

FCC Radio Test Report

FCC ID: TE7HS100V3

This report concerns: Original Grant

Project No. : 1903C327
Equipment : Smart Wi-Fi Plug
Test Model : HS100
Series Model : N/A
Applicant : TP-Link Technologies Co.,Ltd.
Address : Building 24(floors 1,3,4,5) and 28(floors 1-4) Central
Science and Technology Park, Shennan Rd,
Nanshan, Shenzhen, China

Date of Receipt : Mar. 27, 2019
Date of Test : Mar. 27, 2019 ~ Apr. 12, 2019
Issued Date : May 16, 2019
Tested by : BTL Inc.

Testing Engineer :

Rose Liu
(Rose Liu)

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 is not use in determining the Pass/Fail results.

Table of Contents	Page
REPORT ISSUED HISTORY	6
1 . GENERAL SUMMARY	7
2 . SUMMARY OF TEST RESULTS	8
2.1 TEST FACILITY	9
2.2 MEASUREMENT UNCERTAINTY	9
3 . GENERAL INFORMATION	10
3.1 GENERAL DESCRIPTION OF EUT	10
3.2 DESCRIPTION OF TEST MODES	11
3.3 PARAMETERS OF TEST SOFTWARE	12
3.4 DUTY CYCLE	13
3.5 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED	14
3.6 SUPPORT UNITS	14
4 . AC POWER LINE CONDUCTED EMISSIONS TEST	15
4.1 LIMIT	15
4.2 TEST PROCEDURE	15
4.3 DEVIATION FROM TEST STANDARD	15
4.4 TEST SETUP	16
4.5 EUT OPERATION CONDITIONS	16
4.6 EUT TEST CONDITIONS	16
4.7 TEST RESULTS	16
5 . RADIATED EMISSIONS TEST	17
5.1 LIMIT	17
5.2 TEST PROCEDURE	18
5.3 DEVIATION FROM TEST STANDARD	18
5.4 TEST SETUP	19
5.5 EUT OPERATION CONDITIONS	20
5.6 EUT TEST CONDITIONS	20
5.7 TEST RESULTS - 9 KHZ TO 30 MHZ	20
5.8 TEST RESULTS - 30 MHZ TO 1000 MHZ	20
5.9 TEST RESULTS - ABOVE 1000 MHZ	20
6 . BANDWIDTH TEST	21
6.1 LIMIT	21

Table of Contents	Page
6.2 TEST PROCEDURE	21
6.3 DEVIATION FROM STANDARD	21
6.4 TEST SETUP	21
6.5 EUT OPERATION CONDITIONS	21
6.6 EUT TEST CONDITIONS	21
6.7 TEST RESULTS	21
7 . MAXIMUM AVERAGE OUTPUT POWER TEST	22
7.1 LIMIT	22
7.2 TEST PROCEDURE	22
7.3 DEVIATION FROM STANDARD	22
7.4 TEST SETUP	22
7.5 EUT OPERATION CONDITIONS	22
7.6 EUT TEST CONDITIONS	22
7.7 TEST RESULTS	22
8 . CONDUCTED SPURIOUS EMISSIONS	23
8.1 LIMIT	23
8.2 TEST PROCEDURE	23
8.3 DEVIATION FROM STANDARD	23
8.4 TEST SETUP	23
8.5 EUT OPERATION CONDITIONS	23
8.6 EUT TEST CONDITIONS	23
8.7 TEST RESULTS	23
9 . POWER SPECTRAL DENSITY TEST	24
9.1 LIMIT	24
9.2 TEST PROCEDURE	24
9.3 DEVIATION FROM STANDARD	24
9.4 TEST SETUP	24
9.5 EUT OPERATION CONDITIONS	24
9.6 EUT TEST CONDITIONS	24
9.7 TEST RESULTS	24
10 . MEASUREMENT INSTRUMENTS LIST	25
11 . EUT TEST PHOTO	27
APPENDIX A - AC POWER LINE CONDUCTED EMISSIONS	31

Table of Contents

Page

APPENDIX B - RADIATED EMISSION - 9 KHZ TO 30 MHZ	34
APPENDIX C - RADIATED EMISSION - 30 MHZ TO 1000 MHZ	39
APPENDIX D - RADIATED EMISSION- ABOVE 1000 MHZ	42
APPENDIX E - BANDWIDTH	103
APPENDIX F - MAXIMUM AVERAGE OUTPUT POWER	107
APPENDIX G - CONDUCTED SPURIOUS EMISSIONS	109
APPENDIX H - POWER SPECTRAL DENSITY	113

REPORT ISSUED HISTORY

Report Version	Description	Issued Date
R00	Original Issue.	May 16, 2019

1. GENERAL SUMMARY

Equipment : Smart Wi-Fi Plug
Brand Name : tp-link
Test Model : HS100
Series Model : N/A
Applicant : TP-Link Technologies Co.,Ltd.
Manufacturer : TP-Link Technologies Co., Ltd.
Address : Building 24(floors1,3,4,5) and 28(floors1-4) Central Science and Technology Park, Shennan Rd, Nanshan, Shenzhen, China
Date of Test : Mar. 27, 2019~Apr. 12, 2019
Test Sample : Engineering Sample No.: D190302967
Standard(s) : FCC Part15, Subpart C (15.247)
ANSI C63.10-2013

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

The test data, data evaluation, and equipment configuration contained in our test report (Ref No. BTL-FCCP-1-1903C327) 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 Average Output Power	APPENDIX F	PASS	-----
15.247(d)	Conducted Spurious Emissions	APPENDIX G	PASS	-----
15.247(e)	Power Spectral Density	APPENDIX H	PASS	-----
15.203	Antenna Requirement	-----	PASS	-----

Note:

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

2.1 TEST FACILITY

The test facilities used to collect the test data in this report is at the location of No.3, Jinshagang 1st Road, Shixia, Dalang Town, Dongguan, Guangdong, China.

BTL's Test Firm Registration Number for FCC: 357015

BTL's Designation Number for FCC: CN1240

2.2 MEASUREMENT UNCERTAINTY

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

The BTL measurement uncertainty as below table:

A. AC power line conducted emissions test:

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

B. Radiated emissions test:

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

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

3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

Equipment	Smart Wi-Fi Plug
Brand Name	tp-link
Test Model	HS100
Series Model	N/A
Model Difference(s)	N/A
Power Source	AC Mains.
Power Rating	I/P: 100-120V~ 60Hz 15A O/P: 15A Maximum Load
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 65 Mbps
Maximum Output Power	IEEE 802.11b: 20.84 dBm (0.1213 W) IEEE 802.11g: 20.78 dBm (0.1197 W) IEEE 802.11n (HT20): 20.83 dBm (0.1211 W)

Note:

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

2. Channel List:

CH01 - CH11 for 802.11b, 802.11g, 802.11n(20 MHz)							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
01	2412	04	2427	07	2442	10	2457
02	2417	05	2432	08	2447	11	2462
03	2422	06	2437	09	2452		

3. Antenna Specification:

Ant.	Brand	P/N	Antenna Type	Connector	Gain (dBi)
1		N/A	Internal	N/A	2.94

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 B Mode Channel 06
Mode 5	TX B Mode Channel 01/02/06/10/11
Mode 6	TX G Mode Channel 01/02/06/10/11
Mode 7	TX N-20 MHz Mode Channel 01/02/06/10/11

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

AC power line conducted emissions test	
Final Test Mode:	Description
Mode 4	TX B Mode Channel 06

Radiated emissions test - Below 1GHz	
Final Test Mode:	Description
Mode 4	TX B Mode Channel 06

Radiated emissions test - Above 1GHz	
Final Test Mode:	Description
Mode 5	TX B Mode Channel 01/02/06/10/11
Mode 6	TX G Mode Channel 01/02/06/10/11
Mode 7	TX N-20 MHz Mode Channel 01/02/06/10/11

Band edge test	
Final Test Mode:	Description
Mode 5	TX B Mode Channel 01/02/06/10/11
Mode 6	TX G Mode Channel 01/02/06/10/11
Mode 7	TX N-20 MHz Mode Channel 01/02/06/10/11

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

NOTE:

- (1) The measurements are performed at the high, middle, low available channels.
- (2) 802.11b mode: DBPSK (1 Mbps)
802.11g mode: OFDM (6 Mbps)
802.11n HT20 mode : BPSK (13 Mbps)
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 06 is found to be the worst case and recorded.
- (4) For radiated emission above 1 GHz test, 1GHz~26.5GHz have been pre-tested and in this report only recorded the worst case. The remaining spurious points are all below the limit value of 20dB.
- (5) The EUT is considered a portable unit, it was pre-tested on the positioned of each 3 axis. The worst case was found positioned on X-plane. Therefore only the test data of this X-plane was used for radiated emission measurement test.

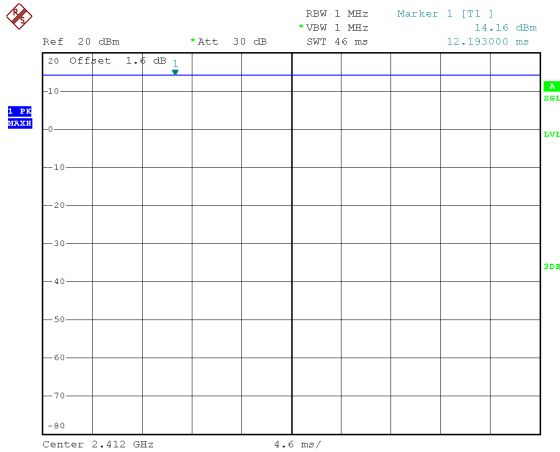
3.3 PARAMETERS OF TEST SOFTWARE

Test Software	QA_Tool_v3.2.0		
Frequency (MHz)	2412	2437	2462
IEEE 802.11b	21	24	25
IEEE 802.11g	1D	27	22
IEEE 802.11n (HT20)	1E	2A	23

3.4 DUTY CYCLE

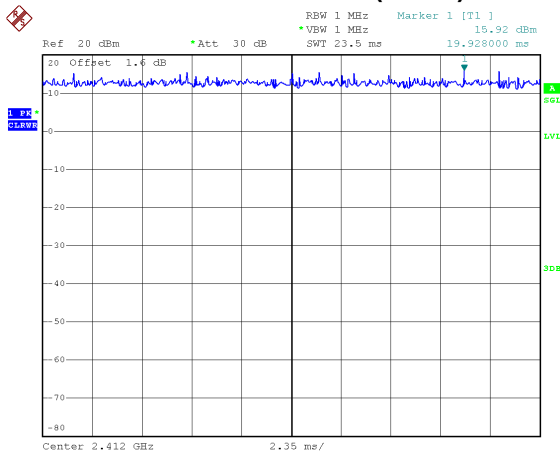
If duty cycle is $\geq 98\%$, duty factor is not required.
 If duty cycle is $< 98\%$, duty factor shall be considered.
 The output power = measured power + duty factor.

IEEE 802.11b



Date: 1.APR.2019 18:52:51

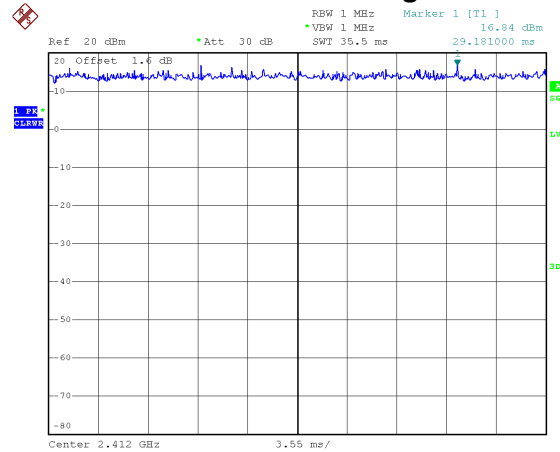
Duty cycle = 1.000 ms / 1.000 ms = 100.00%
 Duty Factor = $10 \log(1/\text{Duty cycle}) = 0.00$
IEEE 802.11n (HT20)



Date: 1.APR.2019 18:55:35

Duty cycle = 1.000 ms / 1.000 ms = 100.00%
 Duty Factor = $10 \log(1/\text{Duty cycle}) = 0.00$

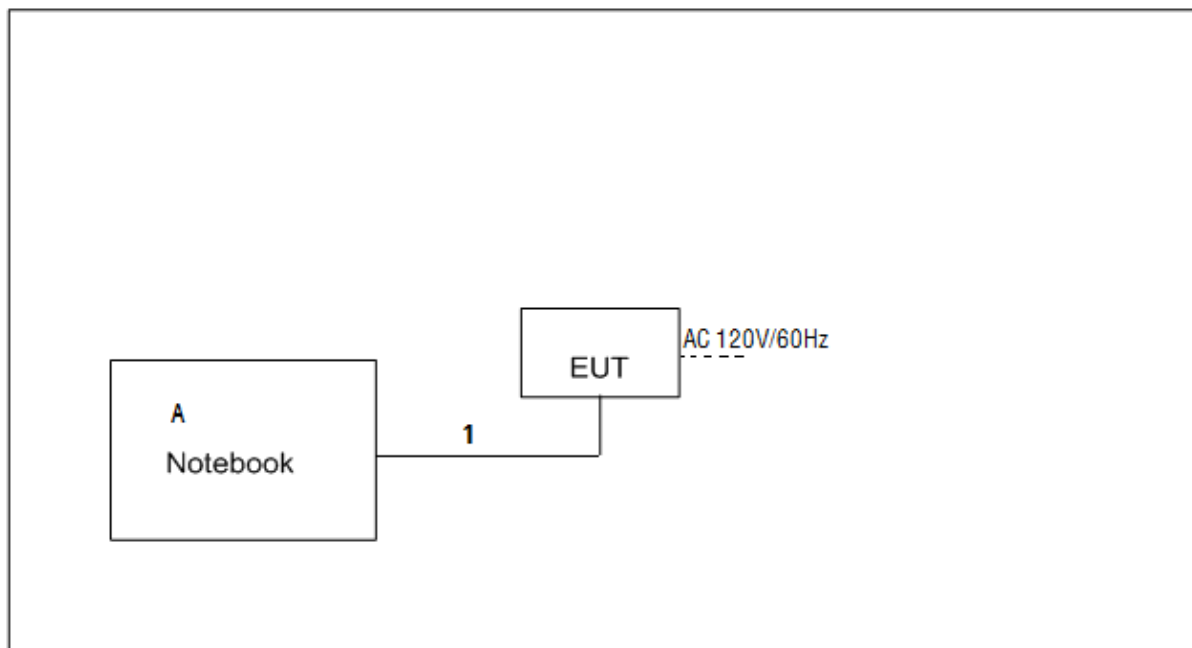
IEEE 802.11g



Date: 1.APR.2019 18:54:05

Duty cycle = 1.000 ms / 1.000 ms = 100.00%
 Duty Factor = $10 \log(1/\text{Duty cycle}) = 0.00$

3.5 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



3.6 SUPPORT UNITS

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

Item	Shielded Type	Ferrite Core	Length	Note
1	NO	NO	0.3m	Data Cable

4. AC POWER LINE CONDUCTED EMISSIONS TEST

4.1 LIMIT

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

NOTE:

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

The following table is the setting of the receiver

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

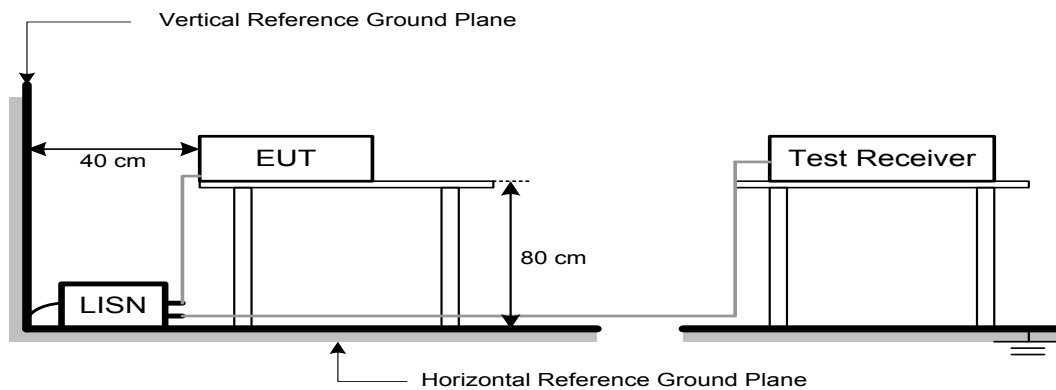
4.2 TEST PROCEDURE

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

4.3 DEVIATION FROM TEST STANDARD

No deviation

4.4 TEST SETUP



4.5 EUT OPERATION CONDITIONS

EUT was programmed to be in continuously transmitting mode.

4.6 EUT TEST CONDITIONS

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

4.7 TEST RESULTS

Please refer to the APPENDIX A.

5. RADIATED EMISSIONS TEST

5.1 LIMIT

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

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

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

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000 MHz)

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

NOTE:

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

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

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

5.2 TEST PROCEDURE

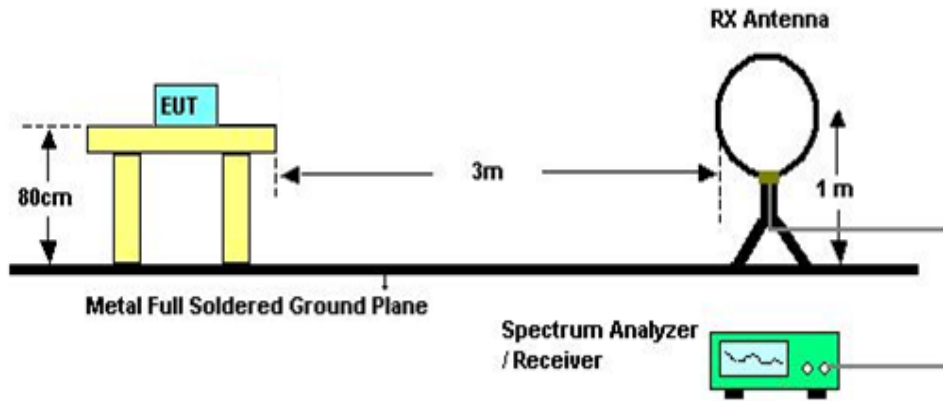
- The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(below 1 GHz)
- The measuring distance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

5.3 DEVIATION FROM TEST STANDARD

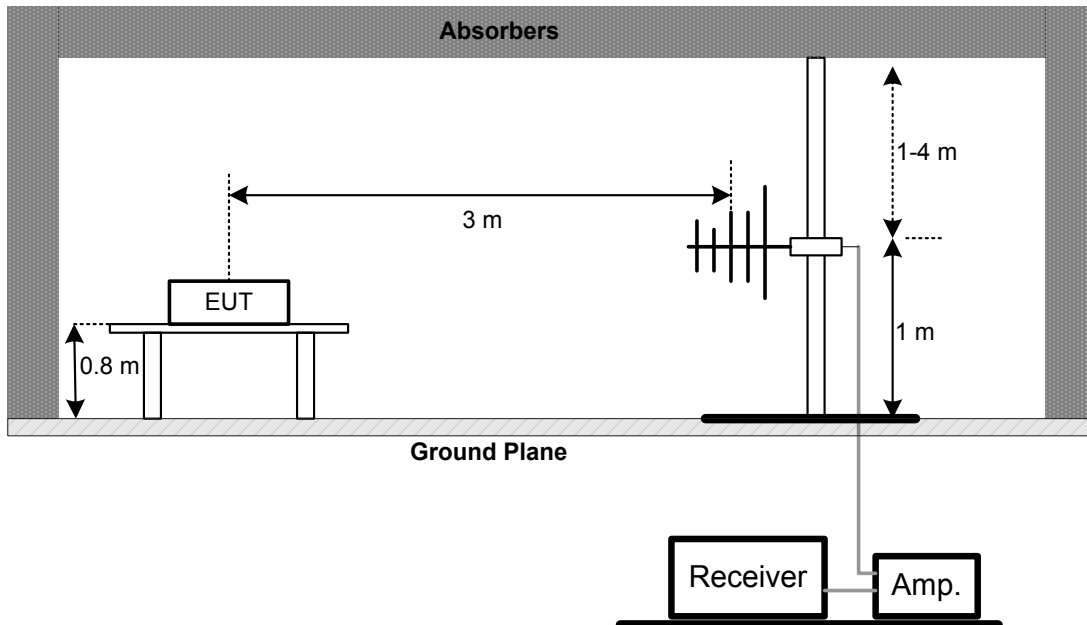
No deviation

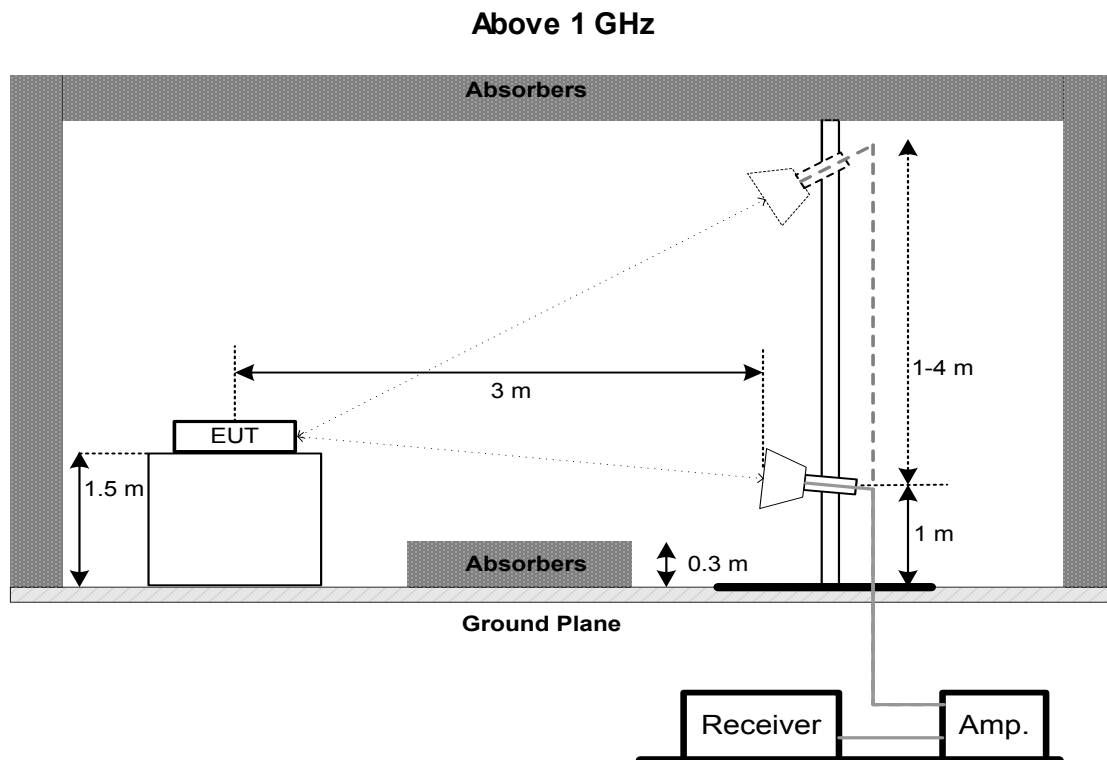
5.4 TEST SETUP

9 kHz-30 MHz



30 MHz to 1 GHz





5.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

5.6 EUT TEST CONDITIONS

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

5.7 TEST RESULTS - 9 KHZ TO 30 MHZ

Please refer to the APPENDIX B.

Remark:

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

5.8 TEST RESULTS - 30 MHZ TO 1000 MHZ

Please refer to the APPENDIX C.

5.9 TEST RESULTS - ABOVE 1000 MHZ

Please refer to the APPENDIX D.

Remark:

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

6. BANDWIDTH TEST

6.1 LIMIT

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

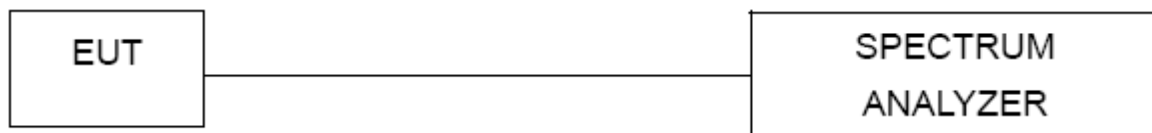
6.2 TEST PROCEDURE

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

6.3 DEVIATION FROM STANDARD

No deviation.

6.4 TEST SETUP



6.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

6.6 EUT TEST CONDITIONS

Temperature: 24.4°C Relative Humidity: 64.2% Test Voltage: AC 120V/60Hz

6.7 TEST RESULTS

Please refer to the APPENDIX E.

7. MAXIMUM AVERAGE OUTPUT POWER TEST

7.1 LIMIT

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

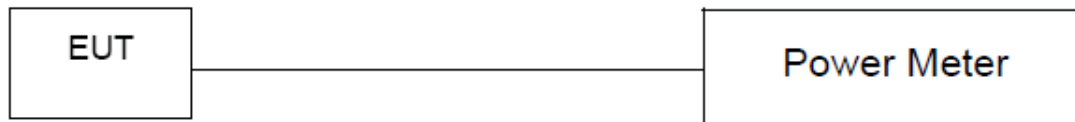
7.2 TEST PROCEDURE

- The EUT was directly connected to the power meter and antenna output port as show in the block diagram below.
- The maximum average 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: 24.4°C Relative Humidity: 64.2% 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: 24.4°C Relative Humidity: 64.2% 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

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

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: 24.4°C Relative Humidity: 64.2% 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.

11. EUT TEST PHOTO

AC Power Line Conducted Emissions Test Photos



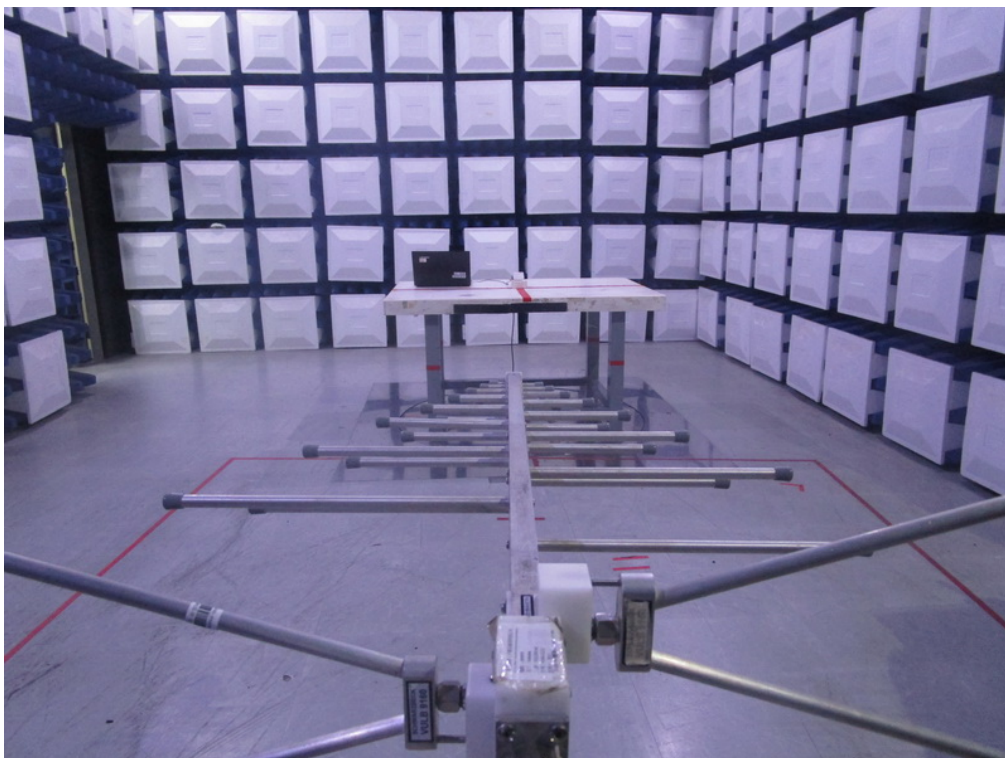
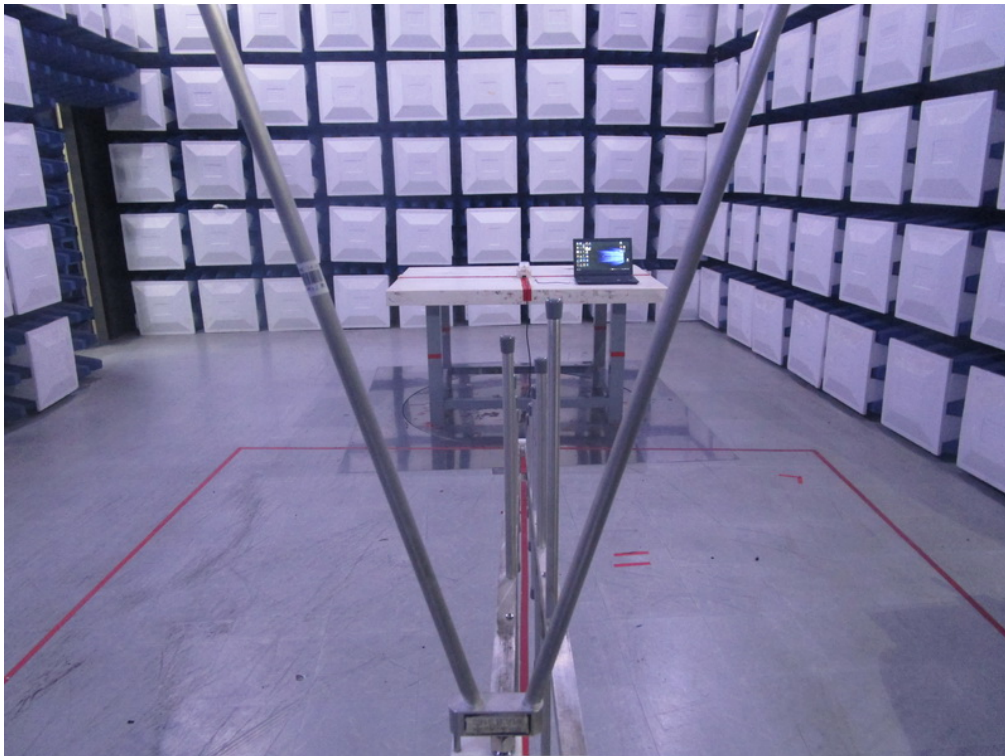
Radiated Emissions Test Photos

9 kHz to 30 MHz



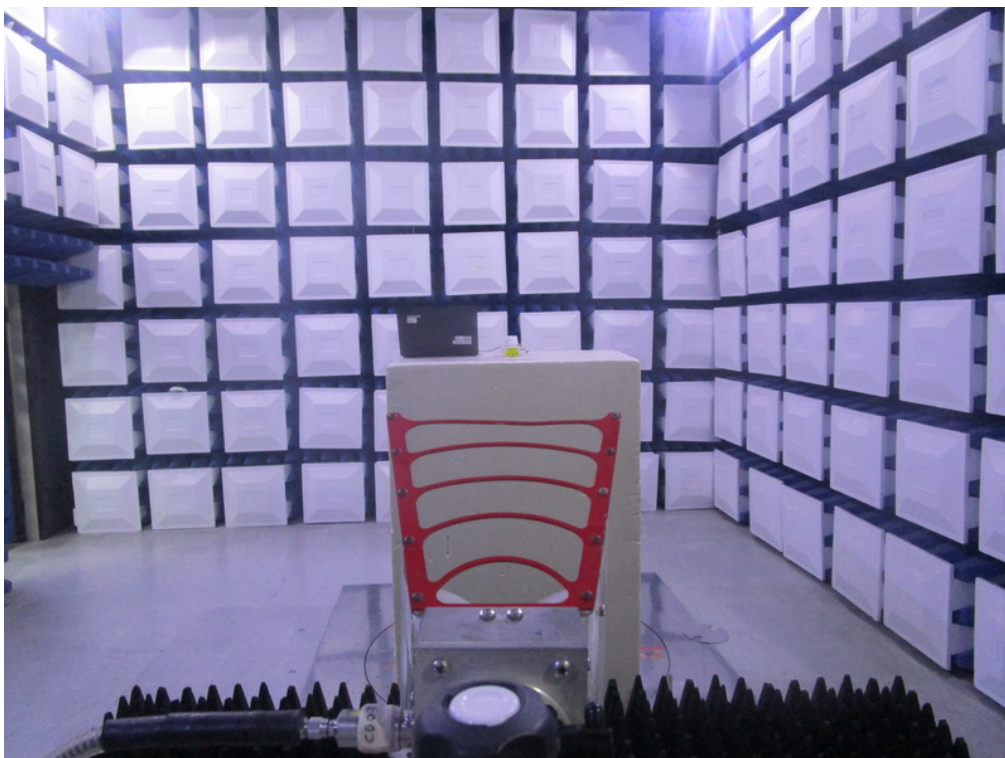
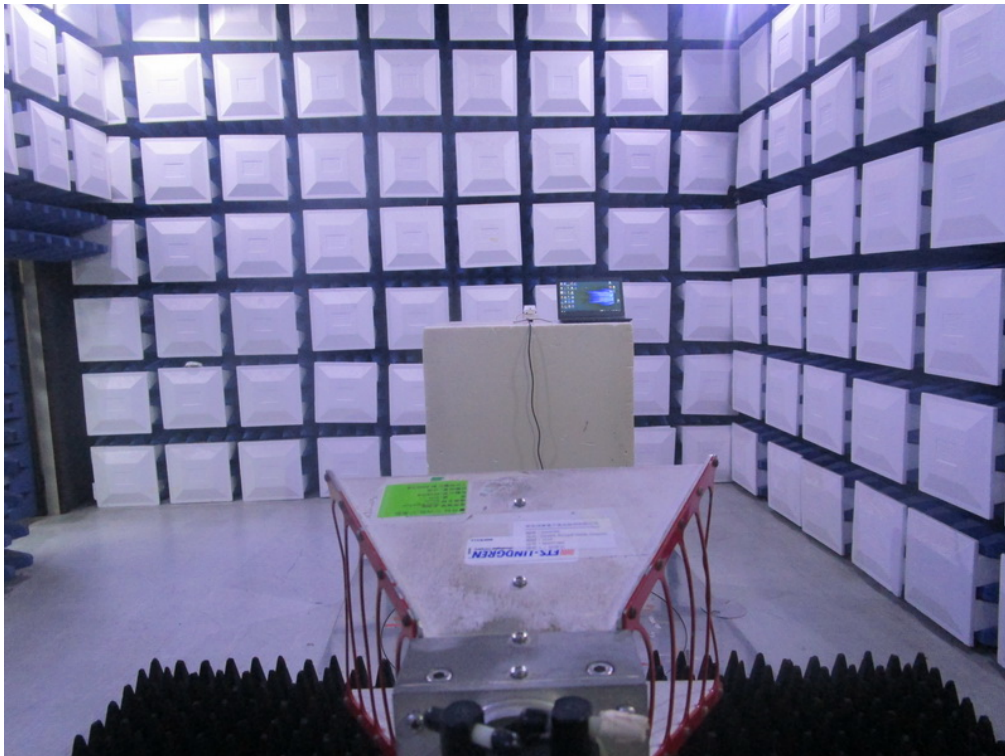
Radiated Emissions Test Photos

30 MHz to 1 GHz



Radiated Emissions Test Photos

Above 1 GHz

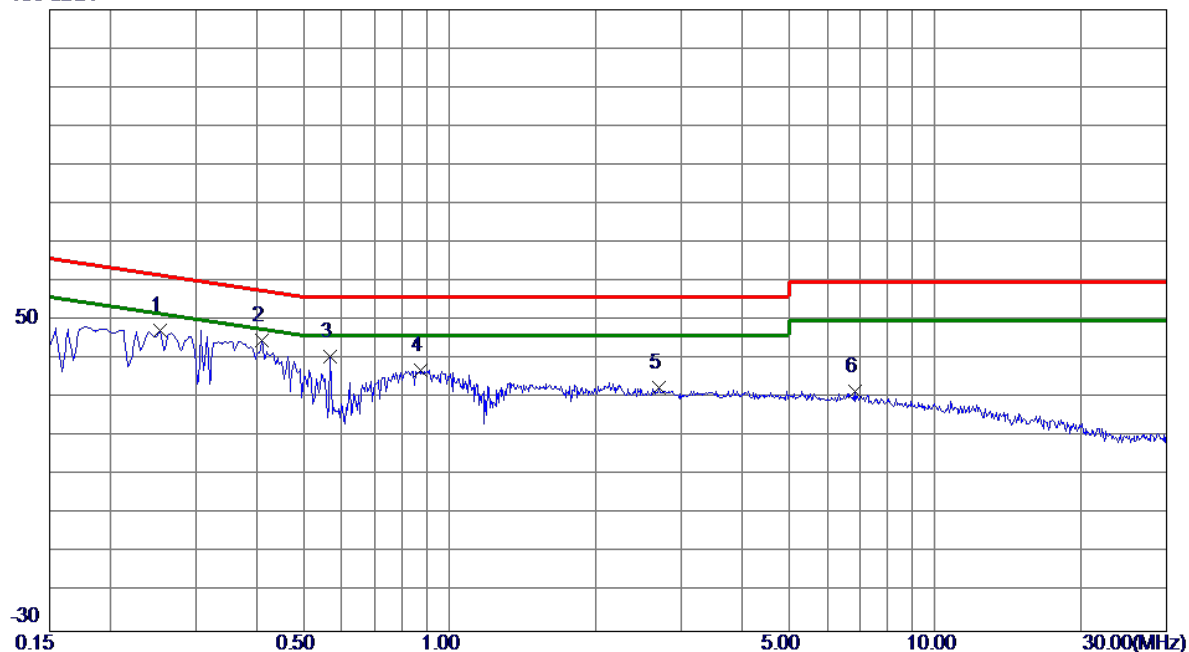


APPENDIX A - AC POWER LINE CONDUCTED EMISSIONS

Test Mode: TX B MODE CHANNEL 06

Line

130 dBuV



No.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1	0.2535	47.29	0.11	47.40	61.64	-14.24	Peak	
2 *	0.4110	44.82	0.13	44.95	57.63	-12.68	Peak	
3	0.5685	40.50	0.15	40.65	56.00	-15.35	Peak	
4	0.8700	36.94	0.18	37.12	56.00	-18.88	Peak	
5	2.7015	32.50	0.32	32.82	56.00	-23.18	Peak	
6	6.8370	31.11	0.58	31.69	60.00	-28.31	Peak	

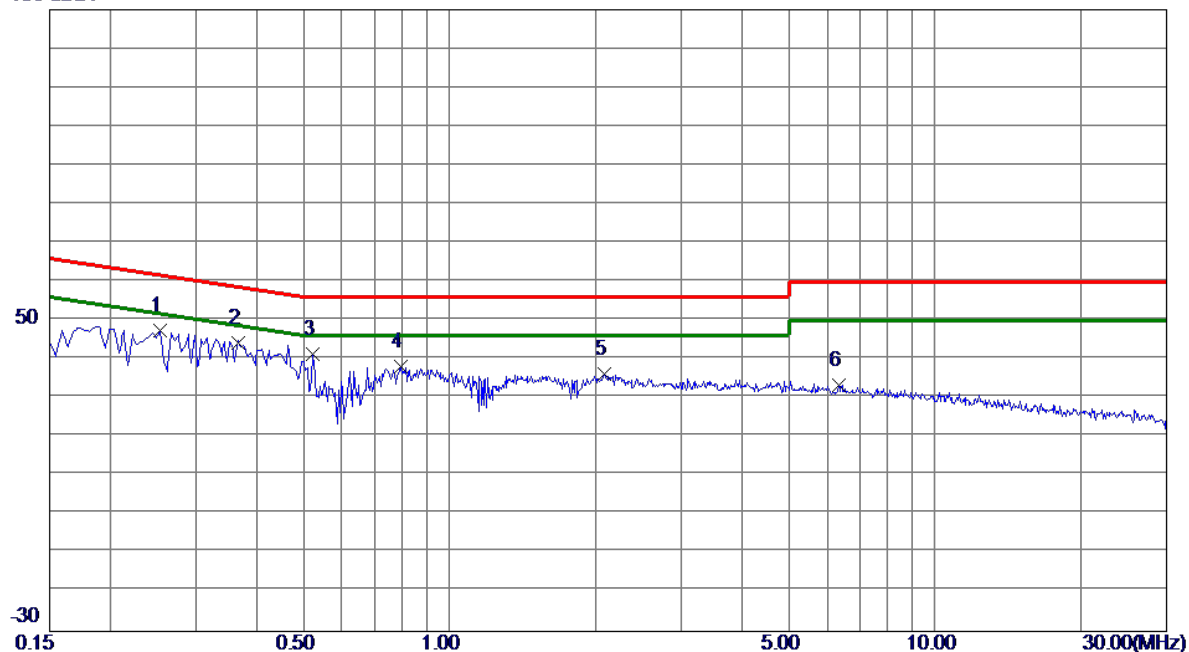
REMARKS:

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

Test Mode: TX B MODE CHANNEL 06

Neutral

130 dBuV



No.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1	0.2535	47.27	0.11	47.38	61.64	-14.26	Peak	
2 *	0.3673	44.20	0.12	44.32	58.56	-14.24	Peak	
3	0.5235	41.14	0.14	41.28	56.00	-14.72	Peak	
4	0.7935	37.97	0.18	38.15	56.00	-17.85	Peak	
5	2.0895	35.91	0.29	36.20	56.00	-19.80	Peak	
6	6.3239	32.69	0.54	33.23	60.00	-26.77	Peak	

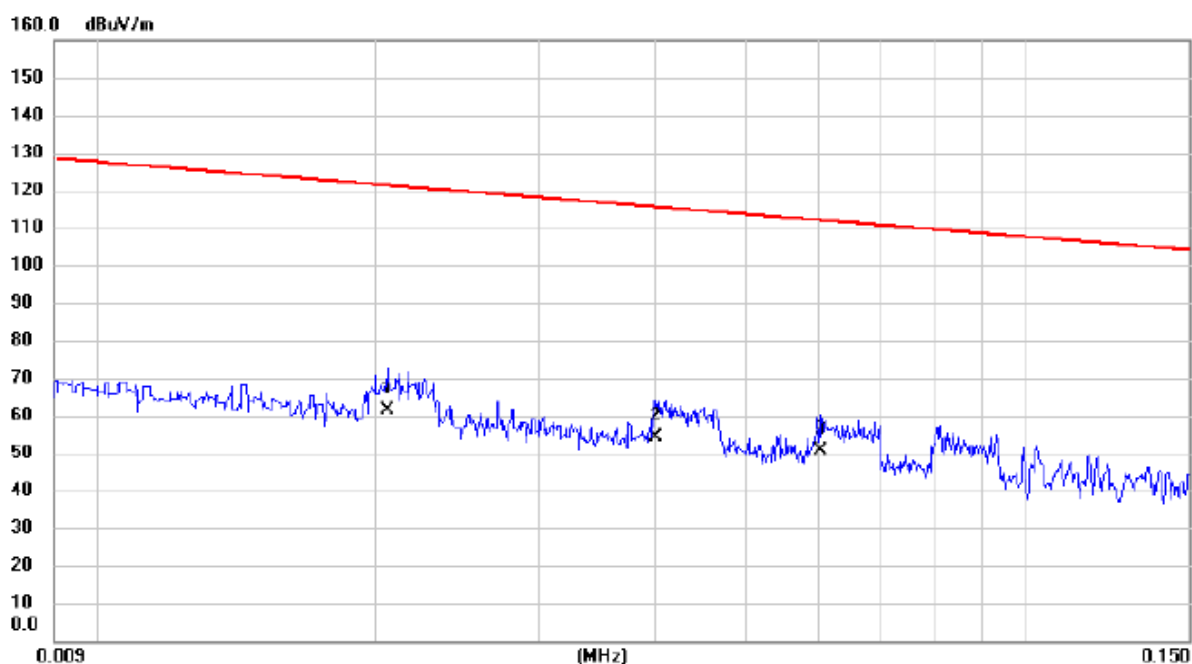
REMARKS:

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

APPENDIX B - RADIATED EMISSION - 9 KHZ TO 30 MHZ

Test Mode: TX B MODE CHANNEL 06

Ant 0°



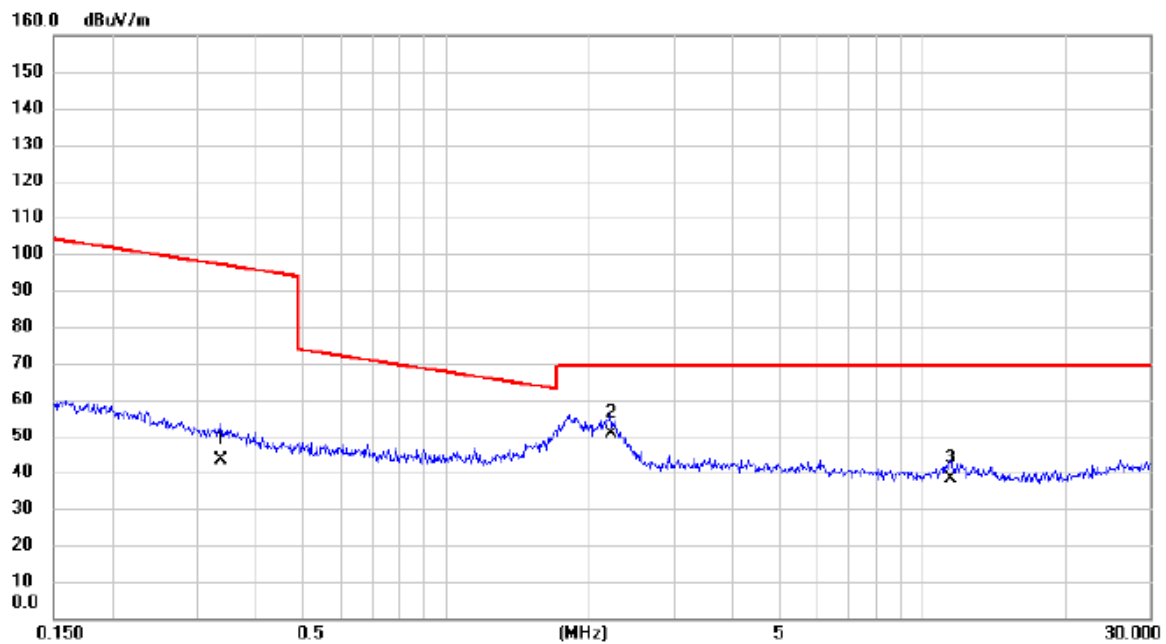
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	0.0206	41.59	20.01	61.60	121.33	-59.73	AVG	
2		0.0400	34.68	19.70	54.38	115.56	-61.18	AVG	
3		0.0602	31.12	19.33	50.45	112.01	-61.56	AVG	

REMARKS:

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

Test Mode: TX B MODE CHANNEL 06

Ant 0°



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		0.3373	26.31	17.03	43.34	97.04	-53.70	AVG	
2	*	2.2132	33.52	16.99	50.51	69.54	-19.03	QP	
3		11.4376	23.77	14.46	38.23	69.54	-31.31	QP	

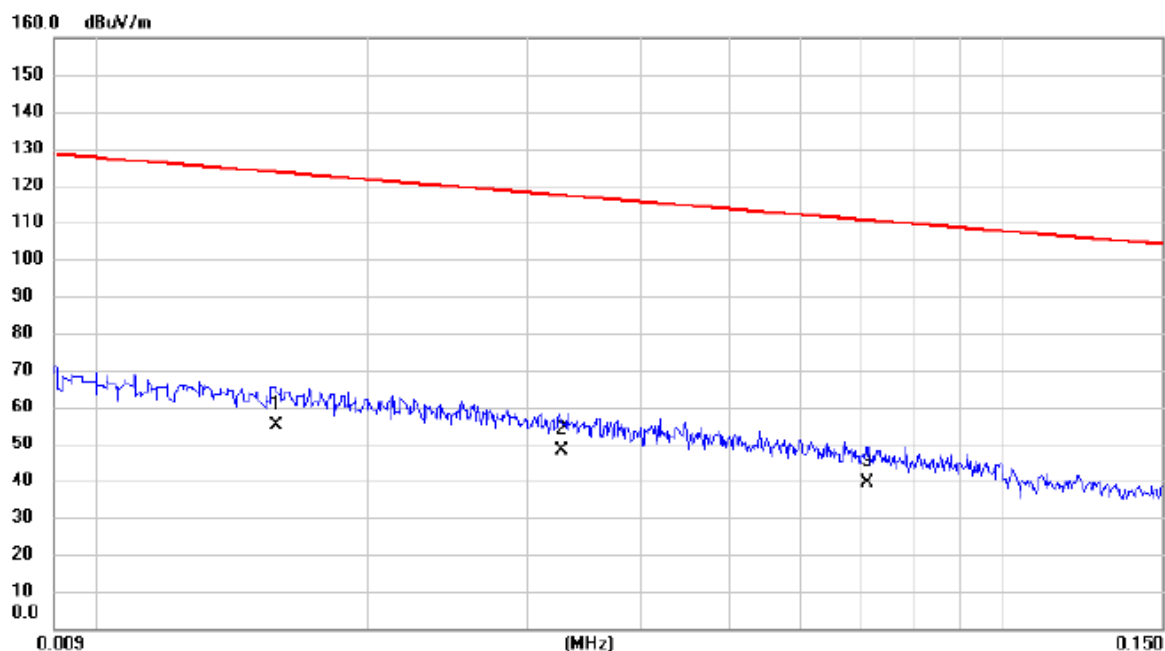
REMARKS:

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

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

Test Mode: TX B MODE CHANNEL 06

Ant 90°



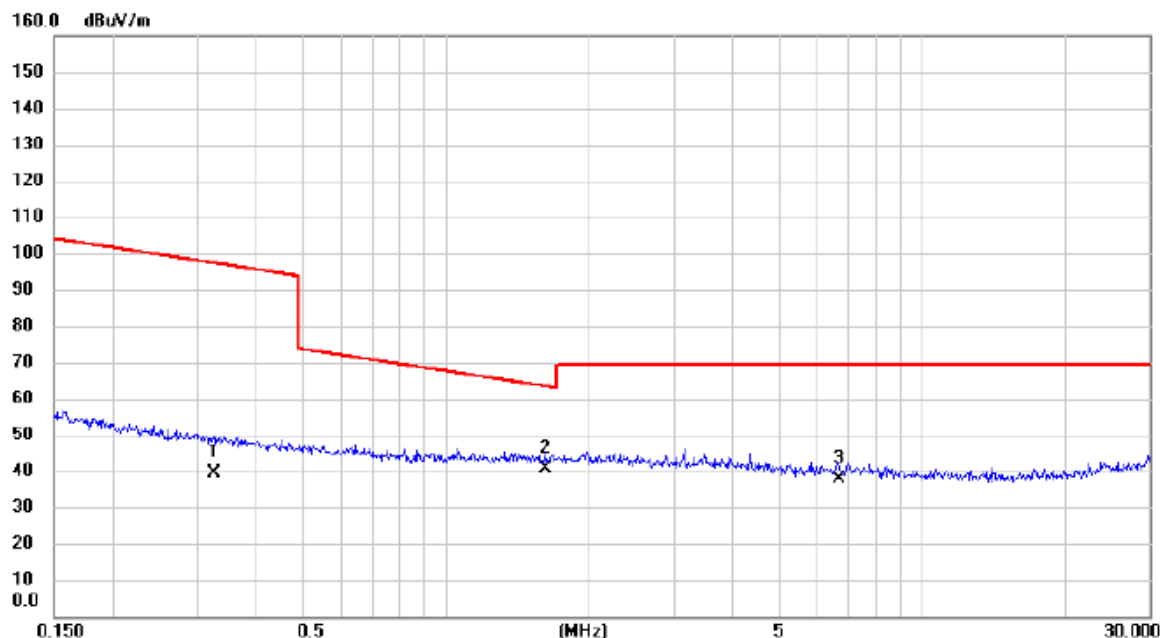
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	0.0158	34.51	20.61	55.12	123.63	-68.51	AVG	
2		0.0326	28.54	19.82	48.36	117.34	-68.98	AVG	
3		0.0710	20.11	19.11	39.22	110.58	-71.36	AVG	

REMARKS:

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

Test Mode: TX B MODE CHANNEL 06

Ant 90°



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		0.3251	22.46	17.03	39.49	97.36	-57.87	AVG	
2	*	1.6105	23.61	16.92	40.53	63.47	-22.94	QP	
3		6.6624	22.79	14.88	37.67	69.54	-31.87	QP	

REMARKS:

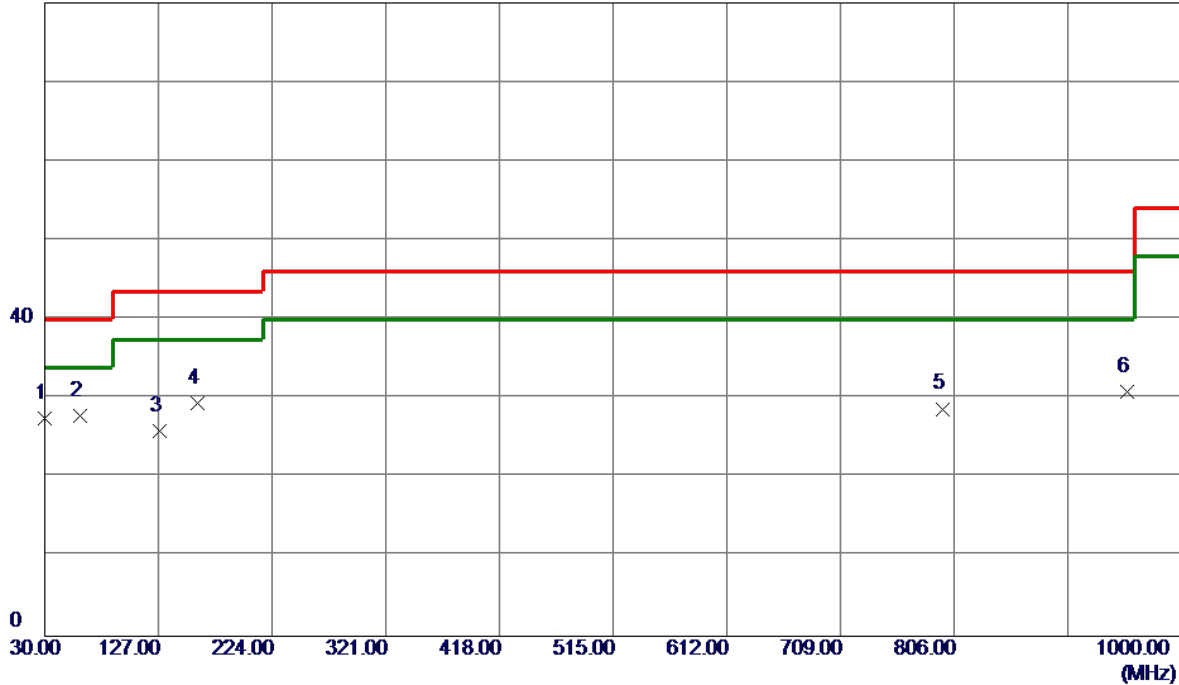
- (1) Measurement Value = Reading Level + Correct Factor.
 (2) Margin Level = Measurement Value - Limit Value.

APPENDIX C - RADIATED EMISSION - 30 MHZ TO 1000 MHZ

Test Mode: TX B MODE CHANNEL 06

Vertical

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	30.0000	42.45	-14.97	27.48	40.00	-12.52	QP	
2 *	60.0700	43.59	-15.69	27.90	40.00	-12.10	Peak	
3	127.9700	39.54	-13.65	25.89	43.50	-17.61	Peak	
4	159.9800	40.00	-10.60	29.40	43.50	-14.10	Peak	
5	796.3000	29.98	-1.26	28.72	46.00	-17.28	Peak	
6	953.4400	29.57	1.33	30.90	46.00	-15.10	Peak	

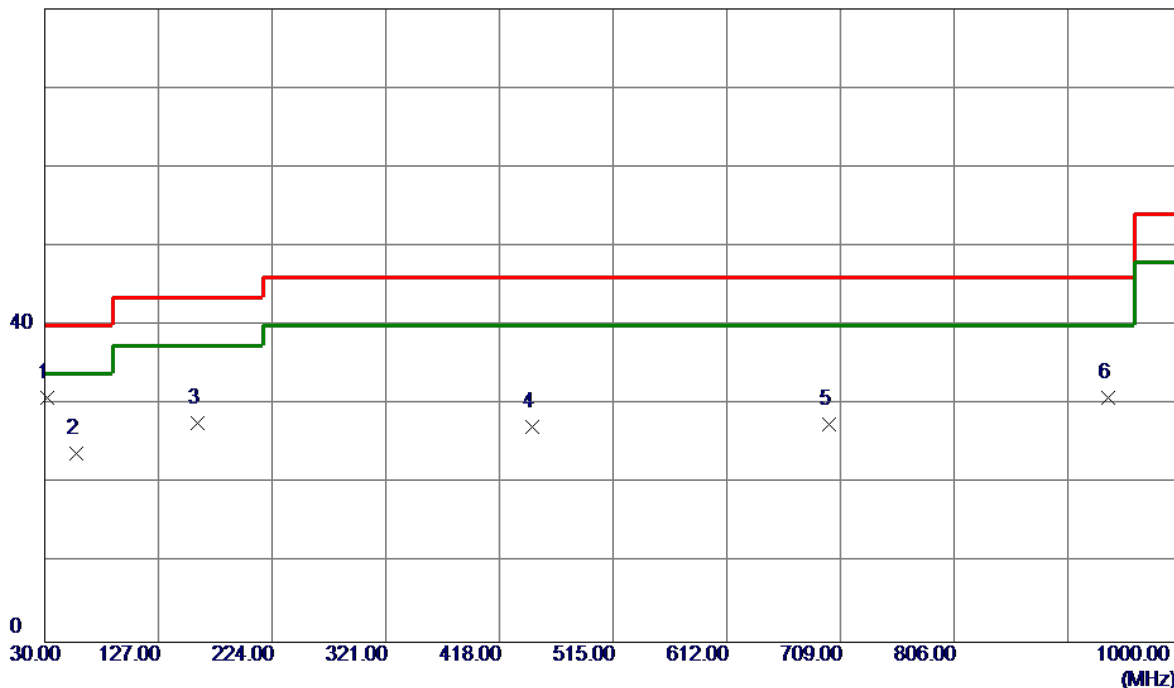
REMARKS:

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

Test Mode: TX B MODE CHANNEL 06

Horizontal

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	31.9400	45.89	-15.04	30.85	40.00	-9.15	Peak	
2	57.1600	39.16	-15.25	23.91	40.00	-16.09	Peak	
3	159.9800	38.27	-10.60	27.67	43.50	-15.83	Peak	
4	446.1300	34.81	-7.56	27.25	46.00	-18.75	Peak	
5	699.3000	30.25	-2.78	27.47	46.00	-18.53	Peak	
6	937.9200	29.92	0.92	30.84	46.00	-15.16	Peak	

REMARKS:

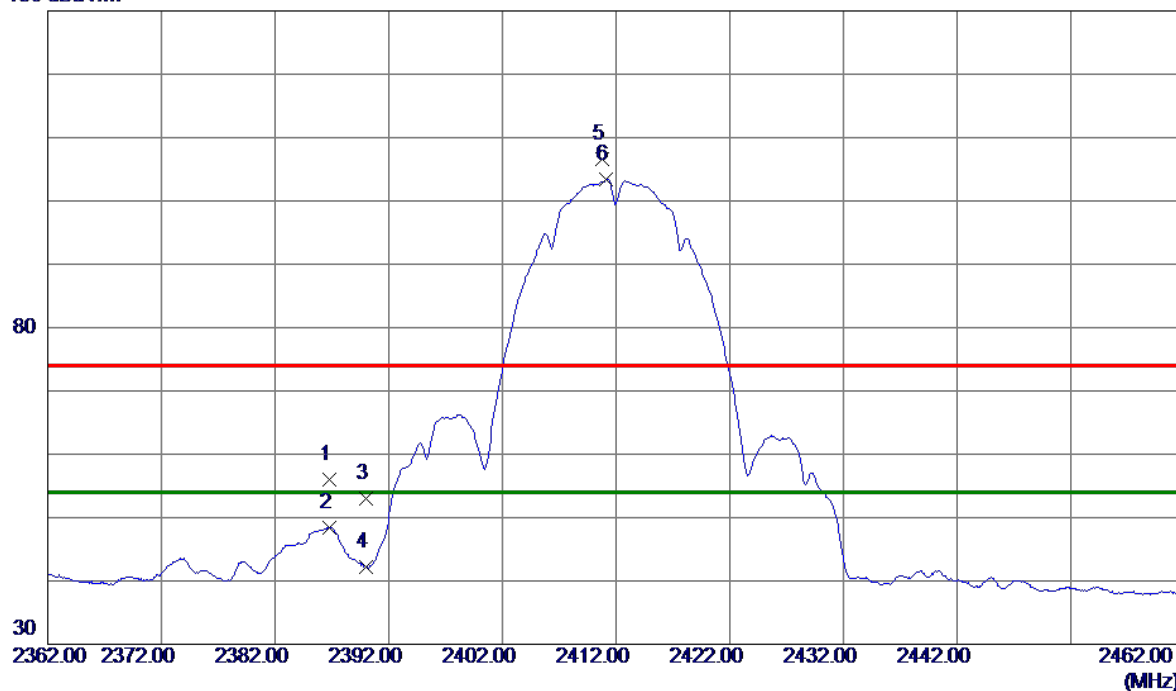
- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

APPENDIX D - RADIATED EMISSION- ABOVE 1000 MHZ

Orthogonal Axis	X
Test Mode:	TX B Mode 2412 MHz

Vertical

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2386.8000	47.90	8.10	56.00	74.00	-18.00	Peak	
2	2386.8000	40.34	8.10	48.44	54.00	-5.56	AVG	
3	2390.0000	44.84	8.11	52.95	74.00	-21.05	Peak	
4	2390.0000	34.02	8.11	42.13	54.00	-11.87	AVG	
5	2410.8000	98.49	8.17	106.66	74.00	32.66	Peak	No Limit
6 *	2411.1500	95.24	8.17	103.41	54.00	49.41	AVG	No Limit

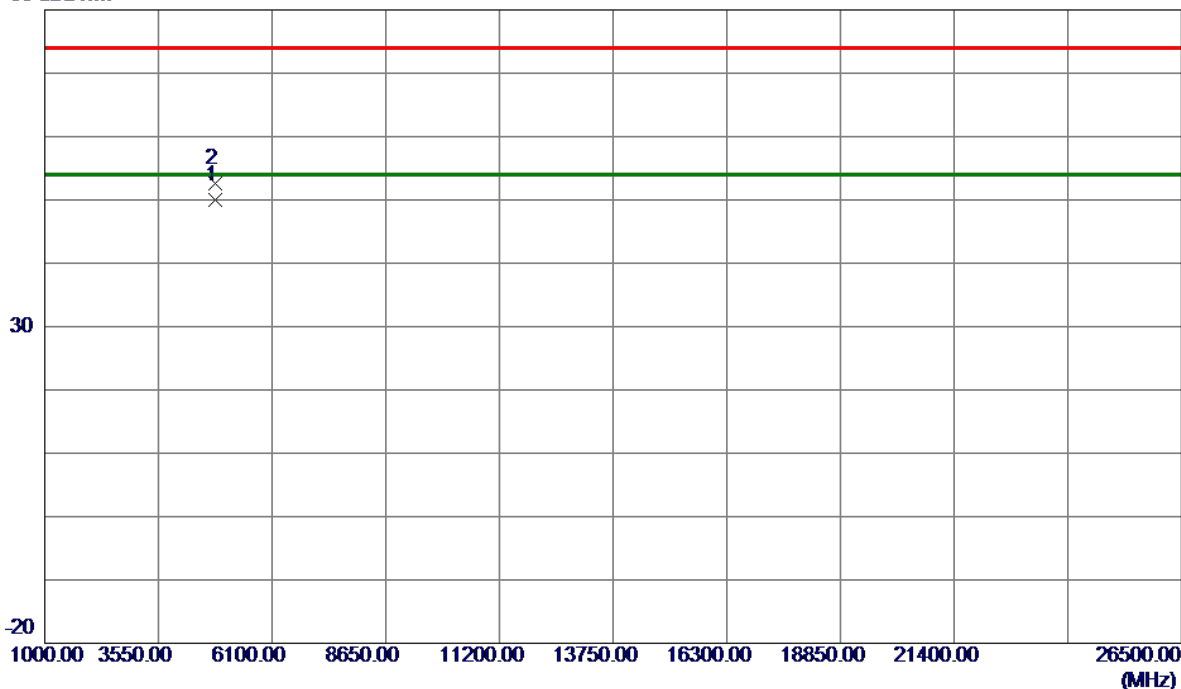
REMARKS:

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

Orthogonal Axis	X
Test Mode:	TX B Mode 2412 MHz

Vertical

80 dBuV/m



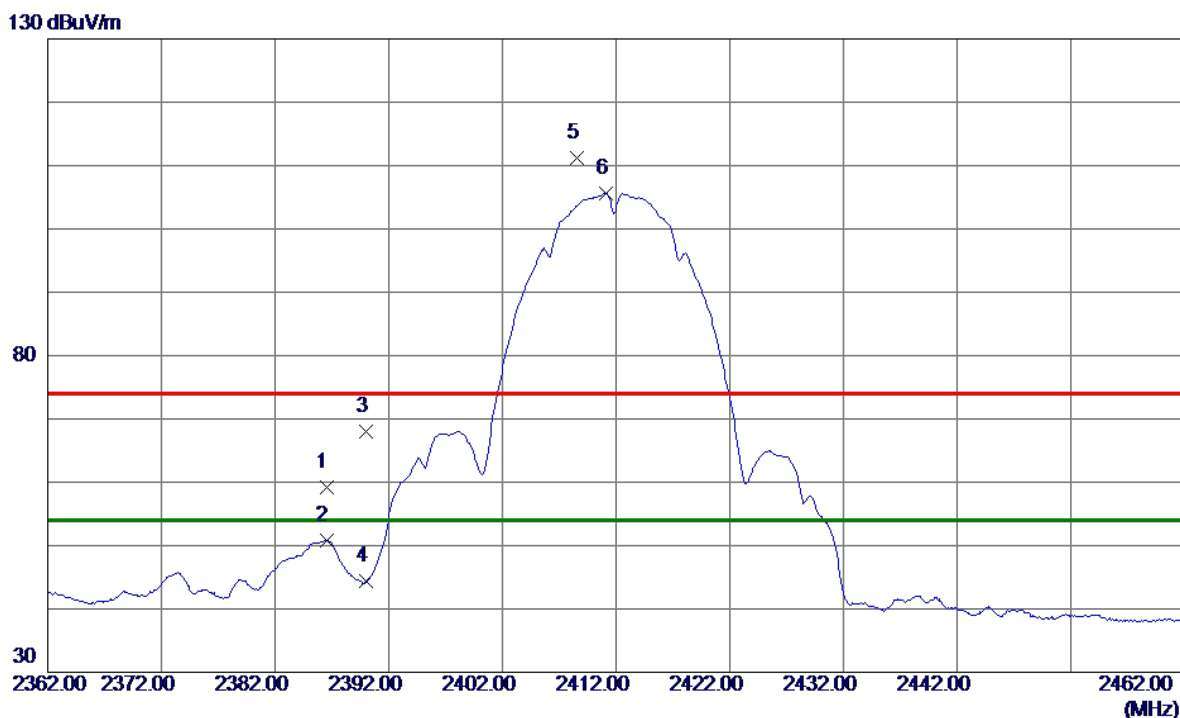
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	4823.9930	45.25	4.74	49.99	54.00	-4.01	AVG	
2	4824.0050	47.89	4.74	52.63	74.00	-21.37	Peak	

REMARKS:

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

Orthogonal Axis	X
Test Mode:	TX B Mode 2412 MHz

Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2386.5000	51.09	8.10	59.19	74.00	-14.81	Peak	
2	2386.5000	42.68	8.10	50.78	54.00	-3.22	AVG	
3	2390.0000	59.95	8.11	68.06	74.00	-5.94	Peak	
4	2390.0000	36.31	8.11	44.42	54.00	-9.58	AVG	
5	2408.5500	102.96	8.16	111.12	74.00	37.12	Peak	No Limit
6 *	2411.1000	97.51	8.17	105.68	54.00	51.68	AVG	No Limit

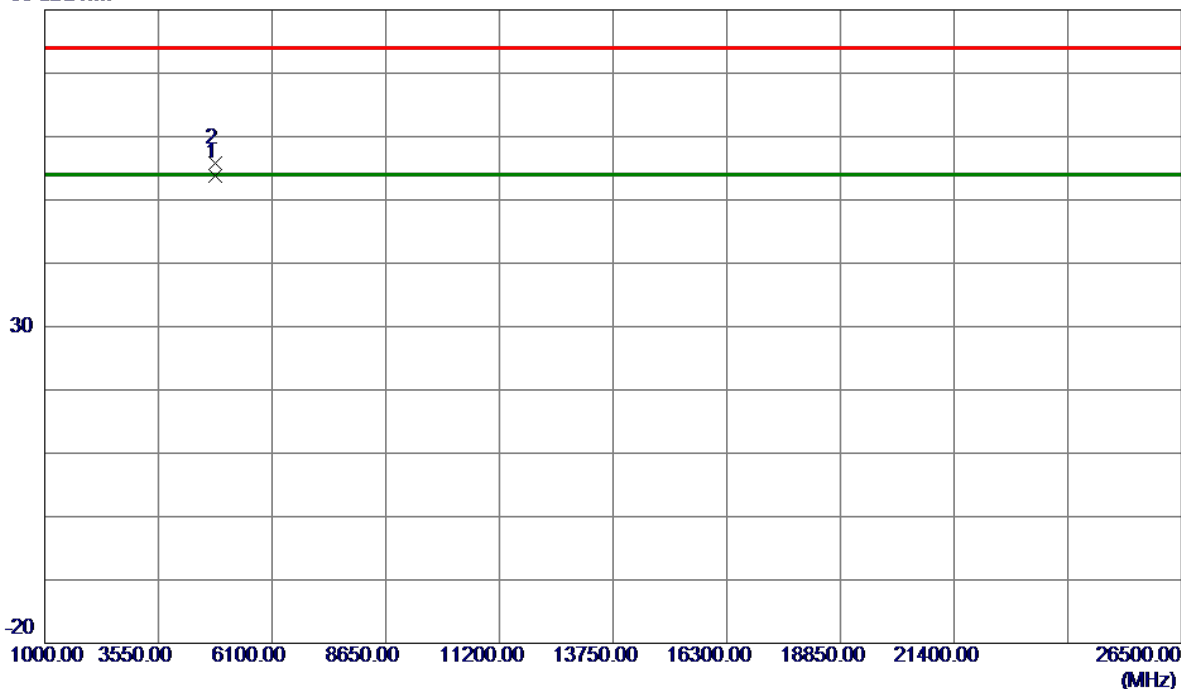
REMARKS:

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

Orthogonal Axis	X
Test Mode:	TX B Mode 2412 MHz

Horizontal

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 *	4824.0360	48.96	4.74	53.70	54.00	-0.30	AVG	
2	4824.0620	51.03	4.74	55.77	74.00	-18.23	Peak	

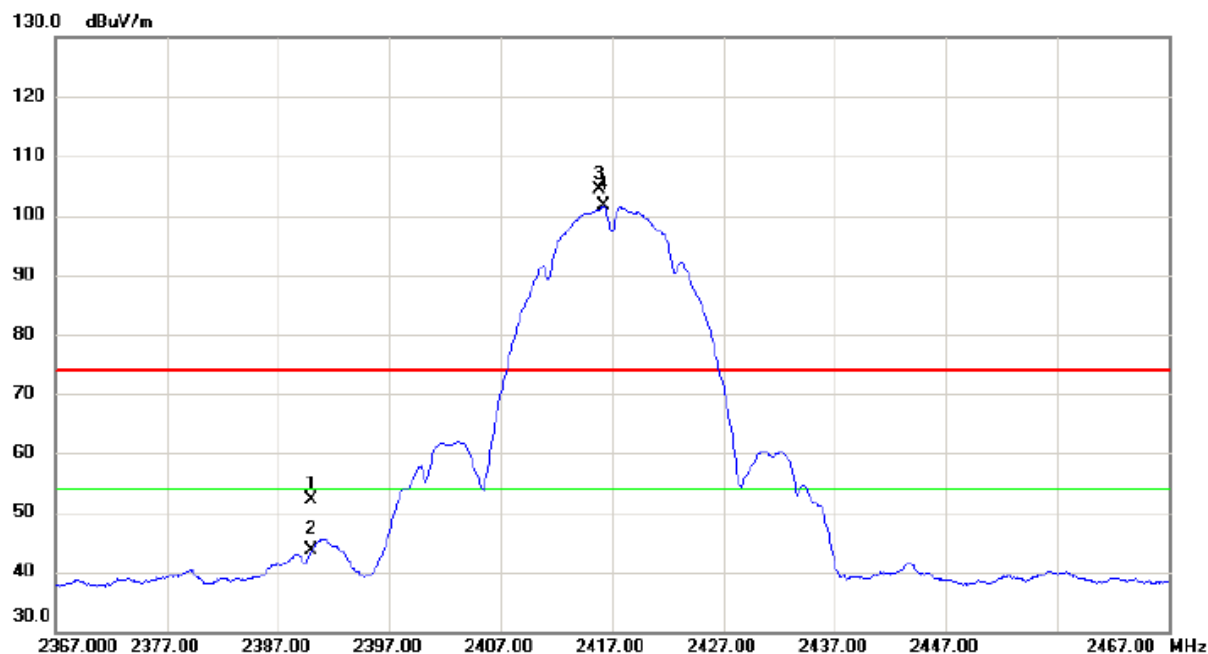
REMARKS:

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

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

Orthogonal Axis	X
Test Mode:	TX B Mode 2417 MHz

Vertical



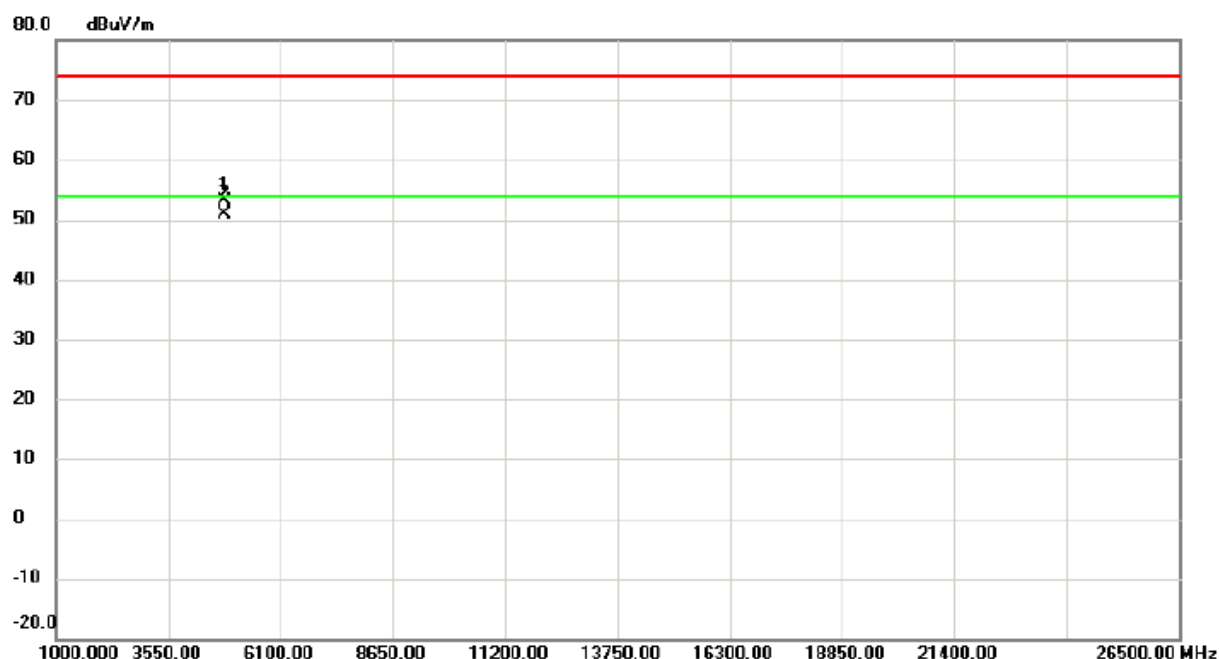
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		2390.000	44.12	8.11	52.23	74.00	-21.77	peak	
2		2390.000	35.56	8.11	43.67	54.00	-10.33	AVG	
3	X	2415.850	96.19	8.19	104.38	74.00	30.38	peak	No Limit
4	*	2416.250	93.32	8.19	101.51	54.00	47.51	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 2417 MHz

Vertical



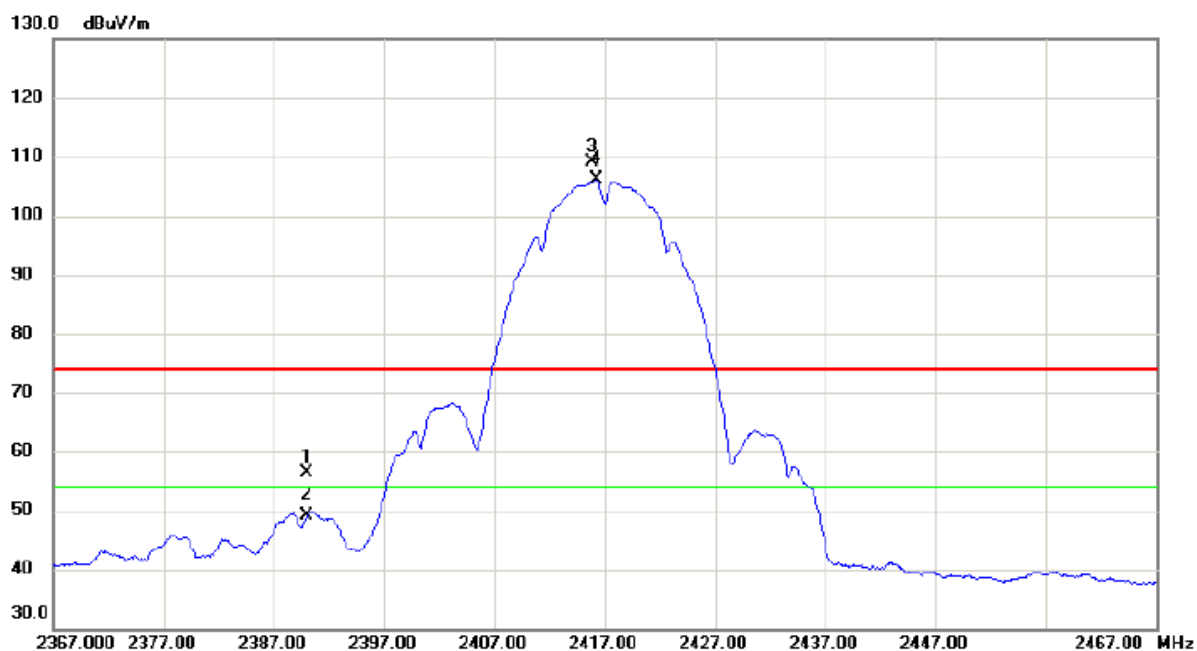
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		4833.981	48.43	4.80	53.23	74.00	-20.77	peak	
2	*	4834.014	46.13	4.80	50.93	54.00	-3.07	AVG	

REMARKS:

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

Orthogonal Axis	X
Test Mode:	TX B Mode 2417 MHz

Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		2390.000	48.34	8.11	56.45	74.00	-17.55	peak	
2		2390.000	41.14	8.11	49.25	54.00	-4.75	AVG	
3	X	2415.850	101.06	8.19	109.25	74.00	35.25	peak	No Limit
4	*	2416.300	97.98	8.19	106.17	54.00	52.17	AVG	No Limit

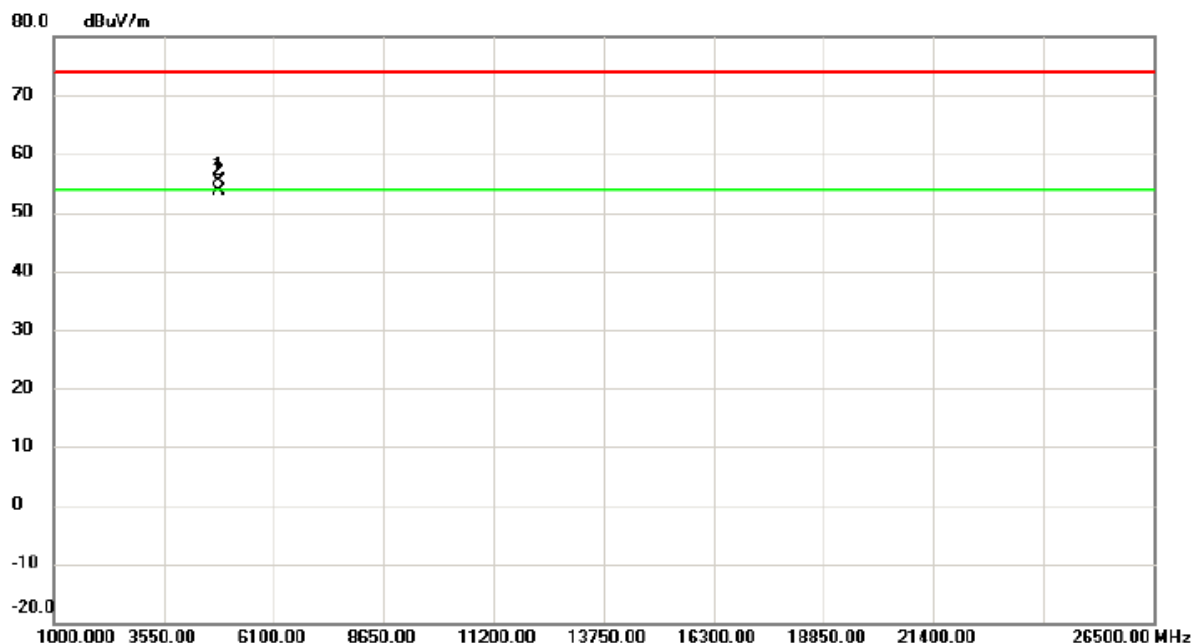
REMARKS:

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

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

Orthogonal Axis	X
Test Mode:	TX B Mode 2417 MHz

Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		4833.952	50.48	4.80	55.28	74.00	-18.72	peak	
2	*	4833.995	48.90	4.80	53.70	54.00	-0.30	AVG	

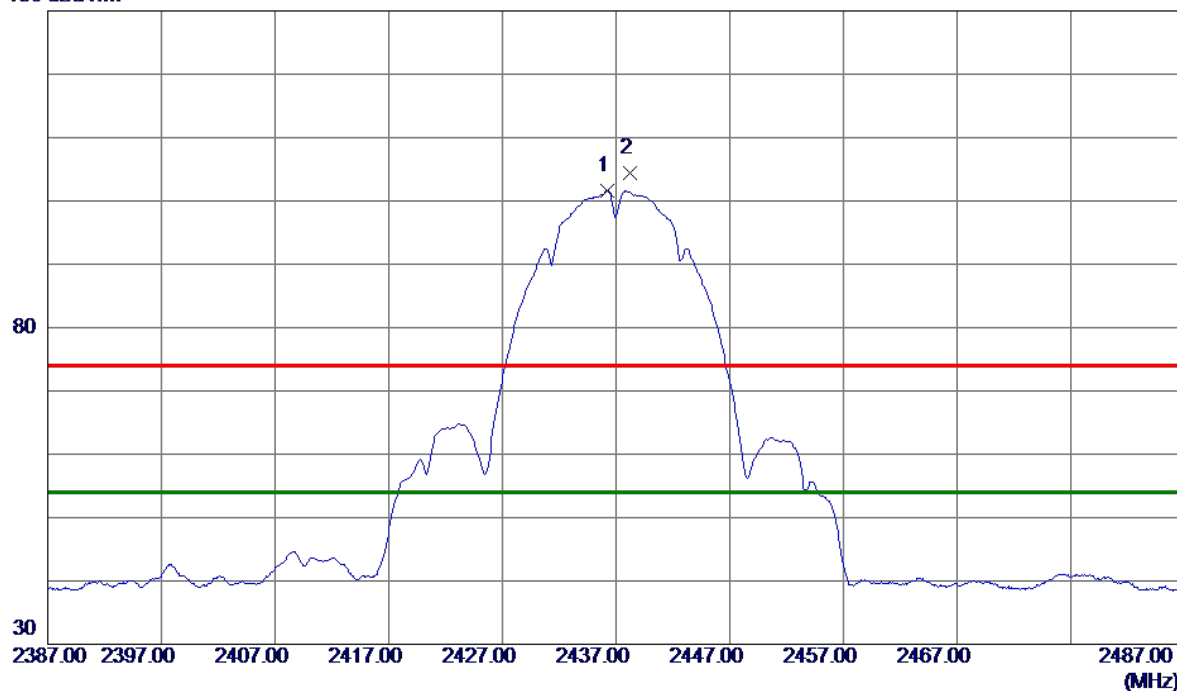
REMARKS:

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

Orthogonal Axis	X
Test Mode:	TX B Mode 2437 MHz

Vertical

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2436.2000	93.36	8.24	101.60	54.00	47.60	AVG	No Limit
2	2438.2000	96.24	8.25	104.49	74.00	30.49	Peak	No Limit

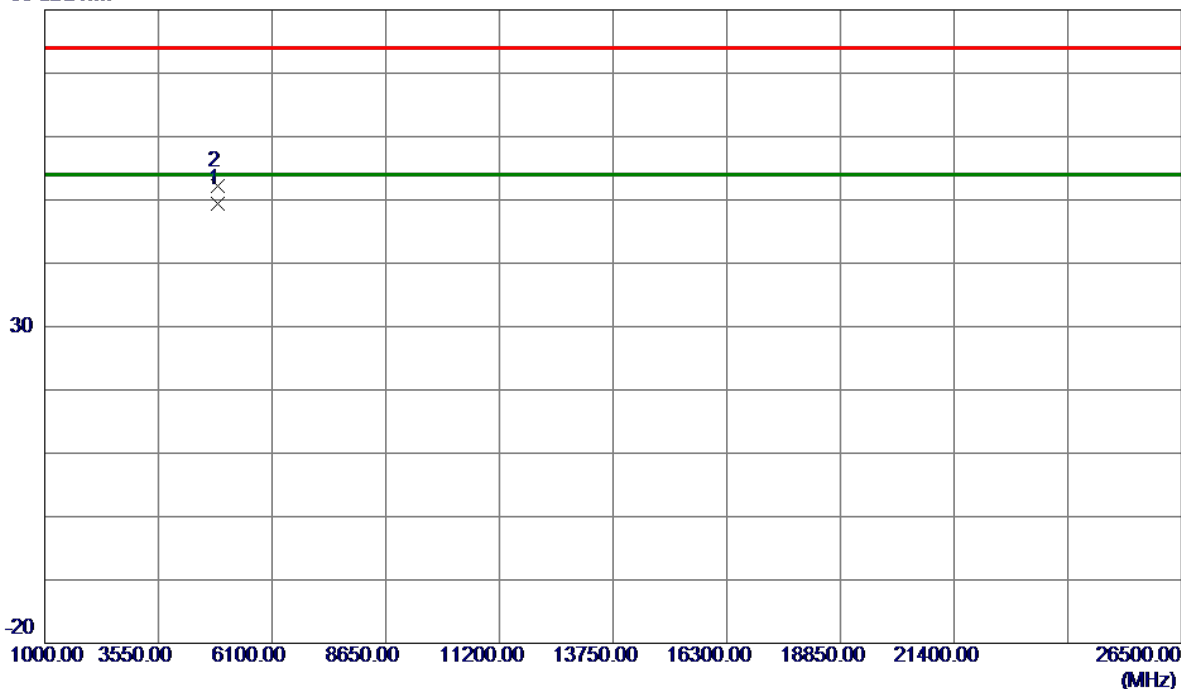
REMARKS:

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

Orthogonal Axis	X
Test Mode:	TX B Mode 2437 MHz

Vertical

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	4873.9780	44.42	4.99	49.41	54.00	-4.59	AVG	
2	4874.0050	47.28	4.99	52.27	74.00	-21.73	Peak	

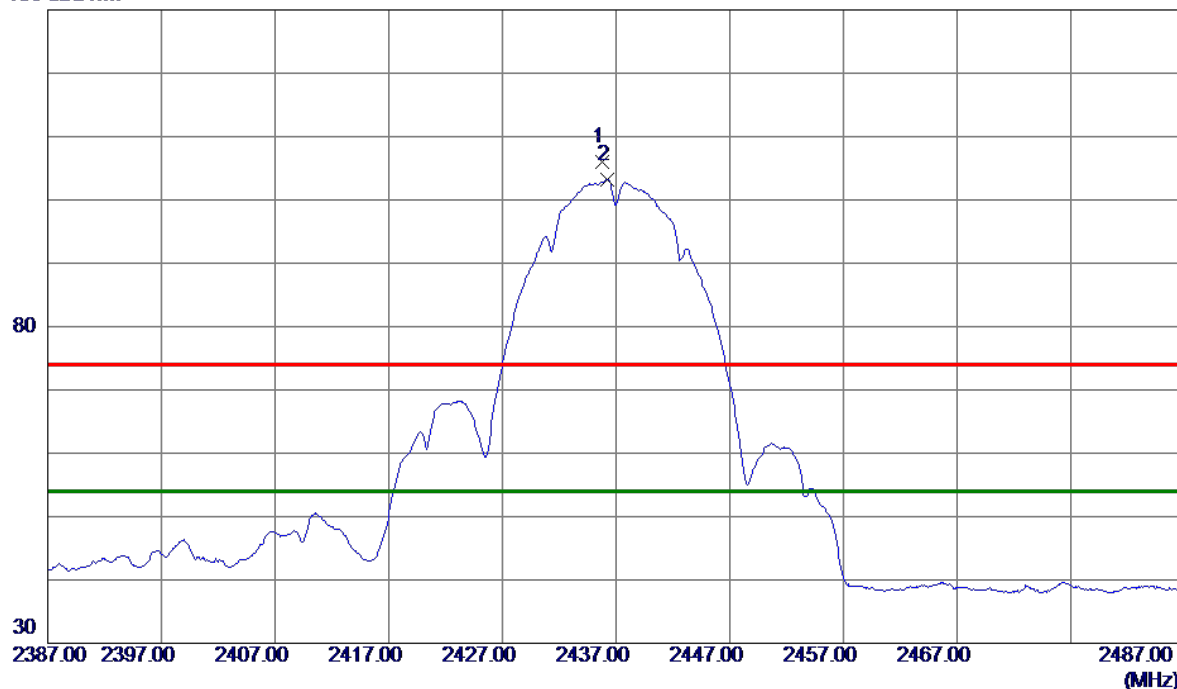
REMARKS:

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

Orthogonal Axis	X
Test Mode:	TX B Mode 2437 MHz

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	2435.7500	97.86	8.24	106.10	74.00	32.10	Peak	No Limit
2 *	2436.2000	94.99	8.24	103.23	54.00	49.23	AVG	No Limit

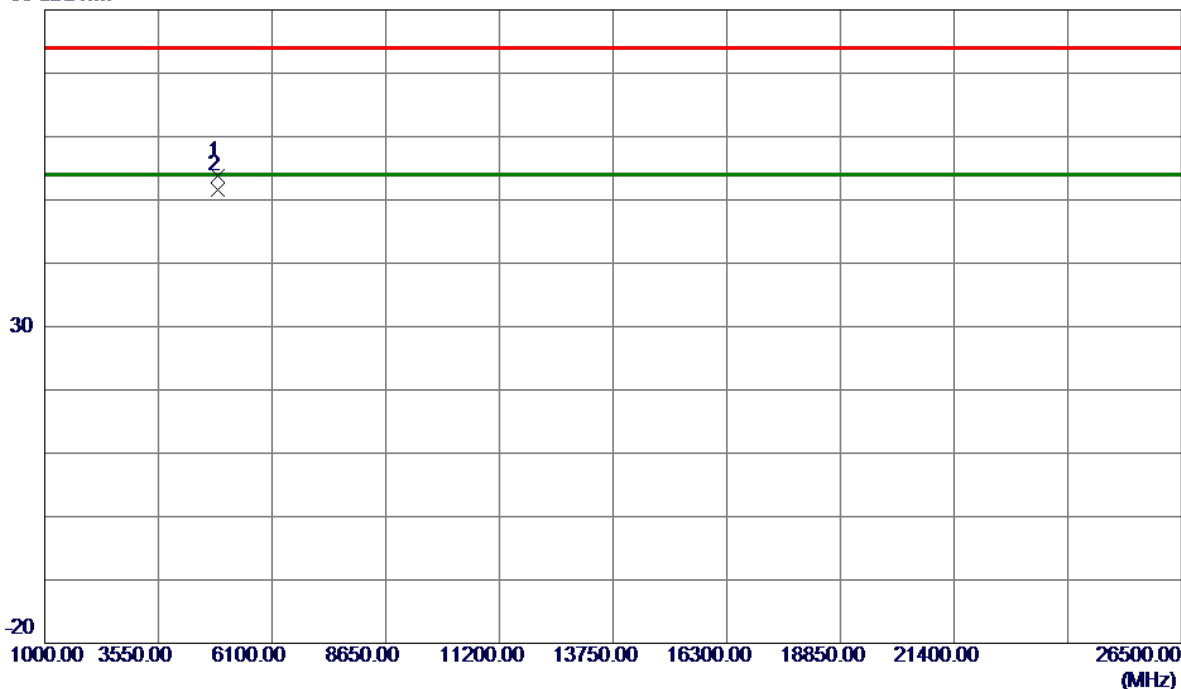
REMARKS:

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

Orthogonal Axis	X
Test Mode:	TX B Mode 2437 MHz

Horizontal

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4873.9420	48.86	4.99	53.85	74.00	-20.15	Peak	
2 *	4873.9780	46.61	4.99	51.60	54.00	-2.40	AVG	

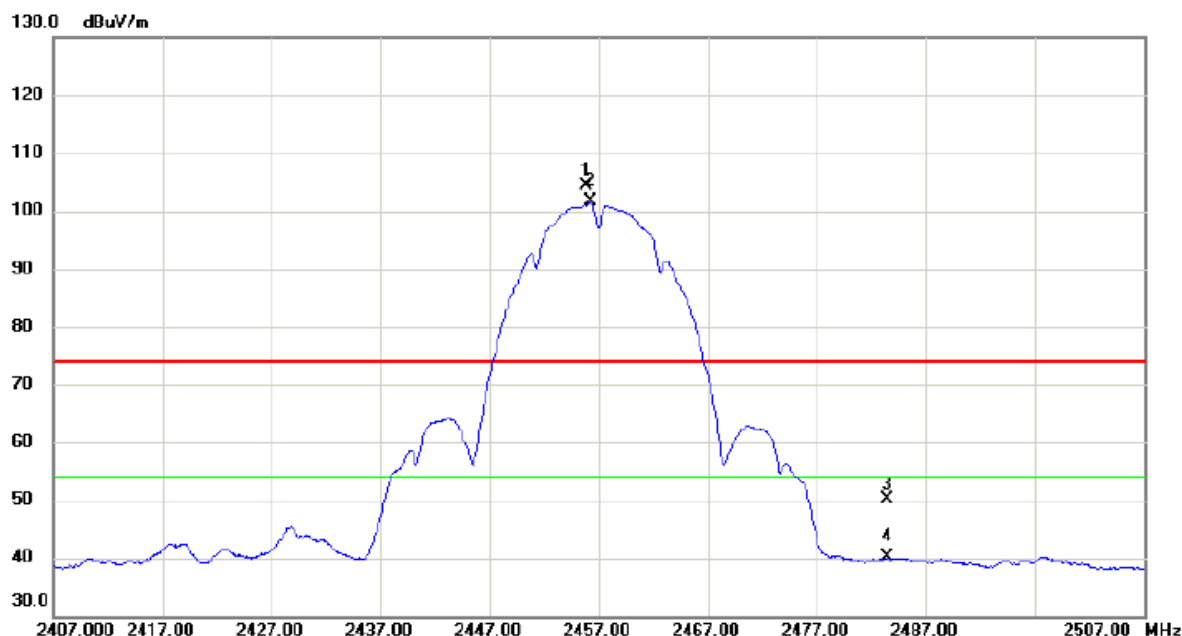
REMARKS:

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

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

Orthogonal Axis	X
Test Mode:	TX B Mode 2457 MHz

Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	X	2455.800	95.98	8.30	104.28	74.00	30.28	peak	No Limit
2	*	2456.250	93.26	8.30	101.56	54.00	47.56	AVG	No Limit
3		2483.500	41.85	8.38	50.23	74.00	-23.77	peak	
4		2483.500	31.66	8.38	40.04	54.00	-13.96	AVG	

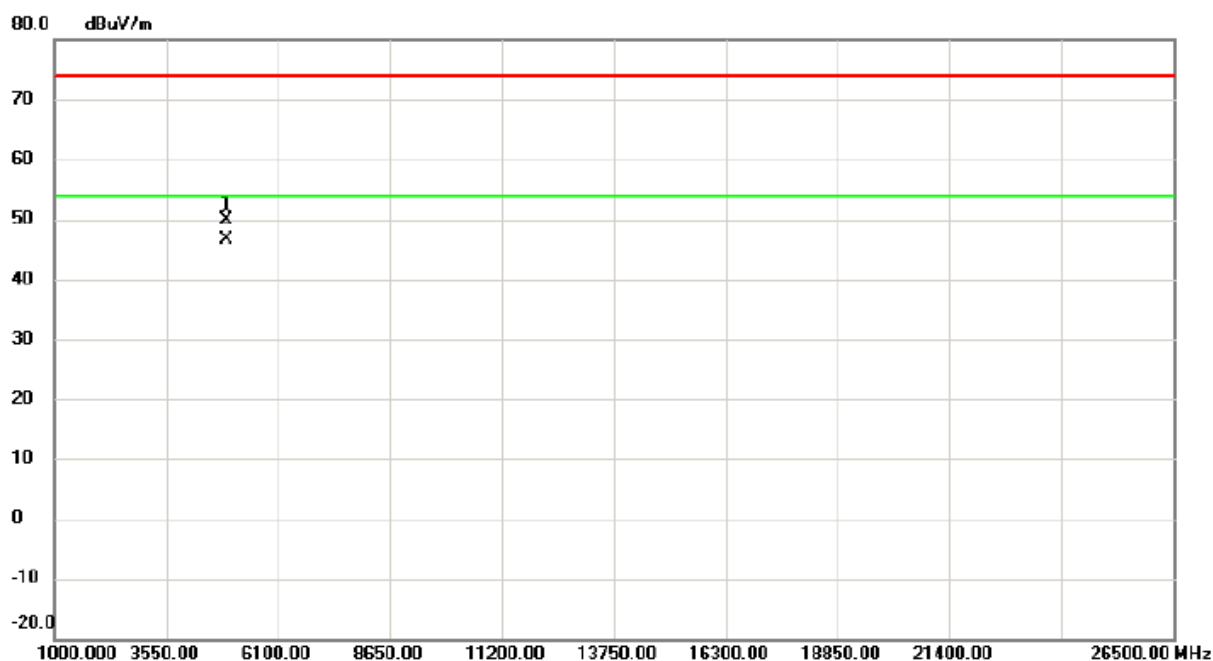
REMARKS:

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

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

Orthogonal Axis	X
Test Mode:	TX B Mode 2457 MHz

Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		4913.957	44.68	5.18	49.86	74.00	-24.14	peak	
2	*	4913.979	41.48	5.18	46.66	54.00	-7.34	AVG	

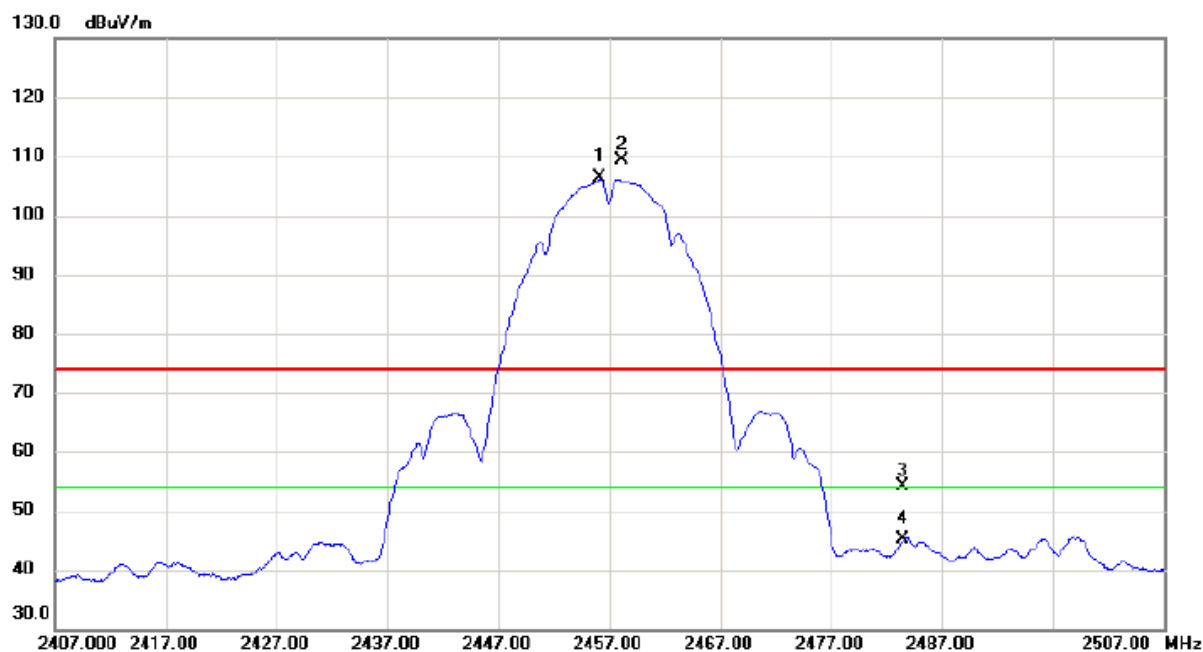
REMARKS:

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

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

Orthogonal Axis	X
Test Mode:	TX B Mode 2457 MHz

Horizontal



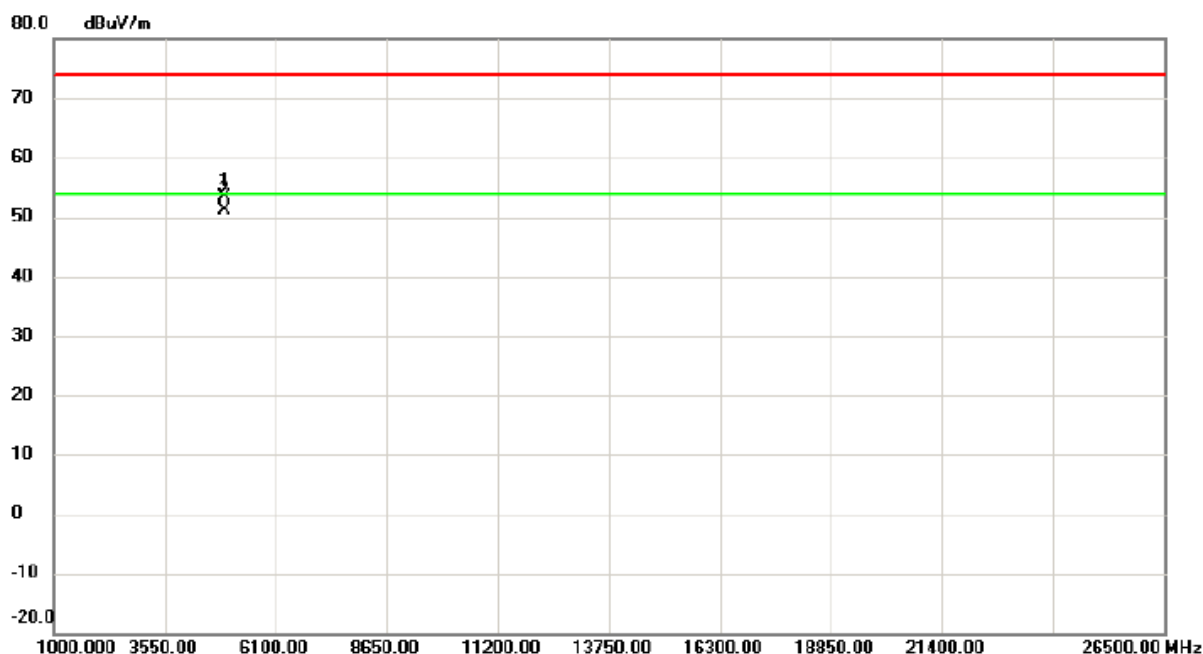
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	2456.200	97.96	8.30	106.26	54.00	52.26	AVG	No Limit
2	X	2458.150	101.16	8.30	109.46	74.00	35.46	peak	No Limit
3		2483.500	45.87	8.38	54.25	74.00	-19.75	peak	
4		2483.500	36.80	8.38	45.18	54.00	-8.82	AVG	

REMARKS:

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

Orthogonal Axis	X
Test Mode:	TX B Mode 2457 MHz

Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		4913.879	48.28	5.18	53.46	74.00	-20.54	peak	
2	*	4913.992	45.99	5.18	51.17	54.00	-2.83	AVG	

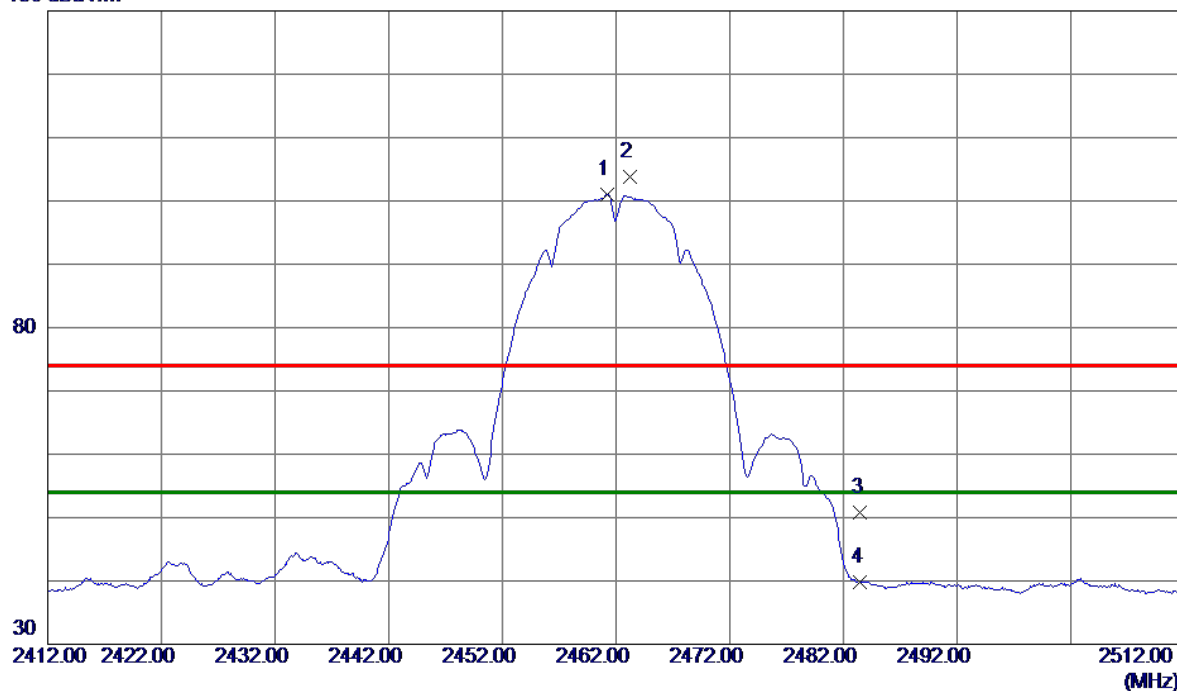
REMARKS:

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

Orthogonal Axis	X
Test Mode:	TX B Mode 2462 MHz

Vertical

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2461.2500	92.73	8.32	101.05	54.00	47.05	AVG	No Limit
2	2463.2000	95.48	8.32	103.80	74.00	29.80	Peak	No Limit
3	2483.5000	42.39	8.38	50.77	74.00	-23.23	Peak	
4	2483.5000	31.41	8.38	39.79	54.00	-14.21	AVG	

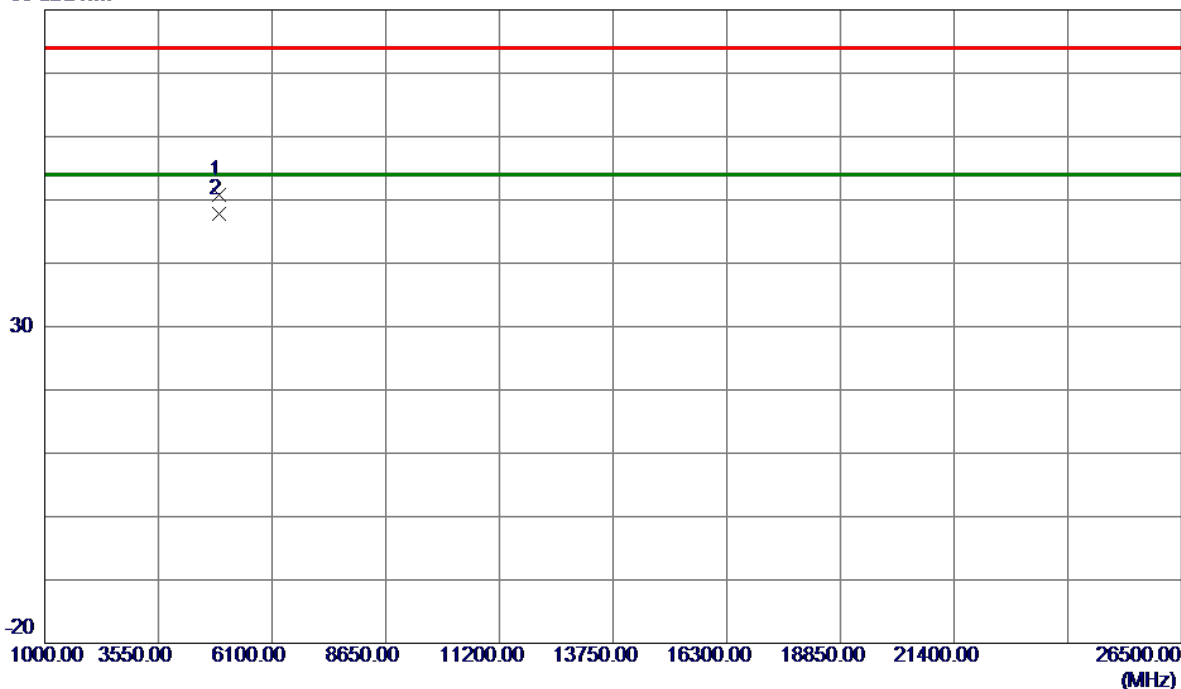
REMARKS:

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

Orthogonal Axis	X
Test Mode:	TX B Mode 2462 MHz

Vertical

80 dBuV/m



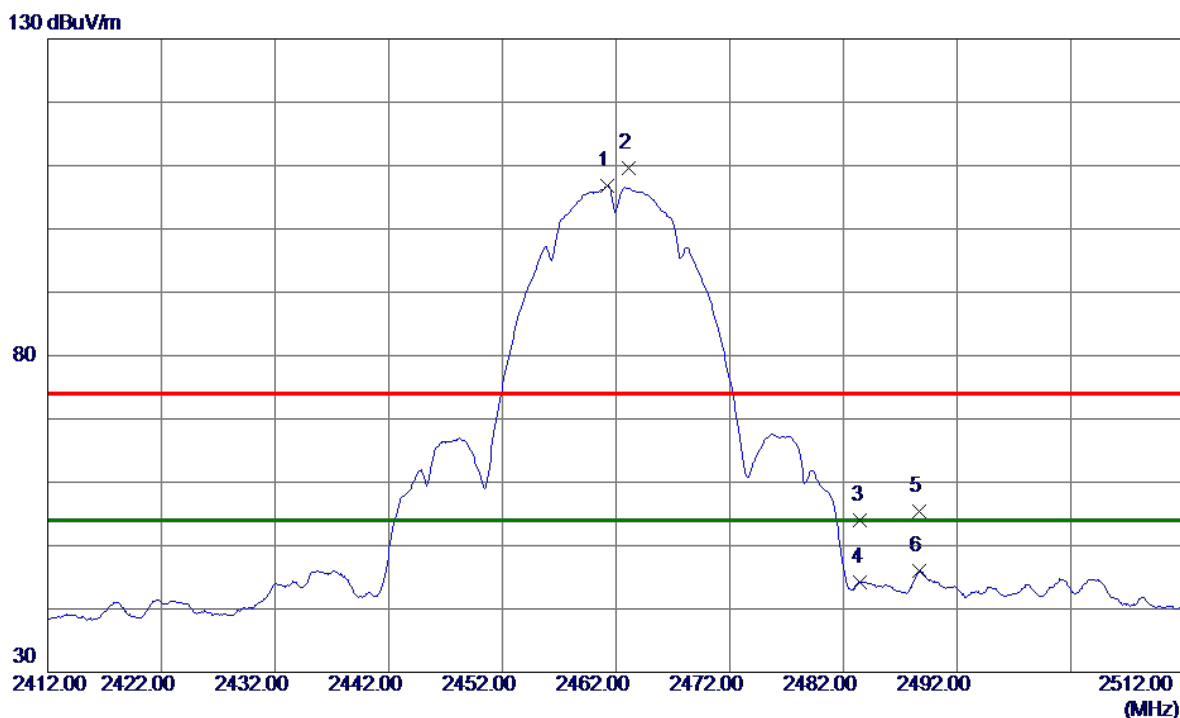
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4923.9600	45.60	5.24	50.84	74.00	-23.16	Peak	
2 *	4923.9960	42.65	5.24	47.89	54.00	-6.11	AVG	

REMARKS:

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

Orthogonal Axis	X
Test Mode:	TX B Mode 2462 MHz

Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2461.2500	98.45	8.32	106.77	54.00	52.77	AVG	No Limit
2	2463.1500	101.26	8.32	109.58	74.00	35.58	Peak	No Limit
3	2483.5000	45.70	8.38	54.08	74.00	-19.92	Peak	
4	2483.5000	35.83	8.38	44.21	54.00	-9.79	AVG	
5	2488.7000	46.97	8.40	55.37	74.00	-18.63	Peak	
6	2488.7000	37.54	8.40	45.94	54.00	-8.06	AVG	

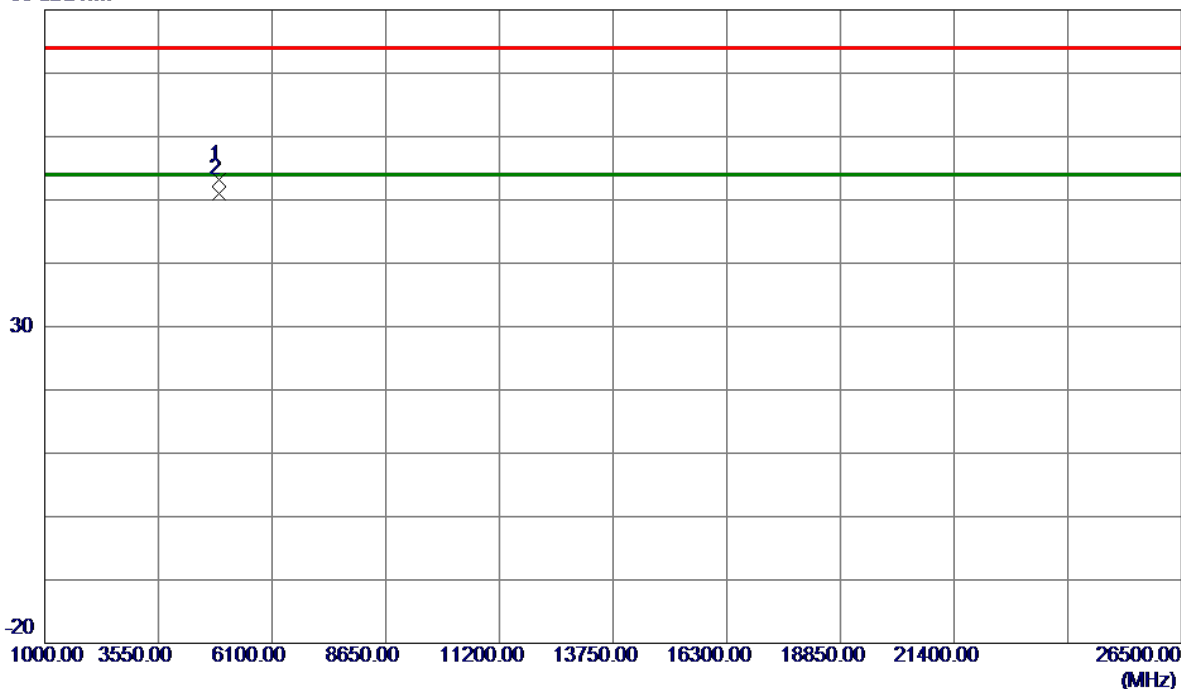
REMARKS:

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

Orthogonal Axis	X
Test Mode:	TX B Mode 2462 MHz

Horizontal

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4923.8660	48.05	5.24	53.29	74.00	-20.71	Peak	
2 *	4924.0470	45.81	5.24	51.05	54.00	-2.95	AVG	

REMARKS:

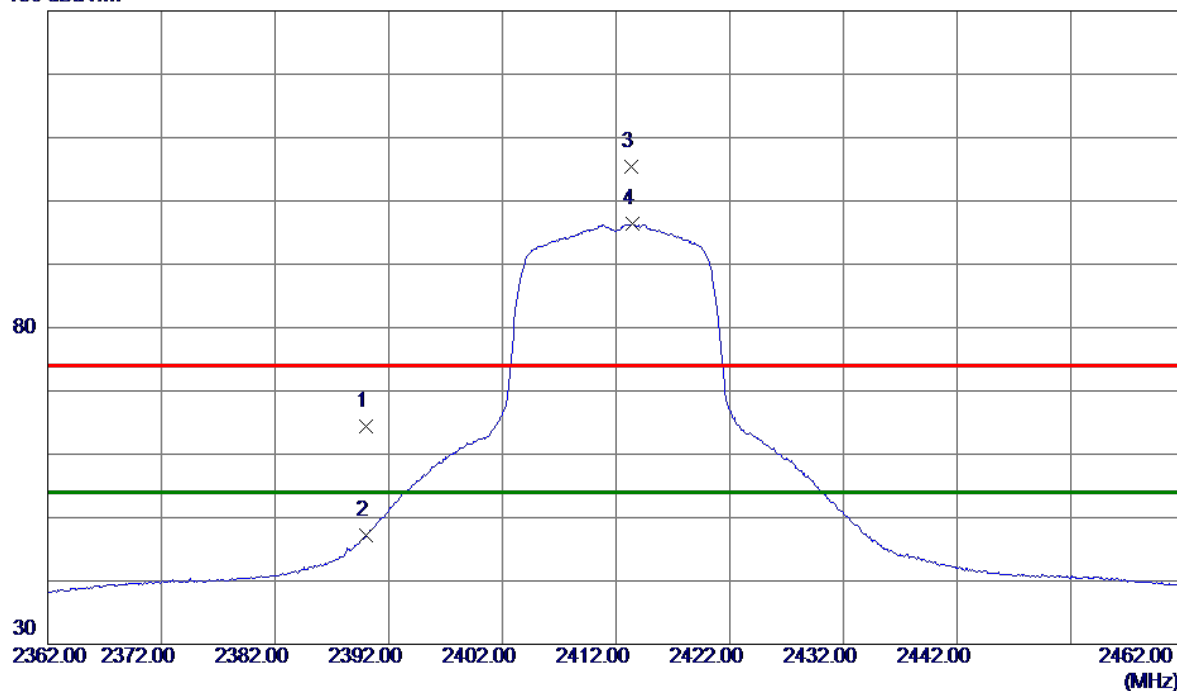
(1) Measurement Value = Reading Level + Correct Factor.

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

Orthogonal Axis	X
Test Mode:	TX G Mode 2412 MHz

Vertical

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	56.37	8.11	64.48	74.00	-9.52	Peak	
2	2390.0000	39.07	8.11	47.18	54.00	-6.82	AVG	
3	2413.3000	97.27	8.18	105.45	74.00	31.45	Peak	No Limit
4 *	2413.4500	88.14	8.18	96.32	54.00	42.32	AVG	No Limit

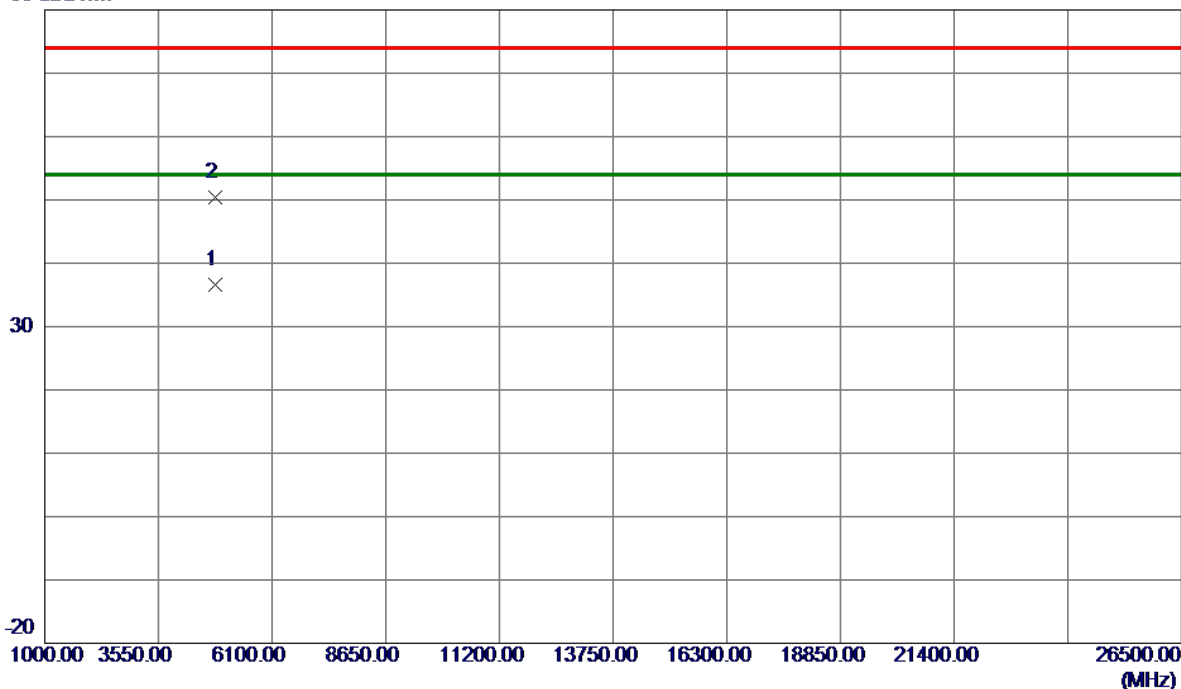
REMARKS:

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

Orthogonal Axis	X
Test Mode:	TX G Mode 2412 MHz

Vertical

80 dBuV/m



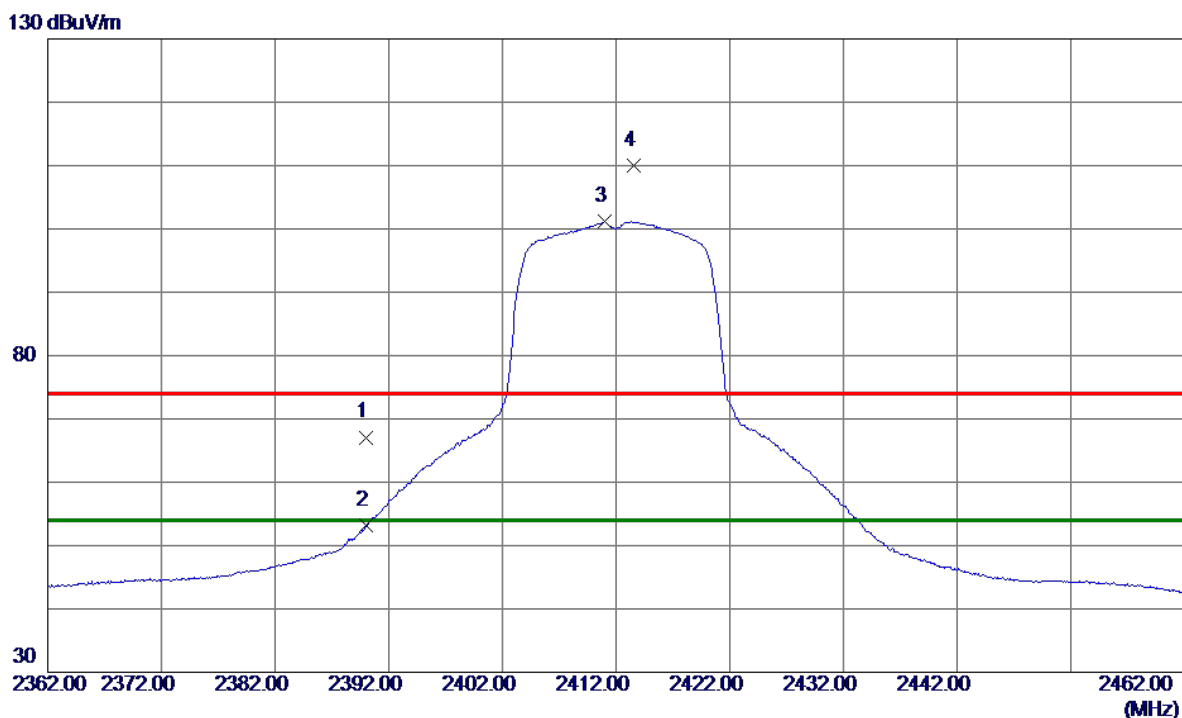
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	4823.0290	31.81	4.74	36.55	54.00	-17.45	AVG	
2	4824.4700	45.58	4.75	50.33	74.00	-23.67	Peak	

REMARKS:

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

Orthogonal Axis	X
Test Mode:	TX G Mode 2412 MHz

Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	58.99	8.11	67.10	74.00	-6.90	Peak	
2	2390.0000	45.06	8.11	53.17	54.00	-0.83	AVG	
3 *	2411.0500	92.96	8.17	101.13	54.00	47.13	AVG	No Limit
4	2413.5500	101.87	8.18	110.05	74.00	36.05	Peak	No Limit

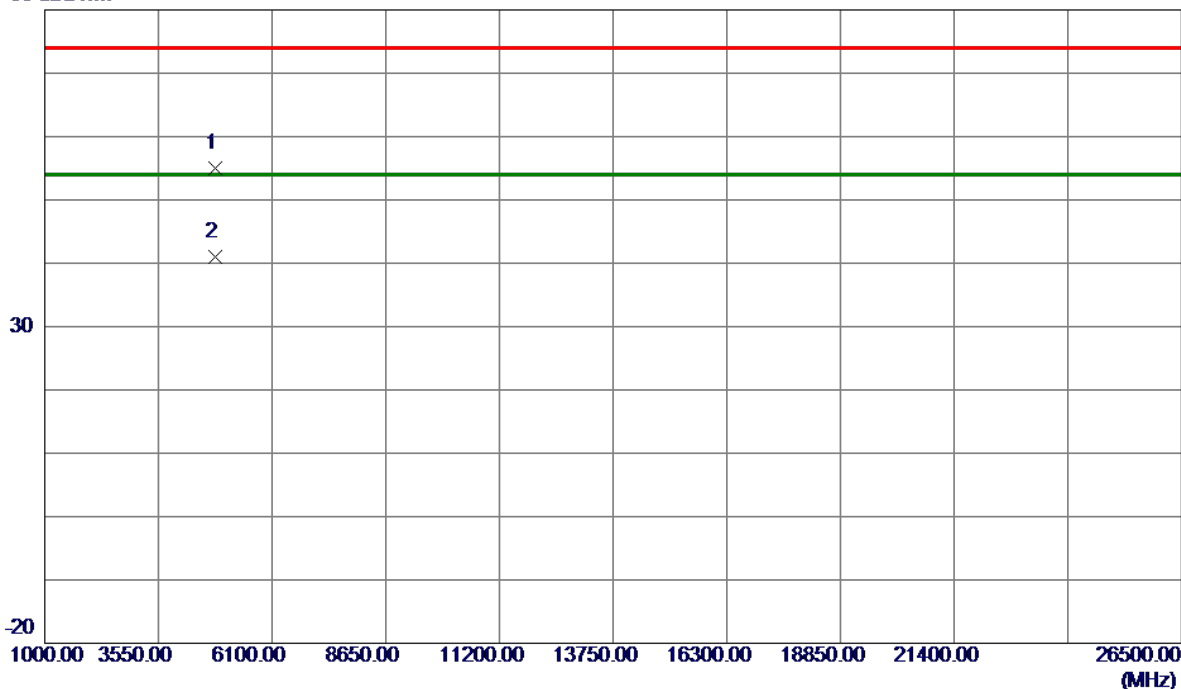
REMARKS:

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

Orthogonal Axis	X
Test Mode:	TX G Mode 2412 MHz

Horizontal

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4823.8630	50.24	4.74	54.98	74.00	-19.02	Peak	
2 *	4824.8070	36.26	4.75	41.01	54.00	-12.99	AVG	

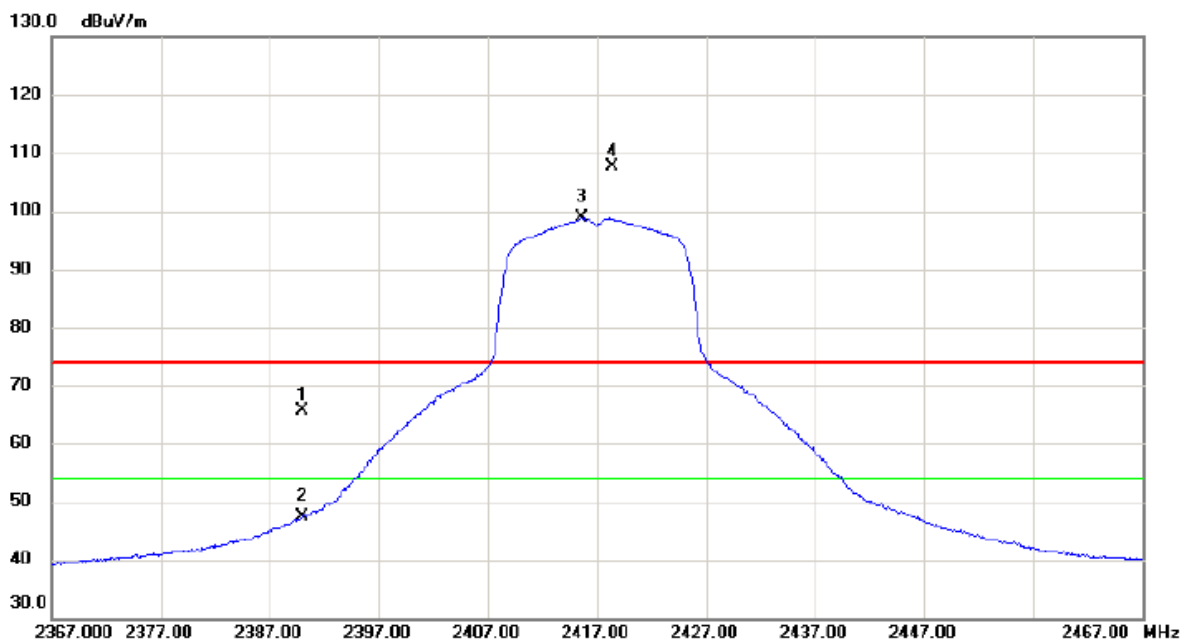
REMARKS:

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

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

Orthogonal Axis	X
Test Mode:	TX G Mode 2417 MHz

Vertical



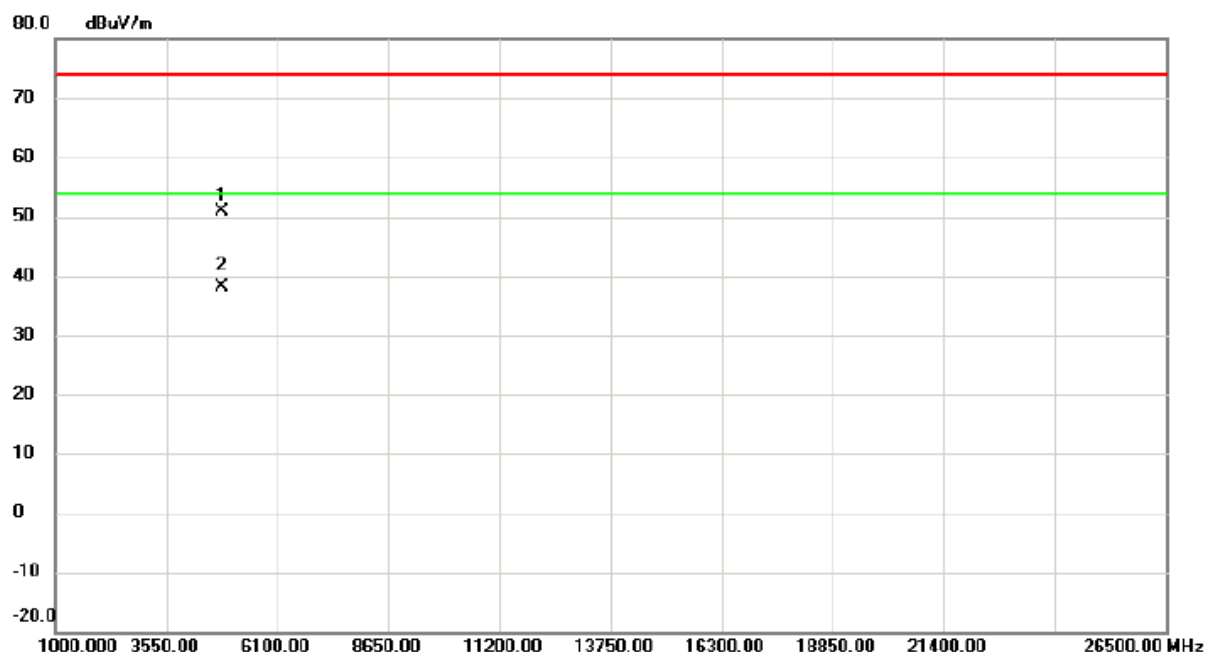
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		2390.000	57.43	8.11	65.54	74.00	-8.46	peak	
2		2390.000	39.25	8.11	47.36	54.00	-6.64	AVG	
3	*	2415.550	90.60	8.19	98.79	54.00	44.79	AVG	No Limit
4	X	2418.450	99.40	8.19	107.59	74.00	33.59	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 2417 MHz

Vertical



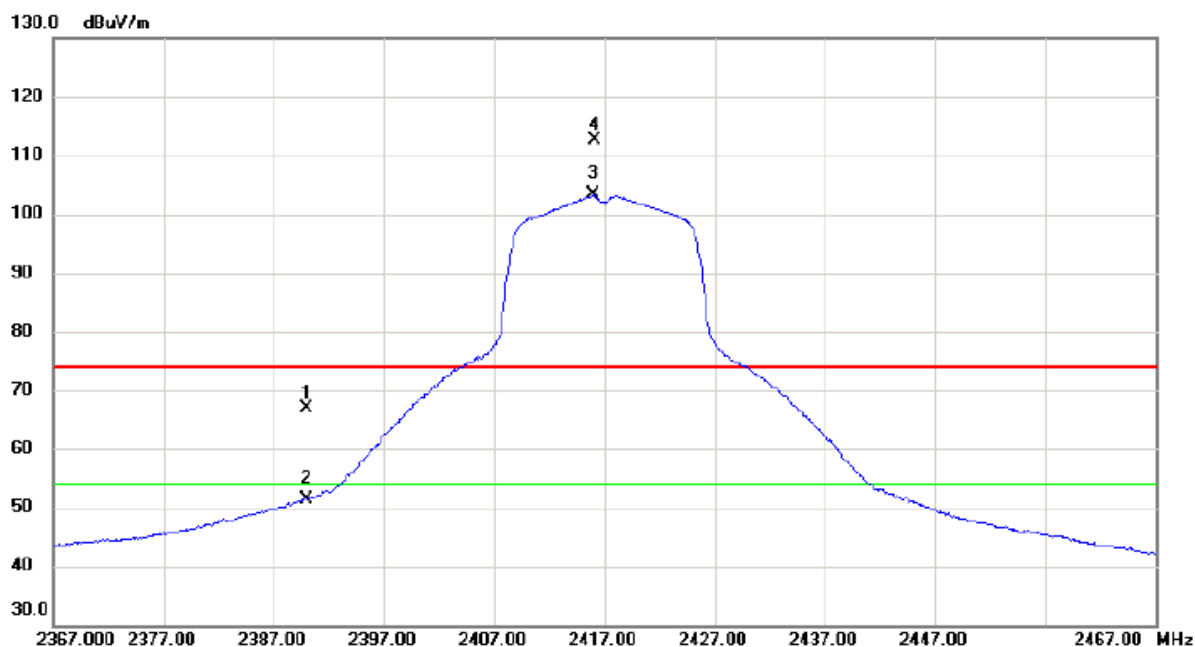
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		4833.174	46.20	4.79	50.99	74.00	-23.01	peak	
2	*	4834.961	33.34	4.80	38.14	54.00	-15.86	AVG	

REMARKS:

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

Orthogonal Axis	X
Test Mode:	TX G Mode 2417 MHz

Horizontal



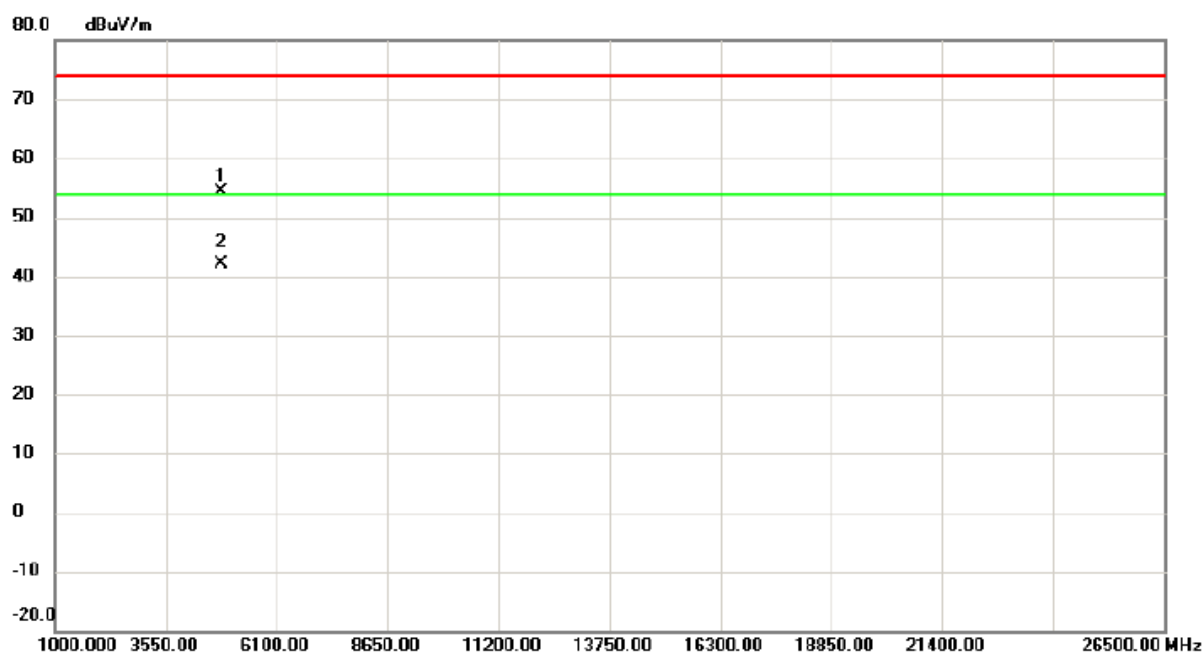
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		2390.000	58.70	8.11	66.81	74.00	-7.19	peak	
2		2390.000	43.38	8.11	51.49	54.00	-2.51	AVG	
3	*	2416.000	95.07	8.19	103.26	54.00	49.26	AVG	No Limit
4	X	2416.150	104.36	8.19	112.55	74.00	38.55	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 2417 MHz

Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		4834.534	49.47	4.80	54.27	74.00	-19.73	peak	
2	*	4834.951	37.27	4.80	42.07	54.00	-11.93	AVG	

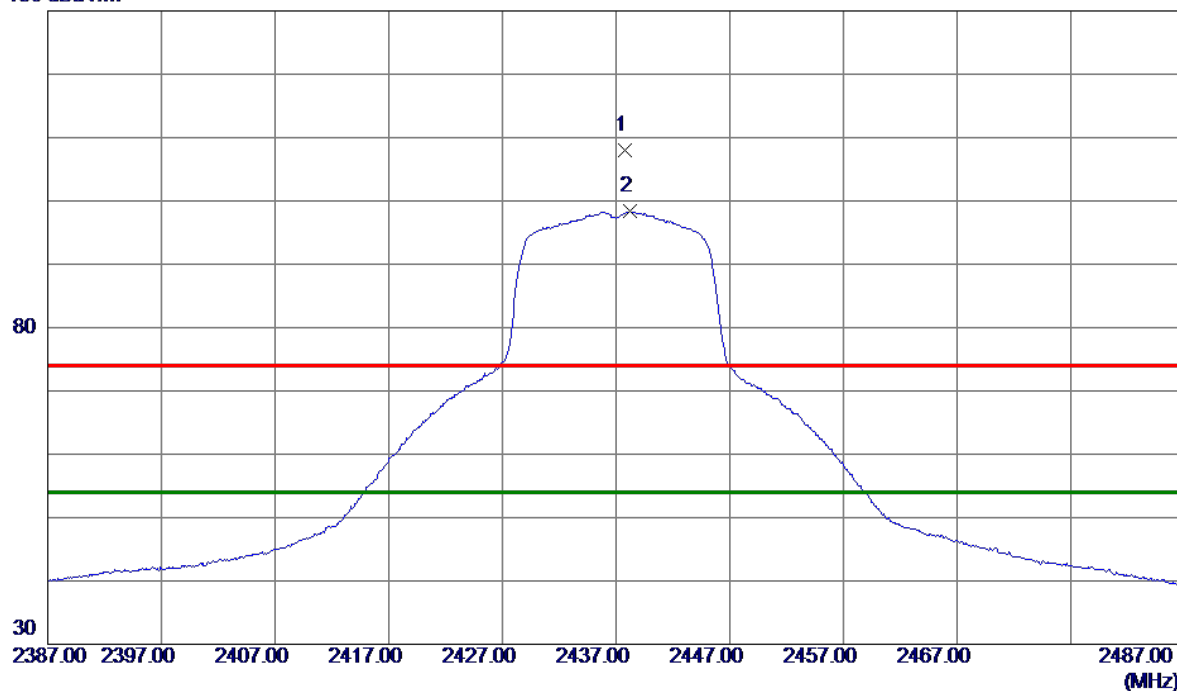
REMARKS:

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

Orthogonal Axis	X
Test Mode:	TX G Mode 2437 MHz

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	2437.8000	99.73	8.25	107.98	74.00	33.98	Peak	No Limit
2 *	2438.2000	90.08	8.25	98.33	54.00	44.33	AVG	No Limit

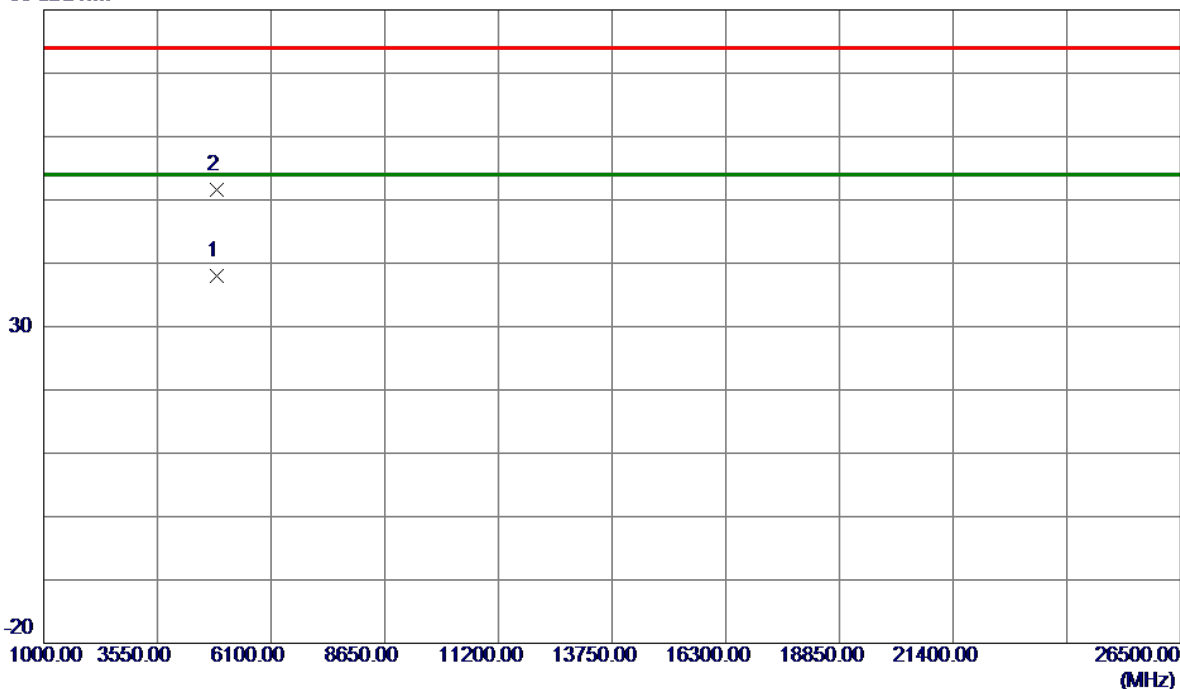
REMARKS:

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

Orthogonal Axis	X
Test Mode:	TX G Mode 2437 MHz

Vertical

80 dBuV/m



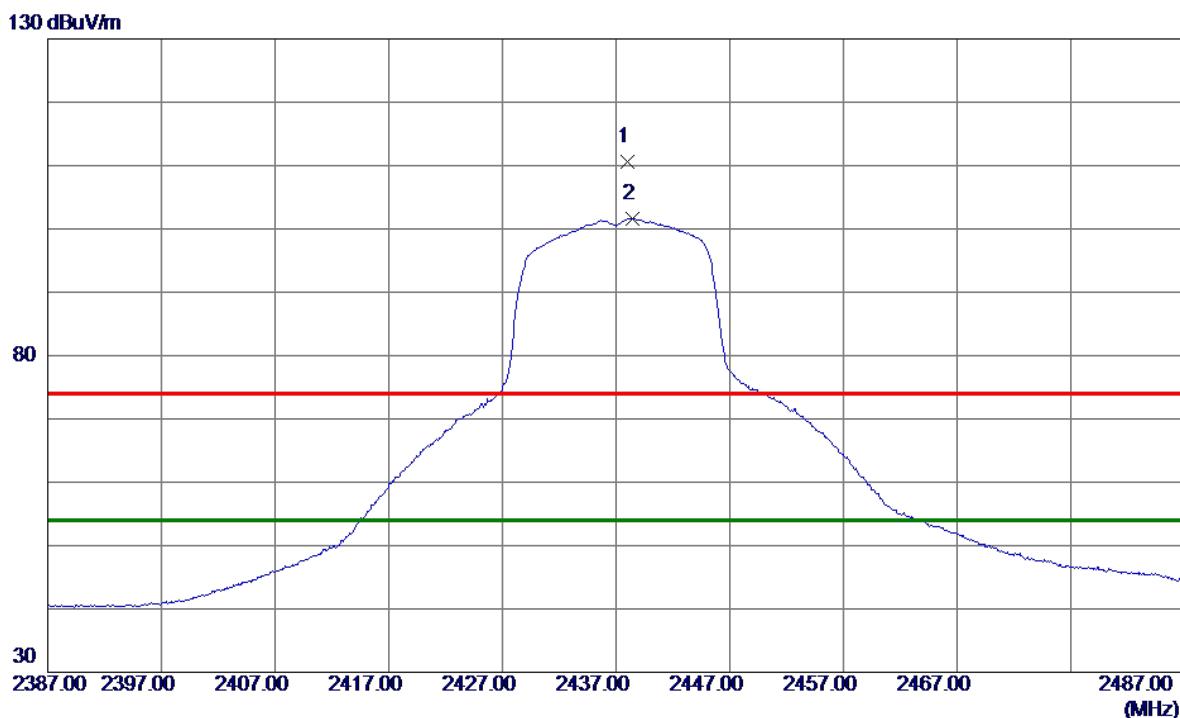
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	4873.1680	32.95	4.99	37.94	54.00	-16.06	AVG	
2	4873.4740	46.55	4.99	51.54	74.00	-22.46	Peak	

REMARKS:

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

Orthogonal Axis	X
Test Mode:	TX G Mode 2437 MHz

Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2438.0000	102.30	8.25	110.55	74.00	36.55	Peak	No Limit
2 *	2438.4500	93.38	8.25	101.63	54.00	47.63	AVG	No Limit

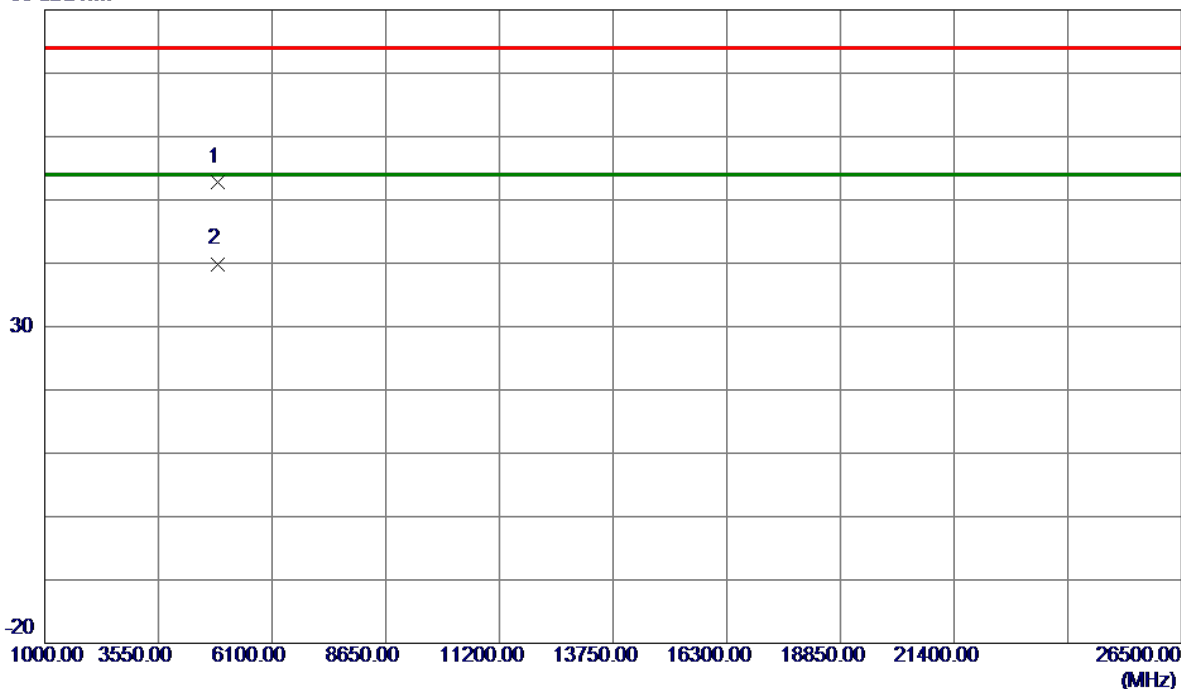
REMARKS:

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

Orthogonal Axis	X
Test Mode:	TX G Mode 2437 MHz

Horizontal

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4873.8260	47.90	4.99	52.89	74.00	-21.11	Peak	
2 *	4875.0000	34.91	4.99	39.90	54.00	-14.10	AVG	

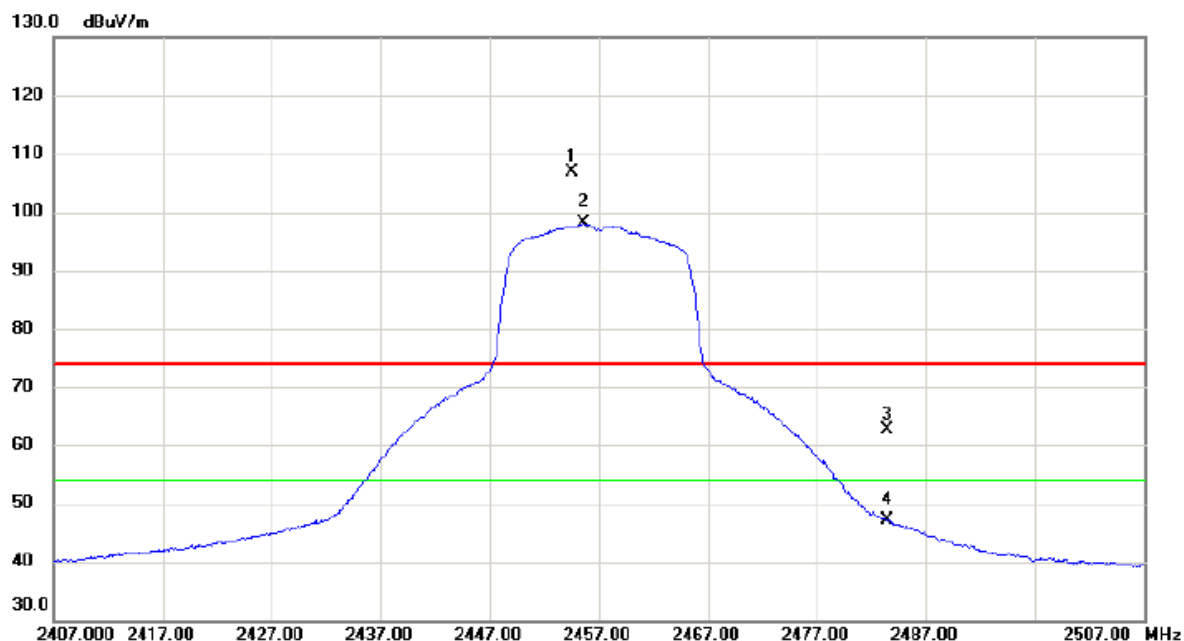
REMARKS:

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

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

Orthogonal Axis	X
Test Mode:	TX G Mode 2457 MHz

Vertical



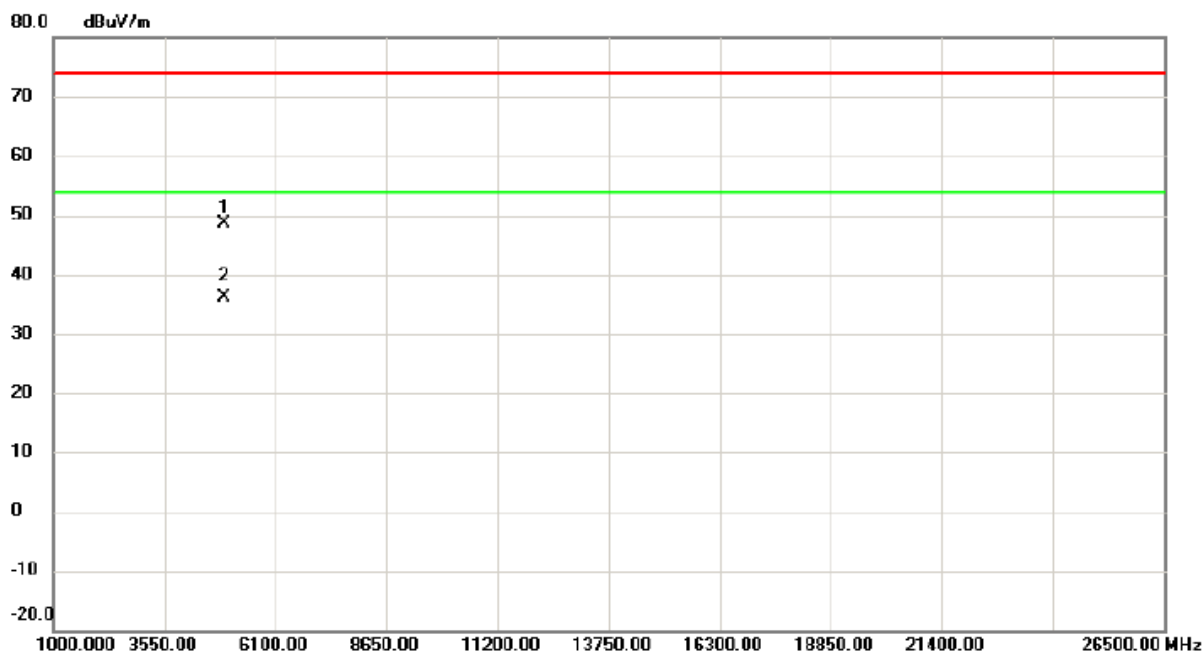
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	X	2454.500	98.63	8.30	106.93	74.00	32.93	peak	No Limit
2	*	2455.600	89.82	8.30	98.12	54.00	44.12	AVG	No Limit
3		2483.500	54.25	8.38	62.63	74.00	-11.37	peak	
4		2483.500	38.66	8.38	47.04	54.00	-6.96	AVG	

REMARKS:

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

Orthogonal Axis	X
Test Mode:	TX G Mode 2457 MHz

Vertical



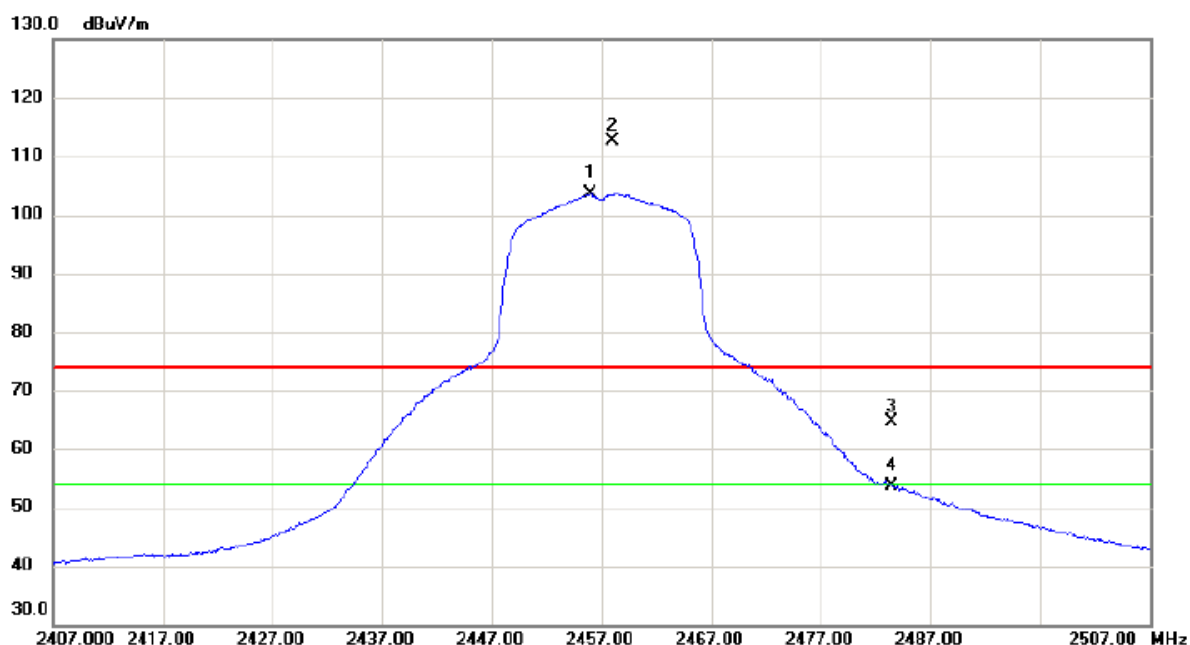
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		4914.363	43.48	5.18	48.66	74.00	-25.34	peak	
2	*	4914.949	30.86	5.19	36.05	54.00	-17.95	AVG	

REMARKS:

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

Orthogonal Axis	X
Test Mode:	TX G Mode 2457 MHz

Horizontal



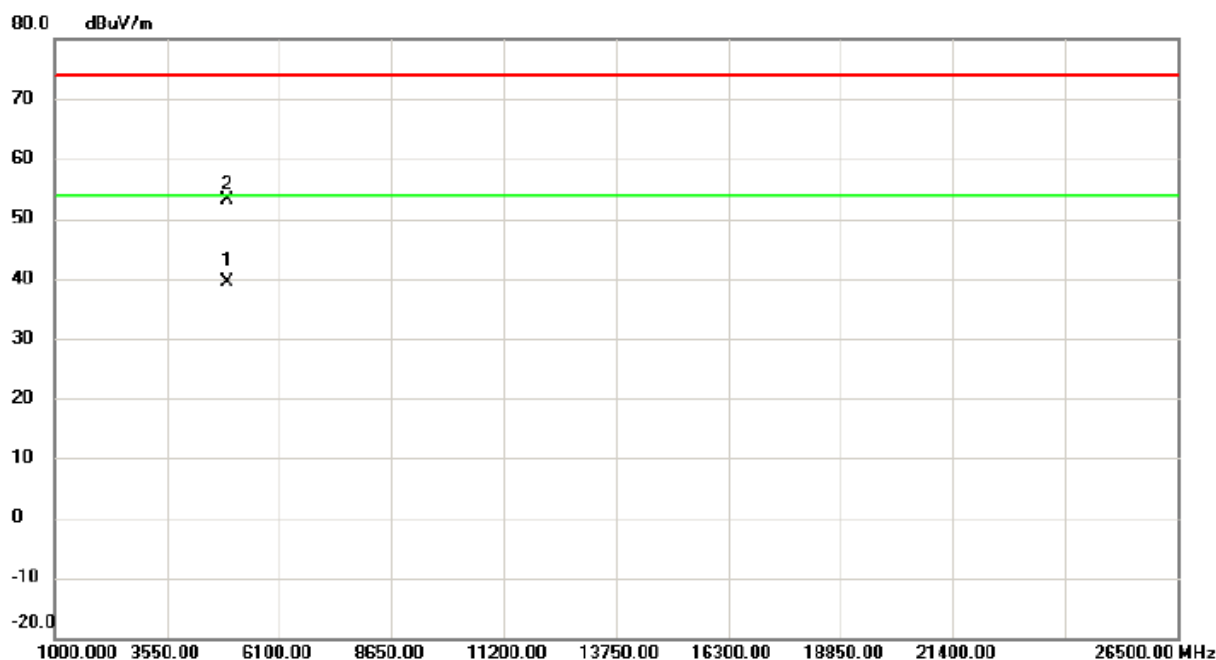
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	2456.000	95.37	8.30	103.67	54.00	49.67	AVG	No Limit
2	X	2458.050	104.33	8.30	112.63	74.00	38.63	peak	No Limit
3		2483.500	56.14	8.38	64.52	74.00	-9.48	peak	
4		2483.500	45.21	8.38	53.59	54.00	-0.41	AVG	

REMARKS:

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

Orthogonal Axis	X
Test Mode:	TX G Mode 2457 MHz

Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	4914.841	34.26	5.19	39.45	54.00	-14.55	AVG	
2		4914.930	47.85	5.19	53.04	74.00	-20.96	peak	

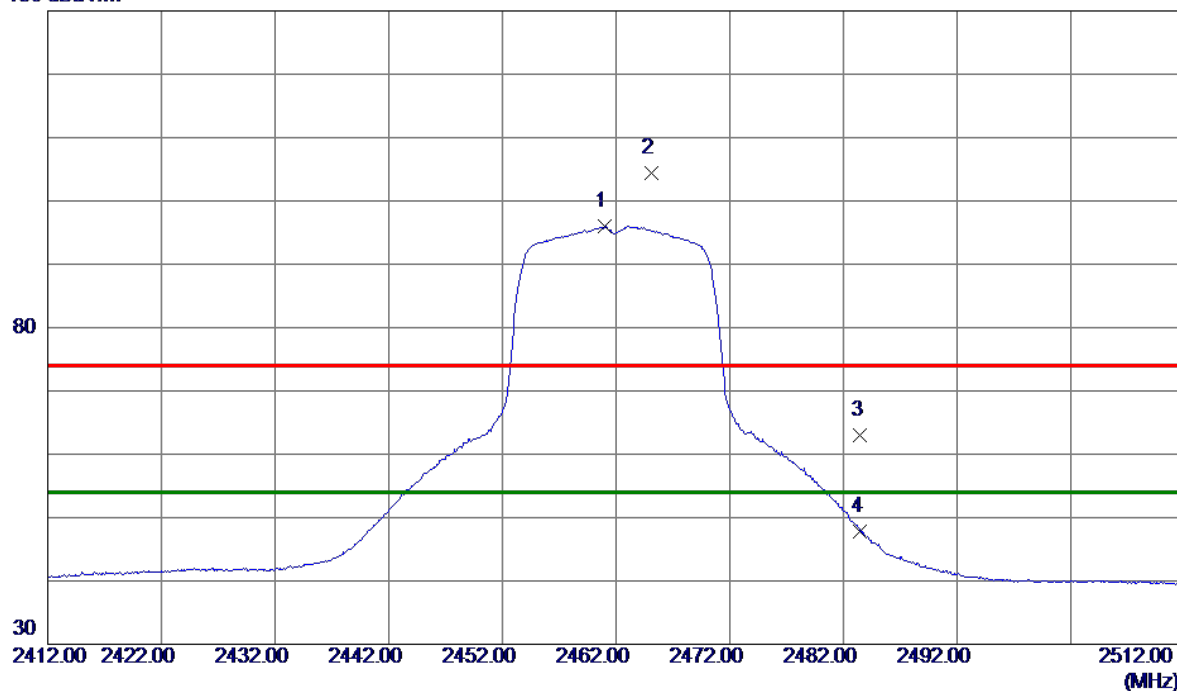
REMARKS:

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

Orthogonal Axis	X
Test Mode:	TX G Mode 2462 MHz

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 *	2461.0500	87.67	8.32	95.99	54.00	41.99	AVG	No Limit
2	2465.1000	96.12	8.33	104.45	74.00	30.45	Peak	No Limit
3	2483.5000	54.59	8.38	62.97	74.00	-11.03	Peak	
4	2483.5000	39.42	8.38	47.80	54.00	-6.20	AVG	

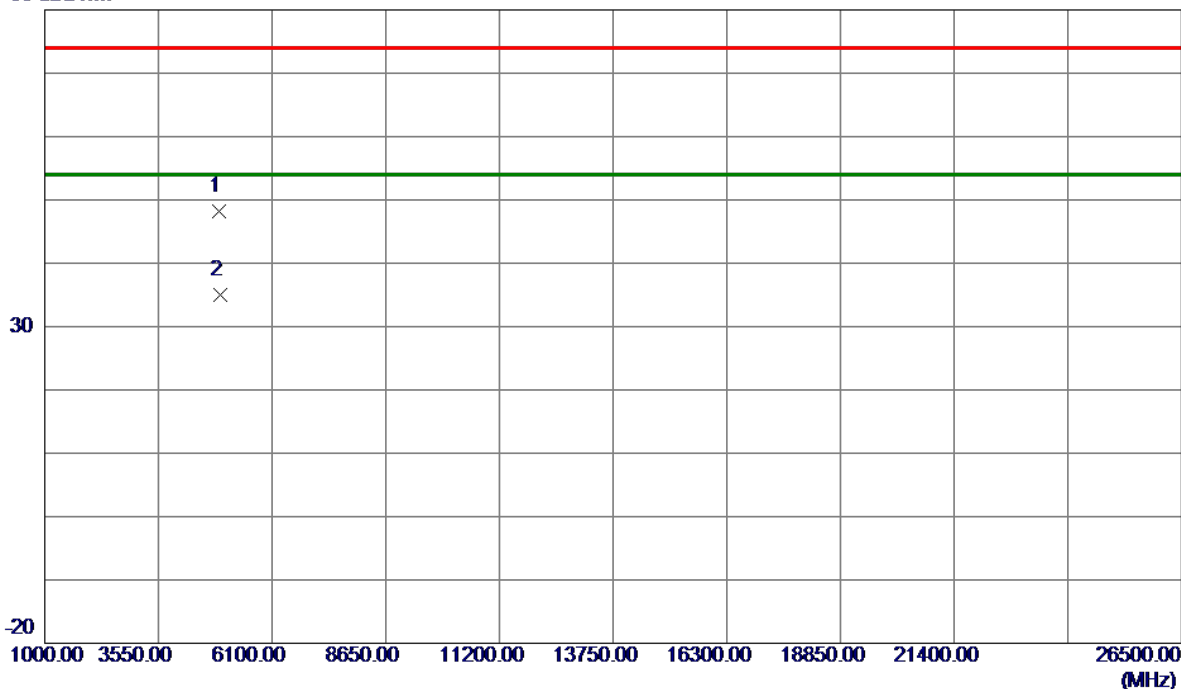
REMARKS:

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

Orthogonal Axis	X
Test Mode:	TX G Mode 2462 MHz

Vertical

80 dBuV/m



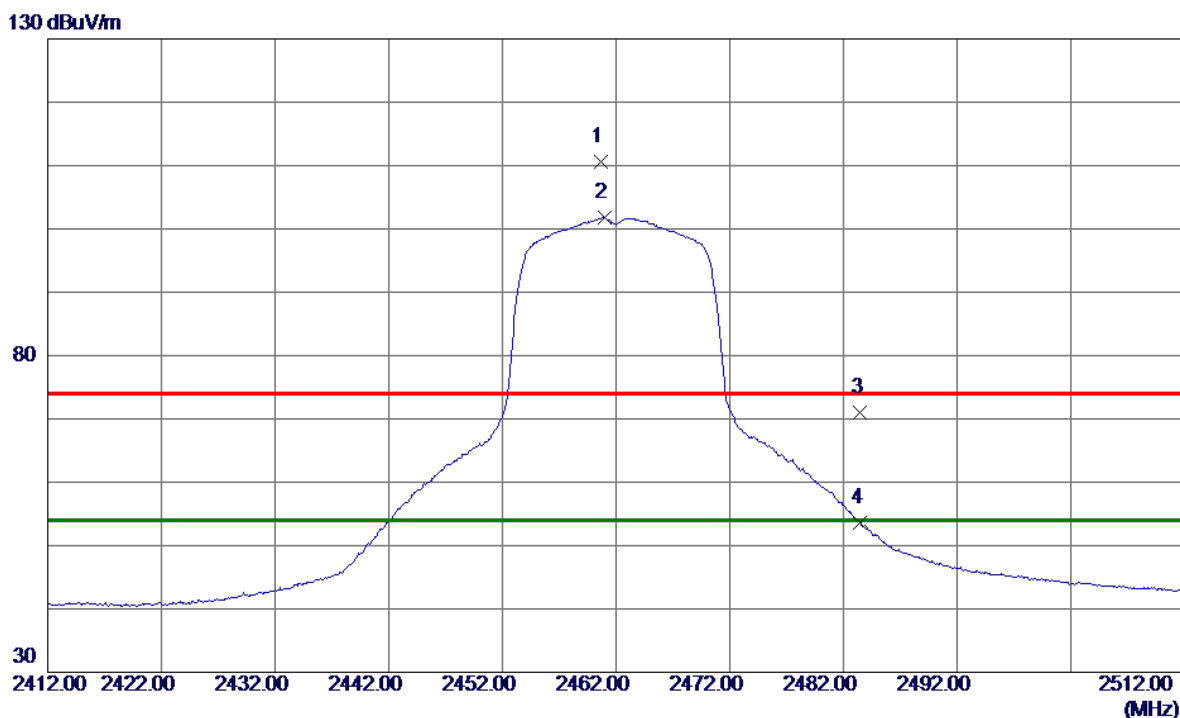
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4923.8840	43.03	5.24	48.27	74.00	-25.73	Peak	
2 *	4924.9730	29.70	5.24	34.94	54.00	-19.06	AVG	

REMARKS:

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

Orthogonal Axis	X
Test Mode:	TX G Mode 2462 MHz

Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2460.7000	102.32	8.32	110.64	74.00	36.64	Peak	No Limit
2 *	2461.0000	93.56	8.32	101.88	54.00	47.88	AVG	No Limit
3	2483.5000	62.53	8.38	70.91	74.00	-3.09	Peak	
4	2483.5000	45.17	8.38	53.55	54.00	-0.45	AVG	

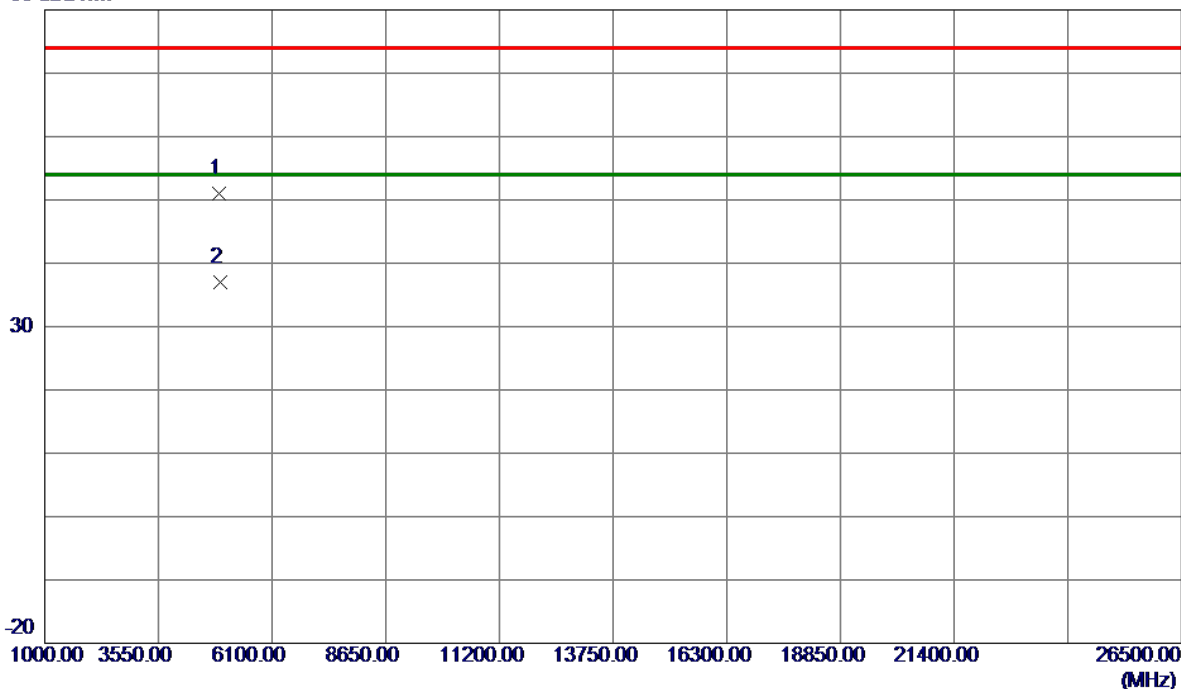
REMARKS:

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

Orthogonal Axis	X
Test Mode:	TX G Mode 2462 MHz

Horizontal

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4923.7830	45.72	5.23	50.95	74.00	-23.05	Peak	
2 *	4924.9820	31.75	5.24	36.99	54.00	-17.01	AVG	

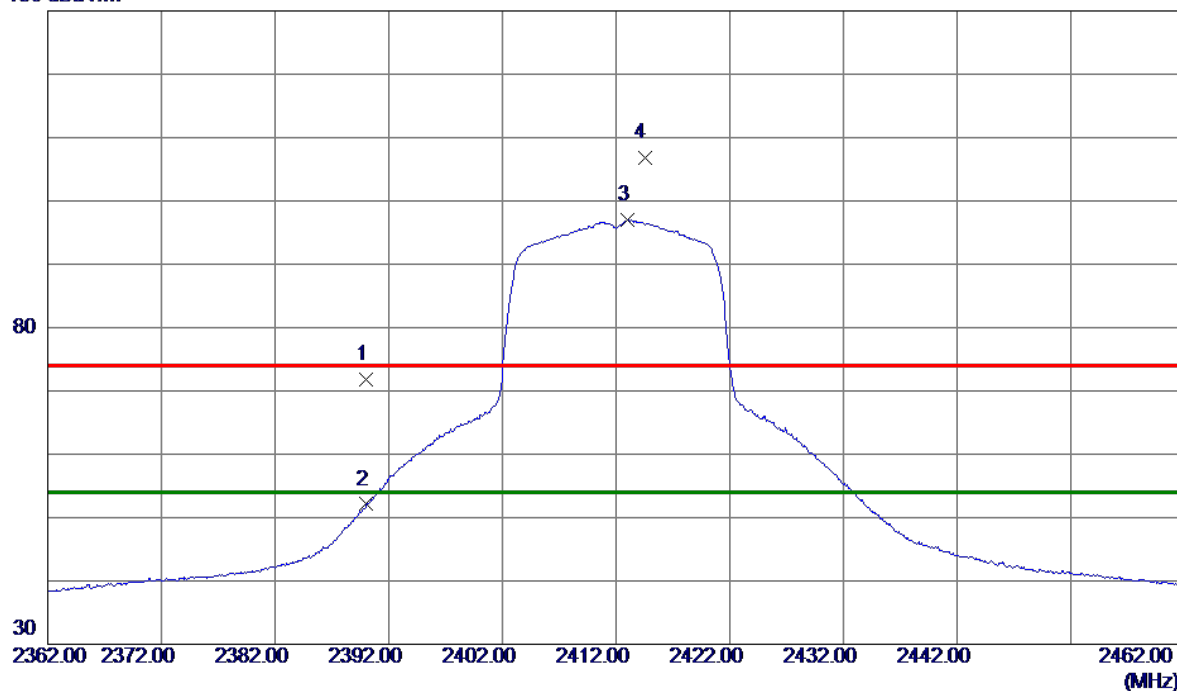
REMARKS:

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

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

Vertical

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	63.74	8.11	71.85	74.00	-2.15	Peak	
2	2390.0000	43.99	8.11	52.10	54.00	-1.90	AVG	
3 *	2413.0500	88.79	8.18	96.97	54.00	42.97	AVG	No Limit
4	2414.5000	98.59	8.18	106.77	74.00	32.77	Peak	No Limit

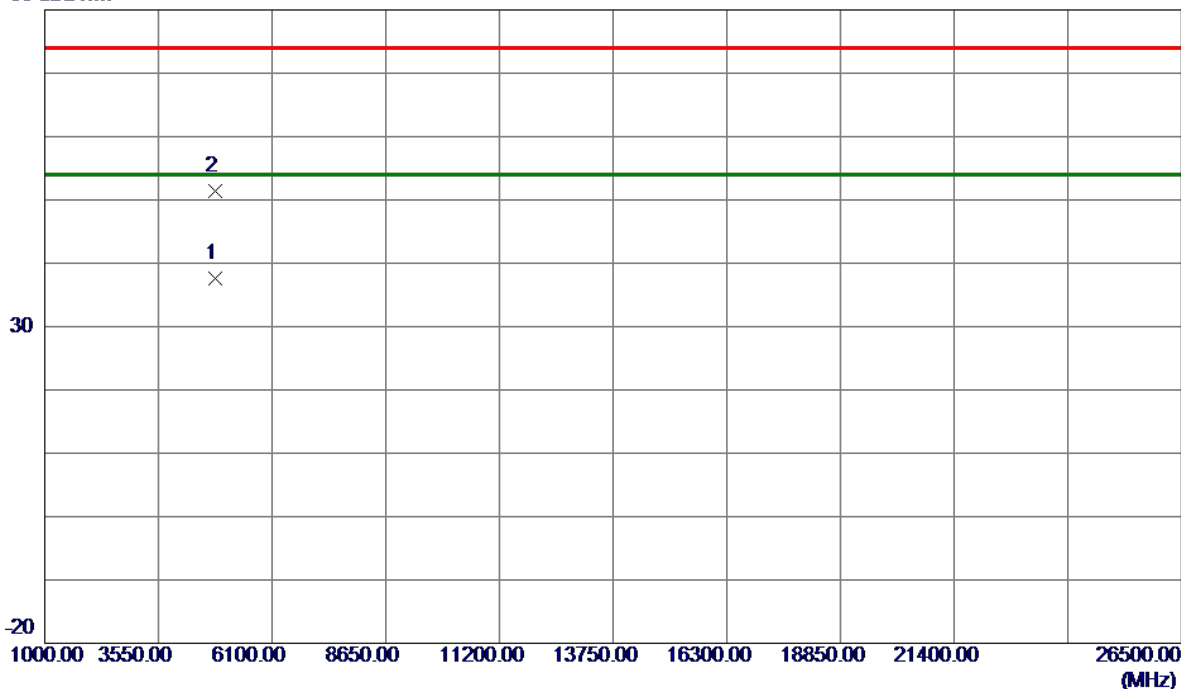
REMARKS:

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

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

Vertical

80 dBuV/m



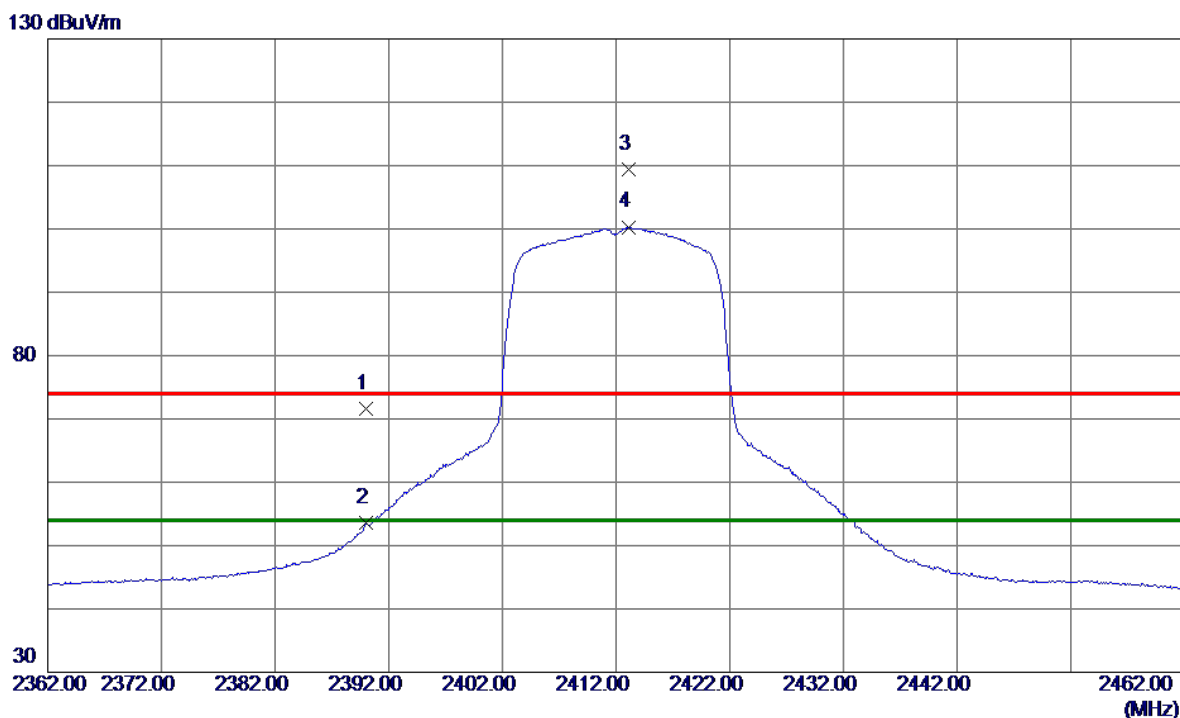
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	4823.4430	32.86	4.74	37.60	54.00	-16.40	AVG	
2	4824.4630	46.58	4.75	51.33	74.00	-22.67	Peak	

REMARKS:

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

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

Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	63.49	8.11	71.60	74.00	-2.40	Peak	
2	2390.0000	45.48	8.11	53.59	54.00	-0.41	AVG	
3	2413.1000	101.20	8.18	109.38	74.00	35.38	Peak	No Limit
4 *	2413.1000	92.12	8.18	100.30	54.00	46.30	AVG	No Limit

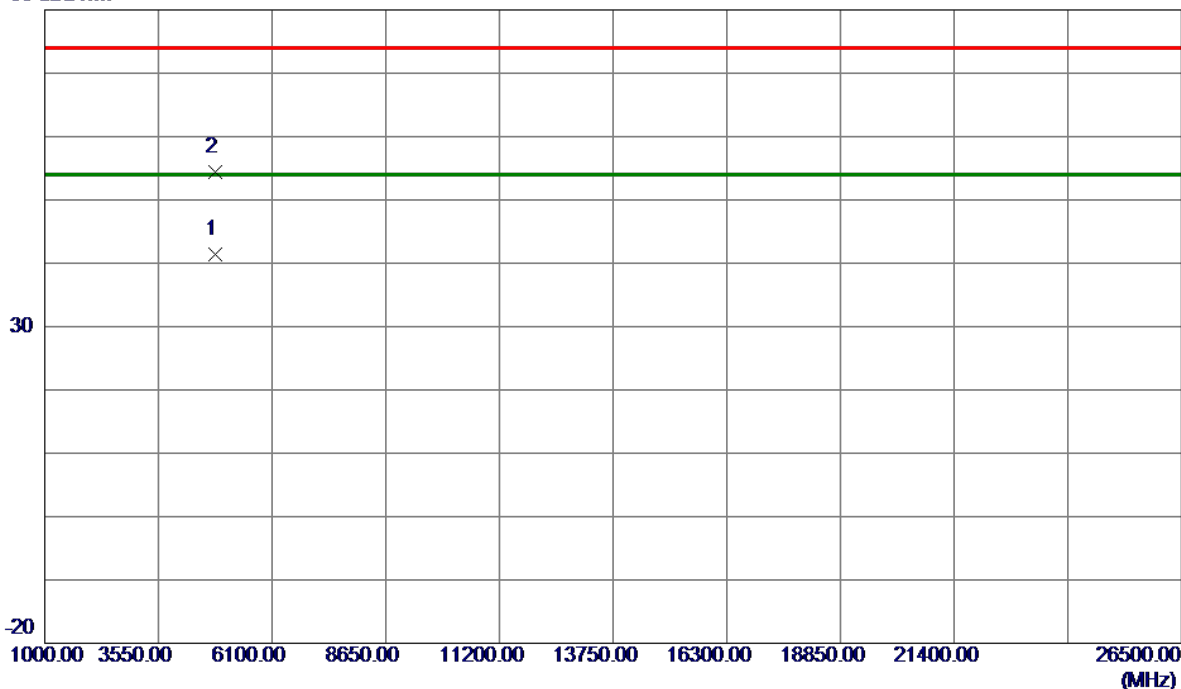
REMARKS:

- (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

Horizontal

80 dBuV/m



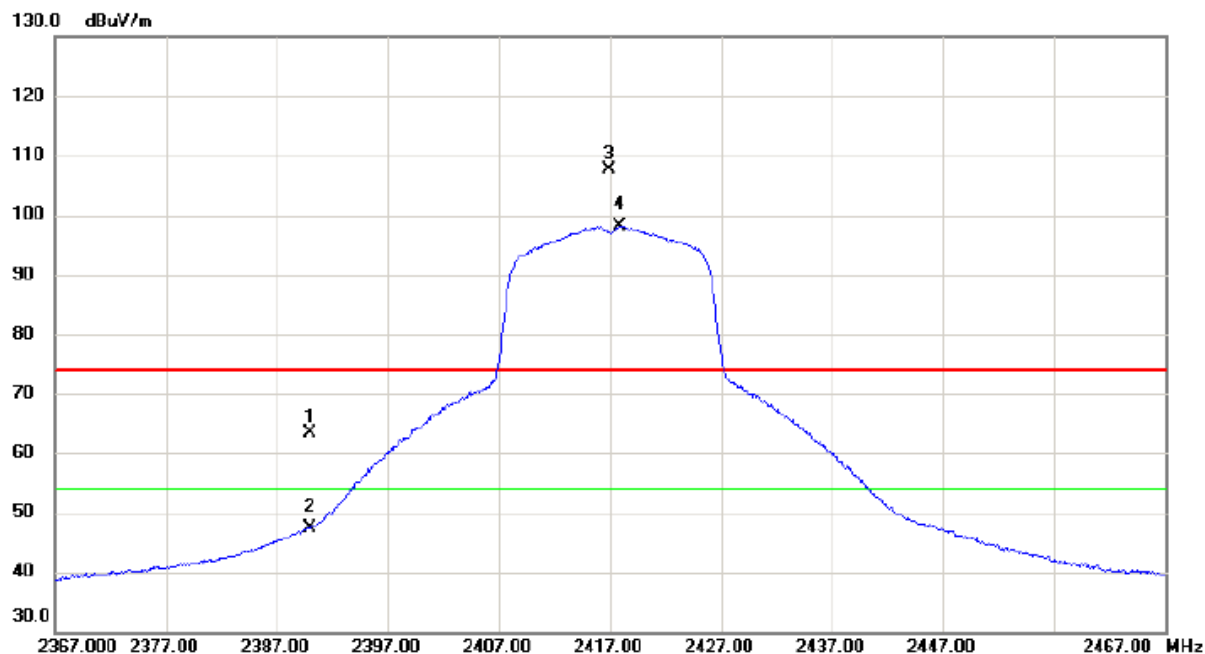
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	4823.6549	36.64	4.74	41.38	54.00	-12.62	AVG	
2	4823.9620	49.57	4.74	54.31	74.00	-19.69	Peak	

REMARKS:

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

Orthogonal Axis	X
Test Mode:	TX N-20M Mode 2417 MHz

Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		2390.000	55.19	8.11	63.30	74.00	-10.70	peak	
2		2390.000	39.34	8.11	47.45	54.00	-6.55	AVG	
3	X	2416.950	99.35	8.19	107.54	74.00	33.54	peak	No Limit
4	*	2417.850	89.98	8.19	98.17	54.00	44.17	AVG	No Limit

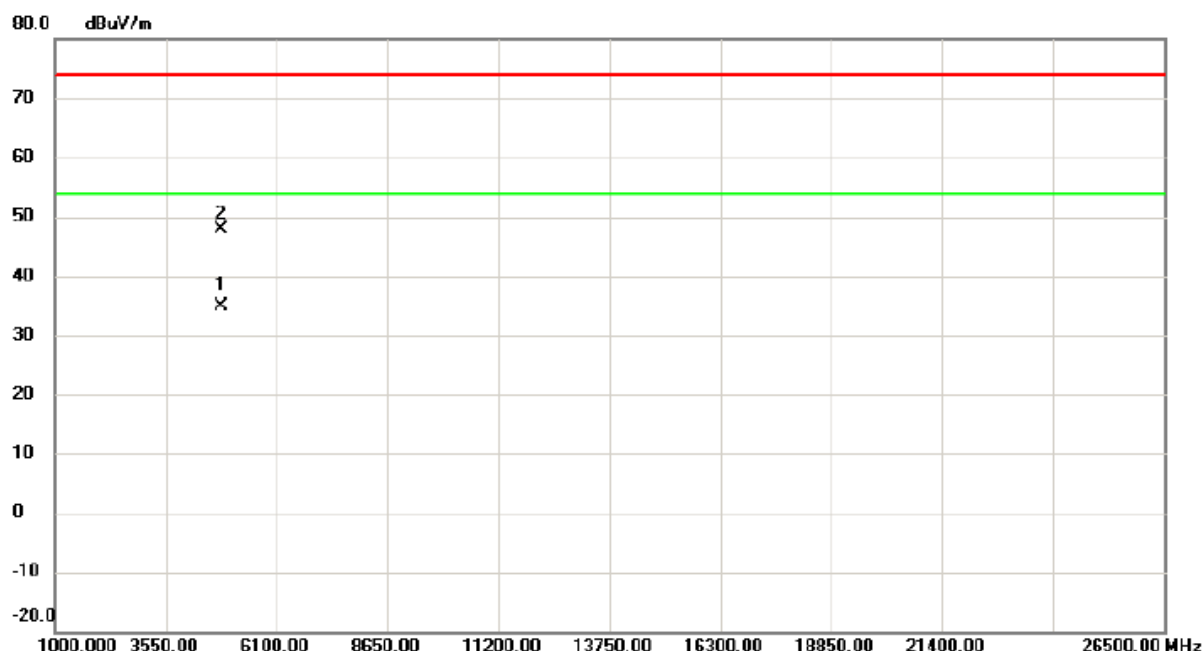
REMARKS:

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

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

Orthogonal Axis	X
Test Mode:	TX N-20M Mode 2417 MHz

Vertical



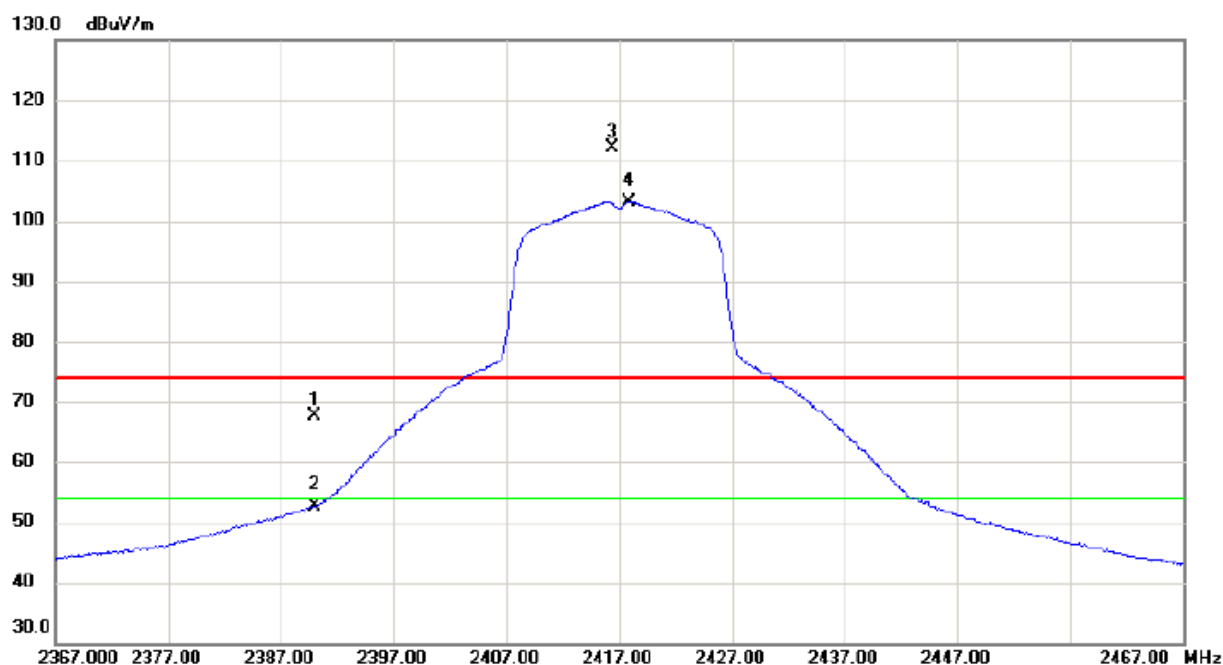
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	4833.389	29.99	4.79	34.78	54.00	-19.22	AVG	
2		4833.521	43.17	4.79	47.96	74.00	-26.04	peak	

REMARKS:

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

Orthogonal Axis	X
Test Mode:	TX N-20M Mode 2417 MHz

Horizontal



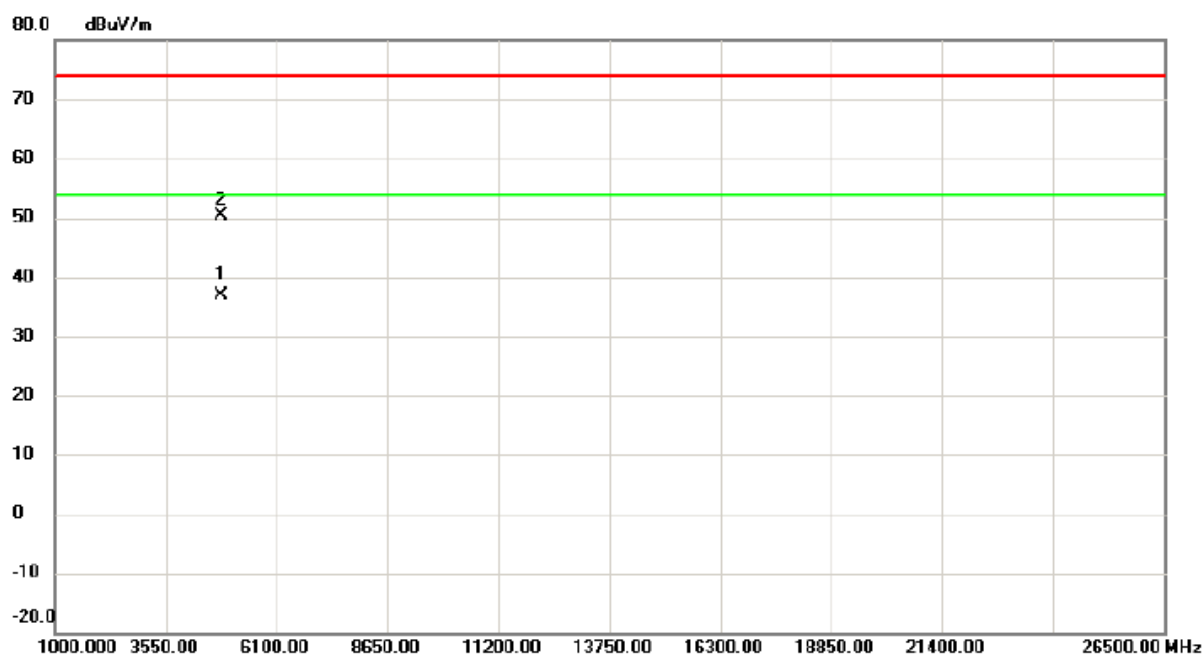
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		2390.000	59.43	8.11	67.54	74.00	-6.46	peak	
2		2390.000	44.51	8.11	52.62	54.00	-1.38	AVG	
3	X	2416.350	104.03	8.19	112.22	74.00	38.22	peak	No Limit
4	*	2417.850	95.04	8.19	103.23	54.00	49.23	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 2417 MHz

Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	4833.134	32.12	4.79	36.91	54.00	-17.09	AVG	
2		4833.718	45.71	4.79	50.50	74.00	-23.50	peak	

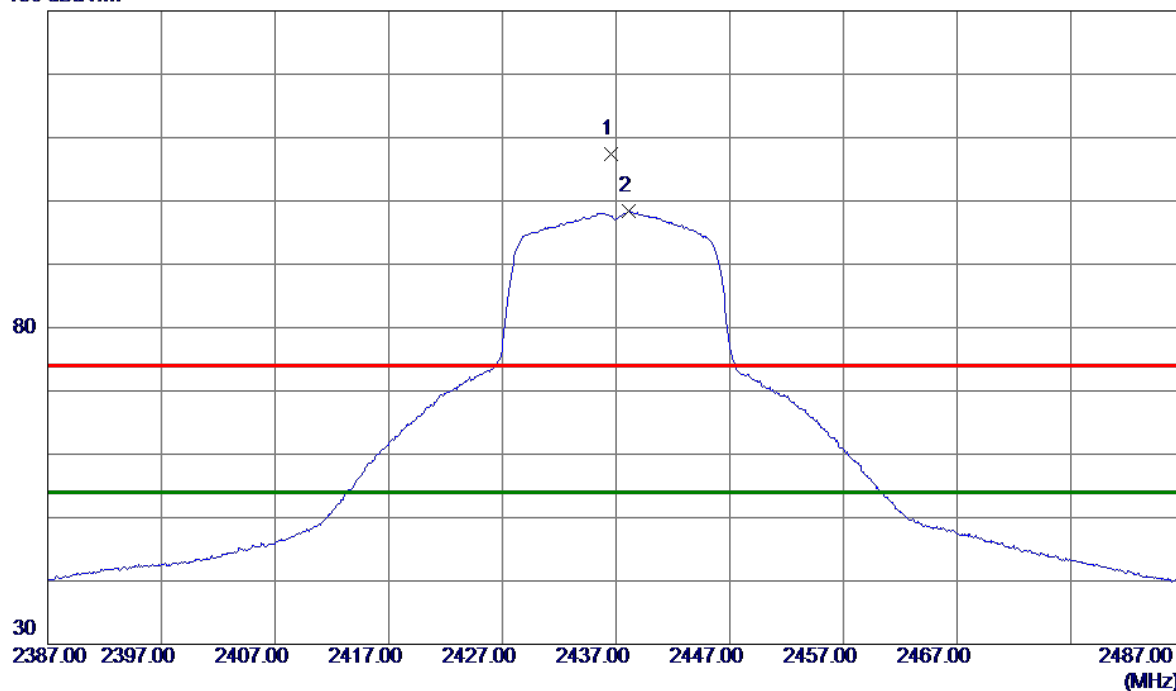
REMARKS:

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

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

Vertical

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2436.6000	99.11	8.24	107.35	74.00	33.35	Peak	No Limit
2 *	2438.1500	90.19	8.25	98.44	54.00	44.44	AVG	No Limit

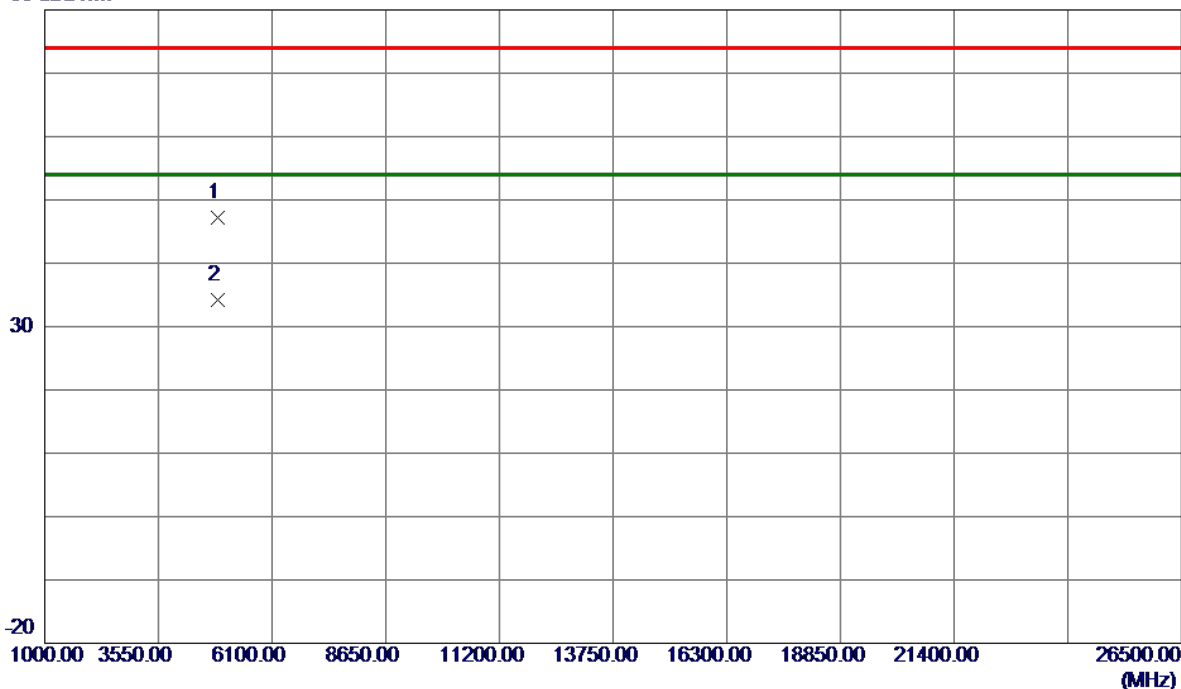
REMARKS:

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

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

Vertical

80 dBuV/m



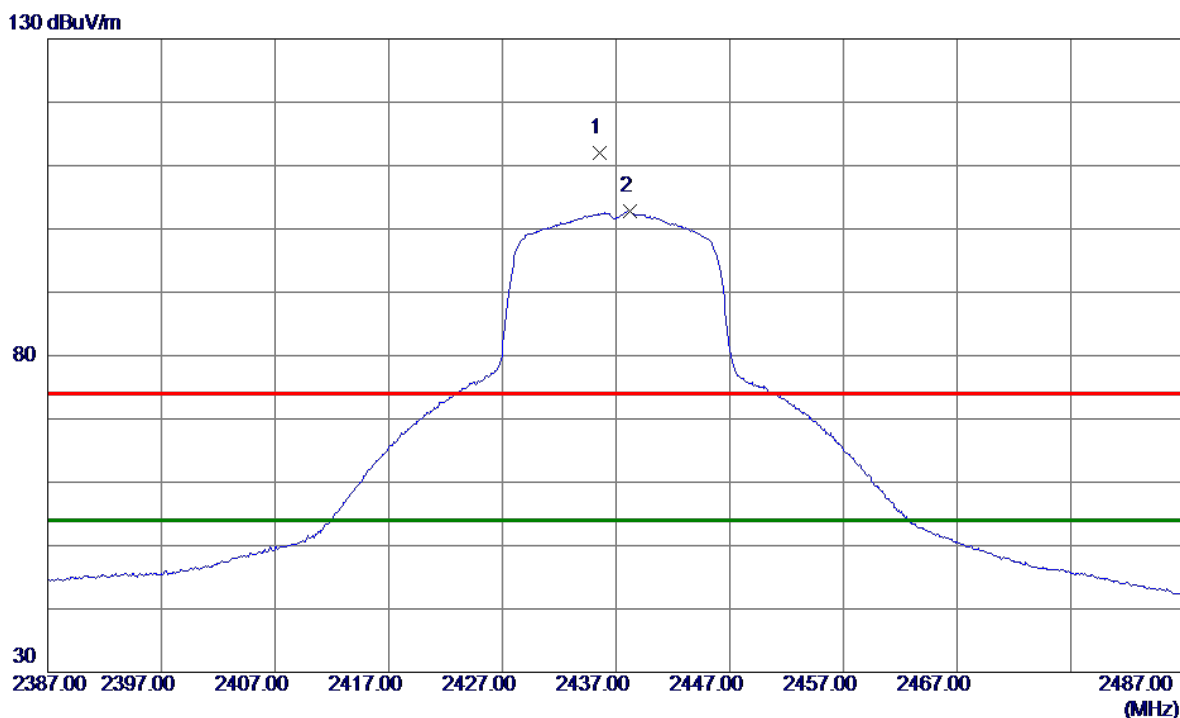
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4873.2830	42.12	4.99	47.11	74.00	-26.89	Peak	
2 *	4873.3630	29.24	4.99	34.23	54.00	-19.77	AVG	

REMARKS:

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

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

Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2435.5500	103.70	8.24	111.94	74.00	37.94	Peak	No Limit
2 *	2438.2500	94.51	8.25	102.76	54.00	48.76	AVG	No Limit

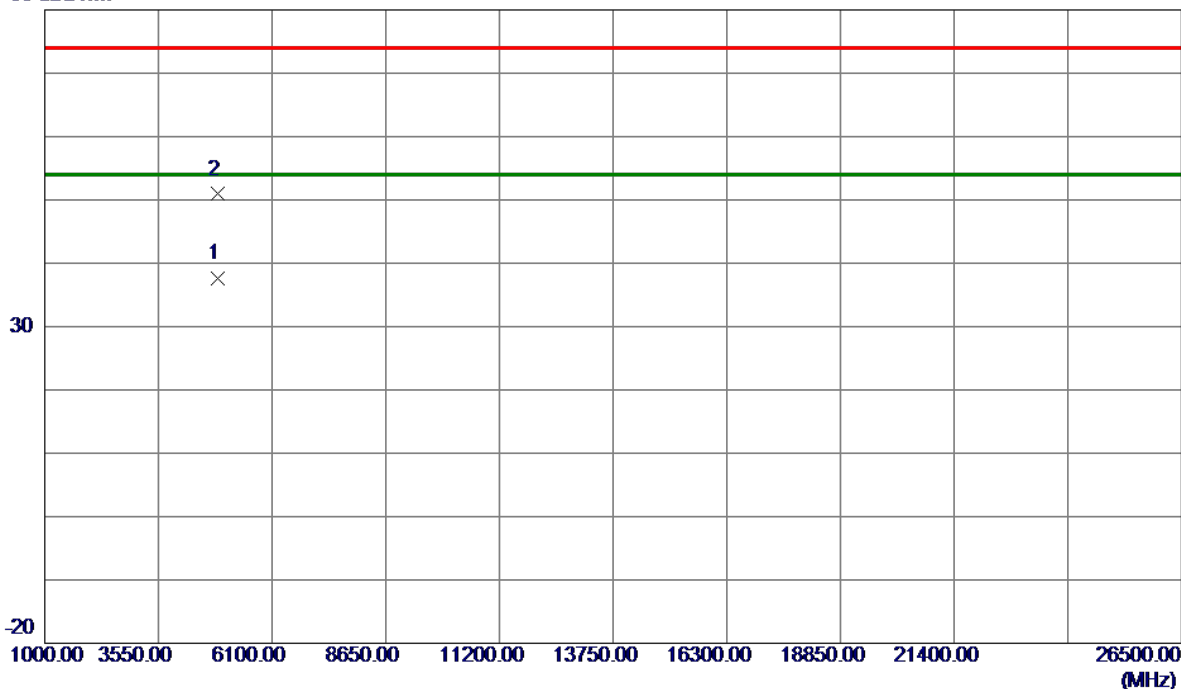
REMARKS:

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

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

Horizontal

80 dBuV/m



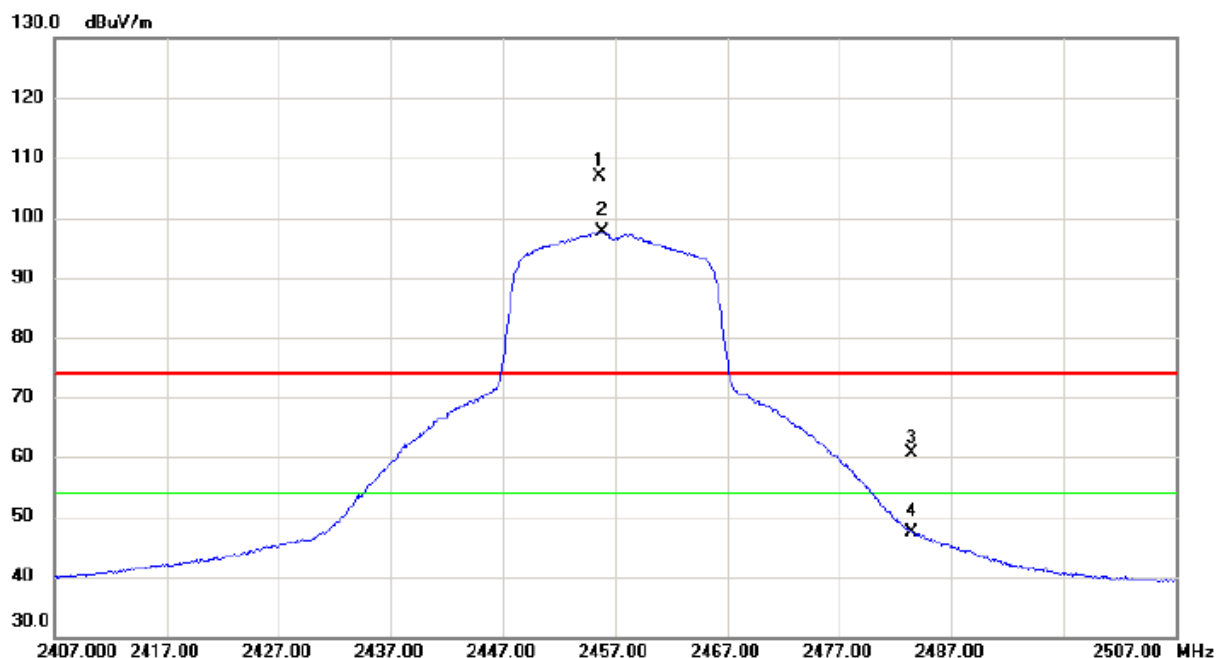
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	4873.0680	32.65	4.99	37.64	54.00	-16.36	AVG	
2	4873.7100	45.91	4.99	50.90	74.00	-23.10	Peak	

REMARKS:

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

Orthogonal Axis	X
Test Mode:	TX N-20M Mode 2457 MHz

Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	X	2455.650	98.51	8.30	106.81	74.00	32.81	peak	No Limit
2	*	2455.900	89.27	8.30	97.57	54.00	43.57	AVG	No Limit
3		2483.500	52.21	8.38	60.59	74.00	-13.41	peak	
4		2483.500	38.98	8.38	47.36	54.00	-6.64	AVG	

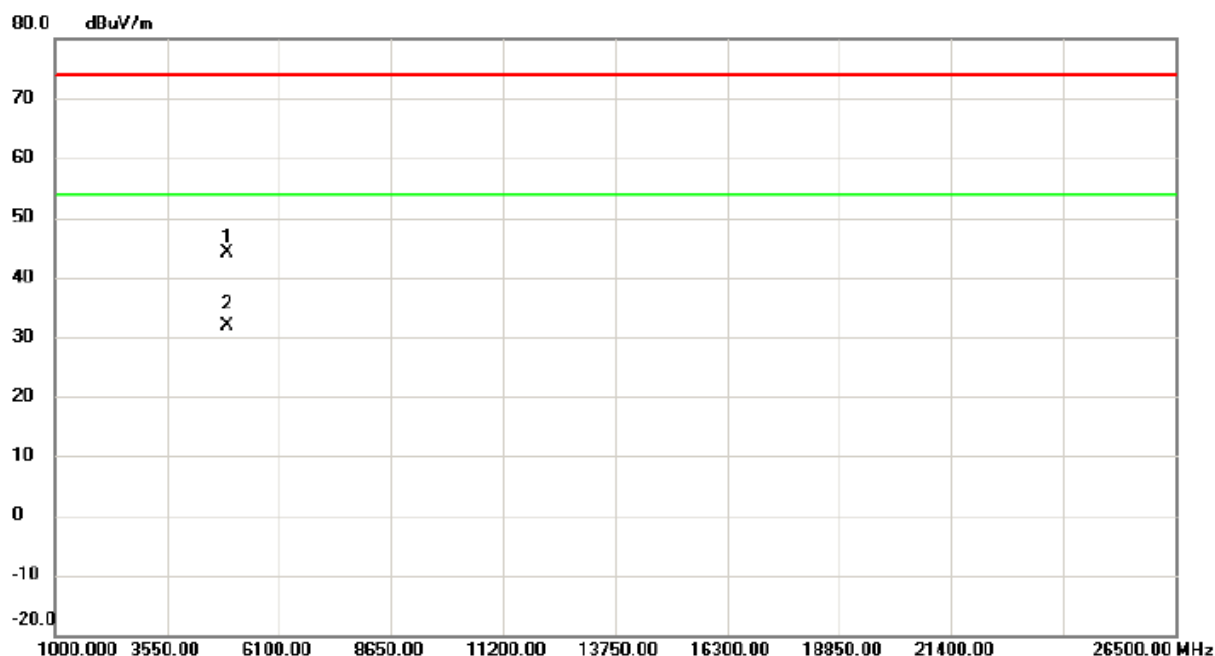
REMARKS:

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

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

Orthogonal Axis	X
Test Mode:	TX N-20M Mode 2457 MHz

Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		4914.181	38.90	5.18	44.08	74.00	-29.92	peak	
2	*	4914.685	26.58	5.18	31.76	54.00	-22.24	AVG	

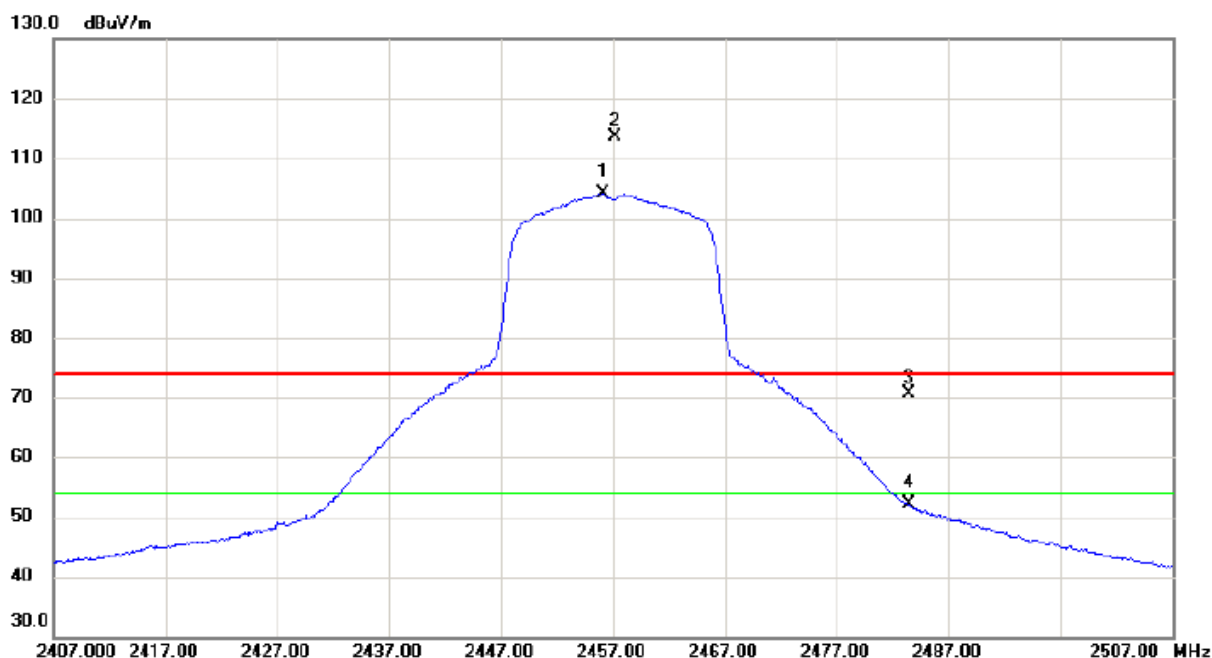
REMARKS:

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

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

Orthogonal Axis	X
Test Mode:	TX N-20M Mode 2457 MHz

Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	2456.100	95.79	8.30	104.09	54.00	50.09	AVG	No Limit
2	X	2457.200	105.25	8.30	113.55	74.00	39.55	peak	No Limit
3		2483.500	62.26	8.38	70.64	74.00	-3.36	peak	
4		2483.500	43.70	8.38	52.08	54.00	-1.92	AVG	

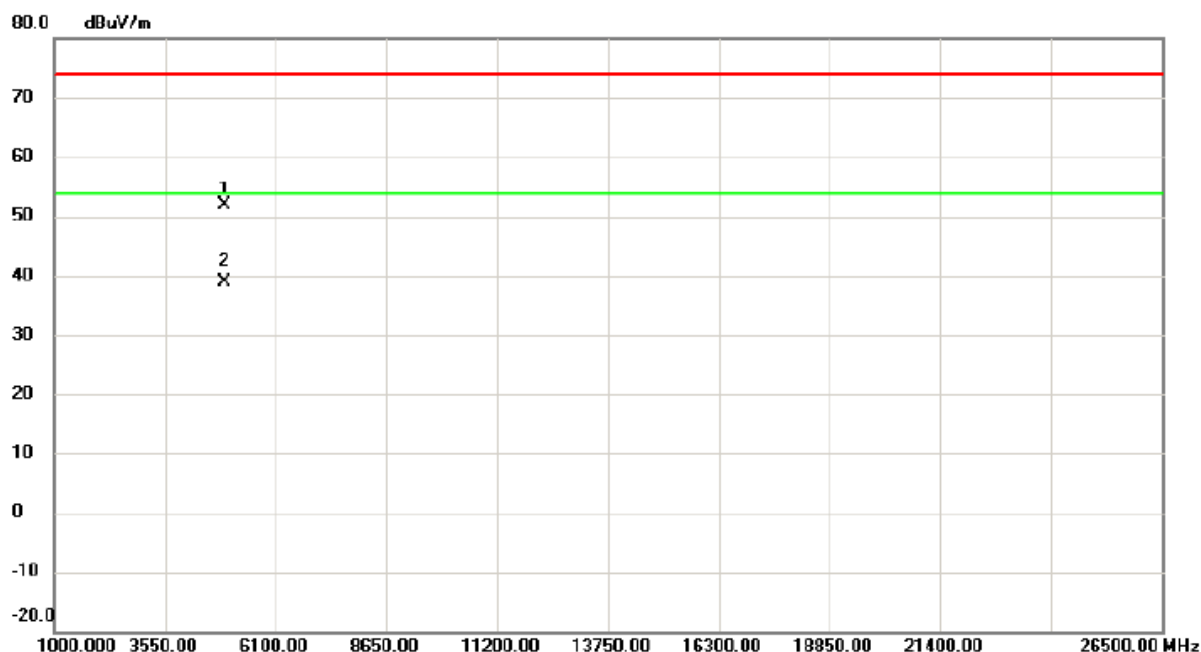
REMARKS:

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

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

Orthogonal Axis	X
Test Mode:	TX N-20M Mode 2457 MHz

Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		4914.084	46.61	5.18	51.79	74.00	-22.21	peak	
2	*	4914.966	33.77	5.19	38.96	54.00	-15.04	AVG	

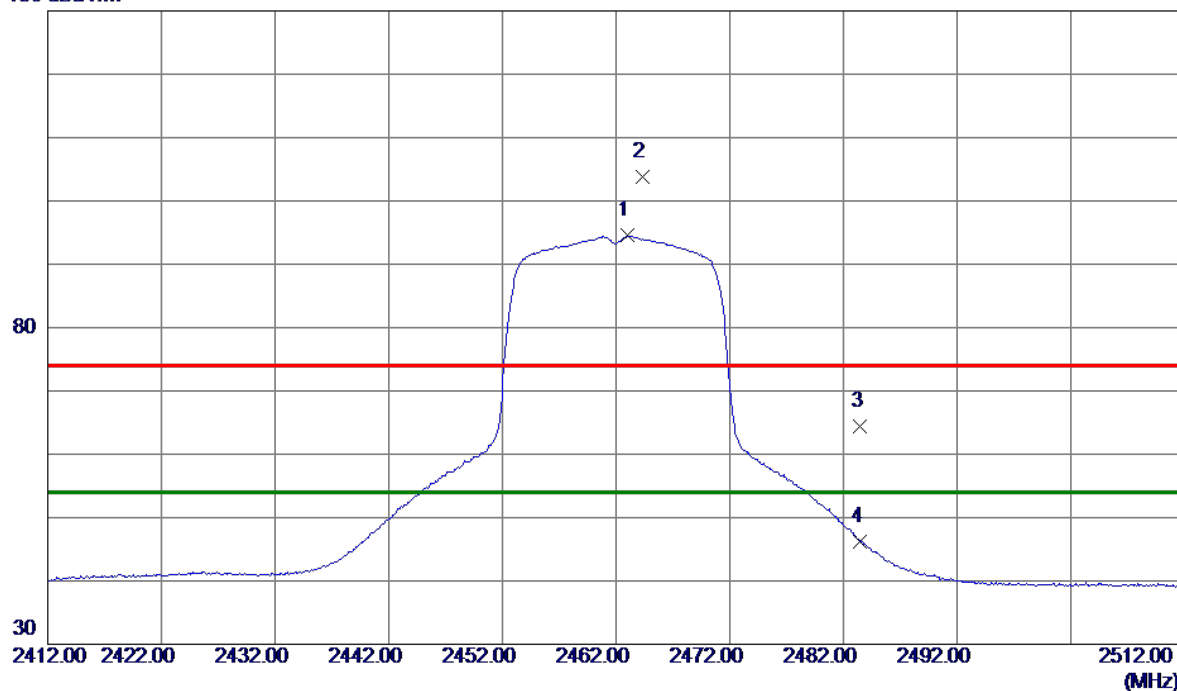
REMARKS:

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

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

Vertical

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2463.0000	86.23	8.32	94.55	54.00	40.55	AVG	No Limit
2	2464.3000	95.48	8.33	103.81	74.00	29.81	Peak	No Limit
3	2483.5000	55.97	8.38	64.35	74.00	-9.65	Peak	
4	2483.5000	37.88	8.38	46.26	54.00	-7.74	AVG	

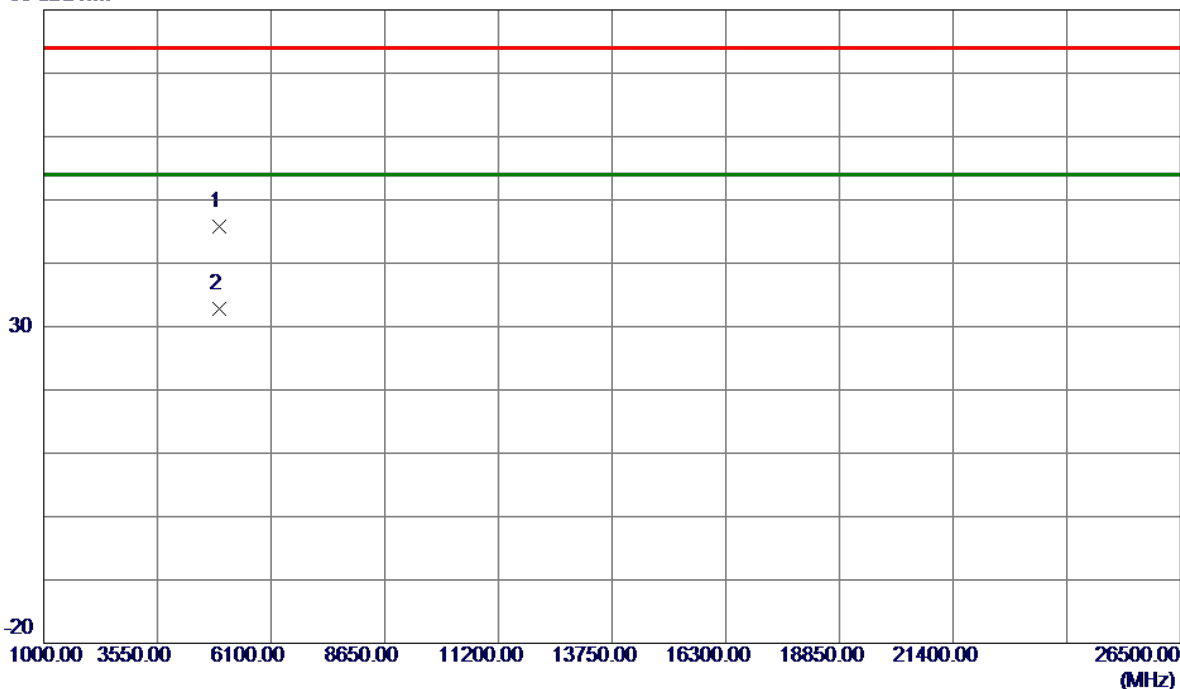
REMARKS:

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

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

Vertical

80 dBuV/m



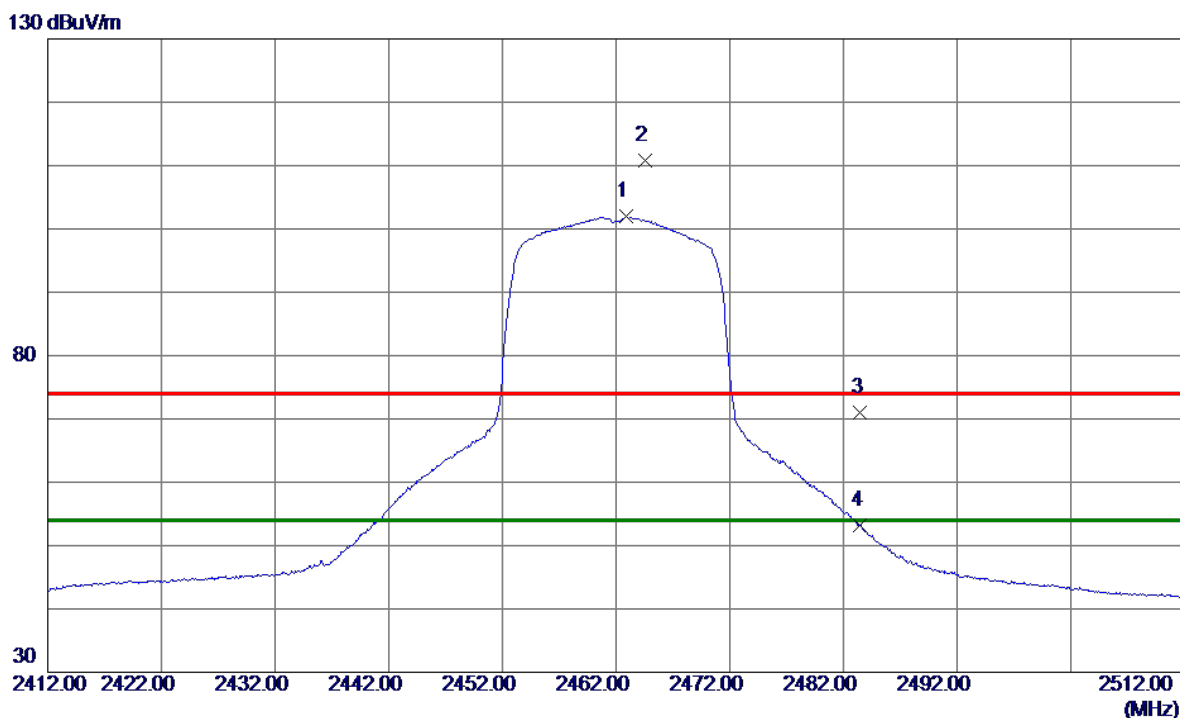
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4924.3380	40.52	5.24	45.76	74.00	-28.24	Peak	
2 *	4924.5200	27.53	5.24	32.77	54.00	-21.23	AVG	

REMARKS:

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

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

Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2462.9000	93.64	8.32	101.96	54.00	47.96	AVG	No Limit
2	2464.6000	102.39	8.33	110.72	74.00	36.72	Peak	No Limit
3	2483.5000	62.60	8.38	70.98	74.00	-3.02	Peak	
4	2483.5000	44.85	8.38	53.23	54.00	-0.77	AVG	

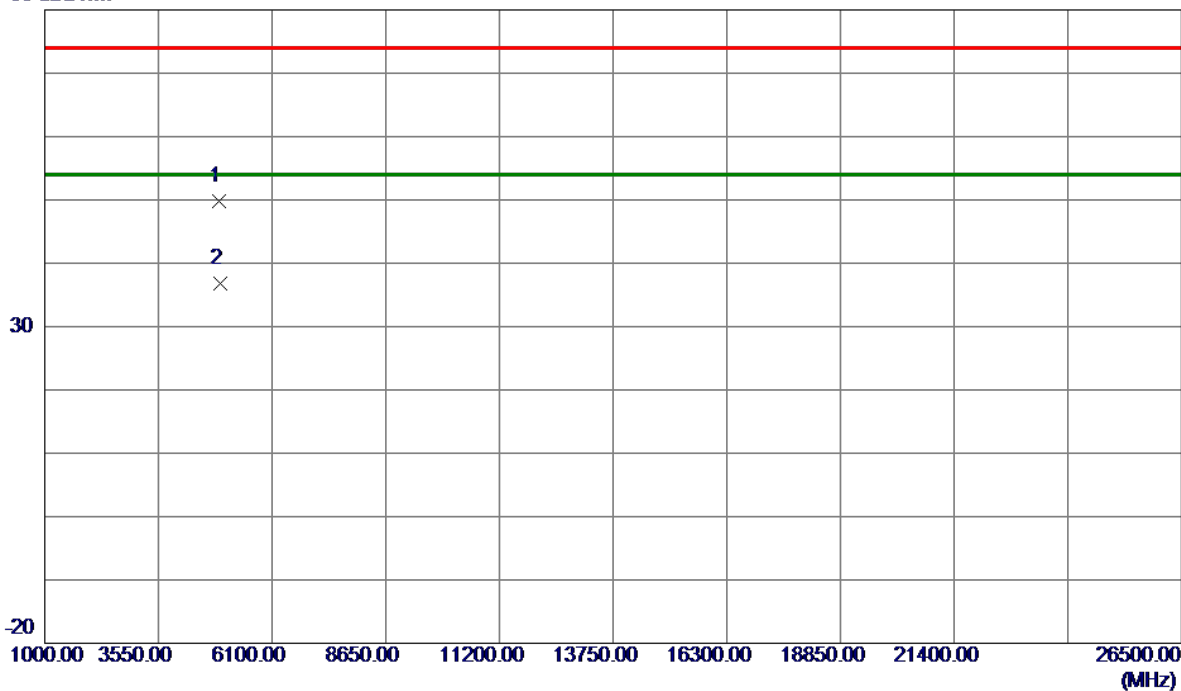
REMARKS:

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

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

Horizontal

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4923.3860	44.54	5.23	49.77	74.00	-24.23	Peak	
2 *	4924.4540	31.57	5.24	36.81	54.00	-17.19	AVG	

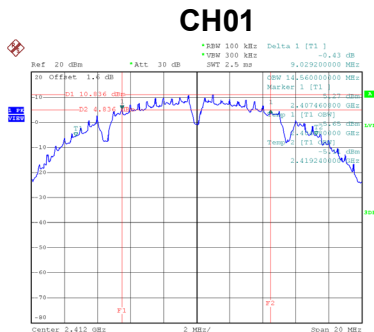
REMARKS:

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

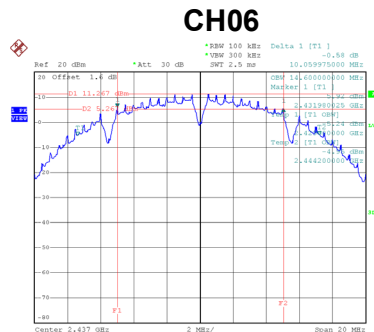
APPENDIX E - BANDWIDTH

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

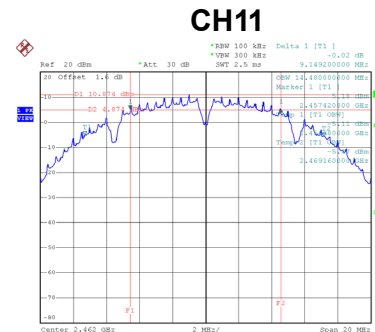
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
01	2412	9.03	500	Complies
06	2437	10.06	500	Complies
11	2462	9.15	500	Complies



Date: 1.APR.2019 15:26:12



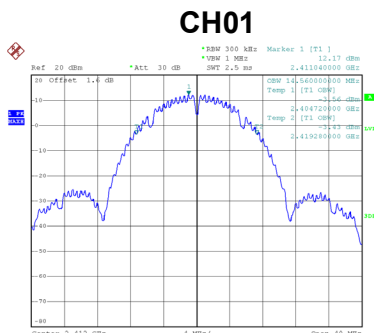
Date: 1.APR.2019 15:30:11



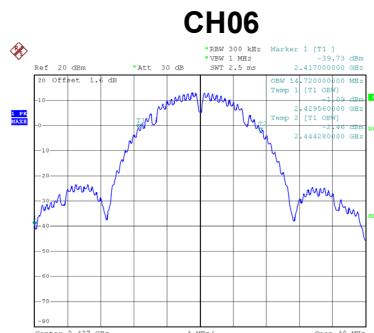
Date: 1.APR.2019 15:33:16

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

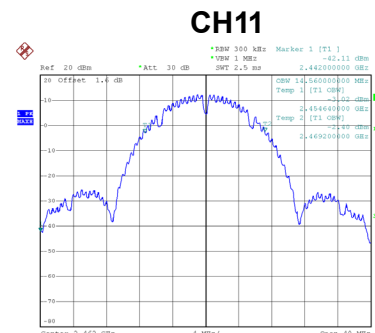
Channel	Frequency (MHz)	99 % Emission Bandwidth (MHz)	Result
01	2412	14.56	Complies
06	2437	14.72	Complies
11	2462	14.56	Complies



Date: 1.APR.2019 17:09:05



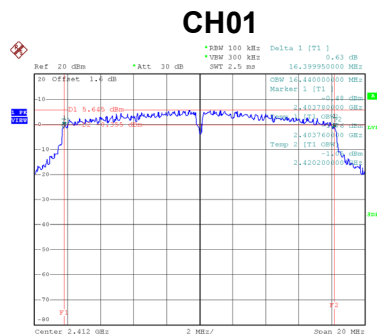
Date: 1.APR.2019 17:10:16



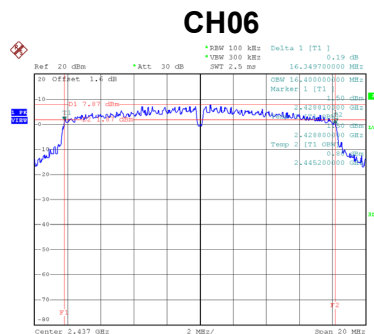
Date: 1.APR.2019 17:10:56

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

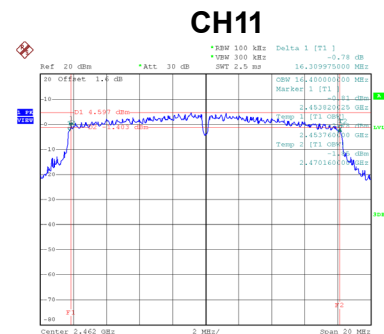
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
01	2412	16.40	500	Complies
06	2437	16.35	500	Complies
11	2462	16.31	500	Complies



Date: 1.APR.2019 15:40:14



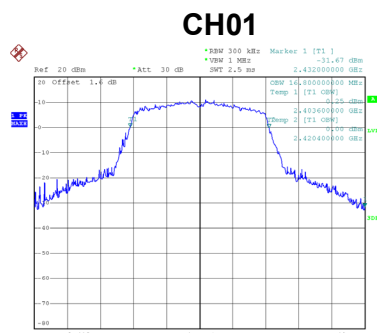
Date: 1.APR.2019 15:49:27



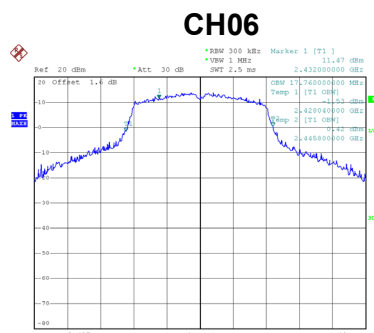
Date: 1.APR.2019 15:52:33

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

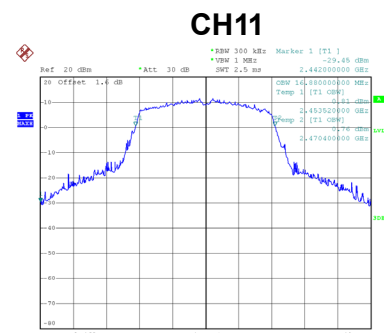
Channel	Frequency (MHz)	99 % Emission Bandwidth (MHz)	Result
01	2412	16.80	Complies
06	2437	17.76	Complies
11	2462	16.88	Complies



Date: 1.APR.2019 17:13:00



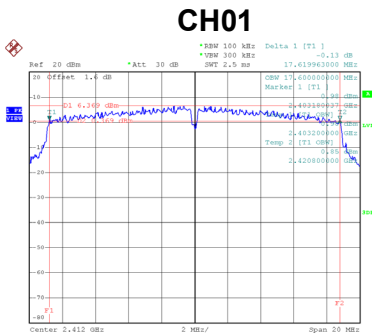
Date: 1.APR.2019 17:13:47



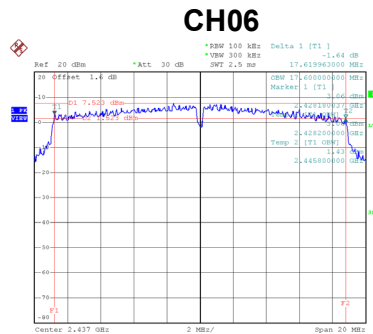
Date: 1.APR.2019 17:15:11

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

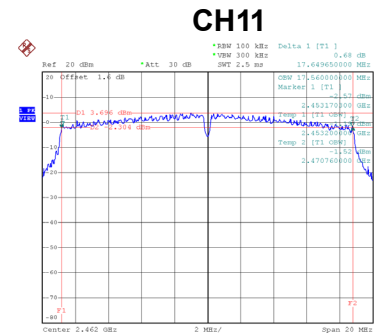
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
01	2412	17.62	500	Complies
06	2437	17.62	500	Complies
11	2462	17.65	500	Complies



Date: 1.APR.2019 15:57:16



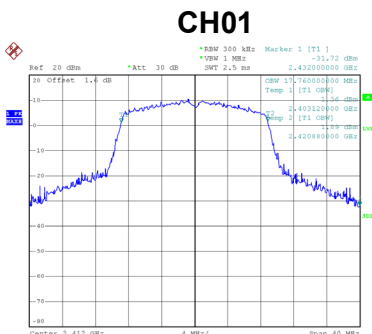
Date: 1.APR.2019 15:59:00



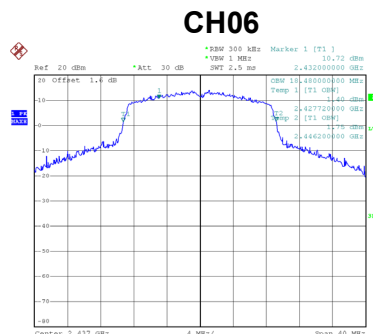
Date: 1.APR.2019 16:00:58

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

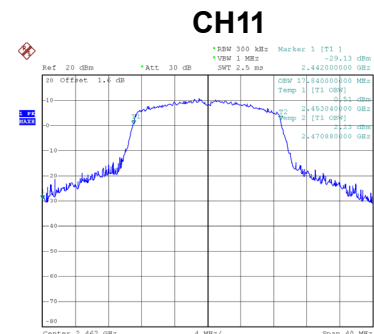
Channel	Frequency (MHz)	99 % Emission Bandwidth (MHz)	Result
01	2412	17.76	Complies
06	2437	18.48	Complies
11	2462	17.84	Complies



Date: 1.APR.2019 17:17:06



Date: 1.APR.2019 17:18:05



Date: 1.APR.2019 17:18:54

APPENDIX F - MAXIMUM AVERAGE OUTPUT POWER

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

Channel	Frequency (MHz)	Average Output Power (dBm)	Average Output Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	20.34	0.1081	30.00	1.0000	Complies
06	2437	20.84	0.1213	30.00	1.0000	Complies
11	2462	20.73	0.1183	30.00	1.0000	Complies

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

Channel	Frequency (MHz)	Average Output Power (dBm)	Average Output Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	17.11	0.0514	30.00	1.0000	Complies
06	2437	20.78	0.1197	30.00	1.0000	Complies
11	2462	18.09	0.0644	30.00	1.0000	Complies

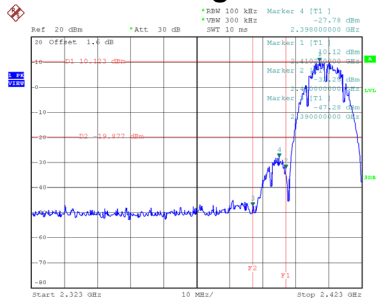
Test Mode	TX N-20M Mode
-----------	---------------

Channel	Frequency (MHz)	Average Output Power (dBm)	Average Output Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	15.37	0.0344	30.00	1.0000	Complies
06	2437	20.83	0.1211	30.00	1.0000	Complies
11	2462	17.64	0.0581	30.00	1.0000	Complies

APPENDIX G - CONDUCTED SPURIOUS EMISSIONS

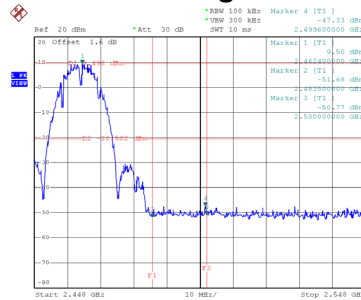
Test Mode TX B Mode

Bandedge-CH01



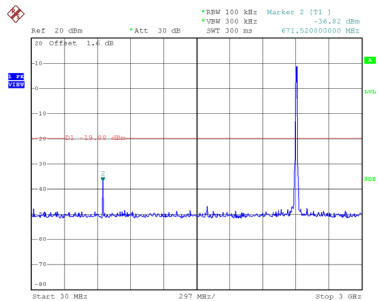
Date: 1.APR.2019 15:25:40

Bandedge-CH11

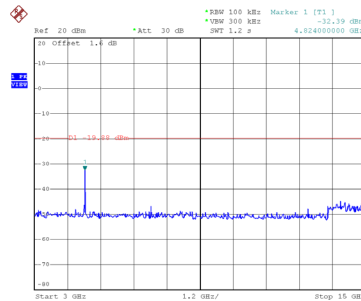


Date: 1.APR.2019 15:33:25

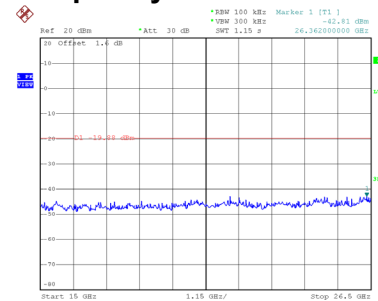
CH01 – 10th Harmonic of the fundamental frequency



Date: 1.APR.2019 15:26:26

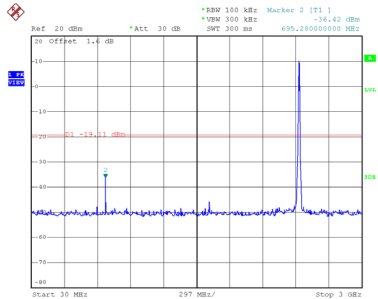


Date: 1.APR.2019 15:26:34

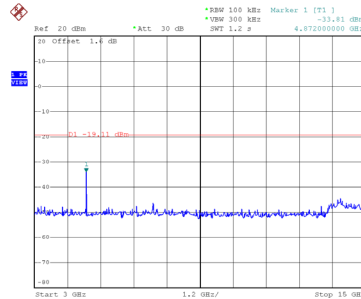


Date: 1.APR.2019 15:26:42

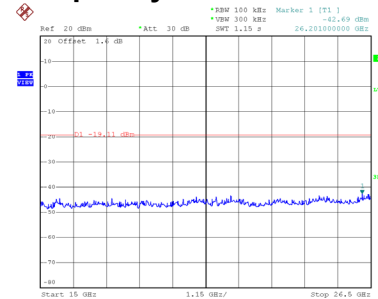
CH06 – 10th Harmonic of the fundamental frequency



Date: 1.APR.2019 15:30:33

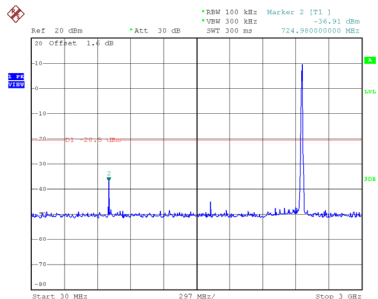


Date: 1.APR.2019 15:30:41

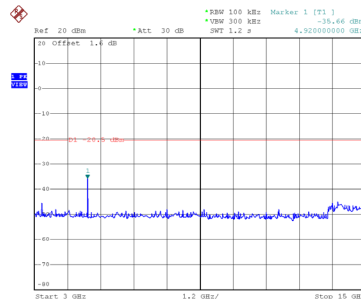


Date: 1.APR.2019 15:30:49

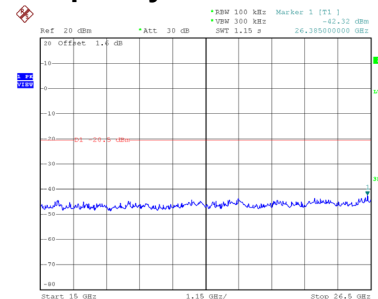
CH11 – 10th Harmonic of the fundamental frequency



Date: 1.APR.2019 15:33:38



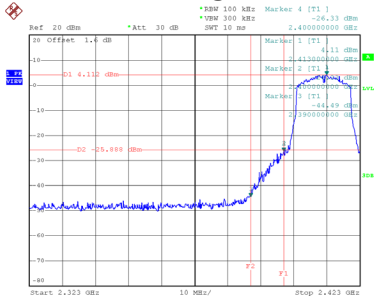
Date: 1.APR.2019 15:33:46



Date: 1.APR.2019 15:33:54

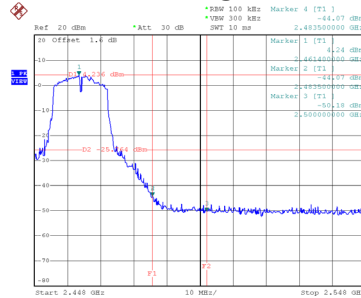
Test Mode TX G Mode

Bandedge-CH01



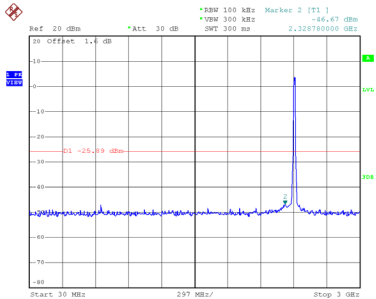
Date: 1.APR.2019 16:20:09

Bandedge-CH11

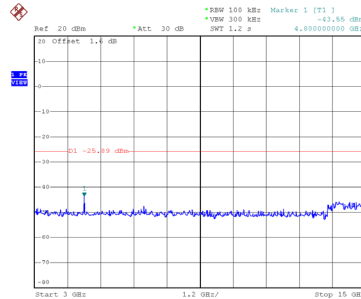


Date: 1.APR.2019 15:52:41

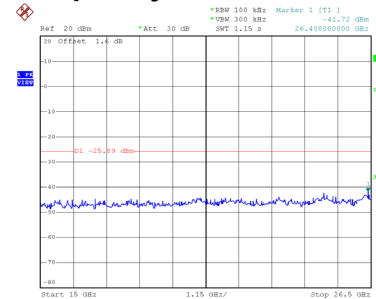
CH01 – 10th Harmonic of the fundamental frequency



Date: 1.APR.2019 16:20:23

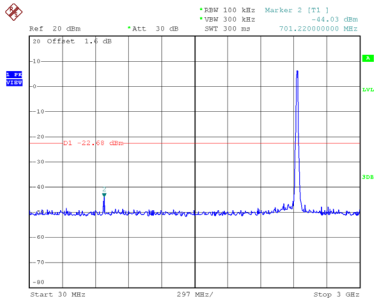


Date: 1.APR.2019 16:20:31

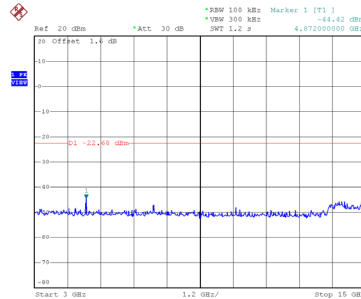


Date: 1.APR.2019 16:20:39

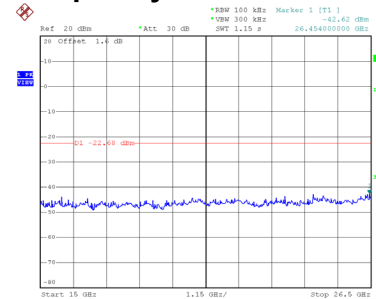
CH06 – 10th Harmonic of the fundamental frequency



Date: 1.APR.2019 15:49:49

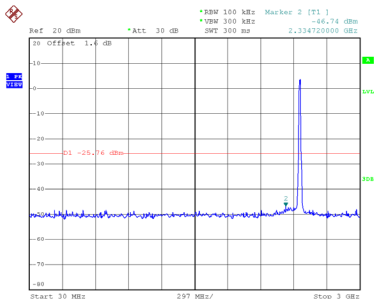


Date: 1.APR.2019 15:49:57

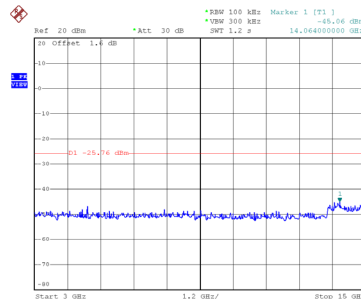


Date: 1.APR.2019 15:50:05

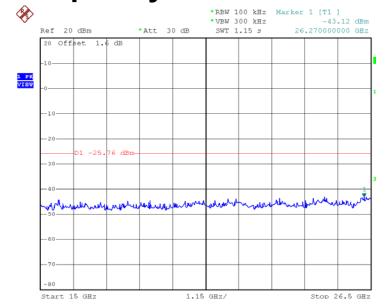
CH11 – 10th Harmonic of the fundamental frequency



Date: 1.APR.2019 15:52:55



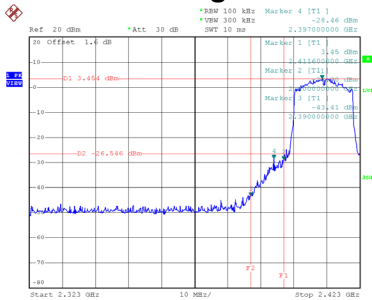
Date: 1.APR.2019 15:53:03



Date: 1.APR.2019 15:53:11

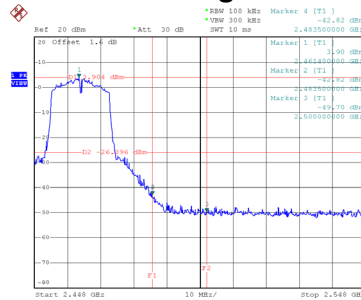
Test Mode TX N-20M Mode

Bandedge-CH01



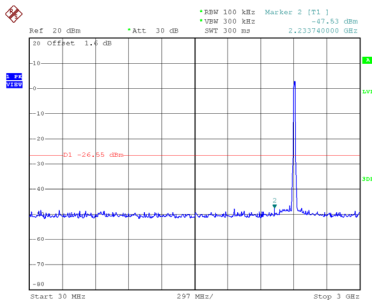
Date: 1.APR.2019 16:05:18

Bandedge-CH11

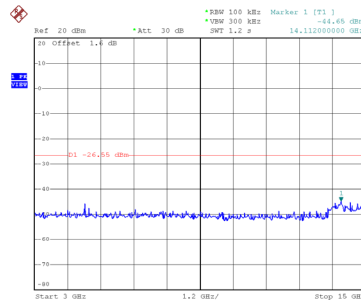


Date: 1.APR.2019 16:01:06

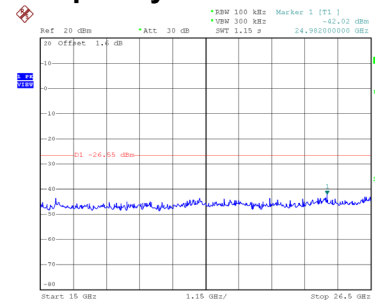
CH01 – 10th Harmonic of the fundamental frequency



Date: 1.APR.2019 16:05:31

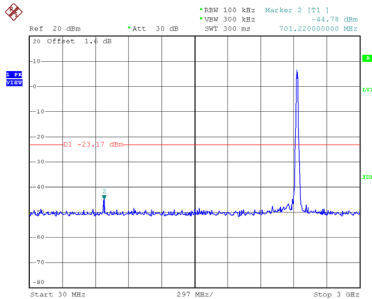


Date: 1.APR.2019 16:05:39

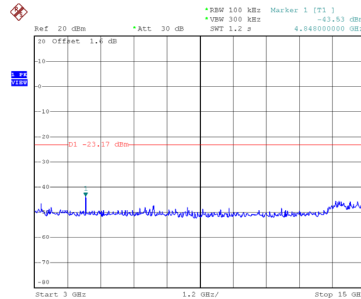


Date: 1.APR.2019 16:05:48

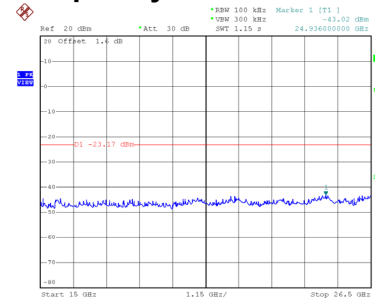
CH06 – 10th Harmonic of the fundamental frequency



Date: 1.APR.2019 15:59:29

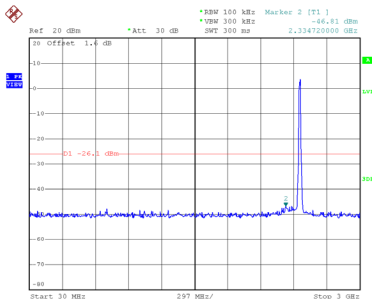


Date: 1.APR.2019 15:59:37

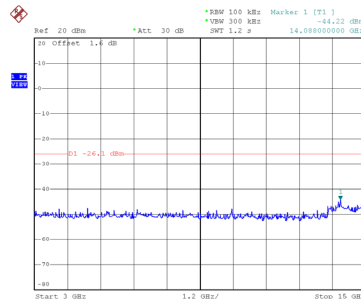


Date: 1.APR.2019 15:59:45

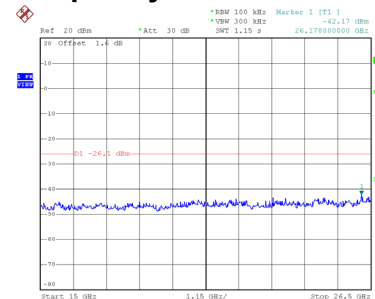
CH11 – 10th Harmonic of the fundamental frequency



Date: 1.APR.2019 16:01:20



Date: 1.APR.2019 16:01:28

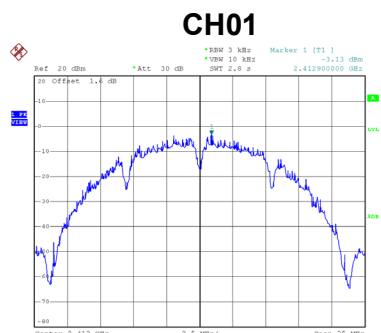


Date: 1.APR.2019 16:01:36

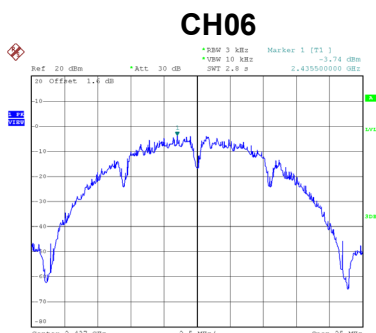
APPENDIX H - POWER SPECTRAL DENSITY

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

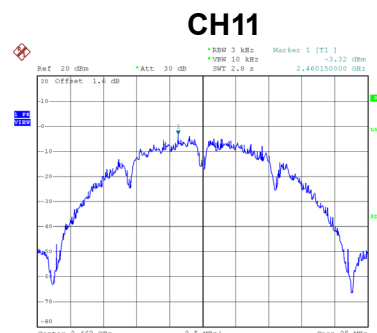
Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
01	2412	-3.13	8	Complies
06	2437	-3.74	8	Complies
11	2462	-3.32	8	Complies



Date: 1.APR.2019 15:27:13



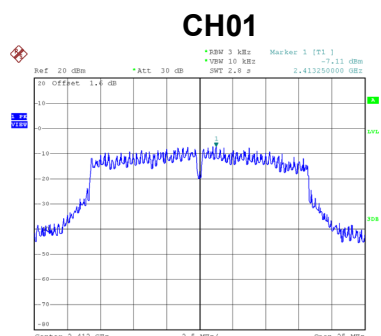
Date: 1.APR.2019 15:30:58



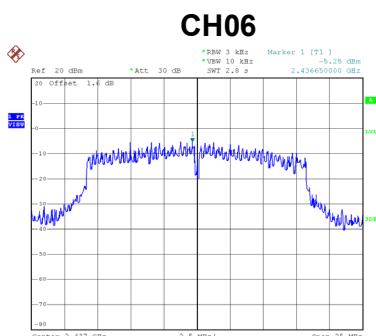
Date: 1.APR.2019 15:34:04

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

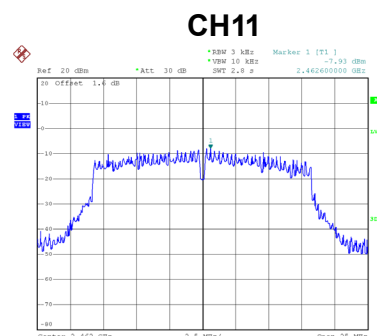
Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
01	2412	-7.11	8	Complies
06	2437	-5.25	8	Complies
11	2462	-7.93	8	Complies



Date: 1.APR.2019 15:41:00



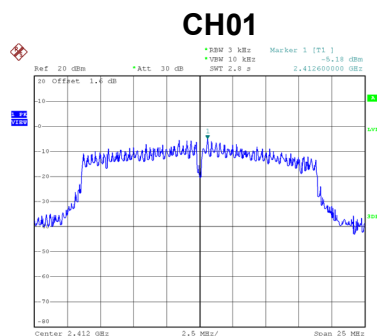
Date: 1.APR.2019 15:50:14



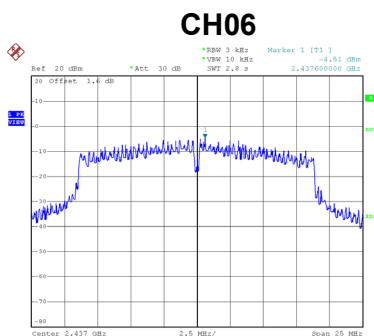
Date: 1.APR.2019 15:53:20

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

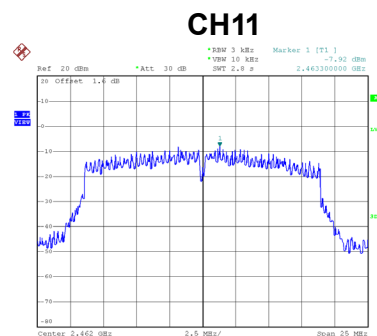
Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
01	2412	-5.18	8	Complies
06	2437	-4.51	8	Complies
11	2462	-7.92	8	Complies



Date: 1.APR.2019 15:58:02



Date: 1.APR.2019 15:59:54



Date: 1.APR.2019 16:01:45

End of Test Report