

FCC Radio Test Report

FCC ID: 2ADZRG240W-C

This report concerns (check one): ☒ Original Grant ☐ Class I Change ☐ Class II Change

Project No. : 1712C022
Equipment : GPON ONU
Test Model : G-240W-C
Series Model : N/A
Applicant : Nokia Shanghai Bell Co., Ltd.
Address : No.388, Ningqiao Rd. Pilot Free Trade Zone
Shanghai China

Date of Receipt : Dec. 05, 2017
Date of Test : Dec. 20, 2017 ~ Mar. 04, 2018
Issued Date : Apr. 02, 2018
Tested by : BTL Inc.

Testing Engineer : Jivey Jiang
(Jivey Jiang)

Technical Manager : Shawn Xiao
(Shawn Xiao)

Authorized Signatory : David Mao
(David Mao)

B T L I N C .

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

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



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.

BTL's report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government.

This report is the confidential property of the client. As a mutual protection to the clients, the public and **BTL-self**, extracts from the test report shall not be reproduced except in full with **BTL's** authorized written approval.

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

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.

Table of Contents	Page
1 . CERTIFICATION	6
2 . SUMMARY OF TEST RESULTS	7
2.1 TEST FACILITY	8
2.2 MEASUREMENT UNCERTAINTY	8
3 . GENERAL INFORMATION	9
3.1 GENERAL DESCRIPTION OF EUT	9
3.2 DESCRIPTION OF TEST MODES	11
3.3 TABLE OF PARAMETERS OF TEXT SOFTWARE SETTING	13
3.4 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED	14
3.5 DESCRIPTION OF SUPPORT UNITS	14
4 . EMC EMISSION TEST	15
4.1 CONDUCTED EMISSION MEASUREMENT	15
4.1.1 POWER LINE CONDUCTED EMISSION LIMITS	15
4.1.2 TEST PROCEDURE	15
4.1.3 DEVIATION FROM TEST STANDARD	15
4.1.4 TEST SETUP	16
4.1.5 EUT OPERATING CONDITIONS	16
4.1.6 EUT TEST CONDITIONS	16
4.1.7 TEST RESULTS	16
4.2 RADIATED EMISSION MEASUREMENT	17
4.2.1 RADIATED EMISSION LIMITS	17
4.2.2 TEST PROCEDURE	18
4.2.3 DEVIATION FROM TEST STANDARD	18
4.2.4 TEST SETUP	19
4.2.5 EUT OPERATING CONDITIONS	20
4.2.6 EUT TEST CONDITIONS	20
4.2.7 TEST RESULTS (9KHZ TO 30MHZ)	20
4.2.8 TEST RESULTS (30MHZ TO 1000MHZ)	20
4.2.9 TEST RESULTS (ABOVE 1000MHZ)	20
5 . BANDWIDTH TEST	21
5.1 APPLIED PROCEDURES	21
5.1.1 TEST PROCEDURE	21
5.1.2 DEVIATION FROM STANDARD	21
5.1.3 TEST SETUP	21
5.1.4 EUT OPERATION CONDITIONS	21
5.1.5 EUT TEST CONDITIONS	21
5.1.6 TEST RESULTS	21
6 . MAXIMUM PEAK CONDUCTED OUTPUT POWER TEST	22

Table of Contents	Page
6.1 APPLIED PROCEDURES / LIMIT	22
6.1.1 TEST PROCEDURE	22
6.1.2 DEVIATION FROM STANDARD	22
6.1.3 TEST SETUP	22
6.1.4 EUT OPERATION CONDITIONS	22
6.1.5 EUT TEST CONDITIONS	22
6.1.6 TEST RESULTS	22
7 . ANTENNA CONDUCTED SPURIOUS EMISSION	23
7.1 APPLIED PROCEDURES / LIMIT	23
7.1.1 TEST PROCEDURE	23
7.1.2 DEVIATION FROM STANDARD	23
7.1.3 TEST SETUP	23
7.1.4 EUT OPERATION CONDITIONS	23
7.1.5 EUT TEST CONDITIONS	23
7.1.6 TEST RESULTS	23
8 . POWER SPECTRAL DENSITY TEST	24
8.1 APPLIED PROCEDURES / LIMIT	24
8.1.1 TEST PROCEDURE	24
8.1.2 DEVIATION FROM STANDARD	24
8.1.3 TEST SETUP	24
8.1.4 EUT OPERATION CONDITIONS	24
8.1.5 EUT TEST CONDITIONS	24
8.1.6 TEST RESULTS	24
9 . MEASUREMENT INSTRUMENTS LIST	25
10 . EUT TEST PHOTO	28
APPENDIX A - CONDUCTED EMISSION	32
APPENDIX B - RADIATED EMISSION (9KHZ TO 30MHZ)	39
APPENDIX C - RADIATED EMISSION (30MHZ TO 1000MHZ)	52
APPENDIX D - RADIATED EMISSION (ABOVE 1000MHZ)	71
APPENDIX E - BANDWIDTH	120
APPENDIX F - MAXIMUM PEAK CONDUCTED OUTPUT POWER	129
APPENDIX G - ANTENNA CONDUCTED SPURIOUS EMISSION	133
APPENDIX H - POWER SPECTRAL DENSITY	176

REPORT ISSUED HISTORY

Issued No.	Version	Description	Issued Date
BTL-FCCP-1-1712C022	Rev.01	Original Issue.	Mar. 29, 2018
BTL-FCCP-1-1712C022	Rev.02	The information of applicant and manufacturer are changed.	Apr. 02, 2018

1. CERTIFICATION

Equipment : GPON ONU
Brand Name : Nokia
Test Model : G-240W-C
Series Model : N/A
Applicant : Nokia Shanghai Bell Co., Ltd.
Manufacturer : Nokia Shanghai Bell Co., Ltd.
Address : No.388, Ningqiao Rd. Pilot Free Trade Zone Shanghai China
Factory : 1# Shenzhen Gongjin Electronics Co.,Ltd
2# Taicang T&W Electronics Co.,Ltd
Address : 1# No 2&3 Buildings, Mingwei Factory Area, Songgang Road West, No. A Building, 1# Songgang Road Songgang Sub-District, Shenzhen, Guangdong, 518105, P.R.China
2# Jiangnan Road 89, Ludu Town, Taicang, Suzhou, Jiangsu, 215412, P.R.China
Date of Test : Dec. 20, 2017 ~ Mar. 04, 2018
Test Sample : Engineering Sample
Standard(s) : FCC Part15, Subpart C:(15.247) / ANSI C63.10-2013

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

The test data, data evaluation, and equipment configuration contained in our test report (Ref No. BTL-FCCP-1-1712C022) were obtained utilizing the test procedures, test instruments, test sites that has been accredited by the Authority of NVLAP according to the ISO-17025 quality assessment standard and technical standard(s).

2. SUMMARY OF TEST RESULTS

Test procedures according to the technical standard(s):

Applied Standard(s): FCC Part15 (15.247) , Subpart C			
Standard(s) Section	Test Item	Judgment	Remark
15.207	Conducted Emission	PASS	
15.247(d)	Antenna conducted Spurious Emission	PASS	
15.247(a)(2)	6dB Bandwidth	PASS	
15.247(b)(3)	Peak Output Power	PASS	
15.247(e)	Power Spectral Density	PASS	
15.203	Antenna Requirement	PASS	
15.247(d)/ 15.205/ 15.209	Transmitter Radiated Emissions	PASS	

NOTE:

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

2.1 TEST FACILITY

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

BTL's test firm number for FCC: 854385

BTL's designation number for FCC: CN5020

2.2 MEASUREMENT UNCERTAINTY

The measurement uncertainty figures shall be calculated according the methods described in the ETSI TR 100 028 and shall correspond to an expansion factor (coverage factor) $k=1.96$ or $k=2$ (which provide confidence levels of respectively 90% and 95.45% in the case where the distributions characterizing the actual measurement uncertainties are normal (Gaussian)). Measurement Uncertainty for a Level of Confidence of 95 %, $U=2 \times U_c(y)$.

The BTL measurement uncertainty as below table:

A. Conducted Measurement:

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

B. Radiated Measurement:

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

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

3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

Equipment	GPON ONU	
Brand Name	Nokia	
Test Model	G-240W-C	
Series Model	N/A	
Model Difference	N/A	
Product Description	Operation Frequency	2412~2462 MHz
	Modulation Technology	802.11b:DSSS 802.11g:OFDM 802.11n:OFDM
	Bit Rate of Transmitter	802.11b: 11/5.5/2/1 Mbps 802.11g: 54/48/36/24/18/12/9/6 Mbps 802.11n up to 300 Mbps
	Output Power (Max.)	802.11b: 21.93 dBm 802.11g: 29.45 dBm 802.11n(20MHz):28.98 dBm 802.11n(40MHz):28.95 dBm
Power Source	DC voltage supplied from AC/DC adapter. 1# Manufacturer / Model: Shenzhen SOY Technology Co.,Ltd / SOY-1200300US 2# Manufacturer / Model: Shenzhen SOY Technology Co.,Ltd / SUN-1200300 3# Manufacturer / Model: Mass Power Electronics Co.,Ltd / NBS40C120300M2	
Power Rating	1# I/P: 100-240V~ 50/60Hz 0.9A Max O/P: 12V--- 3.0A 2# I/P: 100-240V~ 50/60Hz 1.2A Max O/P: 12V--- 3.0A 3# I/P: 100-240V~ 50/60Hz 1.0A O/P: 12V--- 3.0A	

Note:

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

CH01 - CH11 for 802.11b, 802.11g, 802.11n(20MHz) CH03 - CH09 for 802.11n(40MHz)							
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. Table for Filed Antenna

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	N/A	N/A	PCB	IPEX	2.1
2	N/A	N/A	PCB	IPEX	2.1

Note:

(1) The EUT incorporates a MIMO function. Physically, the EUT provides two completed two transmitters and two receivers (2T2R), all transmit signals are completely uncorrelated, then, Direction gain = GANT, that is Directional gain=2.1.

4.

Operating Mode	1TX	2TX
TX Mode		
802.11b	V (ANT 1)	-
802.11g	-	V (ANT 1+ANT 2)
802.11n(20MHz)	-	V (ANT 1+ANT 2)
802.11n(40MHz)	-	V (ANT 1+ANT 2)

3.2 DESCRIPTION OF TEST MODES

To investigate the maximum EMI emission characteristics generated from EUT, the test system was pre-scanning tested based on the consideration of following EUT operation mode or test configuration mode which possibly have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

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-20MHZ MODE CHANNEL 01/06/11
Mode 4	TX N-40MHZ MODE CHANNEL 03/06/09
Mode 5	Normal Link

The EUT system operated these modes were found to be the worst case during the pre-scanning test as following:

For Conducted Test	
Final Test Mode	Description
Mode 5	Normal Link

For Radiated 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-20MHZ MODE CHANNEL 01/06/11
Mode 4	TX N-40MHZ MODE CHANNEL 03/06/09

For Band Edge 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-20MHZ MODE CHANNEL 01/06/11
Mode 4	TX N-40MHZ MODE CHANNEL 03/06/09

6dB Spectrum Bandwidth	
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-20MHZ MODE CHANNEL 01/06/11
Mode 4	TX N-40MHZ MODE CHANNEL 03/06/09

Maximum Conducted Output Power	
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-20MHZ MODE CHANNEL 01/06/11
Mode 4	TX N-40MHZ MODE CHANNEL 03/06/09

Power Spectral Density	
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-20MHZ MODE CHANNEL 01/06/11
Mode 4	TX N-40MHZ MODE CHANNEL 03/06/09

Note:

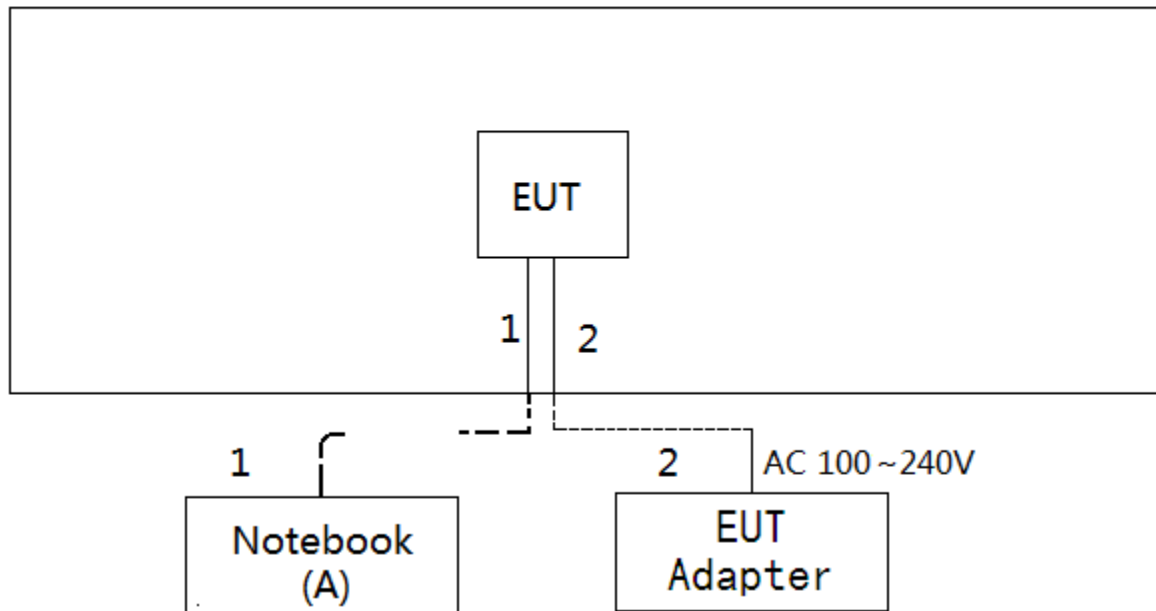
- (1) The measurements are performed at the high, middle, low available channels.
- (2) 802.11b mode: DBPSK (1Mbps)
 802.11g mode: OFDM (6Mbps)
 802.11n HT20 mode : BPSK (13Mbps)
 802.11n HT40 mode : BPSK (27Mbps)
 For radiated emission tests, the highest output powers were set for final test.
- (3) For radiated below 1G test, the 802.11b is found to be the worst case and recorded.
- (4) The EUT was programmed to be in continuously transmitting mode and the transmit duty cycle is not less than 98%.

3.3 TABLE OF PARAMETERS OF TEXT SOFTWARE SETTING

During testing, channel & power controlling software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product power parameters of WLAN

Test software version	accessMTool_REL_3_0_0_1		
Frequency (MHz)	2412	2437	2462
802.11b	64	64	64
802.11g	50	51	51
802.11n (20MHz)	51	51	51
Frequency (MHz)	2422	2437	2452
802.11n (40MHz)	51	52	52

3.4 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



4

3.5 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Mfr/Brand	Model/Type No.	FCC ID	Series No.
A	Notebook	DELL	INSPIRON 1420	DOC	JX193A01SDC2

Item	Shielded Type	Ferrite Core	Length	Note
1	NO	NO	10m	RJ45 Cable
2	NO	NO	1.2m	DC Cable

4. EMC EMISSION TEST

4.1 CONDUCTED EMISSION MEASUREMENT

4.1.1 POWER LINE CONDUCTED EMISSION LIMITS (Frequency Range 150KHz-30MHz)

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

Note:

- (1) The limit of " * " decreases with the logarithm of the frequency
- (2) The test result calculated as following:
 Measurement Value = Reading Level + Correct Factor
 Correct Factor = Insertion Loss + Cable Loss + Attenuator Factor(if use)
 Margin Level = Measurement Value - Limit Value

The following table is the setting of the receiver

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

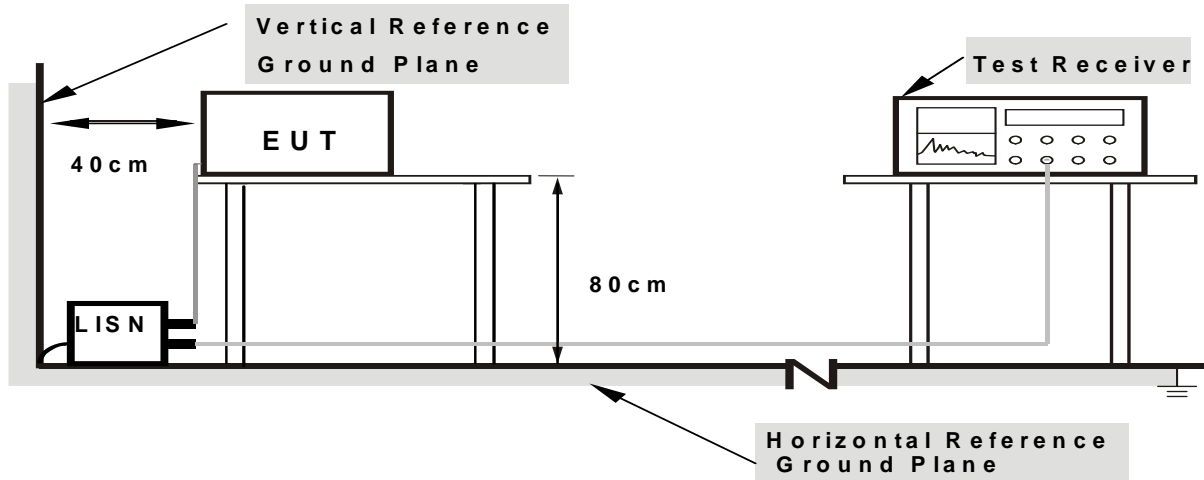
4.1.2 TEST PROCEDURE

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

4.1.3 DEVIATION FROM TEST STANDARD

No deviation

4.1.4 TEST SETUP



- Note:** 1.Support units were connected to second LISN.
2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes

4.1.5 EUT OPERATING CONDITIONS

The EUT was placed on the test table and programmed in normal function.

4.1.6 EUT TEST CONDITIONS

Temperature: 25°C Relative Humidity: 55% Test Voltage: AC 120V/60Hz

4.1.7 TEST RESULTS

Please refer to the Appendix A.

4.2 RADIATED EMISSION MEASUREMENT

4.2.1 RADIATED EMISSION LIMITS

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 (9KHz-1000MHz)

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
960~1000	500	3

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000MHz)

Frequency (MHz)	(dBuV/m) (at 3 meters)	
	PEAK	AVERAGE
Above 1000	74	54

Notes:

- (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)	1MHz / 3MHz for Peak, 1MHz / 1/T for Average

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

4.2.2 TEST PROCEDURE

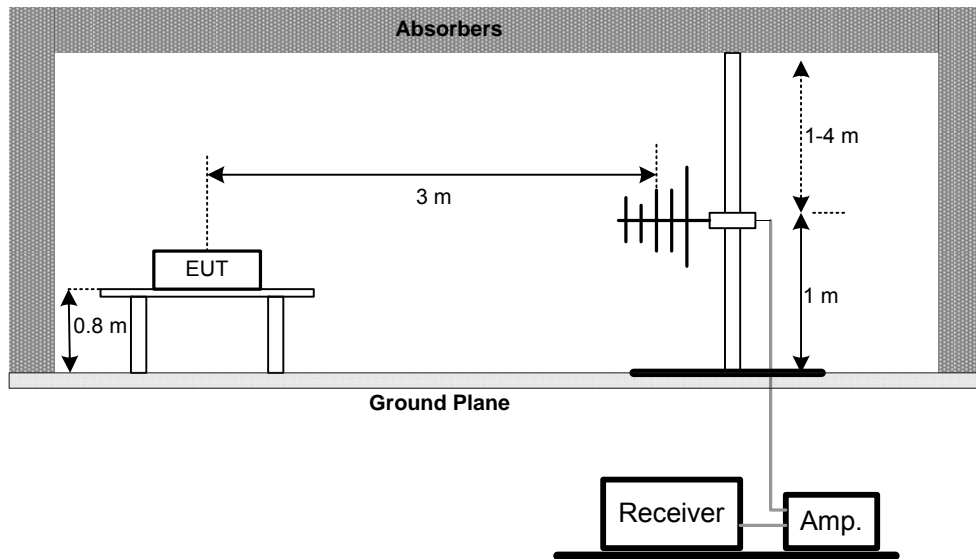
- The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(below 1GHz)
- The measuring distance of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

4.2.3 DEVIATION FROM TEST STANDARD

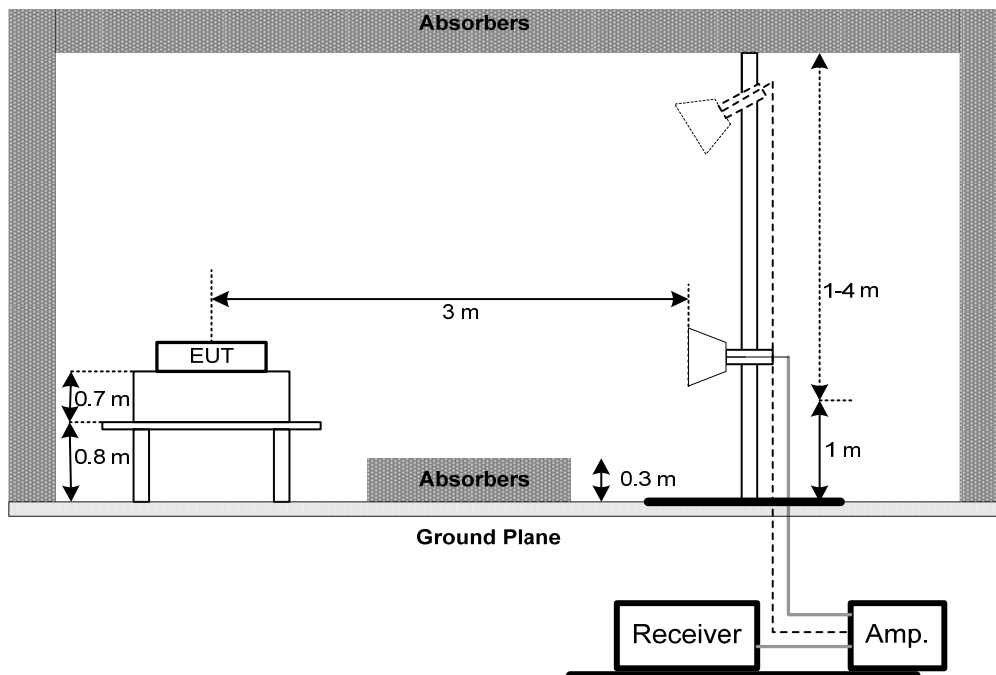
No deviation

4.2.4 TEST SETUP

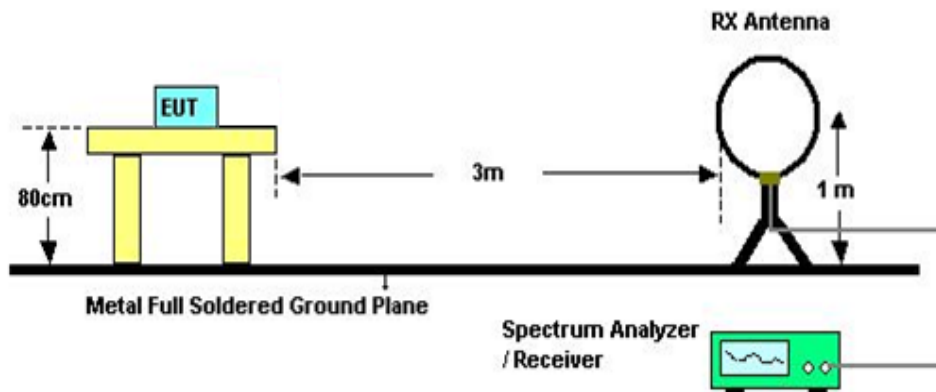
(A) Radiated Emission Test Set-Up Frequency Below 1 GHz



(B) Radiated Emission Test Set-Up Frequency Above 1 GHz



(C) For Radiated Emissions Below 30MHz



4.2.5 EUT OPERATING CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

4.2.6 EUT TEST CONDITIONS

Temperature: 25°C Relative Humidity: 55% Test Voltage: AC 120V/60Hz

4.2.7 TEST RESULTS (9KHZ TO 30MHZ)

Please refer to the Appendix B

Remark:

- (1) The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.
- (2) Distance extrapolation factor = $40 \log (\text{specific distance} / \text{test distance})$ (dB).
- (3) Limit line = specific limits (dBuV) + distance extrapolation factor.

4.2.8 TEST RESULTS (30MHZ TO 1000MHZ)

Please refer to the Appendix C.

4.2.9 TEST RESULTS (ABOVE 1000MHZ)

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 APPLIED PROCEDURES

FCC Part15 (15.247) , Subpart C			
Section	Test Item	Frequency Range (MHz)	Result
15.247(a)(2)	Bandwidth	2400-2483.5	PASS

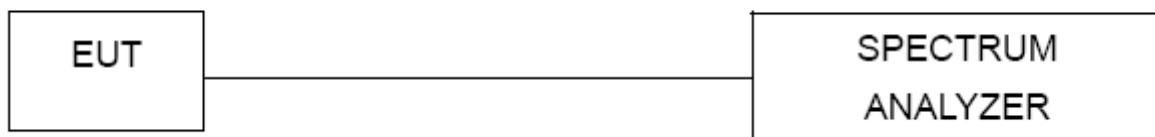
5.1.1 TEST PROCEDURE

- The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
- Spectrum Setting: RBW= 100KHz, VBW=300KHz, Sweep time = 2.5 ms.

5.1.2 DEVIATION FROM STANDARD

No deviation.

5.1.3 TEST SETUP



5.1.4 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

5.1.5 EUT TEST CONDITIONS

Temperature: 25°C Relative Humidity: 55% Test Voltage: AC 120V/60Hz

5.1.6 TEST RESULTS

Please refer to the Appendix E.

6. MAXIMUM PEAK CONDUCTED OUTPUT POWER TEST

6.1 APPLIED PROCEDURES / LIMIT

FCC Part15 (15.247) , Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247(b)(3)	Maximum Output Power	1 Watt or 30dBm	2400-2483.5	PASS

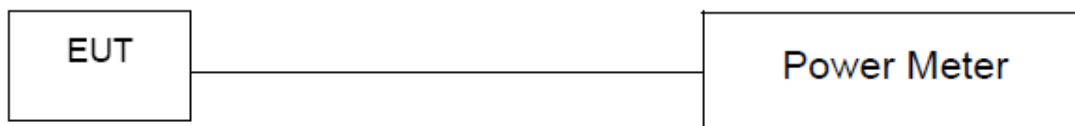
6.1.1 TEST PROCEDURE

- The EUT was directly connected to the power meter and antenna output port as show in the block diagram below,
- The maximum peak conducted output power was performed in accordance with method 9.1.3 of FCC KDB 558074 D01 DTS Meas Guidance and FCC KDB 662911 D01 Multiple Transmitter Output.

6.1.2 DEVIATION FROM STANDARD

No deviation.

6.1.3 TEST SETUP



6.1.4 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

6.1.5 EUT TEST CONDITIONS

Temperature: 25°C Relative Humidity: 55% Test Voltage: AC 120V/60Hz

6.1.6 TEST RESULTS

Please refer to the Appendix F.

7. ANTENNA CONDUCTED SPURIOUS EMISSION

7.1 APPLIED PROCEDURES / LIMIT

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced 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 that the transmitter demonstrates compliance with the peak conducted power limits.

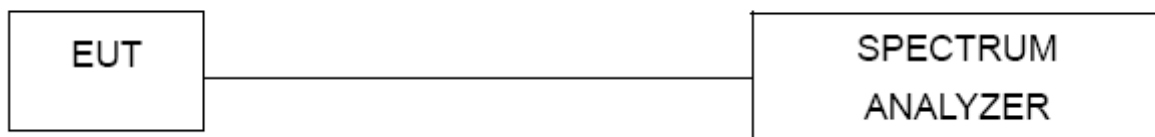
7.1.1 TEST PROCEDURE

- The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
- Spectrum Setting: RBW= 100KHz, VBW=300KHz, Sweep time = Auto.
- Offset=antenna gain+cable loss

7.1.2 DEVIATION FROM STANDARD

No deviation.

7.1.3 TEST SETUP



7.1.4 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

7.1.5 EUT TEST CONDITIONS

Temperature: 25°C Relative Humidity: 55% Test Voltage: AC 120V/60Hz

7.1.6 TEST RESULTS

Please refer to the Appendix G.

8. POWER SPECTRAL DENSITY TEST

8.1 APPLIED PROCEDURES / LIMIT

FCC Part15 (15.247) , Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247(e)	Power Spectral Density	8 dBm (in any 3KHz)	2400-2483.5	PASS

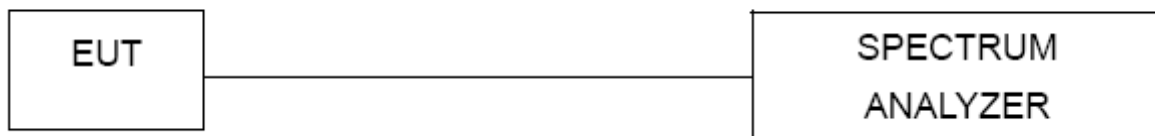
8.1.1 TEST PROCEDURE

- The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
- Spectrum Setting: RBW=3KHz, VBW=10KHz, Sweep time = Auto.

8.1.2 DEVIATION FROM STANDARD

No deviation.

8.1.3 TEST SETUP



8.1.4 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

8.1.5 EUT TEST CONDITIONS

Temperature: 25°C Relative Humidity: 55% Test Voltage: AC 120V/60Hz

8.1.6 TEST RESULTS

Please refer to the Appendix H.

9. MEASUREMENT INSTRUMENTS LIST

Conducted Emission					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	EMI Test Receiver	R&S	ESCI	100382	Mar. 26, 2018
2	LISN	EMCO	3816/2	52765	Mar. 26, 2018
3	50Ω Terminator	SHX	TF2-3G-A	8122901	Mar. 26, 2018
4	TWO-LINE V-NETWORK	R&S	ENV216	101447	Mar. 26, 2018
5	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
6	Cable	N/A	RG223	12m	Oct. 19, 2018

Radiated Emission Below 1GHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Antenna	Schwarbeck	VULB9160	9160-3232	Mar. 26, 2018
2	Amplifier	HP	8447D	2944A09673	Oct. 19, 2018
3	Receiver	Agilent	N9038A	MY52130039	Aug. 20, 2018
4	Cable	emci	LMR-400(30MHz-1 GHz)(8m+5m)	N/A	Jun. 26, 2018
5	Controller	CT	SC100	N/A	N/A
6	Controller	MF	MF-7802	MF780208416	N/A
7	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
8	Antenna	EM	EM-6876-1	230	Mar. 06, 2018

Radiated Emission Above 1GHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Double Ridged Guide Antenna	ETS	3115	75789	Mar. 26, 2018
2	Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	9170319	Jun. 08, 2018
3	Amplifier	Agilent	8449B	3008A02274	May. 16, 2018
4	Microwave Preamplifier With Adaptor	EMC INSTRUMENT	EMC2654045	980039 & HA01	Mar. 26, 2018
5	Receiver	Agilent	N9038A	MY52130039	Aug. 20, 2018
6	Antenna	EM	EM-6876-1	230	Mar. 06, 2018
7	Controller	CT	SC100	N/A	N/A
8	Controller	MF	MF-7802	MF780208416	N/A
9	Cable	emci	EMC104-SM-SM-1 2000(12m)	N/A	Jun. 26, 2018
10	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A

6dB Bandwidth					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP40	100185	Aug. 20, 2018

Peak Output Power					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Power Meter	ANRITSU	ML2495A	1128009	Mar. 26, 2018
2	Pulse Power Sensor	ANRITSU	MA 2411B	1027500	Mar. 26, 2018

Antenna Conducted Spurious Emission					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP40	100185	Aug. 20, 2018

Power Spectral Density					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP40	100185	Aug. 20, 2018

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

All calibration period of equipment list is one year.

10. EUT TEST PHOTO

Conducted Measurement Photos



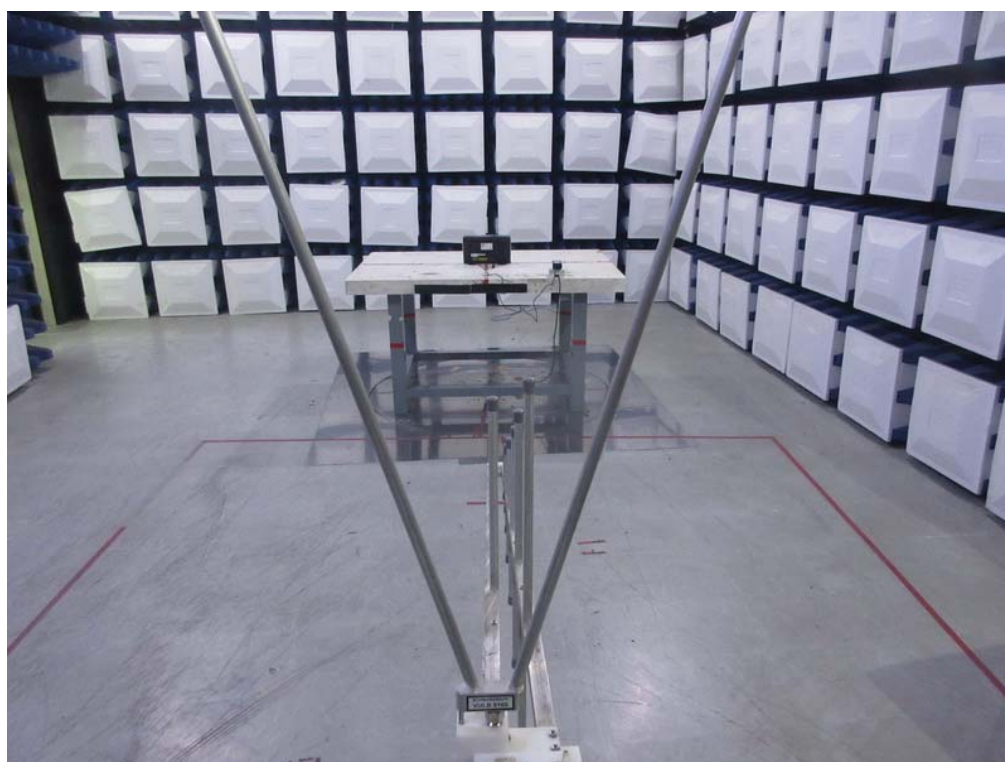
Radiated Measurement Photos

9KHz to 30MHz



Radiated Measurement Photos

30MHz to 1000MHz



Radiated Measurement Photos

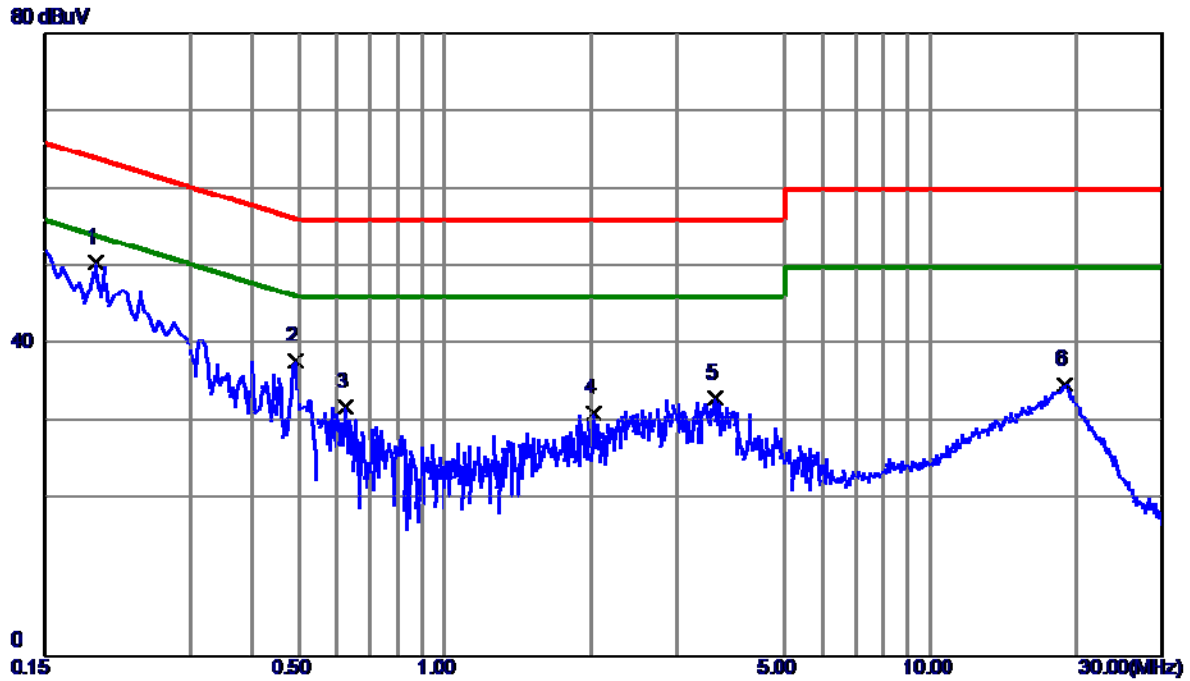
Above 1000MHz



APPENDIX A - CONDUCTED EMISSION

Test Mode : Normal Link_ Adapter: SUN-1200300

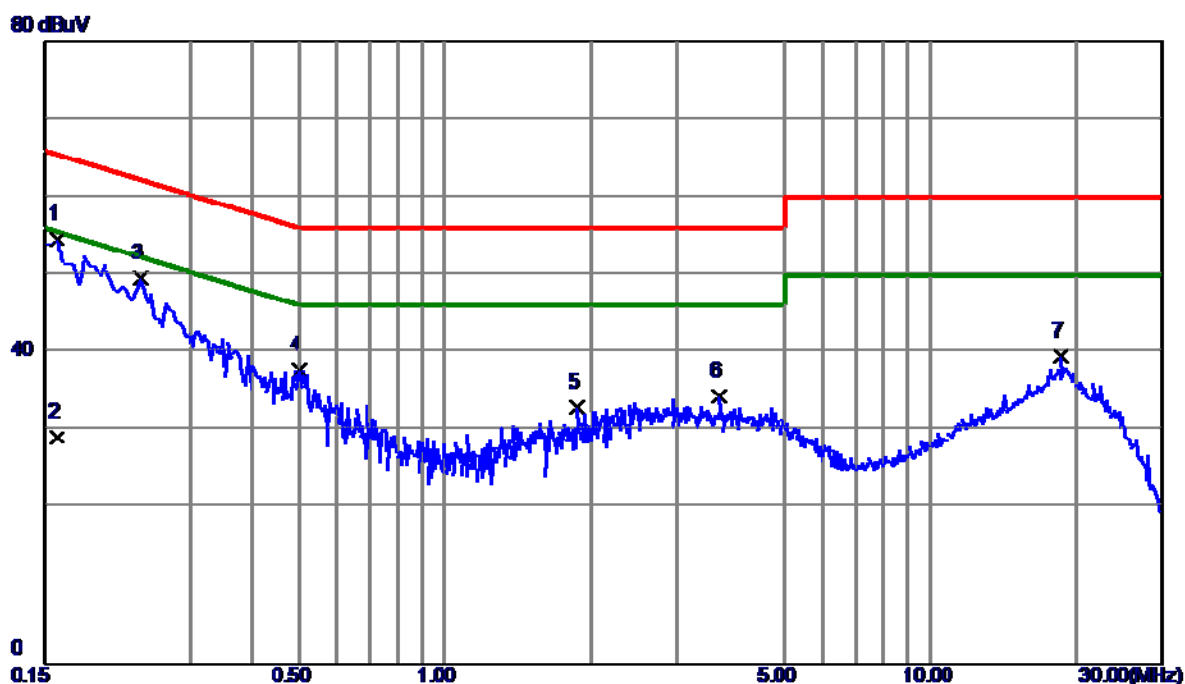
Line



No.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1 *	0.1905	40.83	9.70	50.53	64.01	-13.48	Peak	
2	0.4920	28.15	9.71	37.86	56.13	-18.27	Peak	
3	0.6225	22.26	9.71	31.97	56.00	-24.03	Peak	
4	2.0264	21.54	9.71	31.25	56.00	-24.75	Peak	
5	3.6015	23.45	9.73	33.18	56.00	-22.82	Peak	
6	18.8564	24.88	9.96	34.84	60.00	-25.16	Peak	

Test Mode : Normal Link_ Adapter: SUN-1200300

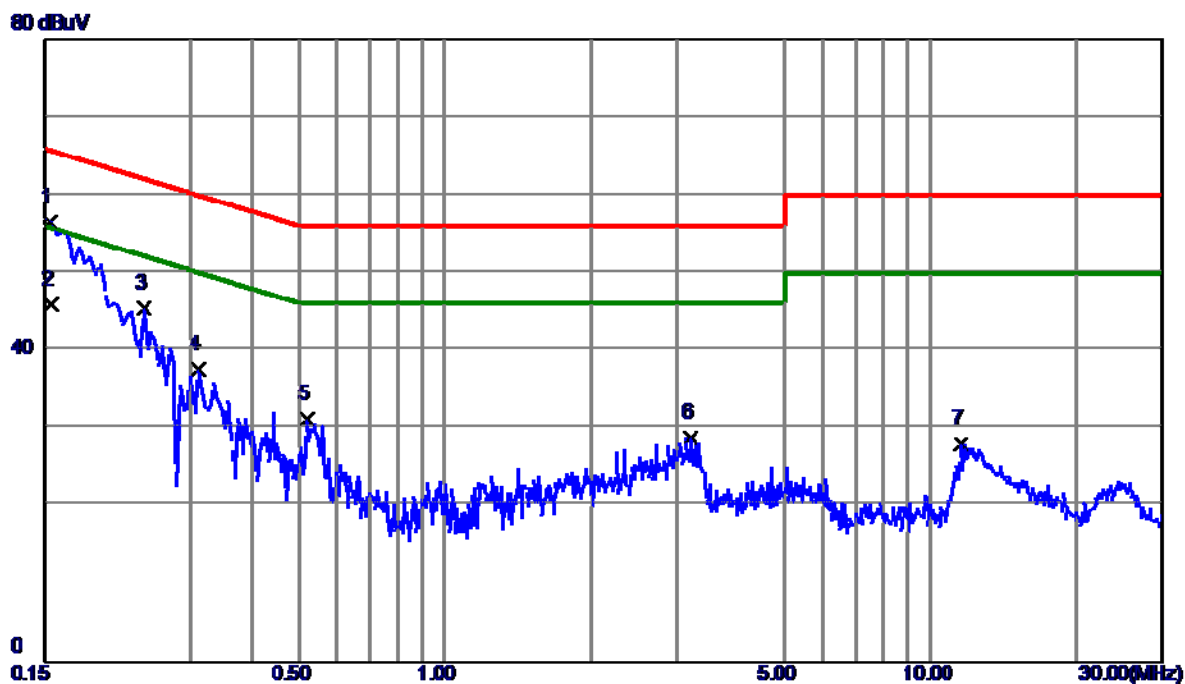
Neutral



No.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1 *	0.1590	44.93	9.61	54.54	65.52	-10.98	Peak	
2	0.1590	19.50	9.61	29.11	55.52	-26.41	AVG	
3	0.2355	39.96	9.61	49.57	62.25	-12.68	Peak	
4	0.5010	28.08	9.61	37.69	56.00	-18.31	Peak	
5	1.8735	23.31	9.63	32.94	56.00	-23.06	Peak	
6	3.6780	24.69	9.65	34.34	56.00	-21.66	Peak	
7	18.5550	29.43	10.04	39.47	60.00	-20.53	Peak	

Test Mode : Normal Link_ Adapter: NBS40C120300M2

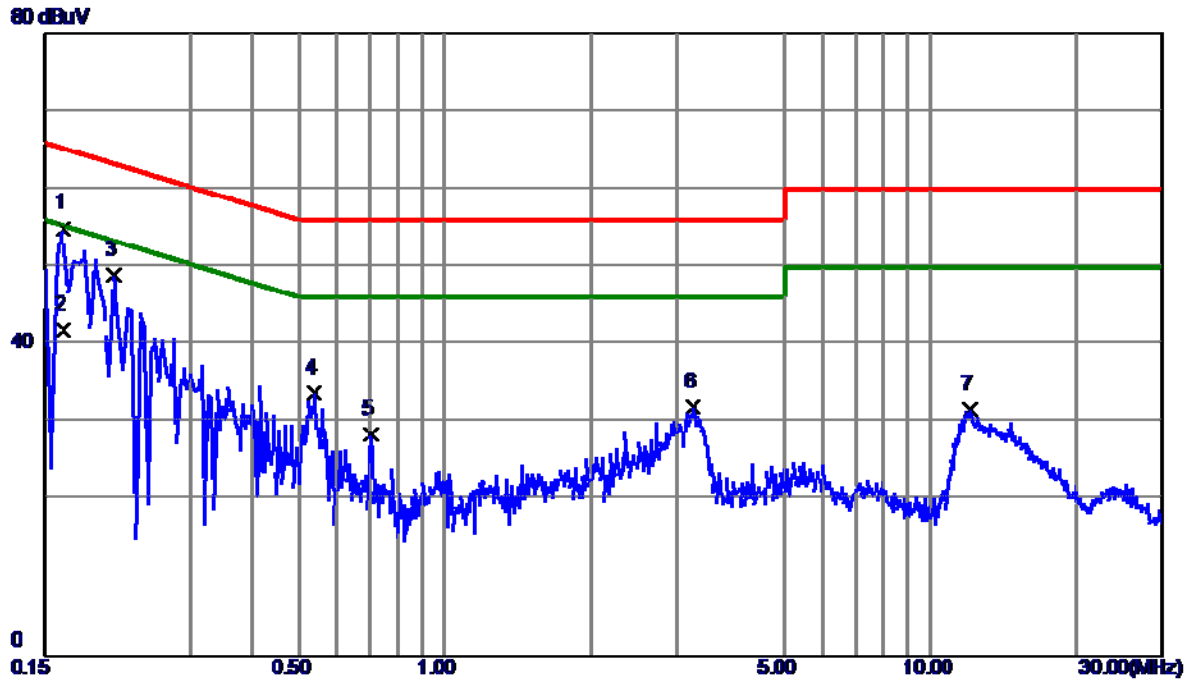
Line



No.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1 *	0.1532	46.67	9.75	56.42	65.82	-9.40	Peak	
2	0.1548	36.21	9.75	45.96	55.74	-9.78	AVG	
3	0.2400	35.65	9.72	45.37	62.10	-16.73	Peak	
4	0.3120	27.87	9.72	37.59	59.92	-22.33	Peak	
5	0.5190	21.50	9.76	31.26	56.00	-24.74	Peak	
6	3.1965	18.90	9.86	28.76	56.00	-27.24	Peak	
7	11.5755	17.87	10.15	28.02	60.00	-31.98	Peak	

Test Mode : Normal Link_ Adapter: NBS40C120300M2

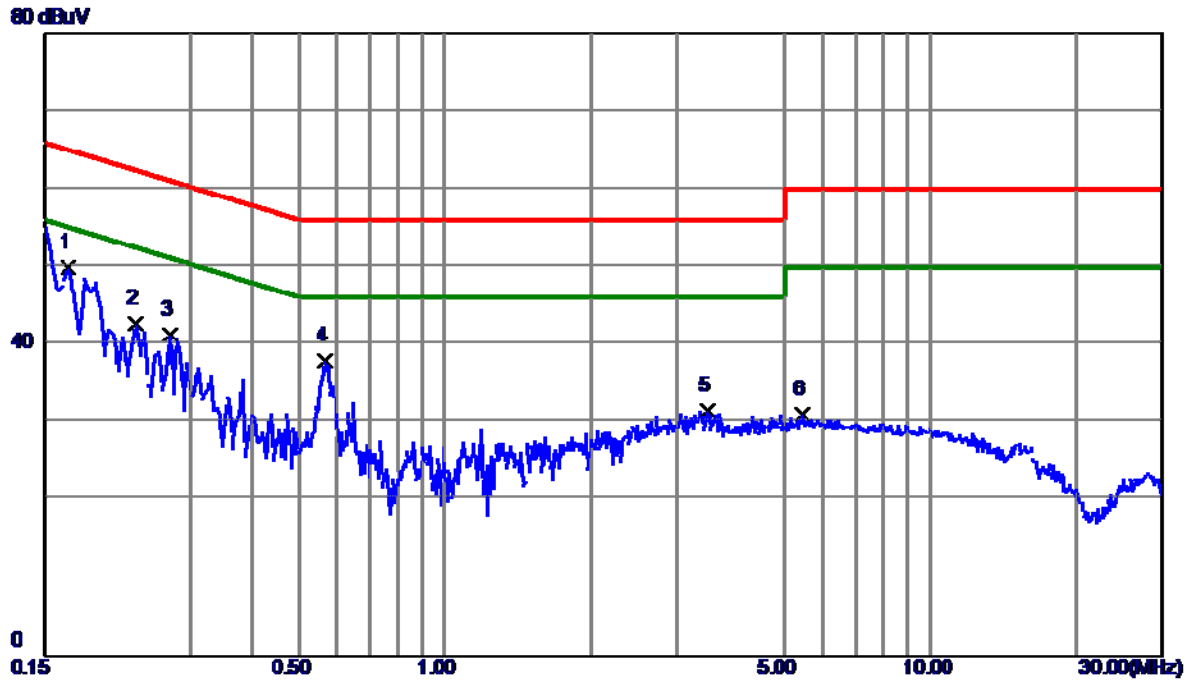
Neutral



No.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1 *	0.1635	45.32	9.64	54.96	65.28	-10.32	Peak	
2	0.1635	32.24	9.64	41.88	55.28	-13.40	AVG	
3	0.2085	39.30	9.65	48.95	63.26	-14.31	Peak	
4	0.5370	24.13	9.66	33.79	56.00	-22.21	Peak	
5	0.7035	18.87	9.67	28.54	56.00	-27.46	Peak	
6	3.2370	22.29	9.77	32.06	56.00	-23.94	Peak	
7	12.0525	21.47	10.16	31.63	60.00	-28.37	Peak	

Test Mode : Normal Link_ Adapter: SOY-1200300US

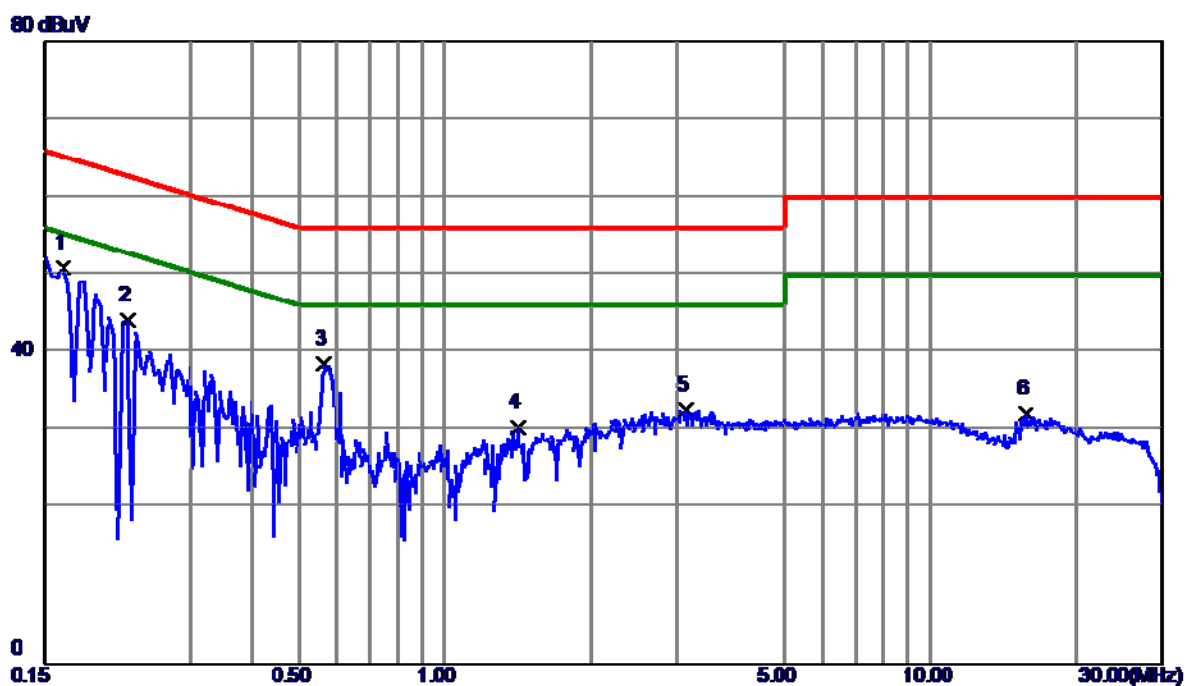
Line



No.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1 *	0.1680	40.14	9.78	49.92	65.06	-15.14	Peak	
2	0.2310	32.99	9.76	42.75	62.41	-19.66	Peak	
3	0.2714	31.50	9.76	41.26	61.07	-19.81	Peak	
4	0.5685	28.05	9.81	37.86	56.00	-18.14	Peak	
5	3.4800	21.51	10.01	31.52	56.00	-24.48	Peak	
6	5.4555	20.90	10.11	31.01	60.00	-28.99	Peak	

Test Mode : Normal Link_ Adapter: SOY-1200300US

Neutral

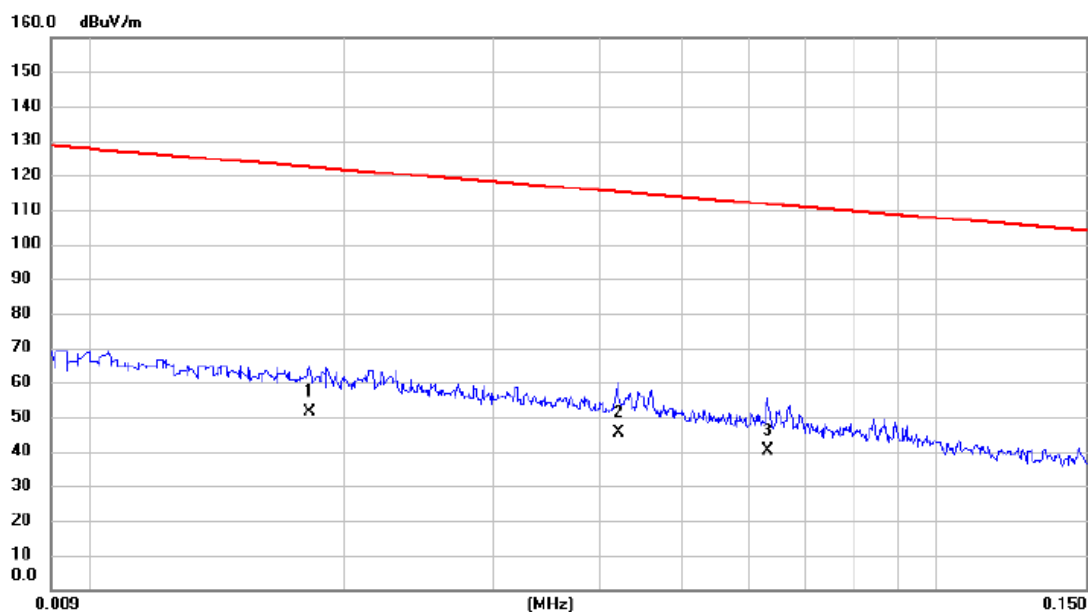


No.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1 *	0.1635	41.24	9.68	50.92	65.28	-14.36	Peak	
2	0.2220	34.47	9.68	44.15	62.74	-18.59	Peak	
3	0.5639	28.80	9.71	38.51	56.00	-17.49	Peak	
4	1.4100	20.67	9.78	30.45	56.00	-25.55	Peak	
5	3.1245	22.69	9.91	32.60	56.00	-23.40	Peak	
6	15.6660	21.46	10.65	32.11	60.00	-27.89	Peak	

APPENDIX B - RADIATED EMISSION (9KHZ TO 30MHZ)

Test Mode: TX B MODE CHANNEL 01_Adapter: SUN-1200300

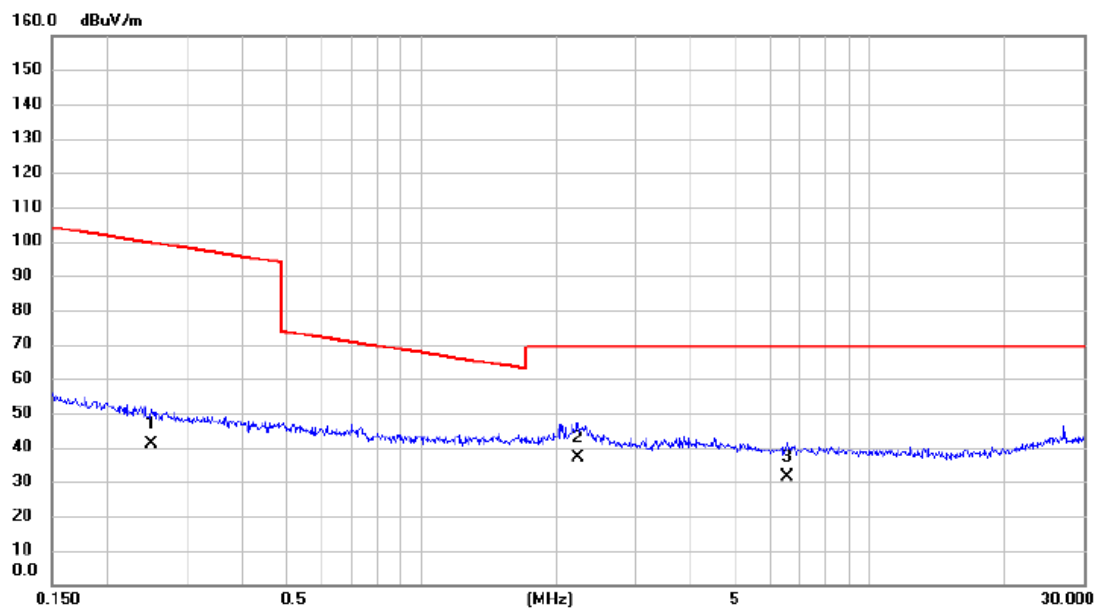
Ant 0°



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		0.0182	31.70	19.85	51.55	122.40	-70.85	AVG	
2	*	0.0422	26.60	18.95	45.55	115.10	-69.55	AVG	
3		0.0631	21.60	18.47	40.07	111.60	-71.53	AVG	

Test Mode: TX B MODE CHANNEL 01_Adapter: SUN-1200300

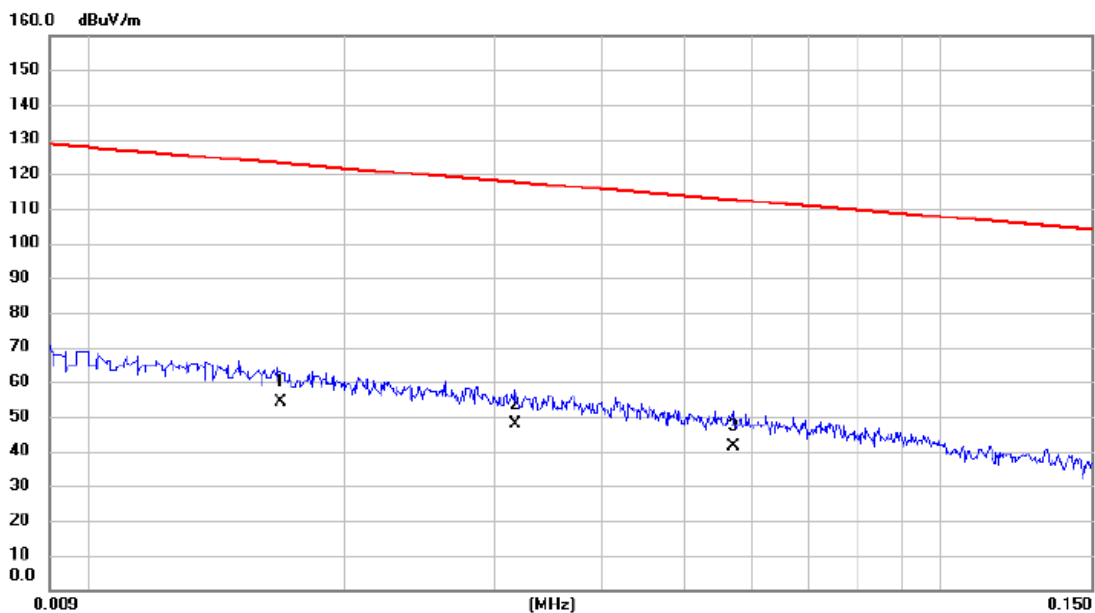
Ant 0°



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		0.2508	24.23	16.66	40.89	99.62	-58.73	AVG	
2	*	2.2367	21.66	15.44	37.10	69.54	-32.44	QP	
3		6.5227	17.10	14.18	31.28	69.54	-38.26	QP	

Test Mode: TX B MODE CHANNEL 01_Adapter: SUN-1200300

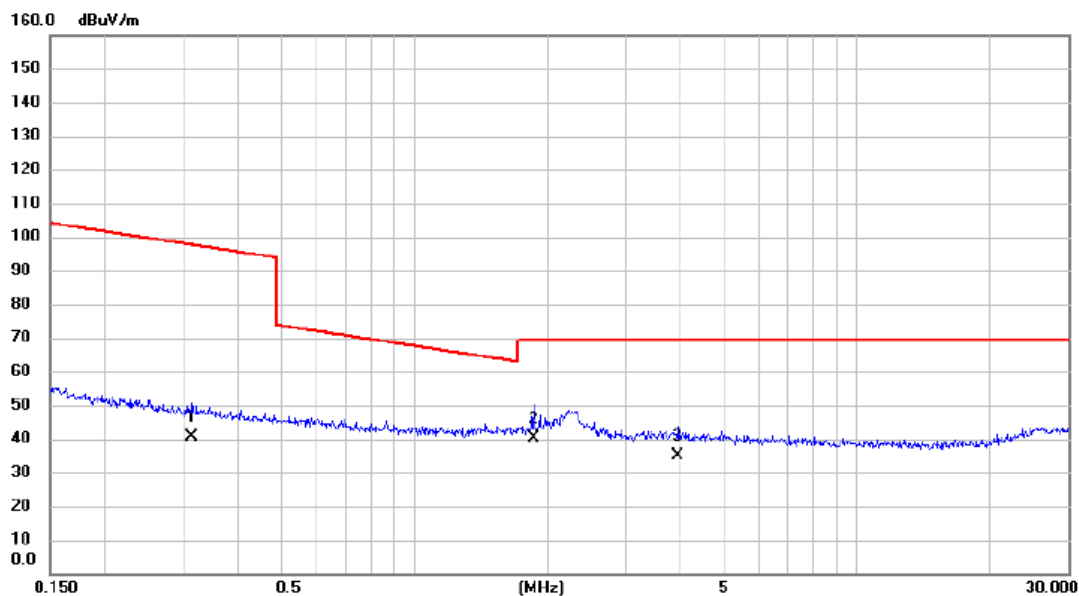
Ant 90°



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	0.0168	33.99	20.04	54.03	123.10	-69.07	AVG	
2		0.0317	28.67	19.27	47.94	117.58	-69.64	AVG	
3		0.0570	22.66	18.59	41.25	112.49	-71.24	AVG	

Test Mode: TX B MODE CHANNEL 01_Adapter: SUN-1200300

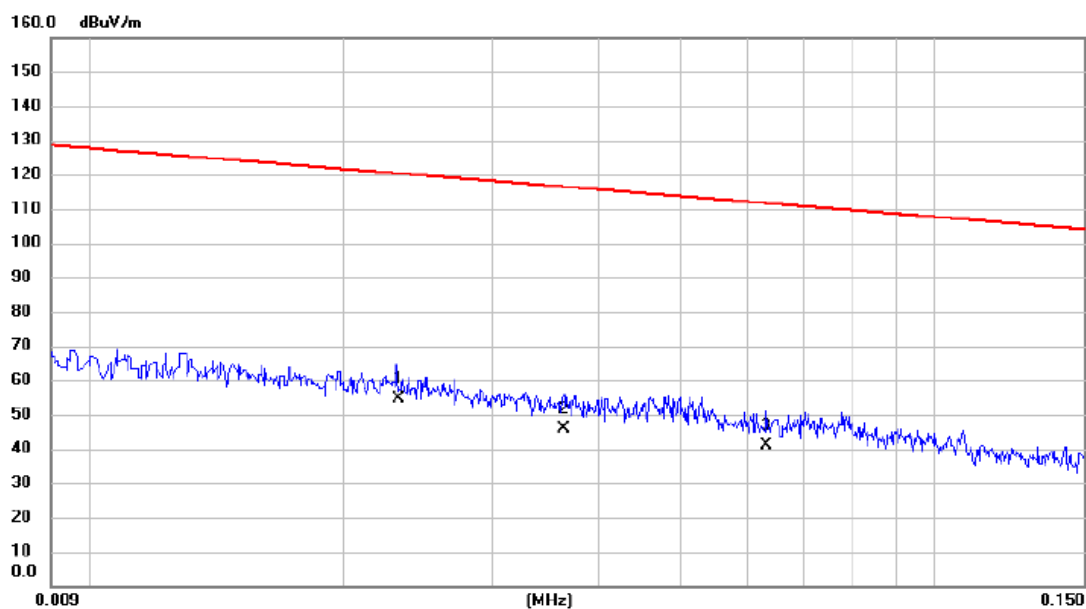
Ant 90°



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		0.3133	24.03	16.61	40.64	97.69	-57.05	AVG	
2	*	1.8680	24.69	15.56	40.25	69.54	-29.29	QP	
3		3.9430	19.94	14.97	34.91	69.54	-34.63	QP	

Test Mode:	TX B MODE CHANNEL 01_ Adapter: NBS40C120300M2
------------	---

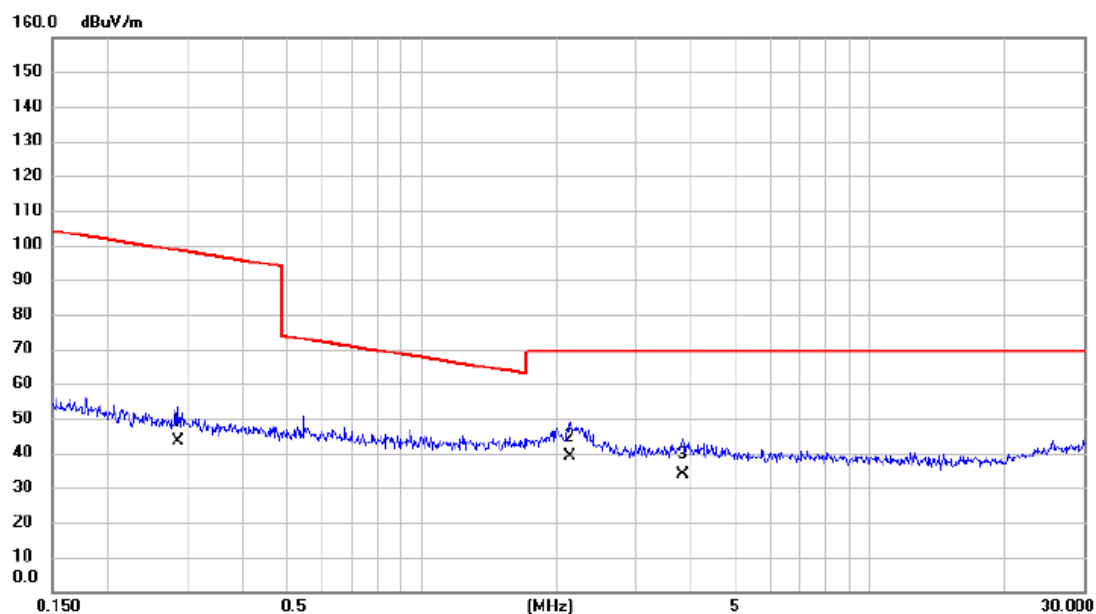
Ant 0°



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	0.0232	35.18	19.52	54.70	120.30	-65.60	AVG	
2		0.0364	26.56	19.13	45.69	116.38	-70.69	AVG	
3		0.0632	22.39	18.47	40.86	111.59	-70.73	AVG	

Test Mode: TX B MODE CHANNEL 01_ Adapter: NBS40C120300M2

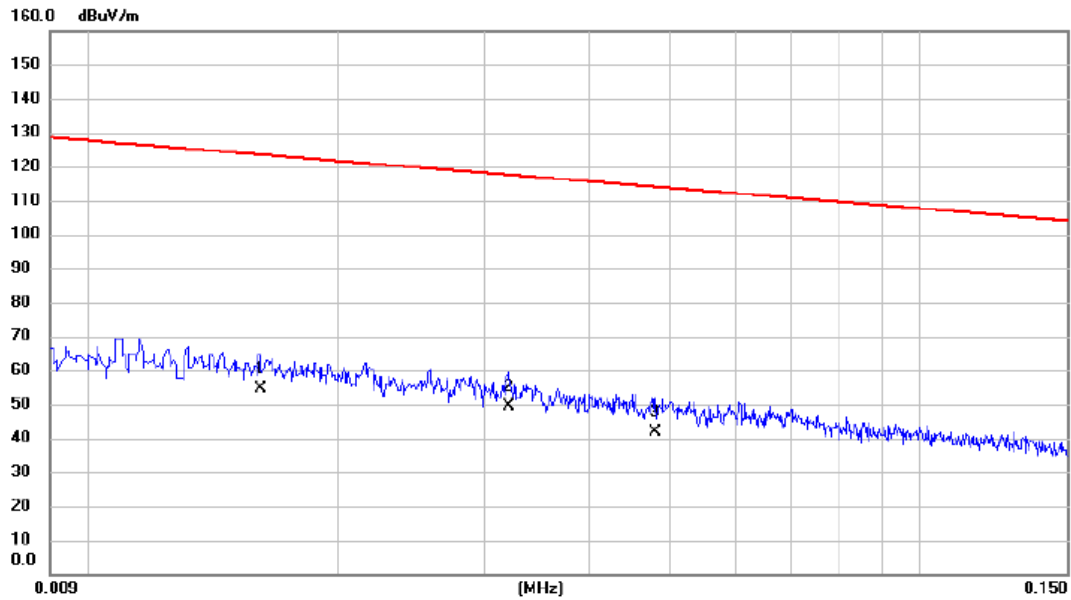
Ant 0°



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		0.2863	26.81	16.63	43.44	98.47	-55.03	AVG	
2	*	2.1440	23.34	15.47	38.81	69.54	-30.73	QP	
3		3.8196	19.00	15.00	34.00	69.54	-35.54	QP	

Test Mode: TX B MODE CHANNEL 01_ Adapter: NBS40C120300M2

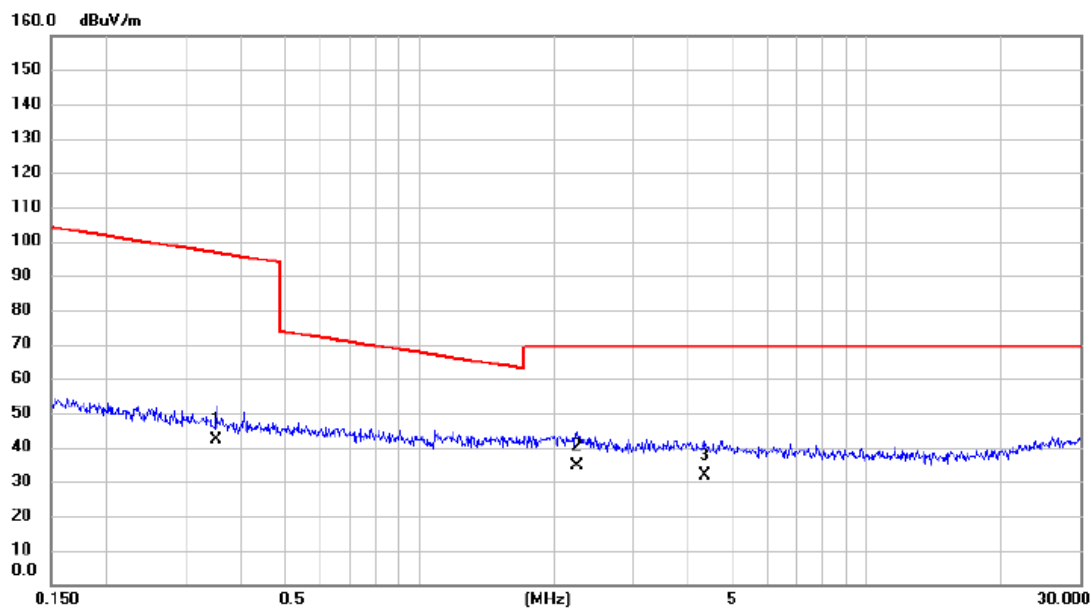
Ant 90°



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		0.0161	34.65	20.13	54.78	123.47	-68.69	AVG	
2	*	0.0321	30.29	19.26	49.55	117.47	-67.92	AVG	
3		0.0480	22.93	18.78	41.71	113.98	-72.27	AVG	

Test Mode: TX B MODE CHANNEL 01_ Adapter: NBS40C120300M2

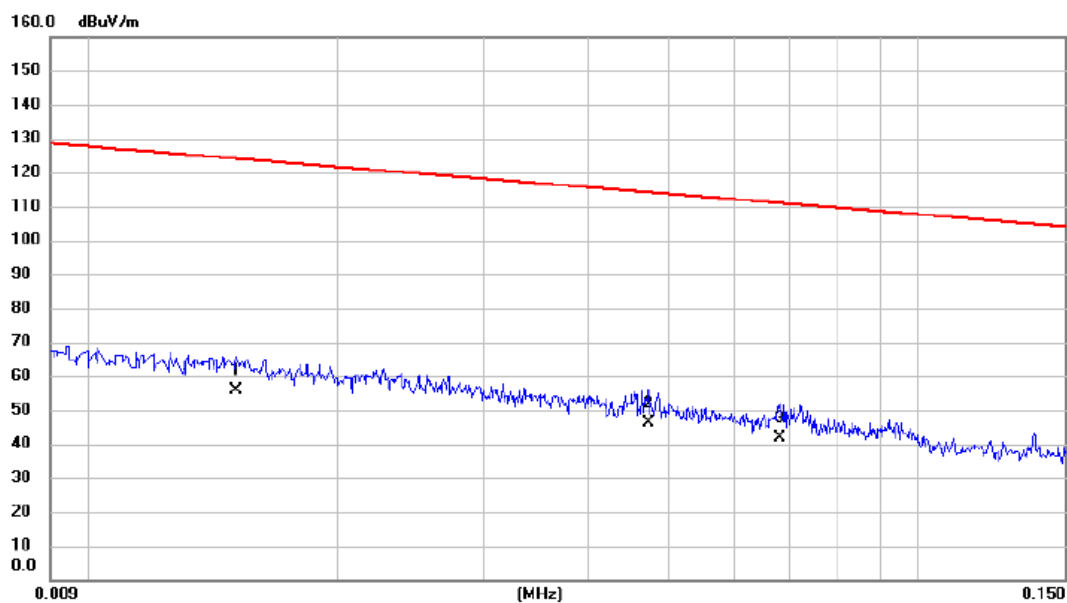
Ant 90°



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		0.3502	25.50	16.58	42.08	96.72	-54.64	AVG	
2	*	2.2486	18.98	15.44	34.42	69.54	-35.12	QP	
3		4.3606	17.12	14.74	31.86	69.54	-37.68	QP	

Test Mode: TX B MODE CHANNEL 01_ Adapter: SOY-1200300US

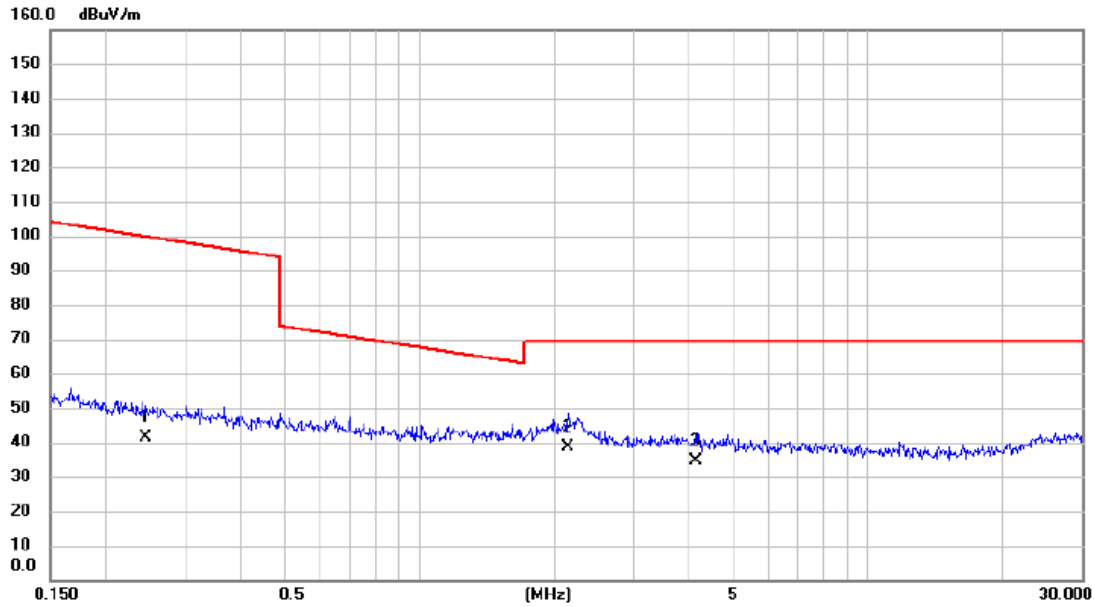
Ant 0°



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		0.0151	35.52	20.26	55.78	124.03	-68.25	AVG	
2	*	0.0473	27.52	18.80	46.32	114.11	-67.79	AVG	
3		0.0680	23.48	18.37	41.85	110.95	-69.10	AVG	

Test Mode: TX B MODE CHANNEL 01_ Adapter: SOY-1200300US

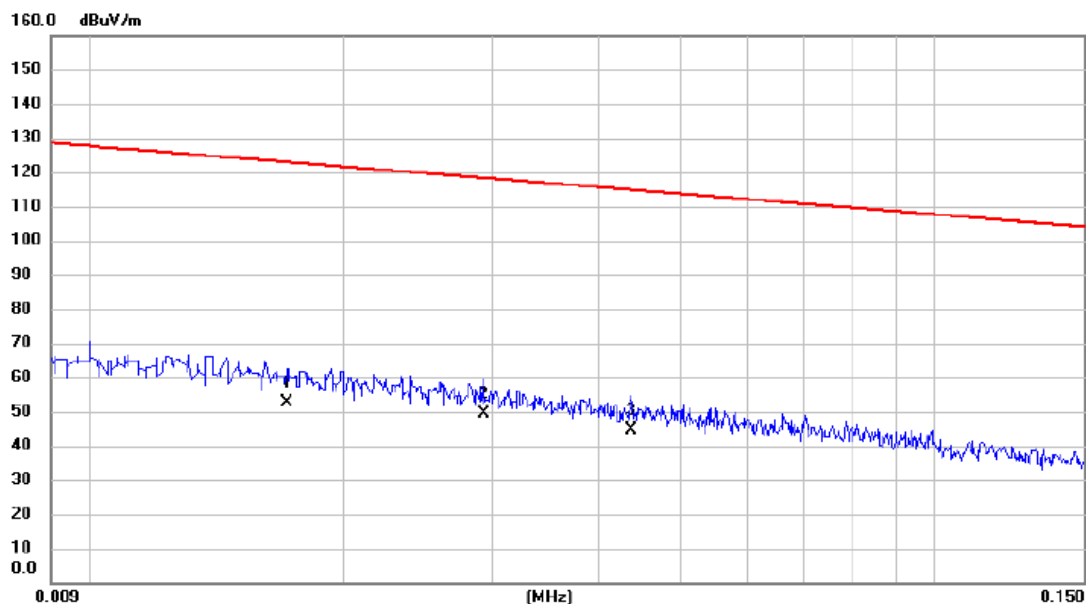
Ant 0°



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		0.2455	24.80	16.67	41.47	99.80	-58.33	AVG	
2	*	2.1440	23.06	15.47	38.53	69.54	-31.01	QP	
3		4.1356	19.73	14.87	34.60	69.54	-34.94	QP	

Test Mode: TX B MODE CHANNEL 01_ Adapter: SOY-1200300US

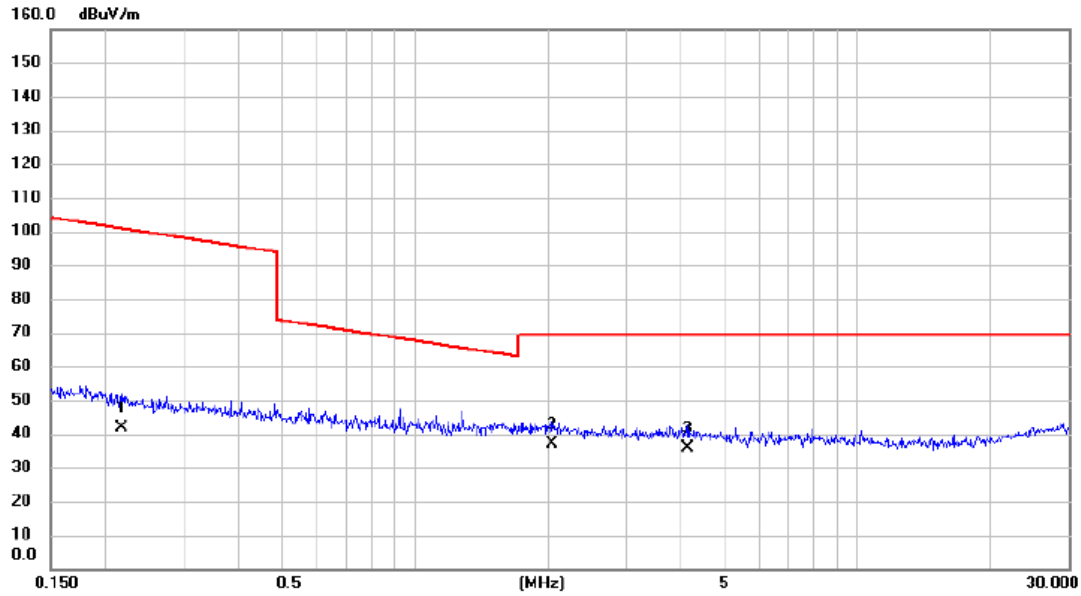
Ant 90°



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		0.0171	32.72	20.00	52.72	122.94	-70.22	AVG	
2	*	0.0293	30.21	19.34	49.55	118.27	-68.72	AVG	
3		0.0437	25.65	18.91	44.56	114.80	-70.24	AVG	

Test Mode: TX B MODE CHANNEL 01_ Adapter: SOY-1200300US

Ant 90°

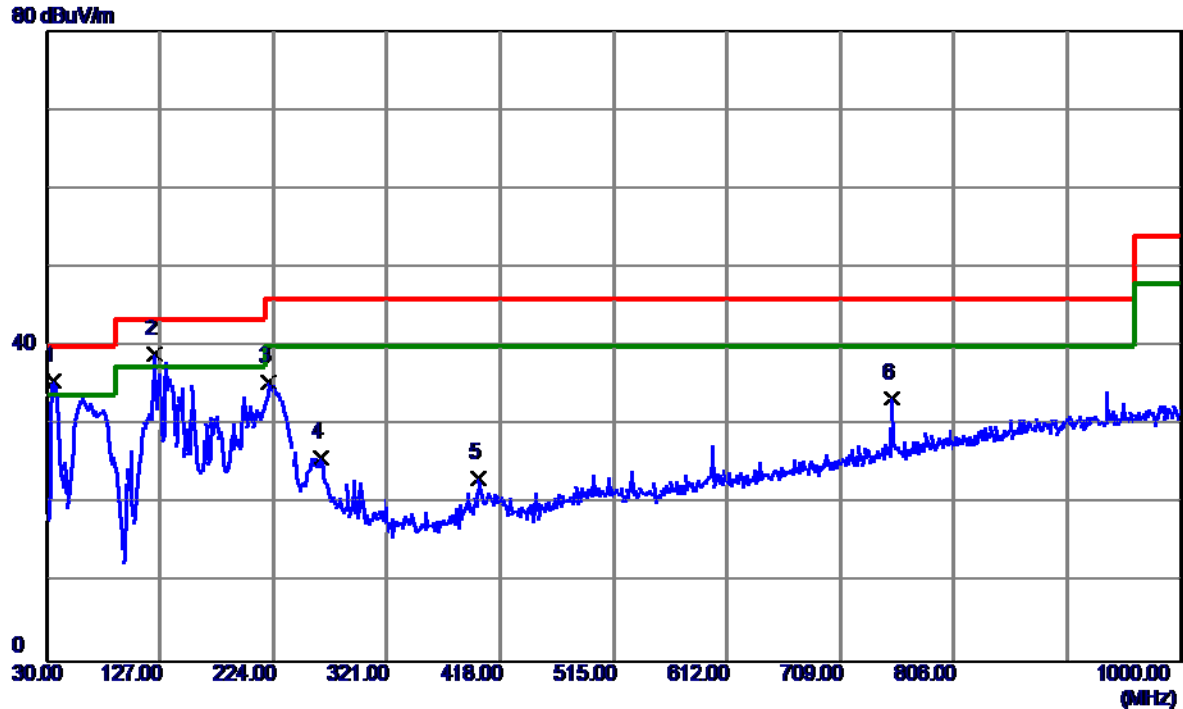


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		0.2174	25.23	16.75	41.98	100.86	-58.88	AVG	
2	*	2.0441	21.32	15.50	36.82	69.54	-32.72	QP	
3		4.1356	20.75	14.87	35.62	69.54	-33.92	QP	

APPENDIX C - RADIATED EMISSION (30MHZ TO 1000MHZ)

Test Mode: TX B MODE CHANNEL 01_ Adapter: SUN-1200300

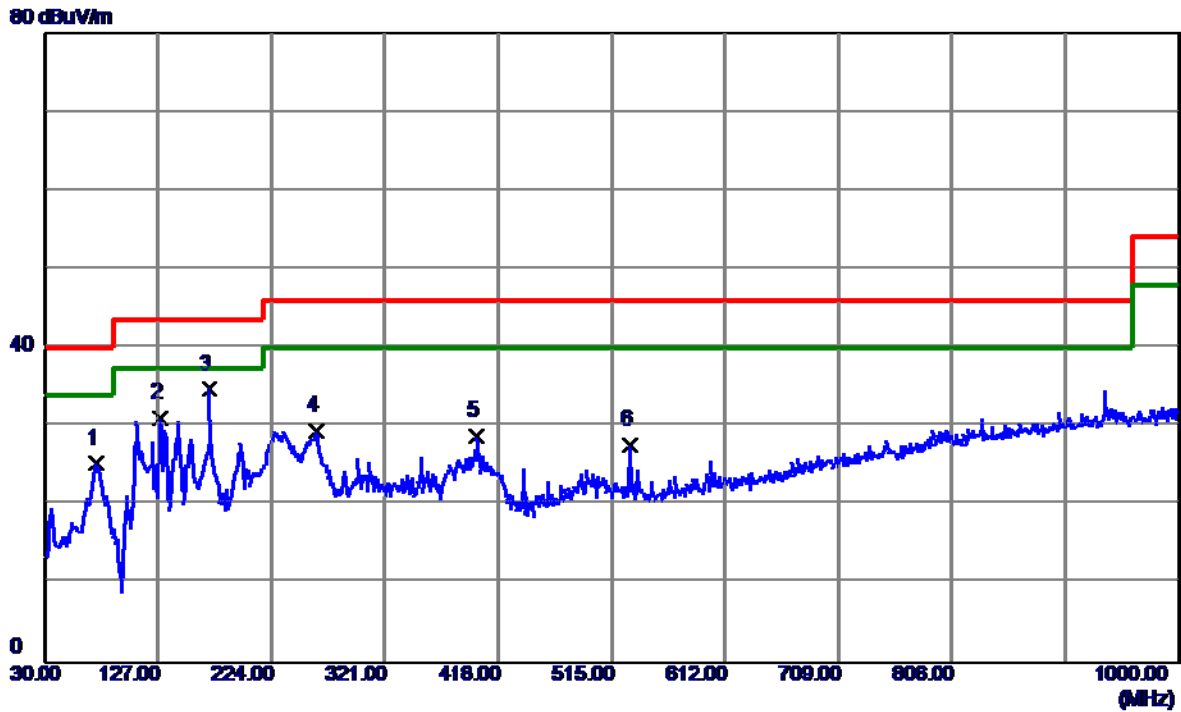
Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	36.7900	50.14	-14.41	35.73	40.00	-4.27	Peak	
2	123.1200	54.19	-15.18	39.01	43.50	-4.49	Peak	
3	220.1200	49.37	-13.91	35.46	46.00	-10.54	Peak	
4	264.7400	41.70	-15.78	25.92	46.00	-20.08	Peak	
5	399.5700	34.65	-11.37	23.28	46.00	-22.72	Peak	
6	753.6200	35.77	-2.37	33.40	46.00	-12.60	Peak	

Test Mode: TX B MODE CHANNEL 01_ Adapter: SUN-1200300

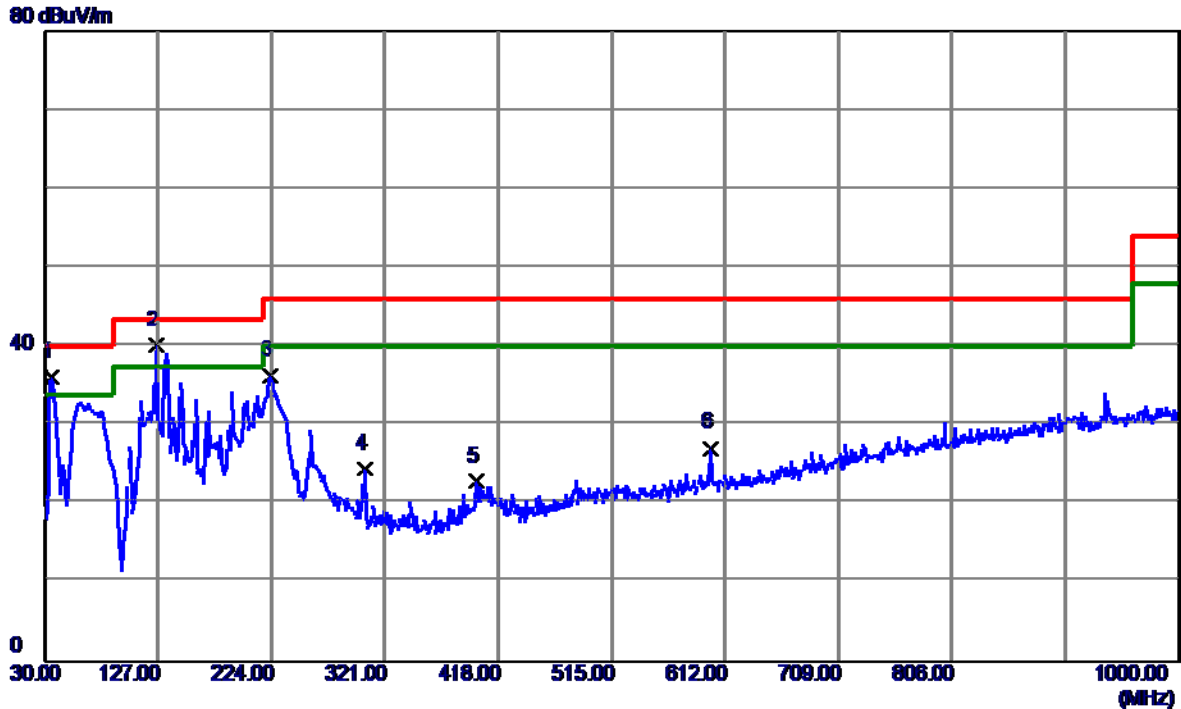
Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	74.6200	42.26	-17.04	25.22	40.00	-14.78	Peak	
2	128.9400	45.89	-14.78	31.11	43.50	-12.39	Peak	
3 *	170.6500	46.97	-12.32	34.65	43.50	-8.85	Peak	
4	262.8000	45.22	-15.75	29.47	46.00	-16.53	Peak	
5	399.5700	40.12	-11.37	28.75	46.00	-17.25	Peak	
6	531.4900	35.73	-8.09	27.64	46.00	-18.36	Peak	

Test Mode: TX B MODE CHANNEL 06_ Adapter: SUN-1200300

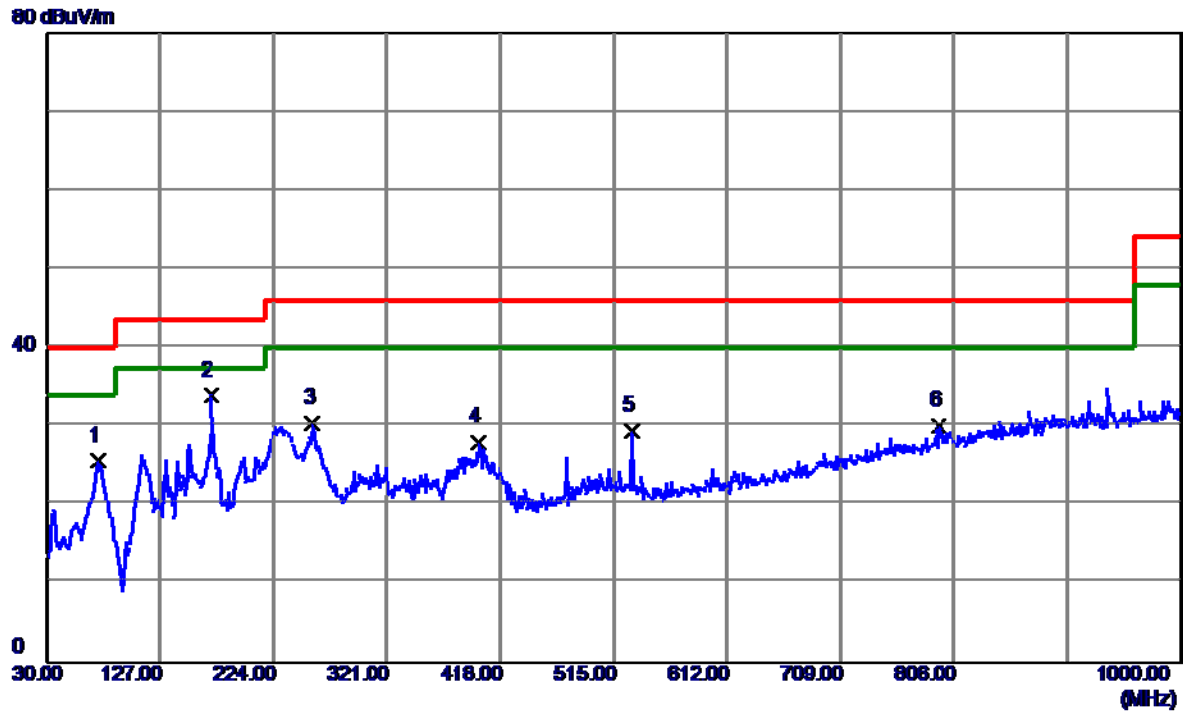
Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	36.7900	50.59	-14.41	36.18	40.00	-3.82	Peak	
2 *	126.0300	55.15	-14.98	40.17	43.50	-3.33	Peak	
3	223.0300	50.32	-13.97	36.35	46.00	-9.65	Peak	
4	303.5400	37.18	-12.77	24.41	46.00	-21.59	Peak	
5	399.5700	34.21	-11.37	22.84	46.00	-23.16	Peak	
6	600.3600	33.53	-6.41	27.12	46.00	-18.88	Peak	

Test Mode: TX B MODE CHANNEL 06_ Adapter: SUN-1200300

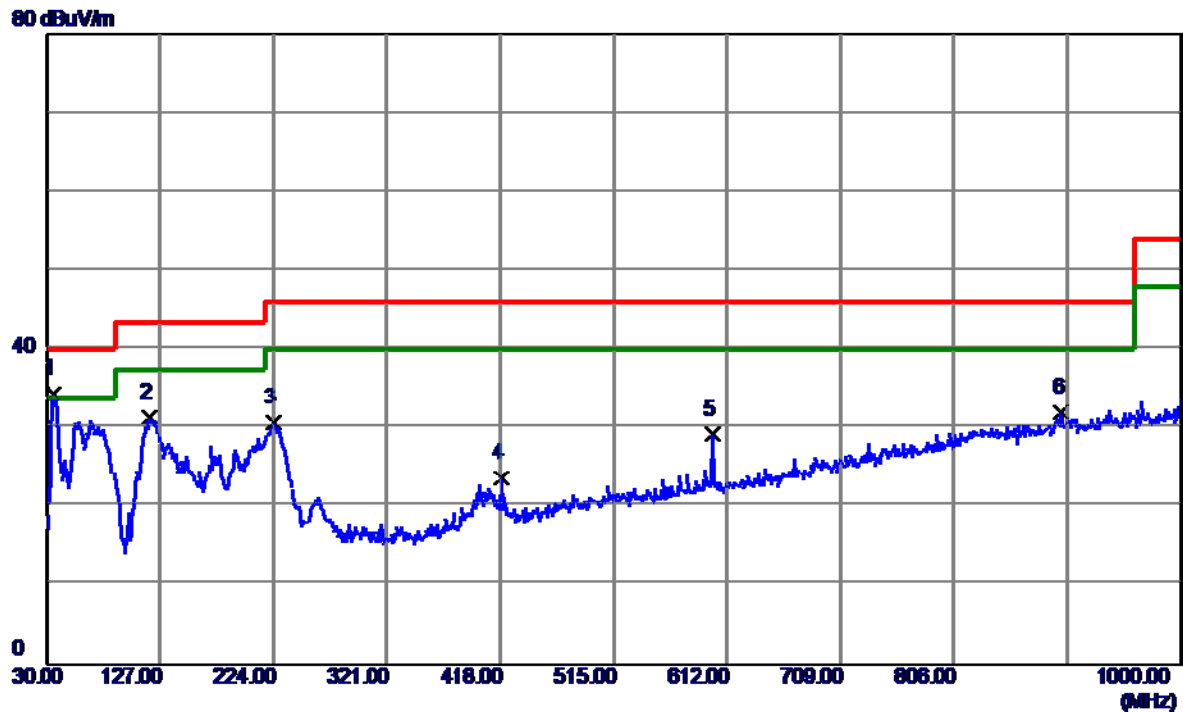
Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	74.6200	42.60	-17.04	25.56	40.00	-14.44	Peak	
2 *	170.6500	46.30	-12.32	33.98	43.50	-9.52	Peak	
3	257.9500	45.87	-15.54	30.33	46.00	-15.67	Peak	
4	399.5700	39.40	-11.37	28.03	46.00	-17.97	Peak	
5	531.4900	37.51	-8.09	29.42	46.00	-16.58	Peak	
6	793.3900	31.54	-1.50	30.04	46.00	-15.96	Peak	

Test Mode: TX B MODE CHANNEL 11_ Adapter: SUN-1200300

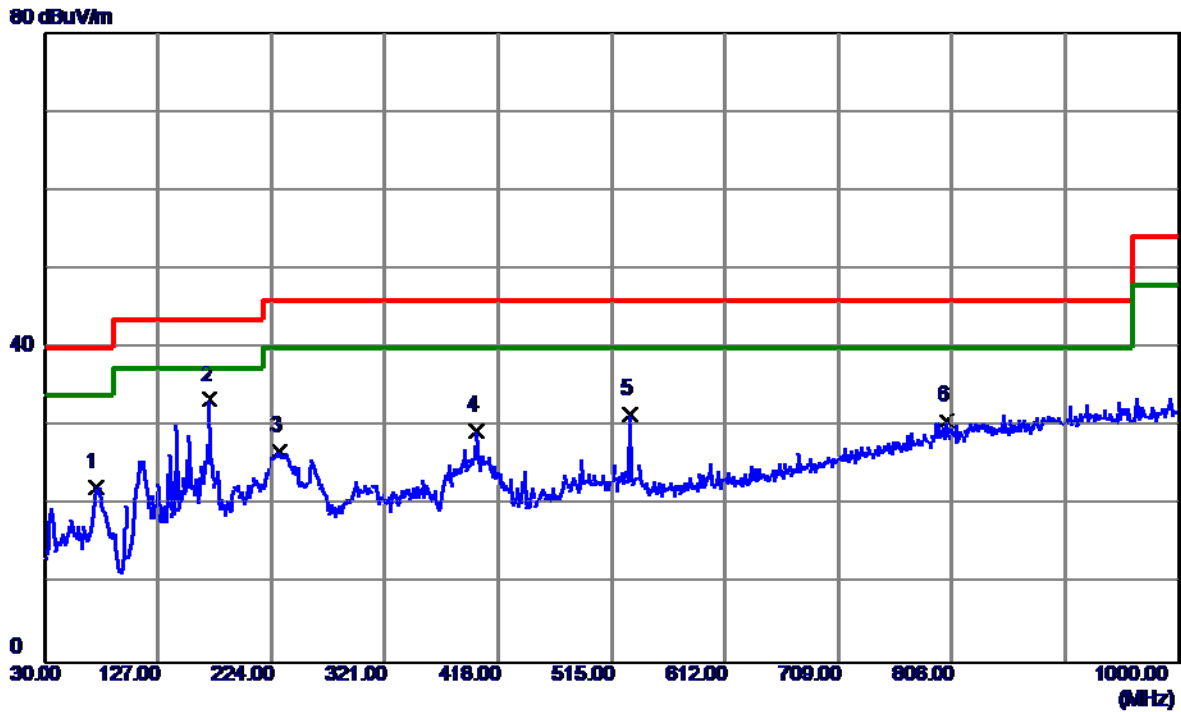
Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	36.7900	48.87	-14.41	34.46	40.00	-5.54	Peak	
2	118.2700	46.83	-15.53	31.30	43.50	-12.20	Peak	
3	224.0000	44.76	-13.99	30.77	46.00	-15.23	Peak	
4	418.9700	34.49	-10.82	23.67	46.00	-22.33	Peak	
5	600.3600	35.61	-6.41	29.20	46.00	-16.80	Peak	
6	898.1500	31.03	0.99	32.02	46.00	-13.98	Peak	

Test Mode: TX B MODE CHANNEL 11_ Adapter: SUN-1200300

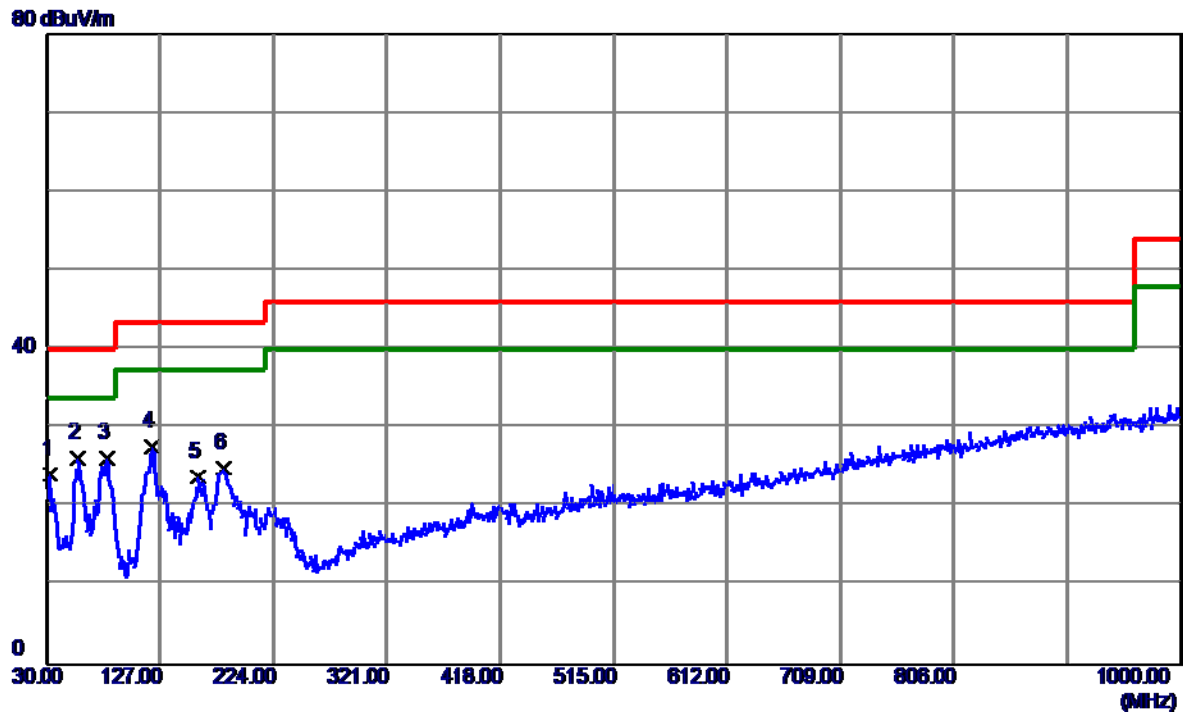
Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	73.6500	39.21	-16.93	22.28	40.00	-17.72	Peak	
2 *	171.6200	45.65	-12.29	33.36	43.50	-10.14	Peak	
3	230.7900	41.04	-14.15	26.89	46.00	-19.11	Peak	
4	399.5700	40.74	-11.37	29.37	46.00	-16.63	Peak	
5	531.4900	39.62	-8.09	31.53	46.00	-14.47	Peak	
6	802.1200	32.07	-1.30	30.77	46.00	-15.23	Peak	

Test Mode: TX B MODE CHANNEL 01_Adapter: NBS40C120300M2

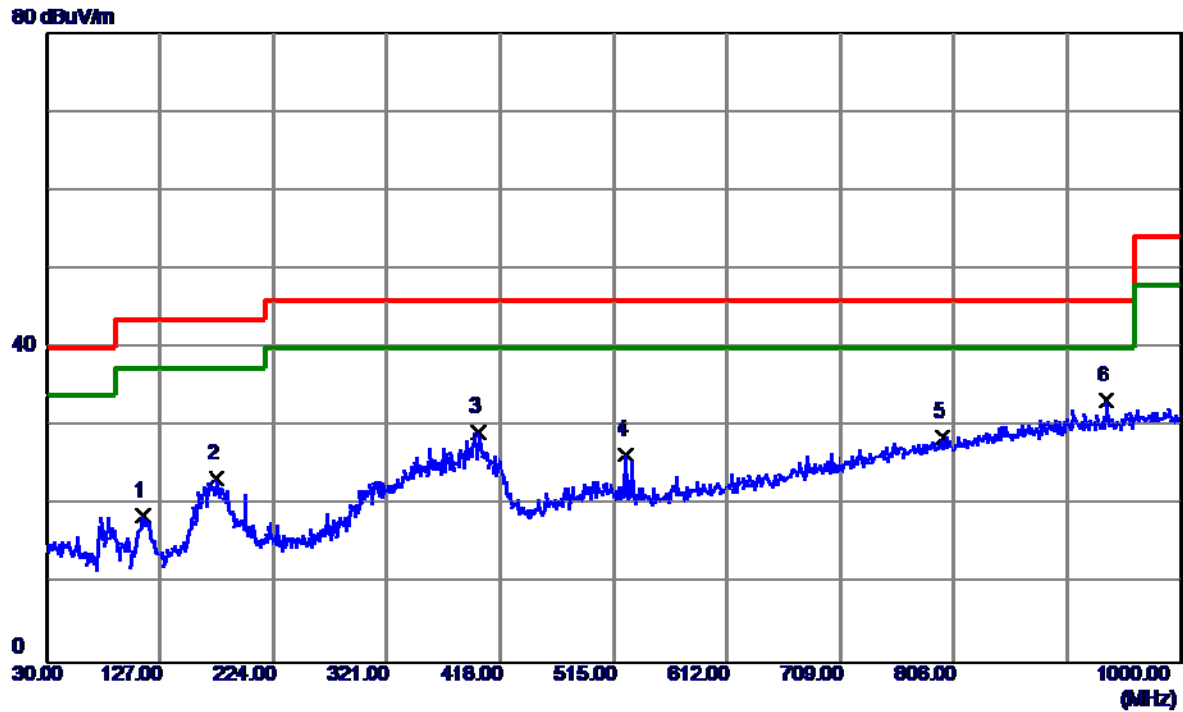
Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	32.9100	39.03	-14.89	24.14	40.00	-15.86	Peak	
2	57.1600	40.21	-14.04	26.17	40.00	-13.83	Peak	
3 *	81.4100	44.57	-18.28	26.29	40.00	-13.71	Peak	
4	120.2100	43.05	-15.38	27.67	43.50	-15.83	Peak	
5	159.0100	36.88	-12.99	23.89	43.50	-19.61	Peak	
6	182.2899	37.22	-12.22	25.00	43.50	-18.50	Peak	

Test Mode: TX B MODE CHANNEL 01_ Adapter: NBS40C120300M2

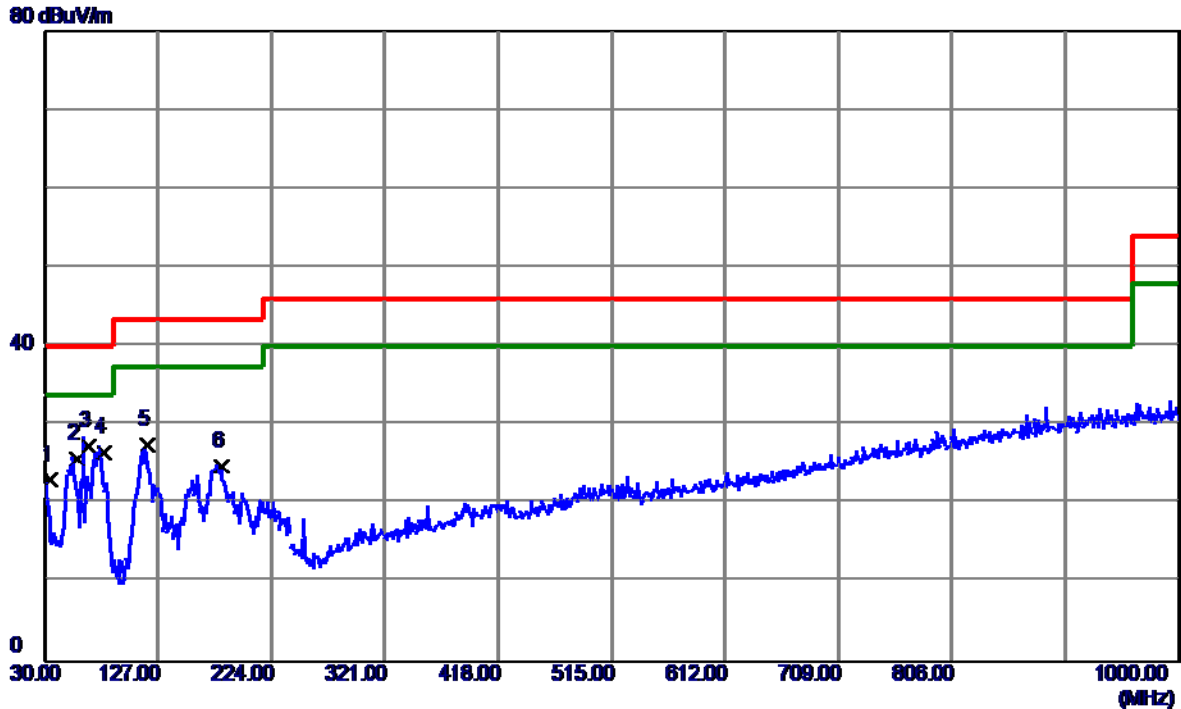
Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	113.4200	34.56	-15.92	18.64	43.50	-24.86	Peak	
2	175.5000	35.54	-12.17	23.37	43.50	-20.13	Peak	
3	399.5700	40.69	-11.37	29.32	46.00	-16.68	Peak	
4	525.6700	34.57	-8.20	26.37	46.00	-19.63	Peak	
5	796.3000	30.12	-1.44	28.68	46.00	-17.32	Peak	
6 *	935.9800	31.57	1.72	33.29	46.00	-12.71	Peak	

Test Mode: TX B MODE CHANNEL 06_ Adapter: NBS40C120300M2

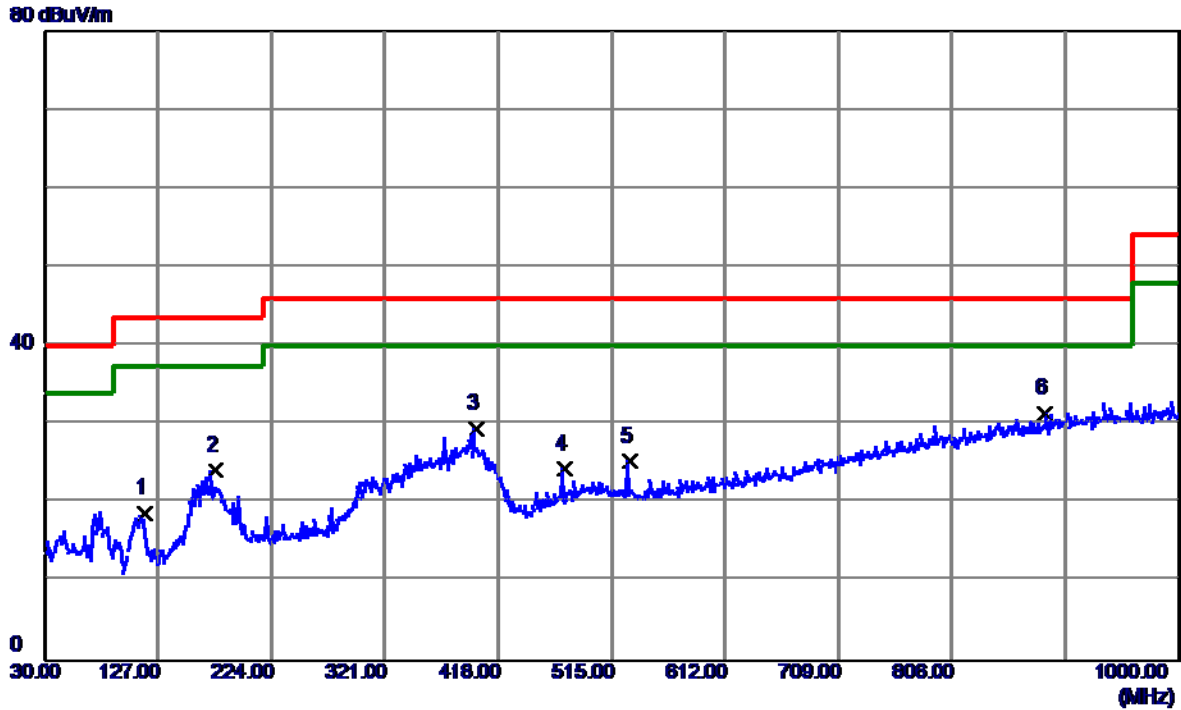
Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	35.8152	37.62	-14.51	23.11	40.00	-16.89	Peak	
2	58.0136	39.85	-14.12	25.73	40.00	-14.27	Peak	
3 *	67.6650	43.25	-15.89	27.36	40.00	-12.64	Peak	
4	81.1772	44.88	-18.28	26.60	40.00	-13.40	Peak	
5	118.8181	42.94	-15.49	27.45	43.50	-16.05	Peak	
6	181.5528	37.01	-12.17	24.84	43.50	-18.66	Peak	

Test Mode: TX B MODE CHANNEL 06_ Adapter: NBS40C120300M2

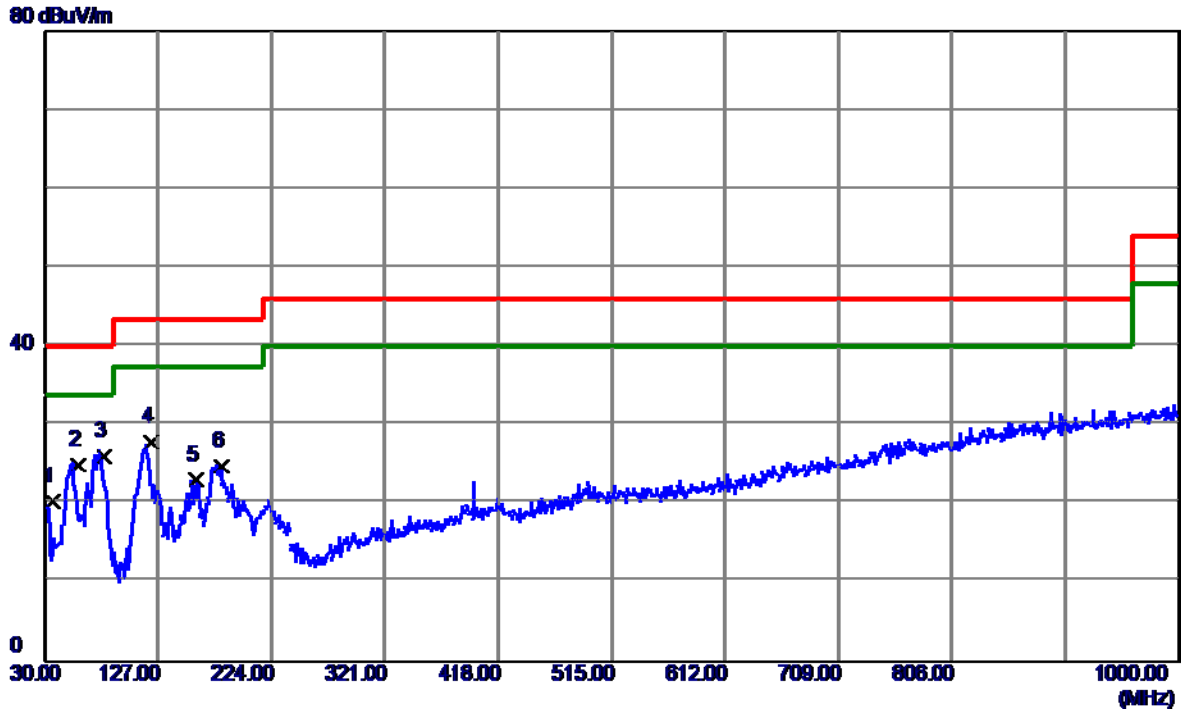
Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	115.9226	34.41	-15.72	18.69	43.50	-24.81	Peak	
2	176.7269	36.26	-12.14	24.12	43.50	-19.38	Peak	
3	399.6767	40.80	-11.36	29.44	46.00	-16.56	Peak	
4	474.9584	33.65	-9.33	24.32	46.00	-21.68	Peak	
5	530.9371	33.43	-8.10	25.33	46.00	-20.67	Peak	
6 *	886.1123	30.66	0.74	31.40	46.00	-14.60	Peak	

Test Mode: TX B MODE CHANNEL 11_ Adapter: NBS40C120300M2

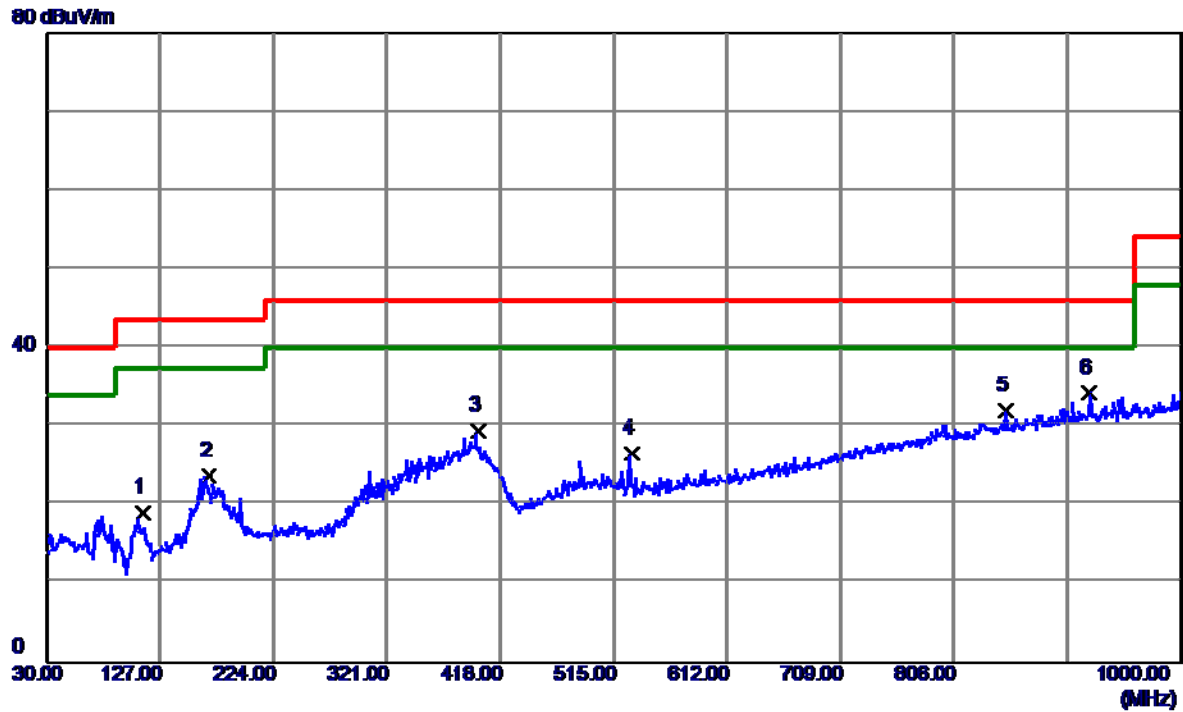
Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	37.7454	34.65	-14.30	20.35	40.00	-19.65	Peak	
2	58.9787	39.15	-14.21	24.94	40.00	-15.06	Peak	
3 *	81.1772	44.30	-18.28	26.02	40.00	-13.98	Peak	
4	121.7135	43.06	-15.28	27.78	43.50	-15.72	Peak	
5	159.3544	36.06	-12.97	23.09	43.50	-20.41	Peak	
6	181.5528	37.05	-12.17	24.88	43.50	-18.62	Peak	

Test Mode: TX B MODE CHANNEL 11_ Adapter: NBS40C120300M2

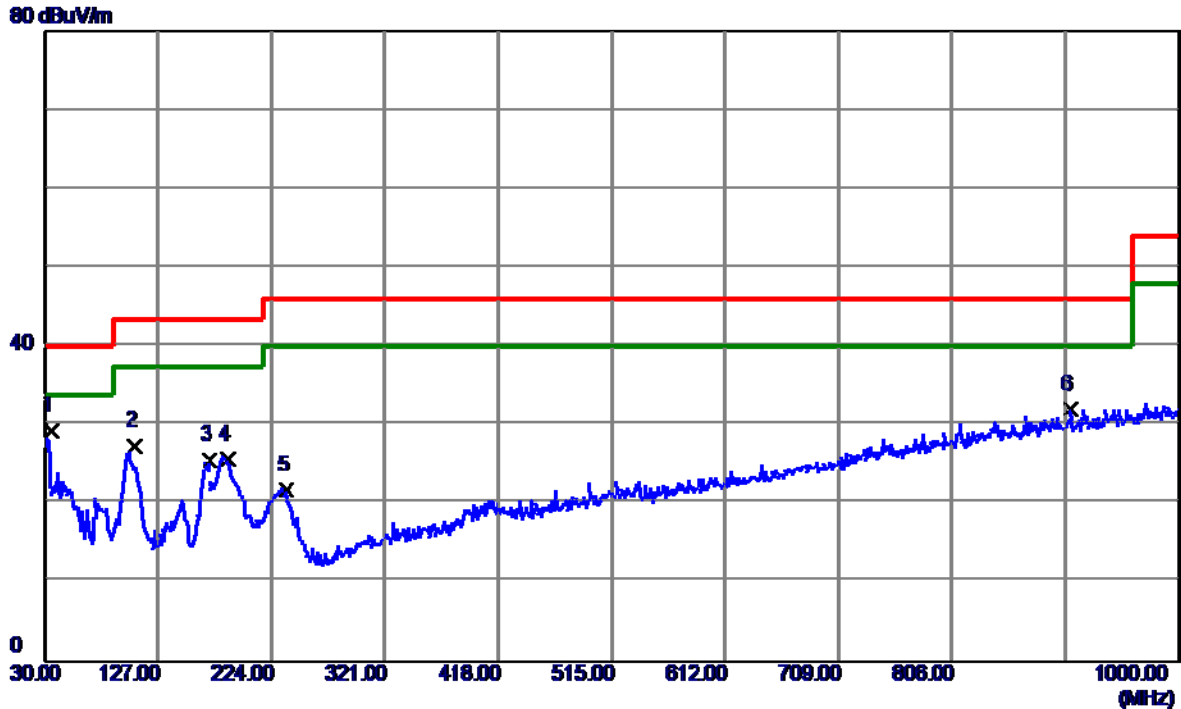
Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	113.0272	34.96	-15.95	19.01	43.50	-24.49	Peak	
2	169.0060	36.13	-12.39	23.74	43.50	-19.76	Peak	
3	399.6767	40.74	-11.36	29.38	46.00	-16.62	Peak	
4	530.9371	34.63	-8.10	26.53	46.00	-19.47	Peak	
5	850.4017	31.92	0.01	31.93	46.00	-14.07	Peak	
6 *	921.8230	32.74	1.45	34.19	46.00	-11.81	Peak	

Test Mode: TX B MODE CHANNEL 01_ Adapter: SOY-1200300US

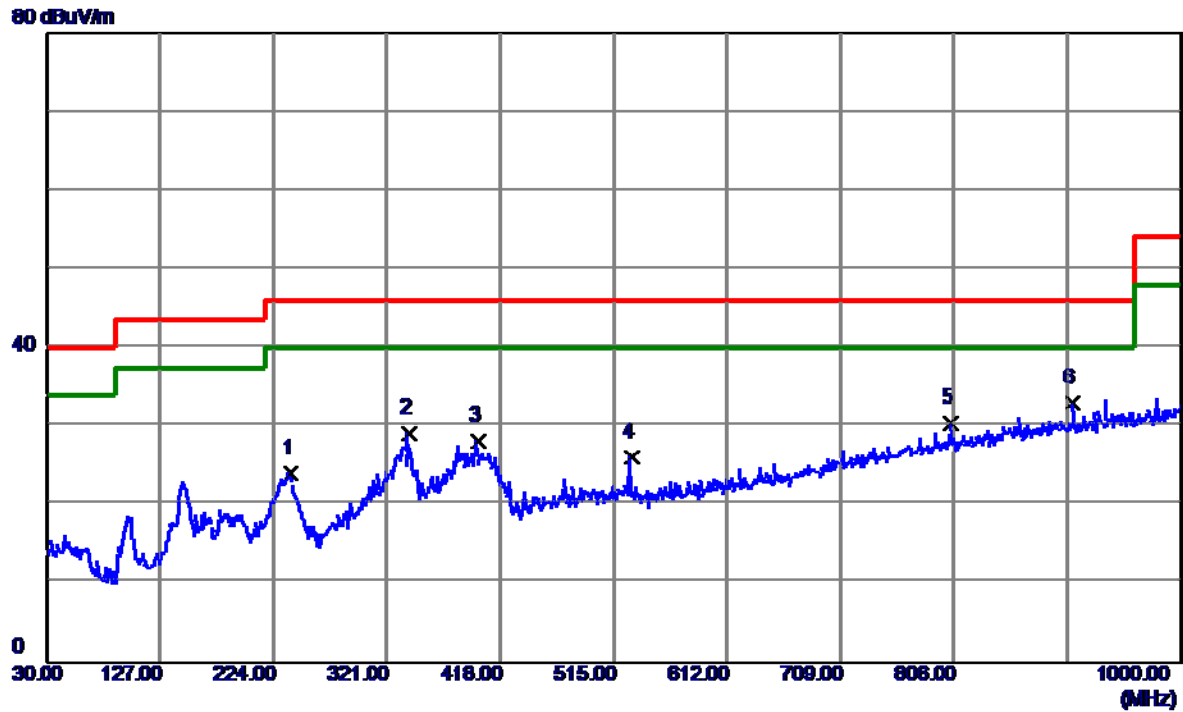
Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	36.7803	43.73	-14.41	29.32	40.00	-10.68	Peak	
2	107.2362	43.92	-16.55	27.37	43.50	-16.13	Peak	
3	170.9361	37.86	-12.31	25.55	43.50	-17.95	Peak	
4	187.3437	38.31	-12.63	25.68	43.50	-17.82	Peak	
5	236.5664	36.04	-14.28	21.76	46.00	-24.24	Peak	
6	907.3456	30.90	1.17	32.07	46.00	-13.93	Peak	

Test Mode: TX B MODE CHANNEL 01_ Adapter: SOY-1200300US

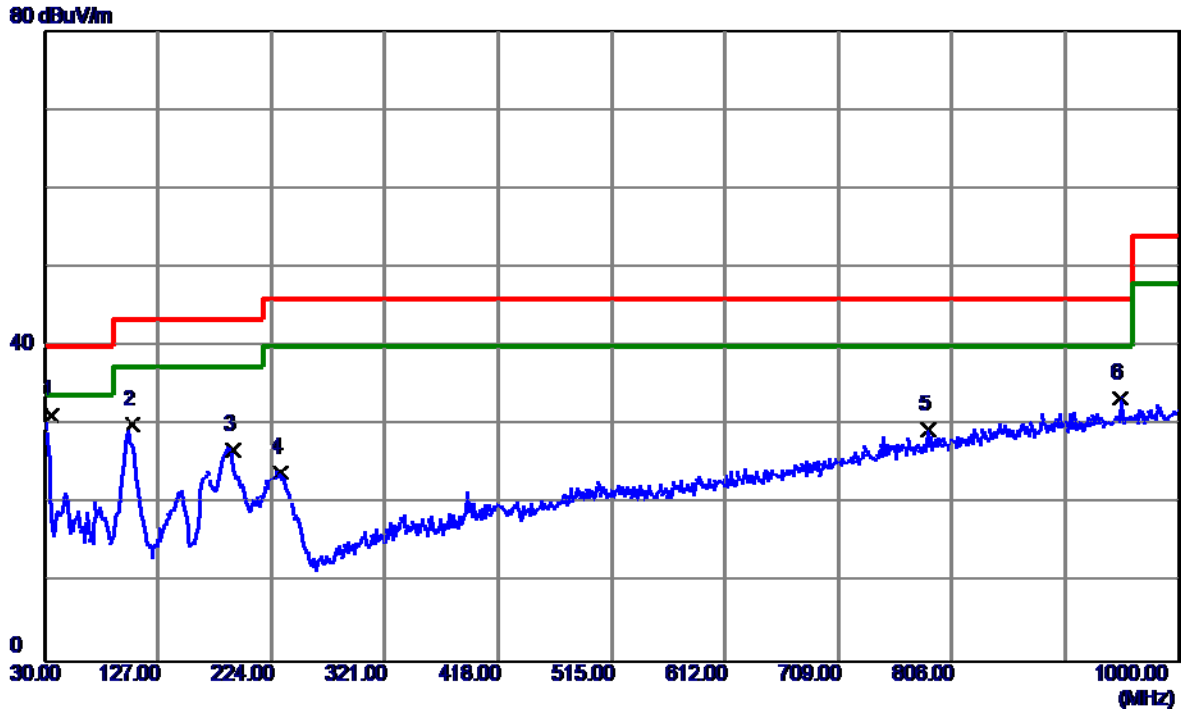
Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	239.4618	38.34	-14.35	23.99	46.00	-22.01	Peak	
2	340.8025	41.25	-12.12	29.13	46.00	-16.87	Peak	
3	399.6767	39.51	-11.36	28.15	46.00	-17.85	Peak	
4	530.9371	34.17	-8.10	26.07	46.00	-19.93	Peak	
5	804.0746	31.71	-1.25	30.46	46.00	-15.54	Peak	
6 *	907.3456	31.73	1.17	32.90	46.00	-13.10	Peak	

Test Mode: TX B MODE CHANNEL 06_ Adapter: SOY-1200300US

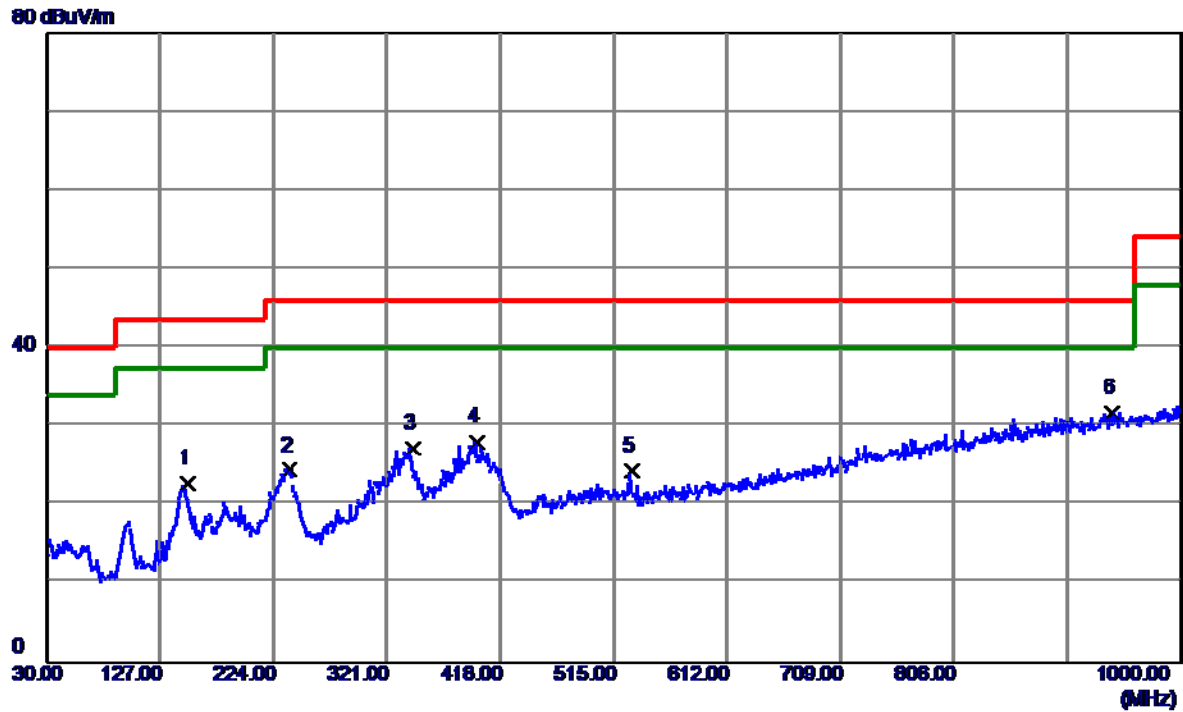
Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	36.7803	45.69	-14.41	31.28	40.00	-8.72	Peak	
2	105.3060	46.95	-16.80	30.15	43.50	-13.35	Peak	
3	191.2043	39.90	-12.95	26.95	43.50	-16.55	Peak	
4	231.7406	38.16	-14.17	23.99	46.00	-22.01	Peak	
5	785.7367	31.18	-1.67	29.51	46.00	-16.49	Peak	
6	950.7773	31.40	2.01	33.41	46.00	-12.59	Peak	

Test Mode: TX B MODE CHANNEL 06_ Adapter: SOY-1200300US

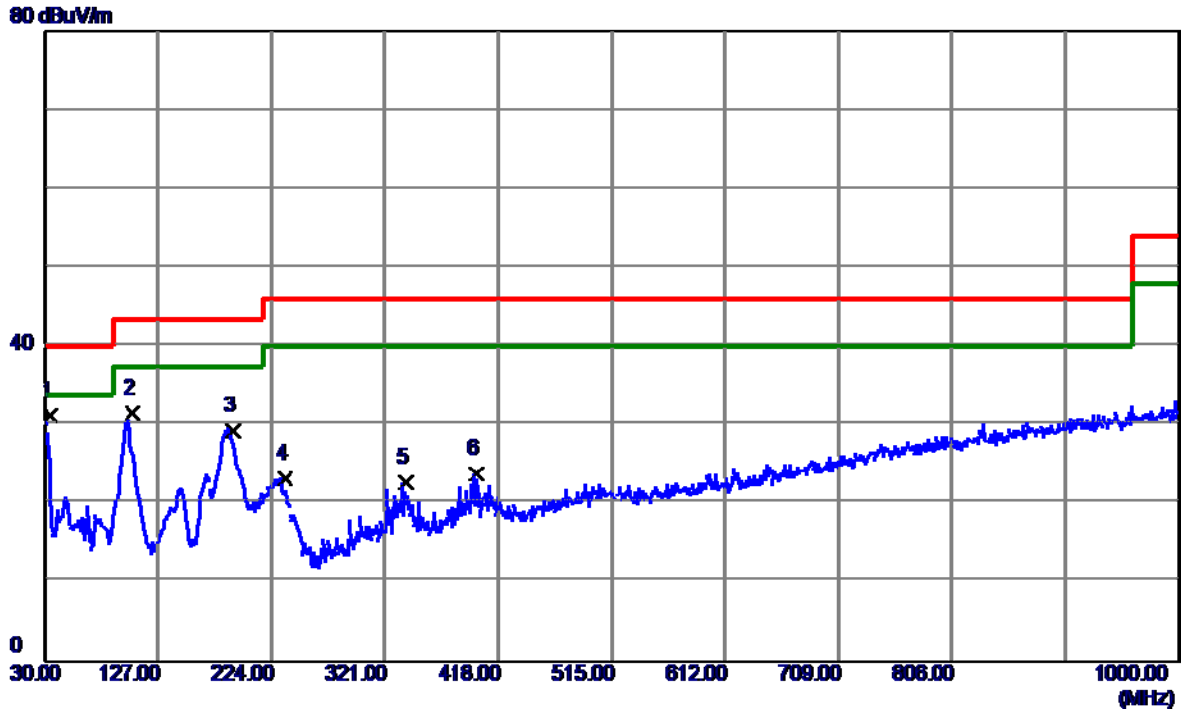
Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	150.6680	36.18	-13.49	22.69	43.50	-20.81	Peak	
2	237.5315	38.70	-14.30	24.40	46.00	-21.60	Peak	
3	343.6980	39.34	-12.07	27.27	46.00	-18.73	Peak	
4	398.7115	39.37	-11.38	27.99	46.00	-18.01	Peak	
5	530.9371	32.36	-8.10	24.26	46.00	-21.74	Peak	
6 *	942.0910	29.88	1.84	31.72	46.00	-14.28	Peak	

Test Mode: TX B MODE CHANNEL 11_ Adapter: SOY-1200300US

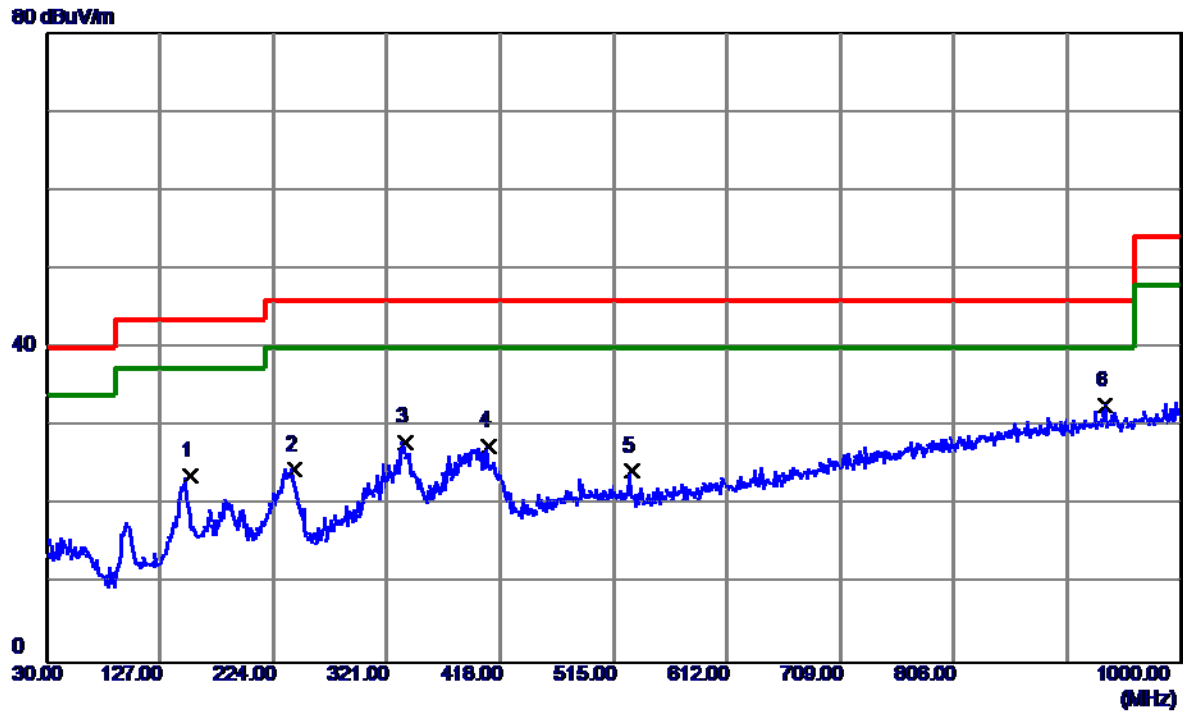
Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	35.8152	45.74	-14.51	31.23	40.00	-8.77	Peak	
2	105.3060	48.31	-16.80	31.51	43.50	-11.99	Peak	
3	191.2043	42.25	-12.95	29.30	43.50	-14.20	Peak	
4	235.6012	37.41	-14.26	23.15	46.00	-22.85	Peak	
5	338.8723	34.84	-12.15	22.69	46.00	-23.31	Peak	
6	399.6767	35.13	-11.36	23.77	46.00	-22.23	Peak	

Test Mode: TX B MODE CHANNEL 11_ Adapter: SOY-1200300US

Horizontal

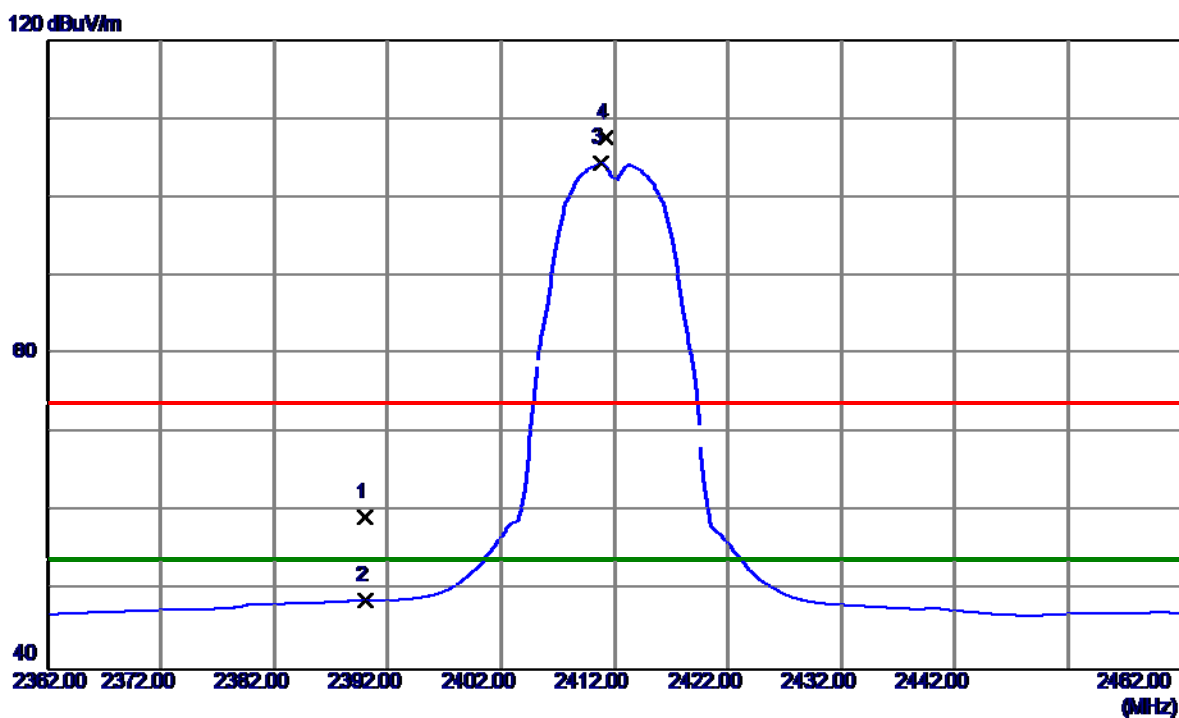


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	152.5983	37.05	-13.37	23.68	43.50	-19.82	Peak	
2	242.3572	38.95	-14.48	24.47	46.00	-21.53	Peak	
3	336.9420	40.18	-12.18	28.00	46.00	-18.00	Peak	
4	408.3630	38.60	-11.12	27.48	46.00	-18.52	Peak	
5	530.9371	32.36	-8.10	24.26	46.00	-21.74	Peak	
6 *	935.3350	30.94	1.71	32.65	46.00	-13.35	Peak	

APPENDIX D - RADIATED EMISSION (ABOVE 1000MHZ)

Orthogonal Axis :	X
Test Mode :	TX B MODE 2412MHz

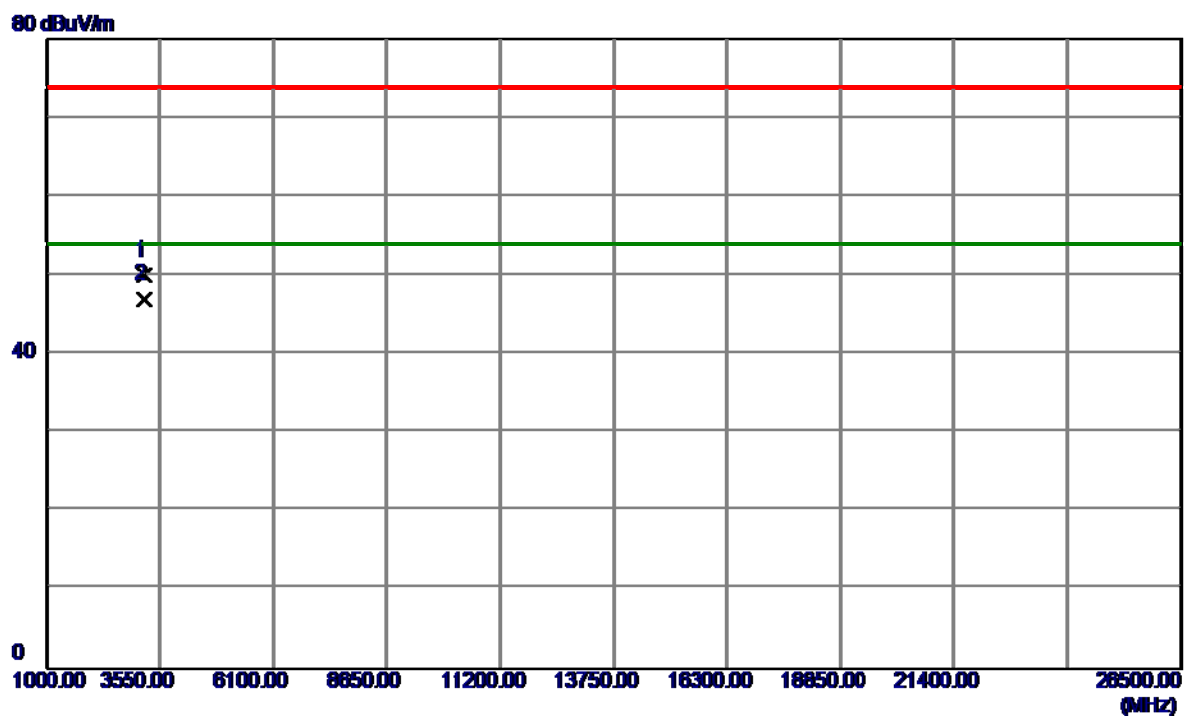
Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	26.32	32.99	59.31	74.00	14.69	Peak	
2	2390.0000	15.82	32.99	48.81	54.00	-5.19	AVG	
3 *	2410.8000	71.18	33.09	104.27	54.00	50.27	AVG	No Limit
4	2411.2000	74.43	33.09	107.52	74.00	33.52	Peak	No Limit

Orthogonal Axis :	X
Test Mode :	TX B MODE 2412MHz

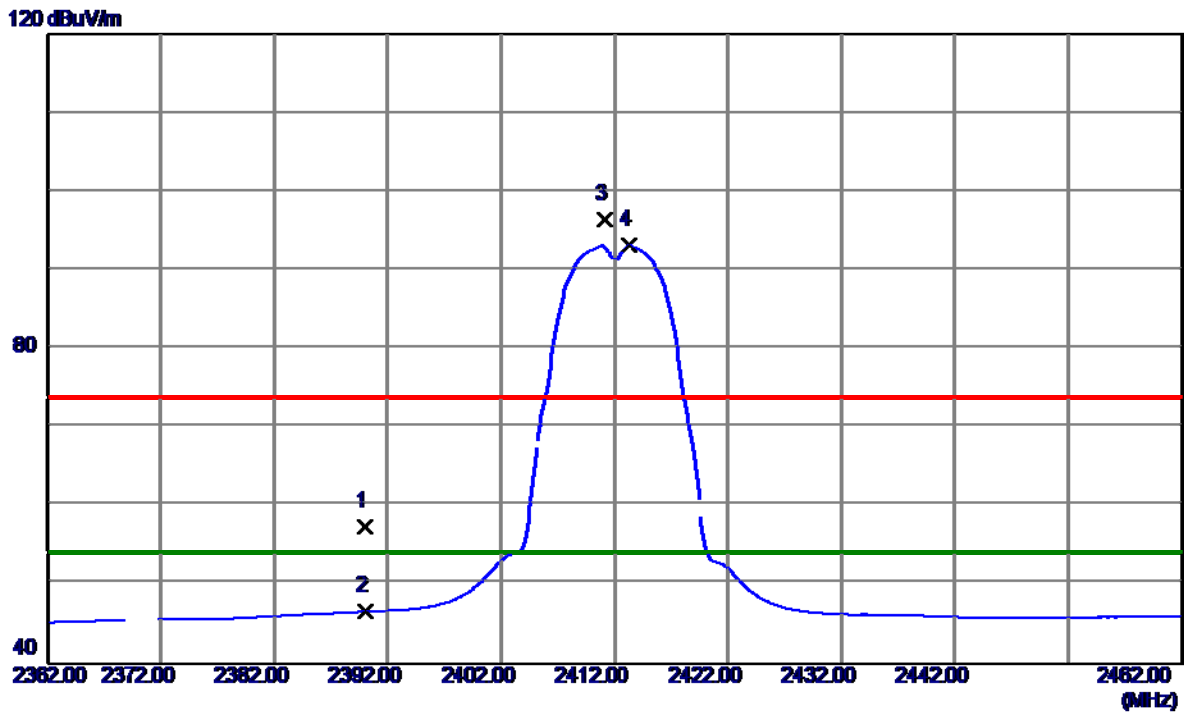
Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	3216.0000	47.36	2.70	50.06	74.00	-23.94	Peak	
2 *	3216.0200	44.29	2.70	46.99	54.00	-7.01	AVG	

Orthogonal Axis :	X
Test Mode :	TX B MODE 2412MHz

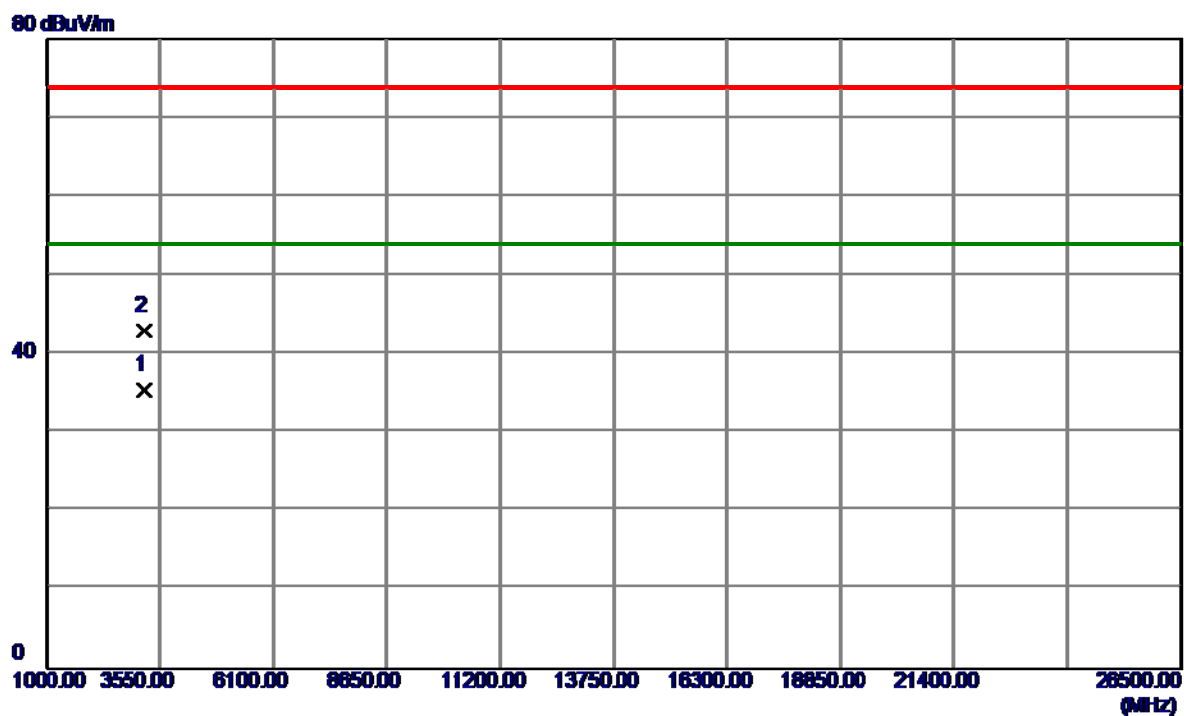
Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	24.41	32.99	57.40	74.00	-16.60	Peak	
2	2390.0000	13.71	32.99	46.70	54.00	-7.30	AVG	
3	2411.1000	63.39	33.09	96.48	74.00	22.48	Peak	No Limit
4 *	2413.3000	60.13	33.10	93.23	54.00	39.23	AVG	No Limit

Orthogonal Axis :	X
Test Mode :	TX B MODE 2412MHz

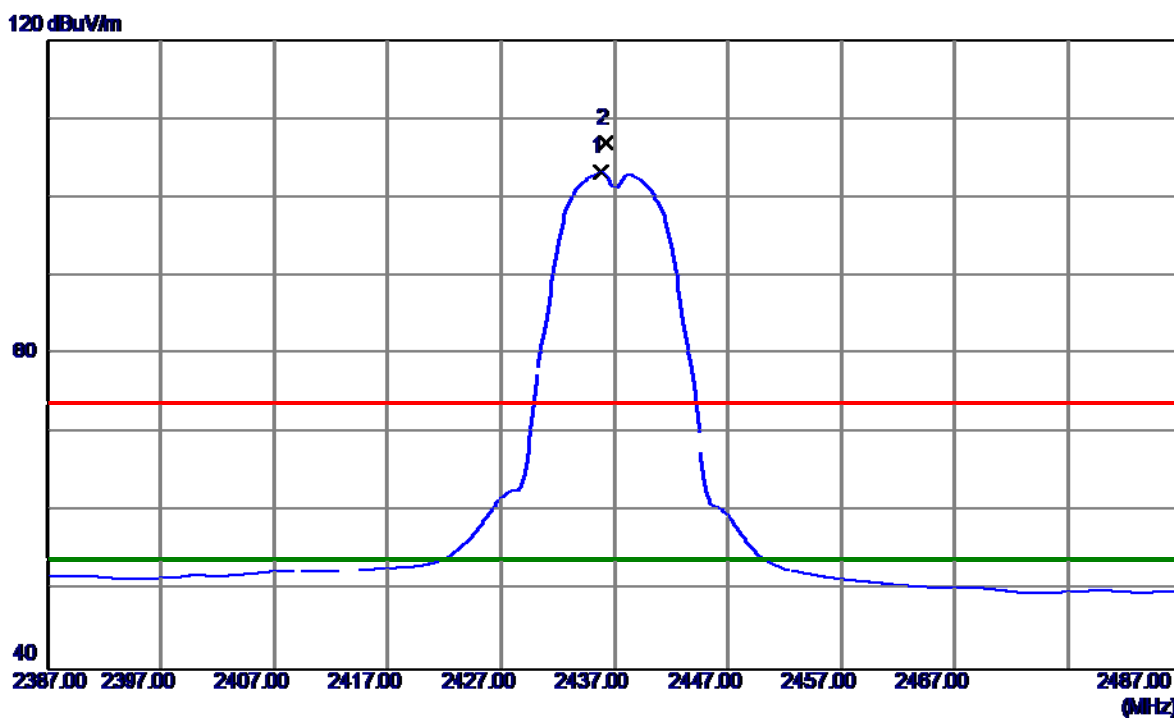
Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	3216.0060	32.86	2.70	35.56	54.00	-18.44	AVG	
2	3216.0460	40.40	2.70	43.10	74.00	-30.90	Peak	

Orthogonal Axis :	X
Test Mode :	TX B MODE 2437MHz

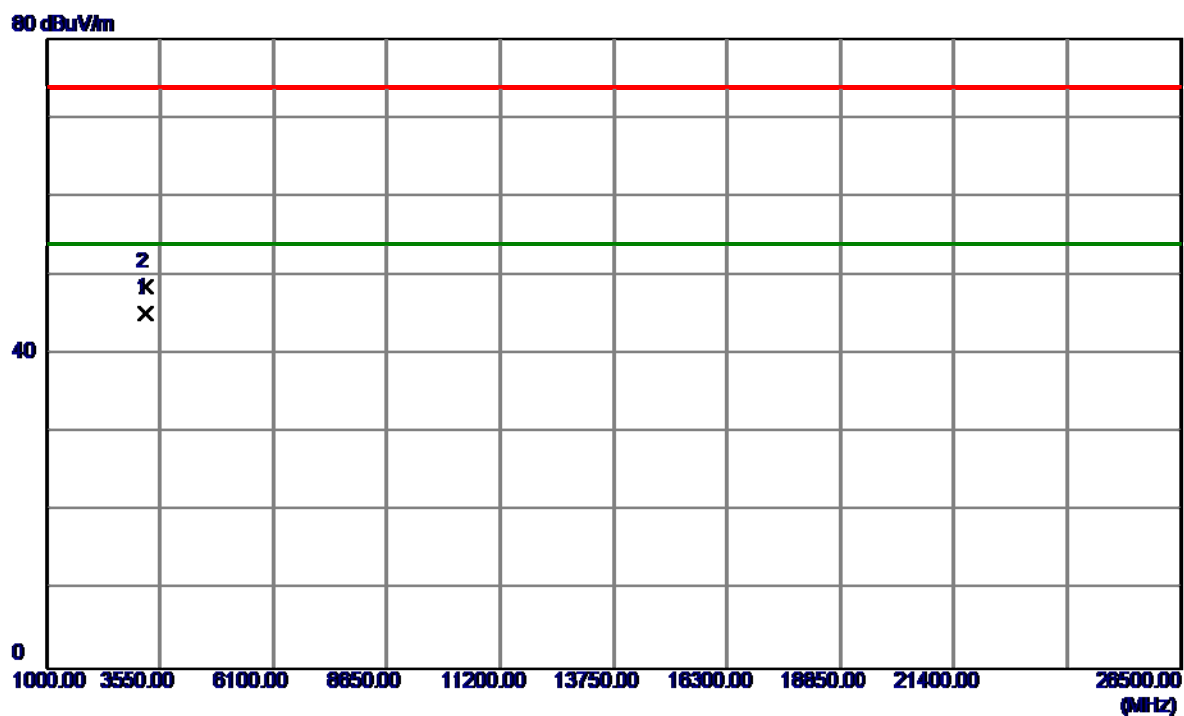
Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2435.8000	69.96	33.22	103.18	54.00	49.18	AVG	No Limit
2	2436.2000	73.67	33.22	106.89	74.00	32.89	Peak	No Limit

Orthogonal Axis :	X
Test Mode :	TX B MODE 2437MHz

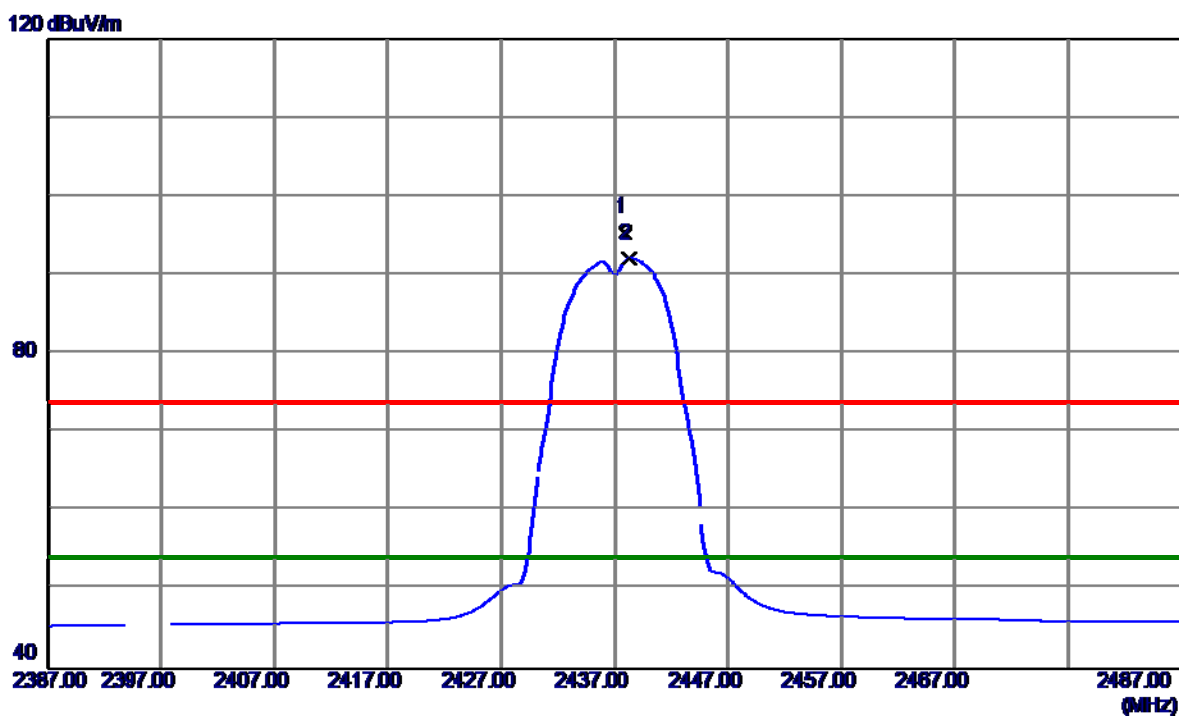
Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	3249.3550	42.56	2.74	45.30	54.00	-8.70	AVG	
2	3249.3799	45.93	2.74	48.67	74.00	-25.33	Peak	

Orthogonal Axis :	X
Test Mode :	TX B MODE 2437MHz

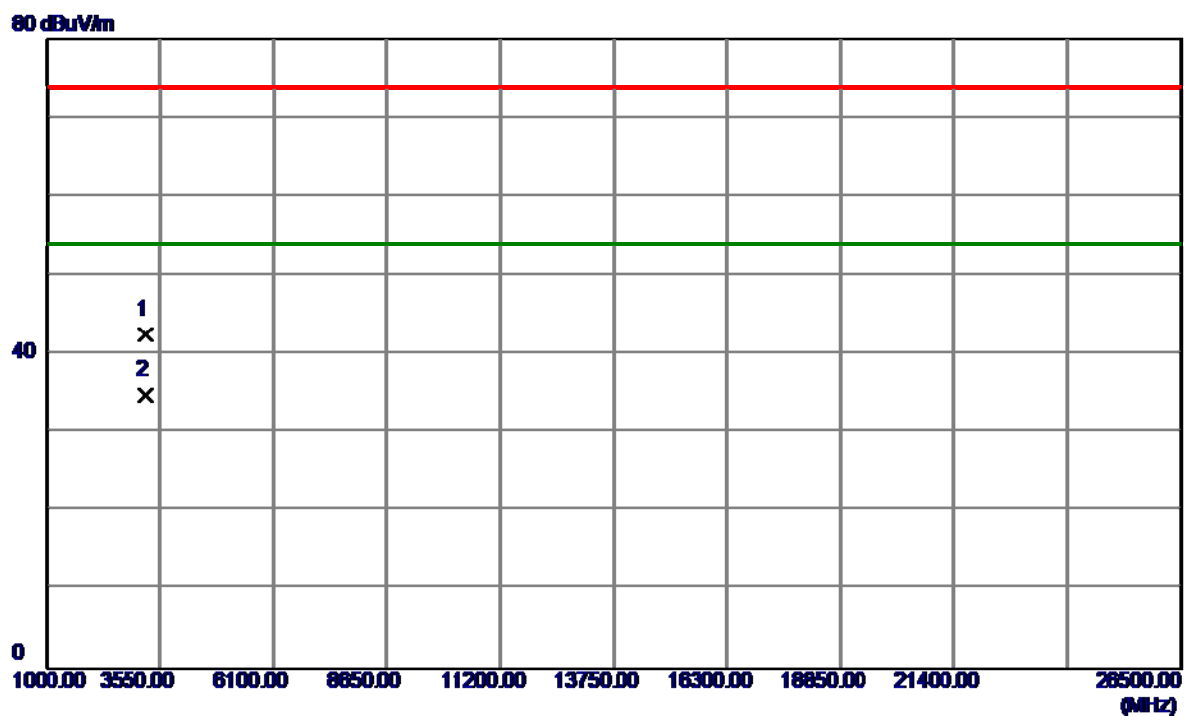
Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2437.9000	62.27	33.23	95.50	74.00	21.50	Peak	No Limit
2 *	2438.3000	58.96	33.23	92.19	54.00	38.19	AVG	No Limit

Orthogonal Axis :	X
Test Mode :	TX B MODE 2437MHz

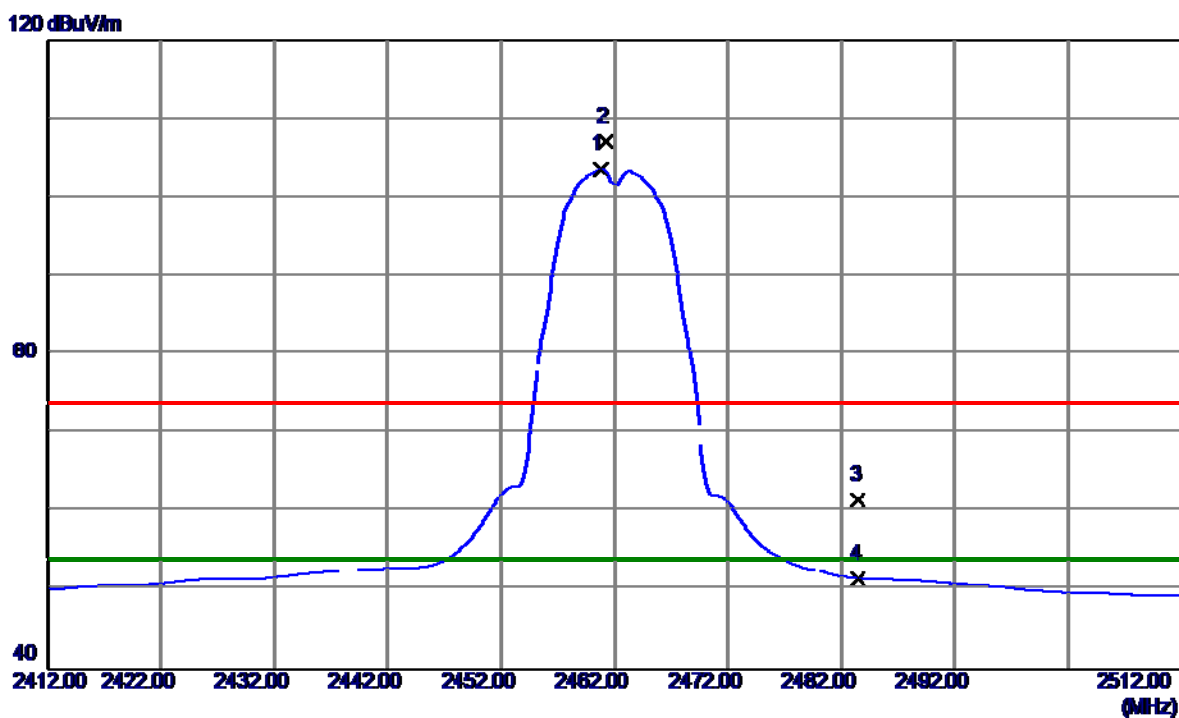
Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	3249.2700	39.78	2.74	42.52	74.00	-31.48	Peak	
2 *	3249.3220	32.16	2.74	34.90	54.00	-19.10	AVG	

Orthogonal Axis :	X
Test Mode :	TX B MODE 2462MHz

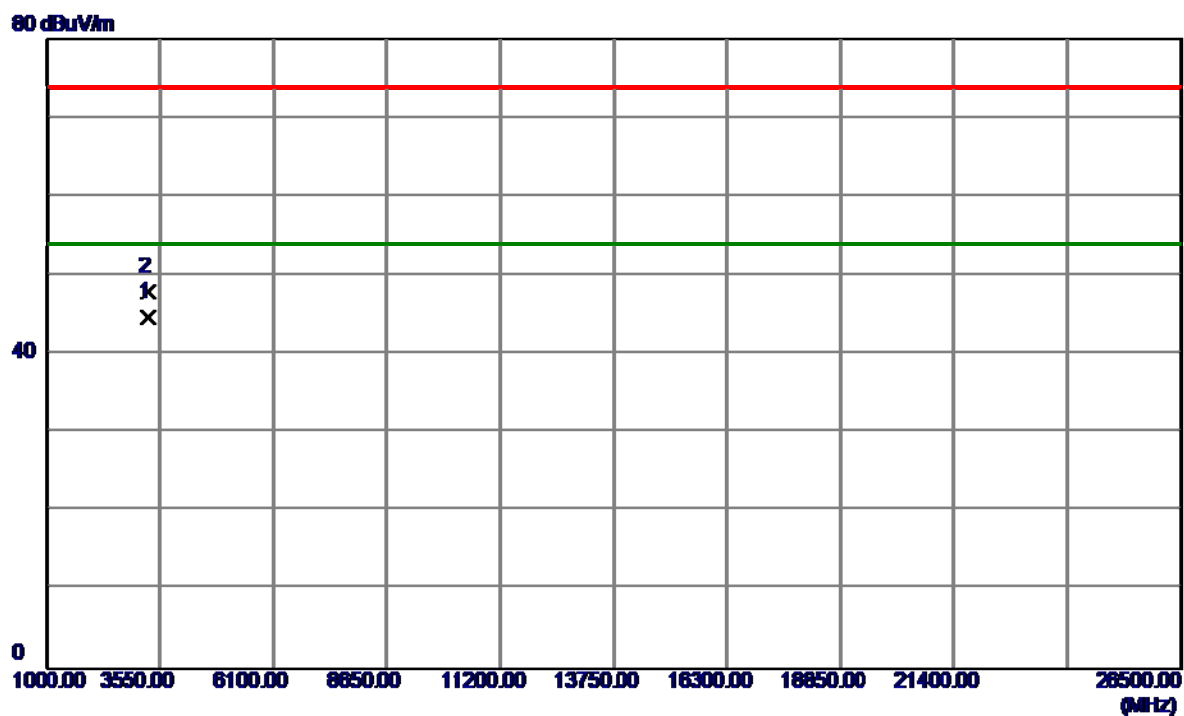
Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2460.8000	70.23	33.34	103.57	54.00	49.57	AVG	No Limit
2	2461.2000	73.63	33.35	106.98	74.00	32.98	Peak	No Limit
3	2483.5000	28.09	33.46	61.55	74.00	-12.45	Peak	
4	2483.5000	18.10	33.46	51.56	54.00	-2.44	AVG	

Orthogonal Axis :	X
Test Mode :	TX B MODE 2462MHz

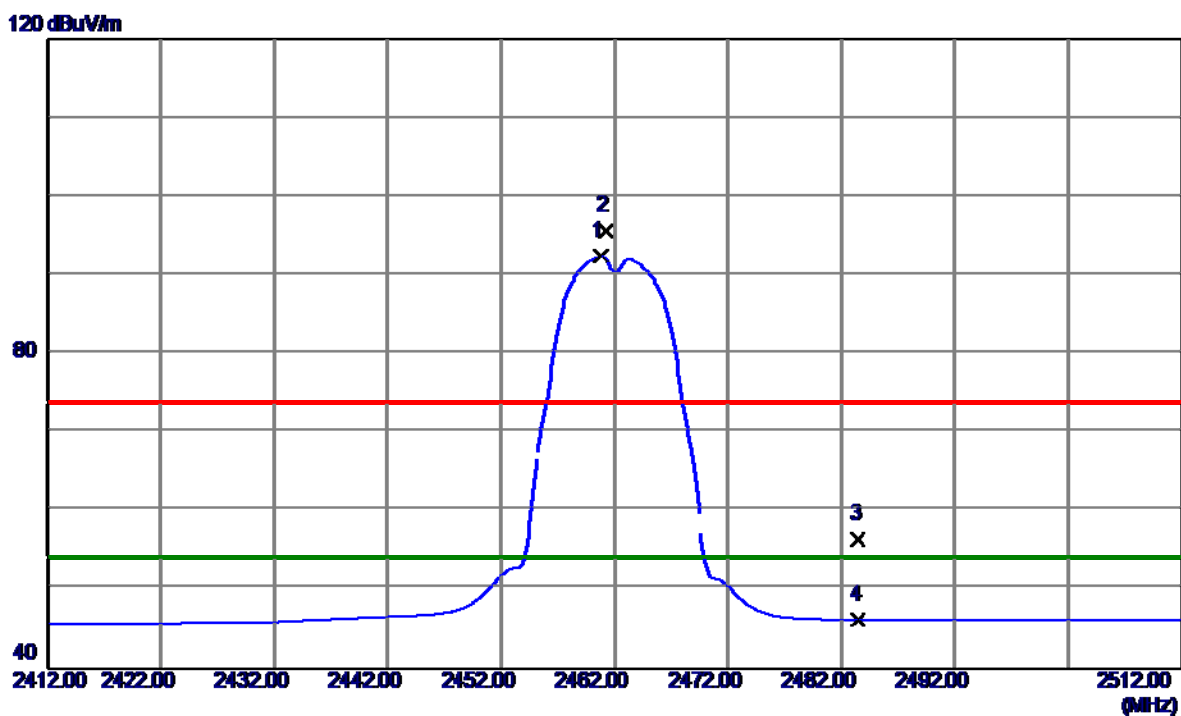
Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	3282.6850	42.03	2.79	44.82	54.00	-9.18	AVG	
2	3282.7300	45.26	2.79	48.05	74.00	-25.95	Peak	

Orthogonal Axis :	X
Test Mode :	TX B MODE 2462MHz

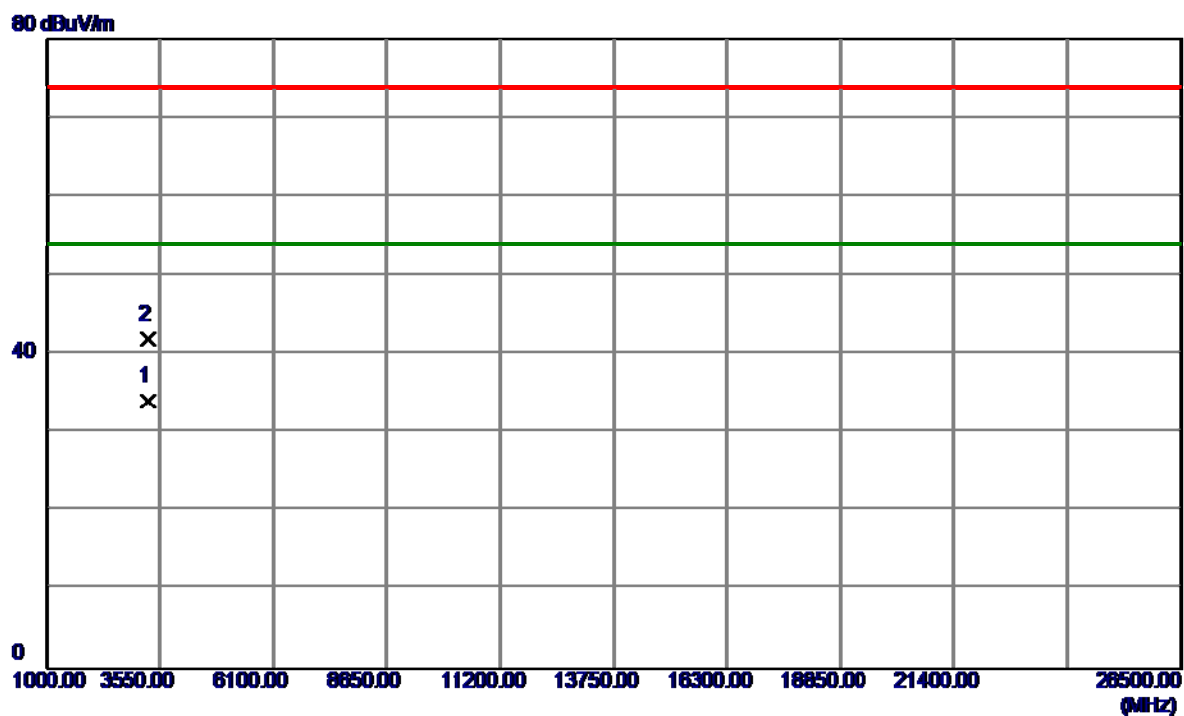
Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2460.8000	59.08	33.34	92.42	54.00	38.42	AVG	No Limit
2	2461.2000	62.40	33.35	95.75	74.00	21.75	Peak	No Limit
3	2483.5000	23.03	33.46	56.49	74.00	-17.51	Peak	
4	2483.5000	12.76	33.46	46.22	54.00	-7.78	AVG	

Orthogonal Axis :	X
Test Mode :	TX B MODE 2462MHz

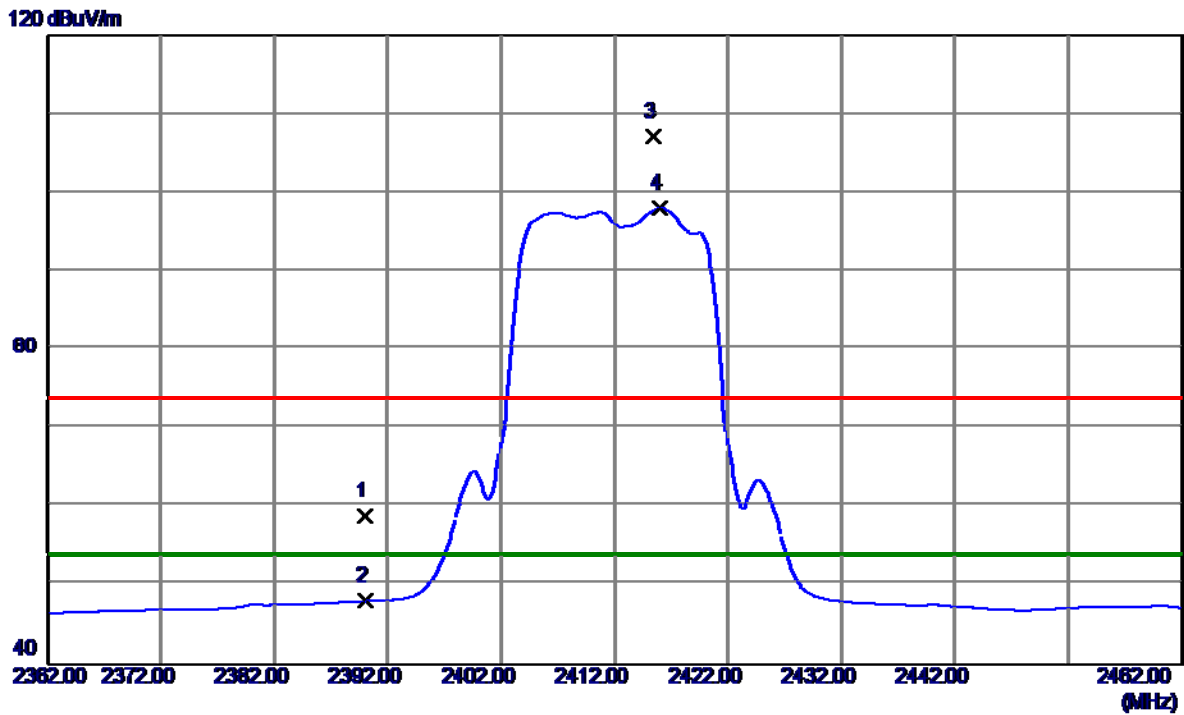
Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	3282.6820	31.23	2.79	34.02	54.00	-19.98	AVG	
2	3282.7160	39.19	2.79	41.98	74.00	-32.02	Peak	

Orthogonal Axis :	X
Test Mode :	TX G MODE 2412MHz

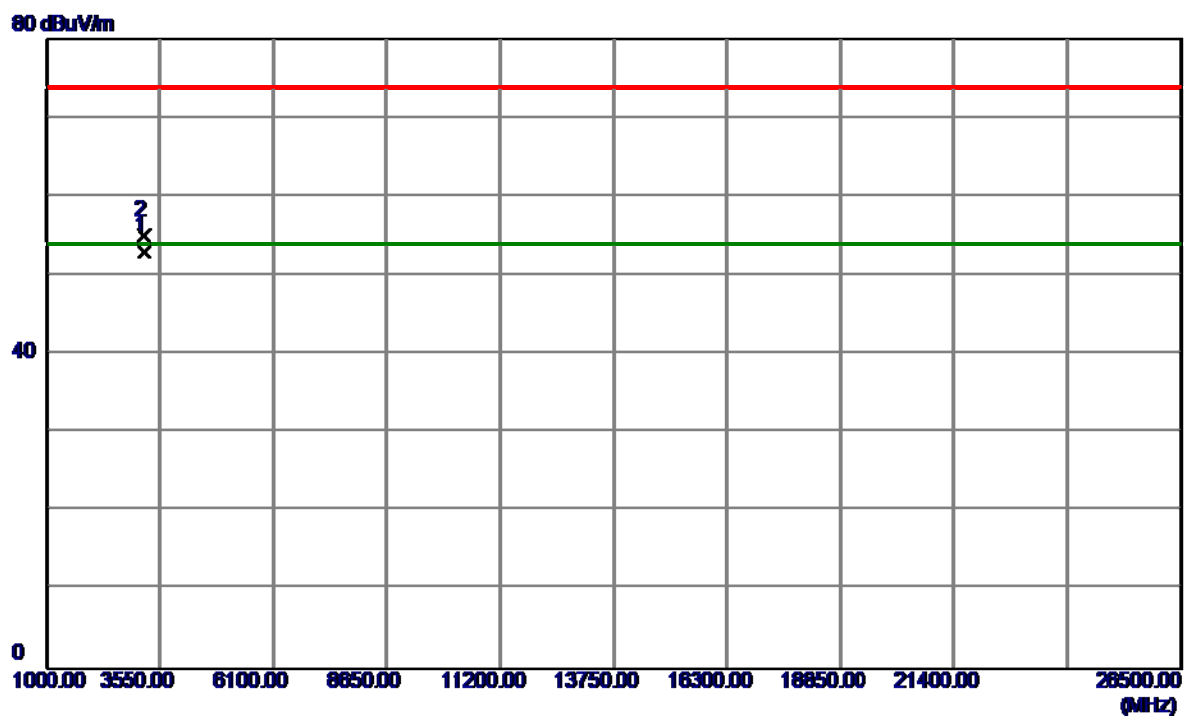
Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	25.95	32.99	58.94	74.00	15.06	Peak	
2	2390.0000	15.09	32.99	48.08	54.00	-5.92	AVG	
3	2415.4000	73.94	33.12	107.06	74.00	33.06	Peak	No Limit
4 *	2416.0000	64.77	33.12	97.89	54.00	43.89	AVG	No Limit

Orthogonal Axis :	X
Test Mode :	TX G MODE 2412MHz

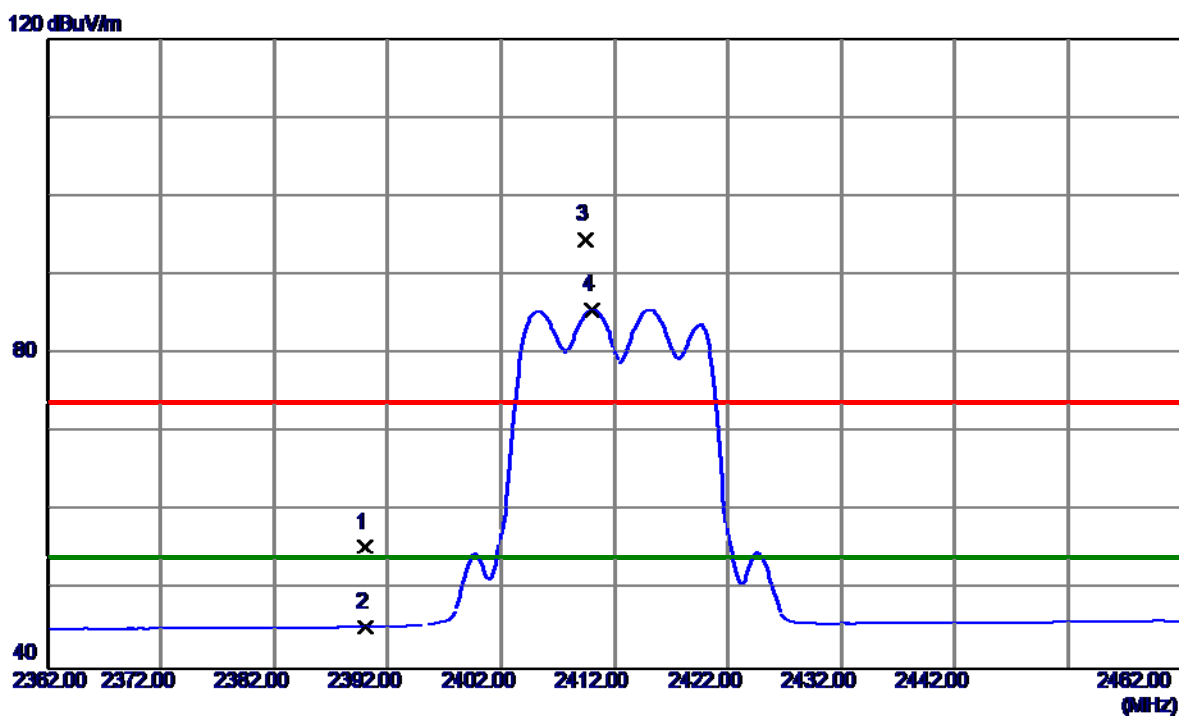
Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	3216.0200	50.43	2.70	53.13	54.00	-0.87	AVG	
2	3216.0700	52.38	2.70	55.08	74.00	-18.92	Peak	

Orthogonal Axis :	X
Test Mode :	TX G MODE 2412MHz

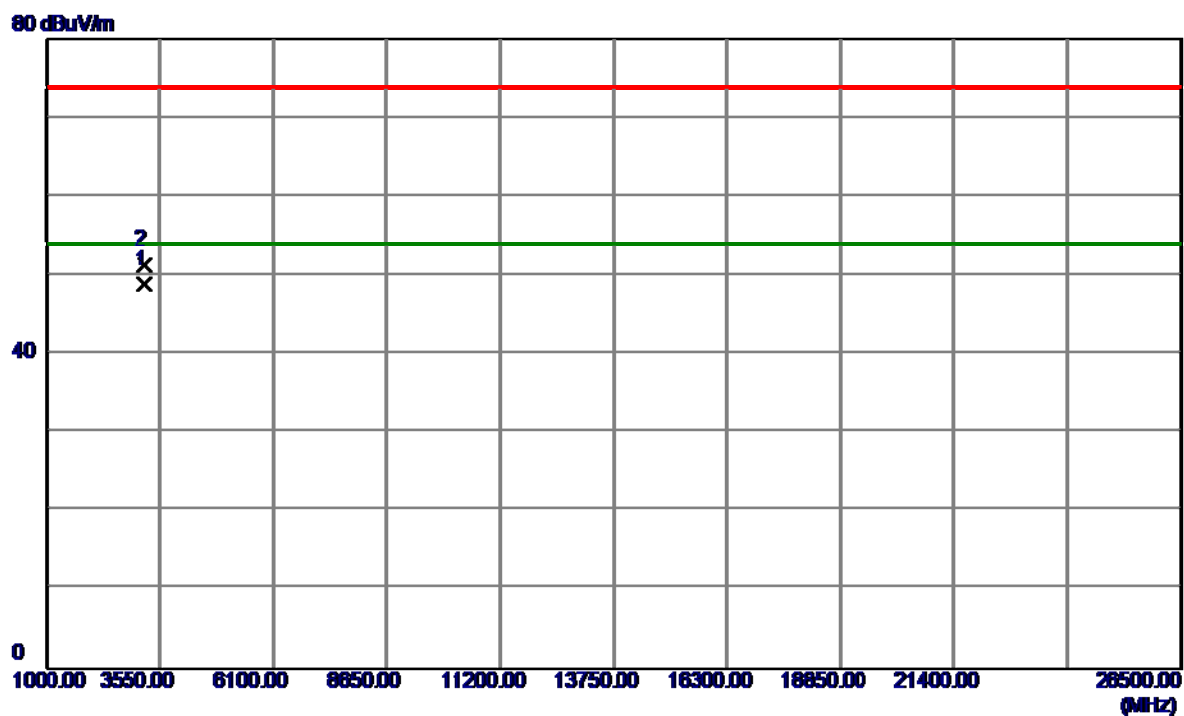
Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	22.45	32.99	55.44	74.00	-18.56	Peak	
2	2390.0000	12.27	32.99	45.26	54.00	-8.74	AVG	
3	2409.4000	61.43	33.09	94.52	74.00	20.52	Peak	No Limit
4 *	2410.0000	52.55	33.09	85.64	54.00	31.64	AVG	No Limit

Orthogonal Axis :	X
Test Mode :	TX G MODE 2412MHz

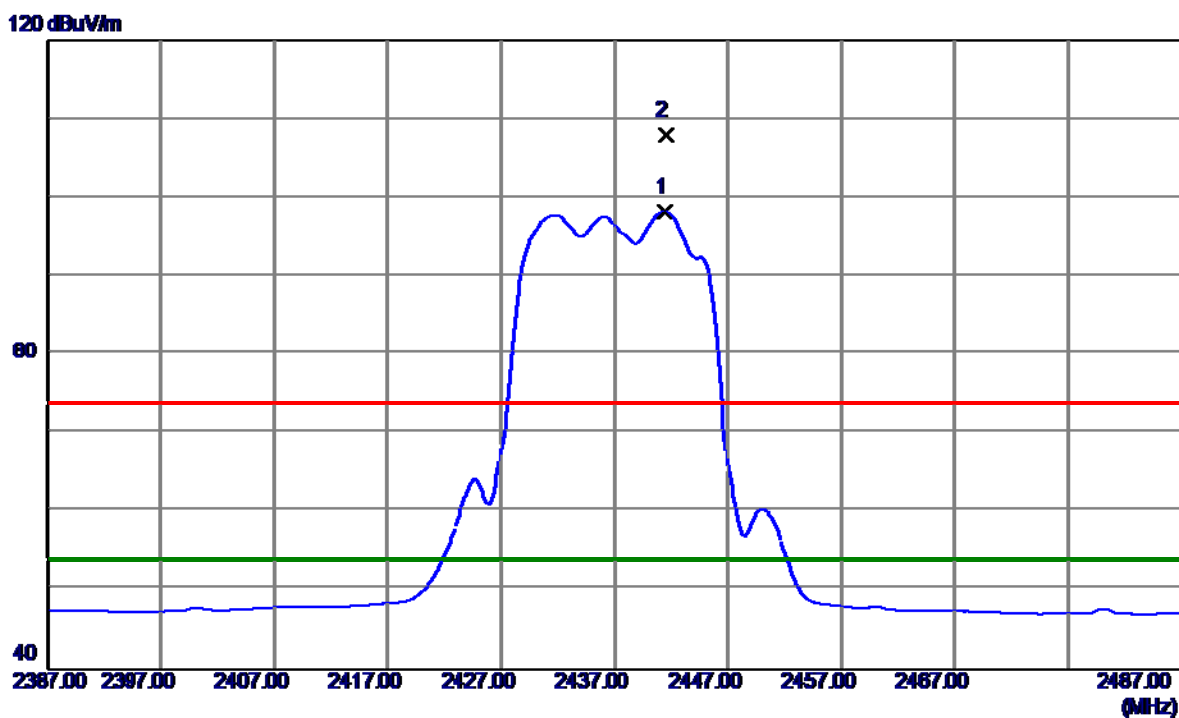
Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	3216.0260	46.21	2.70	48.91	54.00	-5.09	AVG	
2	3216.0600	48.59	2.70	51.29	74.00	-22.71	Peak	

Orthogonal Axis :	X
Test Mode :	TX G MODE 2437MHz

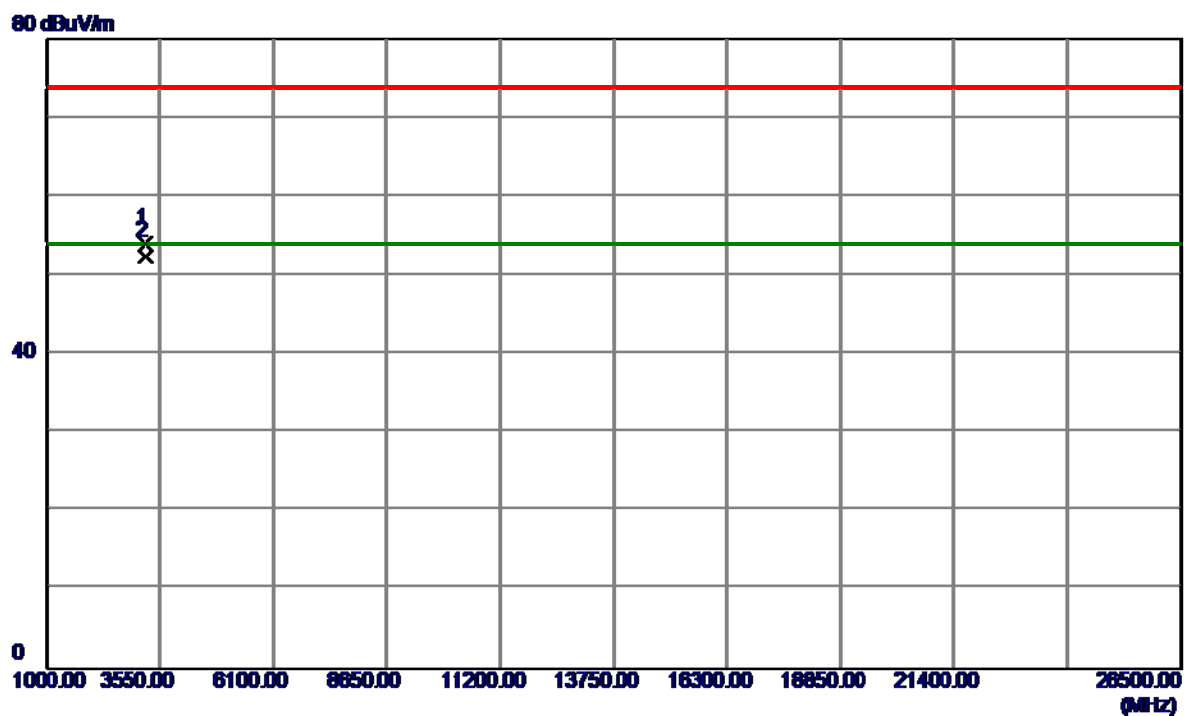
Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2441.4000	64.88	33.25	98.13	54.00	44.13	AVG	No Limit
2	2441.5000	74.59	33.25	107.84	74.00	33.84	Peak	No Limit

Orthogonal Axis :	X
Test Mode :	TX G MODE 2437MHz

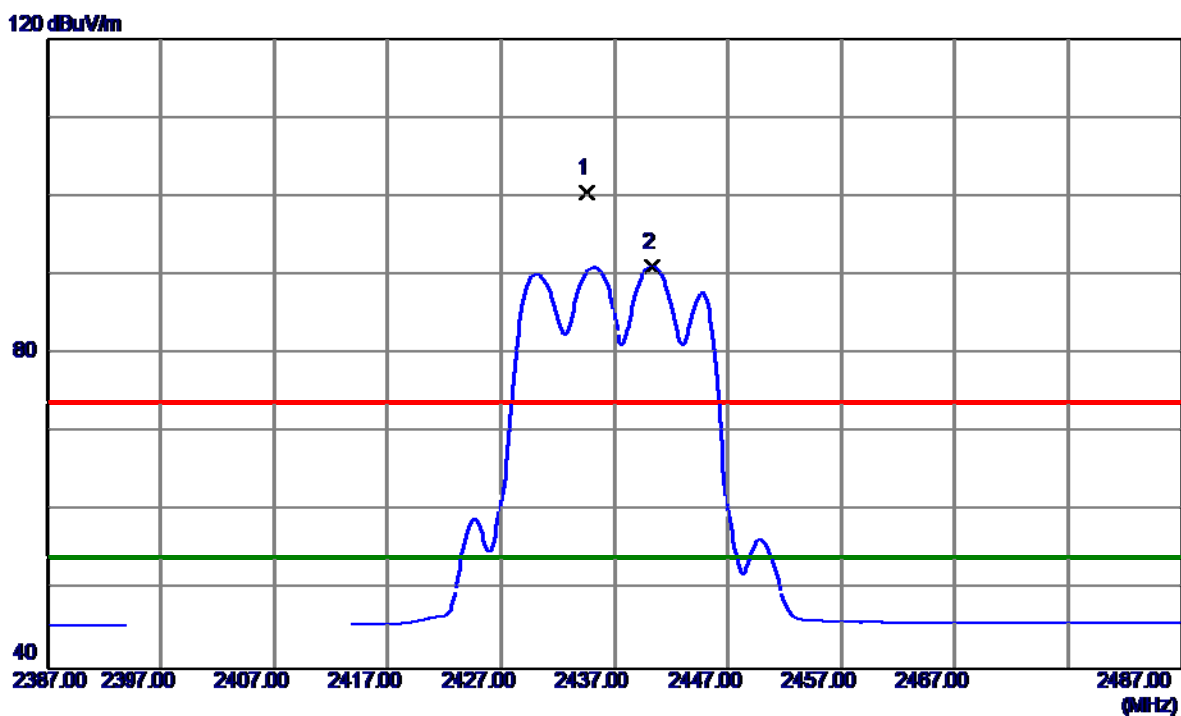
Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	3249.3250	51.41	2.74	54.15	74.00	-19.85	Peak	
2 *	3249.3600	49.77	2.74	52.51	54.00	-1.49	AVG	

Orthogonal Axis :	X
Test Mode :	TX G MODE 2437MHz

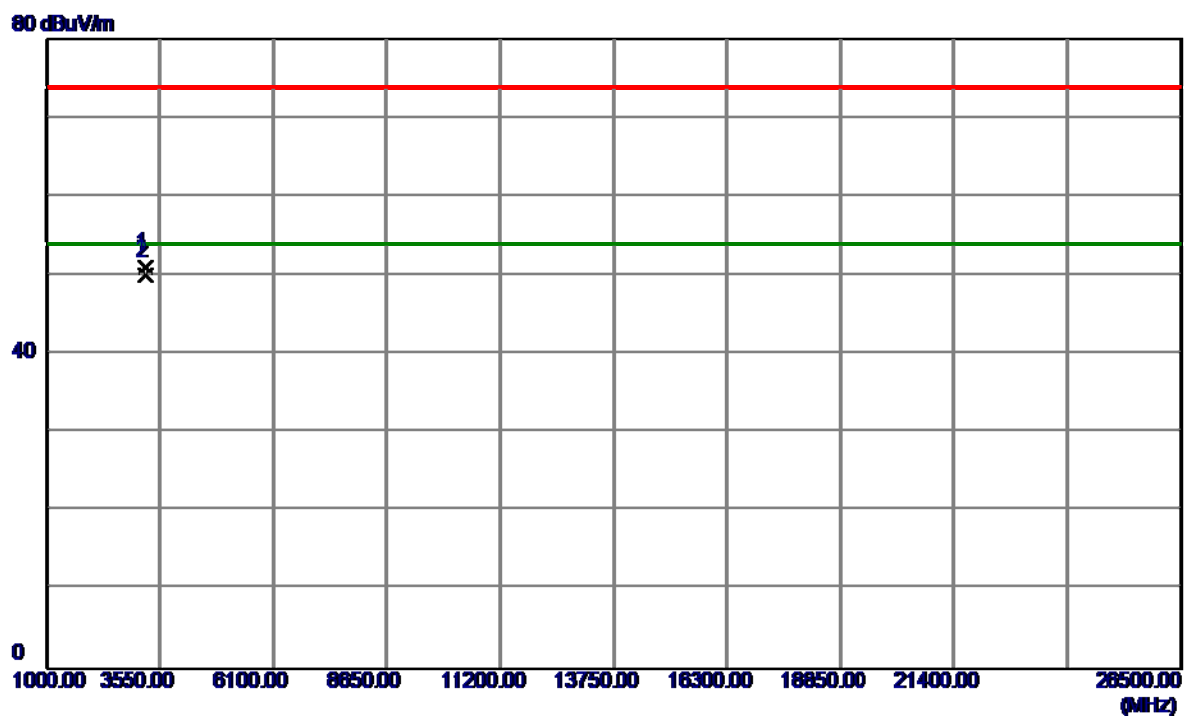
Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2434.6000	67.19	33.21	100.40	74.00	26.40	Peak	No Limit
2 *	2440.3000	57.85	33.24	91.09	54.00	37.09	AVG	No Limit

Orthogonal Axis :	X
Test Mode :	TX G MODE 2437MHz

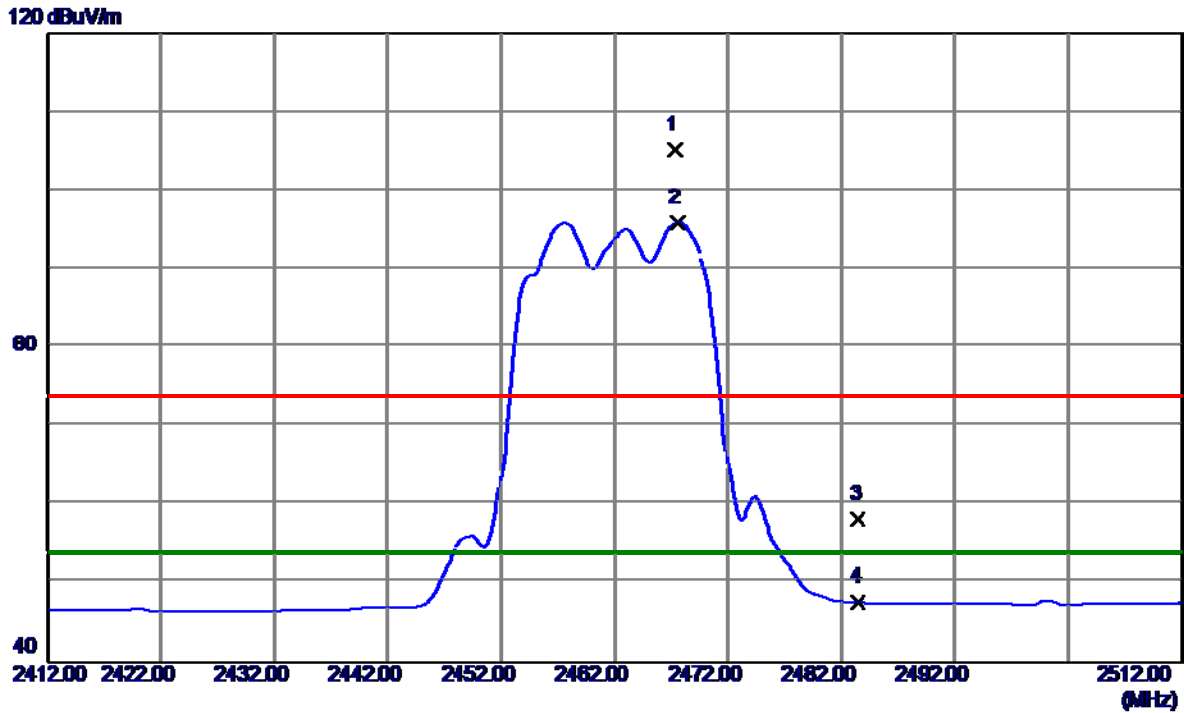
Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	3249.3540	48.31	2.74	51.05	74.00	-22.95	Peak	
2 *	3249.3540	47.29	2.74	50.03	54.00	-3.97	AVG	

Orthogonal Axis :	X
Test Mode :	TX G MODE 2462MHz

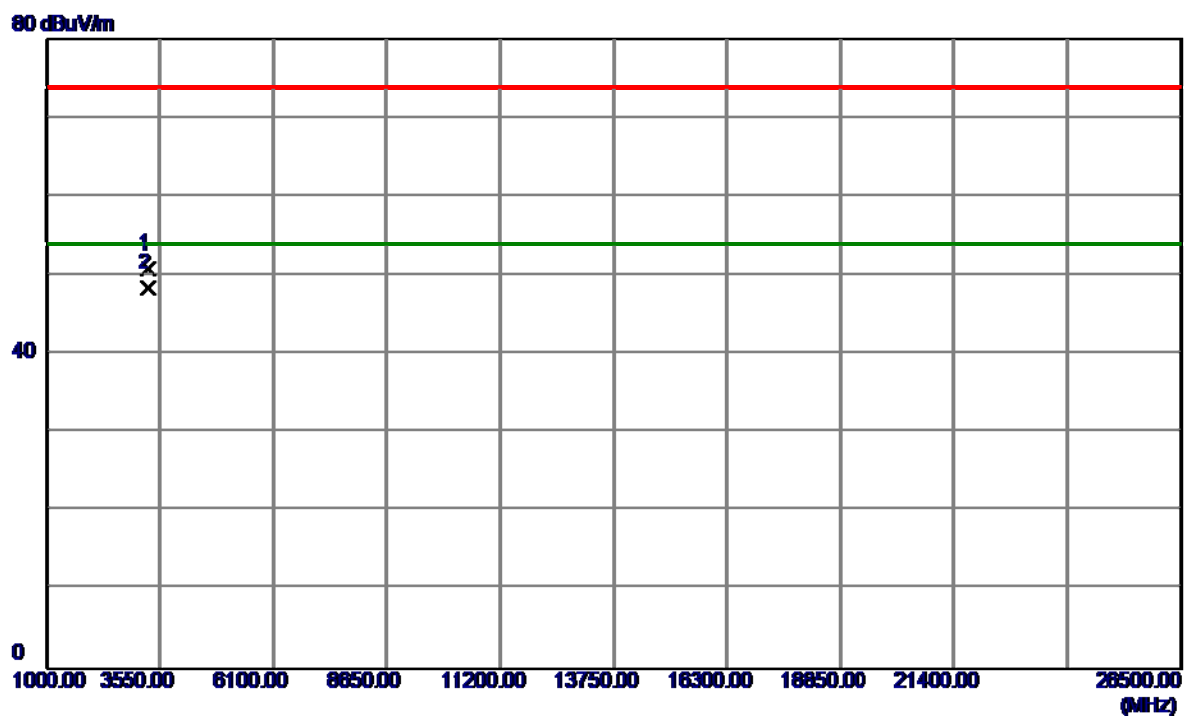
Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2467.3000	71.77	33.38	105.15	74.00	31.15	Peak	No Limit
2 *	2467.6000	62.47	33.38	95.85	54.00	41.85	AVG	No Limit
3	2483.5000	24.71	33.46	58.17	74.00	-15.83	Peak	
4	2483.5000	14.16	33.46	47.62	54.00	-6.38	AVG	

Orthogonal Axis :	X
Test Mode :	TX G MODE 2462MHz

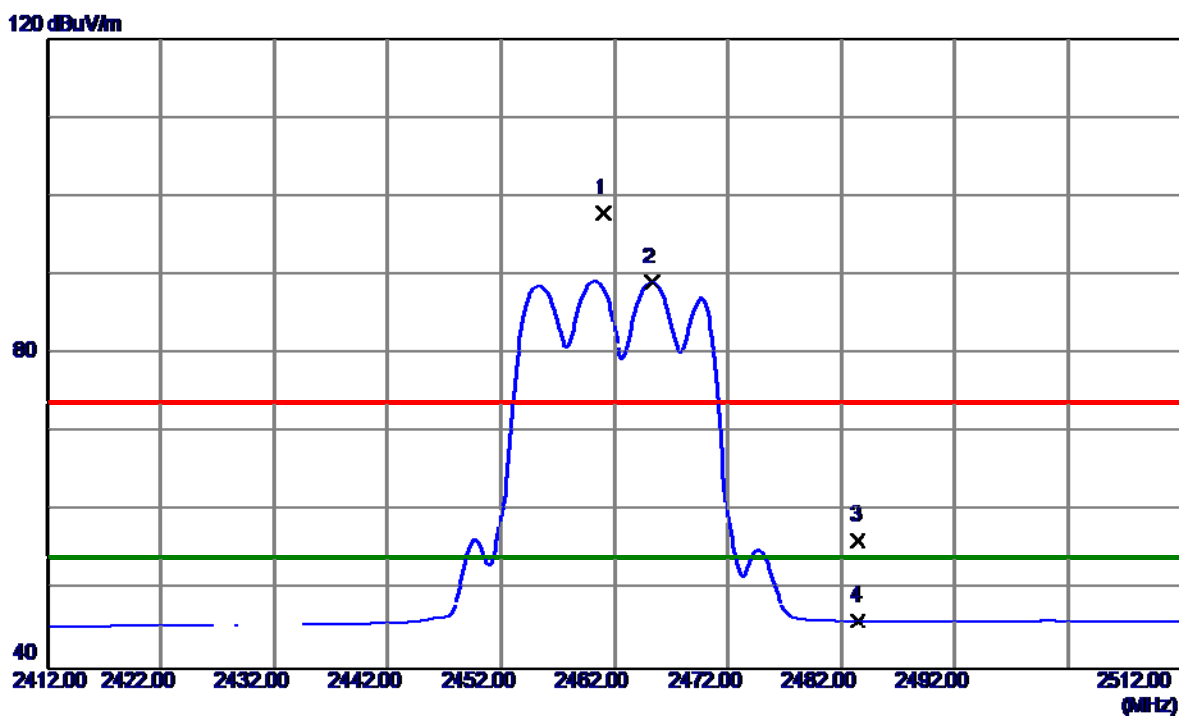
Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	3282.6850	48.08	2.79	50.87	74.00	-23.13	Peak	
2 *	3282.7000	45.76	2.79	48.55	54.00	-5.45	AVG	

Orthogonal Axis :	X
Test Mode :	TX G MODE 2462MHz

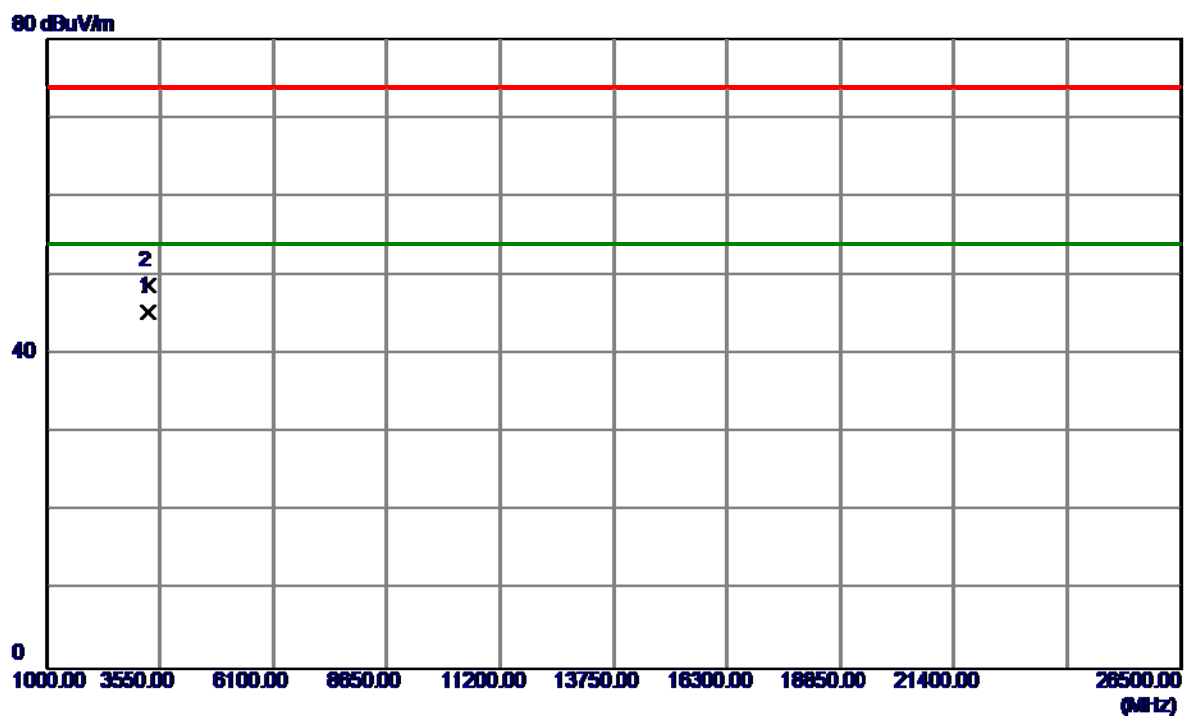
Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2461.0000	64.55	33.34	97.89	74.00	23.89	Peak	No Limit
2 *	2465.3000	55.71	33.37	89.08	54.00	35.08	AVG	No Limit
3	2483.5000	22.84	33.46	56.30	74.00	-17.70	Peak	
4	2483.5000	12.61	33.46	46.07	54.00	-7.93	AVG	

Orthogonal Axis :	X
Test Mode :	TX G MODE 2462MHz

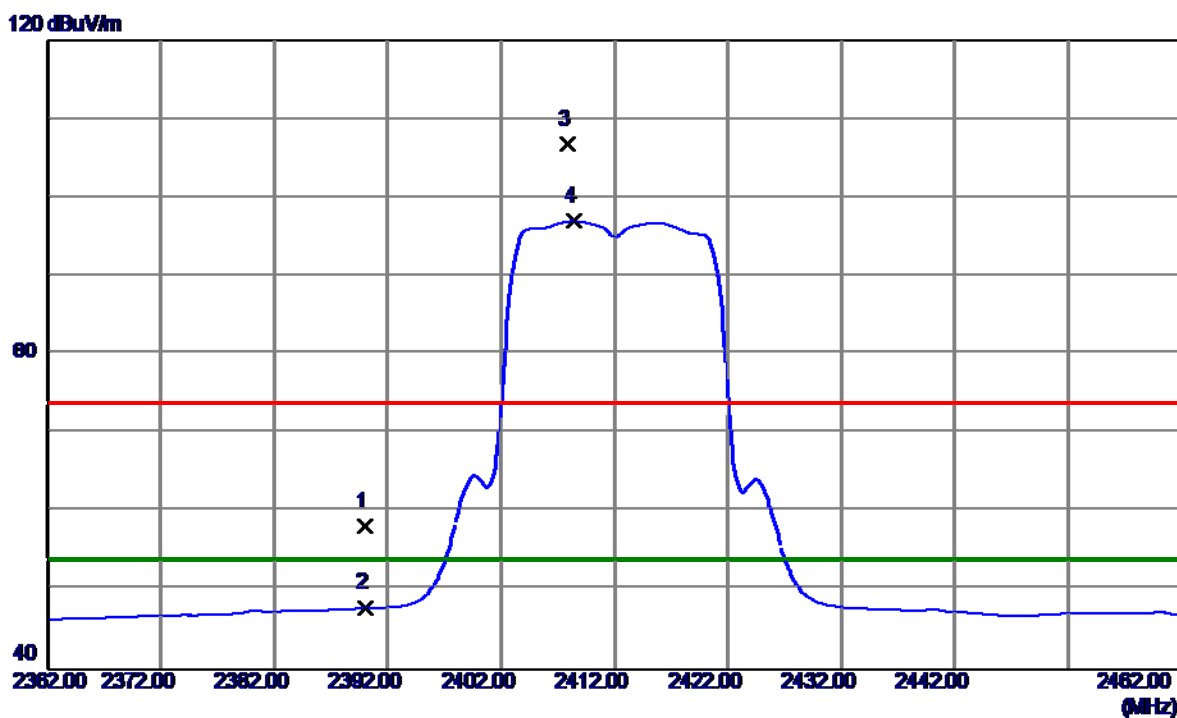
Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	3282.6920	42.71	2.79	45.50	54.00	-8.50	AVG	
2	3282.7060	45.98	2.79	48.77	74.00	-25.23	Peak	

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

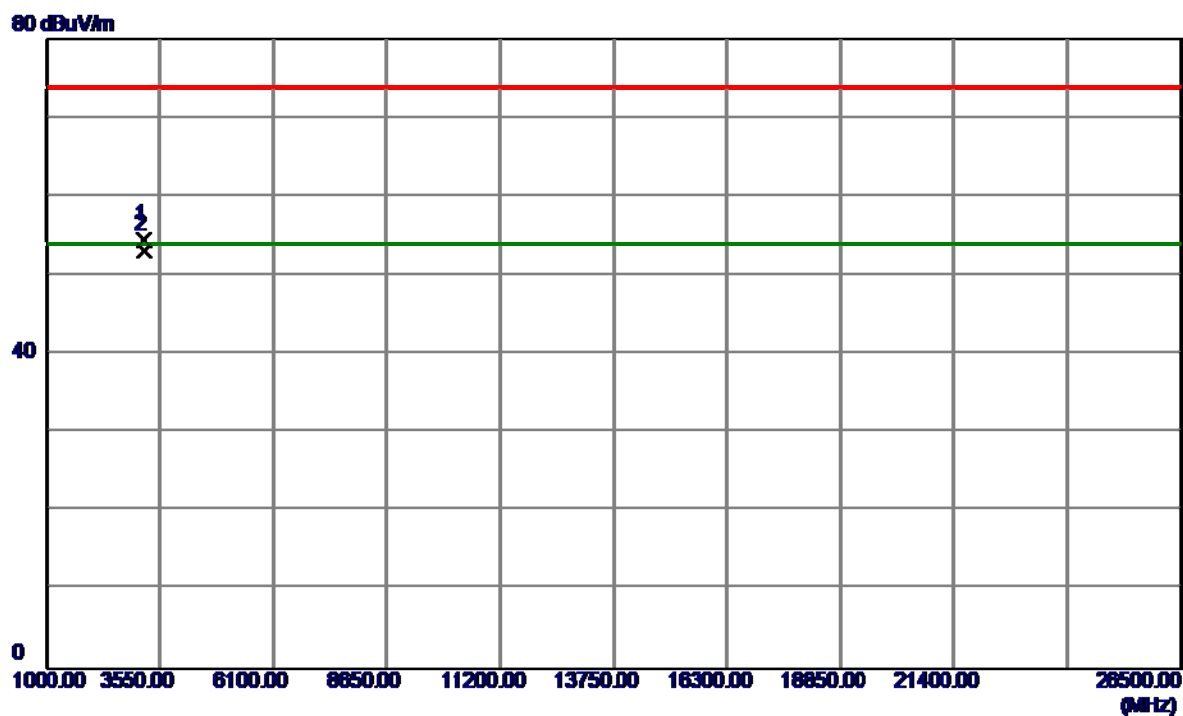
Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	25.30	32.99	58.29	74.00	15.71	Peak	
2	2390.0000	14.82	32.99	47.81	54.00	-6.19	AVG	
3	2407.9000	73.64	33.08	106.72	74.00	32.72	Peak	No Limit
4 *	2408.4000	63.81	33.08	96.89	54.00	42.89	AVG	No Limit

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

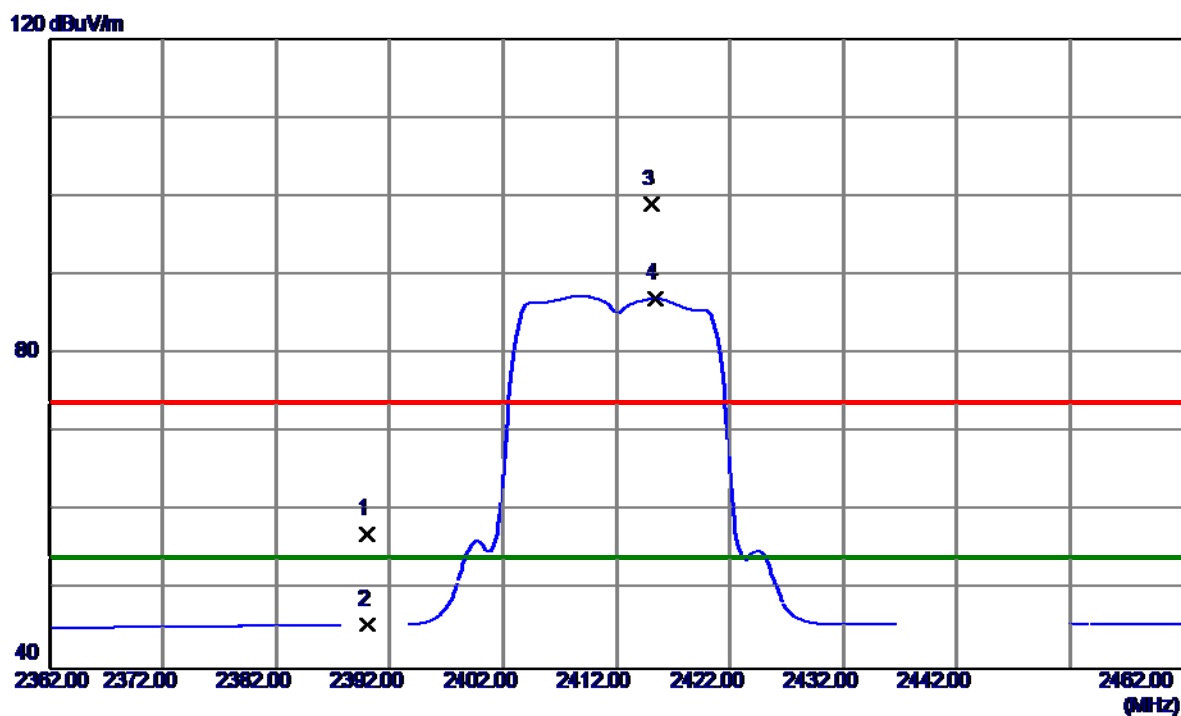
Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	3215.9800	51.81	2.70	54.51	74.00	-19.49	Peak	
2 *	3216.0200	50.60	2.70	53.30	54.00	-0.70	AVG	

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

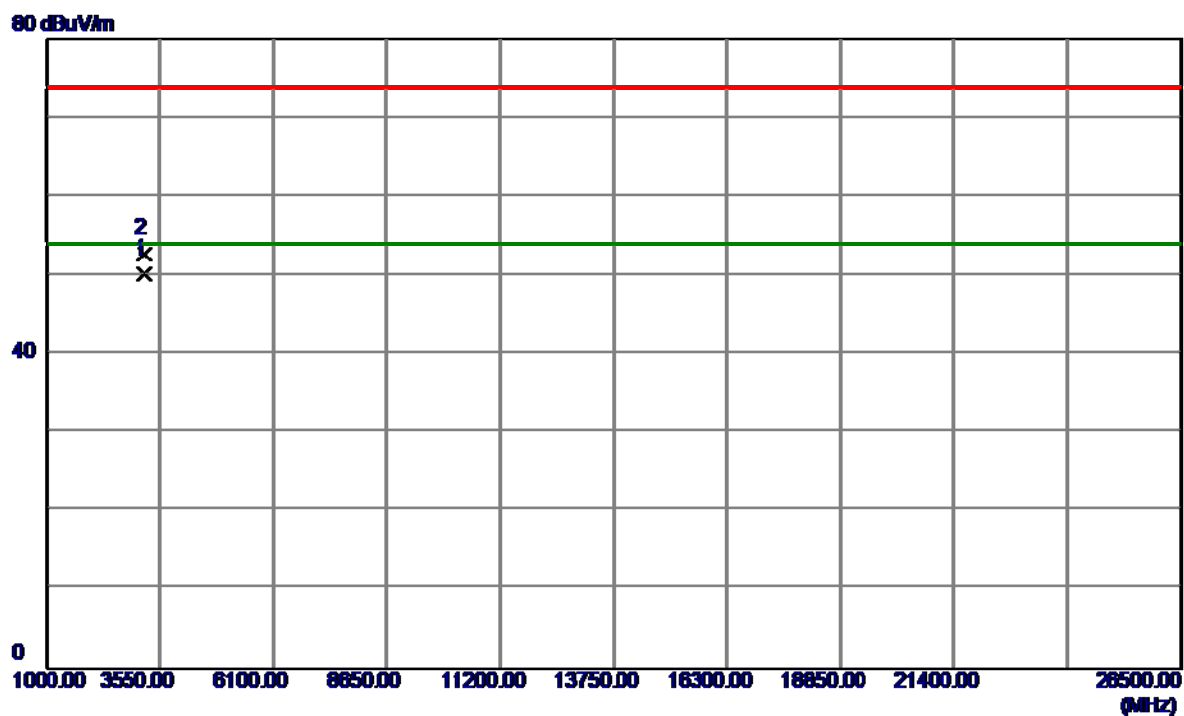
Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	24.15	32.99	57.14	74.00	-16.86	Peak	
2	2390.0000	12.59	32.99	45.58	54.00	-8.42	AVG	
3	2415.1000	65.95	33.11	99.06	74.00	25.06	Peak	No Limit
4 *	2415.4000	53.91	33.12	87.03	54.00	33.03	AVG	No Limit

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

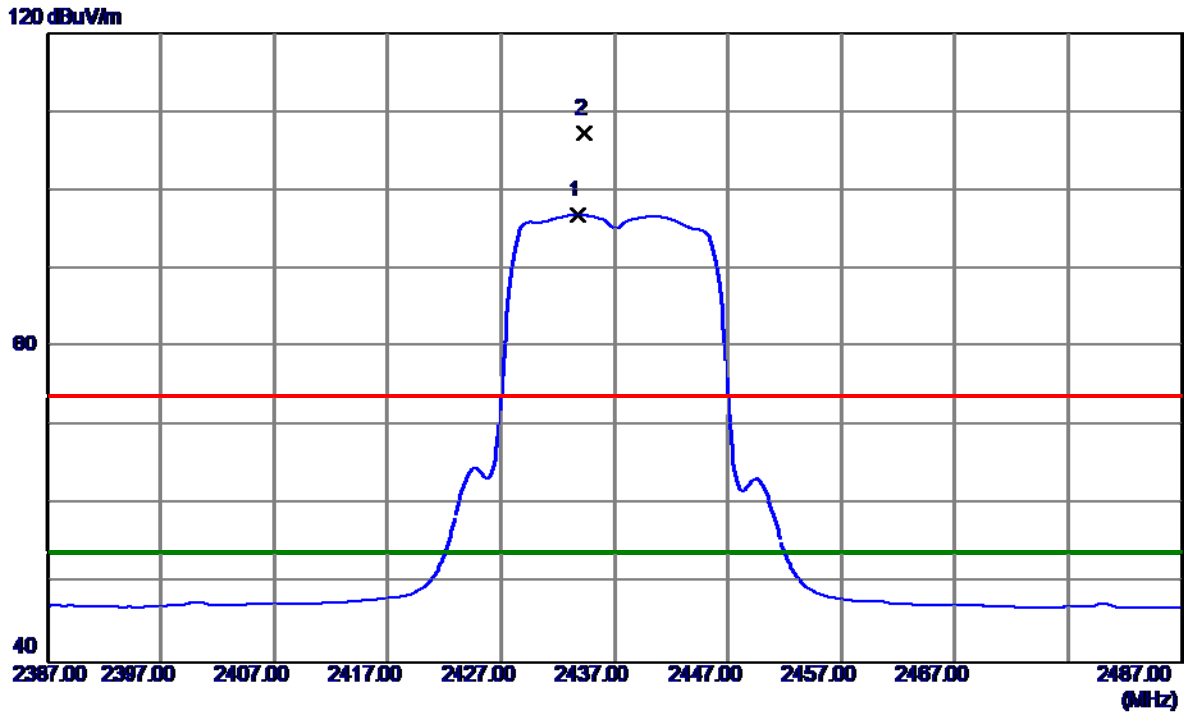
Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	3216.0260	47.47	2.70	50.17	54.00	-3.83	AVG	
2	3216.0800	50.06	2.70	52.76	74.00	-21.24	Peak	

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

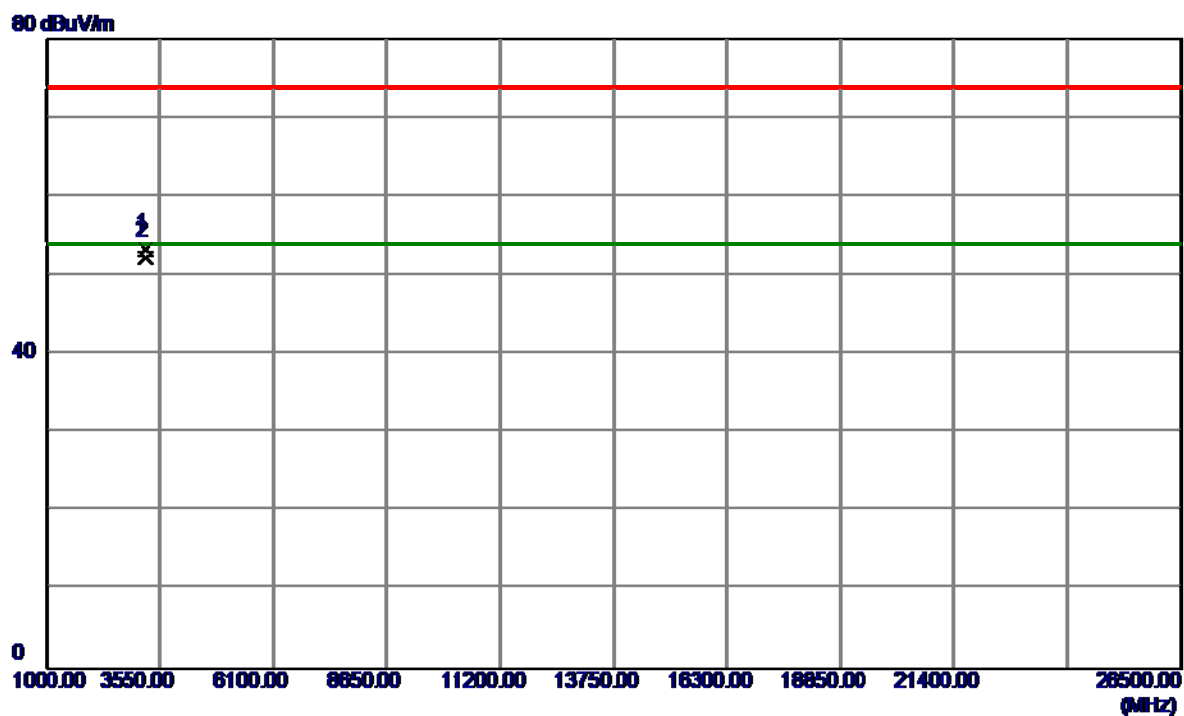
Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2433.8000	63.64	33.21	96.85	54.00	42.85	AVG	No Limit
2	2434.3000	74.05	33.21	107.26	74.00	33.26	Peak	No Limit

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

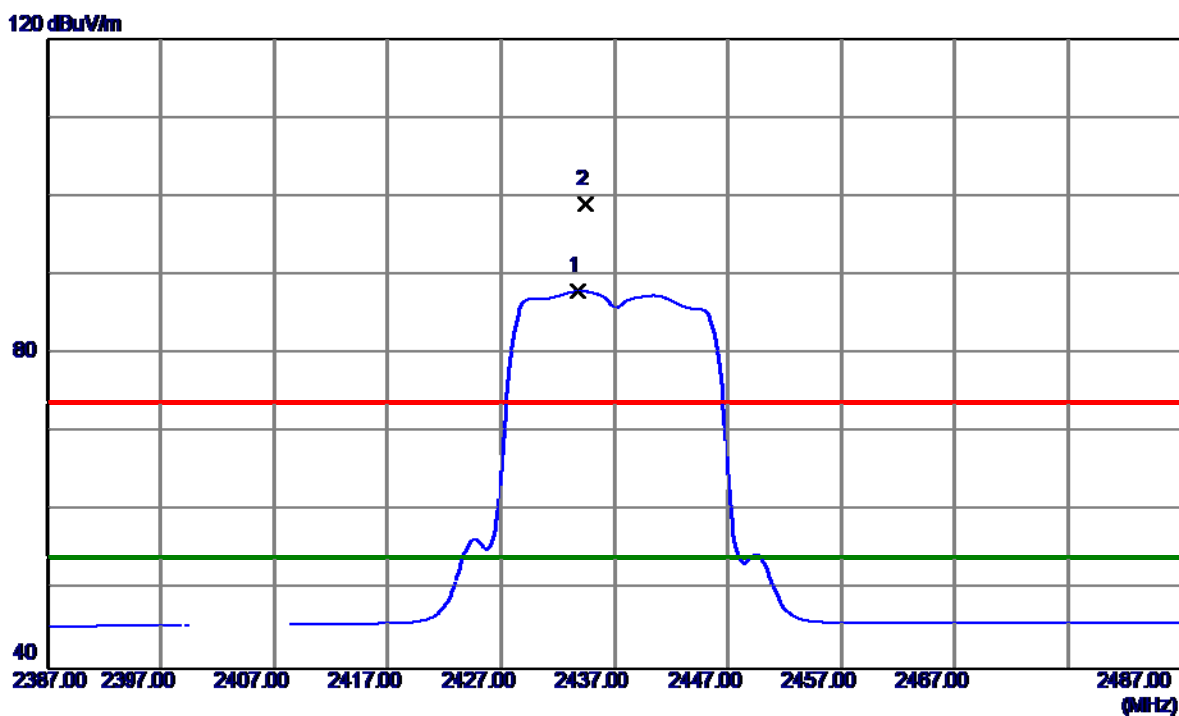
Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	3249.3100	50.67	2.74	53.41	74.00	-20.59	Peak	
2 *	3249.3550	49.66	2.74	52.40	54.00	-1.60	AVG	

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

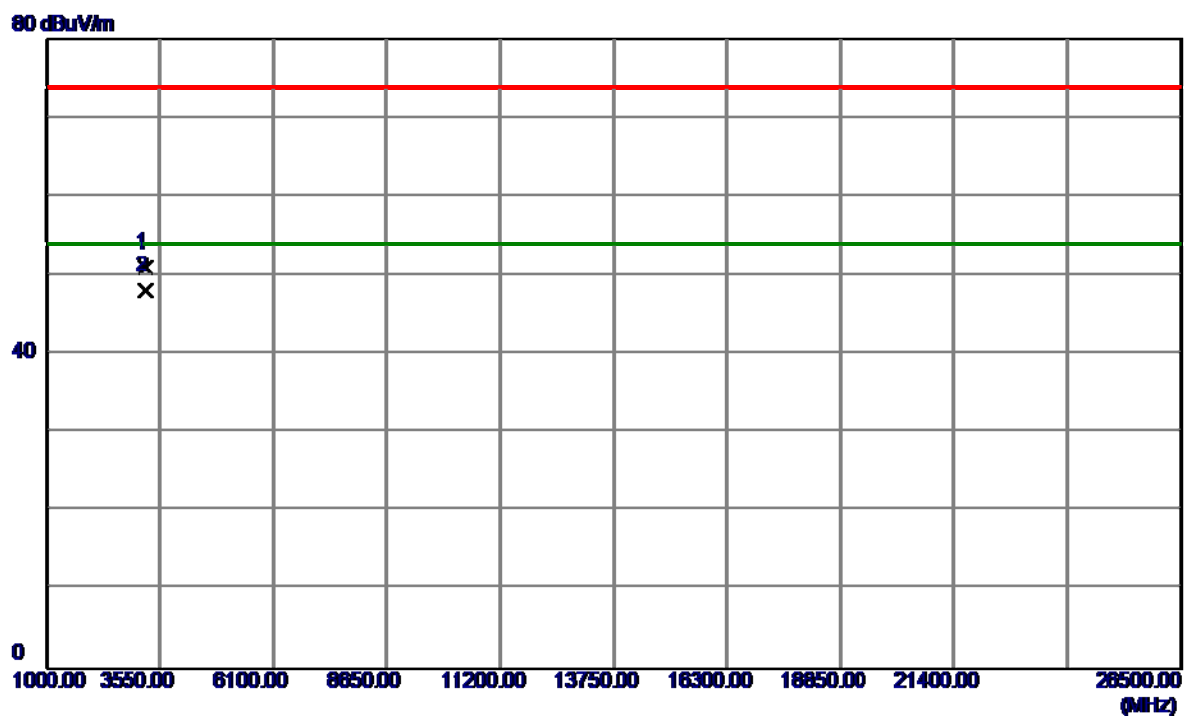
Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2433.8000	54.78	33.21	87.99	54.00	33.99	AVG	No Limit
2	2434.4000	65.88	33.21	99.09	74.00	25.09	Peak	No Limit

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

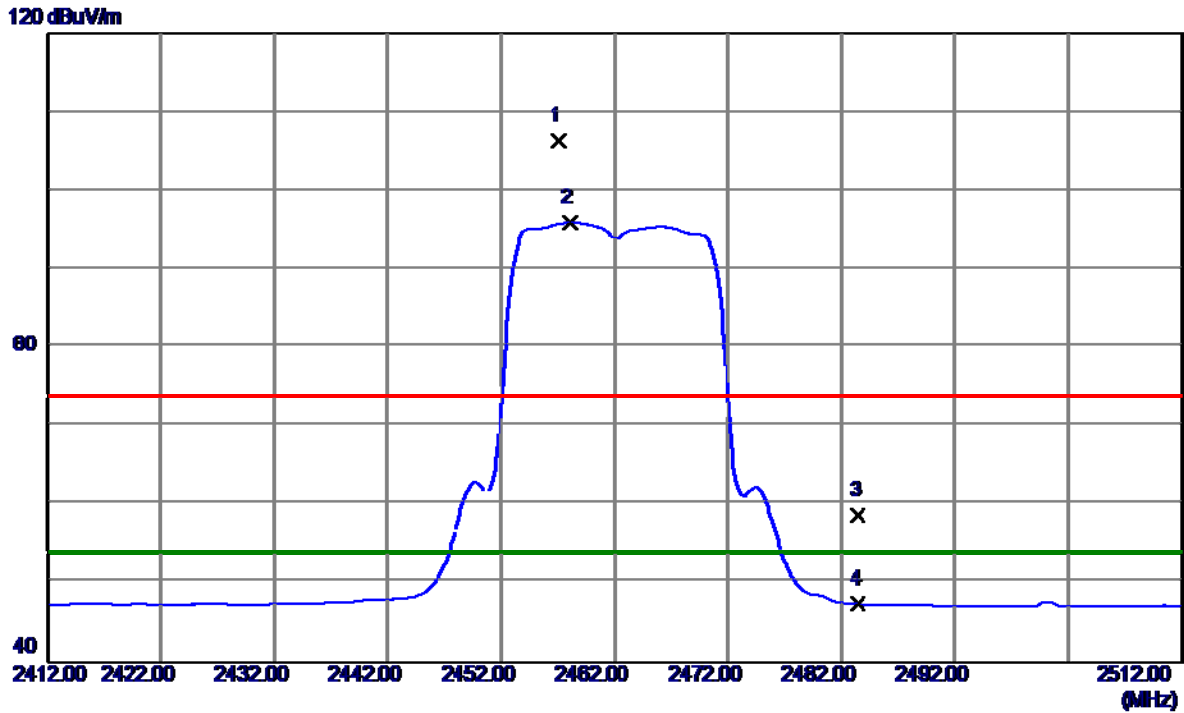
Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	3249.3500	48.38	2.74	51.12	74.00	-22.88	Peak	
2 *	3249.3560	45.38	2.74	48.12	54.00	-5.88	AVG	

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

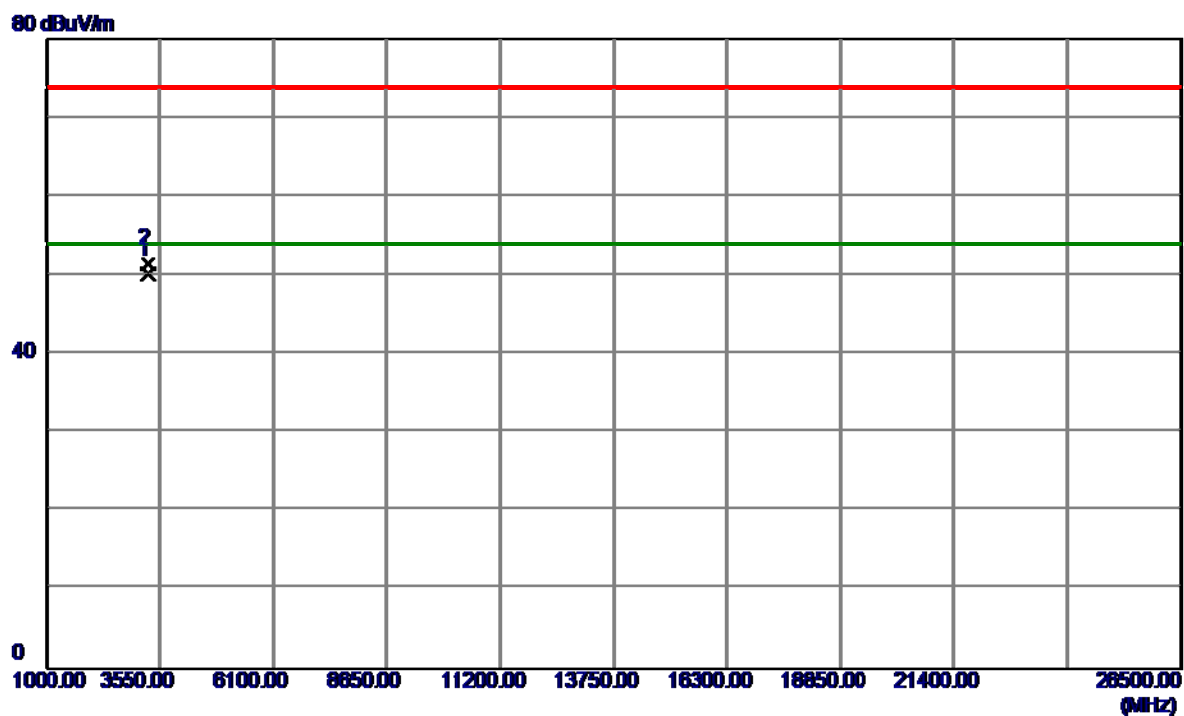
Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2457.1000	72.96	33.32	106.28	74.00	32.28	Peak	No Limit
2 *	2458.1000	62.50	33.33	95.83	54.00	41.83	AVG	No Limit
3	2483.5000	25.28	33.46	58.74	74.00	-15.26	Peak	
4	2483.5000	13.98	33.46	47.44	54.00	-6.56	AVG	

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

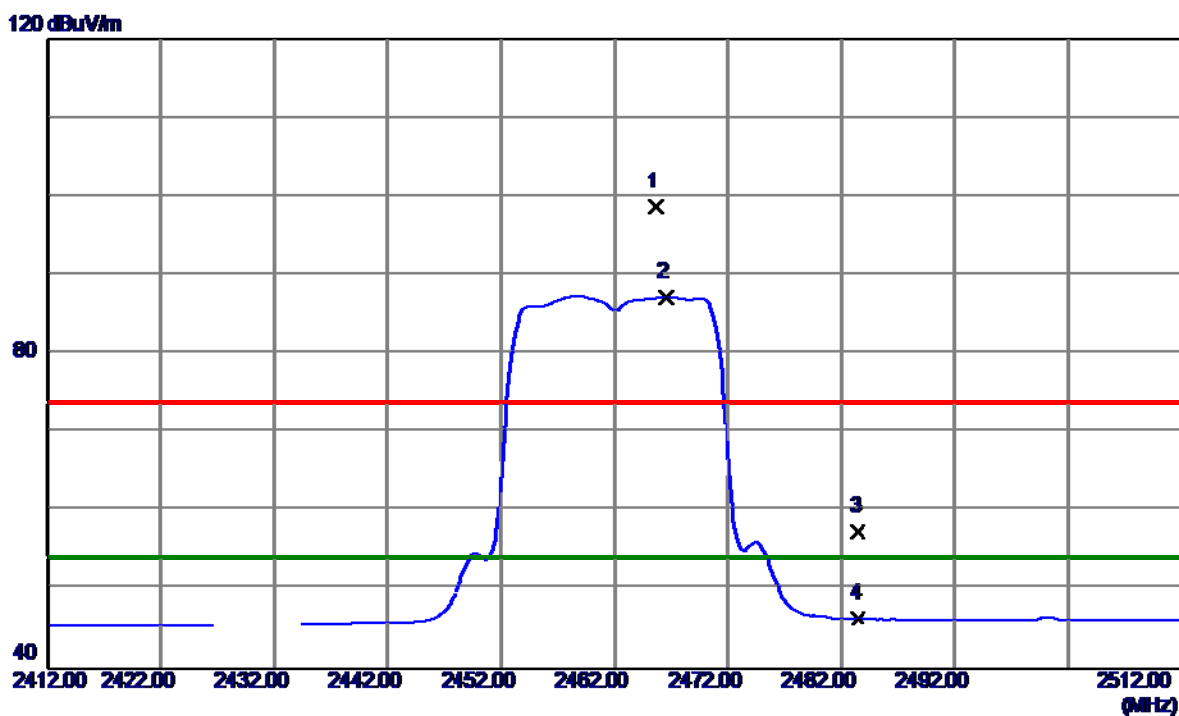
Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	3282.6550	47.46	2.79	50.25	54.00	-3.75	AVG	
2	3282.6800	48.79	2.79	51.58	74.00	-22.42	Peak	

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

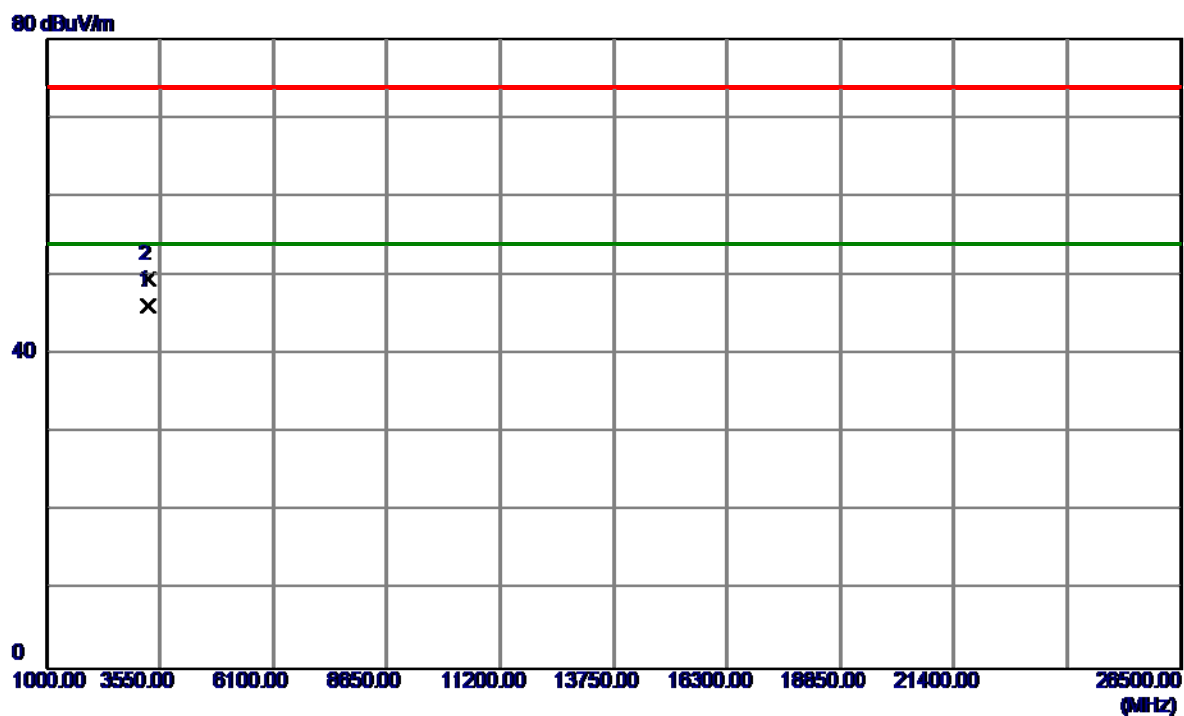
Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2465.7000	65.28	33.37	98.65	74.00	24.65	Peak	No Limit
2 *	2466.6000	53.86	33.37	87.23	54.00	33.23	AVG	No Limit
3	2483.5000	24.05	33.46	57.51	74.00	-16.49	Peak	
4	2483.5000	12.91	33.46	46.37	54.00	-7.63	AVG	

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

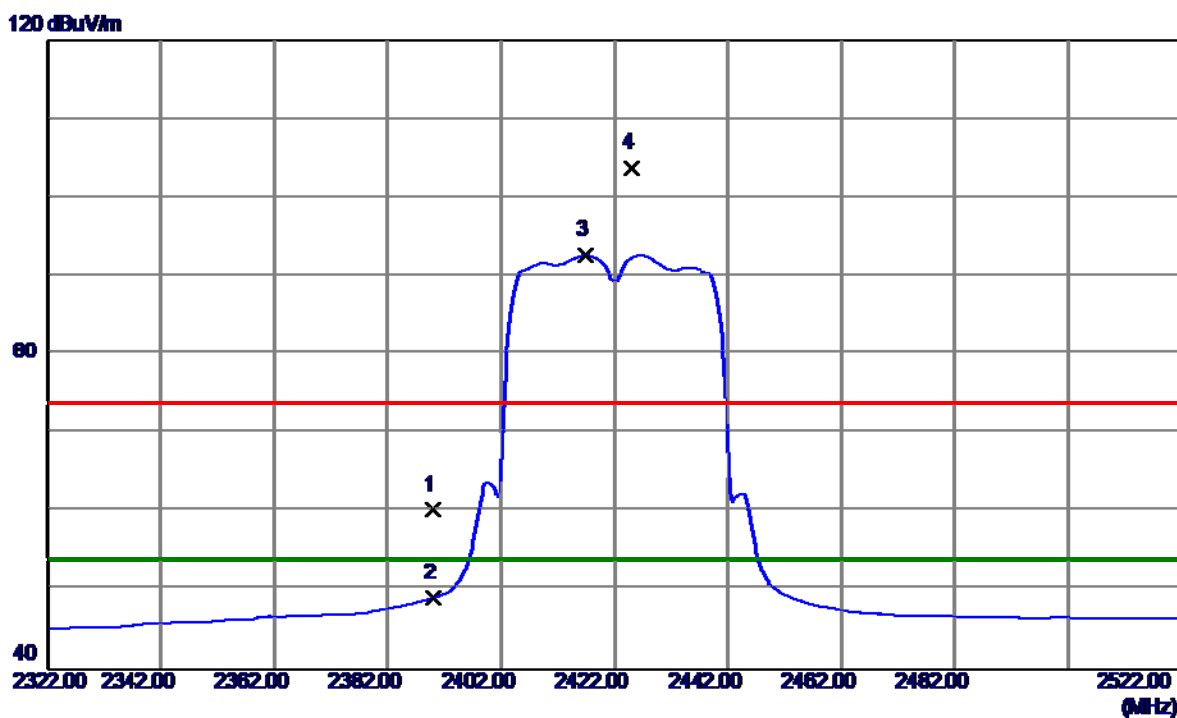
Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	3282.6920	43.42	2.79	46.21	54.00	-7.79	AVG	
2	3282.6820	46.80	2.79	49.59	74.00	-24.41	Peak	

Orthogonal Axis :	X
Test Mode :	TX N-40M MODE 2422MHz

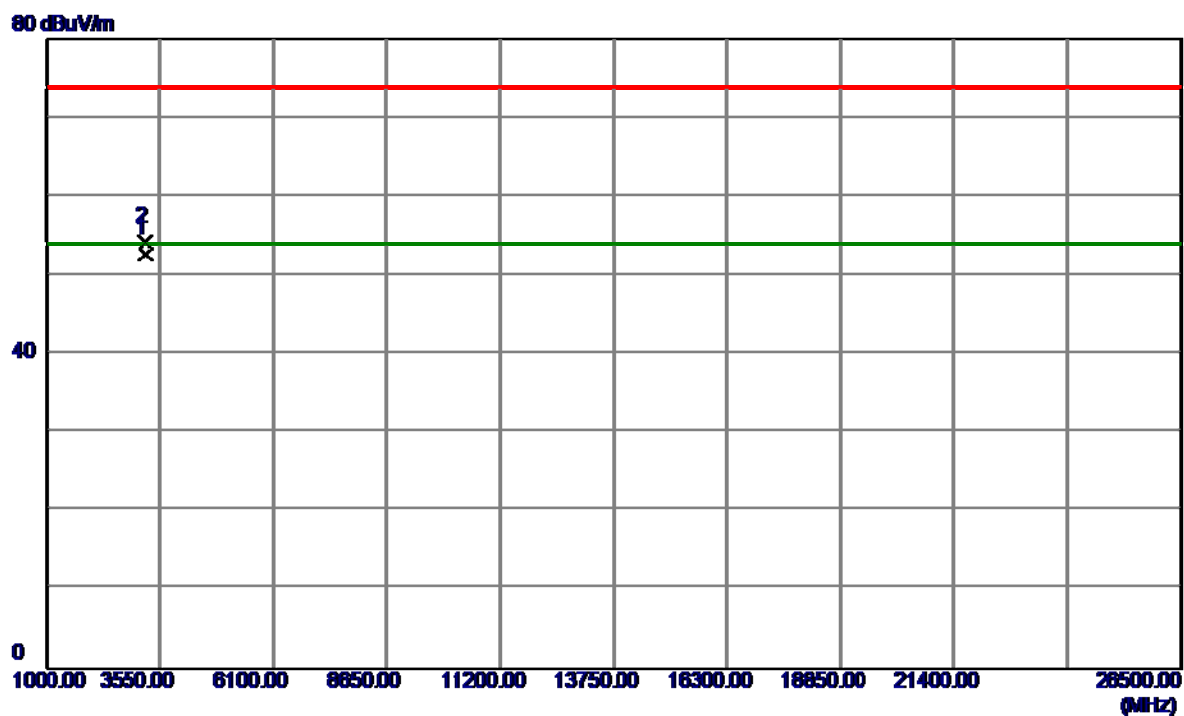
Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	27.27	32.99	60.26	74.00	13.74	Peak	
2	2390.0000	16.16	32.99	49.15	54.00	-4.85	AVG	
3 *	2416.8000	59.50	33.12	92.62	54.00	38.62	AVG	No Limit
4	2425.2000	70.46	33.16	103.62	74.00	29.62	Peak	No Limit

Orthogonal Axis :	X
Test Mode :	TX N-40M MODE 2422MHz

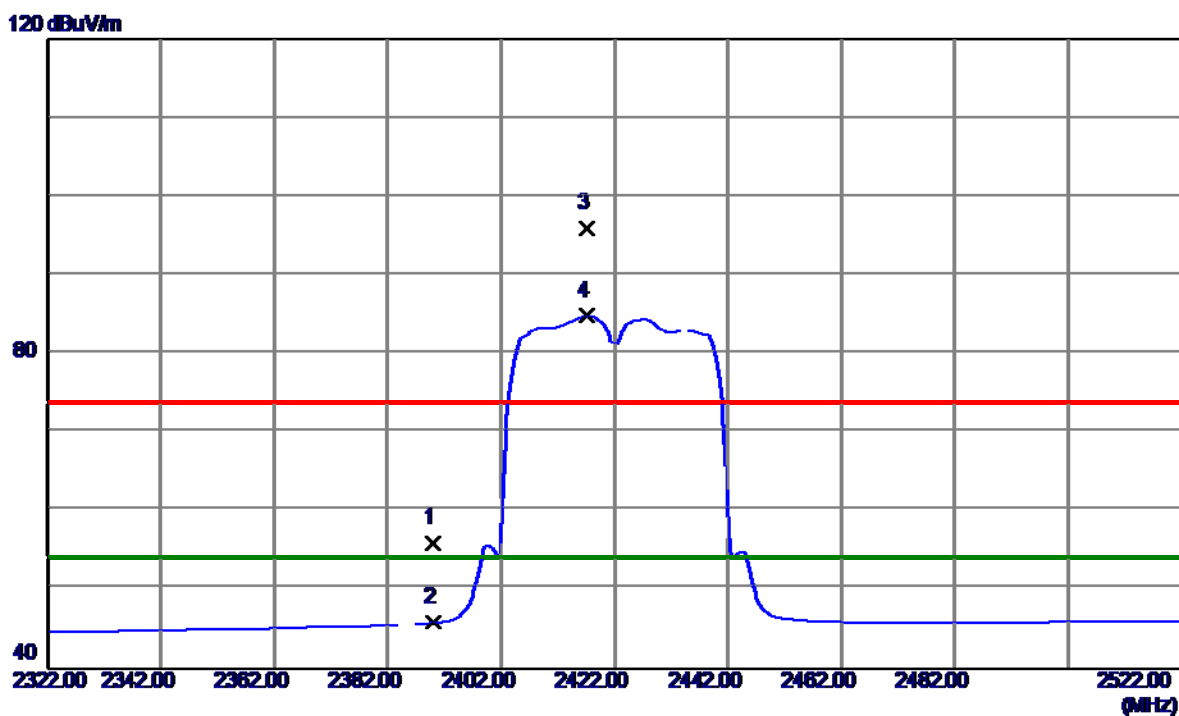
Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	3229.3500	50.08	2.72	52.80	54.00	-1.20	AVG	
2	3229.4050	51.48	2.72	54.20	74.00	-19.80	Peak	

Orthogonal Axis :	X
Test Mode :	TX N-40M MODE 2422MHz

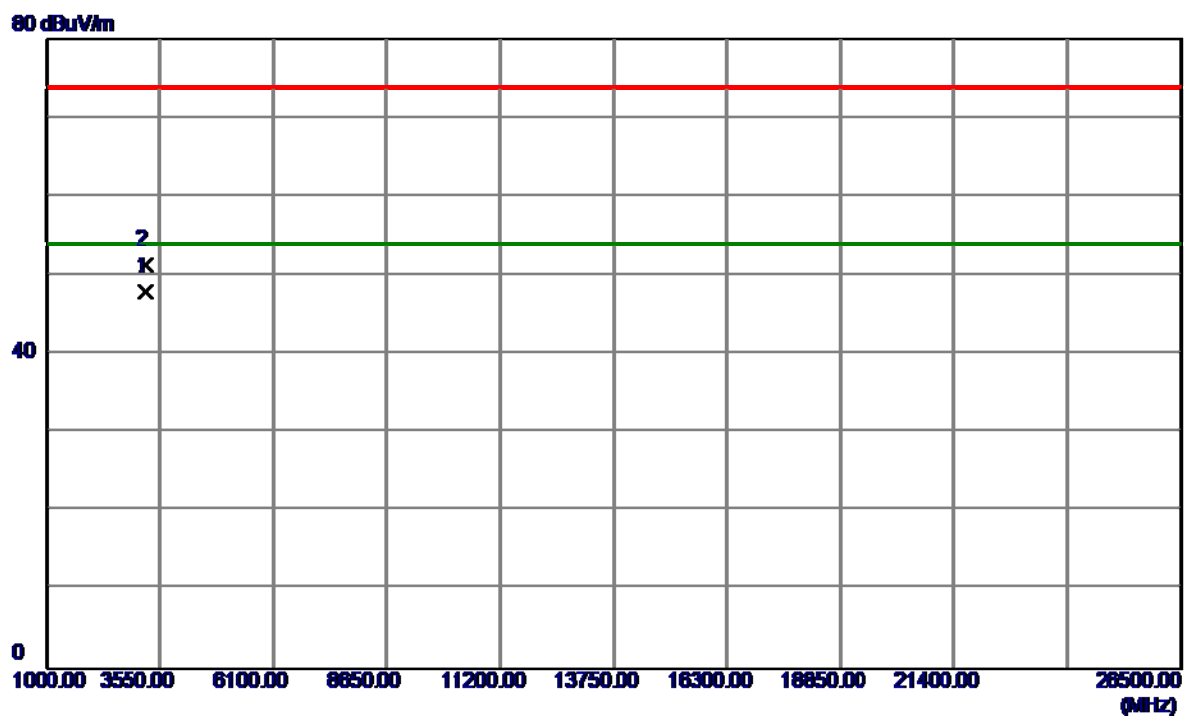
Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	22.94	32.99	55.93	74.00	-18.07	Peak	
2	2390.0000	12.90	32.99	45.89	54.00	-8.11	AVG	
3	2417.2000	62.86	33.12	95.98	74.00	21.98	Peak	No Limit
4 *	2417.2000	51.76	33.12	84.88	54.00	30.88	AVG	No Limit

Orthogonal Axis :	X
Test Mode :	TX N-40M MODE 2422MHz

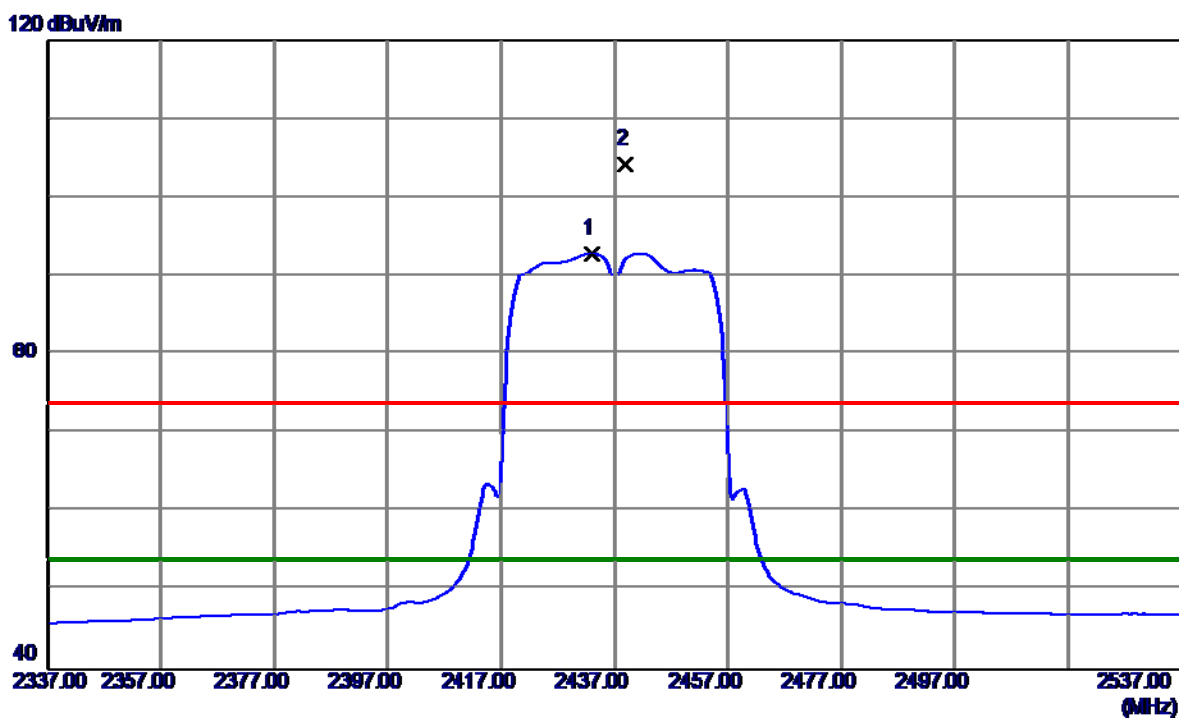
Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	3229.3700	45.35	2.72	48.07	54.00	-5.93	AVG	
2	3229.4120	48.61	2.72	51.33	74.00	-22.67	Peak	

Orthogonal Axis :	X
Test Mode :	TX N-40M MODE 2437MHz

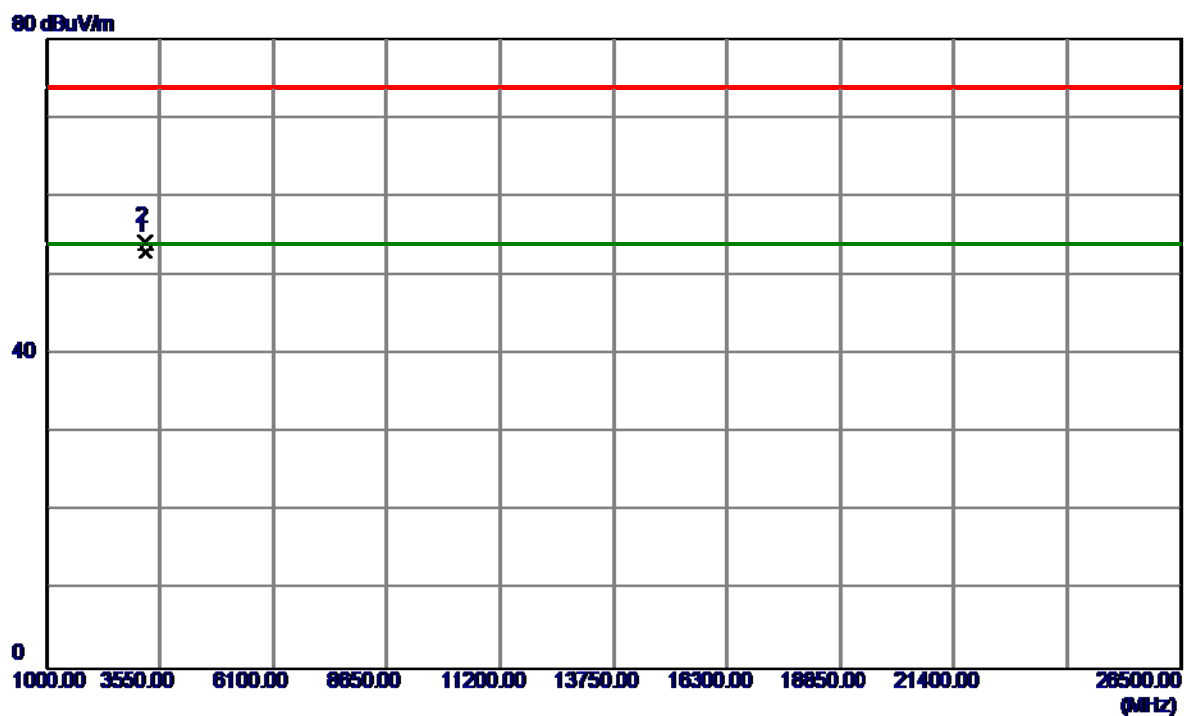
Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2433.0000	59.68	33.20	92.88	54.00	38.88	AVG	No Limit
2	2439.0000	70.93	33.23	104.16	74.00	30.16	Peak	No Limit

Orthogonal Axis :	X
Test Mode :	TX N-40M MODE 2437MHz

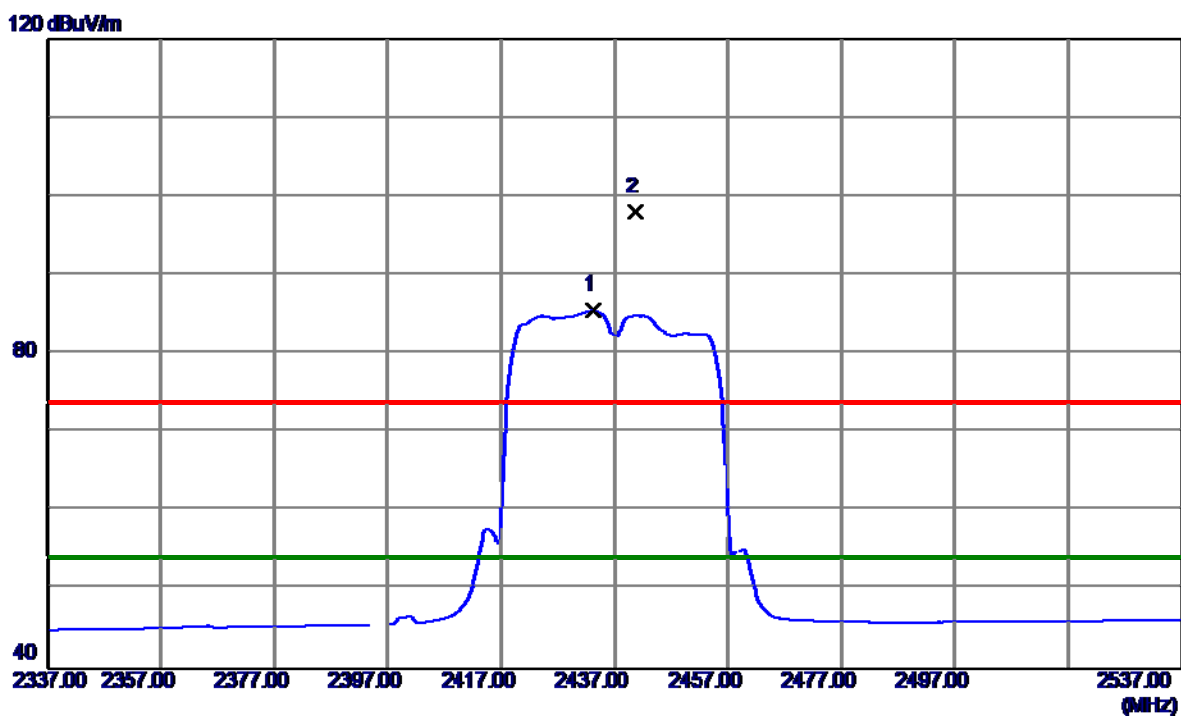
Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	3249.3500	50.42	2.74	53.16	54.00	-0.84	AVG	
2	3249.4150	51.50	2.74	54.24	74.00	-19.76	Peak	

Orthogonal Axis :	X
Test Mode :	TX N-40M MODE 2437MHz

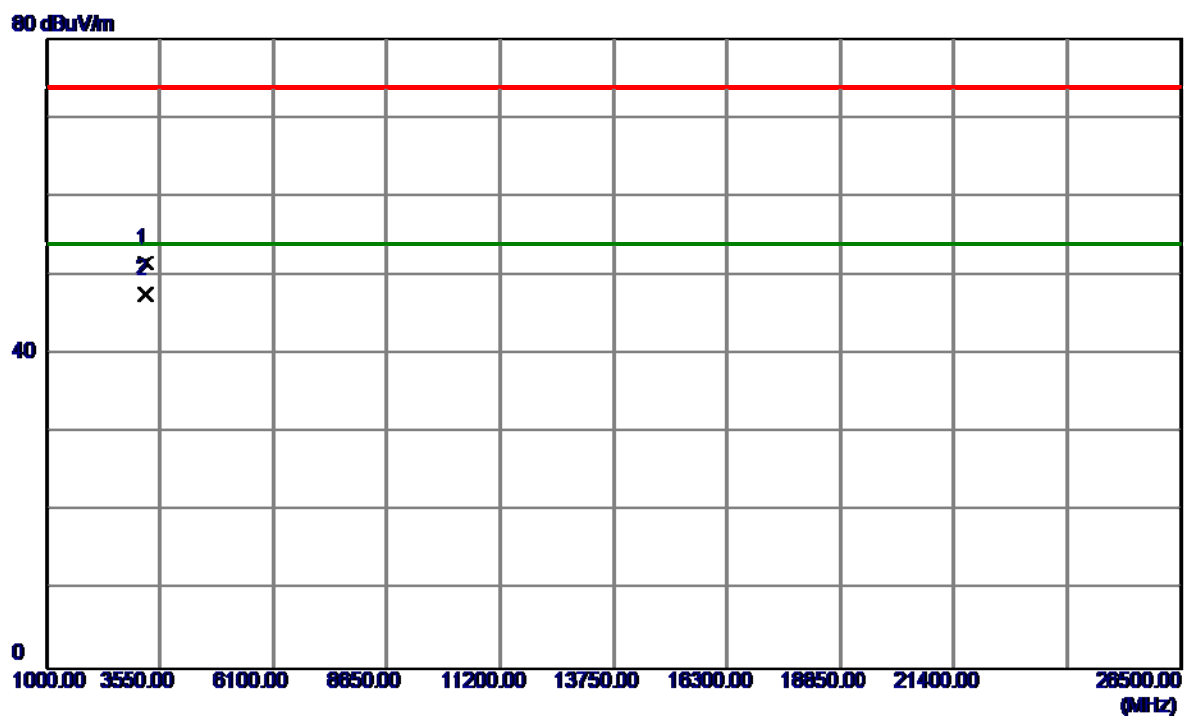
Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2433.2000	52.34	33.20	85.54	54.00	31.54	AVG	No Limit
2	2440.8000	64.84	33.24	98.08	74.00	24.08	Peak	No Limit

Orthogonal Axis :	X
Test Mode :	TX N-40M MODE 2437MHz

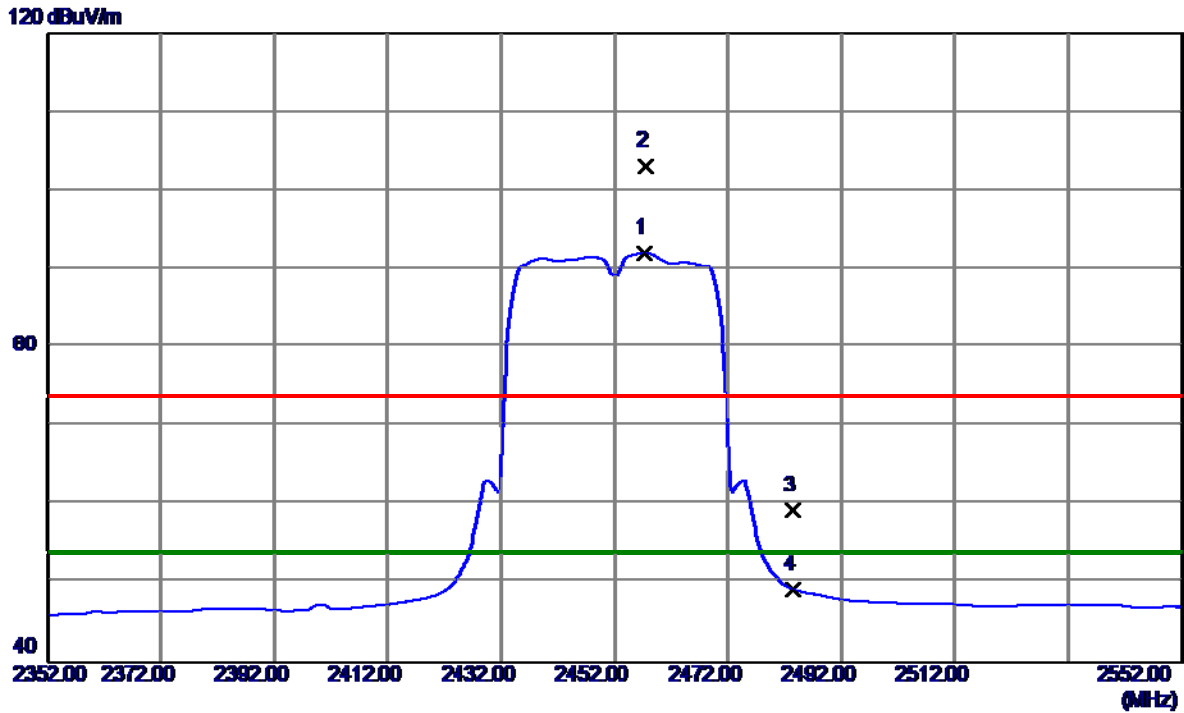
Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	3249.3540	48.86	2.74	51.60	74.00	-22.40	Peak	
2 *	3249.3720	44.90	2.74	47.64	54.00	-6.36	AVG	

Orthogonal Axis :	X
Test Mode :	TX N-40M MODE 2452MHz

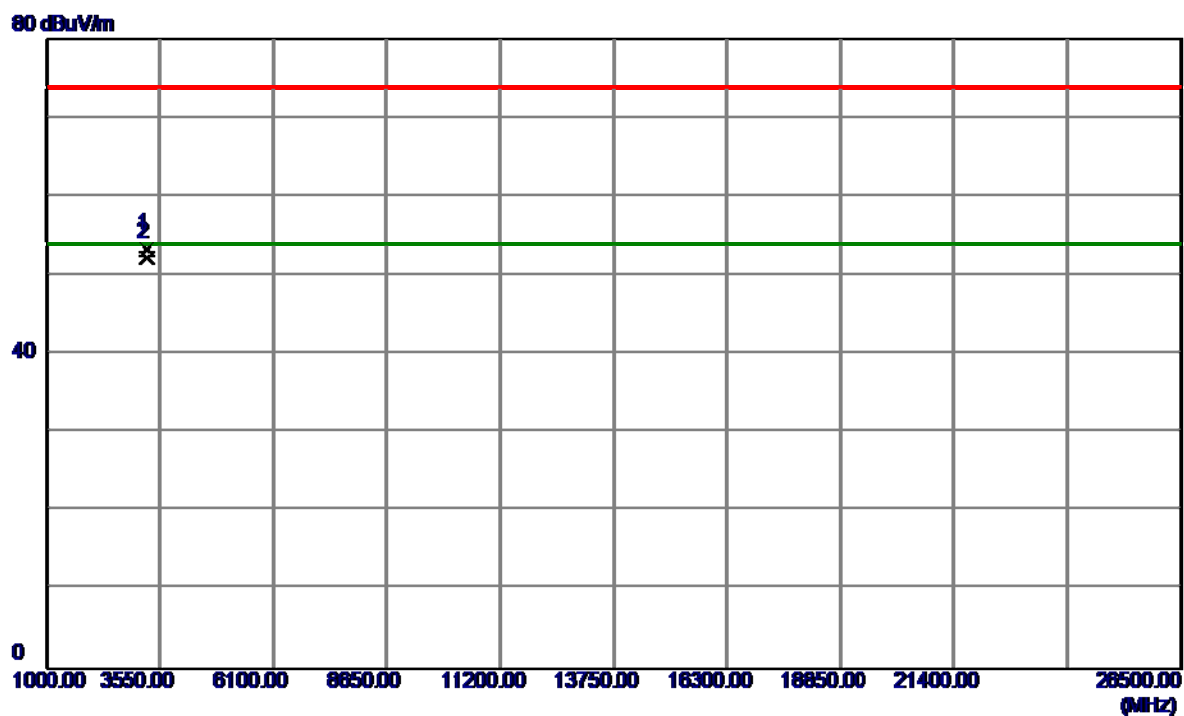
Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2457.4000	58.71	33.33	92.04	54.00	38.04	AVG	No Limit
2	2457.6000	69.65	33.33	102.98	74.00	28.98	Peak	No Limit
3	2483.5000	25.85	33.46	59.31	74.00	-14.69	Peak	
4	2483.5000	15.81	33.46	49.27	54.00	-4.73	AVG	

Orthogonal Axis :	X
Test Mode :	TX N-40M MODE 2452MHz

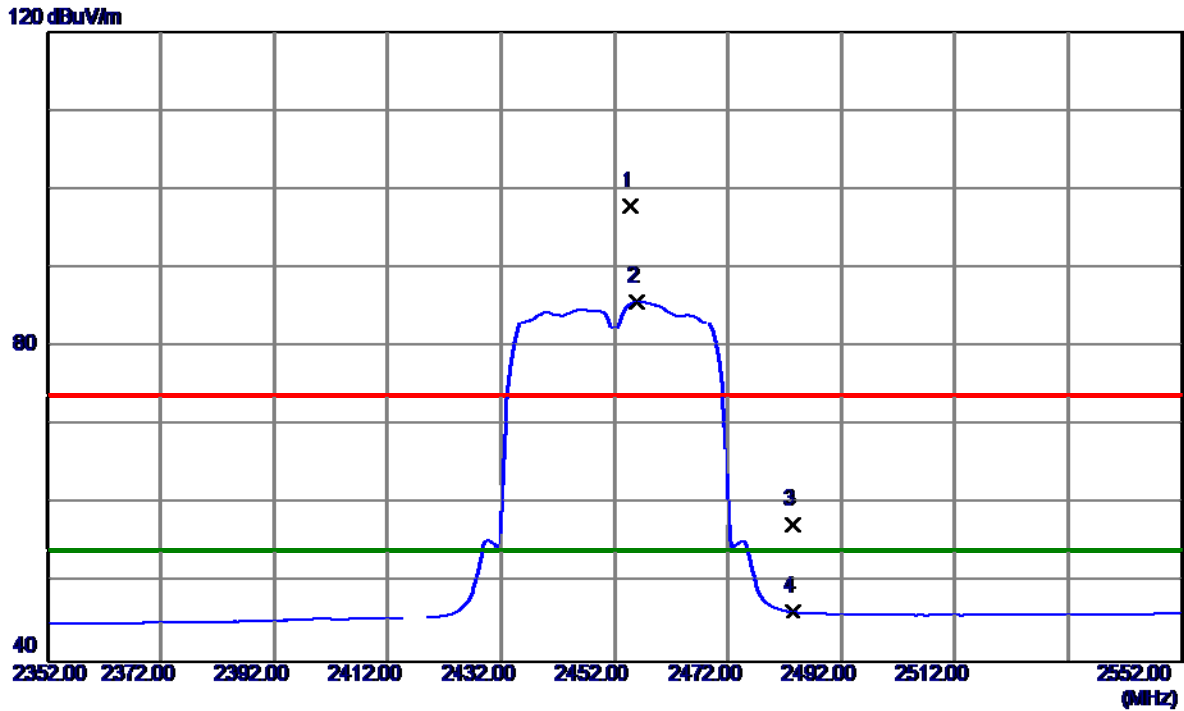
Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	3269.3320	50.69	2.77	53.46	74.00	-20.54	Peak	
2 *	3269.3740	49.52	2.77	52.29	54.00	-1.71	AVG	

Orthogonal Axis :	X
Test Mode :	TX N-40M MODE 2452MHz

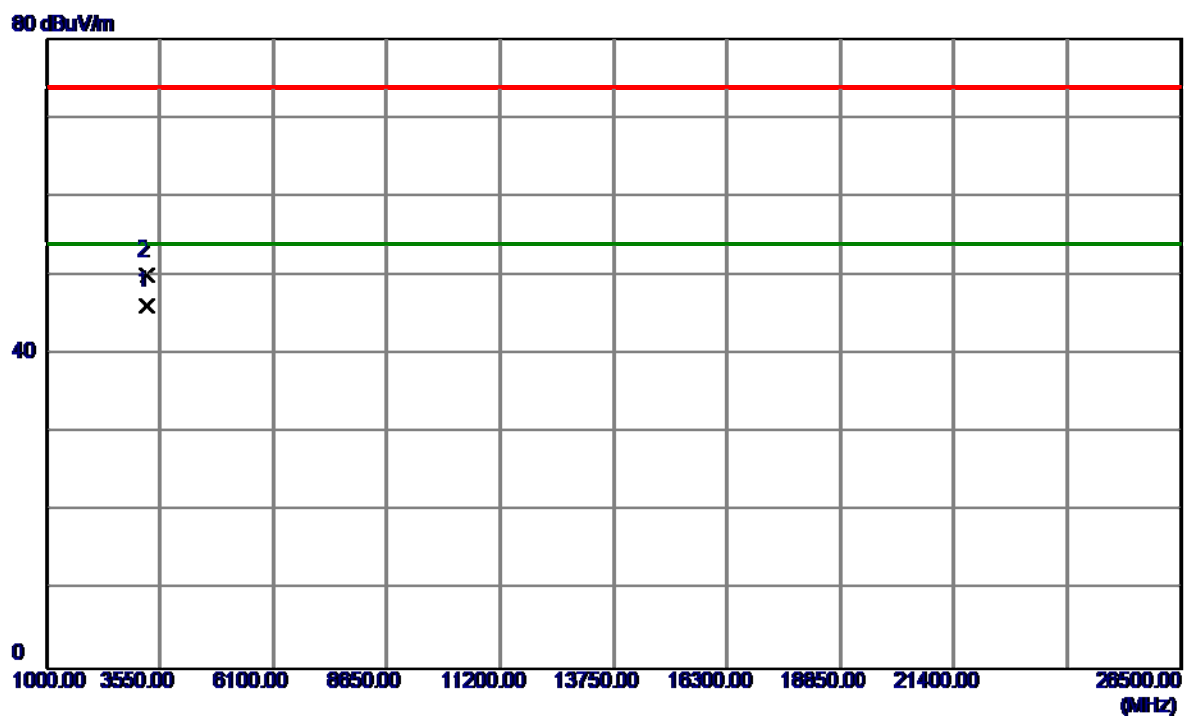
Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2454.8000	64.67	33.31	97.98	74.00	23.98	Peak	No Limit
2 *	2456.0000	52.50	33.32	85.82	54.00	31.82	AVG	No Limit
3	2483.5000	24.03	33.46	57.49	74.00	-16.51	Peak	
4	2483.5000	12.89	33.46	46.35	54.00	-7.65	AVG	

Orthogonal Axis :	X
Test Mode :	TX N-40M MODE 2452MHz

Horizontal



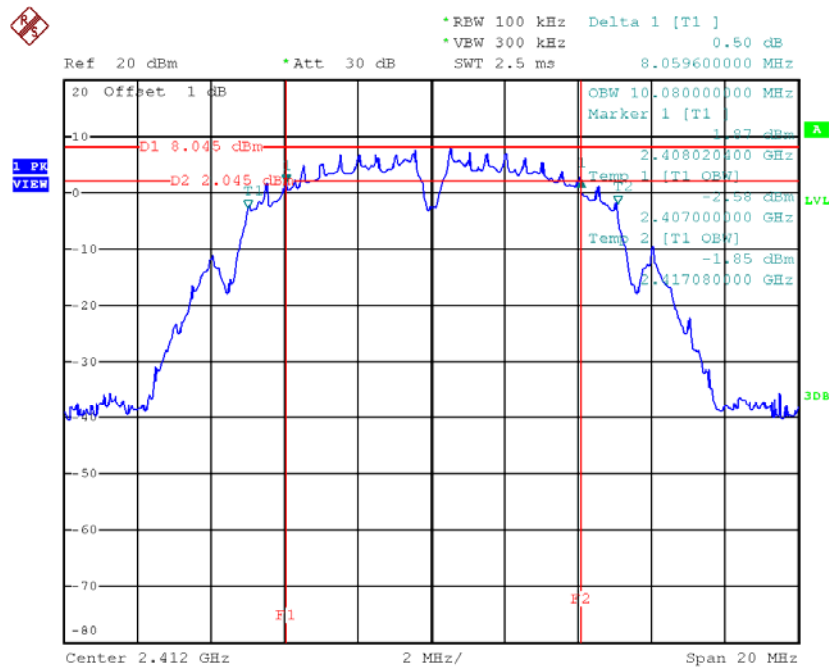
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	3269.3640	43.54	2.77	46.31	54.00	-7.69	AVG	
2	3269.4060	47.38	2.77	50.15	74.00	-23.85	Peak	

APPENDIX E - BANDWIDTH

Test Mode : TX B Mode_CH01/06/11

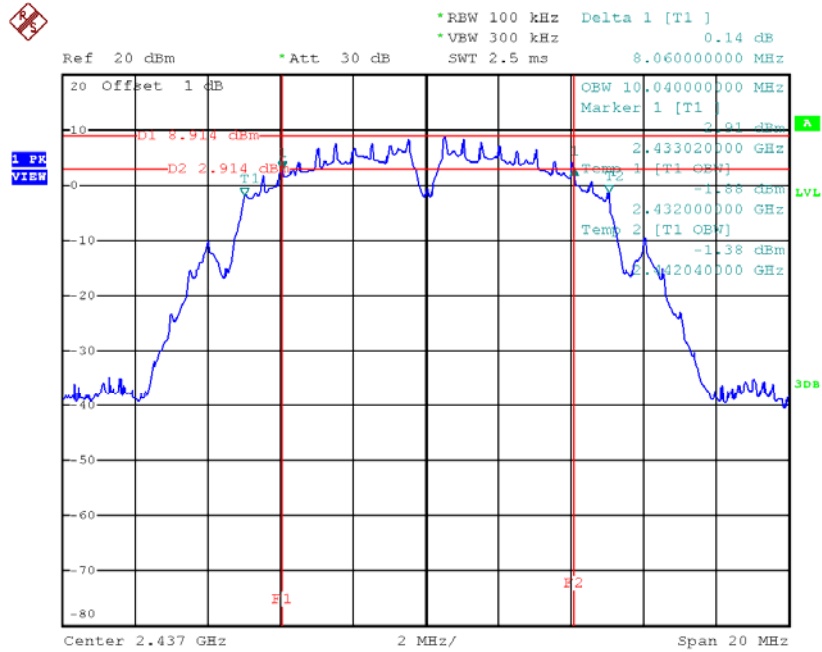
Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied BW (MHz)	Min. Limit (kHz)	Test Result
2412	8.06	10.08	500	Complies
2437	8.06	10.04	500	Complies
2462	8.10	10.12	500	Complies

TX CH01



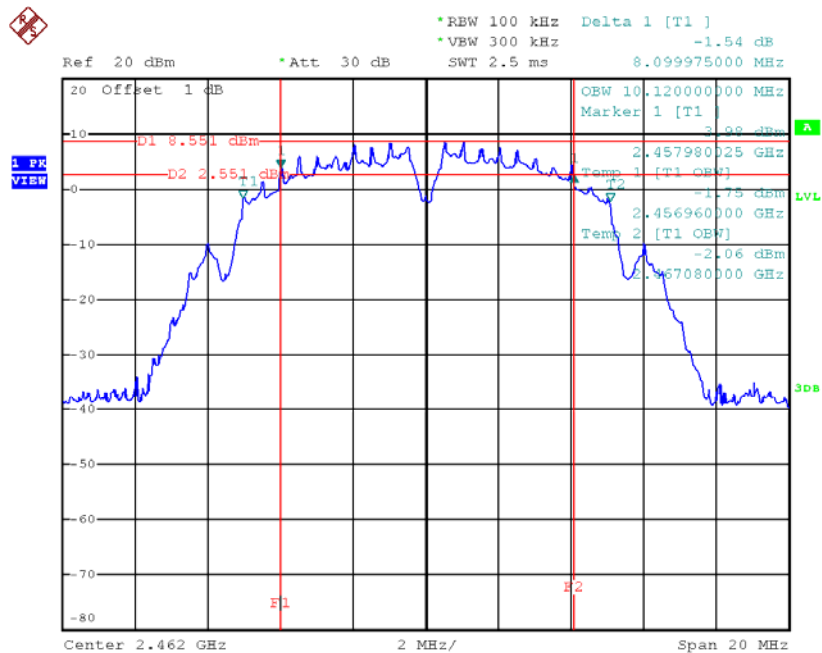
Date: 24.JAN.2018 11:03:59

TX CH06



Date: 24.JAN.2018 13:38:05

TX CH11

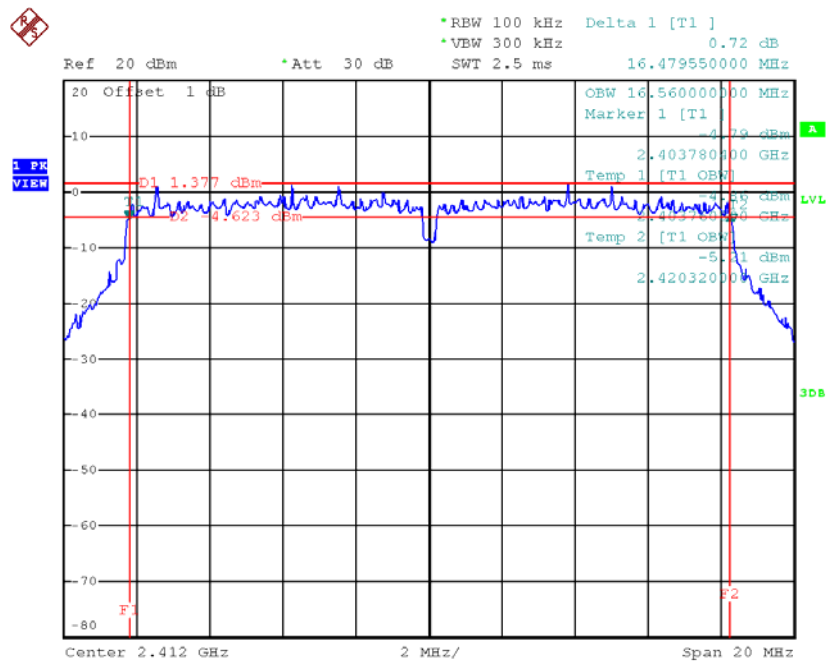


Date: 24.JAN.2018 13:39:30

Test Mode: TX G Mode_CH01/06/11

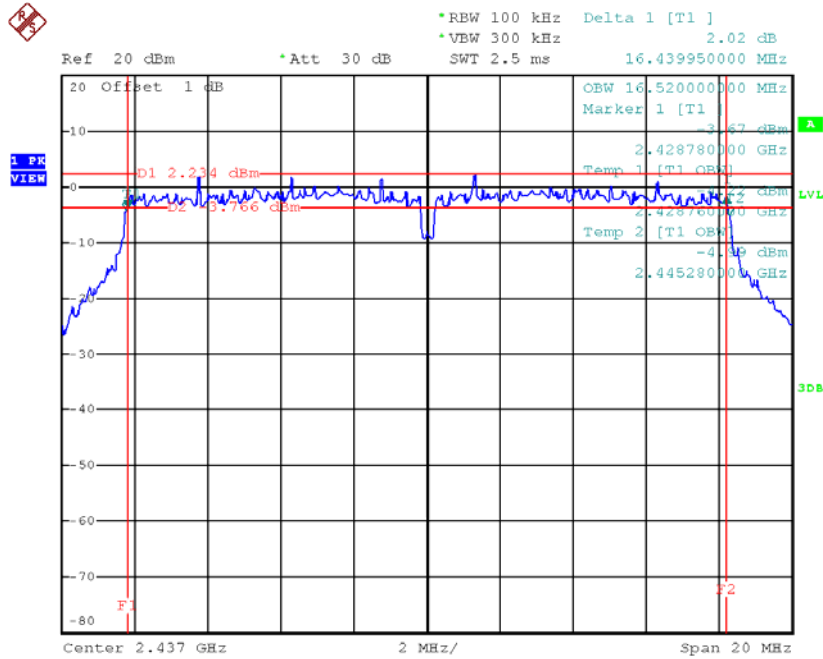
Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied BW (MHz)	Min. Limit (kHz)	Test Result
2412	16.48	16.56	500	Complies
2437	16.44	16.52	500	Complies
2462	16.41	16.52	500	Complies

TX CH01



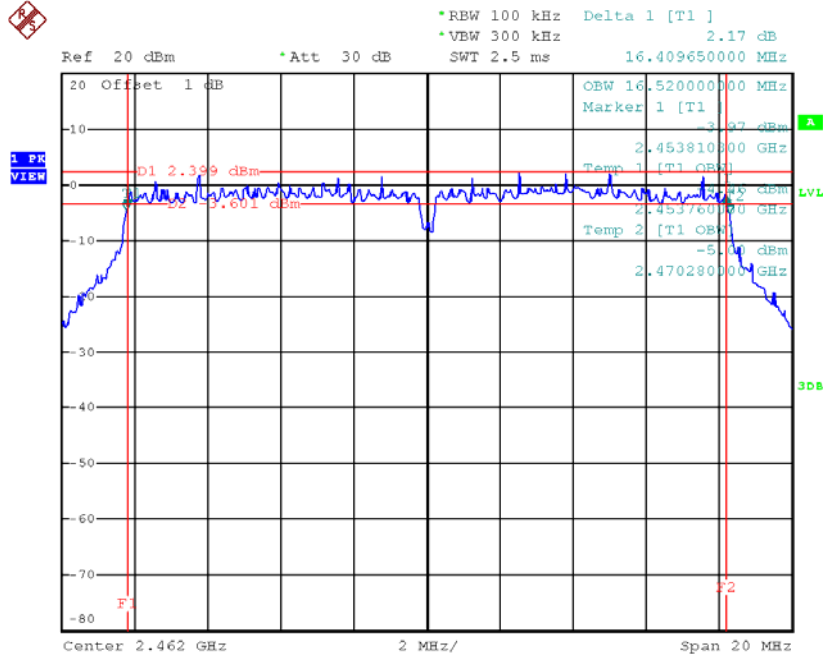
Date: 24.JAN.2018 13:41:39

TX CH06



Date: 24.JAN.2018 13:42:55

TX CH11

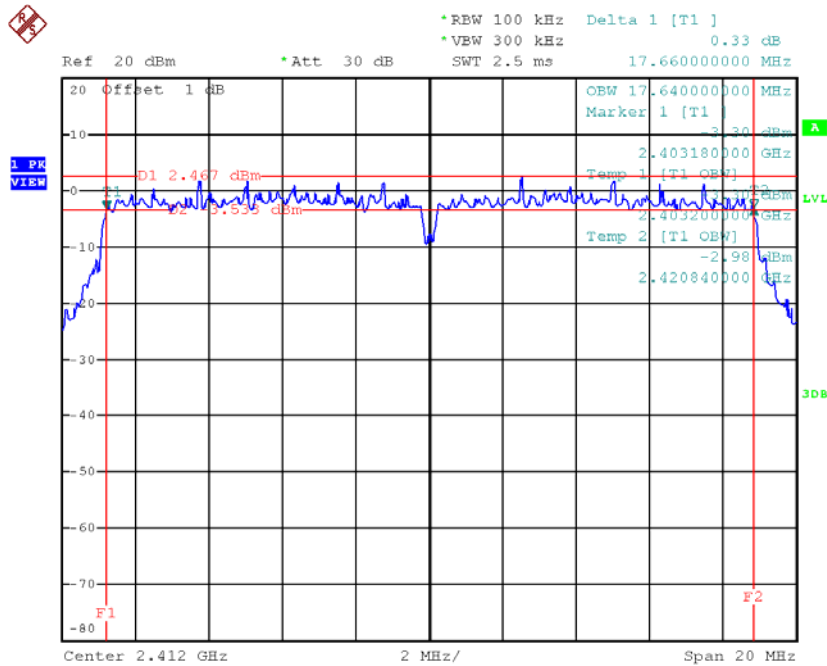


Date: 24.JAN.2018 13:44:12

Test Mode : TX N-20MHz Mode_CH01/06/11

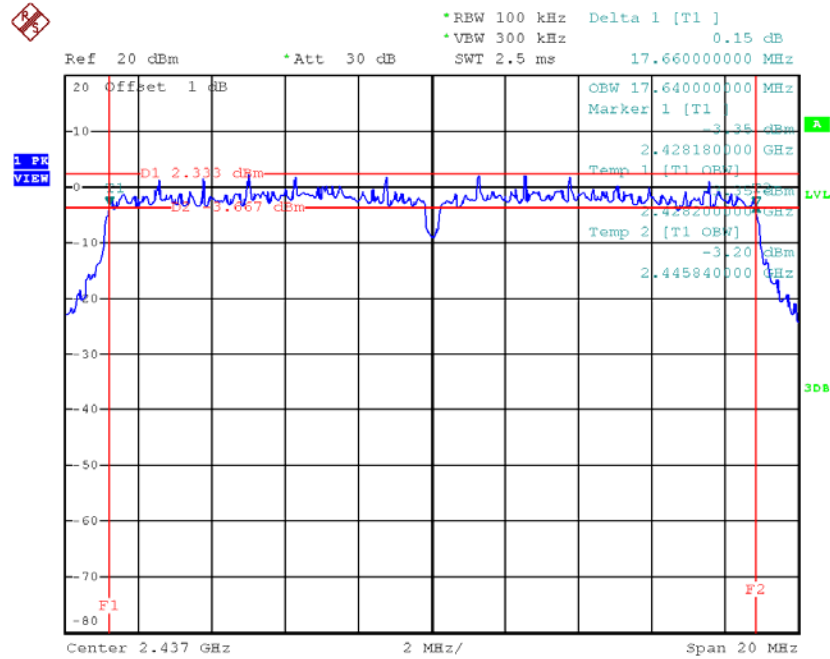
Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied BW (MHz)	Min. Limit (kHz)	Test Result
2412	17.66	17.64	500	Complies
2437	17.66	17.64	500	Complies
2462	17.67	17.68	500	Complies

TX CH01



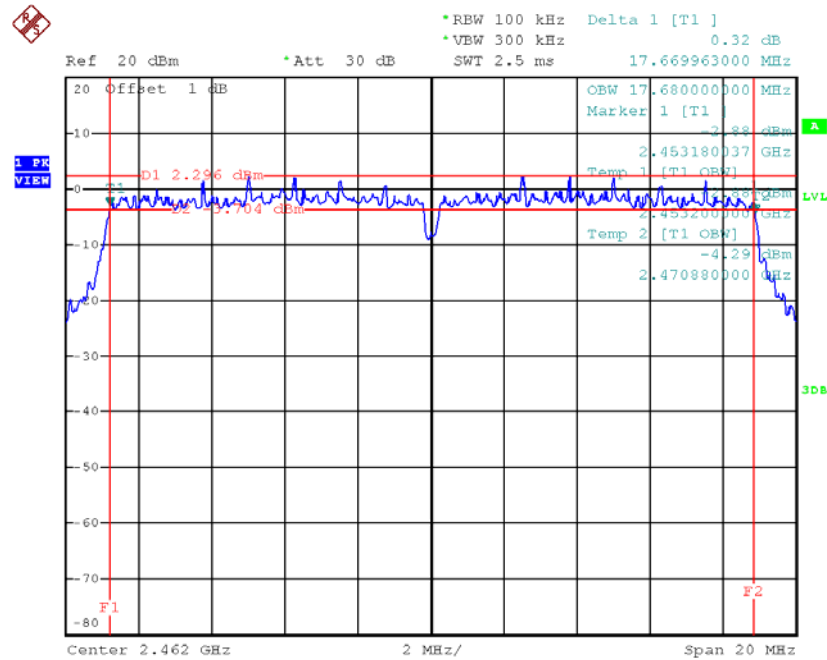
Date: 24.JAN.2018 13:56:19

TX CH06



Date: 24.JAN.2018 13:58:14

TX CH11

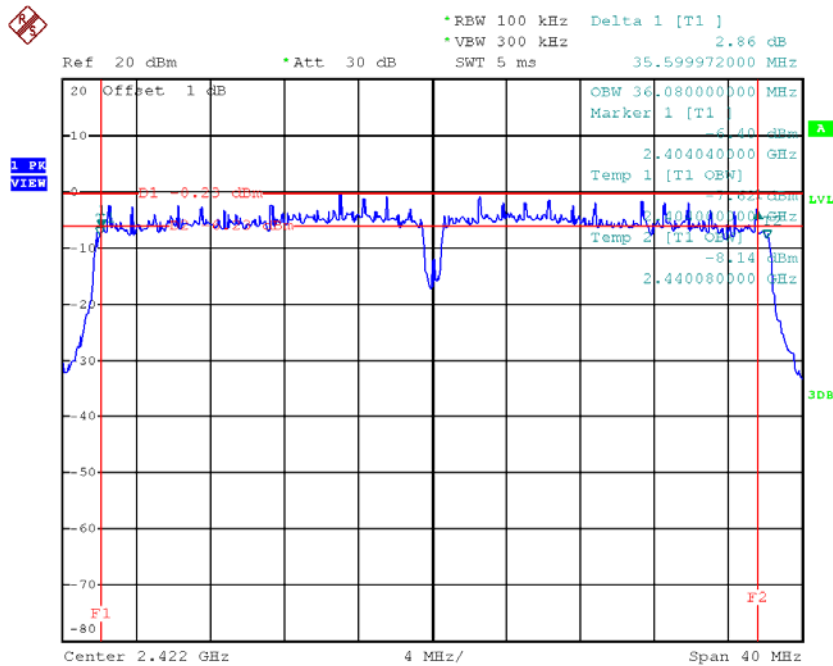


Date: 24.JAN.2018 14:00:39

Test Mode : TX N-40MHz Mode_CH03/06/09

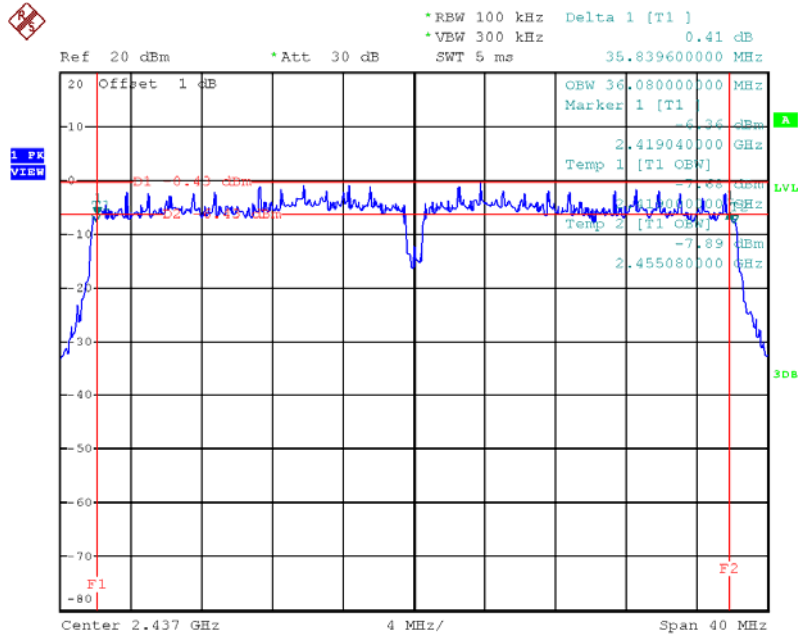
Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied BW (MHz)	Min. Limit (kHz)	Test Result
2422	35.60	36.08	500	Complies
2437	35.84	36.08	500	Complies
2452	35.83	36.08	500	Complies

TX CH03



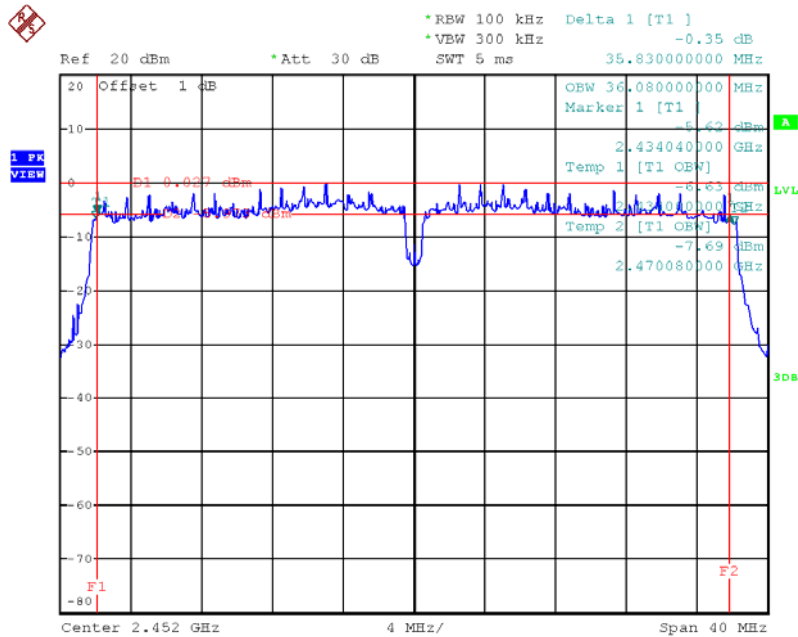
Date: 24.JAN.2018 14:06:29

TX CH06



Date: 24.JAN.2018 14:08:39

TX CH09



Date: 24.JAN.2018 14:10:22

APPENDIX F - MAXIMUM PEAK CONDUCTED OUTPUT POWER

Test Mode :TX B Mode_CH01/06/11					
Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2412	21.73	0.1489	30.00	1.00	Complies
2437	21.93	0.1560	30.00	1.00	Complies
2462	21.76	0.1500	30.00	1.00	Complies

Test Mode :TX G Mode_CH01/06/11_ANT 1					
Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2412	22.06	0.1607	30.00	1.00	Complies
2437	25.94	0.3926	30.00	1.00	Complies
2462	24.52	0.2831	30.00	1.00	Complies

Test Mode :TX G Mode_CH01/06/11_ANT 2					
Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2412	27.40	0.5495	30.00	1.00	Complies
2437	26.88	0.4875	30.00	1.00	Complies
2462	26.83	0.4819	30.00	1.00	Complies

Test Mode :TX G Mode_CH01/06/11_Total					
Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2412	28.51	0.7102	30.00	1.00	Complies
2437	29.45	0.8802	30.00	1.00	Complies
2462	28.84	0.7651	30.00	1.00	Complies

Test Mode :TX N20 Mode_CH01/06/11_ANT 1					
Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2412	25.58	0.3614	30.00	1.00	Complies
2437	24.14	0.2594	30.00	1.00	Complies
2462	25.29	0.3381	30.00	1.00	Complies

Test Mode :TX N20 Mode_CH01/06/11_ANT 2					
Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2412	25.93	0.3917	30.00	1.00	Complies
2437	27.25	0.5309	30.00	1.00	Complies
2462	26.01	0.3990	30.00	1.00	Complies

Test Mode :TX N20 Mode_CH01/06/11_Total					
Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2412	28.77	0.7532	30.00	1.00	Complies
2437	28.98	0.7903	30.00	1.00	Complies
2462	28.68	0.7371	30.00	1.00	Complies

Test Mode :TX N40 Mode_CH03/06/09_ANT 1					
Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2422	24.02	0.2523	30.00	1.00	Complies
2437	26.15	0.4121	30.00	1.00	Complies
2452	26.72	0.4699	30.00	1.00	Complies

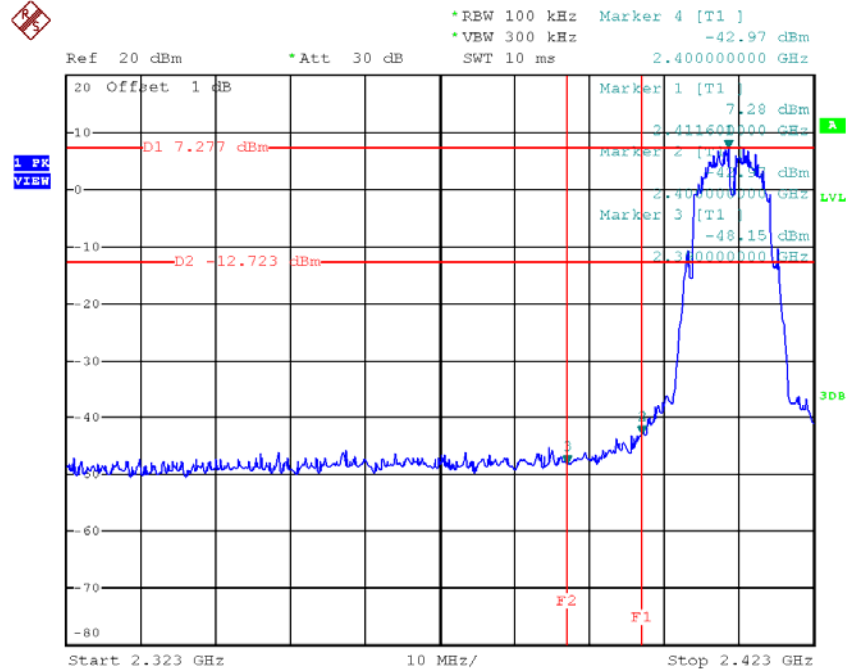
Test Mode :TX N40 Mode_CH03/06/09_ANT 2					
Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2422	27.27	0.5333	30.00	1.00	Complies
2437	25.06	0.3206	30.00	1.00	Complies
2452	24.68	0.2938	30.00	1.00	Complies

Test Mode :TX N40 Mode_CH03/06/09_Total					
Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2422	28.95	0.7857	30.00	1.00	Complies
2437	28.65	0.7327	30.00	1.00	Complies
2452	28.83	0.7637	30.00	1.00	Complies

APPENDIX G - ANTENNA CONDUCTED SPURIOUS EMISSION

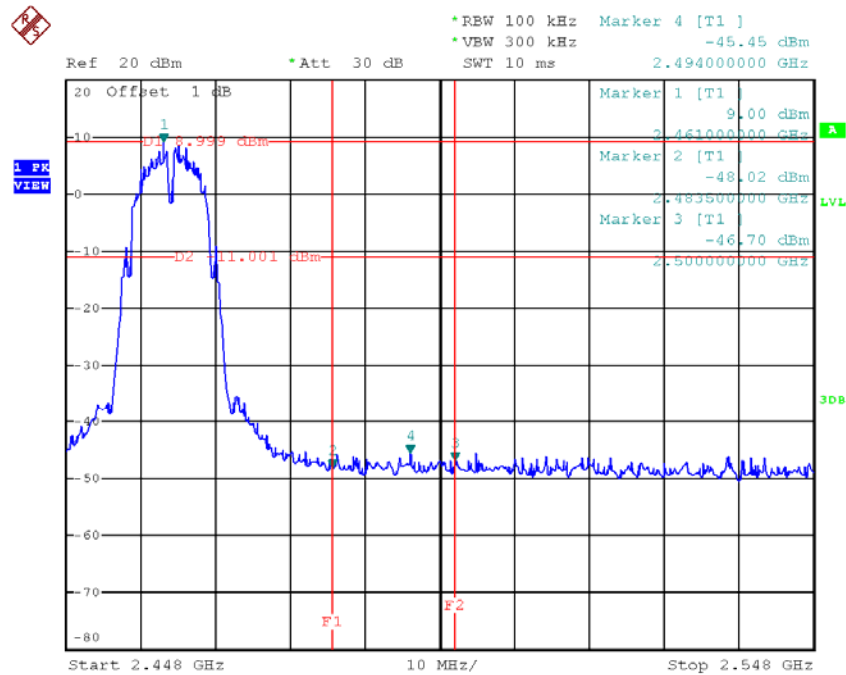
Test Mode : TX B Mode

TX B mode CH01



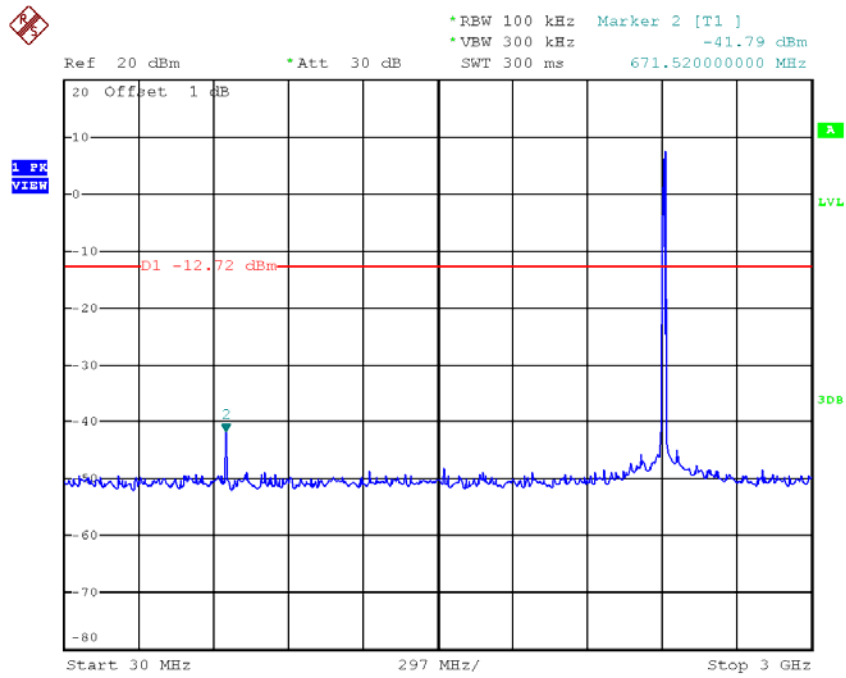
Date: 24.JAN.2018 11:04:06

TX B mode CH11

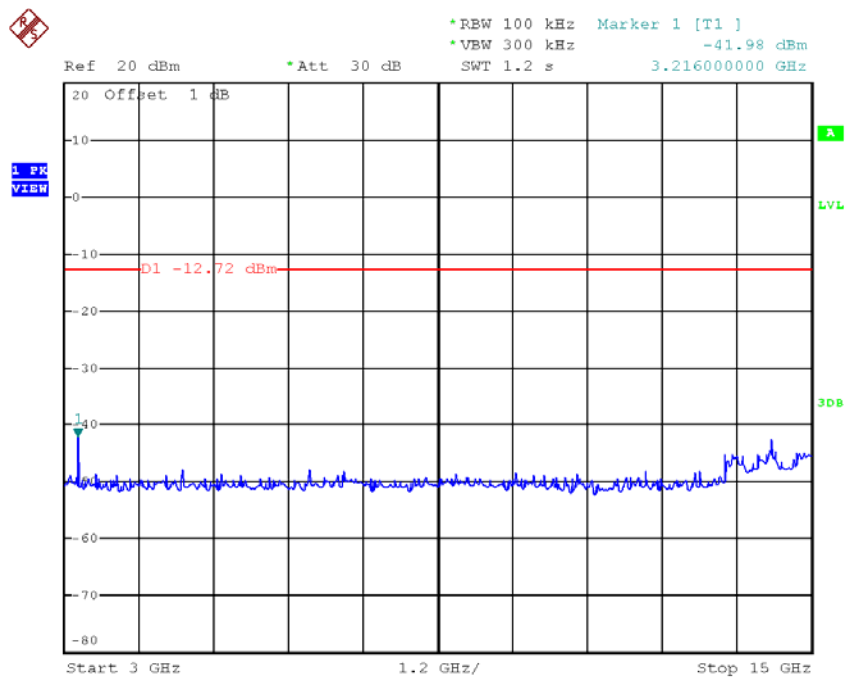


Date: 24.JAN.2018 13:39:37

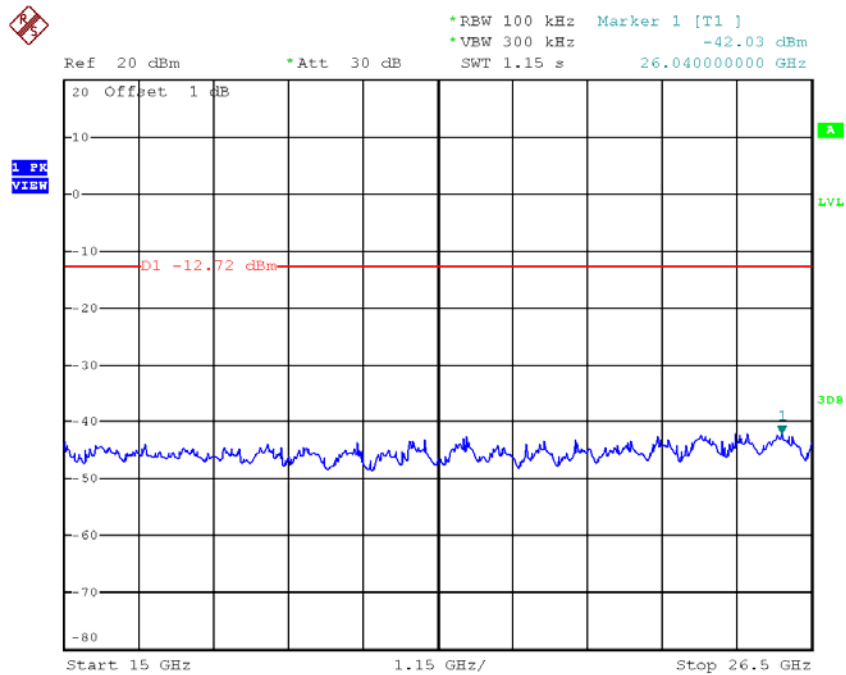
TX B mode CH01 (10 Harmonic of the frequency)



Date: 24.JAN.2018 11:04:19

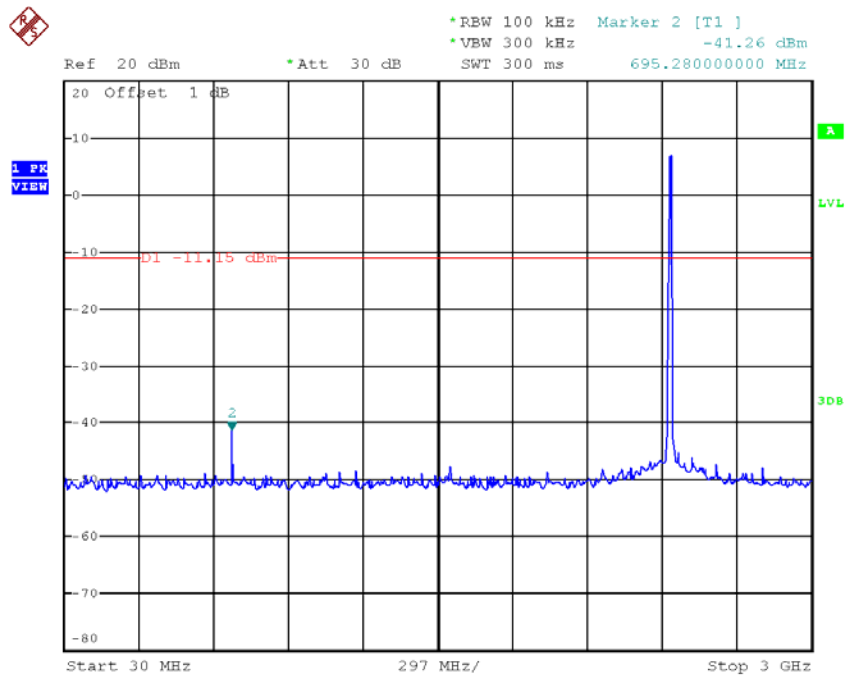


Date: 24.JAN.2018 11:04:26

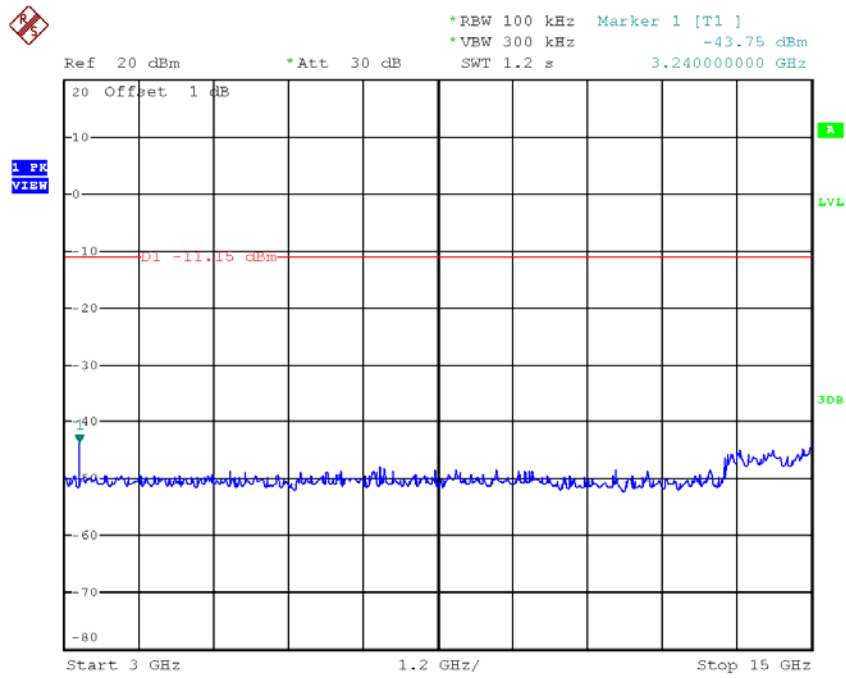


Date: 24.JAN.2018 11:04:33

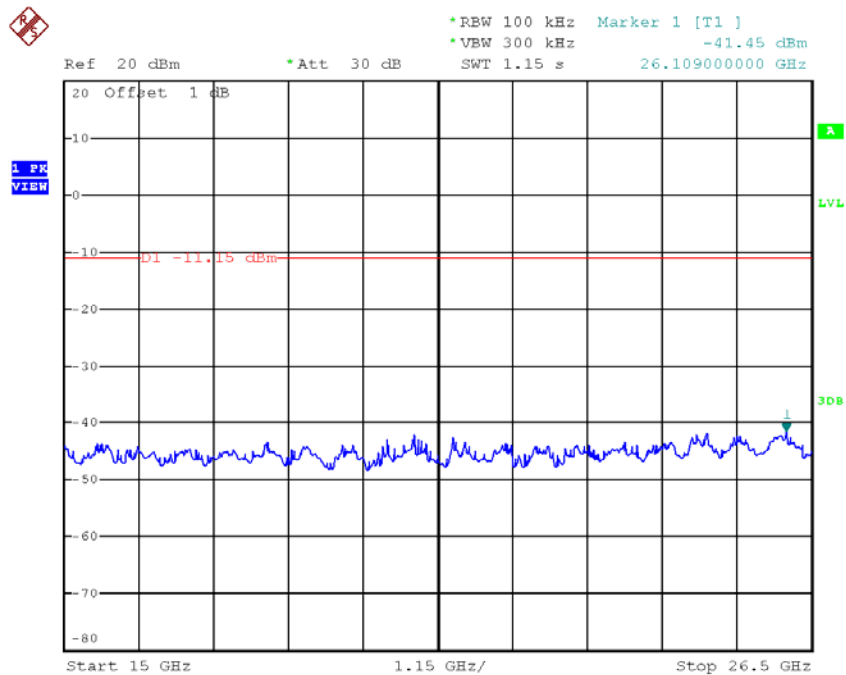
TX B mode CH06 (10 Harmonic of the frequency)



Date: 24.JAN.2018 13:38:25

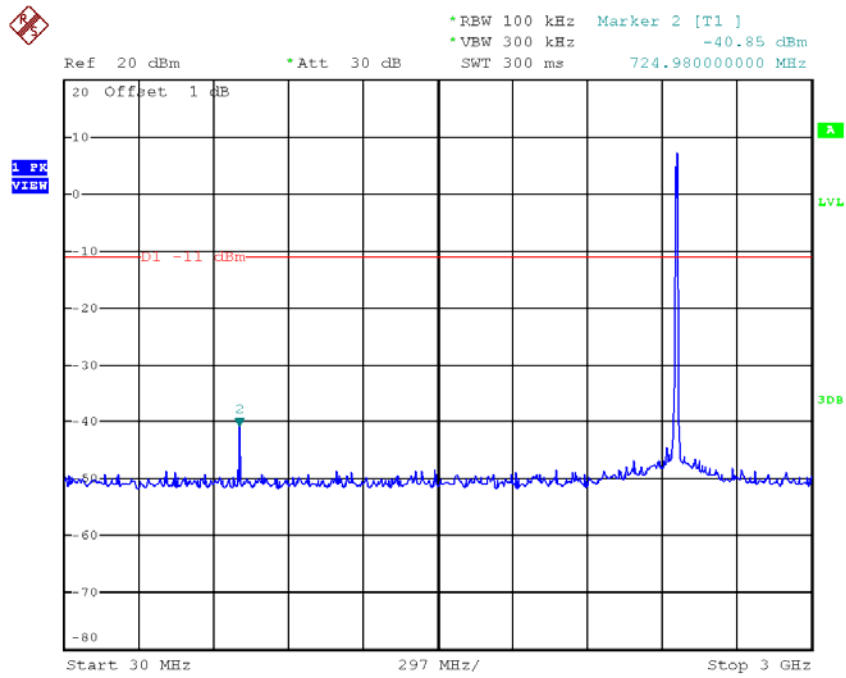


Date: 24.JAN.2018 13:38:32

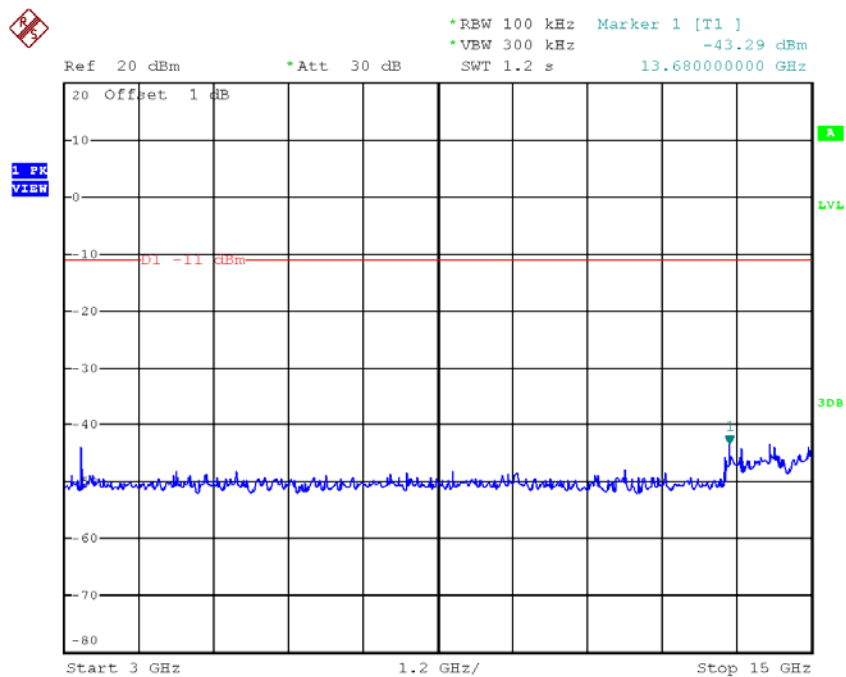


Date: 24.JAN.2018 13:38:39

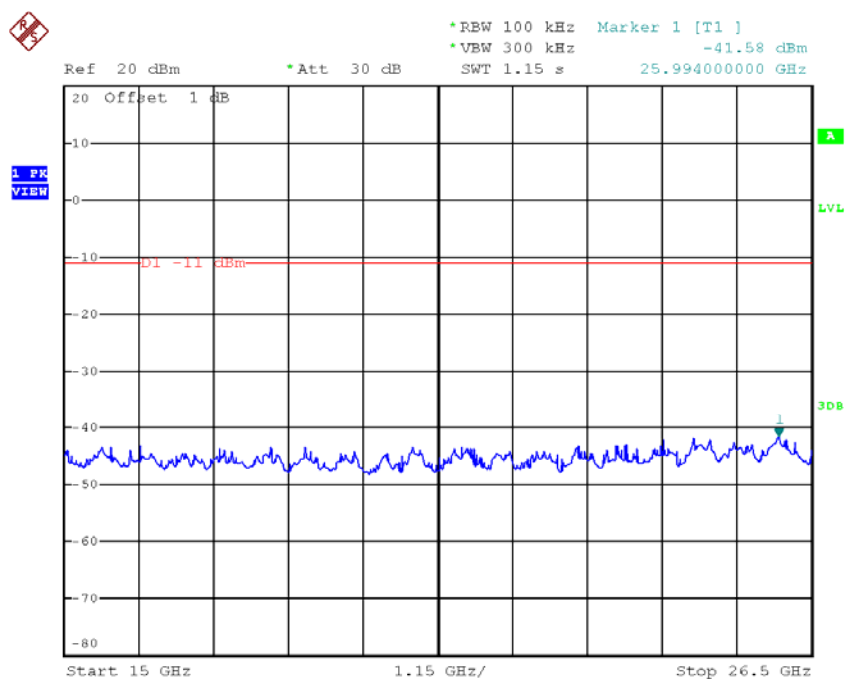
TX B mode CH11 (10 Harmonic of the frequency)



Date: 24.JAN.2018 13:39:50



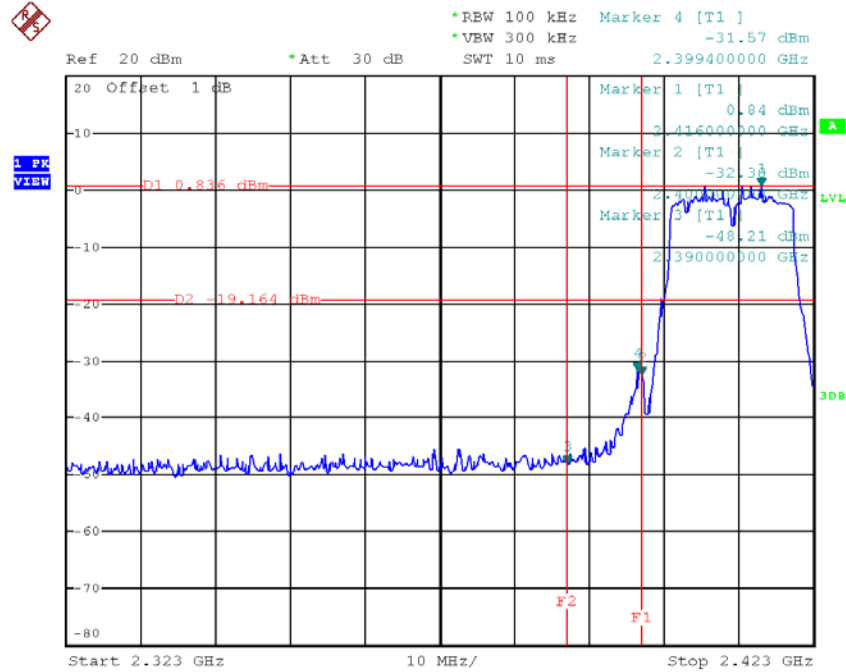
Date: 24.JAN.2018 13:39:57



Date: 24.JAN.2018 13:40:04

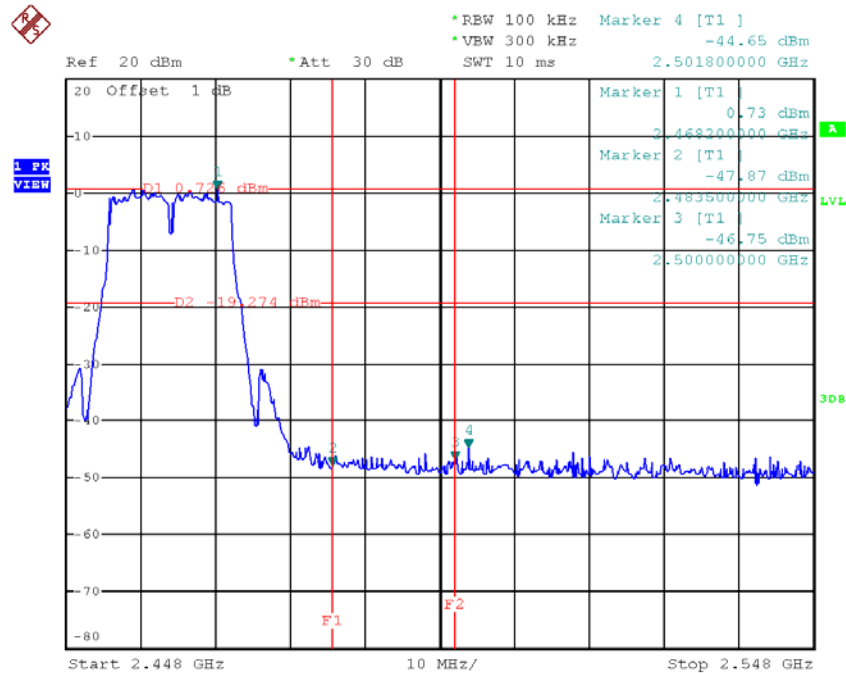
Test Mode : TX G Mode_ANT 1

TX G mode CH01



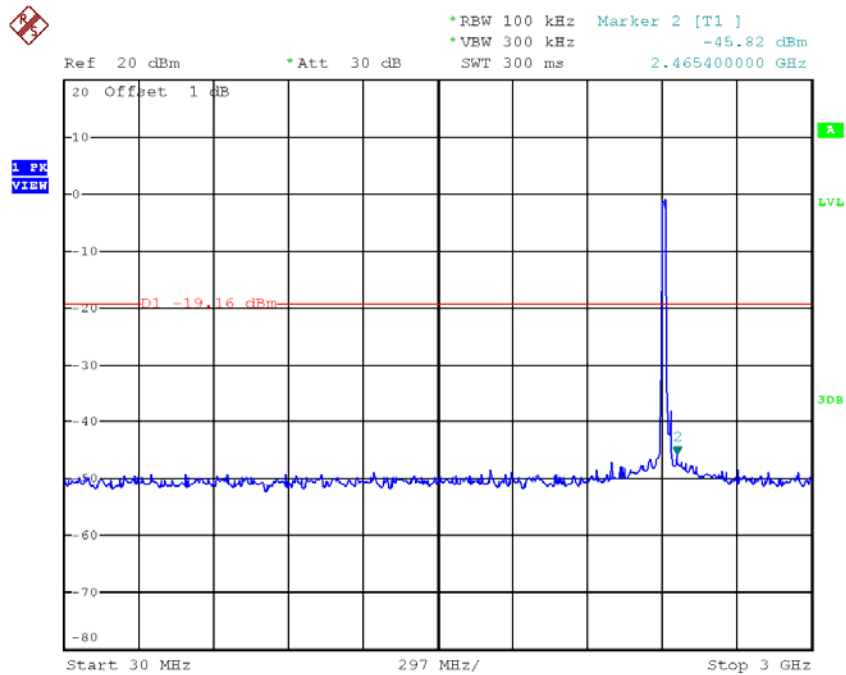
Date: 24.JAN.2018 13:41:46

TX G mode CH11

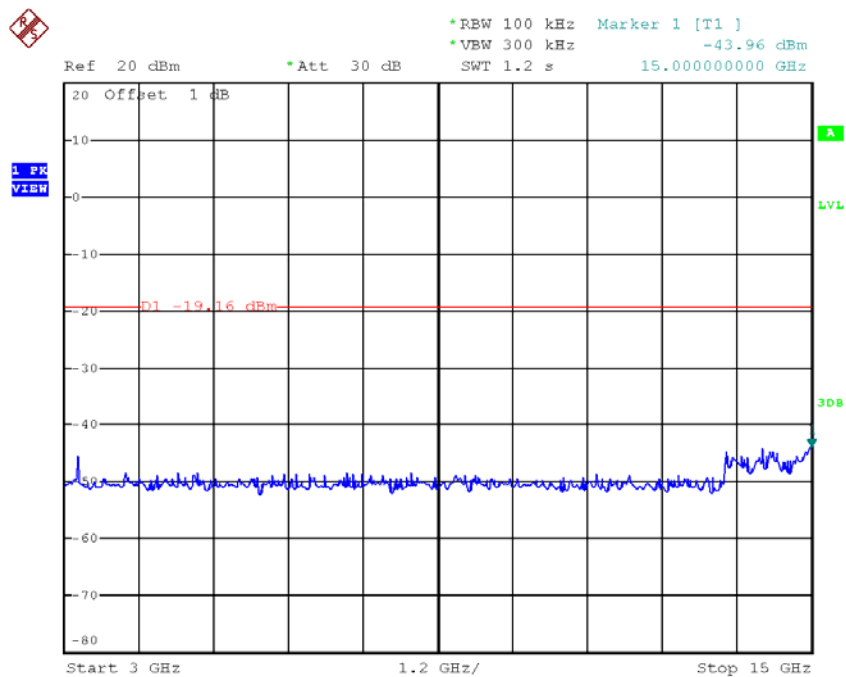


Date: 24.JAN.2018 13:44:19

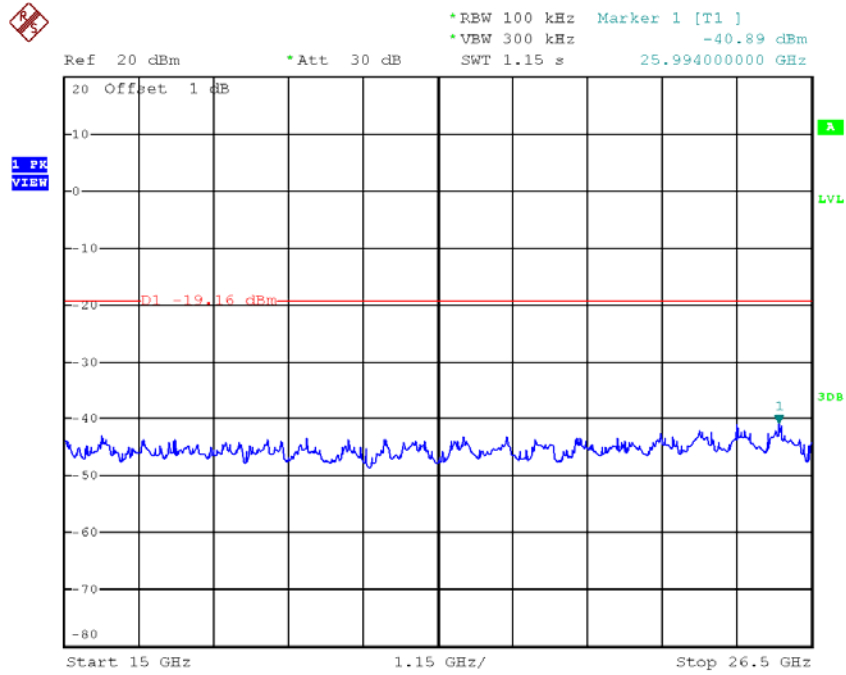
TX G mode CH01 (10 Harmonic of the frequency)



Date: 24.JAN.2018 13:41:59

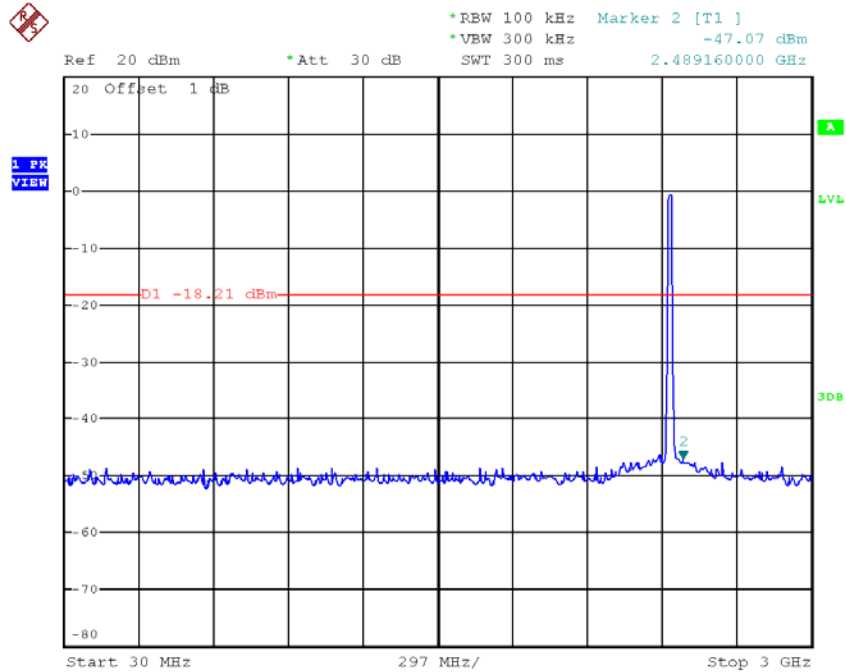


Date: 24.JAN.2018 13:42:06

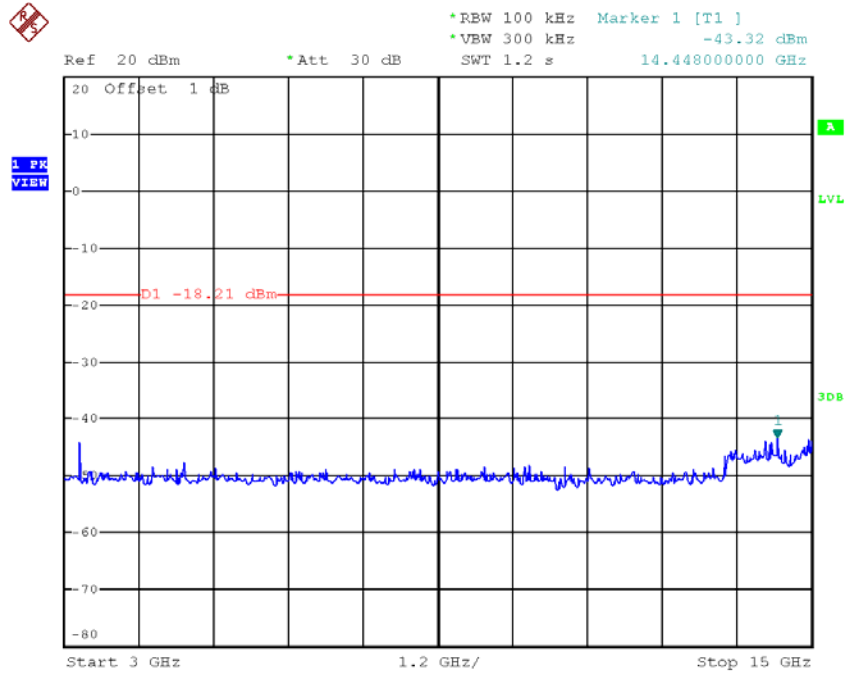


Date: 24.JAN.2018 13:42:13

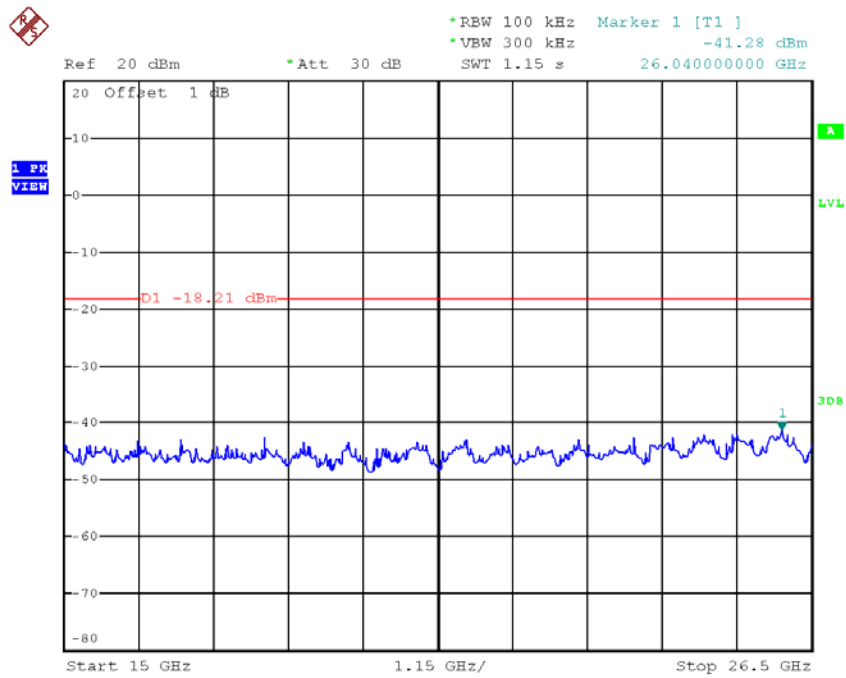
TX G mode CH06 (10 Harmonic of the frequency)



Date: 24.JAN.2018 13:43:15

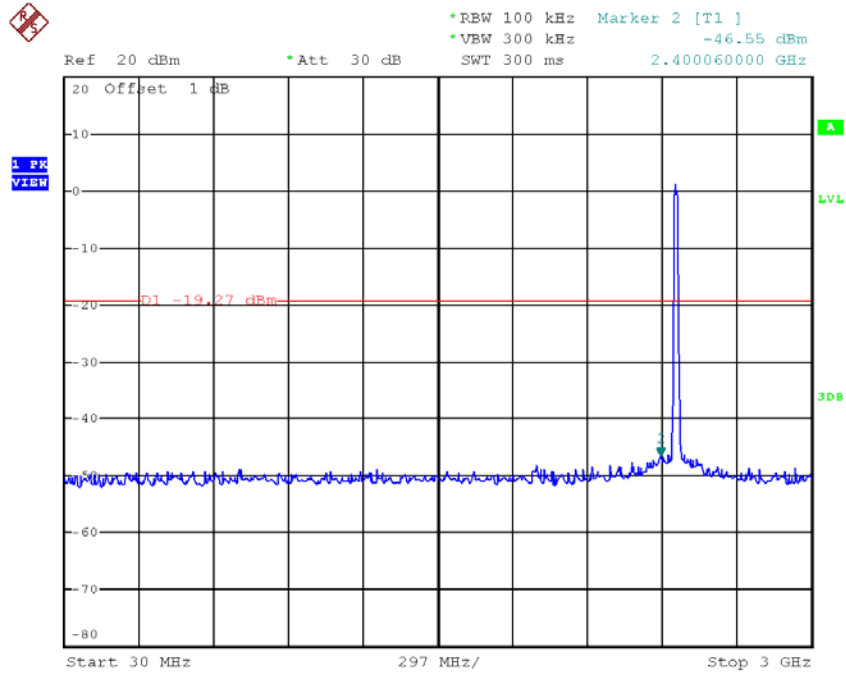


Date: 24.JAN.2018 13:43:22

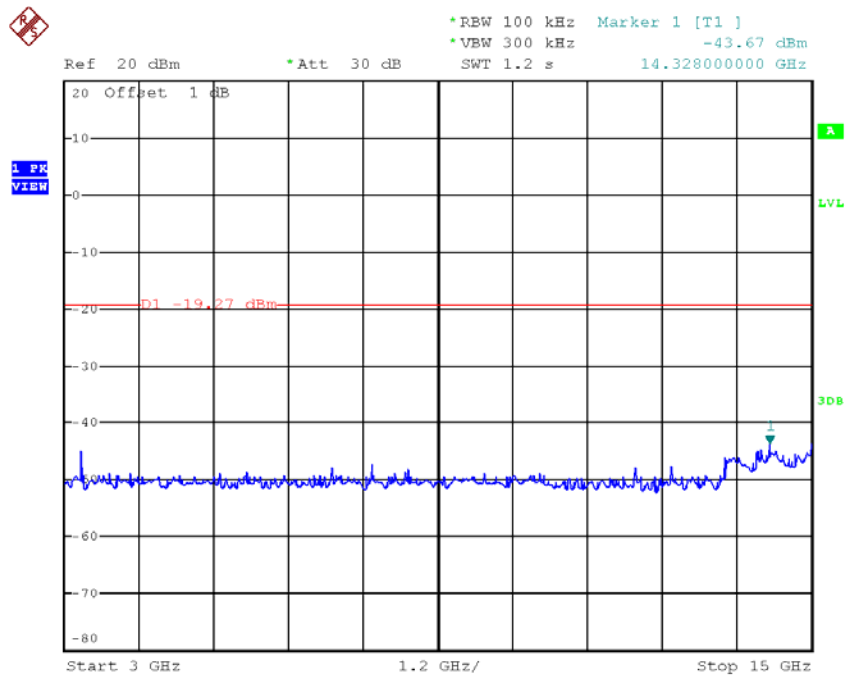


Date: 24.JAN.2018 13:43:29

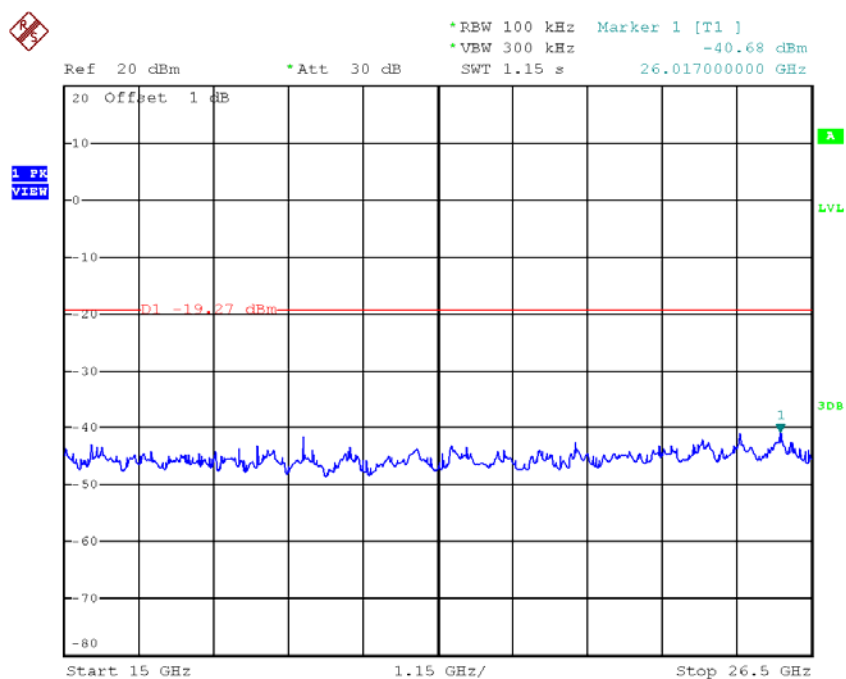
TX G mode CH11 (10 Harmonic of the frequency)



Date: 24.JAN.2018 13:44:32



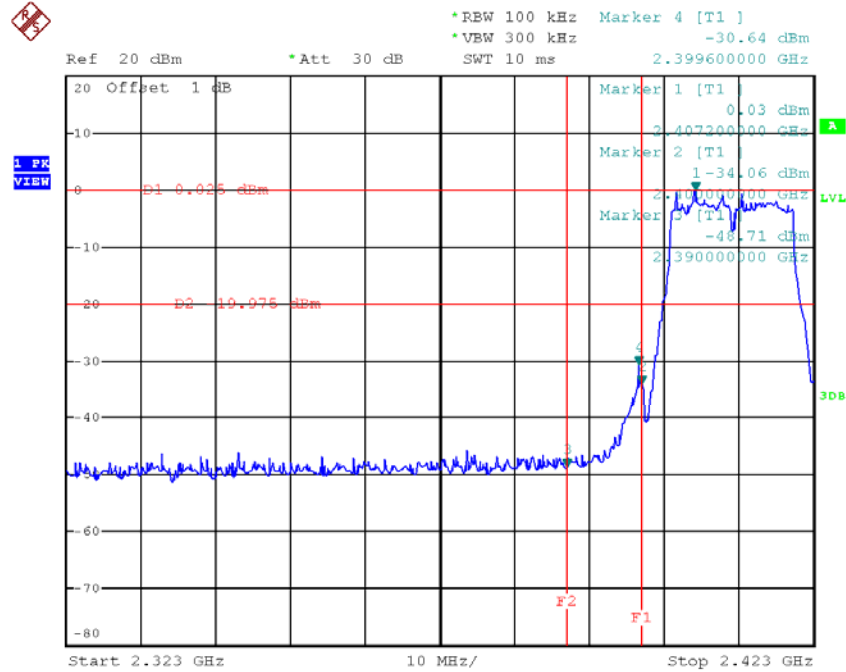
Date: 24.JAN.2018 13:44:39



Date: 24.JAN.2018 13:44:46

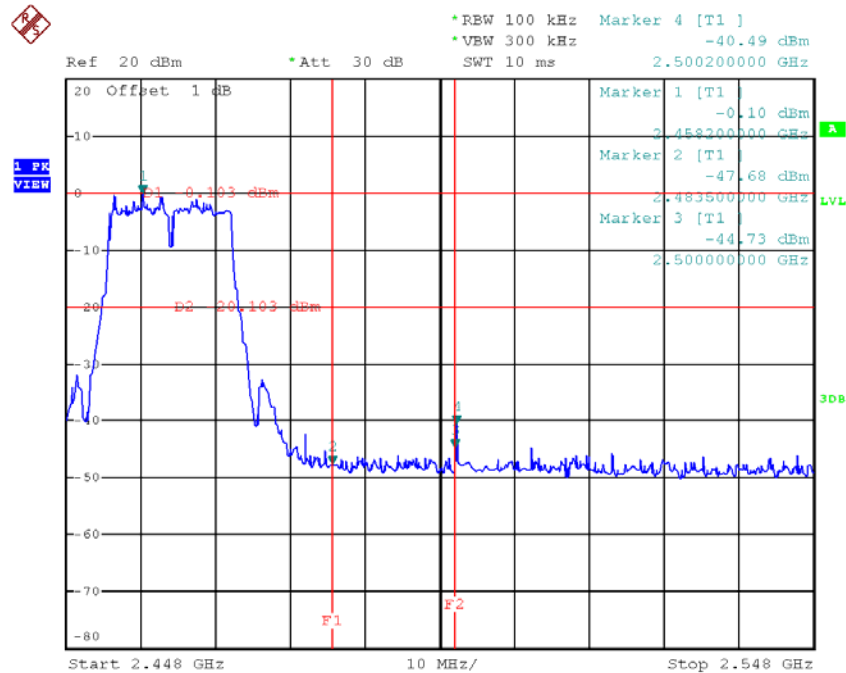
Test Mode : TX G Mode_ANT 2

TX G mode CH01



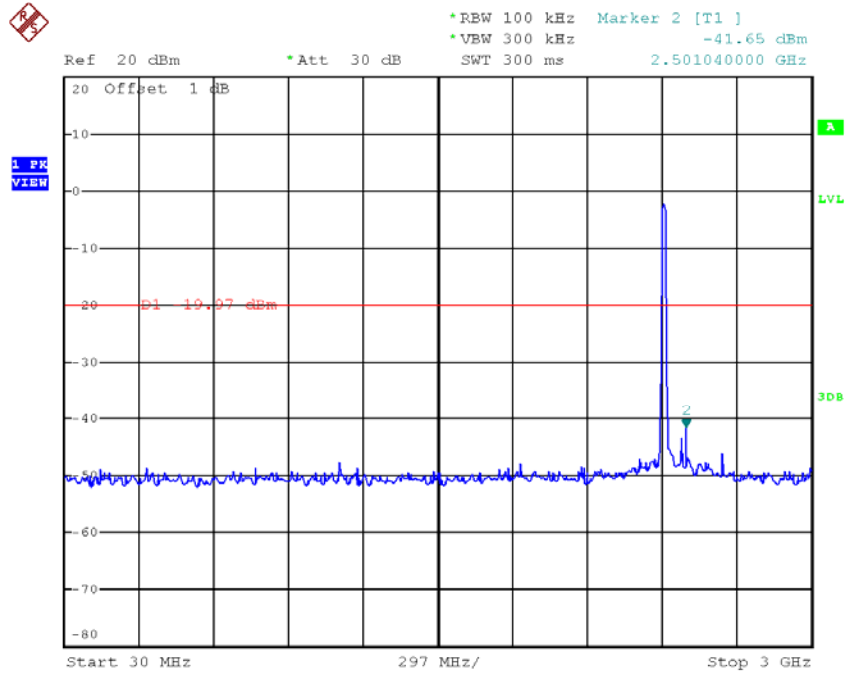
Date: 24.JAN.2018 13:46:51

TX G mode CH11

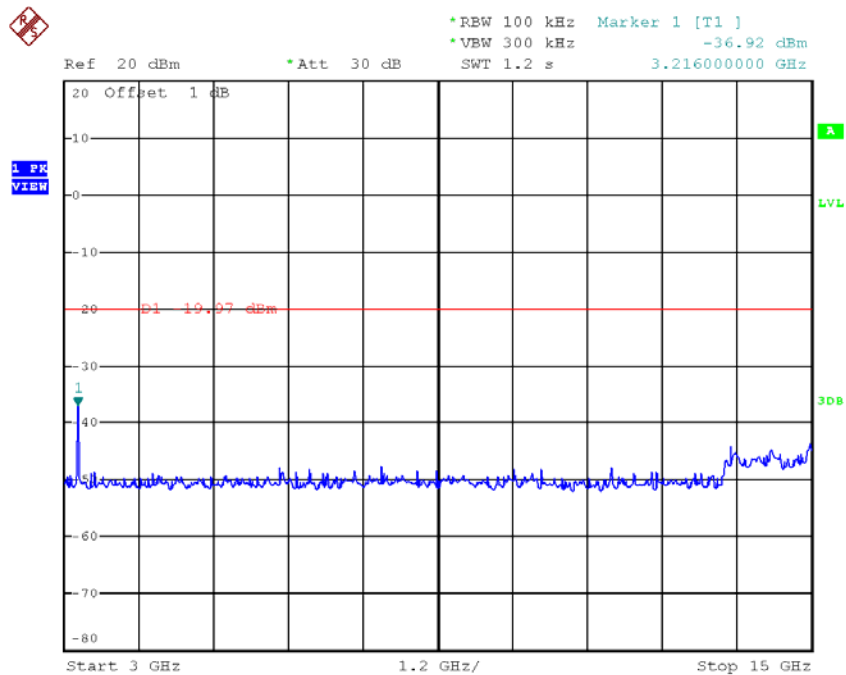


Date: 24.JAN.2018 13:49:27

TX G mode CH01 (10 Harmonic of the frequency)



Date: 24.JAN.2018 13:47:04



Date: 24.JAN.2018 13:47:11