



**Neutron Engineering Inc.**

# FCC Radio Test Report

**FCC ID: T58WF2533B**

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

**Project No.** : 1404C226  
**Equipment** : 300Mbps Wireless N High Power Router  
**Model Name** : NW739;WF2533  
**Applicant** : NETIS SYSTEMS CO., LTD  
**Address** : 4F&5F R&D Building, Oriental Cyberport, High-Tech Industrial Park, Nanshan, Shenzhen, China.

**Tested by:** Neutron Engineering Inc. EMC Laboratory

**Date of Receipt:** Apr. 28, 2014

**Date of Test:** Apr. 28, 2014 ~ May. 21, 2014

**Issued Date:** May. 22, 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**.

**Neutron's** reports apply only to the specific samples tested under conditions. It is manufacturer's responsibility to ensure that additional production units of this model are manufactured with the identical electrical and mechanical components. **Neutron** shall have no liability for any declarations, inferences or generalizations drawn by the client or others from **Neutron** issued reports.

**Neutron's** reports must not be used by the client to claim product endorsement by the authorities or any agency of the Government.

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

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

## Limitation

For the use of the authority's logo is limited unless the Test Standard(s)/Scope(s)/Item(s) mentioned in this test report is (are) included in the conformity assessment authorities acceptance respective.



Table of Contents	Page
<b>1 . CERTIFICATION</b>	<b>6</b>
<b>2 . SUMMARY OF TEST RESULTS</b>	<b>7</b>
<b>2.1 TEST FACILITY</b>	<b>8</b>
<b>2.2 MEASUREMENT UNCERTAINTY</b>	<b>8</b>
<b>3 . GENERAL INFORMATION</b>	<b>9</b>
<b>3.1 GENERAL DESCRIPTION OF EUT</b>	<b>9</b>
<b>3.2 DESCRIPTION OF TEST MODES</b>	<b>11</b>
<b>3.3 TABLE OF PARAMETERS OF TEXT SOFTWARE SETTING</b>	<b>12</b>
<b>3.4 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED</b>	<b>13</b>
<b>3.5 DESCRIPTION OF SUPPORT UNITS</b>	<b>14</b>
<b>4 . EMC EMISSION TEST</b>	<b>15</b>
<b>4.1 CONDUCTED EMISSION MEASUREMENT</b>	<b>15</b>
<b>4.1.1 POWER LINE CONDUCTED EMISSION LIMITS</b>	<b>15</b>
<b>4.1.2 TEST PROCEDURE</b>	<b>15</b>
<b>4.1.3 DEVIATION FROM TEST STANDARD</b>	<b>15</b>
<b>4.1.4 TEST SETUP</b>	<b>16</b>
<b>4.1.5 EUT OPERATING CONDITIONS</b>	<b>16</b>
<b>4.1.6 EUT TEST CONDITIONS</b>	<b>16</b>
<b>4.1.7 TEST RESULTS</b>	<b>16</b>
<b>4.2 RADIATED EMISSION MEASUREMENT</b>	<b>17</b>
<b>4.2.1 RADIATED EMISSION LIMITS</b>	<b>17</b>
<b>4.2.2 TEST PROCEDURE</b>	<b>18</b>
<b>4.2.3 DEVIATION FROM TEST STANDARD</b>	<b>18</b>
<b>4.2.4 TEST SETUP</b>	<b>18</b>
<b>4.2.5 EUT OPERATING CONDITIONS</b>	<b>19</b>
<b>4.2.6 EUT TEST CONDITIONS</b>	<b>19</b>
<b>4.2.7 TEST RESULTS (9KHZ TO 30MHZ)</b>	<b>20</b>
<b>4.2.8 TEST RESULTS (BETWEEN 30MHZ TO 1000 MHZ)</b>	<b>20</b>
<b>4.2.9 TEST RESULTS (ABOVE 1000 MHZ)</b>	<b>20</b>
<b>5 . BANDWIDTH TEST</b>	<b>21</b>
<b>5.1 APPLIED PROCEDURES</b>	<b>21</b>
<b>5.1.1 TEST PROCEDURE</b>	<b>21</b>
<b>5.1.2 DEVIATION FROM STANDARD</b>	<b>21</b>
<b>5.1.3 TEST SETUP</b>	<b>21</b>
<b>5.1.4 EUT OPERATION CONDITIONS</b>	<b>21</b>
<b>5.1.5 EUT TEST CONDITIONS</b>	<b>21</b>
<b>5.1.6 TEST RESULTS</b>	<b>21</b>



Table of Contents	Page
<b>6 . MAXIMUM OUTPUT POWER TEST</b>	<b>22</b>
<b>6.1 APPLIED PROCEDURES / LIMIT</b>	<b>22</b>
<b>6.1.1 TEST PROCEDURE</b>	<b>22</b>
<b>6.1.2 DEVIATION FROM STANDARD</b>	<b>22</b>
<b>6.1.3 TEST SETUP</b>	<b>22</b>
<b>6.1.4 EUT OPERATION CONDITIONS</b>	<b>22</b>
<b>6.1.5 EUT TEST CONDITIONS</b>	<b>22</b>
<b>6.1.6 TEST RESULTS</b>	<b>22</b>
<b>7 . ANTENNA CONDUCTED SPURIOUS EMISSION</b>	<b>23</b>
<b>7.1 APPLIED PROCEDURES / LIMIT</b>	<b>23</b>
<b>7.1.1 TEST PROCEDURE</b>	<b>23</b>
<b>7.1.2 DEVIATION FROM STANDARD</b>	<b>23</b>
<b>7.1.3 TEST SETUP</b>	<b>23</b>
<b>7.1.4 EUT OPERATION CONDITIONS</b>	<b>23</b>
<b>7.1.5 EUT TEST CONDITIONS</b>	<b>23</b>
<b>7.1.6 TEST RESULTS</b>	<b>23</b>
<b>8 . POWER SPECTRAL DENSITY TEST</b>	<b>24</b>
<b>8.1 APPLIED PROCEDURES / LIMIT</b>	<b>24</b>
<b>8.1.1 TEST PROCEDURE</b>	<b>24</b>
<b>8.1.2 DEVIATION FROM STANDARD</b>	<b>24</b>
<b>8.1.3 TEST SETUP</b>	<b>24</b>
<b>8.1.4 EUT OPERATION CONDITIONS</b>	<b>24</b>
<b>8.1.5 EUT TEST CONDITIONS</b>	<b>24</b>
<b>8.1.6 TEST RESULTS</b>	<b>24</b>
<b>9 . MEASUREMENT INSTRUMENTS LIST</b>	<b>25</b>
<b>10 . EUT TEST PHOTO</b>	<b>27</b>
<b>ATTACHMENT A - CONDUCTED EMISSION</b>	<b>31</b>
<b>ATTACHMENT B - RADIATED EMISSION (9KHZ TO 30MHZ)</b>	<b>34</b>
<b>ATTACHMENT C - RADIATED EMISSION (30MHZ TO 1000MHZ)</b>	<b>36</b>
<b>ATTACHMENT D - RADIATED EMISSION (ABOVE 1000MHZ)</b>	<b>43</b>
<b>ATTACHMENT E - BANDWIDTH</b>	<b>92</b>
<b>ATTACHMENT F - MAXIMUM OUTPUT POWER</b>	<b>105</b>
<b>ATTACHMENT G - ANTENNA CONDUCTED SPURIOUS EMISSION</b>	<b>109</b>
<b>ATTACHMENT H - POWER SPECTRAL DENSITY</b>	<b>140</b>



**REPORT ISSUED HISTORY**

Issued No.	Description	Issued Date
NEI-FCCP-1-1404C226	Original Issue.	May. 22, 2014



## 1. CERTIFICATION

Equipment : 300Mbps Wireless N High Power Router  
Brand Name : netis  
Model Name : NW739;WF2533  
Applicant : NETIS SYSTEMS CO., LTD  
Date of Test : Apr. 28, 2014 ~ May. 21, 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-1-1404C226) 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			
Standard(s)	Section	Test Item	Judgment
	<b>FCC</b>		
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 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

## 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 expended 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	300Mbps Wireless N High Power Router	
Brand Name	netis	
Model Name	NW739;WF2533	
Model Difference	Only differ in model name and antenna type, the model NW739 is non-detachable antenna, the model WF2533 is detachable antenna.	
Product Description	Operation Frequency	2412~2462 MHz
	Modulation Technology	802.11b: DSSS 802.11g:OFDM 802.11n: OFDM
	Bit Rate of Transmitter	802.11b: 11/5.5/2/1 Mbps 802.11g: 54/48/36/24/18/12/9/6 Mbps 802.11n up to 300 Mbps
	Output Power (Max.)	802.11b: 18.10dBm 802.11g: 23.00dBm 802.11n(20MHz): 22.66dBm 802.11n(40MHz): 23.31dBm
Power Source	DC voltage supplied from AC/DC adapter. Model: NT12V1AUL	
Power Rating	I/P: AC 100-240V~0.3A 50/60Hz O/P: DC 12V/1A	
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.



# Neutron Engineering Inc.

## 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

### Group 1: Non-detachable antenna

Ant.	Manufacturer	Model Name	Antenna Type	Connector	Gain(dBi)	Note
1	<b>RF link</b>	WLAN05132	Dipole	N/A	5.17	TX
2	<b>RF link</b>	WLAN05133	Dipole	N/A	5.17	TX
3	<b>RF link</b>	WLAN05134	Dipole	N/A	5.17	RX

### Group 2: Detachable antenna

Ant.	Manufacturer	Model Name	Antenna Type	Connector	Gain(dBi)	Note
1	<b>RF link</b>	WLAN05132	Dipole	R-SMA	5.17	TX
2	<b>RF link</b>	WLAN05133	Dipole	R-SMA	5.17	TX
3	<b>RF link</b>	WLAN05134	Dipole	R-SMA	5.17	RX

### Note:

- (1) The Group 1 antenna is non-detachable and Group 2 is detachable, Group 2 is recorded as the worst case.
- (2) The EUT incorporates a MIMO function. Physically, the EUT provides two completed two transmitters and one receivers (2T1R)

## 4.

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



## 3.2 DESCRIPTION OF TEST MODES

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

Pretest Mode	Description
Mode 1	TX B MODE CHANNEL 01/06/11
Mode 2	TX G MODE CHANNEL 01/06/11
Mode 3	TX N-20MHZ MODE CHANNEL 01/06/11
Mode 4	TX N-40MHZ MODE CHANNEL 03/06/09
Mode 5	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 (13Mbps)  
802.11n HT40 mode : BPSK (27Mbps)
- For radiated emission tests, the highest output powers were set for final test.
- (3) For radiated below 1G test, the 802.11b is found to be the worst case and recorded.



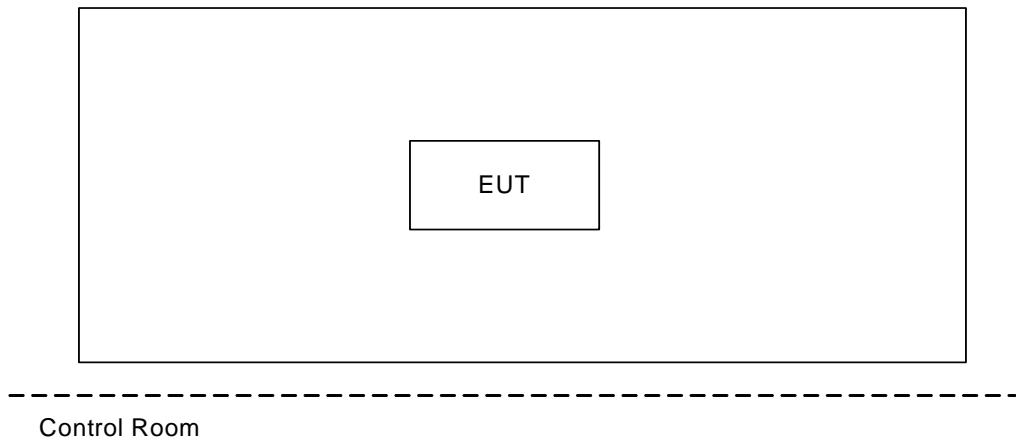
### **3.3 TABLE OF PARAMETERS OF TEXT SOFTWARE SETTING**

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

Test software version	Mtool 1.0.0.8		
<b>Frequency</b>	<b>2412 MHz</b>	<b>2437 MHz</b>	<b>2462 MHz</b>
IEEE 802.11b DSSS	58	58	58
IEEE 802.11g OFDM	61	60	59
IEEE 802.11n (20MHz)	42	41	40
<b>Frequency</b>	<b>2422 MHz</b>	<b>2437 MHz</b>	<b>2452 MHz</b>
IEEE 802.11n (40MHz)	44	43	42



**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
-	-	-	-	-	-	

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

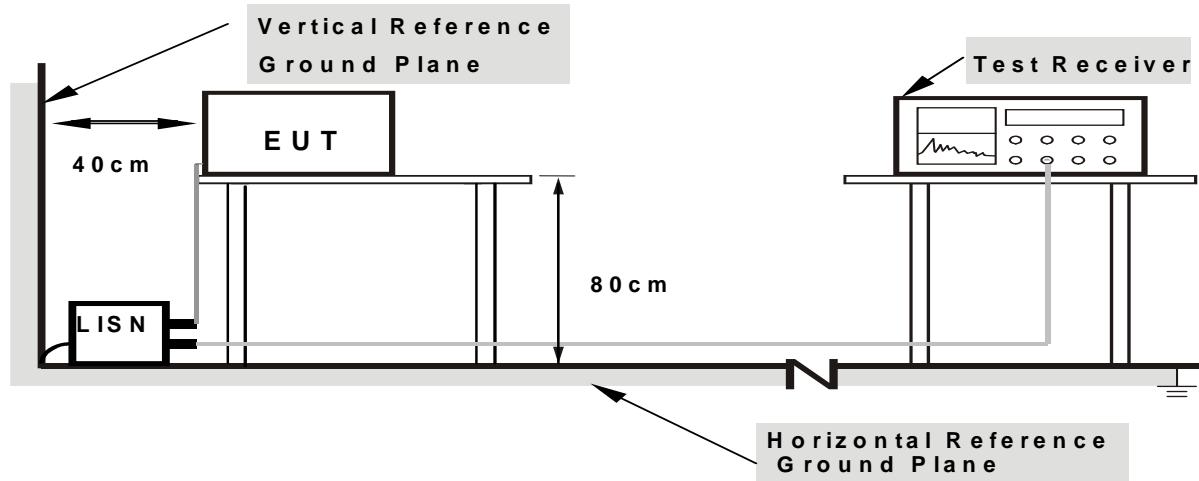
- a. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- 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 cm 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

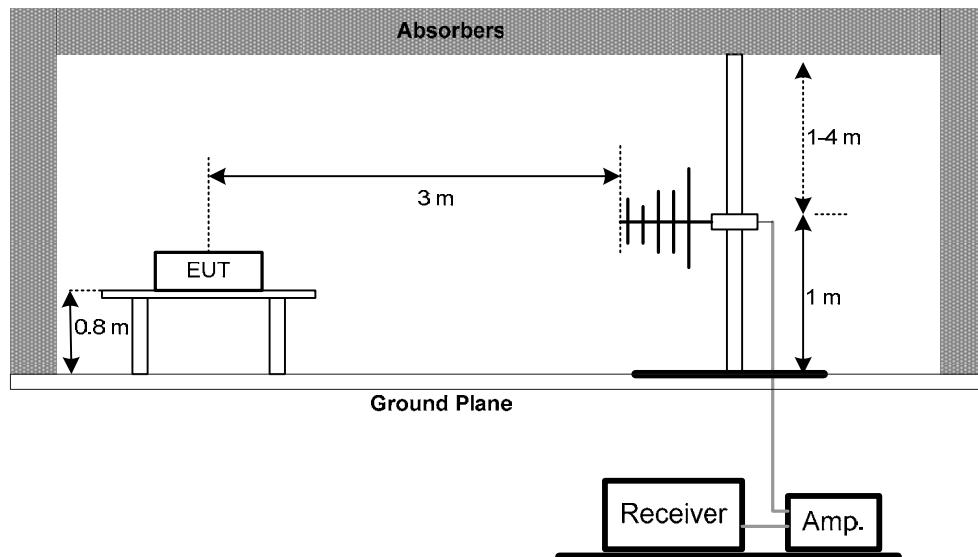
- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(below 1GHz)
- b. The EUT was placed on the top of a rotating table 0.8 meters above the ground at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

## 4.2.3 DEVIATION FROM TEST STANDARD

No deviation

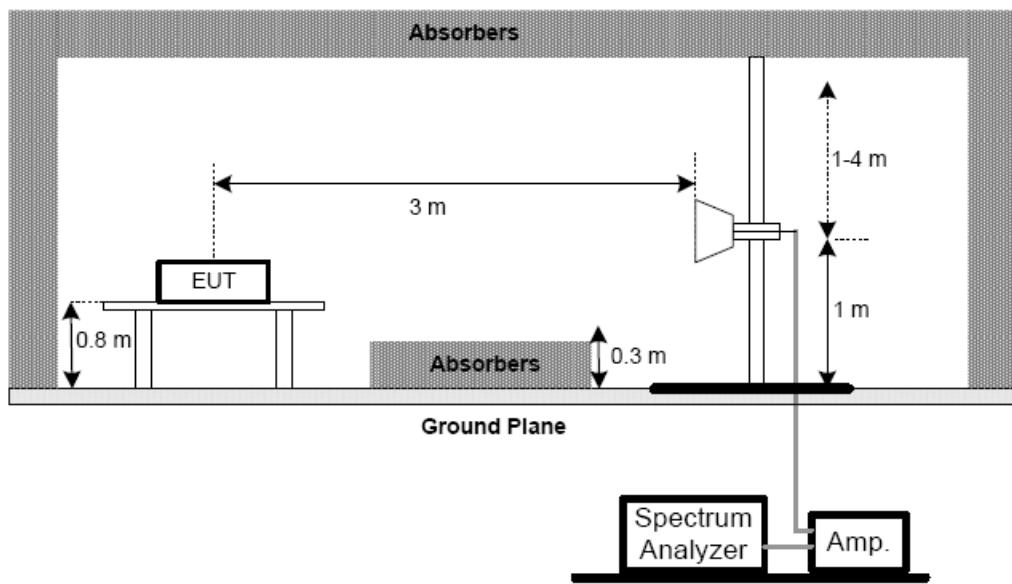
## 4.2.4 TEST SETUP

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

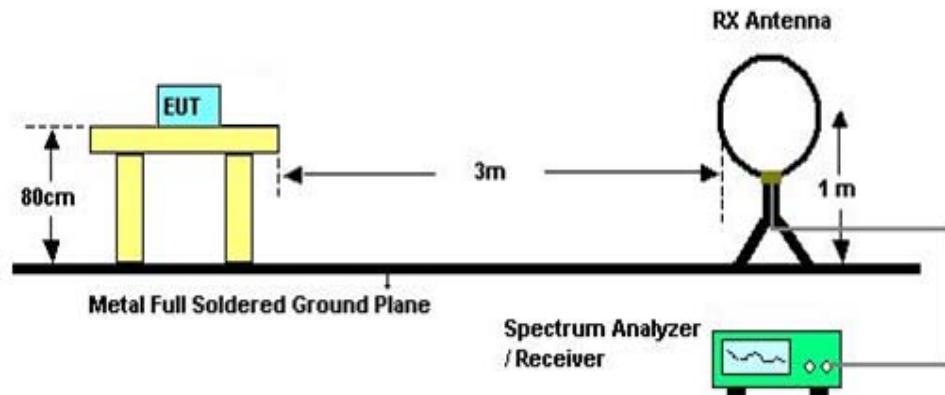




(B) Radiated Emission Test Set-Up Frequency Above 1 GHz



(C) For radiated emissions below 30MHz



#### 4.2.5 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 (dB<sub>uV</sub>) + 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.



## 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

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

#### 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

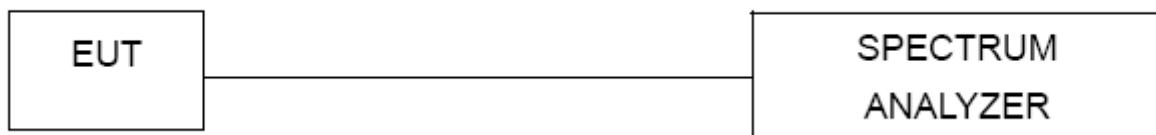
#### **8.1.1 TEST PROCEDURE**

- 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	Schwarbeck	VULB9160	9160-3232	Mar. 29, 2015
2	Amplifier	HP	8447D	2944A09673	Mar. 29, 2015
3	Test Receiver	R&S	ESCI	100382	Mar. 29, 2015
4	Test Cable	N/A	C-01_CB03	N/A	Jul. 02, 2014
5	Antenna	ETS	3115	00075789	Mar. 29, 2015
6	Amplifier	Agilent	8449B	3008A02274	Mar. 29, 2015
7	Spectrum	Agilent	E4408B	US39240143	Nov. 09, 2014
8	Test Cable	HUBER+SUHNER	C-45	N/A	Mar. 29, 2015
9	Controller	CT	SC100	N/A	N/A
10	Horn Antenna	EMCO	3115	9605-4803	Mar. 29, 2015
11	Active Loop Antenna	R&S	HFH2-Z2	830749/020	Mar. 29, 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	Apr. 24, 2015
2	Wireband Power sensor	Agilent	N1921A	MY51100041	Apr. 24, 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**





**Neutron Engineering Inc.**

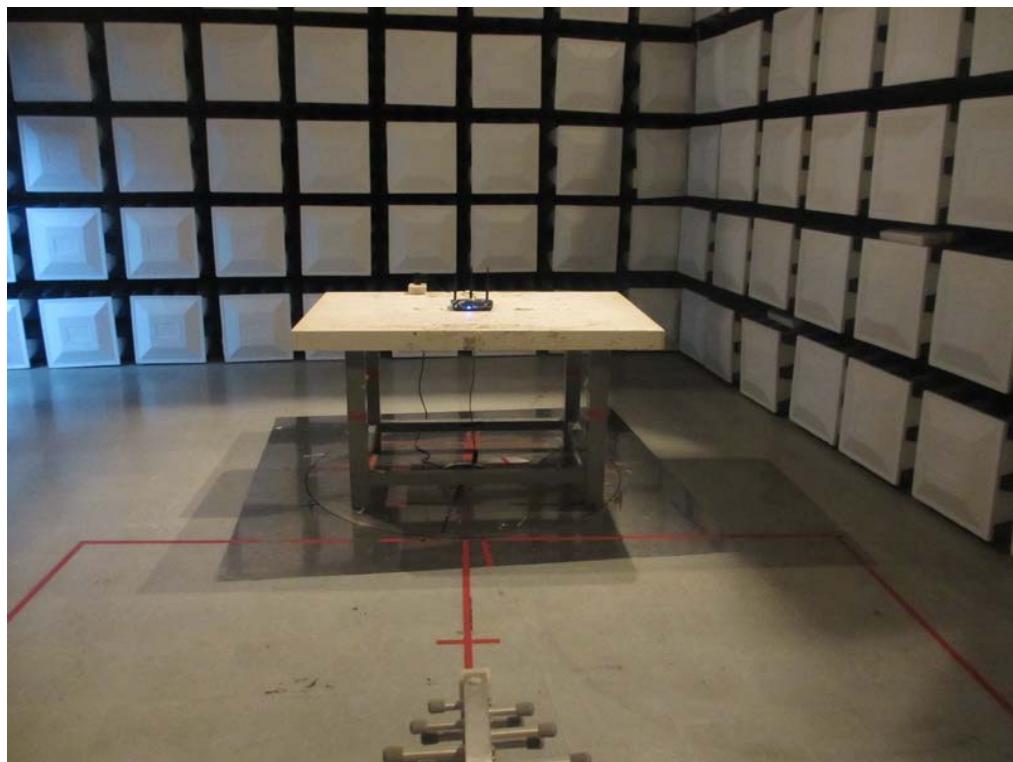
**Radiated Measurement Photos  
9KHz to 30MHz**





**Neutron Engineering Inc.**

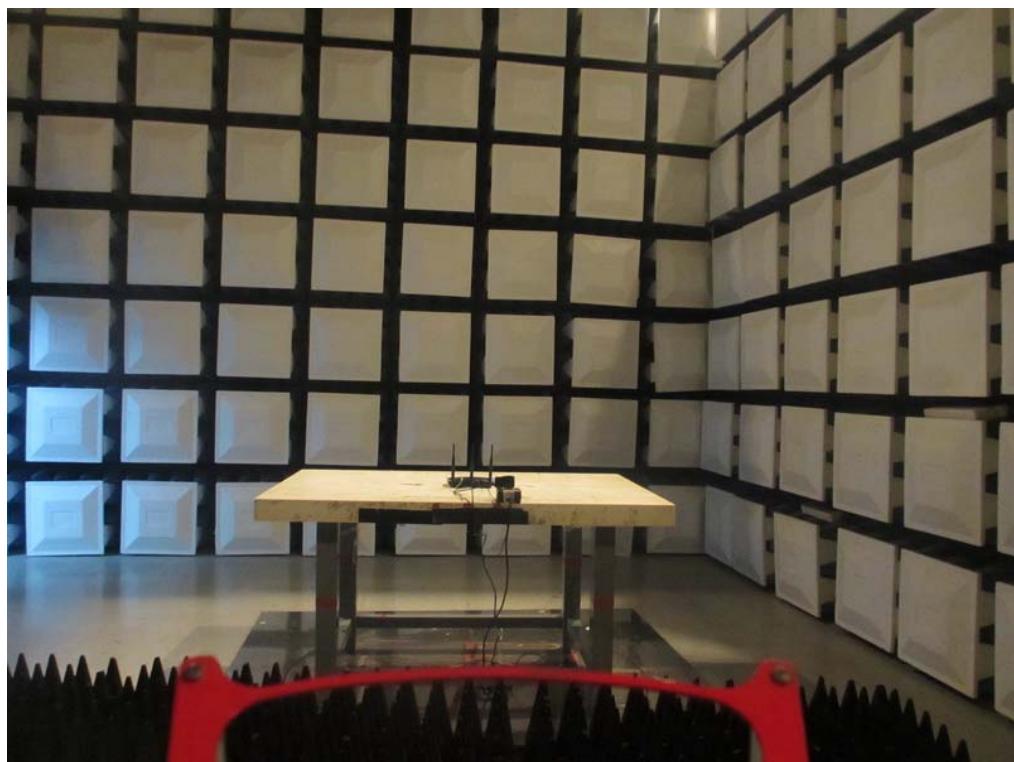
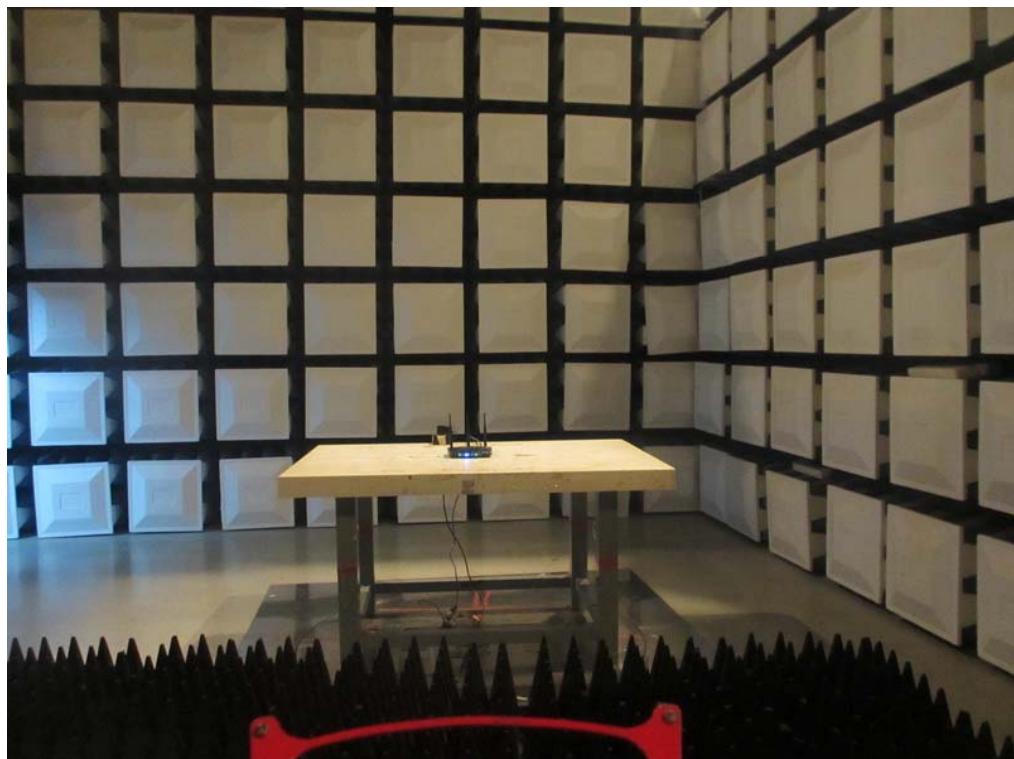
**Radiated Measurement Photos  
30MHz to 1000MHz**





**Neutron Engineering Inc.**

**Radiated Measurement Photos  
Above 1000MHz**



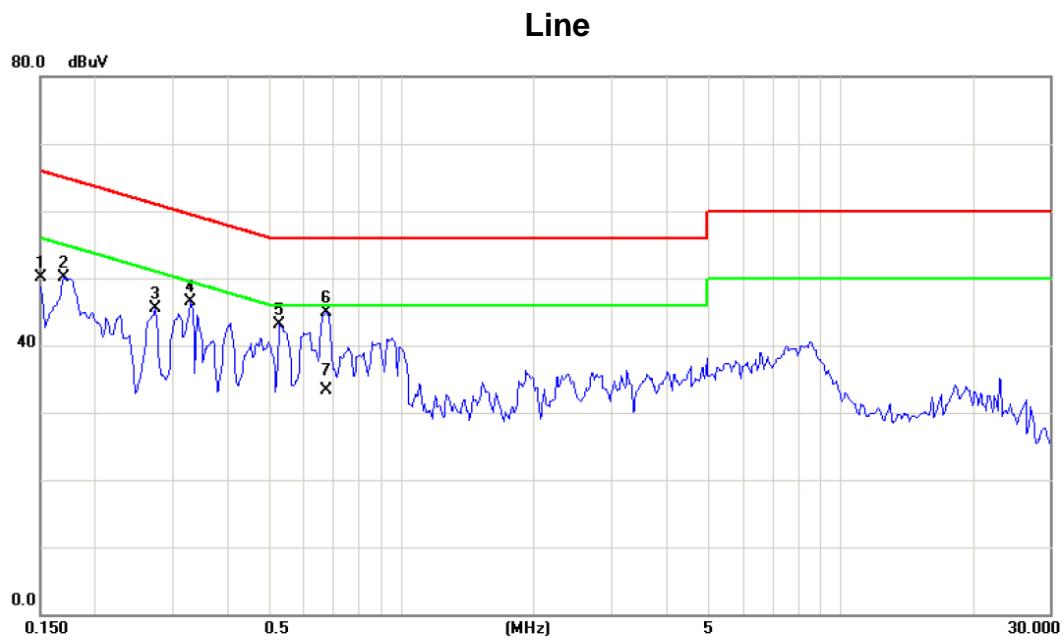


**Neutron Engineering Inc.**

## **ATTACHMENT A - CONDUCTED EMISSION**



Test Mode : TX MODE



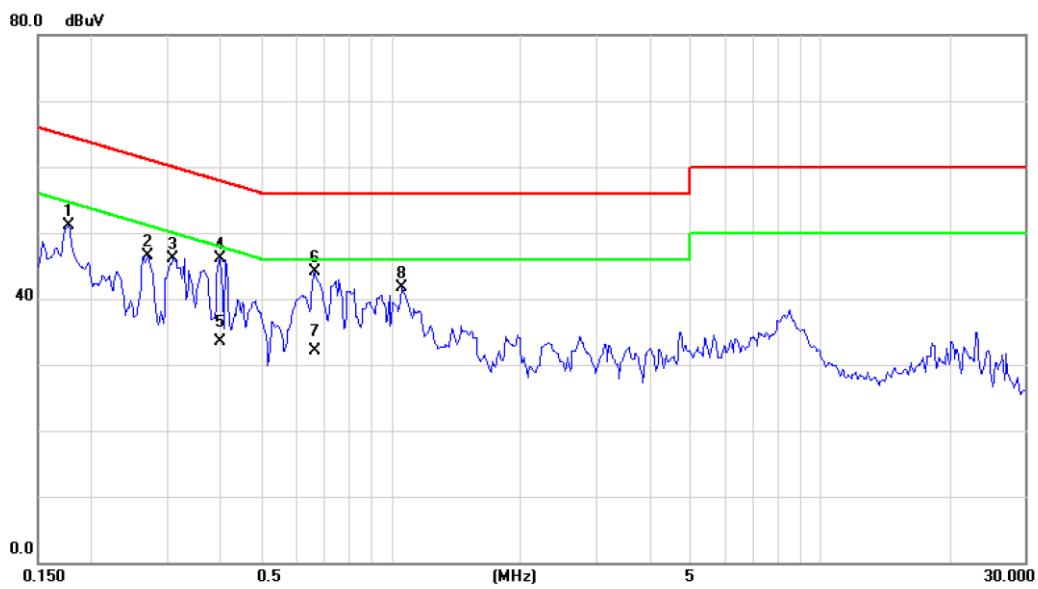
No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Detector	Comment
			Level	Factor	ment				
1		0.1500	40.55	9.63	50.18	66.00	-15.82	peak	
2		0.1695	40.42	9.63	50.05	64.98	-14.93	peak	
3		0.2750	35.82	9.67	45.49	60.97	-15.48	peak	
4		0.3297	36.78	9.67	46.45	59.46	-13.01	peak	
5		0.5290	33.33	9.70	43.03	56.00	-12.97	peak	
6	*	0.6734	35.19	9.72	44.91	56.00	-11.09	peak	
7		0.6734	23.50	9.72	33.22	46.00	-12.78	AVG	



**Neutron Engineering Inc.**

Test Mode : TX MODE

**Neutral**



No.	Mk.	Freq. MHz	Reading Level	Correct Factor	Measure- ment	Limit	Over	Detector	Comment
			dBuV	dB	dBuV	dBuV	dB		
1		0.1773	41.35	9.71	51.06	64.61	-13.55		peak
2		0.2711	36.84	9.72	46.56	61.08	-14.52		peak
3		0.3102	36.45	9.72	46.17	59.97	-13.80		peak
4	*	0.4000	36.46	9.73	46.19	57.85	-11.66		peak
5		0.4000	23.70	9.73	33.43	47.85	-14.42		AVG
6		0.6617	34.29	9.75	44.04	56.00	-11.96		peak
7		0.6617	22.40	9.75	32.15	46.00	-13.85		AVG
8		1.0562	31.92	9.77	41.69	56.00	-14.31		peak



**Neutron Engineering Inc.**

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



# Neutron Engineering Inc.

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
0.0094	0°	68.35	24.30	92.65	128.12	-35.47	AVG
0.0095	0°	72.35	24.30	96.65	148.12	-51.47	PEAK
0.0136	0°	70.35	24.30	94.65	124.93	-30.28	AVG
0.0137	0°	79.35	24.30	103.65	144.93	-41.28	PEAK
0.0245	0°	56.36	24.02	80.38	119.82	-39.45	AVG
0.0246	0°	60.12	24.02	84.14	139.82	-55.69	PEAK
0.0326	0°	61.36	23.50	84.86	117.34	-32.48	AVG
0.0328	0°	65.38	23.50	88.88	137.34	-48.46	PEAK
0.5670	0°	18.72	20.01	38.73	72.53	-33.80	QP
1.7535	0°	18.95	19.52	38.47	69.54	-31.07	QP

Freq. (MHz)	Ant. 0°/90°	Reading(RA) (dBuV)	Corr.Factor(CF) (dB)	Measured(FS) (dBuV/m)	Limits(QP) (dBuV/m)	Margin (dB)	Note
0.0093	90°	76.35	24.30	100.65	128.20	-27.55	AVG
0.0094	90°	82.36	24.30	106.66	148.20	-41.54	PEAK
0.0235	90°	56.38	24.08	80.46	120.18	-39.72	AVG
0.0237	90°	59.35	24.08	83.43	140.18	-56.75	PEAK
0.0316	90°	57.35	23.57	80.92	117.61	-36.70	AVG
0.0318	90°	58.35	23.57	81.92	137.61	-55.70	PEAK
0.0427	90°	59.35	22.86	82.21	115.00	-32.78	AVG
0.0429	90°	63.35	22.86	86.21	135.00	-48.78	PEAK
0.4914	90°	17.45	19.82	37.27	73.78	-36.50	QP
1.7157	90°	18.63	19.53	38.16	69.54	-31.38	QP

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.



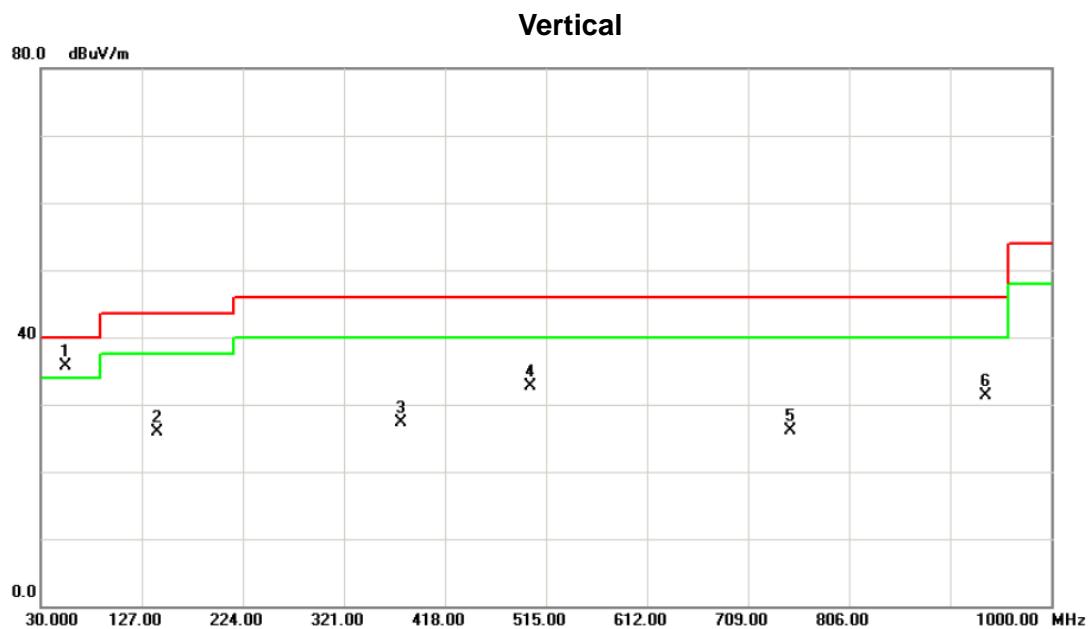
**Neutron Engineering Inc.**

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



**Neutron Engineering Inc.**

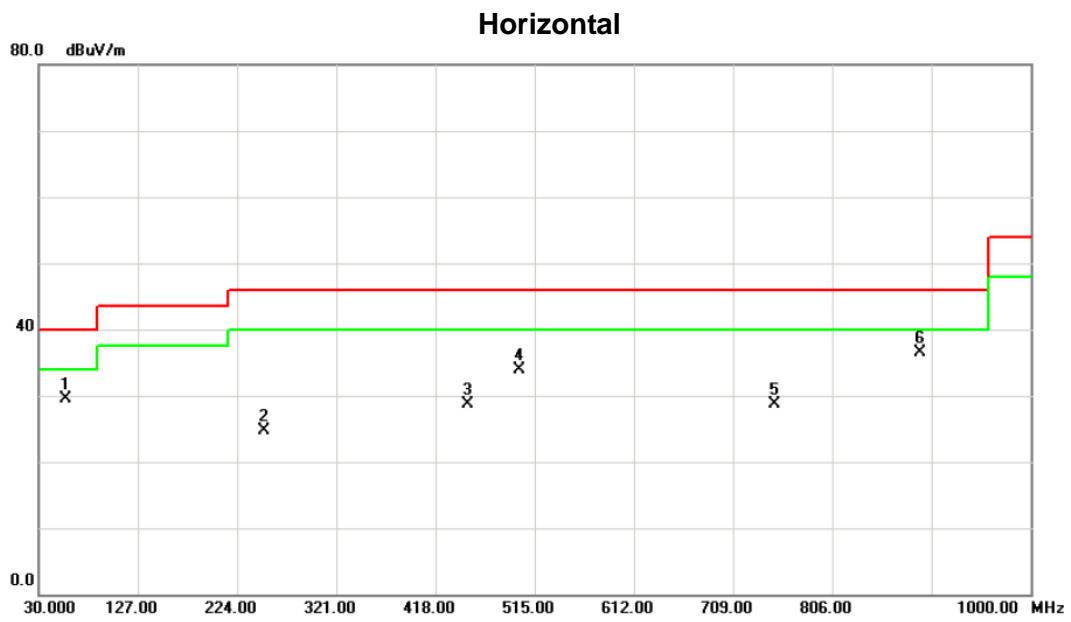
Test Mode: TX B MODE CHANNEL 01



No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Detector	Comment
			Level	Factor	ment				
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1	*	54.2500	57.47	-21.78	35.69	40.00	-4.31	peak	
2		141.5500	46.03	-20.15	25.88	43.50	-17.62	peak	
3		375.3200	42.74	-15.34	27.40	46.00	-18.60	peak	
4		500.4500	48.06	-15.33	32.73	46.00	-13.27	peak	
5		749.7400	33.31	-7.16	26.15	46.00	-19.85	peak	
6		936.9500	37.01	-5.78	31.23	46.00	-14.77	peak	



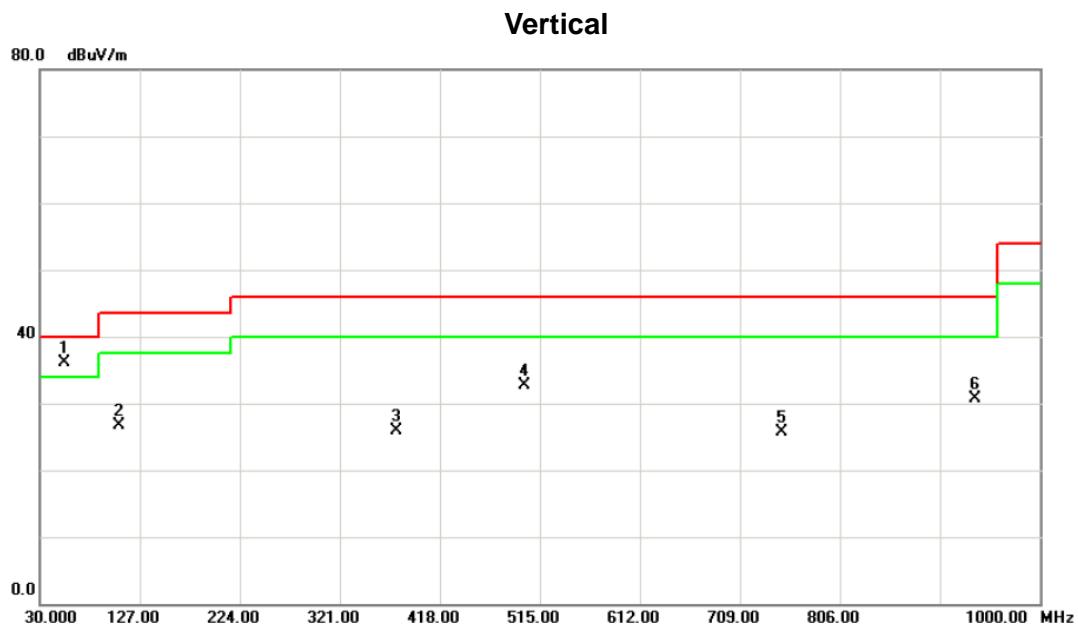
Test Mode: TX B MODE CHANNEL 01



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	56.1900	51.74	-22.33	29.41	40.00	-10.59	peak		
2	250.1900	47.13	-22.49	24.64	46.00	-21.36	peak		
3	450.0100	42.40	-13.78	28.62	46.00	-17.38	peak		
4	500.4500	47.85	-13.96	33.89	46.00	-12.11	peak		
5	749.7400	37.06	-8.32	28.74	46.00	-17.26	peak		
6	*	891.3600	44.28	-7.80	36.48	46.00	-9.52	peak	



Test Mode: TX B MODE CHANNEL 06



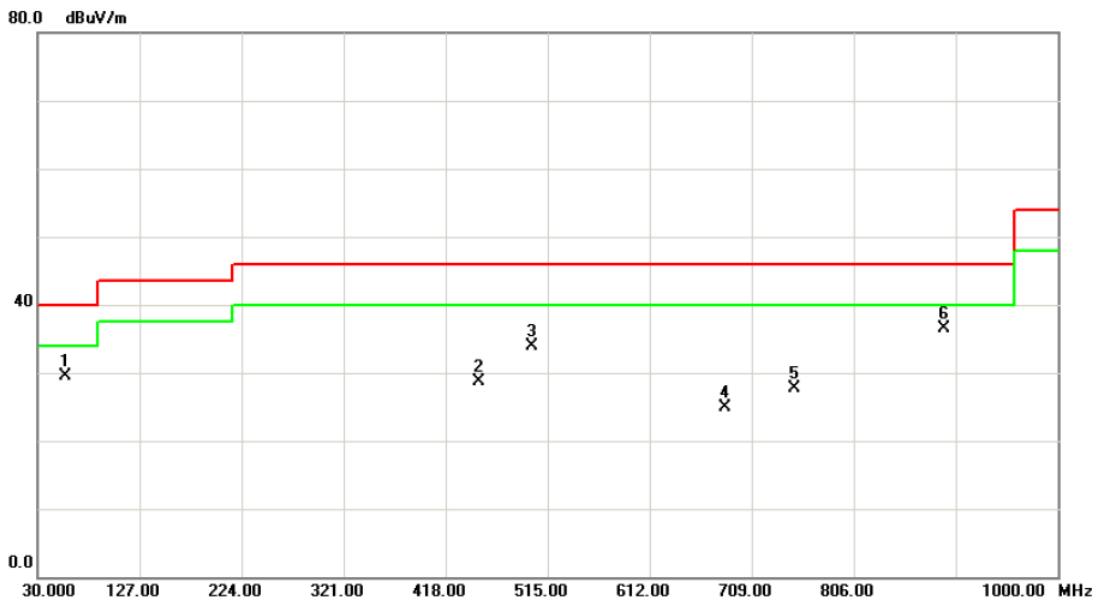
No.	Mk.	Freq. MHz	Reading Level dB <sub>uV</sub>	Correct Factor dB	Measure- ment dB <sub>uV/m</sub>	Limit dB <sub>uV/m</sub>	Over dB	Detector	Comment
1	*	54.2500	57.97	-21.78	36.19	40.00	-3.81	peak	
2		106.6300	51.11	-24.41	26.70	43.50	-16.80	peak	
3		375.3200	41.24	-15.34	25.90	46.00	-20.10	peak	
4		500.4500	48.06	-15.33	32.73	46.00	-13.27	peak	
5		749.7400	32.81	-7.16	25.65	46.00	-20.35	peak	
6		936.9500	36.51	-5.78	30.73	46.00	-15.27	peak	



**Neutron Engineering Inc.**

Test Mode: TX B MODE CHANNEL 06

**Horizontal**

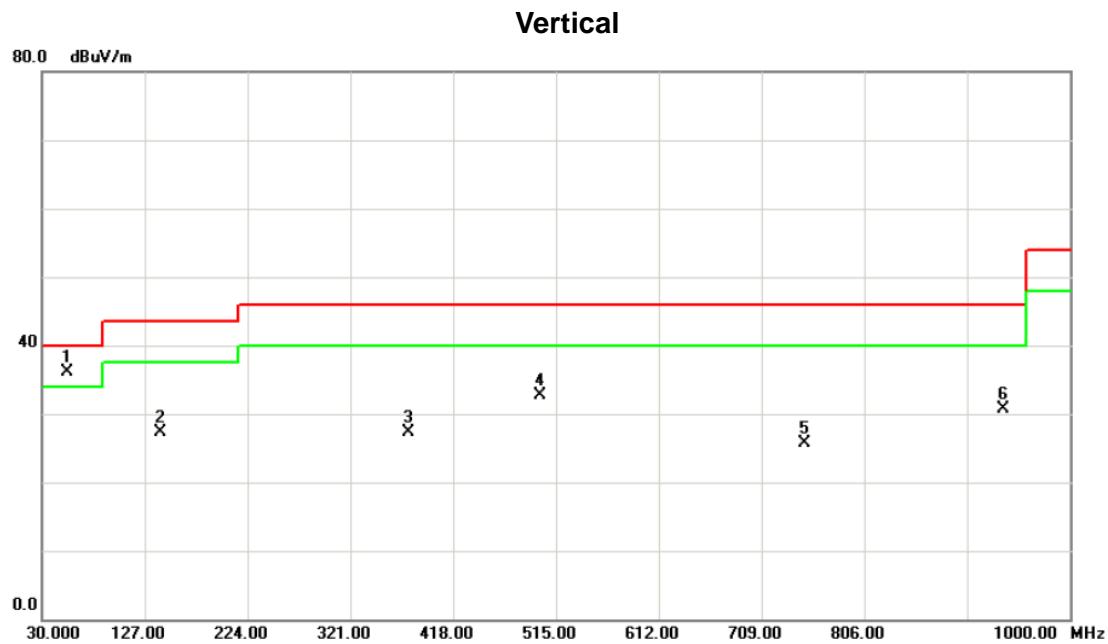


No. Mk.	Freq. MHz	Reading Level	Correct Factor	Measure- ment	Limit	Over	Comment
		dBuV	dB	dBuV/m	dBuV/m	dB	
1	56.1900	51.74	-22.33	29.41	40.00	-10.59	peak
2	450.0100	42.40	-13.78	28.62	46.00	-17.38	peak
3	500.4500	47.85	-13.96	33.89	46.00	-12.11	peak
4	683.7800	34.73	-9.84	24.89	46.00	-21.11	peak
5	749.7400	36.06	-8.32	27.74	46.00	-18.26	peak
6 *	891.3600	44.28	-7.80	36.48	46.00	-9.52	peak



**Neutron Engineering Inc.**

Test Mode: TX B MODE CHANNEL 11



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	*	54.2500	57.97	-21.78	36.19	40.00	-3.81	peak	
2		141.5500	47.53	-20.15	27.38	43.50	-16.12	peak	
3		375.3200	42.74	-15.34	27.40	46.00	-18.60	peak	
4		500.4500	48.06	-15.33	32.73	46.00	-13.27	peak	
5		749.7400	32.81	-7.16	25.65	46.00	-20.35	peak	
6		936.9500	36.51	-5.78	30.73	46.00	-15.27	peak	

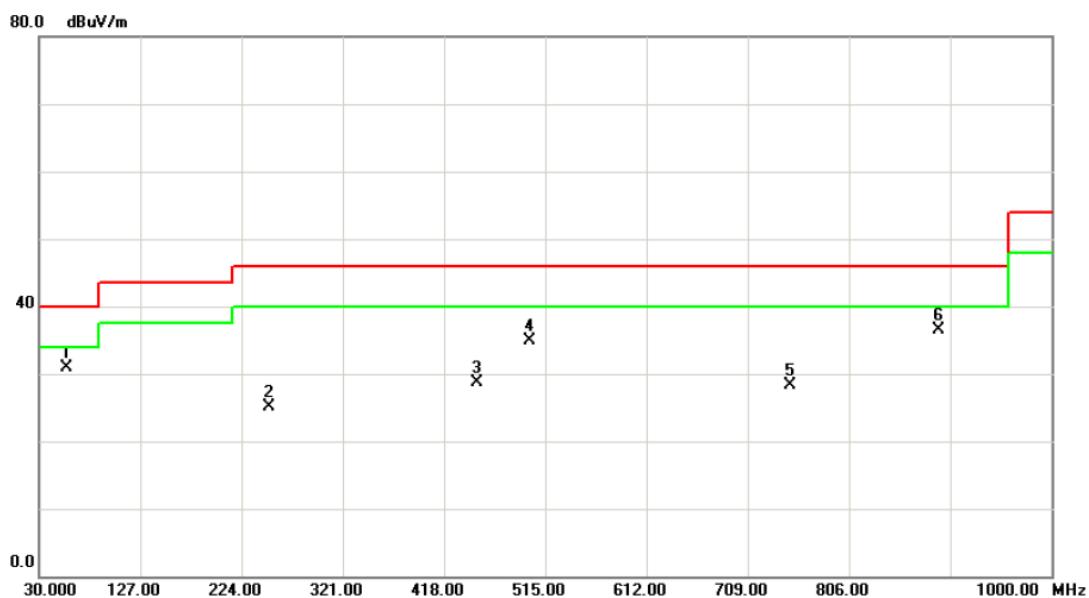


**Neutron Engineering Inc.**

Test Mode:

TX B MODE CHANNEL 11

**Horizontal**



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dB	Over	Detector	Comment
1	*	56.1900	53.24	-22.33	30.91	40.00	-9.09	peak	
2		250.1900	47.63	-22.49	25.14	46.00	-20.86	peak	
3		450.0100	42.40	-13.78	28.62	46.00	-17.38	peak	
4		500.4500	48.85	-13.96	34.89	46.00	-11.11	peak	
5		749.7400	36.56	-8.32	28.24	46.00	-17.76	peak	
6		891.3600	44.28	-7.80	36.48	46.00	-9.52	peak	



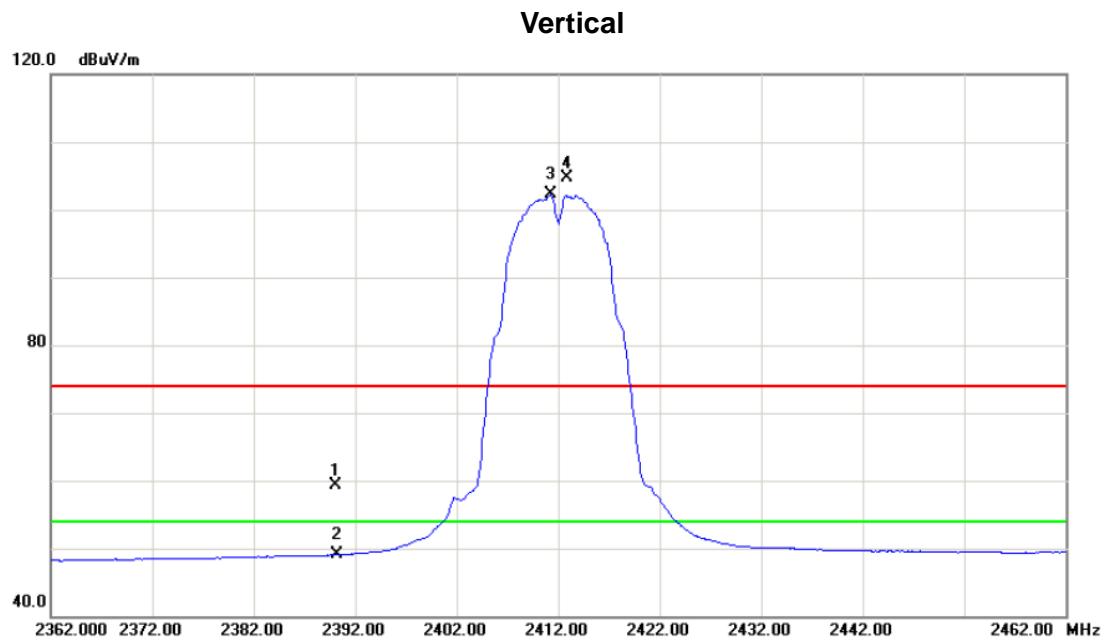
**Neutron Engineering Inc.**

**ATTACHMENT D - RADIATED EMISSION (ABOVE 1000MHZ)**



**Neutron Engineering Inc.**

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

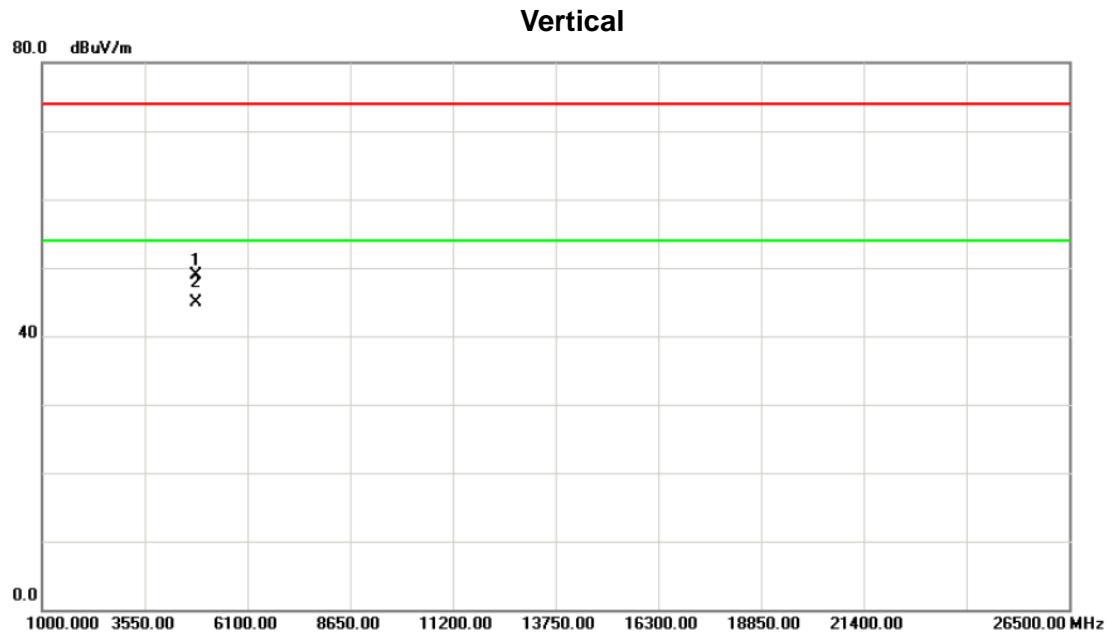


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		2390.000	25.28	34.09	59.37	74.00	-14.63	peak	
2		2390.000	14.93	34.09	49.02	54.00	-4.98	Avg	
3	*	2411.200	68.08	34.16	102.24	54.00	48.24	Avg	Fundamental frequency, no limit
4	X	2412.900	70.64	34.16	104.80	74.00	30.80	peak	Fundamental frequency, no limit



**Neutron Engineering Inc.**

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

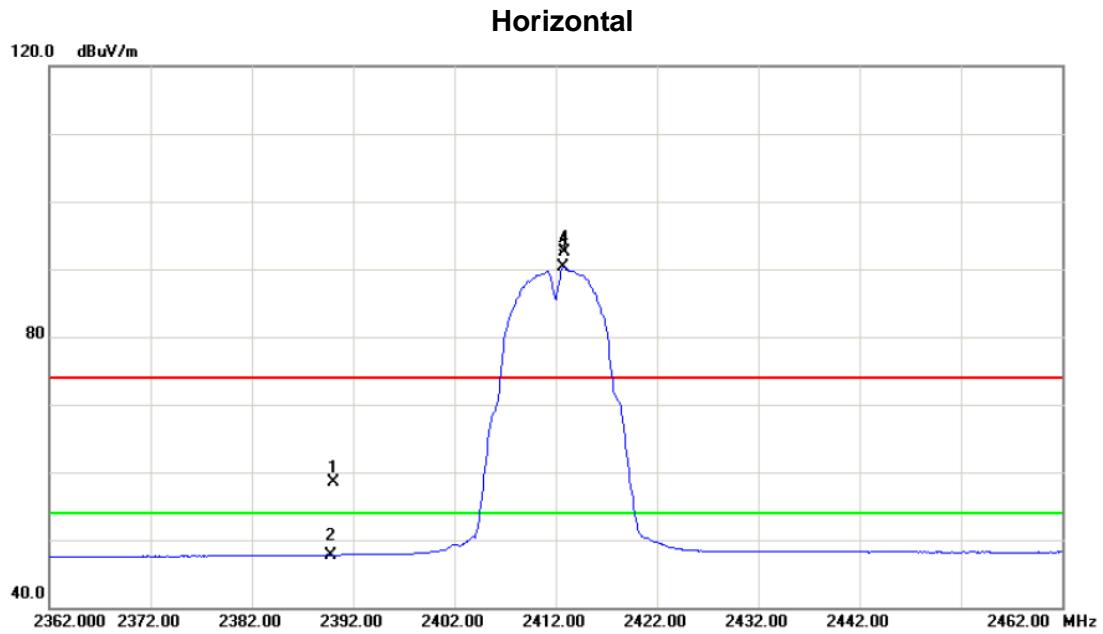


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4823.900	42.52	6.43	48.95	74.00	-25.05	peak	
2	*	4824.000	38.45	6.43	44.88	54.00	-9.12	Avg	



**Neutron Engineering Inc.**

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



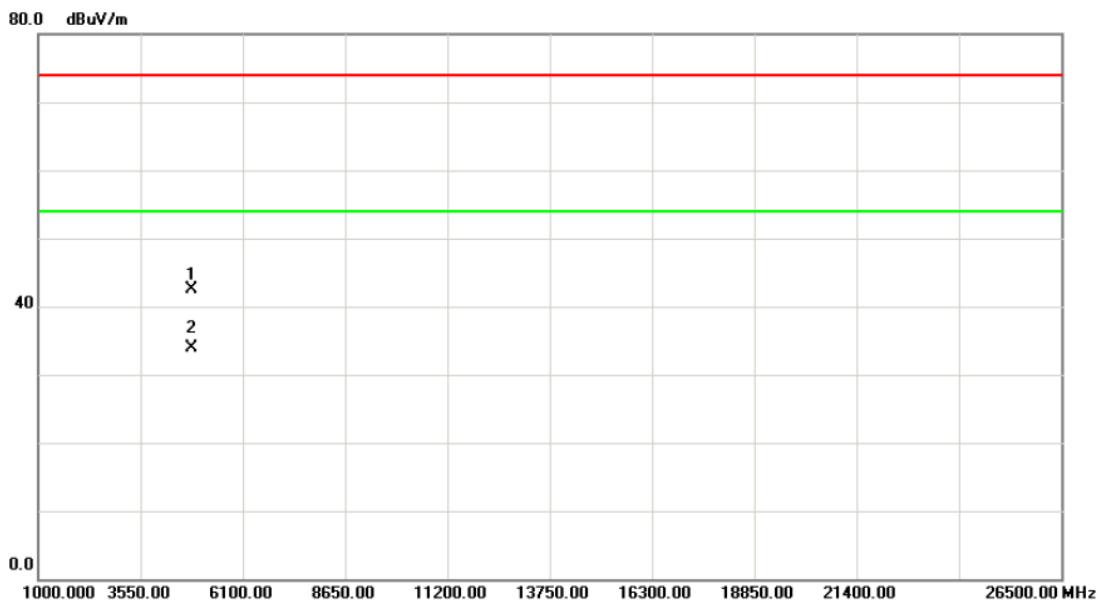
No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Detector	Comment
			Level	Factor	ment				
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1		2390.000	24.36	34.09	58.45	74.00	-15.55		peak
2		2390.000	13.66	34.09	47.75	54.00	-6.25	AVG	
3	*	2412.700	56.13	34.16	90.29	54.00	36.29	AVG	Fundamental frequency, no limit
4	X	2412.900	58.38	34.16	92.54	74.00	18.54	peak	Fundamental frequency, no limit



**Neutron Engineering Inc.**

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

**Horizontal**



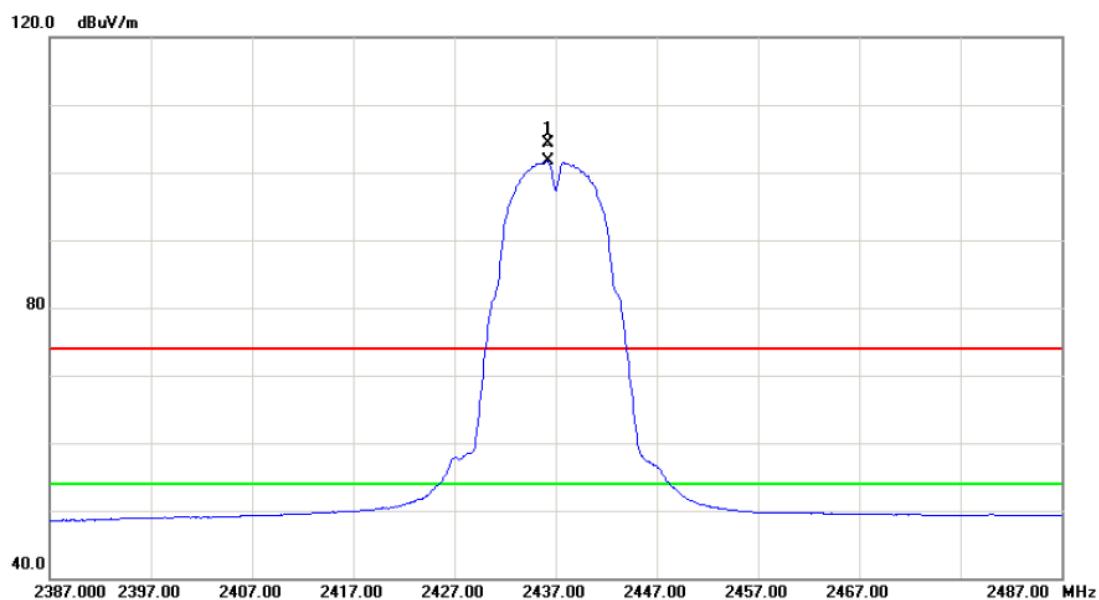
No. Mk.	Freq. MHz	Reading Level	Correct Factor	Measure- ment	Limit	Over	Detector	Comment
		dBuV	dB	dBuV/m	dBuV/m	dB		
1	4824.050	36.17	6.43	42.60	74.00	-31.40	peak	
2 *	4824.050	27.50	6.43	33.93	54.00	-20.07	AVG	



Orthogonal Axis : X

Test Mode : TX B MODE 2437MHz

**Vertical**

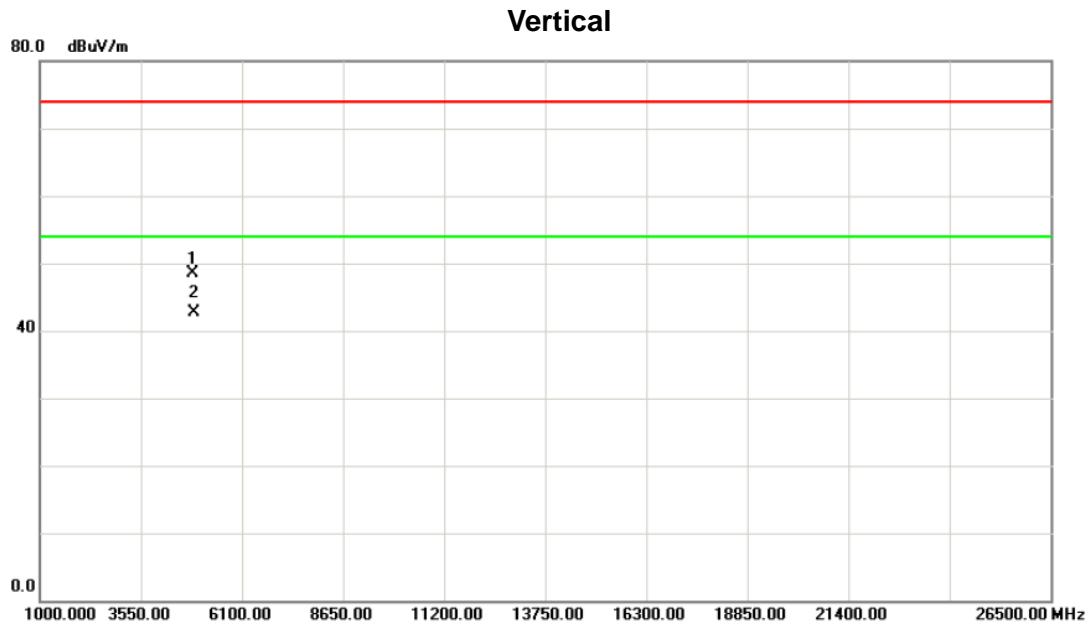


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dB <sub>UV</sub>	dB	dB <sub>UV/m</sub>	dB	Detector	Comment
1	X	2436.200	69.98	34.23	104.21	74.00	30.21	peak Fundamental frequency, no limit
2	*	2436.200	67.51	34.23	101.74	54.00	47.74	AVG Fundamental frequency, no limit



**Neutron Engineering Inc.**

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



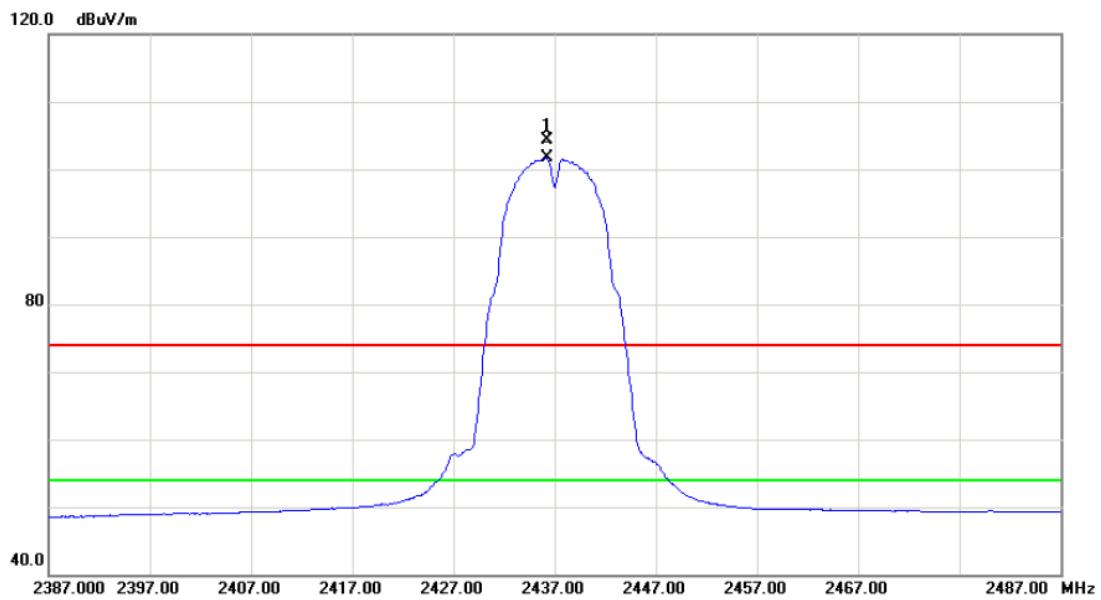
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector Comment
1		4874.030	41.99	6.58	48.57	74.00	-25.43	peak
2	*	4874.030	36.21	6.58	42.79	54.00	-11.21	Avg



**Neutron Engineering Inc.**

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

**Horizontal**



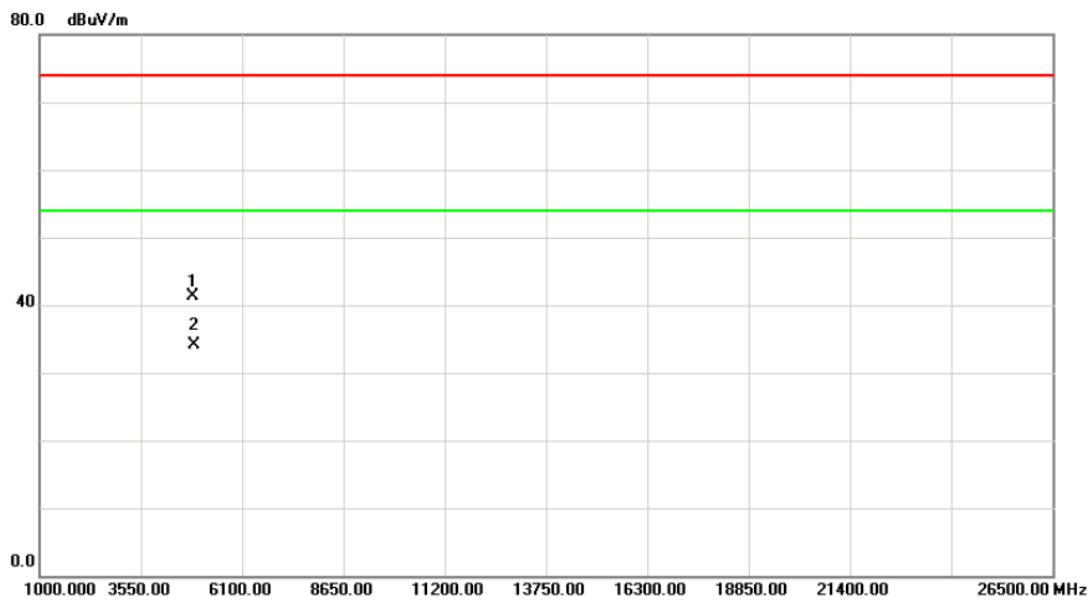
No. Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector Comment
1 X	2436.200	69.98	34.23	104.21	74.00	30.21	peak Fundamental frequency, no limit
2 *	2436.200	67.51	34.23	101.74	54.00	47.74	AVG Fundamental frequency, no limit



**Neutron Engineering Inc.**

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

**Horizontal**



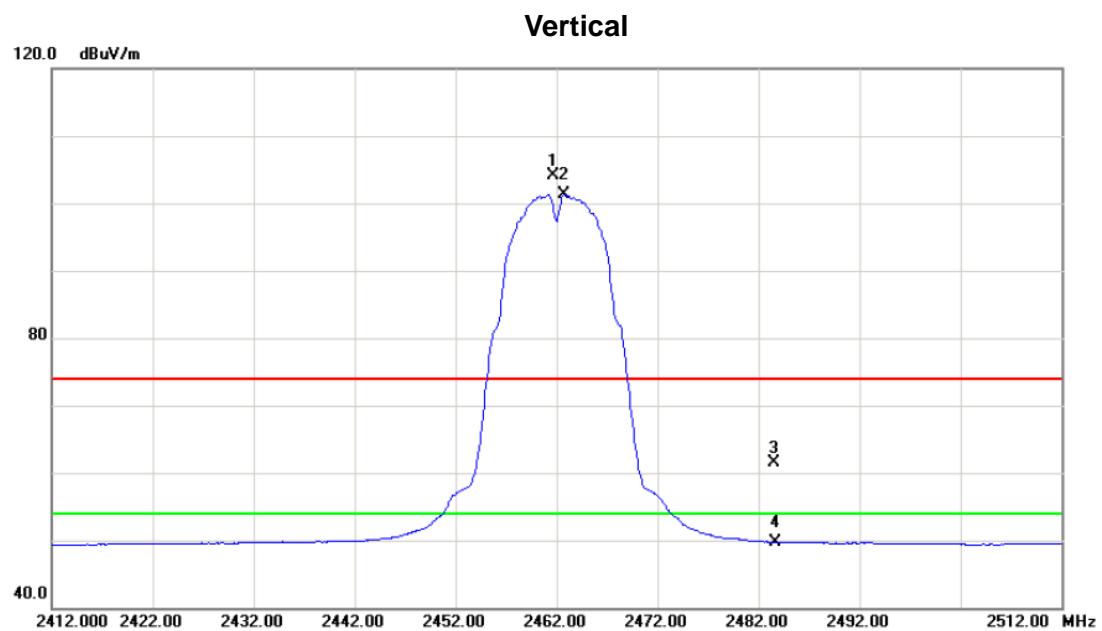
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		4873.920	34.63	6.58	41.21	74.00	-32.79	peak	
2	*	4873.920	27.43	6.58	34.01	54.00	-19.99	AVG	



**Neutron Engineering Inc.**

Orthogonal Axis : X

Test Mode : TX B MODE 2462MHz

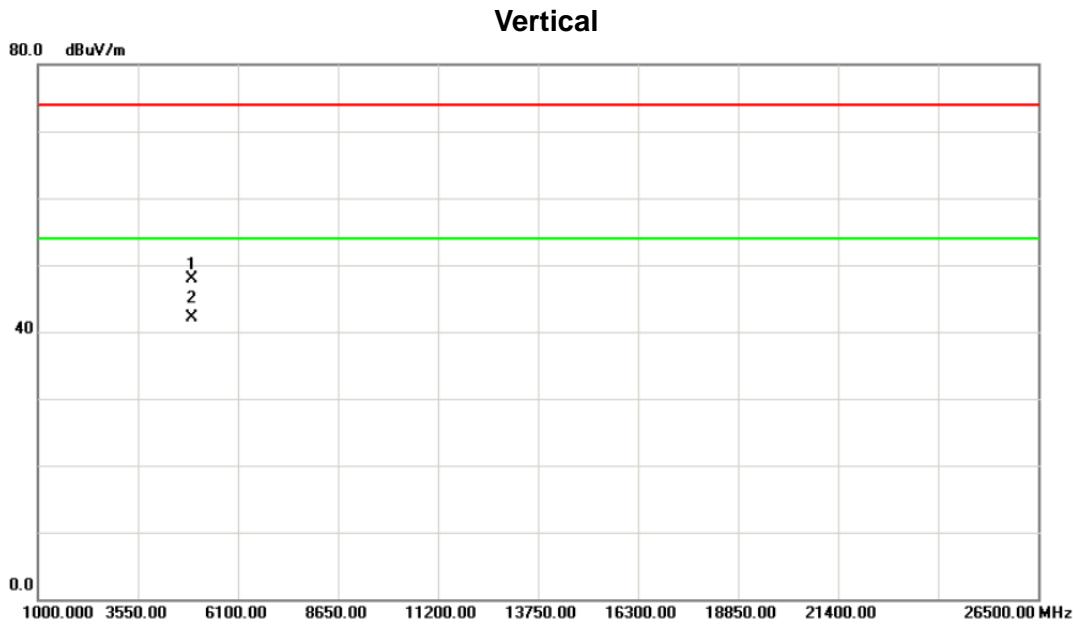


No.	Mk.	Freq. MHz	Reading Level	Correct Factor	Measure- ment	Limit	Over	Comment
			dBuV	dB	dBuV/m	dB	Detector	
1	X	2461.600	69.80	34.31	104.11	74.00	30.11	peak   Fundamental frequency, no limit
2	*	2462.700	67.04	34.31	101.35	54.00	47.35	AVG   Fundamental frequency, no limit
3		2483.500	27.17	34.37	61.54	74.00	-12.46	peak
4		2483.500	15.38	34.37	49.75	54.00	-4.25	AVG



**Neutron Engineering Inc.**

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

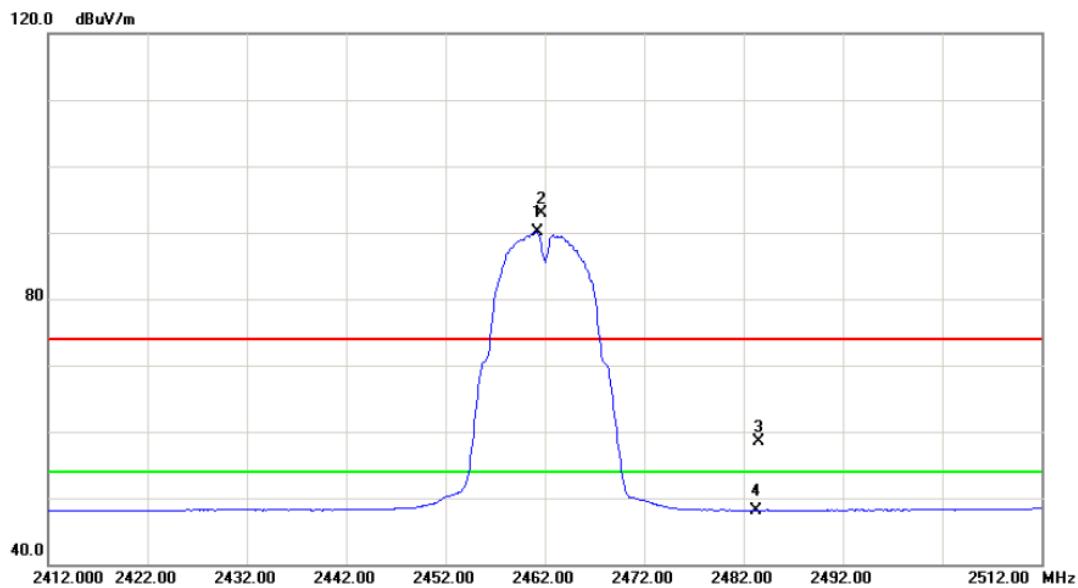


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment Limit dBuV/m	Over dB	Detector	Comment
1		4924.170	41.13	6.72	47.85	74.00	-26.15	peak
2	*	4924.170	35.37	6.72	42.09	54.00	-11.91	AVG



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

**Horizontal**

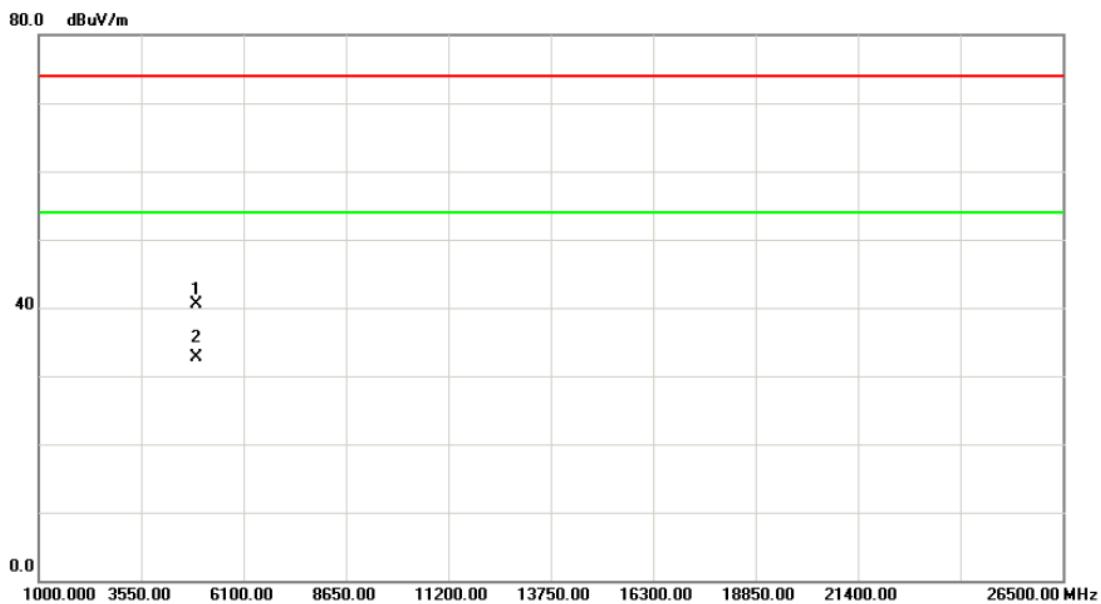


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment Limit dBuV/m	Over dB	Detector	Comment
1	*	2461.200	55.87	34.31	90.18	54.00	36.18	AVG
2	X	2461.600	58.62	34.31	92.93	74.00	18.93	peak
3		2483.500	24.16	34.37	58.53	74.00	-15.47	peak
4		2483.500	13.79	34.37	48.16	54.00	-5.84	AVG



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

**Horizontal**

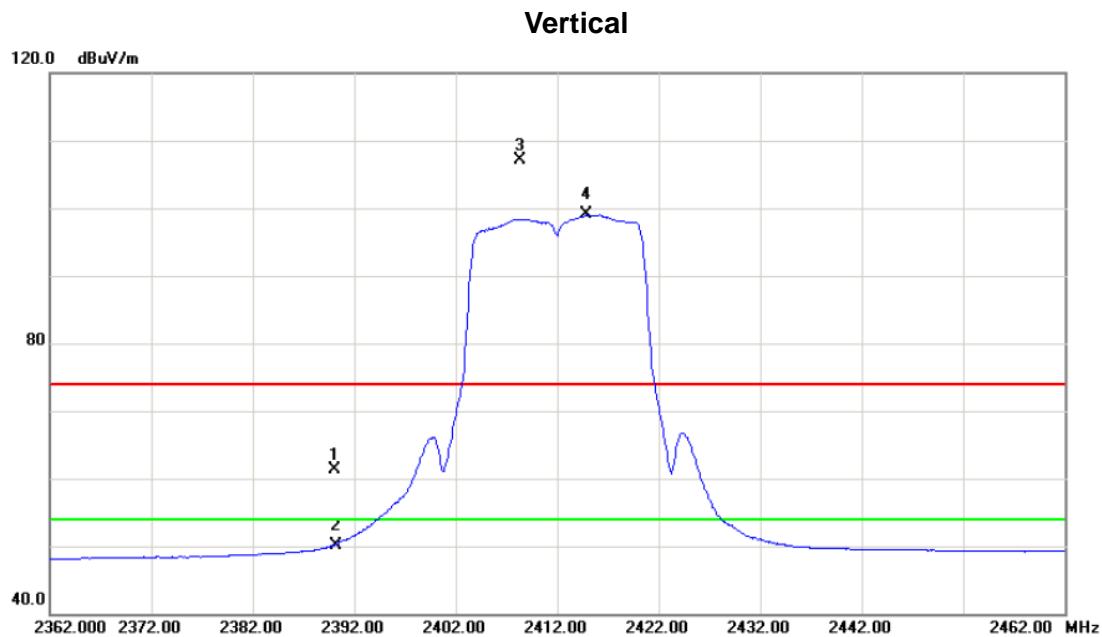


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector Comment
1		4923.870	33.85	6.72	40.57	74.00	-33.43	peak
2	*	4923.870	26.07	6.72	32.79	54.00	-21.21	AVG



**Neutron Engineering Inc.**

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

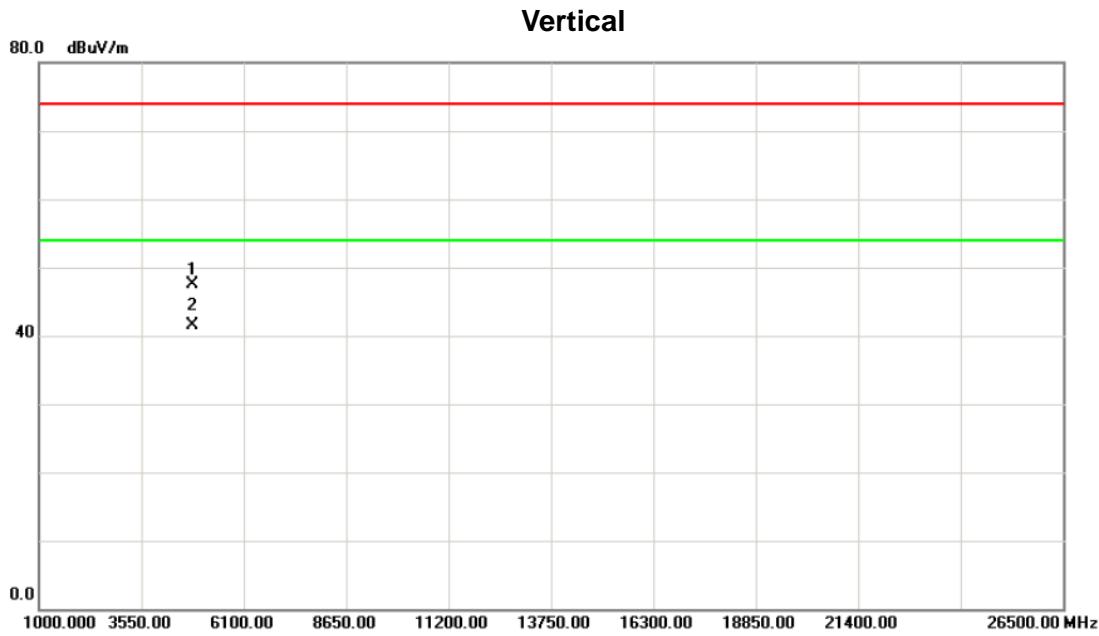


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector Comment
1		2390.000	27.30	34.09	61.39	74.00	-12.61	peak
2		2390.000	16.03	34.09	50.12	54.00	-3.88	Avg
3	X	2408.300	73.06	34.14	107.20	74.00	33.20	peak Fundamental frequency, no limit
4	*	2414.800	64.85	34.16	99.01	54.00	45.01	Avg Fundamental frequency, no limit



**Neutron Engineering Inc.**

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

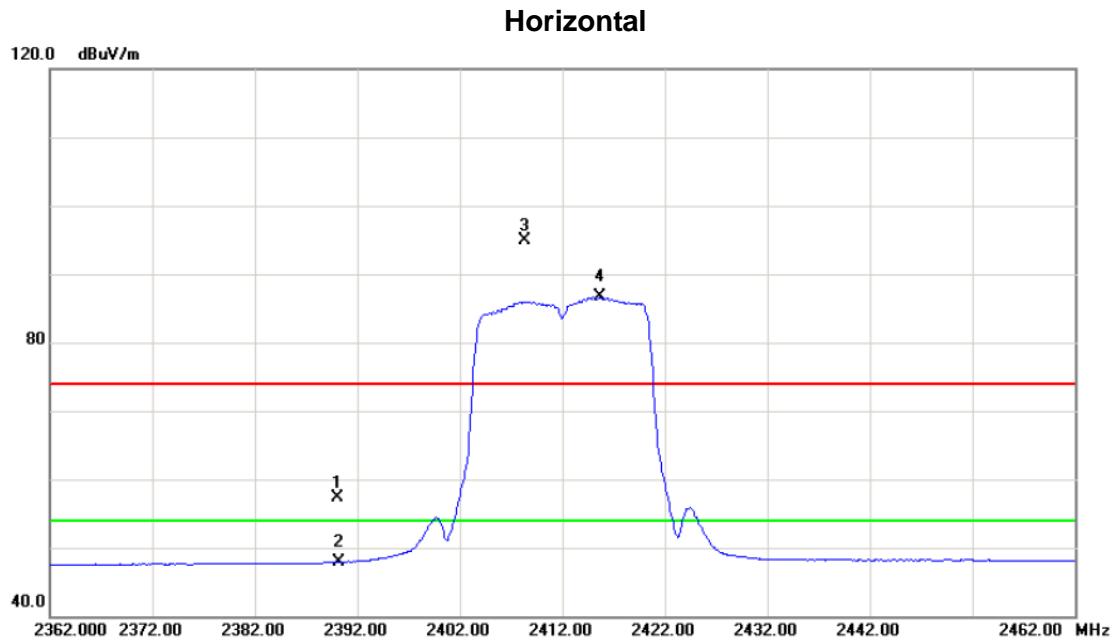


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector Comment
1		4824.310	41.11	6.43	47.54	74.00	-26.46	peak
2	*	4824.310	35.02	6.43	41.45	54.00	-12.55	AVG



**Neutron Engineering Inc.**

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



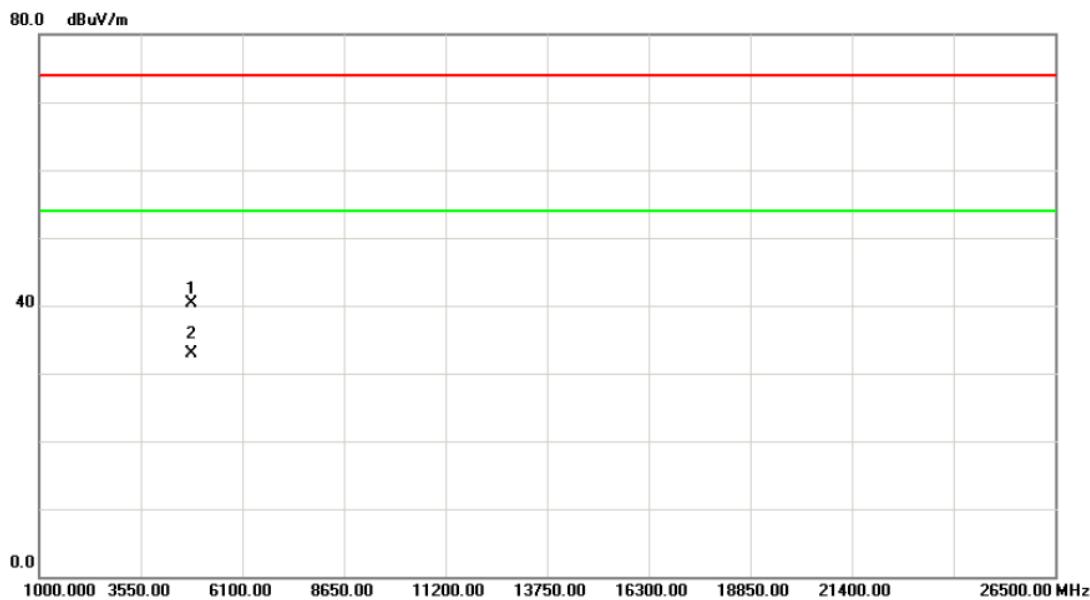
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector Comment
1		2390.000	23.24	34.09	57.33	74.00	-16.67	peak
2		2390.000	13.76	34.09	47.85	54.00	-6.15	AVG
3	X	2408.300	60.73	34.14	94.87	74.00	20.87	peak Fundamental frequency, no limit
4	*	2415.600	52.47	34.16	86.63	54.00	32.63	AVG Fundamental frequency, no limit



**Neutron Engineering Inc.**

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

**Horizontal**



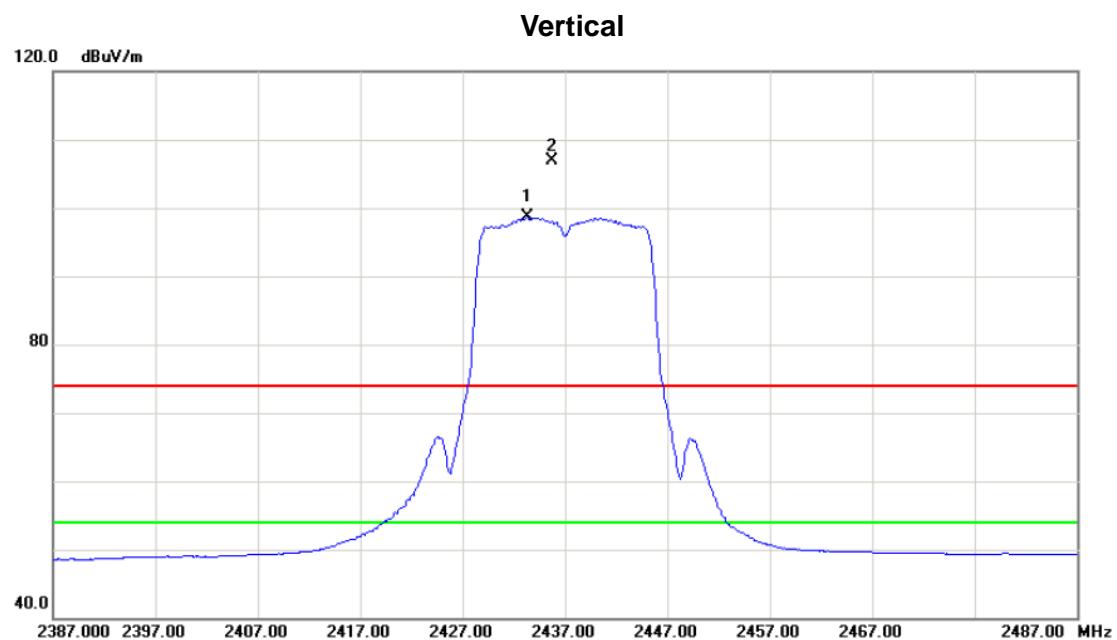
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4823.930	33.81	6.43	40.24	74.00	-33.76	peak	
2	*	4823.930	26.53	6.43	32.96	54.00	-21.04	AVG	



**Neutron Engineering Inc.**

Orthogonal Axis : X

Test Mode : TX G MODE 2437MHz

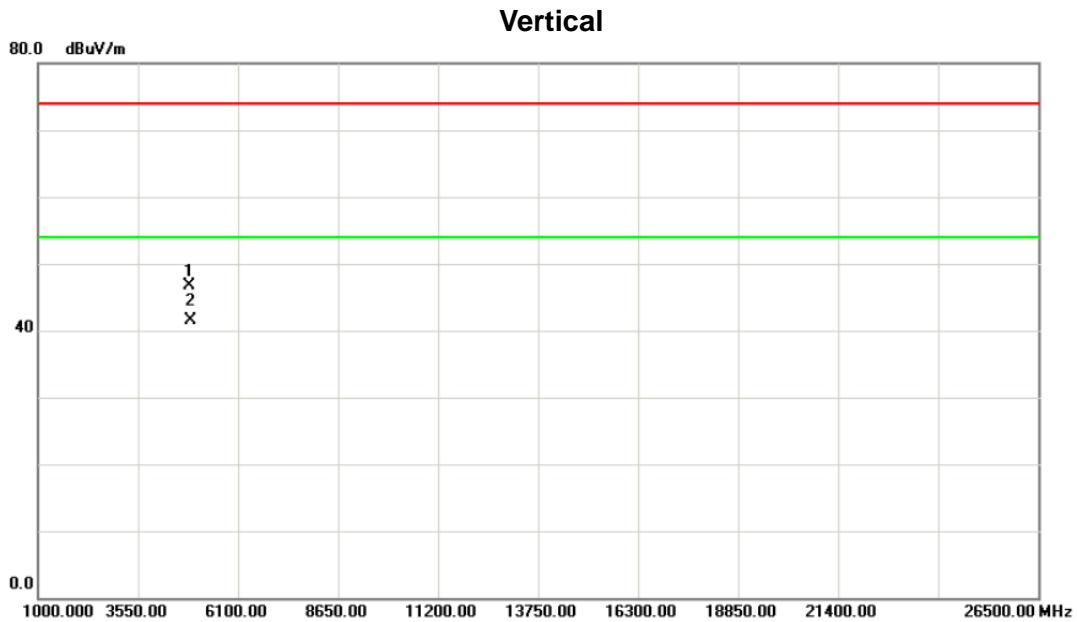


No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Detector	Comment
			Level	Factor	ment				
		MHz	dBuV	dB	dBuV/m	dB			
1	*	2433.300	64.40	34.22	98.62	54.00	44.62	AVG	Fundamental frequency, no limit
2	X	2435.700	72.67	34.23	106.90	74.00	32.90	peak	Fundamental frequency, no limit



**Neutron Engineering Inc.**

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		4874.130	40.12	6.58	46.70	74.00	-27.30	peak	
2	*	4874.130	35.01	6.58	41.59	54.00	-12.41	AVG	

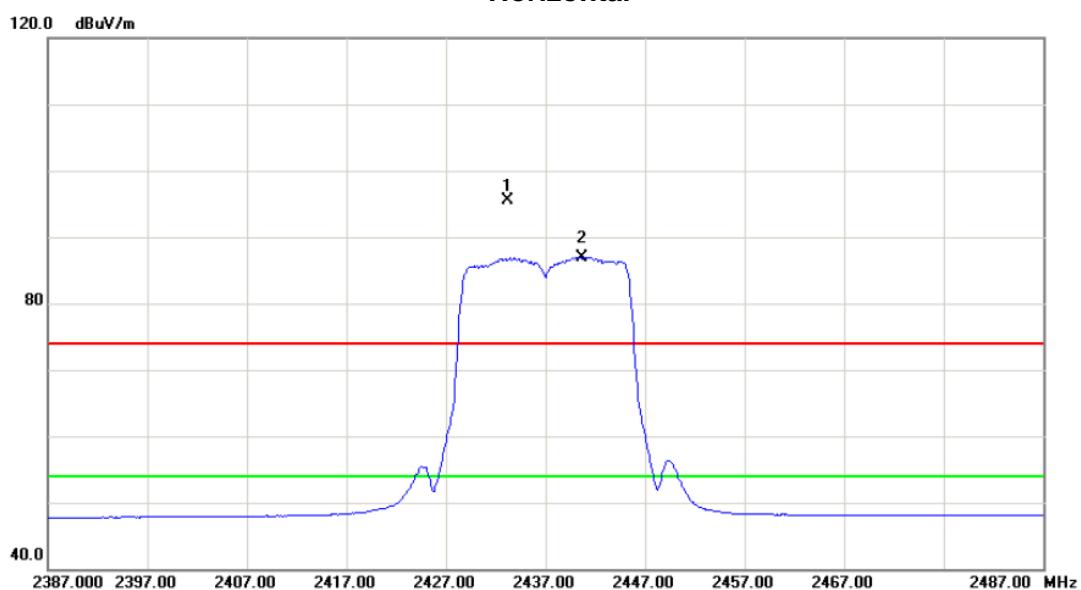


**Neutron Engineering Inc.**

Orthogonal Axis : X

Test Mode : TX G MODE 2437MHz

**Horizontal**



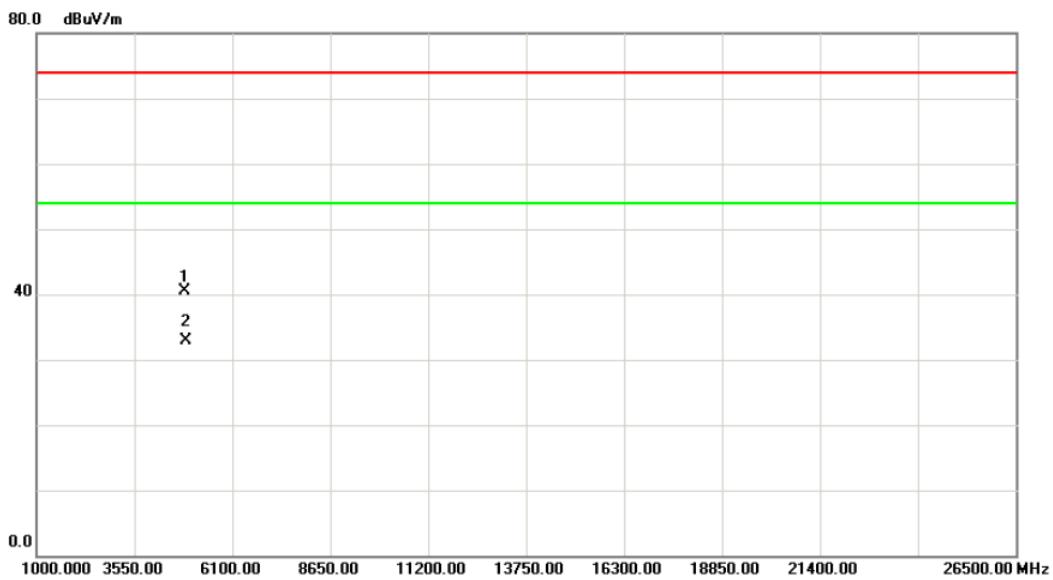
No. Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector Comment
1 X	2433.200	61.29	34.22	95.51	74.00	21.51	peak Fundamental frequency, no limit
2 *	2440.600	52.74	34.24	86.98	54.00	32.98	Avg Fundamental frequency, no limit



**Neutron Engineering Inc.**

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

**Horizontal**



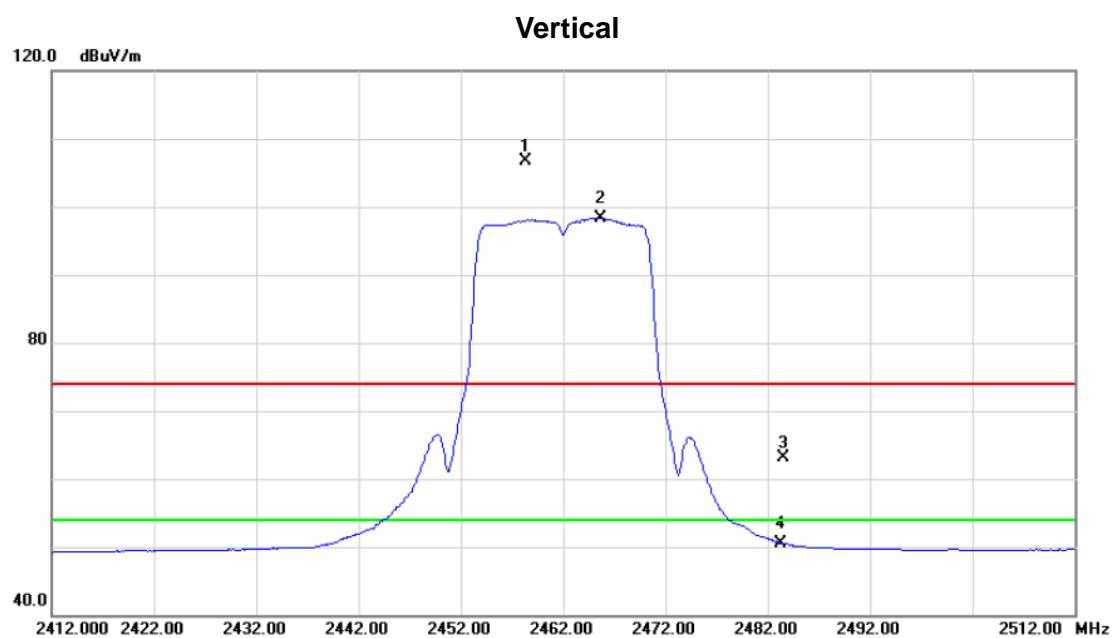
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment Limit dBuV/m	Over dB	Detector	Comment
1		4873.820	33.91	6.58	40.49	74.00	-33.51	peak
2	*	4873.820	26.23	6.58	32.81	54.00	-21.19	AVG



**Neutron Engineering Inc.**

Orthogonal Axis : X

Test Mode : TX G MODE 2462MHz



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector Comment
1	X	2458.300	72.49	34.29	106.78	74.00	32.78	peak Fundamental frequency, no limit
2	*	2465.600	64.03	34.31	98.34	54.00	44.34	AVG Fundamental frequency, no limit
3		2483.500	28.65	34.37	63.02	74.00	-10.98	peak
4		2483.500	16.15	34.37	50.52	54.00	-3.48	AVG

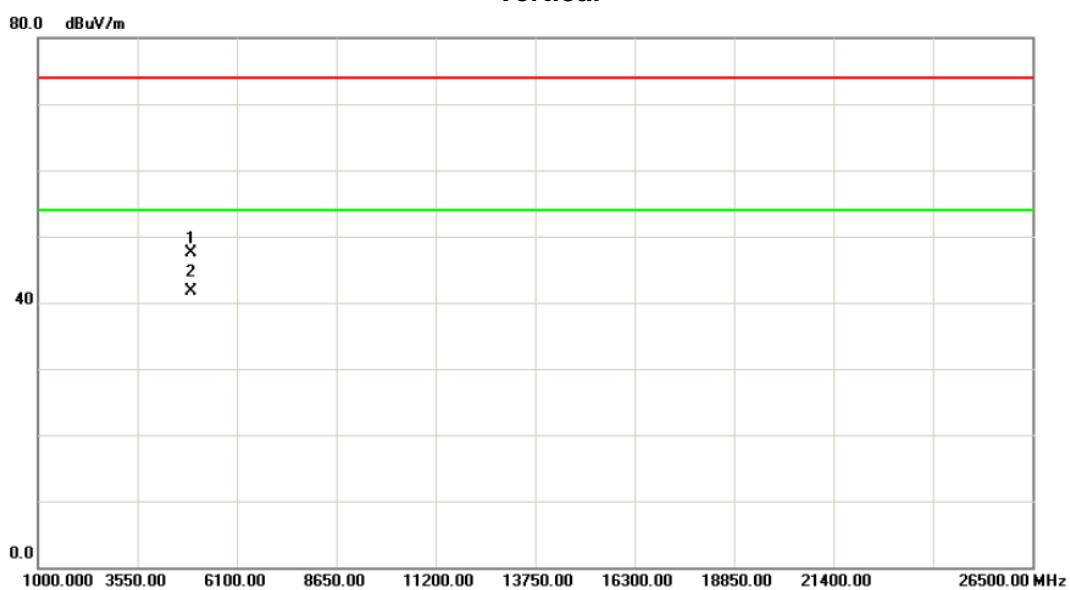


**Neutron Engineering Inc.**

Orthogonal Axis : X

Test Mode : TX G MODE 2462MHz

**Vertical**



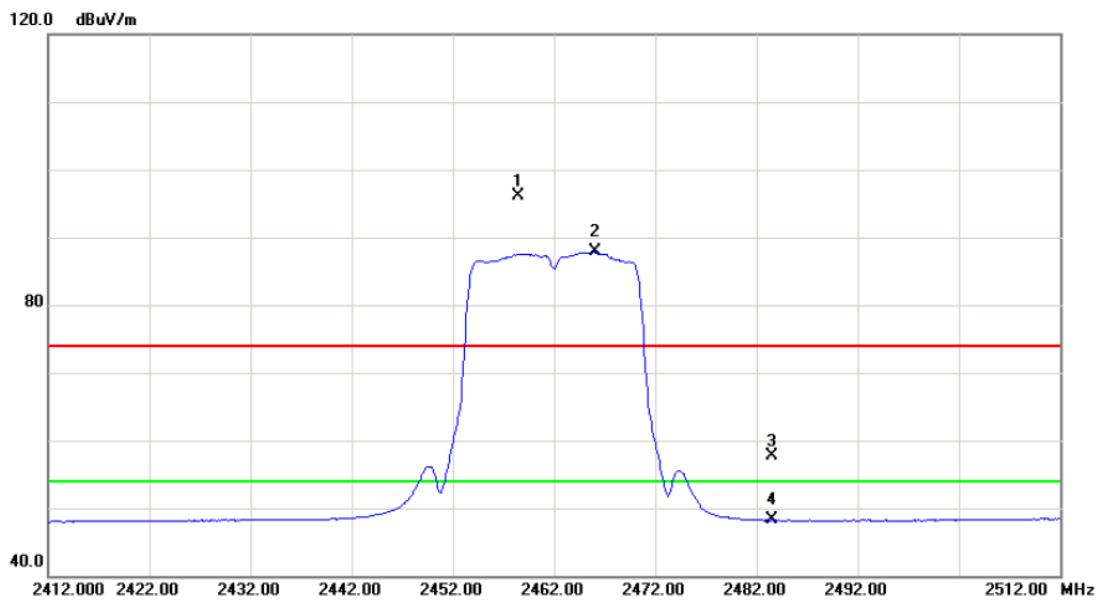
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		4923.780	40.81	6.72	47.53	74.00	-26.47	peak	
2	*	4923.780	35.05	6.72	41.77	54.00	-12.23	Avg	



**Neutron Engineering Inc.**

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

**Horizontal**

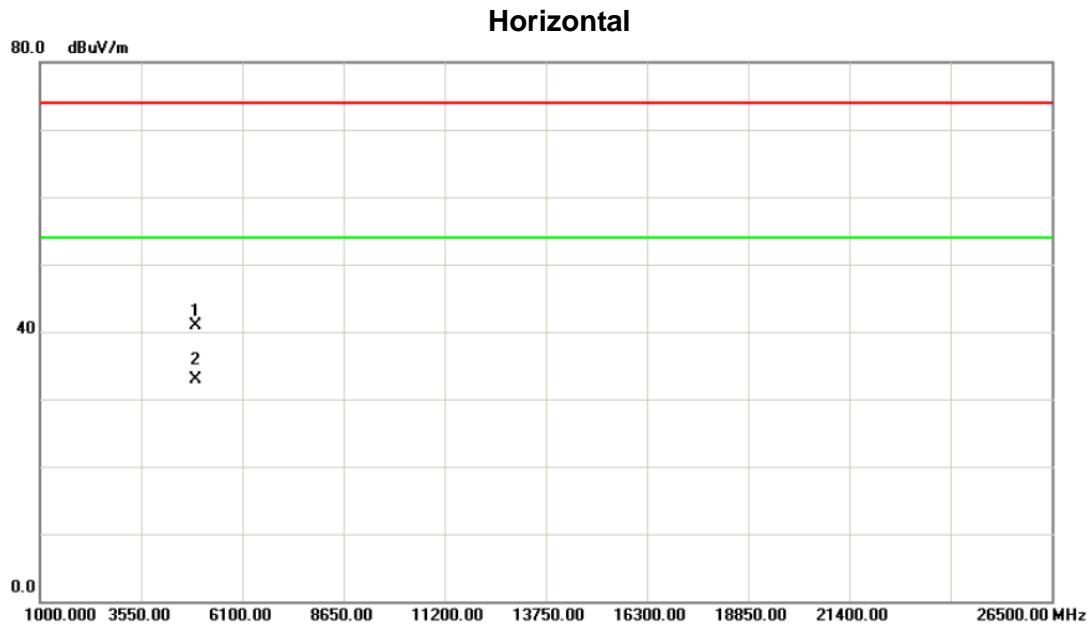


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	X	2458.400	61.78	34.29	96.07	74.00	22.07	peak	Fundamental frequency, no limit
2	*	2466.000	53.54	34.32	87.86	54.00	33.86	AVG	Fundamental frequency, no limit
3		2483.500	23.38	34.37	57.75	74.00	-16.25	peak	
4		2483.500	13.85	34.37	48.22	54.00	-5.78	AVG	



**Neutron Engineering Inc.**

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



No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over
			Level	Factor	ment		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB
1		4924.170	34.21	6.72	40.93	74.00	-33.07 peak
2	*	4924.170	26.27	6.72	32.99	54.00	-21.01 AVG

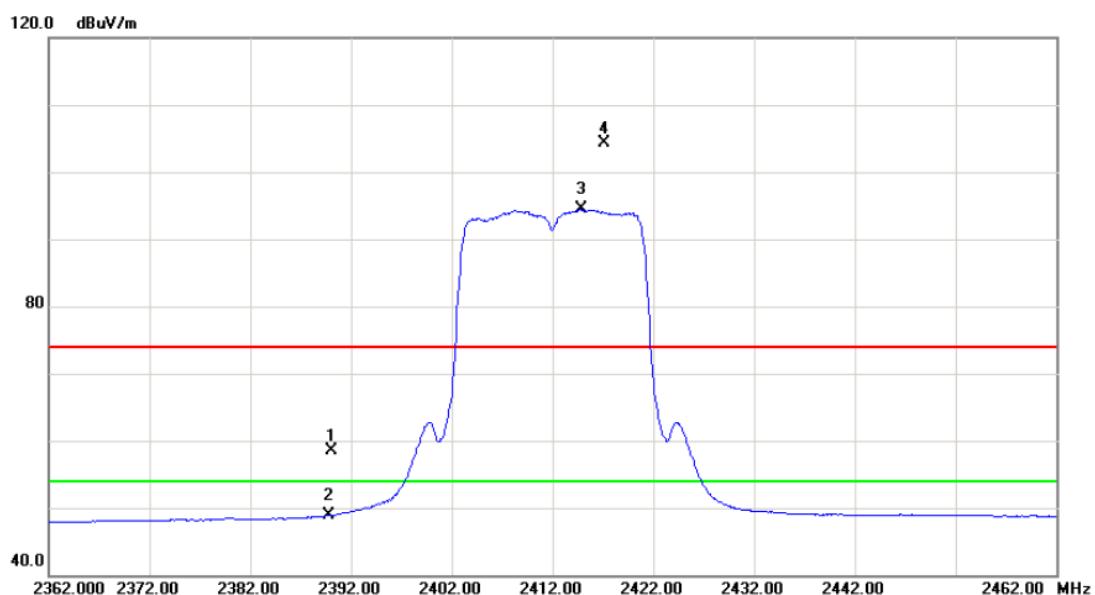


**Neutron Engineering Inc.**

Orthogonal Axis : X

Test Mode : TX N-20M MODE 2412MHz

**Vertical**



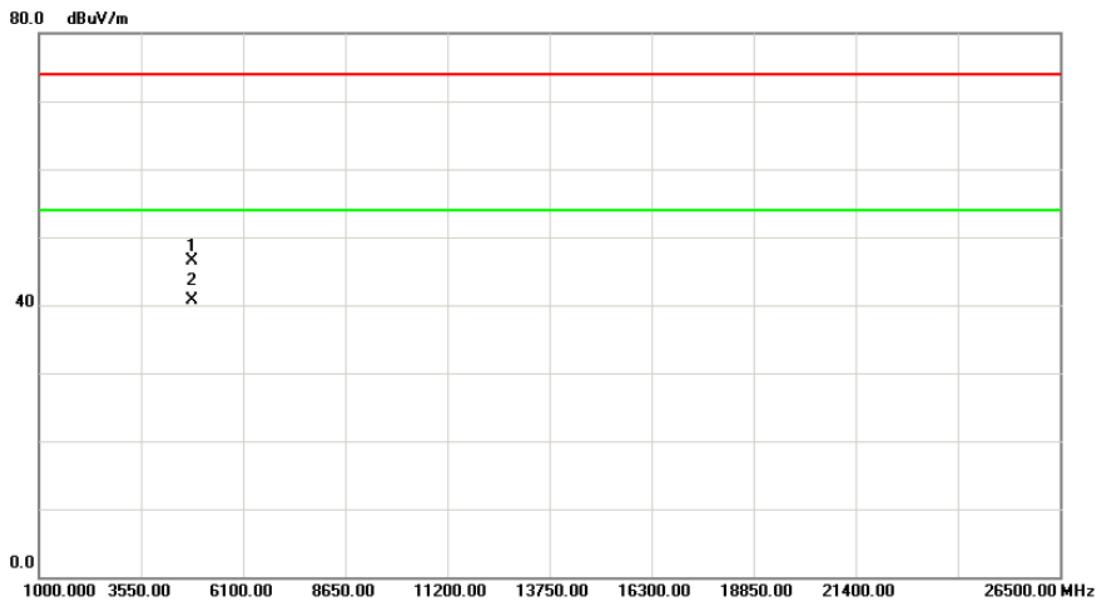
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector Comment
1		2390.000	24.32	34.09	58.41	74.00	-15.59	peak
2		2390.000	14.81	34.09	48.90	54.00	-5.10	Avg
3	*	2414.800	60.27	34.16	94.43	54.00	40.43	Avg Fundamental frequency, no limit
4	X	2417.100	70.09	34.17	104.26	74.00	30.26	peak Fundamental frequency, no limit



**Neutron Engineering Inc.**

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

**Vertical**

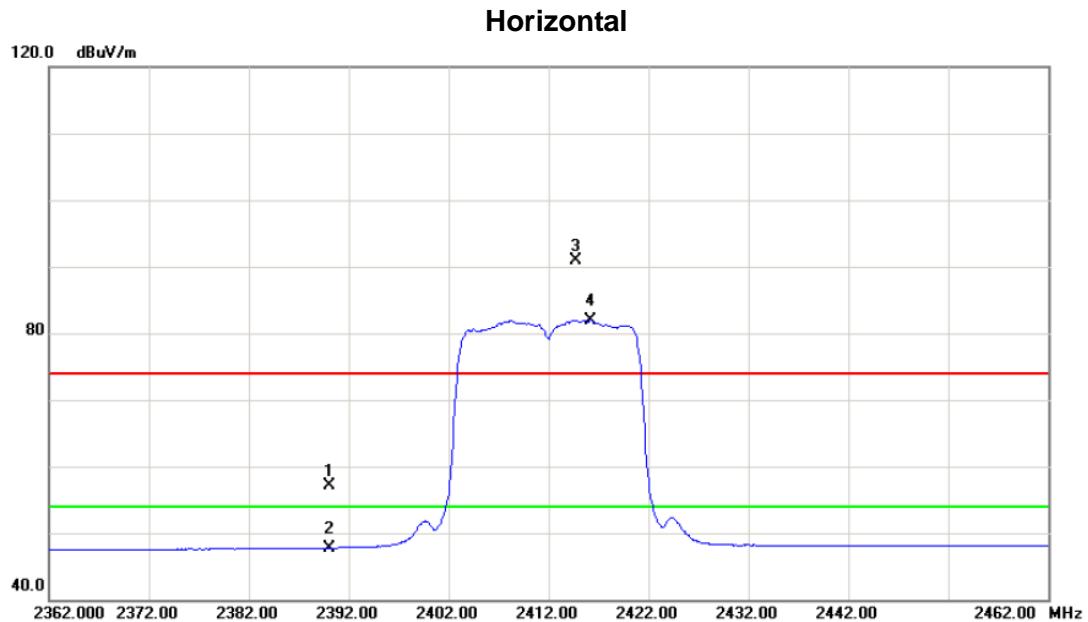


No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Detector	Comment
			Level	Factor	ment				
1		4824.170	40.13	6.43	46.56	74.00	-27.44	peak	
2	*	4824.170	34.31	6.43	40.74	54.00	-13.26	AVG	



**Neutron Engineering Inc.**

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



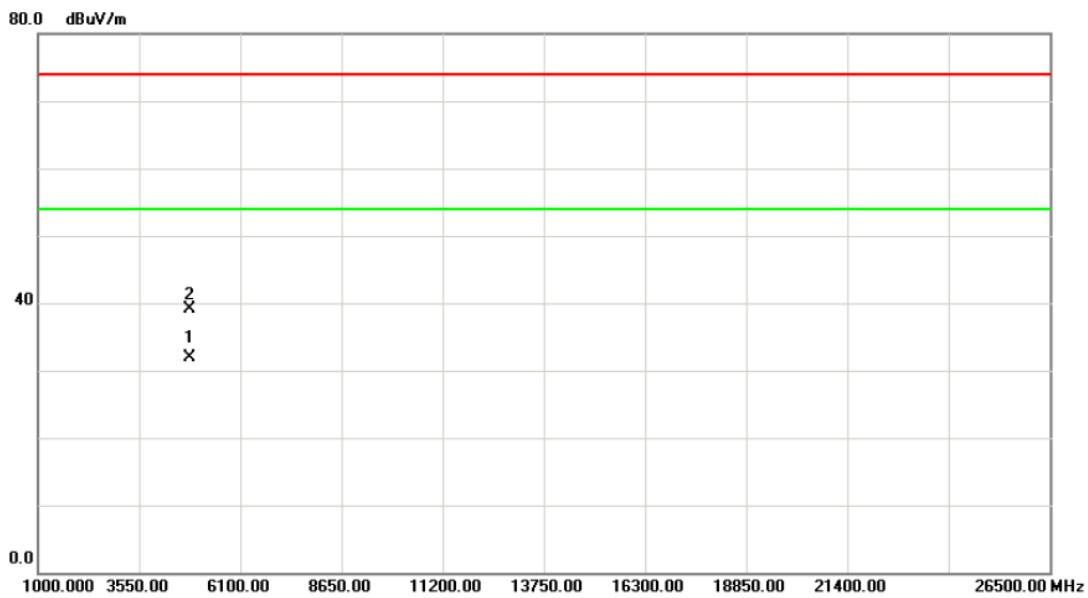
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		2390.000	22.96	34.09	57.05	74.00	-16.95	peak	
2		2390.000	13.70	34.09	47.79	54.00	-6.21	Avg	
3	X	2414.700	56.81	34.16	90.97	74.00	16.97	peak	Fundamental frequency, no limit
4	*	2416.200	47.83	34.17	82.00	54.00	28.00	Avg	Fundamental frequency, no limit



**Neutron Engineering Inc.**

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

**Horizontal**



No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over		
			Level	Factor	ment				
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	4823.760	25.52	6.43	31.95	54.00	-22.05	AVG	
2		4824.760	32.73	6.43	39.16	74.00	-34.84	peak	

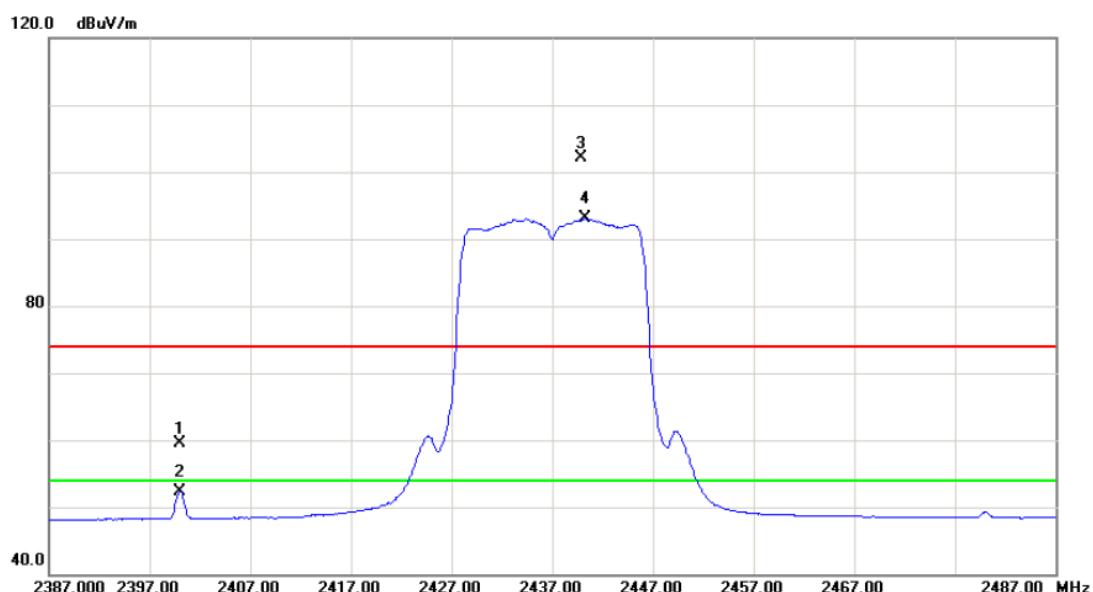


**Neutron Engineering Inc.**

Orthogonal Axis : X

Test Mode : TX N-20M MODE 2437MHz

**Vertical**

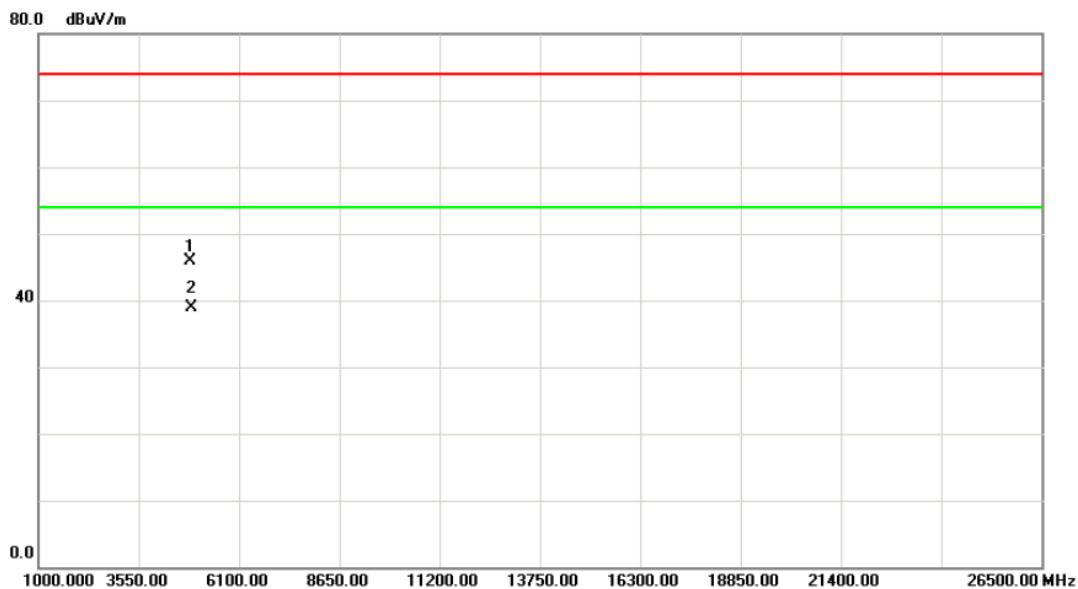


No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Detector	Comment
			Level	Factor	ment				
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1		2400.000	25.48	34.12	59.60	74.00	-14.40	peak	
2		2400.000	18.18	34.12	52.30	54.00	-1.70	Avg	
3	X	2439.800	67.91	34.24	102.15	74.00	28.15	peak	Fundamental frequency, no limit
4	*	2440.300	58.90	34.24	93.14	54.00	39.14	Avg	Fundamental frequency, no limit



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

**Vertical**



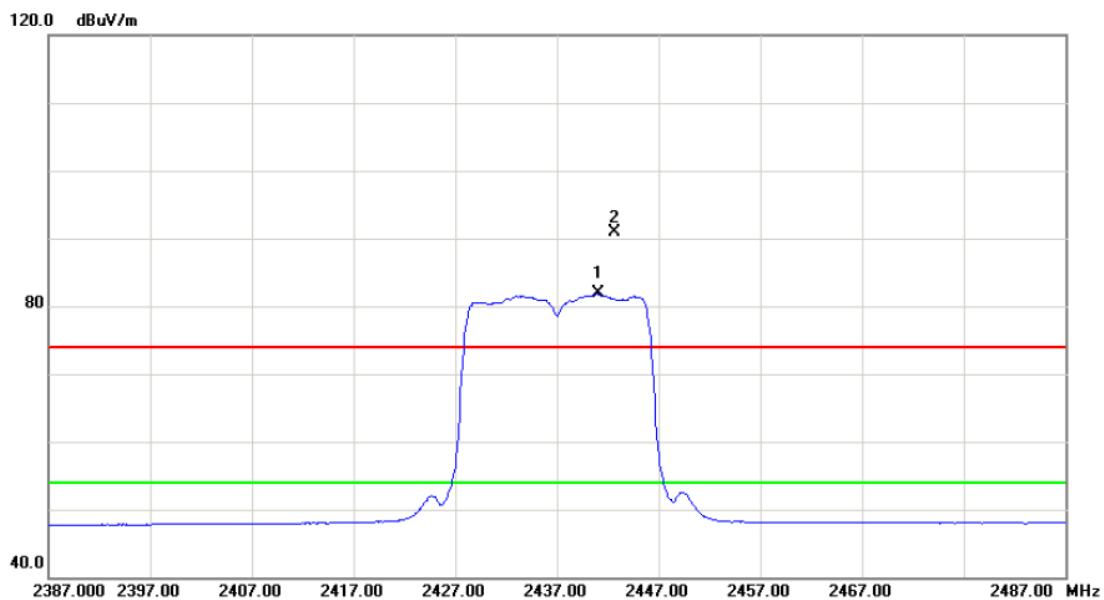
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dB	Detector	Comment
1		4873.900	39.36	6.58	45.94	74.00	-28.06	peak
2	*	4873.900	32.31	6.58	38.89	54.00	-15.11	AVG



**Neutron Engineering Inc.**

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

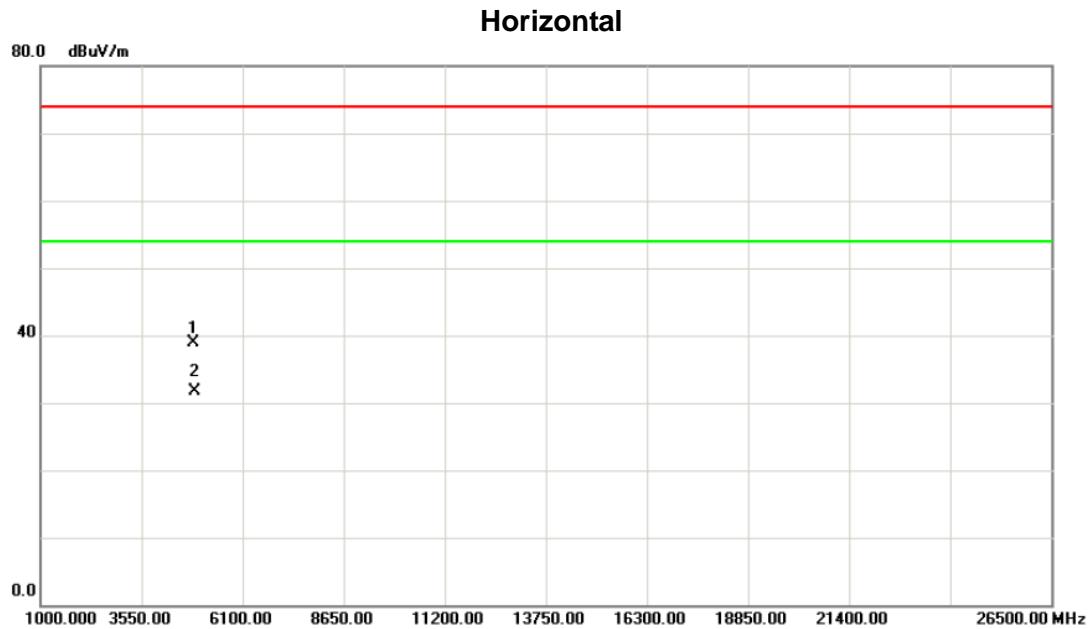
### Horizontal



No.	Mk.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dB	Detector	Comment
1	*	2441.000	47.60	34.25	81.85	54.00	27.85	AVG Fundamental frequency, no limit
2	X	2442.600	56.61	34.25	90.86	74.00	16.86	peak Fundamental frequency, no limit



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



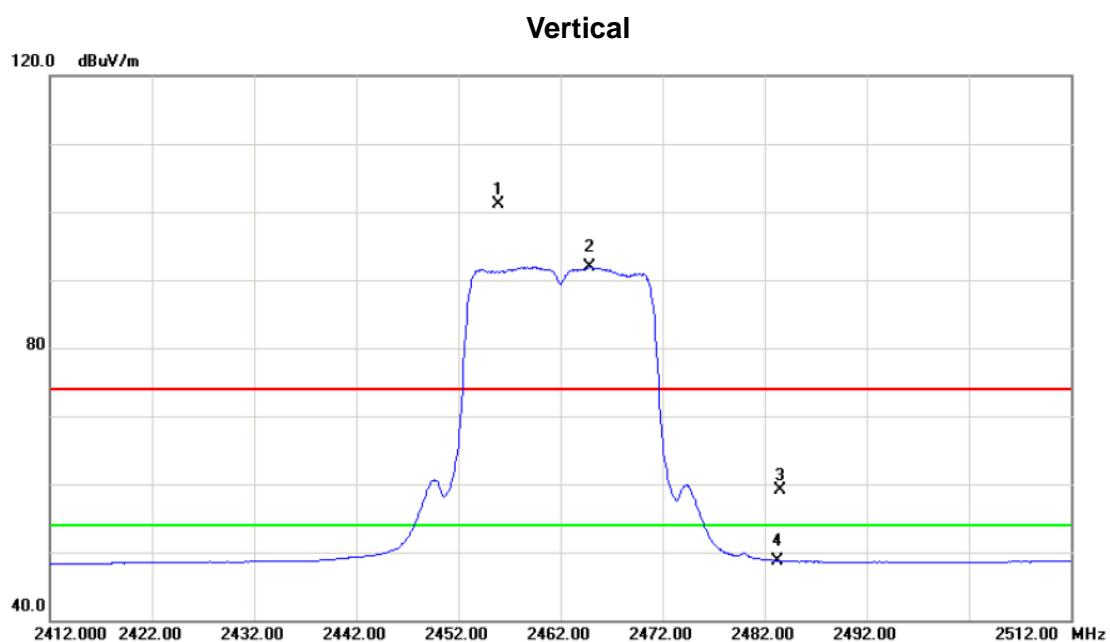
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector Comment
1		4873.930	32.37	6.58	38.95	74.00	-35.05	peak
2	*	4873.930	25.13	6.58	31.71	54.00	-22.29	AVG



**Neutron Engineering Inc.**

Orthogonal Axis : X

Test Mode : TX N-20M MODE 2462MHz

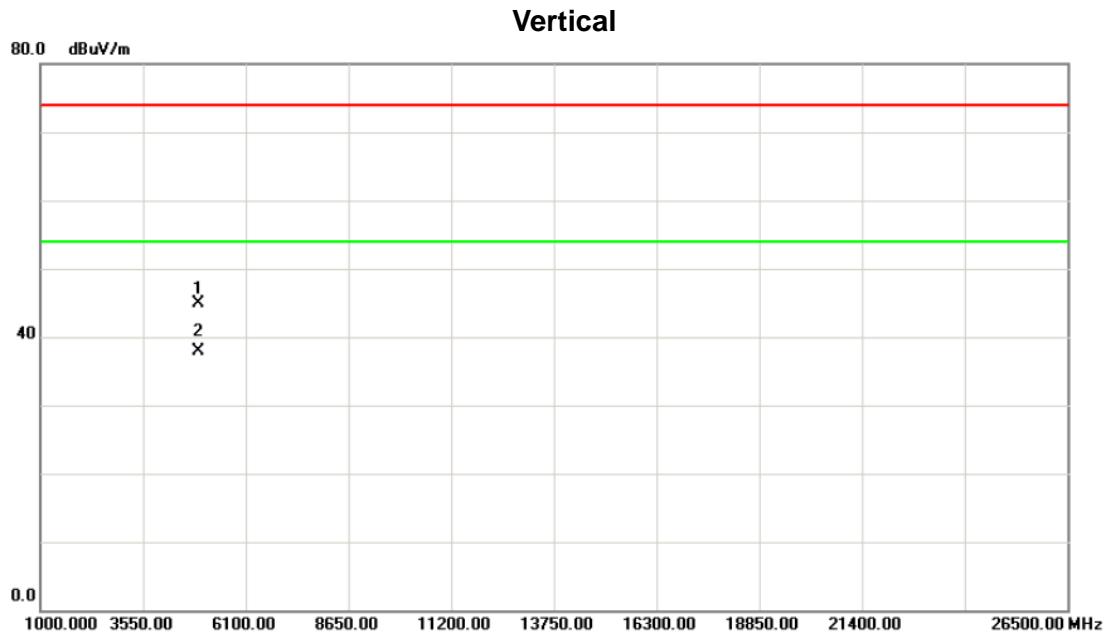


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dB	Detector	Comment
1	X	2455.900	66.76	34.29	101.05	74.00	27.05	peak Fundamental frequency, no limit
2	*	2464.800	57.59	34.31	91.90	54.00	37.90	Avg Fundamental frequency, no limit
3		2483.500	24.67	34.37	59.04	74.00	-14.96	peak
4		2483.500	14.41	34.37	48.78	54.00	-5.22	Avg



**Neutron Engineering Inc.**

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



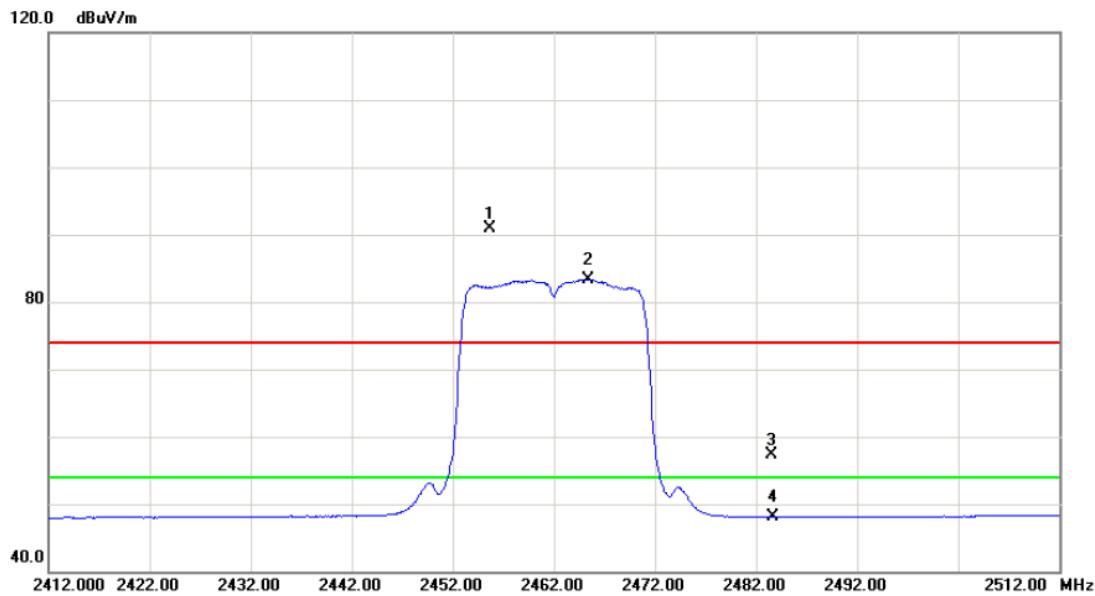
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector Comment
1		4924.190	38.21	6.72	44.93	74.00	-29.07	peak
2	*	4924.190	31.16	6.72	37.88	54.00	-16.12	AVG



**Neutron Engineering Inc.**

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

### Horizontal

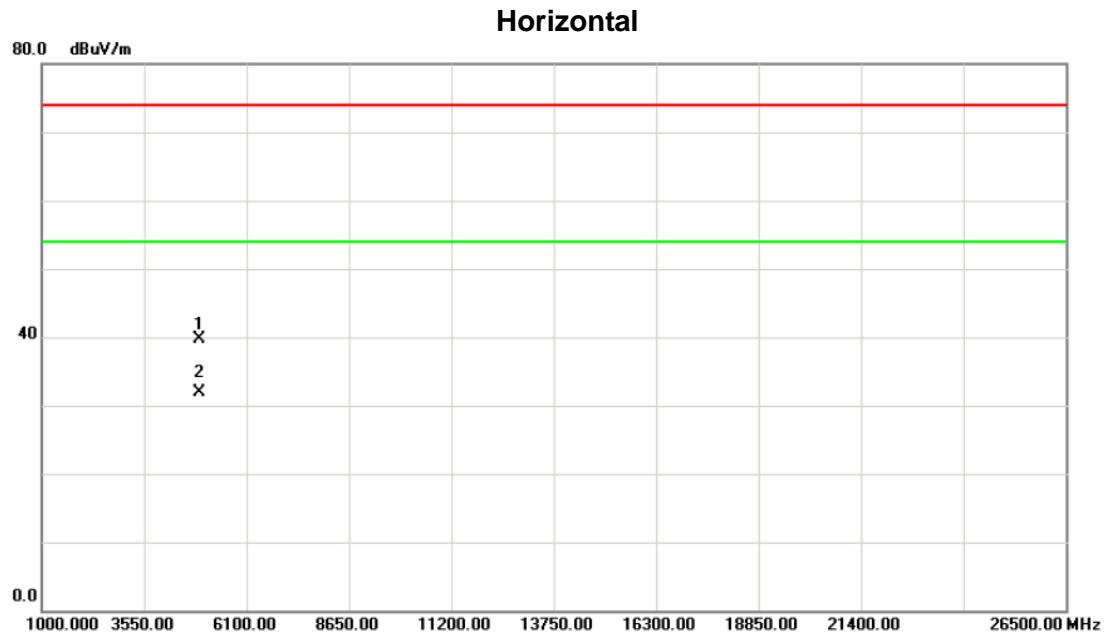


No. Mk.	Freq. MHz	Reading Level	Correct Factor	Measure- ment	Limit	Over	Comment
		dBuV	dB	dBuV/m	dBuV/m	dB	
1 X	2455.700	56.62	34.29	90.91	74.00	16.91	peak Fundamental frequency, no limit
2 *	2465.400	49.05	34.31	83.36	54.00	29.36	AVG Fundamental frequency, no limit
3	2483.500	22.85	34.37	57.22	74.00	-16.78	peak
4	2483.500	13.70	34.37	48.07	54.00	-5.93	AVG



**Neutron Engineering Inc.**

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



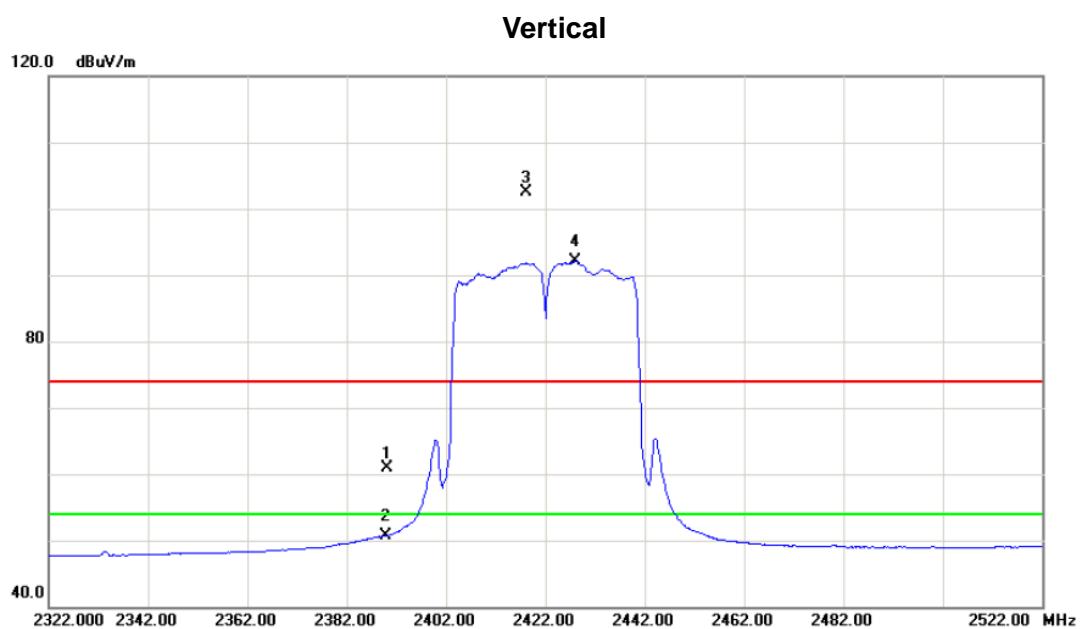
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector Comment
1		4923.790	32.89	6.72	39.61	74.00	-34.39	peak
2	*	4923.790	25.24	6.72	31.96	54.00	-22.04	AVG



**Neutron Engineering Inc.**

Orthogonal Axis : X

Test Mode : TX N-40M MODE 2422MHz

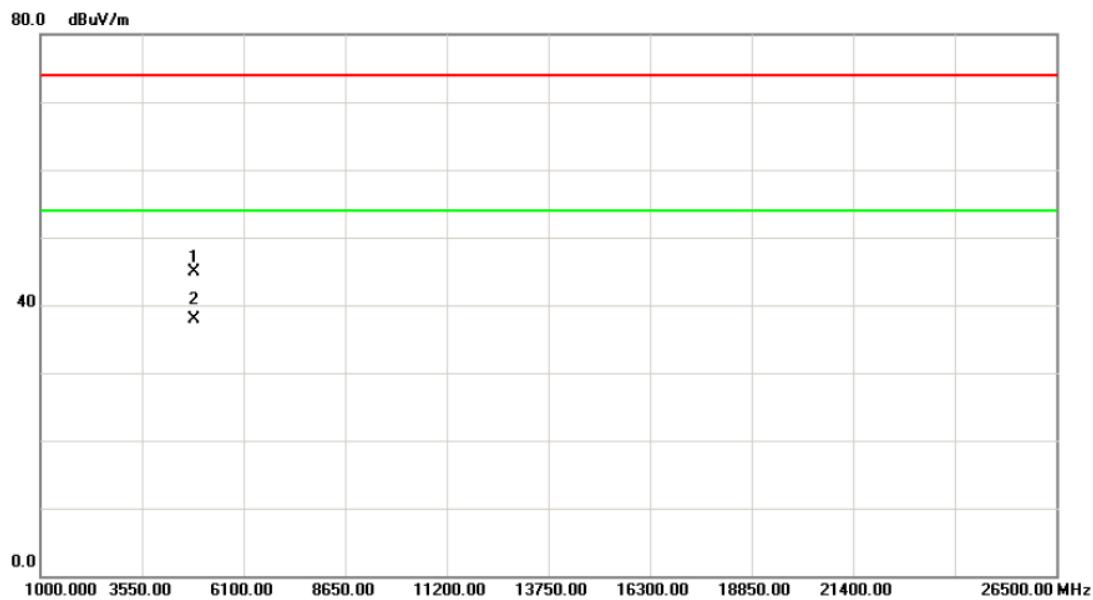


No. Mk.	Freq. MHz	Reading Level	Correct Factor	Measure- ment	Limit	Over	Detector	Comment
		dBuV	dB	dBuV/m	dBuV/m	dB		
1	2390.000	26.76	34.09	60.85	74.00	-13.15	peak	
2	2390.000	16.67	34.09	50.76	54.00	-3.24	AVG	
3 X	2418.200	68.32	34.18	102.50	74.00	28.50	peak	Fundamental frequency, no limit
4 *	2428.000	57.87	34.20	92.07	54.00	38.07	AVG	Fundamental frequency, no limit



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

**Vertical**



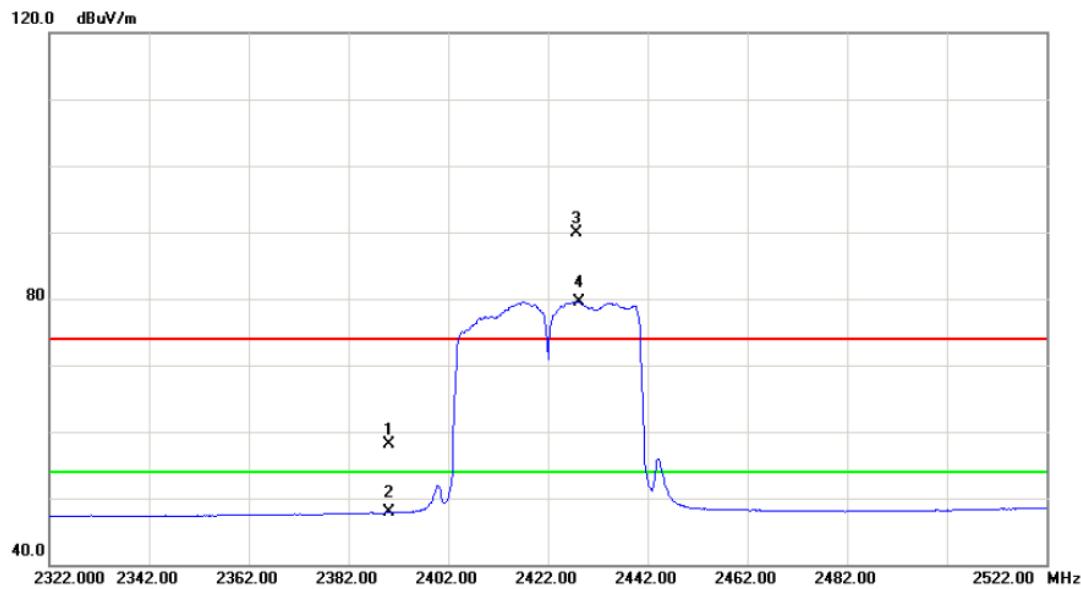
No.	Mk.	Freq. MHz	Reading Level	Correct Factor	Measure- ment	Limit	Over	Detector	Comment
			dBuV	dB	dBuV/m	dBuV/m	dB		
1		4843.860	38.42	6.50	44.92	74.00	-29.08	peak	
2	*	4843.860	31.36	6.50	37.86	54.00	-16.14	AVG	



**Neutron Engineering Inc.**

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

### Horizontal

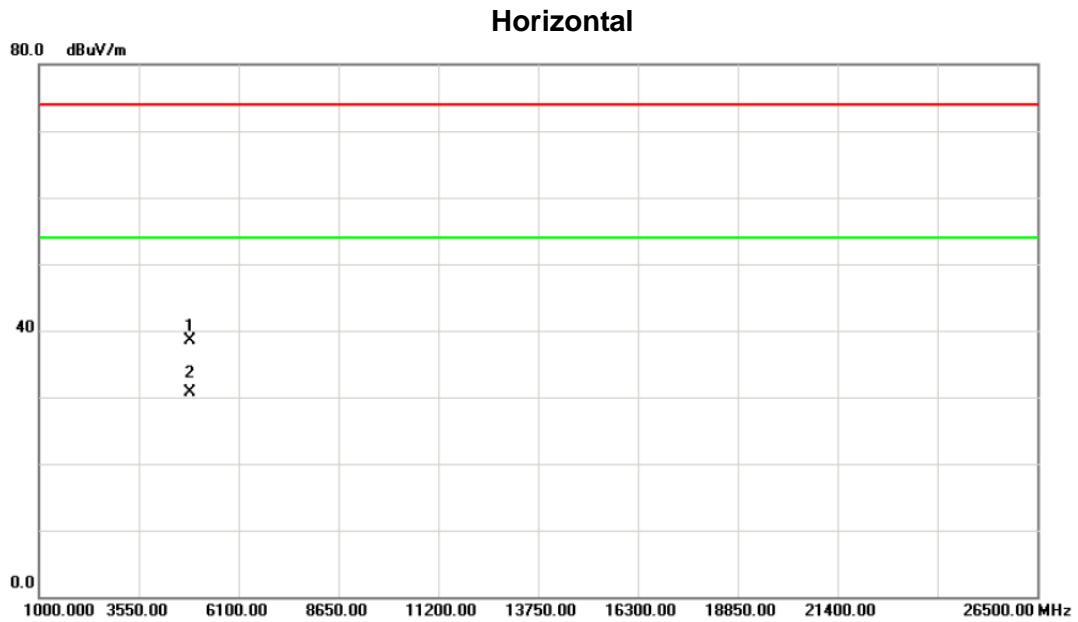


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment Limit dBuV/m	Over dB	Detector	Comment
1		2390.000	23.96	34.09	58.05	74.00	-15.95	peak
2		2390.000	13.74	34.09	47.83	54.00	-6.17	Avg
3	X	2427.600	55.78	34.20	89.98	74.00	15.98	peak Fundamental frequency, no limit
4	*	2428.200	45.38	34.21	79.59	54.00	25.59	Avg Fundamental frequency, no limit



**Neutron Engineering Inc.**

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



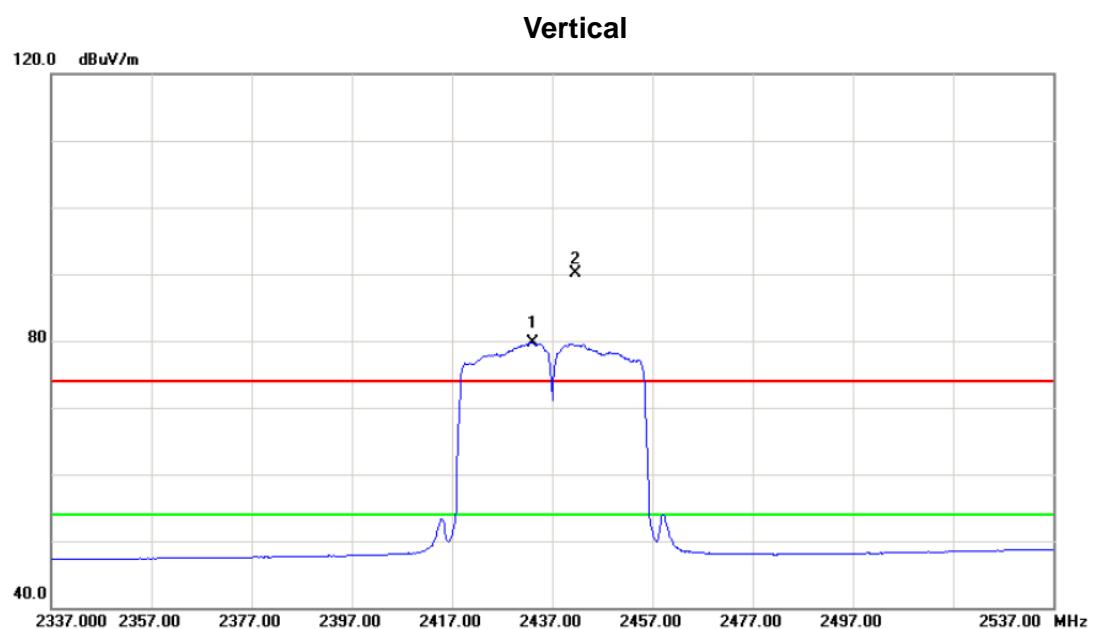
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dB	Detector	Comment
1		4843.950	32.10	6.50	38.60	74.00	-35.40	peak
2	*	4843.950	24.12	6.50	30.62	54.00	-23.38	AVG



**Neutron Engineering Inc.**

Orthogonal Axis : X

Test Mode : TX N-40M MODE 2437MHz

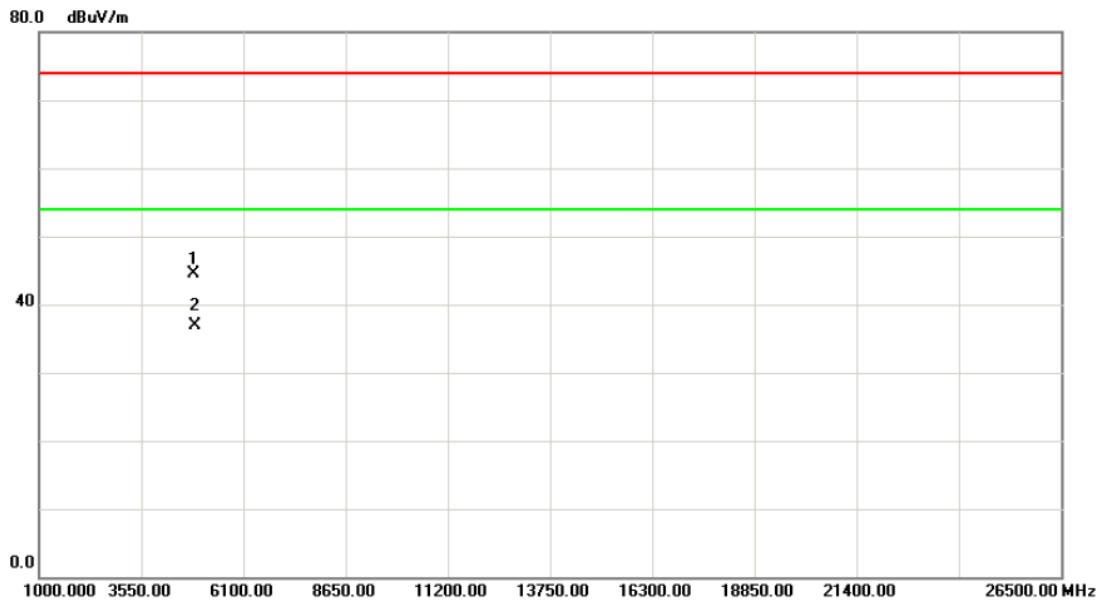


No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Detector	Comment
			Level	Factor	ment				
1	*	2433.200	45.48	34.22	79.70	54.00	25.70	AVG	Fundamental frequency, no limit
2	X	2441.600	55.89	34.25	90.14	74.00	16.14	peak	Fundamental frequency, no limit



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

**Vertical**

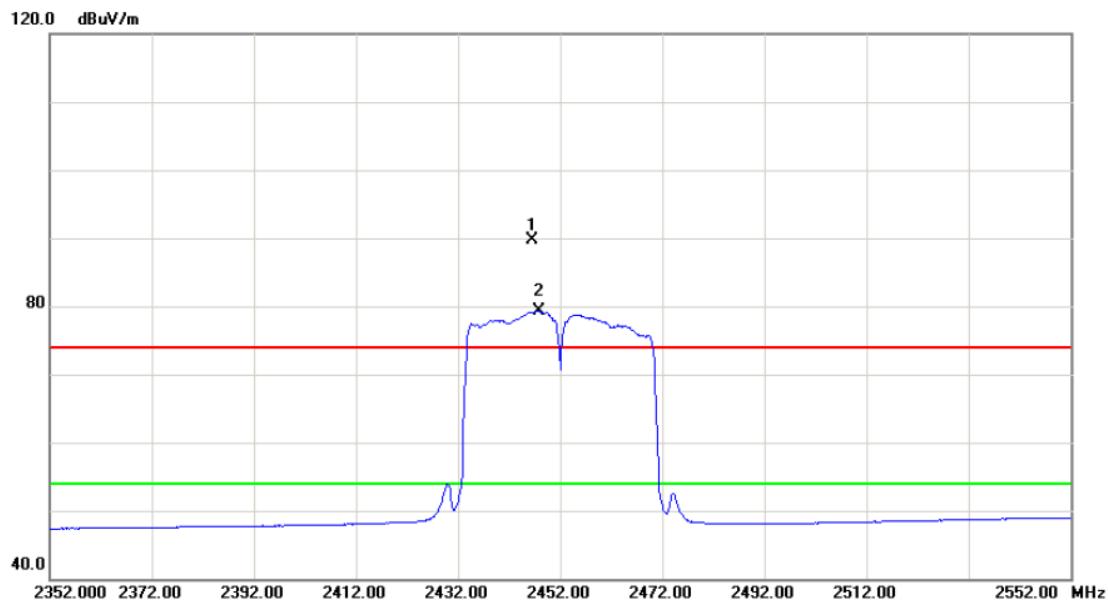


No.	Mk.	Freq. MHz	Reading Level	Correct Factor	Measure- ment	Limit	Over	Comment
			dBuV	dB	dBuV/m	dBuV/m	dB	
1		4873.890	37.89	6.58	44.47	74.00	-29.53	peak
2	*	4873.890	30.31	6.58	36.89	54.00	-17.11	AVG



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

**Horizontal**



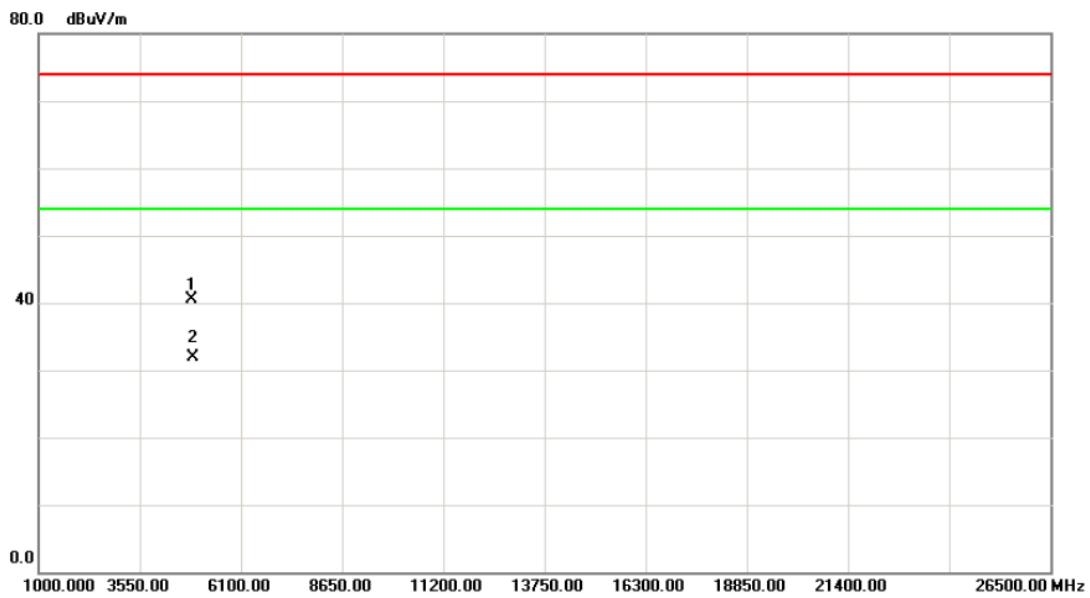
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	X	2446.600	55.42	34.26	89.68	74.00	15.68	peak	Fundamental frequency, no limit
2	*	2447.800	45.08	34.27	79.35	54.00	25.35	AVG	Fundamental frequency, no limit



**Neutron Engineering Inc.**

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

**Horizontal**



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector Comment
1		4873.780	34.02	6.58	40.60	74.00	-33.40	peak
2	*	4873.780	25.35	6.58	31.93	54.00	-22.07	AVG

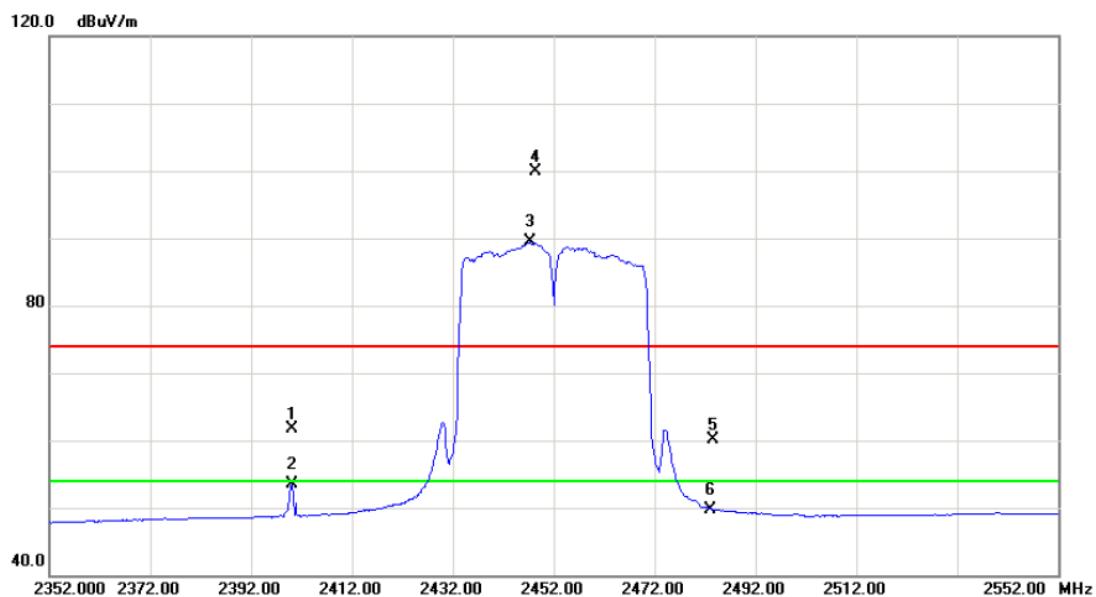


**Neutron Engineering Inc.**

Orthogonal Axis : X

Test Mode : TX N-40M MODE 2452MHz

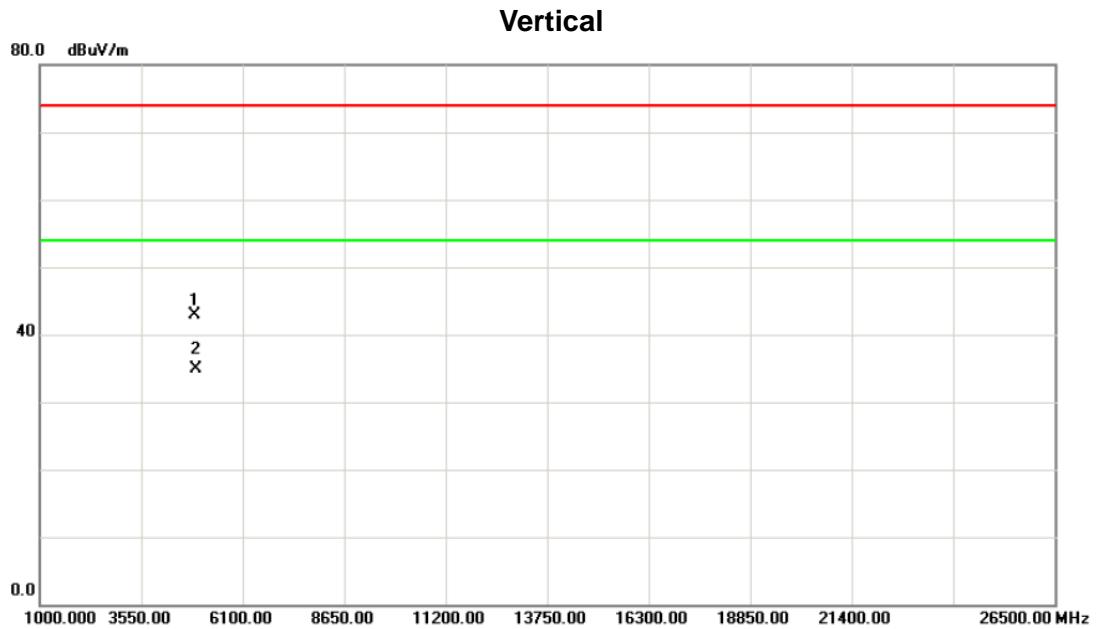
**Vertical**



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		2400.000	27.57	34.12	61.69	74.00	-12.31	peak	
2		2400.000	19.46	34.12	53.58	54.00	-0.42	Avg	
3	*	2447.200	55.16	34.27	89.43	54.00	35.43	Avg	Fundamental frequency, no limit
4	X	2448.400	65.68	34.27	99.95	74.00	25.95	peak	Fundamental frequency, no limit
5		2483.500	25.70	34.37	60.07	74.00	-13.93	peak	
6		2483.500	15.40	34.37	49.77	54.00	-4.23	Avg	



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



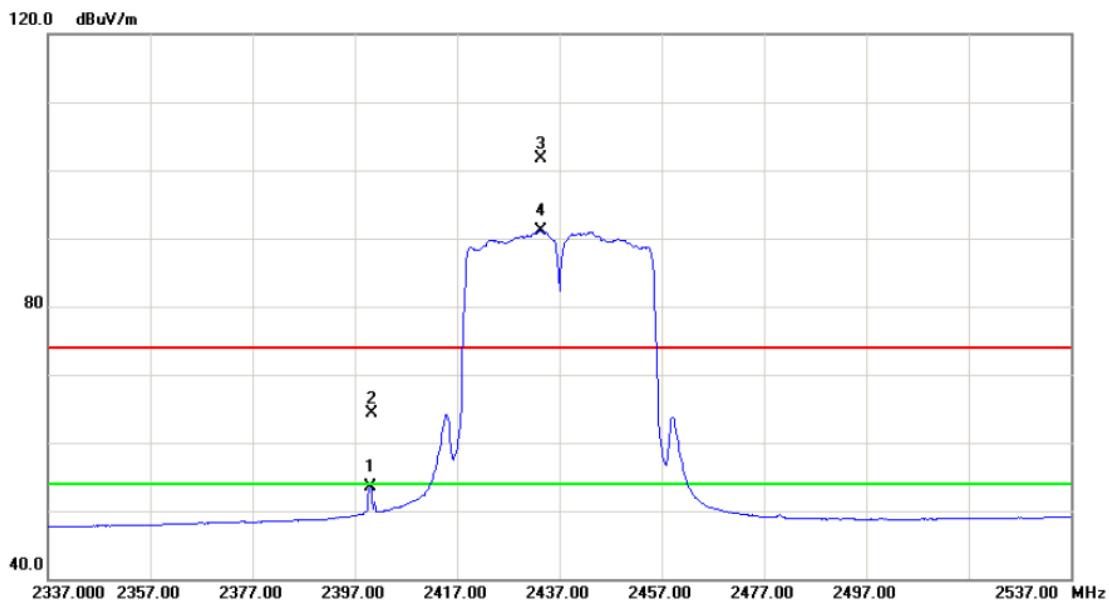
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dB	Over Detector	Comment
1		4903.950	36.27	6.67	42.94	74.00	-31.06	peak
2	*	4903.950	28.21	6.67	34.88	54.00	-19.12	AVG



**Neutron Engineering Inc.**

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

### Horizontal

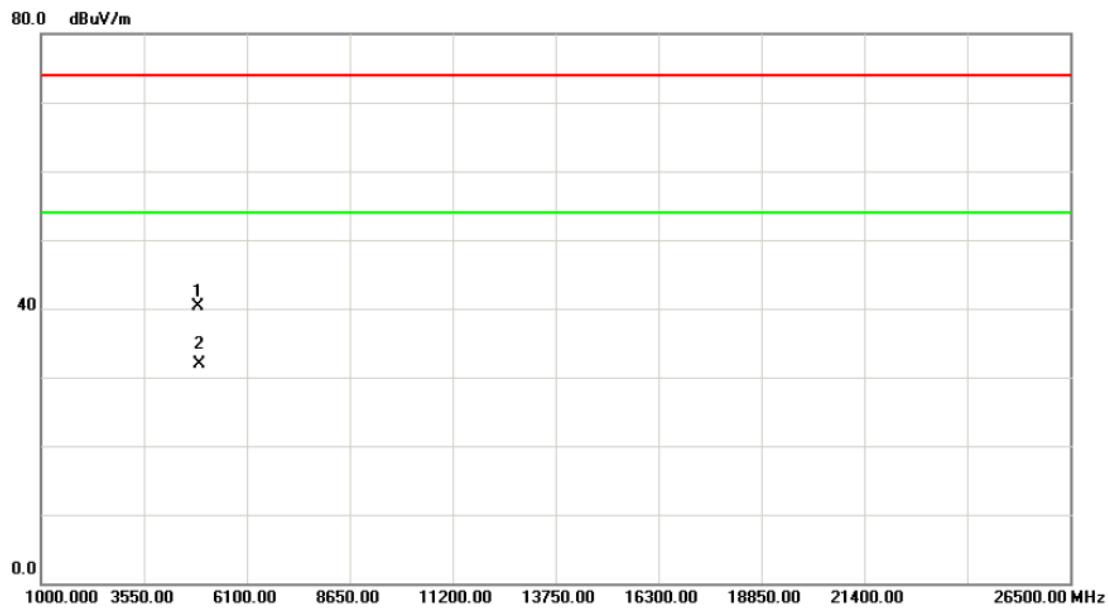


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector Comment
1		2400.000	19.36	34.12	53.48	54.00	-0.52	AVG
2		2400.200	30.26	34.12	64.38	74.00	-9.62	peak
3	X	2433.400	67.48	34.22	101.70	74.00	27.70	peak Fundamental frequency, no limit
4	*	2433.400	56.81	34.22	91.03	54.00	37.03	AVG Fundamental frequency, no limit



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

**Horizontal**



No.	Mk.	Freq. MHz	Reading Level	Correct Factor	Measure- ment	Limit	Over	Comment
			dBuV	dB	dBuV/m	dBuV/m	dB	
1		4904.050	33.73	6.67	40.40	74.00	-33.60	peak
2	*	4904.050	25.21	6.67	31.88	54.00	-22.12	AVG



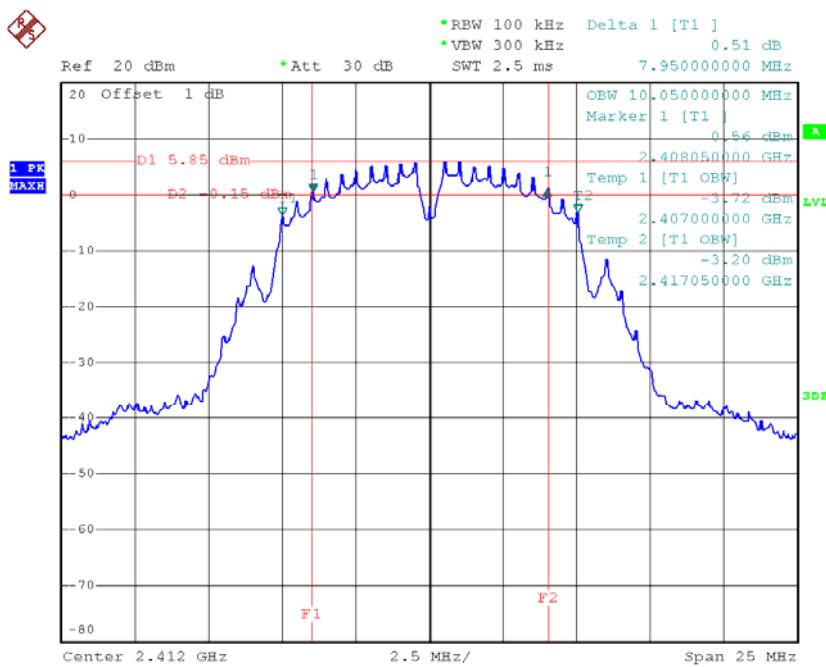
**Neutron Engineering Inc.**

## **ATTACHMENT E - BANDWIDTH**



Test Mode : TX B Mode\_CH01/06/11

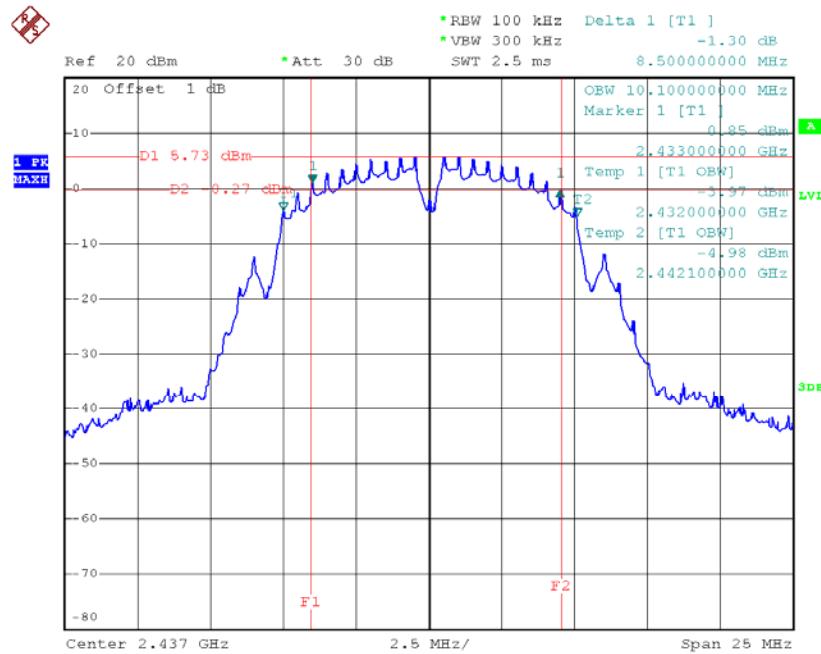
TX CH 01



Date: 5.MAY.2014 12:10:27

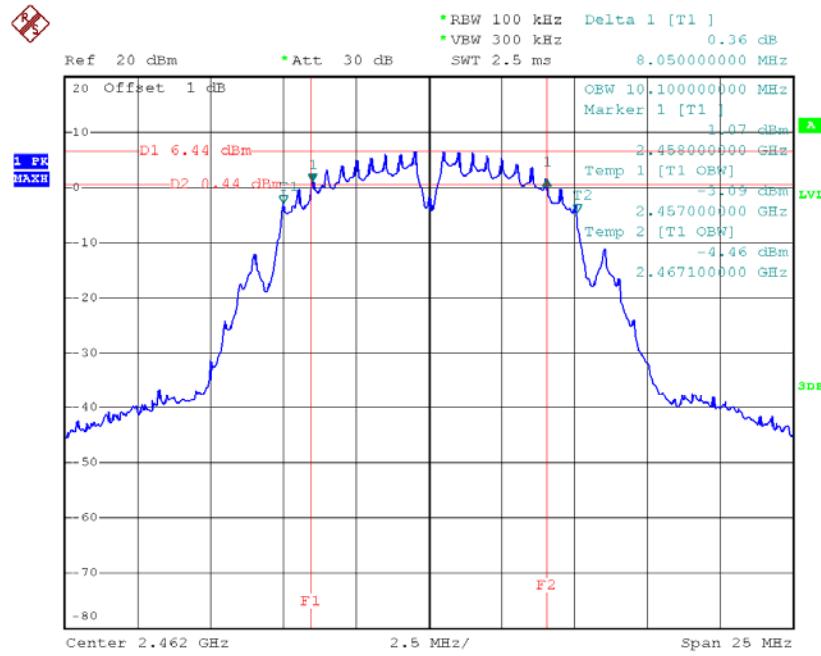


### TX CH 06



Date: 5.MAY.2014 12:15:05

### TX CH 11

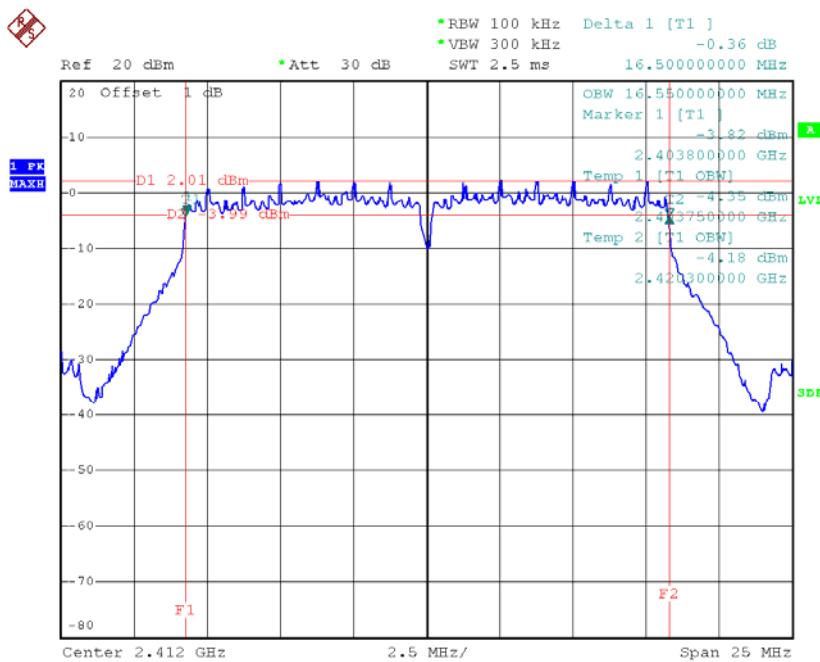


Date: 5.MAY.2014 12:16:21



## Test Mode: TX G Mode\_CH01/06/11

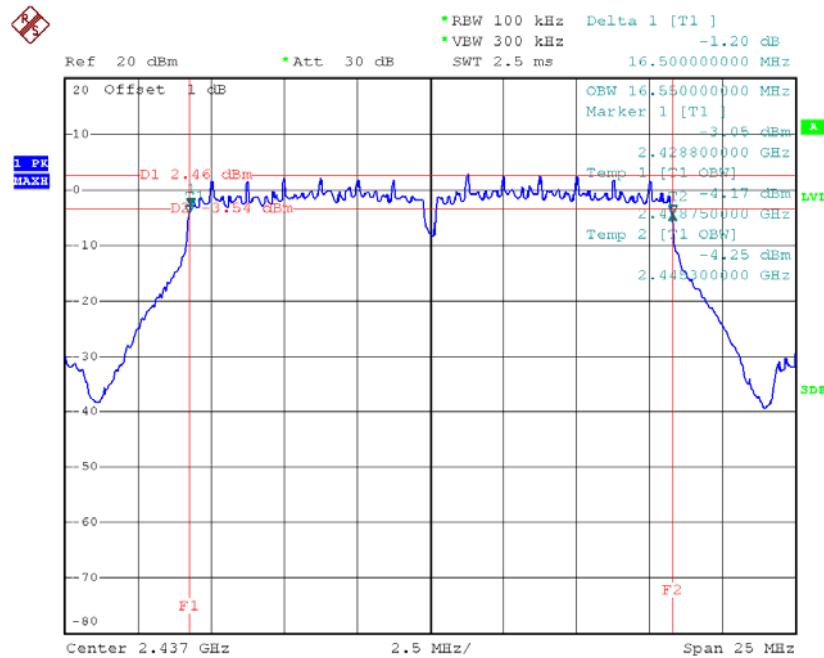
### TX CH 01



Date: 5.MAY.2014 13:51:45

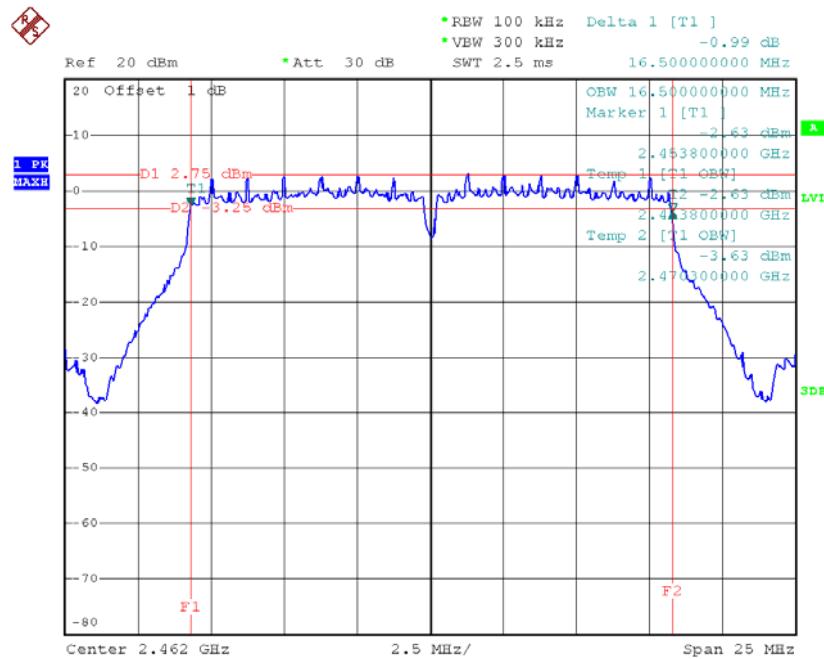


## TX CH 06



Date: 5.MAY.2014 13:50:14

## TX CH 11

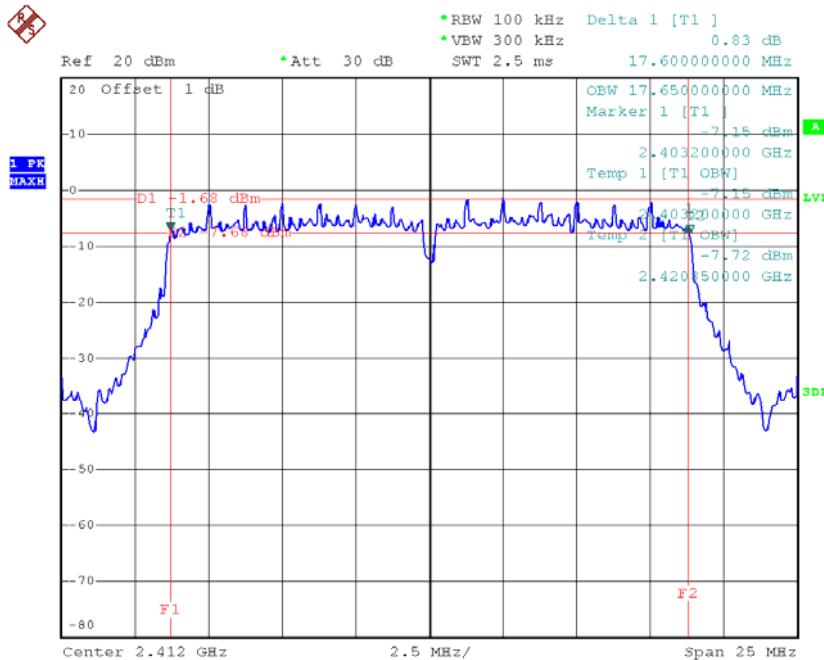


Date: 5.MAY.2014 13:52:59



Test Mode : TX N-20MHz Mode\_CH01/06/11\_ANT 1

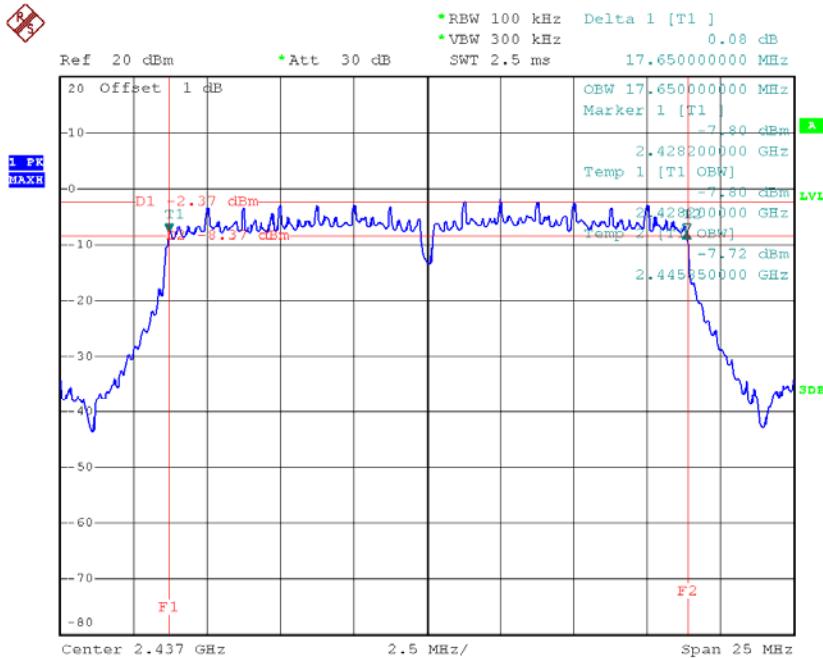
TX CH 01



Date: 5.MAY.2014 14:02:05

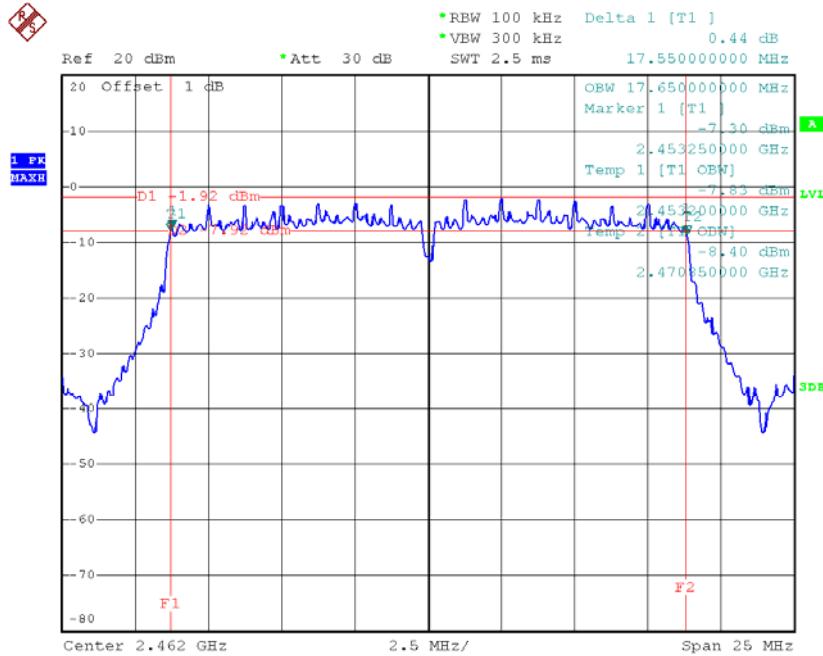


## TX CH 06



Date: 5.MAY.2014 14:04:59

## TX CH 11

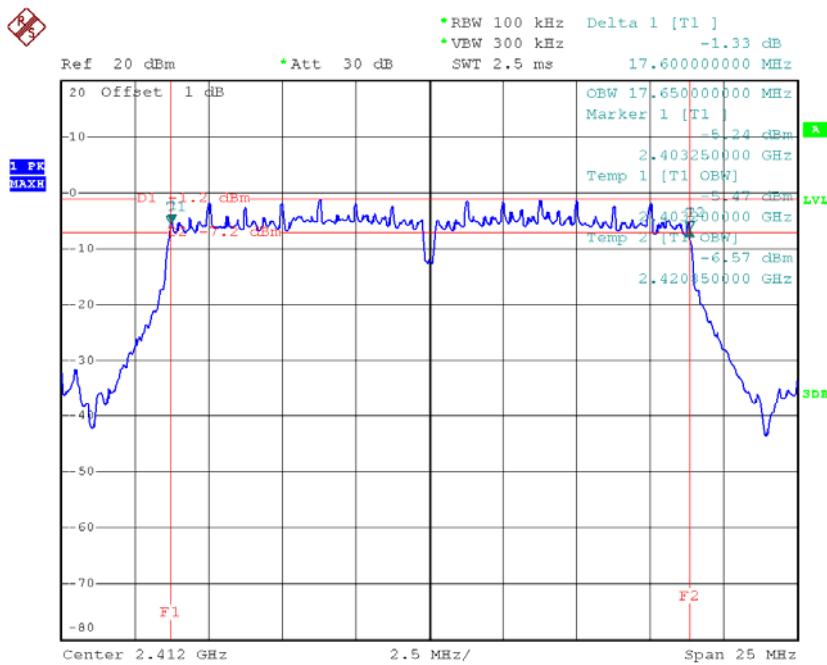


Date: 5.MAY.2014 14:05:47



Test Mode : TX N-20MHz Mode\_CH01/06/11\_ANT 2

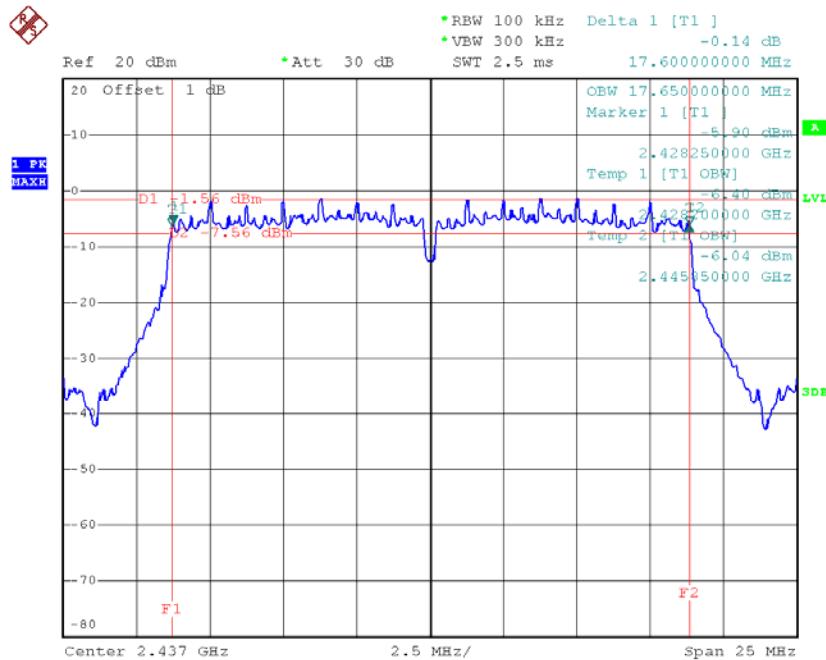
TX CH 01



Date: 5.MAY.2014 14:11:29

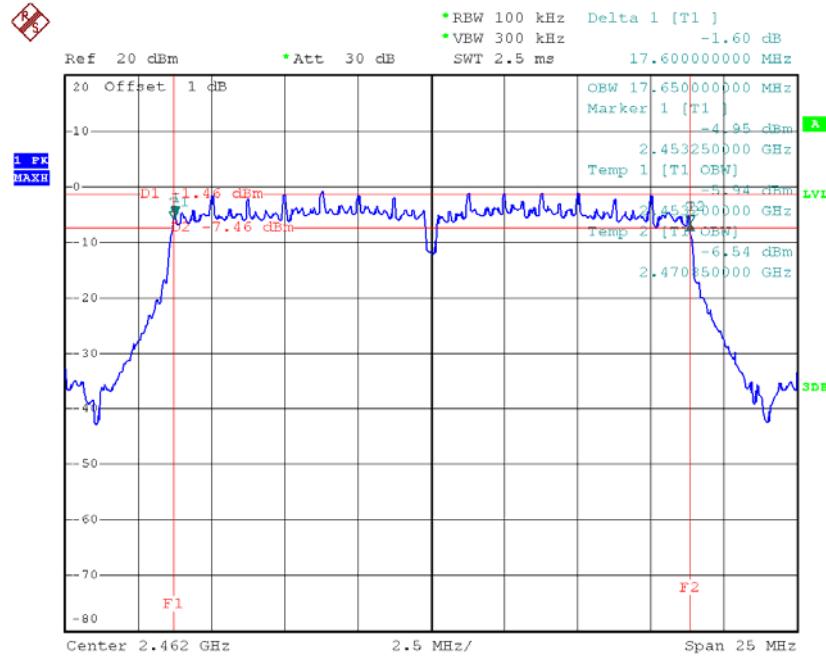


## TX CH 06



Date: 5.MAY.2014 14:12:21

## TX CH 11

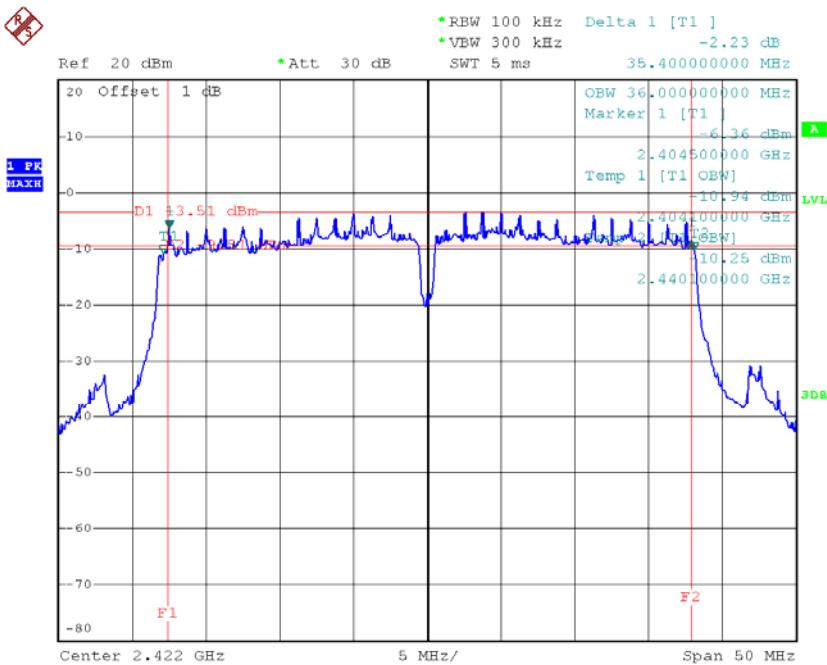


Date: 5.MAY.2014 14:13:43



Test Mode : TX N-40MHz Mode\_CH03/06/09\_ANT 1

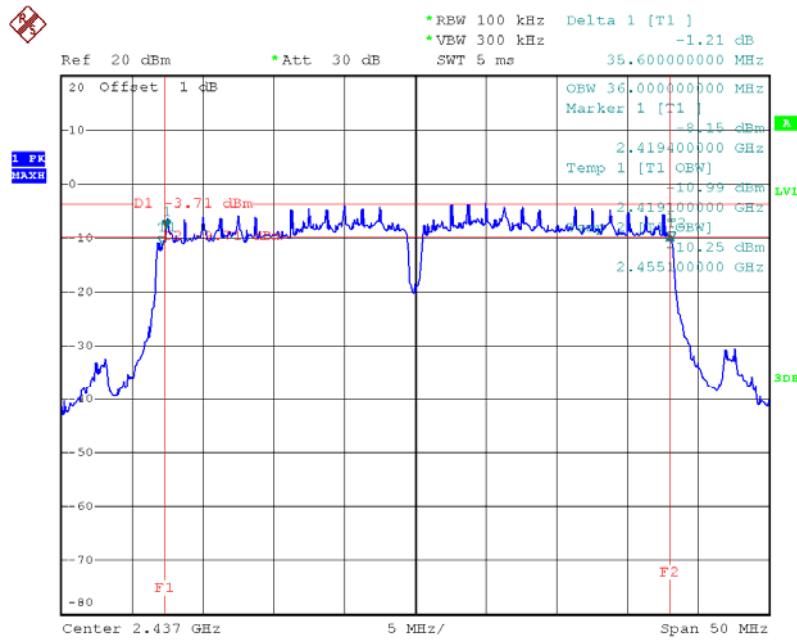
TX CH 03



Date: 5.MAY.2014 14:33:25

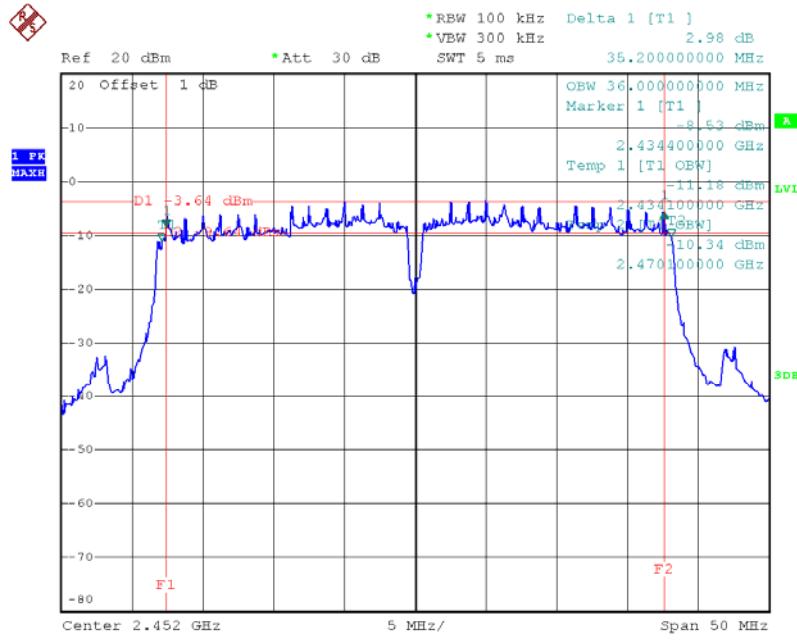


## TX CH 06



Date: 5.MAY.2014 14:34:36

## TX CH 09

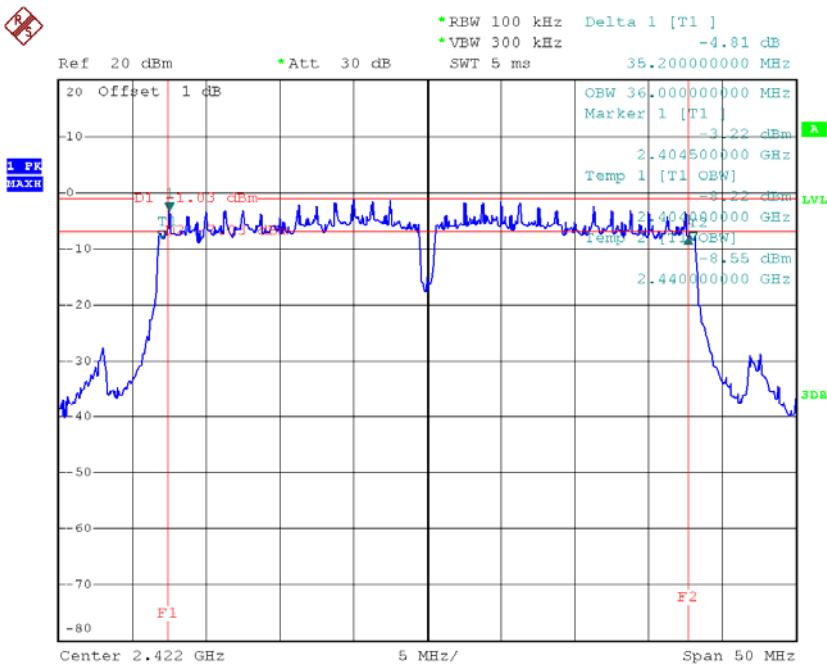


Date: 5.MAY.2014 14:36:03



Test Mode : TX N-40MHz Mode\_CH03/06/09\_ANT 2

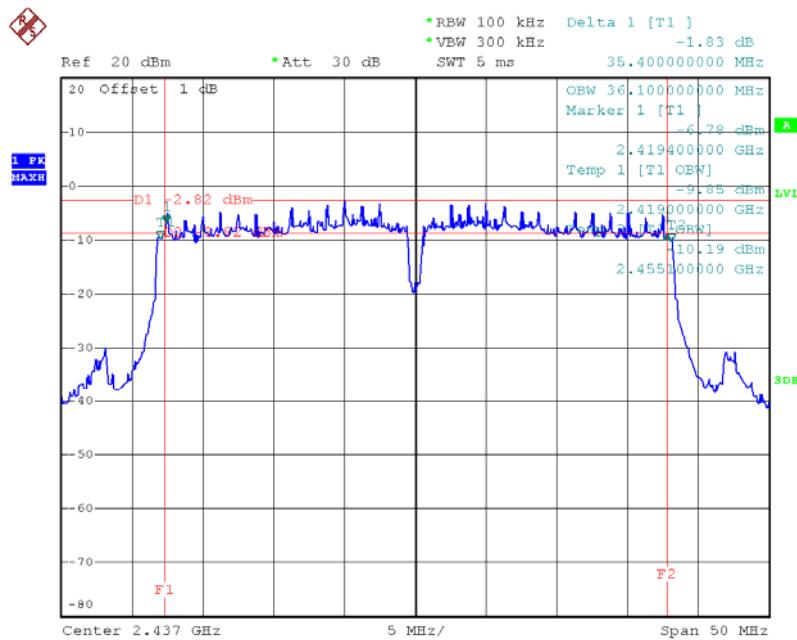
TX CH 03



Date: 5.MAY.2014 14:22:41

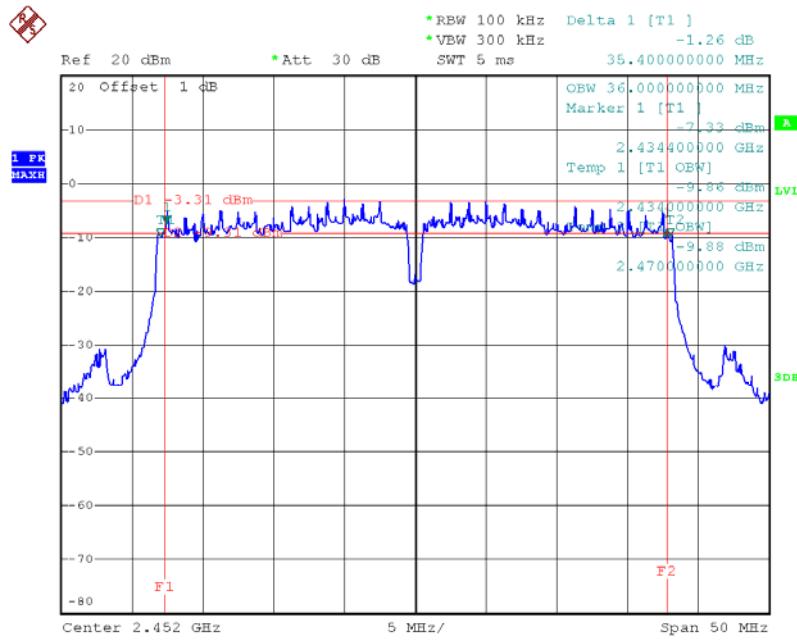


## TX CH 06



Date: 5.MAY.2014 14:23:58

## TX CH 09



Date: 5.MAY.2014 14:28:54



**Neutron Engineering Inc.**

## **ATTACHMENT F - MAXIMUM OUTPUT POWER**



**Test Mode : TX B Mode**

Test Channel	Frequency (MHz)	Output Power (dBm)	Limit (dBm)	Limit (Watt)
CH01	2412	17.70	30	1
CH06	2437	17.90	30	1
CH11	2462	18.10	30	1

**Test Mode : TX G Mode**

Test Channel	Frequency (MHz)	Output Power (dBm)	Limit (dBm)	Limit (Watt)
CH01	2412	22.90	30	1
CH06	2437	23.00	30	1
CH11	2462	23.00	30	1



**Test Mode : TX N-20M Mode\_ANT 1**

Test Channel	Frequency (MHz)	Output Power (dBm)	Limit (dBm)	Limit (Watt)
CH01	2412	19.70	30	1
CH06	2437	19.50	30	1
CH11	2462	19.70	30	1

**Test Mode : TX N-20M Mode\_ANT 2**

Test Channel	Frequency (MHz)	Output Power (dBm)	Limit (dBm)	Limit (Watt)
CH01	2412	19.20	30	1
CH06	2437	19.50	30	1
CH11	2462	19.60	30	1

**Test Mode : TX N-20M Mode\_Total**

Test Channel	Frequency (MHz)	Output Power (dBm)	Limit (dBm)	Limit (Watt)
CH01	2412	22.47	30	1
CH06	2437	22.51	30	1
CH11	2462	22.66	30	1



**Test Mode : TX N-40M Mode\_ANT 1**

Test Channel	Frequency (MHz)	Output Power (dBm)	Limit (dBm)	Limit (Watt)
CH03	2422	19.80	30	1
CH06	2437	20.00	30	1
CH09	2452	20.10	30	1

**Test Mode : TX N-40M Mode\_ANT 2**

Test Channel	Frequency (MHz)	Output Power (dBm)	Limit (dBm)	Limit (Watt)
CH03	2422	20.50	30	1
CH06	2437	20.30	30	1
CH09	2452	20.50	30	1

**Test Mode : TX N-40M Mode\_Total**

Test Channel	Frequency (MHz)	Output Power (dBm)	Limit (dBm)	Limit (Watt)
CH03	2422	23.17	30	1
CH06	2437	23.16	30	1
CH09	2452	23.31	30	1



**Neutron Engineering Inc.**

## **ATTACHMENT G - ANTENNA CONDUCTED SPURIOUS EMISSION**

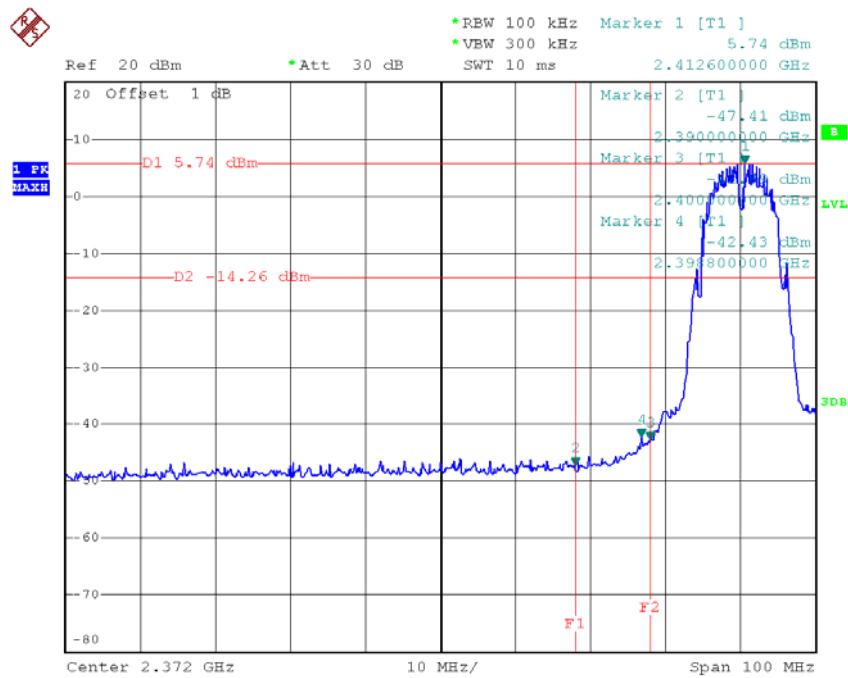


**Neutron Engineering Inc.**

<b>Test Mode :</b>	<b>TX B Mode</b>
--------------------	------------------

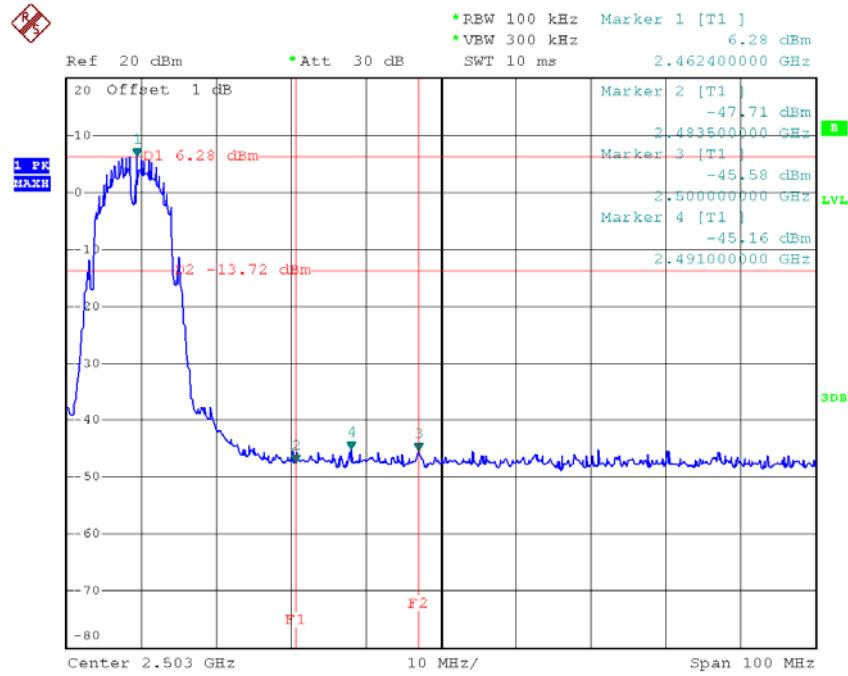


## TX B mode CH01



Date: 5.MAY.2014 12:12:00

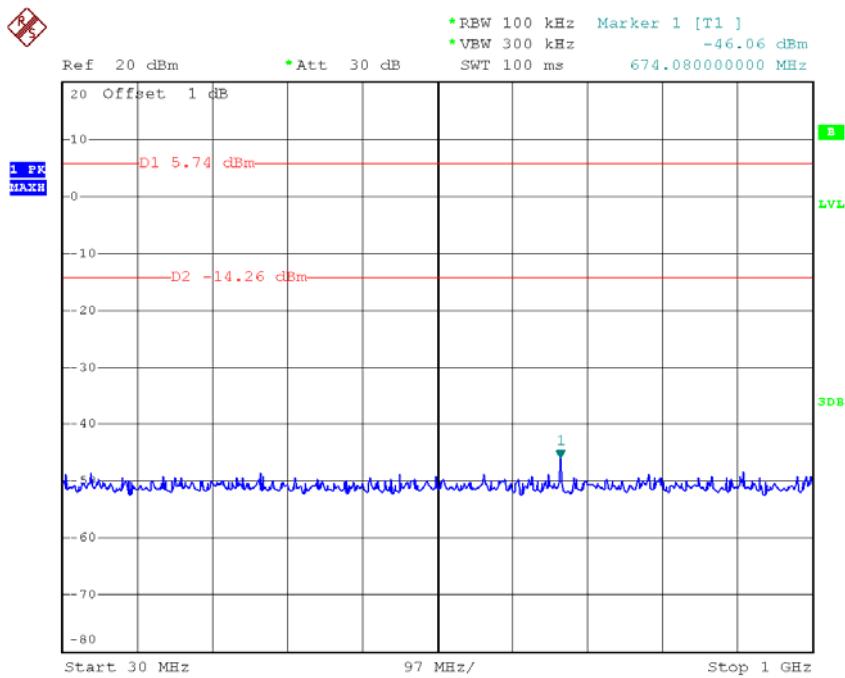
## TX B mode CH11



Date: 5.MAY.2014 12:17:40

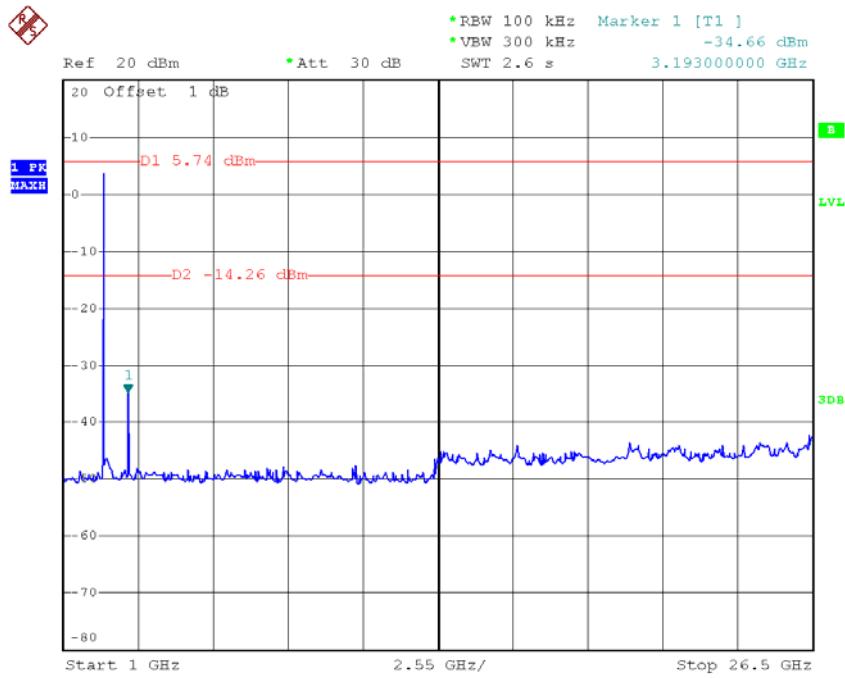


## TX B mode CH01 (30MHz to 1000MHz)



Date: 5.MAY.2014 12:12:24

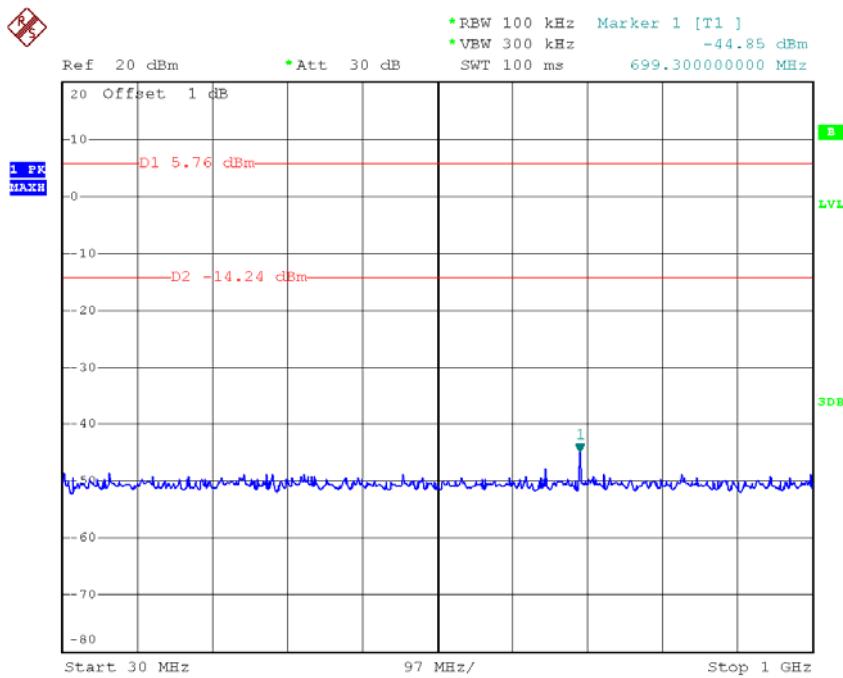
## TX B mode CH01 (1000MHz to 10<sup>th</sup> Harmonic)



Date: 5.MAY.2014 12:12:48

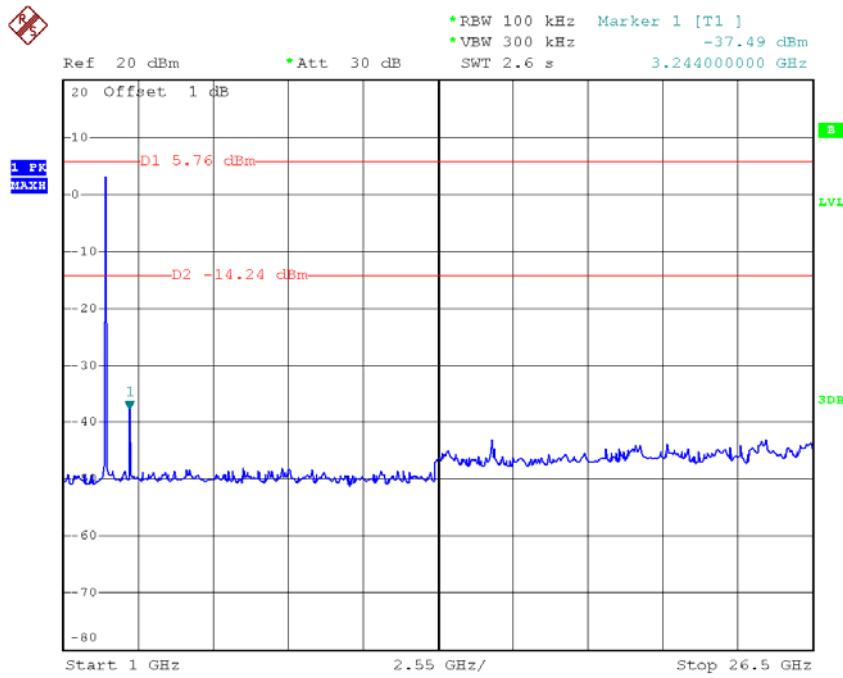


## TX B mode CH06 (30MHz to 1000MHz)



Date: 5.MAY.2014 12:13:44

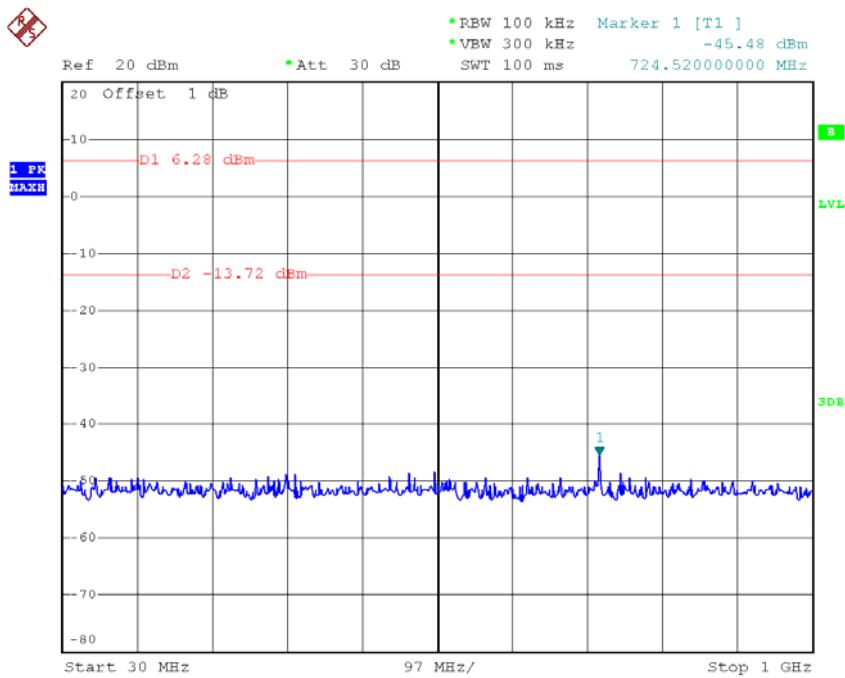
## TX B mode CH06 (1000MHz to 10<sup>th</sup> Harmonic)



Date: 5.MAY.2014 12:14:17

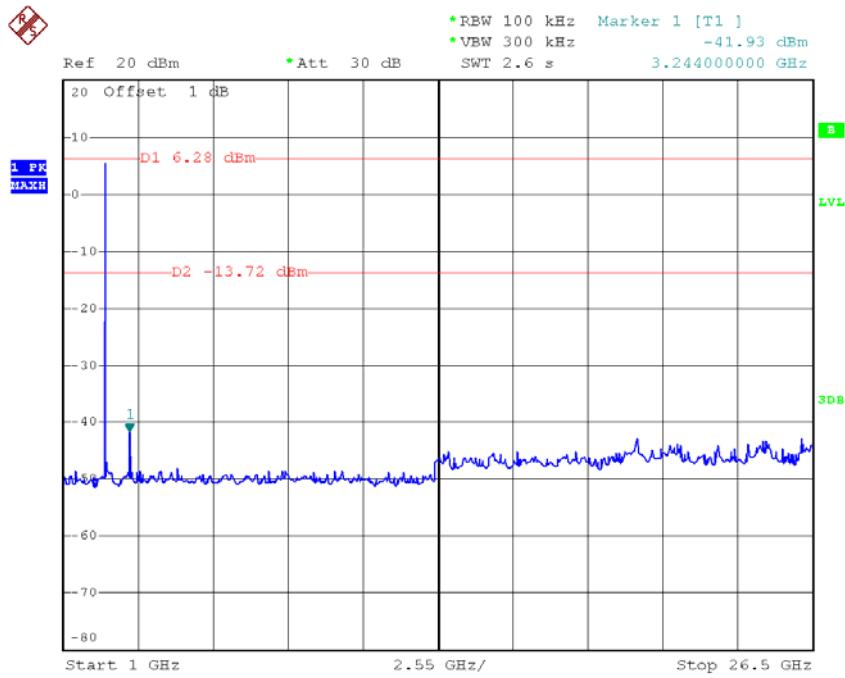


## TX B mode CH11 (30MHz to 1000MHz)



Date: 5.MAY.2014 12:17:52

## TX B mode CH11 (1000MHz to 10<sup>th</sup> Harmonic)



Date: 5.MAY.2014 12:18:06

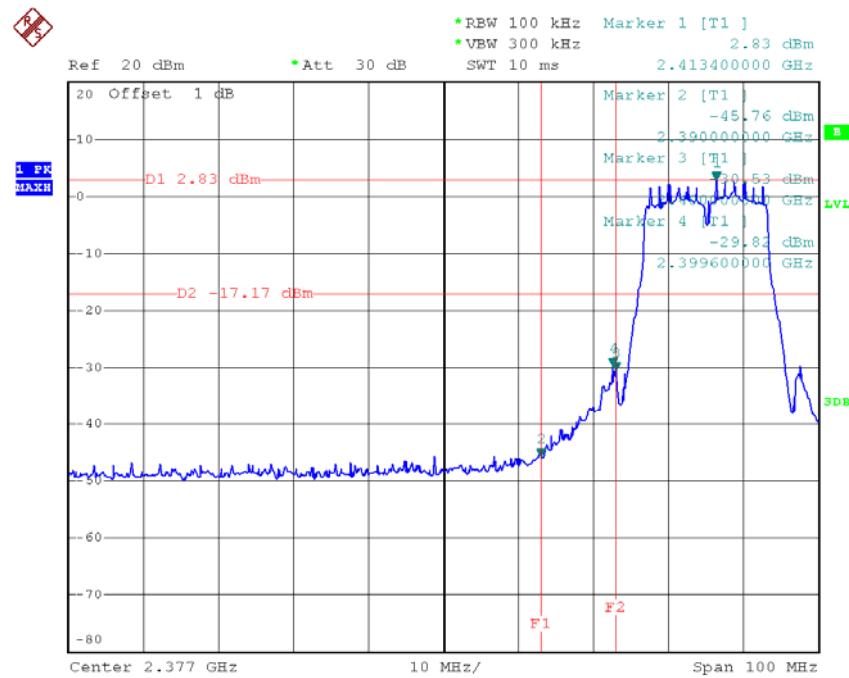


**Neutron Engineering Inc.**

<b>Test Mode :</b>	<b>TX G Mode</b>
--------------------	------------------

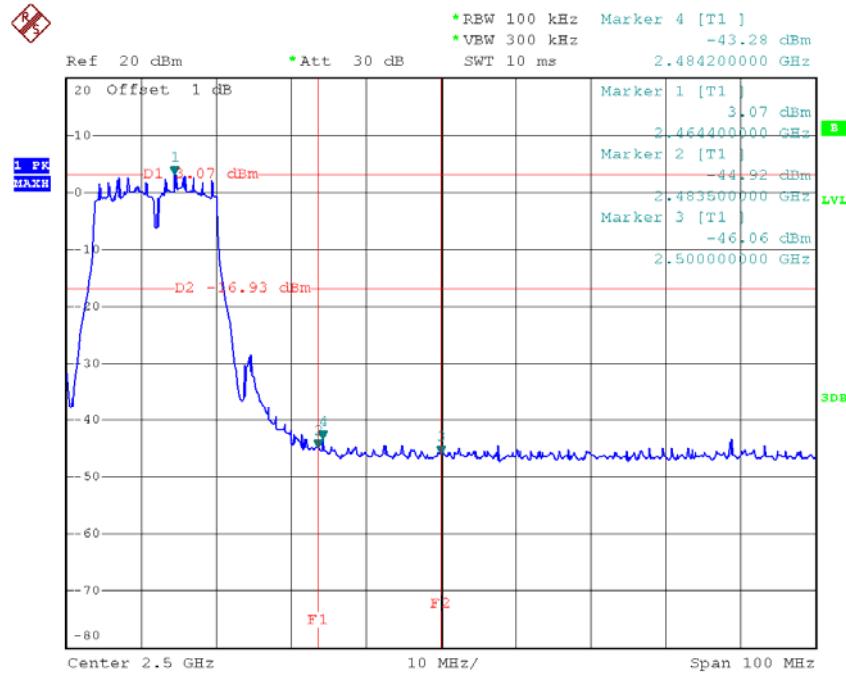


## TX G mode CH01



Date: 5.MAY.2014 13:57:37

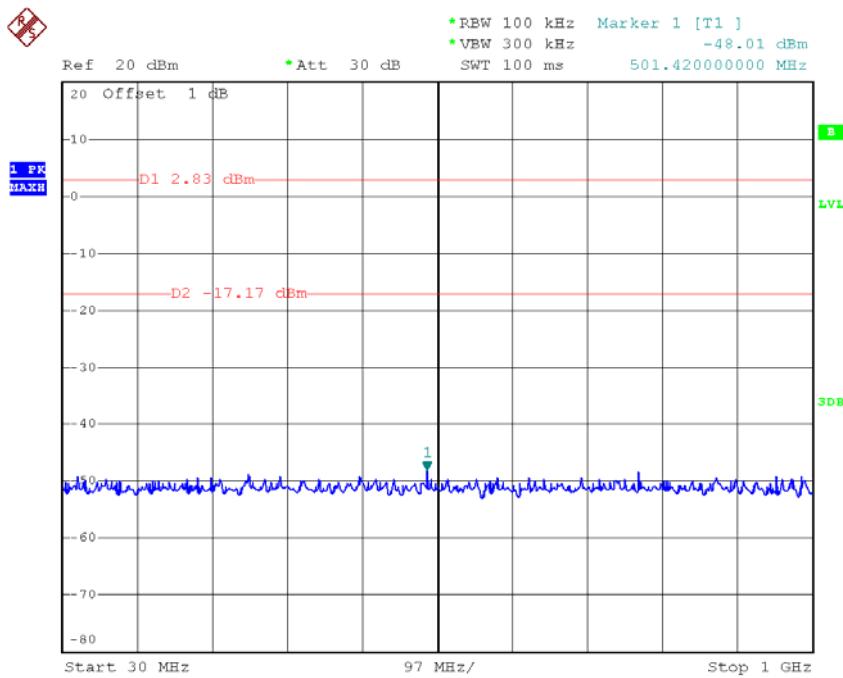
## TX G mode CH11



Date: 5.MAY.2014 13:54:44

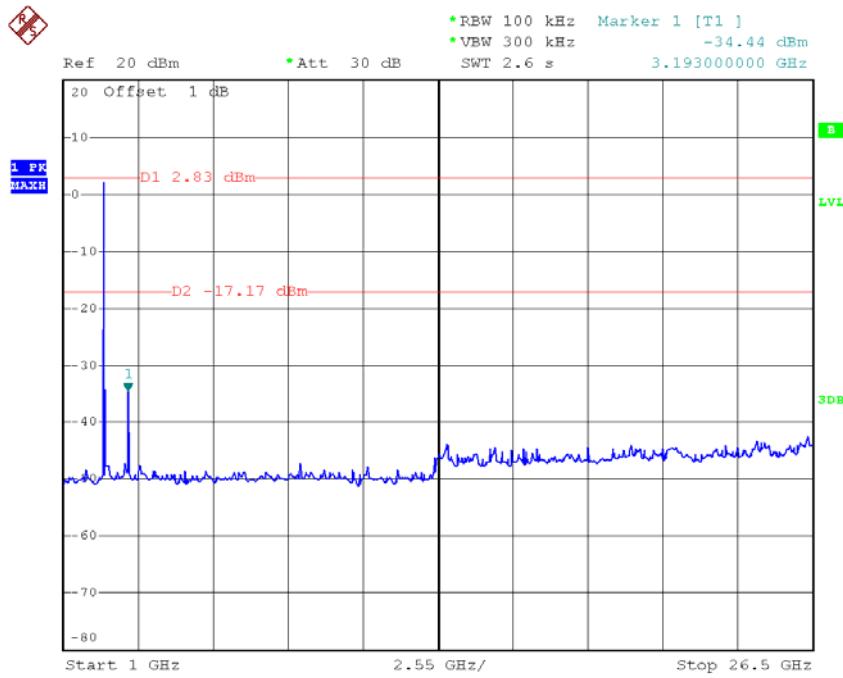


## TX G mode CH01 (30MHz to 1000MHz)



Date: 5.MAY.2014 13:57:50

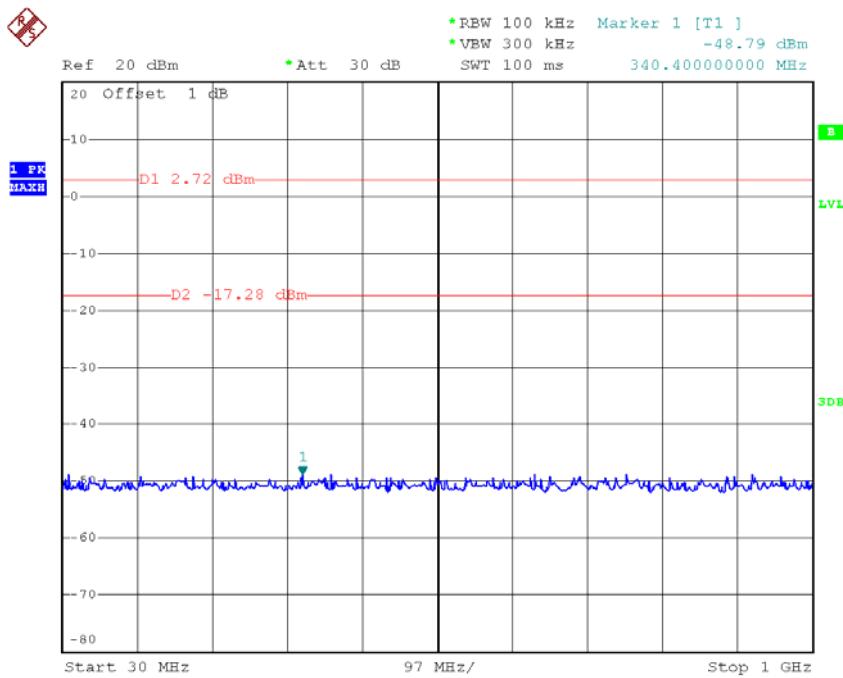
## TX G mode CH01 (1000MHz to 10<sup>th</sup> Harmonic)



Date: 5.MAY.2014 13:58:12

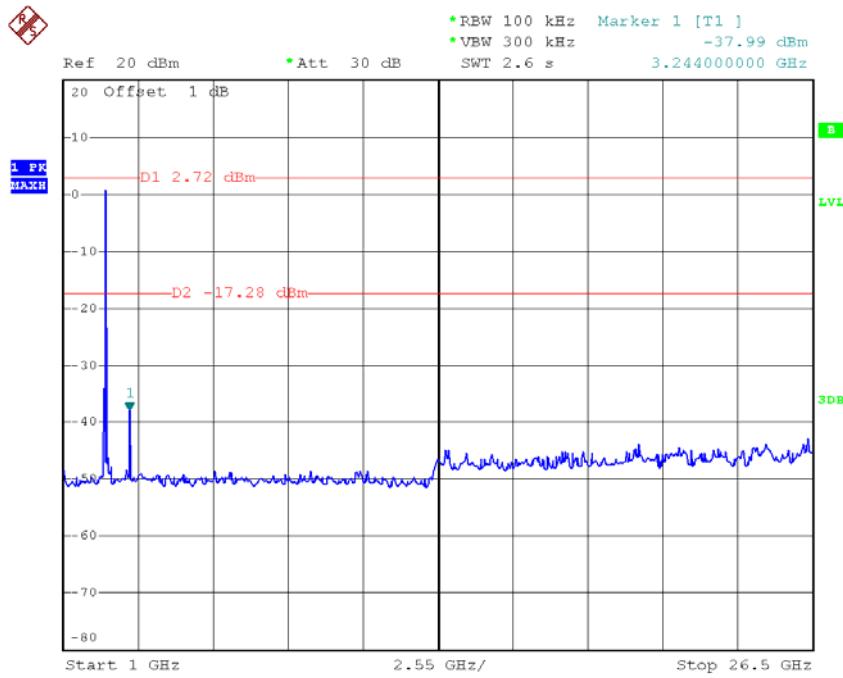


## TX G mode CH06 (30MHz to 1000MHz)



Date: 5.MAY.2014 13:56:07

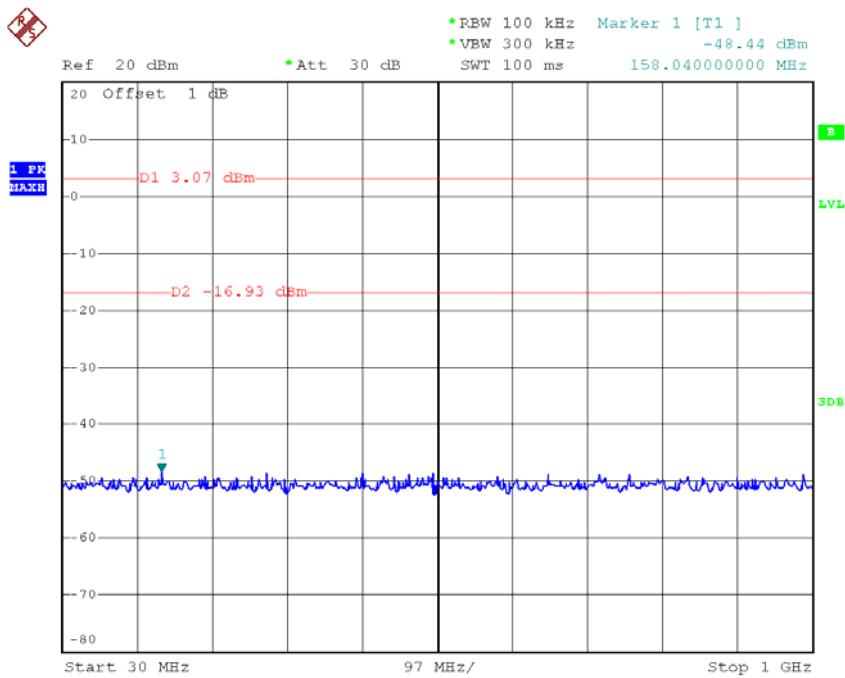
## TX G mode CH06 (1000MHz to 10<sup>th</sup> Harmonic)



Date: 5.MAY.2014 13:56:22

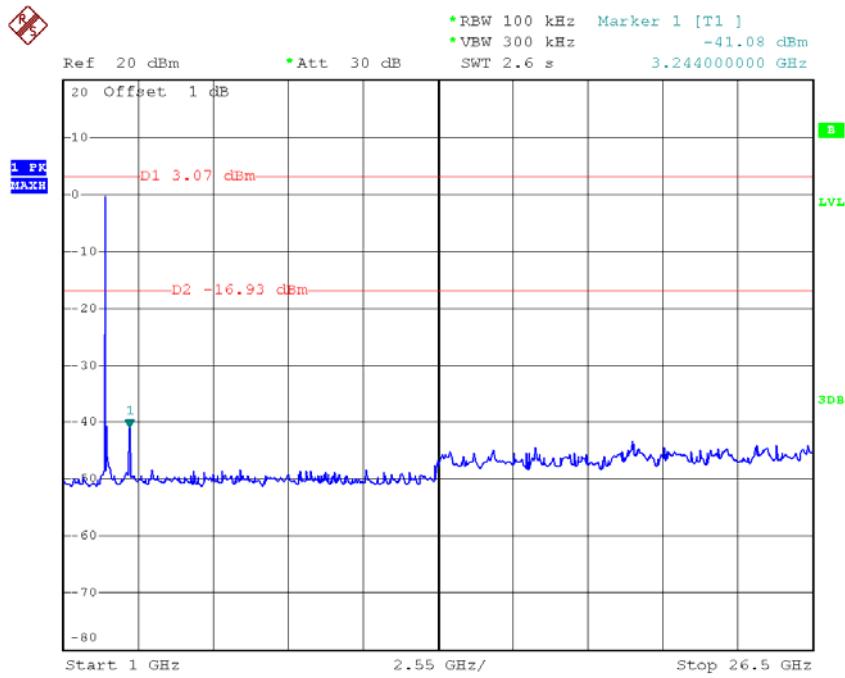


## TX G mode CH11 (30MHz to 1000MHz)



Date: 5.MAY.2014 13:55:03

## TX G mode CH11 (1000MHz to 10<sup>th</sup> Harmonic)



Date: 5.MAY.2014 13:55:18

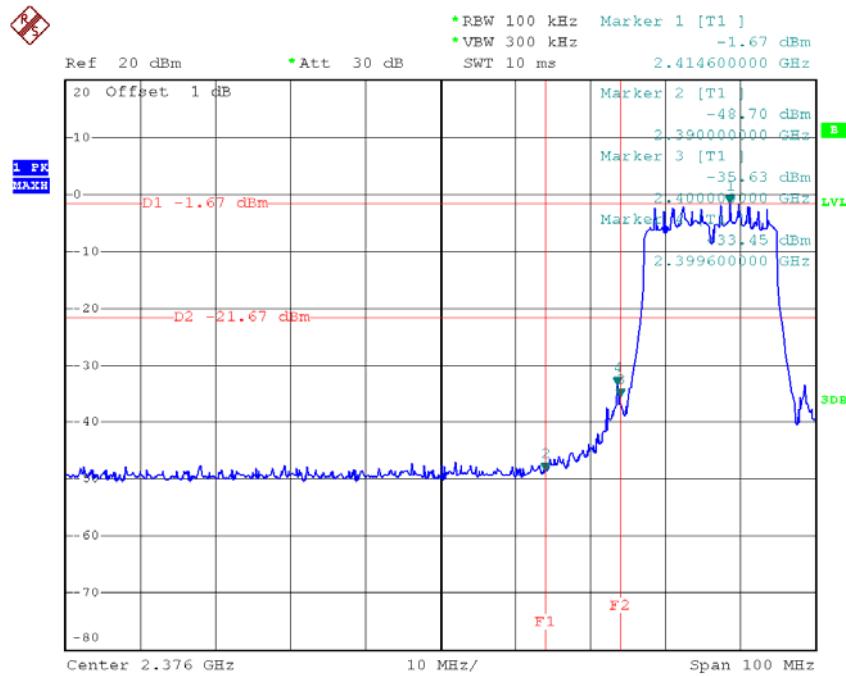


**Neutron Engineering Inc.**

<b>Test Mode :</b>	<b>TX N-20M Mode_ANT 1</b>
--------------------	----------------------------

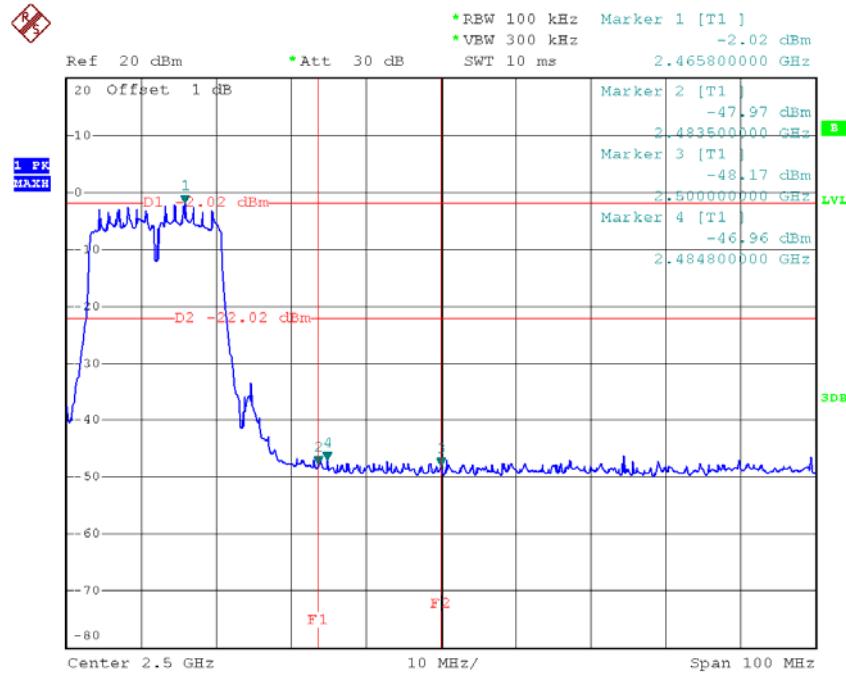


## TX HT20 mode CH01



Date: 5.MAY.2014 14:00:55

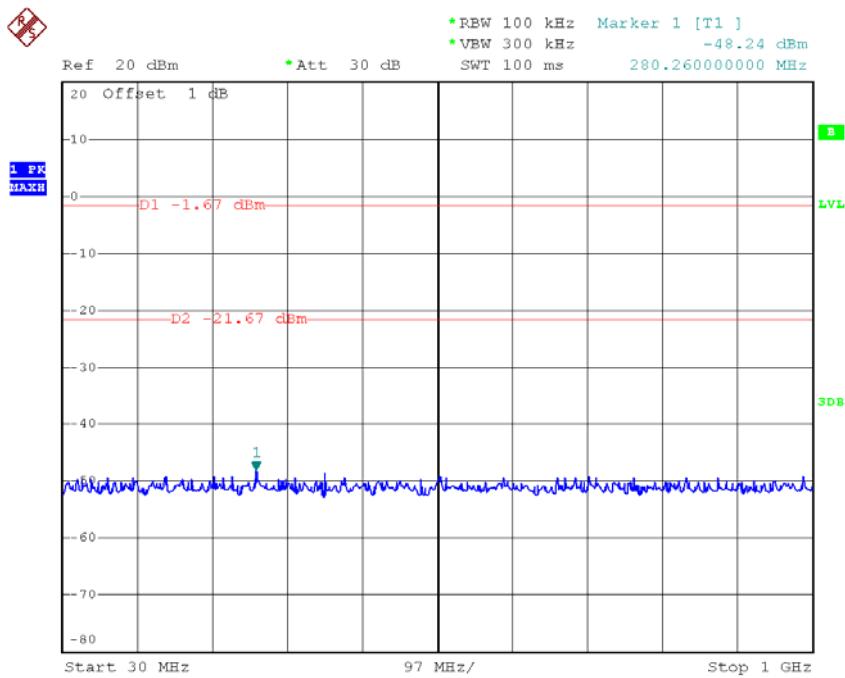
## TX HT20 mode CH11



Date: 5.MAY.2014 14:06:57

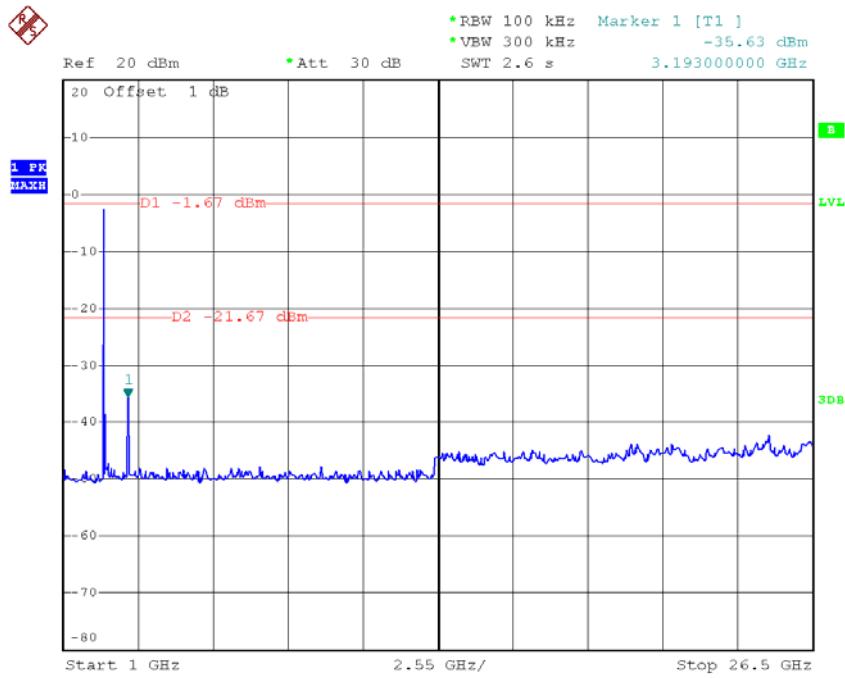


## TX HT20 mode CH01 (30MHz to 1000MHz)



Date: 5.MAY.2014 14:02:22

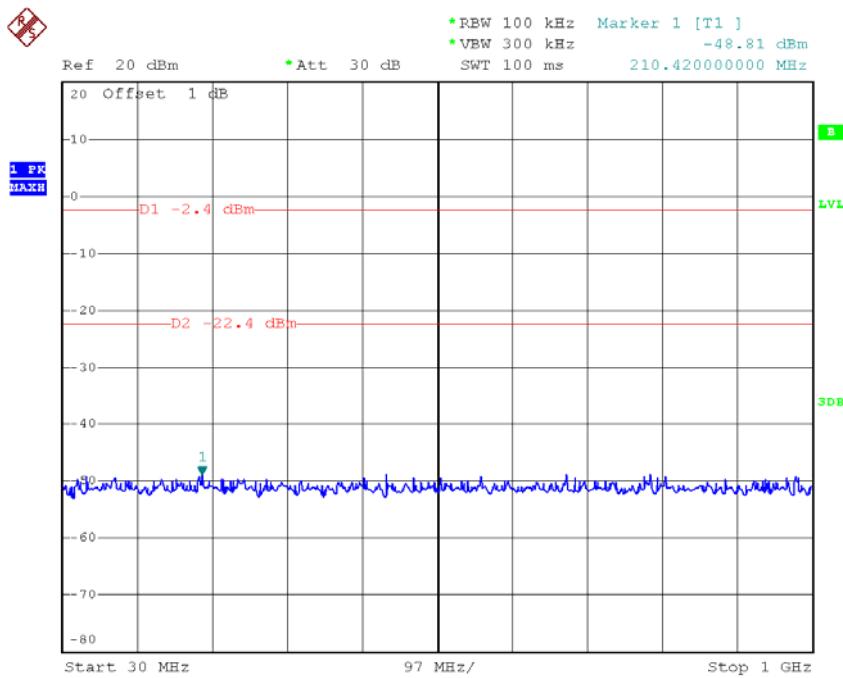
## TX HT20 mode CH01 (1000MHz to 10<sup>th</sup> Harmonic)



Date: 5.MAY.2014 14:02:51

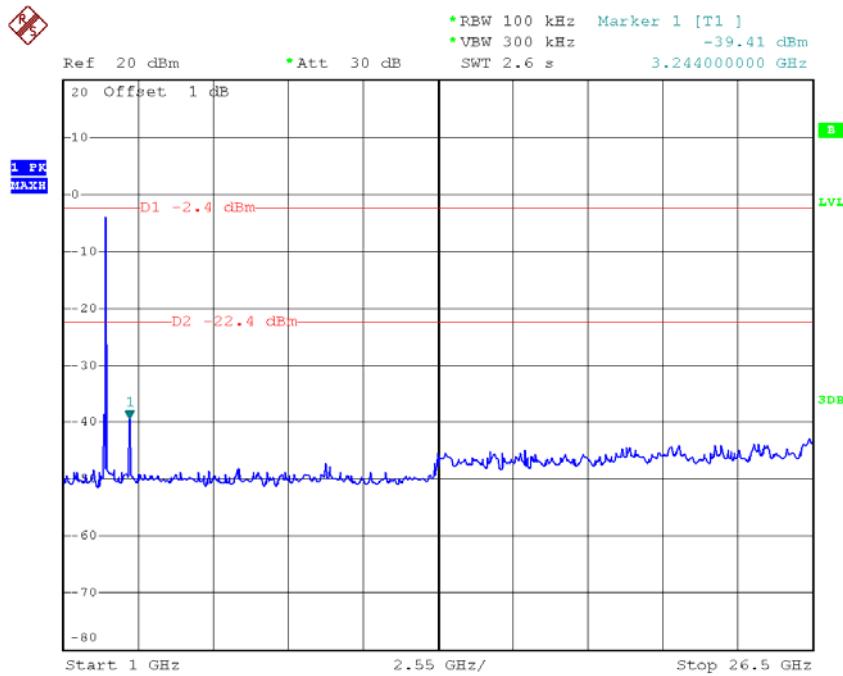


## TX HT20 mode CH06 (30MHz to 1000MHz)



Date: 5.MAY.2014 14:03:37

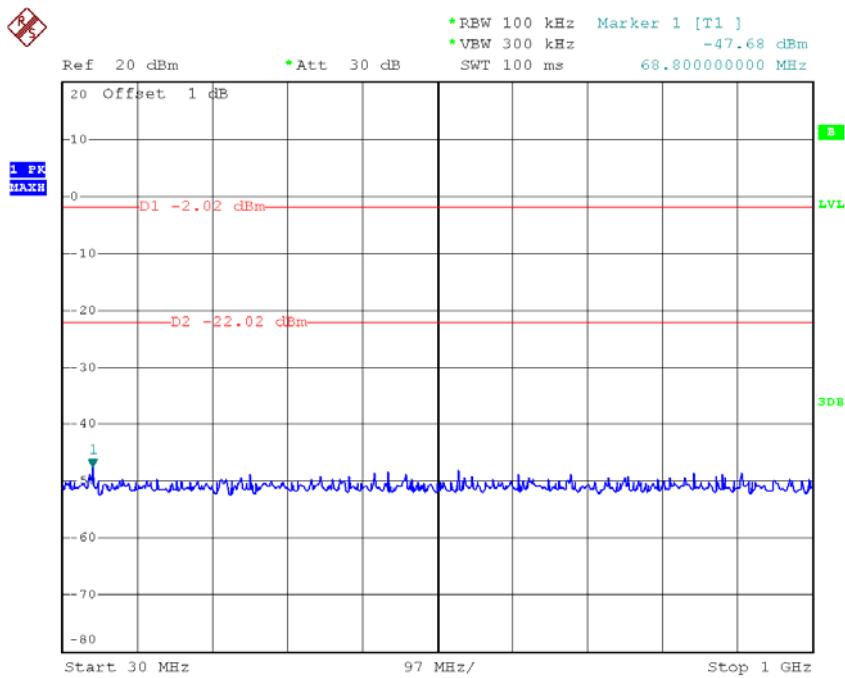
## TX HT20 mode CH06 (1000MHz to 10<sup>th</sup> Harmonic)



Date: 5.MAY.2014 14:03:53

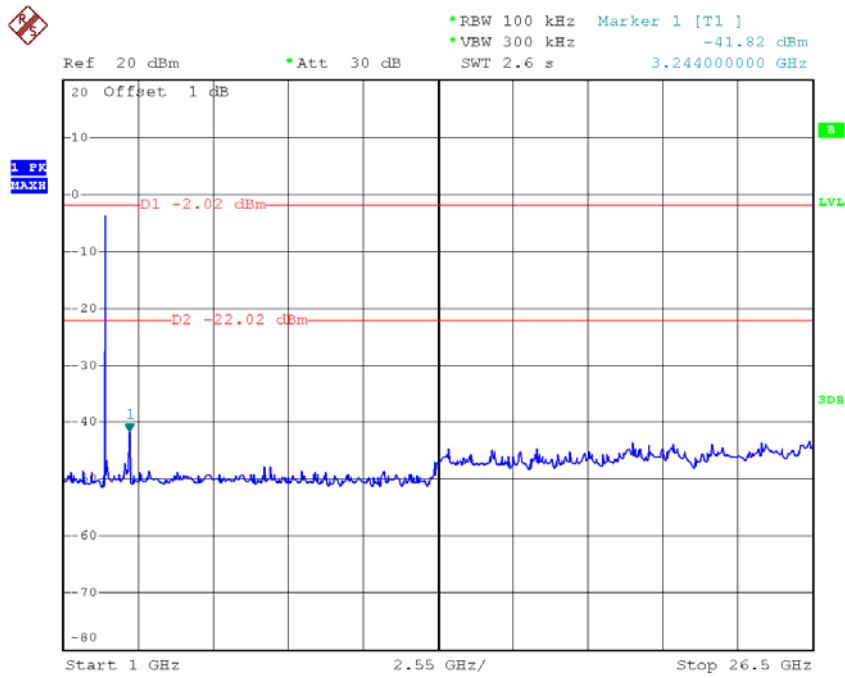


## TX HT20 mode CH11 (30MHz to 1000MHz)



Date: 5.MAY.2014 14:07:09

## TX HT20 mode CH11 (1000MHz to 10<sup>th</sup> Harmonic)



Date: 5.MAY.2014 14:07:24

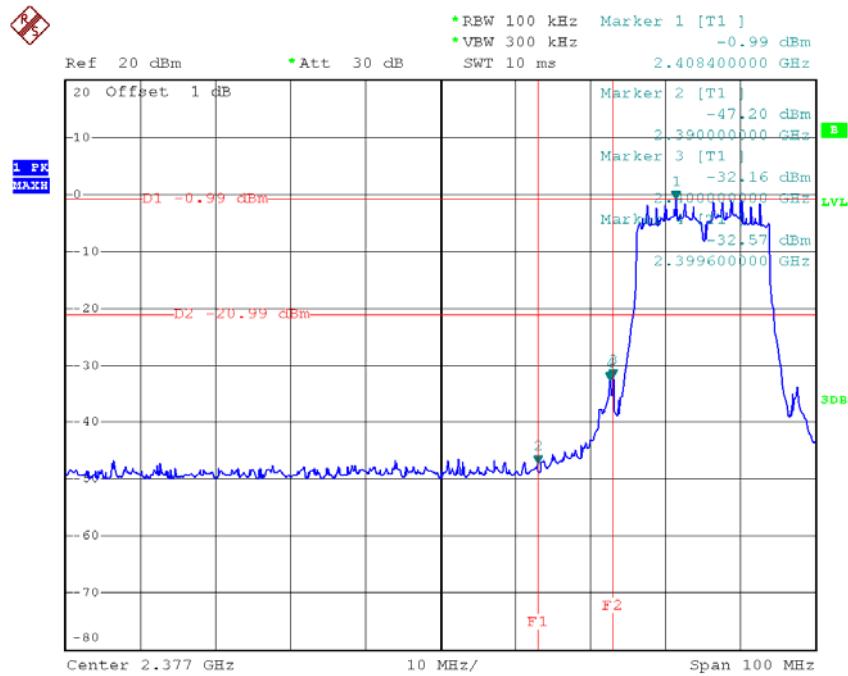


**Neutron Engineering Inc.**

<b>Test Mode :</b>	<b>TX N-20M Mode_ANT 2</b>
--------------------	----------------------------

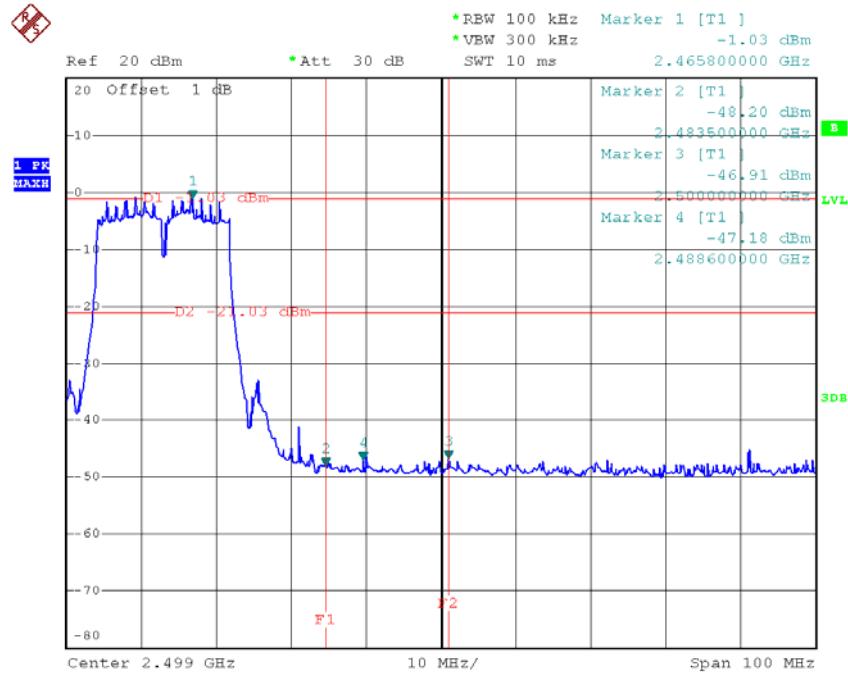


## TX HT20 mode CH01



Date: 5.MAY.2014 14:17:17

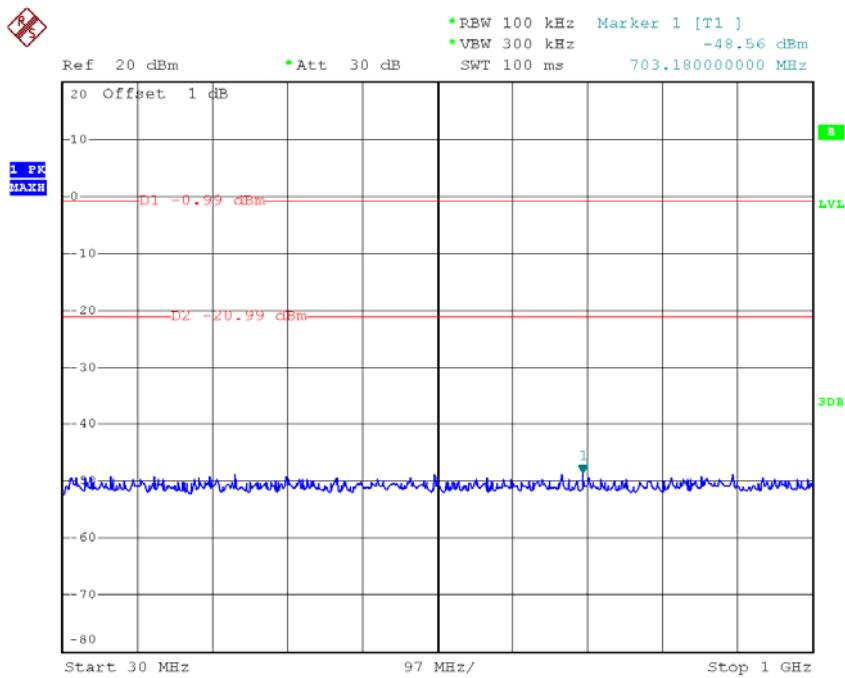
## TX HT20 mode CH11



Date: 5.MAY.2014 14:14:37

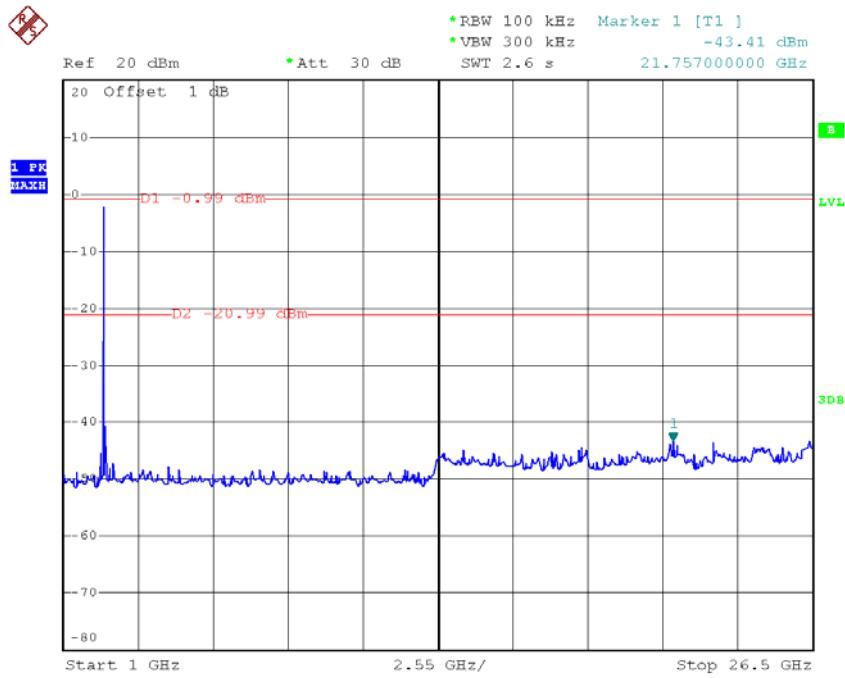


## TX HT20 mode CH01 (30MHz to 1000MHz)



Date: 5.MAY.2014 14:17:30

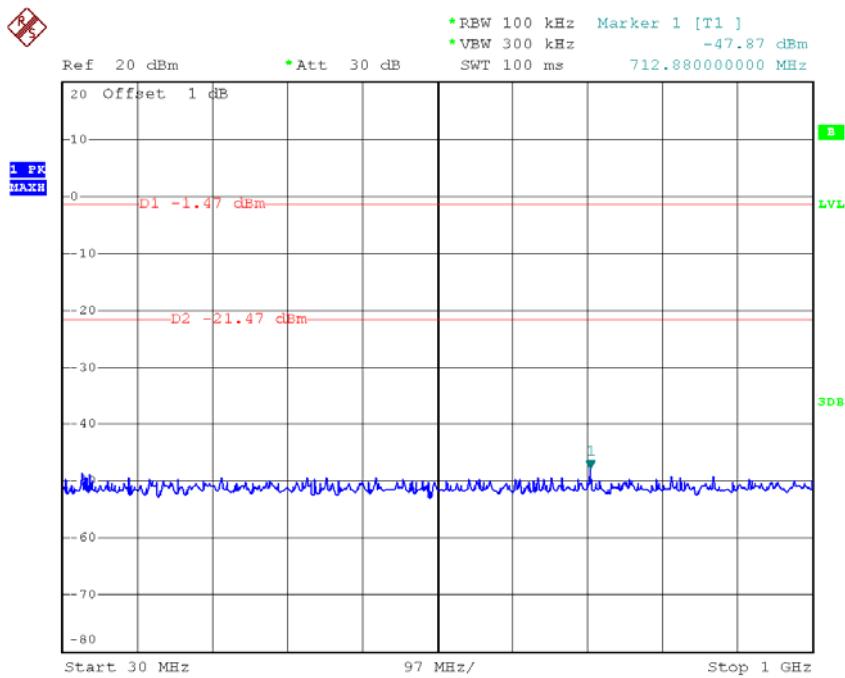
## TX HT20 mode CH01 (1000MHz to 10<sup>th</sup> Harmonic)



Date: 5.MAY.2014 14:17:42

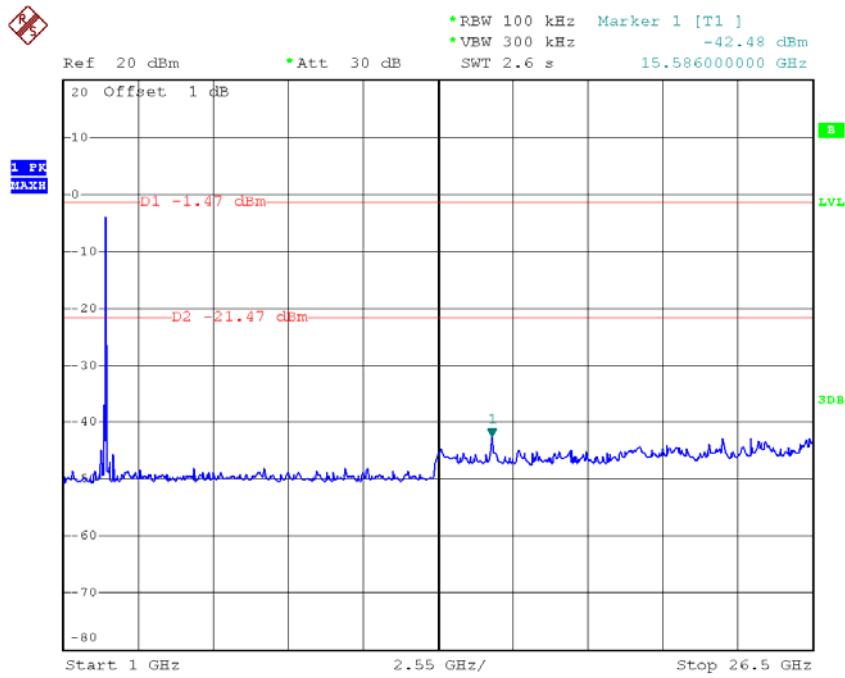


## TX HT20 mode CH06 (30MHz to 1000MHz)



Date: 5.MAY.2014 14:15:49

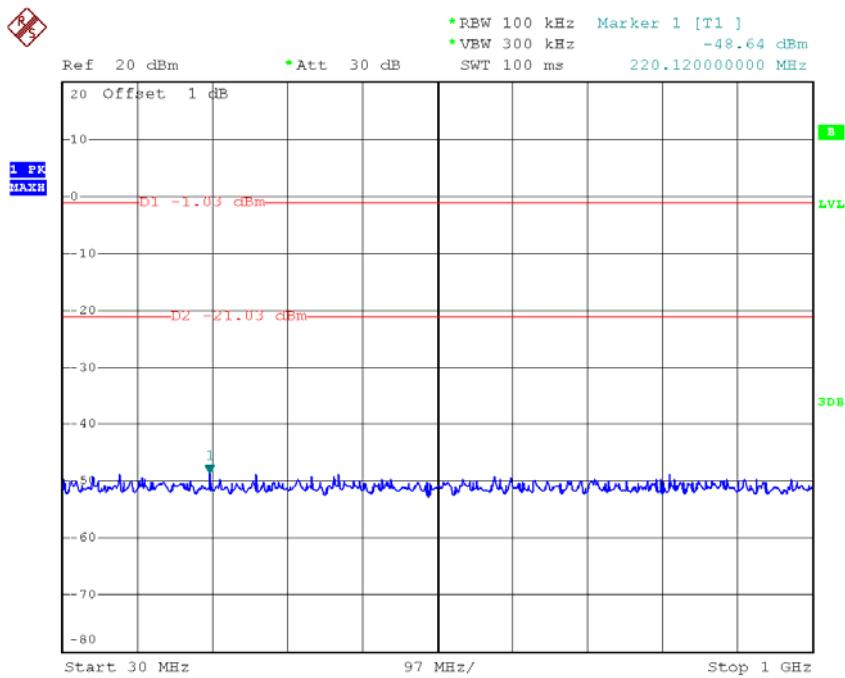
## TX HT20 mode CH06 (1000MHz to 10<sup>th</sup> Harmonic)



Date: 5.MAY.2014 14:16:17

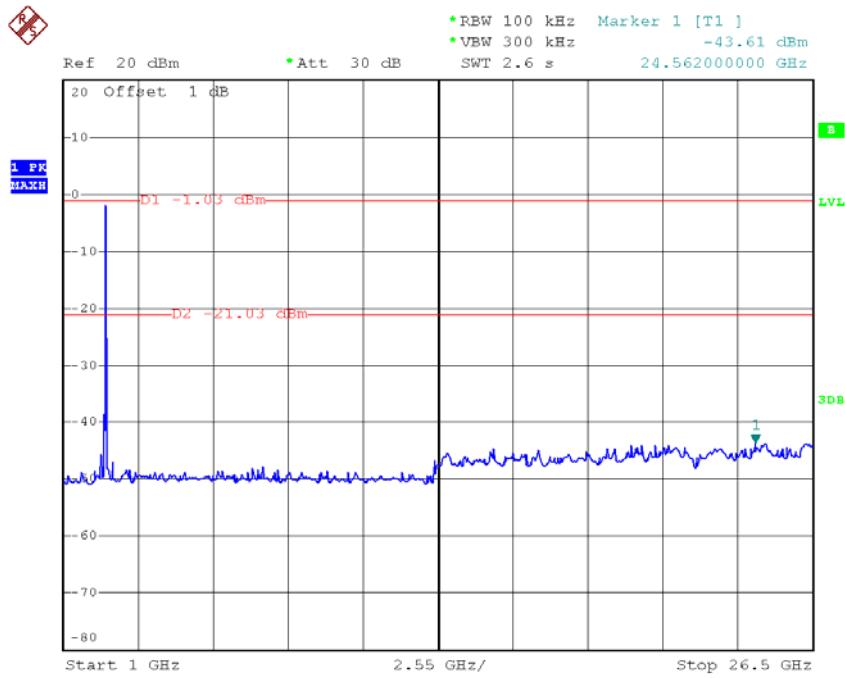


## TX HT20 mode CH11 (30MHz to 1000MHz)



Date: 5.MAY.2014 14:14:51

## TX HT20 mode CH11 (1000MHz to 10<sup>th</sup> Harmonic)



Date: 5.MAY.2014 14:15:11

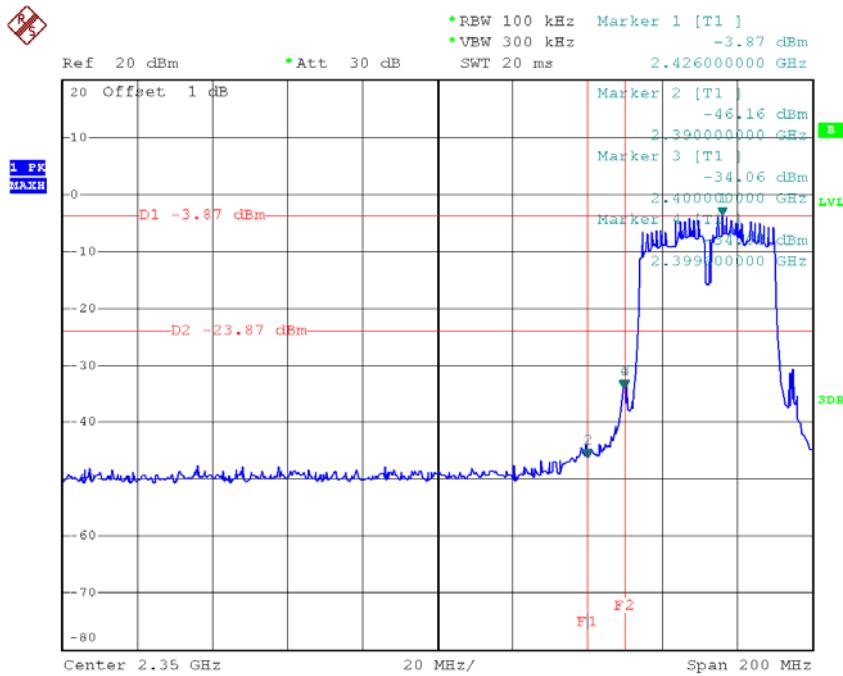


**Neutron Engineering Inc.**

<b>Test Mode :</b>	<b>TX N-40M Mode_ANT 1</b>
--------------------	----------------------------

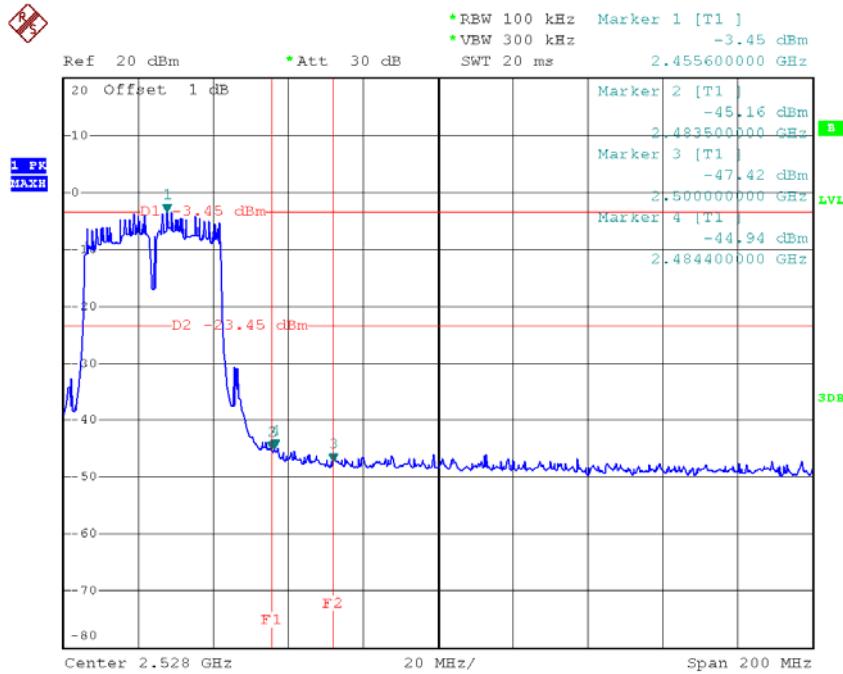


TX HT40 mode CH03



Date: 5.MAY.2014 14:39:41

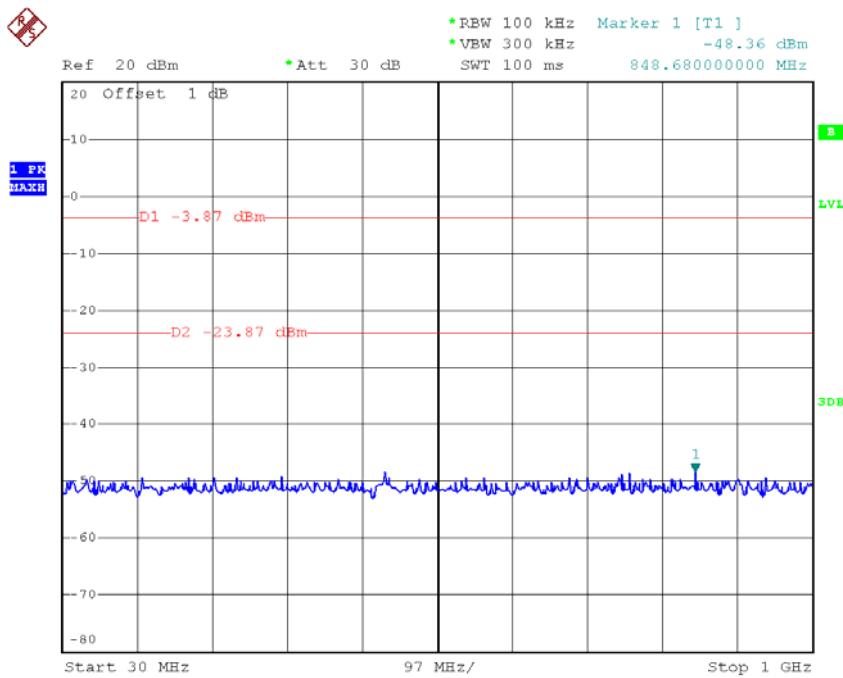
TX HT40 mode CH09



Date: 5.MAY.2014 14:37:15

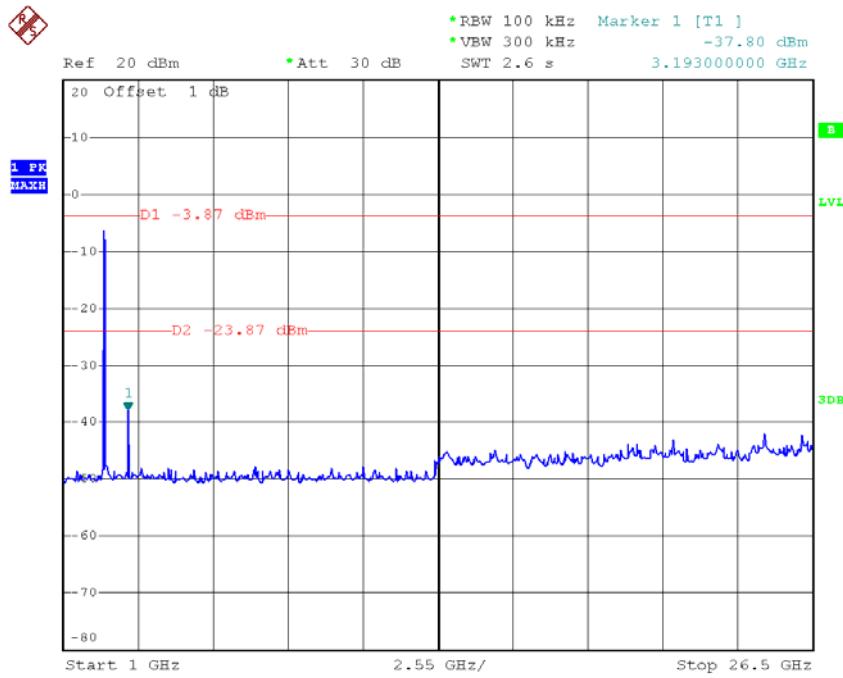


## TX HT40 mode CH03 (30MHz to 1000MHz)



Date: 5.MAY.2014 14:40:02

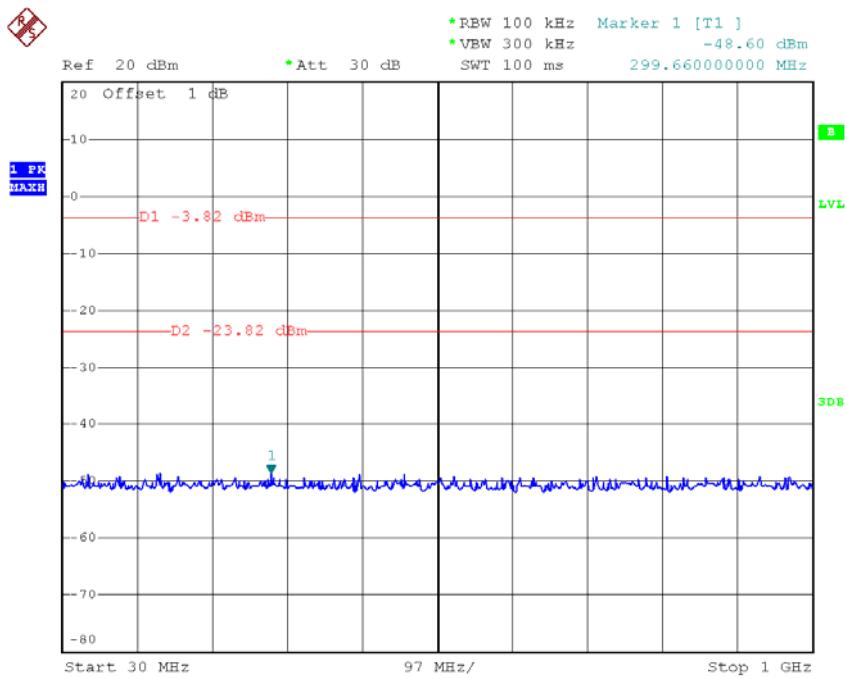
## TX HT40 mode CH03 (1000MHz to 10<sup>th</sup> Harmonic)



Date: 5.MAY.2014 14:40:28

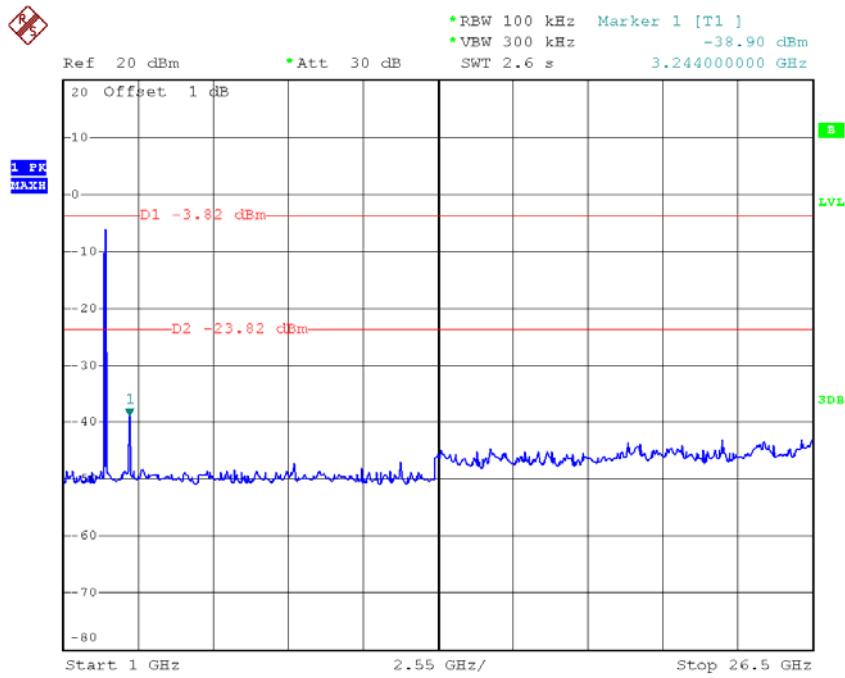


## TX HT40 mode CH06 (30MHz to 1000MHz)



Date: 5.MAY.2014 14:38:25

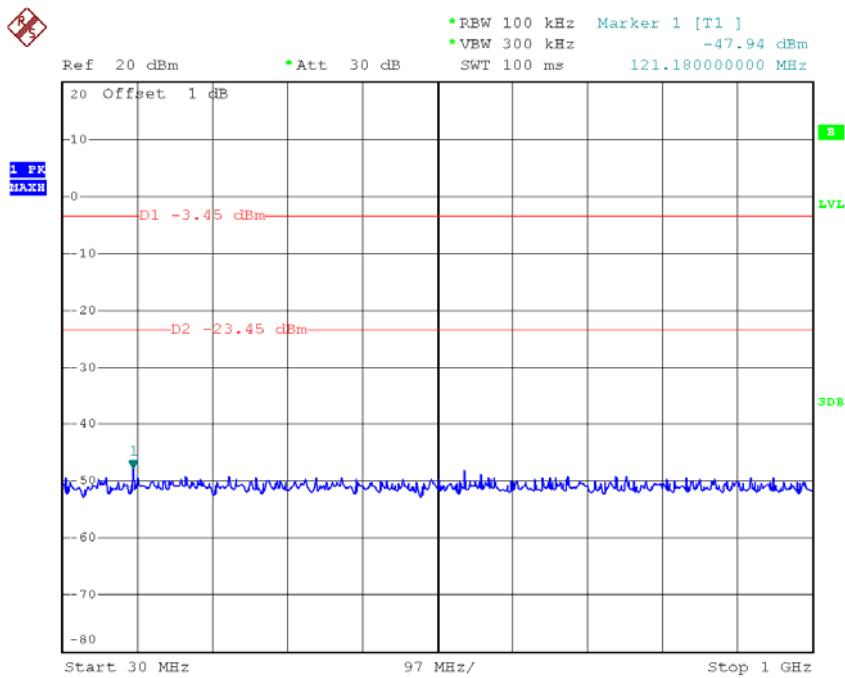
## TX HT40 mode CH06 (1000MHz to 10<sup>th</sup> Harmonic)



Date: 5.MAY.2014 14:38:46

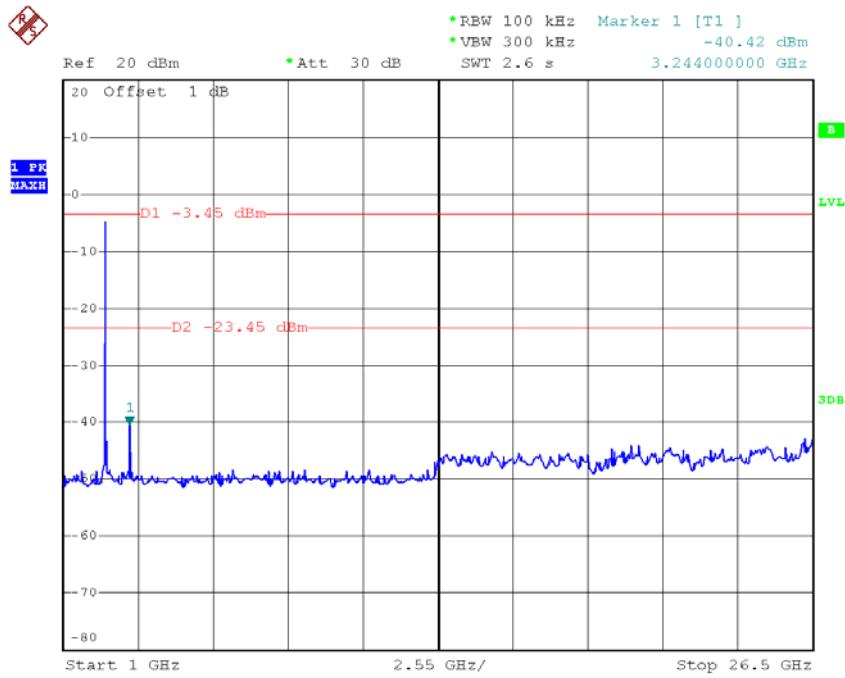


## TX HT40 mode CH09 (30MHz to 1000MHz)



Date: 5.MAY.2014 14:37:28

## TX HT40 mode CH09 (1000MHz to 10<sup>th</sup> Harmonic)



Date: 5.MAY.2014 14:37:46

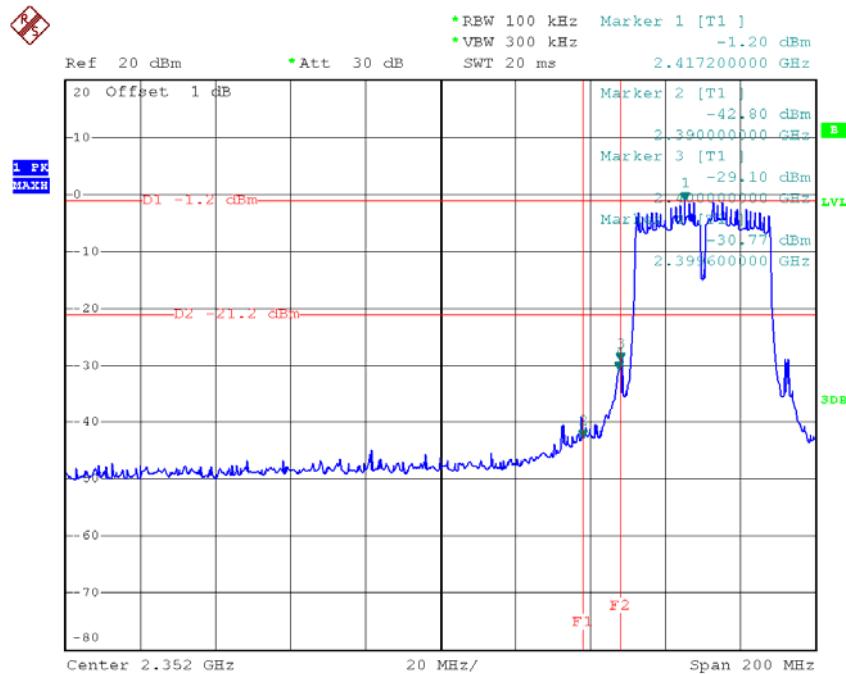


**Neutron Engineering Inc.**

<b>Test Mode :</b>	<b>TX N-40M Mode_ANT 2</b>
--------------------	----------------------------

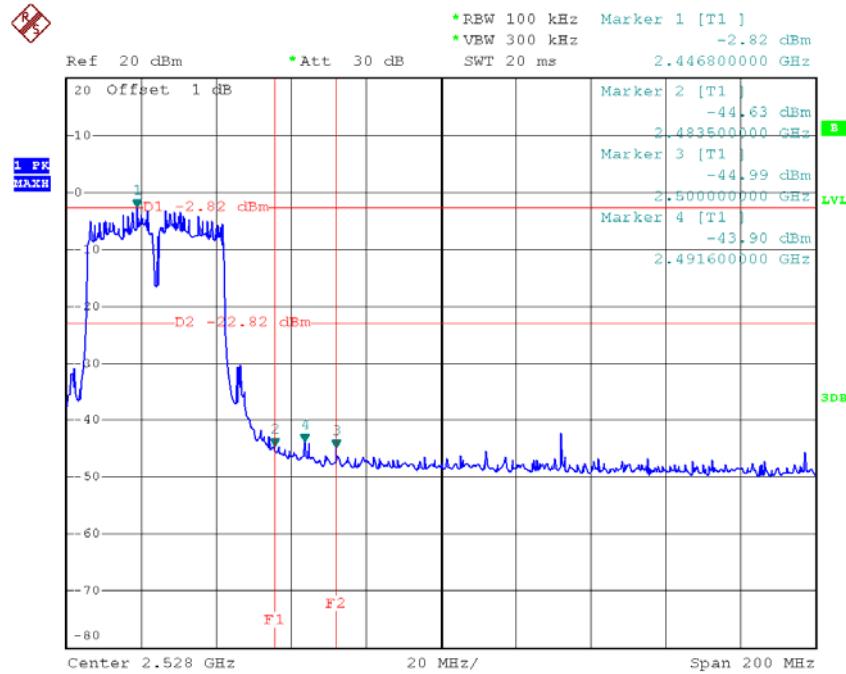


## TX HT40 mode CH03



Date: 5.MAY.2014 14:21:10

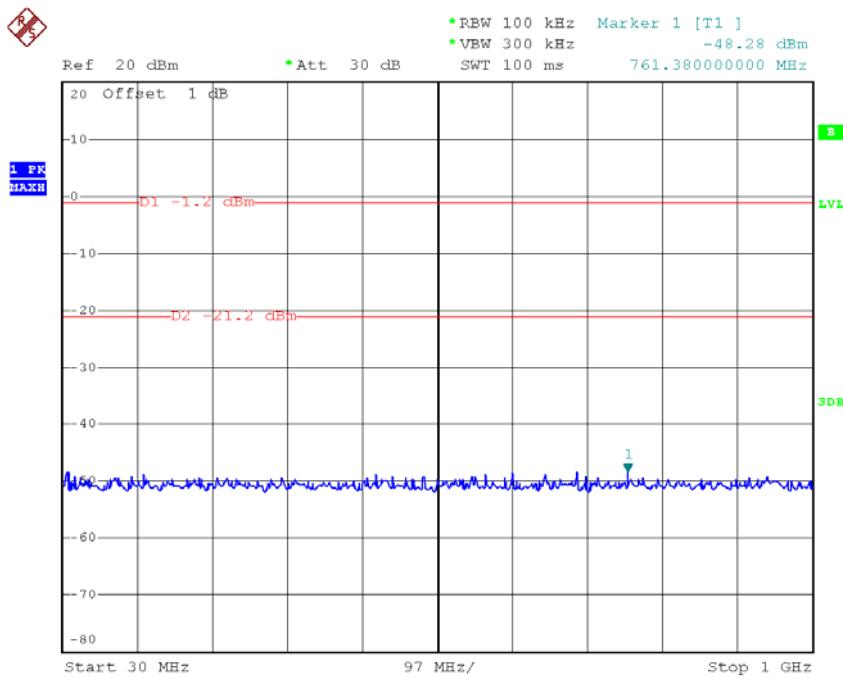
## TX HT40 mode CH09



Date: 5.MAY.2014 14:27:21

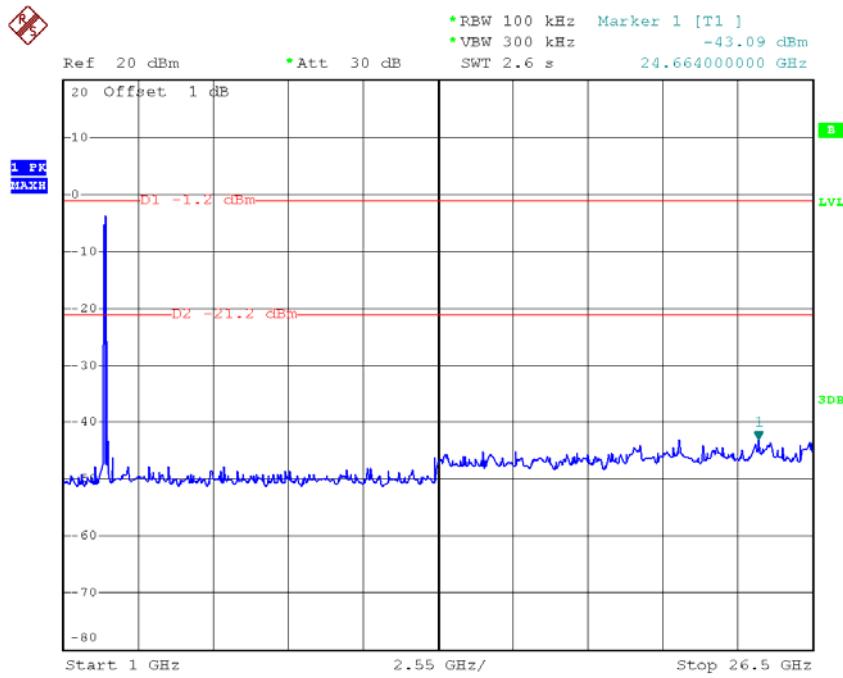


## TX HT40 mode CH03 (30MHz to 1000MHz)



Date: 5.MAY.2014 14:21:31

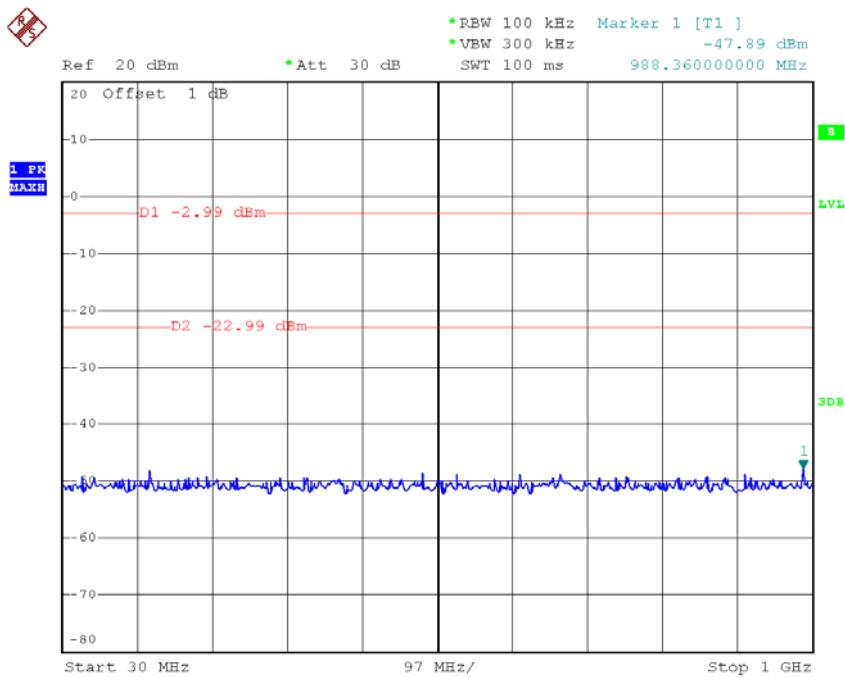
## TX HT40 mode CH03 (1000MHz to 10<sup>th</sup> Harmonic)



Date: 5.MAY.2014 14:21:45

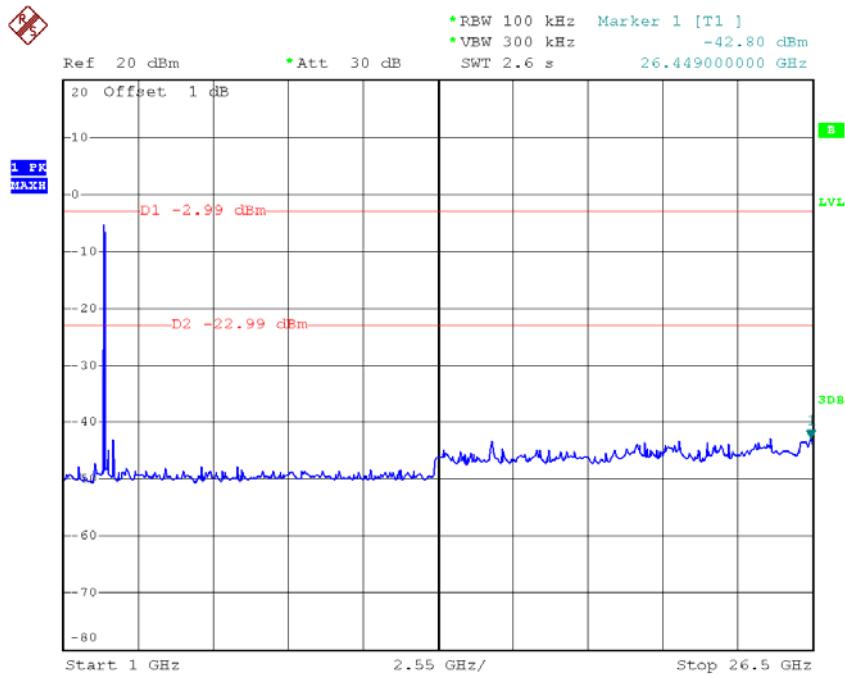


## TX HT40 mode CH06 (30MHz to 1000MHz)



Date: 5.MAY.2014 14:24:54

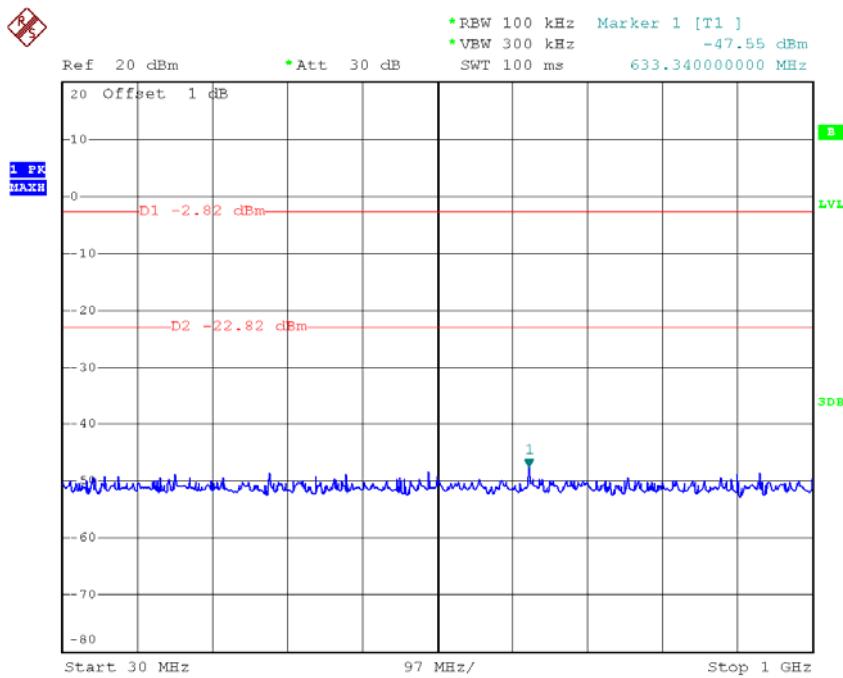
## TX HT40 mode CH06 (1000MHz to 10<sup>th</sup> Harmonic)



Date: 5.MAY.2014 14:25:25

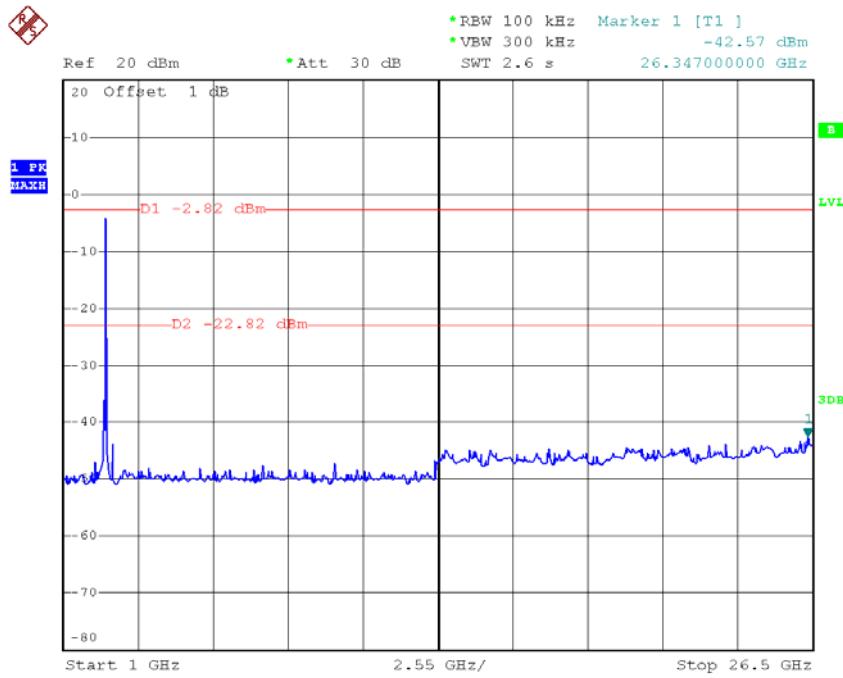


## TX HT40 mode CH09 (30MHz to 1000MHz)



Date: 5.MAY.2014 14:27:35

## TX HT40 mode CH09 (1000MHz to 10<sup>th</sup> Harmonic)



Date: 5.MAY.2014 14:27:56



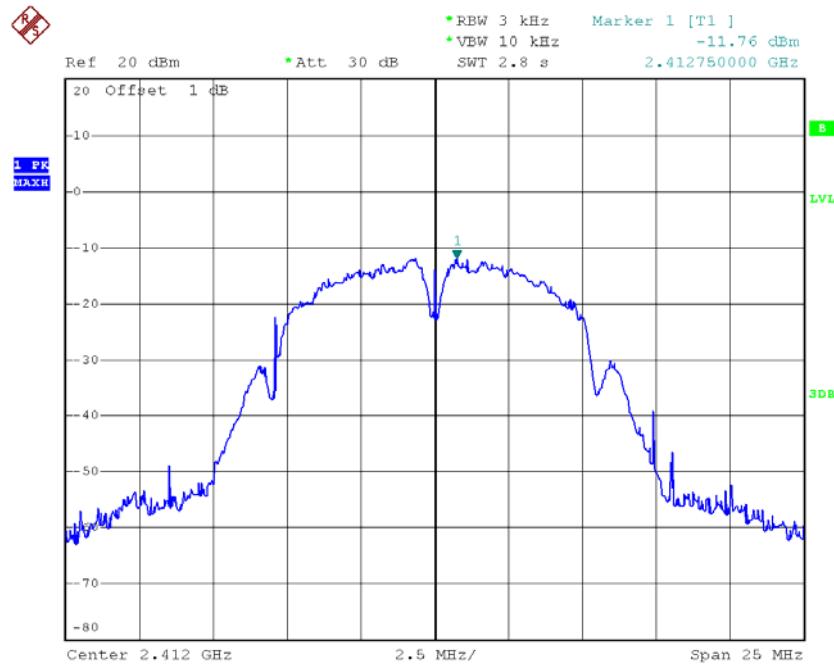
**Neutron Engineering Inc.**

## **ATTACHMENT H - POWER SPECTRAL DENSITY**



Test Mode :TX B Mode\_CH01/06/11

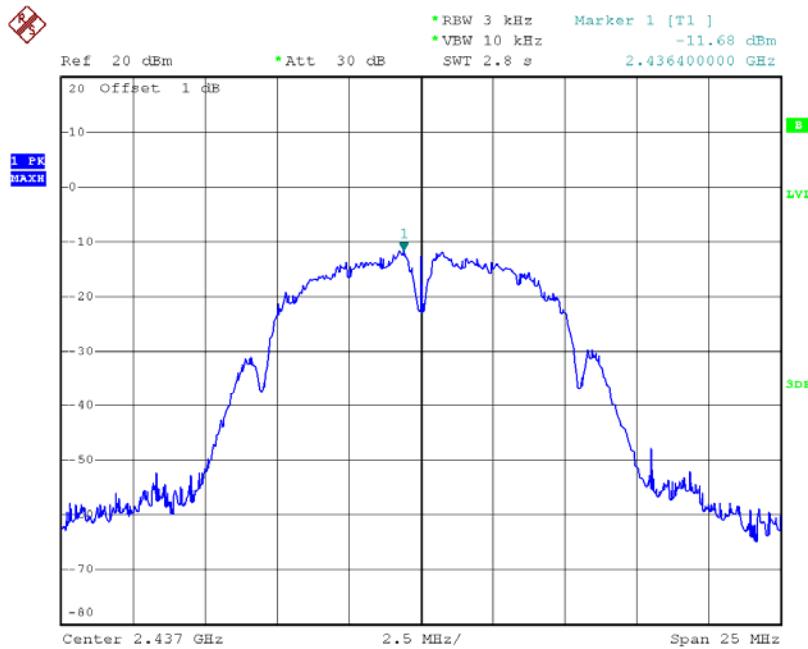
TX CH01



Date: 5.MAY.2014 12:08:23

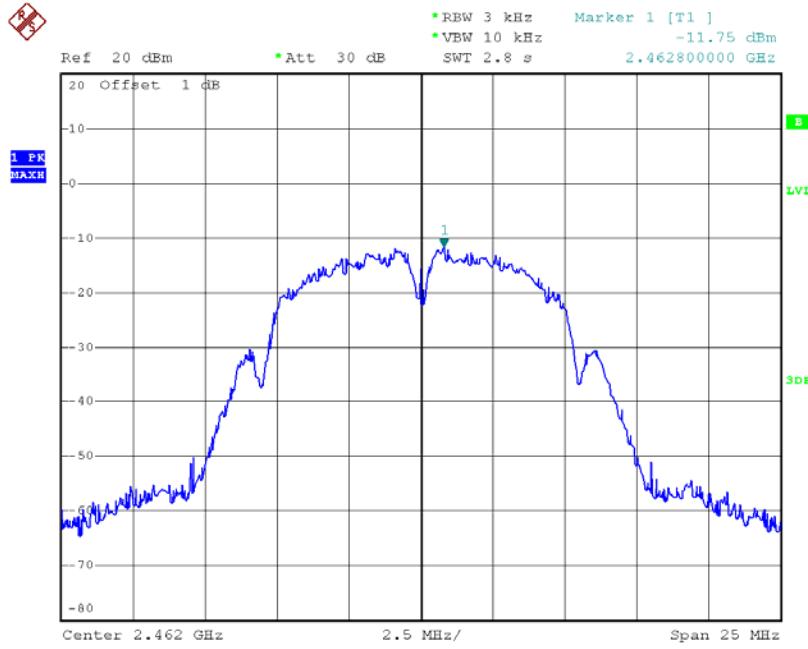


**TX CH06**



Date: 5.MAY.2014 12:19:02

**TX CH11**

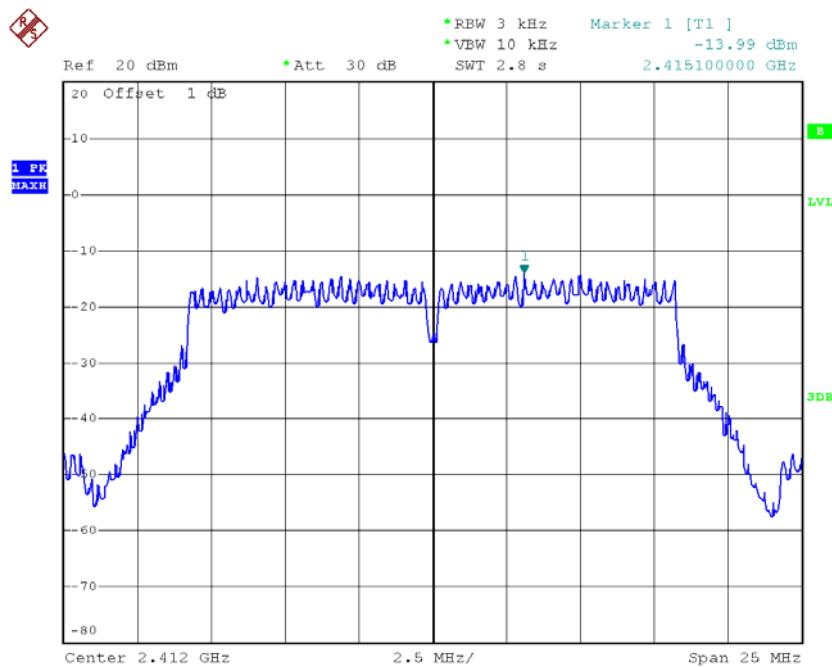


Date: 5.MAY.2014 12:18:42



**Test Mode :TX G Mode\_CH01/06/11**

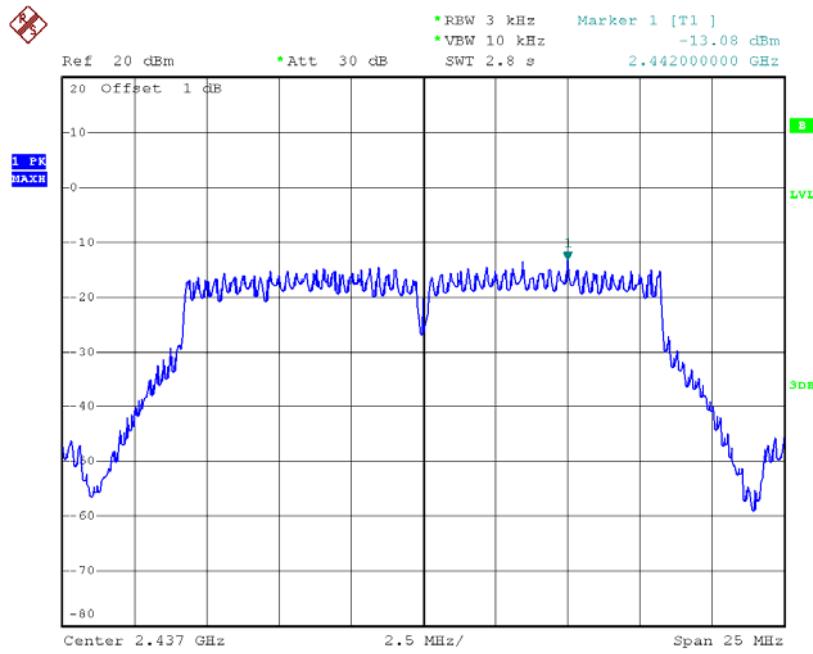
**TX CH01**



Date: 5.MAY.2014 13:50:57

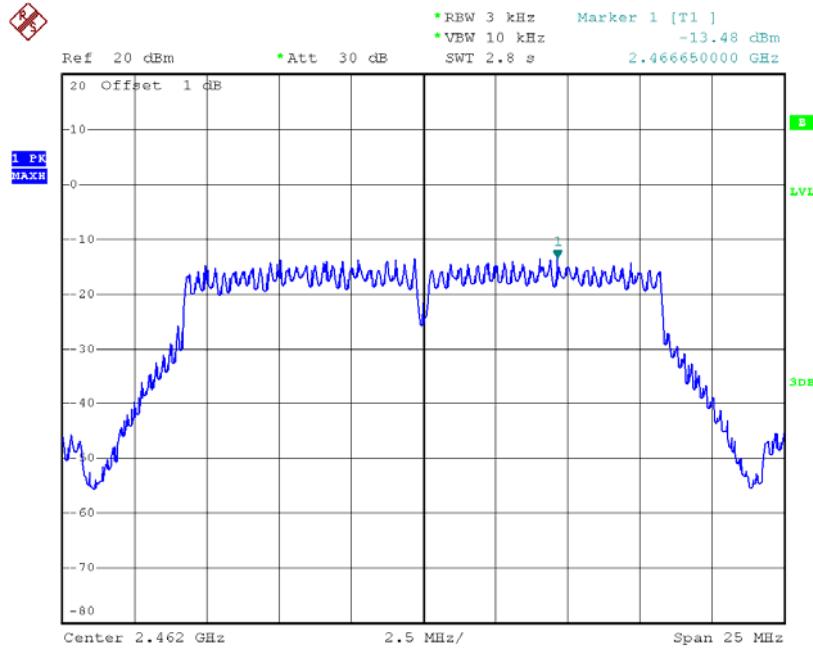


## TX CH06



Date: 5.MAY.2014 13:49:17

## TX CH11

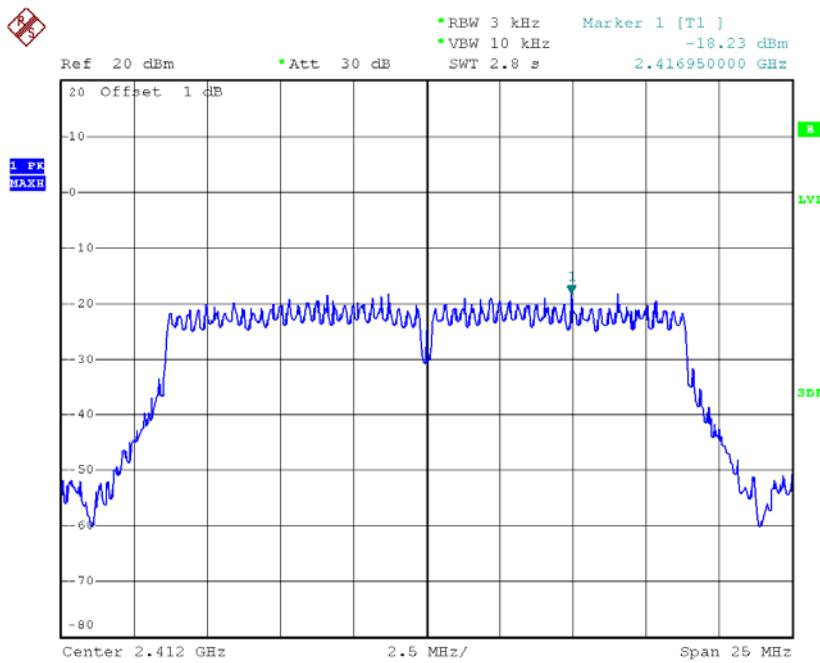


Date: 5.MAY.2014 13:53:22



**Test Mode : TX N-20M Mode\_CH01/06/11\_ANT 1**

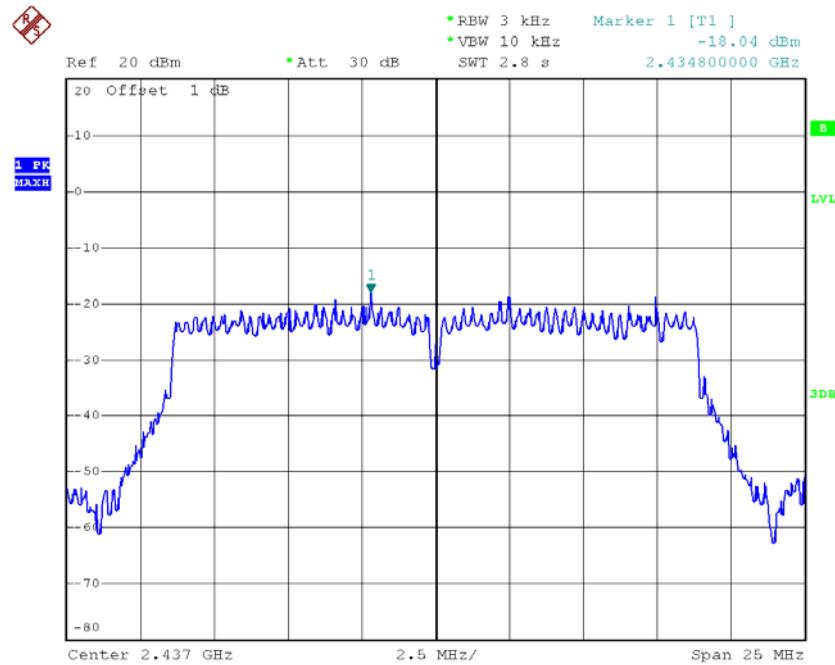
**TX CH01**



Date: 5.MAY.2014 14:09:09

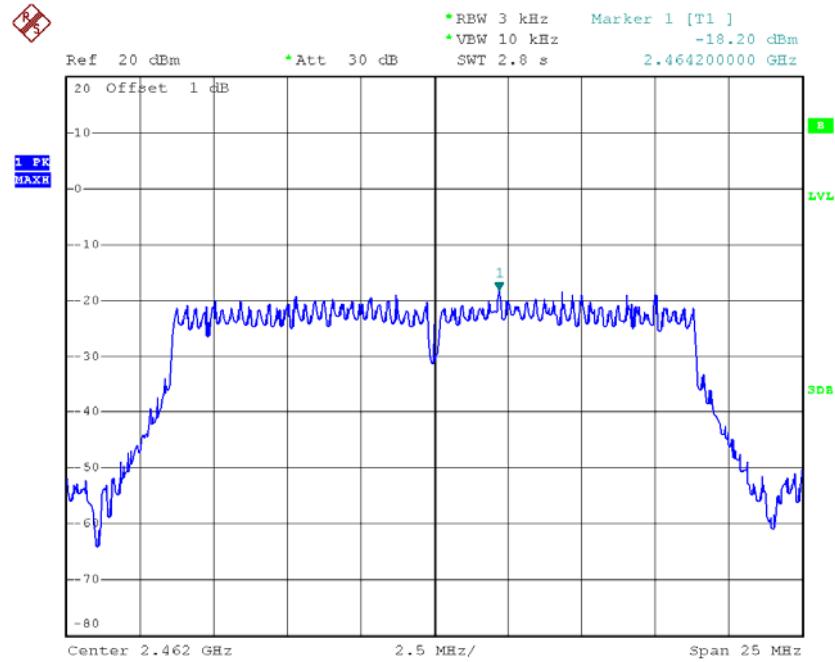


### TX CH06



Date: 5.MAY.2014 14:08:20

### TX CH11

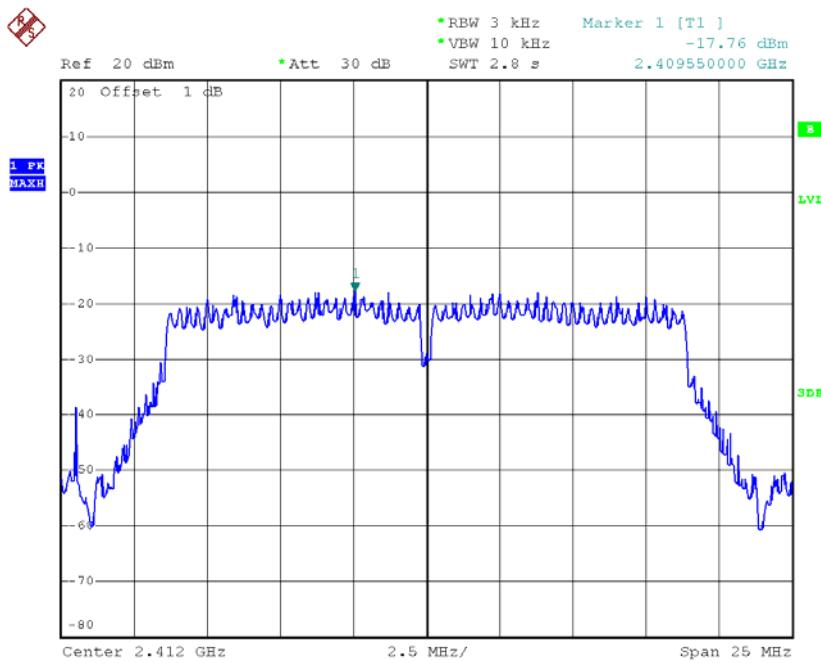


Date: 5.MAY.2014 14:07:51



**Test Mode : TX N-20M Mode\_CH01/06/11\_ANT 2**

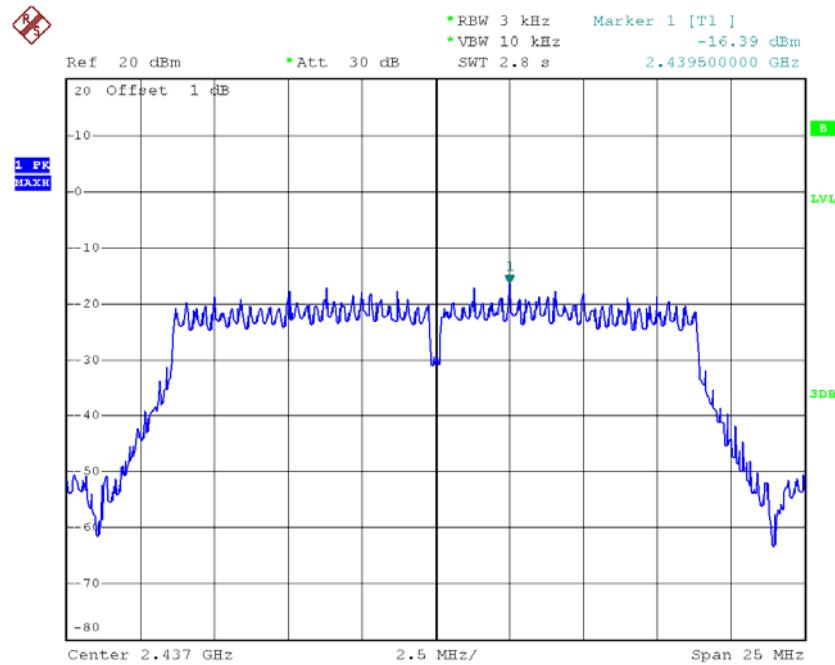
**TX CH01**



Date: 5.MAY.2014 14:10:35

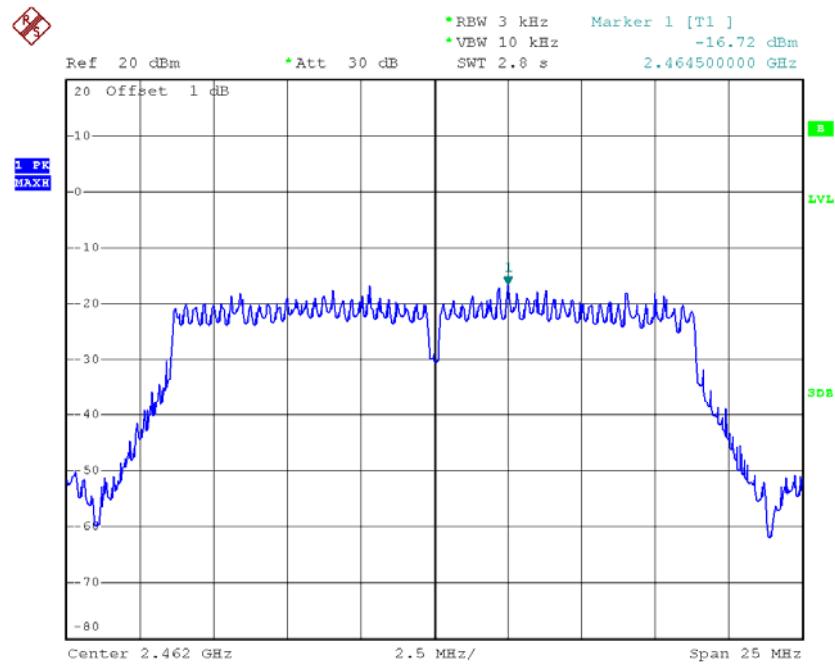


**TX CH06**



Date: 5.MAY.2014 14:12:34

**TX CH11**



Date: 5.MAY.2014 14:12:58



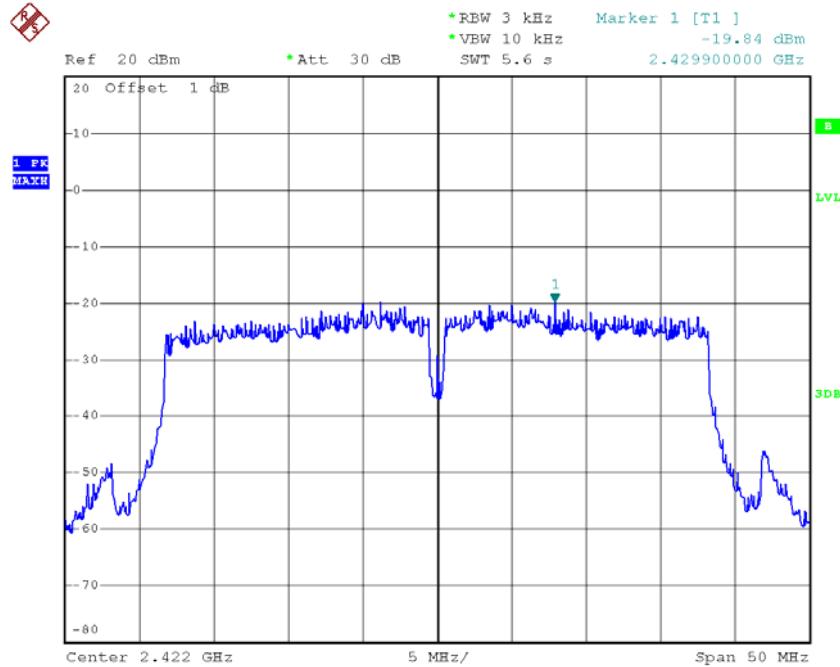
**Test Mode : TX N-20M Mode\_CH01/06/11\_Total**

Test Channel	Frequency (MHz)	Power Density (dBm)	Limit (dBm)
CH01	2412	-14.98	8
CH06	2437	-14.13	8
CH11	2462	-14.39	8



**Test Mode : TX N-40M Mode\_CH03/06/09\_ANT 1**

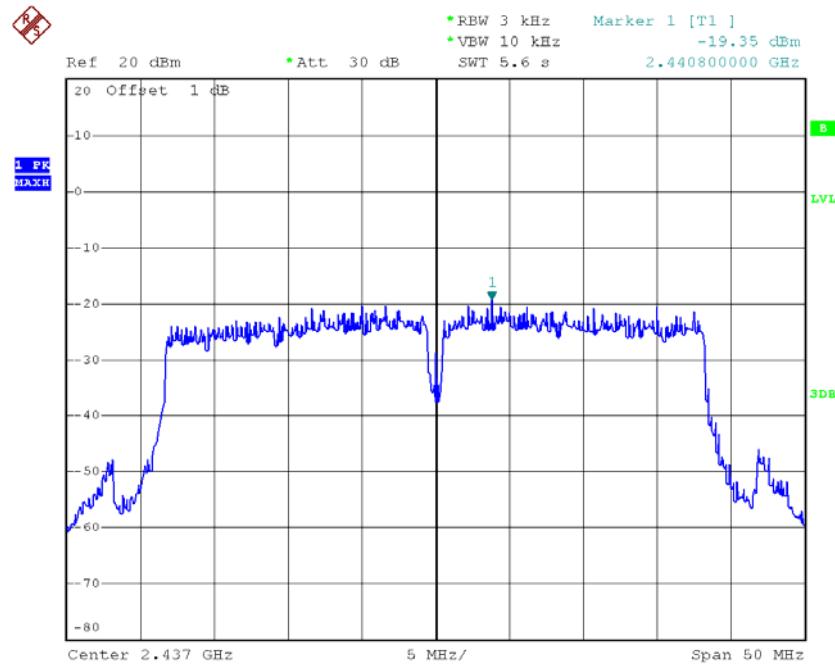
**TX CH03**



Date: 5.MAY.2014 14:32:32

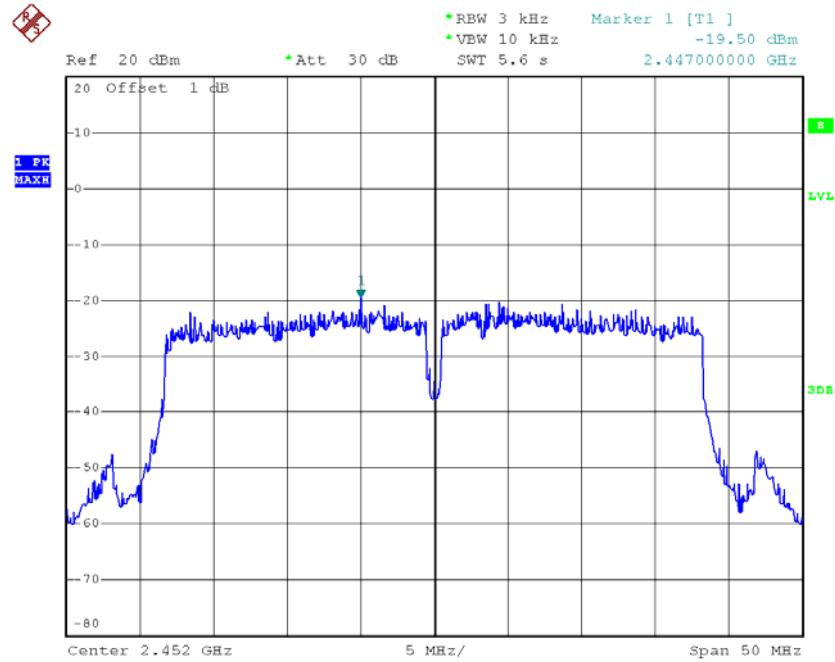


## TX CH06



Date: 5.MAY.2014 14:35:07

## TX CH09

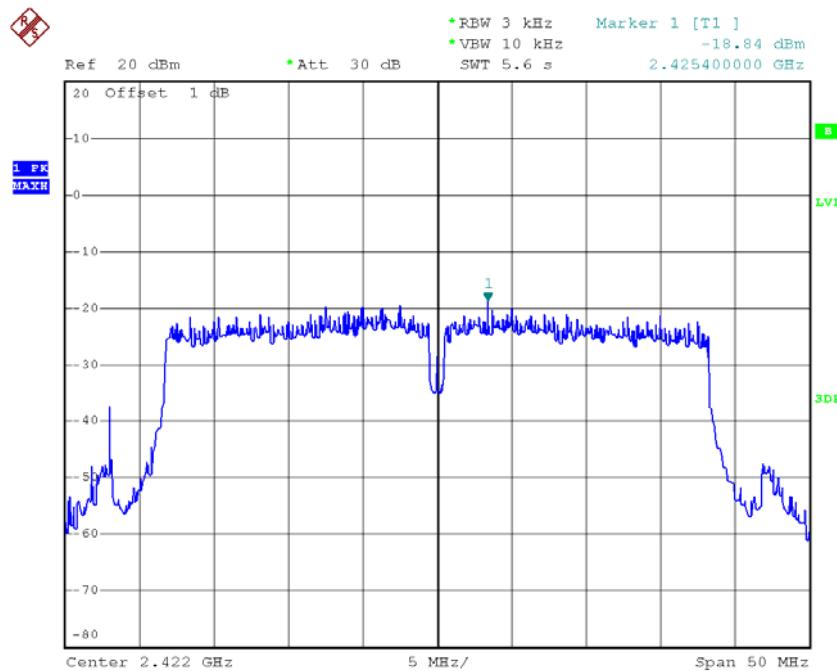


Date: 5.MAY.2014 14:35:23



**Test Mode : TX N-40M Mode\_CH03/06/09\_ANT 2**

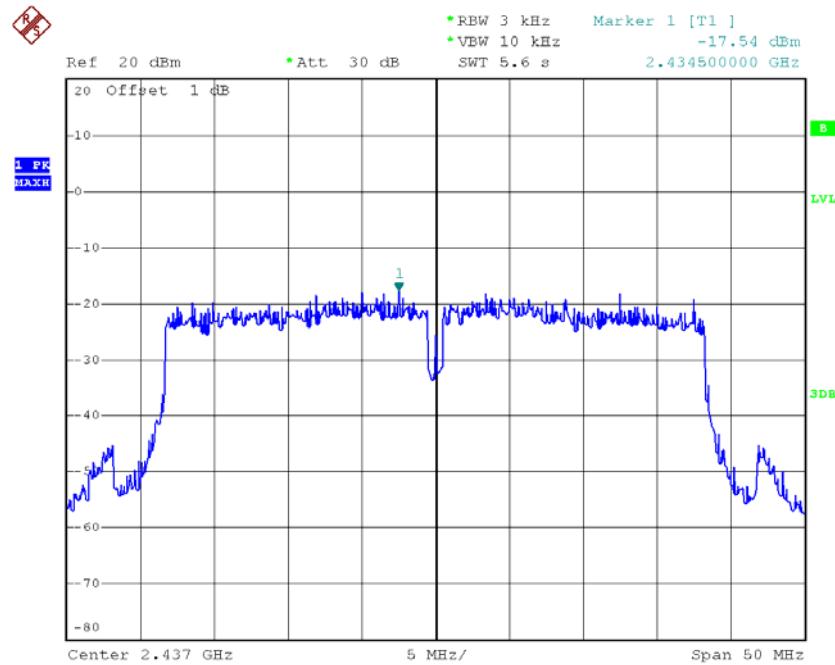
**TX CH03**



Date: 5.MAY.2014 14:30:15

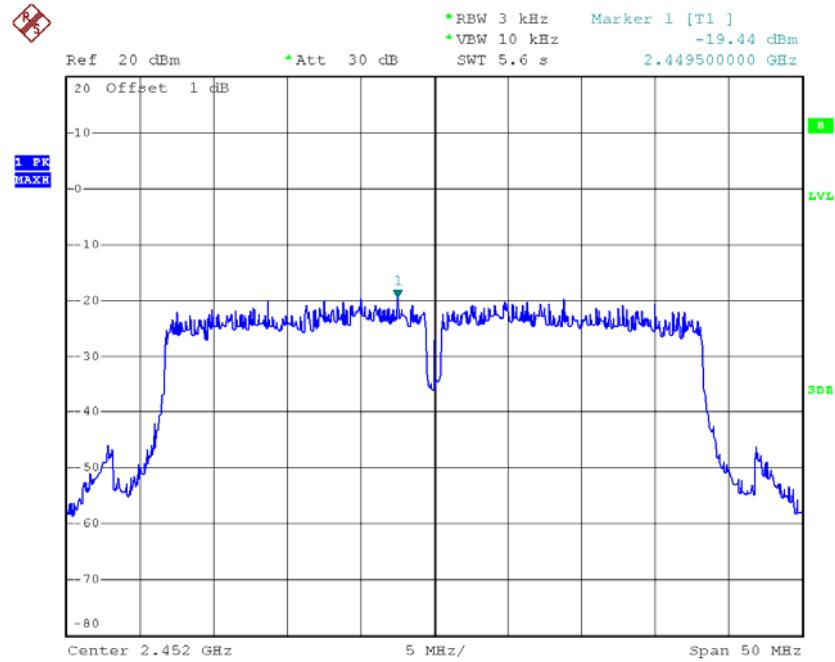


## TX CH06



Date: 5.MAY.2014 14:29:54

## TX CH09



Date: 5.MAY.2014 14:29:35



<b>Test Mode : TX N-40M Mode_CH03/06/09_Total</b>			
Test Channel	Frequency (MHz)	Power Density (dBm)	Limit (dBm)
CH03	2422	-16.30	8
CH06	2437	-15.34	8
CH09	2452	-16.46	8