

# FCC Radio Test Report

## FCC ID: QISBAH2-W19A

This report concerns: Original Grant

**Project No.** : 1904C015  
**Equipment** : Tablet  
**Test Model** : BAH2-W19  
**Series Model** : N/A  
**Applicant** : Huawei Technologies Co., Ltd.  
**Address** : Administration Building, Headquarters of Huawei Technologies Co., Ltd., Bantian, Longgang District, Shenzhen, 518129, China

**Date of Receipt** : Apr. 03, 2019  
**Date of Test** : Apr. 08, 2019 ~ Apr. 23, 2019  
**Issued Date** : Apr. 24, 2019  
**Tested by** : BTL Inc.

**Testing Engineer** : Vincent Tan  
(Vincent Tan)

**Technical Manager** : Steven Lu  
(Steven Lu)

**Authorized Signatory** : Ethan Ma  
(Ethan Ma)

# **B T L I N C .**

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

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



Certificate #5123.02

## Declaration

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

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

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

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

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

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

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

## Limitation

For the use of the authority's logo is limited unless the Test Standard(s)/Scope(s)/Item(s) mentioned in this test report is (are) included in the conformity assessment authorities acceptance respective.

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

**Table of Contents****Page**

<b>REPORT ISSUED HISTORY</b>	<b>6</b>
<b>1 . GENERAL SUMMARY</b>	<b>7</b>
<b>2 . SUMMARY OF TEST RESULTS</b>	<b>8</b>
2.1 TEST FACILITY	9
2.2 MEASUREMENT UNCERTAINTY	9
<b>3 . GENERAL INFORMATION</b>	<b>10</b>
3.1 GENERAL DESCRIPTION OF EUT	10
3.2 DESCRIPTION OF TEST MODES	12
3.3 PARAMETERS OF TEST SOFTWARE	13
3.4 DUTY CYCLE	14
3.5 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED	15
3.6 SUPPORT UNITS	15
<b>4 . AC POWER LINE CONDUCTED EMISSIONS TEST</b>	<b>16</b>
4.1 LIMIT	16
4.2 TEST PROCEDURE	16
4.3 DEVIATION FROM TEST STANDARD	16
4.4 TEST SETUP	17
4.5 EUT OPERATION CONDITIONS	17
4.6 EUT TEST CONDITIONS	17
4.7 TEST RESULTS	17
<b>5 . RADIATED EMISSIONS TEST</b>	<b>18</b>
5.1 LIMIT	18
5.2 TEST PROCEDURE	19
5.3 DEVIATION FROM TEST STANDARD	19
5.4 TEST SETUP	20
5.5 EUT OPERATION CONDITIONS	22
5.6 EUT TEST CONDITIONS	22
5.7 TEST RESULTS - 9 KHZ TO 30 MHZ	22
5.8 TEST RESULTS - 30 MHZ TO 1000 MHZ	22
5.9 TEST RESULTS - ABOVE 1000 MHZ	22
<b>6 . BANDWIDTH TEST</b>	<b>23</b>
6.1 LIMIT	23
6.2 TEST PROCEDURE	23

Table of Contents	Page
6.3 DEVIATION FROM STANDARD	23
6.4 TEST SETUP	23
6.5 EUT OPERATION CONDITIONS	23
6.6 EUT TEST CONDITIONS	23
6.7 TEST RESULTS	23
<b>7 . MAXIMUM OUTPUT POWER TEST</b>	<b>24</b>
7.1 LIMIT	24
7.2 TEST PROCEDURE	24
7.3 DEVIATION FROM STANDARD	24
7.4 TEST SETUP	24
7.5 EUT OPERATION CONDITIONS	24
7.6 EUT TEST CONDITIONS	24
7.7 TEST RESULTS	24
<b>8 . CONDUCTED SPURIOUS EMISSIONS</b>	<b>25</b>
8.1 LIMIT	25
8.2 TEST PROCEDURE	25
8.3 DEVIATION FROM STANDARD	25
8.4 TEST SETUP	25
8.5 EUT OPERATION CONDITIONS	25
8.6 EUT TEST CONDITIONS	25
8.7 TEST RESULTS	25
<b>9 . POWER SPECTRAL DENSITY TEST</b>	<b>26</b>
9.1 LIMIT	26
9.2 TEST PROCEDURE	26
9.3 DEVIATION FROM STANDARD	26
9.4 TEST SETUP	26
9.5 EUT OPERATION CONDITIONS	26
9.6 EUT TEST CONDITIONS	26
9.7 TEST RESULTS	26
<b>10 . MEASUREMENT INSTRUMENTS LIST</b>	<b>27</b>
<b>APPENDIX A - AC POWER LINE CONDUCTED EMISSIONS</b>	<b>29</b>
<b>APPENDIX B - RADIATED EMISSION - 9 KHZ TO 30 MHZ</b>	<b>32</b>
<b>APPENDIX C - RADIATED EMISSION - 30 MHZ TO 1000 MHZ</b>	<b>41</b>

**Table of Contents****Page**

<b>APPENDIX D - RADIATED EMISSION- ABOVE 1000 MHZ</b>	<b>46</b>
<b>APPENDIX E - BANDWIDTH</b>	<b>95</b>
<b>APPENDIX F - MAXIMUM OUTPUT POWER</b>	<b>98</b>
<b>APPENDIX G - CONDUCTED SPURIOUS EMISSIONS</b>	<b>100</b>
<b>APPENDIX H - POWER SPECTRAL DENSITY</b>	<b>105</b>

**REPORT ISSUED HISTORY**

Report Version	Description	Issued Date
R00	Original Issue.	Apr. 24, 2019

## 1. GENERAL SUMMARY

Equipment : Tablet  
Brand Name : HUAWEI  
Test Model : BAH2-W19  
Series Model : N/A  
Applicant : Huawei Technologies Co., Ltd.  
Manufacturer : Huawei Technologies Co., Ltd.  
Address : Administration Building, Headquarters of Huawei Technologies Co., Ltd.,  
Bantian, Longgang District, Shenzhen, 518129, China  
Date of Test : Apr. 08, 2019 ~ Apr. 23, 2019  
Test Sample : Engineering Sample No.: D190403498  
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-3-1904C015) 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) BAH2-W19 has two storage scenarios: 3GB+32GB and 4GB+64GB.  
All rest test items are conducted only for 4GB+64GB except RSE test. RSE test is done both for 4GB+64GB and 3GB+32GB. For the RSE of 3GB+32GB only the worst case is evaluated and recorded in the 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	Tablet
Brand Name	HUAWEI
Test Model	BAH2-W19
Series Model	N/A
Model Difference(s)	Please refer to note 3.
Software Version	BAH2-W19 8.0.0.135(C605)
Hardware Version	SH0BAH2LM
Power Source	1# DC voltage supplied from AC/DC adapter. 2# Supplied from battery. 3# Supplied from USB port.
Power Rating	1# I/P: 100-240V ~50/60Hz, 0.5A O/P: 5V <b>===</b> 2A OR 9V <b>===</b> 2A 2# DC 3.82V, 7350mAh 3# DC 5V
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 150 Mbps
Maximum Output Power	IEEE 802.11b: 16.15 dBm (0.0412 W) IEEE 802.11g: 9.59 dBm (0.0091 W) IEEE 802.11n (HT20): 9.34 dBm (0.0086 W) IEEE 802.11n (HT40): 6.31 dBm (0.0043 W)

Note:

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

- BAH2-W19 has two storage scenarios, with different memory. EMCP Storage Capacity is 3GB+32GB, LPDDR3+EMMC separation Scheme storage capacity is 4GB+64GB. The two storage mode of peripheral circuit has slight change, but does not affect product performance. The differences about storage scenarios are showed in following table. Other parts of the Tablet are the same, including the appearance, the antenna, Chipset, Bluetooth mode, Wifi mode, Adapter, Battery, Mainboard, Software and so on.

Model	BAH2-W19	
Storage Scenarios	EMCP	LPDDR3+eMMC
Storage Capacity	3GB+32GB	4GB+64GB

4. Antenna Specification:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	N/A	N/A	Internal	N/A	0

5. The EUT contains following accessory devices:

Items	Brand	Factory	Model Name	Description
Adapter	HUAWEI	Salcomp (Shenzhen) Co., Ltd.	HW-090200UH0	I/P: 100-240V ~50/60Hz, 0.5A O/P: 5V  2A OR 9V  2A
		HENZHEN HUNTKEY ELECTRONICS CO., LTD.		
		BYD ELECTRONIC CO.,LTD.		
Li-ion Battery	HUAWEI	SCUD (Fujian) Electronics Co., Ltd.	HB2994I8ECW	Rated capacity: 7350mAh Nominal Voltage: +3.82V Charging Voltage: +4.40V
		SUNWODA Electronic Co., Ltd		
		Huizhou Desay Battery Co., Ltd		
USB Cable	-	HUIZHOU DEHONG TECHNOLOGY CO.,LTD.	330-50507	Signal Cable 5V~12V/3A USB2.0 USB-A to USB-C Charge Data Cable, 1.0m, USB-C (24AWG+30AWG*2C+ 24AWG+2*28AWG Drain)*3.1mm, USB-A
		NingBo Broad Telecommunication Co.,Ltd.	CUDU01B-HC295-EH	
		HONGFUJIN PRECISION INDUSTRIAL(SHEN ZHEN).LTD	WA0020	
		Dongguan Mingji Electronics Technology Group Co.,Ltd	L99UC131-CS-H	
		Freeport Resources Enterprises (Jiangxi) Co.,Ltd	18-93C2CHO-001HF	
		LUXSHARE Precision Industry Co., Ltd.	203-1572-0	
HUAWEI Smart Dock for MediaPad M5 lite (10.1-inch)	HUAWEI	-	C-Bach2-Cradle	DC 9V,2A max

### 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 B Mode Channel 01

Following mode(s) as (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 5	TX B Mode Channel 01

<b>Radiated emissions test - below 1GHz</b>	
Final Test Mode:	Description
Mode 5	TX B Mode Channel 01

<b>Radiated emissions test - above 1GHz</b>	
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) Radiated Emissions of middle channel is performed and Band edge of high and low channels are performed.
- (2) 802.11b mode: DBPSK (1 Mbps)  
 802.11g mode: OFDM (6 Mbps)  
 802.11n HT20 mode : BPSK (6.5 Mbps)  
 802.11n HT40 mode : BPSK (13.5 Mbps)  
 For radiated emission tests, the highest output powers were set for final test.
- (3) For radiated emission below 1 GHz test, the IEEE 802.11b 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.

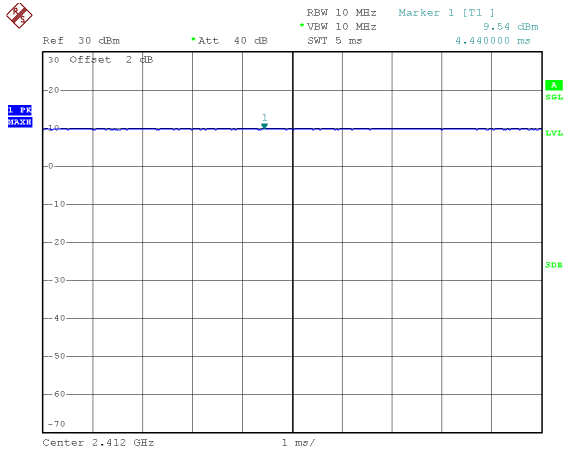
**3.3 PARAMETERS OF TEST SOFTWARE**

Test Software	WiFi RF Auth2.5.4		
	2412	2437	2462
Frequency (MHz)			
IEEE 802.11b	16	16	16
IEEE 802.11g	9	9	9
IEEE 802.11n (HT20)	9	9	9
Frequency (MHz)	2422	2437	2452
IEEE 802.11n (HT40)	6	6	6

### 3.4 DUTY CYCLE

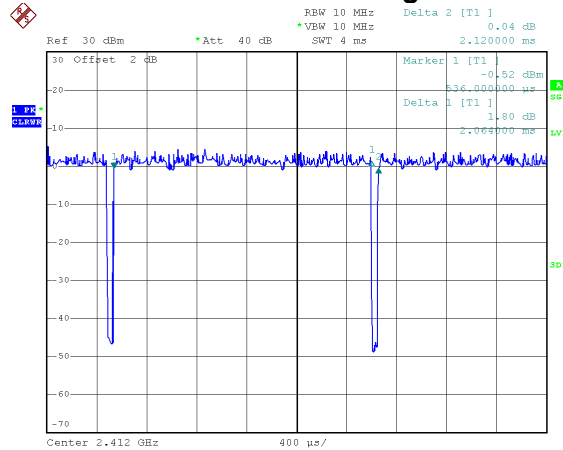
If duty cycle is  $\geq 98\%$ , duty factor is not required.  
 If duty cycle is  $< 98\%$ , duty factor shall be considered.  
 The output power = measured power + duty factor.

**IEEE 802.11b**



Date: 10.APR.2019 12:21:05

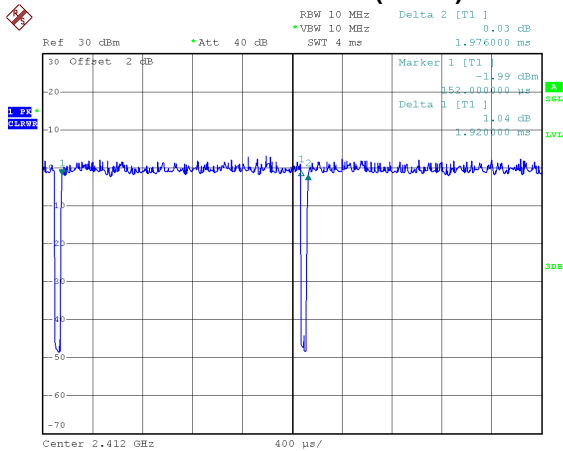
**IEEE 802.11g**



Date: 10.APR.2019 12:21:55

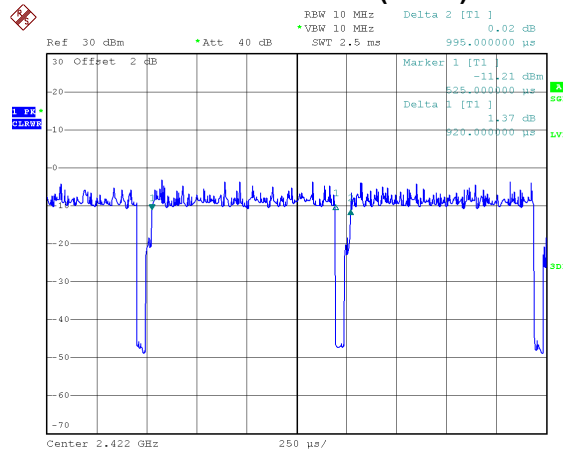
Duty cycle =  $1000.000 \text{ ms} / 1000.000 \text{ ms} = 100\%$       Duty cycle =  $2.064 \text{ ms} / 2.120 \text{ ms} = 97.36\%$   
 Duty Factor =  $10 \log(1/\text{Duty cycle}) = 0.00$       Duty Factor =  $10 \log(1/\text{Duty cycle}) = 0.12$

**IEEE 802.11n (HT20)**



Date: 10.APR.2019 12:22:11

**IEEE 802.11n (HT40)**



Date: 10.APR.2019 12:22:24

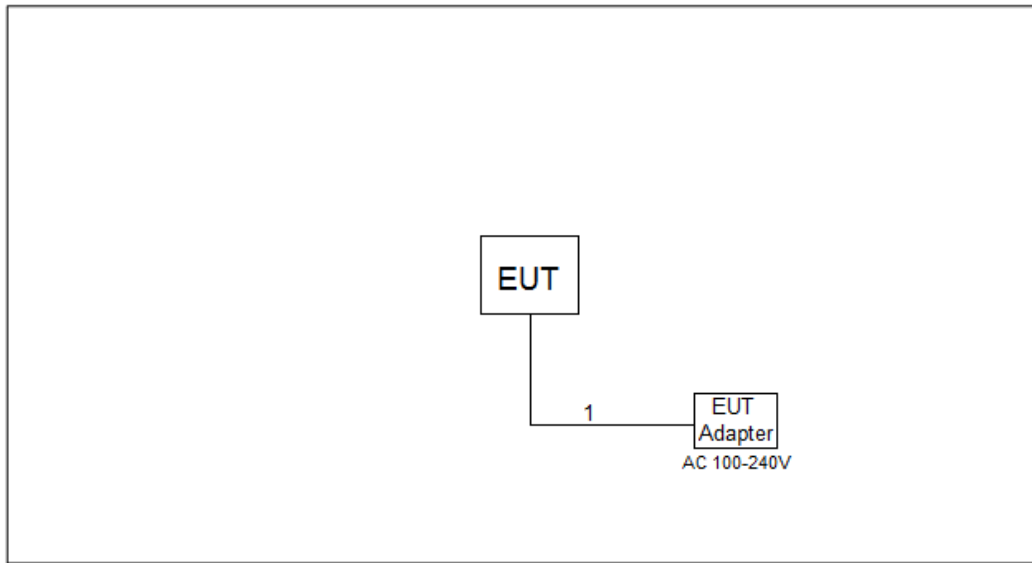
Duty cycle =  $1.920 \text{ ms} / 1.976 \text{ ms} = 97.17\%$       Duty cycle =  $0.920 \text{ ms} / 0.995 \text{ ms} = 92.46\%$   
 Duty Factor =  $10 \log(1/\text{Duty cycle}) = 0.12$ ,      Duty Factor =  $10 \log(1/\text{Duty cycle}) = 0.34$

**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.
	-	-	-	-

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

## 4. AC POWER LINE CONDUCTED EMISSIONS TEST

### 4.1 LIMIT

Frequency of Emission (MHz)	Limit (dB $\mu$ V)	
	Quasi-peak	Average
0.15 - 0.5	66 to 56*	56 t 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

### 4.2 TEST PROCEDURE

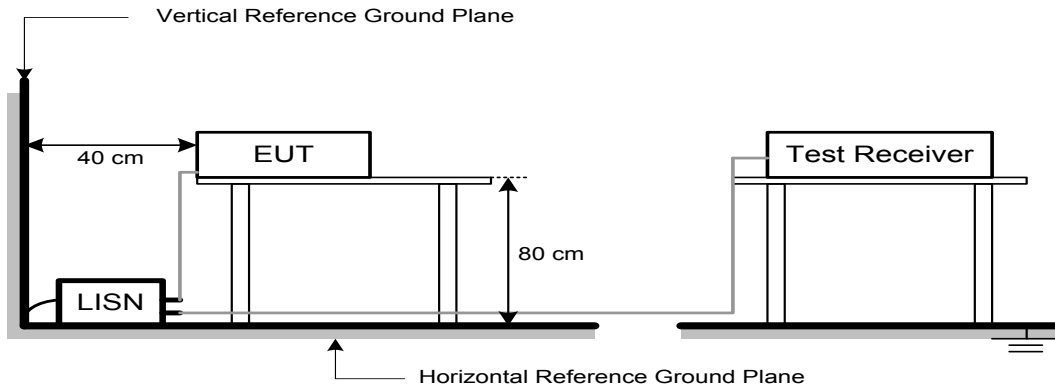
- a. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipment powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- 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: 55%    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)	Band edge/ Harmonic at 3m (dB $\mu$ V/m)		Harmonic at 1.5m (dB $\mu$ V/m)	
	Peak	Average	Peak	Average
Above 1000	74	54	80 (Note 5)	60(Note 5)

#### 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 (dB $\mu$ V/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

$$(5) \quad FS_{\text{limit}} = FS_{\text{max}} - 20 \log \left( \frac{d_{\text{limit}}}{d_{\text{measure}}} \right)$$

$$20 \log d_{\text{limit}}/d_{\text{measure}} = 20 \log 3/1.5 = 6 \text{ dB.}$$

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

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

**5.2 TEST PROCEDURE**

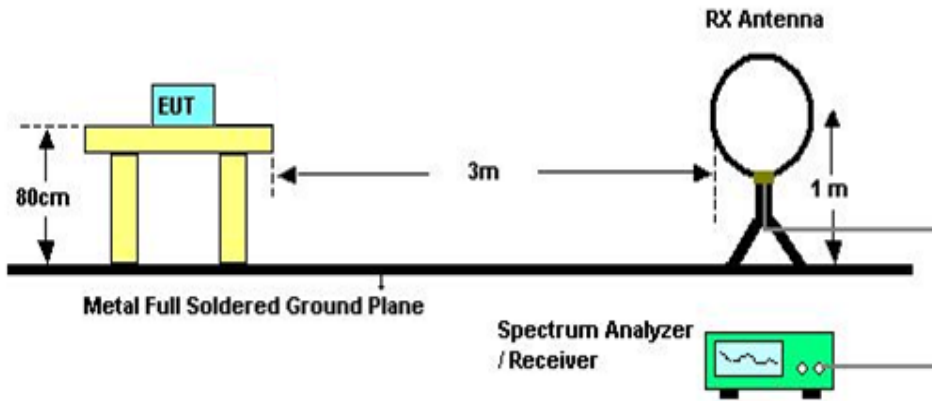
- a. The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(below 1 GHz)
- b. The measuring distance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

**5.3 DEVIATION FROM TEST STANDARD**

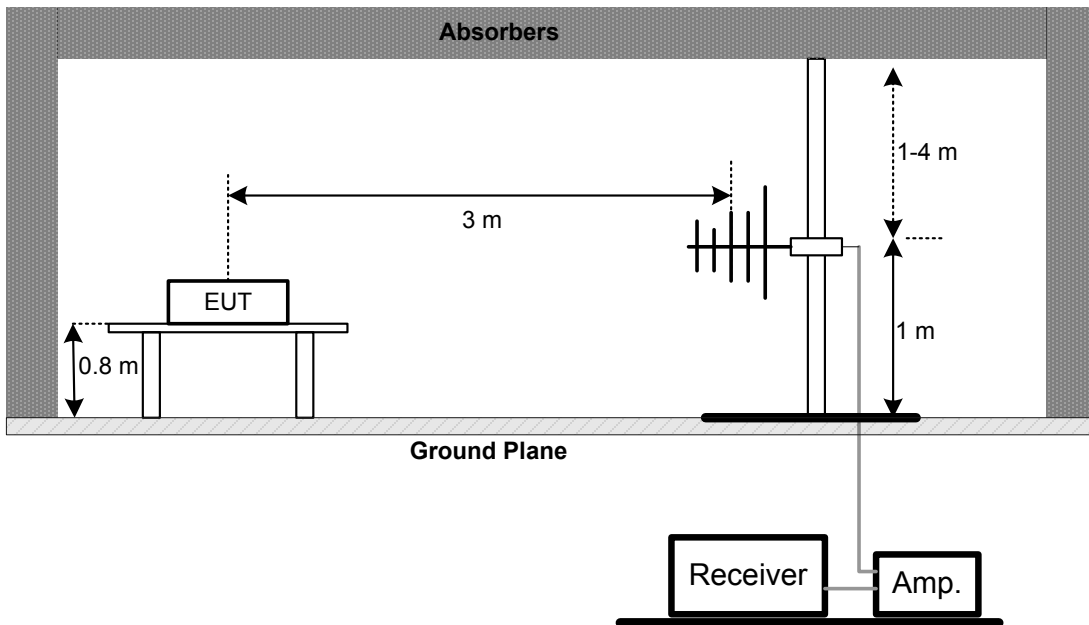
No deviation

**5.4 TEST SETUP**

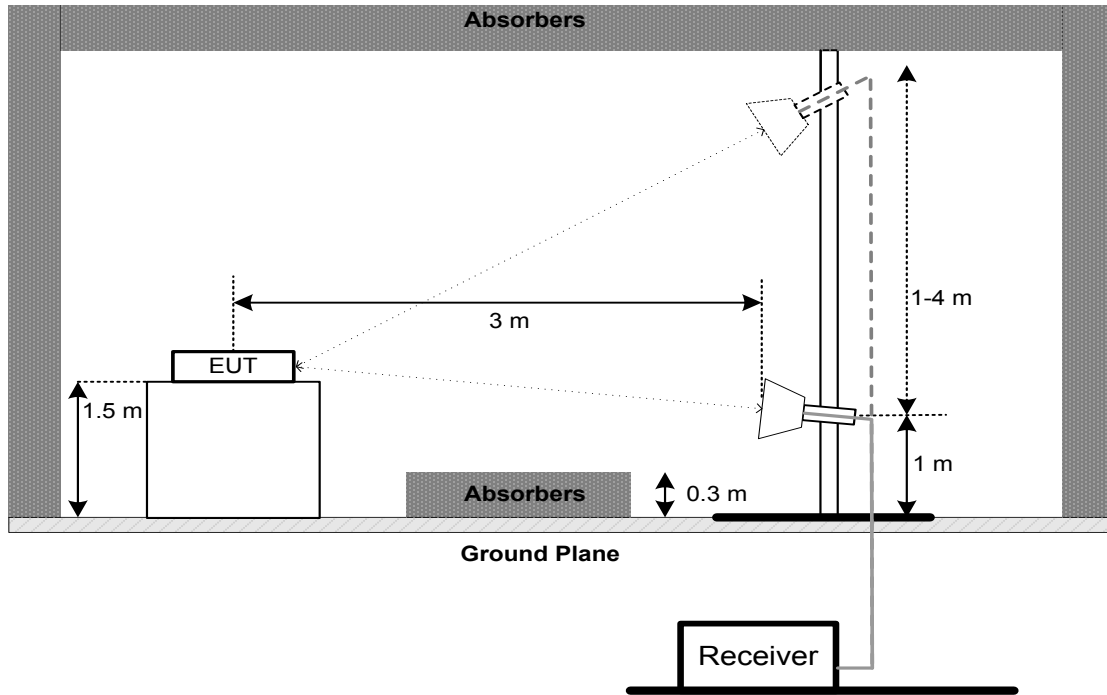
**9 kHz-30 MHz**



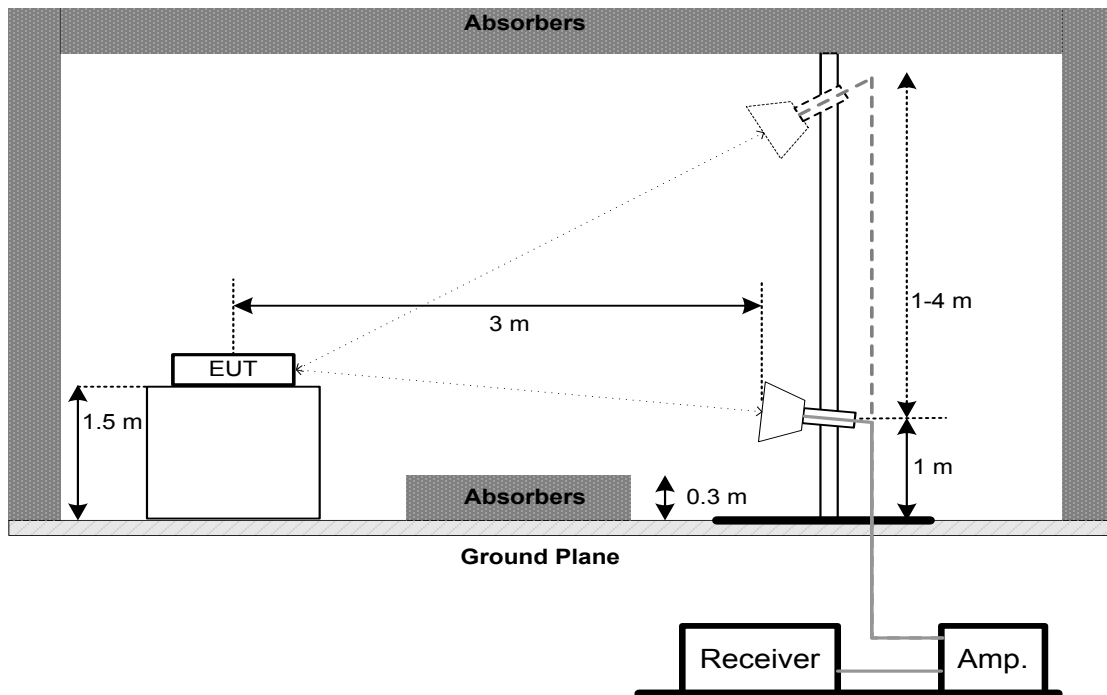
**30 MHz to 1 GHz**



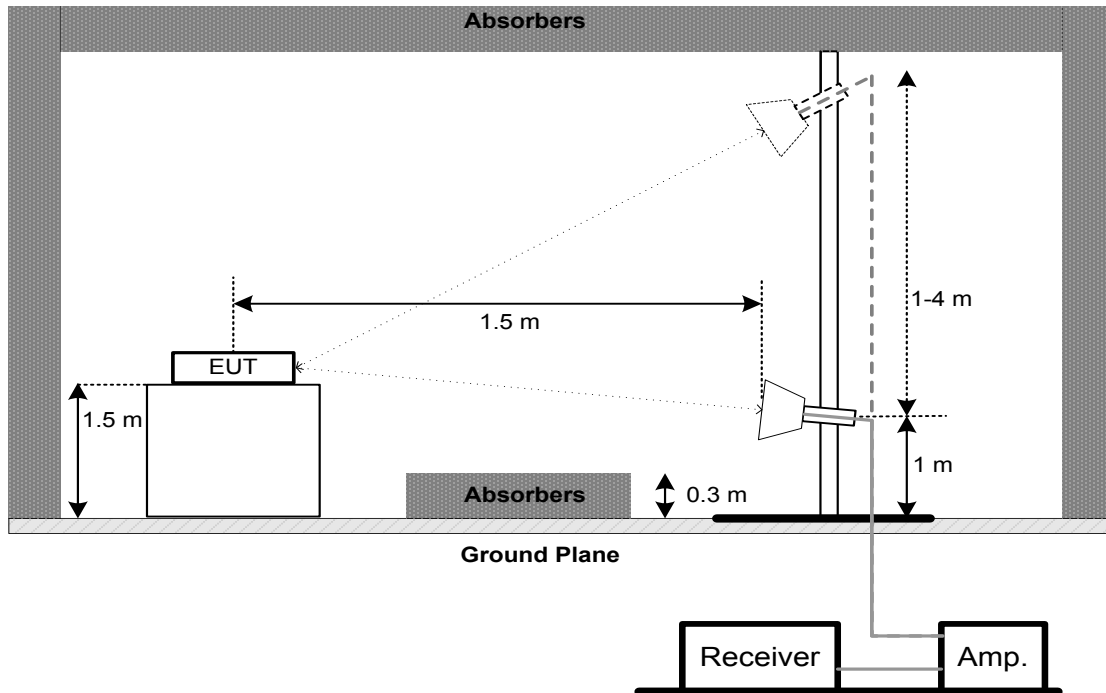
### Band edge



### Harmonic(1 GHz to 18 GHz)



### Harmonic(Above 18 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.
- (3) For radiated emissions below 1GHz, all adapters had been pre-tested and in this report only recorded the worst case (Salcomp).

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

Please refer to the APPENDIX C.

Remark:

- (1) For radiated emissions below 1GHz, all adapters had been pre-tested and in this report only recorded the worst case (Salcomp).

#### 5.9 TEST RESULTS - ABOVE 1000 MHZ

Please refer to the APPENDIX D.

Remark:

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

**6. BANDWIDTH TEST**

**6.1 LIMIT**

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

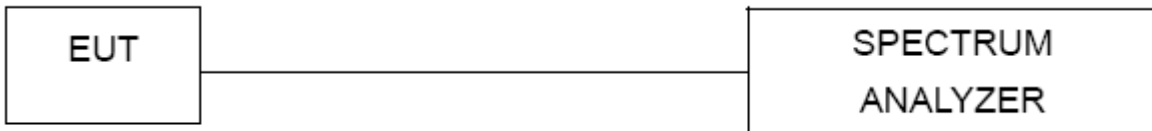
**6.2 TEST PROCEDURE**

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

**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: 25.9°C    Relative Humidity: 57.4%    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**

- a. The EUT was directly connected to the power meter and antenna output port as show in the block diagram below.
- b. The maximum conducted output power was performed in accordance with method 11.9.2.3 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: 25.9°C    Relative Humidity: 57.4%    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

- 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 = 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: 25.9°C    Relative Humidity: 57.4%    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: 25.9°C    Relative Humidity: 57.4%    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

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

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

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

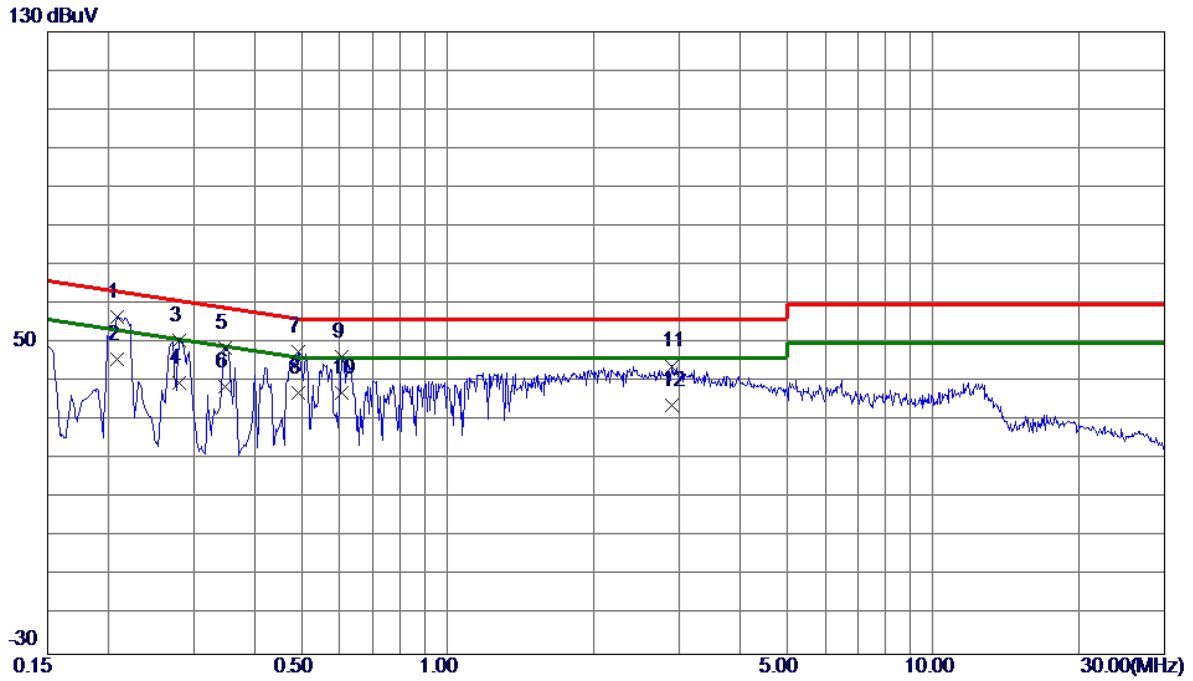
Power Spectral Density					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP40	100185	Aug. 11, 2019

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

## APPENDIX A - AC POWER LINE CONDUCTED EMISSIONS

Test Mode: TX B MODE CHANNEL 01

**Line**



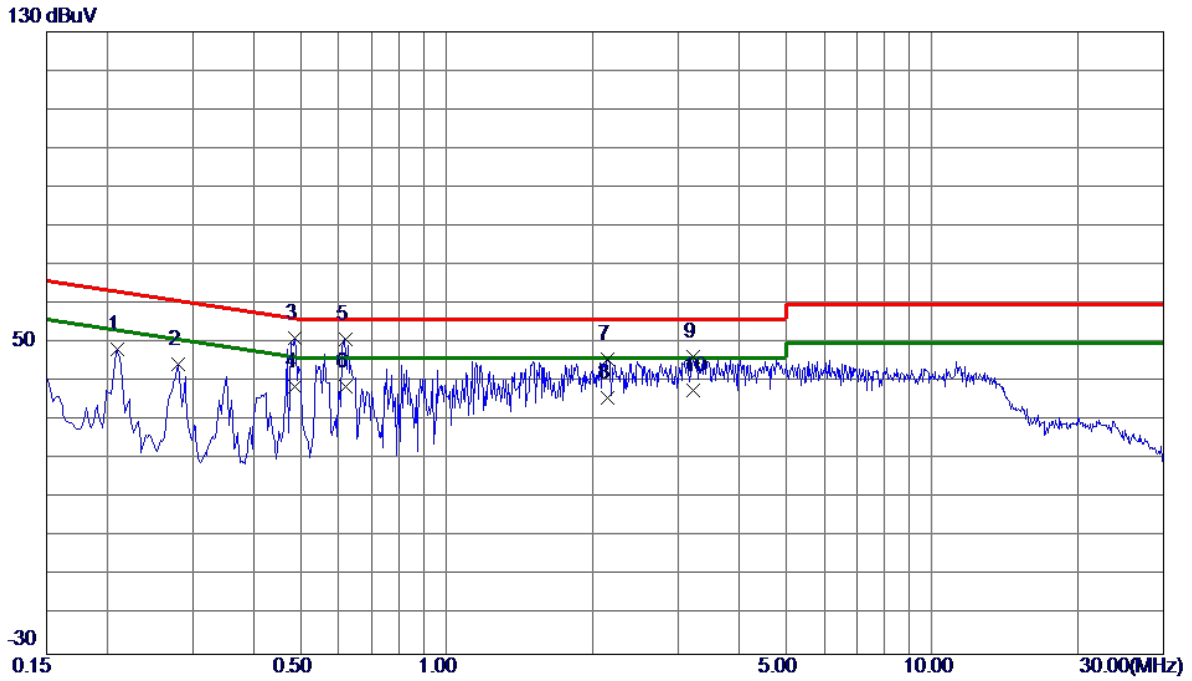
No.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1 *	0.2084	46.12	10.48	56.60	63.27	-6.67	Peak	
2	0.2084	35.49	10.48	45.97	53.27	-7.30	AVG	
3	0.2805	40.03	10.48	50.51	60.80	-10.29	Peak	
4	0.2805	29.33	10.48	39.81	50.80	-10.99	AVG	
5	0.3480	38.17	10.49	48.66	59.01	-10.35	Peak	
6	0.3480	28.34	10.49	38.83	49.01	-10.18	AVG	
7	0.4920	37.30	10.50	47.80	56.13	-8.33	Peak	
8	0.4920	26.69	10.50	37.19	46.13	-8.94	AVG	
9	0.6044	36.00	10.52	46.52	56.00	-9.48	Peak	
10	0.6044	26.80	10.52	37.32	46.00	-8.68	AVG	
11	2.9040	33.39	10.69	44.08	56.00	-11.92	Peak	
12	2.9040	23.43	10.69	34.12	46.00	-11.88	AVG	

**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	0.2094	37.80	10.45	48.25	63.23	-14.98	Peak	
2	0.2805	34.10	10.46	44.56	60.80	-16.24	Peak	
3 *	0.4873	40.80	10.49	51.29	56.21	-4.92	Peak	
4	0.4873	28.35	10.49	38.84	46.21	-7.37	AVG	
5	0.6180	40.46	10.49	50.95	56.00	-5.05	Peak	
6	0.6180	28.36	10.49	38.85	46.00	-7.15	AVG	
7	2.1524	35.14	10.60	45.74	56.00	-10.26	Peak	
8	2.1524	25.33	10.60	35.93	46.00	-10.07	AVG	
9	3.2280	35.67	10.66	46.33	56.00	-9.67	Peak	
10	3.2280	27.12	10.66	37.78	46.00	-8.22	AVG	

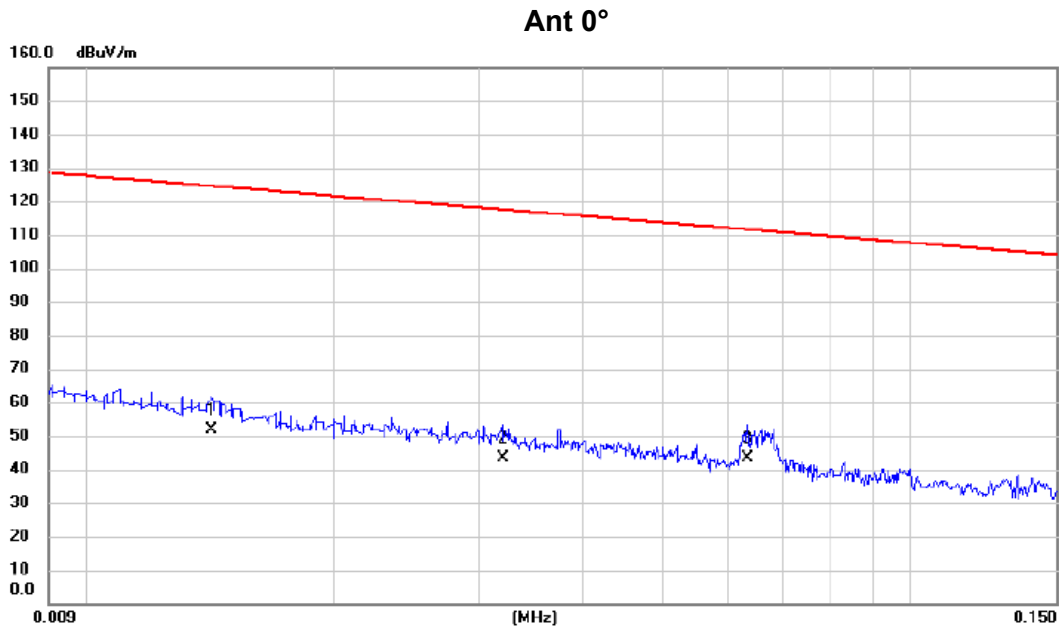
**REMARKS:**

- (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 (4GB+64GB)



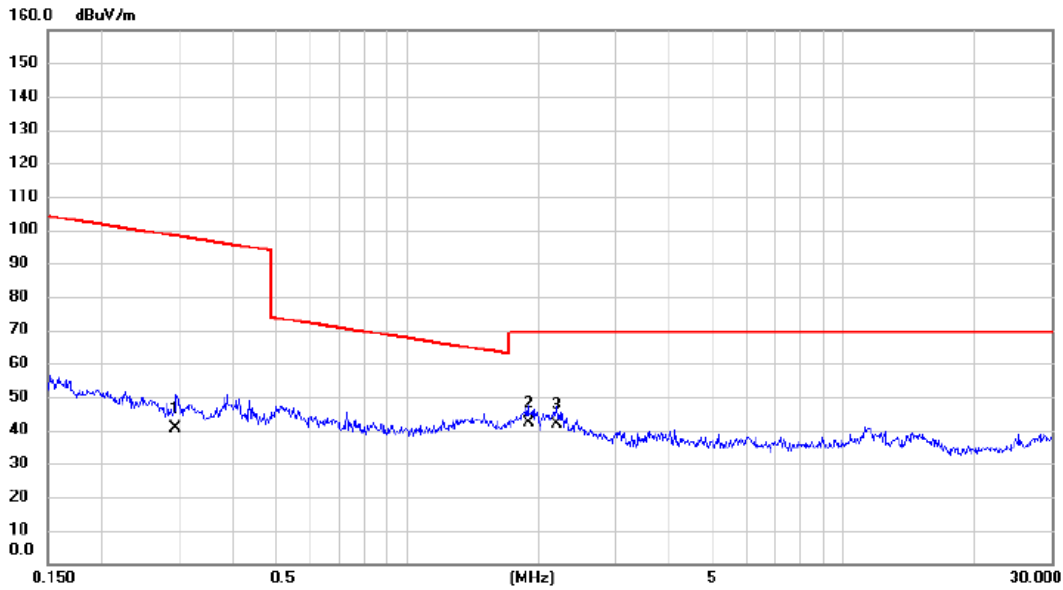
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		0.014	36.36	15.56	51.92	124.56	-72.64	AVG	
2		0.032	29.69	13.87	43.56	117.50	-73.94	AVG	
3	*	0.064	29.51	13.71	43.22	111.55	-68.33	AVG	

**REMARKS:**

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

Test Mode: TX B MODE CHANNEL 01 (4GB+64GB)

Ant 0°



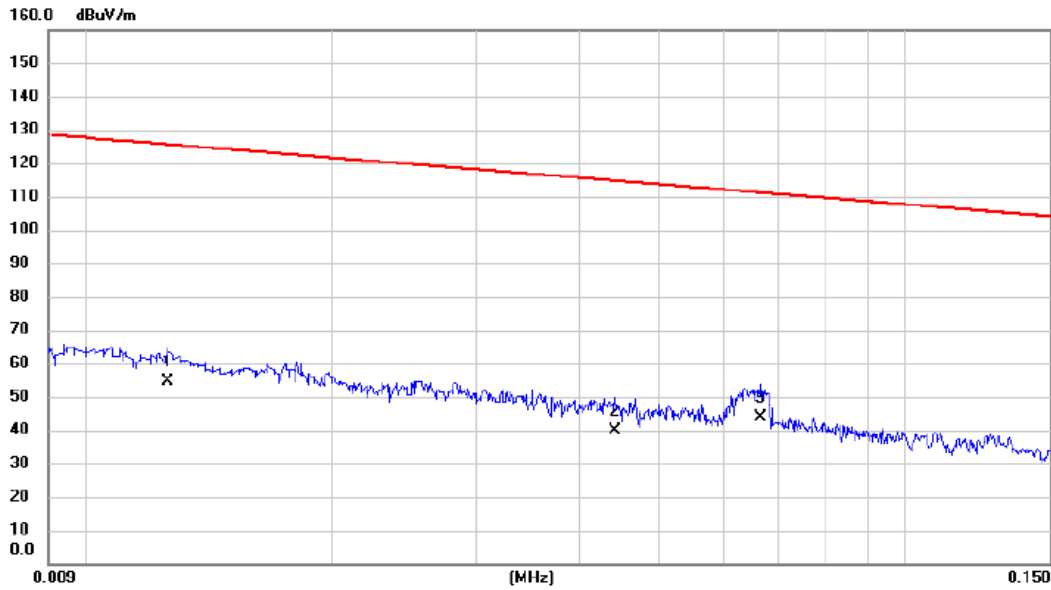
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		0.295	27.01	13.55	40.56	98.19	-57.63	AVG	
2	*	1.898	30.52	11.88	42.40	69.54	-27.14	QP	
3		2.213	30.24	11.69	41.93	69.54	-27.61	QP	

REMARKS:

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

Test Mode: TX B MODE CHANNEL 01 (4GB+64GB)

**Ant 90°**



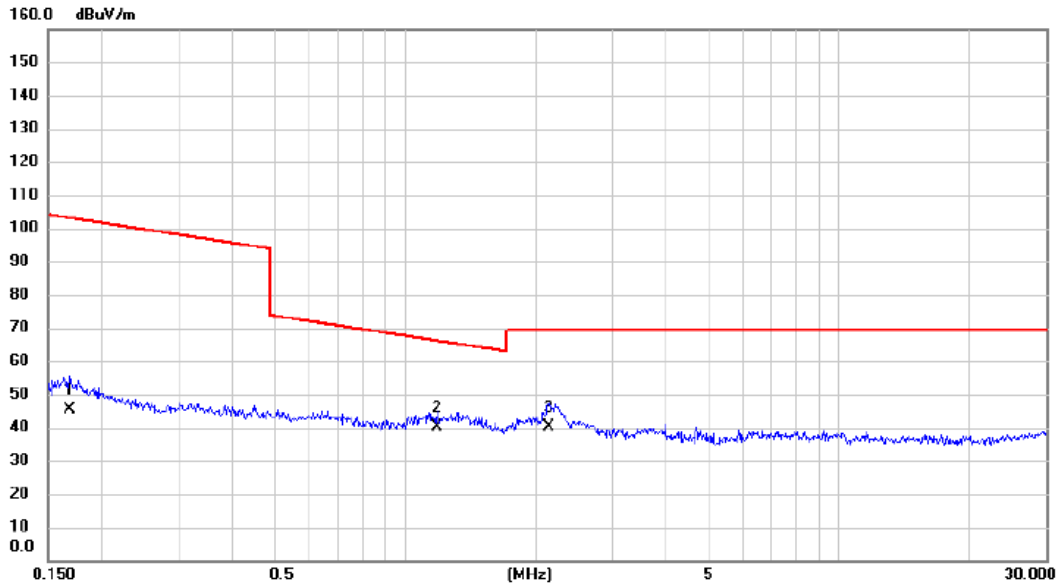
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		0.013	38.72	16.04	54.76	125.60	-70.84	AVG	
2		0.044	25.97	13.91	39.88	114.70	-74.82	AVG	
3	*	0.067	29.95	13.66	43.61	111.12	-67.51	AVG	

**REMARKS:**

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

Test Mode: TX B MODE CHANNEL 01 (4GB+64GB)

Ant 90°

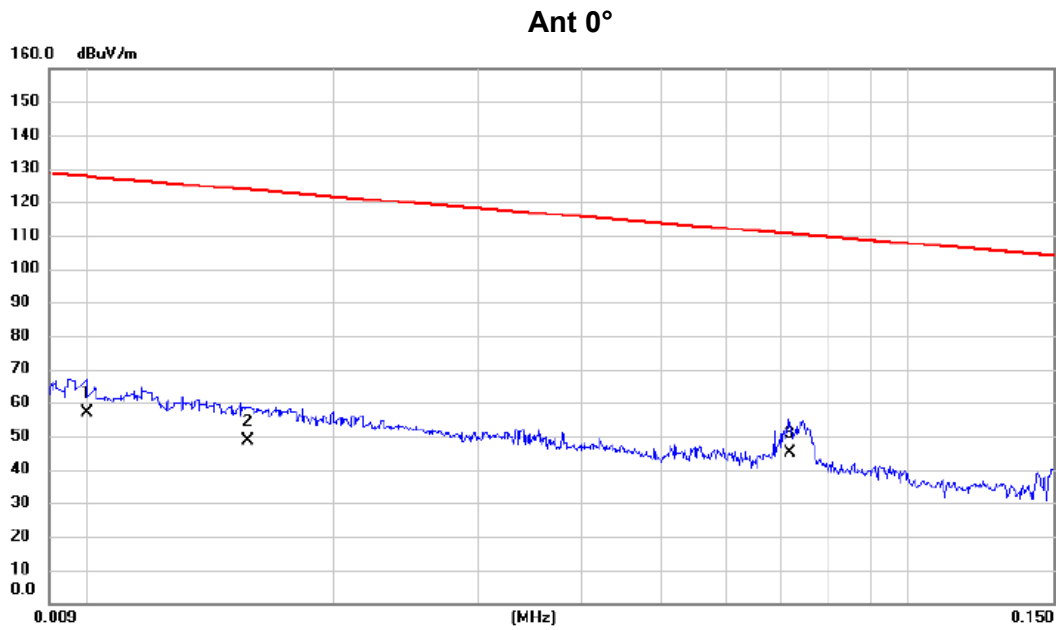


No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measurement dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	0.169	31.82	13.58	45.40	103.07	-57.67	AVG	
2 *	1.184	27.79	12.37	40.16	66.14	-25.98	QP	
3	2.144	28.51	11.73	40.24	69.54	-29.30	QP	

REMARKS:

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

Test Mode: TX B MODE CHANNEL 01 (3GB+32GB)



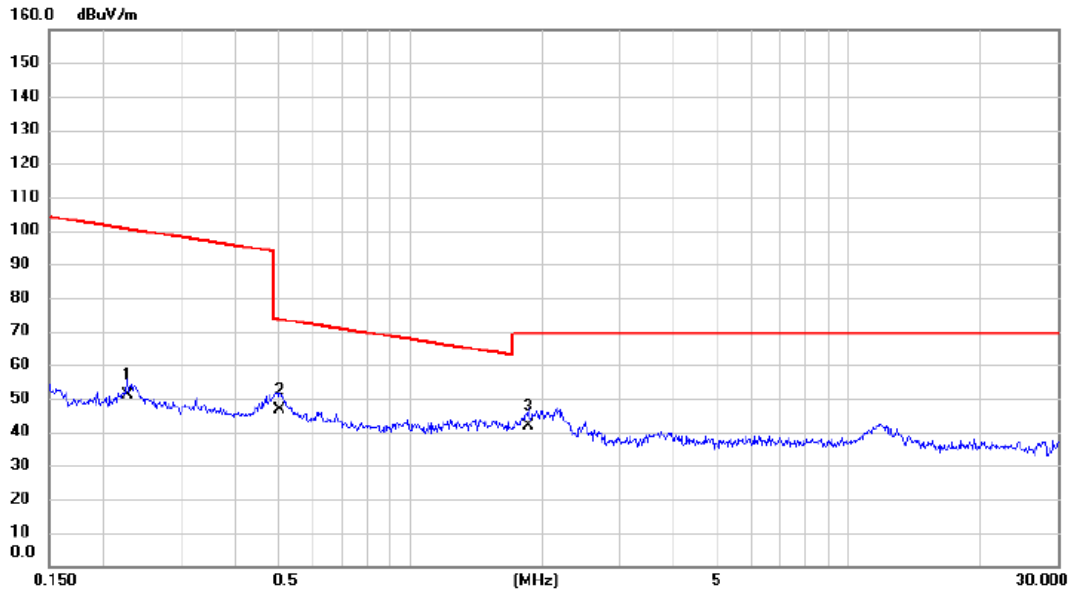
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Detector	Comment
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1		0.010	40.21	16.82	57.03	127.60	-70.57	AVG	
2		0.016	33.63	15.11	48.74	123.69	-74.95	AVG	
3	*	0.072	31.29	13.58	44.87	110.49	-65.62	AVG	

**REMARKS:**

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

Test Mode: TX B MODE CHANNEL 01 (3GB+32GB)

Ant 0°



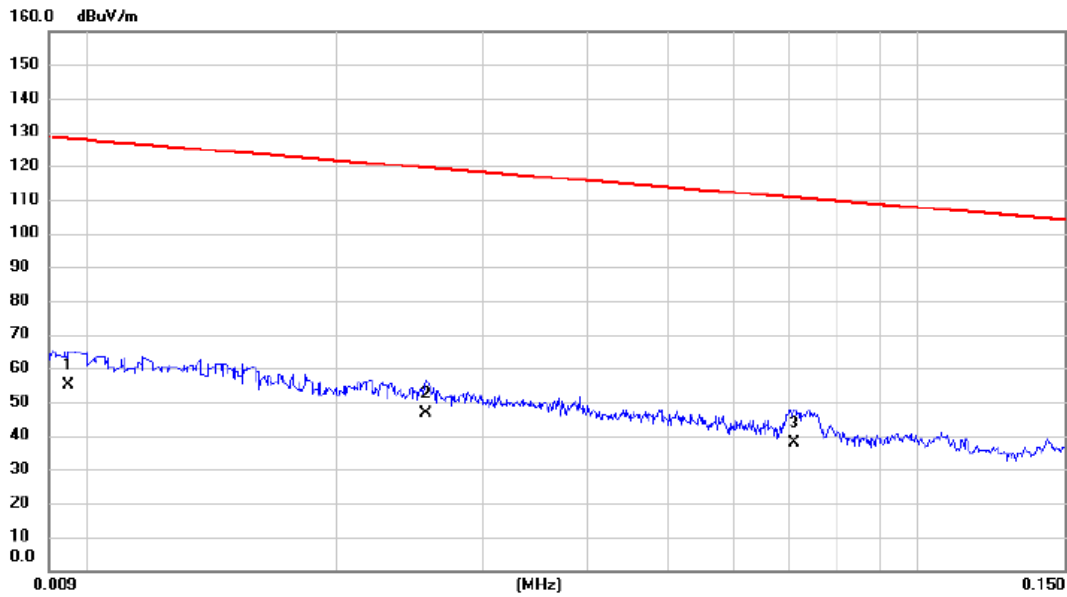
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		0.227	37.19	13.64	50.83	100.50	-49.67	AVG	
2	*	0.504	33.42	13.05	46.47	73.55	-27.08	QP	
3		1.858	29.95	11.91	41.86	69.54	-27.68	QP	

REMARKS:

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

Test Mode: TX B MODE CHANNEL 01 (3GB+32GB)

Ant 90°



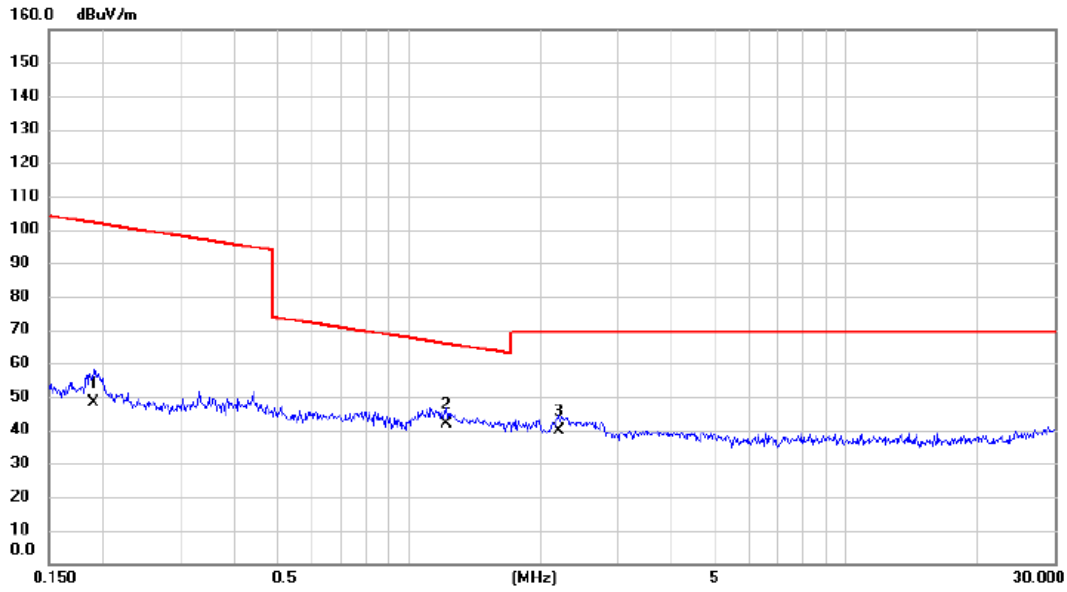
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Detector	Comment
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1		0.009	37.95	17.07	55.02	128.05	-73.03	AVG	
2		0.026	32.59	13.84	46.43	119.44	-73.01	AVG	
3	*	0.071	24.35	13.59	37.94	110.58	-72.64	AVG	

REMARKS:

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

Test Mode: TX B MODE CHANNEL 01 (3GB+32GB)

Ant 90°



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		0.190	34.69	13.60	48.29	102.02	-53.73	AVG	
2	*	1.223	29.43	12.34	41.77	65.86	-24.09	QP	
3		2.213	28.03	11.69	39.72	69.54	-29.82	QP	

REMARKS:

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

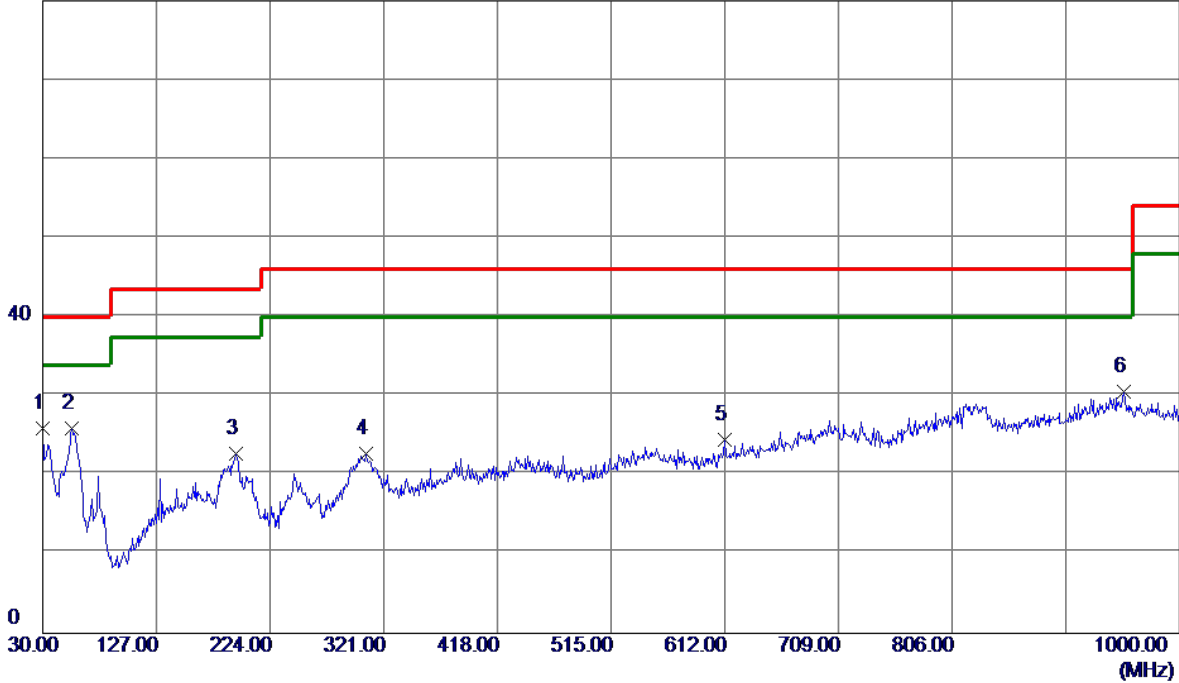


## APPENDIX C - RADIATED EMISSION - 30 MHZ TO 1000 MHZ

Test Mode: TX B MODE CHANNEL 01 (4GB+64GB)

**Vertical**

80 dBuV/m



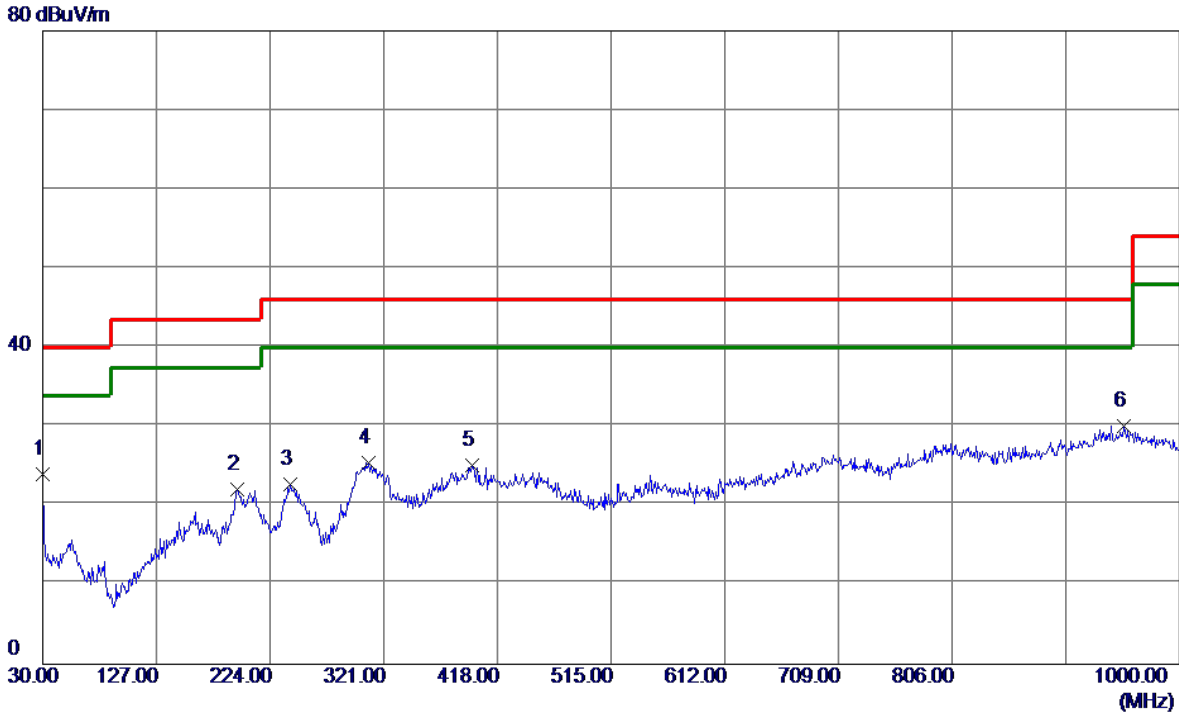
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	30.0000	40.95	-14.97	25.98	40.00	-14.02	Peak	
2	55.2200	40.92	-15.00	25.92	40.00	-14.08	Peak	
3	194.9000	37.40	-14.75	22.65	43.50	-20.85	Peak	
4	305.4800	33.22	-10.45	22.77	46.00	-23.23	Peak	
5	612.0000	30.58	-6.03	24.55	46.00	-21.45	Peak	
6	952.4700	29.19	1.35	30.54	46.00	-15.46	Peak	

**REMARKS:**

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

Test Mode: TX B MODE CHANNEL 01 (4GB+64GB)

**Horizontal**



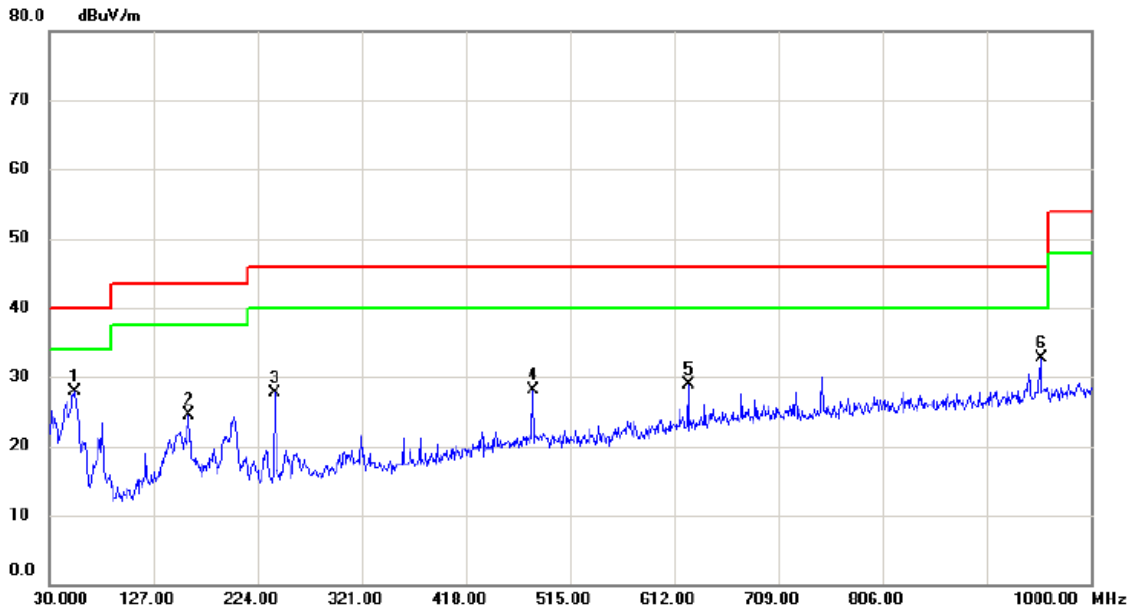
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	30.0000	38.98	-14.97	24.01	40.00	-15.99	Peak	
2	195.8700	36.90	-14.84	22.06	43.50	-21.44	Peak	
3	241.4600	37.36	-14.62	22.74	46.00	-23.26	Peak	
4	308.3900	35.99	-10.49	25.50	46.00	-20.50	Peak	
5	396.6600	34.55	-9.50	25.05	46.00	-20.95	Peak	
6 *	952.4700	28.74	1.35	30.09	46.00	-15.91	Peak	

**REMARKS:**

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

Test Mode: TX B MODE CHANNEL 01 (3GB+32GB)

Vertical



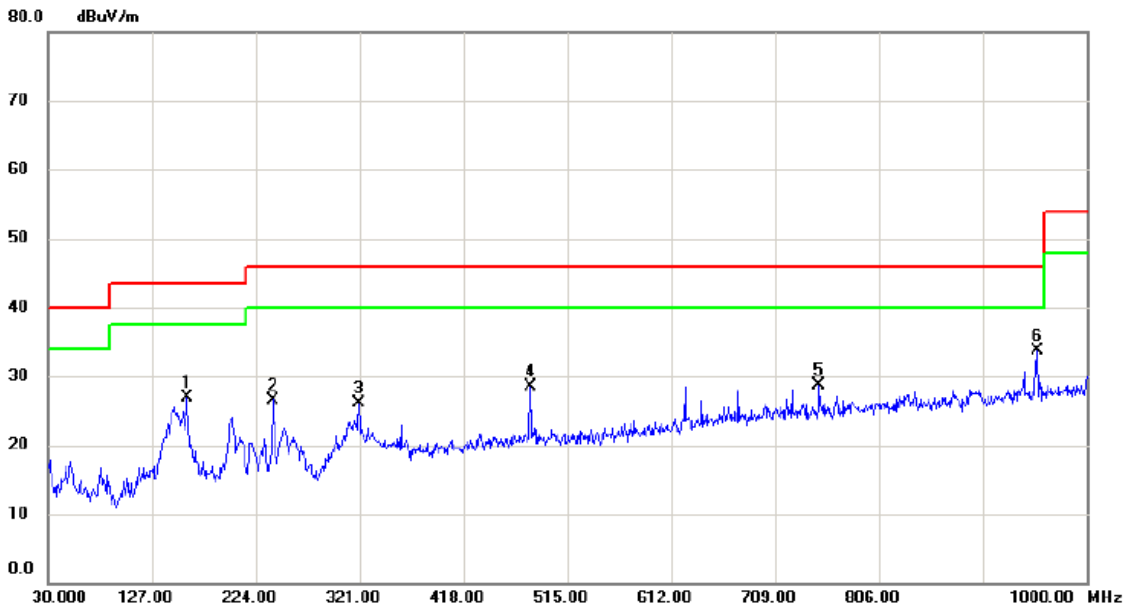
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	53.280	41.91	-13.96	27.95	40.00	-12.05	peak	
2		159.980	35.50	-11.07	24.43	43.50	-19.07	peak	
3		240.005	41.67	-14.06	27.61	46.00	-18.39	peak	
4		480.080	35.95	-7.91	28.04	46.00	-17.96	peak	
5		625.095	34.16	-5.25	28.91	46.00	-17.09	peak	
6		953.925	33.28	-0.65	32.63	46.00	-13.37	peak	

REMARKS:

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

Test Mode: TX B MODE CHANNEL 01 (3GB+32GB)

Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		159.980	37.91	-11.07	26.84	43.50	-16.66	peak	
2		240.005	40.66	-14.06	26.60	46.00	-19.40	peak	
3		320.030	37.31	-11.22	26.09	46.00	-19.91	peak	
4		480.080	36.40	-7.91	28.49	46.00	-17.51	peak	
5		750.225	32.38	-3.67	28.71	46.00	-17.29	peak	
6	*	953.925	34.38	-0.65	33.73	46.00	-12.27	peak	

REMARKS:

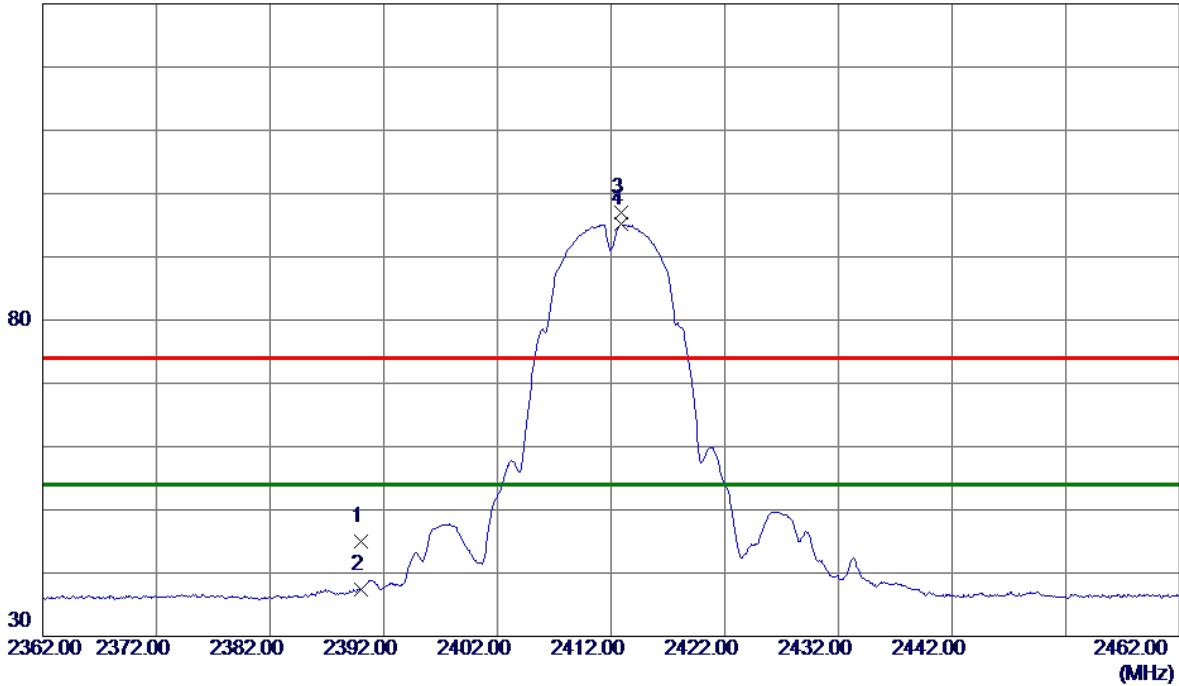
- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

## APPENDIX D - RADIATED EMISSION- ABOVE 1000 MHZ

Orthogonal Axis	X
Test Mode:	TX B Mode 2412 MHz (4GB+64GB)

**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	38.47	6.53	45.00	74.00	-29.00	Peak	
2	2390.0000	30.94	6.53	37.47	54.00	-16.53	AVG	
3	2412.9000	90.58	6.51	97.09	74.00	23.09	Peak	No Limit
4 *	2412.9000	88.73	6.51	95.24	54.00	41.24	AVG	No Limit

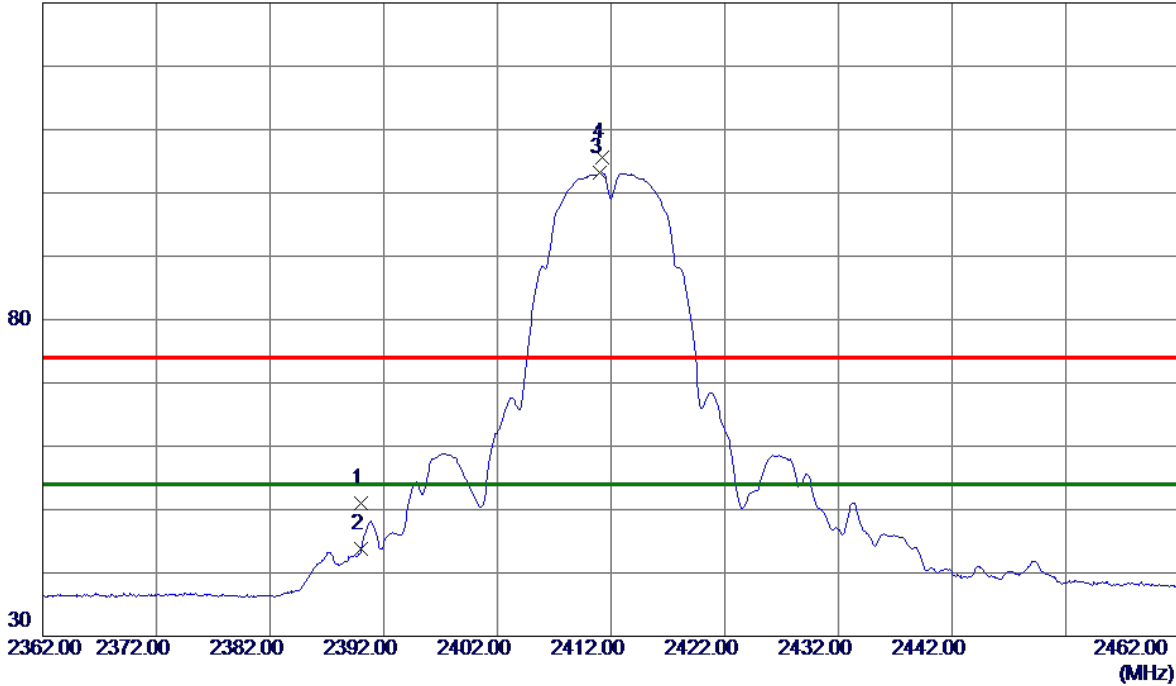
**REMARKS:**

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

Orthogonal Axis	X
Test Mode:	TX B Mode 2412 MHz (4GB+64GB)

### Horizontal

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	44.52	6.53	51.05	74.00	-22.95	Peak	
2	2390.0000	37.28	6.53	43.81	54.00	-10.19	AVG	
3 *	2410.9500	96.66	6.51	103.17	54.00	49.17	AVG	No Limit
4	2411.2500	99.03	6.51	105.54	74.00	31.54	Peak	No Limit

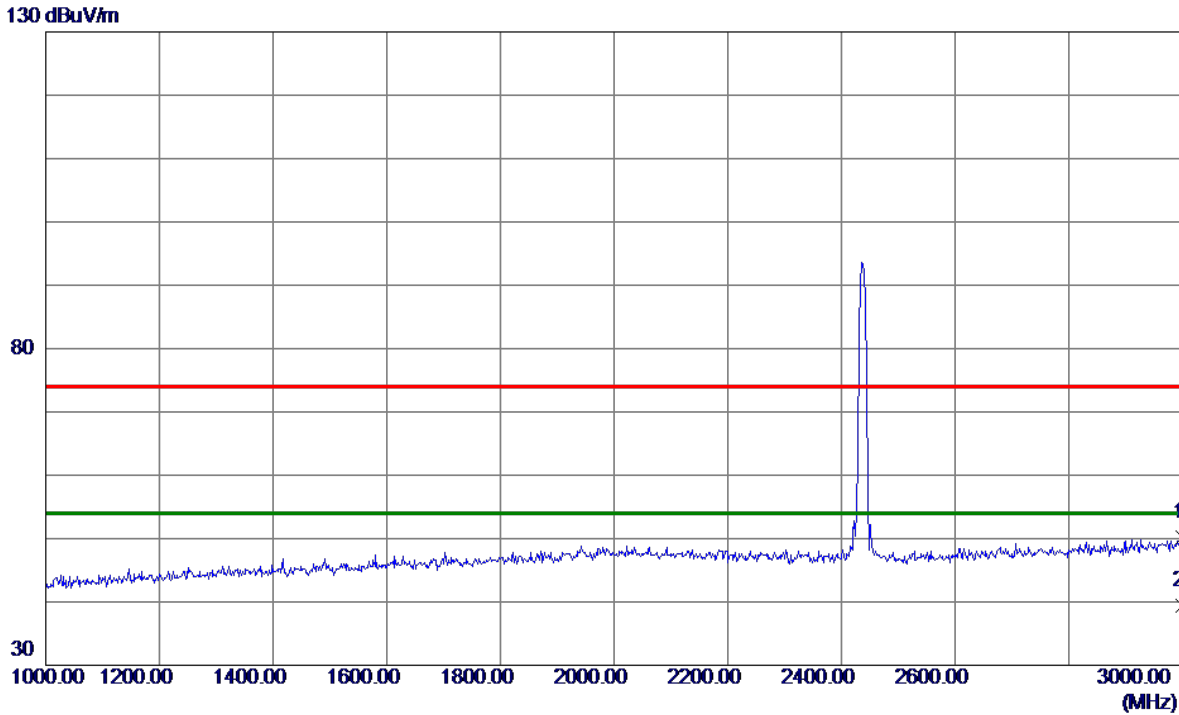
**REMARKS:**

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



Orthogonal Axis	X
Test Mode:	TX B Mode 2437 MHz (4GB+64GB)

**Vertical**



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2999.0000	41.24	9.05	50.29	74.00	-23.71	Peak	
2 *	2999.0000	30.26	9.05	39.31	54.00	-14.69	AVG	

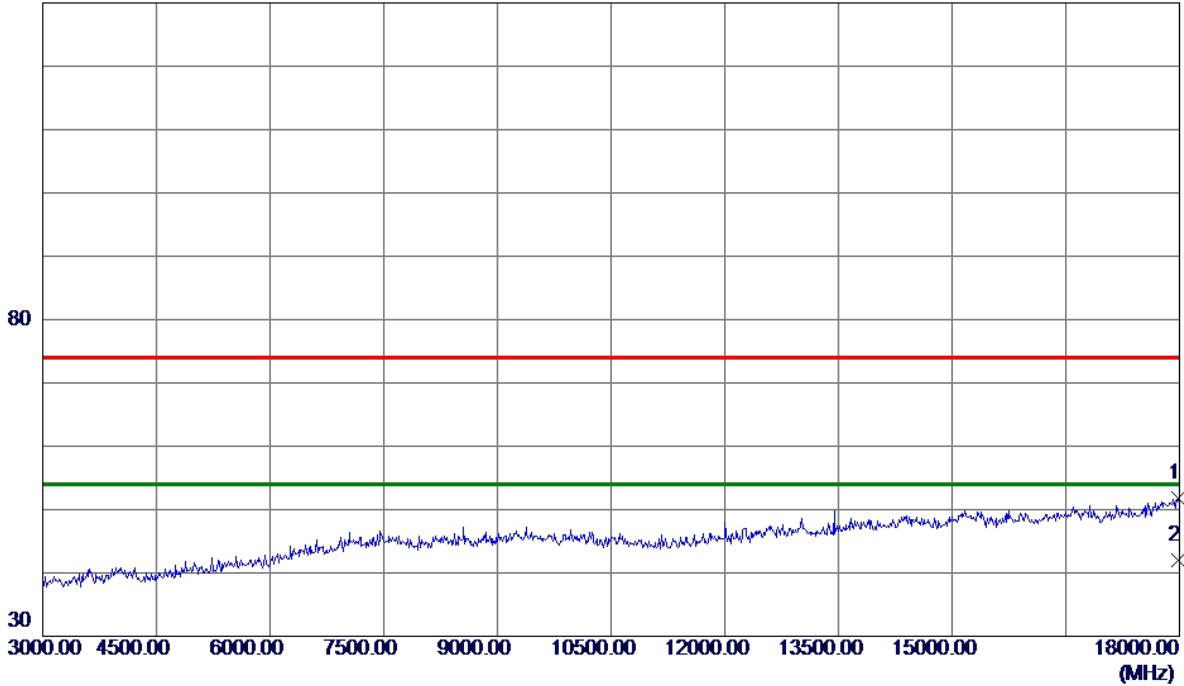
**REMARKS:**

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

Orthogonal Axis	X
Test Mode:	TX B Mode 2437 MHz (4GB+64GB)

**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	17977.5000	32.45	19.31	51.76	74.00	-22.24	Peak	
2 *	17977.5000	22.70	19.31	42.01	54.00	-11.99	AVG	

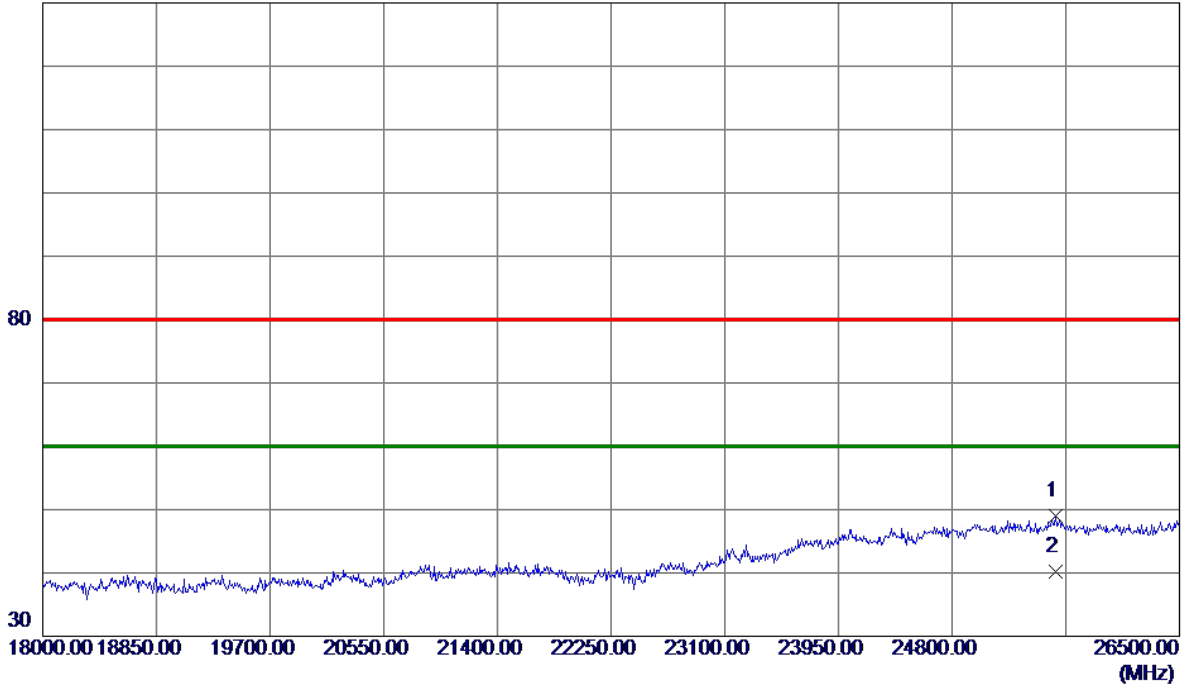
**REMARKS:**

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

Orthogonal Axis	X
Test Mode:	TX B Mode 2437 MHz (4GB+64GB)

**Vertical**

130 dBuV/m



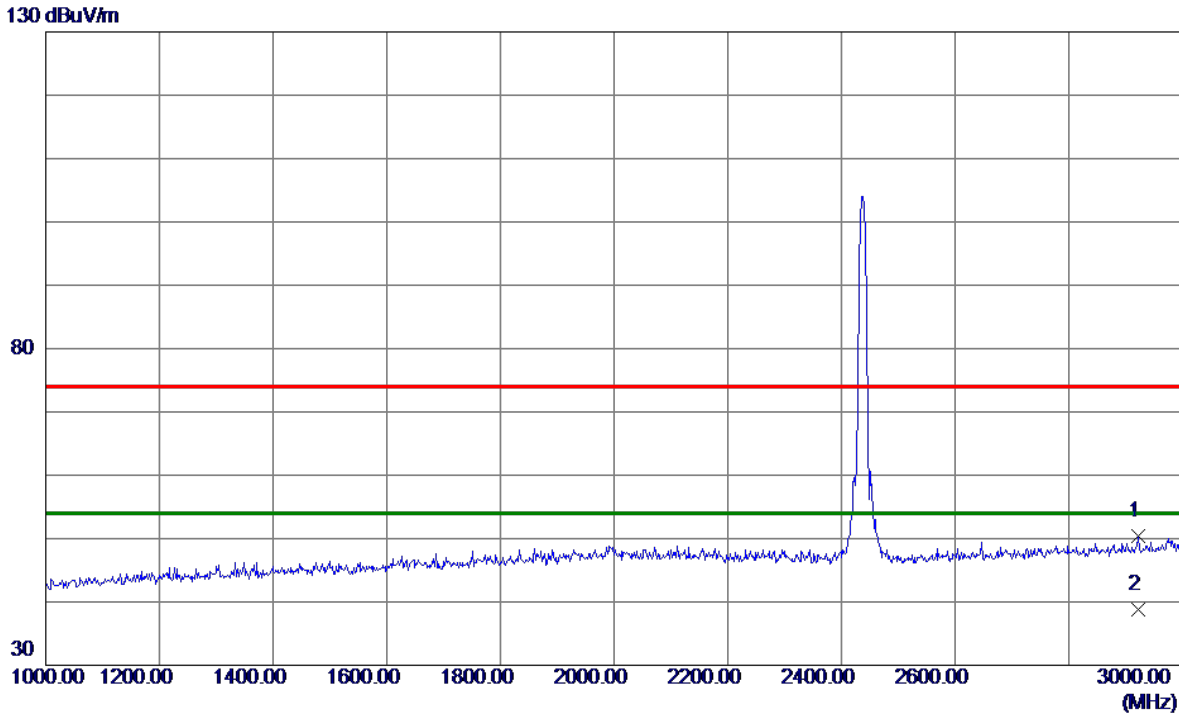
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	25573.5000	28.97	20.00	48.97	80.00	-31.03	Peak	
2 *	25573.5000	20.27	20.00	40.27	60.00	-19.73	AVG	

**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 (4GB+64GB)

**Horizontal**



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2922.0000	41.68	8.65	50.33	74.00	-23.67	Peak	
2 *	2922.0000	30.24	8.65	38.89	54.00	-15.11	AVG	

**REMARKS:**

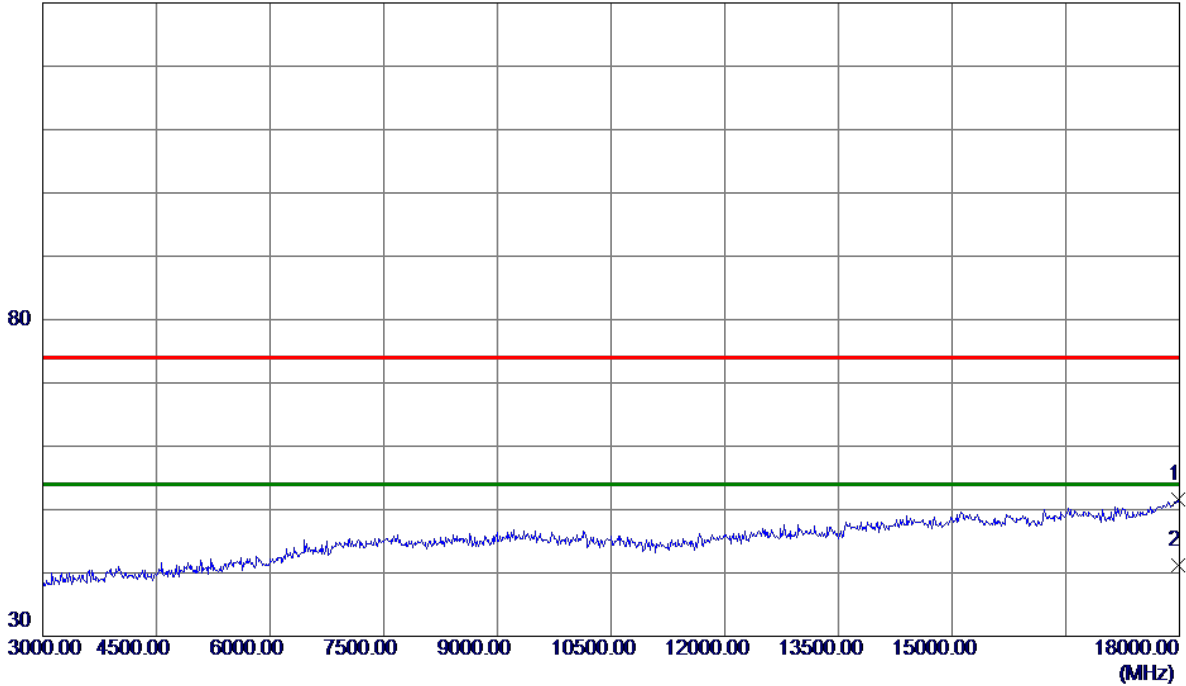
(1) Measurement Value = Reading Level + Correct Factor.

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

Orthogonal Axis	X
Test Mode:	TX B Mode 2437 MHz (4GB+64GB)

**Horizontal**

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	17977.5000	32.27	19.31	51.58	74.00	-22.42	Peak	
2 *	17977.5000	21.98	19.31	41.29	54.00	-12.71	AVG	

**REMARKS:**

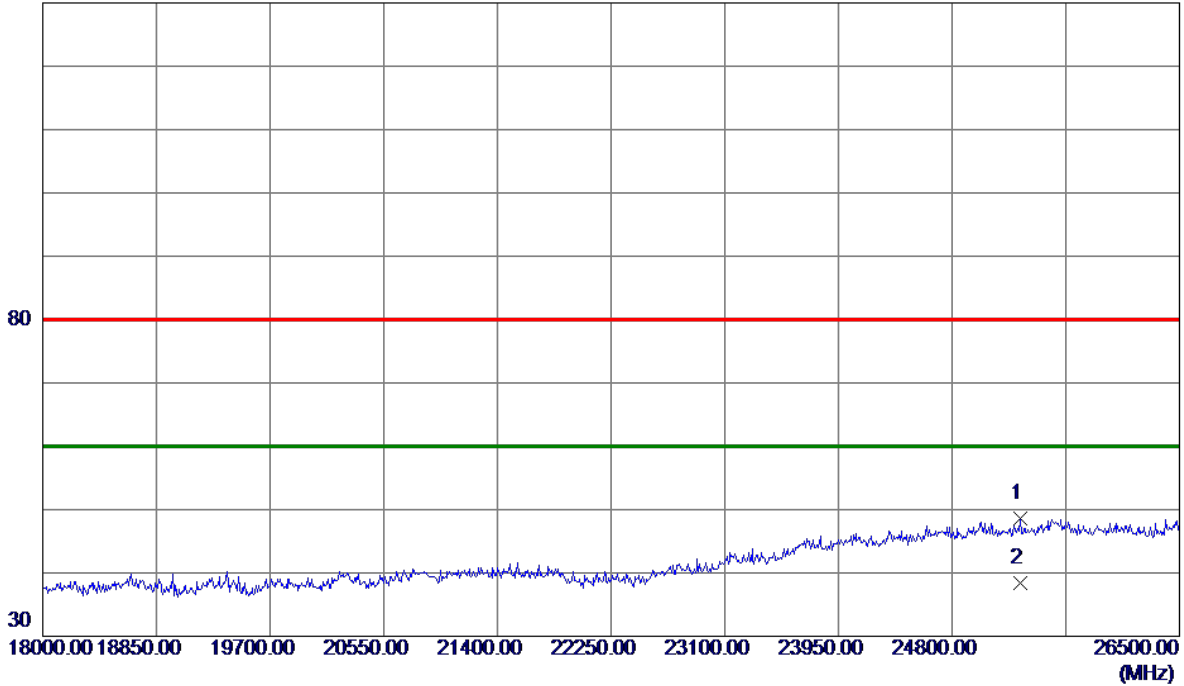
(1) Measurement Value = Reading Level + Correct Factor.

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

Orthogonal Axis	X
Test Mode:	TX B Mode 2437 MHz (4GB+64GB)

**Horizontal**

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	25314.2500	28.74	19.92	48.66	80.00	-31.34	Peak	
2 *	25314.2500	18.44	19.92	38.36	60.00	-21.64	AVG	

**REMARKS:**

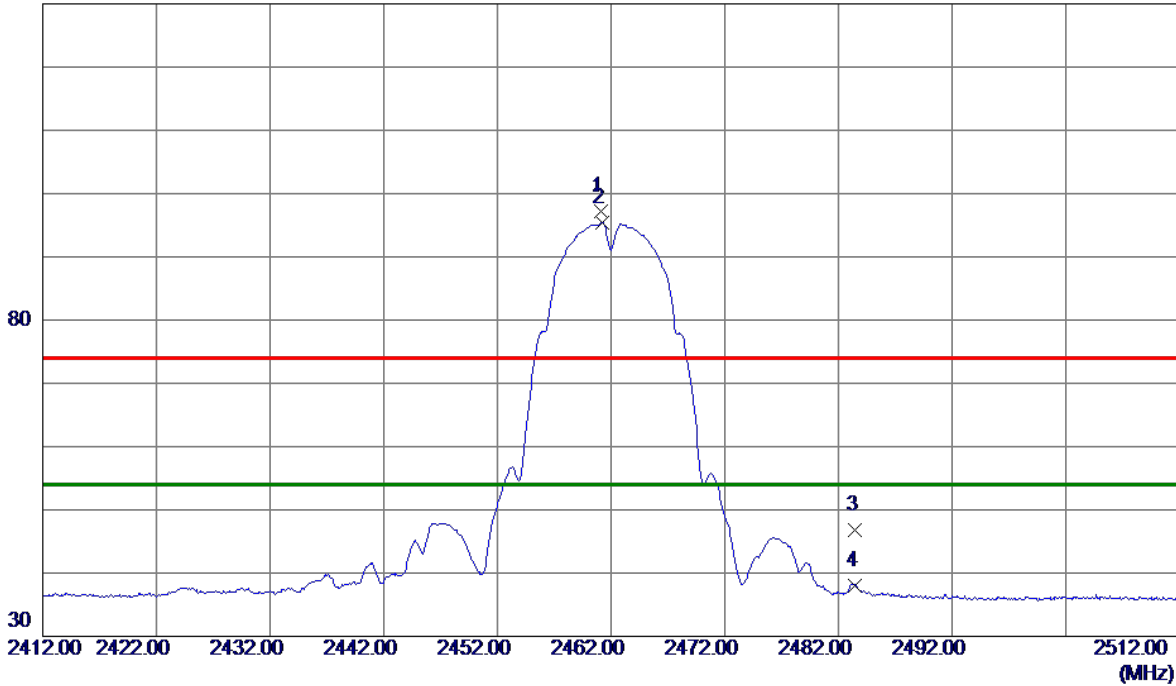
(1) Measurement Value = Reading Level + Correct Factor.

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

Orthogonal Axis	X
Test Mode:	TX B Mode 2462 MHz (4GB+64GB)

**Vertical**

130 dBuV/m



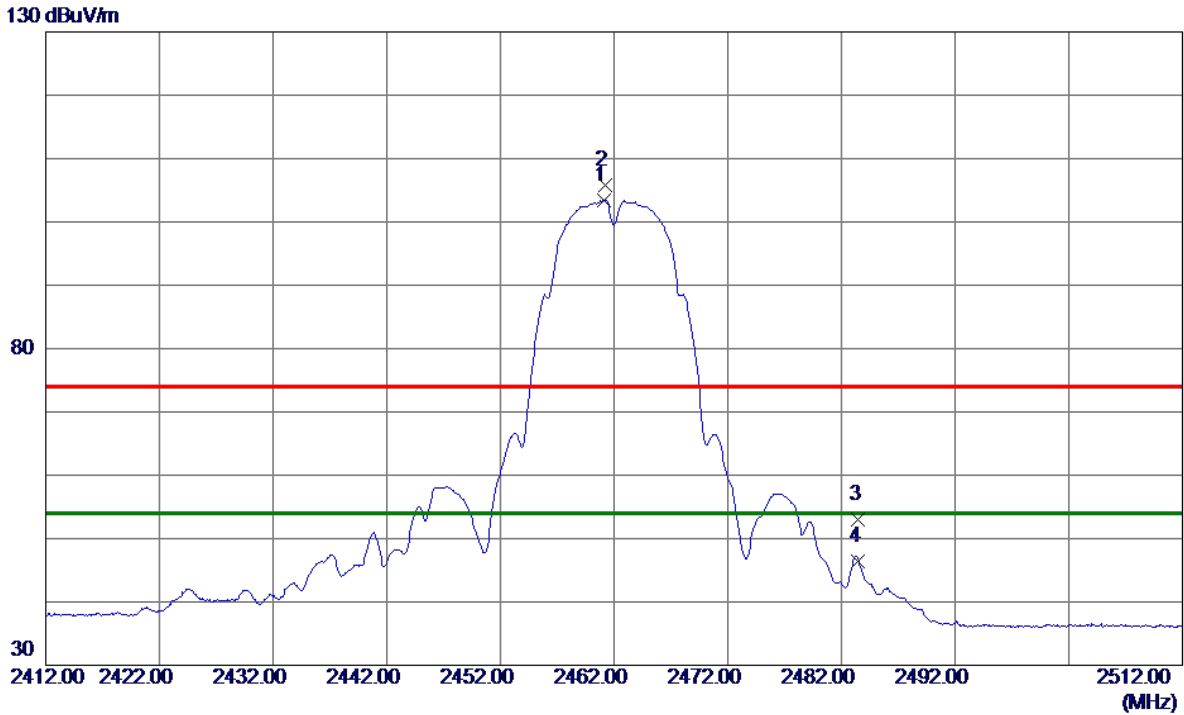
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2461.1500	90.79	6.45	97.24	74.00	23.24	Peak	No Limit
2 *	2461.2000	88.90	6.45	95.35	54.00	41.35	AVG	No Limit
3	2483.5000	40.40	6.42	46.82	74.00	-27.18	Peak	
4	2483.5000	31.61	6.42	38.03	54.00	-15.97	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 (4GB+64GB)

### 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	96.97	6.45	103.42	54.00	49.42	AVG	No Limit
2	2461.2500	99.43	6.45	105.88	74.00	31.88	Peak	No Limit
3	2483.5000	46.50	6.42	52.92	74.00	-21.08	Peak	
4	2483.5000	40.06	6.42	46.48	54.00	-7.52	AVG	

**REMARKS:**

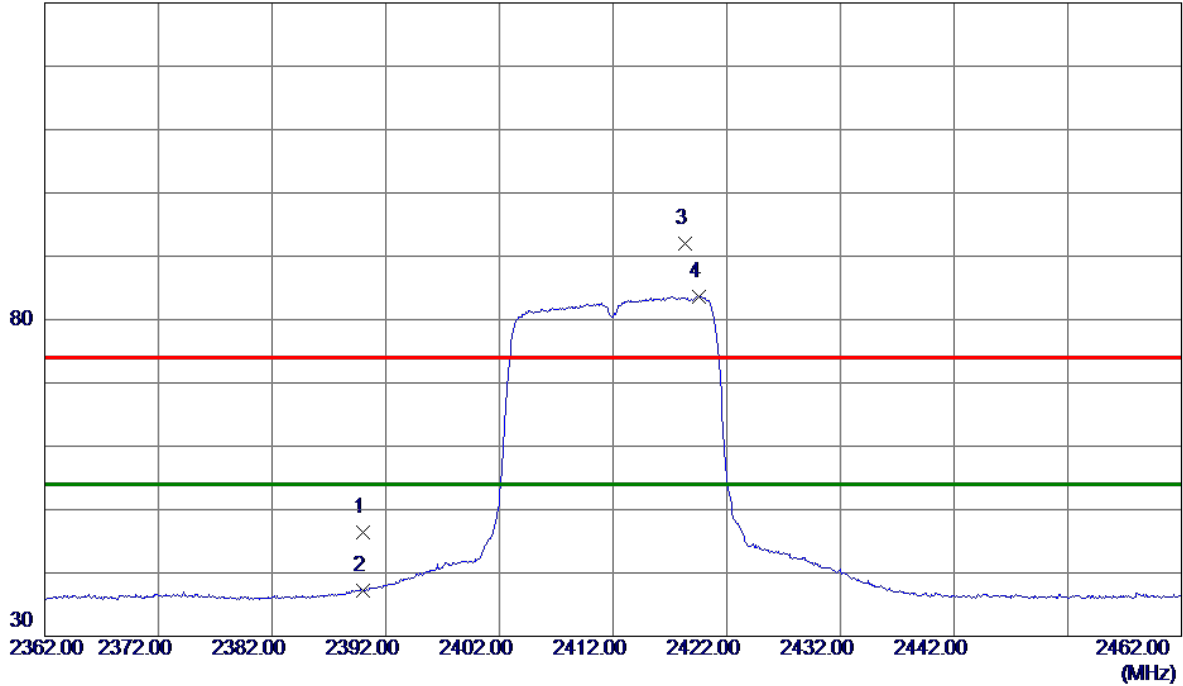
- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.



Orthogonal Axis	X
Test Mode:	TX G Mode 2412 MHz (4GB+64GB)

**Vertical**

130 dBuV/m



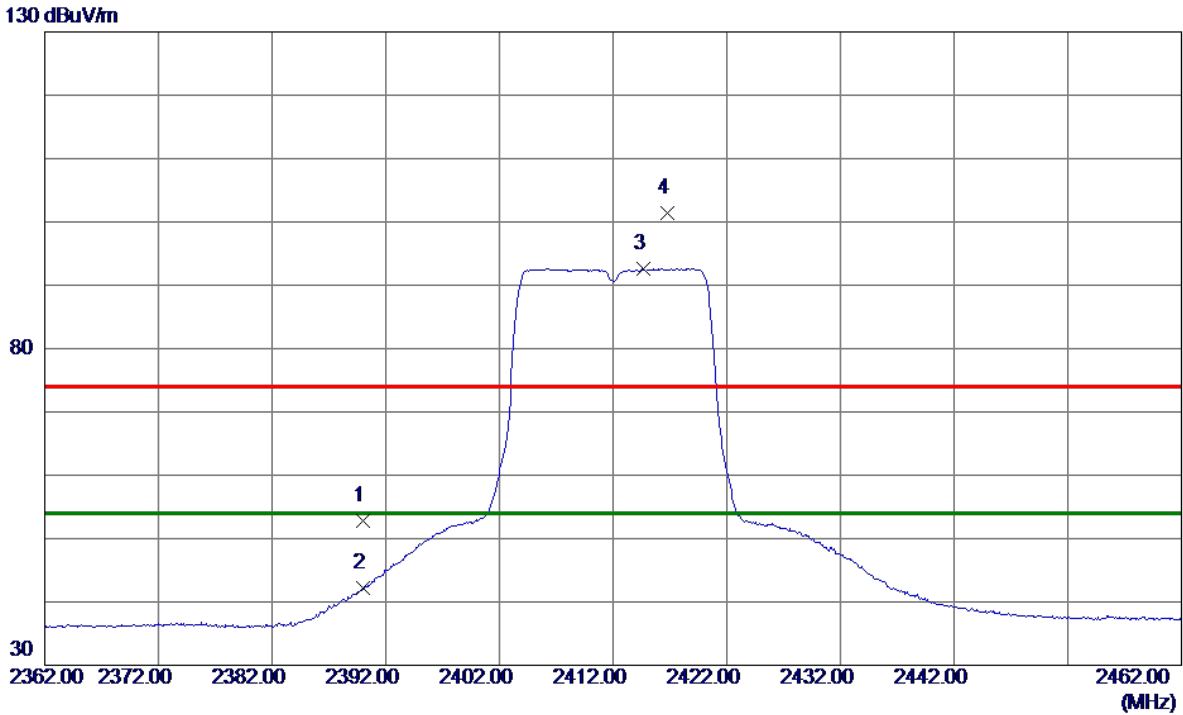
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	39.90	6.53	46.43	74.00	-27.57	Peak	
2	2390.0000	30.67	6.53	37.20	54.00	-16.80	AVG	
3	2418.3500	85.55	6.50	92.05	74.00	18.05	Peak	No Limit
4 *	2419.5500	77.11	6.50	83.61	54.00	29.61	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 (4GB+64GB)

**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	46.36	6.53	52.89	74.00	-21.11	Peak	
2	2390.0000	35.70	6.53	42.23	54.00	-11.77	AVG	
3 *	2414.6500	86.13	6.50	92.63	54.00	38.63	AVG	No Limit
4	2416.7500	94.93	6.50	101.43	74.00	27.43	Peak	No Limit

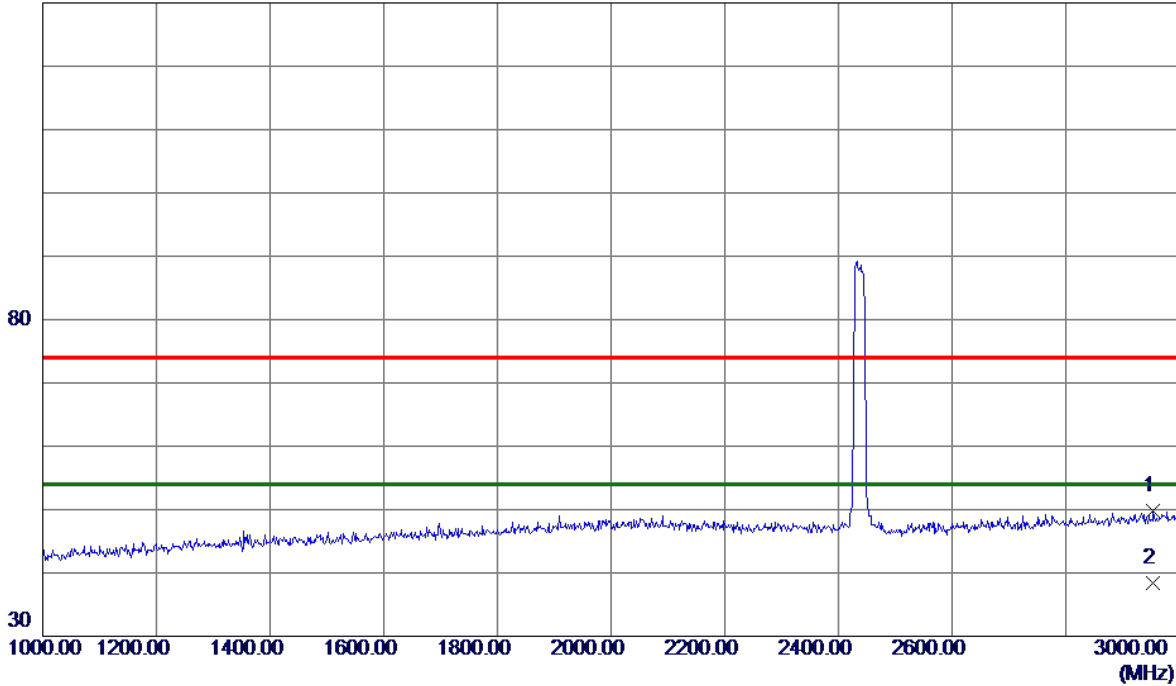
**REMARKS:**

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

Orthogonal Axis	X
Test Mode:	TX G Mode 2437 MHz (4GB+64GB)

**Vertical**

130 dBuV/m



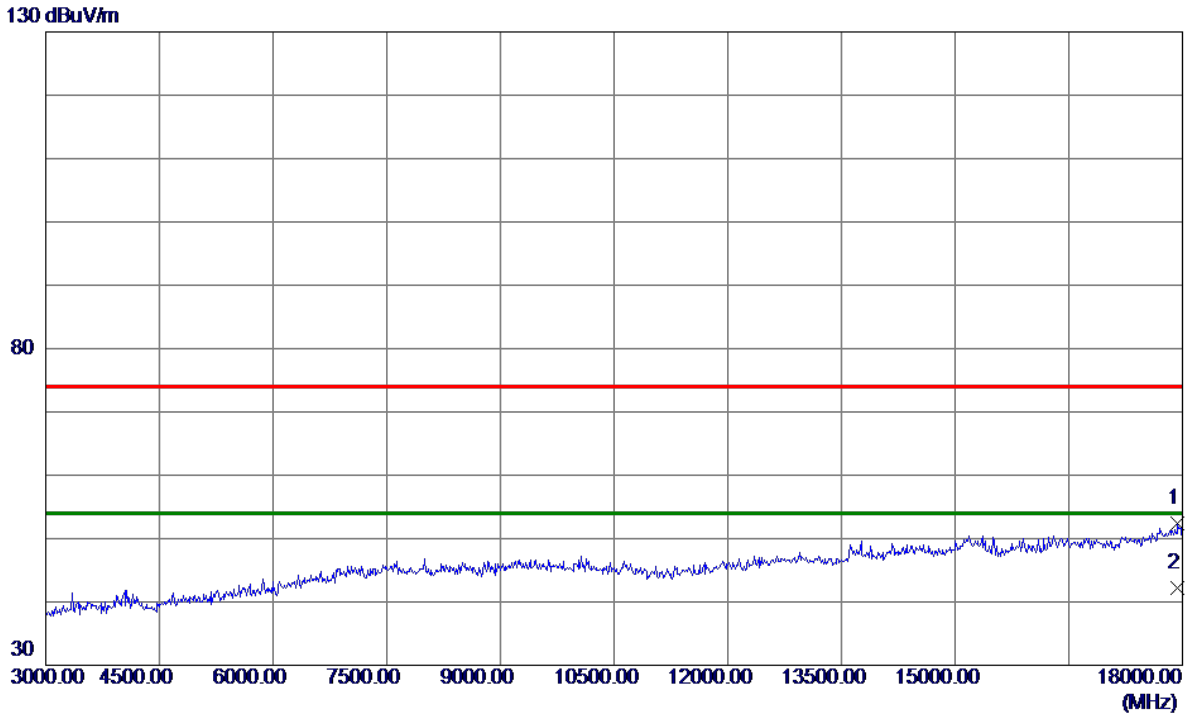
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2954.0000	41.06	8.82	49.88	74.00	-24.12	Peak	
2 *	2954.0000	29.65	8.82	38.47	54.00	-15.53	AVG	

**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 (4GB+64GB)

**Vertical**



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	17940.0000	33.25	19.22	52.47	74.00	-21.53	Peak	
2 *	17940.0000	23.01	19.22	42.23	54.00	-11.77	AVG	

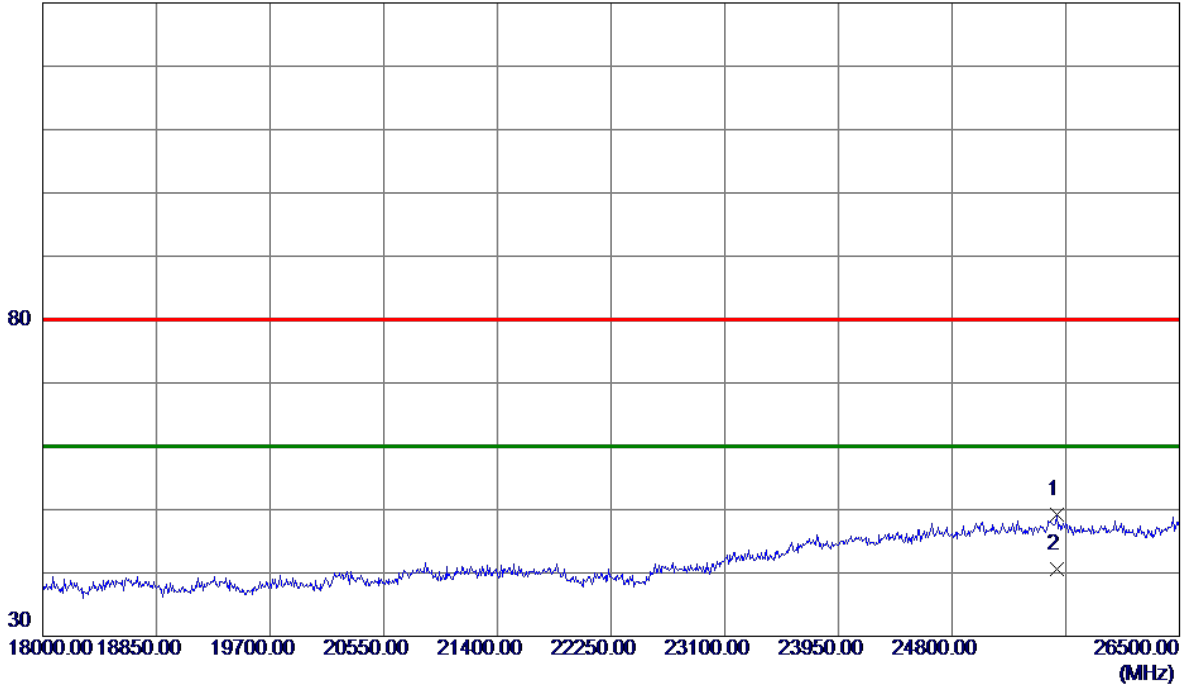
**REMARKS:**

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

Orthogonal Axis	X
Test Mode:	TX G Mode 2437 MHz (4GB+64GB)

**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	25586.2500	29.15	19.98	49.13	80.00	-30.87	Peak	
2 *	25586.2500	20.69	19.98	40.67	60.00	-19.33	AVG	

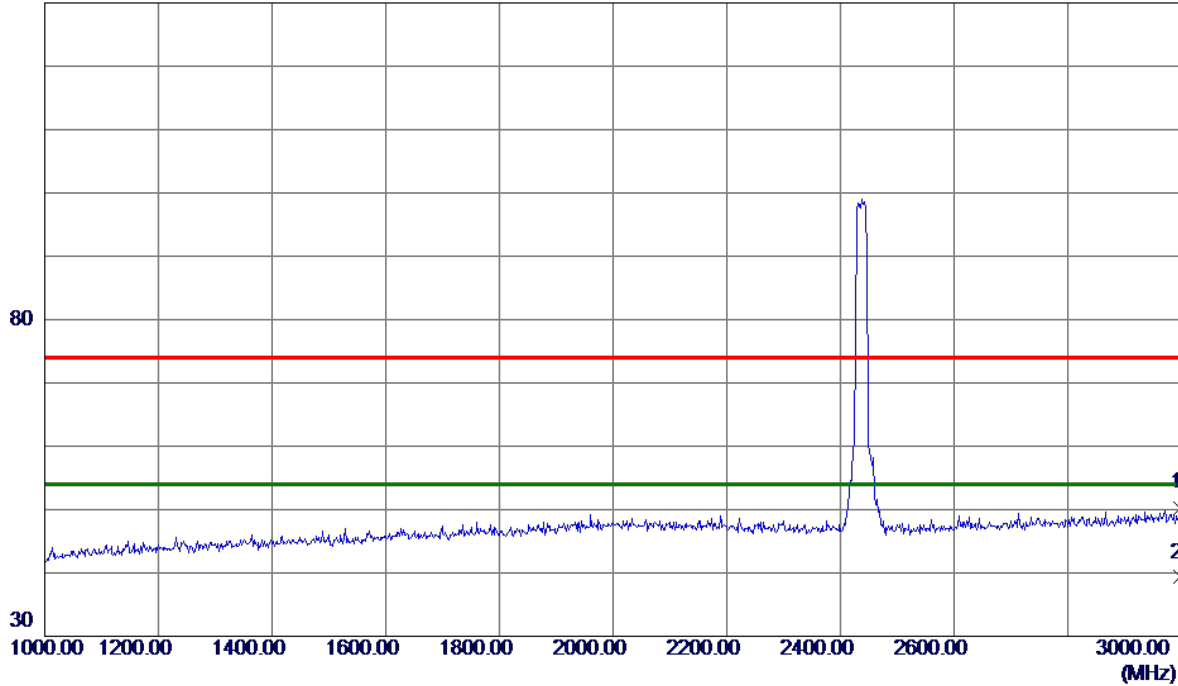
**REMARKS:**

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

Orthogonal Axis	X
Test Mode:	TX G Mode 2437 MHz (4GB+64GB)

**Horizontal**

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2998.0000	41.25	9.05	50.30	74.00	-23.70	Peak	
2 *	2998.0000	30.25	9.05	39.30	54.00	-14.70	AVG	

**REMARKS:**

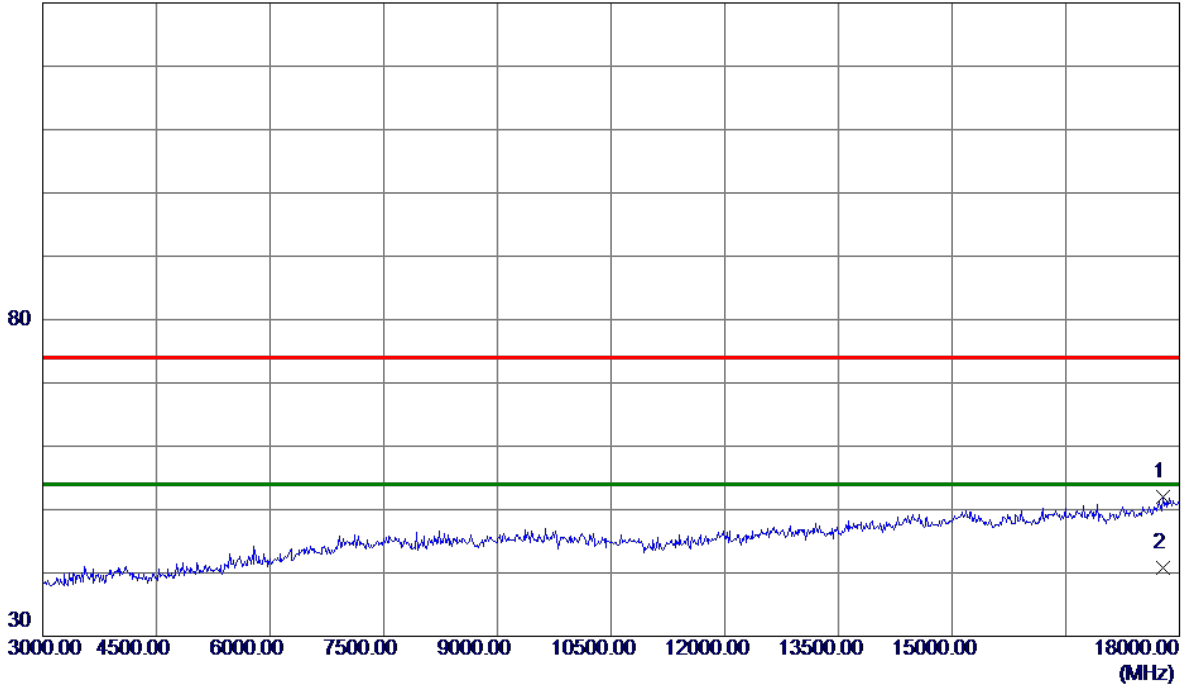
(1) Measurement Value = Reading Level + Correct Factor.

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

Orthogonal Axis	X
Test Mode:	TX G Mode 2437 MHz (4GB+64GB)

### Horizontal

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	17790.0000	33.14	18.83	51.97	74.00	-22.03	Peak	
2 *	17790.0000	21.98	18.83	40.81	54.00	-13.19	AVG	

**REMARKS:**

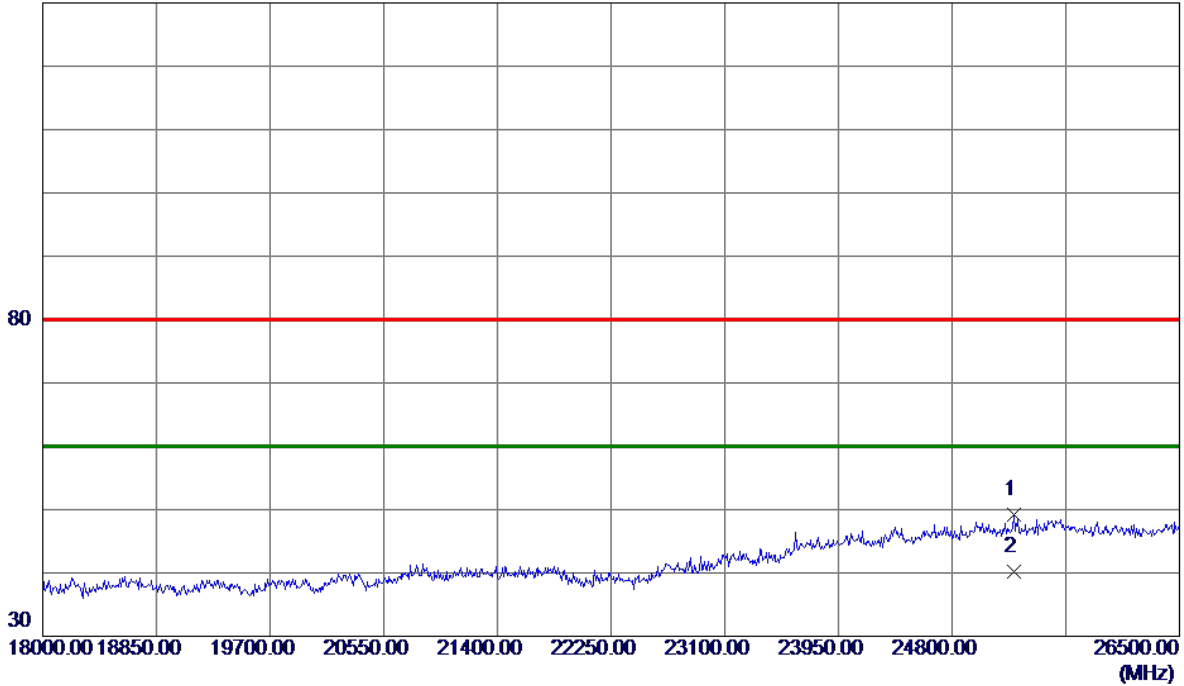
(1) Measurement Value = Reading Level + Correct Factor.

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

Orthogonal Axis	X
Test Mode:	TX G Mode 2437 MHz (4GB+64GB)

**Horizontal**

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	25263.2500	29.26	19.88	49.14	80.00	-30.86	Peak	
2 *	25263.2500	20.40	19.88	40.28	60.00	-19.72	AVG	

**REMARKS:**

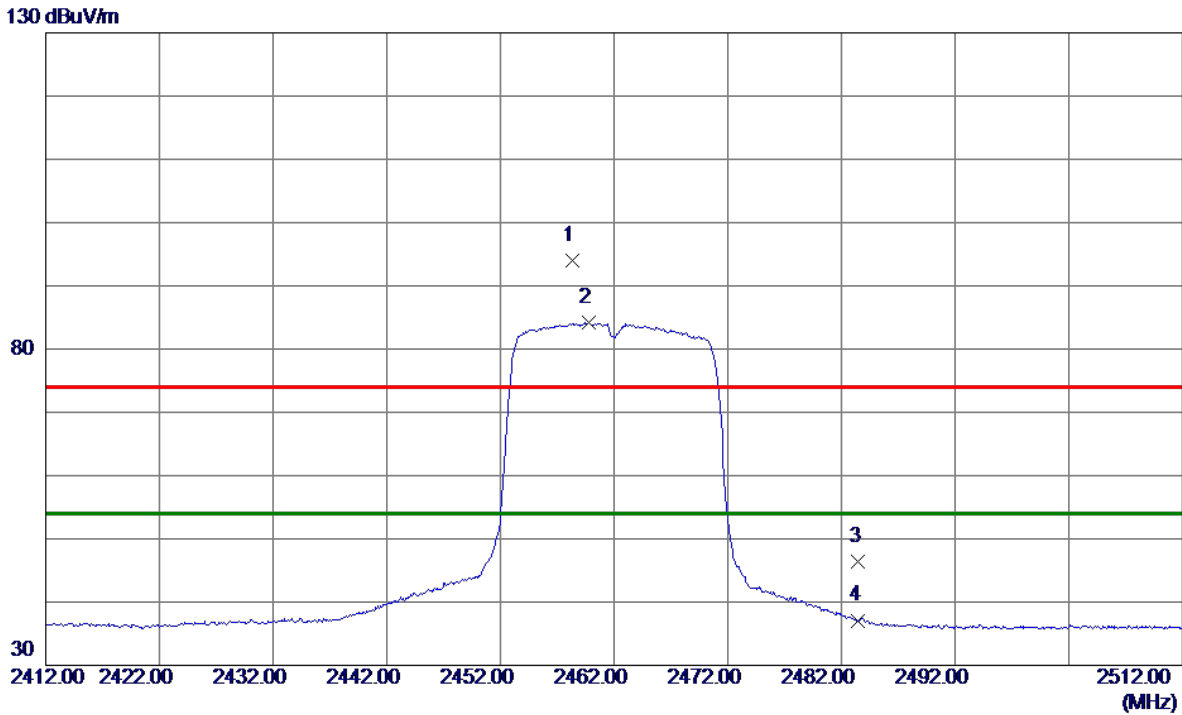
(1) Measurement Value = Reading Level + Correct Factor.

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



Orthogonal Axis	X
Test Mode:	TX G Mode 2462 MHz (4GB+64GB)

**Vertical**



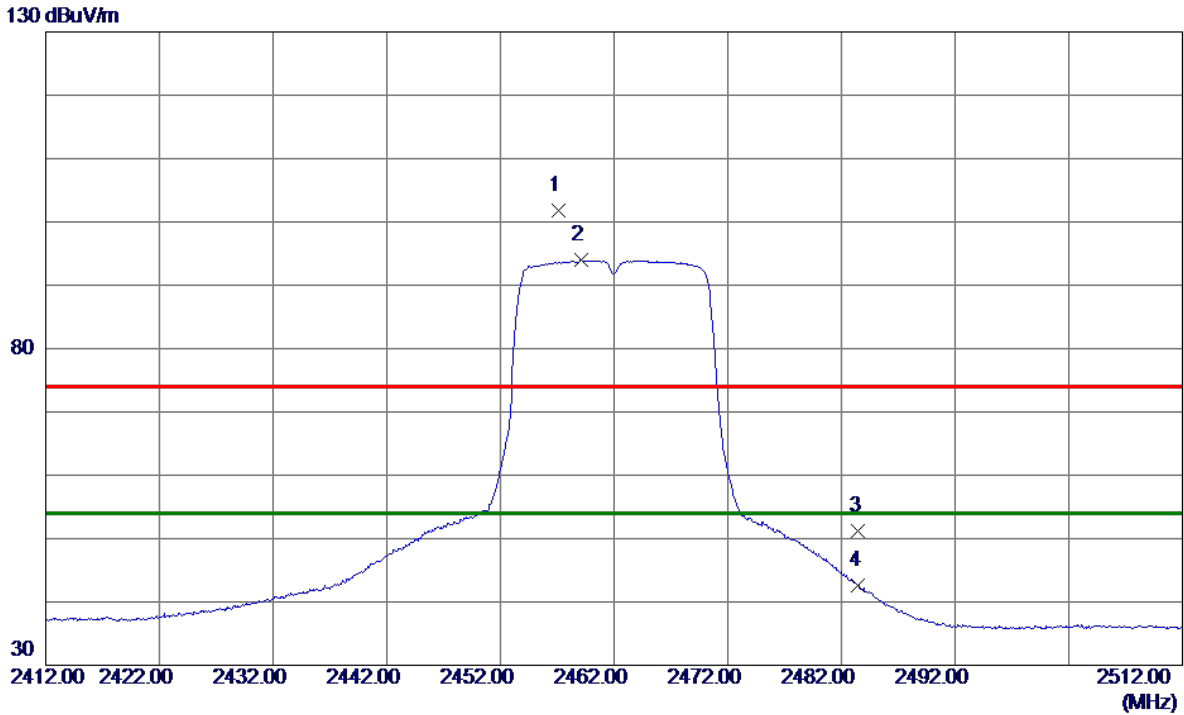
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2458.3000	87.62	6.45	94.07	74.00	20.07	Peak	No Limit
2 *	2459.8000	77.70	6.45	84.15	54.00	30.15	AVG	No Limit
3	2483.5000	39.90	6.42	46.32	74.00	-27.68	Peak	
4	2483.5000	30.68	6.42	37.10	54.00	-16.90	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 (4GB+64GB)

### Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2457.1500	95.34	6.45	101.79	74.00	27.79	Peak	No Limit
2 *	2459.1000	87.49	6.45	93.94	54.00	39.94	AVG	No Limit
3	2483.5000	44.75	6.42	51.17	74.00	-22.83	Peak	
4	2483.5000	36.26	6.42	42.68	54.00	-11.32	AVG	

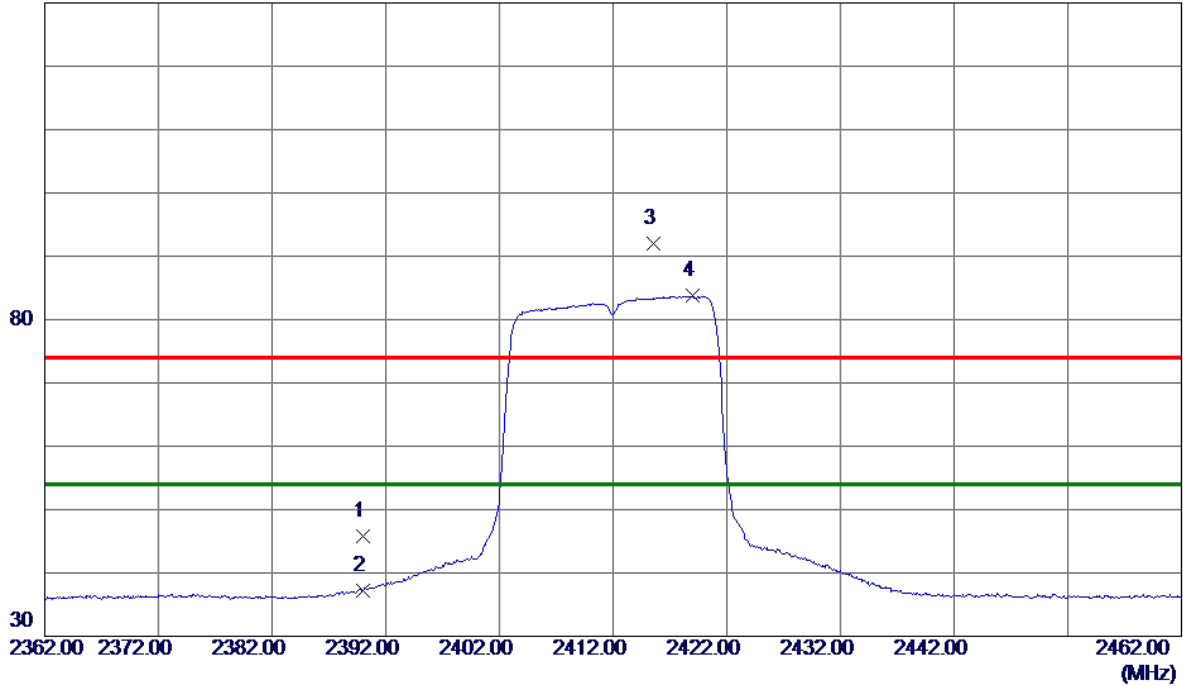
**REMARKS:**

- (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 (4GB+64GB)

**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	39.32	6.53	45.85	74.00	-28.15	Peak	
2	2390.0000	30.72	6.53	37.25	54.00	-16.75	AVG	
3	2415.5500	85.46	6.50	91.96	74.00	17.96	Peak	No Limit
4 *	2418.9500	77.22	6.50	83.72	54.00	29.72	AVG	No Limit

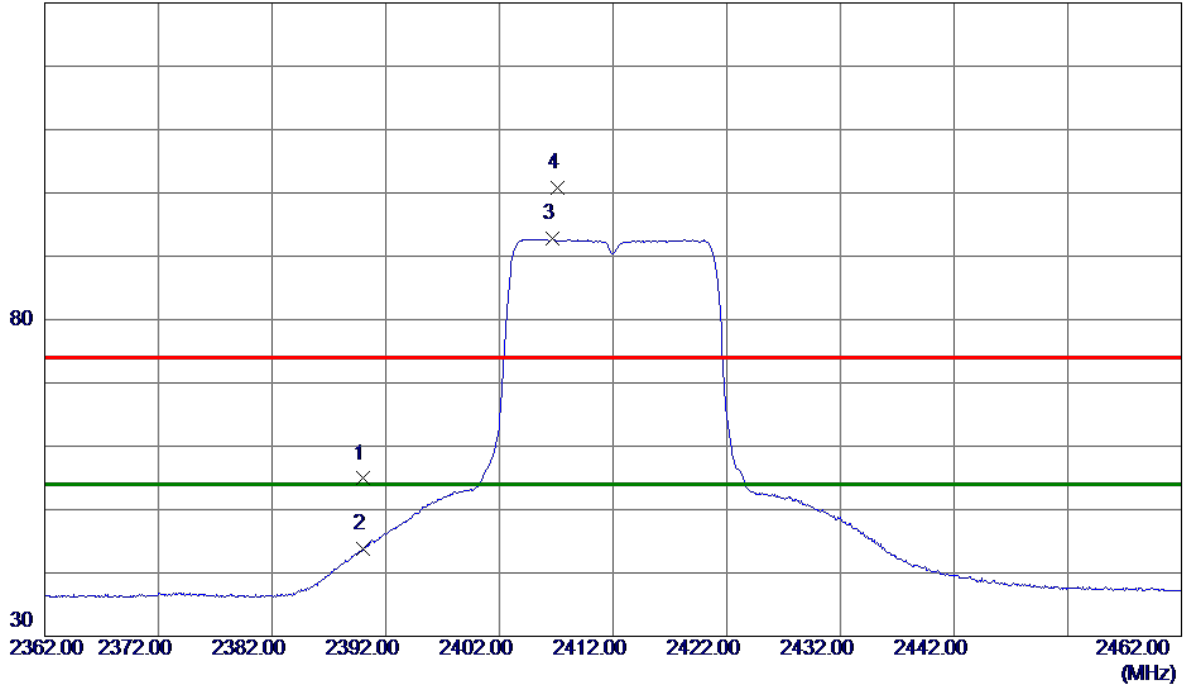
**REMARKS:**

- (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 (4GB+64GB)

**Horizontal**

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	48.37	6.53	54.90	74.00	-19.10	Peak	
2	2390.0000	37.27	6.53	43.80	54.00	-10.20	AVG	
3 *	2406.7000	86.20	6.51	92.71	54.00	38.71	AVG	No Limit
4	2407.1000	94.32	6.51	100.83	74.00	26.83	Peak	No Limit

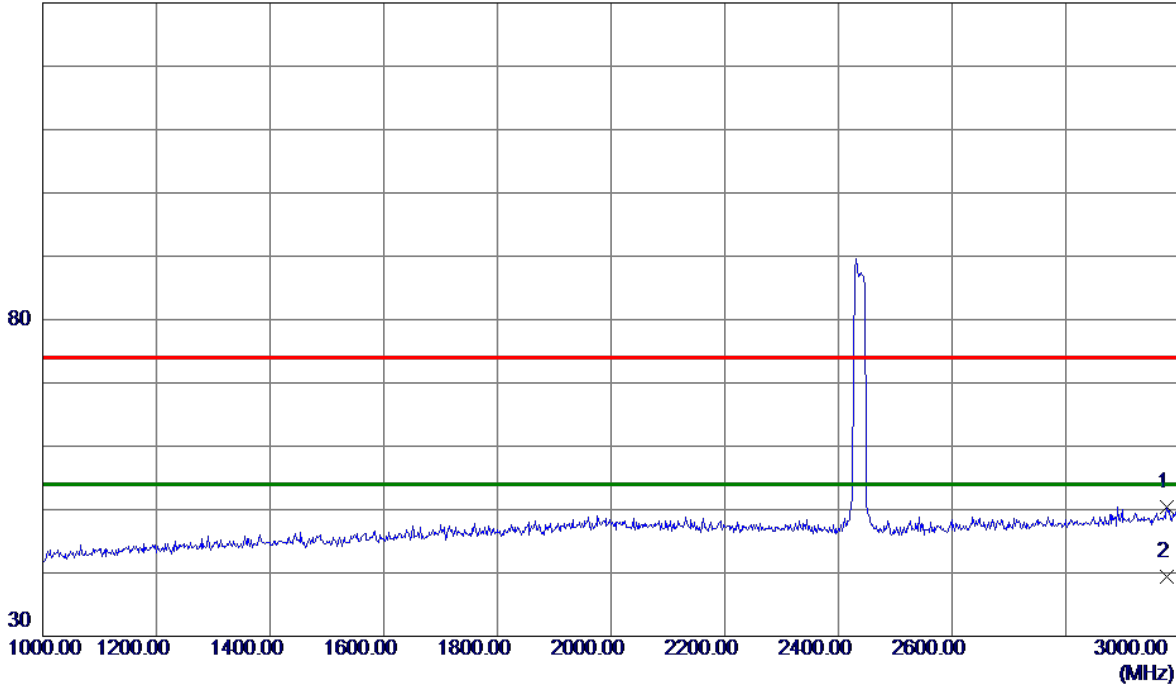
**REMARKS:**

- (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 (4GB+64GB)

**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	2978.0000	41.41	8.94	50.35	74.00	-23.65	Peak	
2 *	2978.0000	30.46	8.94	39.40	54.00	-14.60	AVG	

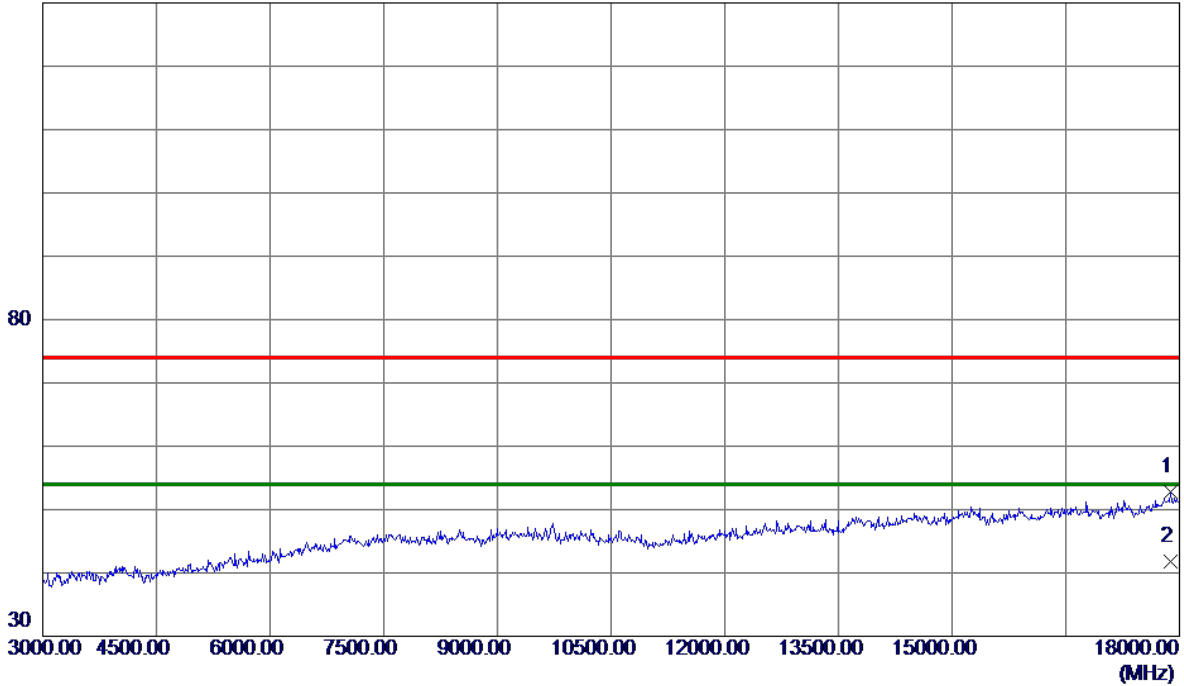
**REMARKS:**

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

Orthogonal Axis	X
Test Mode:	TX N-20M Mode 2437 MHz (4GB+64GB)

**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	17880.0000	33.83	19.06	52.89	74.00	-21.11	Peak	
2 *	17880.0000	22.65	19.06	41.71	54.00	-12.29	AVG	

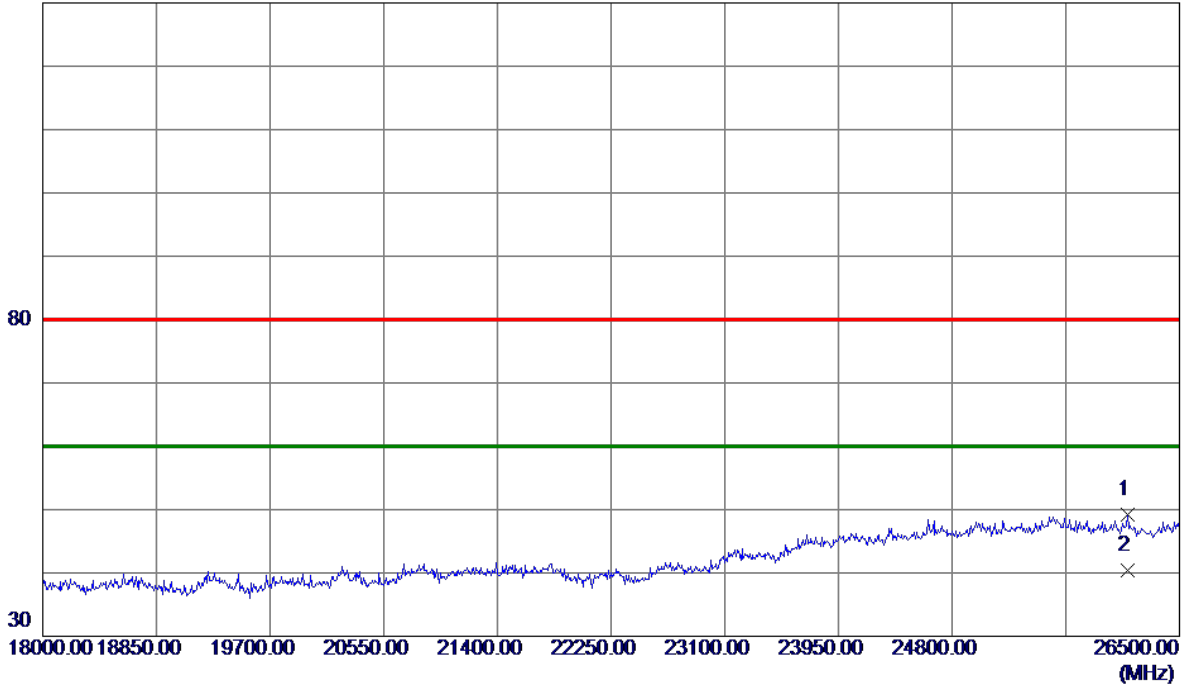
**REMARKS:**

- (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 (4GB+64GB)

**Vertical**

130 dBuV/m



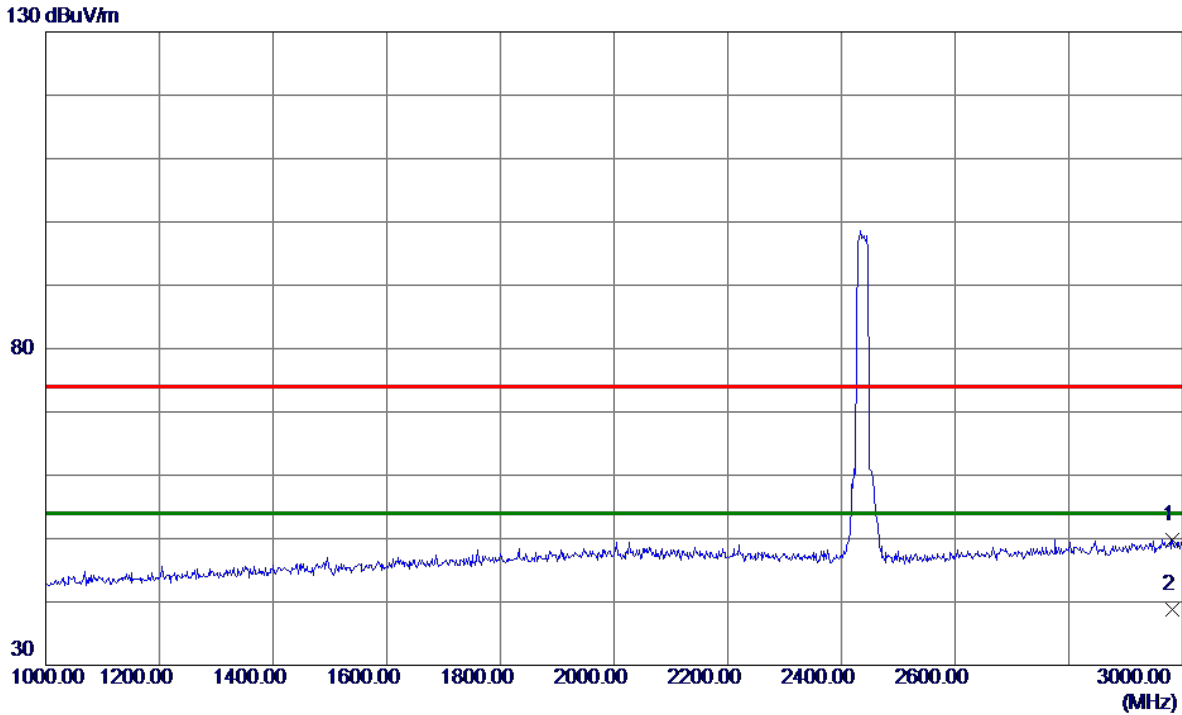
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	26109.0000	29.25	19.87	49.12	80.00	-30.88	Peak	
2 *	26109.0000	20.50	19.87	40.37	60.00	-19.63	AVG	

**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 (4GB+64GB)

**Horizontal**



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2983.0000	40.86	8.97	49.83	74.00	-24.17	Peak	
2 *	2983.0000	29.77	8.97	38.74	54.00	-15.26	AVG	

**REMARKS:**

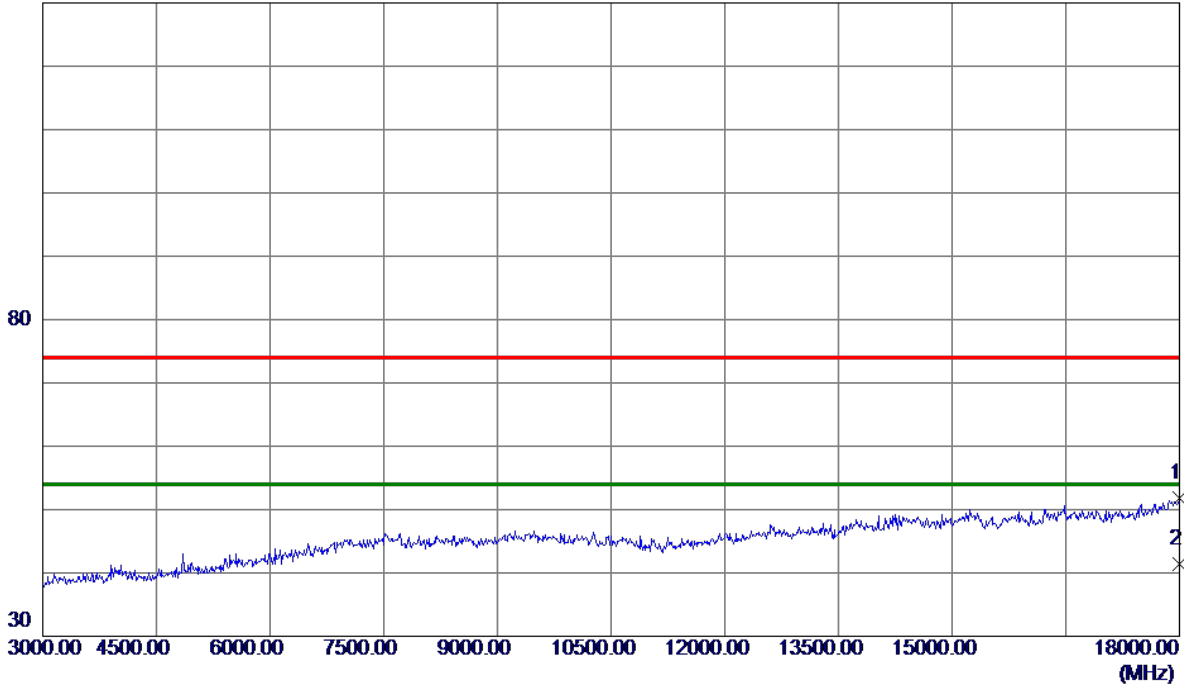
- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.



Orthogonal Axis	X
Test Mode:	TX N-20M Mode 2437 MHz (4GB+64GB)

**Horizontal**

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	18000.0000	32.35	19.37	51.72	74.00	-22.28	Peak	
2 *	18000.0000	21.97	19.37	41.34	54.00	-12.66	AVG	

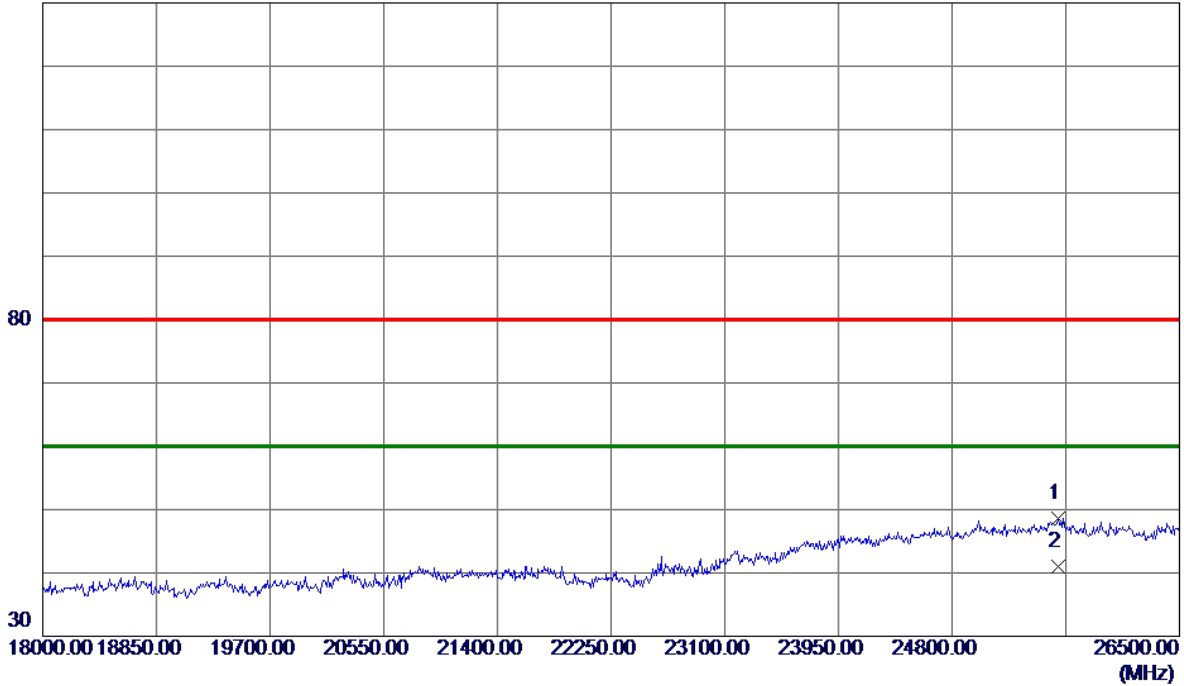
**REMARKS:**

- (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 (4GB+64GB)

**Horizontal**

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	25590.5000	28.68	19.98	48.66	80.00	-31.34	Peak	
2 *	25590.5000	21.06	19.98	41.04	60.00	-18.96	AVG	

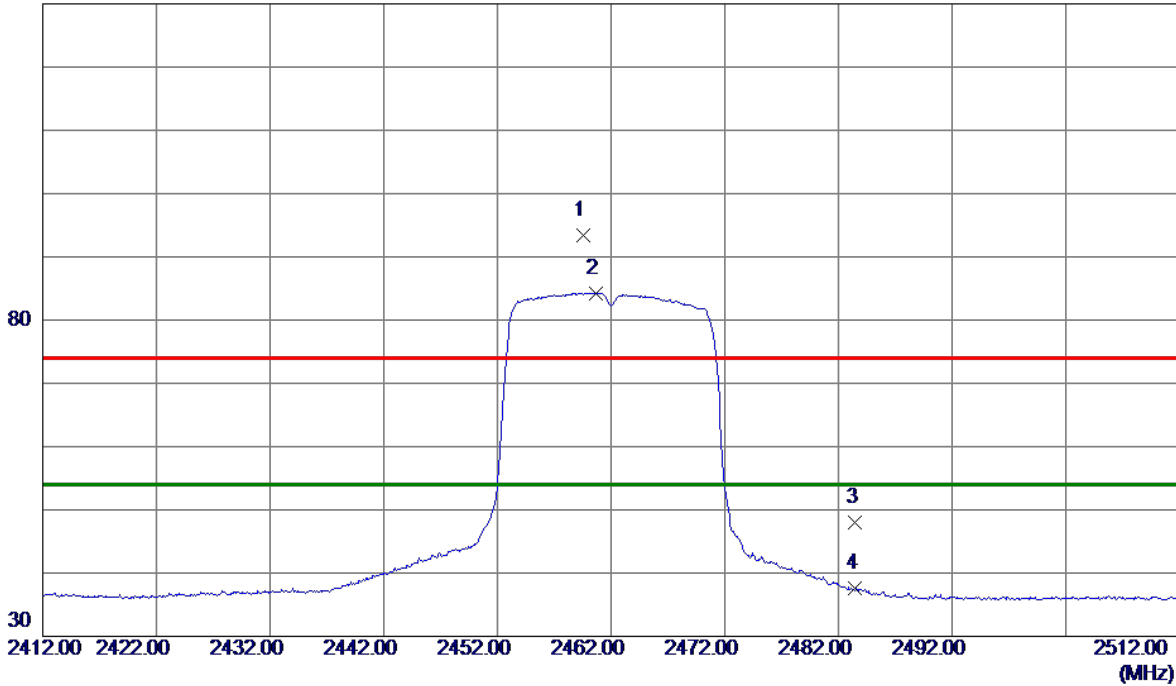
**REMARKS:**

- (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 (4GB+64GB)

**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	2459.6000	86.98	6.45	93.43	74.00	19.43	Peak	No Limit
2 *	2460.7000	77.84	6.45	84.29	54.00	30.29	AVG	No Limit
3	2483.5000	41.59	6.42	48.01	74.00	-25.99	Peak	
4	2483.5000	31.22	6.42	37.64	54.00	-16.36	AVG	

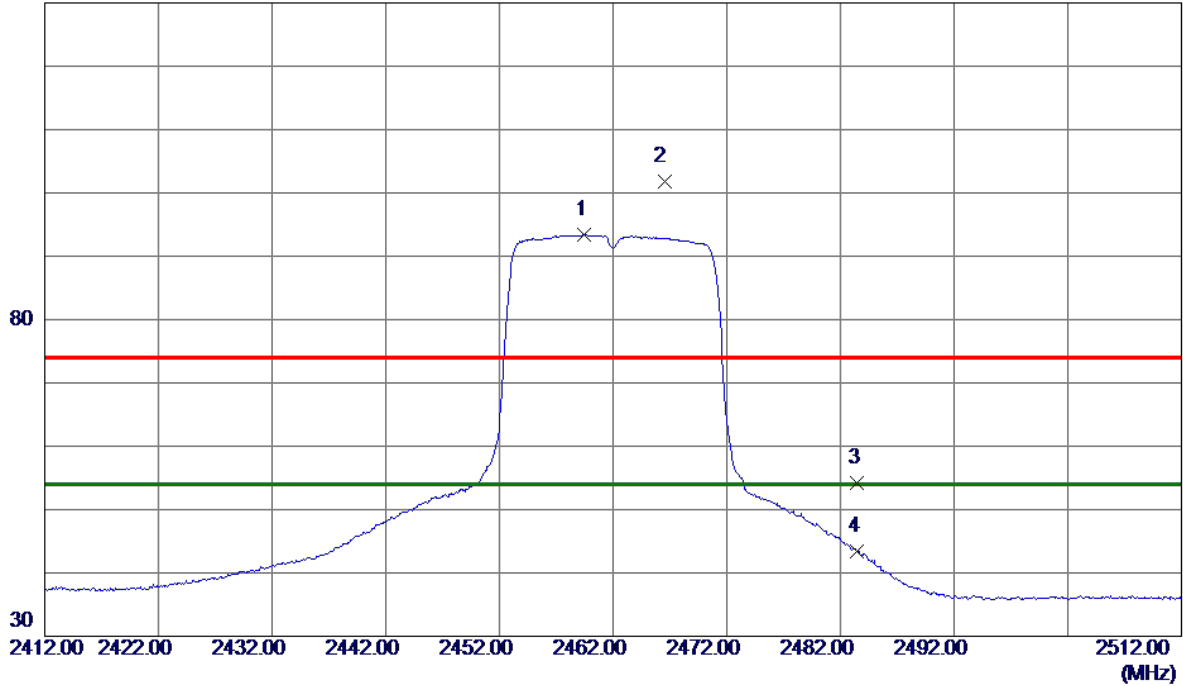
**REMARKS:**

- (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 (4GB+64GB)

**Horizontal**

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2459.5000	86.92	6.45	93.37	54.00	39.37	AVG	No Limit
2	2466.5000	95.27	6.44	101.71	74.00	27.71	Peak	No Limit
3	2483.5000	47.79	6.42	54.21	74.00	-19.79	Peak	
4	2483.5000	36.91	6.42	43.33	54.00	-10.67	AVG	

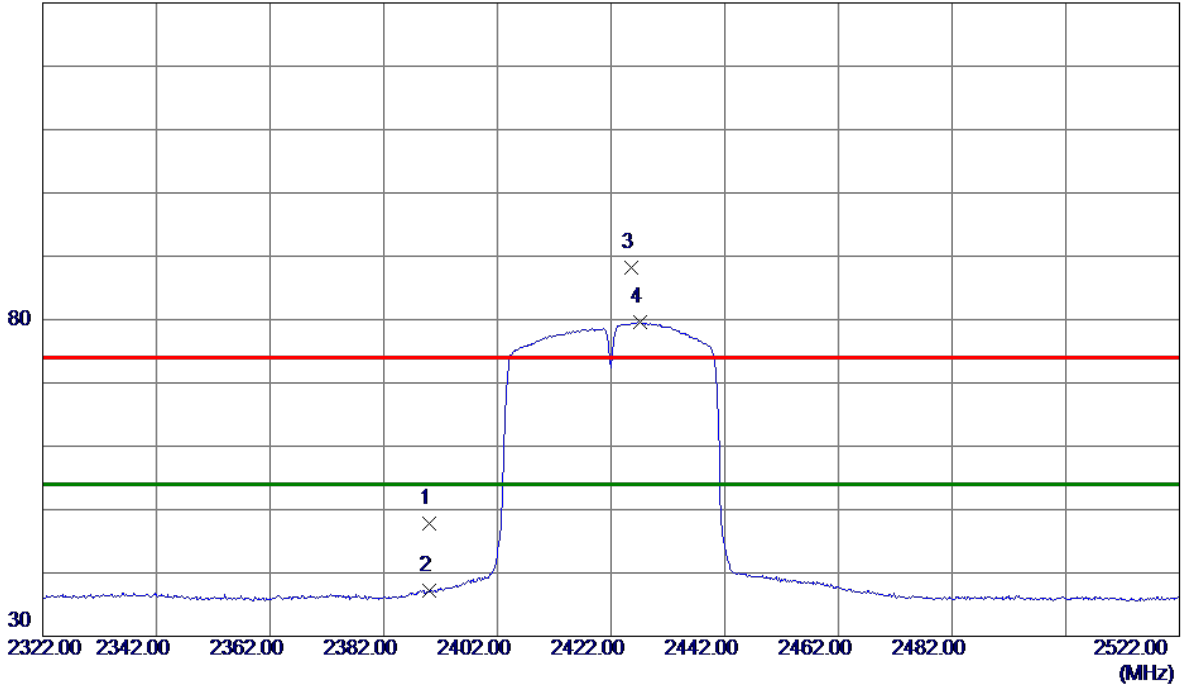
**REMARKS:**

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

Orthogonal Axis	X
Test Mode:	TX N-40M Mode 2422MHz (4GB+64GB)

**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	41.34	6.53	47.87	74.00	-26.13	Peak	
2	2390.0000	30.70	6.53	37.23	54.00	-16.77	AVG	
3	2425.6000	81.74	6.49	88.23	74.00	14.23	Peak	No Limit
4 *	2427.1000	73.10	6.49	79.59	54.00	25.59	AVG	No Limit

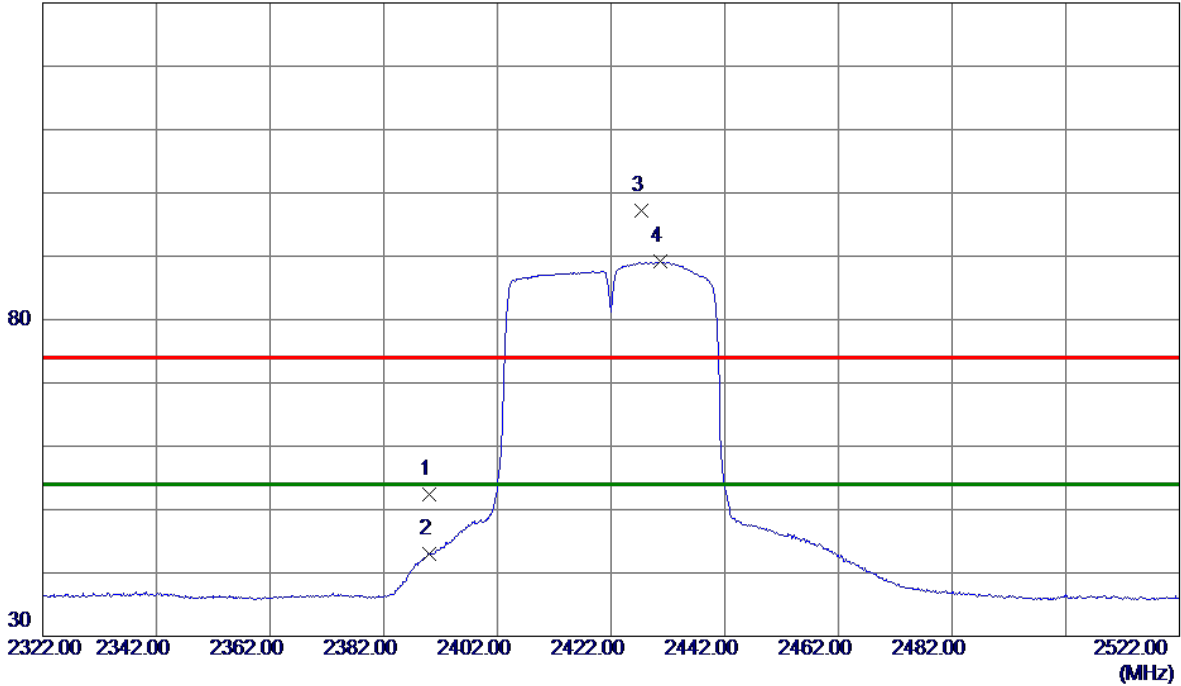
**REMARKS:**

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

Orthogonal Axis	X
Test Mode:	TX N-40M Mode 2422MHz (4GB+64GB)

Horizontal

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	45.78	6.53	52.31	74.00	-21.69	Peak	
2	2390.0000	36.53	6.53	43.06	54.00	-10.94	AVG	
3	2427.4000	90.80	6.49	97.29	74.00	23.29	Peak	No Limit
4 *	2430.7000	82.64	6.48	89.12	54.00	35.12	AVG	No Limit

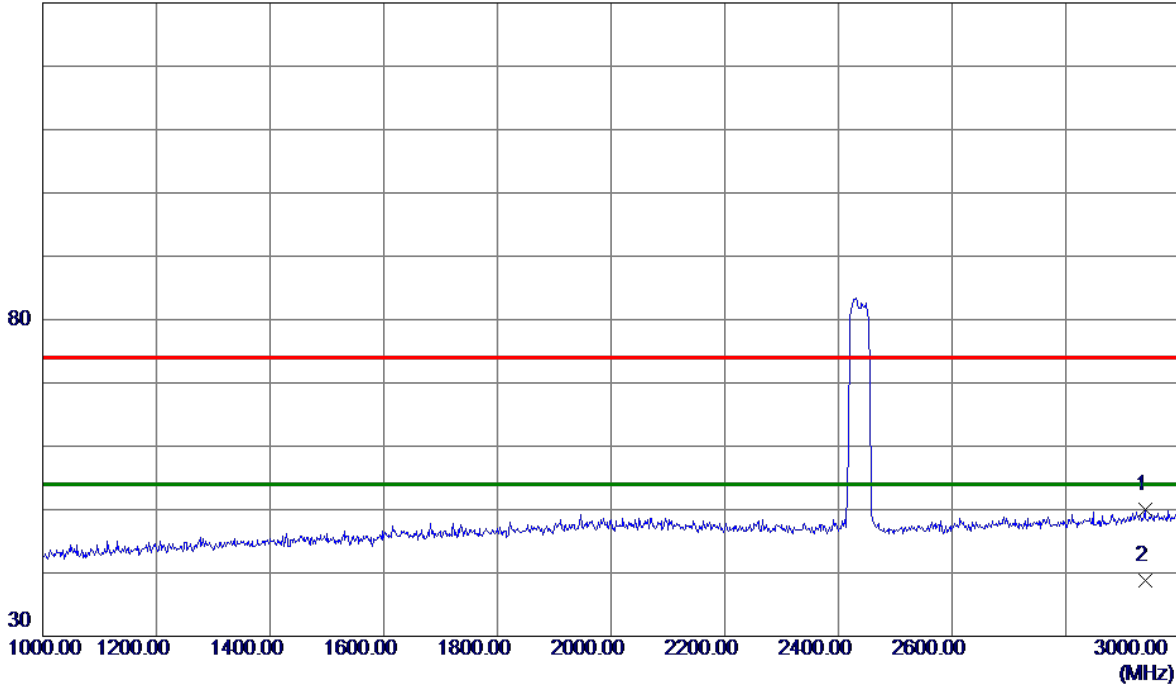
REMARKS:

- (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 (4GB+64GB)

**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	2939.0000	41.21	8.74	49.95	74.00	-24.05	Peak	
2 *	2939.0000	30.10	8.74	38.84	54.00	-15.16	AVG	

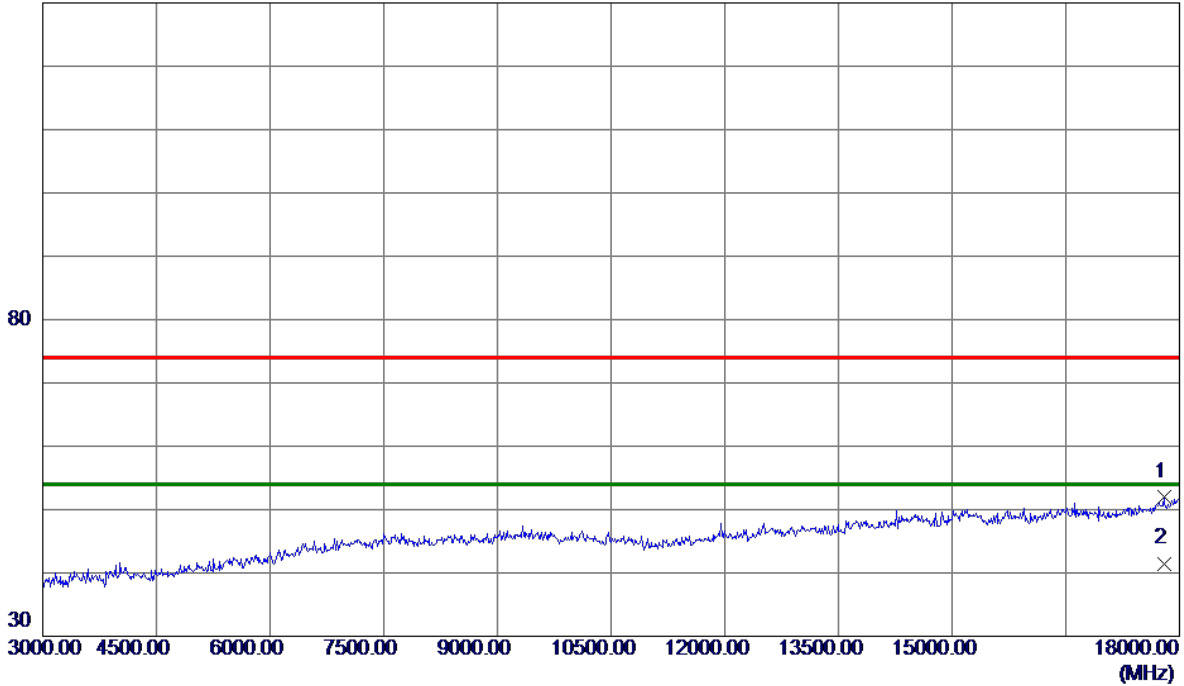
**REMARKS:**

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

Orthogonal Axis	X
Test Mode:	TX N-40M Mode 2437 MHz (4GB+64GB)

**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	17797.5000	33.08	18.85	51.93	74.00	-22.07	Peak	
2 *	17797.5000	22.65	18.85	41.50	54.00	-12.50	AVG	

**REMARKS:**

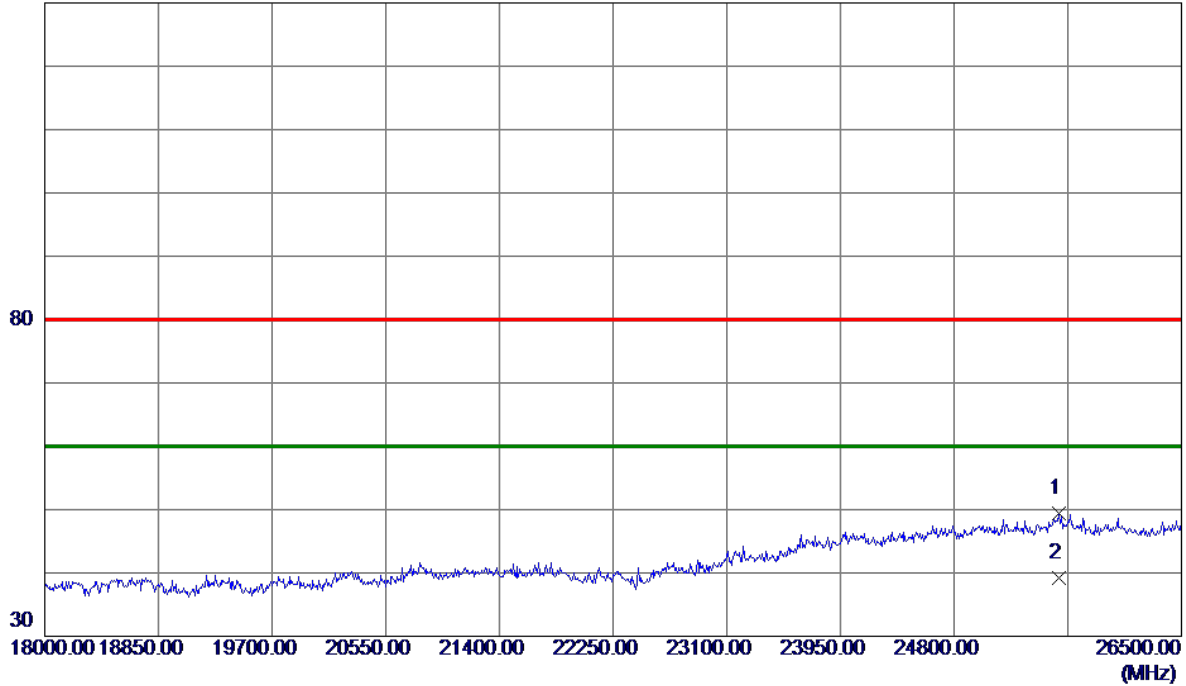
- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.



Orthogonal Axis	X
Test Mode:	TX N-40M Mode 2437 MHz (4GB+64GB)

**Vertical**

130 dBuV/m



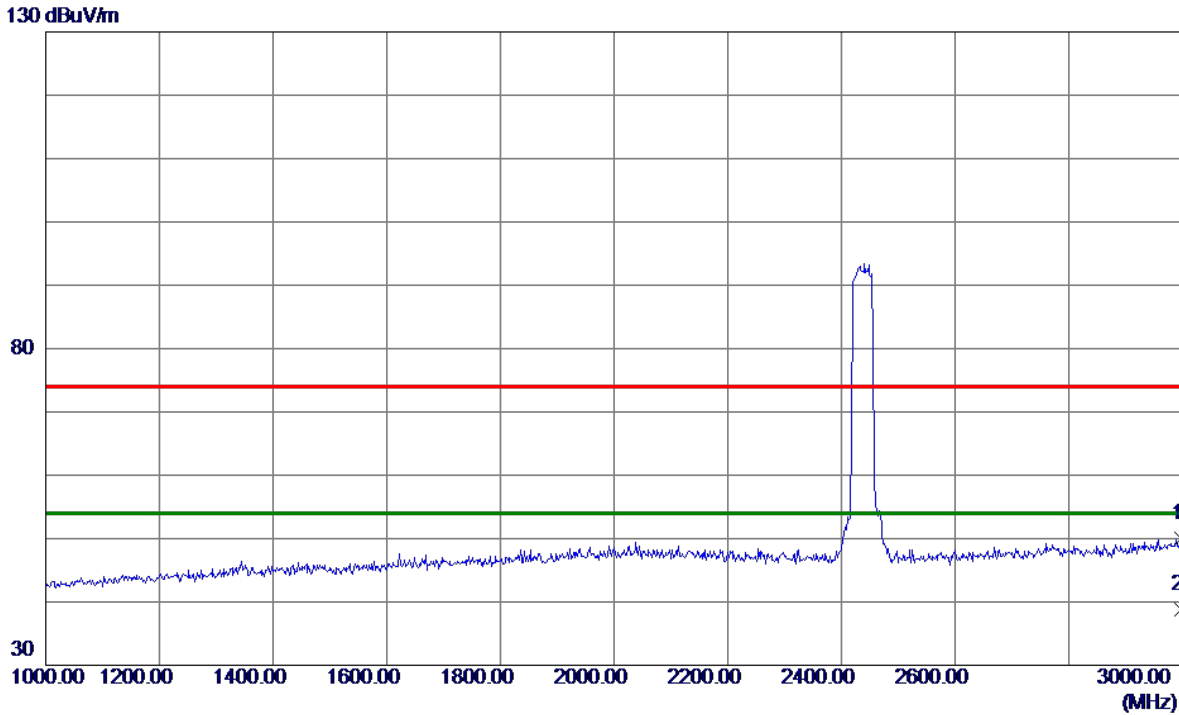
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	25582.0000	29.49	19.99	49.48	80.00	-30.52	Peak	
2 *	25582.0000	19.28	19.99	39.27	60.00	-20.73	AVG	

**REMARKS:**

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

Orthogonal Axis	X
Test Mode:	TX N-40M Mode 2437 MHz (4GB+64GB)

**Horizontal**



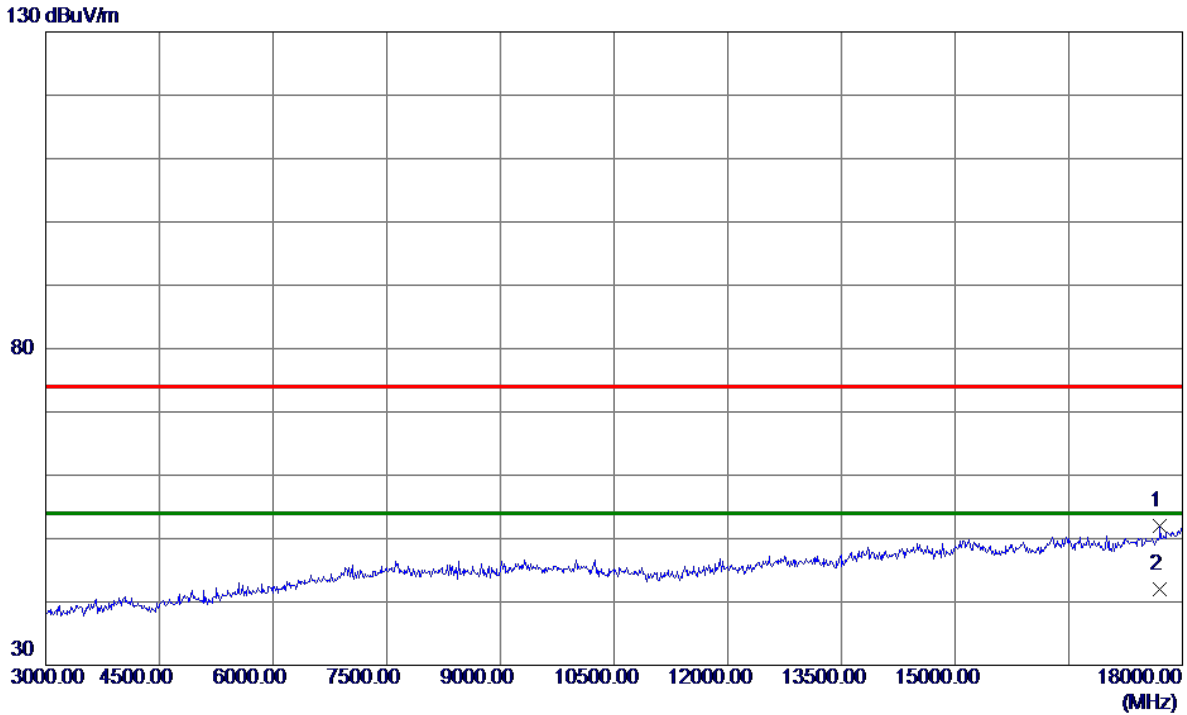
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2998.0000	40.86	9.05	49.91	74.00	-24.09	Peak	
2 *	2998.0000	29.81	9.05	38.86	54.00	-15.14	AVG	

**REMARKS:**

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

Orthogonal Axis	X
Test Mode:	TX N-40M Mode 2437 MHz (4GB+64GB)

### Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	17700.0000	33.31	18.60	51.91	74.00	-22.09	Peak	
2 *	17700.0000	23.45	18.60	42.05	54.00	-11.95	AVG	

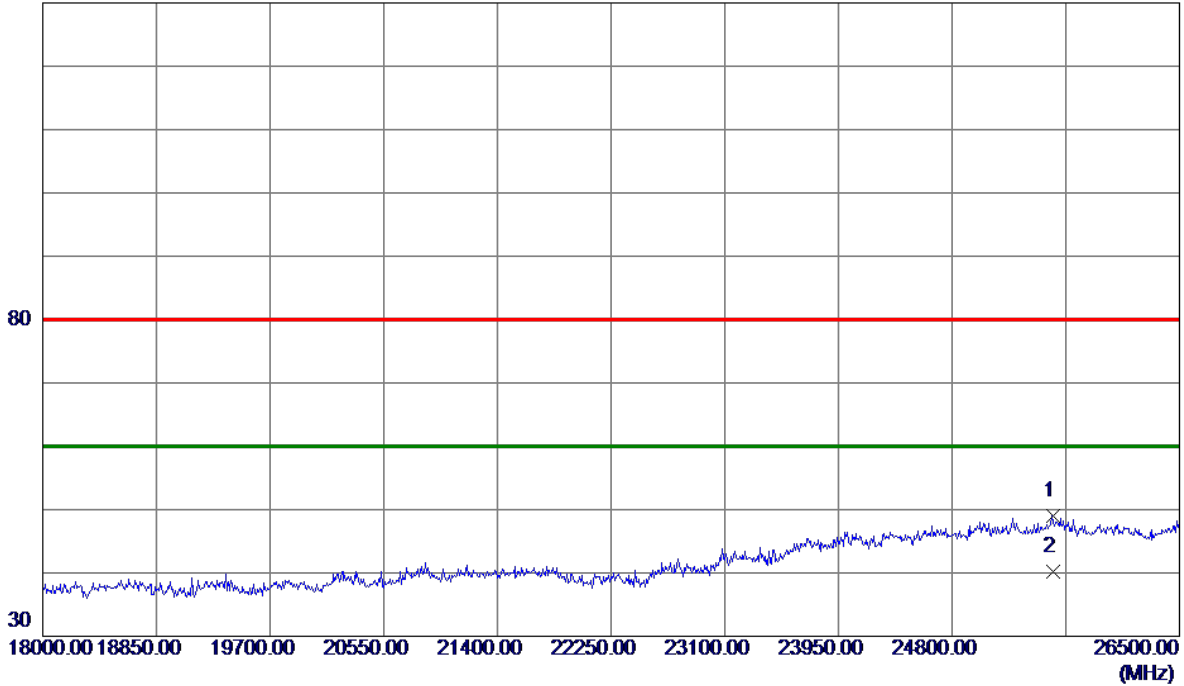
**REMARKS:**

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

Orthogonal Axis	X
Test Mode:	TX N-40M Mode 2437 MHz (4GB+64GB)

**Horizontal**

130 dBuV/m



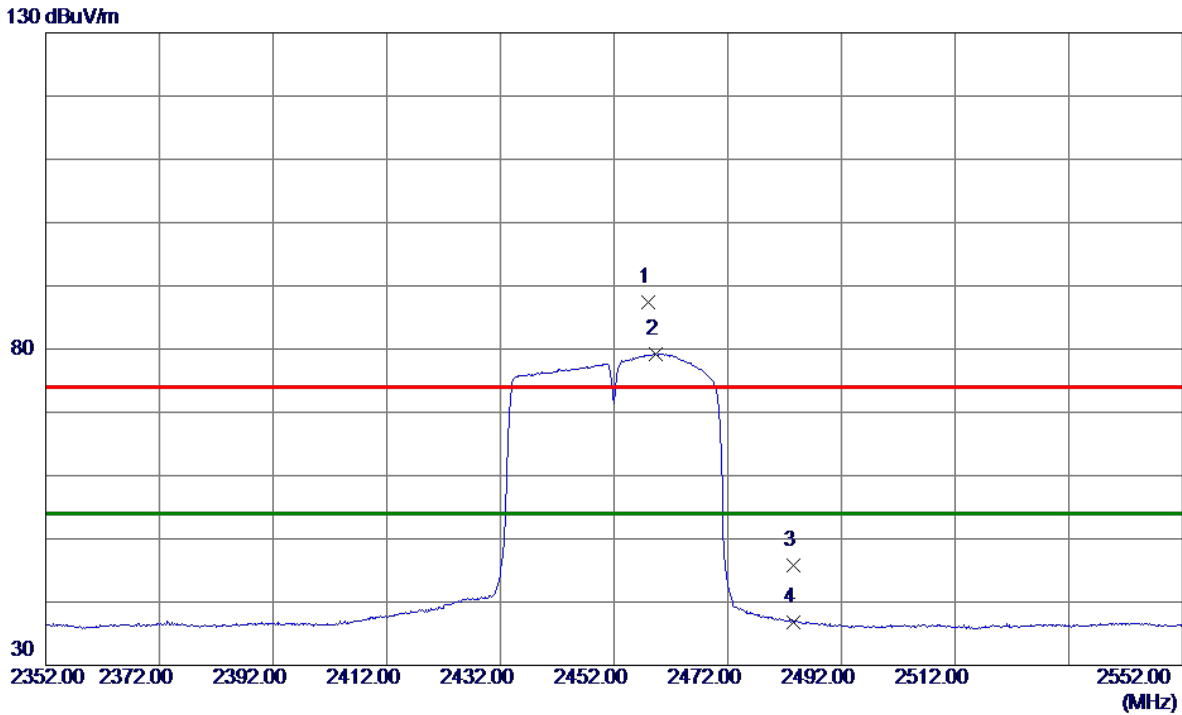
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	25552.2500	28.98	20.02	49.00	80.00	-31.00	Peak	
2 *	25552.2500	20.14	20.02	40.16	60.00	-19.84	AVG	

**REMARKS:**

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

Orthogonal Axis	X
Test Mode:	TX N-40M Mode 2452 MHz (4GB+64GB)

**Vertical**



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2457.9000	80.95	6.45	87.40	74.00	13.40	Peak	No Limit
2 *	2459.3000	72.79	6.45	79.24	54.00	25.24	AVG	No Limit
3	2483.5000	39.38	6.42	45.80	74.00	-28.20	Peak	
4	2483.5000	30.42	6.42	36.84	54.00	-17.16	AVG	

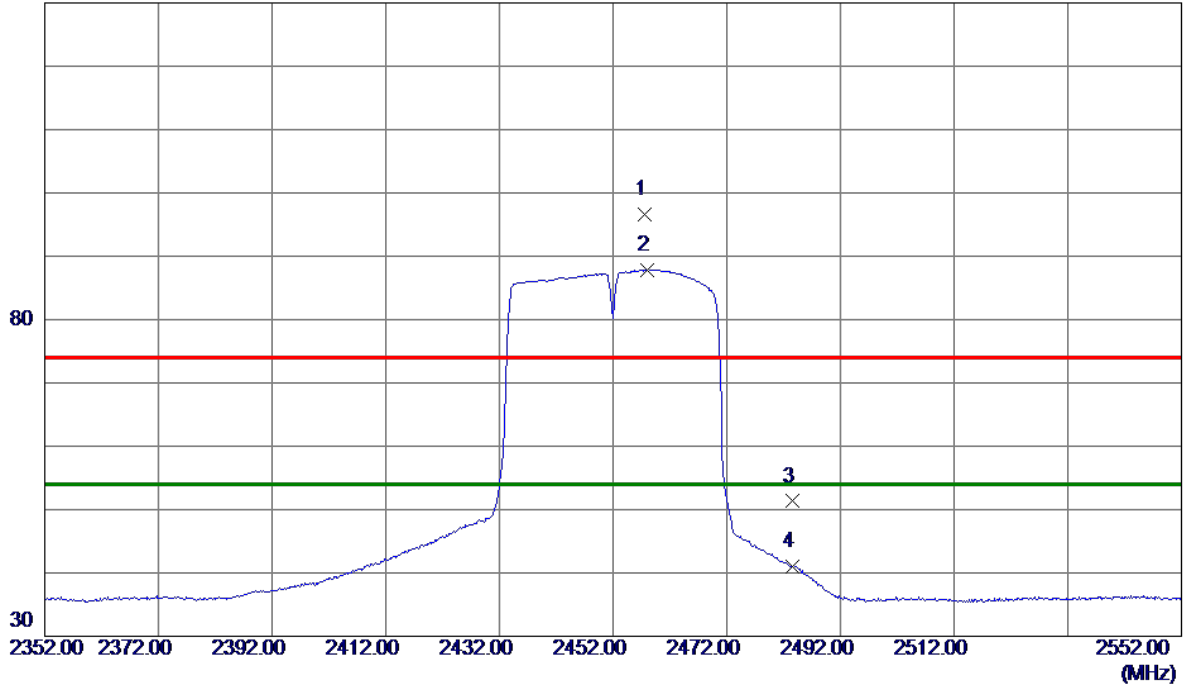
**REMARKS:**

- (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 (4GB+64GB)

**Horizontal**

130 dBuV/m



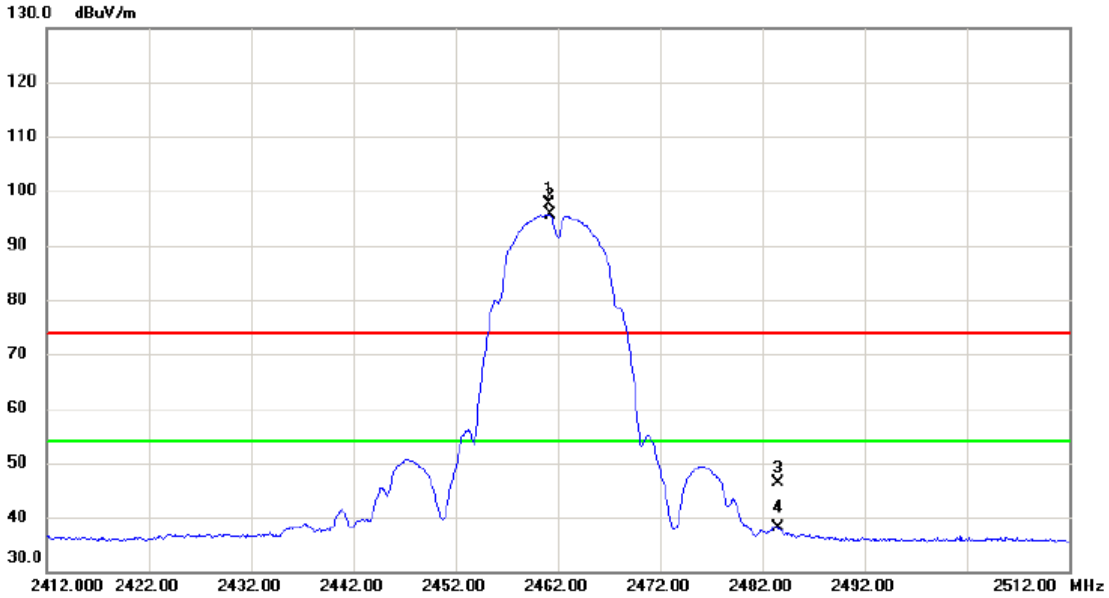
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2457.5000	90.13	6.45	96.58	74.00	22.58	Peak	No Limit
2 *	2457.9000	81.37	6.45	87.82	54.00	33.82	AVG	No Limit
3	2483.5000	44.88	6.42	51.30	74.00	-22.70	Peak	
4	2483.5000	34.55	6.42	40.97	54.00	-13.03	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 (3GB+32GB)

**Vertical**



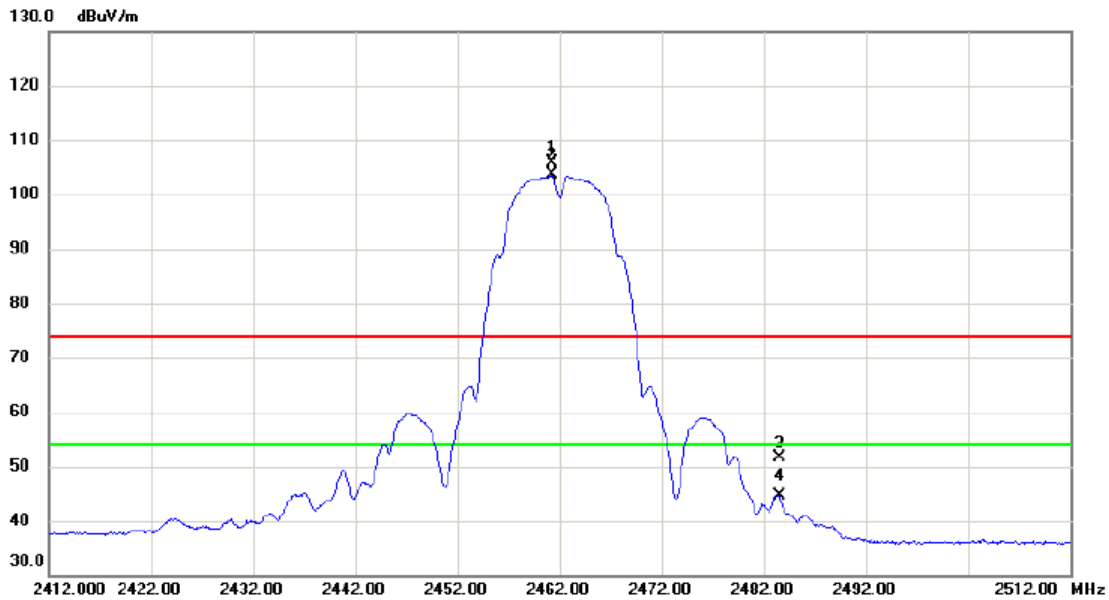
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	X	2461.200	91.20	6.45	97.65	74.00	23.65	peak	No Limit
2	*	2461.250	89.28	6.45	95.73	54.00	41.73	AVG	No Limit
3		2483.500	39.85	6.43	46.28	74.00	-27.72	peak	
4		2483.500	31.70	6.43	38.13	54.00	-15.87	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 (3GB+32GB)

### Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	X	2461.250	99.55	6.45	106.00	74.00	32.00	peak	No Limit
2	*	2461.250	97.09	6.45	103.54	54.00	49.54	AVG	No Limit
3		2483.500	45.11	6.43	51.54	74.00	-22.46	peak	
4		2483.500	38.16	6.43	44.59	54.00	-9.41	AVG	

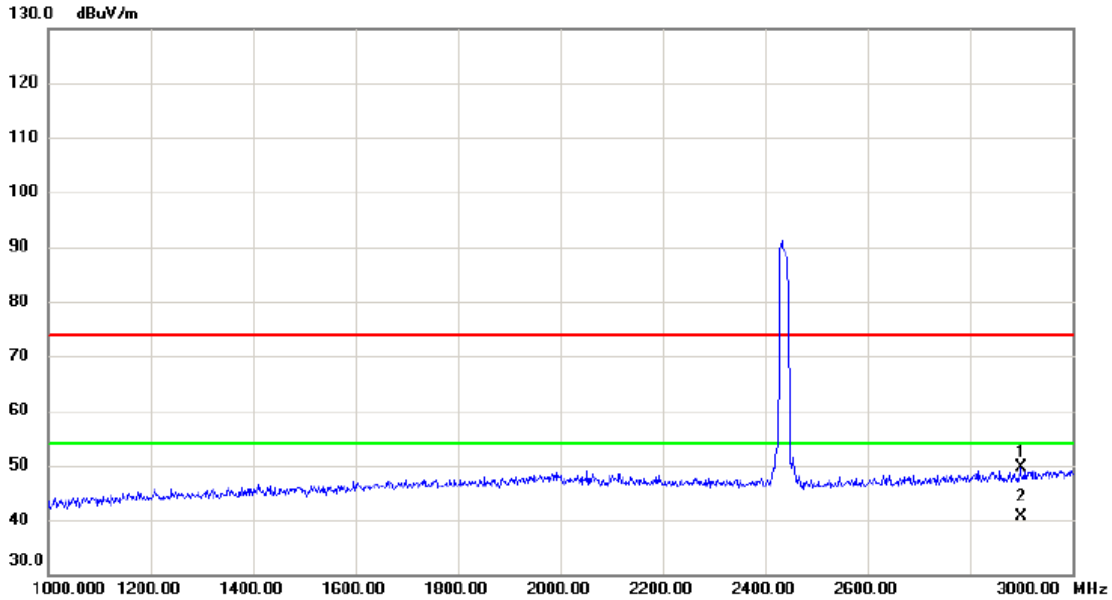
**REMARKS:**

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



Orthogonal Axis	X
Test Mode:	TX G Mode 2437 MHz (3GB+32GB)

### Vertical



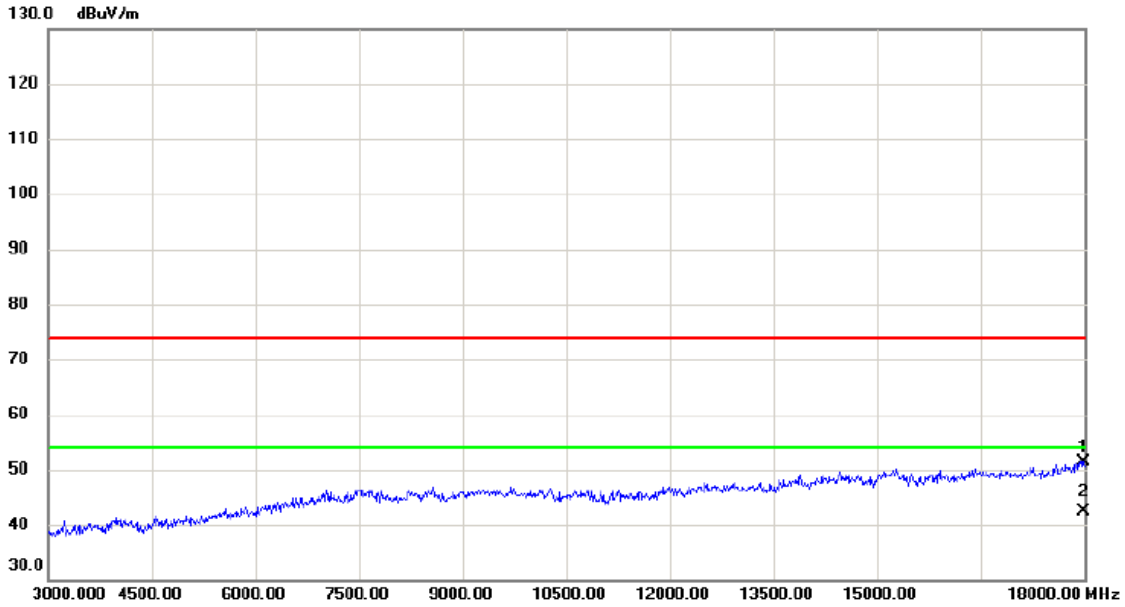
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		2899.000	41.01	8.52	49.53	74.00	-24.47	peak	
2	*	2899.000	32.20	8.52	40.72	54.00	-13.28	AVG	

**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 (3GB+32GB)

**Vertical**



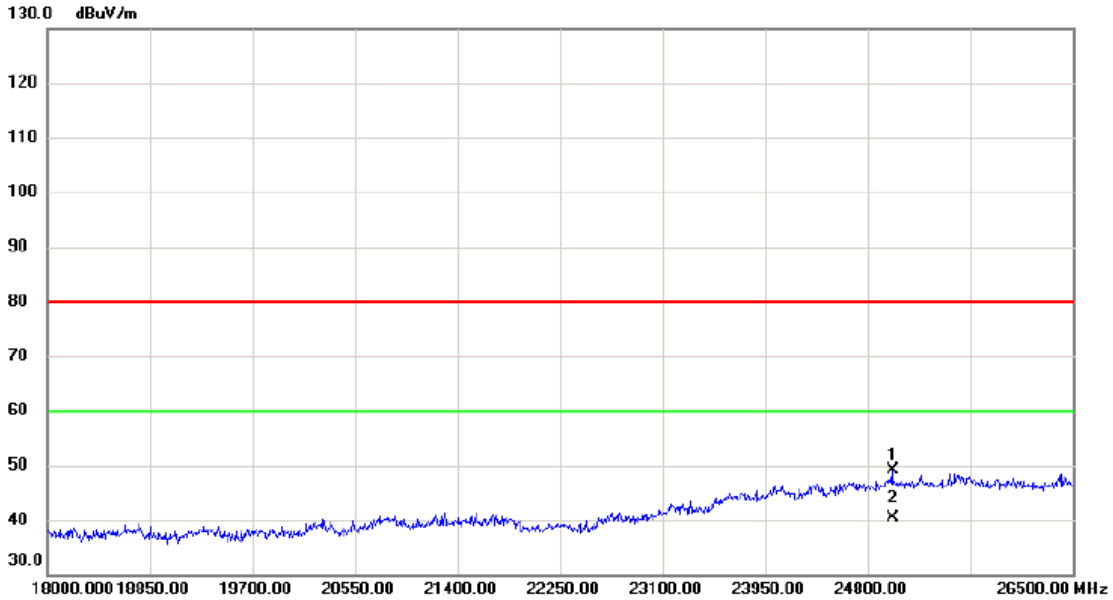
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Detector	Comment
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1		17992.500	32.08	19.35	51.43	74.00	-22.57	peak	
2	*	17992.500	23.11	19.35	42.46	54.00	-11.54	AVG	

**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 (3GB+32GB)

### Vertical



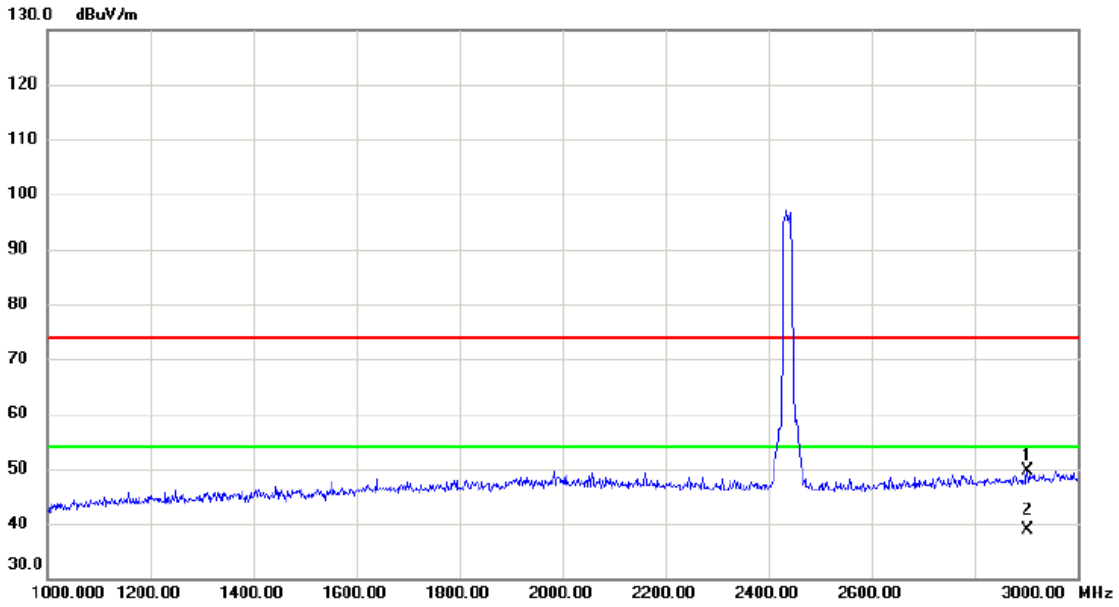
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		25008.250	29.42	19.68	49.10	80.00	-30.90	peak	
2	*	25008.250	20.62	19.68	40.30	60.00	-19.70	AVG	

**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 (3GB+32GB)

**Horizontal**



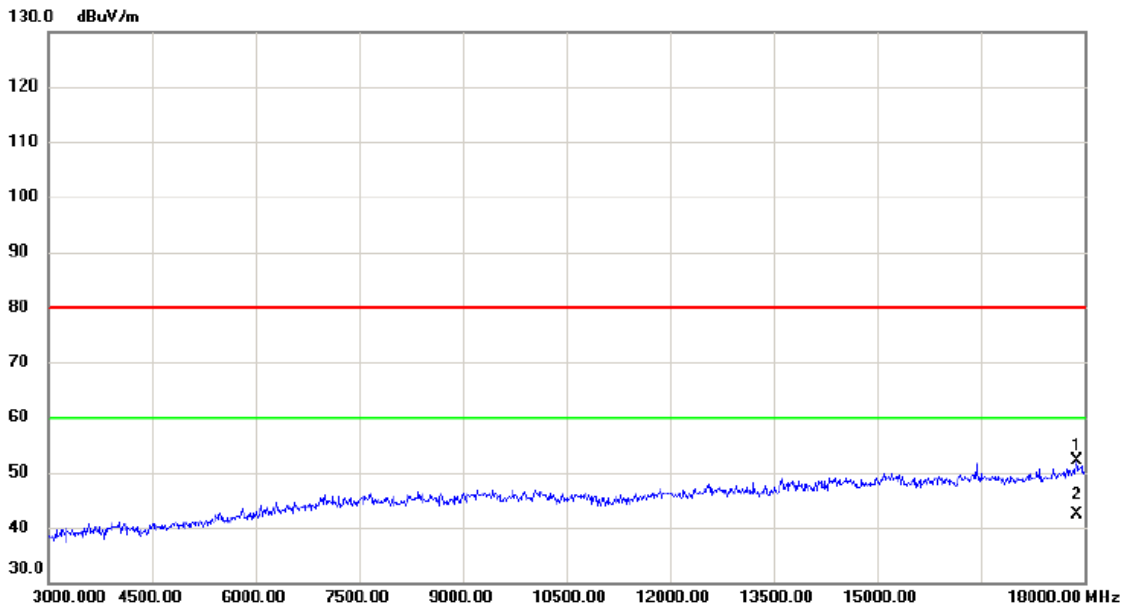
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		2902.000	41.01	8.55	49.56	74.00	-24.44	peak	
2	*	2902.000	30.25	8.55	38.80	54.00	-15.20	AVG	

**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 (3GB+32GB)

### Horizontal



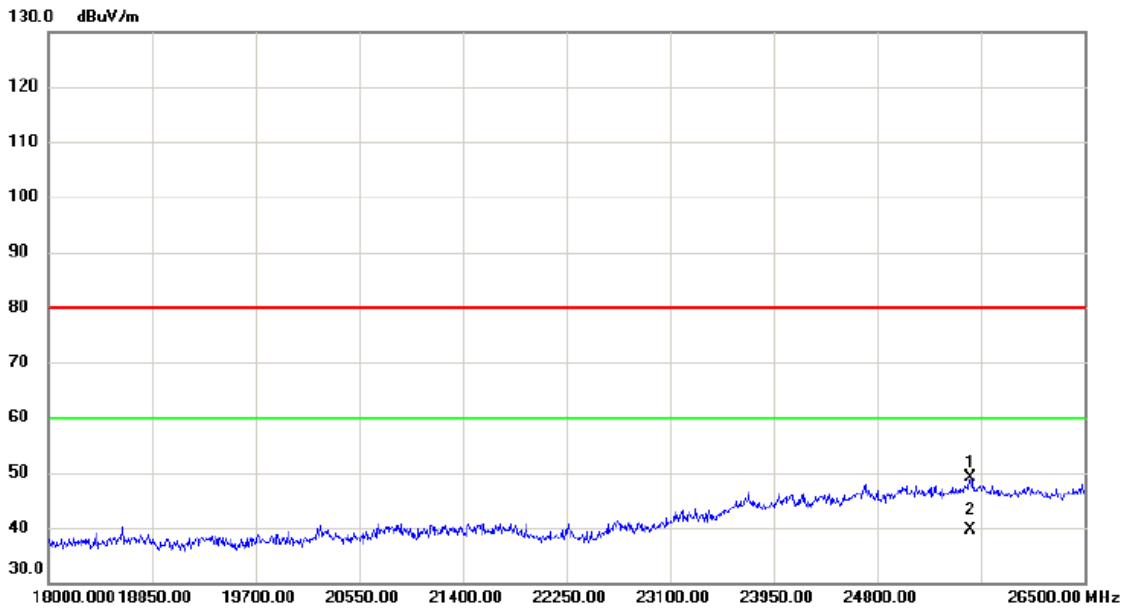
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		17880.000	33.19	19.06	52.25	80.00	-27.75	peak	
2	*	17880.000	23.20	19.06	42.26	60.00	-17.74	AVG	

**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 (3GB+32GB)

### Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		25565.000	29.01	20.01	49.02	80.00	-30.98	peak	
2	*	25565.000	19.66	20.01	39.67	60.00	-20.33	AVG	

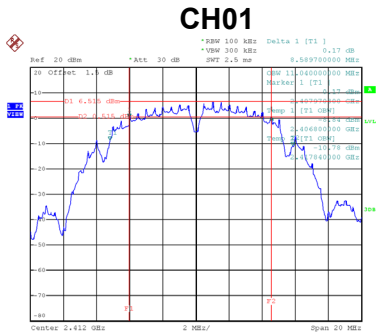
**REMARKS:**

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

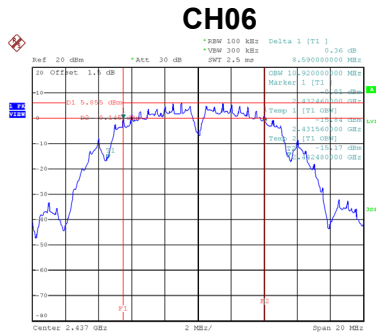
## APPENDIX E - BANDWIDTH

Test Mode	TX B Mode
-----------	-----------

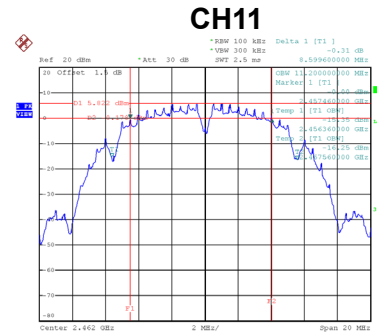
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	99 % Emission Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
01	2412	8.59	11.04	500	Complies
06	2437	8.59	10.92	500	Complies
11	2462	8.60	11.20	500	Complies



Date: 12.APR.2019 10:43:24



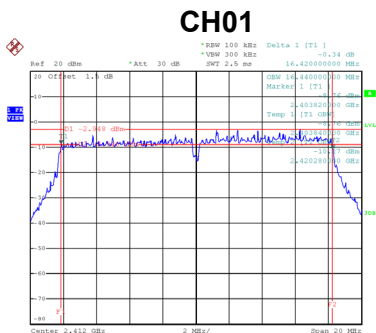
Date: 12.APR.2019 10:46:04



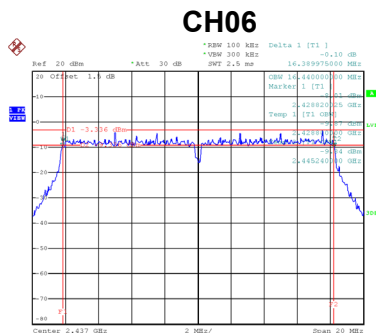
Date: 12.APR.2019 10:48:07

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

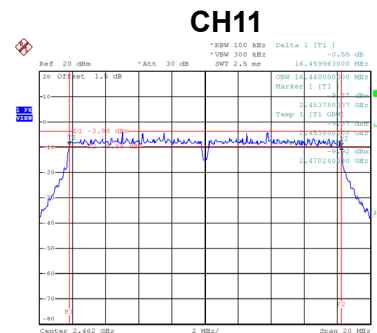
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	99 % Emission Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
01	2412	16.42	16.44	500	Complies
06	2437	16.39	16.44	500	Complies
11	2462	16.46	16.44	500	Complies



Date: 12.APR.2019 10:49:44



Date: 12.APR.2019 10:51:34

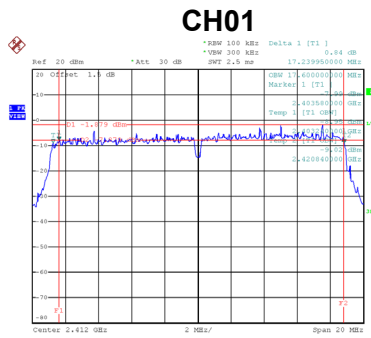


Date: 12.APR.2019 10:53:00

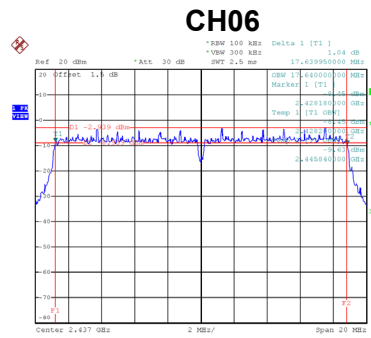


Test Mode	TX N-20M Mode
-----------	---------------

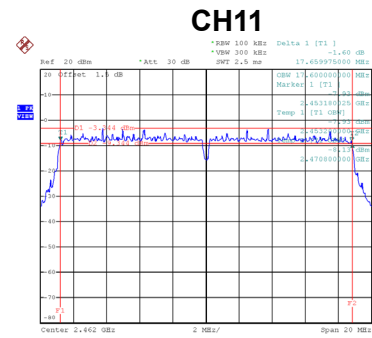
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	99 % Emission Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
01	2412	17.24	17.60	500	Complies
06	2437	17.64	17.64	500	Complies
11	2462	17.66	17.60	500	Complies



Date: 12.APR.2019 10:54:43



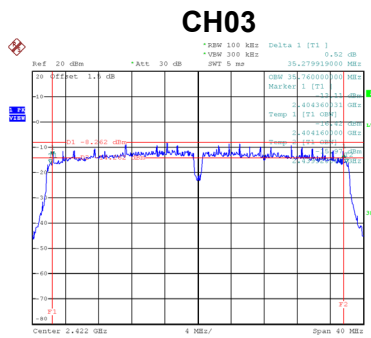
Date: 12.APR.2019 10:56:32



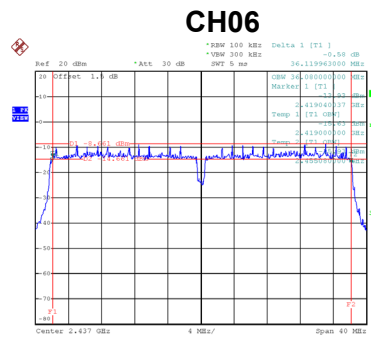
Date: 12.APR.2019 10:58:33

Test Mode	TX N-40M Mode
-----------	---------------

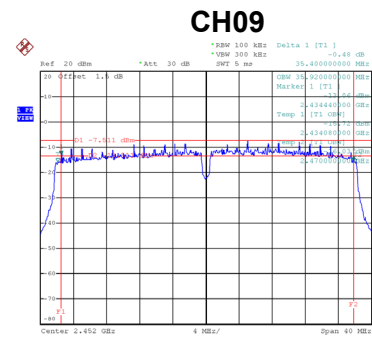
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	99 % Emission Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
03	2422	35.28	35.76	500	Complies
06	2437	36.12	36.08	500	Complies
09	2452	35.40	35.92	500	Complies



Date: 12.APR.2019 11:00:53



Date: 12.APR.2019 11:02:52



Date: 12.APR.2019 11:04:28

## APPENDIX F - MAXIMUM OUTPUT POWER

Test Mode	TX B Mode
-----------	-----------

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	16.15	0.0412	30.00	1.0000	Complies
06	2437	15.85	0.0385	30.00	1.0000	Complies
11	2462	16.05	0.0403	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	9.59	0.0091	30.00	1.0000	Complies
06	2437	9.35	0.0086	30.00	1.0000	Complies
11	2462	9.57	0.0090	30.00	1.0000	Complies

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

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	9.25	0.0084	30.00	1.0000	Complies
06	2437	9.34	0.0086	30.00	1.0000	Complies
11	2462	9.27	0.0085	30.00	1.0000	Complies

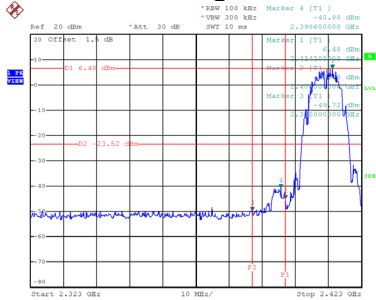
Test Mode	TX N-40M Mode
-----------	---------------

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	6.20	0.0042	30.00	1.0000	Complies
06	2437	6.31	0.0043	30.00	1.0000	Complies
09	2452	6.02	0.0040	30.00	1.0000	Complies

## APPENDIX G - CONDUCTED SPURIOUS EMISSIONS

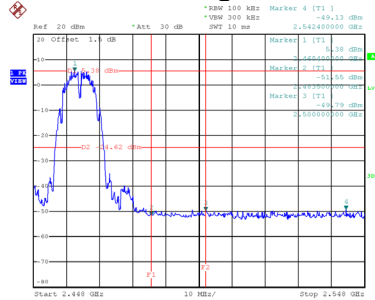
Test Mode TX B Mode

### Bandedge-CH01



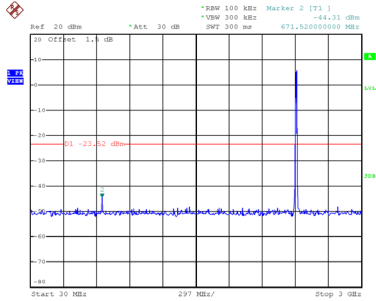
Date: 12.APR.2019 10:43:32

### Bandedge-CH11

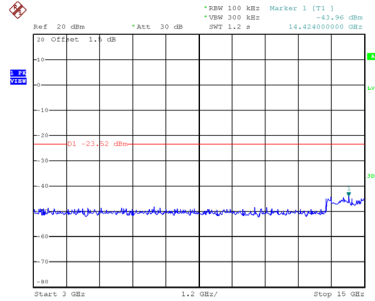


Date: 12.APR.2019 10:48:14

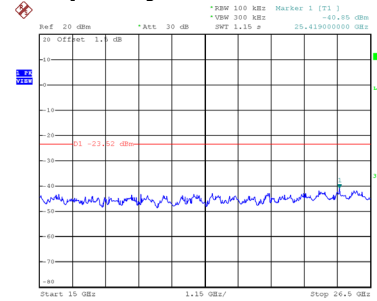
### CH01 – 10th Harmonic of the fundamental frequency



Date: 12.APR.2019 10:43:45

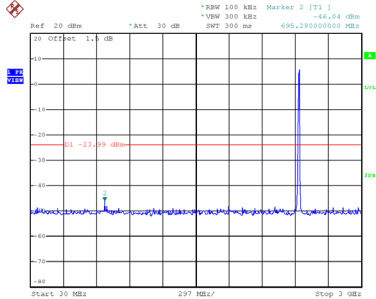


Date: 12.APR.2019 10:43:52

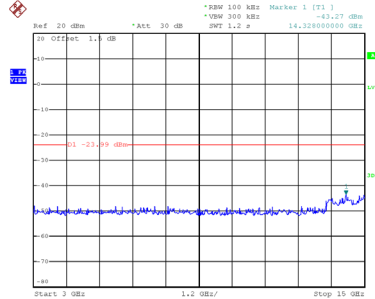


Date: 12.APR.2019 10:43:59

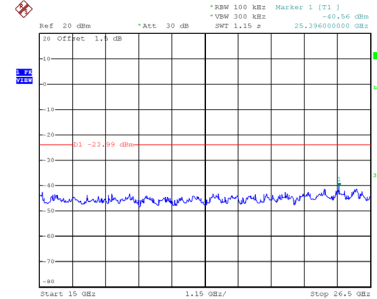
### CH06 – 10th Harmonic of the fundamental frequency



Date: 12.APR.2019 10:46:24

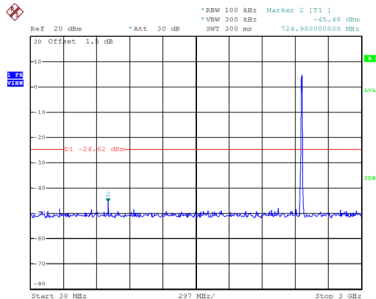


Date: 12.APR.2019 10:46:31

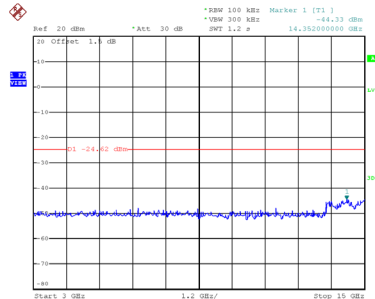


Date: 12.APR.2019 10:46:38

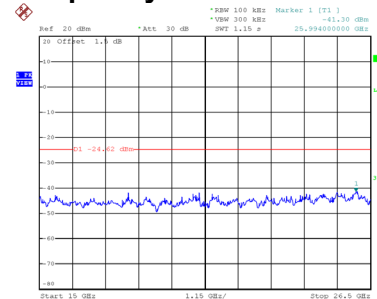
### CH11 – 10th Harmonic of the fundamental frequency



Date: 12.APR.2019 10:48:27



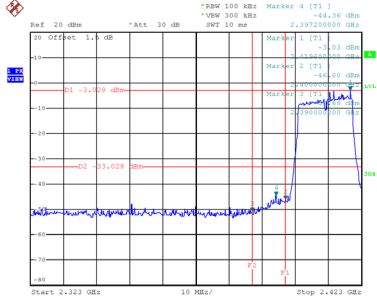
Date: 12.APR.2019 10:48:34



Date: 12.APR.2019 10:48:41

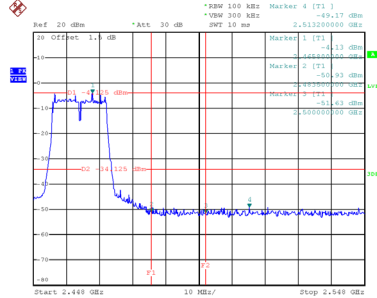
Test Mode TX G Mode

### Bandedge-CH01



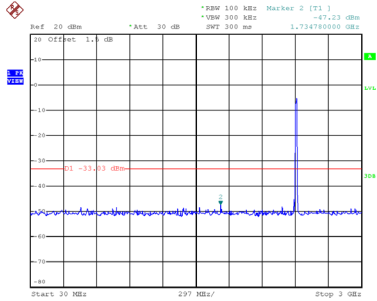
Date: 12.APR.2019 10:49:52

### Bandedge-CH11

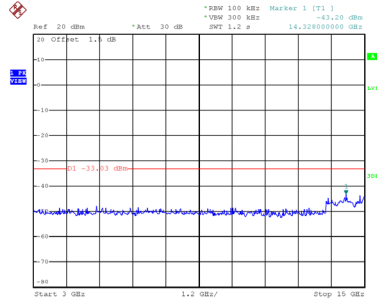


Date: 12.APR.2019 10:53:07

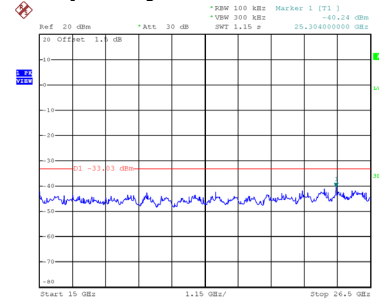
### CH01 – 10th Harmonic of the fundamental frequency



Date: 12.APR.2019 10:50:05

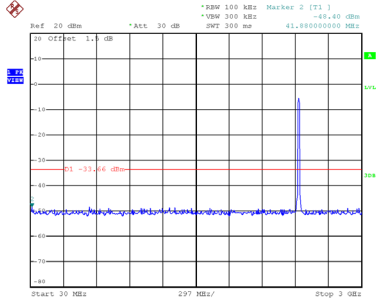


Date: 12.APR.2019 10:50:12

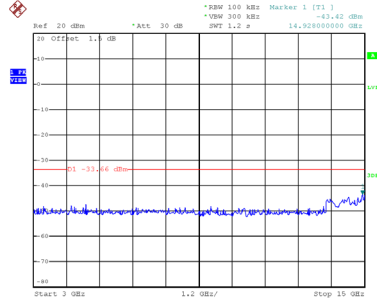


Date: 12.APR.2019 10:50:20

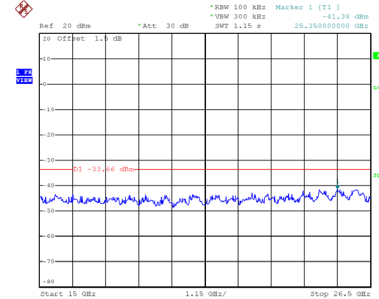
### CH06 – 10th Harmonic of the fundamental frequency



Date: 12.APR.2019 10:51:55

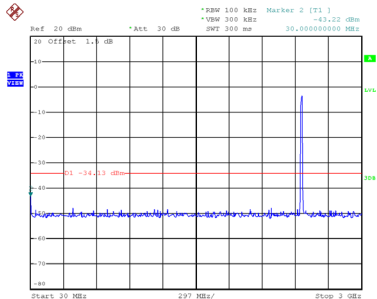


Date: 12.APR.2019 10:52:02

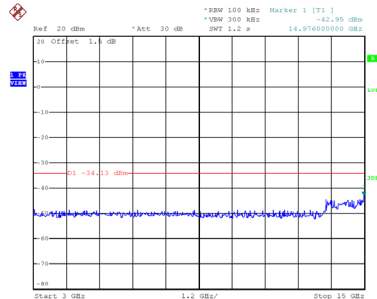


Date: 12.APR.2019 10:52:09

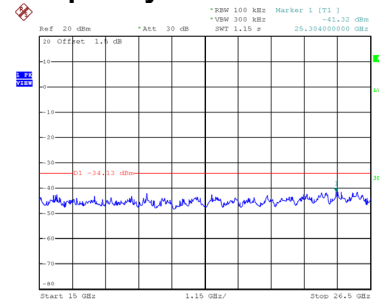
### CH11 – 10th Harmonic of the fundamental frequency



Date: 12.APR.2019 10:53:20



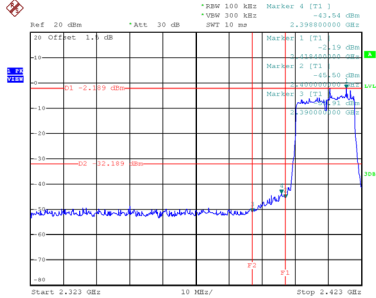
Date: 12.APR.2019 10:53:28



Date: 12.APR.2019 10:53:35

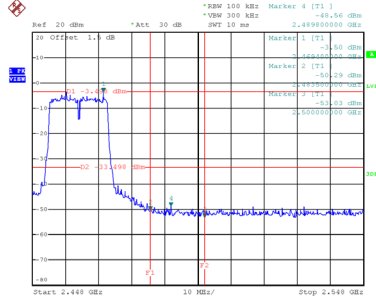
Test Mode TX N-20M Mode

### Bandedge-CH01



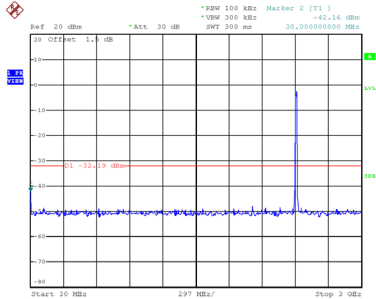
Date: 12.APR.2019 10:55:07

### Bandedge-CH11

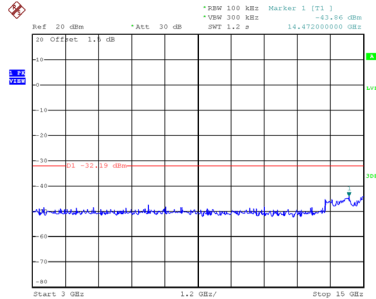


Date: 12.APR.2019 10:58:58

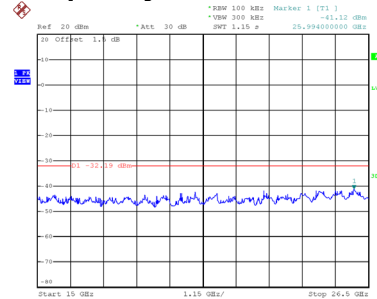
### CH01 – 10th Harmonic of the fundamental frequency



Date: 12.APR.2019 10:55:20

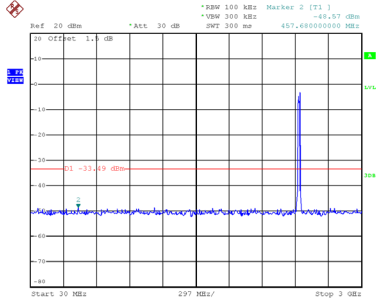


Date: 12.APR.2019 10:55:28

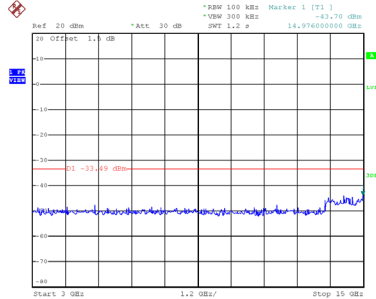


Date: 12.APR.2019 10:55:35

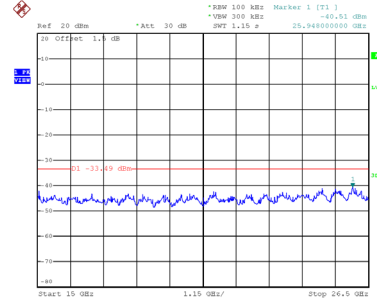
### CH06 – 10th Harmonic of the fundamental frequency



Date: 12.APR.2019 10:57:09

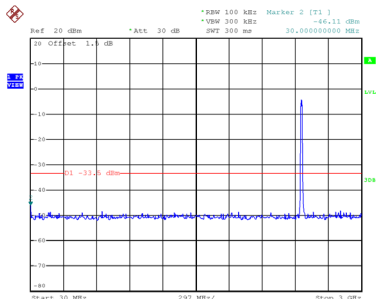


Date: 12.APR.2019 10:57:16

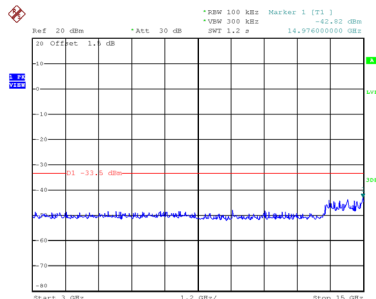


Date: 12.APR.2019 10:57:24

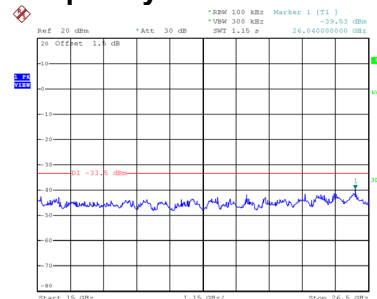
### CH11 – 10th Harmonic of the fundamental frequency



Date: 12.APR.2019 10:59:11



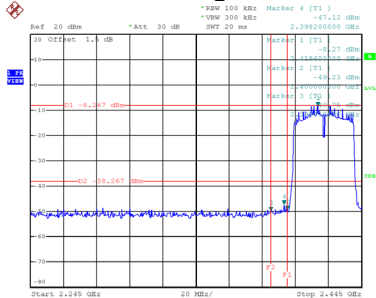
Date: 12.APR.2019 10:59:18



Date: 12.APR.2019 10:59:25

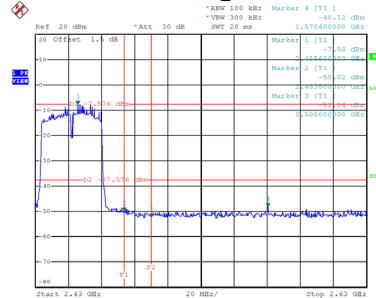
Test Mode TX N-40M Mode

### Bandedge-CH03



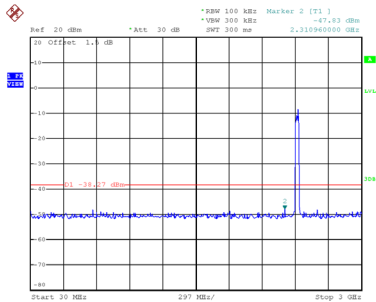
Date: 12.APR.2019 11:01:17

### Bandedge-CH09

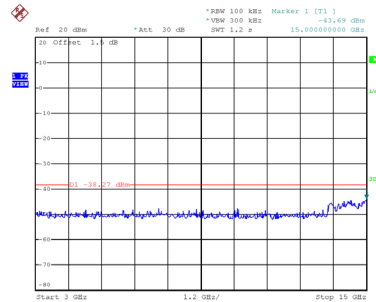


Date: 12.APR.2019 11:04:52

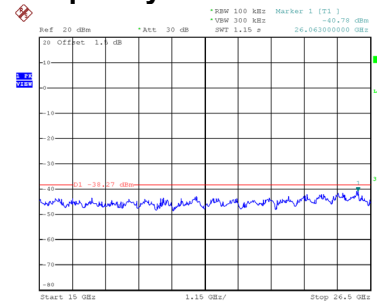
### CH03 – 10th Harmonic of the fundamental frequency



Date: 12.APR.2019 11:01:30

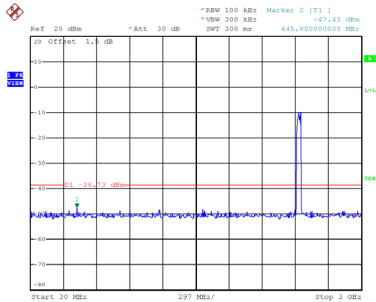


Date: 12.APR.2019 11:01:38

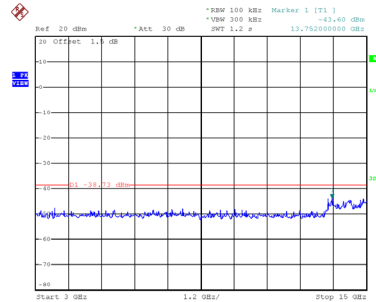


Date: 12.APR.2019 11:01:45

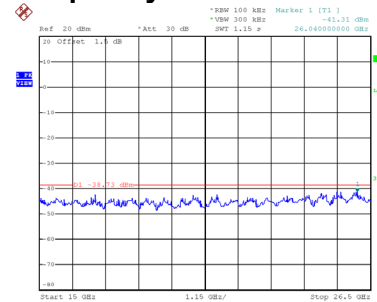
### CH06 – 10th Harmonic of the fundamental frequency



Date: 12.APR.2019 11:03:12

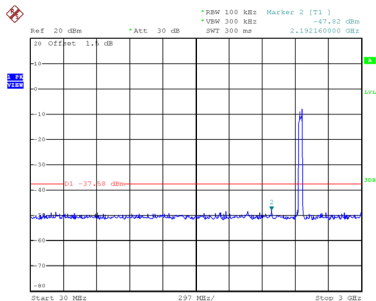


Date: 12.APR.2019 11:03:19

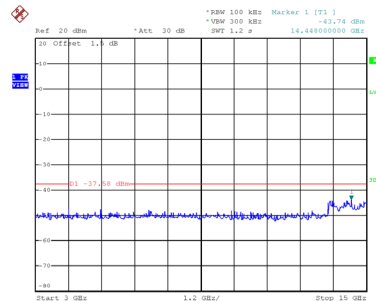


Date: 12.APR.2019 11:03:27

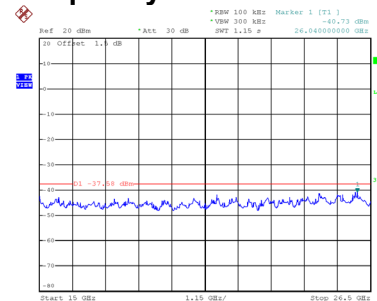
### CH09 – 10th Harmonic of the fundamental frequency



Date: 12.APR.2019 11:05:05



Date: 12.APR.2019 11:05:12



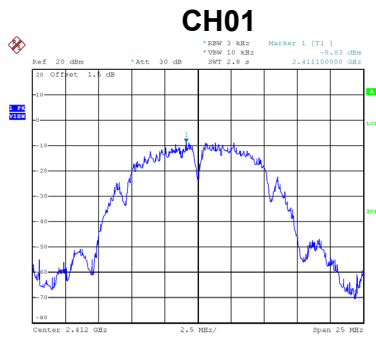
Date: 12.APR.2019 11:05:19



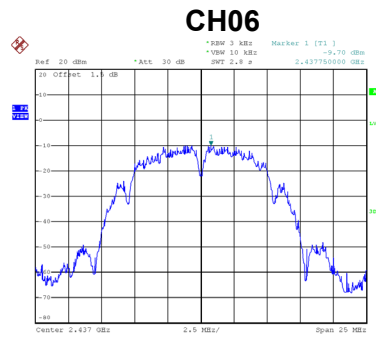
## APPENDIX H - POWER SPECTRAL DENSITY

Test Mode	TX B Mode
-----------	-----------

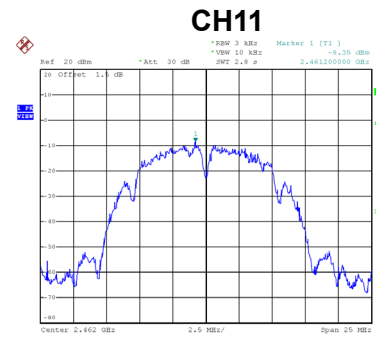
Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
01	2412	-8.83	8	Complies
06	2437	-9.70	8	Complies
11	2462	-8.35	8	Complies



Date: 12.APR.2019 10:42:43



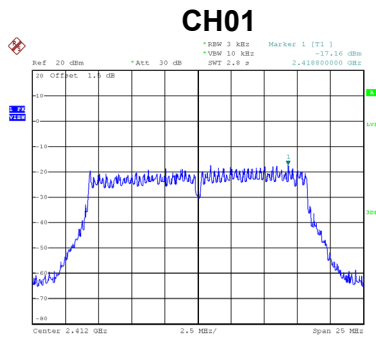
Date: 12.APR.2019 10:45:19



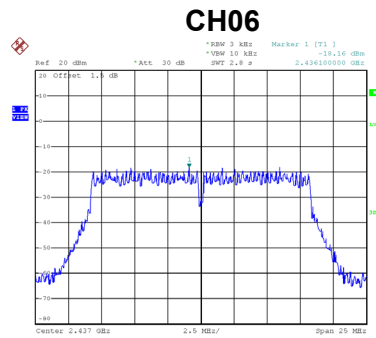
Date: 12.APR.2019 10:47:11

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

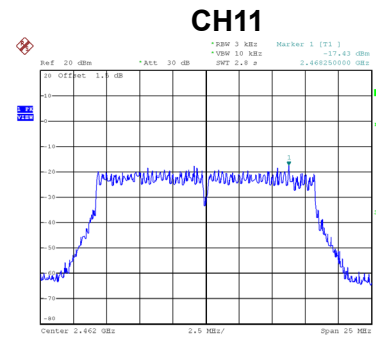
Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
01	2412	-17.16	8	Complies
06	2437	-18.16	8	Complies
11	2462	-17.43	8	Complies



Date: 12.APR.2019 10:49:27



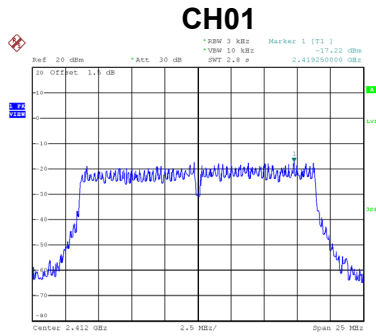
Date: 12.APR.2019 10:51:10



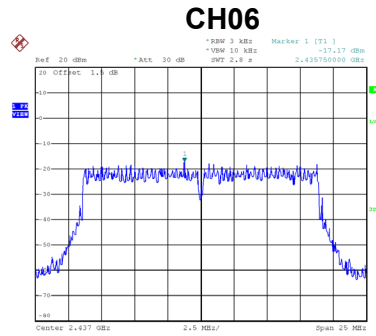
Date: 12.APR.2019 10:52:37

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

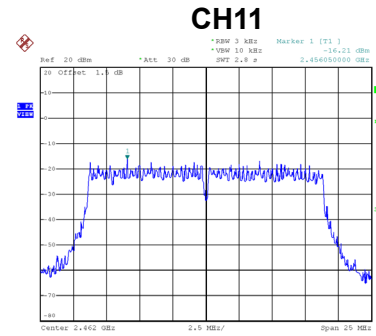
Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
01	2412	-17.22	8	Complies
06	2437	-17.17	8	Complies
11	2462	-16.21	8	Complies



Date: 12.APR.2019 10:54:27



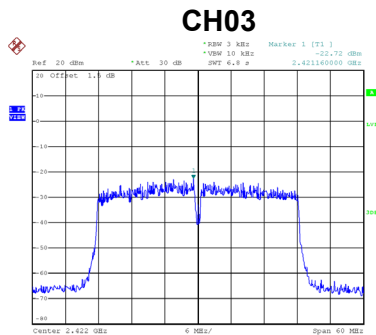
Date: 12.APR.2019 10:56:15



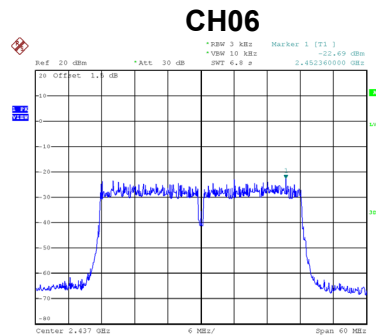
Date: 12.APR.2019 10:58:18

Test Mode	TX N-40M Mode
-----------	---------------

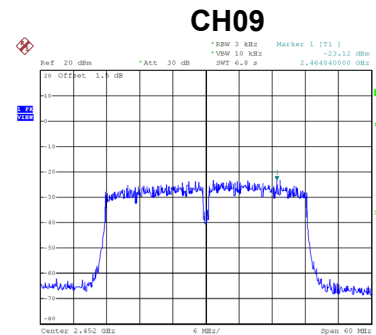
Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
03	2422	-22.72	8	Complies
06	2437	-22.69	8	Complies
09	2452	-23.12	8	Complies



Date: 12.APR.2019 11:00:37



Date: 12.APR.2019 11:02:36



Date: 12.APR.2019 11:04:14

End of Test Report