FCC Radio Test Report

FCC ID: WS2-WG6031

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

Project No.	:	1707166
Equipment	:	WLAN module
Test Model	:	WG6031-00
Serial Model	:	WG6031P00
Applicant	:	Jorjin Technologies INC.
Address	:	17F, No 239, Datong Road,Sec 1, Xizhi District, New Taipei City, Taiwan 22161
Date of Receipt	:	Jul. 27, 2017
Date of Test	:	Jul. 27, 2017 ~ Aug. 10, 2017
Issued Date	:	Sep. 11, 2017
Tested by	:	BTL Inc.

Testing Engineer : _____ (Kenji Lin)

Technical Manager : _____ (James Chiu)

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Testing Laboratory
0659

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Table of Contents Page

1 . CERTIFICATION 6

2 . SUMMARY OF TEST RESULTS 7

2.1 TEST FACILITY 8

2.2 MEASUREMENT UNCERTAINTY 8

3 . GENERAL INFORMATION 10

3.1 GENERAL DESCRIPTION OF EUT 10

3.2 DESCRIPTION OF TEST MODES 11

3.3 TABLE OF PARAMETERS OF TEXT SOFTWARE SETTING 12

3.4 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED 13

3.5 DESCRIPTION OF SUPPORT UNITS 13

4 . EMC EMISSION TEST 14

4.1 CONDUCTED EMISSION MEASUREMENT 14

4.1.1 POWER LINE CONDUCTED EMISSION LIMITS 14

4.1.2 TEST PROCEDURE 14

4.1.3 DEVIATION FROM TEST STANDARD 14

4.1.4 TEST SETUP 15

4.1.5 EUT OPERATING CONDITIONS 15

4.1.6 EUT TEST CONDITIONS 15

4.1.7 TEST RESULTS 15

4.2 RADIATED EMISSION MEASUREMENT 16

4.2.1 RADIATED EMISSION LIMITS 16

4.2.2 TEST PROCEDURE 17

4.2.3 DEVIATION FROM TEST STANDARD 17

4.2.4 TEST SETUP 18

4.2.5 EUT OPERATING CONDITIONS 19

4.2.6 EUT TEST CONDITIONS 19

4.2.7 TEST RESULTS (9KHZ TO 30MHZ) 20

4.2.8 TEST RESULTS (30MHZ TO 1000 MHZ) 20

4.2.9 TEST RESULTS (ABOVE 1000 MHZ) 20

5 . BANDWIDTH TEST 21

5.1 APPLIED PROCEDURES 21

5.1.1 TEST PROCEDURE 21

5.1.2 DEVIATION FROM STANDARD 21

5.1.3 TEST SETUP 21

5.1.4 EUT OPERATION CONDITIONS 21

5.1.5 EUT TEST CONDITIONS 21

5.1.6 TEST RESULTS 21

6 . MAXIMUM PEAK CONDUCTED OUTPUT POWER TEST 22

6.1 APPLIED PROCEDURES / LIMIT 22
6.1.1 TEST PROCEDURE 22
6.1.2 DEVIATION FROM STANDARD 22
6.1.3 TEST SETUP 22
6.1.4 EUT OPERATION CONDITIONS 22
6.1.5 EUT TEST CONDITIONS 22
6.1.6 TEST RESULTS 22
7 . ANTENNA CONDUCTED SPURIOUS EMISSION 23
7.1 APPLIED PROCEDURES / LIMIT 23
7.1.1 TEST PROCEDURE 23
7.1.2 DEVIATION FROM STANDARD 23
7.1.3 TEST SETUP 23
7.1.4 EUT OPERATION CONDITIONS 23
7.1.5 EUT TEST CONDITIONS 23
7.1.6 TEST RESULTS 23
8 . POWER SPECTRAL DENSITY TEST 24
8.1 APPLIED PROCEDURES / LIMIT 24
8.1.1 TEST PROCEDURE 24
8.1.2 DEVIATION FROM STANDARD 24
8.1.3 TEST SETUP 24
8.1.4 EUT OPERATION CONDITIONS 24
8.1.5 EUT TEST CONDITIONS 24
8.1.6 TEST RESULTS 24
9 . MEASUREMENT INSTRUMENTS LIST 25
10 . EUT TEST PHOTO 27
APPENDIX A - CONDUCTED EMISSION 31
APPENDIX B - RADIATED EMISSION (9KHZ TO 30MHZ) 34
APPENDIX C - RADIATED EMISSION (30MHZ TO 1000MHZ) 39
APPENDIX D - RADIATED EMISSION (ABOVE 1000MHZ) 42
APPENDIX E - BANDWIDTH 91
APPENDIX F - MAXIMUM PEAK CONDUCTED OUTPUT POWER 100
APPENDIX G - ANTENNA CONDUCTED SPURIOUS EMISSION 102
APPENDIX H - POWER SPECTRAL DENSITY 128

REPORT ISSUED HISTORY

Issued No.	Description	Issued Date
BTL-FCCP-1-1707166	Original Issue.	Sep. 11, 2017

1. CERTIFICATION

Equipment	:	WLAN module
Brand Name	:	Jorjin
Test Model	:	WG6031-00
Serial Model	:	WG6031P00
Applicant	:	Jorjin Technologies INC.
Manufacturer	:	Jorjin Technologies INC.
Address	:	17F, No 239, Datong Road,Sec 1, Xizhi District, New Taipei City, Taiwan 22161
Factory	:	Jorjin Technologies INC.
Address	:	17F, No 239, Datong Road,Sec 1, Xizhi District, New Taipei City, Taiwan 22161
Date of Test	:	Jul. 27, 2017 ~ Aug. 10, 2017
Test Sample	:	Production Unit
Standard(s)	:	FCC Part15, Subpart C:(15.247) / ANSI C63.10-2013

The above equipment has been tested and found in compliance with the requirement of the relative standards by BTL Inc.
The test data, data evaluation, and equipment configuration contained in our test report (Ref No. BTL-FCCP-1-1707166) 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	Judgement	Remark
15.207	Conducted Emission	PASS	
15.247(d)	Antenna conducted Spurious Emission	PASS	
15.247(a)(2)	6dB Bandwidth	PASS	
15.247(b)(3)	Peak Output Power	PASS	
15.247(e)	Power Spectral Density	PASS	
15.203	Antenna Requirement	PASS	
15.209/15.205	Transmitter Radiated Emissions	PASS	

NOTE:

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

2.1 TEST FACILITY

The test facilities used to collect the test data in this report:

Conducted emission Test:

C05: (VCCI RN: C-4742; FCC RN:965108; FCC DN:TW1082)
No. 68-1, Ln. 169, Sec.2, Datong Rd., Xizhi Dist., New Taipei City 221, Taiwan

Radiated emission Test (Below 1 GHz):

CB15: (FCC RN:674415; FCC DN:TW0659)
No. 68-1, Ln. 169, Sec.2, Datong Rd., Xizhi Dist., New Taipei City 221, Taiwan

Radiated emission Test (Above 1 GHz):

CB15: (FCC RN:674415; FCC DN:TW0659)
No. 68-1, Ln. 169, Sec.2, Datong Rd., Xizhi Dist., New Taipei City 221, Taiwan

2.2 MEASUREMENT UNCERTAINTY

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

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

A. Conducted emission test:

Test Site	Method	Measurement Frequency Range	U,(dB)
C05	CISPR	150 kHz ~ 30MHz	2.68

B. Radiated emission test:

Test Site	Method	Measurement Frequency Range	U,(dB)
CB15 (3m)	CISPR	9kHz ~ 150kHz	2.82
		150kHz ~ 30MHz	2.58

Test Site	Method	Measurement Frequency Range	Ant.	U,(dB)
CB15 (3m)	CISPR	30MHz ~ 200MHz	V	4.20
		30MHz ~ 200MHz	H	3.64
		200MHz ~ 1,000MHz	V	4.56
		200MHz ~ 1,000MHz	H	3.90

Test Site	Method	Measurement Frequency Range	Ant.	U,(dB)
CB15 (3m)	CISPR	1GHz ~ 6GHz	V	4.46
		1GHz ~ 6GHz	H	4.40
		6GHz ~ 18GHz	V	3.88
		6GHz ~ 18GHz	H	4.00

Test Site	Method	Measurement Frequency Range	U,(dB)
CB15 (1m)	CISPR	18 ~ 26.5 GHz	4.62
		26.5 ~ 40 GHz	5.12

Our calculated Measurement Instrumentation Uncertainty is shown in the tables above.
These are our U_{lab} values in CISPR 16-4-2 terminology.
Since Table 1 of CISPR 16-4-2 has values of measurement instrumentation uncertainty, called U_{CISPR}, as follows:

Conducted Disturbance (mains port) – 150 kHz – 30 MHz: 3.6 dB
Radiated Disturbance (electric field strength on an open area test site or alternative test site) – 30 MHz – 1000 MHz: 5.2 dB

It can be seen that our U_{lab} values are smaller than U_{CISPR}.
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	WLAN module	
Brand Name	Jorjin	
Test Model	WG6031-00	
Serial Model	WG6031P00	
Model Difference	WG6031P00 with extend base board	
Power Source	Supplied from PC PCI Slot.	
Power Rating	DC 3.3V	
Product Description	Operation Frequency	2412~2462 MHz
	Modulation Technology	802.11b:DSSS 802.11g:OFDM 802.11n:OFDM
	Bit Rate of Transmitter	802.11b: 11/5.5/2/1 Mbps 802.11g: 54/48/36/24/18/12/9/6 Mbps 802.11n up to 150 Mbps
	Output Power (Max.)	802.11b: 18.95dBm 802.11g: 23.94dBm 802.11n(20MHz): 22.11dBm 802.11n(40MHz): 22.23dBm

Note:

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

CH01 – CH11 for 802.11b, 802.11g, 802.11n(20MHz)
CH03 – CH09 for 802.11n(40MHz)

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
01	2412	04	2427	07	2442	10	2457
02	2417	05	2432	08	2447	11	2462
03	2422	06	2437	09	2452		

3. Table for Filed Antenna

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	WIESON	GPOT155-002	Dipole	SMA	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	Normal Link

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

For Conducted Test	
Final Test Mode	Description
Mode 5	Normal Link

For Radiated Test	
Final Test Mode	Description
Mode 1	TX B MODE CHANNEL 01/06/11
Mode 2	TX G MODE CHANNEL 01/06/11
Mode 3	TX N-20MHZ MODE CHANNEL 01/06/11
Mode 4	TX N-40MHZ MODE CHANNEL 03/06/09

Note:

(1) The measurements are performed at the high, middle, low available channels.

(2) 802.11b mode: DBPSK (1Mbps)
802.11g mode: OFDM (6Mbps)
802.11n HT20 mode : BPSK (6.5Mbps)
802.11n HT40 mode : BPSK (13.5Mbps)
For radiated emission tests, the highest output powers were set for final test.

(3) For radiated below 1G test, the N-20MHZ is found to be the worst case and recorded.

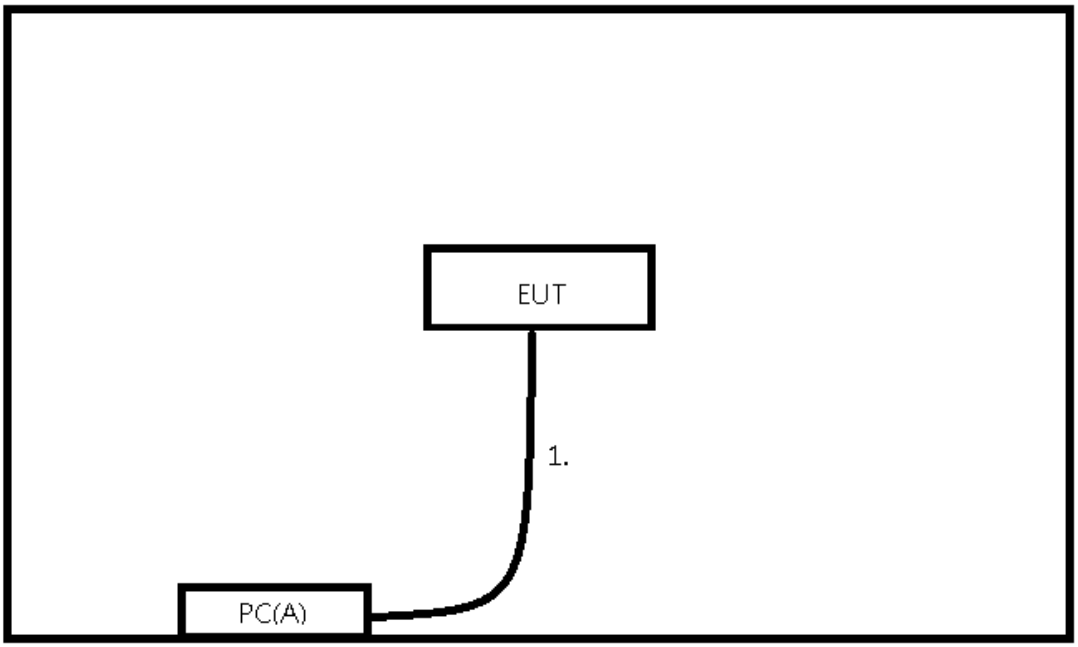
(4) The EUT was programmed to be in continuously transmitting mode and the transmit duty cycle is not less than 98%.

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	Realtek 11n 8189ES SDIO WLAN MP Diagnostic Program 0.0026.14.20150605		
Frequency (MHz)	2412	2437	2462
802.11b	39	39	39
802.11g	46	46	46
802.11n (20MHz)	43	43	43
Frequency (MHz)	2422	2437	2452
802.11n (40MHz)	45	45	45

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	PC	ASUS	N/A	N/A	N/A

Item	Shielded Type	Ferrite Core	Length	Note
1	NO	NO	1M	Test 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 (dBμV)	
	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

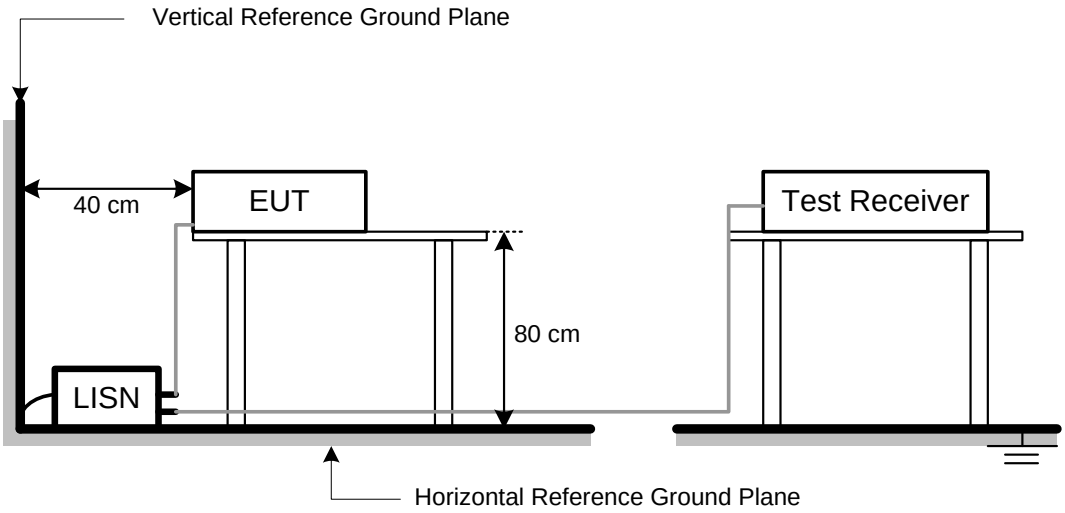
4.1.2 TEST PROCEDURE

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



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

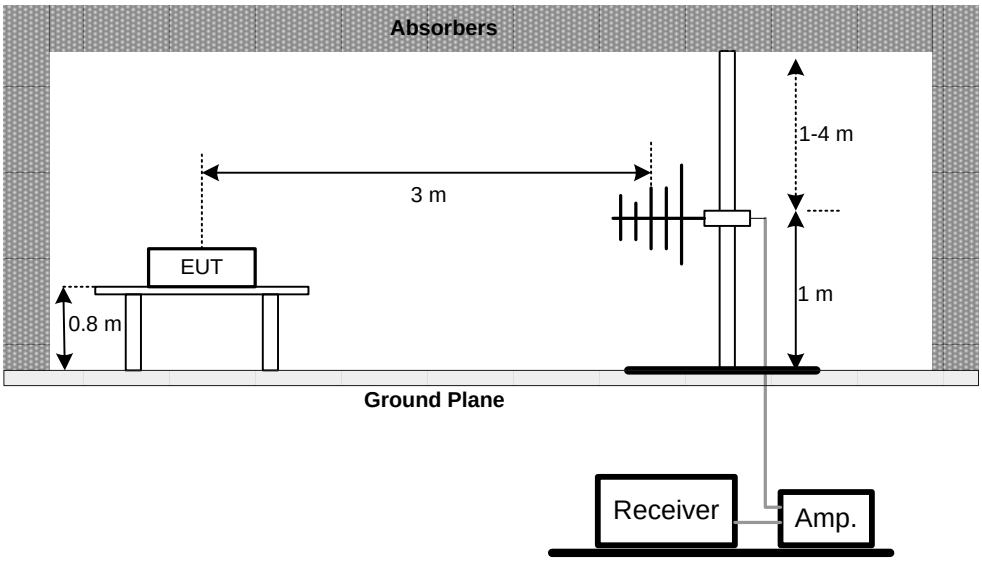
a. The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(below 1GHz)
b. The measuring distance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

4.2.3 DEVIATION FROM TEST STANDARD

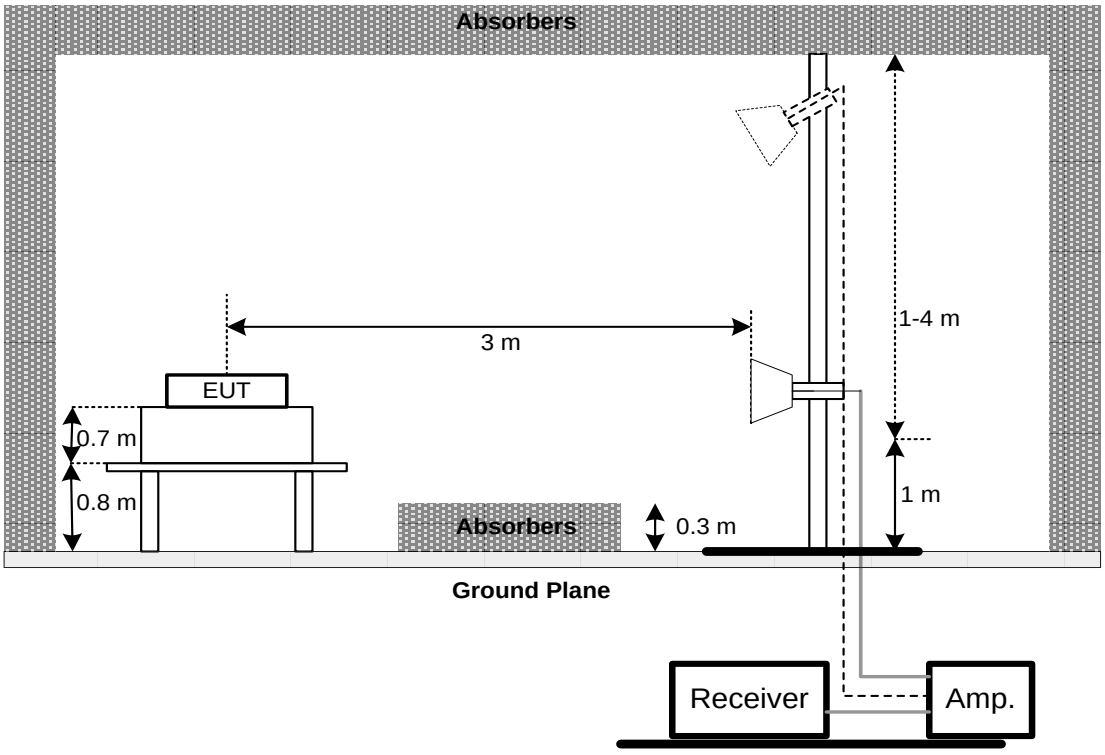
No deviation

4.2.4 TEST SETUP

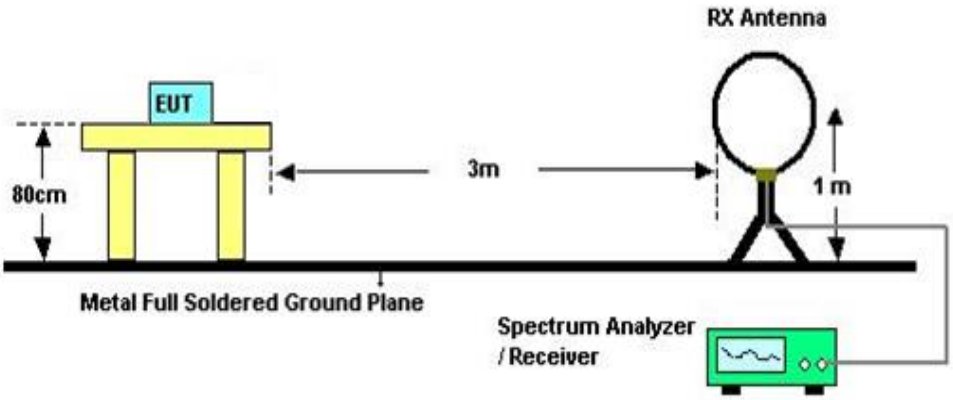
(A) Radiated Emission Test Set-Up Frequency Below 1 GHz



(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: 23°C Relative Humidity: 70% 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 (specific distance / test distance) (dB).
(3) Limit line = specific limits (dBuV) + distance extrapolation factor.

4.2.8 TEST RESULTS (30MHZ TO 1000 MHZ)

Please refer to the Appendix C.

4.2.9 TEST RESULTS (ABOVE 1000 MHZ)

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

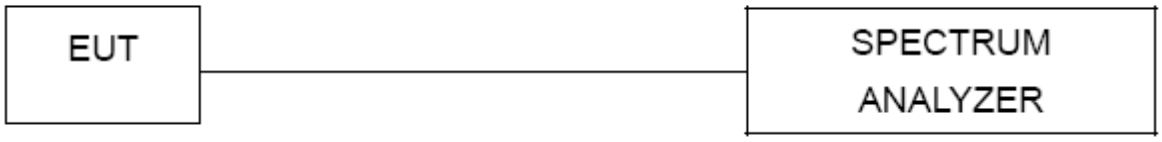
5.1.1 TEST PROCEDURE

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

5.1.2 DEVIATION FROM STANDARD

No deviation.

5.1.3 TEST SETUP



5.1.4 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

5.1.5 EUT TEST CONDITIONS

Temperature: 25°C Relative Humidity: 55% Test Voltage: AC 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

a. The EUT was directly connected to the power meter and antenna output port as show in the block diagram below,
b. The maximum peak conducted output power was performed in accordance with method 9.1.2 of FCC KDB 558074 D01 DTS Meas Guidance v03r04.

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

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

8.1.2 DEVIATION FROM STANDARD

No deviation.

8.1.3 TEST SETUP

8.1.4 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

8.1.5 EUT TEST CONDITIONS

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

8.1.6 TEST RESULTS

Please refer to the Appendix H.

9. MEASUREMENT INSTRUMENTS LIST

Conducted Emission Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	TWO-LINE V-NETWORK	R&S	ENV216	101050	Jan. 25, 2018
2	Test Cable	TIMES	CFD300-NL	C02	Jun. 14, 2018
3	EMI Test Receiver	R&S	ESR7	101433	Dec. 09, 2017
4	Measurement Software	EZ	EZ_EMC (Version NB-03A)	N/A	N/A

Radiated Emission Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Preamplifier	EMCI	012645B	980267	Feb. 28, 2018
2	Preamplifier	EMCI	EMC02325	980217	Dec. 29, 2017
3	Test Cable	EMCI	EMC104-SM-SM-8000	8m	Jan. 04, 2018
4	Test Cable	EMCI	EMC104-SM-SM-800	150207	Jan. 04, 2018
5	Test Cable	EMCI	EEMC104-SM-SM-3000	151205	Jan. 04, 2018
6	MXE EMI Receiver	Agilent	N9038A	MY55420127	Jan. 09, 2018
7	Signal Analyzer	Agilent	N9010A	MY52220990	Feb. 22, 2018
8	Loop Ant	EMCO	6502	42960	Nov. 24, 2017
9	Horm Ant	SCHWARZBECK	BBHA 9120D	9120D-1342	Feb. 28, 2018
10	Horm Ant	Schwarzbeck	BBHA 9170	187	Dec. 07, 2017
11	Trilog-Broadband Antenna	Schwarzbeck	VULB 9168	9168-548	Jan. 16, 2018
12	5dB Attenuator	EMCI	EMCI-N-6-05	AT-N0623	Jan. 16, 2018

6dB Bandwidth Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	R&S/FSP30	100854	May 25, 2018

Peak Output Power Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	R&S/FSP30	100854	May 25, 2018

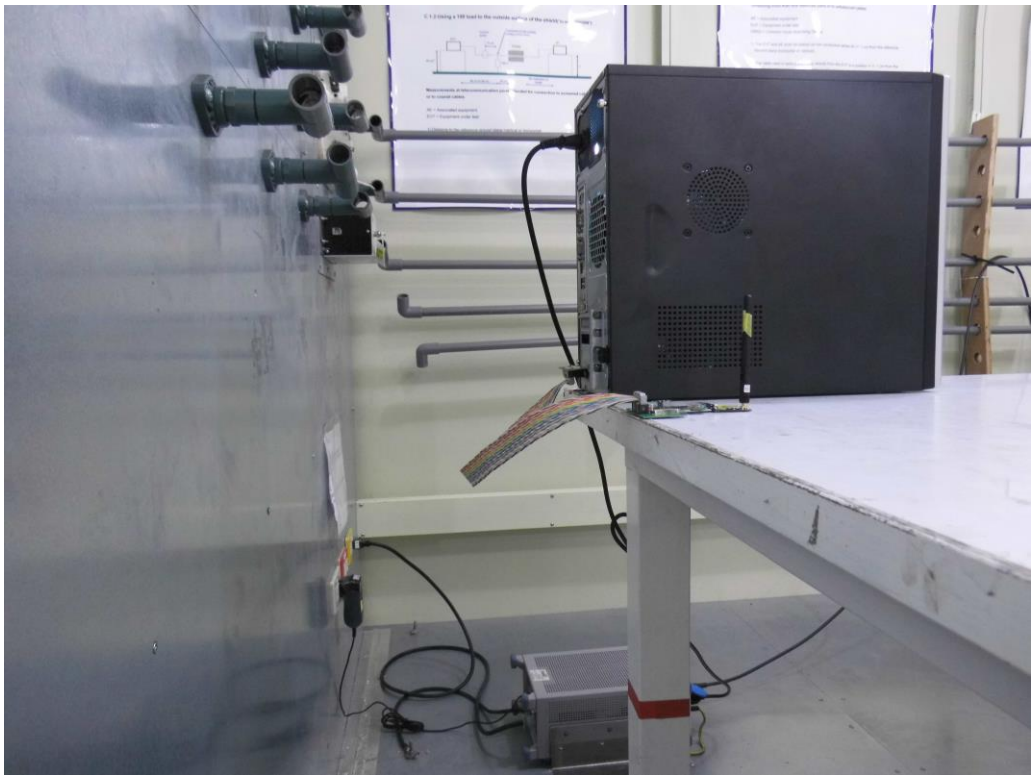
Antenna Conducted Spurious Emission Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	R&S/FSP30	100854	May 25, 2018

Power Spectral Density Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	R&S/FSP30	100854	May 25, 2018

Remark: ”N/A” denotes no model name, serial no. or calibration specified.
All calibration period of equipment list is one year.

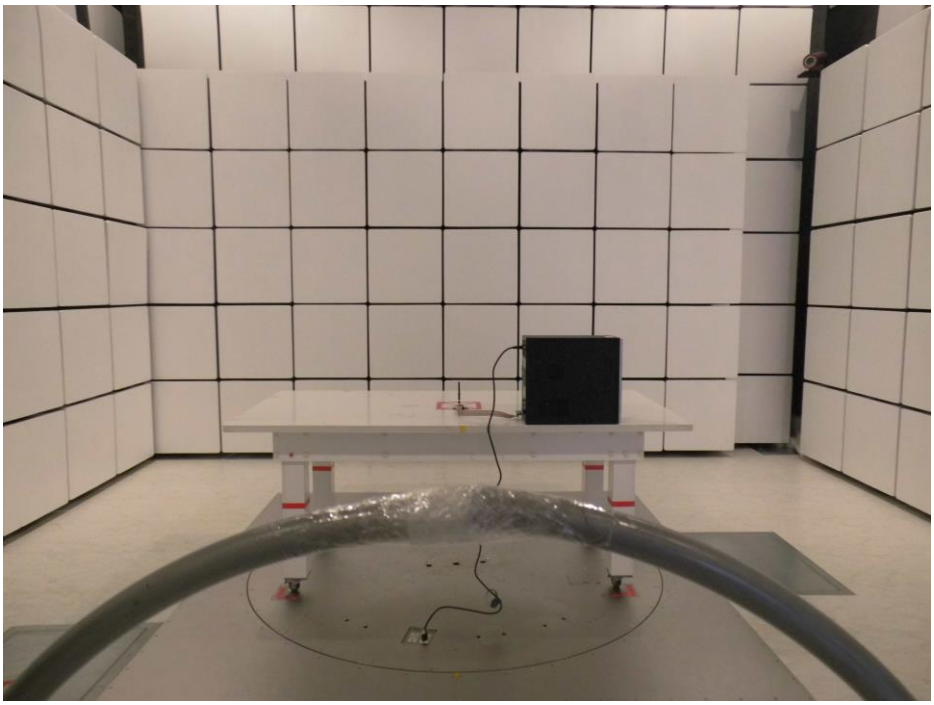
10. EUT TEST PHOTO

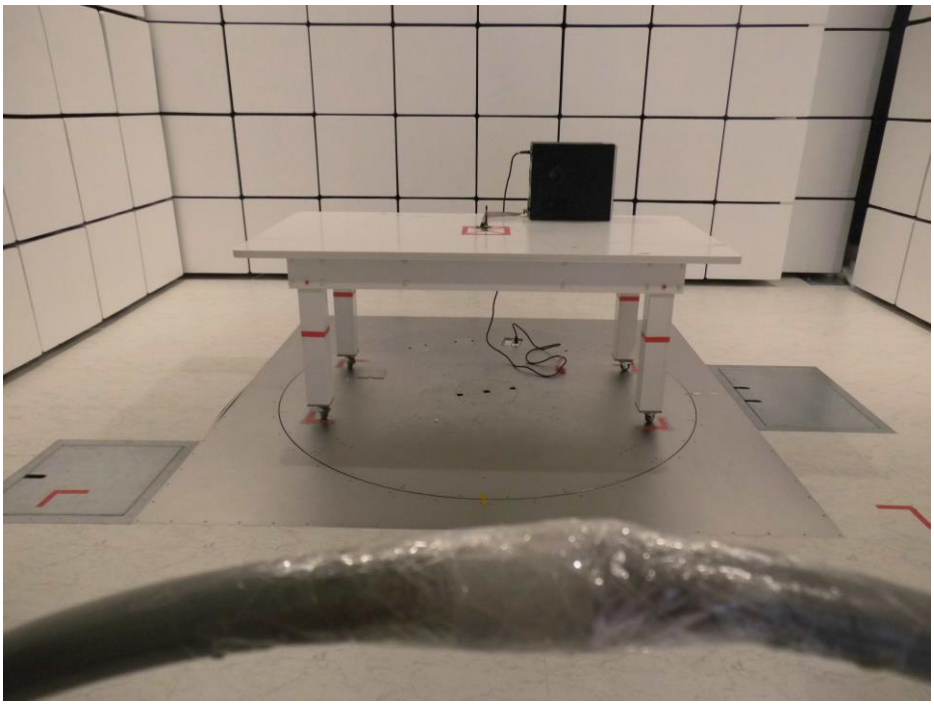
Conducted Measurement Photos



Radiated Measurement Photos

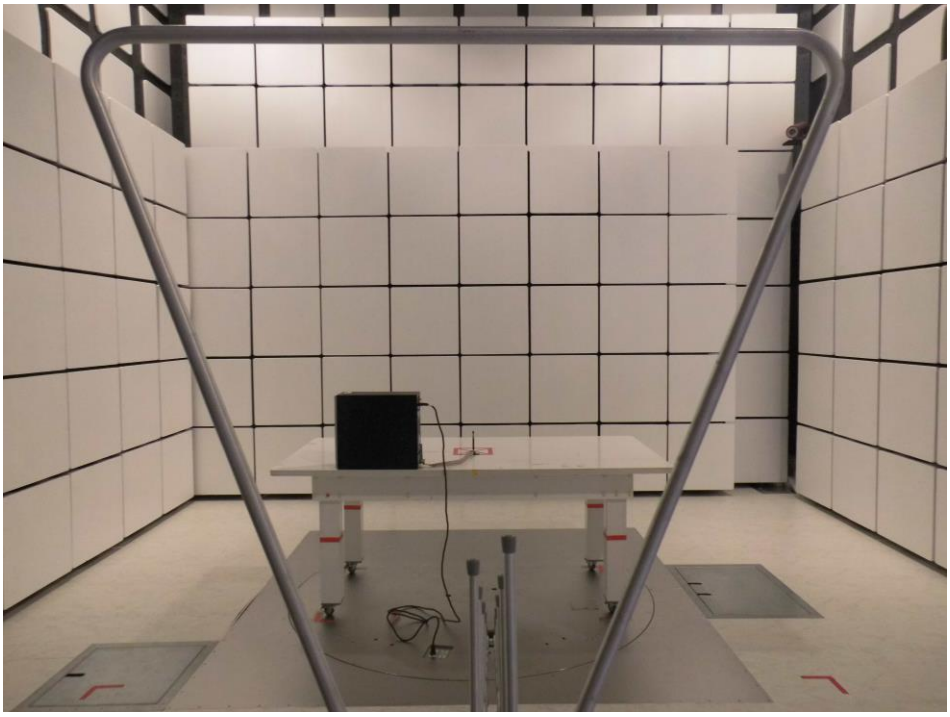
9KHz to 30MHz

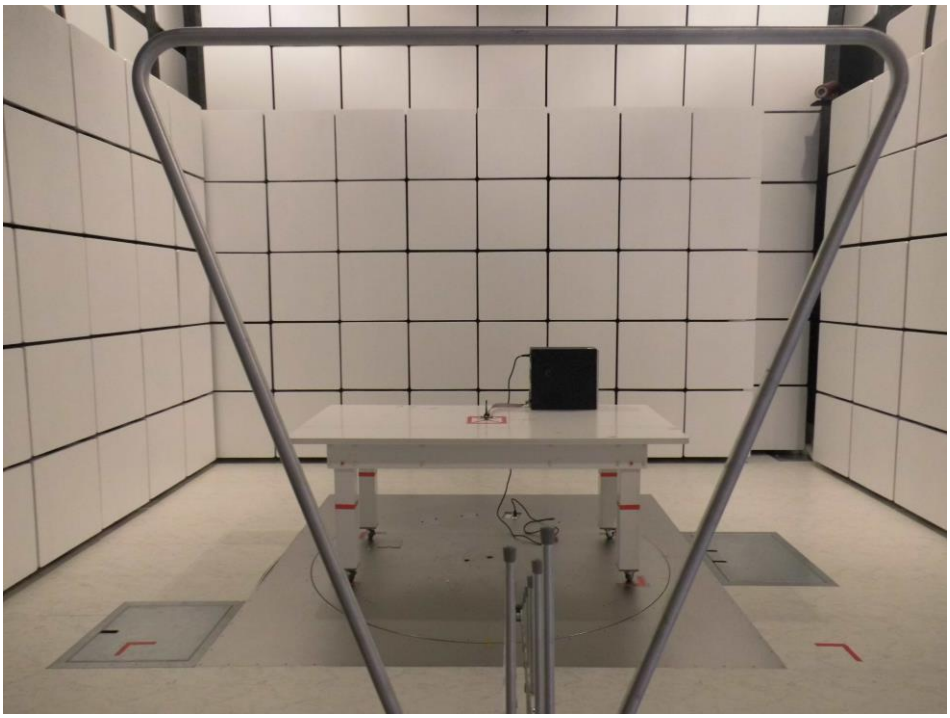




Radiated Measurement Photos

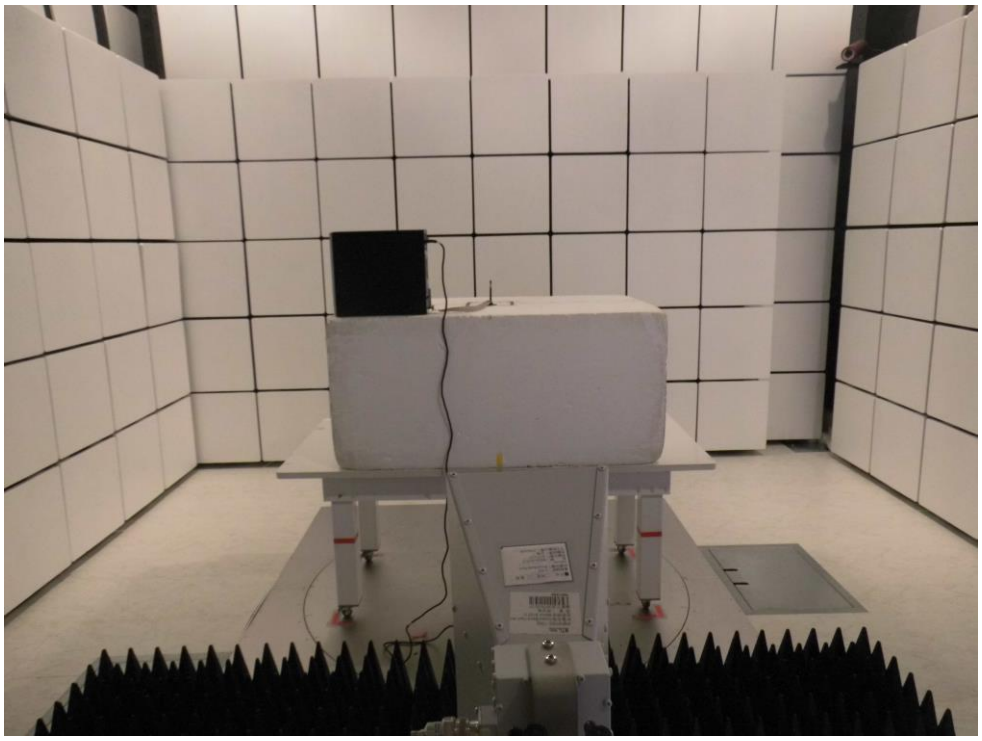
30MHz to 1000MHz

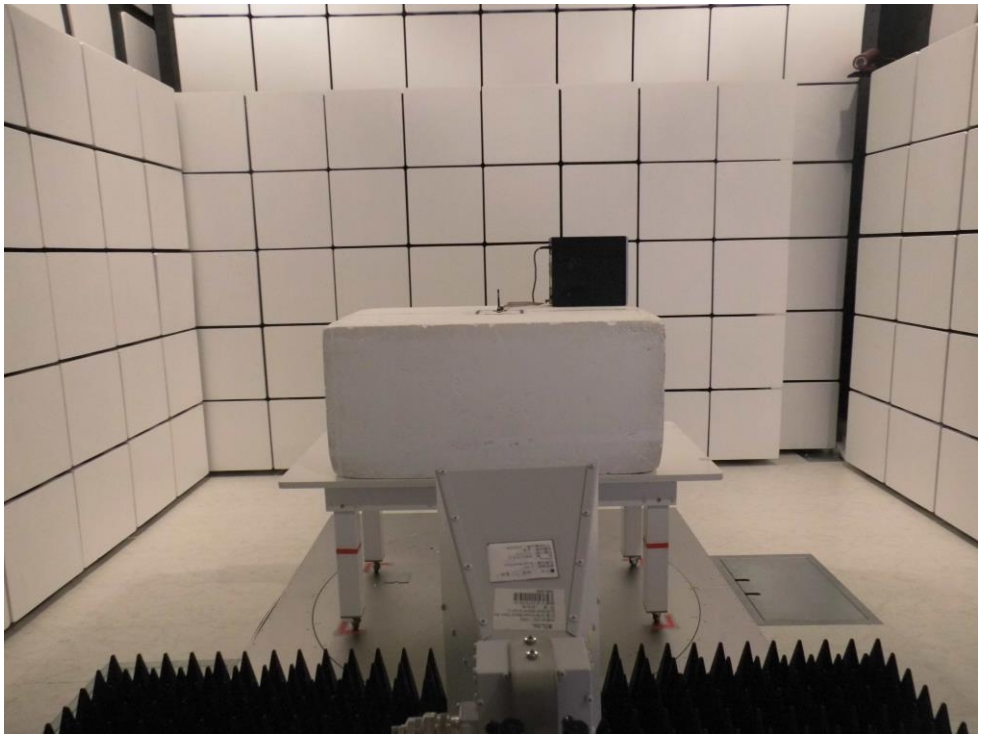




Radiated Measurement Photos

Above 1000MHz

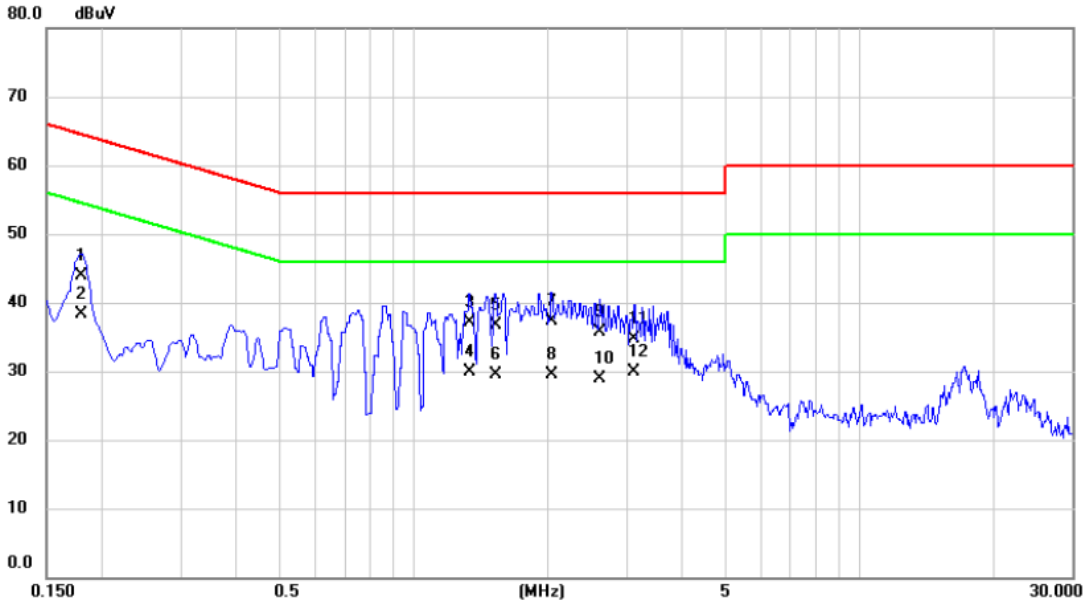




APPENDIX A - CONDUCTED EMISSION

Test Mode :	Normal Link

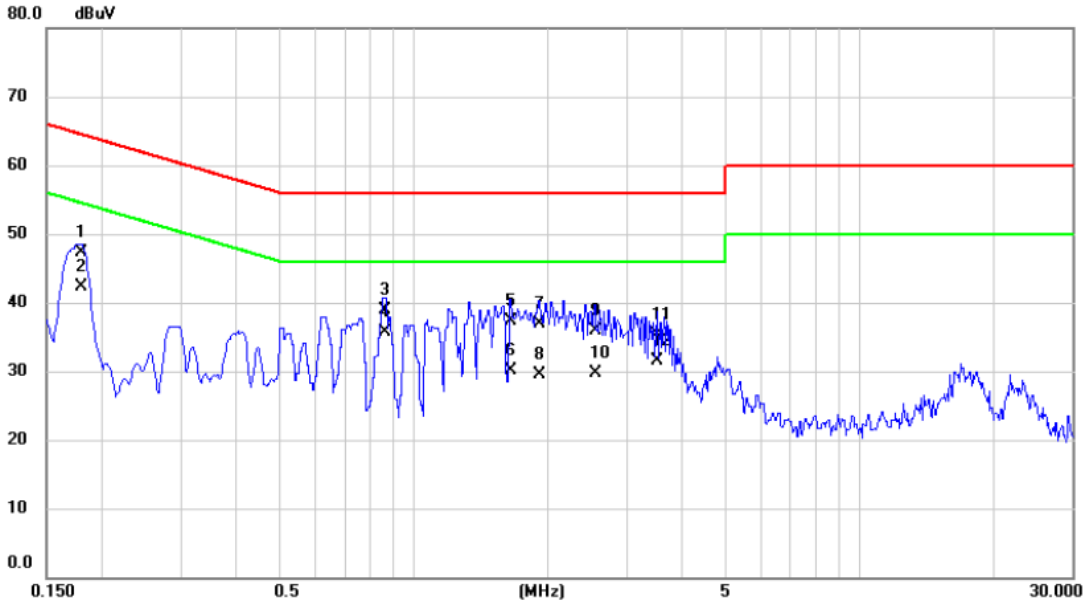
Line



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1794	34.10	9.75	43.85	64.51	-20.66	QP	
2		0.1794	28.50	9.75	38.25	54.51	-16.26	AVG	
3		1.3370	27.30	9.81	37.11	56.00	-18.89	QP	
4		1.3370	20.10	9.81	29.91	46.00	-16.09	AVG	
5		1.5260	26.90	9.82	36.72	56.00	-19.28	QP	
6		1.5260	19.60	9.82	29.42	46.00	-16.58	AVG	
7		2.0390	27.40	9.83	37.23	56.00	-18.77	QP	
8		2.0390	19.70	9.83	29.53	46.00	-16.47	AVG	
9		2.6150	25.90	9.84	35.74	56.00	-20.26	QP	
10		2.6150	19.00	9.84	28.84	46.00	-17.16	AVG	
11		3.1280	24.90	9.85	34.75	56.00	-21.25	QP	
12	*	3.1280	20.10	9.85	29.95	46.00	-16.05	AVG	

Test Mode :	Normal Link

Neutral

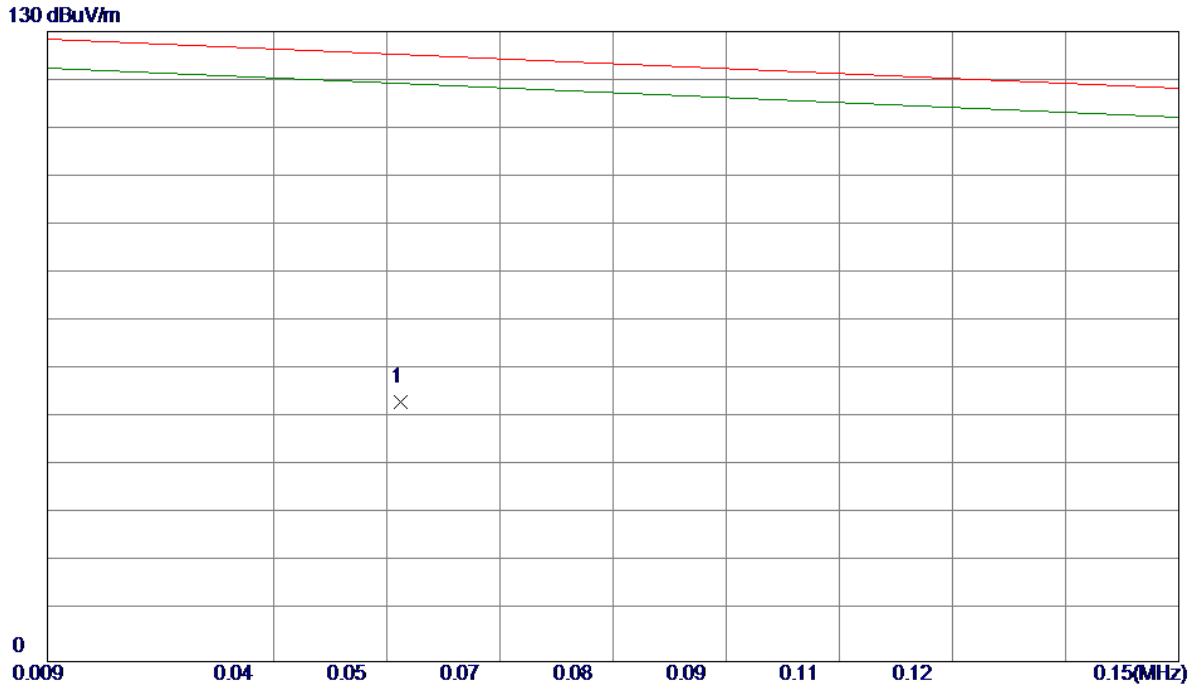


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1794	37.60	9.68	47.28	64.51	-17.23	QP	
2		0.1794	32.70	9.68	42.38	54.51	-12.13	AVG	
3		0.8600	29.20	9.74	38.94	56.00	-17.06	QP	
4	*	0.8600	25.90	9.74	35.64	46.00	-10.36	AVG	
5		1.6520	27.50	9.77	37.27	56.00	-18.73	QP	
6		1.6520	20.30	9.77	30.07	46.00	-15.93	AVG	
7		1.9130	27.10	9.77	36.87	56.00	-19.13	QP	
8		1.9130	19.70	9.77	29.47	46.00	-16.53	AVG	
9		2.5520	26.20	9.79	35.99	56.00	-20.01	QP	
10		2.5520	19.90	9.79	29.69	46.00	-16.31	AVG	
11		3.5150	25.42	9.81	35.23	56.00	-20.77	QP	
12		3.5150	21.62	9.81	31.43	46.00	-14.57	AVG	

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

Test Mode:	TX

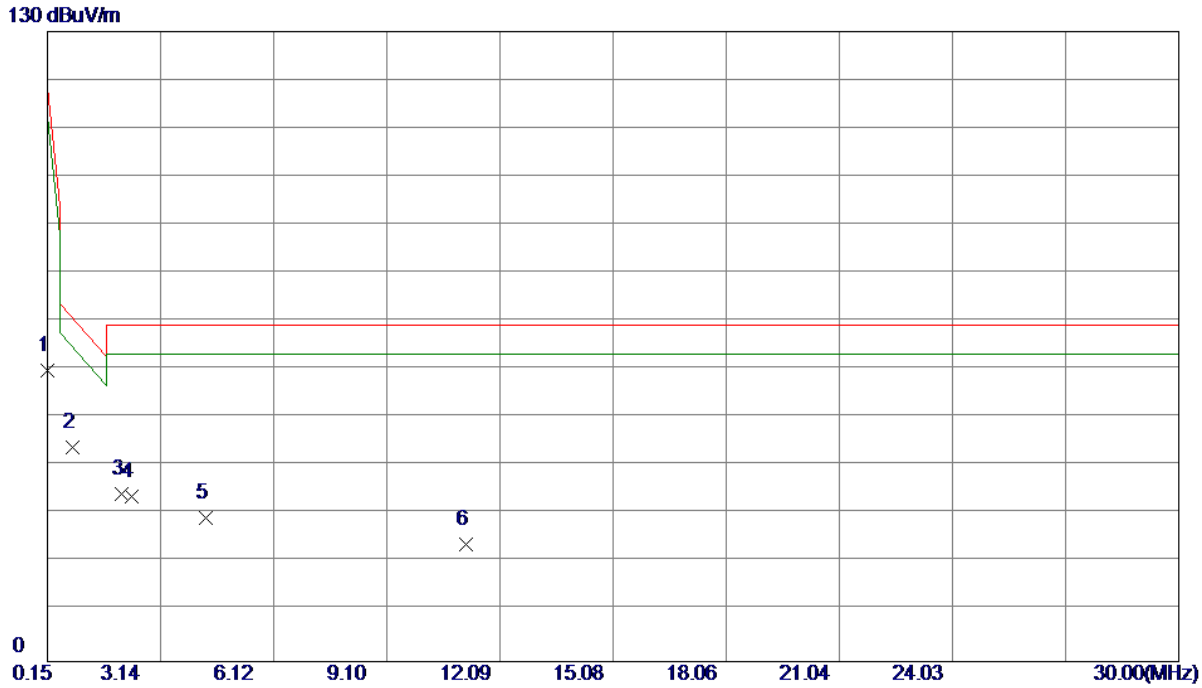
Ant 0°



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	0.0530	40.57	12.95	53.52	125.34	-71.82	Peak	

Test Mode:	TX

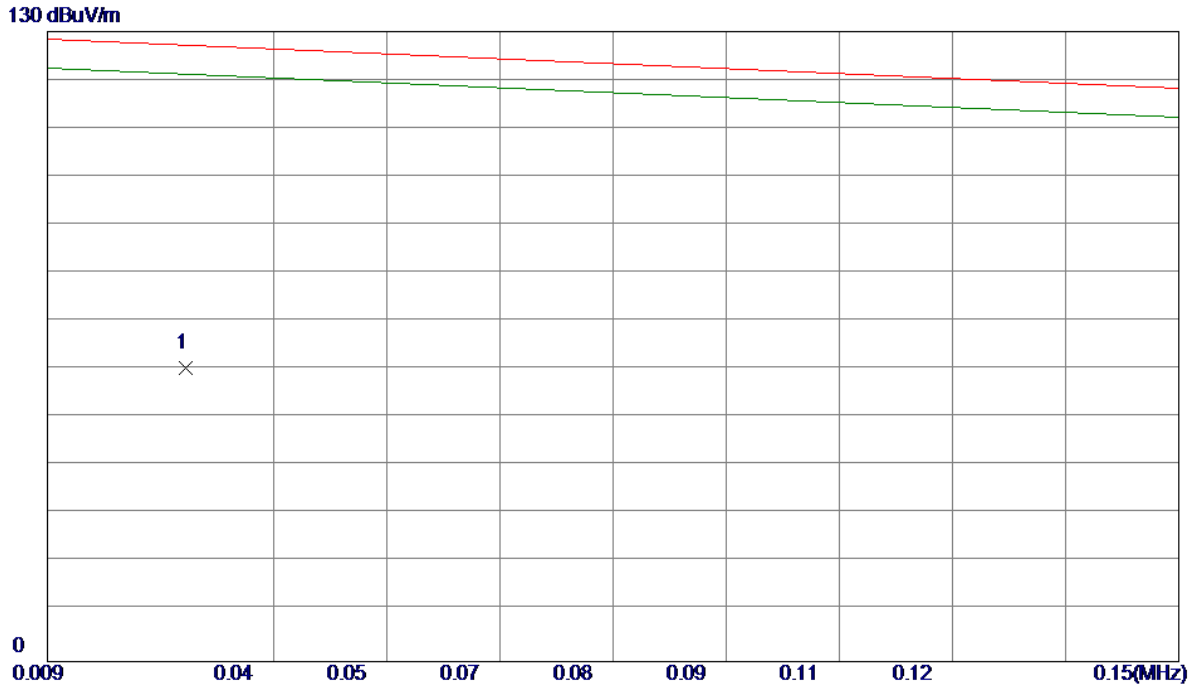
Ant 0°



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	0.1500	47.94	12.02	59.96	118.33	-58.37	Peak	
2 *	0.8064	32.31	11.92	44.23	70.98	-26.75	Peak	
3	2.1199	23.06	11.50	34.56	69.54	-34.98	Peak	
4	2.3887	22.56	11.38	33.94	69.54	-35.60	Peak	
5	4.3290	18.38	11.30	29.68	69.54	-39.86	Peak	
6	11.1942	12.82	11.26	24.08	69.54	-45.46	Peak	

Test Mode:	TX

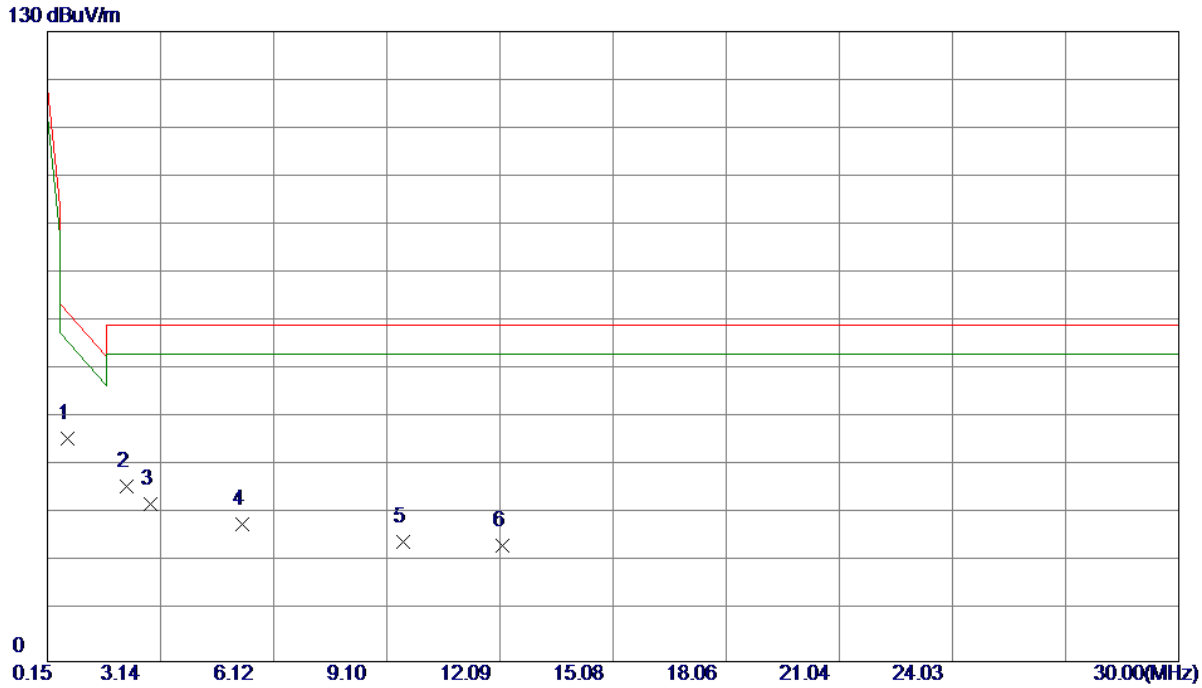
Ant 90°



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	0.0262	44.46	16.02	60.48	127.27	-66.79	Peak	

Test Mode:	TX

Ant 90°

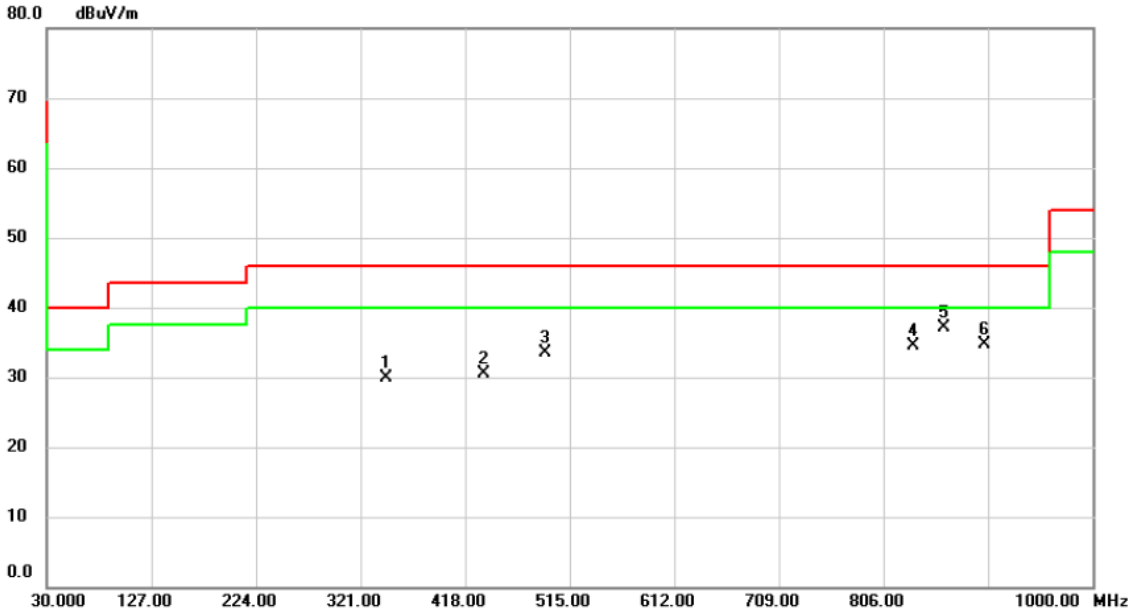


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	0.6873	34.17	11.87	46.04	72.04	-26.00	Peak	
2	2.2395	24.62	11.44	36.06	69.54	-33.48	Peak	
3	2.8664	21.25	11.16	32.41	69.54	-37.13	Peak	
4	5.2842	16.97	11.39	28.36	69.54	-41.18	Peak	
5	9.5228	13.44	11.31	24.75	69.54	-44.79	Peak	
6	12.1493	12.61	11.24	23.85	69.54	-45.69	Peak	

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

Test Mode:	TX N-20M MODE 2462MHz

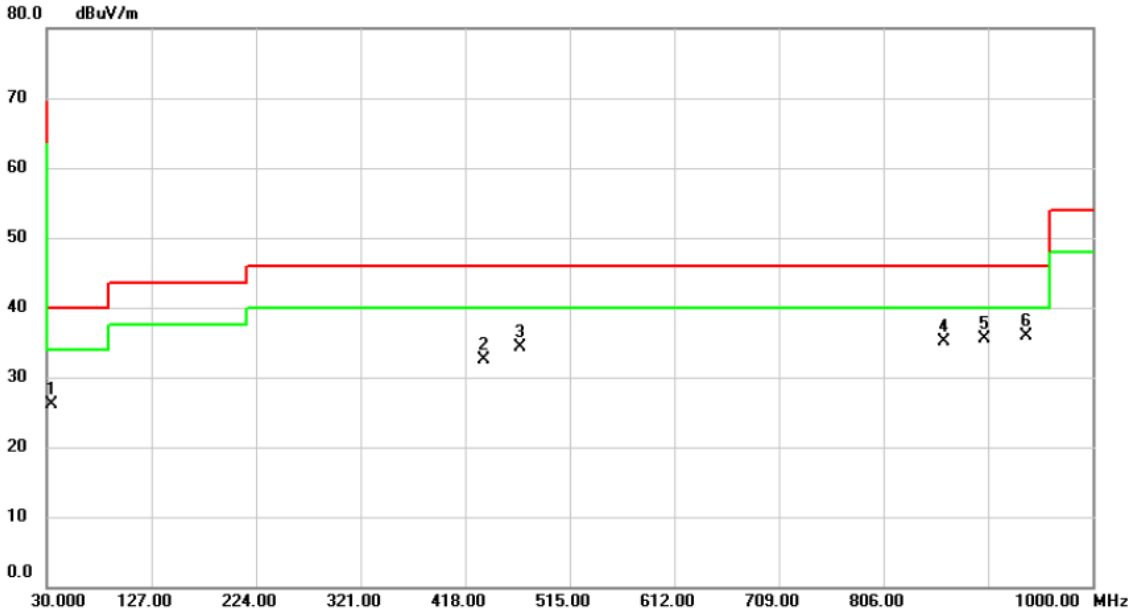
Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		344.2800	36.32	-6.38	29.94	46.00	-16.06	peak	
2		435.4600	34.37	-3.96	30.41	46.00	-15.59	peak	
3		491.7200	36.34	-2.87	33.47	46.00	-12.53	peak	
4		833.1600	31.50	3.03	34.53	46.00	-11.47	peak	
5	*	862.2600	33.75	3.44	37.19	46.00	-8.81	peak	
6		900.0900	30.60	4.12	34.72	46.00	-11.28	peak	

Test Mode:	TX N-20M MODE 2462MHz

Horizontal

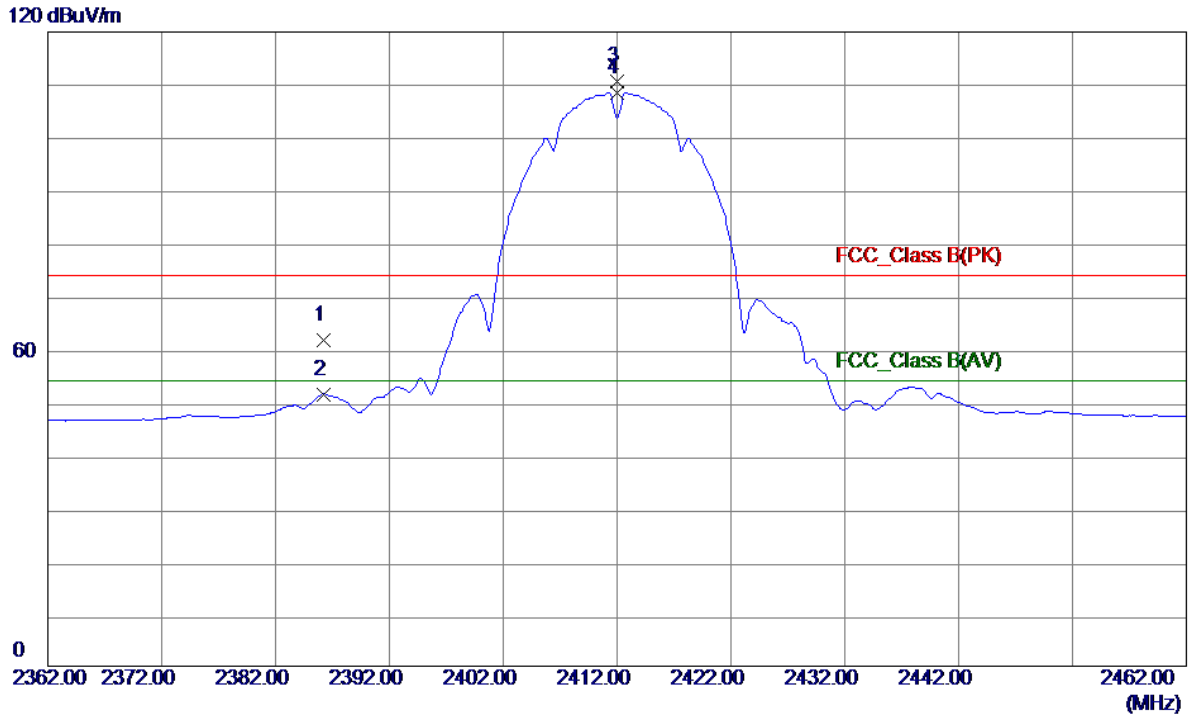


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		33.8800	35.09	-8.89	26.20	40.00	-13.80	peak	
2		435.4600	36.42	-3.96	32.46	46.00	-13.54	peak	
3		468.4400	37.62	-3.25	34.37	46.00	-11.63	peak	
4		862.2600	31.73	3.44	35.17	46.00	-10.83	peak	
5		900.0900	31.47	4.12	35.59	46.00	-10.41	peak	
6	*	937.9200	31.23	4.71	35.94	46.00	-10.06	peak	

APPENDIX D - RADIATED EMISSION (ABOVE 1000MHZ)

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

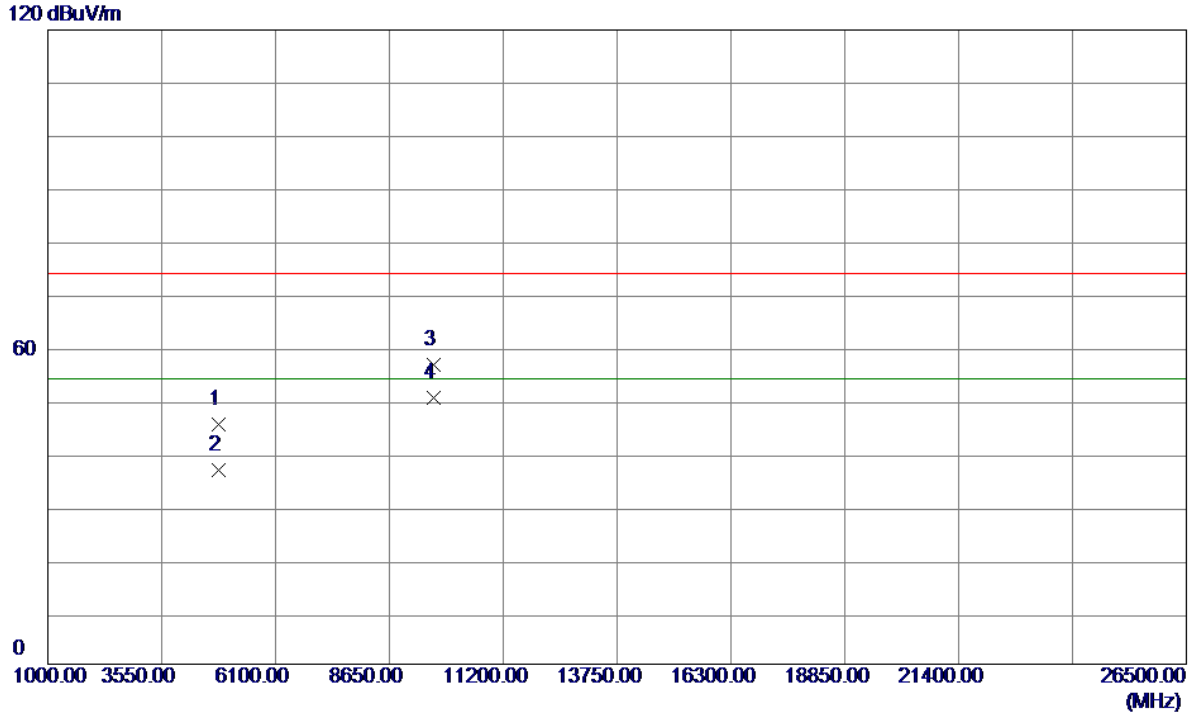
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2386.2760	30.67	31.05	61.72	74.00	-12.28	Peak	
2	2386.2760	20.39	31.05	51.44	54.00	-2.56	AVG	
3	2412.0000	79.40	31.15	110.55	74.00	36.55	Peak	No Limit
4 *	2412.0000	77.28	31.15	108.43	54.00	54.43	AVG	No Limit

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

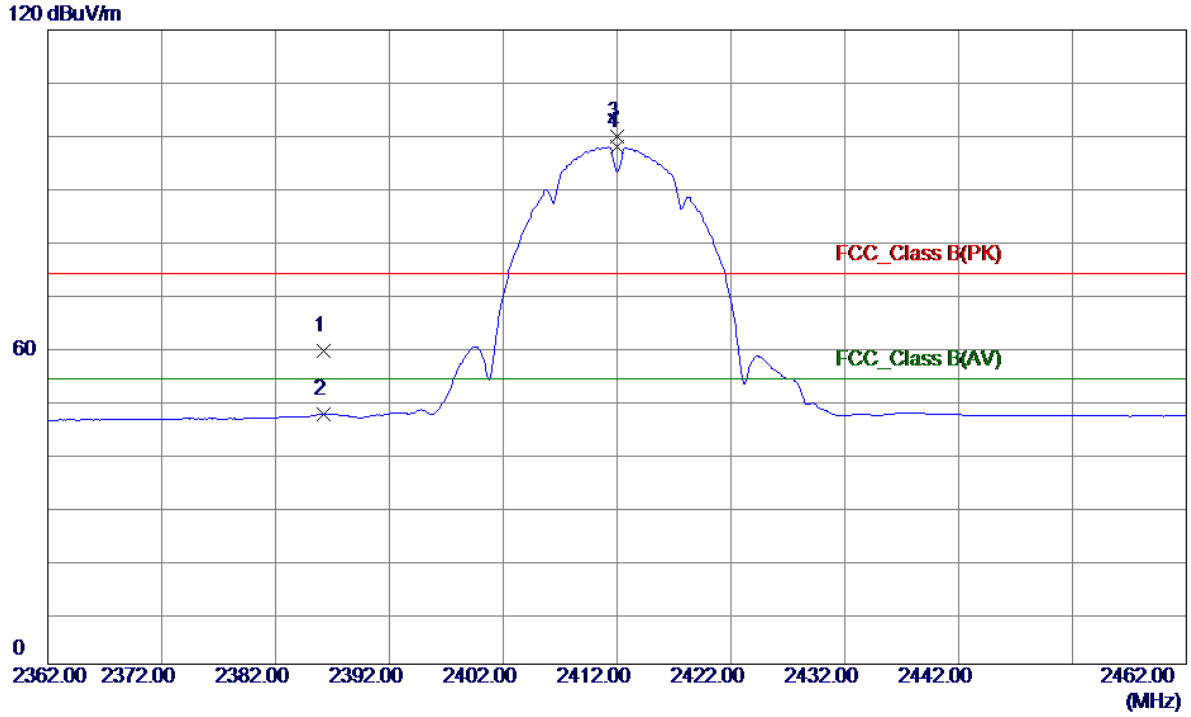
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4824.0000	56.62	-11.37	45.25	74.00	-28.75	Peak	
2	4824.0000	48.02	-11.37	36.65	54.00	-17.35	AVG	
3	9648.0000	56.13	0.53	56.66	74.00	-17.34	Peak	
4 *	9648.0000	49.92	0.53	50.45	54.00	-3.55	AVG	

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

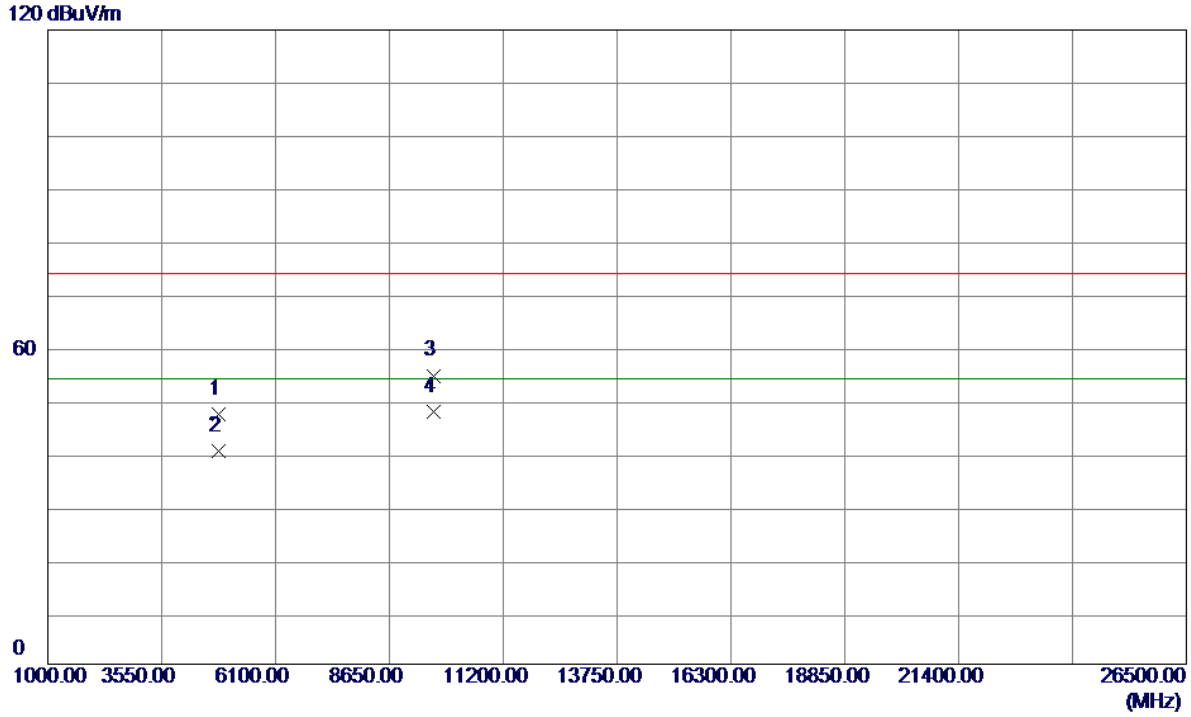
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2386.2480	28.23	31.05	59.28	74.00	-14.72	Peak	
2	2386.2480	16.28	31.05	47.33	54.00	-6.67	AVG	
3	2412.0000	68.72	31.15	99.87	74.00	25.87	Peak	No Limit
4 *	2412.0000	66.67	31.15	97.82	54.00	43.82	AVG	No Limit

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

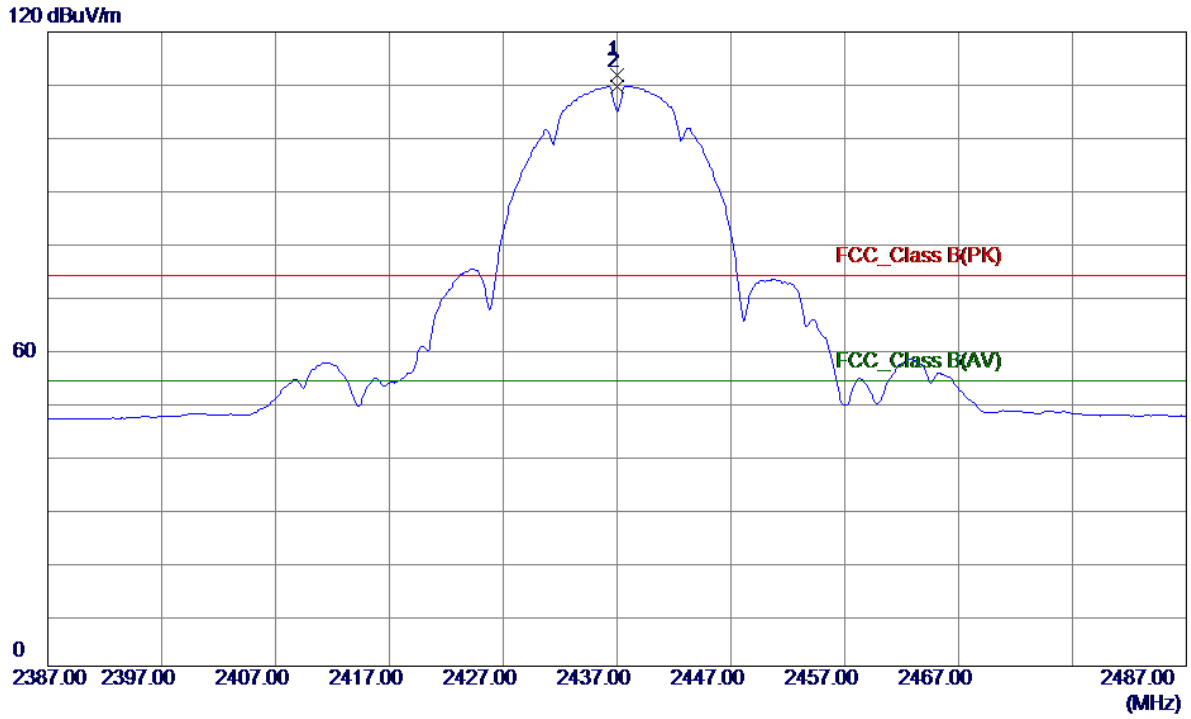
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4824.0000	58.74	-11.37	47.37	74.00	-26.63	Peak	
2	4824.0000	51.65	-11.37	40.28	54.00	-13.72	AVG	
3	9648.0000	54.07	0.53	54.60	74.00	-19.40	Peak	
4 *	9648.0000	47.17	0.53	47.70	54.00	-6.30	AVG	

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

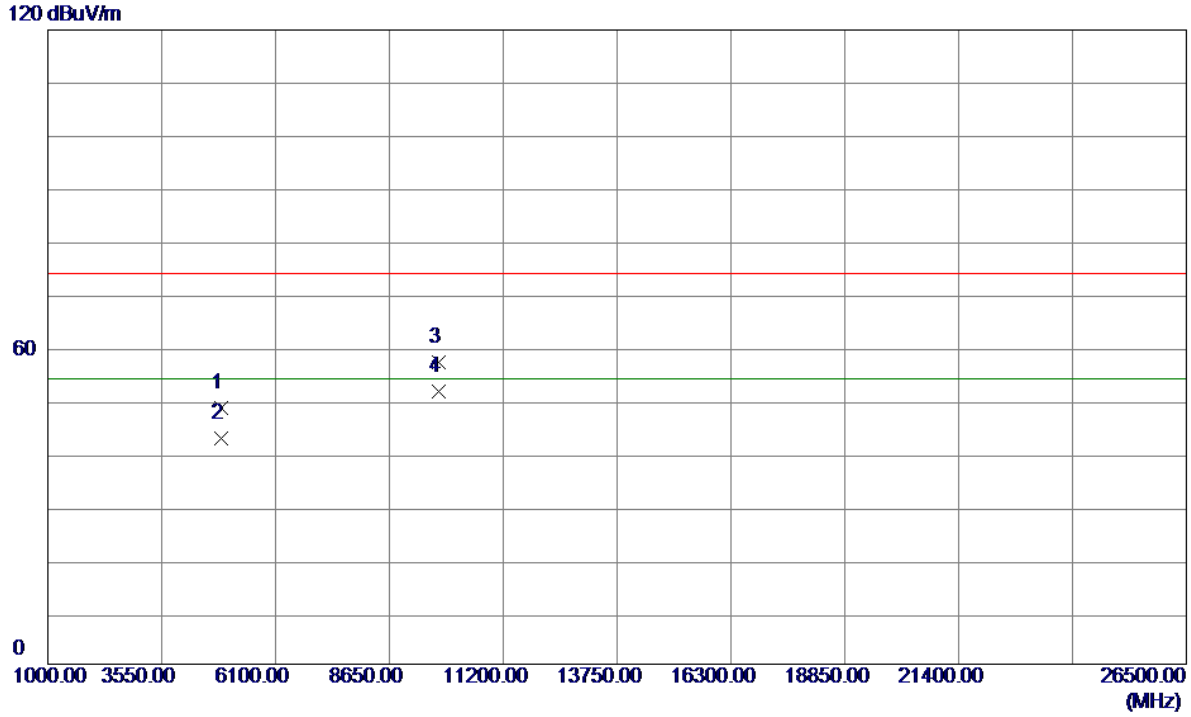
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2437.0000	80.54	31.24	111.78	74.00	37.78	Peak	No Limit
2 *	2437.0000	78.48	31.24	109.72	54.00	55.72	AVG	No Limit

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

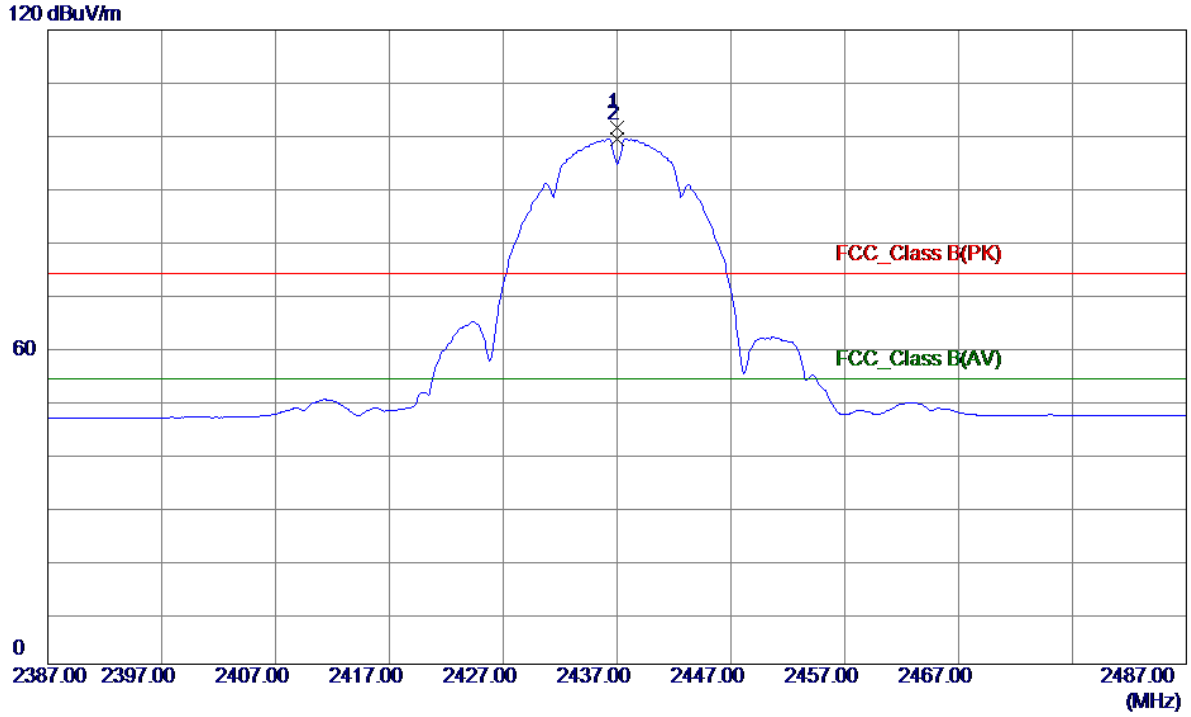
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4874.0000	59.70	-11.29	48.41	74.00	-25.59	Peak	
2	4874.0000	53.91	-11.29	42.62	54.00	-11.38	AVG	
3	9748.0000	56.15	0.90	57.05	74.00	-16.95	Peak	
4 *	9748.0000	50.74	0.90	51.64	54.00	-2.36	AVG	

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

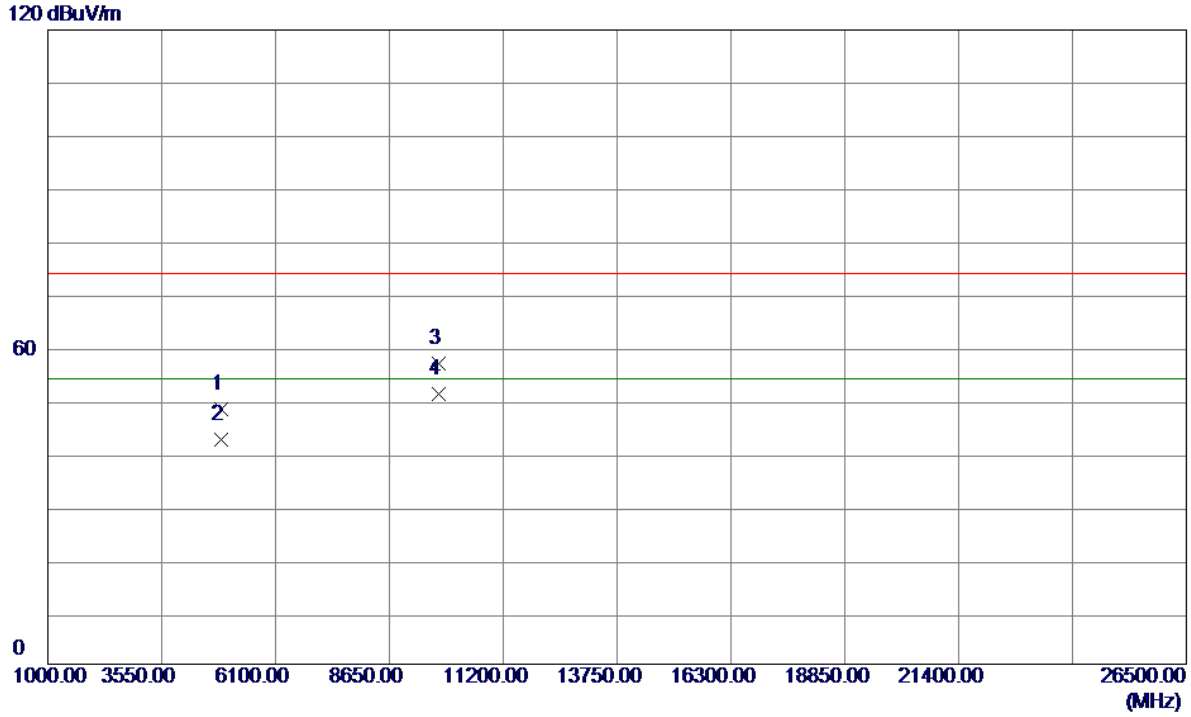
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2437.0000	70.29	31.24	101.53	74.00	27.53	Peak	No Limit
2 *	2437.0000	68.15	31.24	99.39	54.00	45.39	AVG	No Limit

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

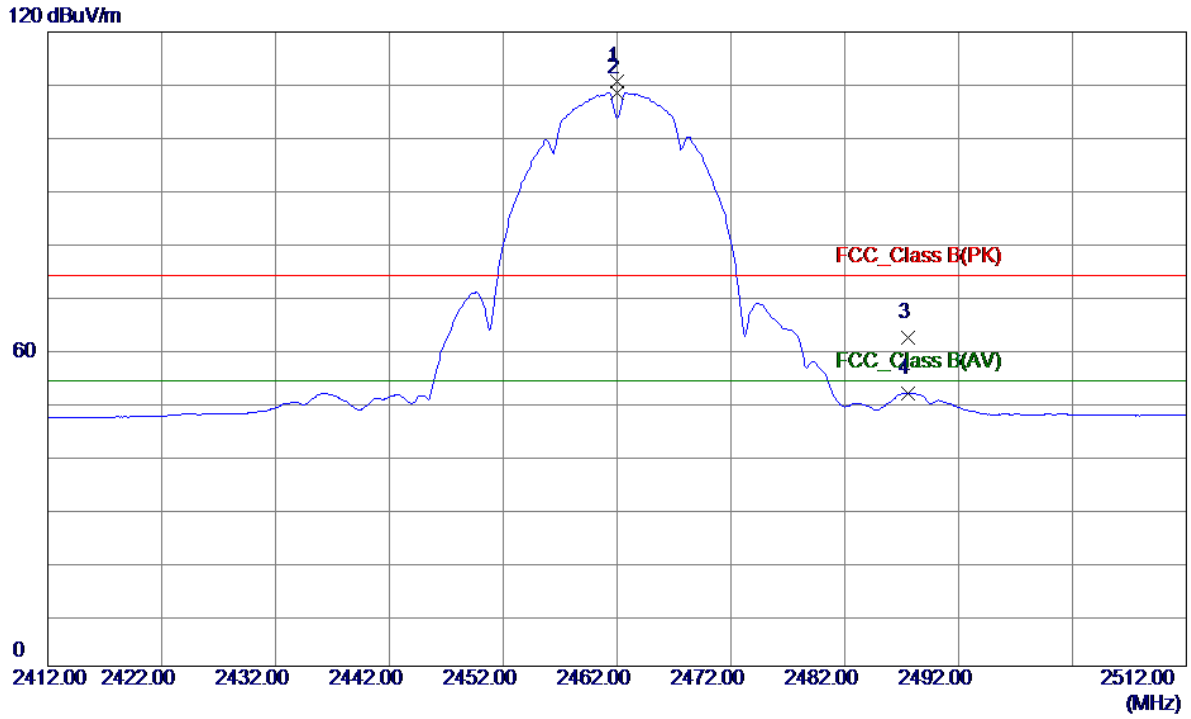
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4874.0000	59.44	-11.29	48.15	74.00	-25.85	Peak	
2	4874.0000	53.80	-11.29	42.51	54.00	-11.49	AVG	
3	9748.0000	55.97	0.90	56.87	74.00	-17.13	Peak	
4 *	9748.0000	50.22	0.90	51.12	54.00	-2.88	AVG	

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

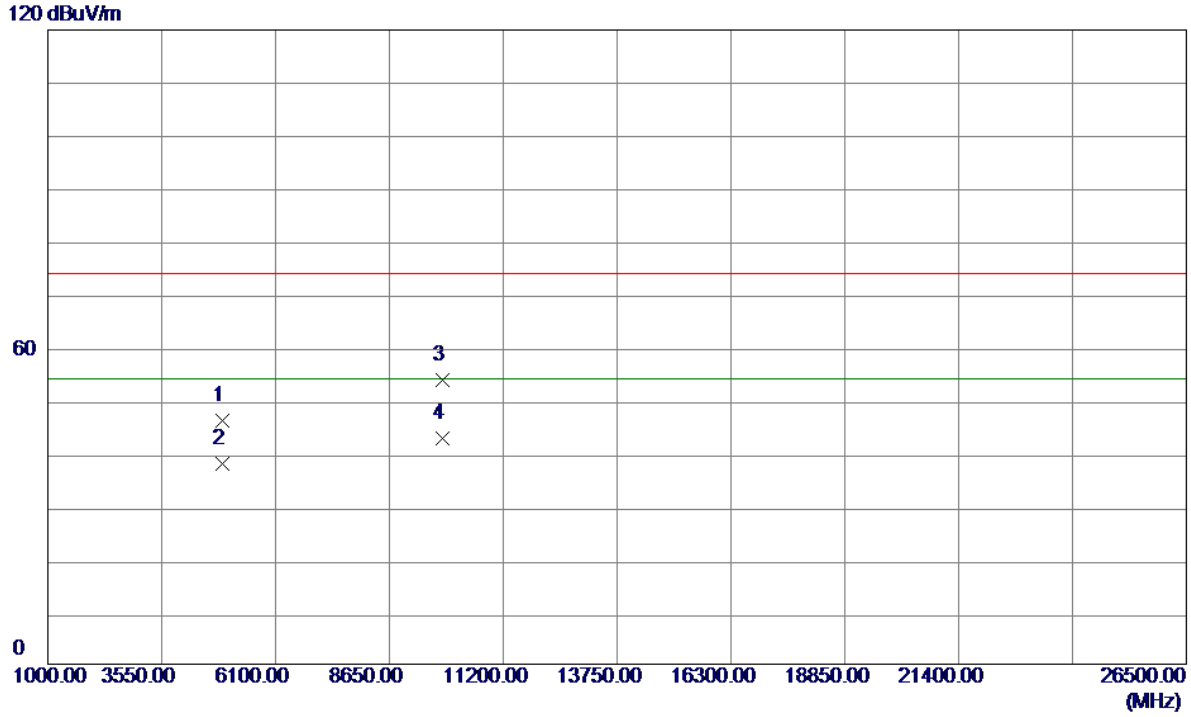
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2462.0000	79.21	31.33	110.54	74.00	36.54	Peak	No Limit
2 *	2462.0000	77.09	31.33	108.42	54.00	54.42	AVG	No Limit
3	2487.6080	30.73	31.42	62.15	74.00	-11.85	Peak	
4	2487.6080	20.27	31.42	51.69	54.00	-2.31	AVG	

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

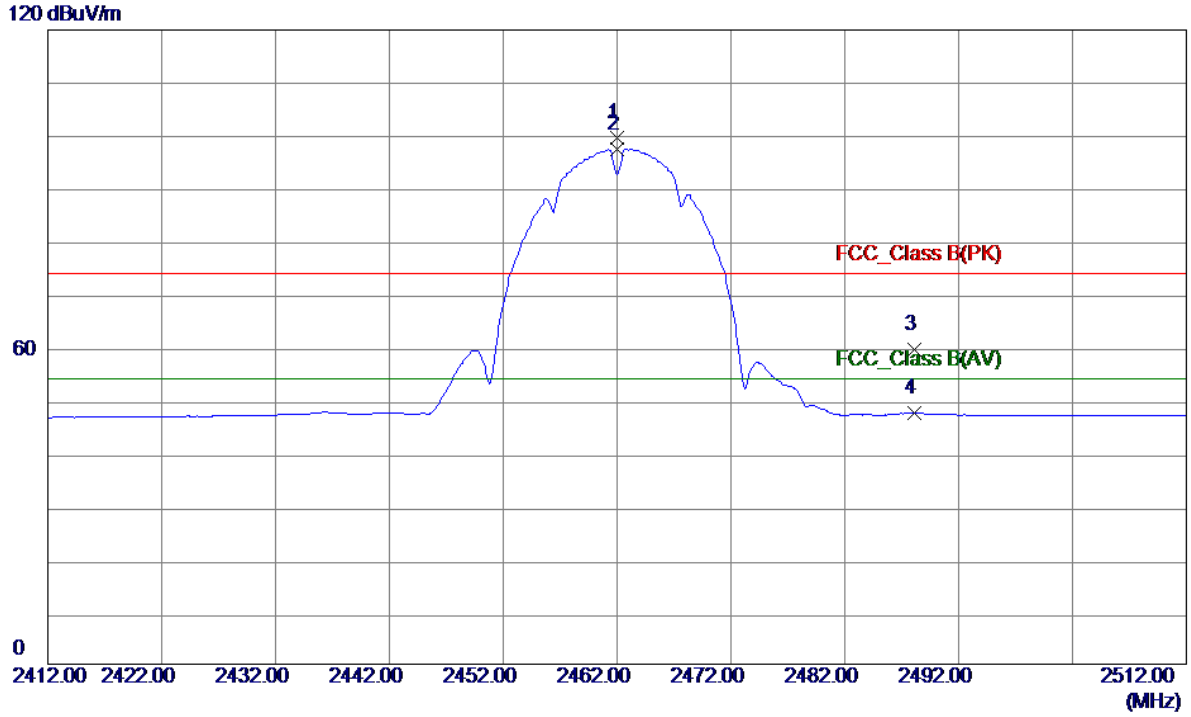
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4924.0000	57.20	-11.22	45.98	74.00	-28.02	Peak	
2	4924.0000	49.16	-11.22	37.94	54.00	-16.06	AVG	
3	9848.0000	52.45	1.27	53.72	74.00	-20.28	Peak	
4 *	9848.0000	41.52	1.27	42.79	54.00	-11.21	AVG	

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

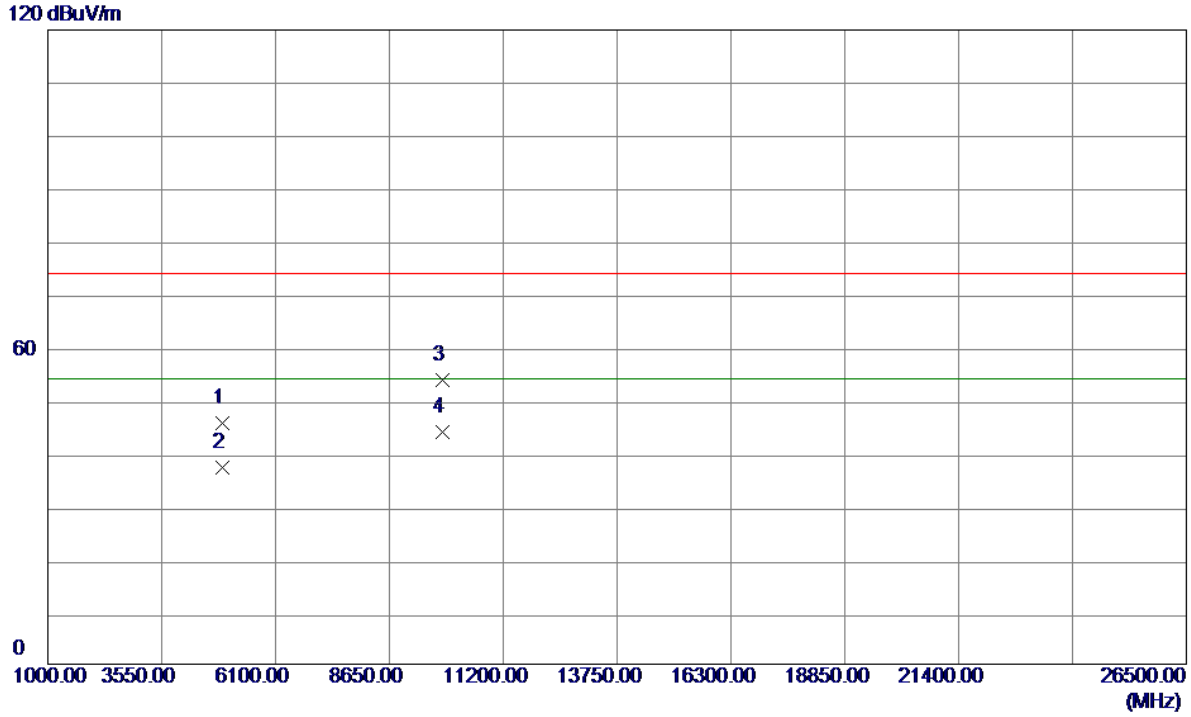
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2462.0000	68.21	31.33	99.54	74.00	25.54	Peak	No Limit
2 *	2462.0000	66.11	31.33	97.44	54.00	43.44	AVG	No Limit
3	2488.0700	28.08	31.43	59.51	74.00	-14.49	Peak	
4	2488.0700	16.04	31.43	47.47	54.00	-6.53	AVG	

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

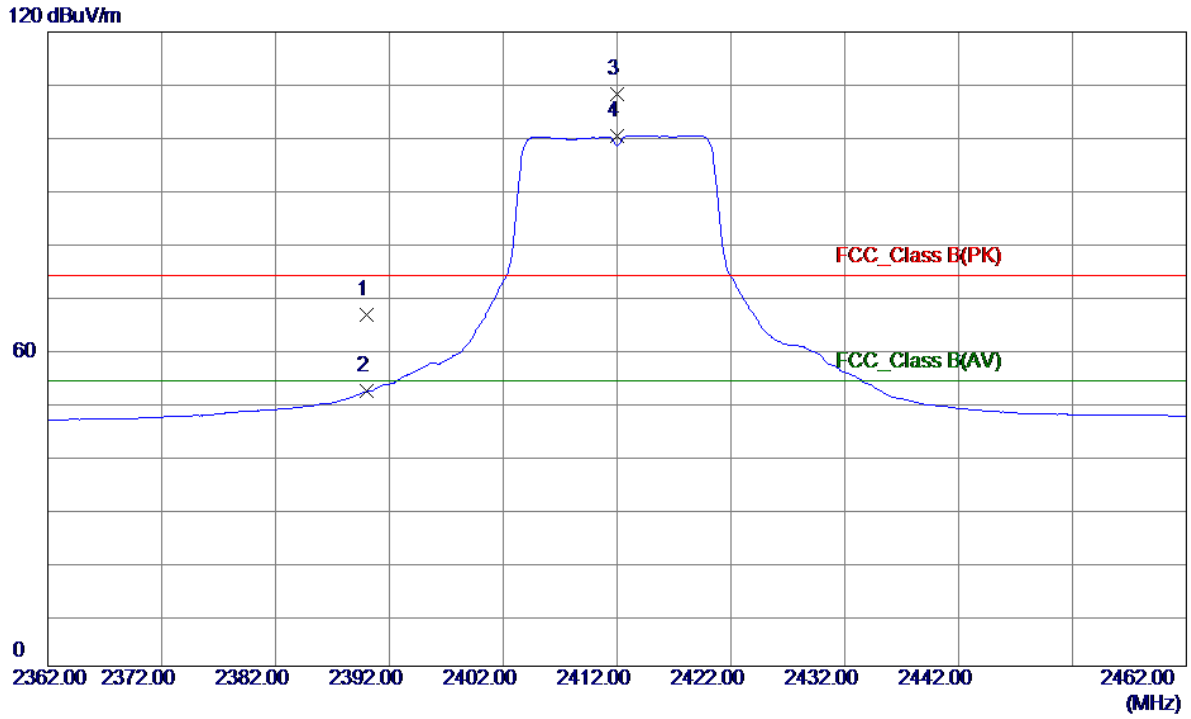
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4924.0000	56.90	-11.22	45.68	74.00	-28.32	Peak	
2	4924.0000	48.45	-11.22	37.23	54.00	-16.77	AVG	
3	9848.0000	52.60	1.27	53.87	74.00	-20.13	Peak	
4 *	9848.0000	42.59	1.27	43.86	54.00	-10.14	AVG	

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

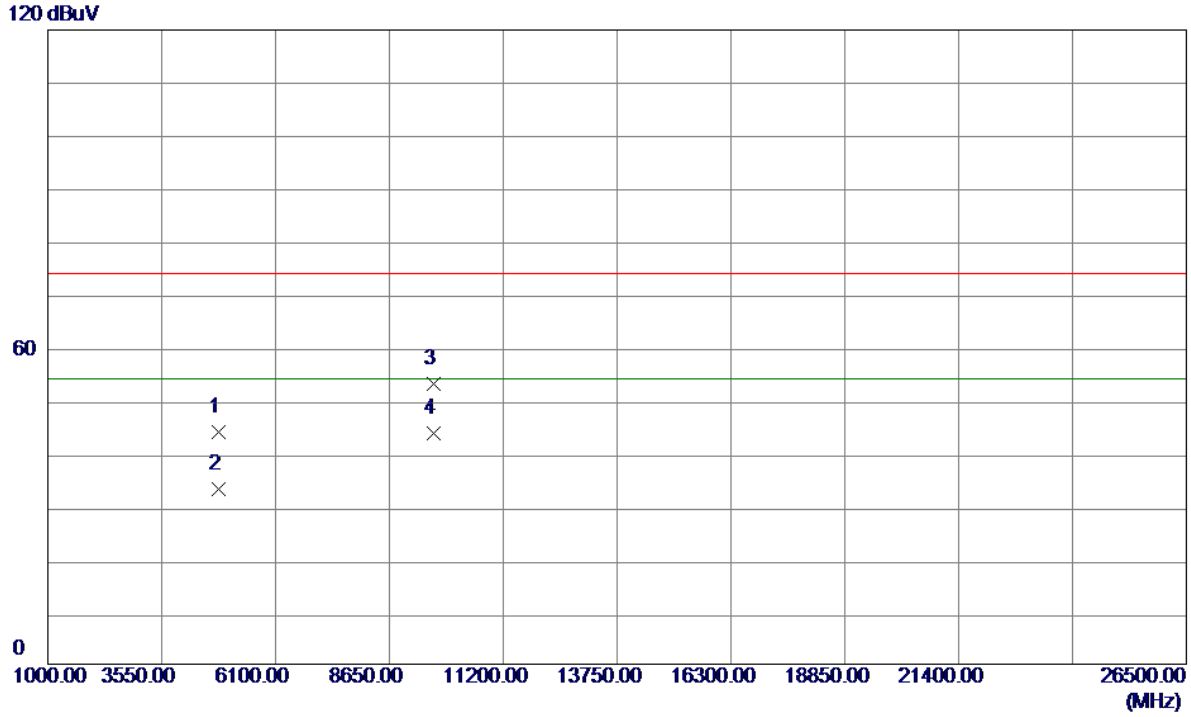
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2389.9720	35.53	31.06	66.59	74.00	-7.41	Peak	
2	2389.9720	20.96	31.06	52.02	54.00	-1.98	AVG	
3	2412.0000	77.08	31.15	108.23	74.00	34.23	Peak	No Limit
4 *	2412.0000	69.25	31.15	100.40	54.00	46.40	AVG	No Limit

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

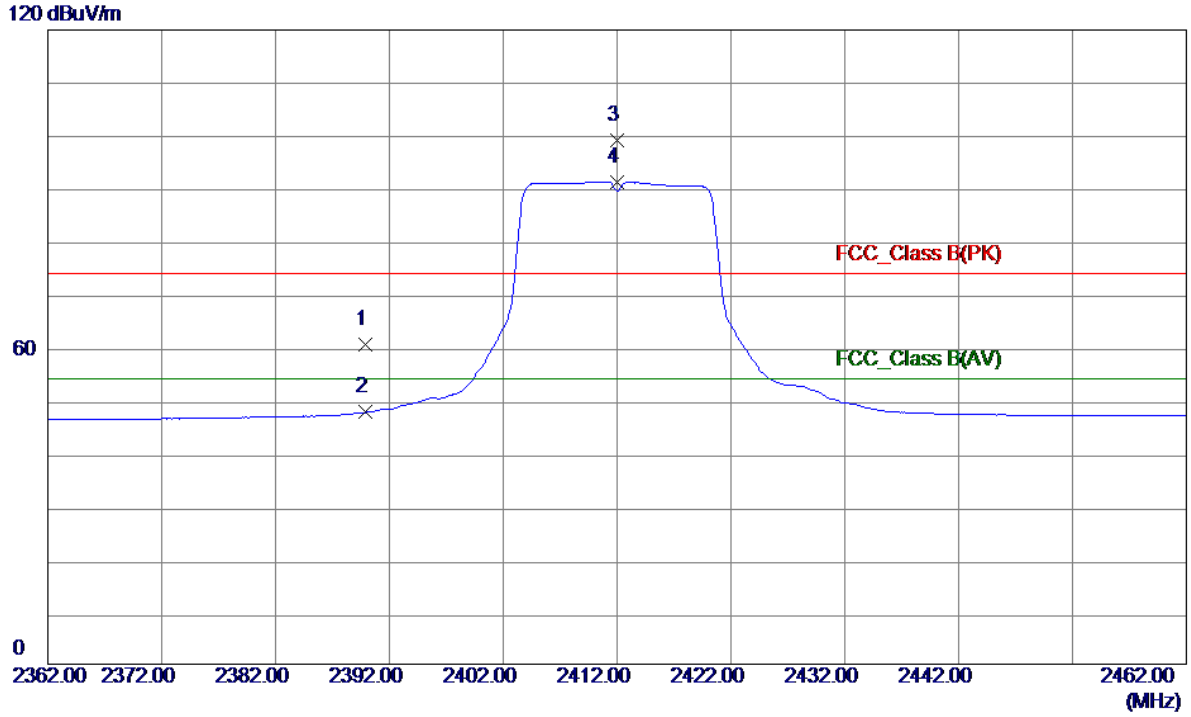
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	4824.0000	55.21	-11.37	43.84	74.00	-30.16	Peak	
2	4824.0000	44.53	-11.37	33.16	54.00	-20.84	AVG	
3	9648.0000	52.49	0.53	53.02	74.00	-20.98	Peak	
4 *	9648.0000	43.17	0.53	43.70	54.00	-10.30	AVG	

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

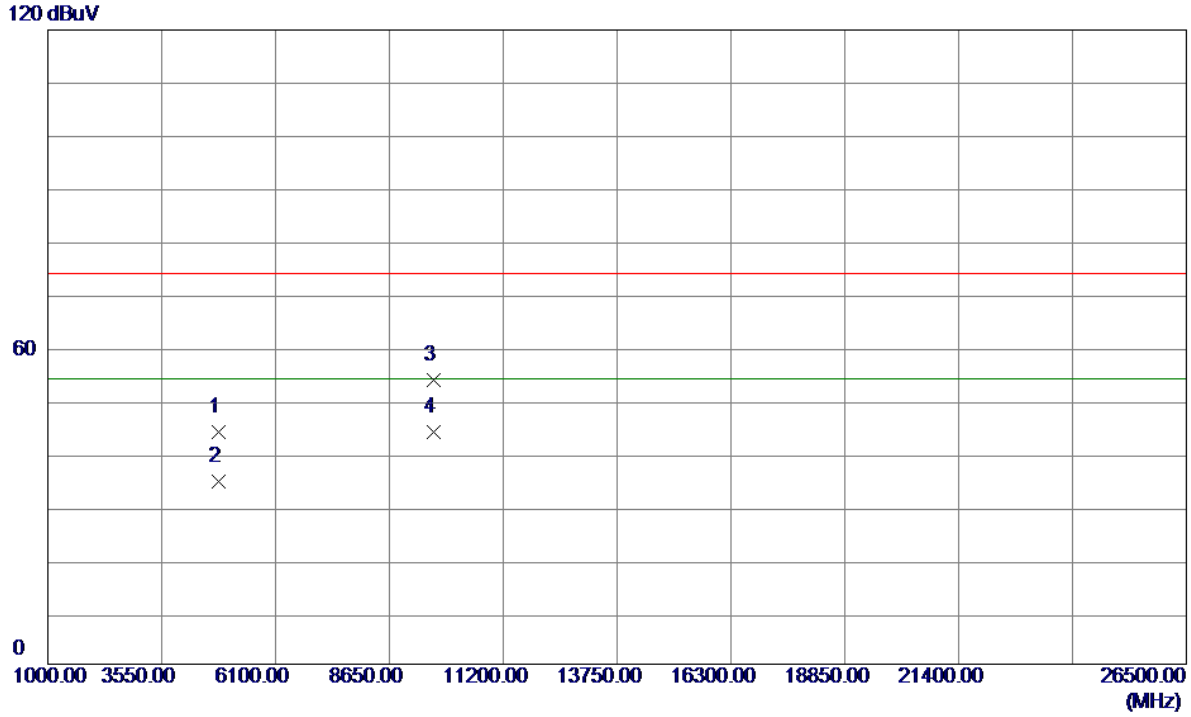
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2389.9440	29.31	31.06	60.37	74.00	-13.63	Peak	
2	2389.9440	16.63	31.06	47.69	54.00	-6.31	AVG	
3	2412.0000	67.86	31.15	99.01	74.00	25.01	Peak	No Limit
4 *	2412.0000	60.09	31.15	91.24	54.00	37.24	AVG	No Limit

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

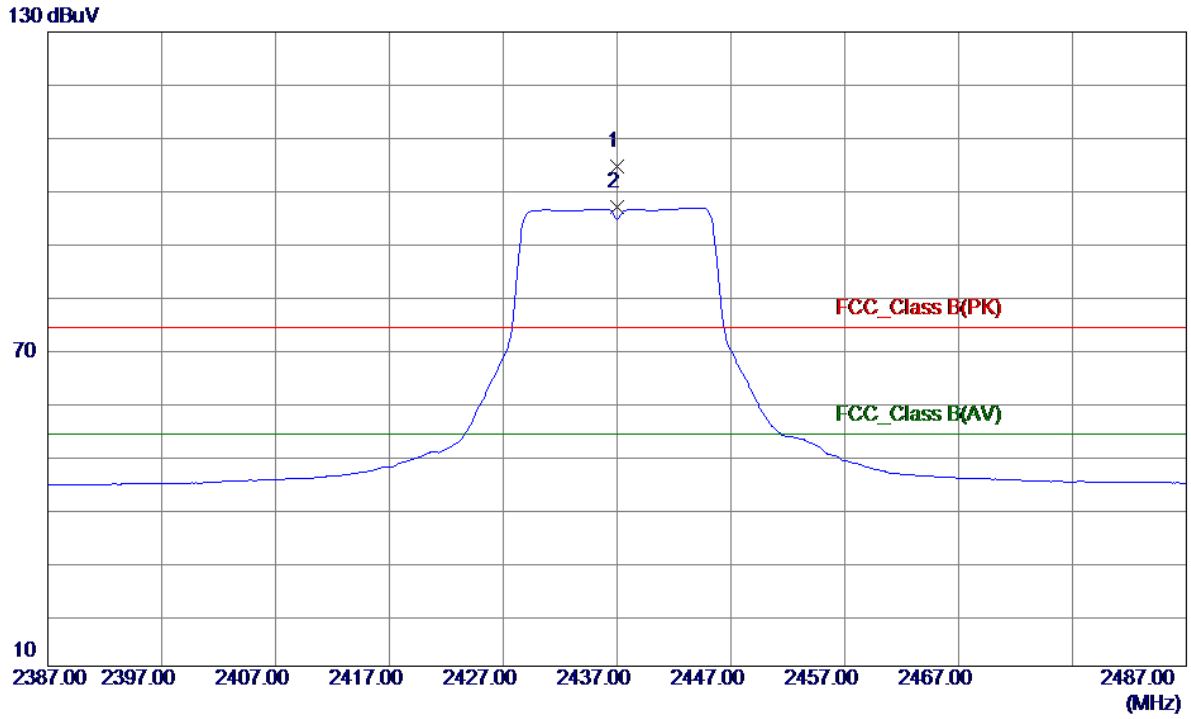
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	4824.0000	55.38	-11.37	44.01	74.00	-29.99	Peak	
2	4824.0000	45.83	-11.37	34.46	54.00	-19.54	AVG	
3	9648.0000	53.28	0.53	53.81	74.00	-20.19	Peak	
4 *	9648.0000	43.35	0.53	43.88	54.00	-10.12	AVG	

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

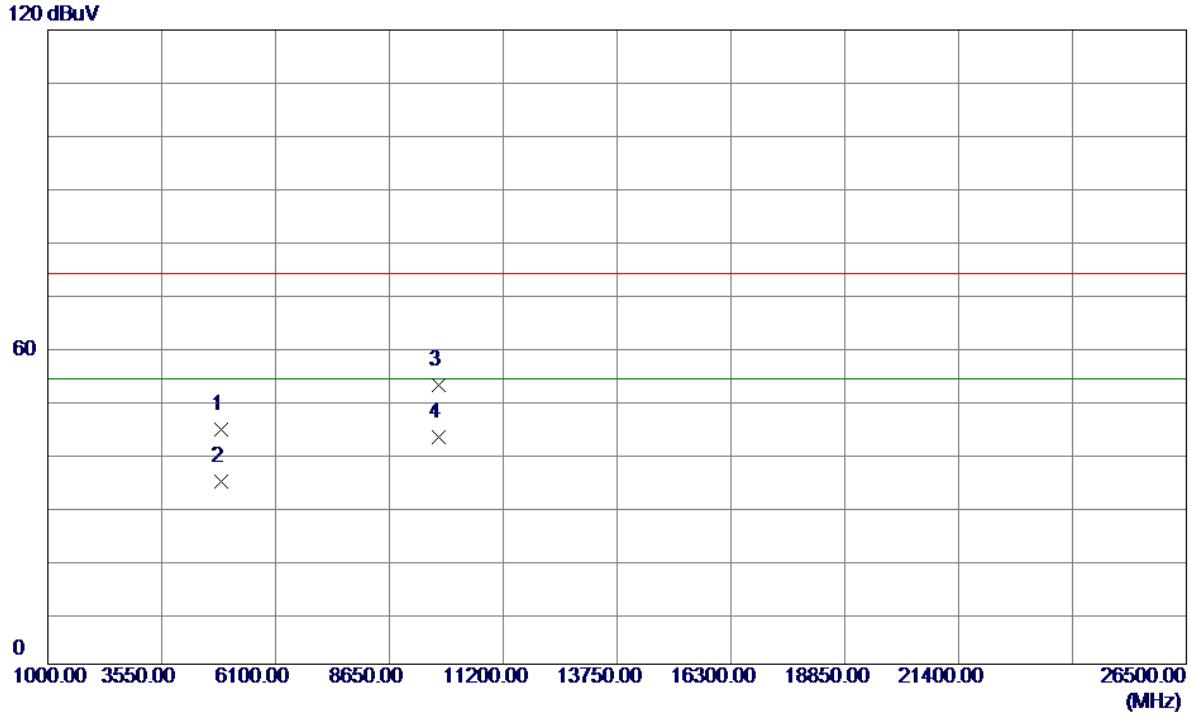
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	2437.0000	73.34	31.24	104.58	74.00	30.58	Peak	No Limit
2 *	2437.0000	65.52	31.24	96.76	54.00	42.76	AVG	No Limit

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

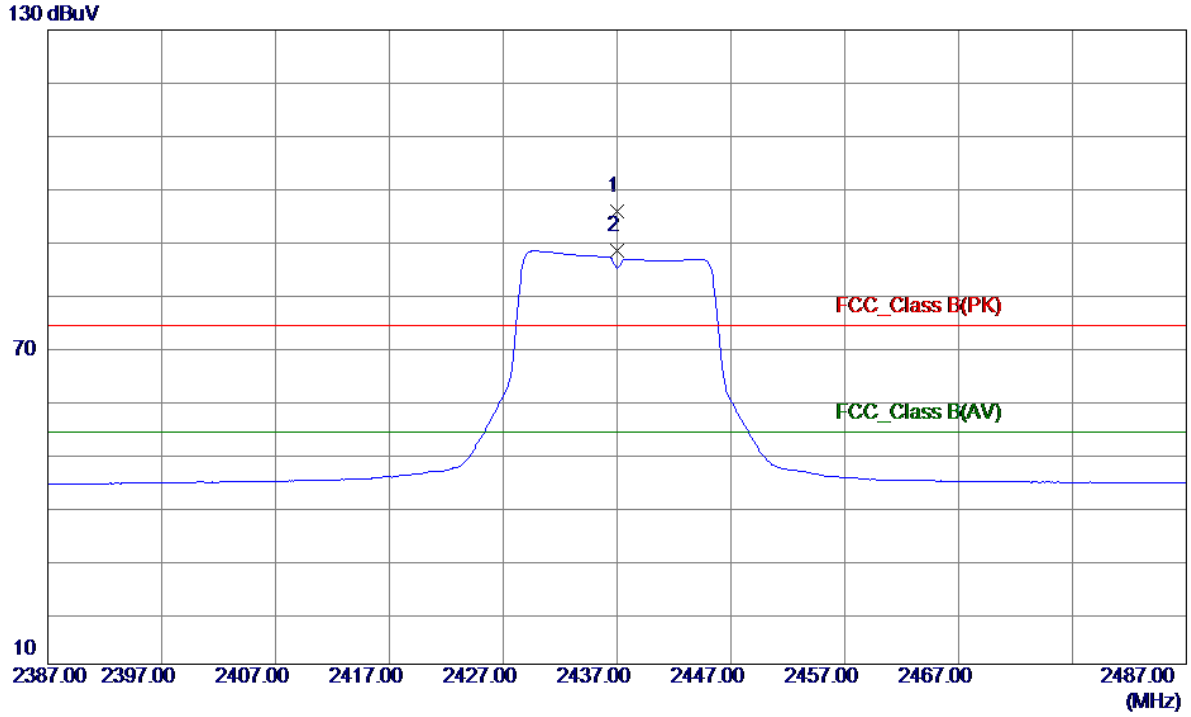
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	4874.0000	55.73	-11.29	44.44	74.00	-29.56	Peak	
2	4874.0000	45.84	-11.29	34.55	54.00	-19.45	AVG	
3	9748.0000	51.81	0.90	52.71	74.00	-21.29	Peak	
4 *	9748.0000	42.07	0.90	42.97	54.00	-11.03	AVG	

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

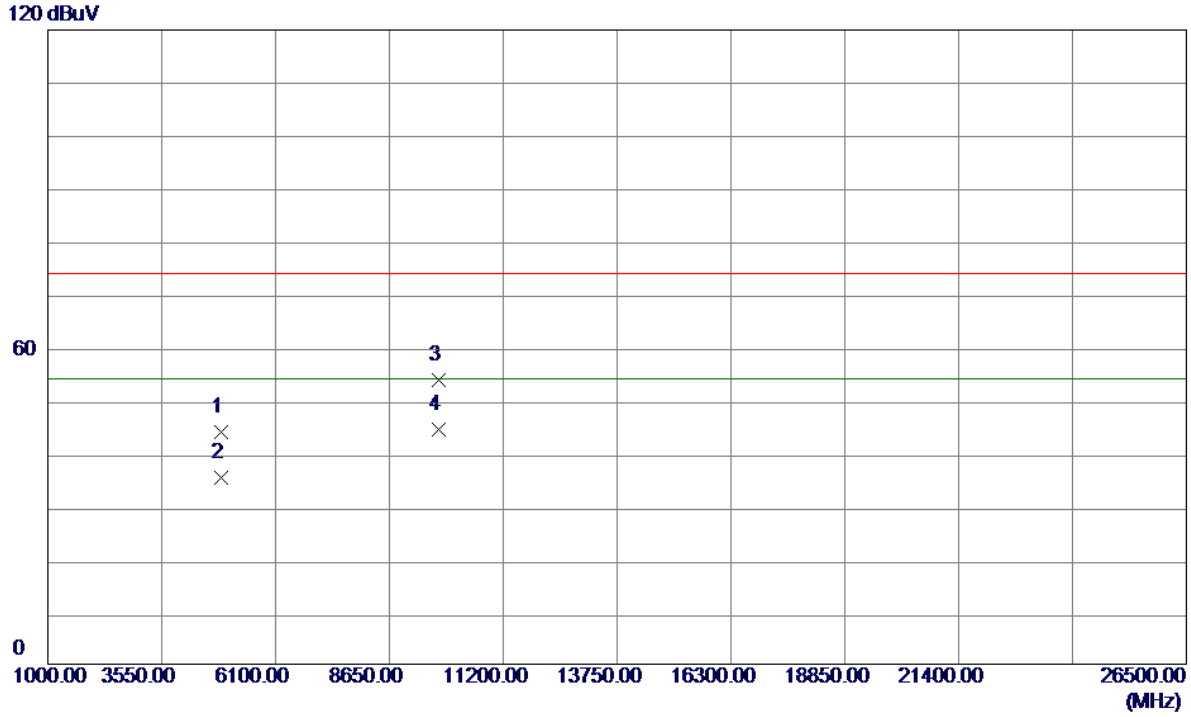
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	2437.0000	64.53	31.24	95.77	74.00	21.77	Peak	No Limit
2 *	2437.0000	56.91	31.24	88.15	54.00	34.15	AVG	No Limit

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

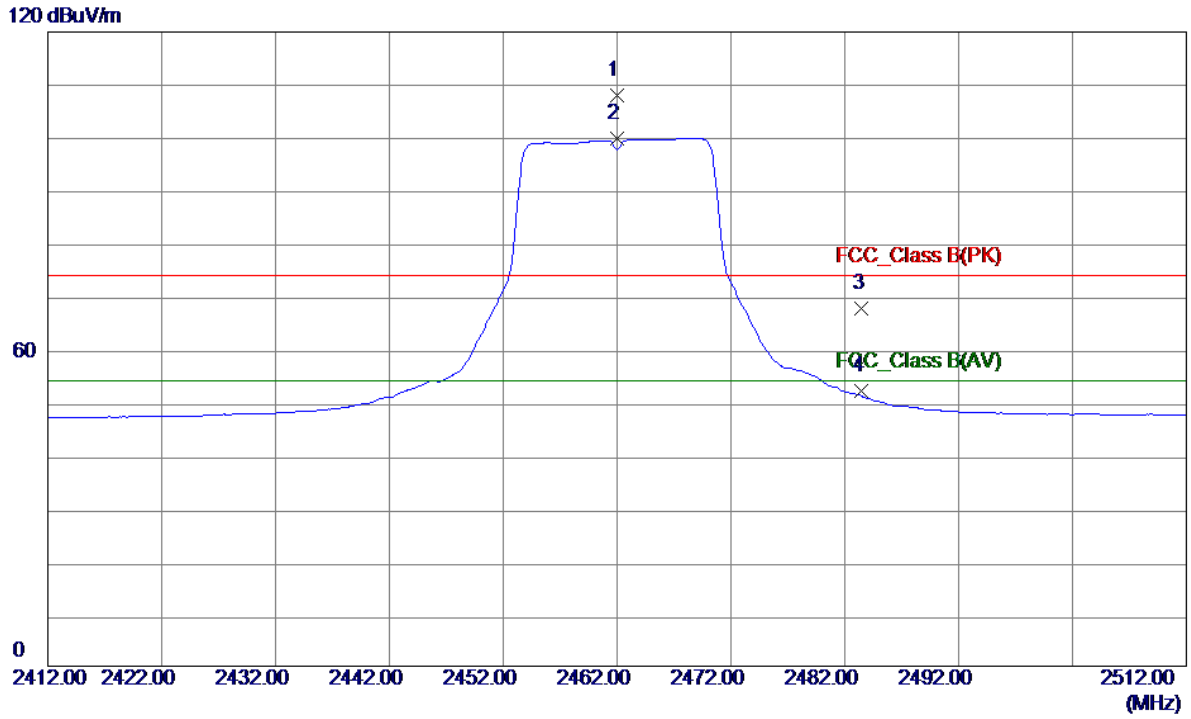
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	4874.0000	55.30	-11.29	44.01	74.00	-29.99	Peak	
2	4874.0000	46.66	-11.29	35.37	54.00	-18.63	AVG	
3	9748.0000	52.94	0.90	53.84	74.00	-20.16	Peak	
4 *	9748.0000	43.60	0.90	44.50	54.00	-9.50	AVG	

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

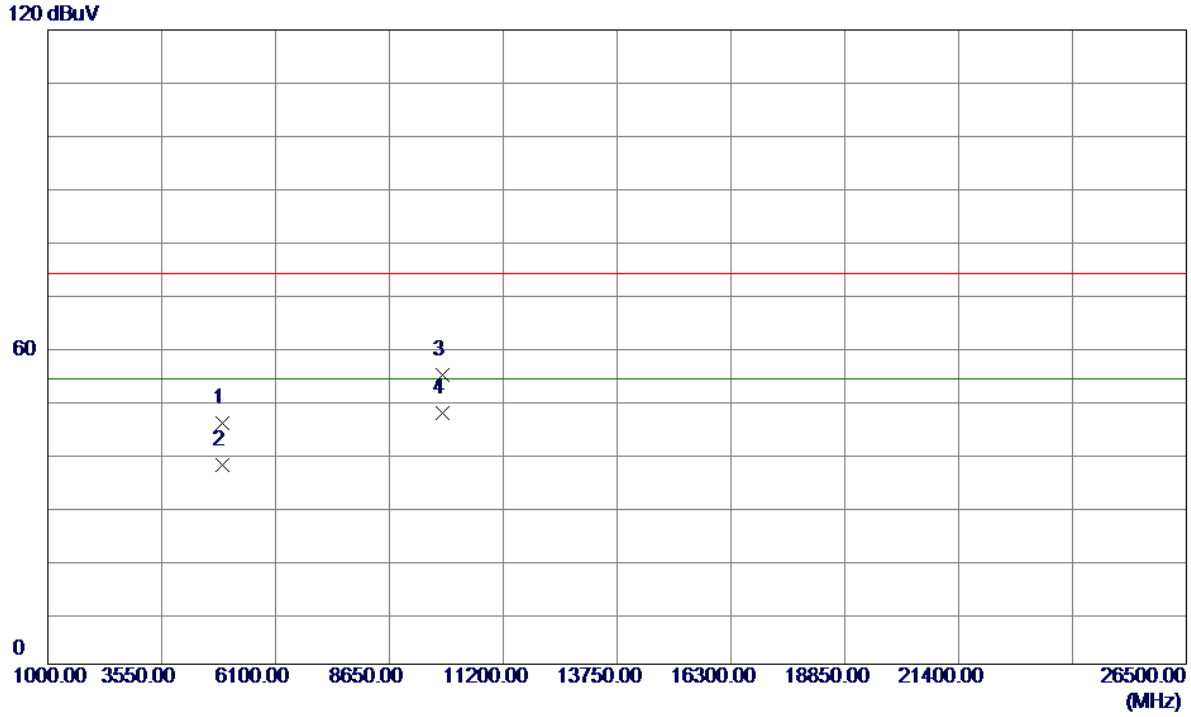
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2462.0000	76.67	31.33	108.00	74.00	34.00	Peak	
2 *	2462.0000	68.52	31.33	99.85	54.00	45.85	AVG	
3	2483.5000	36.17	31.41	67.58	74.00	-6.42	Peak	
4	2483.5000	20.71	31.41	52.12	54.00	-1.88	AVG	

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

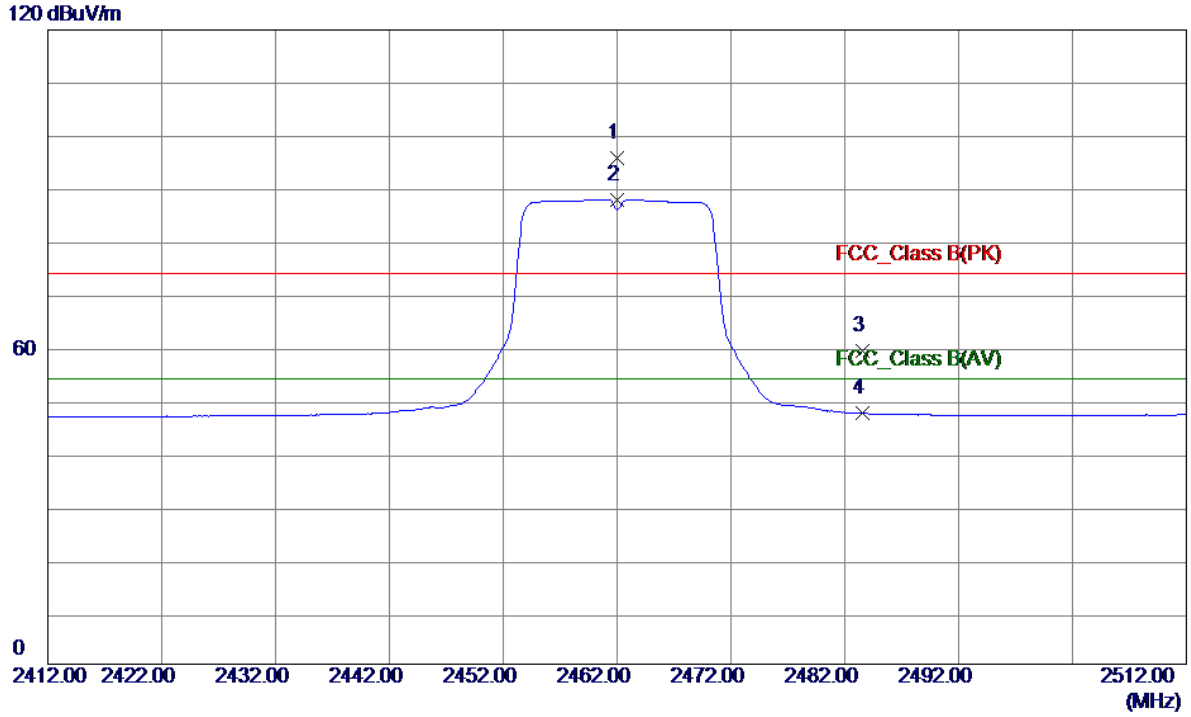
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	4924.0000	56.83	-11.22	45.61	74.00	-28.39	Peak	
2	4924.0000	48.91	-11.22	37.69	54.00	-16.31	AVG	
3	9848.0000	53.44	1.27	54.71	74.00	-19.29	Peak	
4 *	9848.0000	46.24	1.27	47.51	54.00	-6.49	AVG	

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

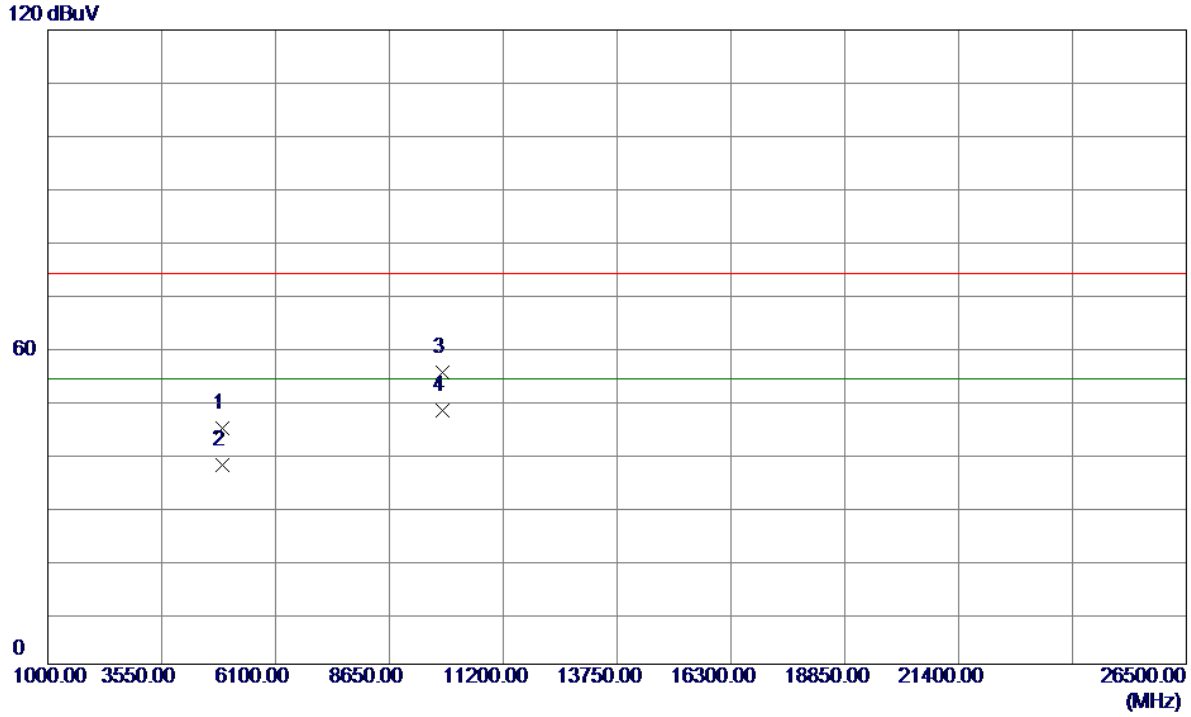
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2462.0000	64.40	31.33	95.73	74.00	21.73	Peak	No Limit
2 *	2462.0000	56.54	31.33	87.87	54.00	33.87	AVG	No Limit
3	2483.5169	27.96	31.41	59.37	74.00	-14.63	Peak	
4	2483.5169	16.09	31.41	47.50	54.00	-6.50	AVG	

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

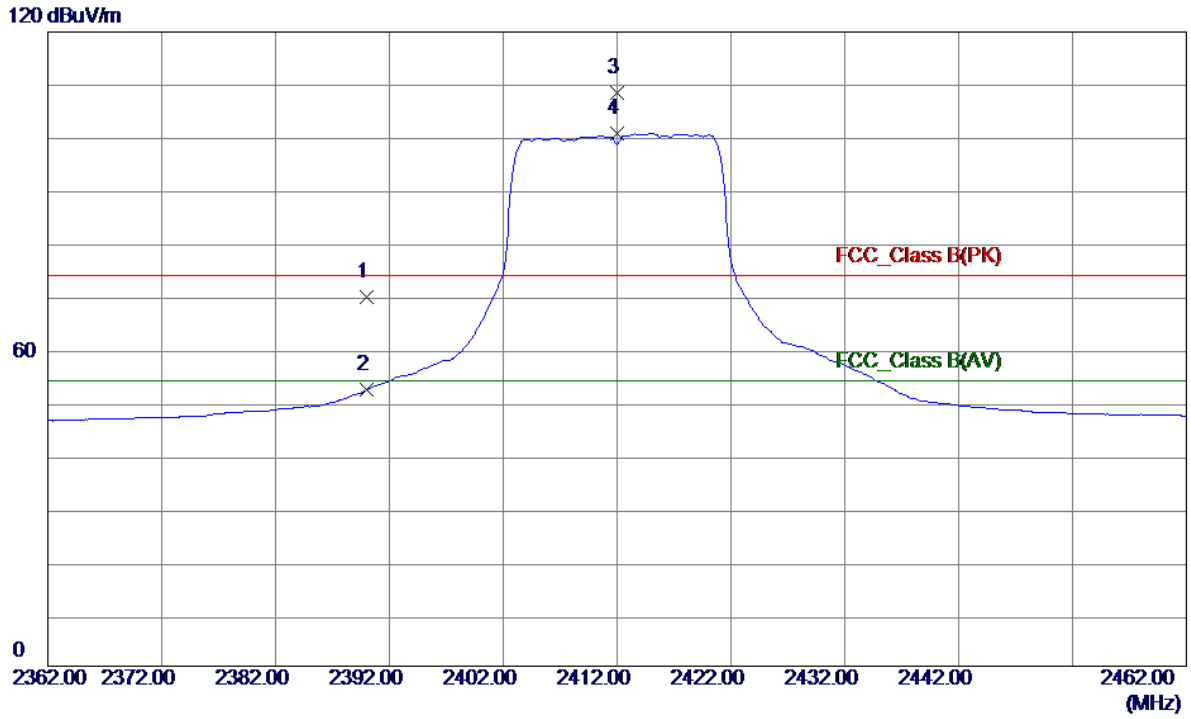
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	4924.0000	55.91	-11.22	44.69	74.00	-29.31	Peak	
2	4924.0000	49.00	-11.22	37.78	54.00	-16.22	AVG	
3	9848.0000	53.95	1.27	55.22	74.00	-18.78	Peak	
4 *	9848.0000	46.80	1.27	48.07	54.00	-5.93	AVG	

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

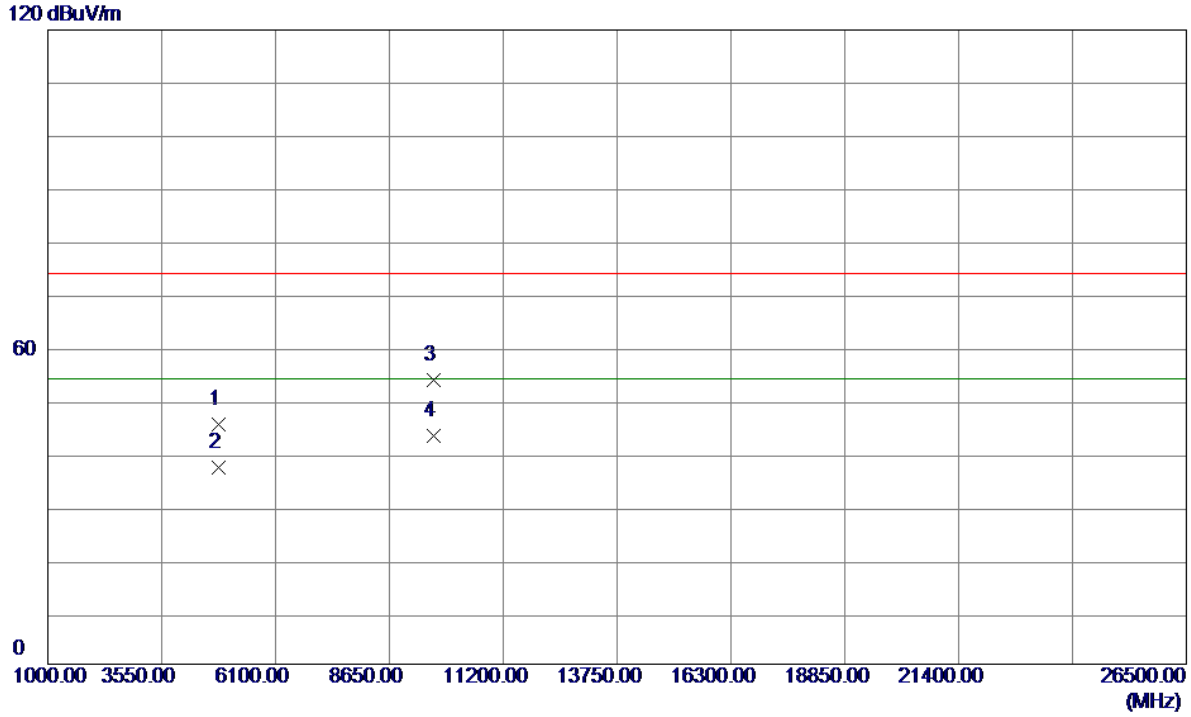
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	38.71	31.07	69.78	74.00	-4.22	Peak	
2	2390.0000	21.33	31.07	52.40	54.00	-1.60	AVG	
3	2412.0000	77.43	31.15	108.58	74.00	34.58	Peak	No Limit
4 *	2412.0000	69.57	31.15	100.72	54.00	46.72	AVG	No Limit

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

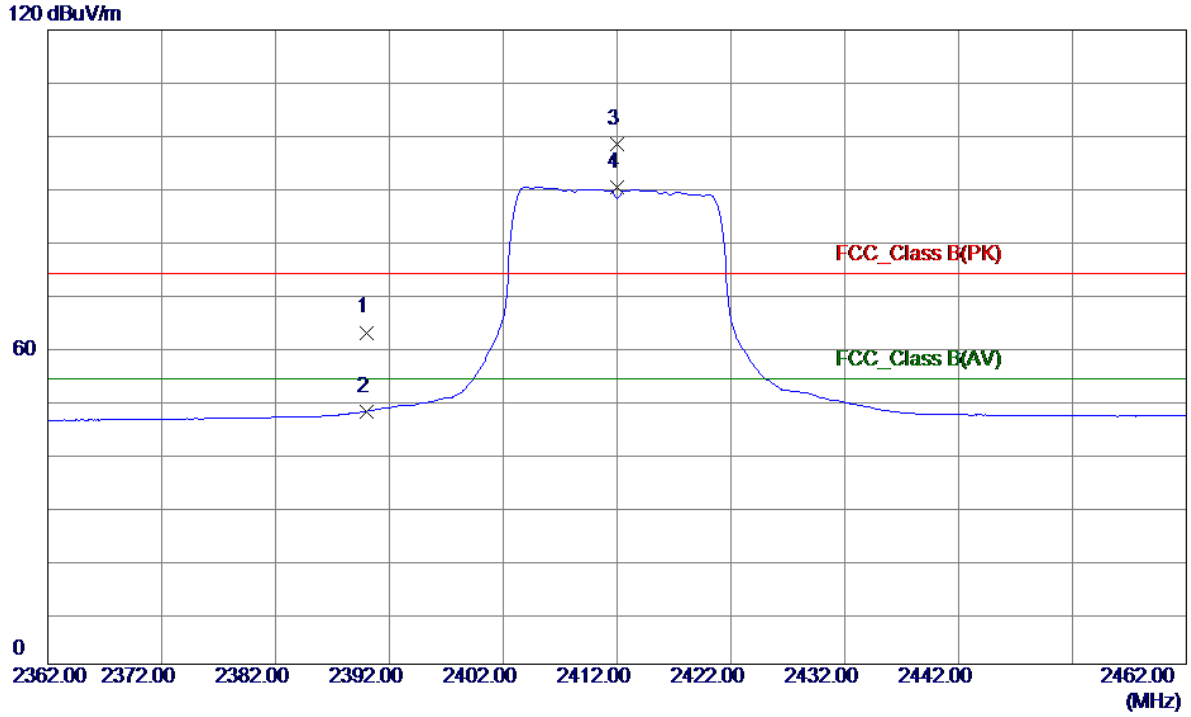
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4824.0000	56.64	-11.37	45.27	74.00	-28.73	Peak	
2	4824.0000	48.67	-11.37	37.30	54.00	-16.70	AVG	
3	9648.0000	53.24	0.53	53.77	74.00	-20.23	Peak	
4 *	9648.0000	42.78	0.53	43.31	54.00	-10.69	AVG	

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

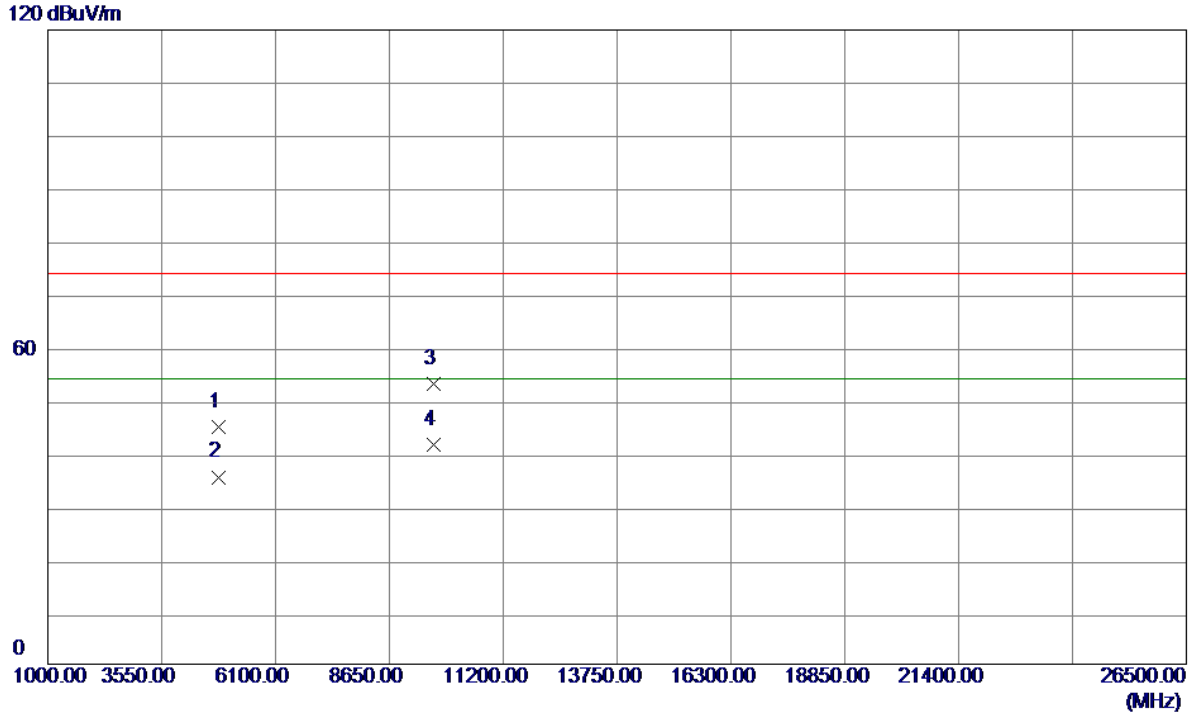
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2389.9720	31.70	31.06	62.76	74.00	-11.24	Peak	
2	2389.9720	16.79	31.06	47.85	54.00	-6.15	AVG	
3	2412.0000	67.18	31.15	98.33	74.00	24.33	Peak	No Limit
4 *	2412.0000	59.09	31.15	90.24	54.00	36.24	AVG	No Limit

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

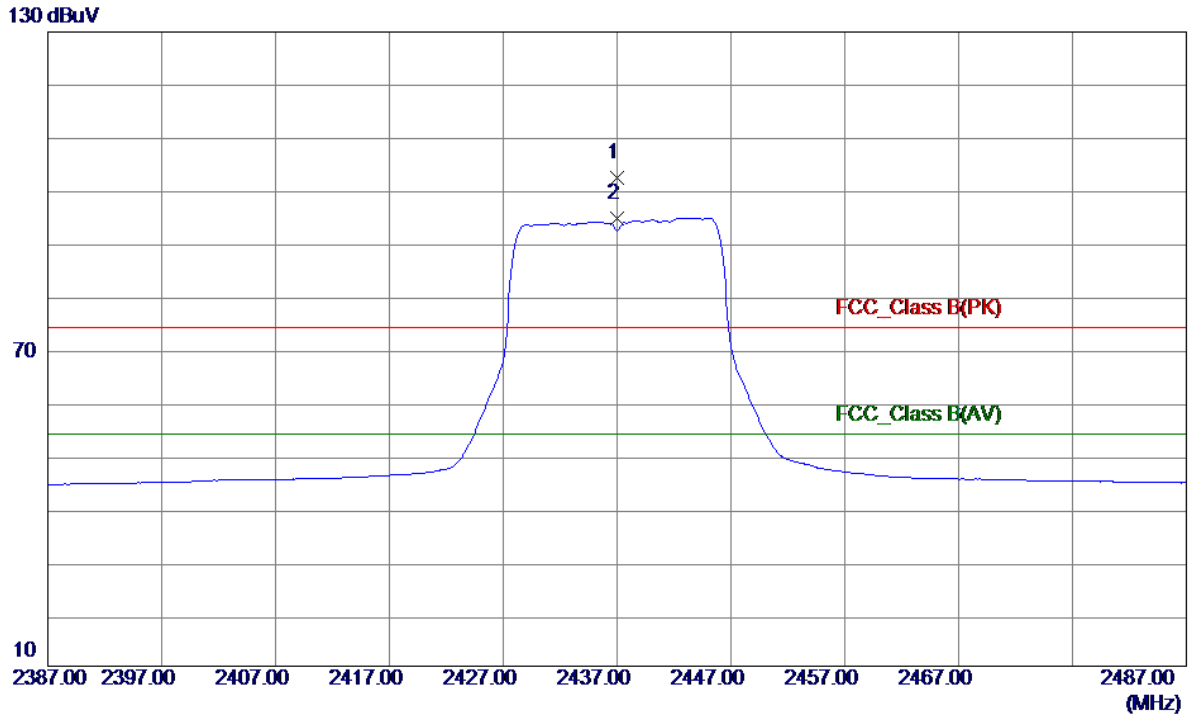
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4824.0000	56.21	-11.37	44.84	74.00	-29.16	Peak	
2	4824.0000	46.77	-11.37	35.40	54.00	-18.60	AVG	
3	9648.0000	52.42	0.53	52.95	74.00	-21.05	Peak	
4 *	9648.0000	40.98	0.53	41.51	54.00	-12.49	AVG	

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

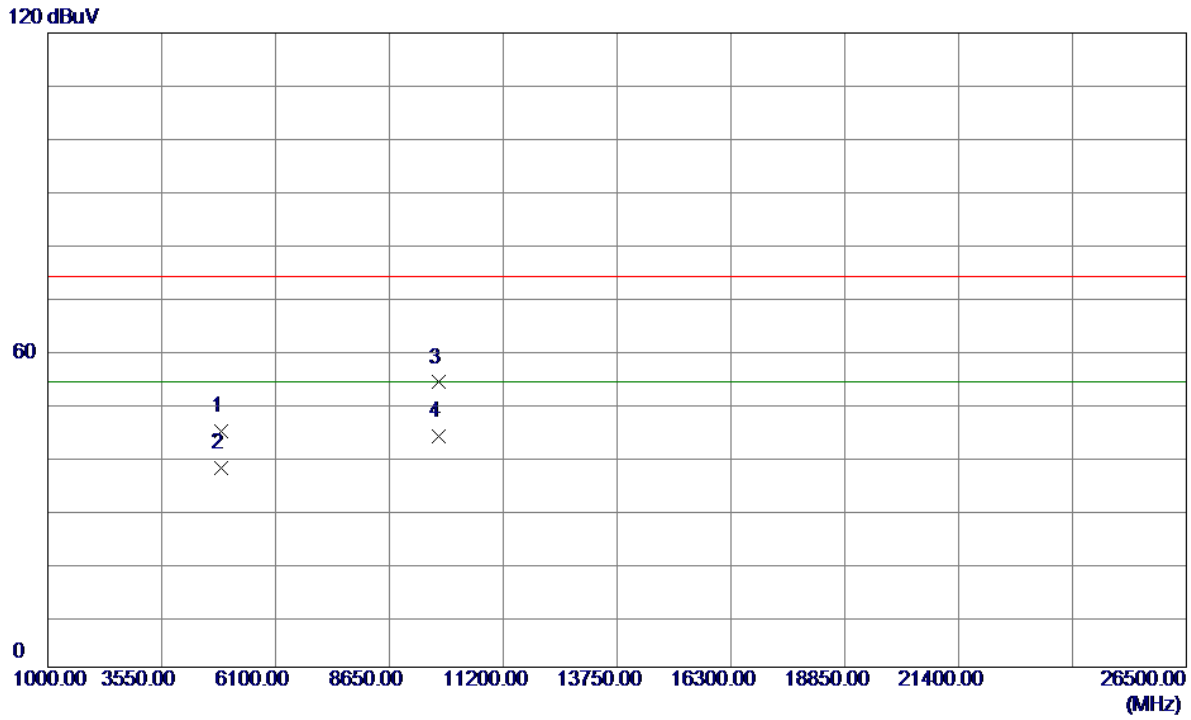
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	2437.0000	71.27	31.24	102.51	74.00	28.51	Peak	No Limit
2 *	2437.0000	63.53	31.24	94.77	54.00	40.77	AVG	No Limit

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

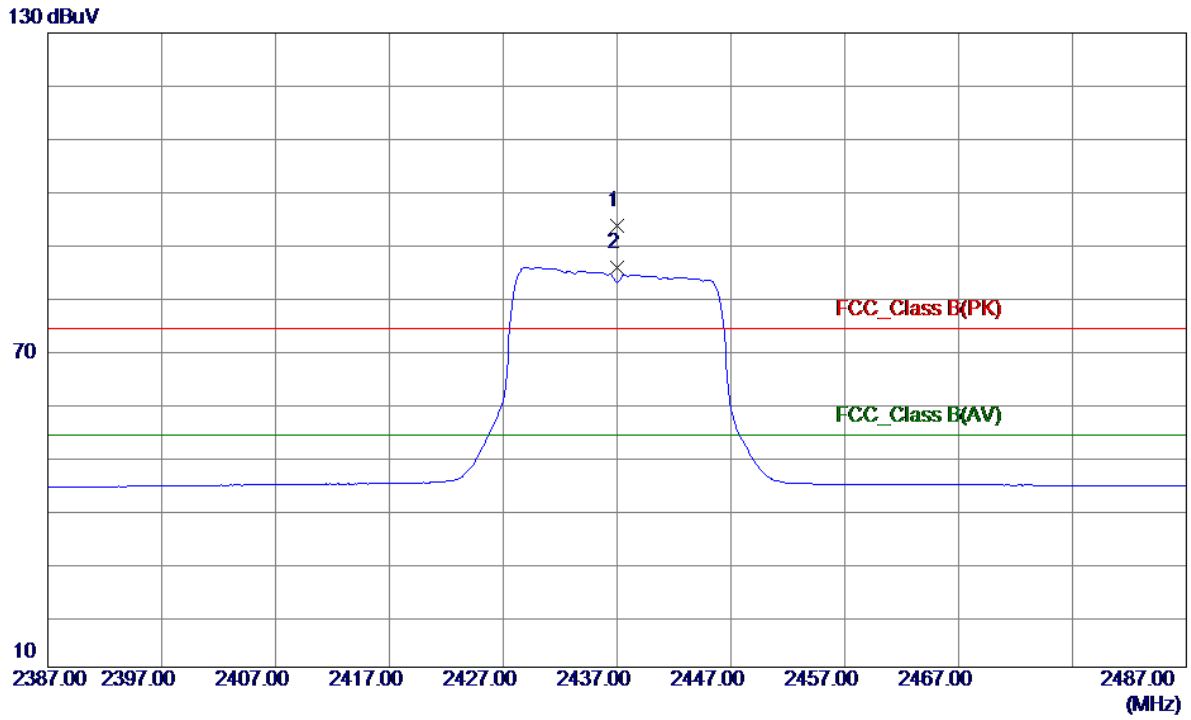
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	4874.0000	56.04	-11.29	44.75	74.00	-29.25	Peak	
2	4874.0000	48.99	-11.29	37.70	54.00	-16.30	AVG	
3	9748.0000	52.98	0.90	53.88	74.00	-20.12	Peak	
4 *	9748.0000	42.77	0.90	43.67	54.00	-10.33	AVG	

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

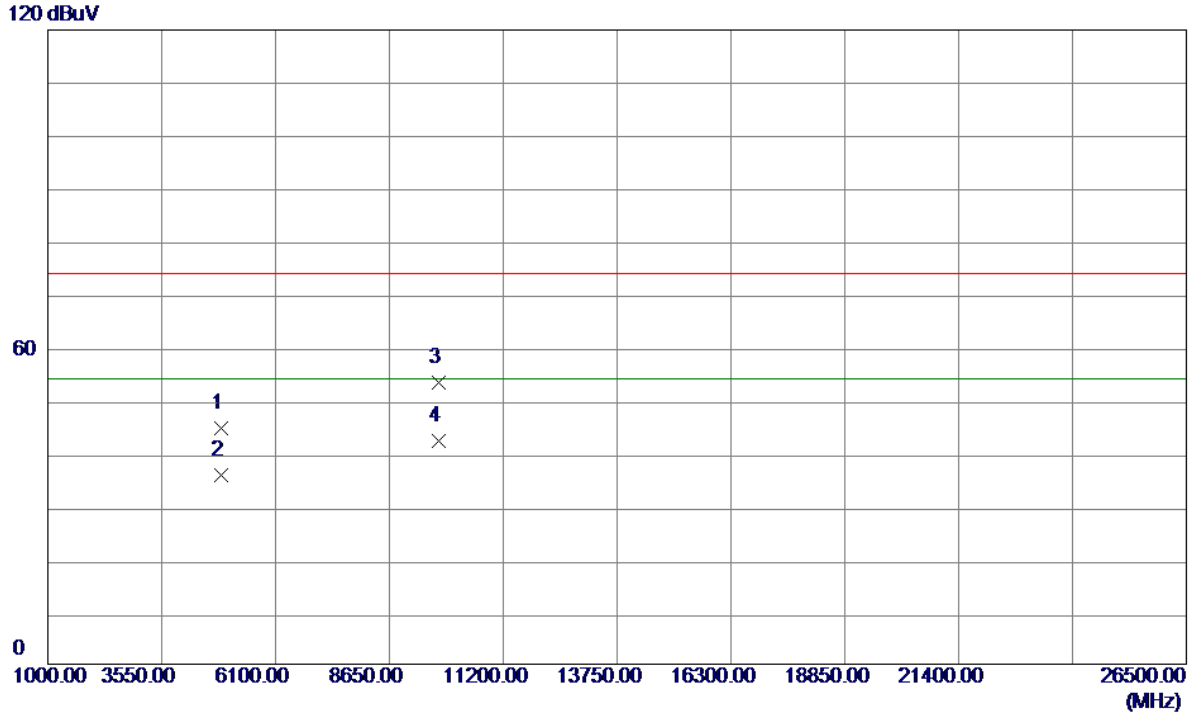
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	2437.0000	62.26	31.24	93.50	74.00	19.50	Peak	No Limit
2 *	2437.0000	54.36	31.24	85.60	54.00	31.60	AVG	No Limit

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

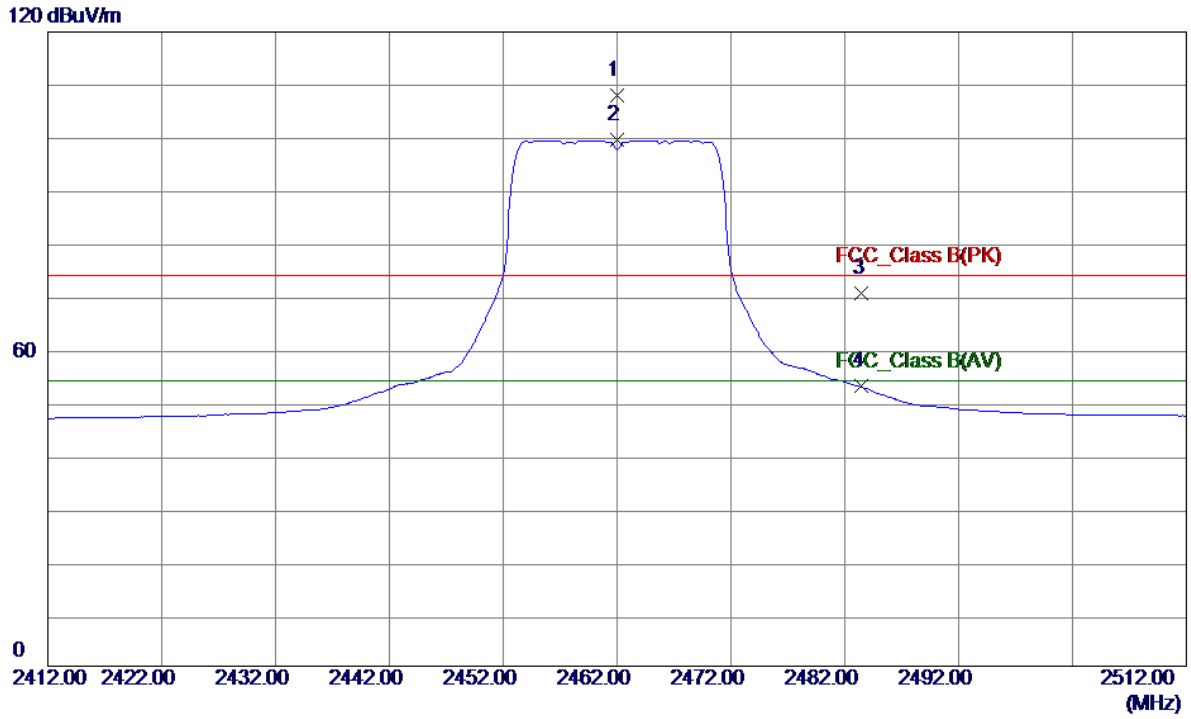
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	4874.0000	56.04	-11.29	44.75	74.00	-29.25	Peak	
2	4874.0000	47.10	-11.29	35.81	54.00	-18.19	AVG	
3	9748.0000	52.46	0.90	53.36	74.00	-20.64	Peak	
4 *	9748.0000	41.33	0.90	42.23	54.00	-11.77	AVG	

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

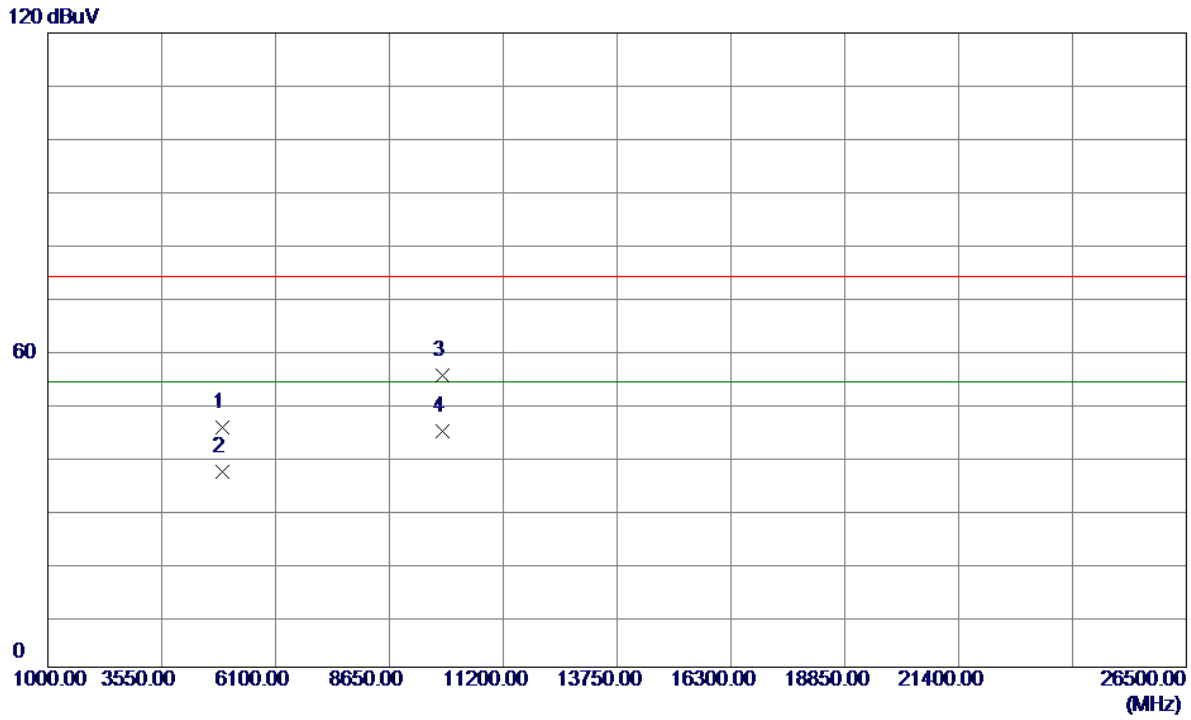
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2462.0000	76.59	31.33	107.92	74.00	33.92	Peak	No Limit
2 *	2462.0000	68.15	31.33	99.48	54.00	45.48	AVG	No Limit
3	2483.5000	39.12	31.41	70.53	74.00	-3.47	Peak	
4	2483.5000	21.53	31.41	52.94	54.00	-1.06	AVG	

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

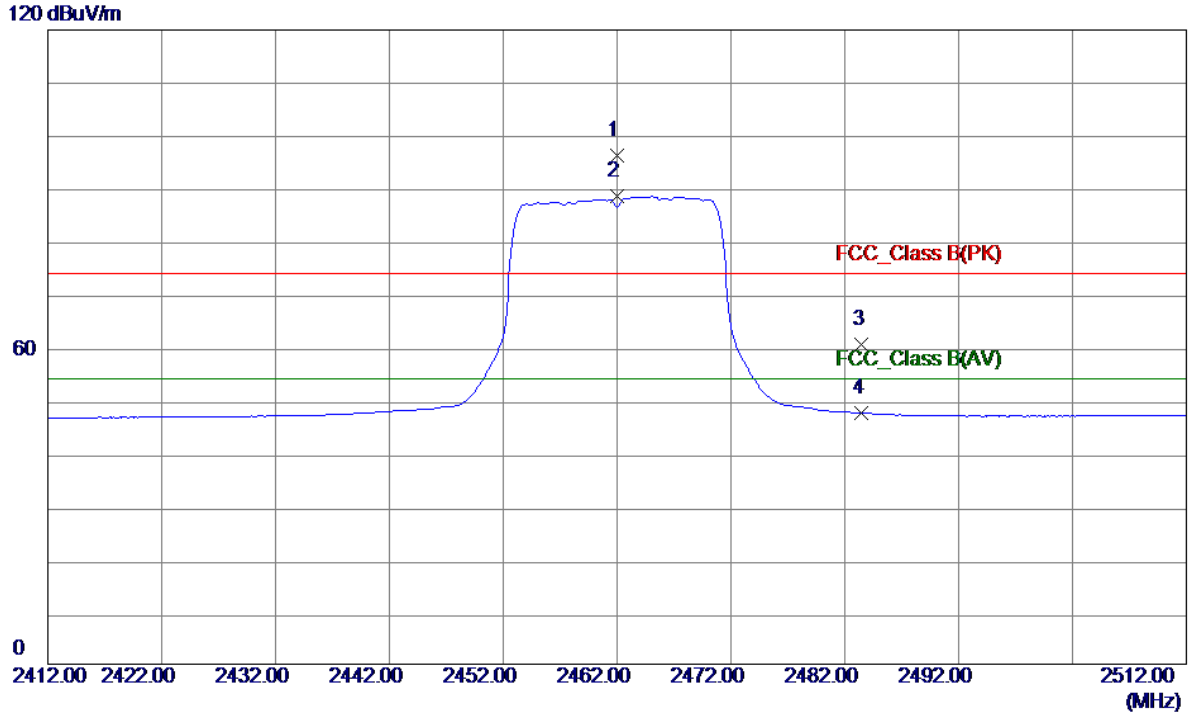
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	4924.0000	56.55	-11.22	45.33	74.00	-28.67	Peak	
2	4924.0000	48.20	-11.22	36.98	54.00	-17.02	AVG	
3	9848.0000	53.94	1.27	55.21	74.00	-18.79	Peak	
4 *	9848.0000	43.31	1.27	44.58	54.00	-9.42	AVG	

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

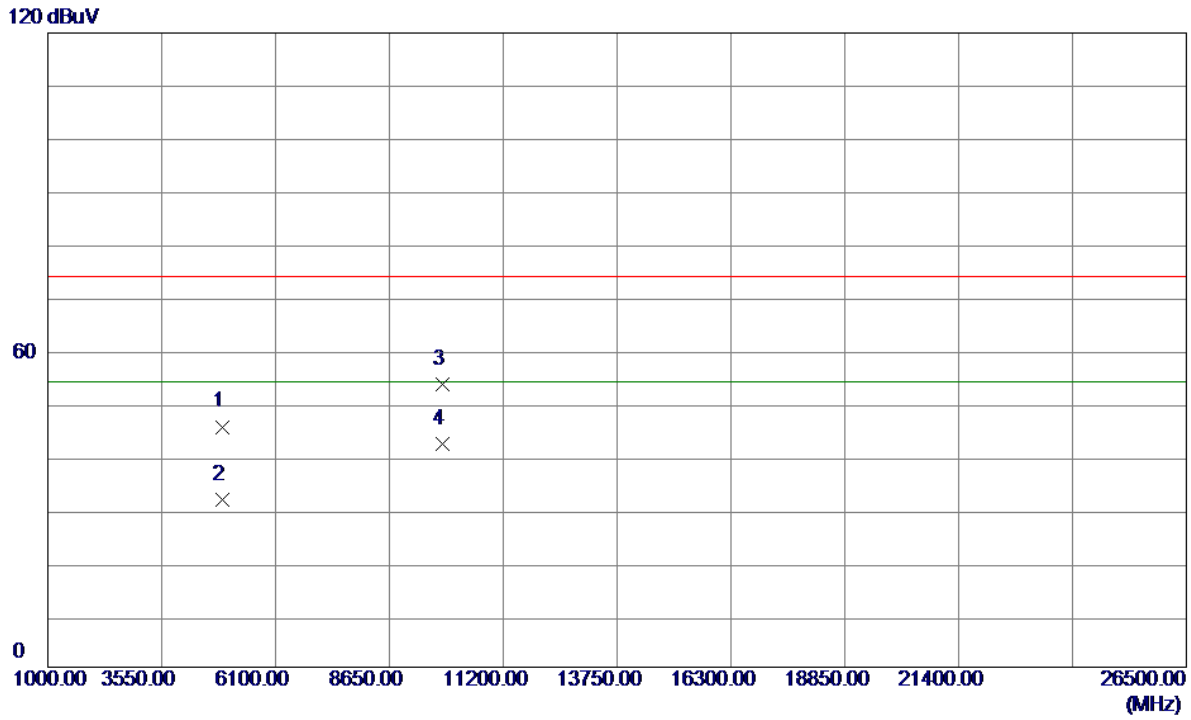
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2462.0000	64.95	31.33	96.28	74.00	22.28	Peak	No Limit
2 *	2462.0000	57.11	31.33	88.44	54.00	34.44	AVG	No Limit
3	2483.5000	29.15	31.41	60.56	74.00	-13.44	Peak	
4	2483.5000	16.11	31.41	47.52	54.00	-6.48	AVG	

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

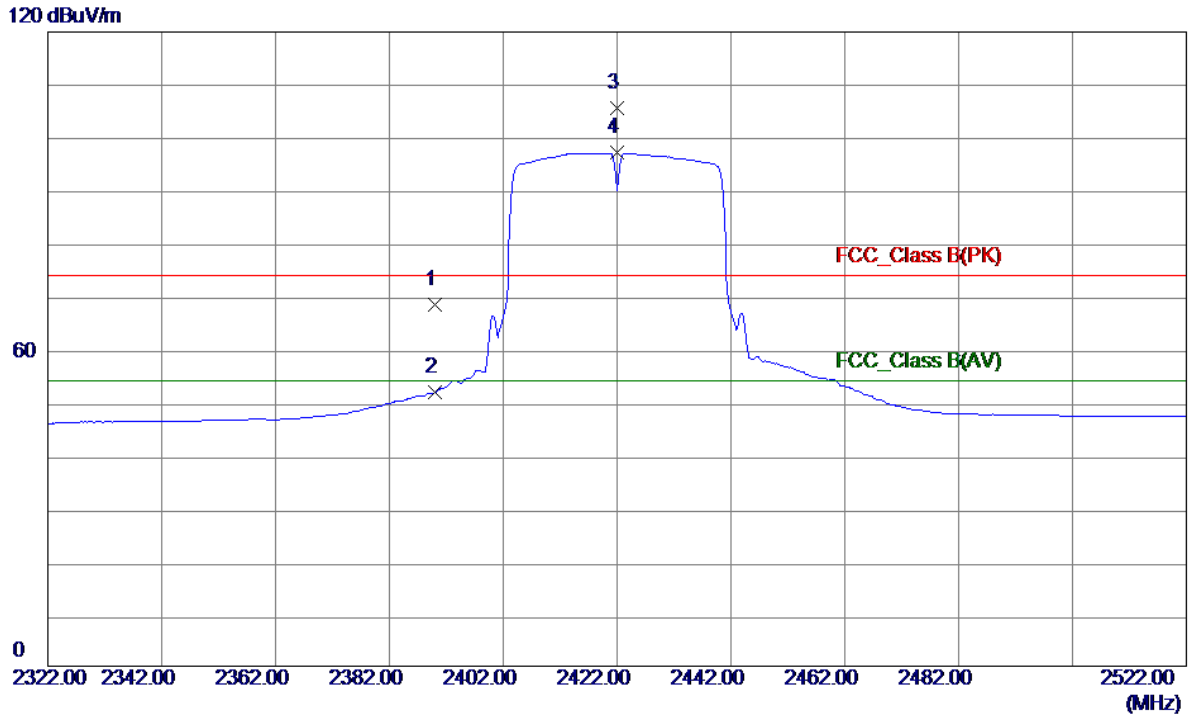
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	4924.0000	56.70	-11.22	45.48	74.00	-28.52	Peak	
2	4924.0000	42.81	-11.22	31.59	54.00	-22.41	AVG	
3	9848.0000	52.28	1.27	53.55	74.00	-20.45	Peak	
4 *	9848.0000	41.05	1.27	42.32	54.00	-11.68	AVG	

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

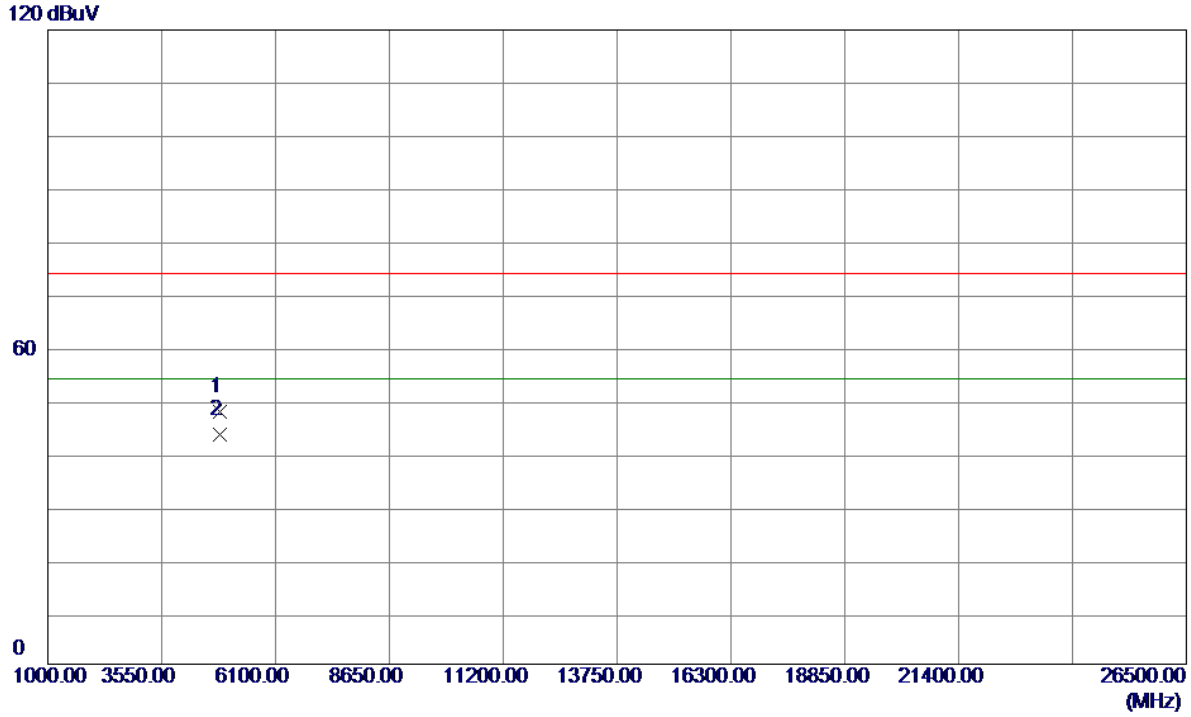
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	37.37	31.07	68.44	74.00	-5.56	Peak	
2	2390.0000	20.69	31.07	51.76	54.00	-2.24	AVG	
3	2422.0000	74.34	31.18	105.52	74.00	31.52	Peak	No Limit
4 *	2422.0000	65.90	31.18	97.08	54.00	43.08	AVG	No Limit

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

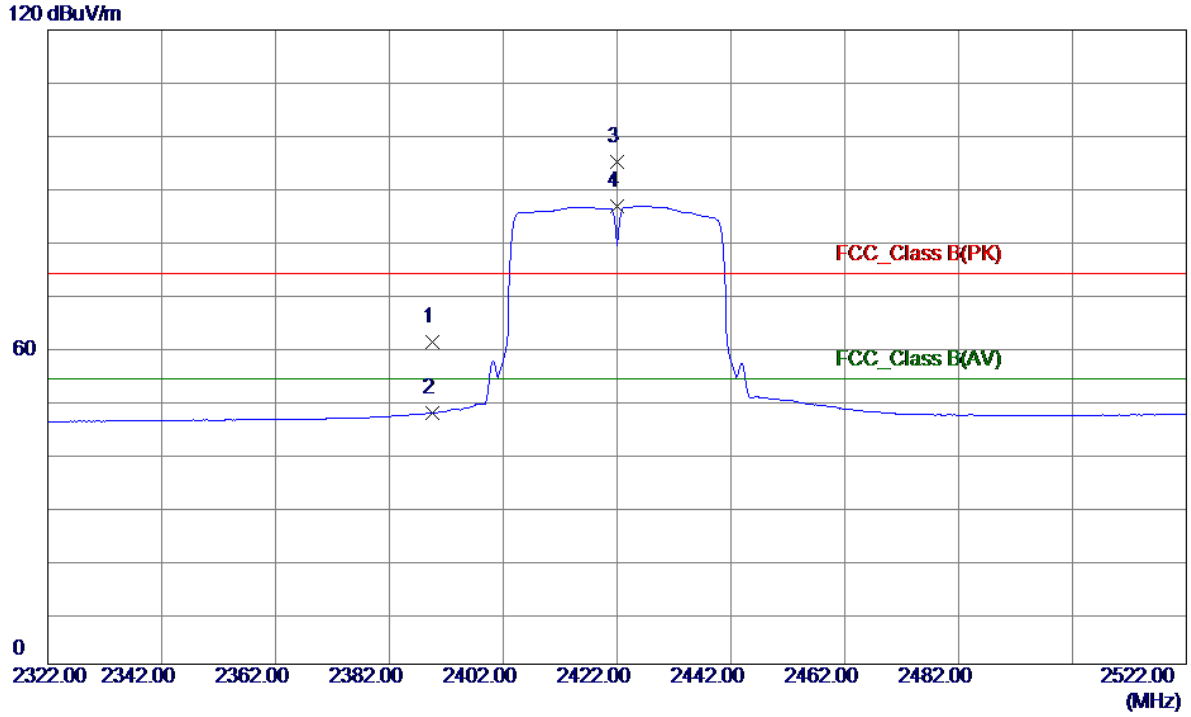
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	4844.0000	59.02	-11.34	47.68	74.00	-26.32	Peak	
2 *	4844.0000	54.89	-11.34	43.55	54.00	-10.45	AVG	

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

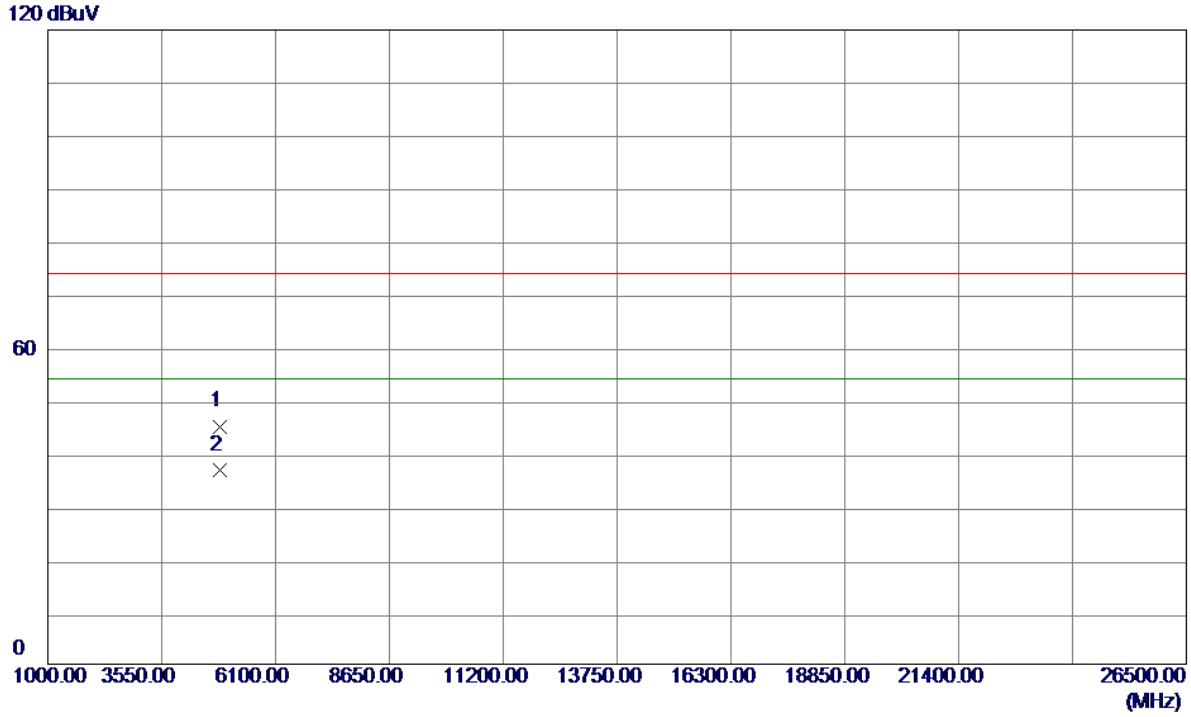
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2389.4560	29.99	31.06	61.05	74.00	-12.95	Peak	
2	2389.4560	16.49	31.06	47.55	54.00	-6.45	AVG	
3	2422.0000	63.79	31.18	94.97	74.00	20.97	Peak	No Limit
4 *	2422.0000	55.46	31.18	86.64	54.00	32.64	AVG	No Limit

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

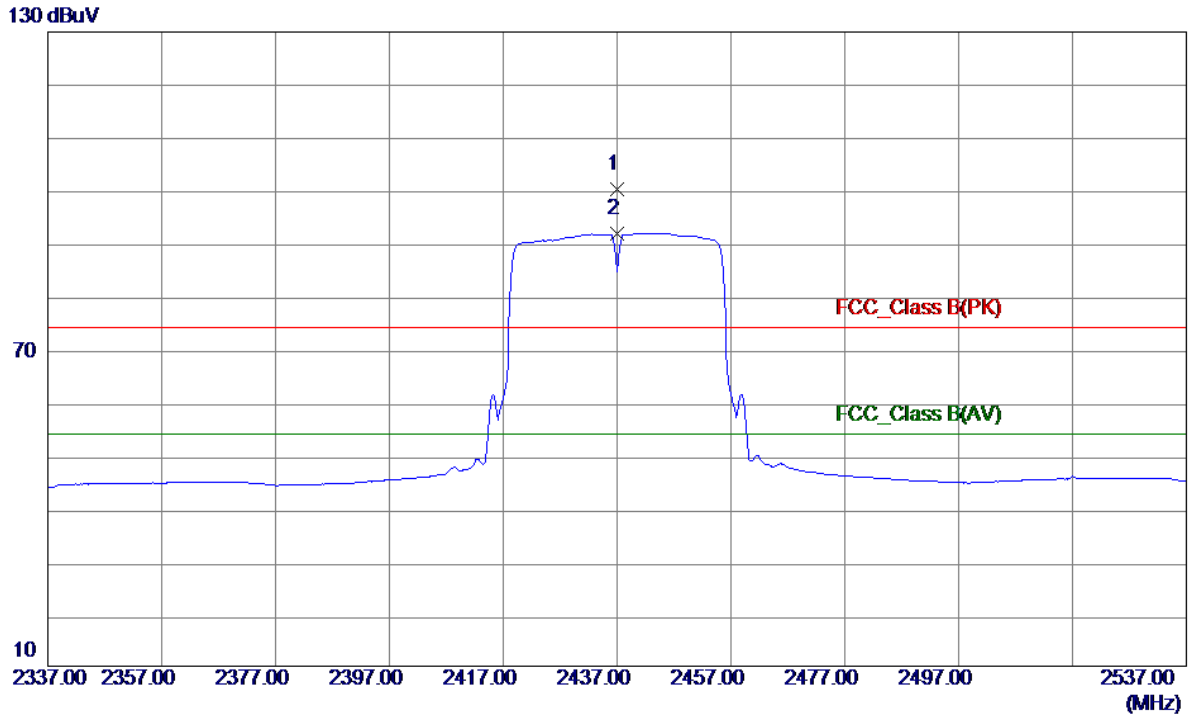
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	4844.0000	56.34	-11.34	45.00	74.00	-29.00	Peak	
2 *	4844.0000	48.10	-11.34	36.76	54.00	-17.24	AVG	

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

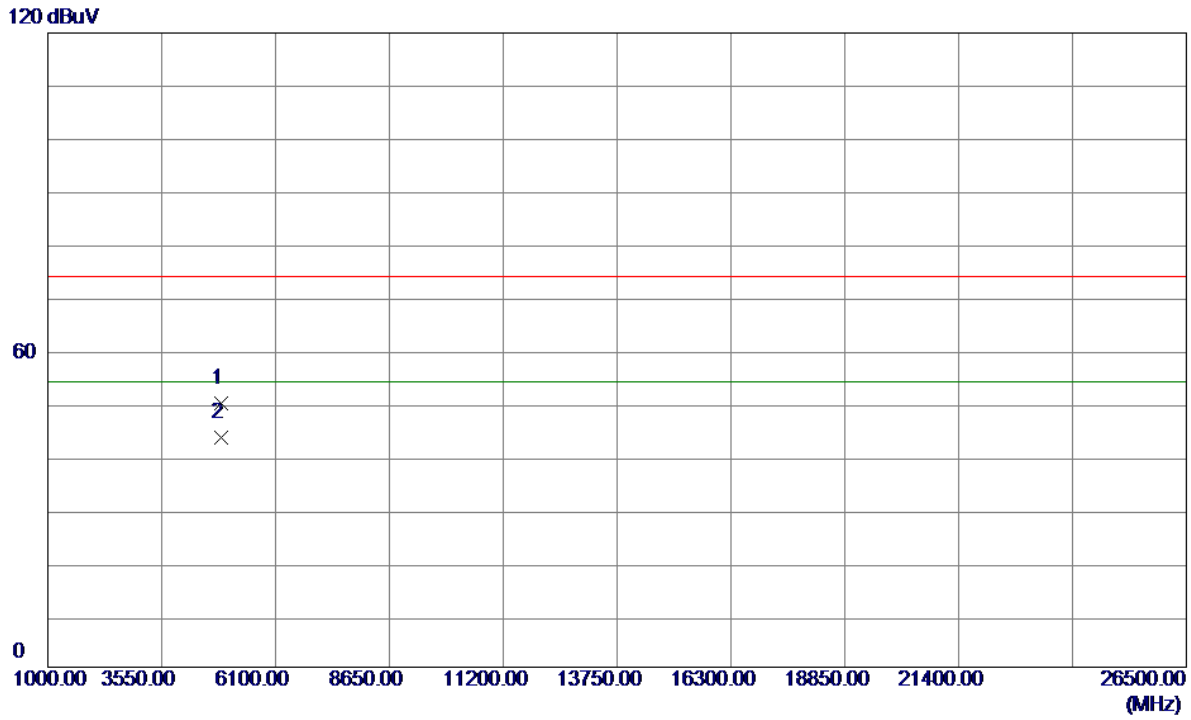
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	2437.0000	68.93	31.24	100.17	74.00	26.17	Peak	No Limit
2 *	2437.0000	60.68	31.24	91.92	54.00	37.92	AVG	No Limit

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

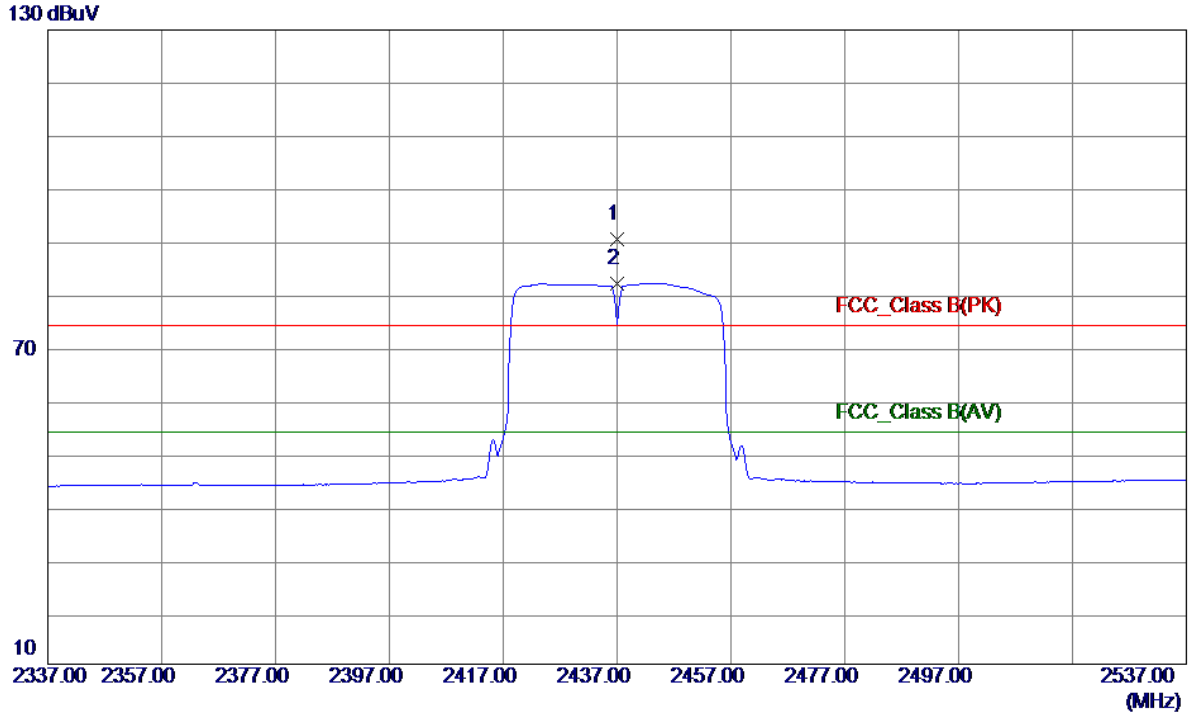
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	4874.0000	61.23	-11.29	49.94	74.00	-24.06	Peak	
2 *	4874.0000	54.66	-11.29	43.37	54.00	-10.63	AVG	

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

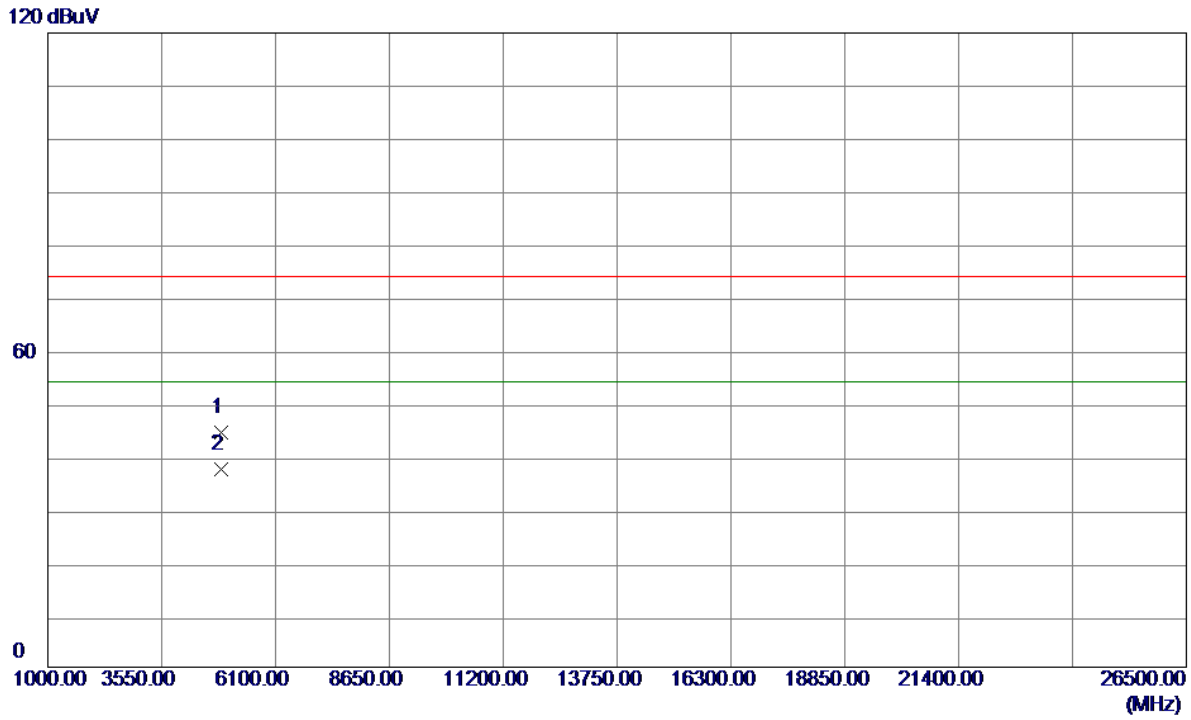
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	2437.0000	59.19	31.24	90.43	74.00	16.43	Peak	No Limit
2 *	2437.0000	50.86	31.24	82.10	54.00	28.10	AVG	No Limit

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

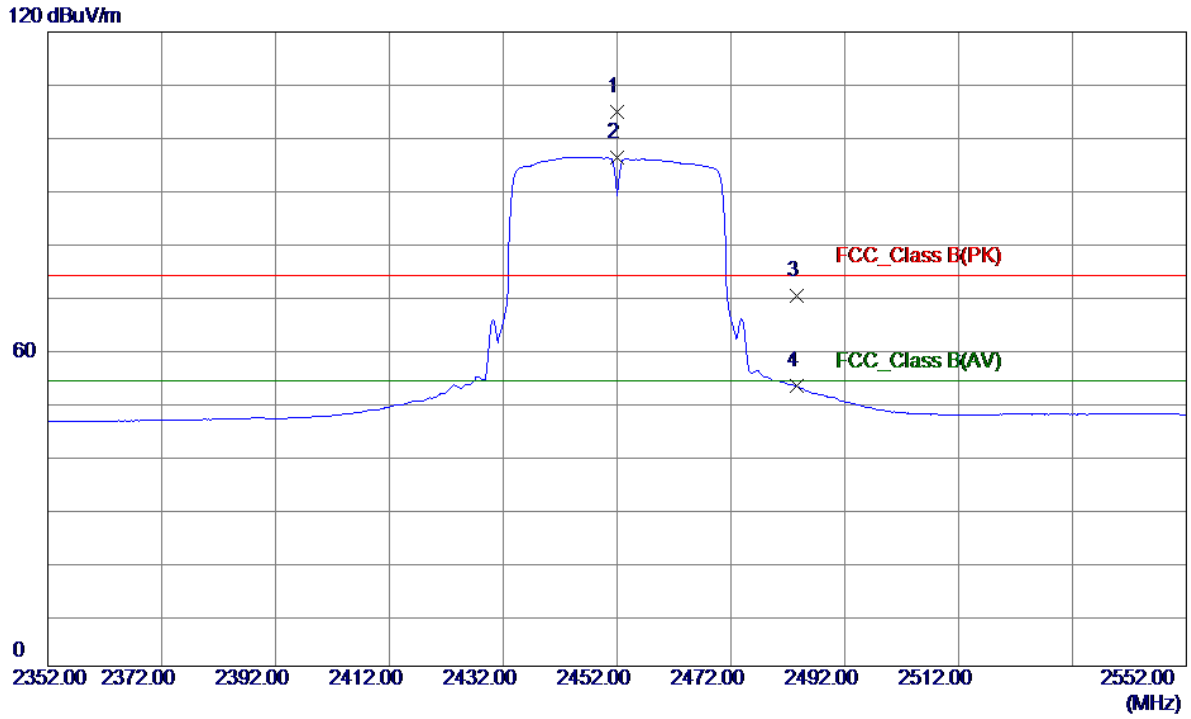
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	4874.0000	55.77	-11.29	44.48	74.00	-29.52	Peak	
2 *	4874.0000	48.62	-11.29	37.33	54.00	-16.67	AVG	

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

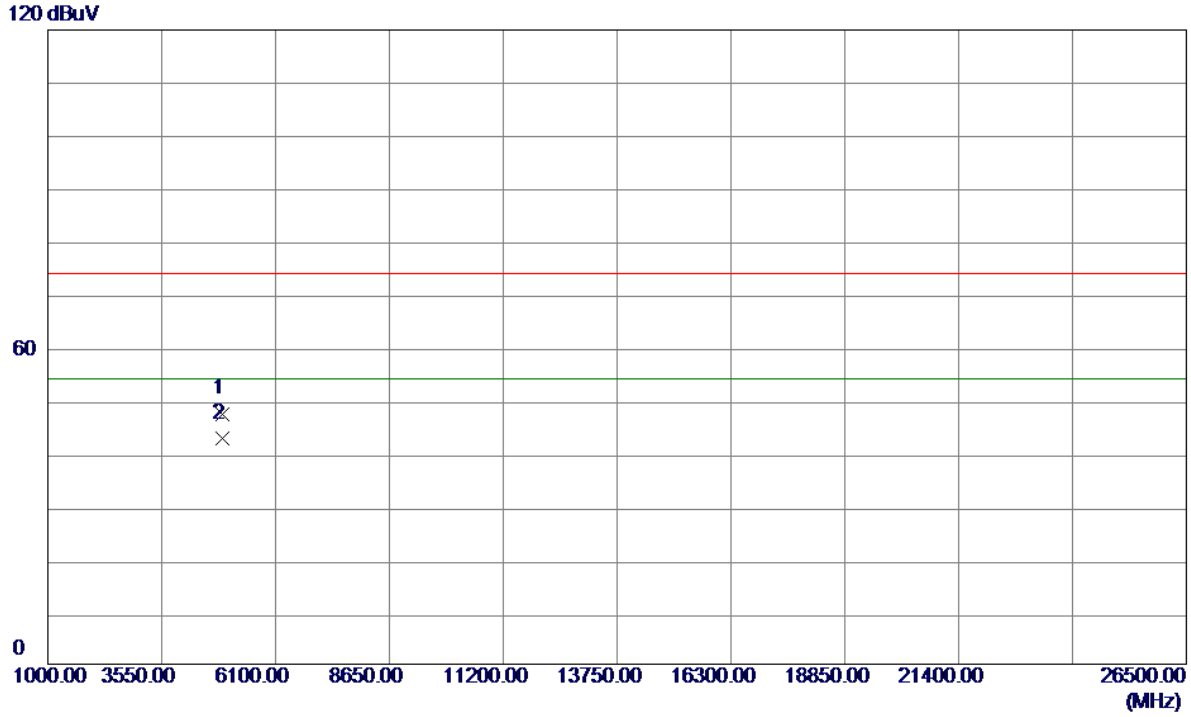
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2452.0000	73.50	31.29	104.79	74.00	30.79	Peak	No Limit
2 *	2452.0000	65.00	31.29	96.29	54.00	42.29	AVG	No Limit
3	2483.5000	38.65	31.41	70.06	74.00	-3.94	Peak	
4	2483.5000	21.52	31.41	52.93	54.00	-1.07	AVG	

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

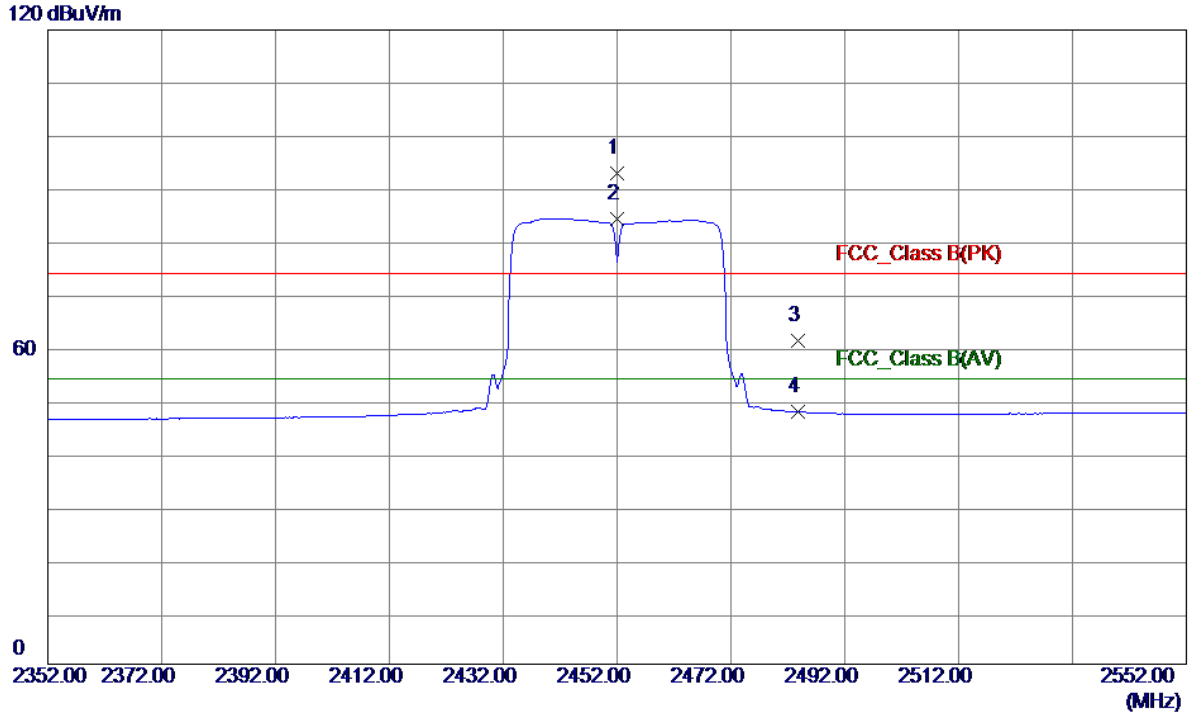
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	4904.0000	58.65	-11.25	47.40	74.00	-26.60	Peak	
2 *	4904.0000	53.92	-11.25	42.67	54.00	-11.33	AVG	

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

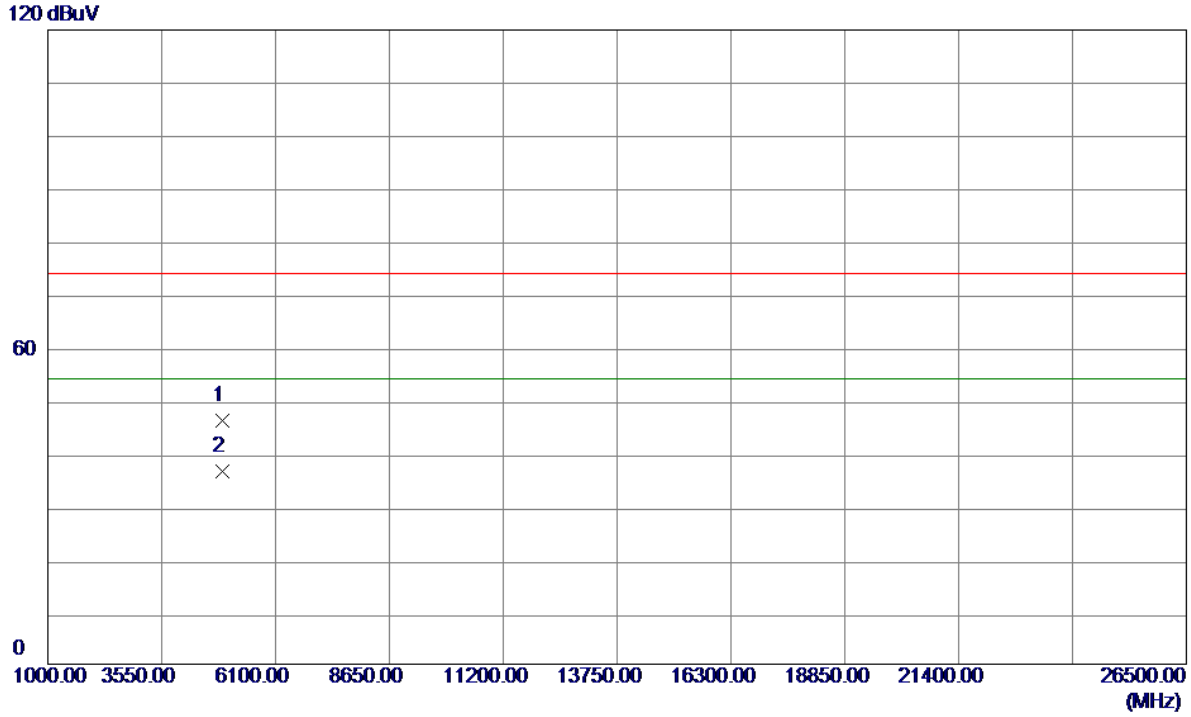
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2452.0000	61.54	31.29	92.83	74.00	18.83	Peak	No Limit
2 *	2452.0000	53.04	31.29	84.33	54.00	30.33	AVG	No Limit
3	2483.7310	29.83	31.41	61.24	74.00	-12.76	Peak	
4	2483.7310	16.42	31.41	47.83	54.00	-6.17	AVG	

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

Horizontal



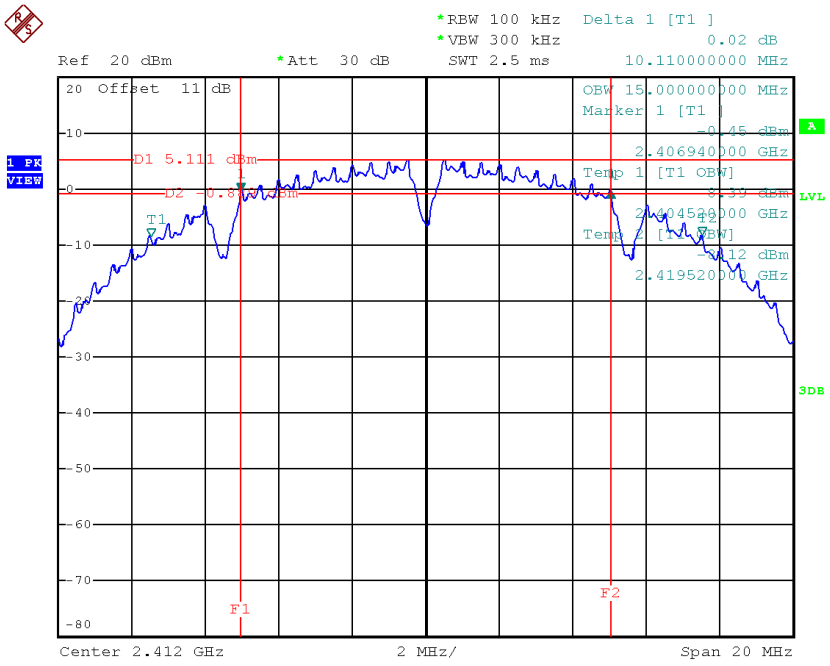
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	4904.0000	57.31	-11.25	46.06	74.00	-27.94	Peak	
2 *	4904.0000	47.79	-11.25	36.54	54.00	-17.46	AVG	

APPENDIX E - BANDWIDTH

Test Mode : TX B Mode_CH01/06/11

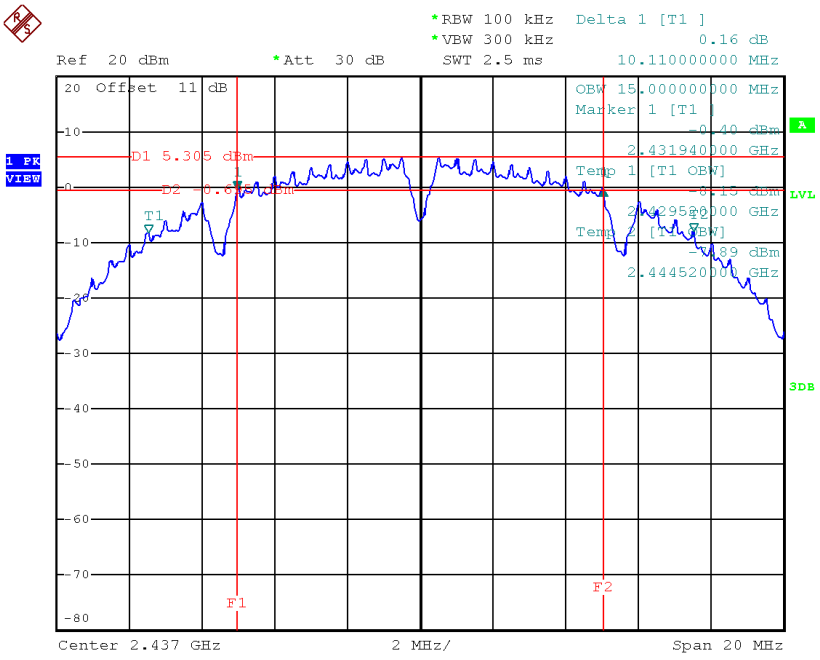
Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied BW (MHz)	Min. Limit (kHz)	Test Result
2412	10.11	15	500	Complies
2437	10.11	15	500	Complies
2462	10.11	15	500	Complies

TX CH01



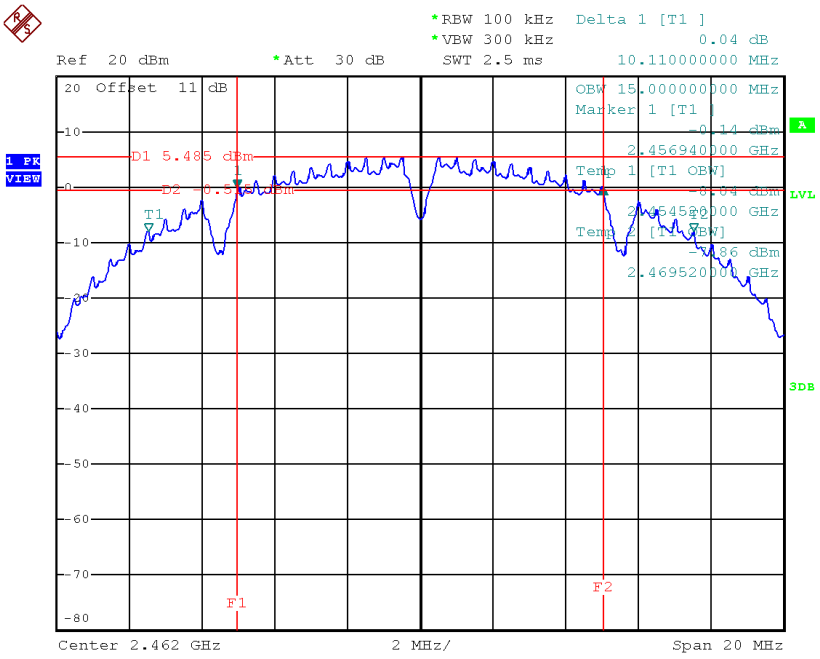
Date: 7.AUG.2017 15:37:11

TX CH06



Date: 7.AUG.2017 15:38:40

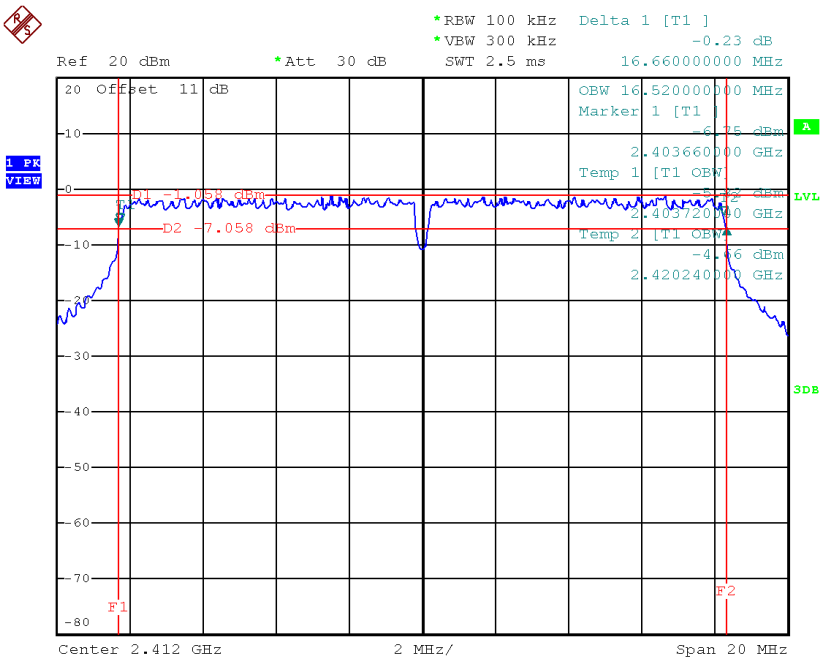
TX CH11



Date: 7.AUG.2017 15:40:14

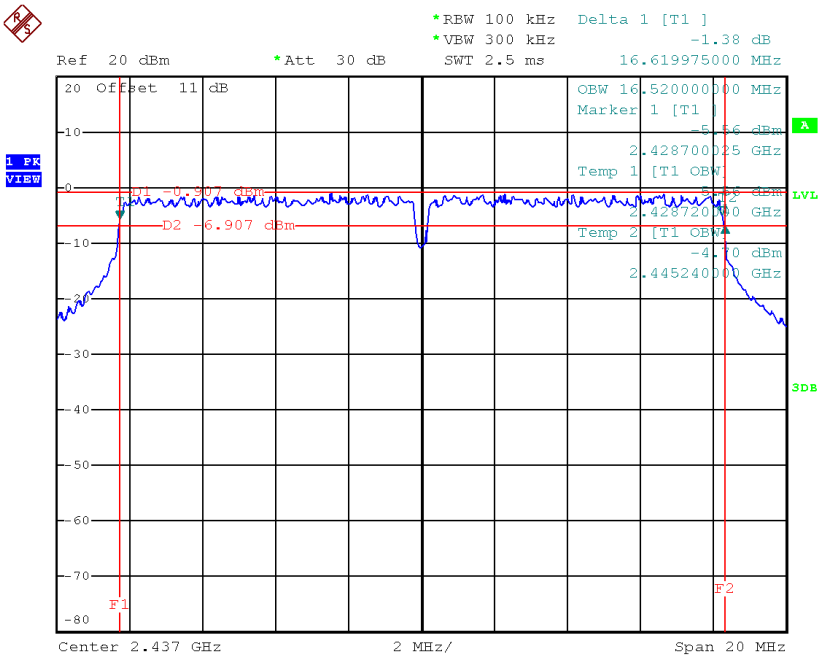
Test Mode: TX G Mode_CH01/06/11				
Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied BW (MHz)	Min. Limit (kHz)	Test Result
2412	16.66	16.52	500	Complies
2437	16.62	16.52	500	Complies
2462	16.66	16.52	500	Complies

TX CH01



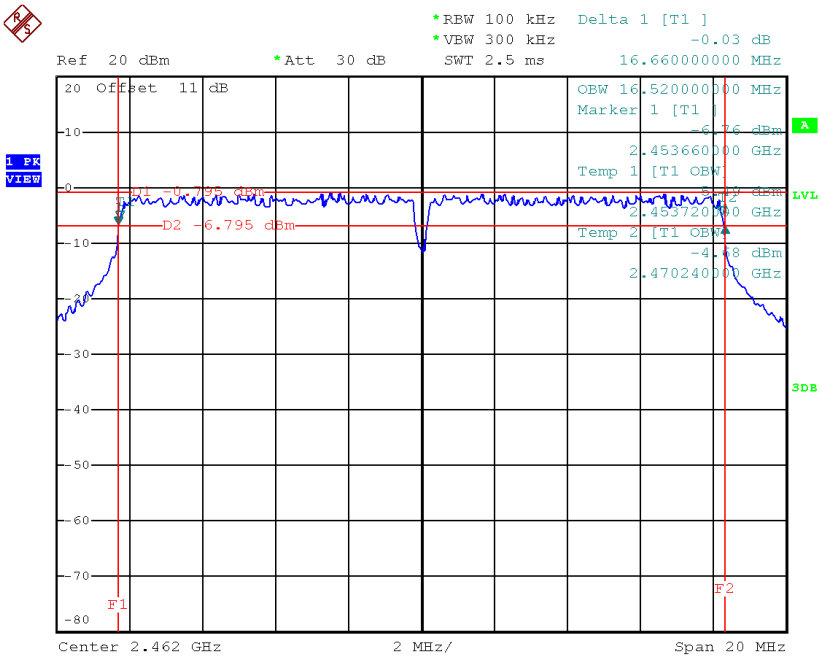
Date: 7.AUG.2017 15:42:17

TX CH06



Date: 7.AUG.2017 15:43:52

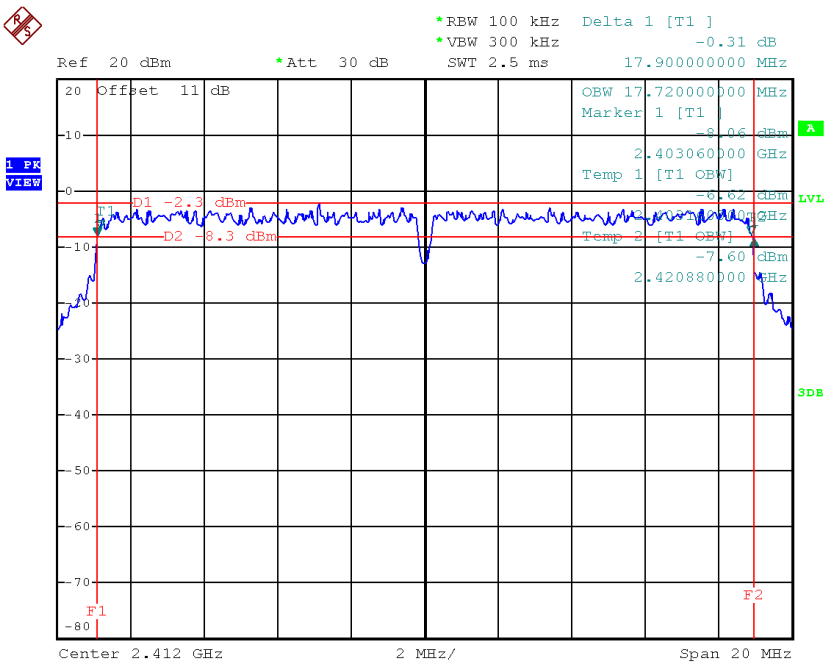
TX CH11



Date: 7.AUG.2017 15:45:02

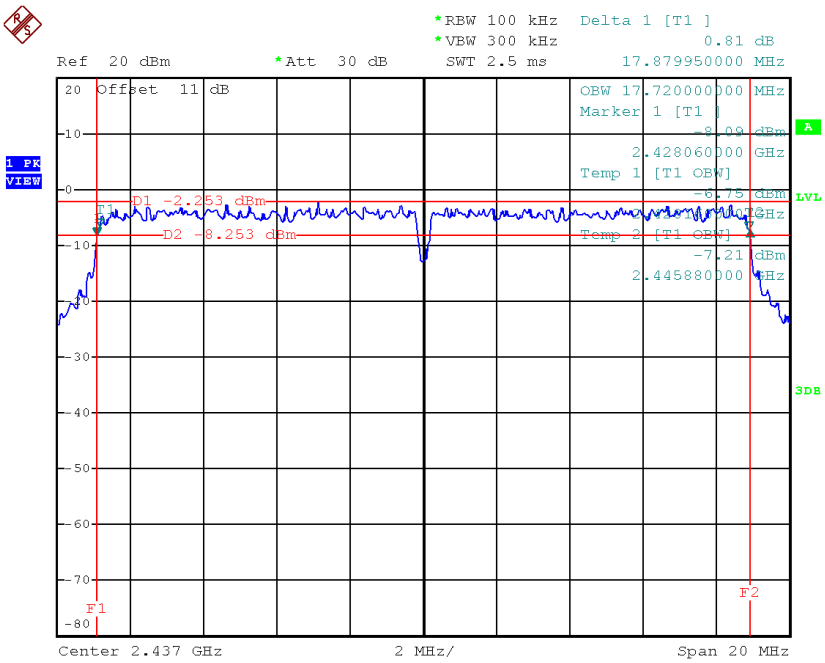
Test Mode : TX N-20MHz Mode_CH01/06/11				
Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied BW (MHz)	Min. Limit (kHz)	Test Result
2412	17.9	17.72	500	Complies
2437	17.88	17.72	500	Complies
2462	17.88	17.72	500	Complies

TX CH01



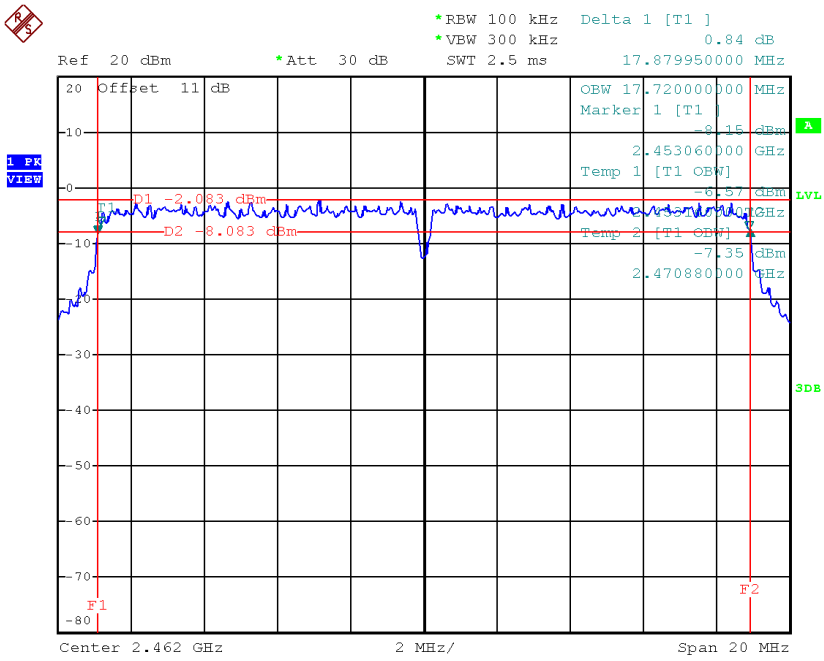
Date: 7.AUG.2017 15:46:31

TX CH06



Date: 7.AUG.2017 15:48:03

TX CH11

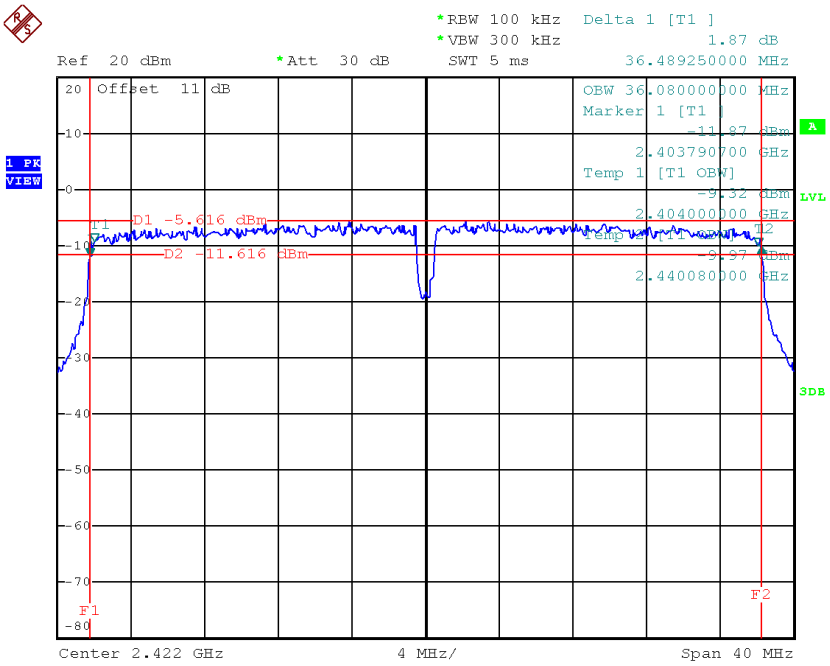


Date: 7.AUG.2017 15:51:54

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

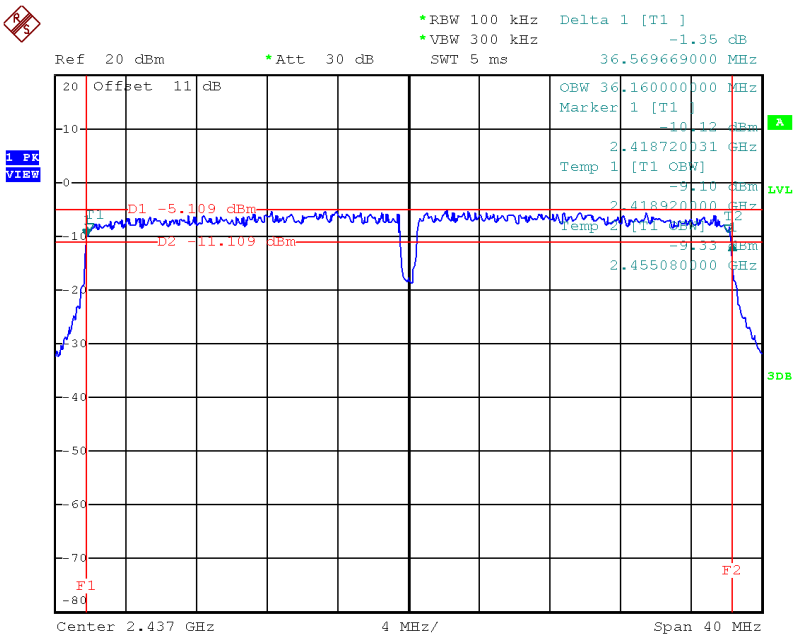
Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied BW (MHz)	Min. Limit (kHz)	Test Result
2422	36.49	36.08	500	Complies
2437	36.57	36.16	500	Complies
2452	36.56	36.16	500	Complies

TX CH03



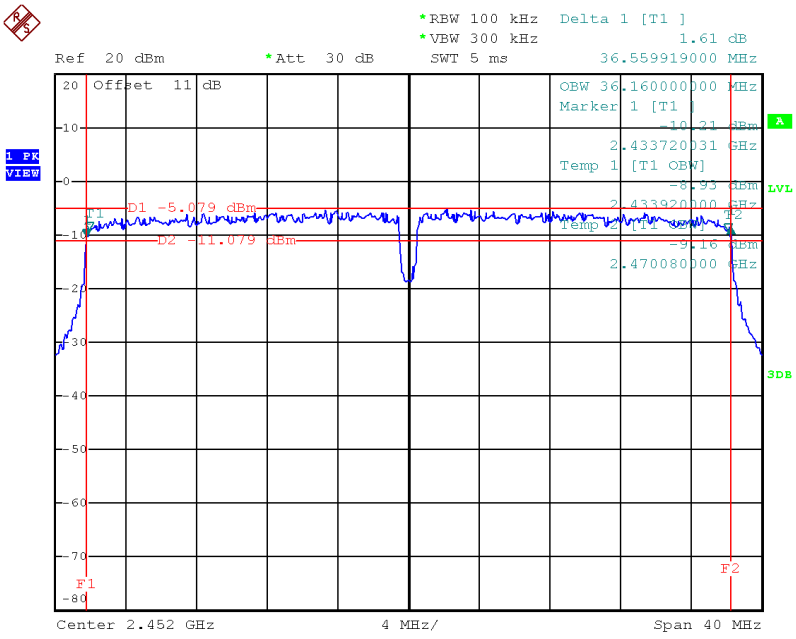
Date: 7.AUG.2017 15:53:26

TX CH06



Date: 7.AUG.2017 15:58:21

TX CH09



Date: 7.AUG.2017 15:59:37

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	18.62	0.07	30.00	1.00	Complies
2437	18.89	0.08	30.00	1.00	Complies
2462	18.95	0.08	30.00	1.00	Complies

Test Mode :TX G Mode_CH01/06/11					
Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2412	23.75	0.24	30.00	1.00	Complies
2437	23.81	0.24	30.00	1.00	Complies
2462	23.94	0.25	30.00	1.00	Complies

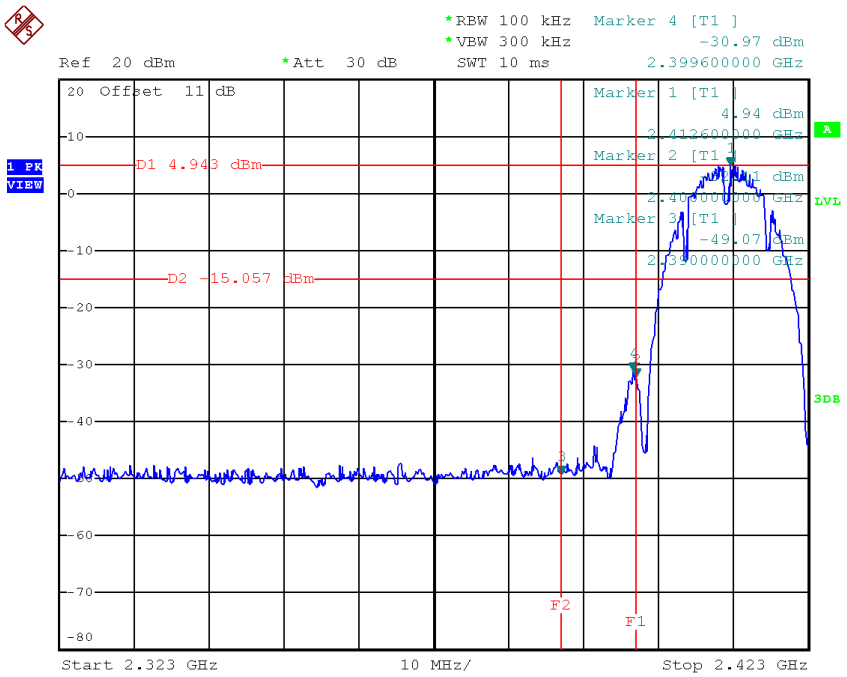
Test Mode :TX N20 Mode_CH01/06/11					
Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2412	21.84	0.15	30.00	1.00	Complies
2437	21.94	0.16	30.00	1.00	Complies
2462	22.11	0.16	30.00	1.00	Complies

Test Mode :TX N40 Mode_CH03/06/09					
Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2422	22.11	0.16	30.00	1.00	Complies
2437	22.23	0.17	30.00	1.00	Complies
2452	22.14	0.16	30.00	1.00	Complies

APPENDIX G - ANTENNA CONDUCTED SPURIOUS EMISSION

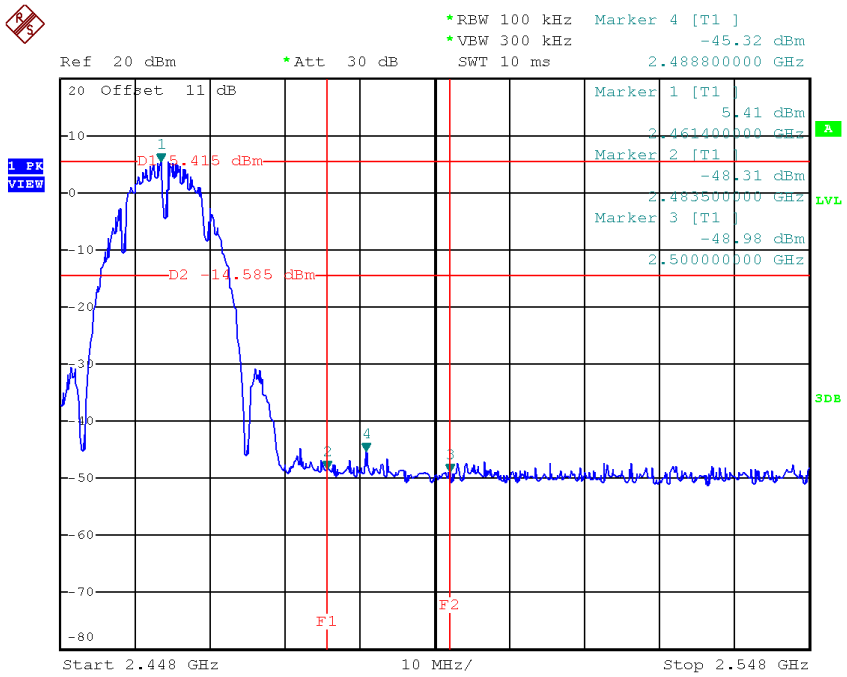
Test Mode :	TX B Mode

TX B mode CH01



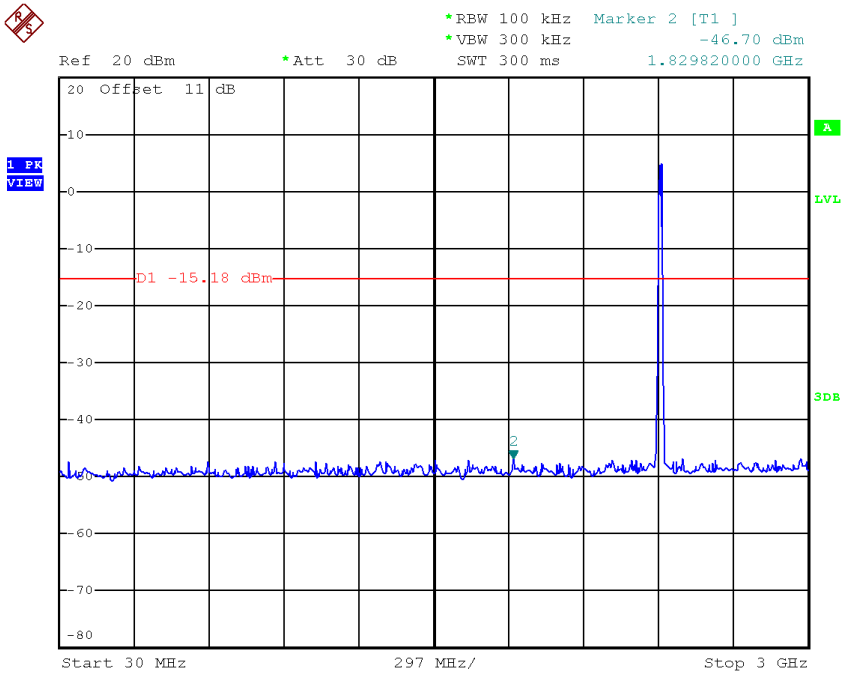
Date: 7.AUG.2017 15:37:45

TX B mode CH11

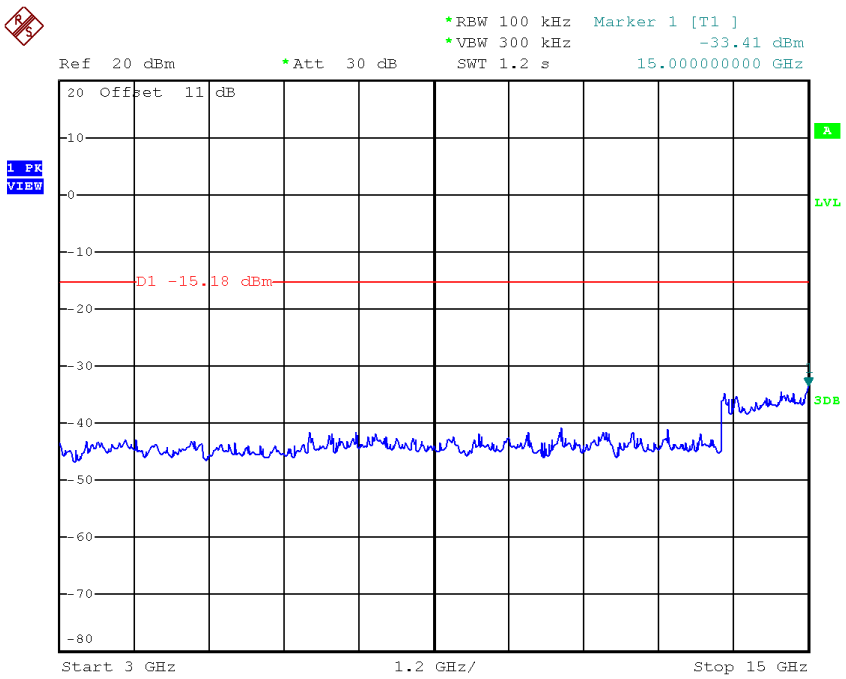


Date: 7.AUG.2017 15:41:05

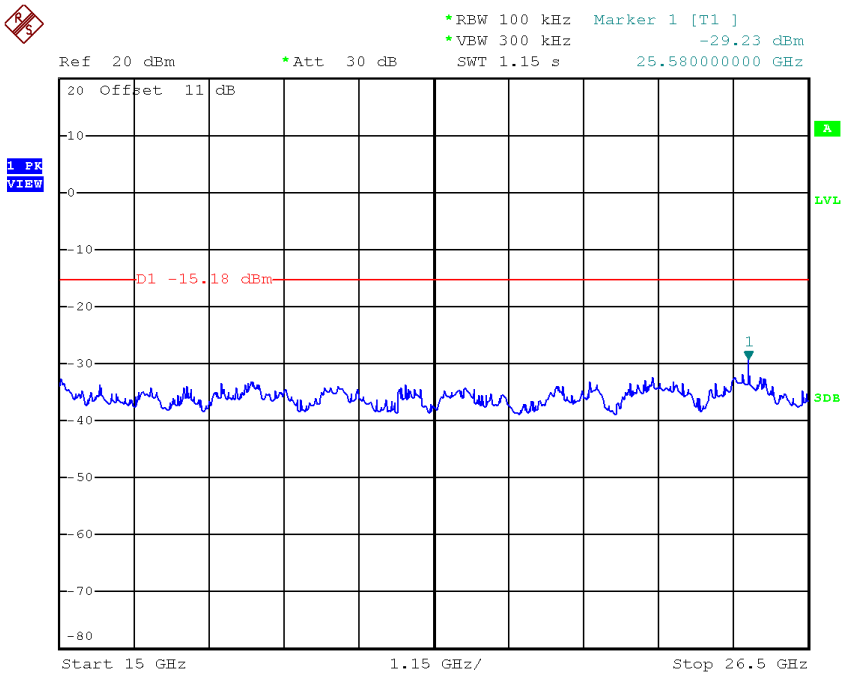
TX B mode CH01 (10 Harmonic of the frequency)



Date: 7.AUG.2017 15:37:24

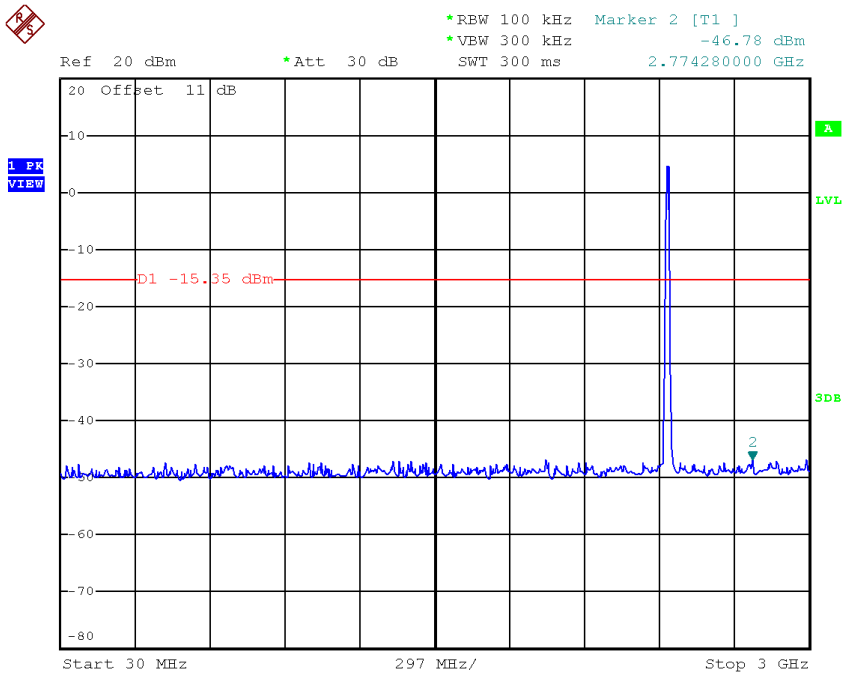


Date: 7.AUG.2017 15:37:31

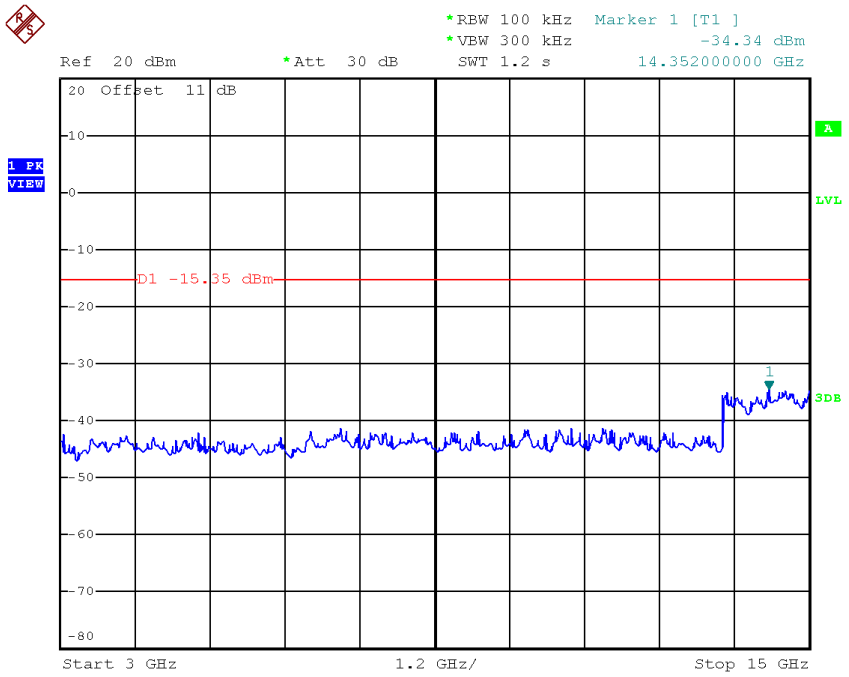


Date: 7.AUG.2017 15:37:38

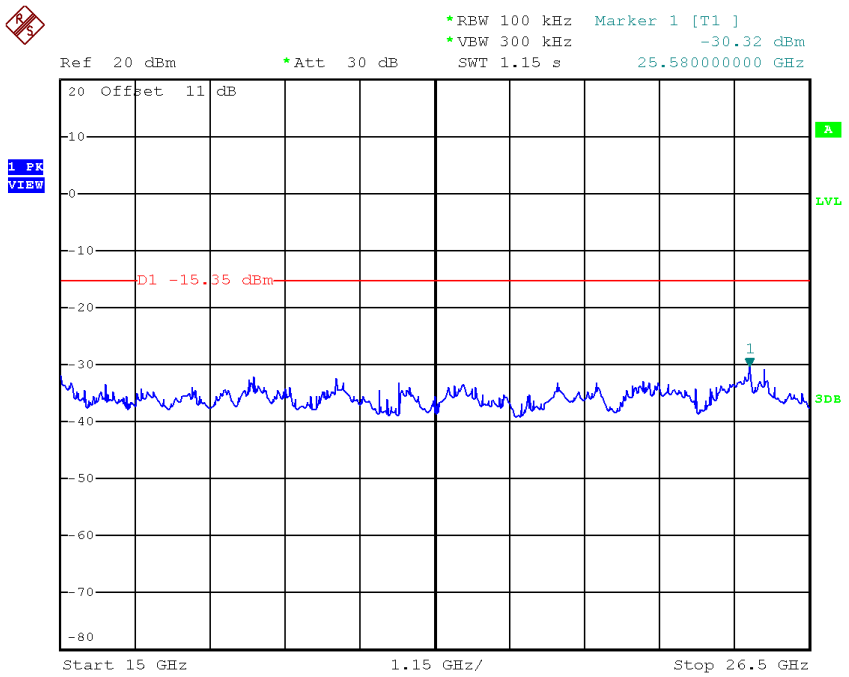
TX B mode CH06 (10 Harmonic of the frequency)



Date: 7.AUG.2017 15:38:53

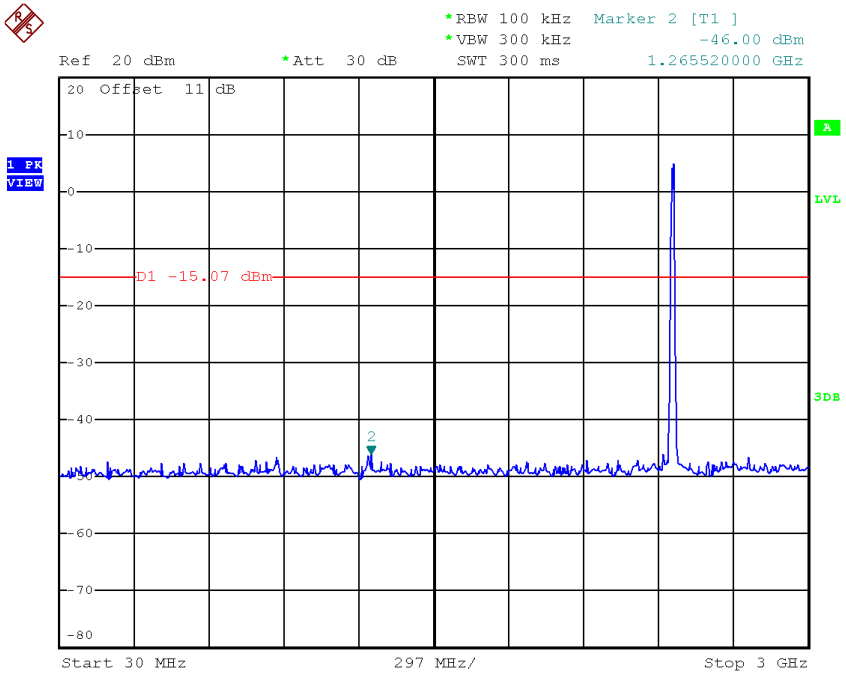


Date: 7.AUG.2017 15:39:00

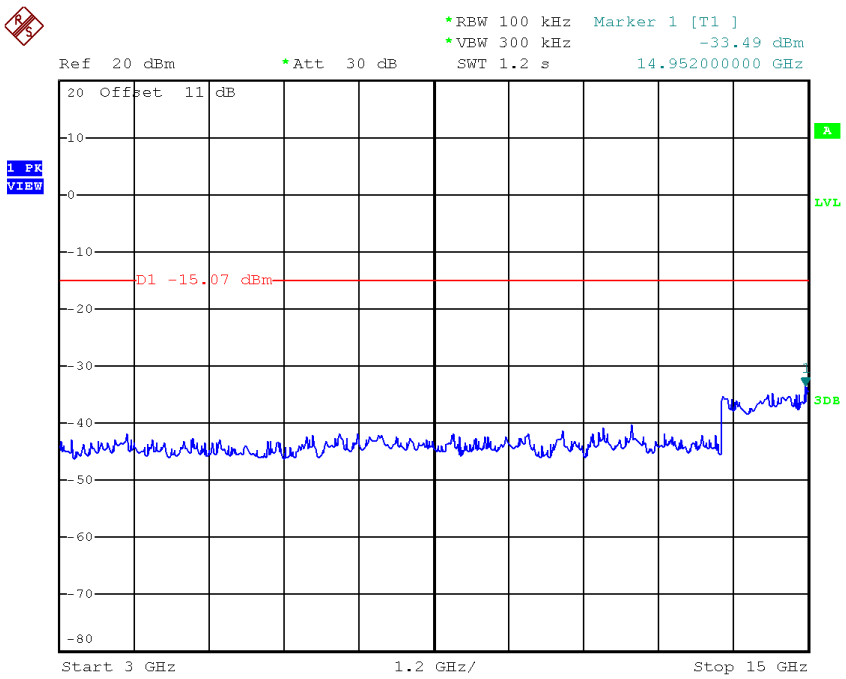


Date: 7.AUG.2017 15:39:07

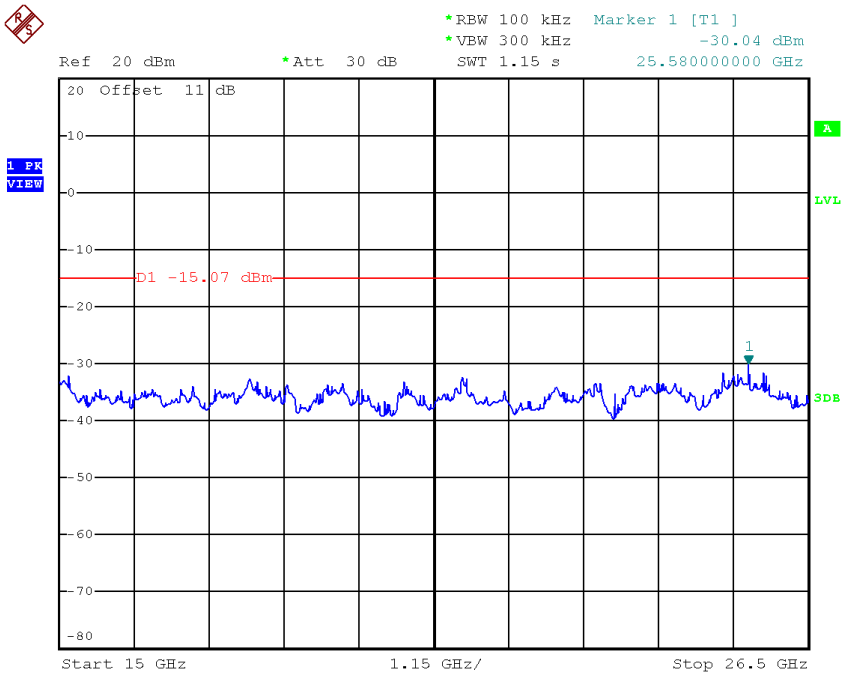
TX B mode CH11 (10 Harmonic of the frequency)



Date: 7.AUG.2017 15:40:27



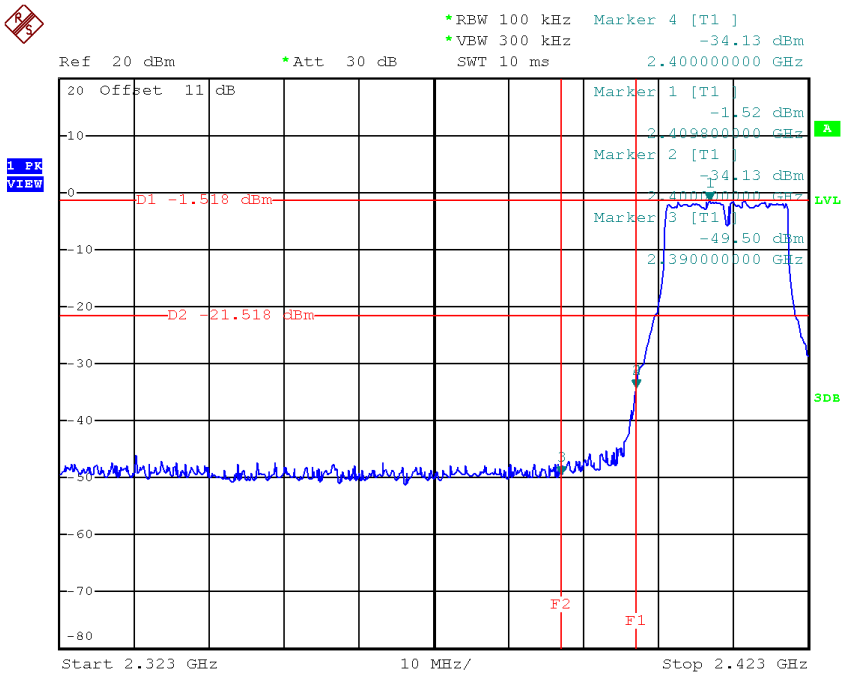
Date: 7.AUG.2017 15:40:35



Date: 7.AUG.2017 15:40:41

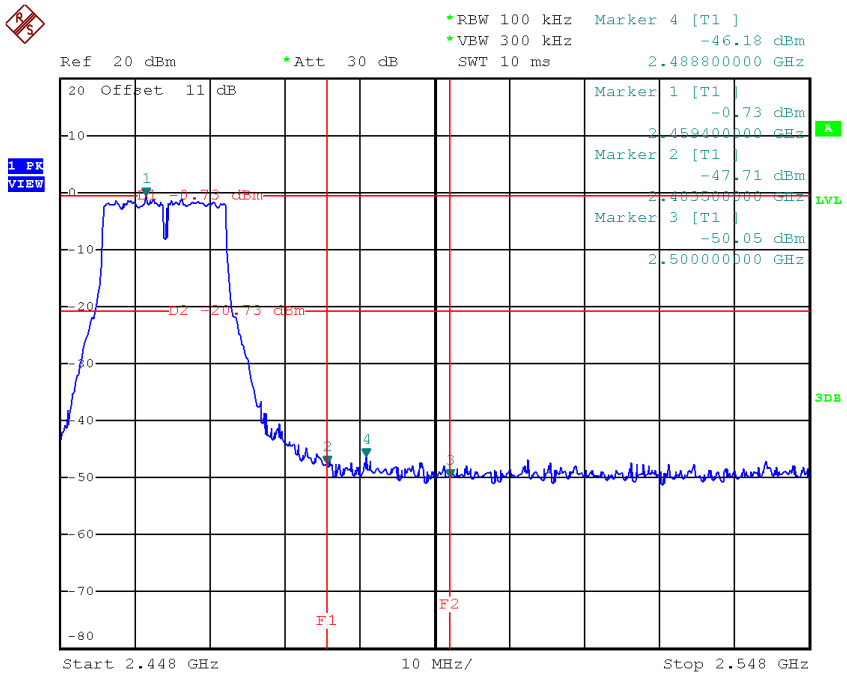
Test Mode :	TX G Mode

TX G mode CH01



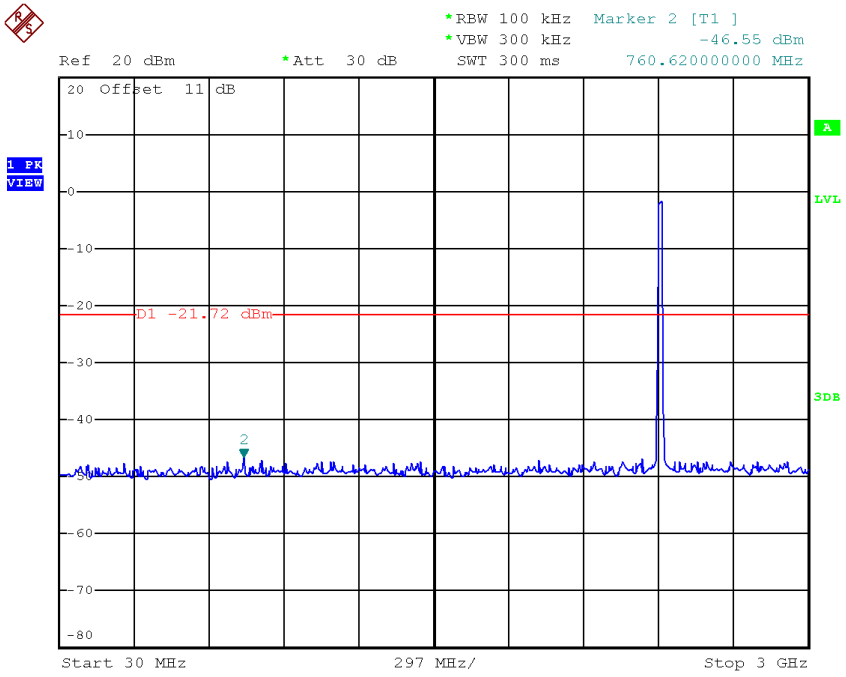
Date: 7.AUG.2017 15:43:08

TX G mode CH11

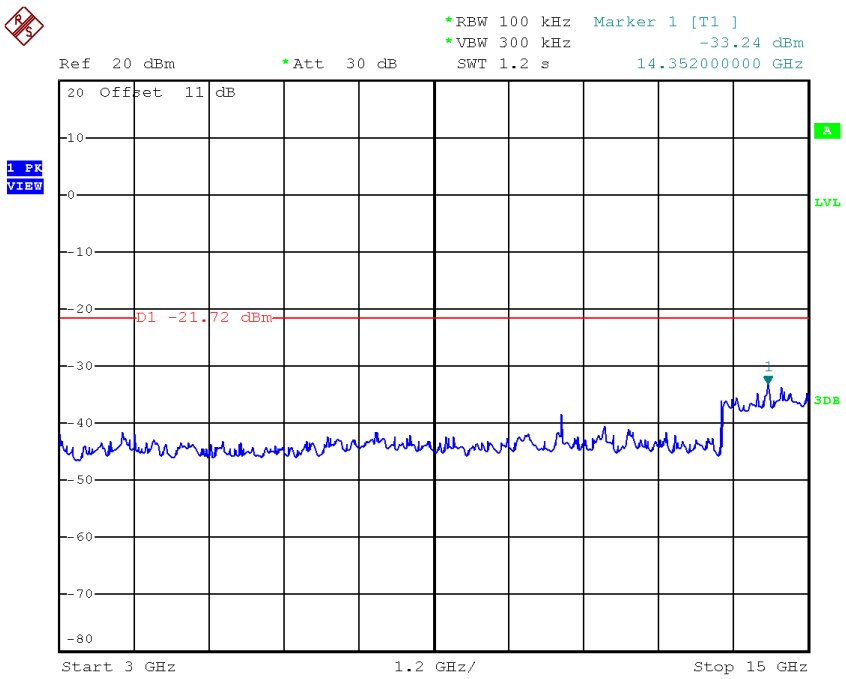


Date: 7.AUG.2017 15:45:37

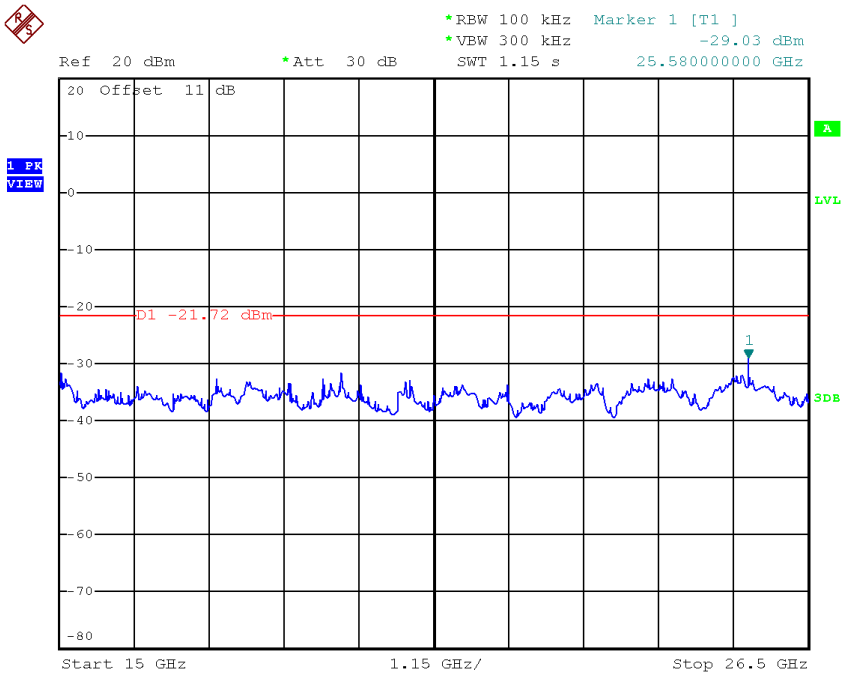
TX G mode CH01 (10 Harmonic of the frequency)



Date: 7.AUG.2017 15:42:30

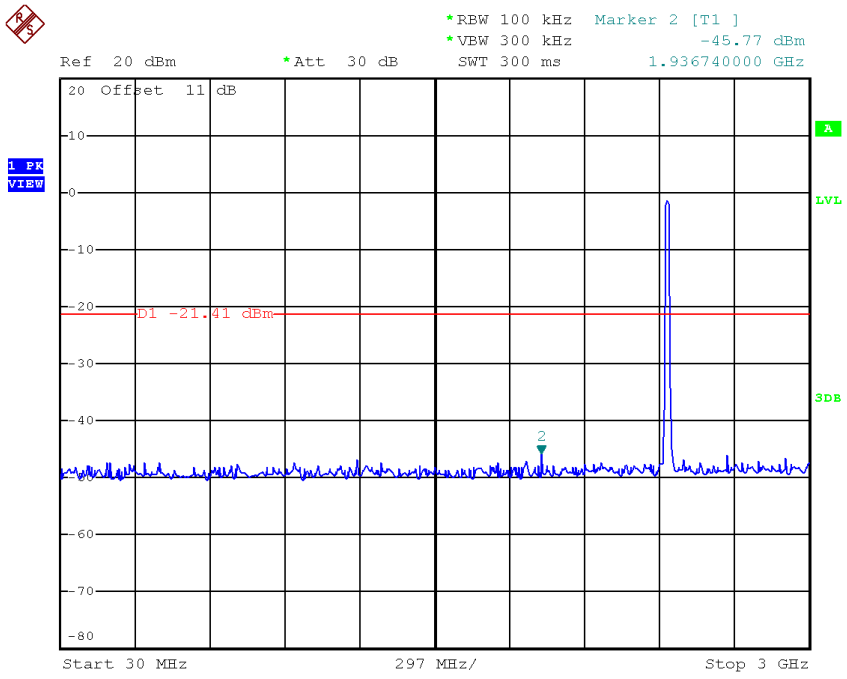


Date: 7.AUG.2017 15:42:37

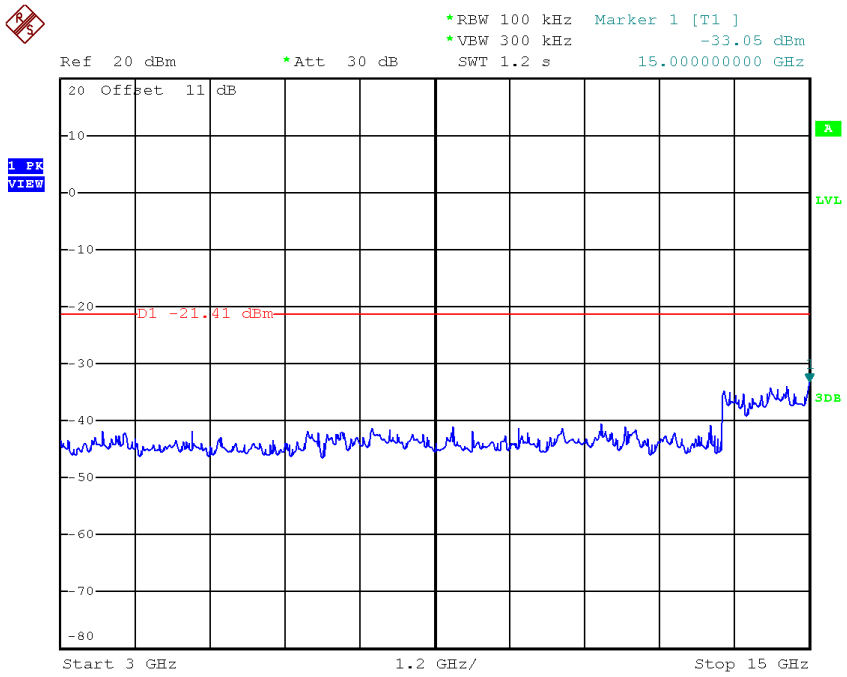


Date: 7.AUG.2017 15:42:44

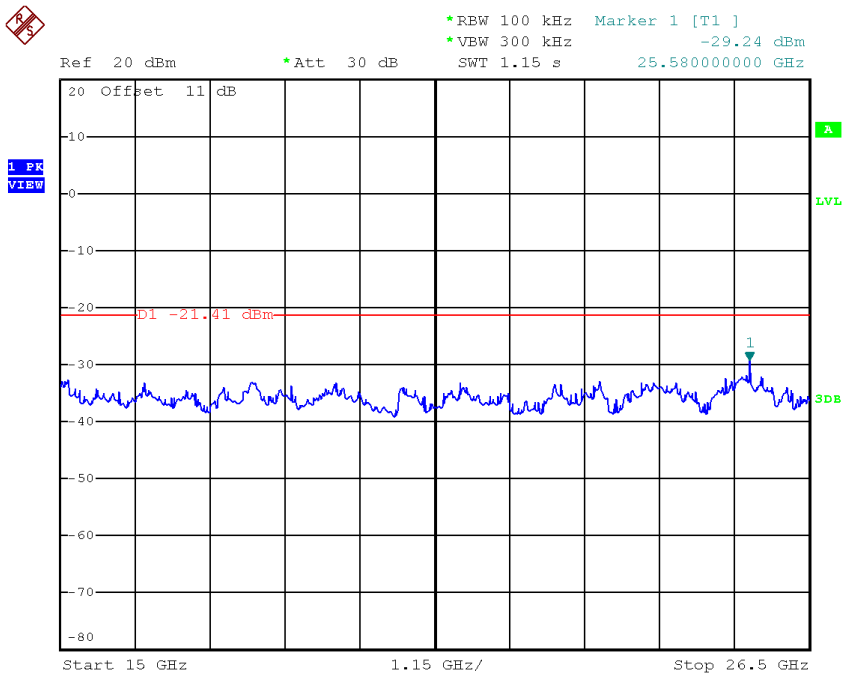
TX G mode CH06 (10 Harmonic of the frequency)



Date: 7.AUG.2017 15:44:05

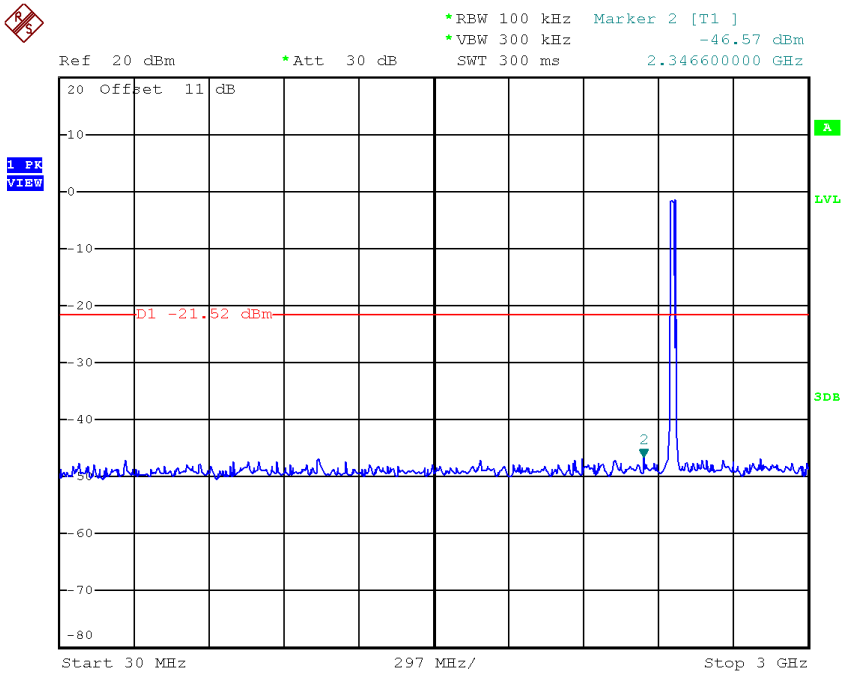


Date: 7.AUG.2017 15:44:12

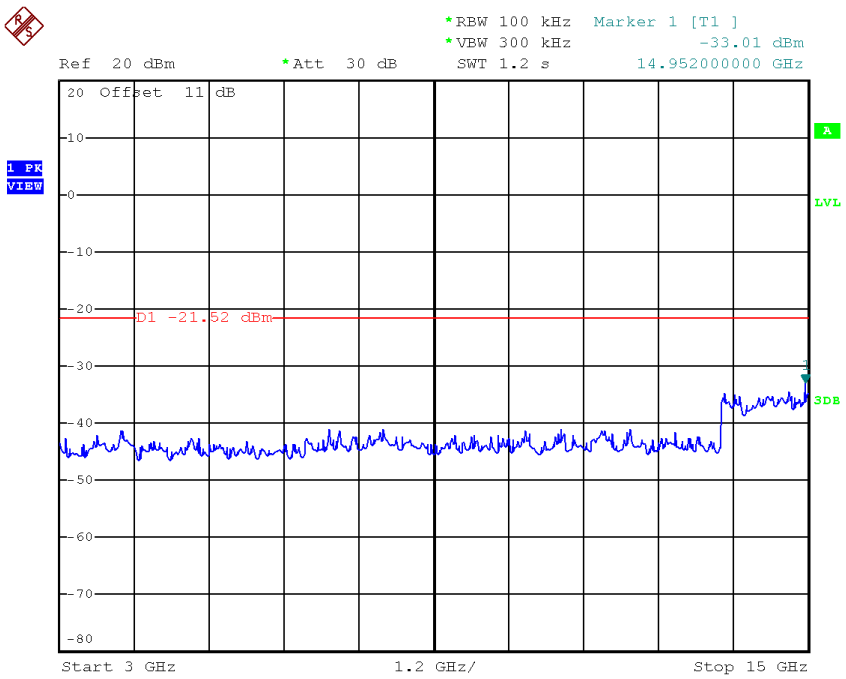


Date: 7.AUG.2017 15:44:19

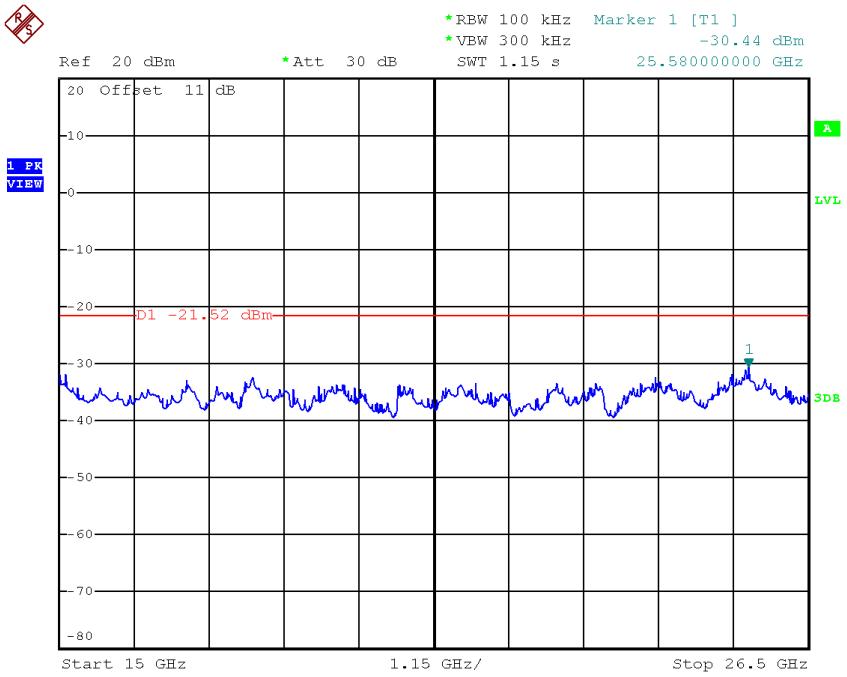
TX G mode CH11 (10 Harmonic of the frequency)



Date: 7.AUG.2017 15:45:16



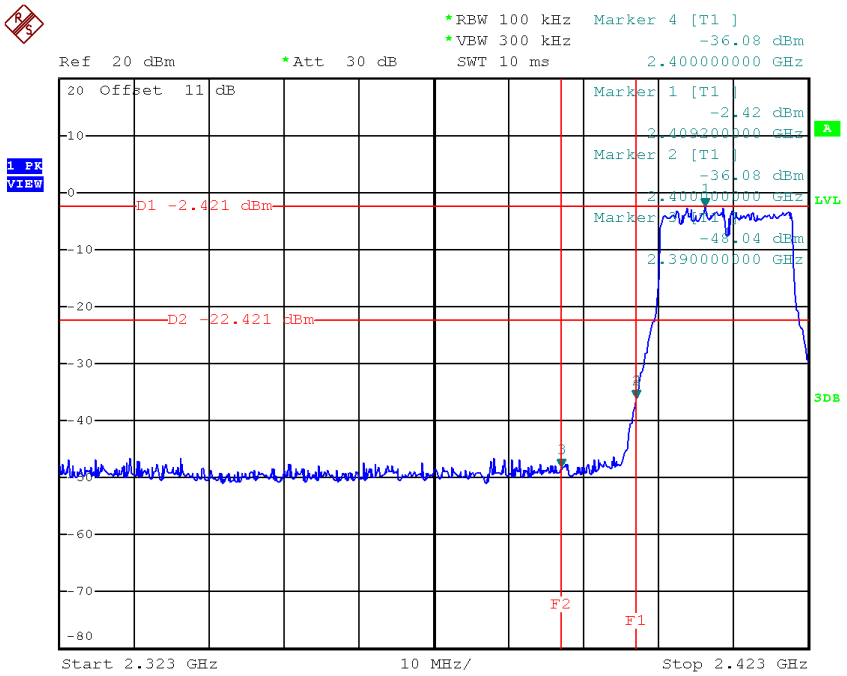
Date: 7.AUG.2017 15:45:23



Date: 7.AUG.2017 15:45:30

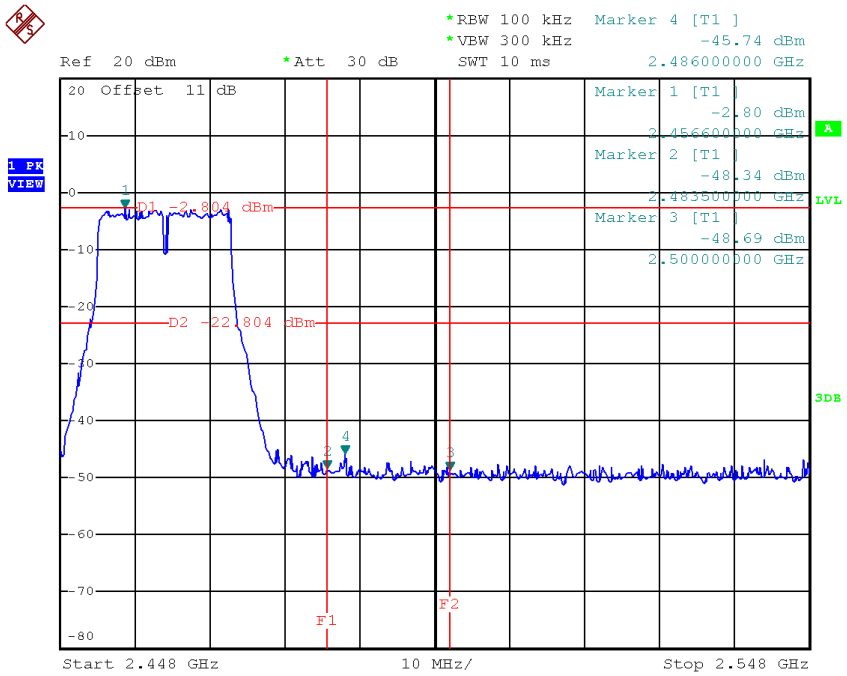
Test Mode :	TX N-20M Mode

TX HT20 mode CH01



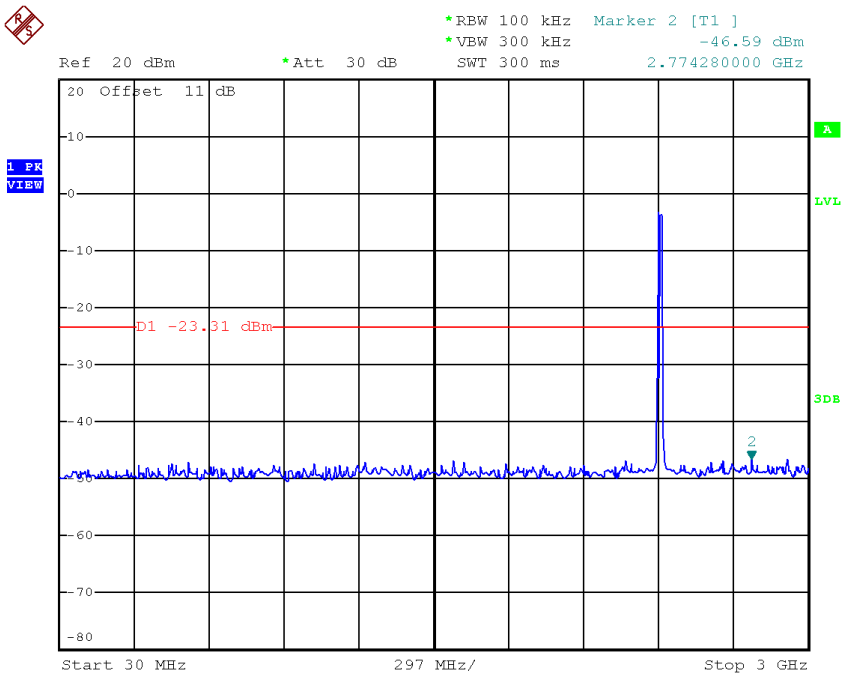
Date: 7.AUG.2017 15:47:22

TX HT20 mode CH11

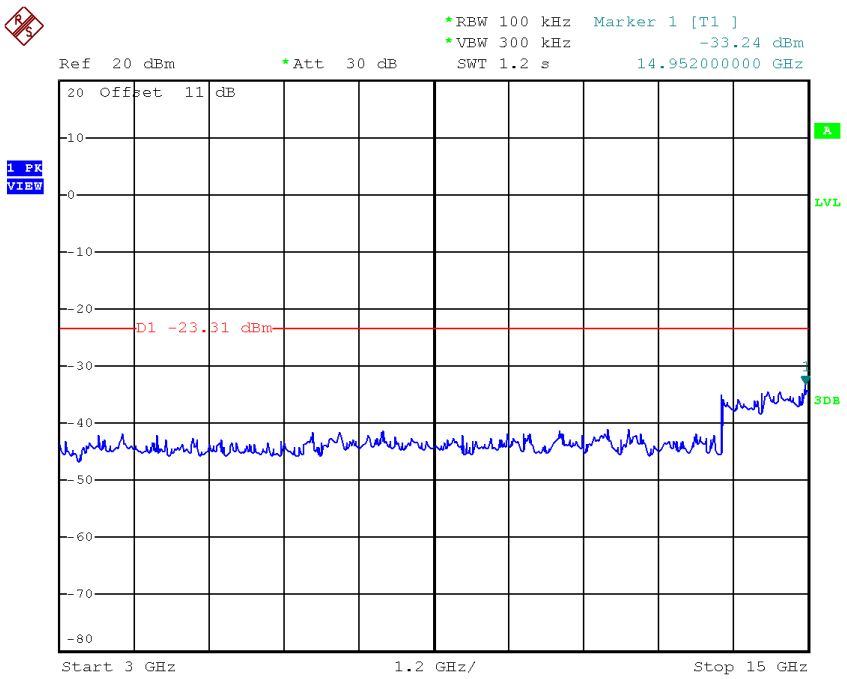


Date: 7.AUG.2017 15:52:28

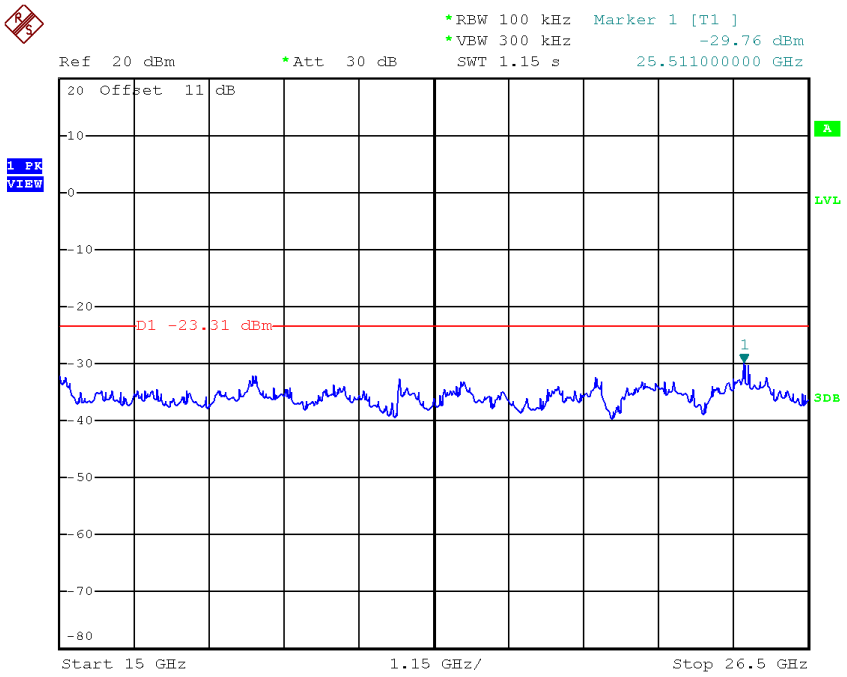
TX HT20 mode CH01 (10 Harmonic of the frequency)



Date: 7.AUG.2017 15:46:44

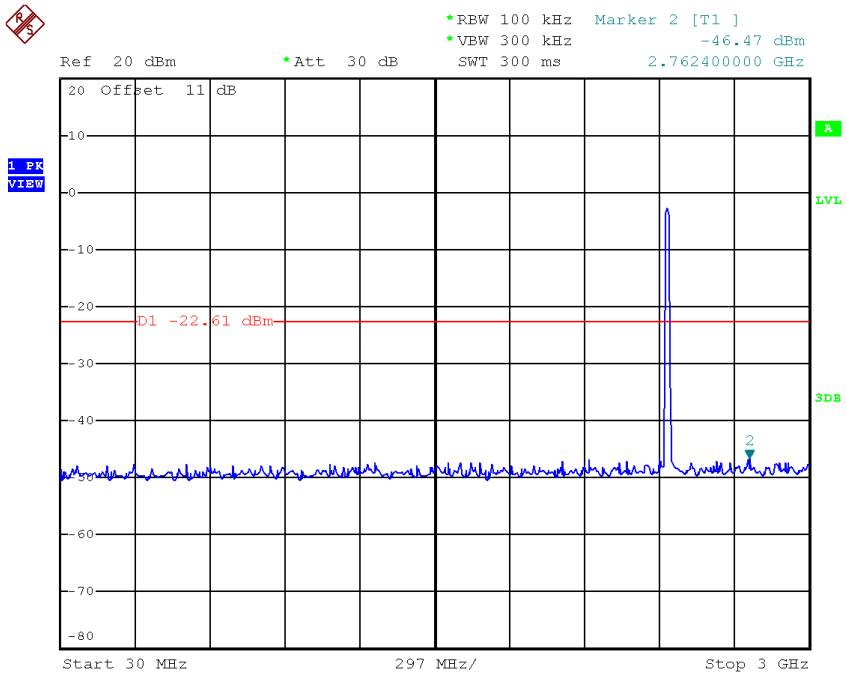


Date: 7.AUG.2017 15:46:51

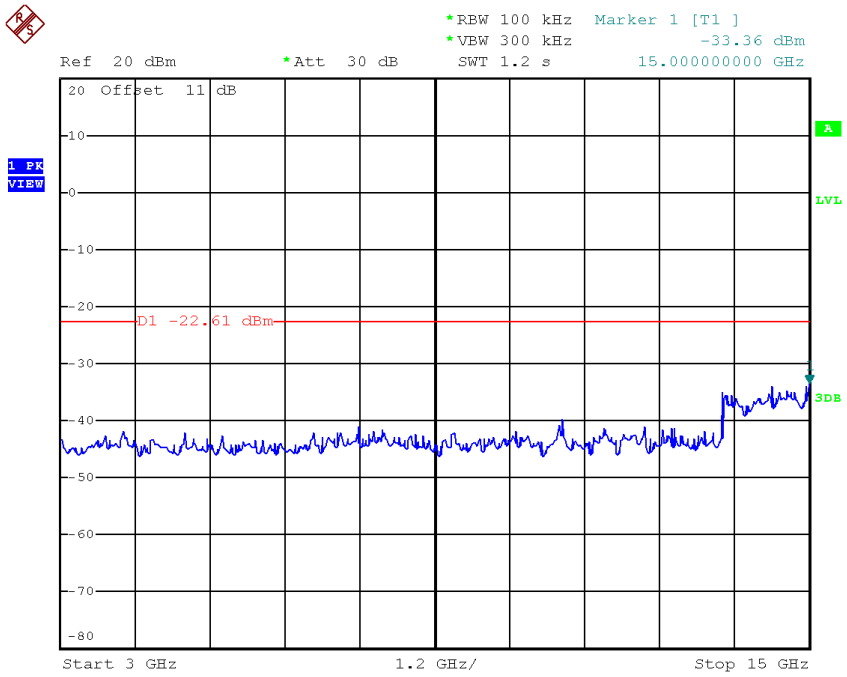


Date: 7.AUG.2017 15:46:58

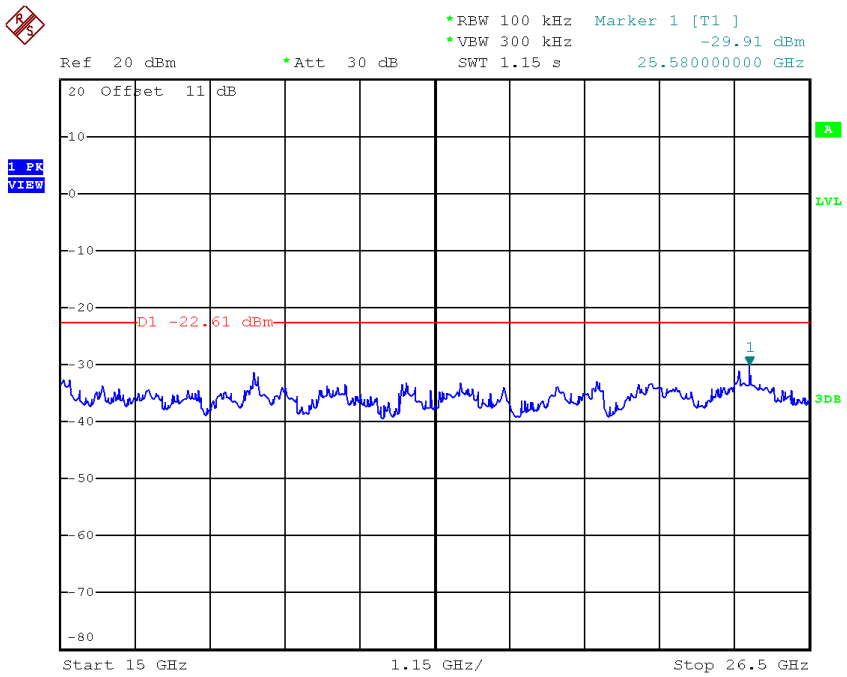
TX HT20 mode CH06 (10 Harmonic of the frequency)



Date: 7.AUG.2017 15:48:17

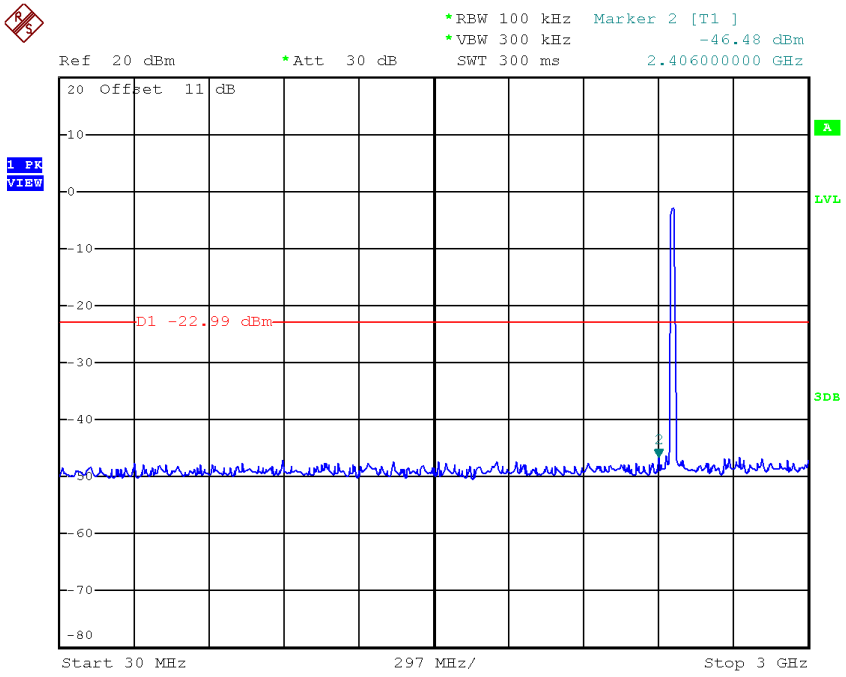


Date: 7.AUG.2017 15:48:24

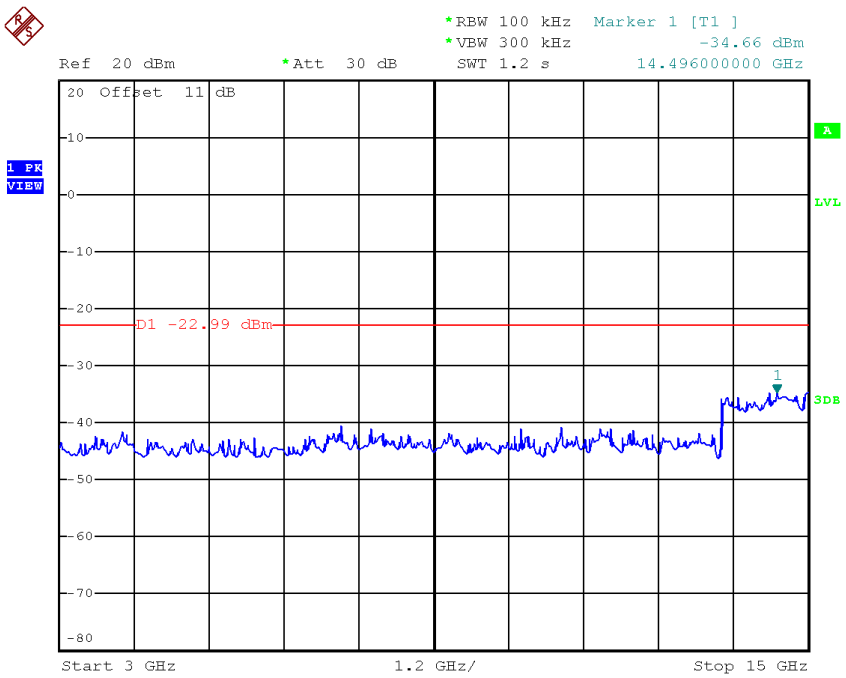


Date: 7.AUG.2017 15:48:30

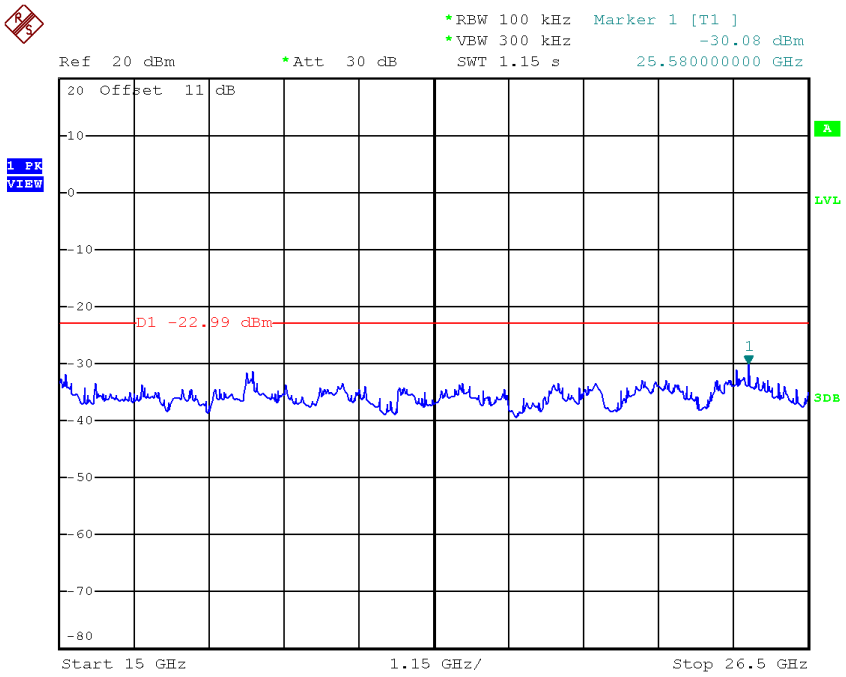
TX HT20 mode CH11 (10 Harmonic of the frequency)



Date: 7.AUG.2017 15:52:07



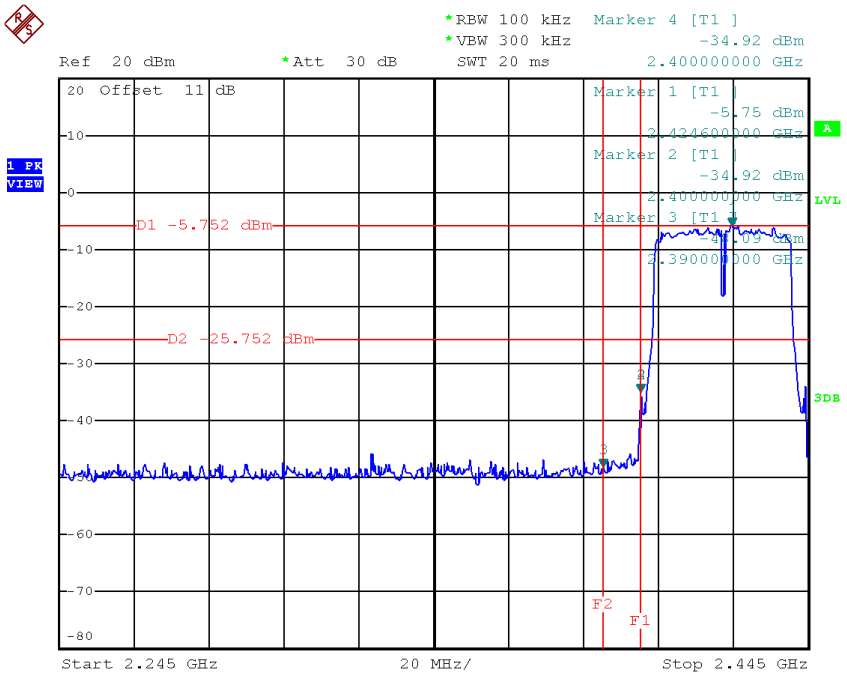
Date: 7.AUG.2017 15:52:14



Date: 7.AUG.2017 15:52:21

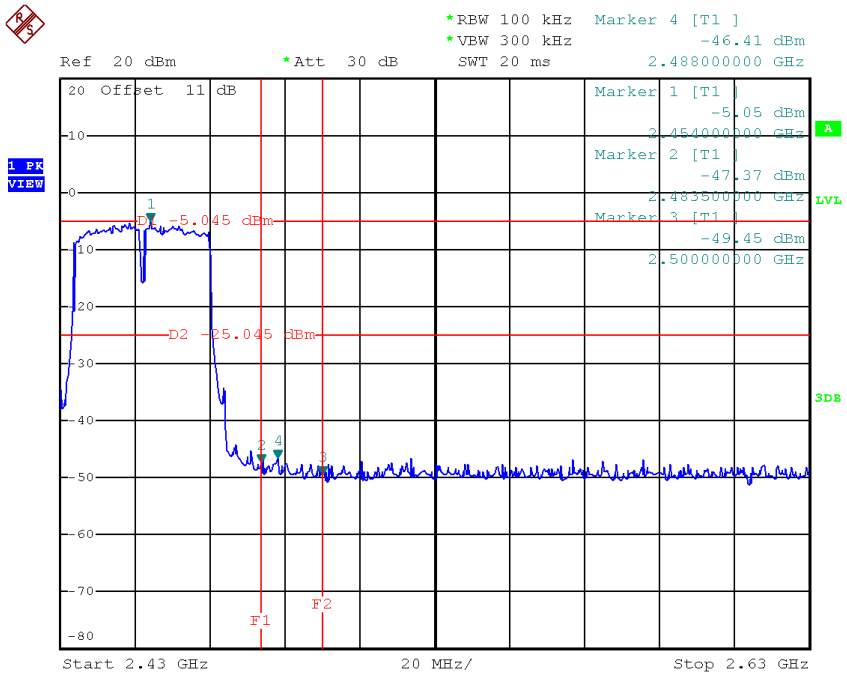
Test Mode :	TX N-40M Mode

TX HT40 mode CH03



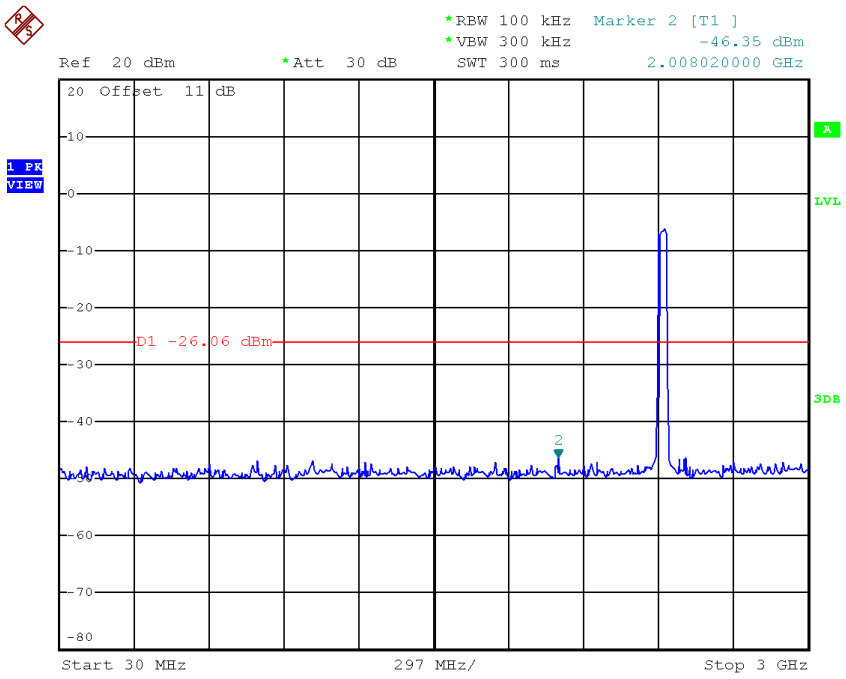
Date: 7.AUG.2017 15:54:16

TX HT40 mode CH09

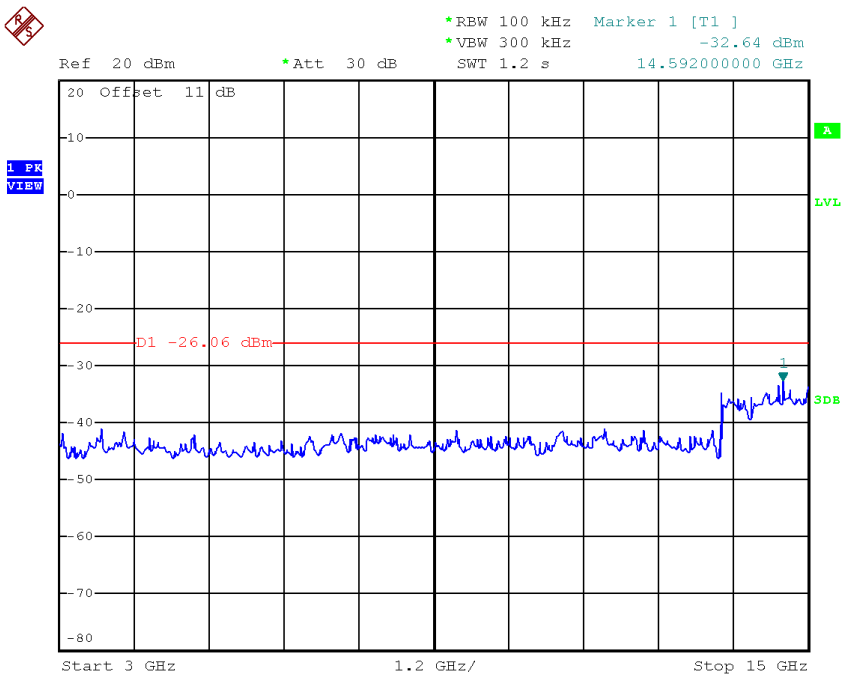


Date: 7.AUG.2017 16:00:28

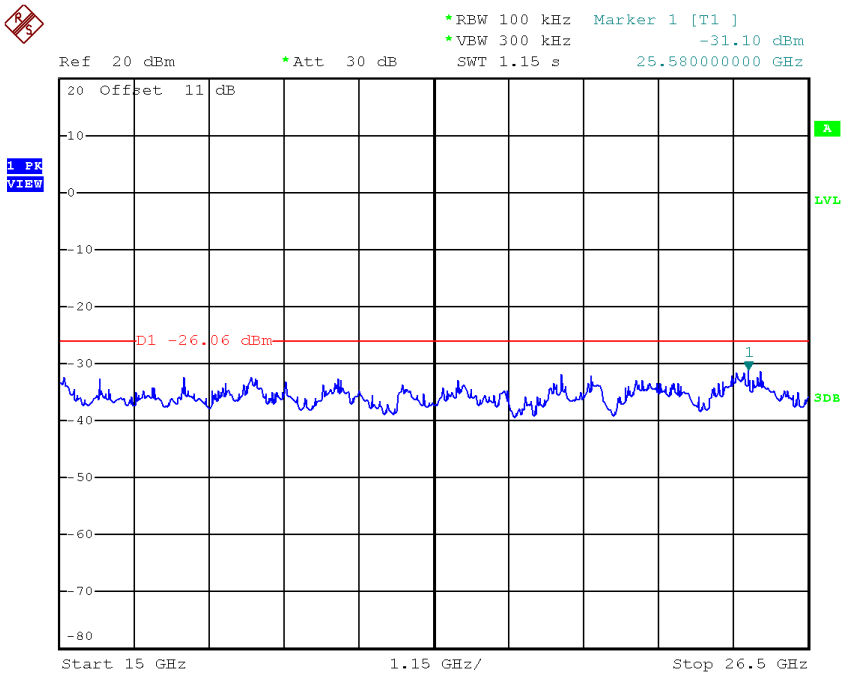
TX HT40 mode CH03 (10 Harmonic of the frequency)



Date: 7.AUG.2017 15:53:39

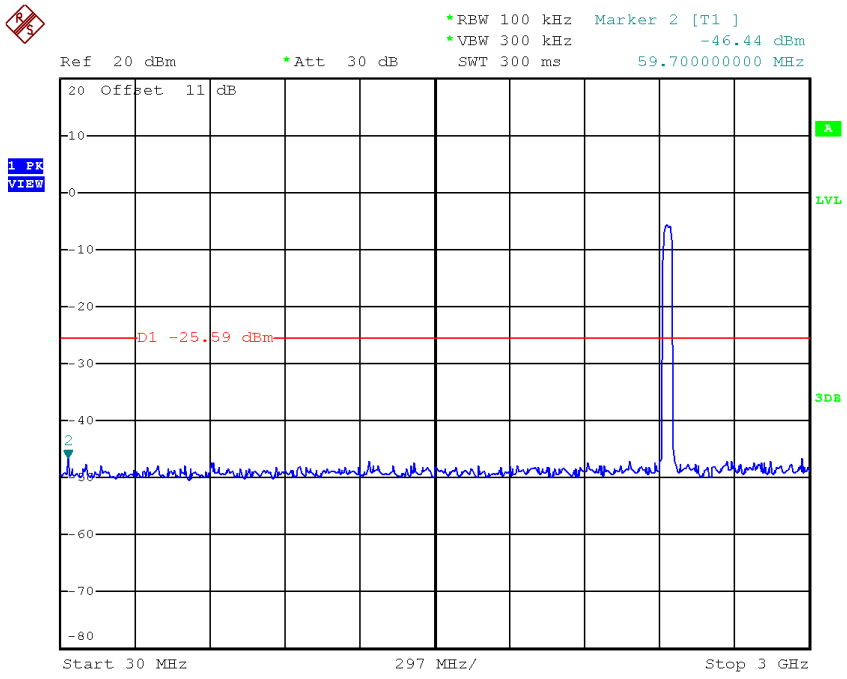


Date: 7.AUG.2017 15:53:46

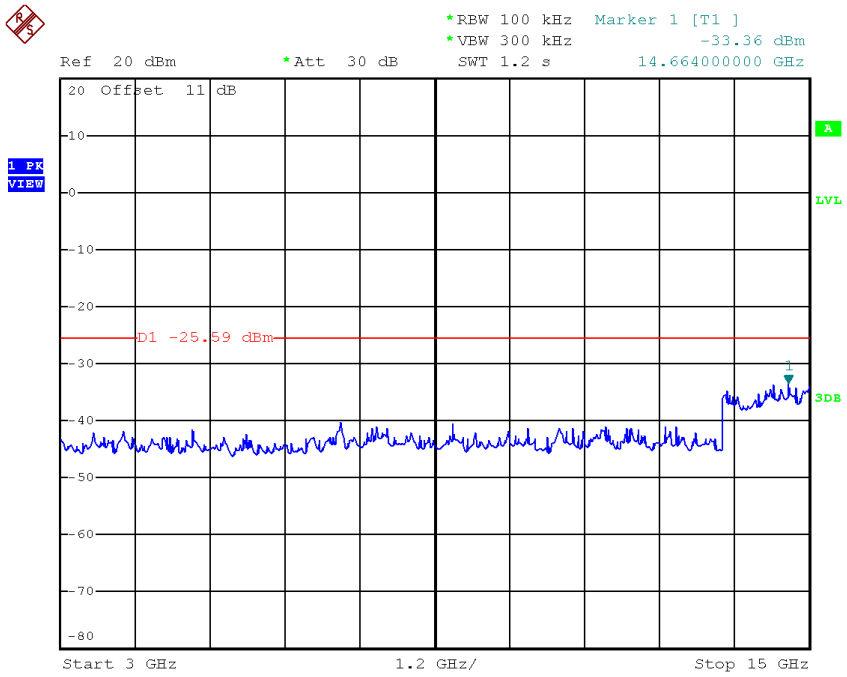


Date: 7.AUG.2017 15:53:53

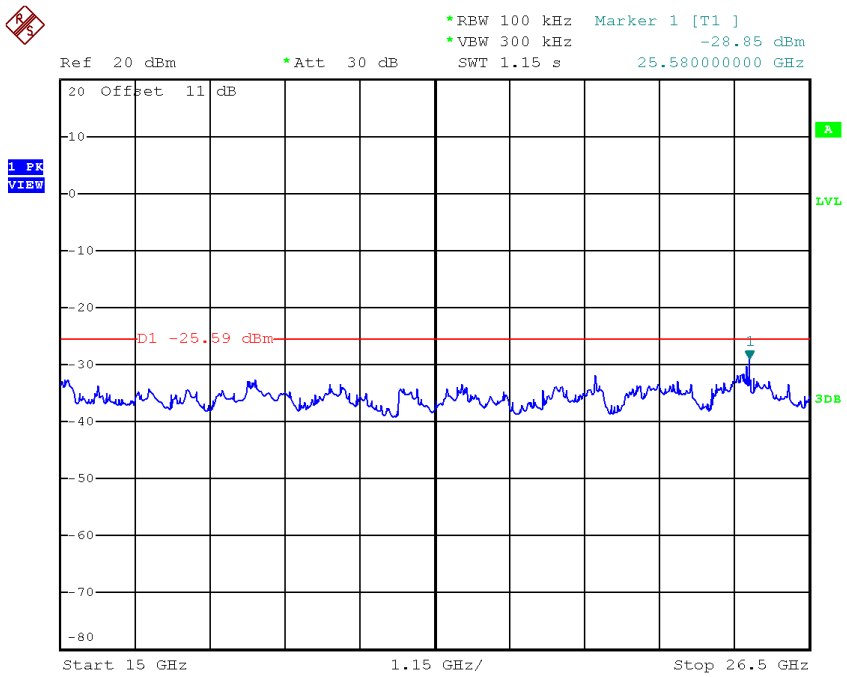
TX HT40 mode CH06 (10 Harmonic of the frequency)



Date: 7.AUG.2017 15:58:34

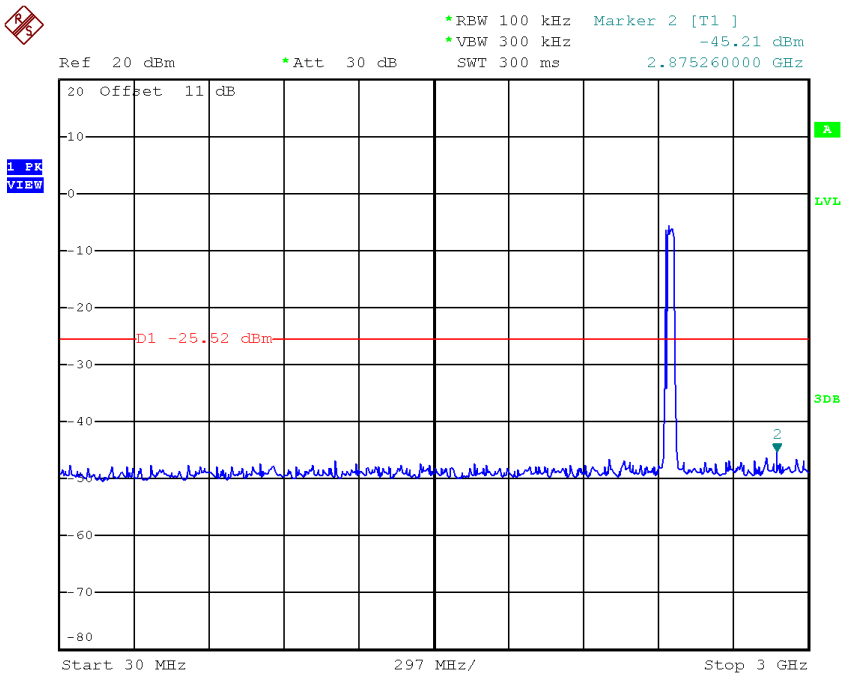


Date: 7.AUG.2017 15:58:41

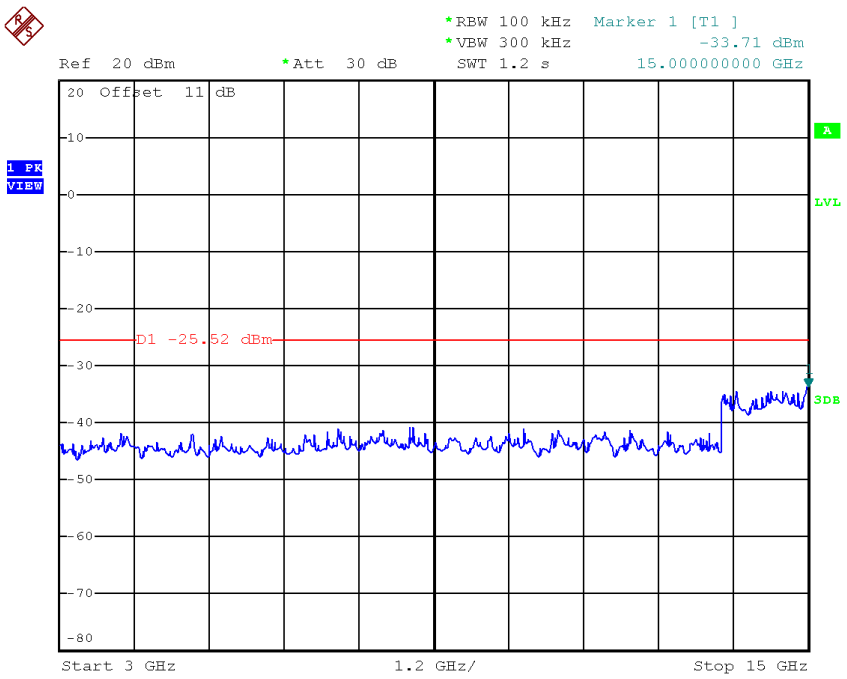


Date: 7.AUG.2017 15:58:48

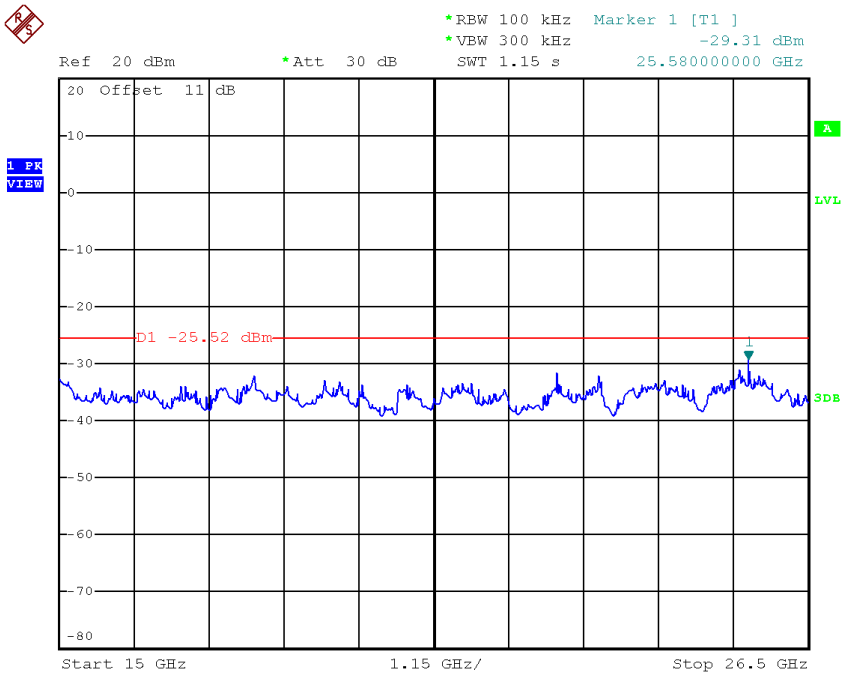
TX HT40 mode CH09 (10 Harmonic of the frequency)



Date: 7.AUG.2017 15:59:50



Date: 7.AUG.2017 15:59:57



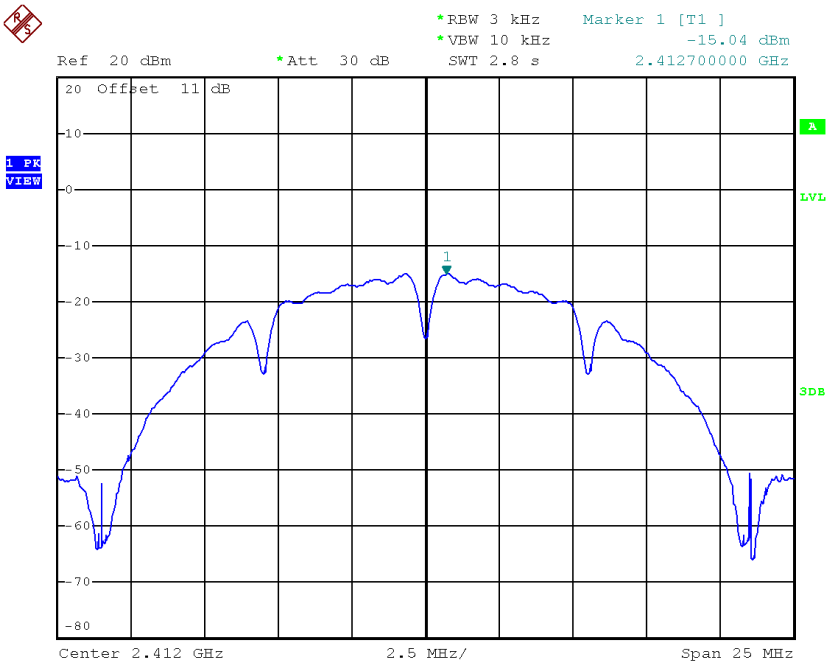
Date: 7.AUG.2017 16:00:04

APPENDIX H - POWER SPECTRAL DENSITY

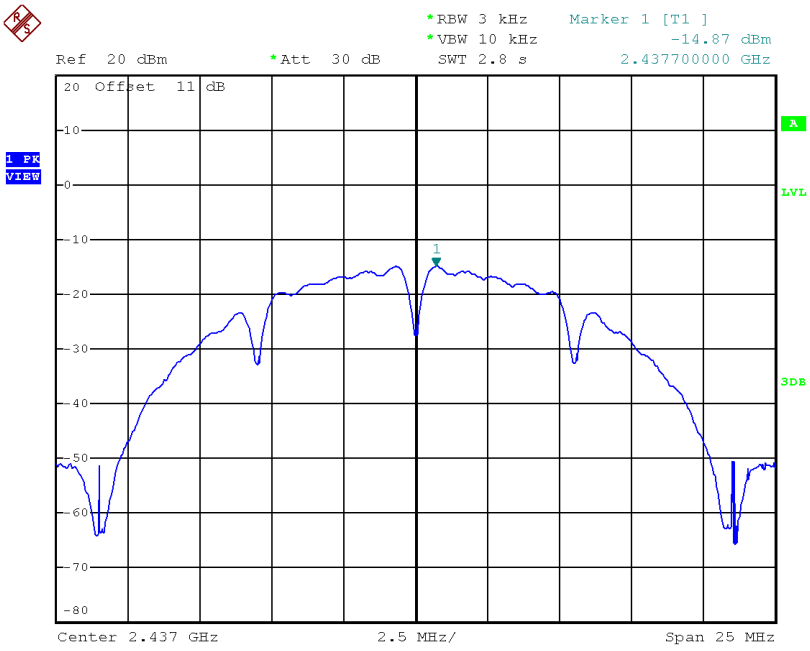
For 1T1R

Test Mode :TX B Mode_CH01/06/11				
Frequency (MHz)	Power Density (dBm/3kHz)	Power Density (mW/3kHz)	Max. Limit (dBm/3kHz)	Result
2412	-15.04	0.0313	8.00	Complies
2437	-14.87	0.0326	8.00	Complies
2462	-14.49	0.0356	8.00	Complies

TX CH01

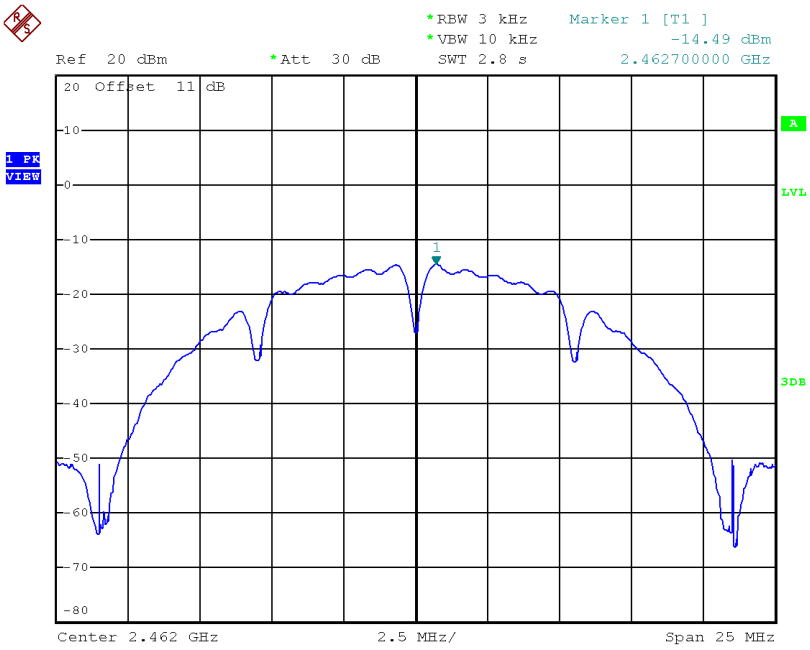


TX CH06



Date: 7.AUG.2017 15:39:15

TX CH11

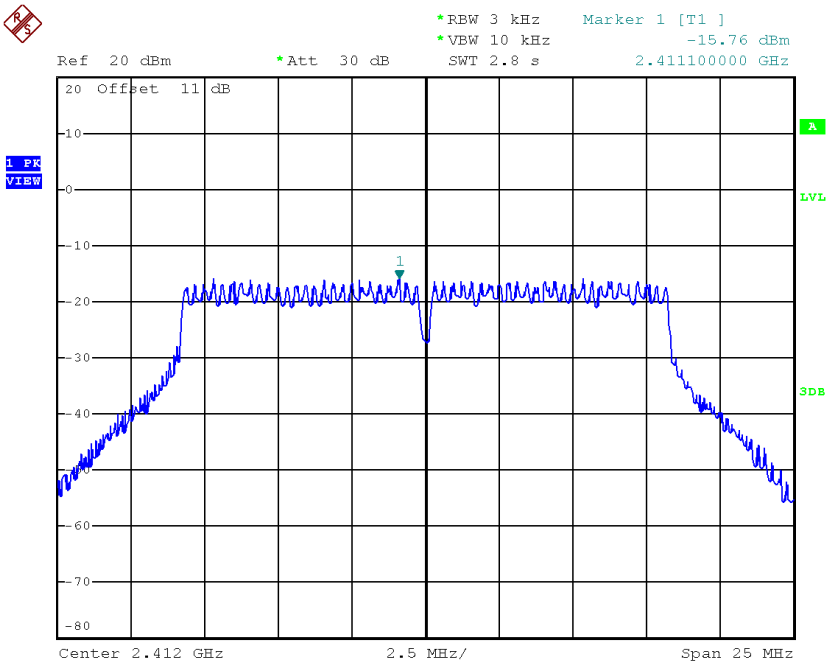


Date: 7.AUG.2017 15:41:14

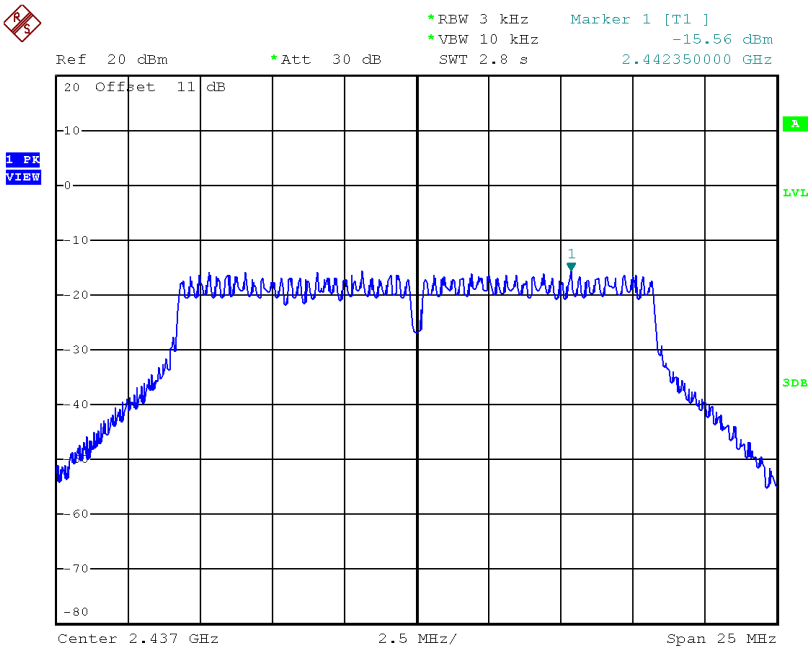
Test Mode :TX G Mode_CH01/06/11

Frequency (MHz)	Power Density (dBm/3kHz)	Power Density (mW/3kHz)	Max. Limit (dBm/3kHz)	Result
2412	-15.76	0.0265	8.00	Complies
2437	-15.56	0.0278	8.00	Complies
2462	-15.07	0.0311	8.00	Complies

TX CH01

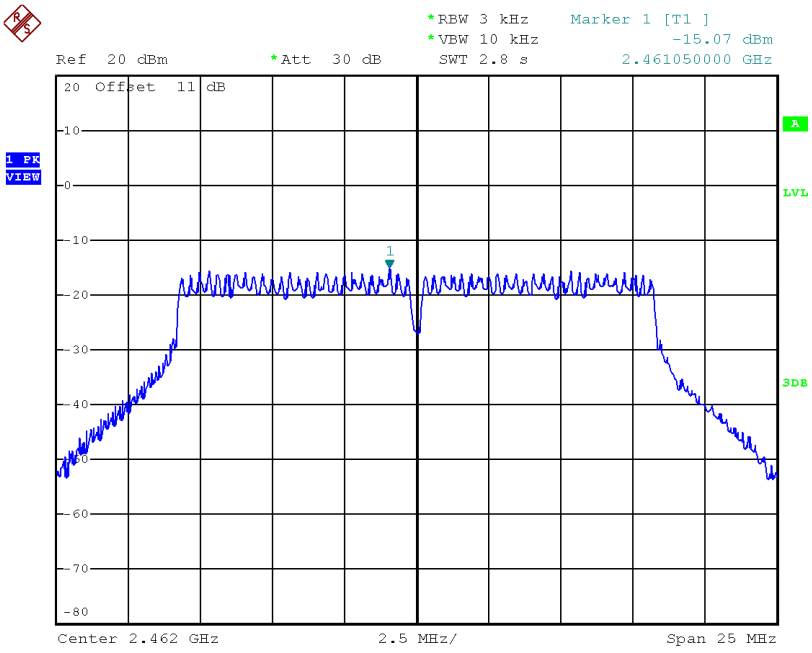


TX CH06



Date: 7.AUG.2017 15:44:27

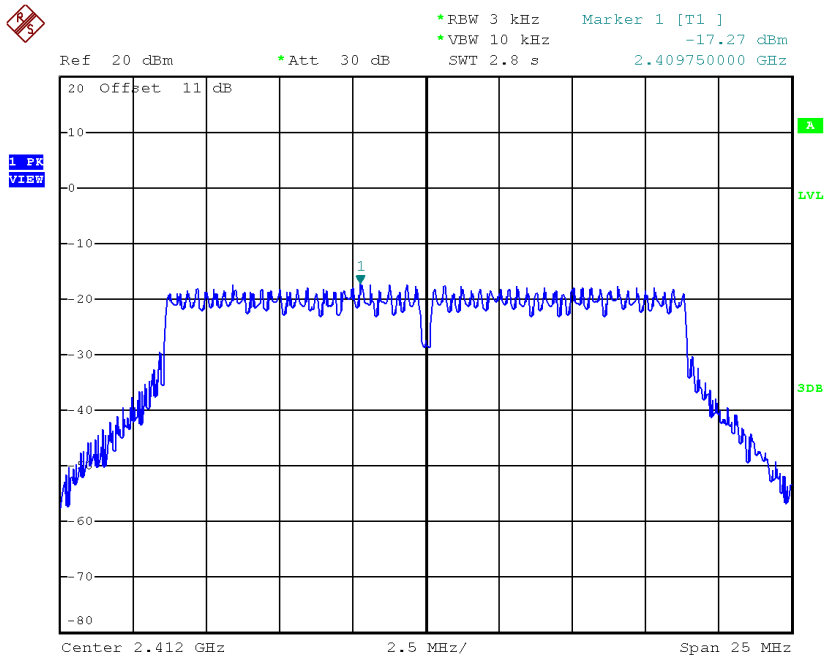
TX CH11



Date: 7.AUG.2017 15:45:50

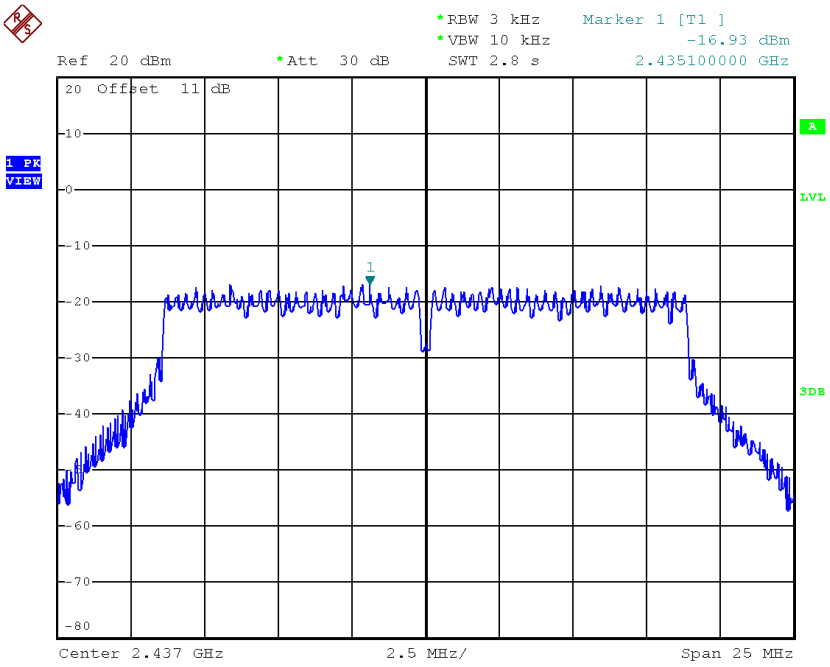
Test Mode : TX N-20M Mode_CH01/06/11				
Frequency (MHz)	Power Density (dBm/3kHz)	Power Density (mW/3kHz)	Max. Limit (dBm/3kHz)	Result
2412	-17.27	0.0187	8.00	Complies
2437	-16.93	0.0203	8.00	Complies
2462	-16.77	0.0210	8.00	Complies

TX CH01



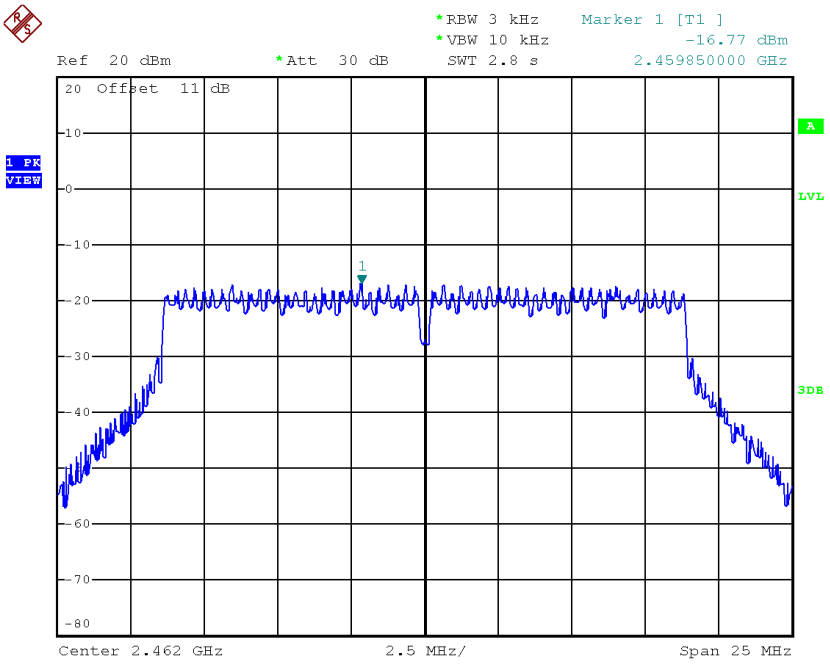
Date: 7.AUG.2017 15:47:30

TX CH06



Date: 7.AUG.2017 15:48:39

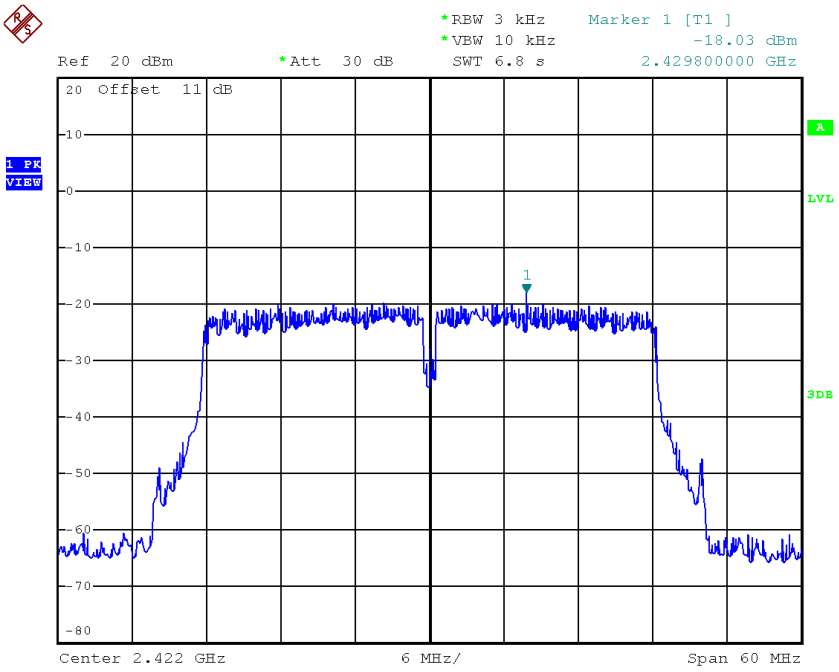
TX CH11



Date: 7.AUG.2017 15:52:37

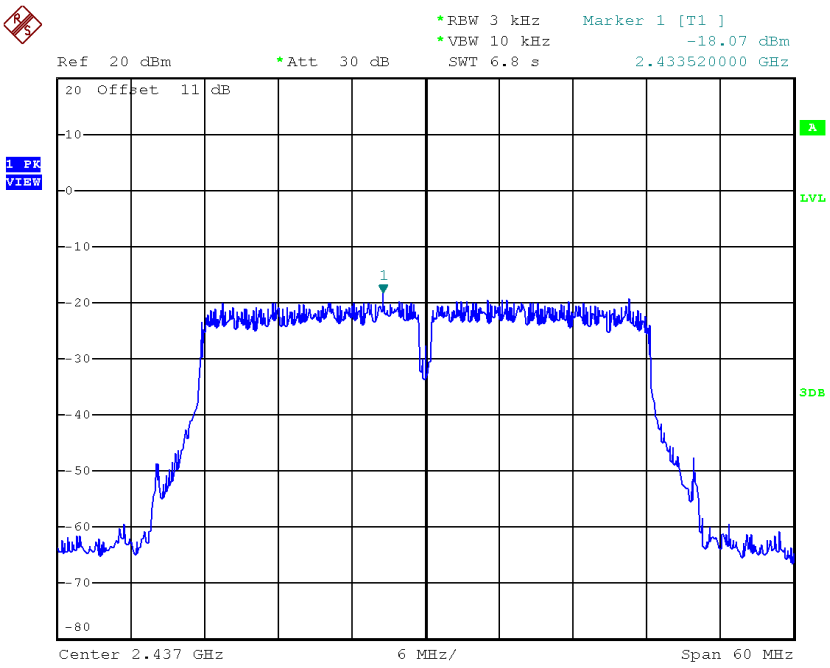
Test Mode : TX N-40M Mode_CH03/06/09				
Frequency (MHz)	Power Density (dBm/3kHz)	Power Density (mW/3kHz)	Max. Limit (dBm/3kHz)	Result
2422	-18.03	0.0157	8.00	Complies
2437	-18.07	0.0156	8.00	Complies
2452	-18.24	0.0150	8.00	Complies

TX CH03



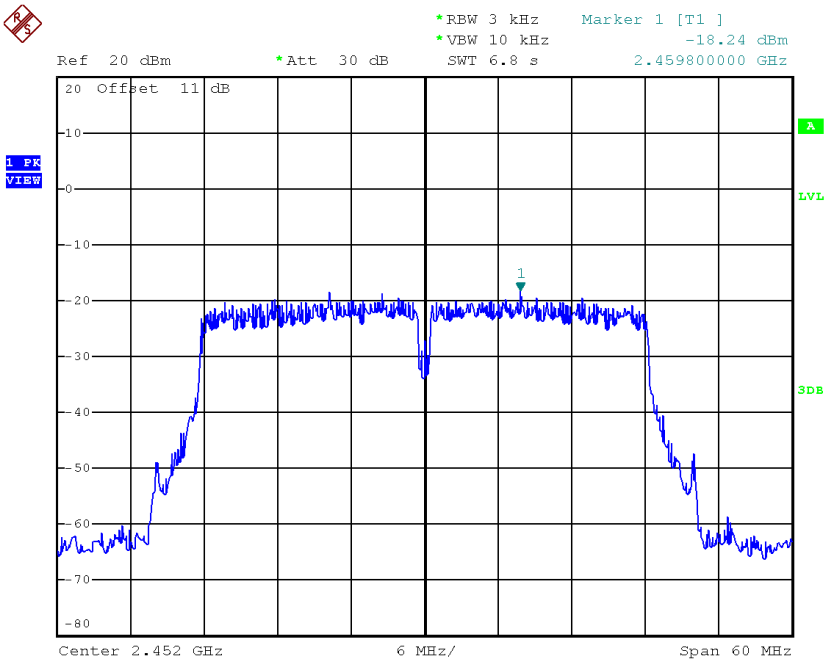
Date: 7.AUG.2017 15:54:28

TX CH06



Date: 7.AUG.2017 15:58:59

TX CH09



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