

FCC Radio Test Report

FCC ID: 2ADKJWF4101

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

Project No. : 1411C046
Equipment : WIFI Module
Model Name : WF4101-R0
Applicant : Dalian Golden Hualu Digital Technology Co.,Ltd.
Address : No.1, Qixianling Hua Road, High-Tech Industrial Park, Dalian, Liaoning province

Date of Receipt : Nov. 11, 2014
Date of Test : Nov. 11, 2014~Dec. 04, 2014
Issued Date : Dec. 05, 2014
Tested by : 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-1-1411C046	Original Issue.	Dec. 05, 2014

1. CERTIFICATION

Equipment : WIFI Module
Brand Name : Hualu
Model Name : WF4101-R0
Applicant : Dalian Golden Hualu Digital Technology Co.,Ltd.
Manufacturer : Dalian Golden Hualu Digital Technology Co.,Ltd.
Address : No.1, Qixianling Hua Road, High-Tech Industrial Park, Dalian, Liaoning province
Factory : Dalian Golden Hualu Digital Technology Co.,Ltd.
Address : No.1, Qixianling Hua Road, High-Tech Industrial Park, Dalian, Liaoning province
Date of Test : Nov. 11, 2014~Dec. 04, 2014
Test Sample : ENGINEERING SAMPLE
Standard(s) : FCC Part15, Subpart C: 2013 (15.247) / ANSI C63.4-2009

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-1-1411C046) 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: 2013				
Standard(s)	Section	Test Item	Judgment	Remark
FCC				
	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 v03r02 (Measurement Guidelines of DTS)

2.1 TEST FACILITY

The test facilities used to collect the test data in this report is **DG-C02/DG-CB03** at the location of No.3,Jinshagang 1st Road, Shixia, Dalang Town, Dongguan, Guangdong, China.523792
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 reported uncertainty of measurement $y \pm U$, 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)	NOTE
DG-C02	CISPR	150 KHz ~ 30MHz	1.94	

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	3.60	
		200MHz ~ 1,000MHz	V	3.86	
		200MHz ~ 1,000MHz	H	3.94	
		1GHz~18GHz	V	3.12	
		1GHz~18GHz	H	3.68	
		18GHz~40GHz	V	4.15	
		18GHz~40GHz	H	4.14	

3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

Equipment	WIFI Module	
Brand Name	Hualu	
Model Name	WF4101-R0	
Model Difference	N/A	
Product Description	Operation Frequency	802.11b/g/n H20:2412~2462 MHz 802.11n H40:2422~2452 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 150 Mbps
	Output Power (Max.)	802.11b: 20.45dBm 802.11g: 22.68dBm 802.11n(20MHz): 22.71dBm 802.11n(40MHz): 22.82dBm
Power Source	Supplied from USB port	
Power Rating	DC 5V	

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	Printed	N/A	1.55	

3.2 DESCRIPTION OF TEST MODES

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

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

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	TX MODE

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:

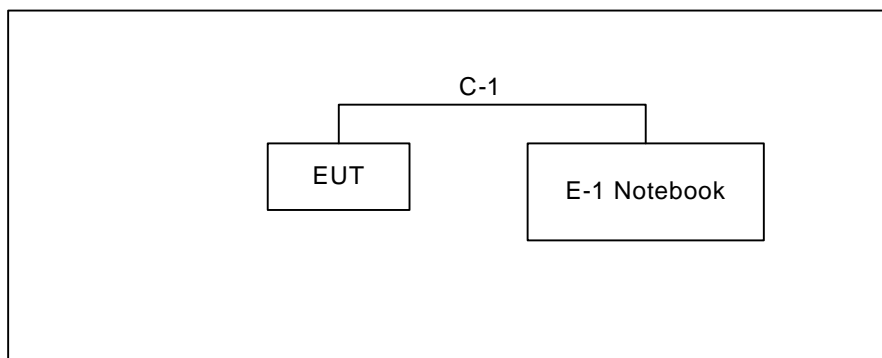
- (1) The measurements are performed at the high, middle, low available channels.
- (2) 802.11b mode: DBPSK (1Mbps)
 802.11g mode: OFDM (6Mbps)
 802.11n HT20 mode : BPSK (6.5Mbps)
 802.11n HT40 mode : BPSK (13.5Mbps)
 For radiated emission tests, the highest output powers were set for final test.
- (3) 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	QA7601		
Frequency (MHz)	2412	2437	2462
802.11b	12	11	11
802.11g	0F	0E	0E
802.11n (20MHz)	0F	0E	0E
Frequency	2422	2437	2452
802.11n (40MHz)	11	15	16

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/IC	Series No.	Note
E-1	Notebook	DELL	E46L	DOC	EB22953770	

Item	Shielded Type	Ferrite Core	Length	Note
C-1	NO	NO	0.3m	USB 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 (dB μ V)	
	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 limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.
- (3) 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

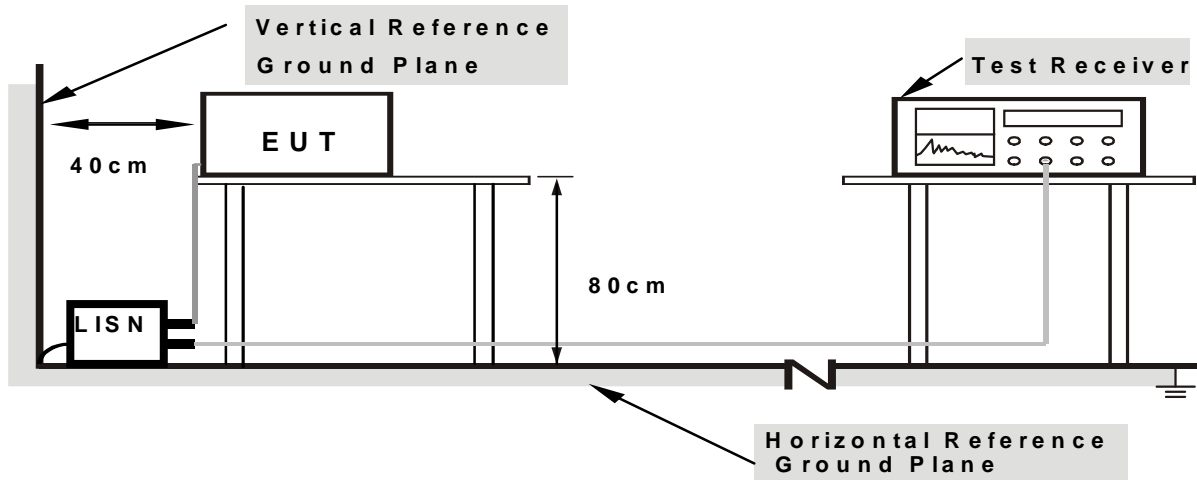
4.1.2 TEST PROCEDURE

- 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 configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

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

20dB in any 100 KHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on 15.205(a) section ,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)	RBW 1MHz VBW 3MHz peak detector for Pk value RMS detector for AV value

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

4.2.2 TEST PROCEDURE

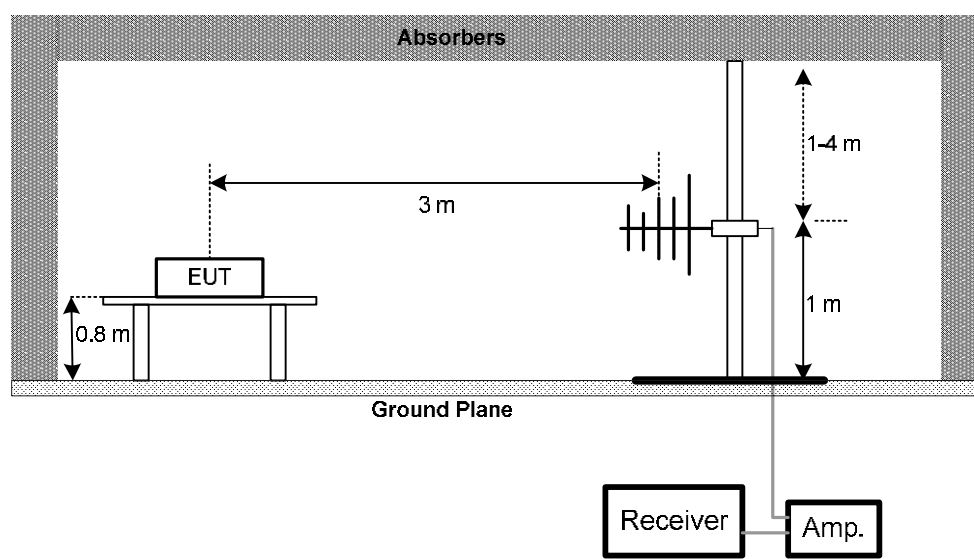
- The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(below 1GHz)
- The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(above 1GHz)
- The height of the equipment or of the substitution antenna shall be 0.8 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.
- 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.
- 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.
- For the actual test configuration, please refer to the related Item –EUT Test Photos.

4.2.3 DEVIATION FROM TEST STANDARD

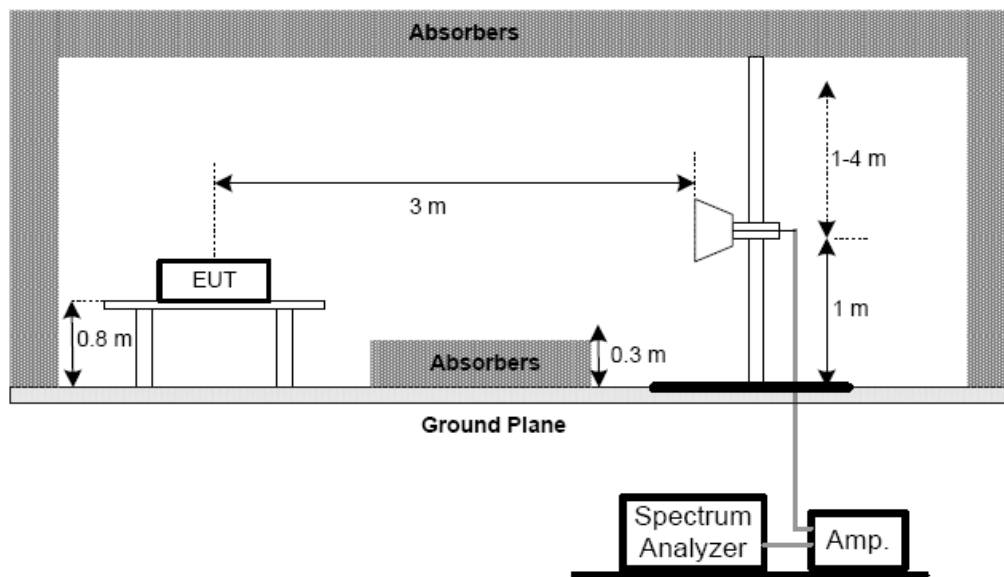
No deviation

4.2.4 TEST SETUP

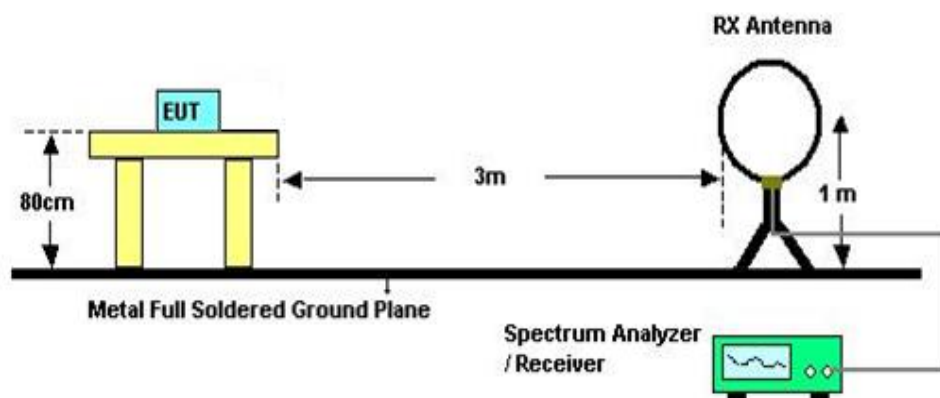
(A) Radiated Emission Test Set-Up Frequency Below 1 GHz



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



(C) For radiated emissions below 30MHz



4.2.5 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of 4.1.5 **Unless** otherwise a special operating condition is specified in the follows during the testing.

4.2.6 EUT TEST CONDITIONS

Temperature: 25°C Relative Humidity: 55% Test Voltage: DC 5V

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

4.2.8 TEST RESULTS (BETWEEN 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

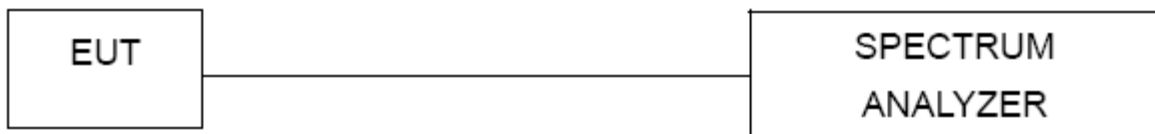
5.1.1 TEST PROCEDURE

- 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 tested system was configured as the statements of 4.1.5 Unless otherwise a special operating condition is specified in the follows during the testing.

5.1.5 EUT TEST CONDITIONS

Temperature: 25°C Relative Humidity: 55% Test Voltage: DC 5V

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 v03r02.

6.1.2 DEVIATION FROM STANDARD

No deviation.

6.1.3 TEST SETUP



6.1.4 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 4.1.5 Unless otherwise a special operating condition is specified in the follows during the testing. Transmit output power was measured while the host equipment supply voltage was varied from 85 % to 115 % of the nominal rated supply voltage. No change in transmit output power was observed.

6.1.5 EUT TEST CONDITIONS

Temperature: 25°C Relative Humidity: 55% Test Voltage: DC 5V

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 intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted measurement, provided the transmitter demonstrates compliance with the peak conducted power limits.

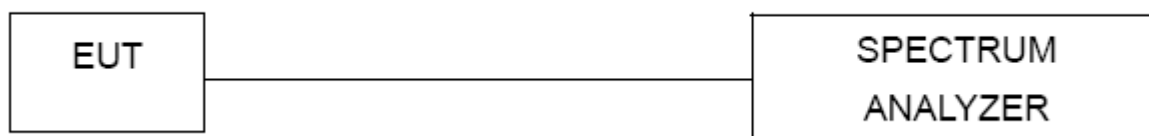
7.1.1 TEST PROCEDURE

- 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 tested system was configured as the statements of 4.1.5 Unless otherwise a special operating condition is specified in the follows during the testing.

7.1.5 EUT TEST CONDITIONS

Temperature: 25°C Relative Humidity: 55% Test Voltage: DC 5V

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

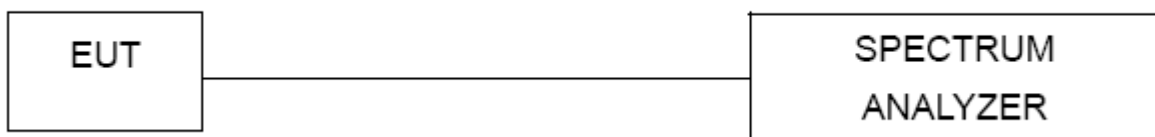
8.1.1 TEST PROCEDURE

- 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 tested system was configured as the statements of 4.1.5 Unless otherwise a special operating condition is specified in the follows during the testing.

8.1.5 EUT TEST CONDITIONS

Temperature: 25°C Relative Humidity: 55% Test Voltage: DC 5V

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. 29, 2015
2	LISN	R&S	ENV216	101447	Mar. 29, 2015
3	Test Cable	N/A	C_17	N/A	Mar. 14, 2015
4	EMI TEST RECEIVER	R&S	ESCS30	833364/017	Mar. 29, 2015
5	50Ω Terminator	SHX	TF2-3G-A	08122902	Mar. 29, 2015
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	Schwarzbeck	VULB9160	9160-3232	Mar. 29, 2015
2	Amplifier	HP	8447D	2944A09673	Mar. 29, 2015
3	Receiver	AGILENT	N9038A	MY5213003 9	Sep. 30, 2015
4	Test Cable	N/A	C-01_CB03	N/A	Jul. 01, 2015
5	Controller	CT	SC100	N/A	N/A
6	Antenna	ETS	3115	00075789	Mar. 29, 2015
7	Amplifier	Agilent	8449B	3008A02274	Mar. 29, 2015
8	Receiver	AGILENT	N9038A	MY5213003 9	Sep. 30, 2015
9	Test Cable	HUBER+SUHNER	C-48	N/A	Apr. 30, 2015
10	Controller	CT	SC100	N/A	N/A
11	Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	9170319	Feb. 22, 2015
12	Microwave Pre-amplifier With Adaptor	EMC INSTRUMENT	EMC2654045	980039 & HA01	Feb. 22, 2015
13	Active Loop Antenna	R&S	HFH2-Z2	830749/020	Mar. 29, 2015
14	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A

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

Peak Output Power Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	P-series Power meter	Agilent	N1911A	MY45100473	Mar. 29, 2015
2	Wireband Power sensor	Agilent	N1921A	MY51100041	Mar. 29, 2015

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



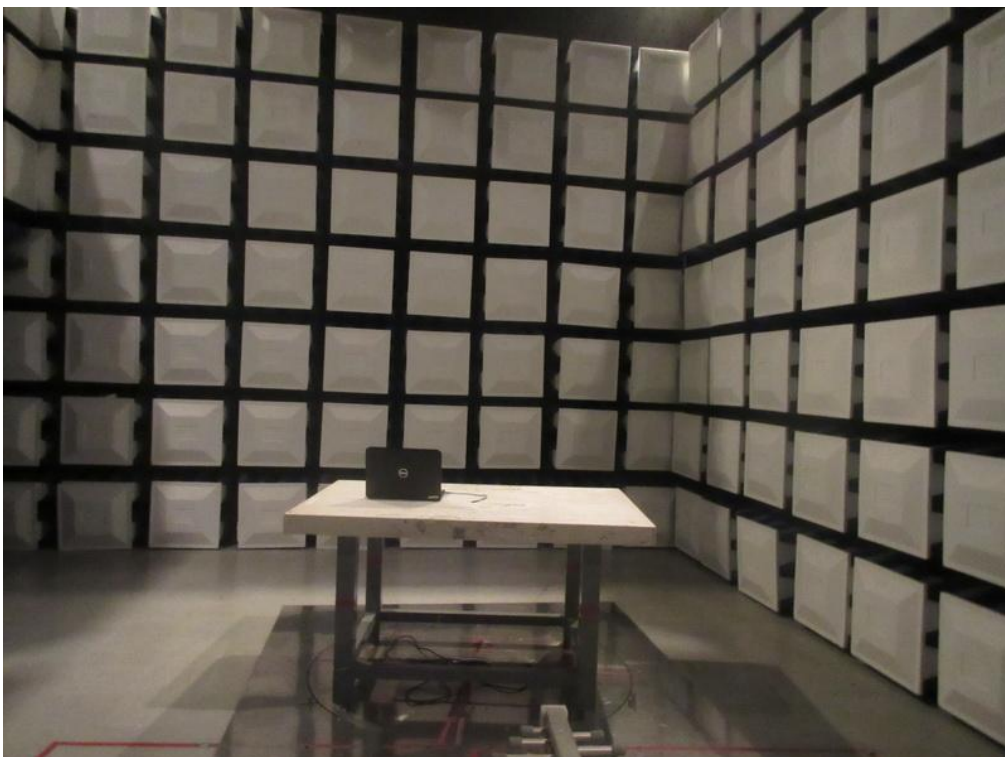
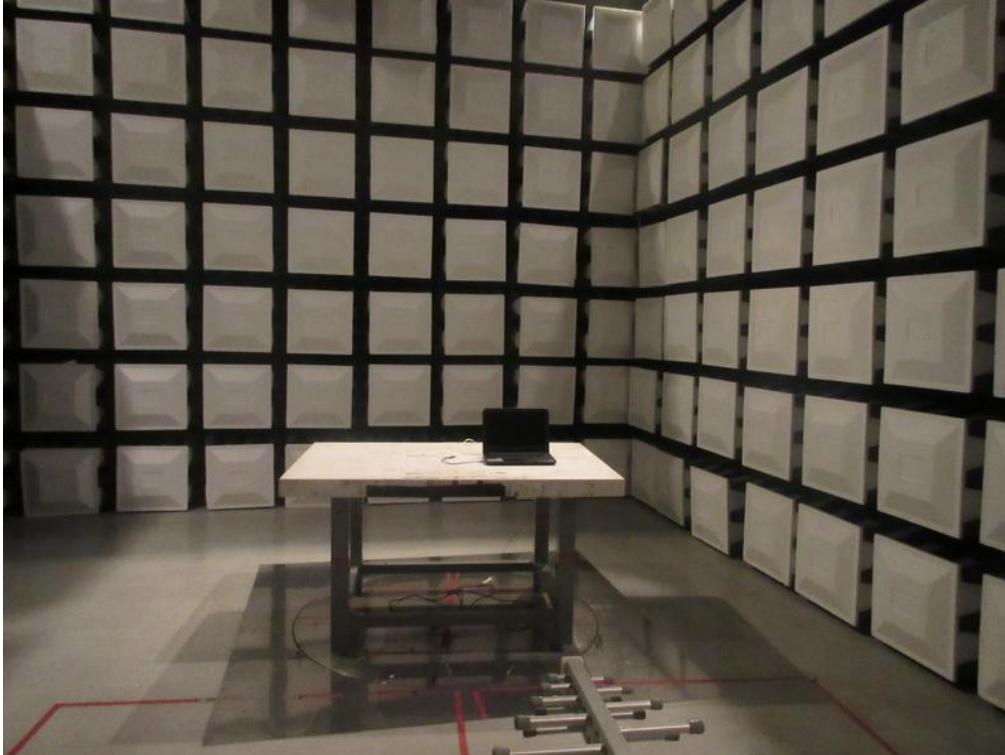
Radiated Measurement Photos

9KHz to 30MHz



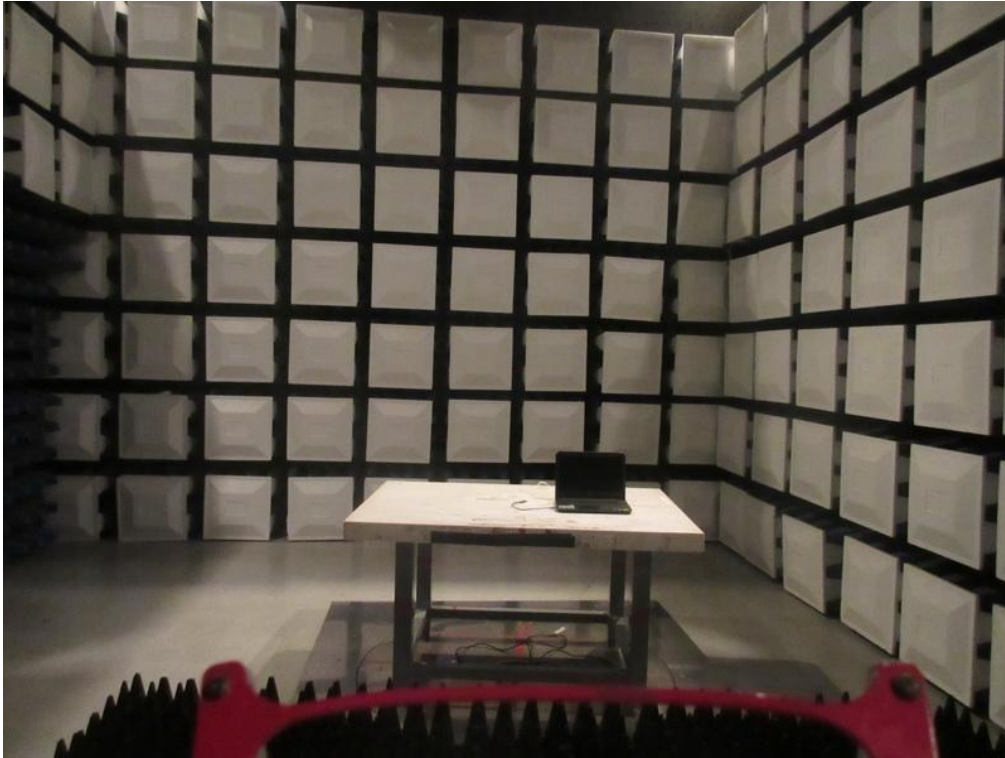
Radiated Measurement Photos

30MHz to 1000MHz



Radiated Measurement Photos

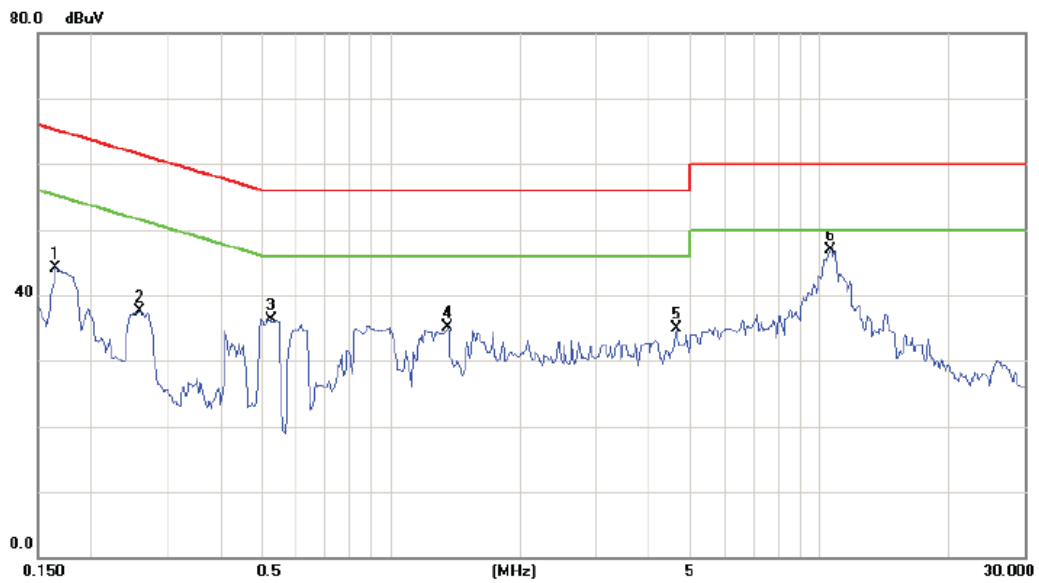
Above 1000MHz



ATTACHMENT A - CONDUCTED EMISSION

Test Mode : TX MODE

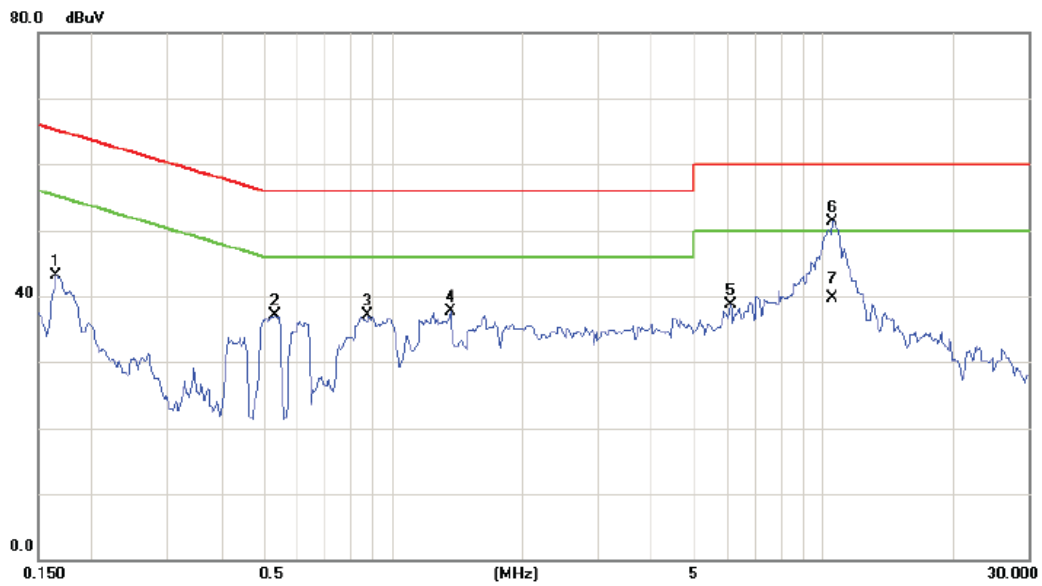
Line



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		0.1655	34.52	9.53	44.05	65.18	-21.13	peak	
2		0.2592	27.95	9.58	37.53	61.46	-23.93	peak	
3		0.5250	26.61	9.69	36.30	56.00	-19.70	peak	
4		1.3570	25.41	9.70	35.11	56.00	-20.89	peak	
5		4.6406	25.00	9.85	34.85	56.00	-21.15	peak	
6	*	10.6132	36.80	10.10	46.90	60.00	-13.10	peak	

Test Mode : TX MODE

Neutral



No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measurement dBuV	Limit dBuV	Over dB	Detector	Comment
1	0.1655	33.49	9.62	43.11	65.18	-22.07	peak	
2	0.5328	27.38	9.64	37.02	56.00	-18.98	peak	
3	0.8764	27.44	9.67	37.11	56.00	-18.89	peak	
4	1.3648	27.96	9.70	37.66	56.00	-18.34	peak	
5	6.0975	28.81	9.93	38.74	60.00	-21.26	peak	
6 *	10.5507	41.22	10.11	51.33	60.00	-8.67	peak	
7	10.5507	29.57	10.11	39.68	50.00	-10.32	AVG	

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

Test Mode:	TX Mode
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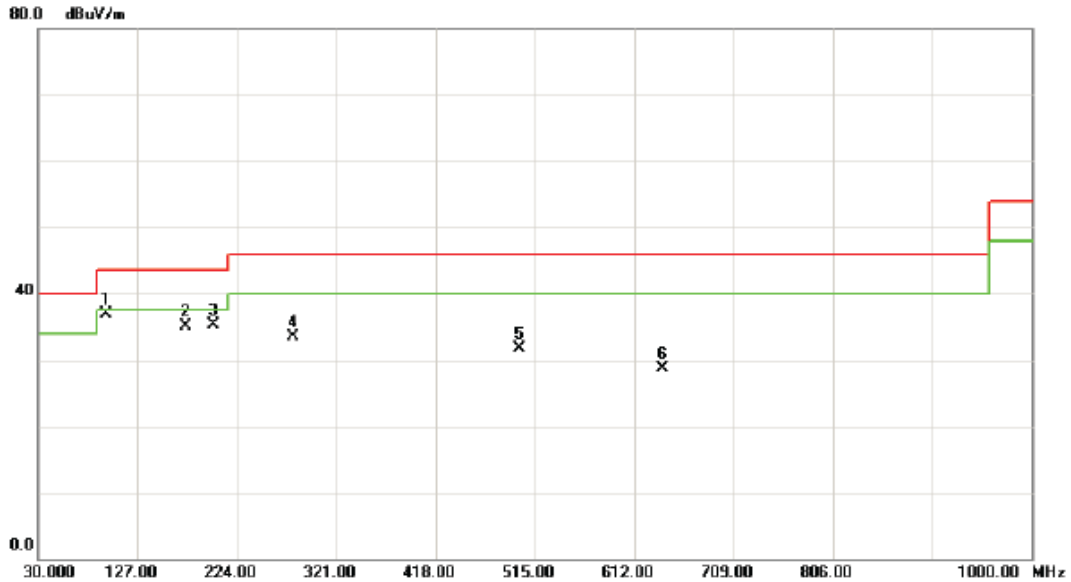
Frequency (MHz)	Ant 0°/90°	Read level dBuV/m	Factor (dB)	Measured(FS) (dBuV/m)	Limit(QP) (dBuV/m)	Margin (dB)	Note
0.0091	0°	1.68	24.99	26.67	108.39	-81.72	AVG
0.0091	0°	9.34	24.99	34.33	128.39	-94.06	PEAK
0.0225	0°	1.29	24.14	25.43	100.56	-75.13	AVG
0.0225	0°	9.54	24.14	33.68	120.56	-86.88	PEAK
0.0301	0°	1.08	23.66	24.74	98.03	-73.29	AVG
0.0301	0°	9.88	23.66	33.54	118.03	-84.49	PEAK
0.0415	0°	2.71	22.94	25.65	95.24	-69.59	AVG
0.0415	0°	10.56	22.94	33.50	115.24	-81.74	PEAK
0.5212	0°	8.67	19.87	28.54	73.26	-44.73	QP
1.7156	0°	11.39	19.53	30.92	69.54	-38.62	QP

Frequency (MHz)	Ant 0°/90°	Read level dBuV/m	Factor (dB)	Measured(FS) (dBuV/m)	Limit(QP) (dBuV/m)	Margin (dB)	Note
0.0092	90°	2.98	24.30	27.28	128.30	-101.02	AVG
0.0092	90°	11.27	24.30	35.57	148.30	-112.73	PEAK
0.0233	90°	1.33	24.09	25.42	120.26	-94.84	AVG
0.0233	90°	10.52	24.09	34.61	140.26	-105.65	PEAK
0.0318	90°	2.48	23.55	26.03	117.56	-91.52	AVG
0.0318	90°	9.67	23.55	33.22	137.56	-104.33	PEAK
0.0417	90°	2.37	22.93	25.30	115.20	-89.91	AVG
0.0417	90°	10.28	22.93	33.21	135.20	-102.00	PEAK
0.4912	90°	8.96	19.82	28.78	73.78	-45.00	QP
1.7156	90°	11.34	19.53	30.87	69.54	-38.67	QP

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

Test Mode: TX B MODE CHANNEL 01

Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	*	95.9600	53.89	-16.98	36.91	43.50	-6.59	peak	
2		173.5600	47.99	-12.84	35.15	43.50	-8.35	peak	
3		201.6900	50.40	-15.06	35.34	43.50	-8.16	peak	
4		278.3200	45.99	-12.45	33.54	46.00	-12.46	peak	
5		500.4500	42.29	-10.50	31.79	46.00	-14.21	peak	
6		640.1300	34.39	-5.69	28.70	46.00	-17.30	peak	

Test Mode: TX B MODE CHANNEL 01

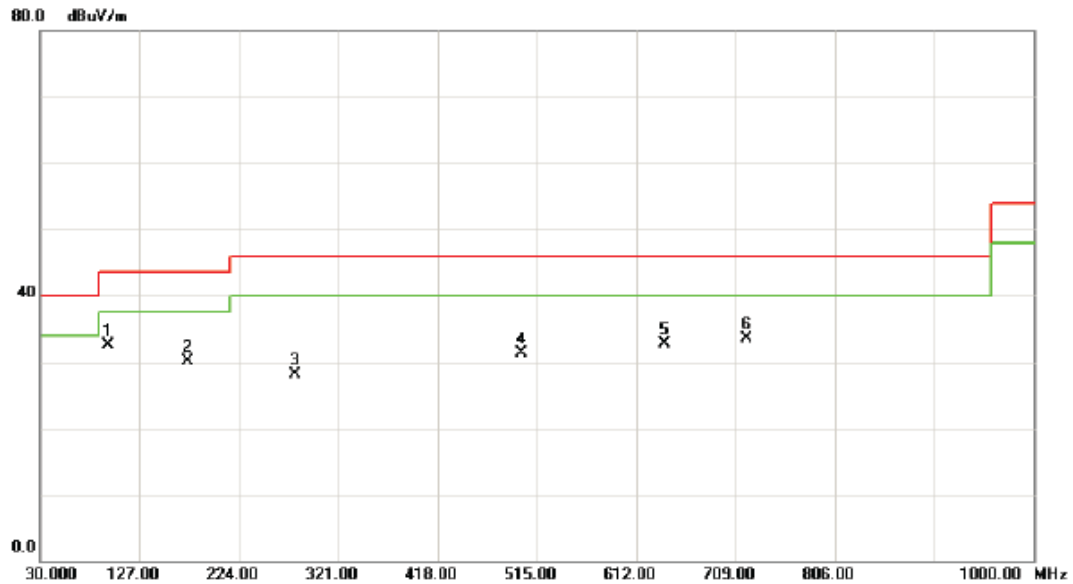
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		120.2100	38.33	-14.19	24.14	43.50	-19.36	peak	
2	*	171.6200	50.22	-12.78	37.44	43.50	-6.06	peak	
3		217.2100	54.53	-15.03	39.50	46.00	-6.50	peak	
4		240.4900	45.29	-14.04	31.25	46.00	-14.75	peak	
5		375.3200	39.07	-10.64	28.43	46.00	-17.57	peak	
6		687.6600	32.70	-4.98	27.72	46.00	-18.28	peak	

Test Mode: TX B MODE CHANNEL 06

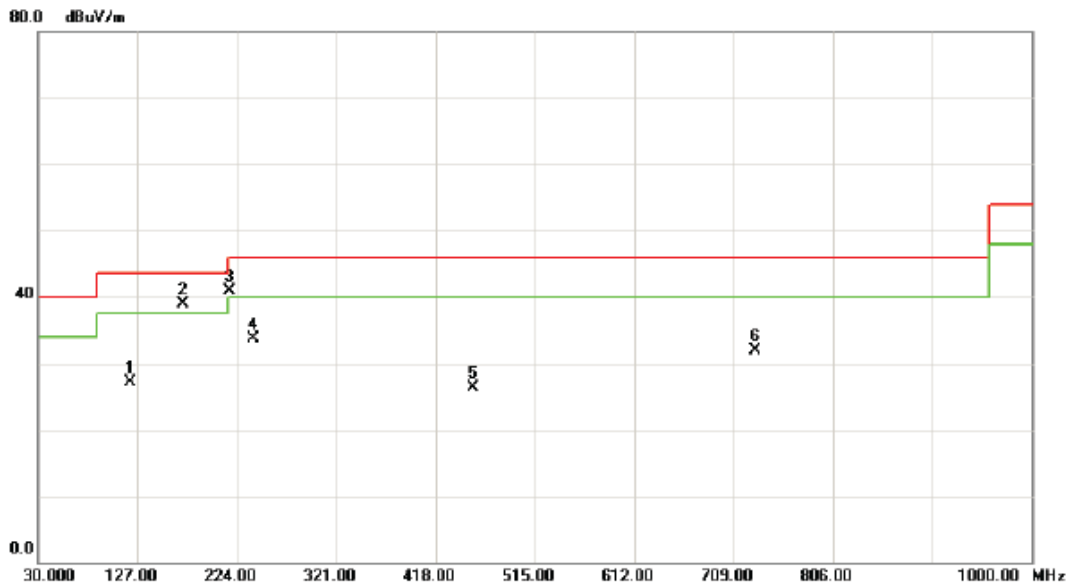
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	*	95.9600	49.39	-16.98	32.41	43.50	-11.09	peak	
2		173.5600	42.99	-12.84	30.15	43.50	-13.35	peak	
3		278.3200	40.49	-12.45	28.04	46.00	-17.96	peak	
4		500.4500	41.79	-10.50	31.29	46.00	-14.71	peak	
5		640.1300	38.39	-5.69	32.70	46.00	-13.30	peak	
6		719.6700	38.28	-4.81	33.47	46.00	-12.53	peak	

Test Mode: TX B MODE CHANNEL 06

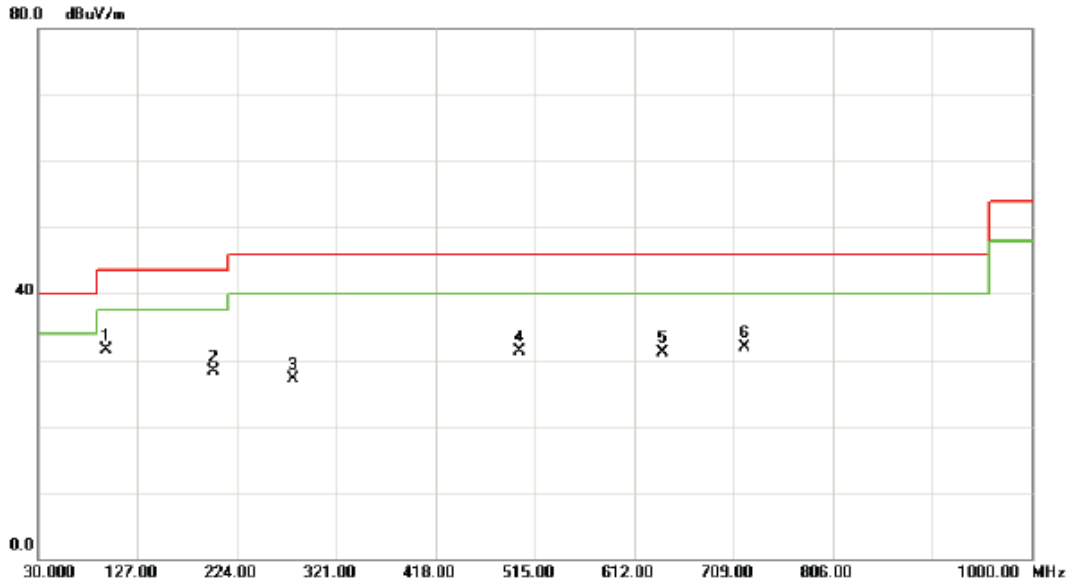
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		120.2100	41.33	-14.19	27.14	43.50	-16.36	peak	
2	*	171.6200	51.72	-12.78	38.94	43.50	-4.56	peak	
3	!	217.2100	56.03	-15.03	41.00	46.00	-5.00	peak	
4		240.4900	47.79	-14.04	33.75	46.00	-12.25	peak	
5		454.8600	35.04	-8.81	26.23	46.00	-19.77	peak	
6		730.3400	36.67	-4.75	31.92	46.00	-14.08	peak	

Test Mode: TX B MODE CHANNEL 11

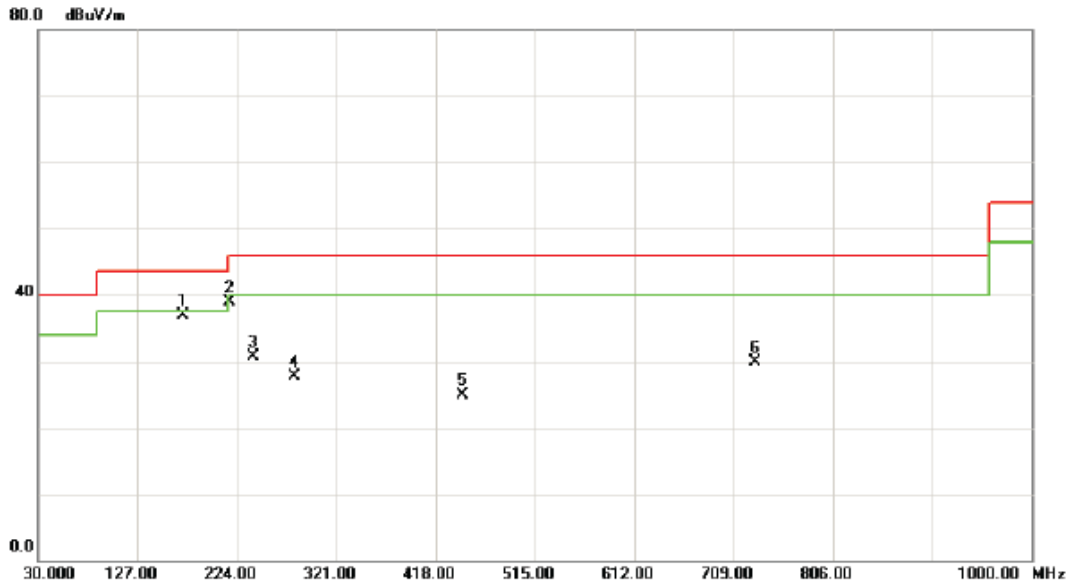
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	*	95.9600	48.39	-16.98	31.41	43.50	-12.09	peak	
2		201.6900	43.40	-15.06	28.34	43.50	-15.16	peak	
3		278.3200	39.49	-12.45	27.04	46.00	-18.96	peak	
4		500.4500	41.79	-10.50	31.29	46.00	-14.71	peak	
5		640.1300	36.89	-5.69	31.20	46.00	-14.80	peak	
6		719.6700	36.78	-4.81	31.97	46.00	-14.03	peak	

Test Mode: TX B MODE CHANNEL 11

Horizontal

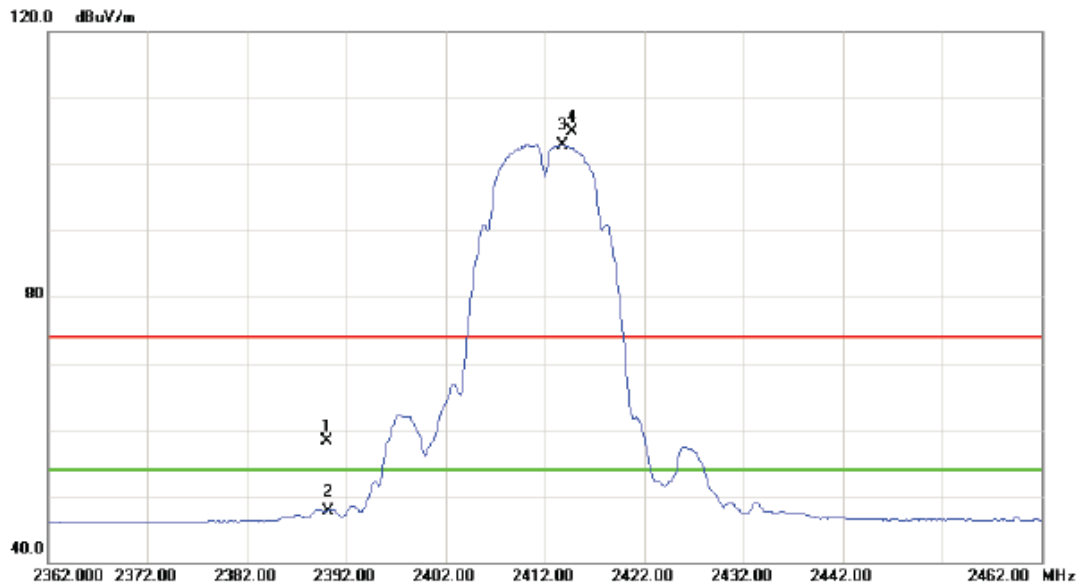


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	*	171.6200	49.72	-12.78	36.94	43.50	-6.56	peak	
2		217.2100	54.03	-15.03	39.00	46.00	-7.00	peak	
3		240.4900	44.79	-14.04	30.75	46.00	-15.25	peak	
4		280.2600	40.01	-12.27	27.74	46.00	-18.26	peak	
5		444.1900	33.66	-8.73	24.93	46.00	-21.07	peak	
6		730.3400	34.67	-4.75	29.92	46.00	-16.08	peak	

ATTACHMENT D - RADIATED EMISSION (ABOVE 1000MHZ)

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

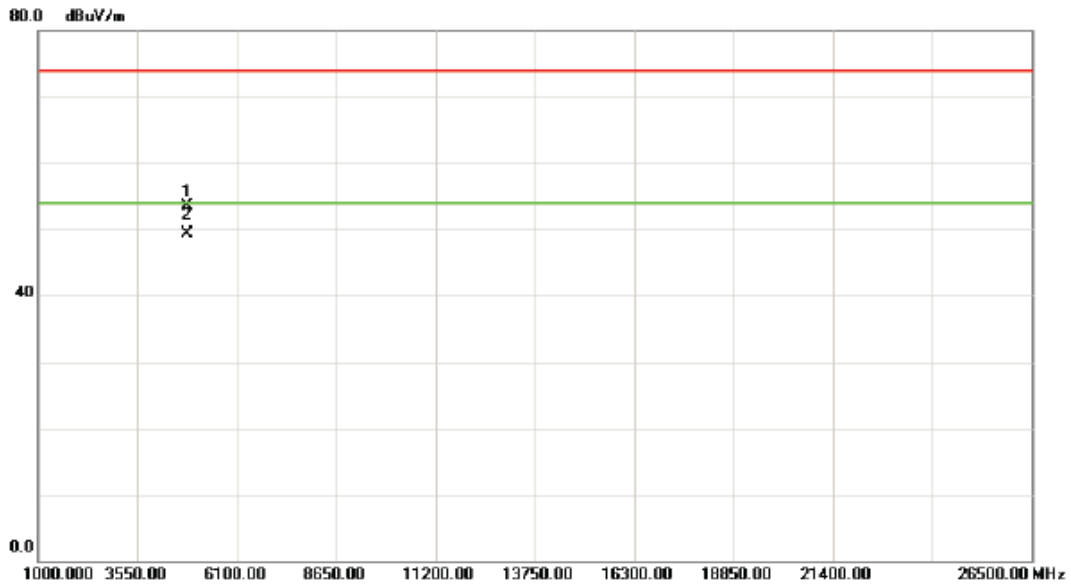
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		2390.000	26.49	31.88	58.37	74.00	-15.63	peak	
2		2390.000	15.81	31.88	47.69	54.00	-6.31	AVG	
3	*	2413.800	71.06	31.91	102.97	54.00	48.97	AVG	no limit
4	X	2414.700	73.05	31.91	104.96	74.00	30.96	peak	no limit

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

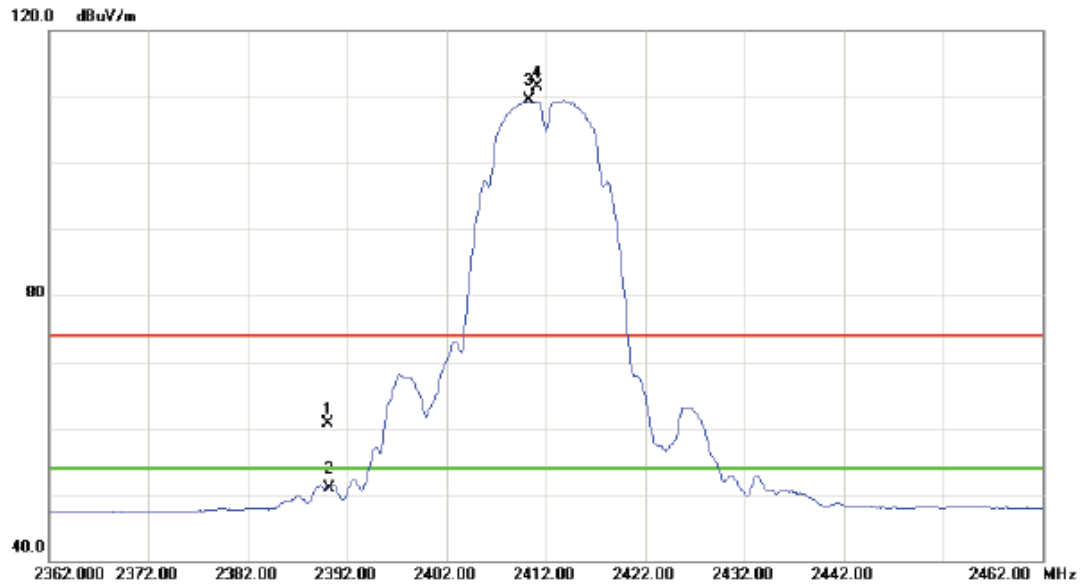
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4824.000	49.89	3.62	53.51	74.00	-20.49	peak	
2	*	4824.000	45.66	3.62	49.28	54.00	-4.72	AVG	

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

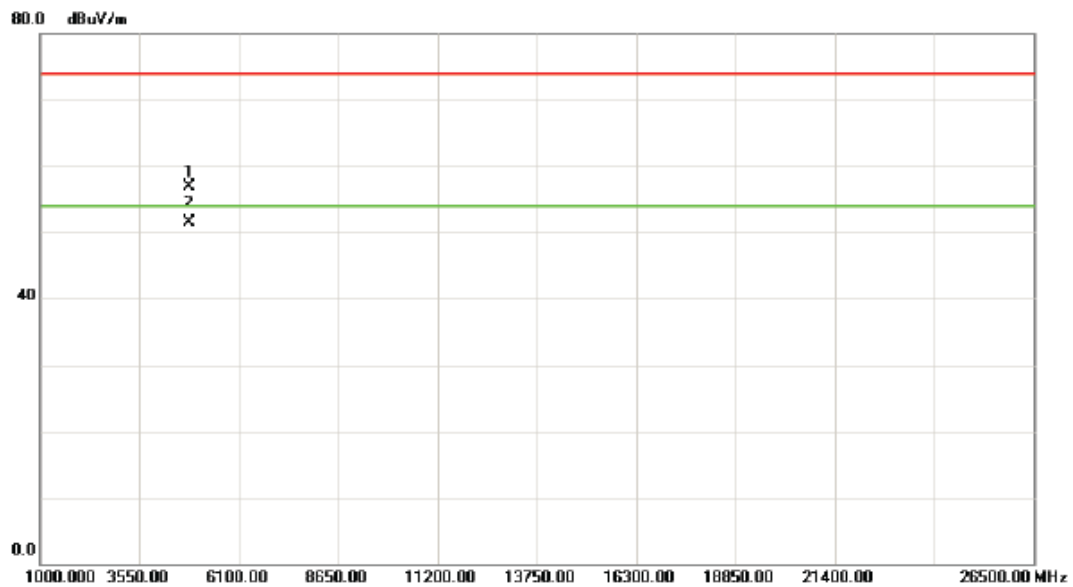
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		2390.000	28.84	31.88	60.72	74.00	-13.28	peak	
2		2390.000	18.93	31.88	50.81	54.00	-3.19	AVG	
3	*	2410.300	77.50	31.91	109.41	54.00	55.41	AVG	no limit
4	X	2411.100	79.53	31.91	111.44	74.00	37.44	peak	no limit

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

Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1		4824.130	53.31	3.62	56.93	74.00	-17.07	peak	
2	*	4824.130	47.96	3.62	51.58	54.00	-2.42	AVG	

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

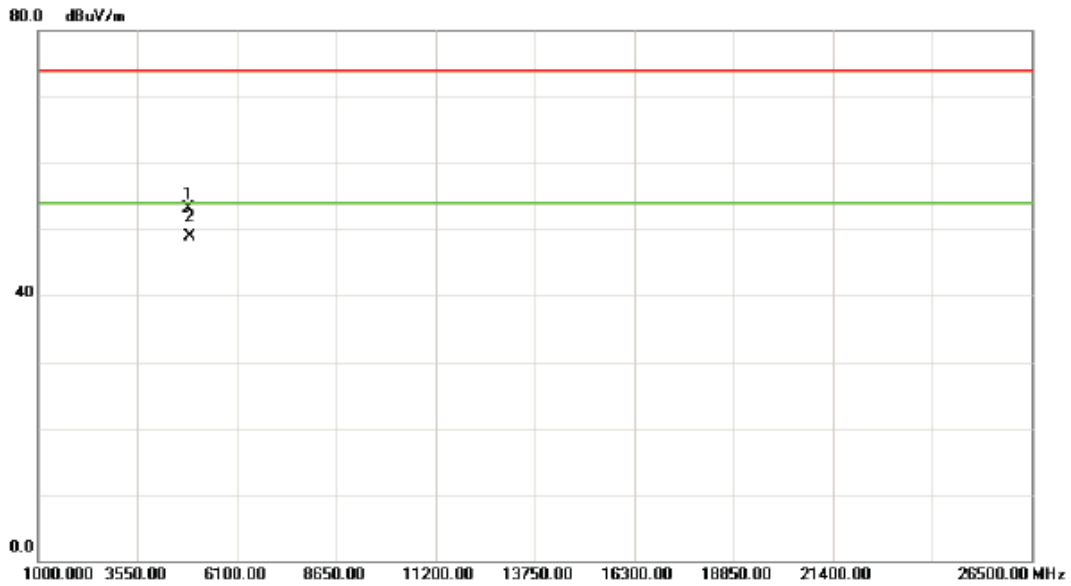
Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1	X	2434.400	74.79	31.94	106.73	74.00	32.73	peak	no limit
2	*	2435.200	72.97	31.94	104.91	54.00	50.91	AVG	no limit

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

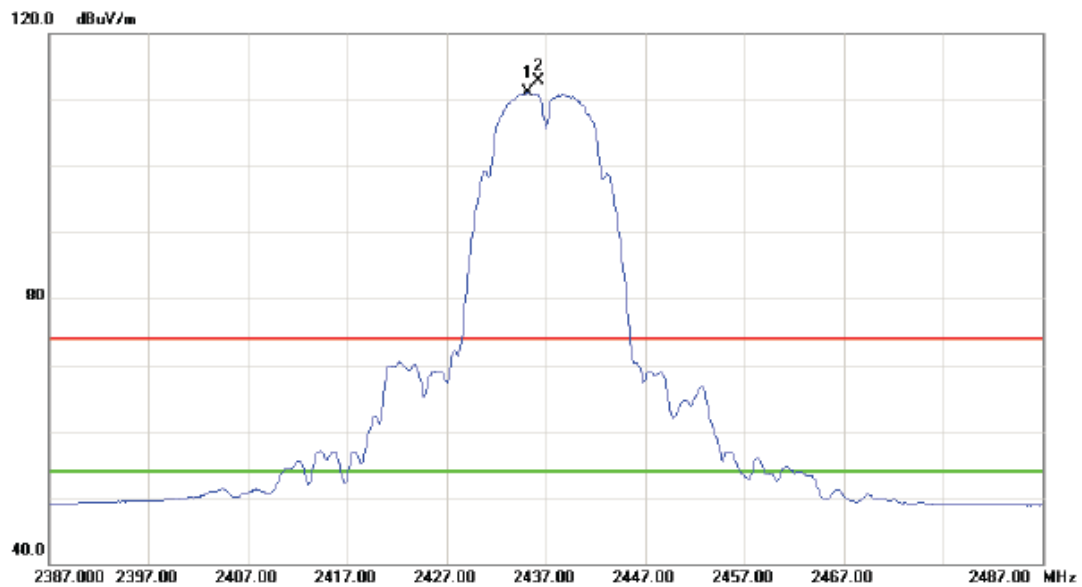
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4874.210	49.39	3.72	53.11	74.00	-20.89	peak	
2	*	4874.210	45.17	3.72	48.89	54.00	-5.11	AVG	

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

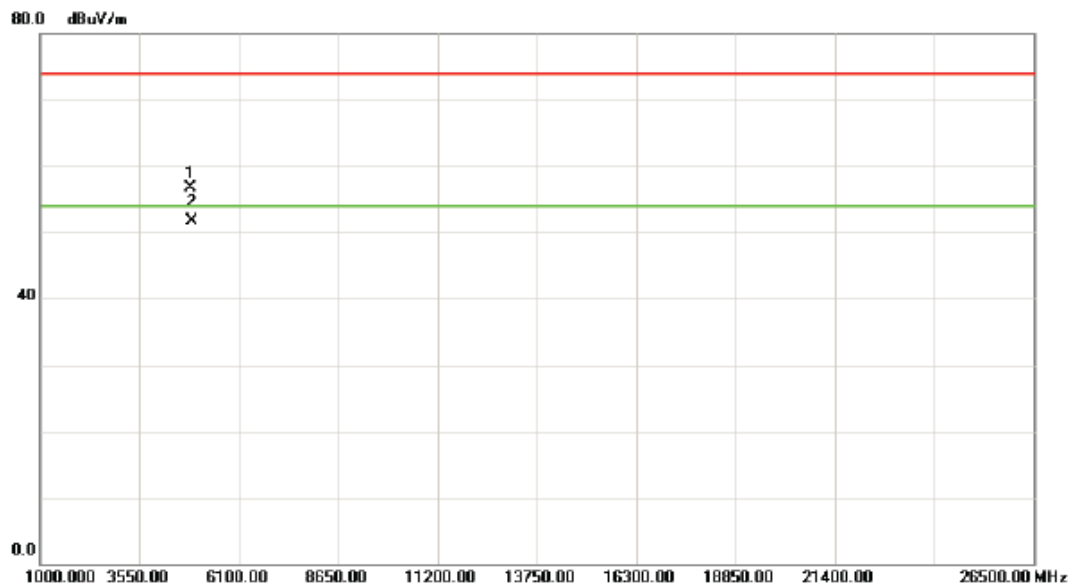
Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1	*	2435.200	79.18	31.94	111.12	54.00	57.12	AVG	no limit
2	X	2436.200	80.99	31.94	112.93	74.00	38.93	peak	no limit

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

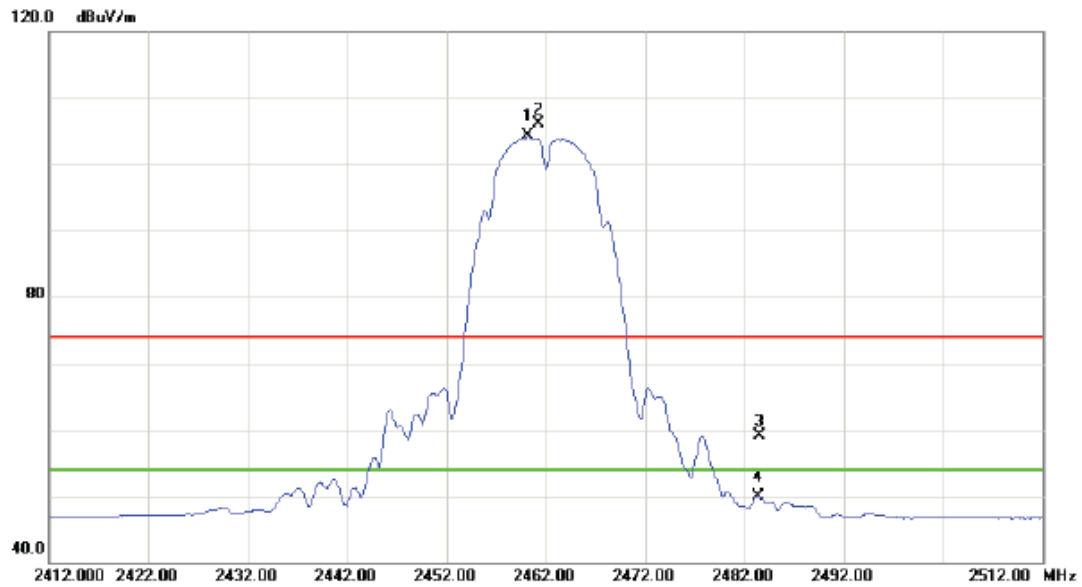
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4874.650	53.06	3.72	56.78	74.00	-17.22	peak	
2	*	4874.650	47.96	3.72	51.68	54.00	-2.32	AVG	

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

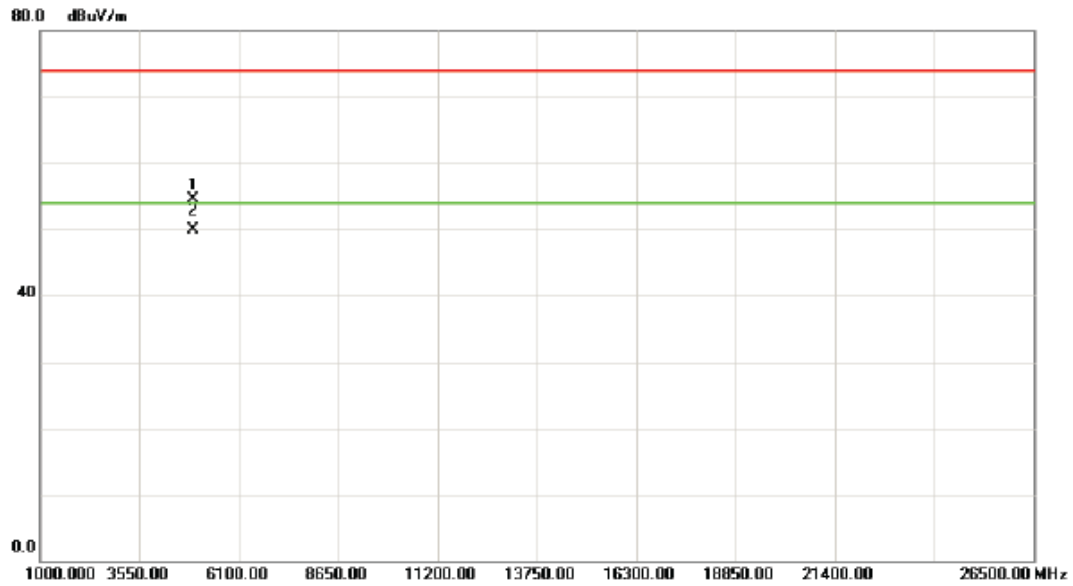
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	*	2460.200	72.25	31.98	104.23	54.00	50.23	AVG	no limit
2	X	2461.200	74.04	31.98	106.02	74.00	32.02	peak	no limit
3		2483.500	27.12	32.01	59.13	74.00	-14.87	peak	
4		2483.500	17.96	32.01	49.97	54.00	-4.03	AVG	

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

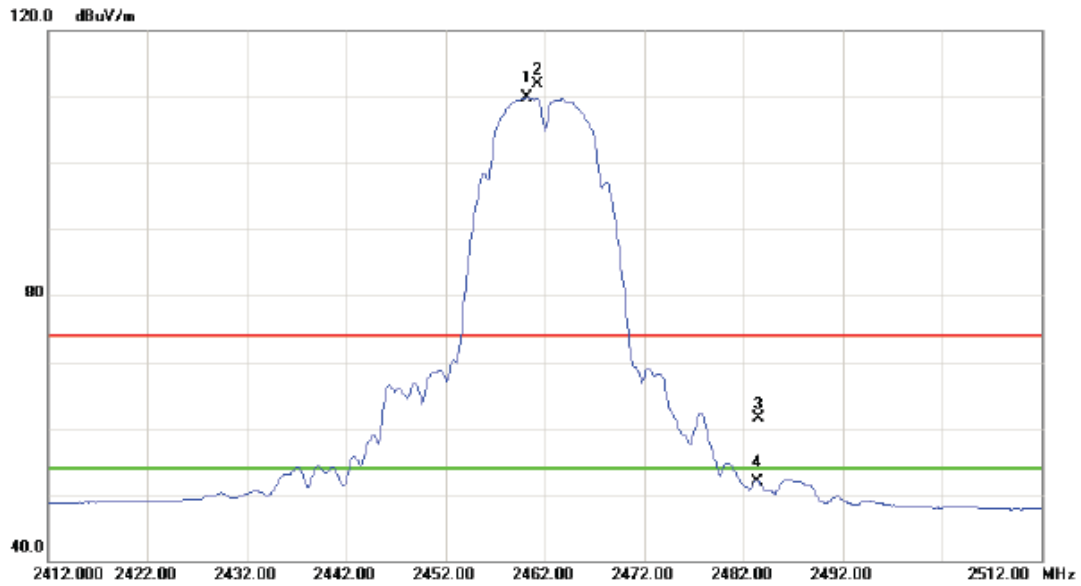
Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1		4924.120	50.73	3.80	54.53	74.00	-19.47	peak	
2	*	4924.120	46.06	3.80	49.86	54.00	-4.14	AVG	

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

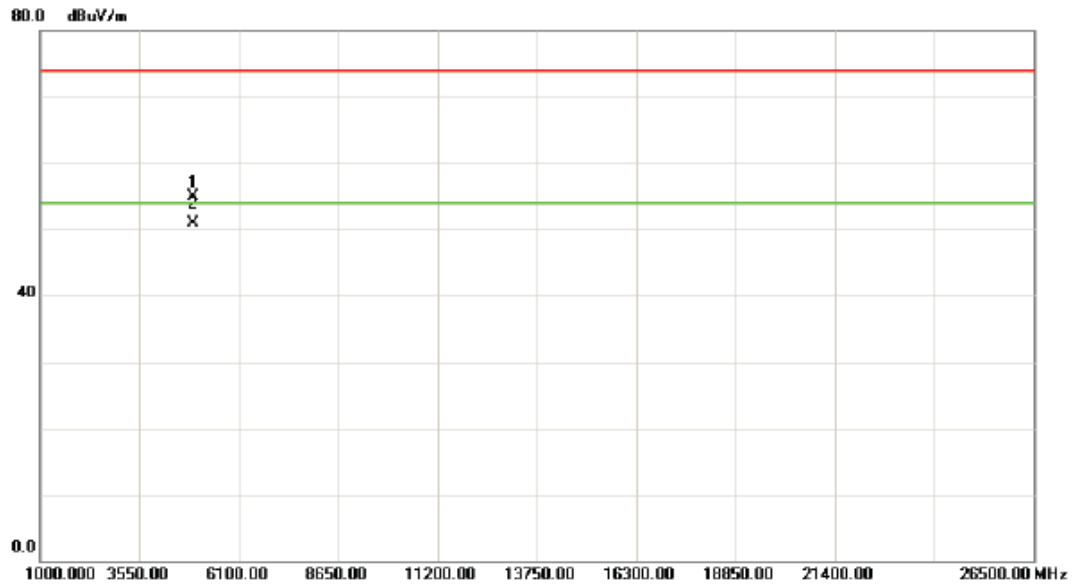
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	*	2460.200	78.02	31.98	110.00	54.00	56.00	AVG	no limit
2	X	2461.200	79.89	31.98	111.87	74.00	37.87	peak	no limit
3		2483.500	29.44	32.01	61.45	74.00	-12.55	peak	
4		2483.500	19.98	32.01	51.99	54.00	-2.01	AVG	

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

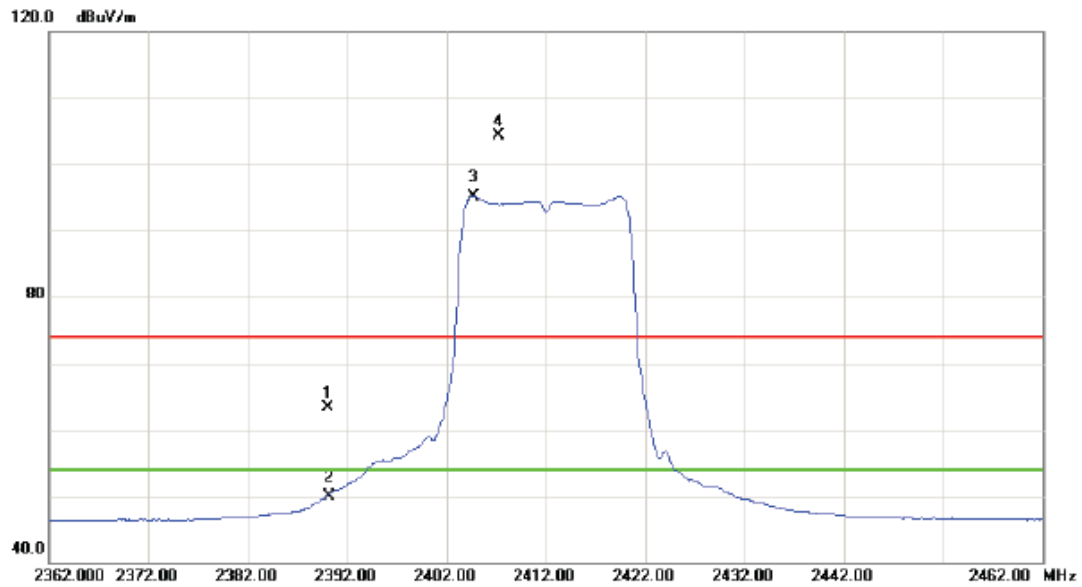
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4924.100	51.08	3.80	54.88	74.00	-19.12	peak	
2	*	4924.100	47.16	3.80	50.96	54.00	-3.04	AVG	

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

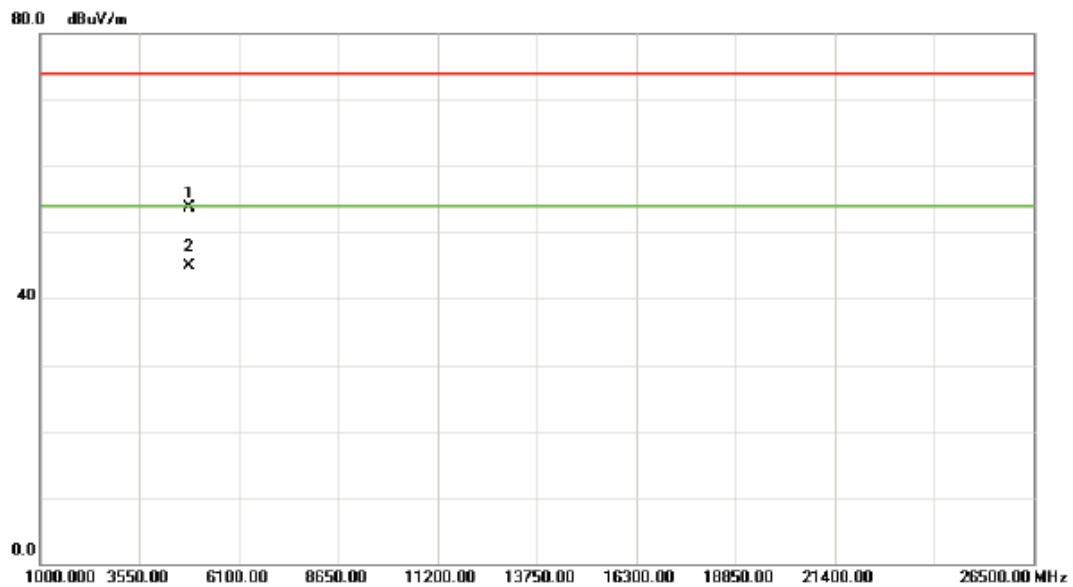
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		2390.000	31.34	31.88	63.22	74.00	-10.78	peak	
2		2390.000	18.12	31.88	50.00	54.00	-4.00	AVG	
3	*	2404.700	63.25	31.89	95.14	54.00	41.14	AVG	no limit
4	X	2407.200	72.41	31.91	104.32	74.00	30.32	peak	no limit

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

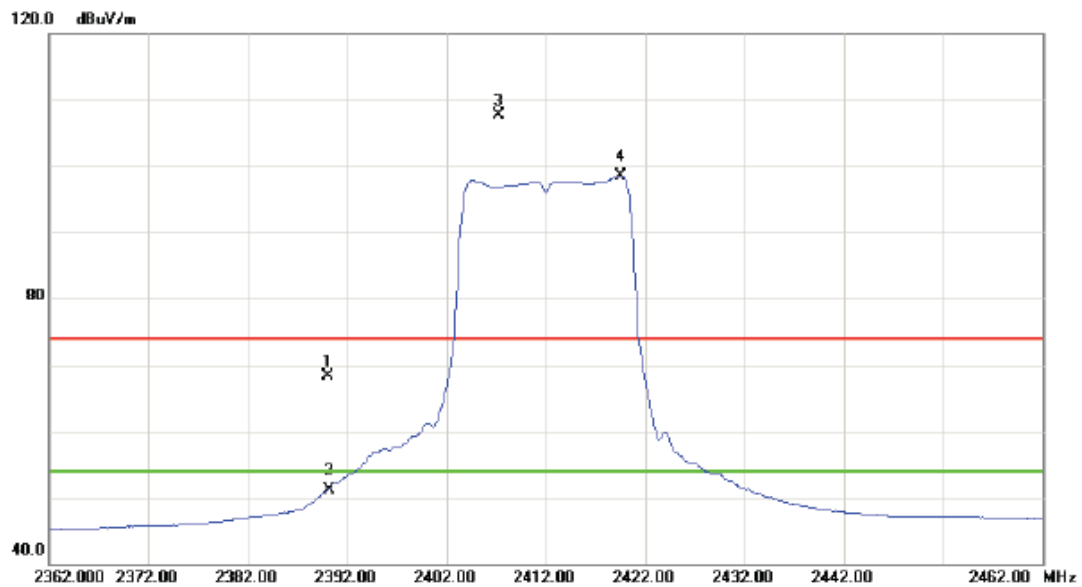
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4824.150	50.02	3.62	53.64	74.00	-20.36	peak	
2	*	4824.150	41.34	3.62	44.96	54.00	-9.04	AVG	

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

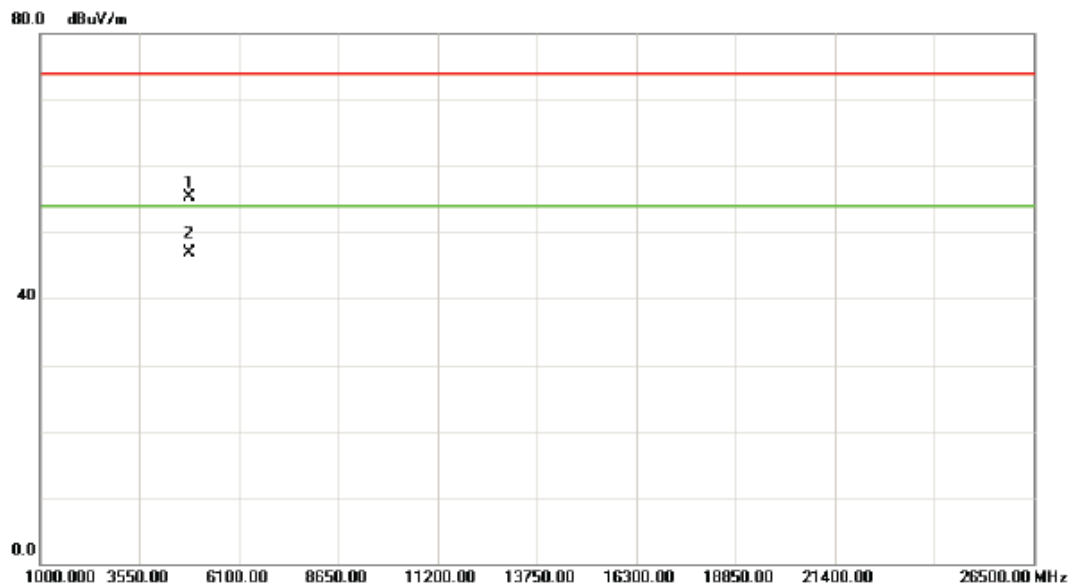
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		2390.000	36.36	31.88	68.24	74.00	-5.76	peak	
2		2390.000	19.26	31.88	51.14	54.00	-2.86	AVG	
3	X	2407.200	75.78	31.91	107.69	74.00	33.69	peak	no limit
4	*	2419.500	66.60	31.92	98.52	54.00	44.52	AVG	no limit

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

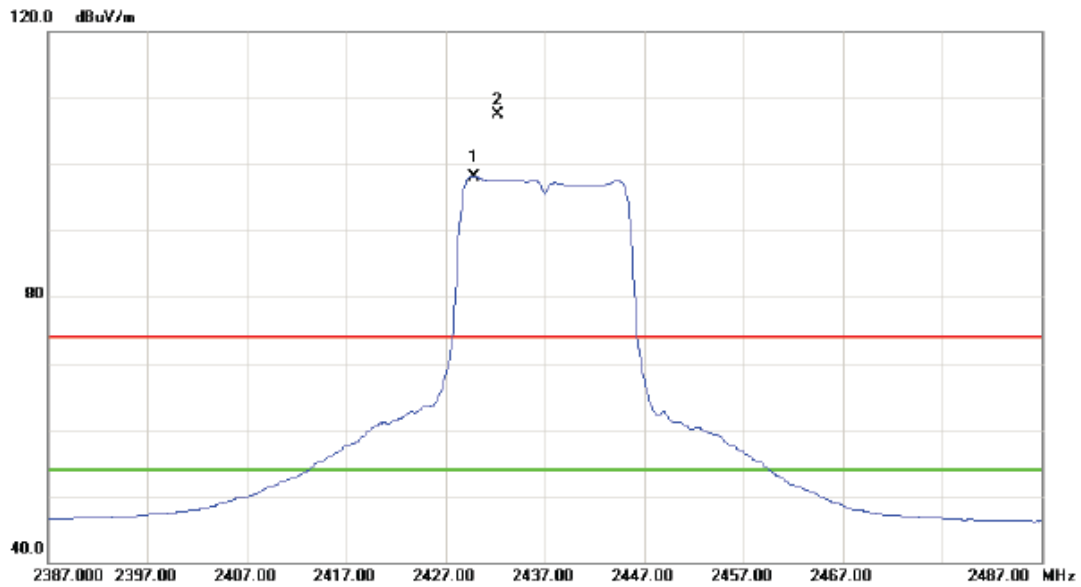
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4824.670	51.75	3.62	55.37	74.00	-18.63	peak	
2	*	4824.670	43.23	3.62	46.85	54.00	-7.15	AVG	

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

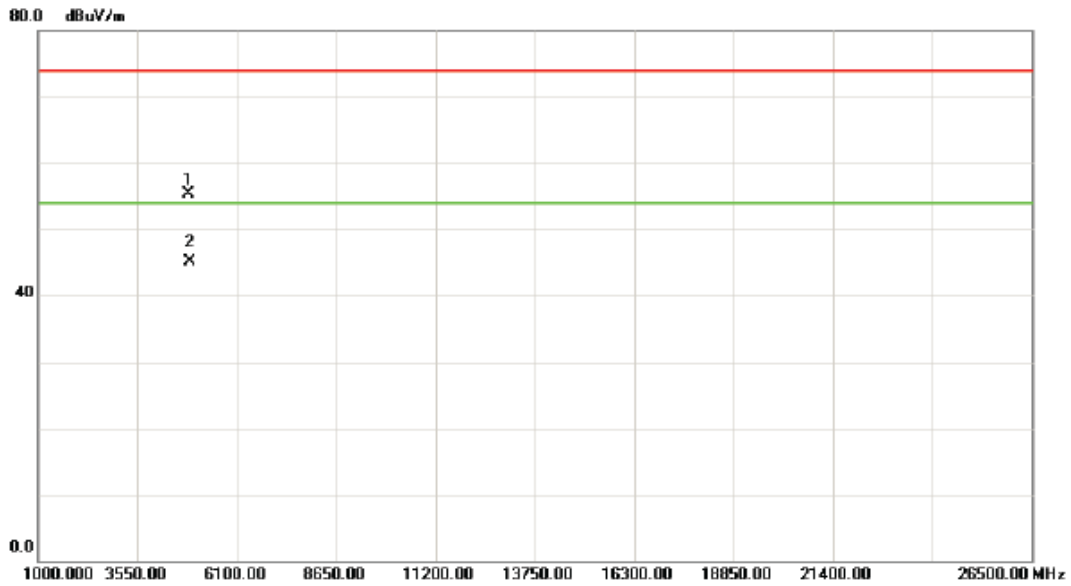
Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1	*	2429.800	66.23	31.93	98.16	54.00	44.16	AVG	no limit
2	X	2432.300	75.51	31.94	107.45	74.00	33.45	peak	no limit

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

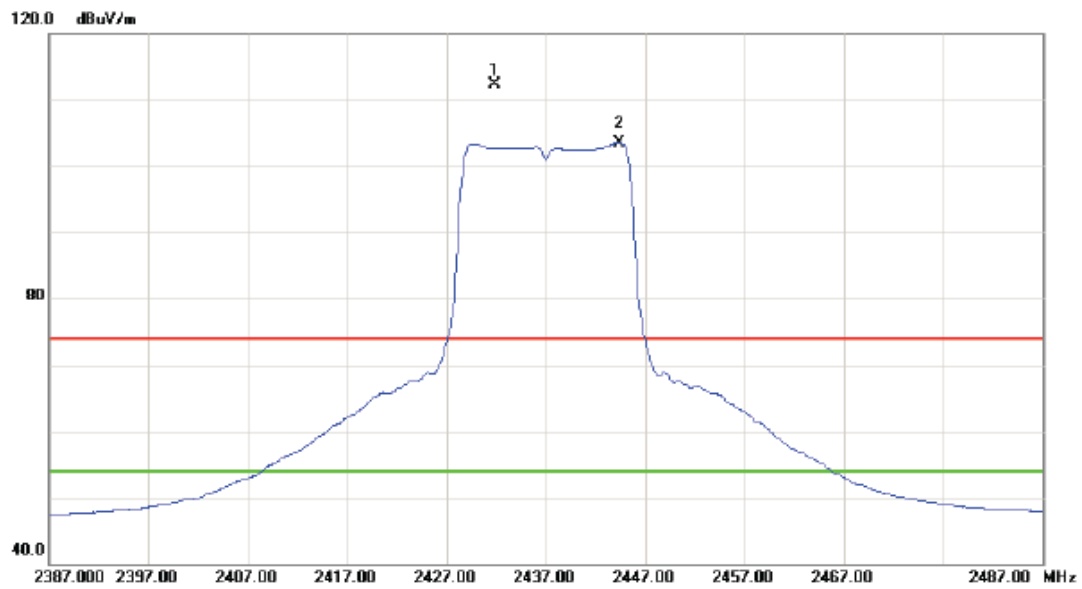
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4874.010	51.65	3.72	55.37	74.00	-18.63	peak	
2	*	4874.010	41.48	3.72	45.20	54.00	-8.80	AVG	

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

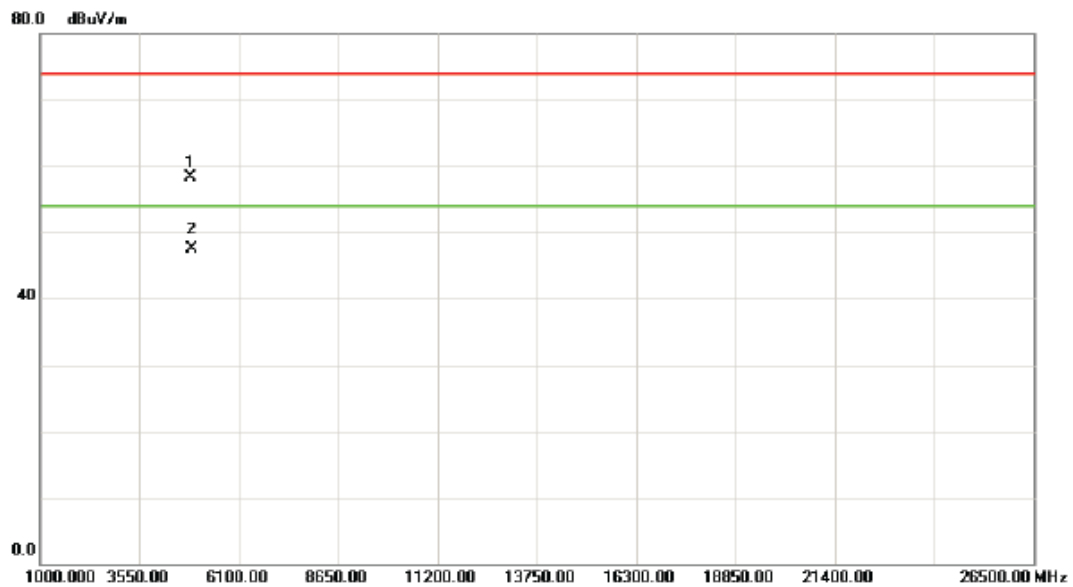
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	X	2431.900	80.43	31.94	112.37	74.00	38.37	peak	no limit
2	*	2444.400	71.62	31.96	103.58	54.00	49.58	AVG	no limit

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

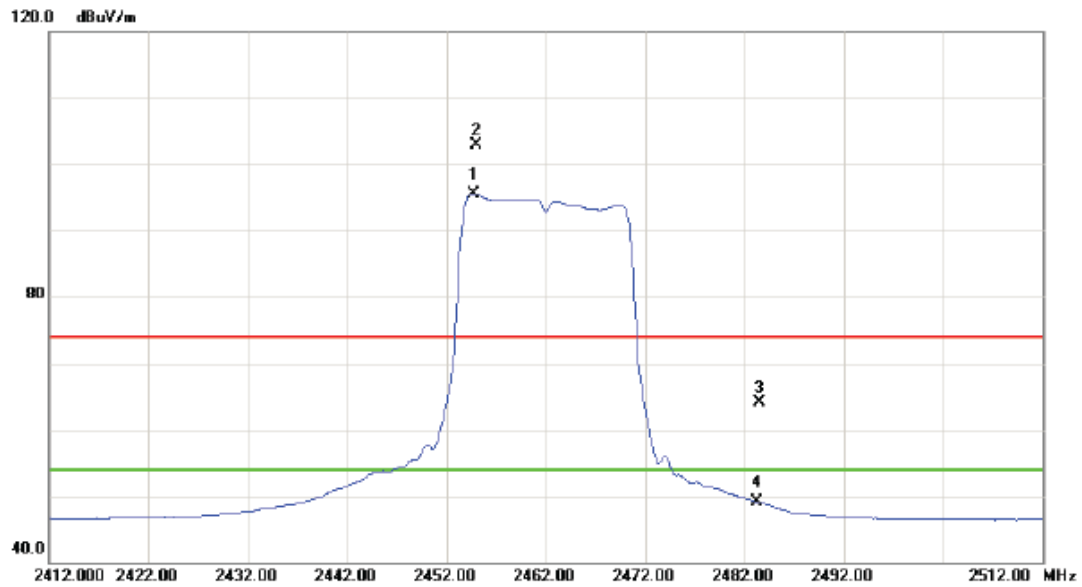
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4874.640	54.62	3.72	58.34	74.00	-15.66	peak	
2	*	4874.640	43.83	3.72	47.55	54.00	-6.45	AVG	

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

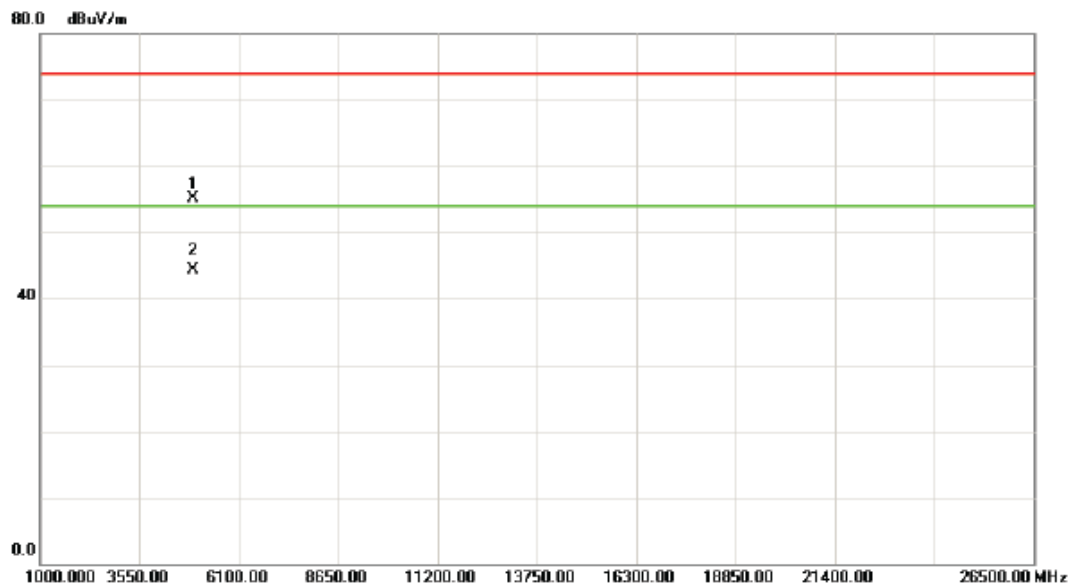
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	*	2454.700	63.62	31.96	95.58	54.00	41.58	AVG	no limit
2	X	2455.000	70.95	31.96	102.91	74.00	28.91	peak	no limit
3		2483.500	32.09	32.01	64.10	74.00	-9.90	peak	
4		2483.500	17.04	32.01	49.05	54.00	-4.95	AVG	

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

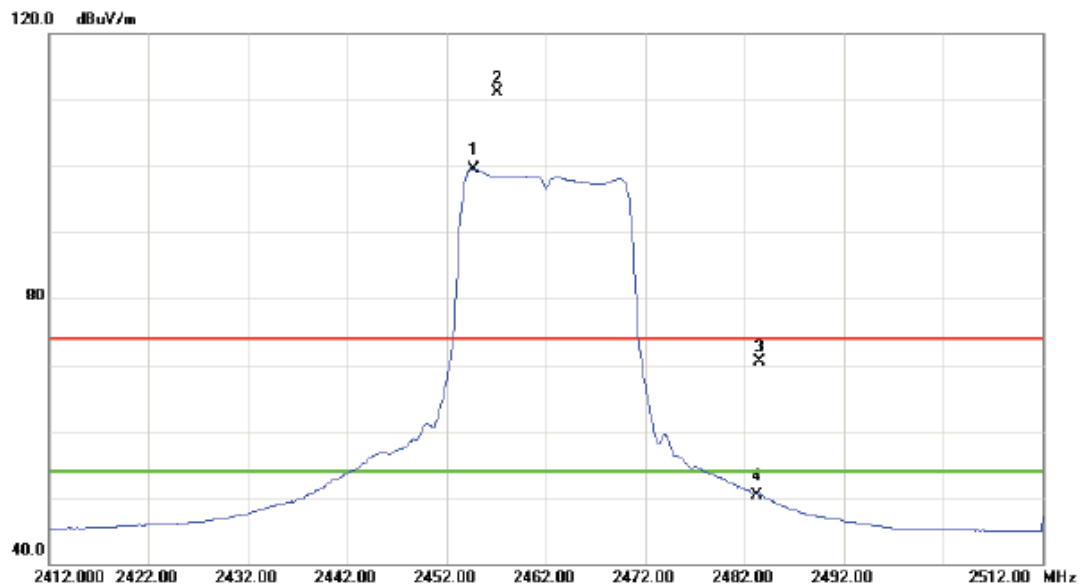
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4925.060	51.37	3.80	55.17	74.00	-18.83	peak	
2	*	4925.060	40.59	3.80	44.39	54.00	-9.61	AVG	

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

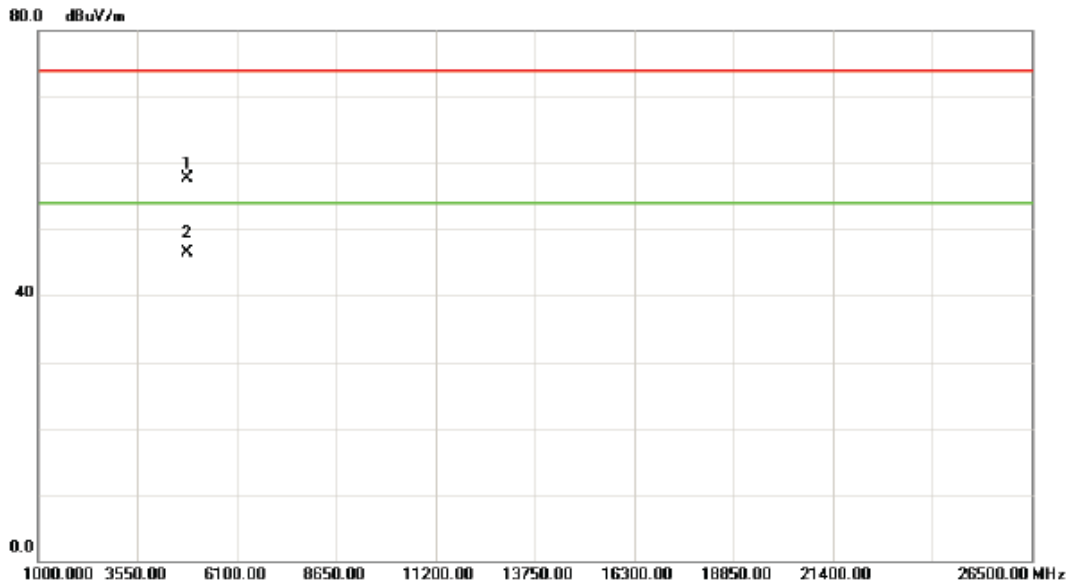
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	*	2454.700	67.61	31.96	99.57	54.00	45.57	AVG	no limit
2	X	2457.100	79.11	31.98	111.09	74.00	37.09	peak	no limit
3		2483.500	38.54	32.01	70.55	74.00	-3.45	peak	
4		2483.500	18.35	32.01	50.36	54.00	-3.64	AVG	

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

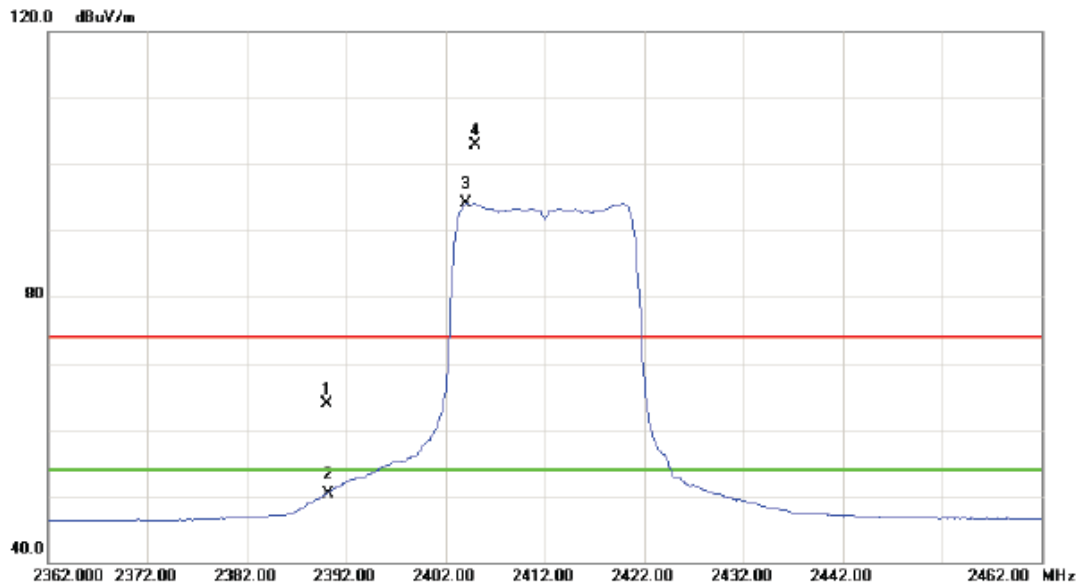
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4824.660	54.01	3.62	57.63	74.00	-16.37	peak	
2	*	4824.660	42.96	3.62	46.58	54.00	-7.42	AVG	

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

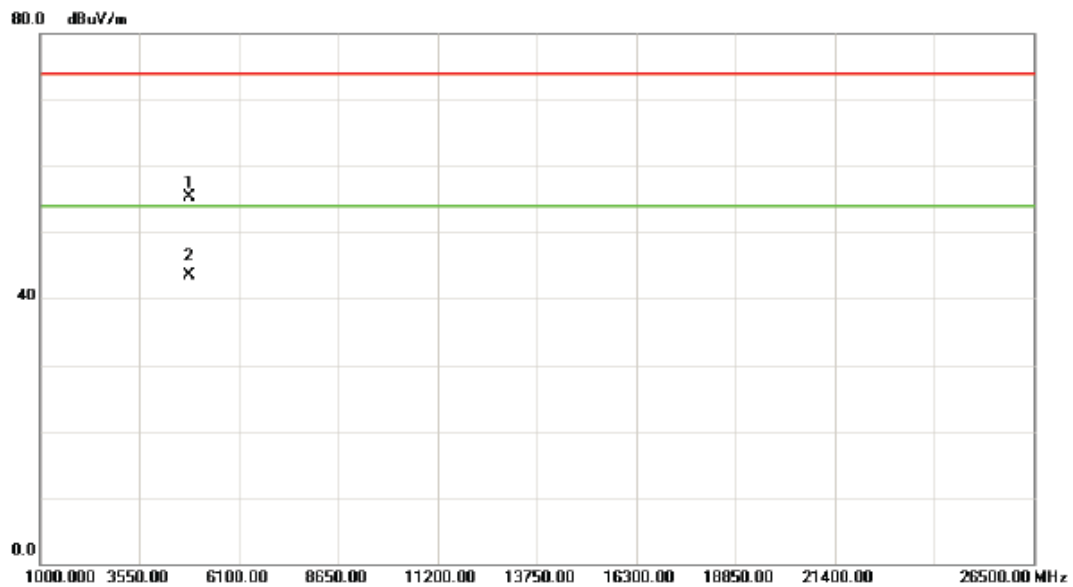
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		2390.000	32.08	31.88	63.96	74.00	-10.04	peak	
2		2390.000	18.45	31.88	50.33	54.00	-3.67	AVG	
3	*	2404.100	62.19	31.89	94.08	54.00	40.08	AVG	no limit
4	X	2405.000	71.00	31.89	102.89	74.00	28.89	peak	no limit

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

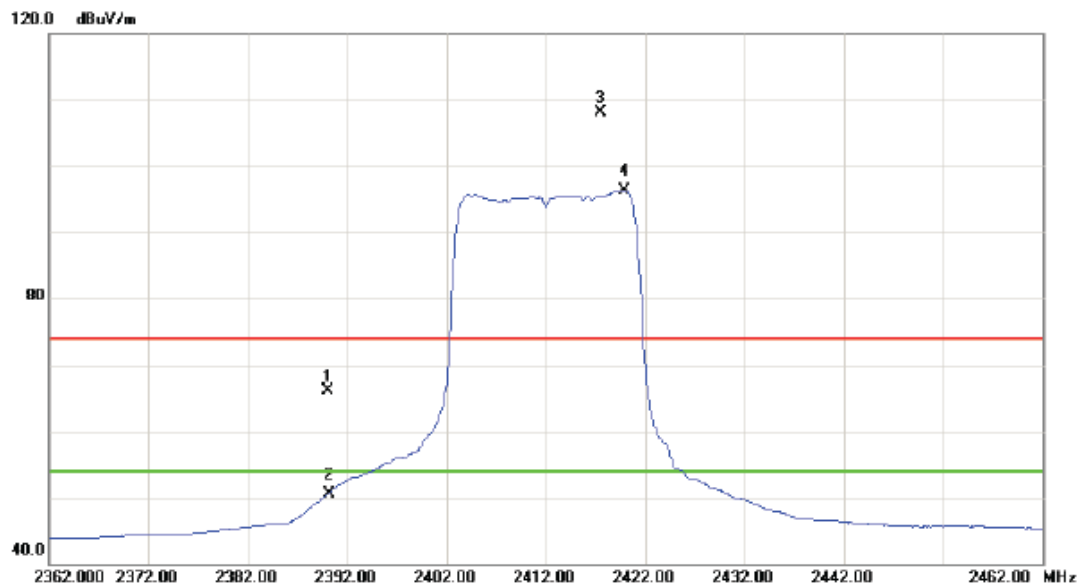
Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1		4824.130	51.67	3.62	55.29	74.00	-18.71	peak	
2	*	4824.130	39.95	3.62	43.57	54.00	-10.43	AVG	

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

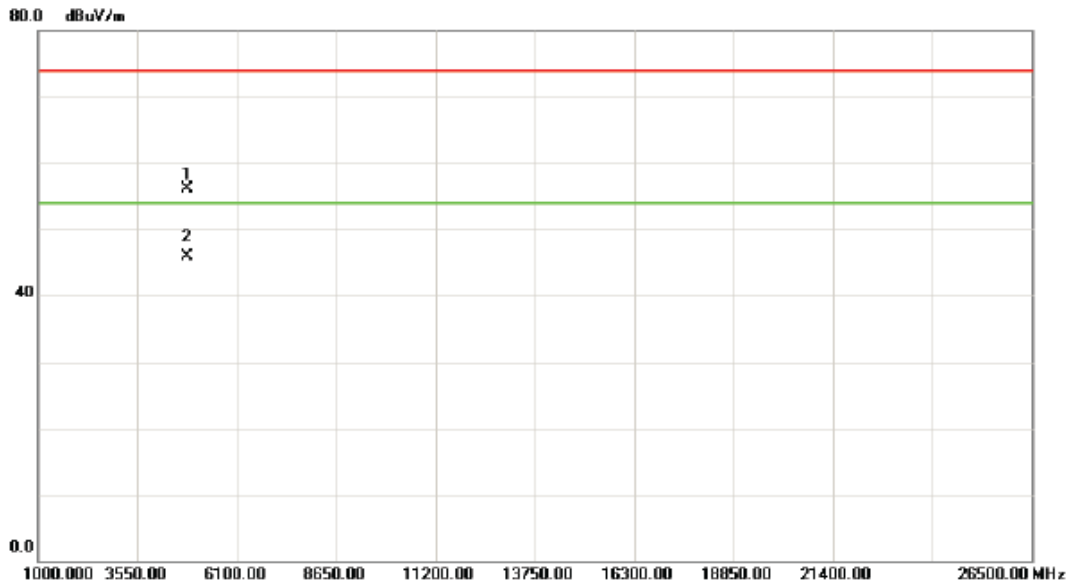
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		2390.000	34.20	31.88	66.08	74.00	-7.92	peak	
2		2390.000	18.57	31.88	50.45	54.00	-3.55	AVG	
3	X	2417.500	76.13	31.91	108.04	74.00	34.04	peak	no limit
4	*	2419.900	64.43	31.92	96.35	54.00	42.35	AVG	no limit

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

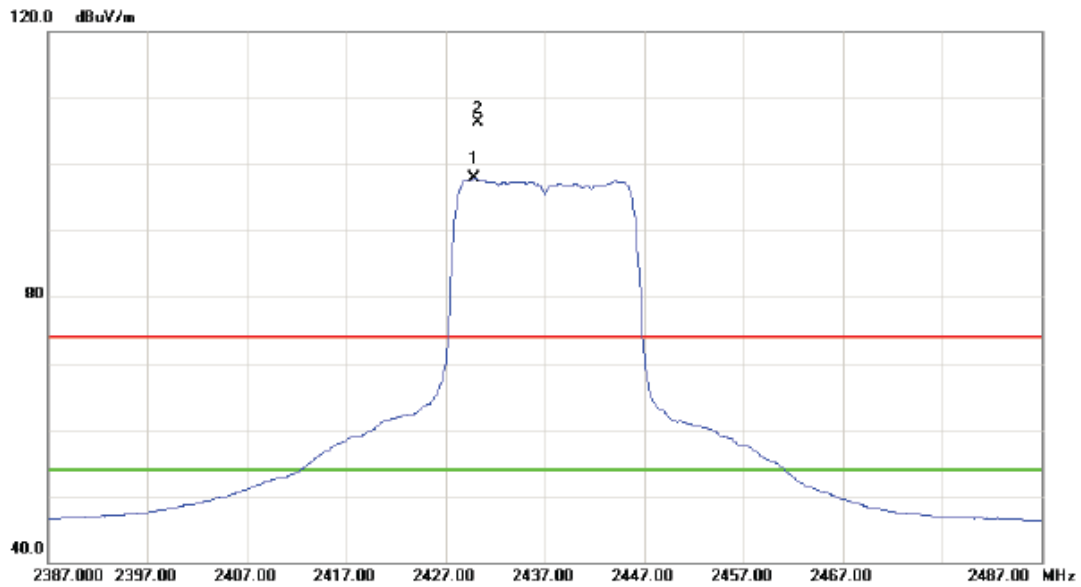
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4824.160	52.50	3.62	56.12	74.00	-17.88	peak	
2	*	4824.160	42.25	3.62	45.87	54.00	-8.13	AVG	

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

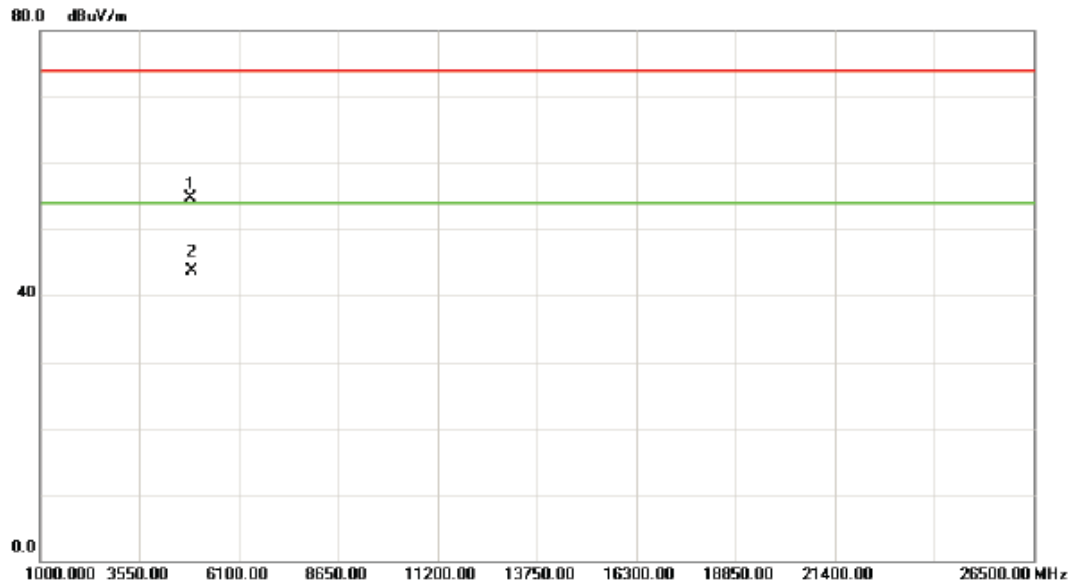
Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1	*	2429.900	65.93	31.93	97.86	54.00	43.86	AVG	no limit
2	X	2430.300	74.29	31.93	106.22	74.00	32.22	peak	no limit

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

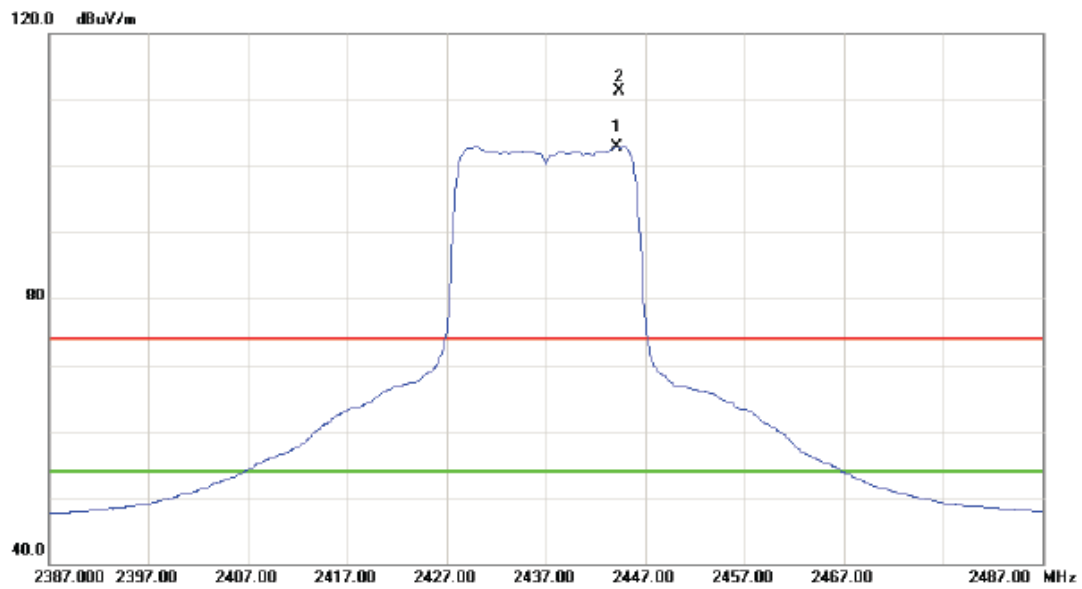
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4874.440	51.06	3.72	54.78	74.00	-19.22	peak	
2	*	4874.440	39.94	3.72	43.66	54.00	-10.34	AVG	

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

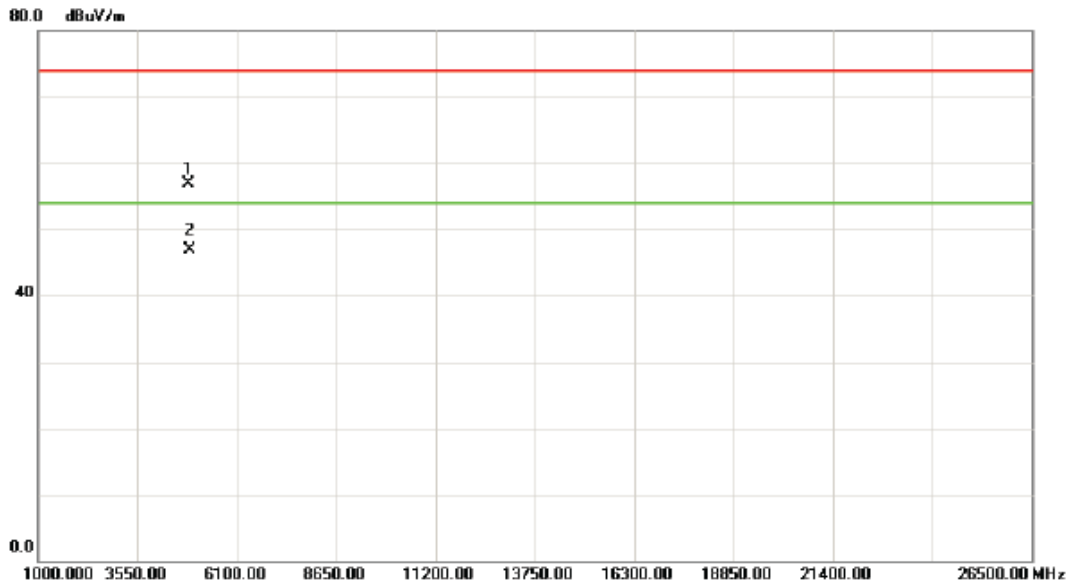
Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1	*	2444.100	70.98	31.96	102.94	54.00	48.94	AVG	no limit
2	X	2444.400	79.41	31.96	111.37	74.00	37.37	peak	no limit

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

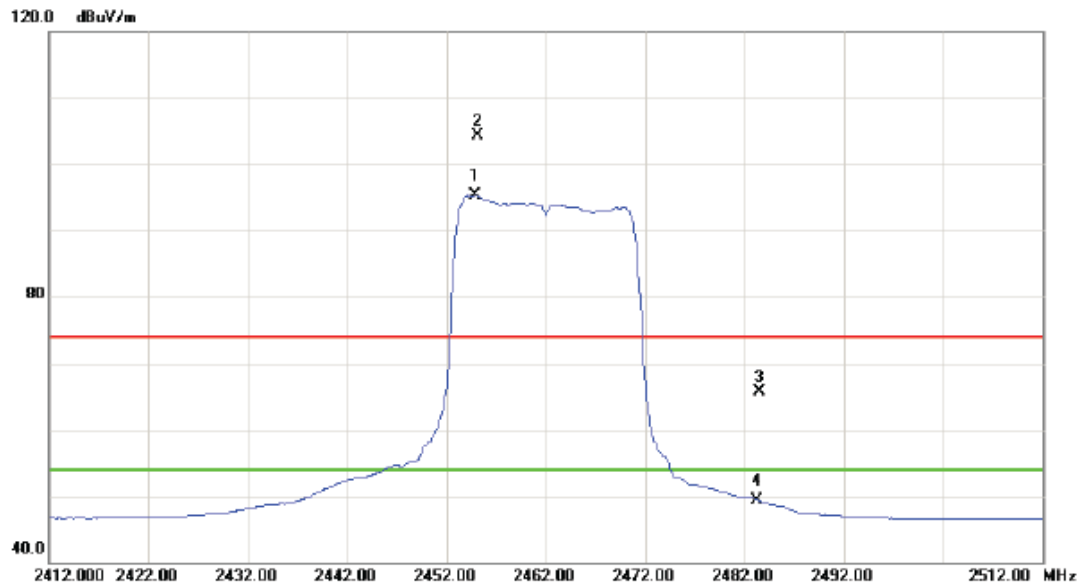
Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1		4874.690	53.27	3.72	56.99	74.00	-17.01	peak	
2	*	4874.690	43.26	3.72	46.98	54.00	-7.02	AVG	

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

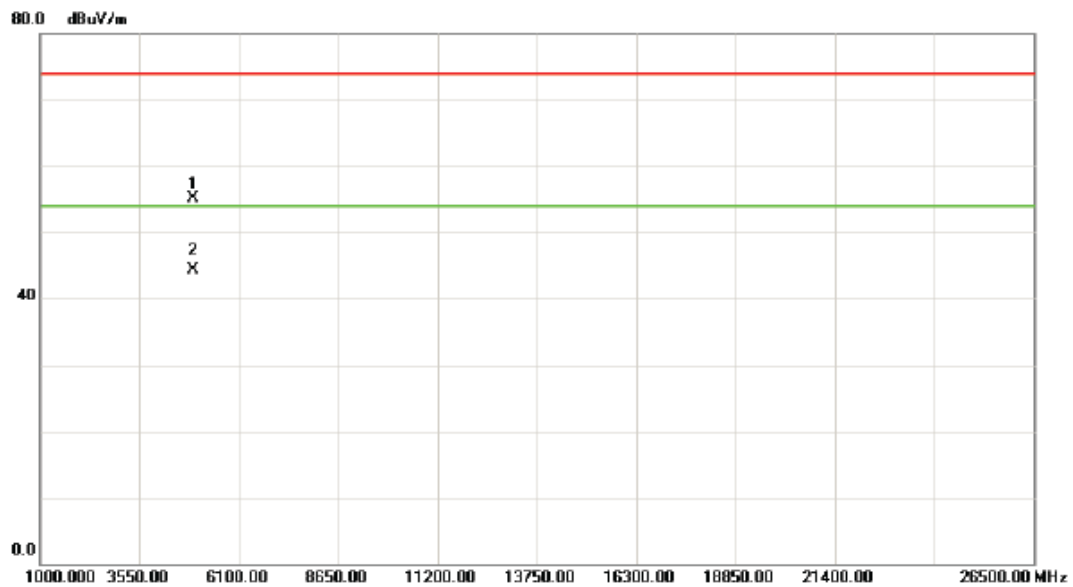
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	*	2454.900	63.27	31.96	95.23	54.00	41.23	AVG	no limit
2	X	2455.100	72.44	31.96	104.40	74.00	30.40	peak	no limit
3		2483.500	33.77	32.01	65.78	74.00	-8.22	peak	
4		2483.500	17.28	32.01	49.29	54.00	-4.71	AVG	

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

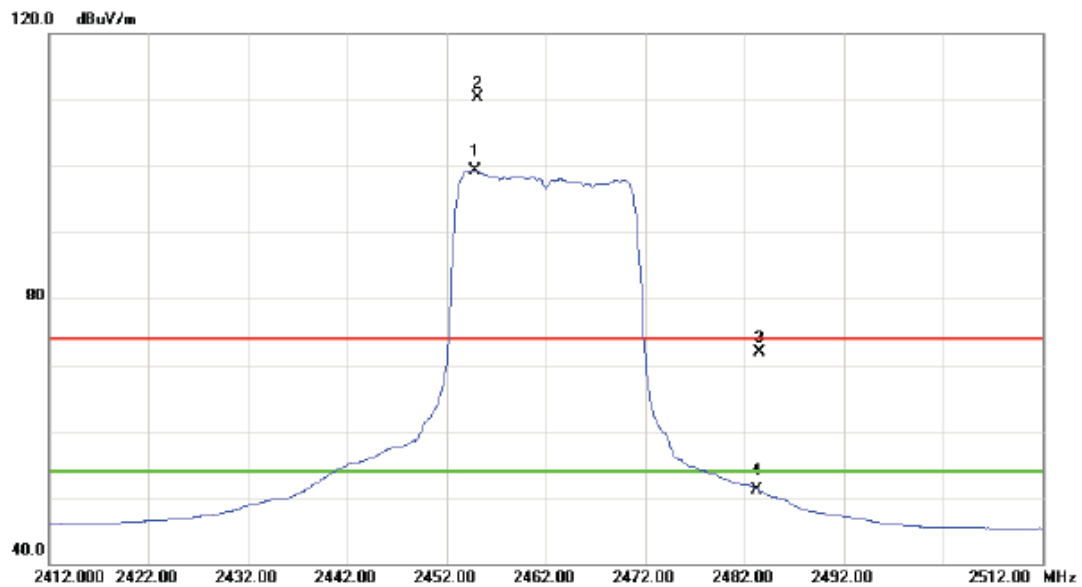
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4925.570	51.39	3.80	55.19	74.00	-18.81	peak	
2	*	4925.570	40.58	3.80	44.38	54.00	-9.62	AVG	

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

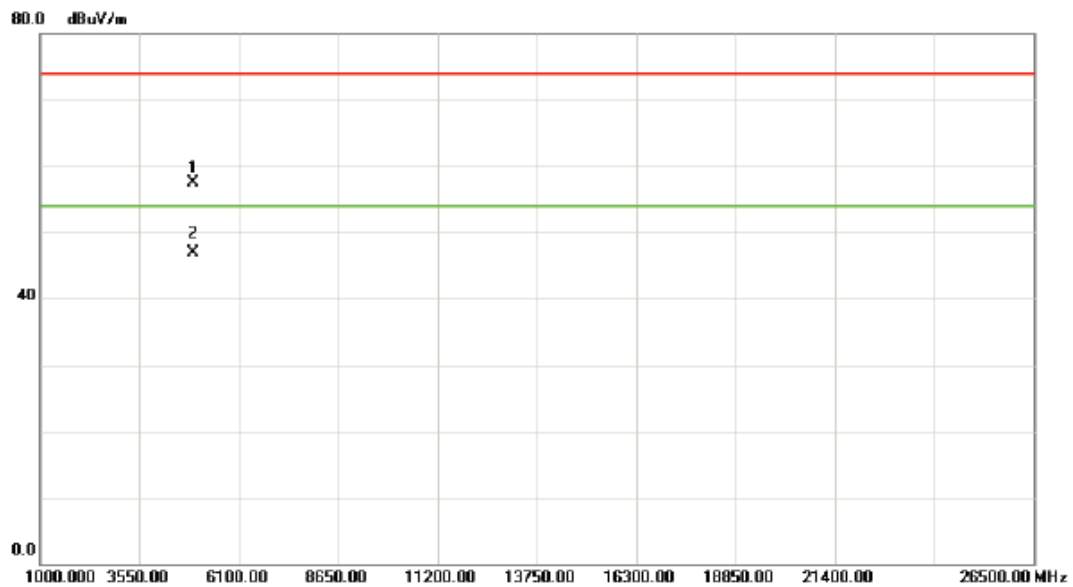
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	*	2454.900	67.38	31.96	99.34	54.00	45.34	AVG	no limit
2	X	2455.100	78.41	31.96	110.37	74.00	36.37	peak	no limit
3		2483.500	39.84	32.01	71.85	74.00	-2.15	peak	
4		2483.500	19.06	32.01	51.07	54.00	-2.93	AVG	

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

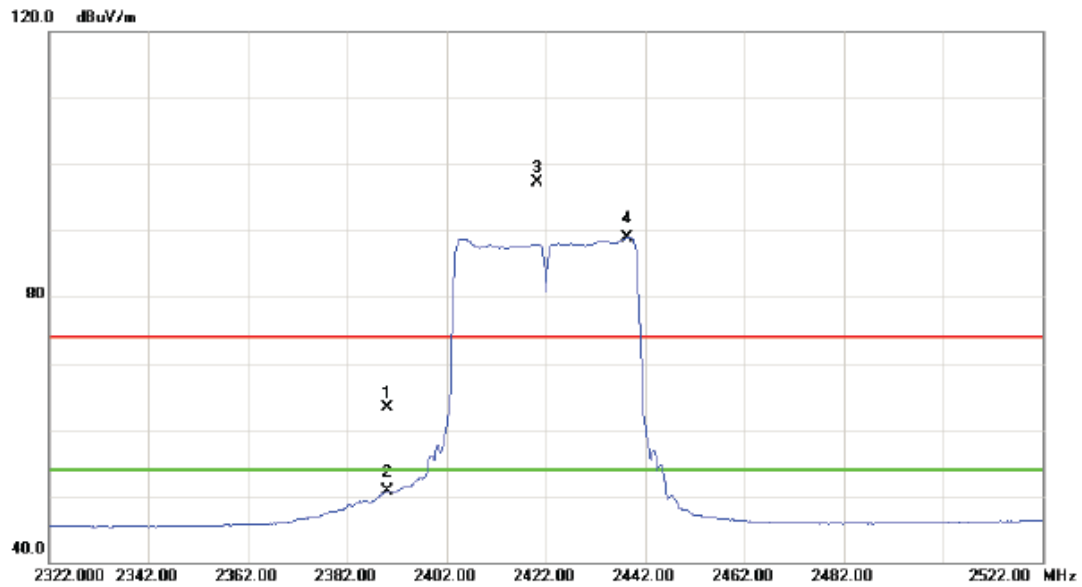
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4926.130	53.69	3.80	57.49	74.00	-16.51	peak	
2	*	4926.130	43.05	3.80	46.85	54.00	-7.15	AVG	

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

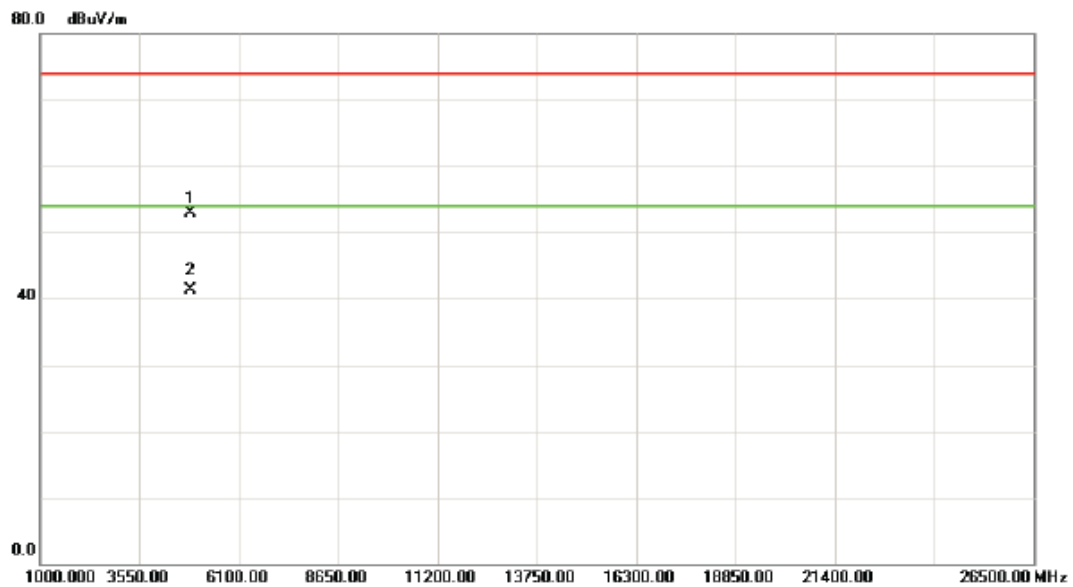
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		2390.000	31.32	31.88	63.20	74.00	-10.80	peak	
2		2390.000	18.75	31.88	50.63	54.00	-3.37	AVG	
3	X	2420.200	65.31	31.92	97.23	74.00	23.23	peak	no limit
4	*	2438.400	56.96	31.94	88.90	54.00	34.90	AVG	no limit

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

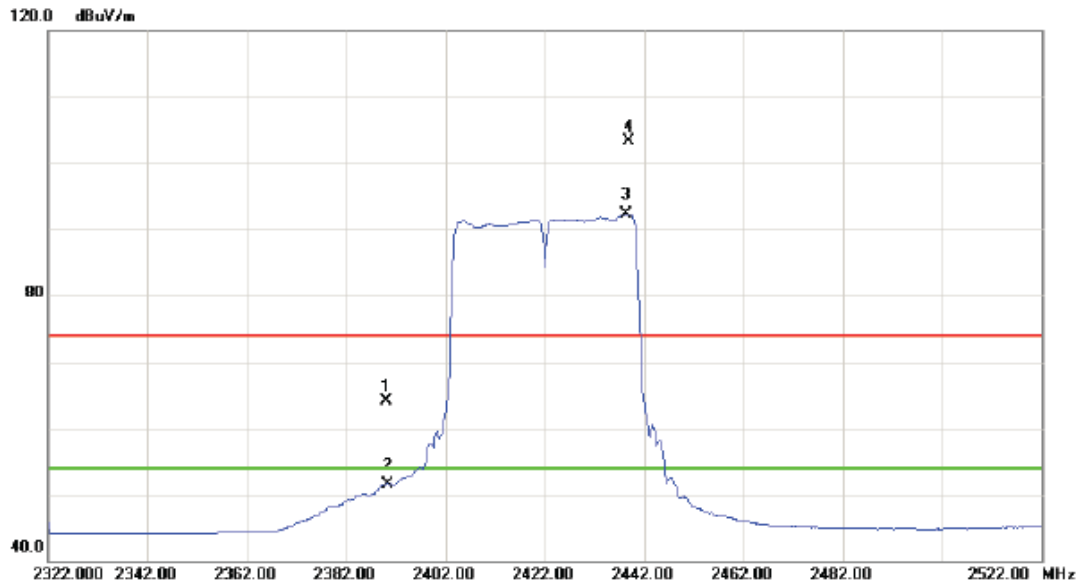
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4845.690	49.21	3.66	52.87	74.00	-21.13	peak	
2	*	4845.690	37.62	3.66	41.28	54.00	-12.72	AVG	

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

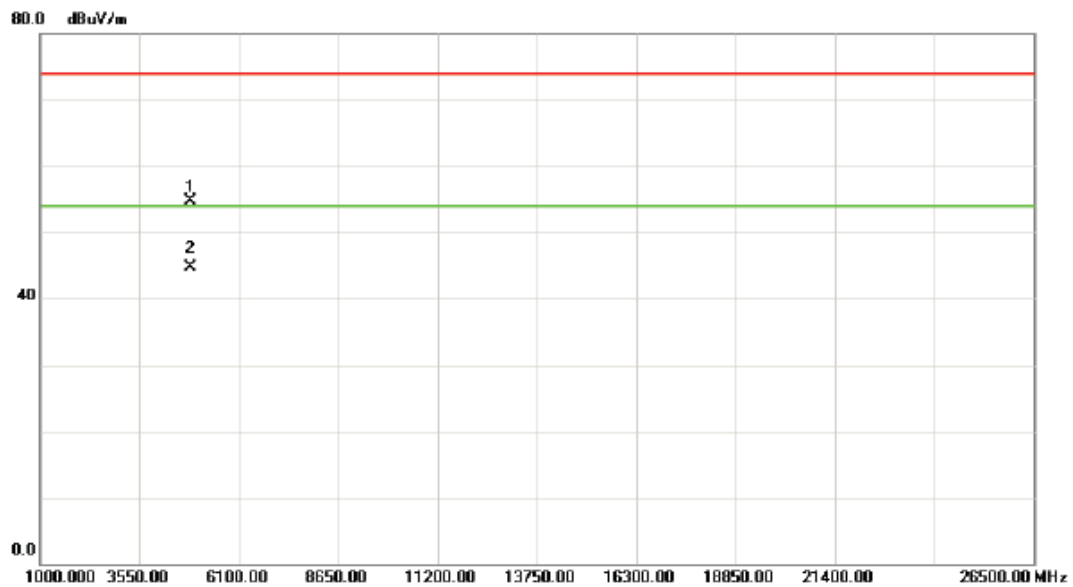
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		2390.000	32.13	31.88	64.01	74.00	-9.99	peak	
2		2390.000	19.70	31.88	51.58	54.00	-2.42	AVG	
3	*	2438.400	60.46	31.94	92.40	54.00	38.40	AVG	no limit
4	X	2439.000	71.32	31.94	103.26	74.00	29.26	peak	no limit

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

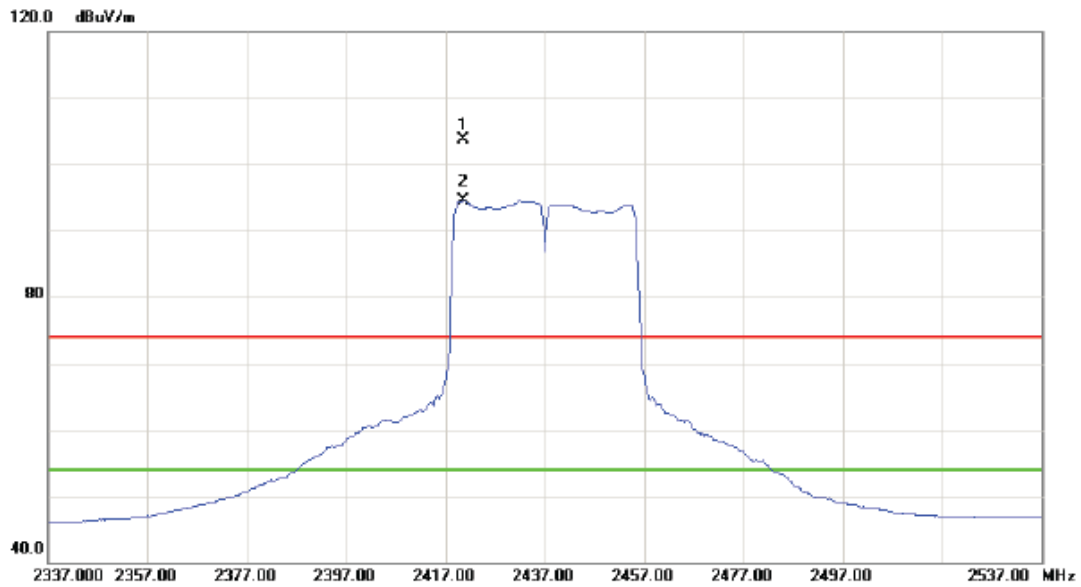
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4846.980	51.12	3.67	54.79	74.00	-19.21	peak	
2	*	4846.980	40.97	3.67	44.64	54.00	-9.36	AVG	

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

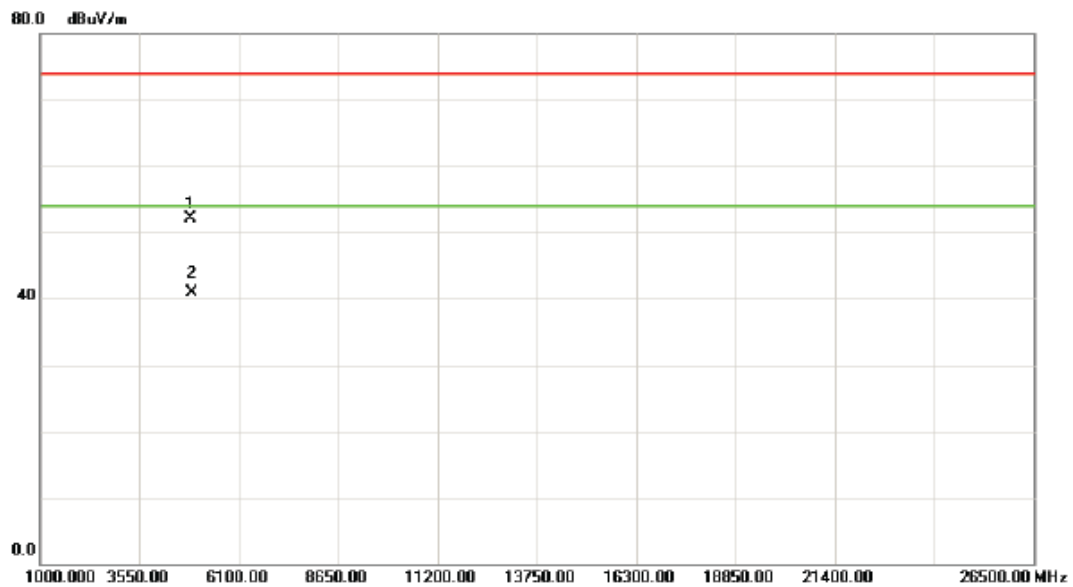
Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1	X	2420.600	71.73	31.92	103.65	74.00	29.65	peak	no limit
2	*	2420.600	62.54	31.92	94.46	54.00	40.46	AVG	no limit

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

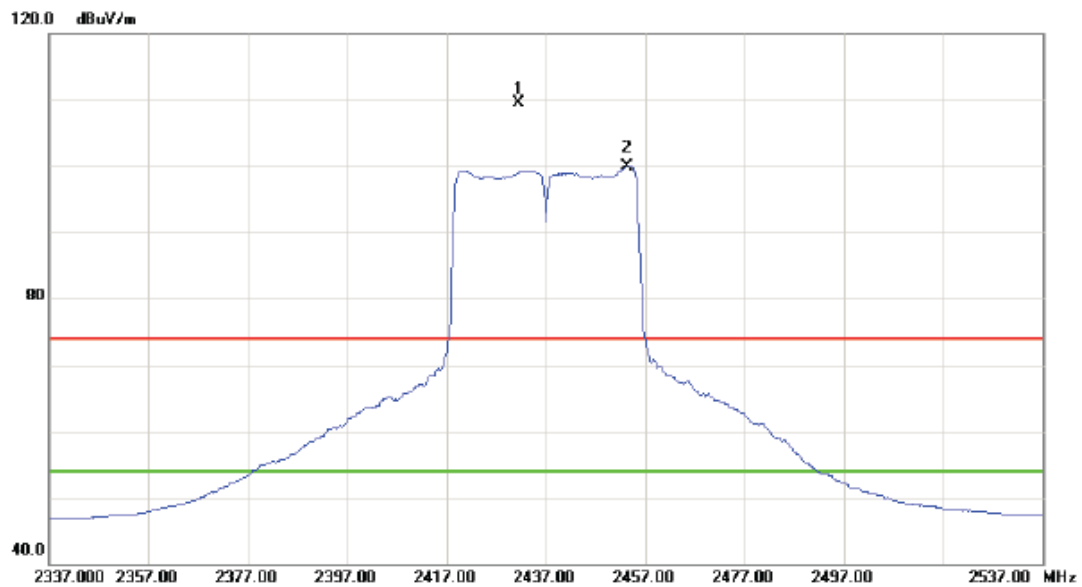
Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1		4873.260	48.30	3.72	52.02	74.00	-21.98	peak	
2	*	4873.260	37.17	3.72	40.89	54.00	-13.11	AVG	

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

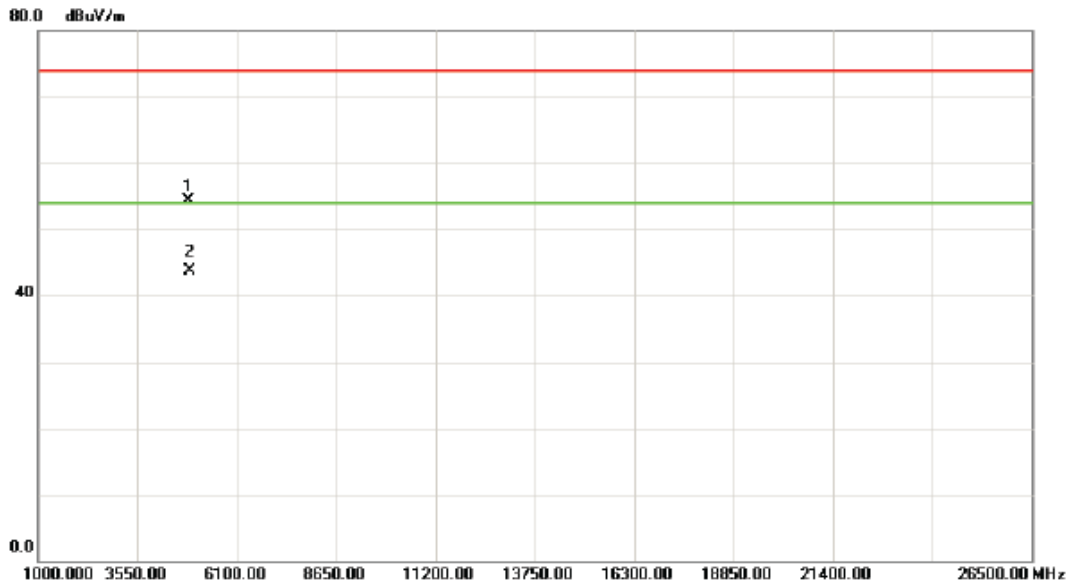
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	X	2431.600	77.59	31.94	109.53	74.00	35.53	peak	no limit
2	*	2453.400	67.98	31.96	99.94	54.00	45.94	AVG	no limit

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

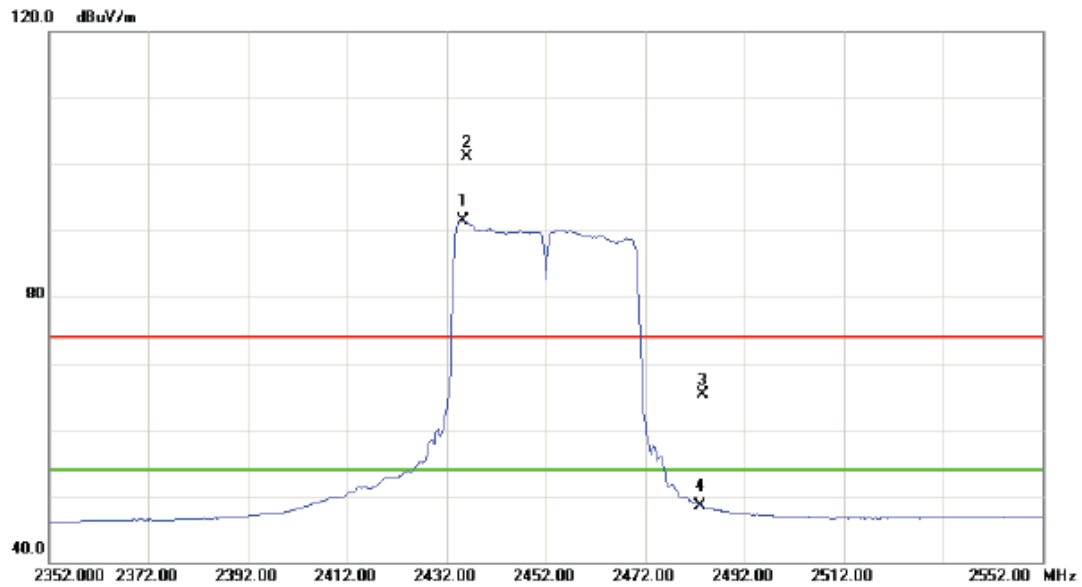
Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1		4875.490	50.56	3.72	54.28	74.00	-19.72	peak	
2	*	4875.490	40.04	3.72	43.76	54.00	-10.24	AVG	

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

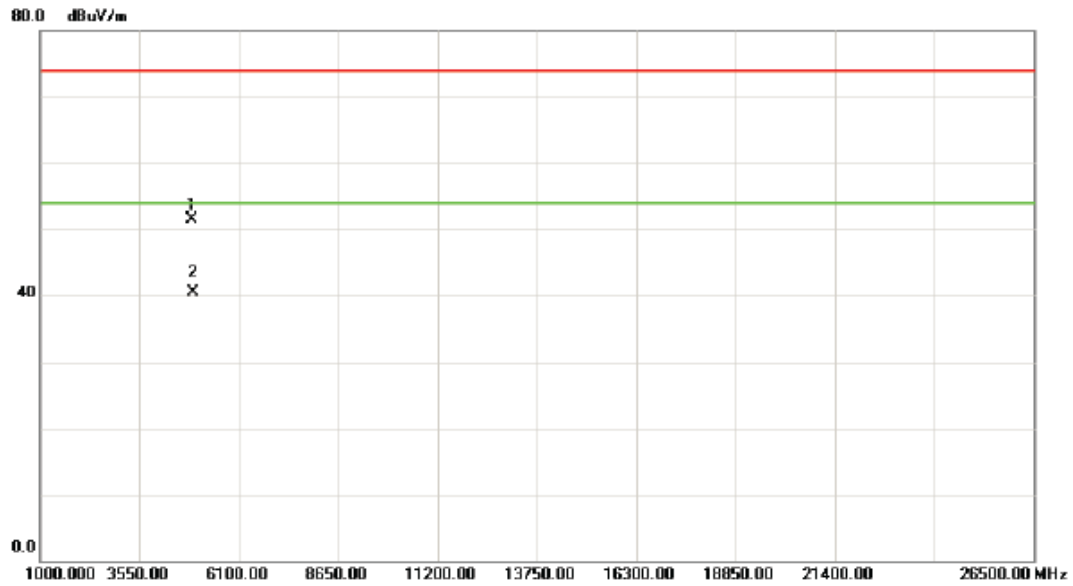
Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1	*	2435.400	59.52	31.94	91.46	54.00	37.46	AVG	no limit
2	X	2436.200	69.19	31.94	101.13	74.00	27.13	peak	no limit
3		2483.500	33.29	32.01	65.30	74.00	-8.70	peak	
4		2483.500	16.50	32.01	48.51	54.00	-5.49	AVG	

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

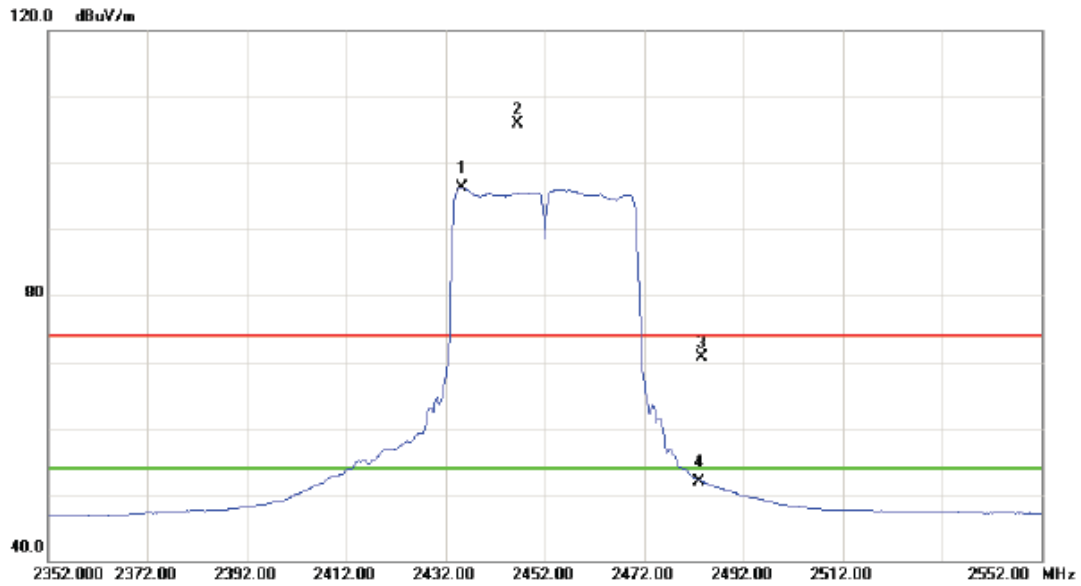
Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1		4906.970	47.69	3.77	51.46	74.00	-22.54	peak	
2	*	4906.970	36.82	3.77	40.59	54.00	-13.41	AVG	

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

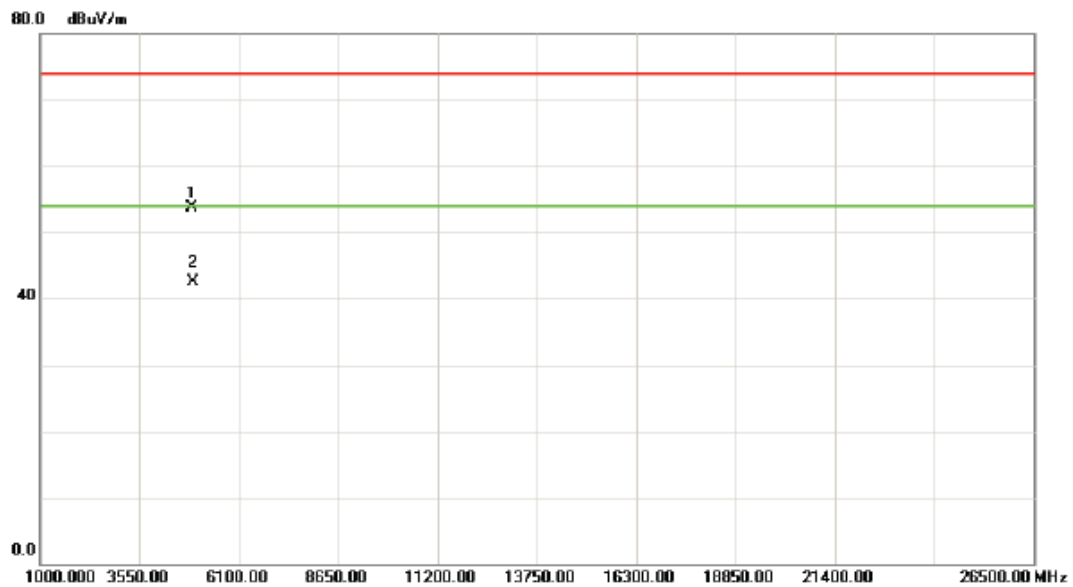
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	*	2435.400	64.36	31.94	96.30	54.00	42.30	AVG	no limit
2	X	2446.400	74.04	31.96	106.00	74.00	32.00	peak	no limit
3		2483.500	38.62	32.01	70.63	74.00	-3.37	peak	
4		2483.500	19.93	32.01	51.94	54.00	-2.06	AVG	

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

Horizontal



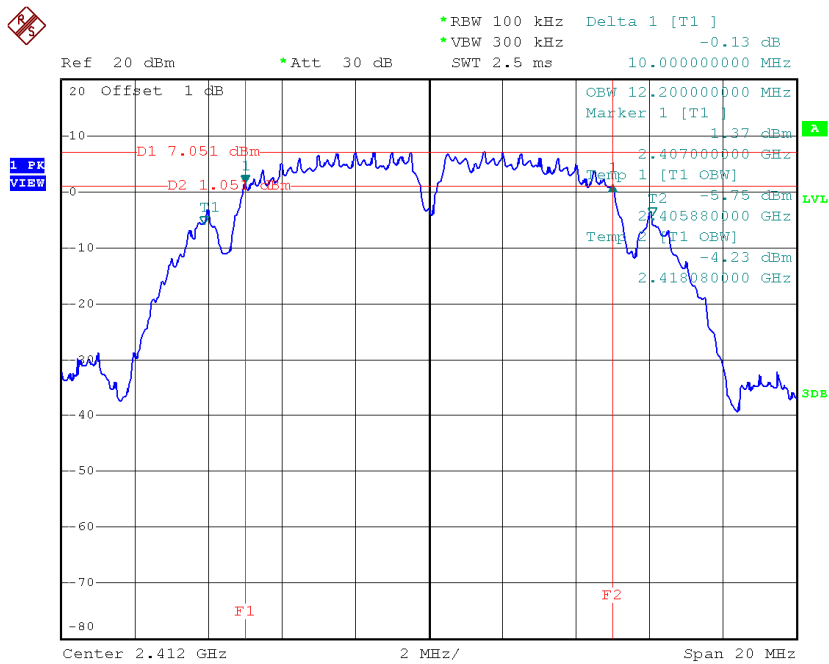
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1		4905.140	49.90	3.77	53.67	74.00	-20.33	peak	
2	*	4905.140	38.81	3.77	42.58	54.00	-11.42	AVG	

ATTACHMENT E - BANDWIDTH

Test Mode : TX B Mode_CH01/06/11

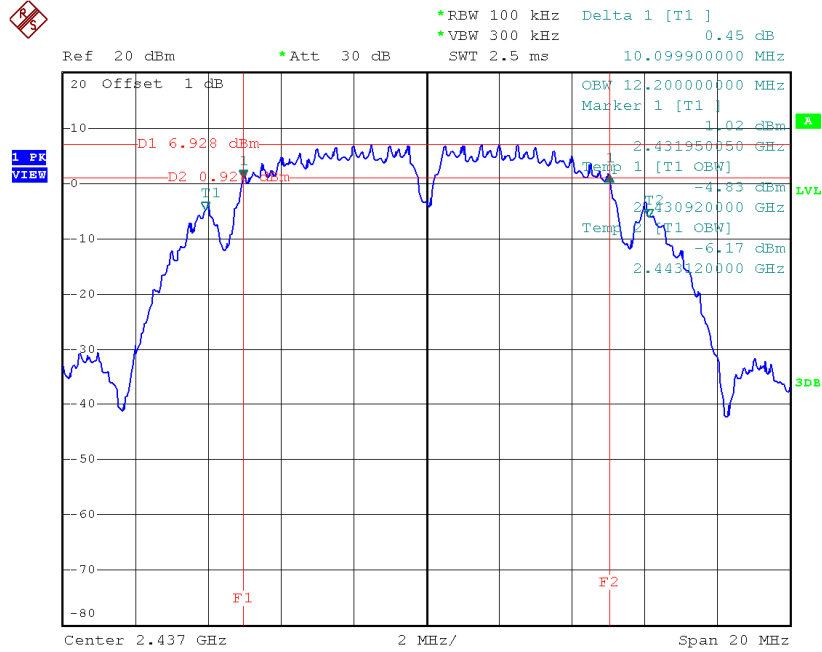
Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied BW (MHz)	Min. Limit (kHz)	Test Result
2412	10.00	12.20	500	Complies
2437	10.10	12.20	500	Complies
2462	10.05	12.20	500	Complies

TX CH01



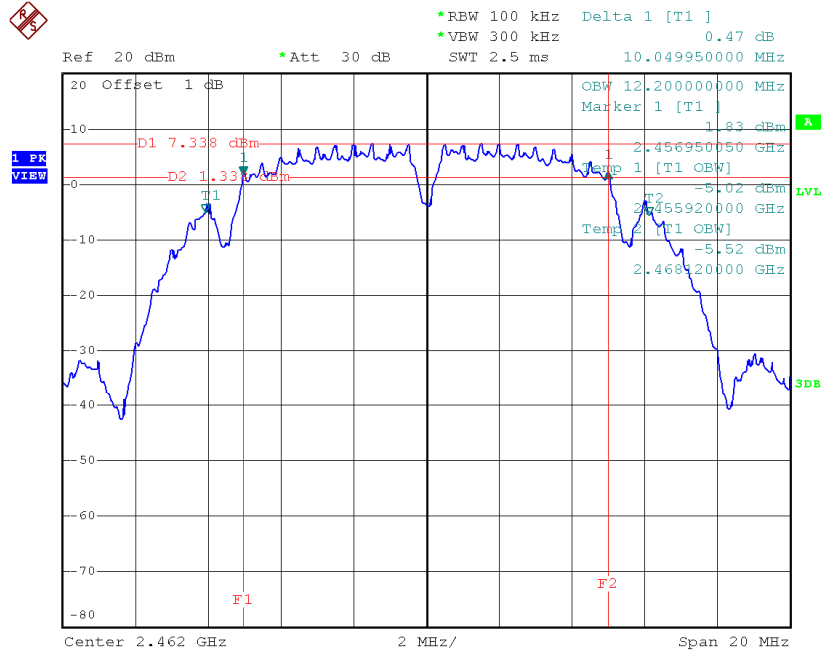
Date: 30.NOV.2014 17:37:28

TX CH06



Date: 30.NOV.2014 17:38:23

TX CH11

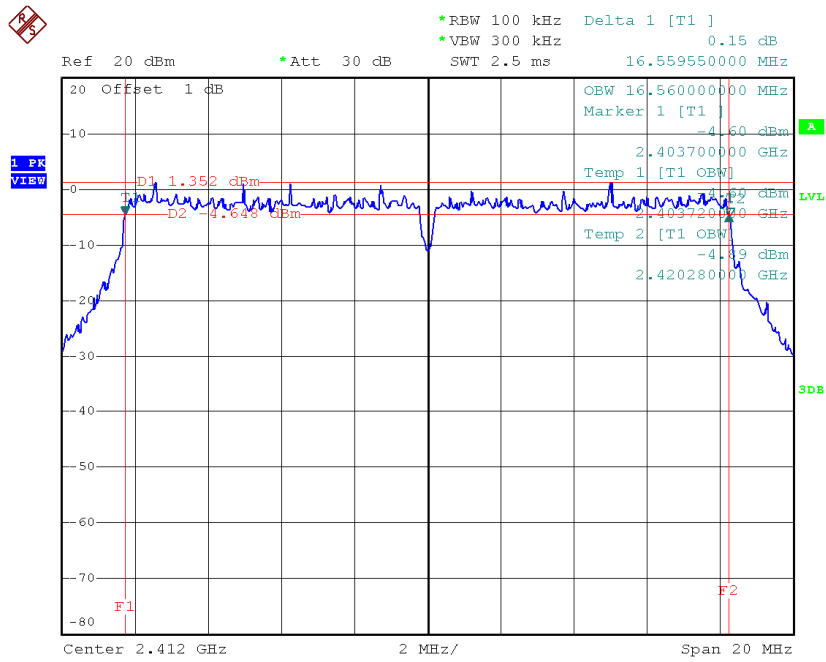


Date: 30.NOV.2014 17:39:13

Test Mode: TX G Mode_CH01/06/11

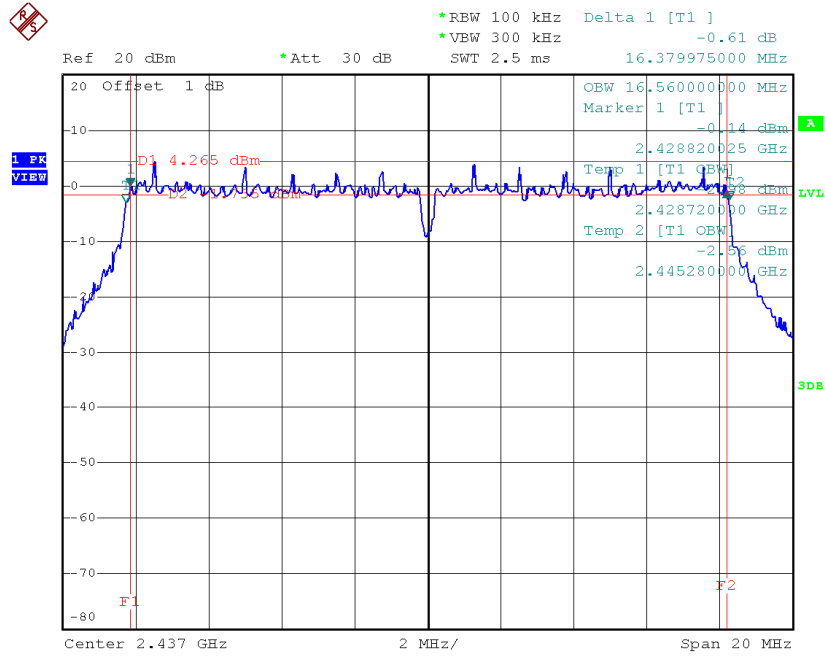
Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied BW (MHz)	Min. Limit (kHz)	Test Result
2412	16.56	16.56	500	Complies
2437	16.38	16.56	500	Complies
2462	16.41	16.56	500	Complies

TX CH01



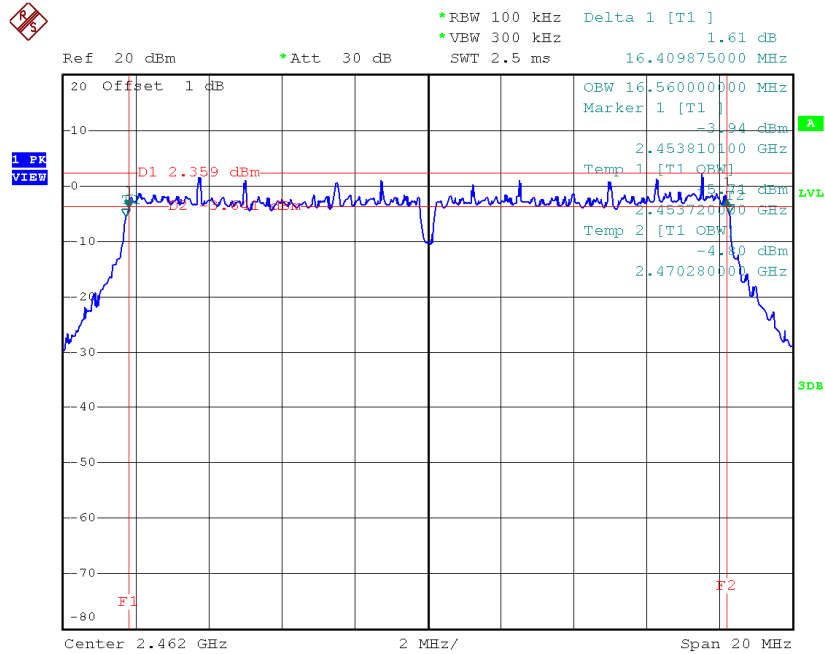
Date: 30.NOV.2014 17:41:16

TX CH06



Date: 30.NOV.2014 17:42:11

TX CH11

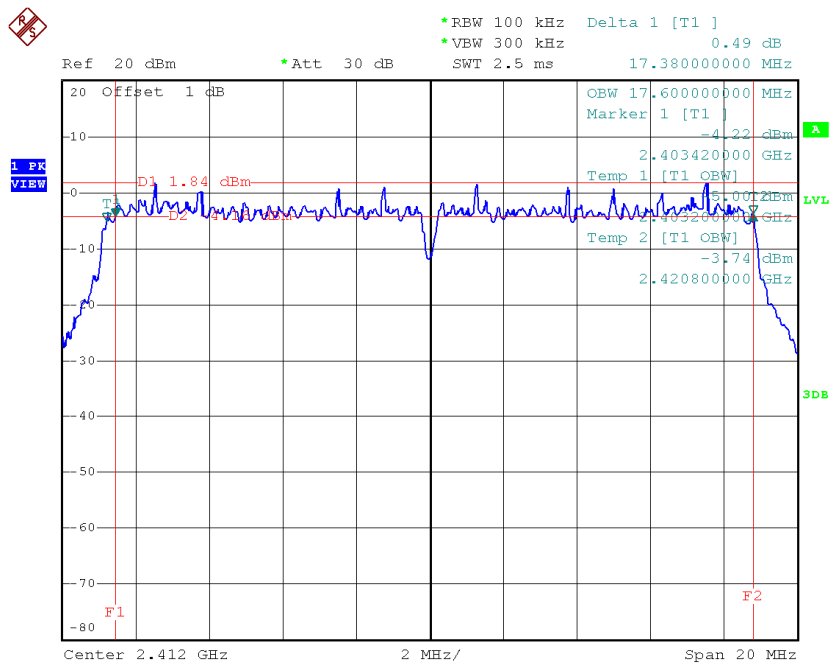


Date: 30.NOV.2014 17:43:32

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

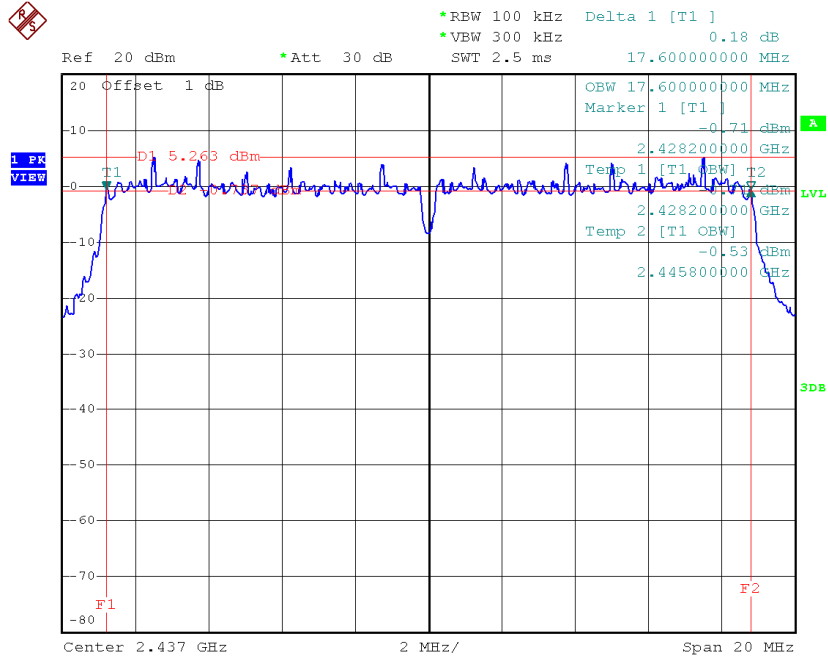
Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied BW (MHz)	Min. Limit (kHz)	Test Result
2412	17.38	17.60	500	Complies
2437	17.60	17.60	500	Complies
2462	17.38	17.60	500	Complies

TX CH01



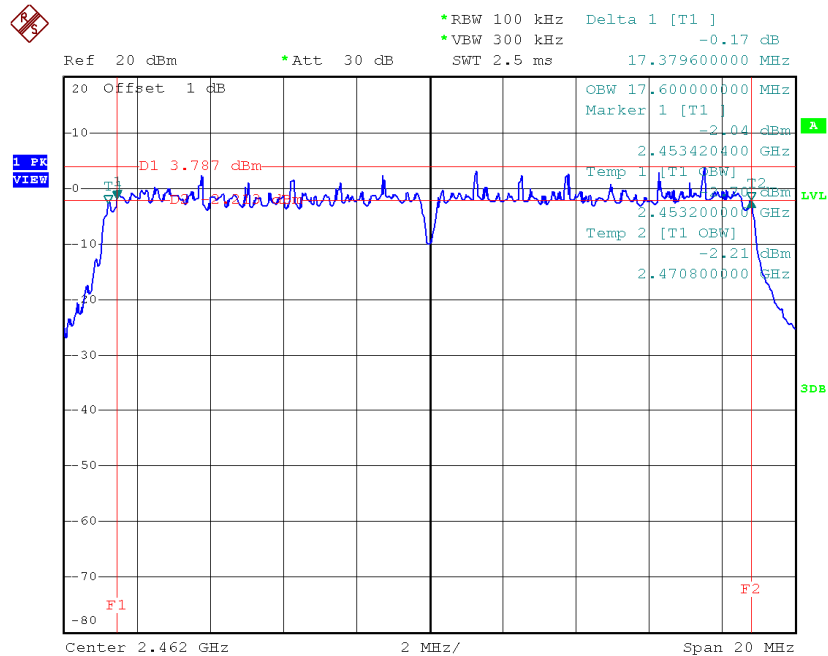
Date: 30.NOV.2014 17:44:40

TX CH06



Date: 30.NOV.2014 17:45:28

TX CH11

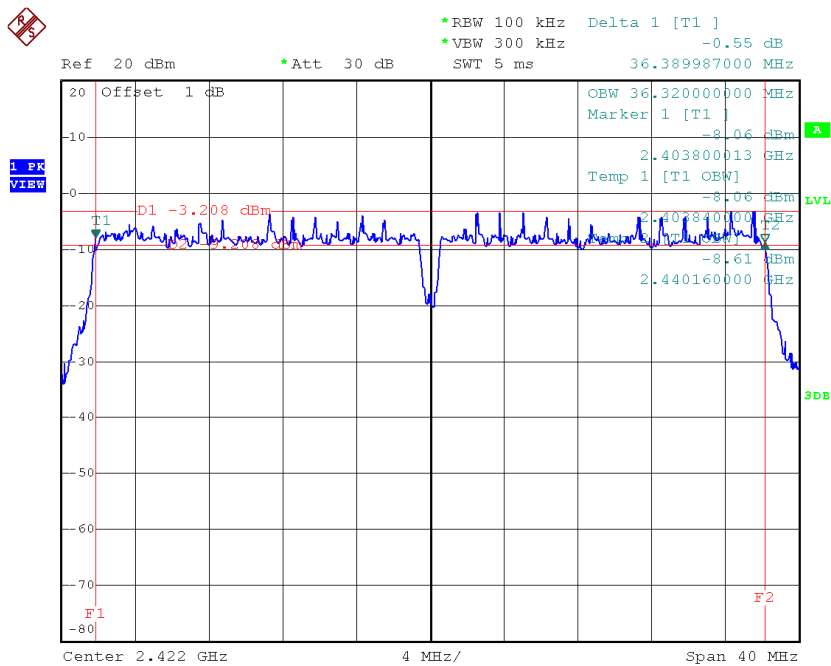


Date: 30.NOV.2014 17:46:13

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

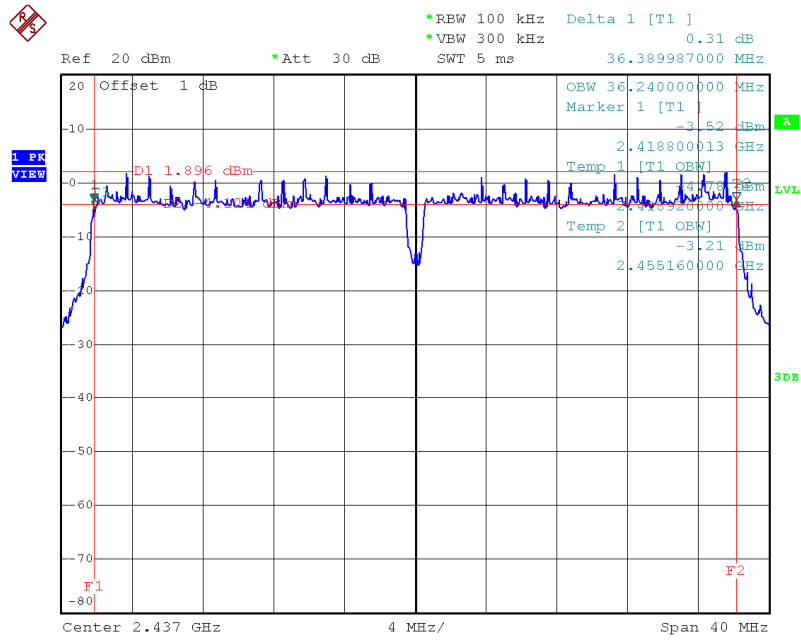
Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied BW (MHz)	Min. Limit (kHz)	Test Result
2422	36.39	36.32	500	Complies
2437	36.39	36.24	500	Complies
2452	36.40	36.24	500	Complies

TX CH03



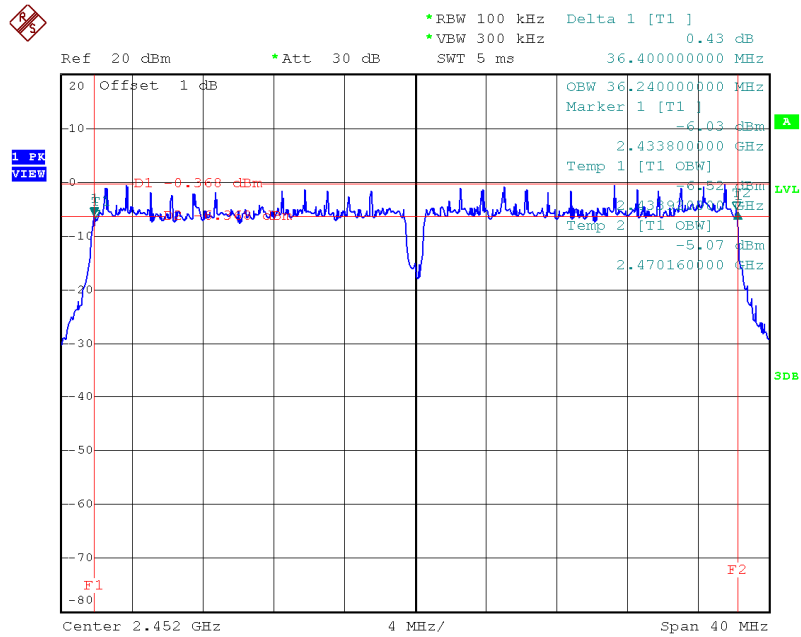
Date: 30.NOV.2014 17:47:06

TX CH06



Date: 30.NOV.2014 17:48:01

TX CH09



Date: 30.NOV.2014 17:48:47

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	20.45	0.11	30.00	1.00	Complies
2437	20.31	0.11	30.00	1.00	Complies
2462	20.37	0.11	30.00	1.00	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	22.68	0.19	30.00	1.00	Complies
2437	22.40	0.17	30.00	1.00	Complies
2462	22.42	0.17	30.00	1.00	Complies

Test Mode :TX N20 Mode_CH01/06/11

Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2412	22.71	0.19	30.00	1.00	Complies
2437	22.45	0.18	30.00	1.00	Complies
2462	22.47	0.18	30.00	1.00	Complies

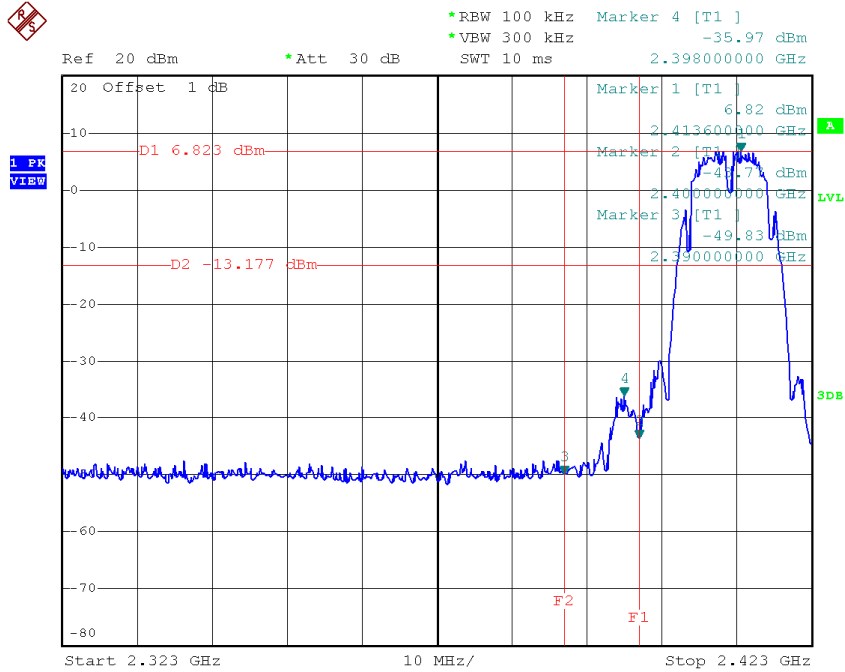
Test Mode :TX N40 Mode_CH03/06/09

Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2422	22.50	0.18	30.00	1.00	Complies
2437	22.41	0.17	30.00	1.00	Complies
2452	22.82	0.19	30.00	1.00	Complies

**ATTACHMENT G - ANTENNA CONDUCTED SPURIOUS
EMISSION**

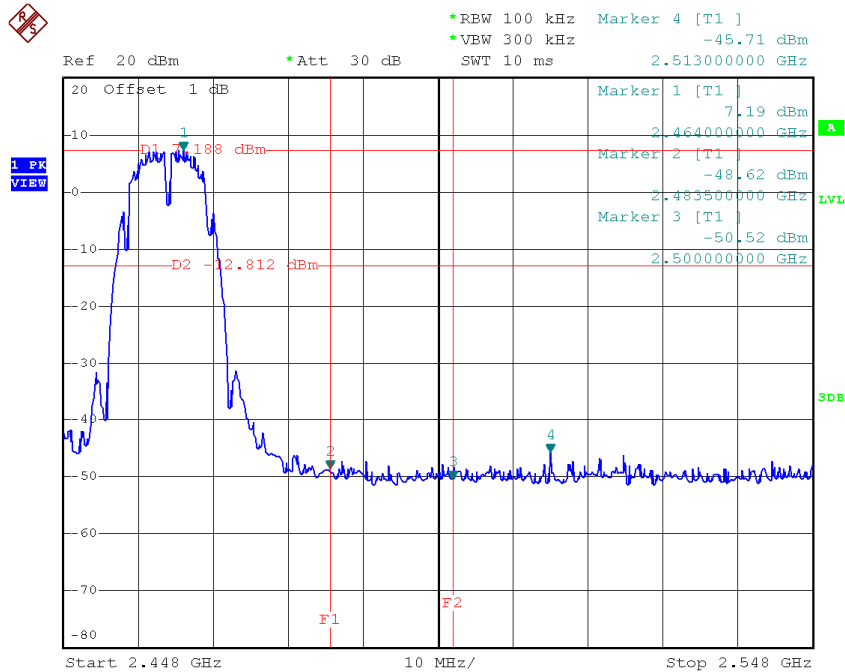
Test Mode :	TX B Mode
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TX B mode CH01



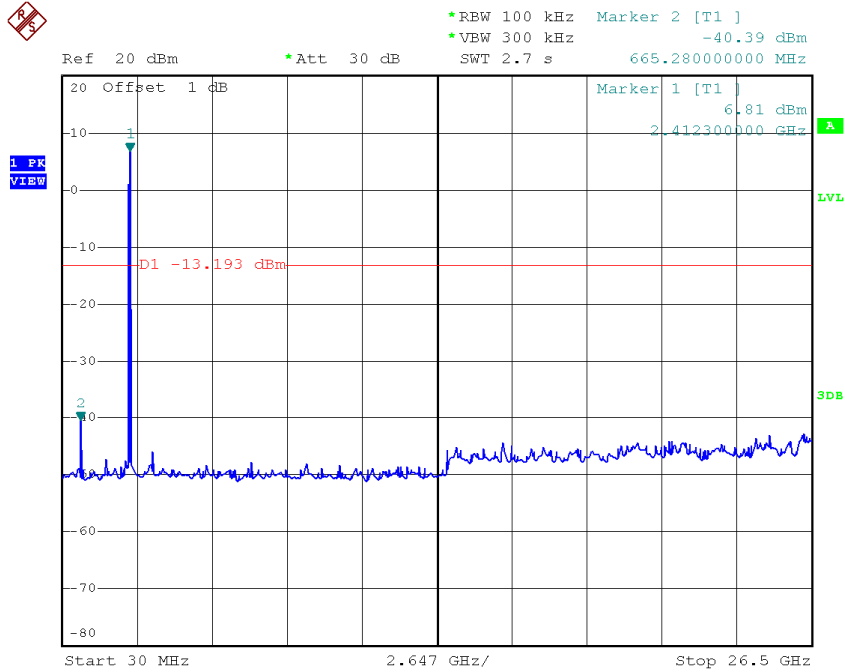
Date: 30.NOV.2014 17:37:49

TX B mode CH11



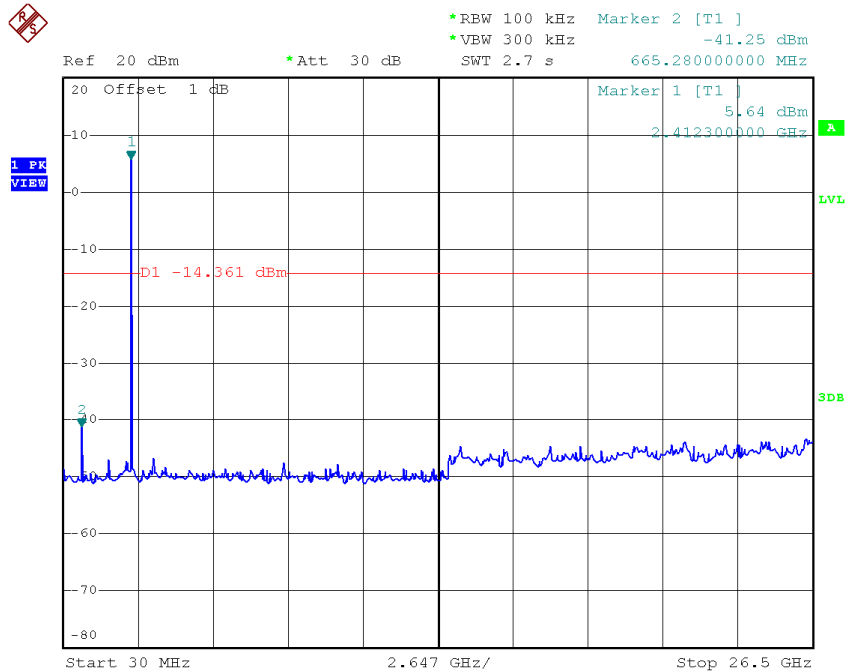
Date: 30.NOV.2014 17:39:34

TX B mode CH01 (10 Harmonic of the frequency)



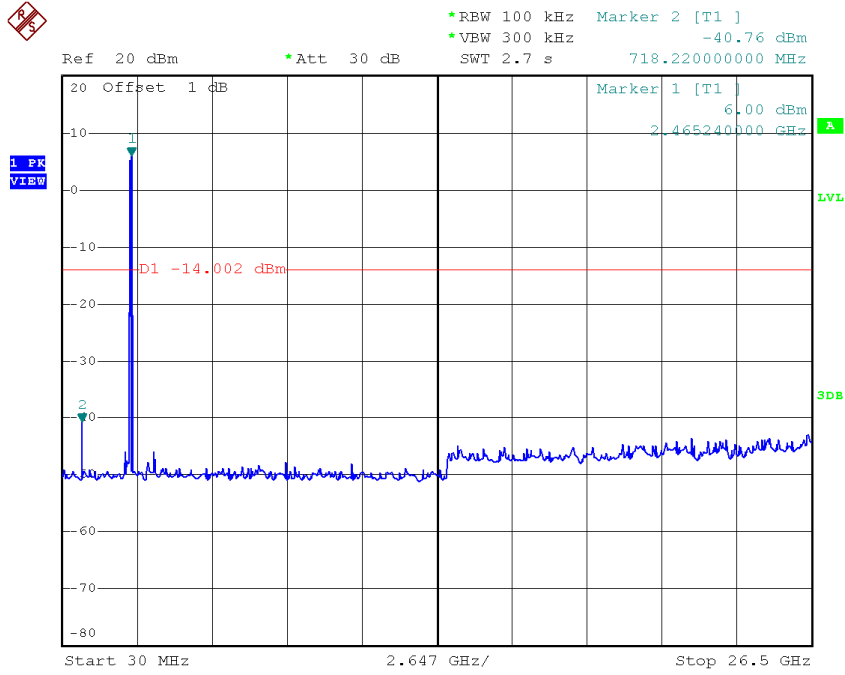
Date: 30.NOV.2014 17:37:42

TX B mode CH06 (10 Harmonic of the frequency)



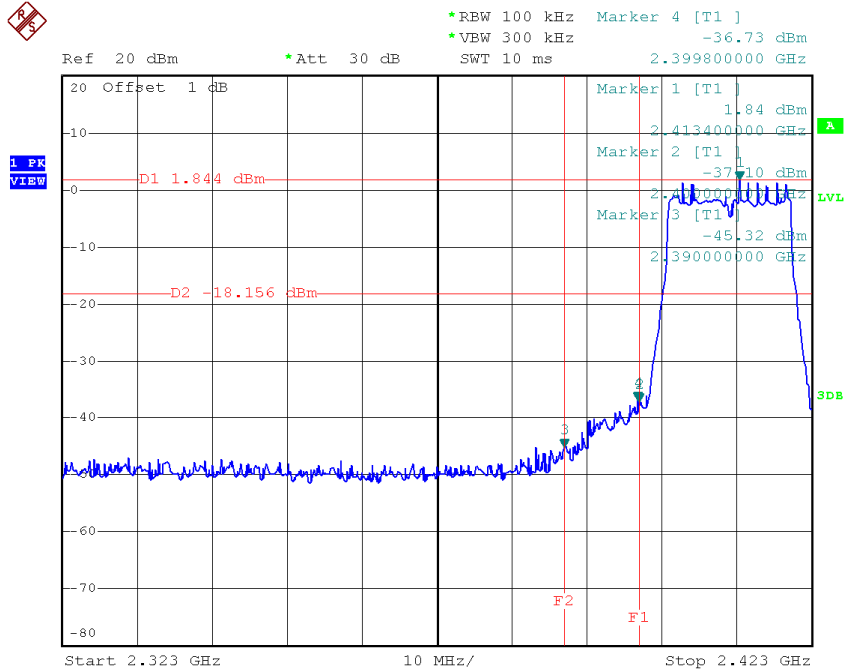
Date: 30.NOV.2014 17:38:36

TX B mode CH11 (10 Harmonic of the frequency)



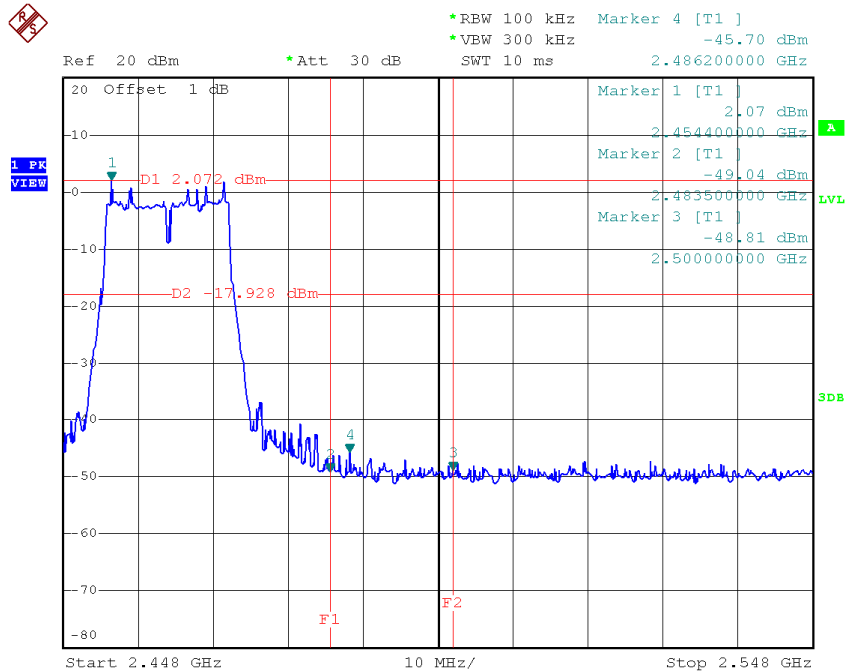
Date: 30.NOV.2014 17:39:27

TX G mode CH01



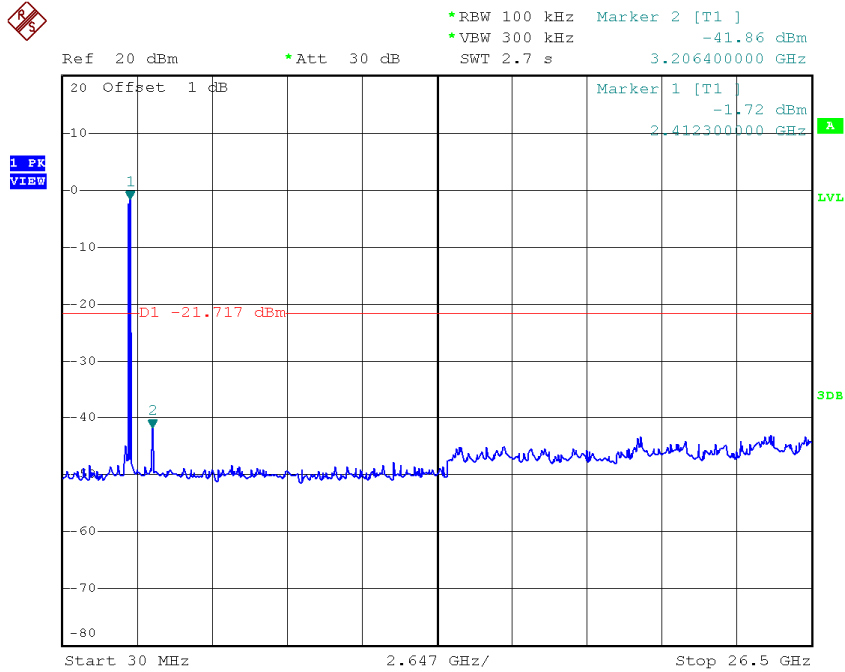
Date: 30.NOV.2014 17:41:37

TX G mode CH11



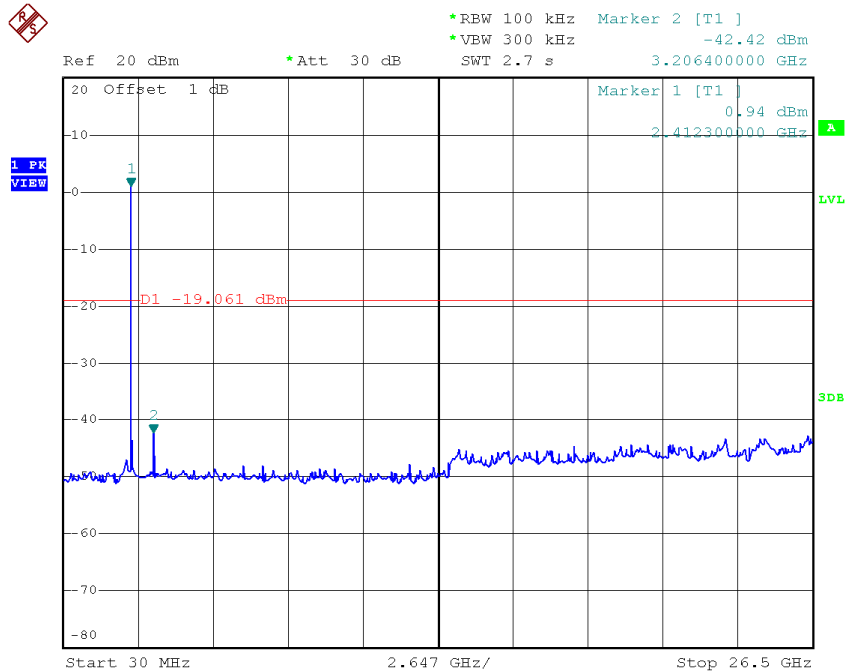
Date: 30.NOV.2014 17:43:51

TX G mode CH01 (10 Harmonic of the frequency)



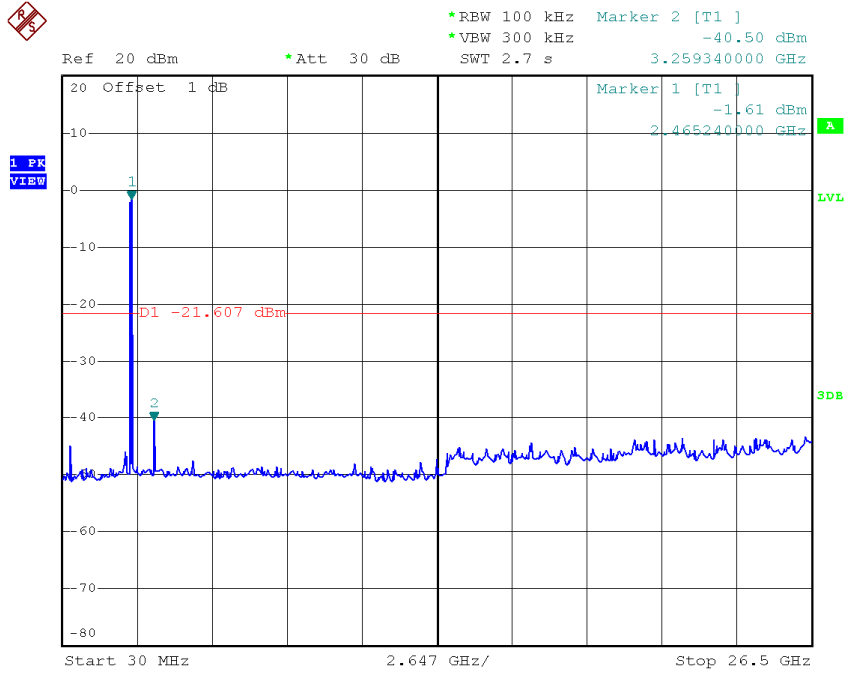
Date: 30.NOV.2014 17:41:30

TX G mode CH06 (10 Harmonic of the frequency)



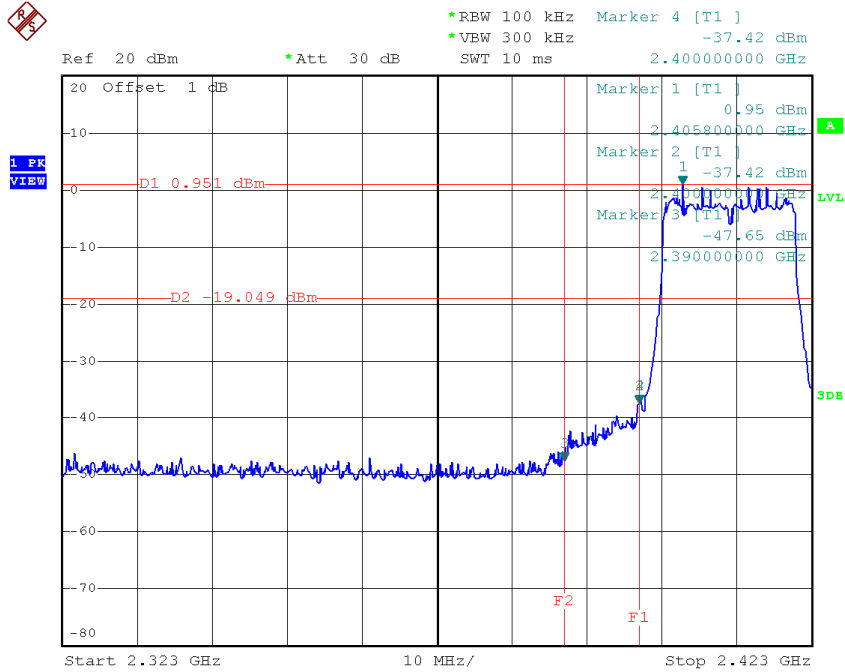
Date: 30.NOV.2014 17:42:25

TX G mode CH11 (10 Harmonic of the frequency)



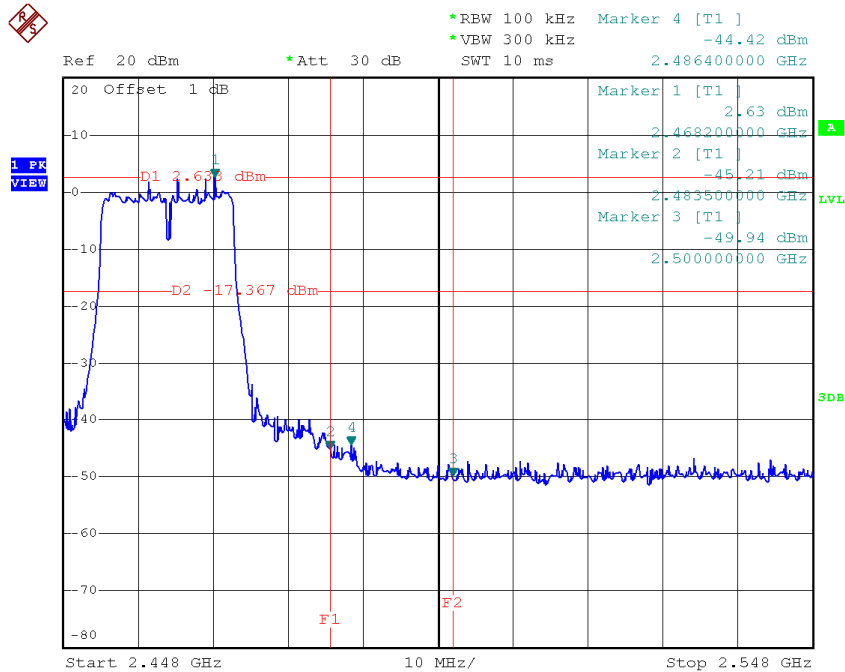
Date: 30.NOV.2014 17:43:45

TX HT20 mode CH01



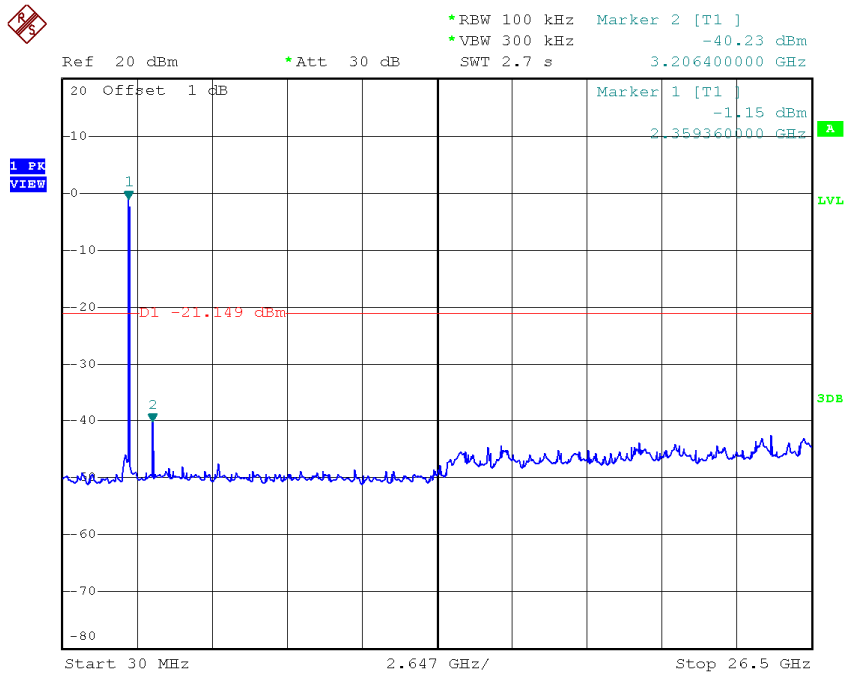
Date: 30.NOV.2014 17:45:00

TX HT20 mode CH11



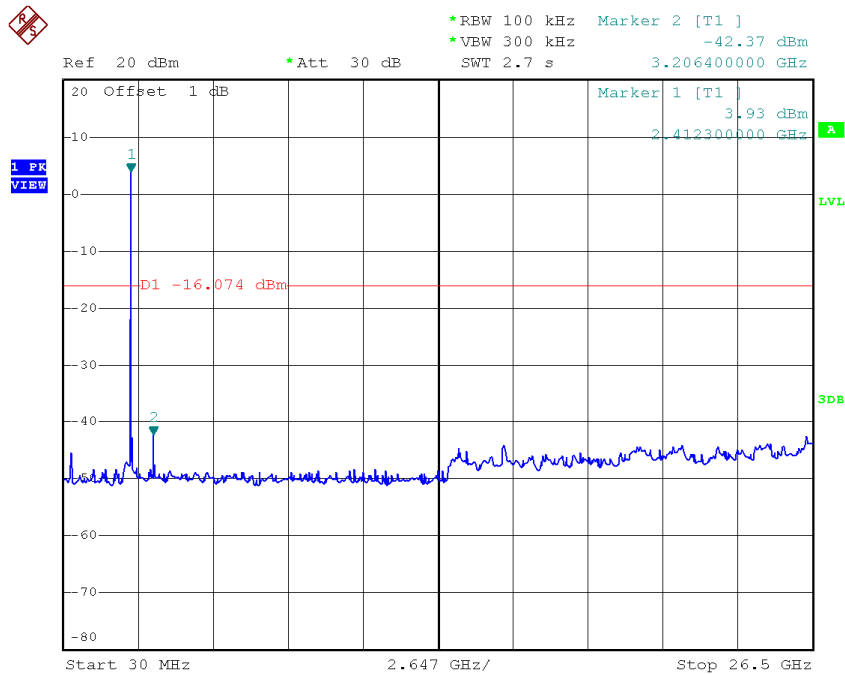
Date: 30.NOV.2014 17:46:34

TX HT20 mode CH01 (10 Harmonic of the frequency)



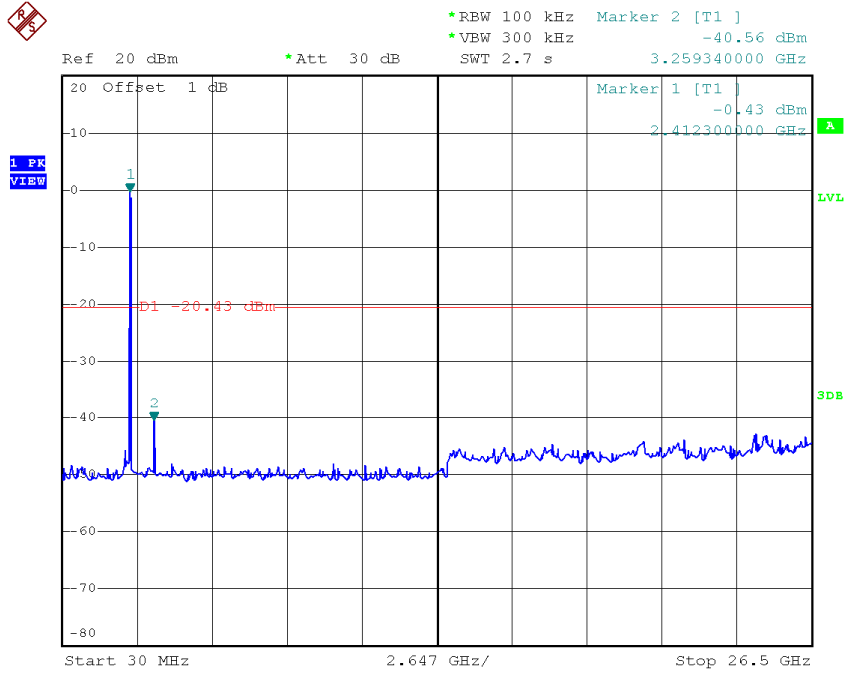
Date: 30.NOV.2014 17:44:53

TX HT20 mode CH06 (10 Harmonic of the frequency)



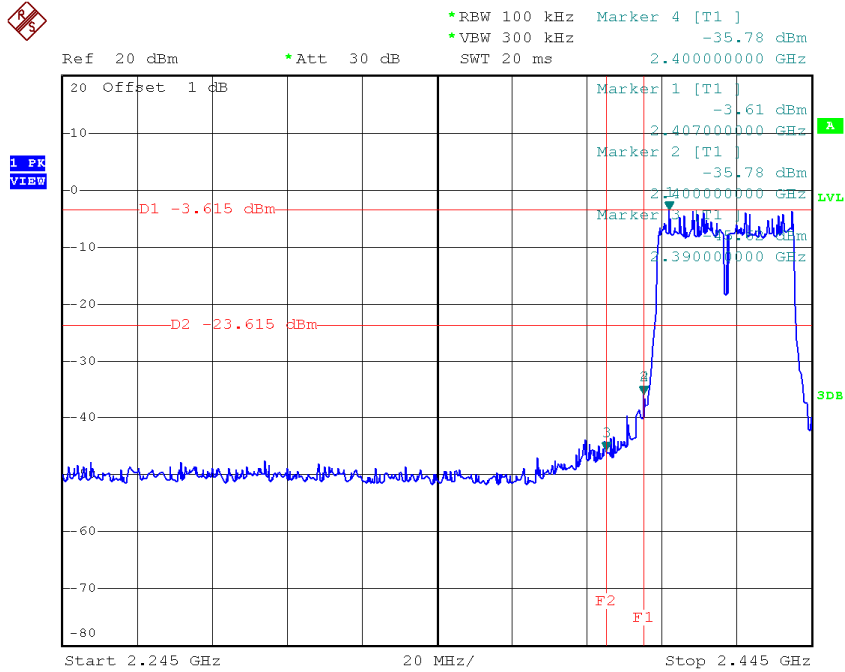
Date: 30.NOV.2014 17:45:41

TX HT20 mode CH11 (10 Harmonic of the frequency)



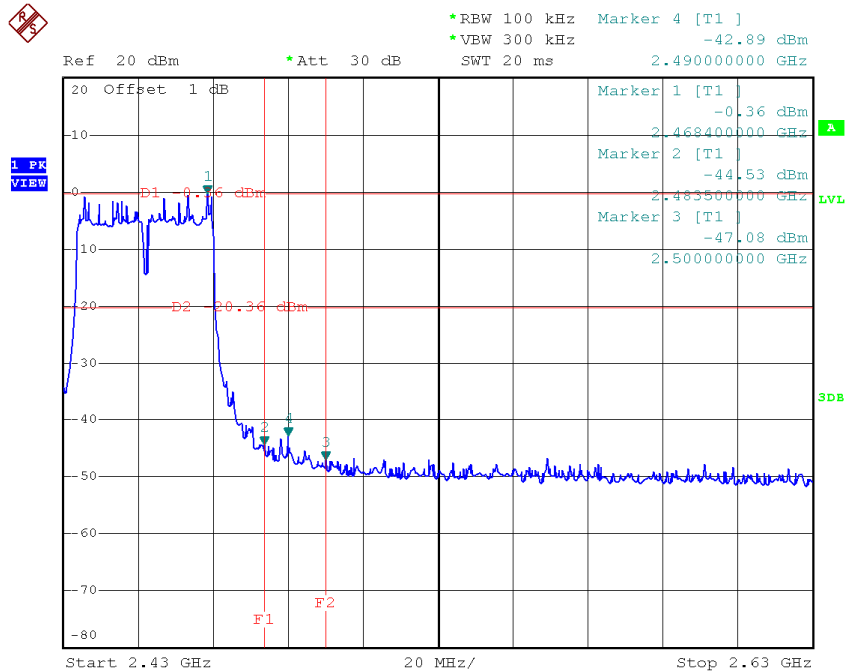
Date: 30.NOV.2014 17:46:27

TX HT40 mode CH03



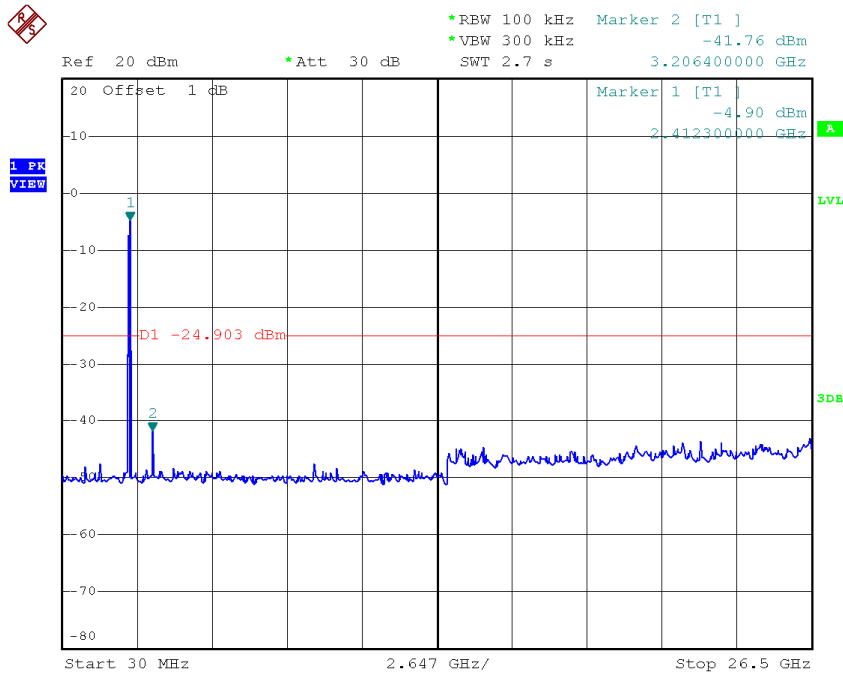
Date: 30.NOV.2014 17:47:27

TX HT40 mode CH09



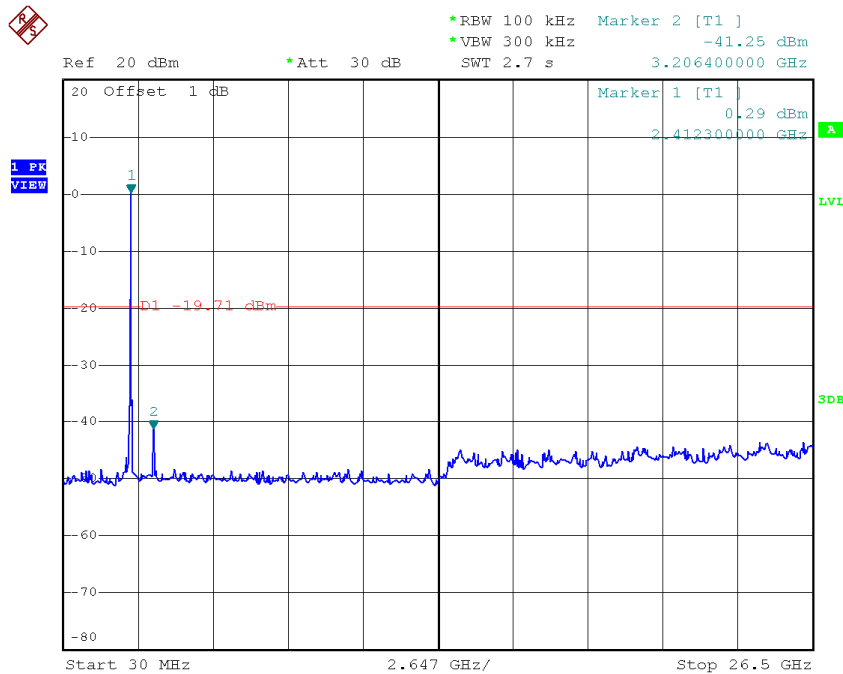
Date: 30.NOV.2014 17:49:08

TX HT40 mode CH03 (10 Harmonic of the frequency)



Date: 30.NOV.2014 17:47:20

TX HT40 mode CH06 (10 Harmonic of the frequency)

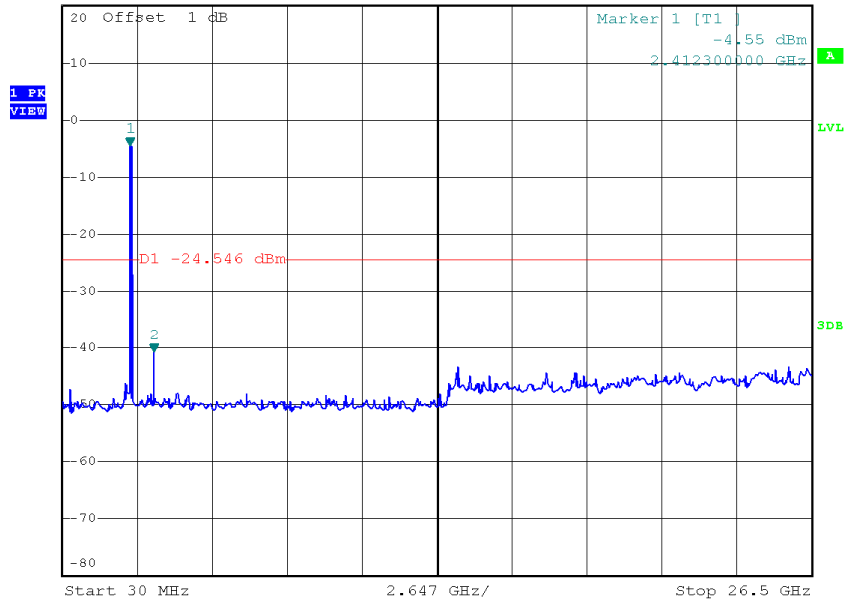


Date: 30.NOV.2014 17:48:15

TX HT40 mode CH09 (10 Harmonic of the frequency)



*REW 100 kHz Marker 2 [T1]
 *VBW 300 kHz -40.66 dBm
 Ref 20 dBm *Att 30 dB SWT 2.7 s 3.259340000 GHz



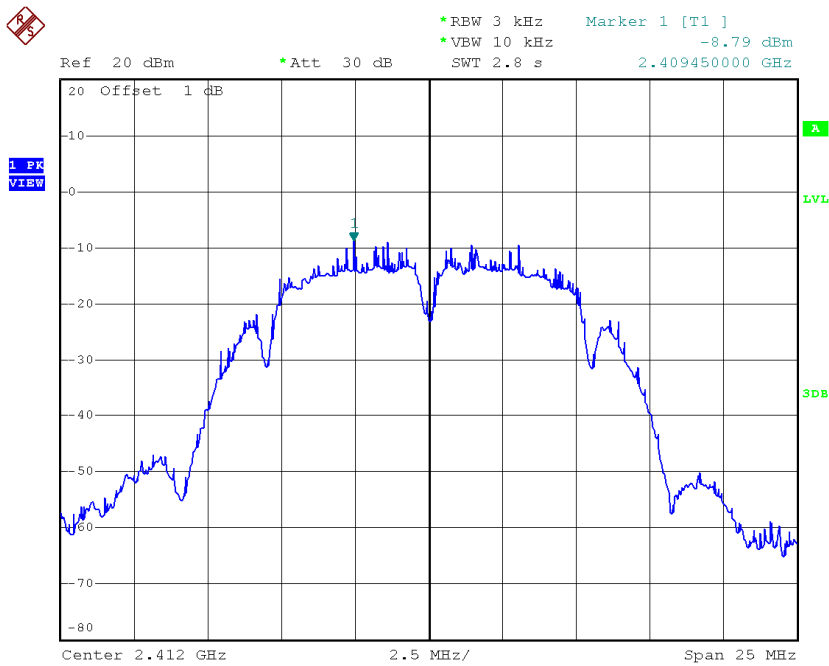
Date: 30.NOV.2014 17:49:01

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	-8.79	0.13	8.00	Complies
2437	-8.54	0.14	8.00	Complies
2462	-8.60	0.14	8.00	Complies

TX CH01

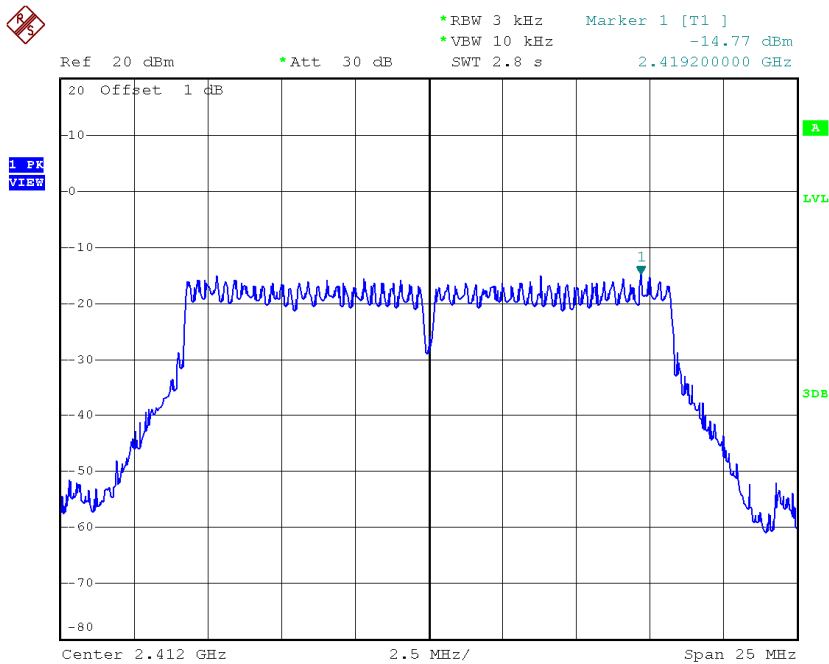


Date: 30.NOV.2014 17:37:58

Test Mode :TX G Mode_CH01/06/11

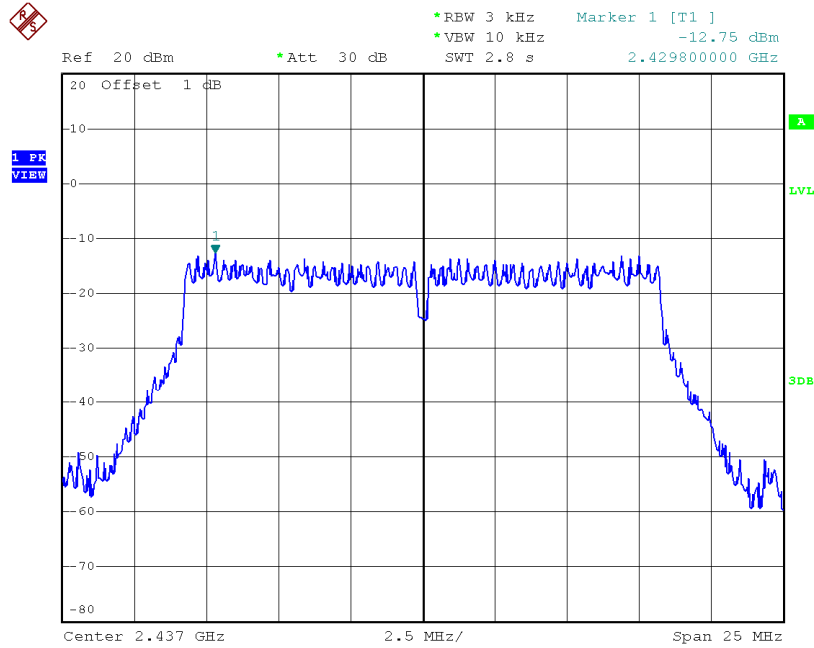
Frequency (MHz)	Power Density (dBm/3kHz)	Power Density (mW/3kHz)	Max. Limit (dBm/3kHz)	Result
2412	-14.77	0.03	8.00	Complies
2437	-12.75	0.05	8.00	Complies
2462	-15.06	0.03	8.00	Complies

TX CH01



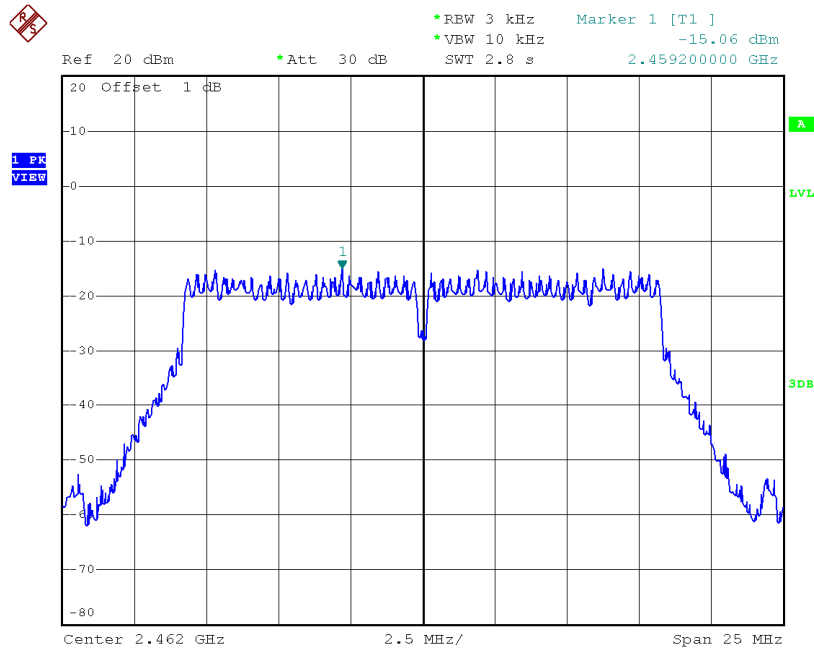
Date: 30.NOV.2014 17:41:46

TX CH06



Date: 30.NOV.2014 17:42:32

TX CH11

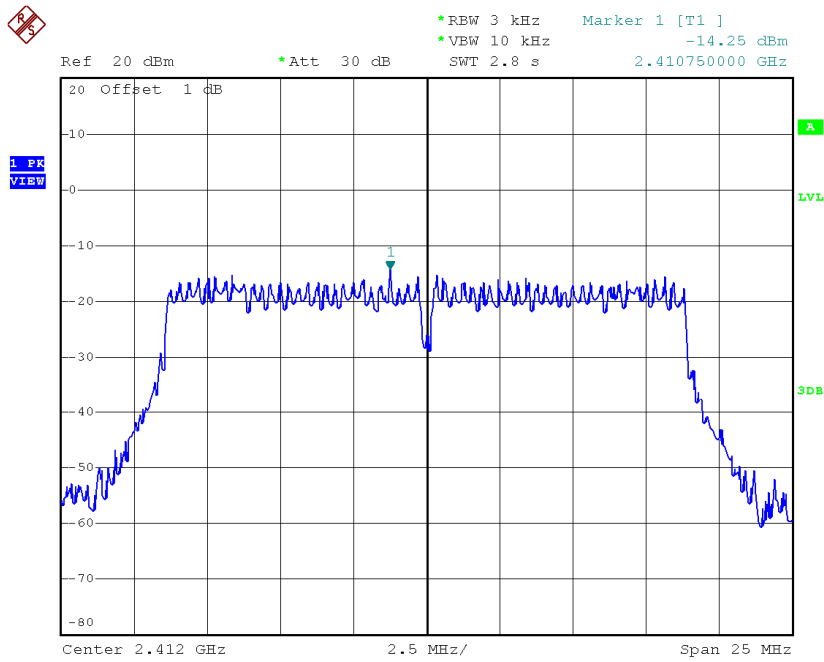


Date: 30.NOV.2014 17:43:59

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

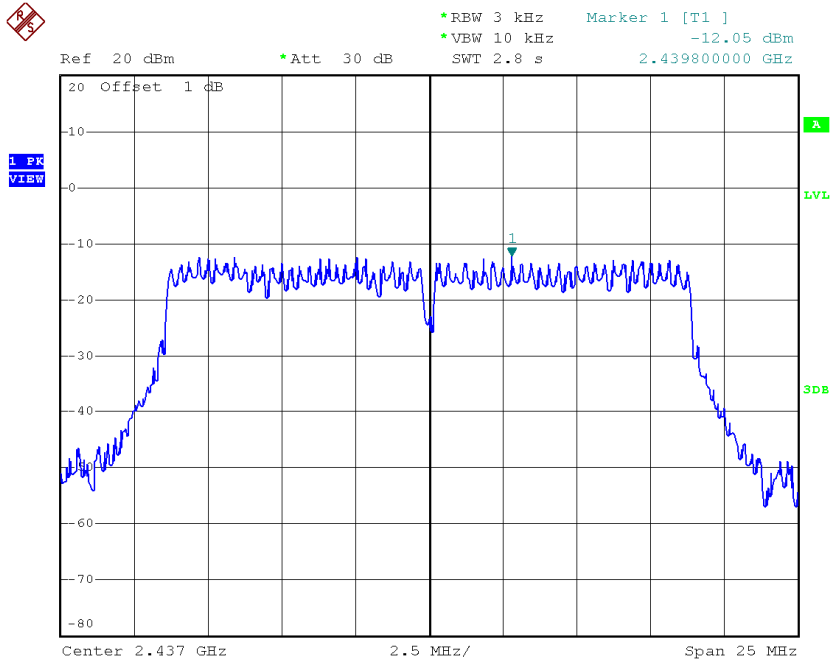
Frequency (MHz)	Power Density (dBm/3kHz)	Power Density (mW/3kHz)	Max. Limit (dBm/3kHz)	Result
2412	-14.25	0.04	8.00	Complies
2437	-12.05	0.06	8.00	Complies
2462	-13.21	0.05	8.00	Complies

TX CH01



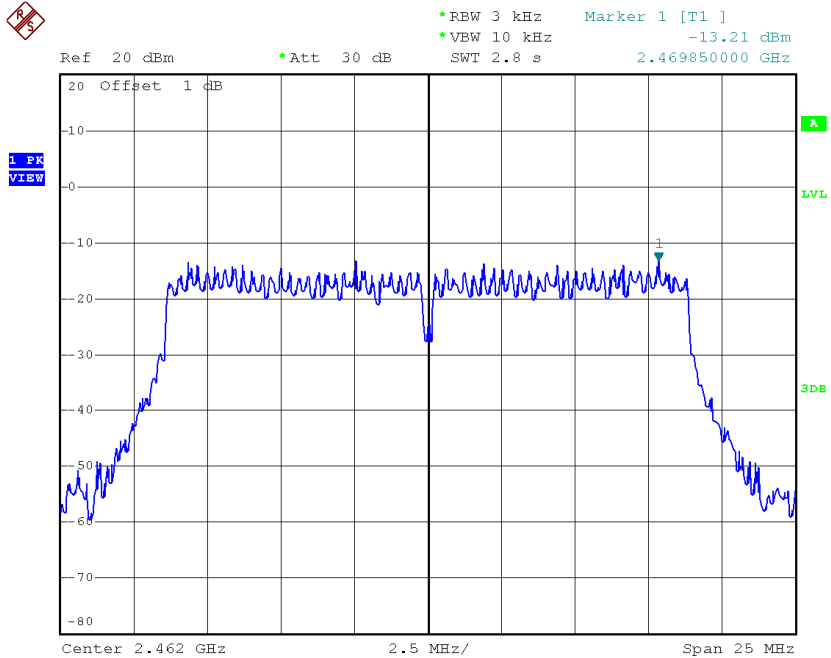
Date: 30.NOV.2014 17:45:09

TX CH06

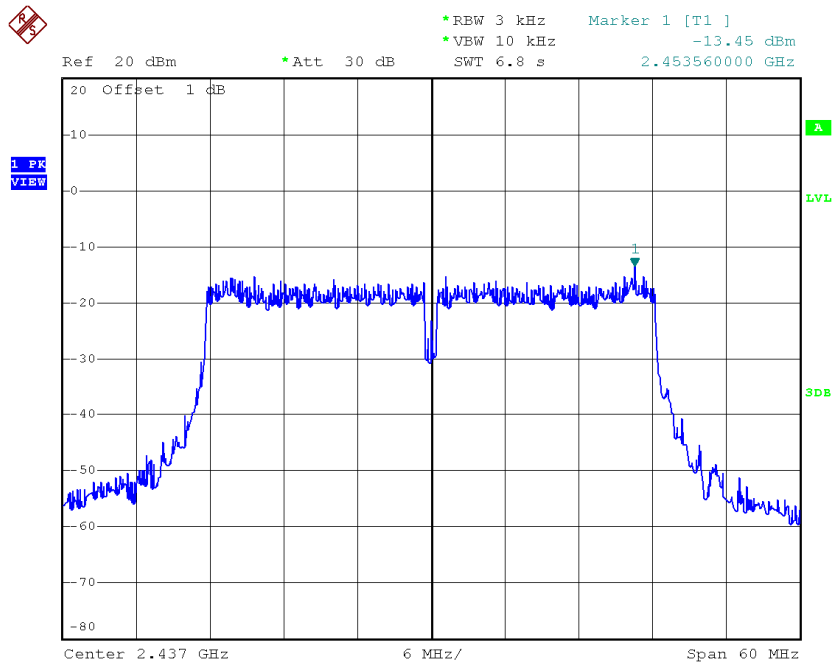


Date: 30.NOV.2014 17:45:50

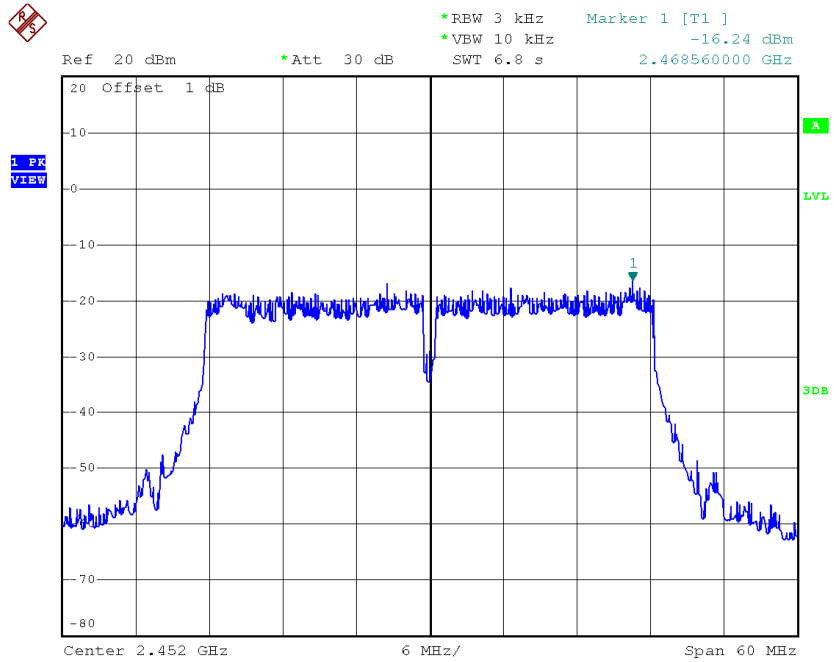
TX CH11



Date: 30.NOV.2014 17:46:43

TX CH06

Date: 30.NOV.2014 17:48:27

TX CH09

Date: 30.NOV.2014 17:49:20