

FCC Radio Test Report

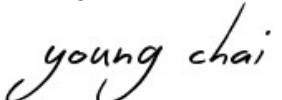
FCC ID: 2AB7X-WISEPRO

This report concerns: **Original Grant**

Project No. : 1906H001
Equipment : WisePOS Pro
Brand Name : BBPOS
Test Model : WSP71
Series Model : WSP72, WSP73
Applicant : BBPOS International Limited
Address : Suite 1903-04, 19/F, Tower 2, Nina Tower, No. 8 Yeung Uk Road, Tsuen Wan, N.T. HK
Manufacturer : BBPOS International Limited
Address : Suite 1903-04, 19/F, Tower 2, Nina Tower, No. 8 Yeung Uk Road, Tsuen Wan, N.T. HK
Date of Receipt : Jul. 12, 2019
Date of Test : Jul. 12, 2019~ Sep 12, 2019
Issued Date : Sep. 12, 2019
Report Version : R00
Test Sample : Engineering Sample No.:
Standard(s) : FCC Part15, Subpart C (15.247)
ANSI C63.10-2013
KDB 558074 D01 15.247 Meas Guidance V05r02

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


Prepared by : Krain Wu


Approved by : Young Chai



Certificate # 5123.03

Add: No. 29, Jintang Road, Tangzhen Industry Park, Pudong New Area, Shanghai 201210, China

TEL: +86-021-61765666

Web: www.newbtl.com

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 . SUMMARY OF TEST RESULTS	7
1.1 TEST FACILITY	8
1.2 MEASUREMENT UNCERTAINTY	8
1.3 TEST ENVIRONMENT CONDITIONS	8
2 . GENERAL INFORMATION	9
2.1 GENERAL DESCRIPTION OF EUT	9
2.2 DESCRIPTION OF TEST MODES	10
2.3 PARAMETERS OF TEST SOFTWARE	12
2.4 DUTY CYCLE	13
2.5 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED	14
2.6 SUPPORT UNITS	14
3 . AC POWER LINE CONDUCTED EMISSIONS TEST	15
3.1 LIMIT	15
3.2 TEST PROCEDURE	15
3.3 DEVIATION FROM TEST STANDARD	15
3.4 TEST SETUP	16
3.5 EUT OPERATION CONDITIONS	16
3.6 TEST RESULTS	16
4 . RADIATED EMISSIONS TEST	17
4.1 LIMIT	17
4.2 TEST PROCEDURE	18
4.3 DEVIATION FROM TEST STANDARD	18
4.4 TEST SETUP	19
4.5 EUT OPERATION CONDITIONS	20
4.6 TEST RESULTS - 9 KHZ TO 30 MHZ	20
4.7 TEST RESULTS - 30 MHZ TO 1000 MHZ	20
4.8 TEST RESULTS - ABOVE 1000 MHZ	20
5 . BANDWIDTH TEST	21
5.1 LIMIT	21
5.2 TEST PROCEDURE	21
5.3 DEVIATION FROM STANDARD	21

Table of Contents	Page
5.4 TEST SETUP	21
5.5 EUT OPERATION CONDITIONS	21
5.6 TEST RESULTS	21
6 . MAXIMUM OUTPUT POWER TEST & E.I.R.P. TEST	22
6.1 LIMIT	22
6.2 TEST PROCEDURE	22
6.3 DEVIATION FROM STANDARD	22
6.4 TEST SETUP	22
6.5 EUT OPERATION CONDITIONS	22
6.6 TEST RESULTS	22
7 . CONDUCTED SPURIOUS EMISSIONS	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 TEST RESULTS	23
8 . POWER SPECTRAL DENSITY TEST	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 TEST RESULTS	24
9 . MEASUREMENT INSTRUMENTS LIST	25
APPENDIX A - AC POWER LINE CONDUCTED EMISSIONS	27
APPENDIX B - RADIATED EMISSION - 9 KHZ TO 30 MHZ	30
APPENDIX C - RADIATED EMISSION - 30 MHZ TO 1000 MHZ	35
APPENDIX D - RADIATED EMISSION- ABOVE 1000 MHZ	38
APPENDIX E - BANDWIDTH	87
APPENDIX F - MAXIMUM OUTPUT POWER	92
APPENDIX G - CONDUCTED SPURIOUS EMISSIONS	94

Table of Contents	Page
APPENDIX H - POWER SPECTRAL DENSITY	99

REPORT ISSUED HISTORY

Report Version	Description	Issued Date
R00	Original Issue.	Sep. 12, 2019

1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standard(s):

FCC Part15, Subpart C (15.247)				
Standard(s) Section	Test Item	Test Result	Judgment	Remark
15.207	AC Power Line Conducted Emissions	APPENDIX A	N/A	-----
15.247(d) 15.205(a) 15.209(a)	Radiated Emissions	APPENDIX B APPENDIX C APPENDIX D	PASS	-----
15.247(a)(2)	Bandwidth	APPENDIX E	PASS	-----
15.247(b)(3)	Maximum output power & e.i.r.p.	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.

1.1 TEST FACILITY

The test facilities used to collect the test data in this report is at the location of No. 29, Jintang Road, Tangzhen Industry Park, Pudong New Area, Shanghai 201210, China
 BTL's Test Firm Registration Number for FCC: 476765
 BTL's Designation Number for FCC: CN1241

1.2 MEASUREMENT UNCERTAINTY

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

The BTL measurement uncertainty as below table:

A. AC power line conducted emissions test:

Test Site	Method	Measurement Frequency Range	U, (dB)
SH-C01	CISPR	150 kHz ~ 30 MHz	± 2.26

B. Radiated emissions test:

Test Site	Method	Measurement Frequency Range	Ant. H / V	U, (dB)
SH-CB01	CISPR	9 KHz~30 MHz	V	3.79
		9 KHz~30 MHz	H	3.57
		30 MHz~200 MHz	V	4.04
		30 MHz~200 MHz	H	3.76
		200 MHz~1,000 MHz	V	4.24
		200 MHz~1,000 MHz	H	3.84
		1 GHz~18 GHz	V	4.46
		1 GHz~18 GHz	H	4.40
		18 GHz~40 GHz	V	3.95
18 GHz~40 GHz	H	3.95		

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

1.3 TEST ENVIRONMENT CONDITIONS

Test Item	Temperature	Humidity	Test Voltage	Tested By
AC Power Line Conducted Emissions	22°C	55%	AC 120V	Summer Xu
Radiated Emissions-9K-30MHz	22°C	59%	AC 120V	Summer Xu
Radiated Emissions-30 MHz to 1GHz	22°C	59%	AC 120V	Summer Xu
Radiated Emissions-Above 1000 MHz	22°C	59%	AC 120V	Summer Xu
Bandwidth	22°C	55%	AC 120V	Summer Xu
Maximum output power & e.i.r.p.	22°C	55%	AC 120V	Summer Xu
Conducted Spurious Emissions	22°C	55%	AC 120V	Summer Xu
Power Spectral Density	22°C	55%	AC 120V	Summer Xu

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Equipment	WisePOS Pro
Brand Name	BBPOS
Test Model	WSP71
Series Model	WSP72, WSP73
Model Difference(s)	WSP71: WisePOS Pro device only; WSP72: WisePOS Pro device with hand strap; WSP73: WisePOS Pro device with pistol grip.
Software Version	970ADGAAK2_BB_V009
Hardware Version	7MD_V01
Power Source	1. DC Voltage supplied from AC/DC adapter 2. Supplied from Li-ion battery pack
Power Rating	1. I/P: 100-240V ~ 50/60Hz 1.0A O/P: 5V---3A/9V---3A 2. 6400mAH 3.8V
Operation Frequency	2412 MHz ~ 2462 MHz
Modulation Type	IEEE 802.11b: DSSS IEEE 802.11g: OFDM IEEE 802.11n: OFDM
Bit Rate of Transmitter	IEEE 802.11b: 11/5.5/2/1 Mbps IEEE 802.11g: 54/48/36/24/18/12/9/6 Mbps IEEE 802.11n: up to 300 Mbps
Maximum Output Power Non-Beamforming	IEEE 802.11b: 22.37 dBm (0.1725 W) IEEE 802.11g: 23.76 dBm (0.2375 W) IEEE 802.11n (HT20): 24.65 dBm (0.2917 W) IEEE 802.11n (HT40): 16.84 dBm (0.0483 W)

Note:

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

CH01 - CH11 for IEEE 802.11b, IEEE 802.11g, IEEE 802.11n (HT20) CH03 - CH09 for IEEE 802.11n (HT40)							
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)	Note
1	N/A	N/A	PIFA	N/A	3.2	N/A

Note:

Antenna Gain=3.2 dBi. So, the output power limit is $30-3.2+6=32.8$, the power spectral density limit is $8-3.2+6=10.8$.

2.2 DESCRIPTION OF TEST MODES

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

Pretest Mode	Description
Mode 1	TX B Mode Channel 01/06/11
Mode 2	TX G Mode Channel 01/06/11
Mode 3	TX N-20 MHz Mode Channel 01/06/11
Mode 4	TX N-40 MHz Mode Channel 03/06/09
Mode 5	TX N20 MODE CHANNEL 06

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

AC power line conducted emissions test	
Final Test Mode:	Description
Mode 5	TX N20 MODE CHANNEL 06

Radiated emissions test - Below 1GHz	
Final Test Mode:	Description
Mode 5	TX N20 MODE CHANNEL 06

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

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

NOTE:

- (1) The measurements are performed at the high, middle, low available channels.
- (2) 802.11b mode: CCK (1 Mbps)
 802.11g mode: OFDM (6 Mbps)
 802.11n HT20 mode : BPSK (6.5 Mbps)
 802.11n HT40 mode : BPSK (13.5 Mbps)
 For radiated emission tests, the highest output powers were set for final test.
- (3) For radiated emission below 1 GHz test, the IEEE 802.11n20 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.

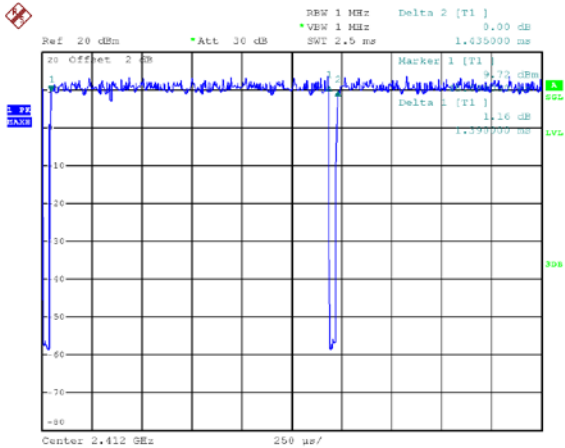
2.3 PARAMETERS OF TEST SOFTWARE**Non-Beamforming**

Test Software	N/A		
Frequency (MHz)	2412	2437	2462
IEEE 802.11b	23	23	23
IEEE 802.11g	17	25	20
IEEE 802.11n (HT20)	16	25	15
Frequency (MHz)	2422	2437	2452
IEEE 802.11n (HT40)	19	21	15

2.4 DUTY CYCLE

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

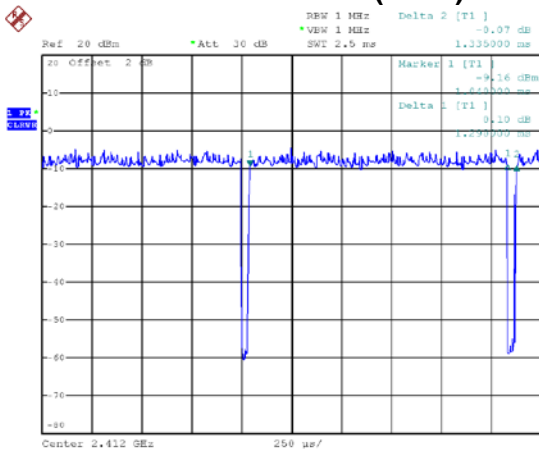
IEEE 802.11b



Date: 8.AUG.2019 14:48:03

Duty cycle = $1.390 \text{ ms} / 1.435 \text{ ms} = 96.86\%$
 Duty Factor = $10 \log(1/\text{Duty cycle}) = 0.14$

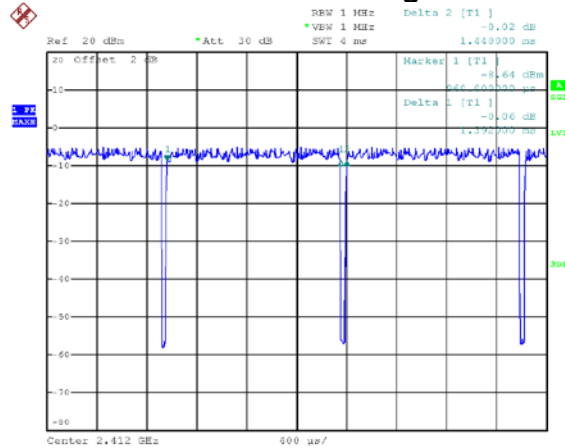
IEEE 802.11n (HT20)



Date: 5.JUL.2019 11:05:21

Duty cycle = $1.290 \text{ ms} / 1.335 \text{ ms} = 96.63\%$
 Duty Factor = $10 \log(1/\text{Duty cycle}) = 0.15$,

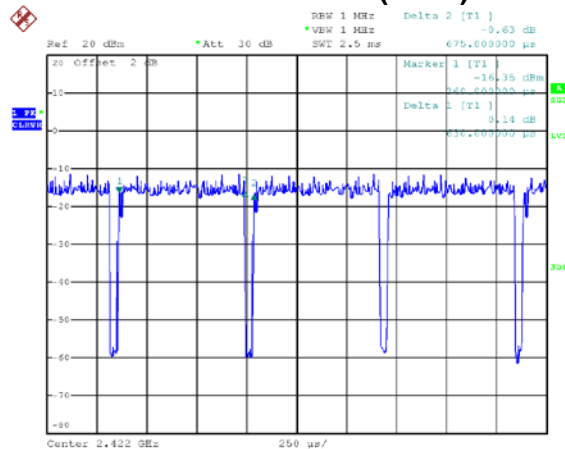
IEEE 802.11g



Date: 5.JUL.2019 10:58:32

Duty cycle = $1.392 \text{ ms} / 1.440 \text{ ms} = 96.67\%$
 Duty Factor = $10 \log(1/\text{Duty cycle}) = 0.15$

IEEE 802.11n (HT40)



Date: 5.JUL.2019 11:07:18

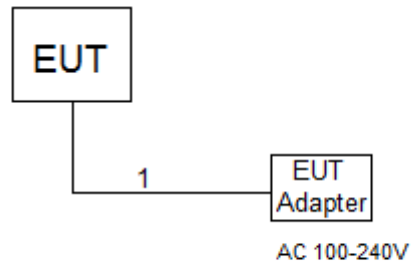
Duty cycle = $0.630 \text{ ms} / 0.675 \text{ ms} = 93.33\%$
 Duty Factor = $10 \log(1/\text{Duty cycle}) = 0.30$

NOTE:

For IEEE 802.11g and IEEE 802.11n (HT20):
 For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 1 kHz (Duty cycle $< 98\%$).

For IEEE 802.11n (HT40):

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

2.5 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED**2.6 SUPPORT UNITS**

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

Item	Cable Type	Shielded Type	Ferrite Core	Length
1	DC	N/A	N/A	1m

3. AC POWER LINE CONDUCTED EMISSIONS TEST

3.1 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

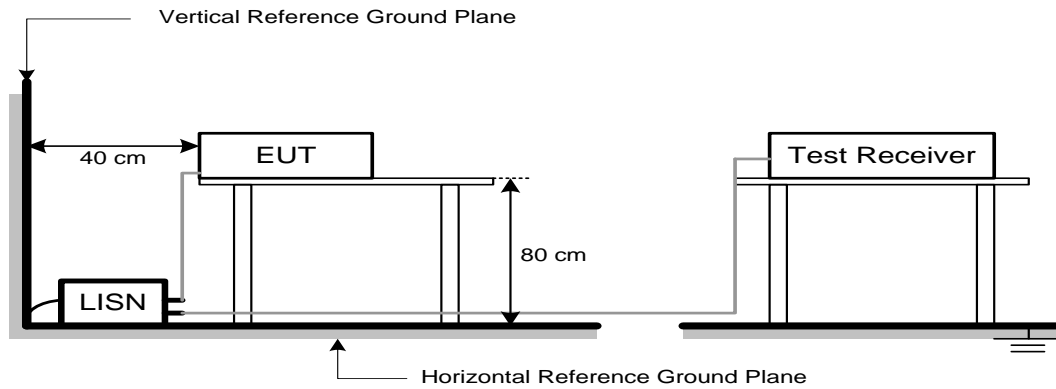
3.2 TEST PROCEDURE

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

3.3 DEVIATION FROM TEST STANDARD

No deviation

3.4 TEST SETUP



3.5 EUT OPERATION CONDITIONS

EUT was programmed to be in continuously transmitting mode.

3.6 TEST RESULTS

Please refer to the APPENDIX A.

4. RADIATED EMISSIONS TEST

4.1 LIMIT

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

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

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

LIMITS OF RADIATED EMISSION MEASUREMENT (9 kHz-30 MHz)

Frequency (MHz)	Magnetic field strength (H-Field) ($\mu\text{A/m}$)	Measurement Distance (meters)
0.009-0.490	6.37/F(kHz)	300
0.490-1.705	6.37/F(kHz)	30
1.705-30.0	0.08	30

LIMITS OF RADIATED EMISSION MEASUREMENT (30 MHz-1000 MHz)

Frequency (MHz)	Field Strength ($\mu\text{V/m}$ at 3m)
30-88	100
88-216	150
216-960	200
Above 960	500

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

4.2 TEST PROCEDURE

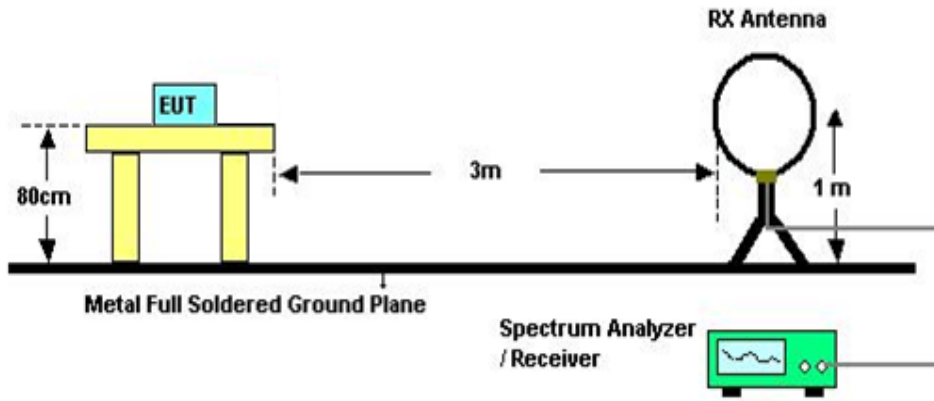
- a. The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(below 1 GHz)
- b. The measuring distance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

4.3 DEVIATION FROM TEST STANDARD

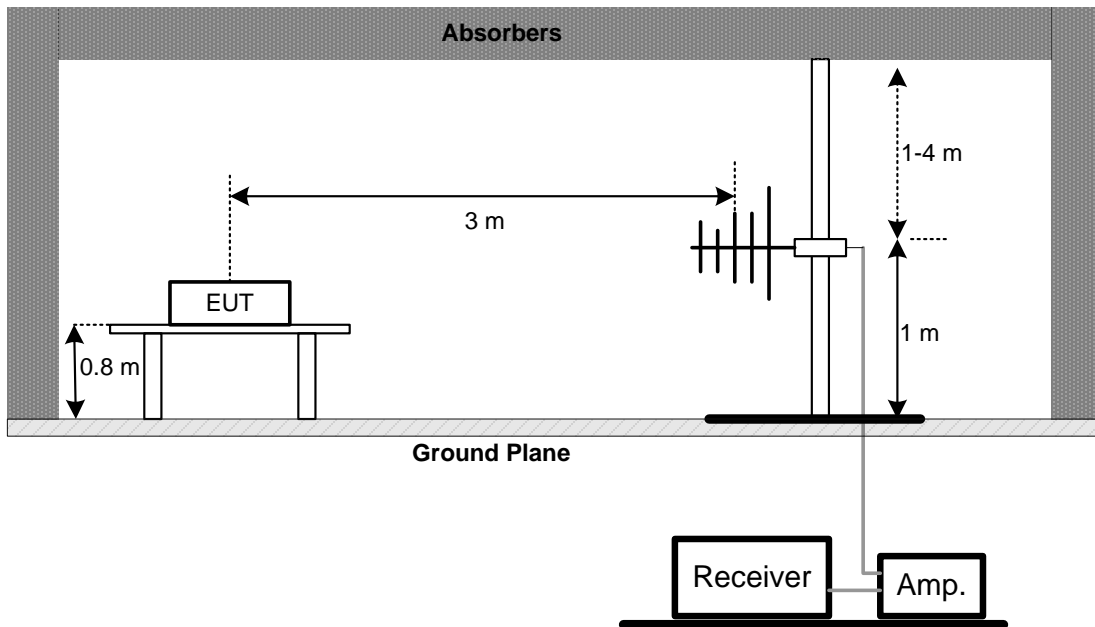
No deviation

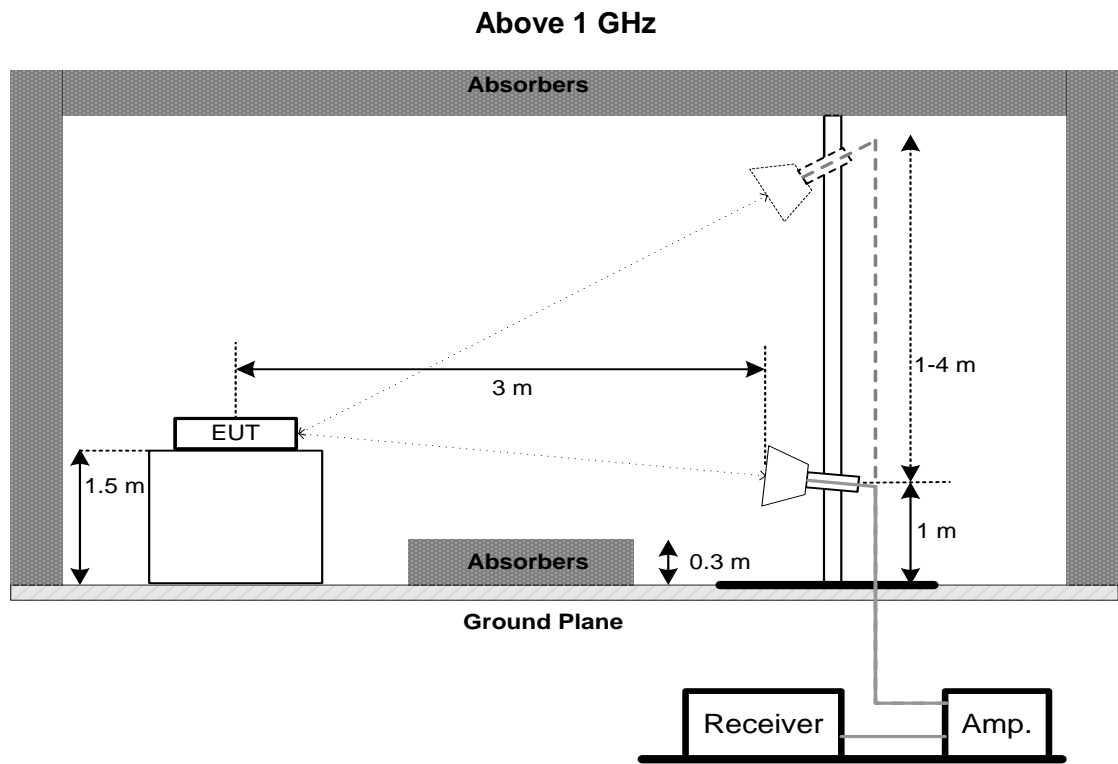
4.4 TEST SETUP

9 kHz-30 MHz



30 MHz to 1 GHz





4.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

4.6 TEST RESULTS - 9 KHZ TO 30 MHZ

Please refer to the APPENDIX B

Remark:

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

4.7 TEST RESULTS - 30 MHZ TO 1000 MHZ

Please refer to the APPENDIX C.

4.8 TEST RESULTS - ABOVE 1000 MHZ

Please refer to the APPENDIX D.

Remark:

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

5. BANDWIDTH TEST

5.1 LIMIT

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

5.2 TEST PROCEDURE

- 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 11.8.1 of ANSI C63.10-2013.

5.3 DEVIATION FROM STANDARD

No deviation.

5.4 TEST SETUP



5.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

5.6 TEST RESULTS

Please refer to the APPENDIX E.

6. MAXIMUM OUTPUT POWER TEST & E.I.R.P. TEST**6.1 LIMIT**

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

6.2 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 11.9.1.3 (for peak power) or 11.9.2.3.1 (for AVG power) 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 TEST RESULTS

Please refer to the APPENDIX F.

7. CONDUCTED SPURIOUS EMISSIONS

7.1 LIMIT

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

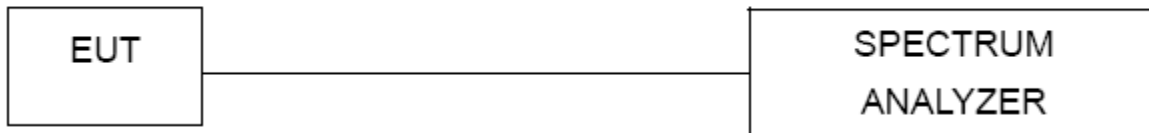
7.2 TEST PROCEDURE

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

7.3 DEVIATION FROM STANDARD

No deviation.

7.4 TEST SETUP



7.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

7.6 TEST RESULTS

Please refer to the APPENDIX G.

8. POWER SPECTRAL DENSITY TEST**8.1 LIMIT**

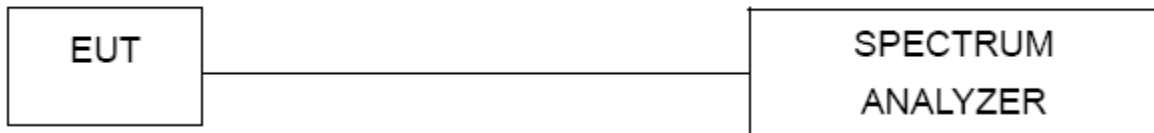
FCC Part15, Subpart C (15.247)		
Section	Test Item	Limit
15.247(e)	Power Spectral Density	8 dBm (in any 3 kHz)

8.2 TEST PROCEDURE

- 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.

8.3 DEVIATION FROM STANDARD

No deviation.

8.4 TEST SETUP**8.5 EUT OPERATION CONDITIONS**

The EUT was programmed to be in continuously transmitting mode.

8.6 TEST RESULTS

Please refer to the APPENDIX H.

9. MEASUREMENT INSTRUMENTS LIST

AC Power Line Conducted Emissions					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Line Impedance Stabilisation Network	Schwarzbeck	NNLK 8121	8121-822	Mar. 29, 2020
2	TWO-LINE V-NETWORK	R&S	ENV216	101340	Nov. 20, 2019
3	Test Cable	emci	EMCRG400-BM-NM-10000	170628	Apr. 17, 2020
4	EMI Test Receiver	R&S	ESCI	100082	Mar. 29, 2020
5	50Ω Terminator	SHX	TF2-1G-A	17051602	Mar. 29, 2020
6	50Ω coaxial switch	Anritsu	MP59B	6201750902	Mar. 29, 2020
7	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A

Radiated Emissions - 9 kHz to 30 MHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Loop Antenna	EMCI	EMCI LPA600	275	Mar. 29, 2020
2	EMI Test Receiver	R&S	ESCI	100082	Mar. 29, 2020
3	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	TRILOG Broadband Antenna	Schwarzbeck	VULB 9168	719	Mar. 29, 2020
2	Pre-Amplifier	emci	EMC9135	980400	Mar. 29, 2020
3	MXE EMI Receiver	Keysight	N9038A	MY57150106	Mar. 29, 2020
4	Test Cable	emci	EMC104-SM-SM-7000	170330	Apr. 17, 2020
5	Test Cable	emci	EMC104-SM-SM-1000	170331	Apr. 17, 2020
6	Test Cable	emci	EMC104-SM-NM-3500	170621	Apr. 17, 2020
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 Waveguide Horn Antenna	ETS-Lindgren	9120D	00206960	Mar. 29, 2020
2	Pre-Amplifier	emci	EMC012645SE	980421	Mar. 29, 2020
3	EXA Spectrum Analyzer	Keysight	N9010A	MY56480545	Mar. 29, 2020
4	Test Cable	emci	EMC104-SM-SM-7000	170330	Apr. 17, 2020
5	Test Cable	emci	EMC104-SM-SM-1000	170331	Apr. 17, 2020
6	Test Cable	emci	EMC104-SM-NM-3500	170621	Apr. 17, 2020
7	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
8	MXE EMI Receiver	Keysight	N9038A	MY57150106	Mar. 29, 2020

Bandwidth

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP40	100626	Mar. 29, 2020

Maximum Output Power

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Power Meter	Keysight	8990B	MY51000507	Mar. 29, 2020
2	Pulse Power Sensor	Keysight	N1923A	MY58310003	Mar. 29, 2020

Antenna Conducted Spurious Emissions

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP40	100626	Mar. 29, 2020

Power Spectral Density

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP40	100626	Mar. 29, 2020

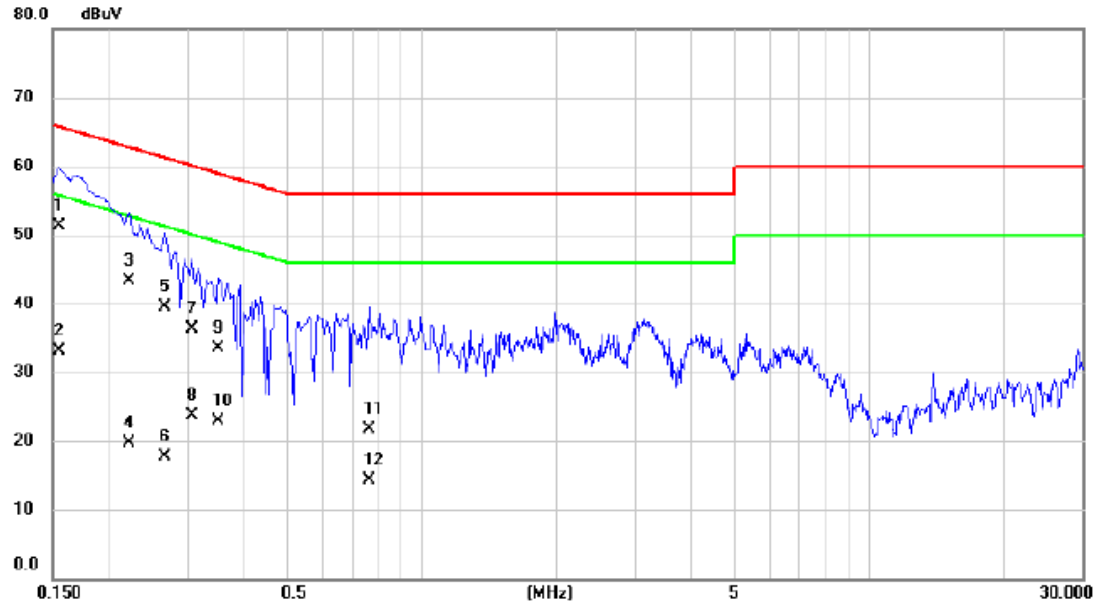
Remark: "N/A" denotes no model name, serial no. or calibration specified.

All calibration period of equipment list is one year.

APPENDIX A - AC POWER LINE CONDUCTED EMISSIONS

Test Mode: TX Mode

Line



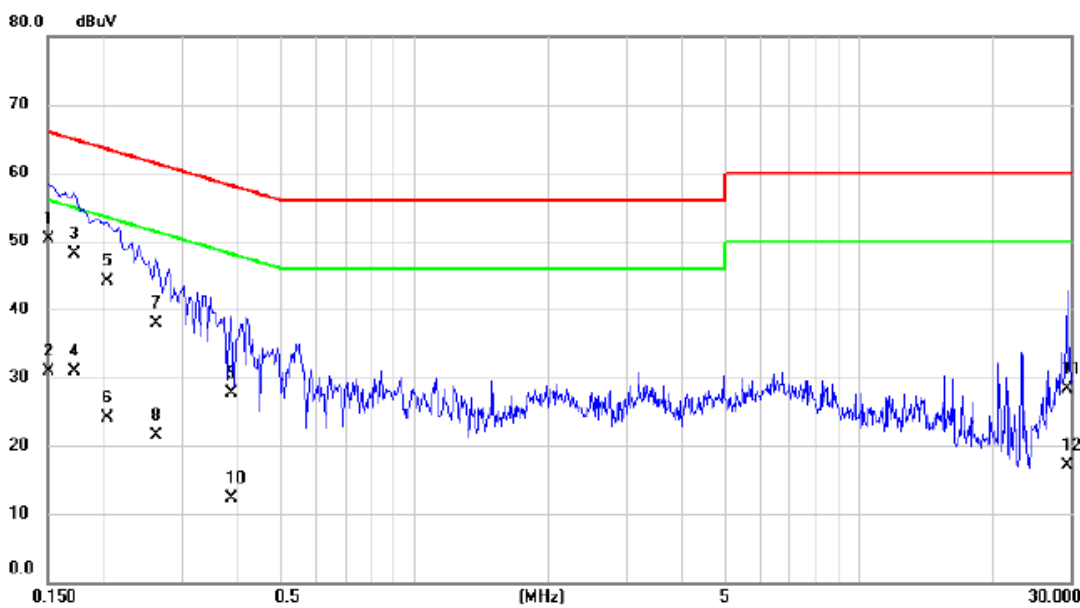
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1	*	0.1544	41.60	9.76	51.36	65.76	-14.40	QP	
2		0.1544	23.30	9.76	33.06	55.76	-22.70	AVG	
3		0.2220	33.50	9.82	43.32	62.74	-19.42	QP	
4		0.2220	9.80	9.82	19.62	52.74	-33.12	AVG	
5		0.2670	29.70	9.82	39.52	61.21	-21.69	QP	
6		0.2670	7.80	9.82	17.62	51.21	-33.59	AVG	
7		0.3075	26.50	9.76	36.26	60.04	-23.78	QP	
8		0.3075	14.00	9.76	23.76	50.04	-26.28	AVG	
9		0.3525	23.60	9.83	33.43	58.90	-25.47	QP	
10		0.3525	13.00	9.83	22.83	48.90	-26.07	AVG	
11		0.7620	12.00	9.78	21.78	56.00	-34.22	QP	
12		0.7620	4.60	9.78	14.38	46.00	-31.62	AVG	

REMARKS:

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

Test Mode: TX Mode

Neutral



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1	*	0.1500	40.60	9.62	50.22	66.00	-15.78	QP	
2		0.1500	21.30	9.62	30.92	56.00	-25.08	AVG	
3		0.1725	38.50	9.57	48.07	64.84	-16.77	QP	
4		0.1725	21.30	9.57	30.87	54.84	-23.97	AVG	
5		0.2040	34.50	9.64	44.14	63.45	-19.31	QP	
6		0.2040	14.50	9.64	24.14	53.45	-29.31	AVG	
7		0.2625	28.20	9.71	37.91	61.35	-23.44	QP	
8		0.2625	11.80	9.71	21.51	51.35	-29.84	AVG	
9		0.3885	18.00	9.72	27.72	58.10	-30.38	QP	
10		0.3885	2.50	9.72	12.22	48.10	-35.88	AVG	
11		29.4180	18.60	9.63	28.23	60.00	-31.77	QP	
12		29.4180	7.50	9.63	17.13	50.00	-32.87	AVG	

REMARKS:

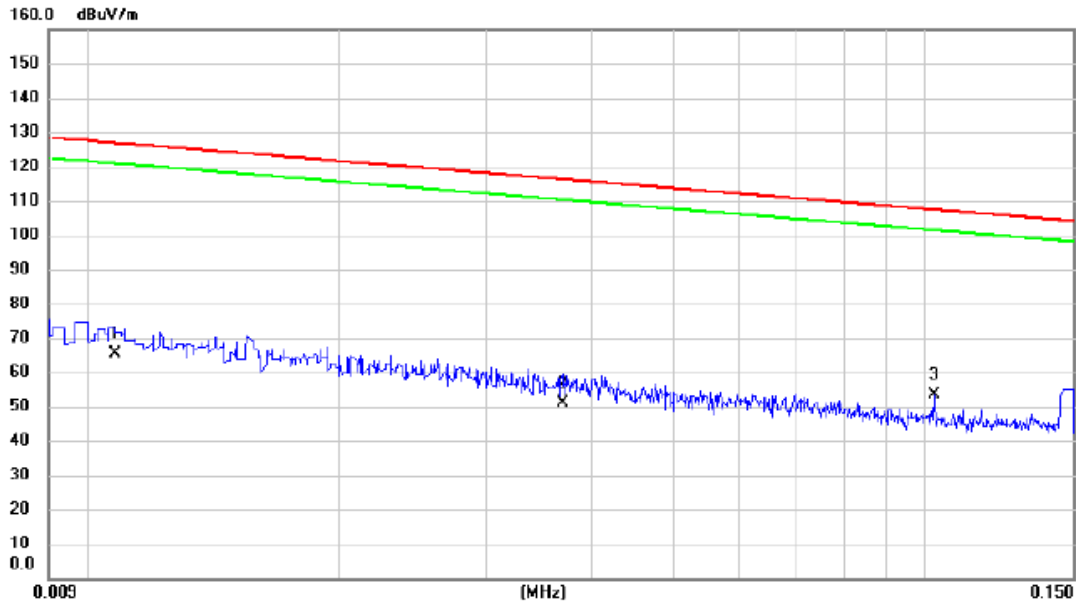
(1) Measurement Value = Reading Level + Correct Factor.

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

APPENDIX B - RADIATED EMISSION - 9 KHZ TO 30 MHZ

Test Mode: TX Mode

Ant 0°



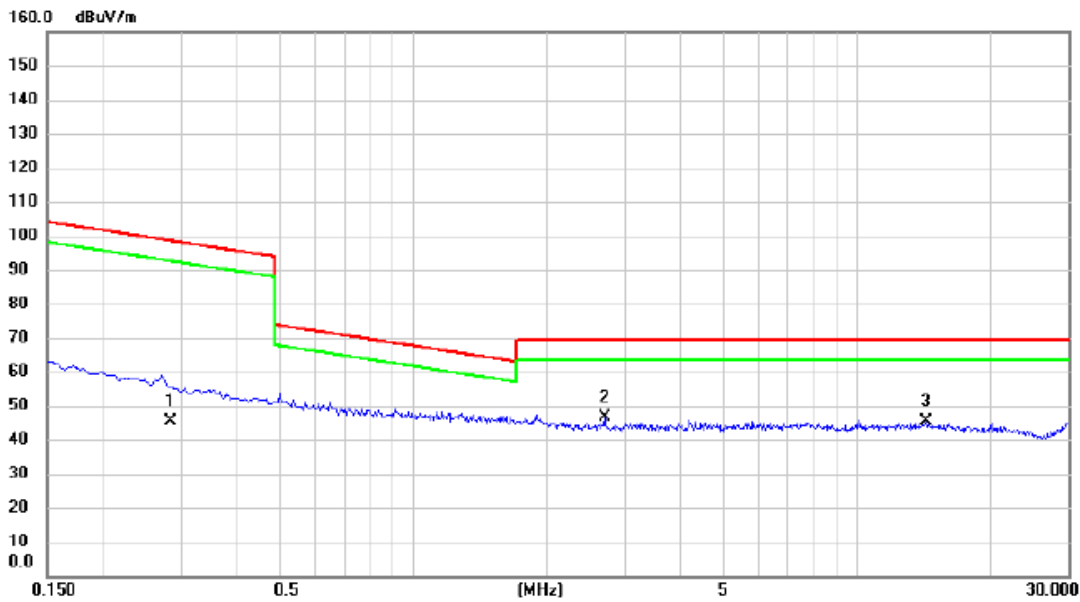
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Detector	Comment
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1		0.0108	-12.70	77.91	65.21	126.94	-61.73	AVG	
2		0.0370	-16.67	67.60	50.93	116.24	-65.31	AVG	
3	*	0.1025	-4.56	57.85	53.29	107.39	-54.10	QP	

REMARKS:

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

Test Mode: TX Mode

Ant 0°



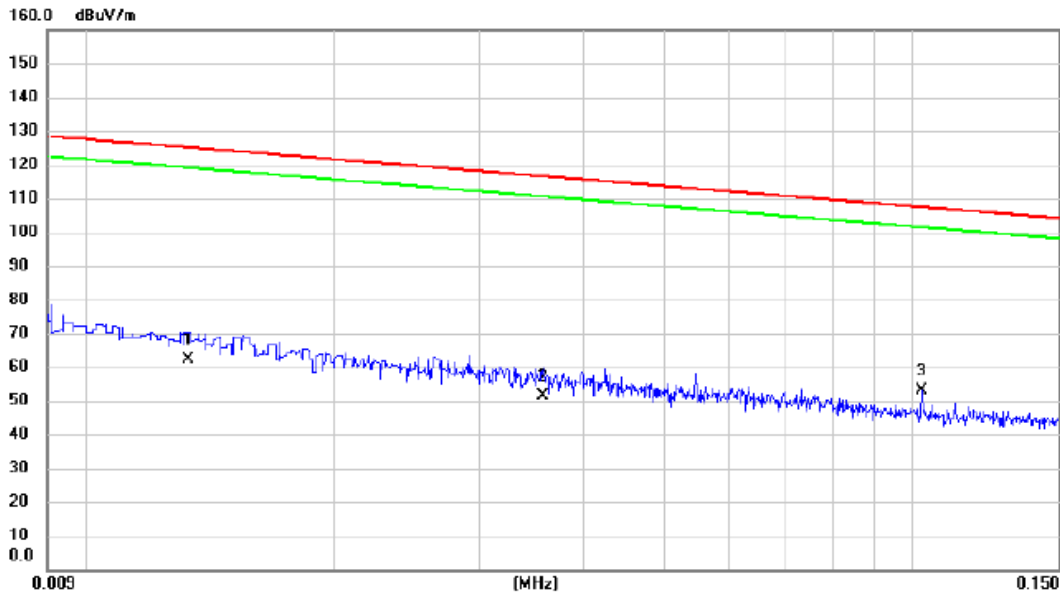
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		0.2850	-3.90	49.21	45.31	98.51	-53.20	AVG	
2	*	2.7015	8.23	38.24	46.47	69.54	-23.07	QP	
3		14.2980	7.35	38.14	45.49	69.54	-24.05	QP	

REMARKS:

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

Test Mode: TX Mode

Ant 90°



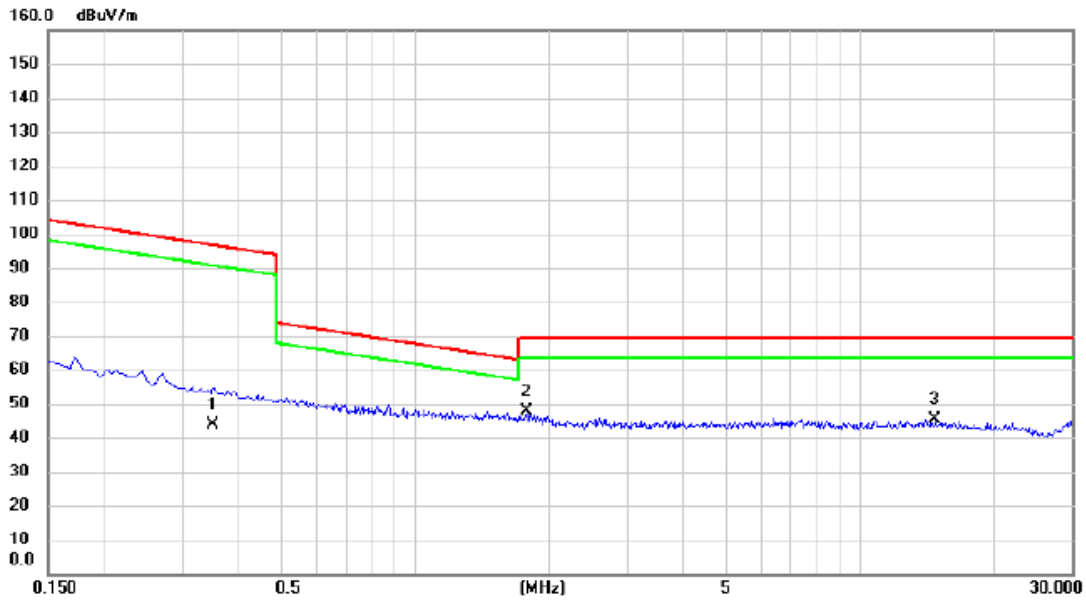
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		0.0133	-14.30	76.39	62.09	125.13	-63.04	AVG	
2		0.0357	-16.40	67.99	51.59	116.55	-64.96	AVG	
3	*	0.1025	-4.90	57.85	52.95	107.39	-54.44	QP	

REMARKS:

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

Test Mode: TX Mode

Ant 90°



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		0.3525	-3.80	47.55	43.75	96.66	-52.91	AVG	
2	*	1.7790	8.54	39.33	47.87	69.54	-21.67	QP	
3		14.7930	7.42	38.06	45.48	69.54	-24.06	QP	

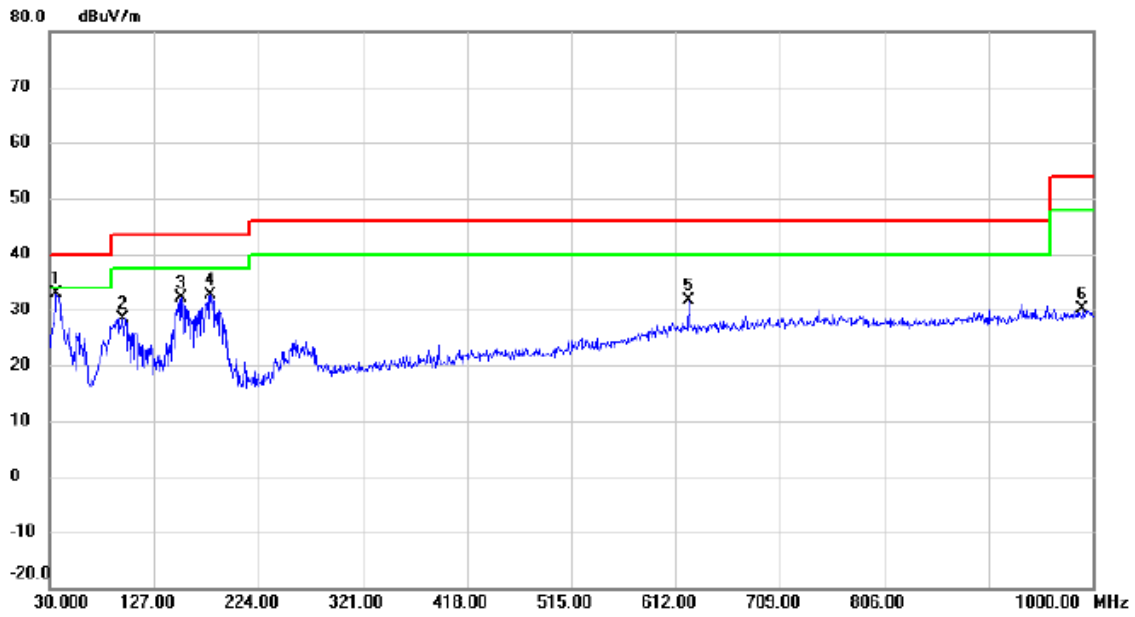
REMARKS:

- (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 Mode

Vertical



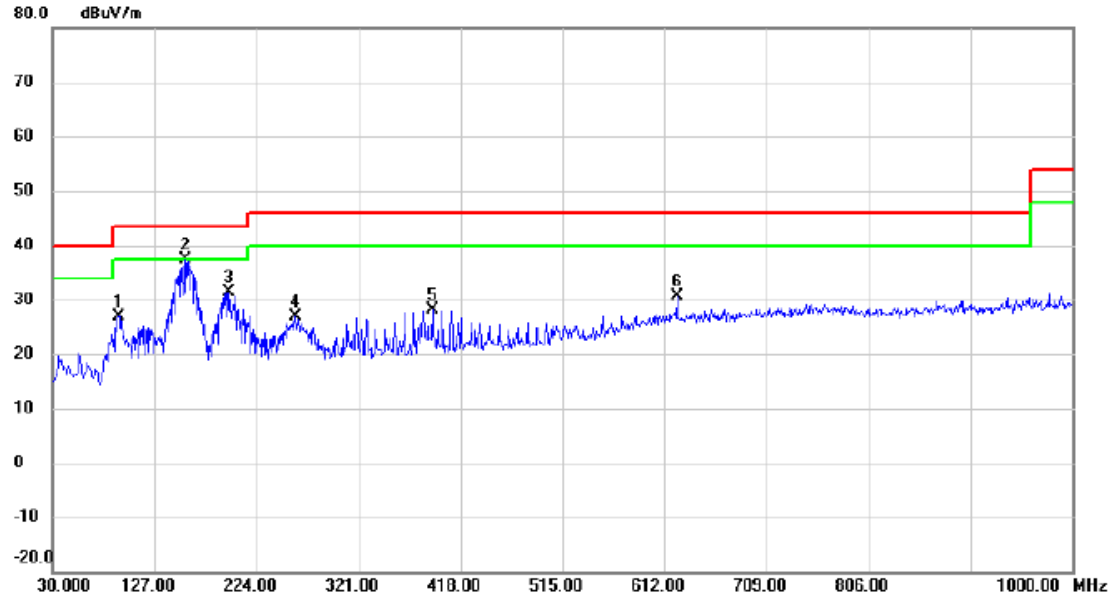
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	36.3050	48.47	-15.52	32.95	40.00	-7.05	peak	
2		98.3850	45.70	-17.31	28.39	43.50	-15.11	peak	
3		152.7050	44.25	-12.05	32.20	43.50	-11.30	peak	
4		179.8650	46.88	-14.37	32.51	43.50	-10.99	peak	
5		624.1250	37.17	-5.64	31.53	46.00	-14.47	peak	
6		990.3000	33.91	-3.82	30.09	54.00	-23.91	peak	

REMARKS:

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

Test Mode: TX Mode

Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		92.0800	45.01	-18.01	27.00	43.50	-16.50	peak	
2	*	155.6150	49.56	-12.19	37.37	43.50	-6.13	peak	
3		197.8100	47.59	-16.10	31.49	43.50	-12.01	peak	
4		261.3450	41.38	-14.52	26.86	46.00	-19.14	peak	
5		391.3250	39.37	-11.32	28.05	46.00	-17.95	peak	
6		624.1250	36.35	-5.64	30.71	46.00	-15.29	peak	

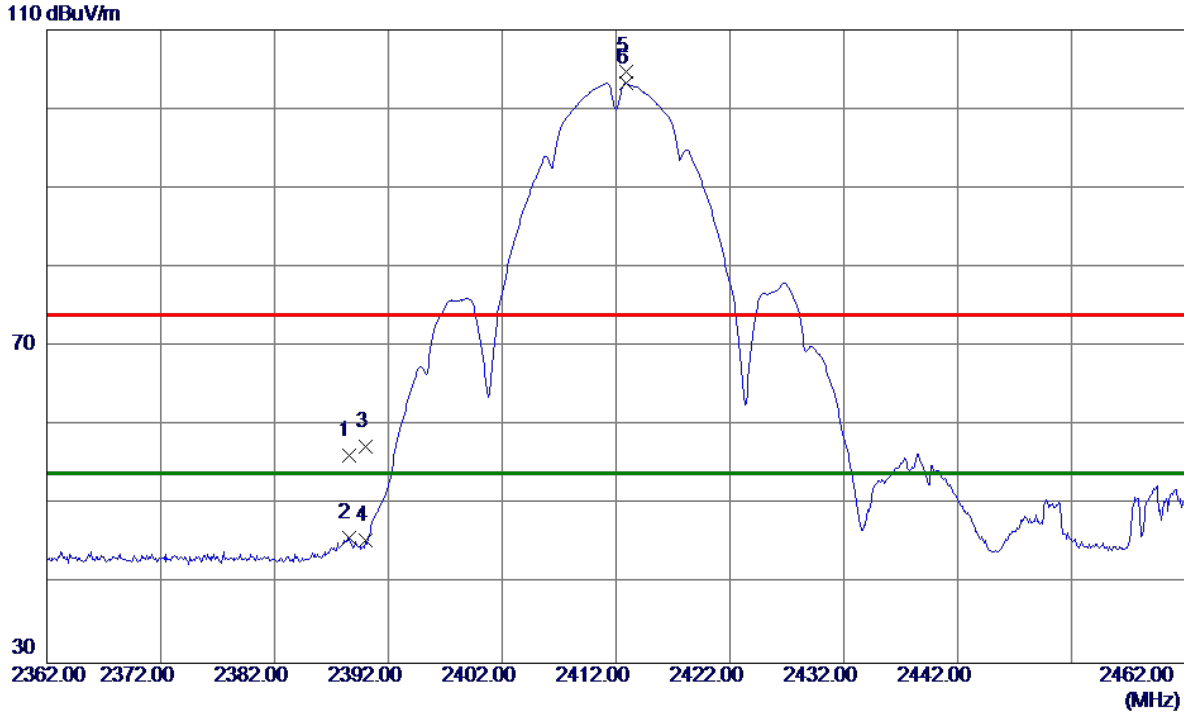
REMARKS:

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

APPENDIX D - RADIATED EMISSION- ABOVE 1000 MHZ

Test Mode: TX B Mode 2412 MHz

Vertical



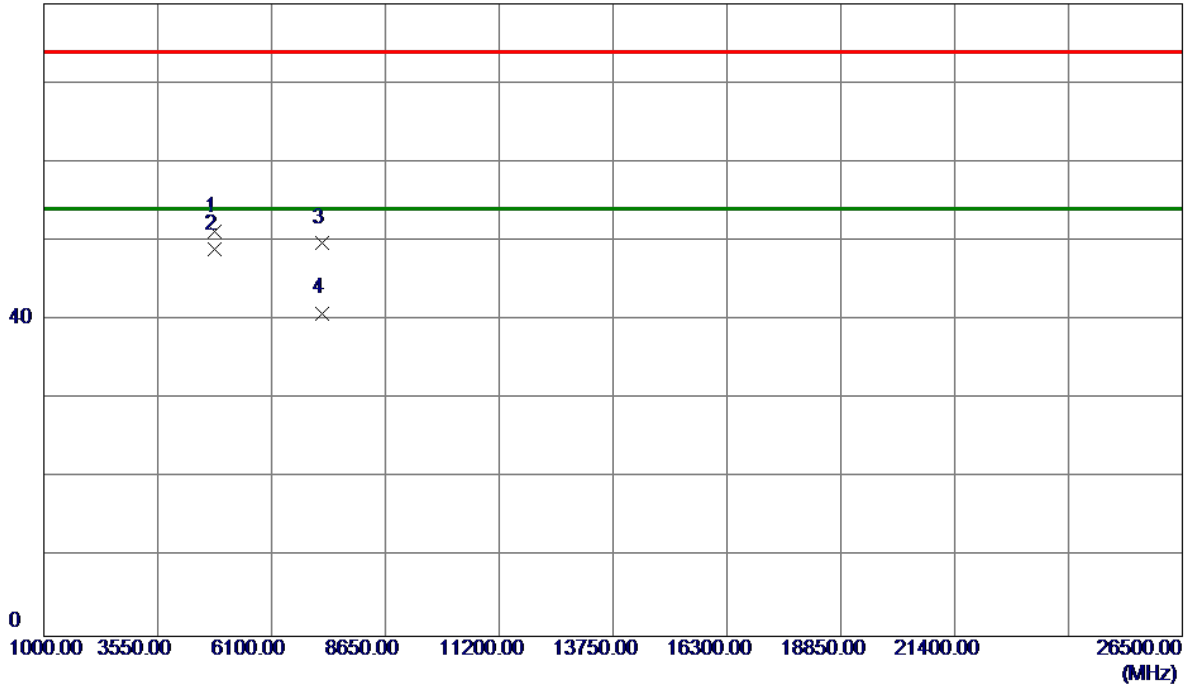
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measurement dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2388.5000	22.99	33.24	56.23	74.00	-17.77	Peak	
2	2388.5000	12.65	33.24	45.89	54.00	-8.11	AVG	
3	2390.0000	24.15	33.25	57.40	74.00	-16.60	Peak	
4	2390.0000	12.30	33.25	45.55	54.00	-8.45	AVG	
5	2412.9000	71.48	33.31	104.79	74.00	30.79	Peak	No Limit
6 *	2412.9000	69.95	33.31	103.26	54.00	49.26	AVG	No Limit

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

Test Mode: TX B Mode 2412 MHz

Vertical

80 dBuV/m



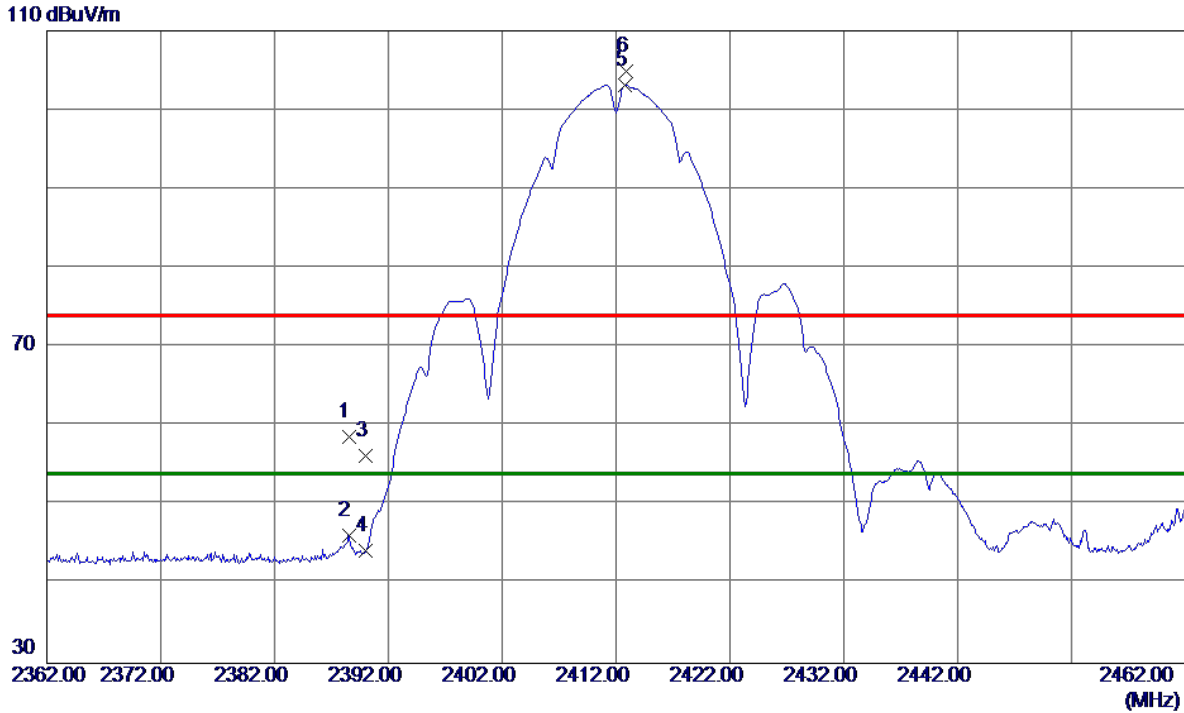
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4823.8500	60.17	-8.99	51.18	74.00	-22.82	Peak	
2 *	4824.0000	57.91	-8.99	48.92	54.00	-5.08	AVG	
3	7234.9600	51.94	-2.25	49.69	74.00	-24.31	Peak	
4	7235.2000	43.13	-2.25	40.88	54.00	-13.12	AVG	

REMARKS:

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

Test Mode: TX B Mode 2412 MHz

Horizontal

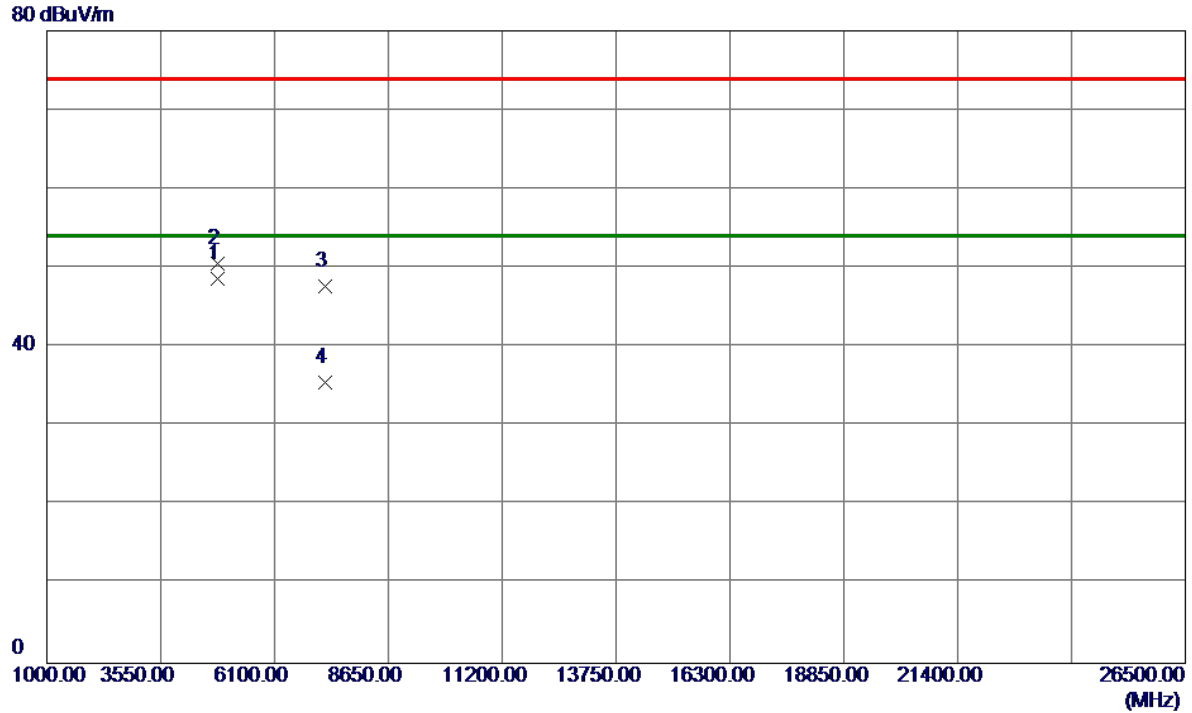


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2388.5000	25.34	33.24	58.58	74.00	-15.42	Peak	
2	2388.5000	12.90	33.24	46.14	54.00	-7.86	AVG	
3	2390.0000	22.99	33.25	56.24	74.00	-17.76	Peak	
4	2390.0000	10.99	33.25	44.24	54.00	-9.76	AVG	
5 *	2412.8000	69.82	33.31	103.13	54.00	49.13	AVG	No Limit
6	2412.9000	71.50	33.31	104.81	74.00	30.81	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

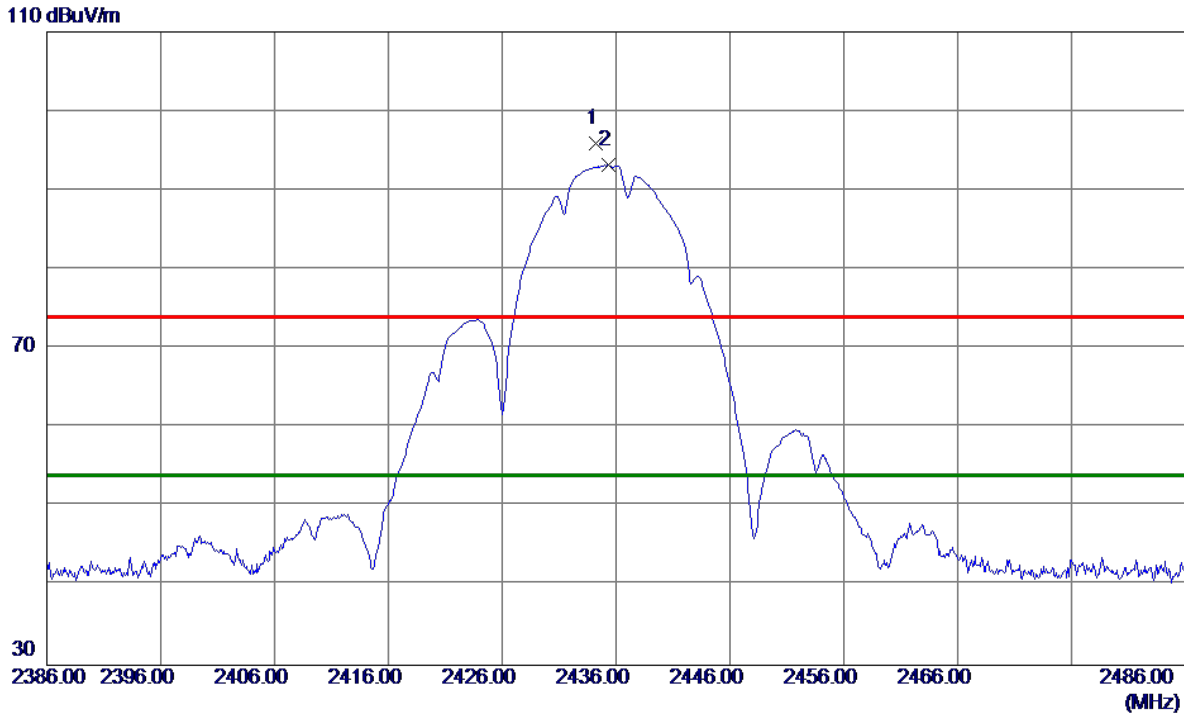


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	4824.0000	57.67	-8.99	48.68	54.00	-5.32	AVG	
2	4824.0350	59.56	-8.99	50.57	74.00	-23.43	Peak	
3	7235.2000	49.95	-2.25	47.70	74.00	-26.30	Peak	
4	7236.0000	37.79	-2.24	35.55	54.00	-18.45	AVG	

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

Test Mode: TX B Mode 2437 MHz

Vertical



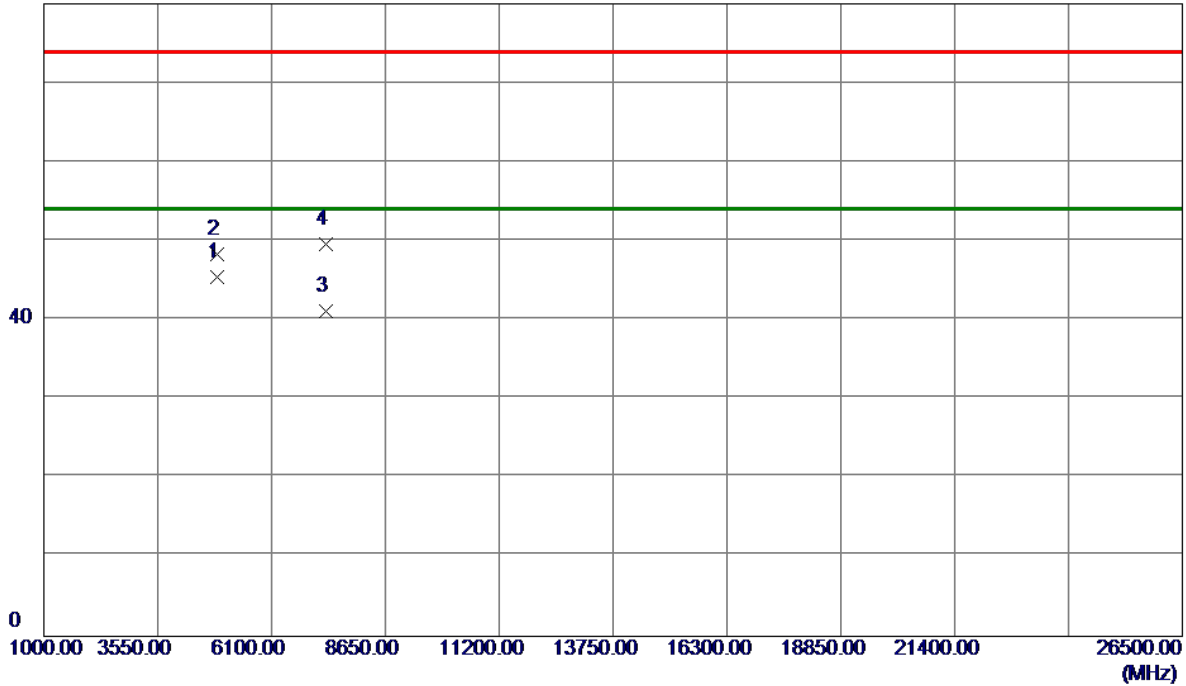
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2434.2000	62.52	33.37	95.89	74.00	21.89	Peak	No Limit
2 *	2435.3000	59.76	33.38	93.14	54.00	39.14	AVG	No Limit

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



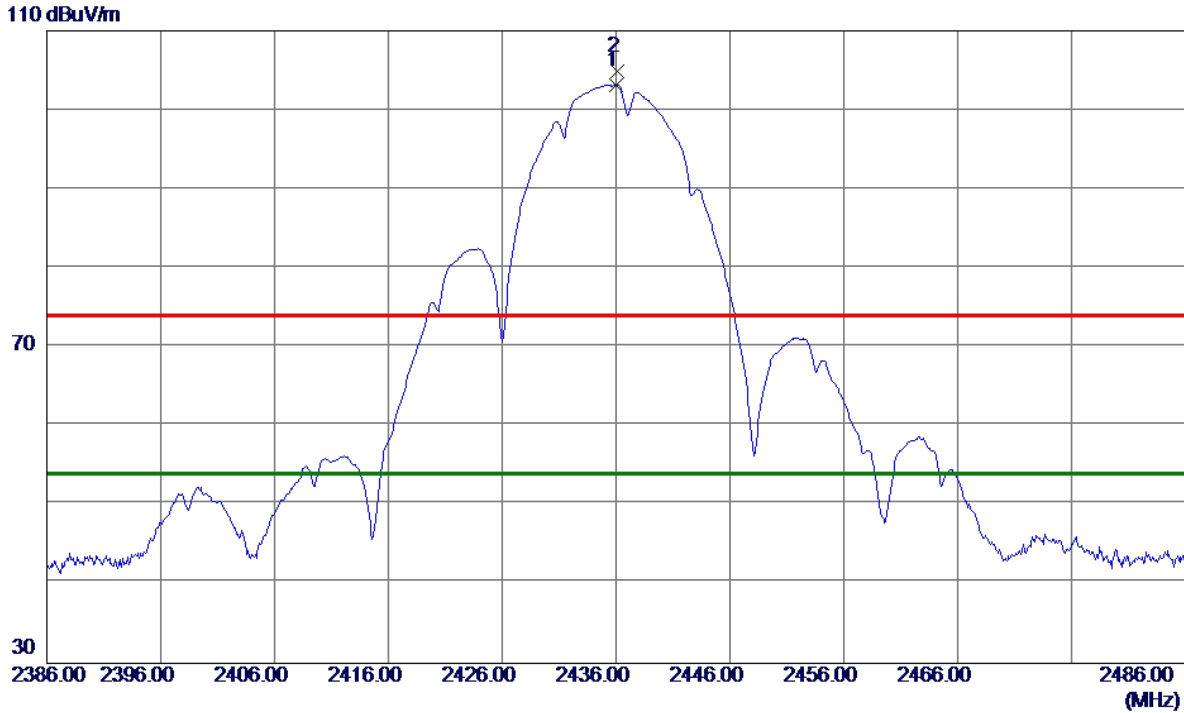
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	4874.0000	54.20	-8.80	45.40	54.00	-8.60	AVG	
2	4874.0099	57.07	-8.80	48.27	74.00	-25.73	Peak	
3	7310.1000	43.15	-2.09	41.06	54.00	-12.94	AVG	
4	7310.5400	51.73	-2.09	49.64	74.00	-24.36	Peak	

REMARKS:

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

Test Mode: TX B Mode 2437 MHz

Horizontal

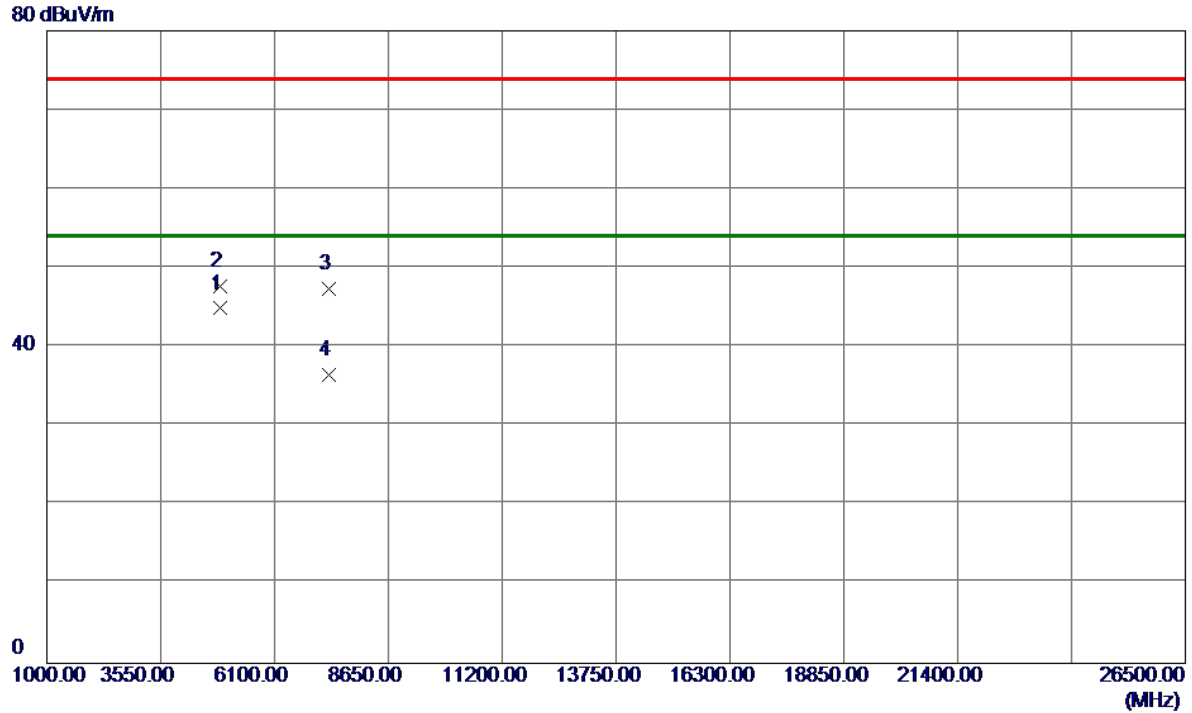


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2436.0000	69.79	33.38	103.17	54.00	49.17	AVG	No Limit
2	2436.1000	71.52	33.38	104.90	74.00	30.90	Peak	No Limit

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

Test Mode: TX B Mode 2437 MHz

Horizontal

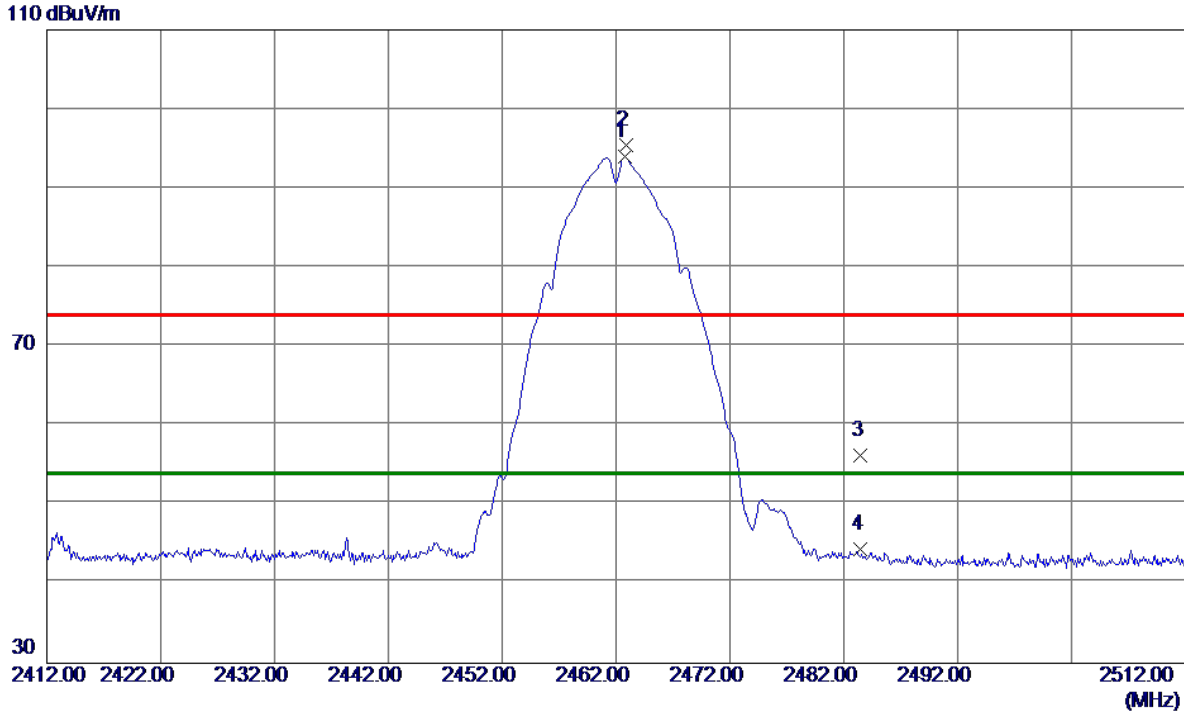


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	4874.0099	53.68	-8.80	44.88	54.00	-9.12	AVG	
2	4874.1800	56.54	-8.80	47.74	74.00	-26.26	Peak	
3	7308.1200	49.42	-2.10	47.32	74.00	-26.68	Peak	
4	7310.3000	38.59	-2.09	36.50	54.00	-17.50	AVG	

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

Test Mode: TX B Mode 2462 MHz

Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2462.8000	60.48	33.45	93.93	54.00	39.93	AVG	No Limit
2	2462.9000	62.03	33.45	95.48	74.00	21.48	Peak	No Limit
3	2483.5000	22.72	33.51	56.23	74.00	-17.77	Peak	
4	2483.5000	10.86	33.51	44.37	54.00	-9.63	AVG	

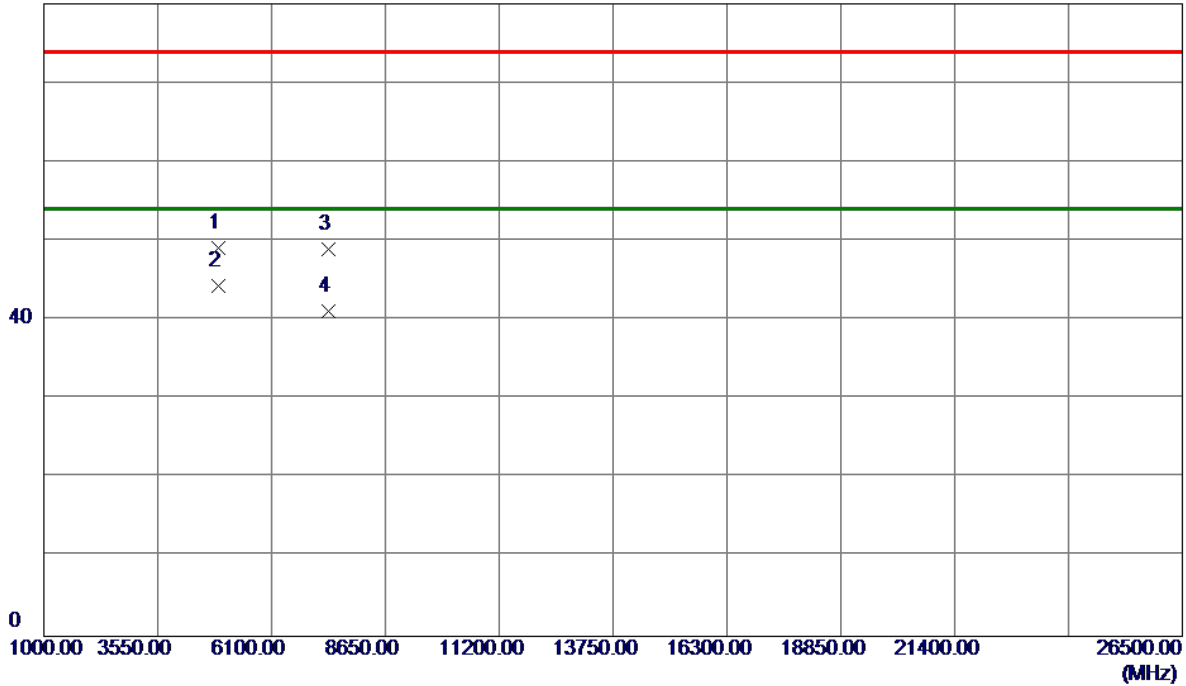
REMARKS:

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

Test Mode: TX B Mode 2462 MHz

Vertical

80 dBuV/m



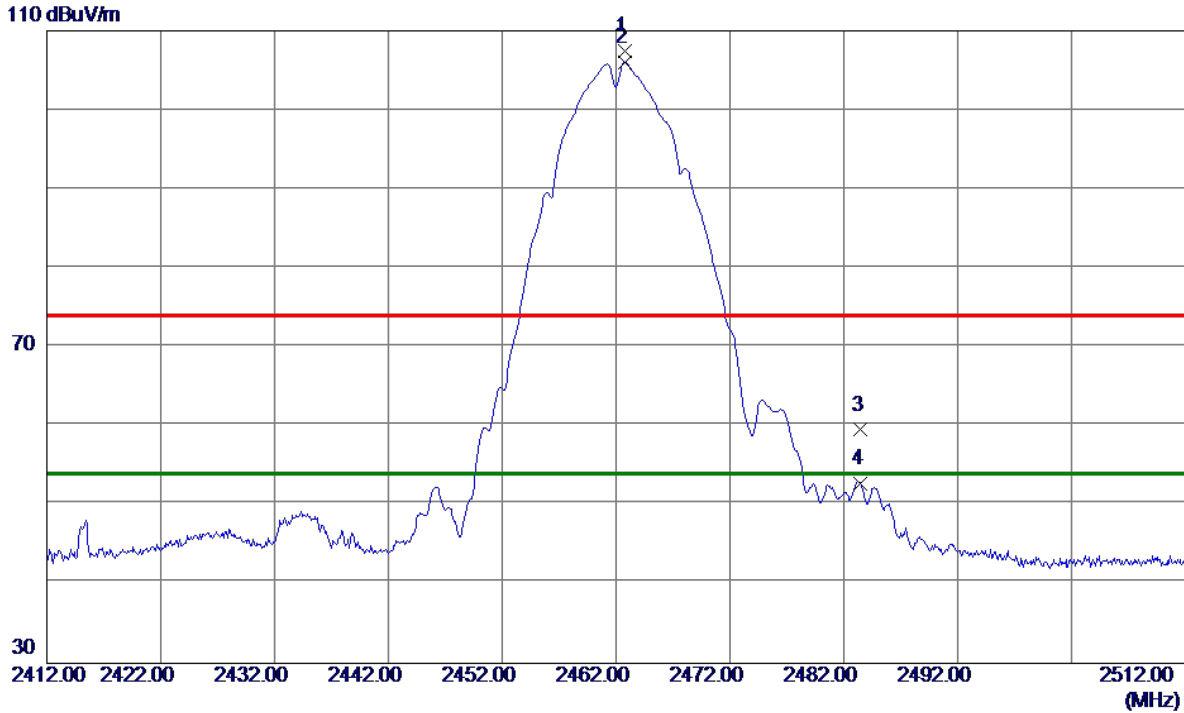
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4923.9700	57.70	-8.61	49.09	74.00	-24.91	Peak	
2 *	4924.0299	52.85	-8.60	44.25	54.00	-9.75	AVG	
3	7385.0400	50.83	-1.94	48.89	74.00	-25.11	Peak	
4	7386.8600	43.01	-1.94	41.07	54.00	-12.93	AVG	

REMARKS:

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

Test Mode: TX B Mode 2462 MHz

Horizontal

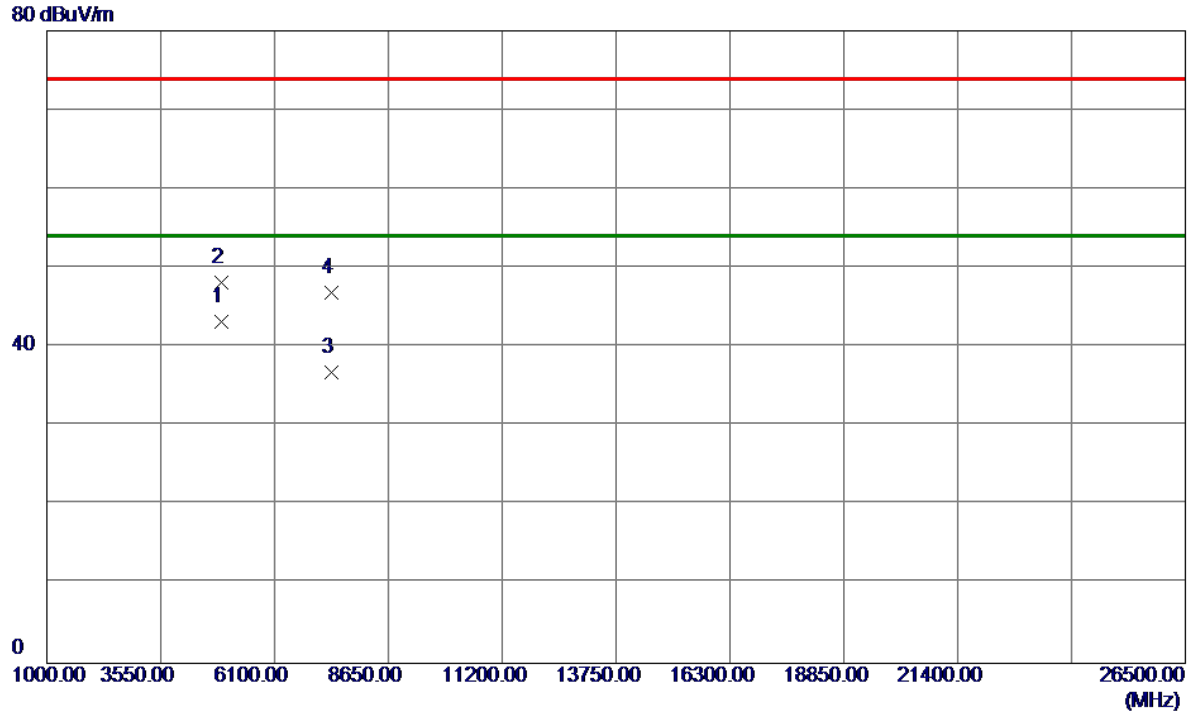


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2462.8000	74.00	33.45	107.45	74.00	33.45	Peak	No Limit
2 *	2462.8000	72.61	33.45	106.06	54.00	52.06	AVG	No Limit
3	2483.5000	26.01	33.51	59.52	74.00	-14.48	Peak	
4	2483.5000	19.26	33.51	52.77	54.00	-1.23	AVG	

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

Test Mode: TX B Mode 2462 MHz

Horizontal

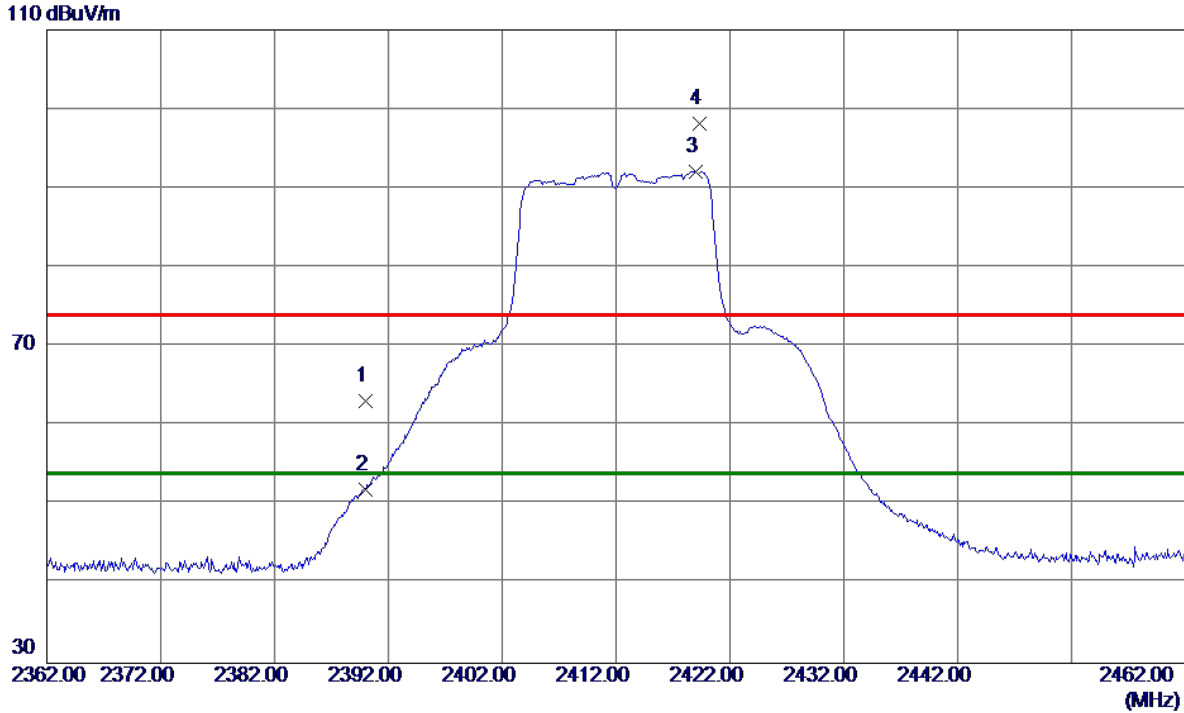


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	4924.0200	51.84	-8.60	43.24	54.00	-10.76	AVG	
2	4924.0700	56.69	-8.60	48.09	74.00	-25.91	Peak	
3	7387.2600	38.72	-1.94	36.78	54.00	-17.22	AVG	
4	7387.4800	48.76	-1.94	46.82	74.00	-27.18	Peak	

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

Test Mode: TX G Mode 2412 MHz

Vertical



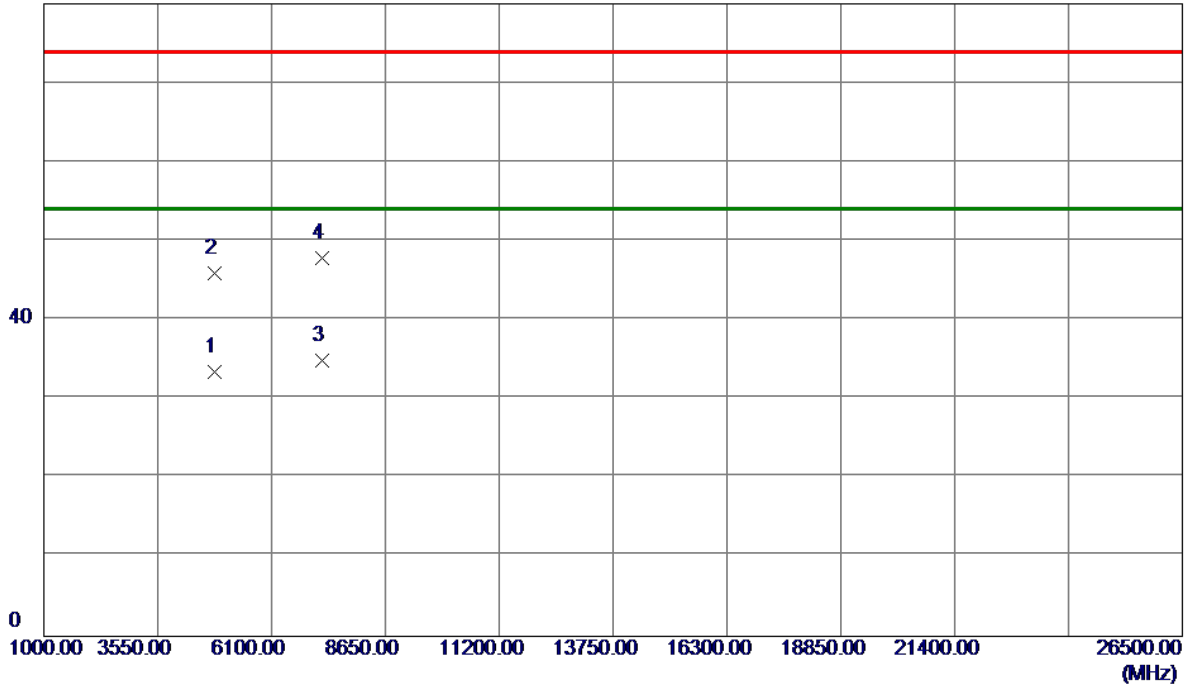
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	29.82	33.25	63.07	74.00	-10.93	Peak	
2	2390.0000	18.62	33.25	51.87	54.00	-2.13	AVG	
3 *	2419.0000	58.80	33.33	92.13	54.00	38.13	AVG	No Limit
4	2419.3000	64.88	33.33	98.21	74.00	24.21	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

Vertical

80 dBuV/m



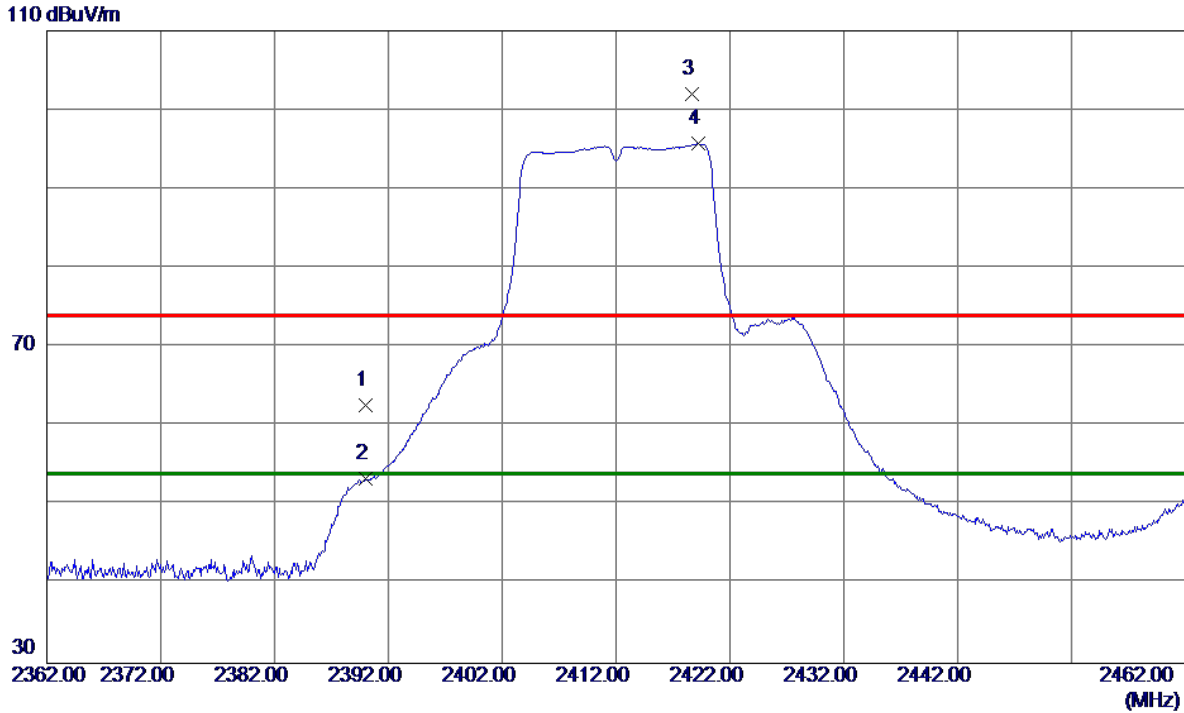
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4823.8100	42.43	-8.99	33.44	54.00	-20.56	AVG	
2	4825.2300	54.94	-8.99	45.95	74.00	-28.05	Peak	
3 *	7234.3850	37.18	-2.25	34.93	54.00	-19.07	AVG	
4	7234.6150	50.17	-2.25	47.92	74.00	-26.08	Peak	

REMARKS:

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

Test Mode: TX G Mode 2412 MHz

Horizontal

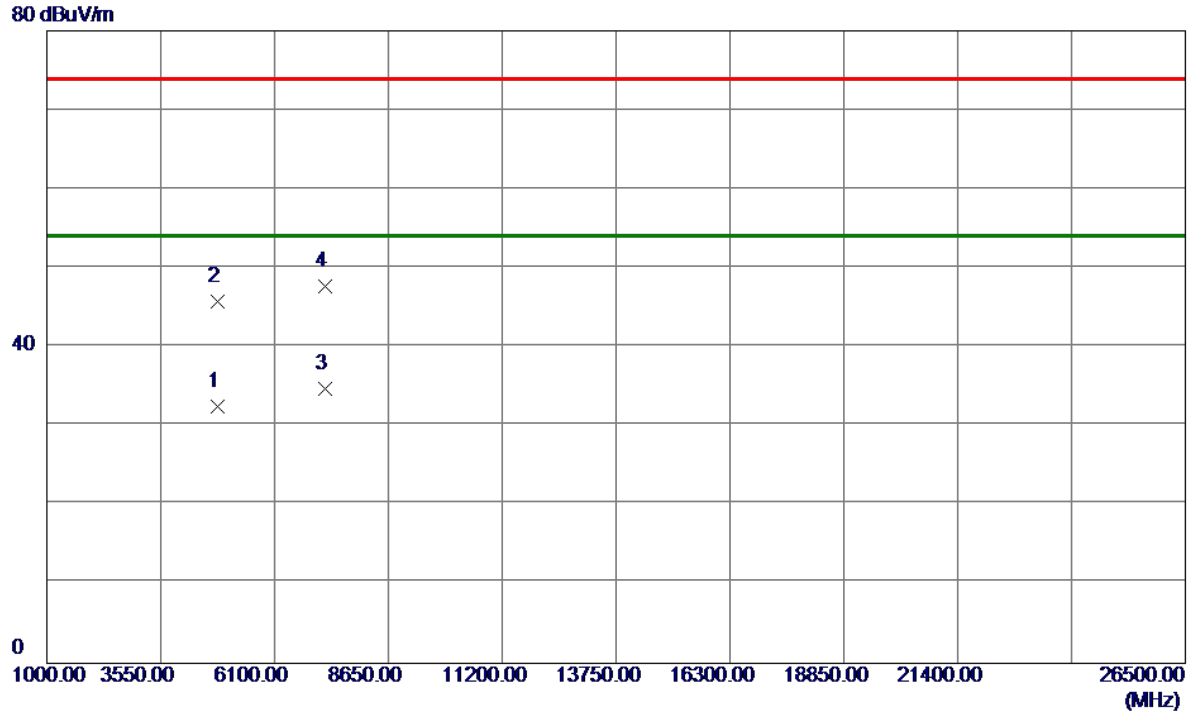


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	29.33	33.25	62.58	74.00	-11.42	Peak	
2	2390.0000	20.08	33.25	53.33	54.00	-0.67	AVG	
3	2418.7000	68.66	33.33	101.99	74.00	27.99	Peak	No Limit
4 *	2419.2000	62.39	33.33	95.72	54.00	41.72	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

Horizontal

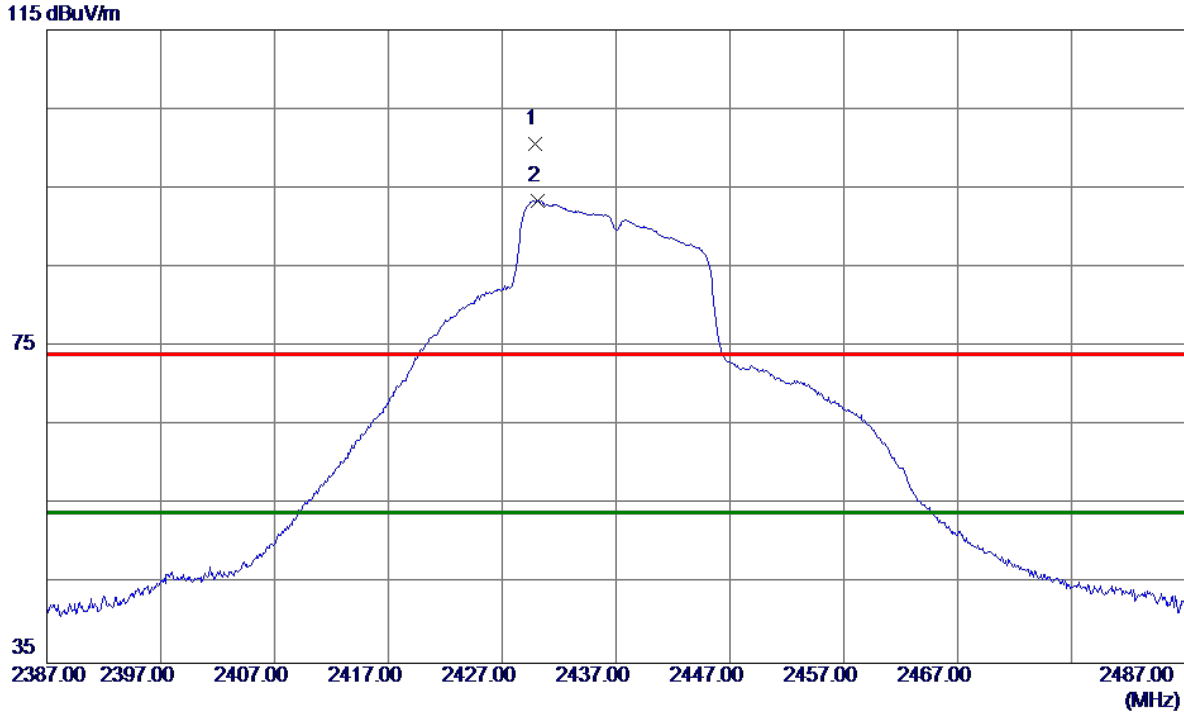


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4824.0500	41.43	-8.99	32.44	54.00	-21.56	AVG	
2	4825.5099	54.72	-8.99	45.73	74.00	-28.27	Peak	
3 *	7235.2200	37.02	-2.25	34.77	54.00	-19.23	AVG	
4	7236.1200	49.86	-2.24	47.62	74.00	-26.38	Peak	

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

Test Mode: TX G Mode 2437 MHz

Vertical



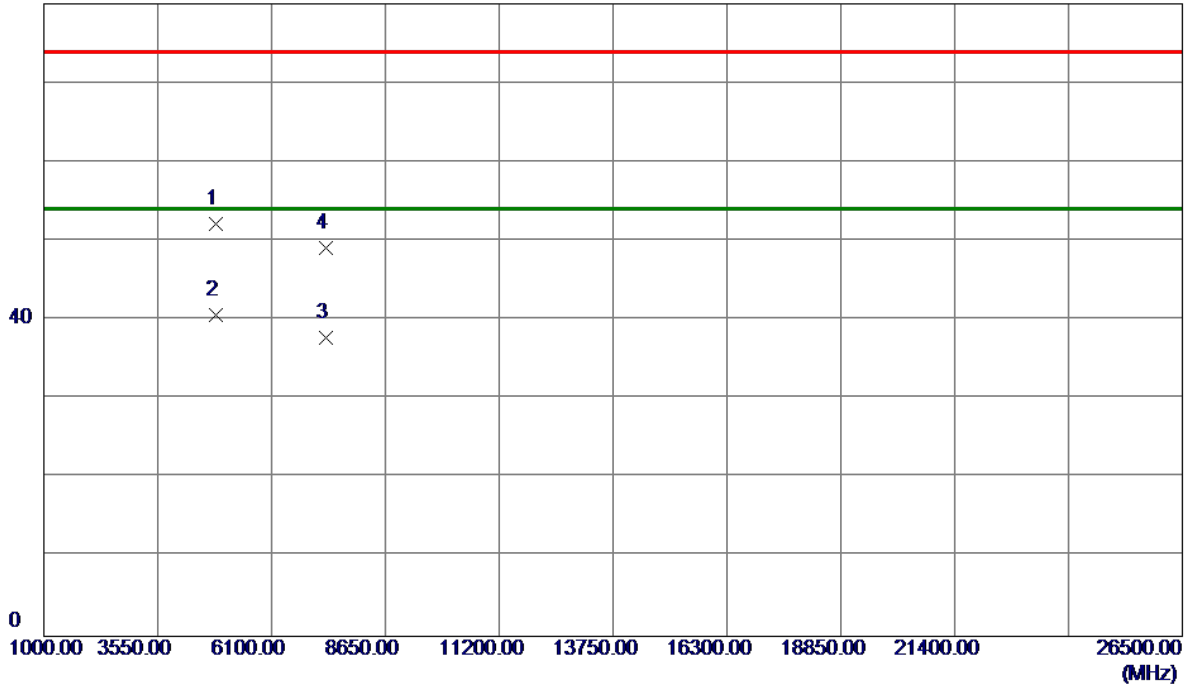
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2429.9000	67.29	33.36	100.65	74.00	26.65	Peak	No Limit
2 *	2430.1000	60.09	33.36	93.45	54.00	39.45	AVG	No Limit

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



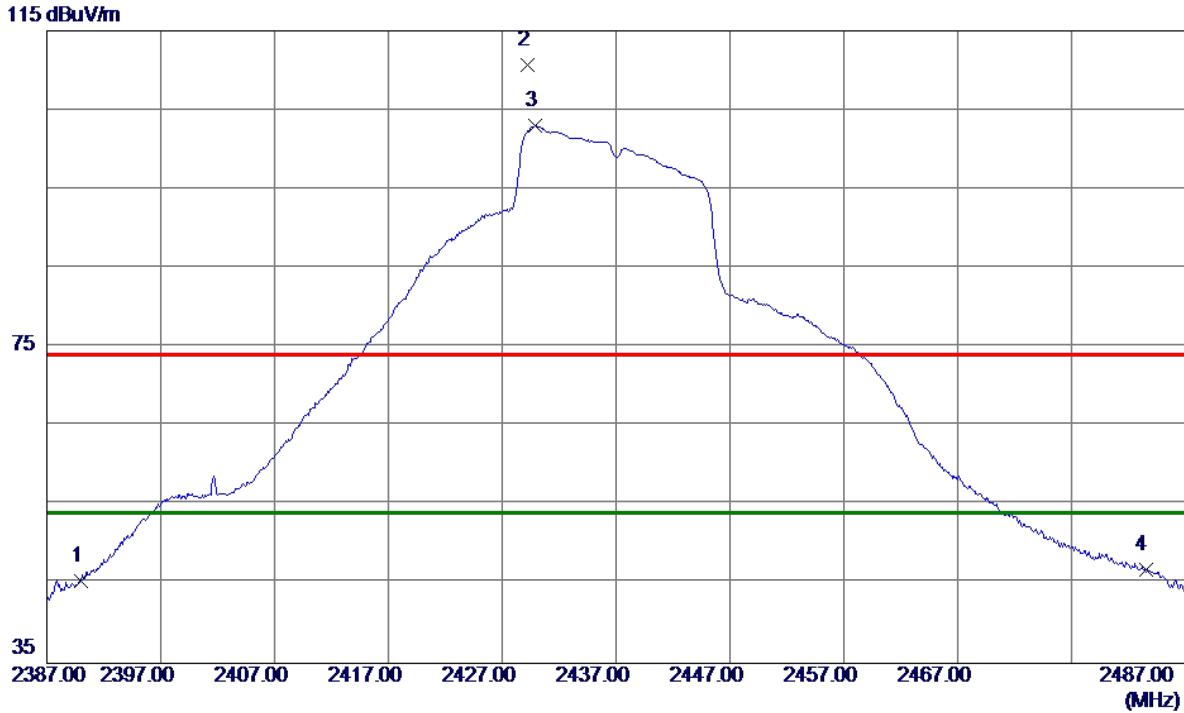
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4863.2000	61.06	-8.84	52.22	74.00	-21.78	Peak	
2 *	4867.3000	49.47	-8.82	40.65	54.00	-13.35	AVG	
3	7304.2800	39.83	-2.10	37.73	54.00	-16.27	AVG	
4	7309.5800	51.21	-2.09	49.12	74.00	-24.88	Peak	

REMARKS:

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

Test Mode: TX G Mode 2437 MHz

Horizontal

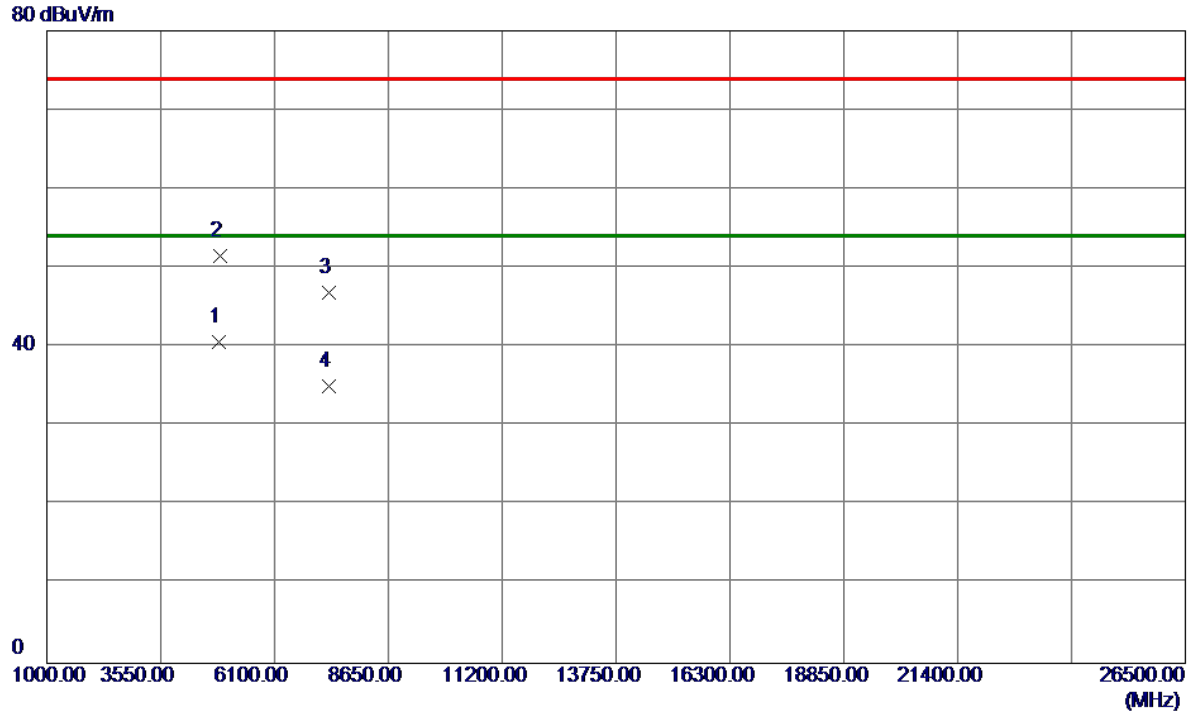


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	12.15	33.25	45.40	54.00	-8.60	AVG	
2	2429.2000	77.28	33.36	110.64	74.00	36.64	Peak	No Limit
3 *	2429.9000	69.59	33.36	102.95	54.00	48.95	AVG	No Limit
4	2483.5000	13.27	33.51	46.78	54.00	-7.22	AVG	

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

Test Mode: TX G Mode 2437 MHz

Horizontal

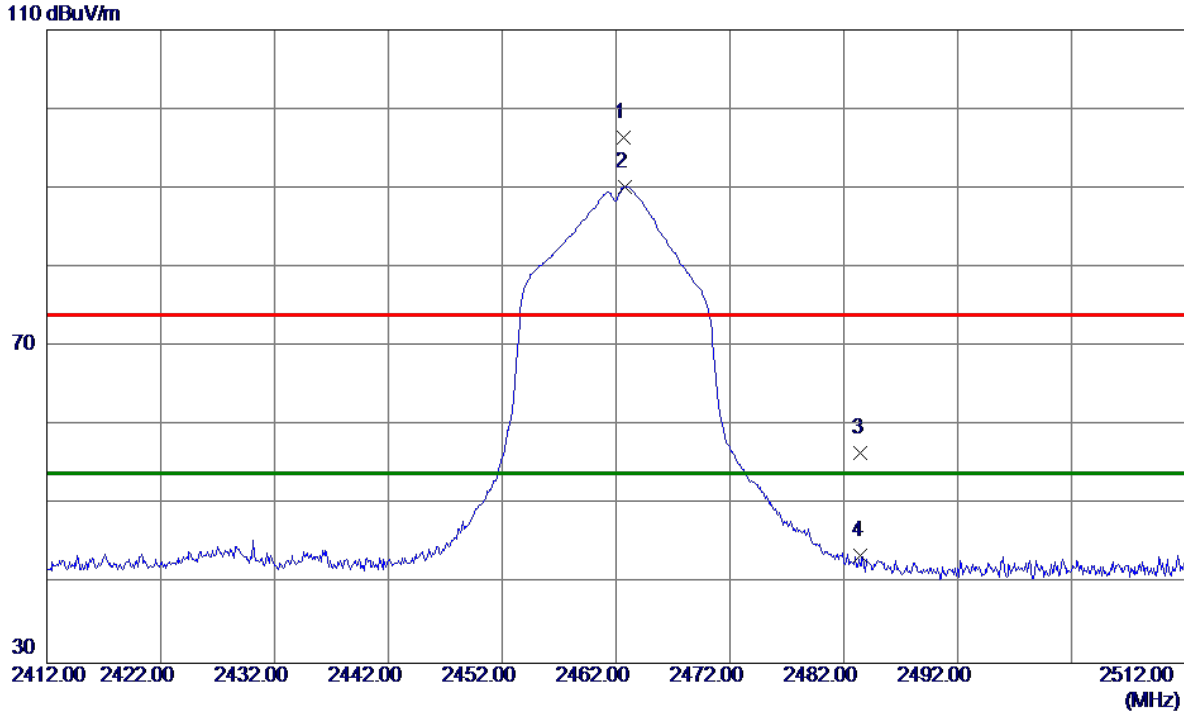


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	4867.3000	49.41	-8.82	40.59	54.00	-13.41	AVG	
2	4867.7000	60.36	-8.82	51.54	74.00	-22.46	Peak	
3	7308.1800	49.03	-2.10	46.93	74.00	-27.07	Peak	
4	7310.2800	37.15	-2.09	35.06	54.00	-18.94	AVG	

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

Test Mode: TX G Mode 2462 MHz

Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2462.7000	62.92	33.45	96.37	74.00	22.37	Peak	No Limit
2 *	2462.8000	56.77	33.45	90.22	54.00	36.22	AVG	No Limit
3	2483.5000	23.10	33.51	56.61	74.00	-17.39	Peak	
4	2483.5000	10.07	33.51	43.58	54.00	-10.42	AVG	

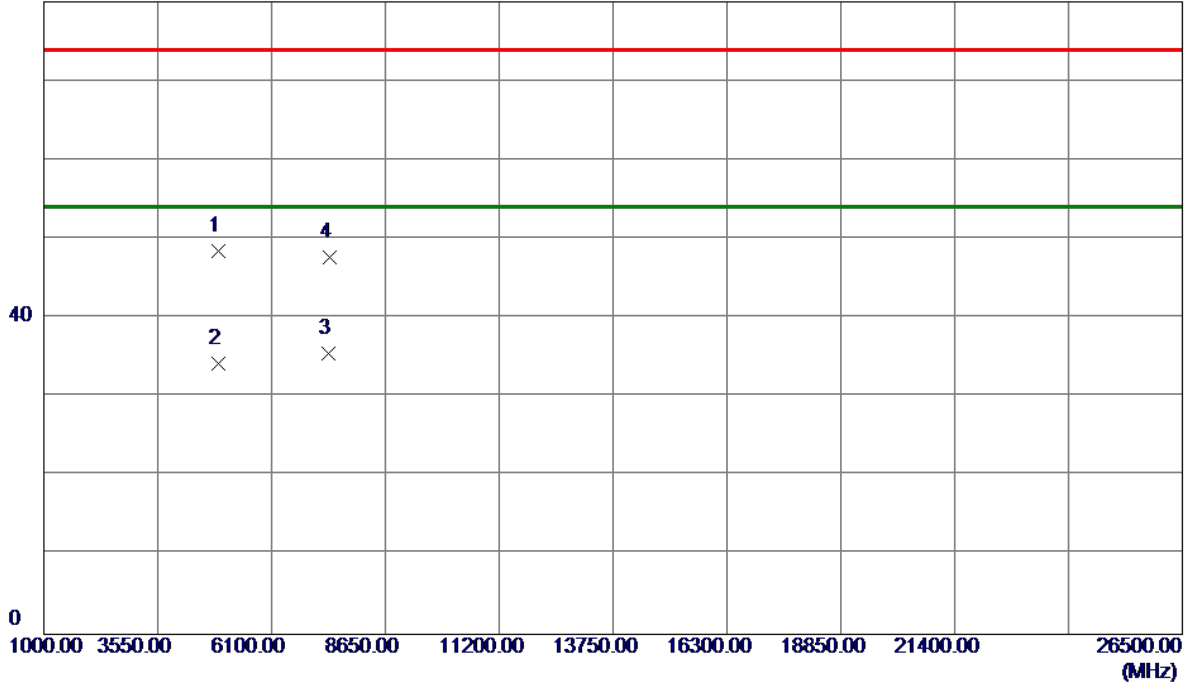
REMARKS:

- (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



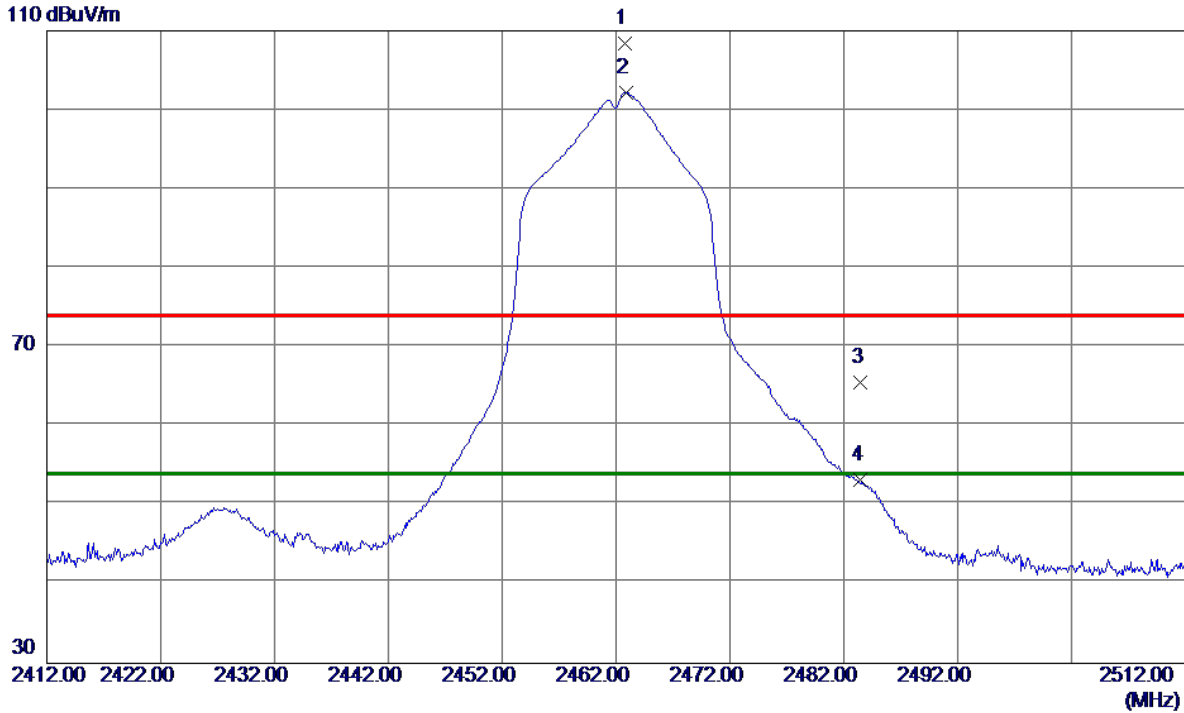
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4921.8000	57.14	-8.61	48.53	74.00	-25.47	Peak	
2	4922.7000	42.81	-8.61	34.20	54.00	-19.80	AVG	
3 *	7389.1600	37.45	-1.93	35.52	54.00	-18.48	AVG	
4	7390.1600	49.64	-1.93	47.71	74.00	-26.29	Peak	

REMARKS:

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

Test Mode: TX G Mode 2462 MHz

Horizontal

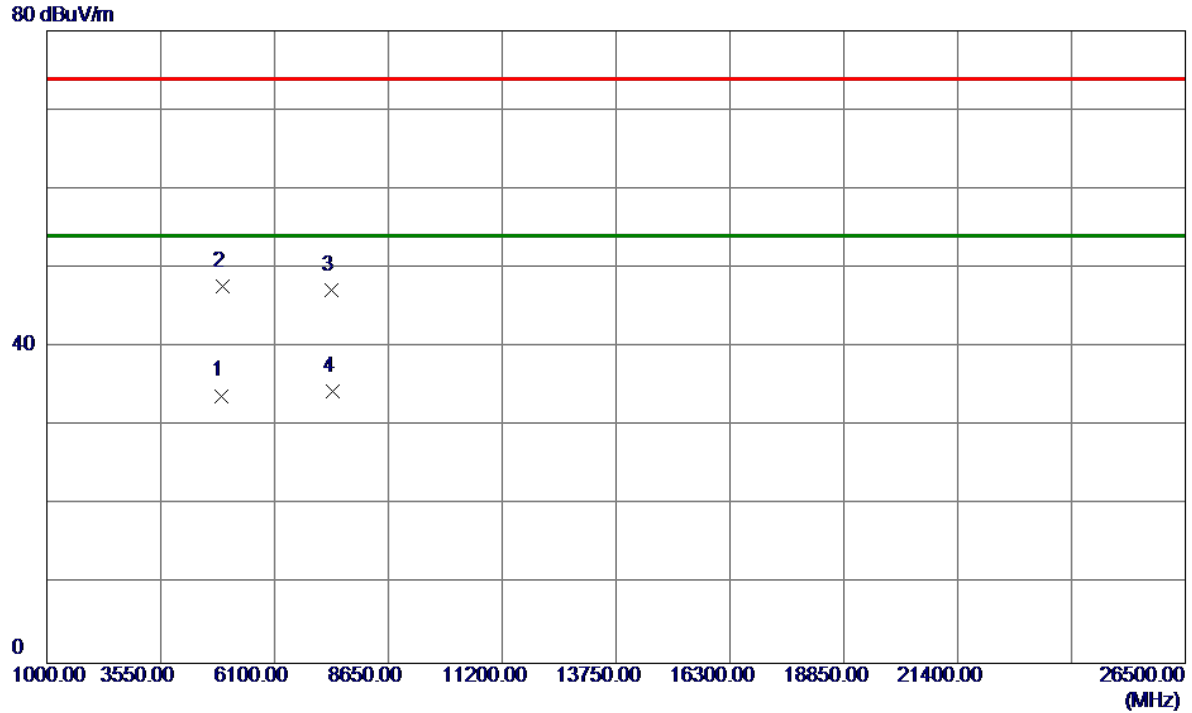


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2462.8000	74.93	33.45	108.38	74.00	34.38	Peak	No Limit
2 *	2462.9000	68.72	33.45	102.17	54.00	48.17	AVG	No Limit
3	2483.5000	32.00	33.51	65.51	74.00	-8.49	Peak	
4	2483.5000	19.69	33.51	53.20	54.00	-0.80	AVG	

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

Test Mode: TX G Mode 2462 MHz

Horizontal

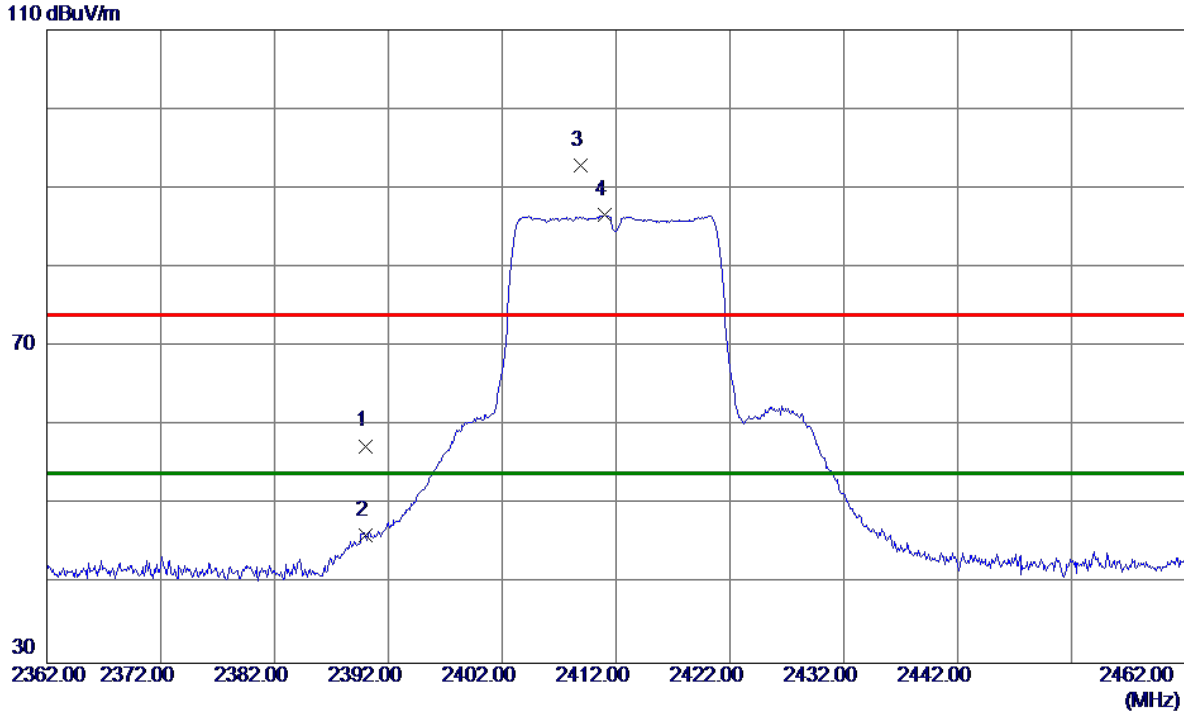


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4922.2000	42.45	-8.61	33.84	54.00	-20.16	AVG	
2	4924.5500	56.32	-8.60	47.72	74.00	-26.28	Peak	
3	7384.8200	49.20	-1.94	47.26	74.00	-26.74	Peak	
4 *	7391.0600	36.27	-1.93	34.34	54.00	-19.66	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



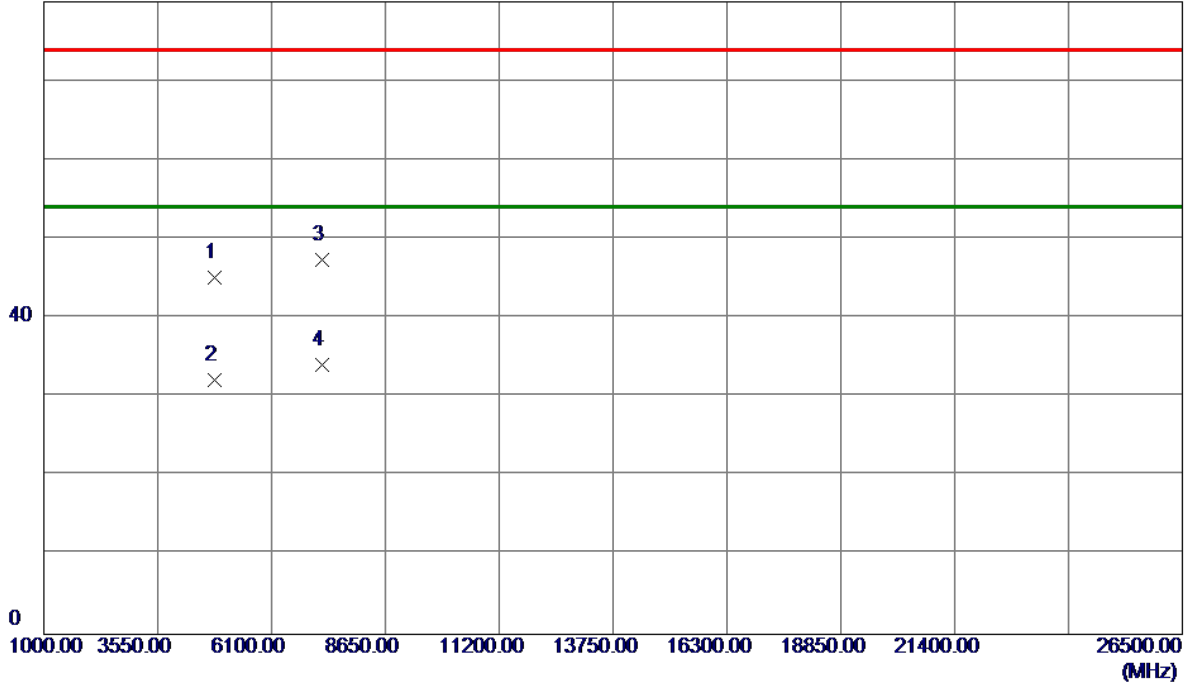
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	24.19	33.25	57.44	74.00	-16.56	Peak	
2	2390.0000	12.89	33.25	46.14	54.00	-7.86	AVG	
3	2408.9000	59.53	33.30	92.83	74.00	18.83	Peak	No Limit
4 *	2411.0000	53.28	33.31	86.59	54.00	32.59	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



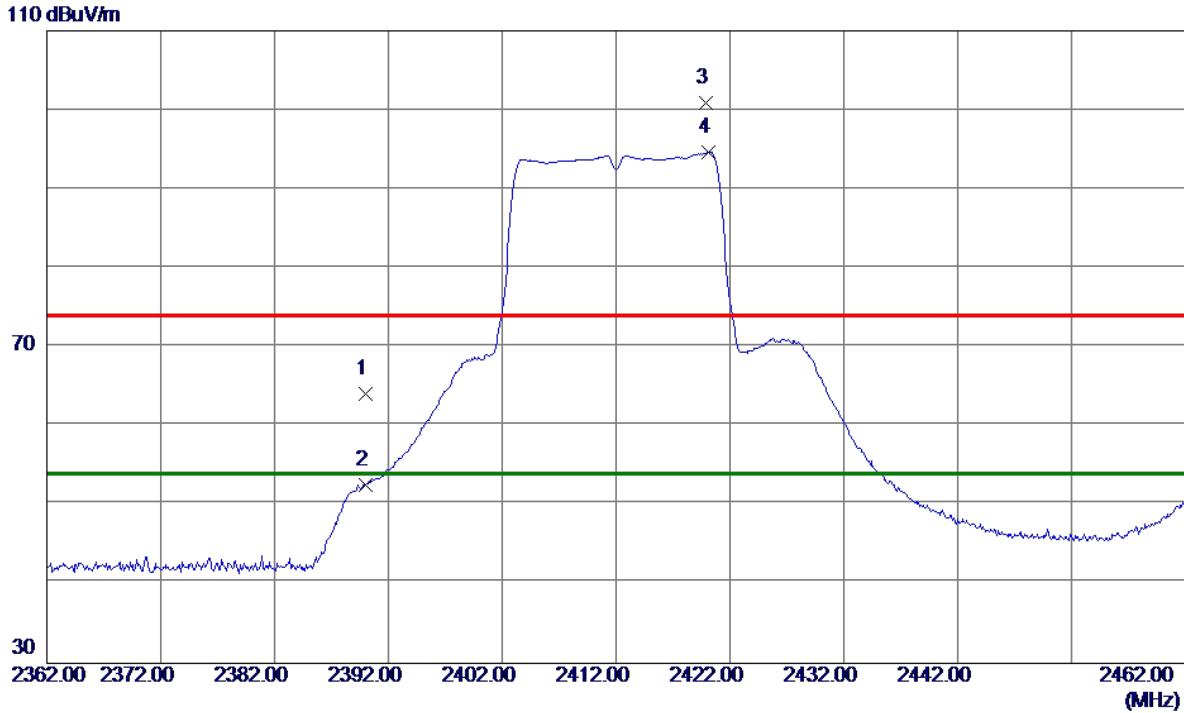
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4822.2000	54.12	-9.00	45.12	74.00	-28.88	Peak	
2	4823.4500	41.10	-9.00	32.10	54.00	-21.90	AVG	
3	7238.5500	49.53	-2.24	47.29	74.00	-26.71	Peak	
4 *	7240.3000	36.37	-2.23	34.14	54.00	-19.86	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

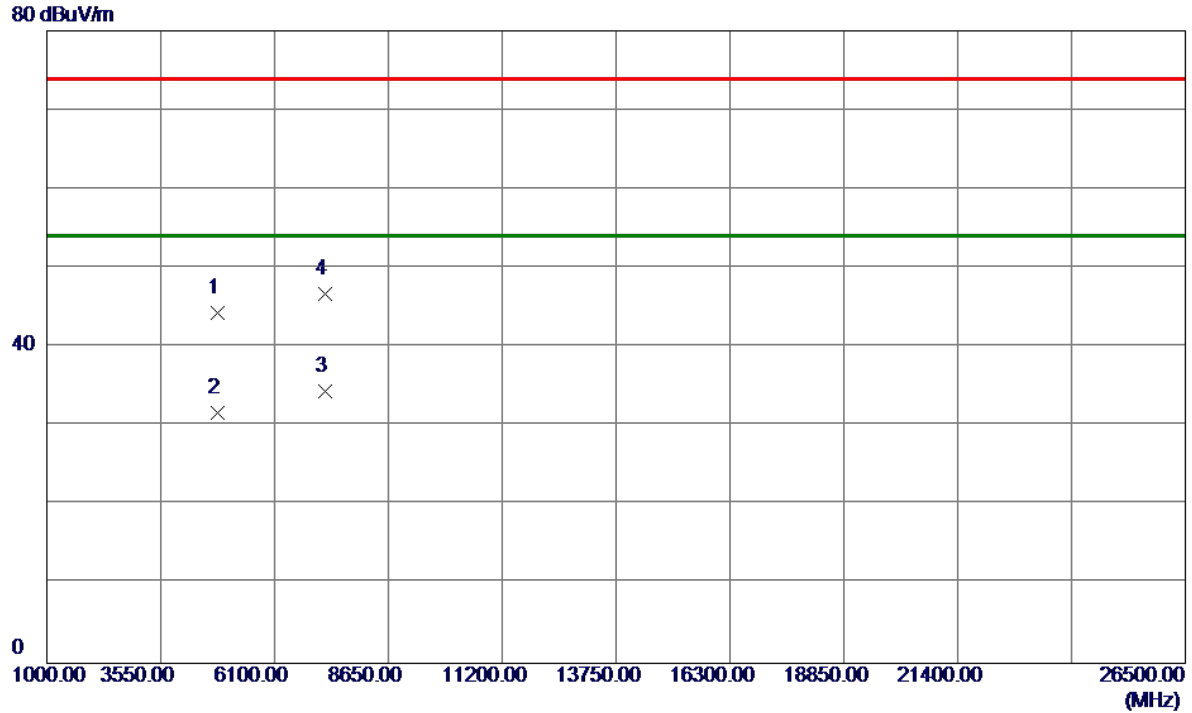


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	30.79	33.25	64.04	74.00	-9.96	Peak	
2	2390.0000	19.37	33.25	52.62	54.00	-1.38	AVG	
3	2419.9000	67.51	33.33	100.84	74.00	26.84	Peak	No Limit
4 *	2420.1000	61.35	33.33	94.68	54.00	40.68	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

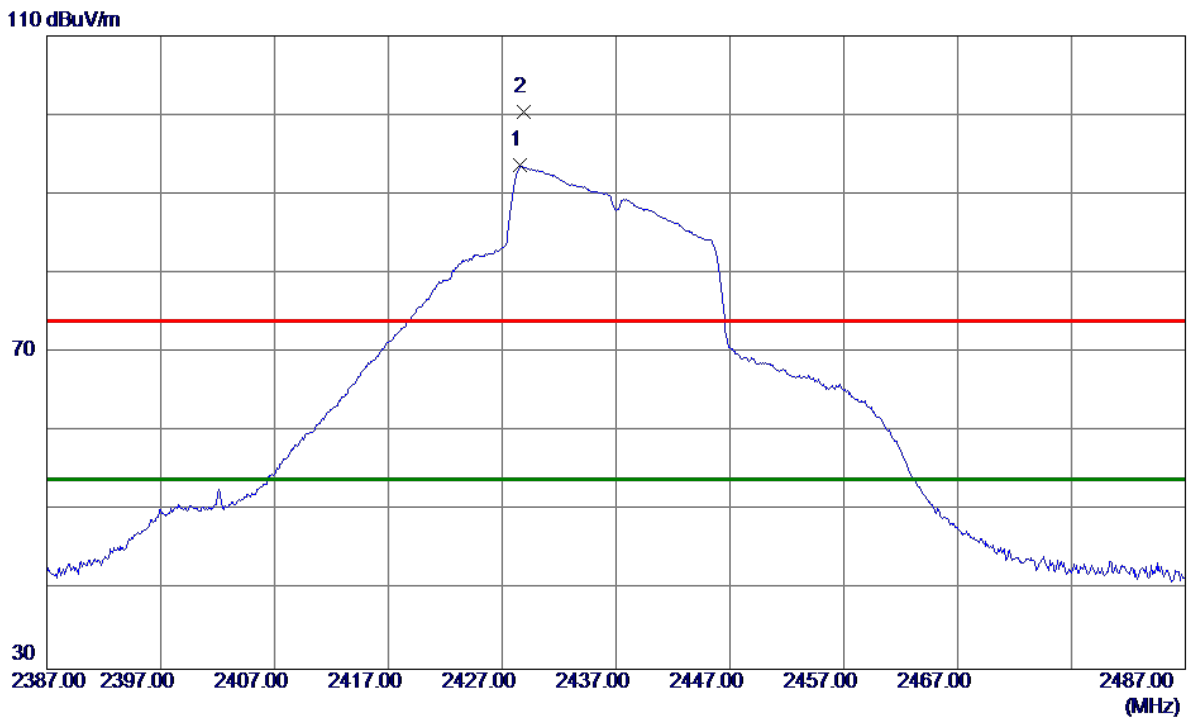


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4822.0500	53.33	-9.00	44.33	74.00	-29.67	Peak	
2	4823.6000	40.73	-8.99	31.74	54.00	-22.26	AVG	
3 *	7238.3000	36.65	-2.24	34.41	54.00	-19.59	AVG	
4	7242.0400	49.00	-2.23	46.77	74.00	-27.23	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



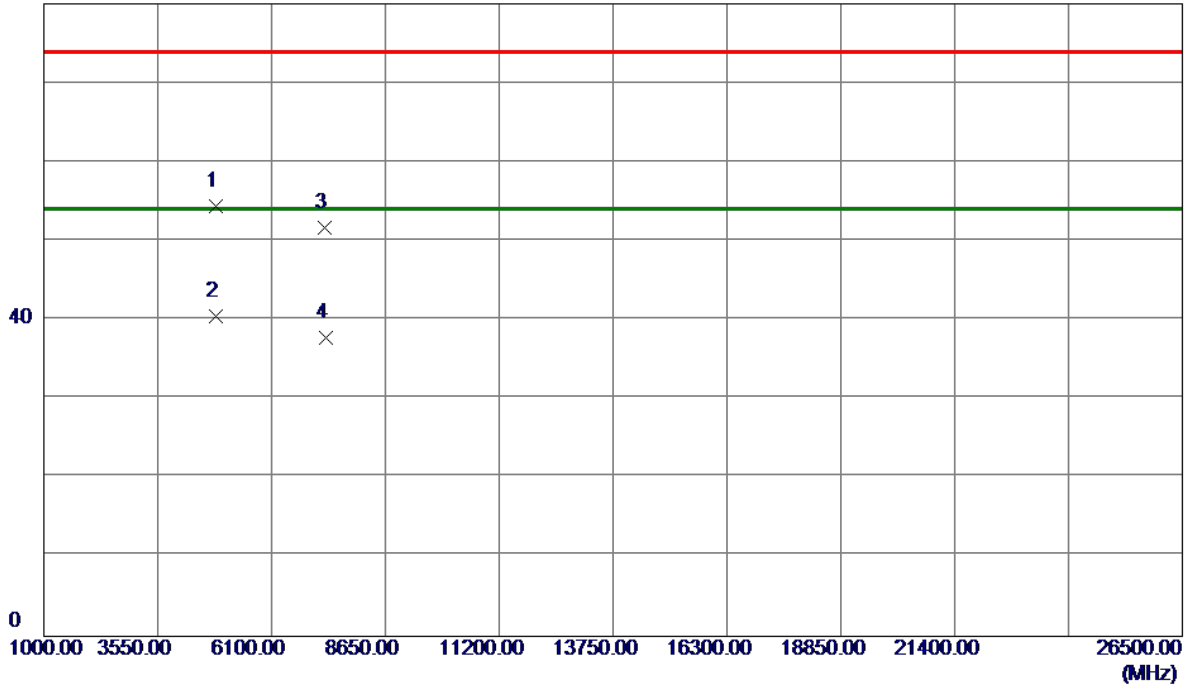
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2428.6000	60.25	33.36	93.61	54.00	39.61	AVG	No Limit
2	2428.9000	66.97	33.36	100.33	74.00	26.33	Peak	No Limit

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



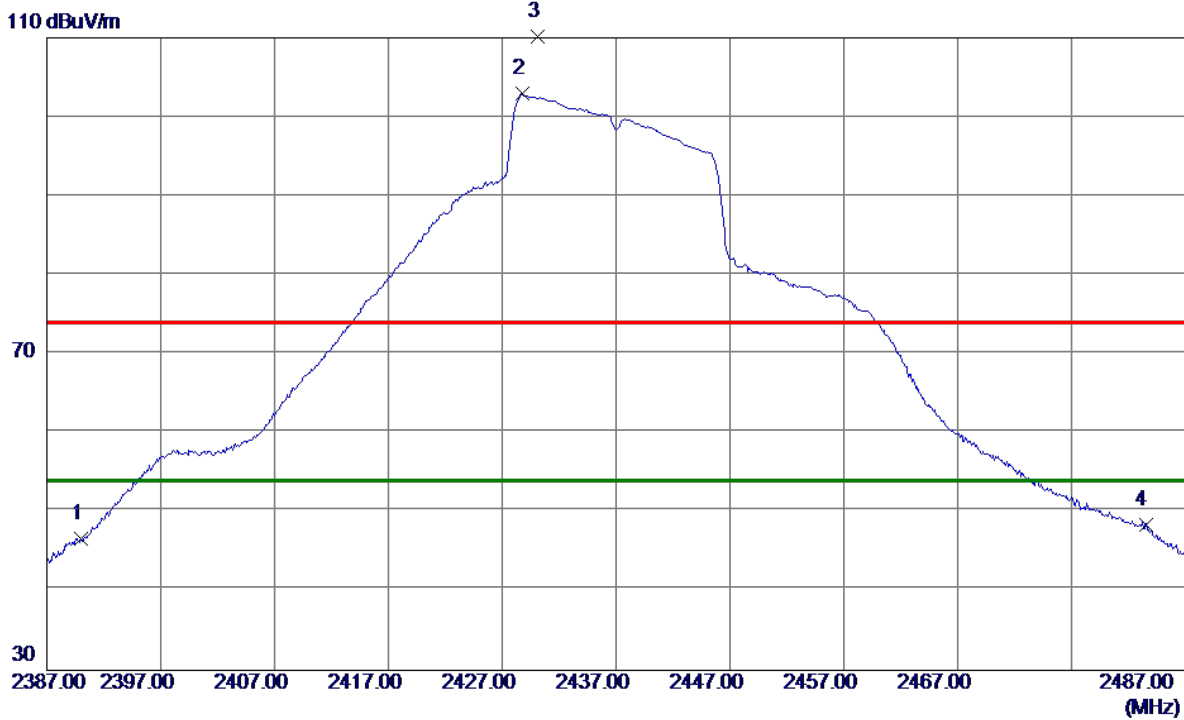
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4866.2000	63.23	-8.83	54.40	74.00	-19.60	Peak	
2 *	4866.8500	49.35	-8.83	40.52	54.00	-13.48	AVG	
3	7300.2000	53.75	-2.11	51.64	74.00	-22.36	Peak	
4	7304.3000	39.84	-2.10	37.74	54.00	-16.26	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

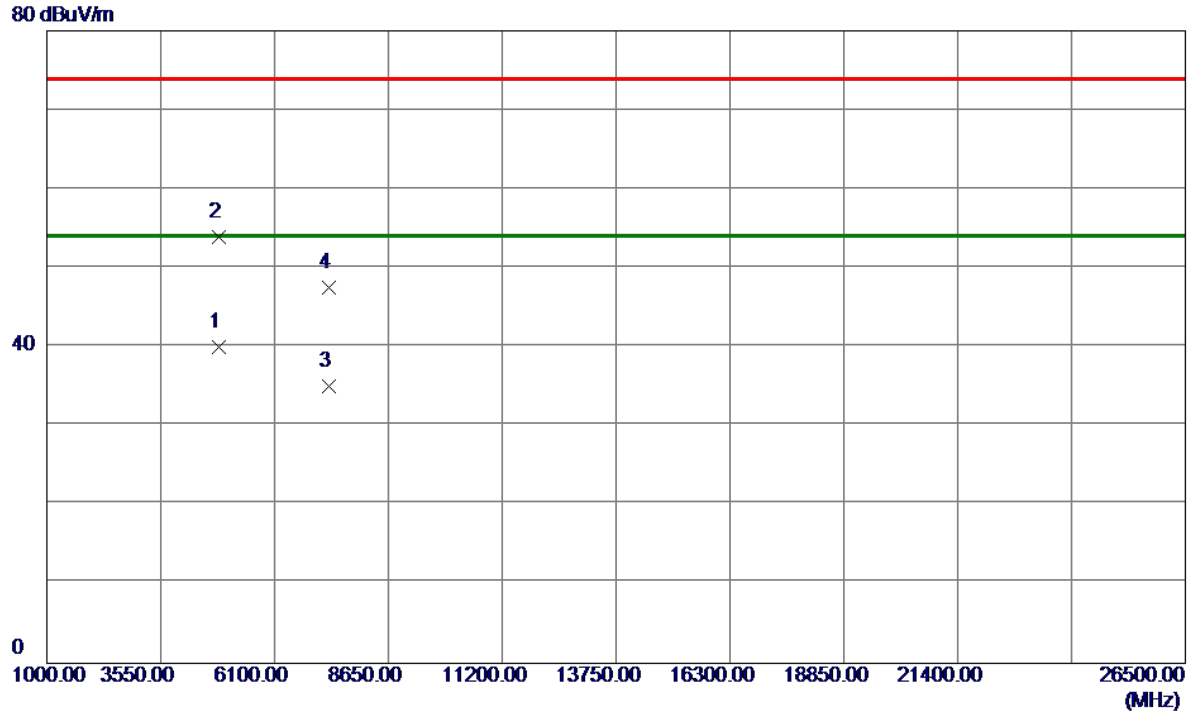


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	13.41	33.25	46.66	54.00	-7.34	AVG	
2 *	2428.8000	69.60	33.36	102.96	54.00	48.96	AVG	No Limit
3	2430.1000	76.88	33.36	110.24	74.00	36.24	Peak	No Limit
4	2483.5000	14.85	33.51	48.36	54.00	-5.64	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

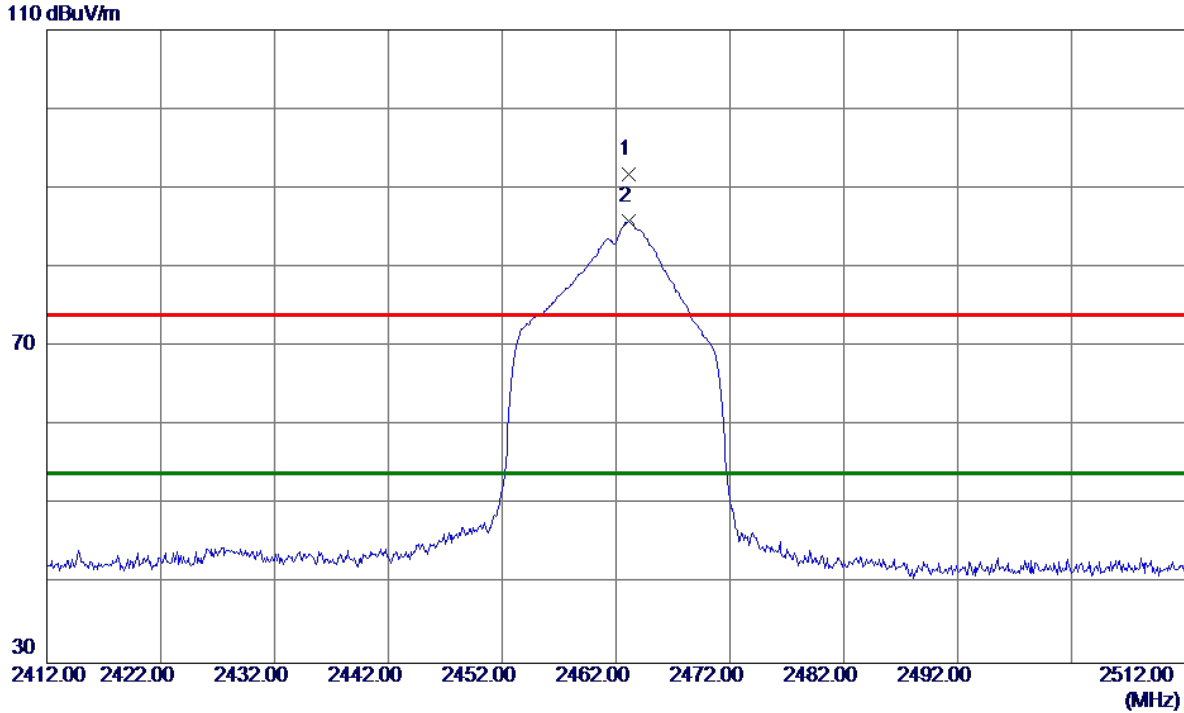


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	4865.6000	48.80	-8.83	39.97	54.00	-14.03	AVG	
2	4866.1000	62.74	-8.83	53.91	74.00	-20.09	Peak	
3	7308.8900	37.16	-2.10	35.06	54.00	-18.94	AVG	
4	7311.8300	49.55	-2.09	47.46	74.00	-26.54	Peak	

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

Test Mode: TX N-20M Mode 2462 MHz

Vertical



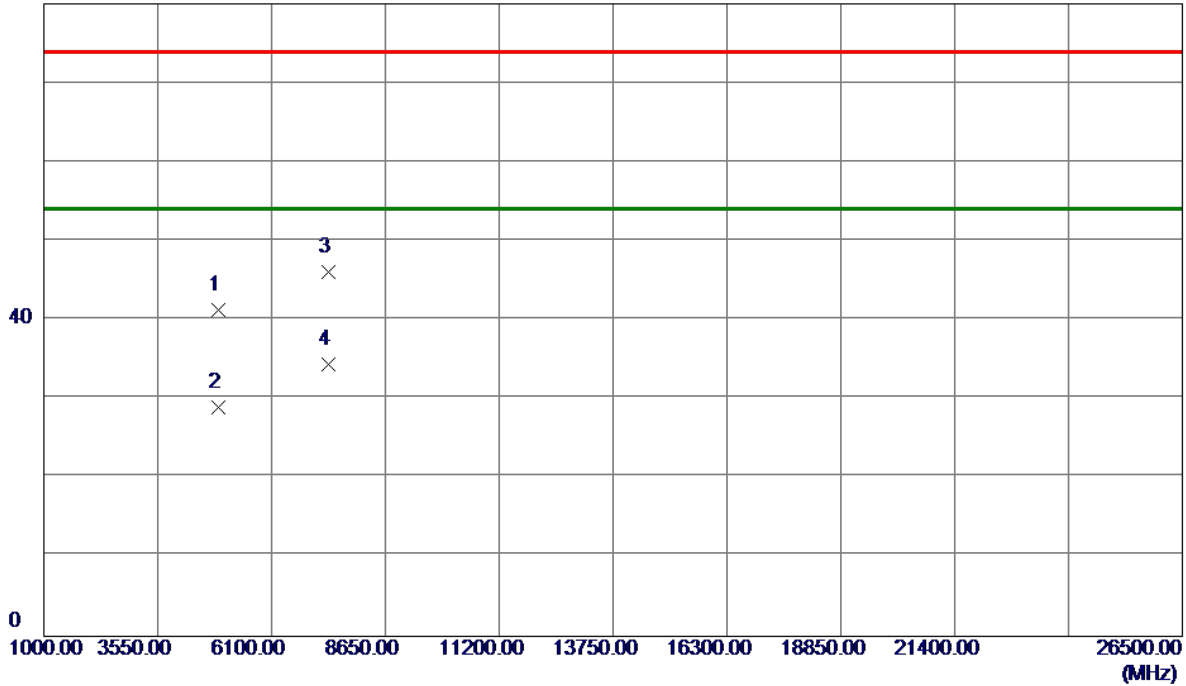
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2463.1000	58.24	33.46	91.70	74.00	17.70	Peak	No Limit
2 *	2463.1000	52.37	33.46	85.83	54.00	31.83	AVG	No Limit

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



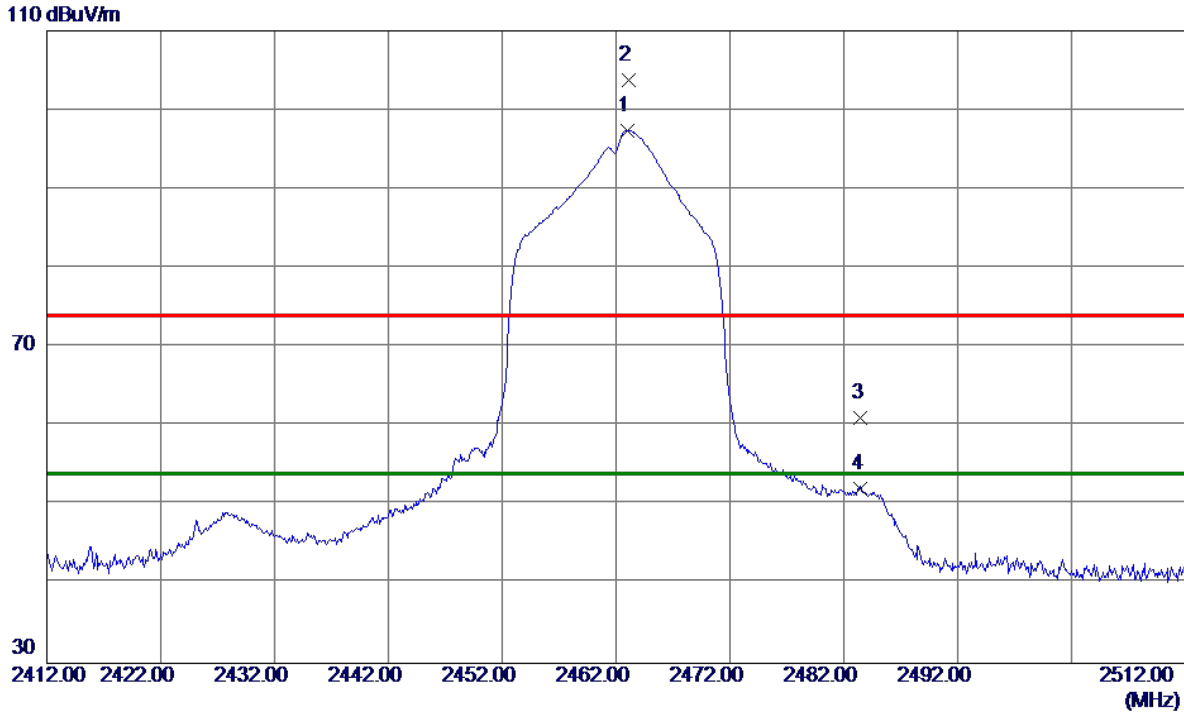
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4903.0600	50.00	-8.69	41.31	74.00	-32.69	Peak	
2	4923.4100	37.61	-8.61	29.00	54.00	-25.00	AVG	
3	7384.5200	48.09	-1.94	46.15	74.00	-27.85	Peak	
4 *	7389.0000	36.27	-1.93	34.34	54.00	-19.66	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

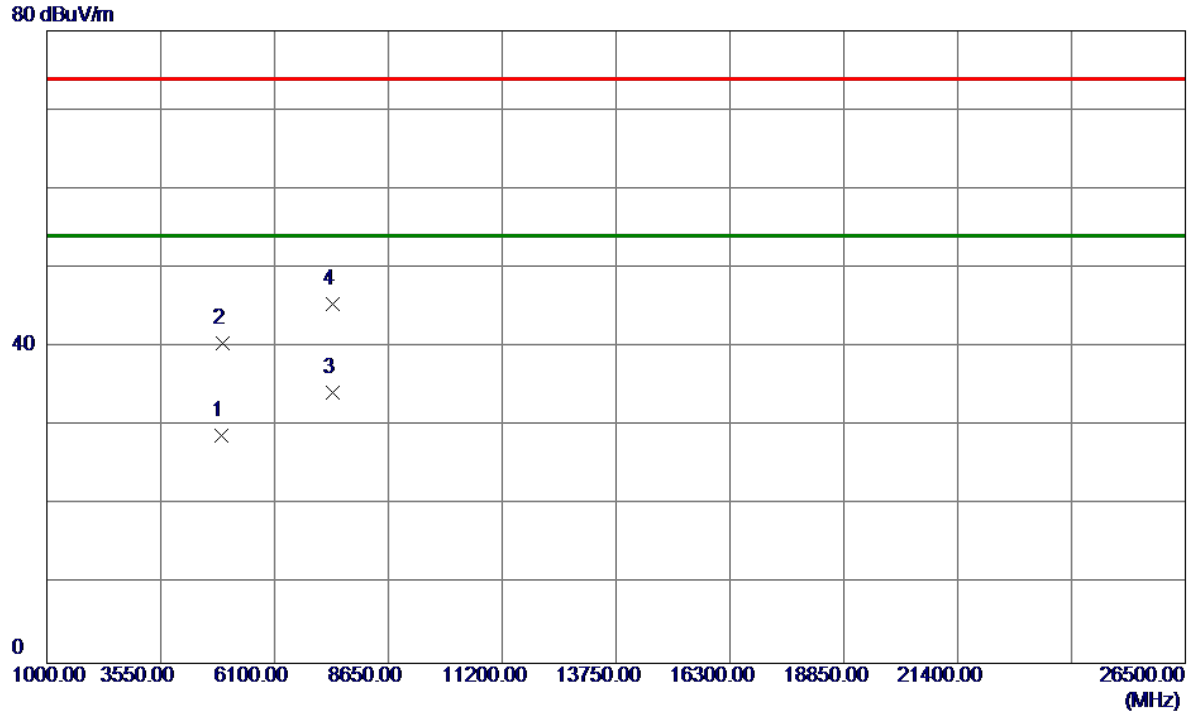


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2463.0000	63.97	33.45	97.42	54.00	43.42	AVG	No Limit
2	2463.1000	70.34	33.46	103.80	74.00	29.80	Peak	No Limit
3	2483.5000	27.47	33.51	60.98	74.00	-13.02	Peak	
4	2483.5000	18.53	33.51	52.04	54.00	-1.96	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

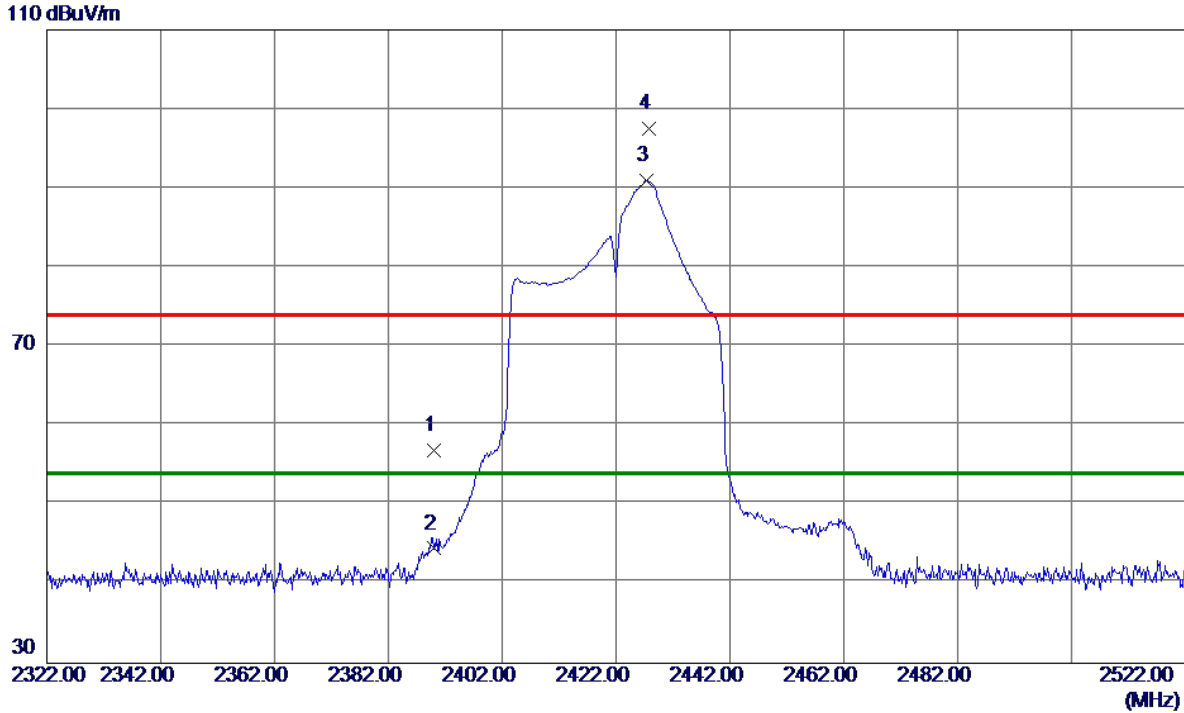


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4923.5600	37.41	-8.61	28.80	54.00	-25.20	AVG	
2	4924.7300	49.12	-8.60	40.52	74.00	-33.48	Peak	
3 *	7389.6700	36.22	-1.93	34.29	54.00	-19.71	AVG	
4	7389.6900	47.36	-1.93	45.43	74.00	-28.57	Peak	

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

Test Mode: TX N-40M Mode 2422MHz

Vertical



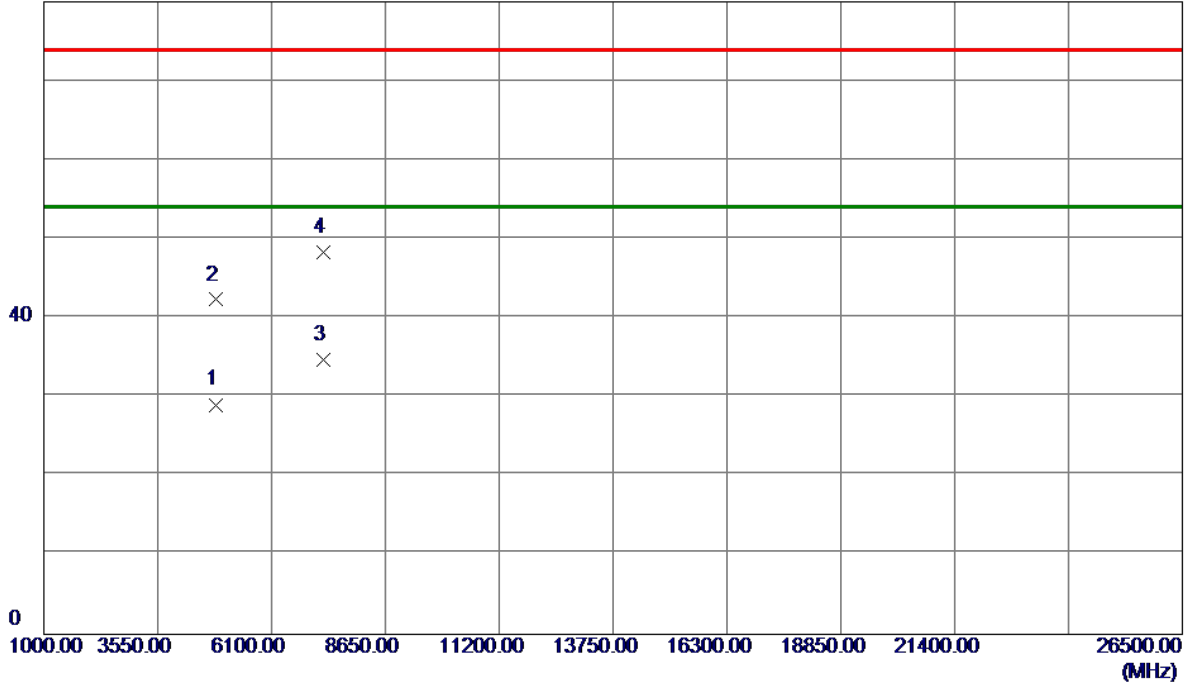
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	23.56	33.25	56.81	74.00	-17.19	Peak	
2	2390.0000	11.23	33.25	44.48	54.00	-9.52	AVG	
3 *	2427.4000	57.64	33.35	90.99	54.00	36.99	AVG	No Limit
4	2427.8000	64.11	33.35	97.46	74.00	23.46	Peak	No Limit

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

Test Mode: TX N-40M Mode 2422MHz

Vertical

80 dBuV/m



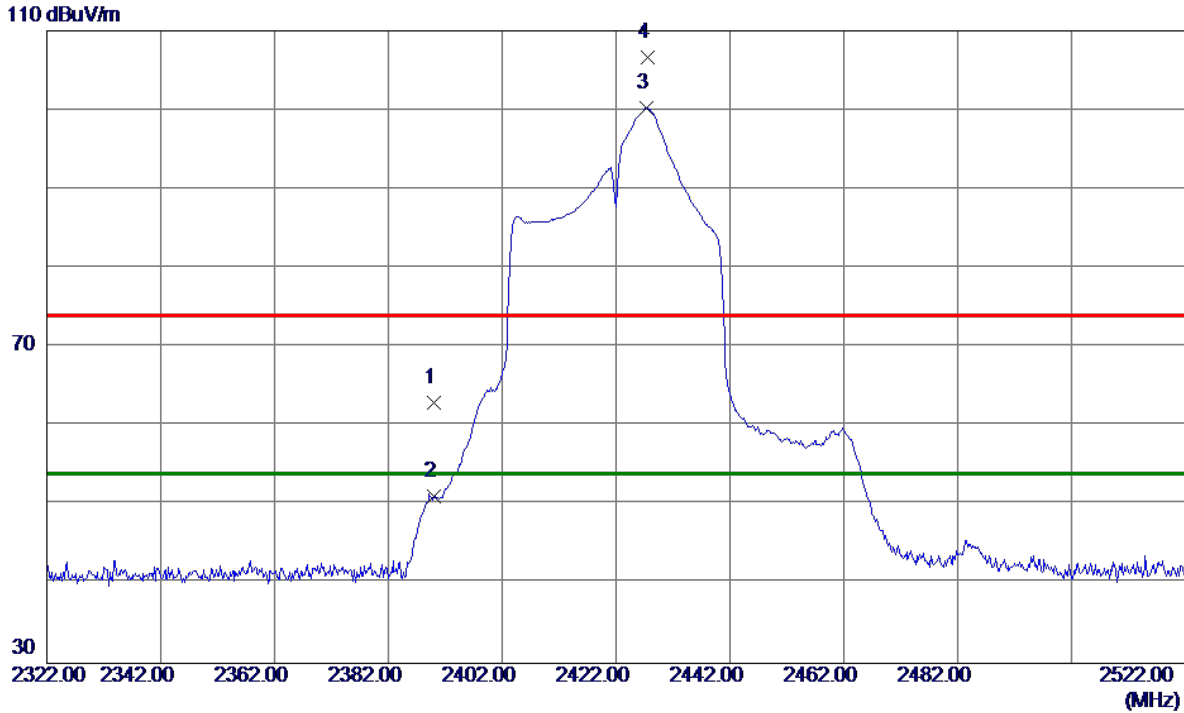
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4844.0800	37.95	-8.91	29.04	54.00	-24.96	AVG	
2	4851.3000	51.21	-8.89	42.32	74.00	-31.68	Peak	
3 *	7267.3050	36.90	-2.18	34.72	54.00	-19.28	AVG	
4	7263.5950	50.50	-2.19	48.31	74.00	-25.69	Peak	

REMARKS:

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

Test Mode: TX N-40M Mode 2422MHz

Horizontal



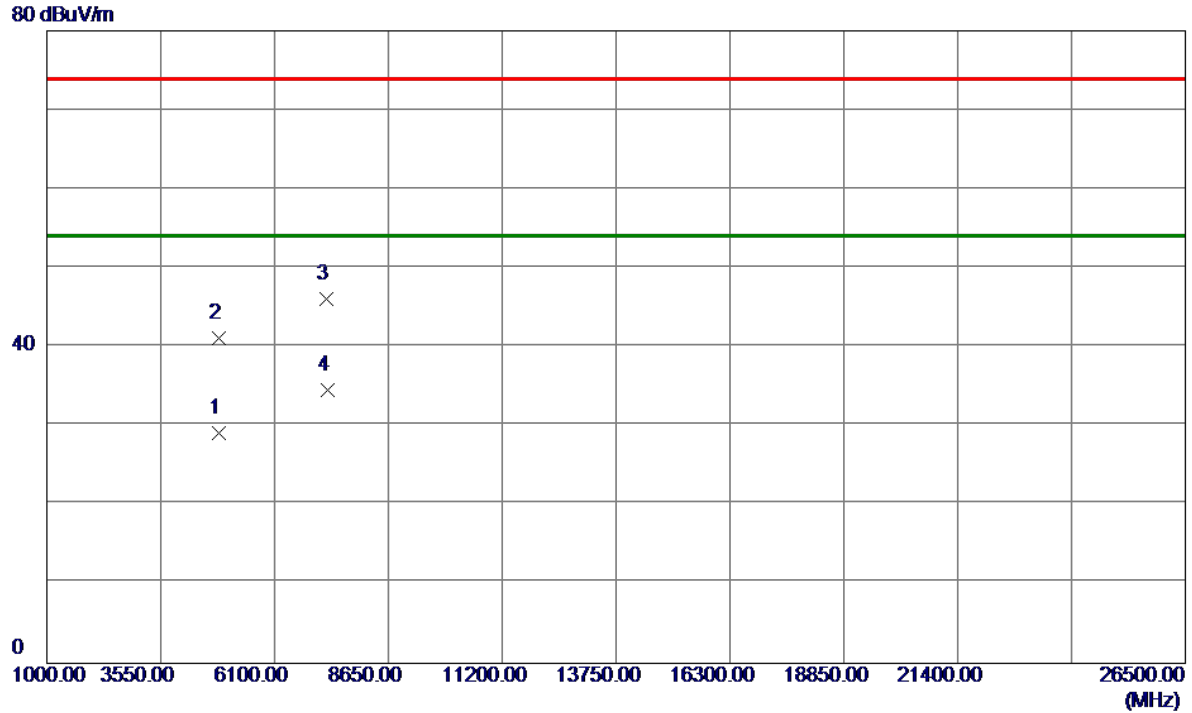
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	29.77	33.25	63.02	74.00	-10.98	Peak	
2	2390.0000	17.85	33.25	51.10	54.00	-2.90	AVG	
3 *	2427.4000	66.90	33.35	100.25	54.00	46.25	AVG	No Limit
4	2427.6000	73.27	33.35	106.62	74.00	32.62	Peak	No Limit

REMARKS:

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

Test Mode: TX N-40M Mode 2422MHz

Horizontal

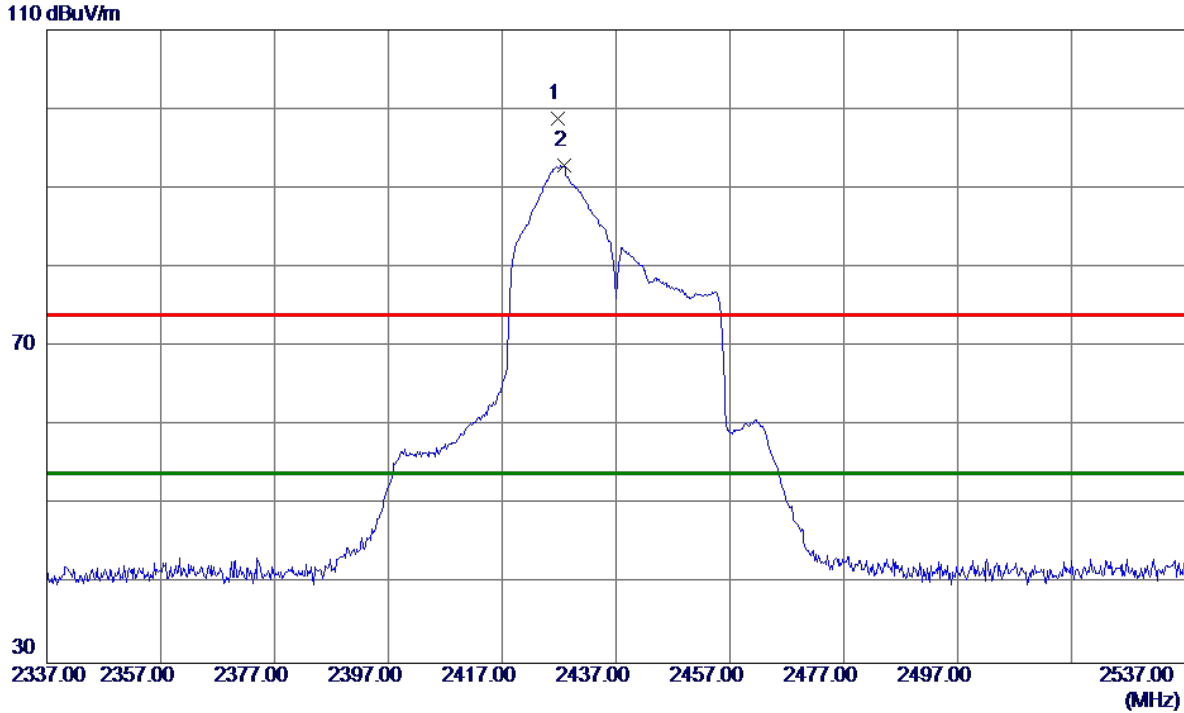


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4844.8500	38.00	-8.91	29.09	54.00	-24.91	AVG	
2	4845.0000	50.00	-8.91	41.09	74.00	-32.91	Peak	
3	7268.5250	48.30	-2.18	46.12	74.00	-27.88	Peak	
4 *	7284.7850	36.67	-2.14	34.53	54.00	-19.47	AVG	

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

Test Mode: TX N-40M Mode 2437 MHz

Vertical



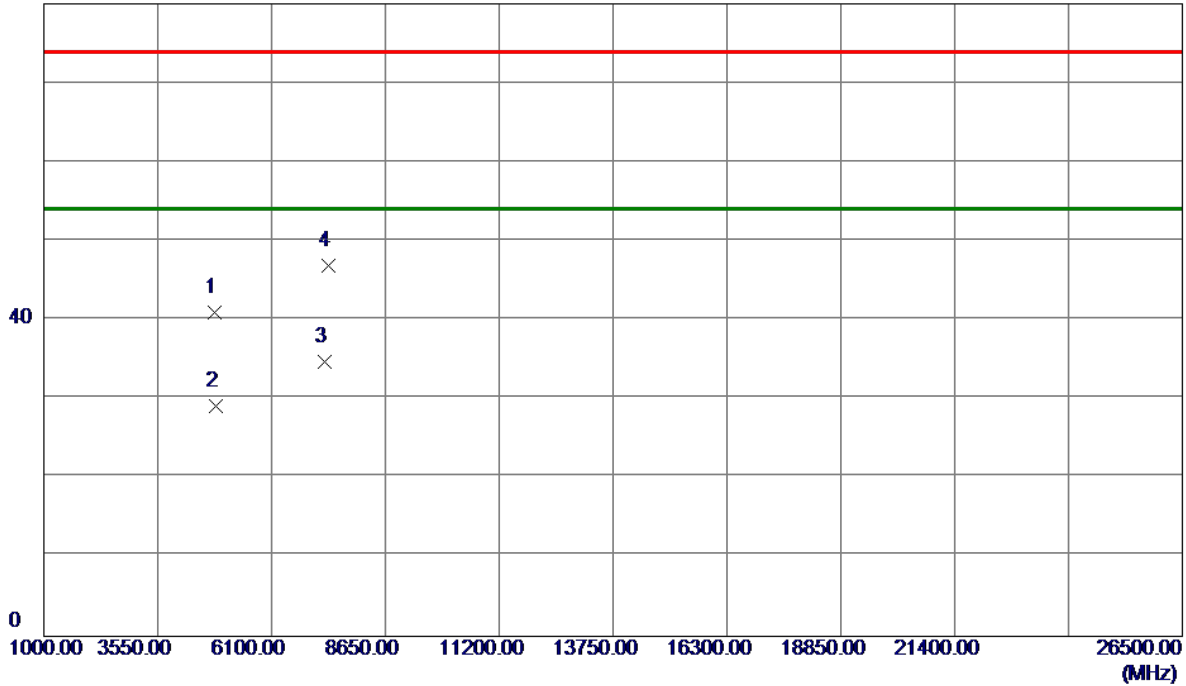
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2426.8000	65.41	33.35	98.76	74.00	24.76	Peak	No Limit
2 *	2427.8000	59.46	33.35	92.81	54.00	38.81	AVG	No Limit

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

Test Mode: TX N-40M Mode 2437 MHz

Vertical

80 dBuV/m



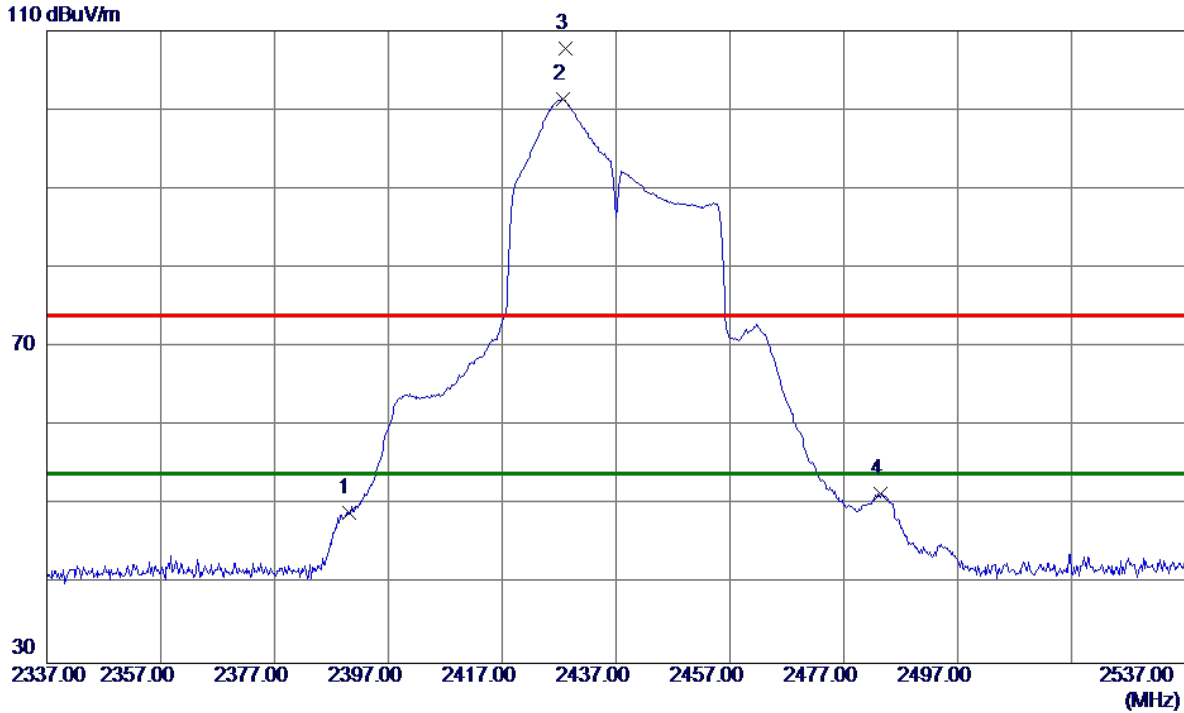
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4828.6000	49.92	-8.98	40.94	74.00	-33.06	Peak	
2	4844.2000	37.99	-8.91	29.08	54.00	-24.92	AVG	
3 *	7282.2700	36.87	-2.15	34.72	54.00	-19.28	AVG	
4	7363.4700	48.89	-1.98	46.91	74.00	-27.09	Peak	

REMARKS:

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

Test Mode: TX N-40M Mode 2437 MHz

Horizontal

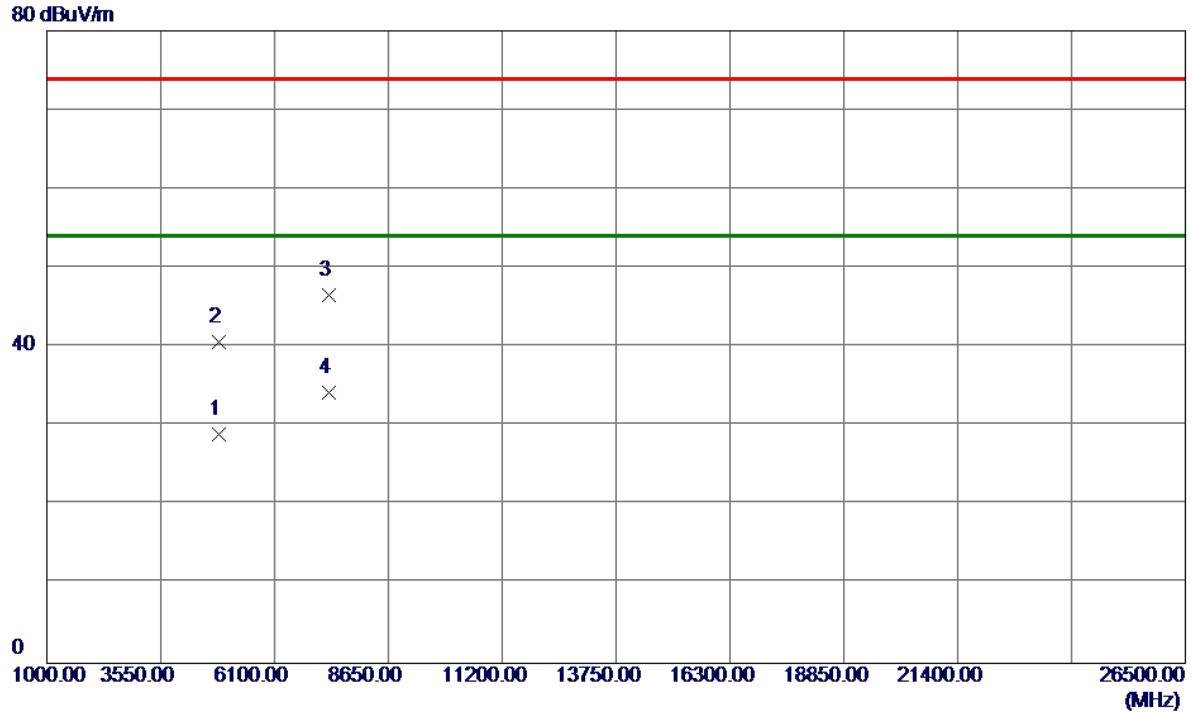


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	15.86	33.25	49.11	54.00	-4.89	AVG	
2 *	2427.6000	67.98	33.35	101.33	54.00	47.33	AVG	No Limit
3	2428.2000	74.41	33.36	107.77	74.00	33.77	Peak	No Limit
4	2483.5000	17.99	33.51	51.50	54.00	-2.50	AVG	

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

Test Mode: TX N-40M Mode 2437 MHz

Horizontal

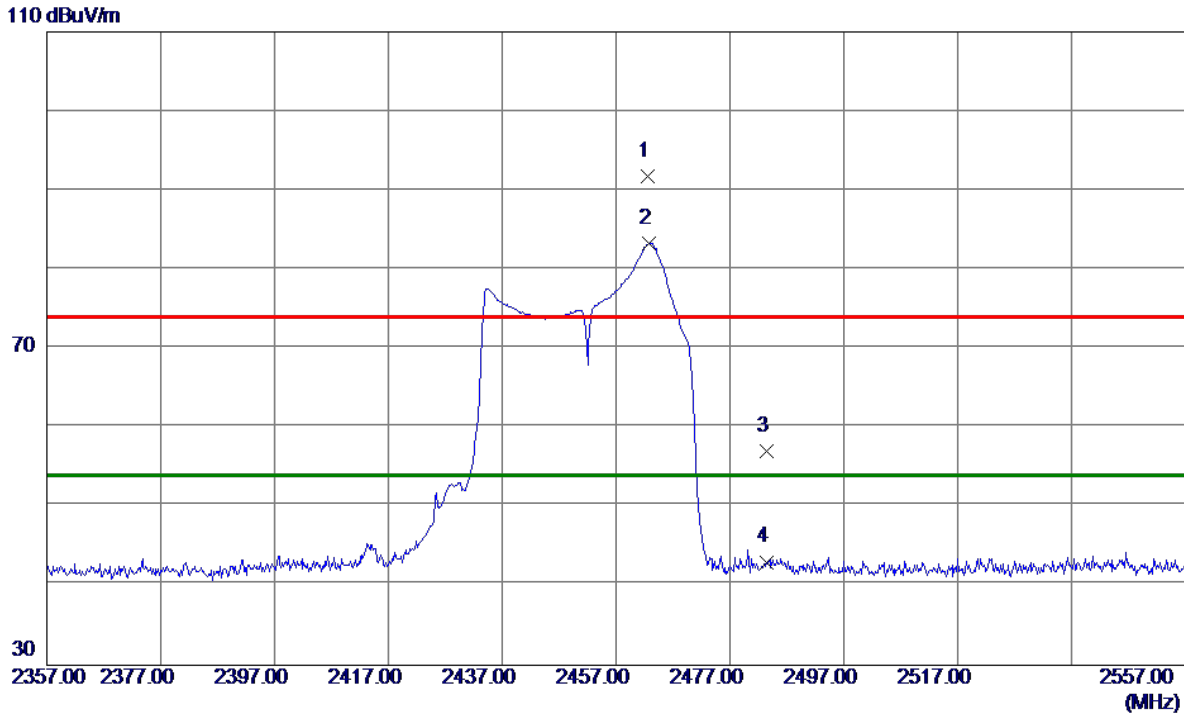


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measurement dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4841.2000	37.88	-8.93	28.95	54.00	-25.05	AVG	
2	4858.8000	49.52	-8.86	40.66	74.00	-33.34	Peak	
3	7310.8600	48.71	-2.09	46.62	74.00	-27.38	Peak	
4 *	7315.5700	36.34	-2.08	34.26	54.00	-19.74	AVG	

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

Test Mode: TX N-40M Mode 2452 MHz

Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2462.6000	58.35	33.45	91.80	74.00	17.80	Peak	No Limit
2 *	2462.8000	49.85	33.45	83.30	54.00	29.30	AVG	No Limit
3	2483.5000	23.54	33.51	57.05	74.00	-16.95	Peak	
4	2483.5000	9.53	33.51	43.04	54.00	-10.96	AVG	

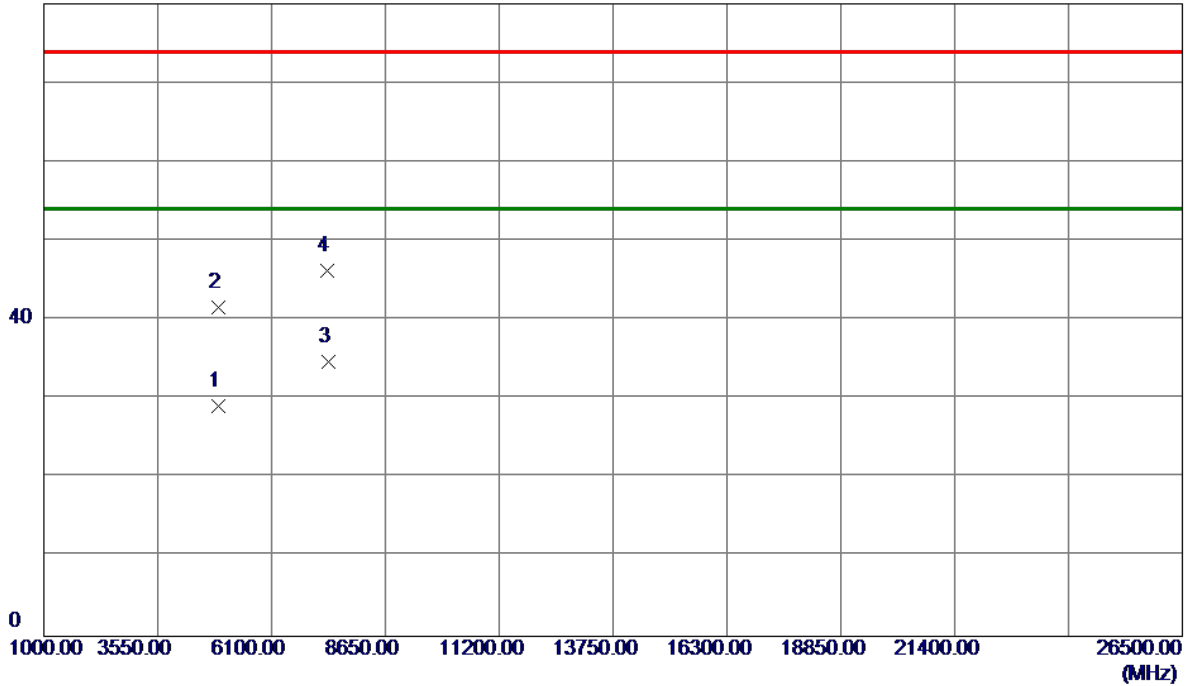
REMARKS:

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

Test Mode: TX N-40M Mode 2452 MHz

Vertical

80 dBuV/m



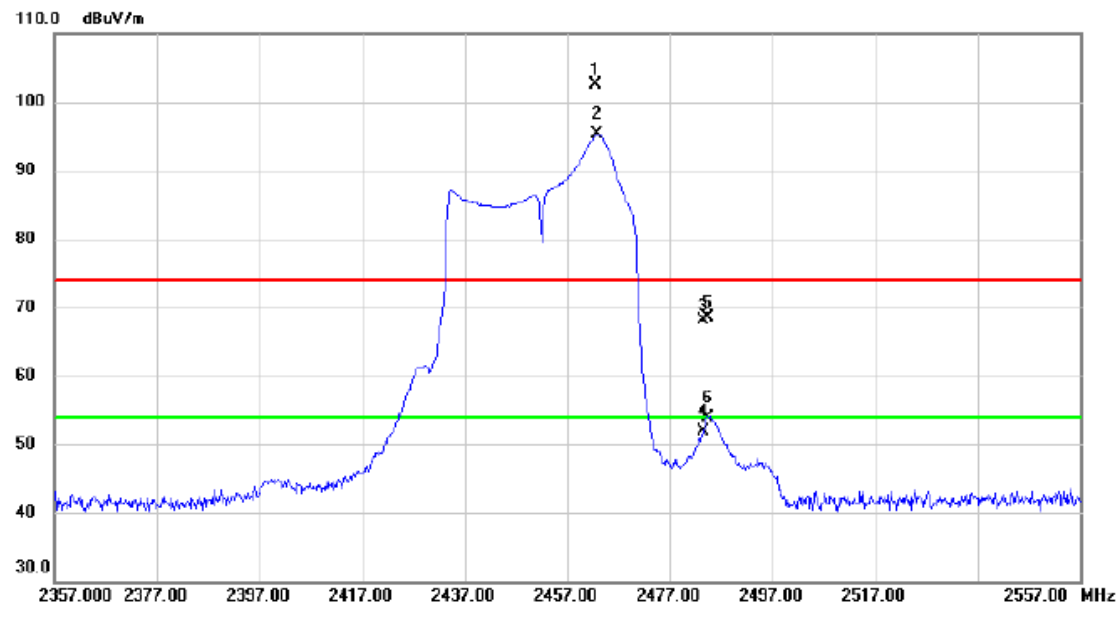
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4904.2000	37.80	-8.68	29.12	54.00	-24.88	AVG	
2	4911.3000	50.27	-8.65	41.62	74.00	-32.38	Peak	
3 *	7361.8600	36.75	-1.99	34.76	54.00	-19.24	AVG	
4	7356.2200	48.24	-2.00	46.24	74.00	-27.76	Peak	

REMARKS:

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

Test Mode: TX N-40M Mode 2452 MHz

Horizontal



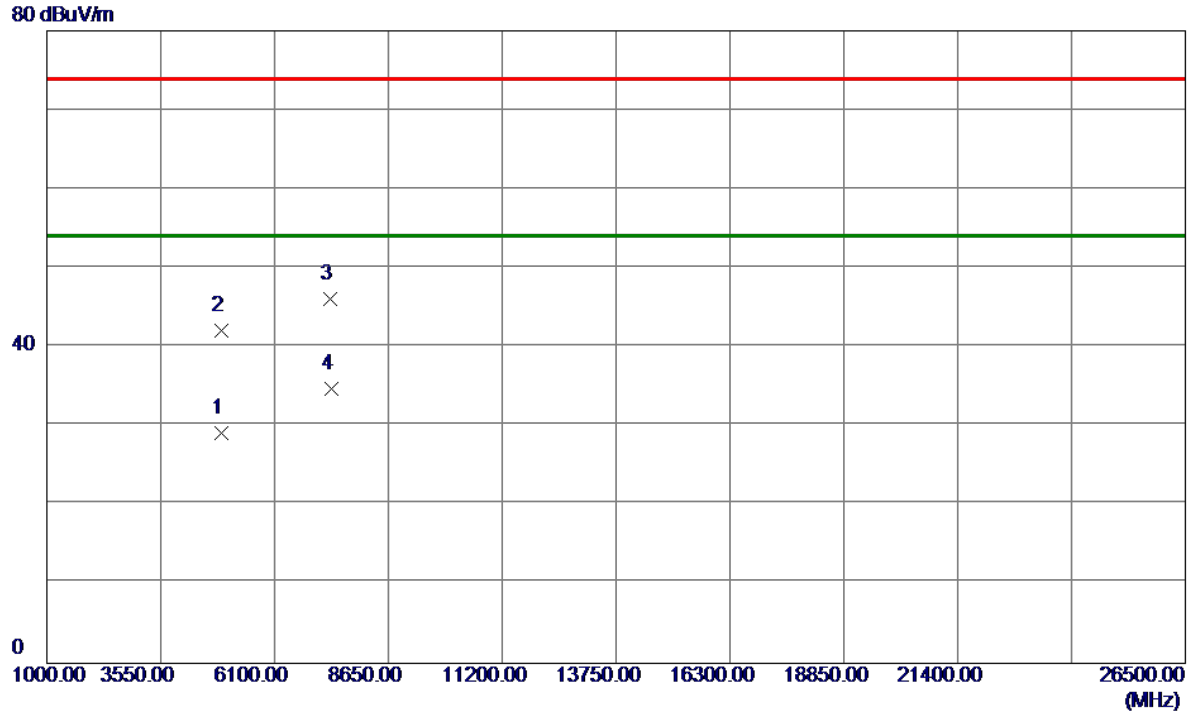
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	X	2462.400	69.05	33.45	102.50	74.00	28.50	peak	No Limit
2	*	2462.800	61.86	33.45	95.31	54.00	41.31	AVG	No Limit
3		2483.500	34.54	33.51	68.05	74.00	-5.95	peak	
4		2483.500	18.45	33.51	51.96	54.00	-2.04	AVG	
5		2484.400	35.05	33.52	68.57	74.00	-5.43	peak	
6		2484.400	20.46	33.52	53.98	54.00	-0.02	AVG	

REMARKS:

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

Test Mode: TX N-40M Mode 2452 MHz

Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4902.1650	37.83	-8.69	29.14	54.00	-24.86	AVG	
2	4903.4000	50.70	-8.68	42.02	74.00	-31.98	Peak	
3	7354.5600	48.04	-2.00	46.04	74.00	-27.96	Peak	
4 *	7374.9600	36.73	-1.96	34.77	54.00	-19.23	AVG	

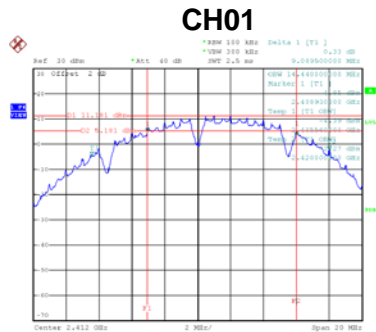
REMARKS:
 (1) Measurement Value = Reading Level + Correct Factor.
 (2) Margin Level = Measurement Value - Limit Value.

APPENDIX E - BANDWIDTH

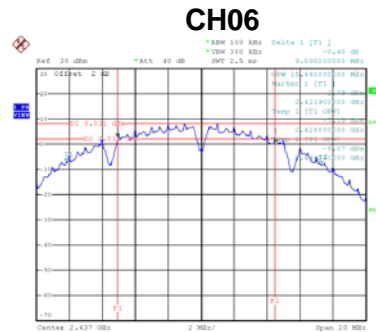
Non-Beamforming

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

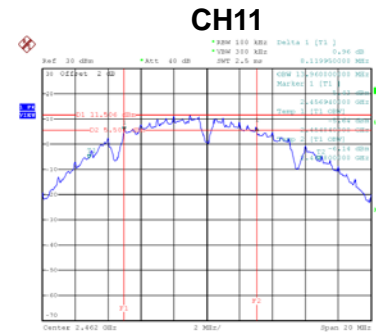
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
01	2412	9.09	500	Complies
06	2437	9.59	500	Complies
11	2462	8.12	500	Complies



Date: 5-JUL-2019 16:06:20

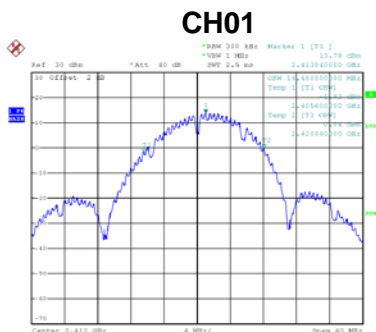


Date: 5-JUL-2019 16:08:32

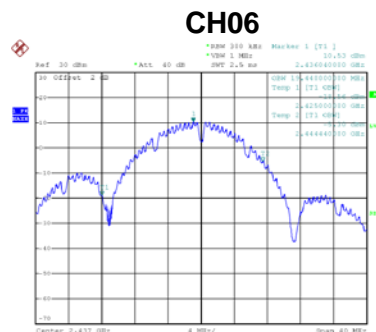


Date: 5-JUL-2019 16:10:44

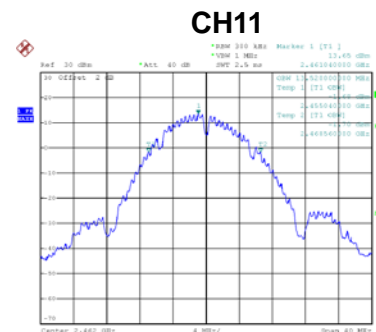
Channel	Frequency (MHz)	99 % Emission Bandwidth (MHz)	Result
01	2412	14.48	Complies
06	2437	19.44	Complies
11	2462	13.52	Complies



Date: 12-SEP-2019 16:10:06



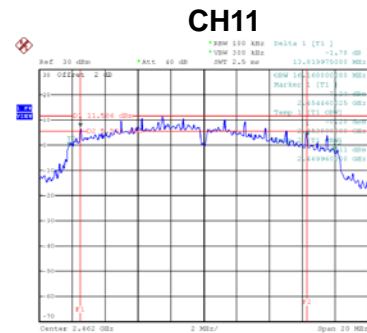
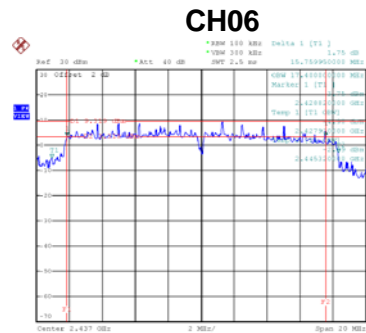
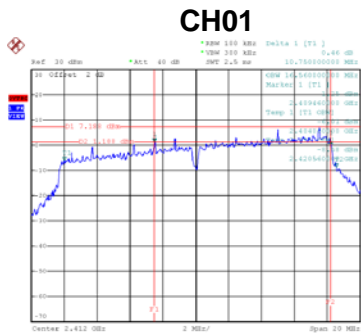
Date: 12-SEP-2019 16:59:03



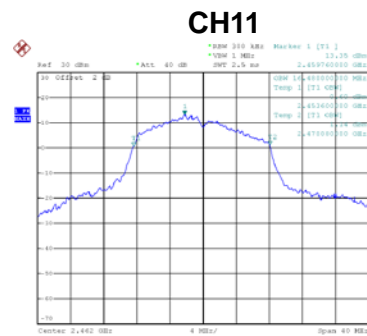
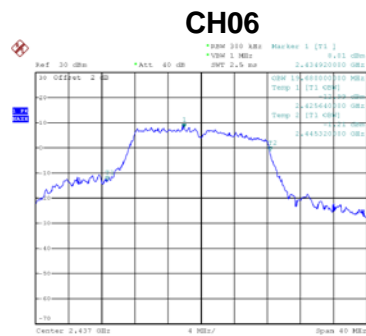
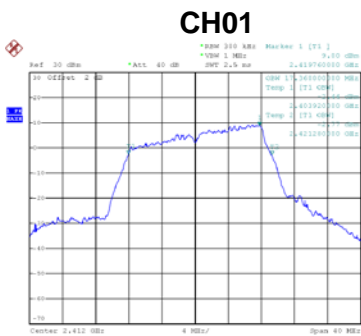
Date: 12-SEP-2019 16:17:08

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

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
01	2412	10.75	500	Complies
06	2437	15.76	500	Complies
11	2462	13.82	500	Complies

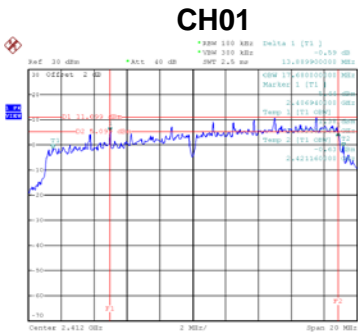


Channel	Frequency (MHz)	99 % Emission Bandwidth (MHz)	Result
01	2412	17.36	Complies
06	2437	19.60	Complies
11	2462	16.48	Complies

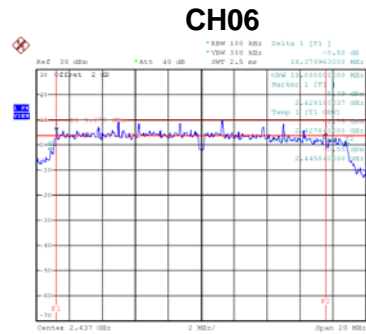


Test Mode	TX N-20M Mode
-----------	---------------

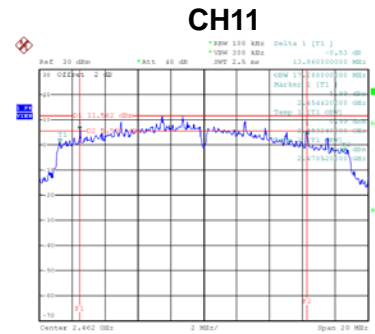
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
01	2412	13.89	500	Complies
06	2437	16.38	500	Complies
11	2462	13.86	500	Complies



Date: 5-JUL-2019 16:28:47

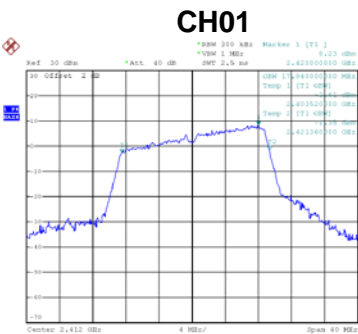


Date: 5-JUL-2019 16:41:44

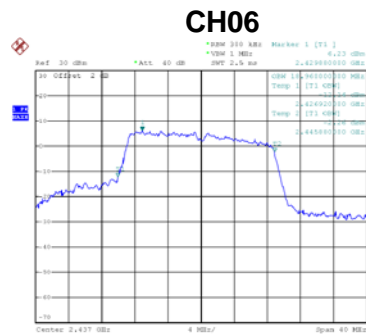


Date: 5-JUL-2019 16:43:26

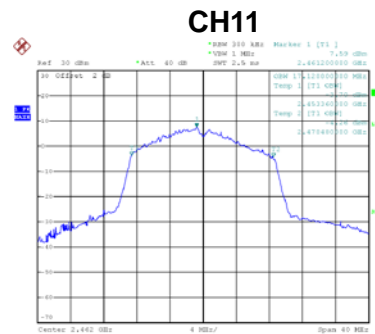
Channel	Frequency (MHz)	99 % Emission Bandwidth (MHz)	Result
01	2412	17.84	Complies
06	2437	18.96	Complies
11	2462	17.12	Complies



Date: 12-SEP-2019 16:25:35



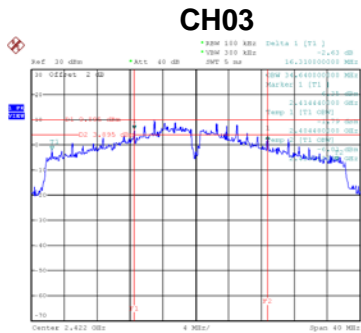
Date: 12-SEP-2019 16:44:54



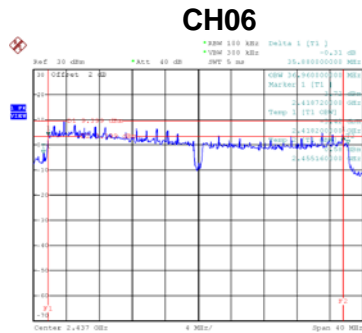
Date: 12-SEP-2019 16:43:03

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

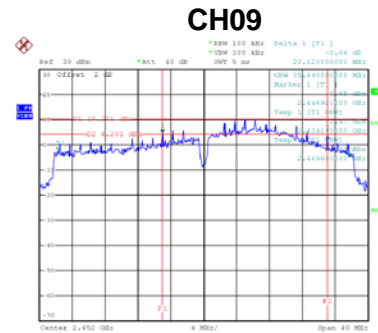
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
03	2422	16.31	500	Complies
06	2437	35.88	500	Complies
09	2452	20.12	500	Complies



Date: 5-JUL-2019 16:46:11

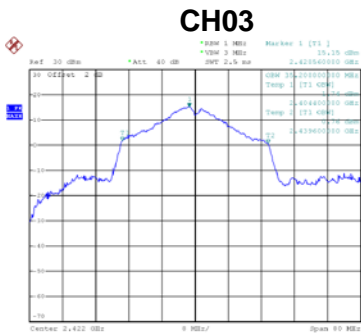


Date: 5-JUL-2019 16:47:16

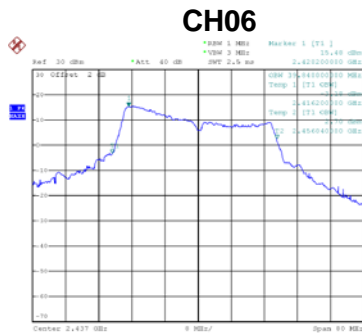


Date: 5-JUL-2019 16:49:18

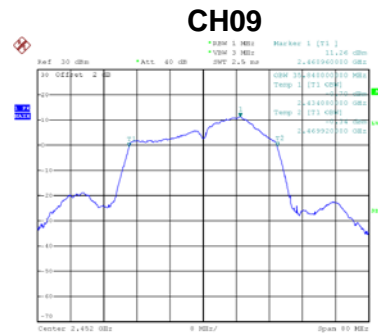
Channel	Frequency (MHz)	99 % Emission Bandwidth (MHz)	Result
03	2422	35.20	Complies
06	2437	39.84	Complies
09	2452	35.84	Complies



Date: 12-SEP-2019 16:37:34



Date: 12-SEP-2019 16:38:28



Date: 12-SEP-2019 16:39:34

APPENDIX F - MAXIMUM OUTPUT POWER

Non-Beamforming

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

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	22.37	0.1725	30.00	1.0000	Complies
06	2437	19.82	0.0959	30.00	1.0000	Complies
11	2462	19.64	0.0920	30.00	1.0000	Complies

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

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	14.17	0.0261	30.00	1.0000	Complies
06	2437	23.76	0.2375	30.00	1.0000	Complies
11	2462	17.13	0.0516	30.00	1.0000	Complies

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

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	13.31	0.0214	30.00	1.0000	Complies
06	2437	24.65	0.2917	30.00	1.0000	Complies
11	2462	11.94	0.0156	30.00	1.0000	Complies

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

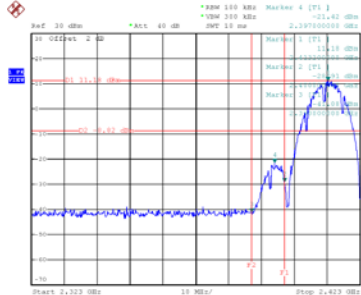
Channel	Frequency (MHz)	Output Power (dBm)	Output Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	15.93	0.0392	30.00	1.0000	Complies
06	2437	16.84	0.0483	30.00	1.0000	Complies
09	2452	11.99	0.0158	30.00	1.0000	Complies

APPENDIX G - CONDUCTED SPURIOUS EMISSIONS

Non-Beamforming

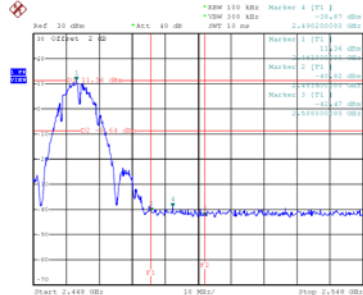
Test Mode TX B Mode

Bandedge-CH01



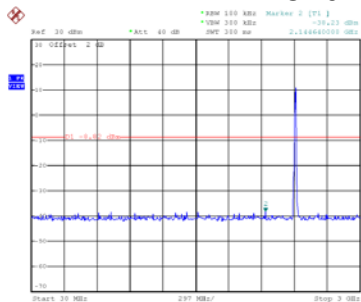
Date: 5-JUL-2019 16:06:28

Bandedge-CH11

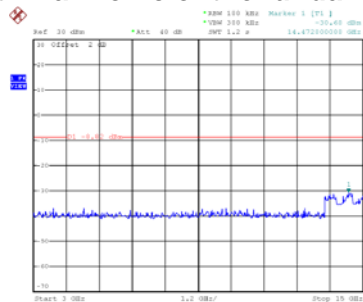


Date: 5-JUL-2019 16:10:51

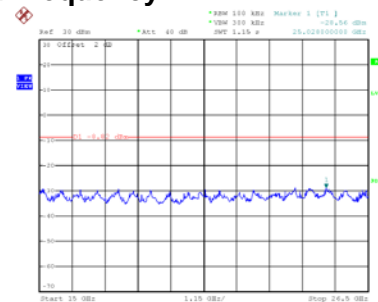
CH01 – 10th Harmonic of the fundamental frequency



Date: 5-JUL-2019 16:06:41

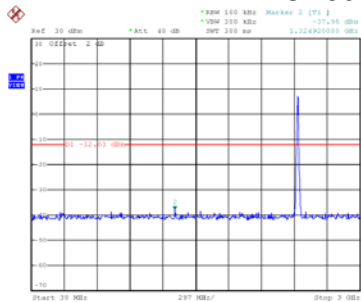


Date: 5-JUL-2019 16:06:48

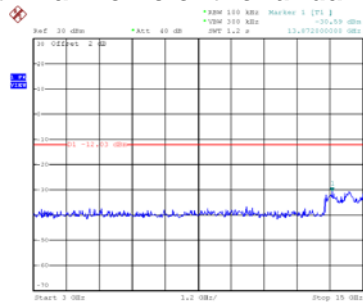


Date: 5-JUL-2019 16:06:55

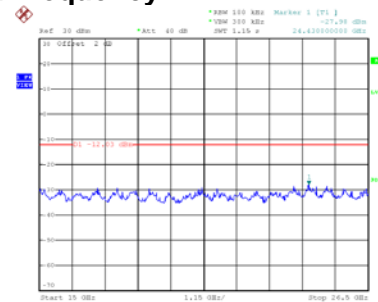
CH06 – 10th Harmonic of the fundamental frequency



Date: 5-JUL-2019 16:08:52

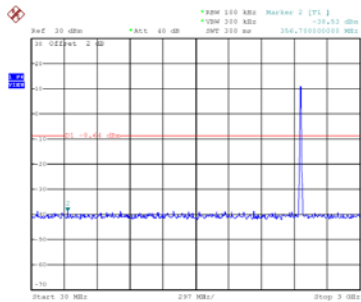


Date: 5-JUL-2019 16:09:00

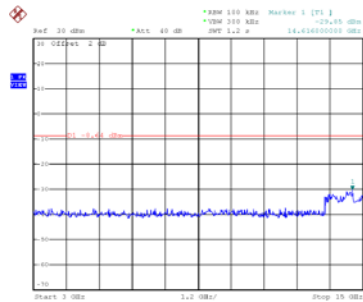


Date: 5-JUL-2019 16:09:07

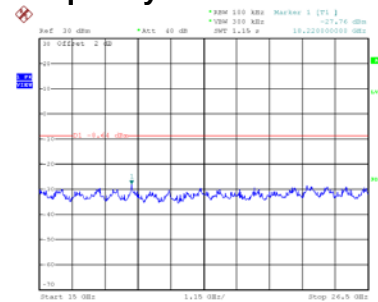
CH11 – 10th Harmonic of the fundamental frequency



Date: 5-JUL-2019 16:11:04



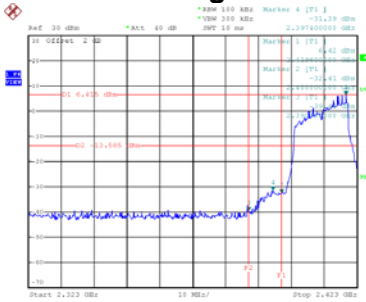
Date: 5-JUL-2019 16:11:11



Date: 5-JUL-2019 16:11:18

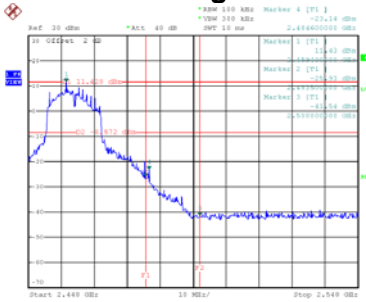
Test Mode TX G Mode

Bandedge-CH01



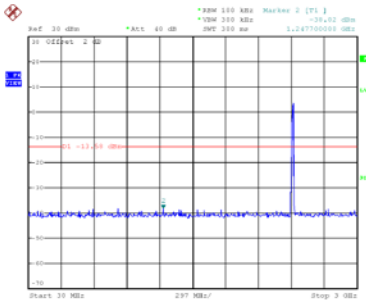
Date: 5.JUL.2019 16:17:13

Bandedge-CH11

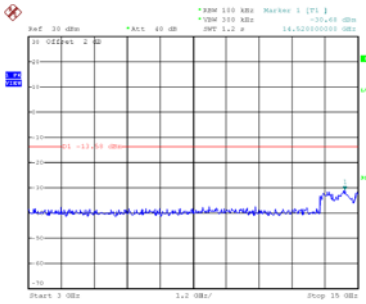


Date: 5.JUL.2019 16:20:58

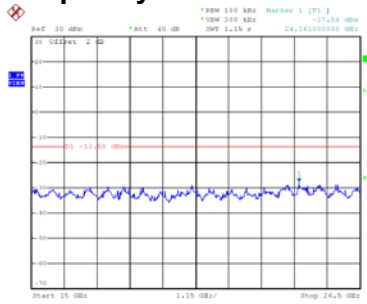
CH01 – 10th Harmonic of the fundamental frequency



Date: 5.JUL.2019 16:17:26

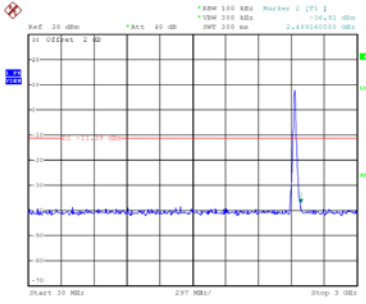


Date: 5.JUL.2019 16:17:33

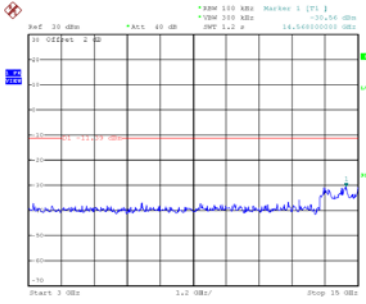


Date: 5.JUL.2019 16:17:40

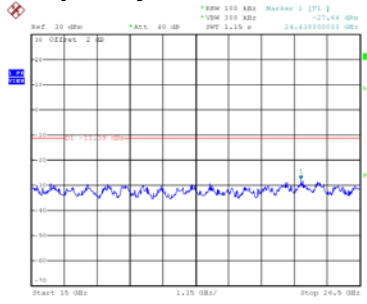
CH06 – 10th Harmonic of the fundamental frequency



Date: 5.JUL.2019 16:19:23

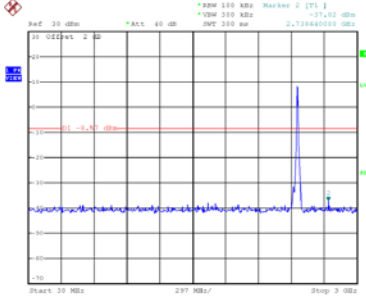


Date: 5.JUL.2019 16:19:30

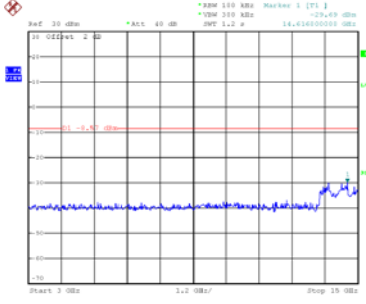


Date: 5.JUL.2019 16:19:37

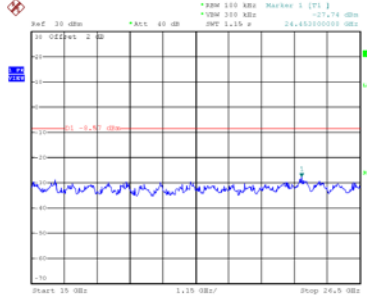
CH11 – 10th Harmonic of the fundamental frequency



Date: 5.JUL.2019 16:23:11



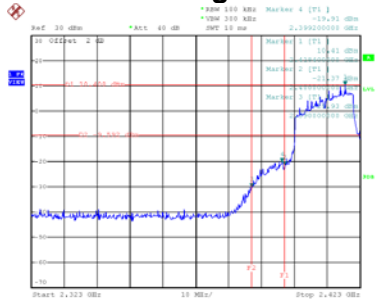
Date: 5.JUL.2019 16:23:18



Date: 5.JUL.2019 16:23:25

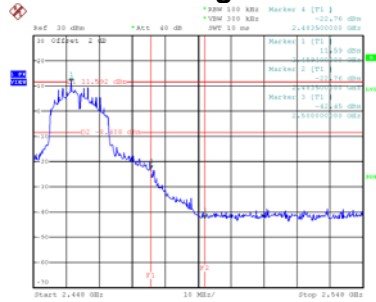
Test Mode TX N-20M Mode

Bandedge-CH01



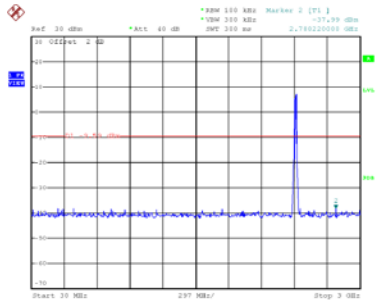
Date: 5.JUL.2019 16:29:11

Bandedge-CH11

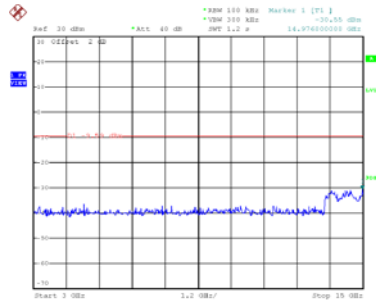


Date: 5.JUL.2019 16:43:49

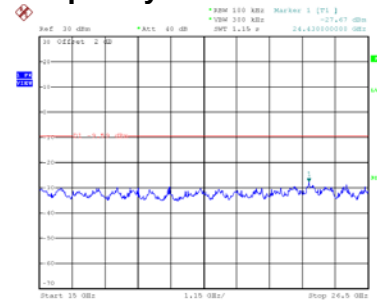
CH01 – 10th Harmonic of the fundamental frequency



Date: 5.JUL.2019 16:29:24

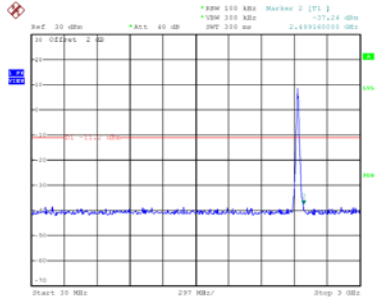


Date: 5.JUL.2019 16:29:31

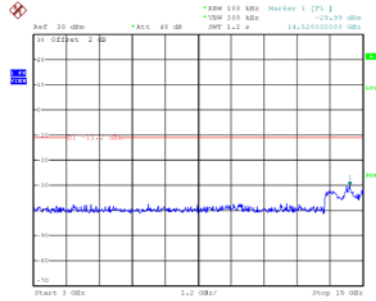


Date: 5.JUL.2019 16:29:38

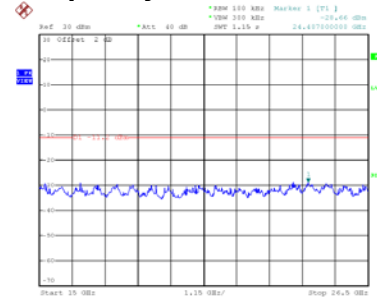
CH06 – 10th Harmonic of the fundamental frequency



Date: 5.JUL.2019 16:42:04

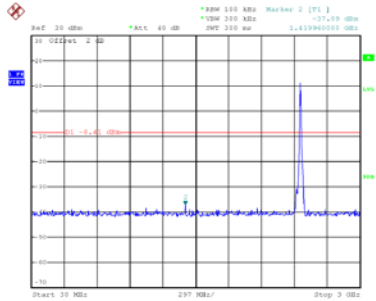


Date: 5.JUL.2019 16:42:11

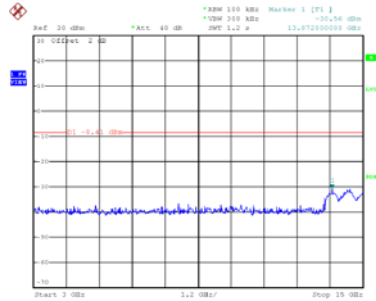


Date: 5.JUL.2019 16:42:18

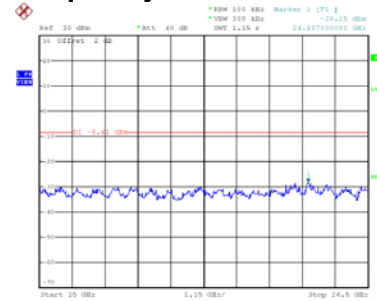
CH11 – 10th Harmonic of the fundamental frequency



Date: 5.JUL.2019 16:44:02



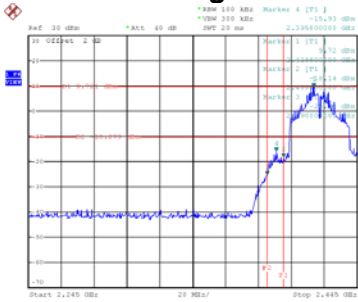
Date: 5.JUL.2019 16:44:09



Date: 5.JUL.2019 16:44:16

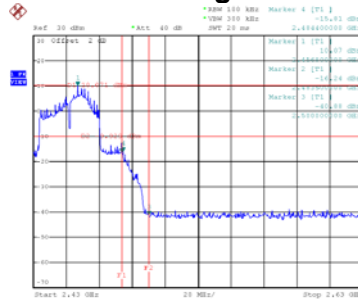
Test Mode TX N-40M Mode

Bandedge-CH03



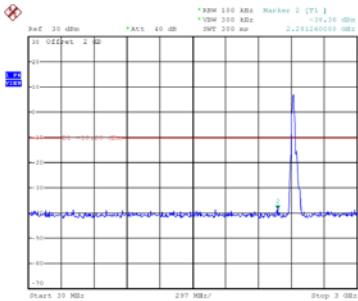
Date: 5.JUL.2019 16:46:10

Bandedge-CH09

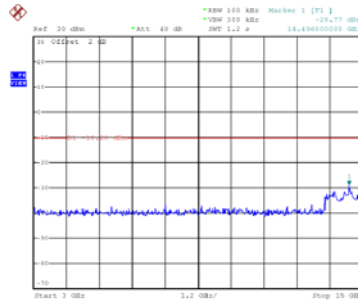


Date: 5.JUL.2019 16:50:22

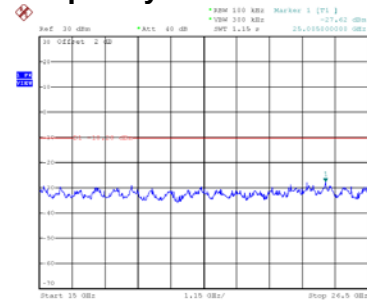
CH03 – 10th Harmonic of the fundamental frequency



Date: 5.JUL.2019 16:46:21

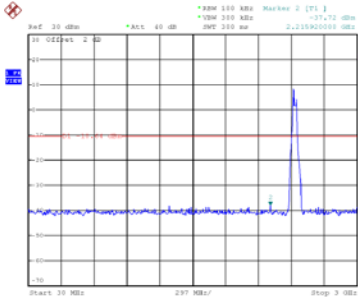


Date: 5.JUL.2019 16:46:38

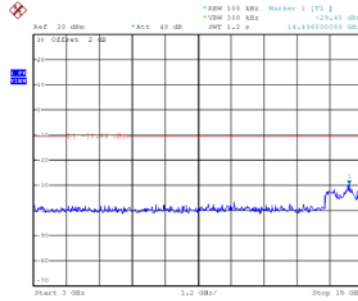


Date: 5.JUL.2019 16:46:45

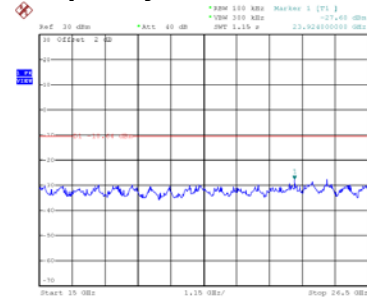
CH06 – 10th Harmonic of the fundamental frequency



Date: 5.JUL.2019 16:48:33

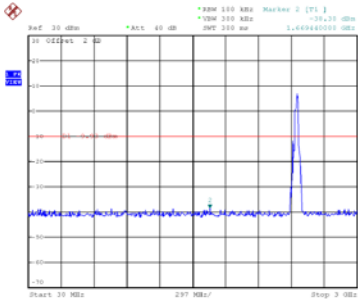


Date: 5.JUL.2019 16:48:40

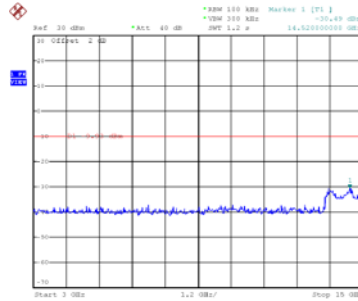


Date: 5.JUL.2019 16:48:47

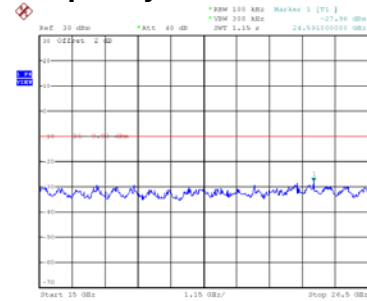
CH09 – 10th Harmonic of the fundamental frequency



Date: 5.JUL.2019 16:50:35



Date: 5.JUL.2019 16:50:42



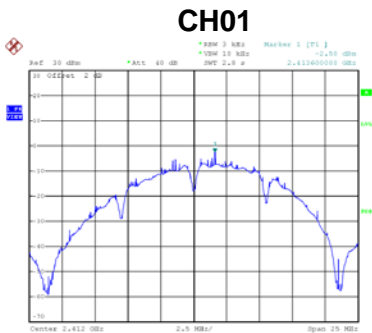
Date: 5.JUL.2019 16:50:49

APPENDIX H - POWER SPECTRAL DENSITY

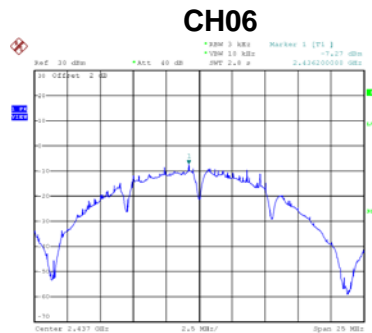
Non-Beamforming

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

Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
01	2412	-2.88	8	Complies
06	2437	-7.27	8	Complies
11	2462	-5.11	8	Complies



Date: 5-JUL-2019 16:04:59



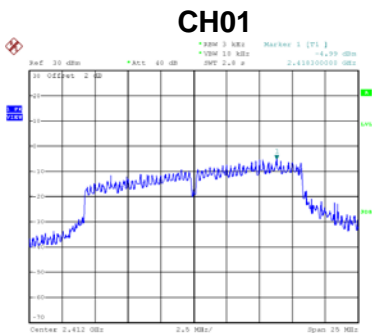
Date: 5-JUL-2019 15:37:33



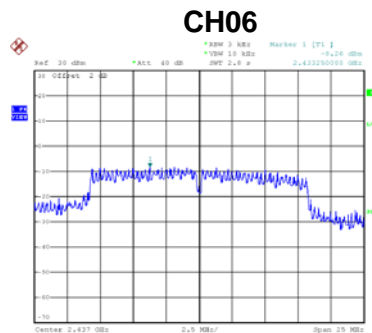
Date: 5-JUL-2019 15:38:35

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

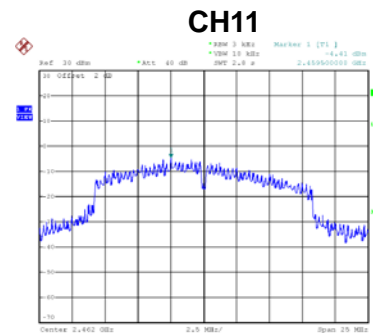
Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
01	2412	-4.99	8	Complies
06	2437	-8.26	8	Complies
11	2462	-4.41	8	Complies



Date: 5-JUL-2019 15:53:54



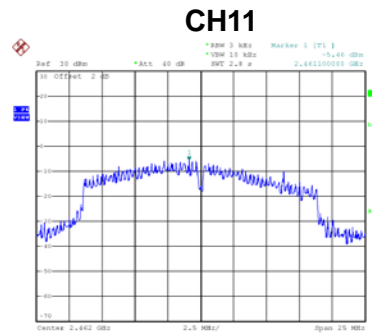
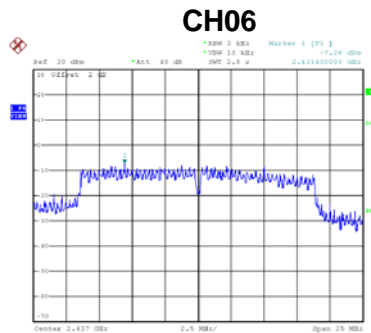
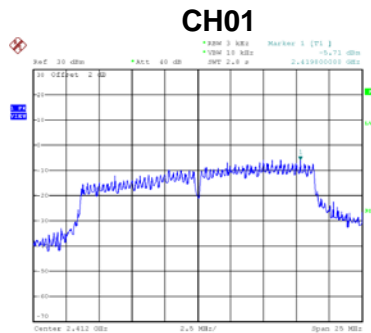
Date: 5-JUL-2019 16:00:41



Date: 5-JUL-2019 16:02:33

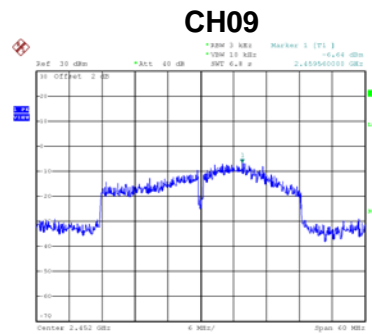
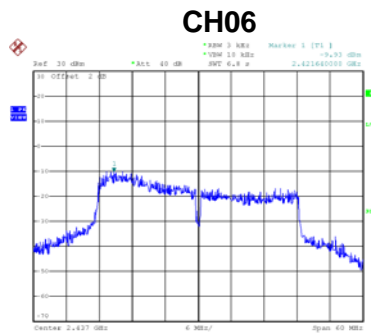
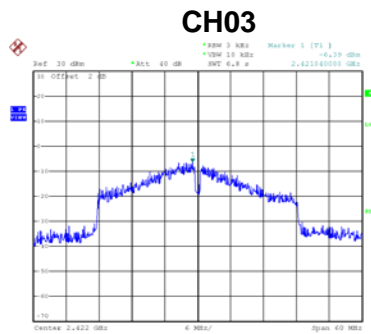
Test Mode	TX N-20M Mode
-----------	---------------

Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
01	2412	-5.71	8	Complies
06	2437	-7.26	8	Complies
11	2462	-5.46	8	Complies



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

Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
03	2422	-6.39	8	Complies
06	2437	-9.93	8	Complies
09	2452	-6.64	8	Complies



End of Test Report