



Neutron Engineering Inc.

FCC Radio Test Report

FCC ID: K7SF9K1009V2

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

Project No. : 1405C012
Equipment : Wireless N150 Router
Model Name : F9K1009V2
Applicant : Belkin International, Inc.
Address : 12045 E. Waterfront Drive, Playa Vista,
CA 90094

Tested by: Neutron Engineering Inc. EMC Laboratory
Date of Receipt: May 05, 2014
Date of Test: May 05, 2014 ~ May 23, 2014
Issued Date: May 26, 2014

Testing Engineer :

David Mao

(David Mao)

Technical Manager :

Leo Hung

(Leo Hung)

Authorized Signatory :

Steven Lu

(Steven Lu)

Neutron Engineering Inc.

No.3, Jinshagang 1st Road, Shixia,
Dalang Town, Dongguan, China.
TEL: 0769-8318-3000 FAX: 0769-8319-6000



Declaration

Neutron 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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REPORT ISSUED HISTORY

Issued No.	Description	Issued Date
NEI-FCCP-1-1405C012	Original Issue.	May 26, 2014



1. CERTIFICATION

Equipment : Wireless N150 Router
Brand Name : Belkin
Model Name : F9K1009V2
Applicant : Belkin International, Inc.
Manufacturer : Belkin International, Inc.
Address : 12045 E. Waterfront Drive, Playa Vista, CA 90094
Factory : 1) Shenzhen Gongjin Electronics Co., Ltd.
2) TAICANG T&W Electronics Co., Ltd.
Address : 1) No 2&3 Buildings, Mingwei Factory Area, Songgang Road West, No. A
Building, 1#Songgang Road Songgang Sub-District, Shenzhen,
Guangdong, 518105, P.R.China
2) Jiangnan Road 89, Ludu Town, Taicang, Jiangsu, 215412, P.R. China
Date of Test : May 05, 2014 ~ May 23, 2014
Test Item : ENGINEERING SAMPLE
Standard(s) : FCC Part15, Subpart C(15.247) / ANSI C63.4-2009

The above equipment has been tested and found compliance with the requirement of the relative standards by Neutron Engineering Inc. EMC Laboratory.

The test data, data evaluation, and equipment configuration contained in our test report (Ref No. NEI-FCCP-1-1405C012) 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 Canada RSS-210:2010; RSS-GEN Issue 3, Dec 2010				
Standard(s) Section		Test Item	Judgment	Remark
FCC	IC			
15.207	RSS-GEN 7.2.2	Conducted Emission	PASS	
15.247(d)	RSS-210 Annex 8 (A8.5)	Antenna conducted Spurious Emission	PASS	
15.247(a)(2)	RSS-210 Annex 8 (A8.2(a))	6dB Bandwidth	PASS	
15.247(b)(3)	RSS-210 Annex 8 (A8.4(4))	Peak Output Power	PASS	
15.247(e)	RSS-210 Annex 8 (A8.2(b))	Power Spectral Density	PASS	
15.203	-	Antenna Requirement	PASS	
15.209/15.205	RSS-210 Annex 8 (A8.5)	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 v03r01 (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, Dong Guan, China.523792

Neutron's test firm number for FCC: 319330

Neutron's test firm number for IC: 4428B-1

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	Wireless N150 Router	
Brand Name	Belkin	
Model Name	F9K1009V2	
Model Difference	N/A	
Product Description	Operation Frequency	2412~2462 MHz
	Modulation Technology	802.11b:DSSS 802.11g:OFDM 802.11n:OFDM
	Bit Rate of Transmitter	802.11b: 11/5.5/2/1 Mbps 802.11g: 54/48/36/24/18/12/9/6 Mbps 802.11n up to 150 Mbps
	Output Power (Max.)	802.11b: 19.11 dBm 802.11g: 21.67 dBm 802.11n(20MHz): 21.46 dBm 802.11n(40MHz): 21.56 dBm
Power Source	DC voltage supplied from Adapter. Brand/Model:Gongjin/S06A12-120A050-P4	
Power Rating	I/P: AC 100-240V~50/60Hz max 0.3A O/P: DC12V/0.5A	
Connecting I/O Port(s)	Please refer to the User's Manual	

Note:

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



2. Channel List:

CH 01 – CH 11 for 802.11b, 802.11g, 802.11n(20MHz) CH 03 – CH 09 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.	Manufacturer	Model Name	Antenna Type	Connector	Gain (dBi)
1	Dongguan City Xinsheng Electronics Co.,Ltd	8000000000005-11-12 -13	Dipole	N/A	3



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 (6.5Mbps)
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.



3.3 TABLE OF PARAMETERS OF TEXT SOFTWARE SETTING

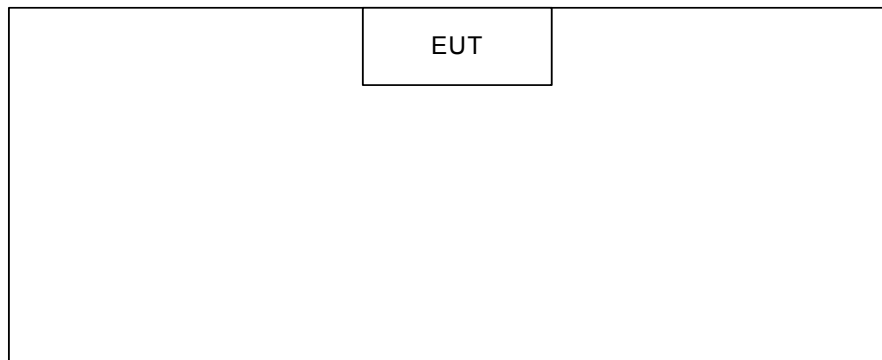
During testing, channel & power controlling software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final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

Test software version	SmartTools20110629		
Frequency	2412 MHz	2437 MHz	2462 MHz
IEEE 802.11b DSSS	39	38	38
IEEE 802.11g OFDM	43	44	44
IEEE 802.11n (20MHz)	43	43	43
Frequency	2422 MHz	2437 MHz	2452 MHz
IEEE 802.11n (40MHz)	43	43	44



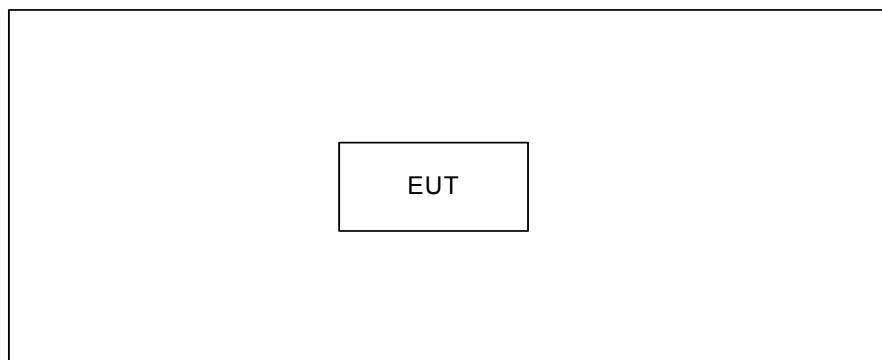
3.4 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

Conducted TX Mode:



Control Room

Radiated TX Mode:



Control Room



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
-	-	-	-	-	-	

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 (MHz)	Class A (dBuV)		Class B (dBuV)		Standard
	Quasi-peak	Average	Quasi-peak	Average	
0.15 -0.5	79.00	66.00	66 - 56 *	56 - 46 *	CISPR
0.50 -5.0	73.00	60.00	56.00	46.00	CISPR
5.0 -30.0	73.00	60.00	60.00	50.00	CISPR
0.15 -0.5	79.00	66.00	66 - 56 *	56 - 46 *	FCC
0.50 -5.0	73.00	60.00	56.00	46.00	FCC
5.0 -30.0	73.00	60.00	60.00	50.00	FCC

Note:

- (1) The tighter limit applies at the band edges.
- (2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

The following table is the setting of the receiver

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

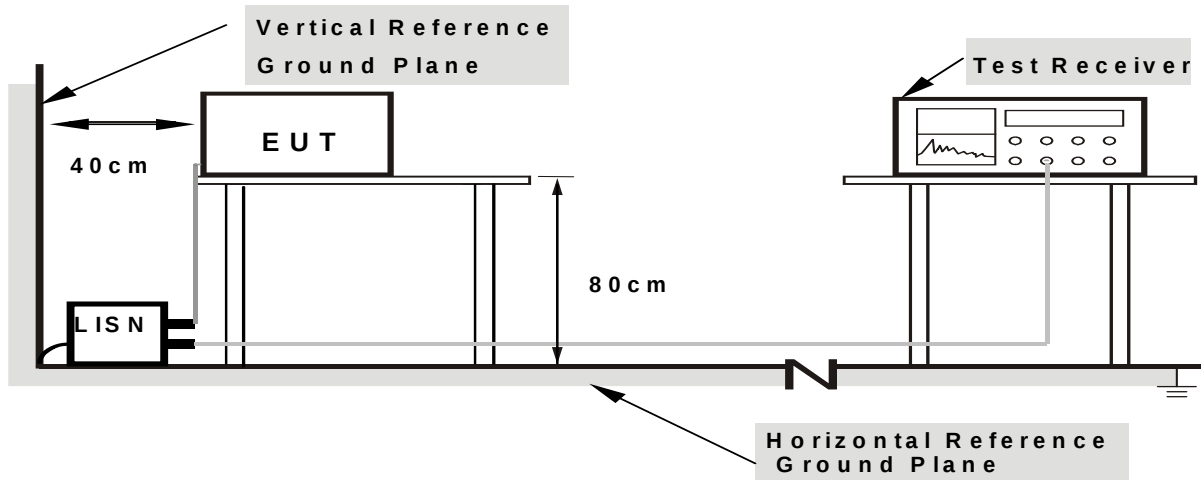
4.1.2 TEST PROCEDURE

- 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), 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).

Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic
RBW / VBW (Emission in restricted band)	1MHz / 1MHz for Peak, 1 MHz / 10Hz for Average

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



4.2.2 TEST PROCEDURE

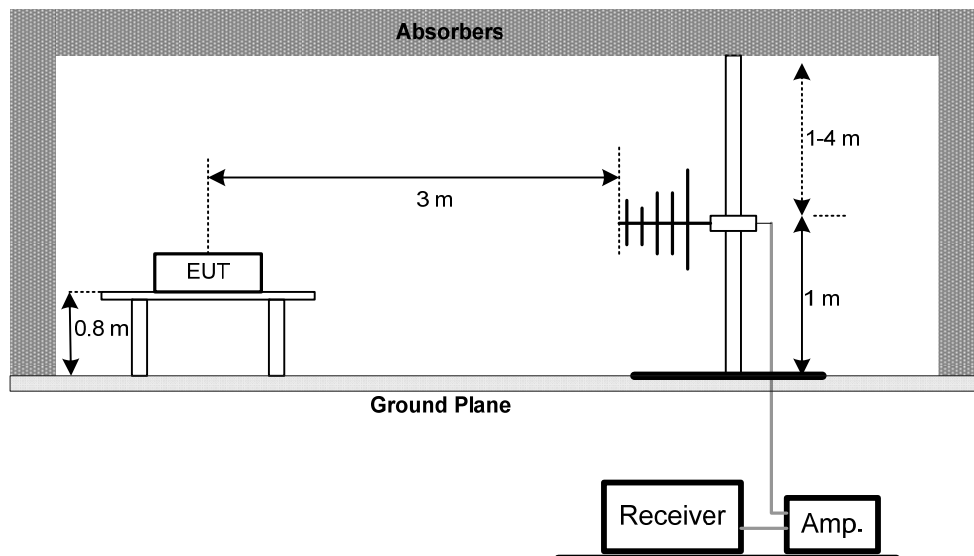
- The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(below 1GHz)
- The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 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

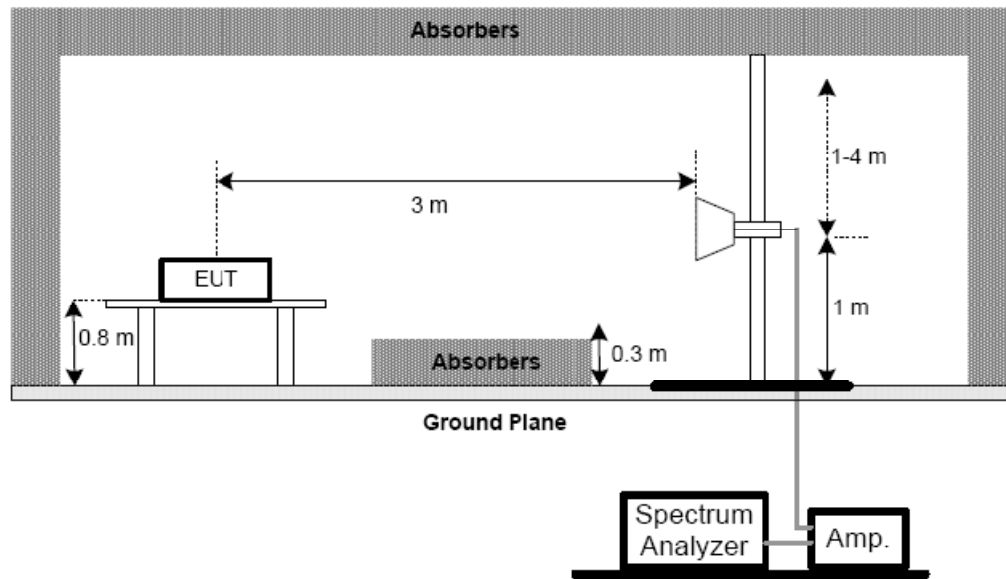
No deviation

4.2.4 TEST SETUP

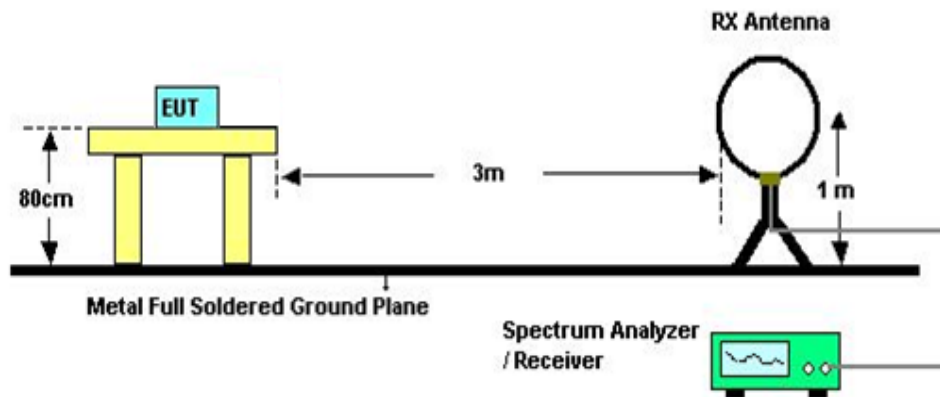
(A) Radiated Emission Test Set-Up Frequency Below 1 GHz



(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 4.1.6 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: AC 120V/60Hz



4.2.7 TEST RESULTS (9KHZ TO 30MHZ)

Please refer to the Attachment B

Remark:

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

Remark:

- (1) Reading in which marked as QP or Peak means measurements by using are Quasi-Peak Mode or Peak Mode with Detector BW=120KHz ; SPA setting in RBW=120KHz, VBW =120KHz, Swp. Time = 0.3 sec./MHz.
- (2) 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.
- (3) Measuring frequency range from 30MHz to 1000MHz.
- (4) If the peak scan value lower limit more than 20dB, then this signal data does not show.

4.2.9 TEST RESULTS (ABOVE 1000 MHZ)

Please refer to the Attachment D.

Remark:

- (1) 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.
- (2) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission.
- (3) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (4) EUT Orthogonal Axis:
"X" - denotes Laid on Table; "Y" - denotes Vertical Stand; "Z" - denotes Side Stand
- (5) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna



5. BANDWIDTH TEST

5.1 Applied procedures

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

5.1.1 TEST PROCEDURE

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

5.1.2 DEVIATION FROM STANDARD

No deviation.

5.1.3 TEST SETUP



5.1.4 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 4.1.6 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: AC 120V/60Hz

5.1.6 TEST RESULTS

Please refer to the Attachment E.



6. MAXIMUM OUTPUT POWER TEST

6.1 Applied procedures / limit

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

6.1.1 TEST PROCEDURE

- The EUT was directly connected to the power meter and antenna output port as show in the block diagram below,
- The maximum peak conducted output power was performed in accordance with method 9.1.3 of FCC KDB 558074 D01 DTS Meas Guidance v03r01.

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 4.1.6 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: AC 120V/60Hz

6.1.6 TEST RESULTS

Please refer to the Attachment F.



7. ANTENNA CONDUCTED SPURIOUS EMISSION

7.1 Applied procedures / limit

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum 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 4.1.6 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: AC 120V/60Hz

7.1.6 TEST RESULTS

Please refer to the Attachment G.



8. POWER SPECTRAL DENSITY TEST

8.1 Applied procedures / limit

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

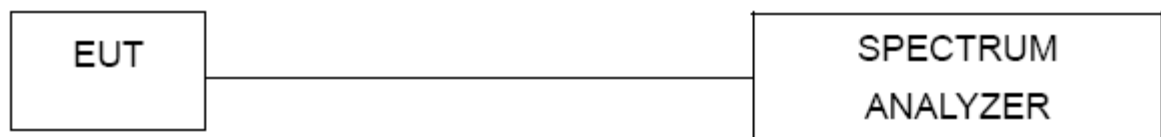
8.1.1 TEST PROCEDURE

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

8.1.2 DEVIATION FROM STANDARD

No deviation.

8.1.3 TEST SETUP



8.1.4 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 4.1.6 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: AC 120V/60Hz

8.1.6 TEST RESULTS

Please refer to the Attachment H.



9. MEASUREMENT INSTRUMENTS LIST

Conducted Emission Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	LISN	EMCO	3816/2	00052765	Mar. 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

Radiated Emission Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Antenna	EMCO	3142C	00066462	Mar. 29, 2015
2	Antenna	EMCO	3142C	00066464	Mar. 29, 2015
3	Amplifier	Agilent	8447D	2944A11203	Nov. 11, 2014
4	Amplifier	Agilent	8447D	2944A11204	Nov. 11, 2014
5	Spectrum Analyzer	Agilent	E4443A	MY48250370	Nov. 11, 2014
6	RF Pre-selector	Agilent	N9039A	MY46520201	Nov. 11, 2014
7	Test Cable	N/A	Cable_5m_8m_15m	N/A	Jan. 14, 2015
8	Test Cable	N/A	Cable_5m_11m_15m	N/A	Jan. 14, 2015
9	Spectrum Analyzer	Agilent	E4447A	MY48250208	Nov. 11, 2014
10	RF Pre-selector	Agilent	N9039A	MY46520214	Nov. 11, 2014
11	Multi-Device Controller	ETS-Lindgren	2090	N/A	N/A
12	Horn Antenna	EMCO	3115	9605-4803	Mar. 29, 2015
13	Amplifier	Agilent	8449B	3008A02584	Nov. 11, 2014
14	Spectrum Analyzer	Agilent	E4447A	MY48250208	Nov. 11, 2014
15	Test Cable	Huber+Suhner	SUCOFLEX_15m_4m	N/A	Jan. 14, 2015



6dB Bandwidth Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP 40	100185	Nov. 11, 2014

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. 11, 2014

Power Spectral Density Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP 40	100185	Nov. 11, 2014

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**





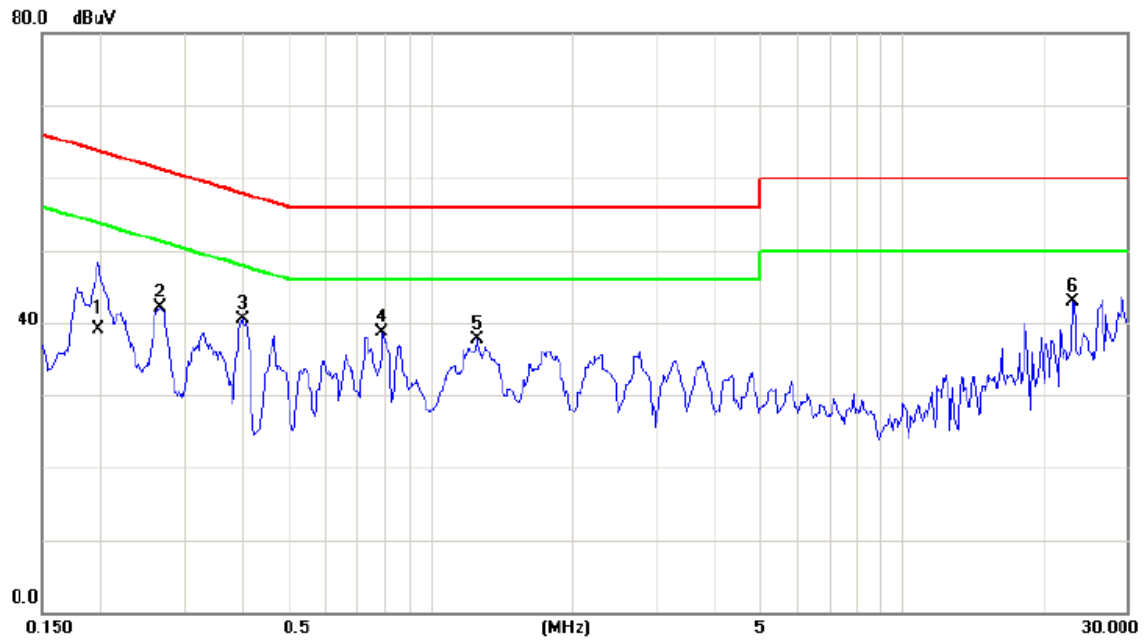
Neutron Engineering Inc.

ATTACHMENT A - CONDUCTED EMISSION



Test Mode : TX MODE

Line

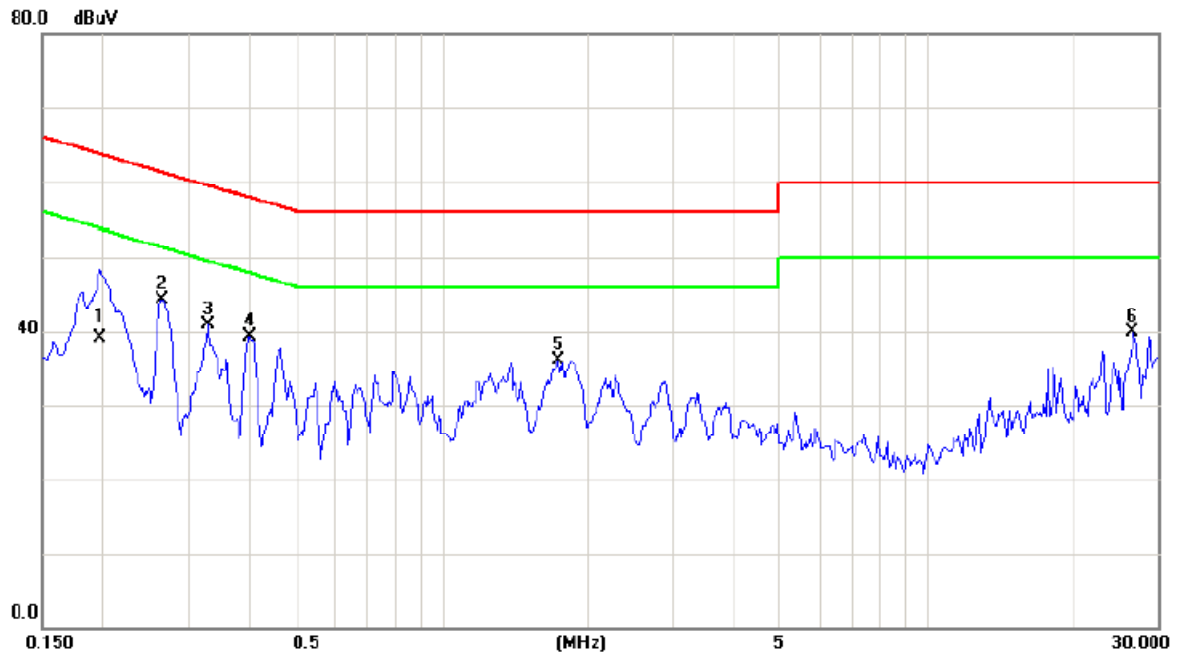


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	*	0.1968	29.55	9.65	39.20	53.74	-14.54	AVG	
2		0.2671	32.38	9.66	42.04	61.21	-19.17	peak	
3		0.3976	30.91	9.68	40.59	57.90	-17.31	peak	
4		0.7903	29.07	9.72	38.79	56.00	-17.21	peak	
5		1.2515	27.90	9.77	37.67	56.00	-18.33	peak	
6		23.1290	32.64	10.29	42.93	60.00	-17.07	peak	



Test Mode : TX MODE

Neutral



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	*	0.1968	29.40	9.71	39.11	53.74	-14.63	AVG	
2		0.2631	34.59	9.72	44.31	61.33	-17.02	peak	
3		0.3296	31.11	9.72	40.83	59.46	-18.63	peak	
4		0.4000	29.50	9.73	39.23	57.85	-18.62	peak	
5		1.7360	26.18	9.84	36.02	56.00	-19.98	peak	
6		26.6718	29.28	10.62	39.90	60.00	-20.10	peak	



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



Test Mode: TX Mode 2412MHz

Freq. (MHz)	Ant. 0°/90°	Reading(RA) (dBuV)	Corr.Factor(CF) (dB)	Measured(FS) (dBuV/m)	Limits(QP) (dBuV/m)	Margin (dB)	Note
0.0095	0°	68.35	24.30	92.65	128.07	-35.42	AV
0.0095	0°	72.35	24.30	96.65	148.07	-51.42	PK
0.0141	0°	70.35	24.30	94.65	124.62	-29.97	AV
0.0141	0°	79.35	24.30	103.65	144.62	-40.97	PK
0.0253	0°	56.36	23.96	80.32	119.54	-39.22	AV
0.0253	0°	60.12	23.96	84.08	139.54	-55.46	PK
0.0336	0°	61.36	23.44	84.80	117.08	-32.28	AV
0.0336	0°	65.38	23.44	88.82	137.08	-48.26	PK
0.5720	0°	18.72	20.03	38.75	72.46	-33.71	QP
1.7547	0°	18.95	19.52	38.47	96.54	-58.07	QP

Freq. (MHz)	Ant. 0°/90°	Reading(RA) (dBuV)	Corr.Factor(CF) (dB)	Measured(FS) (dBuV/m)	Limits(QP) (dBuV/m)	Margin (dB)	Note
0.0095	90°	76.35	24.30	100.65	128.04	-27.39	AVG
0.0095	90°	82.36	24.30	106.66	148.04	-41.38	PK
0.0245	90°	56.38	24.02	80.40	119.82	-39.42	AVG
0.0245	90°	59.35	24.02	83.37	139.82	-56.45	PK
0.0324	90°	57.35	23.51	80.86	117.39	-36.53	AVG
0.0324	90°	58.35	23.51	81.86	137.39	-55.53	PK
0.0432	90°	59.35	22.83	82.18	114.89	-32.71	AVG
0.0432	90°	63.35	22.83	86.18	134.89	-48.71	PK
0.4921	90°	17.45	19.82	37.27	73.76	-36.49	QP
1.7164	90°	18.63	19.53	38.16	69.54	-31.38	QP

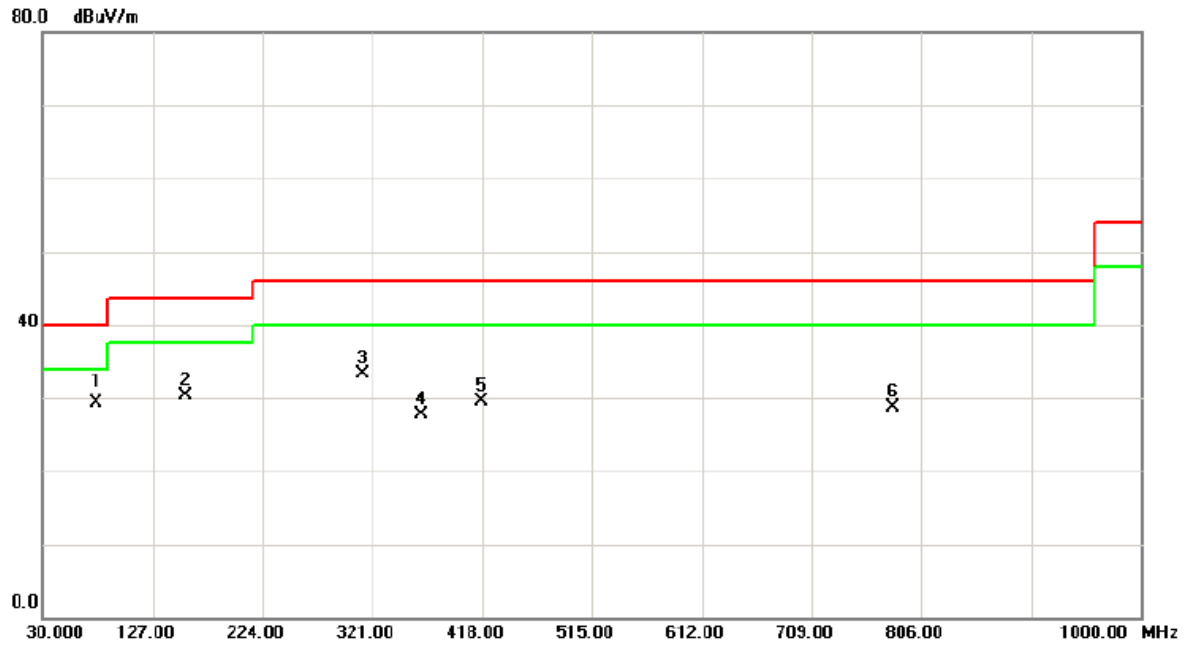


ATTACHMENT C - RADIATED EMISSION (30MHZ TO 1000MHZ)



Test Mode:	TX B MODE CHANNEL 01
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Vertical

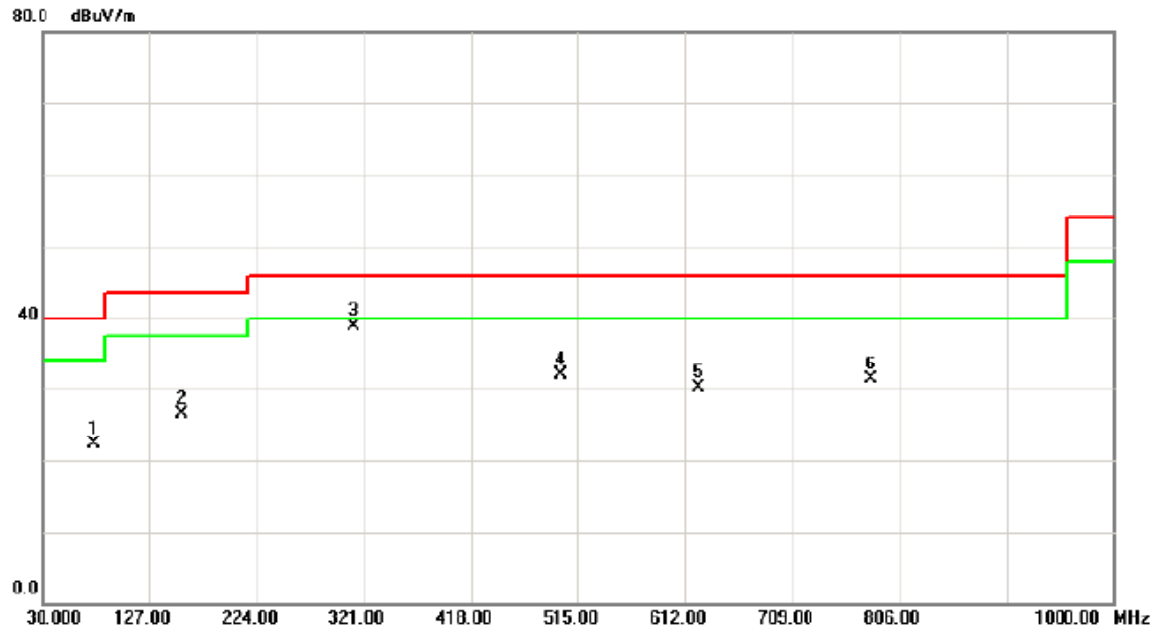


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	*	77.5300	46.37	-17.13	29.24	40.00	-10.76	QP	
2		156.1000	44.00	-13.69	30.31	43.50	-13.19	peak	
3		312.2700	44.61	-11.30	33.31	46.00	-12.69	peak	
4		363.6800	38.73	-11.02	27.71	46.00	-18.29	peak	
5		417.0300	39.14	-9.56	29.58	46.00	-16.42	peak	
6		780.7800	32.51	-3.81	28.70	46.00	-17.30	peak	



Test Mode: TX B MODE CHANNEL 01

Horizontal

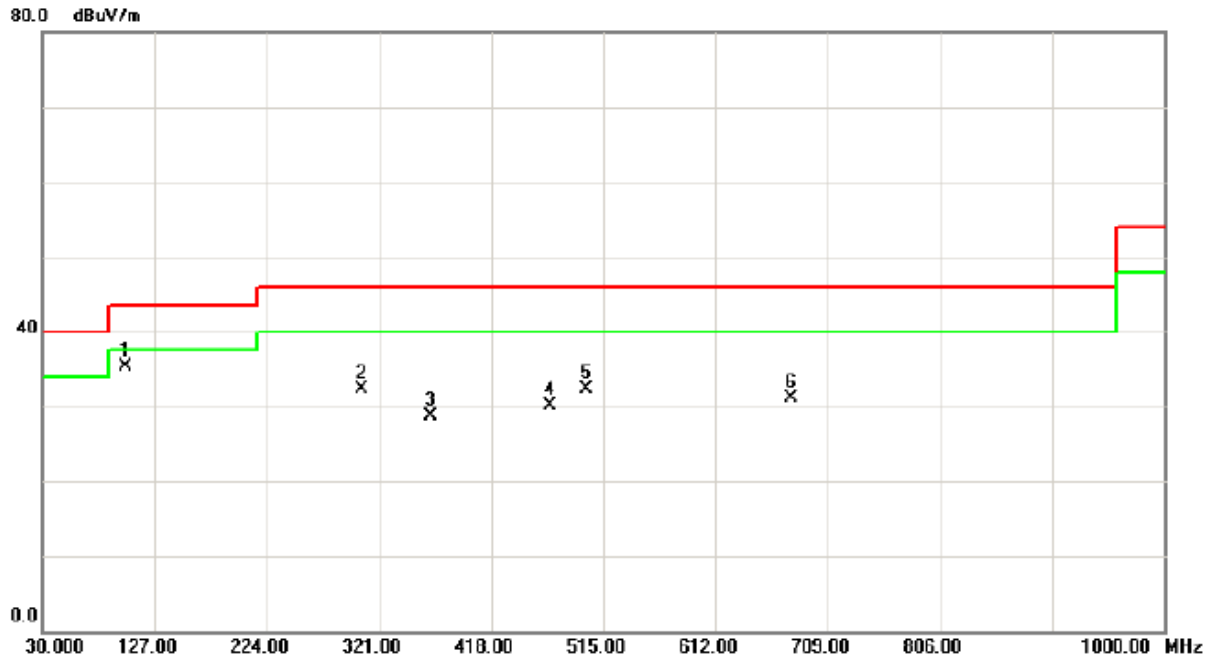


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		77.5300	39.47	-17.13	22.34	40.00	-17.66	peak	
2		156.1000	40.10	-13.69	26.49	43.50	-17.01	peak	
3	*	312.2700	50.12	-11.30	38.82	46.00	-7.18	peak	
4		500.4500	42.20	-10.31	31.89	46.00	-14.11	peak	
5		624.6100	37.02	-6.86	30.16	46.00	-15.84	peak	
6		780.7800	35.11	-3.81	31.30	46.00	-14.70	peak	



Test Mode: TX B MODE CHANNEL 06

Vertical

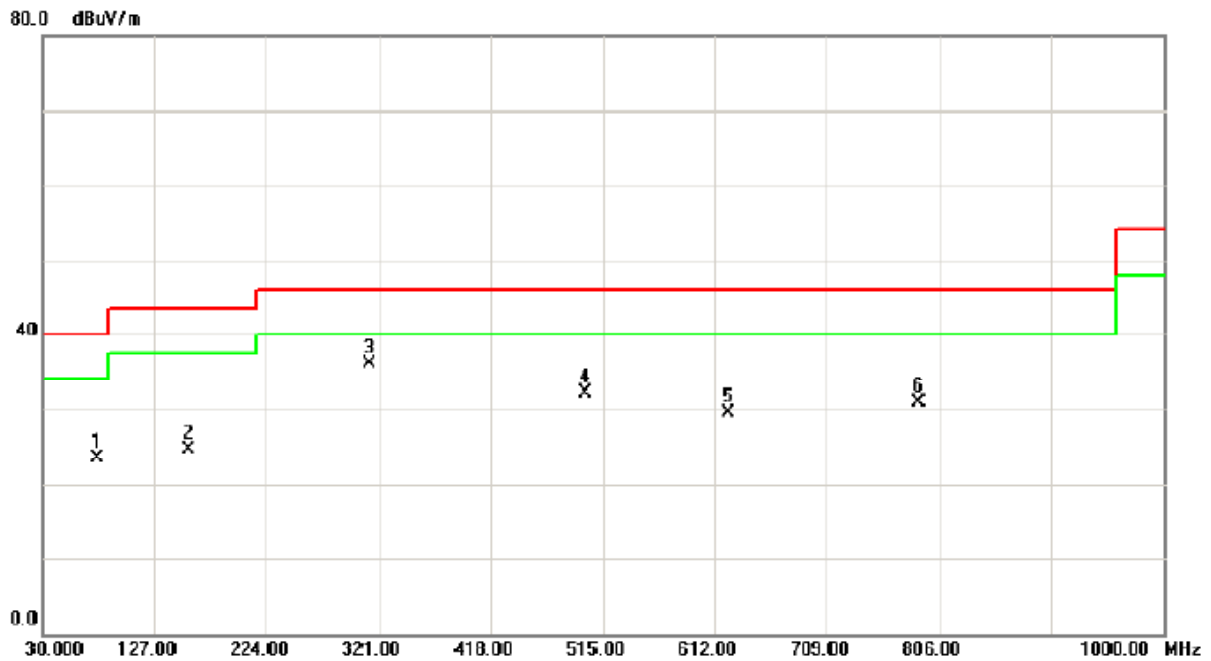


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	*	101.7800	51.33	-15.96	35.37	43.50	-8.13	peak	
2		306.4500	43.61	-11.27	32.34	46.00	-13.66	peak	
3		365.6200	39.67	-10.97	28.70	46.00	-17.30	peak	
4		468.4400	39.52	-9.44	30.08	46.00	-15.92	peak	
5		500.4500	42.65	-10.31	32.34	46.00	-13.66	peak	
6		676.9900	36.30	-5.16	31.14	46.00	-14.86	peak	



Test Mode:	TX B MODE CHANNEL 06
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Horizontal

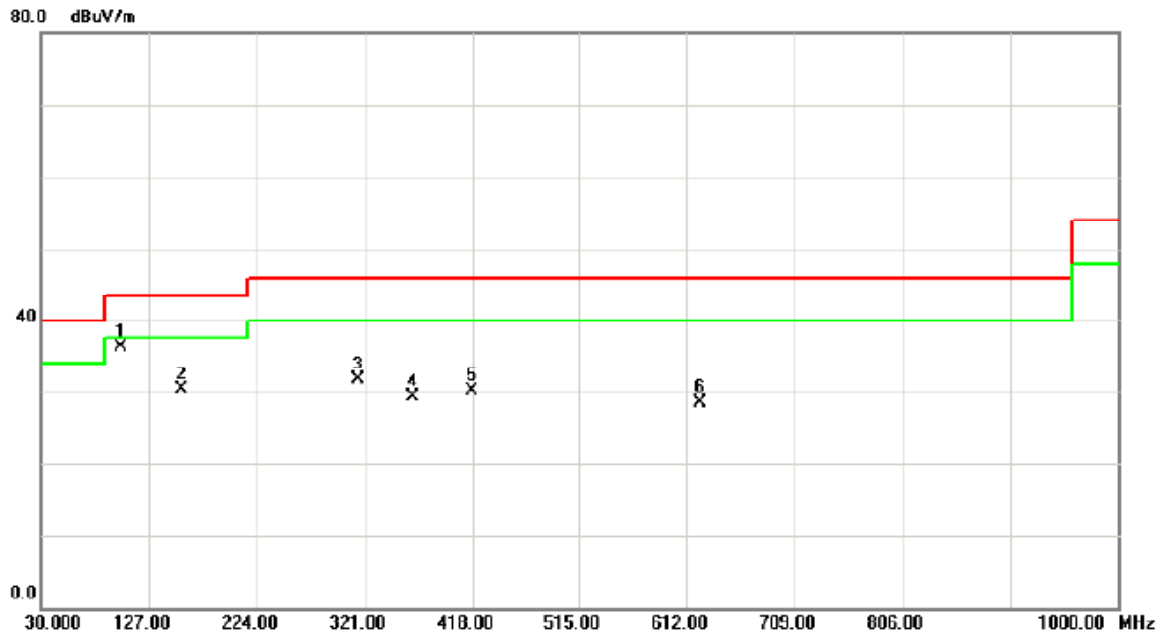


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		77.5300	40.72	-17.13	23.59	40.00	-16.41	peak	
2		156.1000	38.43	-13.69	24.74	43.50	-18.76	peak	
3	*	312.2700	47.37	-11.30	36.07	46.00	-9.93	peak	
4		500.4500	42.45	-10.31	32.14	46.00	-13.86	peak	
5		624.6100	36.27	-6.86	29.41	46.00	-16.59	peak	
6		788.5400	34.46	-3.53	30.93	46.00	-15.07	peak	



Test Mode:	TX B MODE CHANNEL 11
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Vertical

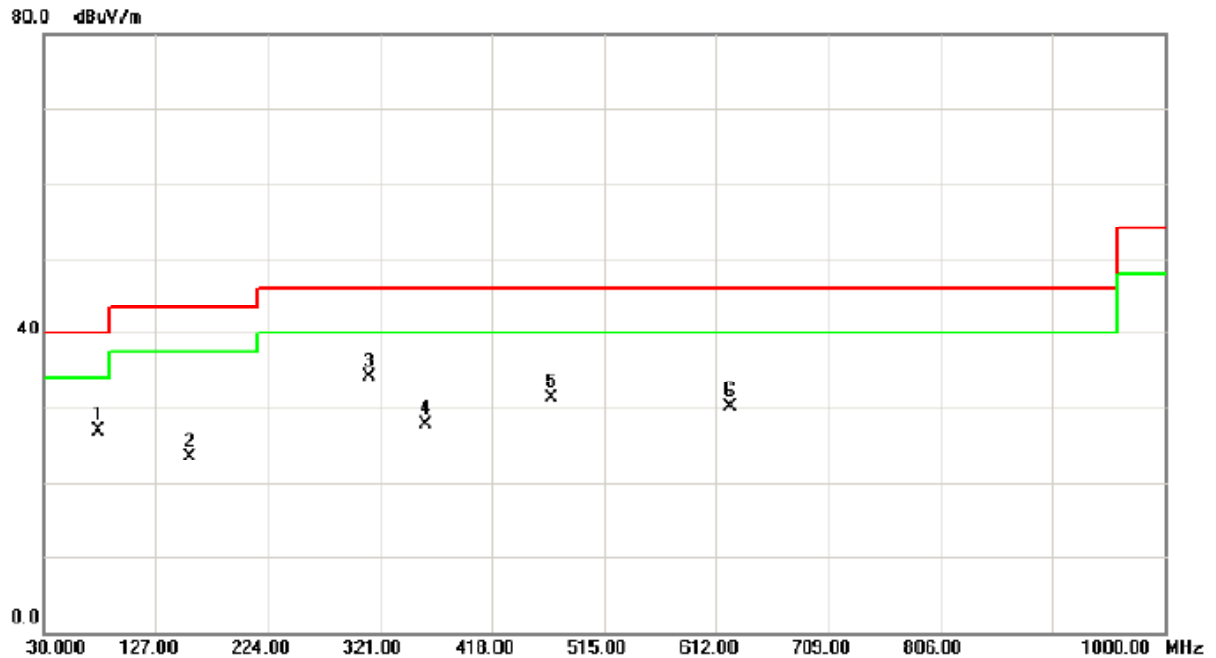


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	101.7800	52.33	-15.96	36.37	43.50	-7.13	peak	
2		156.1000	44.00	-13.69	30.31	43.50	-13.19	peak	
3		315.1800	42.98	-11.32	31.66	46.00	-14.34	peak	
4		363.6800	40.23	-11.02	29.21	46.00	-16.79	peak	
5		417.0300	39.64	-9.56	30.08	46.00	-15.92	peak	
6		624.6100	35.33	-6.86	28.47	46.00	-17.53	peak	



Test Mode:	TX B MODE CHANNEL 11
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Horizontal



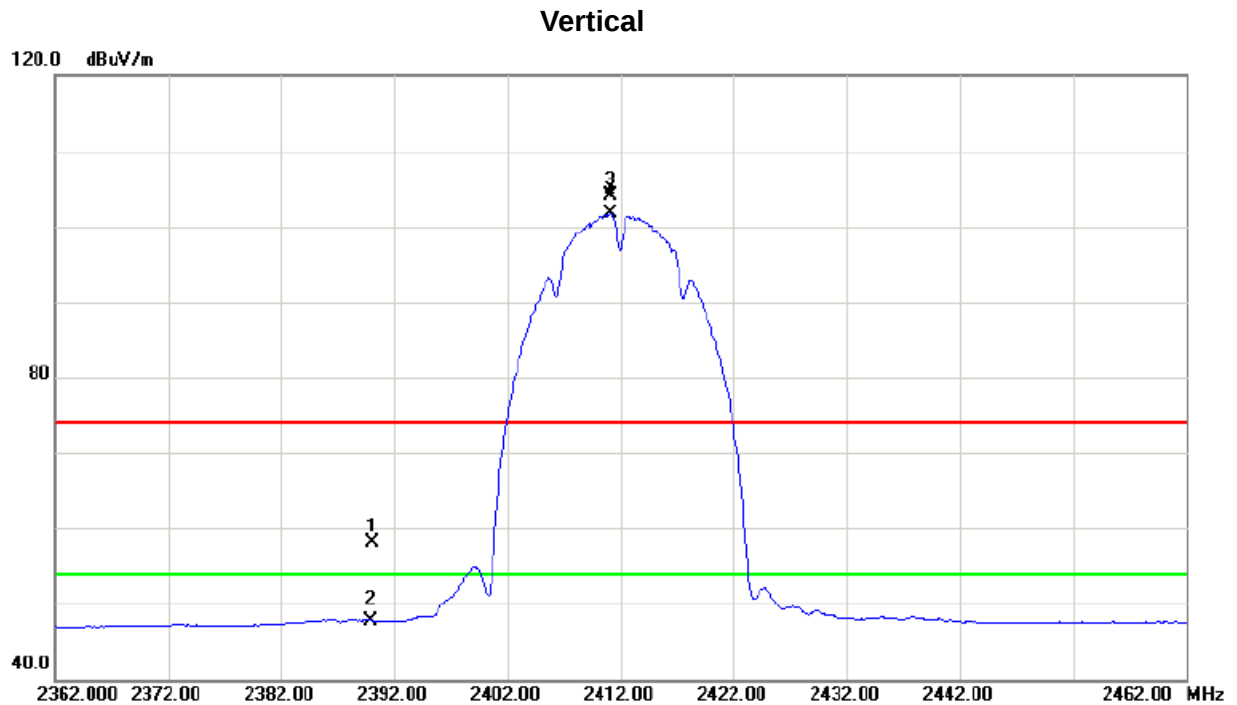
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		77.5300	43.97	-17.13	26.84	40.00	-13.16	peak	
2		156.1000	37.18	-13.69	23.49	43.50	-20.01	peak	
3	*	311.3000	45.49	-11.30	34.19	46.00	-11.81	peak	
4		360.7700	38.79	-11.11	27.68	46.00	-18.32	peak	
5		468.4400	40.73	-9.44	31.29	46.00	-14.71	peak	
6		624.6100	37.02	-6.86	30.16	46.00	-15.84	peak	



ATTACHMENT D - RADIATED EMISSION (ABOVE 1000MHZ)



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

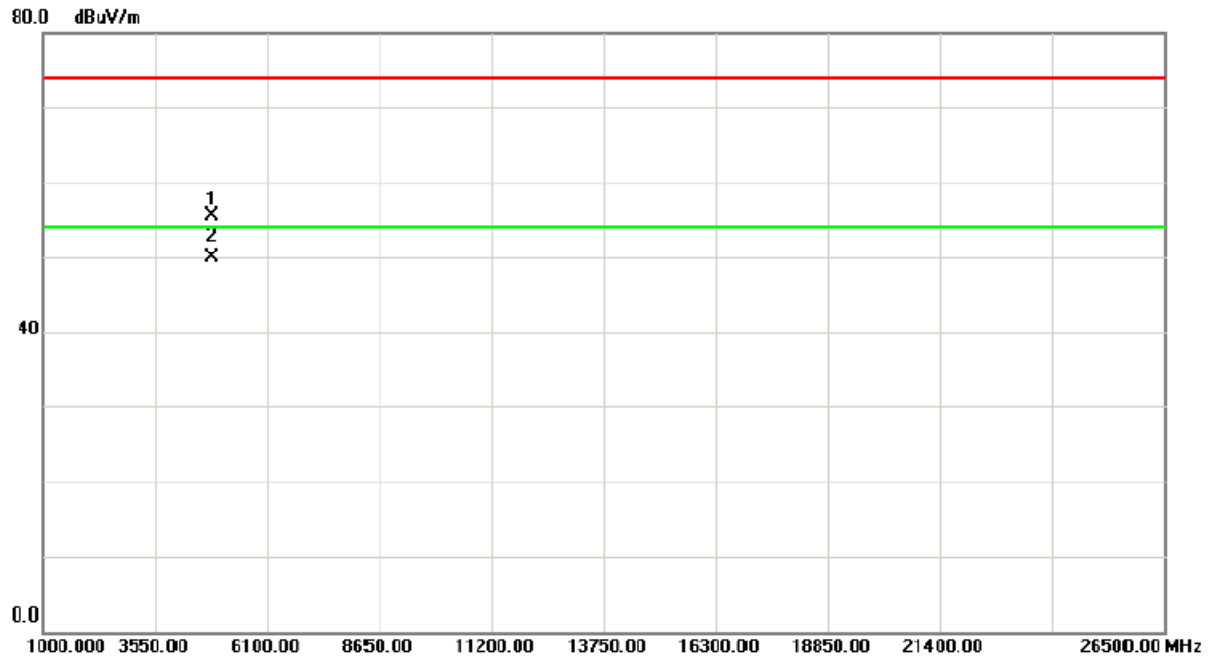


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		2390.000	24.73	33.38	58.11	74.00	-15.89	peak	
2		2390.000	14.41	33.38	47.79	54.00	-6.21	AVG	
3	X	2411.100	70.68	33.44	104.12	74.00	30.12	peak	Fundamental frequency, no limit
4	*	2411.100	68.22	33.44	101.66	54.00	47.66	AVG	Fundamental frequency, no limit



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

Vertical

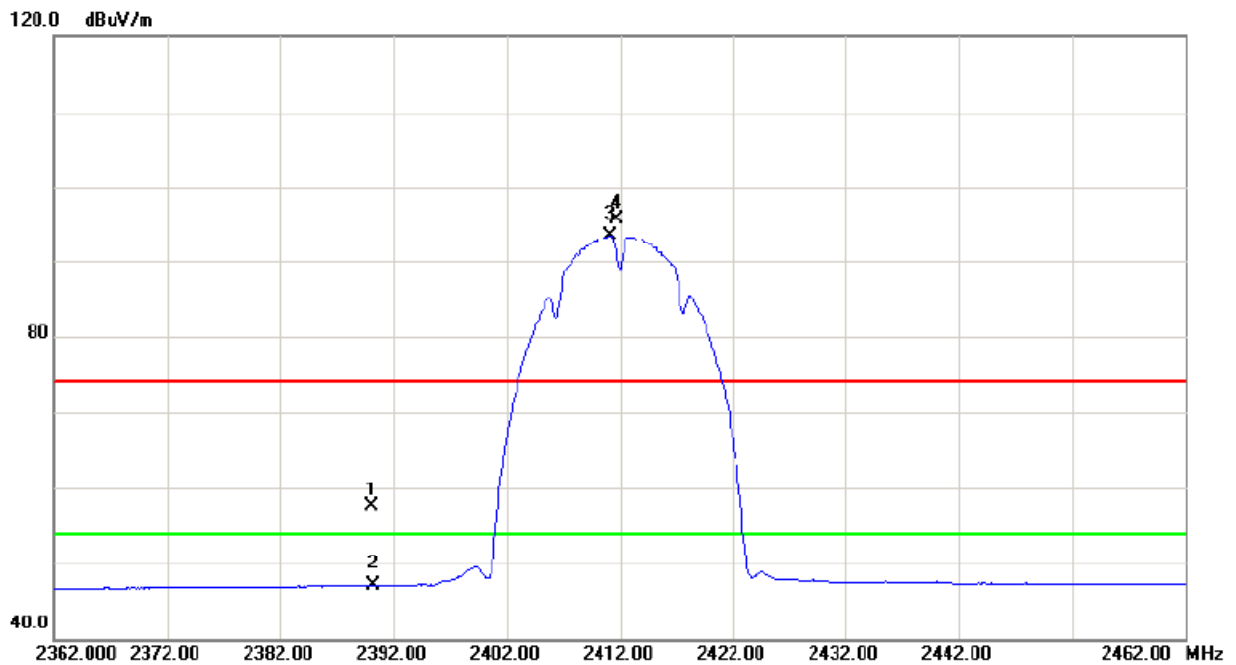


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4824.000	49.05	6.43	55.48	74.00	-18.52	peak	
2	*	4824.000	43.49	6.43	49.92	54.00	-4.08	AVG	



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

Horizontal

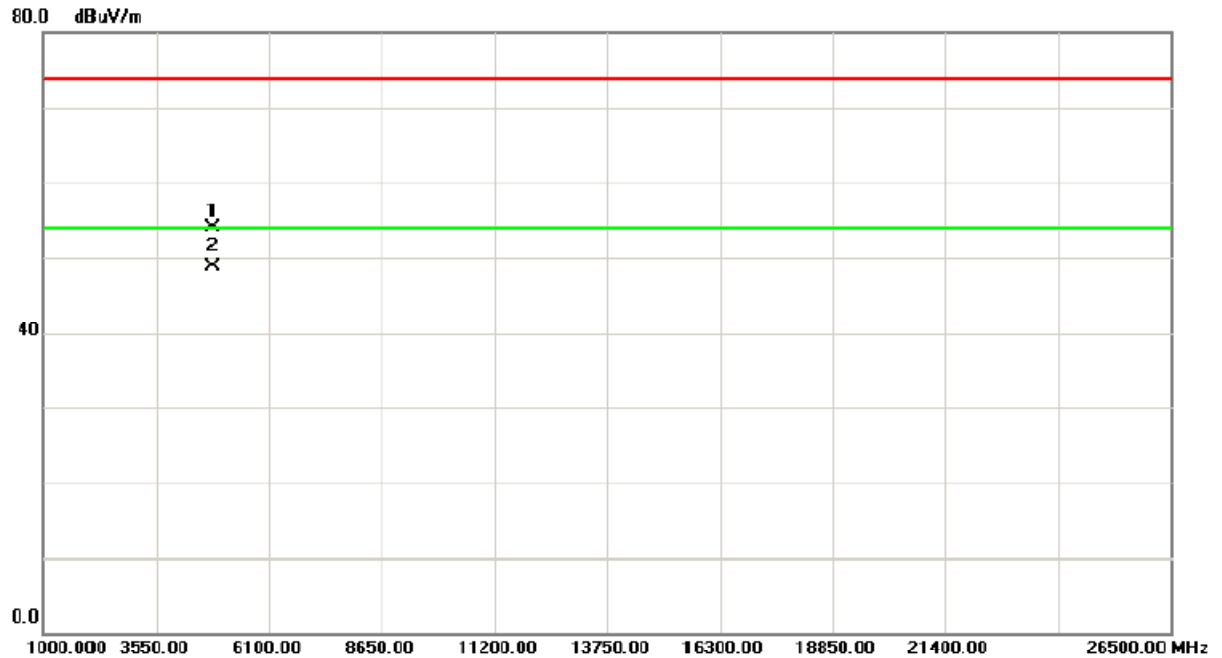


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		2390.000	24.18	33.38	57.56	74.00	-16.44	peak	
2		2390.000	13.69	33.38	47.07	54.00	-6.93	AVG	
3	*	2411.100	60.11	33.44	93.55	54.00	39.55	AVG	Fundamental frequency, no limit
4	X	2411.600	62.29	33.44	95.73	74.00	21.73	peak	Fundamental frequency, no limit



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

Horizontal

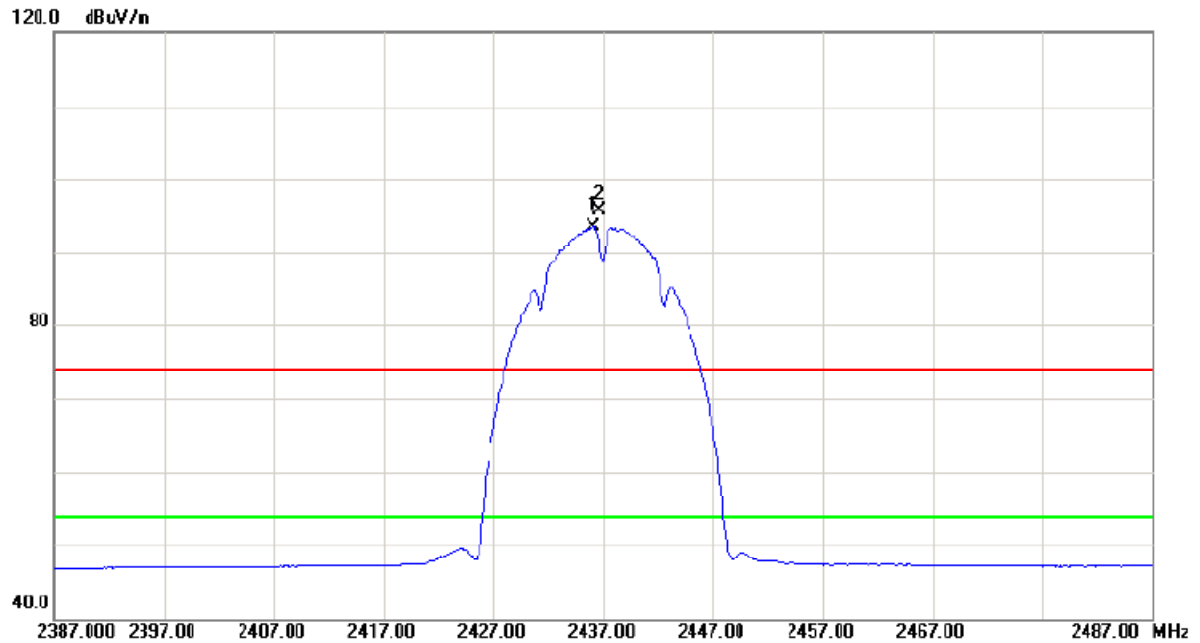


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4824.000	47.65	6.43	54.08	74.00	-19.92	peak	
2	*	4824.000	42.24	6.43	48.67	54.00	-5.33	AVG	



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

Vertical

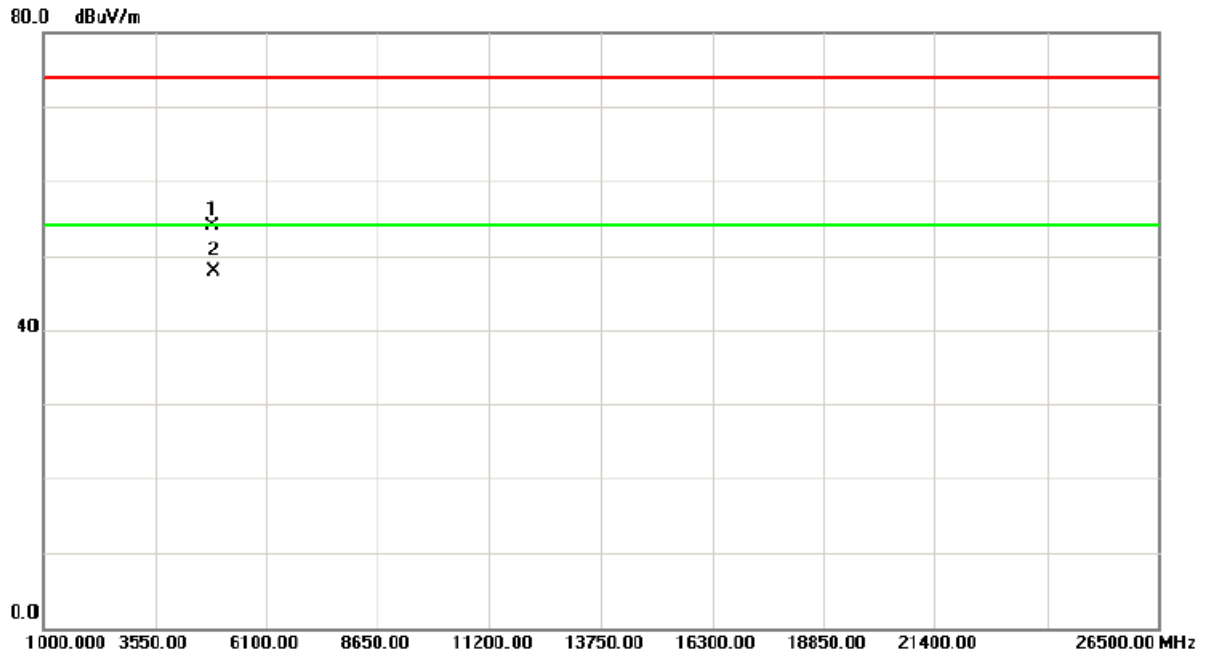


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	*	2436.100	59.99	33.50	93.49	54.00	39.49	AVG	Fundamental frequency, no limit
2	X	2436.700	62.15	33.50	95.65	74.00	21.65	peak	Fundamental frequency, no limit



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

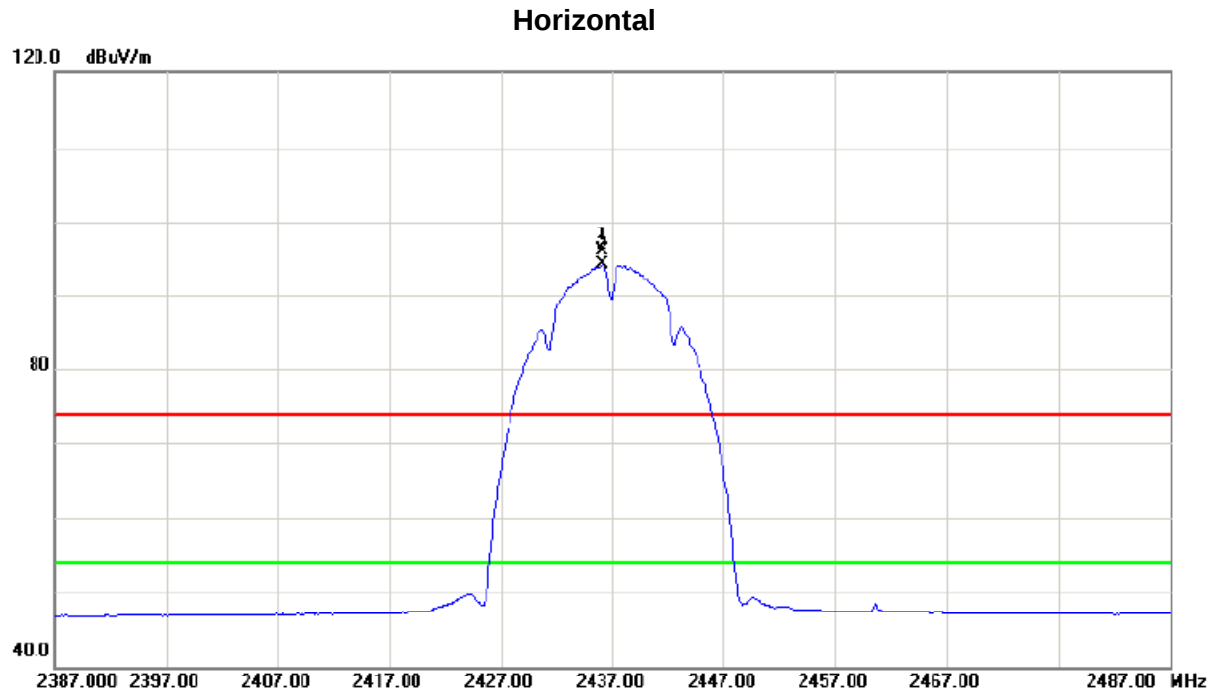
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4874.000	47.27	6.58	53.85	74.00	-20.15	peak	
2	*	4874.000	41.36	6.58	47.94	54.00	-6.06	AVG	



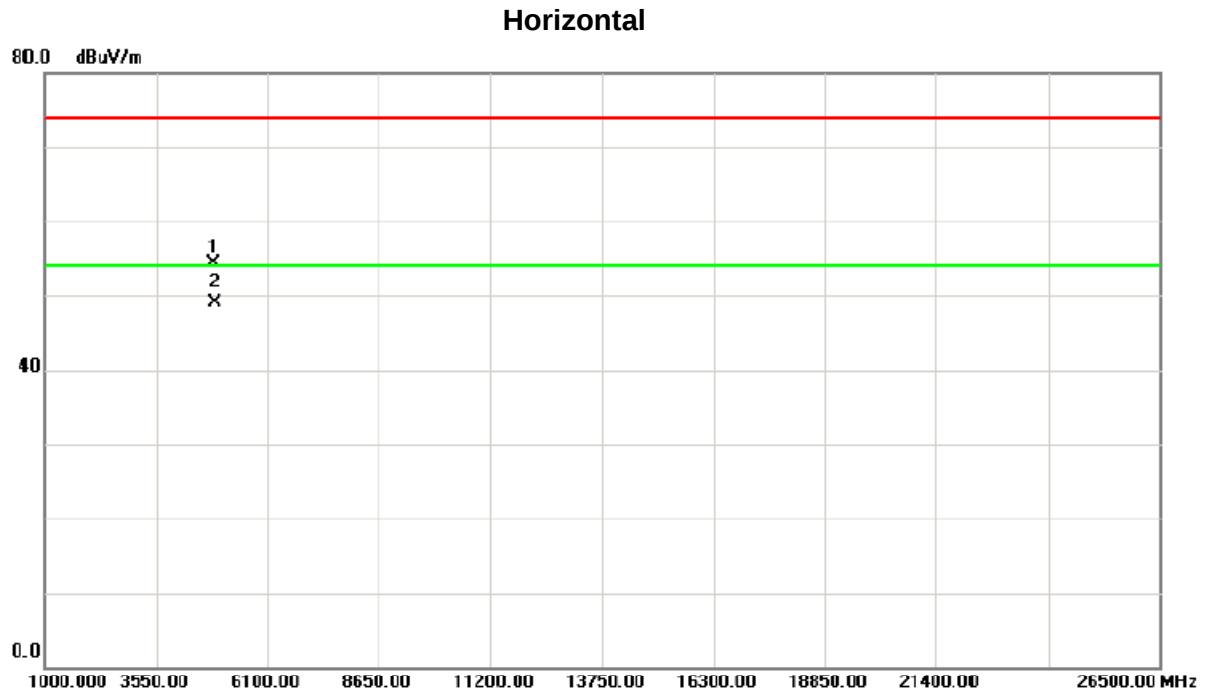
Orthogonal Axis :	X
Test Mode :	TX B MODE 2437MHz



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1	X	2436.100	62.64	33.50	96.14	74.00	22.14	peak	Fundamental frequency, no limit
2	*	2436.100	60.60	33.50	94.10	54.00	40.10	AVG	Fundamental frequency, no limit



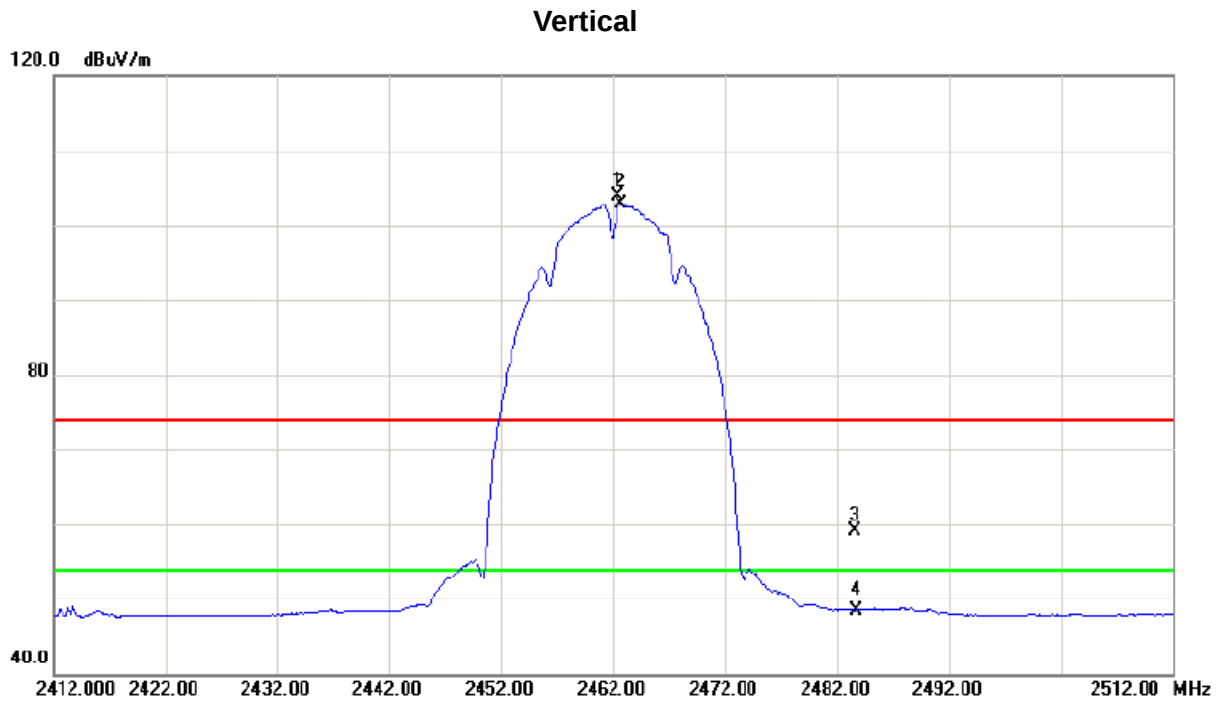
Orthogonal Axis :	X
Test Mode :	TX B MODE 2437MHz



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		4874.000	47.78	6.58	54.36	74.00	-19.64	peak	
2	*	4874.000	42.25	6.58	48.83	54.00	-5.17	AVG	



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

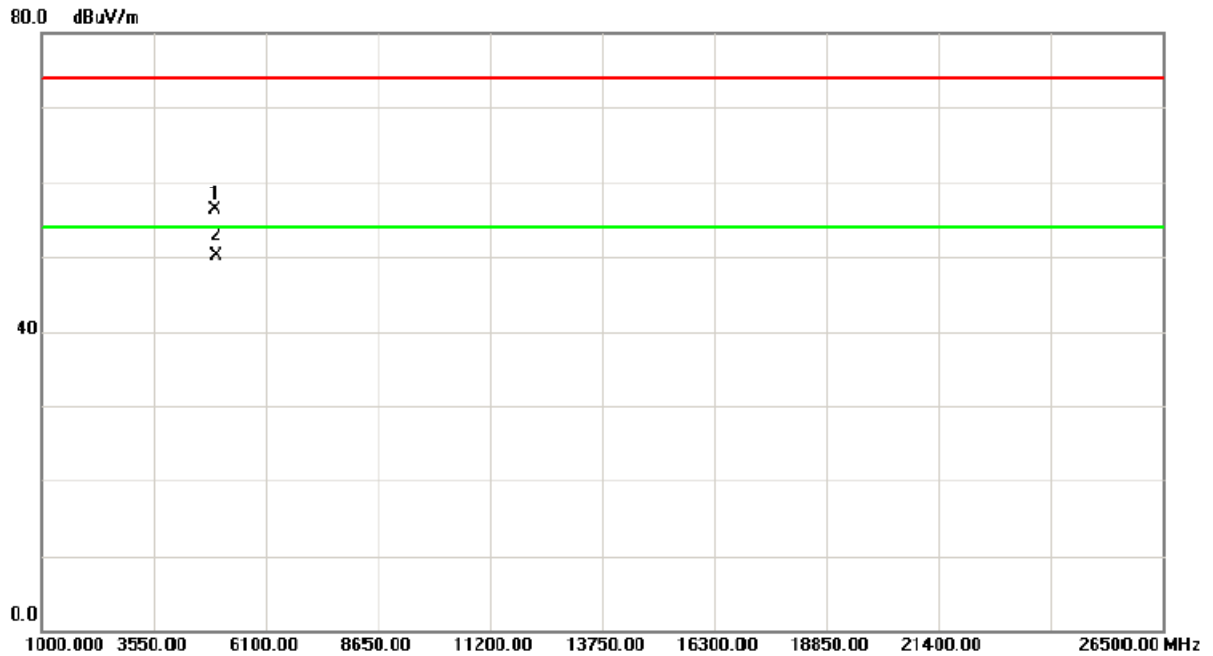


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	X	2462.400	70.27	33.57	103.84	74.00	29.84	peak	Fundamental frequency, no limit
2	*	2462.700	69.24	33.57	102.81	54.00	48.81	AVG	Fundamental frequency, no limit
3		2483.500	25.45	33.62	59.07	74.00	-14.93	peak	
4		2483.500	14.78	33.62	48.40	54.00	-5.60	AVG	



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

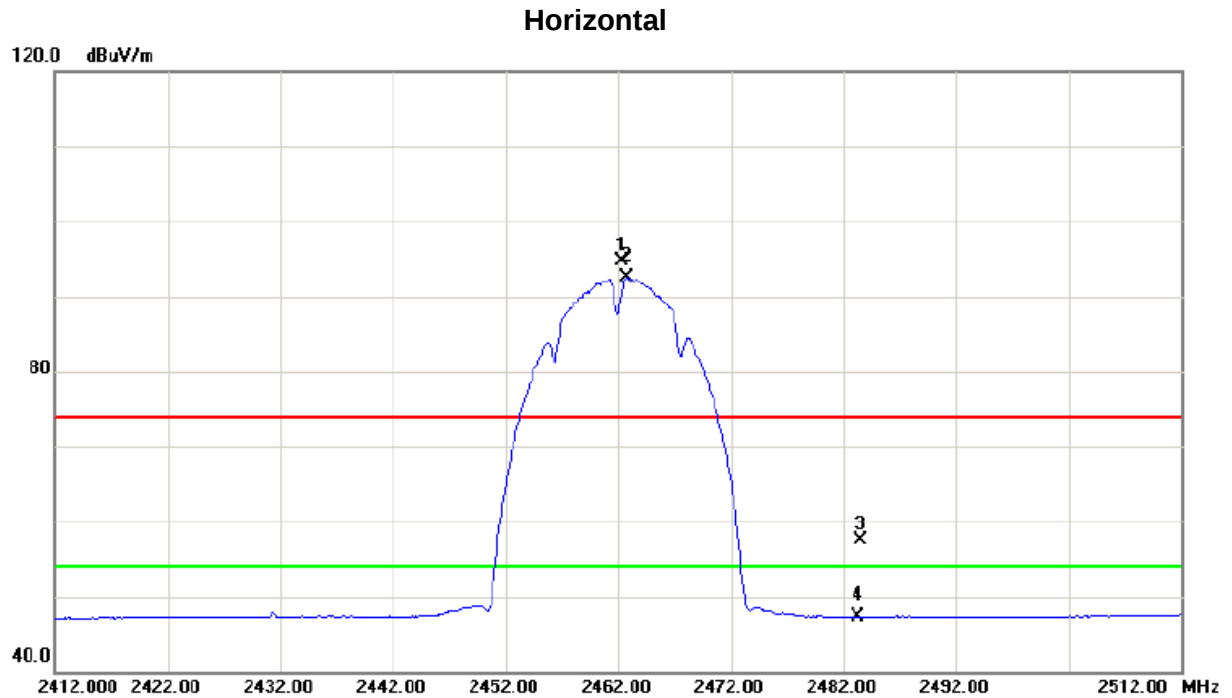
Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		4924.000	49.57	6.72	56.29	74.00	-17.71	peak	
2	*	4924.000	43.33	6.72	50.05	54.00	-3.95	AVG	



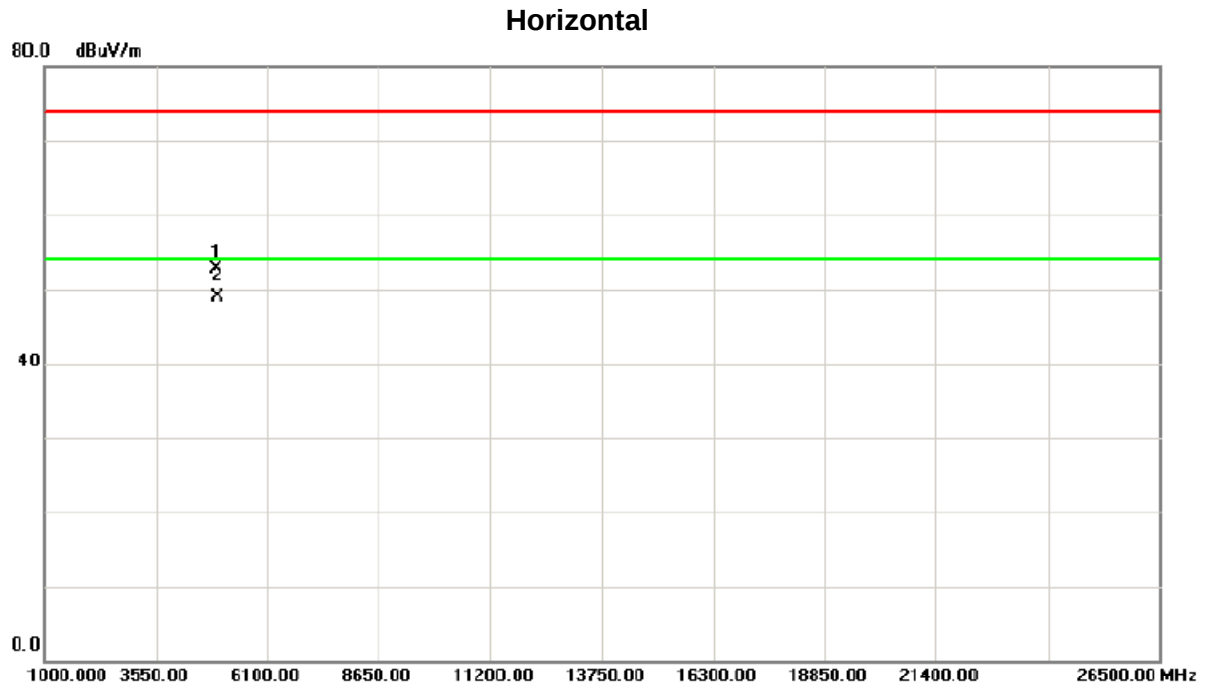
Orthogonal Axis :	X
Test Mode :	TX B MODE 2462MHz



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	X	2462.300	61.14	33.57	94.71	74.00	20.71	peak	Fundamental frequency, no limit
2	*	2462.700	58.91	33.57	92.48	54.00	38.48	AVG	Fundamental frequency, no limit
3		2483.500	23.91	33.62	57.53	74.00	-16.47	peak	
4		2483.500	13.75	33.62	47.37	54.00	-6.63	AVG	



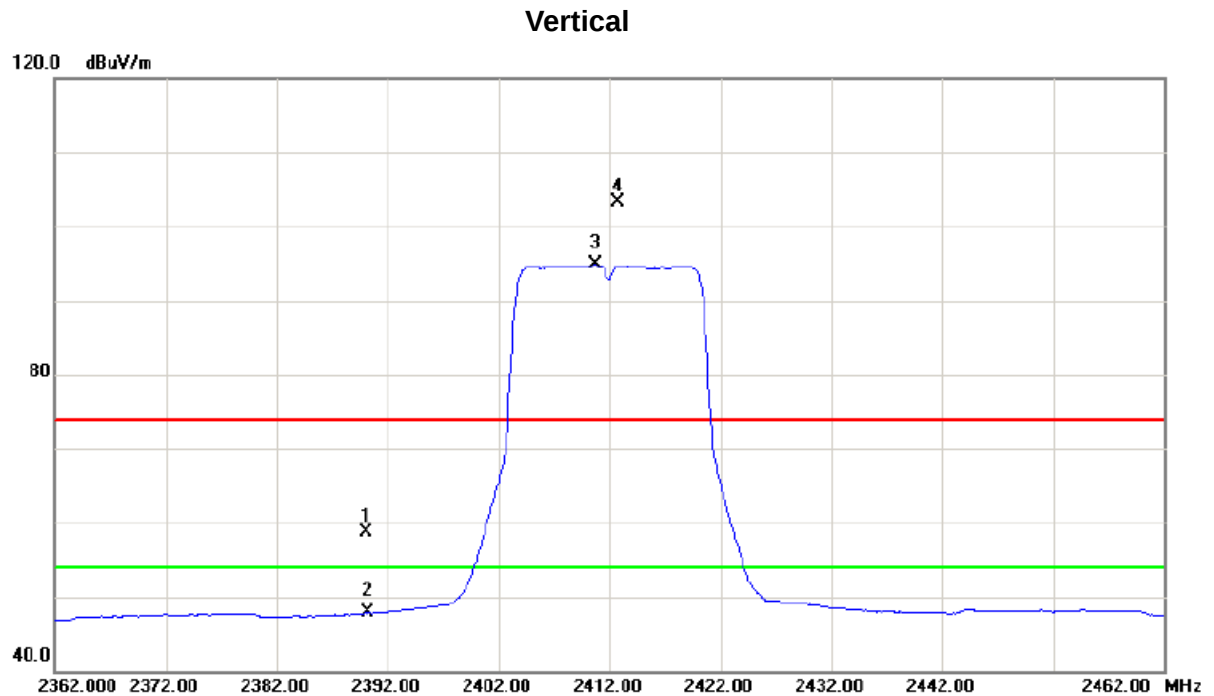
Orthogonal Axis :	X
Test Mode :	TX B MODE 2462MHz



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4924.000	45.96	6.72	52.68	74.00	-21.32	peak	
2	*	4924.000	42.17	6.72	48.89	54.00	-5.11	AVG	



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

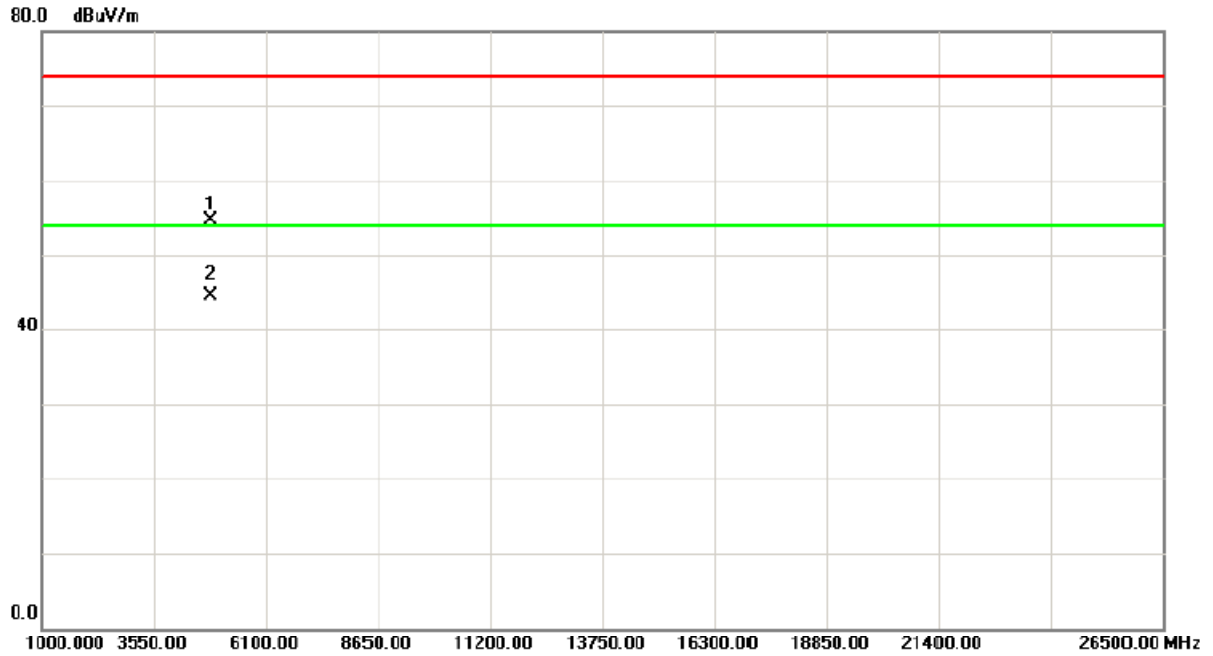


No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over		
		MHz	Level	Factor	ment			Detector	Comment
			dBuV	dB	dBuV/m	dBuV/m	dB		
1		2390.000	25.35	33.38	58.73	74.00	-15.27	peak	
2		2390.000	14.43	33.38	47.81	54.00	-6.19	AVG	
3	*	2410.700	61.37	33.44	94.81	54.00	40.81	AVG	Fundamental frequency, no limit
4	X	2412.700	69.90	33.44	103.34	74.00	29.34	peak	Fundamental frequency, no limit



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

Vertical

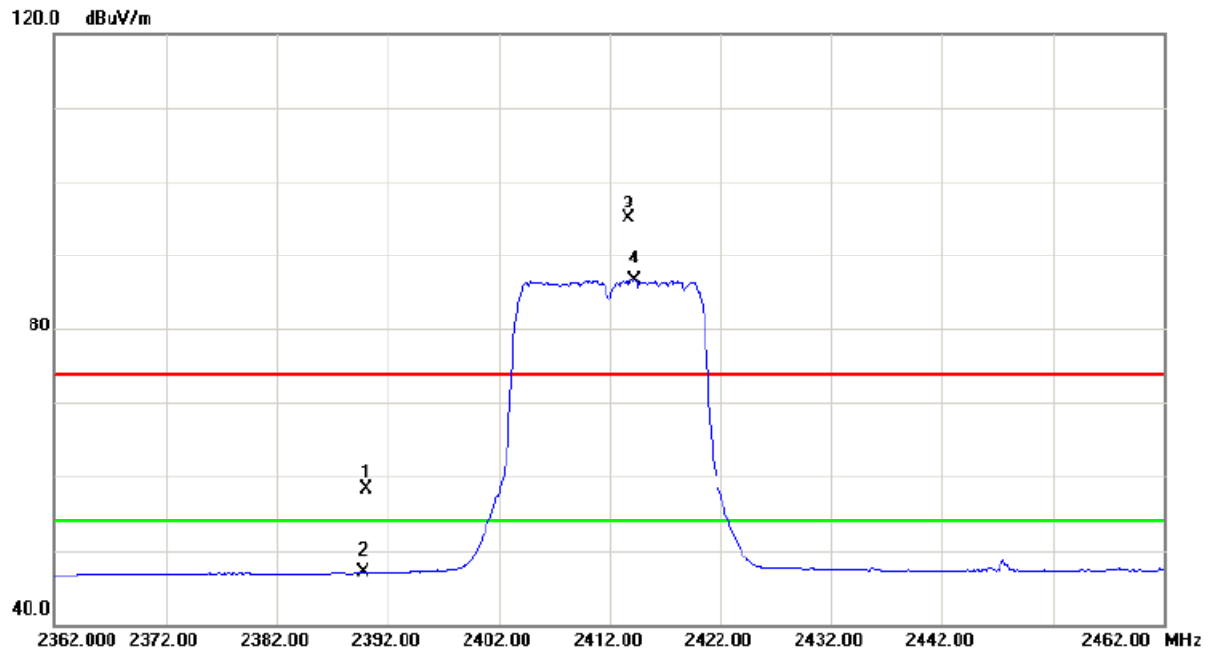


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4824.000	48.25	6.43	54.68	74.00	-19.32	peak	
2	*	4824.000	37.98	6.43	44.41	54.00	-9.59	AVG	



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

Horizontal

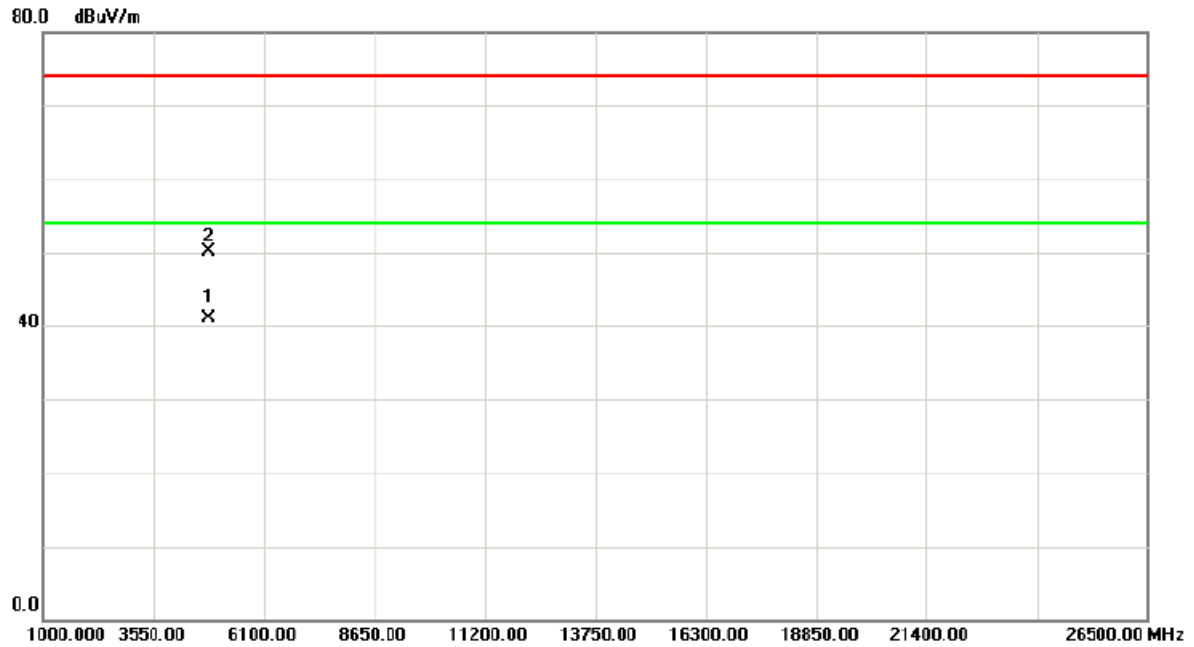


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		2390.000	24.89	33.38	58.27	74.00	-15.73	peak	
2		2390.000	13.67	33.38	47.05	54.00	-6.95	AVG	
3	X	2413.700	61.56	33.44	95.00	74.00	21.00	peak	Fundamental frequency, no limit
4	*	2414.200	52.98	33.44	86.42	54.00	32.42	AVG	Fundamental frequency, no limit



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

Horizontal

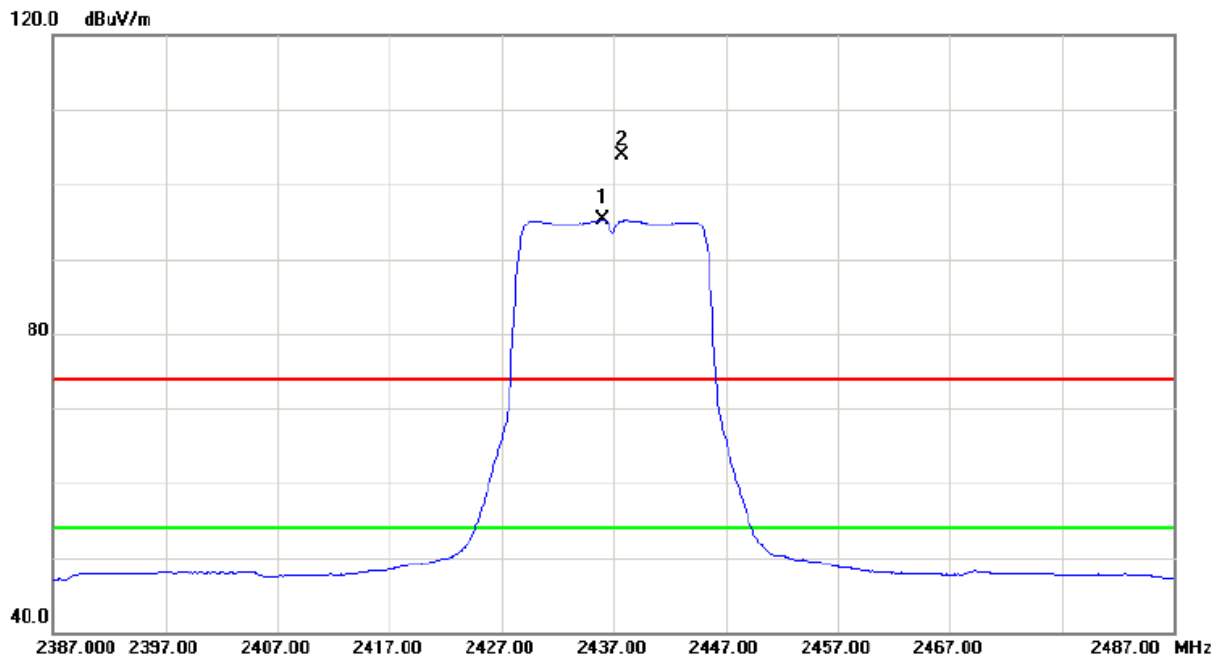


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	*	4824.000	34.47	6.43	40.90	54.00	-13.10	AVG	
2		4824.000	43.76	6.43	50.19	74.00	-23.81	peak	



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

Vertical

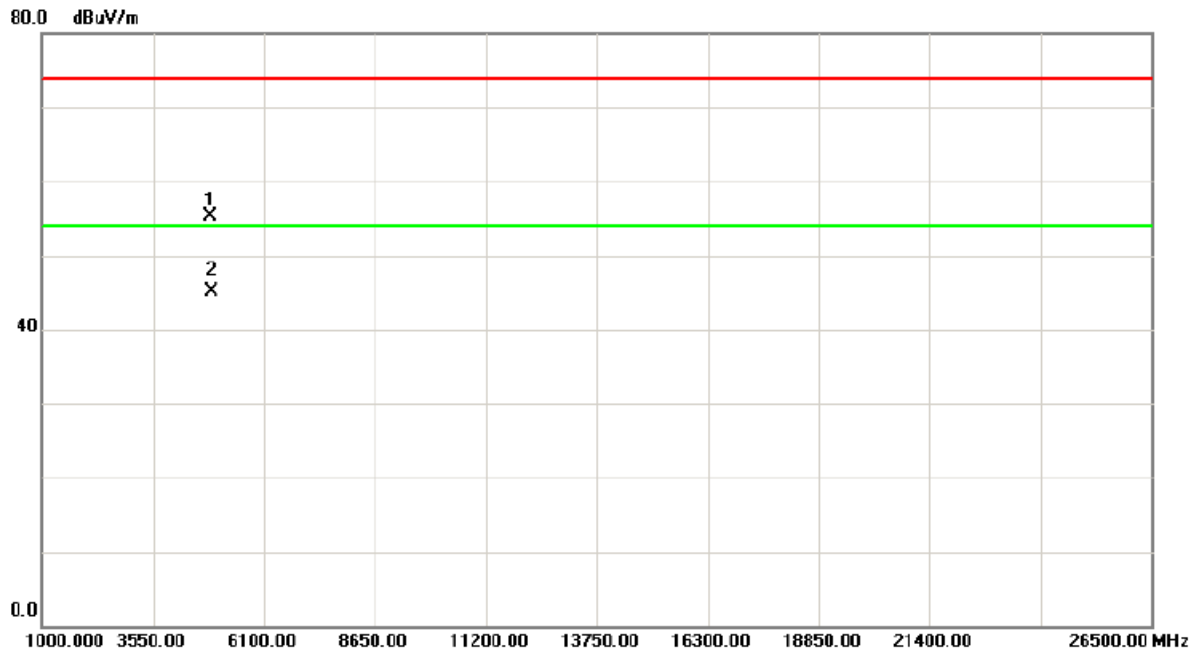


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	*	2436.000	61.77	33.50	95.27	54.00	41.27	AVG	Fundamental frequency, no limit
2	X	2437.700	70.48	33.50	103.98	74.00	29.98	peak	Fundamental frequency, no limit



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

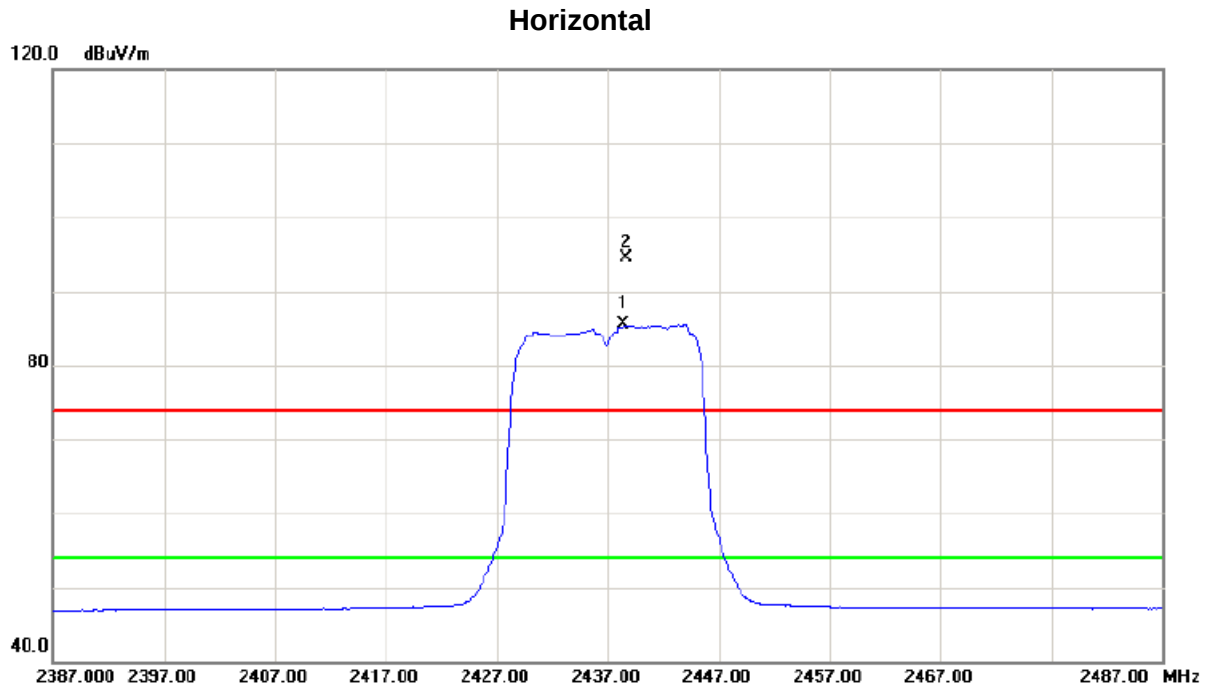
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4874.000	48.77	6.58	55.35	74.00	-18.65	peak	
2	*	4874.000	38.53	6.58	45.11	54.00	-8.89	AVG	



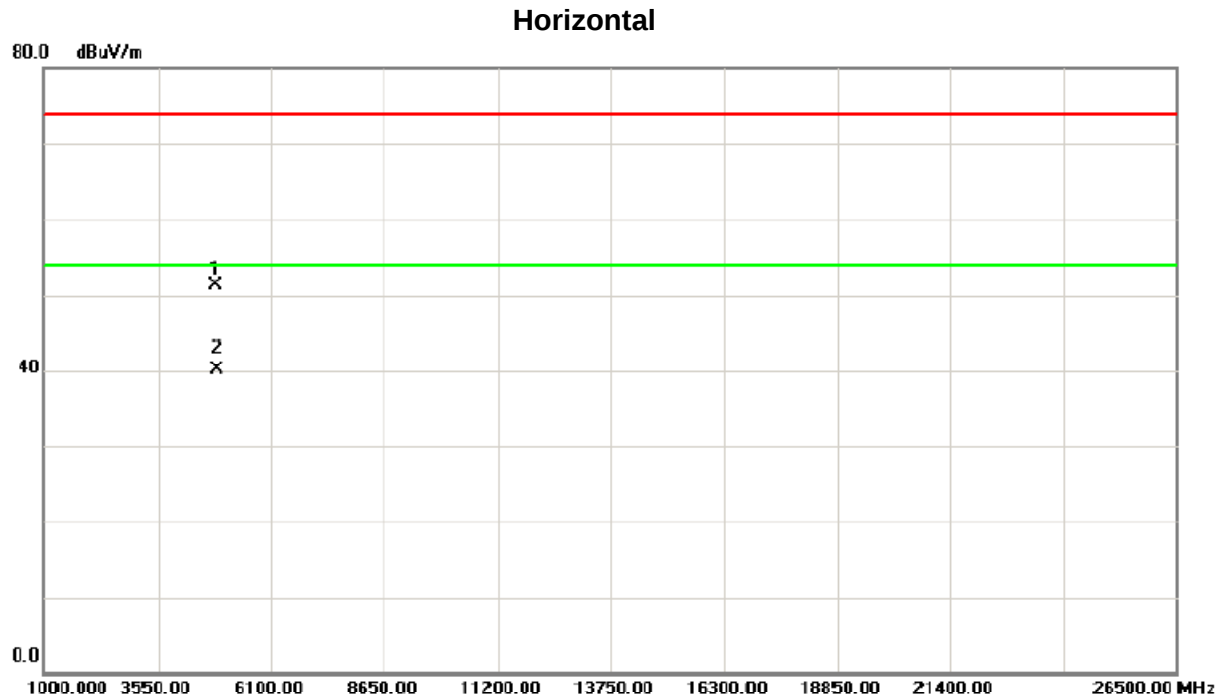
Orthogonal Axis :	X
Test Mode :	TX G MODE 2437MHz



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	*	2438.200	52.04	33.50	85.54	54.00	31.54	AVG	Fundamental frequency, no limit
2	X	2438.700	61.04	33.50	94.54	74.00	20.54	peak	Fundamental frequency, no limit



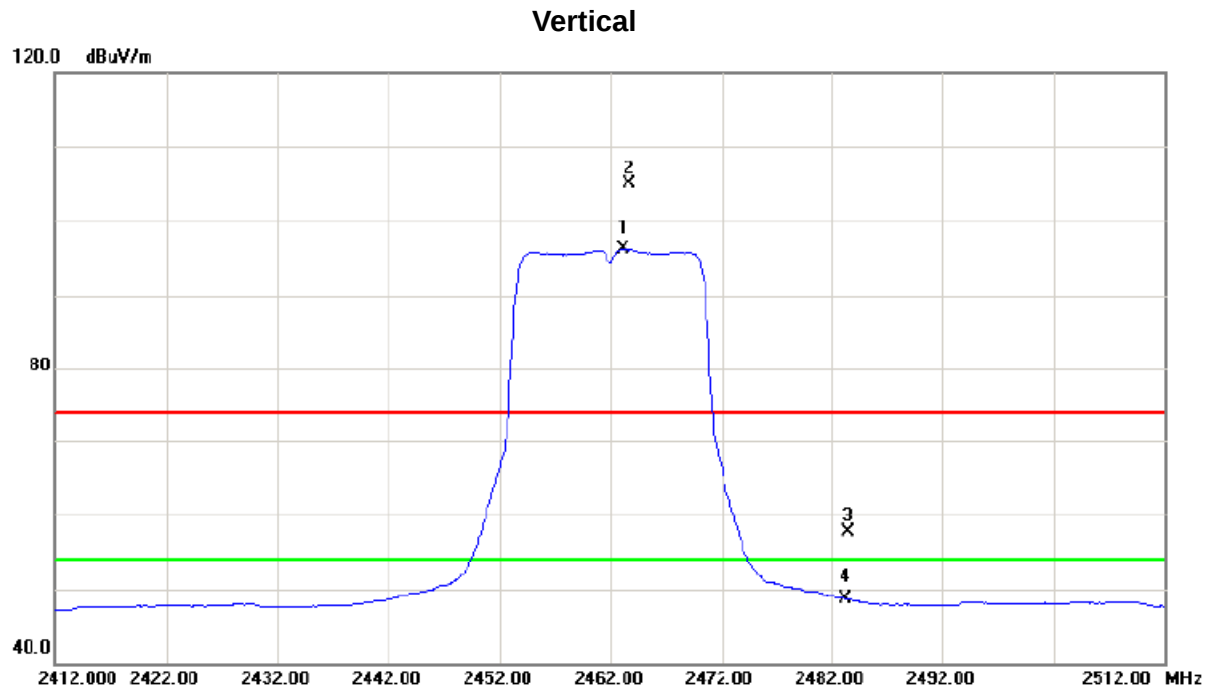
Orthogonal Axis :	X
Test Mode :	TX G MODE 2437MHz



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4874.000	44.72	6.58	51.30	74.00	-22.70	peak	
2	*	4874.000	33.56	6.58	40.14	54.00	-13.86	AVG	



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

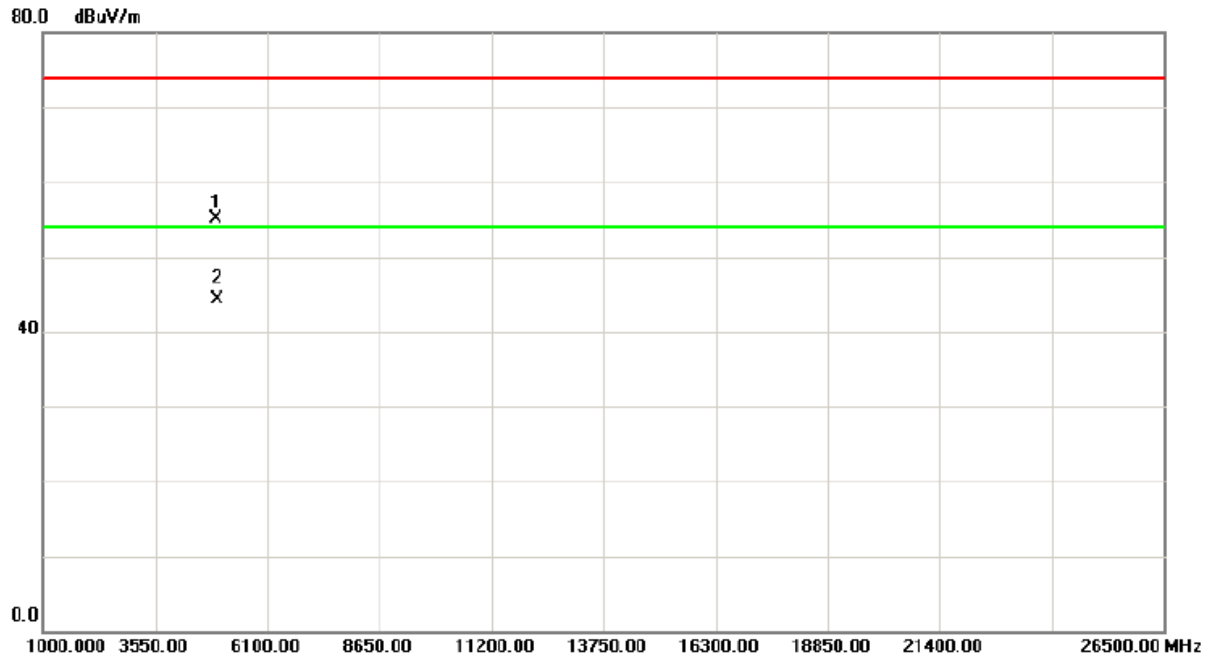


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	*	2463.100	62.51	33.57	96.08	54.00	42.08	AVG	Fundamental frequency, no limit
2	X	2463.700	71.30	33.57	104.87	74.00	30.87	peak	Fundamental frequency, no limit
3		2483.500	24.11	33.62	57.73	74.00	-16.27	peak	
4		2483.500	15.03	33.62	48.65	54.00	-5.35	AVG	



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

Vertical

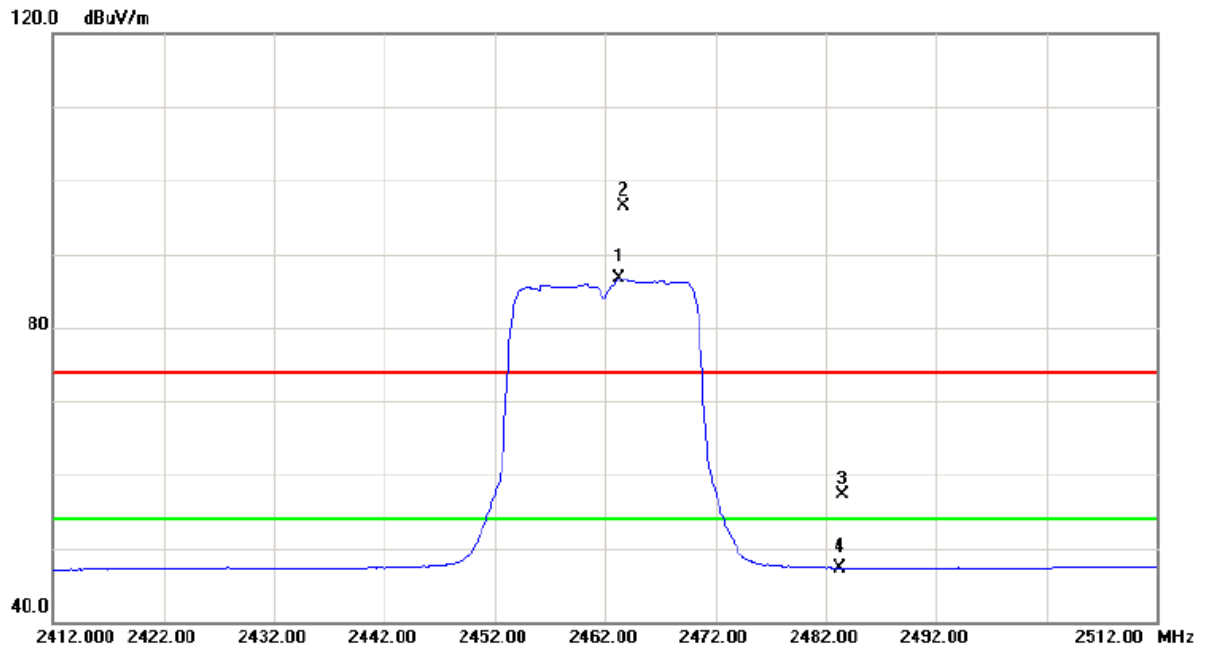


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4924.000	48.45	6.72	55.17	74.00	-18.83	peak	
2	*	4924.000	37.56	6.72	44.28	54.00	-9.72	AVG	



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

Horizontal

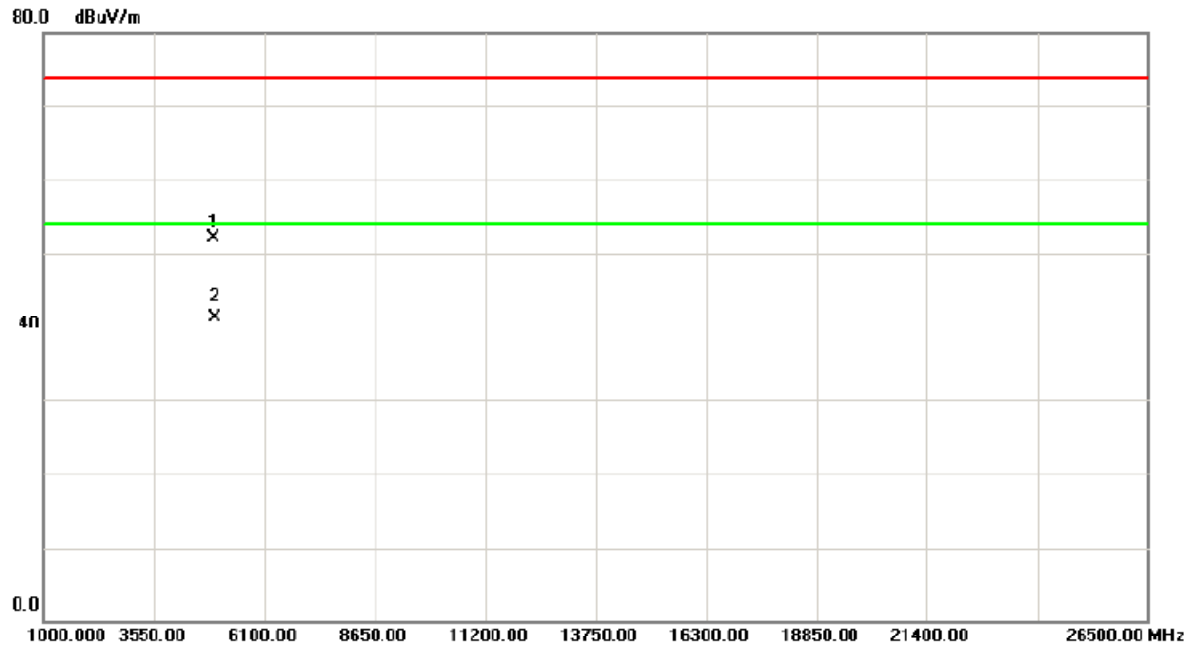


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	*	2463.100	53.10	33.57	86.67	54.00	32.67	AVG	Fundamental frequency, no limit
2	X	2463.700	62.93	33.57	96.50	74.00	22.50	peak	Fundamental frequency, no limit
3		2483.500	23.63	33.62	57.25	74.00	-16.75	peak	
4		2483.500	13.73	33.62	47.35	54.00	-6.65	AVG	



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

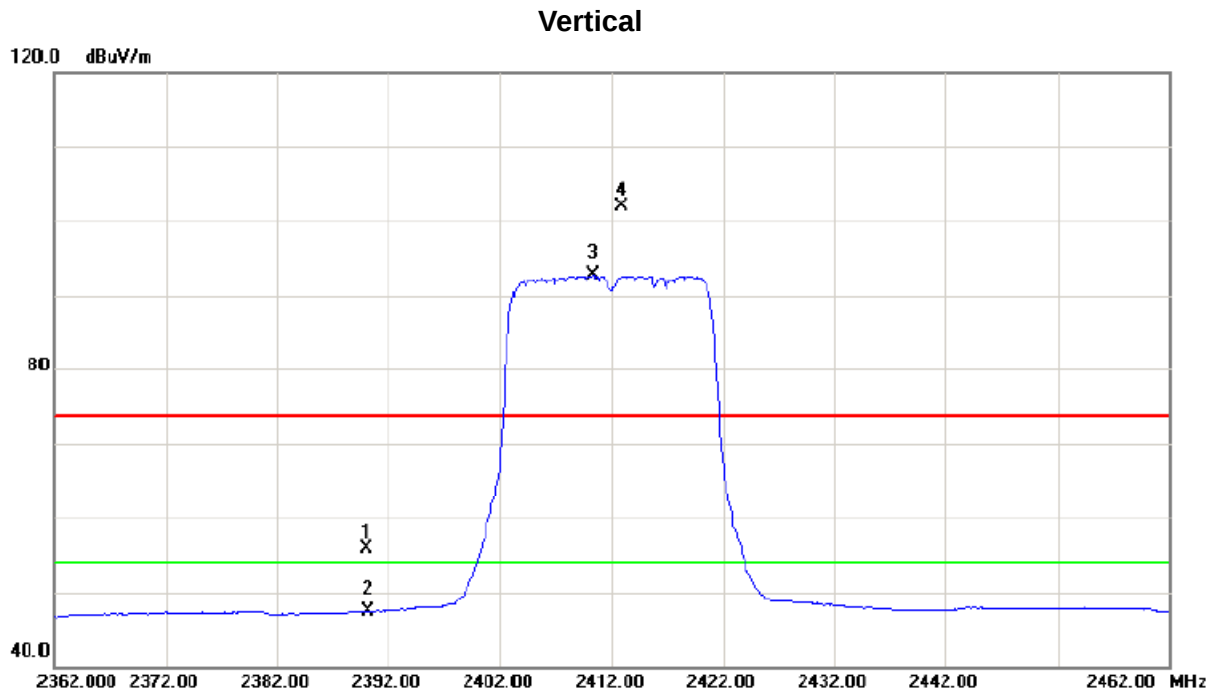
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4924.000	45.32	6.72	52.04	74.00	-21.96	peak	
2	*	4924.000	34.52	6.72	41.24	54.00	-12.76	AVG	



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

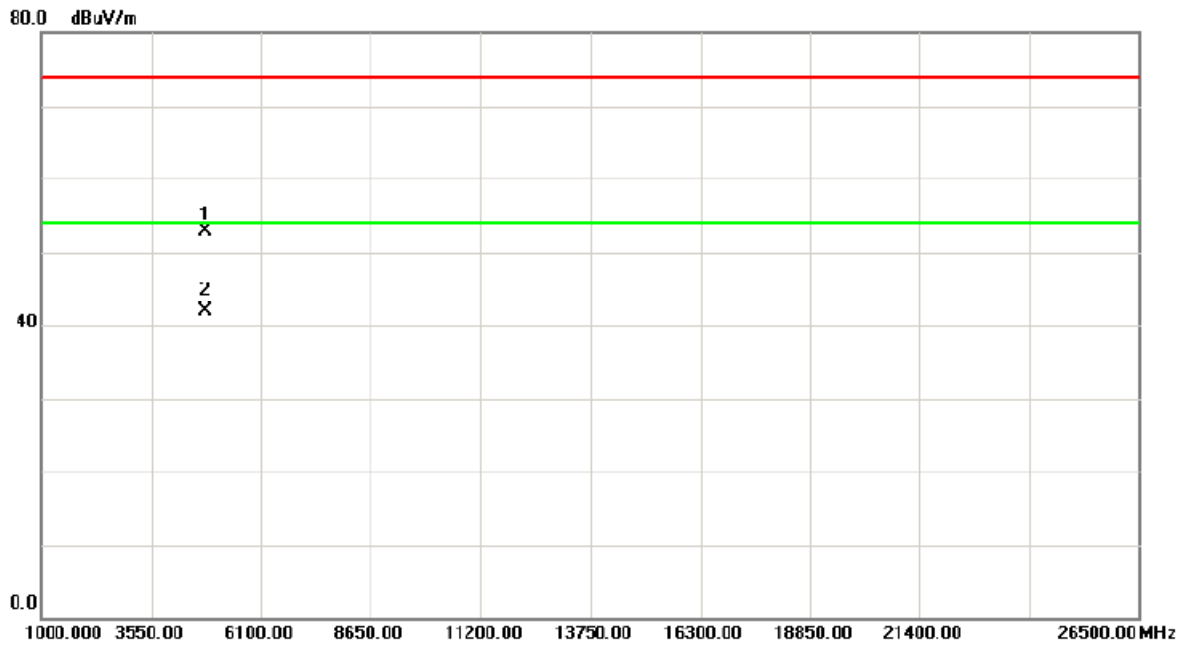


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		2390.000	22.50	33.38	55.88	74.00	-18.12	peak	
2		2390.000	14.13	33.38	47.51	54.00	-6.49	AVG	
3	*	2410.300	59.19	33.44	92.63	54.00	38.63	AVG	Fundamental frequency, no limit
4	X	2412.800	68.46	33.44	101.90	74.00	27.90	peak	Fundamental frequency, no limit



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

Vertical

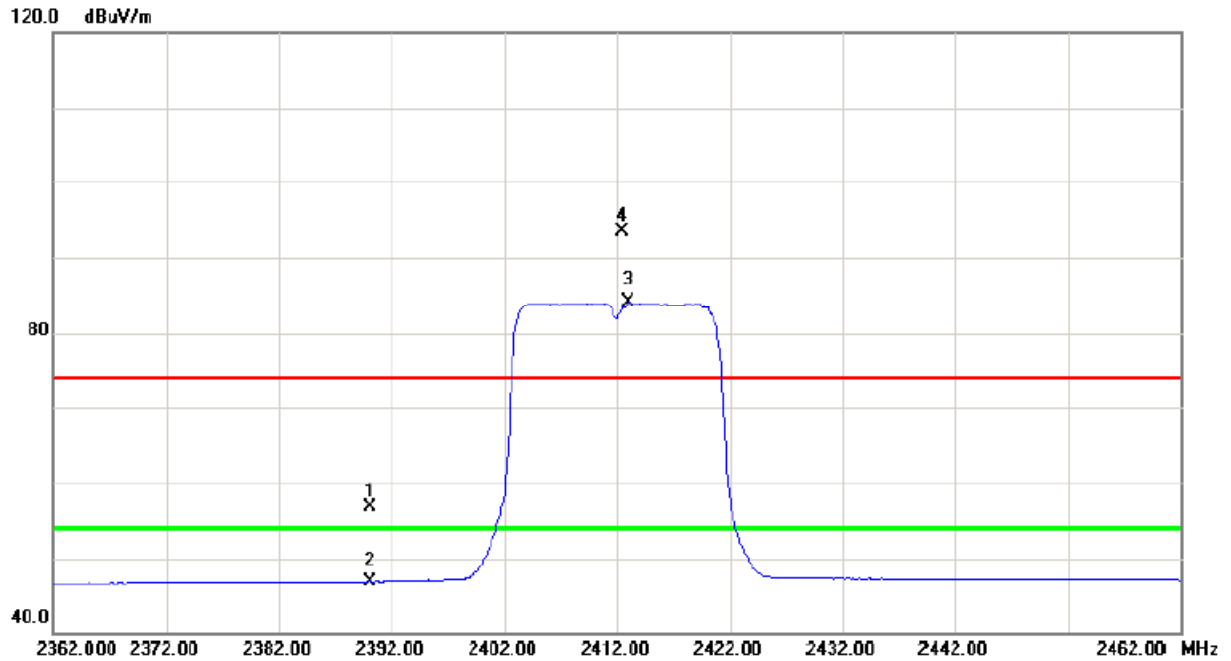


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4824.000	46.54	6.43	52.97	74.00	-21.03	peak	
2	*	4824.000	35.47	6.43	41.90	54.00	-12.10	AVG	



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

Horizontal

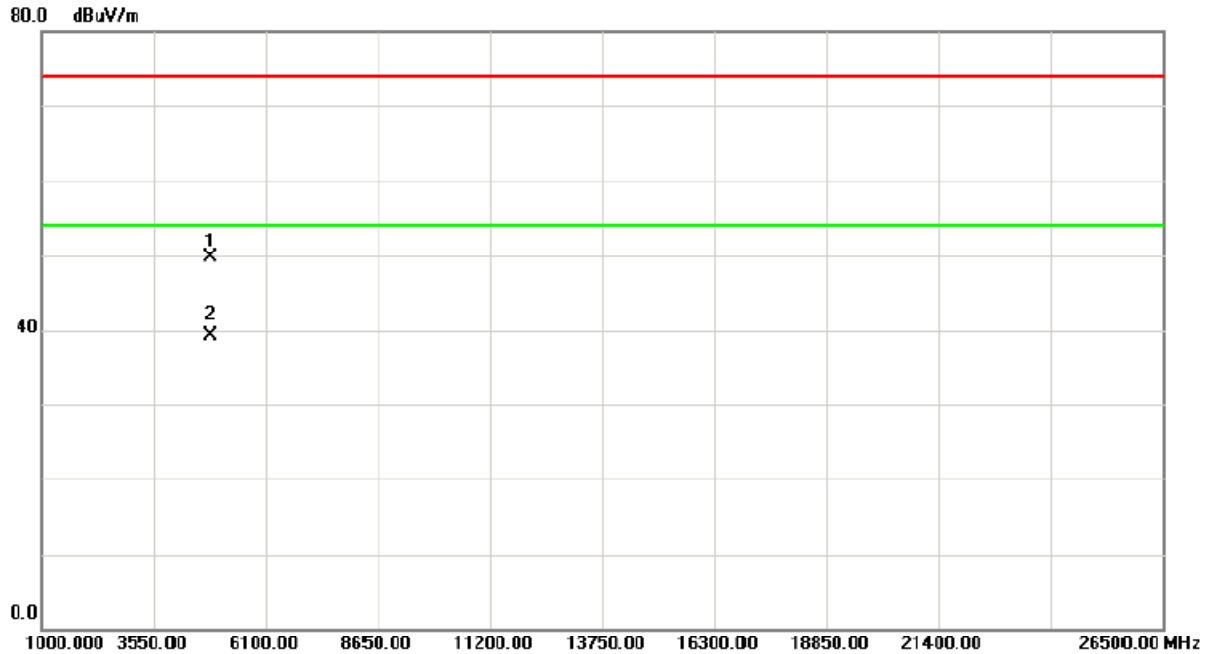


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		2390.000	23.23	33.38	56.61	74.00	-17.39	peak	
2		2390.000	13.60	33.38	46.98	54.00	-7.02	AVG	
3	*	2412.800	50.66	33.44	84.10	54.00	30.10	AVG	Fundamental frequency, no limit
4	X	2412.400	60.02	33.44	93.46	74.00	19.46	peak	Fundamental frequency, no limit



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

Horizontal

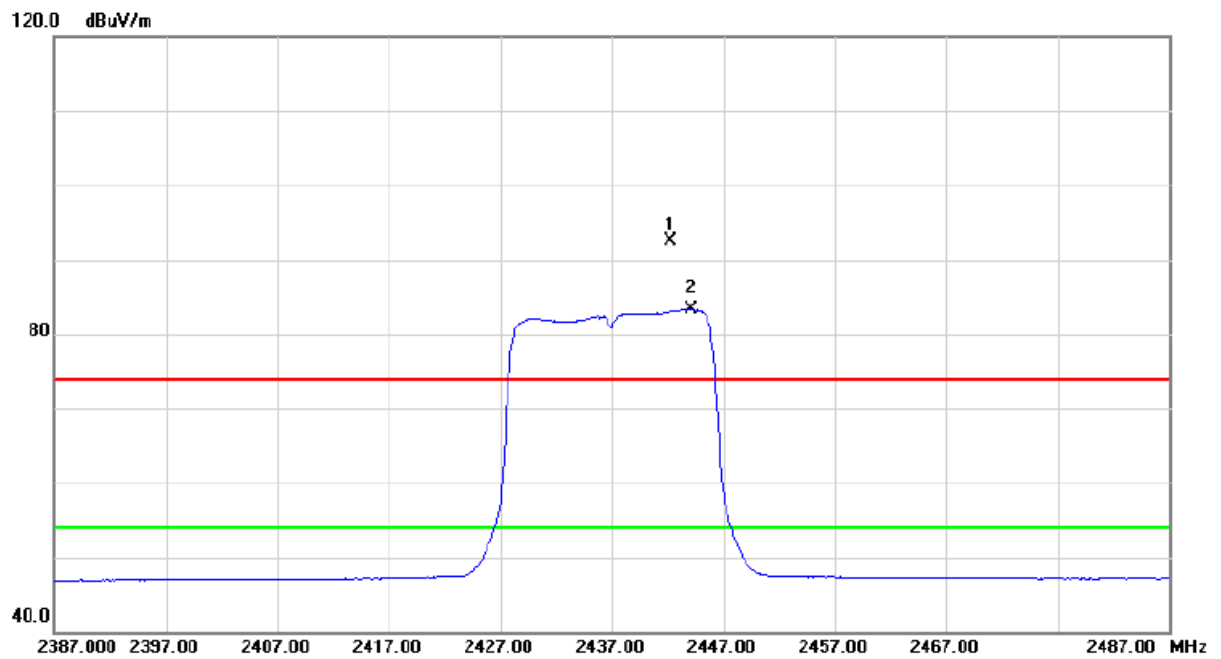


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		4824.000	43.36	6.43	49.79	74.00	-24.21	peak	
2	*	4824.000	32.82	6.43	39.25	54.00	-14.75	AVG	



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

Vertical

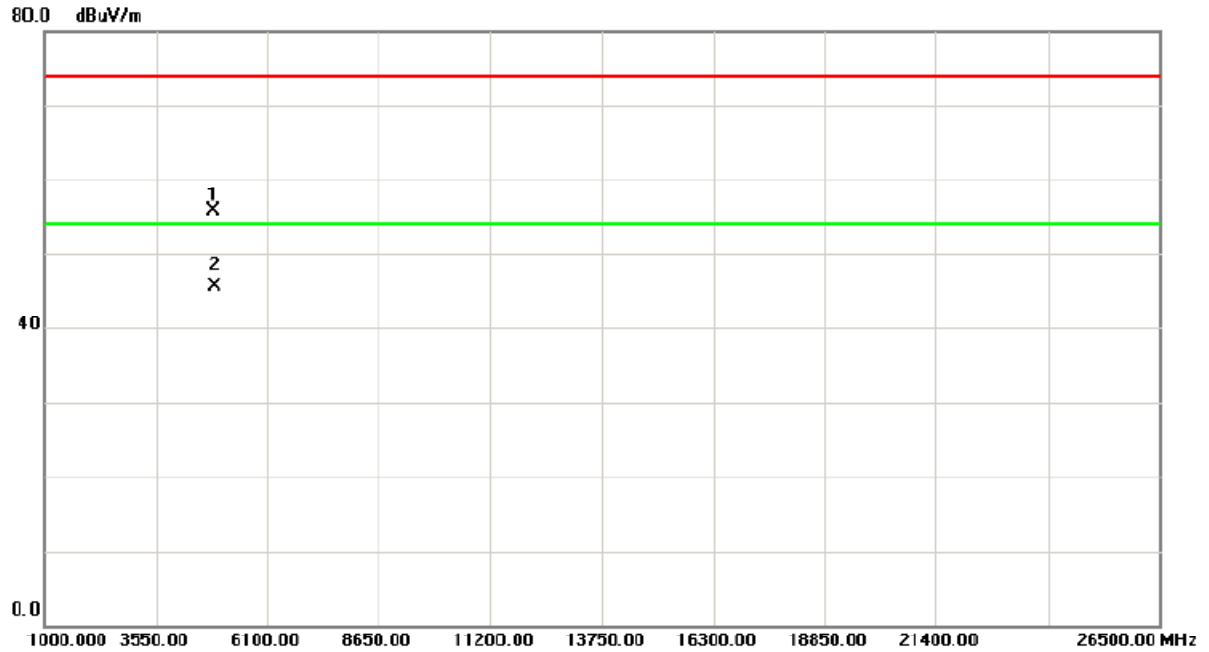


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	X	2442.200	58.91	33.51	92.42	74.00	18.42	peak	Fundamental frequency, no limit
2	*	2444.100	49.84	33.52	83.36	54.00	29.36	AVG	Fundamental frequency, no limit



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

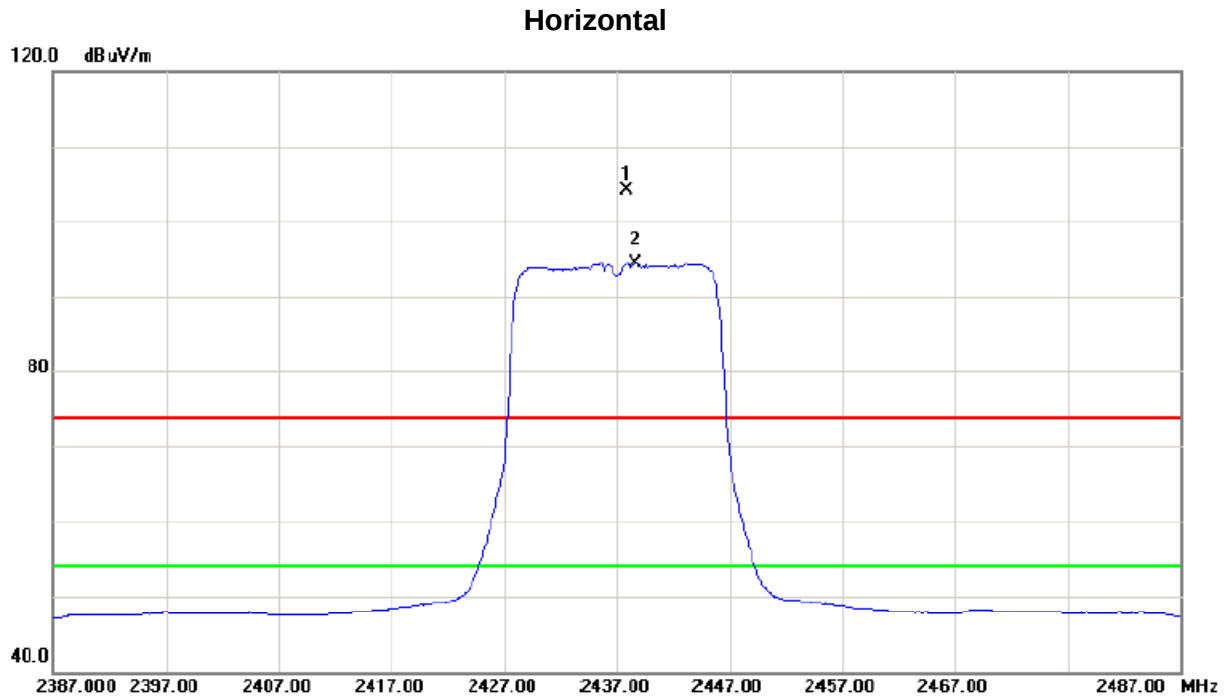
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4874.000	49.06	6.58	55.64	74.00	-18.36	peak	
2	*	4874.000	38.85	6.58	45.43	54.00	-8.57	AVG	



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

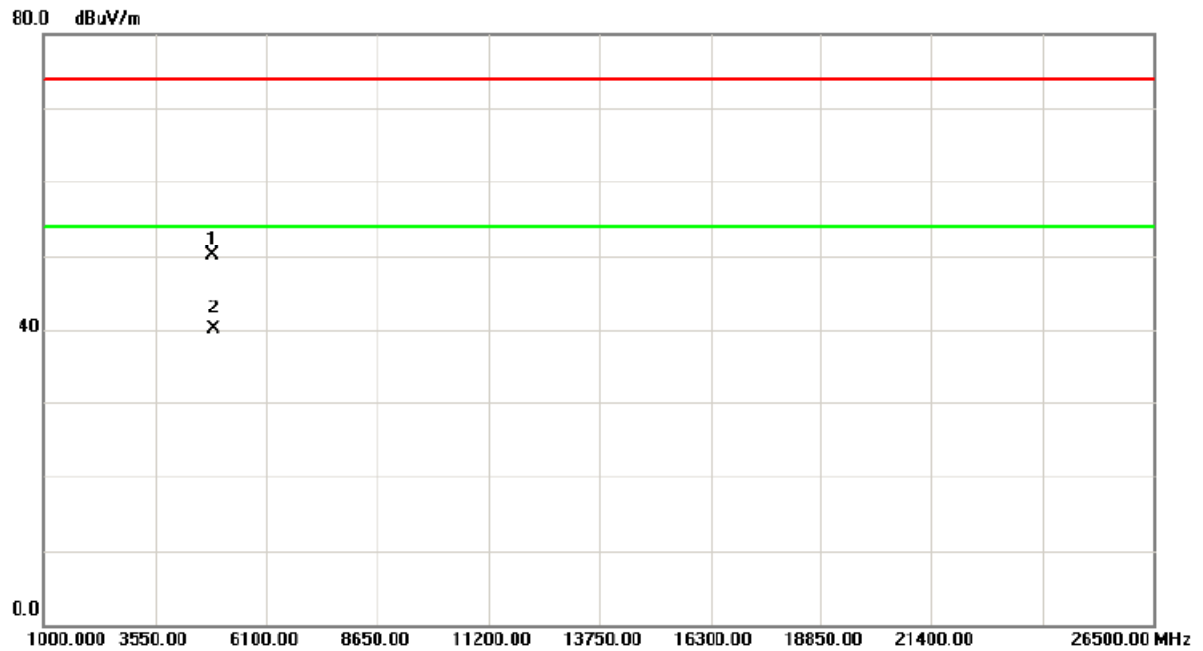


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	X	2437.800	70.60	33.50	104.10	74.00	30.10	peak	Fundamental frequency, no limit
2	*	2438.400	61.07	33.50	94.57	54.00	40.57	AVG	Fundamental frequency, no limit



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

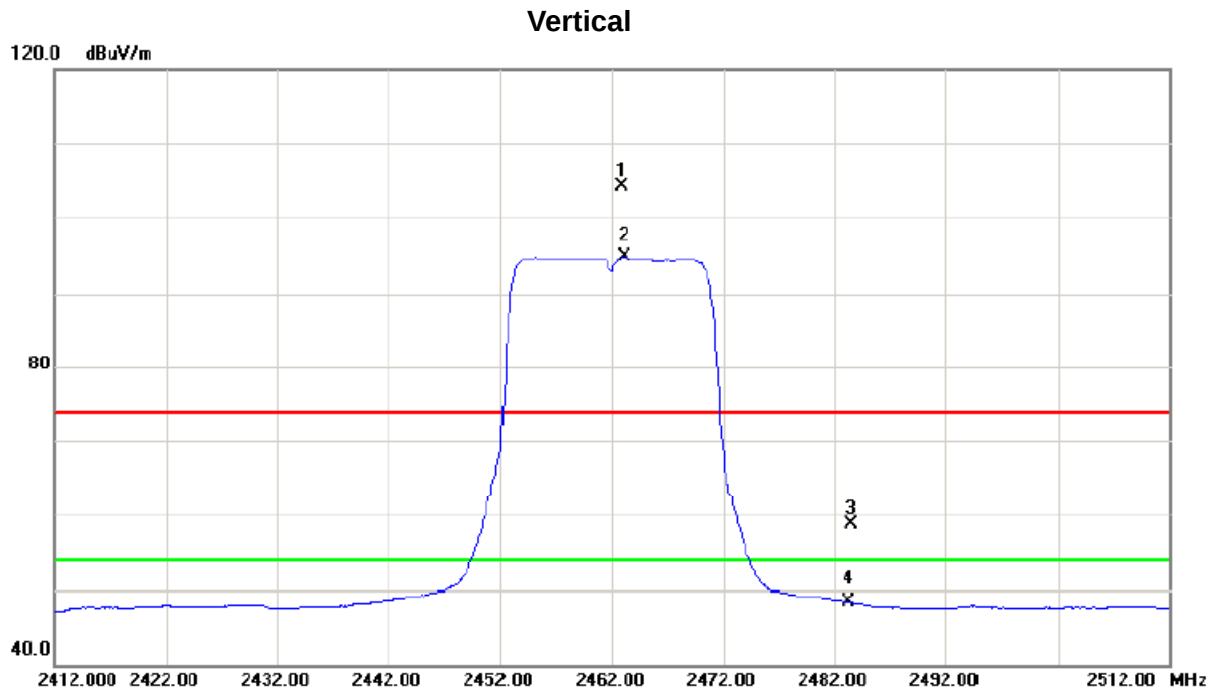
Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector Comment
1		4874.000	43.46	6.58	50.04	74.00	-23.96	peak
2	*	4874.000	33.57	6.58	40.15	54.00	-13.85	AVG



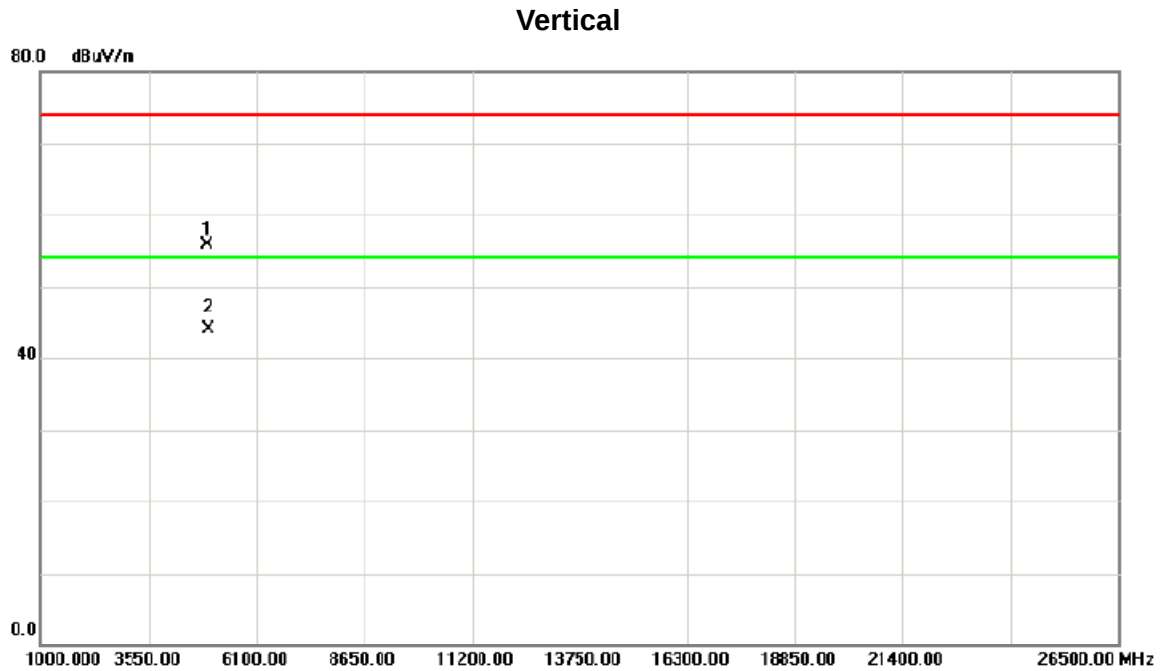
Orthogonal Axis :	X
Test Mode :	TX N-20M MODE 2462MHz



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	X	2462.900	70.53	33.57	104.10	74.00	30.10	peak	Fundamental frequency, no limit
2	*	2463.100	61.36	33.57	94.93	54.00	40.93	AVG	Fundamental frequency, no limit
3		2483.500	25.18	33.62	58.80	74.00	-15.20	peak	
4		2483.500	14.83	33.62	48.45	54.00	-5.55	AVG	



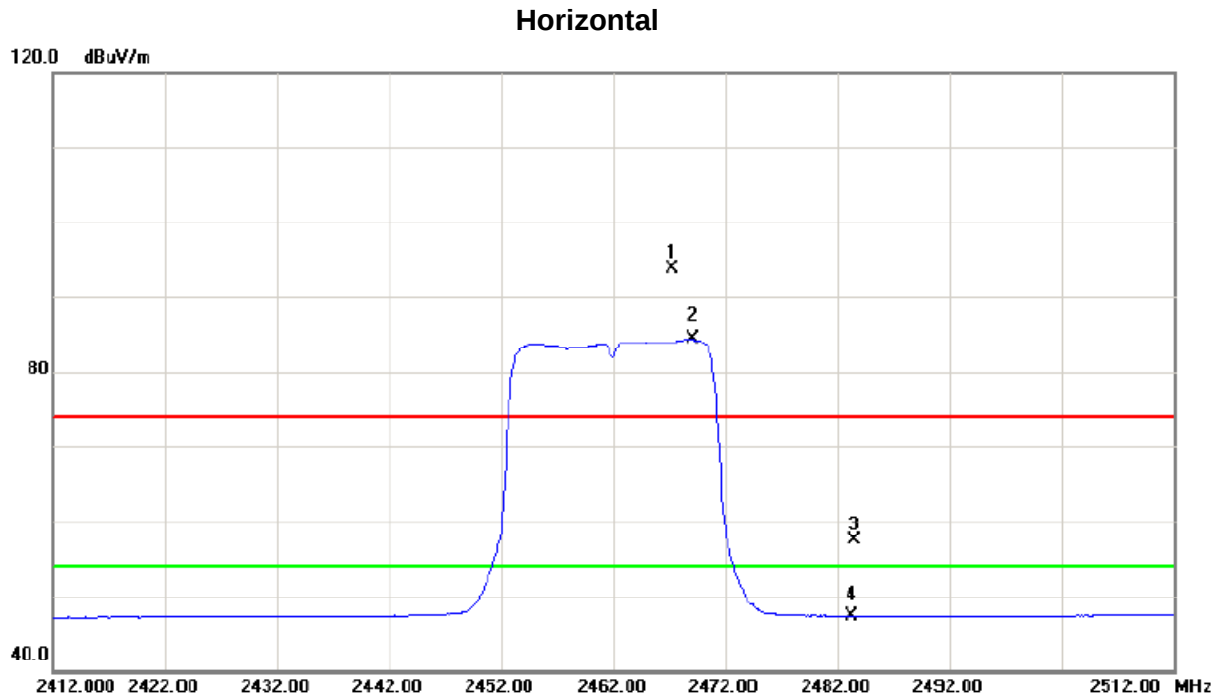
Orthogonal Axis :	X
Test Mode :	TX N-20M MODE 2462MHz



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		4924.000	48.95	6.72	55.67	71.00	18.33	peak	
2	*	4924.000	37.32	6.72	44.04	54.00	-9.96	AVG	



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

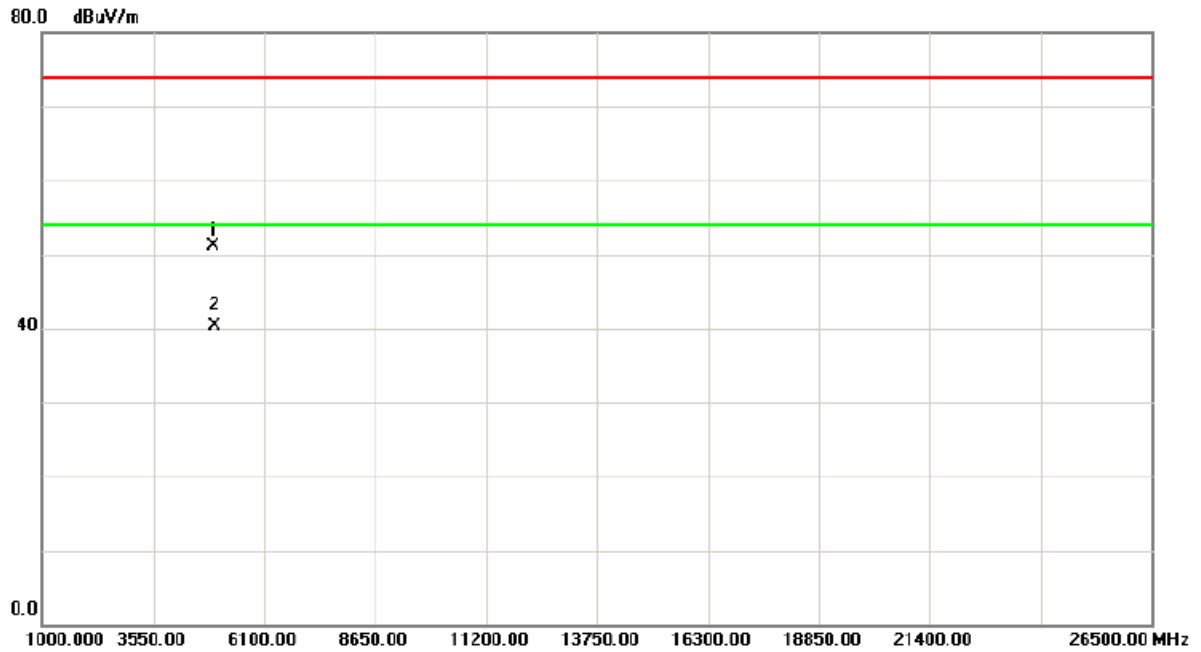


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	X	2467.300	60.16	33.57	93.73	74.00	19.73	peak	Fundamental frequency, no limit
2	*	2469.300	50.98	33.59	84.57	54.00	30.57	AVG	Fundamental frequency, no limit
3		2483.500	23.94	33.62	57.56	74.00	-16.44	peak	
4		2483.500	13.72	33.62	47.34	54.00	-6.66	AVG	



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

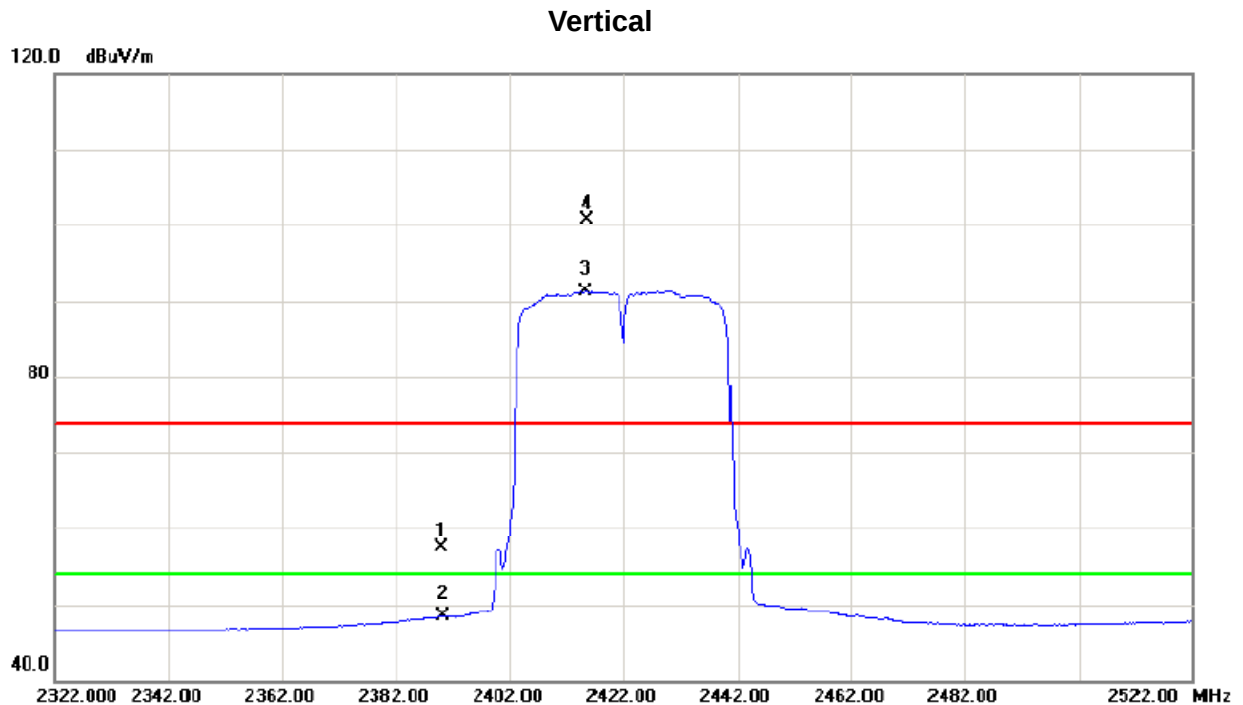
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4924.000	44.37	6.72	51.09	74.00	-22.91	peak	
2	*	4924.000	33.49	6.72	40.21	54.00	-13.79	AVG	



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

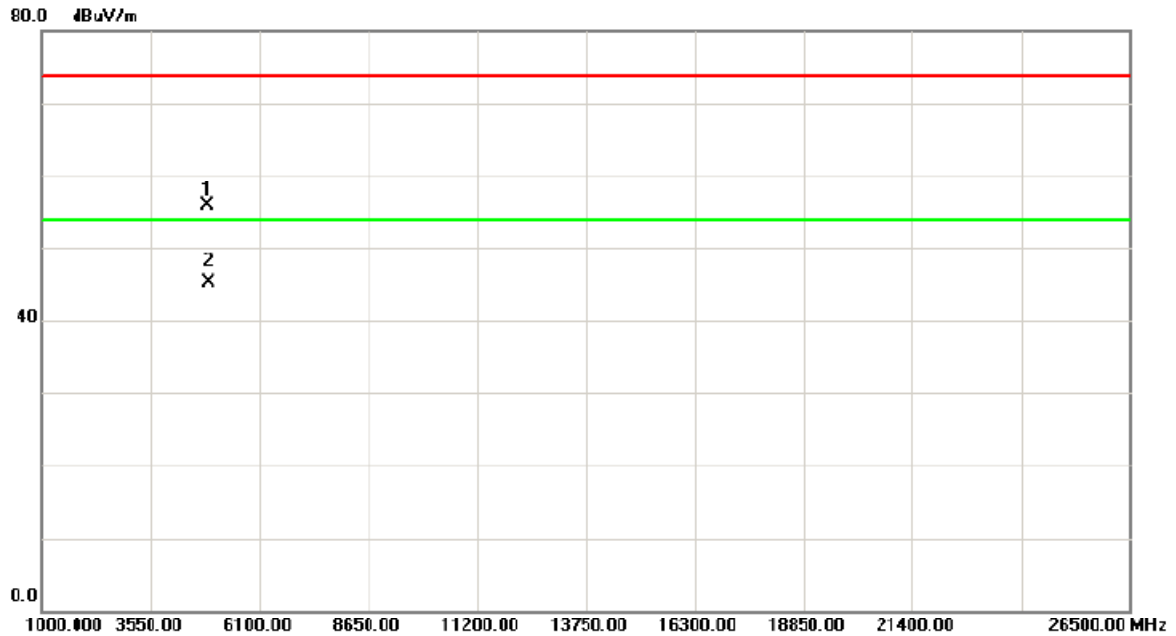


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		2390.000	24.18	33.38	57.56	74.00	-16.44	peak	
2		2390.000	15.09	33.38	48.47	54.00	-5.53	AVG	
3	*	2415.400	57.88	33.44	91.32	54.00	37.32	AVG	Fundamental frequency, no limit
4	X	2415.800	67.30	33.45	100.75	74.00	26.75	peak	Fundamental frequency, no limit



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

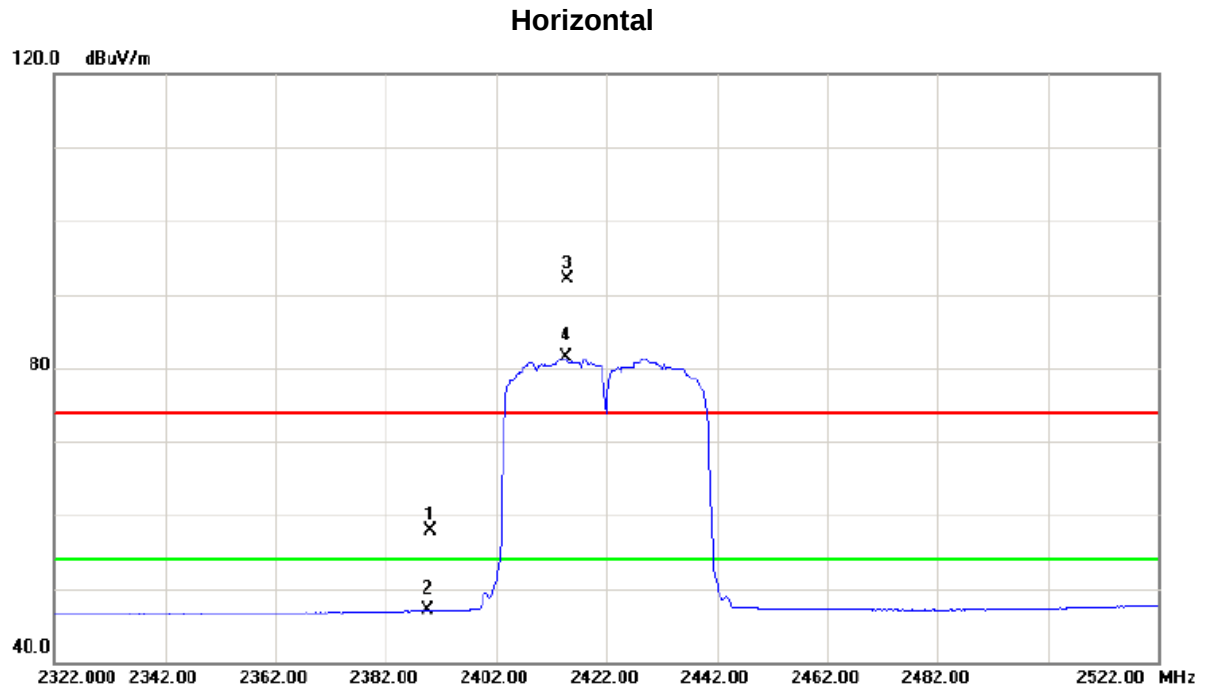
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4844.000	49.35	6.50	55.85	74.00	-18.15	peak	
2	*	4844.000	38.83	6.50	45.33	54.00	-8.67	AVG	



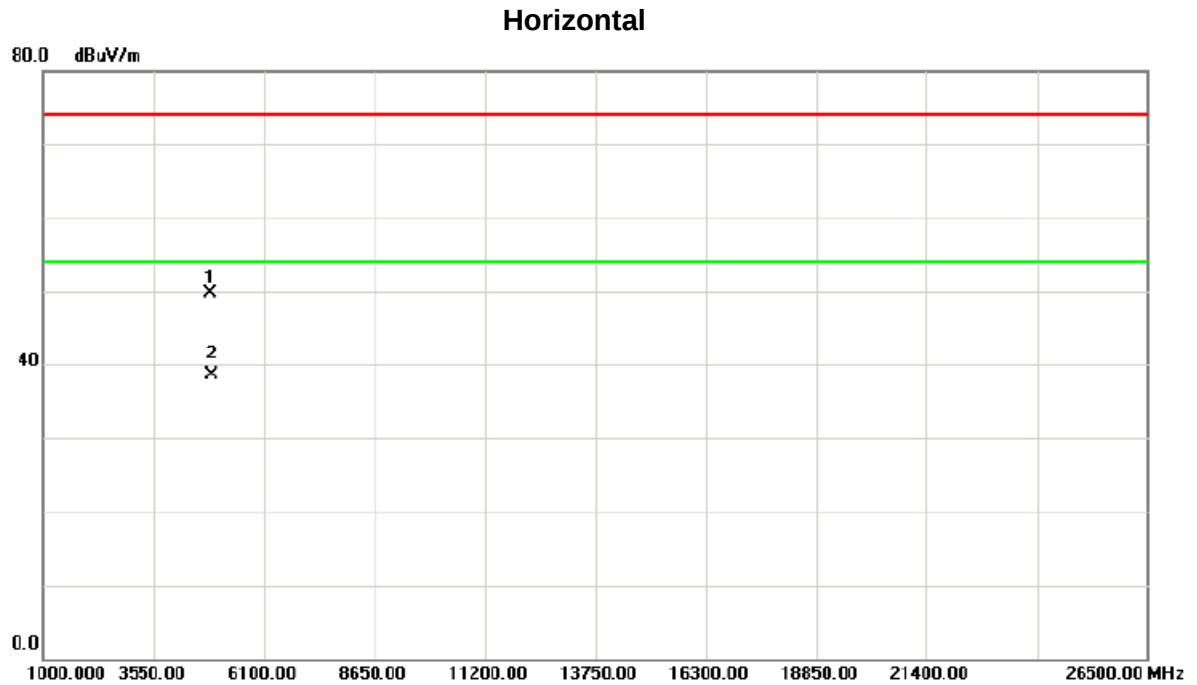
Orthogonal Axis :	X
Test Mode :	TX N-40M MODE 2422MHz



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		2390.000	24.58	33.38	57.96	74.00	-16.04	peak	
2		2390.000	13.65	33.38	47.03	54.00	-6.97	AVG	
3	X	2414.800	58.70	33.44	92.14	74.00	18.14	peak	Fundamental frequency, no limit
4	*	2414.600	48.07	33.44	81.51	54.00	27.51	AVG	Fundamental frequency, no limit



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

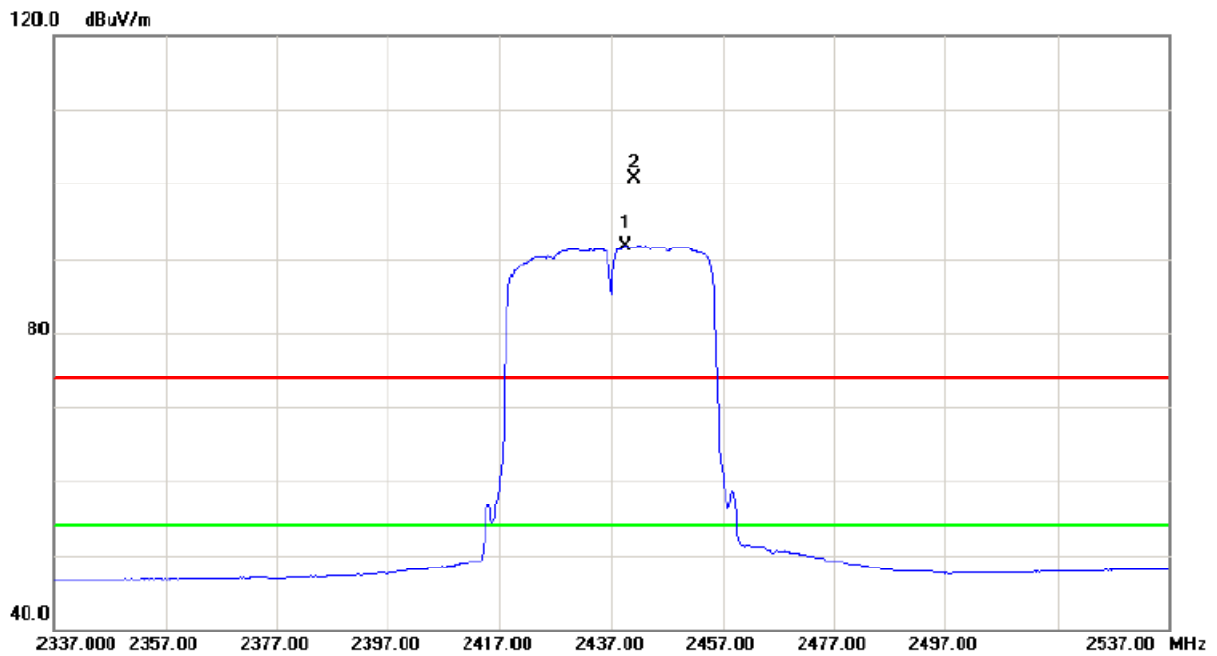


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4844.000	43.12	6.50	49.62	74.00	-24.38	peak	
2	*	4844.000	32.09	6.50	38.59	54.00	-15.41	AVG	



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

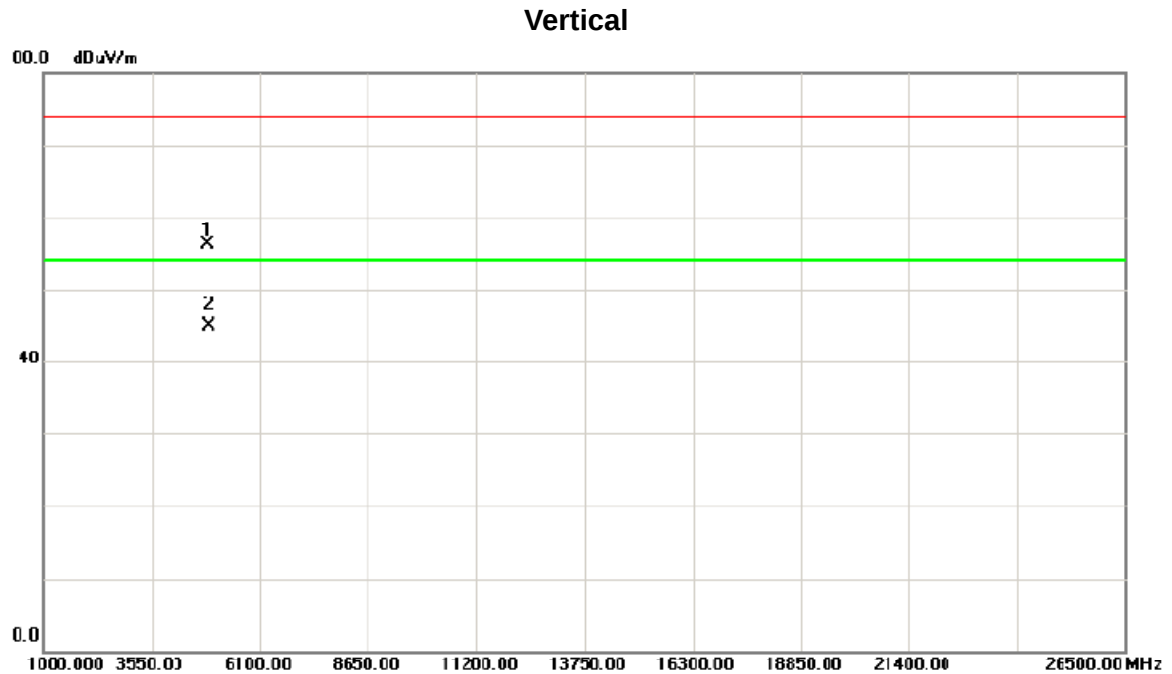
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	*	2439.400	58.17	33.51	91.68	54.00	37.68	AVG	Fundamental frequency, no limit
2	X	2441.200	67.21	33.51	100.72	74.00	26.72	peak	Fundamental frequency, no limit



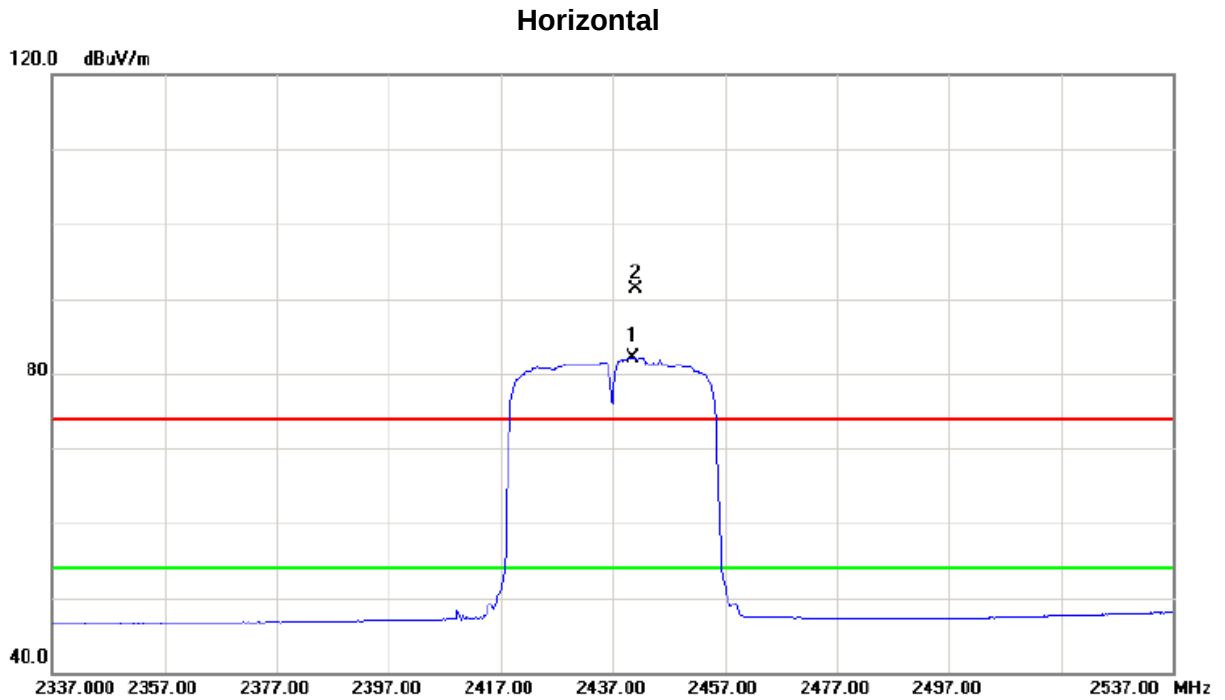
Orthogonal Axis :	X
Test Mode :	TX N-40M MODE 2437MHz



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4874.000	49.57	6.58	56.15	74.00	-17.85	peak	
2	*	4874.000	38.33	6.58	44.91	54.00	-9.09	AVG	



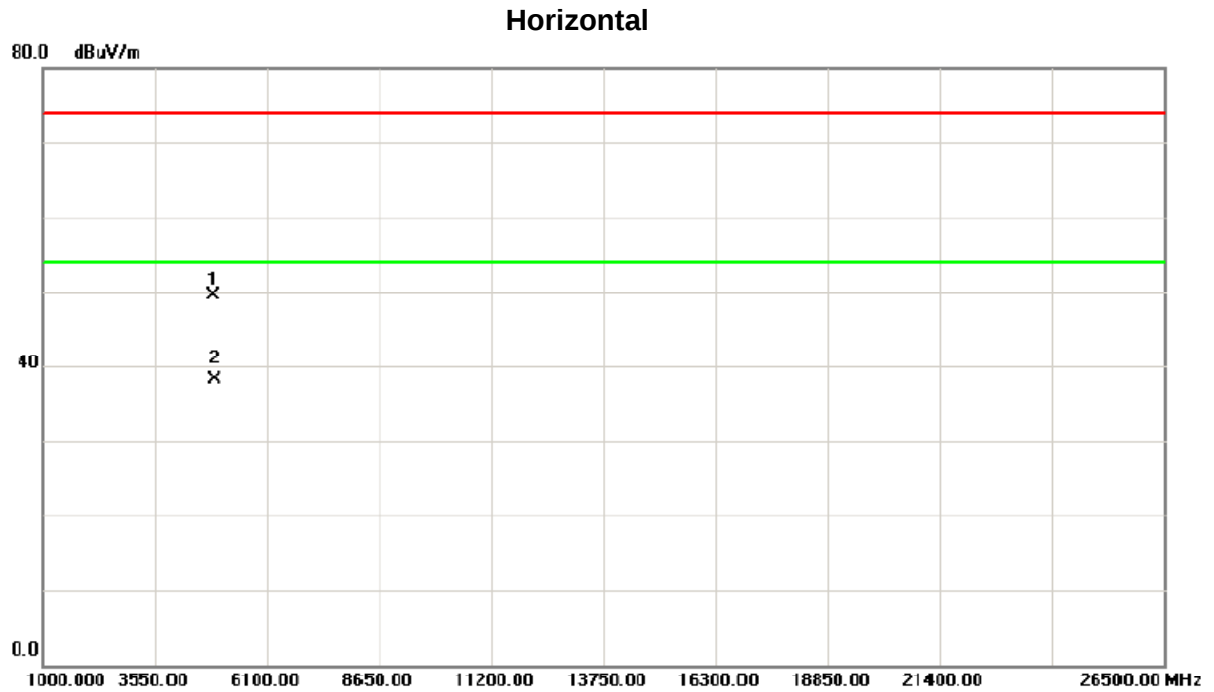
Orthogonal Axis :	X
Test Mode :	TX N-40M MODE 2437MHz



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	*	2440.600	48.65	33.51	82.16	54.00	28.16	AVG	Fundamental frequency, no limit
2	X	2441.000	57.75	33.51	91.26	74.00	17.26	peak	Fundamental frequency, no limit



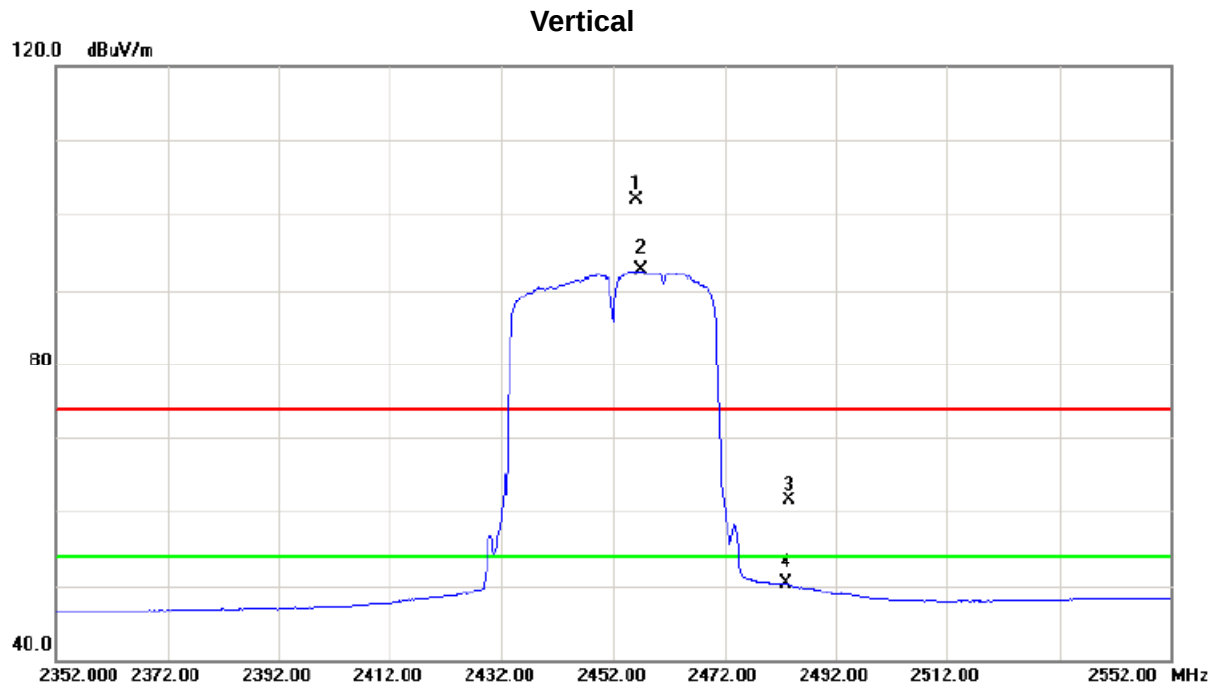
Orthogonal Axis :	X
Test Mode :	TX N-40M MODE 2437MHz



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4874.000	42.85	6.58	49.43	74.00	-24.57	peak	
2	*	4874.000	31.59	6.58	38.17	54.00	-15.83	AVG	



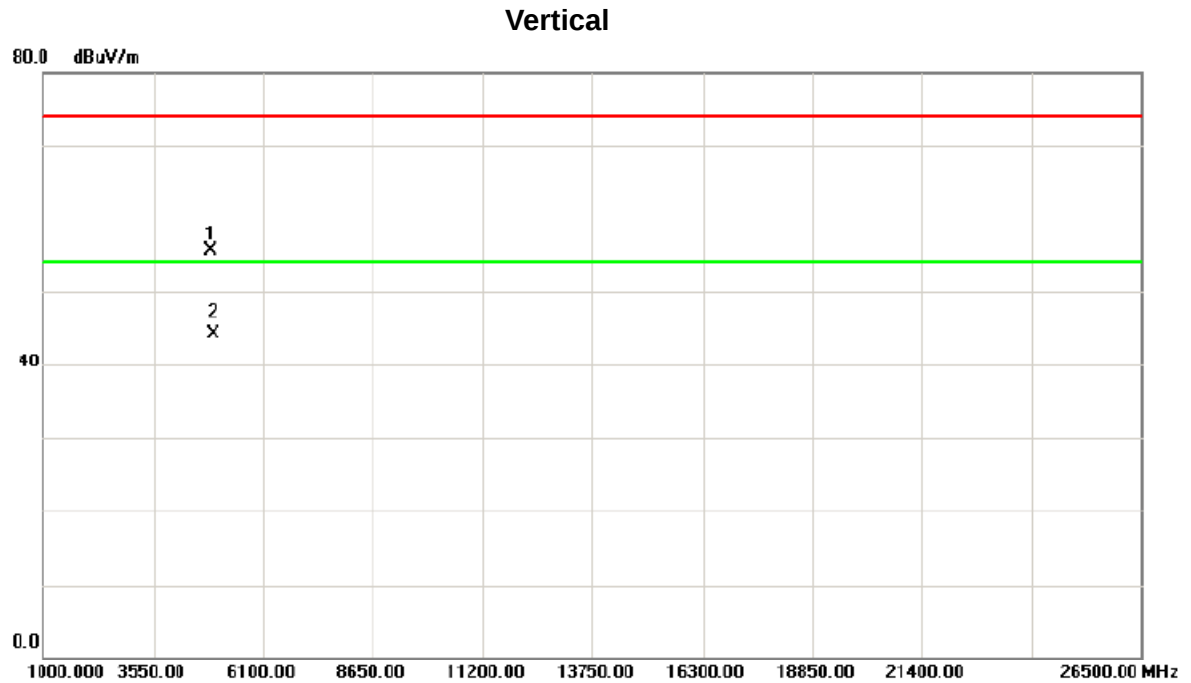
Orthogonal Axis :	X
Test Mode :	TX N-40M MODE 2452MHz



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	X	2456.200	68.43	33.54	101.97	74.00	27.97	peak	Fundamental frequency, no limit
2	*	2456.800	58.91	33.56	92.47	54.00	38.47	AVG	Fundamental frequency, no limit
3		2483.500	27.81	33.62	61.43	74.00	-12.57	peak	
4		2483.500	16.64	33.62	50.26	54.00	-3.74	AVG	



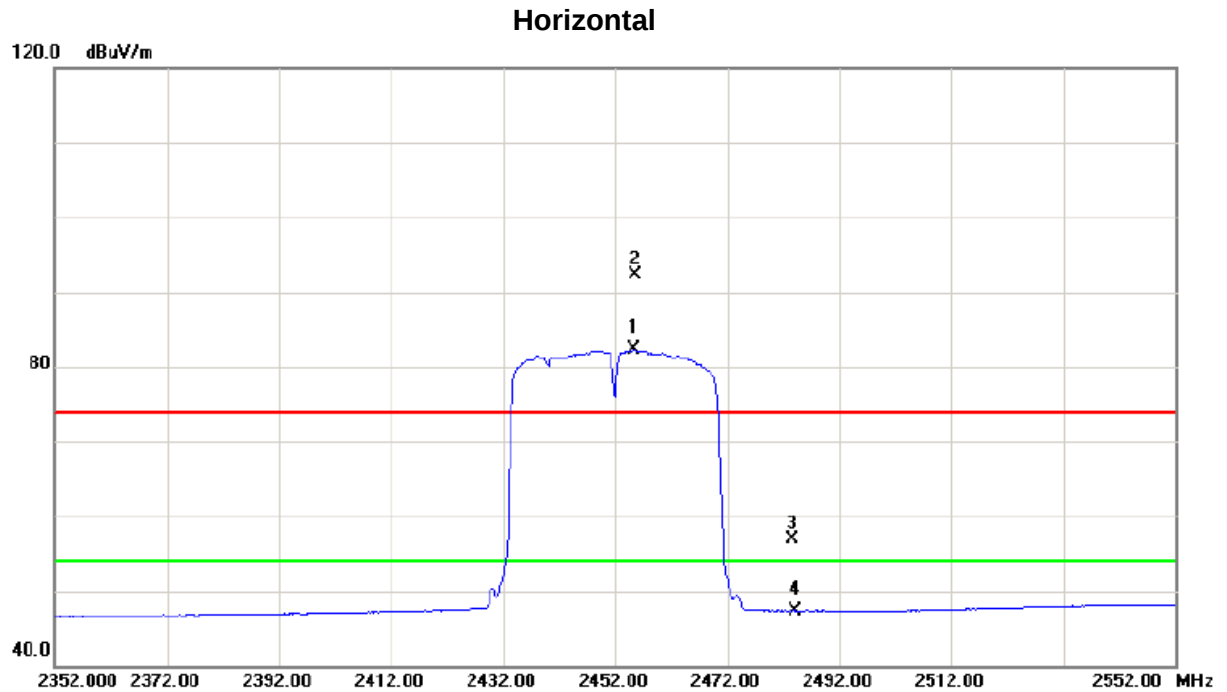
Orthogonal Axis :	X
Test Mode :	TX N-40M MODE 2452MHz



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4904.000	48.86	6.67	55.53	74.00	-18.47	peak	
2	*	4904.000	37.54	6.67	44.21	54.00	-9.79	AVG	



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

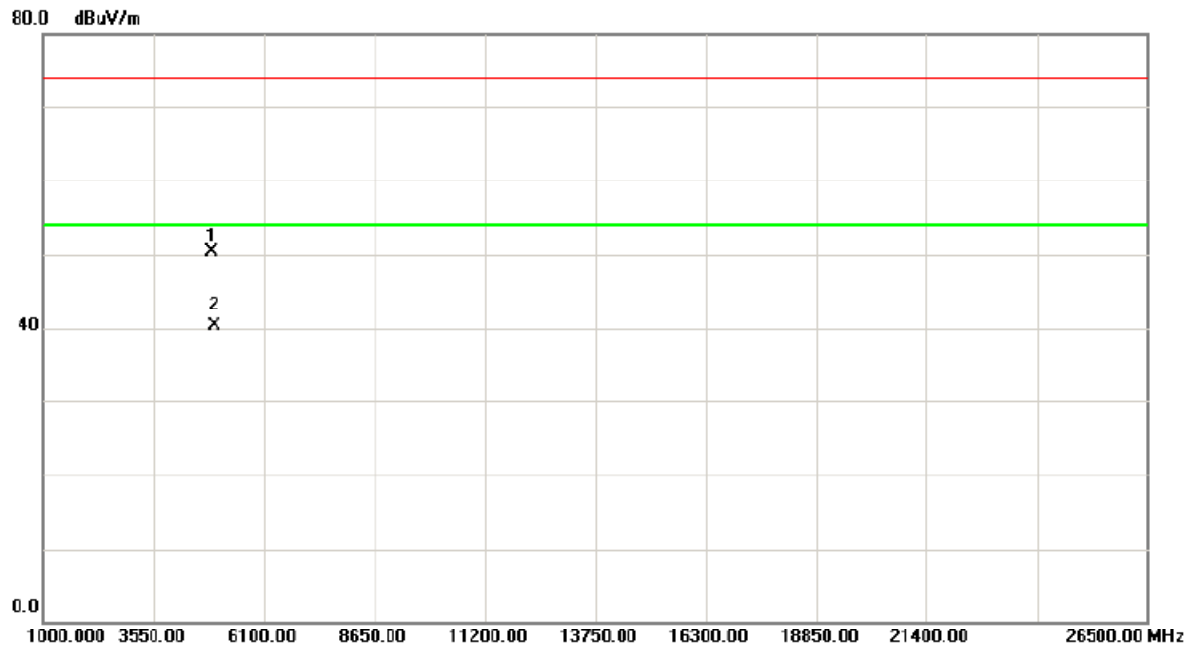


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	*	2455.400	48.79	33.54	82.33	54.00	28.33	AVG	Fundamental frequency, no limit
2	X	2455.600	58.78	33.54	92.32	74.00	18.32	peak	Fundamental frequency, no limit
3		2483.500	23.28	33.62	56.90	74.00	-17.10	peak	
4		2483.500	13.75	33.62	47.37	54.00	-6.63	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		4904.000	43.62	6.67	50.29	74.00	-23.71	peak	
2	*	4904.000	33.58	6.67	40.25	54.00	-13.75	AVG	

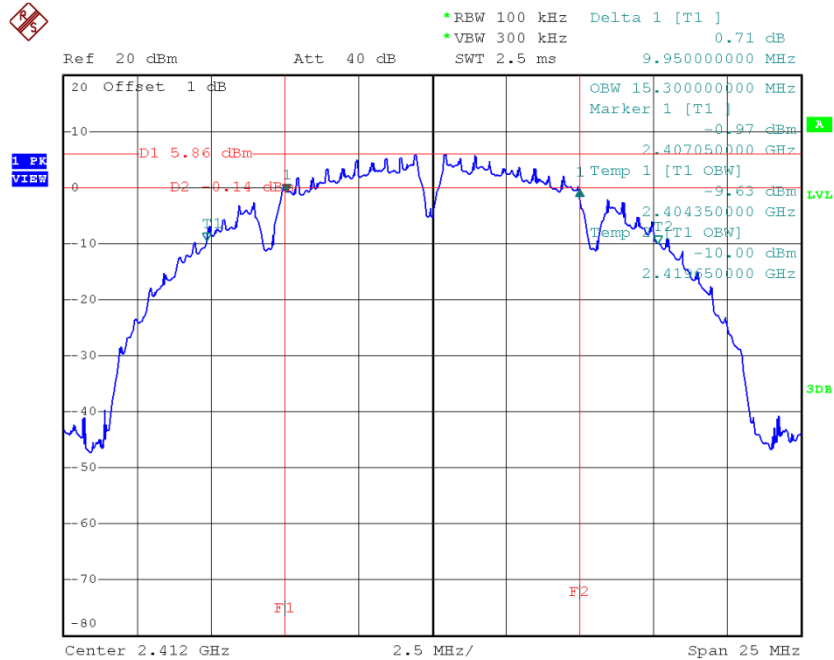


ATTACHMENT E - BANDWIDTH



Test Mode : TX B Mode_CH01/06/11

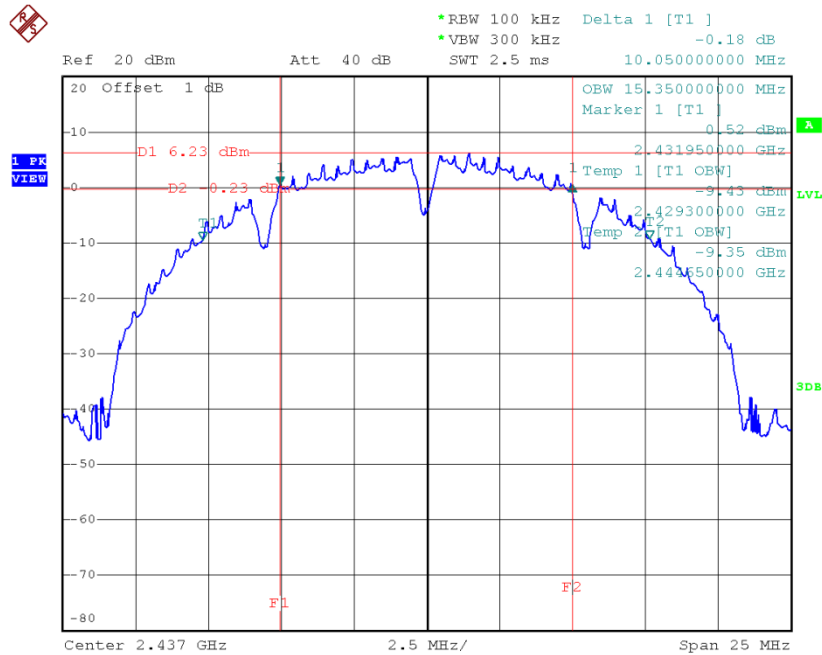
TX CH 01



Date: 21.MAY.2014 20:02:33

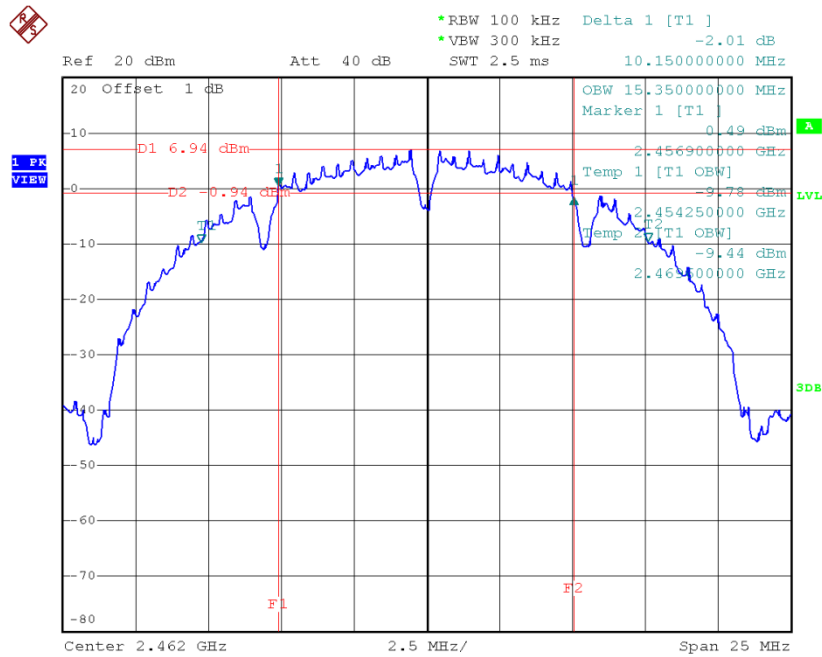


TX CH 06



Date: 21.MAY.2014 20:03:59

TX CH 11

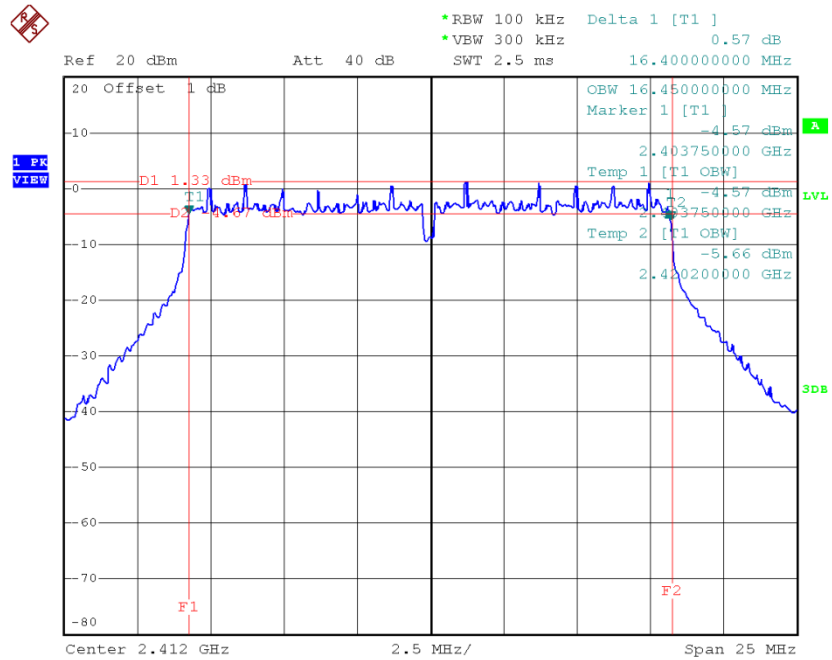


Date: 21.MAY.2014 20:04:59



Test Mode: TX G Mode_CH01/06/11

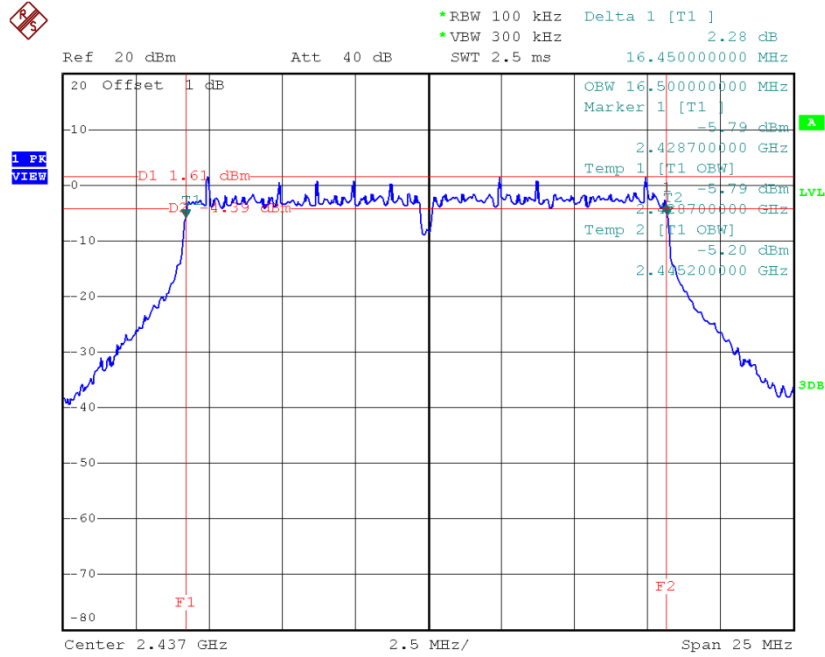
TX CH 01



Date: 21.MAY.2014 20:00:00

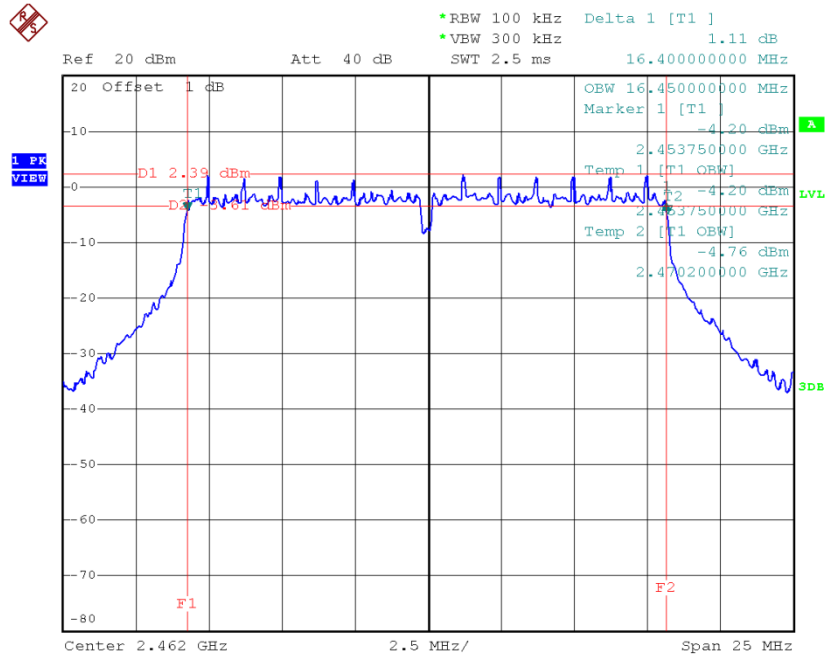


TX CH 06



Date: 21.MAY.2014 19:58:33

TX CH 11



Date: 21.MAY.2014 19:57:11

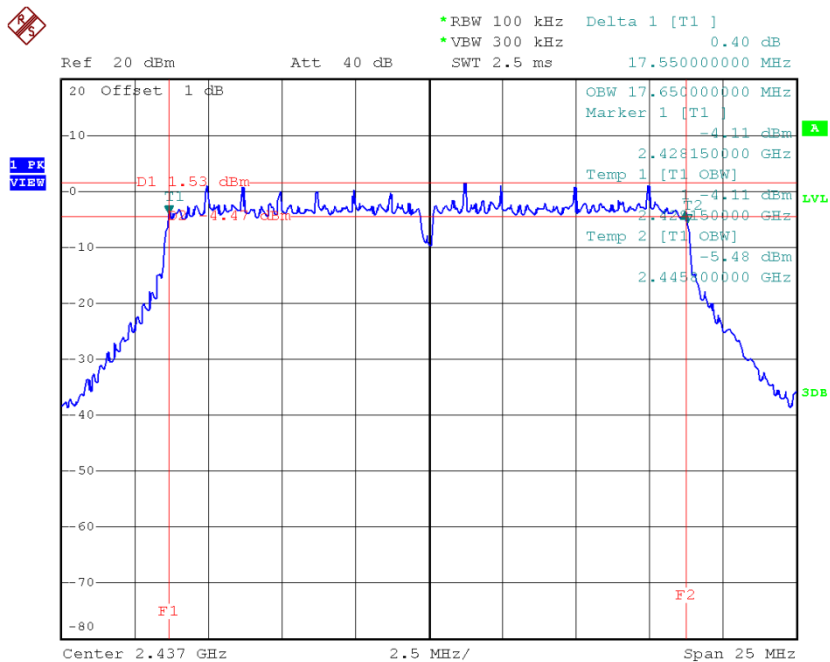


TX CH 01



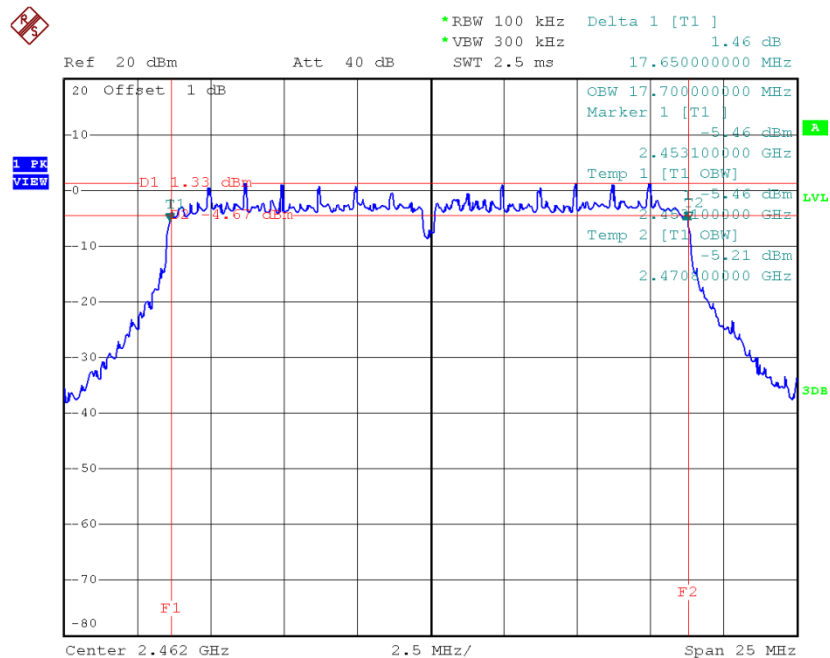


TX CH 06



Date: 21.MAY.2014 19:54:07

TX CH 11

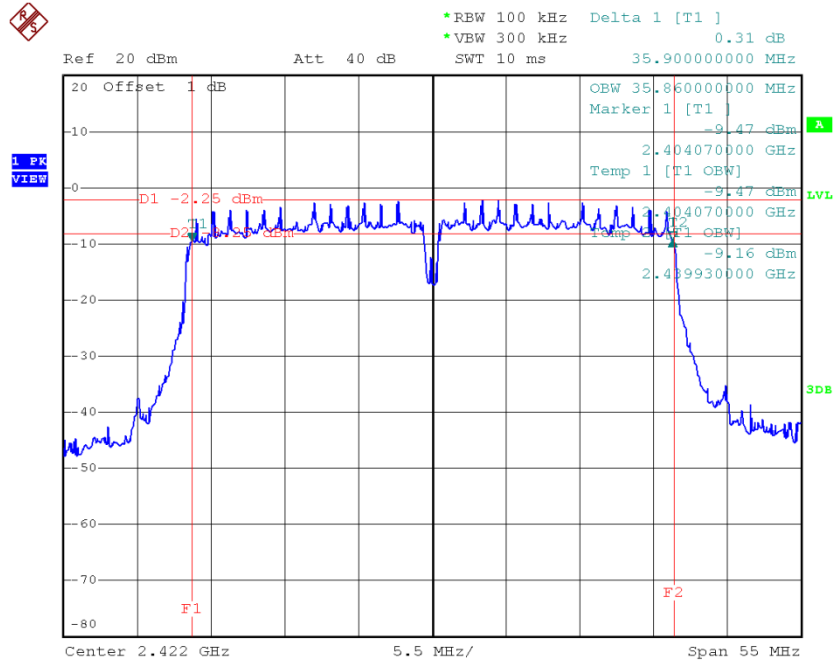


Date: 21.MAY.2014 19:55:53



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

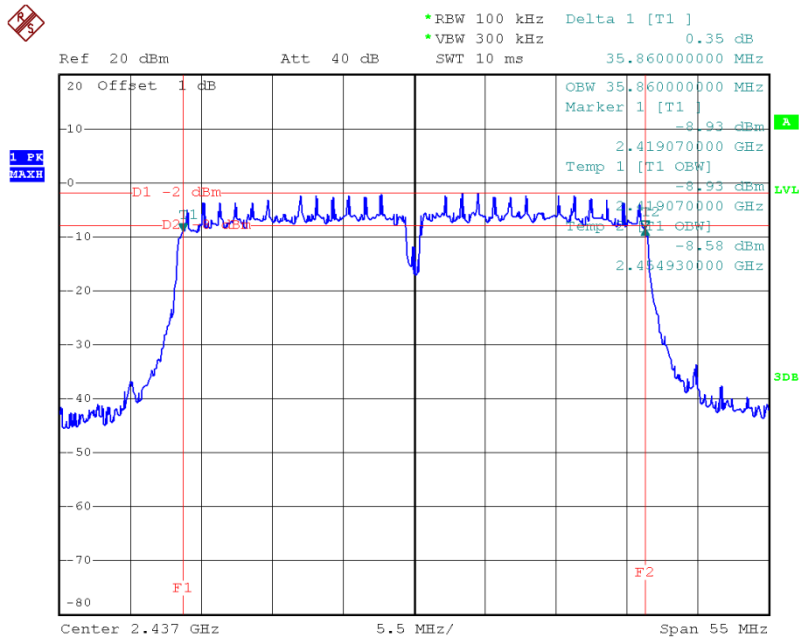
TX CH 03



Date: 21.MAY.2014 19:50:45

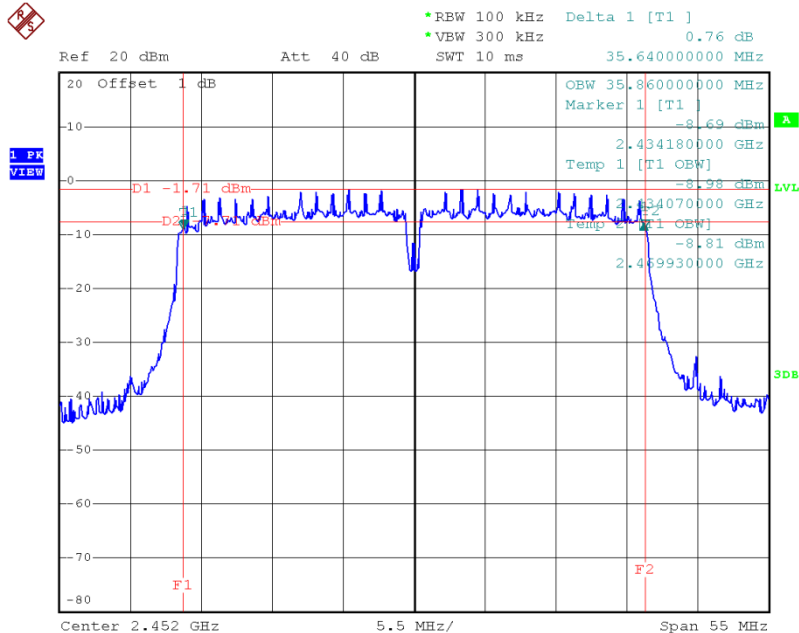


TX CH 06



Date: 21.MAY.2014 19:48:53

TX CH 09



Date: 21.MAY.2014 19:47:07