FCC Radio Test Report

FCC ID:W59XAP1240

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

Project No.	:	1507C072
Equipment	:	High Power Wireless 300N Outdoor AP
Model Name	:	XAP-1240
Applicant	:	Luxul Wireless
Address	:	14203 Minuteman Drive, Suite 201, Draper, UT USA

Date of Receipt	:	Jul. 20, 2015
Date of Test	:	Jul. 20, 2015 ~ Aug. 03, 2015
Issued Date	:	Aug. 04, 2015
Tested by	:	BTL Inc.

Testing Engineer : David Mao
(David Mao)

Technical Manager : Leo Hung
(Leo Hung)

Authorized Signatory : Steven Lu
(Steven Lu)

BTL INC.

No.3,Jinshagang 1st Road, Shixia,Dalang Town, Dongguan, Guangdong, China.
TEL: +86-769-8318-3000FAX: +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 the standards traceable to National Measurement Laboratory (**NML**) of **R.O.C**, or National Institute of Standards and Technology (**NIST**) of **U.S.A.**

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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.

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REPORT ISSUED HISTORY

Issued No.	Description	Issued Date
BTL-FCCP-1-1507C072	Original Issue.	Aug. 04, 2015

1. CERTIFICATION

Equipment	:	High Power Wireless 300N Outdoor AP
Brand Name	:	LUXUL
Model Name	:	XAP-1240
Applicant	:	Luxul Wireless
Manufacturer	:	Luxul Wireless
Address	:	14203 Minuteman Drive, Suite 201, Draper, UT USA
Date of Test	:	Jul. 20, 2015 ~ Aug. 03, 2015
Test Sample	:	Engineering Sample
Standard(s)	:	FCC Part15, Subpart C: 2014 (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-1-1507C072) were obtained utilizing the test procedures, test instruments, test sites that has been accredited by the Authority of TAF 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: 2014			
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	
15.209/15.205	Transmitter Radiated Emissions	PASS	

NOTE:

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

(2) The test follows FCC KDB Publication No. 558074 D01 DTS Meas Guidance v03r03 (Measurement Guidelines of DTS)

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: 319330

2.2 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimatedfor tests performed on the EUT as specified in CISPR 16-4-2. The BTL measurement uncertainty is less than the CISPR 16-4-2 U_{cispr} requirement.

The reported uncertainty of measurement y ± U, where expanded uncertainty U is based on astandard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95%.

A. Conducted Measurement:

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

B. Radiated Measurement:

Test Site	Method	Measurement Frequency Range	Ant. H / V	U, (dB)	Note
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	High Power Wireless 300N Outdoor AP	
Brand Name	LUXUL	
Model Name	XAP-1240	
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: 28.31dBm 802.11g: 28.89dBm 802.11n(20MHz): 28.55dBm 802.11n(40MHz): 27.80dBm
PowerSource	DC voltage supplied from PoE Power Supply. Manufacturer: Fo Shan Great Power Co., Ltd. Model: GRT-480125A	
Power Rating	I/P: AC100-240V 50/60Hz O/P: DC48V 1.25A	

Note:

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

2. Channel List:

CH01–CH11 for 802.11b, 802.11g, 802.11n(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)	Note
1	N/A	N/A	Internal	N/A	7	TX/RX
2	N/A	N/A	Internal	N/A	7	TX/RX

Note:

The EUT incorporates a MIMO function. Physically, the EUT provides two completed transmitters and receivers (2T2R), all transmit signals are completely uncorrelated, then,**Direction gain = G_{ANT}**, that is Directional gain=7. So,

the out power limit is 30-7+6=29,

the power density limit is 8-7+6=7.

(1) For IEEE 802.11b/g mode (1TX/1RX):

The EUT supports the antenna with TX and RX diversity functions.

Both Ant. 1 and Ant. 2 support transmit and receive functions, but only one of them will be used atone time.

The Ant. 1 generated the worst case, so it was selected to test and record in the report.

For IEEE 802.11n mode (2TX/2RX):

Both Ant. 1 and Ant. 2 can be used as transmitting/receiving antenna.

Ant. 1 and Ant. 2 could both transmit/receive simultaneously.

3.2 DESCRIPTION OF TEST MODES

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible 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 HT40mode : BPSK (27Mbps)
For radiated emission tests, the highest output powers were set for final test.

(3)For radiated below 1G test, the 802.11bis found to be the worst case and recorded.

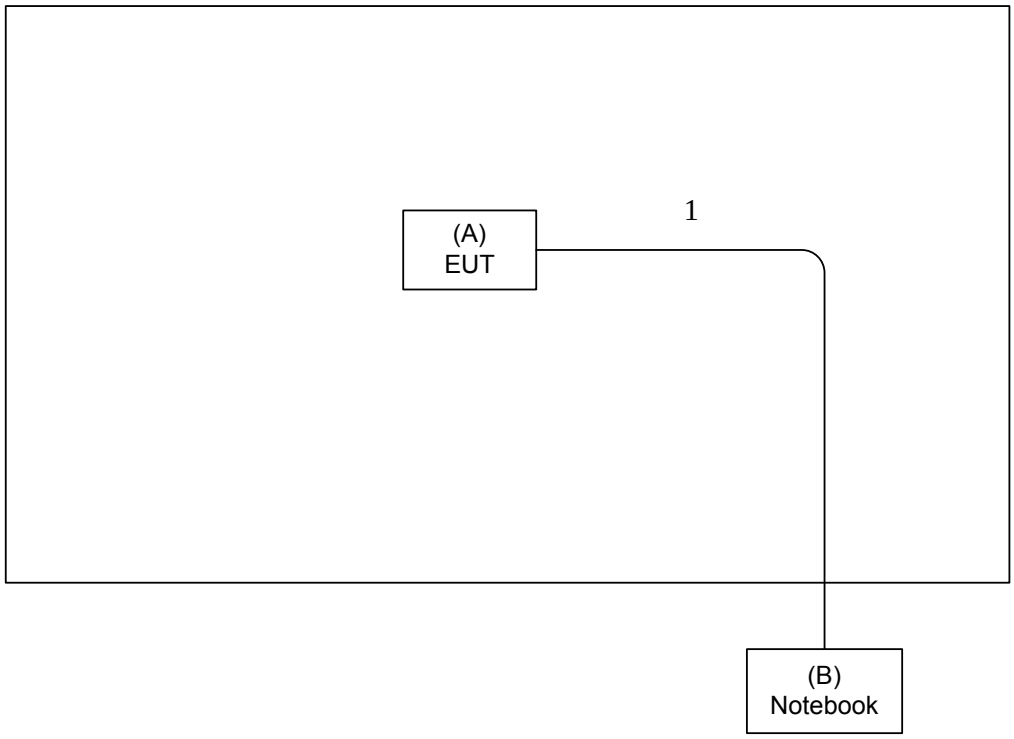
(4) The EUT was programmed to be in continuously transmitting mode and the transmit duty cycle is not less than 98%.

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	MTool_2.0.1.7		
Frequency (MHz)	2412	2437	2462
802.11b	100	116	100
802.11g	80	95	80
802.11n (20MHz)	68/68	68/69	68/68
Frequency (MHz)	2422	2437	2452
802.11n (40MHz)	50/70	43/50	71/44

3.4 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



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.	Note
B	Notebook	DELL	Inspiron 14-3437	NA	NA	

Item	Shielded Type	Ferrite Core	Length	Note
1	NO	NO	8m	RJ45 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

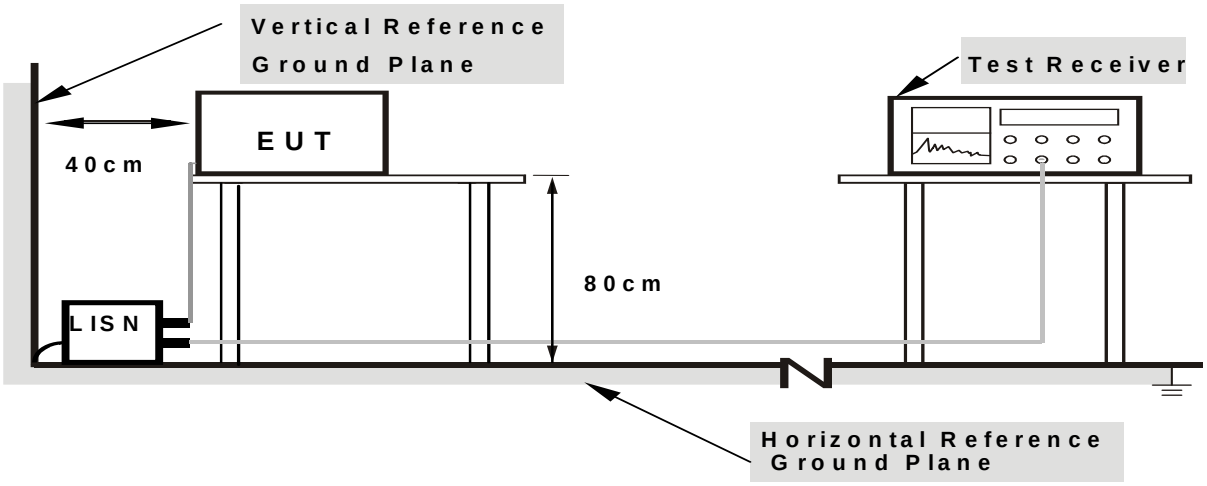
4.1.2 TEST PROCEDURE

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 equipmentspowered 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 groundplane 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
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 Attachment A.

4.2 RADIATED EMISSION MEASUREMENT

4.2.1 RADIATED EMISSION LIMITS

20dBin any 100 KHz bandwidth outside the operating frequency band. 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 15C47.

(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

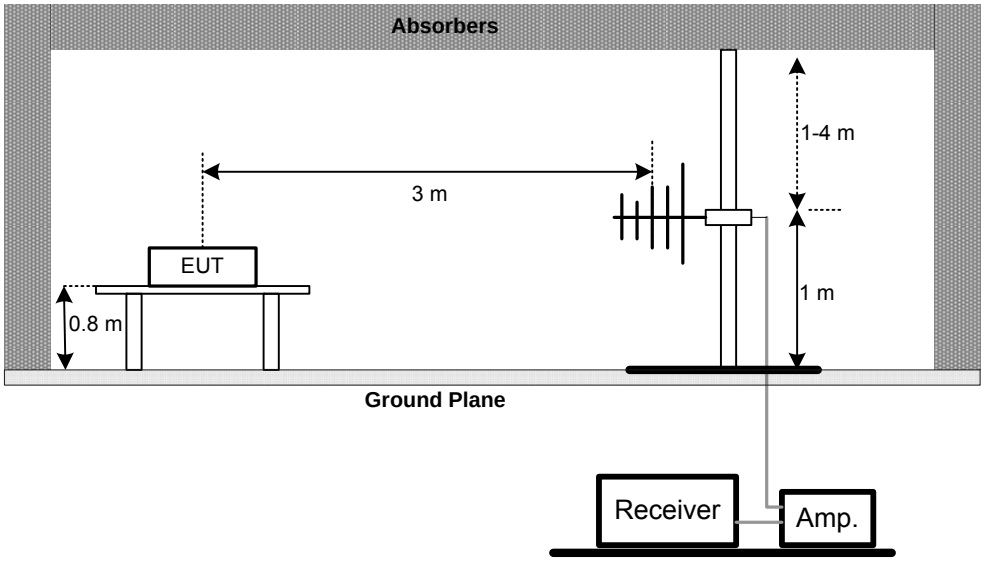
a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(below 1GHz)
b. The EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(above 1GHz)
c. The height of the equipment or of the substitution antenna shall be 0.8 m or 1.5 m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
d. The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
e. If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.
f. For the actual test configuration, please refer to the related Item –EUT Test Photos.

4.2.3 DEVIATION FROM TEST STANDARD

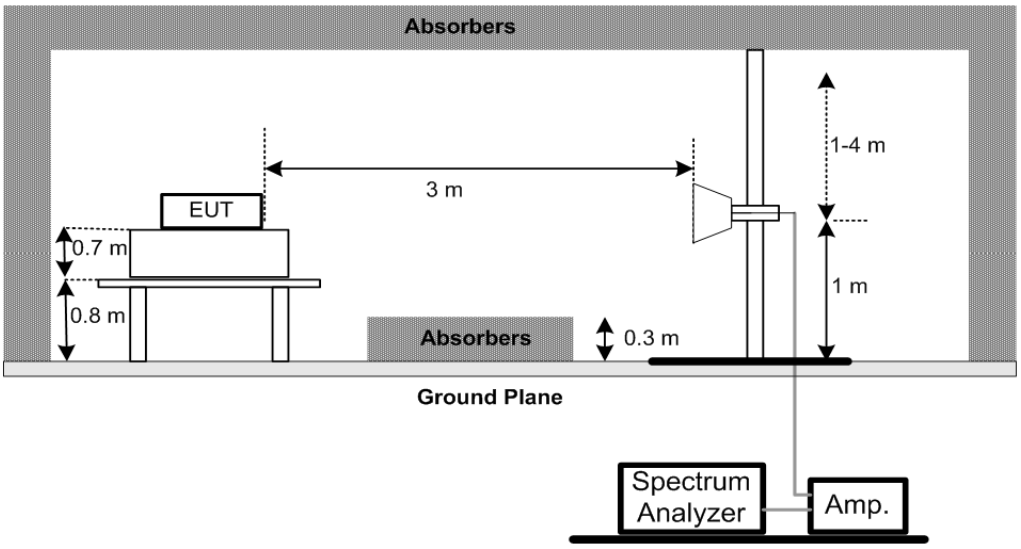
No deviation

4.2.4 TEST SETUP

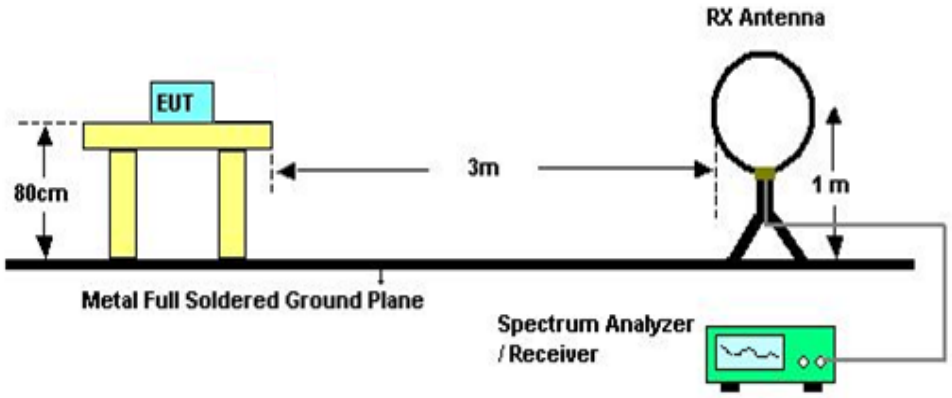
(A) Radiated Emission Test Set-Up Frequency Below 1 GHz



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



(C) For Radiated Emissions Below 30MHz



4.2.5EUT OPERATING CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

4.2.6EUT TEST CONDITIONS

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

4.2.7 TEST RESULTS (9KHZ TO 30MHZ)

Please refer to the Attachment 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 (specific distance / test distance) (dB).
(3) Limit line = specific limits (dBuV) + distance extrapolation factor.

4.2.8 TEST RESULTS (30MHZTO 1000 MHZ)

Please refer to the Attachment C.

4.2.9 TEST RESULTS (ABOVE 1000 MHZ)

Please refer to the Attachment 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

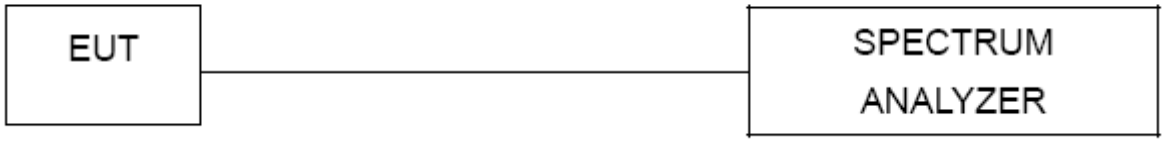
5.1.1TEST PROCEDURE

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

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°CRelative Humidity: 55%Test Voltage: AC 120V/60Hz

5.1.6 TEST RESULTS

Please refer to the Attachment 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

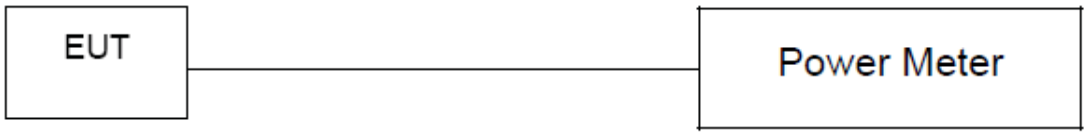
6.1.1 TEST PROCEDURE

a. The EUT was directly connected to the power meter and antenna output port as show in the block diagram below,
b. The maximum peak conducted output power was performed in accordance with method 9.1.2 of FCC KDB 558074D01 DTS Meas Guidance v03r03.

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°CRelative Humidity: 55%Test Voltage: AC 120V/60Hz

6.1.6 TEST RESULTS

Please refer to the Attachment 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 ordigitally 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 thatcontains 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.

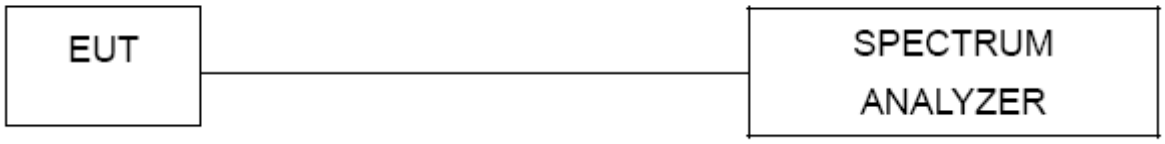
7.1.1 TEST PROCEDURE

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

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 Attachment 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

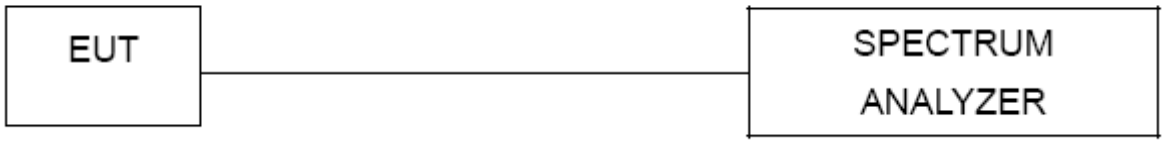
8.1.1 TEST PROCEDURE

a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
b. Spectrum Setting: RBW=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 Attachment H.

9. MEASUREMENT INSTRUMENTS LIST

Conducted Emission Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	LISN	EMCO	3816/2	00052765	Mar. 28, 2016
2	LISN	R&S	ENV216	101447	Mar. 28, 2016
3	Test Cable	emci	RG223(9KHz -30MHz)	C_17	Mar. 13, 2016
4	EMI Test Receiver	R&S	ESR3	101862	Jan. 02, 2016
5	50Ω Terminator	SHX	TF2-3G-A	08122902	Mar. 28, 2016
6	Measurement Software	Farad	EZ-EMC Ver.NB-03A1 -01	N/A	N/A

Radiated Emission Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Antenna	Schwarbeck	VULB9160	9160-3232	Mar. 28, 2016
2	Amplifier	HP	8447D	2944A09673	Nov. 17, 2015
3	Receiver	AGILENT	N9038A	MY52130039	Sep. 30, 2015
4	Test Cable	emci	LMR-400(30MHz-1GHz)	C-01	Jun. 28, 2016
5	Controller	CT	SC100	N/A	N/A
6	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
7	Antenna	ETS	3115	00075789	Mar. 28, 2016
8	Amplifier	Agilent	8449B	3008A02274	Nov. 02, 2015
9	Test Cable	emci	EMC104-SM-SM-10000(1GHz－26.5GHz)	C-68	Jun. 28, 2016
10	Active Loop Antenna	R&S	HFH2-Z2	830749/020	Aug. 16, 2015

6dB BandwidthMeasurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP 40	100185	Nov. 02, 2015

Peak Output PowerMeasurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	P-series Power meter	Agilent	N1911A	MY45100473	Mar. 28, 2016
2	Wireband Power sensor	Agilent	N1921A	MY51100041	Mar. 28, 2016

Antenna Conducted Spurious Emission Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP 40	100185	Nov. 02, 2015

Power Spectral Density Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP 40	100185	Nov. 02, 2015

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

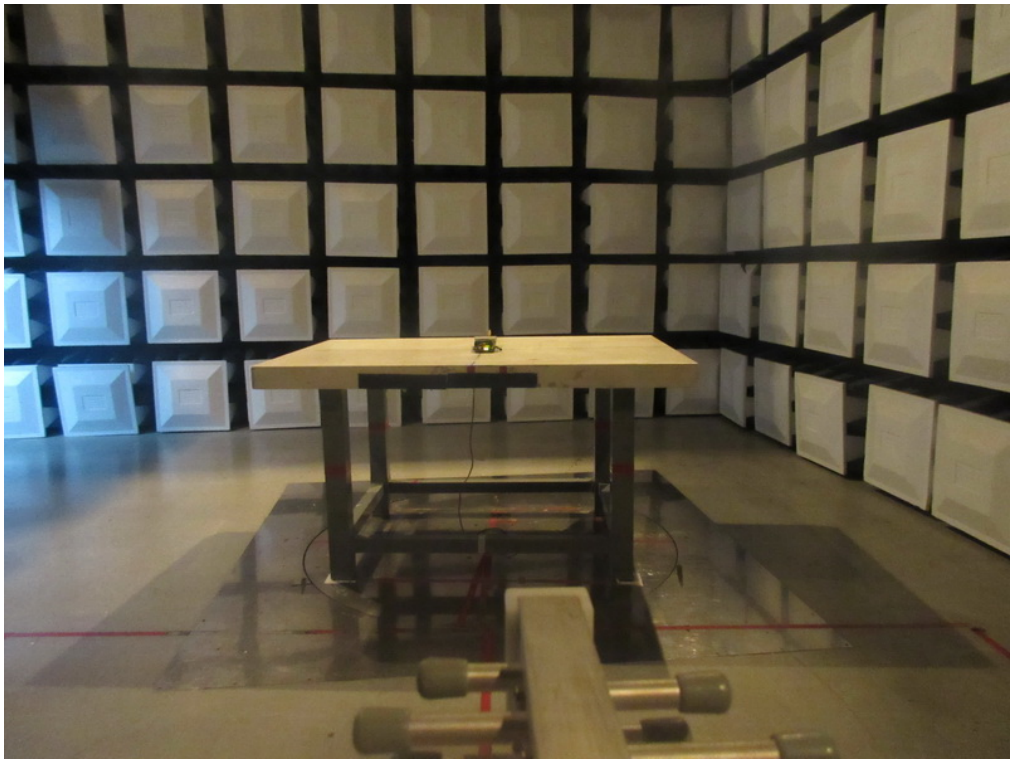
Conducted Measurement Photos

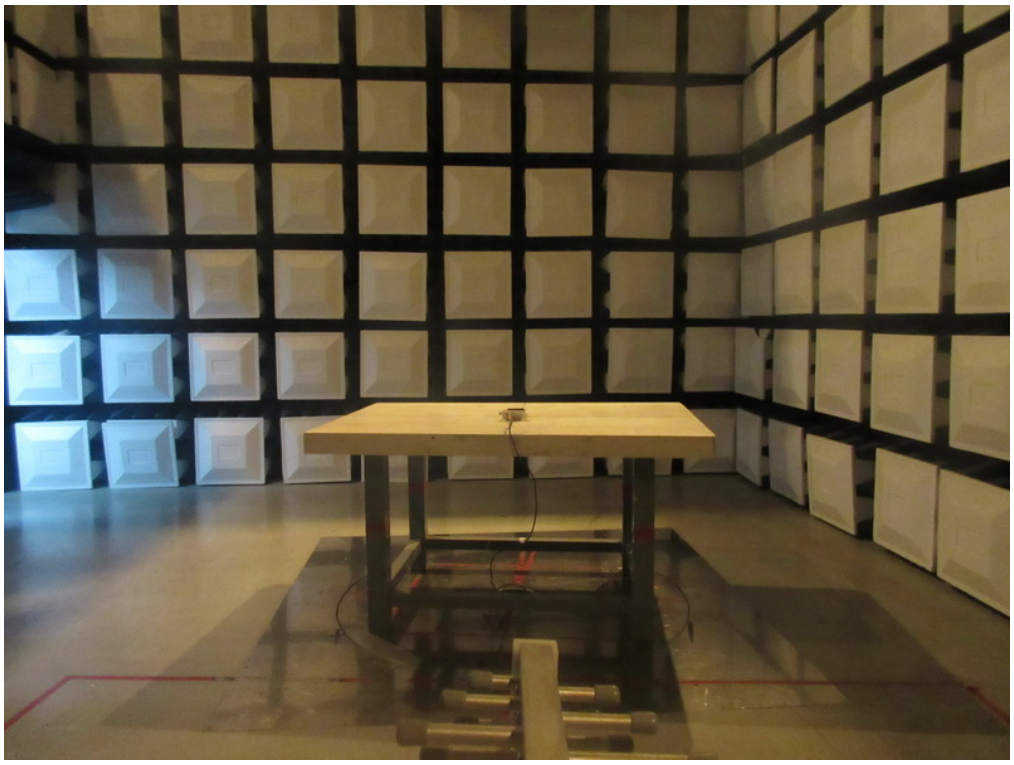
Radiated Measurement Photos

9KHz to 30MHz

Radiated Measurement Photos

30MHz to 1000MHz





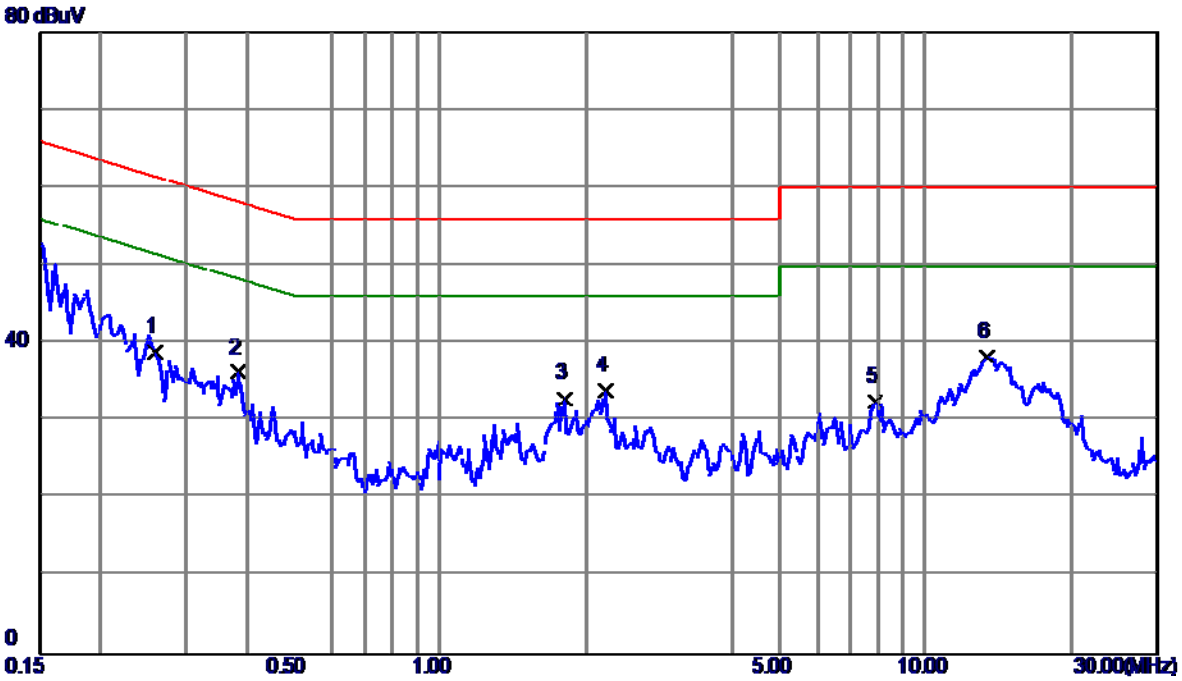
Radiated Measurement Photos

Above 1000MHz

ATTACHMENT A -CONDUCTED EMISSION

Test Mode :	Normal Link

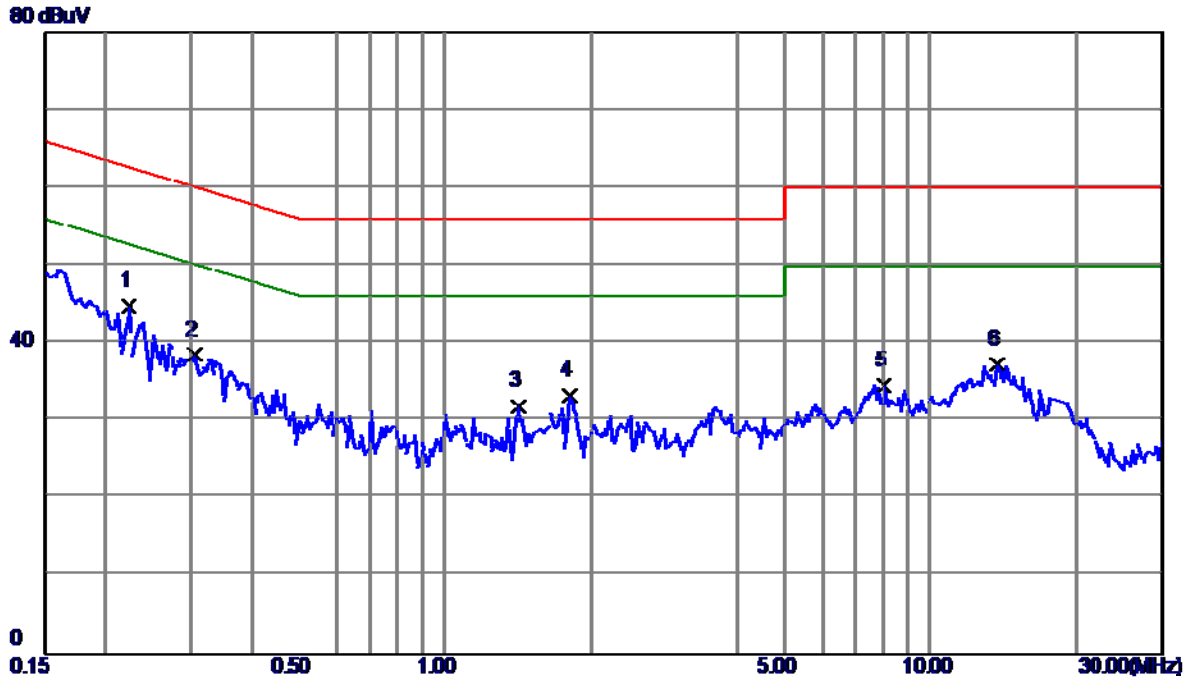
Line



No.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	0.2601	29.38	9.57	38.95	61.43	-22.48	Peak	
2	0.3842	26.60	9.64	36.24	58.19	-21.95	Peak	
3	1.8062	23.17	9.71	32.88	56.00	-23.12	Peak	
4	2.2006	24.22	9.72	33.94	56.00	-22.06	Peak	
5	7.9023	22.46	10.02	32.48	60.00	-27.52	Peak	
6	13.3750	28.05	10.18	38.23	60.00	-21.77	Peak	

Test Mode :	Normal Link

Neutral



No.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	0.2242	35.12	9.61	44.73	62.66	-17.93	Peak	
2	0.3062	28.86	9.62	38.48	60.07	-21.59	Peak	
3	1.4193	22.22	9.70	31.92	56.00	-24.08	Peak	
4	1.8101	23.48	9.73	33.21	56.00	-22.79	Peak	
5	8.0390	24.50	10.00	34.50	60.00	-25.50	Peak	
6	13.7382	27.00	10.24	37.24	60.00	-22.76	Peak	

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

Test Mode:	TX B MODE CHANNEL 01

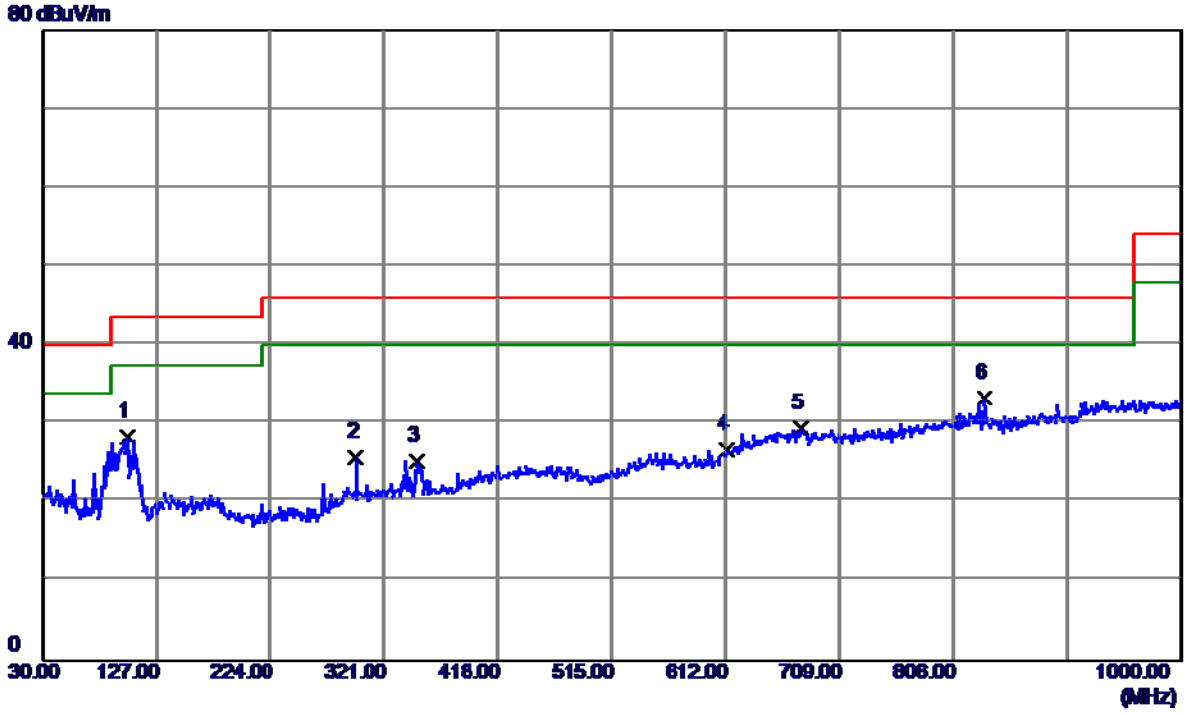
Frequency (MHz)	Ant 0°/90°	Read level dBuV/m	Factor (dB)	Measured(FS) (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Note
0.0201	0°	9.11	24.2937	33.4037	121.5403	-88.1366	AVG
0.0201	0°	10.4	24.2937	34.6937	141.5403	-106.8466	PEAK
0.0283	0°	7.28	23.7743	31.0543	118.5685	-87.5142	AVG
0.0283	0°	8.51	23.7743	32.2843	138.5685	-106.2842	PEAK
0.0414	0°	4.13	22.9447	27.0747	115.2642	-88.1896	AVG
0.0414	0°	5.6	22.9447	28.5447	135.2642	-106.7196	PEAK
0.0473	0°	1.28	22.5710	23.8510	114.1070	-90.2560	AVG
0.0473	0°	1.78	22.5710	24.3510	134.1070	-109.7560	PEAK
1.2186	0°	17.58	19.5781	37.1581	65.8870	-28.7289	QP
2.5742	0°	24.61	19.1555	43.7655	69.5400	-25.7745	QP

Frequency (MHz)	Ant 0°/90°	Read level dBuV/m	Factor (dB)	Measured(FS) (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Note
0.0166	90°	7.76	24.3000	32.0600	123.2021	-91.1421	AVG
0.0166	90°	8.3	24.3000	32.6000	143.2021	-110.6021	PEAK
0.0253	90°	3.75	23.9643	27.7143	119.5418	-91.8275	AVG
0.0253	90°	4.38	23.9643	28.3443	139.5418	-111.1975	PEAK
0.0313	90°	1.31	23.5843	24.8943	117.6933	-92.7990	AVG
0.0313	90°	1.71	23.5843	25.2943	137.6933	-112.3990	PEAK
0.0475	90°	0.57	22.5583	23.1283	114.0704	-90.9420	AVG
0.0475	90°	0.86	22.5583	23.4183	134.0704	-110.6520	PEAK
0.7131	90°	16.31	20.4819	36.7919	70.5412	-33.7493	QP
2.4725	90°	22.1	19.2165	41.3165	69.5400	-28.2235	QP

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

Test Mode:	TX B MODE CHANNEL 01

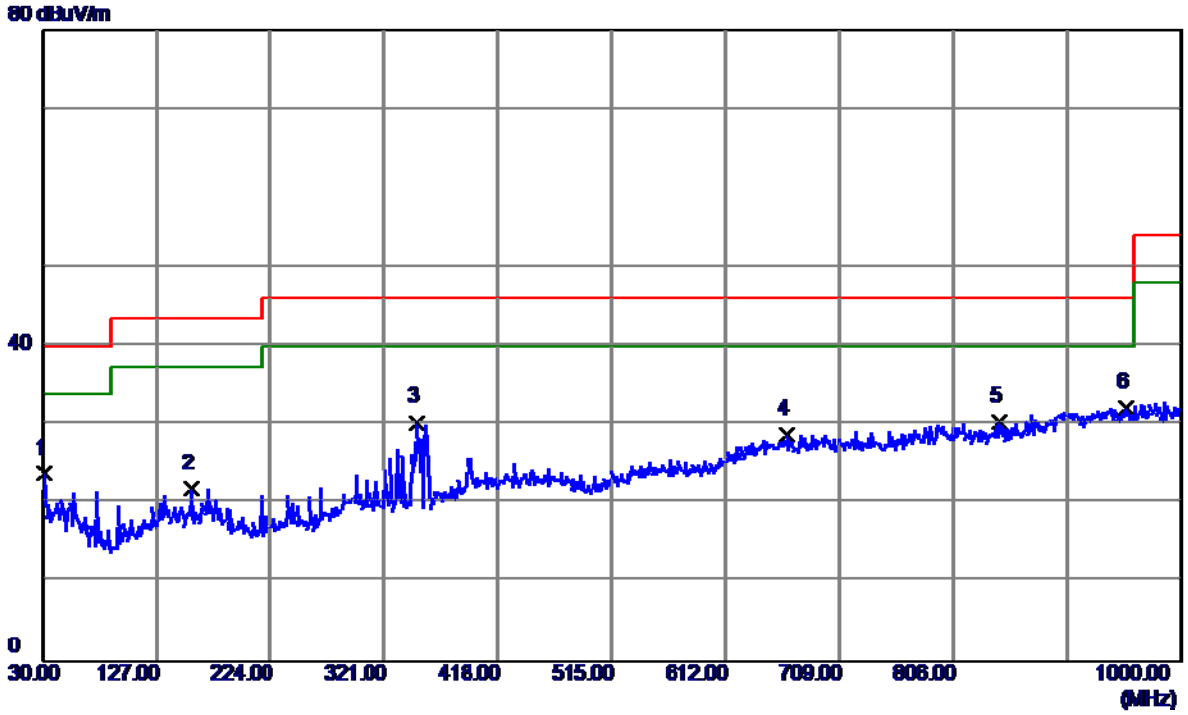
Vertical



No.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	101.7800	42.90	-14.52	28.38	43.50	-15.12	Peak	
2	296.7500	35.41	-9.66	25.75	46.00	-20.25	Peak	
3	349.1300	35.21	-9.92	25.29	46.00	-20.71	Peak	
4	612.9699	30.62	-3.86	26.76	46.00	-19.24	Peak	
5	676.9900	31.00	-1.55	29.45	46.00	-16.55	Peak	
6	833.1599	33.16	0.13	33.29	46.00	-12.71	Peak	

Test Mode:	TX B MODE CHANNEL 01

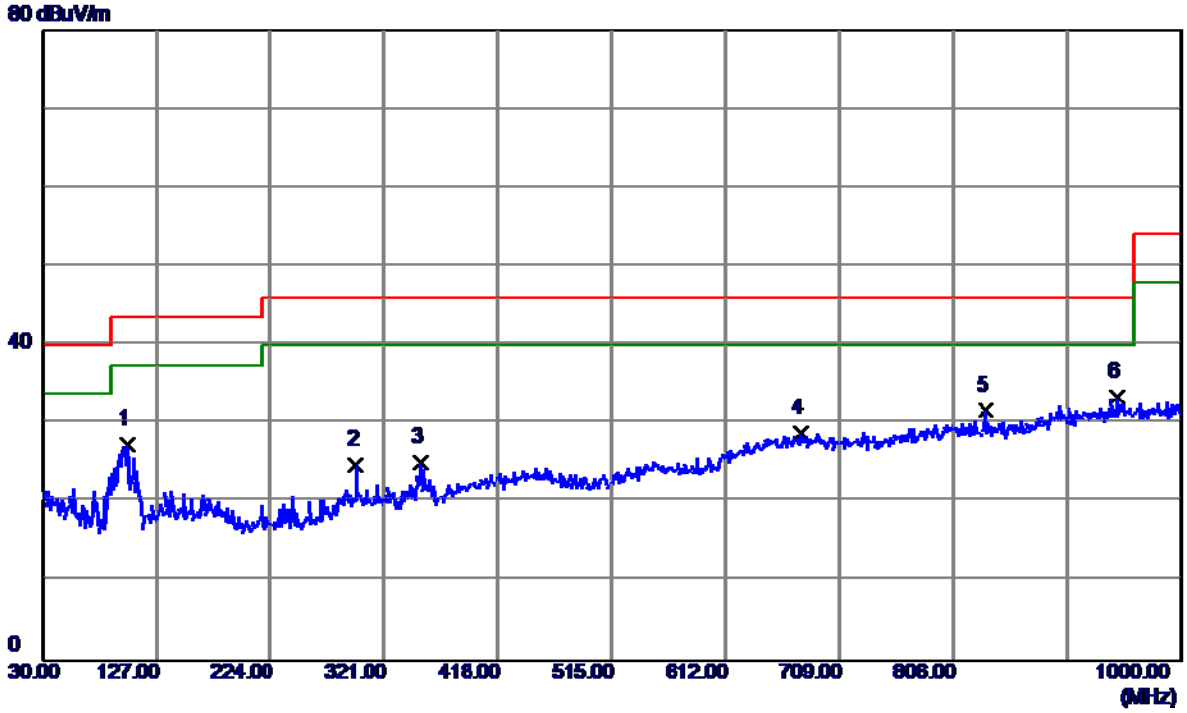
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	30.9700	37.88	-14.00	23.88	40.00	-16.12	Peak	
2	157.0700	33.93	-12.07	21.86	43.50	-21.64	Peak	
3	349.1300	40.24	-9.92	30.32	46.00	-15.68	Peak	
4	664.3800	30.34	-1.59	28.75	46.00	-17.25	Peak	
5	845.7700	30.33	0.12	30.45	46.00	-15.55	Peak	
6	953.4400	29.05	3.07	32.12	46.00	-13.88	Peak	

Test Mode:	TX B MODE CHANNEL 06

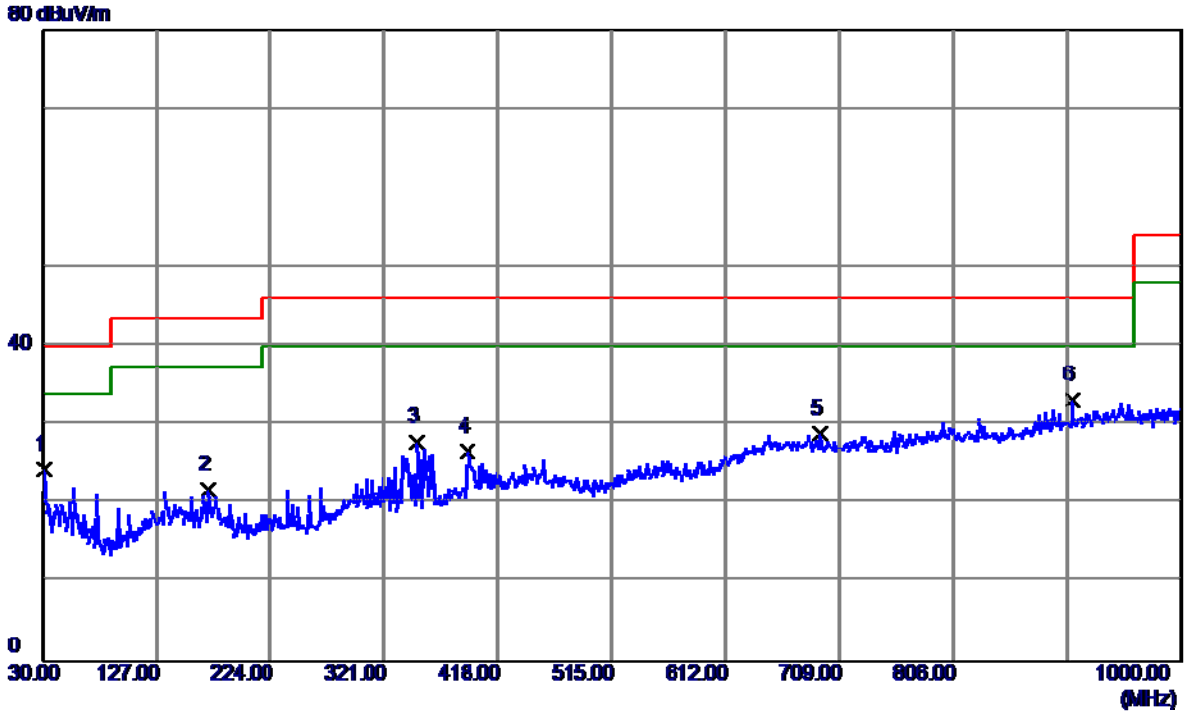
Vertical



No.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	101.7800	41.94	-14.52	27.42	43.50	-16.08	Peak	
2	296.7500	34.51	-9.66	24.85	46.00	-21.15	Peak	
3	352.0400	34.99	-9.81	25.18	46.00	-20.82	Peak	
4	676.9900	30.41	-1.55	28.86	46.00	-17.14	Peak	
5	834.1300	31.62	0.13	31.75	46.00	-14.25	Peak	
6	945.6800	30.46	2.95	33.41	46.00	-12.59	Peak	

Test Mode:	TX B MODE CHANNEL 06

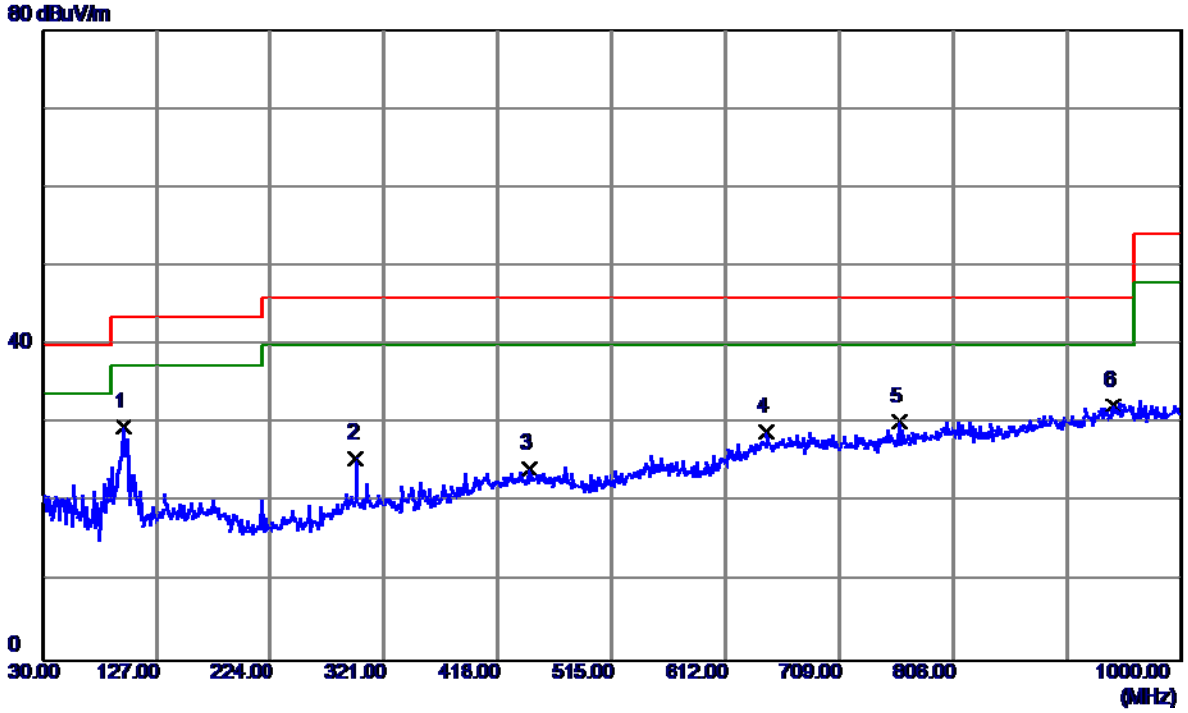
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	30.9700	38.30	-14.00	24.30	40.00	-15.70	Peak	
2	171.6200	32.88	-11.18	21.70	43.50	-21.80	Peak	
3	349.1300	37.83	-9.92	27.91	46.00	-18.09	Peak	
4	391.8100	34.34	-7.70	26.64	46.00	-19.36	Peak	
5	692.5100	30.38	-1.50	28.88	46.00	-17.12	Peak	
6	906.8800	31.33	1.86	33.19	46.00	-12.81	Peak	

Test Mode:	TX B MODE CHANNEL 11

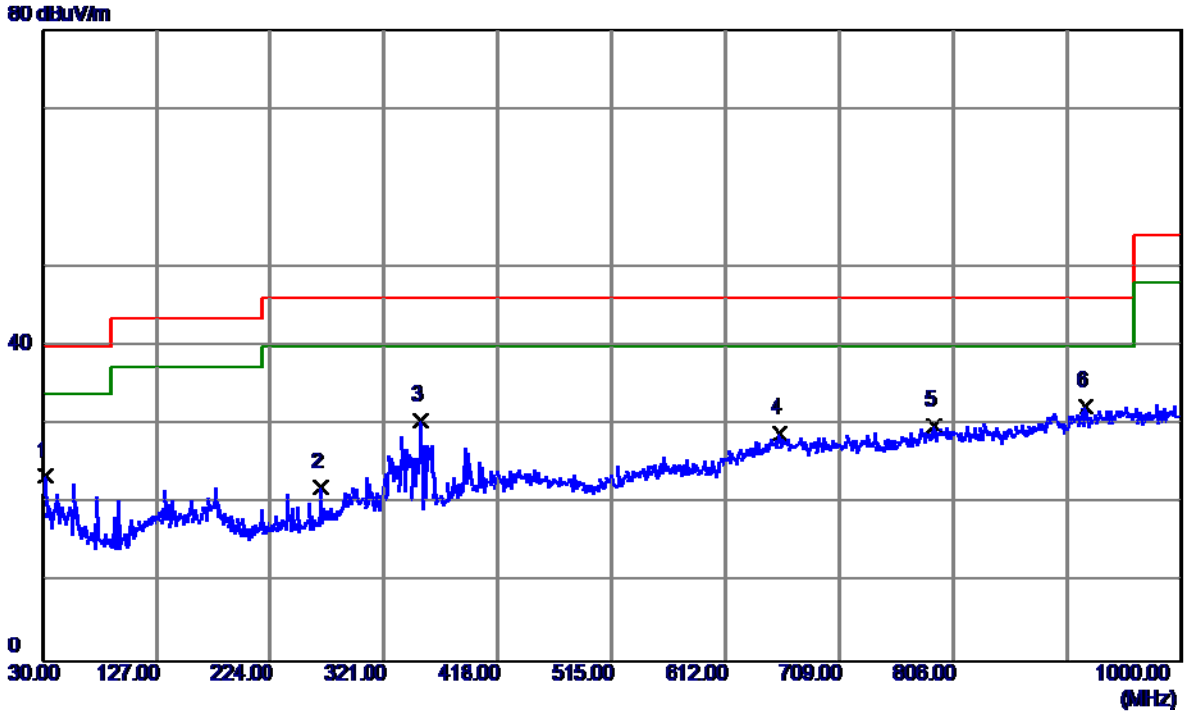
Vertical



No.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	98.8700	44.44	-14.87	29.57	43.50	-13.93	Peak	
2	296.7500	35.21	-9.66	25.55	46.00	-20.45	Peak	
3	445.1600	30.29	-6.03	24.26	46.00	-21.74	Peak	
4	646.9200	30.71	-1.82	28.89	46.00	-17.11	Peak	
5	760.4099	31.30	-1.09	30.21	46.00	-15.79	Peak	
6	942.7700	29.44	2.87	32.31	46.00	-13.69	Peak	

Test Mode:	TX B MODE CHANNEL 11

Horizontal

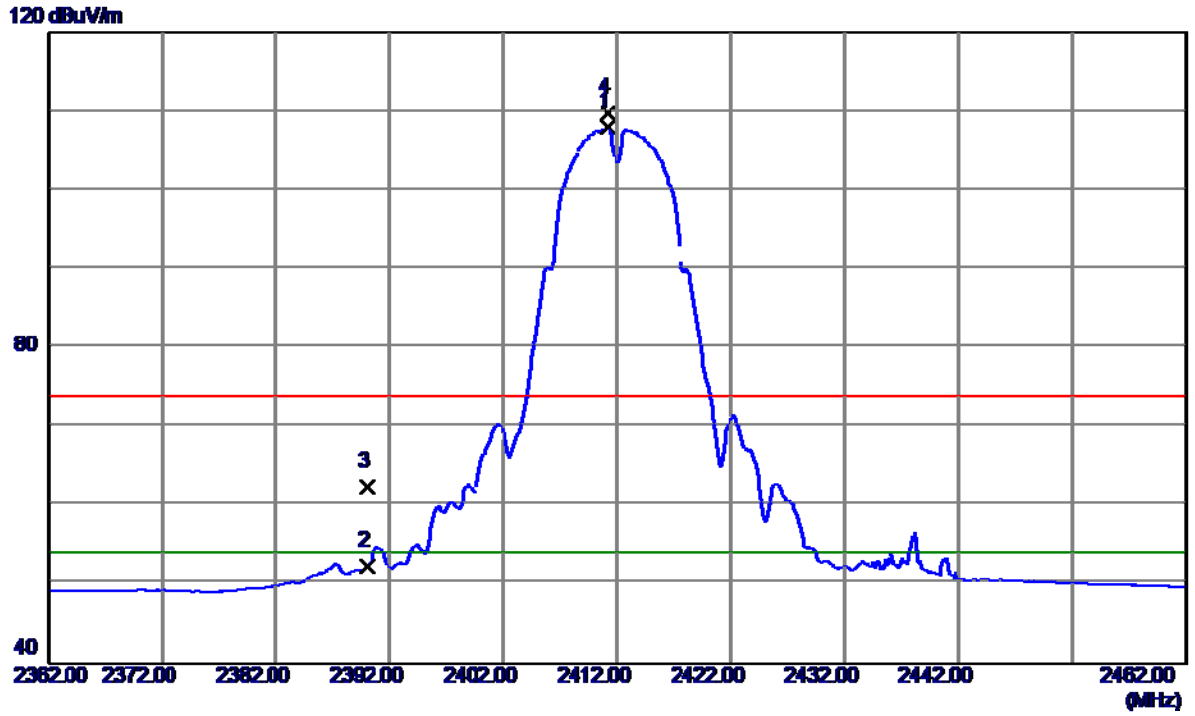


No.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	31.9400	37.44	-13.89	23.55	40.00	-16.45	Peak	
2	266.6800	34.08	-12.07	22.01	46.00	-23.99	Peak	
3	352.0400	40.42	-9.81	30.61	46.00	-15.39	Peak	
4	658.5600	30.56	-1.61	28.95	46.00	-17.05	Peak	
5	789.5100	30.15	-0.17	29.98	46.00	-16.02	Peak	
6	919.4900	30.09	2.22	32.31	46.00	-13.69	Peak	

ATTACHMENT D -RADIATED EMISSION (ABOVE 1000MHZ)

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

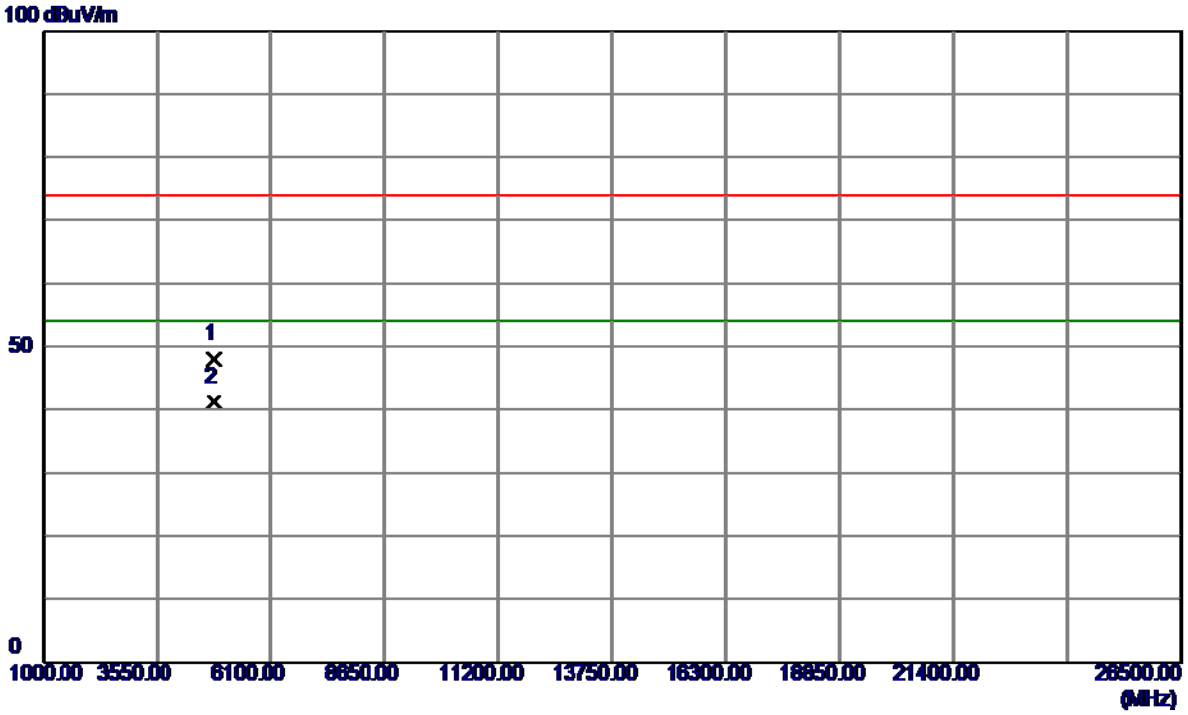
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2411.2000	73.61	34.35	107.96	54.00	53.96	AVG	NO LIMIT
2	2390.0000	18.11	34.23	52.34	54.00	-1.66	AVG	
3	2390.0000	28.13	34.23	62.36	74.00	-11.64	Peak	
4	2411.2000	75.48	34.35	109.83	74.00	35.83	Peak	NO LIMIT

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

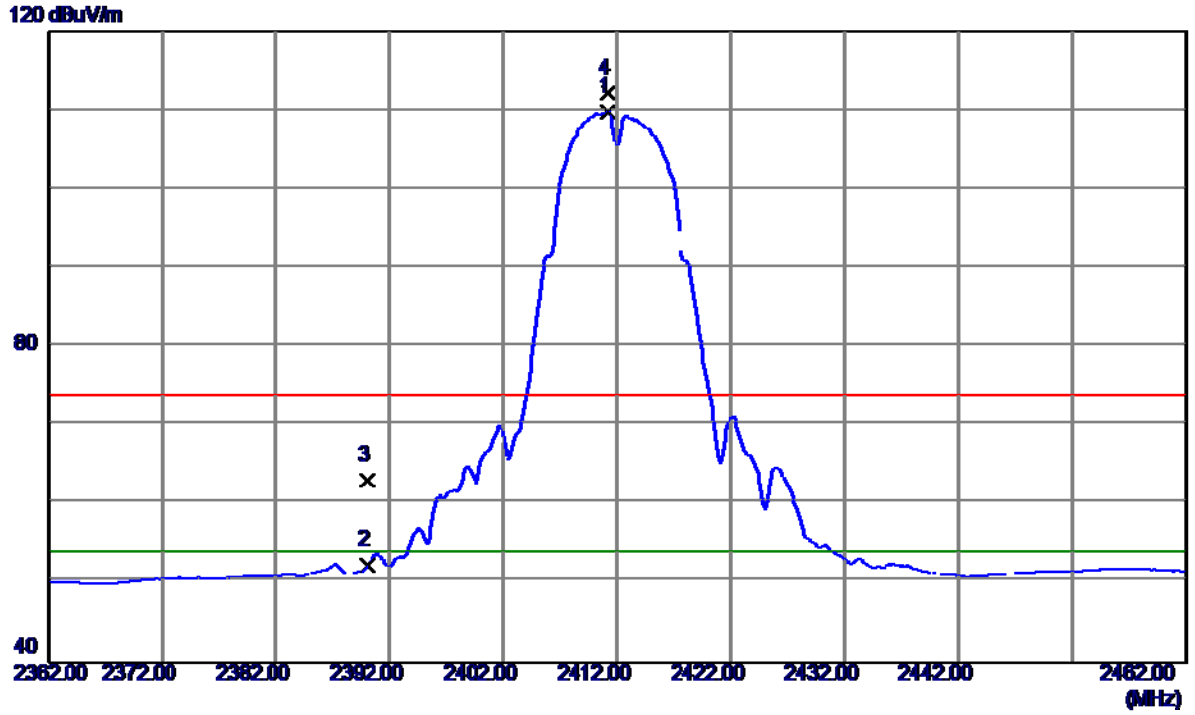
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4823.8000	44.40	3.62	48.02	74.00	-25.98	Peak	
2	4823.9900	37.52	3.62	41.14	54.00	-12.86	AVG	

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

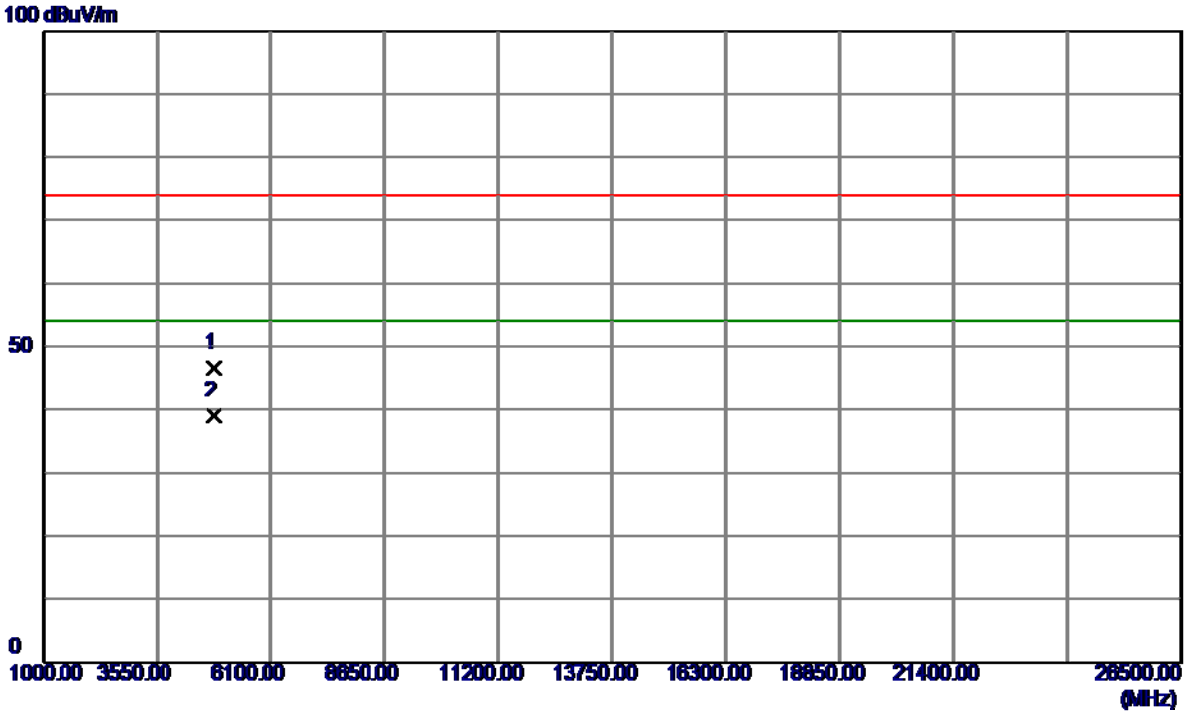
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2411.2000	75.46	34.35	109.81	54.00	55.81	AVG	NO LIMIT
2	2390.0000	18.04	34.23	52.27	54.00	-1.73	AVG	
3	2390.0000	28.83	34.23	63.06	74.00	-10.94	Peak	
4	2411.2000	77.73	34.35	112.08	74.00	38.08	Peak	NO LIMIT

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

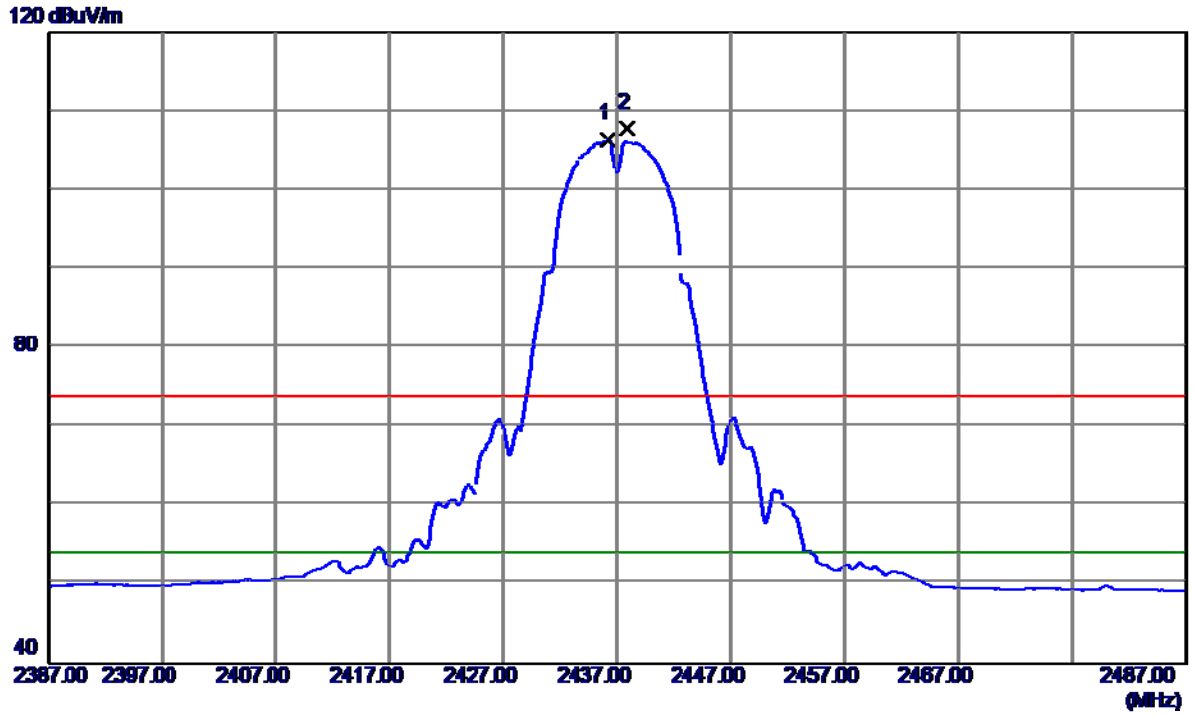
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4823.7400	42.96	3.62	46.58	74.00	-27.42	Peak	
2	4823.9600	35.42	3.62	39.04	54.00	-14.96	AVG	

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

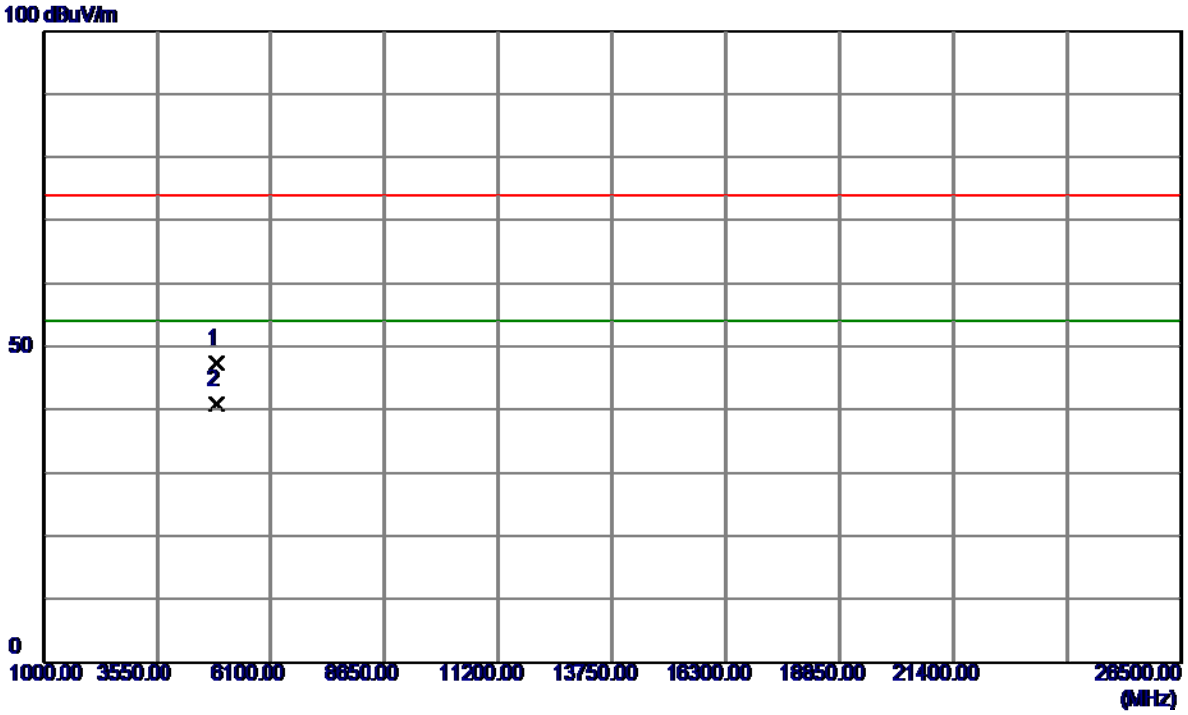
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2436.2000	71.98	34.50	106.48	54.00	52.48	AVG	NO LIMIT
2	2437.9000	73.38	34.51	107.89	74.00	33.89	Peak	NO LIMIT

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

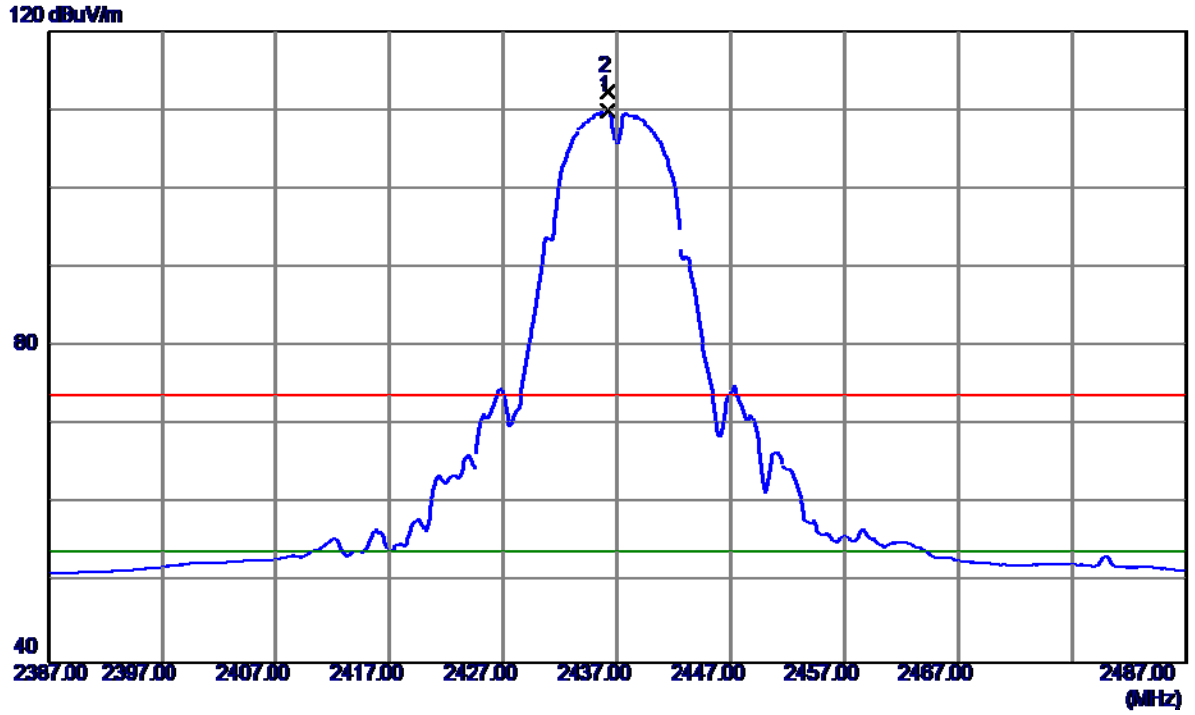
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4873.9100	43.59	3.71	47.30	74.00	-26.70	Peak	
2	4873.9800	37.14	3.71	40.85	54.00	-13.15	AVG	

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

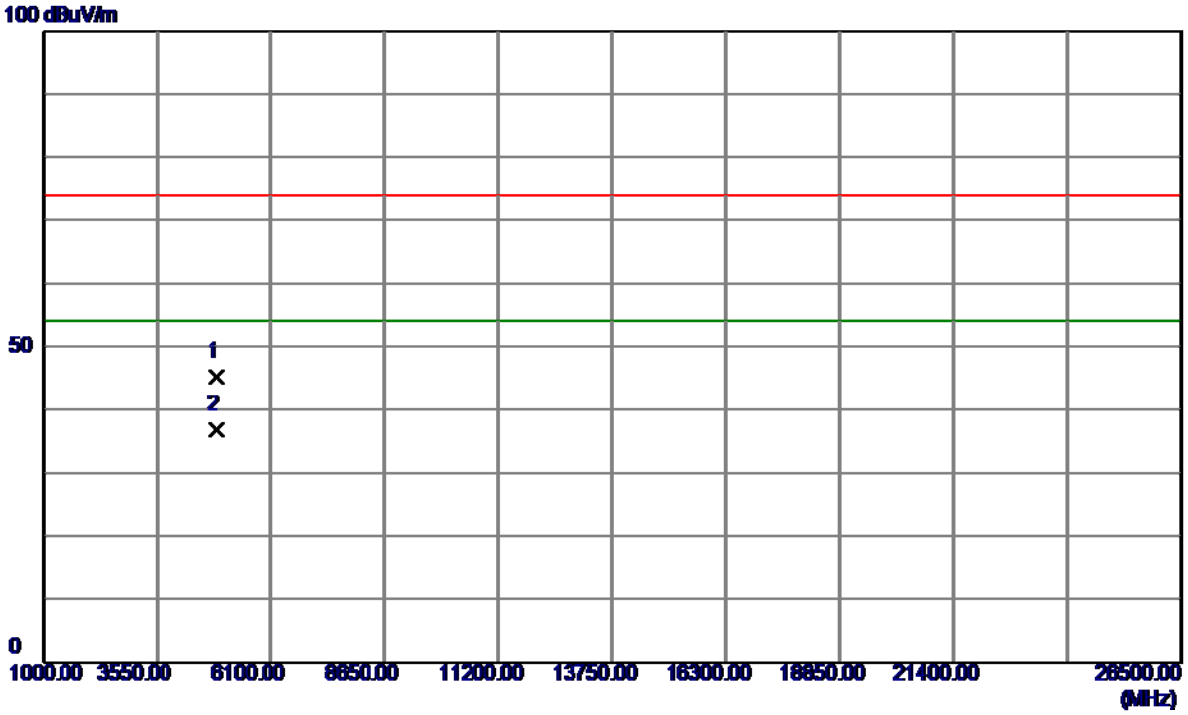
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2436.2000	75.36	34.50	109.86	54.00	55.86	AVG	NO LIMIT
2	2436.2000	77.77	34.50	112.27	74.00	38.27	Peak	NO LIMIT

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

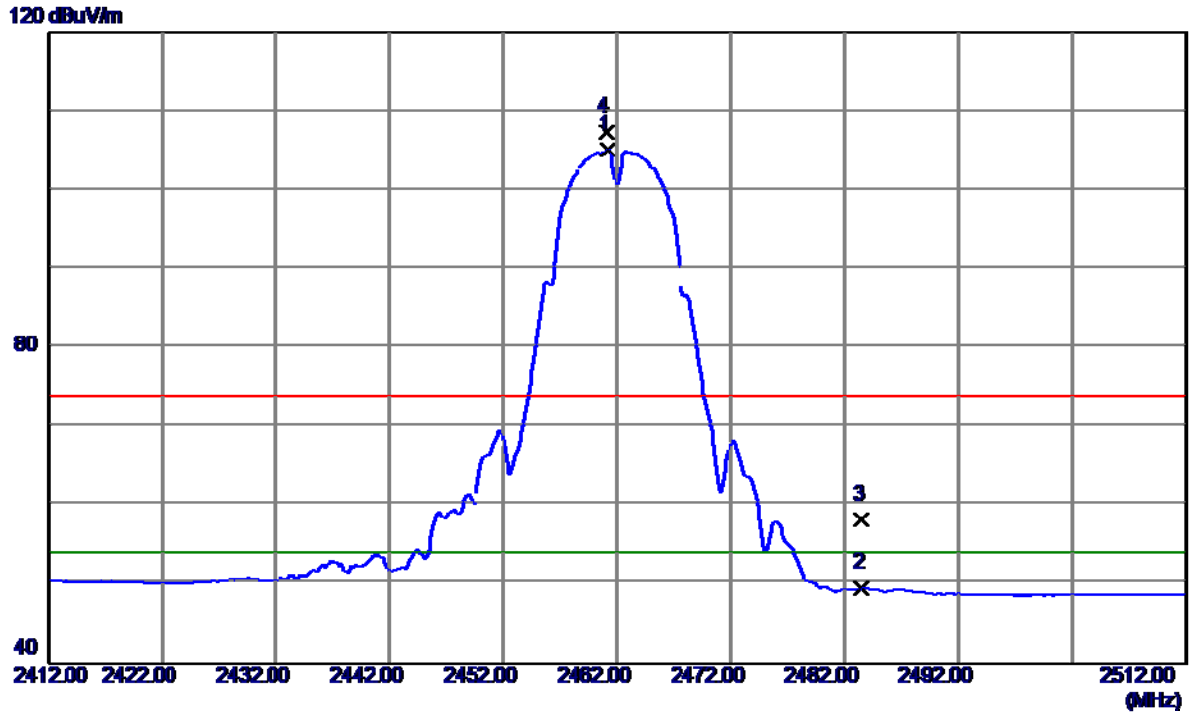
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4873.8100	41.54	3.71	45.25	74.00	-28.75	Peak	
2	4873.9400	33.12	3.71	36.83	54.00	-17.17	AVG	

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

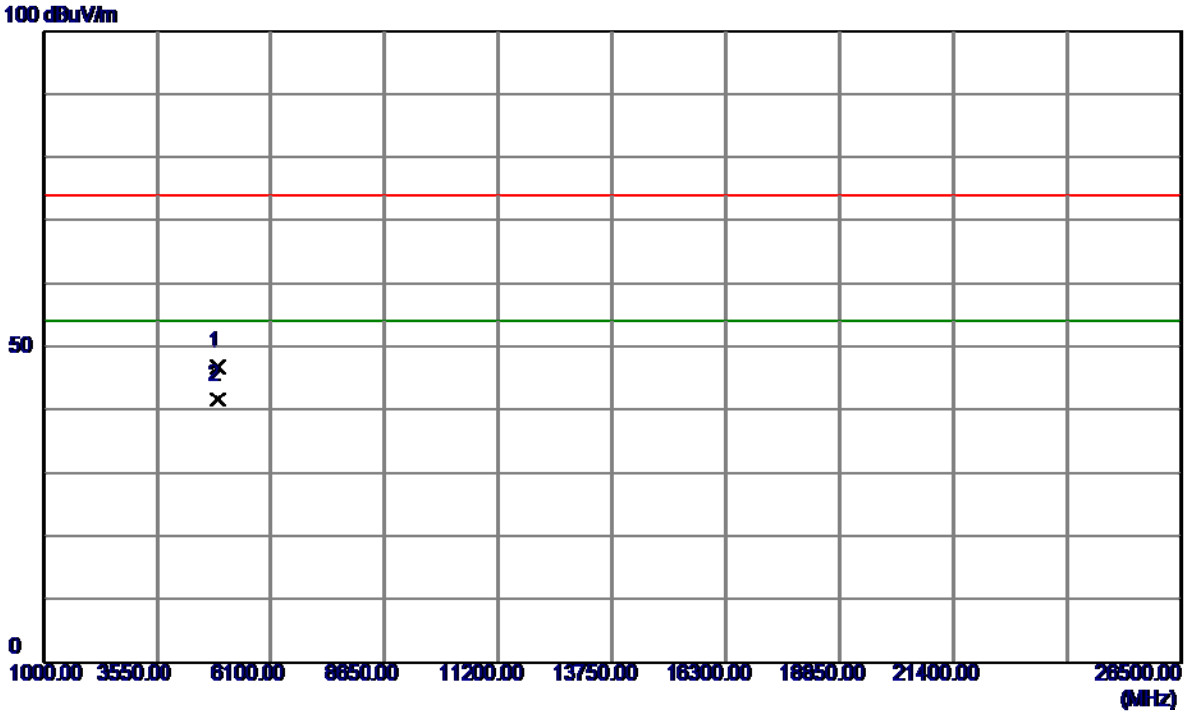
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2461.2000	70.50	34.64	105.14	54.00	51.14	AVG	NO LIMIT
2	2483.5000	14.81	34.77	49.58	54.00	-4.42	AVG	
3	2483.5000	23.41	34.77	58.18	74.00	-15.82	Peak	
4	2461.1000	72.75	34.64	107.39	74.00	33.39	Peak	NO LIMIT

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

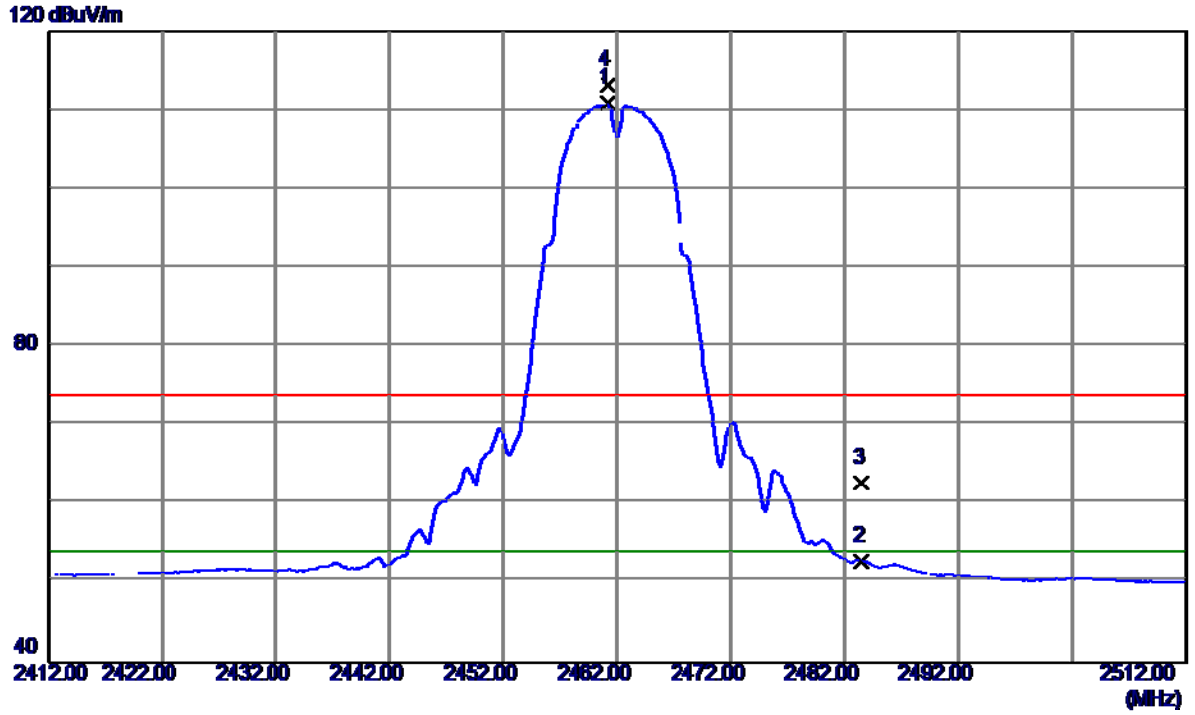
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4923.9700	43.06	3.81	46.87	74.00	-27.13	Peak	
2	4923.9800	37.84	3.81	41.65	54.00	-12.35	AVG	

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

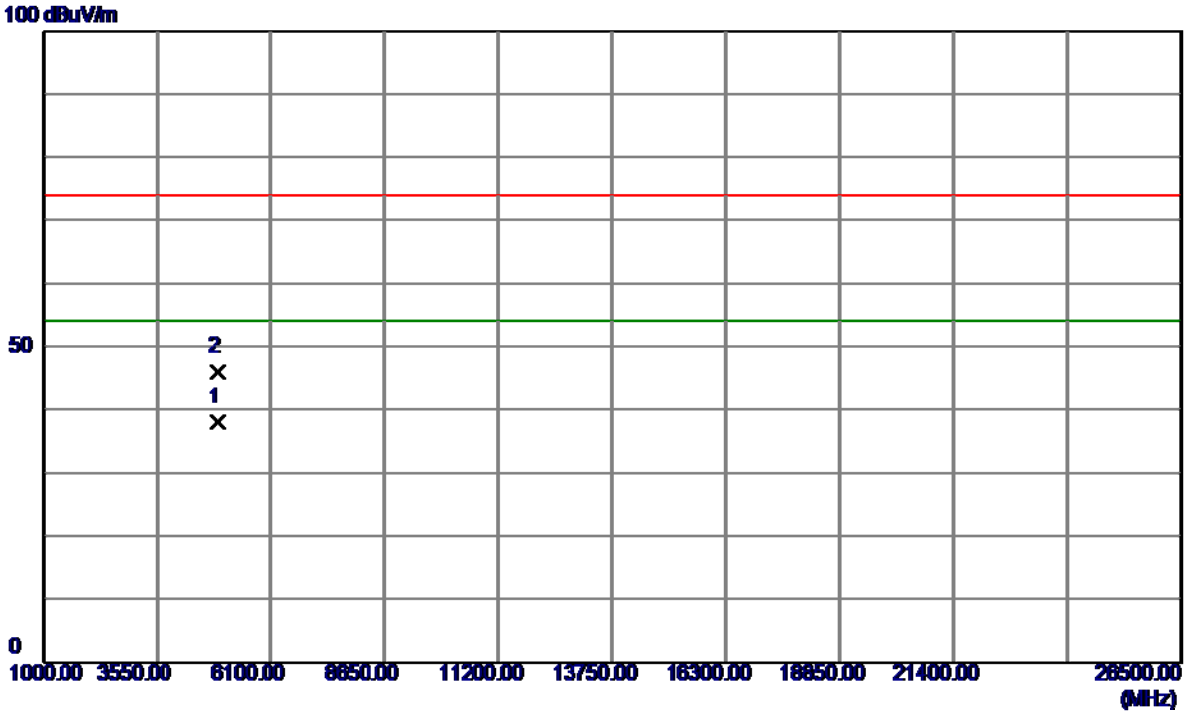
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2461.2000	76.21	34.64	110.85	54.00	56.85	AVG	NO LIMIT
2	2483.5000	18.01	34.77	52.78	54.00	-1.22	AVG	
3	2483.5000	28.01	34.77	62.78	74.00	-11.22	Peak	
4	2461.2000	78.50	34.64	113.14	74.00	39.14	Peak	NO LIMIT

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

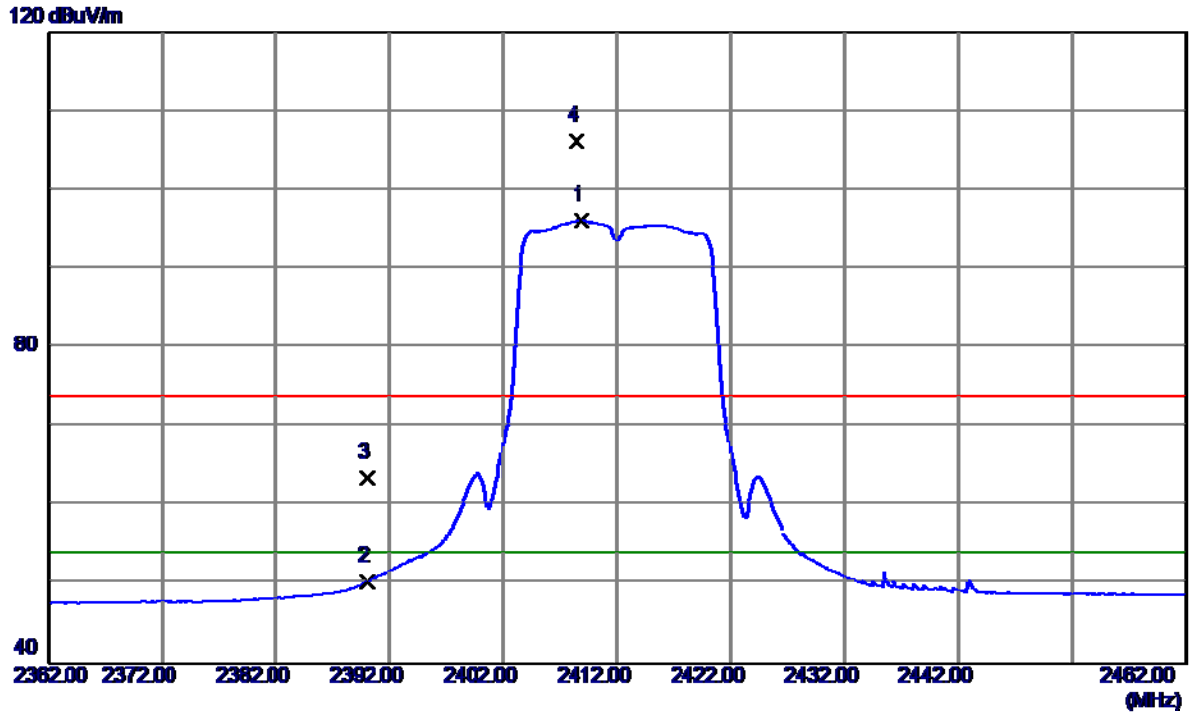
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4923.9400	34.27	3.81	38.08	54.00	-15.92	AVG	
2	4924.1000	42.16	3.81	45.97	74.00	-28.03	Peak	

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

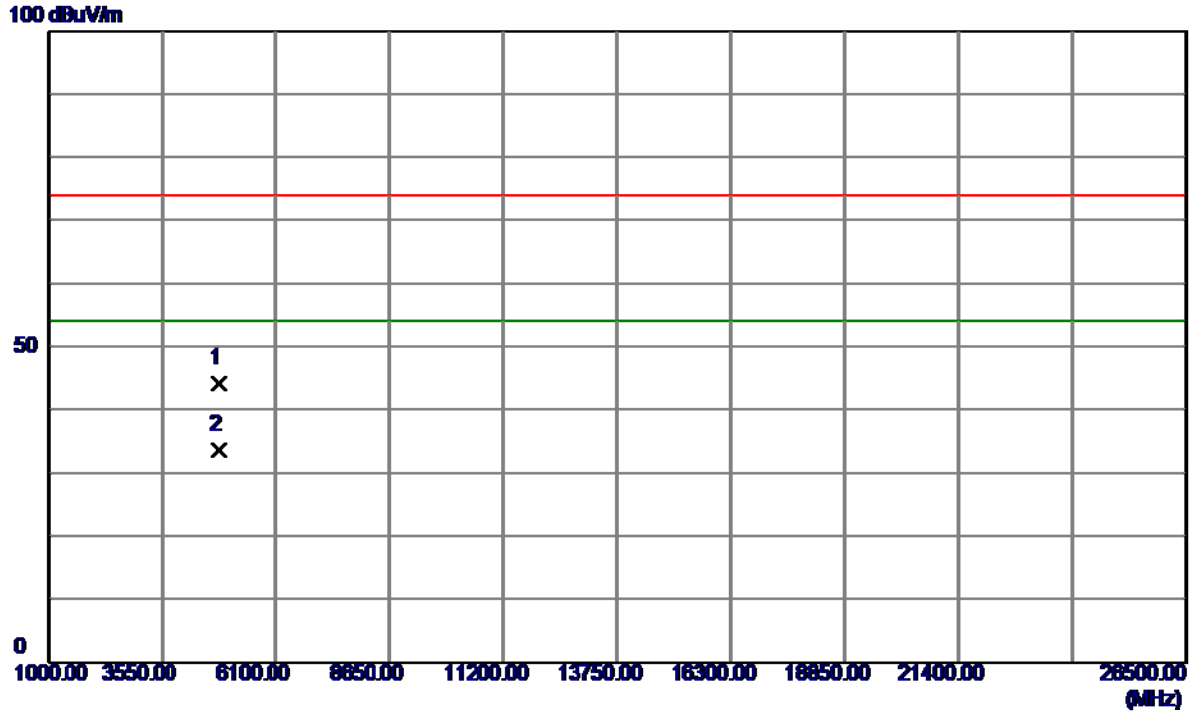
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2408.9000	61.80	34.34	96.14	54.00	42.14	AVG	NO LIMIT
2	2390.0000	16.17	34.23	50.40	54.00	-3.60	AVG	
3	2390.0000	29.25	34.23	63.48	74.00	-10.52	Peak	
4	2408.4000	71.83	34.34	106.17	74.00	32.17	Peak	NO LIMIT

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

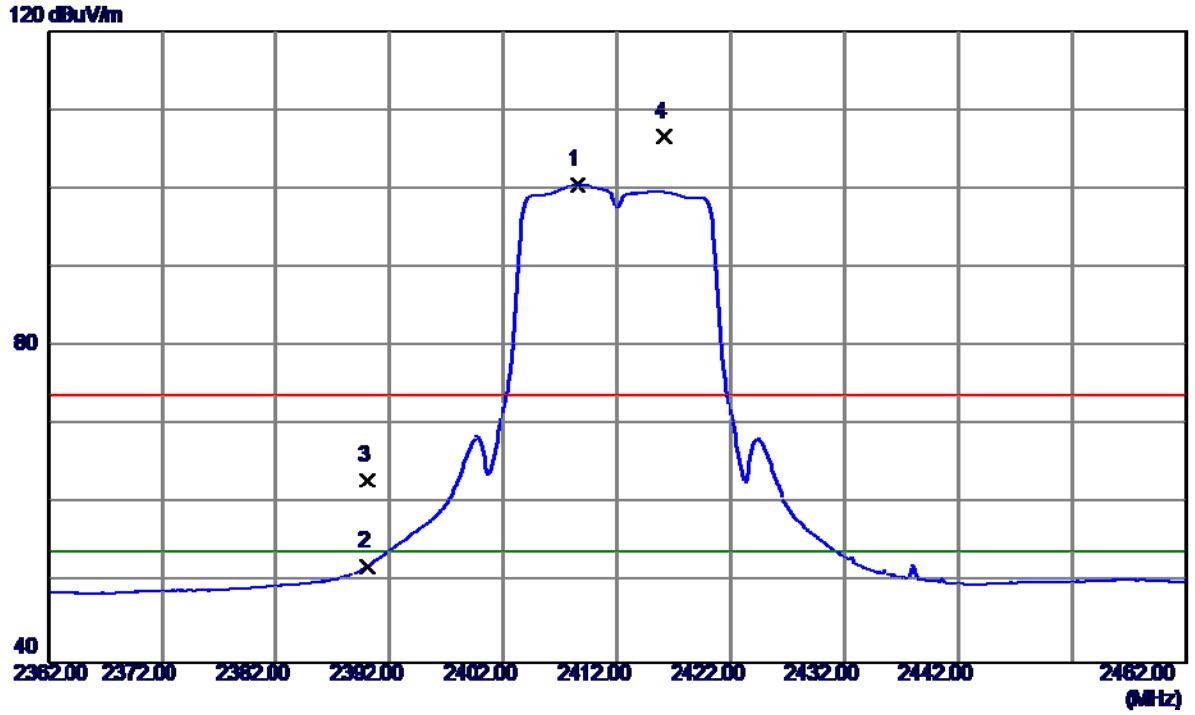
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4823.9500	40.54	3.62	44.16	74.00	-29.84	Peak	
2	4824.0299	29.89	3.62	33.51	54.00	-20.49	AVG	

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

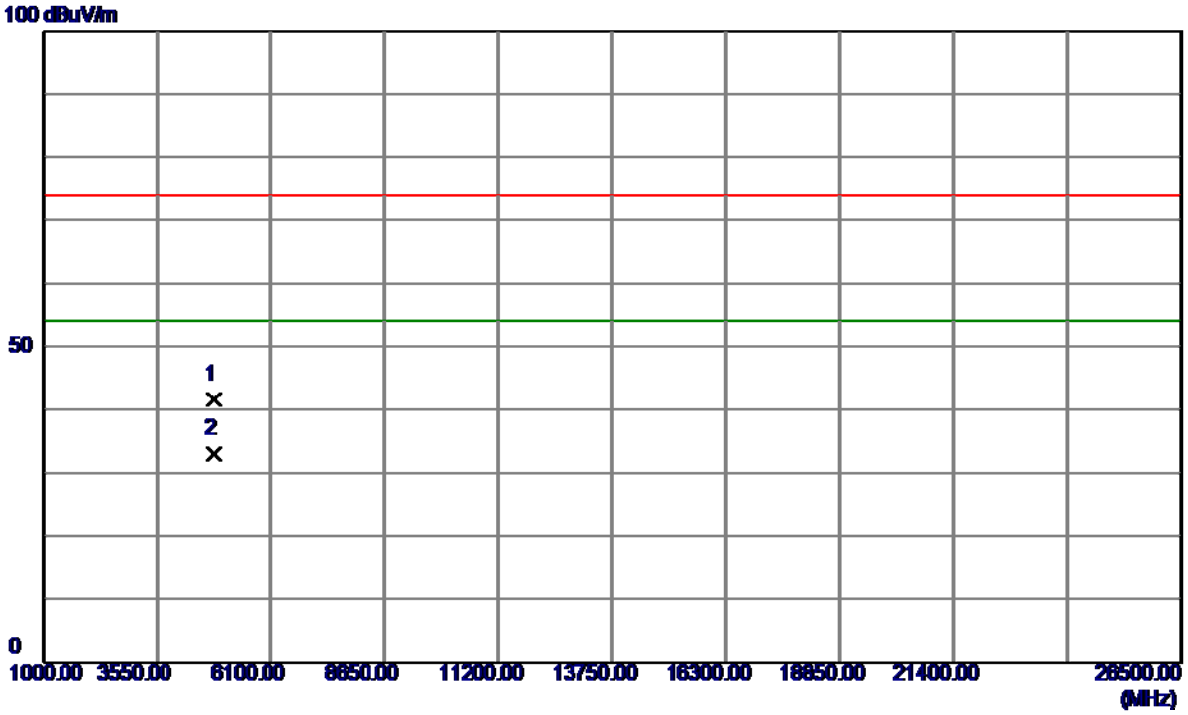
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2408.5000	66.19	34.34	100.53	54.00	46.53	AVG	NO LIMIT
2	2390.0000	17.99	34.23	52.22	54.00	-1.78	AVG	
3	2390.0000	28.77	34.23	63.00	74.00	-11.00	Peak	
4	2416.1000	72.22	34.38	106.60	74.00	32.60	Peak	NO LIMIT

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

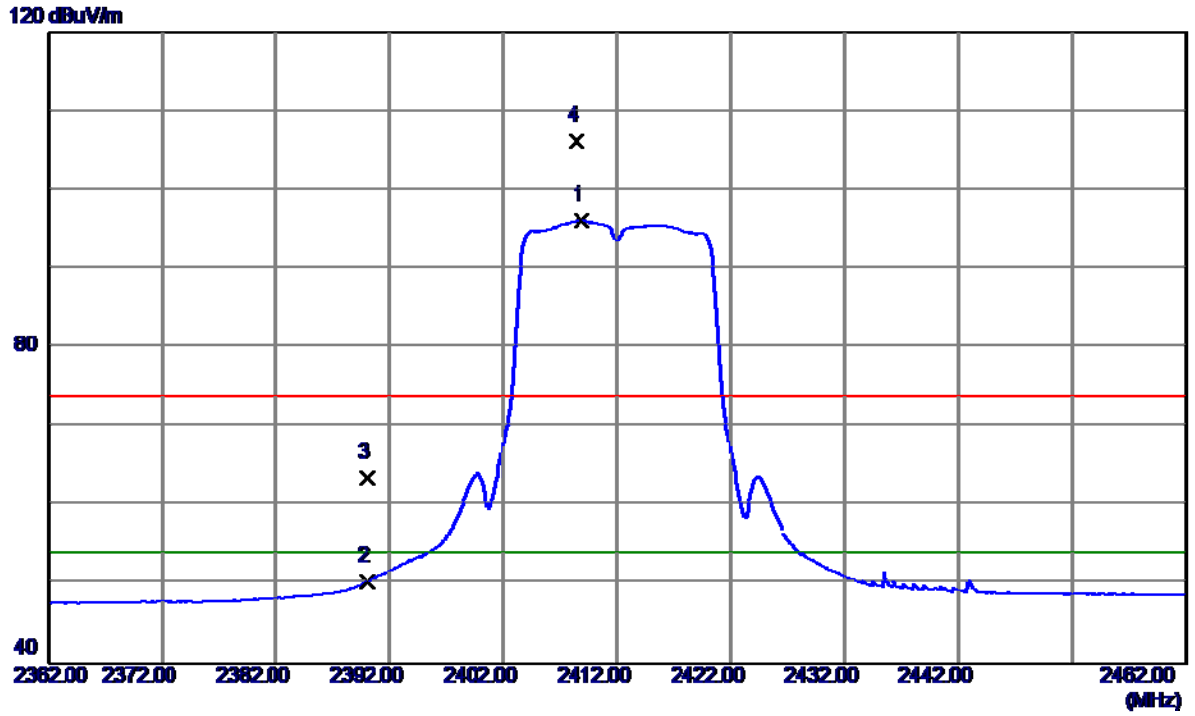
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4824.1200	37.91	3.62	41.53	74.00	-32.47	Peak	
2	4824.1200	29.47	3.62	33.09	54.00	-20.91	AVG	

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

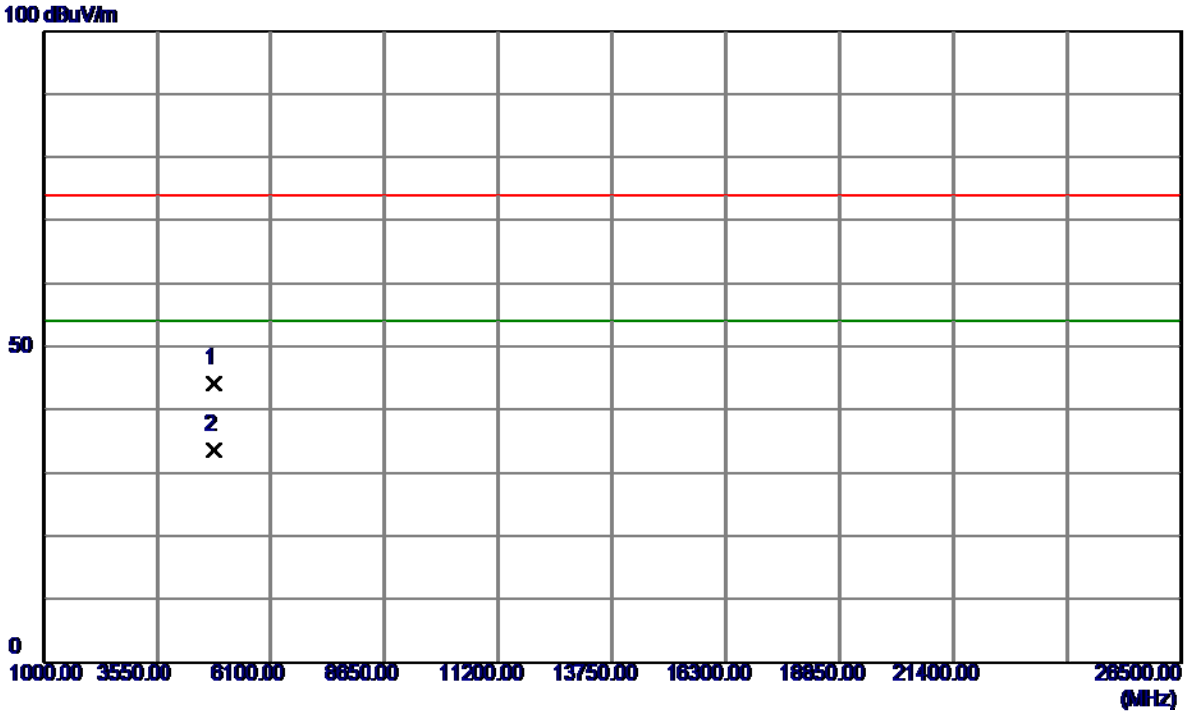
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2408.9000	61.80	34.34	96.14	54.00	42.14	AVG	NO LIMIT
2	2390.0000	16.17	34.23	50.40	54.00	-3.60	AVG	
3	2390.0000	29.25	34.23	63.48	74.00	-10.52	Peak	
4	2408.4000	71.83	34.34	106.17	74.00	32.17	Peak	NO LIMIT

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

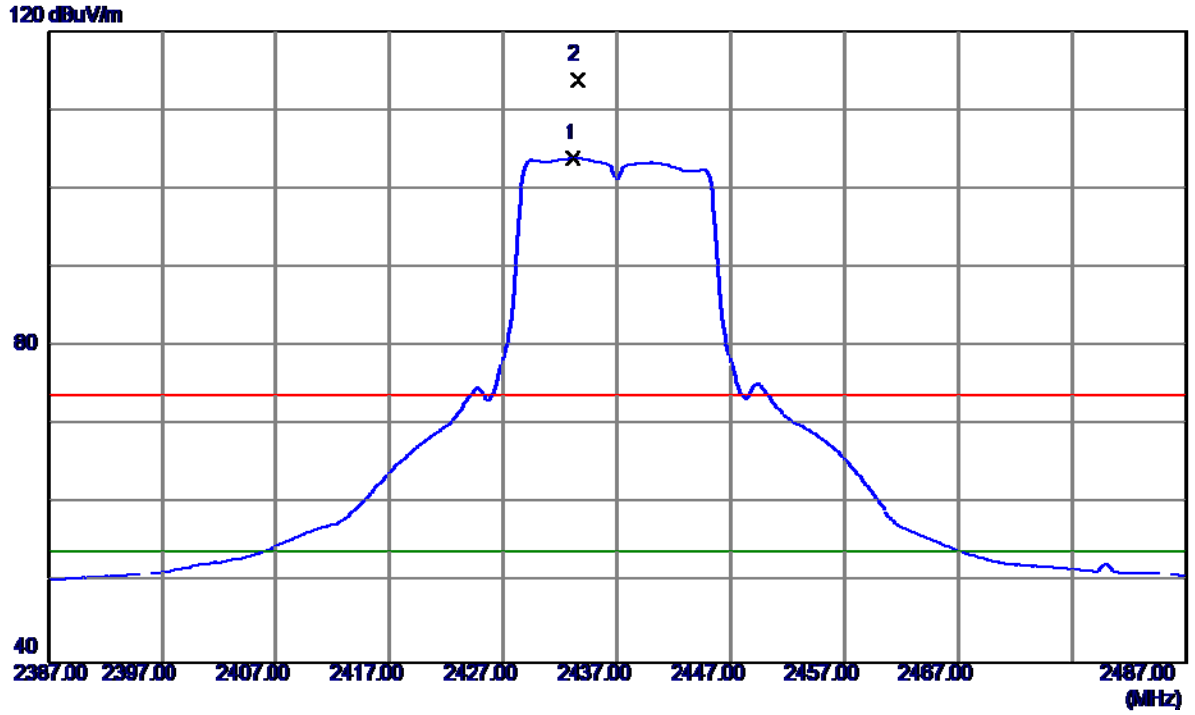
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4823.9500	40.54	3.62	44.16	74.00	-29.84	Peak	
2	4824.0299	29.89	3.62	33.51	54.00	-20.49	AVG	

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

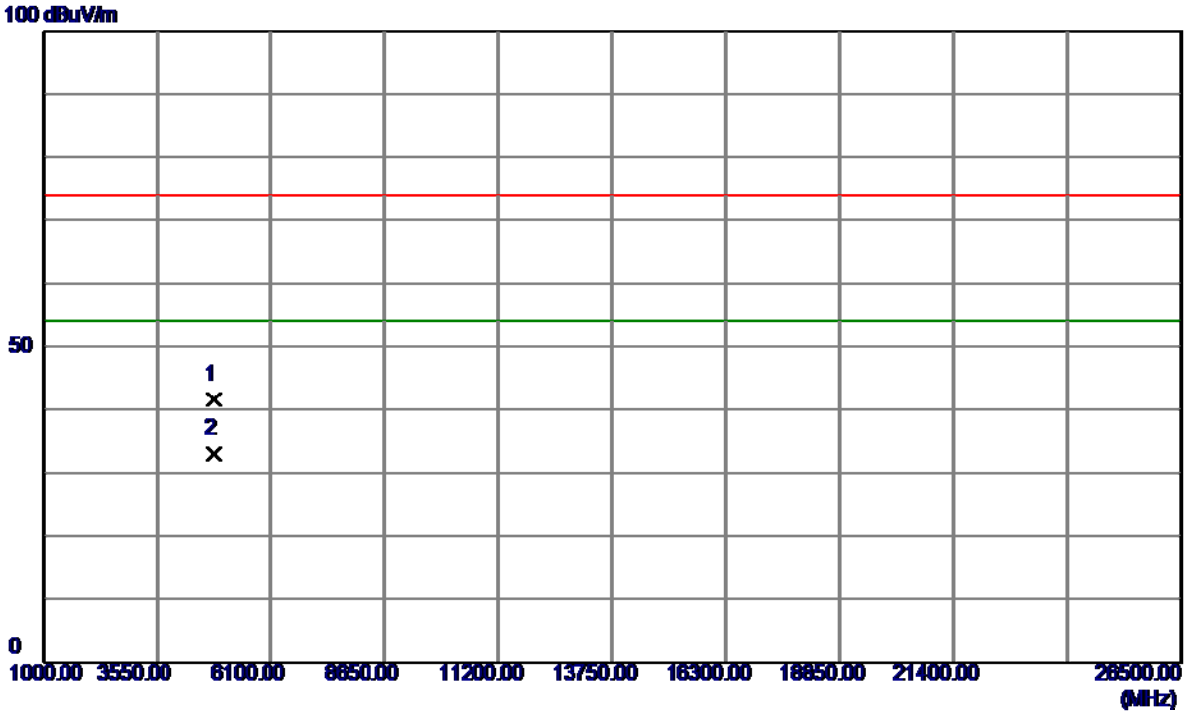
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2433.1000	69.39	34.48	103.87	54.00	49.87	AVG	NO LIMIT
2	2433.5000	79.30	34.48	113.78	74.00	39.78	Peak	NO LIMIT

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

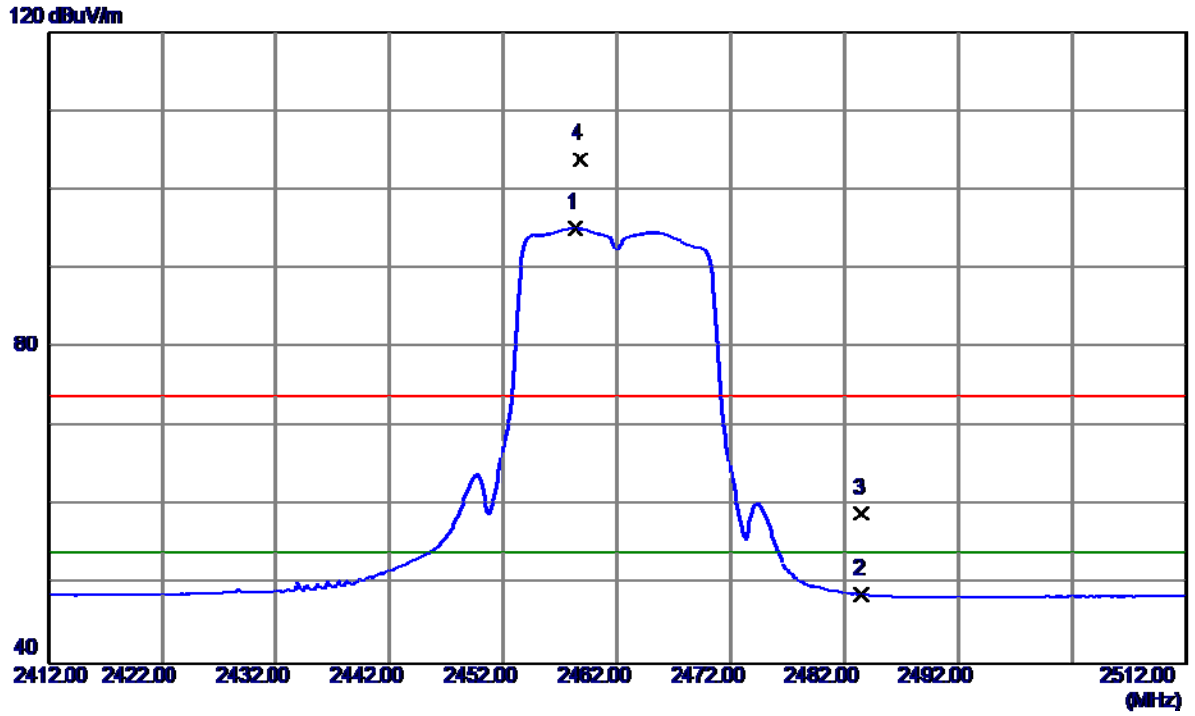
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4824.1200	37.91	3.62	41.53	74.00	-32.47	Peak	
2	4824.1200	29.47	3.62	33.09	54.00	-20.91	AVG	

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

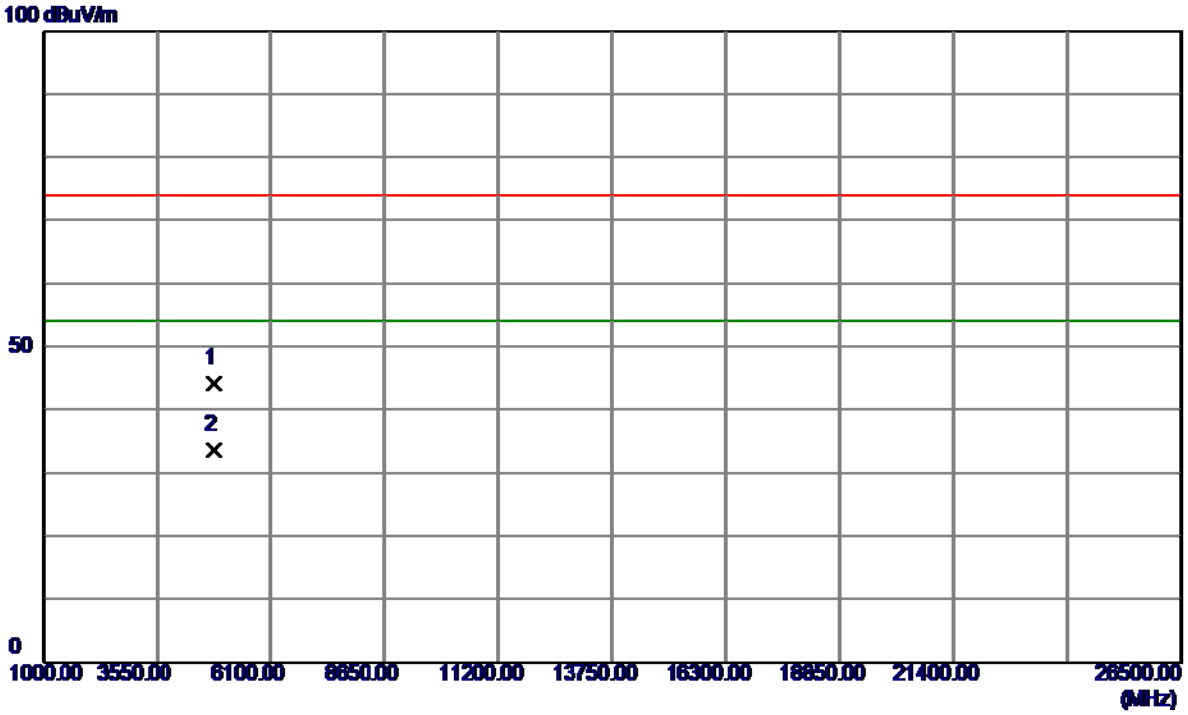
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2458.3000	60.61	34.63	95.24	54.00	41.24	AVG	NO LIMIT
2	2483.5000	14.00	34.77	48.77	54.00	-5.23	AVG	
3	2483.5000	24.26	34.77	59.03	74.00	-14.97	Peak	
4	2458.8000	69.29	34.63	103.92	74.00	29.92	Peak	NO LIMIT

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

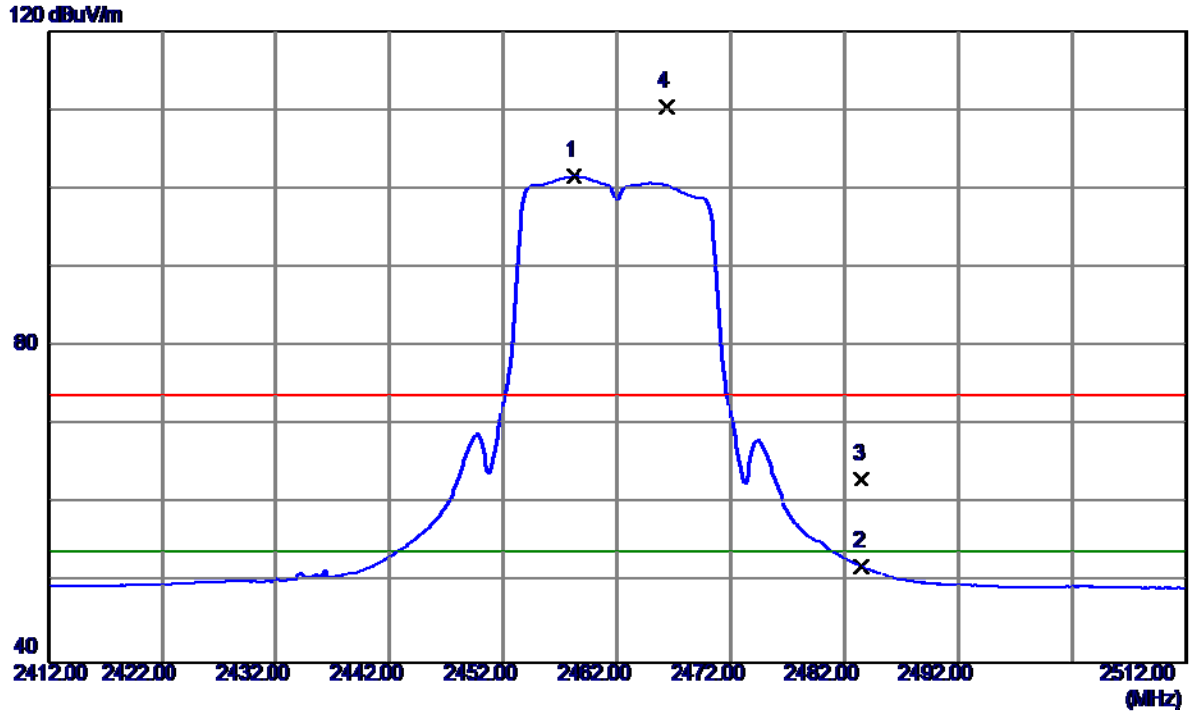
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4823.9500	40.54	3.62	44.16	74.00	-29.84	Peak	
2	4824.0299	29.89	3.62	33.51	54.00	-20.49	AVG	

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

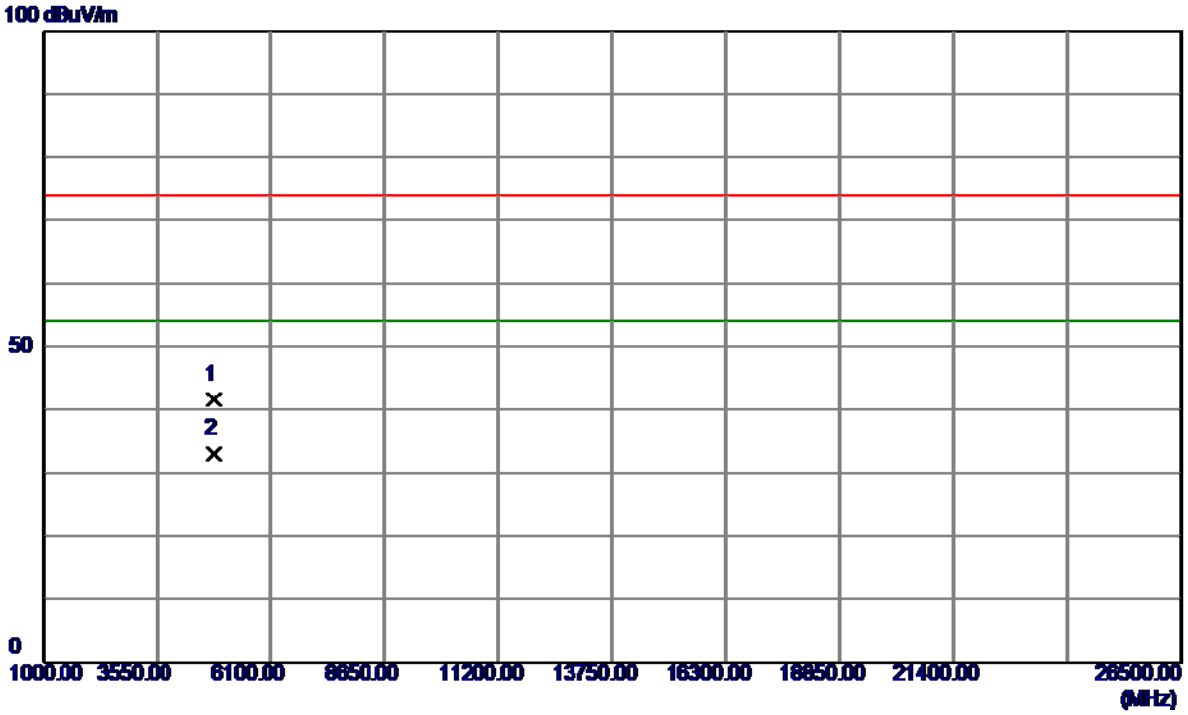
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2458.2000	66.92	34.63	101.55	54.00	47.55	AVG	NO LIMIT
2	2483.5000	17.34	34.77	52.11	54.00	-1.89	AVG	
3	2483.5000	28.36	34.77	63.13	74.00	-10.87	Peak	
4	2466.3000	75.80	34.67	110.47	74.00	36.47	Peak	NO LIMIT

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

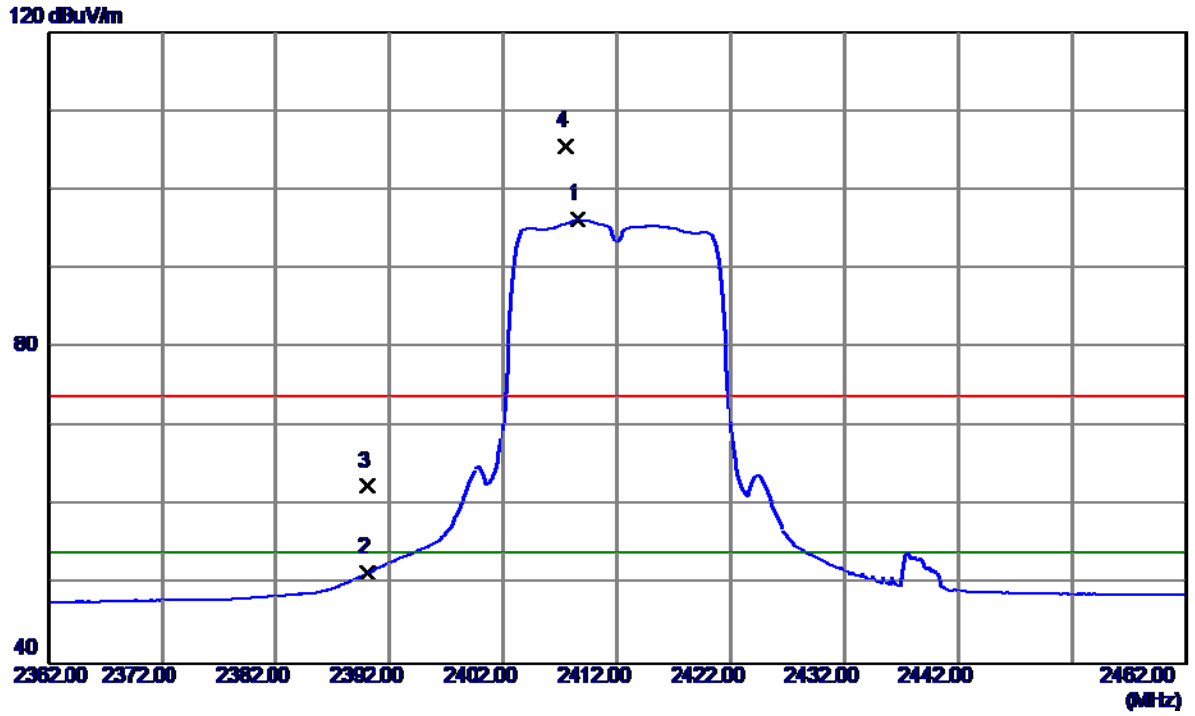
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4824.1200	37.91	3.62	41.53	74.00	-32.47	Peak	
2	4824.1200	29.47	3.62	33.09	54.00	-20.91	AVG	

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

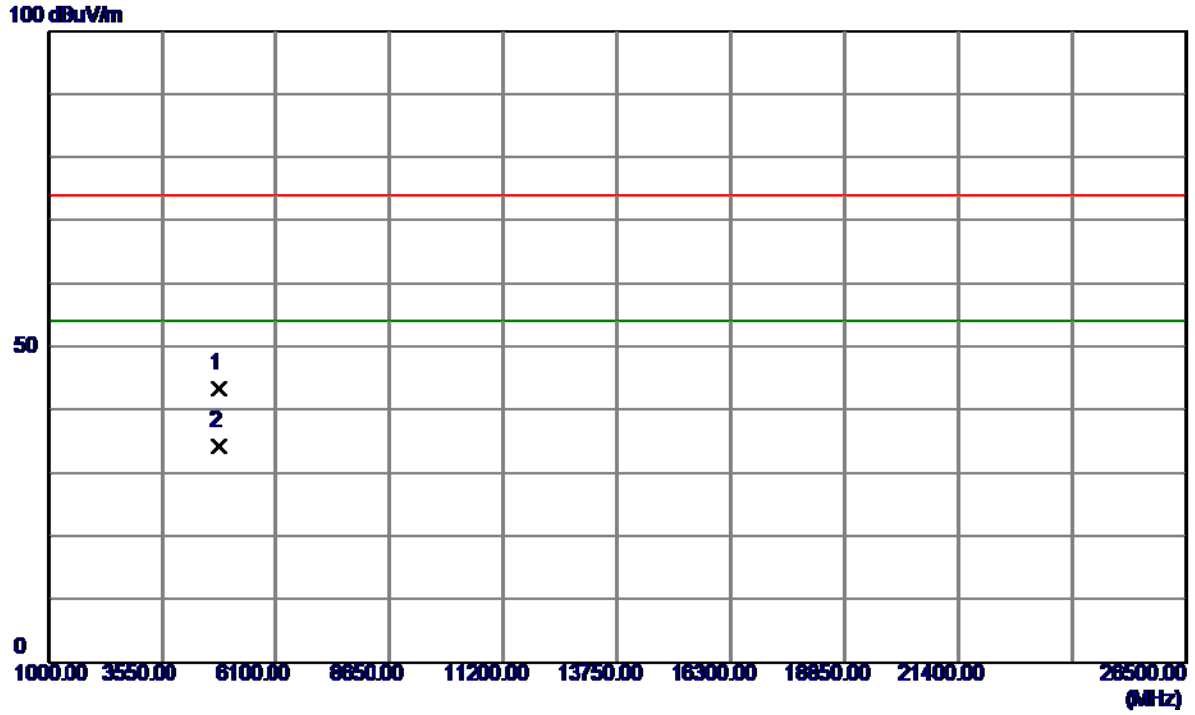
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2408.5000	61.92	34.34	96.26	54.00	42.26	AVG	NO LIMIT
2	2390.0000	17.23	34.23	51.46	54.00	-2.54	AVG	
3	2390.0000	28.25	34.23	62.48	74.00	-11.52	Peak	
4	2407.4000	71.25	34.33	105.58	74.00	31.58	Peak	NO LIMIT

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

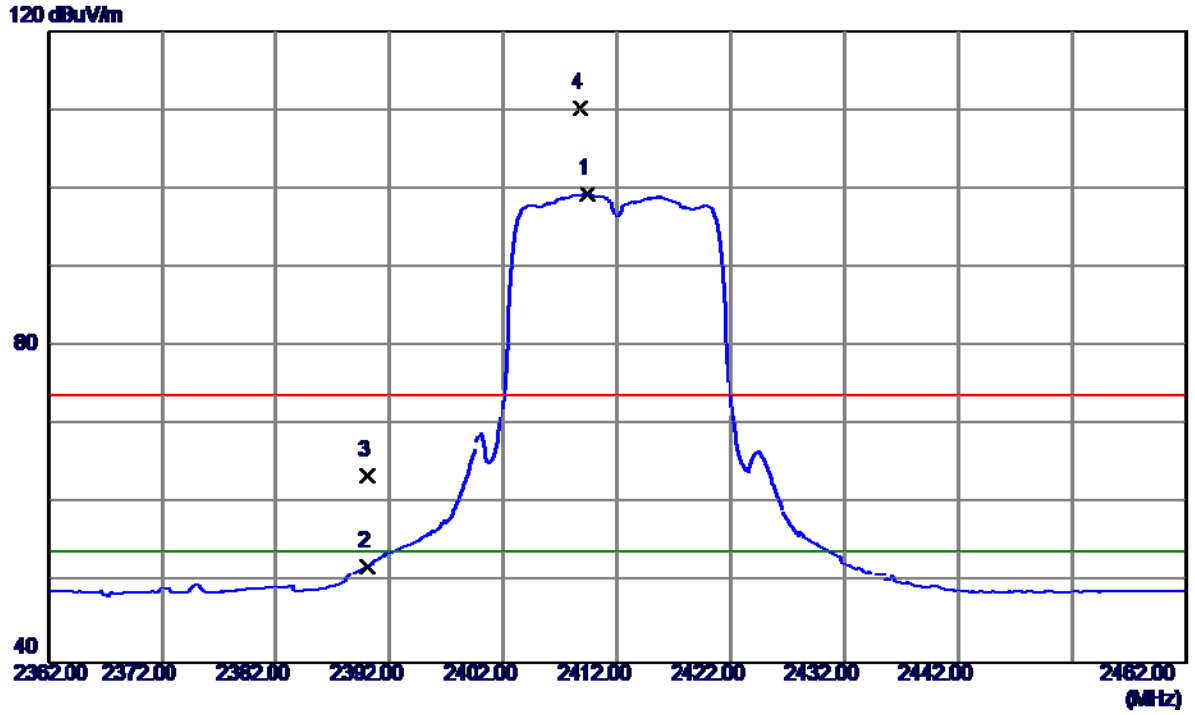
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4823.9800	39.74	3.62	43.36	74.00	-30.64	Peak	
2	4823.9800	30.64	3.62	34.26	54.00	-19.74	AVG	

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

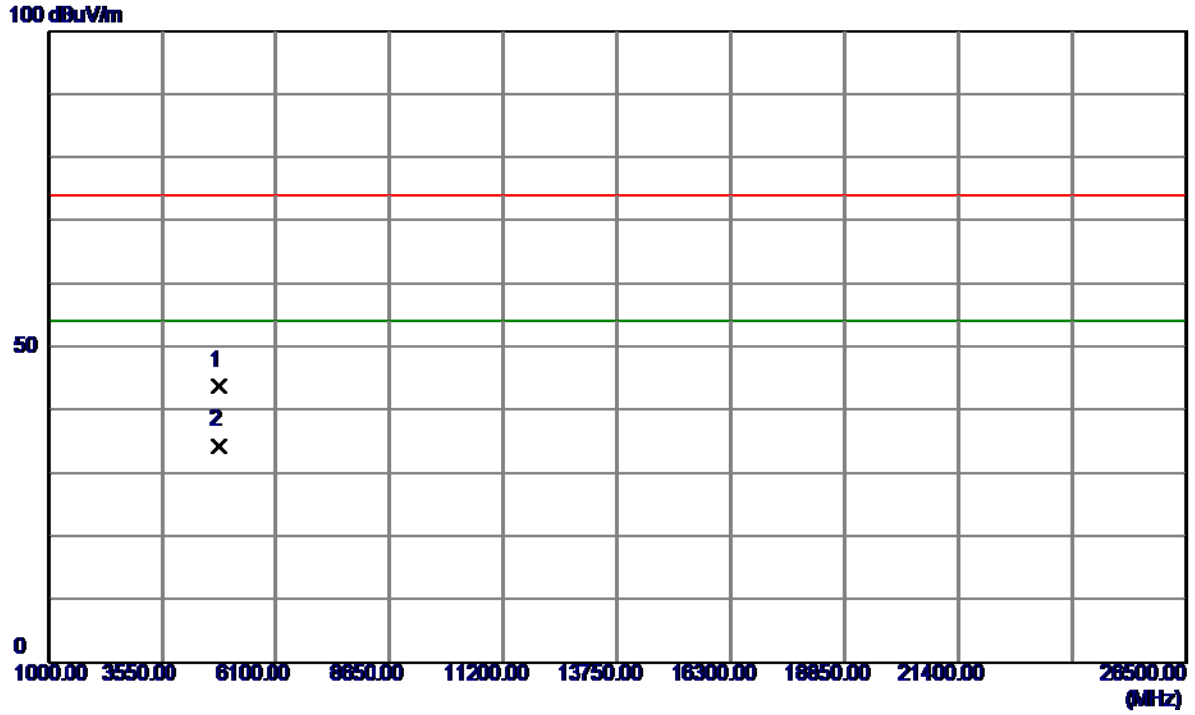
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2409.4000	65.01	34.34	99.35	54.00	45.35	AVG	NO LIMIT
2	2390.0000	17.92	34.23	52.15	54.00	-1.85	AVG	
3	2390.0000	29.48	34.23	63.71	74.00	-10.29	Peak	
4	2408.8000	75.93	34.34	110.27	74.00	36.27	Peak	NO LIMIT

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

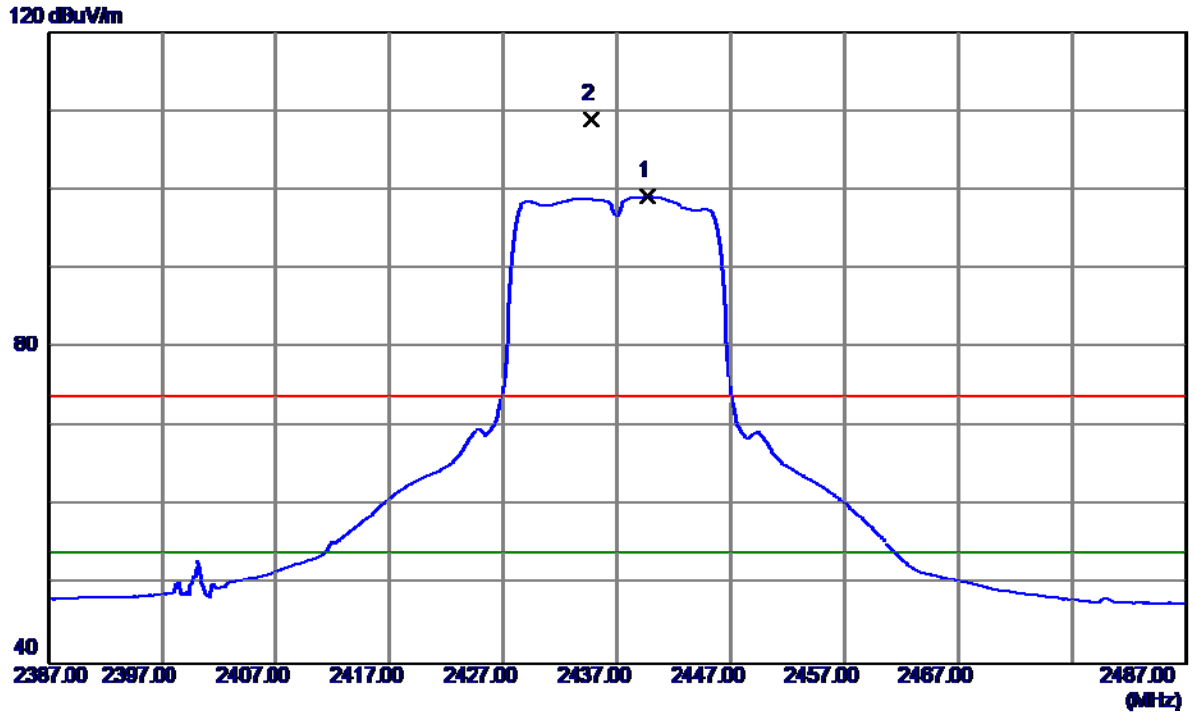
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4823.9700	40.22	3.62	43.84	74.00	-30.16	Peak	
2	4823.9700	30.68	3.62	34.30	54.00	-19.70	AVG	

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

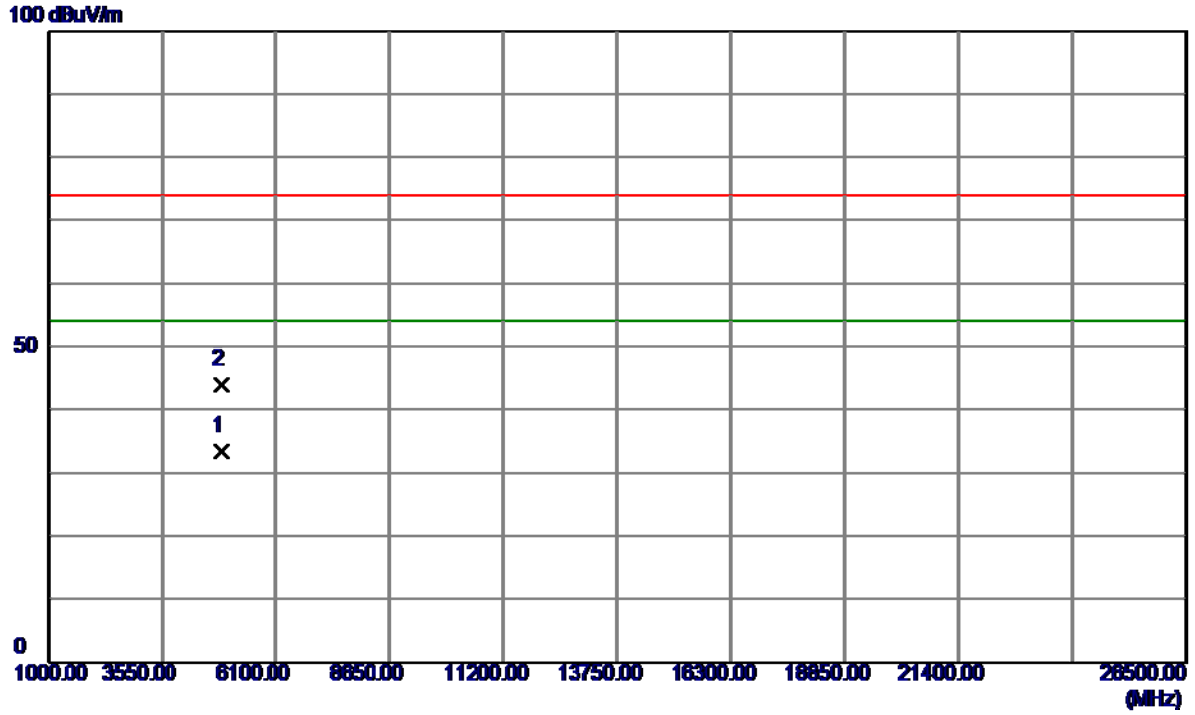
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2439.7000	64.66	34.52	99.18	54.00	45.18	AVG	NO LIMIT
2	2434.8000	74.50	34.49	108.99	74.00	34.99	Peak	NO LIMIT

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

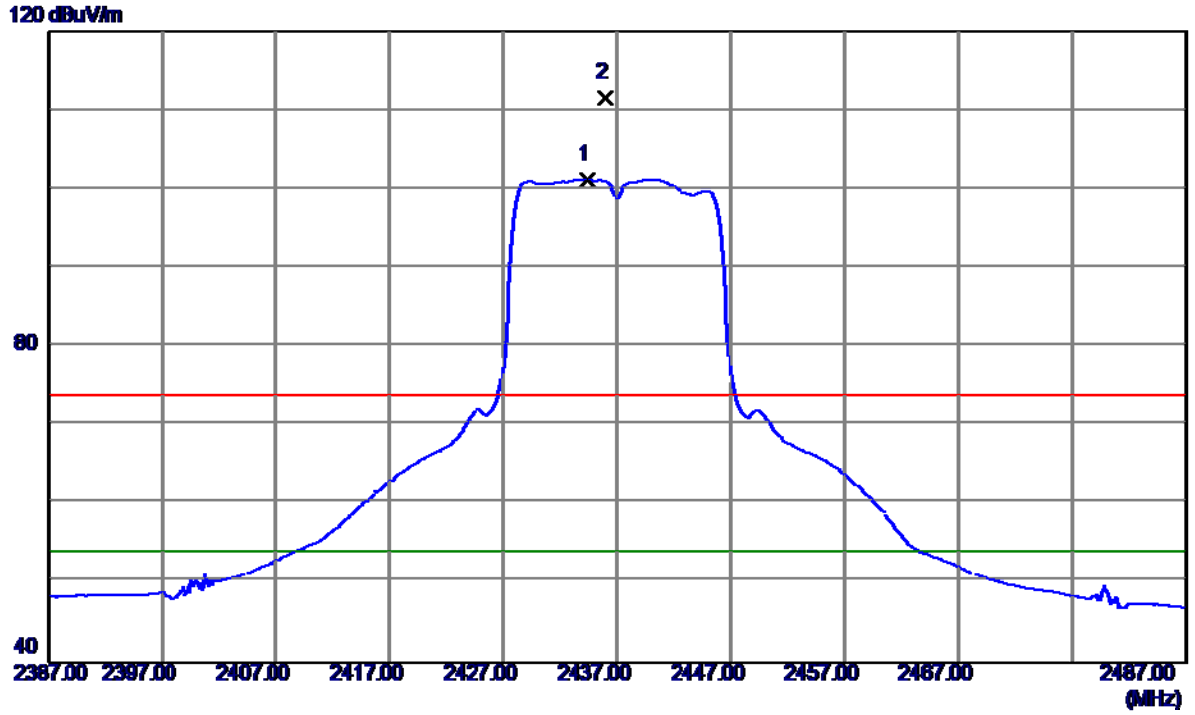
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4874.0099	29.60	3.71	33.31	54.00	-20.69	AVG	
2	4874.0299	40.34	3.71	44.05	74.00	-29.95	Peak	

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

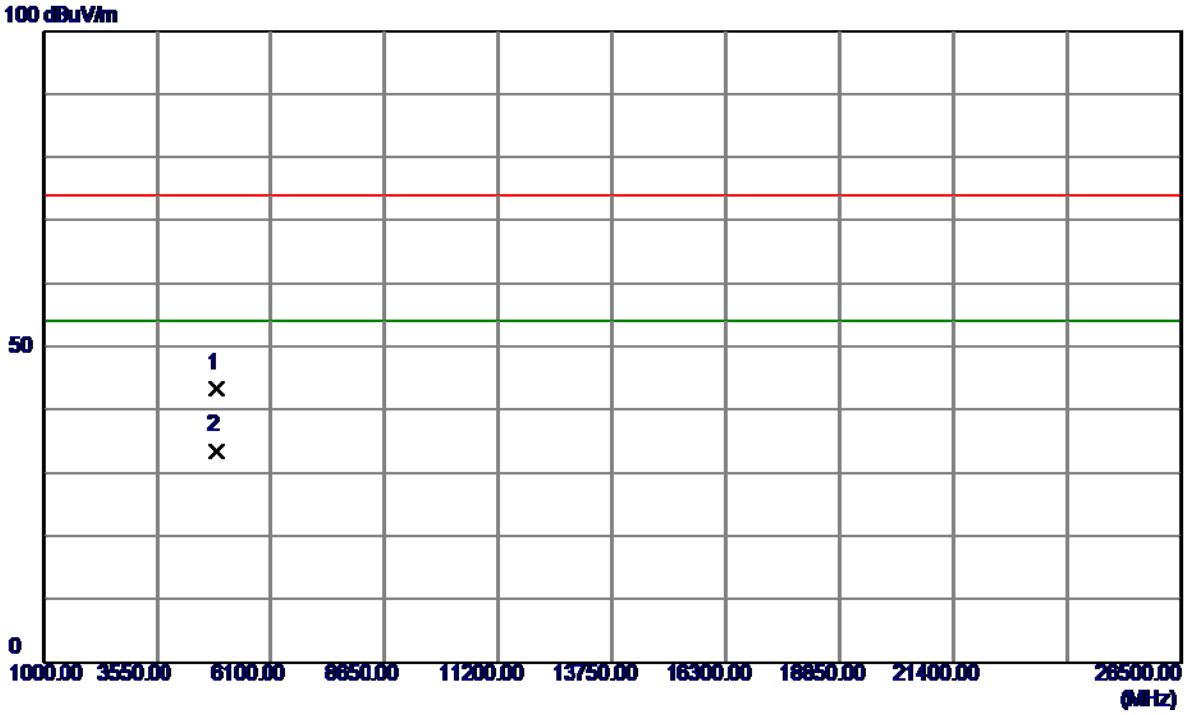
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2434.4000	66.70	34.49	101.19	54.00	47.19	AVG	NO LIMIT
2	2436.0000	76.96	34.50	111.46	74.00	37.46	Peak	NO LIMIT

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

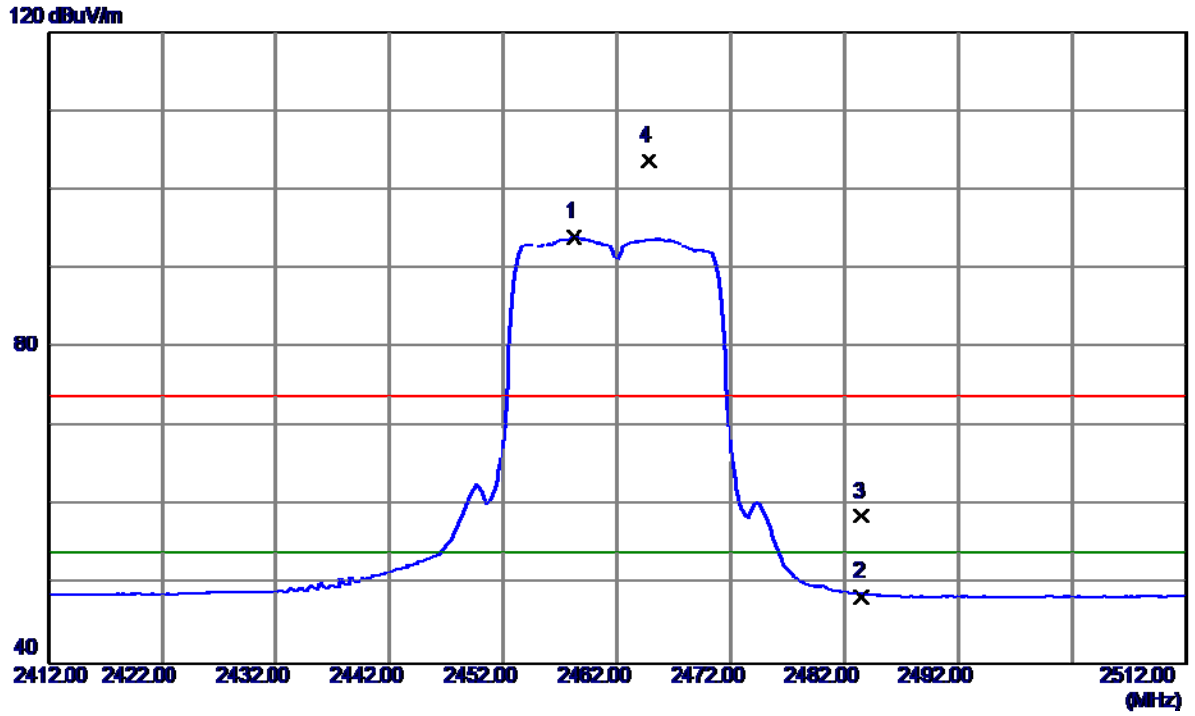
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4873.9600	39.67	3.71	43.38	74.00	-30.62	Peak	
2	4874.0099	29.79	3.71	33.50	54.00	-20.50	AVG	

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

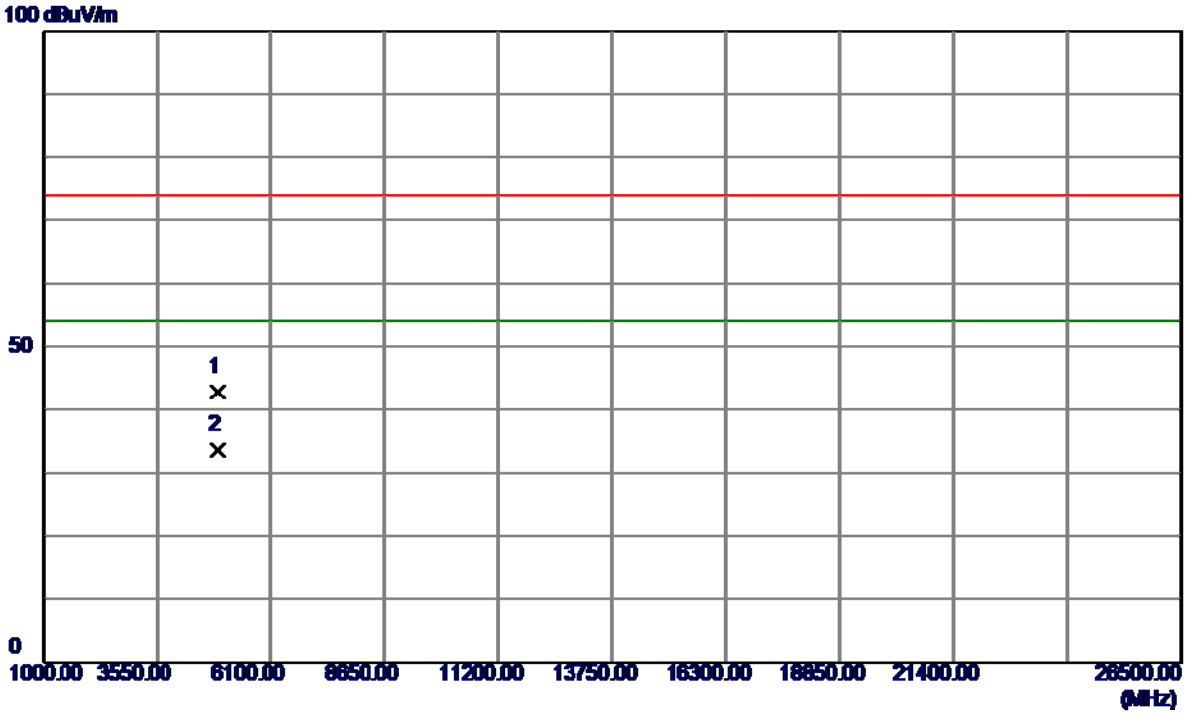
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2458.2000	59.41	34.63	94.04	54.00	40.04	AVG	NO LIMIT
2	2483.5000	13.74	34.77	48.51	54.00	-5.49	AVG	
3	2483.5000	23.87	34.77	58.64	74.00	-15.36	Peak	
4	2464.8000	69.05	34.67	103.72	74.00	29.72	Peak	NO LIMIT

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

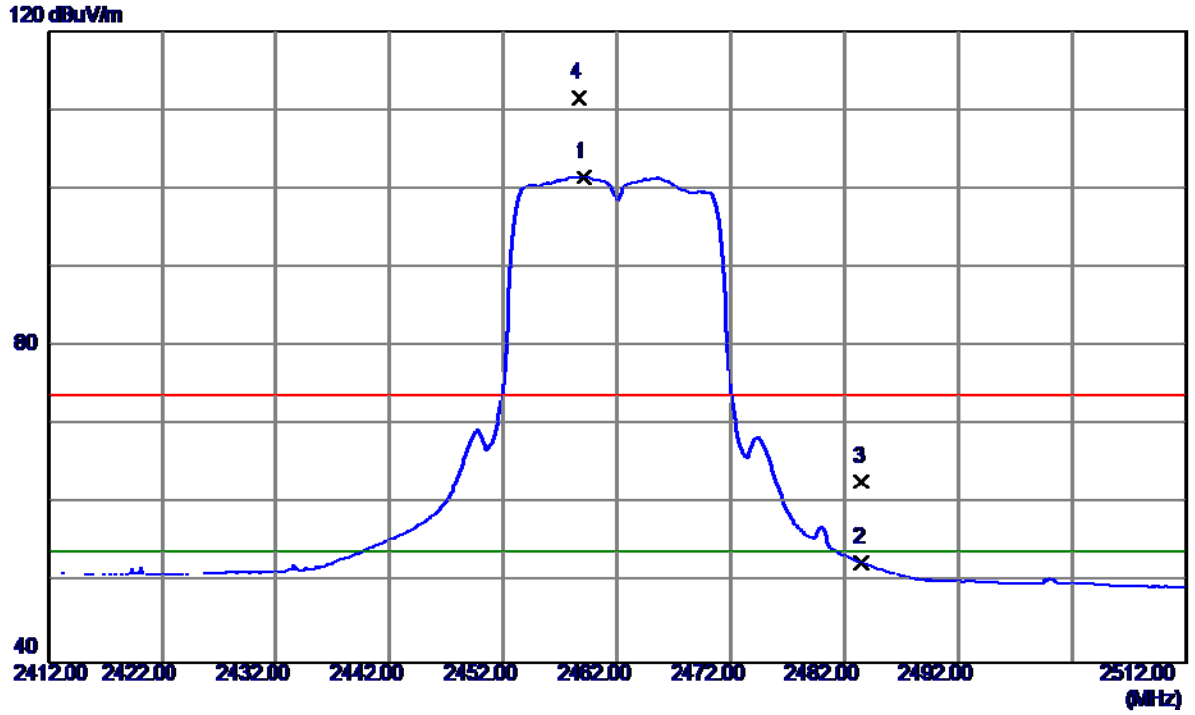
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4923.9900	38.97	3.81	42.78	74.00	-31.22	Peak	
2	4923.9900	29.88	3.81	33.69	54.00	-20.31	AVG	

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

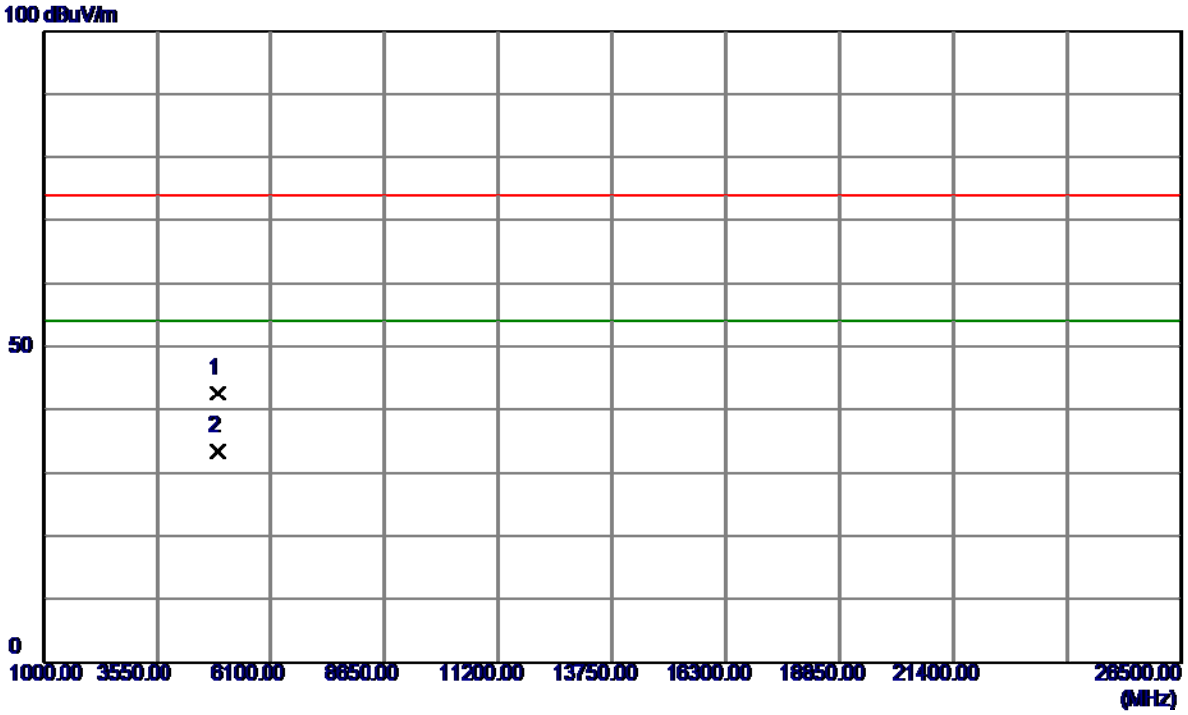
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2459.1000	66.89	34.63	101.52	54.00	47.52	AVG	NO LIMIT
2	2483.5000	17.85	34.77	52.62	54.00	-1.38	AVG	
3	2483.5000	28.14	34.77	62.91	74.00	-11.09	Peak	
4	2458.7000	76.96	34.63	111.59	74.00	37.59	Peak	NO LIMIT

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

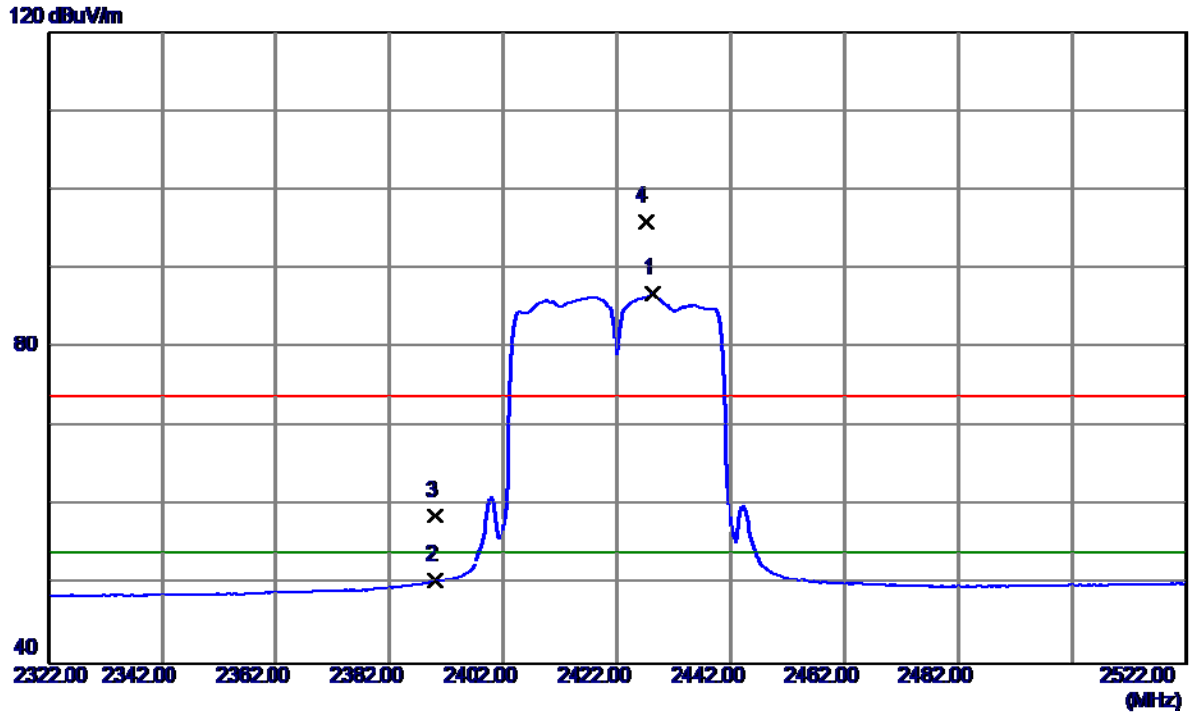
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4924.0000	38.74	3.81	42.55	74.00	-31.45	Peak	
2	4924.0000	29.60	3.81	33.41	54.00	-20.59	AVG	

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

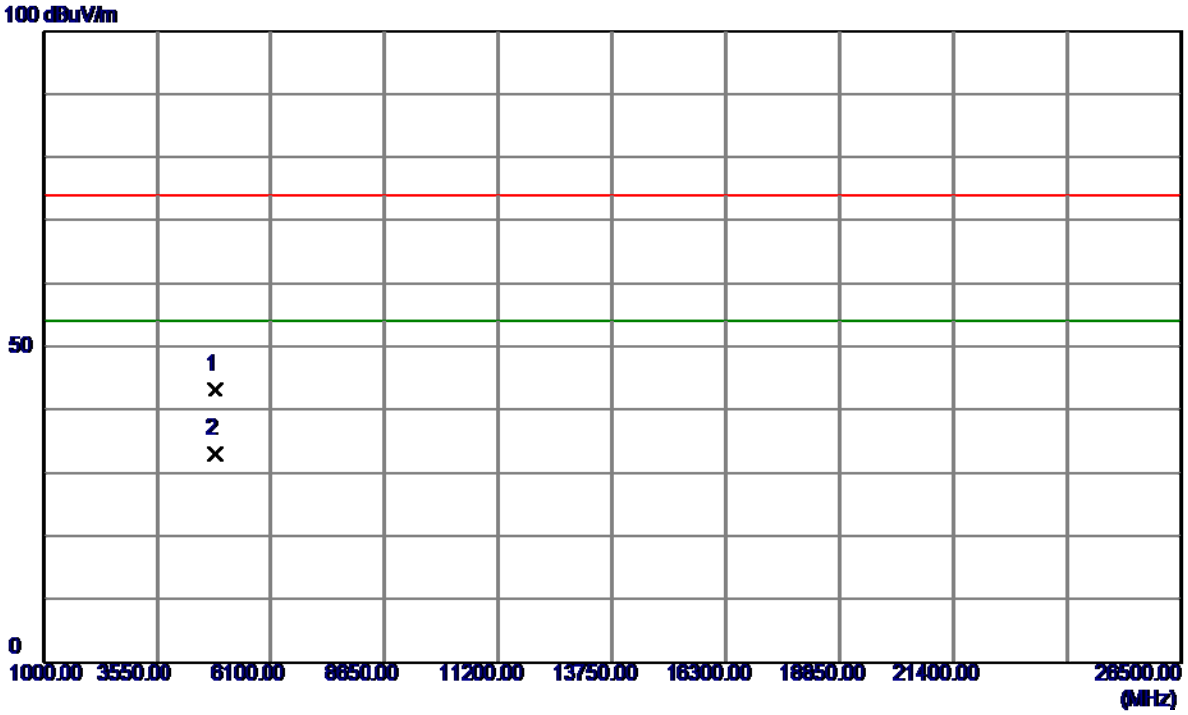
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2428.2000	52.38	34.45	86.83	54.00	32.83	AVG	NO LIMIT
2	2390.0000	16.26	34.23	50.49	54.00	-3.51	AVG	
3	2390.0000	24.44	34.23	58.67	74.00	-15.33	Peak	
4	2427.0000	61.52	34.45	95.97	74.00	21.97	Peak	NO LIMIT

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

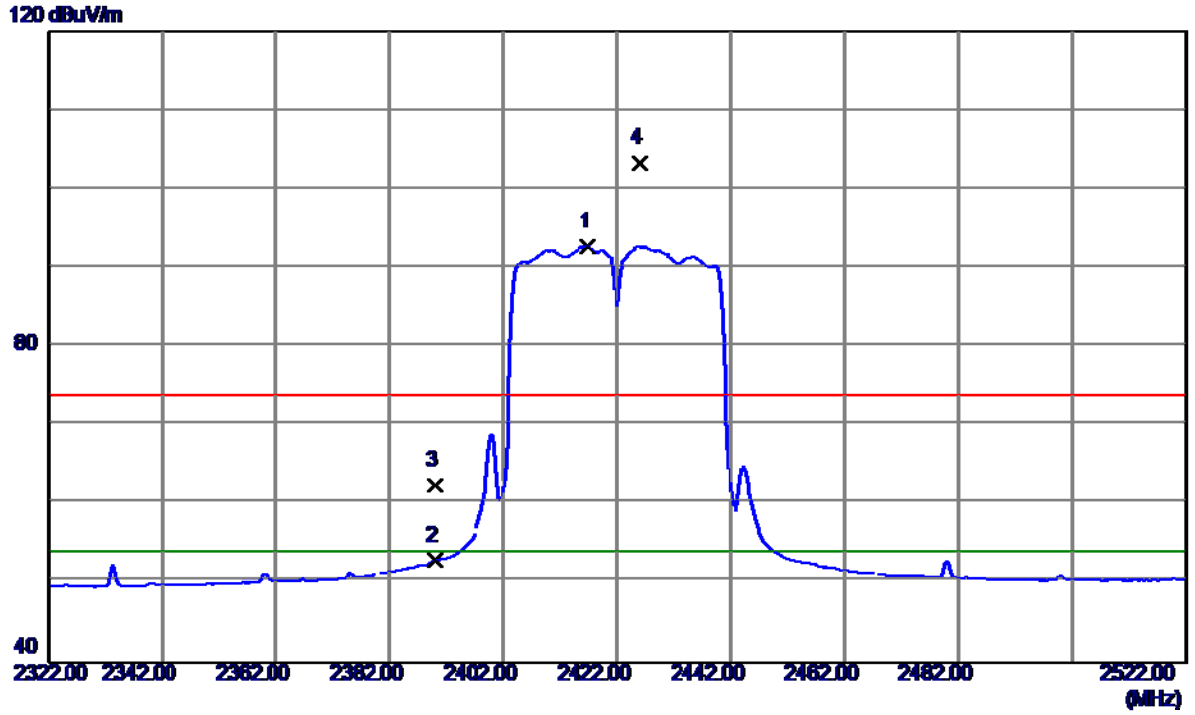
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4844.0200	39.49	3.66	43.15	74.00	-30.85	Peak	
2	4844.0200	29.39	3.66	33.05	54.00	-20.95	AVG	

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

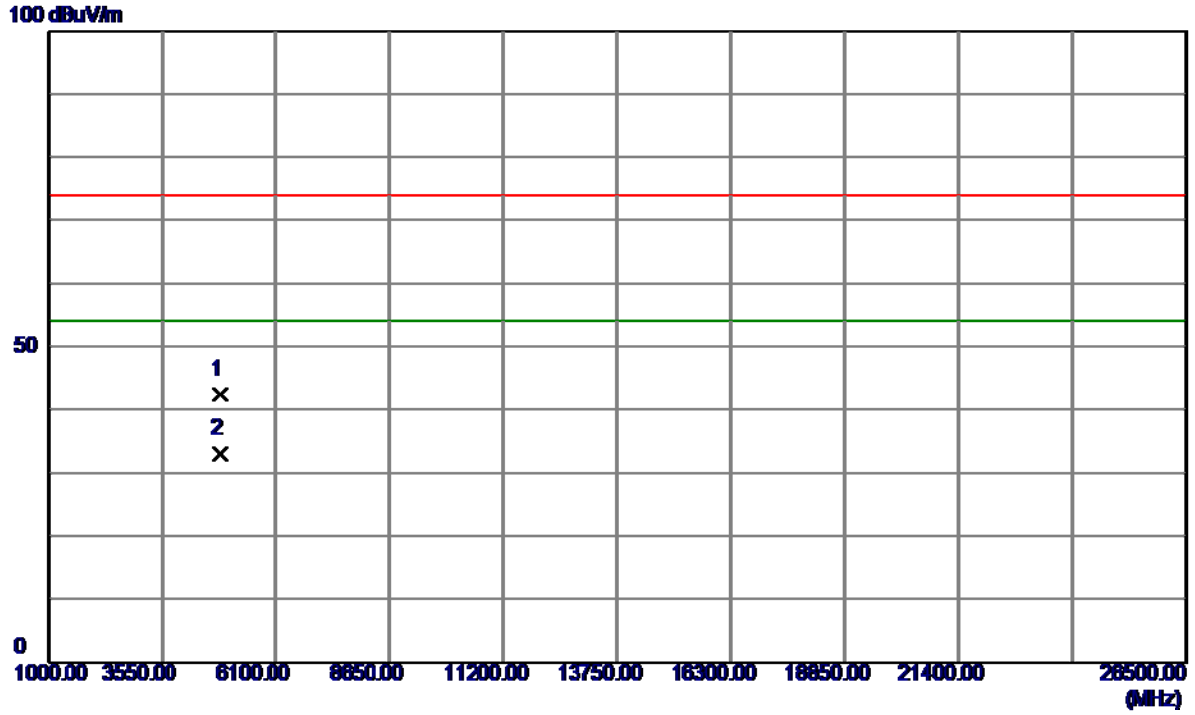
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2417.0000	58.24	34.39	92.63	54.00	38.63	AVG	NO LIMIT
2	2390.0000	18.65	34.23	52.88	54.00	-1.12	AVG	
3	2390.0000	28.22	34.23	62.45	74.00	-11.55	Peak	
4	2426.0000	68.79	34.44	103.23	74.00	29.23	Peak	NO LIMIT

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

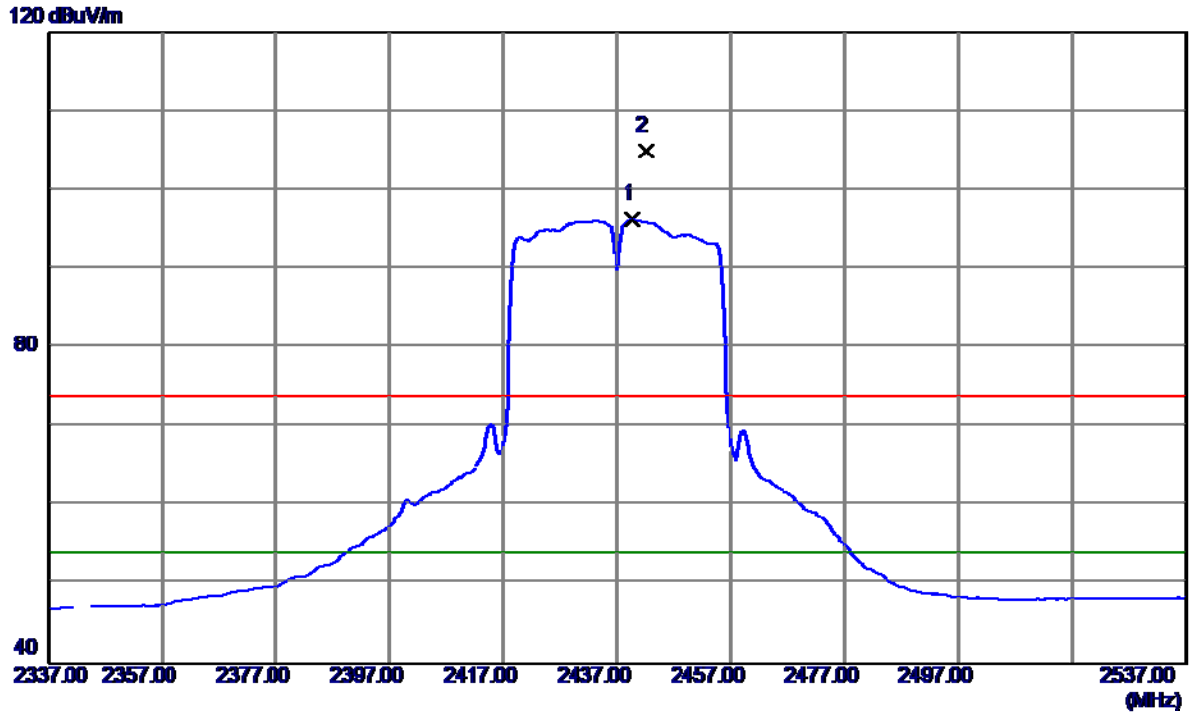
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4844.0000	38.74	3.66	42.40	74.00	-31.60	Peak	
2	4844.0000	29.32	3.66	32.98	54.00	-21.02	AVG	

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

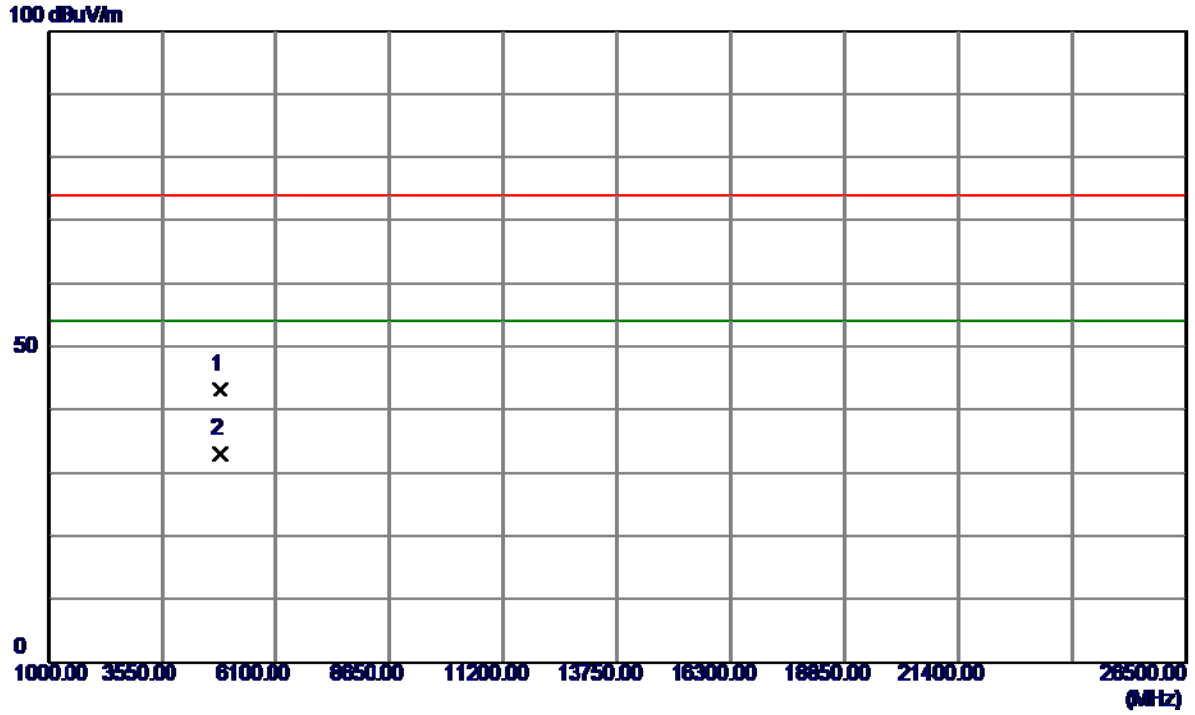
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2439.6000	61.80	34.52	96.32	54.00	42.32	AVG	NO LIMIT
2	2442.0000	70.44	34.53	104.97	74.00	30.97	Peak	NO LIMIT

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

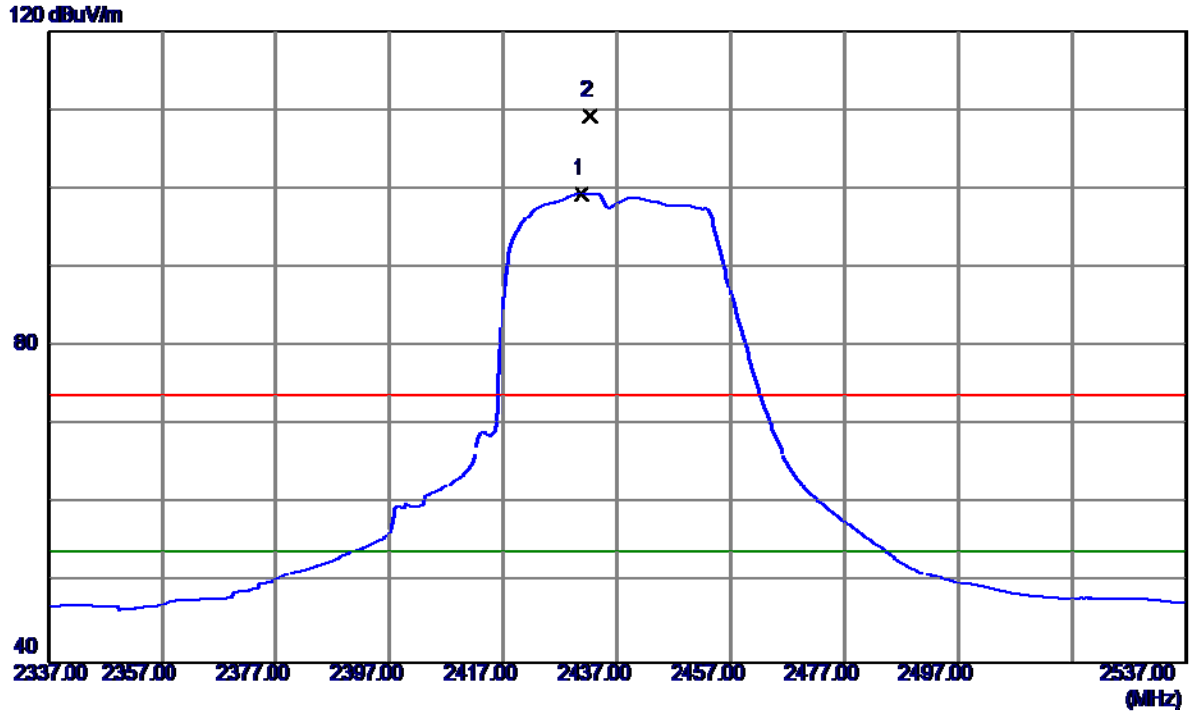
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4844.0200	39.49	3.66	43.15	74.00	-30.85	Peak	
2	4844.0200	29.39	3.66	33.05	54.00	-20.95	AVG	

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

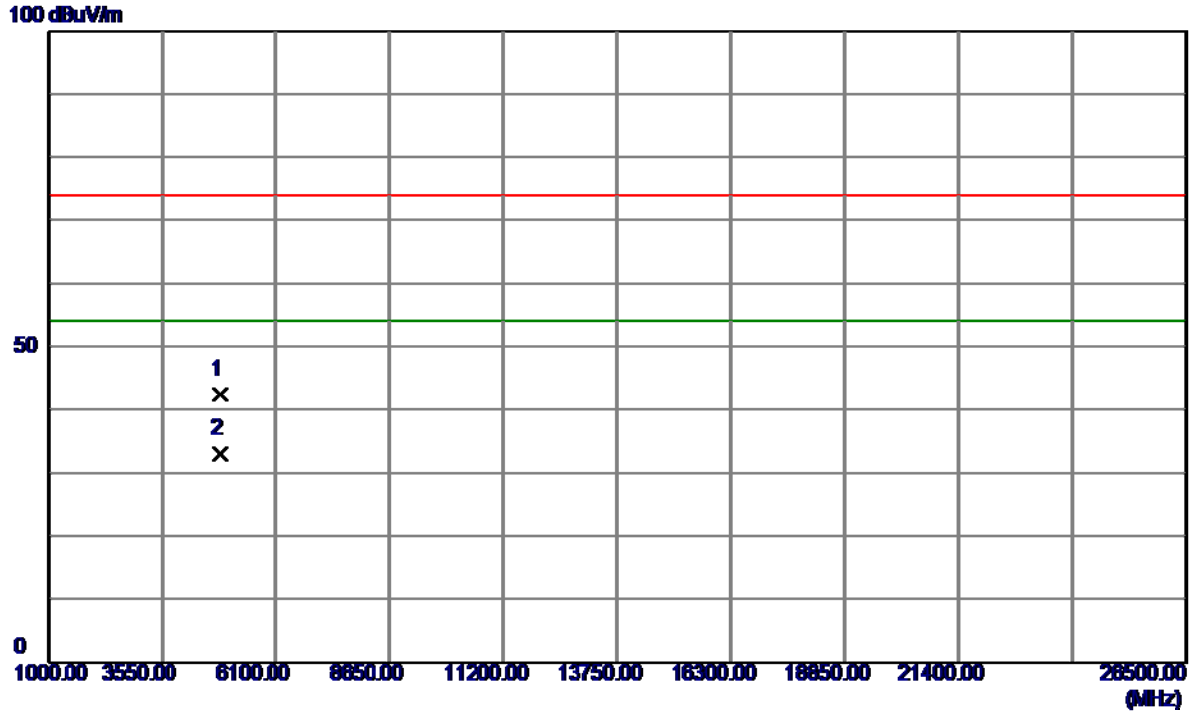
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2430.8000	64.96	34.47	99.43	54.00	45.43	AVG	NO LIMIT
2	2432.4000	74.78	34.48	109.26	74.00	35.26	Peak	NO LIMIT

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

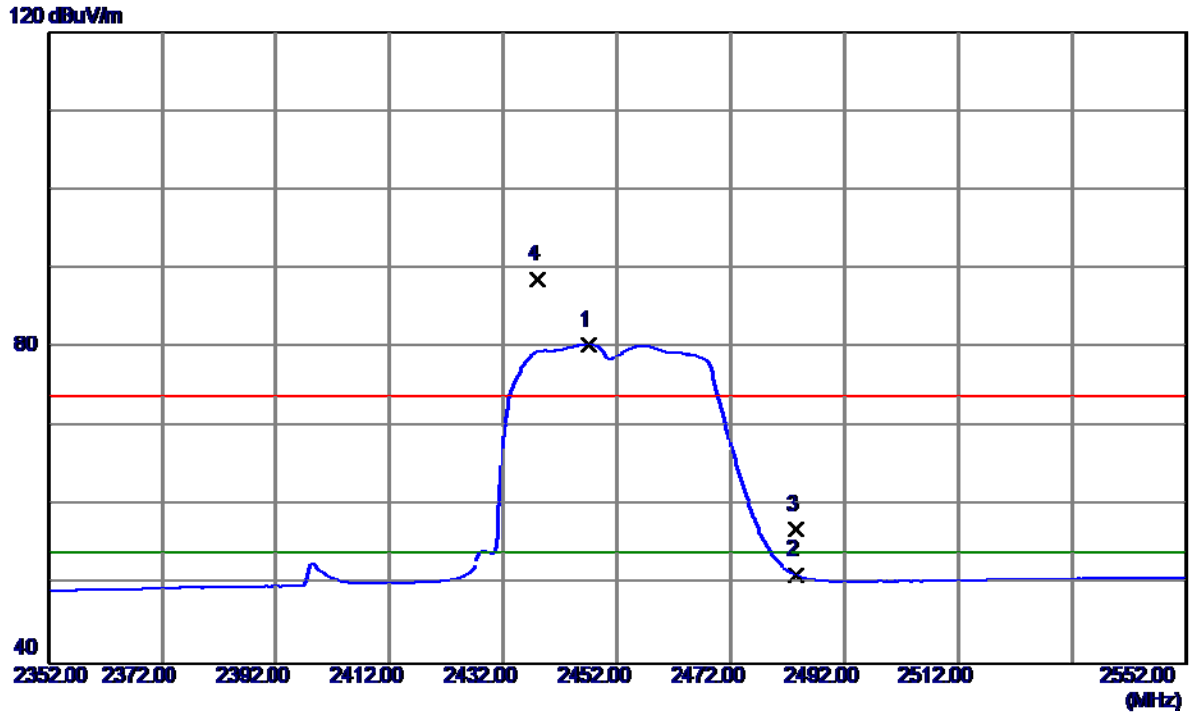
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4844.0000	38.74	3.66	42.40	74.00	-31.60	Peak	
2	4844.0000	29.32	3.66	32.98	54.00	-21.02	AVG	

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

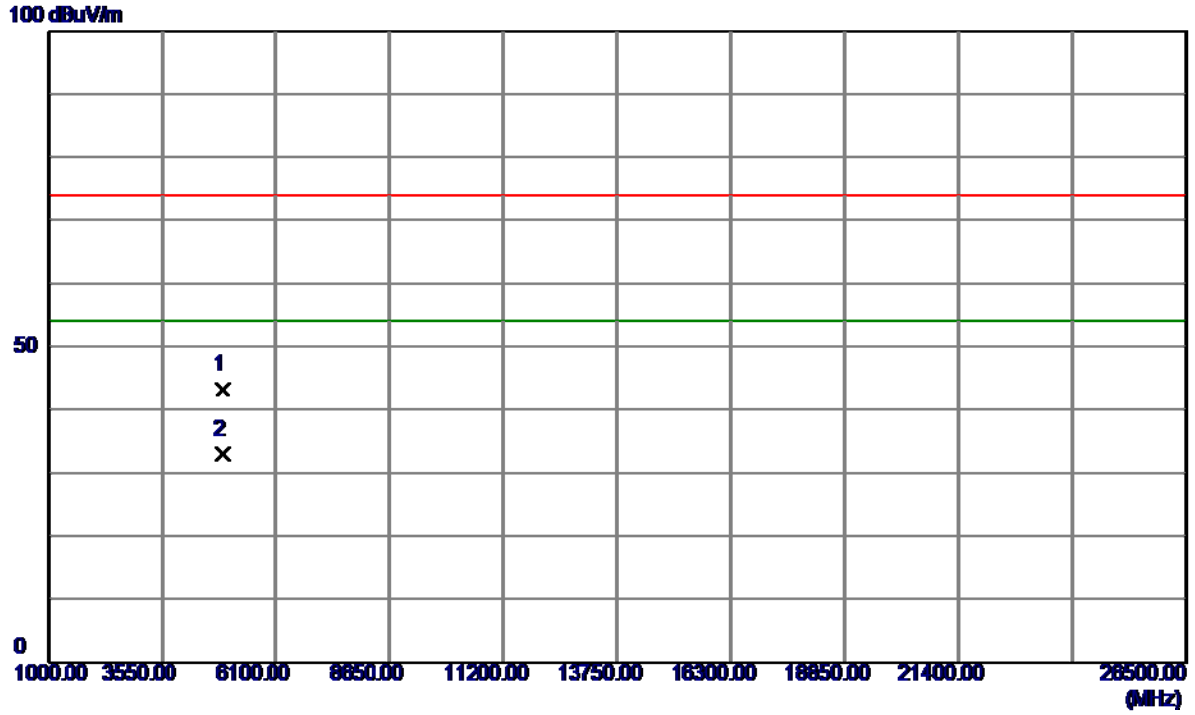
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2447.2000	45.81	34.56	80.37	54.00	26.37	AVG	NO LIMIT
2	2483.5000	16.44	34.77	51.21	54.00	-2.79	AVG	
3	2483.5000	22.20	34.77	56.97	74.00	-17.03	Peak	
4	2438.0000	54.10	34.51	88.61	74.00	14.61	Peak	NO LIMIT

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

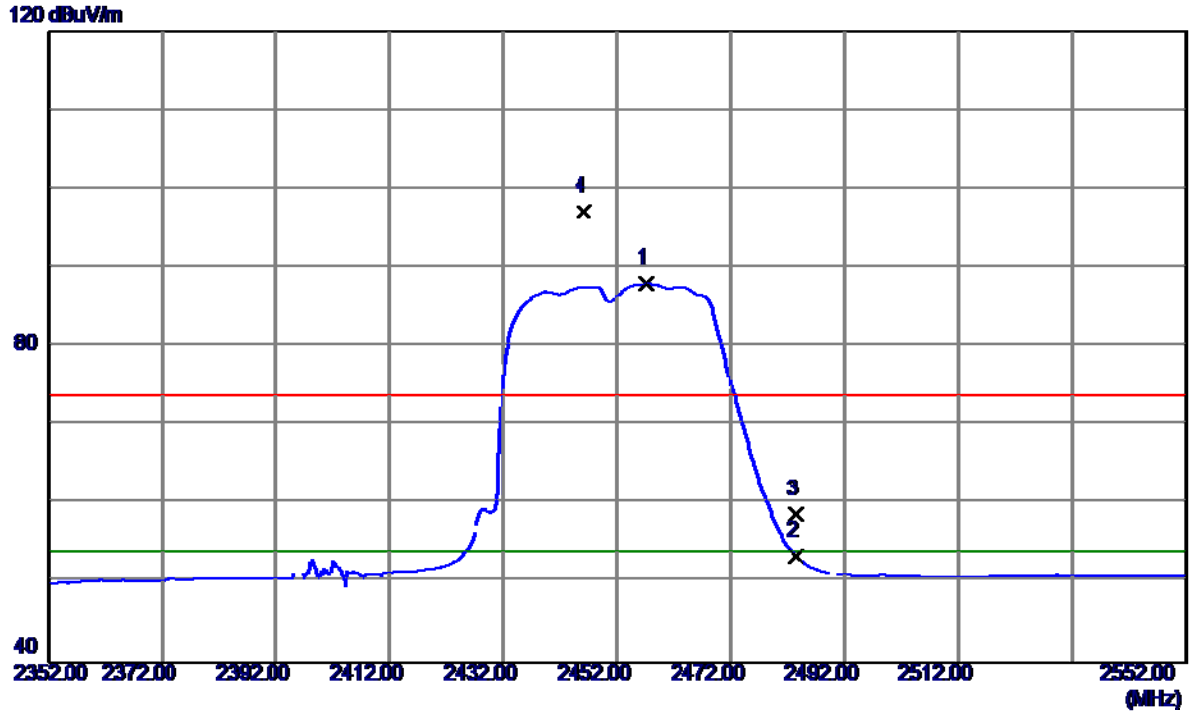
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4903.9000	39.47	3.77	43.24	74.00	-30.76	Peak	
2	4903.9000	29.13	3.77	32.90	54.00	-21.10	AVG	

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

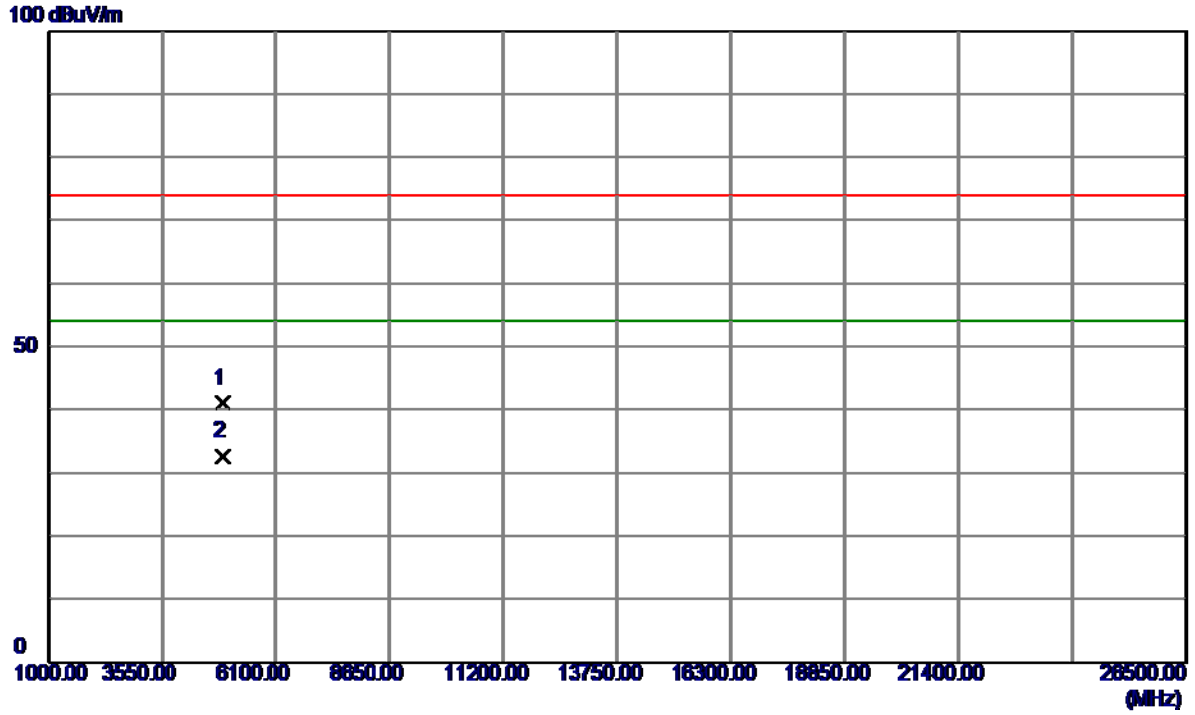
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2457.2000	53.34	34.62	87.96	54.00	33.96	AVG	NO LIMIT
2	2483.5000	18.66	34.77	53.43	54.00	-0.57	AVG	
3	2483.5000	23.92	34.77	58.69	74.00	-15.31	Peak	
4	2446.2000	62.48	34.56	97.04	74.00	23.04	Peak	NO LIMIT

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

Horizontal



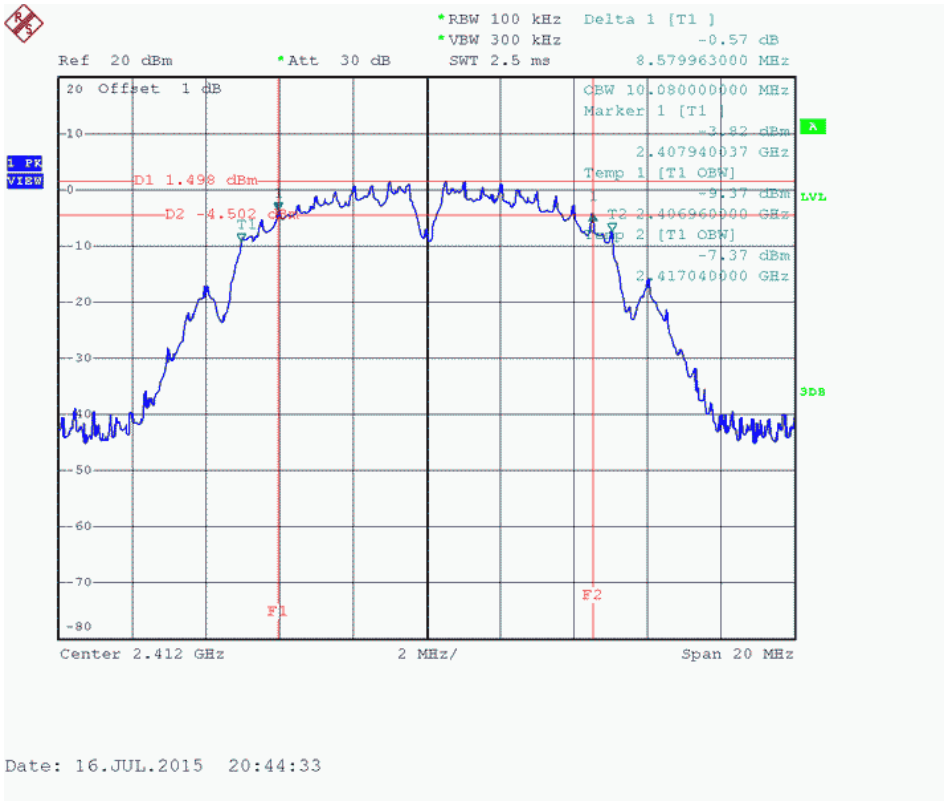
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4904.0099	37.21	3.77	40.98	74.00	-33.02	Peak	
2	4904.0099	28.83	3.77	32.60	54.00	-21.40	AVG	

ATTACHMENT E - BANDWIDTH

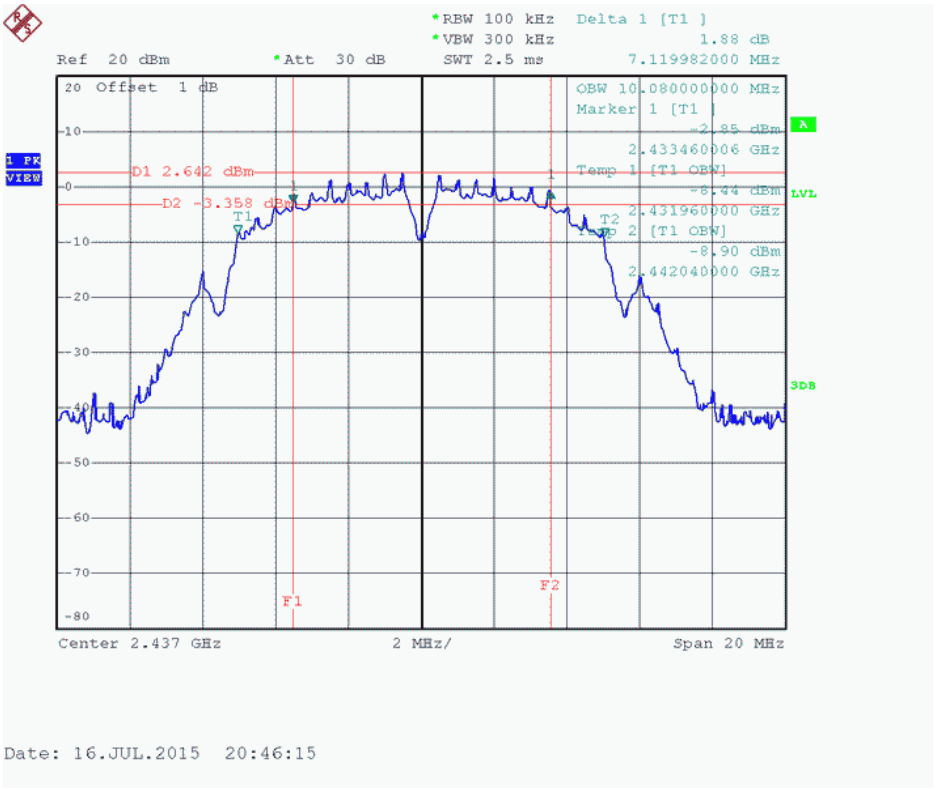
Test Mode : TX B Mode_CH01/06/11

Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied BW (MHz)	Min. Limit (kHz)	Test Result
2412	8.58	10.08	500	Complies
2437	7.12	10.08	500	Complies
2462	8.11	10.08	500	Complies

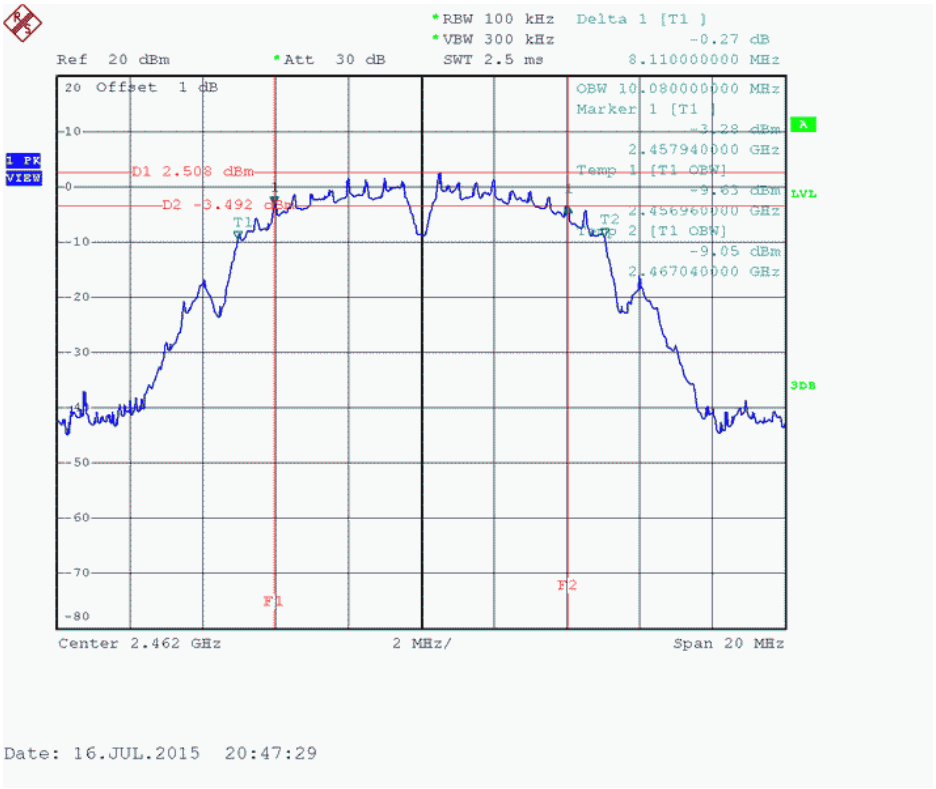
TX CH01



TX CH06



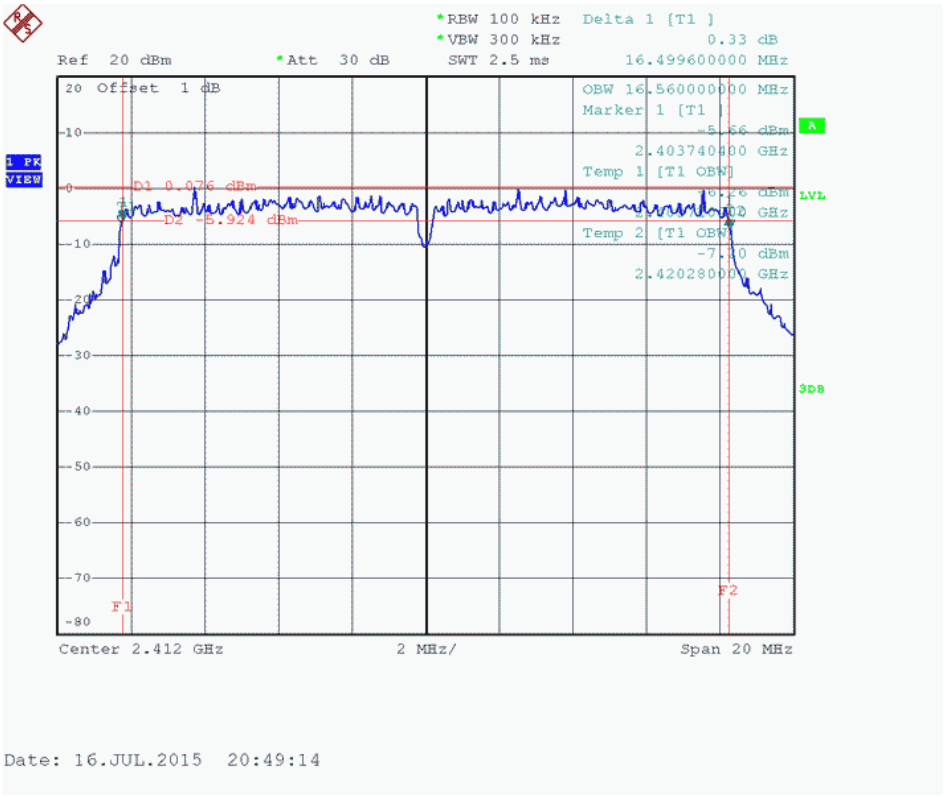
TX CH11



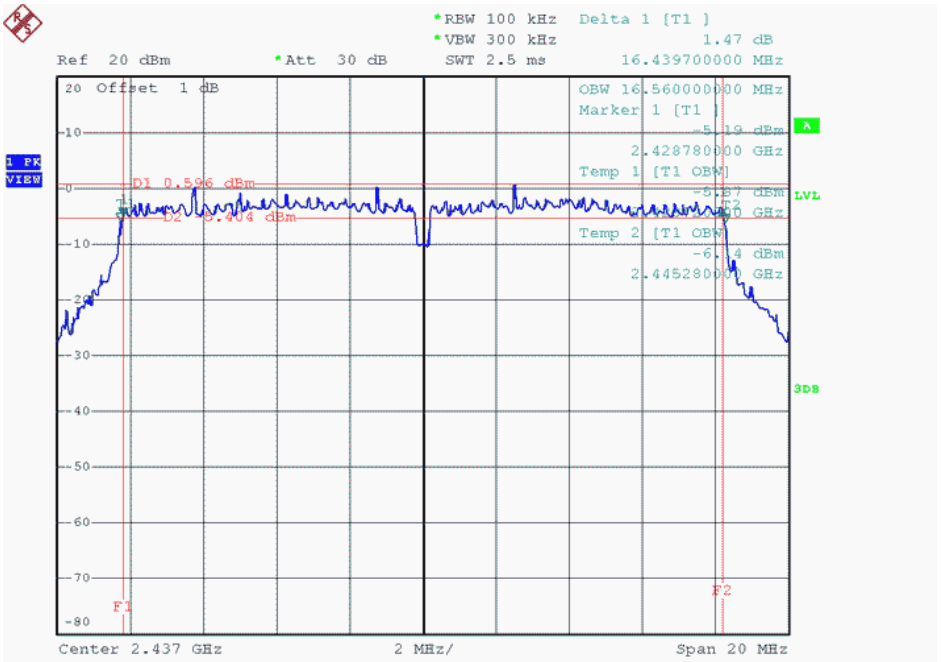
Test Mode: TX G Mode_CH01/06/11

Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied BW (MHz)	Min. Limit (kHz)	Test Result
2412	16.50	16.56	500	Complies
2437	16.44	16.56	500	Complies
2462	16.50	16.56	500	Complies

TX CH01



TX CH06



Date: 16.JUL.2015 20:50:11

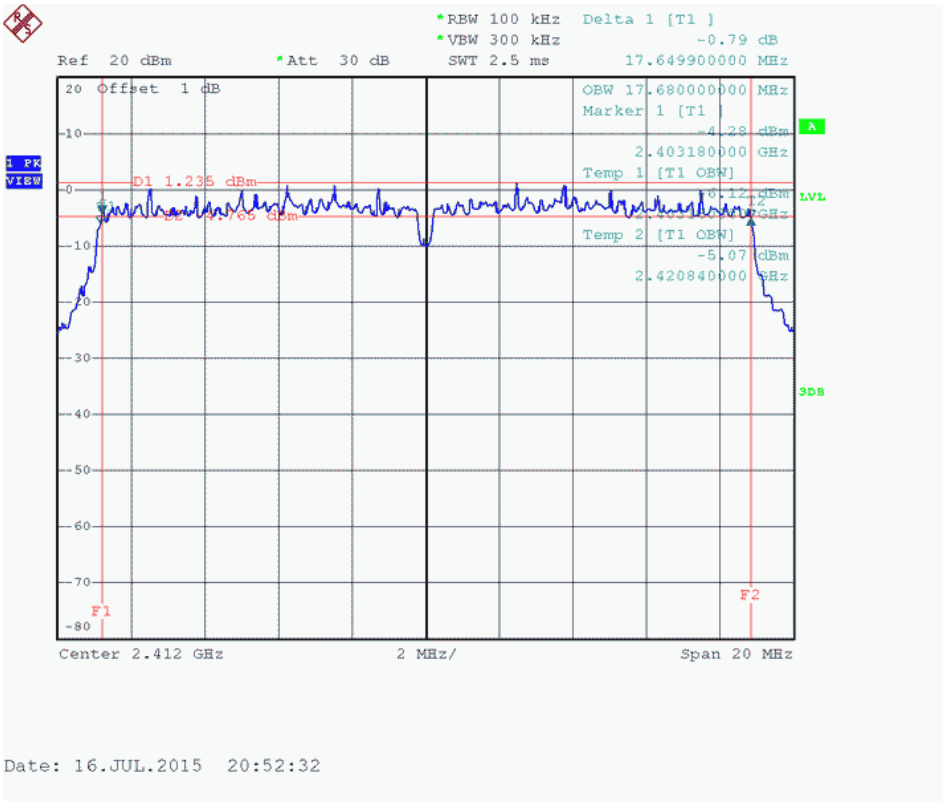
TX CH11

Date: 16.JUL.2015 20:50:59

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

Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied BW (MHz)	Min. Limit (kHz)	Test Result
2412	17.65	17.68	500	Complies
2437	17.63	17.64	500	Complies
2462	17.66	17.68	500	Complies

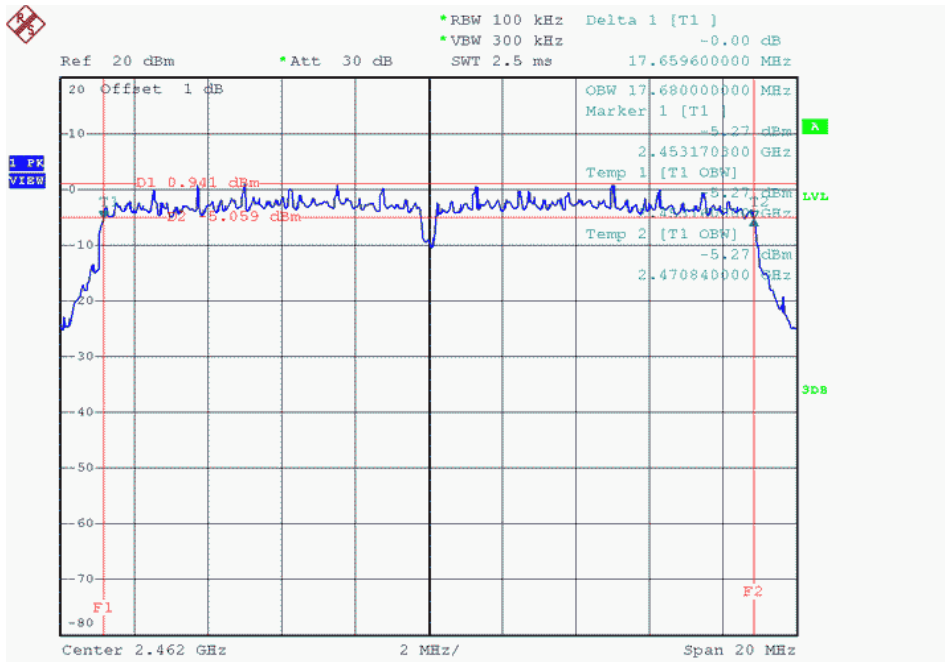
TX CH01



TX CH06

Date: 16.JUL.2015 20:53:30

TX CH11

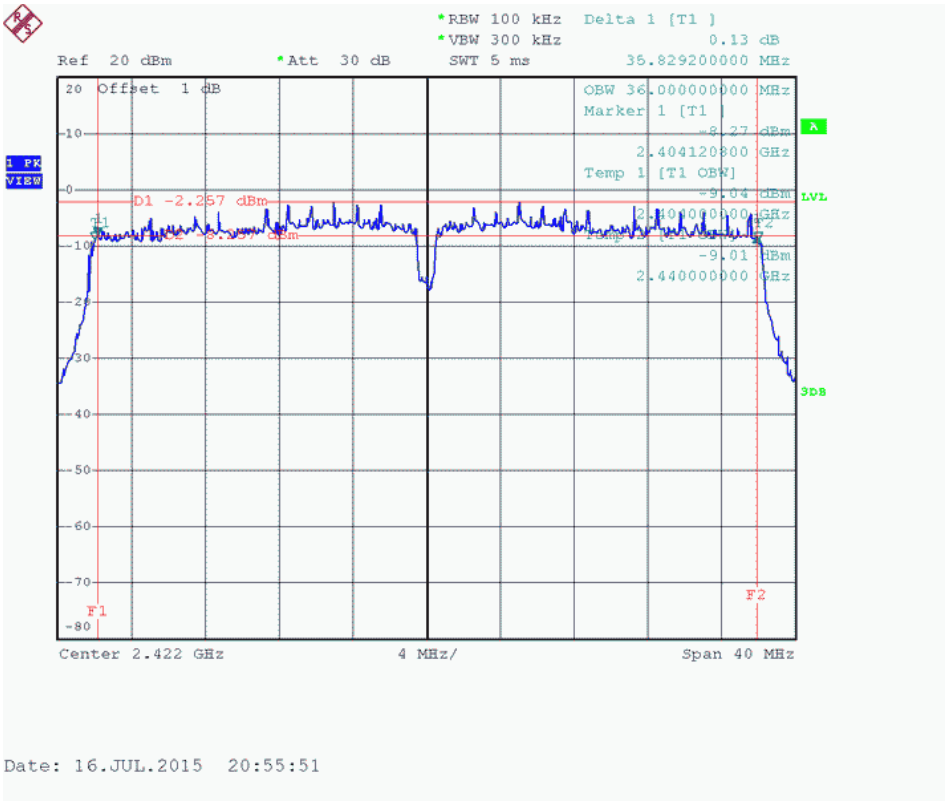


Date: 16.JUL.2015 20:54:22

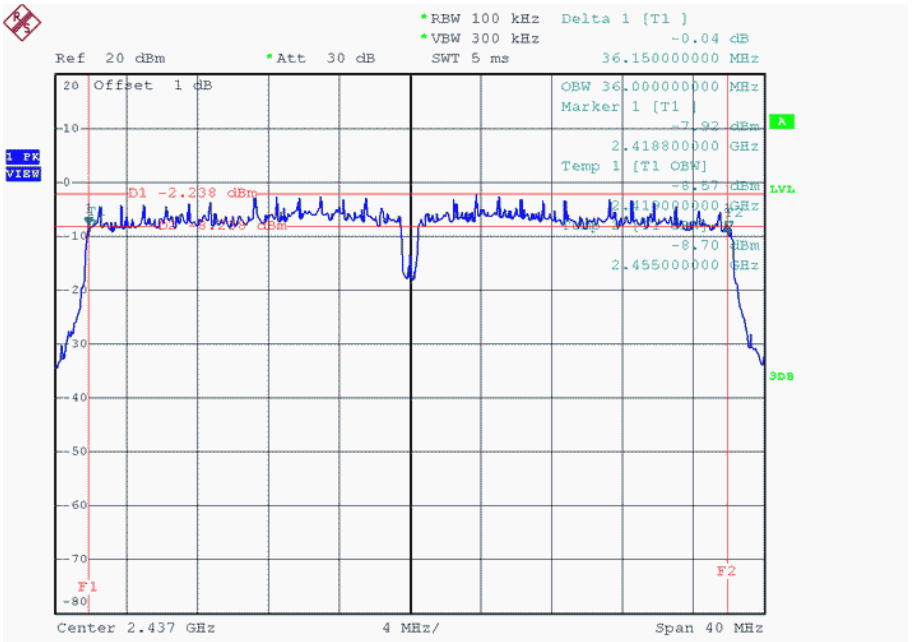
Test Mode : TX N-40MHz Mode_CH03/06/09

Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied BW (MHz)	Min. Limit (kHz)	Test Result
2422	35.83	36.00	500	Complies
2437	36.15	36.00	500	Complies
2452	35.92	36.08	500	Complies

TX CH03

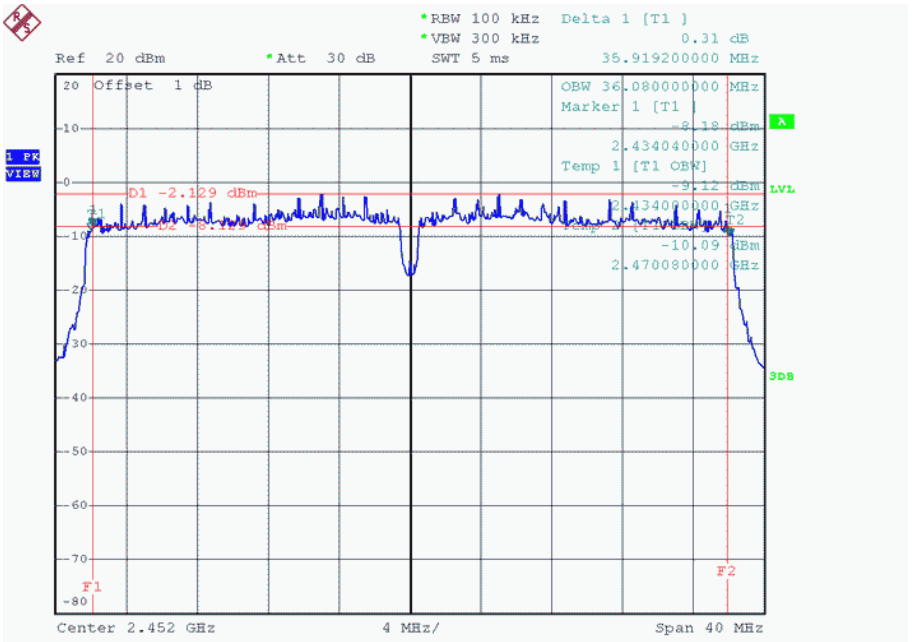


TX CH06



Date: 16.JUL.2015 20:58:48

TX CH09



Date: 16.JUL.2015 21:00:17

ATTACHMENT 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	27.69	0.5875	29.00	0.79	Complies
2437	28.31	0.6776	29.00	0.79	Complies
2462	27.52	0.5649	29.00	0.79	Complies

Test Mode :TX G Mode_CH01/06/11					
Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2412	28.60	0.7244	29.00	0.79	Complies
2437	28.89	0.7745	29.00	0.79	Complies
2462	28.59	0.7228	29.00	0.79	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	25.71	0.3724	29.00	0.79	Complies
2437	25.71	0.3724	29.00	0.79	Complies
2462	24.68	0.2938	29.00	0.79	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	25.37	0.3443	29.00	0.79	Complies
2437	25.01	0.3170	29.00	0.79	Complies
2462	24.82	0.3034	29.00	0.79	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	28.55	0.7167	29.00	0.79	Complies
2437	28.38	0.6893	29.00	0.79	Complies
2462	27.76	0.5972	29.00	0.79	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	23.51	0.2244	29.00	0.79	Complies
2437	21.33	0.1358	29.00	0.79	Complies
2452	24.67	0.2931	29.00	0.79	Complies

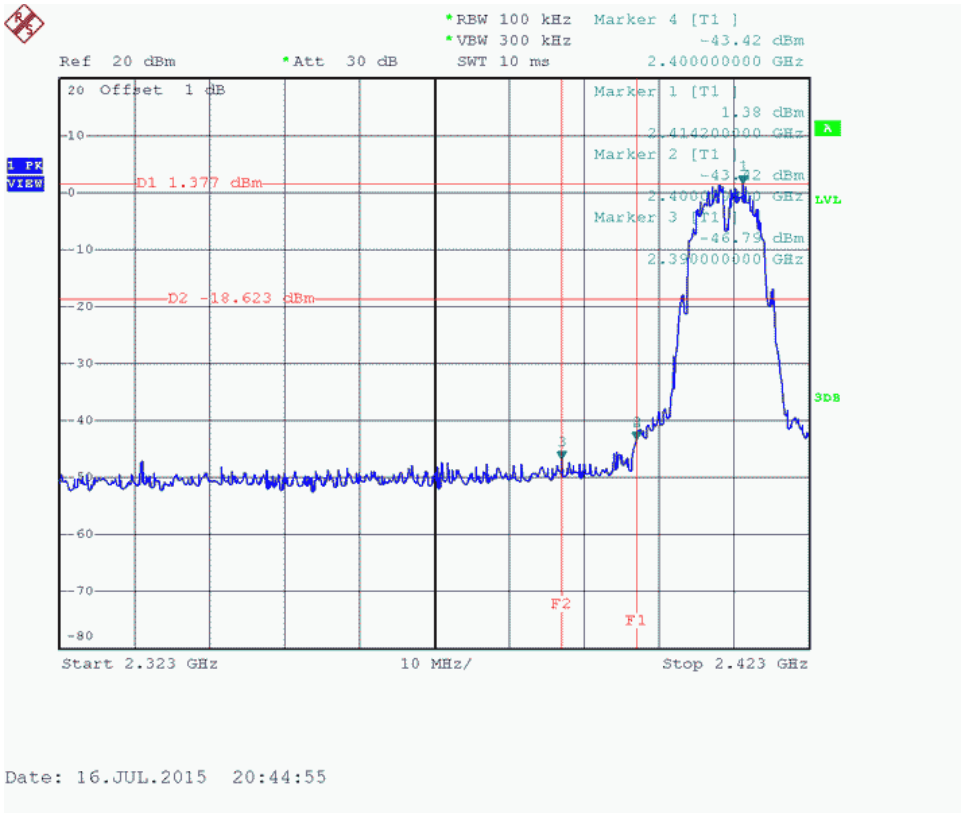
Test Mode :TX N40 Mode_CH03/06/09_ANT 2					
Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2422	25.77	0.3776	29.00	0.79	Complies
2437	23.68	0.2333	29.00	0.79	Complies
2452	21.40	0.1380	29.00	0.79	Complies

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	27.80	0.6020	29.00	0.79	Complies
2437	25.67	0.3692	29.00	0.79	Complies
2452	26.35	0.4311	29.00	0.79	Complies

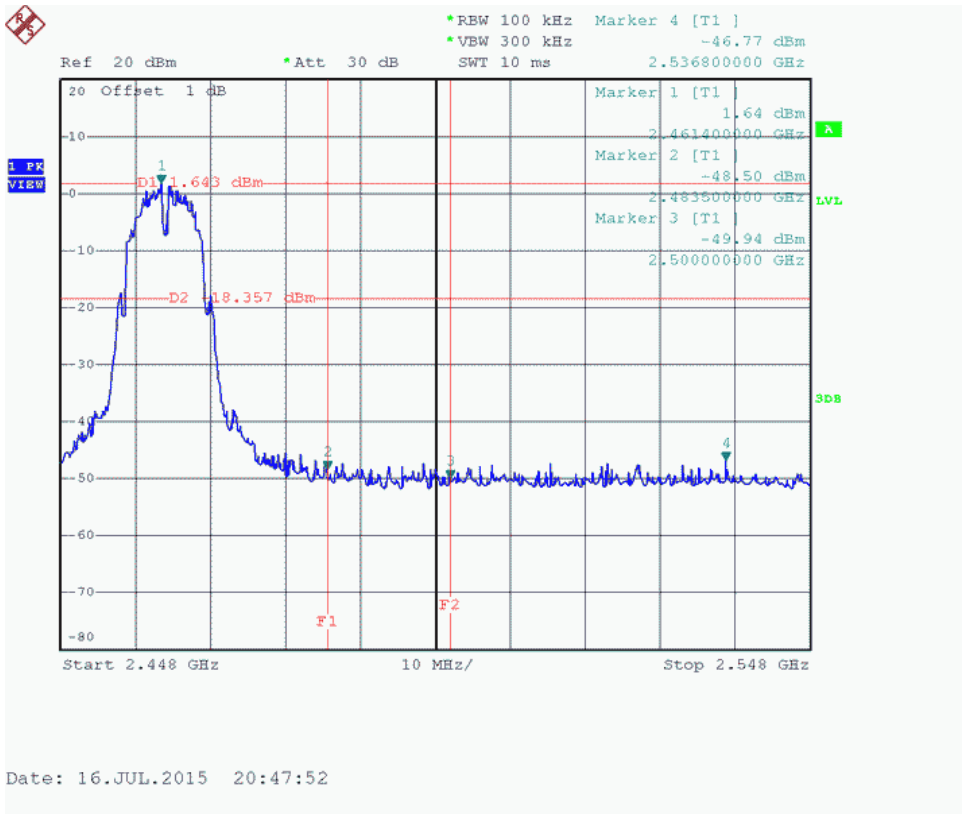
ATTACHMENT G - ANTENNA CONDUCTED SPURIOUS EMISSION

Test Mode :	TX B Mode

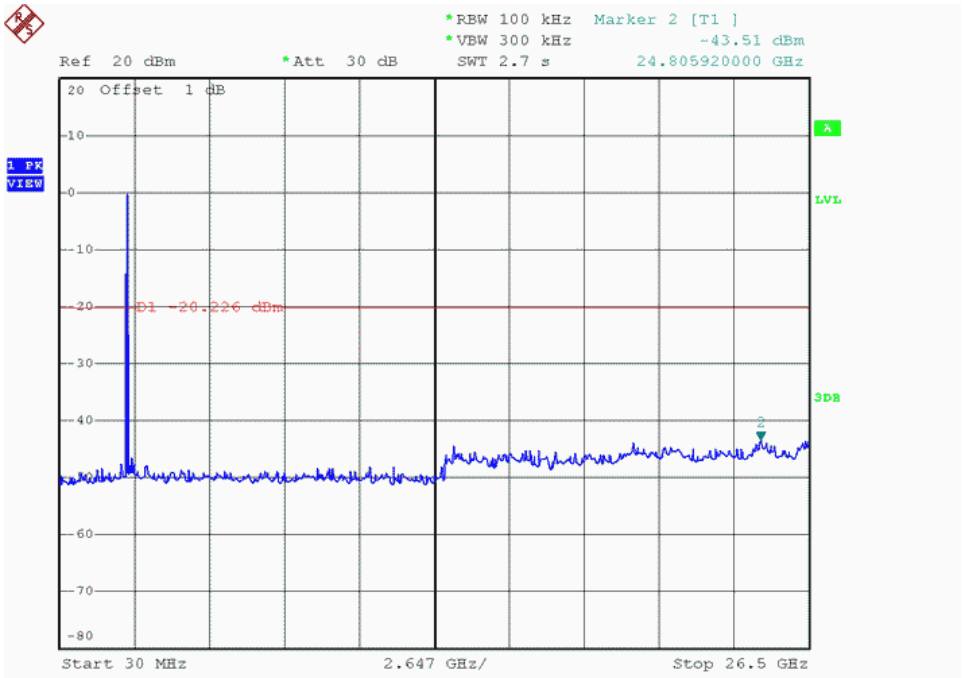
TX B mode CH01



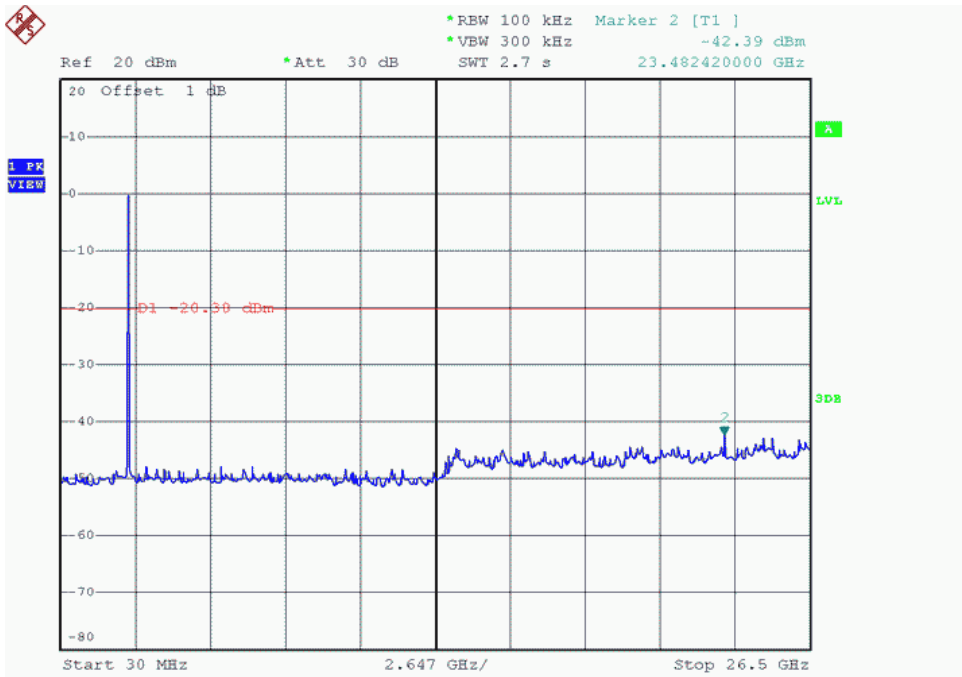
TX B modeCH11



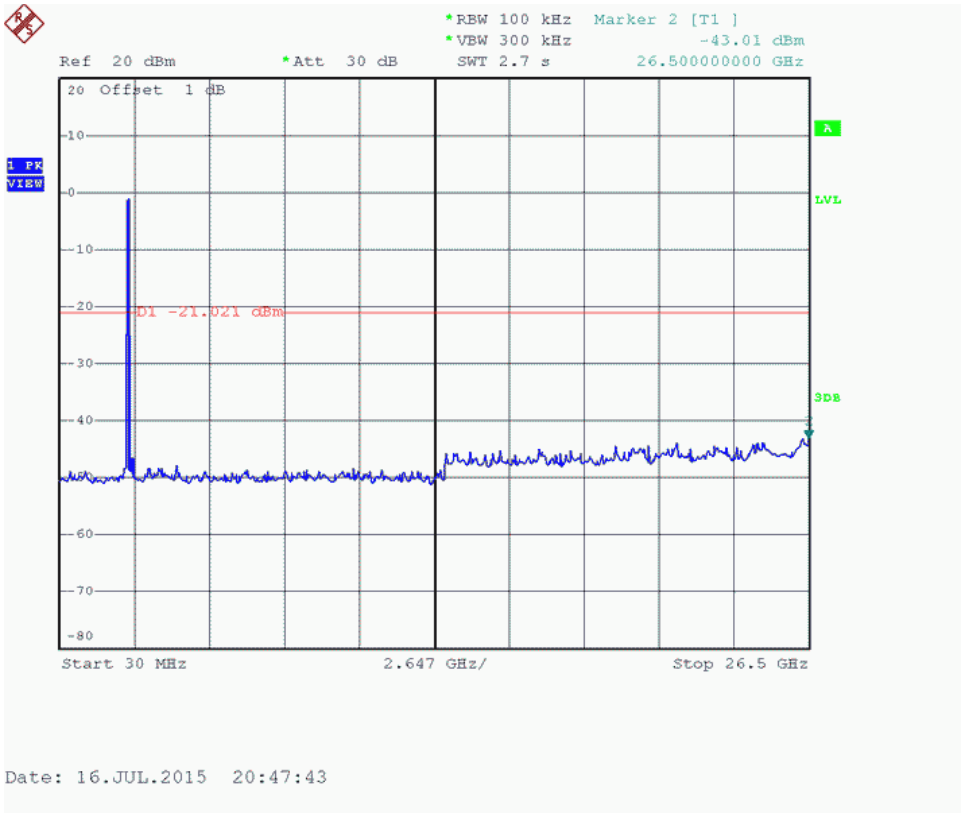
TX B mode CH01 (10 Harmonic of the frequency)



TX B mode CH06 (10 Harmonic of the frequency)

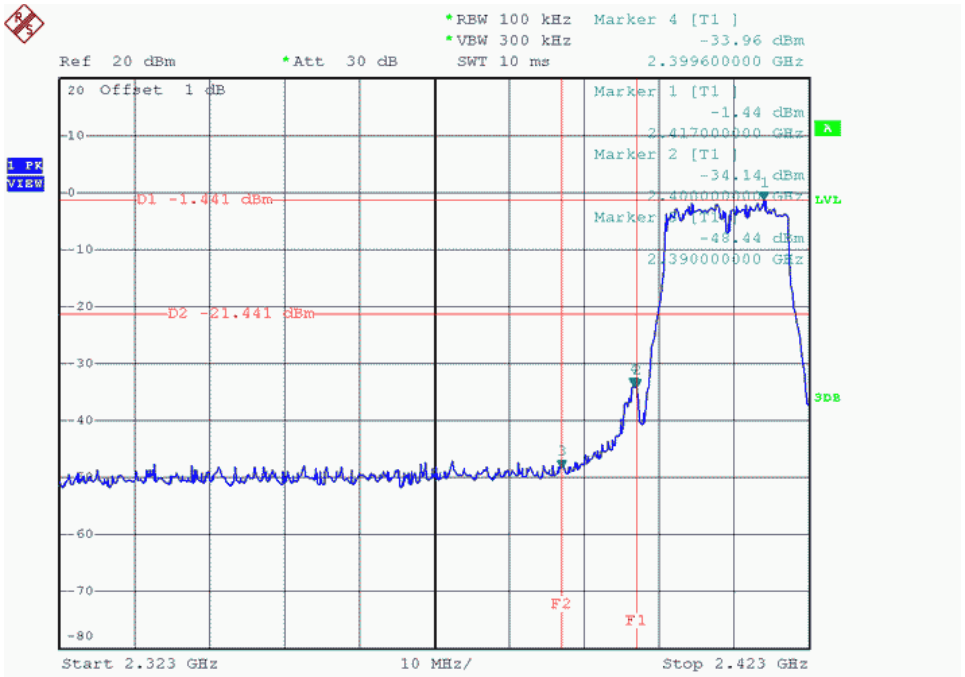


TX B mode CH11 (10 Harmonic of the frequency)

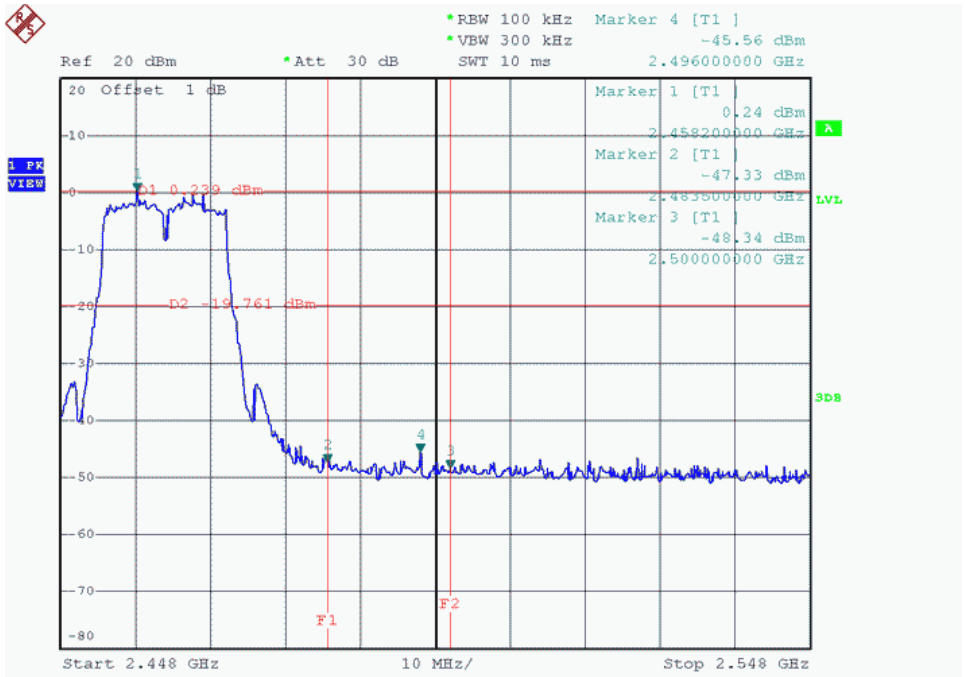


Test Mode :	TX G Mode

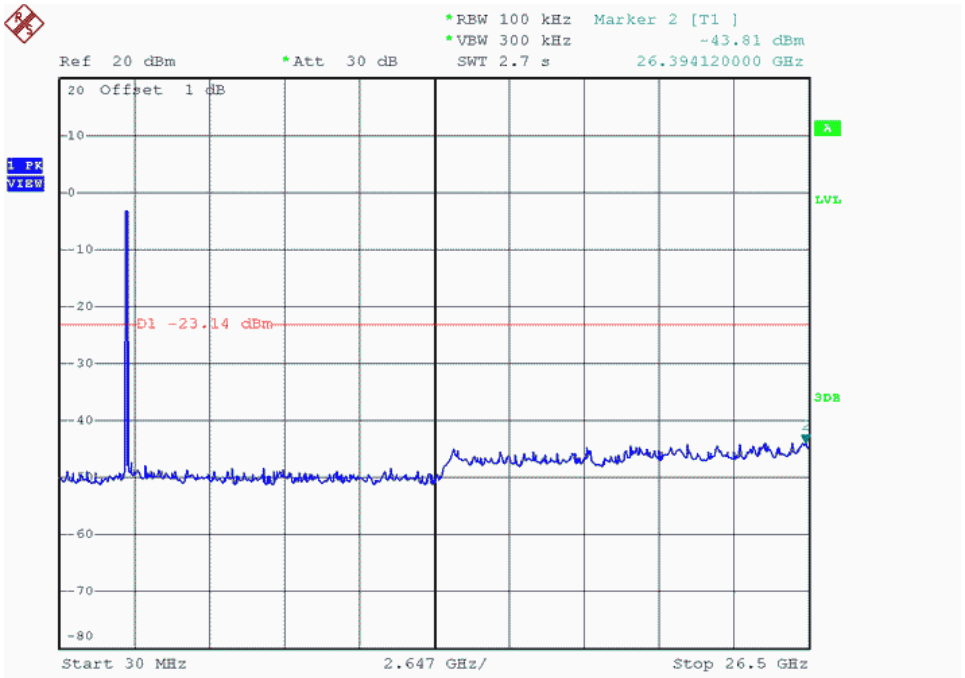
TX G mode CH01



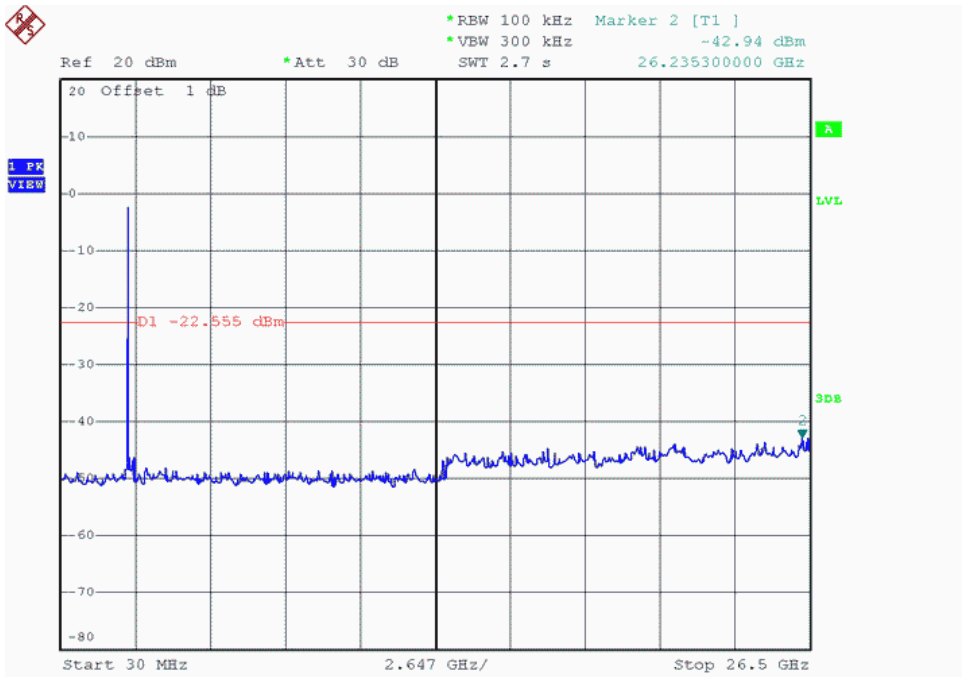
TX G modeCH11



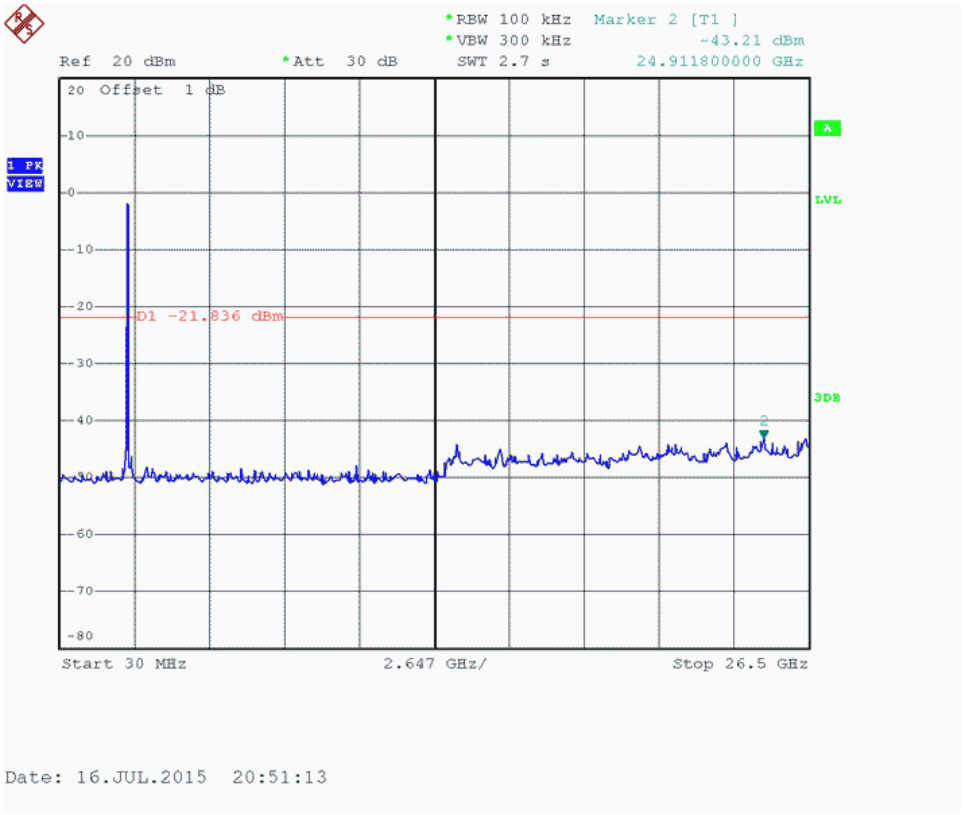
TX G mode CH01 (10 Harmonic of the frequency)



TX G mode CH06 (10 Harmonic of the frequency)

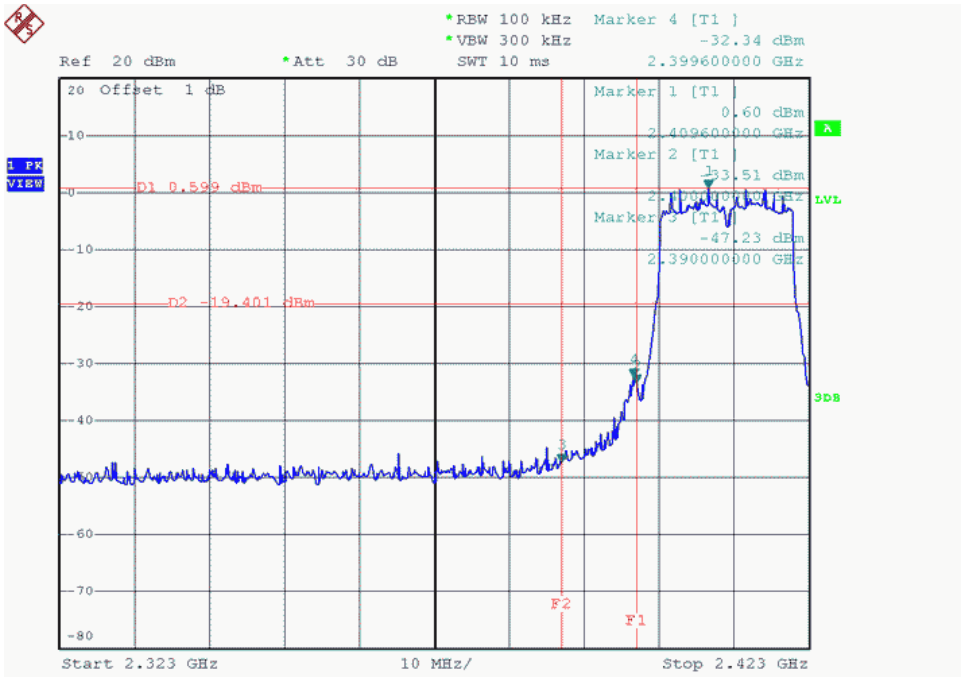


TX G mode CH11 (10 Harmonic of the frequency)

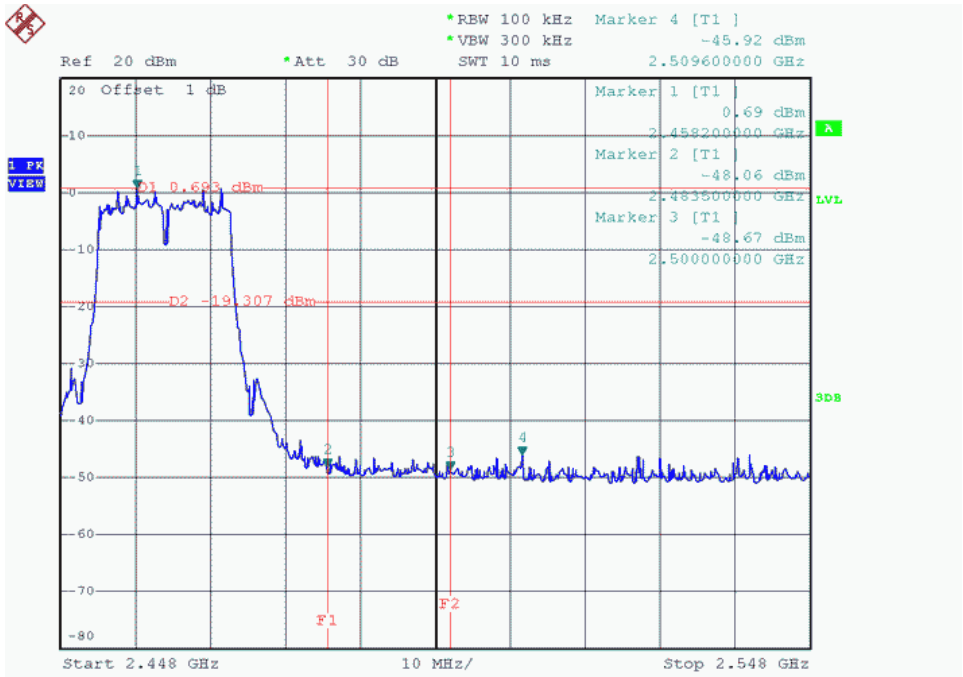


Test Mode :	TX N-20MMode_ANT 1

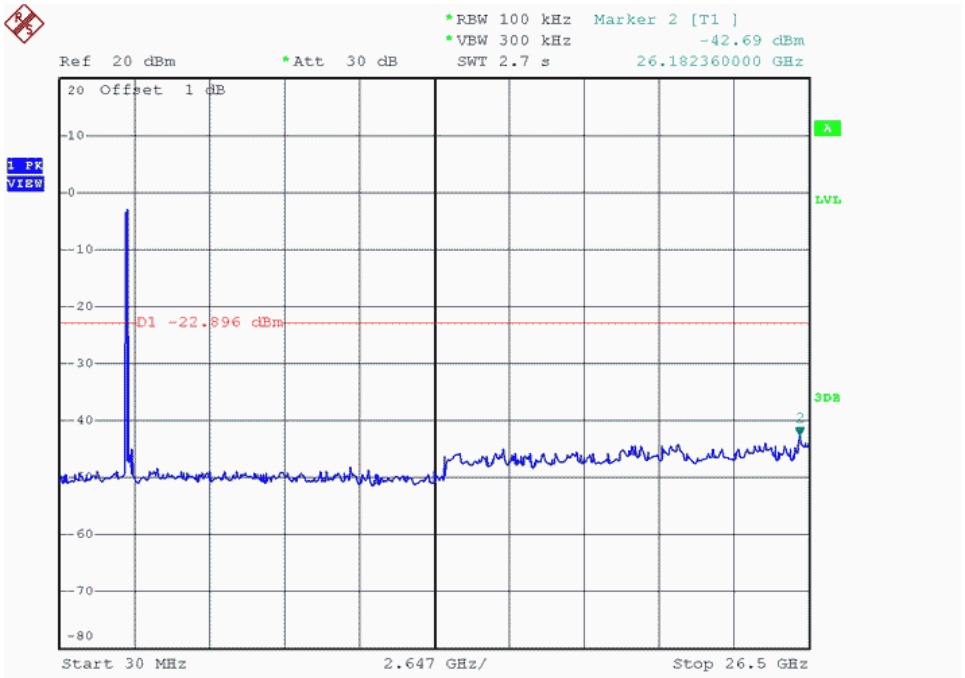
TX HT20 mode CH01



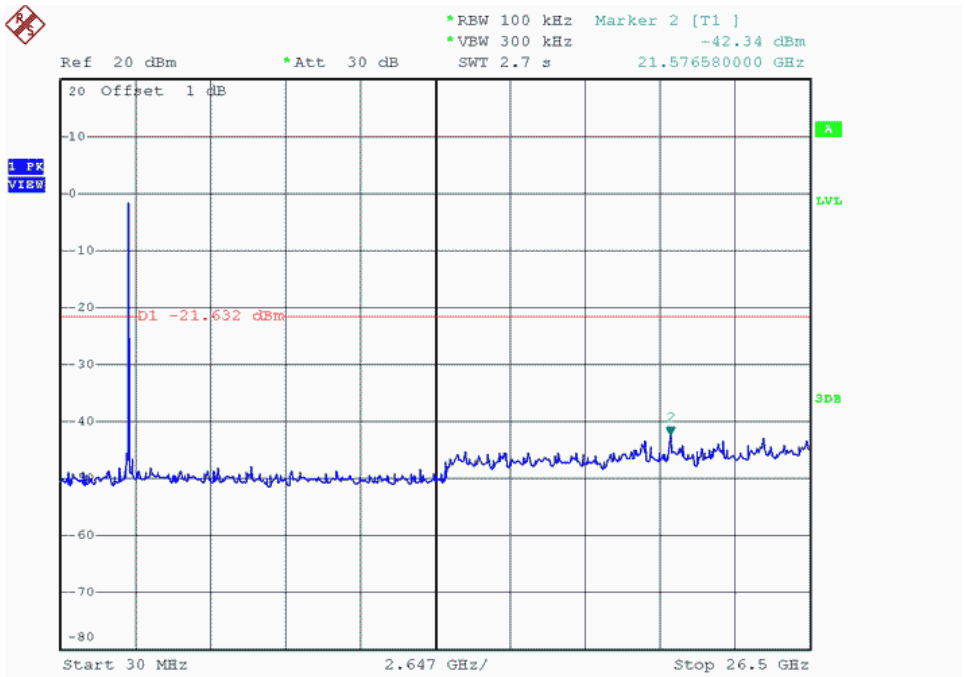
TX HT20 mode CH11



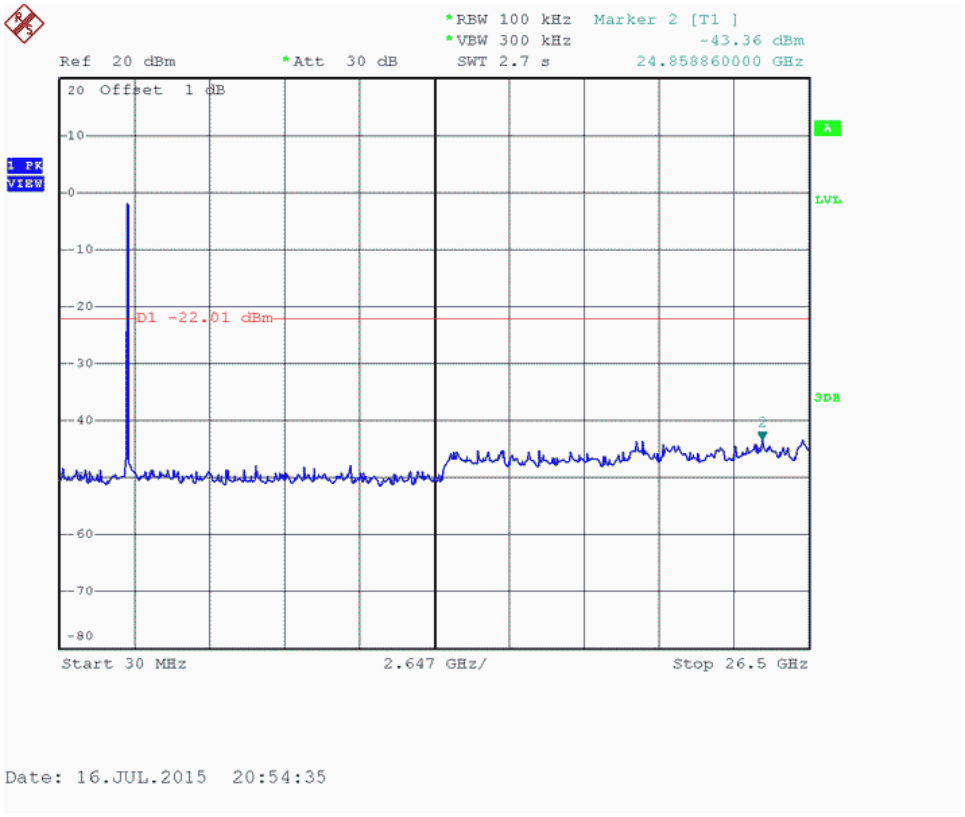
TX HT20 mode CH01 (10 Harmonic of the frequency)



TX HT20 mode CH06 (10 Harmonic of the frequency)

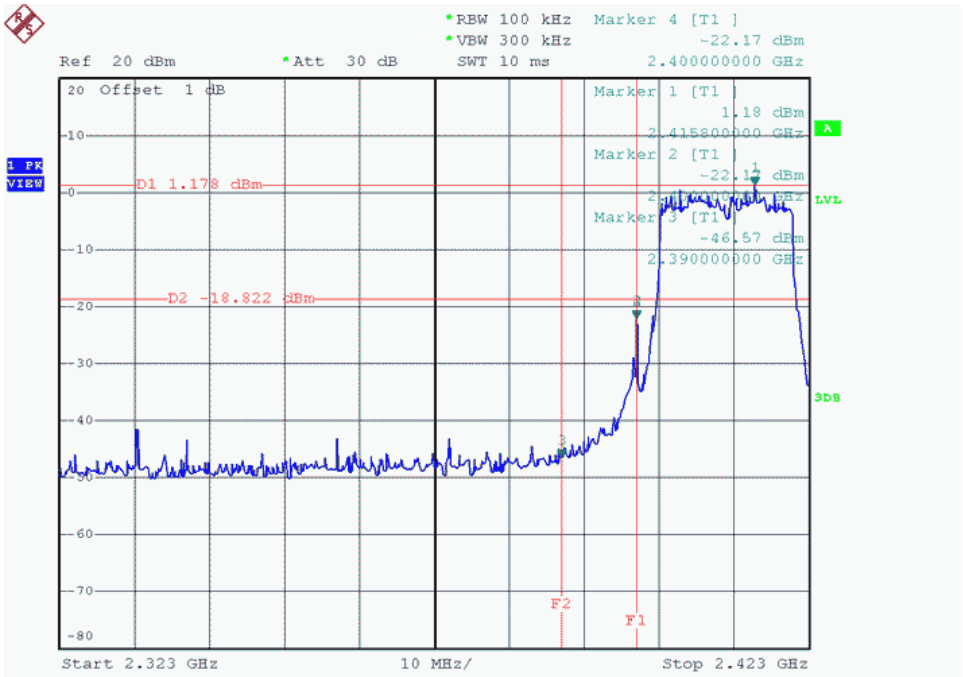


TX HT20 mode CH11 (10 Harmonic of the frequency)

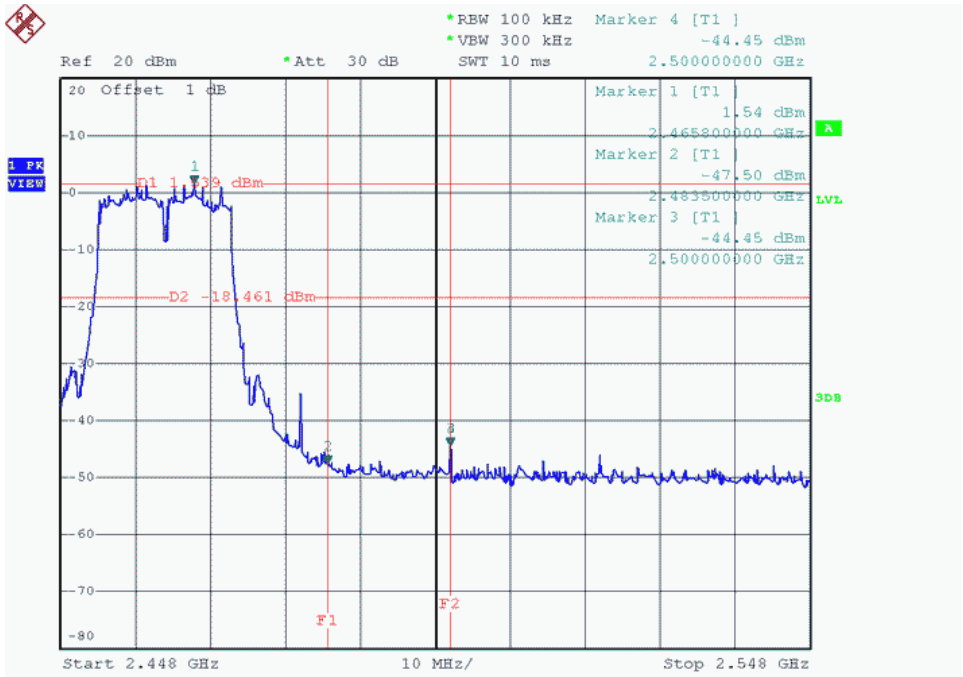


Test Mode :	TX N-20MMode_ANT 2

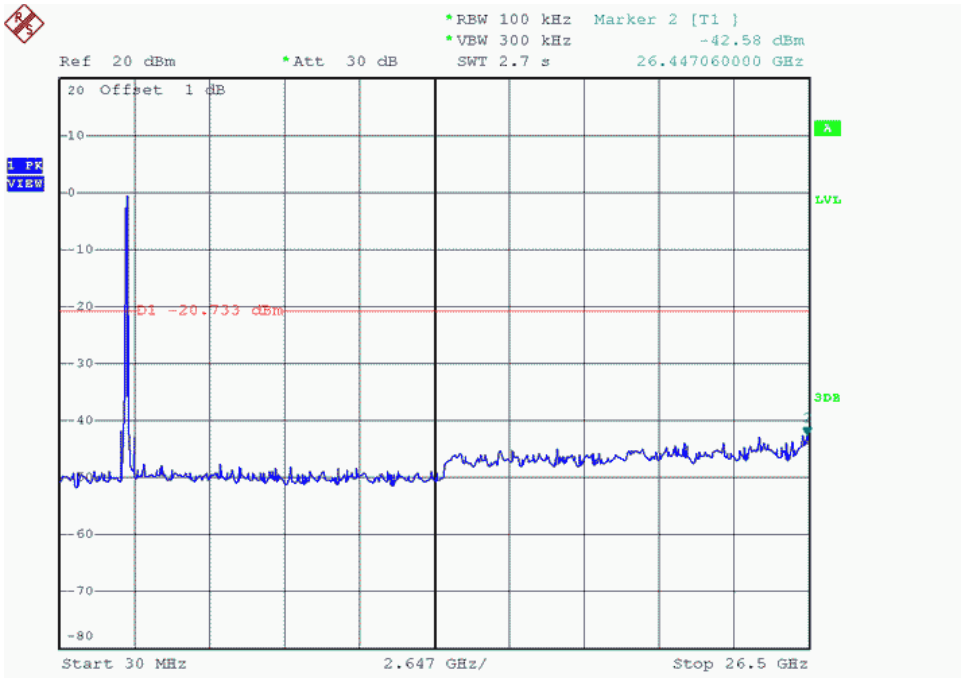
TX HT20 mode CH01



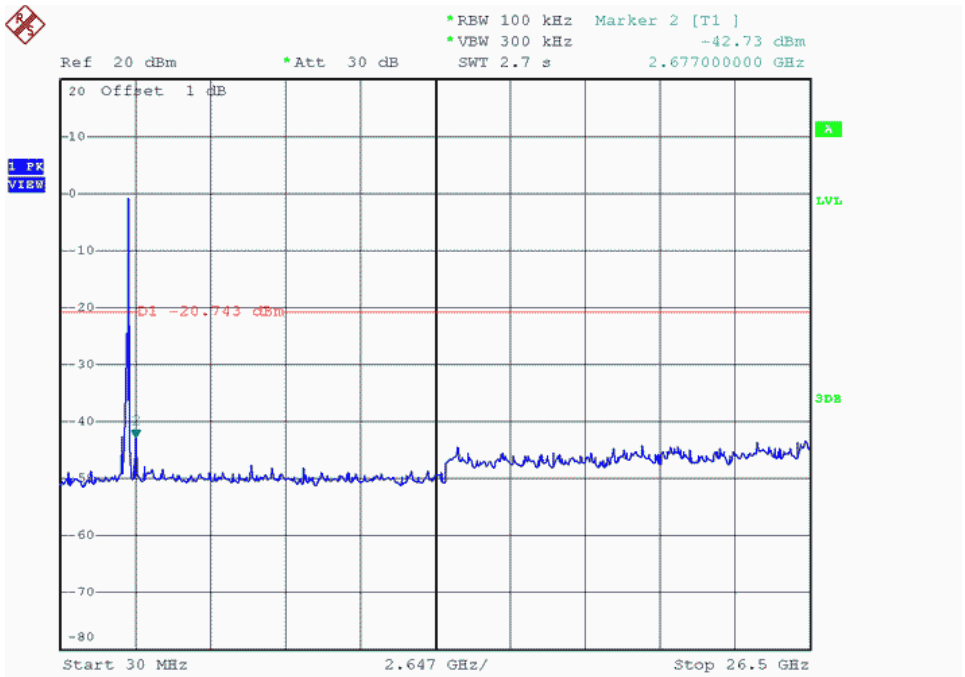
TX HT20 mode CH11



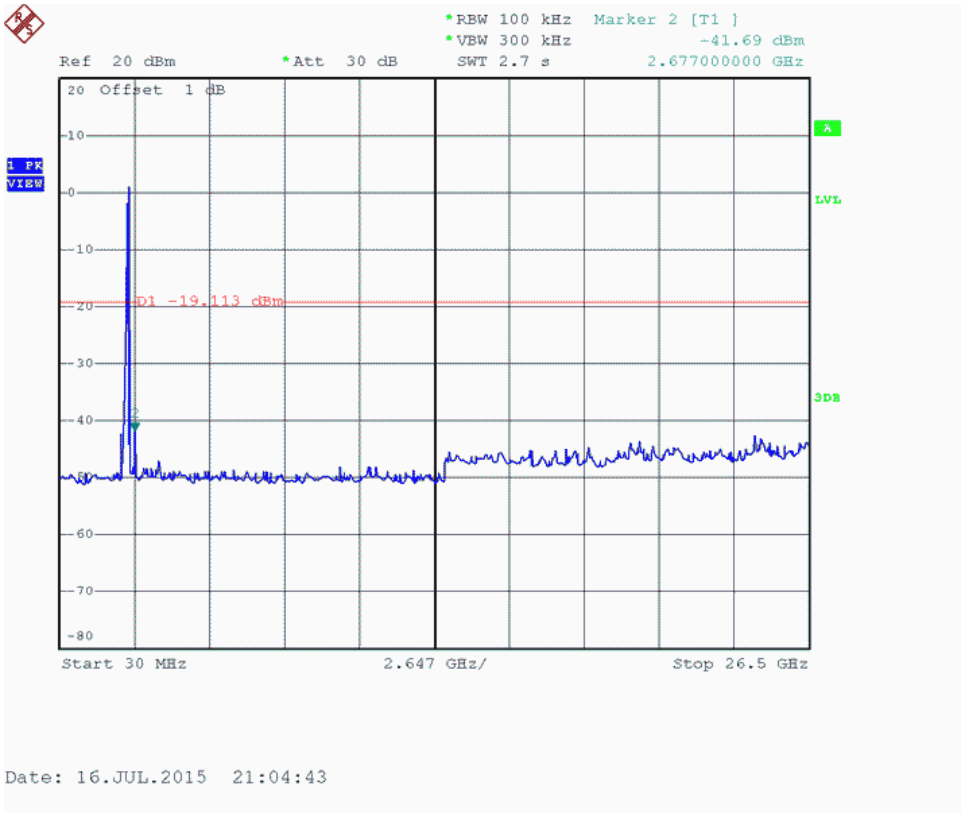
TX HT20 mode CH01 (10 Harmonic of the frequency)



TX HT20 mode CH06 (10 Harmonic of the frequency)

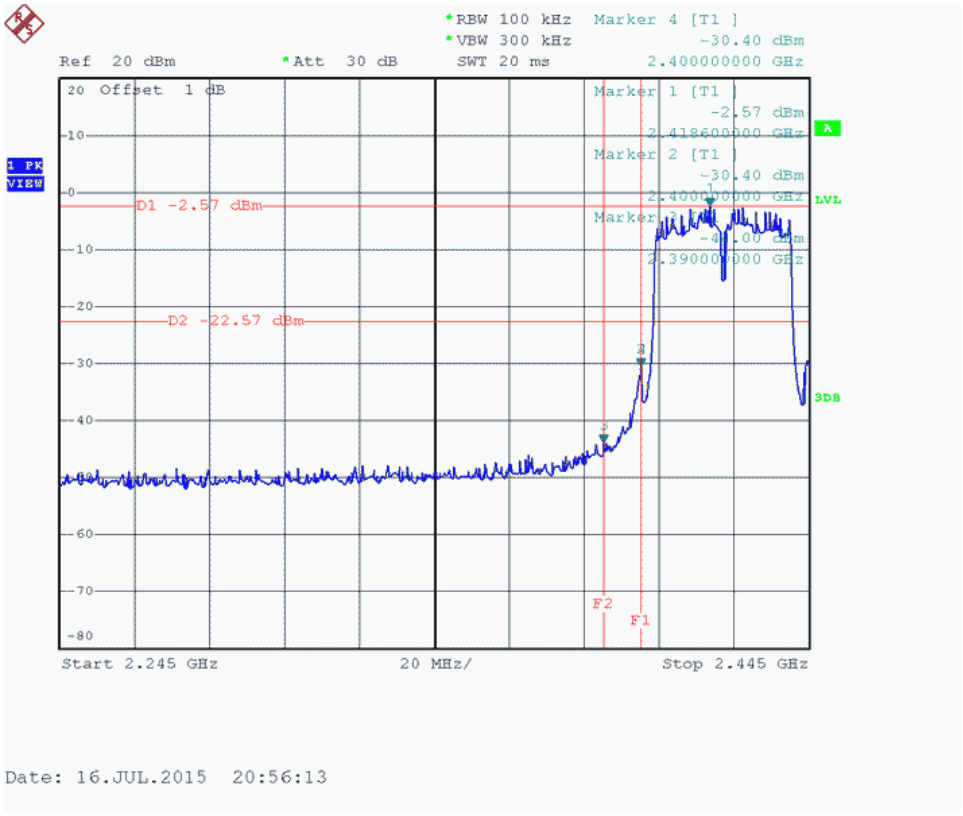


TX HT20 mode CH11 (10 Harmonic of the frequency)

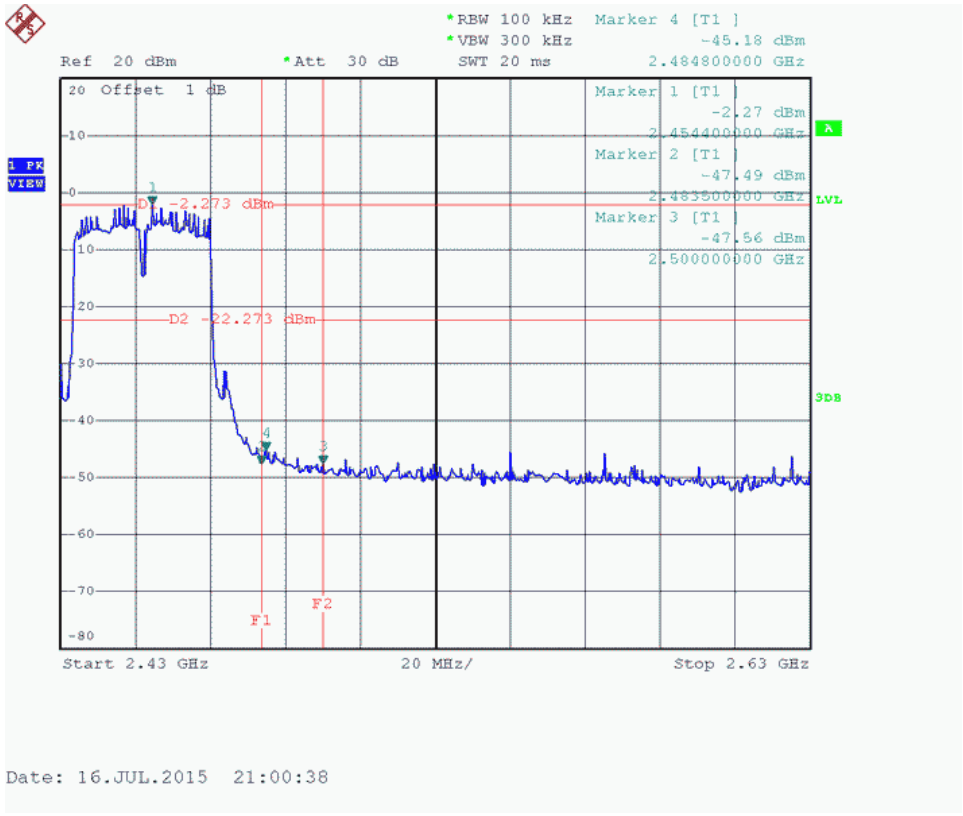


Test Mode :	TX N-40MMode_ANT 1

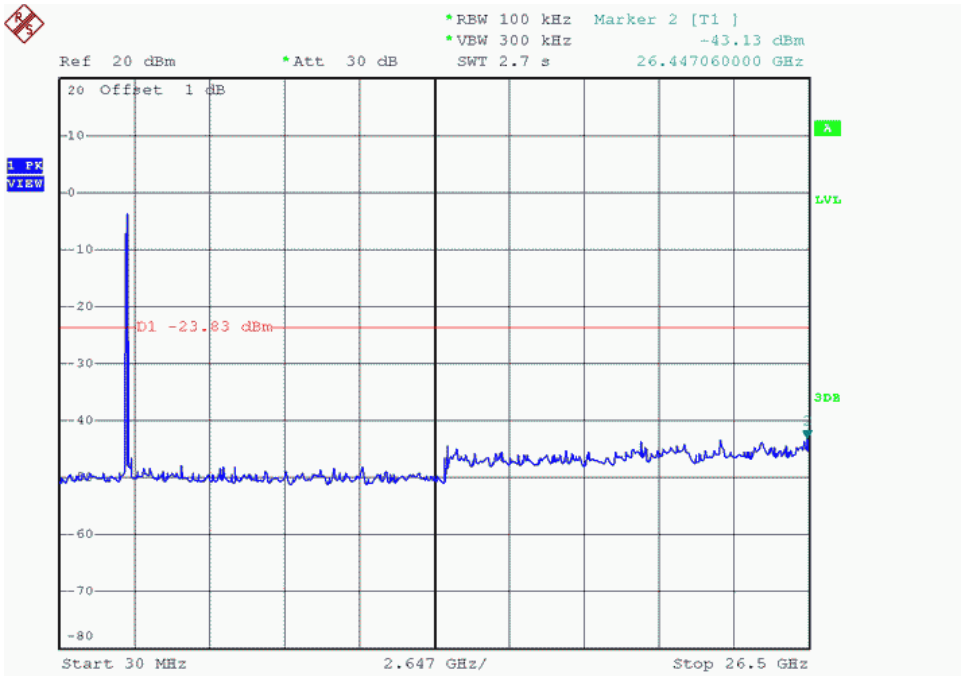
TX HT40 mode CH03



TX HT40 mode CH09

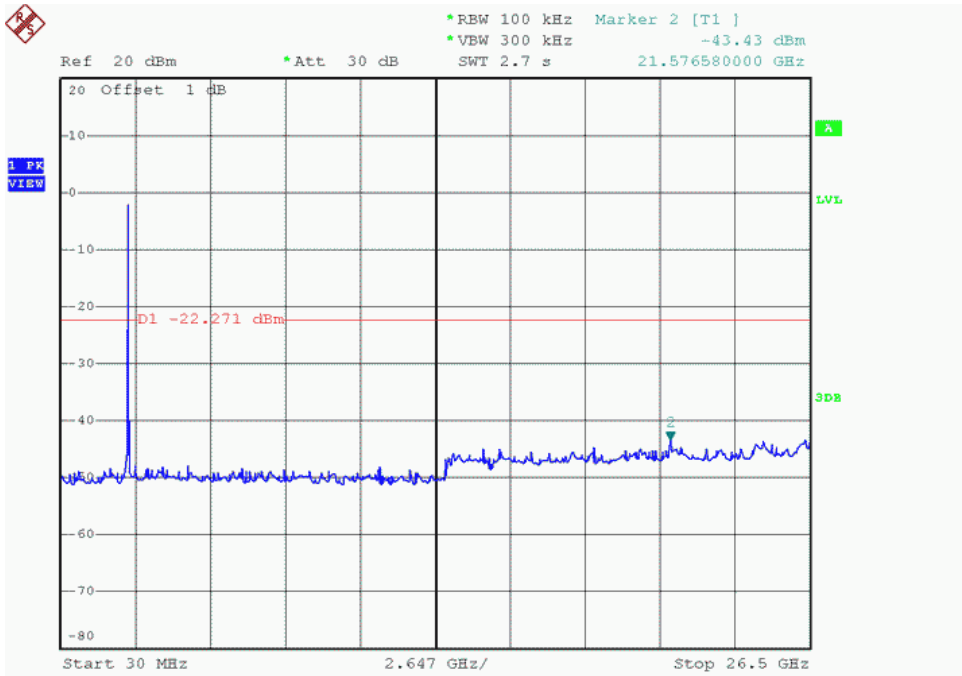


TX HT40 mode CH03 (10 Harmonic of the frequency)



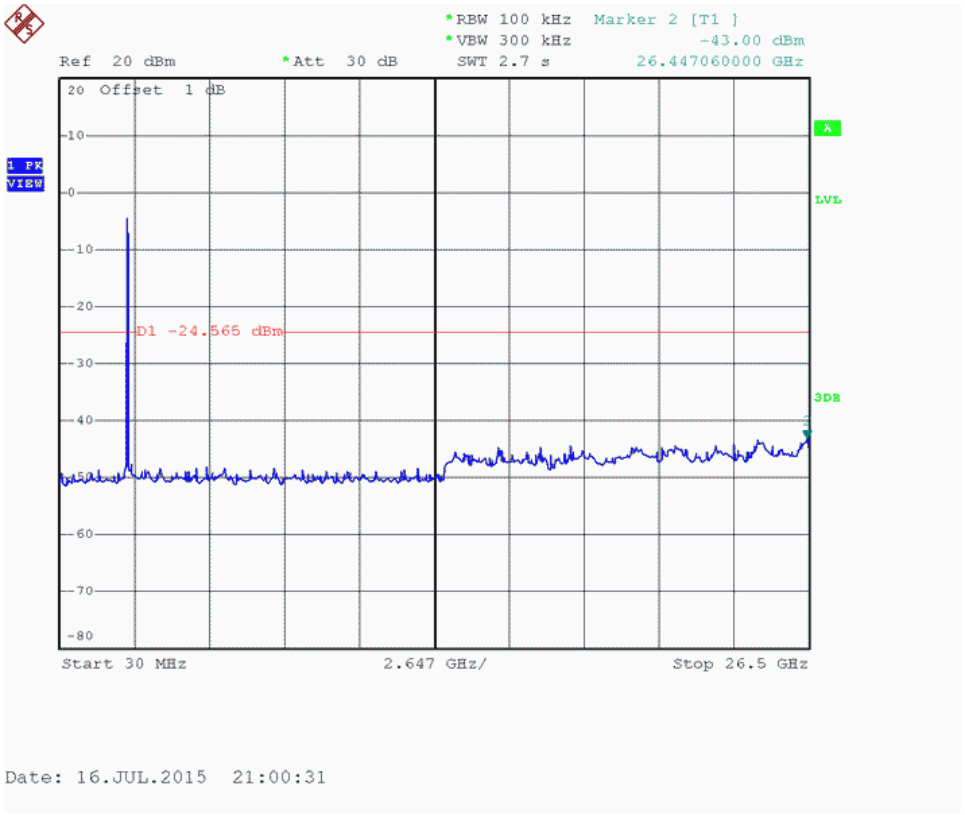
Date: 16.JUL.2015 20:56:05

TX HT40 mode CH06 (10 Harmonic of the frequency)



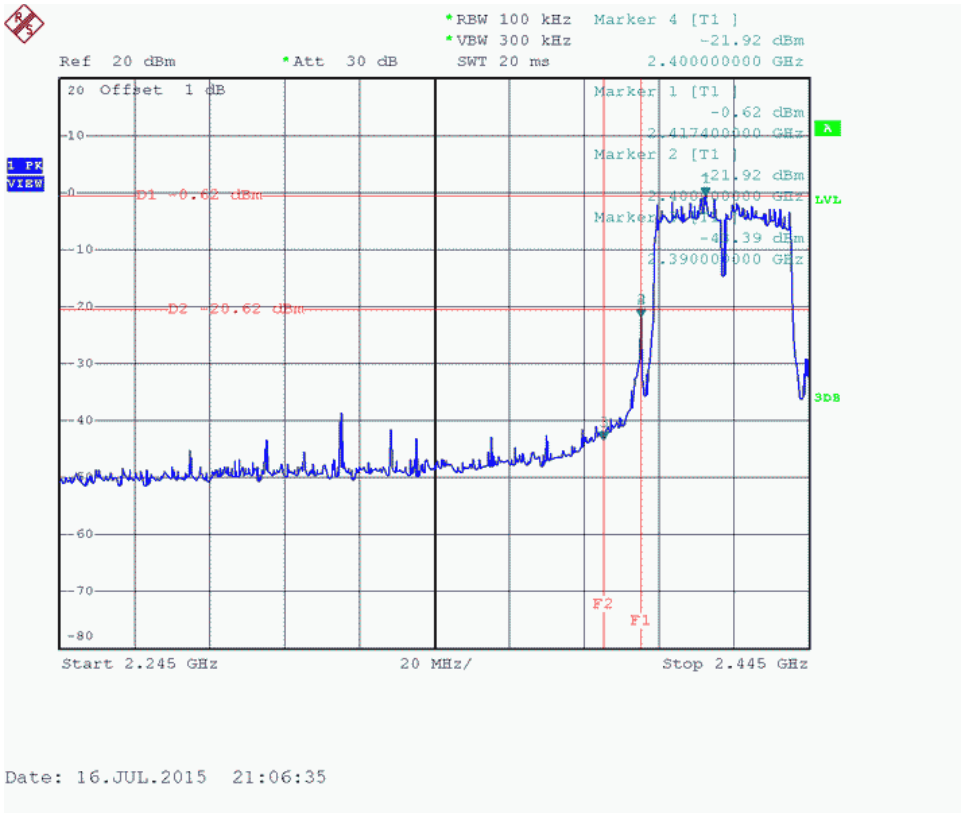
Date: 16.JUL.2015 20:59:02

TX HT40 mode CH09 (10 Harmonic of the frequency)

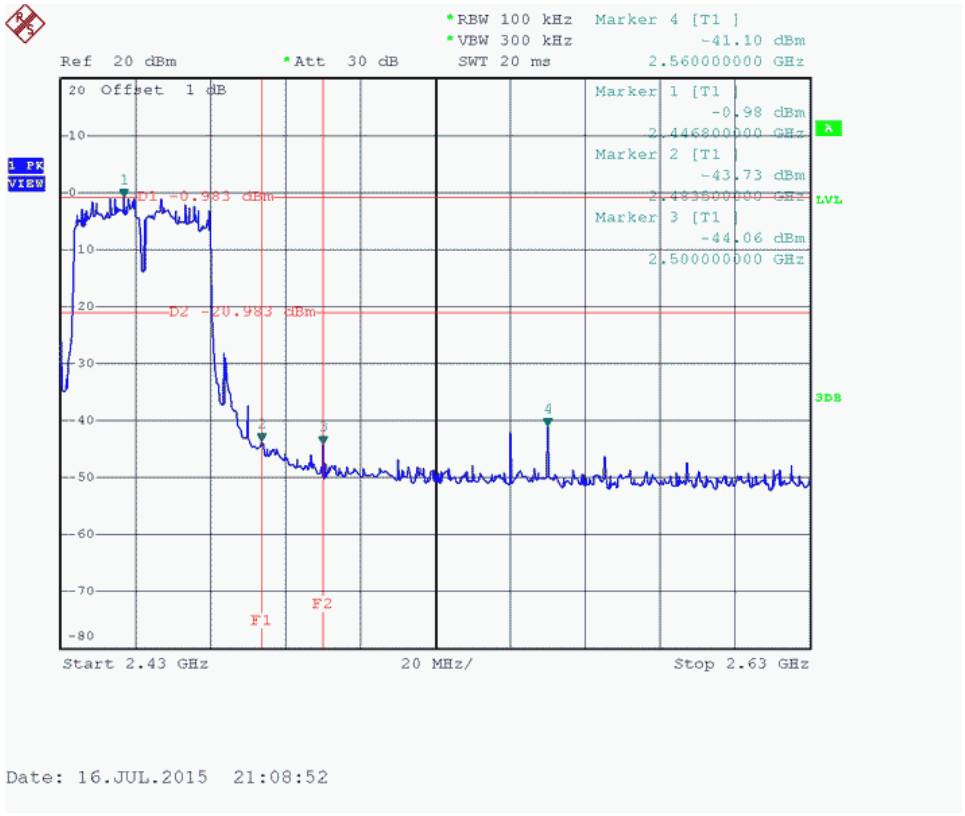


Test Mode :	TX N-40MMode_ANT 2

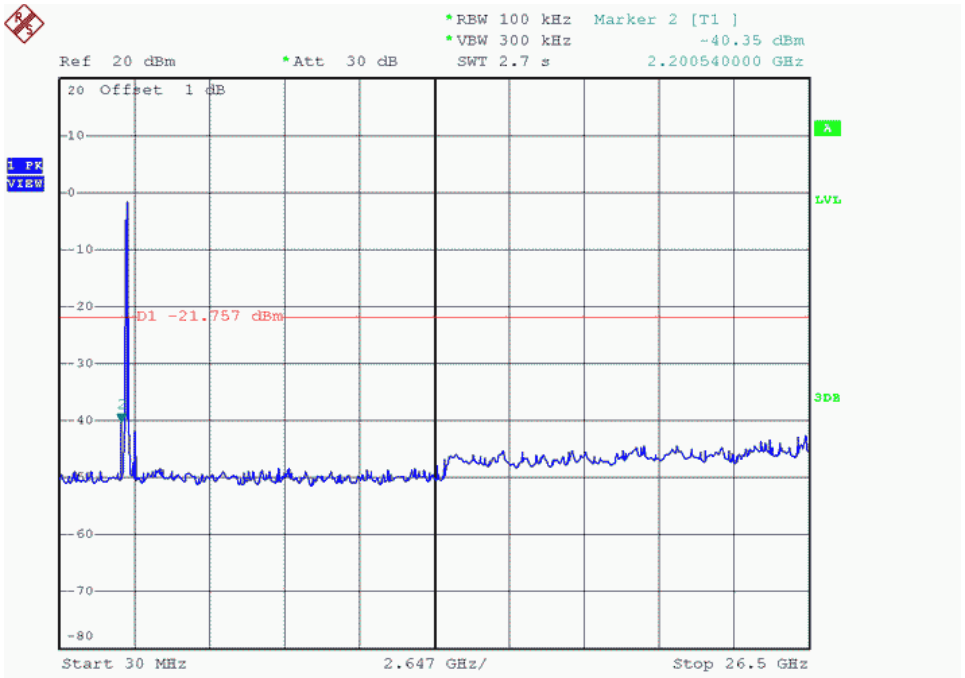
TX HT40 mode CH03



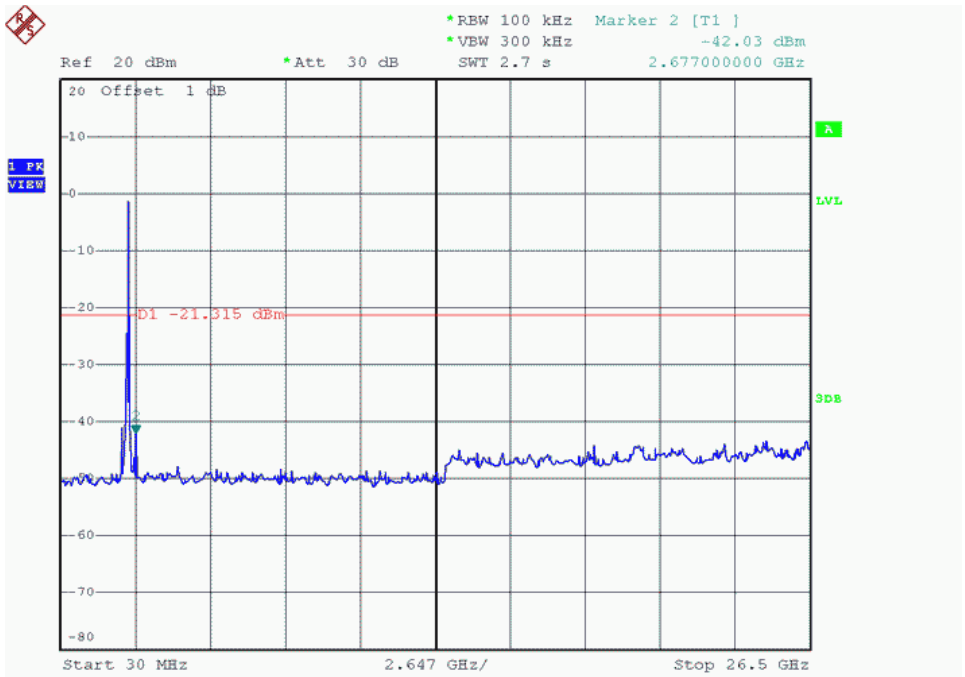
TX HT40 mode CH09



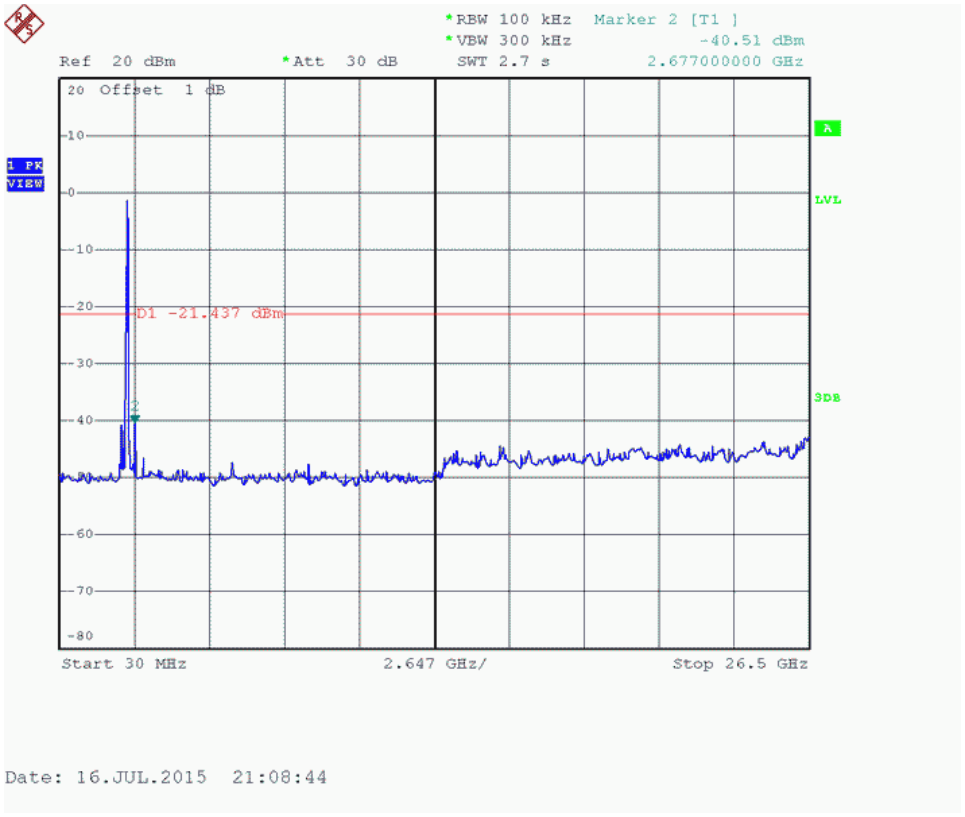
TX HT40 mode CH03 (10 Harmonic of the frequency)



TX HT40 mode CH06 (10 Harmonic of the frequency)



TX HT40 mode CH09 (10 Harmonic of the frequency)



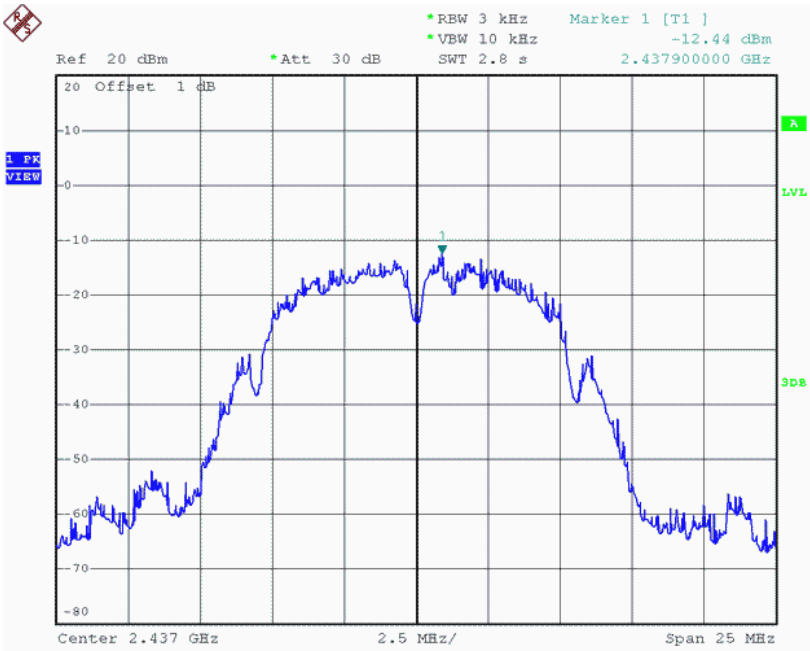
ATTACHMENT H - POWER SPECTRAL DENSITY

Test Mode :TX B Mode_CH01/06/11

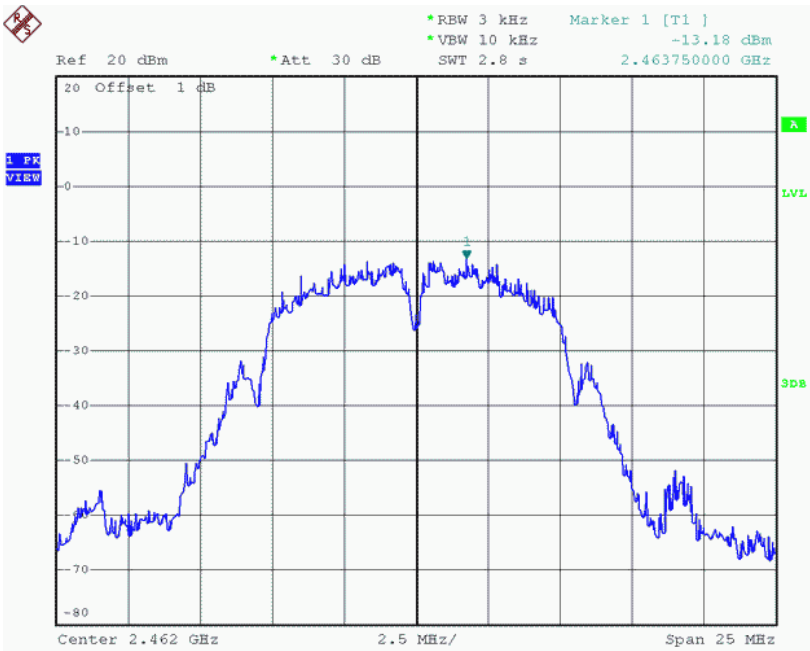
Frequency (MHz)	Power Density (dBm/3kHz)	Power Density (mW/3kHz)	Max. Limit (dBm/3kHz)	Result
2412	-12.54	0.06	7.00	Complies
2437	-12.44	0.06	7.00	Complies
2462	-13.18	0.05	7.00	Complies

TX CH01

TX CH06

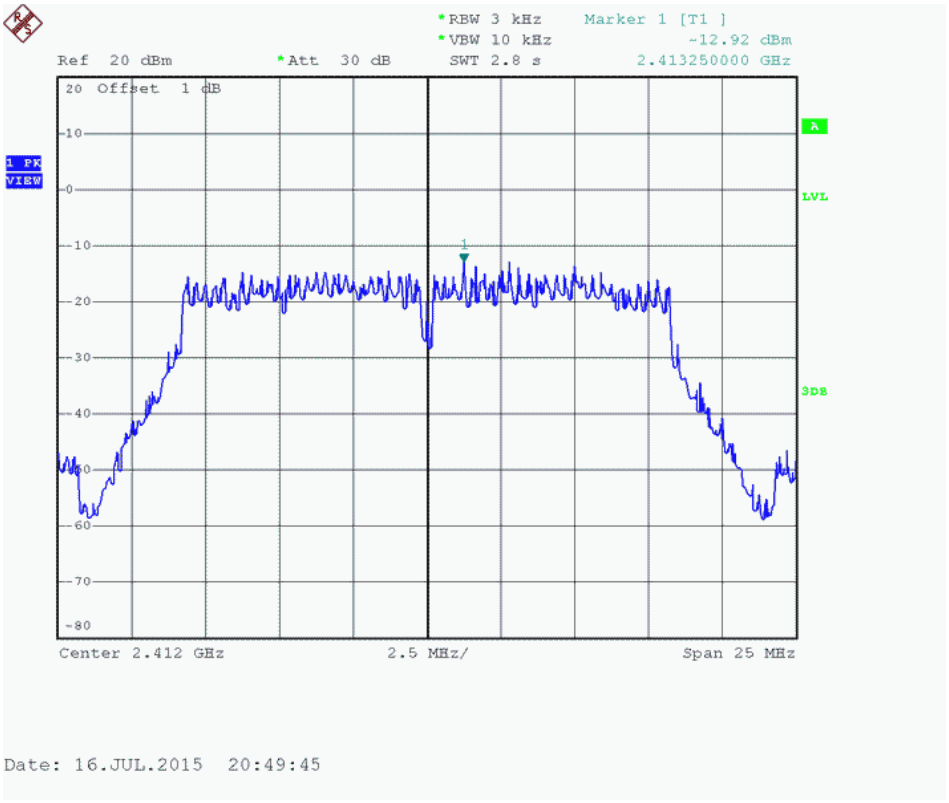


TX CH11

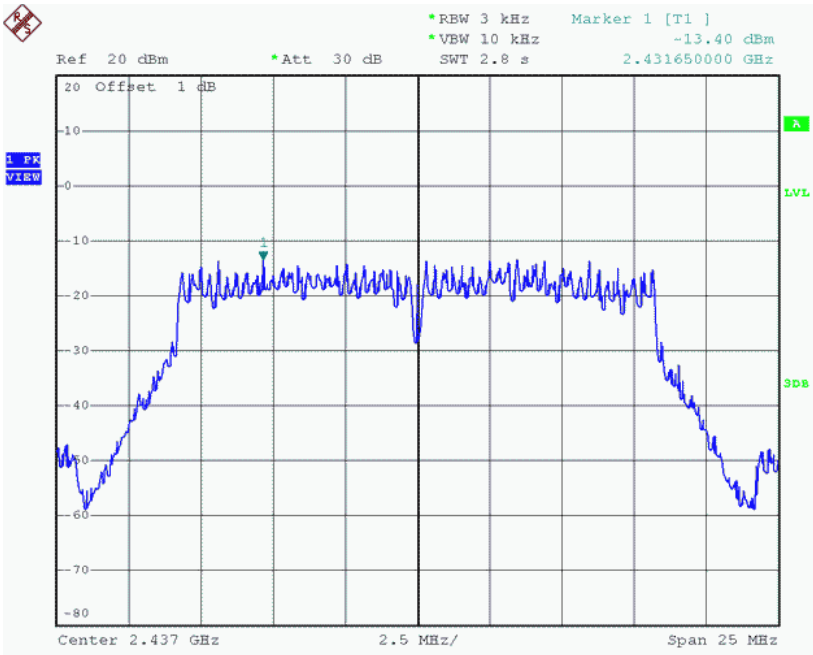


Test Mode :TX G Mode_CH01/06/11				
Frequency (MHz)	Power Density (dBm/3kHz)	Power Density (mW/3kHz)	Max. Limit (dBm/3kHz)	Result
2412	-12.92	0.05	7.00	Complies
2437	-13.40	0.05	7.00	Complies
2462	-13.52	0.04	7.00	Complies

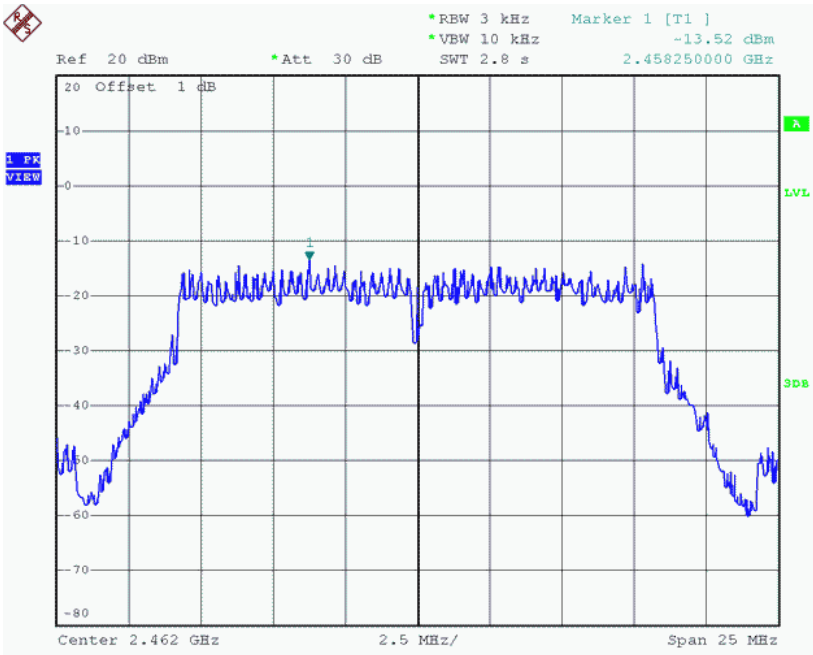
TX CH01



TX CH06

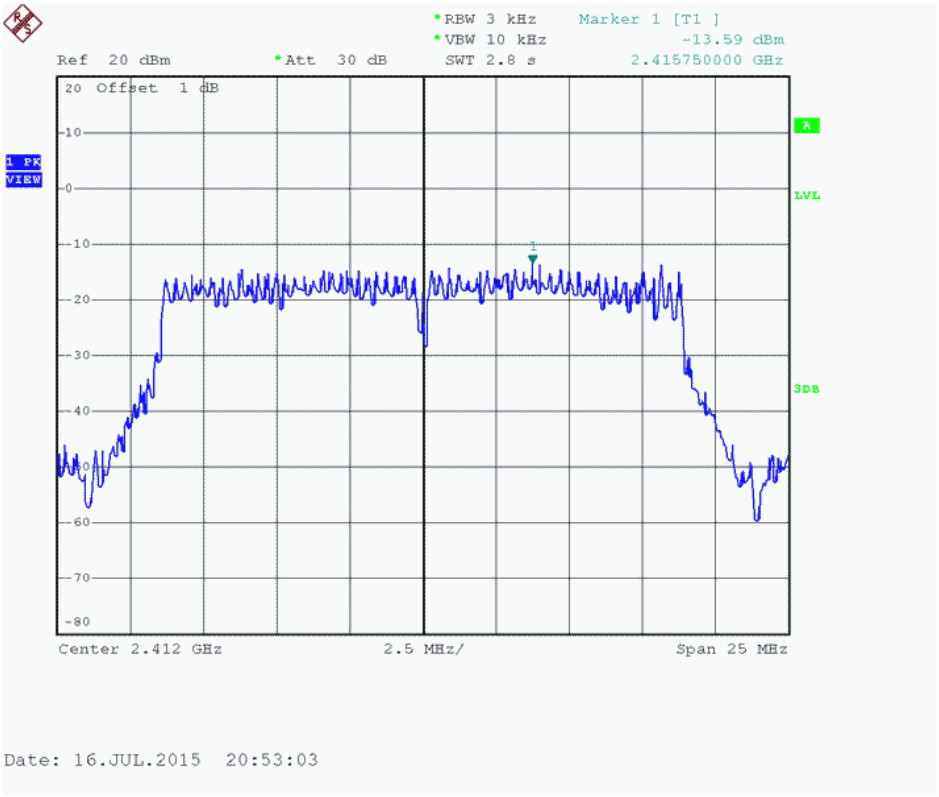


TX CH11

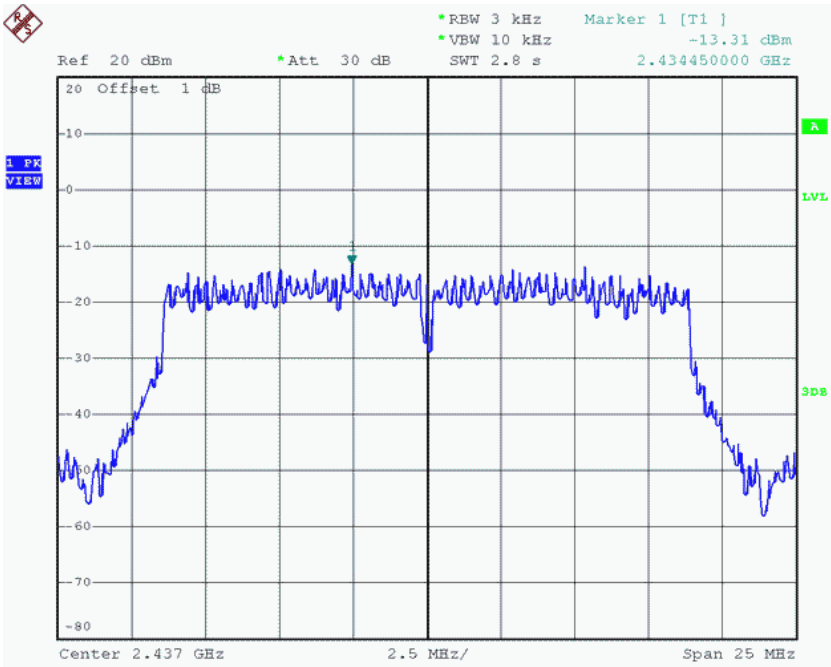


Test Mode : TX N-20M Mode_CH01/06/11_ANT 1				
Frequency (MHz)	Power Density (dBm/3kHz)	Power Density (mW/3kHz)	Max. Limit (dBm/3kHz)	Result
2412	-13.59	0.04	7.00	Complies
2437	-13.31	0.05	7.00	Complies
2462	-12.24	0.06	7.00	Complies

TX CH01

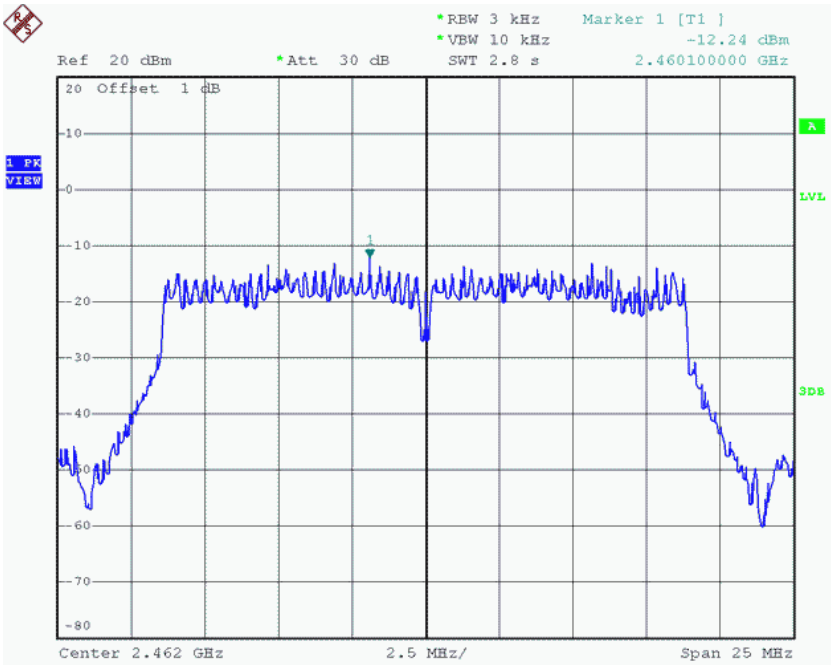


TX CH06



Date: 16.JUL.2015 20:53:53

TX CH11

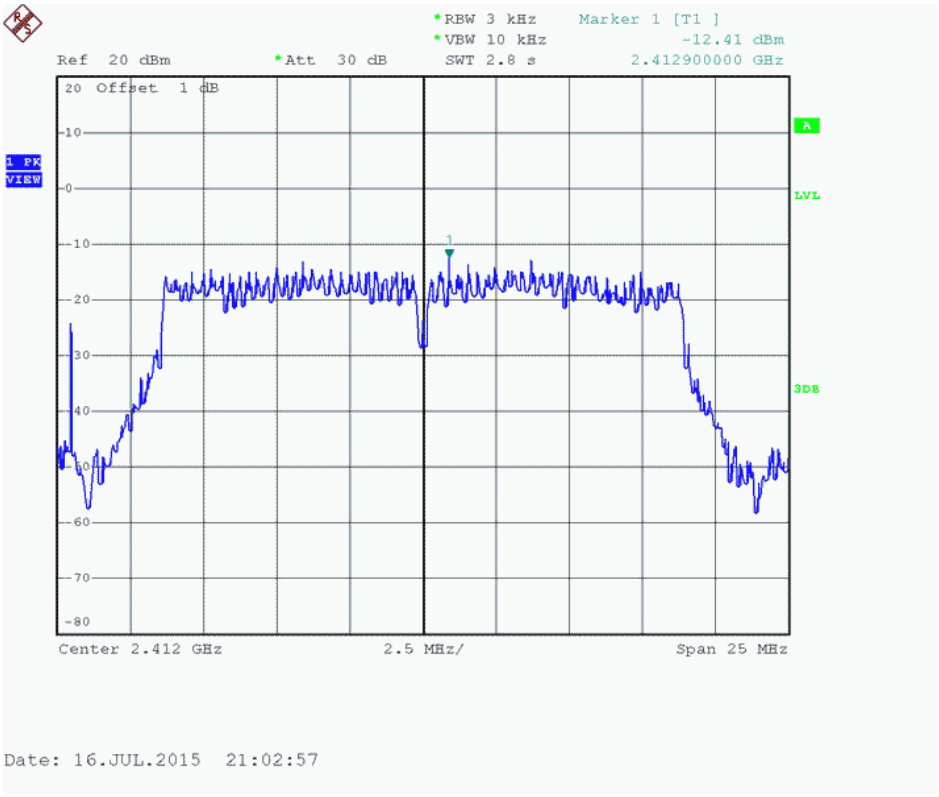


Date: 16.JUL.2015 20:54:52

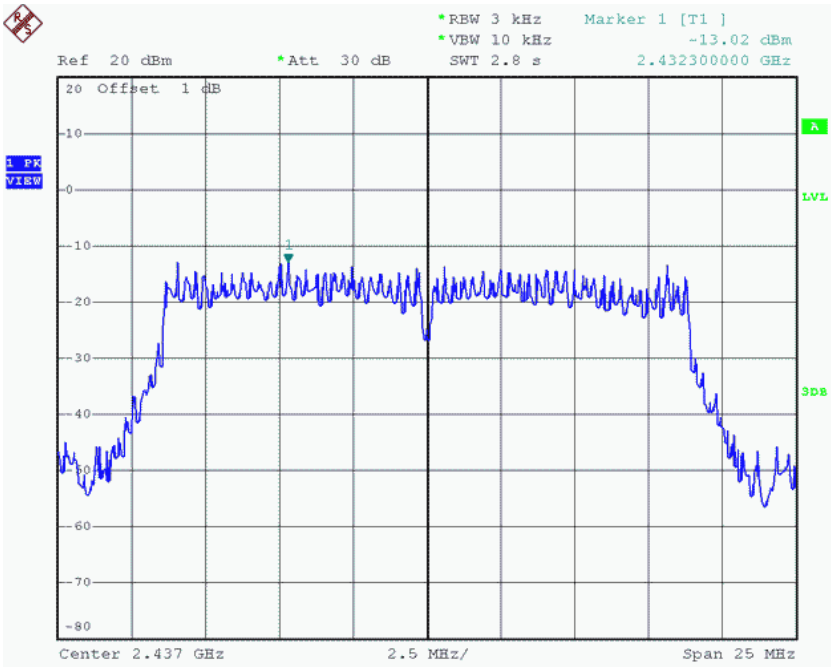
Test Mode : TX N-20M Mode_CH01/06/11_ANT 2

Frequency (MHz)	Power Density (dBm/3kHz)	Power Density (mW/3kHz)	Max. Limit (dBm/3kHz)	Result
2412	-12.41	0.06	7.00	Complies
2437	-13.02	0.05	7.00	Complies
2462	-12.85	0.05	7.00	Complies

TX CH01

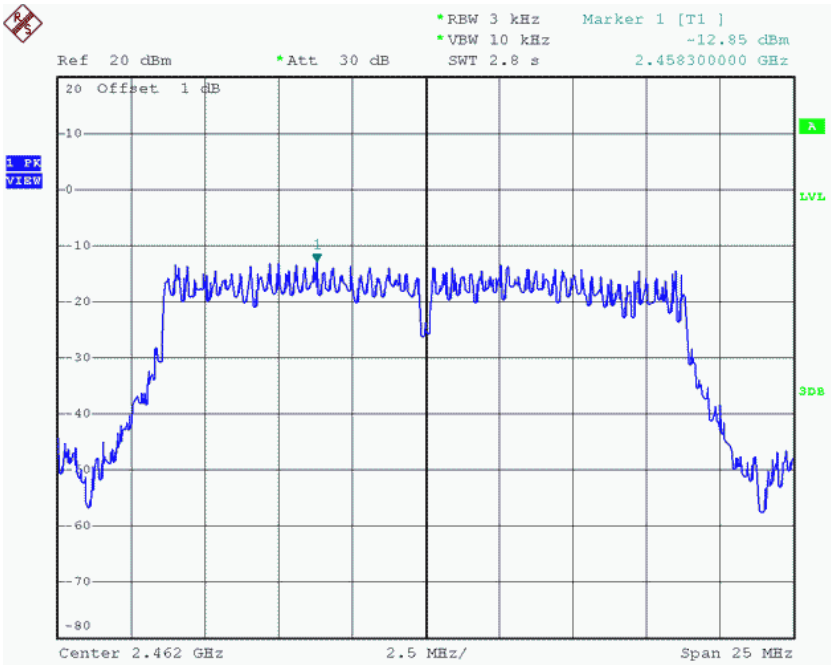


TX CH06



Date: 16.JUL.2015 21:04:07

TX CH11



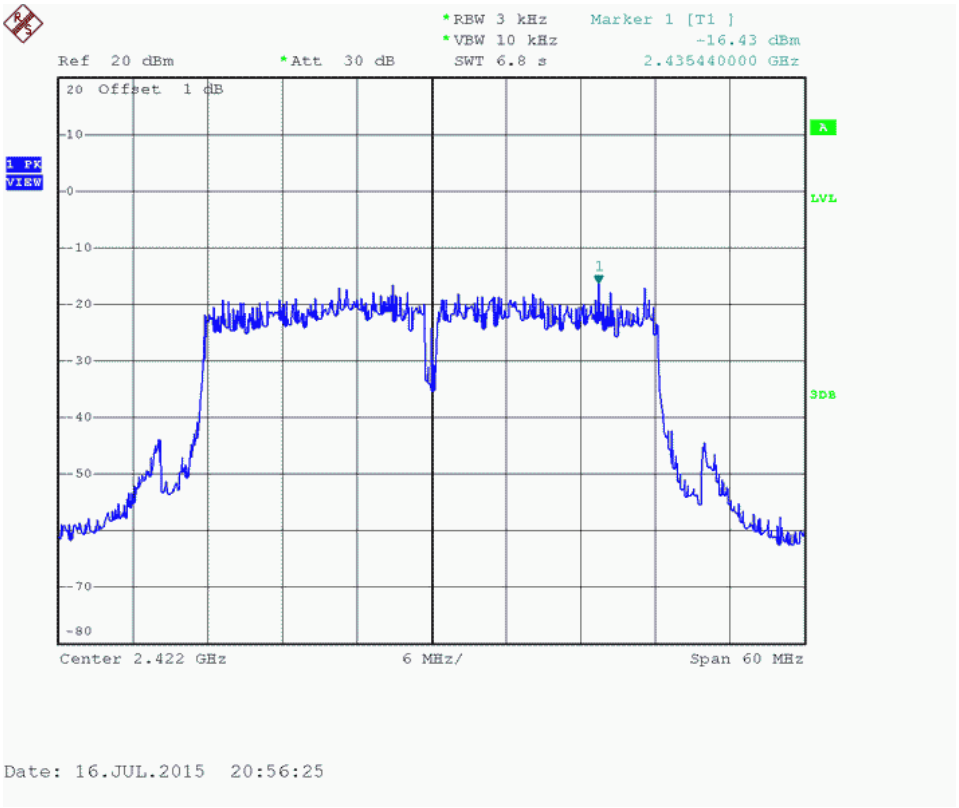
Date: 16.JUL.2015 21:05:00

Test Mode : TX N-20M Mode_CH01/06/11_Total				
Frequency (MHz)	Power Density (dBm/3kHz)	Power Density (mW/3kHz)	Max. Limit (dBm/3kHz)	Result
2412	-10.00	0.10	7.00	Complies
2437	-10.00	0.10	7.00	Complies
2462	-9.59	0.11	7.00	Complies

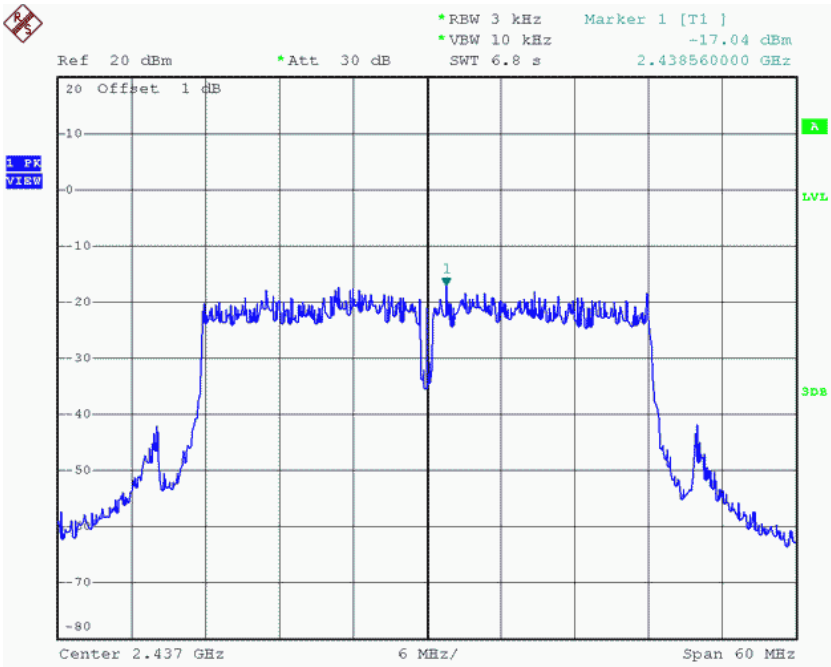
Test Mode : TX N-40M Mode_CH03/06/09_ANT 1

Frequency (MHz)	Power Density (dBm/3kHz)	Power Density (mW/3kHz)	Max. Limit (dBm/3kHz)	Result
2422	-16.43	0.02	7.00	Complies
2437	-17.04	0.02	7.00	Complies
2452	-14.42	0.04	7.00	Complies

TX CH03

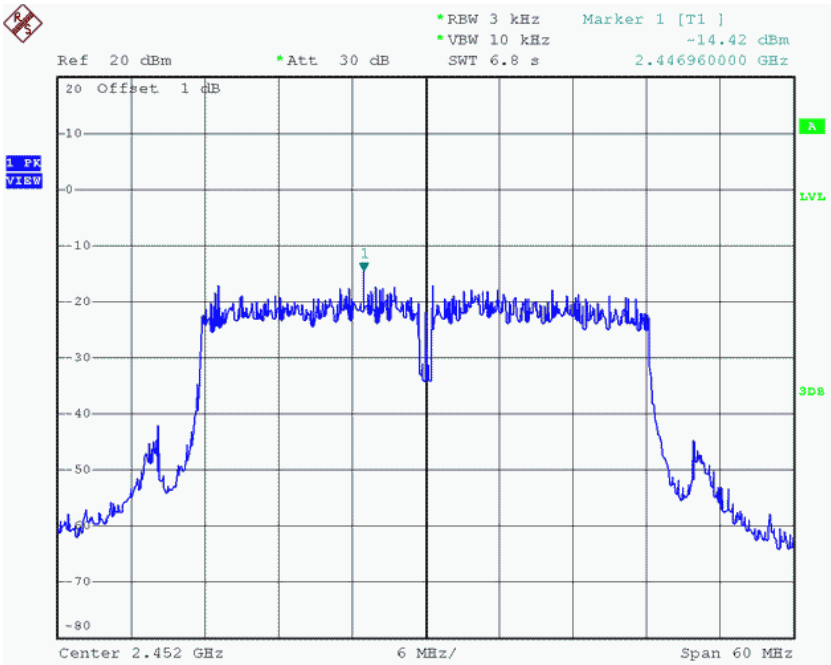


TX CH06



Date: 16.JUL.2015 20:59:14

TX CH09

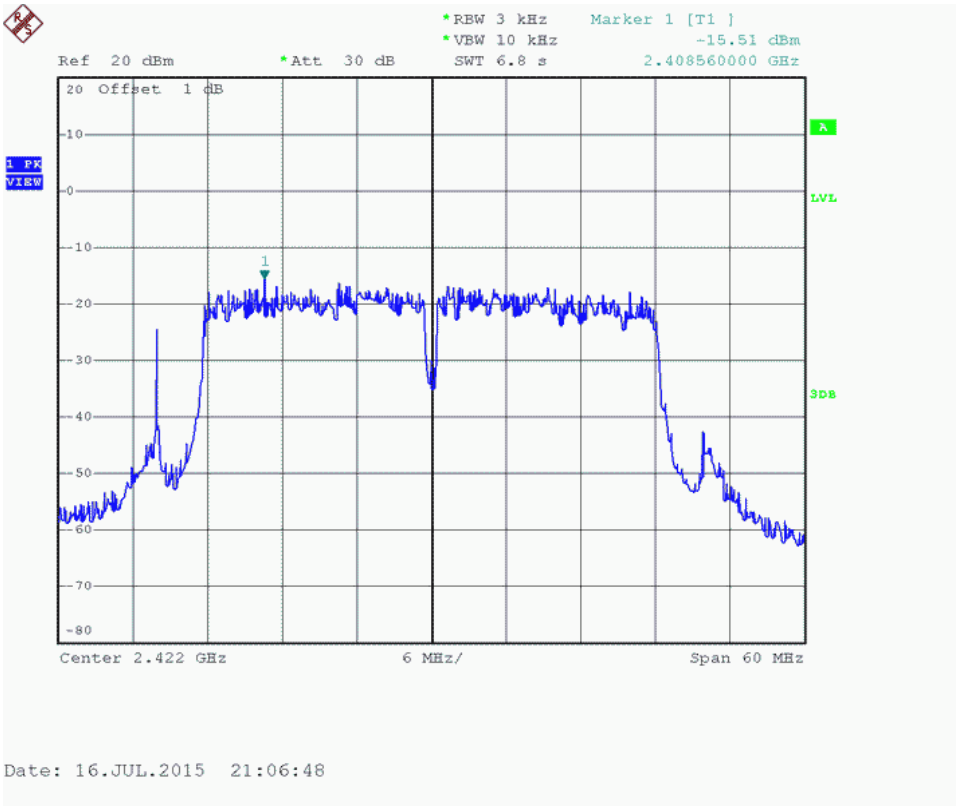


Date: 16.JUL.2015 21:00:51

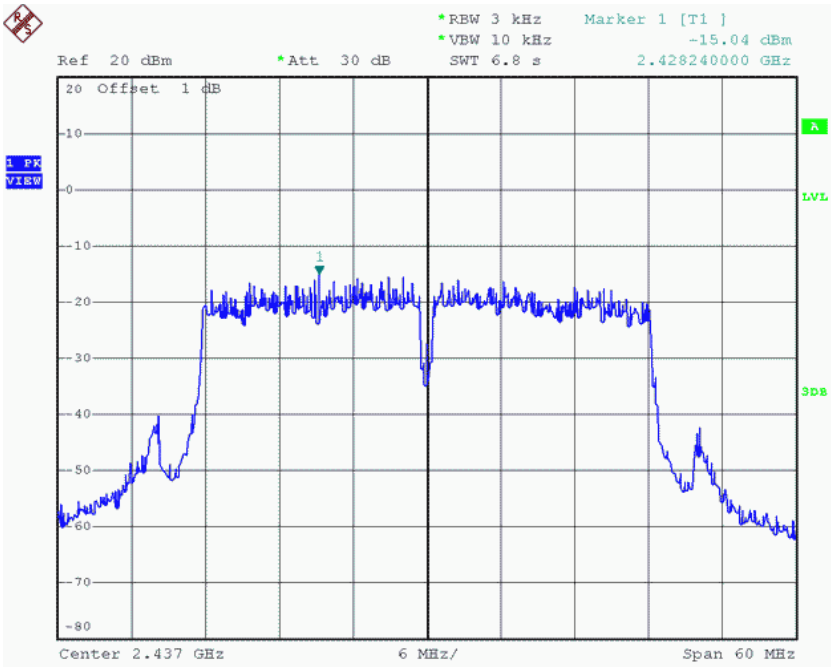
Test Mode : TX N-40M Mode_CH03/06/09_ANT 2				

Frequency (MHz)	Power Density (dBm/3kHz)	Power Density (mW/3kHz)	Max. Limit (dBm/3kHz)	Result
2422	-15.51	0.03	7.00	Complies
2437	-15.04	0.03	7.00	Complies
2452	-15.11	0.03	7.00	Complies

TX CH03

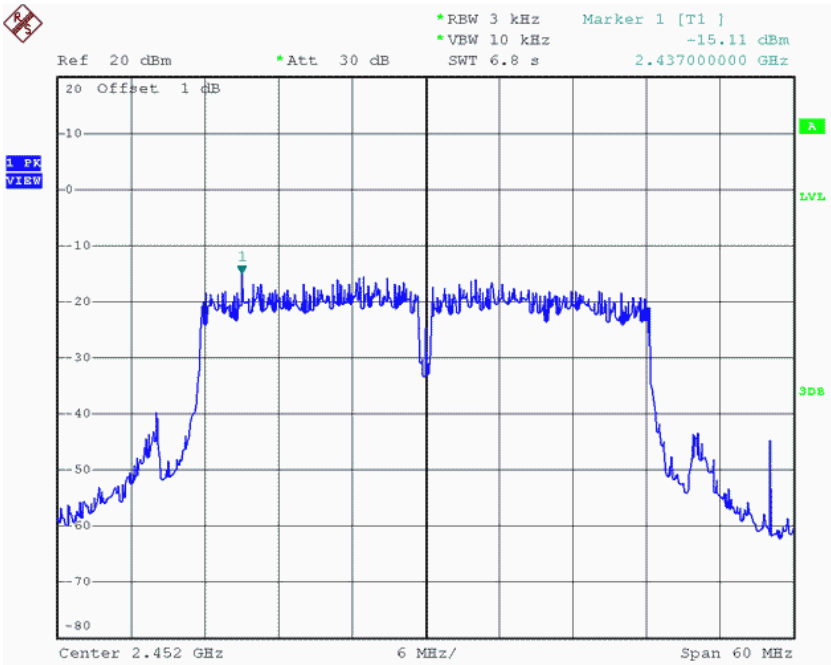


TX CH06



Date: 16.JUL.2015 21:07:37

TX CH09



Date: 16.JUL.2015 21:09:04

Test Mode : TX N-40M Mode_CH03/06/09_Total				
Frequency (MHz)	Power Density (dBm/3kHz)	Power Density (mW/3kHz)	Max. Limit (dBm/3kHz)	Result
2422	-13.01	0.05	7.00	Complies
2437	-13.01	0.05	7.00	Complies
2452	-11.55	0.07	7.00	Complies