

FCC Radio Test Report

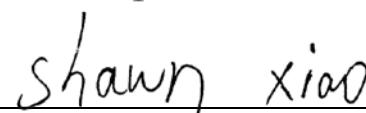
FCC ID: 2ACGV-CA1300

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

Project No. : 1709C169
Equipment : Stellé Smart Pillar
Test Model : ST1007
Applicant : Eastech Electronics(Hui Yang)Co.,Ltd
Address : Dong Feng District, Xinxu, HuiYang, Huizhou, Guangdong,China

Date of Receipt : Sep. 18, 2017
Date of Test : Sep. 18, 2017 ~ Nov. 01, 2017
Issued Date : Nov. 02, 2017
Tested by : BTL Inc.

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

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REPORT ISSUED HISTORY

Issued No.	Description	Issued Date
BTL-FCCP-2-1709C169	Original Issue.	Nov. 02, 2017

1. CERTIFICATION

Equipment : Stellé Smart Pillar
Brand Name : Stellé
Test Model : ST1007
Applicant : Eastech Electronics(Hui Yang)Co.,Ltd
Manufacturer : Stellé,LLC.
Address : 419 30th Street,Newport Beach,California,USA 92663
Factory : Eastech Electronics(Hui Yang)Co.,Ltd
Address : Dong Feng District,Xinxu,HuiYang,Huizhou,Guangdong,China
Date of Test : Sep. 18, 2017 ~ Nov. 01, 2017
Test Sample : Engineering Sample
Standard(s) : FCC Part15, Subpart C:(15.247) / ANSI C63.10-2013

The above equipment has been tested and found compliance with the requirement of the relative standards by BTL Inc.

The test data, data evaluation, and equipment configuration contained in our test report (Ref No. BTL-FCCP-2-1709C169) were obtained utilizing the test procedures, test instruments, test sites that has been accredited by the Authority of NVLAP 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	Remark
15.207	Conducted Emission	PASS	
15.247(d)	Antenna conducted Spurious Emission	PASS	
15.247(a)(2)	6dB Bandwidth	PASS	
15.247(b)(3)	Peak Output Power	PASS	
15.247(e)	Power Spectral Density	PASS	
15.203	Antenna Requirement	PASS	
15.247(d)/ 15.205/ 15.209	Transmitter Radiated Emissions	PASS	

NOTE:

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

2.1 TEST FACILITY

The test facilities used to collect the test data in this report is at the location of No.3,Jinshagang 1st Road, Shixia, Dalang Town, Dongguan, Guangdong, China.

BTL's test firm number for FCC: 854385

BTL's designation number for FCC: CN5020

2.2 MEASUREMENT UNCERTAINTY

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

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

A. Conducted Measurement:

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

B. Radiated Measurement:

Test Site	Method	Measurement Frequency Range	Ant. H / V	U , (dB)
DG-CB03	CISPR	9KHz~30MHz	V	3.79
		9KHz~30MHz	H	3.57
		30MHz ~ 200MHz	V	3.82
		30MHz ~ 200MHz	H	3.78
		200MHz ~ 1,000MHz	V	4.10
		200MHz ~ 1,000MHz	H	4.06
		1GHz~18GHz	V	3.12
		1GHz~18GHz	H	3.68
		18GHz~40GHz	V	4.15
		18GHz~40GHz	H	4.14

Note: Unless specifically mentioned, the uncertainty of measurement has not been taken into account to declare the compliance or non-compliance to the specification.

3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

Equipment	Stellé Smart Pillar		
Brand Name	stellé		
Test Model	ST1007		
Model Difference	N/A		
Product Description	Operation Frequency		2412~2462 MHz
	Modulation Technology		802.11b:DSSS 802.11g:OFDM 802.11n:OFDM
	Bit Rate of Transmitter		802.11b: 11/5.5/2/1 Mbps 802.11g: 54/48/36/24/18/12/9/6 Mbps 802.11n up to 300 Mbps
	Output Power (Max.)		802.11b: 20.96dBm 802.11g: 25.01dBm 802.11n(20MHz): 26.72dBm
Power Source	DC voltage supplied from AC/DC adapter. Brand / Model: DYS / DYS624-090300W-K		
Power Rating	Input: 100-240Vac 50/60Hz 0.8A MAX Output: 9.0Vdc 3.0A		

Note:

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

2. Channel List:

CH01 - CH11 for 802.11b, 802.11g, 802.11n(20MHz)							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
01	2412	04	2427	07	2442	10	2457
02	2417	05	2432	08	2447	11	2462
03	2422	06	2437	09	2452		

3. Table for Filed Antenna

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	N/A	N/A	PCB	N/A	3.6
2	N/A	N/A	PCB	N/A	4.4

Note:

1. The EUT incorporates a MIMO function. Physically, the EUT provides two completed two transmitters and two receivers (2T2R). all transmit signals are completely correlated, then, Direction gain = $10 \log[(10^{G1/20} + 10^{G2/20})^2/N]$, that is
Directional gain= $10 \log[(10^{3.6/20} + 10^{4.4/20})^2/2] = 7.02\text{dBi}$
2. The Output Power limit is $30-7.02+6 = 29.98\text{ dBm}$
3. The PSD limit is $8-7.02+6 = 6.98\text{ dBm}$

4.

Operating Mode TX Mode	1TX	2TX
802.11b	V (ANT 1)	-
802.11g	V (ANT 1)	-
802.11n(20MHz)	-	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	Normal Link

The EUT system operated these modes were found to be the worst case during the pre-scanning test as following:

For Conducted Test	
Final Test Mode	Description
Mode 5	Normal Link

For Radiated Test	
Final Test Mode	Description
Mode 1	TX B MODE CHANNEL 01/06/11
Mode 2	TX G MODE CHANNEL 01/06/11
Mode 3	TX N-20MHZ MODE CHANNEL 01/06/11

For Band Edge Test	
Final Test Mode	Description
Mode 1	TX B MODE CHANNEL 01/06/11
Mode 2	TX G MODE CHANNEL 01/06/11
Mode 3	TX N-20MHZ MODE CHANNEL 01/06/11

6dB Spectrum Bandwidth	
Final Test Mode	Description
Mode 1	TX B MODE CHANNEL 01/06/11
Mode 2	TX G MODE CHANNEL 01/06/11
Mode 3	TX N-20MHZ MODE CHANNEL 01/06/11

Maximum Conducted Output Power	
Final Test Mode	Description
Mode 1	TX B MODE CHANNEL 01/06/11
Mode 2	TX G MODE CHANNEL 01/06/11
Mode 3	TX N-20MHZ MODE CHANNEL 01/06/11

Power Spectral Density	
Final Test Mode	Description
Mode 1	TX B MODE CHANNEL 01/06/11
Mode 2	TX G MODE CHANNEL 01/06/11
Mode 3	TX N-20MHZ MODE CHANNEL 01/06/11

Note:

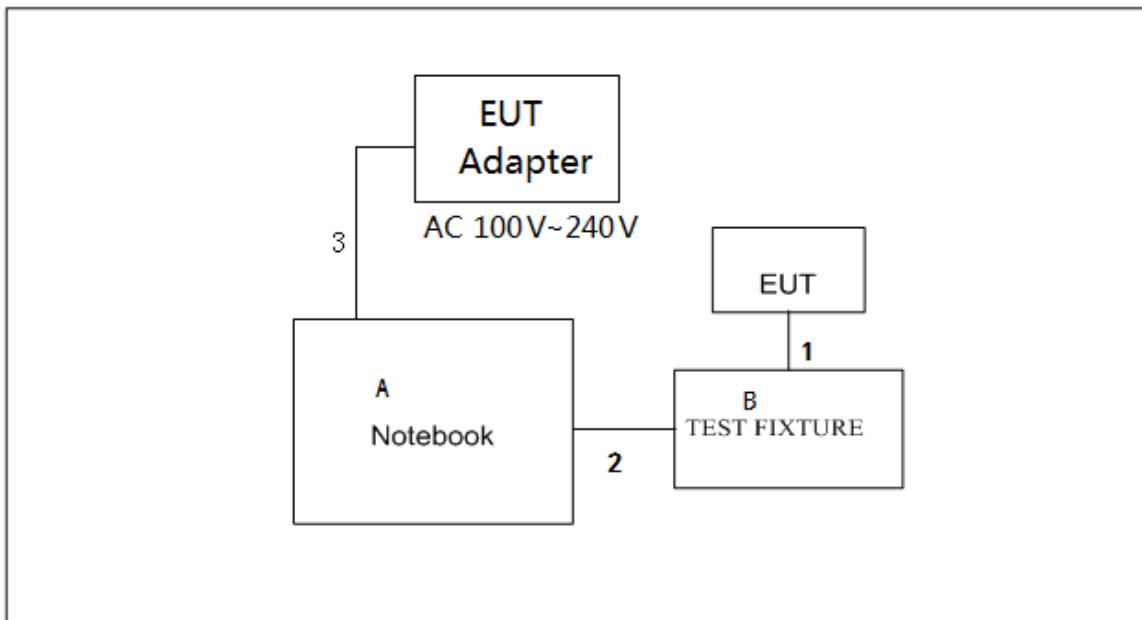
- (1) The measurements are performed at the high, middle, low available channels.
- (2) 802.11b mode: DBPSK (1Mbps)
 802.11g mode: OFDM (6Mbps)
 802.11n HT20 mode : BPSK (13Mbps)
- For radiated emission tests, the highest output powers were set for final test.
- (3) For radiated below 1G test, the 802.11b is found to be the worst case and recorded.
- (4) The EUT was programmed to be in continuously transmitting mode and the transmit duty cycle is not less than 98%.

3.3 TABLE OF PARAMETERS OF TEXT SOFTWARE SETTING

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

Test software version	N/A		
Frequency (MHz)	2412	2437	2462
802.11b	3	3	3
802.11g	5	5	5
802.11n (20MHz)	3	5	8

3.4 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



3.5 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Mfr/Brand	Model/Type No.	FCC ID	Series No.
A	Notebook	Dell 745	DCSM	DOC	G7K832X
B	Test Fixture	N/A	N/A	N/A	N/A

Item	Shielded Type	Ferrite Core	Length	Note
1	NO	NO	0.5m	Date Cable
2	YES	YES	0.1m	Test Fixture Cable
3	NO	NO	1m	USB Cable

4. EMC EMISSION TEST

4.1 CONDUCTED EMISSION MEASUREMENT

4.1.1 POWER LINE CONDUCTED EMISSION LIMITS (Frequency Range 150KHz-30MHz)

Frequency of Emission (MHz)	Conducted Limit (dB μ V)	
	Quasi-peak	Average□
0.15 -0.50	66 to 56*	56 to 46*
0.50 -5.0	56	46
5.0 -30.0	60	50

Note:

(1) The limit of " * " decreases with the logarithm of the frequency

(2) The test result calculated as following:

Measurement Value = Reading Level + Correct Factor

Correct Factor = Insertion Loss + Cable Loss + Attenuator Factor(if use)

Margin Level = Measurement Value - Limit Value

The following table is the setting of the receiver

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

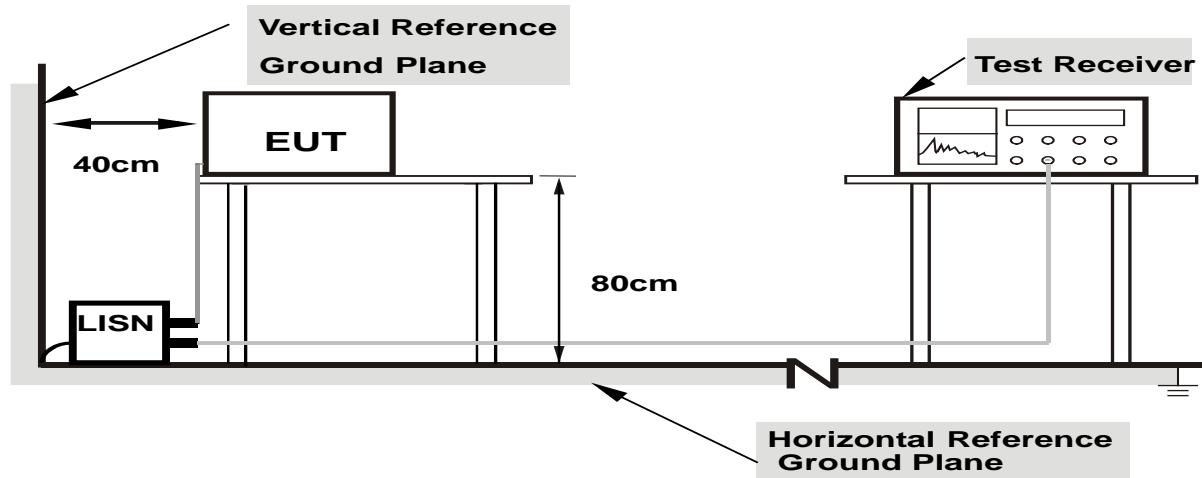
4.1.2 TEST PROCEDURE

- 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 equipment powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- 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.
- 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.
- LISN at least 80 cm from nearest part of EUT chassis.
- 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 placed on the test table and programmed in normal function.

4.1.6 EUT TEST CONDITIONS

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

4.1.7 TEST RESULTS

Please refer to the Appendix A.

4.2 RADIATED EMISSION MEASUREMENT

4.2.1 RADIATED EMISSION LIMITS

In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

LIMITS OF RADIATED EMISSION MEASUREMENT (9KHz-1000MHz)

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
960~1000	500	3

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000MHz)

Frequency (MHz)	(dBuV/m) (at 3 meters)	
	PEAK	AVERAGE
Above 1000	74	54

Notes:

- (1) The limit for radiated test was performed according to FCC PART 15C.
- (2) The tighter limit applies at the band edges.
- (3) Emission level (dBuV/m)=20log Emission level (uV/m).
- (4) The test result calculated as following:
 Measurement Value = Reading Level + Correct Factor
 Correct Factor = Antenna Factor + Cable Loss - Amplifier Gain(if use)
 Margin Level = Measurement Value - Limit Value

Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic
RBW / VBW (Emission in restricted band)	1MHz / 3MHz for Peak, 1MHz / 1/T for Average

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

4.2.2 TEST PROCEDURE

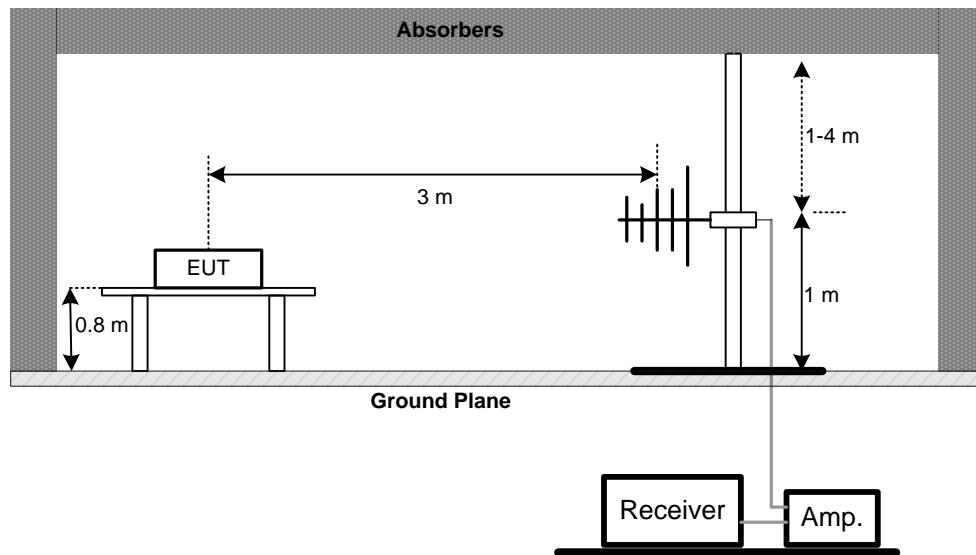
- The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(below 1GHz)
- The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 1.5 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(above 1GHz)
- The height of the equipment or of the substitution antenna shall be 0.8m or 1.5m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights find the maximum reading (used Bore sight function).
- The receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1GHz.
- The initial step in collecting radiated emission data is a receiver peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- All readings are Peak unless otherwise stated QP in column of Note. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform. (below 1GHz)
- All readings are Peak Mode value unless otherwise stated AVG in column of Note. If the Peak Mode Measured value compliance with the Peak Limits and lower than AVG Limits, the EUT shall be deemed to meet both Peak & AVG Limits and then only Peak Mode was measured, but AVG Mode didn't perform. (above 1GHz)
- For the actual test configuration, please refer to the related Item -EUT Test Photos.

4.2.3 DEVIATION FROM TEST STANDARD

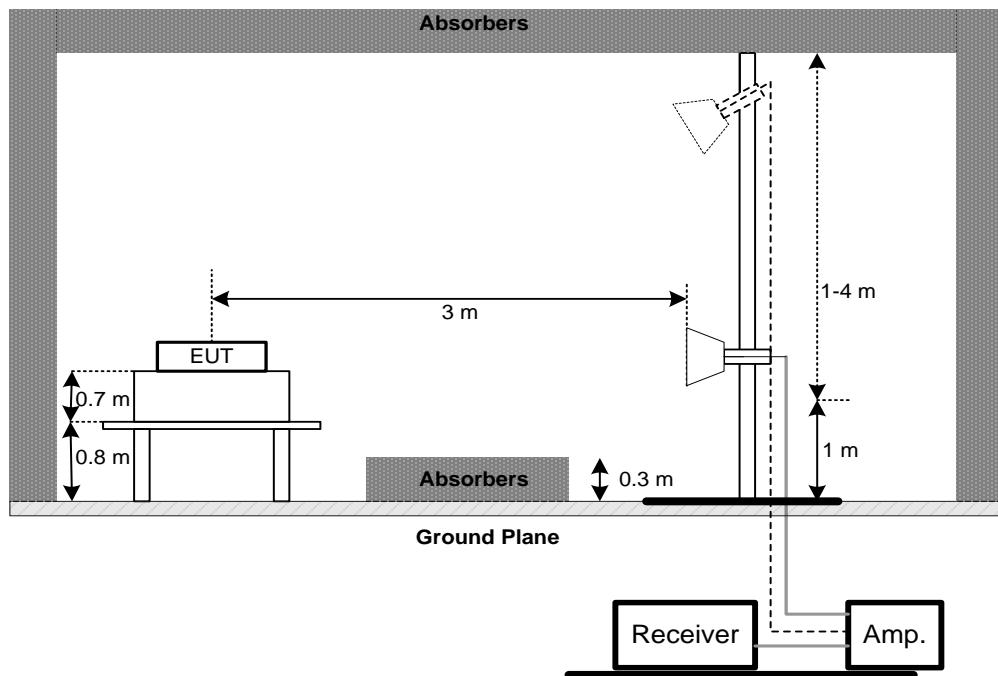
No deviation

4.2.4 TEST SETUP

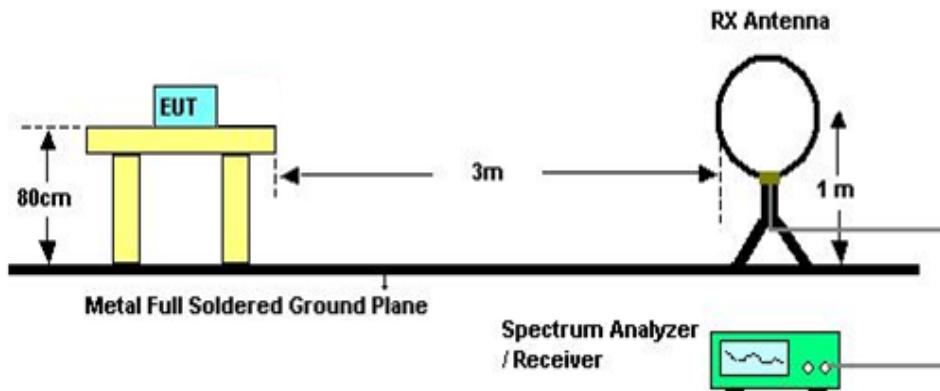
(A) Radiated Emission Test Set-Up Frequency Below 1 GHz



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



(C) For Radiated Emissions Below 30MHz

**4.2.5 EUT OPERATING CONDITIONS**

The EUT was programmed to be in continuously transmitting mode.

4.2.6 EUT TEST CONDITIONS

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

4.2.7 TEST RESULTS (9KHZ TO 30MHZ)

Please refer to the Appendix 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_{UV}) + distance extrapolation factor.

4.2.8 TEST RESULTS (30MHZ TO 1000MHZ)

Please refer to the Appendix C.

4.2.9 TEST RESULTS (ABOVE 1000MHZ)

Please refer to the Appendix D.

Remark:

- (1) No limit: This is fundamental signal, the judgment is not applicable.
For fundamental signal judgment was referred to Peak output test.

5. BANDWIDTH TEST

5.1 APPLIED PROCEDURES

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

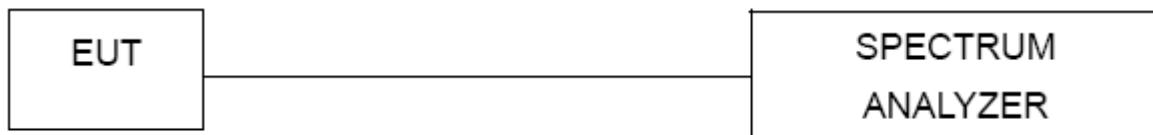
5.1.1 TEST PROCEDURE

- 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 was programmed to be in continuously transmitting mode.

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 Appendix E.

6. MAXIMUM PEAK CONDUCTED OUTPUT POWER TEST

6.1 APPLIED PROCEDURES / LIMIT

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

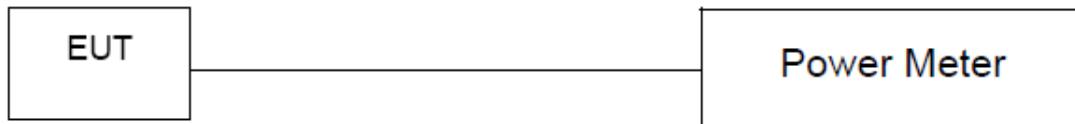
6.1.1 TEST PROCEDURE

- 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 9.1.2 of FCC KDB 558074 D01 DTS Meas Guidance and FCC KDB 662911 D01 Multiple Transmitter Output.

6.1.2 DEVIATION FROM STANDARD

No deviation.

6.1.3 TEST SETUP



6.1.4 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

6.1.5 EUT TEST CONDITIONS

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

6.1.6 TEST RESULTS

Please refer to the Appendix F.

7. ANTENNA CONDUCTED SPURIOUS EMISSION

7.1 APPLIED PROCEDURES / LIMIT

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided that the transmitter demonstrates compliance with the peak conducted power limits.

7.1.1 TEST PROCEDURE

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

7.1.2 DEVIATION FROM STANDARD

No deviation.

7.1.3 TEST SETUP



7.1.4 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

7.1.5 EUT TEST CONDITIONS

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

7.1.6 TEST RESULTS

Please refer to the Appendix 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

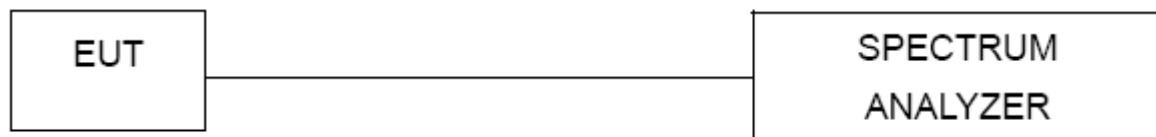
8.1.1 TEST PROCEDURE

- 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 was programmed to be in continuously transmitting mode.

8.1.5 EUT TEST CONDITIONS

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

8.1.6 TEST RESULTS

Please refer to the Appendix H.

9. MEASUREMENT INSTRUMENTS LIST

Conducted Emission					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	EMI Test Receiver	R&S	ESCI	100382	Mar. 26, 2018
2	LISN	EMCO	3816/2	52765	Mar. 26, 2018
3	50Ω Terminator	SHX	TF2-3G-A	8122901	Mar. 26, 2018
4	TWO-LINE V-NETWORK	R&S	ENV216	101447	Mar. 26, 2018
5	Cable	N/A	RG223	12m	Oct. 19, 2018
6	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A

Radiated Emission Below 1GHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Antenna	Schwarbeck	VULB9160	9160-3232	Mar. 26, 2018
2	Amplifier	HP	8447D	2944A09673	Oct. 19, 2018
3	Receiver	Agilent	N9038A	MY52130039	Sep. 03, 2018
4	Cable	emci	LMR-400(30MHz-1GHz)(8m+5m)	N/A	Jun. 26, 2018
5	Controller	CT	SC100	N/A	N/A
6	Controller	MF	MF-7802	MF780208416	N/A
7	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A

Radiated Emission Above 1GHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Double Ridged Guide Antenna	ETS	3115	75789	Mar. 26, 2018
2	Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	9170319	Jun. 08, 2018
3	Amplifier	Agilent	8449B	3008A02274	May. 16, 2018
4	Microwave Preamplifier With Adaptor	EMC INSTRUMENT	EMC2654045	980039 & HA01	Mar. 26, 2018
5	Receiver	Agilent	N9038A	MY52130039	Sep. 03, 2018
6	Antenna	EM	EM-6876-1	230	Jul. 07, 2018
7	Controller	CT	SC100	N/A	N/A
8	Controller	MF	MF-7802	MF780208416	N/A
9	Cable	emci	EMC104-SM-SM-1 2000(12m)	N/A	Jun. 26, 2018
10	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A

6dB Bandwidth					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP40	100185	Sep. 03, 2018

Peak Output Power					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Power Meter	ANRITSU	ML2495A	1128009	Mar. 26, 2018
2	Pulse Power Sensor	ANRITSU	MA 2411B	1027500	Mar. 26, 2018

Antenna Conducted Spurious Emission					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP40	100185	Sep. 03, 2018

Power Spectral Density					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP40	100185	Sep. 03, 2018

Remark: "N/A" denotes no model name, serial no. or calibration specified.

All calibration period of equipment list is one year.

10. EUT TEST PHOTO**Conducted Measurement Photos**

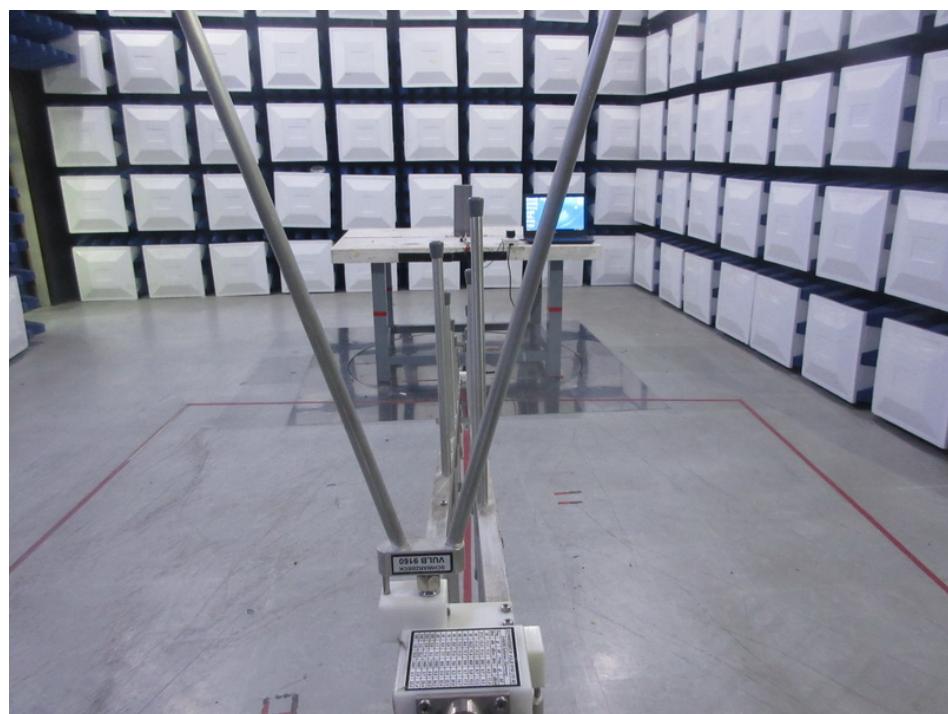
Radiated Measurement Photos

9KHz to 30MHz



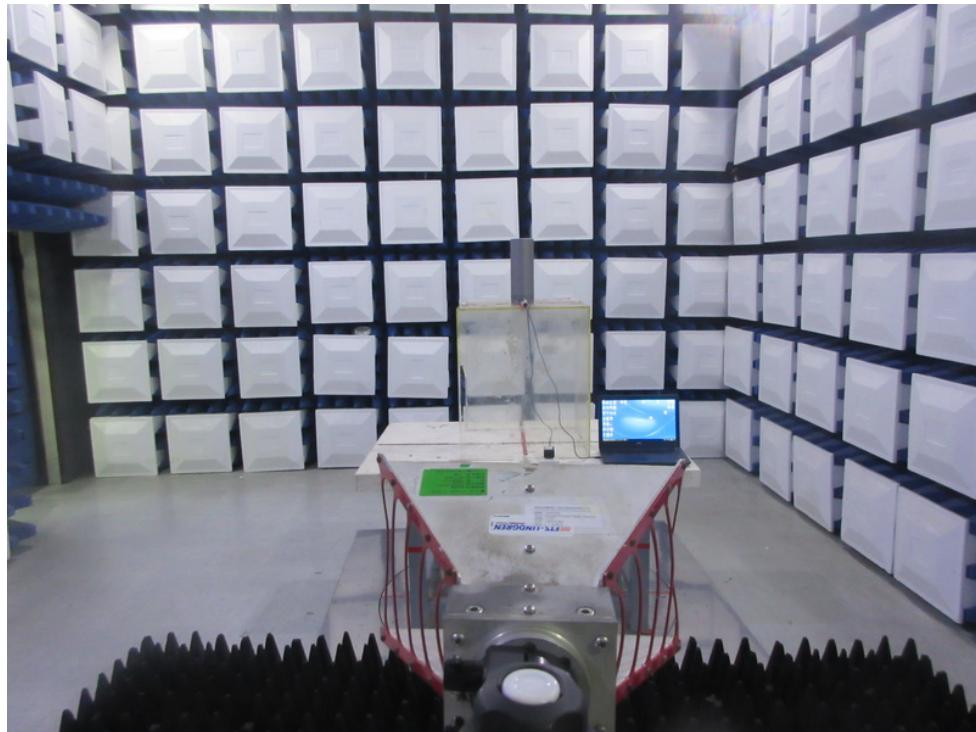
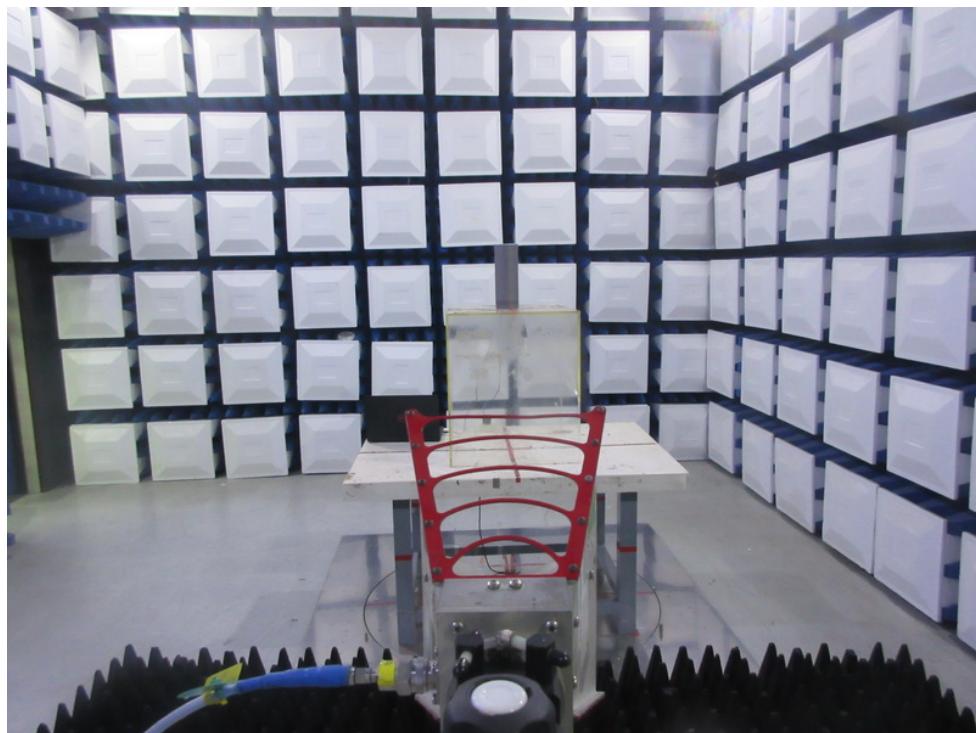
Radiated Measurement Photos

30MHz to 1000MHz



Radiated Measurement Photos

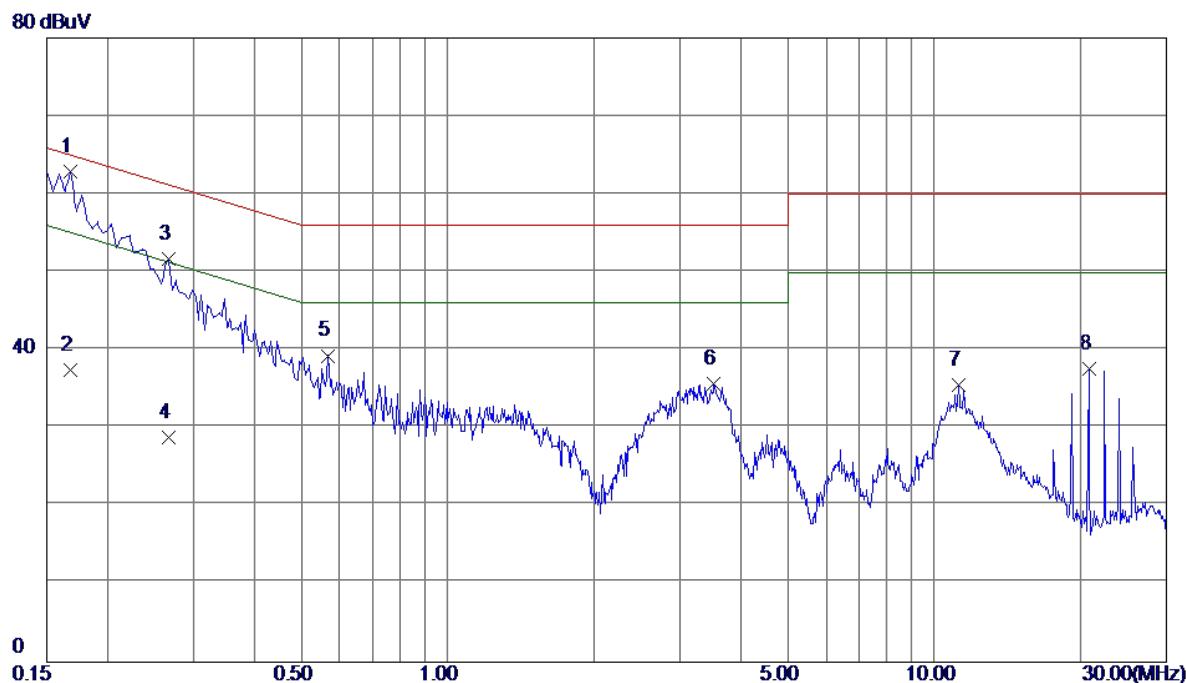
Above 1000MHz



APPENDIX A - CONDUCTED EMISSION

Test Mode : Normal Link

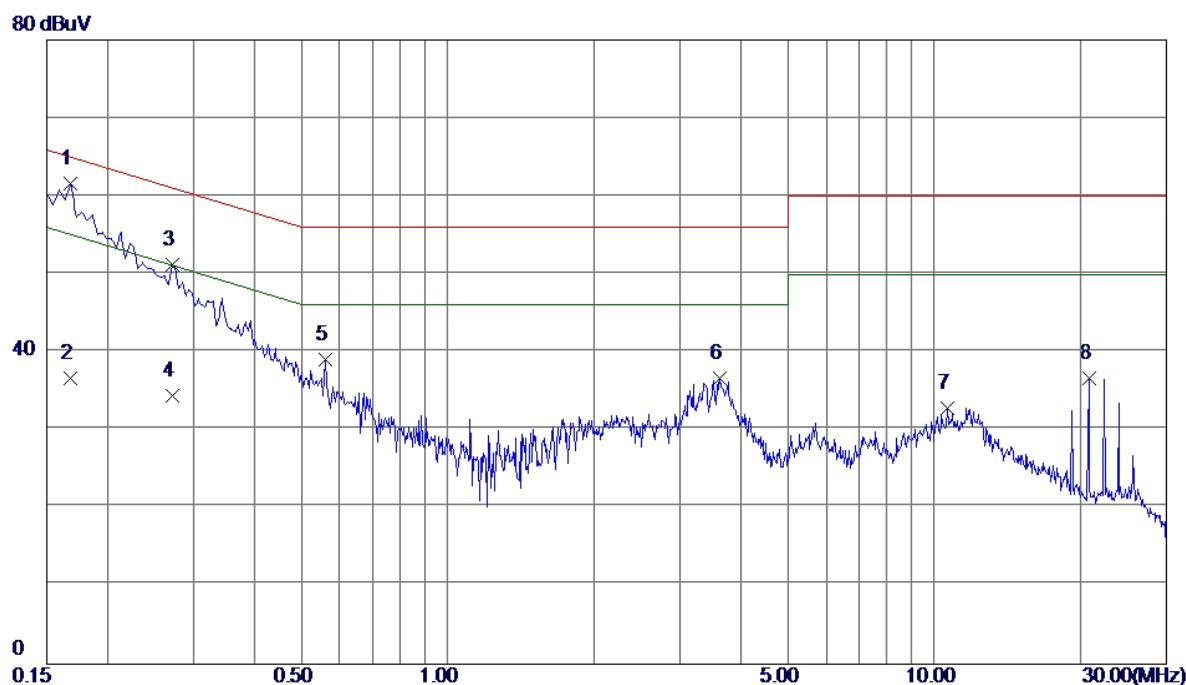
Line



No.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1 *	0.1680	53.07	9.74	62.81	65.06	-2.25	Peak	
2	0.1680	27.70	9.74	37.44	55.06	-17.62	AVG	
3	0.2670	41.92	9.72	51.64	61.21	-9.57	Peak	
4	0.2670	19.11	9.72	28.83	51.21	-22.38	AVG	
5	0.5685	29.52	9.76	39.28	56.00	-16.72	Peak	
6	3.5295	25.82	9.86	35.68	56.00	-20.32	Peak	
7	11.2245	25.47	10.09	35.56	60.00	-24.44	Peak	
8	20.8005	27.39	10.28	37.67	60.00	-22.33	Peak	

Test Mode : Normal Link

Neutral

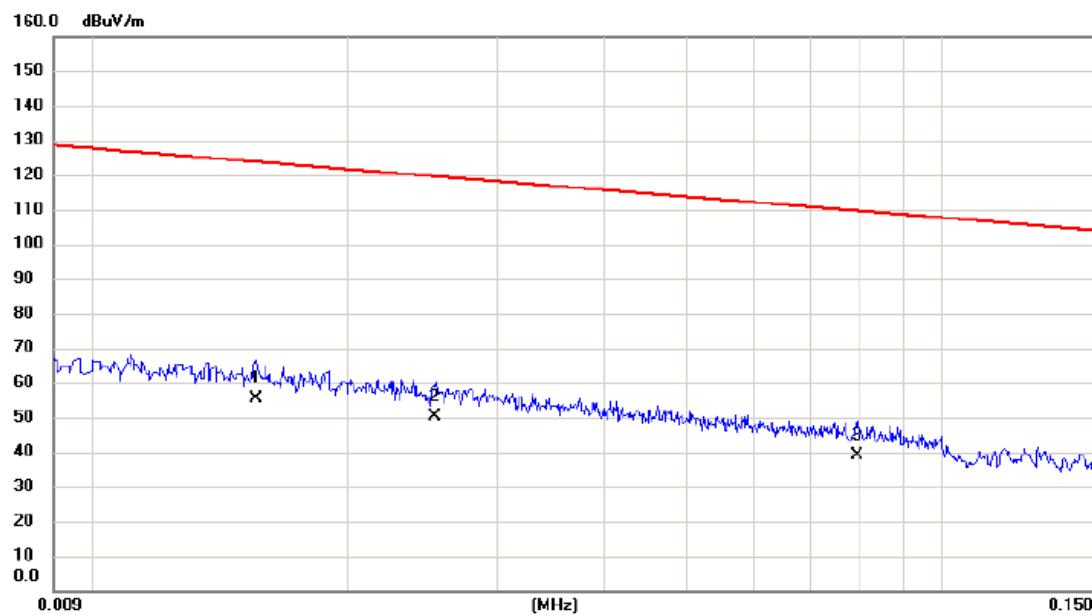


No.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1 *	0.1680	51.92	9.64	61.56	65.06	-3.50	Peak	
2	0.1680	27.00	9.64	36.64	55.06	-18.42	Avg	
3	0.2714	41.63	9.64	51.27	61.07	-9.80	Peak	
4	0.2714	24.70	9.64	34.34	51.07	-16.73	Avg	
5	0.5595	29.40	9.66	39.06	56.00	-16.94	Peak	
6	3.6240	26.81	9.78	36.59	56.00	-19.41	Peak	
7	10.6215	22.84	10.03	32.87	60.00	-27.13	Peak	
8	20.8005	26.31	10.38	36.69	60.00	-23.31	Peak	

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

Test Mode: TX Mode

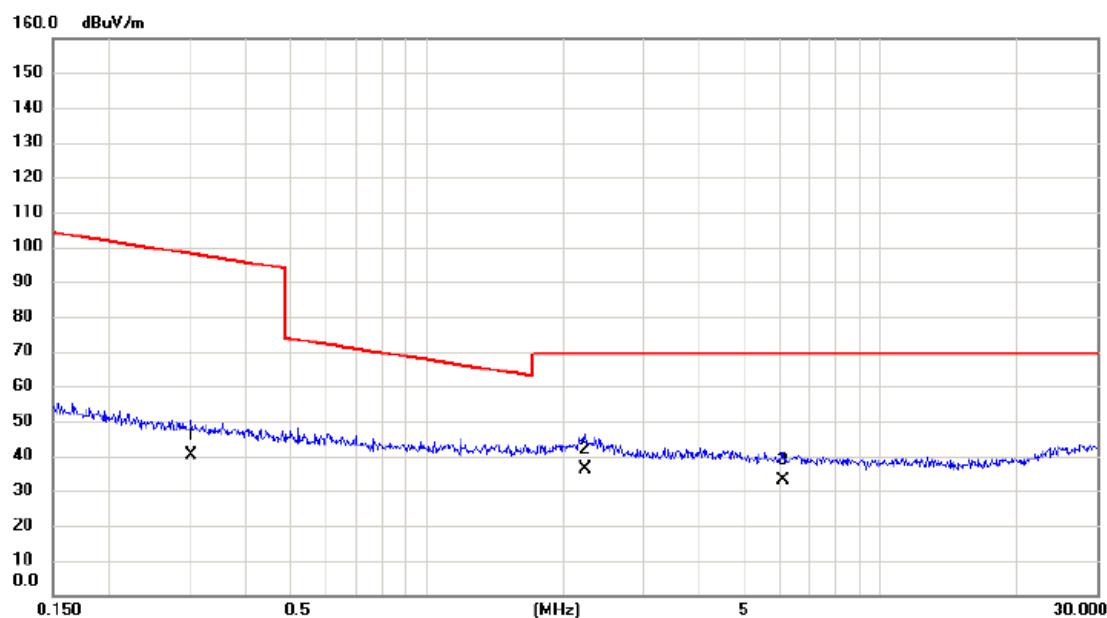
Ant 0°



No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Margin	Comment
			Level	Factor	ment			
		MHz	dBuV	dB	dBuV/m	dB	Detector	
1	*	0.0156	35.41	20.19	55.60	123.74	-68.14	AVG
2		0.0253	30.66	19.46	50.12	119.54	-69.42	AVG
3		0.0793	20.79	18.13	38.92	109.62	-70.70	AVG

Test Mode: TX Mode

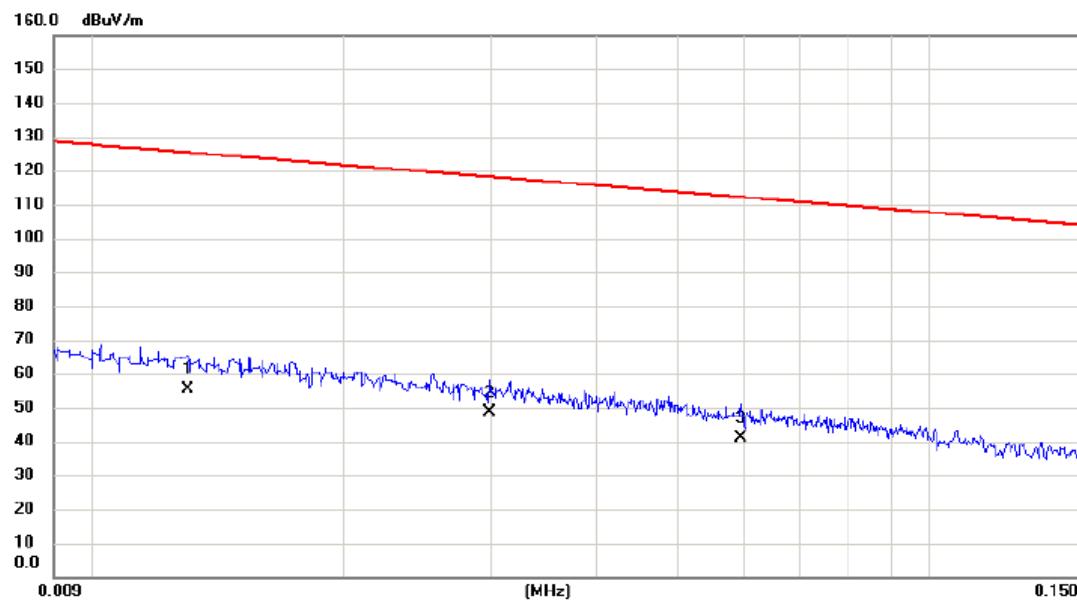
Ant 0°



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dB	Margin	Detector	Comment
1		0.3035	23.69	16.62	40.31	97.96	-57.65	AVG	
2	*	2.2367	20.60	15.44	36.04	69.54	-33.50	QP	
3		6.0885	18.75	14.24	32.99	69.54	-36.55	QP	

Test Mode: TX Mode

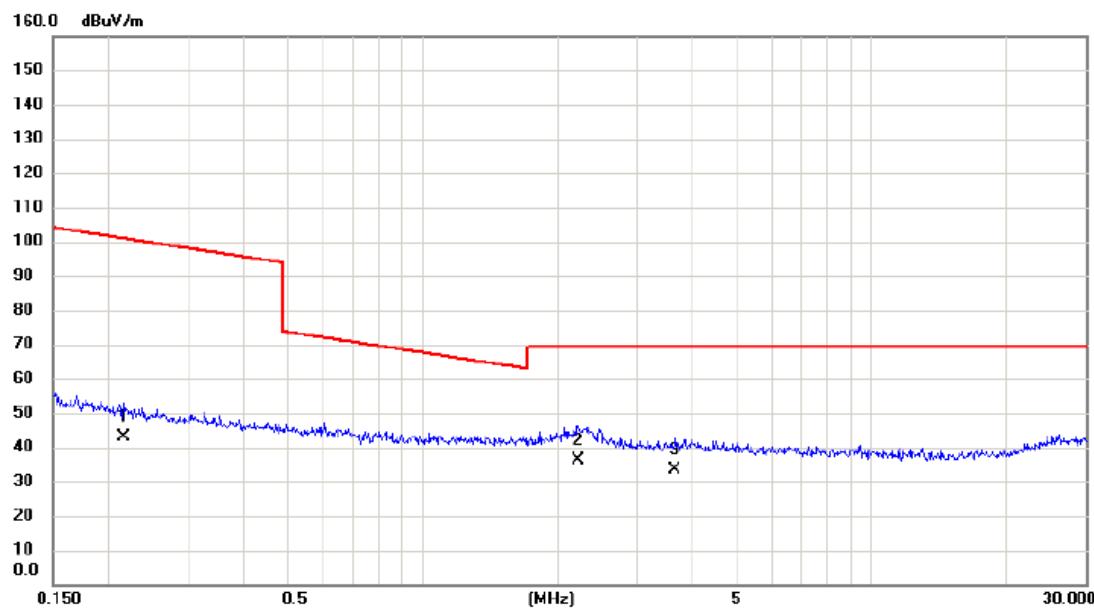
Ant 90°



No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Margin	Detector	Comment
			Level	Factor	ment				
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1		0.0130	34.81	20.53	55.34	125.33	-69.99	AVG	
2	*	0.0298	29.21	19.33	48.54	118.12	-69.58	AVG	
3		0.0594	22.29	18.54	40.83	112.13	-71.30	AVG	

Test Mode: TX Mode

Ant 90°

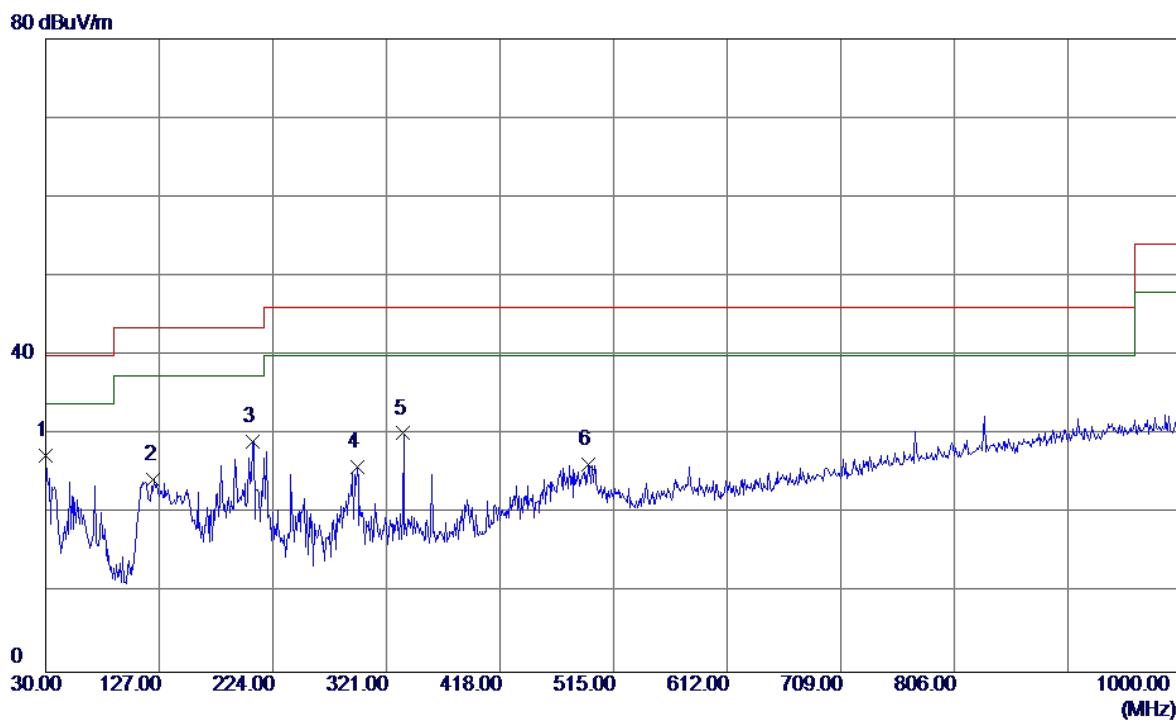


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dB	Margin Detector	Comment
1		0.2162	26.12	16.75	42.87	100.91	-58.04	AVG
2	*	2.2250	20.83	15.44	36.27	69.54	-33.27	QP
3		3.6418	18.36	15.05	33.41	69.54	-36.13	QP

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

Test Mode: TX B MODE CHANNEL 01

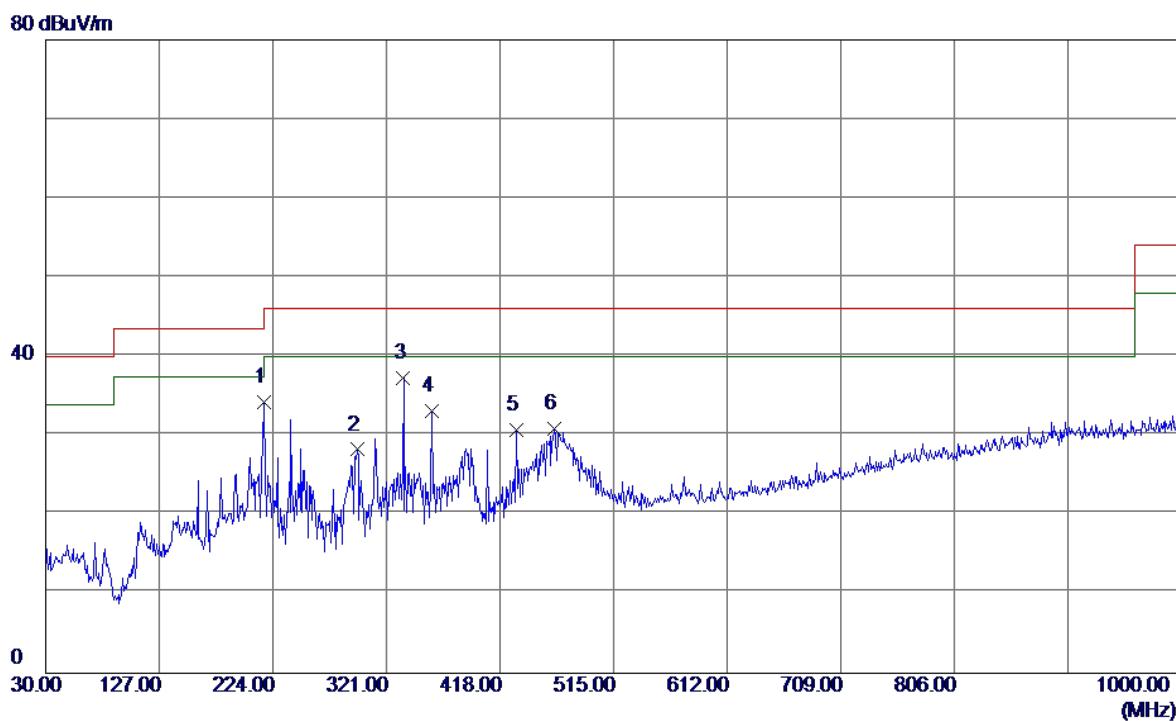
Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m dB	Margin Detector	Comment
1 *	30.0000	42.64	-15.25	27.39	40.00	-12.61	Peak
2	122.1500	39.58	-15.25	24.33	43.50	-19.17	Peak
3	206.5399	43.02	-13.90	29.12	43.50	-14.38	Peak
4	295.7800	39.26	-13.41	25.85	46.00	-20.15	Peak
5	335.5500	42.37	-12.21	30.16	46.00	-15.84	Peak
6	493.6600	35.17	-8.87	26.30	46.00	-19.70	Peak

Test Mode: TX B MODE CHANNEL 01

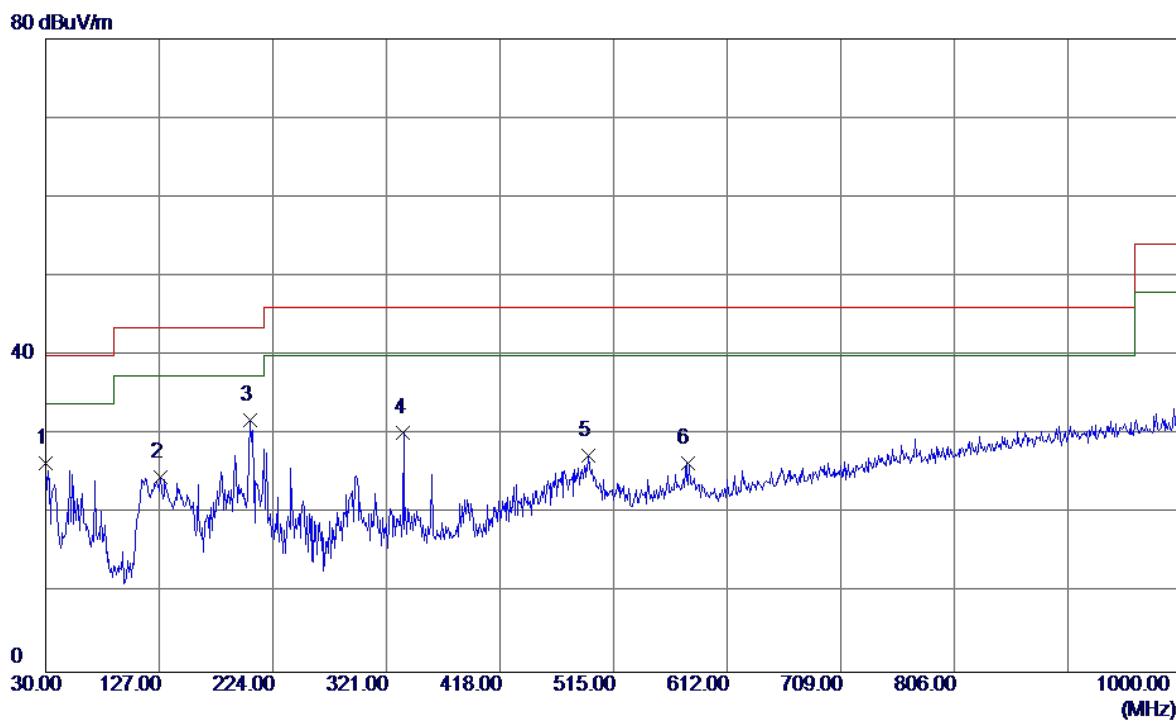
Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	216.2400	48.23	-13.93	34.30	46.00	-11.70	Peak	
2	295.7800	41.65	-13.41	28.24	46.00	-17.76	Peak	
3 *	335.5500	49.51	-12.21	37.30	46.00	-8.70	Peak	
4	359.8000	44.90	-11.84	33.06	46.00	-12.94	Peak	
5	431.5800	41.22	-10.46	30.76	46.00	-15.24	Peak	
6	464.5600	40.52	-9.58	30.94	46.00	-15.06	Peak	

Test Mode: TX B MODE CHANNEL 06

Vertical

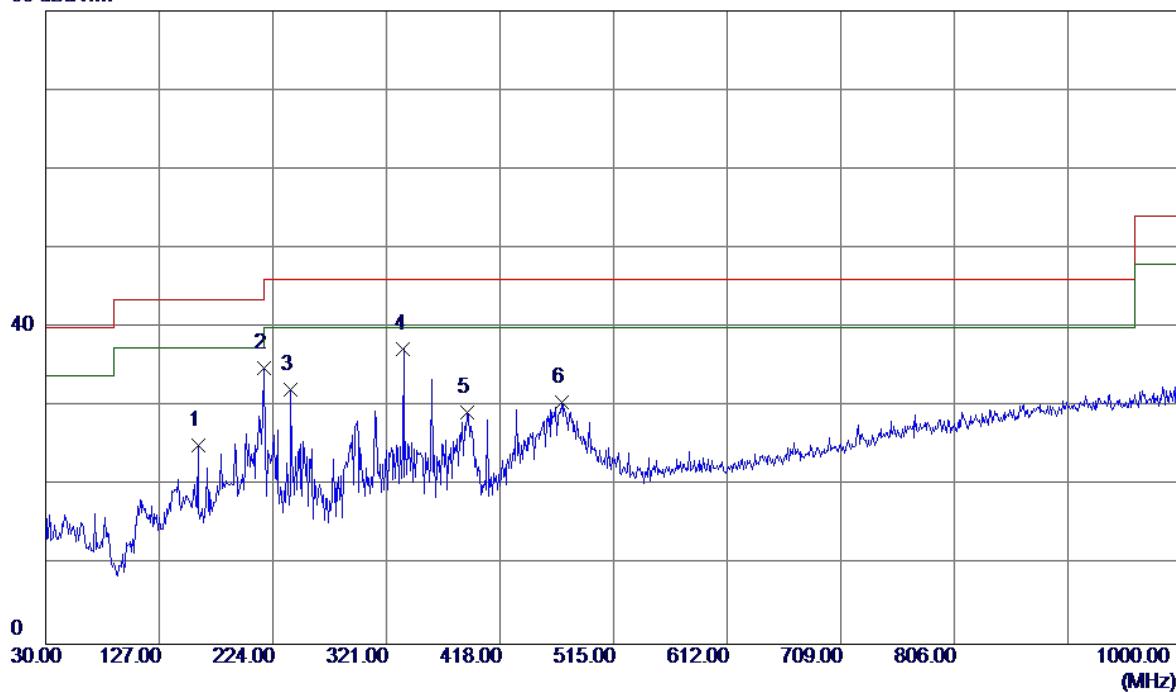


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	30.0000	41.70	-15.25	26.45	40.00	-13.55	Peak	
2	127.9700	39.54	-14.85	24.69	43.50	-18.81	Peak	
3 *	204.6000	45.72	-13.85	31.87	43.50	-11.63	Peak	
4	335.5500	42.49	-12.21	30.28	46.00	-15.72	Peak	
5	493.6600	36.28	-8.87	27.41	46.00	-18.59	Peak	
6	578.0500	33.33	-6.99	26.34	46.00	-19.66	Peak	

Test Mode: TX B MODE CHANNEL 06

Horizontal

80 dBuV/m

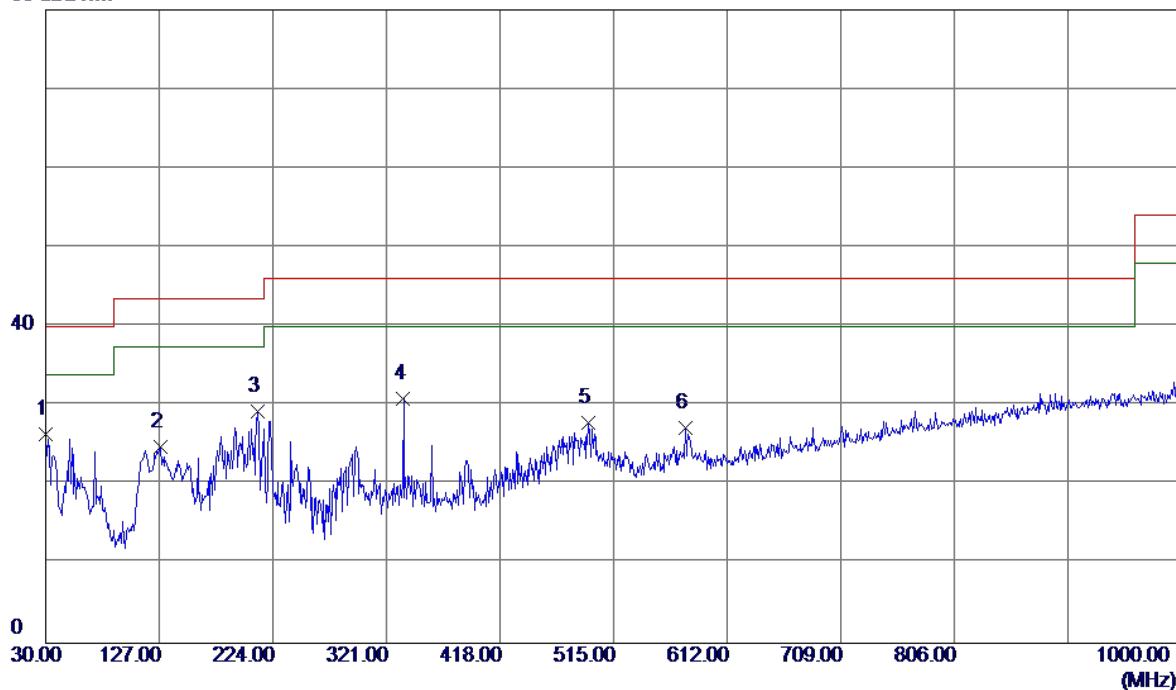


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	159.9800	38.04	-12.93	25.11	43.50	-18.39	Peak	
2	216.2400	48.84	-13.93	34.91	46.00	-11.09	Peak	
3	239.5200	46.52	-14.35	32.17	46.00	-13.83	Peak	
4 *	335.5500	49.51	-12.21	37.30	46.00	-8.70	Peak	
5	389.8700	40.77	-11.48	29.29	46.00	-16.71	Peak	
6	470.3800	39.95	-9.44	30.51	46.00	-15.49	Peak	

Test Mode: TX B MODE CHANNEL 11

Vertical

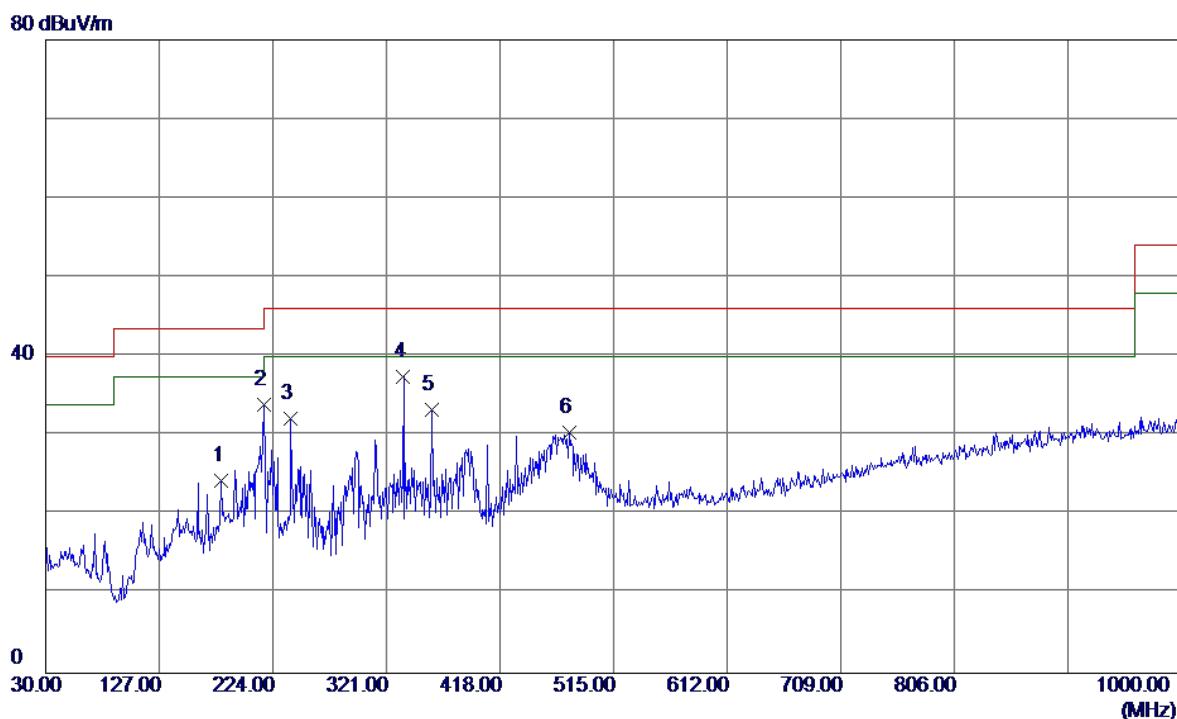
80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m dB	Margin Detector	Comment
1 *	30.0000	41.66	-15.25	26.41	40.00	-13.59	Peak
2	127.9700	39.66	-14.85	24.81	43.50	-18.69	Peak
3	211.3900	43.24	-13.97	29.27	43.50	-14.23	Peak
4	335.5500	43.09	-12.21	30.88	46.00	-15.12	Peak
5	493.6600	36.73	-8.87	27.86	46.00	-18.14	Peak
6	576.1100	34.24	-7.04	27.20	46.00	-18.80	Peak

Test Mode: TX B MODE CHANNEL 11

Horizontal



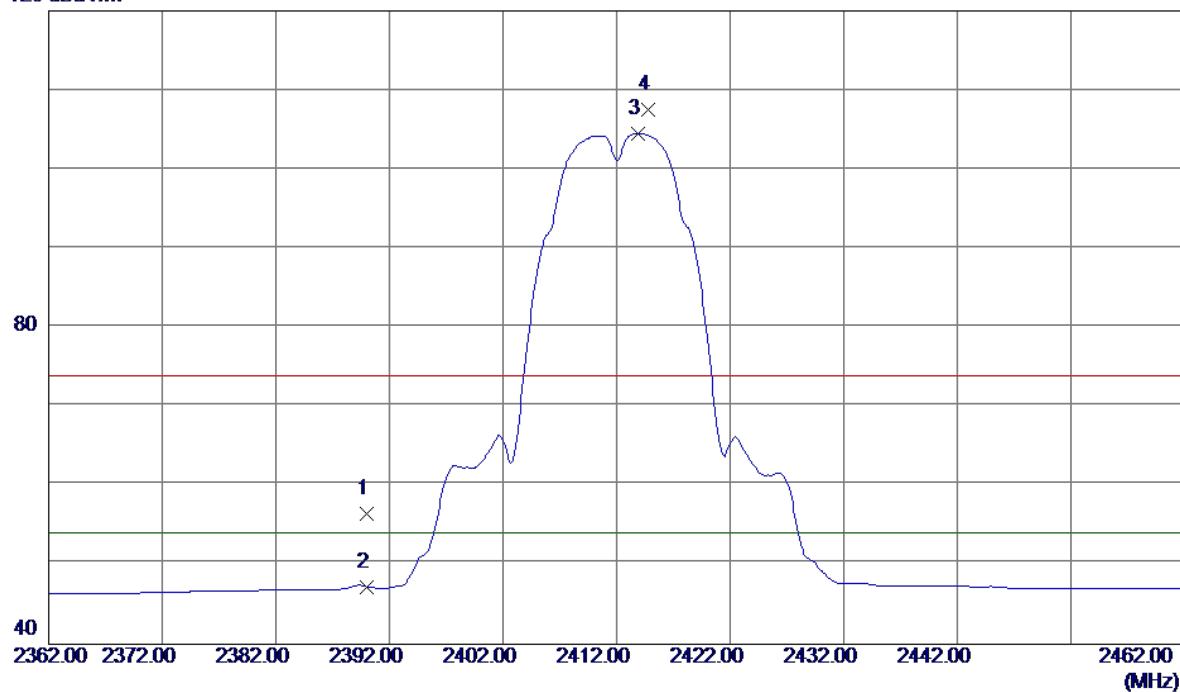
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	180.3500	36.32	-12.07	24.25	43.50	-19.25	Peak	
2	216.2400	47.86	-13.93	33.93	46.00	-12.07	Peak	
3	239.5200	46.53	-14.35	32.18	46.00	-13.82	Peak	
4 *	335.5500	49.70	-12.21	37.49	46.00	-8.51	Peak	
5	359.8000	45.17	-11.84	33.33	46.00	-12.67	Peak	
6	477.1700	39.73	-9.28	30.45	46.00	-15.55	Peak	

APPENDIX D - RADIATED EMISSION (ABOVE 1000MHZ)

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

Vertical

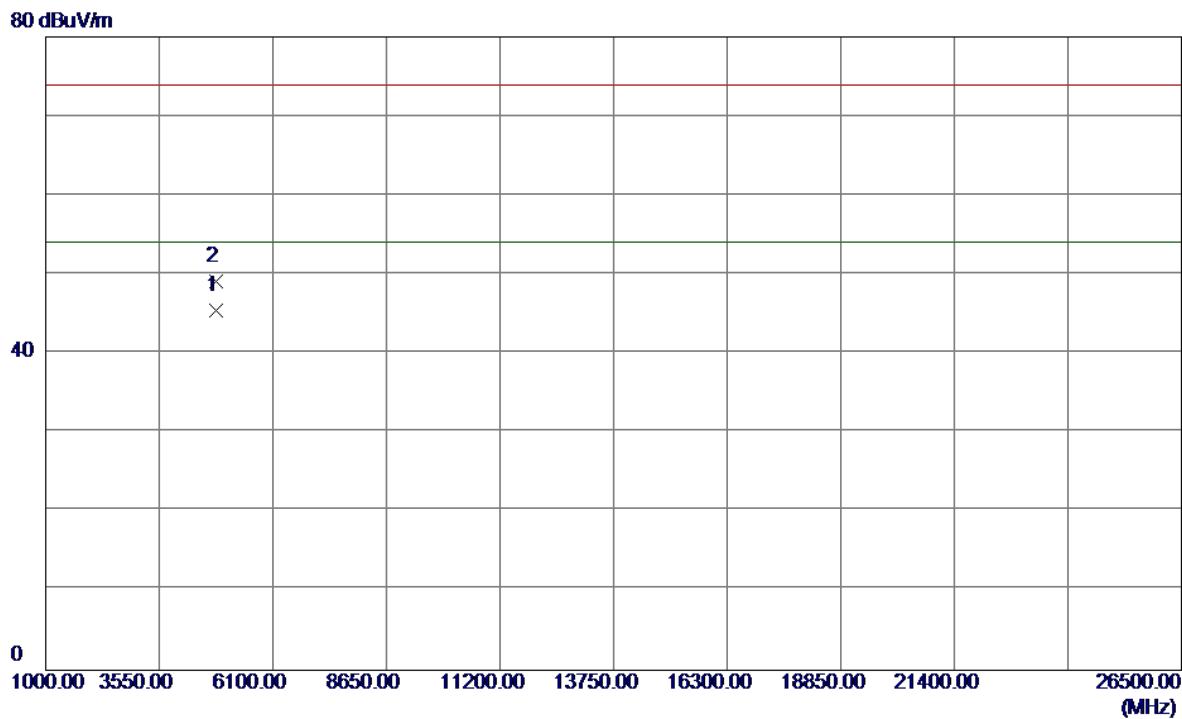
120 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	23.39	33.06	56.45	74.00	-17.55	Peak	
2	2390.0000	14.21	33.06	47.27	54.00	-6.73	AVG	
3 *	2413.9000	71.34	33.15	104.49	54.00	50.49	AVG	No Limit
4	2414.8000	74.45	33.15	107.60	74.00	33.60	Peak	No Limit

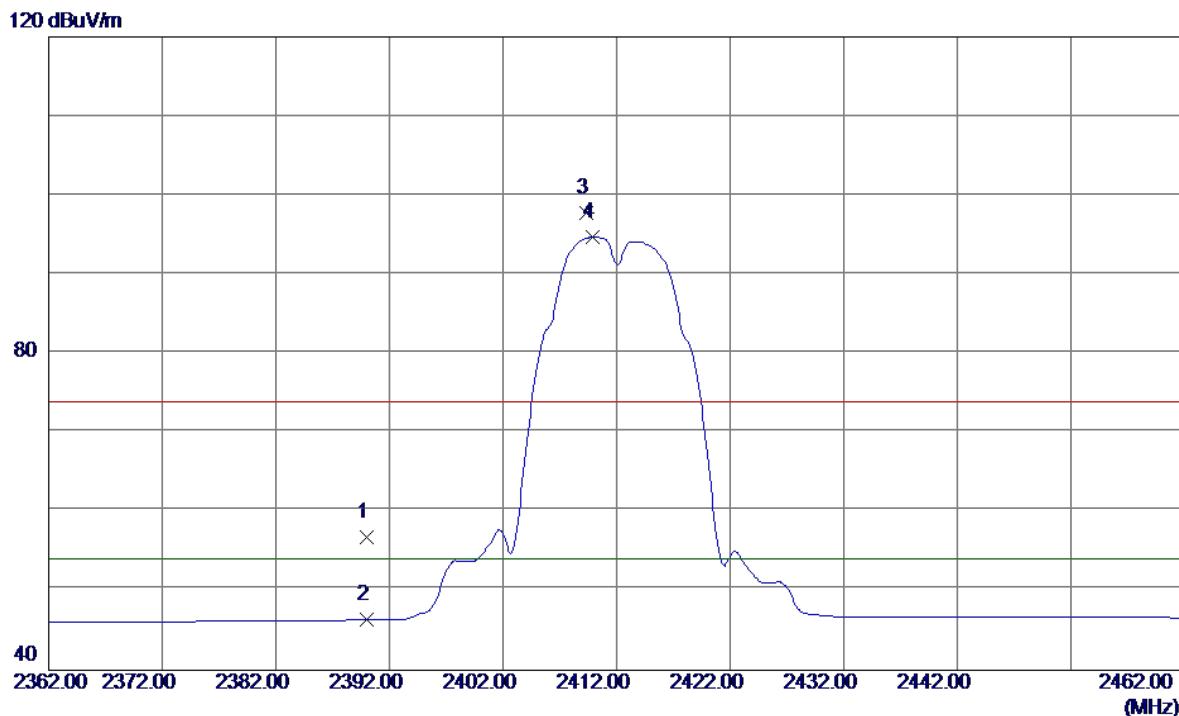
Orthogonal Axis :	X
Test Mode :	TX B MODE 2412MHz

Vertical



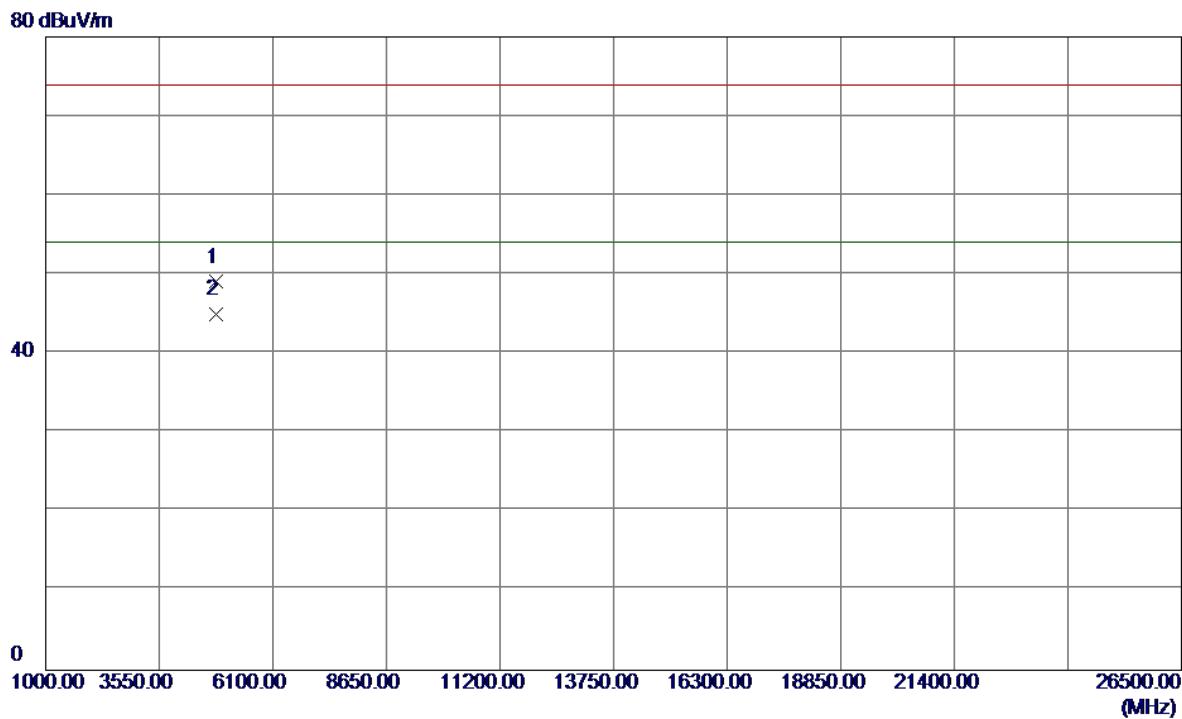
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	4823.9940	38.74	6.66	45.40	54.00	-8.60	AVG	
2	4824.1360	42.46	6.66	49.12	74.00	-24.88	Peak	

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

Horizontal

No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	23.78	33.06	56.84	74.00	-17.16	Peak	
2	2390.0000	13.28	33.06	46.34	54.00	-7.66	AVG	
3	2409.3000	64.70	33.13	97.83	74.00	23.83	Peak	No Limit
4 *	2409.9000	61.62	33.13	94.75	54.00	40.75	AVG	No Limit

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

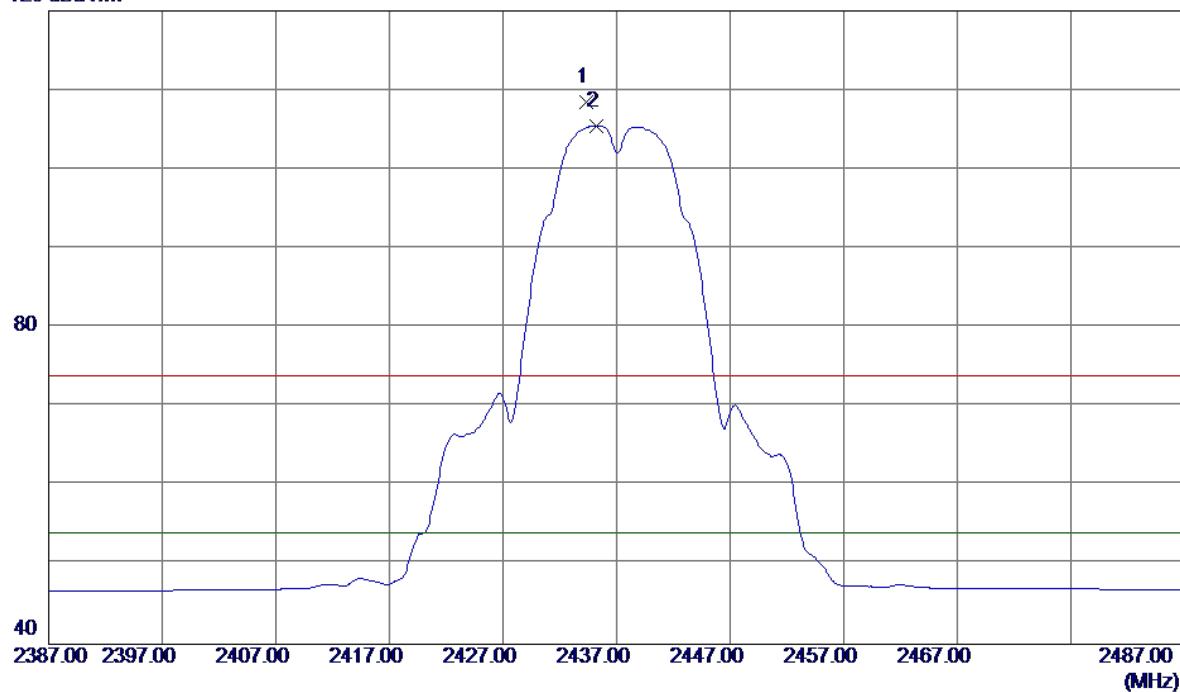
Horizontal

No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4823.9220	42.38	6.66	49.04	74.00	-24.96	Peak	
2 *	4823.9940	38.24	6.66	44.90	54.00	-9.10	AVG	

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

Vertical

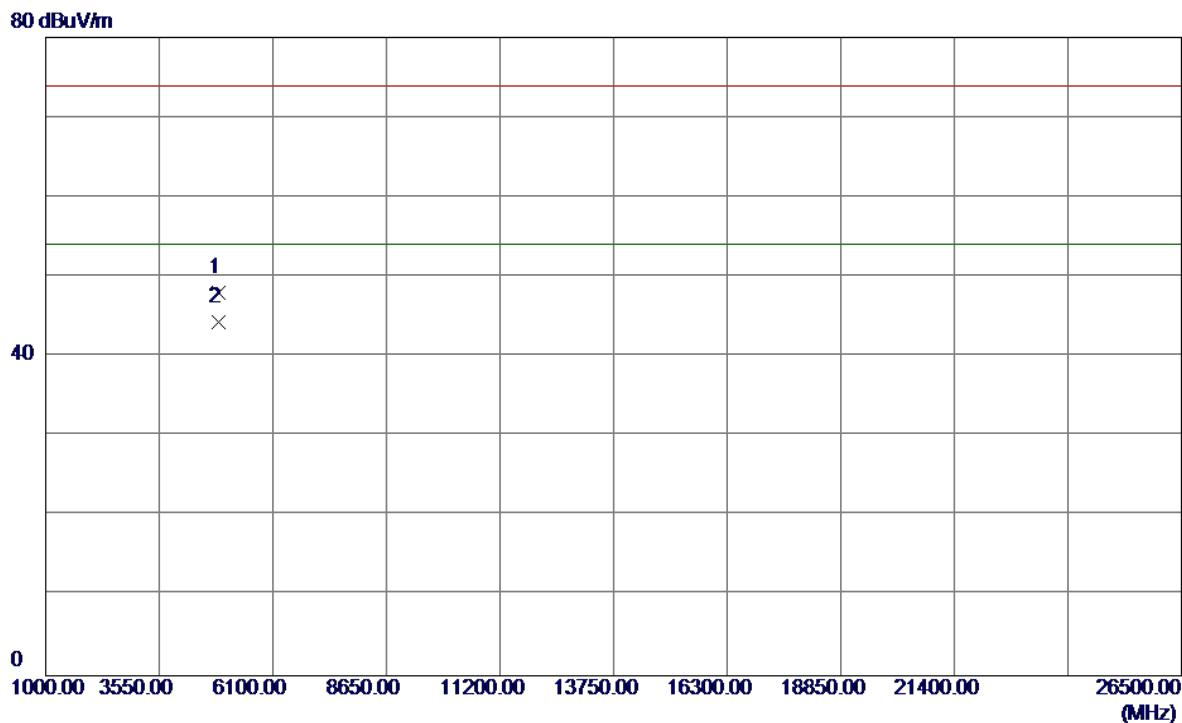
120 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2434.3000	75.26	33.22	108.48	74.00	34.48	Peak	No Limit
2 *	2435.2000	72.25	33.23	105.48	54.00	51.48	AVG	No Limit

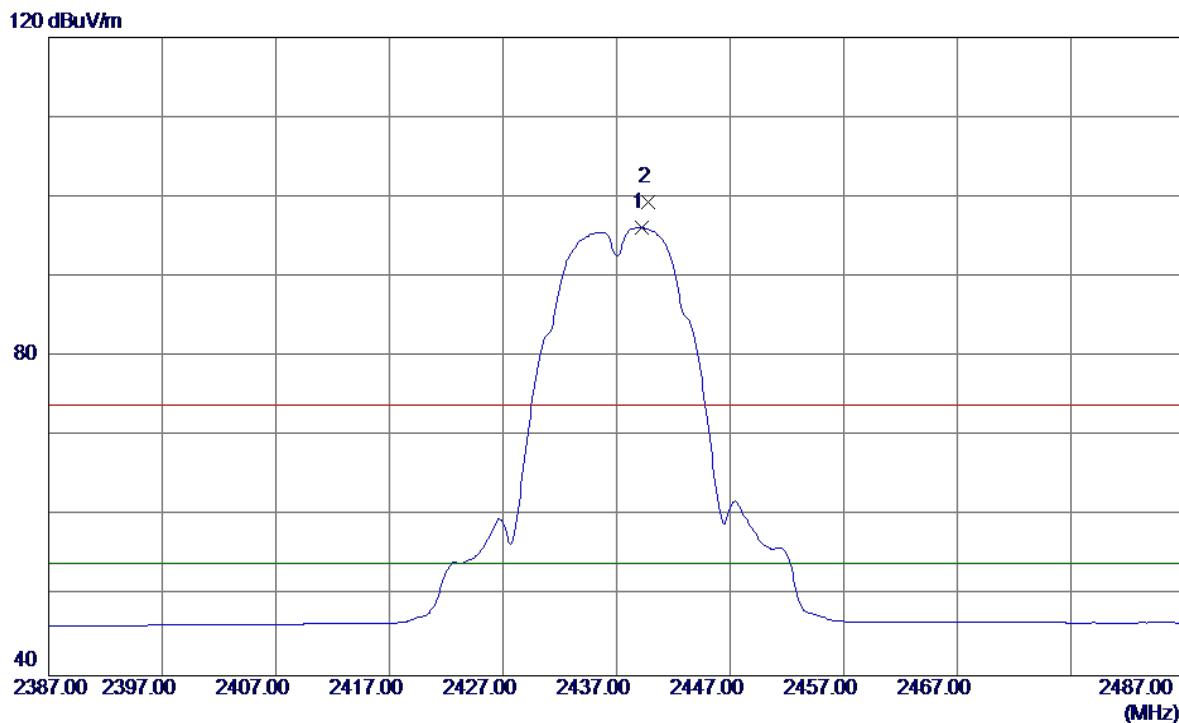
Orthogonal Axis :	X
Test Mode :	TX B MODE 2437MHz

Vertical



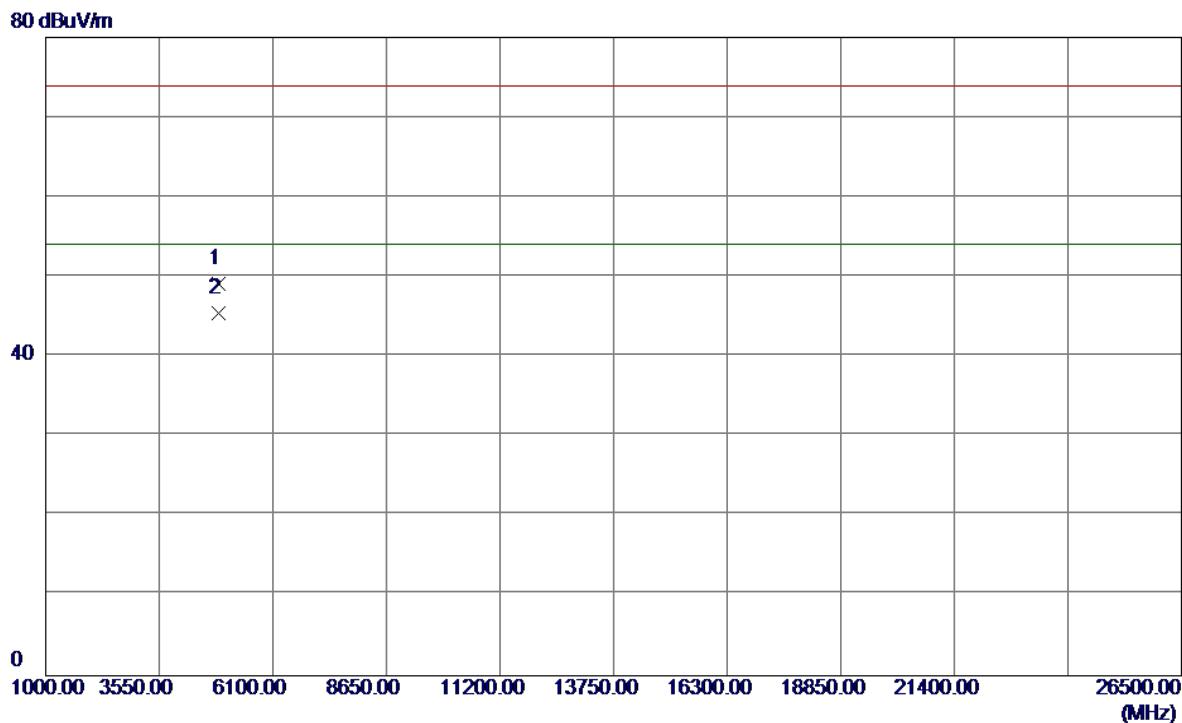
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dB	Margin Detector	Comment
1	4873. 9860	41. 23	6. 84	48. 07	74. 00	-25. 93	Peak
2 *	4873. 9960	37. 42	6. 84	44. 26	54. 00	-9. 74	AVG

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

Horizontal

No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dB	Margin Detector	Comment
1 *	2439.2000	62.88	33.24	96.12	54.00	42.12	AVG No Limit
2	2439.8000	66.05	33.24	99.29	74.00	25.29	Peak No Limit

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

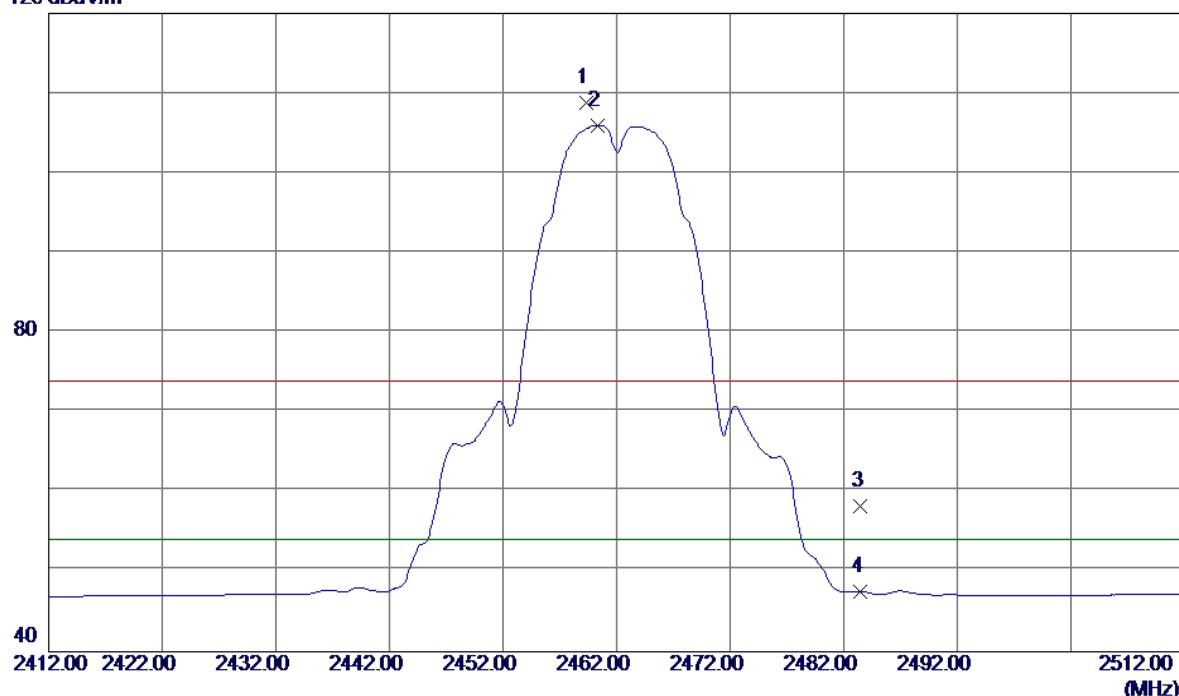
Horizontal

No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dB	Margin Detector	Comment
1	4873.8980	42.29	6.84	49.13	74.00	-24.87	Peak
2 *	4873.9980	38.67	6.84	45.51	54.00	-8.49	AVG

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

Vertical

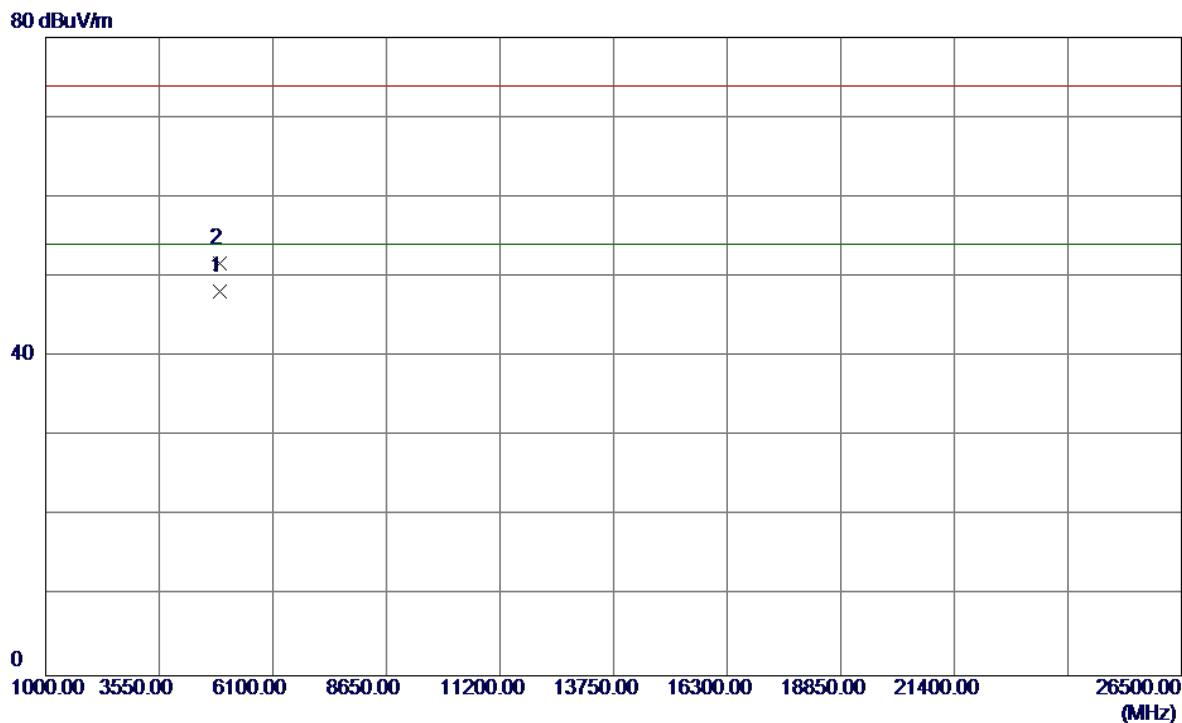
120 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2459.3000	75.45	33.32	108.77	74.00	34.77	Peak	No Limit
2 *	2460.3000	72.61	33.32	105.93	54.00	51.93	AVG	No Limit
3	2483.5000	24.76	33.41	58.17	74.00	-15.83	Peak	
4	2483.5000	14.14	33.41	47.55	54.00	-6.45	AVG	

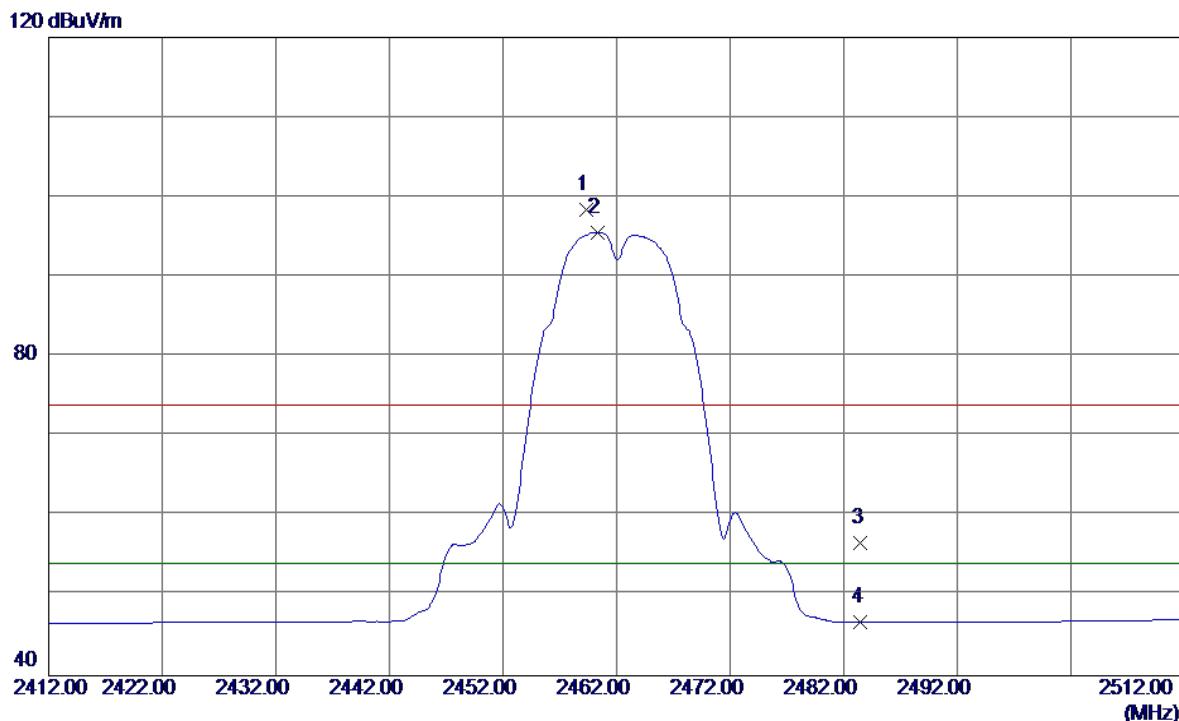
Orthogonal Axis :	X
Test Mode :	TX B MODE 2462MHz

Vertical



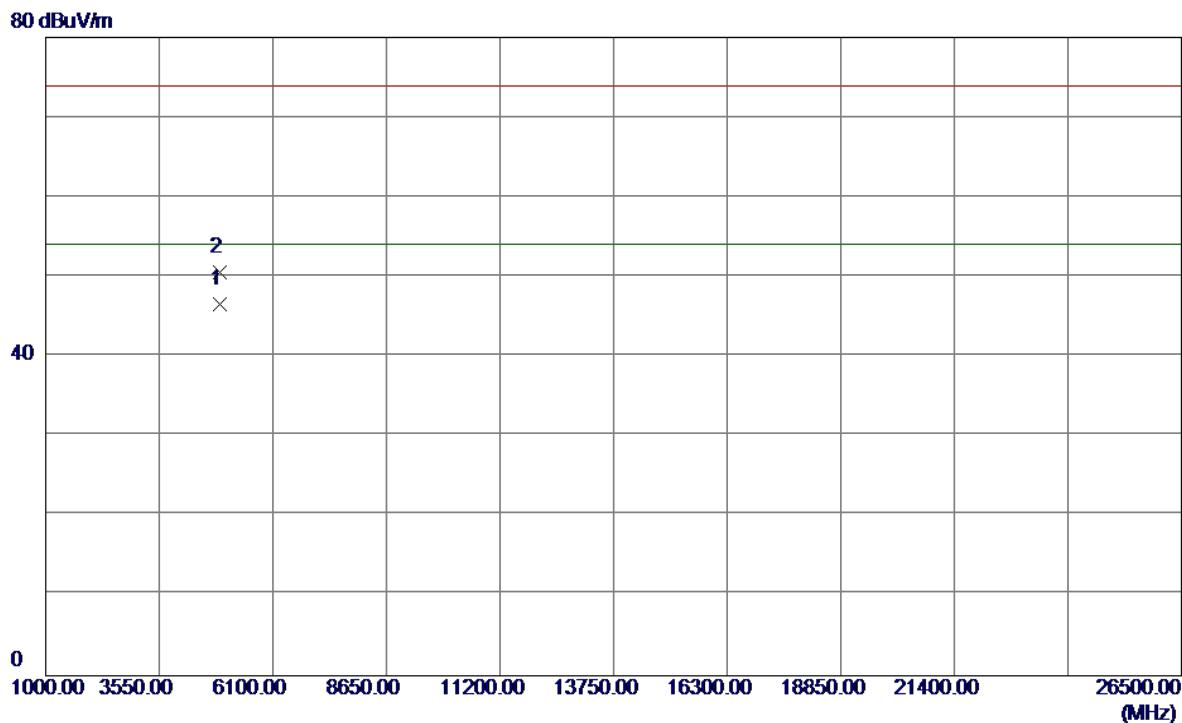
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin	
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector Comment
1 *	4923.9930	41.12	7.02	48.14	54.00	-5.86	AVG
2	4924.0360	44.69	7.02	51.71	74.00	-22.29	Peak

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

Horizontal

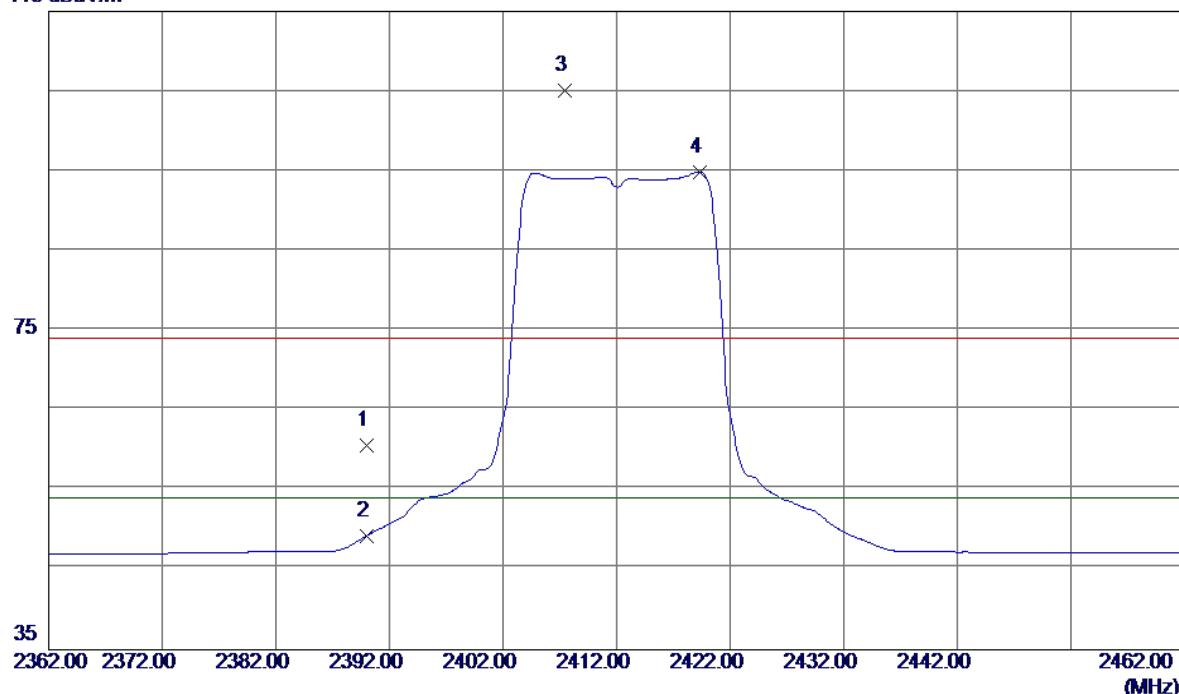
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dB	Margin Detector	Comment
1	2459.3000	65.13	33.32	98.45	74.00	24.45	Peak No Limit
2 *	2460.3000	62.22	33.32	95.54	54.00	41.54	AVG No Limit
3	2483.5000	23.22	33.41	56.63	74.00	-17.37	Peak
4	2483.5000	13.29	33.41	46.70	54.00	-7.30	AVG

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

Horizontal

No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	4923.9880	39.59	7.02	46.61	54.00	-7.39	AVG	
2	4924.0950	43.51	7.02	50.53	74.00	-23.47	Peak	

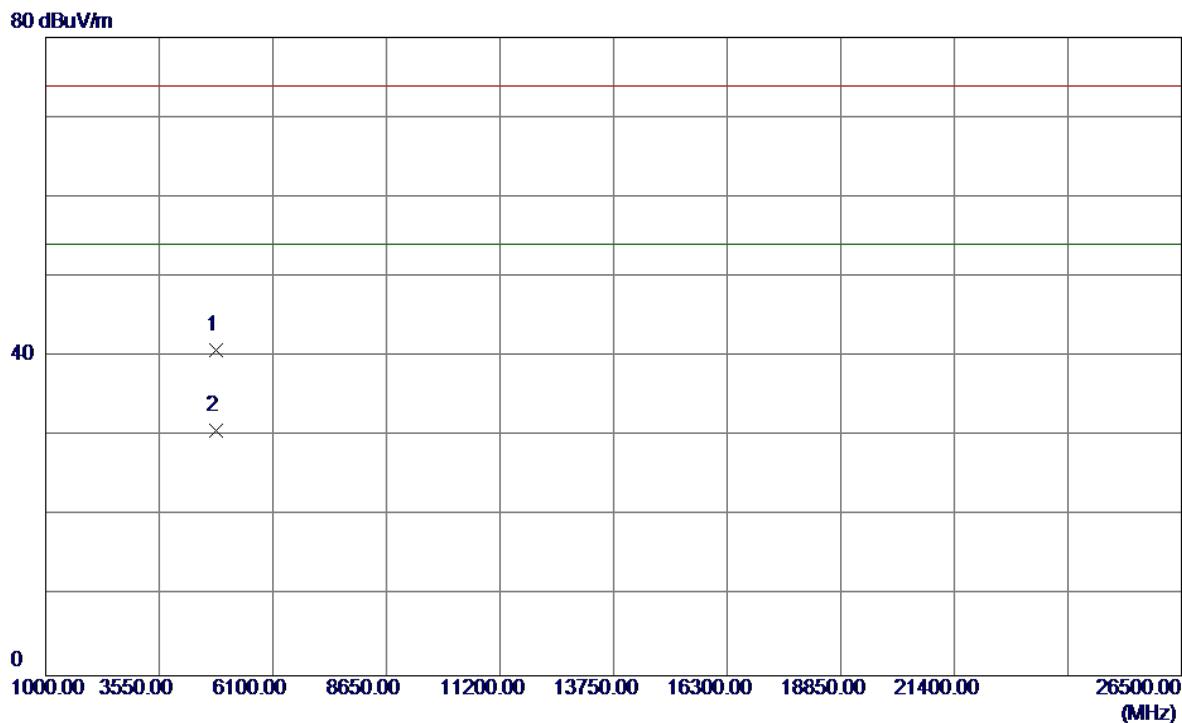
Orthogonal Axis :	X
Test Mode :	TX G MODE 2412MHz

Vertical**115 dBuV/m**

No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.000	27.54	33.06	60.60	74.00	-13.40	Peak	
2	2390.000	16.20	33.06	49.26	54.00	-4.74	AVG	
3	2407.400	71.91	33.12	105.03	74.00	31.03	Peak	No Limit
4 *	2419.300	61.70	33.17	94.87	54.00	40.87	AVG	No Limit

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

Vertical

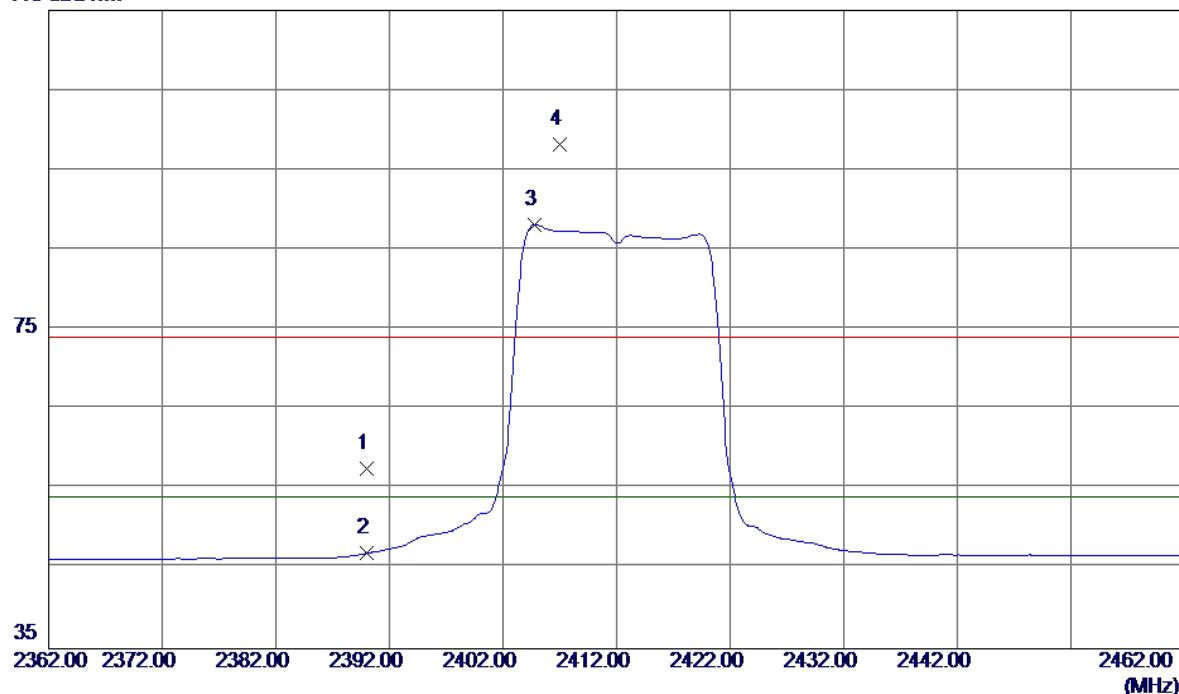


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4818.5000	34.09	6.64	40.73	74.00	-33.27	Peak	
2 *	4824.2000	24.07	6.66	30.73	54.00	-23.27	AVG	

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

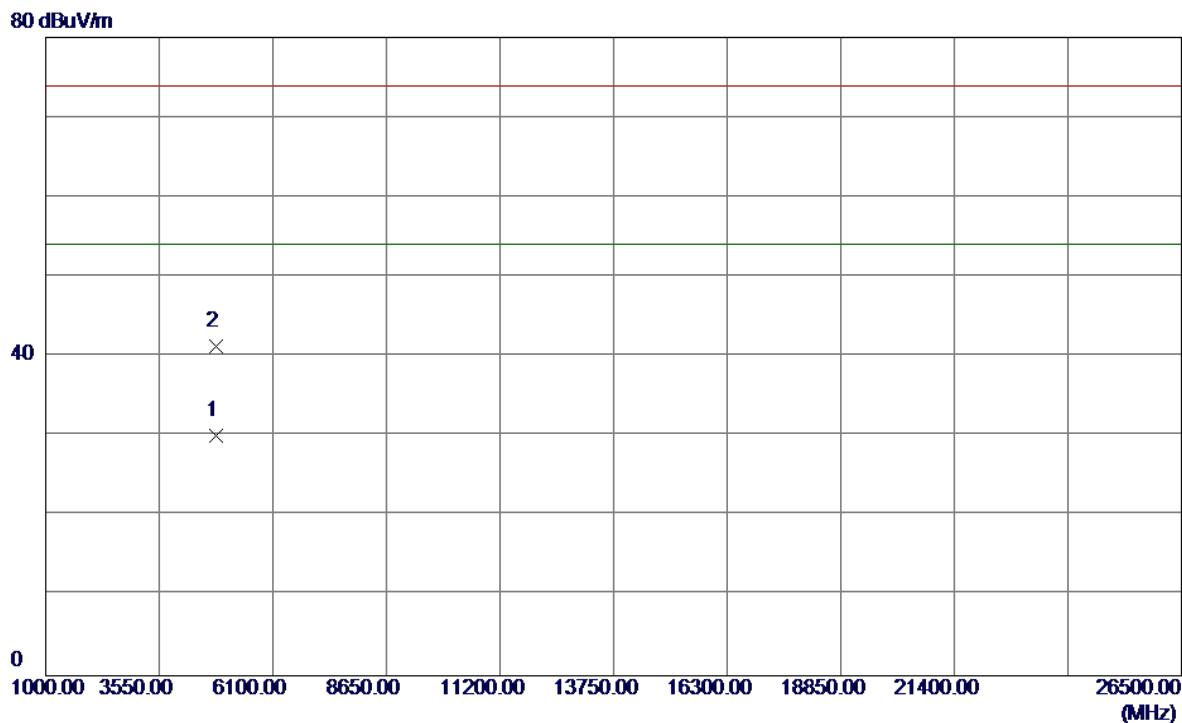
Horizontal

115 dBuV/m



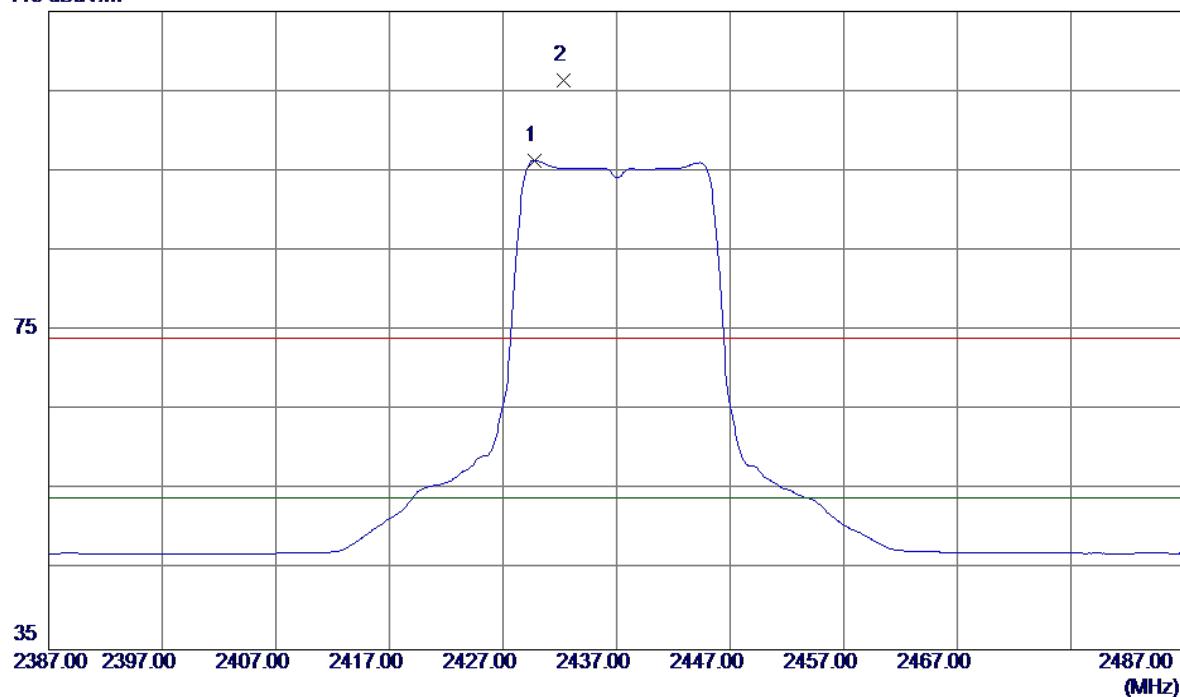
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dB	Margin dB	Detector	Comment
1	2390.0000	24.54	33.06	57.60	74.00	-16.40	Peak	
2	2390.0000	13.90	33.06	46.96	54.00	-7.04	AVG	
3 *	2404.8000	55.00	33.11	88.11	54.00	34.11	AVG	No Limit
4	2407.0000	65.00	33.12	98.12	74.00	24.12	Peak	No Limit

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

Horizontal

No.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Detector	Comment
	MHz	dBuV/m	dB	dBuV/m	dB			
1 *	4824.1400	23.45	6.66	30.11	54.00	-23.89	AVG	
2	4828.8400	34.53	6.68	41.21	74.00	-32.79	Peak	

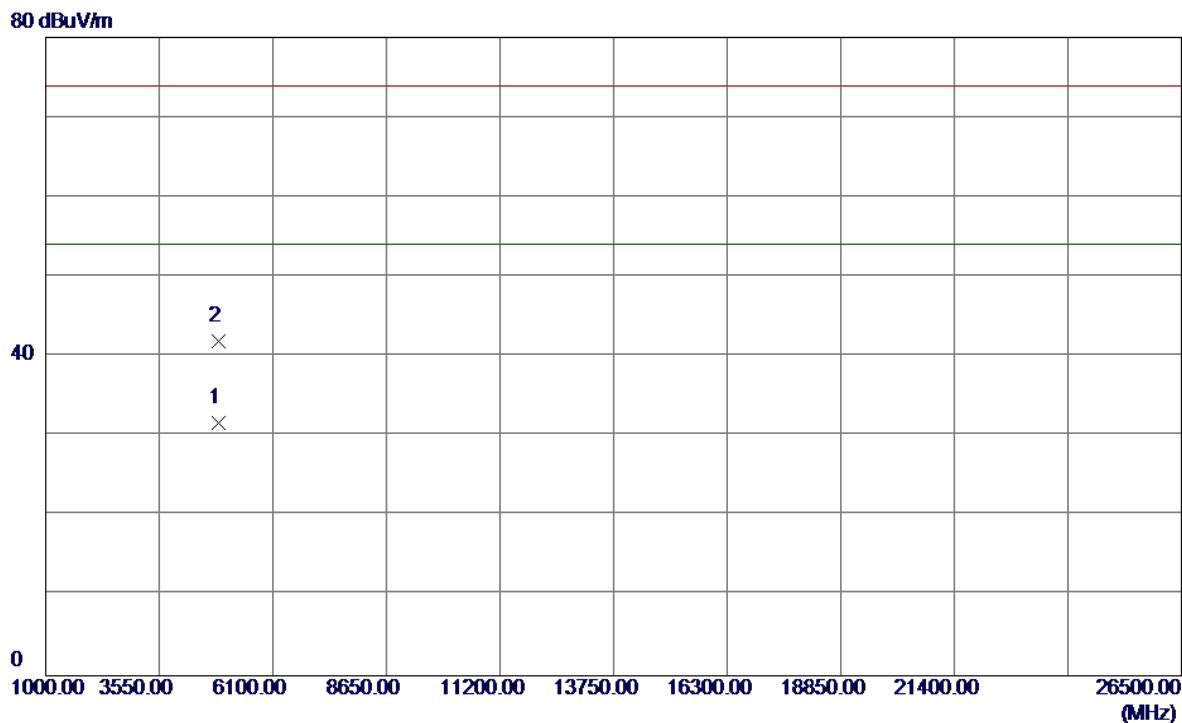
Orthogonal Axis :	X
Test Mode :	TX G MODE 2437MHz

Vertical**115 dBuV/m**

No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2429.8000	63.12	33.21	96.33	54.00	42.33	AVG	No Limit
2	2432.3000	73.22	33.22	106.44	74.00	32.44	Peak	No Limit

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

Vertical



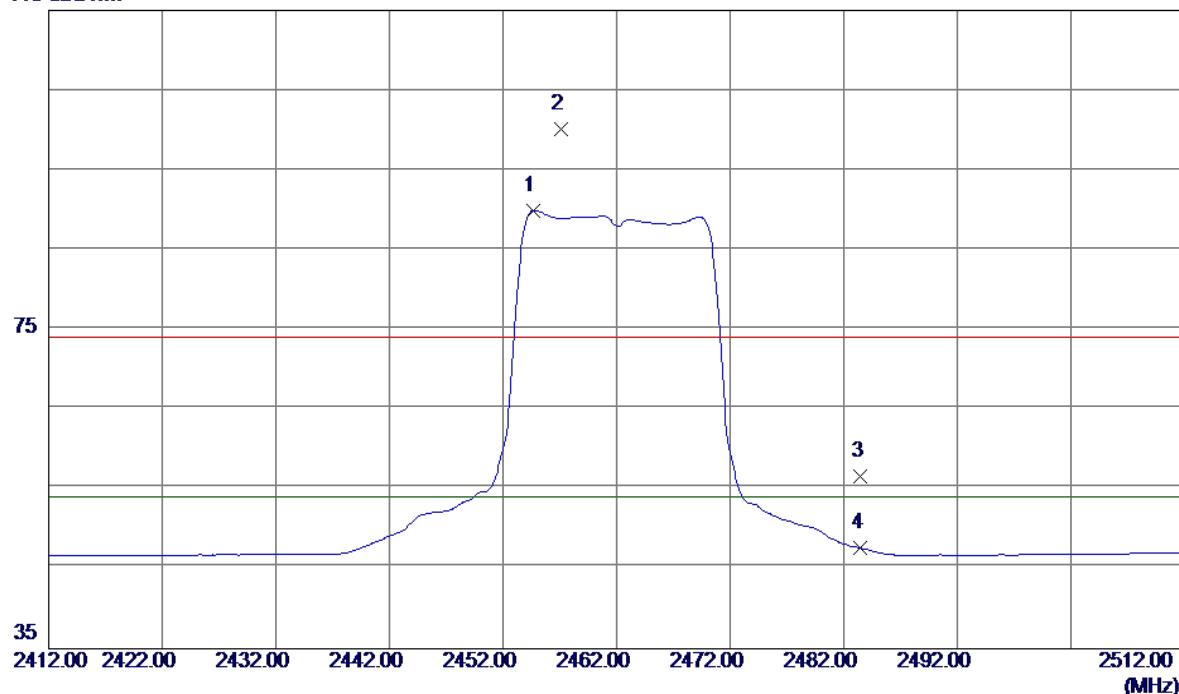
No.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Detector	Comment
	MHz	dBuV/m	dB	dBuV/m	dB			
1 *	4874.1200	24.88	6.84	31.72	54.00	-22.28	AVG	
2	4880.8200	35.04	6.86	41.90	74.00	-32.10	Peak	

Orthogonal Axis : X

Test Mode : TX G MODE 2437MHz

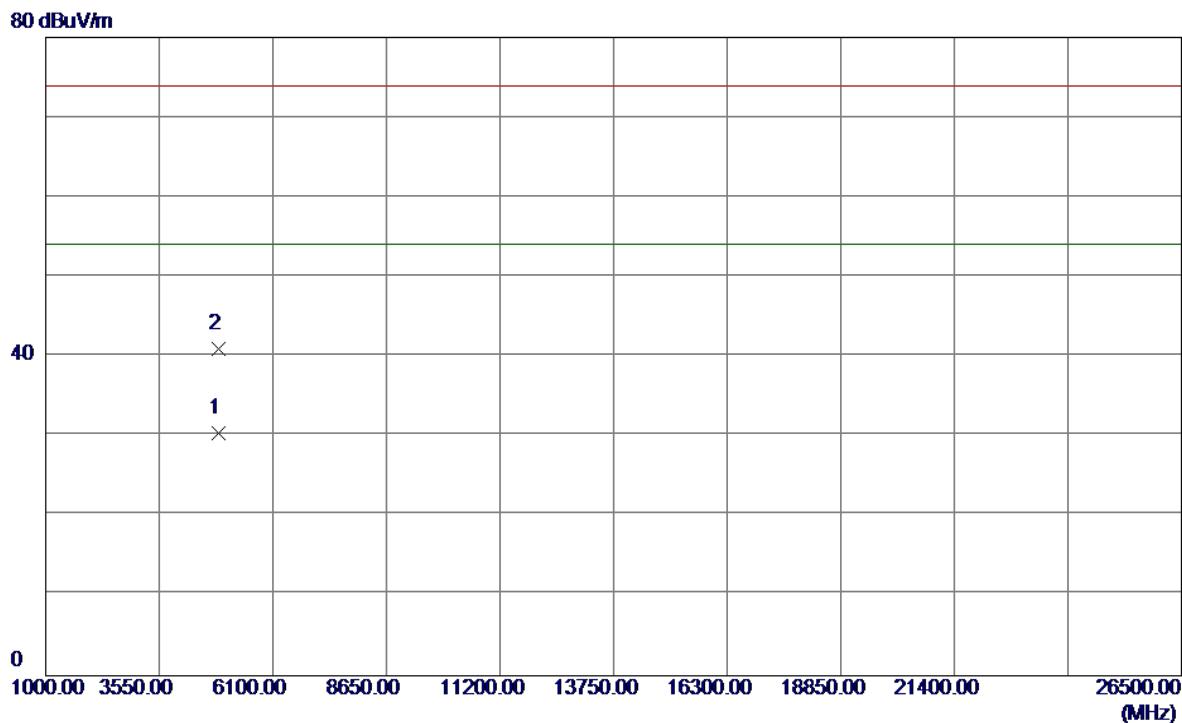
Horizontal

115 dBuV/m



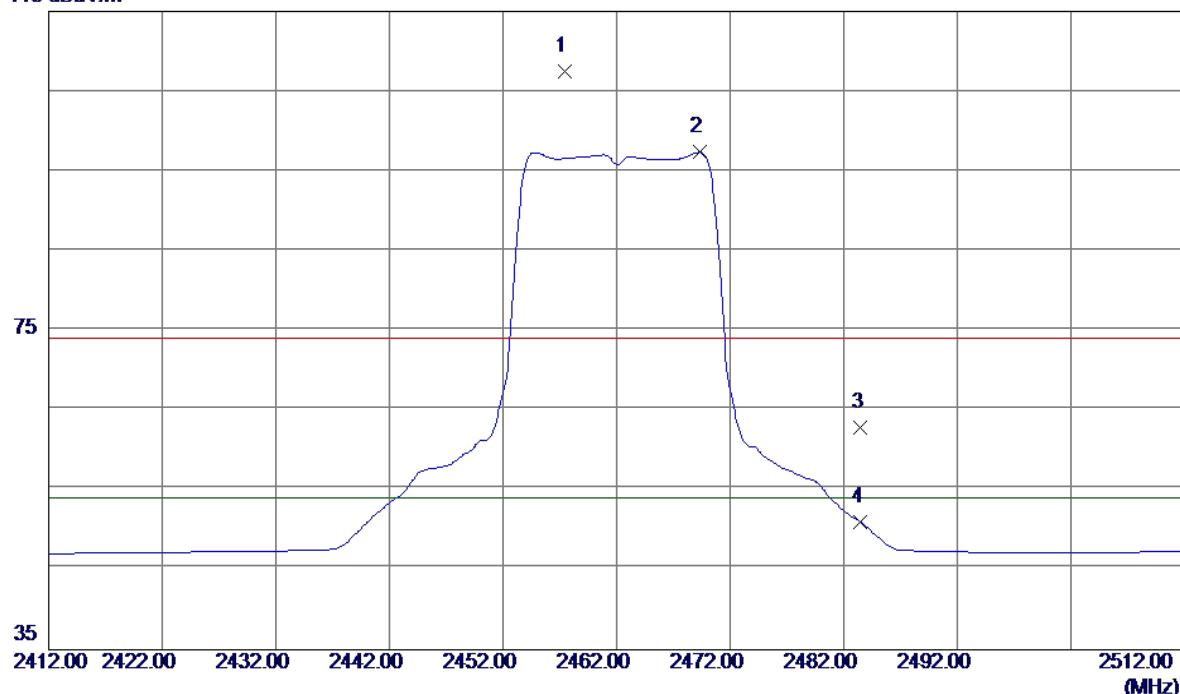
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dB	Margin dB	Detector	Comment
1 *	2454.7000	56.63	33.30	89.93	54.00	35.93	AVG	No Limit
2	2457.1000	66.73	33.31	100.04	74.00	26.04	Peak	No Limit
3	2483.5000	23.18	33.41	56.59	74.00	-17.41	Peak	
4	2483.5000	14.20	33.41	47.61	54.00	-6.39	AVG	

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

Horizontal

No.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Detector	Comment
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB		
1 *	4873.9000	23.63	6.84	30.47	54.00	-23.53	AVG	
2	4882.2000	34.13	6.87	41.00	74.00	-33.00	Peak	

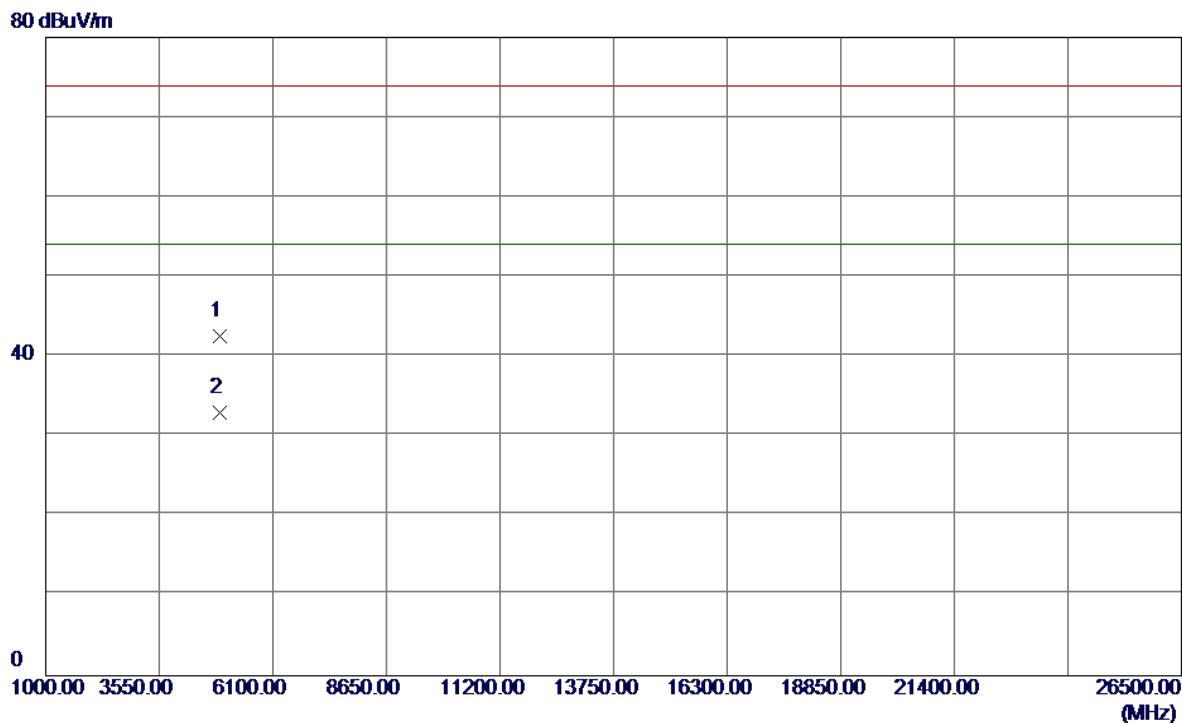
Orthogonal Axis :	X
Test Mode :	TX G MODE 2462MHz

Vertical**115 dBuV/m**

No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2457.4000	74.24	33.31	107.55	74.00	33.55	Peak	No Limit
2 *	2469.3000	63.98	33.35	97.33	54.00	43.33	AVG	No Limit
3	2483.5000	29.46	33.41	62.87	74.00	-11.13	Peak	
4	2483.5000	17.58	33.41	50.99	54.00	-3.01	AVG	

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

Vertical

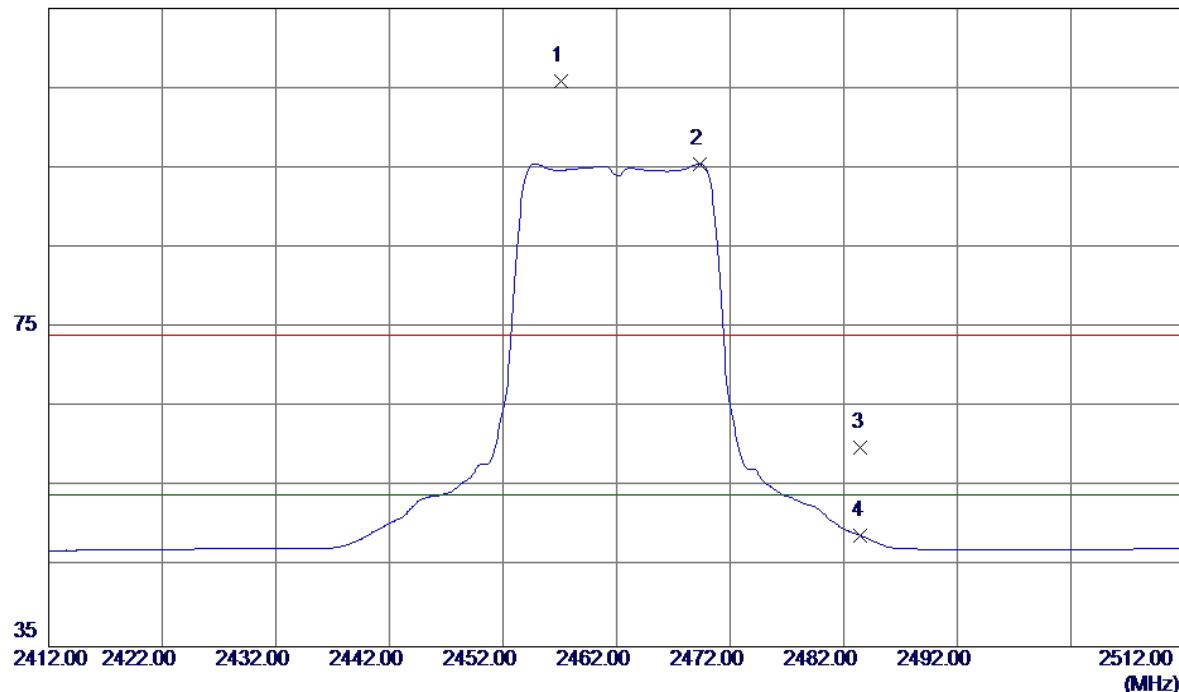


No.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Detector	Comment
	MHz	dBuV/m	dB	dBuV/m	dB			
1	4921.1000	35.53	7.01	42.54	74.00	-31.46	Peak	
2 *	4924.0400	26.01	7.02	33.03	54.00	-20.97	AVG	

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

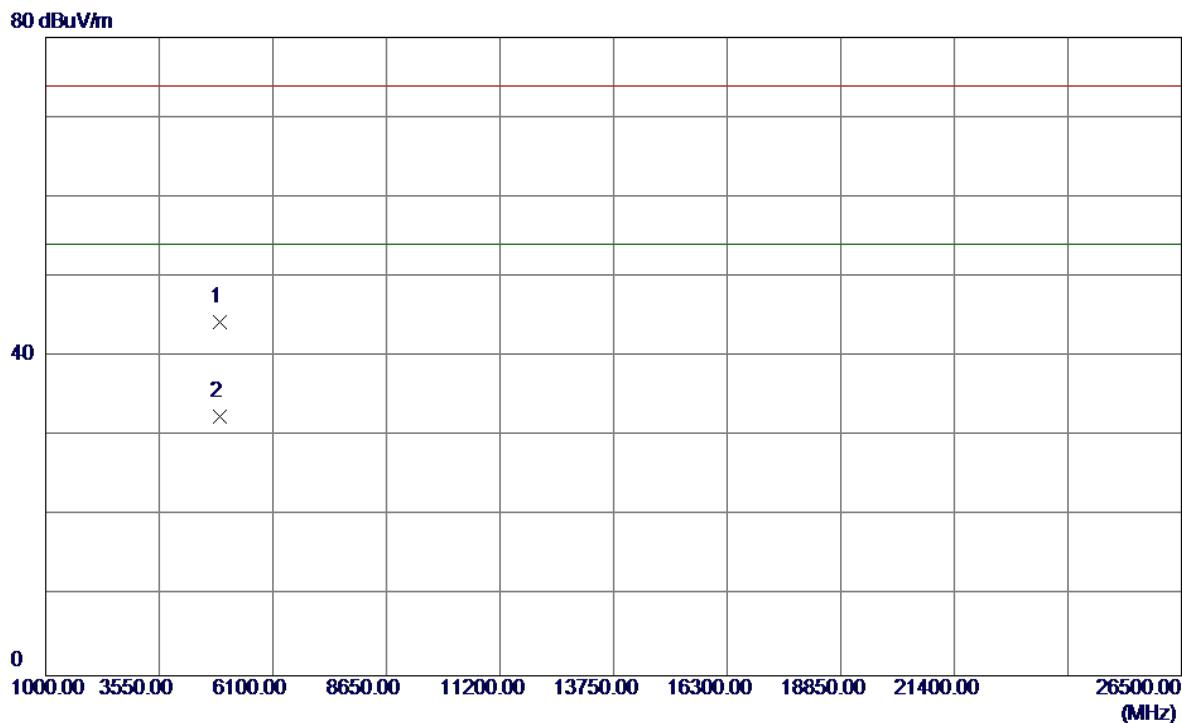
Horizontal

115 dBuV/m



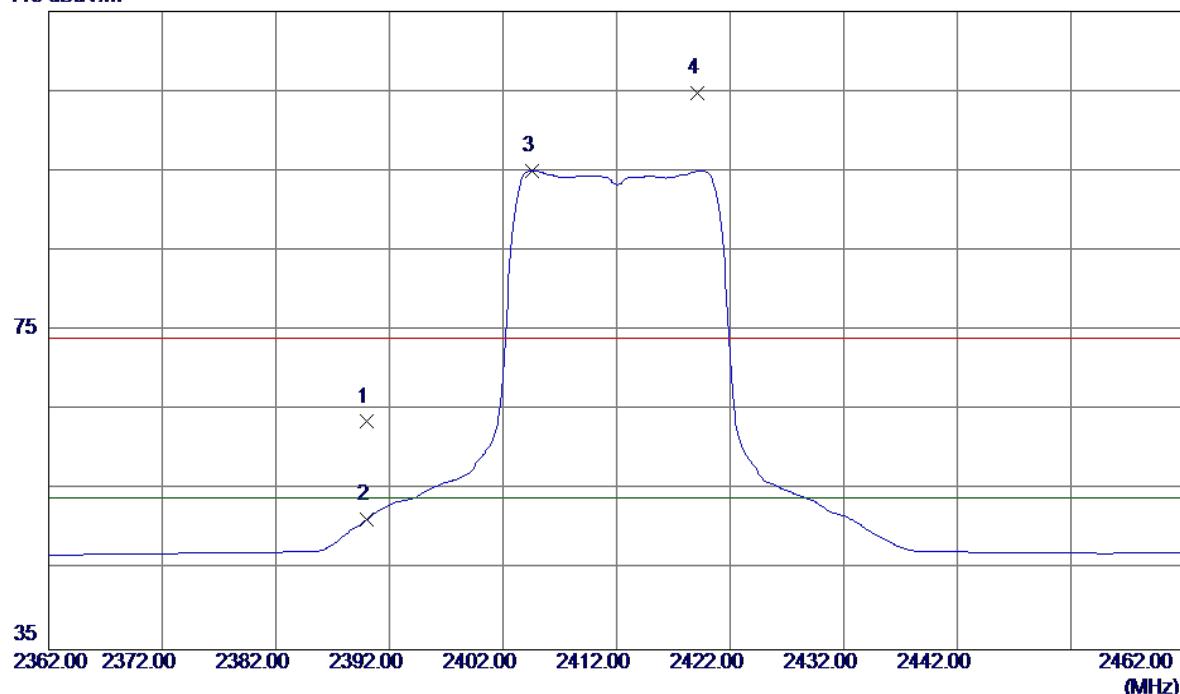
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dB	Margin Detector	Comment
1	2457.1000	72.56	33.31	105.87	74.00	31.87	Peak No Limit
2 *	2469.3000	62.14	33.35	95.49	54.00	41.49	AVG No Limit
3	2483.5000	26.55	33.41	59.96	74.00	-14.04	Peak
4	2483.5000	15.51	33.41	48.92	54.00	-5.08	AVG

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

Horizontal

No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dB	Margin Detector	Comment
1	4922.7200	37.35	7.01	44.36	74.00	-29.64	Peak
2 *	4924.0350	25.48	7.02	32.50	54.00	-21.50	AVG

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

Vertical**115 dBuV/m**

No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.000	30.50	33.06	63.56	74.00	-10.44	Peak	
2	2390.000	18.25	33.06	51.31	54.00	-2.69	AVG	
3 *	2404.600	61.93	33.11	95.04	54.00	41.04	AVG	No Limit
4	2419.100	71.58	33.17	104.75	74.00	30.75	Peak	No Limit

Orthogonal Axis : X

Test Mode : TX N-20M MODE 2412MHz

Vertical

80 dBuV/m



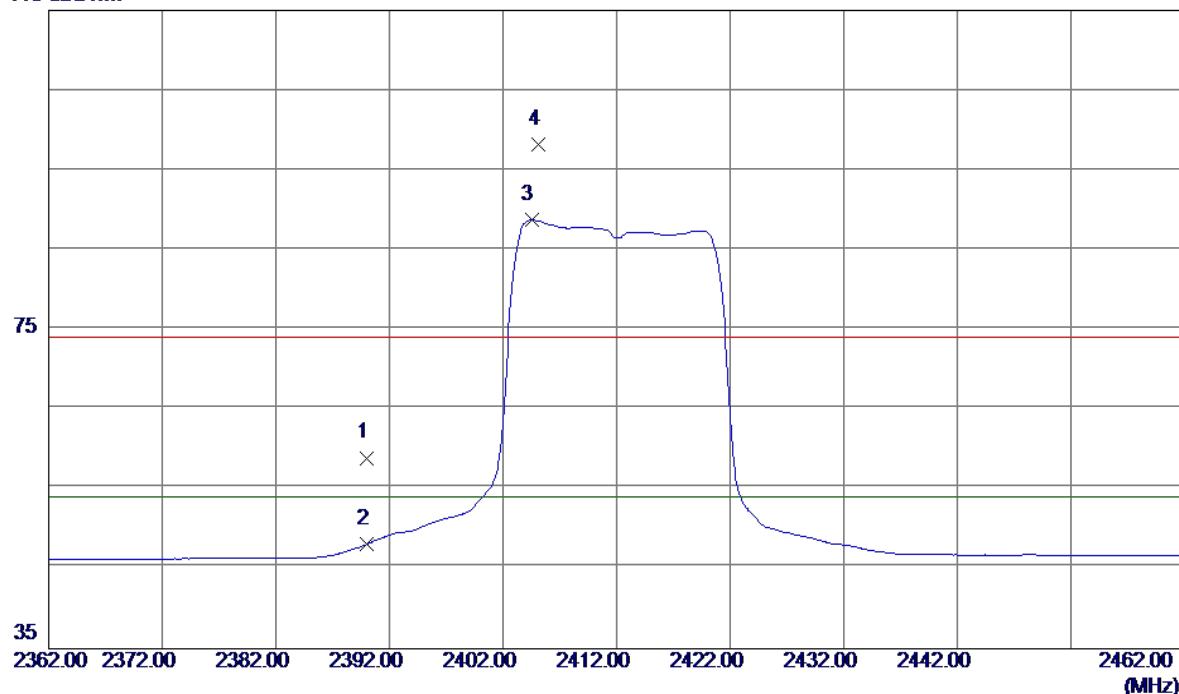
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dB	Margin Detector	Comment
1 *	4824.0200	25.02	6.66	31.68	54.00	-22.32	AVG
2	4825.5600	33.97	6.66	40.63	74.00	-33.37	Peak

Orthogonal Axis : X

Test Mode : TX N-20M MODE 2412MHz

Horizontal

115 dBuV/m



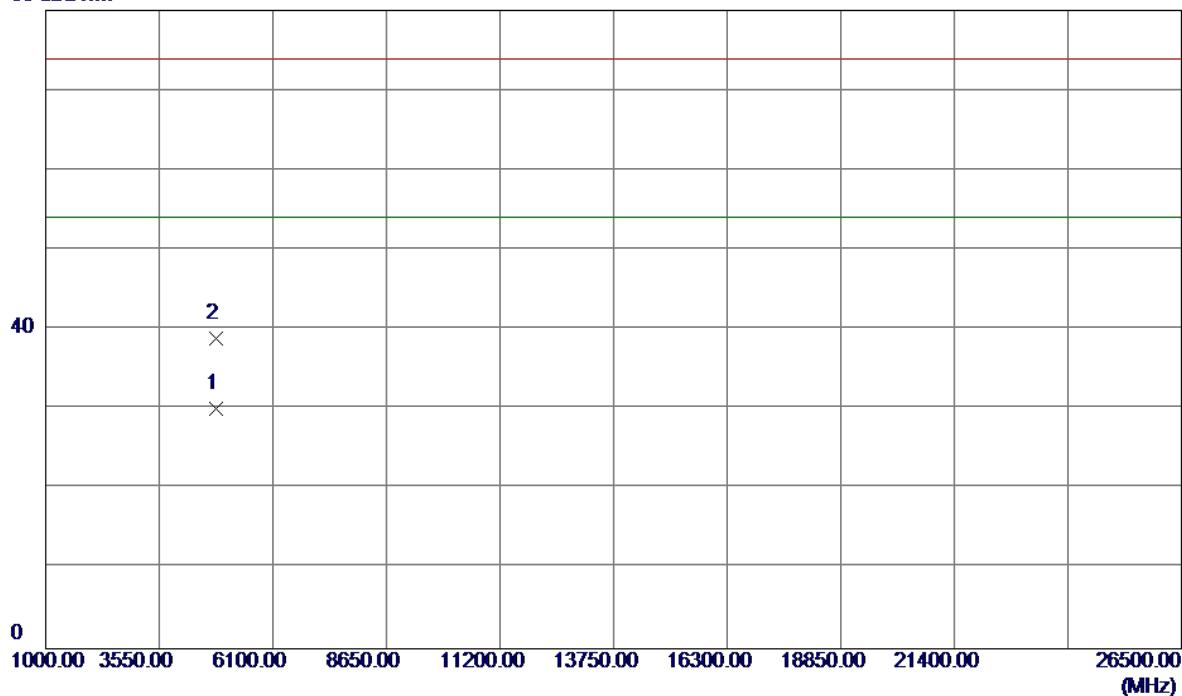
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dB	Margin dB	Detector	Comment
1	2390.000	25.86	33.06	58.92	74.00	-15.08	Peak	
2	2390.000	15.02	33.06	48.08	54.00	-5.92	AVG	
3 *	2404.5000	55.62	33.11	88.73	54.00	34.73	AVG	No Limit
4	2405.1000	65.07	33.11	98.18	74.00	24.18	Peak	No Limit

Orthogonal Axis : X

Test Mode : TX N-20M MODE 2412MHz

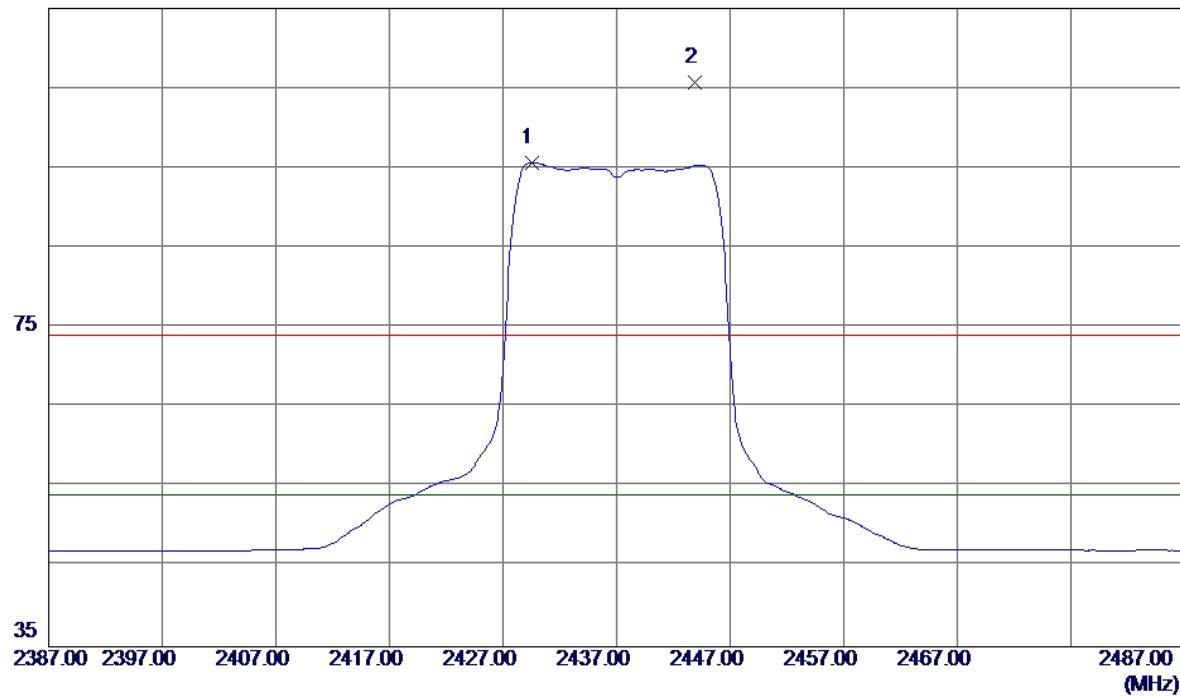
Horizontal

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dB	Margin Detector	Comment
1 *	4824.0400	23.42	6.66	30.08	54.00	-23.92	AVG
2	4825.4600	32.29	6.66	38.95	74.00	-35.05	Peak

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

Vertical**115 dBuV/m**

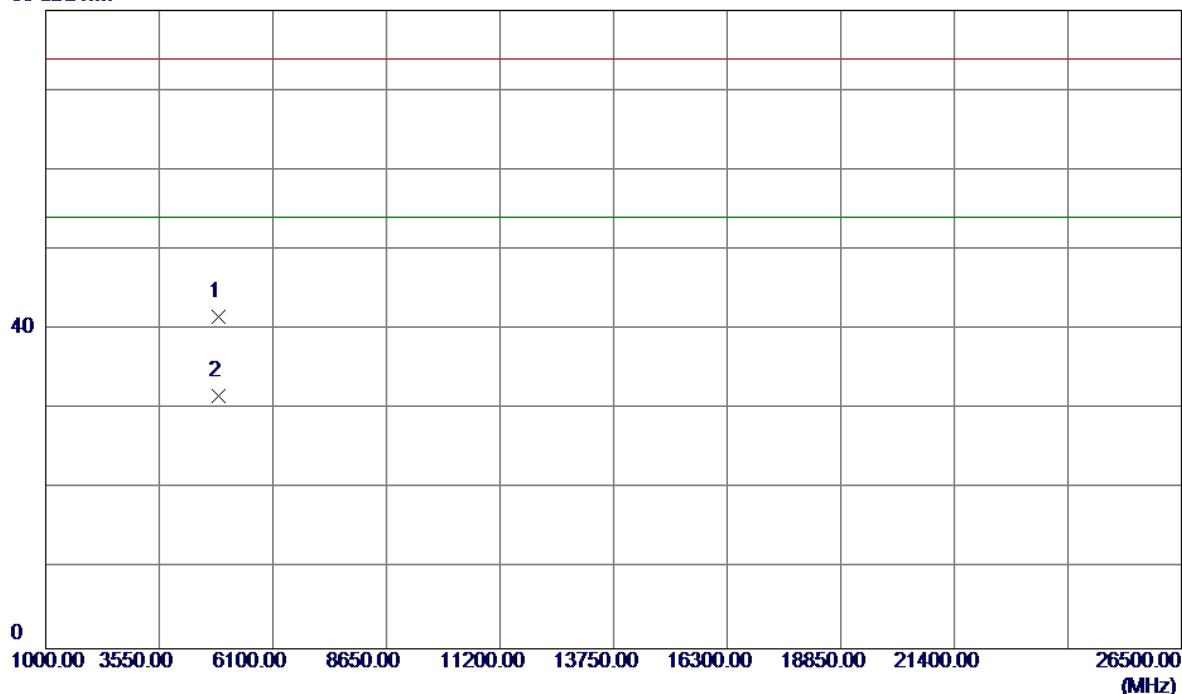
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2429.5000	62.50	33.20	95.70	54.00	41.70	AVG	No Limit
2	2443.9000	72.41	33.26	105.67	74.00	31.67	Peak	No Limit

Orthogonal Axis : X

Test Mode : TX N-20M MODE 2437MHz

Vertical

80 dBuV/m



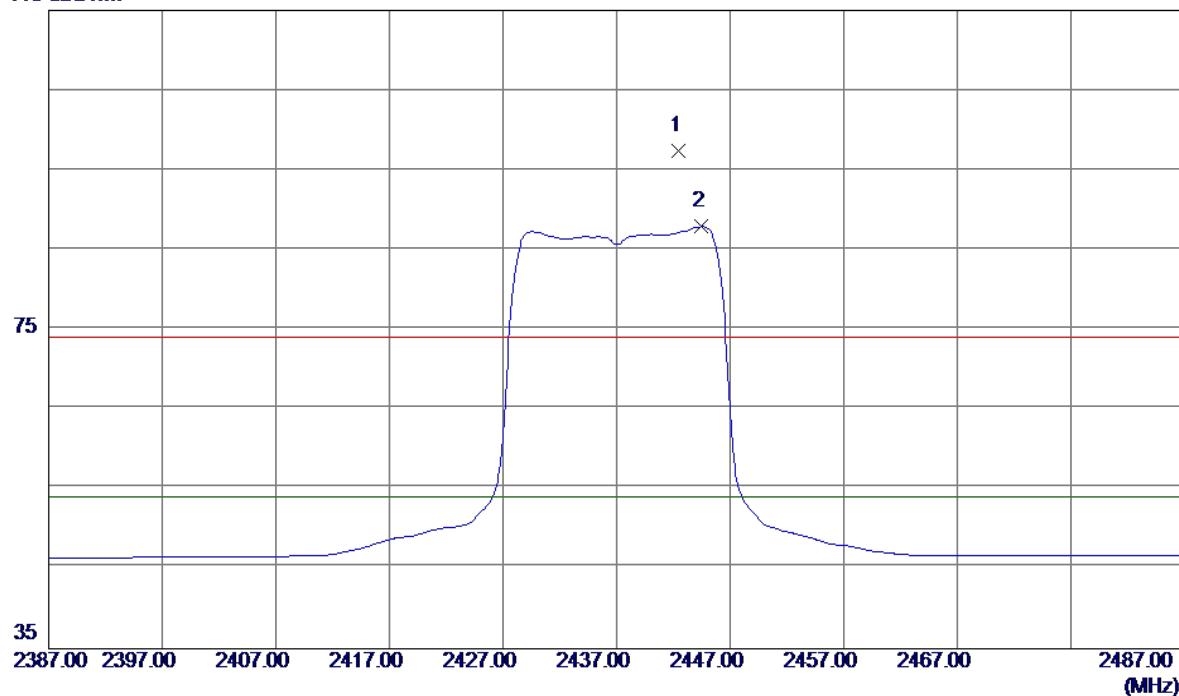
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dB	Margin Detector	Comment
1	4872.7799	34.79	6.83	41.62	74.00	-32.38	Peak
2 *	4873.9200	24.88	6.84	31.72	54.00	-22.28	AVG

Orthogonal Axis : X

Test Mode : TX N-20M MODE 2437MHz

Horizontal

115 dBuV/m



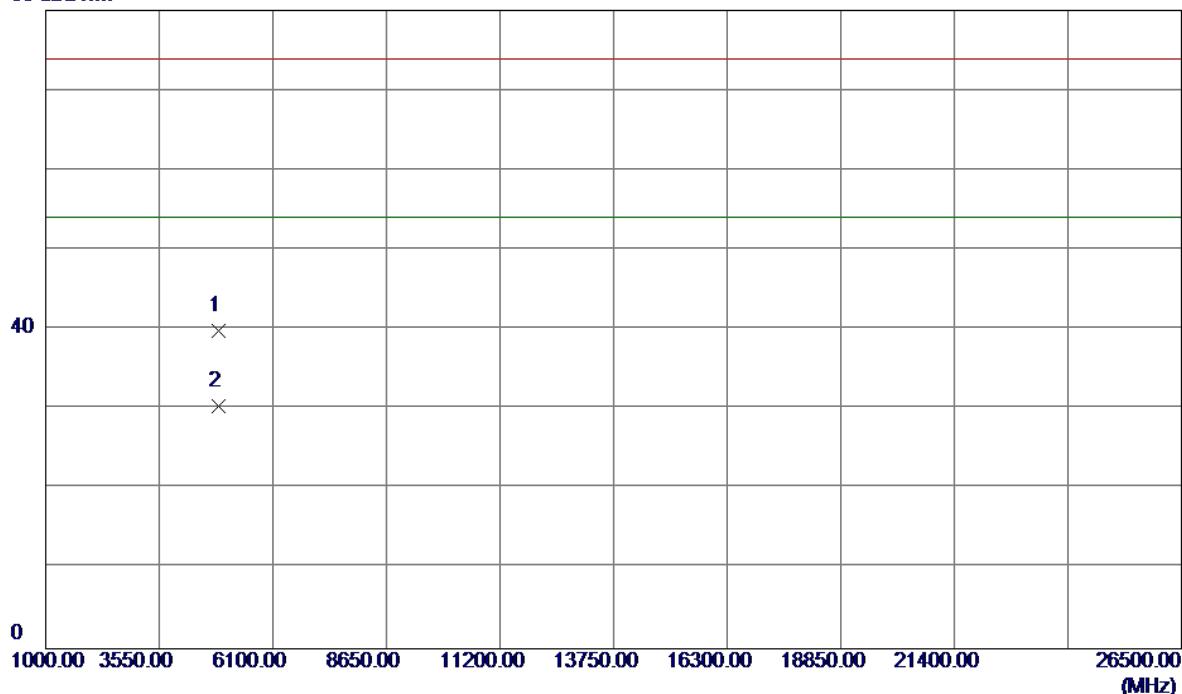
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dB	Margin Detector	Comment
1	2442.5000	64.08	33.25	97.33	74.00	23.33	Peak No Limit
2 *	2444.5000	54.64	33.26	87.90	54.00	33.90	AVG No Limit

Orthogonal Axis : X

Test Mode : TX N-20M MODE 2437MHz

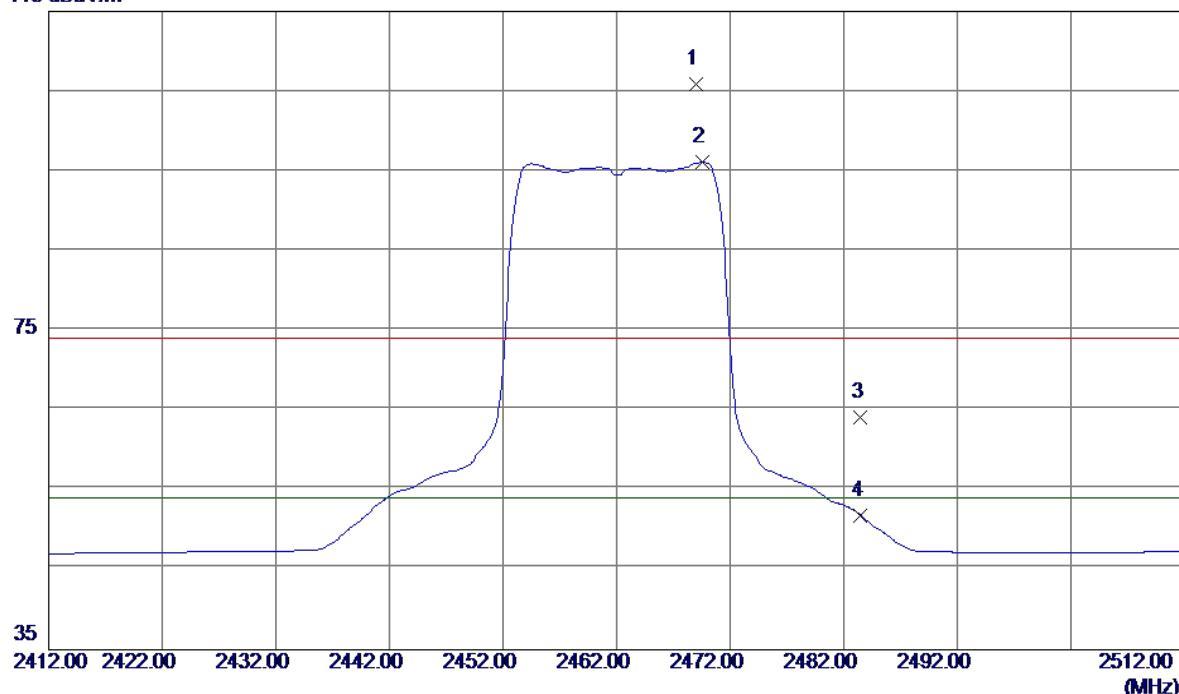
Horizontal

80 dBuV/m



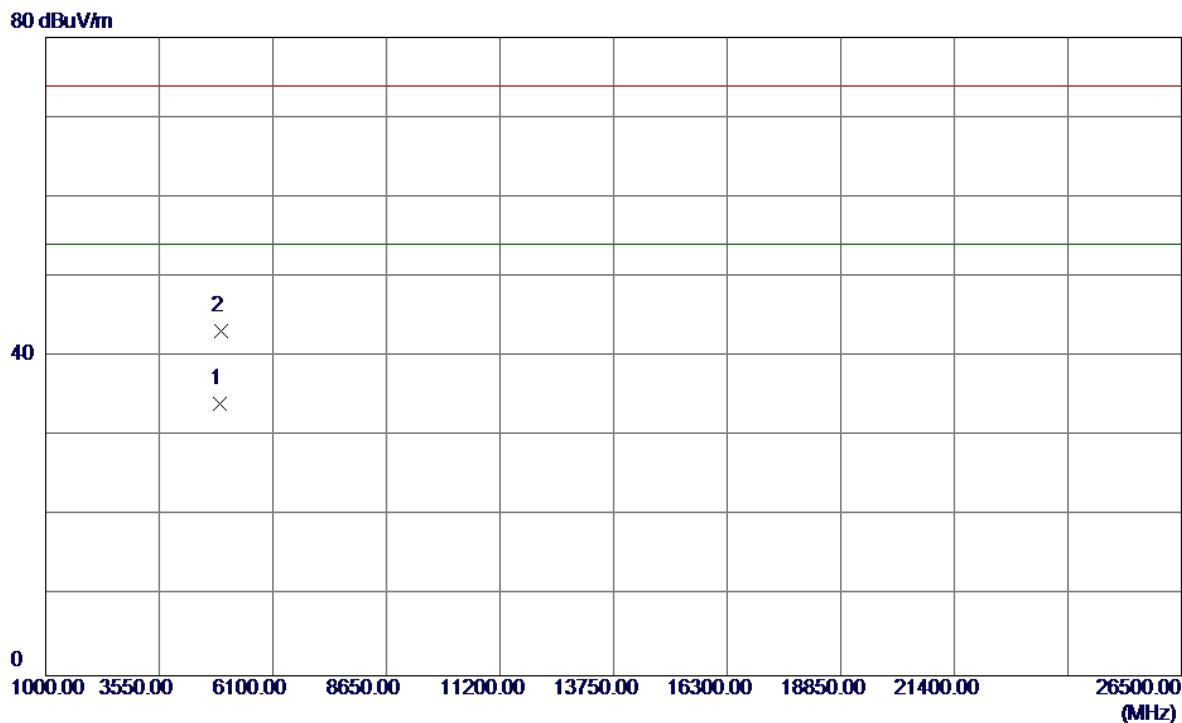
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dB	Margin Detector	Comment
1	4872.9300	33.09	6.83	39.92	74.00	-34.08	Peak
2 *	4874.1150	23.54	6.84	30.38	54.00	-23.62	AVG

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

Vertical**115 dBuV/m**

No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2469.0000	72.50	33.35	105.85	74.00	31.85	Peak	No Limit
2 *	2469.6000	62.74	33.36	96.10	54.00	42.10	AVG	No Limit
3	2483.5000	30.74	33.41	64.15	74.00	-9.85	Peak	
4	2483.5000	18.43	33.41	51.84	54.00	-2.16	AVG	

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

Vertical

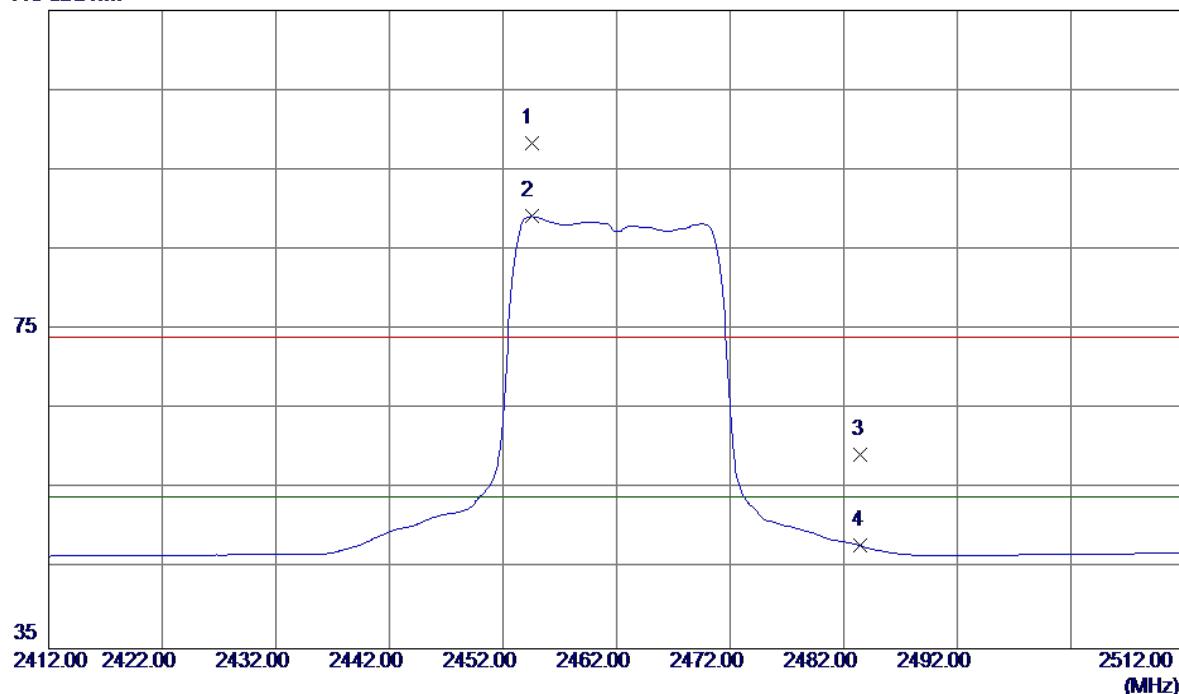
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin	Detector	Comment
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB		
1 *	4924.0200	27.10	7.02	34.12	54.00	-19.88	AVG	
2	4924.1750	36.21	7.02	43.23	74.00	-30.77	Peak	

Orthogonal Axis : X

Test Mode : TX N-20M MODE 2462MHz

Horizontal

115 dBuV/m



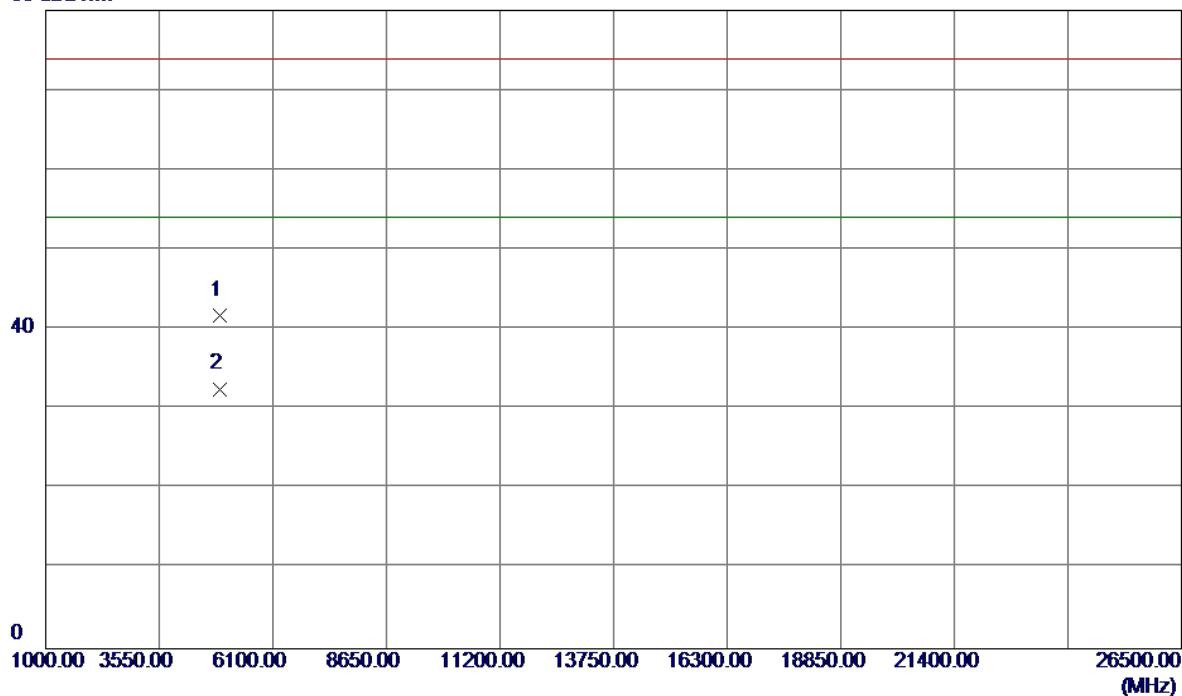
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dB	Margin Detector	Comment
1	2454.5000	65.06	33.30	98.36	74.00	24.36	Peak No Limit
2 *	2454.5000	55.88	33.30	89.18	54.00	35.18	AVG No Limit
3	2483.5000	25.90	33.41	59.31	74.00	-14.69	Peak
4	2483.5000	14.48	33.41	47.89	54.00	-6.11	AVG

Orthogonal Axis : X

Test Mode : TX N-20M MODE 2462MHz

Horizontal

80 dBuV/m



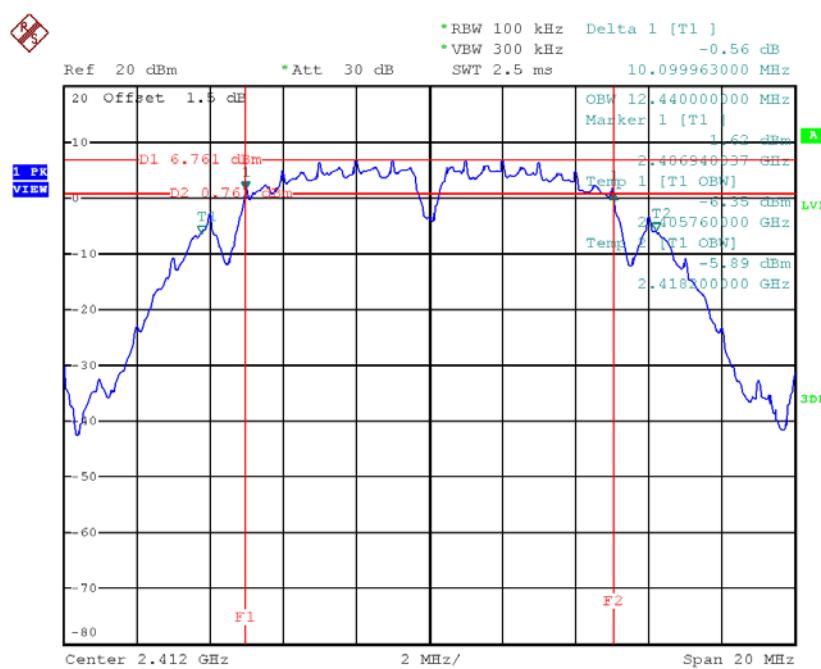
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4923.5299	34.81	7.02	41.83	74.00	-32.17	Peak	
2 *	4923.9400	25.54	7.02	32.56	54.00	-21.44	AVG	

APPENDIX E - BANDWIDTH

Test Mode : TX B Mode_CH01/06/11

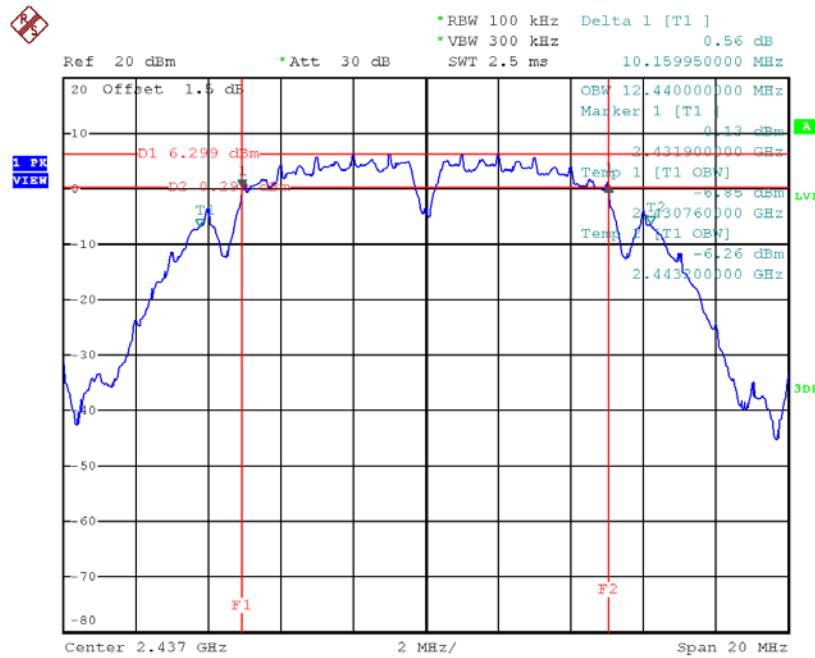
Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied BW (MHz)	Min. Limit (kHz)	Test Result
2412	10.1	12.44	500	Complies
2437	10.16	12.44	500	Complies
2462	10.1	12.36	500	Complies

TX CH01



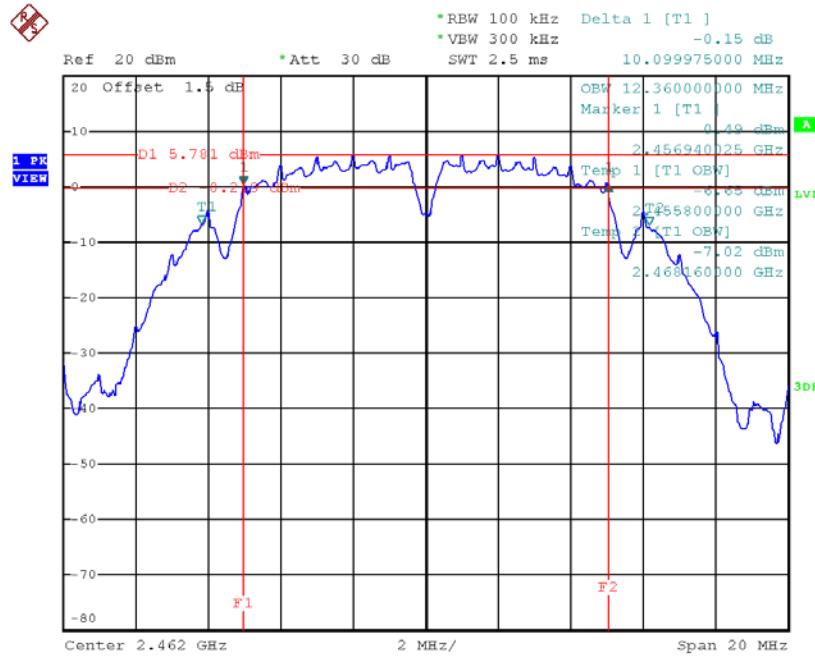
Date: 18.OCT.2017 17:44:54

TX CH06



Date: 18.OCT.2017 17:46:23

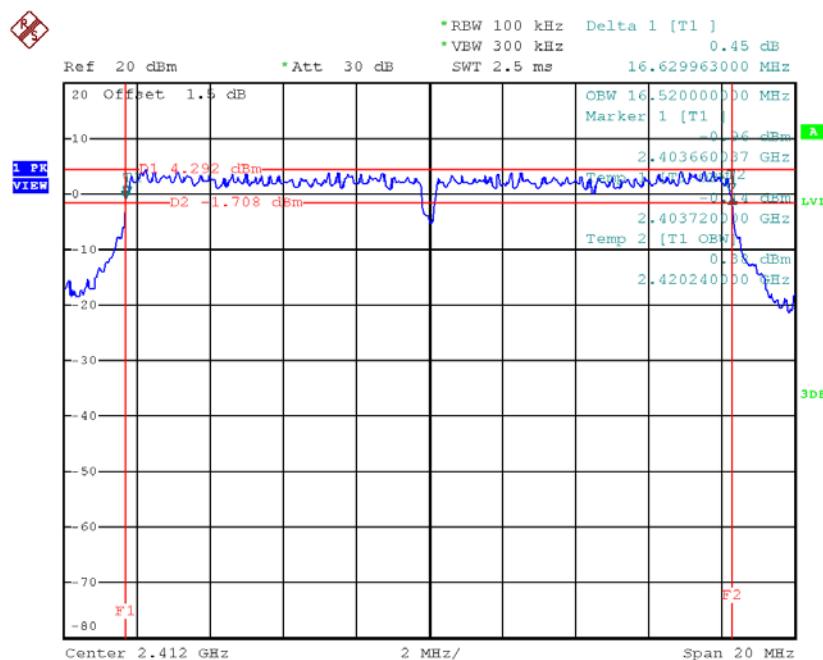
TX CH11



Date: 18.OCT.2017 17:47:37

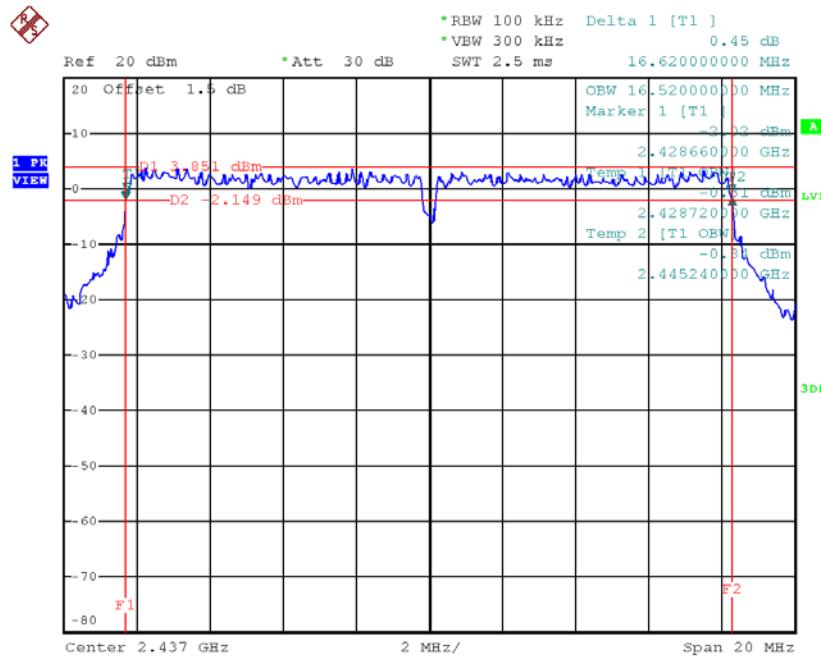
Test Mode: TX G Mode_CH01/06/11

Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied BW (MHz)	Min. Limit (kHz)	Test Result
2412	16.63	16.52	500	Complies
2437	16.62	16.52	500	Complies
2462	16.64	16.52	500	Complies

TX CH01


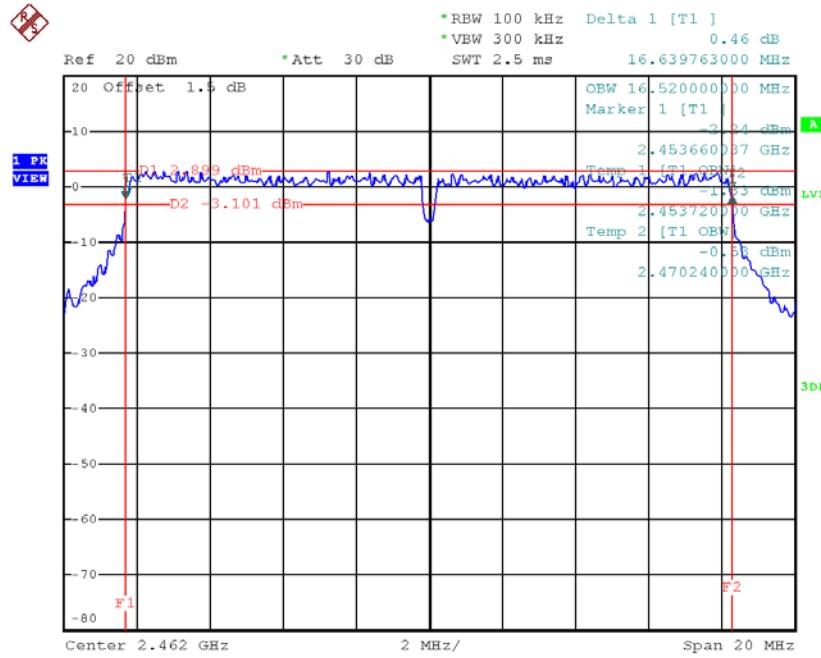
Date: 18.OCT.2017 17:50:04

TX CH06



Date: 18.OCT.2017 17:51:12

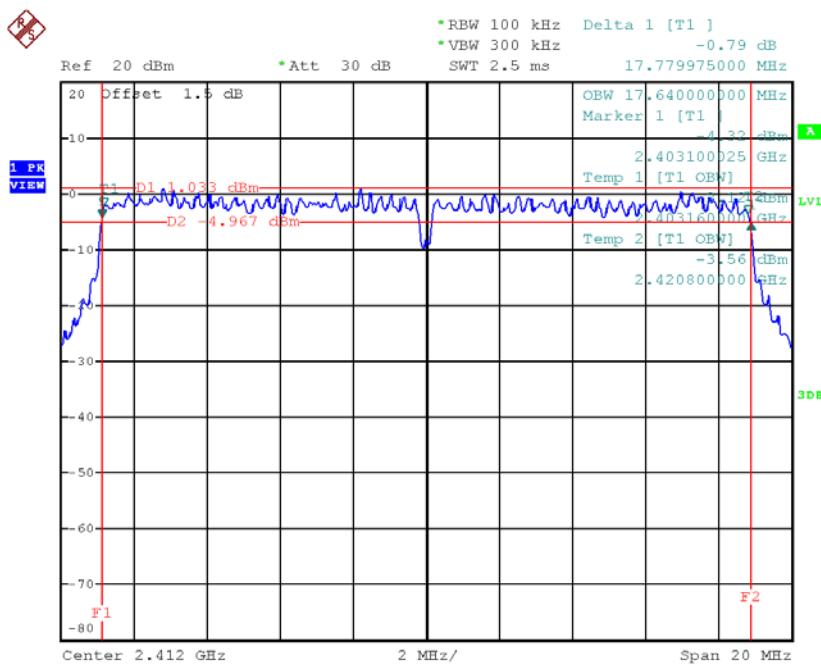
TX CH11



Date: 18.OCT.2017 17:52:16

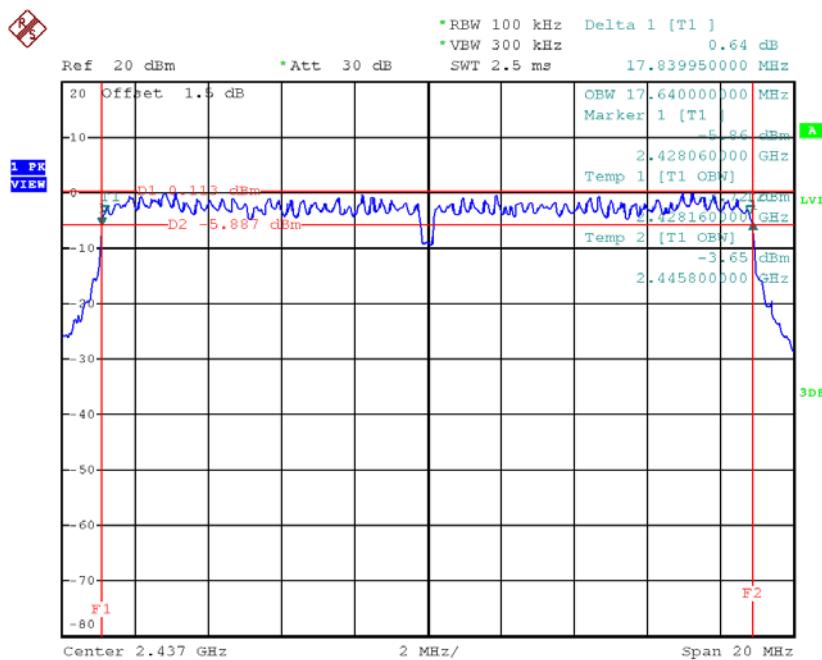
Test Mode : TX N-20MHz Mode_CH01/06/11

Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied BW (MHz)	Min. Limit (kHz)	Test Result
2412	17.78	17.64	500	Complies
2437	17.84	17.64	500	Complies
2462	17.76	17.64	500	Complies

TX CH01


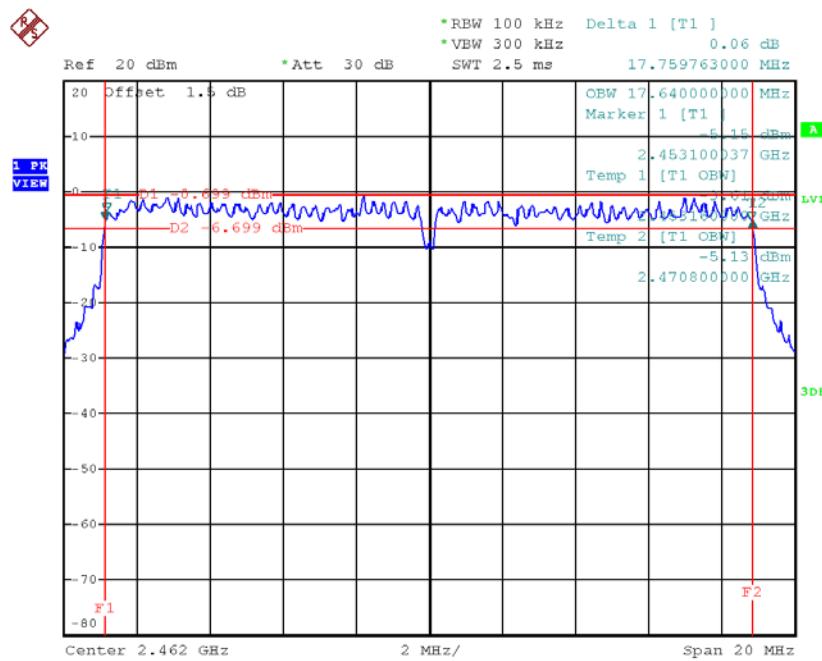
Date: 18.OCT.2017 17:53:49

TX CH06



Date: 18.OCT.2017 17:59:33

TX CH11



Date: 18.OCT.2017 18:01:26

APPENDIX F - MAXIMUM PEAK CONDUCTED OUTPUT POWER

Test Mode :TX B Mode_CH01/06/11					
Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2412	20.96	0.12	29.98	0.99	Complies
2437	20.79	0.12	29.98	0.99	Complies
2462	20.64	0.12	29.98	0.99	Complies

Test Mode :TX G Mode_CH01/06/11					
Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2412	24.39	0.27	29.98	0.99	Complies
2437	24.27	0.27	29.98	0.99	Complies
2462	25.01	0.32	29.98	0.99	Complies

Test Mode :TX N20 Mode_CH01/06/11_ANT 1					
Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2412	23.07	0.20	29.98	0.99	Complies
2437	23.51	0.22	29.98	0.99	Complies
2462	24.09	0.26	29.98	0.99	Complies

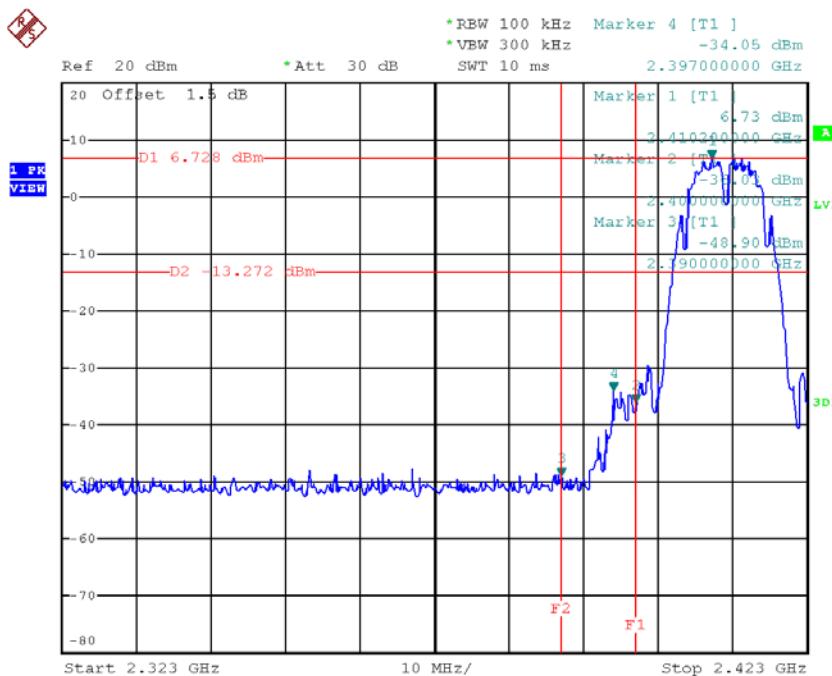
Test Mode :TX N20 Mode_CH01/06/11_ANT 2					
Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2412	23.66	0.23	30.00	1.00	Complies
2437	23.91	0.25	30.00	1.00	Complies
2462	23.14	0.21	30.00	1.00	Complies

Test Mode :TX N20 Mode_CH01/06/11_Total					
Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2412	26.39	0.44	29.98	0.99	Complies
2437	26.72	0.47	29.98	0.99	Complies
2462	26.65	0.46	29.98	0.99	Complies

APPENDIX G - ANTENNA CONDUCTED SPURIOUS EMISSION

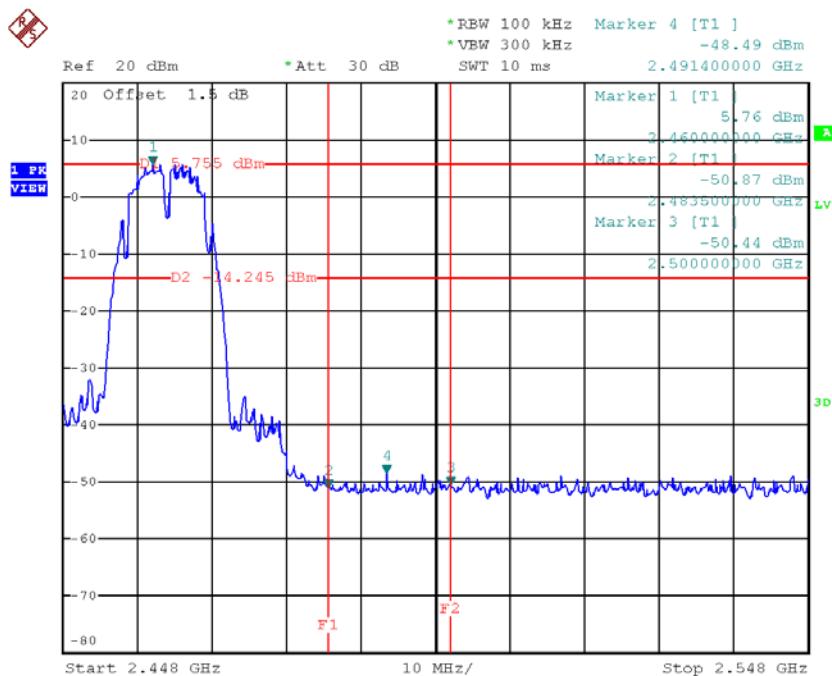
Test Mode :	TX B Mode
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TX B mode CH01



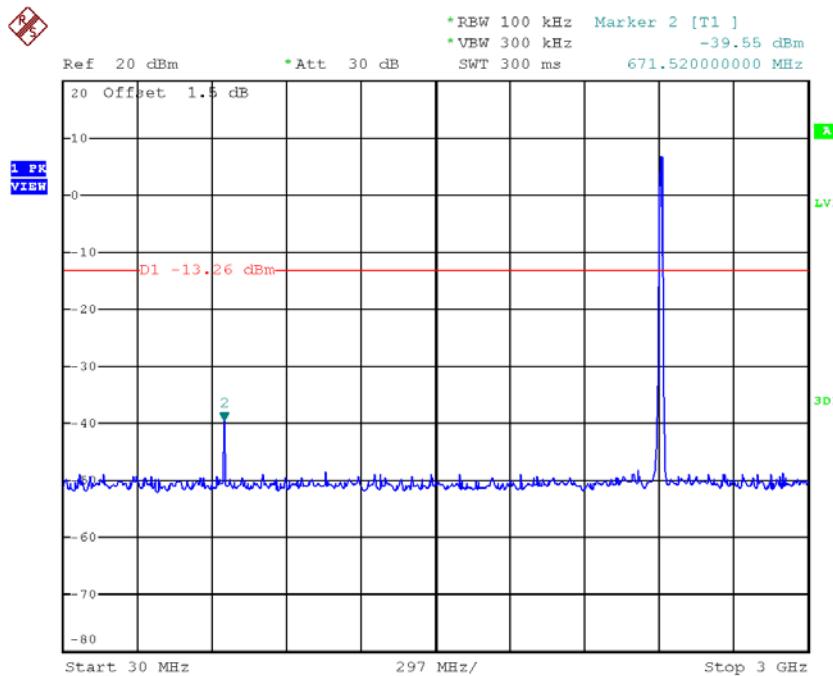
Date: 18.OCT.2017 17:45:28

TX B mode CH11

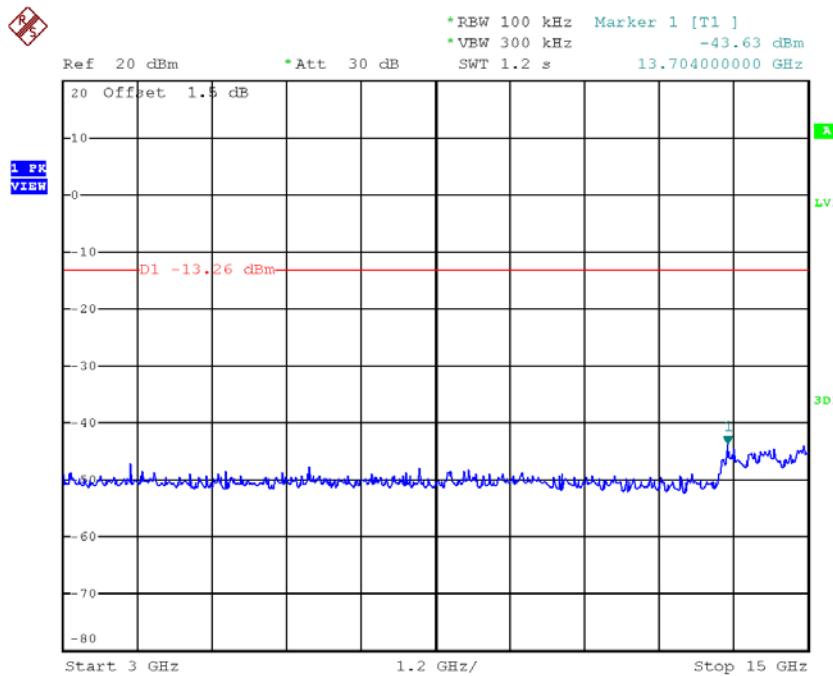


Date: 18.OCT.2017 17:48:12

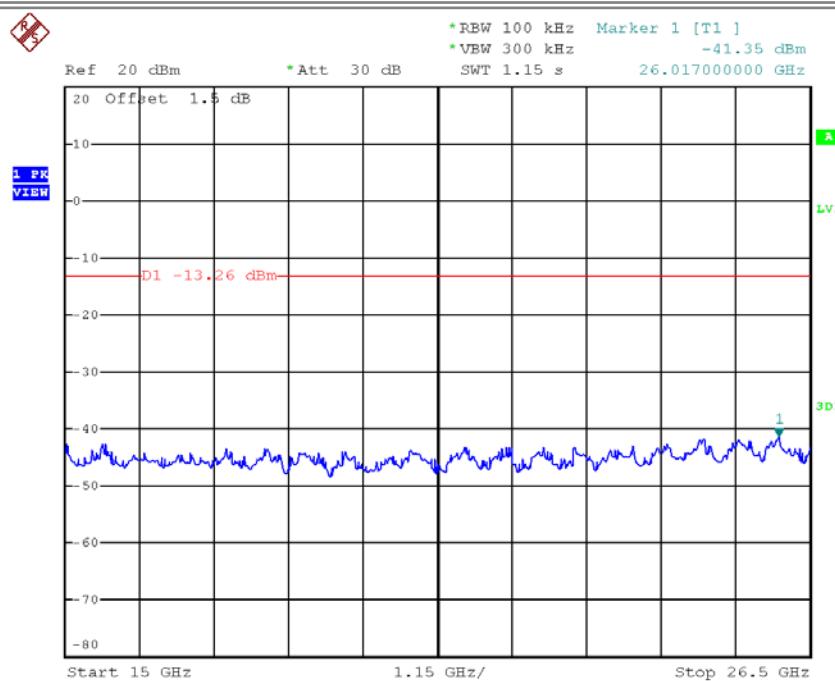
TX B mode CH01 (10 Harmonic of the frequency)



Date: 18.OCT.2017 17:45:07

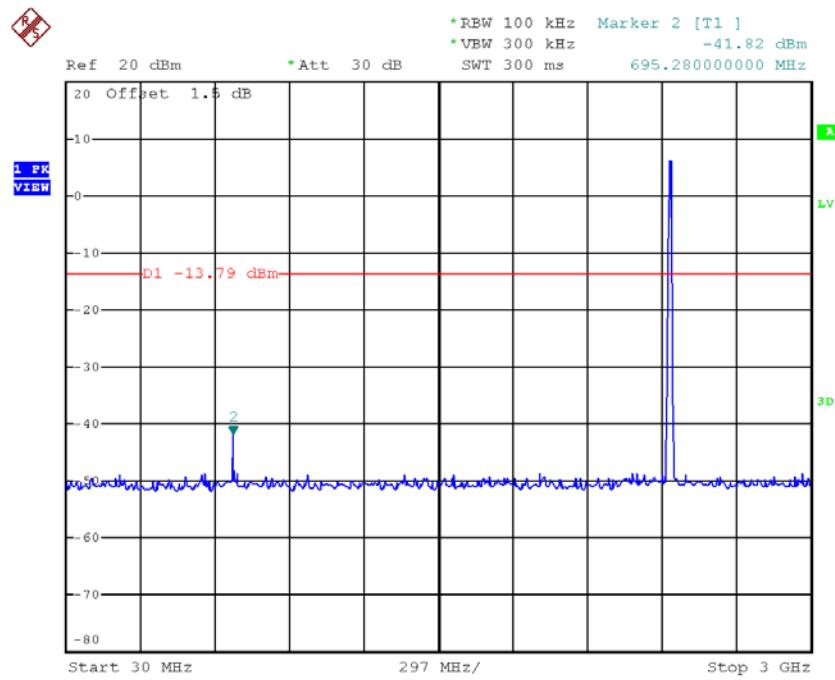


Date: 18.OCT.2017 17:45:14

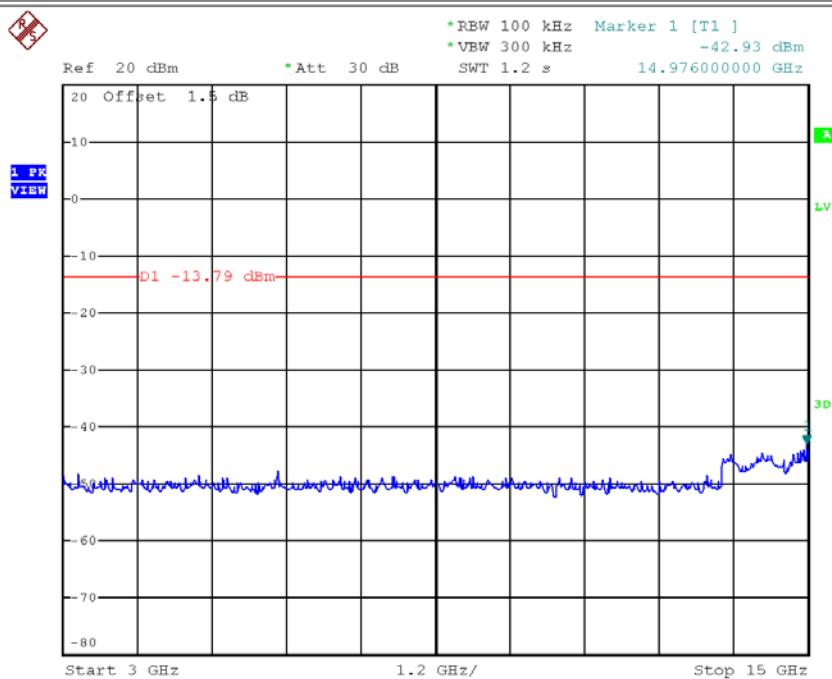


Date: 18.OCT.2017 17:45:21

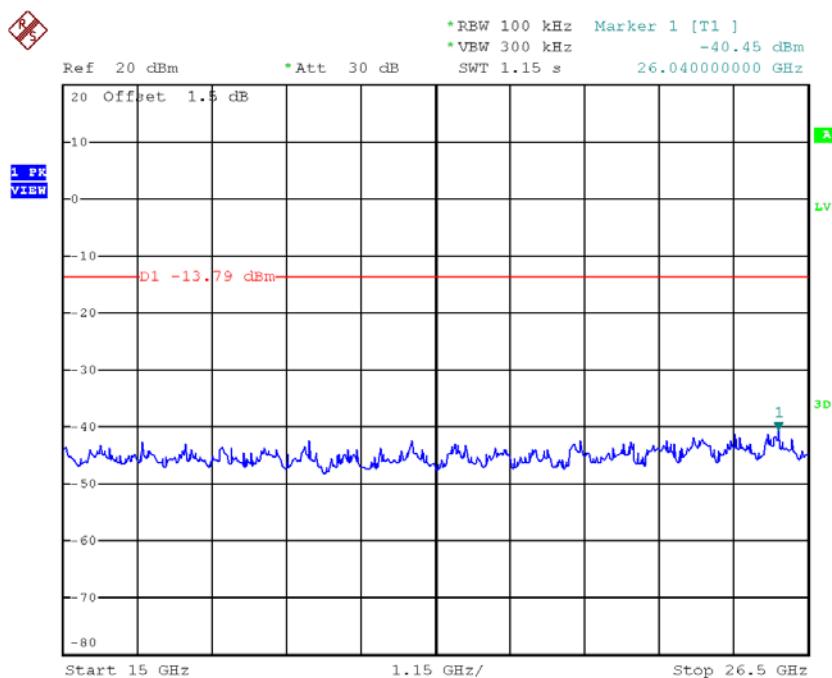
TX B mode CH06 (10 Harmonic of the frequency)



Date: 18.OCT.2017 17:46:37

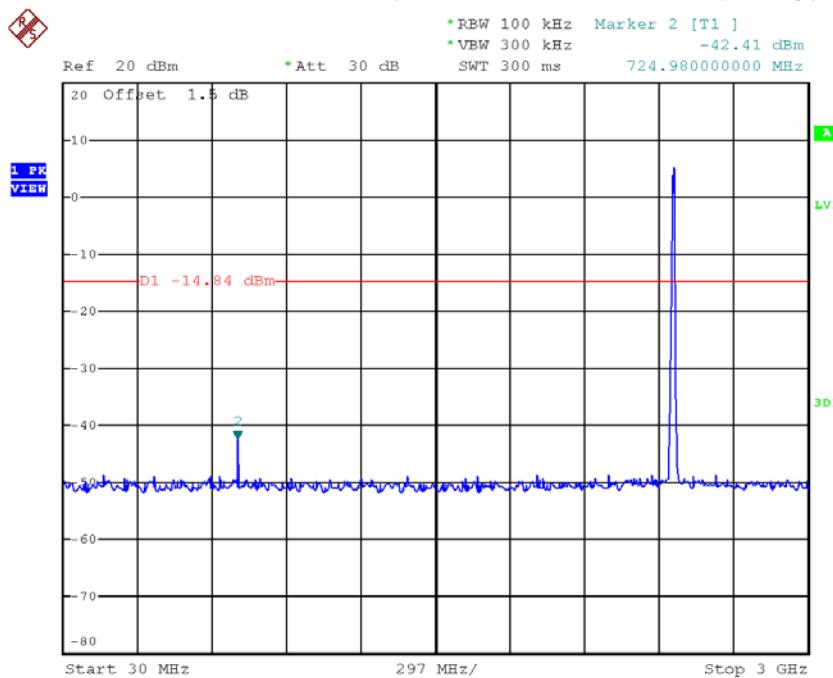


Date: 18.OCT.2017 17:46:44

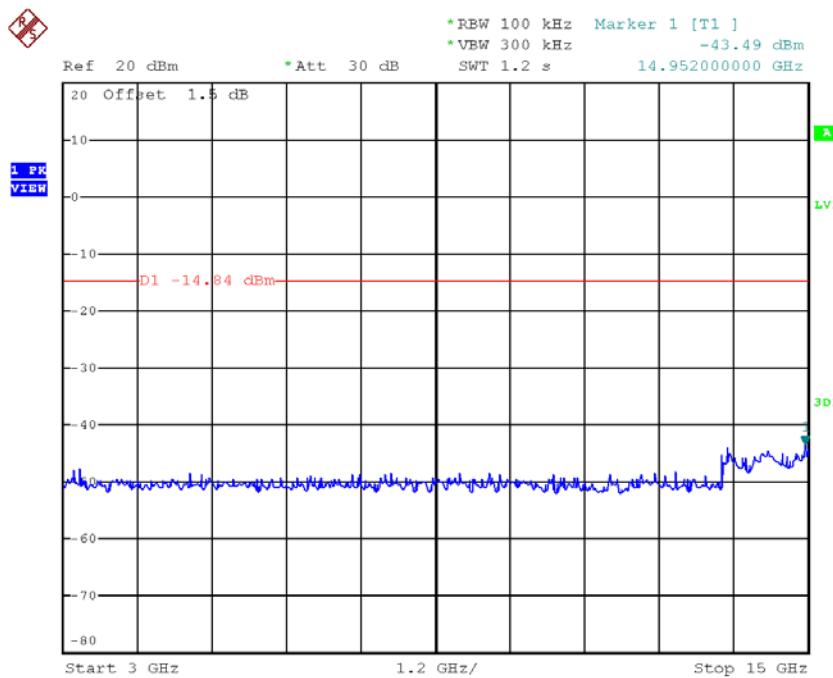


Date: 18.OCT.2017 17:46:51

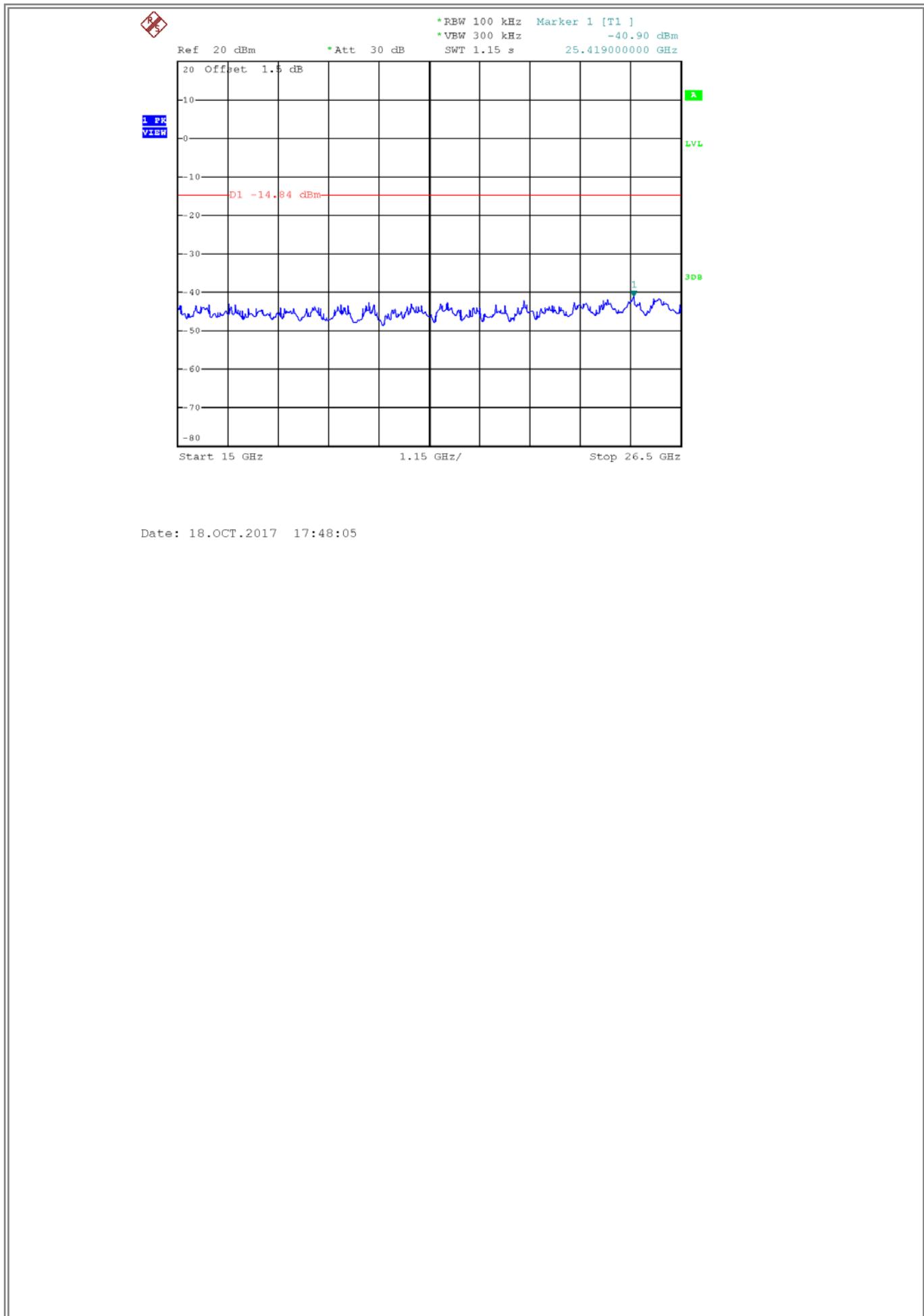
TX B mode CH11 (10 Harmonic of the frequency)



Date: 18.OCT.2017 17:47:50

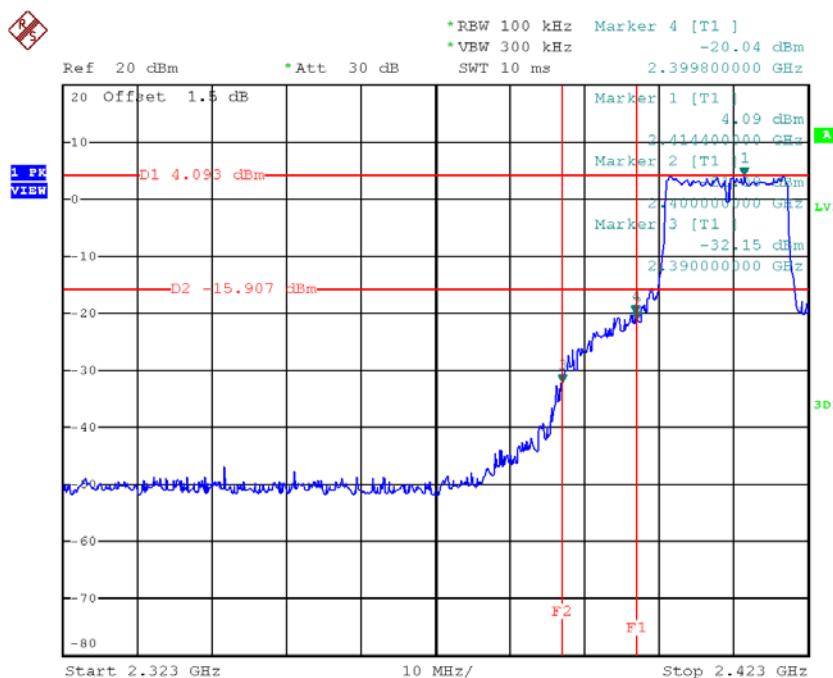


Date: 18.OCT.2017 17:47:57



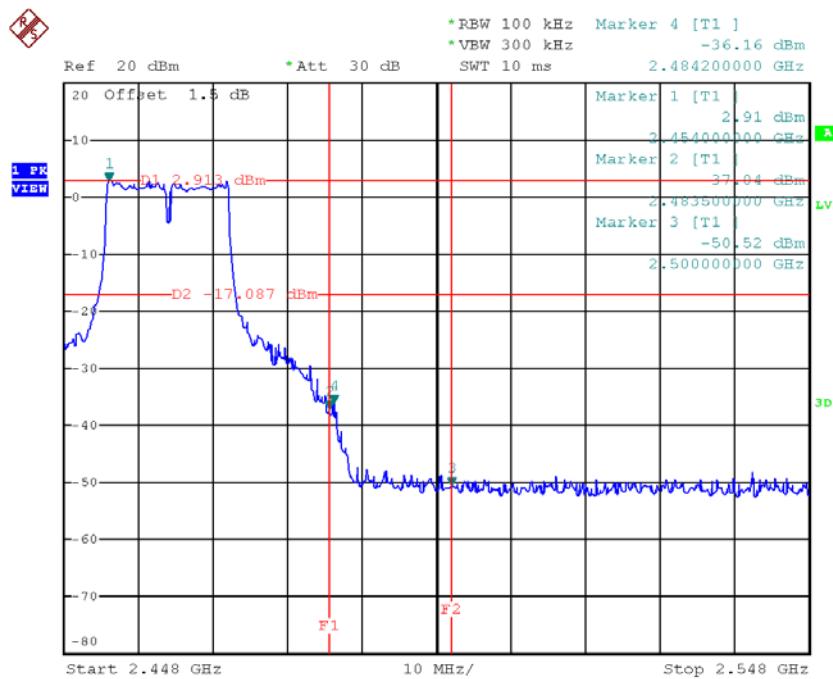
Test Mode : TX G Mode

TX G mode CH01



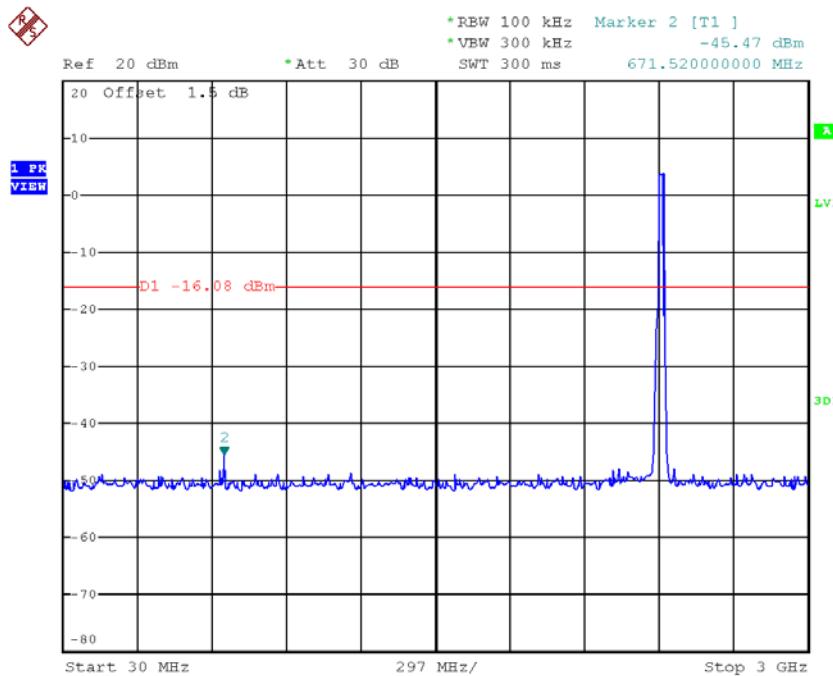
Date: 18.OCT.2017 17:50:39

TX G mode CH11

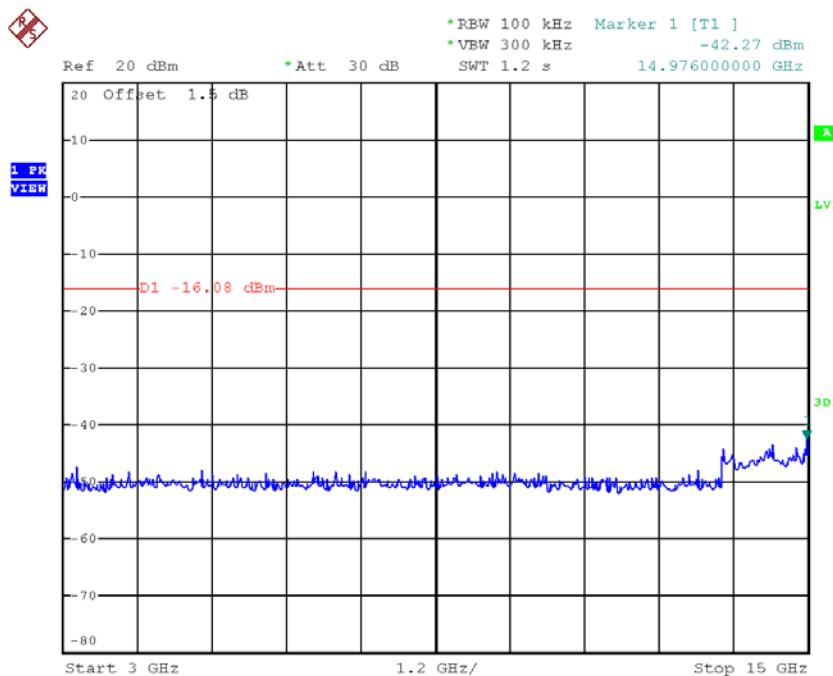


Date: 18.OCT.2017 17:52:50

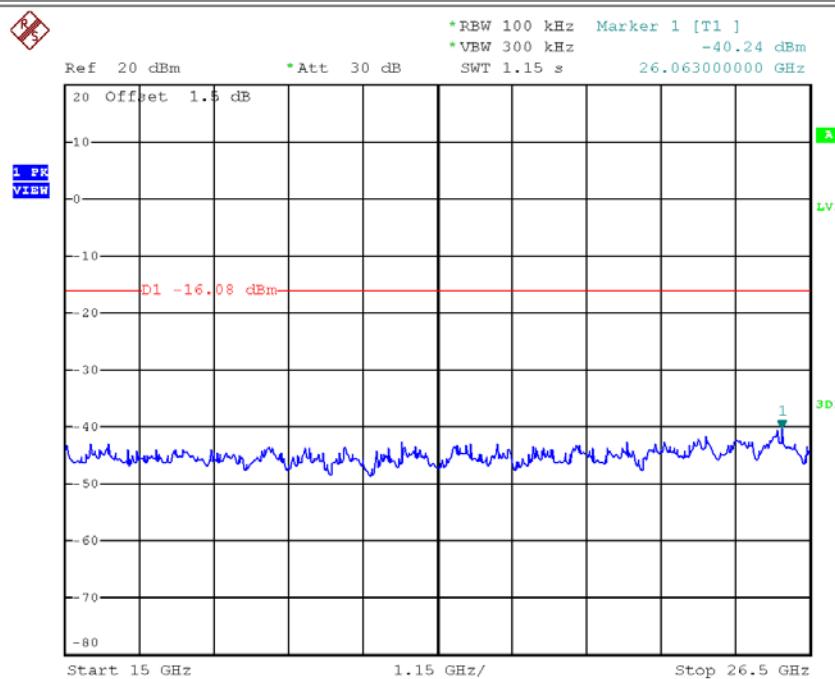
TX G mode CH01 (10 Harmonic of the frequency)



Date: 18.OCT.2017 17:50:18

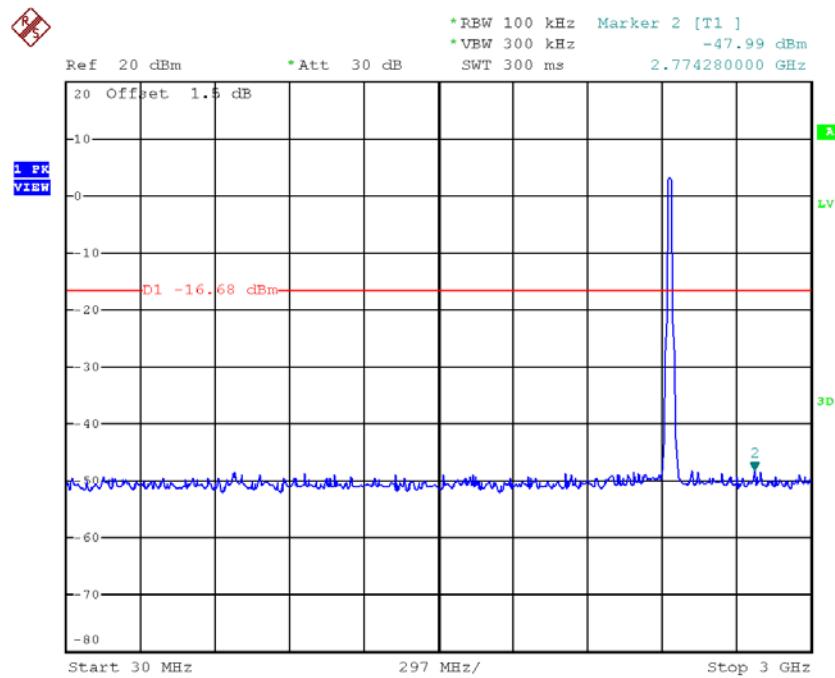


Date: 18.OCT.2017 17:50:25

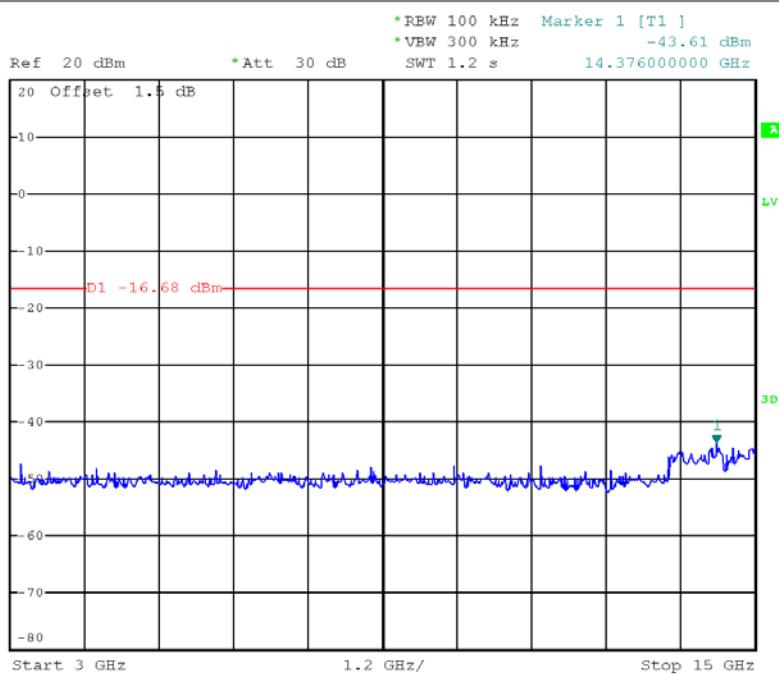


Date: 18.OCT.2017 17:50:32

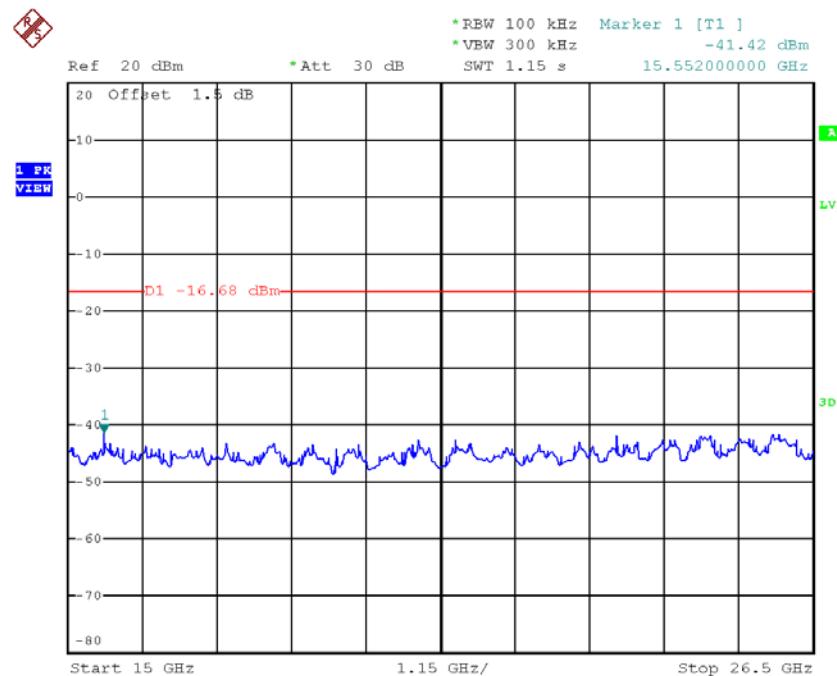
TX G mode CH06 (10 Harmonic of the frequency)



Date: 18.OCT.2017 17:51:26

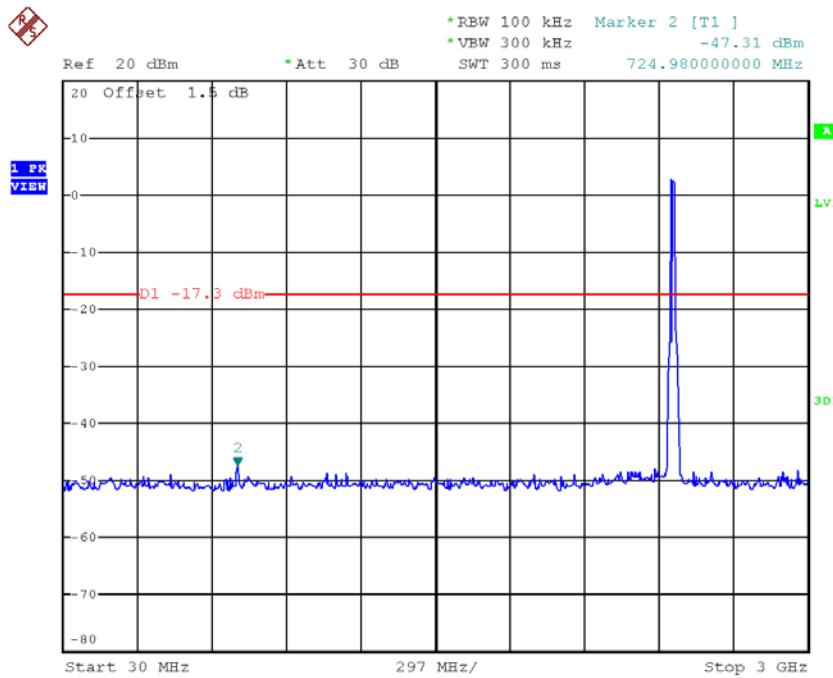


Date: 18.OCT.2017 17:51:33

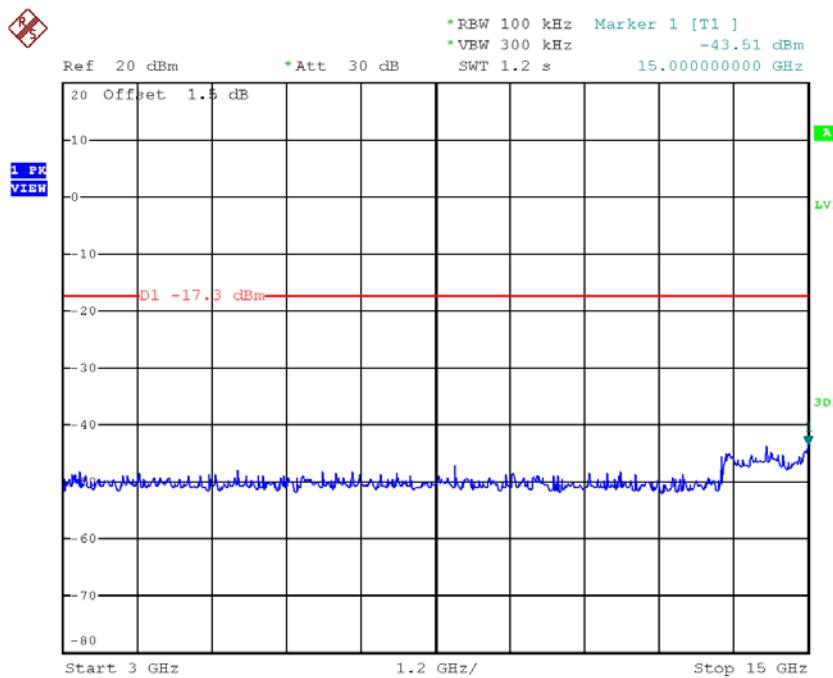


Date: 18.OCT.2017 17:51:40

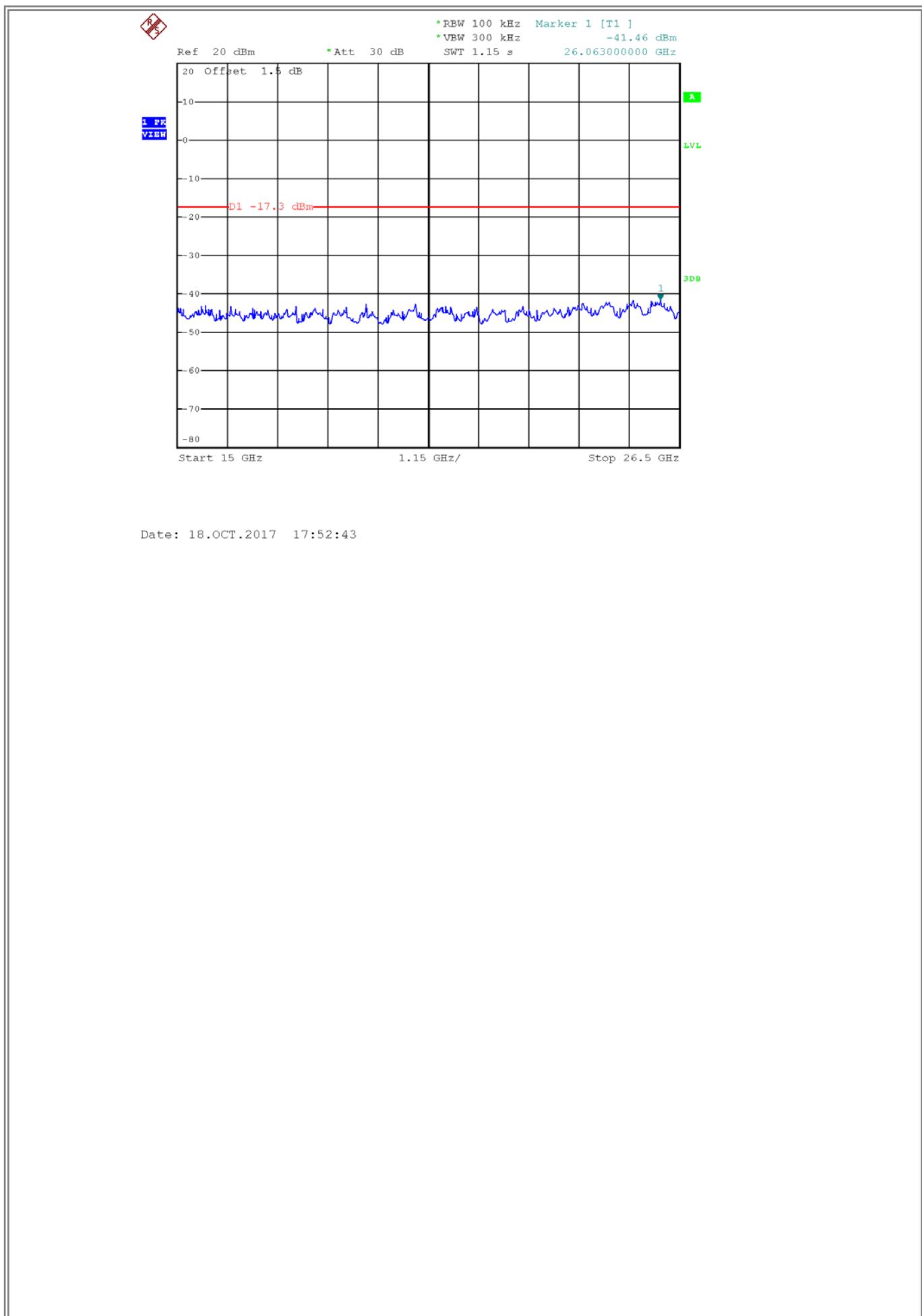
TX G mode CH11 (10 Harmonic of the frequency)



Date: 18.OCT.2017 17:52:29

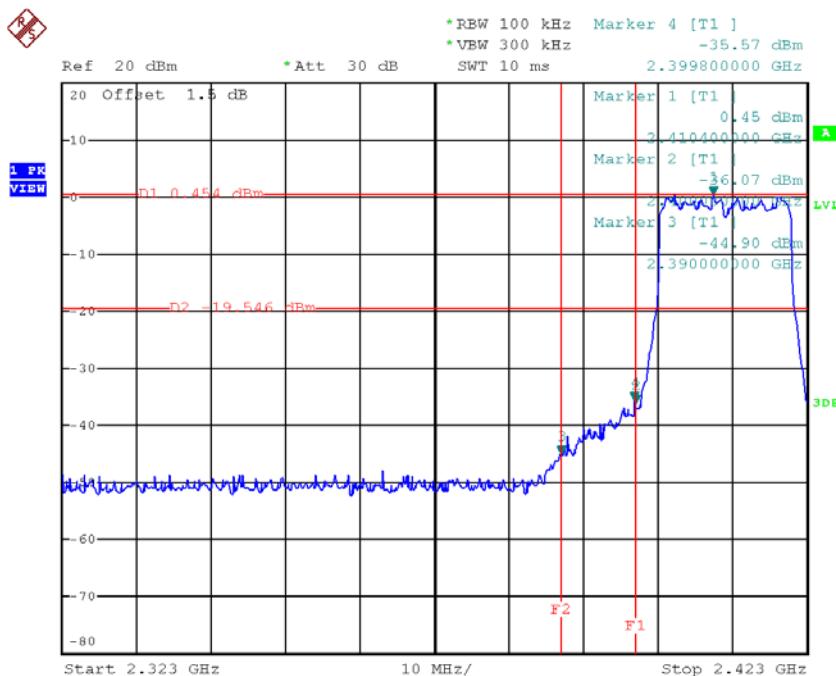


Date: 18.OCT.2017 17:52:37



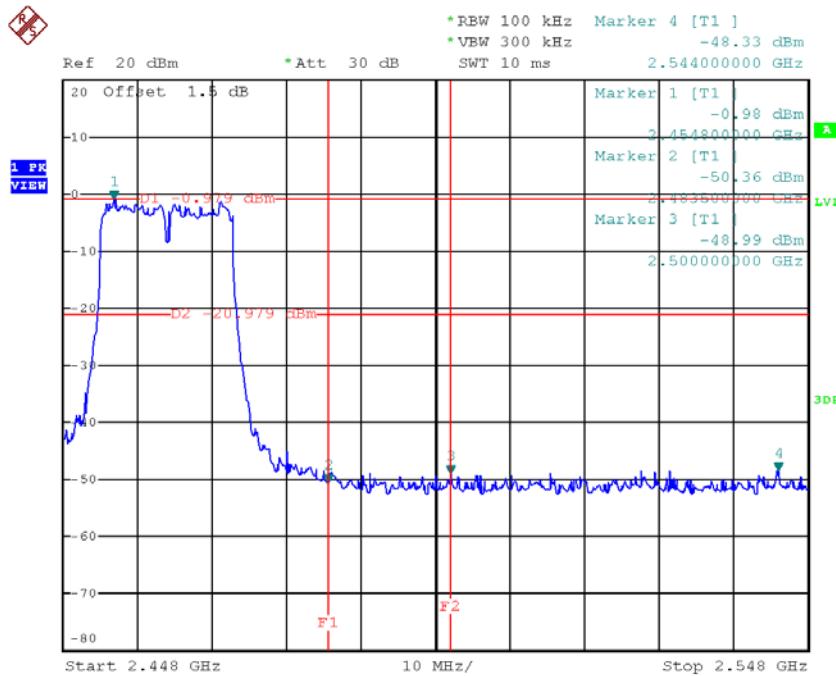
Test Mode : TX N-20M Mode_ANT 1

TX HT20 mode CH01



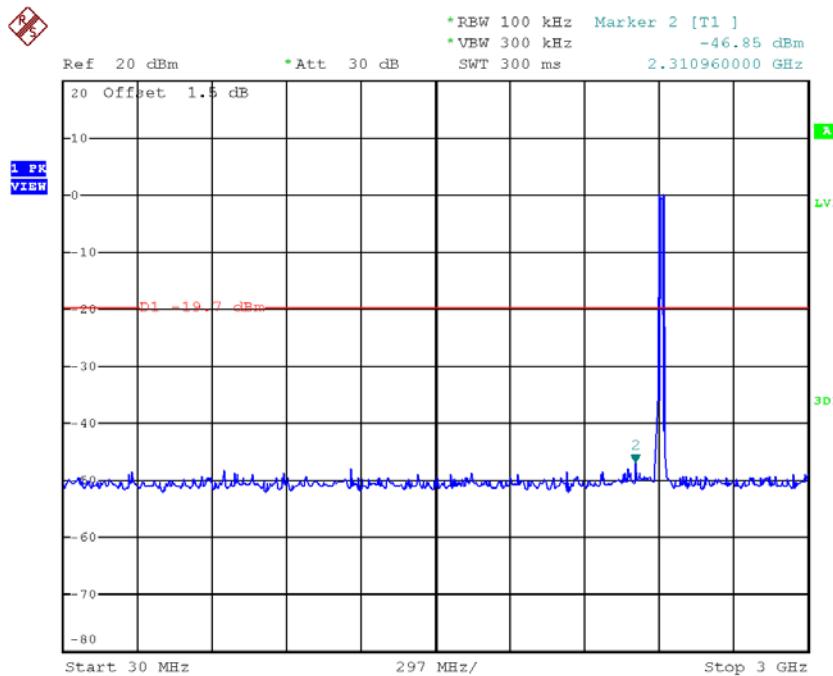
Date: 18.OCT.2017 17:54:23

TX HT20 mode CH11

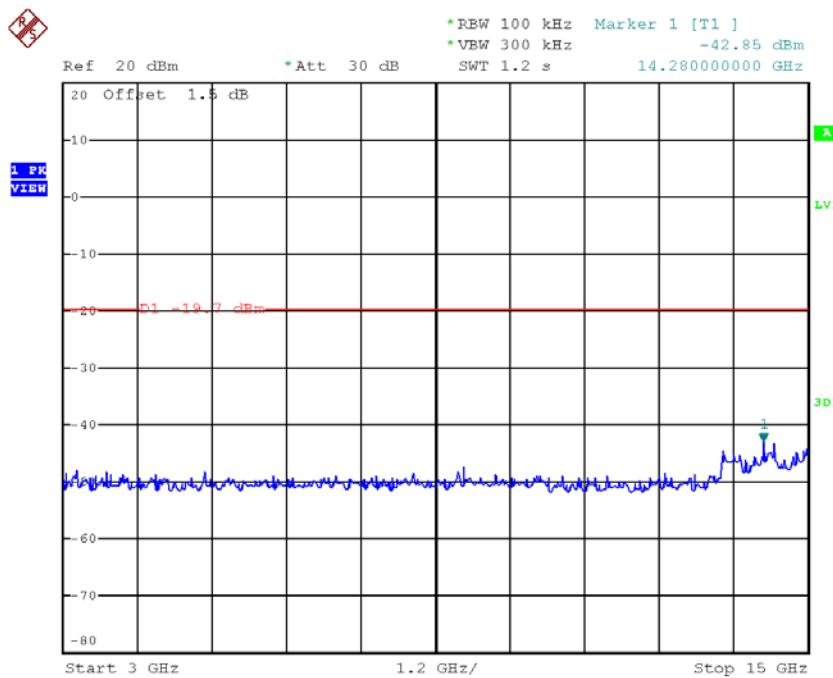


Date: 18.OCT.2017 18:02:00

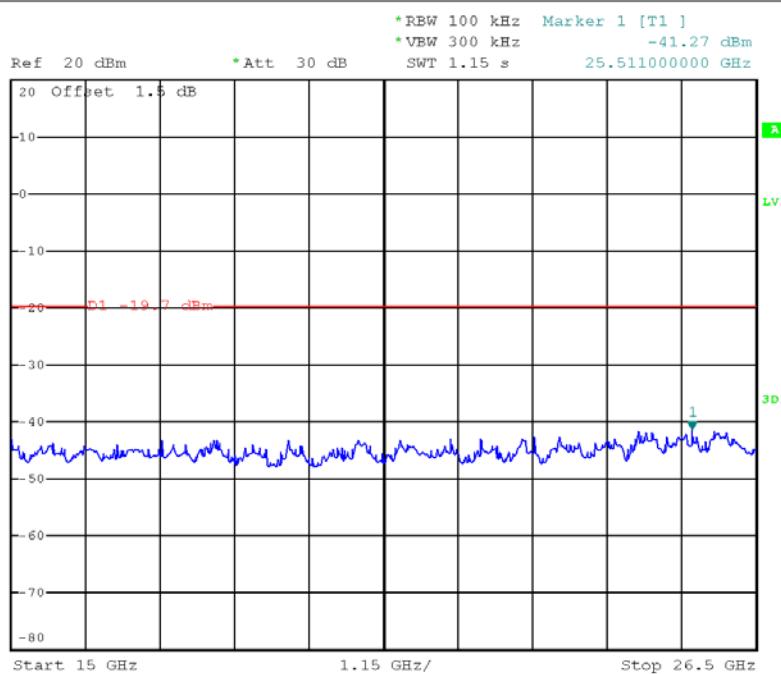
TX HT20 mode CH01 (10 Harmonic of the frequency)



Date: 18.OCT.2017 17:54:02

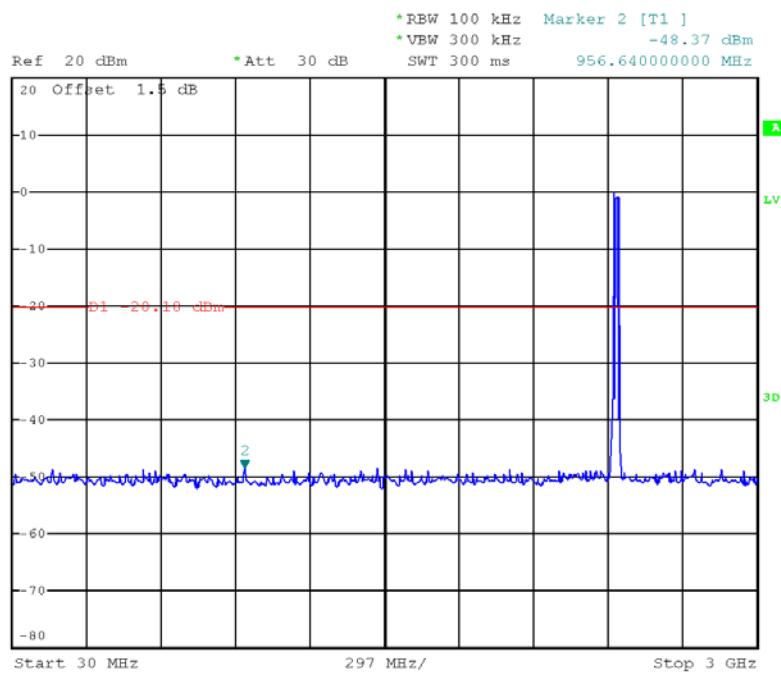


Date: 18.OCT.2017 17:54:10

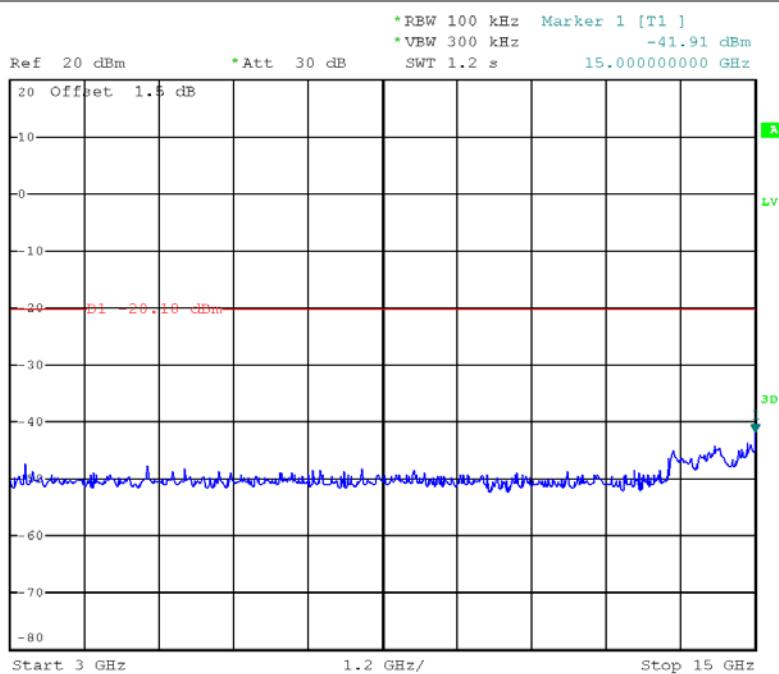


Date: 18.OCT.2017 17:54:17

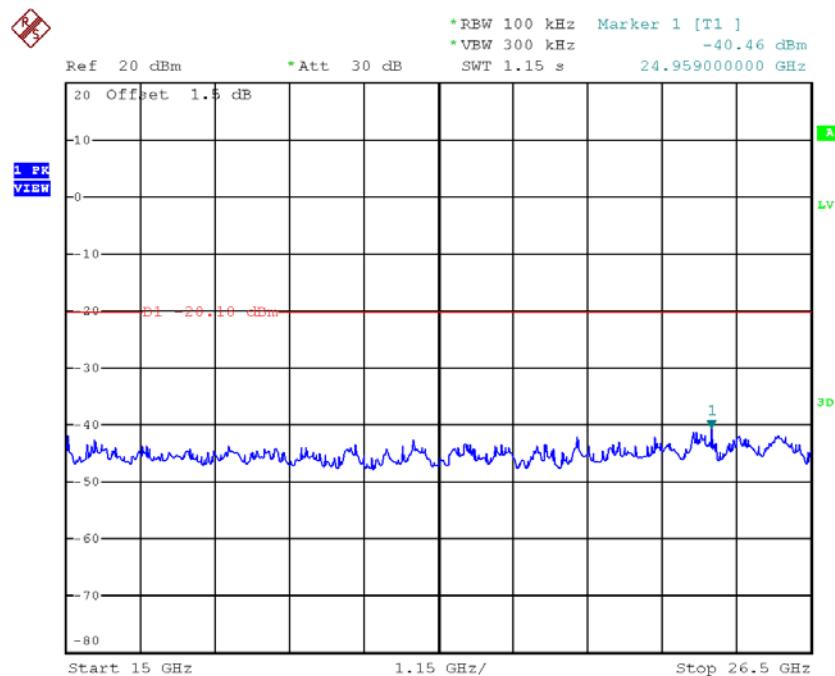
TX HT20 mode CH06 (10 Harmonic of the frequency)



Date: 18.OCT.2017 17:59:46

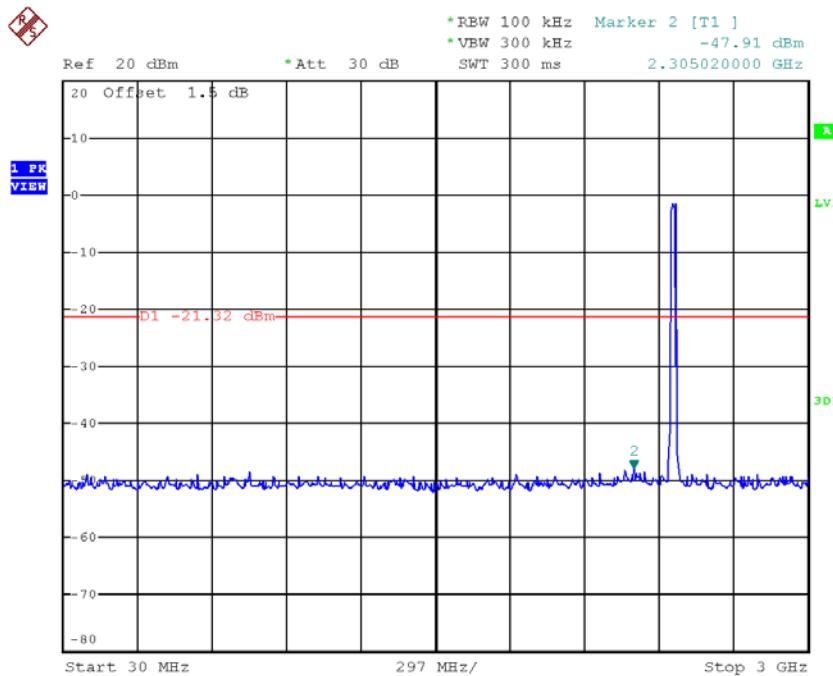


Date: 18.OCT.2017 17:59:53

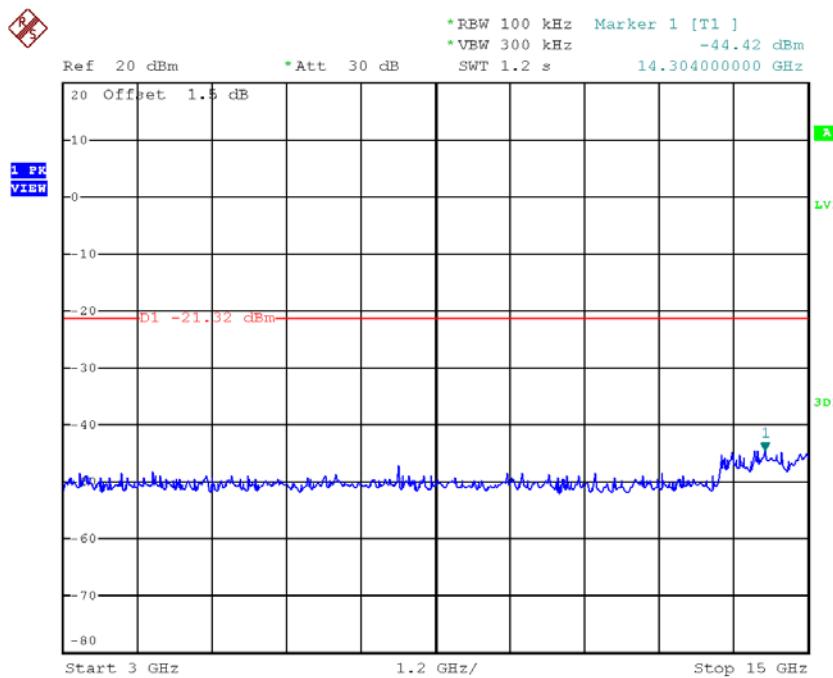


Date: 18.OCT.2017 18:00:00

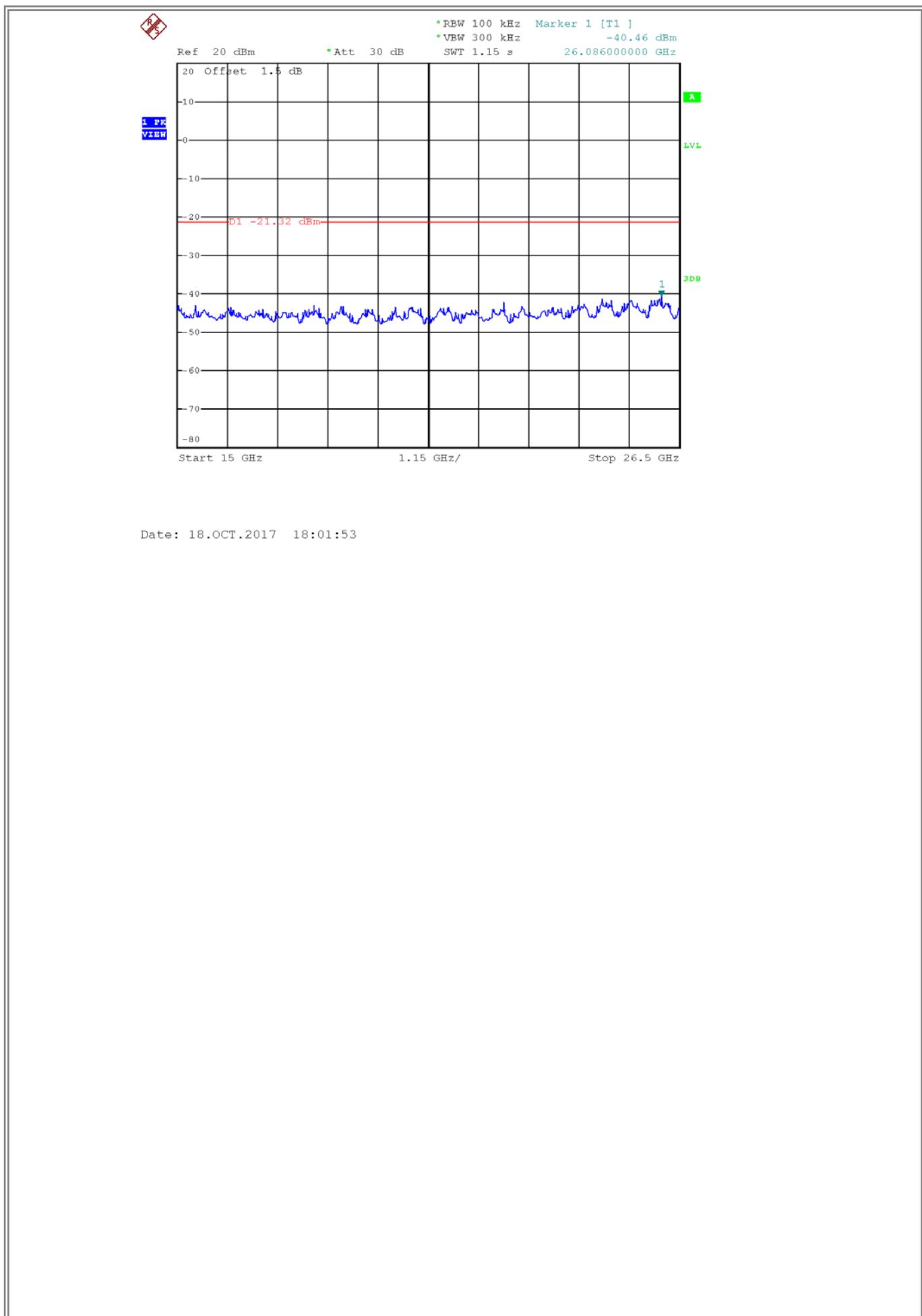
TX HT20 mode CH11 (10 Harmonic of the frequency)



Date: 18.OCT.2017 18:01:39

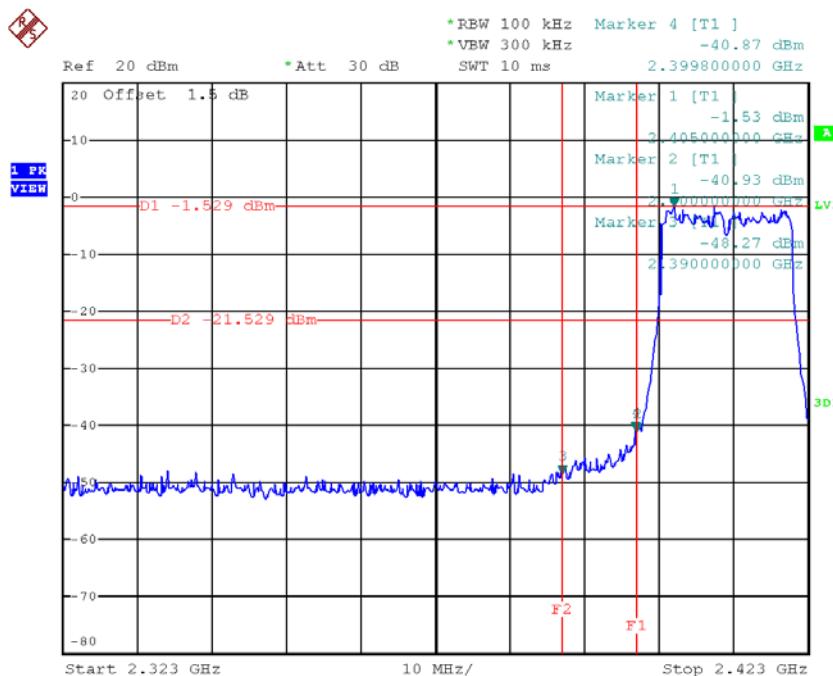


Date: 18.OCT.2017 18:01:46



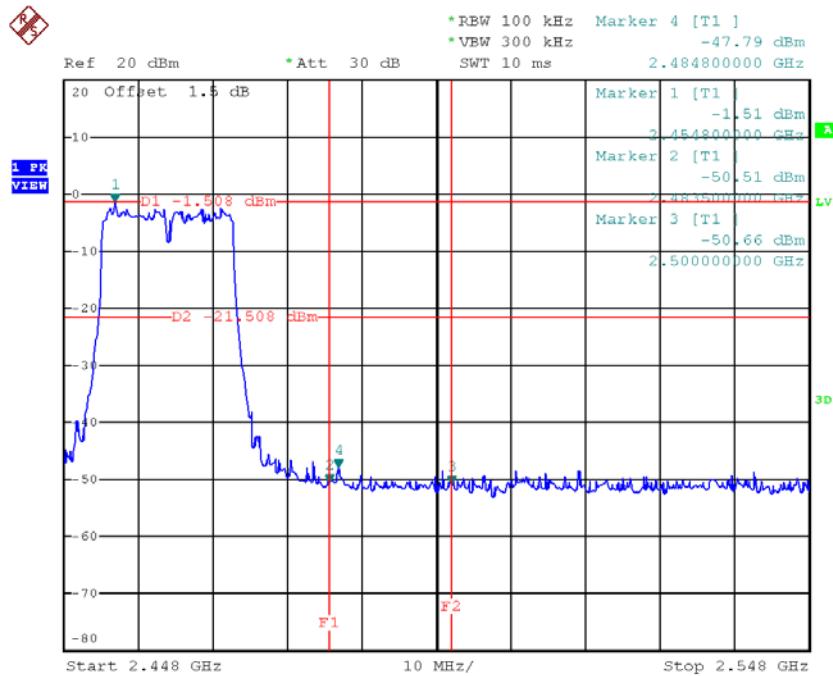
Test Mode : TX N-20M Mode_ANT 2

TX HT20 mode CH01



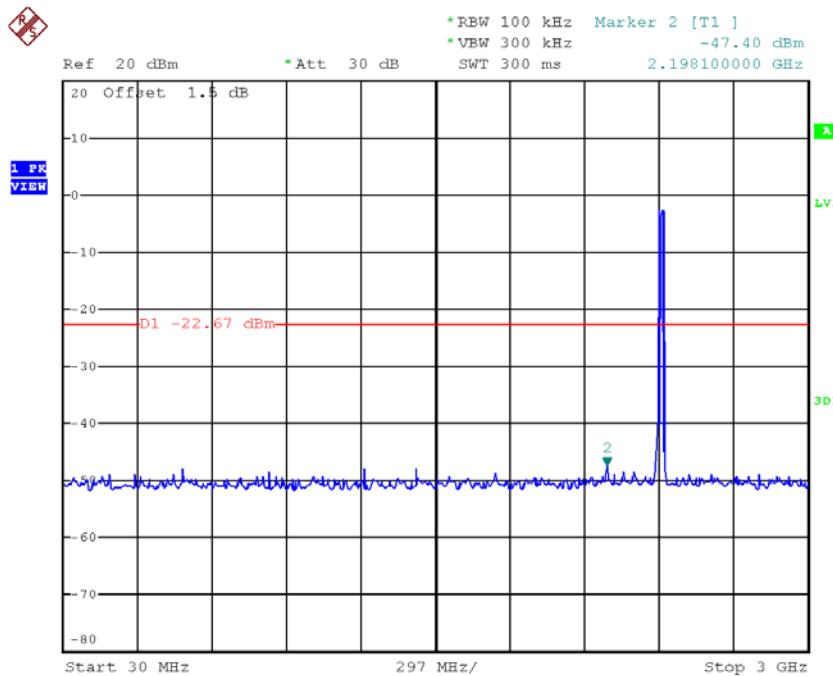
Date: 18.OCT.2017 18:04:01

TX HT20 mode CH11

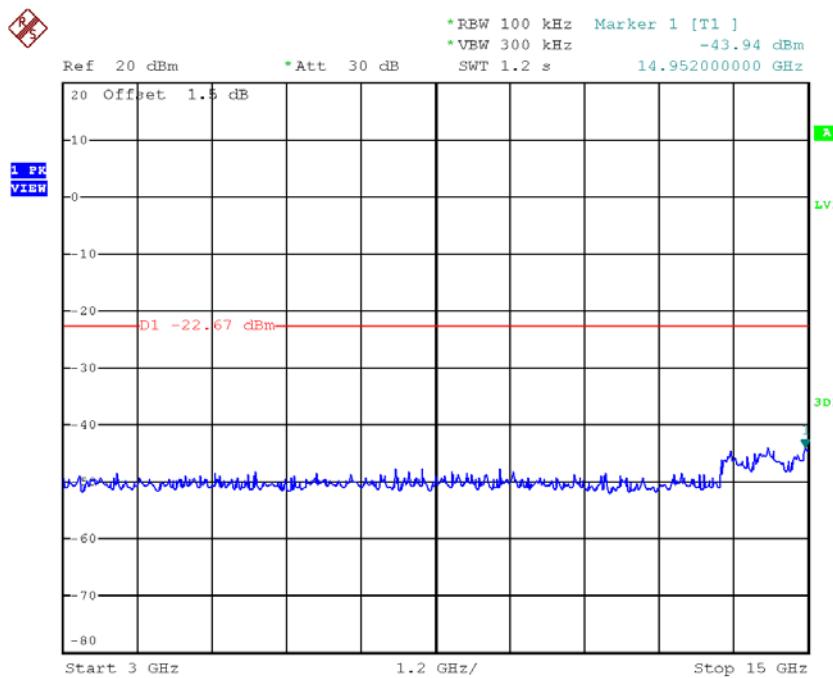


Date: 18.OCT.2017 18:45:24

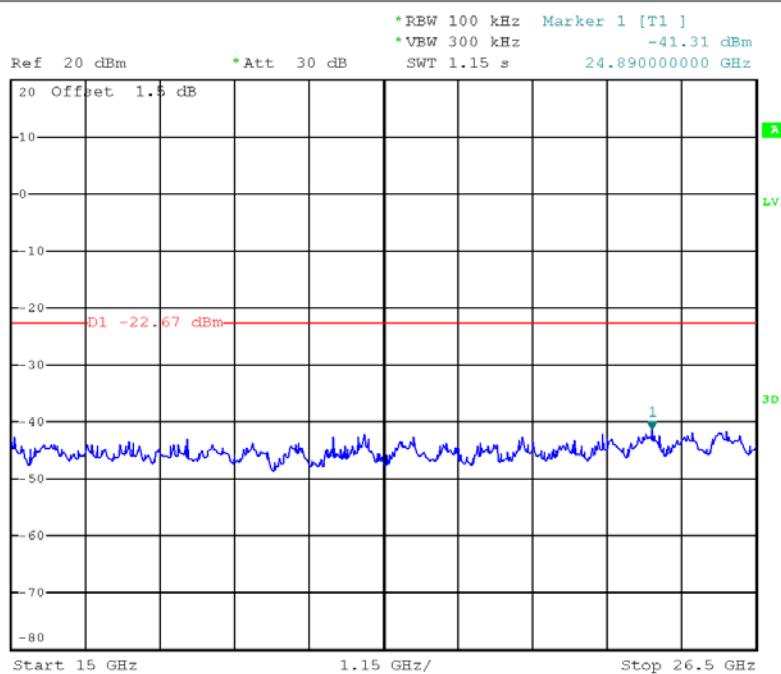
TX HT20 mode CH01 (10 Harmonic of the frequency)



Date: 18.OCT.2017 18:03:40

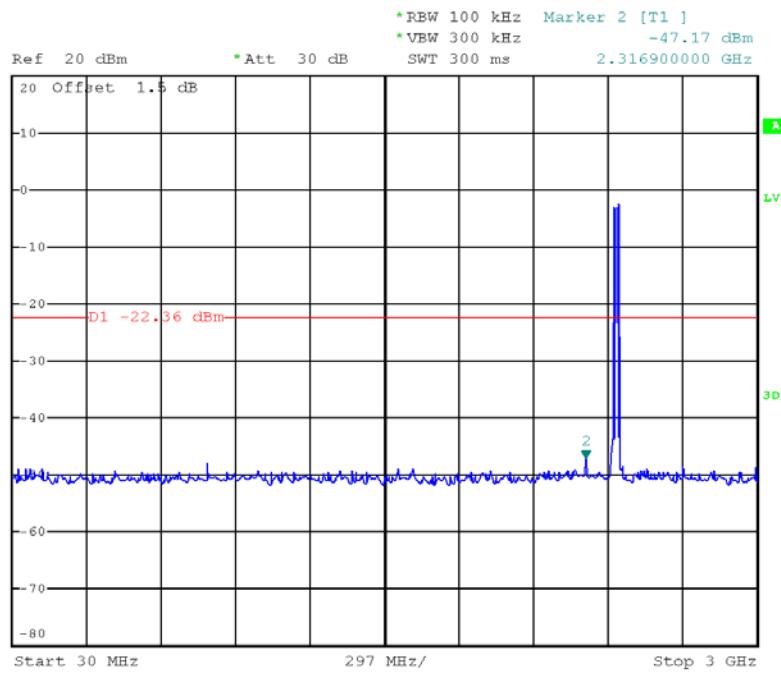


Date: 18.OCT.2017 18:03:47

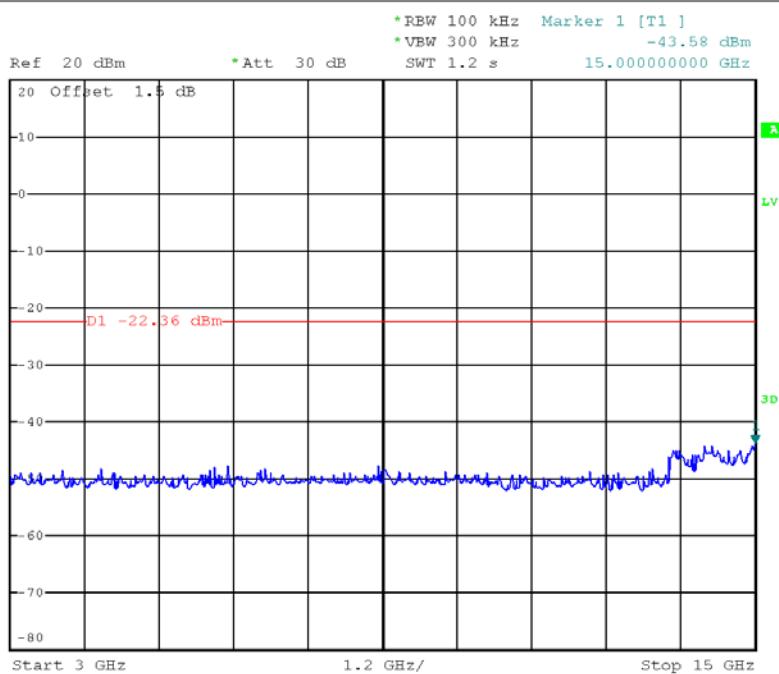


Date: 18.OCT.2017 18:03:54

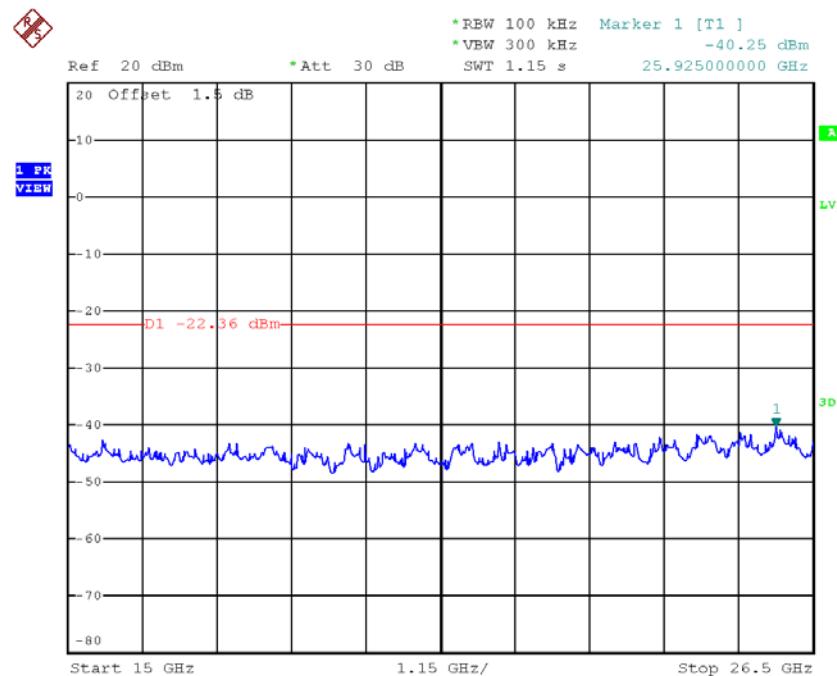
TX HT20 mode CH06 (10 Harmonic of the frequency)



Date: 18.OCT.2017 18:43:46

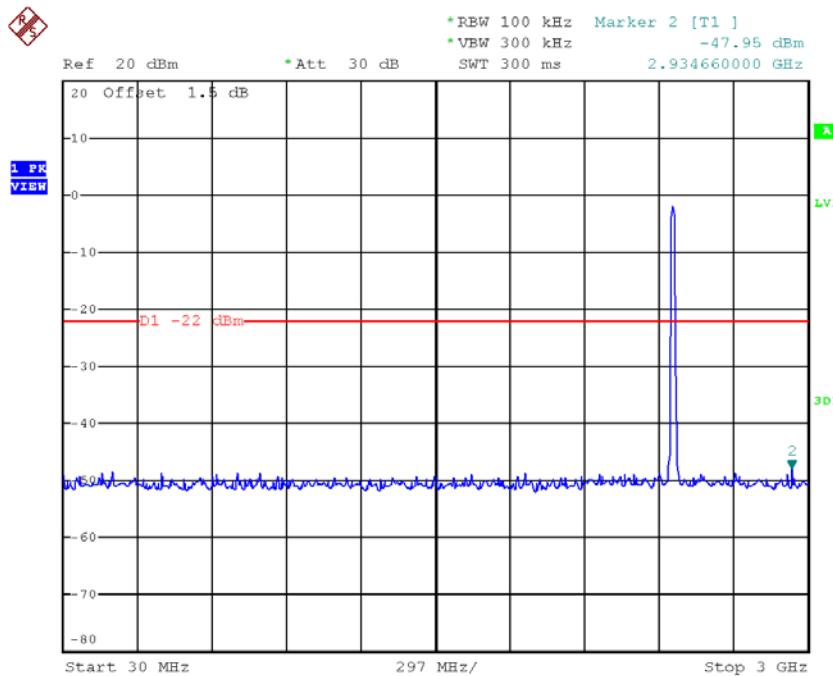


Date: 18.OCT.2017 18:43:54

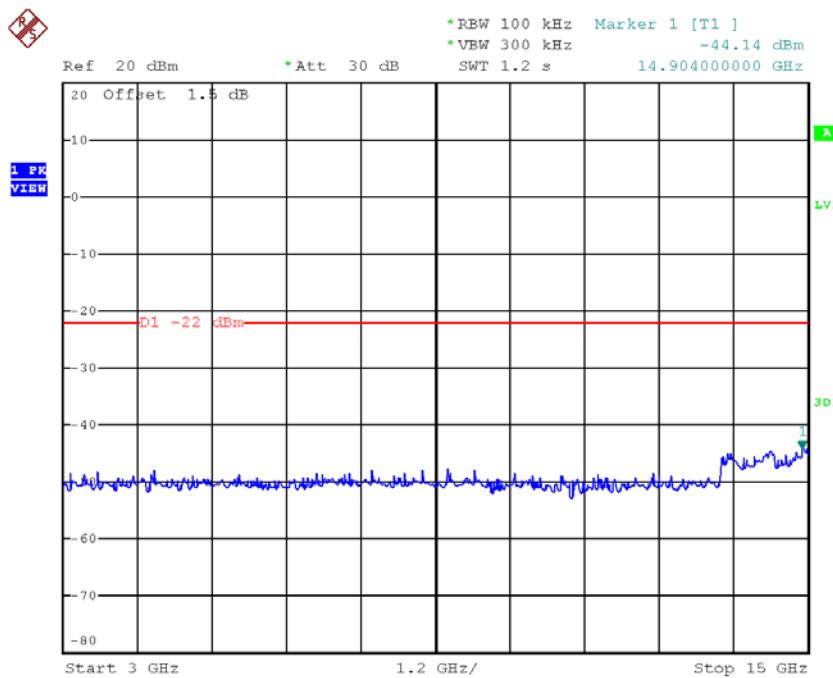


Date: 18.OCT.2017 18:44:01

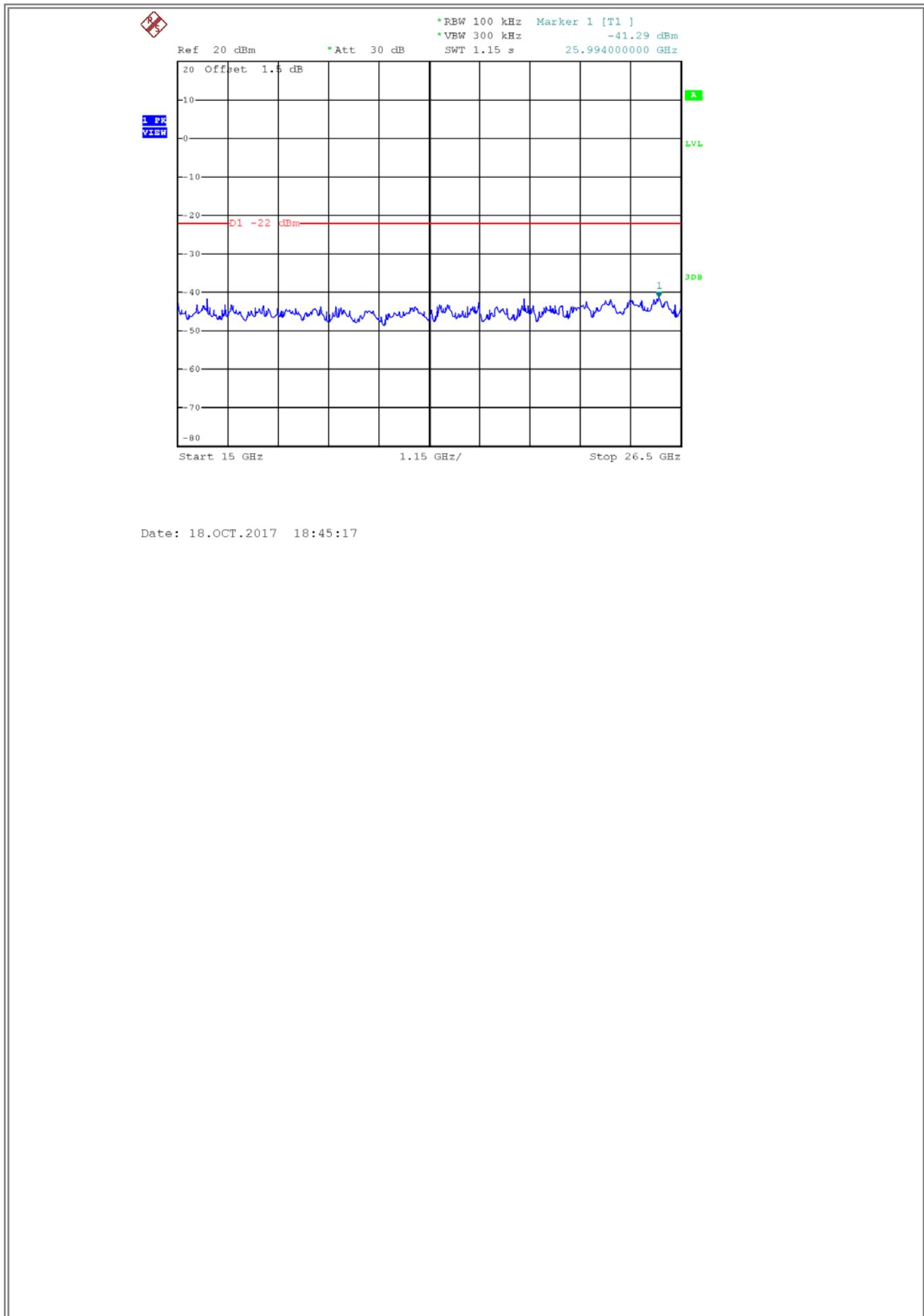
TX HT20 mode CH11 (10 Harmonic of the frequency)



Date: 18.OCT.2017 18:45:03



Date: 18.OCT.2017 18:45:10

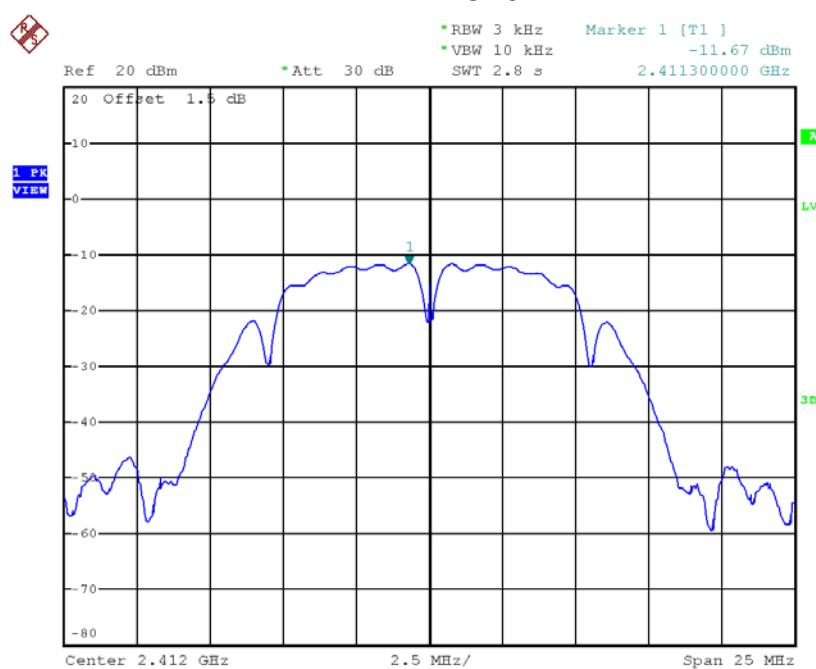


APPENDIX H - POWER SPECTRAL DENSITY

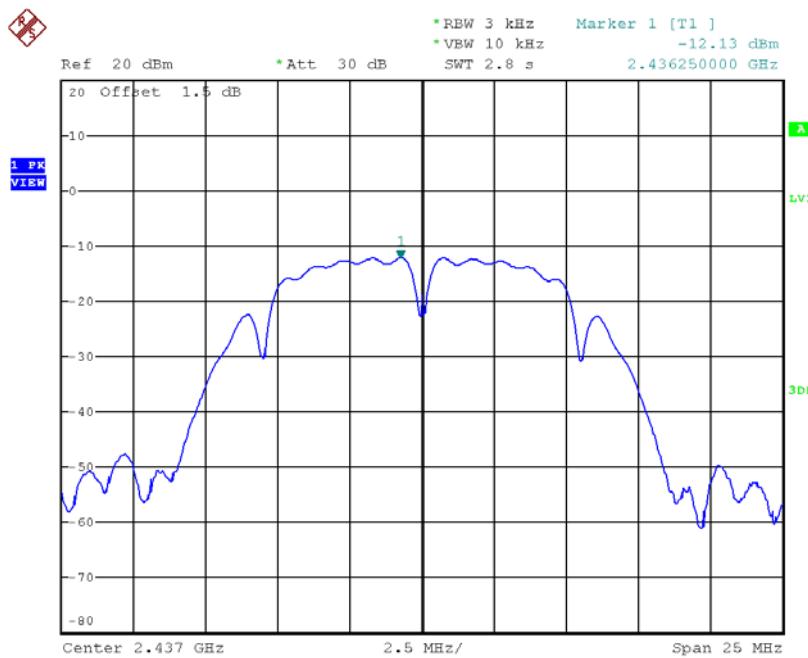
Test Mode :TX B Mode_CH01/06/11

Frequency (MHz)	Power Density (dBm/3kHz)	Power Density (mW/3kHz)	Max. Limit (dBm/3kHz)	Result
2412	-11.67	0.0681	6.98	Complies
2437	-12.13	0.0612	6.98	Complies
2462	-12.60	0.0550	6.98	Complies

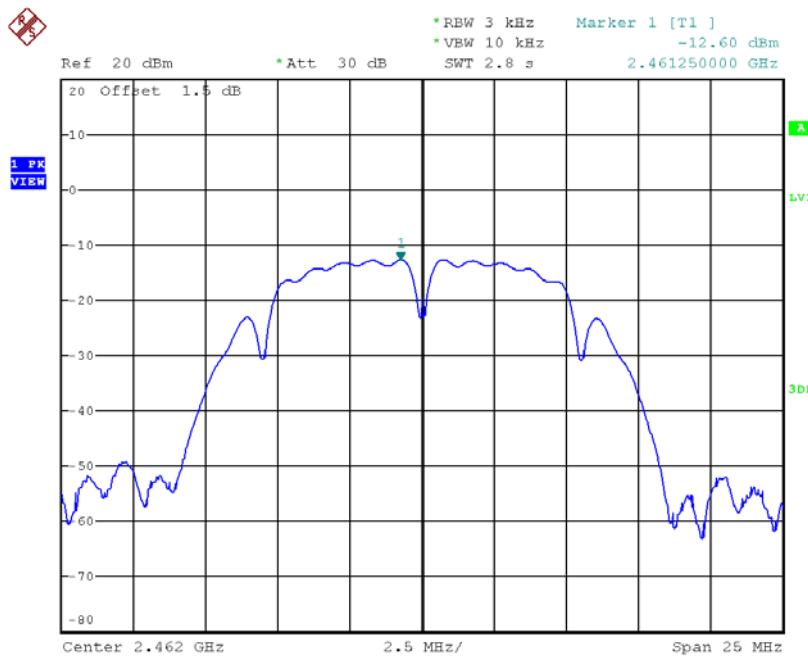
TX CH01



Date: 18.OCT.2017 17:45:37

TX CH06

Date: 18.OCT.2017 17:46:59

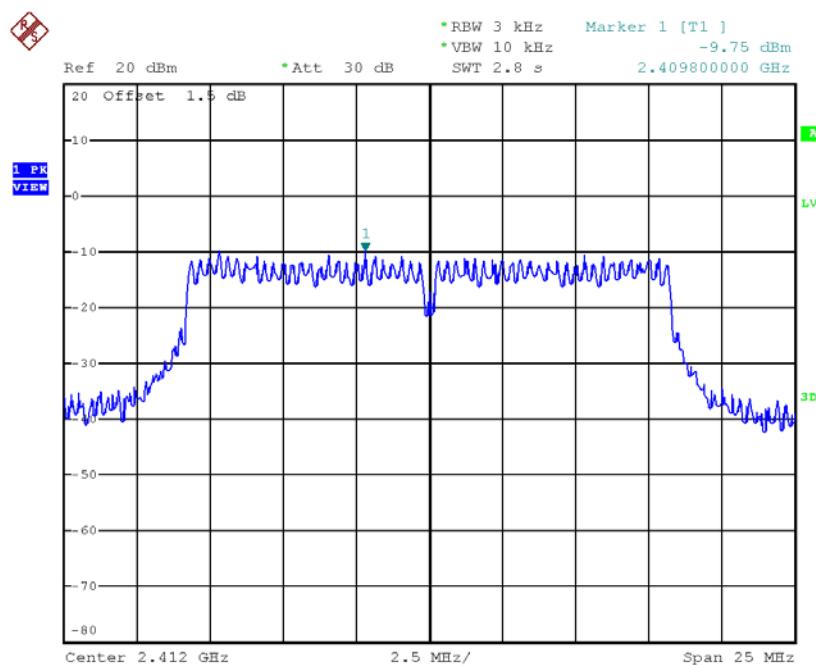
TX CH11

Date: 18.OCT.2017 17:48:20

Test Mode :TX G Mode_CH01/06/11

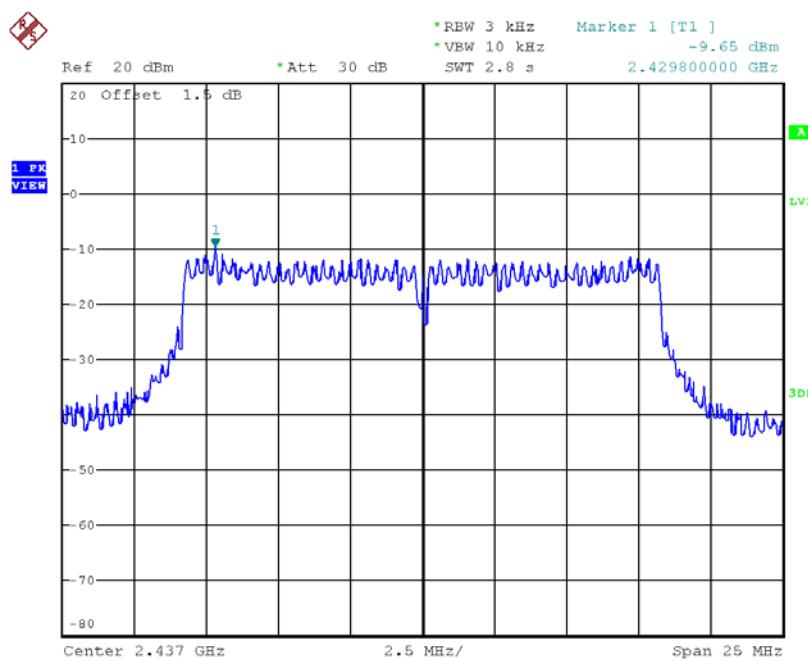
Frequency (MHz)	Power Density (dBm/3kHz)	Power Density (mW/3kHz)	Max. Limit (dBm/3kHz)	Result
2412	-9.75	0.1059	6.98	Complies
2437	-9.65	0.1084	6.98	Complies
2462	-11.45	0.0716	6.98	Complies

TX CH01



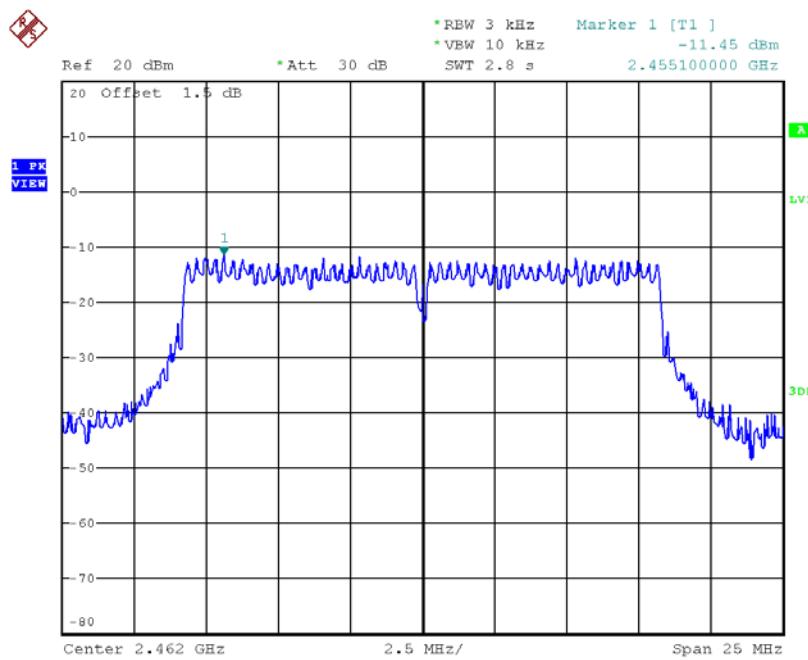
Date: 18.OCT.2017 17:50:47

TX CH06



Date: 18.OCT.2017 17:51:48

TX CH11

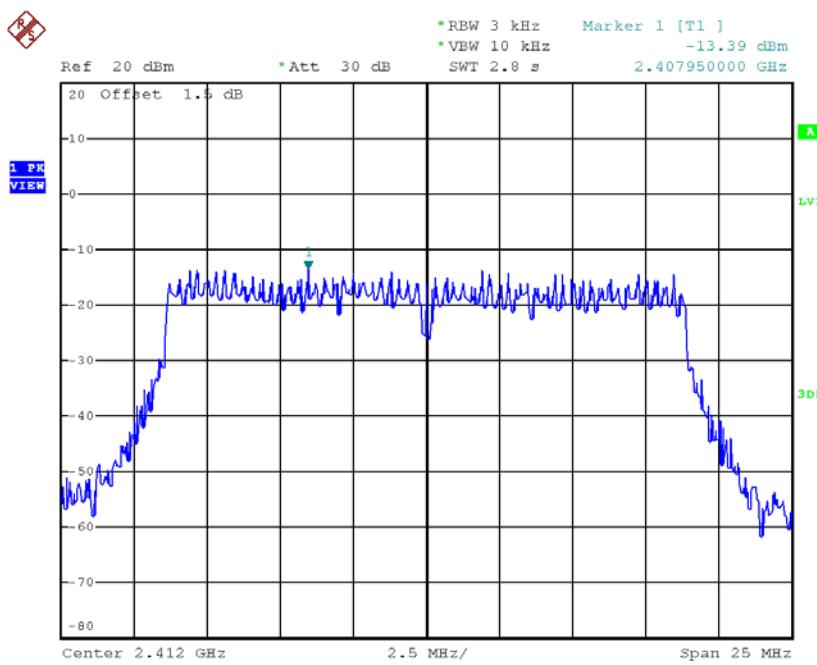


Date: 18.OCT.2017 17:52:59

Test Mode : TX N-20M Mode_CH01/06/11_ANT 1

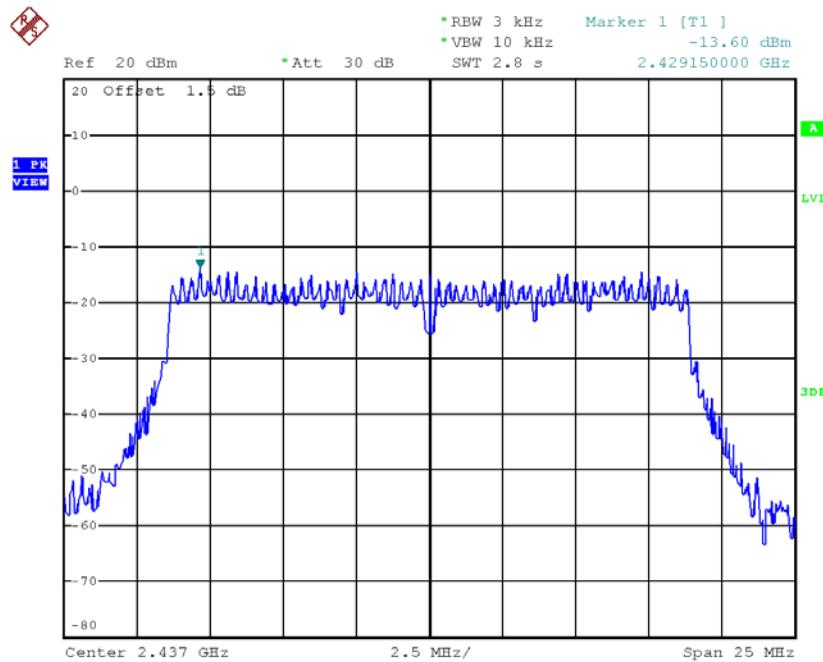
Frequency (MHz)	Power Density (dBm/3kHz)	Power Density (mW/3kHz)	Max. Limit (dBm/3kHz)	Result
2412	-13.39	0.0458	6.98	Complies
2437	-13.60	0.0437	6.98	Complies
2462	-15.14	0.0306	6.98	Complies

TX CH01



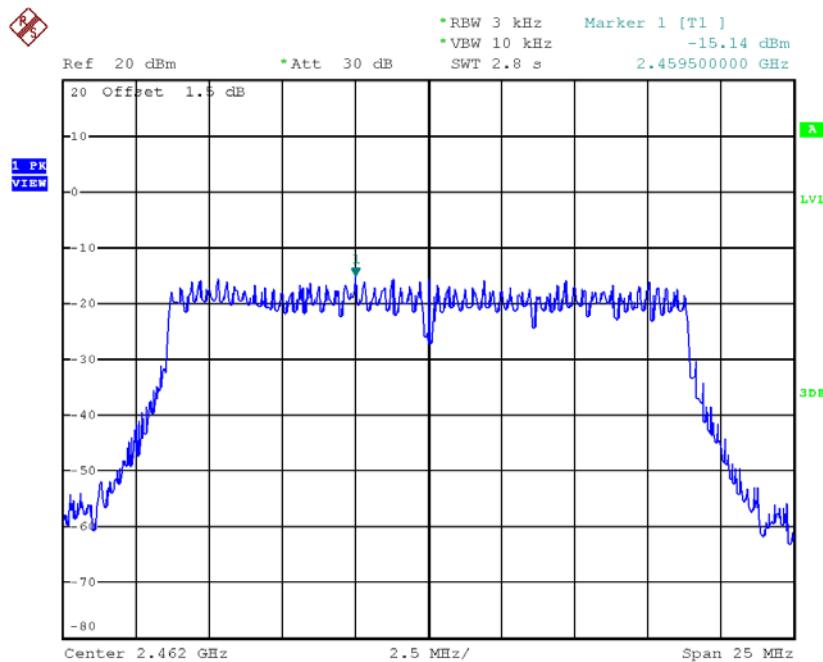
Date: 18.OCT.2017 17:54:32

TX CH06



Date: 18.OCT.2017 18:00:09

TX CH11

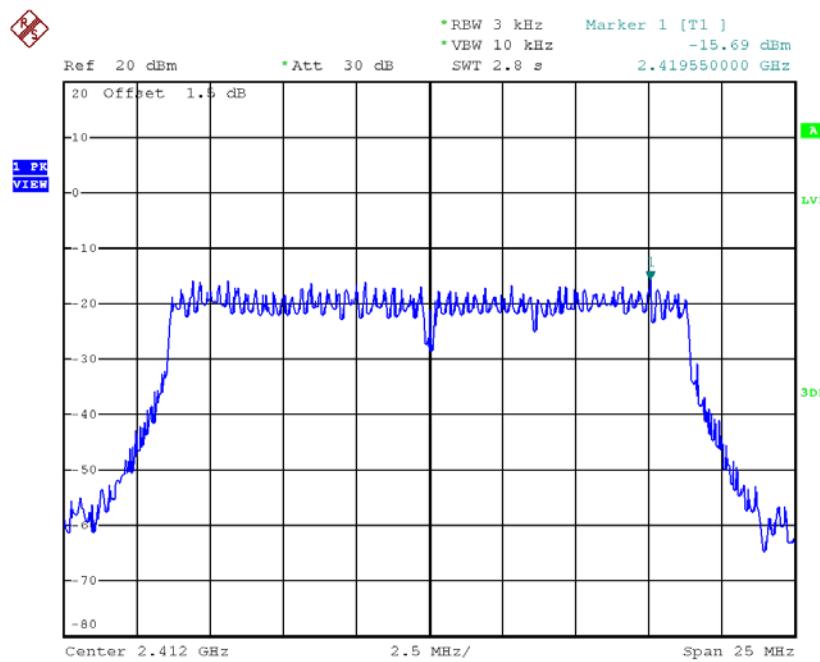


Date: 18.OCT.2017 18:02:08

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

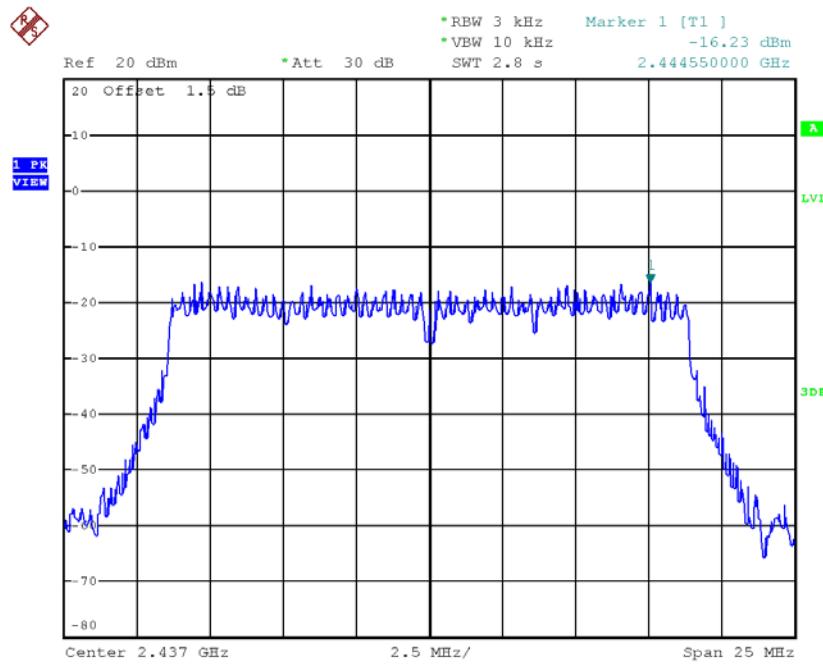
Frequency (MHz)	Power Density (dBm/3kHz)	Power Density (mW/3kHz)	Max. Limit (dBm/3kHz)	Result
2412	-15.69	0.0270	6.98	Complies
2437	-16.23	0.0238	6.98	Complies
2462	-16.00	0.0251	6.98	Complies

TX CH01



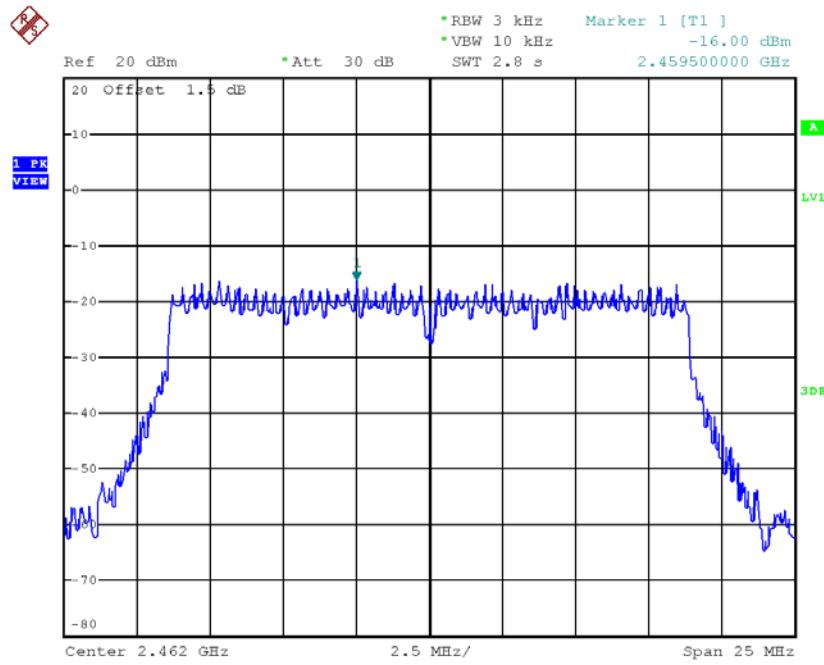
Date: 18.OCT.2017 18:04:10

TX CH06



Date: 18.OCT.2017 18:44:09

TX CH11



Date: 18.OCT.2017 18:45:33

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

Frequency (MHz)	Power Density (dBm/3kHz)	Power Density (mW/3kHz)	Max. Limit (dBm/3kHz)	Result
2412	-10.97	0.0800	6.98	Complies
2437	-12.22	0.0600	6.98	Complies
2462	-12.22	0.0600	6.98	Complies