

# FCC Radio Test Report

## FCC ID: TE7AX20V2

**This report concerns: Original Grant**

**Project No.** : 2008C188  
**Equipment** : AX1800 Dual-Band Wi-Fi 6 Router  
**Brand Name** : tp-link  
**Test Model** : Archer AX20  
**Series Model** : Archer AX21, Archer AX1800  
**Applicant** : TP-Link Technologies Co., Ltd.  
**Address** : Building 24(floors1,3,4,5) and 28(floors1-4) Central Science and Technology Park, Shennan Rd, Nanshan, Shenzhen, China  
**Manufacturer** : TP-Link Technologies Co., Ltd.  
**Address** : Building 24(floors1,3,4,5) and 28(floors1-4) Central Science and Technology Park, Shennan Rd, Nanshan, Shenzhen, China  
**Date of Receipt** : Aug. 31, 2020  
**Date of Test** : Sep. 02, 2020 ~ Oct. 20, 2020  
**Issued Date** : Nov. 10, 2020  
**Report Version** : R00  
**Test Sample** : Engineering Sample No.: DG2020090140 for conducted, DG2020090141 for radiated.  
**Standard(s)** : FCC Part15, Subpart C (15.247)  
ANSI C63.10-2013  
FCC KDB 558074 D01 15.247 Meas Guidance v05r02

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



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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.	Nov. 10, 2020

### 1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standard(s):

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

Note:

- (1) "N/A" denotes test is not applicable in this test report.
- (2) The device what use a permanently attached antenna were considered sufficient to comply with the provisions of 15.203.

## 1.1 TEST FACILITY

The test facilities used to collect the test data in this report is at the location of No.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

## 1.2 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	150kHz ~ 30MHz	2.68

### B. Radiated emissions test:

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	4.26
		30MHz ~ 200MHz	H	3.38
		200MHz ~ 1,000MHz	V	3.98
		200MHz ~ 1,000MHz	H	3.94
		1GHz ~ 6GHz	-	4.58
		6GHz ~ 18GHz	-	5.18
		18GHz ~ 26.5GHz	-	3.62
		26.5GHz ~ 40GHz	-	4.00

### C. Other Measurement:

Test Item	Uncertainty
Bandwidth	±3.8 %
Maximum Average Output Power	±0.95 dB
Conducted Spurious Emission	±2.71 dB
Power Spectral Density	±0.86 dB
Temperature	±0.08 °C
Time	±0.58 %
Supply voltages	±0.3 %

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



### 1.3 TEST ENVIRONMENT CONDITIONS

Test Item	Temperature	Humidity	Test Voltage	Tested By
AC Power Line Conducted Emissions	25°C	53%	AC 120V/60Hz	Kwok Guo
Radiated Emissions-9K-30MHz	25°C	60%	AC 120V/60Hz	Kwok Guo
Radiated Emissions-30 MHz to 1GHz	26°C	52%	AC 120V/60Hz	Kwok Guo
Radiated Emissions-Above 1000 MHz	24°C	60%	AC 120V/60Hz	Kwok Guo
Bandwidth	26°C	48%	AC 120V/60Hz	Hayden Chen
Maximum Average Output Power	26°C	48%	AC 120V/60Hz	Evan Yang
Conducted Spurious Emissions	26°C	48%	AC 120V/60Hz	Hayden Chen
Power Spectral Density	26°C	48%	AC 120V/60Hz	Hayden Chen

## 2. GENERAL INFORMATION

### 2.1 GENERAL DESCRIPTION OF EUT

Equipment	AX1800 Dual-Band Wi-Fi 6 Router
Brand Name	tp-link
Test Model	Archer AX20
Series Model	Archer AX21, Archer AX1800
Model Difference(s)	1# Only different in model name between model Archer AX20 and model Archer AX1800. 2# The model name and shell are different between model Archer AX20 and Archer AX21.
HVIN	Archer AX20V2
Power Source	DC voltage supplied from AC adapter. Model: T120150-2B1
Power Rating	I/P: 100-240V ~50/60Hz 0.6A      O/P: 12V $\equiv$ 1.5A
Operation Frequency	2412 MHz ~ 2462 MHz
Modulation Type	IEEE 802.11b: DSSS IEEE 802.11g: OFDM IEEE 802.11n: OFDM IEEE 802.11ax: OFDMA
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 IEEE 802.11ax: up to 573.6 Mbps
Maximum Average Output Power _Non Beamforming	IEEE 802.11b: 29.16 dBm (0.8375 W) IEEE 802.11g: 29.09 dBm (0.8110 W) IEEE 802.11n (HT20): 29.15 dBm (0.8222 W) IEEE 802.11n (HT40): 24.03 dBm (0.2529 W) IEEE 802.11ax (HE20): 28.95 dBm (0.7852 W) IEEE 802.11ax (HE40): 23.96 dBm (0.2489 W)
Maximum Average Output Power _Beamforming	IEEE 802.11n (HT20): 28.97 dBm (0.7889 W) IEEE 802.11n (HT40): 23.69 dBm (0.2339 W) IEEE 802.11ax (HE20): 28.36 dBm (0.6855 W) IEEE 802.11ax (HE40): 23.42 dBm (0.2198 W)

Note:

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

#### 2. Channel List:

CH01 - CH11 for IEEE 802.11b, IEEE 802.11g, IEEE 802.11n (HT20), IEEE 802.11ax (HE20) CH03 - CH09 for IEEE 802.11n (HT40), IEEE 802.11ax (HE40)							
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. RU Configuration:

IEEE 802.11ax (HE20)	Resource Unit	242 Tone(20M)
	Specific Resource Unit	61
IEEE 802.11ax (HE40)	Resource Unit	484 Tone(40M)
	Specific Resource Unit	65

Remark: IEEE 802.11ax mode only supports the highest tone, so the highest tone was evaluated and measured inside report.

## 4. Antenna Specification:

Ant.	Brand	P/N	Antenna Type	Connector	Gain (dBi)
1	tp-link	3101502647	Dipole	Weld	3.82
2	tp-link	3101502557	Dipole	Weld	3.82

Note:

- 1) This EUT supports CDD, and all antennas have the same gain, Directional gain =  $G_{ANT} + \text{Array Gain}$ .  
 For power measurements, Array Gain=0dB ( $N_{ANT} \leq 4$ ), so the Directional gain=3.82.  
 For power spectral density measurements,  $N_{ANT}=2$ ,  $N_{SS} = 1$ .  
 So the Directional gain= $G_{ANT} + \text{Array Gain} = G_{ANT} + 10\log(N_{ANT}/N_{SS})\text{dBi} = 3.82 + 10\log(2/1)\text{dBi} = 6.83$ .  
 Then, the power spectral density limit is  $8 - (6.83 - 6) = 7.17$ .
- 2) Beamforming Gain: 3 dB. So Directional gain =  $3 + 3.82 = 6.82$ . Then, the power limit is  $30 - (6.82 - 6) = 29.18$ .

## 5. Table for Antenna Configuration:

For Non Beamforming:

Operating Mode	TX Mode	2TX
IEEE 802.11b		V (Ant. 1 + Ant. 2)
IEEE 802.11g		V (Ant. 1 + Ant. 2)
IEEE 802.11n (HT20)		V (Ant. 1 + Ant. 2)
IEEE 802.11n (HT40)		V (Ant. 1 + Ant. 2)
IEEE 802.11ax (HE20)		V (Ant. 1 + Ant. 2)
IEEE 802.11ax (HE40)		V (Ant. 1 + Ant. 2)

For Beamforming:

Operating Mode	TX Mode	2TX
IEEE 802.11n (HT20)		V (Ant. 1 + Ant. 2)
IEEE 802.11n (HT40)		V (Ant. 1 + Ant. 2)
IEEE 802.11ax (HE20)		V (Ant. 1 + Ant. 2)
IEEE 802.11ax (HE40)		V (Ant. 1 + Ant. 2)

## 2.2 DESCRIPTION OF TEST MODES

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

Pretest Mode	Description
Mode 1	TX B Mode Channel 01/06/11
Mode 2	TX G Mode Channel 01/06/11
Mode 3	TX N-20 MHz Mode Channel 01/06/11
Mode 4	TX N-40 MHz Mode Channel 03/06/09
Mode 5	TX AX-20 MHz Mode Channel 01/06/11
Mode 6	TX AX-40 MHz Mode Channel 03/06/09
Mode 7	TX B Mode Channel 01
Mode 8	TX B Mode Channel 01/02/06/10/11
Mode 9	TX G Mode Channel 01/02/06/10/11
Mode 10	TX N-20 MHz Mode Channel 01/02/06/10/11
Mode 11	TX N-40 MHz Mode Channel 03/04/06/08/09
Mode 12	TX AX-20 MHz Mode Channel 01/02/06/10/11
Mode 13	TX AX-40 MHz Mode Channel 03/04/06/08/09

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

<b>AC power line conducted emissions test</b>	
Final Test Mode	Description
Mode 7	TX B Mode Channel 01

<b>Radiated emissions test - Below 1GHz</b>	
Final Test Mode	Description
Mode 7	TX B Mode Channel 01

**Radiated emissions test - Above 1GHz\_Non Beamforming**

Final Test Mode	Description
Mode 8	TX B Mode Channel 01/02/06/10/11
Mode 9	TX G Mode Channel 01/02/06/10/11
Mode 10	TX N-20 MHz Mode Channel 01/02/06/10/11
Mode 11	TX N-40 MHz Mode Channel 03/04/06/08/09
Mode 12	TX AX-20 MHz Mode Channel 01/02/06/10/11
Mode 13	TX AX-40 MHz Mode Channel 03/04/06/08/09

**Maximum Average Output Power test\_Non Beamforming**

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
Mode 5	TX AX-20 MHz Mode Channel 01/06/11
Mode 6	TX AX-40 MHz Mode Channel 03/06/09

**Maximum Average Output Power test\_Beamforming**

Final Test Mode	Description
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 AX-20 MHz Mode Channel 01/06/11
Mode 6	TX AX-40 MHz Mode Channel 03/06/09

<b>Other Conducted test_Non Beamforming</b>	
<b>Final Test Mode</b>	<b>Description</b>
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 AX-20 MHz Mode Channel 01/06/11
Mode 6	TX AX-40 MHz Mode Channel 03/06/09

**NOTE:**

- (1) The measurements are performed at the high, middle, low available channels.
- (2) All the bit rate of transmitter have been tested and found the lowest rate is found to be the worst case and recorded.
- (3) For radiated emission below 1 GHz test, the IEEE 802.11b Channel 01 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.
- (5) The measurements for Output Power were tested, the Non Beamforming and Beamforming are recorded in the report. The worst case was Non Beamforming and only worst case were documented for other test items.
- (6) For Radiated emissions above 1GHz test, the vertical and horizontal polarities have tested, the worst case is vertical and recorded.

**2.3 PARAMETERS OF TEST SOFTWARE**
**Non Beamforming**

Test Software	accessMTool V3.0.0.5		
Frequency (MHz)	2412	2437	2462
IEEE 802.11b	93	93	93
IEEE 802.11g	69	92	81
IEEE 802.11n (HT20)	66	92	65
IEEE 802.11ax (HE20)	60	90	60
Frequency (MHz)	2422	2437	2452
IEEE 802.11n (HT40)	57	71	59
IEEE 802.11ax (HE40)	54	69	59

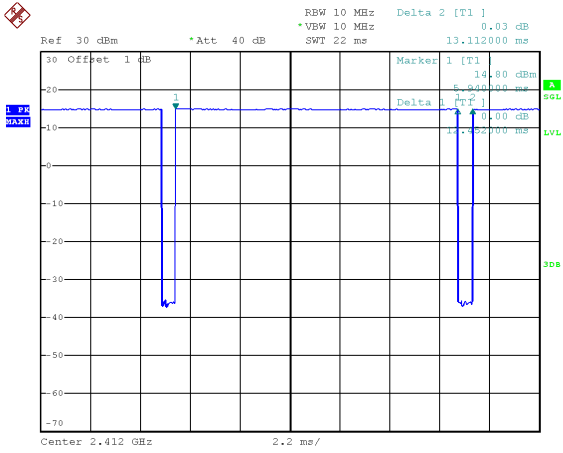
**Beamforming**

Test Software	accessMTool V3.0.0.5		
Frequency (MHz)	2412	2437	2462
IEEE 802.11n (HT20)	63	88	65
IEEE 802.11ax (HE20)	58	88	59
Frequency (MHz)	2422	2437	2452
IEEE 802.11n (HT40)	55	70	58
IEEE 802.11ax (HE40)	53	68	58

**2.4 DUTY CYCLE**

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

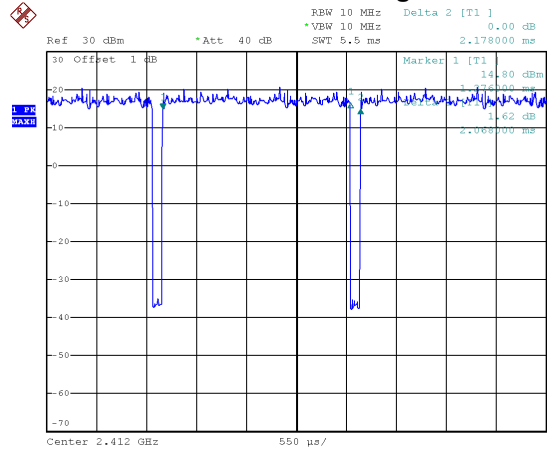
**IEEE 802.11b**



Date: 1.JAN.2003 01:45:45

Duty cycle =  $12.452 \text{ ms} / 13.112 \text{ ms} = 94.97\%$   
Duty Factor =  $10 \log(1/\text{Duty cycle}) = 0.22$

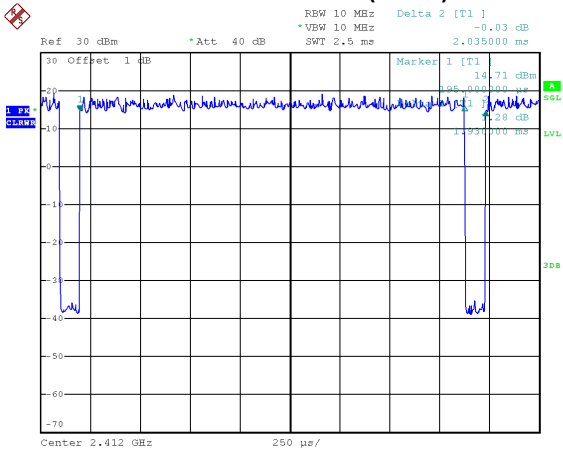
**IEEE 802.11g**



Date: 1.JAN.2003 01:46:04

Duty cycle =  $2.068 \text{ ms} / 2.178 \text{ ms} = 94.95\%$   
Duty Factor =  $10 \log(1/\text{Duty cycle}) = 0.23$

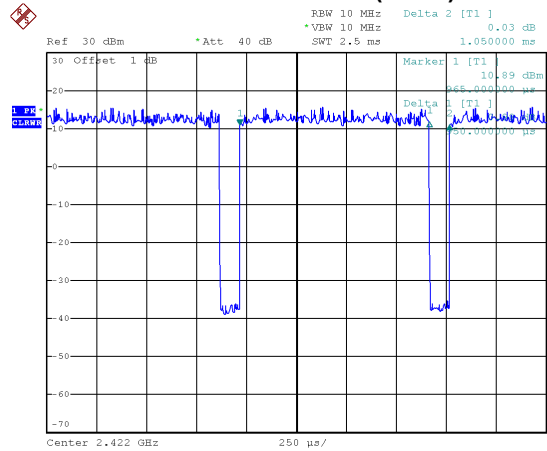
**IEEE 802.11n (HT20)**



Date: 1.JAN.2003 01:46:22

Duty cycle =  $1.930 \text{ ms} / 2.035 \text{ ms} = 94.84\%$   
Duty Factor =  $10 \log(1/\text{Duty cycle}) = 0.23$

**IEEE 802.11n (HT40)**

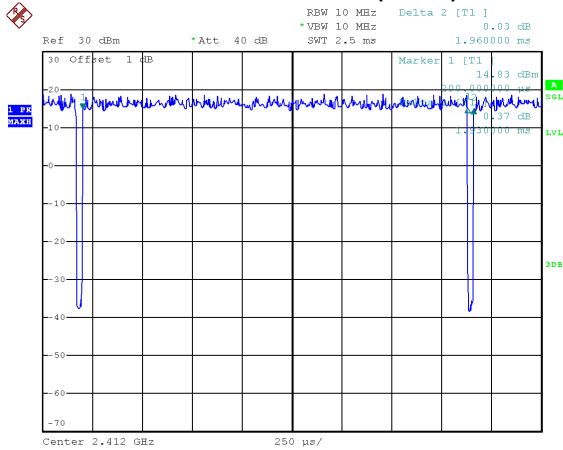


Date: 1.JAN.2003 01:46:40

Duty cycle =  $0.950 \text{ ms} / 1.050 \text{ ms} = 90.48\%$   
Duty Factor =  $10 \log(1/\text{Duty cycle}) = 0.43$



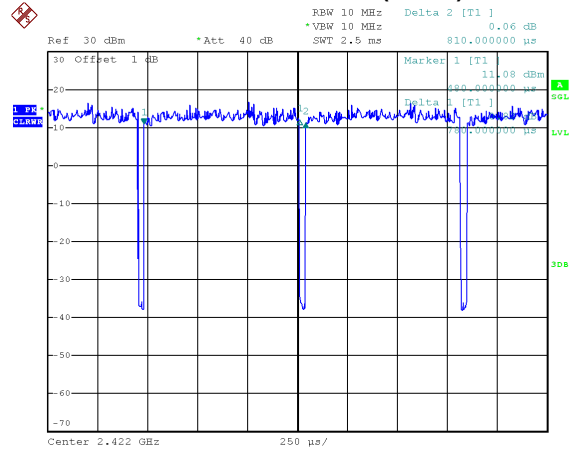
## IEEE 802.11ax (HE20)



Date: 1.JAN.2003 01:48:25

Duty cycle = 1.930 ms / 1.960 ms = 98.47%  
 Duty Factor = 10 log(1/Duty cycle) = 0.00

## IEEE 802.11ax (HE40)



Date: 1.JAN.2003 01:48:45

Duty cycle = 0.780 ms / 0.810 ms = 96.30%  
 Duty Factor = 10 log(1/Duty cycle) = 0.16

### NOTE:

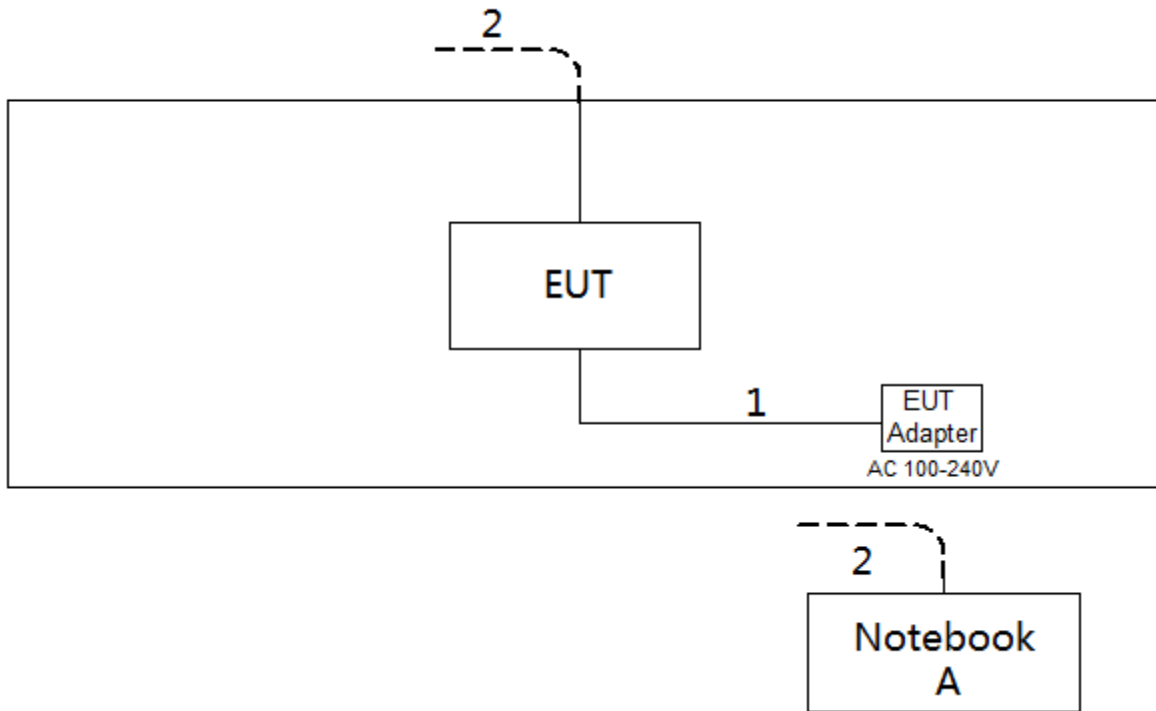
For IEEE 802.11b, IEEE 802.11g, IEEE 802.11n (HT20) and IEEE 802.11ax (HE20):

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) and IEEE 802.11ax (HE40):

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

## 2.5 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



## 2.6 SUPPORT UNITS

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

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

### 3. AC POWER LINE CONDUCTED EMISSIONS TEST

#### 3.1 LIMIT

Frequency of Emission (MHz)	Limit (dB $\mu$ V)	
	Quasi-peak	Average
0.15 - 0.5	66 to 56*	56 to 46*
0.5 - 5.0	56	46
5.0 - 30.0	60	50

NOTE:

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

The following table is the setting of the receiver

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

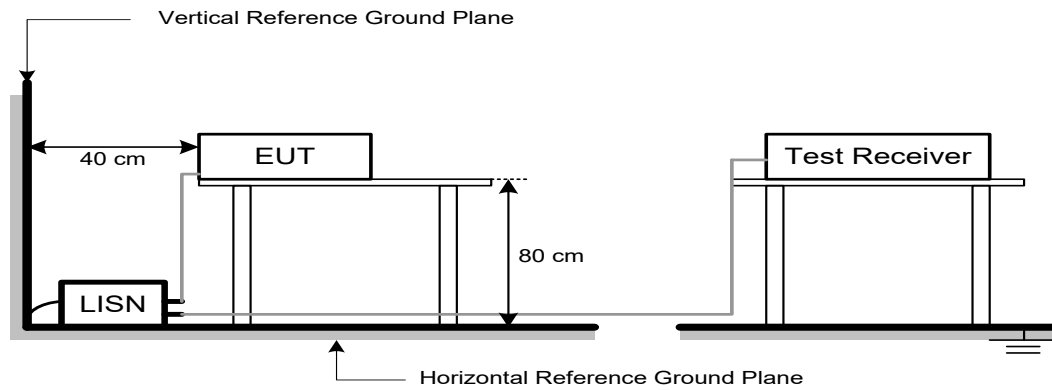
#### 3.2 TEST PROCEDURE

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

#### 3.3 DEVIATION FROM TEST STANDARD

No deviation

### 3.4 TEST SETUP



### 3.5 EUT OPERATION CONDITIONS

EUT was programmed to be in continuously transmitting mode.

### 3.6 TEST RESULTS

Please refer to the APPENDIX A.

## 4. RADIATED EMISSIONS TEST

### 4.1 LIMIT

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

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

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

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

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

#### NOTE:

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

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

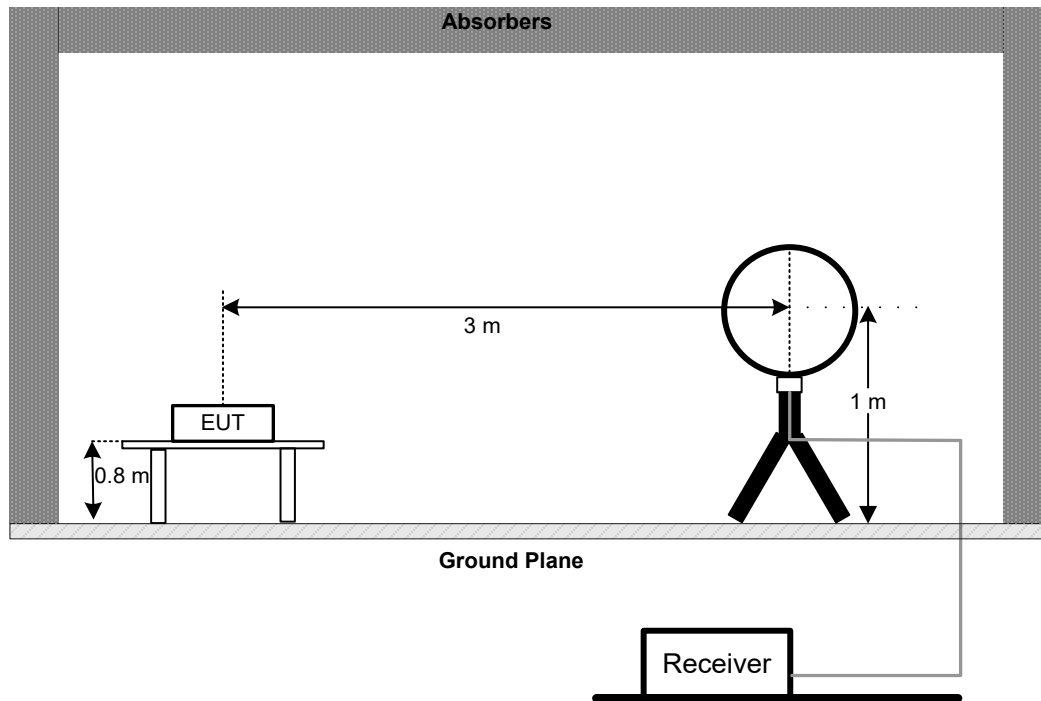
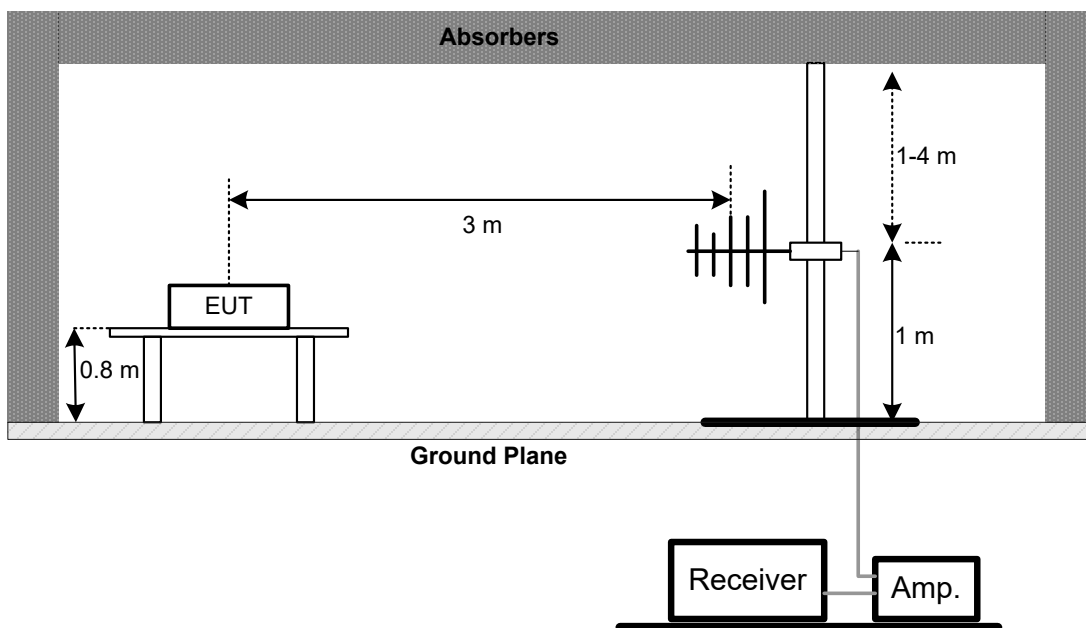
Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9 kHz~90 kHz for PK/AVG detector
Start ~ Stop Frequency	90 kHz~110 kHz for QP detector
Start ~ Stop Frequency	110 kHz~490 kHz for PK/AVG detector
Start ~ Stop Frequency	490 kHz~30 MHz for QP detector
Start ~ Stop Frequency	30 MHz~1000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

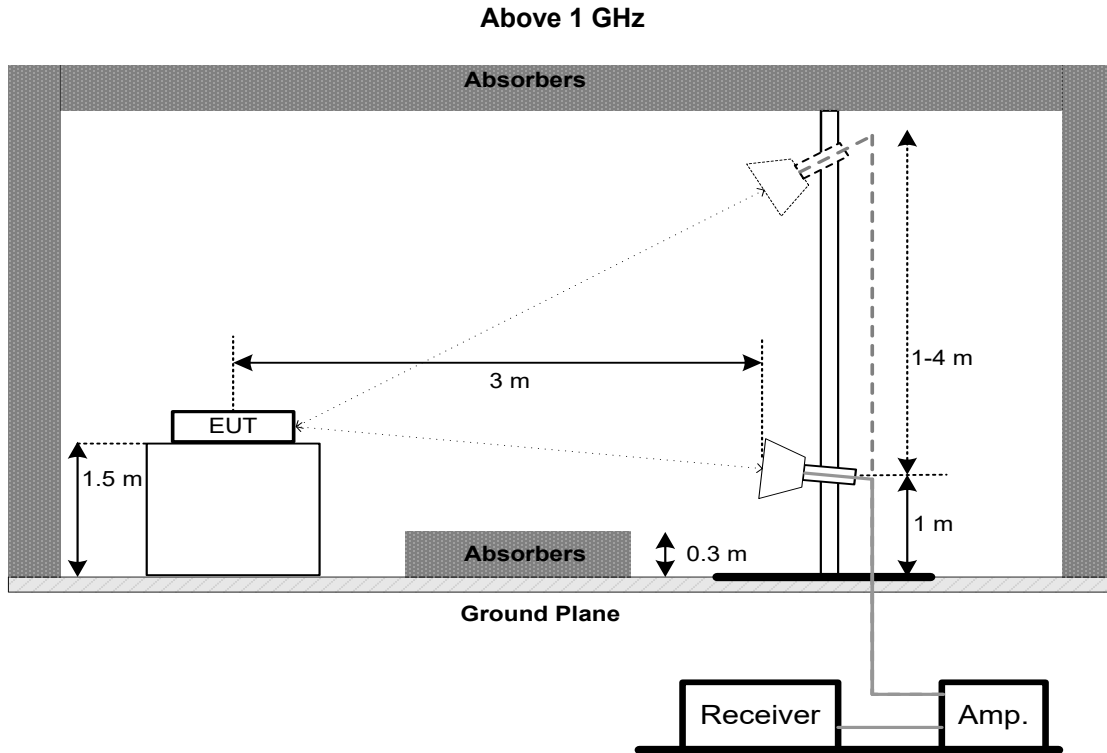
#### 4.2 TEST PROCEDURE

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

#### 4.3 DEVIATION FROM TEST STANDARD

No deviation

**4.4 TEST SETUP****9 kHz-30 MHz****30 MHz to 1 GHz**



#### 4.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

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

Please refer to the APPENDIX B

Remark:

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

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

Please refer to the APPENDIX C.

#### 4.8 TEST RESULTS - ABOVE 1000 MHZ

Please refer to the APPENDIX D.

Remark:

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



**5. BANDWIDTH TEST**

**5.1 LIMIT**

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

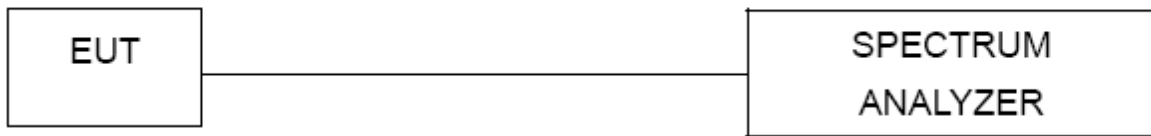
**5.2 TEST PROCEDURE**

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- b. Spectrum Setting:
  - For 6 dB Bandwidth: RBW= 100kHz, VBW=300kHz, Sweep time = auto.
  - For 99% Emission Bandwidth B/G/N20/AX20 Mode: RBW= 300kHz, VBW=1MHz, Sweep time = 2.5ms.
  - For 99% Emission Bandwidth N40/AX40 Mode: RBW= 1MHz, VBW=3MHz, Sweep time = 2.5ms.
- c. The bandwidth was performed in accordance with method 11.8.1 of ANSI C63.10-2013.

**5.3 DEVIATION FROM STANDARD**

No deviation.

**5.4 TEST SETUP**



**5.5 EUT OPERATION CONDITIONS**

The EUT was programmed to be in continuously transmitting mode.

**5.6 TEST RESULTS**

Please refer to the APPENDIX E.

## 6. MAXIMUM AVERAGE OUTPUT POWER TEST

### 6.1 LIMIT

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

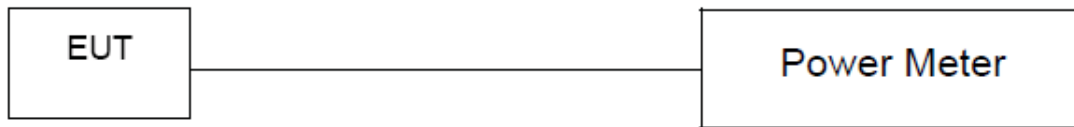
### 6.2 TEST PROCEDURE

- The EUT was directly connected to the power meter and antenna output port as show in the block diagram below.
- The maximum conducted output power was performed in accordance with method 11.9.2.3.1 of ANSI C63.10-2013 and FCC KDB 662911 D01 v02r01 Multiple Transmitter Output.

### 6.3 DEVIATION FROM STANDARD

No deviation.

### 6.4 TEST SETUP



### 6.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

### 6.6 TEST RESULTS

Please refer to the APPENDIX F.

## 7. CONDUCTED SPURIOUS EMISSIONS

### 7.1 LIMIT

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

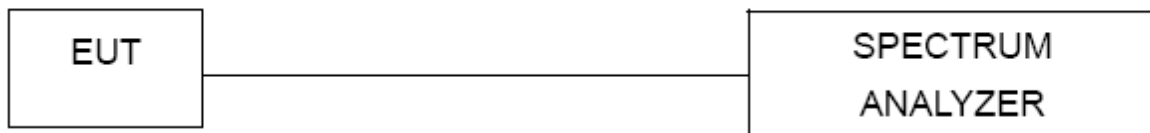
### 7.2 TEST PROCEDURE

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

### 7.3 DEVIATION FROM STANDARD

No deviation.

### 7.4 TEST SETUP



### 7.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

### 7.6 TEST RESULTS

Please refer to the APPENDIX G.

## 8. POWER SPECTRAL DENSITY TEST

### 8.1 LIMIT

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

### 8.2 TEST PROCEDURE

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

### 8.3 DEVIATION FROM STANDARD

No deviation.

### 8.4 TEST SETUP



### 8.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

### 8.6 TEST RESULTS

Please refer to the APPENDIX H.

## 9. MEASUREMENT INSTRUMENTS LIST

AC Power Line Conducted Emissions					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	EMI Test Receiver	R&S	ESCI	100382	Feb. 28, 2021
2	LISN	EMCO	3816/2	52765	Mar. 01, 2021
3	TWO-LINE V-NETWORK	R&S	ENV216	101447	Feb. 28, 2021
4	50Ω Terminator	SHX	TF5-3	15041305	Mar. 01, 2021
5	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
6	Cable	N/A	RG223	12m	Mar. 10, 2021
7	643 Shield Room	ETS	6*4*3m	N/A	N/A

Radiated Emissions - 9 kHz to 30 MHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Antenna	EM	EM-6876-1	230	Apr. 16, 2021
2	Cable	N/A	RG 213/U	N/A	May 29, 2021
3	EMI Test Receiver	R&S	ESCI	100895	Feb. 28, 2021
4	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
5	966 Chambe Room	RM	9*6*6m	N/A	Jul. 25, 2021

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, 2021
2*	Amplifier	HP	8447D	2944A09673	Aug. 11, 2021
3	Receiver	Agilent	N9038A	MY52130039	Jul. 25, 2021
4	Cable	emci	LMR-400(30MHz-1 GHz)(8m+5m)	N/A	May 22, 2021
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	966 Chambe Room	RM	9*6*6m	N/A	Jul. 25, 2021

Radiated Emissions - Above 1 GHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Double Ridged Guide Antenna	ETS	3115	75789	May 12, 2021
2	Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	9170319	Jul. 07, 2021
3	Amplifier	Agilent	8449B	3008A02333	Mar. 01, 2021
4	Microwave Pre-amplifier With Adaptor	EMC INSTRUMENT	EMC2654045	980039 & HA01	Mar. 07, 2021
5	Receiver	Agilent	N9038A	MY52130039	Jul. 25, 2021
6	Controller	CT	SC100	N/A	N/A
7	Controller	MF	MF-7802	MF780208416	N/A
8	Cable	N/A	EMC104-SM-SM-6000	N/A	May 09, 2021
9	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
10	Filter	STI	STI15-9912	N/A	Jul. 25, 2021
11	966 Chambe Room	RM	9*6*6m	N/A	Jul. 25, 2021

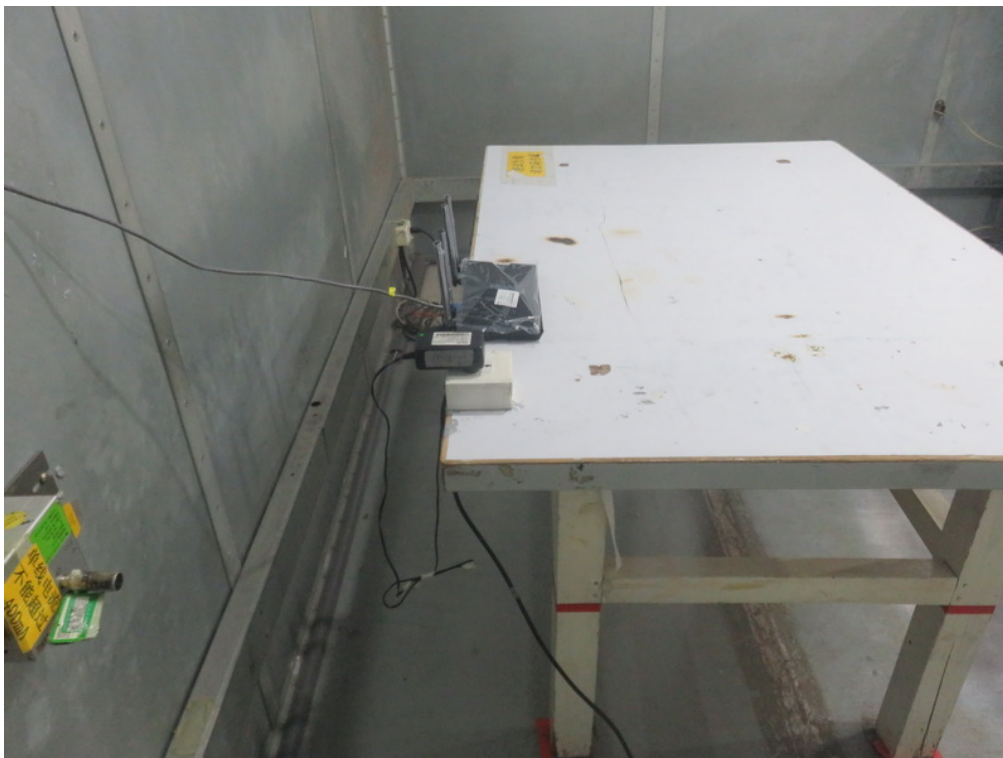
Bandwidth & Antenna Conducted Spurious Emissions & Power Spectral Density					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP40	100185	Jul. 25, 2021
2	RF Cable	Tongkaichuan	N/A	N/A	N/A
3	DC Block	Mini	N/A	N/A	N/A

Maximum Average Output Power					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Peak Power Analyzer	Keysight	8990B	MY51000506	Aug. 07, 2021
2	Wideband power sensor	Keysight	N1923A	MY58310004	Jul. 25, 2021
3	Attenuator	WOKEN	6SM3502	VAS1214NL	Feb. 11, 2021
4	RF Cable	Tongkaichuan	N/A	N/A	N/A

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

"\*\*" calibration period of equipment list is three year.

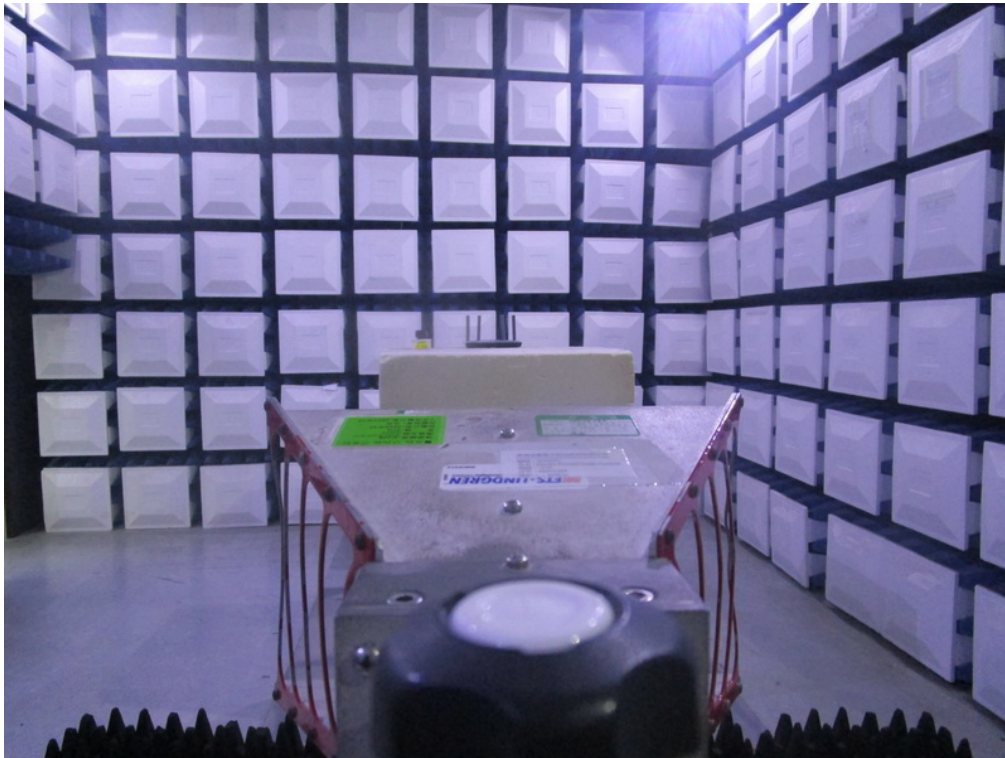
Except \* item, all calibration period of equipment list is one year.

**10. 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**

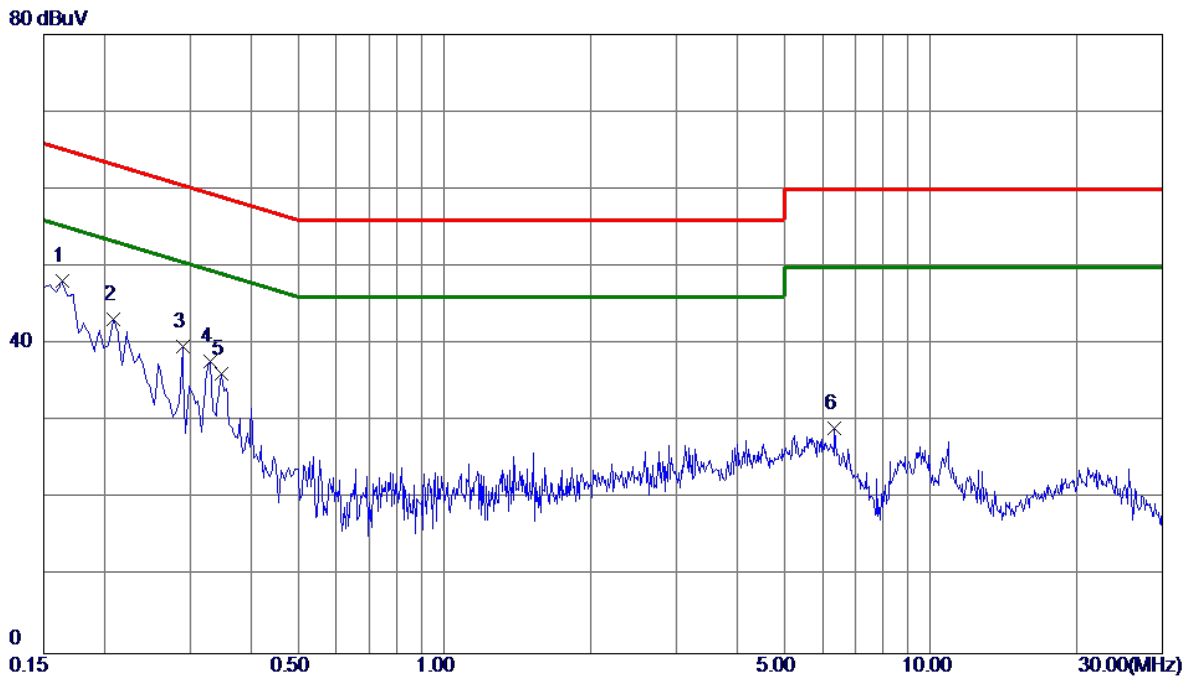
### Conducted Test Photos



## **APPENDIX A - AC POWER LINE CONDUCTED EMISSIONS**

Test Mode: TX B Mode Channel 01

Line



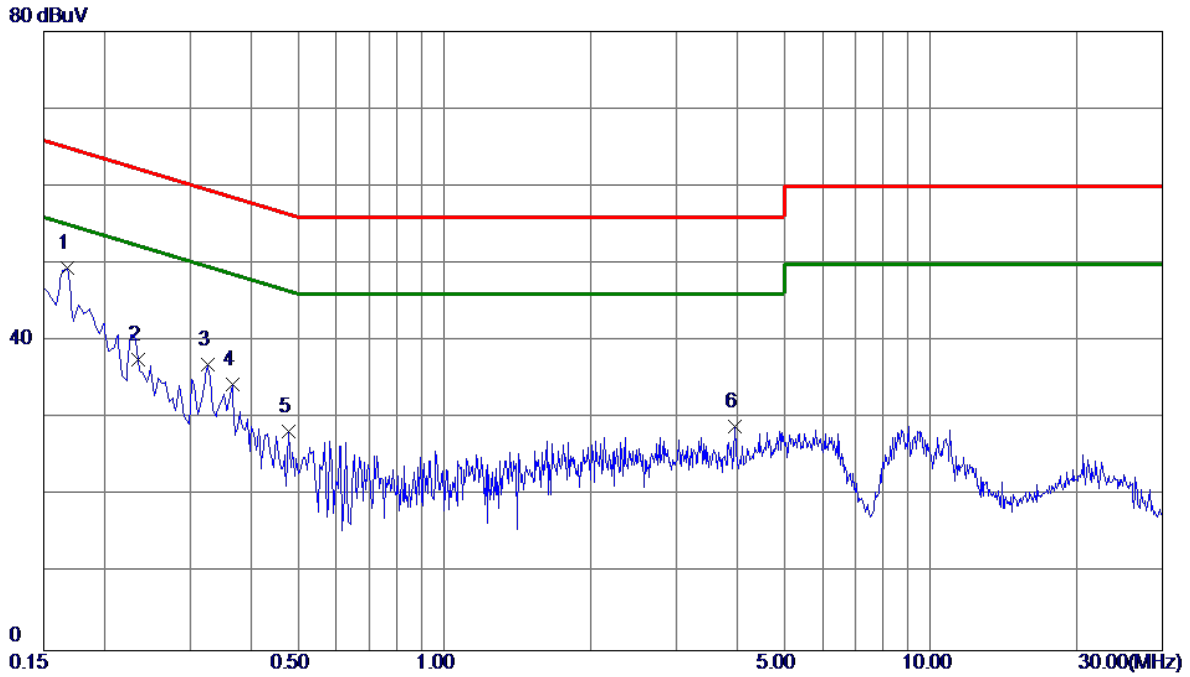
No.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1 *	0.1635	38.36	9.77	48.13	65.28	-17.15	Peak	
2	0.2085	33.30	9.90	43.20	63.26	-20.06	Peak	
3	0.2895	29.72	9.89	39.61	60.54	-20.93	Peak	
4	0.3300	27.83	9.90	37.73	59.45	-21.72	Peak	
5	0.3480	26.22	9.91	36.13	59.01	-22.88	Peak	
6	6.3555	18.65	10.43	29.08	60.00	-30.92	Peak	

REMARKS:

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

Test Mode: TX B Mode Channel 01

### Neutral



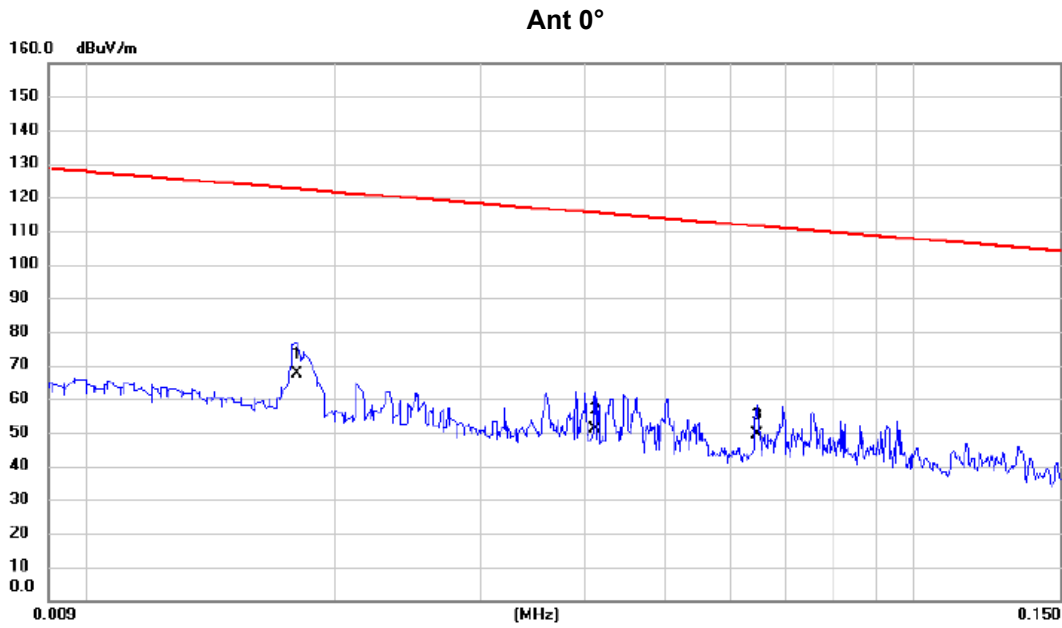
No.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1 *	0.1680	39.51	9.88	49.39	65.06	-15.67	Peak	
2	0.2341	27.66	9.99	37.65	62.30	-24.65	Peak	
3	0.3255	26.94	10.04	36.98	59.57	-22.59	Peak	
4	0.3660	24.39	10.06	34.45	58.59	-24.14	Peak	
5	0.4785	18.23	10.13	28.36	56.37	-28.01	Peak	
6	3.9525	18.36	10.59	28.95	56.00	-27.05	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 B Mode Channel 01



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	0.0180	53.47	13.84	67.31	122.50	-55.19	AVG	
2		0.0412	38.41	12.65	51.06	115.31	-64.25	AVG	
3		0.0646	36.82	12.51	49.33	111.40	-62.07	AVG	

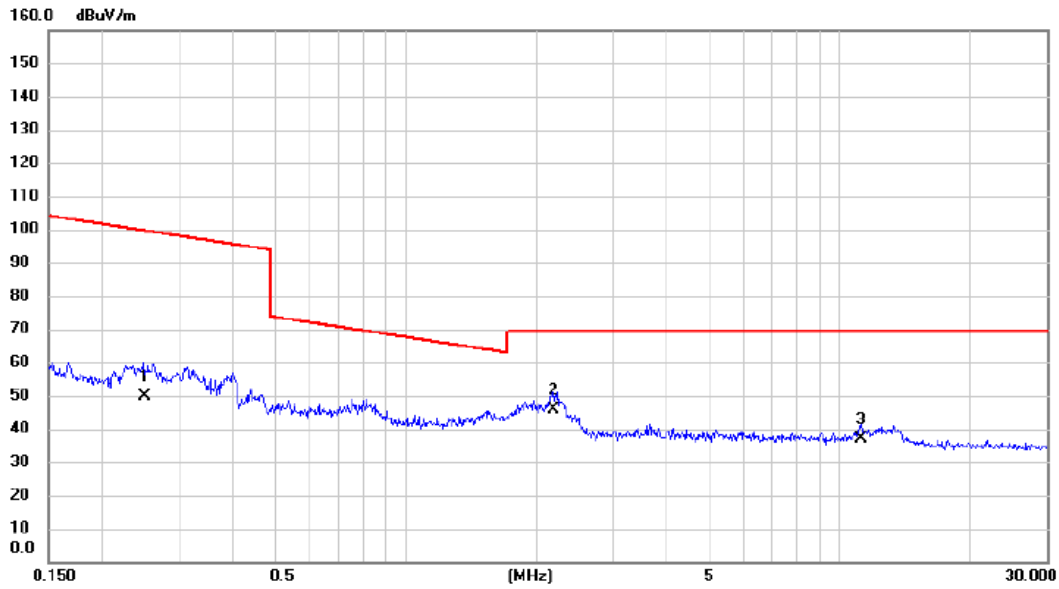
**REMARKS:**

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



Test Mode: TX B Mode Channel 01

Ant 0°



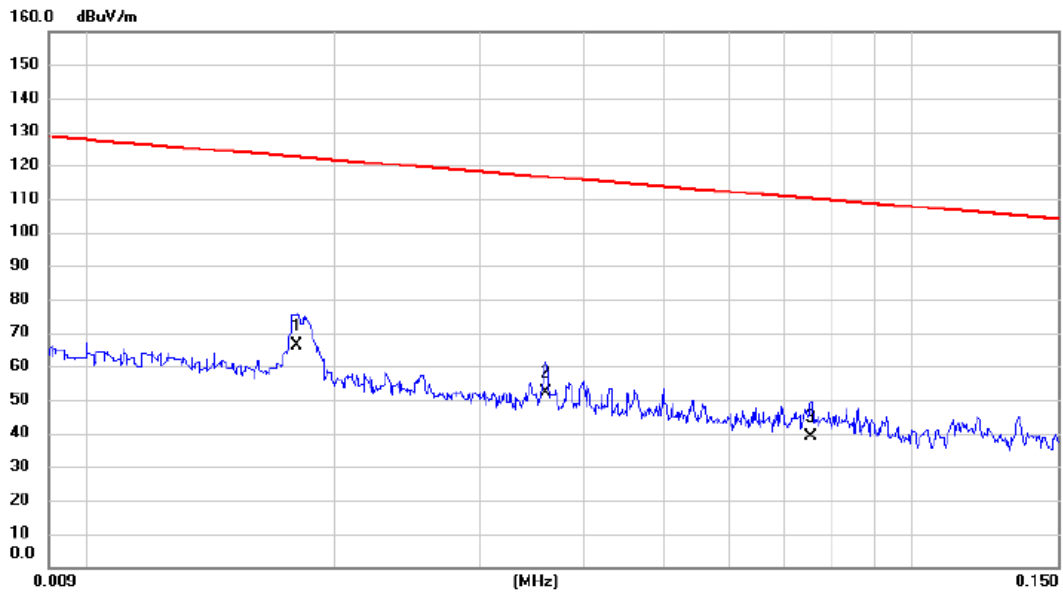
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		0.2495	37.18	12.64	49.82	99.66	-49.84	AVG	
2	*	2.1898	34.43	11.21	45.64	69.54	-23.90	QP	
3		11.1977	25.48	11.51	36.99	69.54	-32.55	QP	

REMARKS:

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

Test Mode: TX B Mode Channel 01

**Ant 90°**



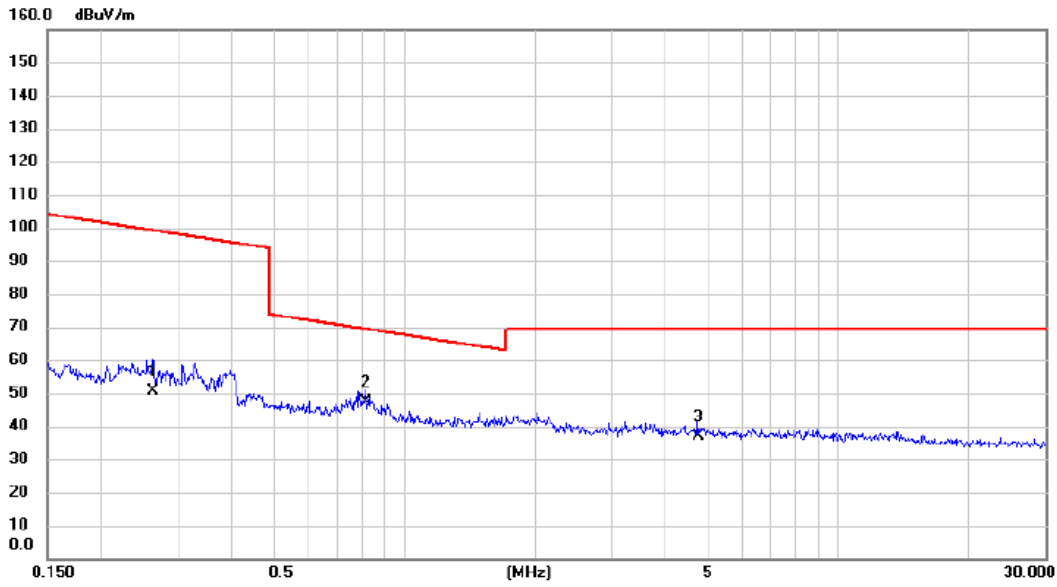
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	0.0180	52.30	13.84	66.14	122.50	-56.36	AVG	
2		0.0360	39.45	12.79	52.24	116.48	-64.24	AVG	
3		0.0755	26.49	12.57	39.06	110.05	-70.99	AVG	

**REMARKS:**

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

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		0.2630	38.15	12.60	50.75	99.21	-48.46	AVG	
2	*	0.8131	35.42	11.87	47.29	69.40	-22.11	QP	
3		4.7464	25.78	11.05	36.83	69.54	-32.71	QP	

**REMARKS:**

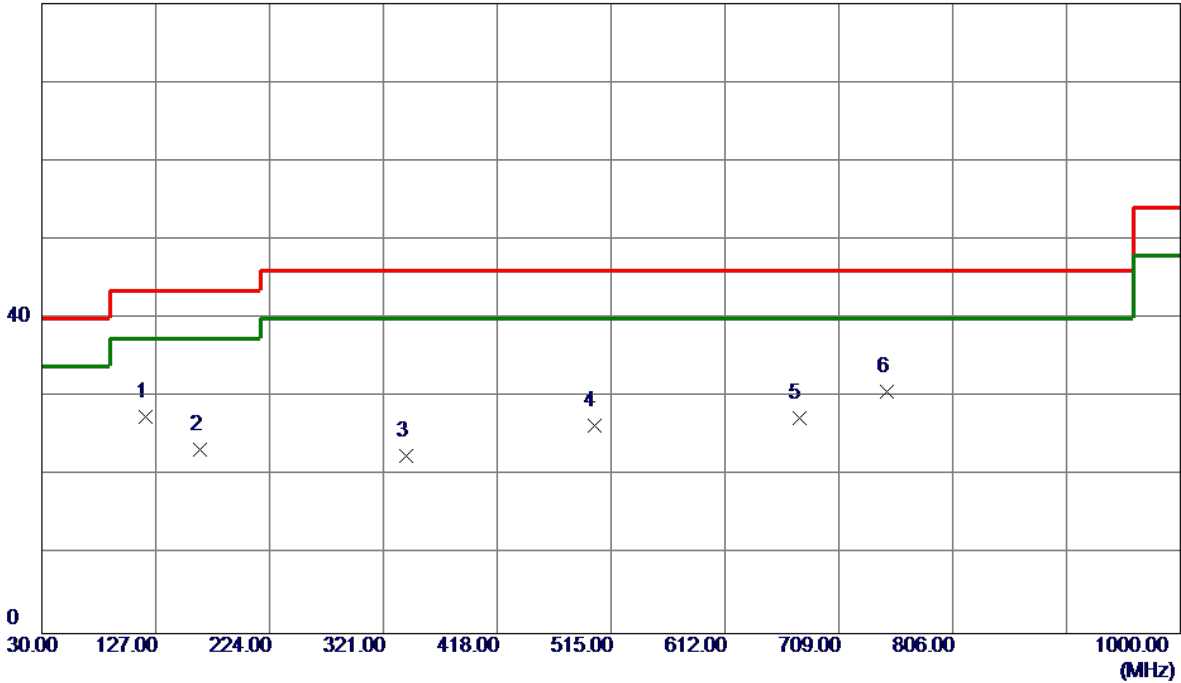
- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

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

Test Mode: TX 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	118.2700	40.58	-13.00	27.58	43.50	-15.92	Peak	
2	164.8300	34.78	-11.35	23.43	43.50	-20.07	Peak	
3	340.4000	32.93	-10.36	22.57	46.00	-23.43	Peak	
4	500.4500	33.65	-7.26	26.39	46.00	-19.61	Peak	
5	675.0500	31.35	-3.92	27.43	46.00	-18.57	Peak	
6 *	749.7400	33.91	-3.21	30.70	46.00	-15.30	Peak	

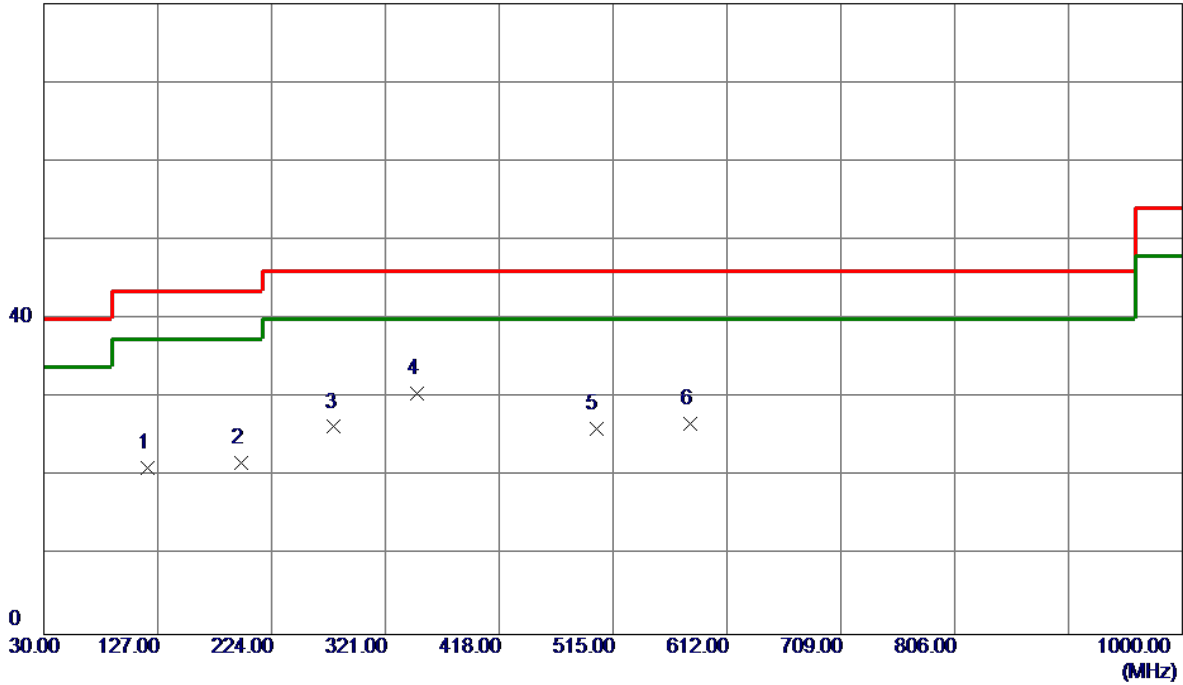
**REMARKS:**

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

Test Mode: TX B Mode Channel 01

### 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	118.2700	34.07	-13.00	21.07	43.50	-22.43	Peak	
2	197.8100	36.39	-14.65	21.74	43.50	-21.76	Peak	
3	277.3500	38.61	-12.29	26.32	46.00	-19.68	Peak	
4 *	348.1600	40.83	-10.23	30.60	46.00	-15.40	Peak	
5	500.4500	33.38	-7.26	26.12	46.00	-19.88	Peak	
6	580.9600	32.55	-5.90	26.65	46.00	-19.35	Peak	

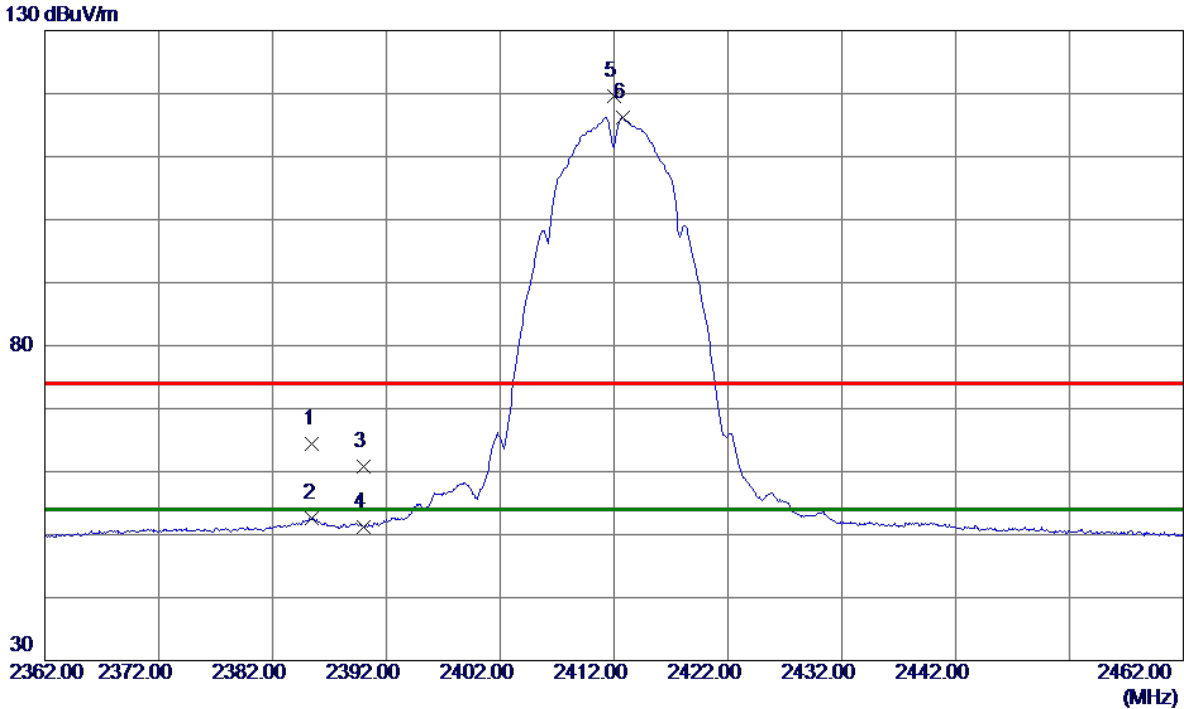
**REMARKS:**

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

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

Test Mode: TX B Mode 2412 MHz

### Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2385.5000	53.86	10.61	64.47	74.00	-9.53	Peak	
2	2385.5000	42.00	10.61	52.61	54.00	-1.39	AVG	
3	2390.0000	50.18	10.62	60.80	74.00	-13.20	Peak	
4	2390.0000	40.58	10.62	51.20	54.00	-2.80	AVG	
5	2411.9500	108.93	10.69	119.62	74.00	45.62	Peak	No Limit
6 *	2412.7500	105.58	10.69	116.27	54.00	62.27	AVG	No Limit

**REMARKS:**

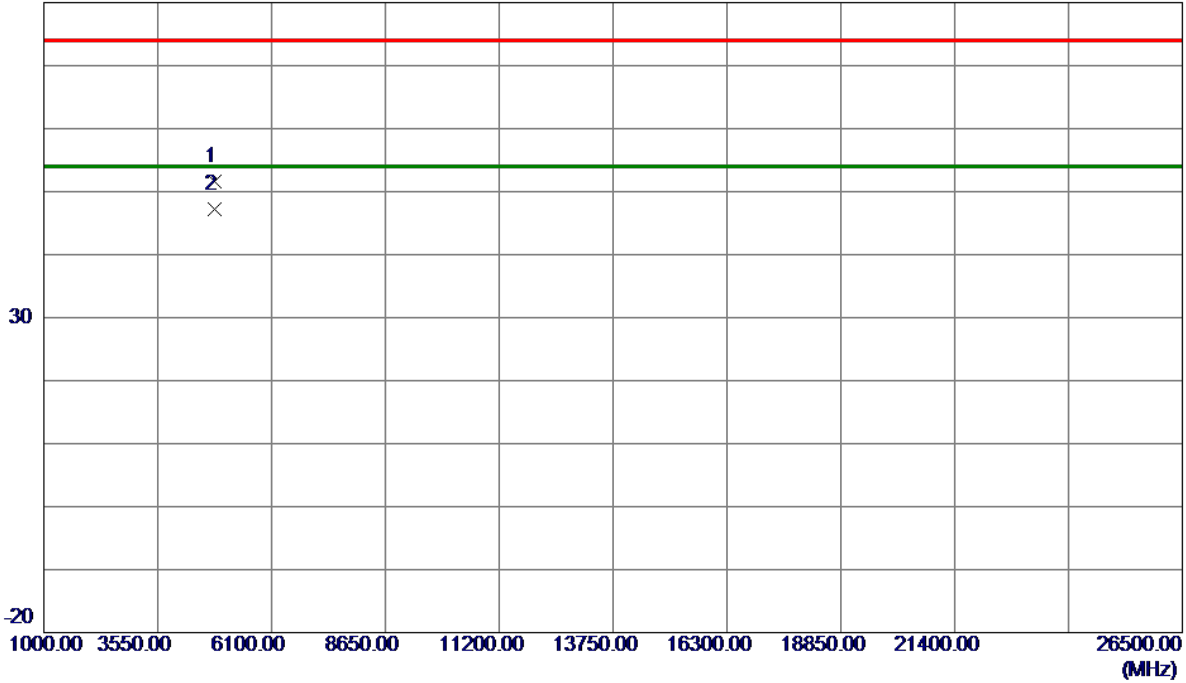
- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.



Test Mode: TX B Mode 2412 MHz

### Vertical

80 dBuV/m



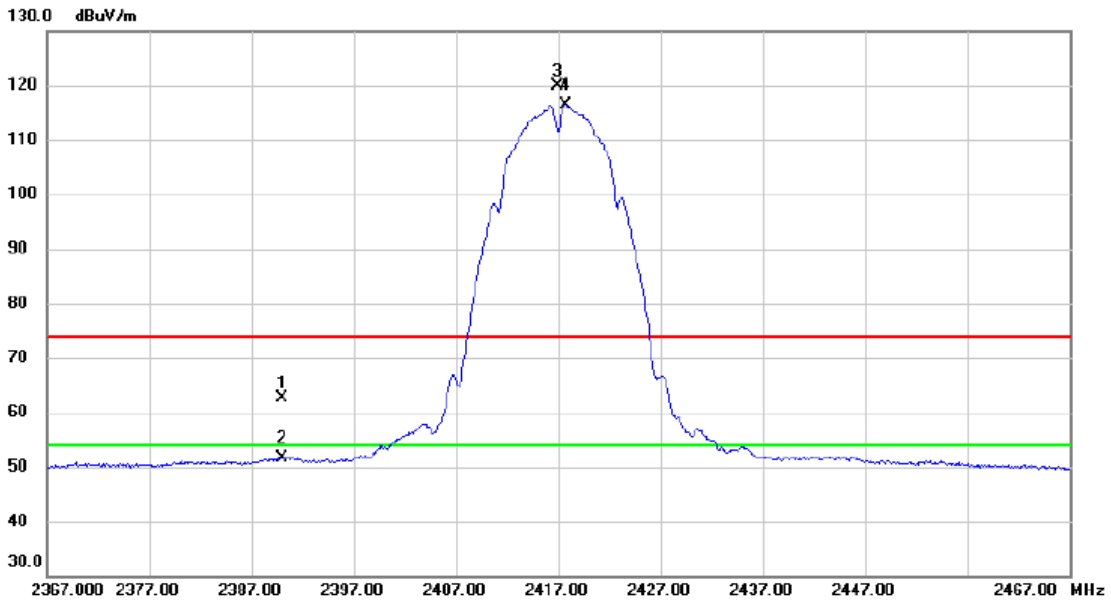
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4823.8250	43.70	7.86	51.56	74.00	-22.44	Peak	
2 *	4823.9129	39.31	7.86	47.17	54.00	-6.83	AVG	

**REMARKS:**

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

Test Mode: TX B Mode 2417 MHz

### Vertical



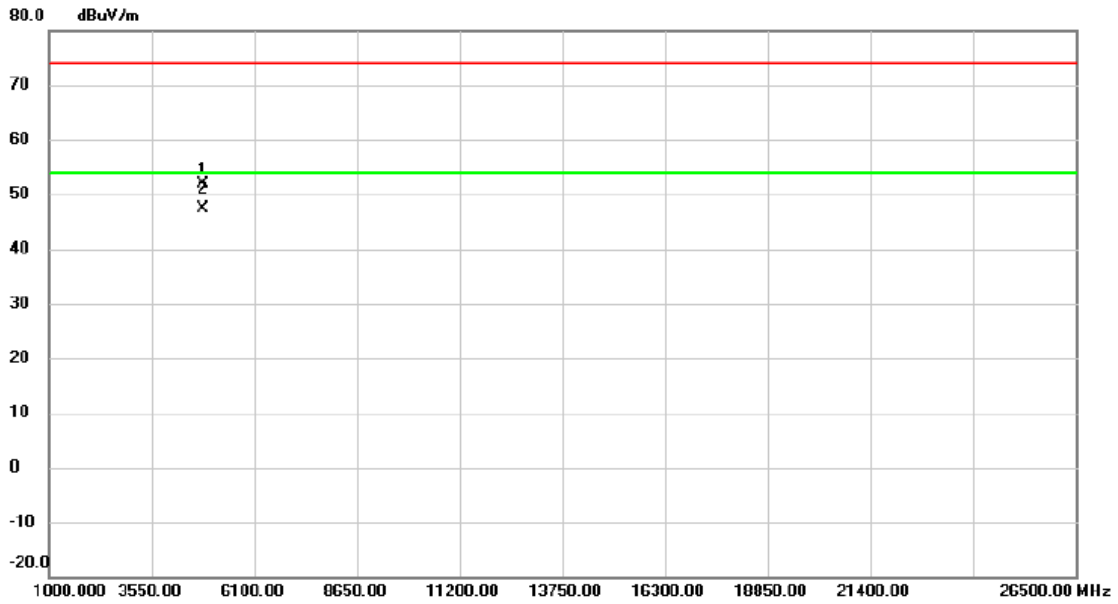
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		2390.000	51.92	10.63	62.55	74.00	-11.45	peak	
2		2390.000	41.11	10.63	51.74	54.00	-2.26	AVG	
3	X	2416.950	109.13	10.70	119.83	74.00	45.83	peak	No Limit
4	*	2417.700	105.80	10.70	116.50	54.00	62.50	AVG	No Limit

**REMARKS:**

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

Test Mode: TX B Mode 2417 MHz

### Vertical



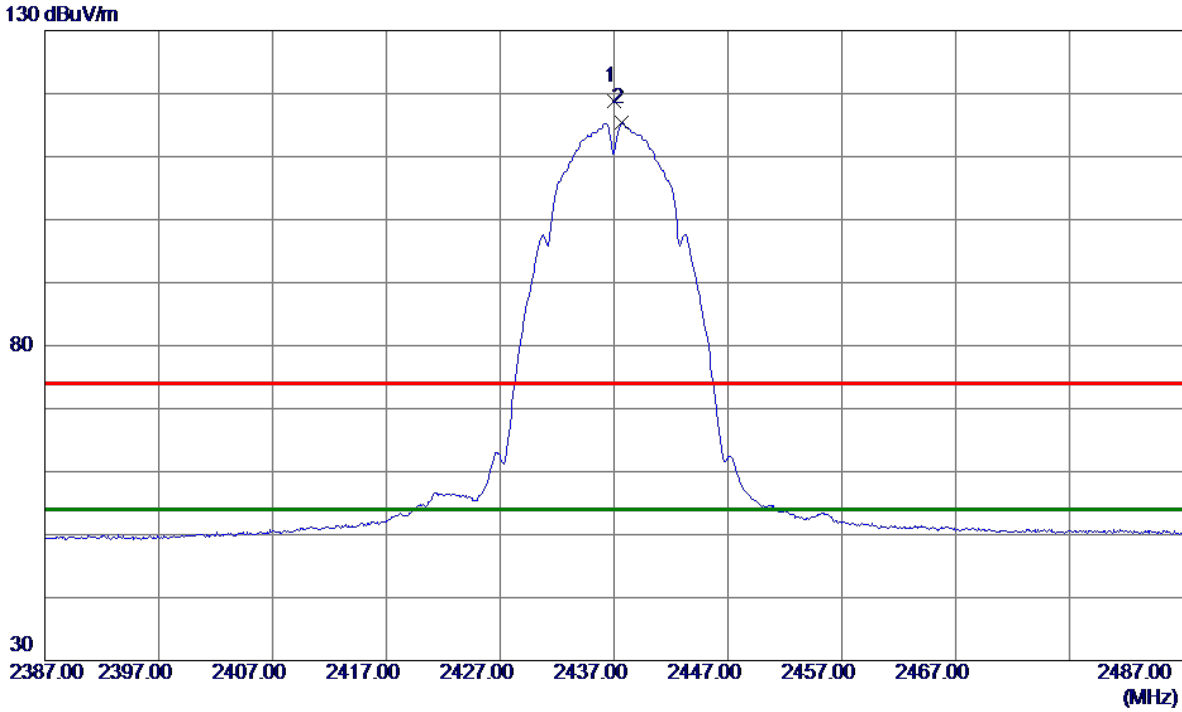
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		4833.866	44.01	7.89	51.90	74.00	-22.10	peak	
2	*	4833.901	39.50	7.89	47.39	54.00	-6.61	AVG	

**REMARKS:**

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

Test Mode: TX B Mode 2437 MHz

**Vertical**



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2437.0000	108.07	10.76	118.83	74.00	44.83	Peak	No Limit
2 *	2437.7000	104.58	10.76	115.34	54.00	61.34	AVG	No Limit

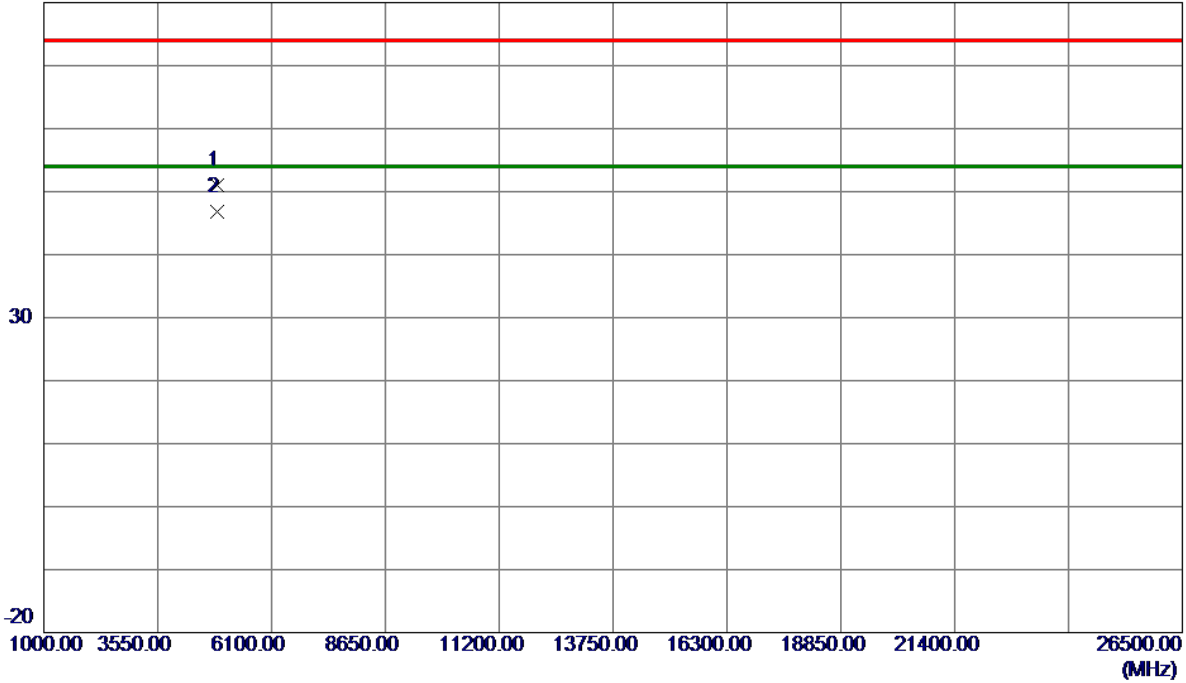
**REMARKS:**

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

Test Mode: TX B Mode 2437 MHz

### Vertical

80 dBuV/m



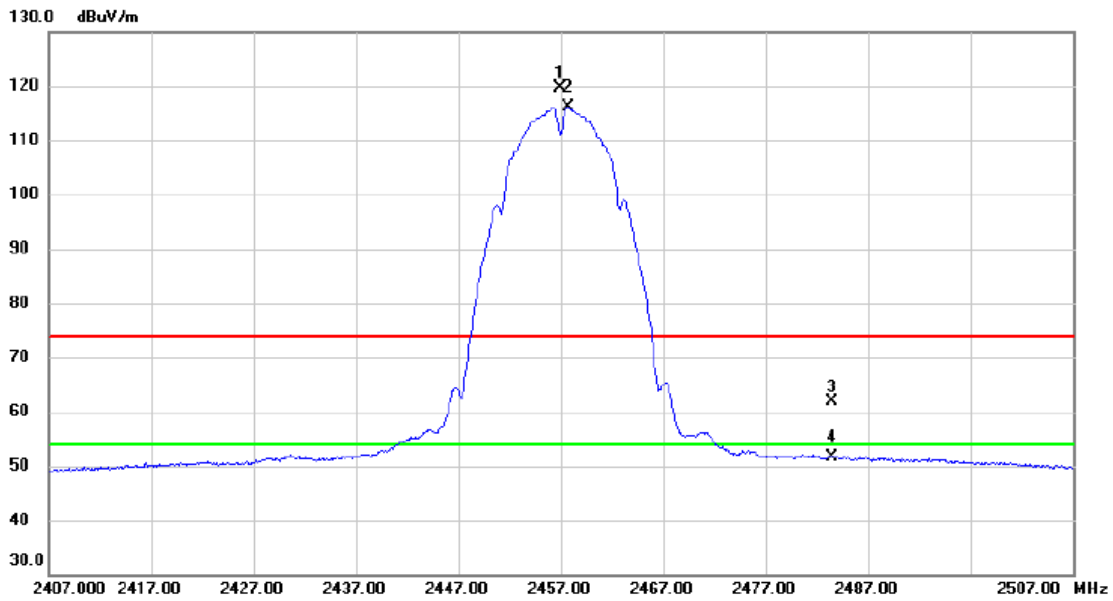
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4873.9000	43.01	8.06	51.07	74.00	-22.93	Peak	
2 *	4873.9570	38.65	8.06	46.71	54.00	-7.29	AVG	

**REMARKS:**

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

Test Mode: TX B Mode 2457 MHz

### Vertical



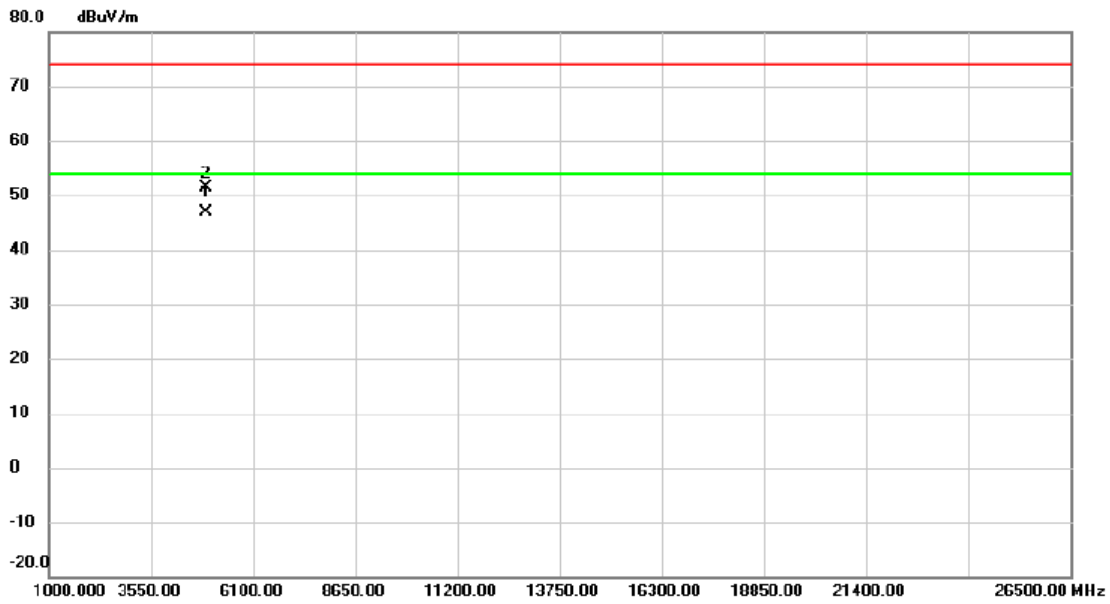
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	X	2456.950	108.93	10.82	119.75	74.00	45.75	peak	No Limit
2	*	2457.750	105.40	10.83	116.23	54.00	62.23	AVG	No Limit
3		2483.500	50.92	10.90	61.82	74.00	-12.18	peak	
4		2483.500	40.84	10.90	51.74	54.00	-2.26	AVG	

**REMARKS:**

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

Test Mode: TX B Mode 2457 MHz

### Vertical



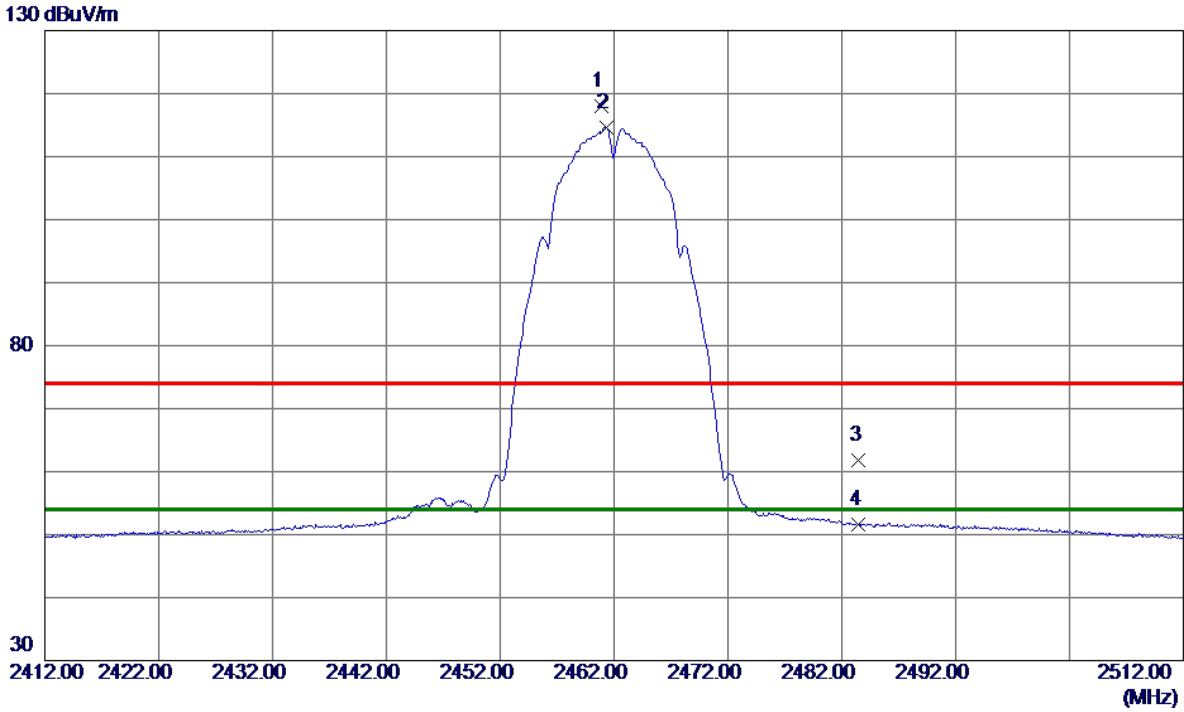
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	4913.884	38.56	8.22	46.78	54.00	-7.22	AVG	
2		4914.141	43.20	8.22	51.42	74.00	-22.58	peak	

**REMARKS:**

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

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	2460.8500	107.12	10.83	117.95	74.00	43.95	Peak	No Limit
2 *	2461.3000	103.82	10.83	114.65	54.00	60.65	AVG	No Limit
3	2483.5000	50.98	10.90	61.88	74.00	-12.12	Peak	
4	2483.5000	40.72	10.90	51.62	54.00	-2.38	AVG	

**REMARKS:**

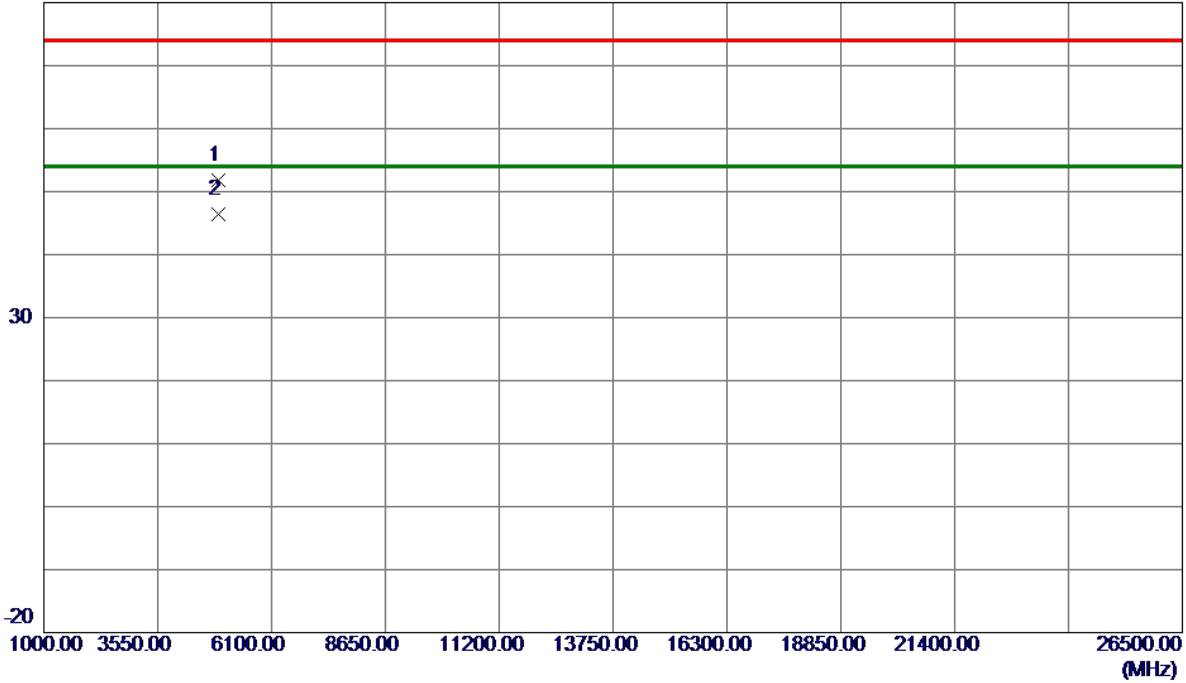
- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.



Test Mode: TX B Mode 2462 MHz

### Vertical

80 dBuV/m



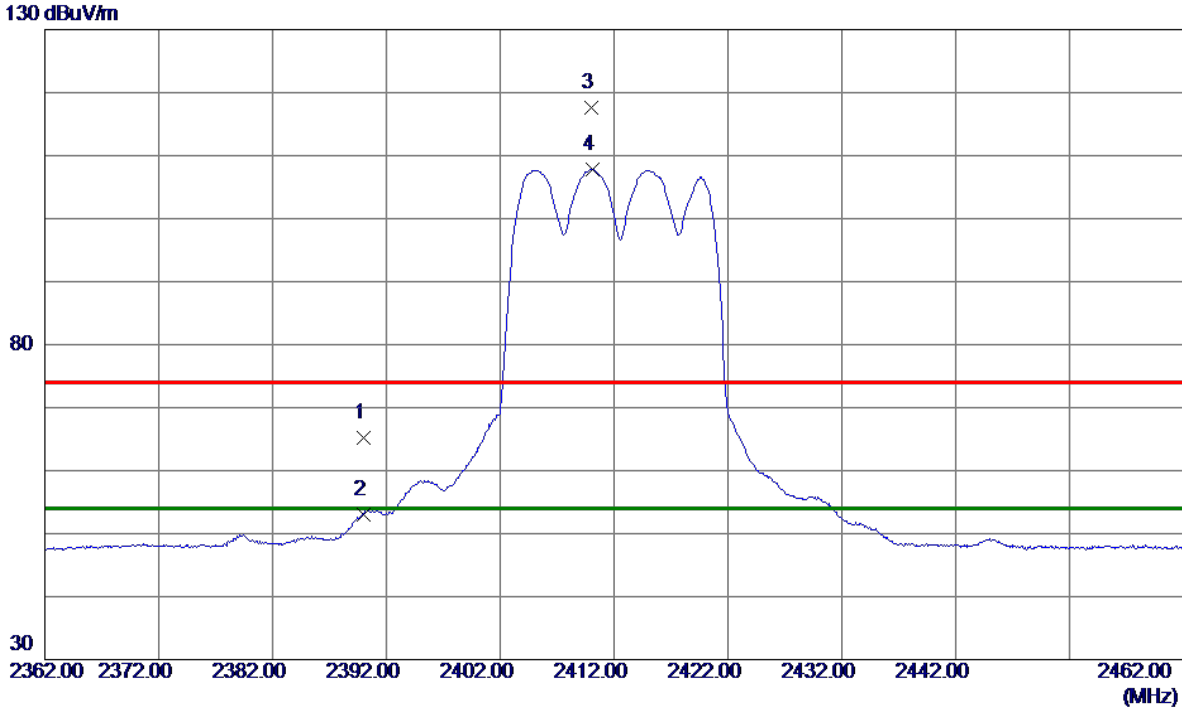
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4923.7620	43.53	8.26	51.79	74.00	-22.21	Peak	
2 *	4923.9340	38.12	8.26	46.38	54.00	-7.62	AVG	

**REMARKS:**

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

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	2390.0000	54.54	10.62	65.16	74.00	-8.84	Peak	
2	2390.0000	42.44	10.62	53.06	54.00	-0.94	AVG	
3	2410.0000	106.90	10.68	117.58	74.00	43.58	Peak	No Limit
4 *	2410.1500	97.18	10.68	107.86	54.00	53.86	AVG	No Limit

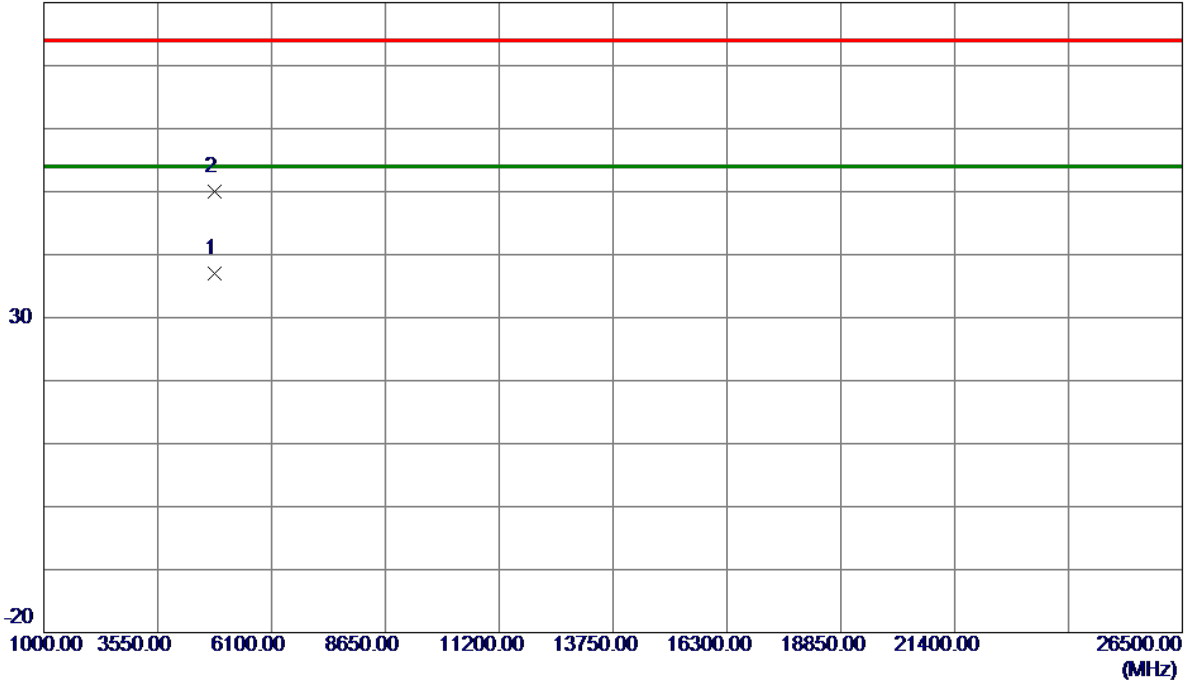
**REMARKS:**

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

Test Mode: TX G Mode 2412 MHz

### Vertical

80 dBuV/m



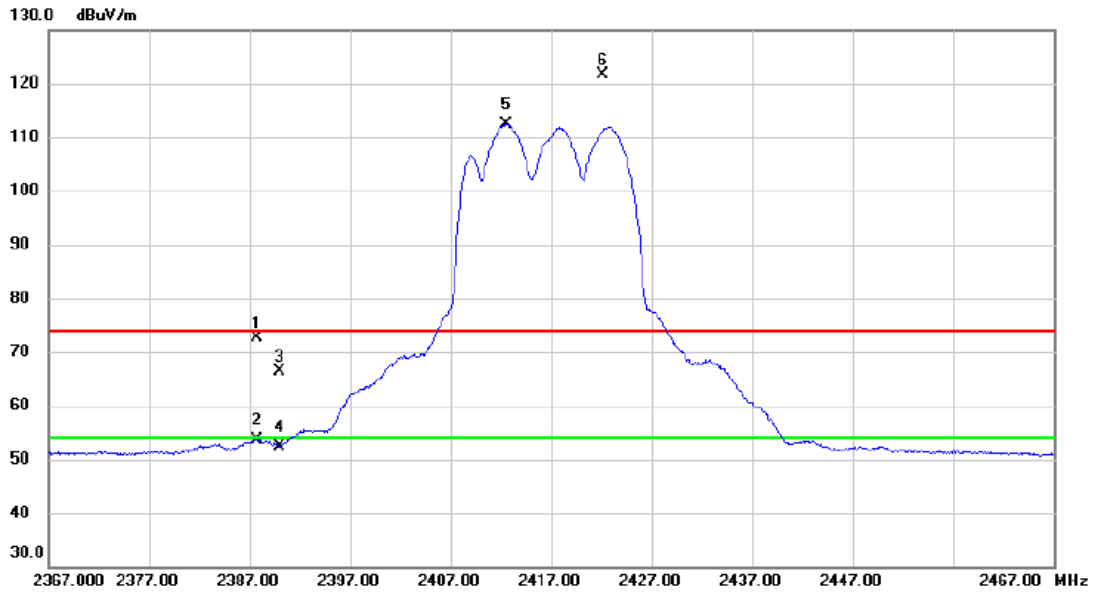
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	4823.6530	29.11	7.86	36.97	54.00	-17.03	AVG	
2	4823.9970	42.09	7.86	49.95	74.00	-24.05	Peak	

**REMARKS:**

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

Test Mode: TX G Mode 2417 MHz

### Vertical



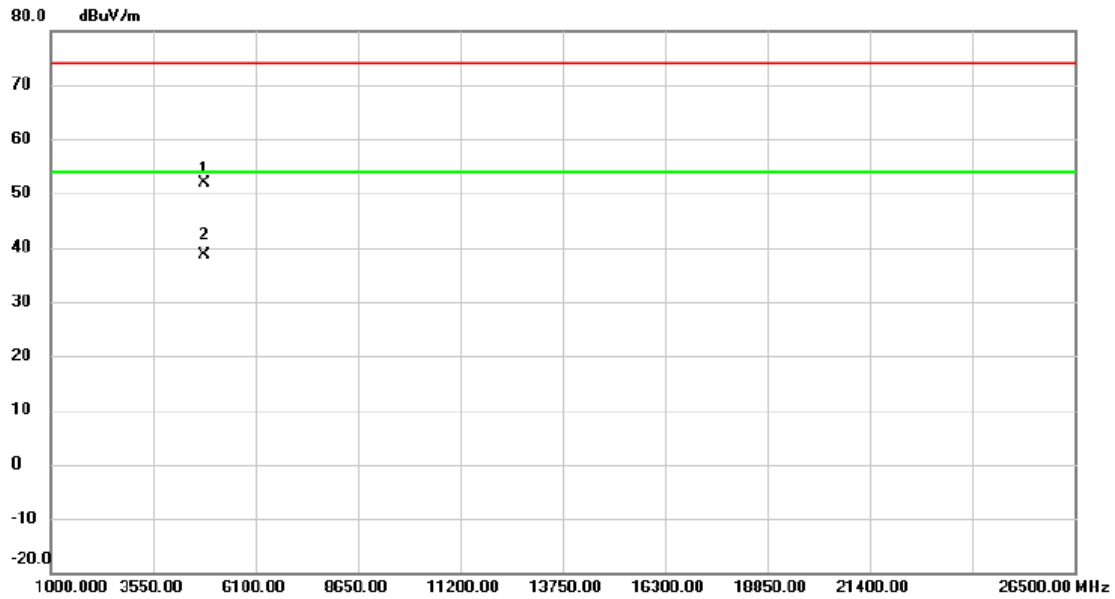
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		2387.700	62.13	10.62	72.75	74.00	-1.25	peak	
2		2387.700	43.09	10.62	53.71	54.00	-0.29	AVG	
3		2390.000	55.65	10.63	66.28	74.00	-7.72	peak	
4		2390.000	41.87	10.63	52.50	54.00	-1.50	AVG	
5	*	2412.550	101.65	10.69	112.34	54.00	58.34	AVG	No Limit
6	X	2422.150	110.85	10.72	121.57	74.00	47.57	peak	No Limit

**REMARKS:**

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

Test Mode: TX G Mode 2417 MHz

### Vertical



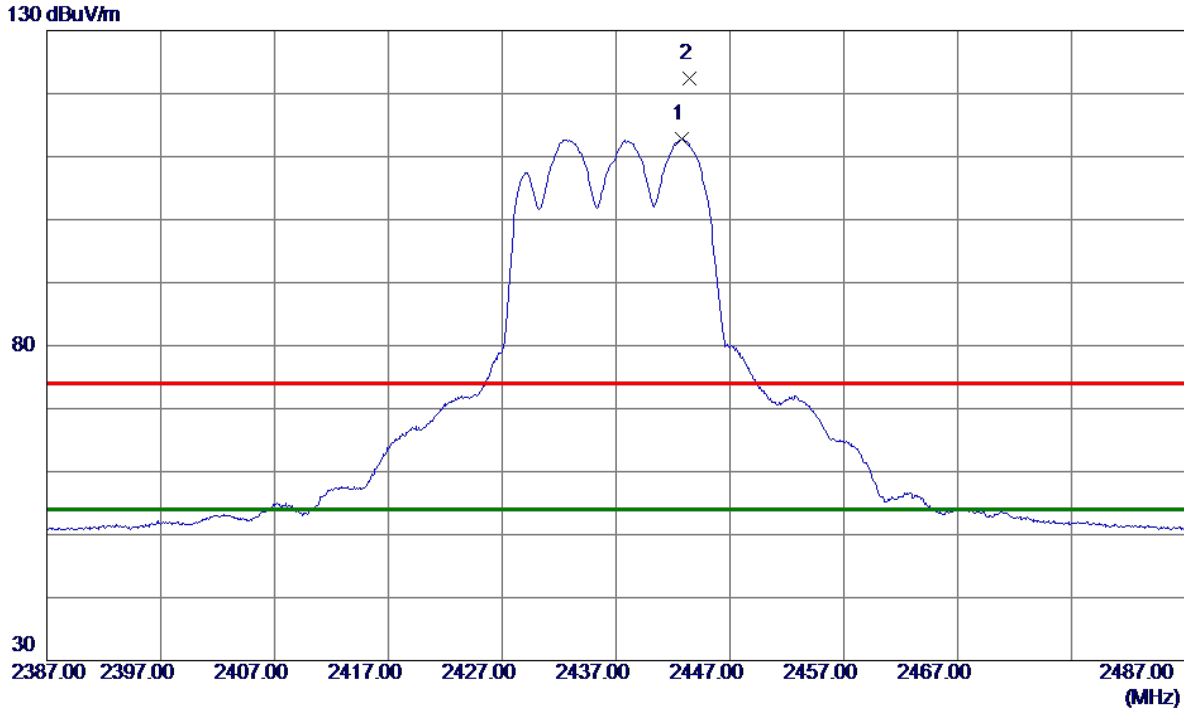
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		4833.338	43.97	7.89	51.86	74.00	-22.14	peak	
2	*	4833.692	30.83	7.89	38.72	54.00	-15.28	AVG	

**REMARKS:**

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

Test Mode: TX G Mode 2437 MHz

**Vertical**



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2442.7500	102.08	10.78	112.86	54.00	58.86	AVG	No Limit
2	2443.4000	111.62	10.78	122.40	74.00	48.40	Peak	No Limit

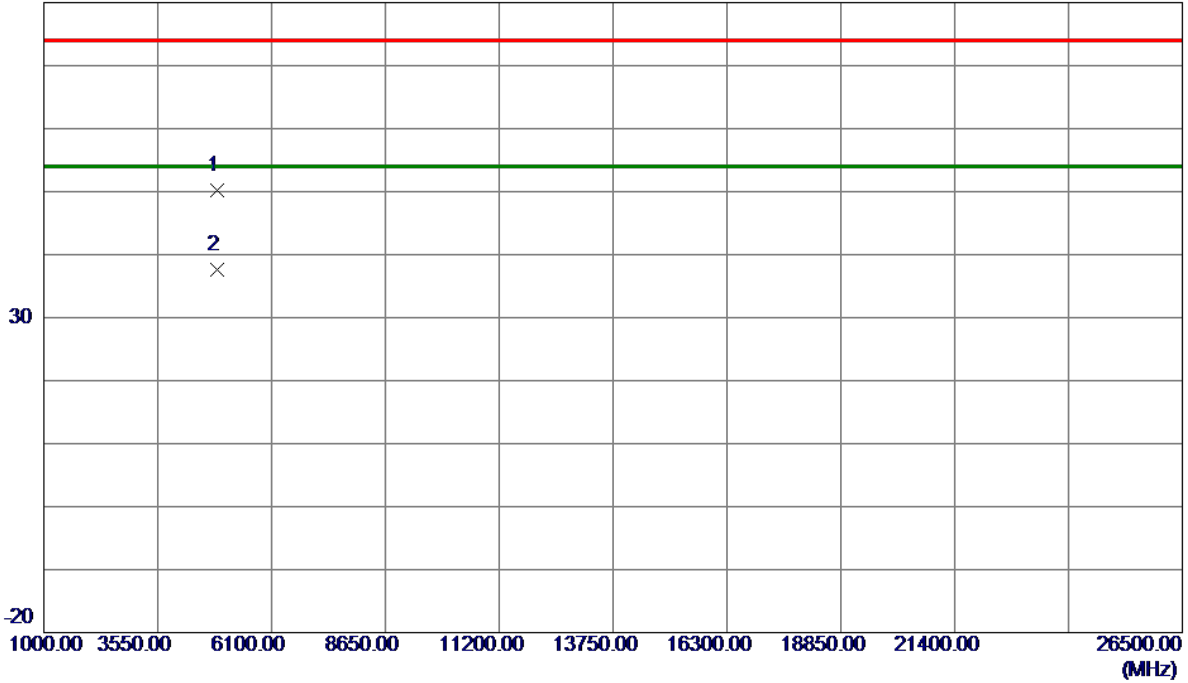
**REMARKS:**

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

Test Mode: TX G Mode 2437 MHz

### Vertical

80 dBuV/m



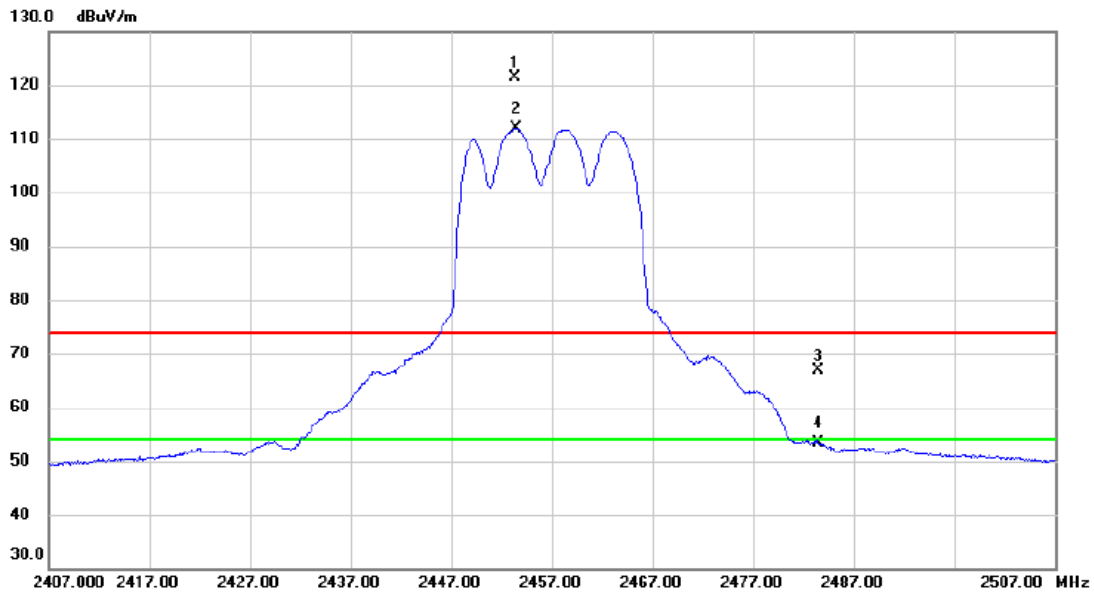
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4873.3849	42.12	8.05	50.17	74.00	-23.83	Peak	
2 *	4873.4770	29.45	8.06	37.51	54.00	-16.49	AVG	

**REMARKS:**

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

Test Mode: TX G Mode 2457 MHz

### Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Detector	Comment
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1	X	2453.300	110.52	10.81	121.33	74.00	47.33	peak	No Limit
2	*	2453.400	101.04	10.81	111.85	54.00	57.85	AVG	No Limit
3		2483.500	55.93	10.90	66.83	74.00	-7.17	peak	
4		2483.500	42.58	10.90	53.48	54.00	-0.52	AVG	

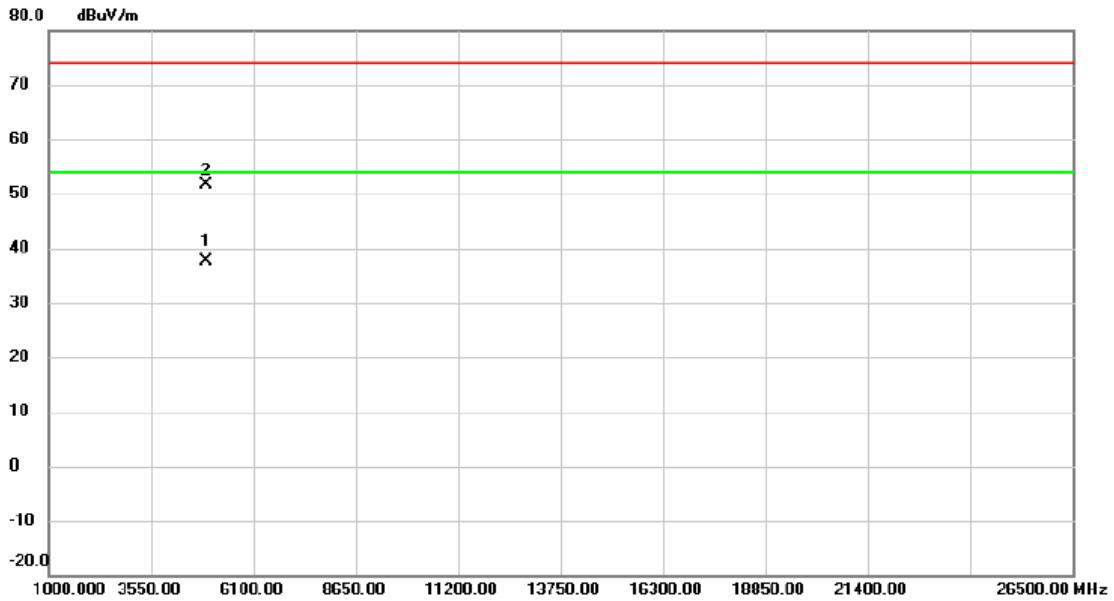
**REMARKS:**

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



Test Mode: TX G Mode 2457 MHz

### Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	4913.675	29.47	8.22	37.69	54.00	-16.31	AVG	
2		4913.881	43.36	8.22	51.58	74.00	-22.42	peak	

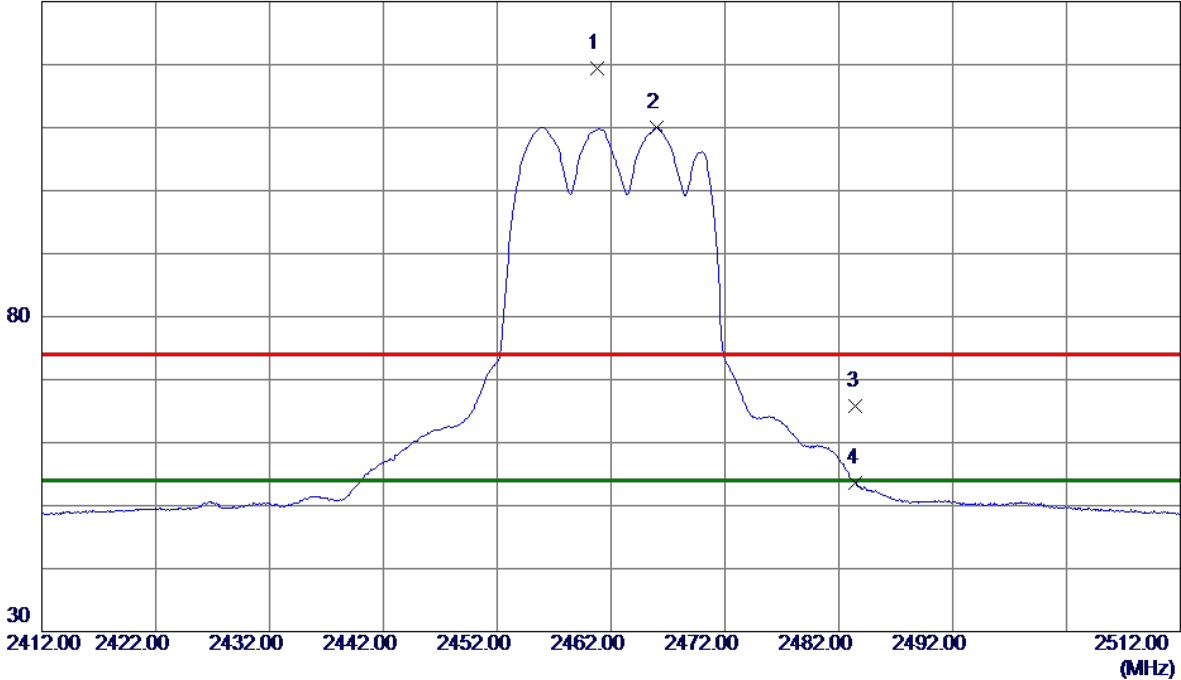
**REMARKS:**

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

Test Mode: TX G Mode 2462 MHz

### Vertical

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2460.7500	108.63	10.83	119.46	74.00	45.46	Peak	No Limit
2 *	2466.0000	99.25	10.85	110.10	54.00	56.10	AVG	No Limit
3	2483.5000	54.82	10.90	65.72	74.00	-8.28	Peak	
4	2483.5000	42.70	10.90	53.60	54.00	-0.40	AVG	

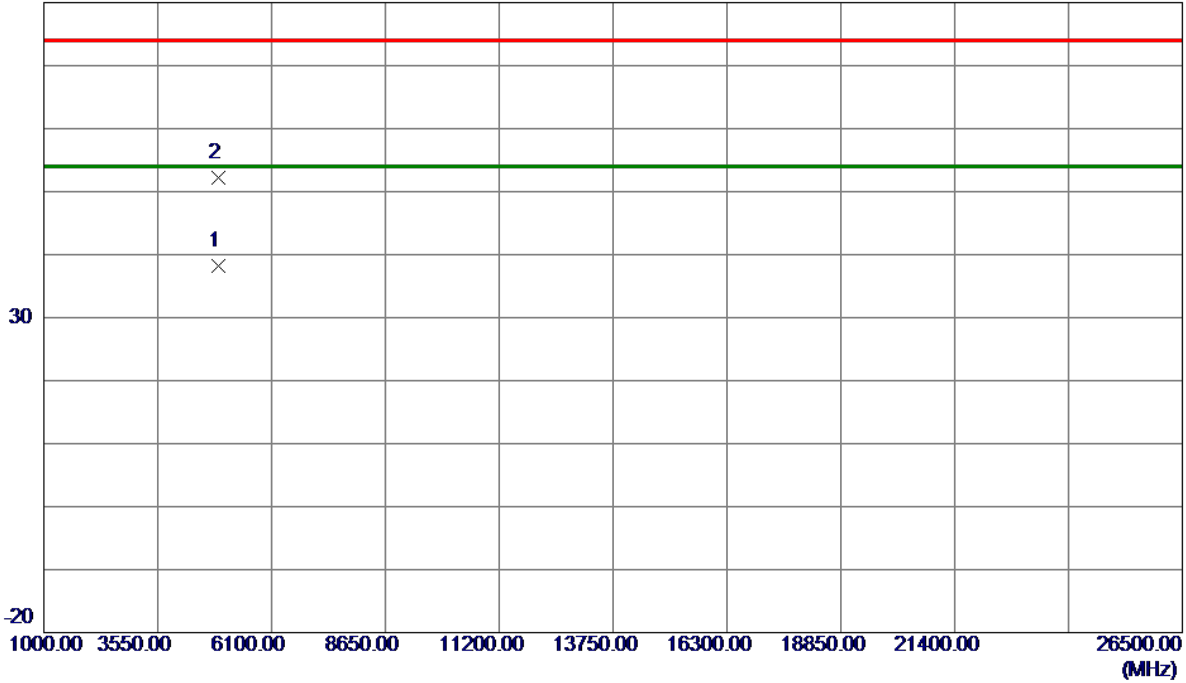
**REMARKS:**

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

Test Mode: TX G Mode 2462 MHz

### Vertical

80 dBuV/m



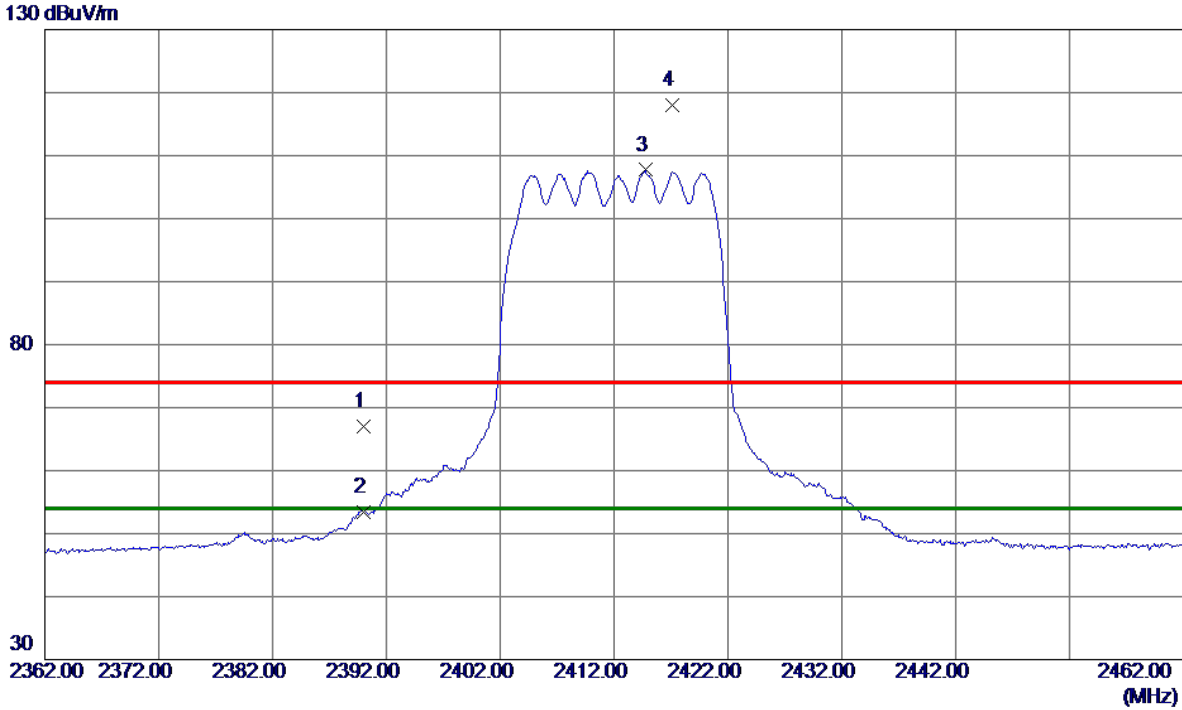
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	4923.7390	29.88	8.26	38.14	54.00	-15.86	AVG	
2	4923.9510	43.91	8.26	52.17	74.00	-21.83	Peak	

**REMARKS:**

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

Test Mode: TX N-20M Mode 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	2390.0000	56.32	10.62	66.94	74.00	-7.06	Peak	
2	2390.0000	42.86	10.62	53.48	54.00	-0.52	AVG	
3 *	2414.7500	97.00	10.70	107.70	54.00	53.70	AVG	No Limit
4	2417.1500	107.25	10.70	117.95	74.00	43.95	Peak	No Limit

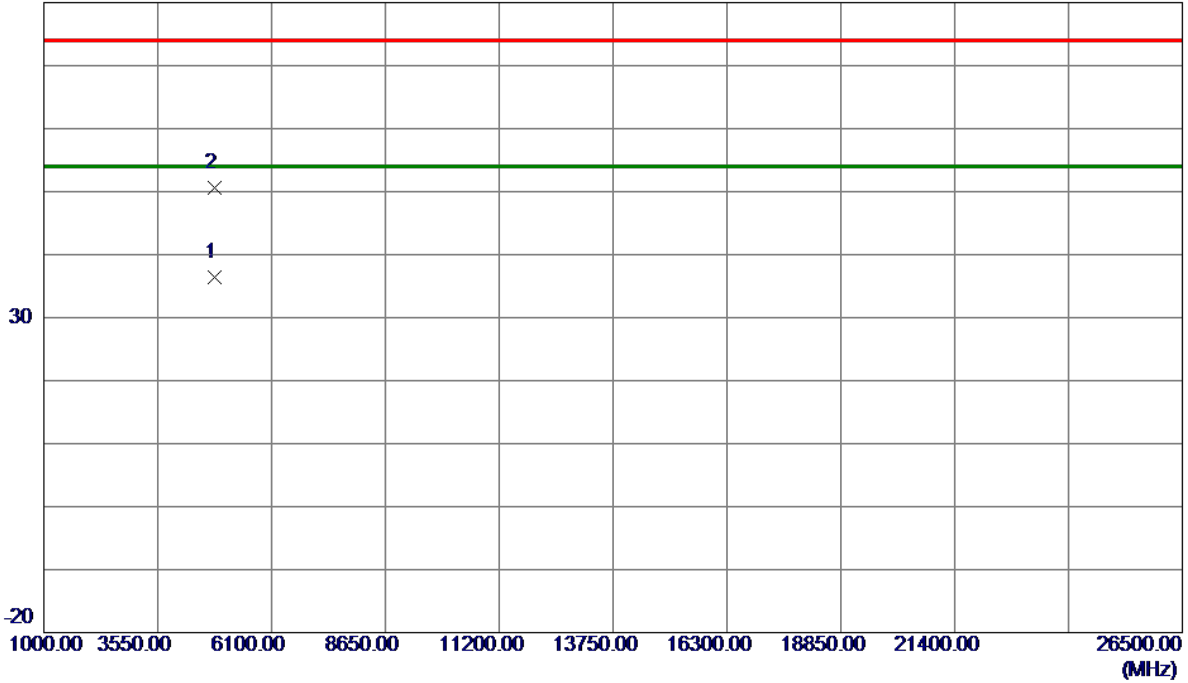
**REMARKS:**

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

Test Mode: TX N-20M Mode 2412 MHz

### Vertical

80 dBuV/m



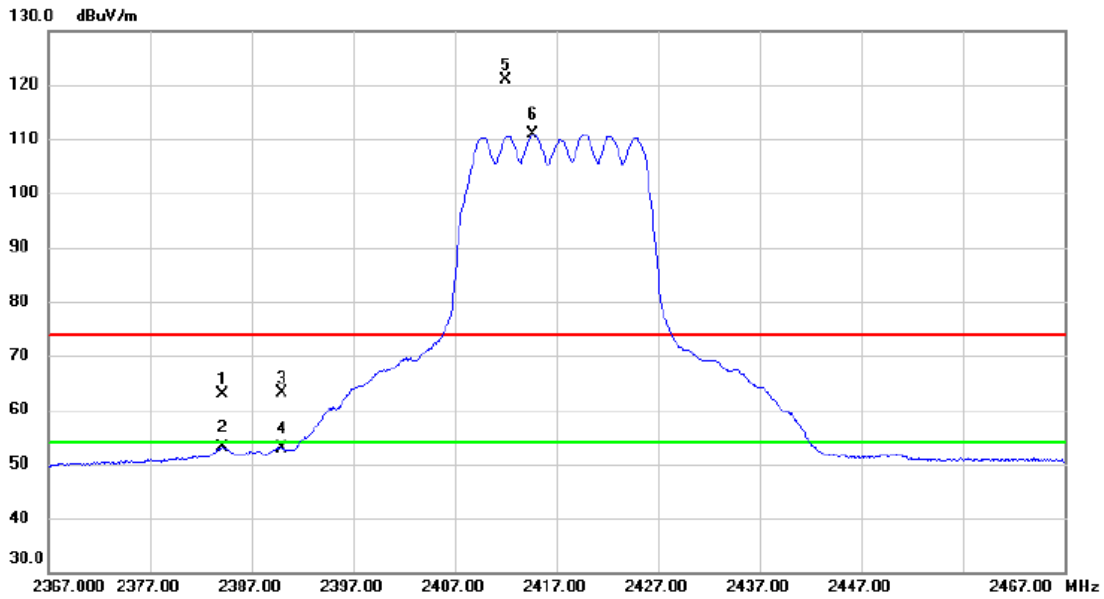
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	4823.8230	28.61	7.86	36.47	54.00	-17.53	AVG	
2	4823.8710	42.69	7.86	50.55	74.00	-23.45	Peak	

**REMARKS:**

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

Test Mode: TX N-20M Mode 2417 MHz

### Vertical



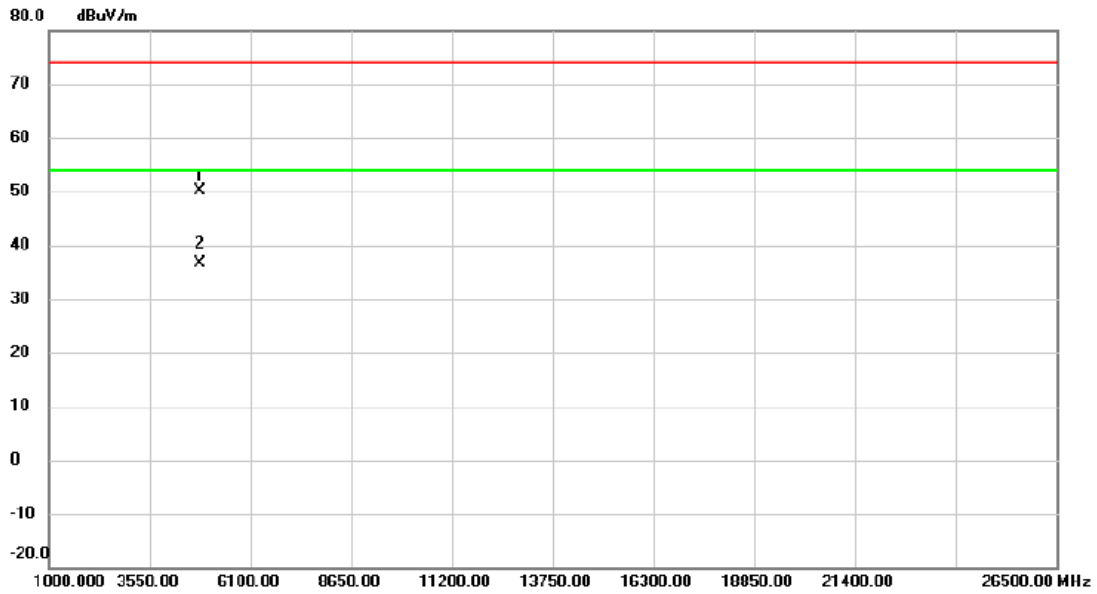
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		2384.200	52.35	10.61	62.96	74.00	-11.04	peak	
2		2384.200	42.51	10.61	53.12	54.00	-0.88	AVG	
3		2390.000	52.44	10.63	63.07	74.00	-10.93	peak	
4		2390.000	42.30	10.63	52.93	54.00	-1.07	AVG	
5	X	2412.000	110.26	10.69	120.95	74.00	46.95	peak	No Limit
6	*	2414.700	100.27	10.69	110.96	54.00	56.96	AVG	No Limit

**REMARKS:**

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

Test Mode: TX N-20M Mode 2417 MHz

### Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		4833.429	42.17	7.89	50.06	74.00	-23.94	peak	
2	*	4833.704	28.66	7.89	36.55	54.00	-17.45	AVG	

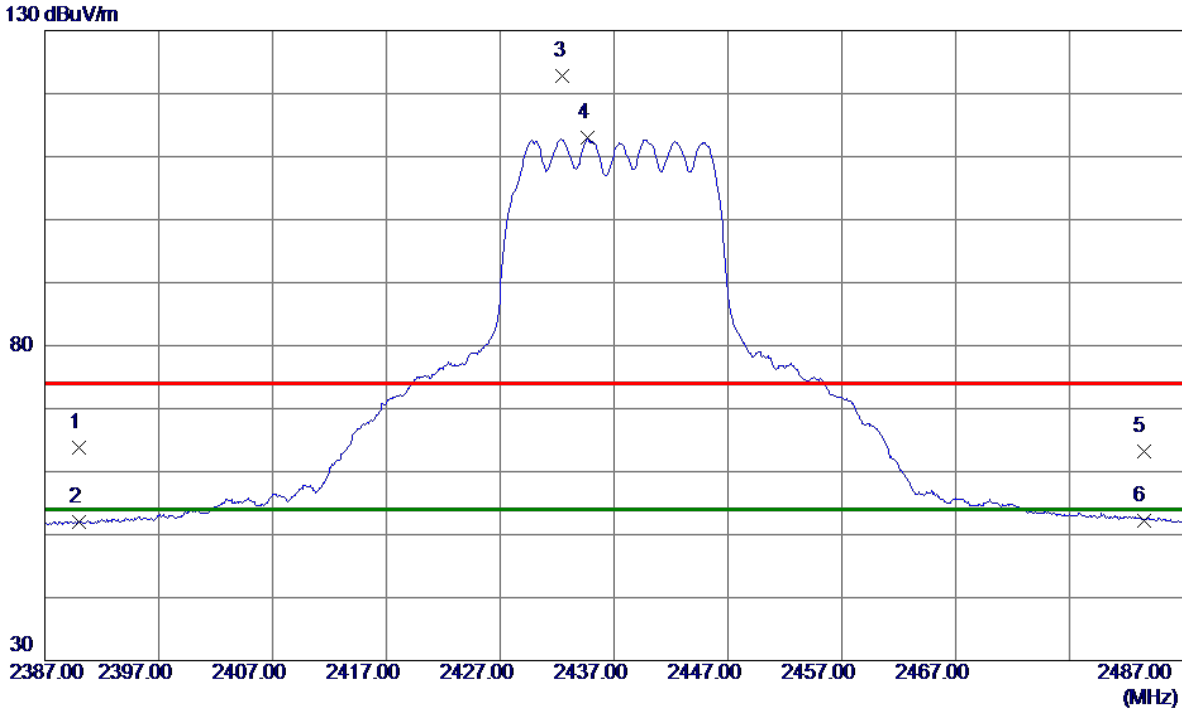
**REMARKS:**

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

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

Test Mode: TX N-20M Mode 2437 MHz

### Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	53.16	10.62	63.78	74.00	-10.22	Peak	
2	2390.0000	41.44	10.62	52.06	54.00	-1.94	AVG	
3	2432.5000	112.04	10.75	122.79	74.00	48.79	Peak	No Limit
4 *	2434.7000	102.24	10.76	113.00	54.00	59.00	AVG	No Limit
5	2483.5000	52.35	10.90	63.25	74.00	-10.75	Peak	
6	2483.5000	41.39	10.90	52.29	54.00	-1.71	AVG	

#### REMARKS:

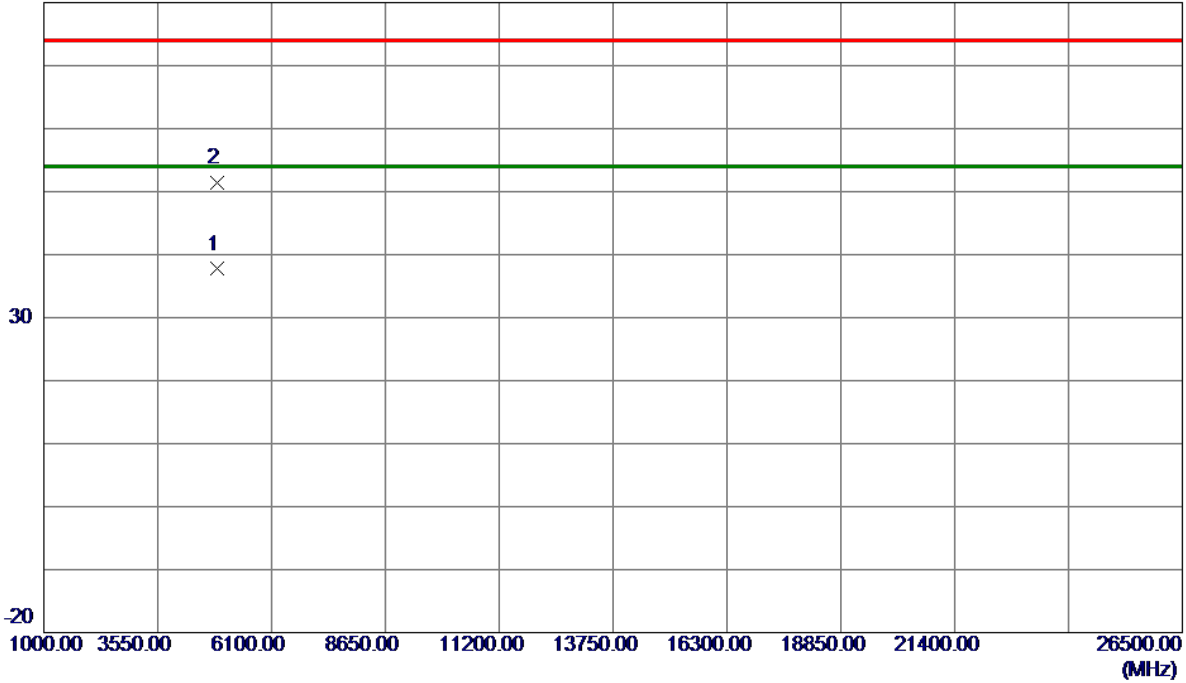
- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.



Test Mode: TX N-20M Mode 2437 MHz

### Vertical

80 dBuV/m



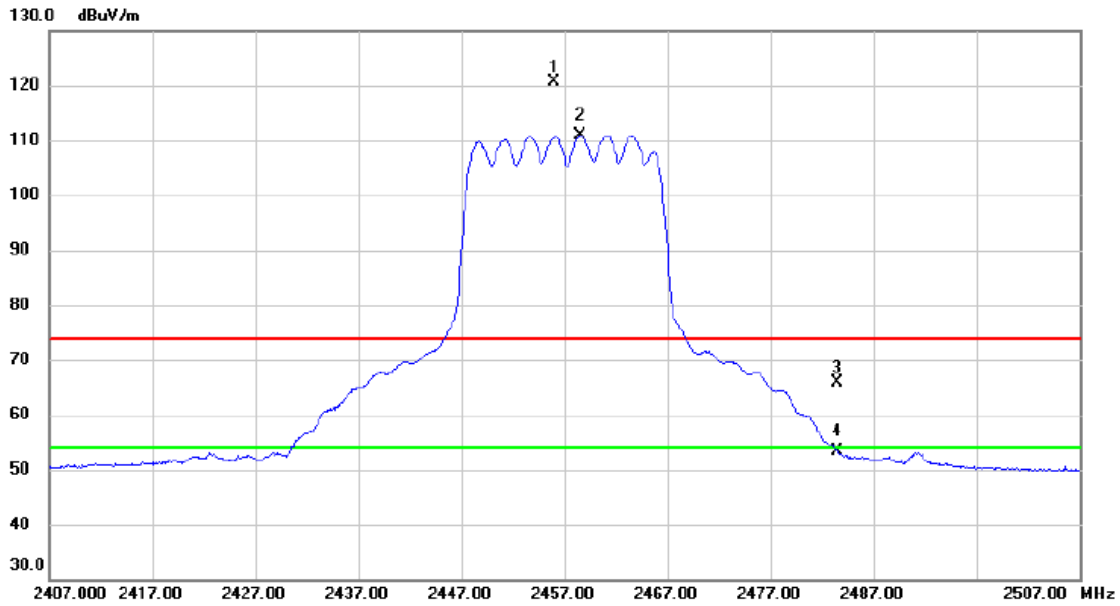
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	4873.3610	29.65	8.05	37.70	54.00	-16.30	AVG	
2	4873.4900	43.42	8.06	51.48	74.00	-22.52	Peak	

**REMARKS:**

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

Test Mode: TX N-20M Mode 2457 MHz

### Vertical



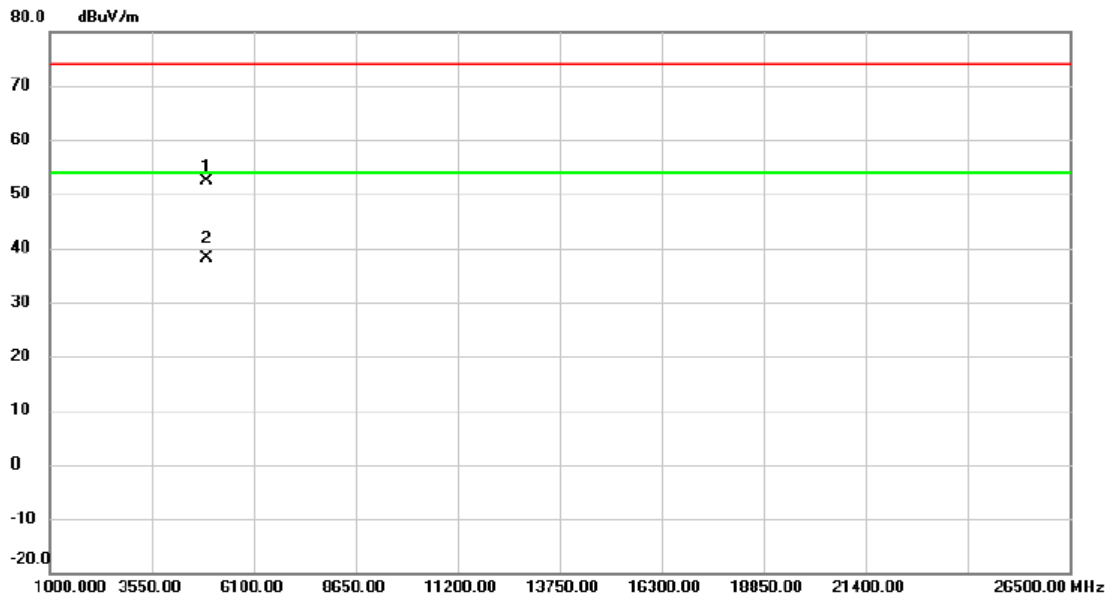
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	X	2456.050	109.84	10.81	120.65	74.00	46.65	peak	No Limit
2	*	2458.550	100.08	10.83	110.91	54.00	56.91	AVG	No Limit
3		2483.500	55.05	10.90	65.95	74.00	-8.05	peak	
4		2483.500	42.58	10.90	53.48	54.00	-0.52	AVG	

**REMARKS:**

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

Test Mode: TX N-20M Mode 2457 MHz

### Vertical



No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measurement dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4913.083	44.08	8.22	52.30	74.00	-21.70	peak	
2 *	4913.475	29.91	8.22	38.13	54.00	-15.87	AVG	

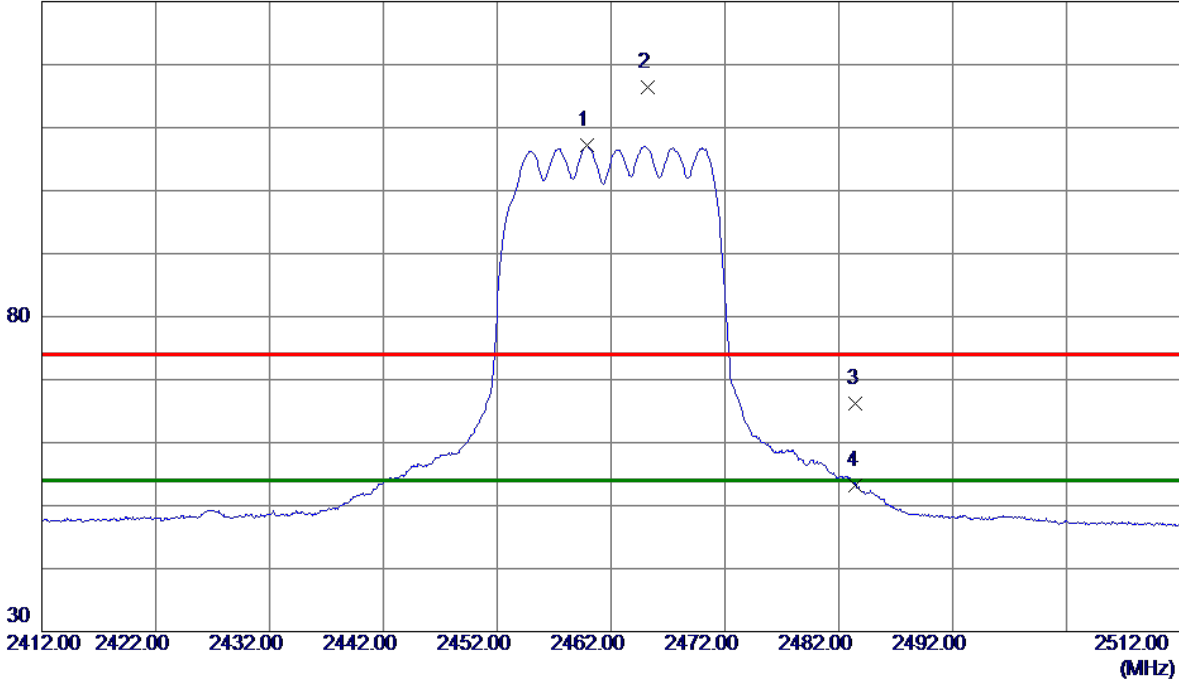
**REMARKS:**

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

Test Mode: TX N-20M Mode 2462 MHz

**Vertical**

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2459.8500	96.31	10.83	107.14	54.00	53.14	AVG	No Limit
2	2465.2000	105.46	10.85	116.31	74.00	42.31	Peak	No Limit
3	2483.5000	55.28	10.90	66.18	74.00	-7.82	Peak	
4	2483.5000	42.25	10.90	53.15	54.00	-0.85	AVG	

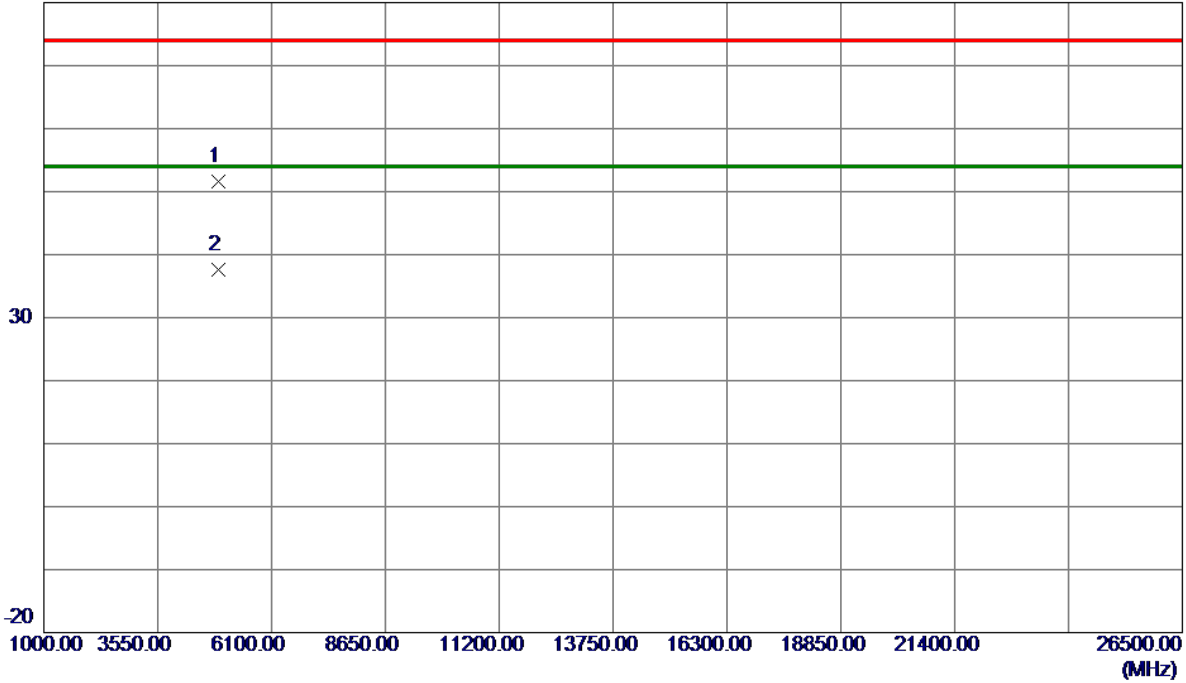
**REMARKS:**

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

Test Mode: TX N-20M Mode 2462 MHz

### Vertical

80 dBuV/m



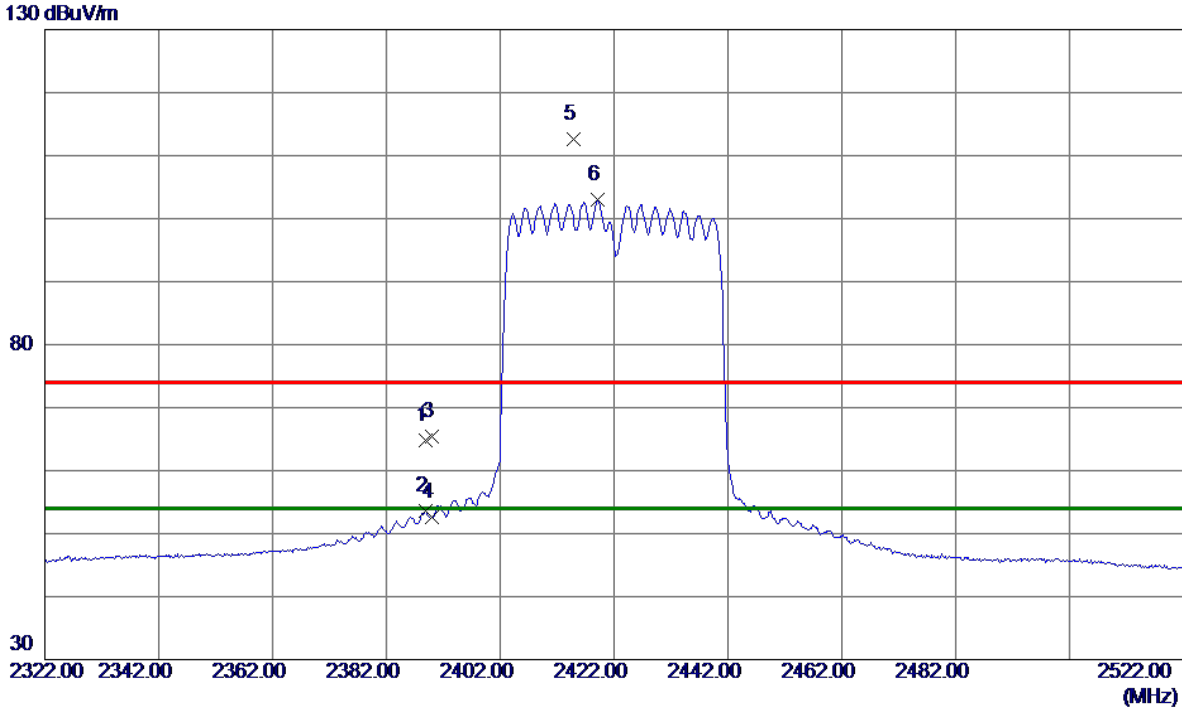
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4923.4670	43.34	8.25	51.59	74.00	-22.41	Peak	
2 *	4923.9150	29.28	8.26	37.54	54.00	-16.46	AVG	

**REMARKS:**

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

Test Mode: TX N-40M Mode 2422 MHz

### Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2388.9000	54.19	10.62	64.81	74.00	-9.19	Peak	
2	2388.9000	42.96	10.62	53.58	54.00	-0.42	AVG	
3	2390.0000	54.74	10.62	65.36	74.00	-8.64	Peak	
4	2390.0000	41.96	10.62	52.58	54.00	-1.42	AVG	
5	2414.9000	101.85	10.70	112.55	74.00	38.55	Peak	No Limit
6 *	2419.2000	92.22	10.71	102.93	54.00	48.93	AVG	No Limit

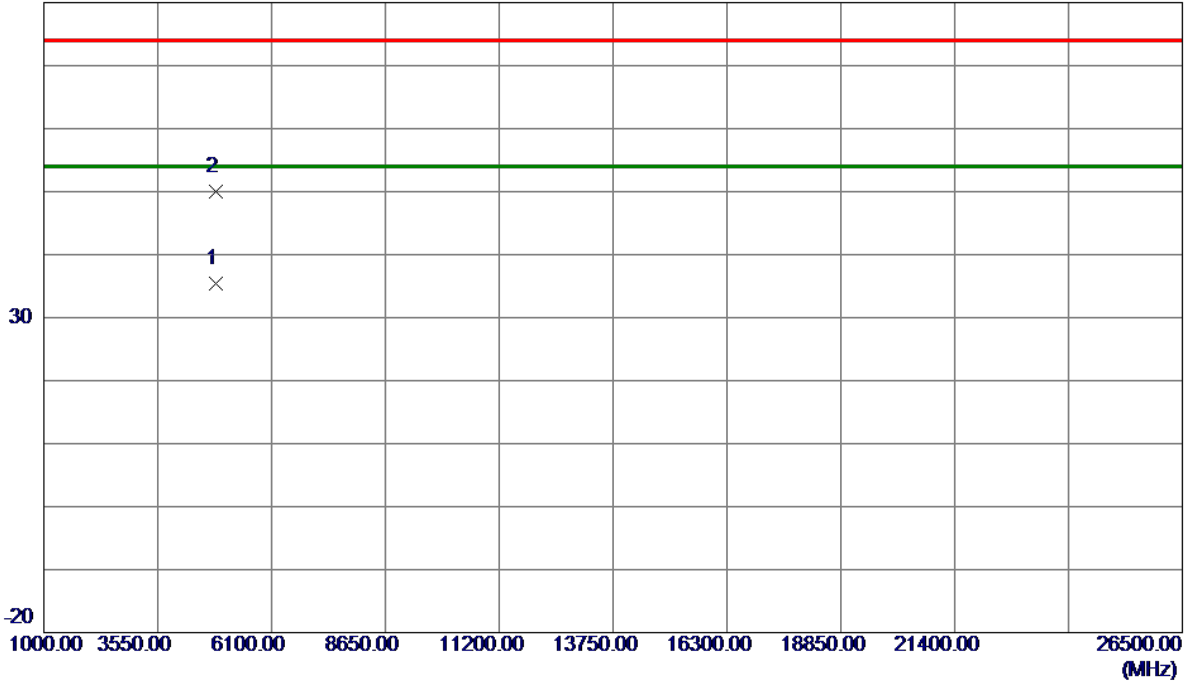
**REMARKS:**

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

Test Mode: TX N-40M Mode 2422 MHz

### Vertical

80 dBuV/m



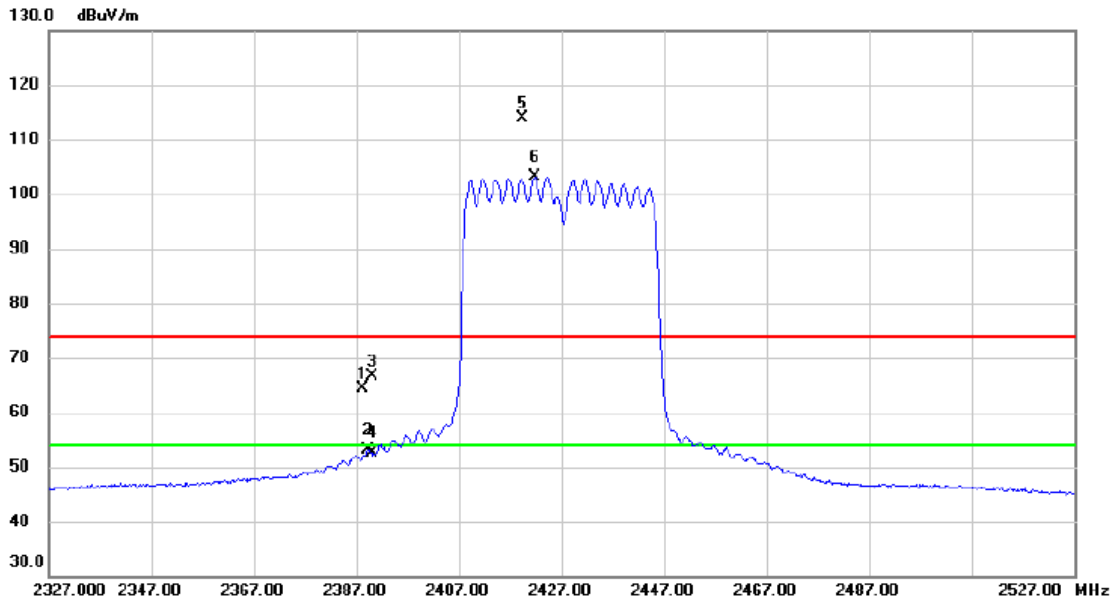
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	4843.7400	27.37	7.94	35.31	54.00	-18.69	AVG	
2	4844.0170	42.15	7.94	50.09	74.00	-23.91	Peak	

**REMARKS:**

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

Test Mode: TX N-40M Mode 2427 MHz

### Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		2388.300	53.79	10.62	64.41	74.00	-9.59	peak	
2		2389.300	42.62	10.63	53.25	54.00	-0.75	AVG	
3		2390.000	55.93	10.63	66.56	74.00	-7.44	peak	
4		2390.000	41.90	10.63	52.53	54.00	-1.47	AVG	
5	X	2419.500	103.06	10.71	113.77	74.00	39.77	peak	No Limit
6	*	2421.900	92.50	10.72	103.22	54.00	49.22	AVG	No Limit

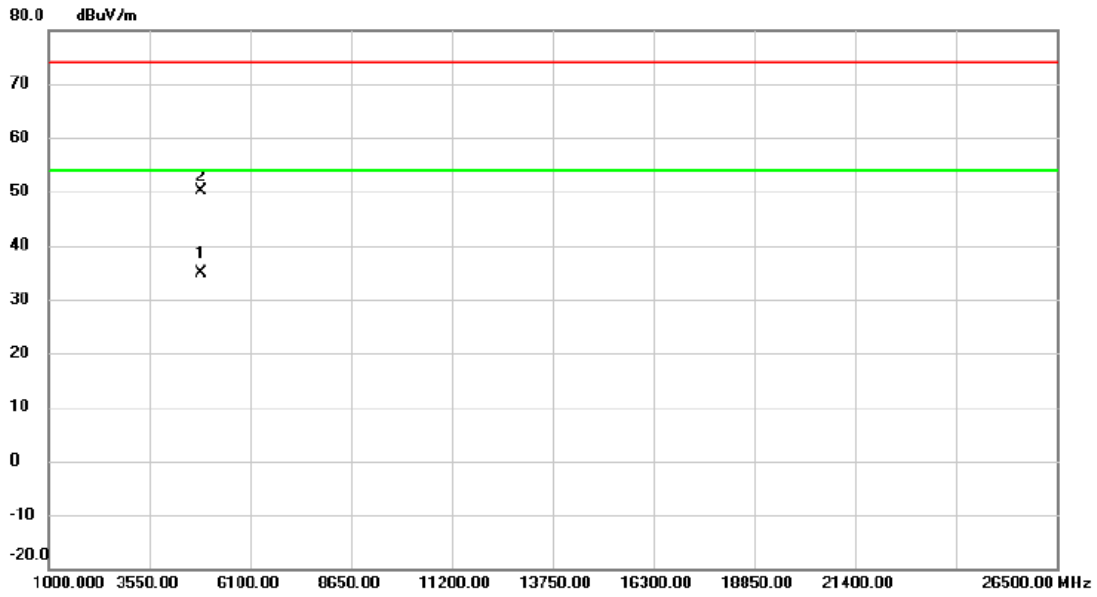
**REMARKS:**

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



Test Mode: TX N-40M Mode 2427 MHz

### Vertical



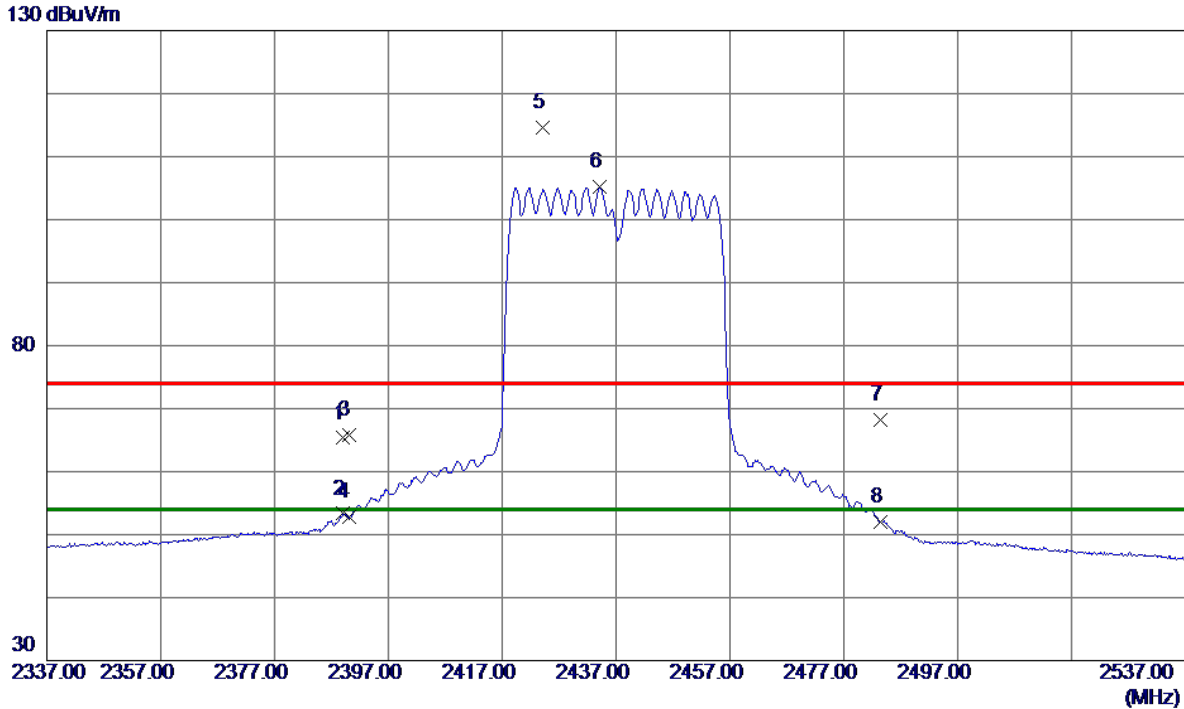
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	4853.738	26.98	7.98	34.96	54.00	-19.04	AVG	
2		4853.775	42.19	7.98	50.17	74.00	-23.83	peak	

**REMARKS:**

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

Test Mode: TX N-40M Mode 2437 MHz

**Vertical**



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2389.0000	54.68	10.62	65.30	74.00	-8.70	Peak	
2	2389.0000	42.68	10.62	53.30	54.00	-0.70	AVG	
3	2390.0000	55.16	10.62	65.78	74.00	-8.22	Peak	
4	2390.0000	42.20	10.62	52.82	54.00	-1.18	AVG	
5	2424.2000	103.89	10.72	114.61	74.00	40.61	Peak	No Limit
6 *	2434.1000	94.43	10.75	105.18	54.00	51.18	AVG	No Limit
7	2483.5000	57.35	10.90	68.25	74.00	-5.75	Peak	
8	2483.5000	41.16	10.90	52.06	54.00	-1.94	AVG	

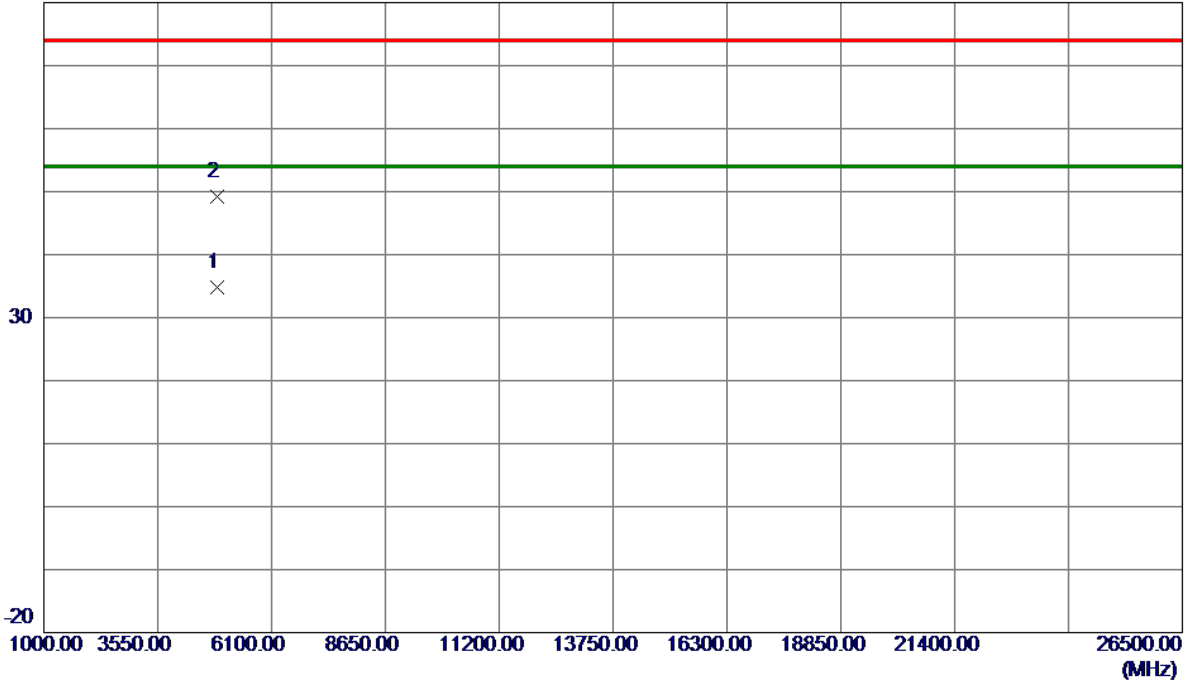
**REMARKS:**

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

Test Mode: TX N-40M Mode 2437 MHz

### Vertical

80 dBuV/m



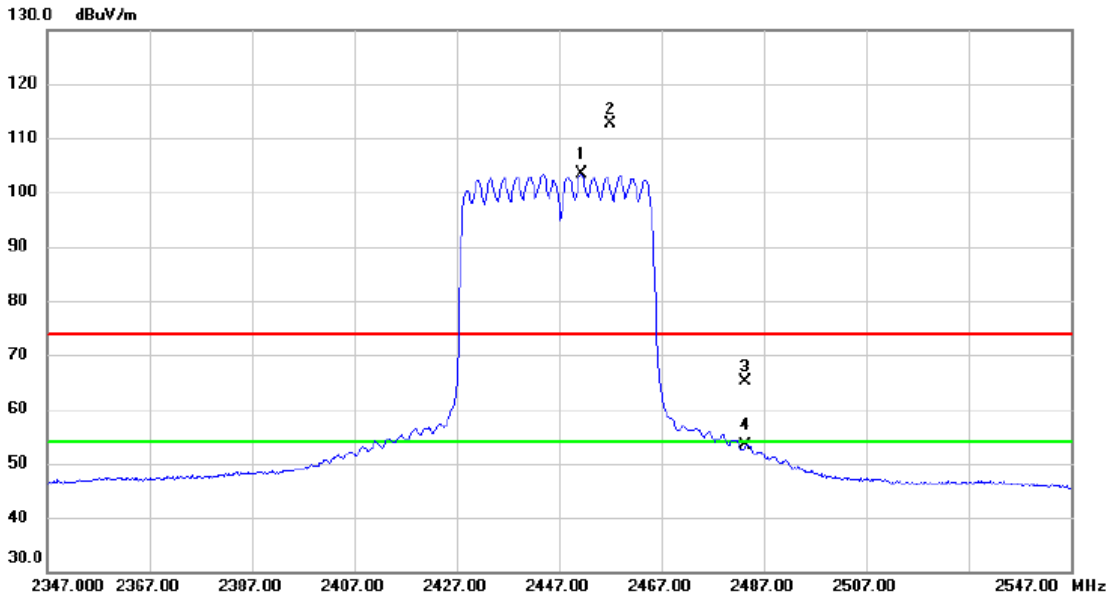
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	4873.6820	26.66	8.06	34.72	54.00	-19.28	AVG	
2	4873.8600	41.18	8.06	49.24	74.00	-24.76	Peak	

**REMARKS:**

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

Test Mode: TX N-40M Mode 2447 MHz

### Vertical



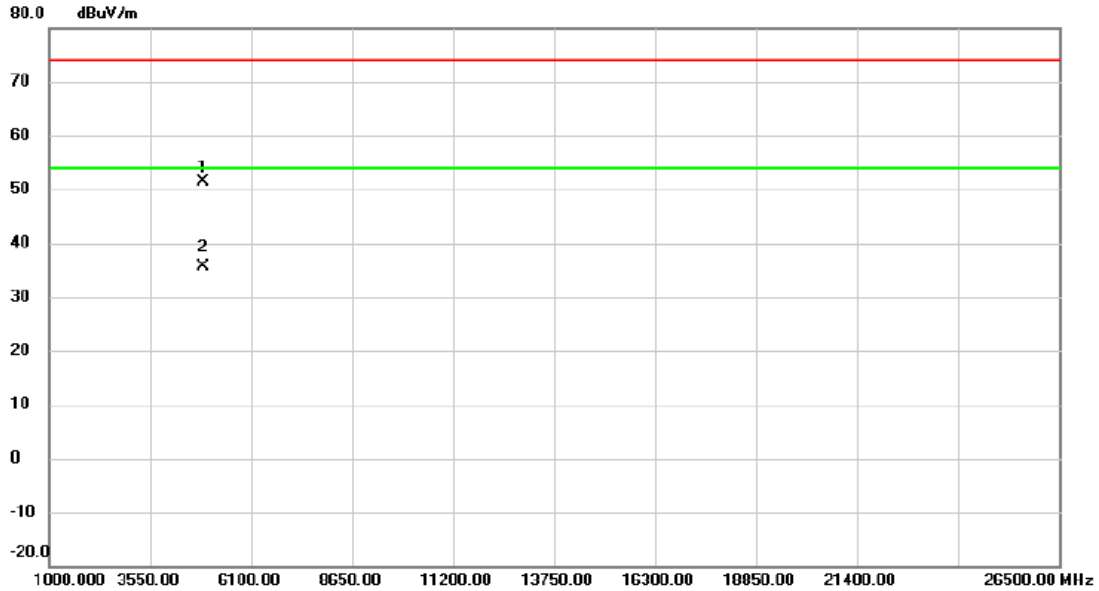
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	2451.300	92.59	10.80	103.39	54.00	49.39	AVG	No Limit
2	X	2457.100	101.72	10.83	112.55	74.00	38.55	peak	No Limit
3		2483.500	54.26	10.90	65.16	74.00	-8.84	peak	
4		2483.500	42.43	10.90	53.33	54.00	-0.67	AVG	

**REMARKS:**

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

Test Mode: TX N-40M Mode 2447 MHz

### Vertical



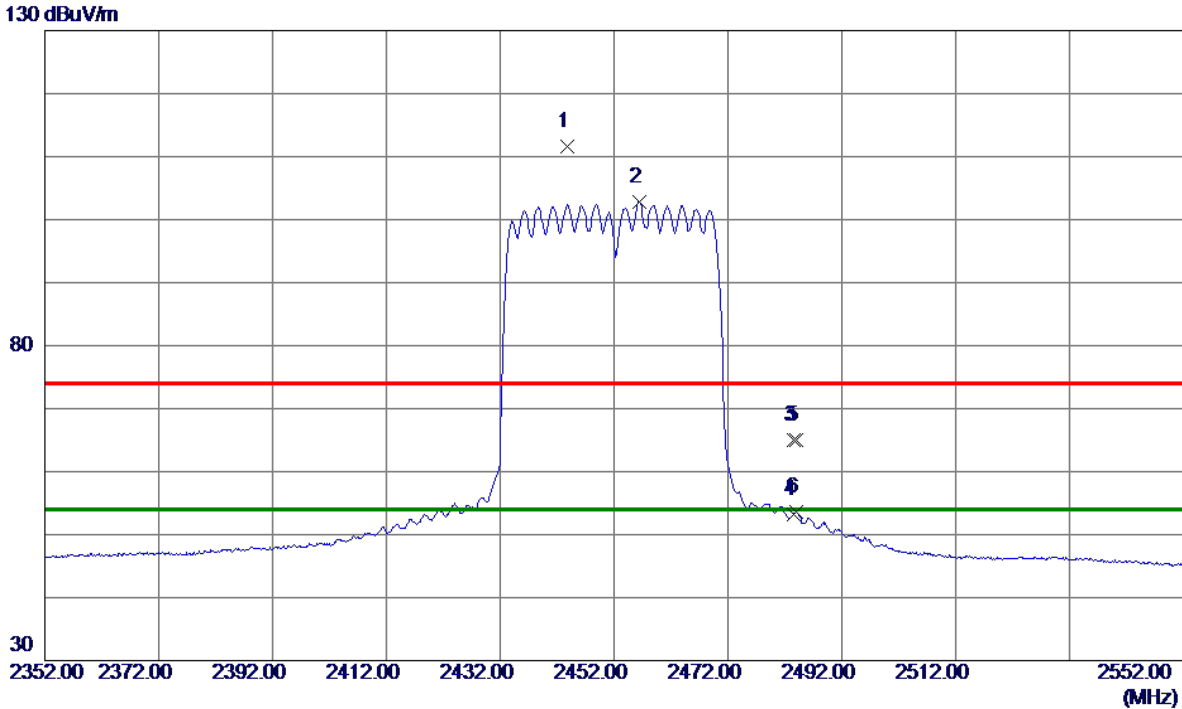
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		4893.542	43.19	8.13	51.32	74.00	-22.68	peak	
2	*	4893.708	27.48	8.13	35.61	54.00	-18.39	AVG	

**REMARKS:**

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

Test Mode: TX N-40M Mode 2452 MHz

**Vertical**



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2443.8000	100.88	10.78	111.66	74.00	37.66	Peak	No Limit
2 *	2456.4000	91.96	10.82	102.78	54.00	48.78	AVG	No Limit
3	2483.5000	54.12	10.90	65.02	74.00	-8.98	Peak	
4	2483.5000	42.32	10.90	53.22	54.00	-0.78	AVG	
5	2484.0000	54.10	10.90	65.00	74.00	-9.00	Peak	
6	2484.0000	42.73	10.90	53.63	54.00	-0.37	AVG	

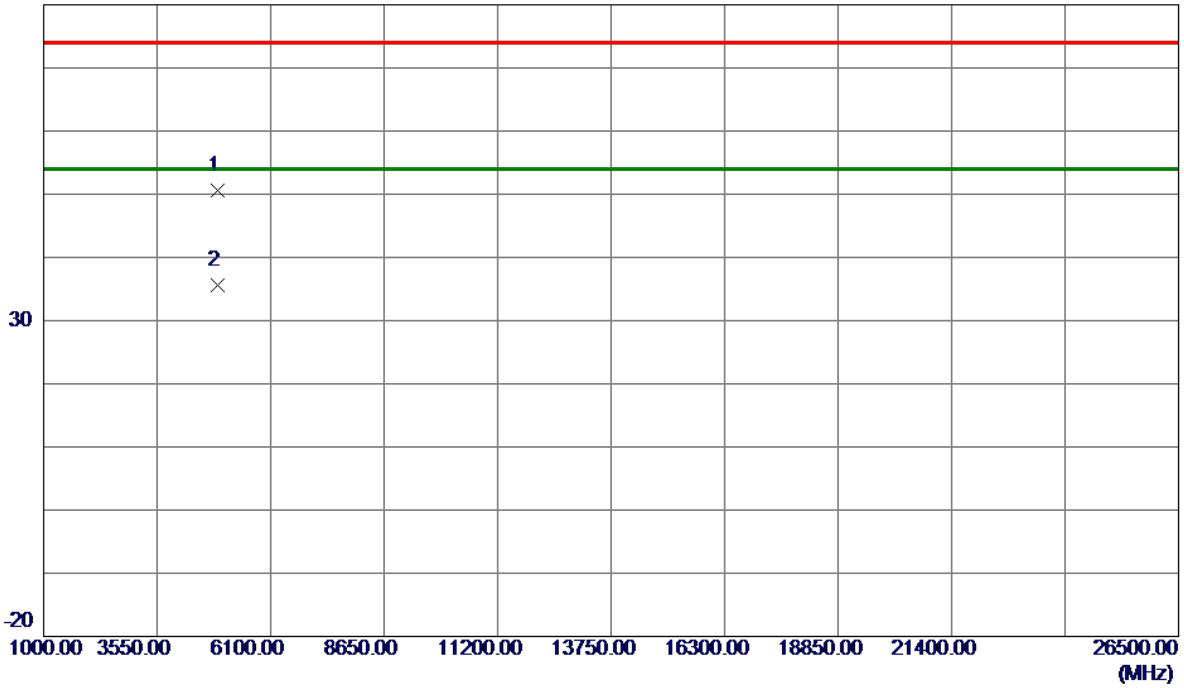
**REMARKS:**

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

Test Mode: TX N-40M Mode 2452 MHz

### Vertical

80 dBuV/m



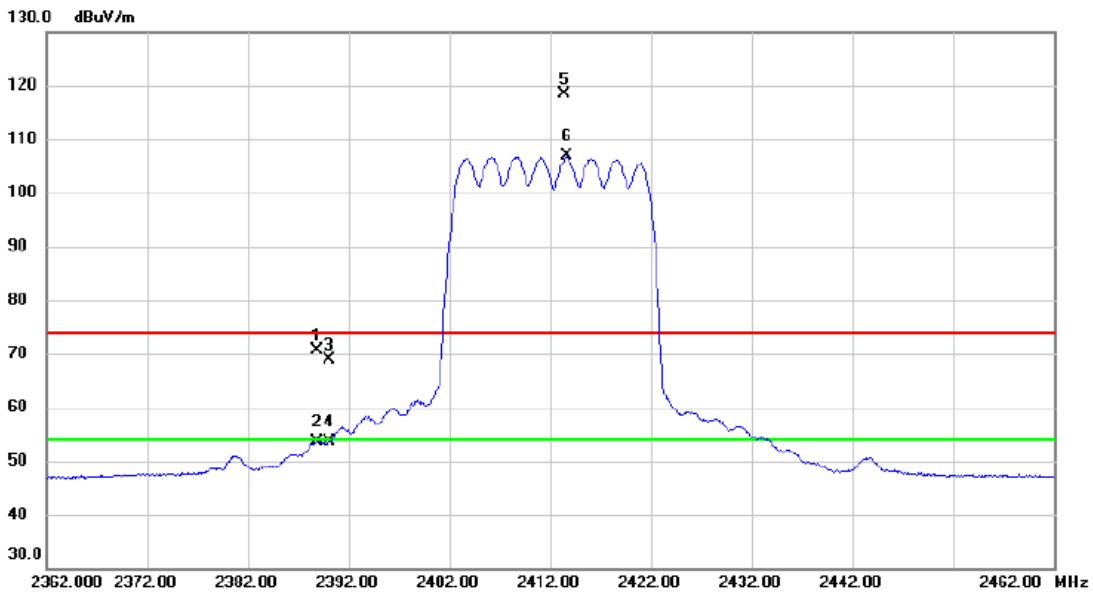
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4903.6580	42.46	8.18	50.64	74.00	-23.36	Peak	
2 *	4903.7270	27.45	8.18	35.63	54.00	-18.37	AVG	

**REMARKS:**

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

Test Mode: TX AX-20M Mode 2412 MHz

### Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		2388.900	60.00	10.63	70.63	74.00	-3.37	peak	
2		2388.900	43.06	10.63	53.69	54.00	-0.31	AVG	
3		2390.000	58.17	10.63	68.80	74.00	-5.20	peak	
4		2390.000	42.96	10.63	53.59	54.00	-0.41	AVG	
5	X	2413.350	107.69	10.69	118.38	74.00	44.38	peak	No Limit
6	*	2413.700	96.20	10.69	106.89	54.00	52.89	AVG	No Limit

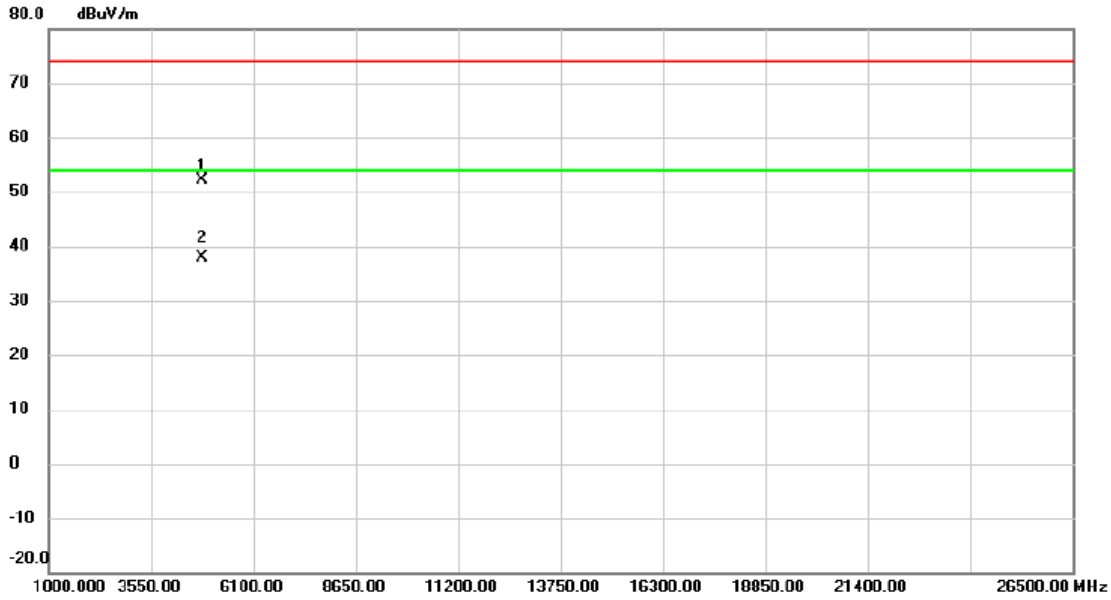
**REMARKS:**

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



Test Mode: TX AX-20M Mode 2412 MHz

### Vertical



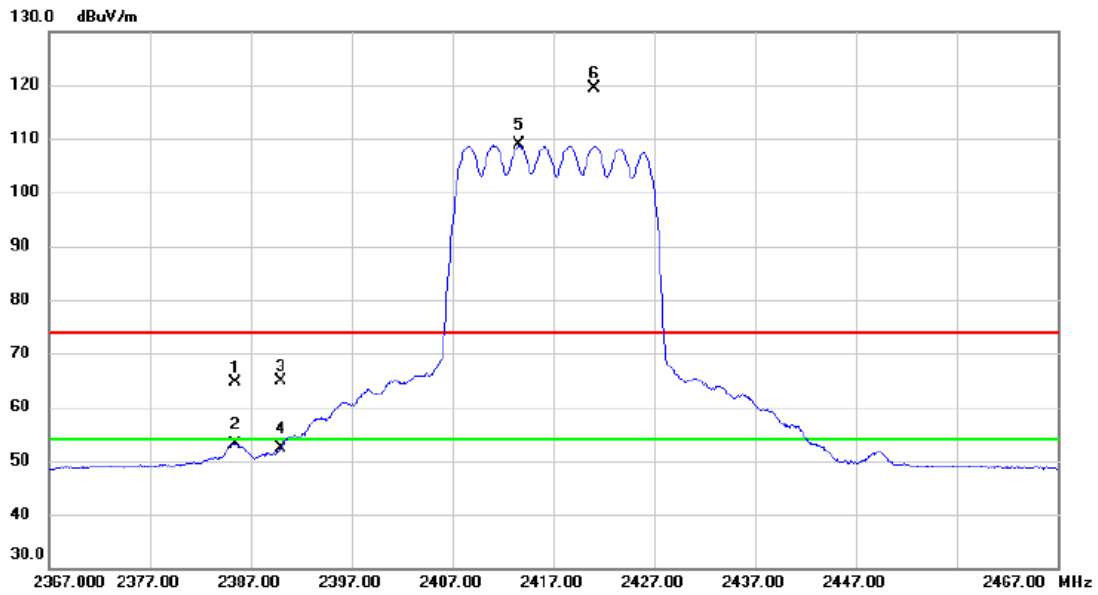
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		4823.221	44.19	7.86	52.05	74.00	-21.95	peak	
2	*	4823.789	30.05	7.86	37.91	54.00	-16.09	AVG	

**REMARKS:**

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

Test Mode: TX AX-20M Mode 2417 MHz

### Vertical



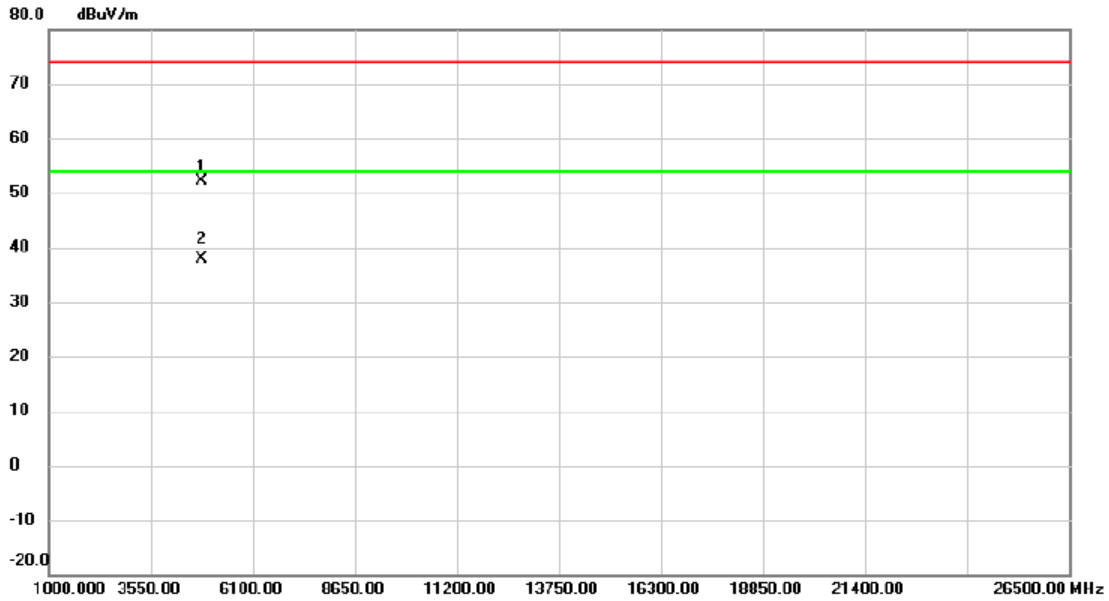
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		2385.450	53.93	10.61	64.54	74.00	-9.46	peak	
2		2385.450	42.62	10.61	53.23	54.00	-0.77	AVG	
3		2390.000	54.23	10.63	64.86	74.00	-9.14	peak	
4		2390.000	41.83	10.63	52.46	54.00	-1.54	AVG	
5	*	2413.650	98.12	10.69	108.81	54.00	54.81	AVG	No Limit
6	X	2421.000	108.73	10.72	119.45	74.00	45.45	peak	No Limit

**REMARKS:**

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

Test Mode: TX AX-20M Mode 2417 MHz

### Vertical



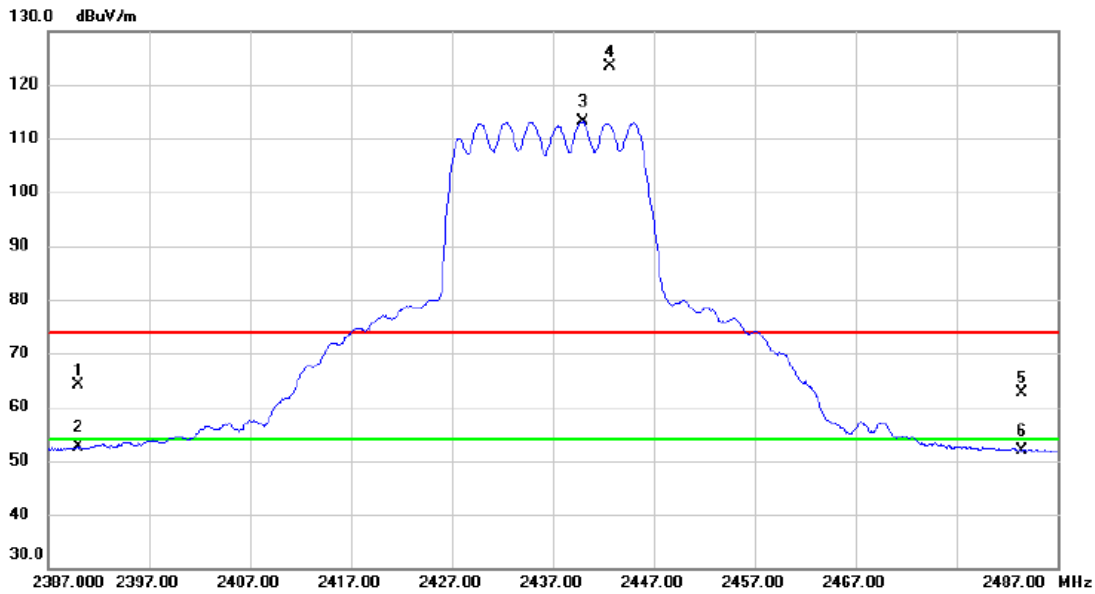
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		4833.476	44.32	7.89	52.21	74.00	-21.79	peak	
2	*	4833.663	29.99	7.89	37.88	54.00	-16.12	AVG	

**REMARKS:**

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

Test Mode: TX AX-20M Mode 2437 MHz

### Vertical



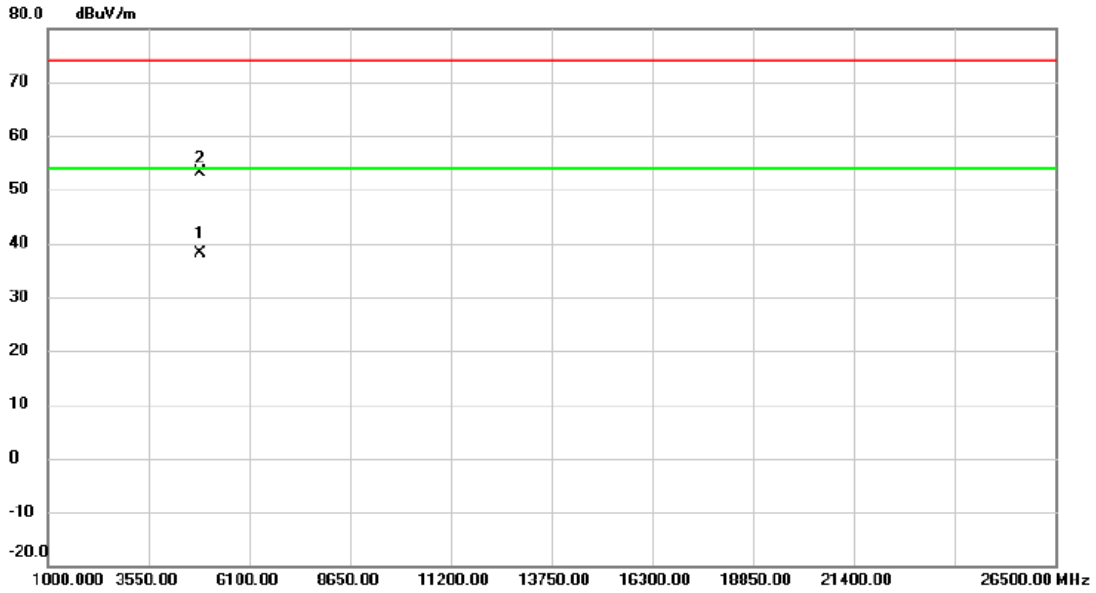
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		2390.000	53.58	10.63	64.21	74.00	-9.79	peak	
2		2390.000	41.98	10.63	52.61	54.00	-1.39	AVG	
3	*	2439.950	102.24	10.77	113.01	54.00	59.01	AVG	No Limit
4	X	2442.650	112.58	10.78	123.36	74.00	49.36	peak	No Limit
5		2483.500	51.72	10.90	62.62	74.00	-11.38	peak	
6		2483.500	41.05	10.90	51.95	54.00	-2.05	AVG	

**REMARKS:**

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

Test Mode: TX AX-20M Mode 2437 MHz

### Vertical



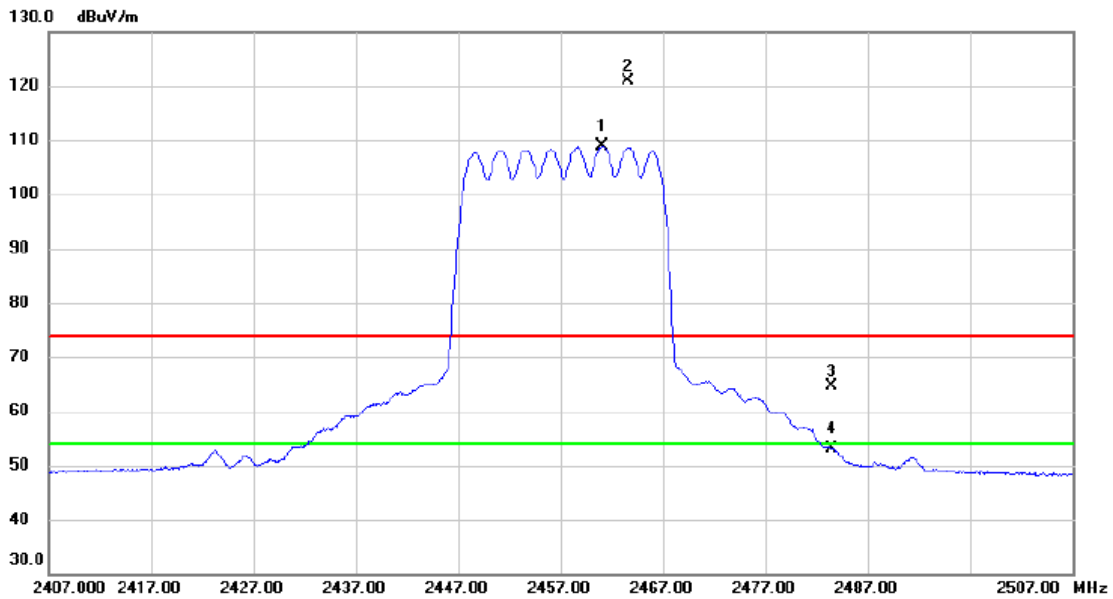
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	4873.611	30.06	8.05	38.11	54.00	-15.89	AVG	
2		4873.633	45.19	8.05	53.24	74.00	-20.76	peak	

**REMARKS:**

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

Test Mode: TX AX-20M Mode 2457 MHz

### Vertical



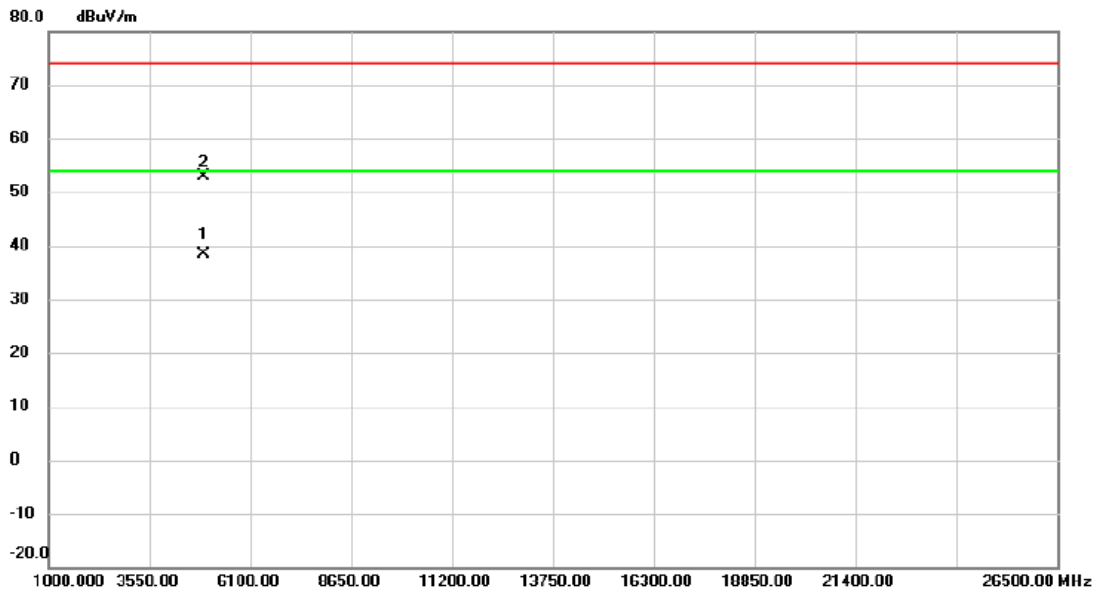
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	2461.100	98.06	10.83	108.89	54.00	54.89	AVG	No Limit
2	X	2463.600	110.07	10.84	120.91	74.00	46.91	peak	No Limit
3		2483.500	53.85	10.90	64.75	74.00	-9.25	peak	
4		2483.500	42.18	10.90	53.08	54.00	-0.92	AVG	

**REMARKS:**

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

Test Mode: TX AX-20M Mode 2457 MHz

### Vertical



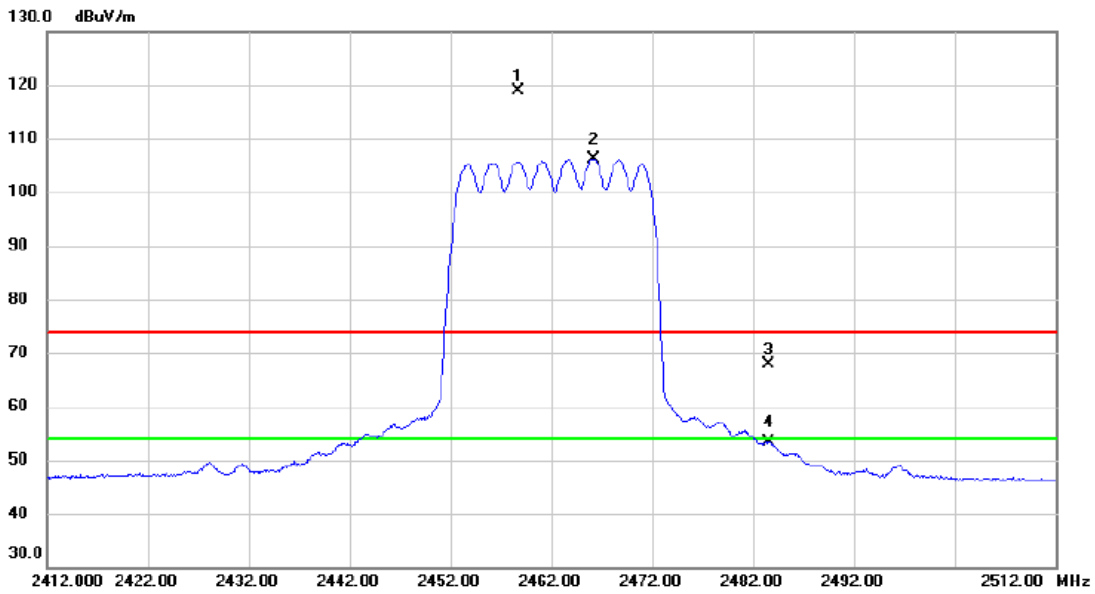
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	4913.569	30.25	8.22	38.47	54.00	-15.53	AVG	
2		4913.902	44.65	8.22	52.87	74.00	-21.13	peak	

**REMARKS:**

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

Test Mode: TX AX-20M Mode 2462 MHz

### Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	X	2458.750	108.00	10.83	118.83	74.00	44.83	peak	No Limit
2	*	2466.150	95.34	10.86	106.20	54.00	52.20	AVG	No Limit
3		2483.500	57.00	10.90	67.90	74.00	-6.10	peak	
4		2483.500	42.45	10.90	53.35	54.00	-0.65	AVG	

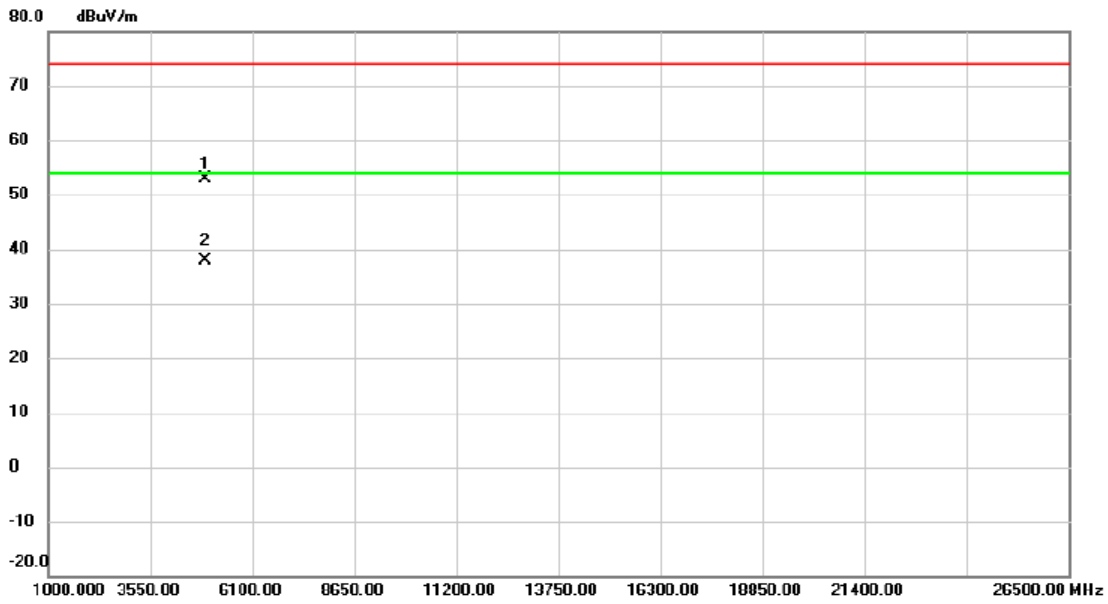
**REMARKS:**

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



Test Mode: TX AX-20M Mode 2462 MHz

### Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		4923.778	44.51	8.26	52.77	74.00	-21.23	peak	
2	*	4923.813	29.62	8.26	37.88	54.00	-16.12	AVG	

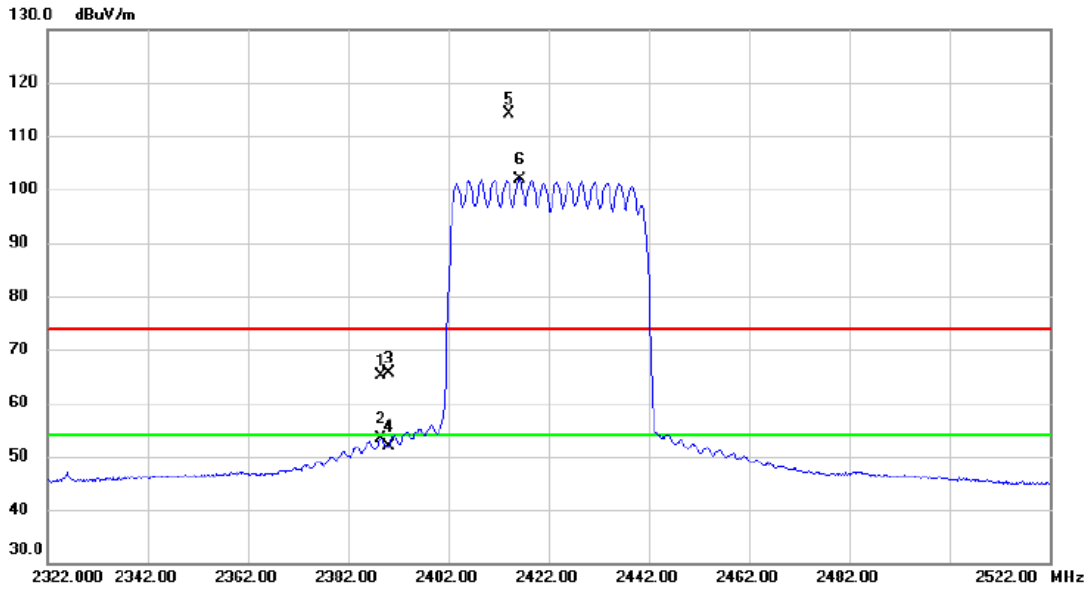
**REMARKS:**

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

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

Test Mode: TX AX-40M Mode 2422 MHz

### Vertical



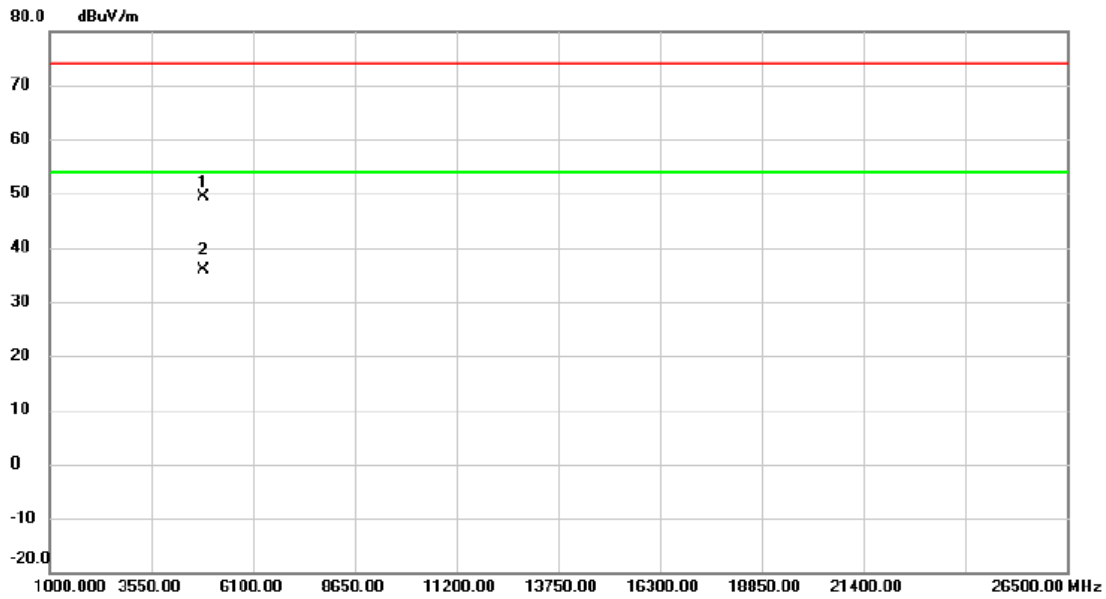
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		2388.500	54.41	10.62	65.03	74.00	-8.97	peak	
2		2388.500	42.85	10.62	53.47	54.00	-0.53	AVG	
3		2390.000	55.12	10.63	65.75	74.00	-8.25	peak	
4		2390.000	41.37	10.63	52.00	54.00	-2.00	AVG	
5	X	2414.000	103.49	10.69	114.18	74.00	40.18	peak	No Limit
6	*	2416.200	91.19	10.70	101.89	54.00	47.89	AVG	No Limit

**REMARKS:**

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

Test Mode: TX AX-40M Mode 2422 MHz

### Vertical



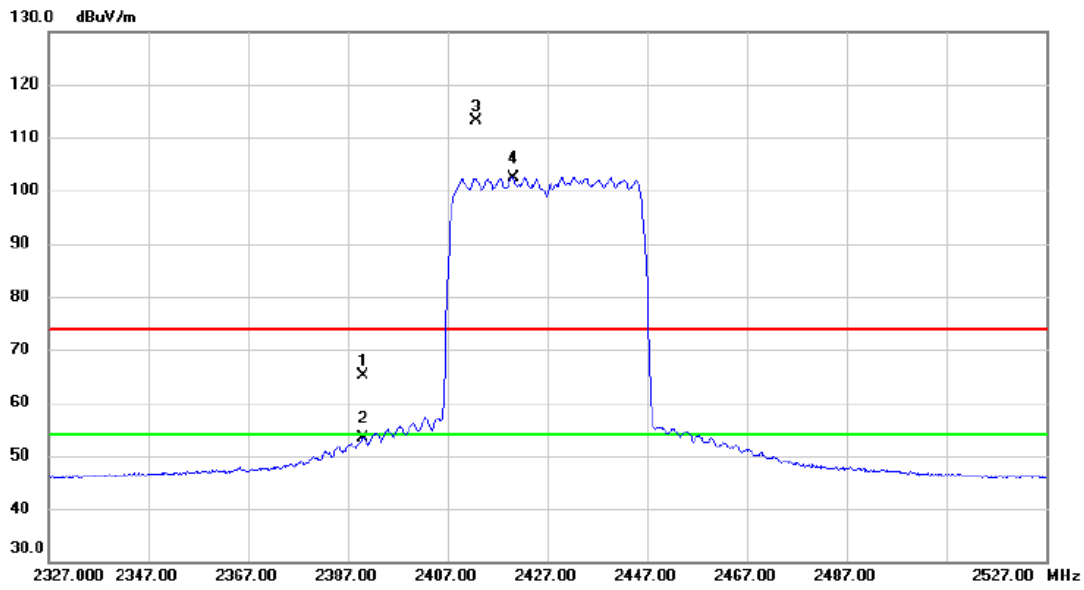
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		4843.767	41.40	7.93	49.33	74.00	-24.67	peak	
2	*	4843.875	28.01	7.93	35.94	54.00	-18.06	AVG	

**REMARKS:**

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

Test Mode: TX AX-40M Mode 2427 MHz

### Vertical



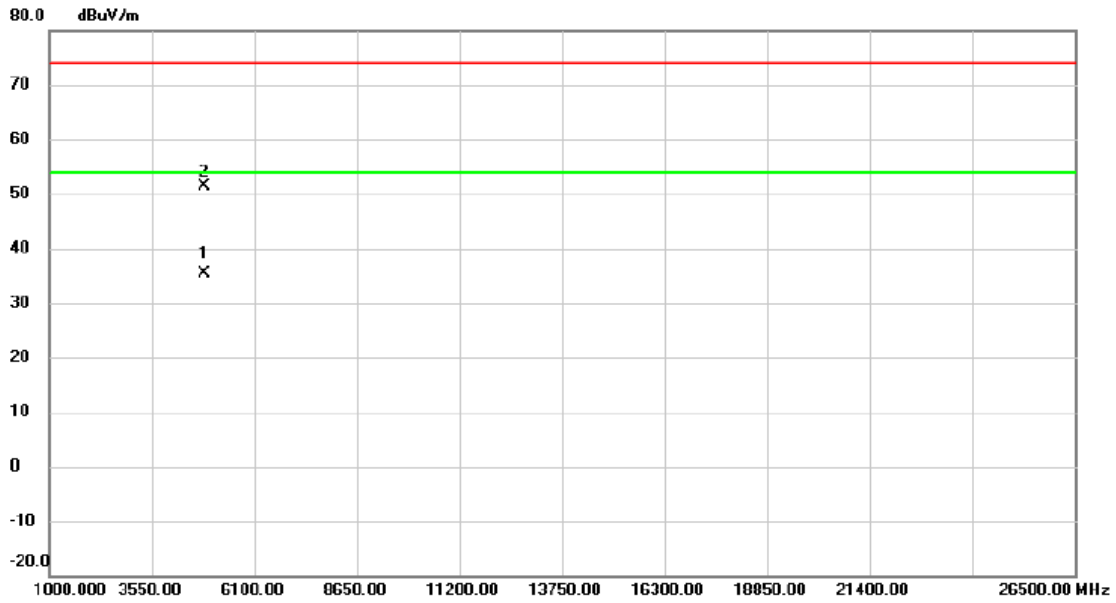
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		2390.000	54.41	10.63	65.04	74.00	-8.96	peak	
2		2390.000	42.71	10.63	53.34	54.00	-0.66	AVG	
3	X	2412.700	102.39	10.69	113.08	74.00	39.08	peak	No Limit
4	*	2420.100	91.69	10.71	102.40	54.00	48.40	AVG	No Limit

**REMARKS:**

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

Test Mode: TX AX-40M Mode 2427 MHz

### Vertical



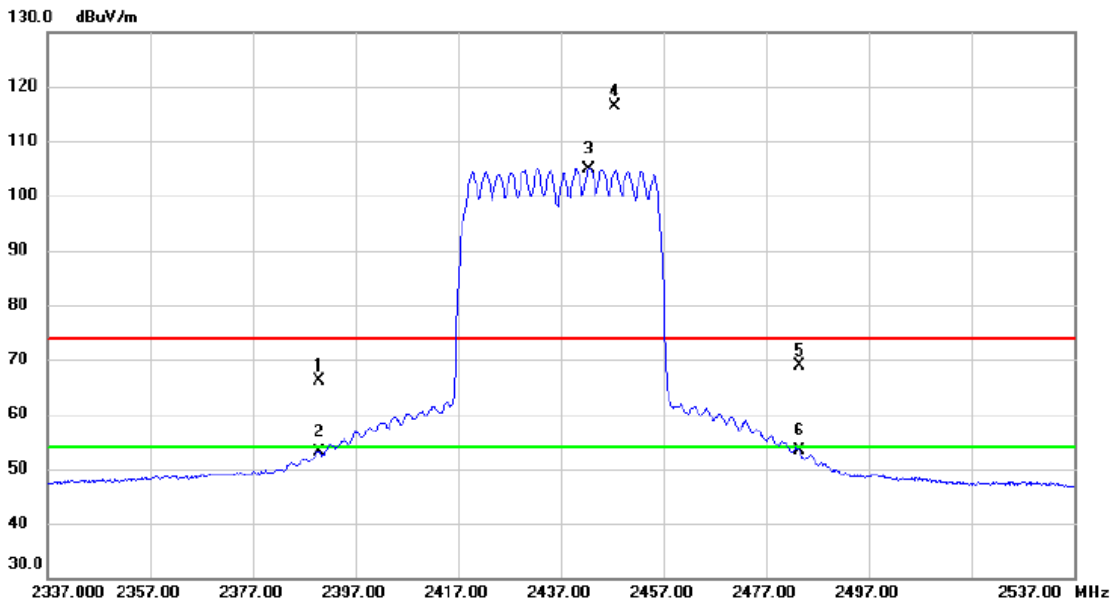
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	4853.573	27.46	7.98	35.44	54.00	-18.56	AVG	
2		4853.727	43.33	7.98	51.31	74.00	-22.69	peak	

**REMARKS:**

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

Test Mode: TX AX-40M Mode 2437 MHz

### Vertical



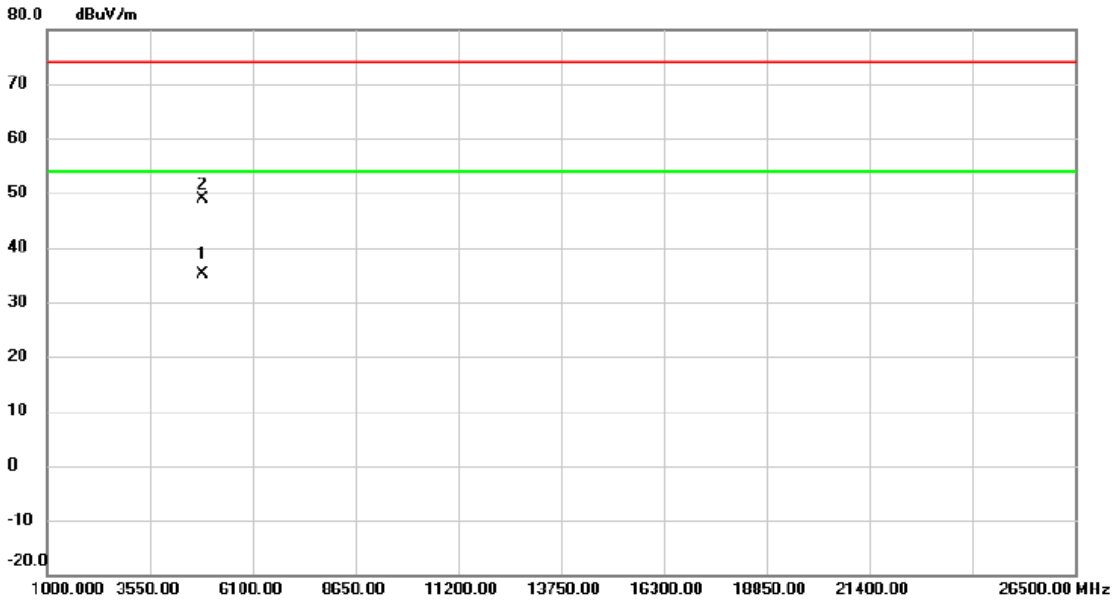
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		2390.000	55.46	10.63	66.09	74.00	-7.91	peak	
2		2390.000	42.53	10.63	53.16	54.00	-0.84	AVG	
3	*	2442.600	94.19	10.78	104.97	54.00	50.97	AVG	No Limit
4	X	2447.400	105.51	10.79	116.30	74.00	42.30	peak	No Limit
5		2483.500	57.87	10.90	68.77	74.00	-5.23	peak	
6		2483.500	42.41	10.90	53.31	54.00	-0.69	AVG	

**REMARKS:**

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

Test Mode: TX AX-40M Mode 2437 MHz

### Vertical



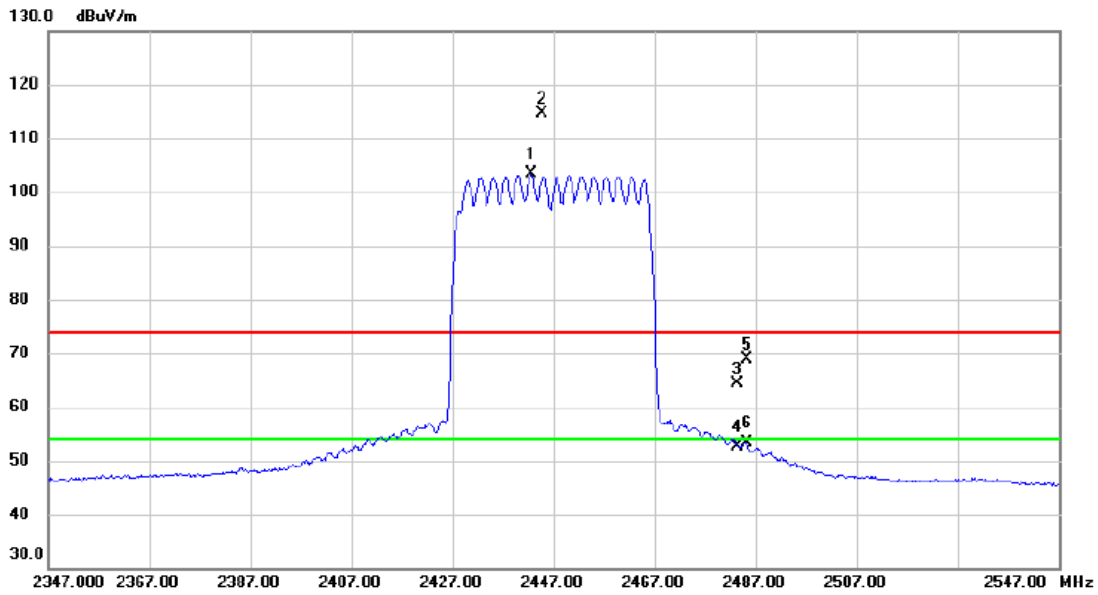
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	4873.720	27.16	8.05	35.21	54.00	-18.79	AVG	
2		4873.953	40.92	8.06	48.98	74.00	-25.02	peak	

**REMARKS:**

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

Test Mode: TX AX-40M Mode 2447 MHz

### Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	2442.700	92.66	10.78	103.44	54.00	49.44	AVG	No Limit
2	X	2444.800	103.86	10.79	114.65	74.00	40.65	peak	No Limit
3		2483.500	53.54	10.90	64.44	74.00	-9.56	peak	
4		2483.500	41.78	10.90	52.68	54.00	-1.32	AVG	
5		2485.200	57.88	10.91	68.79	74.00	-5.21	peak	
6		2485.200	42.43	10.91	53.34	54.00	-0.66	AVG	

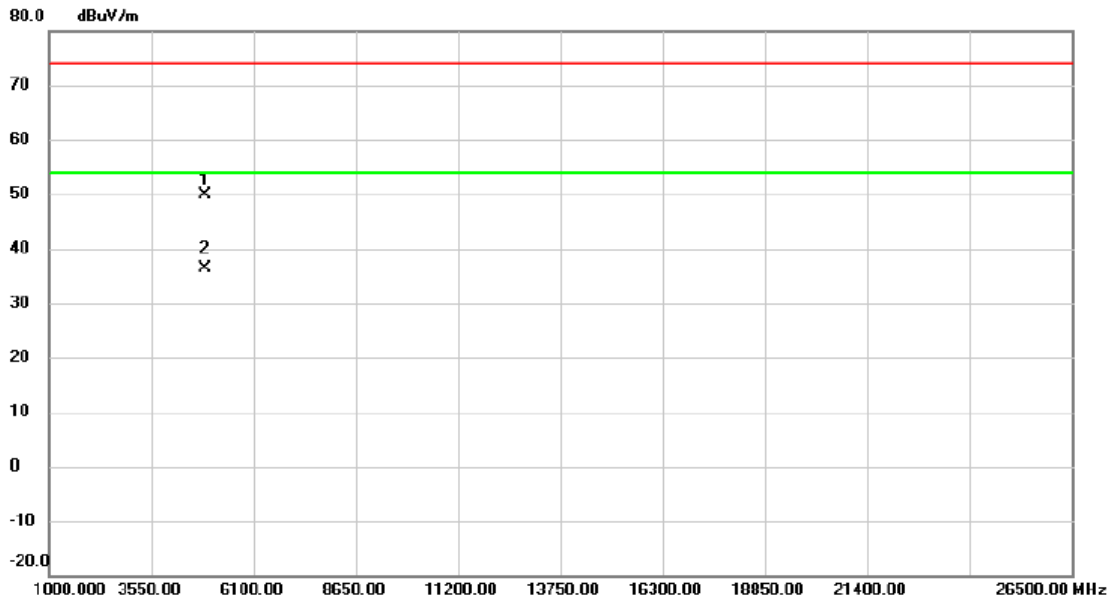
**REMARKS:**

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



Test Mode: TX AX-40M Mode 2447 MHz

### Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		4893.297	41.75	8.13	49.88	74.00	-24.12	peak	
2	*	4893.667	28.30	8.13	36.43	54.00	-17.57	AVG	

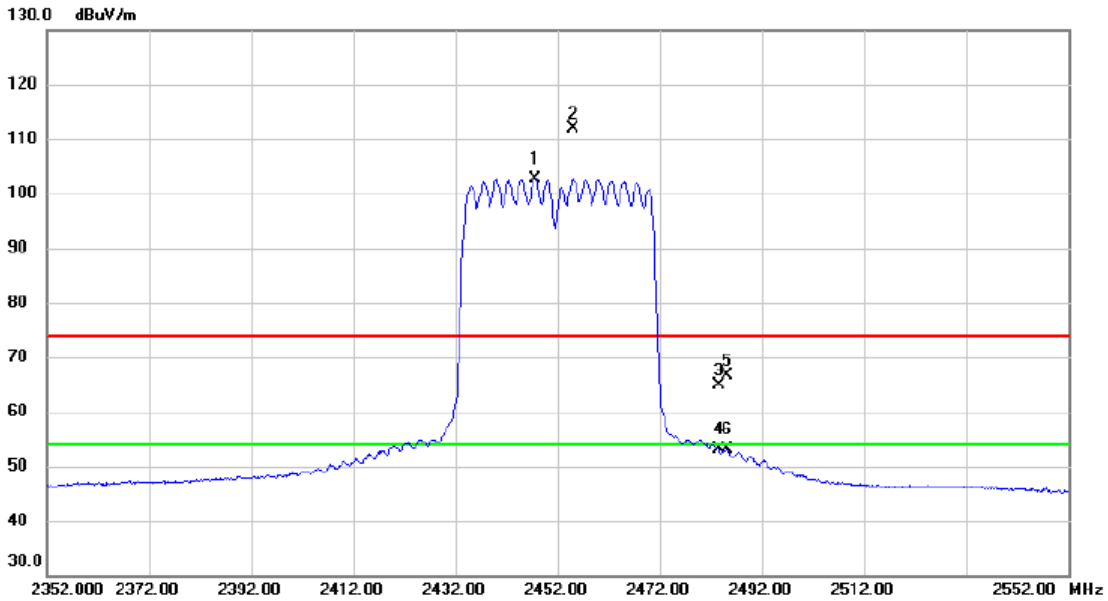
**REMARKS:**

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

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

Test Mode: TX AX-40M Mode 2452 MHz

### Vertical



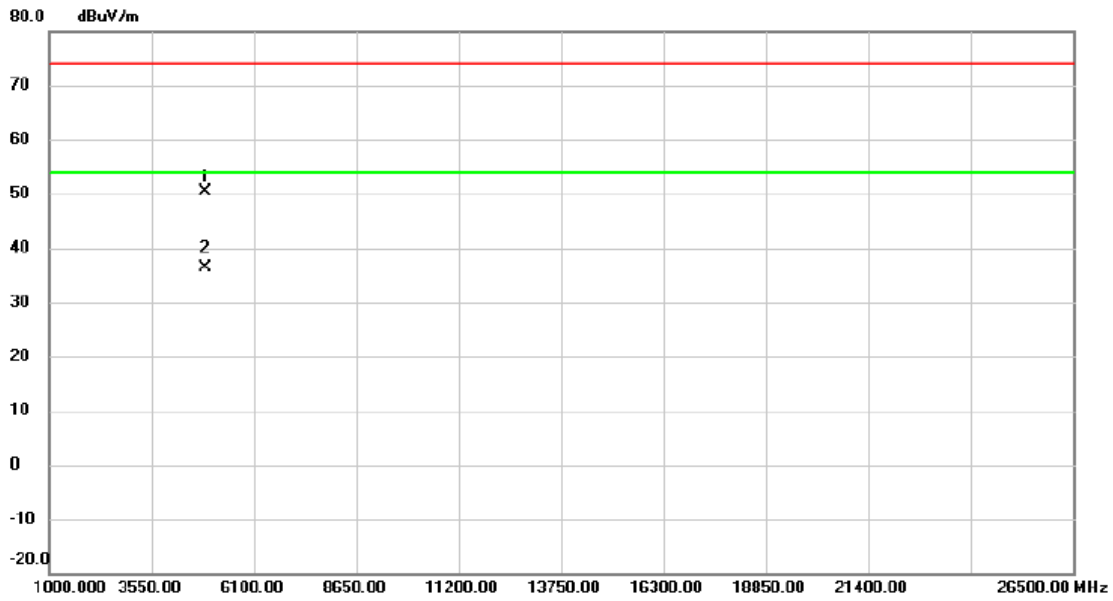
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	2447.700	91.92	10.79	102.71	54.00	48.71	AVG	No Limit
2	X	2455.100	101.15	10.81	111.96	74.00	37.96	peak	No Limit
3		2483.500	53.98	10.90	64.88	74.00	-9.12	peak	
4		2483.500	42.12	10.90	53.02	54.00	-0.98	AVG	
5		2485.200	55.84	10.91	66.75	74.00	-7.25	peak	
6		2485.200	42.28	10.91	53.19	54.00	-0.81	AVG	

**REMARKS:**

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

Test Mode: TX AX-40M Mode 2452 MHz

### Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		4903.573	42.18	8.18	50.36	74.00	-23.64	peak	
2	*	4903.852	28.13	8.19	36.32	54.00	-17.68	AVG	

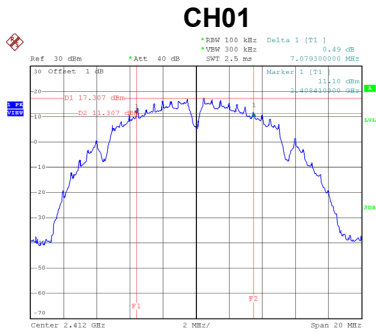
**REMARKS:**

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

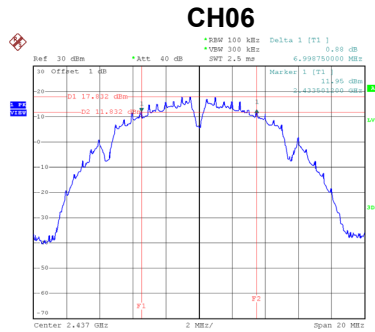
## APPENDIX E - BANDWIDTH

Test Mode	TX B Mode
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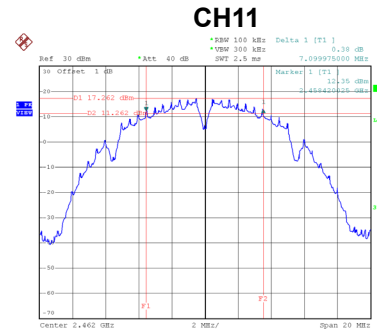
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
01	2412	7.08	500	Complies
06	2437	7.00	500	Complies
11	2462	7.10	500	Complies



Date: 11.SEP.2020 09:40:41

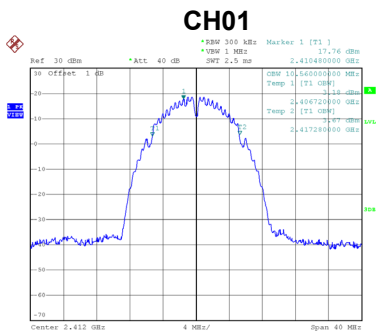


Date: 11.SEP.2020 09:44:03

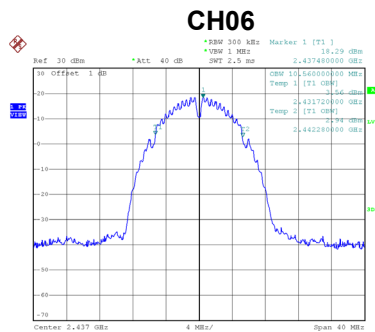


Date: 11.SEP.2020 09:46:35

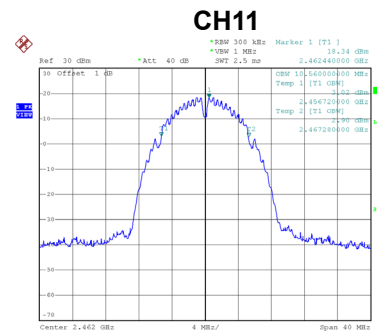
Channel	Frequency (MHz)	99 % Emission Bandwidth (MHz)	Result
01	2412	10.56	Complies
06	2437	10.56	Complies
11	2462	10.56	Complies



Date: 11.SEP.2020 09:40:49



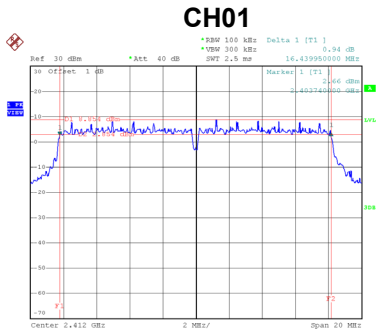
Date: 11.SEP.2020 09:44:11



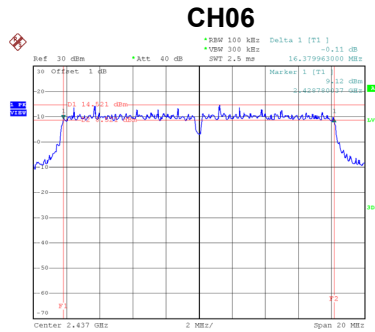
Date: 11.SEP.2020 09:46:43

Test Mode	TX G Mode
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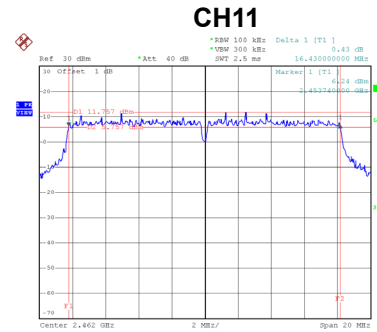
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
01	2412	16.44	500	Complies
06	2437	16.38	500	Complies
11	2462	16.43	500	Complies



Date: 11.SEP.2020 09:50:16

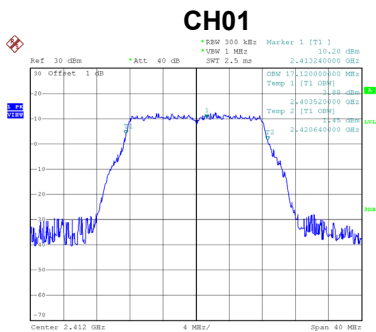


Date: 11.SEP.2020 09:51:59

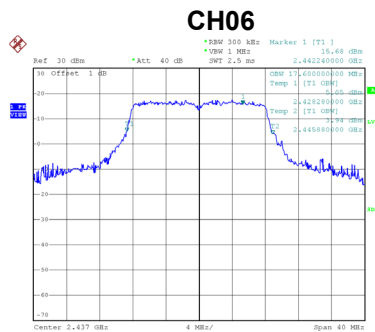


Date: 11.SEP.2020 09:54:54

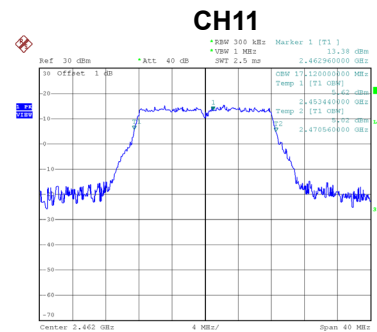
Channel	Frequency (MHz)	99 % Emission Bandwidth (MHz)	Result
01	2412	17.12	Complies
06	2437	17.60	Complies
11	2462	17.12	Complies



Date: 11.SEP.2020 09:50:25



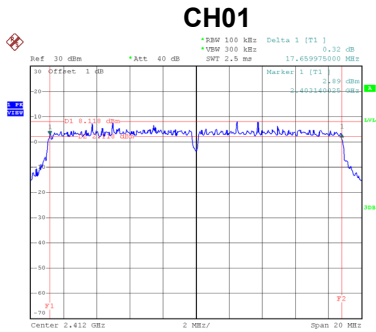
Date: 11.SEP.2020 09:52:06



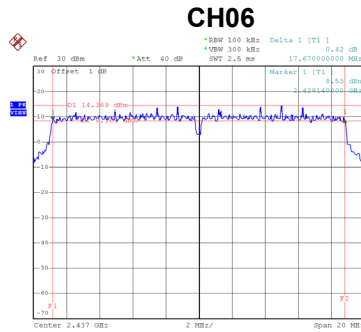
Date: 11.SEP.2020 09:55:03

Test Mode	TX N-20M Mode
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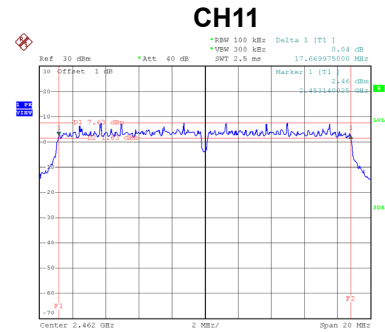
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
01	2412	17.66	500	Complies
06	2437	17.67	500	Complies
11	2462	17.67	500	Complies



Date: 11.SEP.2020 09:56:51

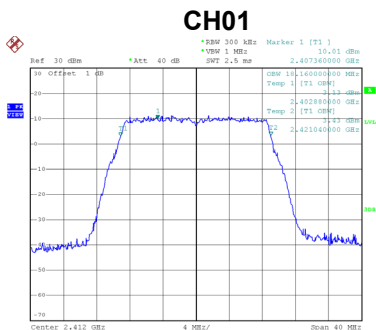


Date: 11.SEP.2020 09:59:38

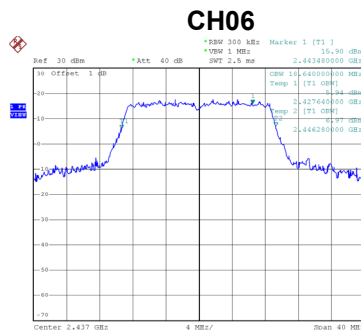


Date: 11.SEP.2020 10:03:15

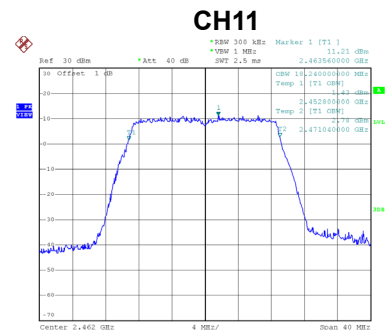
Channel	Frequency (MHz)	99 % Emission Bandwidth (MHz)	Result
01	2412	18.16	Complies
06	2437	18.64	Complies
11	2462	18.24	Complies



Date: 11.SEP.2020 09:56:59



Date: 11.SEP.2020 09:59:46



Date: 11.SEP.2020 10:03:23