FCC Radio Test Report

FCC ID: 2ABZMAP515

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

Project No.	:	1507C072A
Equipment	:	Wireless Access Point
Model Name	:	AP515
Applicant	:	SHENZHEN IP-COM NETWORKS CO.,LTD.
Address	:	Room 101, Unit A, First Floor, Tower E3, No. 1001, Zhongshanyuan Road, Nanshan District, Shenzhen, China. 518052

Date of Receipt	:	Oct. 08, 2015
Date of Test	:	Oct. 08, 2015 ~ Oct. 28, 2015
Issued Date	:	Oct. 29, 2015
Tested by	:	BTL Inc.

Testing Engineer : Shawn xiao
(Shawn Xiao)

Technical Manager : David Mao
(David Mao)

Authorized Signatory : Steven Lu
(Steven Lu)

BTL INC.

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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-1-1507C072A	Original Issue.	Oct. 29, 2015

1. CERTIFICATION

Equipment	:	Wireless Access Point
Brand Name	:	IP-COM
Model Name	:	AP515
Applicant	:	SHENZHEN IP-COM NETWORKS CO.,LTD.
Manufacturer	:	SHENZHEN IP-COM NETWORKS CO.,LTD.
Address	:	Room 101, Unit A, First Floor, Tower E3, No. 1001, Zhongshanyuan Road, Nanshan District, Shenzhen, China. 518052
Date of Test	:	Oct. 08, 2015 ~ Oct. 28, 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-1-1507C072A) 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.

2.1 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 estimated for 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 a standard 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)
DG-C02	CISPR	150 kHz ~ 30MHz	2.32

B. Radiated Measurement:

Test Site	Method	Measurement Frequency Range	Ant. H / V	U,(dB)
DG-CB03 (3m)	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	Wireless Access Point	
Brand Name	IP-COM	
Model Name	AP515	
Model Difference	NA	
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: 24.52 dBm 802.11g: 23.56 dBm 802.11n(20MHz): 25.07 dBm 802.11n(40MHz): 24.09 dBm
Power Source	DC voltage supplied from PoE Power Supply. Manufacturer: SHENZHEN HEWEISHUN NETWORK TECHNOLOGY CO., LTD. Model: BN031-A65051	
Power Rating	I/P: AC100-240V 50/60Hz 1.5A O/P: DC 51V 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 – CH11 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:

(1) 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.

(2) 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 at one 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

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.

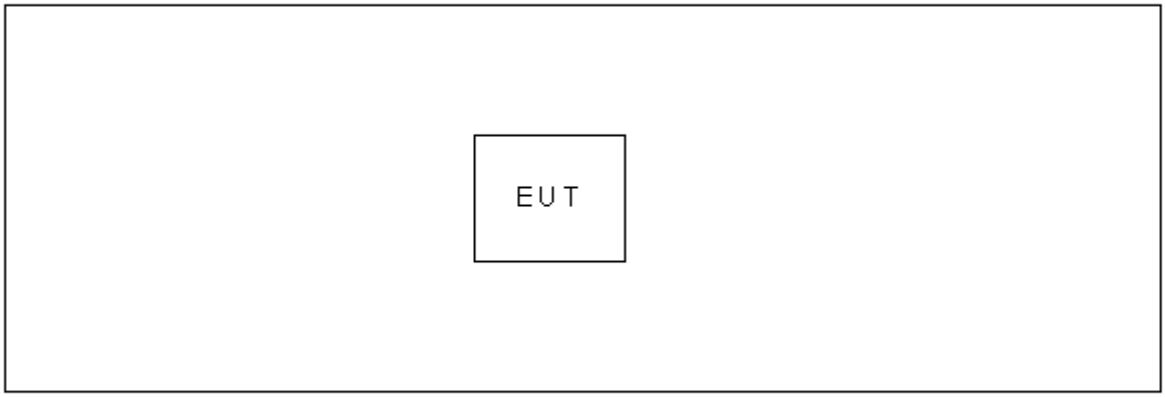
(4) The EUT was programmed to be in continuously transmitting mode and the transmit duty cycle is not less than 98%.

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	MTool		
Frequency (MHz)	2412	2437	2462
802.11b	85	86	70
802.11g	68	74	62
802.11n (20MHz)	42	68	56
Frequency (MHz)	2422	2437	2452
802.11n (40MHz)	45	66	41

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.
-	-	-	-	-	-

Item	Shielded Type	Ferrite Core	Length	Note
-	-	-	-	-

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 -0.5	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

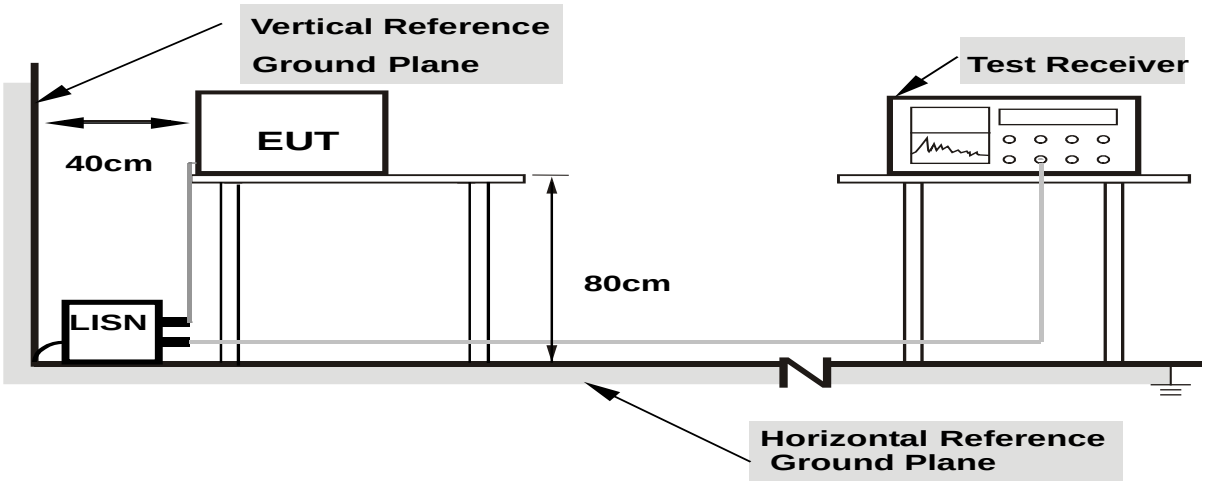
4.1.2 TEST PROCEDURE

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 equipments 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 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

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

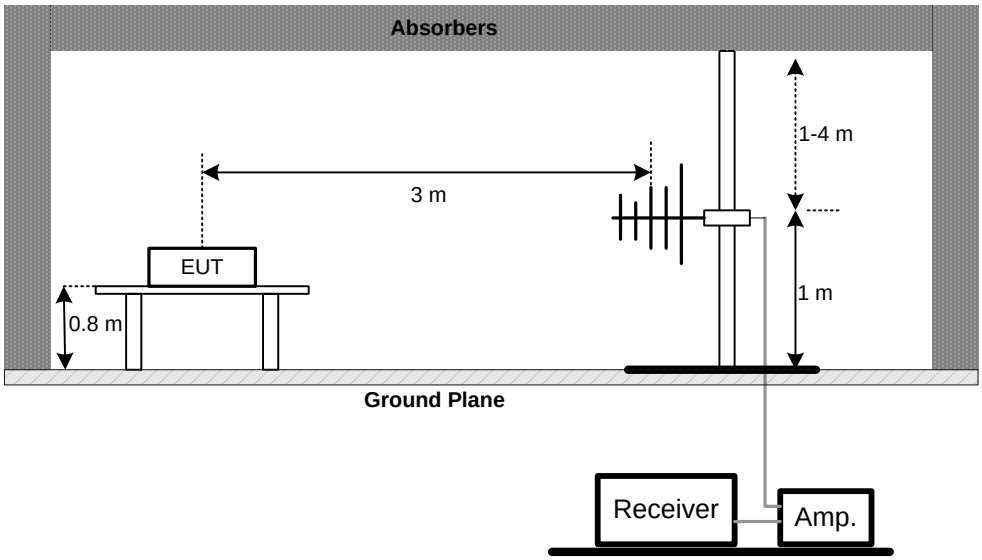
a. The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(below 1GHz)
b. The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 1.5 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(above 1GHz)
c. The height of the equipment or of the substitution antenna shall be 0.8 m or 1.5m, the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
d. 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.
e. 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)
f. 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)
g. For the actual test configuration, please refer to the related Item –EUT Test Photos.

4.2.3 DEVIATION FROM TEST STANDARD

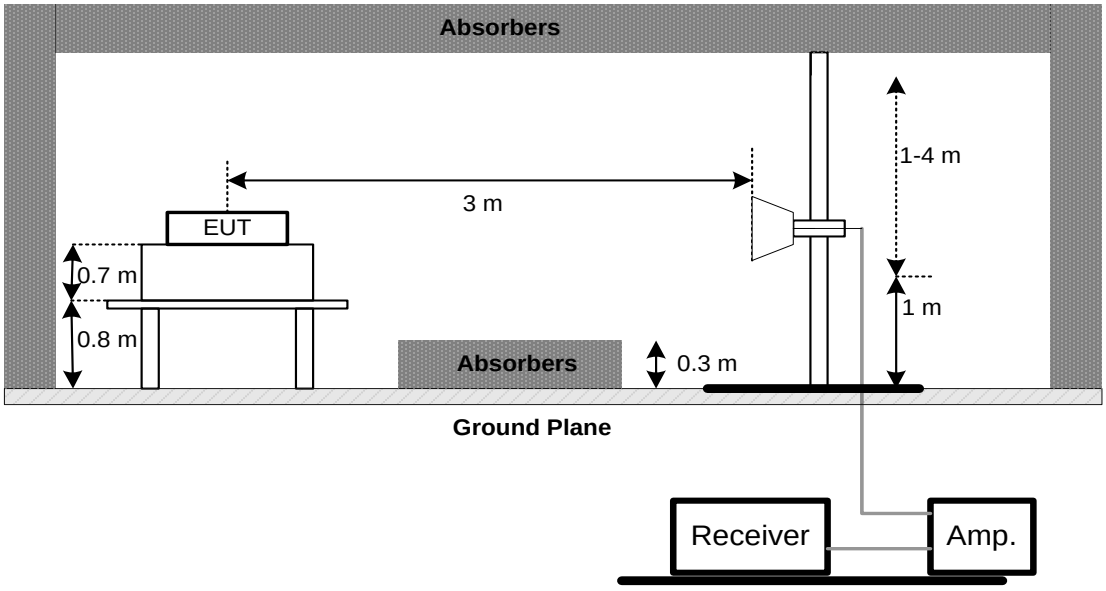
No deviation

4.2.4 TEST SETUP

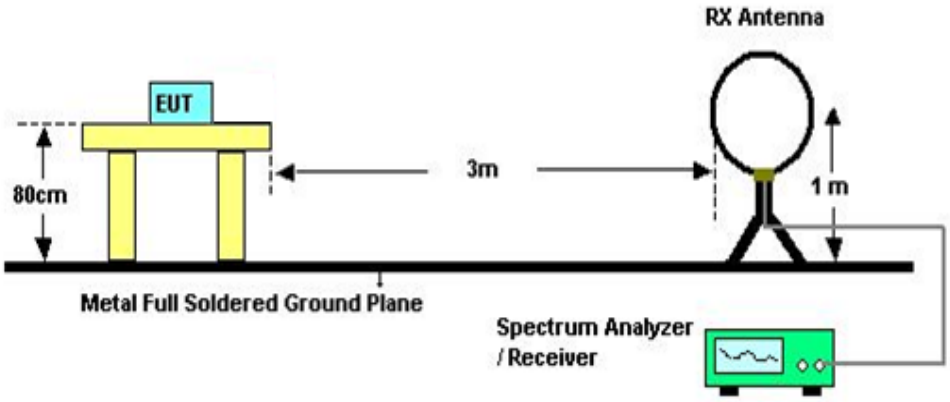
(A) Radiated Emission Test Set-Up Frequency Below 1 GHz



(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 110V/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 (30MHZ TO 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

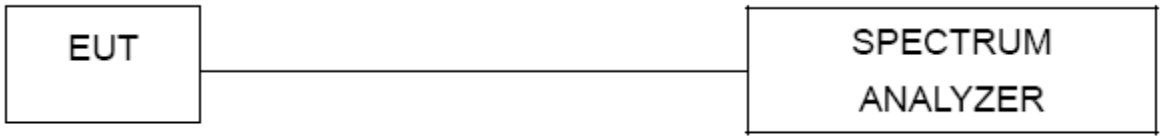
5.1.1 TEST PROCEDURE

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 = 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 110V/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

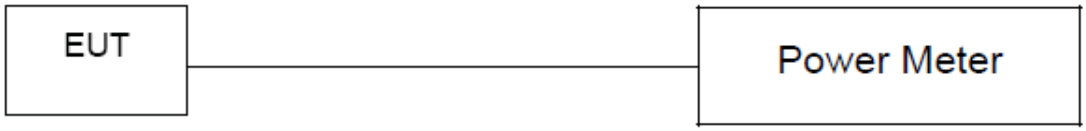
6.1.1 TEST PROCEDURE

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 558074 D01 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°C Relative Humidity: 55% Test Voltage: AC 110V/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 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.

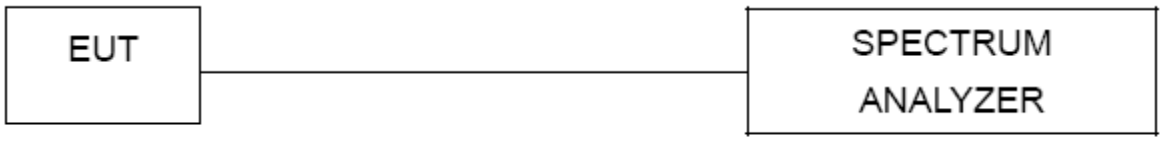
7.1.1 TEST PROCEDURE

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.
c. 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 110V/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

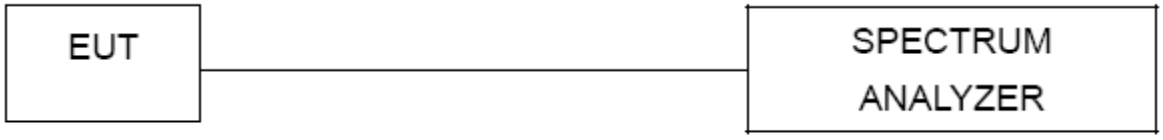
8.1.1 TEST PROCEDURE

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 110V/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	699837	0052765	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	ESCS30	826547/022	Mar. 28, 2016
5	50Ω Terminator	SHX	TF2-3G-A	08122901	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	Oct. 11, 2016
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	Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	9170319	Mar. 28, 2016
11	Microwave Preamplifier With Adaptor	EMC INSTRUMENT	EMC2654045	980039 & HA01	Mar. 28, 2016
12	Active Loop Antenna	R&S	HFH2-Z2	830749/020	Sep. 07, 2016
13	Active Loop Antenna	R&S	HFH2-Z2	830749/020	Mar. 28, 2016
14	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	Aug. 16, 2015

6dB Bandwidth Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP 40	100185	Oct. 11, 2016

Peak Output Power Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	power Meter	ANRITSU	ML2495A	1128009	Mar. 28, 2016
2	Pulse Power Sensor	ANRITSU	MA 2411B	1027500	Mar. 28, 2016

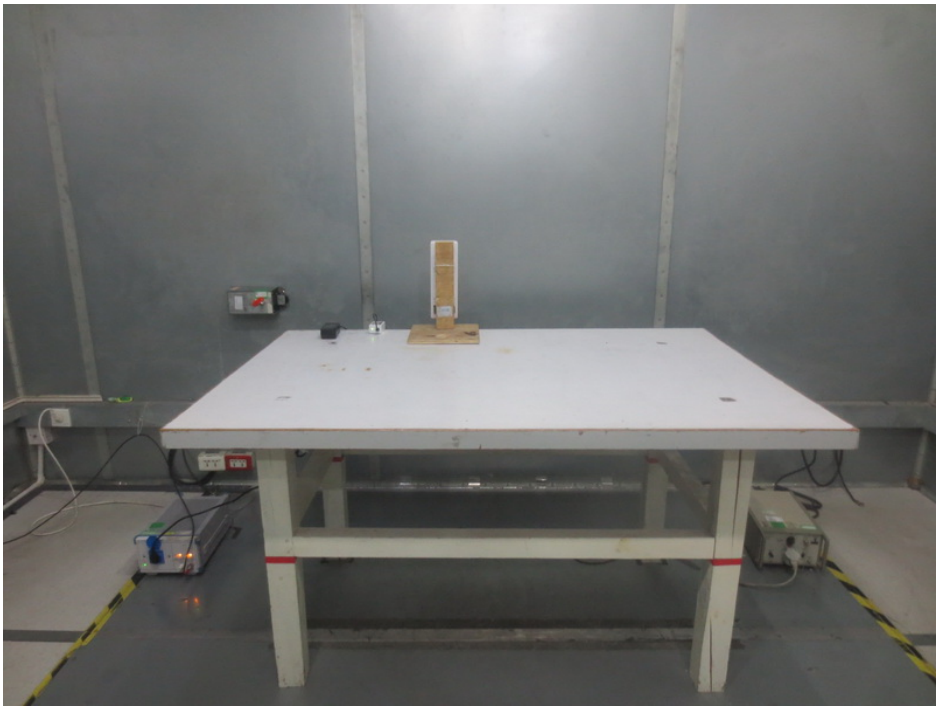
Antenna Conducted Spurious Emission Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP 40	100185	Oct. 11, 2016

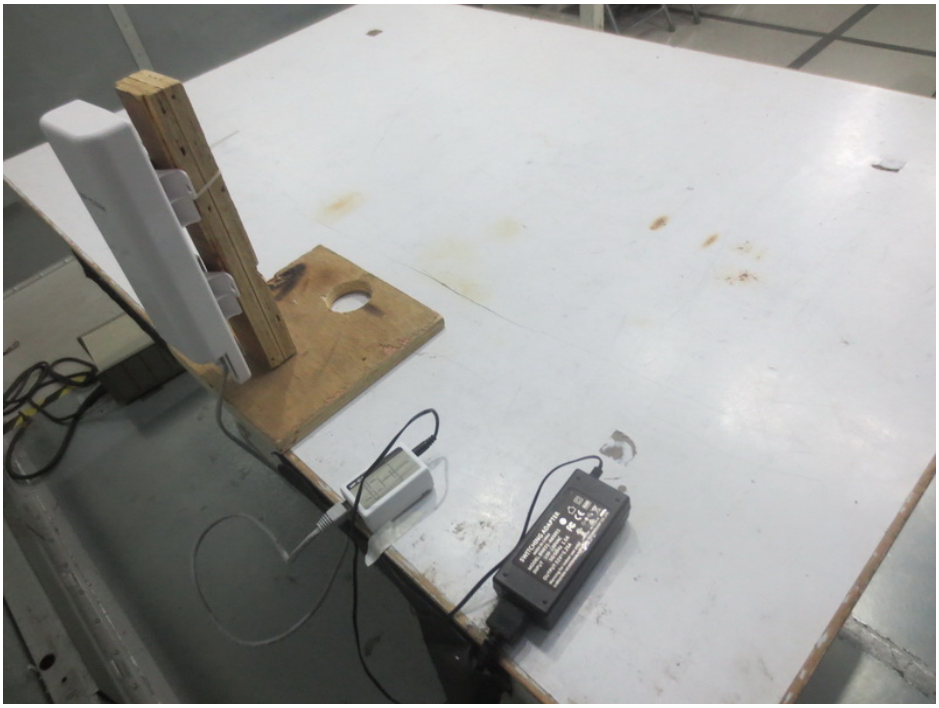
Power Spectral Density Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP 40	100185	Oct. 11, 2016

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



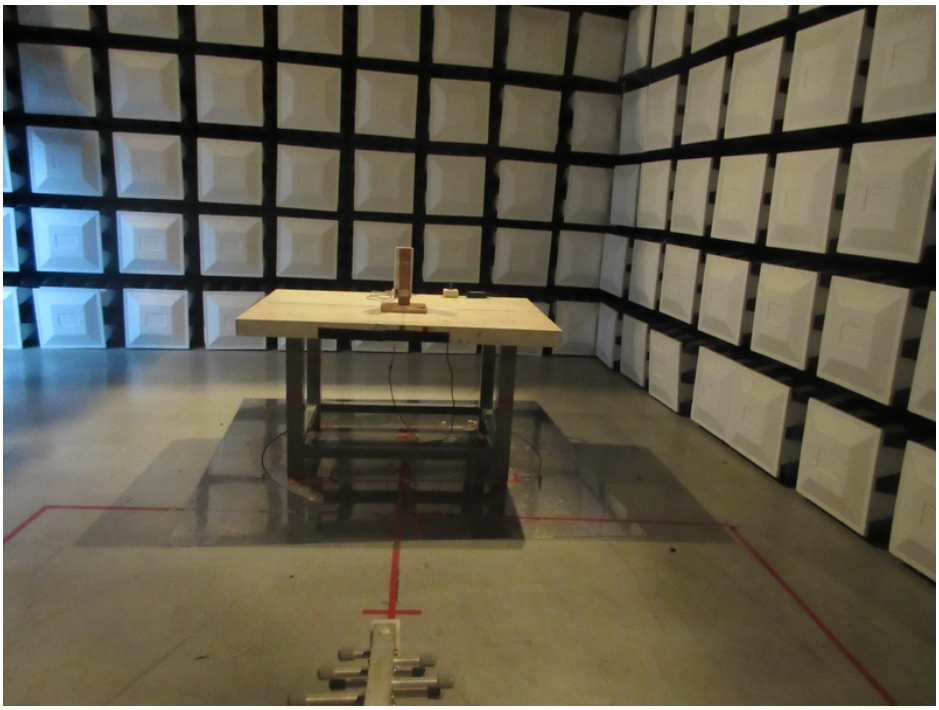


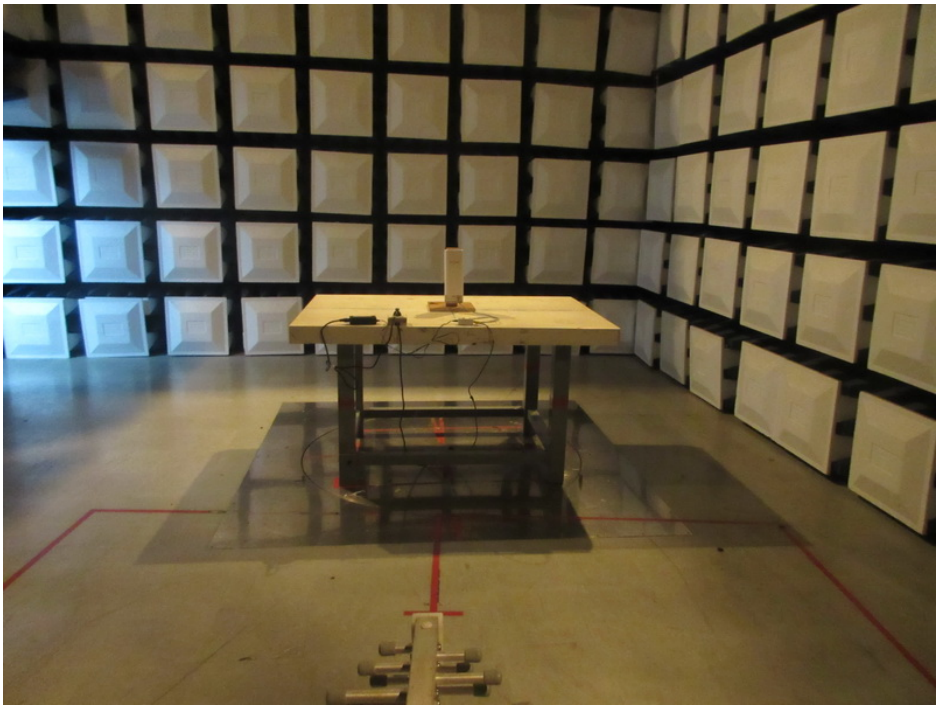
Radiated Measurement Photos

9KHz to 30MHz

Radiated Measurement Photos

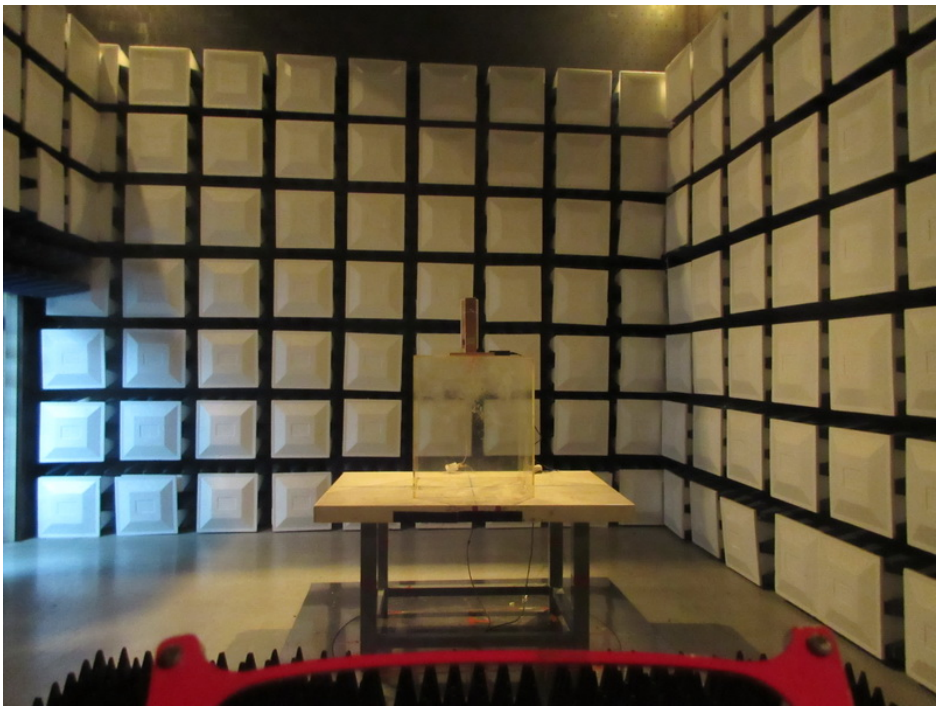
30MHz to 1000MHz

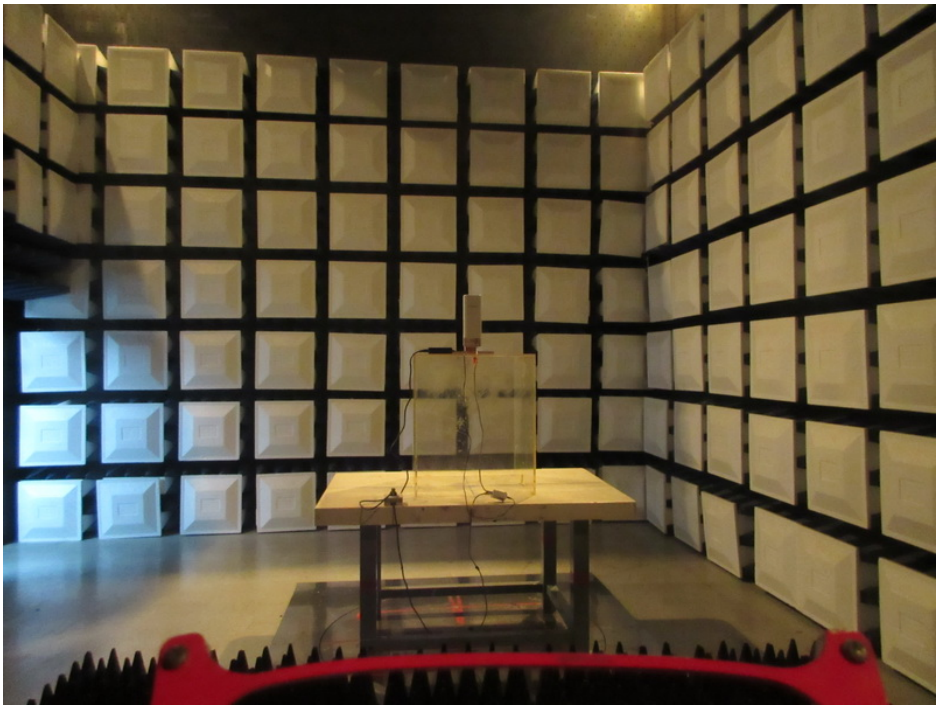




Radiated Measurement Photos

Above 1000MHz

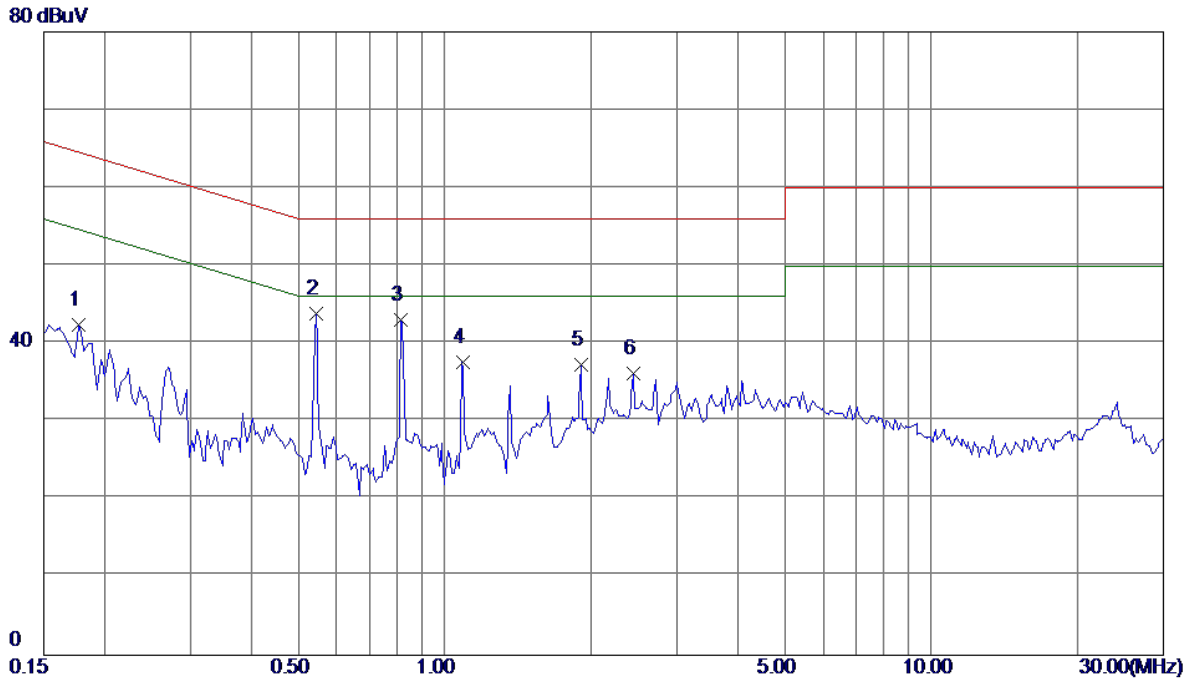




ATTACHMENT A - CONDUCTED EMISSION

Test Mode :	Normal Link

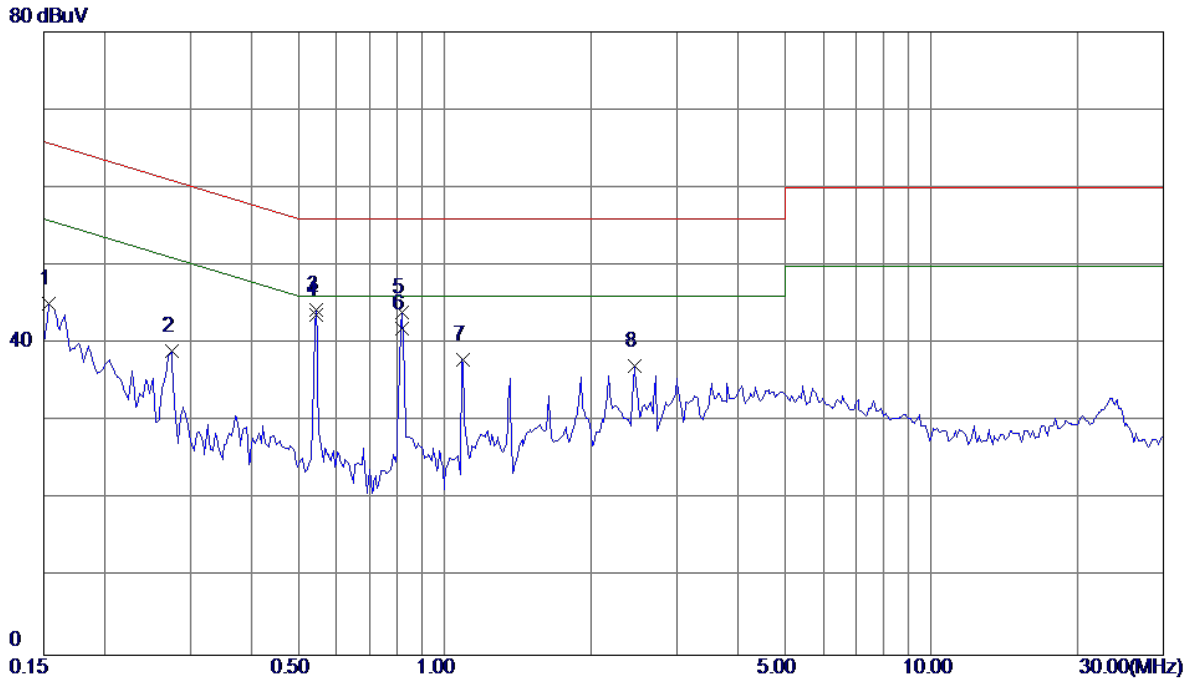
Line



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	0.1773	32.90	9.56	42.46	64.61	-22.15	Peak	
2	0.5445	34.18	9.70	43.88	56.00	-12.12	Peak	
3	0.8141	33.36	9.75	43.11	56.00	-12.89	Peak	
4	1.0875	27.72	9.81	37.53	56.00	-18.47	Peak	
5	1.9040	27.34	9.90	37.24	56.00	-18.76	Peak	
6	2.4470	26.20	9.99	36.19	56.00	-19.81	Peak	

Test Mode :	Normal Link

Neutral



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	0.1539	35.63	9.49	45.12	65.79	-20.67	Peak	
2	0.2750	29.52	9.52	39.04	60.97	-21.93	Peak	
3	0.5445	34.73	9.56	44.29	56.00	-11.71	Peak	
4	0.5445	34.20	9.56	43.76	46.00	-2.24	AVG	
5	0.8180	34.47	9.56	44.03	56.00	-11.97	Peak	
6	0.8180	32.40	9.56	41.96	46.00	-4.04	AVG	
7	1.0875	28.31	9.60	37.91	56.00	-18.09	Peak	
8	2.4547	27.35	9.76	37.11	56.00	-18.89	Peak	

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

Test Mode:	TX B MODE CHANNEL 01

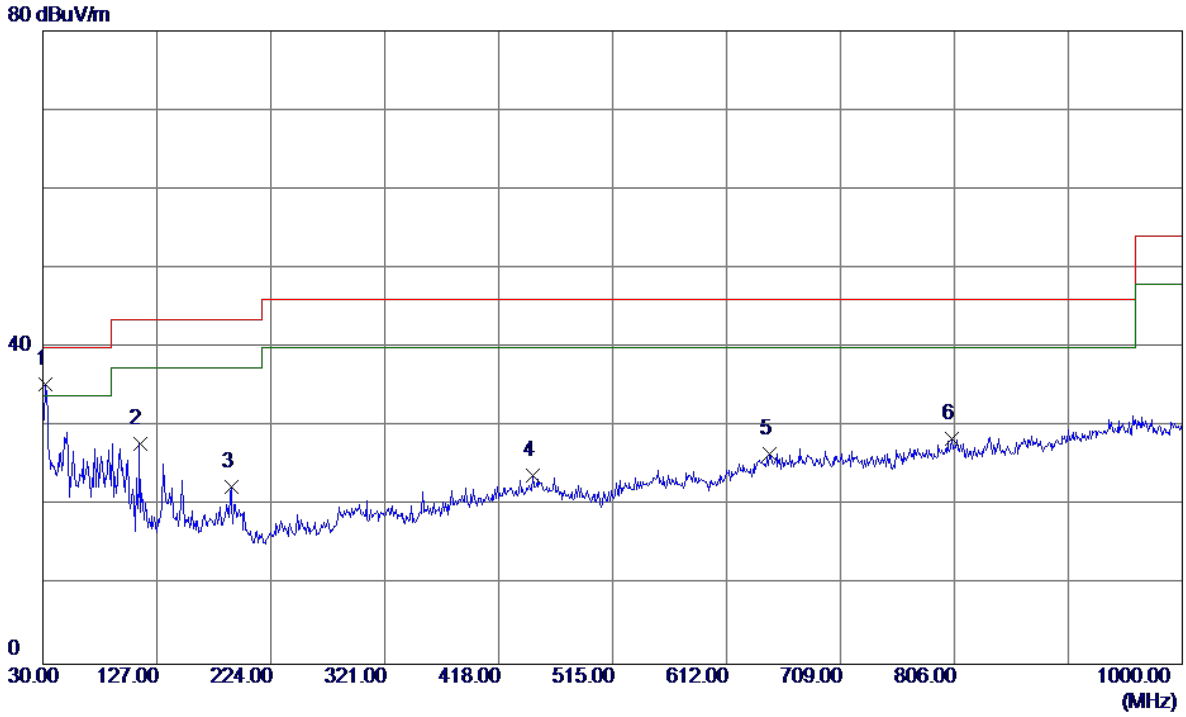
Frequency (MHz)	Ant 0°/90°	Read level dBuV/m	Factor (dB)	Measured(FS) (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Note
0.0097	0°	13.62	24.9523	38.5723	127.8688	-89.2965	AVG
0.0097	0°	14.11	24.9523	39.0623	147.8688	-108.8065	PEAK
0.0216	0°	6.22	24.1987	30.4187	120.9151	-90.4965	AVG
0.0216	0°	8.72	24.1987	32.9187	140.9151	-107.9965	PEAK
0.0411	0°	3.21	22.9637	26.1737	115.3274	-89.1537	AVG
0.0411	0°	5.83	22.9637	28.7937	135.3274	-106.5337	PEAK
0.0623	0°	1.26	22.1540	23.4140	111.7145	-88.3005	AVG
0.0623	0°	2.13	22.1540	24.2840	131.7145	-107.4305	PEAK
0.5176	0°	19.51	19.8563	39.3663	73.3243	-33.9580	QP
1.6107	0°	23.15	19.5389	42.6889	63.4639	-20.7750	QP

Frequency (MHz)	Ant 0°/90°	Read level dBuV/m	Factor (dB)	Measured(FS) (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Note
0.0091	90°	14.01	24.3000	38.3100	128.4234	-90.1134	AVG
0.0091	90°	14.41	24.3000	38.7100	148.4234	-109.7134	PEAK
0.0153	90°	7.12	24.3000	31.4200	123.9104	-92.4904	AVG
0.0153	90°	8.04	24.3000	32.3400	143.9104	-111.5704	PEAK
0.0301	90°	5.61	23.6603	29.2703	118.0329	-88.7626	AVG
0.0301	90°	6.11	23.6603	29.7703	138.0329	-108.2626	PEAK
0.0438	90°	1.89	22.7927	24.6827	114.7747	-90.0921	AVG
0.0438	90°	2.31	22.7927	25.1027	134.7747	-109.6721	PEAK
0.6921	90°	22.56	20.4147	42.9747	70.8008	-27.8261	QP
1.3151	90°	24.57	19.5685	44.1385	65.2250	-21.0866	QP

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

Test Mode:	TX B MODE CHANNEL 01

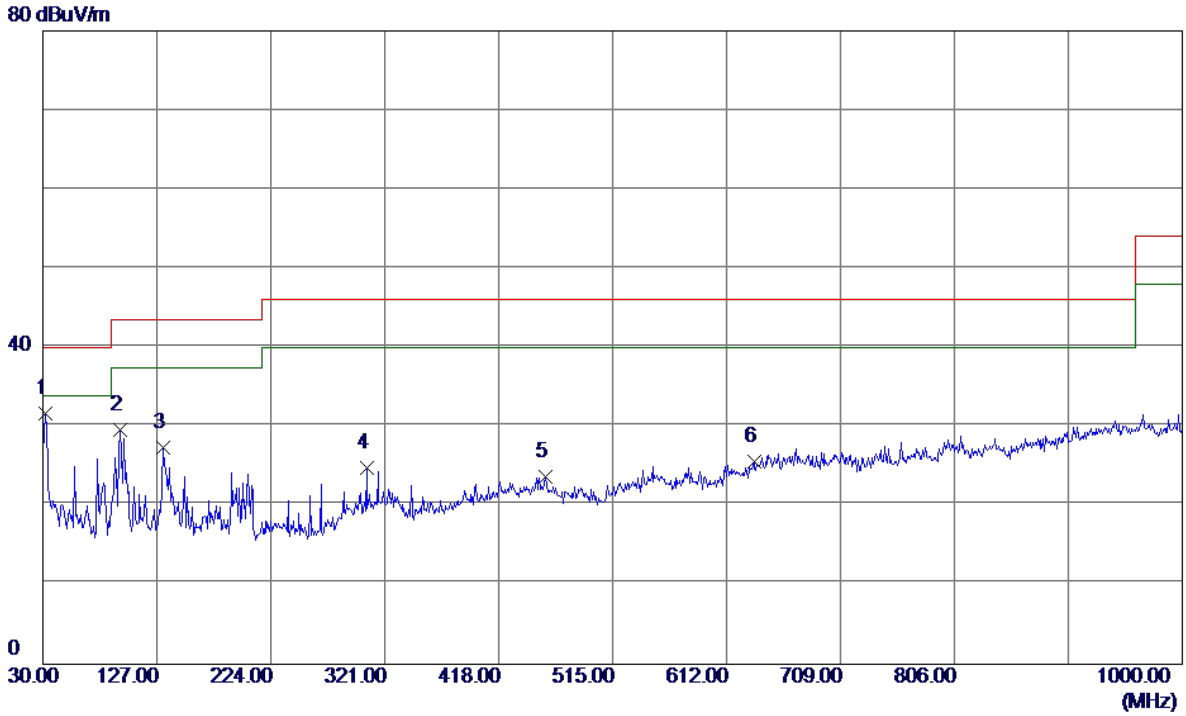
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	31.9400	49.20	-13.89	35.31	40.00	-4.69	Peak	
2	112.4500	41.28	-13.50	27.78	43.50	-15.72	Peak	
3	190.0500	35.40	-12.99	22.41	43.50	-21.09	Peak	
4	447.1000	29.84	-5.97	23.87	46.00	-22.13	Peak	
5	648.8600	28.23	-1.71	26.52	46.00	-19.48	Peak	
6	804.0600	28.29	0.16	28.45	46.00	-17.55	Peak	

Test Mode:	TX B MODE CHANNEL 01

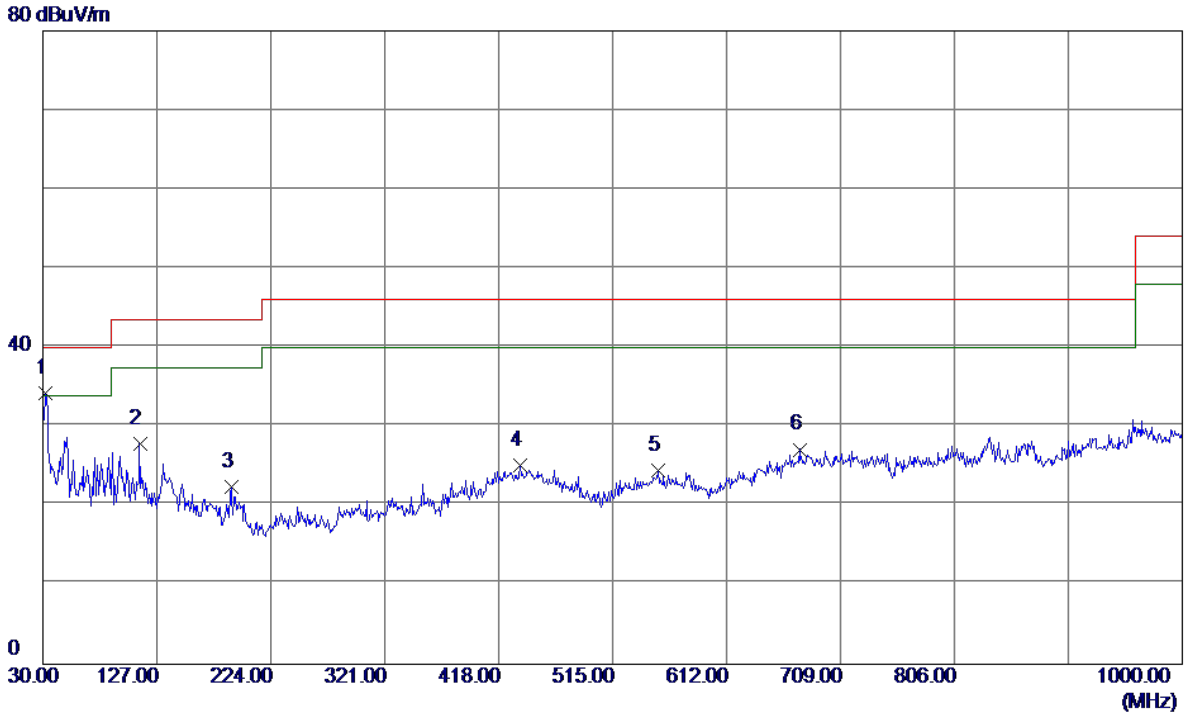
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	31.9400	45.52	-13.89	31.63	40.00	-8.37	Peak	
2	95.9600	44.93	-15.35	29.58	43.50	-13.92	Peak	
3	132.8200	38.81	-11.52	27.29	43.50	-16.21	Peak	
4	305.4800	34.49	-9.62	24.87	46.00	-21.13	Peak	
5	457.7700	29.75	-6.13	23.62	46.00	-22.38	Peak	
6	635.2800	28.15	-2.52	25.63	46.00	-20.37	Peak	

Test Mode:	TX B MODE CHANNEL 06

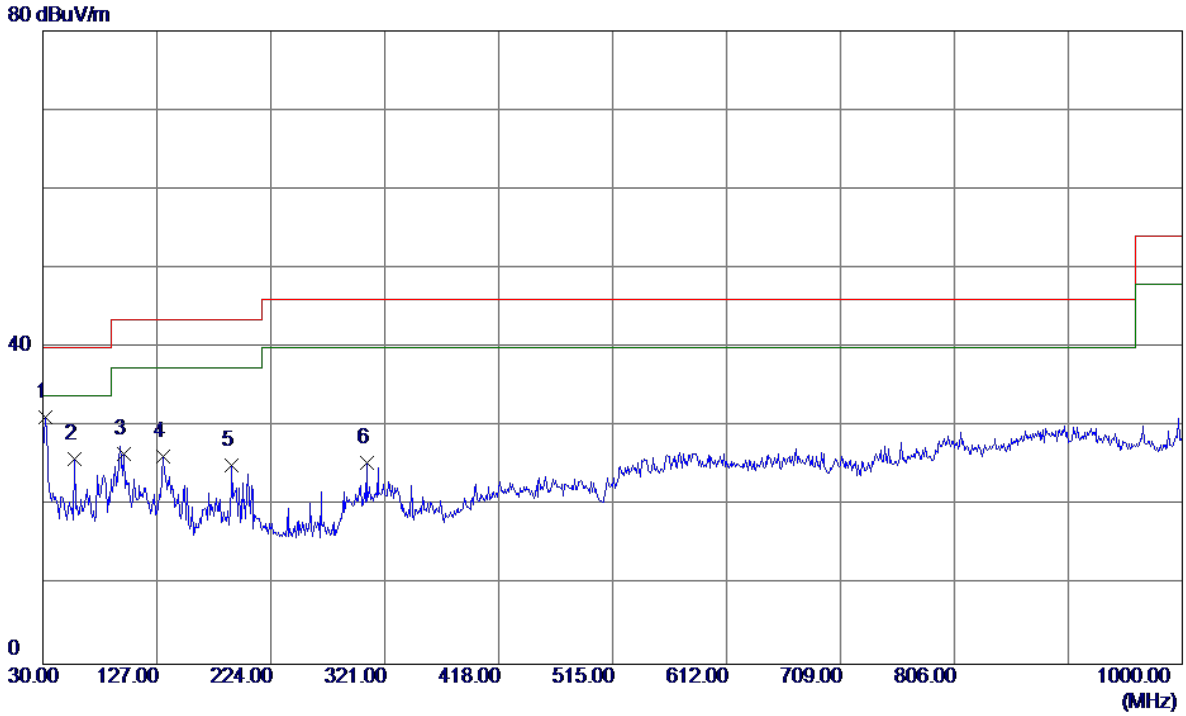
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	31.9400	48.20	-13.89	34.31	40.00	-5.69	Peak	
2	112.4500	41.28	-13.50	27.78	43.50	-15.72	Peak	
3	190.0500	35.40	-12.99	22.41	43.50	-21.09	Peak	
4	436.4300	31.46	-6.27	25.19	46.00	-20.81	Peak	
5	553.8000	29.12	-4.62	24.50	46.00	-21.50	Peak	
6	674.0800	28.68	-1.56	27.12	46.00	-18.88	Peak	

Test Mode:	TX B MODE CHANNEL 06

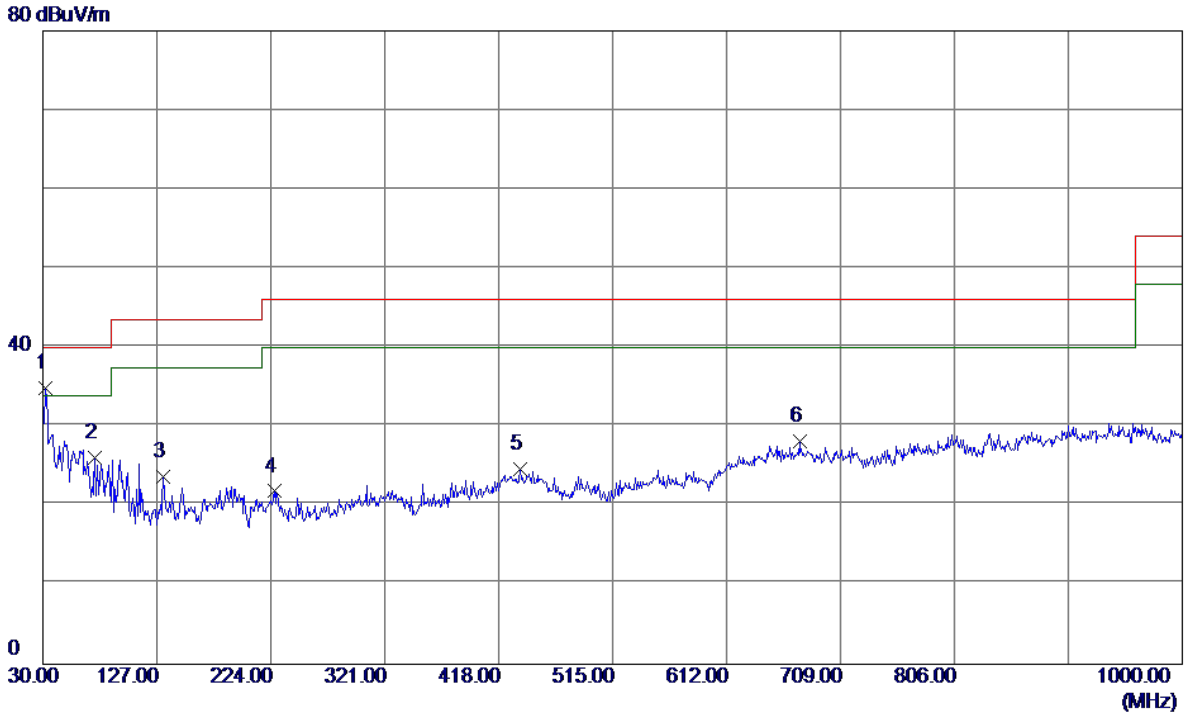
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	31.9400	45.02	-13.89	31.13	40.00	-8.87	Peak	
2	57.1600	38.96	-13.02	25.94	40.00	-14.06	Peak	
3	98.8700	41.38	-14.87	26.51	43.50	-16.99	Peak	
4	132.8200	37.81	-11.52	26.29	43.50	-17.21	Peak	
5	191.0200	38.19	-13.05	25.14	43.50	-18.36	Peak	
6	305.4800	34.99	-9.62	25.37	46.00	-20.63	Peak	

Test Mode:	TX B MODE CHANNEL 11

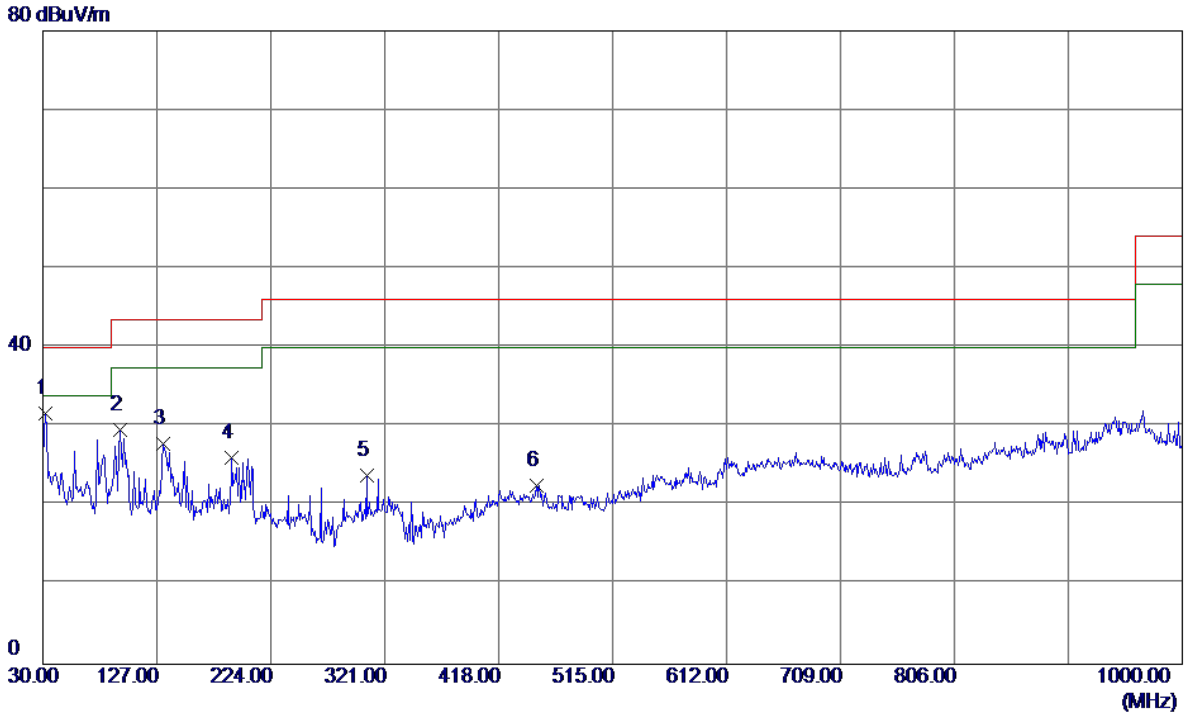
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	31.9400	48.70	-13.89	34.81	40.00	-5.19	Peak	
2	74.6200	41.35	-15.22	26.13	40.00	-13.87	Peak	
3	132.8200	35.22	-11.52	23.70	43.50	-19.80	Peak	
4	226.9100	34.79	-12.95	21.84	46.00	-24.16	Peak	
5	436.4300	30.96	-6.27	24.69	46.00	-21.31	Peak	
6	674.0800	29.68	-1.56	28.12	46.00	-17.88	Peak	

Test Mode:	TX B MODE CHANNEL 11

Horizontal

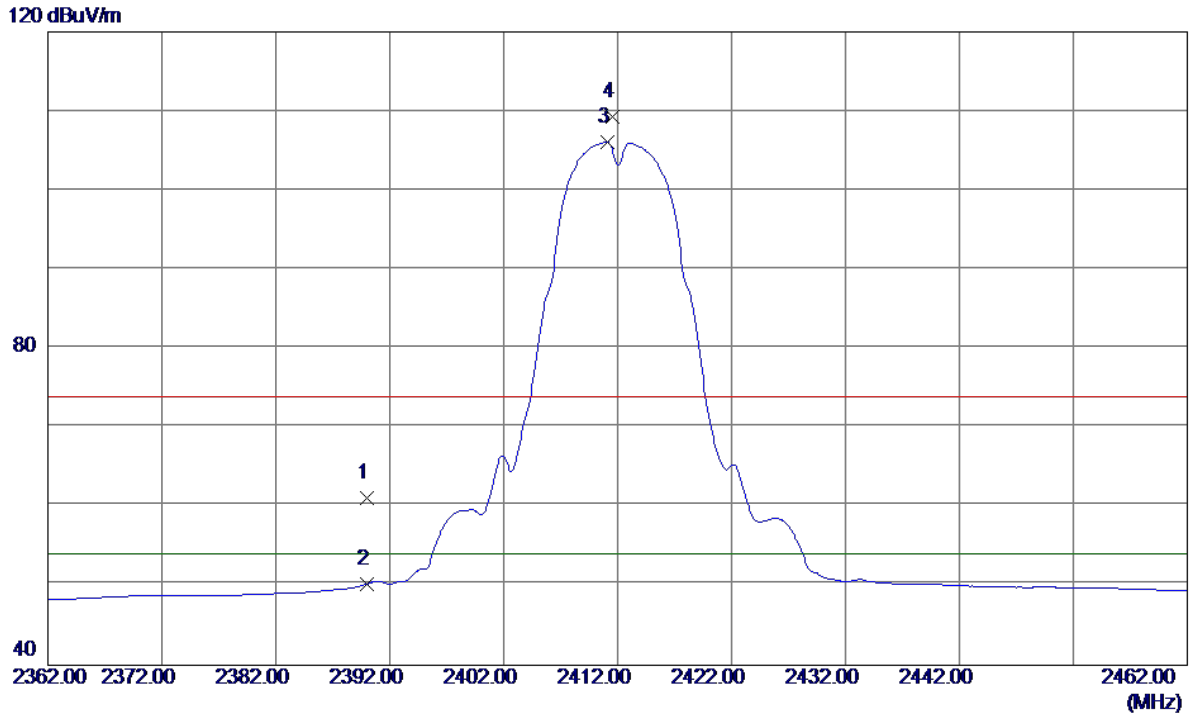


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	31.9400	45.52	-13.89	31.63	40.00	-8.37	Peak	
2	95.9600	44.93	-15.35	29.58	43.50	-13.92	Peak	
3	132.8200	39.31	-11.52	27.79	43.50	-15.71	Peak	
4	191.0200	39.19	-13.05	26.14	43.50	-17.36	Peak	
5	305.4800	33.49	-9.62	23.87	46.00	-22.13	Peak	
6	450.0100	28.46	-5.90	22.56	46.00	-23.44	Peak	

ATTACHMENT D - RADIATED EMISSION (ABOVE 1000MHZ)

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

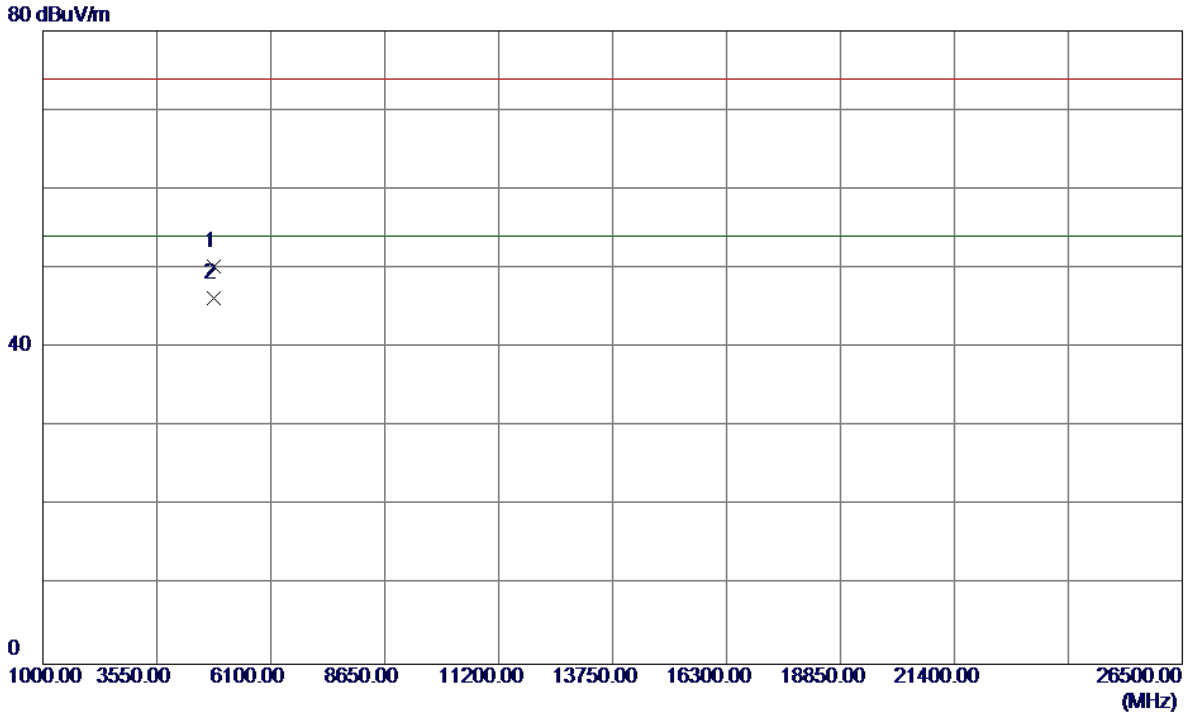
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	26.89	34.23	61.12	74.00	-12.88	Peak	
2	2390.0000	16.05	34.23	50.28	54.00	-3.72	AVG	
3	2411.1000	71.76	34.35	106.11	54.00	52.11	AVG	No Limit
4	2411.6000	74.99	34.36	109.35	74.00	35.35	Peak	No Limit

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

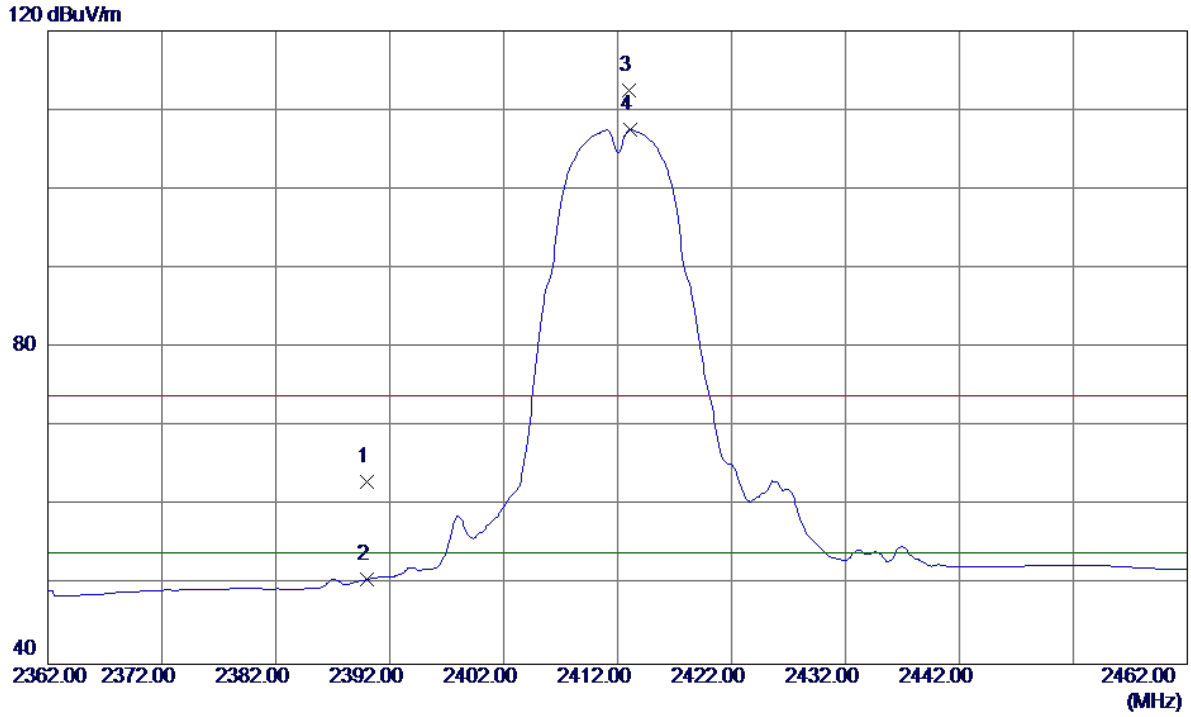
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4824.1020	47.26	3.00	50.26	74.00	-23.74	Peak	
2	4824.1020	43.29	3.00	46.29	54.00	-7.71	AVG	

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

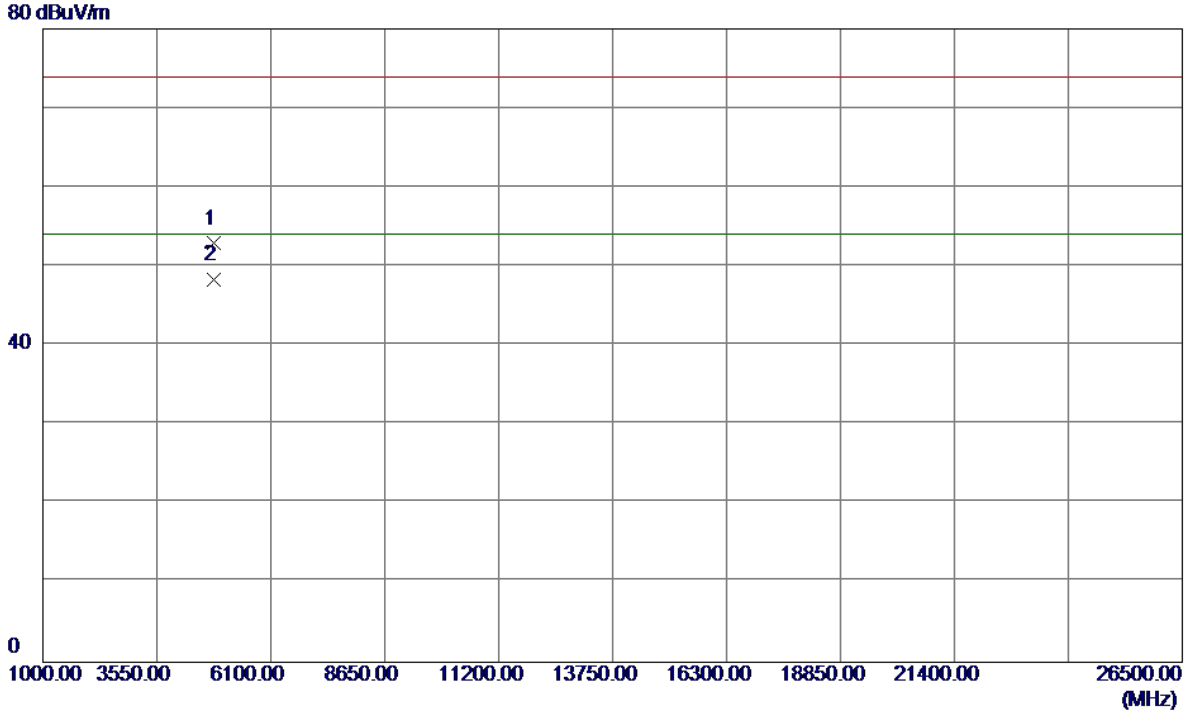
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	28.83	34.23	63.06	74.00	-10.94	Peak	
2	2390.0000	16.47	34.23	50.70	54.00	-3.30	AVG	
3	2413.0000	78.16	34.37	112.53	74.00	38.53	Peak	No Limit
4	2413.1000	73.16	34.37	107.53	54.00	53.53	AVG	No Limit

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

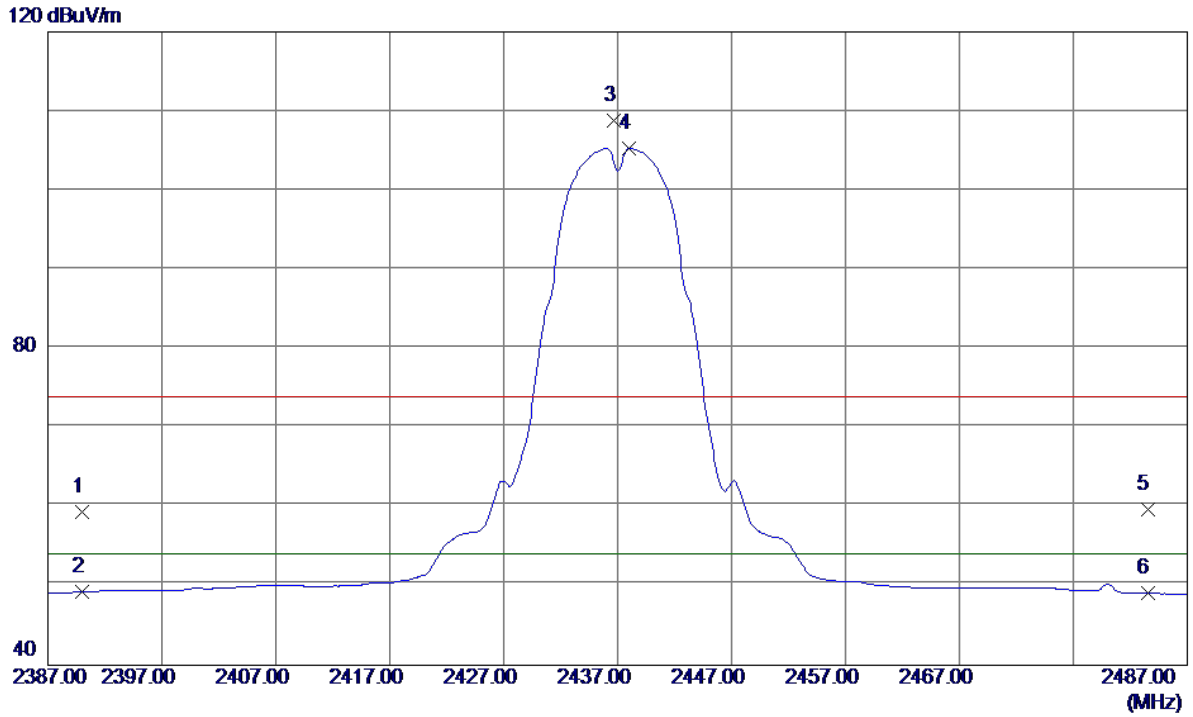
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4824.0530	49.88	3.00	52.88	74.00	-21.12	Peak	
2	4824.1000	45.27	3.00	48.27	54.00	-5.73	AVG	

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

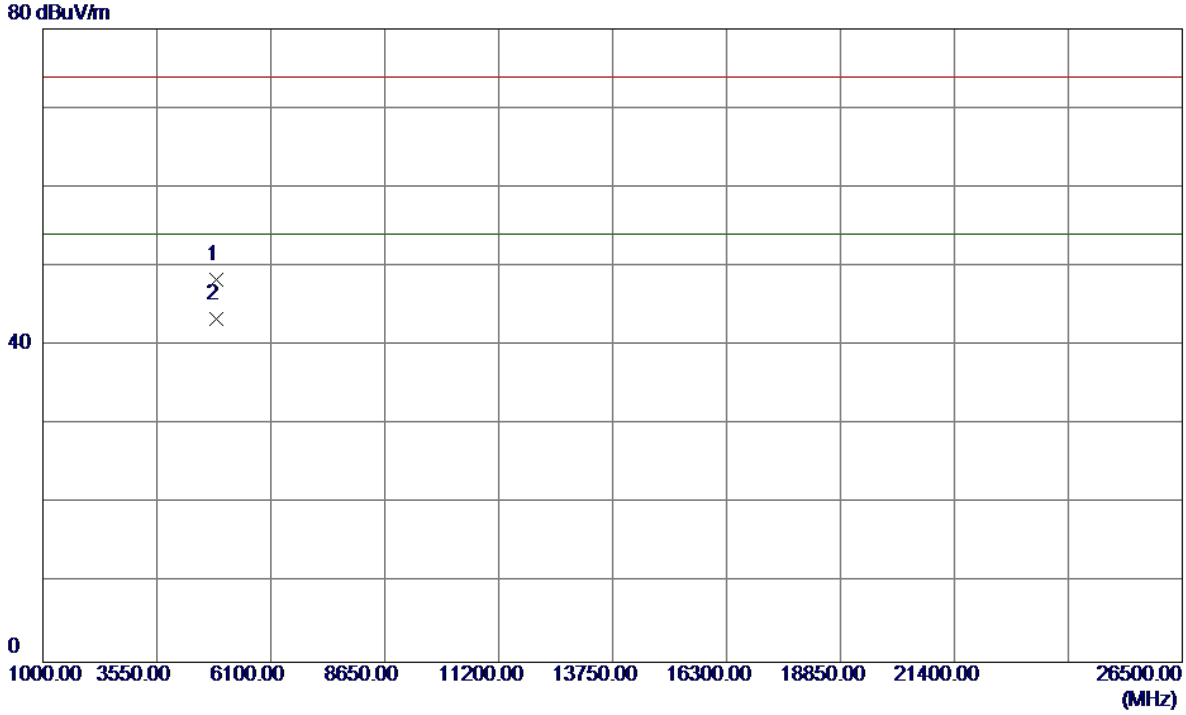
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	25.13	34.23	59.36	74.00	-14.64	Peak	
2	2390.0000	15.03	34.23	49.26	54.00	-4.74	AVG	
3	2436.7000	74.31	34.50	108.81	74.00	34.81	Peak	No Limit
4	2438.0000	70.84	34.51	105.35	54.00	51.35	AVG	No Limit
5	2483.5000	24.95	34.77	59.72	74.00	-14.28	Peak	
6	2483.5000	14.32	34.77	49.09	54.00	-4.91	AVG	

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

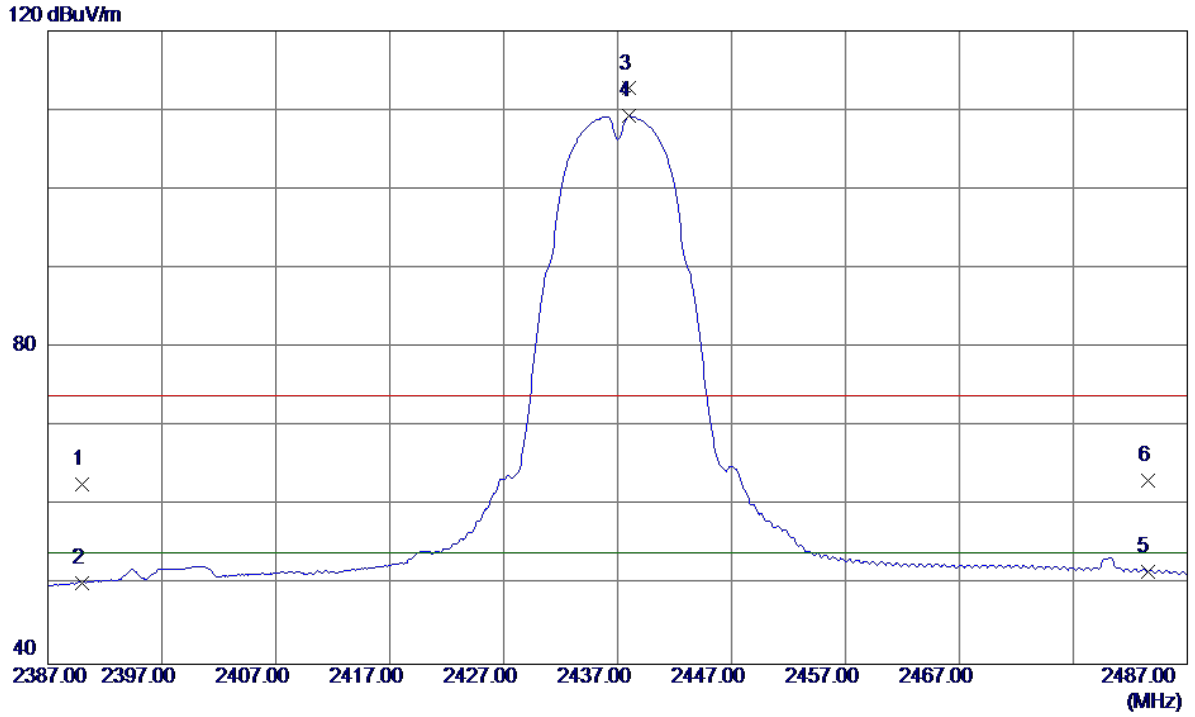
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4873.9900	45.24	3.03	48.27	74.00	-25.73	Peak	
2	4873.9900	40.28	3.03	43.31	54.00	-10.69	AVG	

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

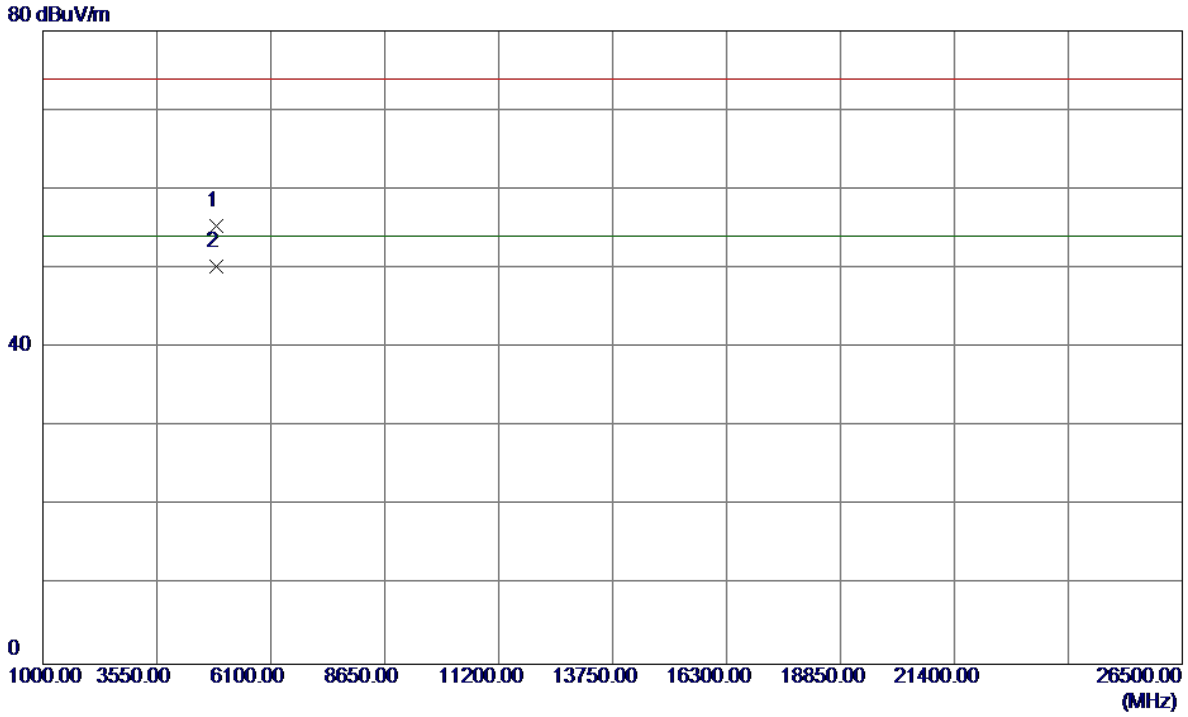
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	28.45	34.23	62.68	74.00	-11.32	Peak	
2	2390.0000	16.02	34.23	50.25	54.00	-3.75	AVG	
3	2438.0000	78.21	34.51	112.72	74.00	38.72	Peak	No Limit
4	2438.0000	74.71	34.51	109.22	54.00	55.22	AVG	No Limit
5	2483.5000	16.84	34.77	51.61	54.00	-2.39	AVG	
6	2483.5250	28.50	34.77	63.27	74.00	-10.73	Peak	

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

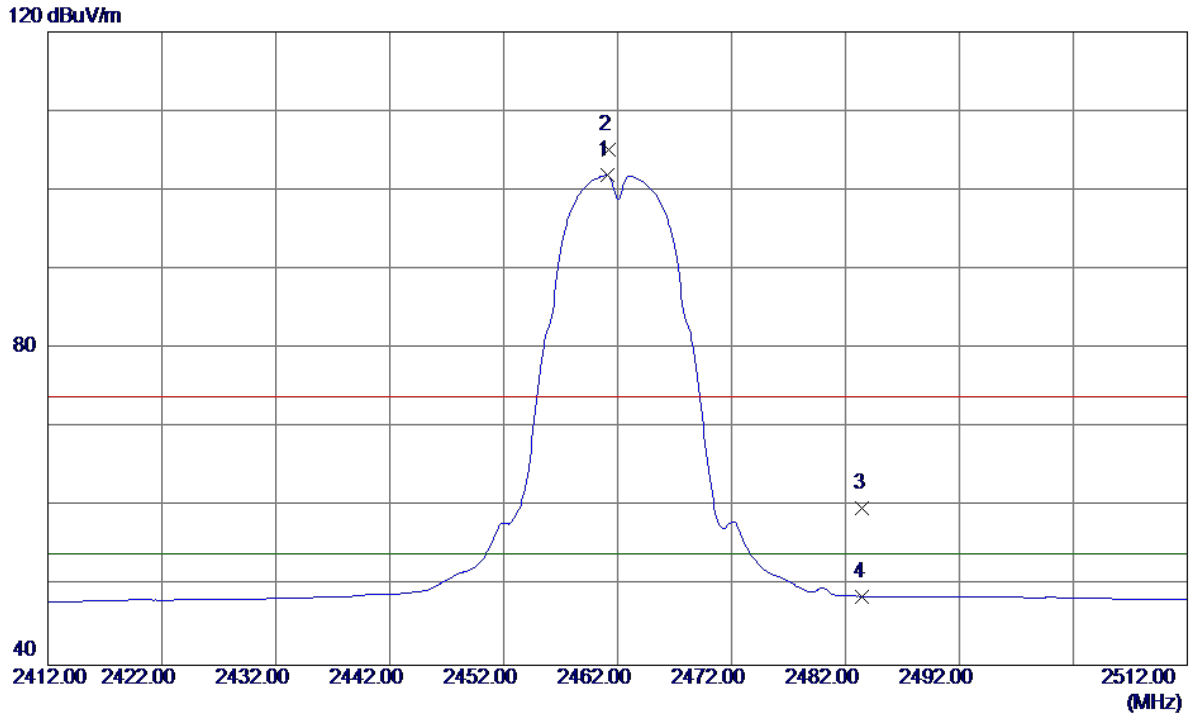
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4874.0870	52.27	3.03	55.30	74.00	-18.70	Peak	
2	4874.0870	47.24	3.03	50.27	54.00	-3.73	AVG	

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

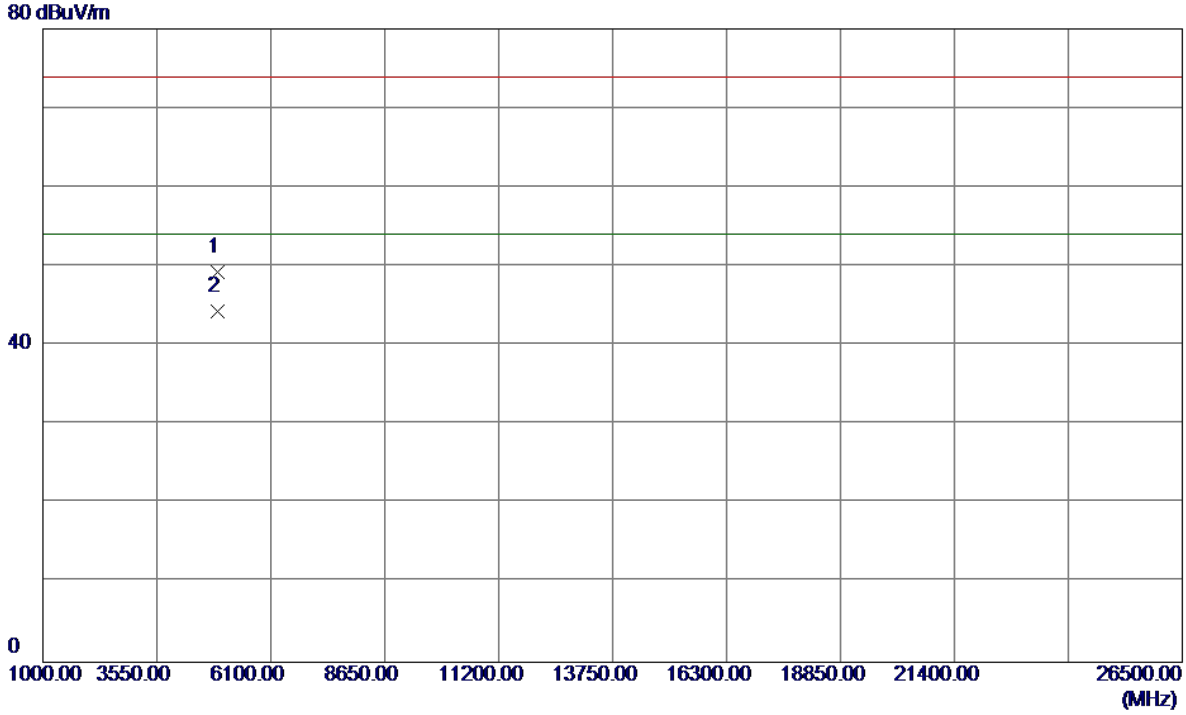
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2461.1000	67.27	34.64	101.91	54.00	47.91	AVG	No Limit
2	2461.2000	70.53	34.64	105.17	74.00	31.17	Peak	No Limit
3	2483.5000	25.09	34.77	59.86	74.00	-14.14	Peak	
4	2483.5000	13.93	34.77	48.70	54.00	-5.30	AVG	

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

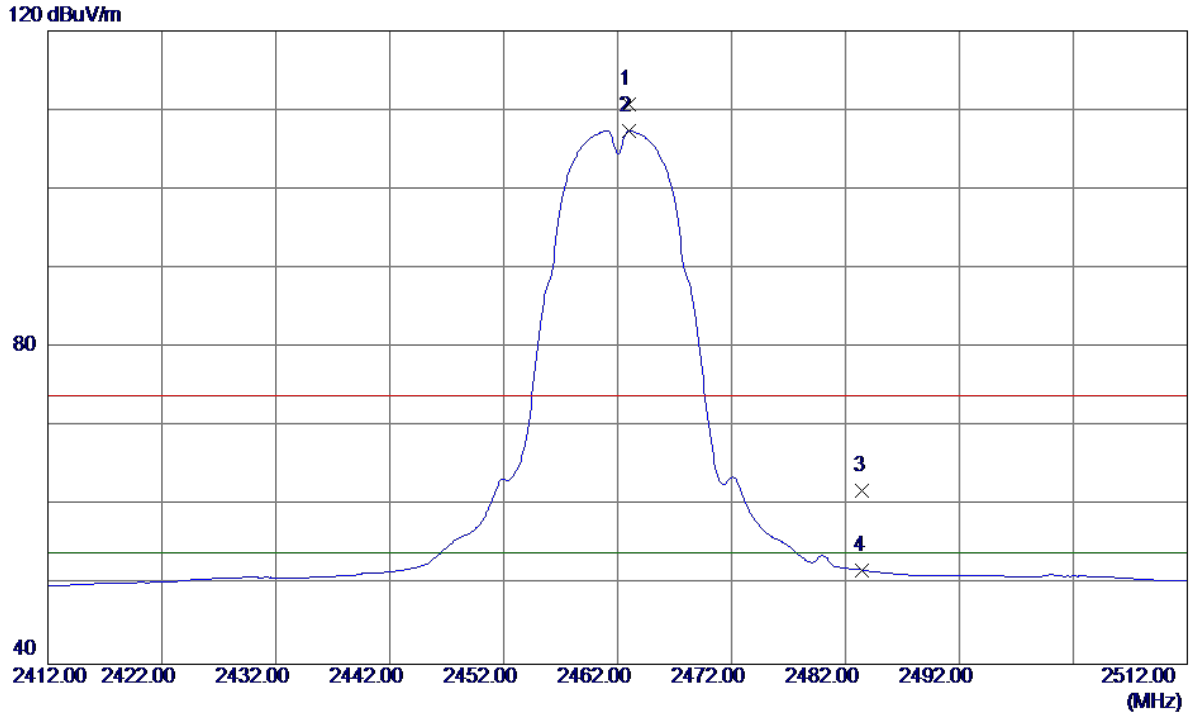
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4924.1269	46.30	3.05	49.35	74.00	-24.65	Peak	
2	4924.1269	41.30	3.05	44.35	54.00	-9.65	AVG	

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

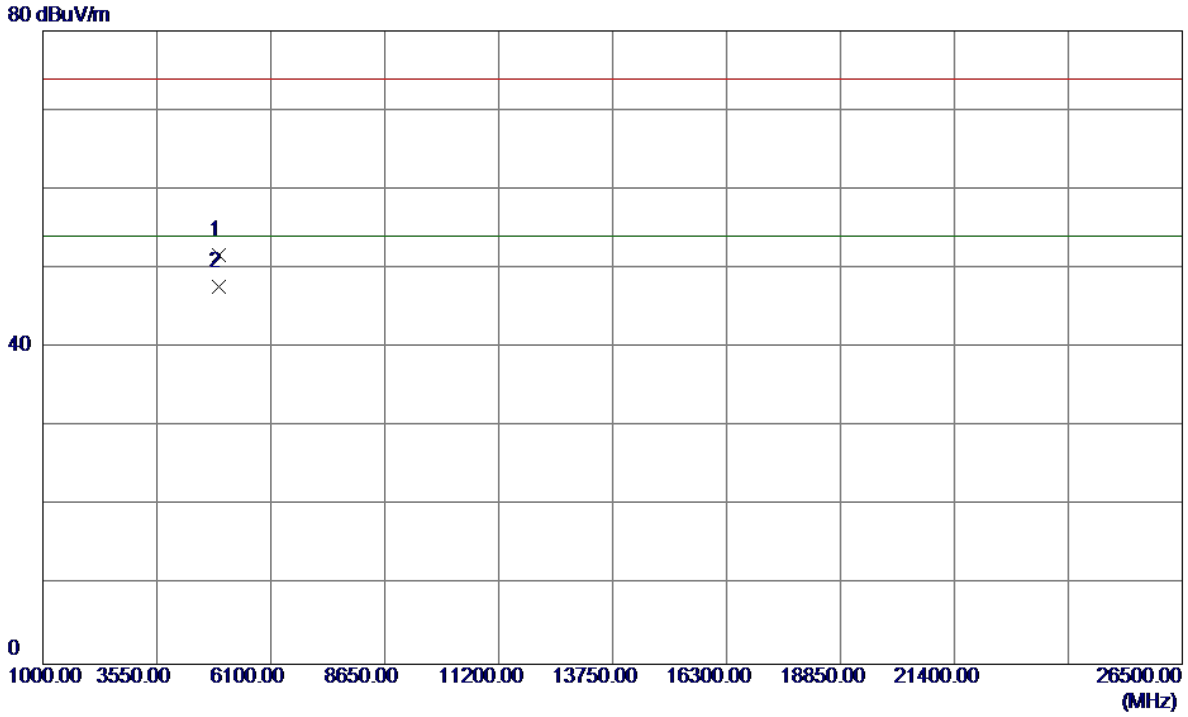
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2463.0000	76.03	34.66	110.69	74.00	36.69	Peak	No Limit
2	2463.0000	72.76	34.66	107.42	54.00	53.42	AVG	No Limit
3	2483.5000	27.21	34.77	61.98	74.00	-12.02	Peak	
4	2483.5000	17.11	34.77	51.88	54.00	-2.12	AVG	

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

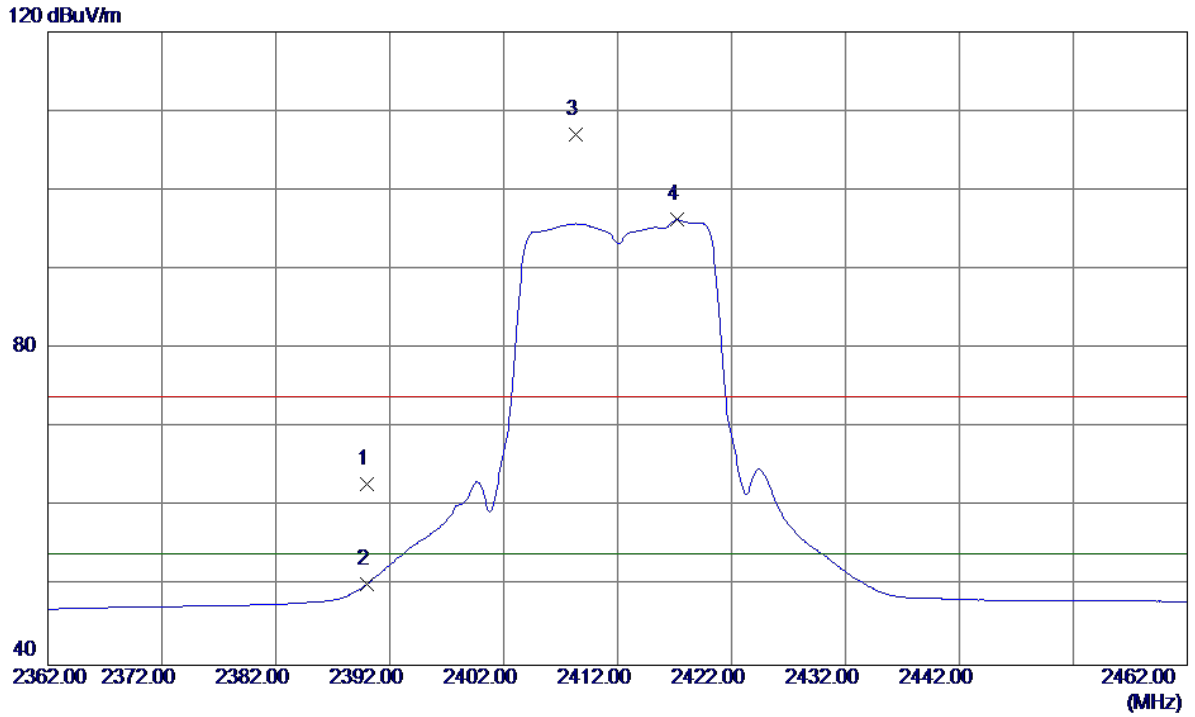
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4924.2580	48.57	3.05	51.62	74.00	-22.38	Peak	
2	4924.2580	44.69	3.05	47.74	54.00	-6.26	AVG	

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

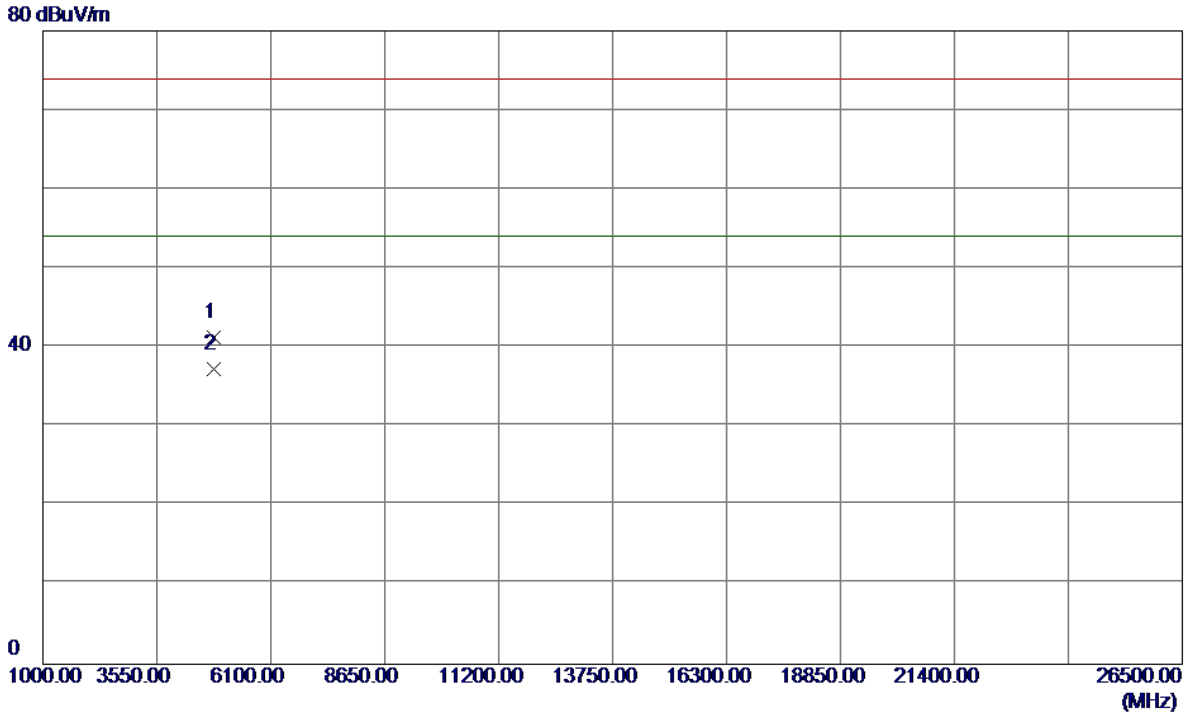
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	28.66	34.23	62.89	74.00	-11.11	Peak	
2	2390.0000	16.01	34.23	50.24	54.00	-3.76	AVG	
3	2408.3000	72.75	34.34	107.09	74.00	33.09	Peak	No Limit
4	2417.2000	61.90	34.39	96.29	54.00	42.29	AVG	No Limit

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

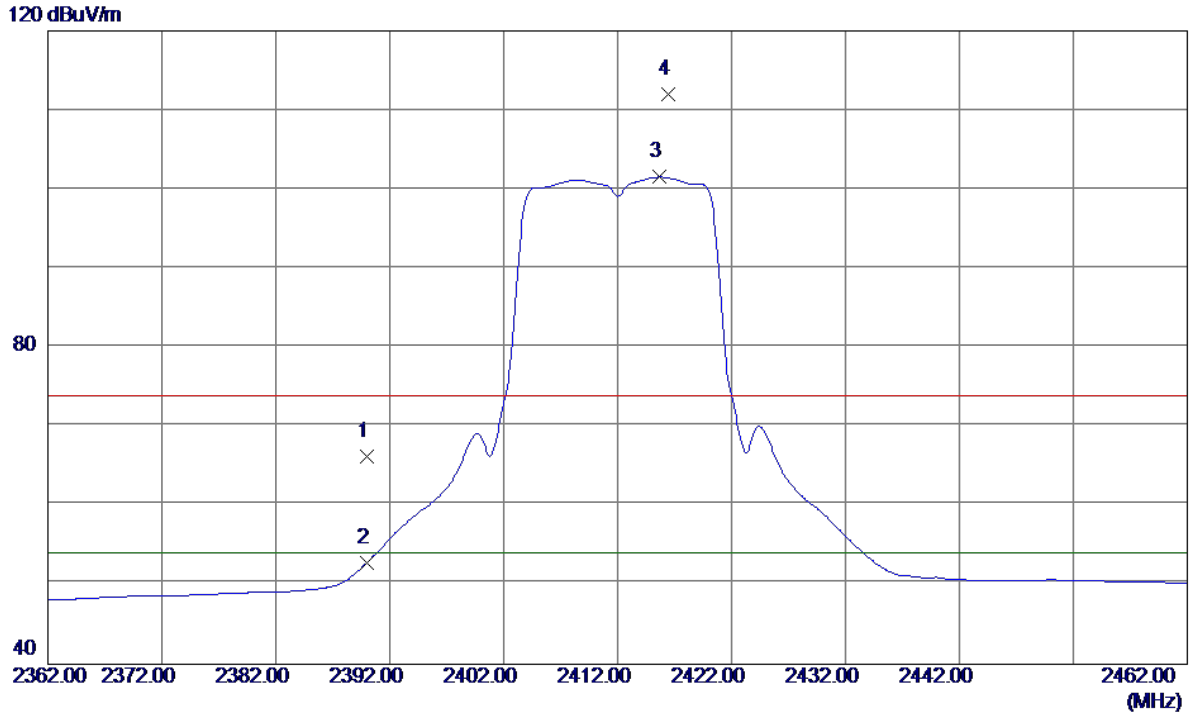
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4824.5600	38.25	3.00	41.25	74.00	-32.75	Peak	
2	4824.5600	34.26	3.00	37.26	54.00	-16.74	AVG	

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

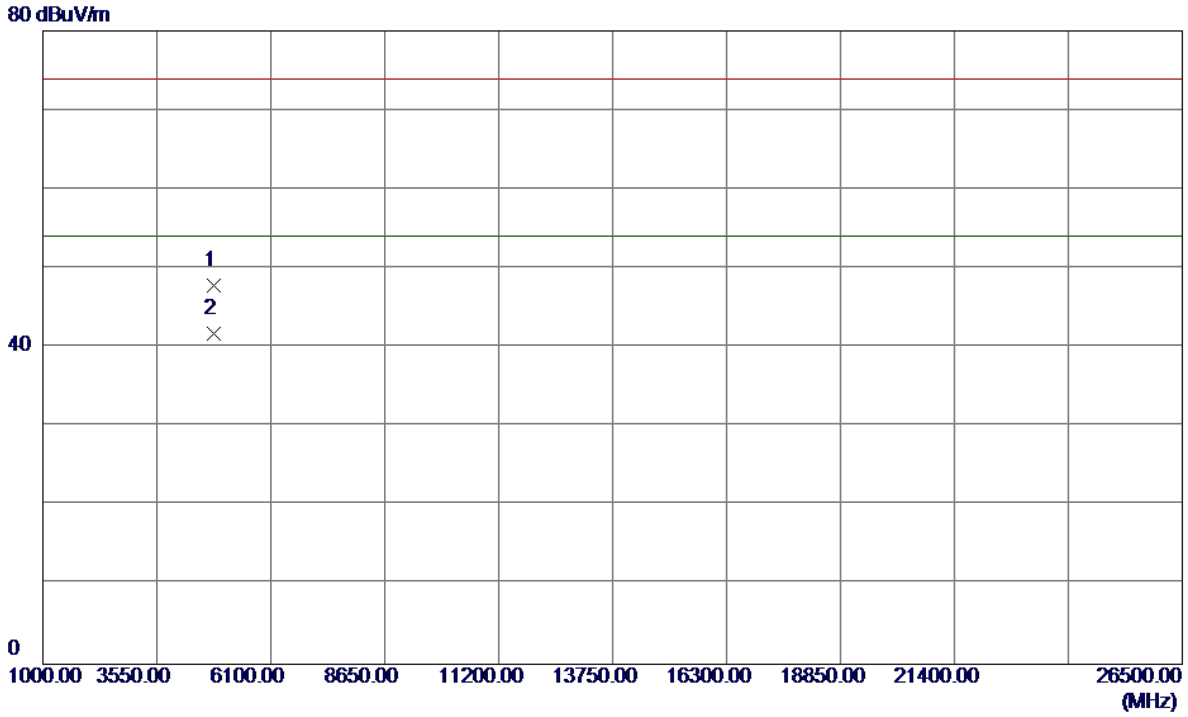
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	31.97	34.23	66.20	74.00	-7.80	Peak	
2	2390.0000	18.61	34.23	52.84	54.00	-1.16	AVG	
3	2415.7000	67.16	34.38	101.54	54.00	47.54	AVG	No Limit
4	2416.4000	77.55	34.39	111.94	74.00	37.94	Peak	No Limit

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

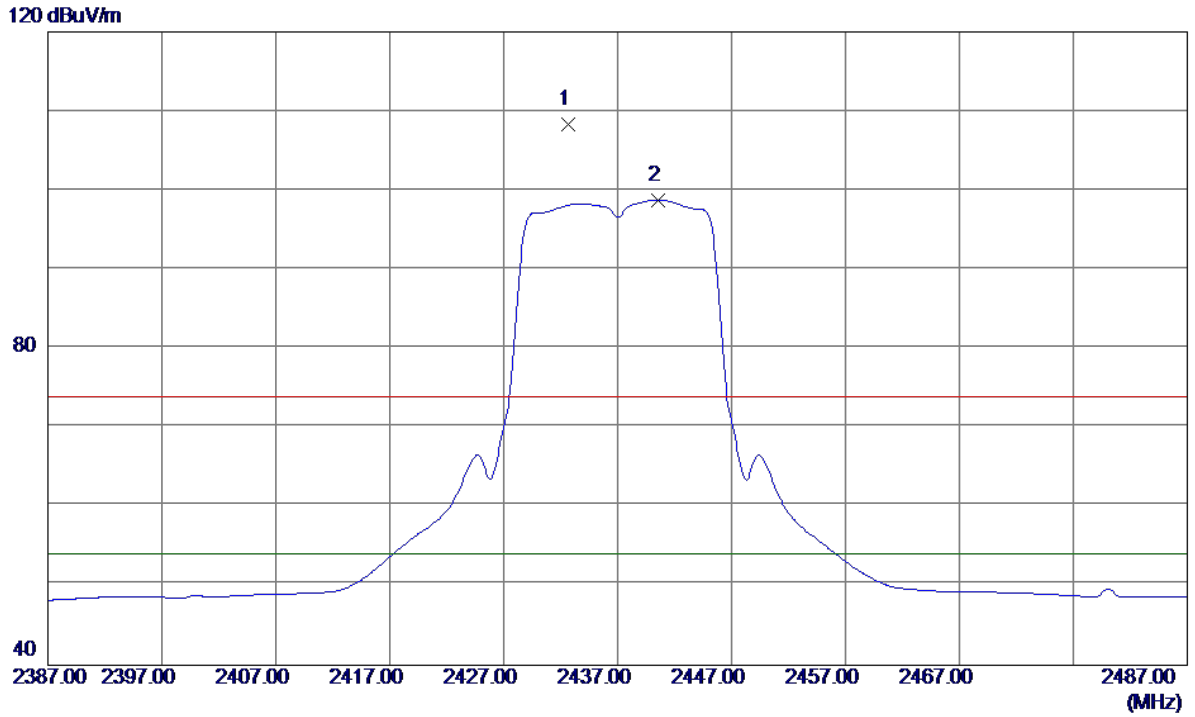
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4823.9700	44.88	3.00	47.88	74.00	-26.12	Peak	
2	4823.9700	38.80	3.00	41.80	54.00	-12.20	AVG	

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

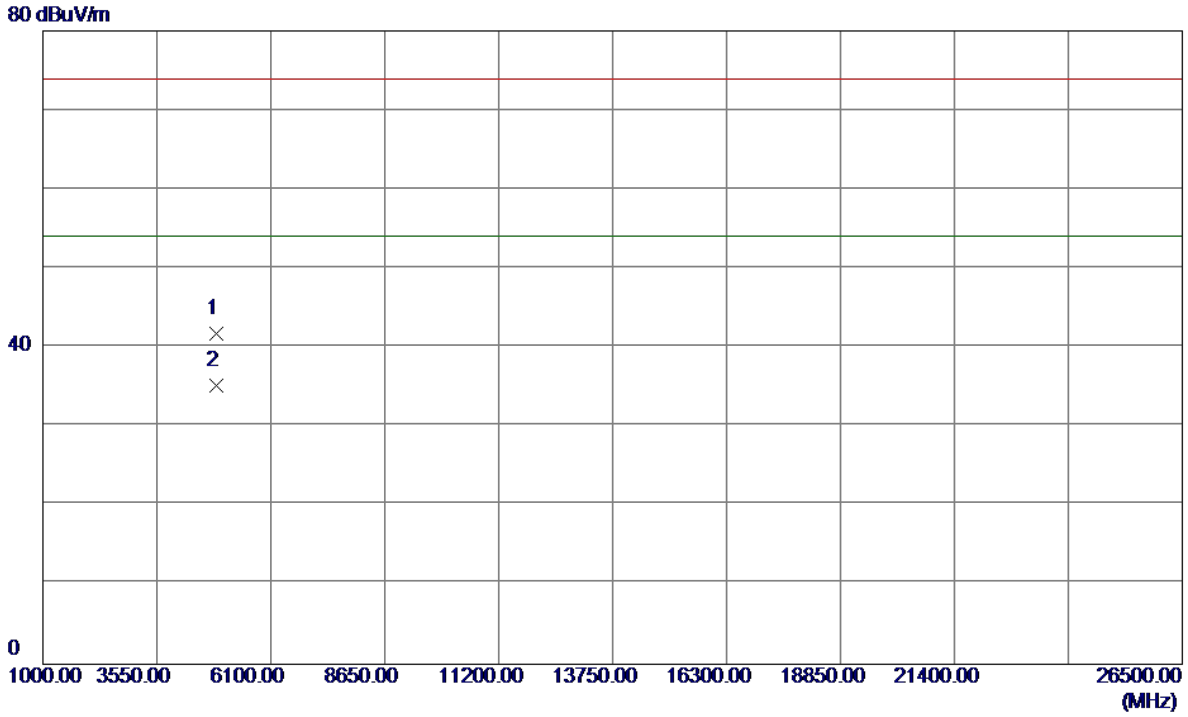
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2432.7000	73.90	34.48	108.38	74.00	34.38	Peak	No Limit
2	2440.6000	64.26	34.53	98.79	54.00	44.79	AVG	No Limit

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

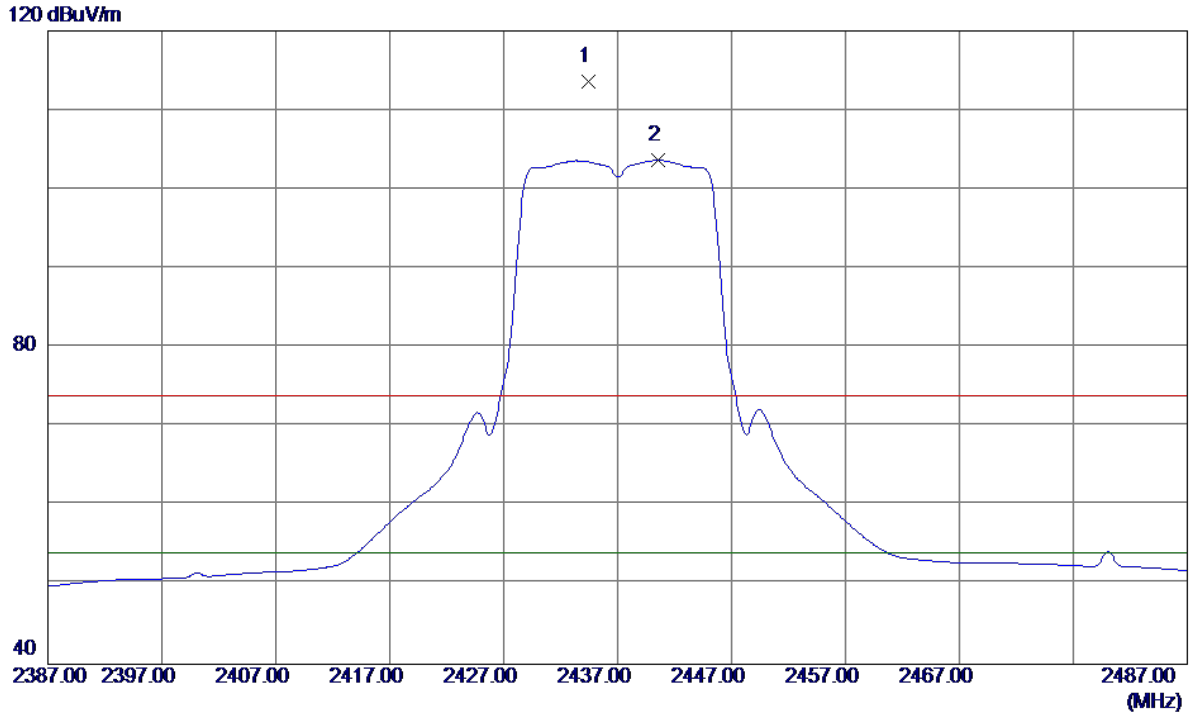
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4874.1060	38.69	3.03	41.72	74.00	-32.28	Peak	
2	4874.1060	32.17	3.03	35.20	54.00	-18.80	AVG	

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

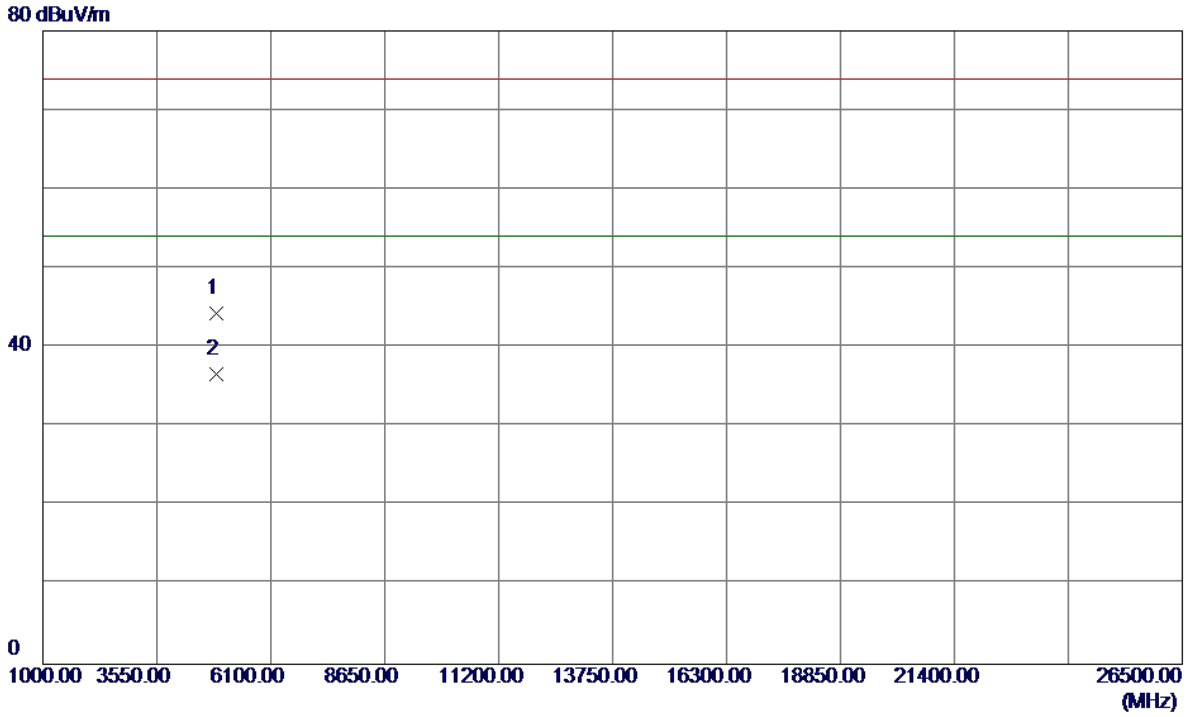
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2434.4000	79.17	34.49	113.66	74.00	39.66	Peak	No Limit
2	2440.6000	69.12	34.53	103.65	54.00	49.65	AVG	No Limit

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

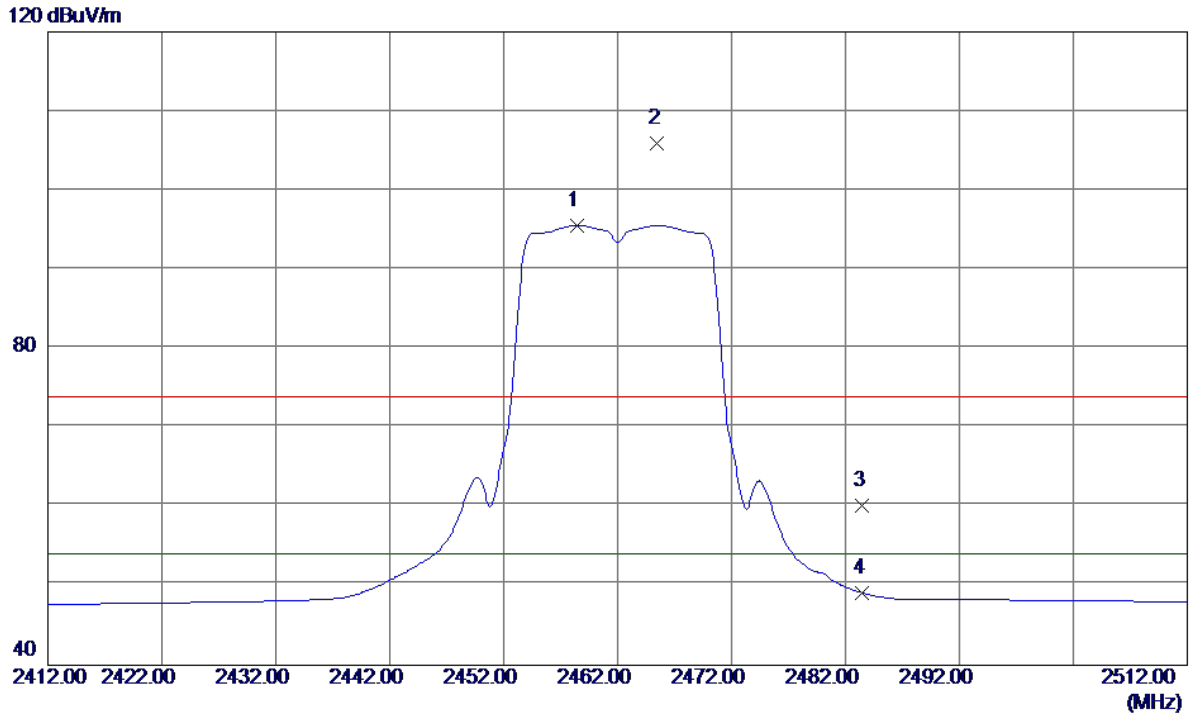
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4874.2400	41.28	3.03	44.31	74.00	-29.69	Peak	
2	4874.2400	33.56	3.03	36.59	54.00	-17.41	AVG	

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

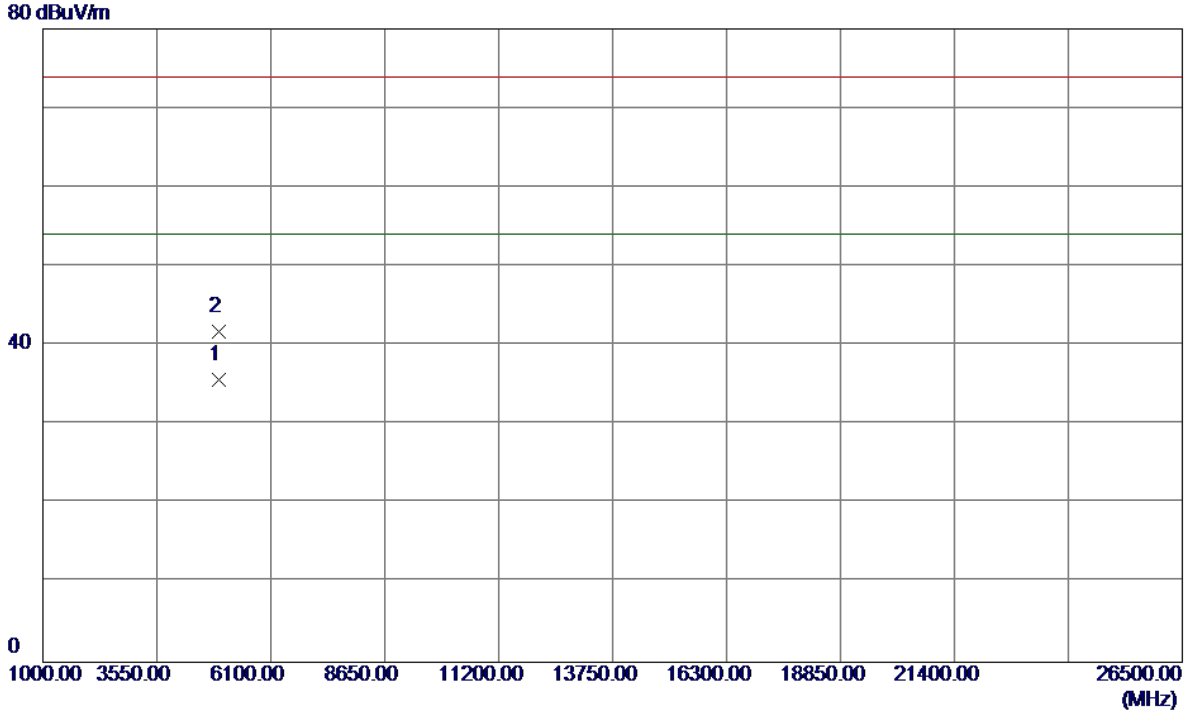
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2458.4000	60.93	34.63	95.56	54.00	41.56	AVG	No Limit
2	2465.5000	71.29	34.67	105.96	74.00	31.96	Peak	No Limit
3	2483.5000	25.46	34.77	60.23	74.00	-13.77	Peak	
4	2483.5000	14.36	34.77	49.13	54.00	-4.87	AVG	

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

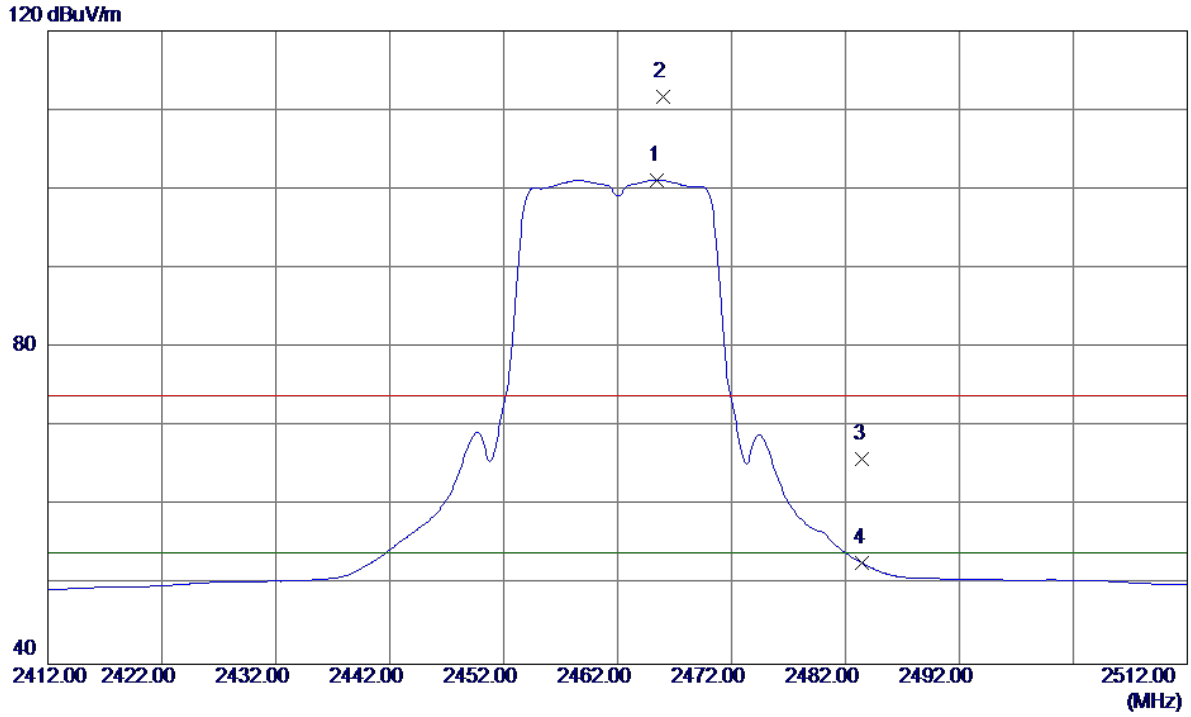
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4924.2900	32.58	3.05	35.63	54.00	-18.37	AVG	
2	4924.5800	38.70	3.05	41.75	74.00	-32.25	Peak	

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

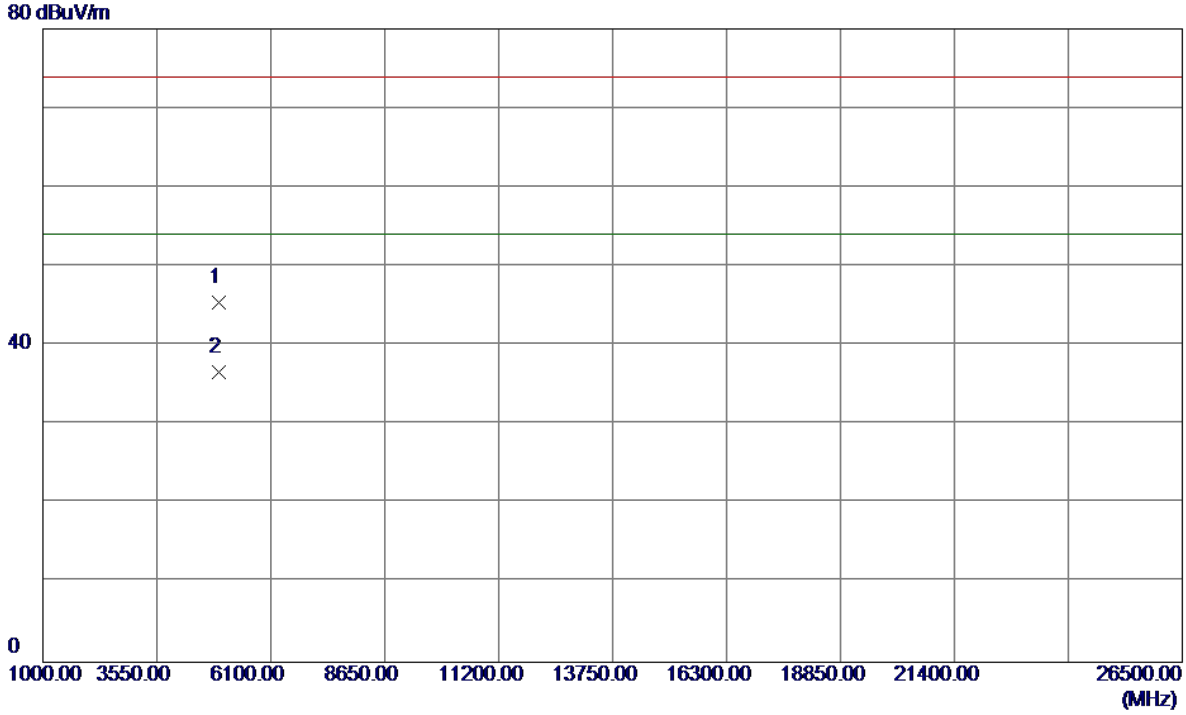
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2465.5000	66.49	34.67	101.16	54.00	47.16	AVG	No Limit
2	2466.0000	76.94	34.67	111.61	74.00	37.61	Peak	No Limit
3	2483.5000	31.17	34.77	65.94	74.00	-8.06	Peak	
4	2483.5000	18.00	34.77	52.77	54.00	-1.23	AVG	

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

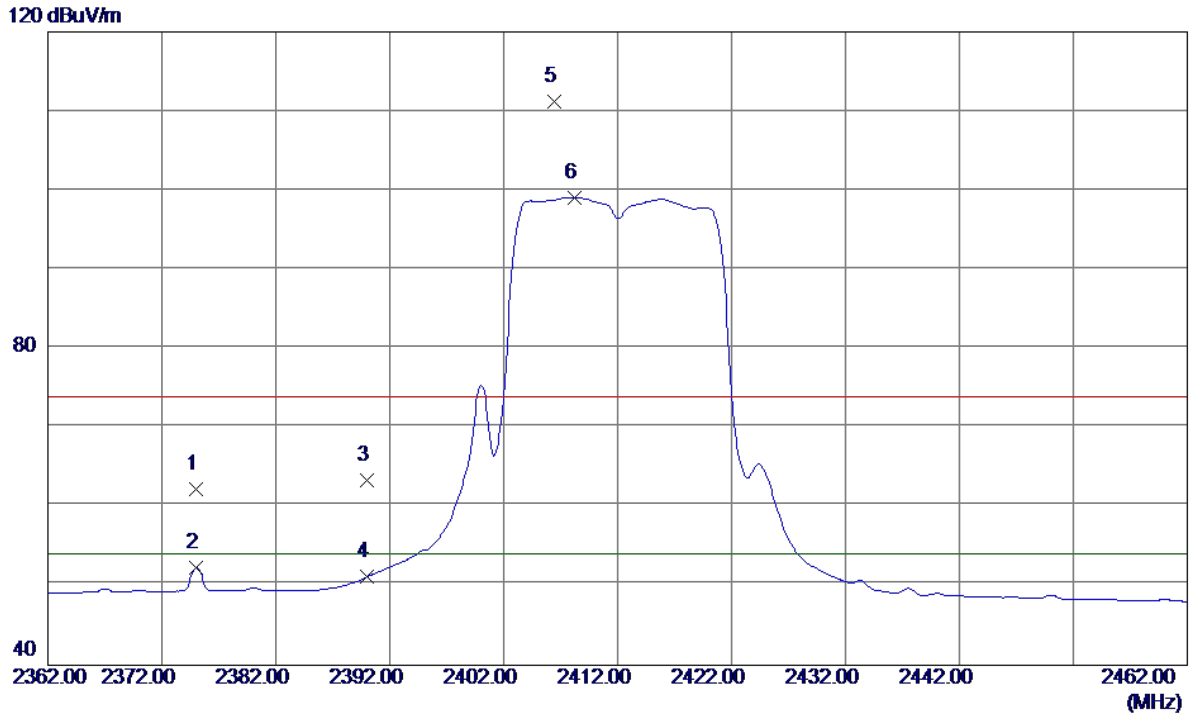
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4924.5400	42.40	3.05	45.45	74.00	-28.55	Peak	
2	4924.5400	33.58	3.05	36.63	54.00	-17.37	AVG	

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

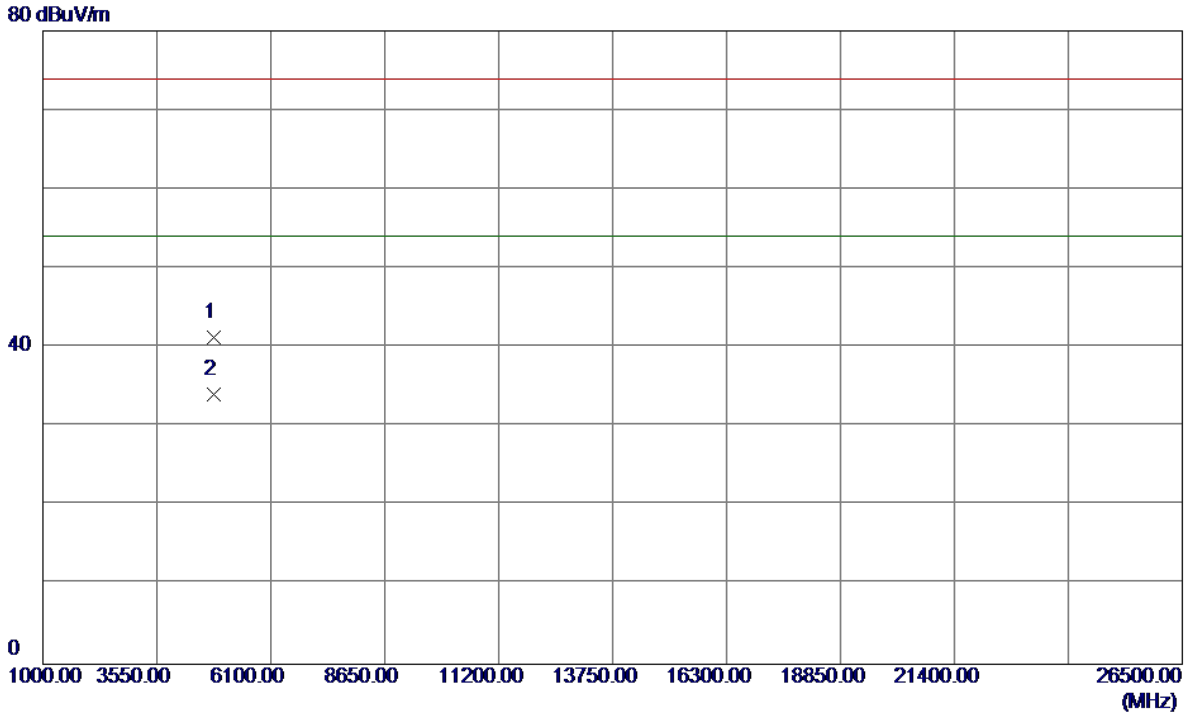
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2375.0000	28.02	34.15	62.17	74.00	-11.83	Peak	
2	2375.0000	18.13	34.15	52.28	54.00	-1.72	AVG	
3	2390.0000	29.07	34.23	63.30	74.00	-10.70	Peak	
4	2390.0000	16.95	34.23	51.18	54.00	-2.82	AVG	
5	2406.4000	76.93	34.33	111.26	74.00	37.26	Peak	No Limit
6	2408.2000	64.70	34.34	99.04	54.00	45.04	AVG	No Limit

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

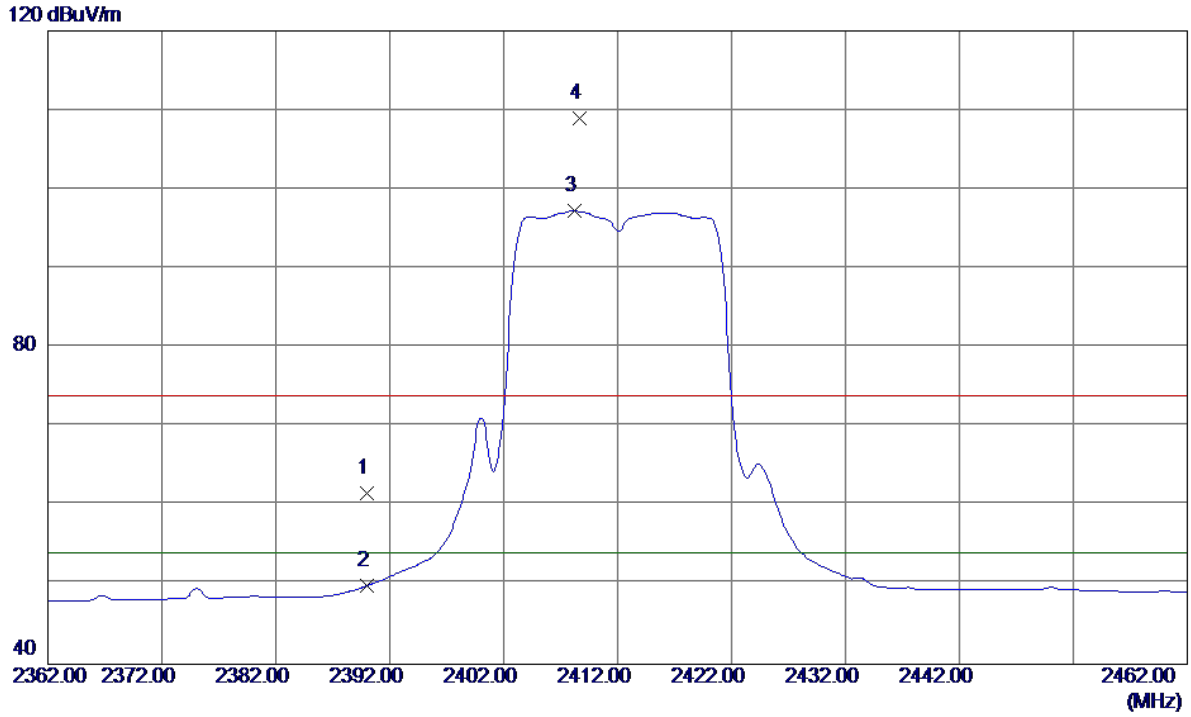
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4824.1100	38.26	3.00	41.26	74.00	-32.74	Peak	
2	4824.1589	31.09	3.00	34.09	54.00	-19.91	AVG	

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

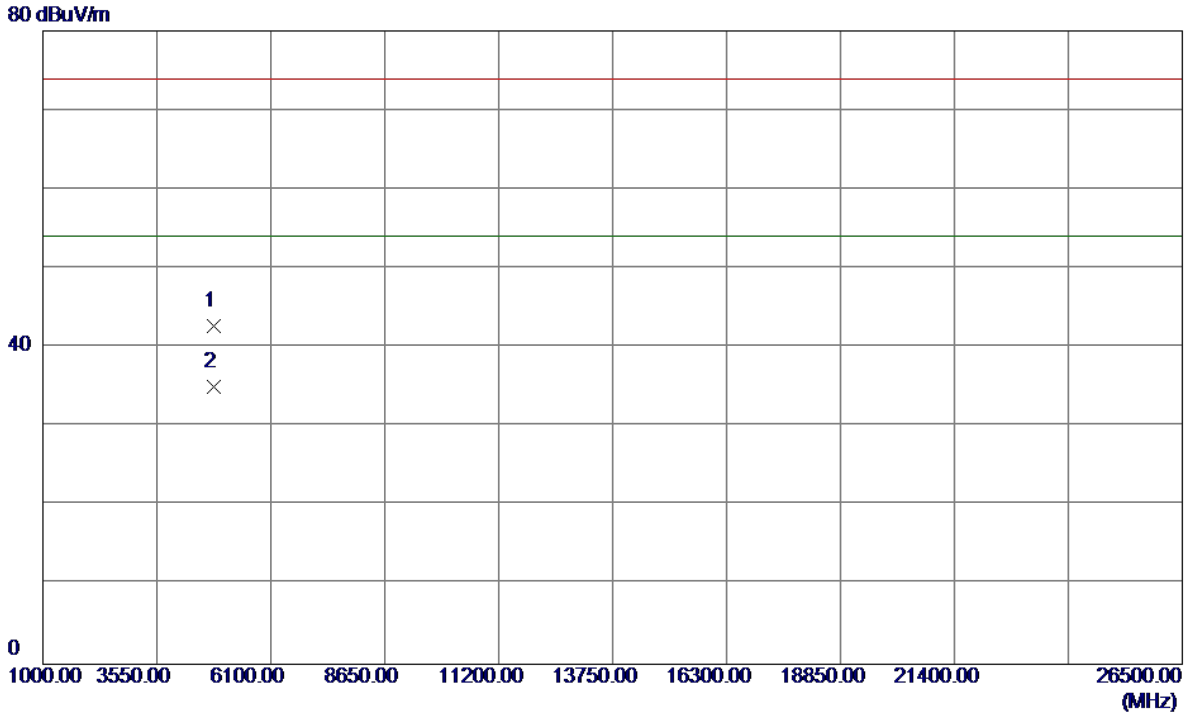
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	27.35	34.23	61.58	74.00	-12.42	Peak	
2	2390.0000	15.68	34.23	49.91	54.00	-4.09	AVG	
3	2408.2000	62.94	34.34	97.28	54.00	43.28	AVG	No Limit
4	2408.7000	74.63	34.34	108.97	74.00	34.97	Peak	No Limit

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

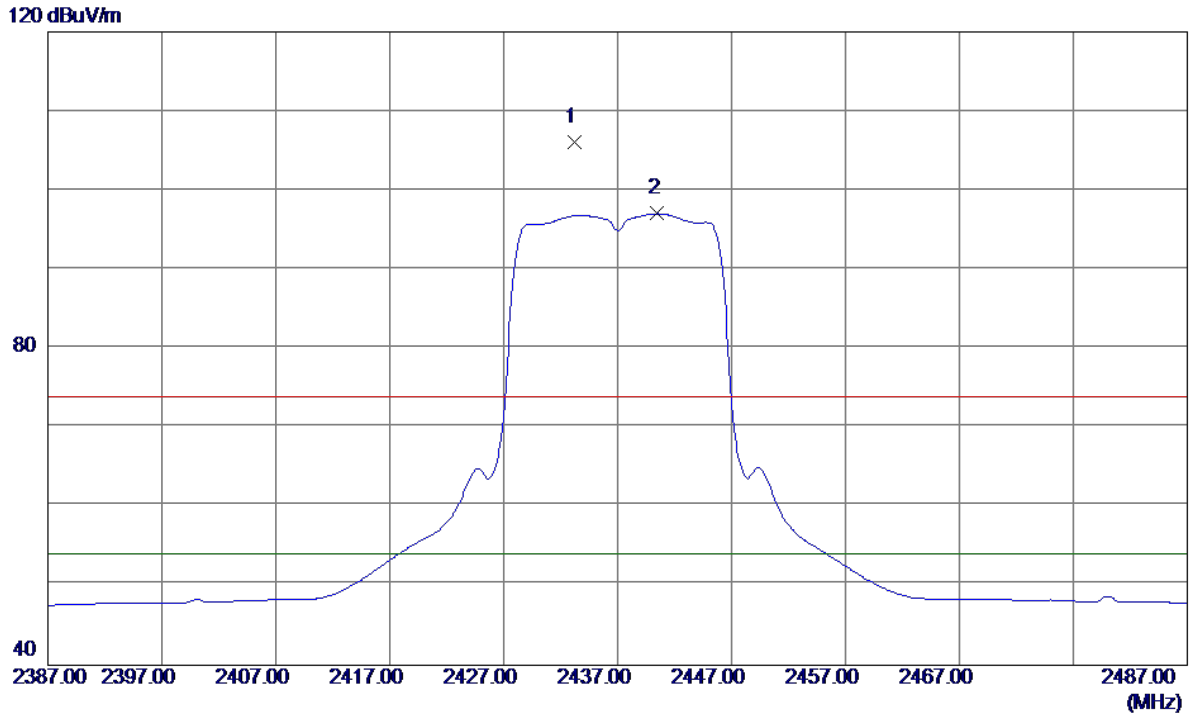
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4823.9750	39.66	3.00	42.66	74.00	-31.34	Peak	
2	4824.1200	32.06	3.00	35.06	54.00	-18.94	AVG	

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

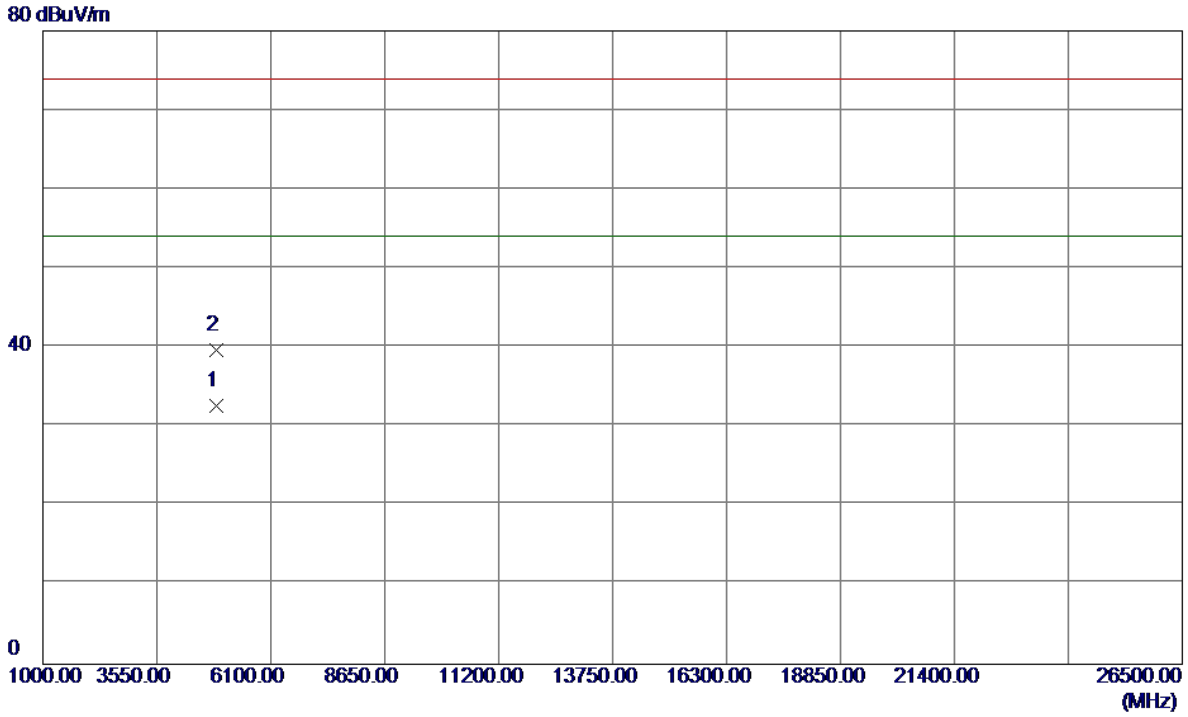
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2433.2000	71.64	34.48	106.12	74.00	32.12	Peak	No Limit
2	2440.5000	62.52	34.52	97.04	54.00	43.04	AVG	No Limit

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

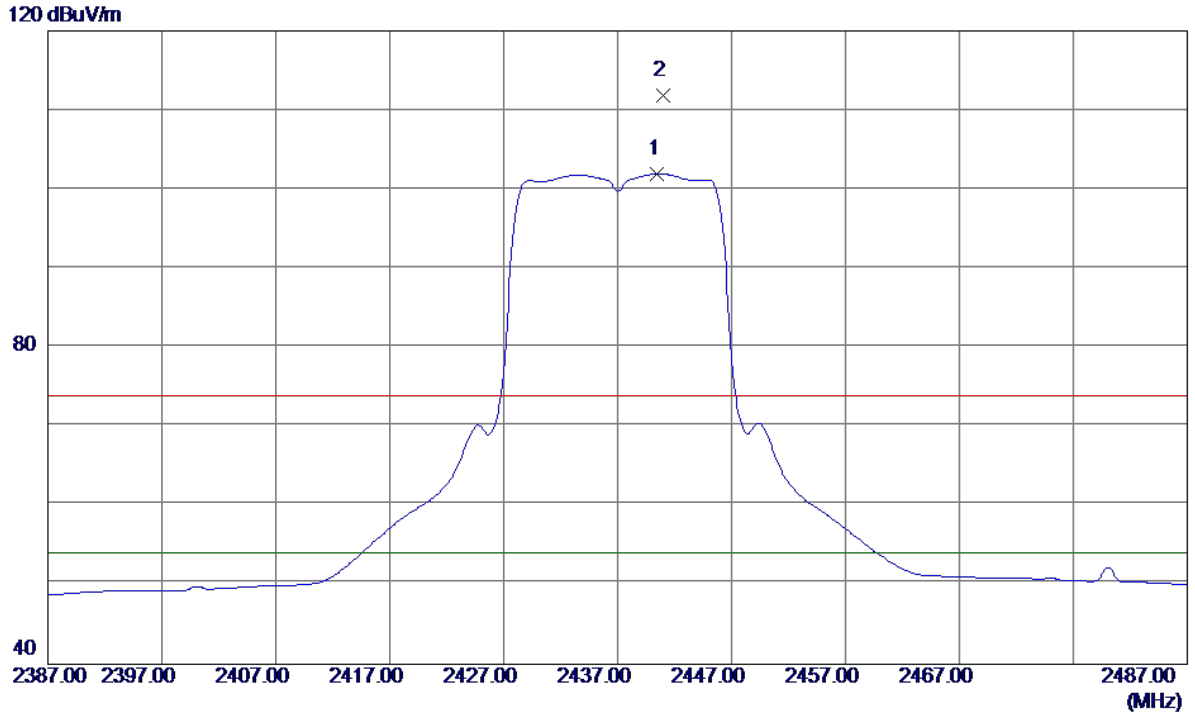
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4874.1070	29.67	3.03	32.70	54.00	-21.30	AVG	
2	4874.3240	36.58	3.03	39.61	74.00	-34.39	Peak	

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

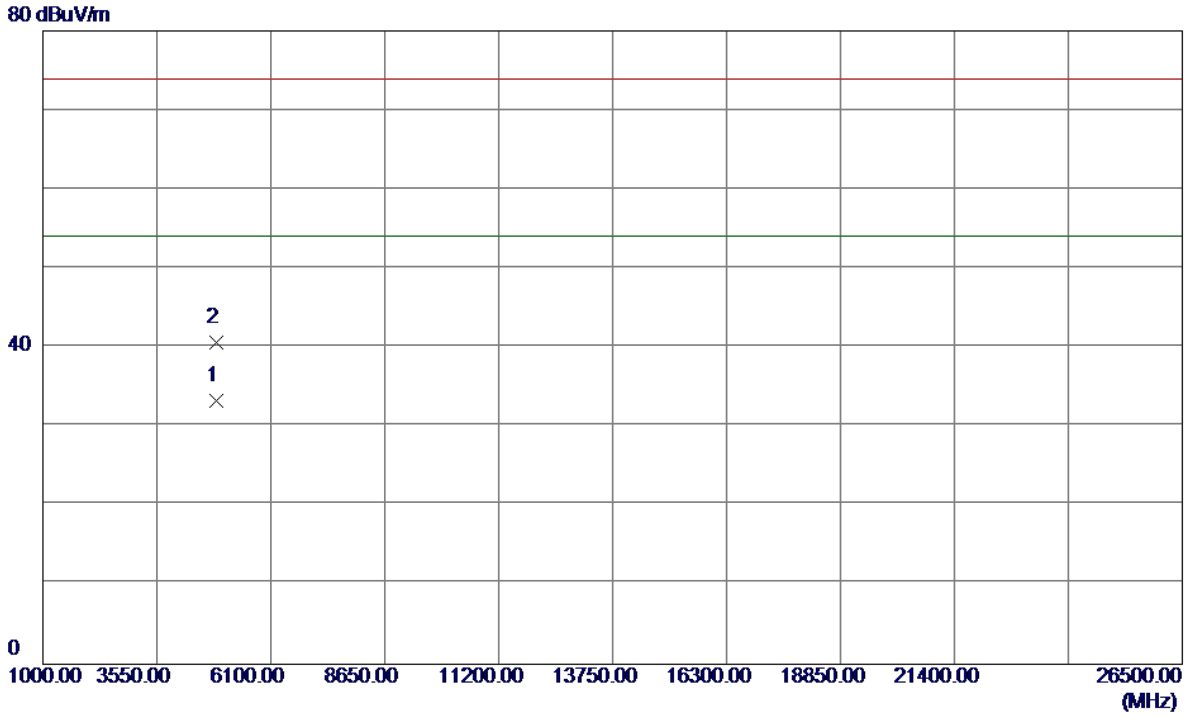
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2440.5000	67.43	34.52	101.95	54.00	47.95	AVG	No Limit
2	2441.0000	77.28	34.53	111.81	74.00	37.81	Peak	No Limit

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

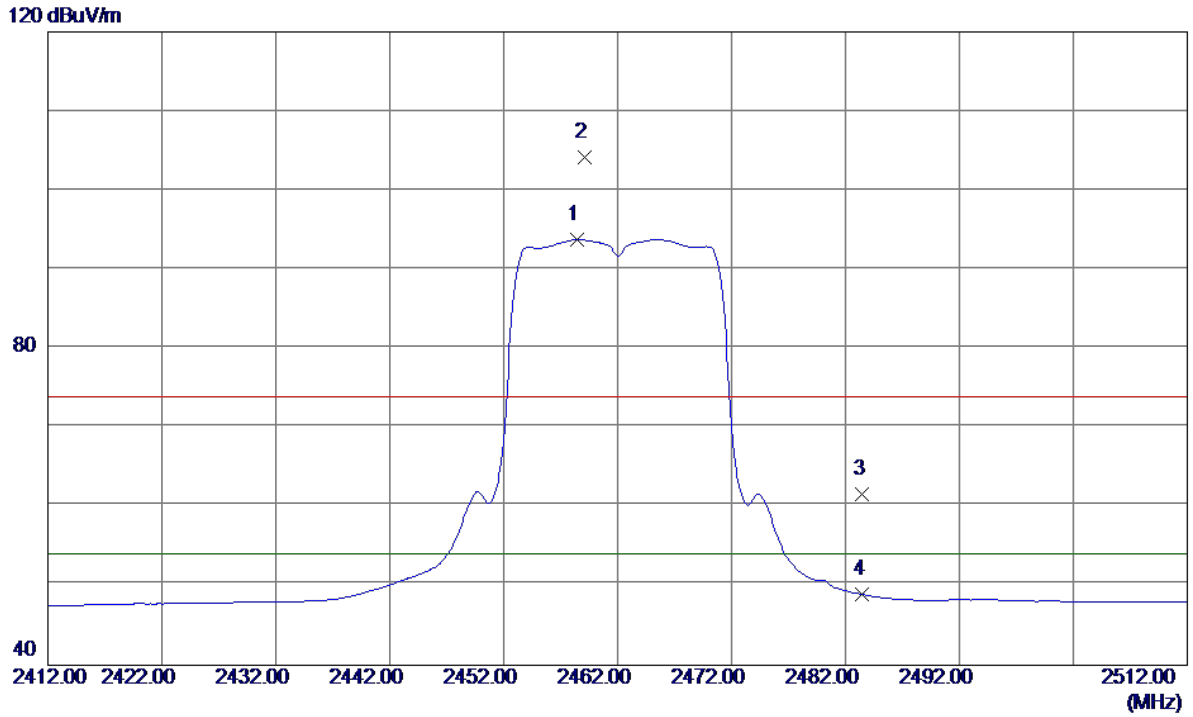
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4874.1530	30.24	3.03	33.27	54.00	-20.73	AVG	
2	4874.2570	37.68	3.03	40.71	74.00	-33.29	Peak	

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

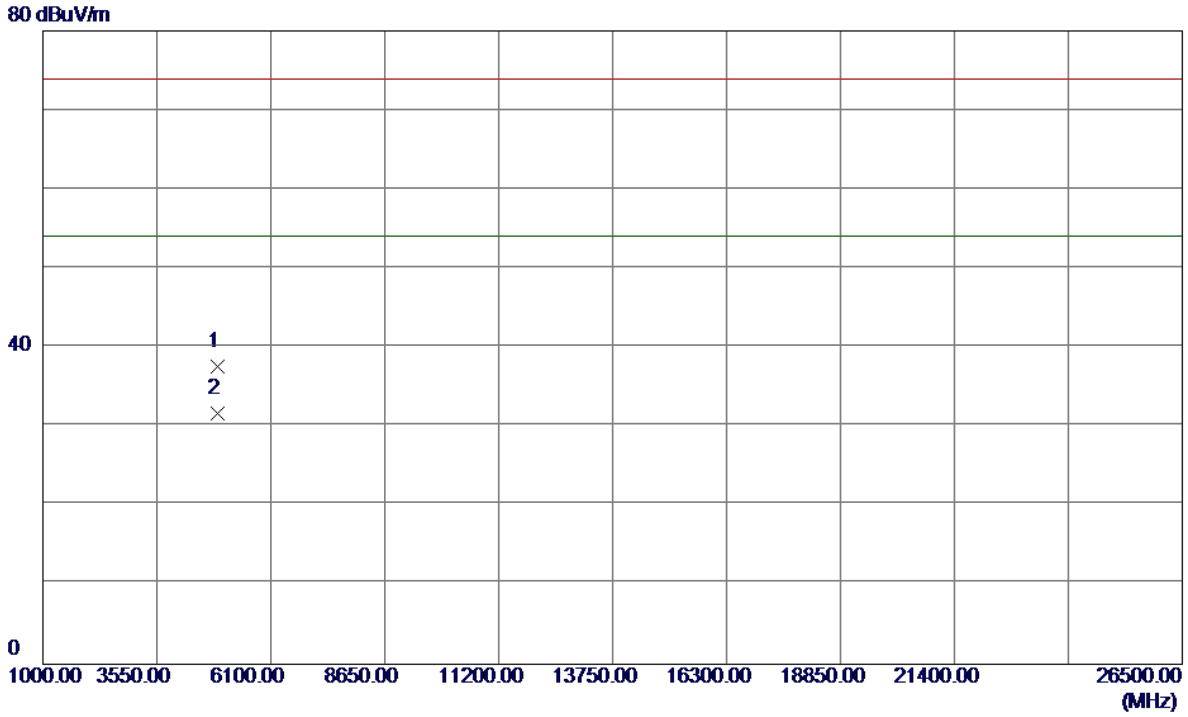
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2458.4000	59.15	34.63	93.78	54.00	39.78	AVG	No Limit
2	2459.1000	69.57	34.63	104.20	74.00	30.20	Peak	No Limit
3	2483.5000	26.78	34.77	61.55	74.00	-12.45	Peak	
4	2483.5000	14.18	34.77	48.95	54.00	-5.05	AVG	

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

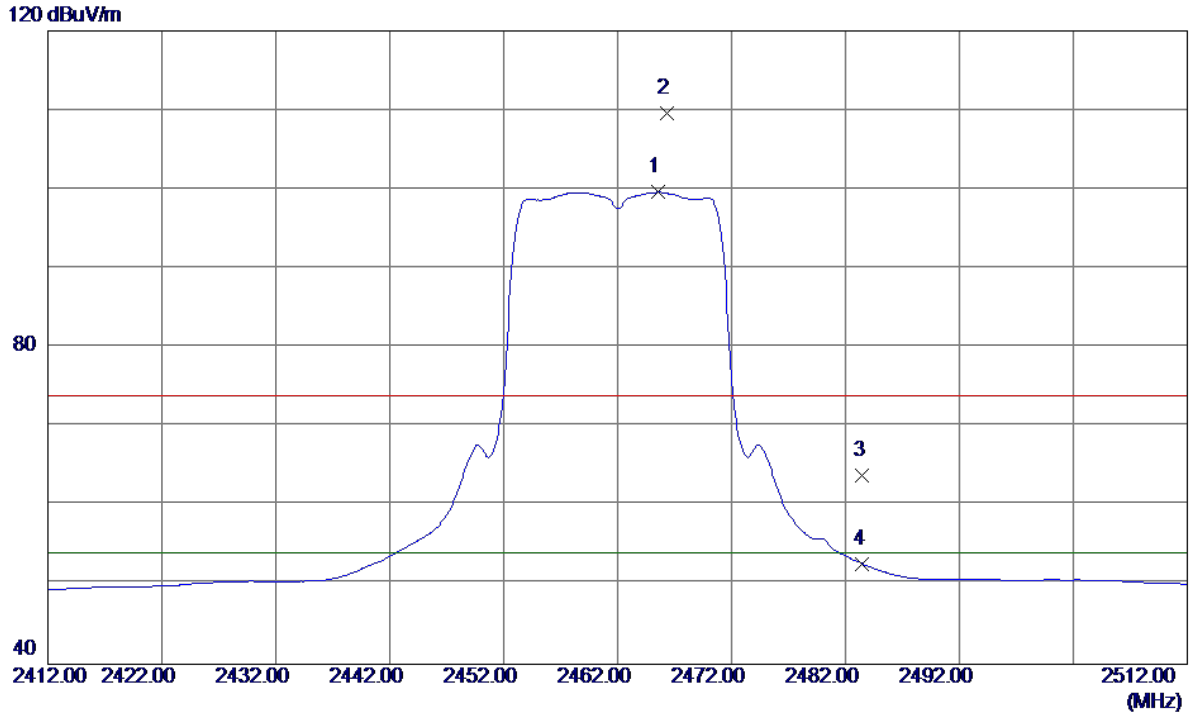
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4924.0240	34.60	3.05	37.65	74.00	-36.35	Peak	
2	4924.1280	28.70	3.05	31.75	54.00	-22.25	AVG	

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

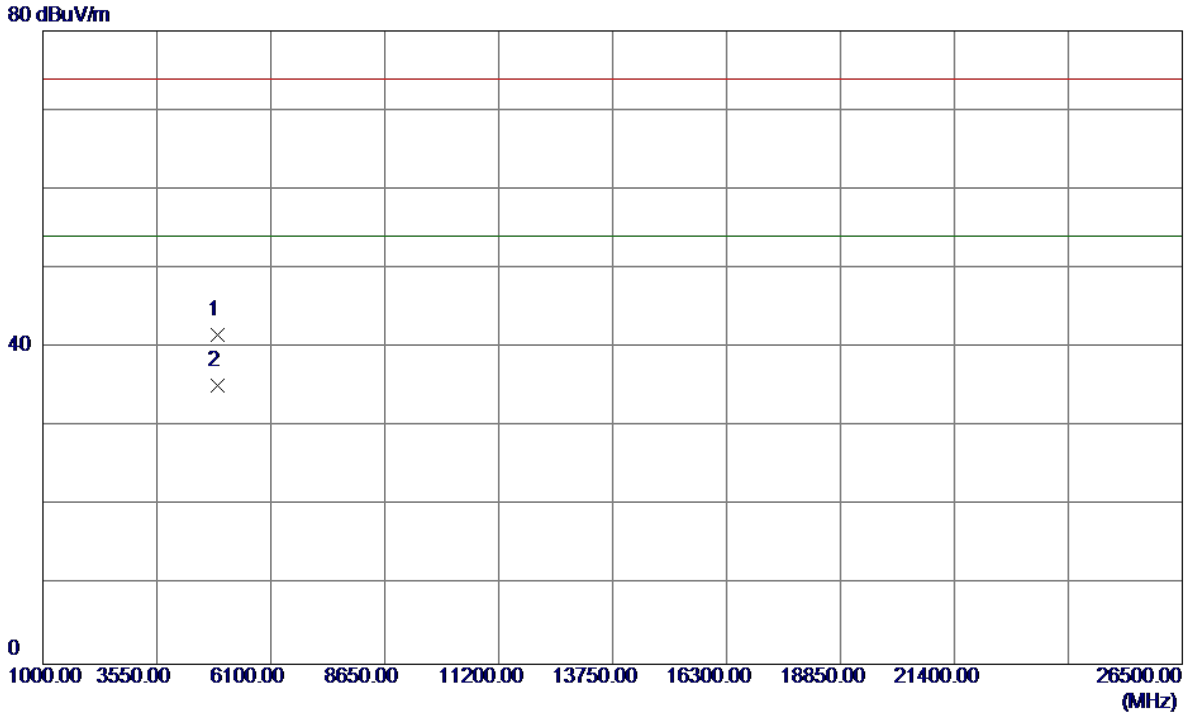
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2465.6000	64.94	34.67	99.61	54.00	45.61	AVG	No Limit
2	2466.3000	74.87	34.67	109.54	74.00	35.54	Peak	No Limit
3	2483.5000	29.01	34.77	63.78	74.00	-10.22	Peak	
4	2483.5000	17.91	34.77	52.68	54.00	-1.32	AVG	

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

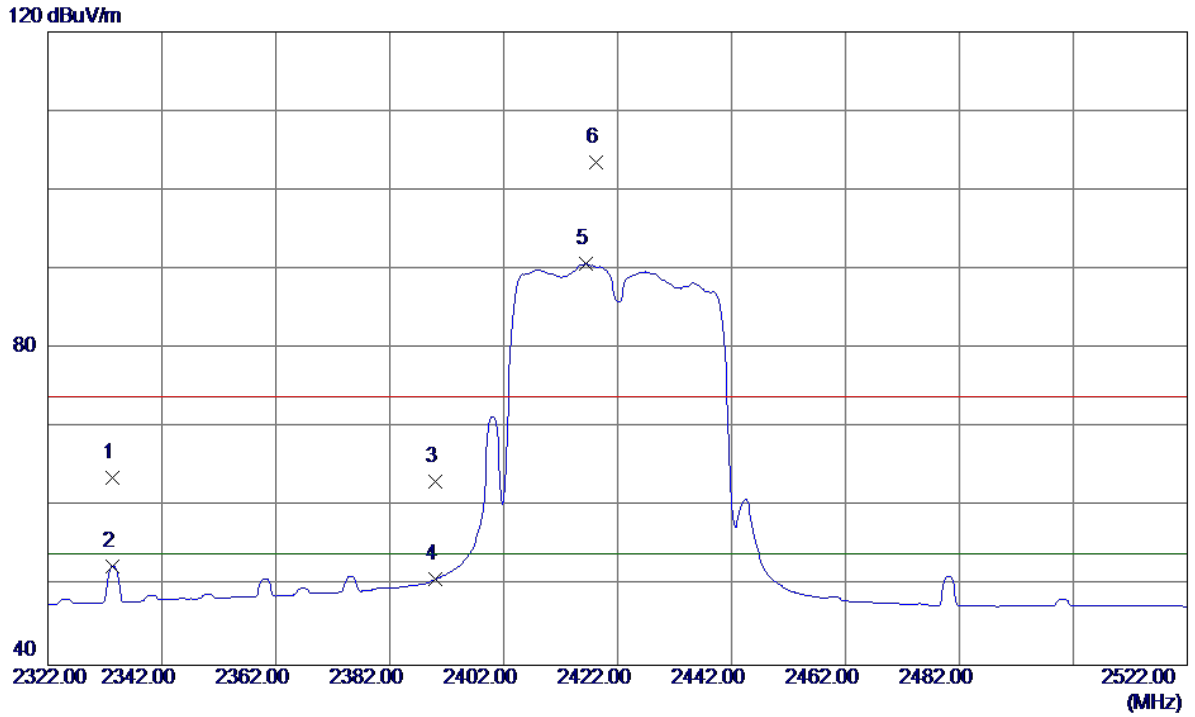
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4923.9870	38.57	3.05	41.62	74.00	-32.38	Peak	
2	4924.0230	32.15	3.05	35.20	54.00	-18.80	AVG	

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

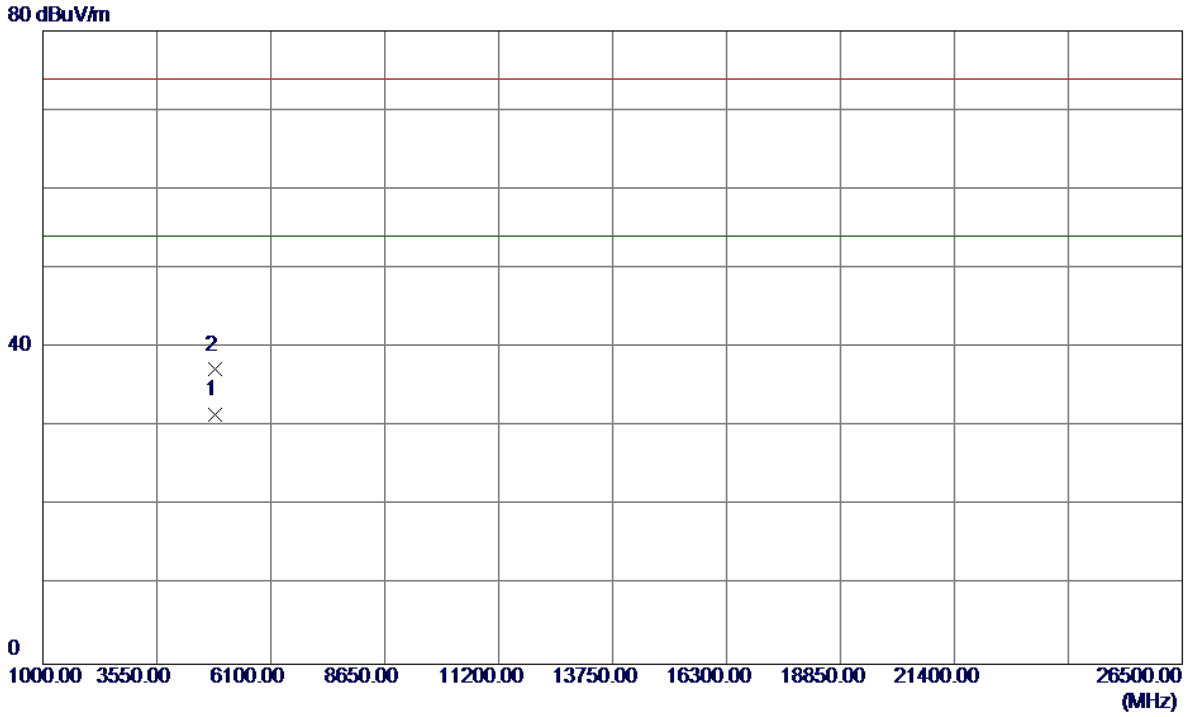
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2333.4000	29.71	33.90	63.61	74.00	-10.39	Peak	
2	2333.4000	18.58	33.90	52.48	54.00	-1.52	AVG	
3	2390.0000	28.92	34.23	63.15	74.00	-10.85	Peak	
4	2390.0000	16.62	34.23	50.85	54.00	-3.15	AVG	
5	2416.4000	56.31	34.39	90.70	54.00	36.70	AVG	No Limit
6	2418.2000	69.05	34.40	103.45	74.00	29.45	Peak	No Limit

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

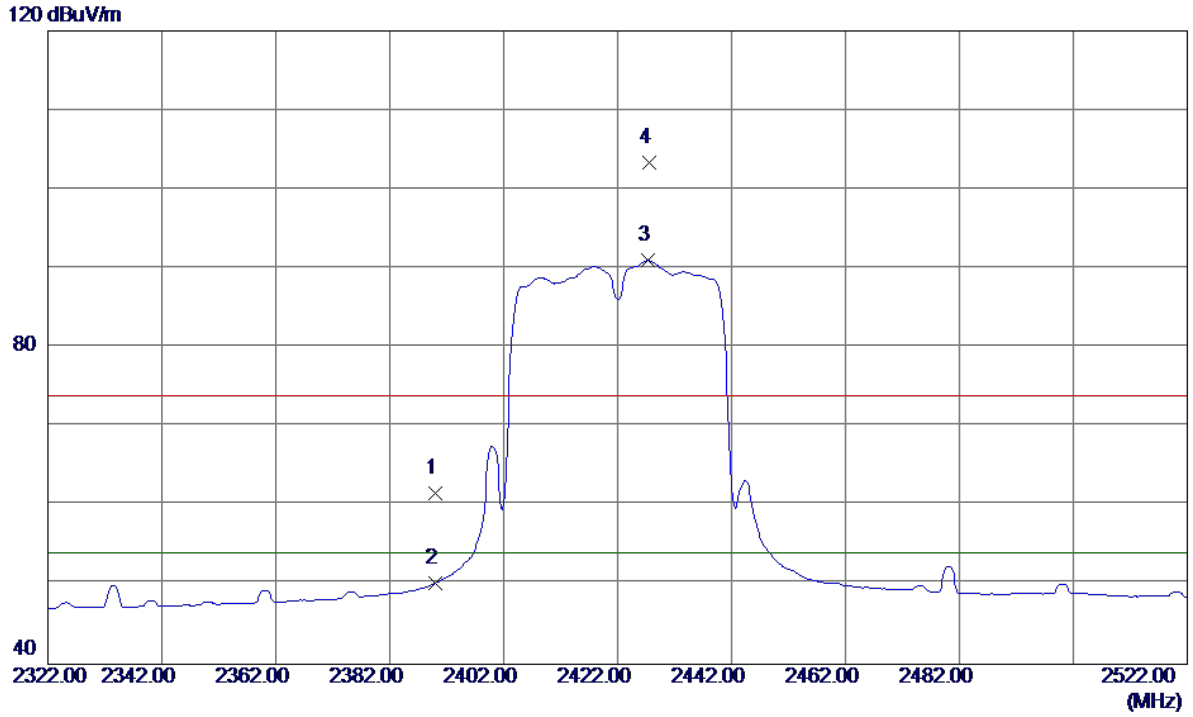
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4844.0890	28.46	3.01	31.47	54.00	-22.53	AVG	
2	4844.1260	34.19	3.01	37.20	74.00	-36.80	Peak	

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

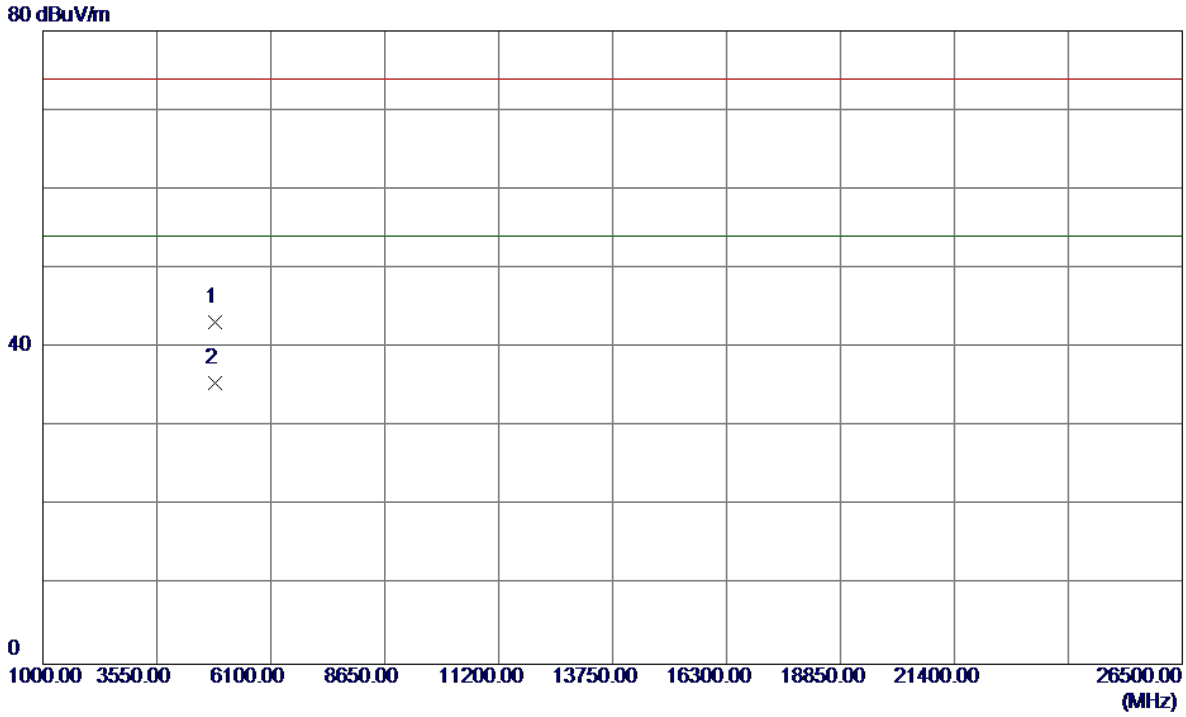
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	27.42	34.23	61.65	74.00	-12.35	Peak	
2	2390.0000	16.02	34.23	50.25	54.00	-3.75	AVG	
3	2427.4000	56.56	34.45	91.01	54.00	37.01	AVG	No Limit
4	2427.6000	68.91	34.45	103.36	74.00	29.36	Peak	No Limit

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

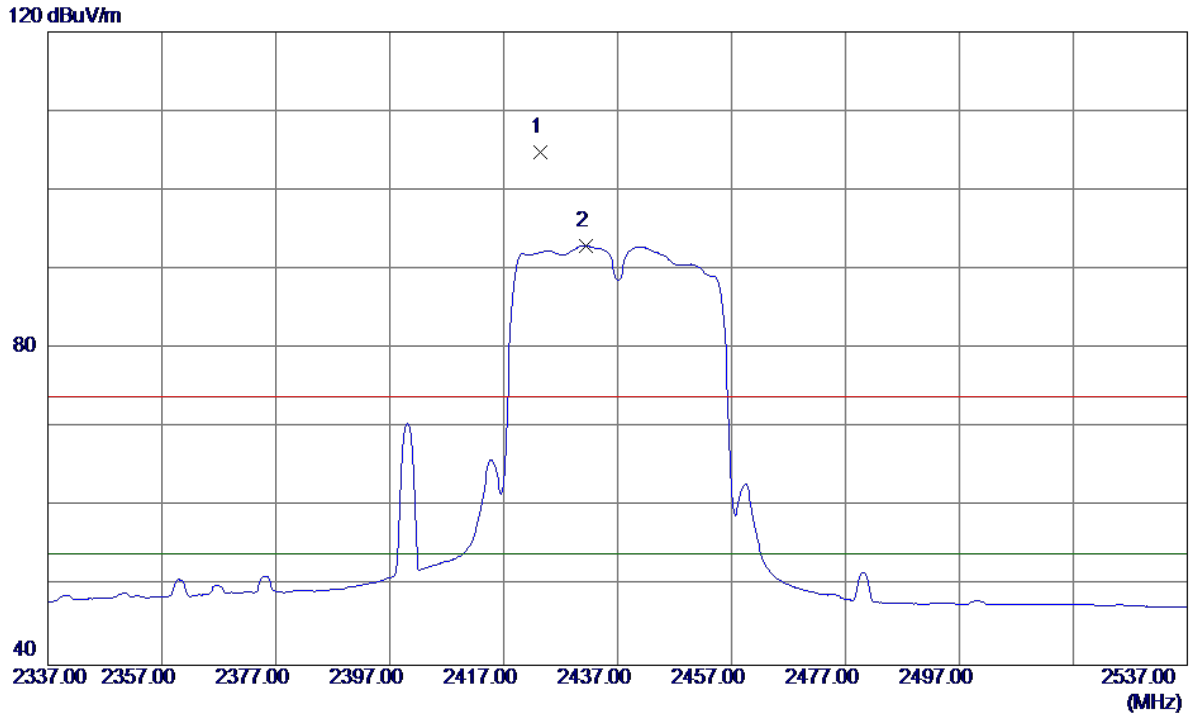
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4843.8750	40.24	3.01	43.25	74.00	-30.75	Peak	
2	4843.8750	32.56	3.01	35.57	54.00	-18.43	AVG	

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

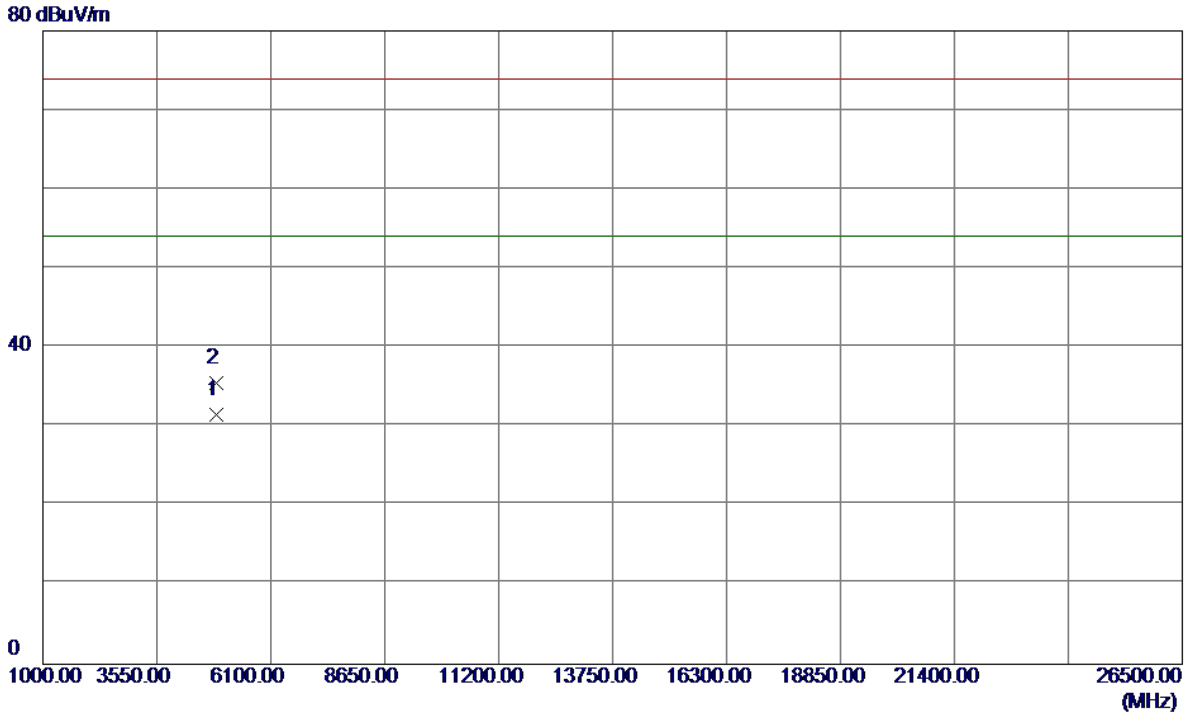
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2423.4000	70.36	34.43	104.79	74.00	30.79	Peak	No Limit
2	2431.4000	58.56	34.47	93.03	54.00	39.03	AVG	No Limit

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

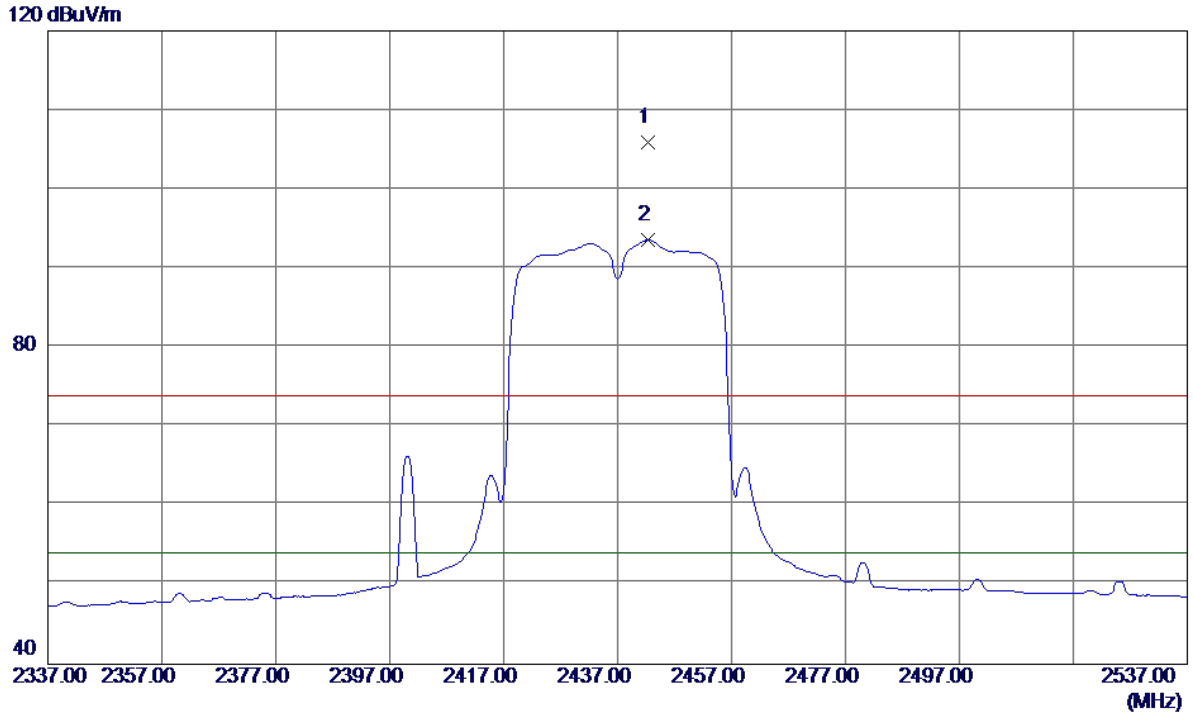
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4873.9780	28.46	3.03	31.49	54.00	-22.51	AVG	
2	4874.1269	32.52	3.03	35.55	74.00	-38.45	Peak	

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

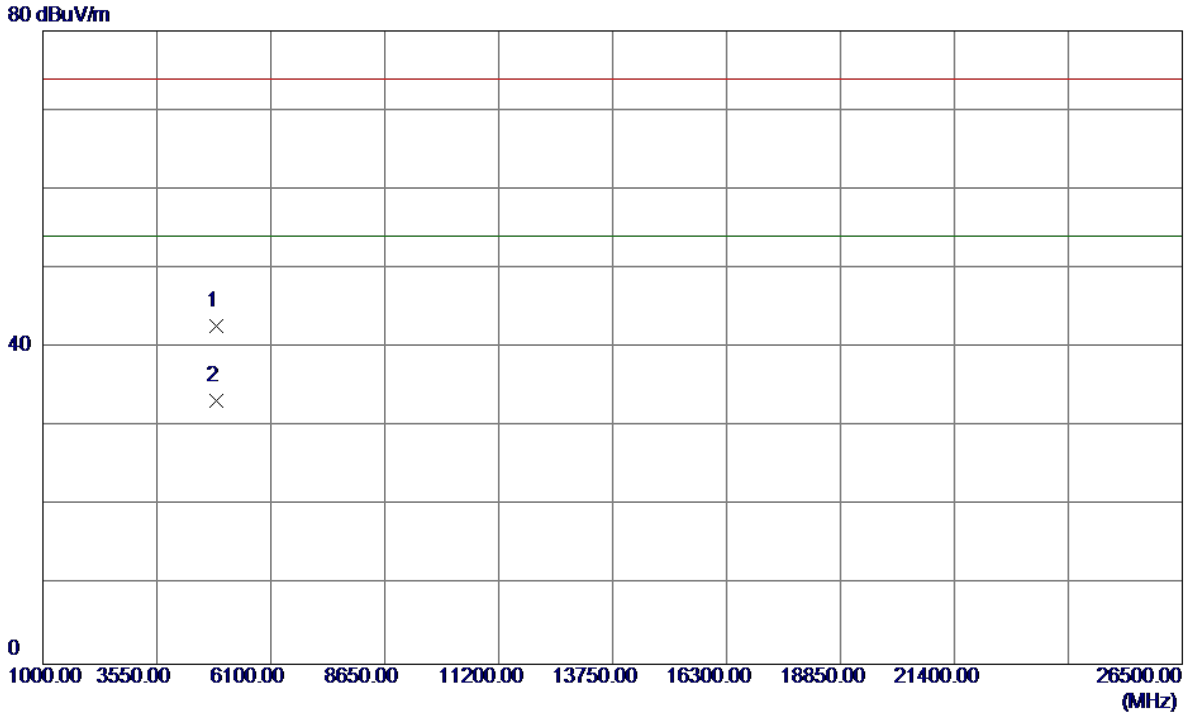
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2442.4000	71.41	34.54	105.95	74.00	31.95	Peak	No Limit
2	2442.4000	59.05	34.54	93.59	54.00	39.59	AVG	No Limit

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

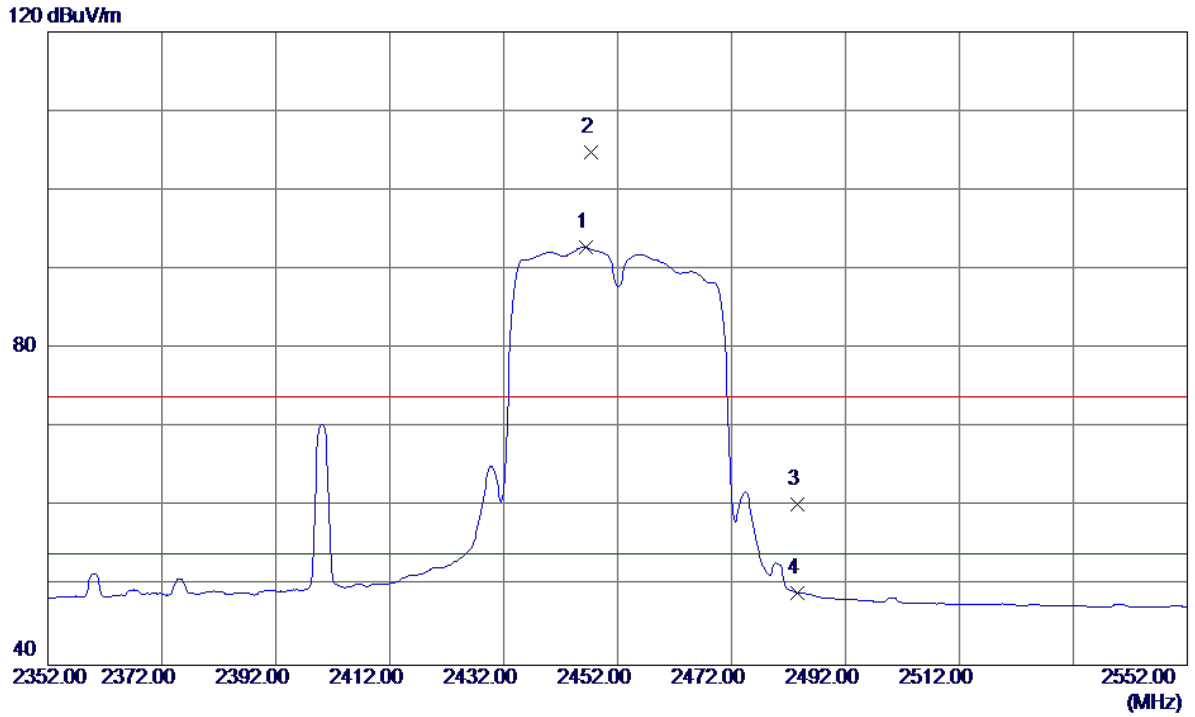
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4874.0470	39.62	3.03	42.65	74.00	-31.35	Peak	
2	4874.0560	30.25	3.03	33.28	54.00	-20.72	AVG	

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

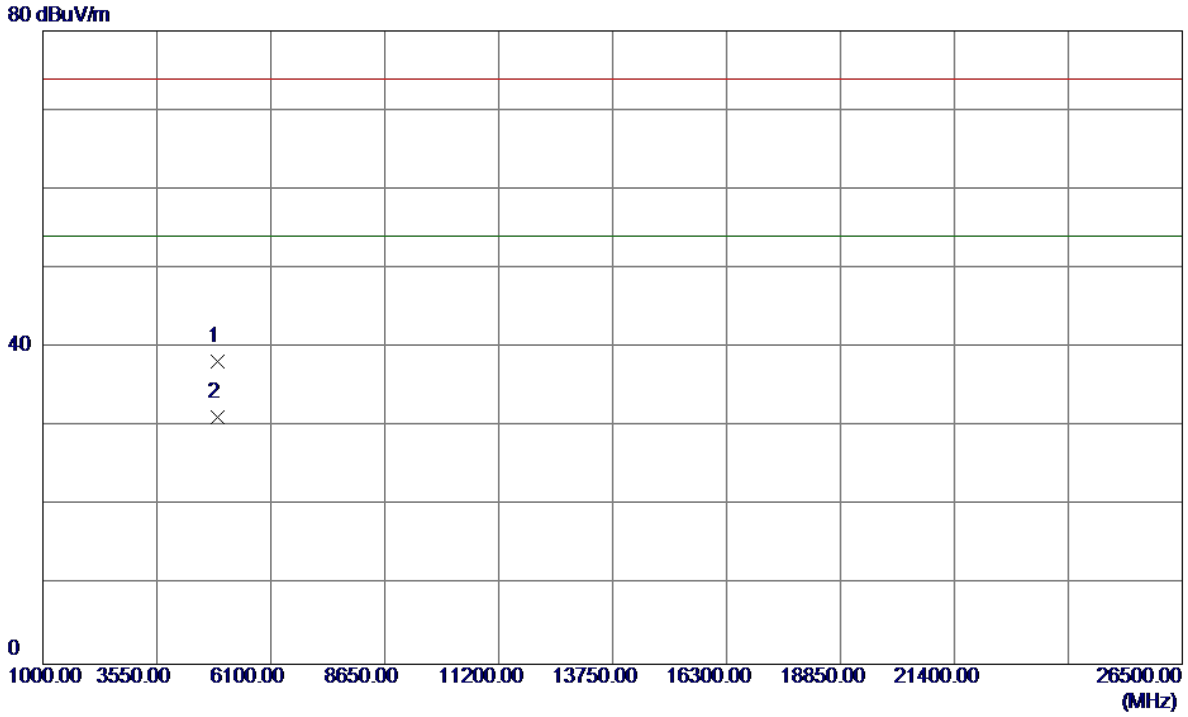
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2446.4000	58.23	34.56	92.79	54.00	38.79	AVG	No Limit
2	2447.4000	70.23	34.56	104.79	74.00	30.79	Peak	No Limit
3	2483.5000	25.53	34.77	60.30	74.00	-13.70	Peak	
4	2483.5000	14.40	34.77	49.17	54.00	-4.83	AVG	

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

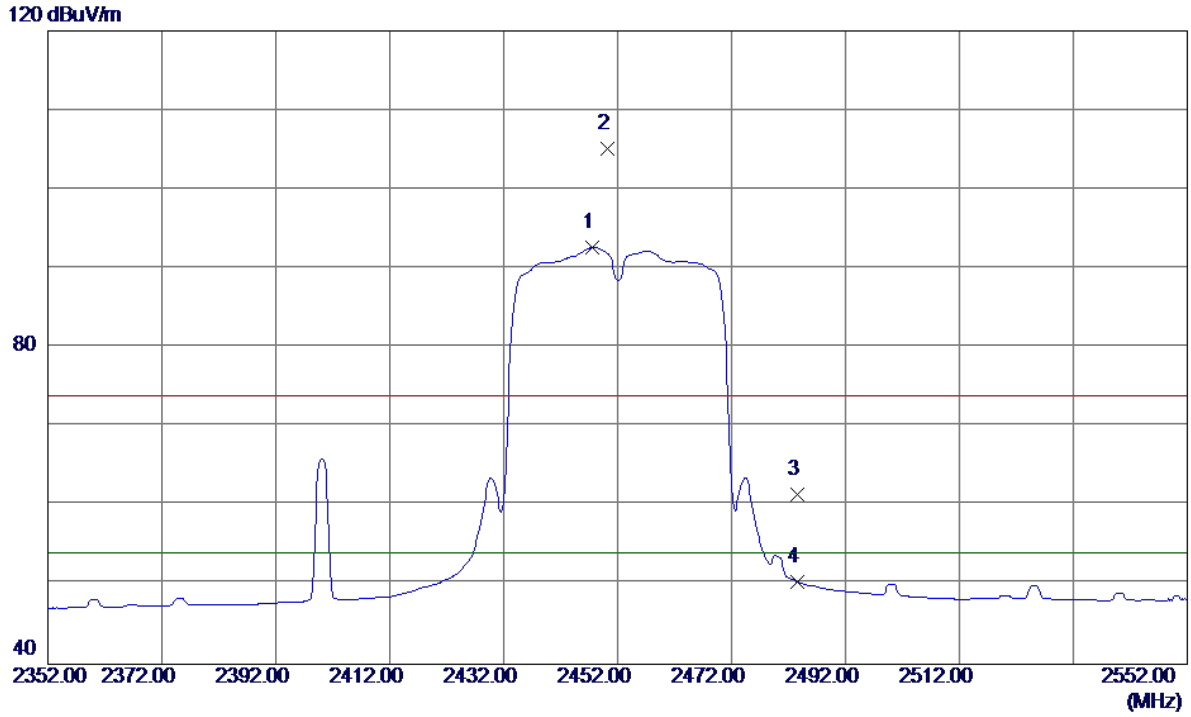
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4904.1050	35.24	3.04	38.28	74.00	-35.72	Peak	
2	4904.1050	28.15	3.04	31.19	54.00	-22.81	AVG	

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

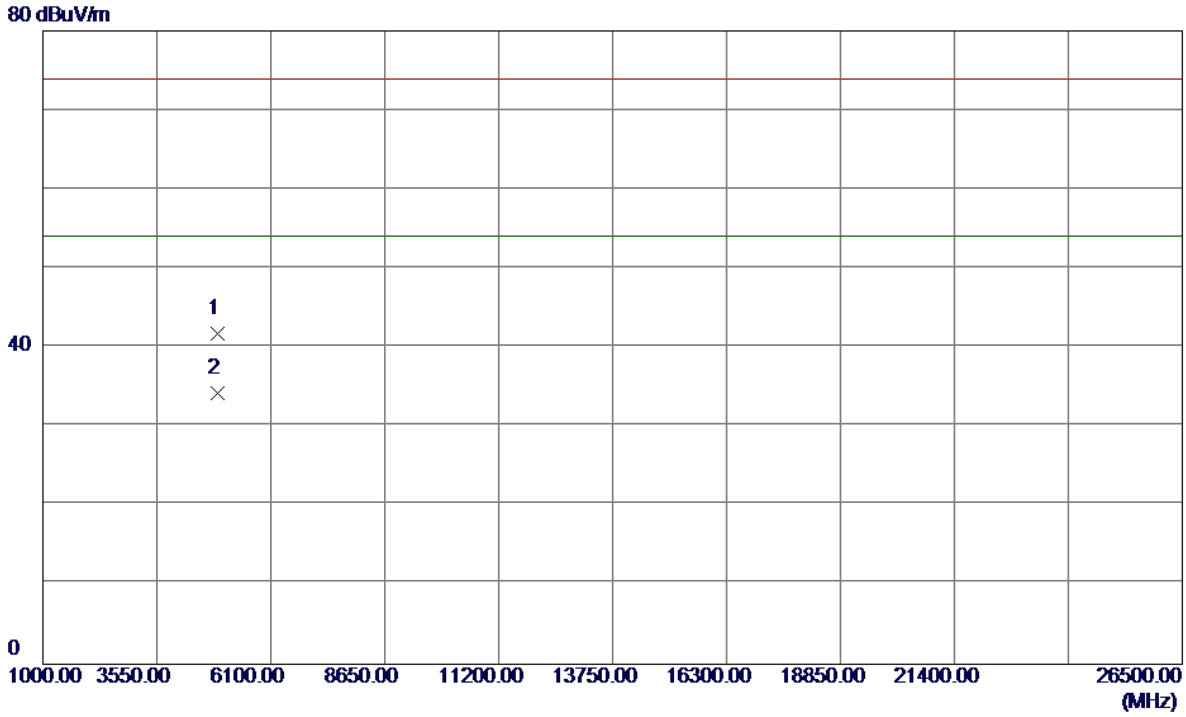
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2447.6000	58.09	34.57	92.66	54.00	38.66	AVG	No Limit
2	2450.2000	70.52	34.58	105.10	74.00	31.10	Peak	No Limit
3	2483.5000	26.60	34.77	61.37	74.00	-12.63	Peak	
4	2483.5000	15.63	34.77	50.40	54.00	-3.60	AVG	

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

Horizontal



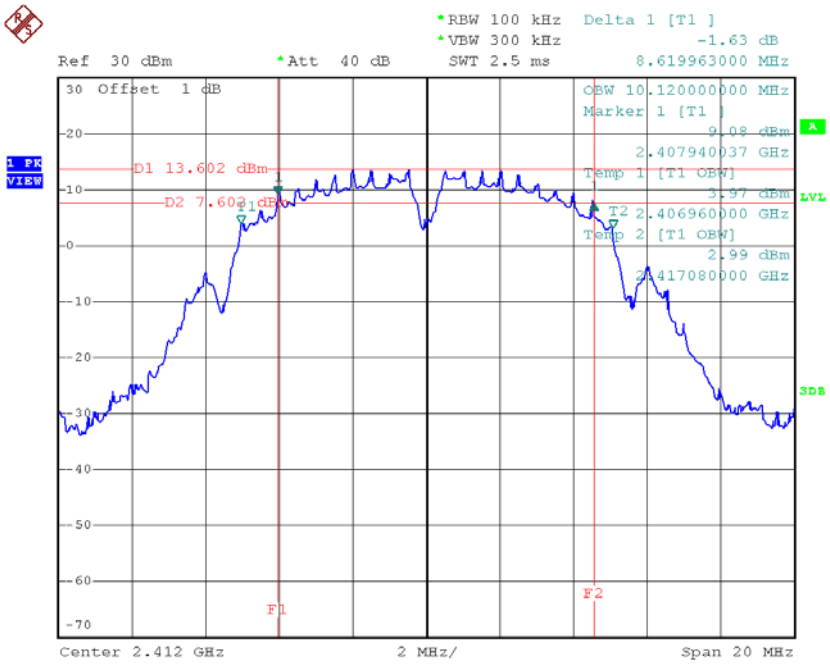
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4904.1020	38.65	3.04	41.69	74.00	-32.31	Peak	
2	4904.1050	31.14	3.04	34.18	54.00	-19.82	AVG	

ATTACHMENT E - BANDWIDTH

Test Mode : TX B Mode_CH01/06/11

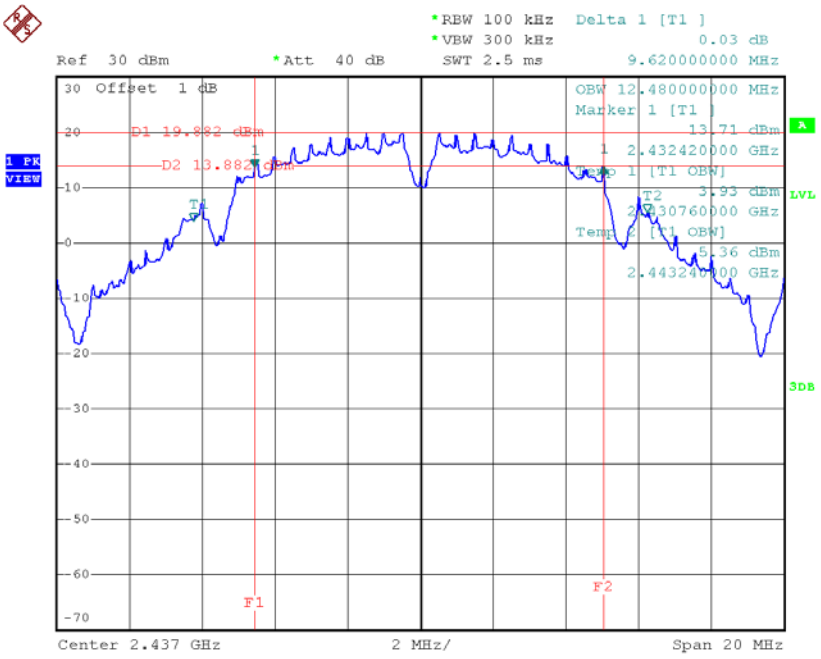
Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied BW (MHz)	Min. Limit (kHz)	Test Result
2412	8.62	10.12	500	Complies
2437	9.62	12.48	500	Complies
2462	8.11	10.12	500	Complies

TX CH01



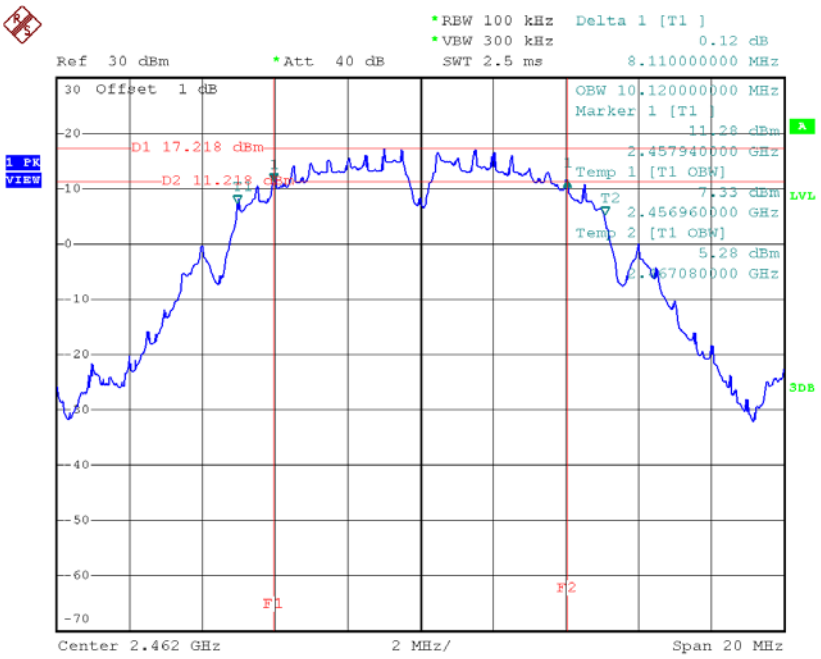
Date: 28.OCT.2015 08:44:48

TX CH06



Date: 28.OCT.2015 08:46:09

TX CH11

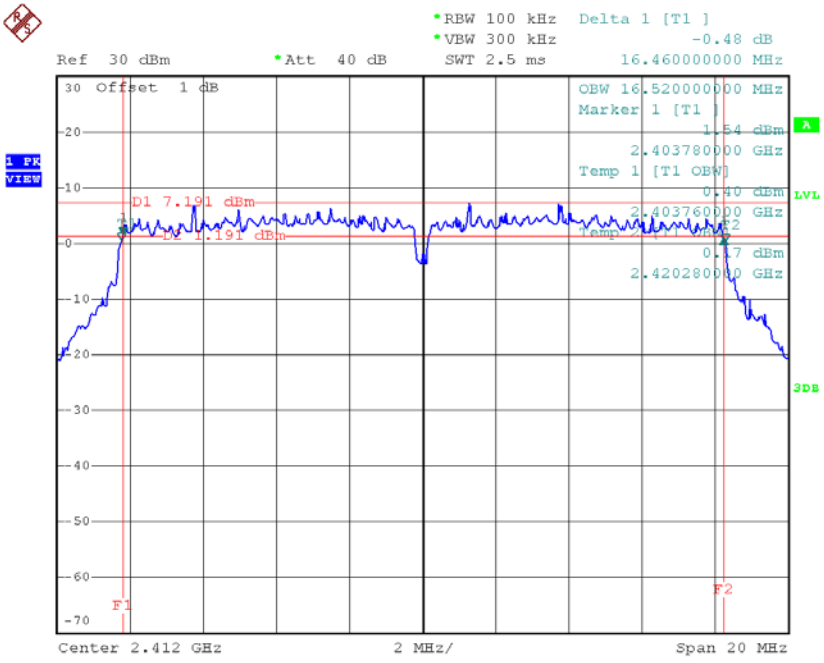


Date: 28.OCT.2015 08:47:37

Test Mode: TX G Mode_CH01/06/11

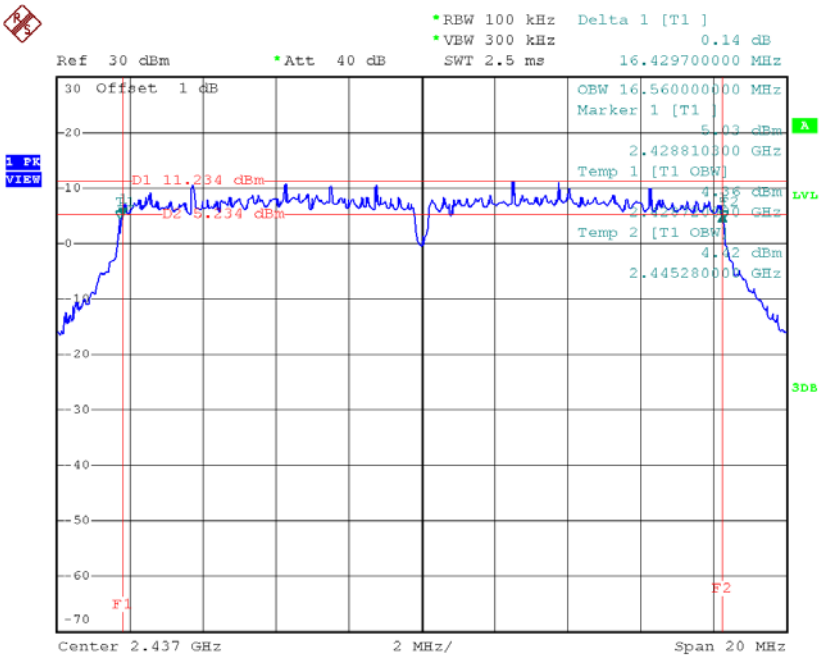
Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied BW (MHz)	Min. Limit (kHz)	Test Result
2412	16.46	16.52	500	Complies
2437	16.43	16.56	500	Complies
2462	16.44	16.52	500	Complies

TX CH01



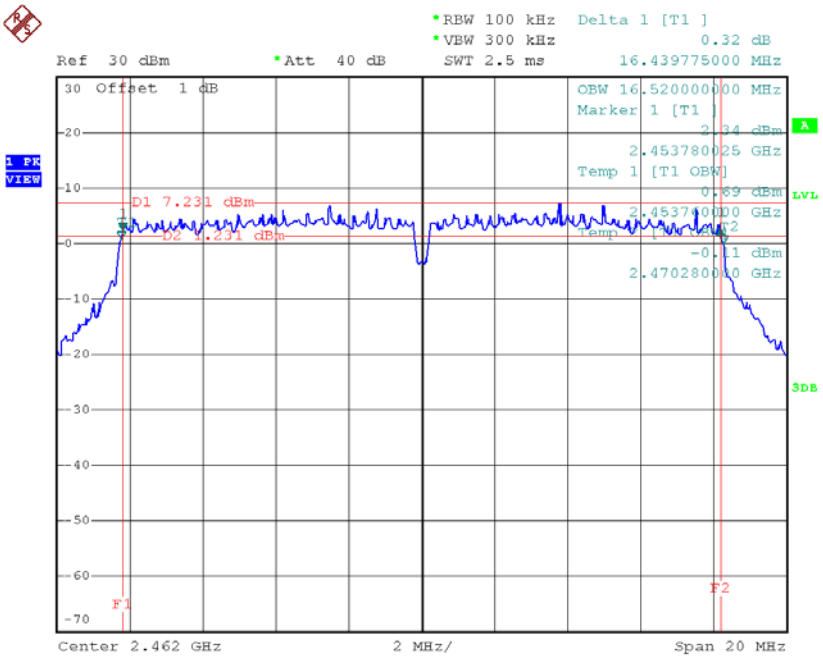
Date: 28.OCT.2015 08:48:50

TX CH06



Date: 28.OCT.2015 08:49:54

TX CH11

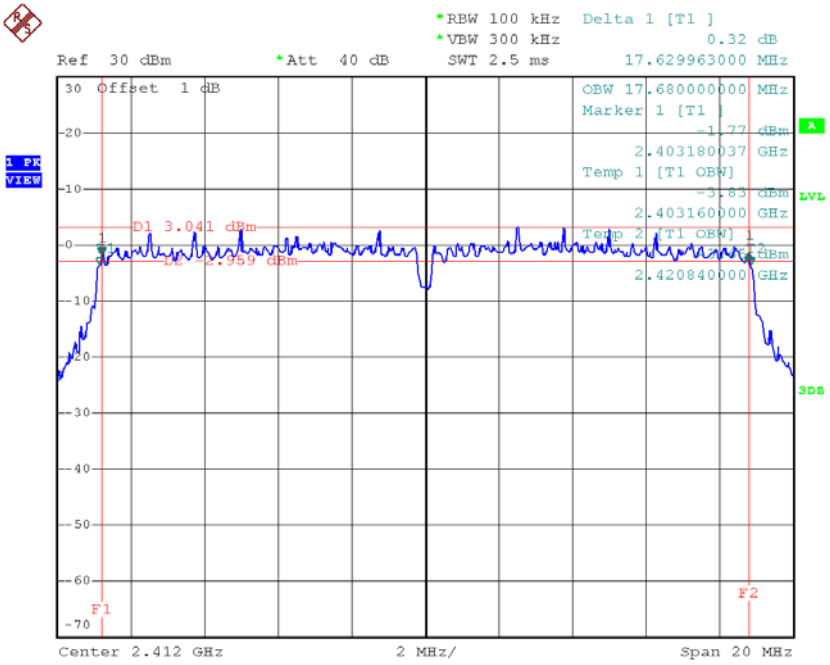


Date: 28.OCT.2015 08:51:00

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

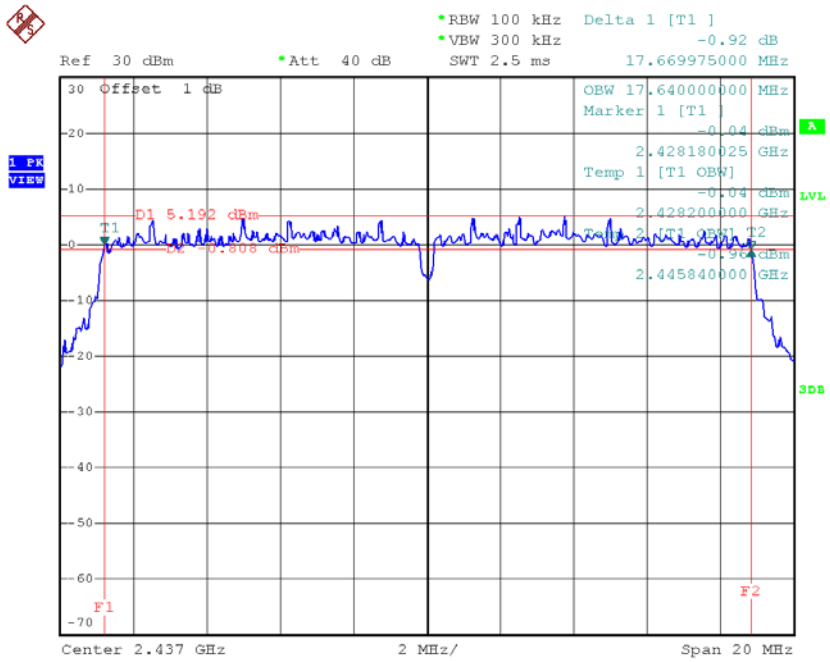
Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied BW (MHz)	Min. Limit (kHz)	Test Result
2412	17.63	17.68	500	Complies
2437	17.67	17.64	500	Complies
2462	17.63	17.68	500	Complies

TX CH01



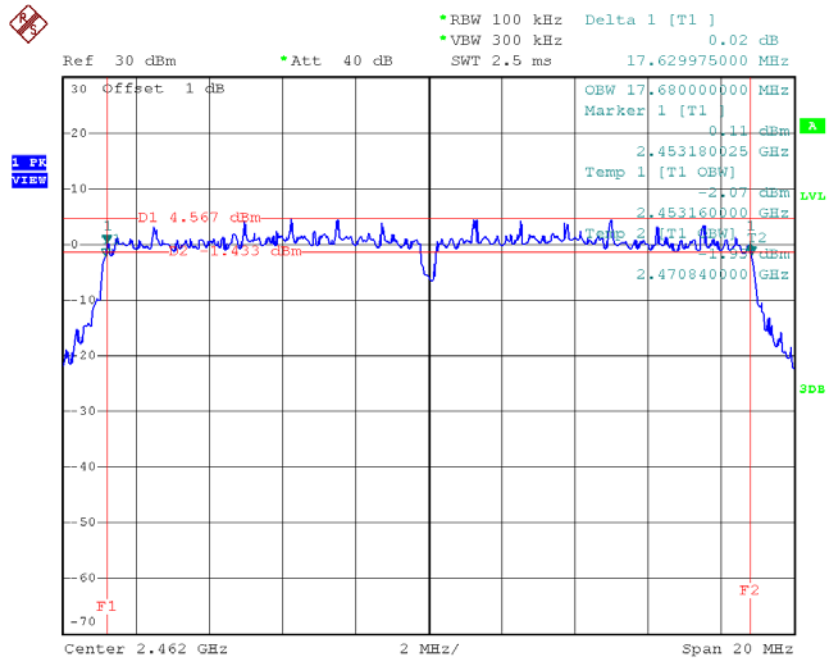
Date: 28.OCT.2015 08:52:17

TX CH06



Date: 28.OCT.2015 08:53:40

TX CH11

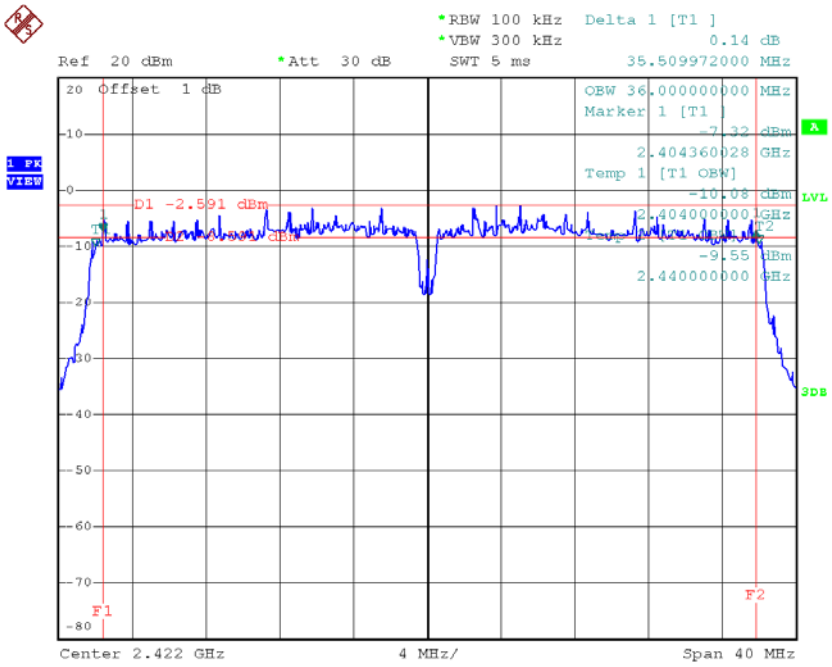


Date: 28.OCT.2015 08:54:34

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

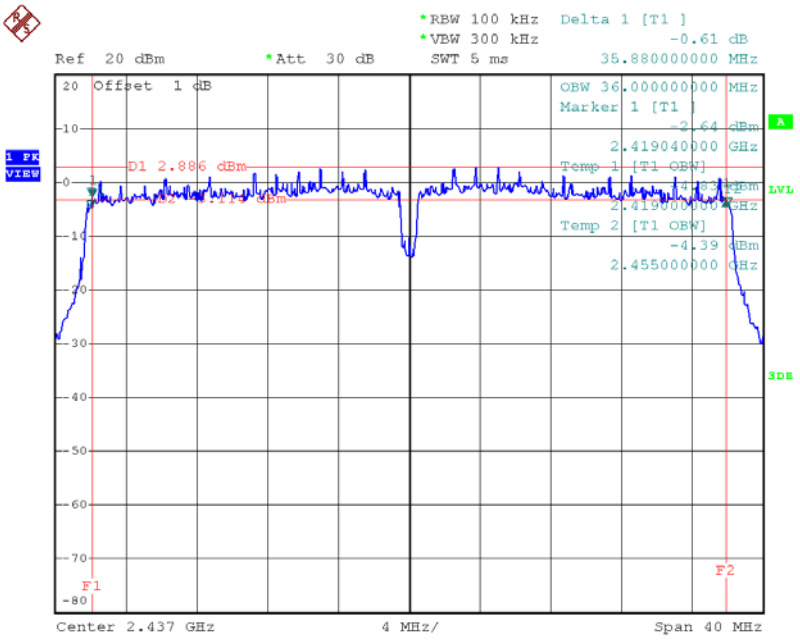
Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied BW (MHz)	Min. Limit (kHz)	Test Result
2422	35.51	36	500	Complies
2437	35.88	36	500	Complies
2452	35.91	36	500	Complies

TX CH03



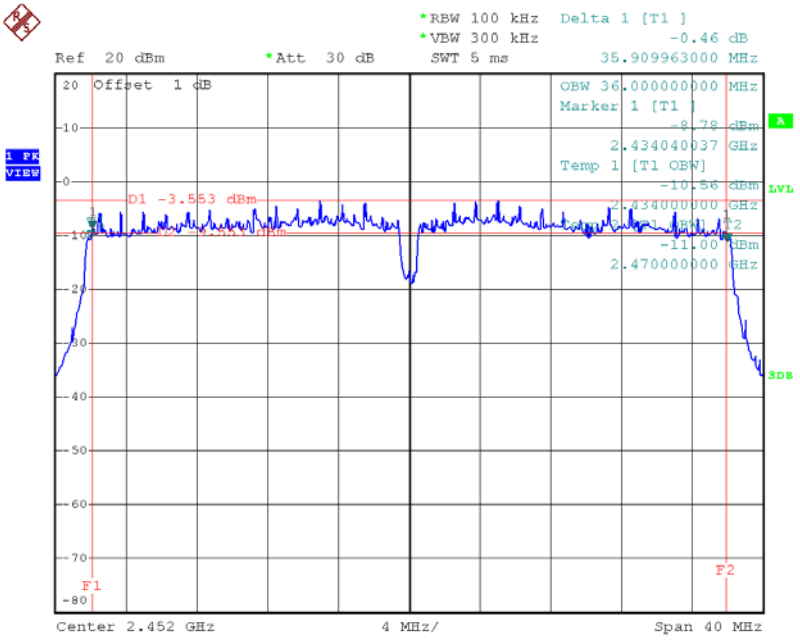
Date: 28.OCT.2015 09:02:14

TX CH06



Date: 28.OCT.2015 09:03:29

TX CH09



Date: 28.OCT.2015 09:04:51