

FCC Radio Test Report

FCC ID: TE7P100

This report concerns: **Original Grant**

Project No. : 1906C018
Equipment : Mini Smart Wi-Fi Socket
Test Model : Tapo P100
Series Model : N/A
Applicant : TP-Link Technologies Co., Ltd.
Address : Building 24(floors1,3,4,5) and 28(floors1-4) Central Science and Technology Park, Shennan Rd, Nanshan, Shenzhen, China

Date of Receipt : Jun. 12, 2019
Date of Test : Jun. 12, 2019 ~ Aug. 15, 2019
Issued Date : Aug. 22, 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**

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	15
4 . AC POWER LINE CONDUCTED EMISSIONS TEST	16
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
5 . RADIATED EMISSIONS TEST	18
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	21
5.6 EUT TEST CONDITIONS	21
5.7 TEST RESULTS - 9 KHZ TO 30 MHZ	21
5.8 TEST RESULTS - 30 MHZ TO 1000 MHZ	21
5.9 TEST RESULTS - ABOVE 1000 MHZ	21
6 . BANDWIDTH TEST	22
6.1 LIMIT	22
6.2 TEST PROCEDURE	22

Table of Contents	Page
6.3 DEVIATION FROM STANDARD	22
6.4 TEST SETUP	22
6.5 EUT OPERATION CONDITIONS	22
6.6 EUT TEST CONDITIONS	22
6.7 TEST RESULTS	22
7 . MAXIMUM AVERAGE OUTPUT POWER TEST	23
7.1 LIMIT	23
7.2 TEST PROCEDURE	23
7.3 DEVIATION FROM STANDARD	23
7.4 TEST SETUP	23
7.5 EUT OPERATION CONDITIONS	23
7.6 EUT TEST CONDITIONS	23
7.7 TEST RESULTS	23
8 . CONDUCTED SPURIOUS EMISSIONS	24
8.1 LIMIT	24
8.2 TEST PROCEDURE	24
8.3 DEVIATION FROM STANDARD	24
8.4 TEST SETUP	24
8.5 EUT OPERATION CONDITIONS	24
8.6 EUT TEST CONDITIONS	24
8.7 TEST RESULTS	24
9 . POWER SPECTRAL DENSITY TEST	25
9.1 LIMIT	25
9.2 TEST PROCEDURE	25
9.3 DEVIATION FROM STANDARD	25
9.4 TEST SETUP	25
9.5 EUT OPERATION CONDITIONS	25
9.6 EUT TEST CONDITIONS	25
9.7 TEST RESULTS	25
10 . MEASUREMENT INSTRUMENTS LIST	26
11 . EUT TEST PHOTO	28
APPENDIX A - AC POWER LINE CONDUCTED EMISSIONS	32
APPENDIX B - RADIATED EMISSION - 9 KHZ TO 30 MHZ	35

Table of Contents**Page**

APPENDIX C - RADIATED EMISSION - 30 MHZ TO 1000 MHZ	40
APPENDIX D - RADIATED EMISSION- ABOVE 1000 MHZ	43
APPENDIX E - BANDWIDTH	104
APPENDIX F - MAXIMUM OUTPUT POWER	108
APPENDIX G - CONDUCTED SPURIOUS EMISSIONS	110
APPENDIX H - POWER SPECTRAL DENSITY	114

REPORT ISSUED HISTORY

Report Version	Description	Issued Date
R00	Original Issue.	Aug. 22, 2019

1. GENERAL SUMMARY

Equipment : Mini Smart Wi-Fi Socket
Brand Name : Tapo
Test Model : Tapo P100
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 : Jun. 12, 2019 ~ Aug. 15, 2019
Test Sample : Engineering Sample No.: DG19060646 for conducted, DG19060647 for radiated.
Standard(s) : FCC Part15, Subpart C (15.247)
ANSI C63.10-2013
FCC KDB 558074 D01 DTS Meas Guidance v05r02

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-1-1906C018) 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 2.4GHz part.

2. SUMMARY OF TEST RESULTS

Test procedures according to the technical standard(s):

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

Note:

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

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	9kHz ~ 30MHz	V	3.79
		9kHz ~ 30MHz	H	3.57
		30MHz ~ 200MHz	V	4.88
		30MHz ~ 200MHz	H	4.14
		200MHz ~ 1,000MHz	V	4.62
		200MHz ~ 1,000MHz	H	4.80
		1GHz ~ 6GHz	-	4.58
		6GHz ~ 18GHz	-	5.18
		18GHz ~ 26.5GHz	-	3.80
		26.5GHz ~ 40GHz	-	4.30

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	Mini Smart Wi-Fi Socket
Brand Name	Tapo
Test Model	Tapo P100
Series Model	N/A
Model Difference(s)	N/A
Power Source	AC Mains
Power Rating	AC 100-125V 50/60Hz 10A
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 Average Output Power	IEEE 802.11b: 21.87 dBm (0.1538 W) IEEE 802.11g: 21.96 dBm (0.1570 W) IEEE 802.11n (HT20): 21.91 dBm (0.1552 W)

Note:

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

2. Channel List:

CH01 - CH11 for IEEE 802.11b, IEEE 802.11g, IEEE 802.11n (HT20)							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
01	2412	04	2427	07	2442	10	2457
02	2417	05	2432	08	2447	11	2462
03	2422	06	2437	09	2452		

3. Antenna Specification:

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

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 G 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 G Mode Channel 06

Radiated emissions test - Below 1GHz	
Final Test Mode	Description
Mode 4	TX G 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

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: CCK (1 Mbps)
 802.11g mode: OFDM (6 Mbps)
 802.11n HT20 mode: BPSK (6.5 Mbps)
 For all tests, the highest output powers were set for final test.
- (3) All the bit rate of transmitter have been tested and found the lowest rate is found to be the worst case and recorded.
- (4) For radiated emission below 1 GHz test, the IEEE 802.11g channel 06 is found to be the worst case and recorded.
- (5) 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.

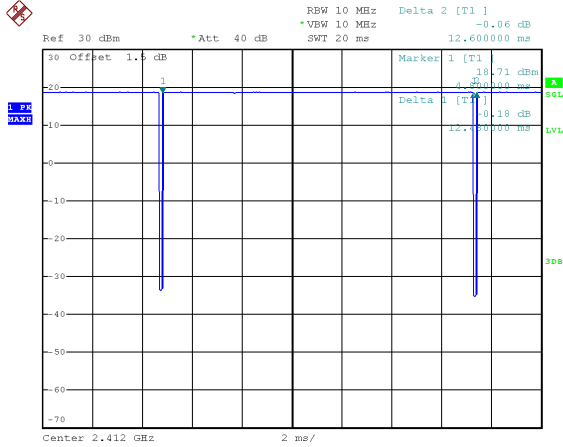
3.3 PARAMETERS OF TEST SOFTWARE

Test Software	UI_mptool_1V2		
Frequency (MHz)	2412	2437	2462
IEEE 802.11b	96	104	110
IEEE 802.11g	118	127	114
IEEE 802.11n (HT20)	118	127	114

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.

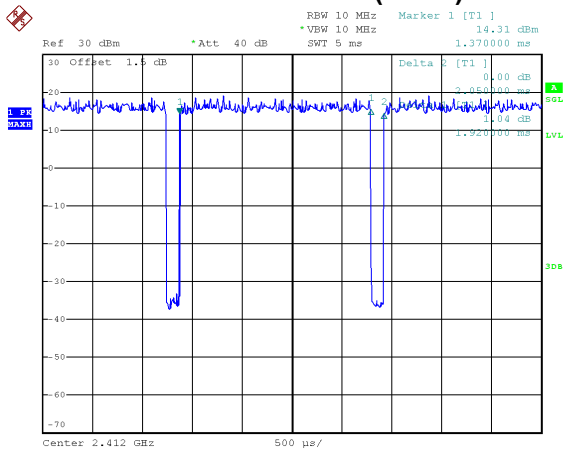
IEEE 802.11b



Date: 13.JUN.2019 17:43:10

Duty cycle = $12.48 \text{ ms} / 12.60 \text{ ms} = 99.05\%$
 Duty Factor = $10 \log(1/\text{Duty cycle}) = 0.00$

IEEE 802.11n (HT20)



Date: 13.JUN.2019 17:46:32

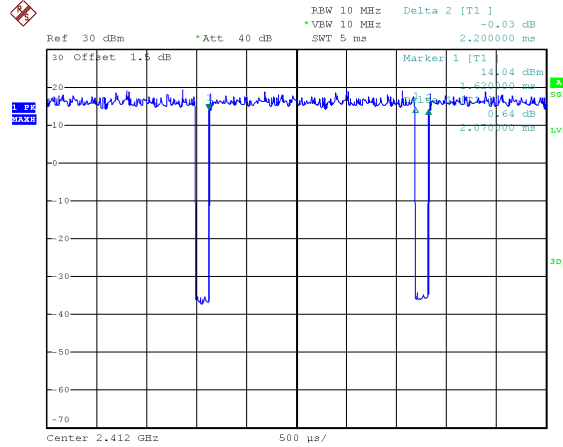
Duty cycle = $1.92 \text{ ms} / 2.05 \text{ ms} = 93.66\%$
 Duty Factor = $10 \log(1/\text{Duty cycle}) = 0.28$

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 $< 98\%$).

IEEE 802.11g



Date: 13.JUN.2019 17:45:21

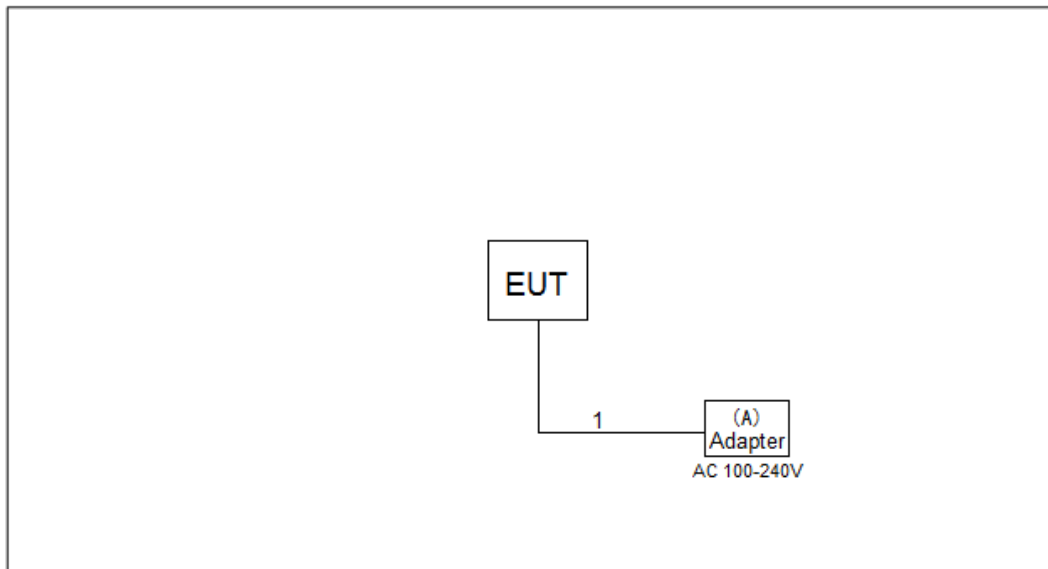
Duty cycle = $2.07 \text{ ms} / 2.20 \text{ ms} = 94.09\%$
 Duty Factor = $10 \log(1/\text{Duty cycle}) = 0.26$

3.5 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

For AC Power Line Conducted Emissions Test



For Radiated Emissions Test



3.6 SUPPORT UNITS

For AC Power Line Conducted Emissions Test

Item	Equipment	Brand	Model No.	Series No.
-	-	-	-	-

Item	Cable Type	Shielded Type	Ferrite Core	Length
-	-	-	-	-

For Radiated Emissions Test

Item	Equipment	Brand	Model No.	Series No.
A	Adapter	tp-link	T050060-2B1	N/A

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

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 to 46*
0.50 - 5.0	56	46
5.0 - 30.0	60	50

NOTE:

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

The following table is the setting of the receiver

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

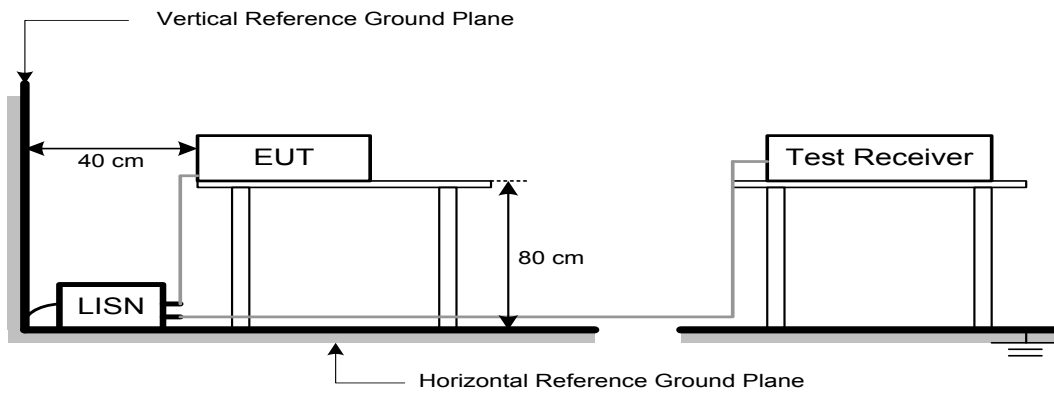
4.2 TEST PROCEDURE

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

4.3 DEVIATION FROM TEST STANDARD

No deviation

4.4 TEST SETUP



4.5 EUT OPERATION CONDITIONS

EUT was programmed to be in continuously transmitting mode.

4.6 EUT TEST CONDITIONS

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

4.7 TEST RESULTS

Please refer to the APPENDIX A.

5. RADIATED EMISSIONS TEST

5.1 LIMIT

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

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

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

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000 MHz)

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

NOTE:

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

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

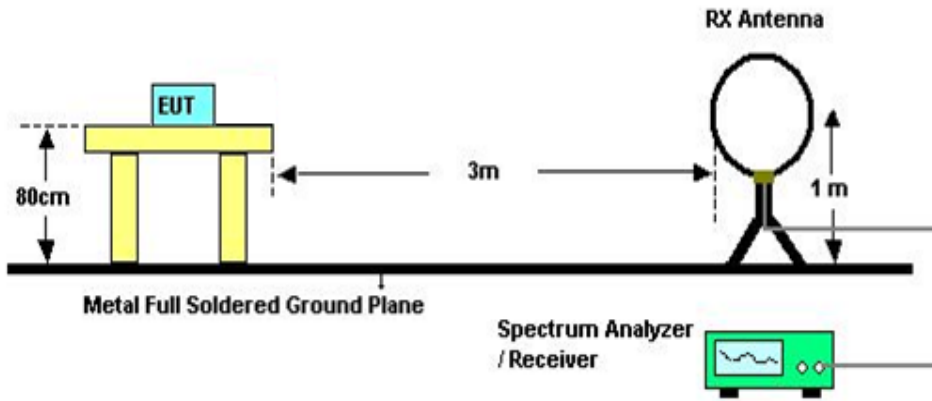
- a. The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(below 1 GHz)
- b. The measuring distance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

5.3 DEVIATION FROM TEST STANDARD

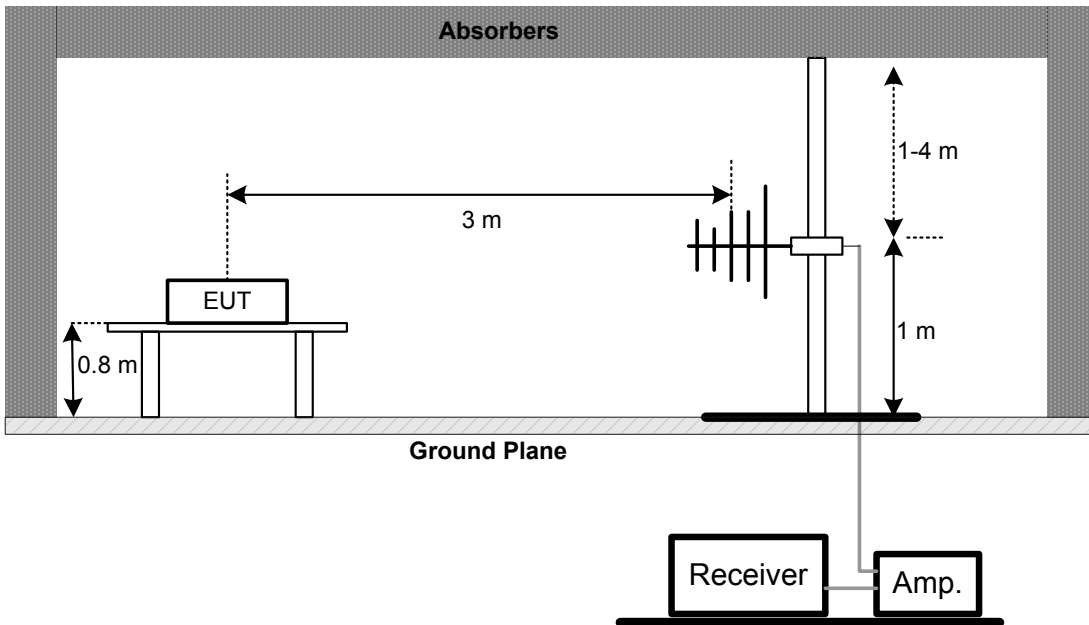
No deviation

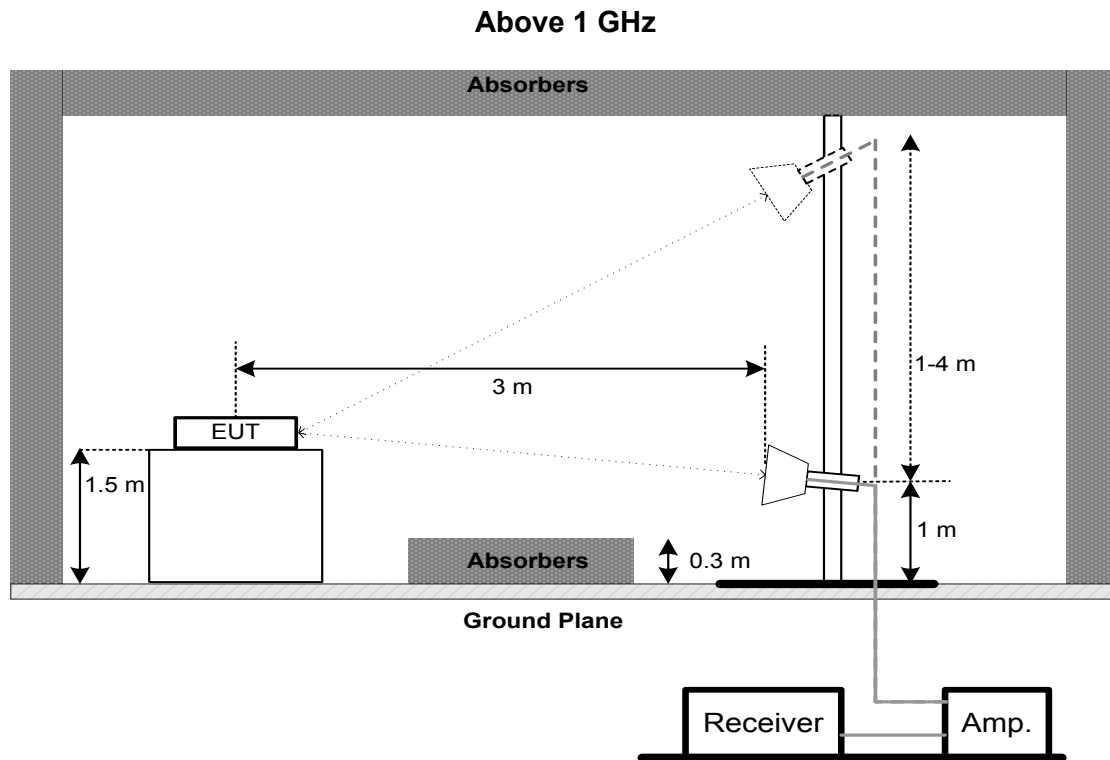
5.4 TEST SETUP

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: 55% 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

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- b. For 6dB Bandwidth Spectrum setting: RBW= 100KHz, VBW=300KHz, Sweep time = 2.5 ms.
For 99% OBW Spectrum Setting: RBW= 300KHz, VBW=1MHz
- c. The bandwidth was performed in accordance with method 11.8.1 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: 66.8% 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

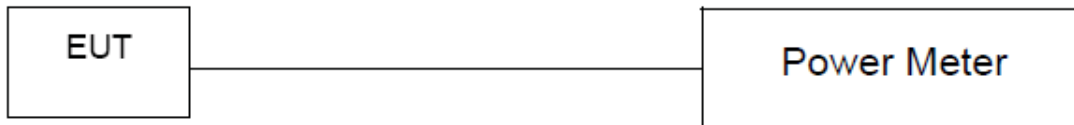
7.2 TEST PROCEDURE

- 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 11.9.2.3.1 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: 66.8% 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.

8.2 TEST PROCEDURE

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

8.3 DEVIATION FROM STANDARD

No deviation.

8.4 TEST SETUP



8.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

8.6 EUT TEST CONDITIONS

Temperature: 24.4°C Relative Humidity: 66.8% 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: 24.4°C Relative Humidity: 66.8% 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	May 31, 2020
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, 2021
3	Receiver	Agilent	N9038A	MY52130039	Aug. 03, 2020
4	Cable	emci	LMR-400(30MHz-1GHz)(8m+5m)	N/A	May 24, 2020
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. 23, 2020
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. 03, 2020
6	Controller	CT	SC100	N/A	N/A
7	Controller	MF	MF-7802	MF780208416	N/A
8	Cable	mitron	B10-01-01-12M	18072744	Jun. 29, 2020
9	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A

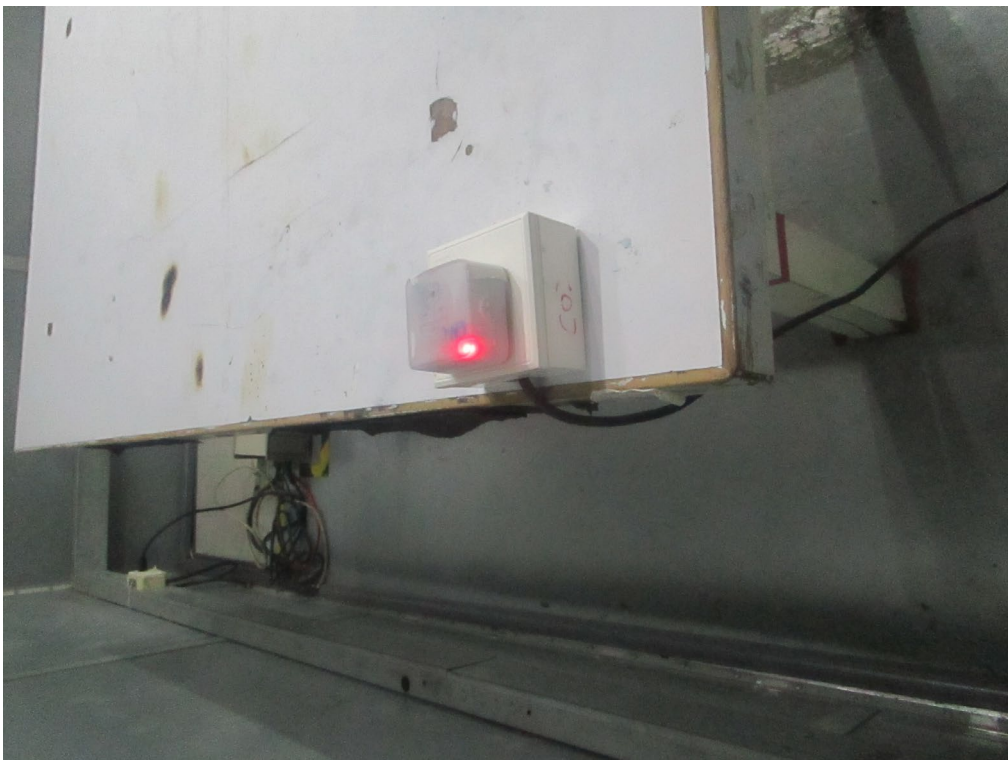
Bandwidth & Antenna Conducted Spurious Emissions & Power Spectral Density					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP40	100185	Aug. 03, 2020

Maximum Average Output Power					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Peak Power Analyzer	Keysight	8990B	MY51000506	Nov. 26, 2019
2	Wideband power sensor	Keysight	N1923A	MY58310004	Nov. 26, 2019

Remark: "N/A" denotes no model name, serial no. or calibration specified.
 "*" calibration period of equipment list is three year.
 Except * item, all calibration period of equipment list is one year.

11. EUT TEST PHOTO

AC Power Line Conducted Emissions Test Photos



Radiated Emissions Test Photos

9 kHz to 30 MHz



Radiated Emissions Test Photos

30 MHz to 1 GHz



Radiated Emissions Test Photos

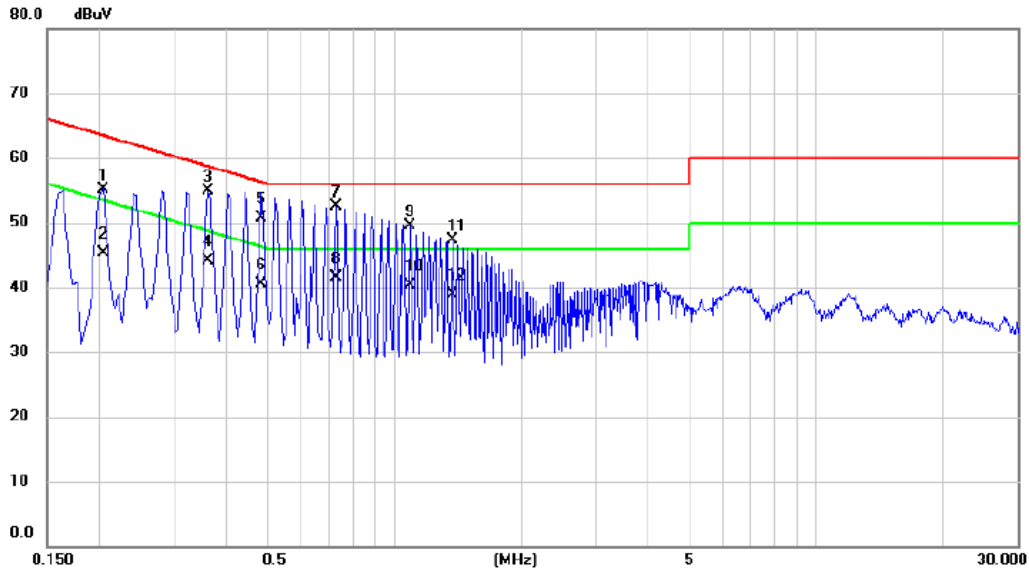
Above 1 GHz



APPENDIX A - AC POWER LINE CONDUCTED EMISSIONS

Test Mode: TX G Mode Channel 06

Line



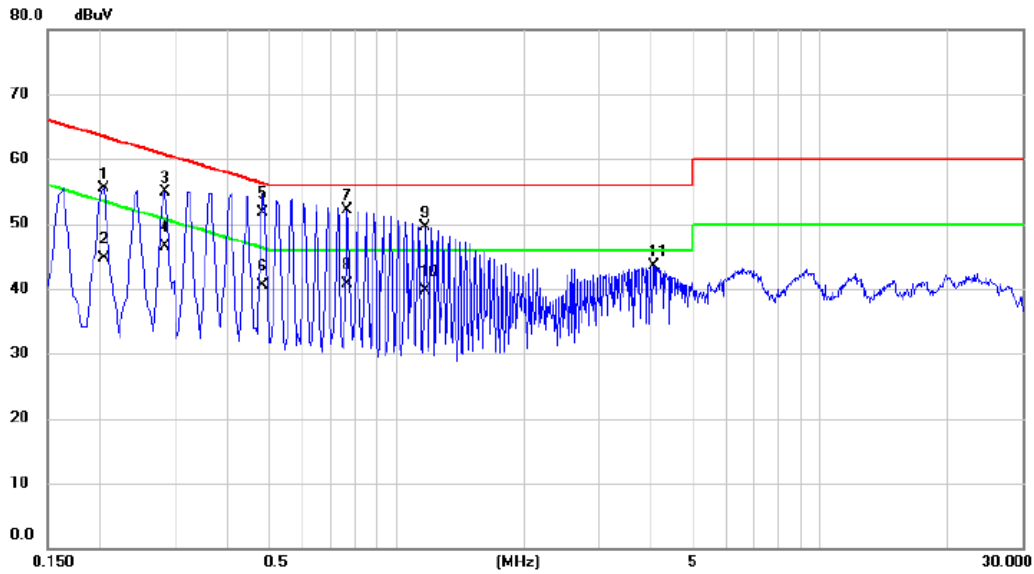
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1		0.204	45.39	9.81	55.20	63.45	-8.25	peak	
2		0.204	35.46	9.81	45.27	53.45	-8.18	AVG	
3		0.361	45.10	9.85	54.95	58.70	-3.75	peak	
4		0.361	34.18	9.85	44.03	48.70	-4.67	AVG	
5		0.483	40.82	9.88	50.70	56.29	-5.59	QP	
6		0.483	30.56	9.88	40.44	46.29	-5.85	AVG	
7 *		0.726	42.55	9.90	52.45	56.00	-3.55	peak	
8		0.726	31.59	9.90	41.49	46.00	-4.51	AVG	
9		1.090	39.53	9.93	49.46	56.00	-6.54	peak	
10		1.090	30.44	9.93	40.37	46.00	-5.63	AVG	
11		1.374	37.43	9.95	47.38	56.00	-8.62	peak	
12		1.374	28.94	9.95	38.89	46.00	-7.11	AVG	

REMARKS:

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

Test Mode: TX G Mode Channel 06

Neutral



No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1	0.204	45.64	9.90	55.54	63.45	-7.91	peak	
2	0.204	34.77	9.90	44.67	53.45	-8.78	AVG	
3	0.285	45.04	9.94	54.98	60.67	-5.69	peak	
4	0.285	36.54	9.94	46.48	50.67	-4.19	AVG	
5	0.483	41.60	10.03	51.63	56.29	-4.66	QP	
6	0.483	30.50	10.03	40.53	46.29	-5.76	AVG	
7 *	0.766	41.94	10.09	52.03	56.00	-3.97	peak	
8	0.766	30.55	10.09	40.64	46.00	-5.36	AVG	
9	1.171	39.33	10.13	49.46	56.00	-6.54	peak	
10	1.171	29.57	10.13	39.70	46.00	-6.30	AVG	
11	4.038	33.27	10.32	43.59	56.00	-12.41	peak	

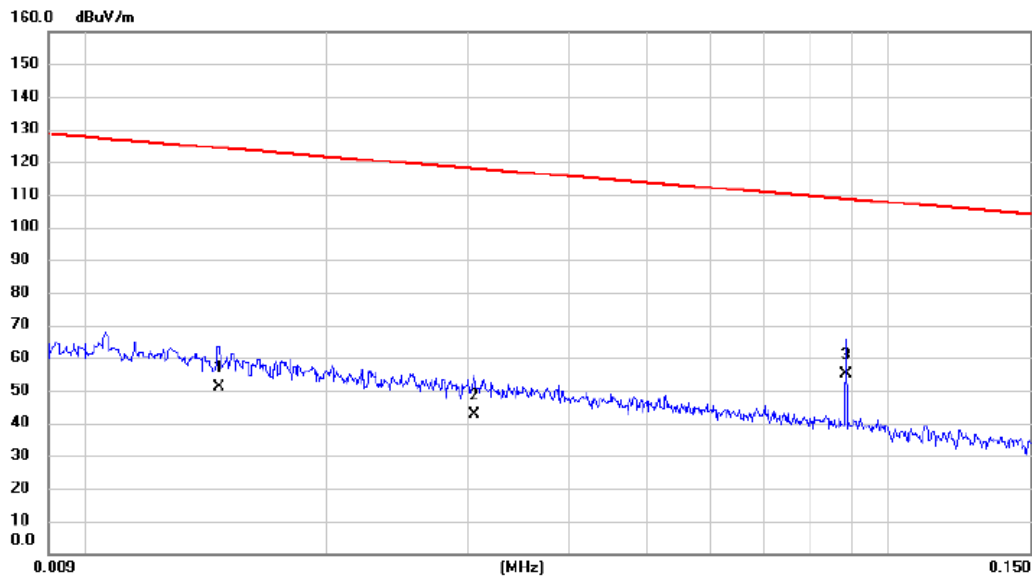
REMARKS:

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

APPENDIX B - RADIATED EMISSION - 9 KHZ TO 30 MHZ

Test Mode: TX G Mode Channel 06

Ant 0°



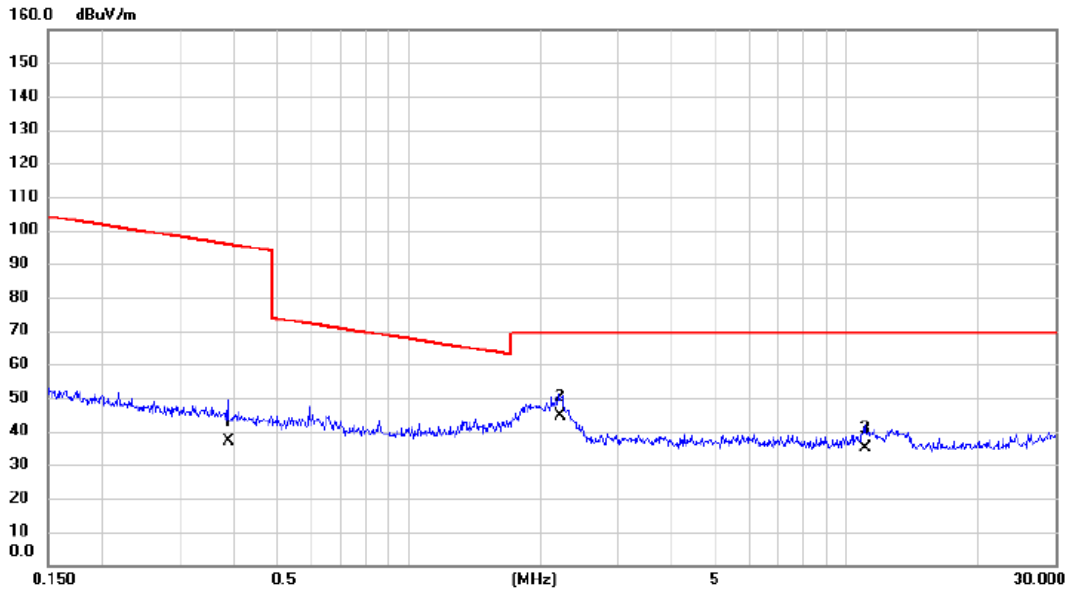
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		0.0147	35.70	15.41	51.11	124.26	-73.15	AVG	
2		0.0305	28.60	13.86	42.46	117.92	-75.46	AVG	
3	*	0.0885	41.40	13.54	54.94	108.67	-53.73	AVG	

REMARKS:

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

Test Mode: TX G Mode Channel 06

Ant 0°



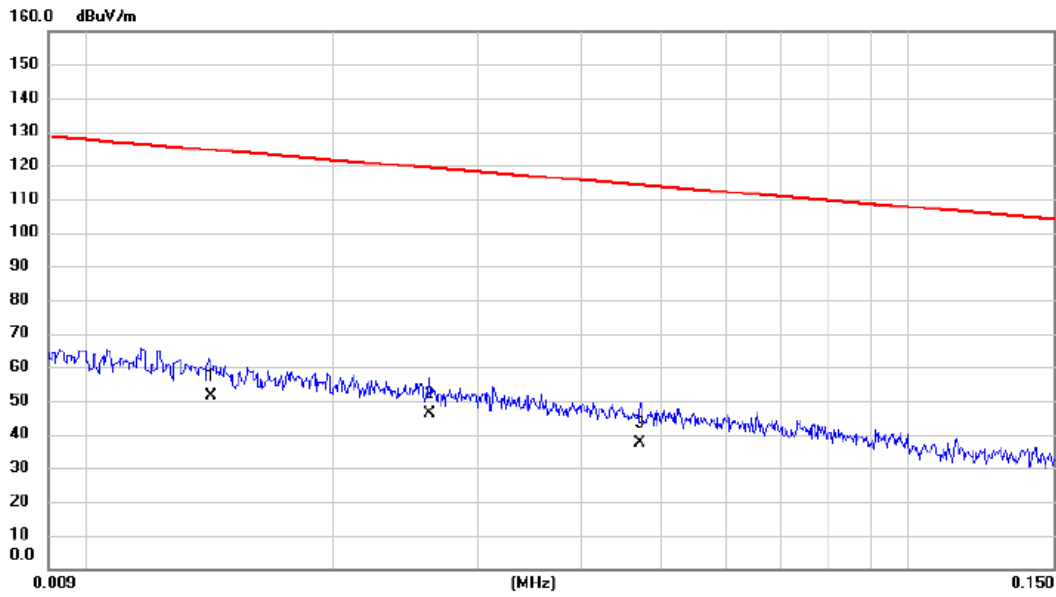
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		0.3871	23.50	13.33	36.83	95.85	-59.02	AVG	
2	*	2.2132	32.80	11.69	44.49	69.54	-25.05	QP	
3		11.0211	23.40	11.62	35.02	69.54	-34.52	QP	

REMARKS:

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

Test Mode: TX G Mode Channel 06

Ant 90°



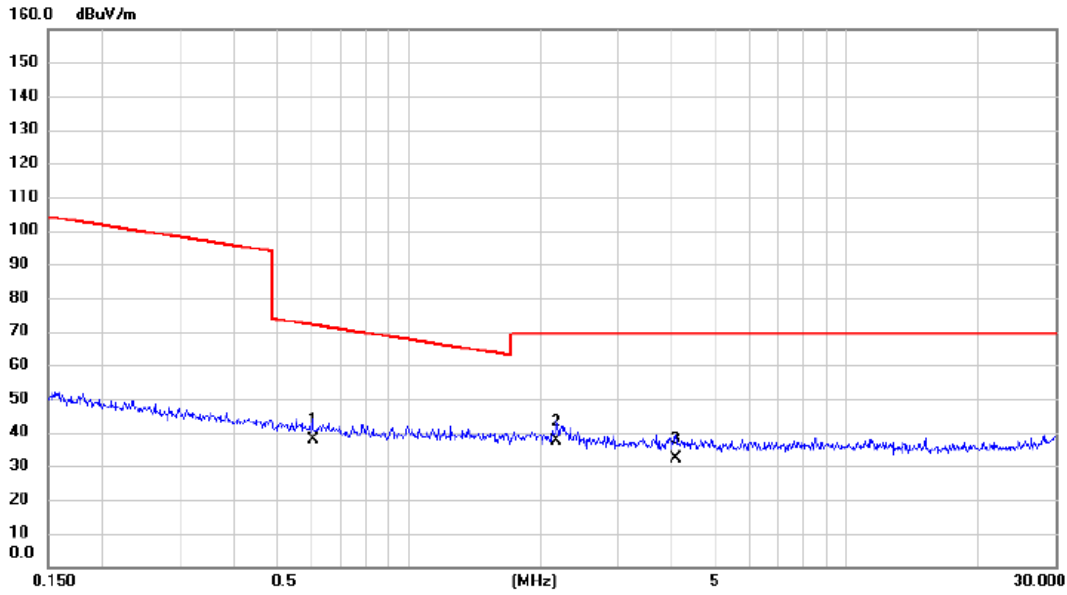
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		0.0142	35.80	15.56	51.36	124.56	-73.20	AVG	
2	*	0.0262	32.30	13.84	46.14	119.24	-73.10	AVG	
3		0.0472	23.40	13.92	37.32	114.13	-76.81	AVG	

REMARKS:

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

Test Mode: TX G Mode Channel 06

Ant 90°



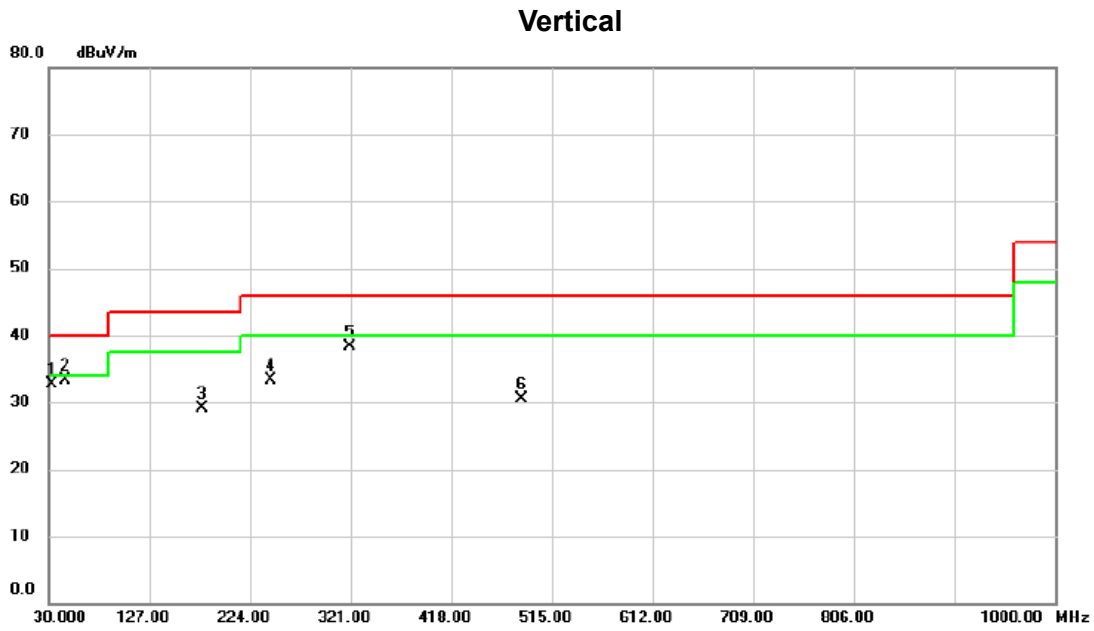
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		0.6043	24.80	12.86	37.66	71.98	-34.32	QP	
2	*	2.1783	25.60	11.71	37.31	69.54	-32.23	QP	
3		4.0704	21.30	10.94	32.24	69.54	-37.30	QP	

REMARKS:

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

APPENDIX C - RADIATED EMISSION - 30 MHZ TO 1000 MHZ

Test Mode: TX G Mode Channel 06



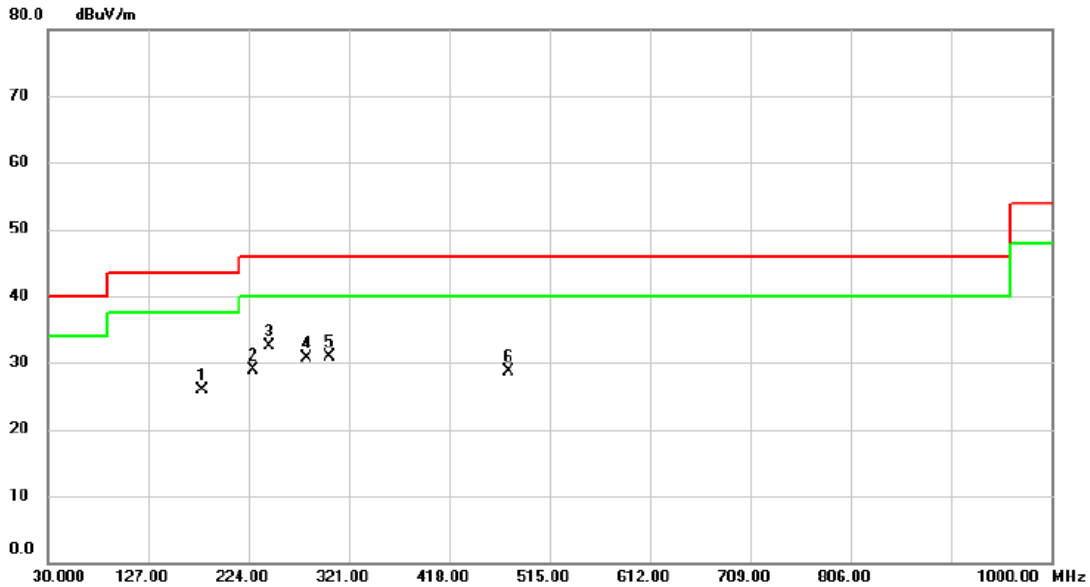
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		32.910	47.61	-14.94	32.67	40.00	-7.33	peak	
2	*	45.520	47.64	-14.36	33.28	40.00	-6.72	peak	
3		177.440	42.05	-12.96	29.09	43.50	-14.41	peak	
4		243.885	47.26	-13.89	33.37	46.00	-12.63	peak	
5		320.030	49.43	-11.16	38.27	46.00	-7.73	peak	
6		485.900	38.33	-7.79	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 G Mode Channel 06

Horizontal



No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measurement dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	178.895	38.90	-13.06	25.84	43.50	-17.66	peak	
2	228.365	43.29	-14.33	28.96	46.00	-17.04	peak	
3 *	244.370	46.36	-13.87	32.49	46.00	-13.51	peak	
4	279.775	43.40	-12.62	30.78	46.00	-15.22	peak	
5	302.085	42.28	-11.45	30.83	46.00	-15.17	peak	
6	475.230	36.67	-7.88	28.79	46.00	-17.21	peak	

REMARKS:

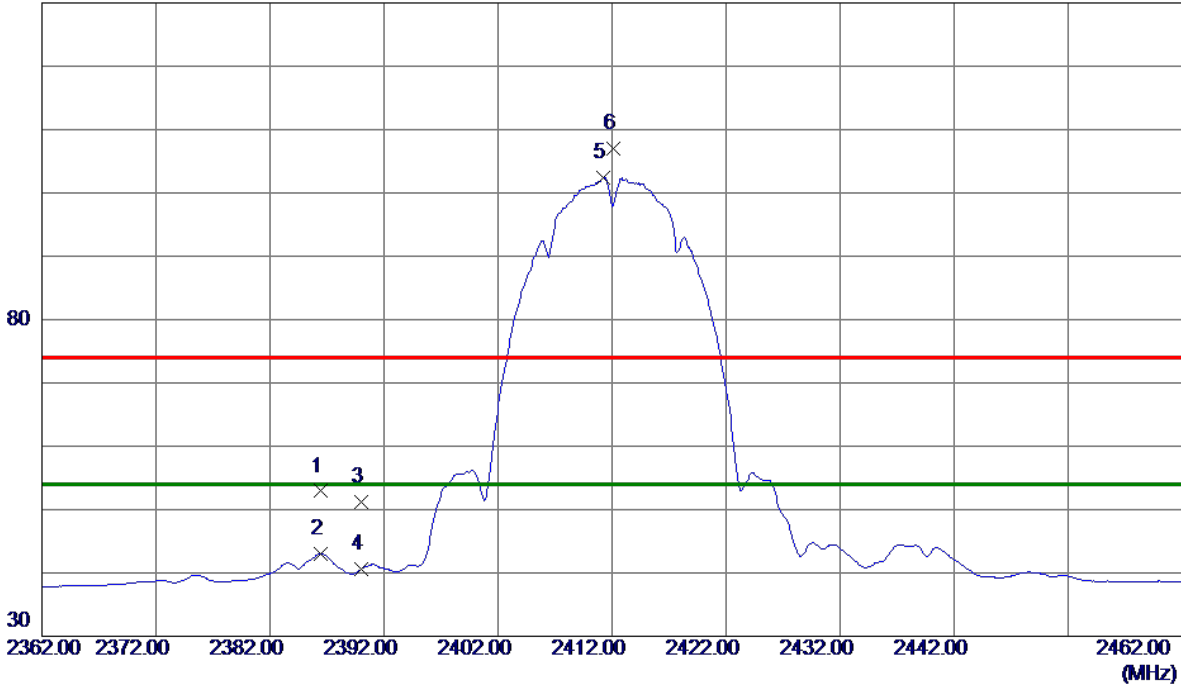
- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

APPENDIX D - RADIATED EMISSION- ABOVE 1000 MHZ

Test Mode: TX B Mode 2412 MHz

Vertical

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	2386.4500	45.35	7.55	52.90	74.00	-21.10	Peak	
2	2386.4500	35.52	7.55	43.07	54.00	-10.93	AVG	
3	2390.0000	43.73	7.56	51.29	74.00	-22.71	Peak	
4	2390.0000	33.07	7.56	40.63	54.00	-13.37	AVG	
5 *	2411.2500	94.83	7.64	102.47	54.00	48.47	AVG	No Limit
6	2412.1500	99.29	7.64	106.93	74.00	32.93	Peak	No Limit

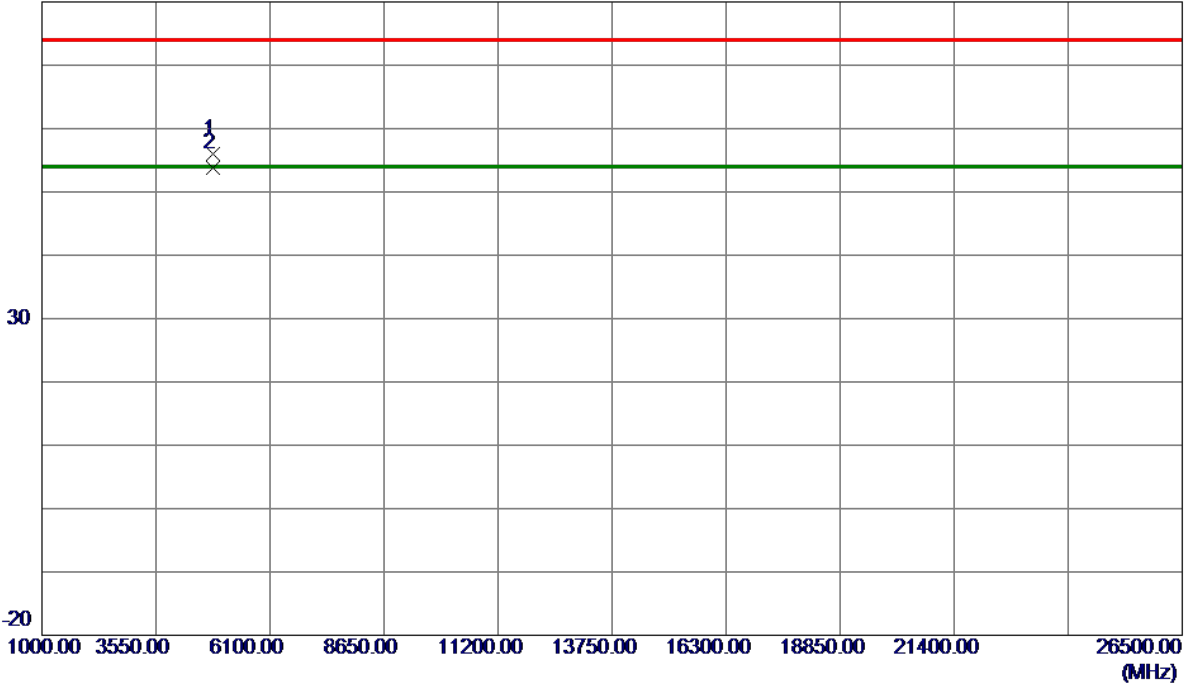
REMARKS:

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

Test Mode: TX B Mode 2412 MHz

Vertical

80 dBuV/m



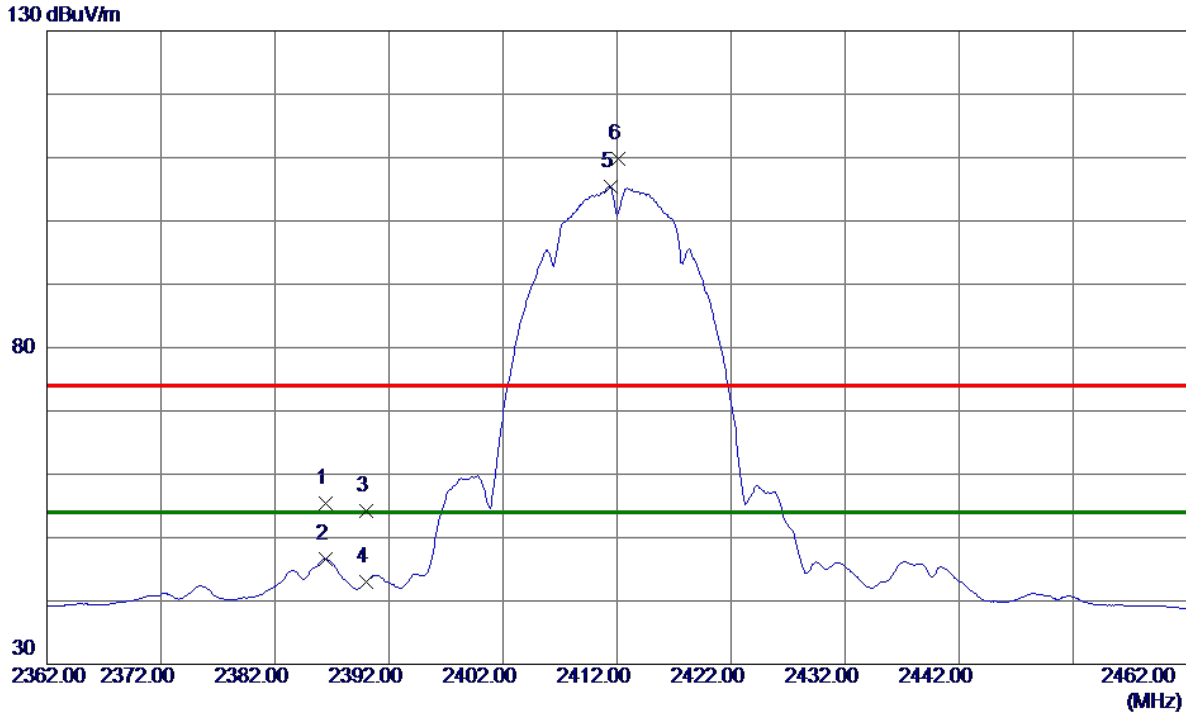
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4824.0310	51.81	4.26	56.07	74.00	-17.93	Peak	
2 *	4824.0800	49.45	4.26	53.71	54.00	-0.29	AVG	

REMARKS:

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

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	2386.4000	47.76	7.55	55.31	74.00	-18.69	Peak	
2	2386.4000	39.08	7.55	46.63	54.00	-7.37	AVG	
3	2390.0000	46.63	7.56	54.19	74.00	-19.81	Peak	
4	2390.0000	35.53	7.56	43.09	54.00	-10.91	AVG	
5 *	2411.4000	97.72	7.64	105.36	54.00	51.36	AVG	No Limit
6	2412.1500	102.14	7.64	109.78	74.00	35.78	Peak	No Limit

REMARKS:

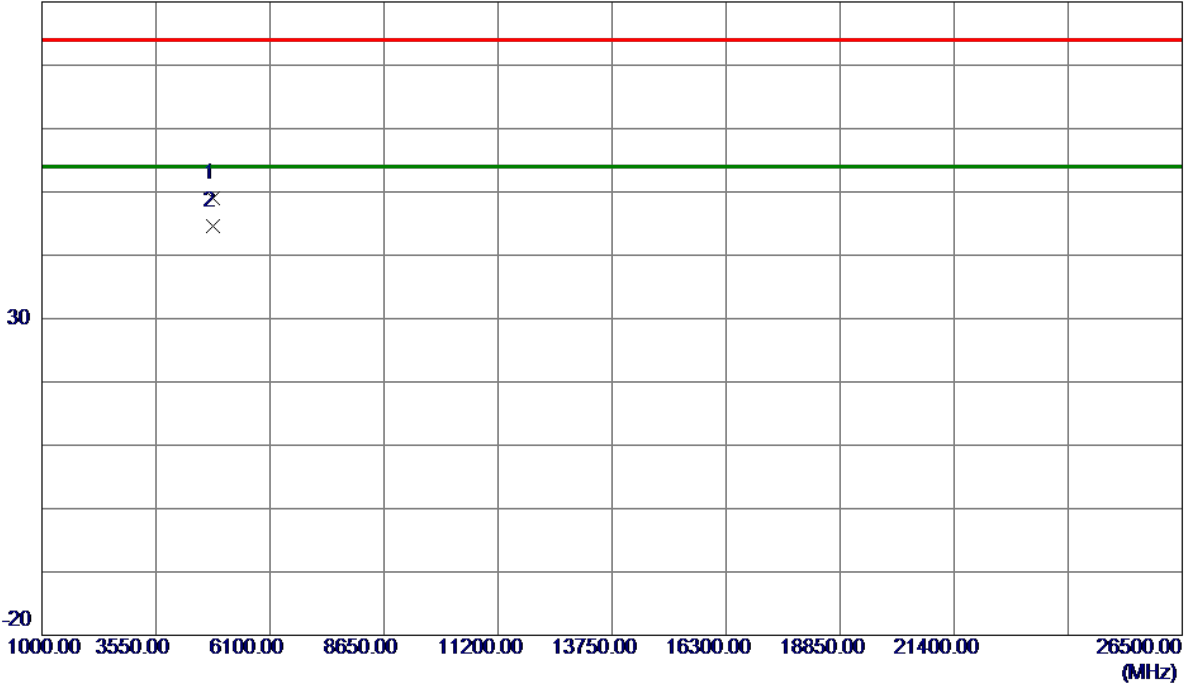
(1) Measurement Value = Reading Level + Correct Factor.

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

Test Mode: TX B Mode 2412 MHz

Horizontal

80 dBuV/m



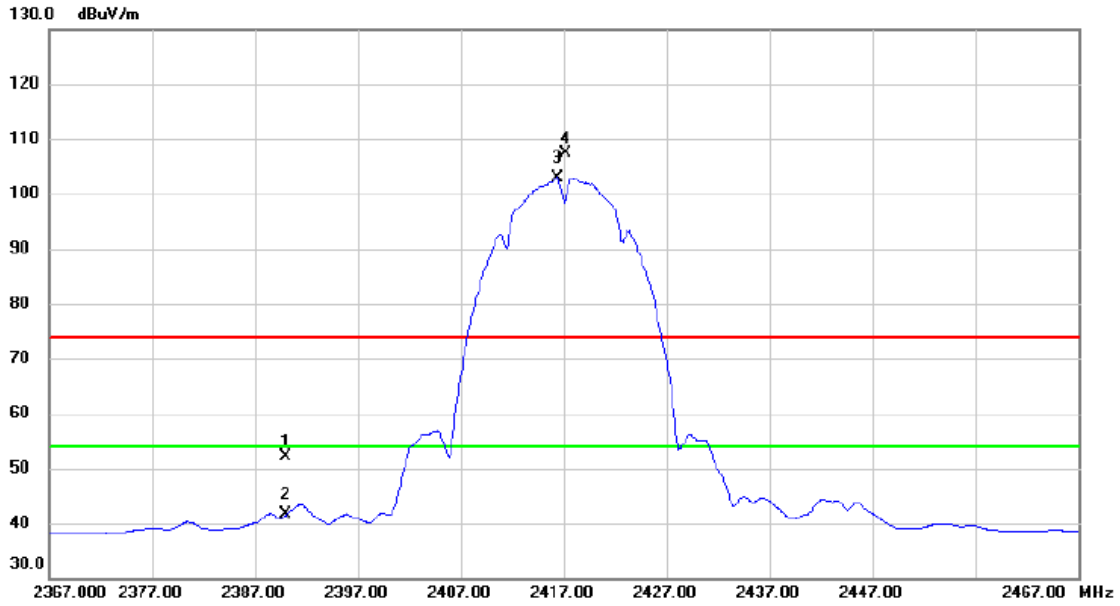
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4823.9100	44.72	4.25	48.97	74.00	-25.03	Peak	
2 *	4824.0570	40.35	4.26	44.61	54.00	-9.39	AVG	

REMARKS:

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

Test Mode: TX B Mode 2417 MHz

Vertical



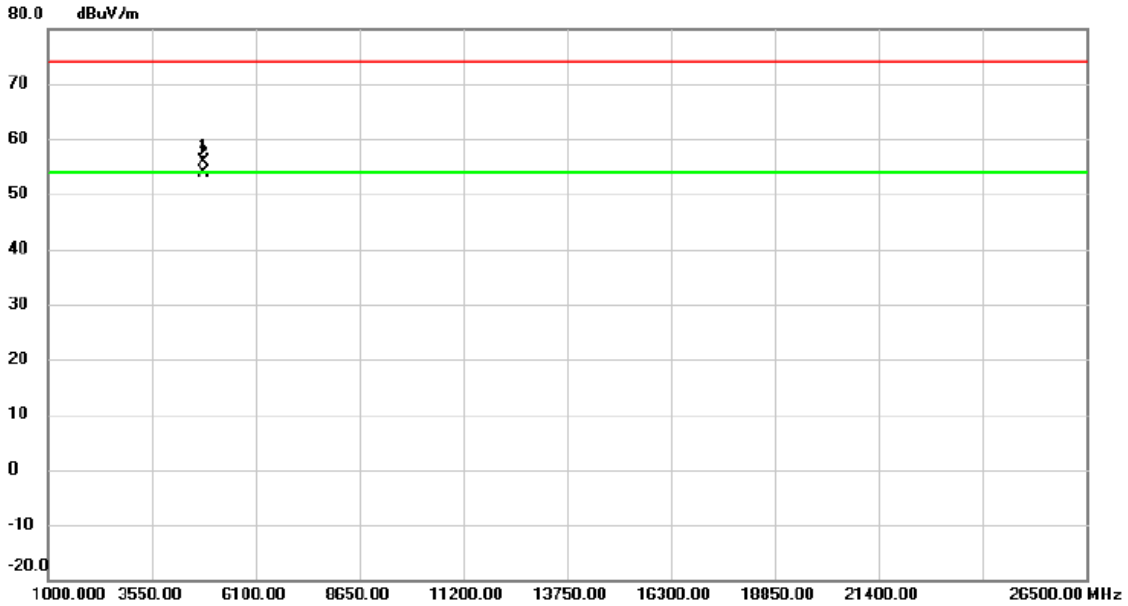
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		2390.000	44.62	7.57	52.19	74.00	-21.81	peak	
2		2390.000	34.10	7.57	41.67	54.00	-12.33	AVG	
3	*	2416.350	95.34	7.66	103.00	54.00	49.00	AVG	No Limit
4	X	2417.150	99.71	7.66	107.37	74.00	33.37	peak	No Limit

REMARKS:

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

Test Mode: TX B Mode 2417 MHz

Vertical



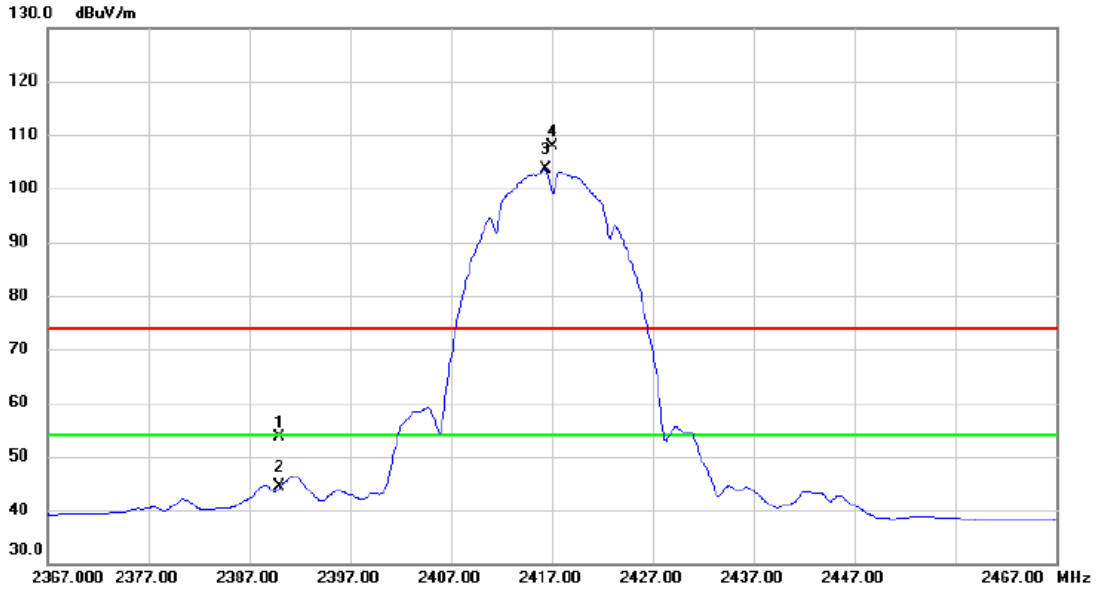
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		4833.993	51.63	4.29	55.92	74.00	-18.08	peak	
2	*	4834.070	49.68	4.29	53.97	54.00	-0.03	AVG	

REMARKS:

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

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	46.17	7.57	53.74	74.00	-20.26	peak	
2		2390.000	36.78	7.57	44.35	54.00	-9.65	AVG	
3	*	2416.350	95.97	7.66	103.63	54.00	49.63	AVG	No Limit
4	X	2417.000	100.24	7.66	107.90	74.00	33.90	peak	No Limit

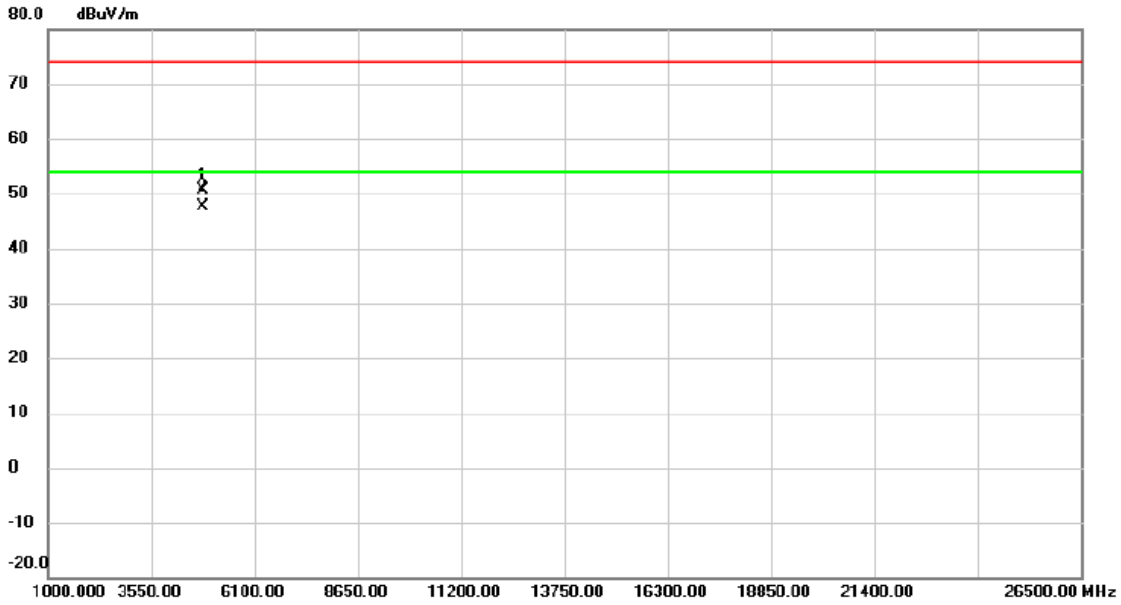
REMARKS:

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

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

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		4833.934	46.36	4.29	50.65	74.00	-23.35	peak	
2	*	4834.058	43.35	4.29	47.64	54.00	-6.36	AVG	

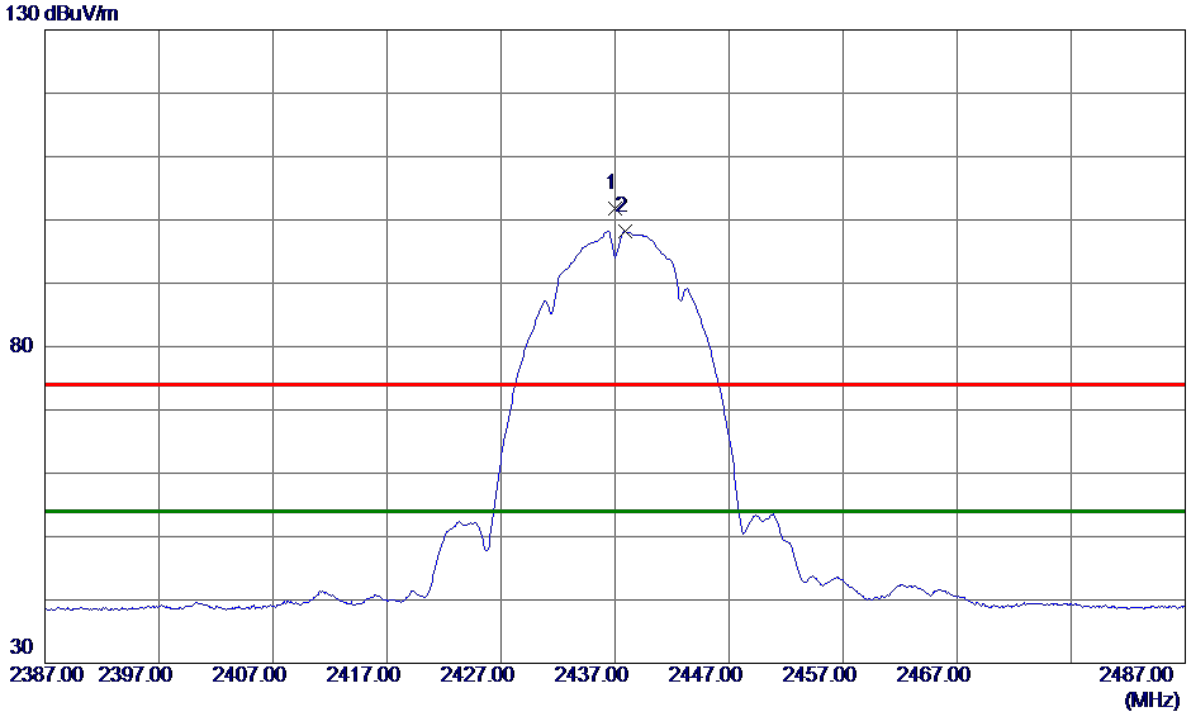
REMARKS:

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

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

Test Mode: TX B Mode 2437 MHz

Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2437.0500	94.02	7.72	101.74	74.00	27.74	Peak	No Limit
2 *	2437.8500	90.50	7.72	98.22	54.00	44.22	AVG	No Limit

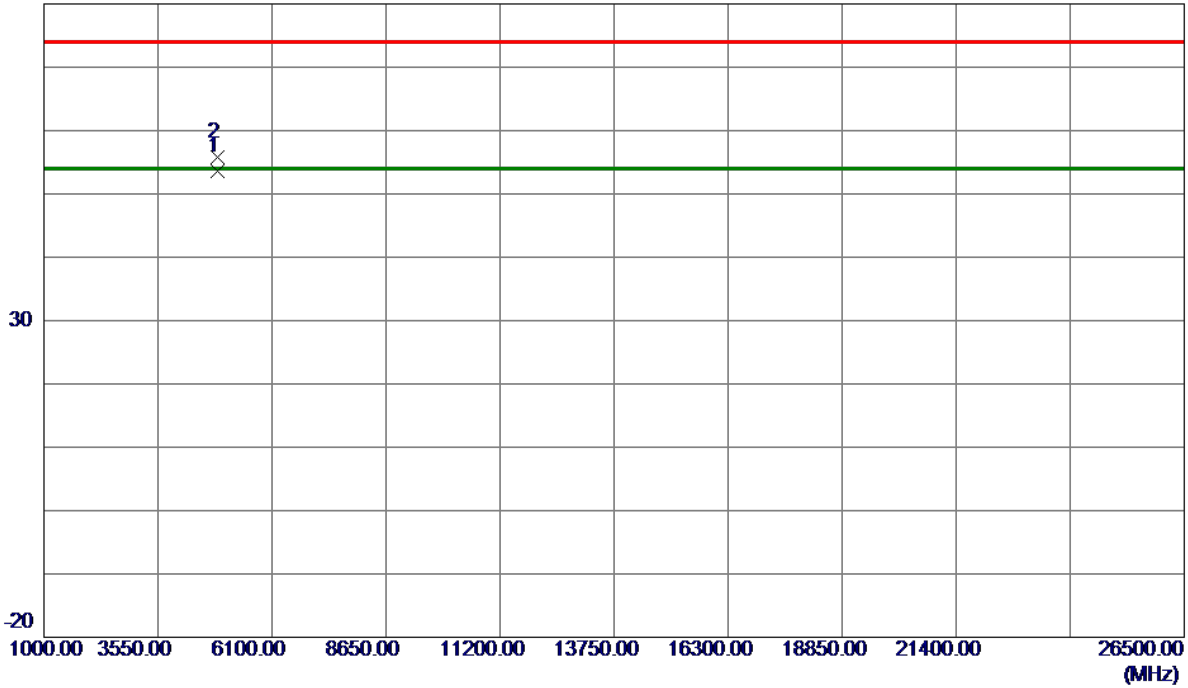
REMARKS:

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

Test Mode: TX B Mode 2437 MHz

Vertical

80 dBuV/m



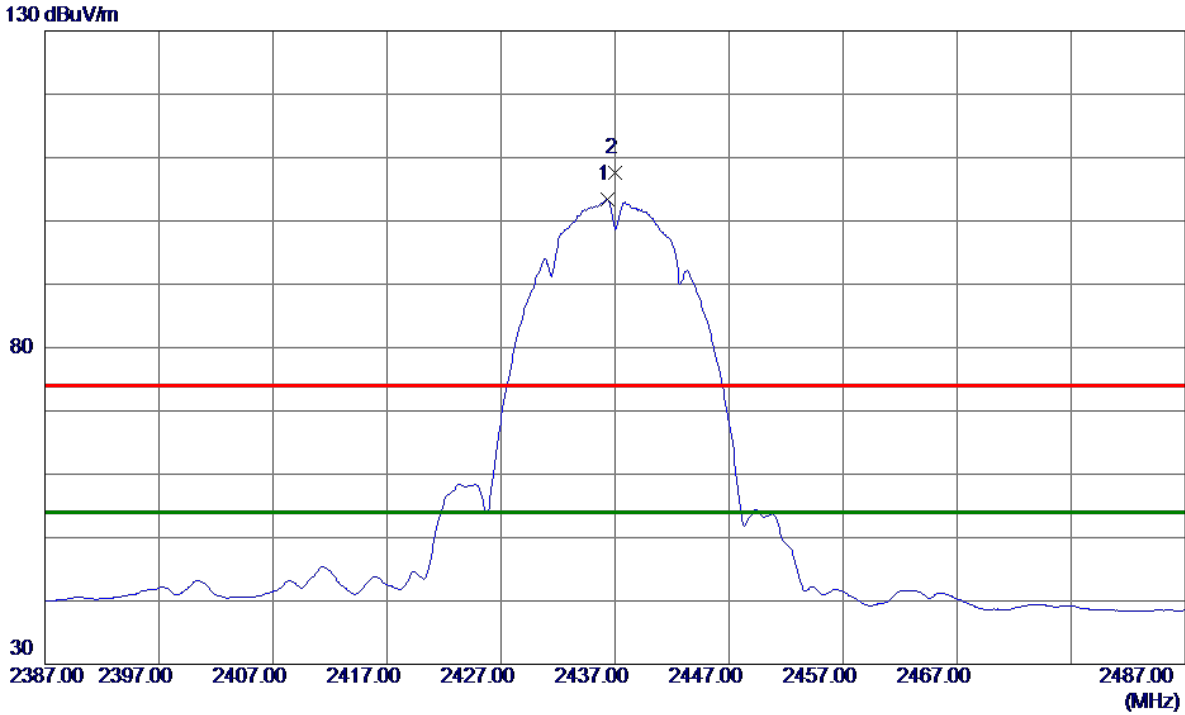
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	4874.0840	49.21	4.44	53.65	54.00	-0.35	AVG	
2	4874.1210	51.39	4.44	55.83	74.00	-18.17	Peak	

REMARKS:

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

Test Mode: TX B Mode 2437 MHz

Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2436.3000	95.70	7.72	103.42	54.00	49.42	AVG	No Limit
2	2437.0500	99.80	7.72	107.52	74.00	33.52	Peak	No Limit

REMARKS:

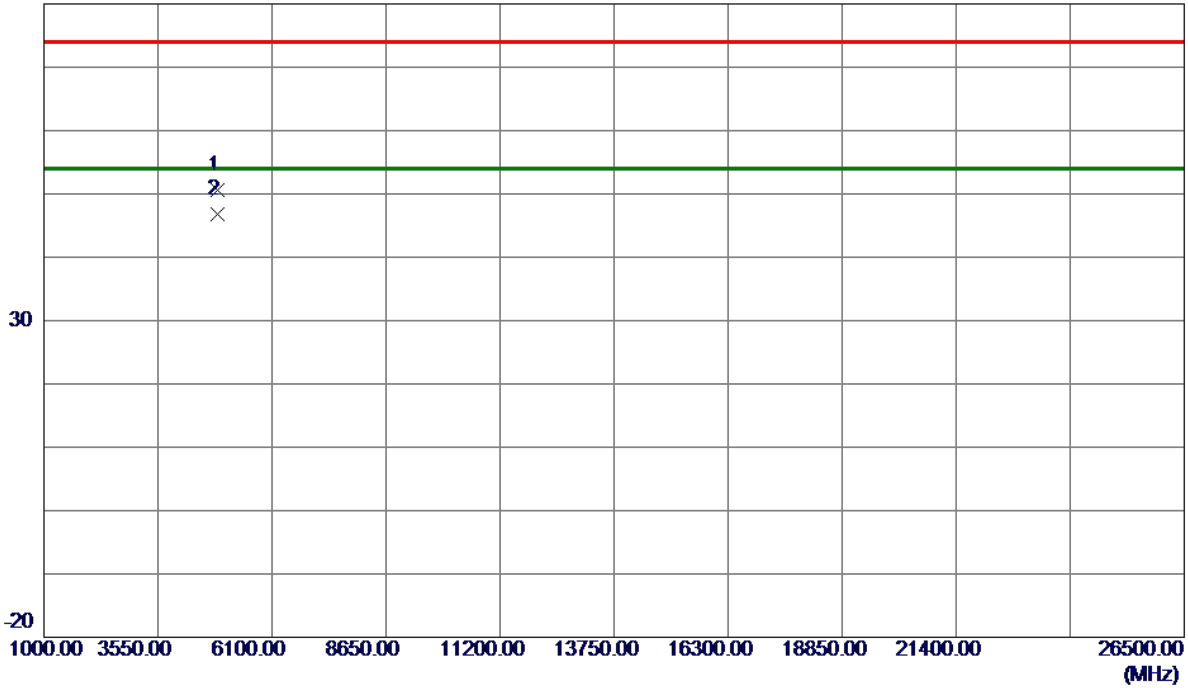
(1) Measurement Value = Reading Level + Correct Factor.

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

Test Mode: TX B Mode 2437 MHz

Horizontal

80 dBuV/m



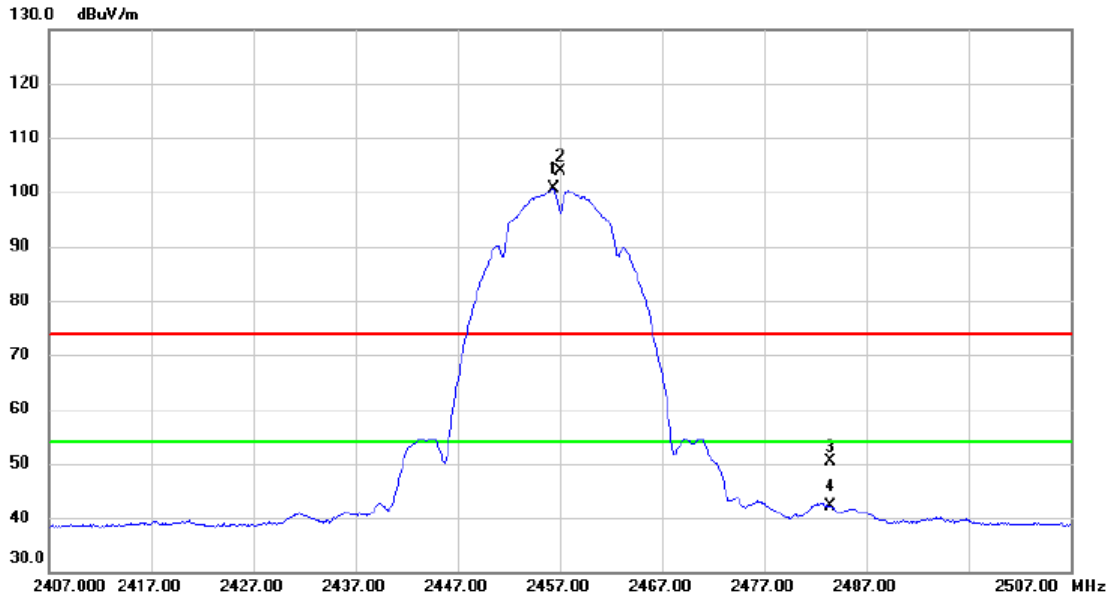
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4873.8780	46.07	4.44	50.51	74.00	-23.49	Peak	
2 *	4874.0150	42.37	4.44	46.81	54.00	-7.19	AVG	

REMARKS:

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

Test Mode: TX B Mode 2457 MHz

Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	2456.350	92.78	7.78	100.56	54.00	46.56	AVG	No Limit
2	X	2457.000	96.10	7.79	103.89	74.00	29.89	peak	No Limit
3		2483.500	42.54	7.87	50.41	74.00	-23.59	peak	
4		2483.500	34.24	7.87	42.11	54.00	-11.89	AVG	

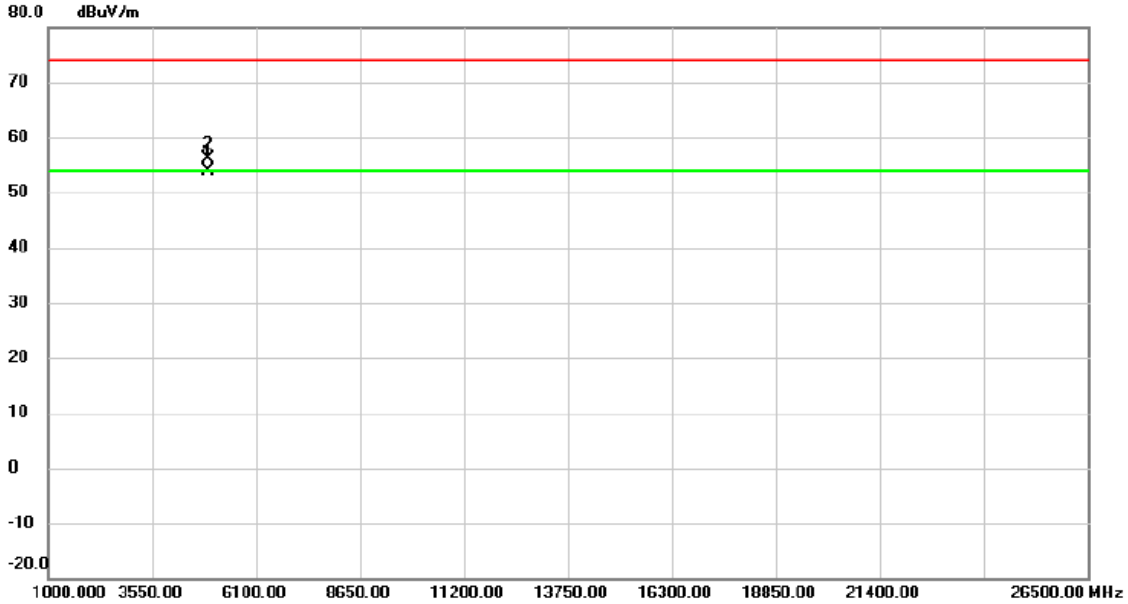
REMARKS:

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

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

Test Mode: TX B Mode 2457 MHz

Vertical



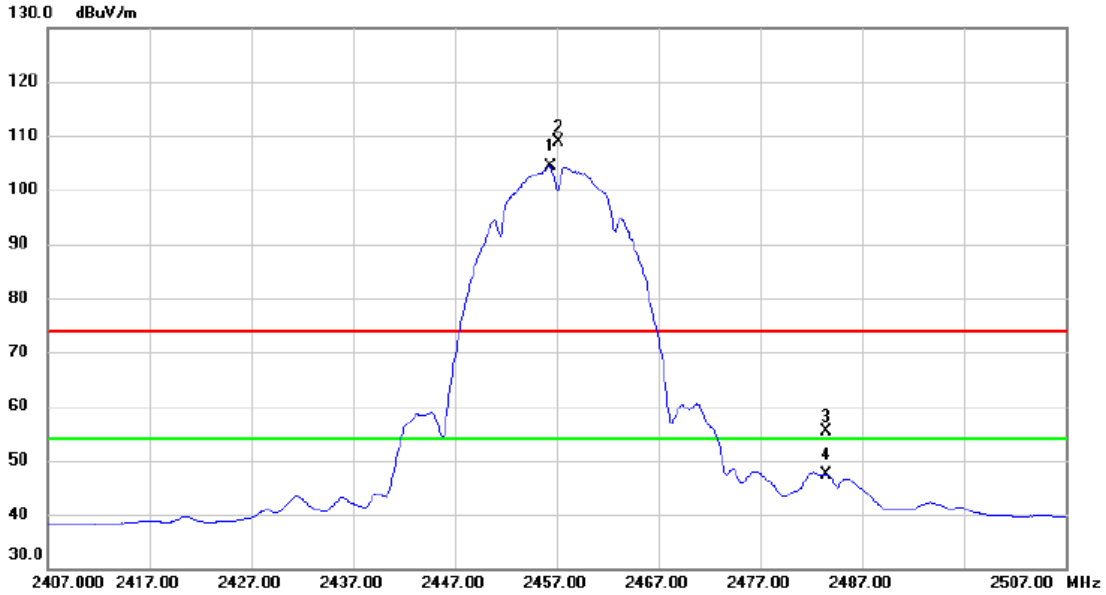
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	4914.065	49.32	4.58	53.90	54.00	-0.10	AVG	
2		4914.192	51.53	4.58	56.11	74.00	-17.89	peak	

REMARKS:

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

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	*	2456.350	96.59	7.78	104.37	54.00	50.37	AVG	No Limit
2	X	2457.150	101.12	7.79	108.91	74.00	34.91	peak	No Limit
3		2483.500	47.48	7.87	55.35	74.00	-18.65	peak	
4		2483.500	39.45	7.87	47.32	54.00	-6.68	AVG	

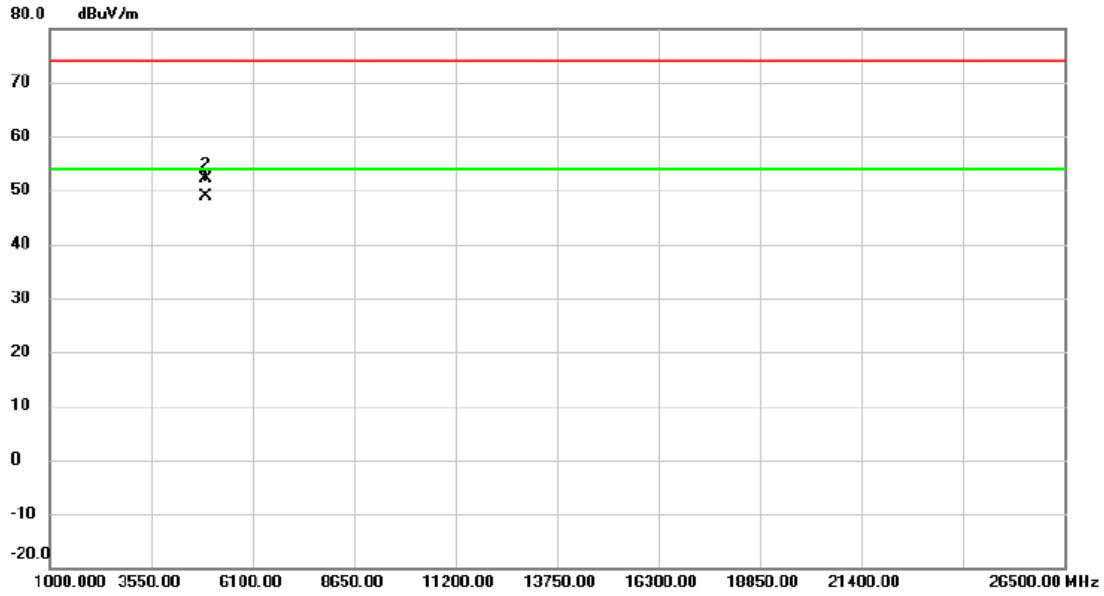
REMARKS:

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

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

Test Mode: TX B Mode 2457 MHz

Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Detector	Comment
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1	*	4914.028	44.33	4.58	48.91	54.00	-5.09	AVG	
2		4914.108	47.45	4.58	52.03	74.00	-21.97	peak	

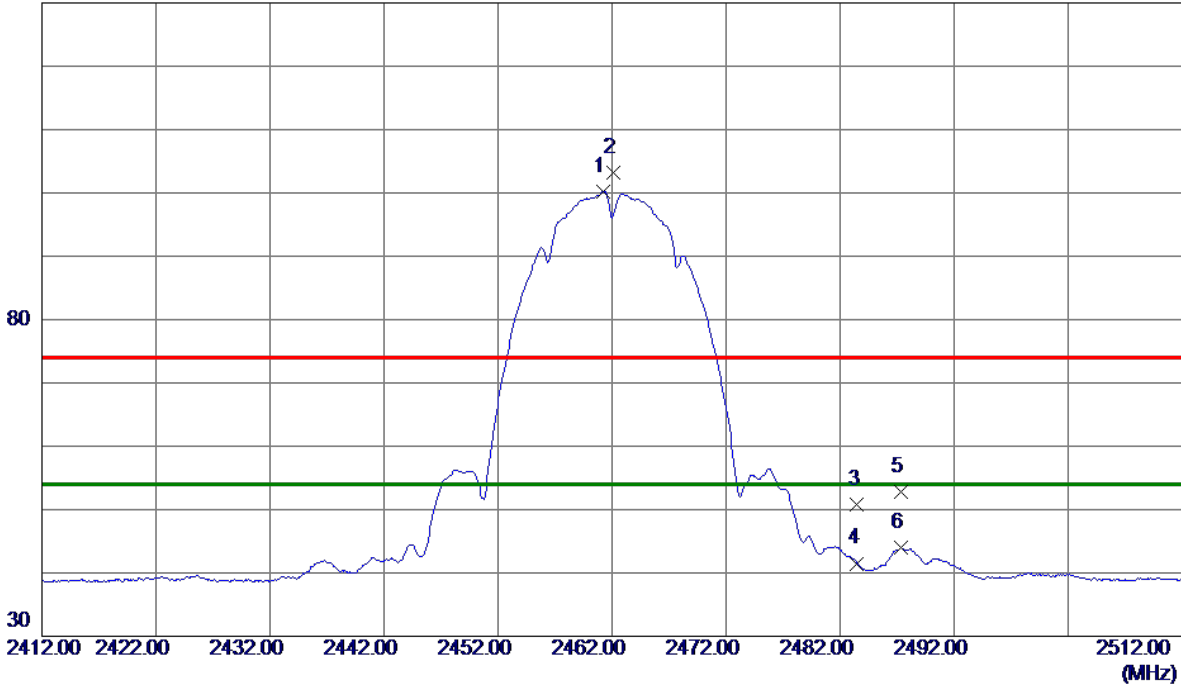
REMARKS:

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

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	92.40	7.80	100.20	54.00	46.20	AVG	No Limit
2	2462.1500	95.31	7.80	103.11	74.00	29.11	Peak	No Limit
3	2483.5000	42.96	7.88	50.84	74.00	-23.16	Peak	
4	2483.5000	33.62	7.88	41.50	54.00	-12.50	AVG	
5	2487.3500	44.89	7.89	52.78	74.00	-21.22	Peak	
6	2487.3500	36.08	7.89	43.97	54.00	-10.03	AVG	

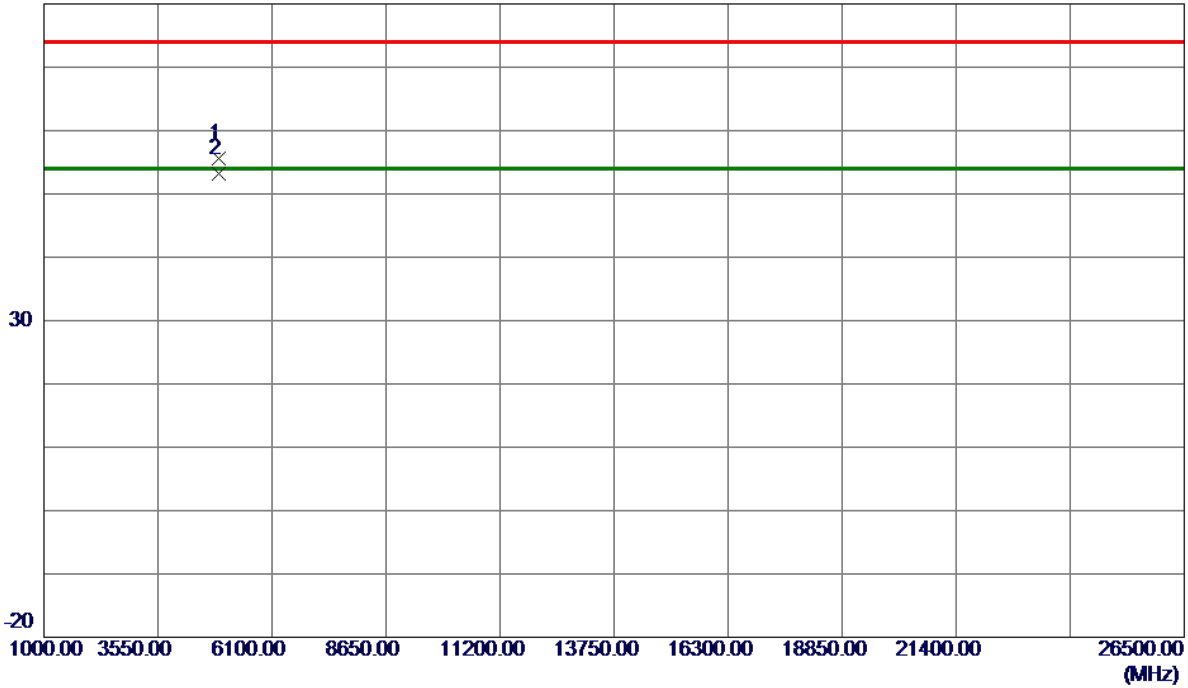
REMARKS:

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

Test Mode: TX B Mode 2462 MHz

Vertical

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4924.0000	50.93	4.63	55.56	74.00	-18.44	Peak	
2 *	4924.0650	48.58	4.63	53.21	54.00	-0.79	AVG	

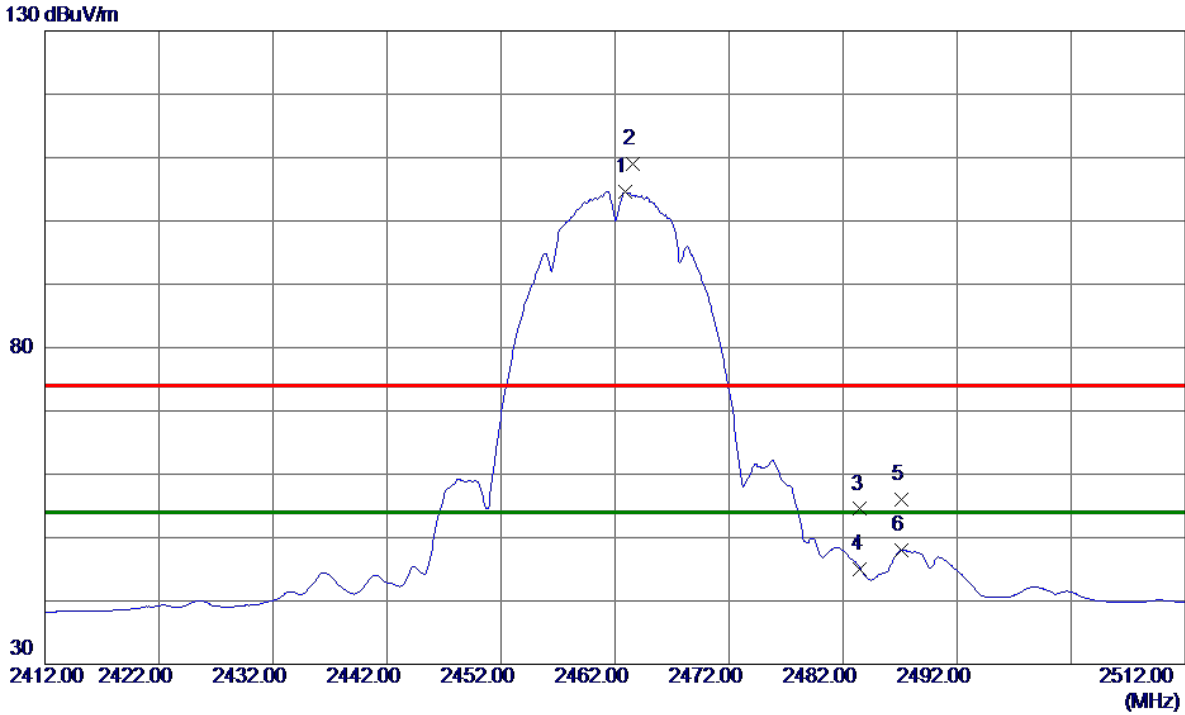
REMARKS:

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

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

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 *	2462.8500	96.83	7.81	104.64	54.00	50.64	AVG	No Limit
2	2463.5500	101.20	7.81	109.01	74.00	35.01	Peak	No Limit
3	2483.5000	46.62	7.88	54.50	74.00	-19.50	Peak	
4	2483.5000	37.20	7.88	45.08	54.00	-8.92	AVG	
5	2487.1500	48.09	7.89	55.98	74.00	-18.02	Peak	
6	2487.1500	40.16	7.89	48.05	54.00	-5.95	AVG	

REMARKS:

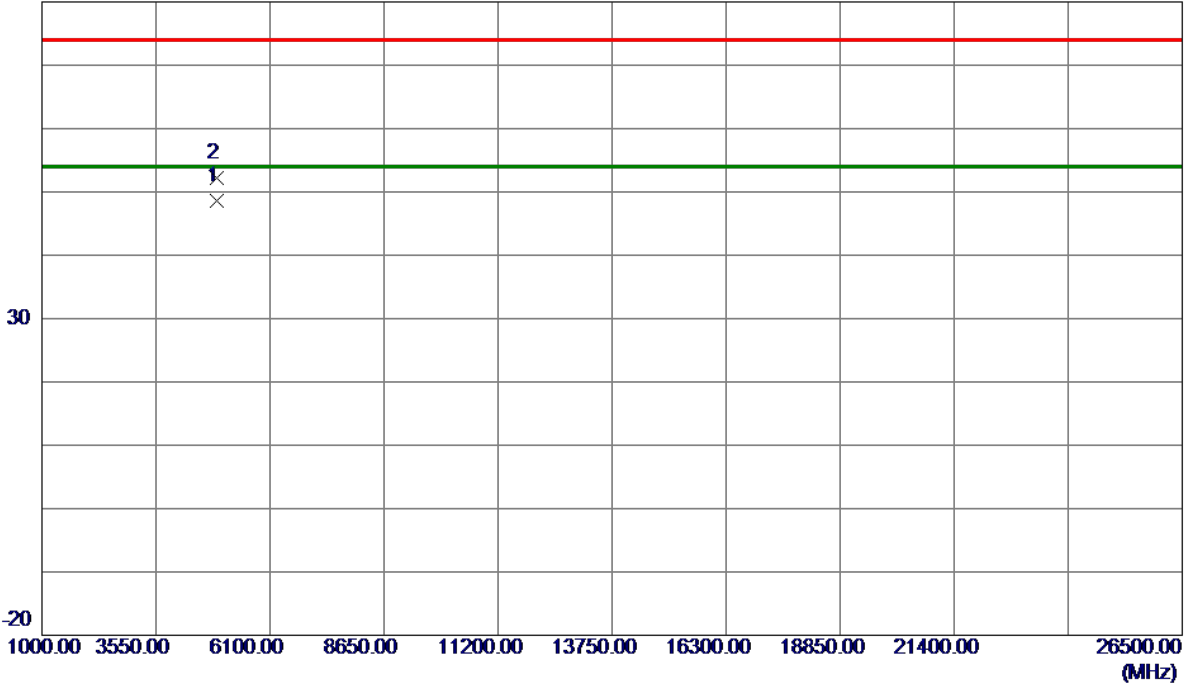
(1) Measurement Value = Reading Level + Correct Factor.

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

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 *	4924.0240	44.00	4.63	48.63	54.00	-5.37	AVG	
2	4924.0259	47.58	4.63	52.21	74.00	-21.79	Peak	

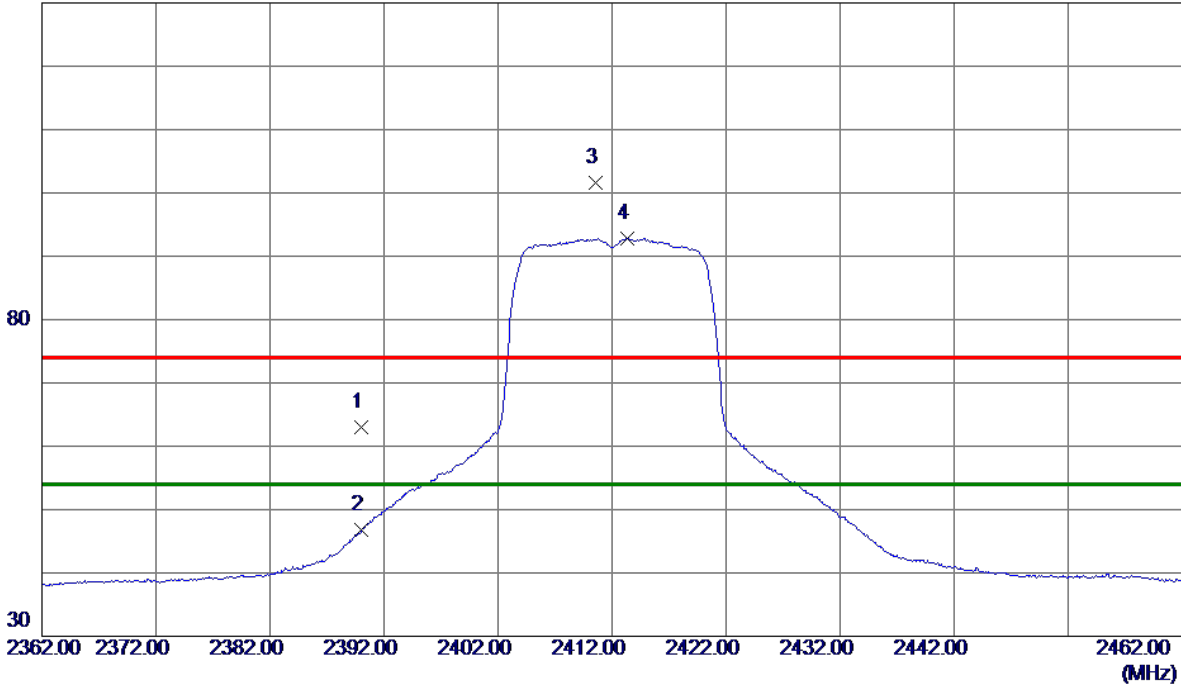
REMARKS:

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

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	55.41	7.56	62.97	74.00	-11.03	Peak	
2	2390.0000	39.21	7.56	46.77	54.00	-7.23	AVG	
3	2410.6000	93.89	7.63	101.52	74.00	27.52	Peak	No Limit
4 *	2413.3500	85.19	7.64	92.83	54.00	38.83	AVG	No Limit

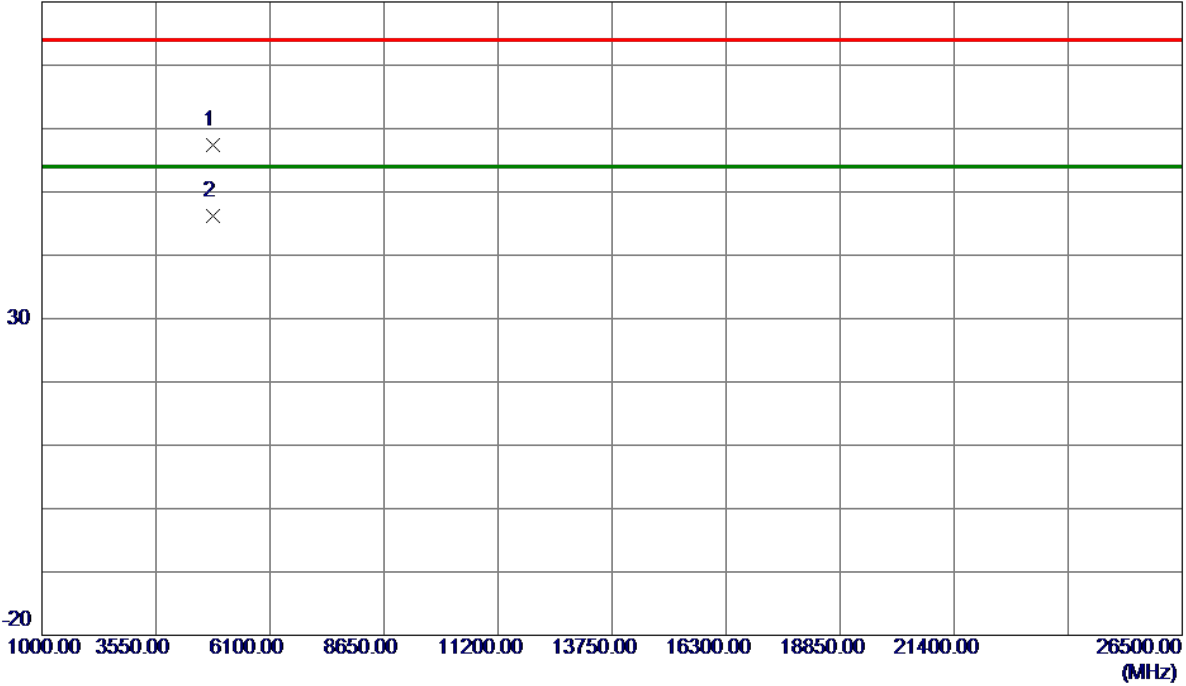
REMARKS:

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

Test Mode: TX G Mode 2412 MHz

Vertical

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4820.9000	53.14	4.24	57.38	74.00	-16.62	Peak	
2 *	4823.2750	41.94	4.25	46.19	54.00	-7.81	AVG	

REMARKS:

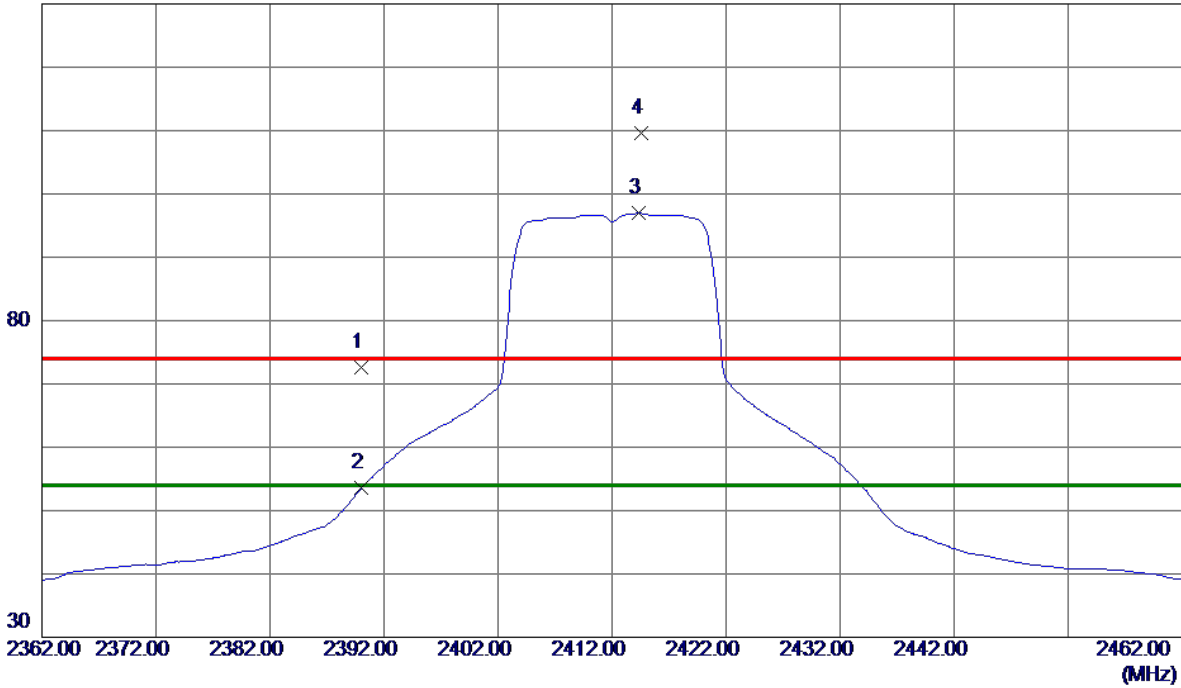
(1) Measurement Value = Reading Level + Correct Factor.

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

Test Mode: TX G Mode 2412 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	2390.0000	65.11	7.56	72.67	74.00	-1.33	Peak	
2	2390.0000	46.04	7.56	53.60	54.00	-0.40	AVG	
3 *	2414.3500	89.29	7.65	96.94	54.00	42.94	AVG	No Limit
4	2414.5500	102.01	7.65	109.66	74.00	35.66	Peak	No Limit

REMARKS:

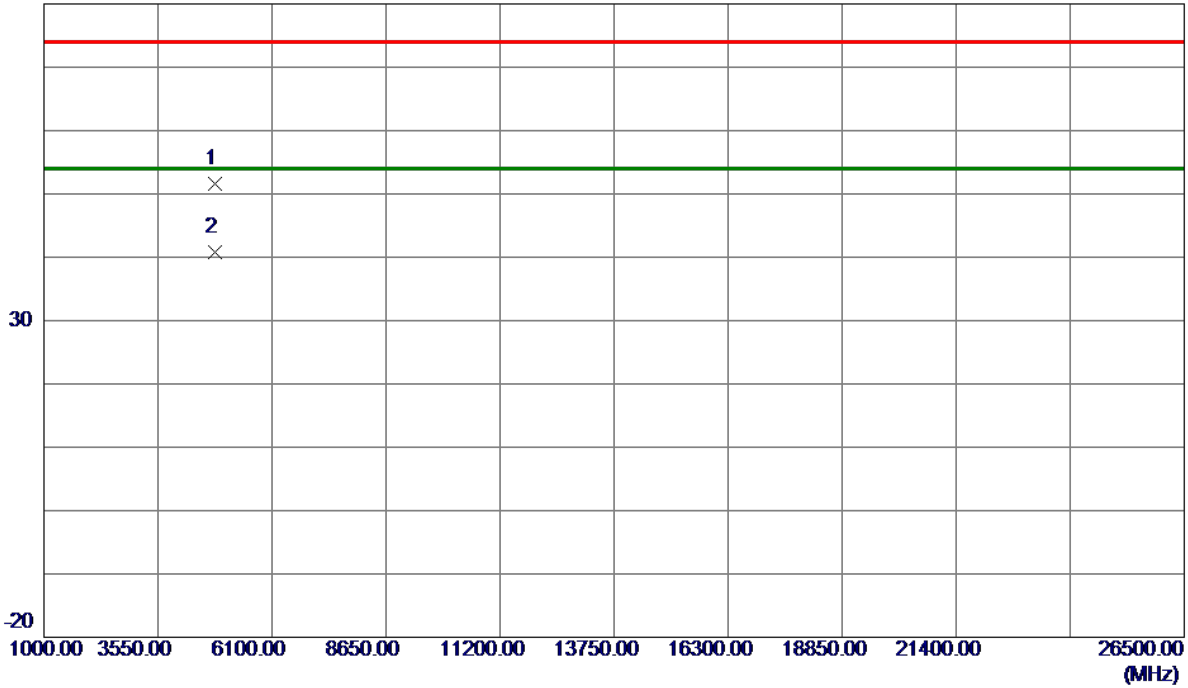
(1) Measurement Value = Reading Level + Correct Factor.

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

Test Mode: TX G Mode 2412 MHz

Horizontal

80 dBuV/m



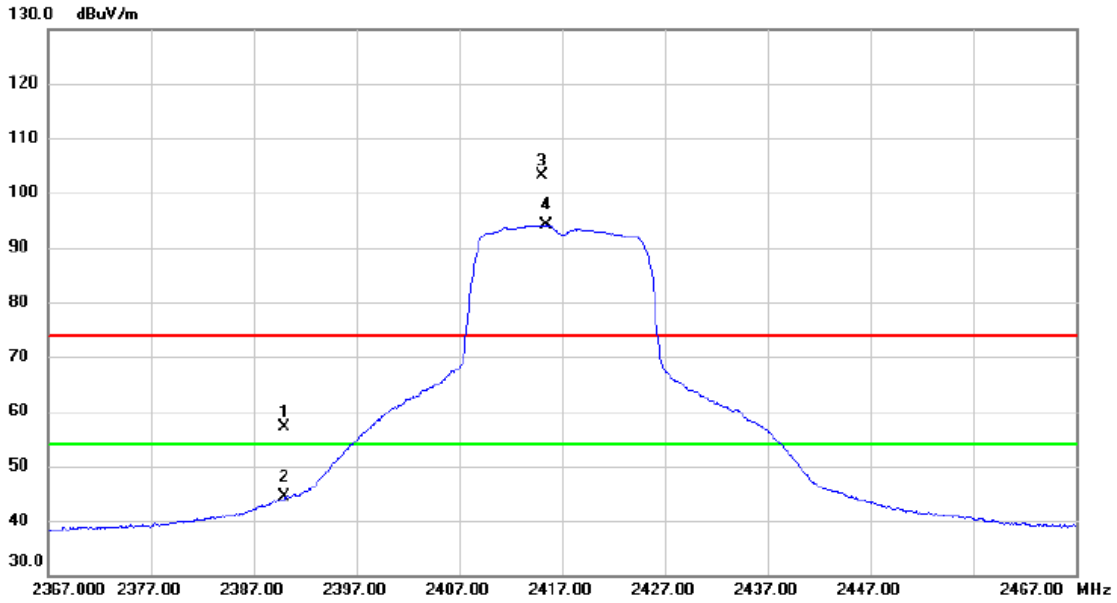
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4822.9500	47.44	4.25	51.69	74.00	-22.31	Peak	
2 *	4823.2750	36.48	4.25	40.73	54.00	-13.27	AVG	

REMARKS:

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

Test Mode: TX G Mode 2417 MHz

Vertical



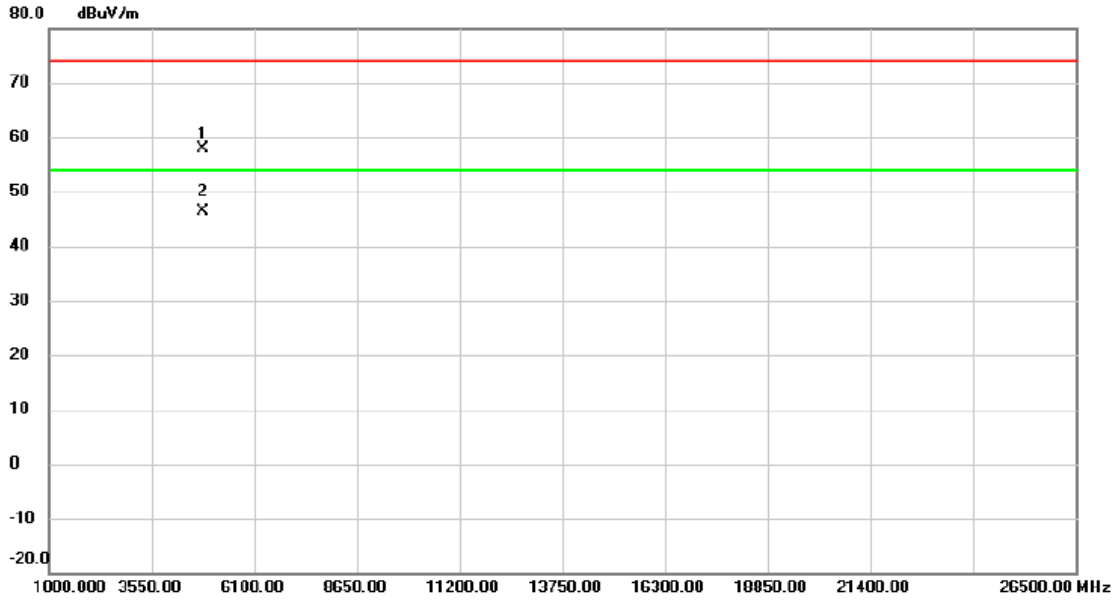
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		2390.000	49.51	7.57	57.08	74.00	-16.92	peak	
2		2390.000	36.80	7.57	44.37	54.00	-9.63	AVG	
3	X	2415.050	95.43	7.65	103.08	74.00	29.08	peak	No Limit
4	*	2415.500	86.39	7.65	94.04	54.00	40.04	AVG	No Limit

REMARKS:

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

Test Mode: TX G Mode 2417 MHz

Vertical



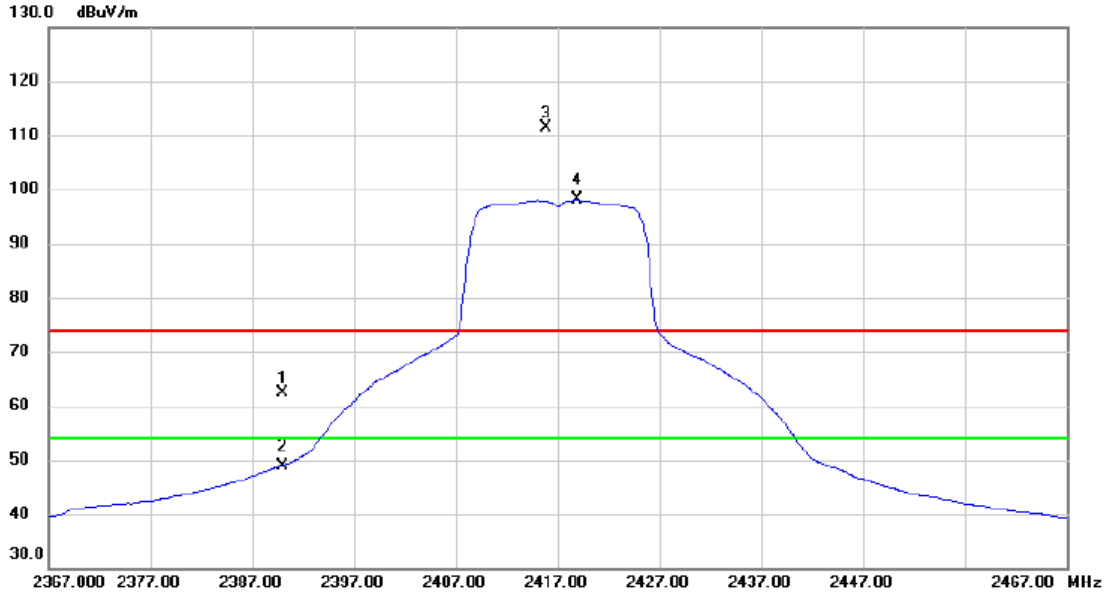
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		4833.175	53.52	4.29	57.81	74.00	-16.19	peak	
2	*	4833.425	42.12	4.29	46.41	54.00	-7.59	AVG	

REMARKS:

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

Test Mode: TX G Mode 2417 MHz

Horizontal



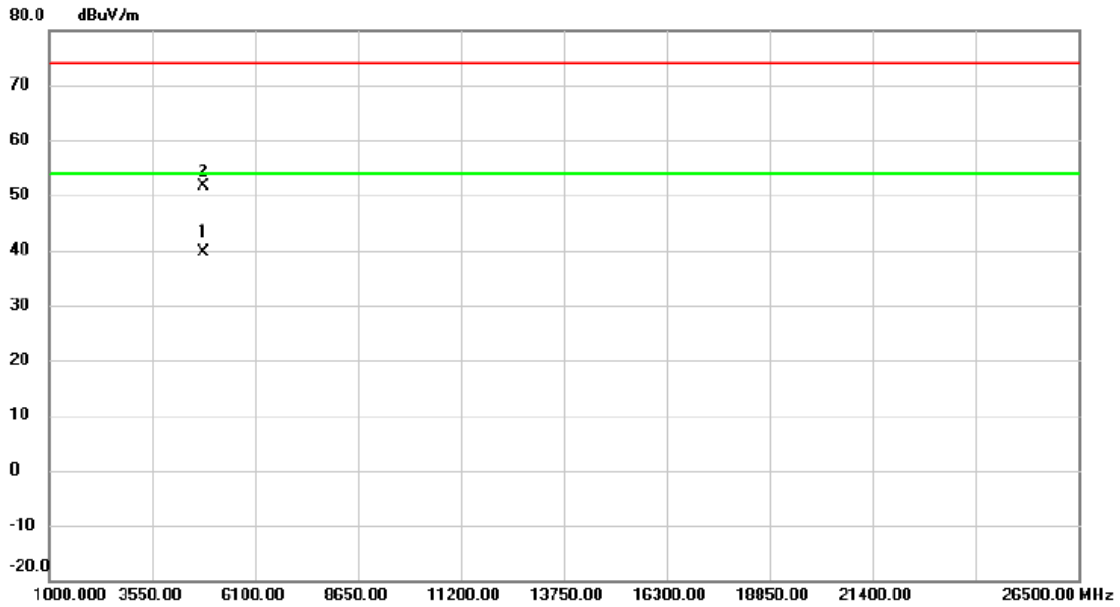
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		2390.000	54.88	7.57	62.45	74.00	-11.55	peak	
2		2390.000	41.43	7.57	49.00	54.00	-5.00	AVG	
3	X	2415.800	103.75	7.65	111.40	74.00	37.40	peak	No Limit
4	*	2418.950	90.40	7.66	98.06	54.00	44.06	AVG	No Limit

REMARKS:

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

Test Mode: TX G Mode 2417 MHz

Horizontal



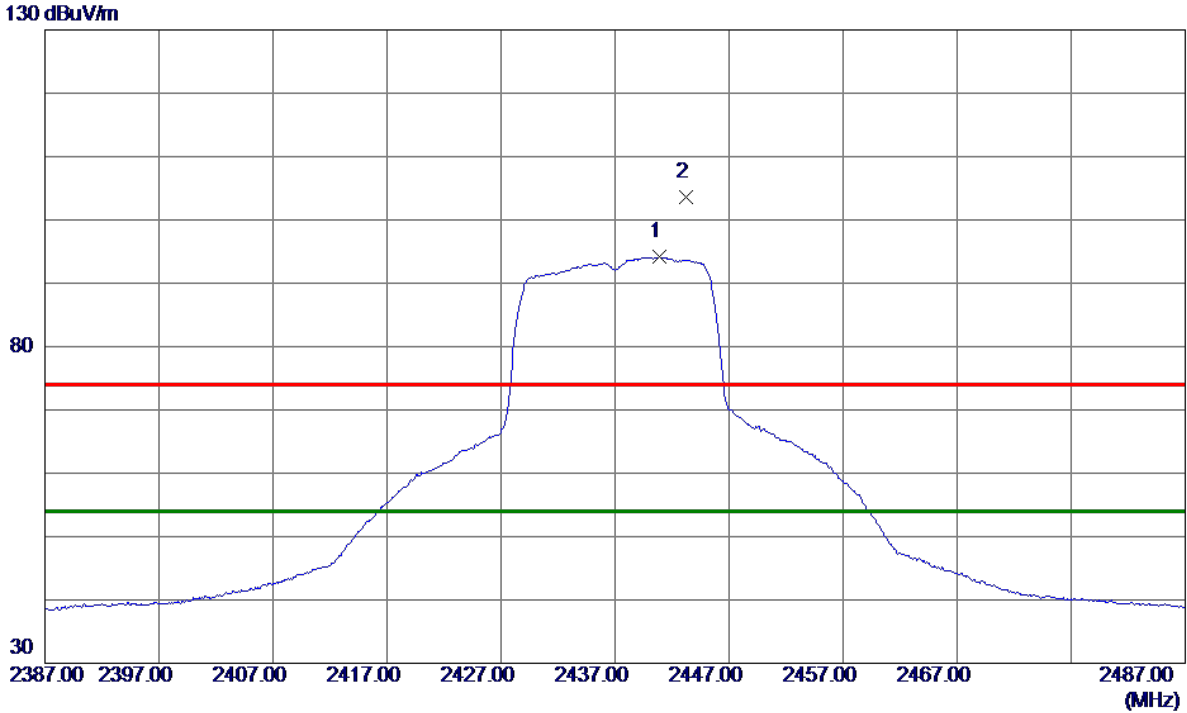
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	4835.100	35.25	4.30	39.55	54.00	-14.45	AVG	
2		4835.625	47.35	4.30	51.65	74.00	-22.35	peak	

REMARKS:

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

Test Mode: TX G Mode 2437 MHz

Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2440.8500	86.38	7.73	94.11	54.00	40.11	AVG	No Limit
2	2443.2000	95.90	7.74	103.64	74.00	29.64	Peak	No Limit

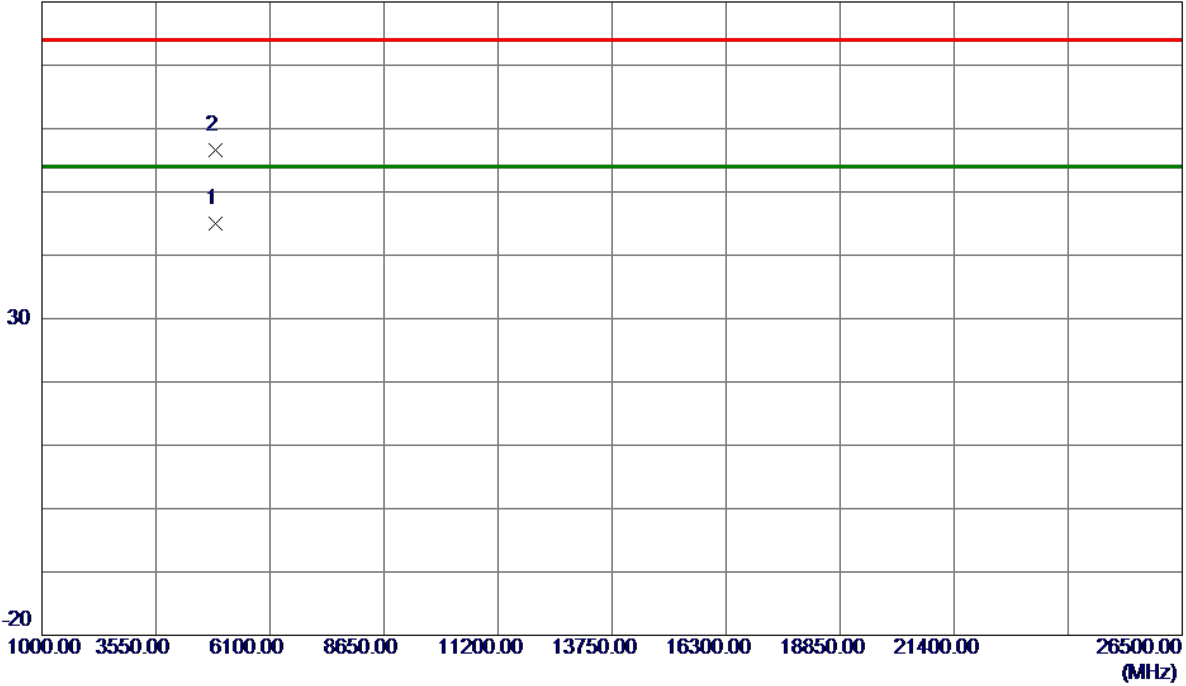
REMARKS:

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

Test Mode: TX G Mode 2437 MHz

Vertical

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	4872.0500	40.60	4.43	45.03	54.00	-8.97	AVG	
2	4879.7000	52.12	4.46	56.58	74.00	-17.42	Peak	

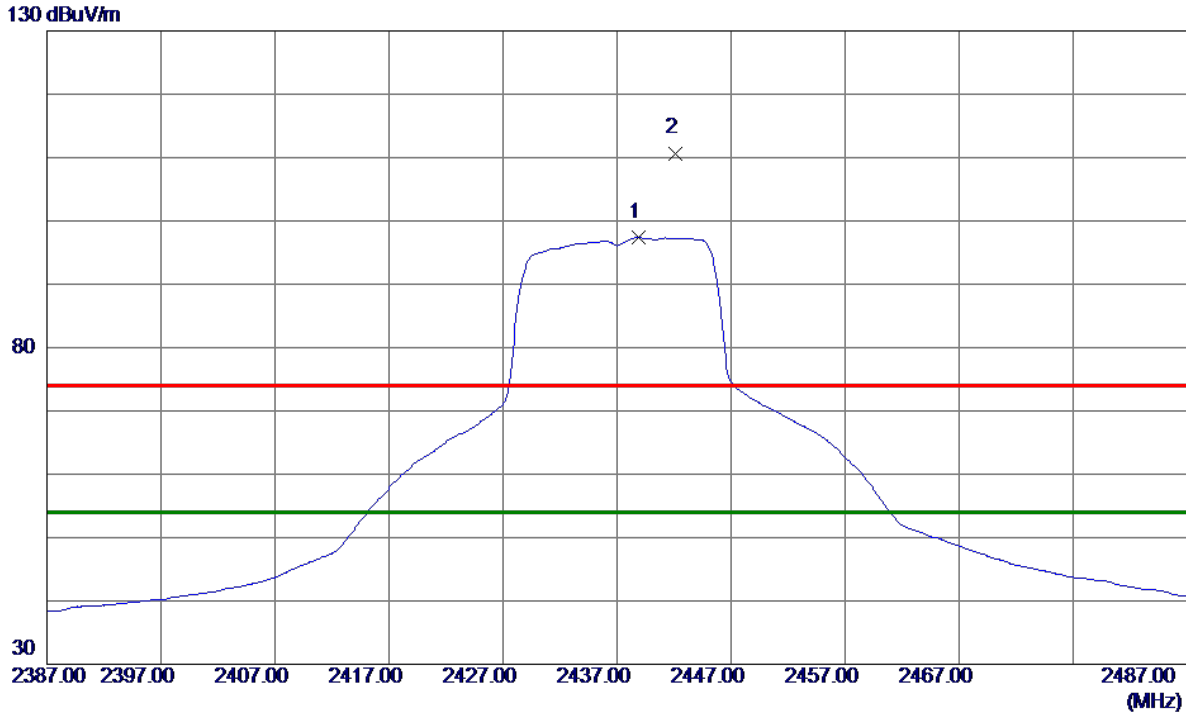
REMARKS:

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

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

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 *	2438.9000	89.64	7.73	97.37	54.00	43.37	AVG	No Limit
2	2442.1000	102.96	7.74	110.70	74.00	36.70	Peak	No Limit

REMARKS:

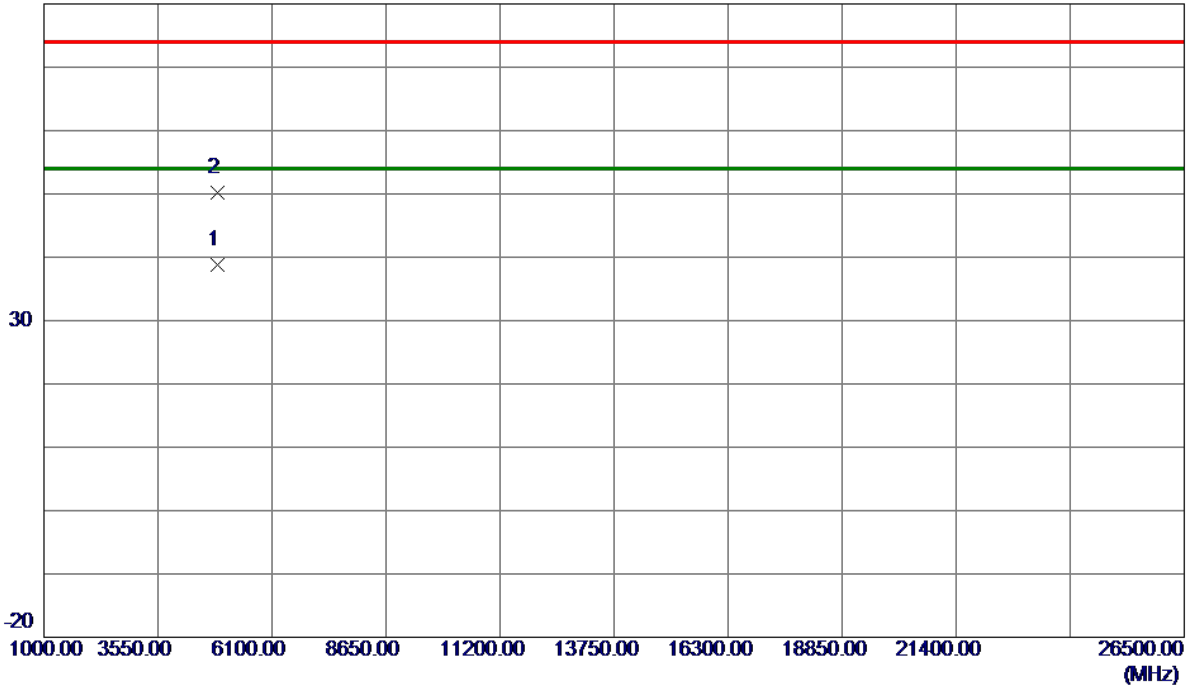
(1) Measurement Value = Reading Level + Correct Factor.

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

Test Mode: TX G Mode 2437 MHz

Horizontal

80 dBuV/m



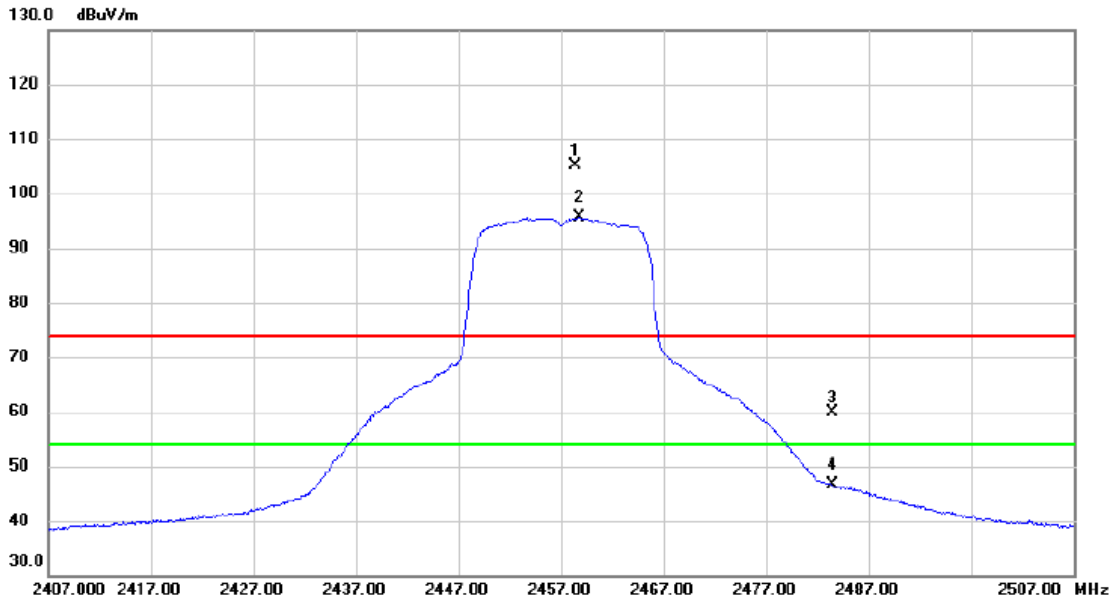
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	4873.6500	34.40	4.44	38.84	54.00	-15.16	AVG	
2	4876.3750	45.69	4.45	50.14	74.00	-23.86	Peak	

REMARKS:

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

Test Mode: TX G Mode 2457 MHz

Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	X	2458.350	97.43	7.79	105.22	74.00	31.22	peak	No Limit
2	*	2458.850	87.84	7.79	95.63	54.00	41.63	AVG	No Limit
3		2483.500	52.04	7.87	59.91	74.00	-14.09	peak	
4		2483.500	38.74	7.87	46.61	54.00	-7.39	AVG	

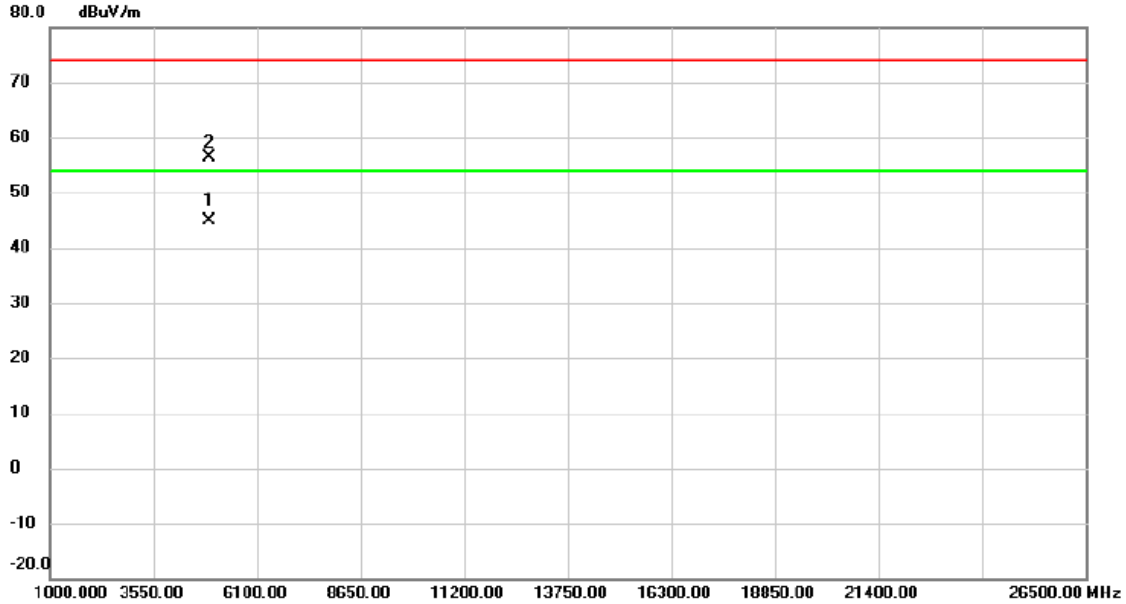
REMARKS:

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

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

Test Mode: TX G Mode 2457 MHz

Vertical



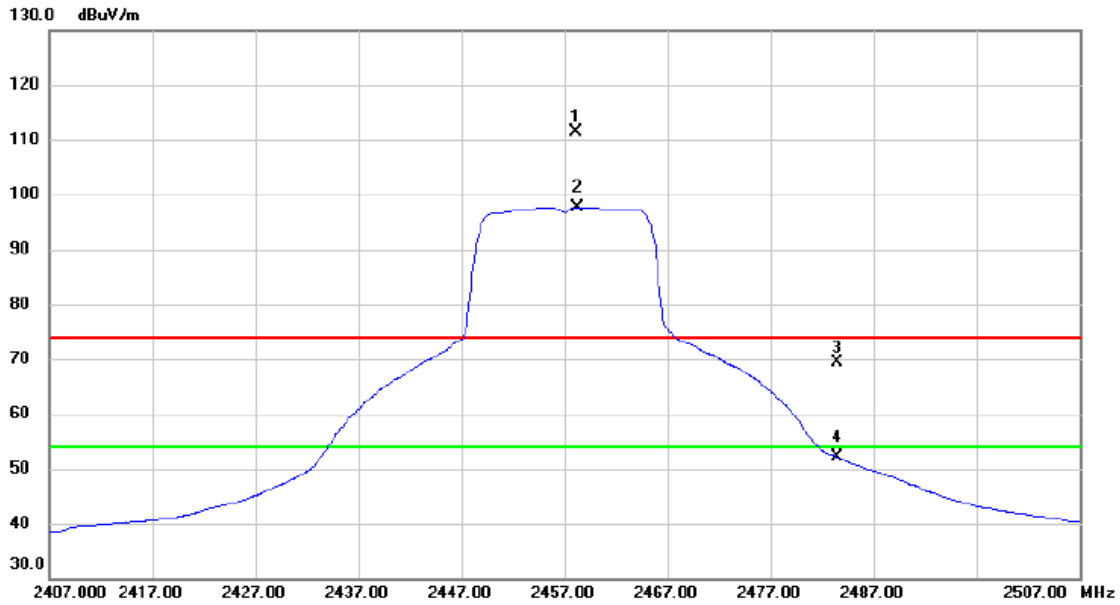
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	4913.925	40.31	4.58	44.89	54.00	-9.11	AVG	
2		4916.675	51.82	4.61	56.43	74.00	-17.57	peak	

REMARKS:

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

Test Mode: TX G Mode 2457 MHz

Horizontal



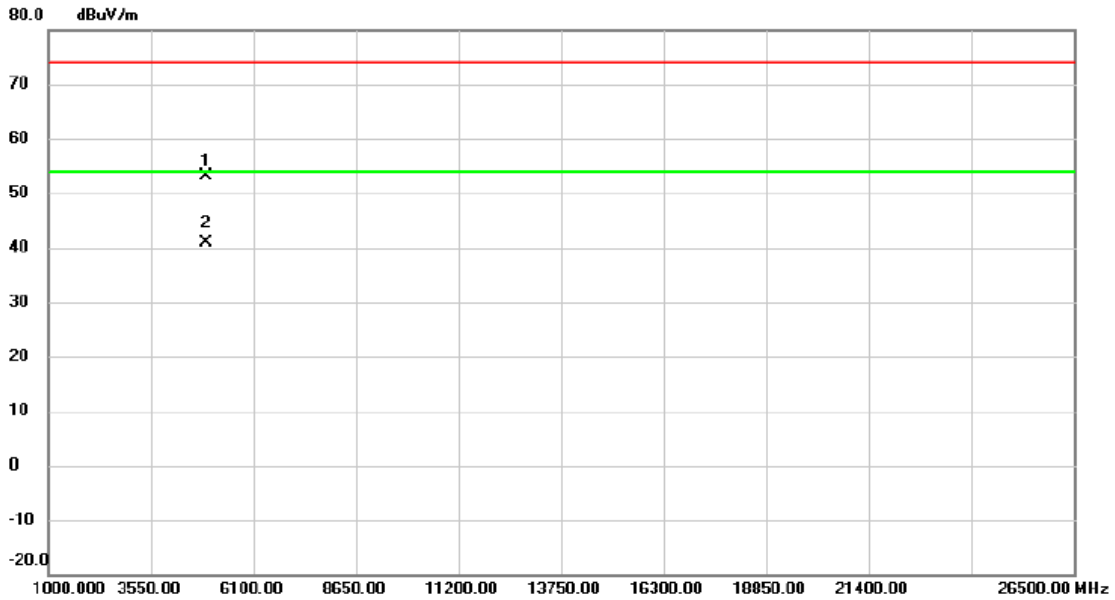
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	X	2458.150	103.65	7.79	111.44	74.00	37.44	peak	No Limit
2	*	2458.250	89.93	7.79	97.72	54.00	43.72	AVG	No Limit
3		2483.500	61.40	7.87	69.27	74.00	-4.73	peak	
4		2483.500	44.24	7.87	52.11	54.00	-1.89	AVG	

REMARKS:

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

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		4911.575	48.63	4.58	53.21	74.00	-20.79	peak	
2	*	4913.075	36.24	4.58	40.82	54.00	-13.18	AVG	

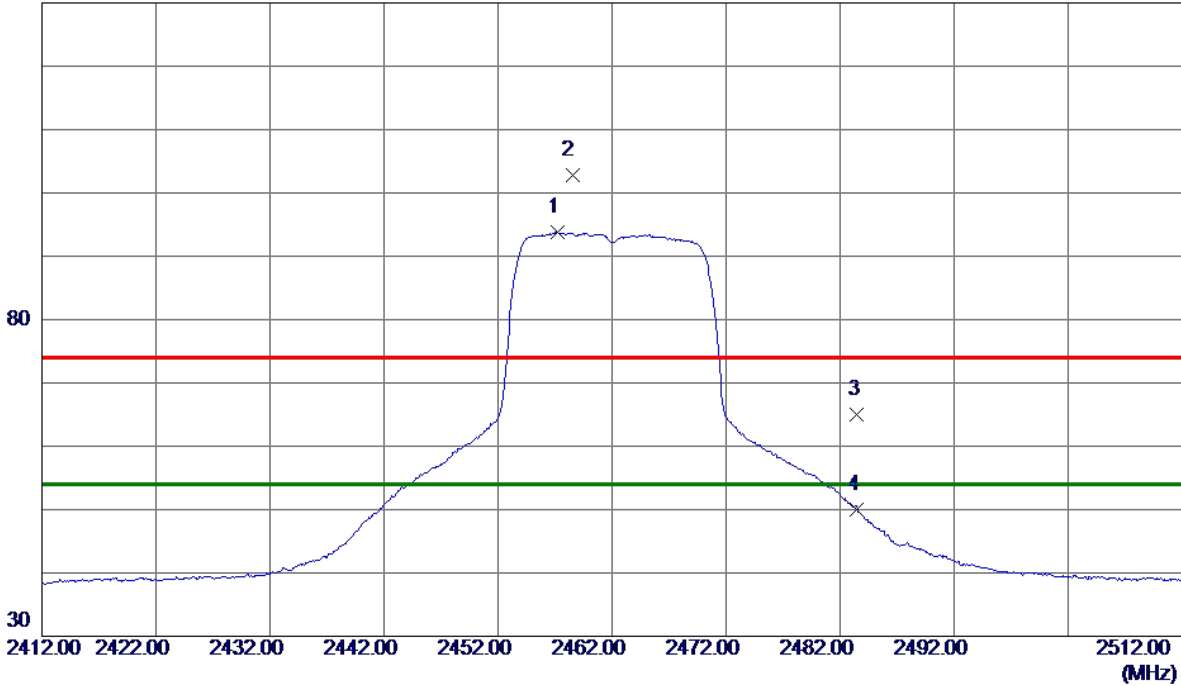
REMARKS:

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

Test Mode: TX G Mode 2462 MHz

Vertical

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2457.2500	86.01	7.79	93.80	54.00	39.80	AVG	No Limit
2	2458.5000	95.10	7.79	102.89	74.00	28.89	Peak	No Limit
3	2483.5000	57.04	7.88	64.92	74.00	-9.08	Peak	
4	2483.5000	42.06	7.88	49.94	54.00	-4.06	AVG	

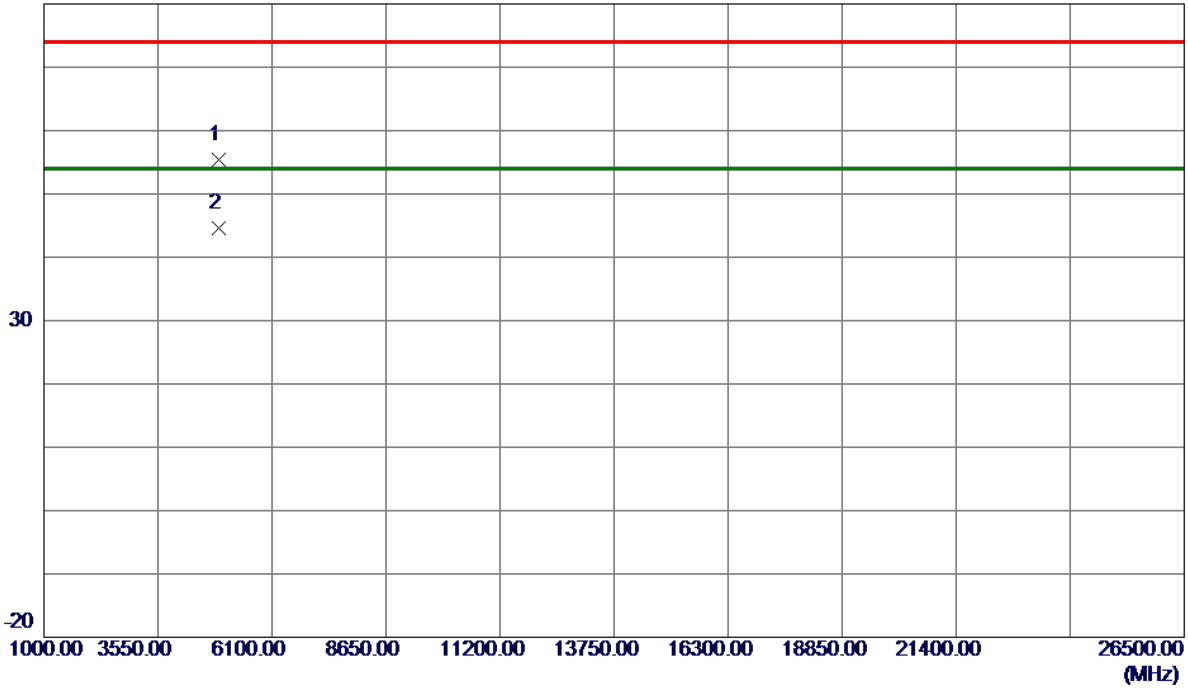
REMARKS:

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

Test Mode: TX G Mode 2462 MHz

Vertical

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4922.3750	50.87	4.62	55.49	74.00	-18.51	Peak	
2 *	4922.5750	40.00	4.62	44.62	54.00	-9.38	AVG	

REMARKS:

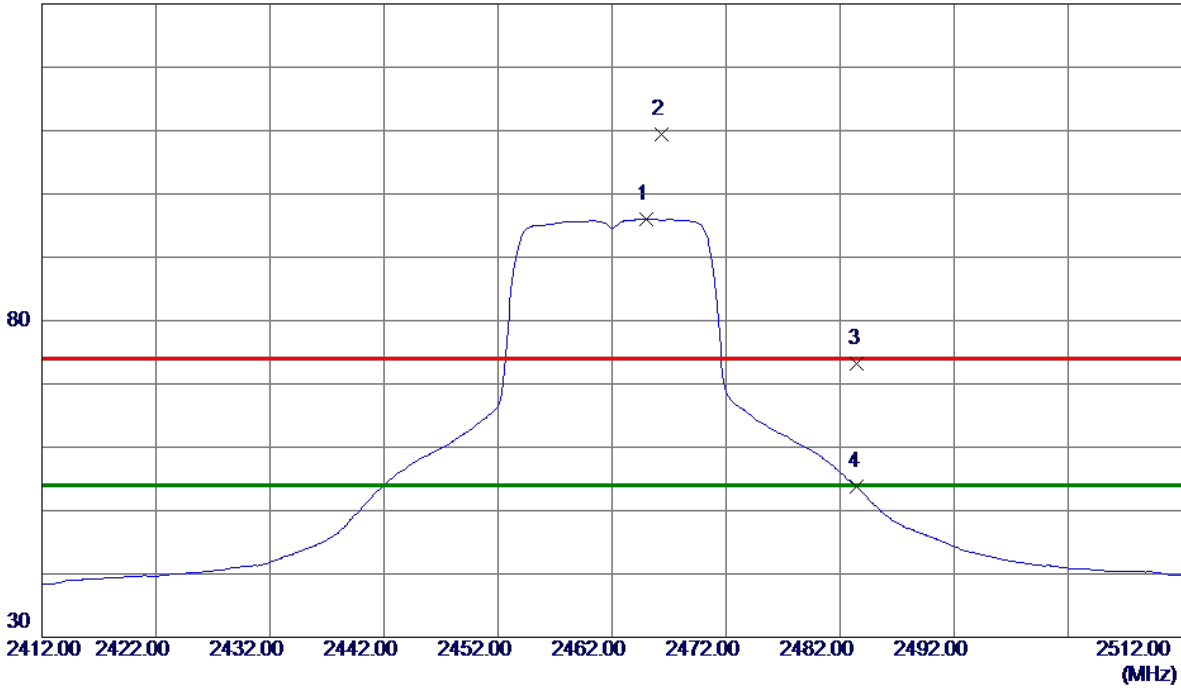
(1) Measurement Value = Reading Level + Correct Factor.

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

Test Mode: TX G Mode 2462 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 *	2464.9500	88.23	7.81	96.04	54.00	42.04	AVG	No Limit
2	2466.3500	101.59	7.82	109.41	74.00	35.41	Peak	No Limit
3	2483.5000	65.34	7.88	73.22	74.00	-0.78	Peak	
4	2483.5000	45.84	7.88	53.72	54.00	-0.28	AVG	

REMARKS:

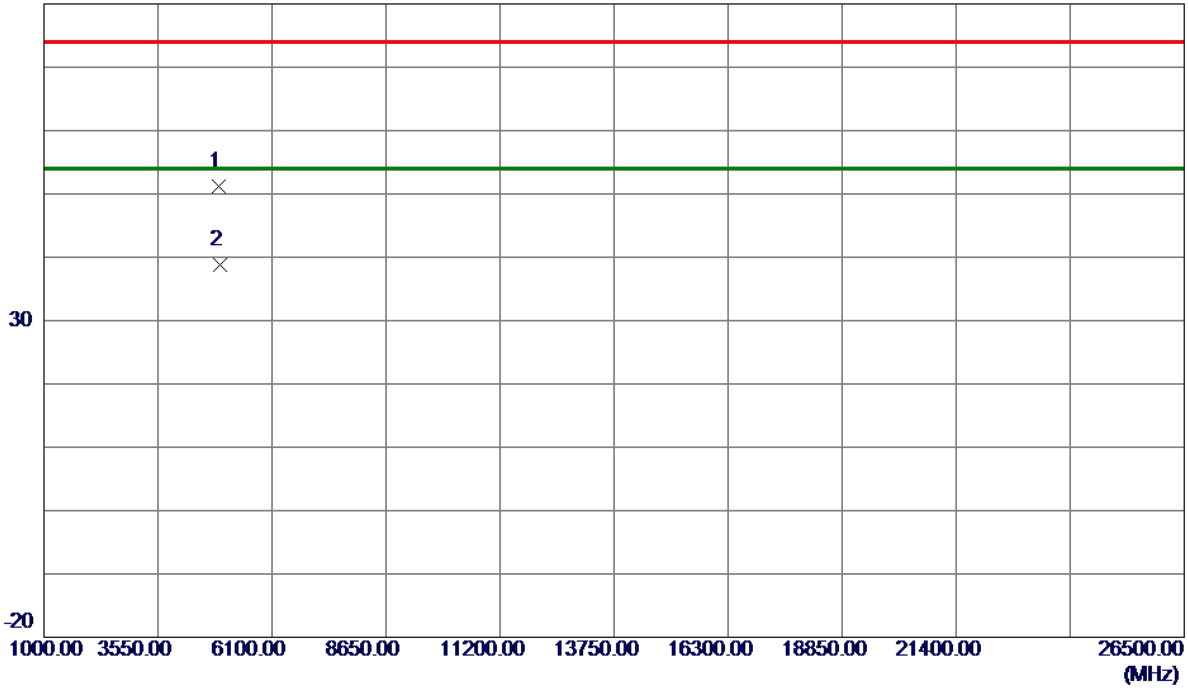
(1) Measurement Value = Reading Level + Correct Factor.

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

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	4924.1000	46.52	4.63	51.15	74.00	-22.85	Peak	
2 *	4924.5750	34.22	4.63	38.85	54.00	-15.15	AVG	

REMARKS:

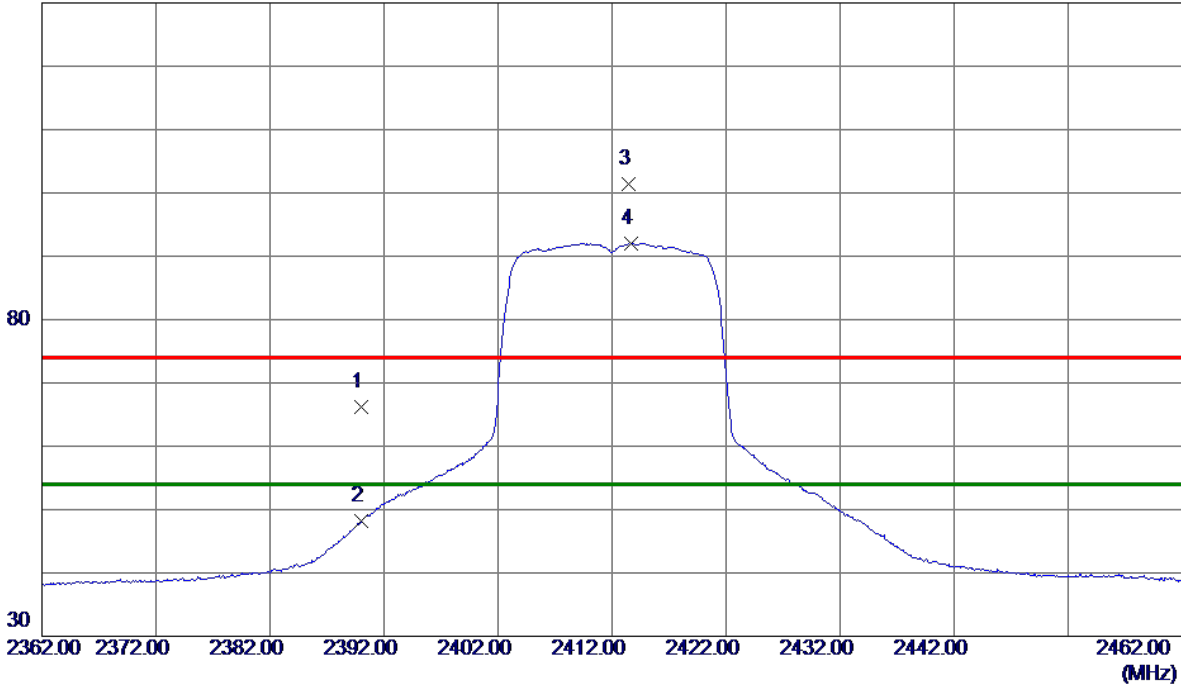
(1) Measurement Value = Reading Level + Correct Factor.

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

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	58.57	7.56	66.13	74.00	-7.87	Peak	
2	2390.0000	40.60	7.56	48.16	54.00	-5.84	AVG	
3	2413.4500	93.74	7.64	101.38	74.00	27.38	Peak	No Limit
4 *	2413.6500	84.43	7.64	92.07	54.00	38.07	AVG	No Limit

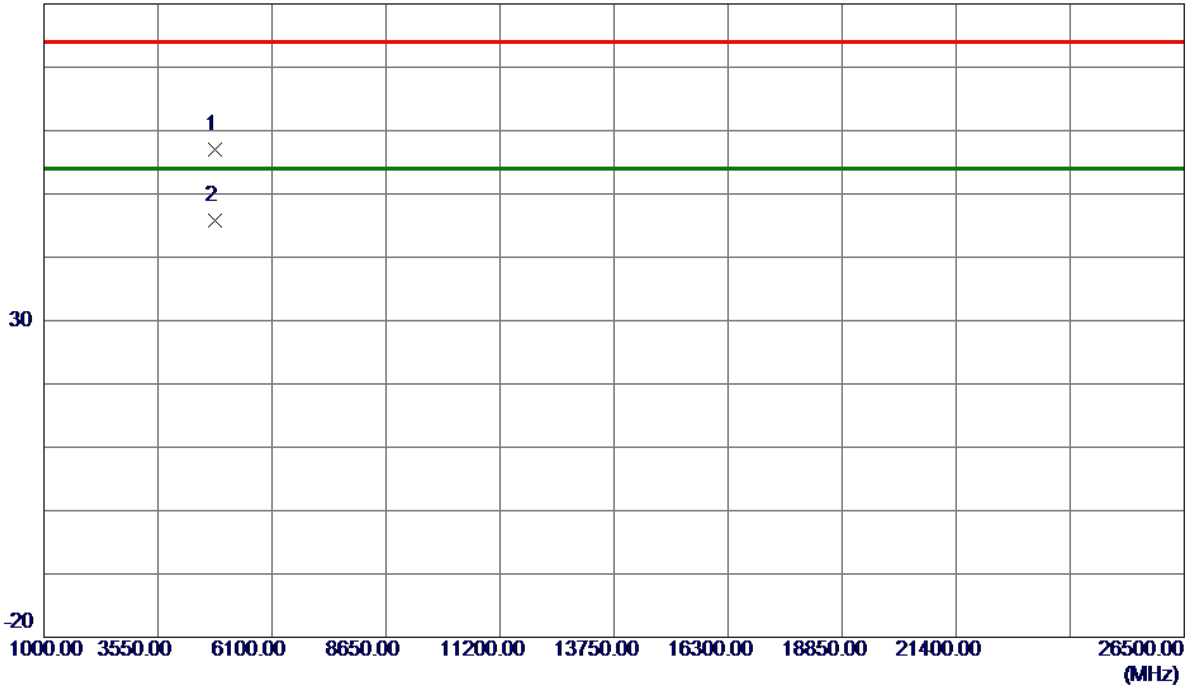
REMARKS:

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

Test Mode: TX N-20M Mode 2412 MHz

Vertical

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4822.4000	52.72	4.25	56.97	74.00	-17.03	Peak	
2 *	4823.7250	41.49	4.25	45.74	54.00	-8.26	AVG	

REMARKS:

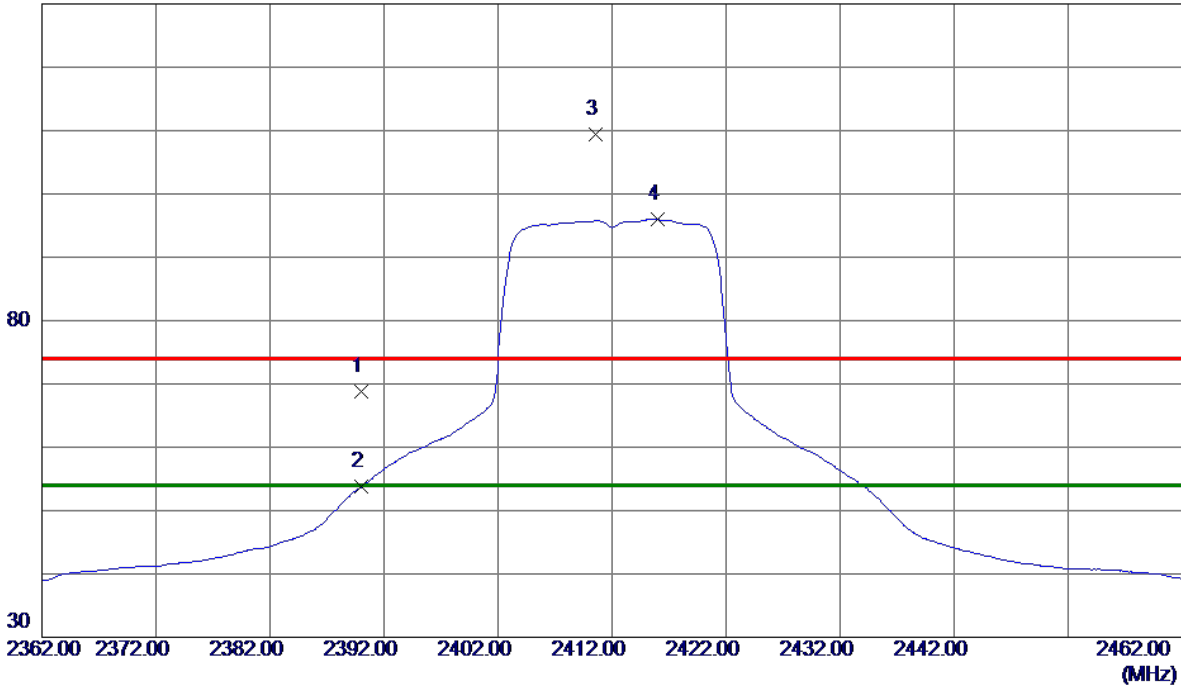
(1) Measurement Value = Reading Level + Correct Factor.

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

Test Mode: TX N-20M Mode 2412 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	2390.0000	61.27	7.56	68.83	74.00	-5.17	Peak	
2	2390.0000	46.21	7.56	53.77	54.00	-0.23	AVG	
3	2410.6000	101.69	7.63	109.32	74.00	35.32	Peak	No Limit
4 *	2416.0000	88.32	7.65	95.97	54.00	41.97	AVG	No Limit

REMARKS:

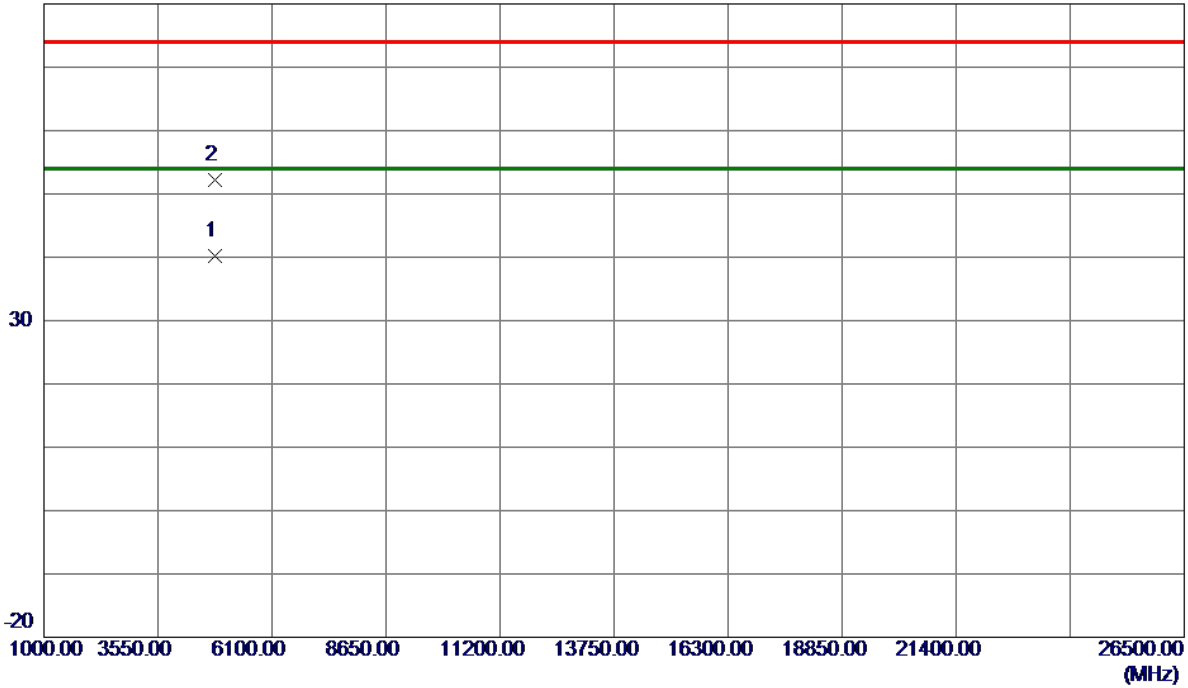
(1) Measurement Value = Reading Level + Correct Factor.

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

Test Mode: TX N-20M Mode 2412 MHz

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 *	4823.4000	35.93	4.25	40.18	54.00	-13.82	AVG	
2	4823.5750	47.87	4.25	52.12	74.00	-21.88	Peak	

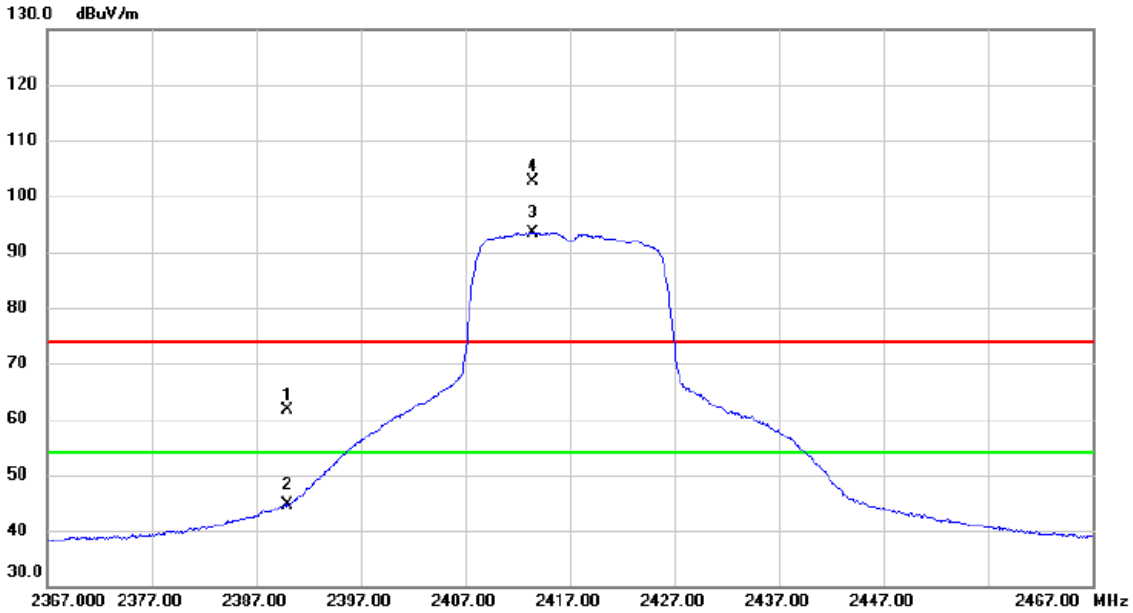
REMARKS:

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

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

Test Mode: TX N-20M Mode 2417 MHz

Vertical



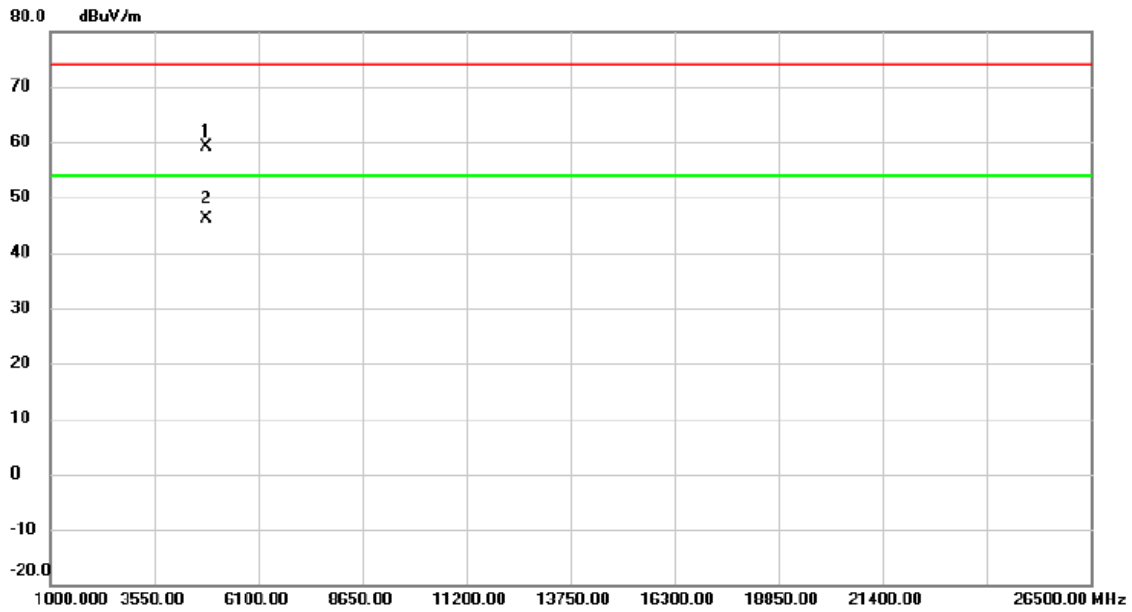
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		2390.000	54.03	7.57	61.60	74.00	-12.40	peak	
2		2390.000	37.12	7.57	44.69	54.00	-9.31	AVG	
3	*	2413.400	85.79	7.65	93.44	54.00	39.44	AVG	No Limit
4	X	2413.450	95.07	7.65	102.72	74.00	28.72	peak	No Limit

REMARKS:

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

Test Mode: TX N-20M Mode 2417 MHz

Vertical



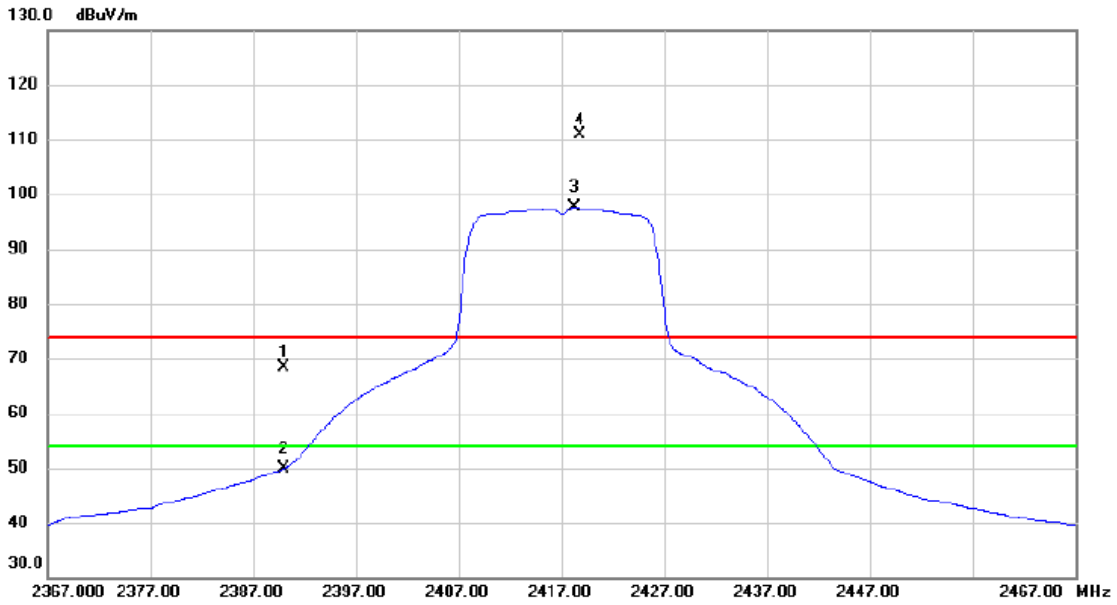
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		4834.550	54.80	4.30	59.10	74.00	-14.90	peak	
2	*	4835.725	41.92	4.30	46.22	54.00	-7.78	AVG	

REMARKS:

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

Test Mode: TX N-20M Mode 2417 MHz

Horizontal



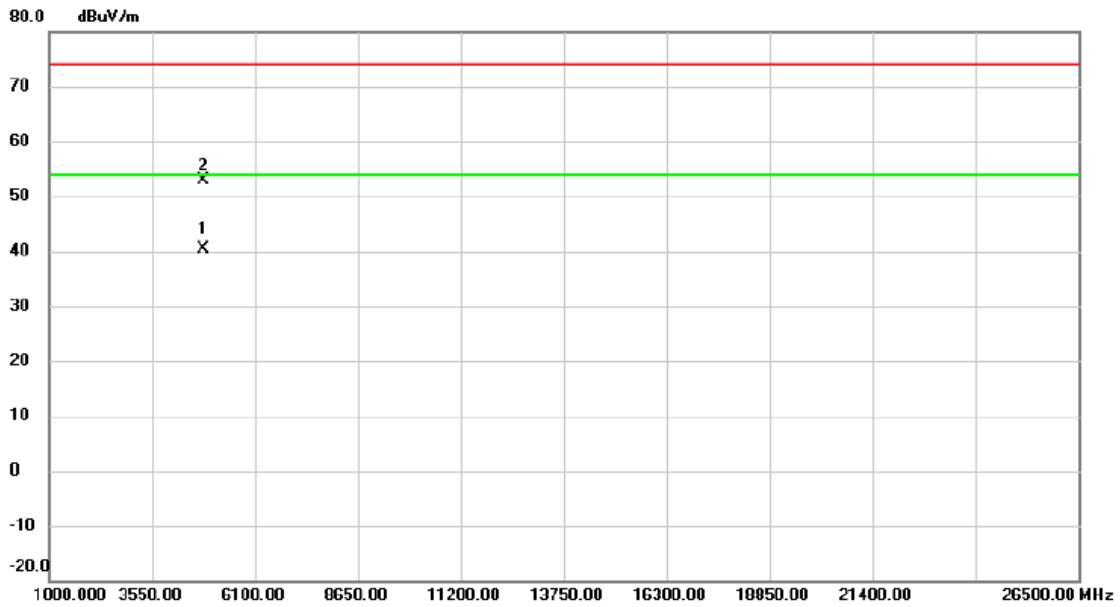
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		2390.000	60.82	7.57	68.39	74.00	-5.61	peak	
2		2390.000	42.38	7.57	49.95	54.00	-4.05	AVG	
3	*	2418.300	89.92	7.66	97.58	54.00	43.58	AVG	No Limit
4	X	2418.800	103.22	7.66	110.88	74.00	36.88	peak	No Limit

REMARKS:

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

Test Mode: TX N-20M Mode 2417 MHz

Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	4834.300	36.02	4.29	40.31	54.00	-13.69	AVG	
2		4836.175	48.67	4.30	52.97	74.00	-21.03	peak	

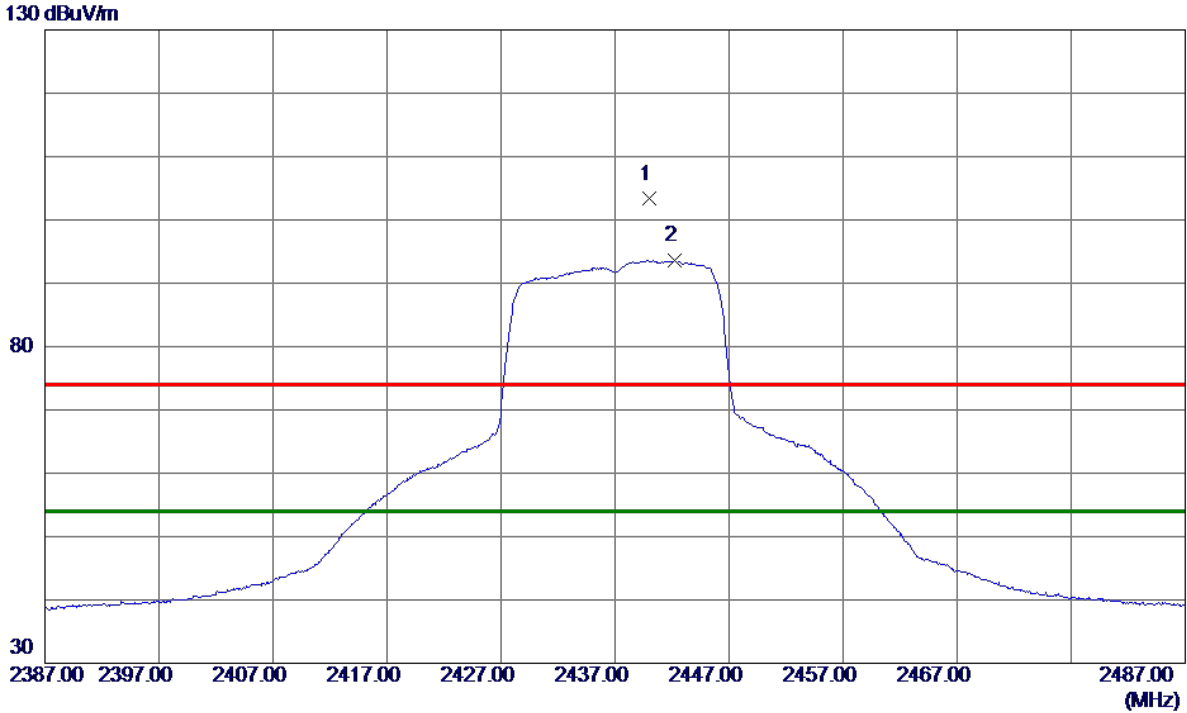
REMARKS:

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

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

Test Mode: TX N-20M Mode 2437 MHz

Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2439.9500	95.57	7.73	103.30	74.00	29.30	Peak	No Limit
2 *	2442.2000	85.84	7.74	93.58	54.00	39.58	AVG	No Limit

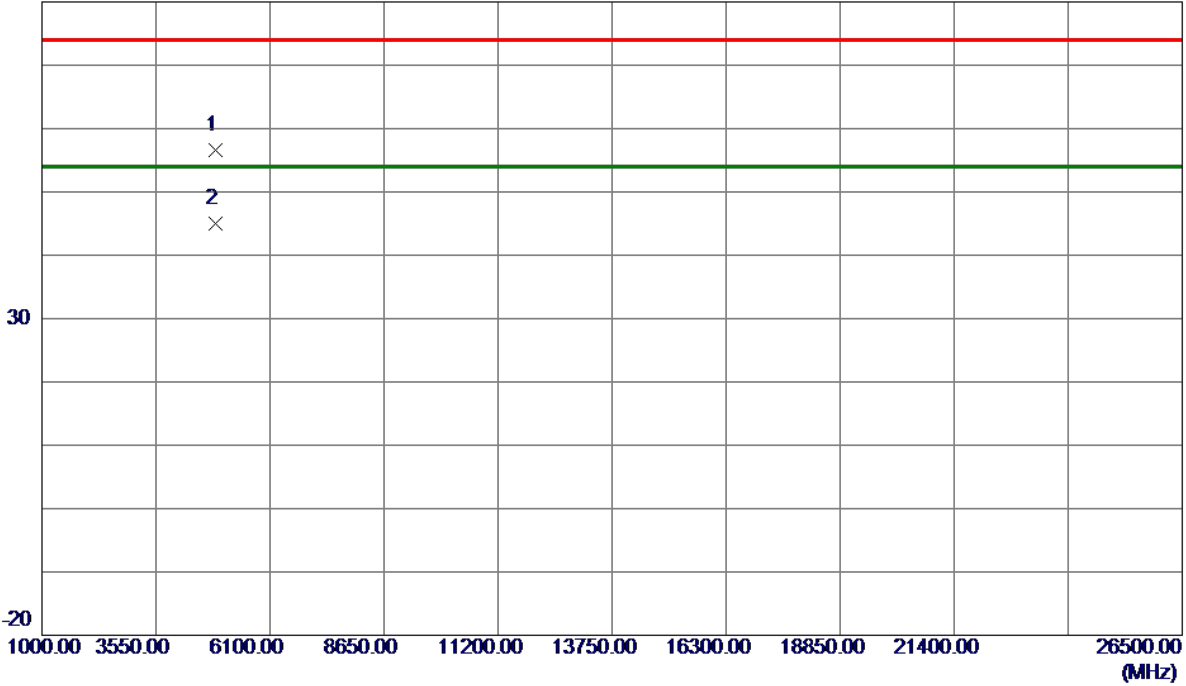
REMARKS:

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

Test Mode: TX N-20M Mode 2437 MHz

Vertical

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4871.2250	52.14	4.43	56.57	74.00	-17.43	Peak	
2 *	4873.1500	40.62	4.44	45.06	54.00	-8.94	AVG	

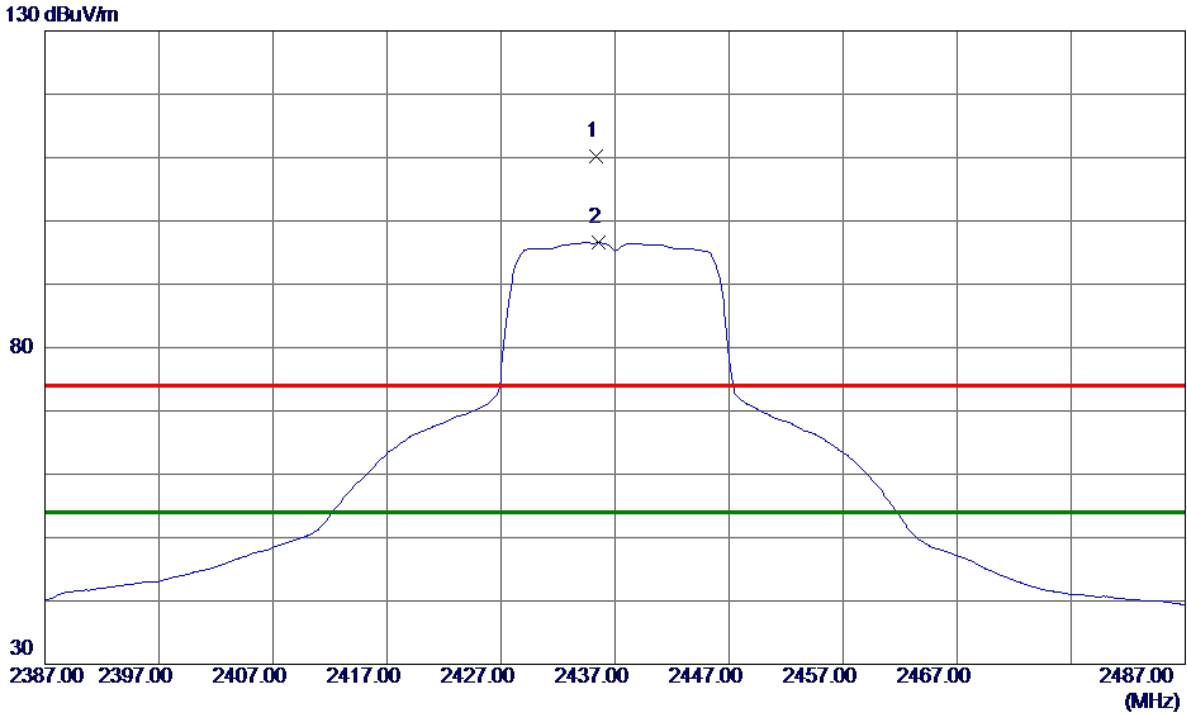
REMARKS:

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

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

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	2435.3000	102.48	7.72	110.20	74.00	36.20	Peak	No Limit
2 *	2435.6000	88.83	7.72	96.55	54.00	42.55	AVG	No Limit

REMARKS:

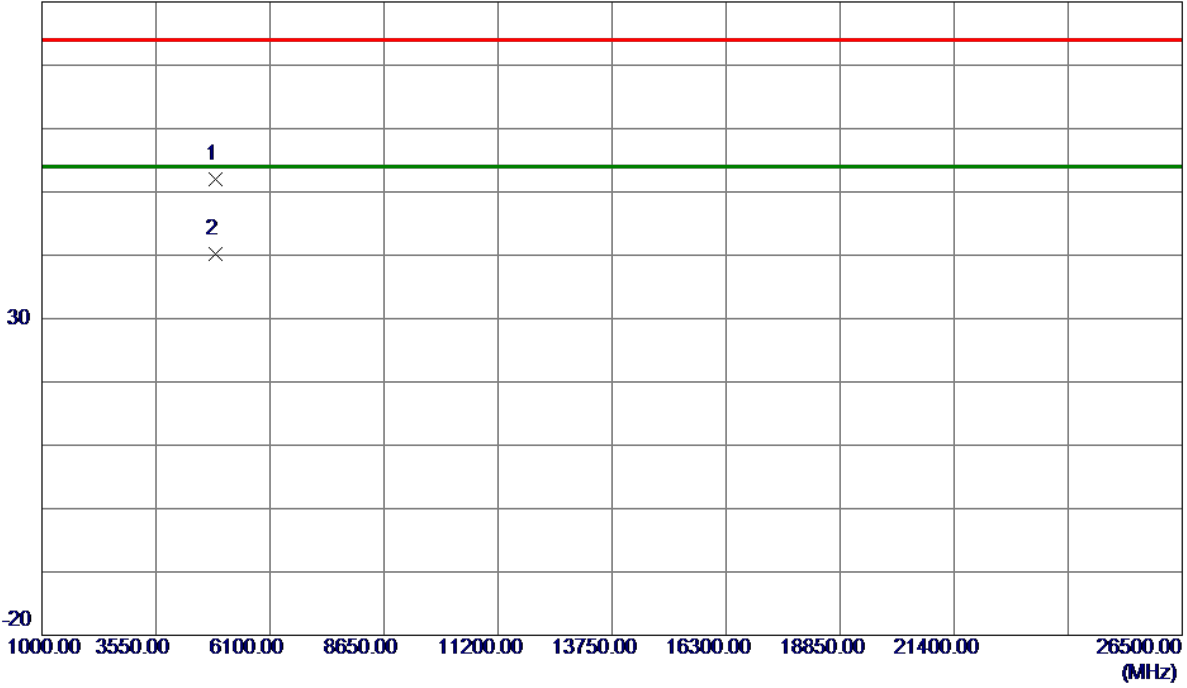
(1) Measurement Value = Reading Level + Correct Factor.

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

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	4871.3750	47.51	4.43	51.94	74.00	-22.06	Peak	
2 *	4872.1000	35.76	4.43	40.19	54.00	-13.81	AVG	

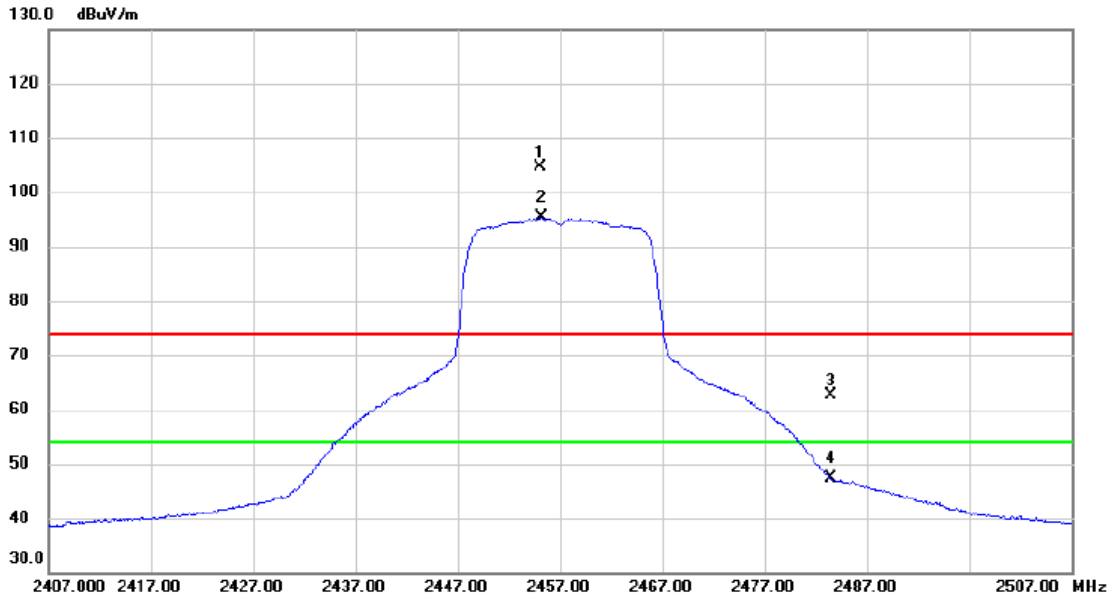
REMARKS:

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

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

Test Mode: TX N-20M Mode 2457 MHz

Vertical



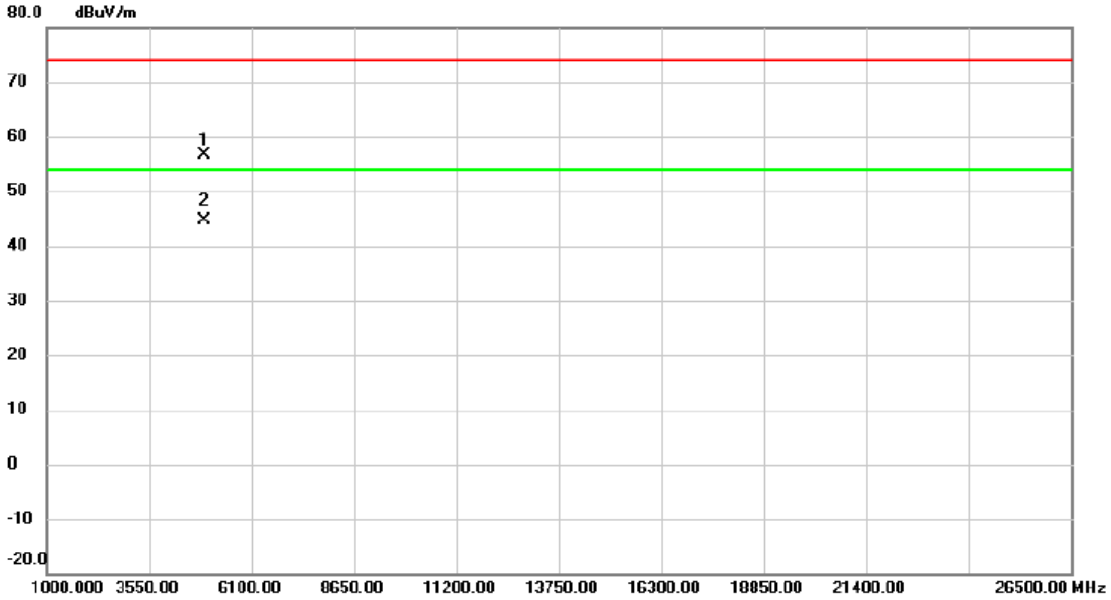
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	X	2455.050	96.83	7.78	104.61	74.00	30.61	peak	No Limit
2	*	2455.250	87.52	7.78	95.30	54.00	41.30	AVG	No Limit
3		2483.500	54.79	7.87	62.66	74.00	-11.34	peak	
4		2483.500	39.60	7.87	47.47	54.00	-6.53	AVG	

REMARKS:

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

Test Mode: TX N-20M Mode 2457 MHz

Vertical



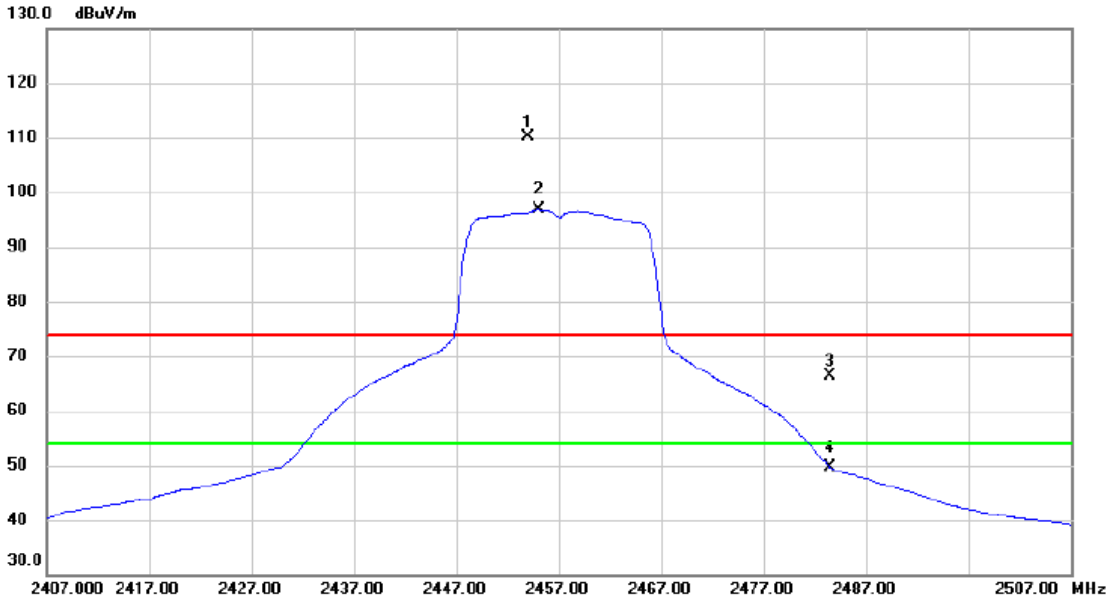
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		4915.150	52.10	4.59	56.69	74.00	-17.31	peak	
2	*	4915.425	40.05	4.59	44.64	54.00	-9.36	AVG	

REMARKS:

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

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	X	2454.000	102.44	7.78	110.22	74.00	36.22	peak	No Limit
2	*	2455.100	88.98	7.78	96.76	54.00	42.76	AVG	No Limit
3		2483.500	58.39	7.87	66.26	74.00	-7.74	peak	
4		2483.500	41.82	7.87	49.69	54.00	-4.31	AVG	

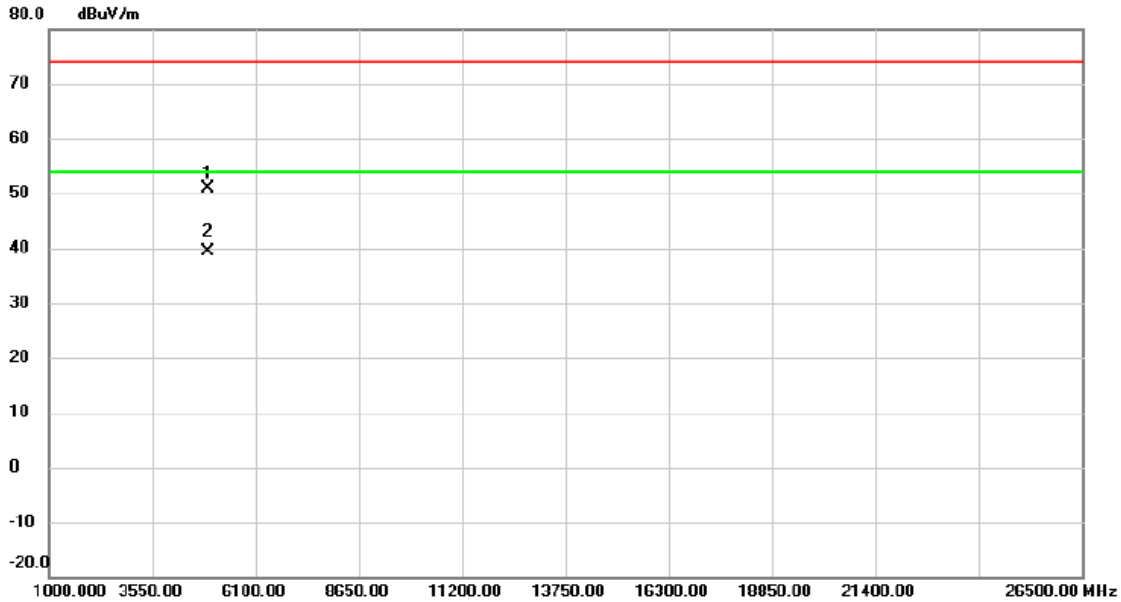
REMARKS:

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

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

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		4910.900	46.18	4.58	50.76	74.00	-23.24	peak	
2	*	4911.950	34.80	4.58	39.38	54.00	-14.62	AVG	

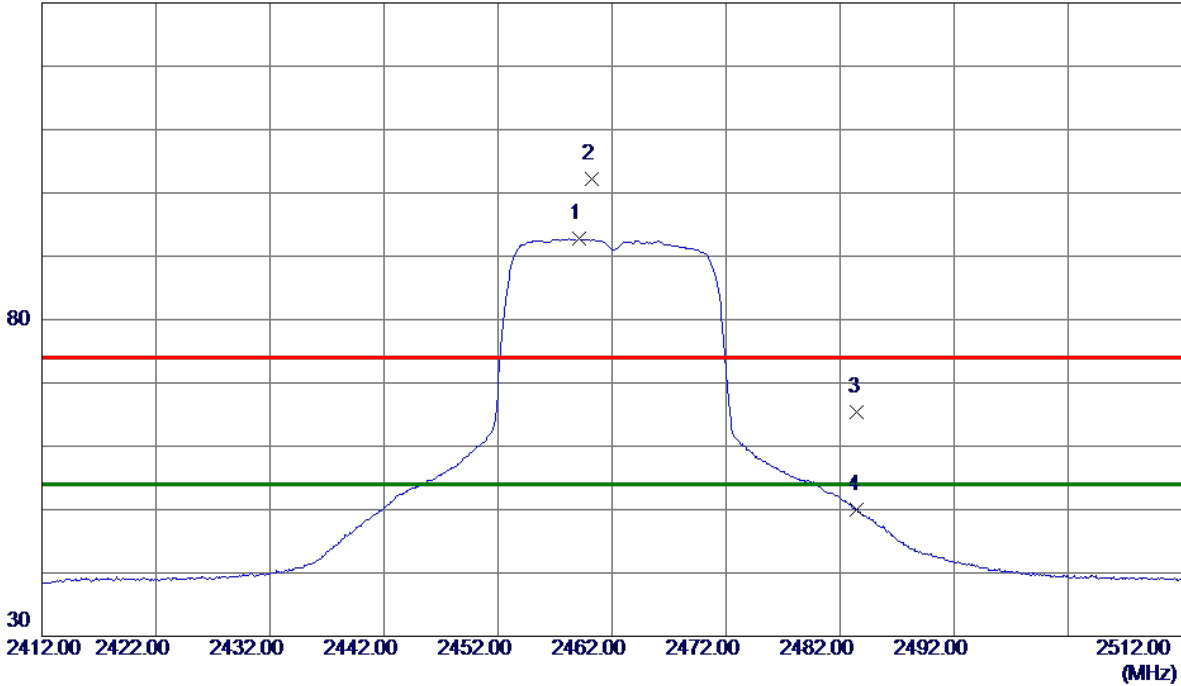
REMARKS:

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

Test Mode: TX N-20M Mode 2462 MHz

Vertical

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2459.1500	84.92	7.79	92.71	54.00	38.71	AVG	No Limit
2	2460.2000	94.37	7.80	102.17	74.00	28.17	Peak	No Limit
3	2483.5000	57.60	7.88	65.48	74.00	-8.52	Peak	
4	2483.5000	42.03	7.88	49.91	54.00	-4.09	AVG	

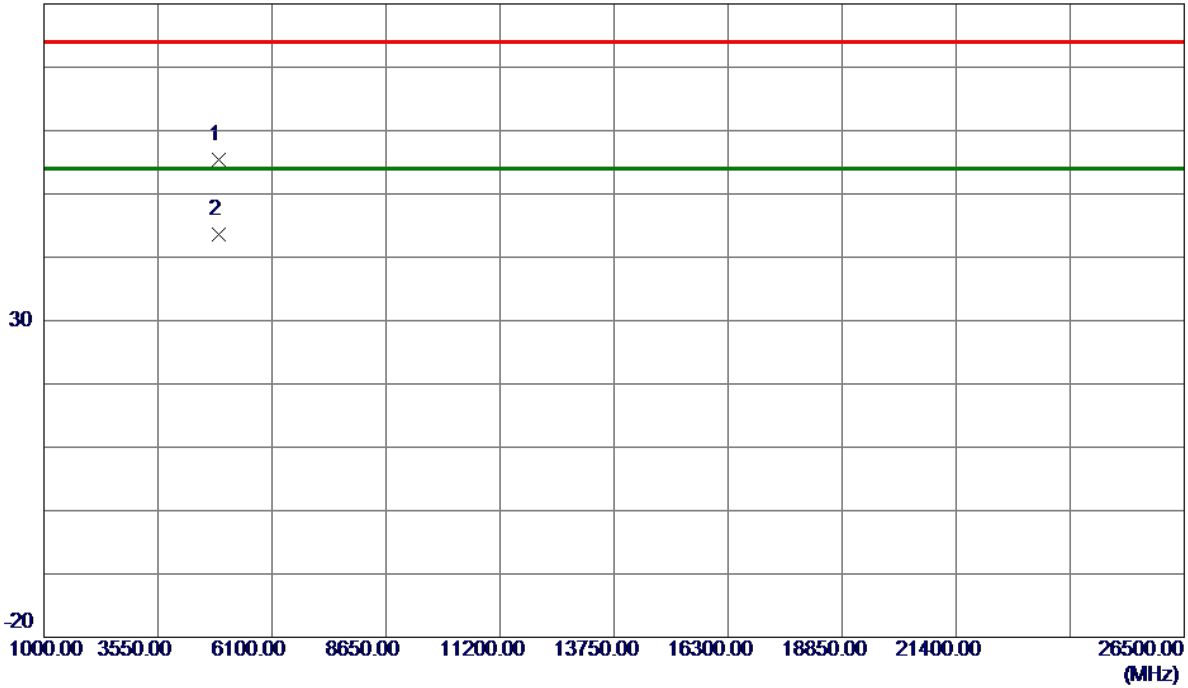
REMARKS:

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

Test Mode: TX N-20M Mode 2462 MHz

Vertical

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4921.4250	50.87	4.62	55.49	74.00	-18.51	Peak	
2 *	4923.3500	38.93	4.62	43.55	54.00	-10.45	AVG	

REMARKS:

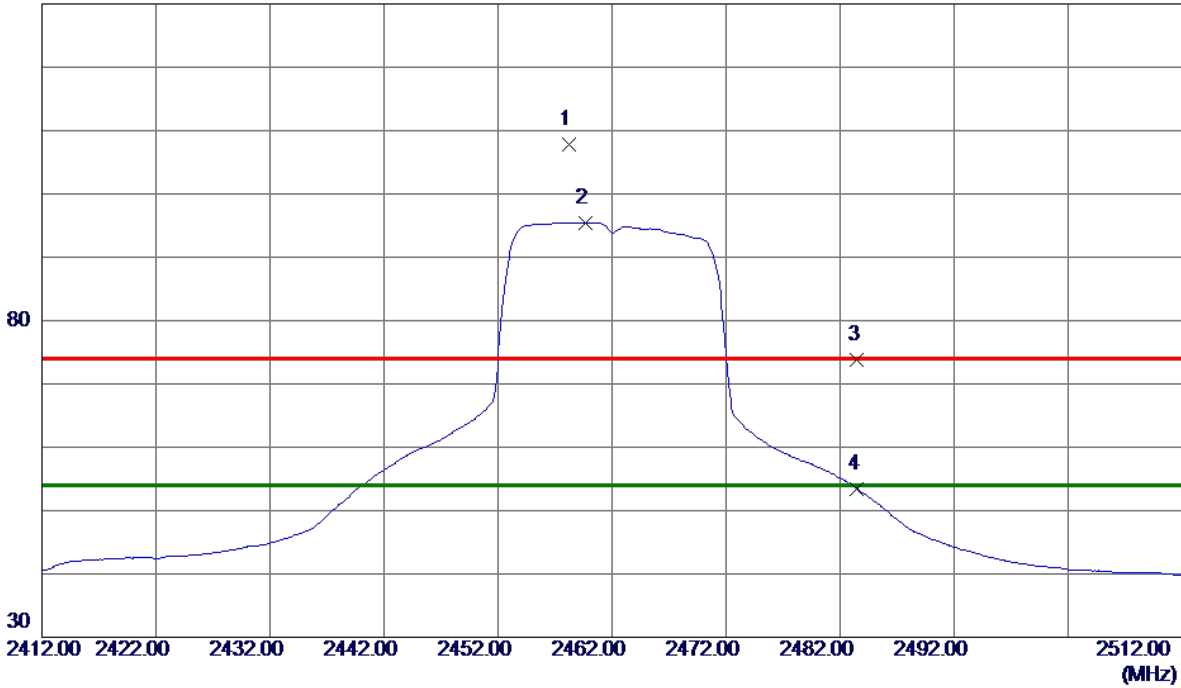
(1) Measurement Value = Reading Level + Correct Factor.

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

Test Mode: TX N-20M Mode 2462 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	2458.2000	100.06	7.79	107.85	74.00	33.85	Peak	No Limit
2 *	2459.7000	87.68	7.80	95.48	54.00	41.48	AVG	No Limit
3	2483.5000	65.91	7.88	73.79	74.00	-0.21	Peak	
4	2483.5000	45.53	7.88	53.41	54.00	-0.59	AVG	

REMARKS:

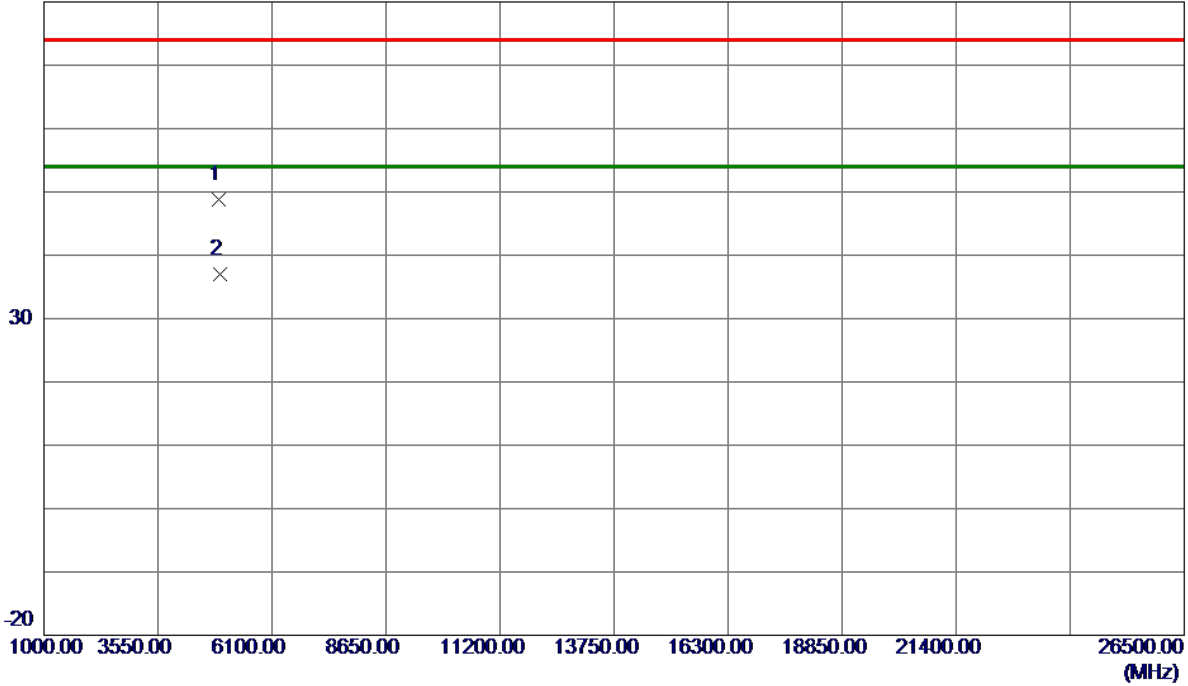
(1) Measurement Value = Reading Level + Correct Factor.

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

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	4916.9500	44.16	4.60	48.76	74.00	-25.24	Peak	
2 *	4926.0250	32.33	4.63	36.96	54.00	-17.04	AVG	

REMARKS:

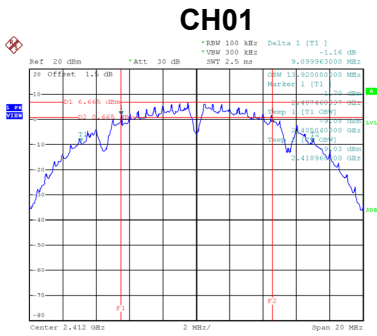
(1) Measurement Value = Reading Level + Correct Factor.

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

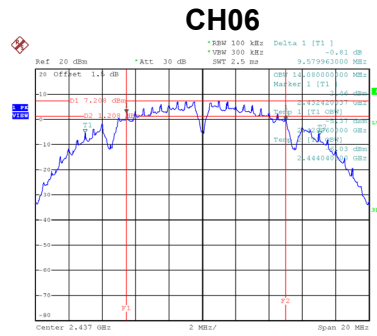
APPENDIX E - BANDWIDTH

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

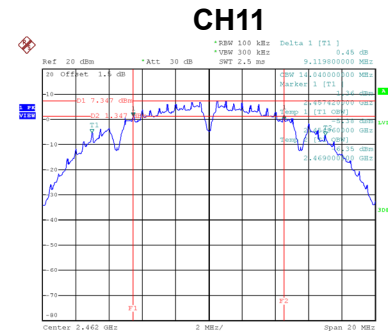
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
01	2412	9.10	500	Complies
06	2437	9.58	500	Complies
11	2462	9.12	500	Complies



Date: 14.JUN.2019 09:29:50



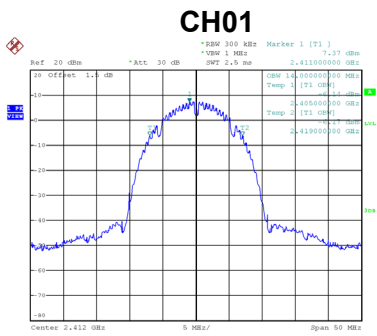
Date: 14.JUN.2019 09:31:52



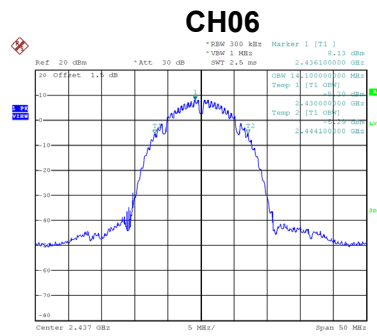
Date: 14.JUN.2019 09:33:47

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

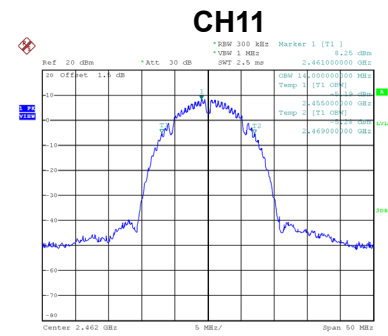
Channel	Frequency (MHz)	99 % Emission Bandwidth (MHz)	Result
01	2412	14.00	Complies
06	2437	14.10	Complies
11	2462	14.00	Complies



Date: 14.JUN.2019 10:05:45



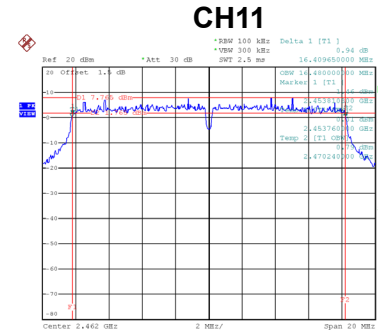
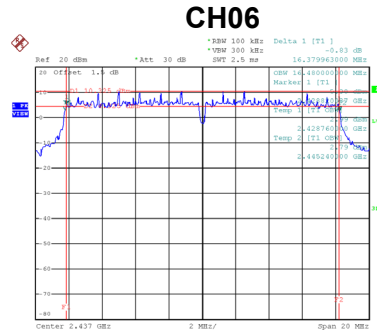
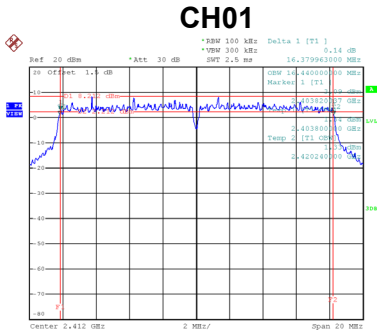
Date: 14.JUN.2019 10:11:23



Date: 14.JUN.2019 10:15:35

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

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
01	2412	16.38	500	Complies
06	2437	16.38	500	Complies
11	2462	16.41	500	Complies



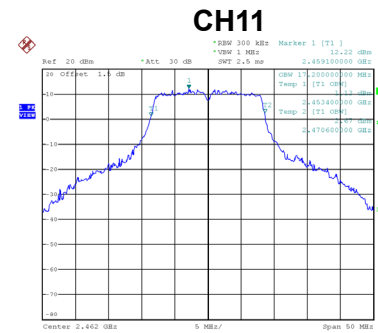
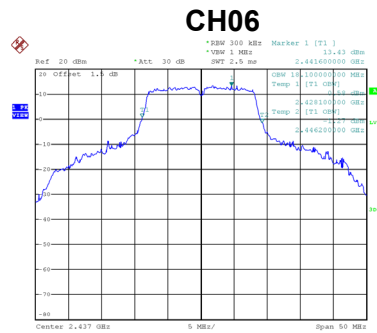
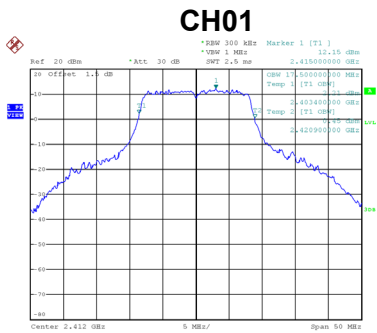
Date: 14.JUN.2019 09:36:24

Date: 14.JUN.2019 09:37:54

Date: 14.JUN.2019 09:39:52

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

Channel	Frequency (MHz)	99 % Emission Bandwidth (MHz)	Result
01	2412	17.50	Complies
06	2437	18.10	Complies
11	2462	17.20	Complies



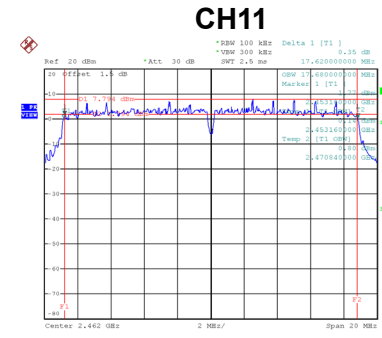
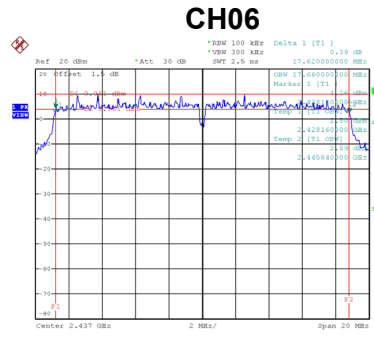
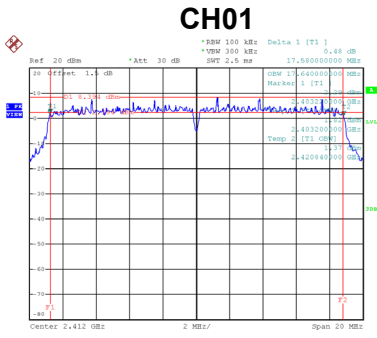
Date: 14.JUN.2019 10:07:31

Date: 14.JUN.2019 10:11:49

Date: 14.JUN.2019 10:16:10

Test Mode TX N-20M Mode

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
01	2412	17.58	500	Complies
06	2437	17.62	500	Complies
11	2462	17.62	500	Complies



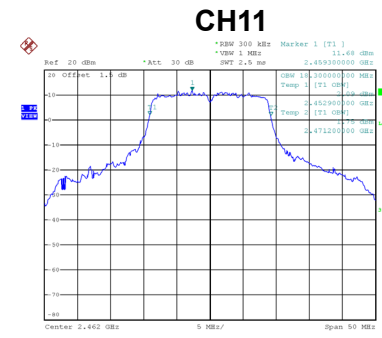
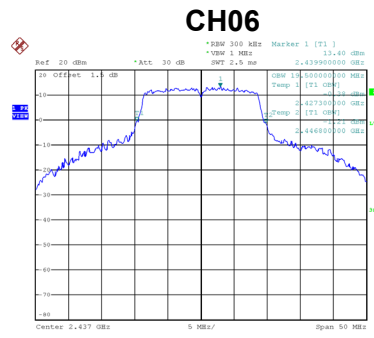
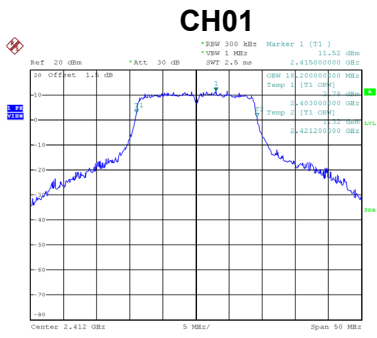
Date: 14.JUN.2019 09:45:38

Date: 14.JUN.2019 09:47:16

Date: 14.JUN.2019 09:49:10

Test Mode TX N-20M Mode

Channel	Frequency (MHz)	99 % Emission Bandwidth (MHz)	Result
01	2412	18.20	Complies
06	2437	19.50	Complies
11	2462	18.30	Complies



Date: 14.JUN.2019 10:09:06

Date: 14.JUN.2019 10:10:45

Date: 14.JUN.2019 10:16:56

APPENDIX F - MAXIMUM OUTPUT POWER

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

Channel	Frequency (MHz)	Average Output Power (dBm)	Duty Factor	Average Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Result
01	2412	19.23	0.00	19.23	30.00	Complies
06	2437	20.61	0.00	20.61	30.00	Complies
11	2462	21.87	0.00	21.87	30.00	Complies

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

Channel	Frequency (MHz)	Average Output Power (dBm)	Duty Factor	Average Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Result
01	2412	20.16	0.26	20.42	30.00	Complies
06	2437	21.70	0.26	21.96	30.00	Complies
11	2462	19.68	0.26	19.94	30.00	Complies

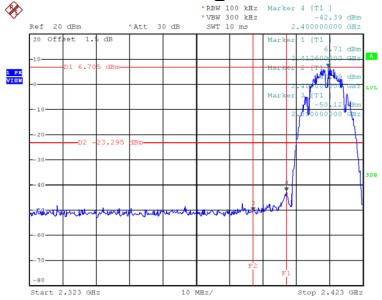
Test Mode	TX N-20M Mode
-----------	---------------

Channel	Frequency (MHz)	Average Output Power (dBm)	Duty Factor	Average Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Result
01	2412	20.18	0.28	20.46	30.00	Complies
06	2437	21.63	0.28	21.91	30.00	Complies
11	2462	19.67	0.28	19.95	30.00	Complies

APPENDIX G - CONDUCTED SPURIOUS EMISSIONS

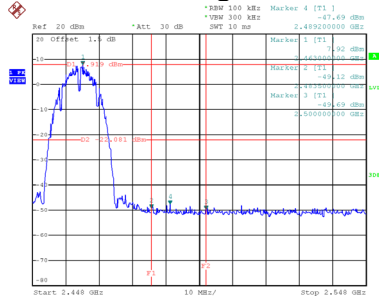
Test Mode TX B Mode

Bandedge-CH01



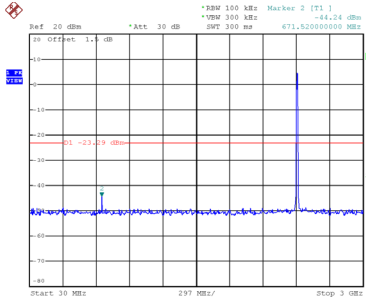
Date: 14.JUN.2019 09:29:58

Bandedge-CH11

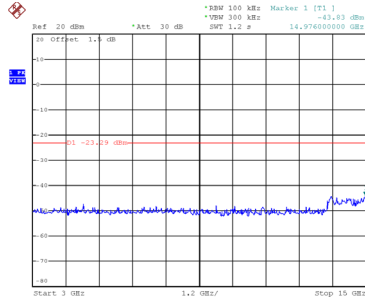


Date: 14.JUN.2019 09:33:54

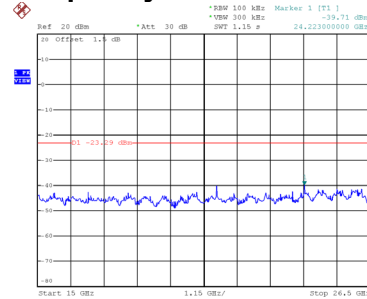
CH01 – 10th Harmonic of the fundamental frequency



Date: 14.JUN.2019 09:30:10

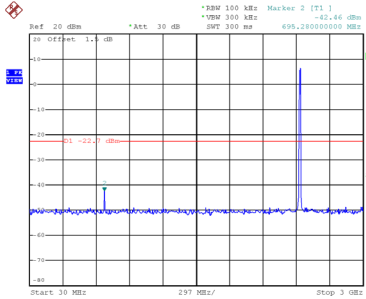


Date: 14.JUN.2019 09:30:17

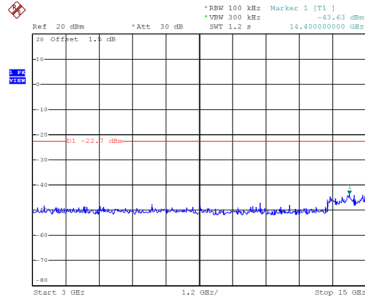


Date: 14.JUN.2019 09:30:24

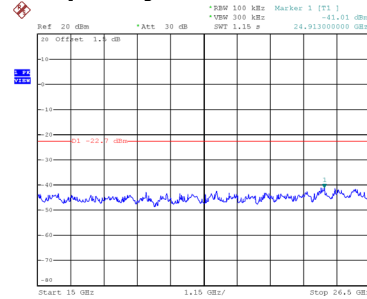
CH06 – 10th Harmonic of the fundamental frequency



Date: 14.JUN.2019 09:32:12

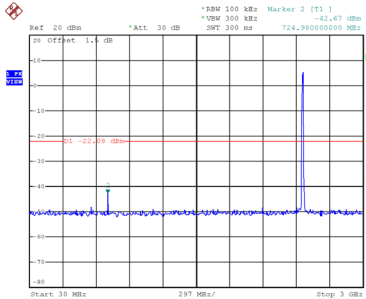


Date: 14.JUN.2019 09:32:19

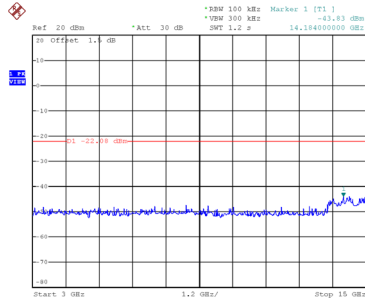


Date: 14.JUN.2019 09:32:26

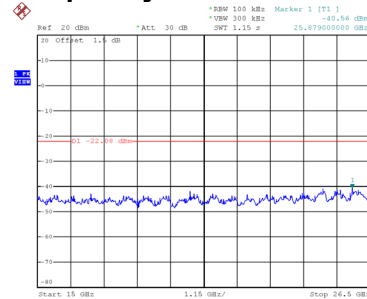
CH11 – 10th Harmonic of the fundamental frequency



Date: 14.JUN.2019 09:34:06



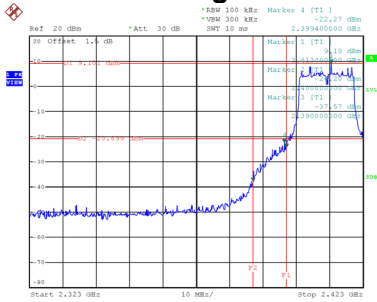
Date: 14.JUN.2019 09:34:13



Date: 14.JUN.2019 09:34:20

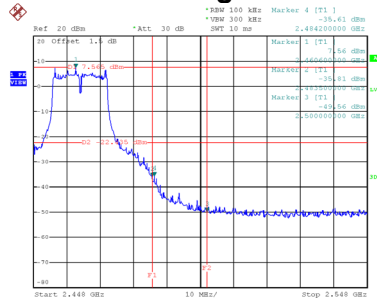
Test Mode TX G Mode

Bandedge-CH01



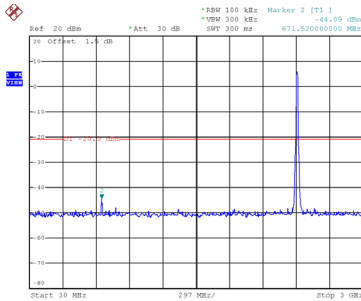
Date: 14.JUN.2019 09:36:11

Bandedge-CH11

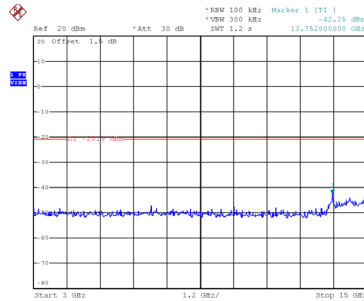


Date: 14.JUN.2019 09:39:59

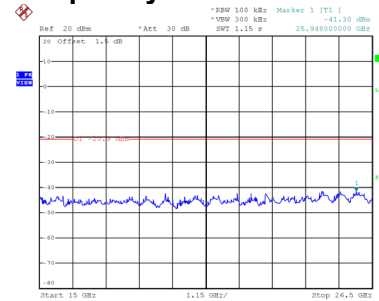
CH01 – 10th Harmonic of the fundamental frequency



Date: 14.JUN.2019 09:36:44

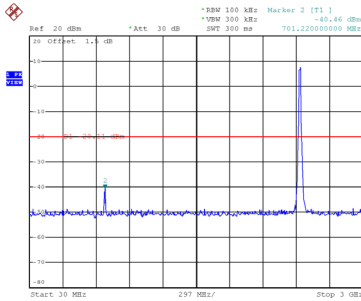


Date: 14.JUN.2019 09:36:51

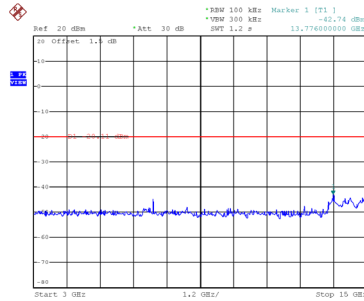


Date: 14.JUN.2019 09:36:58

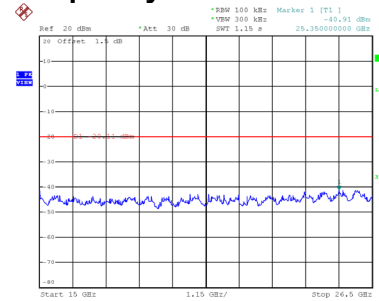
CH06 – 10th Harmonic of the fundamental frequency



Date: 14.JUN.2019 09:38:13

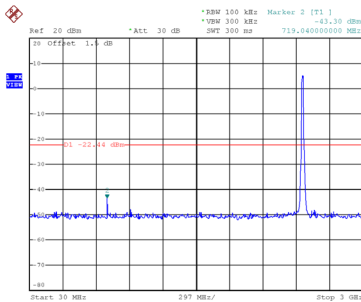


Date: 14.JUN.2019 09:38:20

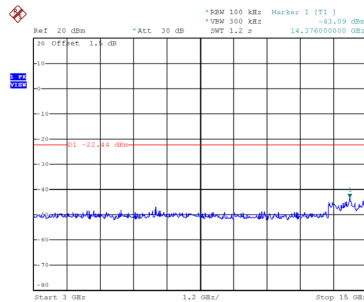


Date: 14.JUN.2019 09:38:27

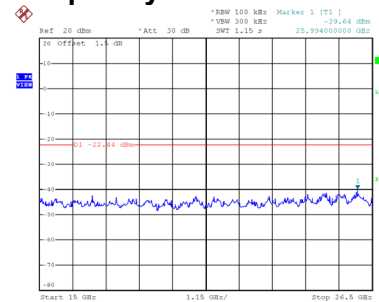
CH11 – 10th Harmonic of the fundamental frequency



Date: 14.JUN.2019 09:40:12



Date: 14.JUN.2019 09:40:19



Date: 14.JUN.2019 09:40:26