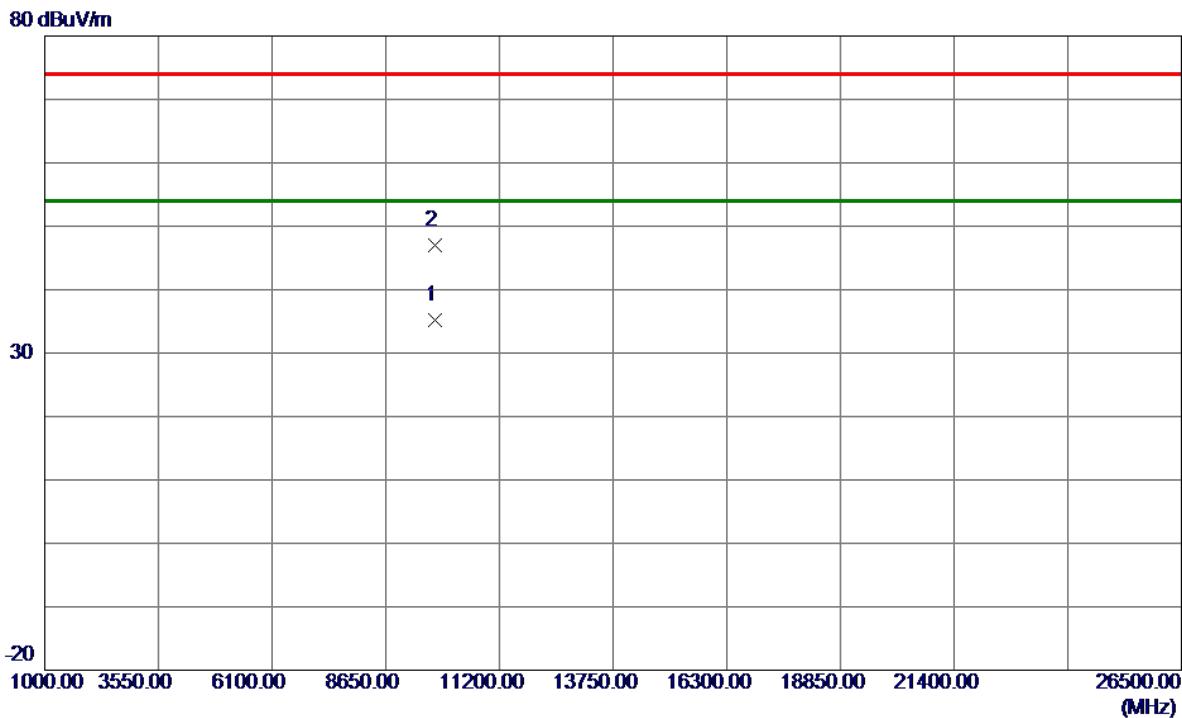


No.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Detector	Comment
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB		
1 *	2431.9000	94.46	6.48	100.94	54.00	46.94	AVG	No Limit
2	2432.1000	102.00	6.48	108.48	74.00	34.48	Peak	No Limit

**REMARKS:**

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

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

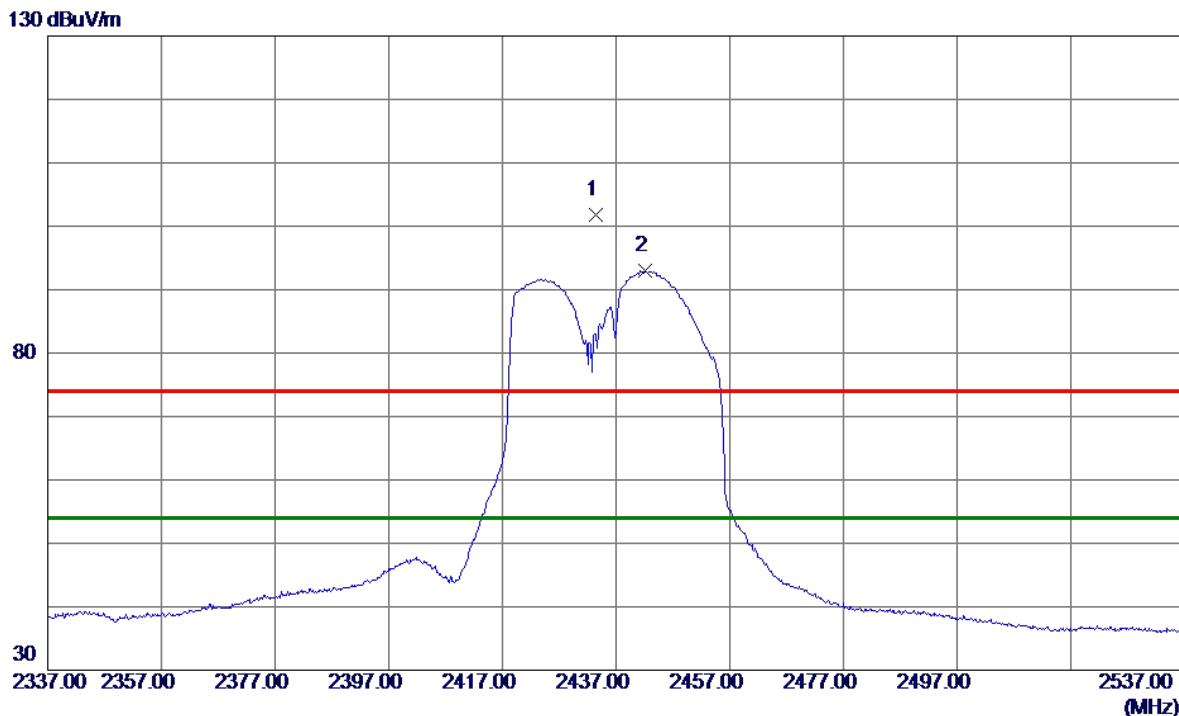
**Vertical**


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	9747.0900	24.43	10.70	35.13	54.00	-18.87	AVG	
2	9749.7570	36.36	10.70	47.06	74.00	-26.94	Peak	

**REMARKS:**

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

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

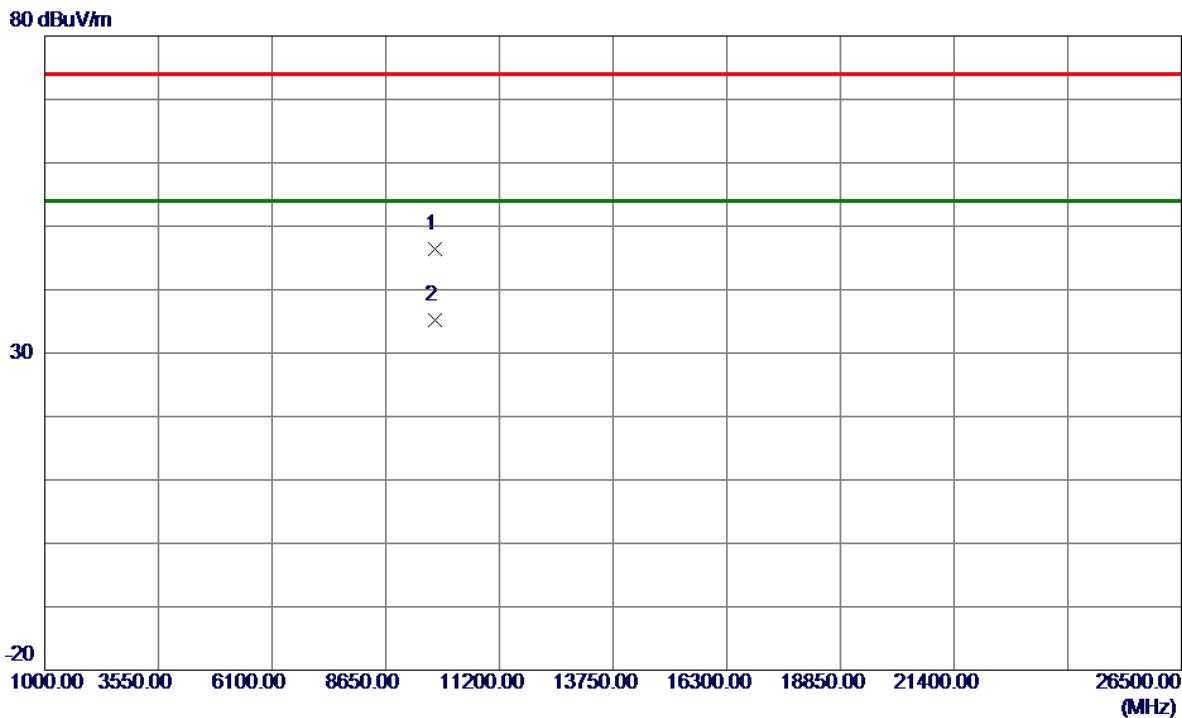
**Horizontal**

No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2433.4000	95.34	6.48	101.82	74.00	27.82	Peak	No Limit
2 *	2442.1000	86.56	6.47	93.03	54.00	39.03	AVG	No Limit

**REMARKS:**

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

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

**Horizontal**

No.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Detector	Comment
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB		
1	9748.4900	35.62	10.70	46.32	74.00	-27.68	Peak	
2 *	9750.1000	24.59	10.70	35.29	54.00	-18.71	AVG	

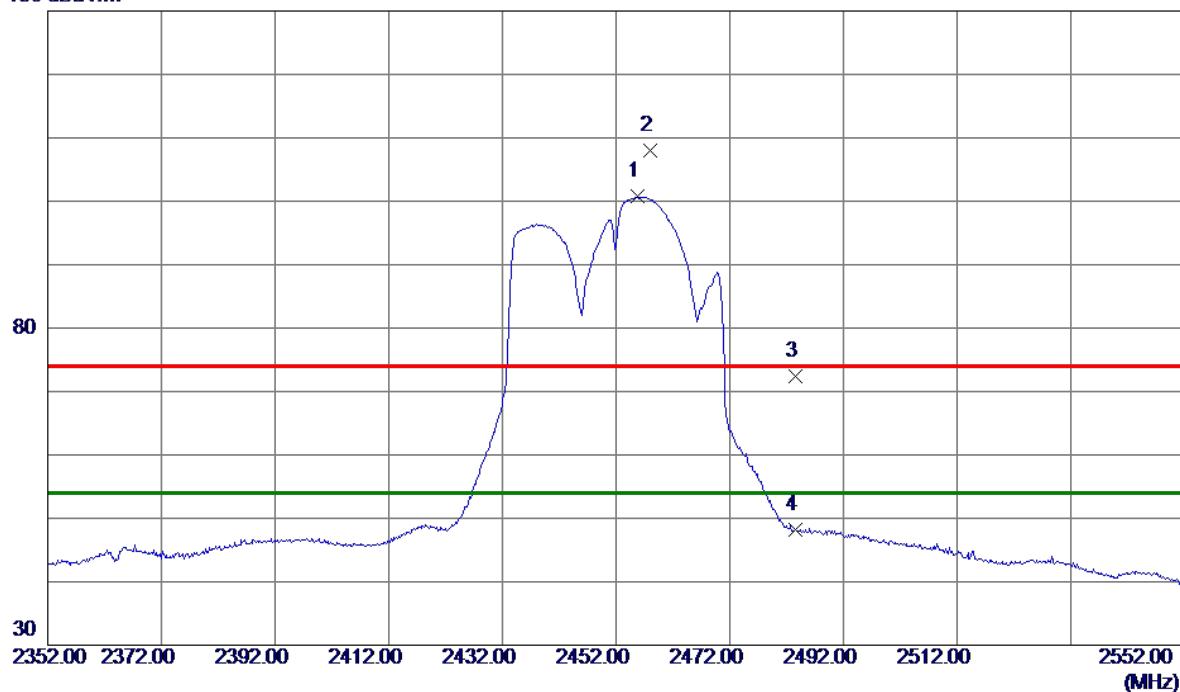
**REMARKS:**

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

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

**Vertical**

130 dBuV/m



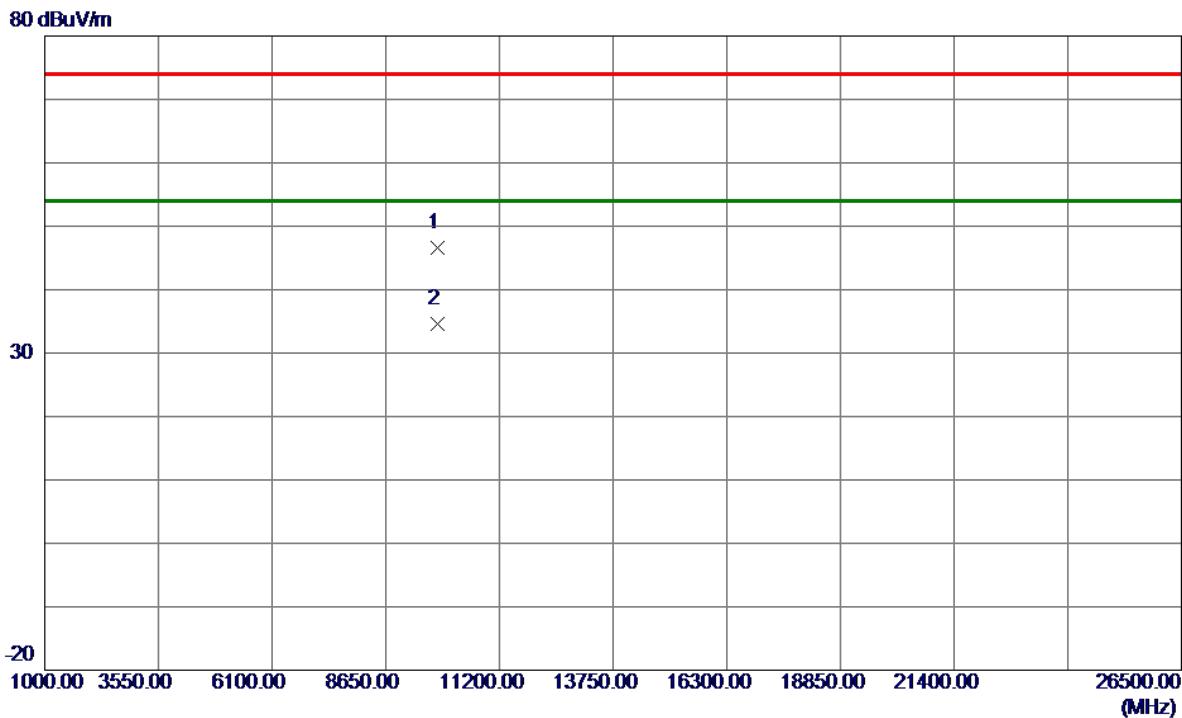
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2455.8000	94.25	6.46	100.71	54.00	46.71	AVG	No Limit
2	2458.0000	101.49	6.45	107.94	74.00	33.94	Peak	No Limit
3	2483.5000	66.03	6.42	72.45	74.00	-1.55	Peak	
4	2483.5000	41.75	6.42	48.17	54.00	-5.83	AVG	

**REMARKS:**

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

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

### Vertical



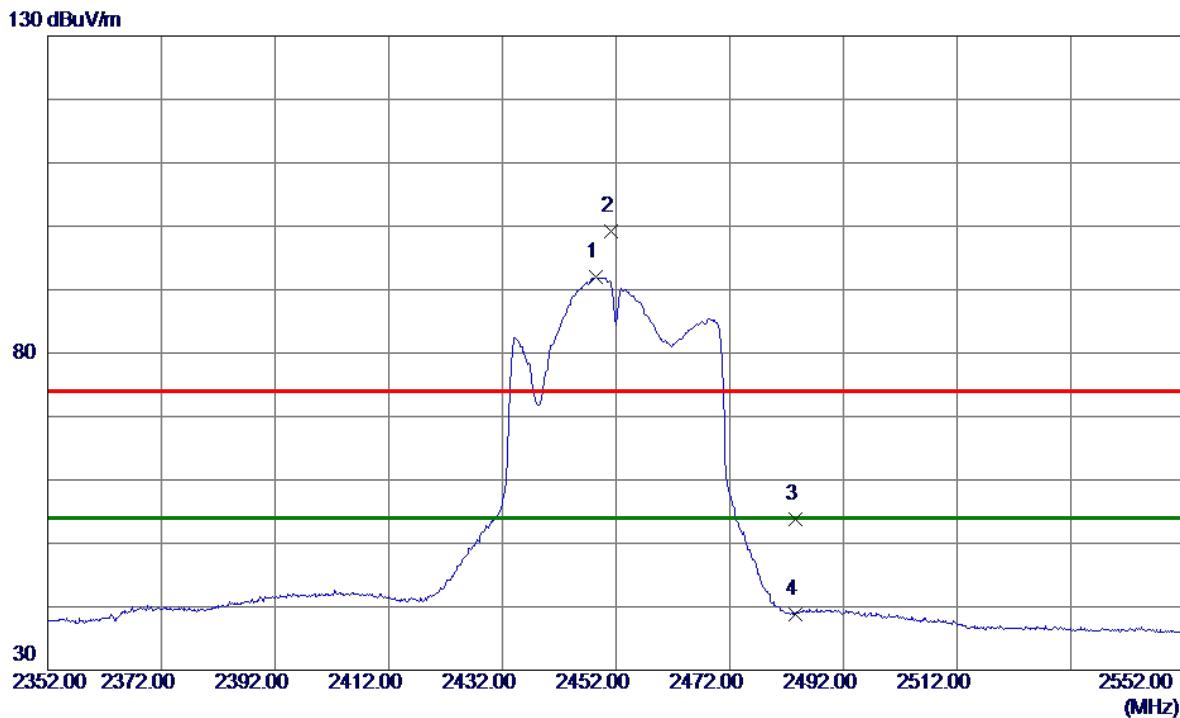
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	9808.0700	35.84	10.70	46.54	74.00	-27.46	Peak	
2 *	9809.8080	23.94	10.70	34.64	54.00	-19.36	AVG	

#### REMARKS:

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

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

### Horizontal

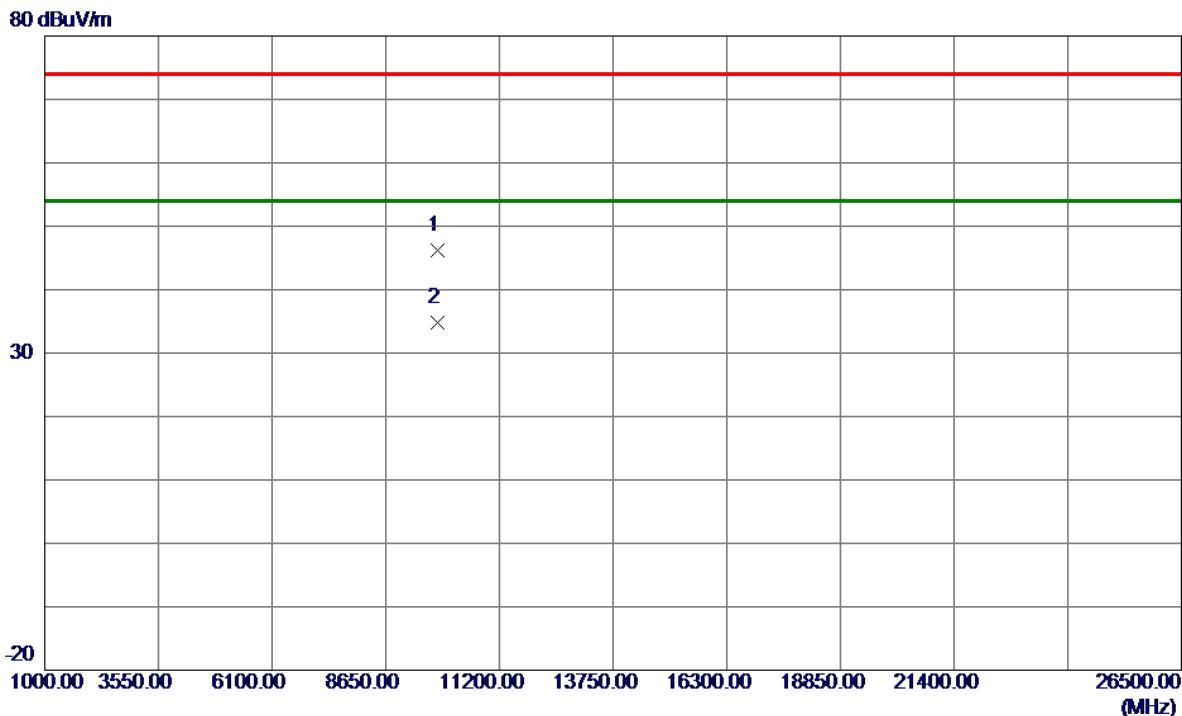


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2448.5000	85.46	6.46	91.92	54.00	37.92	AVG	No Limit
2	2451.2000	92.79	6.46	99.25	74.00	25.25	Peak	No Limit
3	2483.5000	47.40	6.42	53.82	74.00	-20.18	Peak	
4	2483.5000	32.41	6.42	38.83	54.00	-15.17	AVG	

#### REMARKS:

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

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

**Horizontal**

No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	9807.4950	35.42	10.70	46.12	74.00	-27.88	Peak	
2 *	9810.3330	24.04	10.70	34.74	54.00	-19.26	AVG	

**REMARKS:**

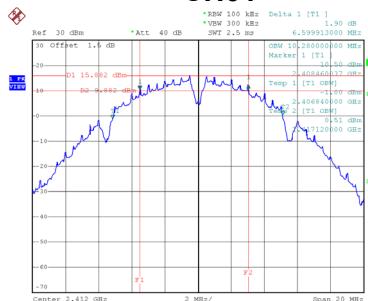
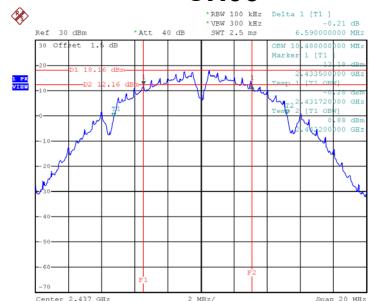
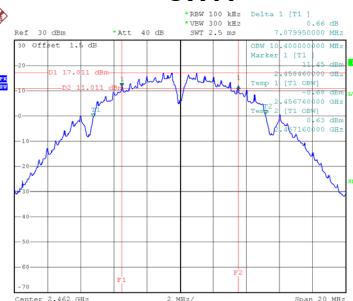
- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

## APPENDIX E - BANDWIDTH

### Non-Beamforming

Test Mode	TX B Mode
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Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	99 % Emission Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
01	2412	6.60	10.28	500	Complies
06	2437	6.59	10.48	500	Complies
11	2462	7.08	10.40	500	Complies

**CH01****CH06****CH11**

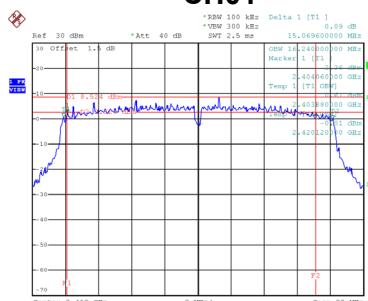
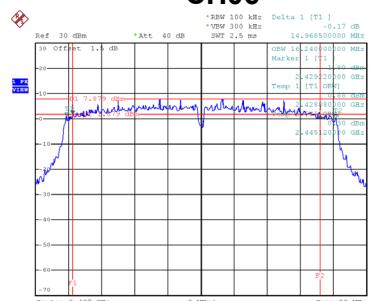
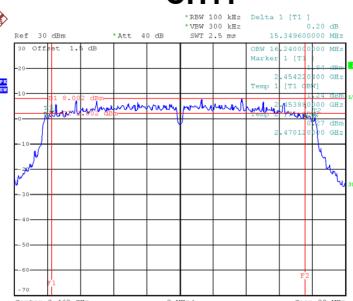
Date: 28.APR.2019 15:03:01

Date: 19.APR.2019 14:27:35

Date: 28.APR.2019 15:06:28

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

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	99 % Emission Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
01	2412	15.07	16.24	500	Complies
06	2437	14.97	16.24	500	Complies
11	2462	15.35	16.24	500	Complies

**CH01****CH06****CH11**

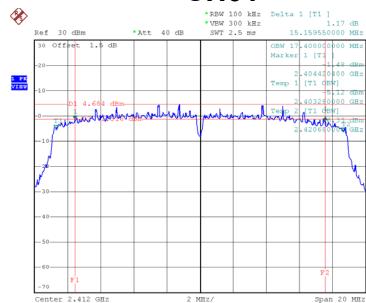
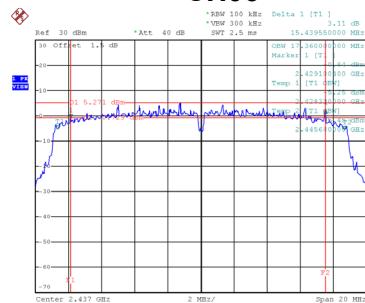
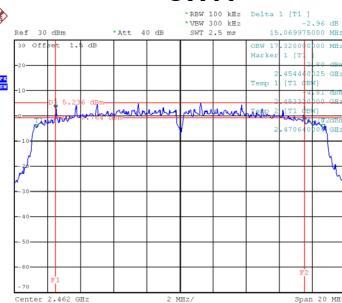
Date: 19.APR.2019 14:34:30

Date: 19.APR.2019 14:37:04

Date: 19.APR.2019 14:39:13

Test Mode	TX N-20M Mode
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Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	99 % Emission Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
01	2412	15.16	17.40	500	Complies
06	2437	15.44	17.36	500	Complies
11	2462	15.07	17.32	500	Complies

**CH01****CH06****CH11**

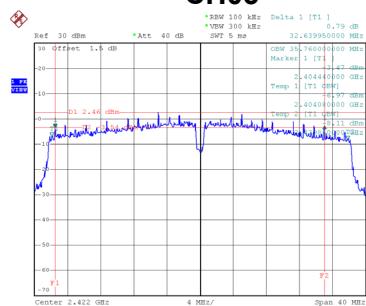
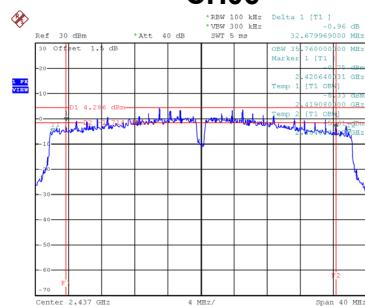
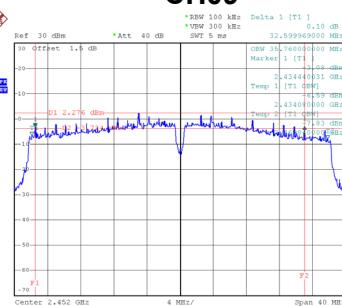
Date: 28.APR.2019 15:30:35

Date: 19.APR.2019 14:44:48

Date: 19.APR.2019 14:46:45

Test Mode	TX N-40M Mode
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Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	99 % Emission Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
03	2422	32.64	35.76	500	Complies
06	2437	32.68	35.76	500	Complies
09	2452	32.60	35.76	500	Complies

**CH03****CH06****CH09**

Date: 28.APR.2019 15:32:28

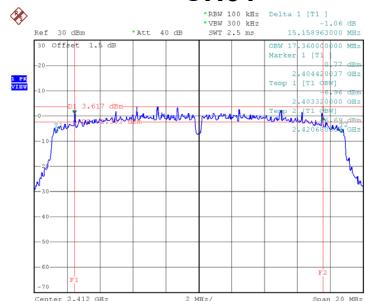
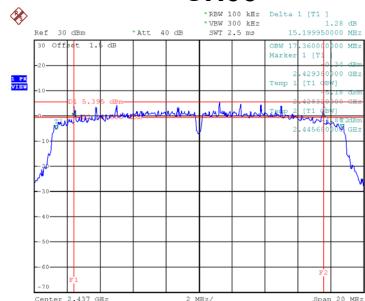
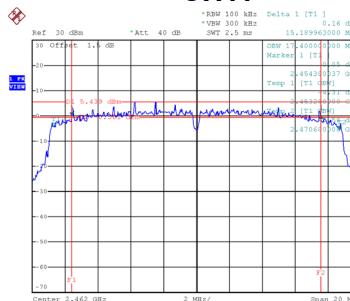
Date: 19.APR.2019 15:32:08

Date: 28.APR.2019 15:34:10

### With Beamforming

Test Mode	TX N-20M Mode
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Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	99 % Emission Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
01	2412	15.16	17.36	500	Complies
06	2437	15.20	17.36	500	Complies
11	2462	15.19	17.40	500	Complies

**CH01****CH06****CH11**

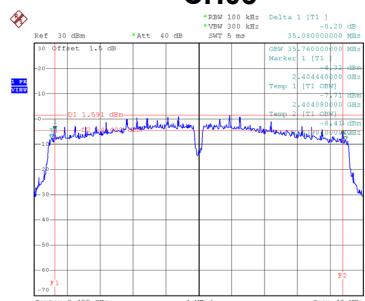
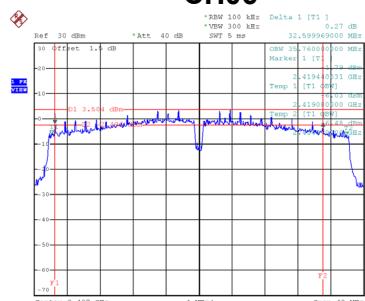
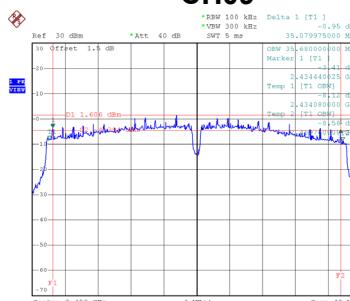
Date: 26.APR.2019 16:04:11

Date: 24.APR.2019 15:58:04

Date: 24.APR.2019 16:00:00

Test Mode	TX N-40M Mode
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Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	99 % Emission Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
03	2422	35.08	35.76	500	Complies
06	2437	32.60	35.76	500	Complies
09	2452	35.08	35.68	500	Complies

**CH03****CH06****CH09**

Date: 28.APR.2019 16:05:36

Date: 24.APR.2019 16:04:14

Date: 28.APR.2019 16:07:04

## APPENDIX F - MAXIMUM OUTPUT POWER

**Non-Beamforming**

Test Mode TX B Mode

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	28.67	0.7362	30.00	1.0000	Complies
06	2437	28.47	0.7031	30.00	1.0000	Complies
11	2462	28.86	0.7691	30.00	1.0000	Complies

Test Mode TX G Mode

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	28.26	0.6699	30.00	1.0000	Complies
06	2437	28.41	0.6934	30.00	1.0000	Complies
11	2462	28.58	0.7211	30.00	1.0000	Complies

## Test Mode TX N-20M Mode\_Ant. 1

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	21.91	0.1552	27.99	0.6295	Complies
06	2437	21.97	0.1574	27.99	0.6295	Complies
11	2462	22.21	0.1663	27.99	0.6295	Complies

## Test Mode TX N-20M Mode\_Ant. 2

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	22.22	0.1667	27.99	0.6295	Complies
06	2437	22.38	0.1730	27.99	0.6295	Complies
11	2462	22.63	0.1832	27.99	0.6295	Complies

## Test Mode TX N-20M Mode\_Total

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	25.08	0.3221	27.99	0.6295	Complies
06	2437	25.19	0.3304	27.99	0.6295	Complies
11	2462	25.44	0.3499	27.99	0.6295	Complies

## Test Mode TX N-40M Mode\_Ant. 1

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	22.14	0.1637	27.99	0.6295	Complies
06	2437	21.88	0.1542	27.99	0.6295	Complies
09	2452	22.40	0.1738	27.99	0.6295	Complies

## Test Mode TX N-40M Mode\_Ant. 2

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	22.62	0.1828	27.99	0.6295	Complies
06	2437	22.23	0.1671	27.99	0.6295	Complies
09	2452	22.57	0.1807	27.99	0.6295	Complies

## Test Mode TX N-40M Mode\_Total

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	25.40	0.3467	27.99	0.6295	Complies
06	2437	25.07	0.3214	27.99	0.6295	Complies
09	2452	25.50	0.3548	27.99	0.6295	Complies

**With Beamforming**

Test Mode	TX N-20M Mode_Ant. 1
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Channel	Frequency (MHz)	Output Power (dBm)	Output Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	21.87	0.1538	28.00	0.6310	Complies
06	2437	21.91	0.1552	28.00	0.6310	Complies
11	2462	22.14	0.1637	28.00	0.6310	Complies

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

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	22.16	0.1644	28.00	0.6310	Complies
06	2437	22.31	0.1702	28.00	0.6310	Complies
11	2462	22.54	0.1795	28.00	0.6310	Complies

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

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	25.03	0.3184	28.00	0.6310	Complies
06	2437	25.12	0.3251	28.00	0.6310	Complies
11	2462	25.35	0.3428	28.00	0.6310	Complies

## Test Mode TX N-40M Mode\_Ant. 1

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	20.53	0.1130	28.00	0.6310	Complies
06	2437	21.83	0.1524	28.00	0.6310	Complies
09	2452	20.90	0.1230	28.00	0.6310	Complies

## Test Mode TX N-40M Mode\_Ant. 2

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	21.04	0.1271	28.00	0.6310	Complies
06	2437	21.90	0.1549	28.00	0.6310	Complies
09	2452	21.07	0.1279	28.00	0.6310	Complies

## Test Mode TX N-40M Mode\_Total

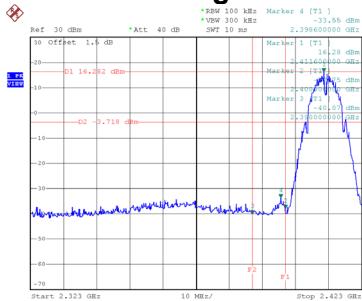
Channel	Frequency (MHz)	Output Power (dBm)	Output Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	23.80	0.2399	28.00	0.6310	Complies
06	2437	24.88	0.3076	28.00	0.6310	Complies
09	2452	24.00	0.2512	28.00	0.6310	Complies

## APPENDIX G - CONDUCTED SPURIOUS EMISSIONS

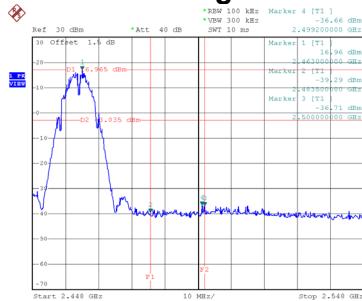
### Non-Beamforming

Test Mode	TX B Mode
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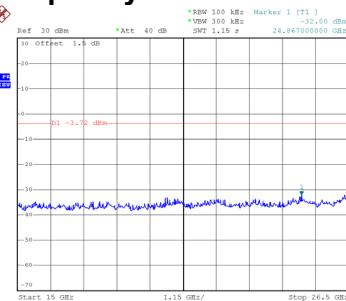
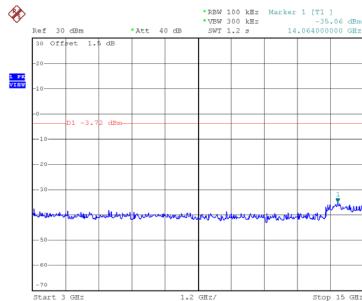
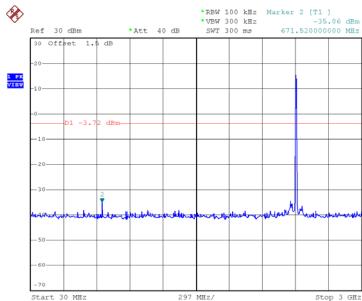
#### Bandedge-CH01



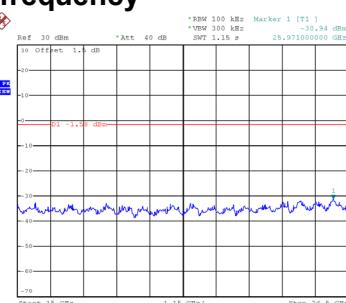
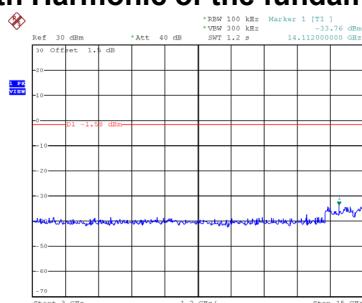
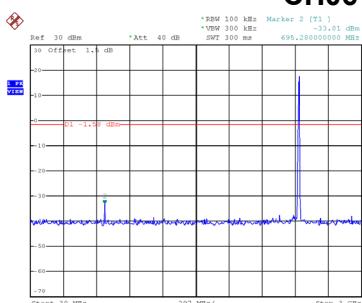
#### Bandedge-CH11



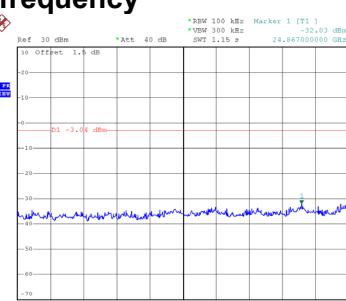
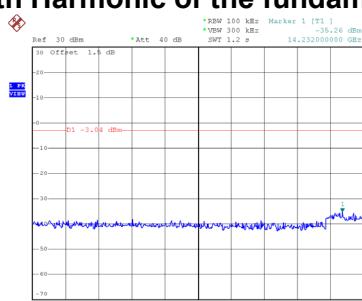
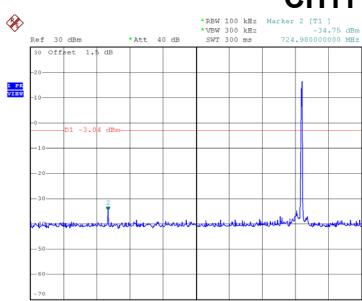
#### CH01 – 10th Harmonic of the fundamental frequency



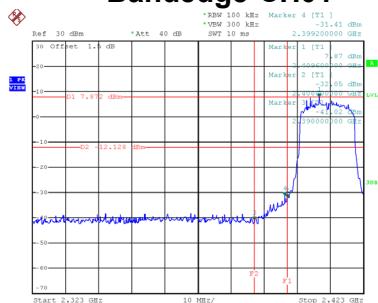
#### CH06 – 10th Harmonic of the fundamental frequency



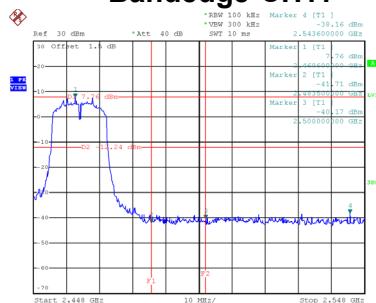
#### CH11 – 10th Harmonic of the fundamental frequency



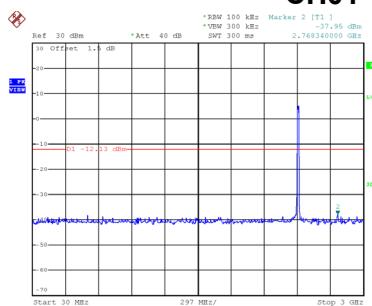
Test Mode	TX G Mode
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**Bandedge-CH01**

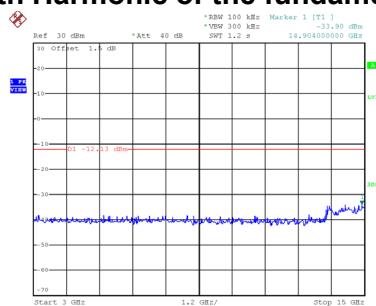
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**Bandedge-CH11**

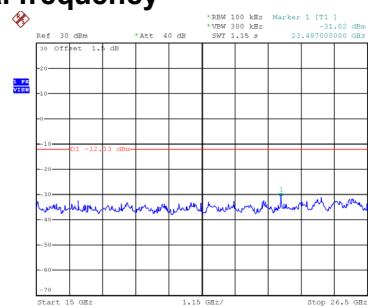
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**CH01 – 10th Harmonic of the fundamental frequency**

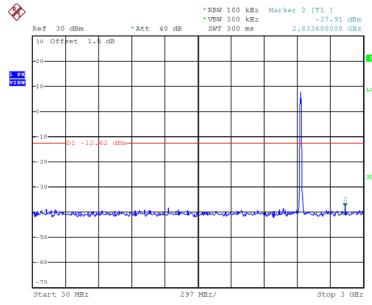
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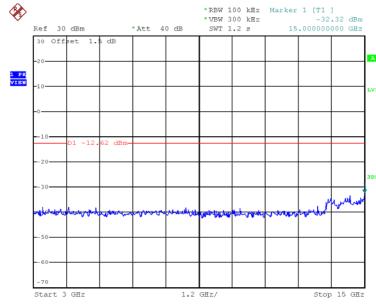
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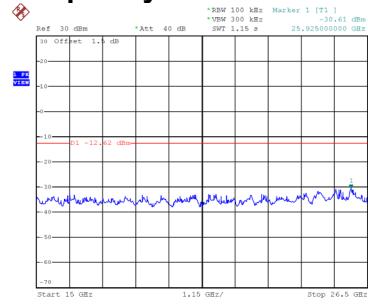
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**CH06 – 10th Harmonic of the fundamental frequency**

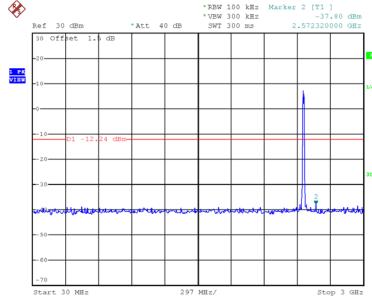
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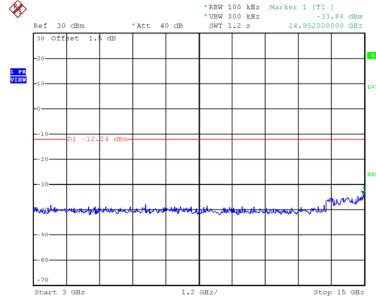
Date: 19.APR.2019 14:37:30



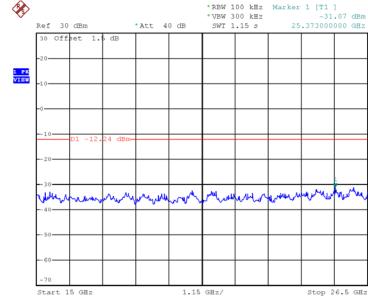
Date: 19.APR.2019 14:37:37

**CH11 – 10th Harmonic of the fundamental frequency**

Date: 19.APR.2019 14:39:26



Date: 19.APR.2019 14:39:33



Date: 19.APR.2019 14:39:40