FCC Radio Test Report

FCC ID: M82-DLV6210

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

Project No.	:	1608164
Equipment	:	Computer
Test Model	:	DLT-V6210
Series Model	:	DLTV6210XXXXXXXXXXXXXX (where X may be any alphanumeric character, blank or "-".)
Applicant	:	Advantech Co., Ltd.
Address	:	No.1, Alley 20, Lane 26, Rueiguang Road, Neihu District, Taipei 11491, Taiwan, R.O.C.

Date of Receipt	:	Oct. 07, 2016
Date of Test	:	Oct. 07, 2016 ~ Nov. 22, 2016
Issued Date	:	Nov. 24, 2016
Tested by	:	BTL Inc.

Testing Engineer : Rush Kao
(Rush Kao)

Technical Manager : Jeff Yang
(Jeff Yang)

Authorized Signatory : Andy Chiu
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Declaration

BTL represents to the client that testing is done in accordance with standard procedures as applicable and that test instruments used has been calibrated with standards traceable to international standard(s) and/or national standard(s).

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Limitation

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

Table of Contents Page

REPORT ISSUED HISTORY

Issued No.	Description	Issued Date
BTL-FCCP-3-1608164	Original Issue.	Nov. 24, 2016

1. CERTIFICATION

Equipment	:	Computer
Brand Name	:	ADVANTECH
Test Model	:	DLT-V6210
Series Model	:	DLTV6210XXXXXXXXXXXXX (where X may be any alphanumeric character, blank or "-".)
Applicant	:	Advantech Co., Ltd.
Manufacturer	:	Advantech Co., Ltd.
Address	:	No.1, Alley 20, Lane 26, Rueiguang Road, Neihu District, Taipei 11491, Taiwan, R.O.C.
Date of Test	:	Oct. 07, 2016 ~ Nov. 22, 2016
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-3-1608164) 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).

Test results included in this report is only for the WLAN part.

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	
15.209/15.205	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	3.06

B. Radiated emission test:

Test Site	Method	Measurement Frequency Range	U,(dB)
CB15 (3m)	CISPR	9kHz ~ 150kHz	2.96
		150kHz ~ 30MHz	2.74

Test Site	Method	Measurement Frequency Range	Ant.	U,(dB)
CB15 (3m)	CISPR	30MHz ~ 200MHz	V	4.76
		30MHz ~ 200MHz	H	4.28
		200MHz ~ 1,000MHz	V	5.08
		200MHz ~ 1,000MHz	H	4.50

Test Site	Method	Measurement Frequency Range	Ant.	U,(dB)
CB15 (3m)	CISPR	1GHz ~ 6GHz	V	4.48
		1GHz ~ 6GHz	H	4.50
		6GHz ~ 18GHz	V	4.30
		6GHz ~ 18GHz	H	4.14

Test Site	Method	Measurement Frequency Range	U,(dB)
CB15 (1m)	CISPR	18 ~ 26.5 GHz	4.72
		26.5 ~ 40 GHz	5.20

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	Computer	
Brand Name	ADVANTECH	
Test Model	DLT-V6210	
Series Model	DLTV6210XXXXXXXXXXXXXX (where X may be any alphanumeric character, blank or "-".)	
Model Difference	Different model distribute to different area.	
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: 20.95 dBm 802.11g: 27.24 dBm 802.11n(20MHz): 26.20 dBm 802.11n(40MHz): 25.92 dBm
Power Source	Supplied from DC power.	
Power Rating	EUT I/P: DC 9V-60V	

Note:

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

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

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

3. Table for Filed Antenna

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)	Note
1	ADVANTECH	Y6AGIK79376200	PCB	IPEX	6.5	TX/RX
2	ADVANTECH	Y6AGIK79376200	PCB	IPEX	6.5	TX/RX

Note:

(1) The EUT incorporates a MIMO function. Physically, the EUT provides two completed transmitters and receivers (2T2R) and employs Cyclic Delay Diversity (CDD).
In CDD mode,
For power spectral density:
Direction gain (dBi) = G_{ANT} + 10 log(N_{ANT}) = 6.5 + 10 log(2) = 9.51
The reduced power spectral density limits (dBm/MHz) = 8 - (9.51-6) = 4.49

For conducted power:
For N_{ANT} = 2 < 5,
Direction gain (dBi) = G_{ANT} + 0 = 6.5 + 0 = 6.5
The reduced conducted power limits (dBm) = 30 - (6.5-6) = 29.5

(2) For IEEE 802.11b/g/n mode (2TX/2RX):
Both Ant. 1 and Ant. 2 can be used as transmitting/receiving antenna.
Ant. 1 and Ant. 2 could both transmit/receive simultaneously.

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 (13Mbps)
802.11n HT40 mode : BPSK (27Mbps)
For radiated emission tests, the highest output powers were set for final test.

(3) For radiated below 1GHz test, the 802.11b is found to be the worst case and recorded.

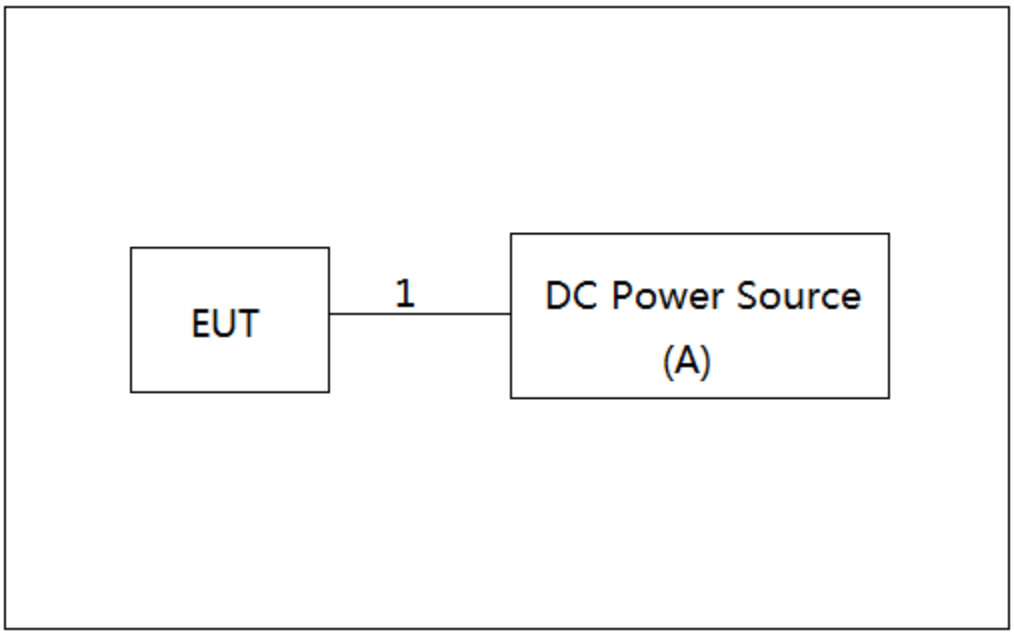
(4) The EUT was programmed to be in continuously transmitting mode and the transmit duty cycle is not less than 98%.

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	Atheros Radio Test 2		
Frequency (MHz)	2412	2437	2462
802.11b	15	15.5	15
802.11g	11.5	14	13
802.11n (20MHz)	11	13	12.5
Frequency	2422	2437	2452
802.11n (40MHz)	8.5	12.5	10.5

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	Switch Mode Power Supply	Twintex	TDS-60-15	N/A	G27120155

Item	Shielded Type	Ferrite Core	Length	Note
1	NA	NA	1.5m	Power 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

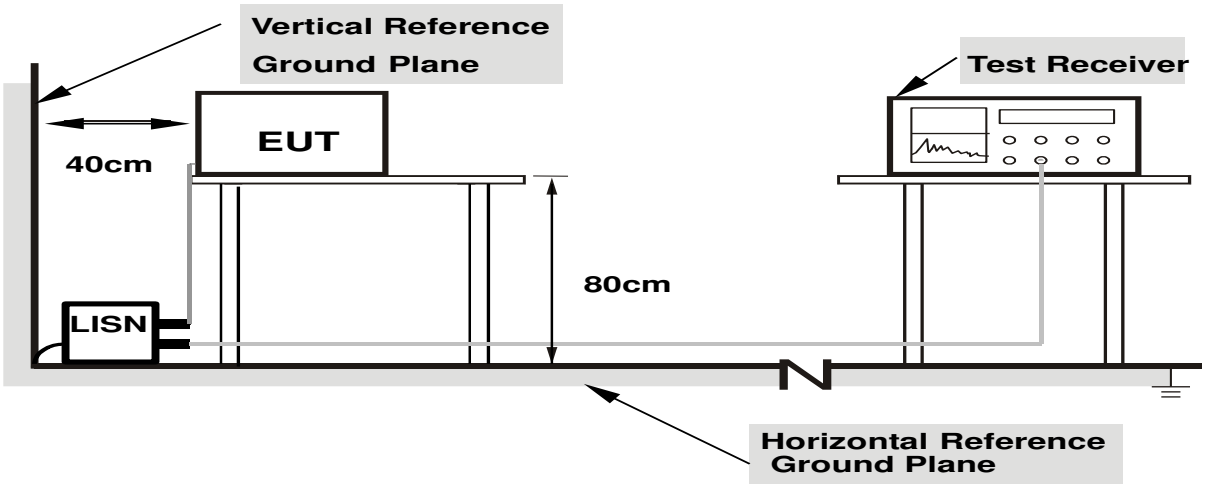
4.1.2 TEST PROCEDURE

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



Note: 1.Support units were connected to second LISN.
2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

4.1.5 EUT OPERATING CONDITIONS

The EUT was 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 Attachment 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

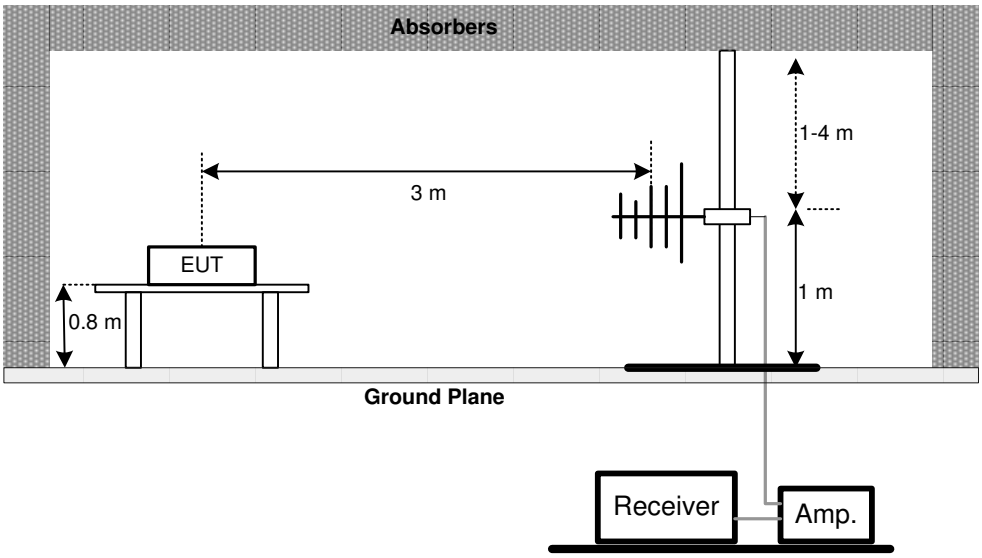
a. The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(below 1GHz)
b. The measuring distance 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 0.8m 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.
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

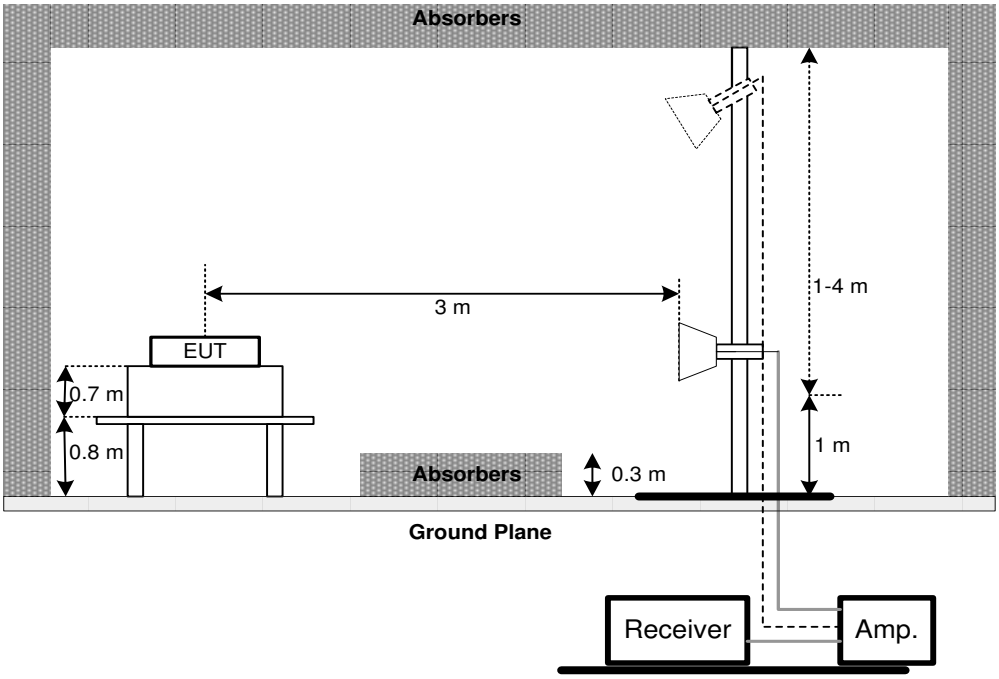
No deviation

4.2.4 TEST SETUP

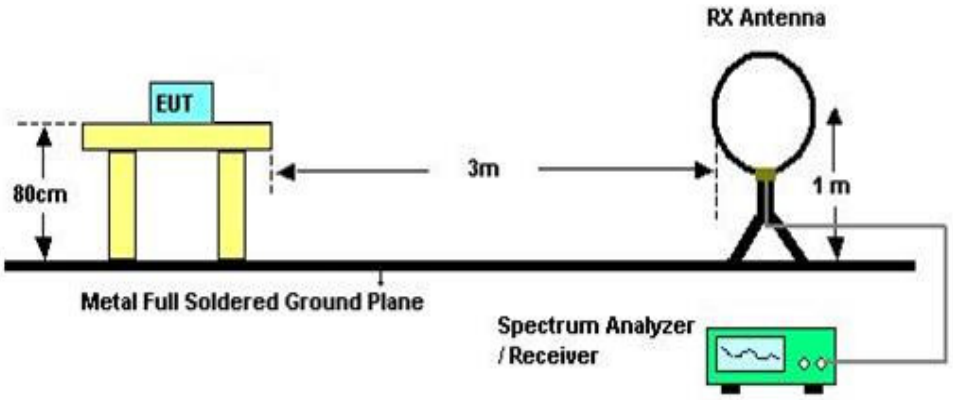
(A) Radiated Emission Test Set-Up Frequency Below 1 GHz



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

4.2.7 TEST RESULTS (9KHZ TO 30MHZ)

Please refer to the Attachment B

Remark:

(1) The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.
(2) Distance extrapolation factor = 40 log (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 Attachment C.

4.2.9 TEST RESULTS (ABOVE 1000 MHZ)

Please refer to the Attachment D.

Remark:

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

5. BANDWIDTH TEST

5.1 APPLIED PROCEDURES

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

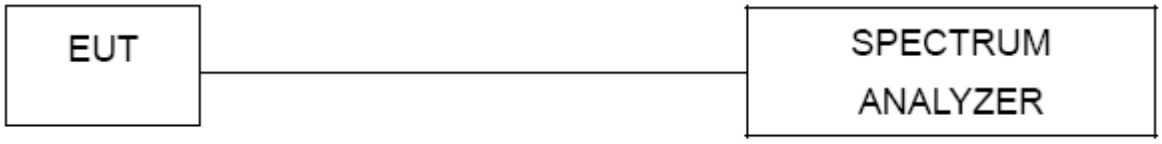
5.1.1 TEST PROCEDURE

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

5.1.2 DEVIATION FROM STANDARD

No deviation.

5.1.3 TEST SETUP



5.1.4 EUT OPERATION CONDITIONS

The EUT 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 Attachment E.

6. MAXIMUM PEAK CONDUCTED OUTPUT POWER TEST

6.1 APPLIED PROCEDURES / LIMIT

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

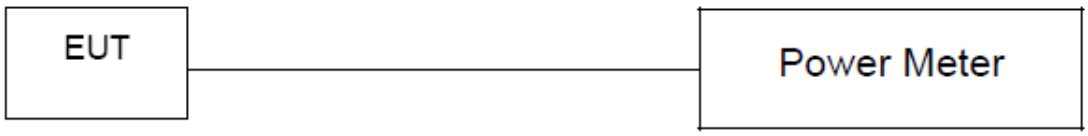
6.1.1 TEST PROCEDURE

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

7. ANTENNA CONDUCTED SPURIOUS EMISSION

7.1 APPLIED PROCEDURES / LIMIT

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated 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.

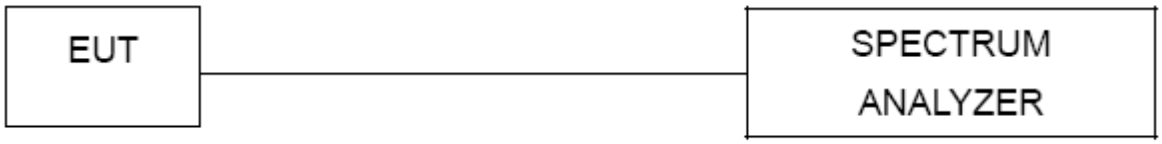
7.1.1 TEST PROCEDURE

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 Attachment G.

8. POWER SPECTRAL DENSITY TEST

8.1 APPLIED PROCEDURES / LIMIT

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

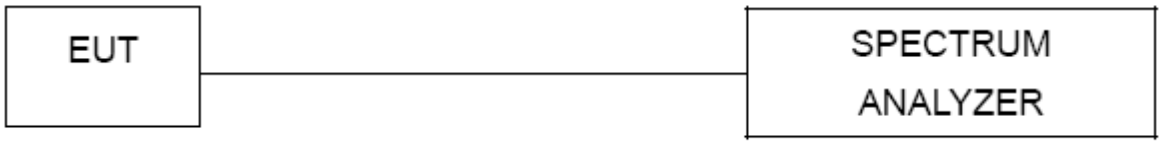
8.1.1 TEST PROCEDURE

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

8.1.2 DEVIATION FROM STANDARD

No deviation.

8.1.3 TEST SETUP



8.1.4 EUT OPERATION CONDITIONS

The EUT 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 Attachment 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. 26, 2017
2	Test Cable	TIMES	CFD300-NL	C02	Jun. 15, 2017
3	EMI Test Receiver	R&S	ESR7	101433	Dec. 10, 2016
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	Mar. 01, 2017
2	Preamplifier	EMCI	EMC02325	980217	Dec. 30, 2016
3	Test Cable	EMCI	EMC104-SM-SM-8000	8m	Jan. 05, 2017
4	Test Cable	EMCI	EMC104-SM-SM-800	150207	Jan. 05, 2017
5	Test Cable	EMCI	EEMC104-SM-SM-3000	151205	Jan. 05, 2017
6	MXE EMI Receiver	Agilent	N9038A	MY54201277	Jan. 08, 2017
7	Signal Analyzer	Agilent	N9010A	MY52220990	Feb. 23, 2017
8	Loop Ant	EMCO	6502	42960	Nov. 24, 2017
9	Horm Ant	SCHWARZBECK	BBHA 9120D	9120D-1342	Mar. 01, 2017
10	Horm Ant	Schwarzbeck	BBHA 9170	187	May 12, 2017
11	Trilog-Broadband Antenna	Schwarzbeck	VULB 9168	9168-548	Jan. 17, 2017
12	5dB Attenuator	EMCI	EMCI-N-6-05	AT-N0623	Jan. 17, 2017

6dB Bandwidth Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	Agilent	N9020A	MY51160196	Jul. 27, 2017

Peak Output Power Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Power Meter	Anritsu	ML2495A	1128008	Aug. 17, 2017
2	Power Sensor	Anritsu	MA2411B	1126001	Aug. 17, 2017

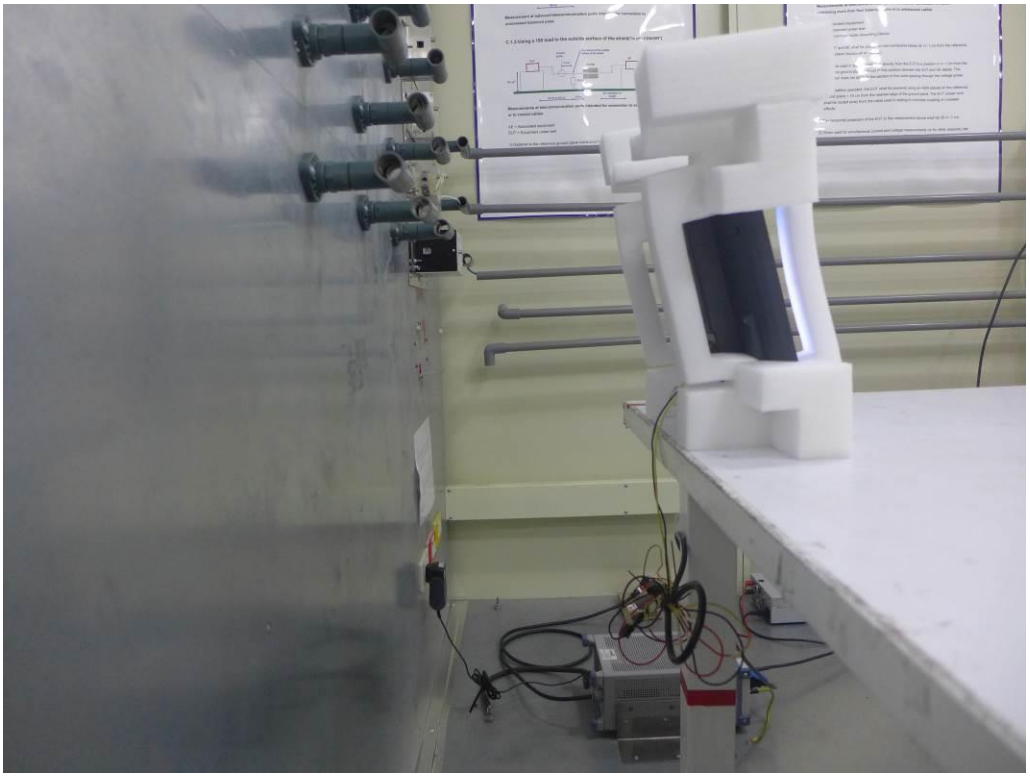
Antenna Conducted Spurious Emission Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	Agilent	N9020A	MY51160196	Jul. 27, 2017

Power Spectral Density Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	Agilent	N9020A	MY51160196	Jul. 27, 2017

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

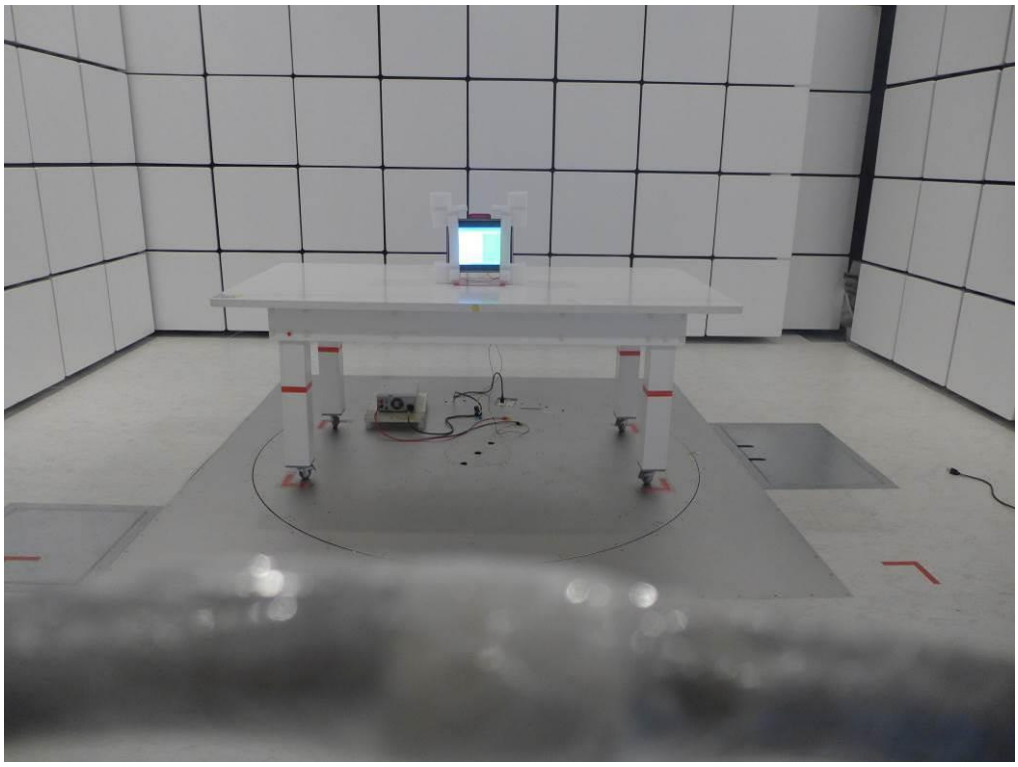
10. EUT TEST PHOTO

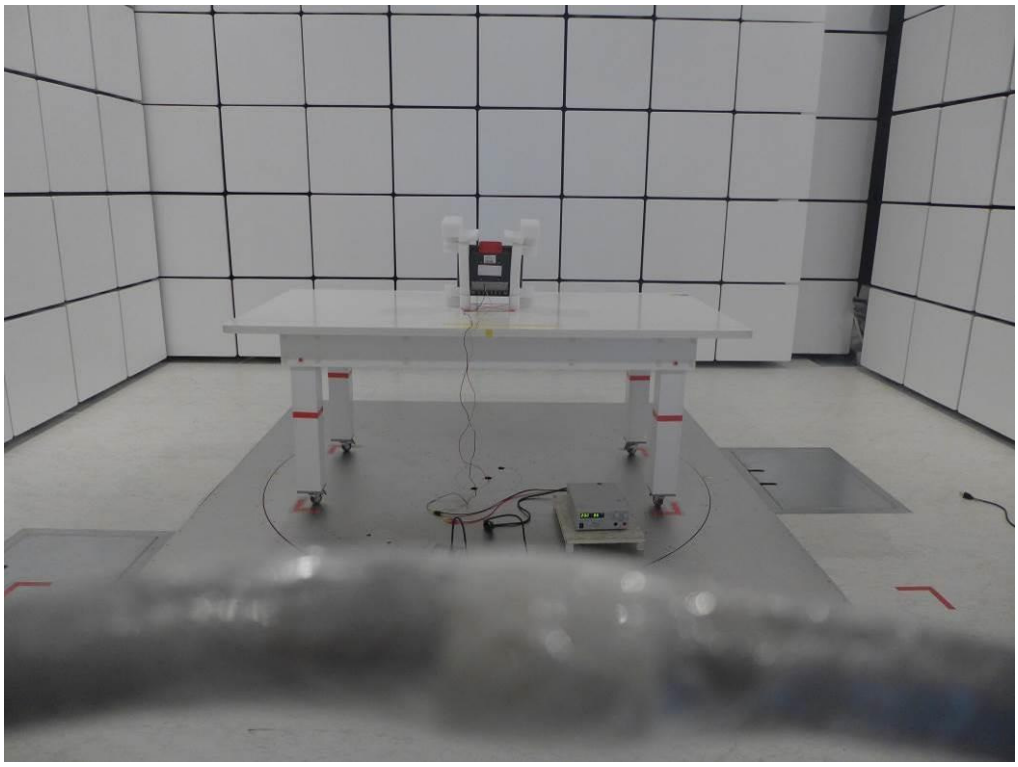
Conducted Measurement Photos



Radiated Measurement Photos

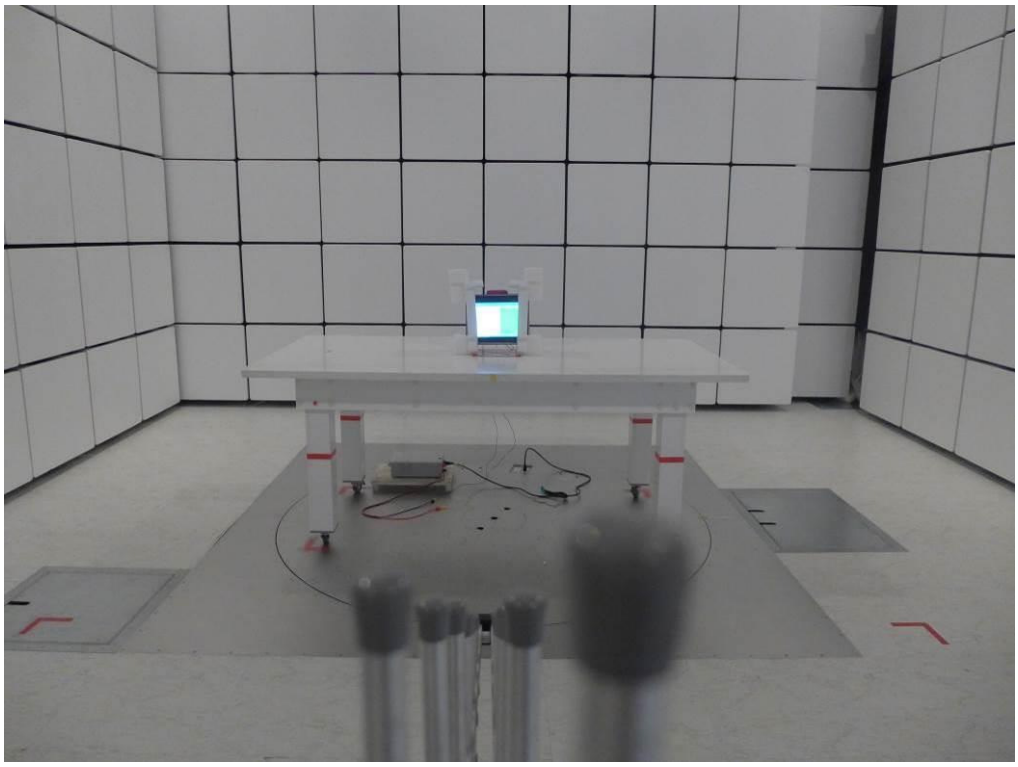
9KHz to 30MHz

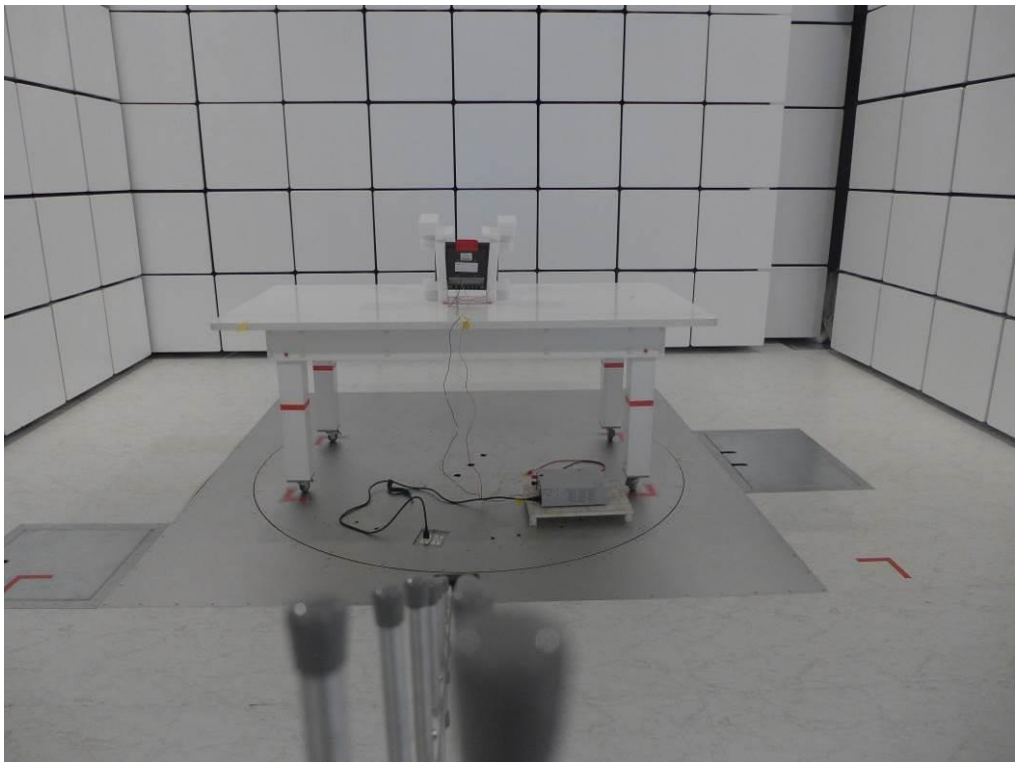




Radiated Measurement Photos

30MHz to 1000MHz





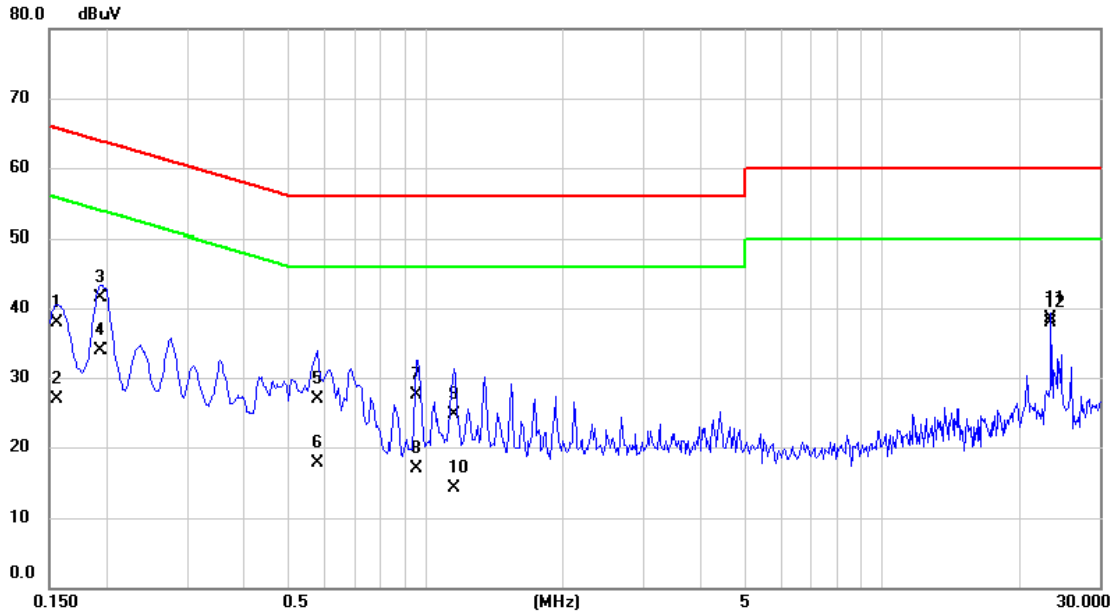
Radiated Measurement Photos

Above 1000MHz

ATTACHMENT A - CONDUCTED EMISSION

Test Mode:	TX Mode

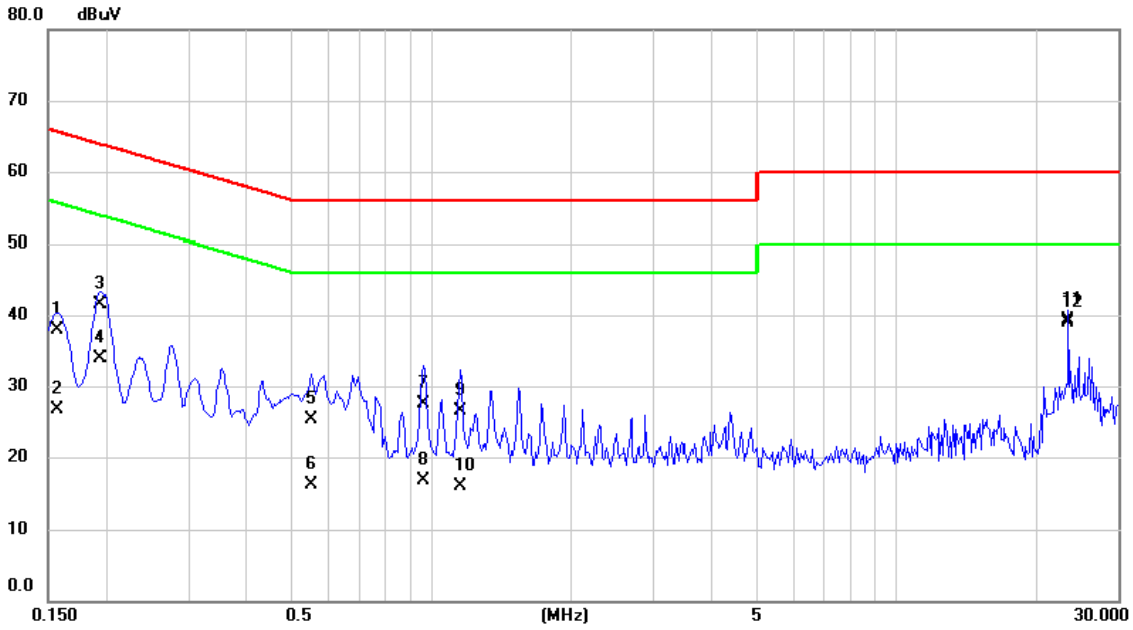
Line



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1563	28.20	9.66	37.86	65.66	-27.80	QP	
2		0.1563	17.20	9.66	26.86	55.66	-28.80	AVG	
3		0.1948	31.80	9.66	41.46	63.83	-22.37	QP	
4		0.1948	24.20	9.66	33.86	53.83	-19.97	AVG	
5		0.5810	17.20	9.67	26.87	56.00	-29.13	QP	
6		0.5810	8.10	9.67	17.77	46.00	-28.23	AVG	
7		0.9500	17.80	9.67	27.47	56.00	-28.53	QP	
8		0.9500	7.30	9.67	16.97	46.00	-29.03	AVG	
9		1.1480	15.00	9.68	24.68	56.00	-31.32	QP	
10		1.1480	4.40	9.68	14.08	46.00	-31.92	AVG	
11		23.3500	28.50	9.98	38.48	60.00	-21.52	QP	
12	*	23.3500	28.00	9.98	37.98	50.00	-12.02	AVG	

Test Mode:	TX Mode

Neutral

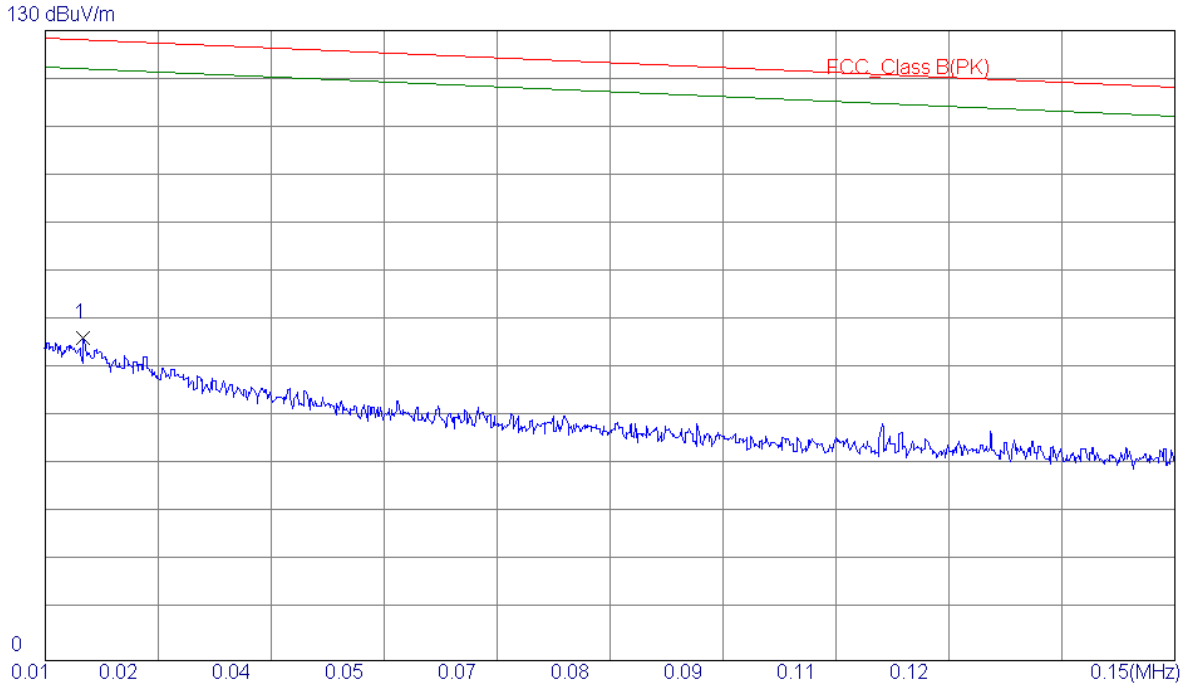


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1570	28.30	9.67	37.97	65.62	-27.65	QP	
2		0.1570	17.10	9.67	26.77	55.62	-28.85	AVG	
3		0.1948	31.90	9.66	41.56	63.83	-22.27	QP	
4		0.1948	24.20	9.66	33.86	53.83	-19.97	AVG	
5		0.5540	15.70	9.67	25.37	56.00	-30.63	QP	
6		0.5540	6.50	9.67	16.17	46.00	-29.83	AVG	
7		0.9590	17.90	9.68	27.58	56.00	-28.42	QP	
8		0.9590	7.10	9.68	16.78	46.00	-29.22	AVG	
9		1.1480	16.90	9.69	26.59	56.00	-29.41	QP	
10		1.1480	6.30	9.69	15.99	46.00	-30.01	AVG	
11		23.3500	29.30	9.98	39.28	60.00	-20.72	QP	
12	*	23.3500	29.00	9.98	38.98	50.00	-11.02	AVG	

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

Test Mode:	TX B MODE CHANNEL 01

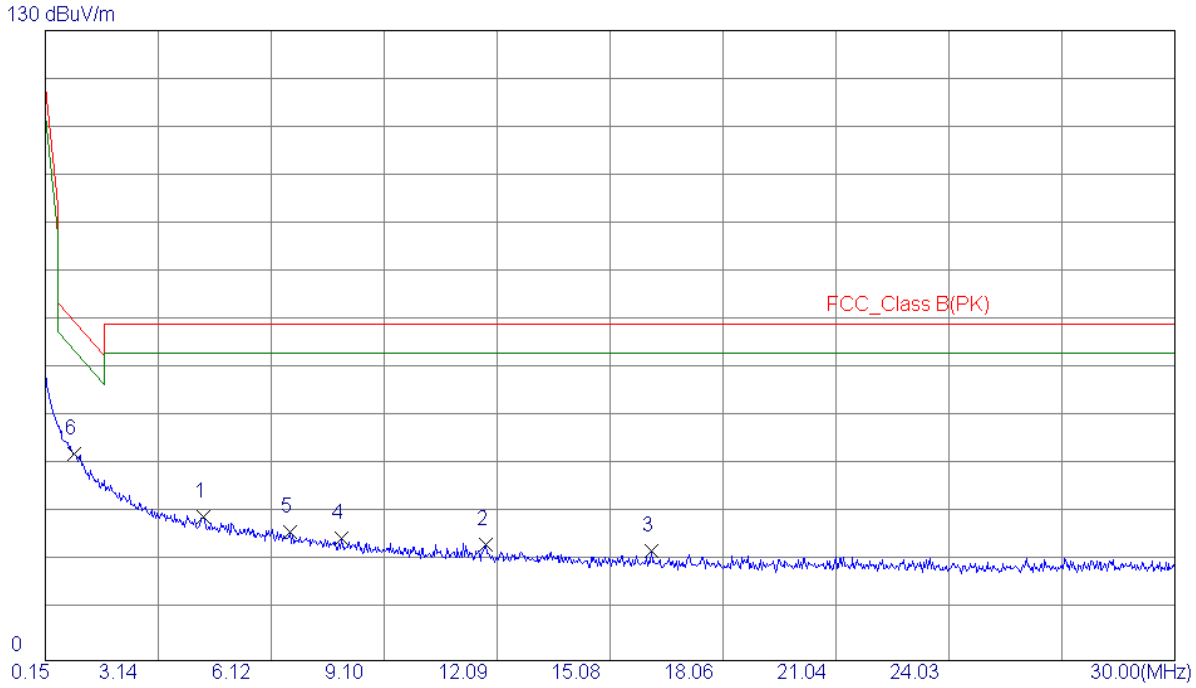
Ant 0°



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	0.0137	47.07	19.48	66.55	128.17	-61.62	Peak	

Test Mode:	TX B MODE CHANNEL 01

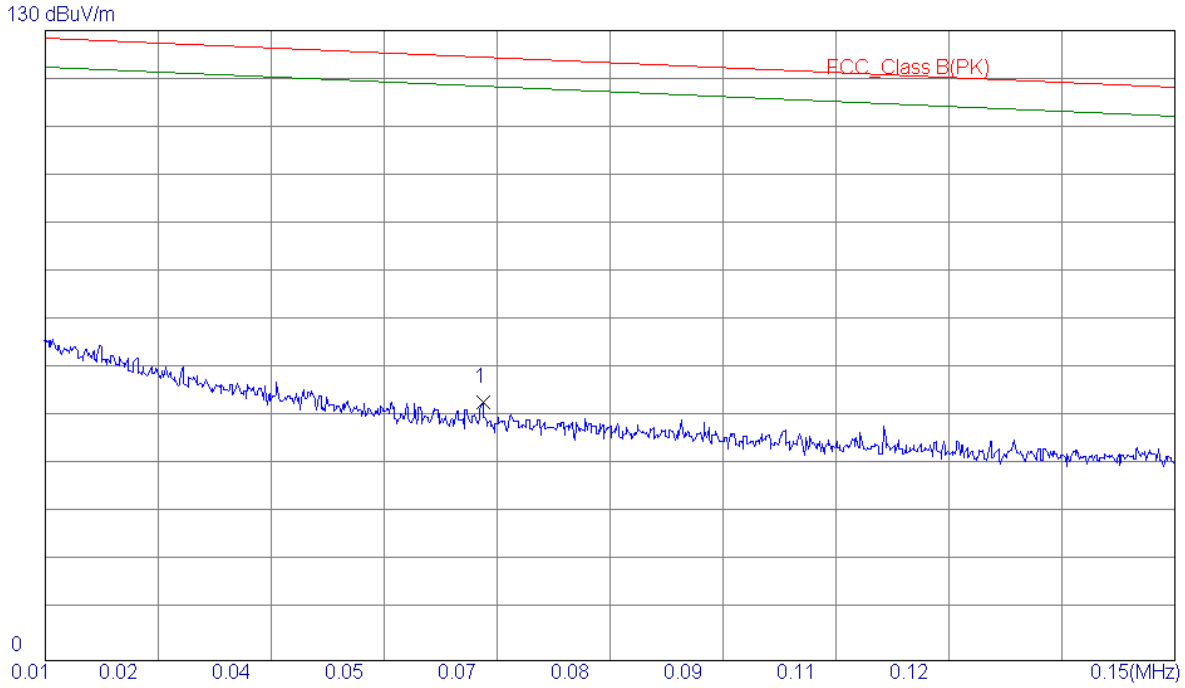
Ant 0°



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4.3290	18.38	11.30	29.68	69.54	-39.86	Peak	
2	11.7911	12.65	11.25	23.90	69.54	-45.64	Peak	
3	16.1794	11.63	11.11	22.74	69.54	-46.80	Peak	
4	7.9706	13.82	11.34	25.16	69.54	-44.38	Peak	
5	6.6272	15.26	11.37	26.63	69.54	-42.91	Peak	
6 *	0.9261	30.79	11.97	42.76	69.91	-27.15	Peak	

Test Mode:	TX B MODE CHANNEL 01

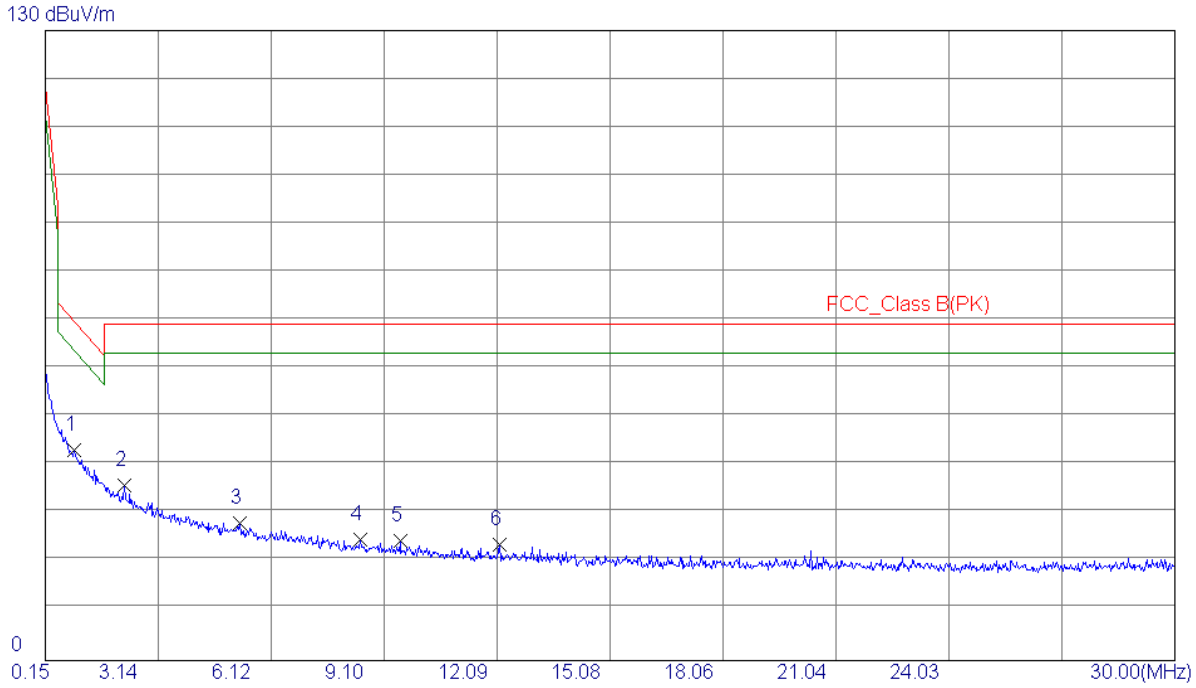
Ant 90°



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	0.0637	40.61	12.75	53.36	124.56	-71.20	Peak	

Test Mode:	TX B MODE CHANNEL 01

Ant 90°

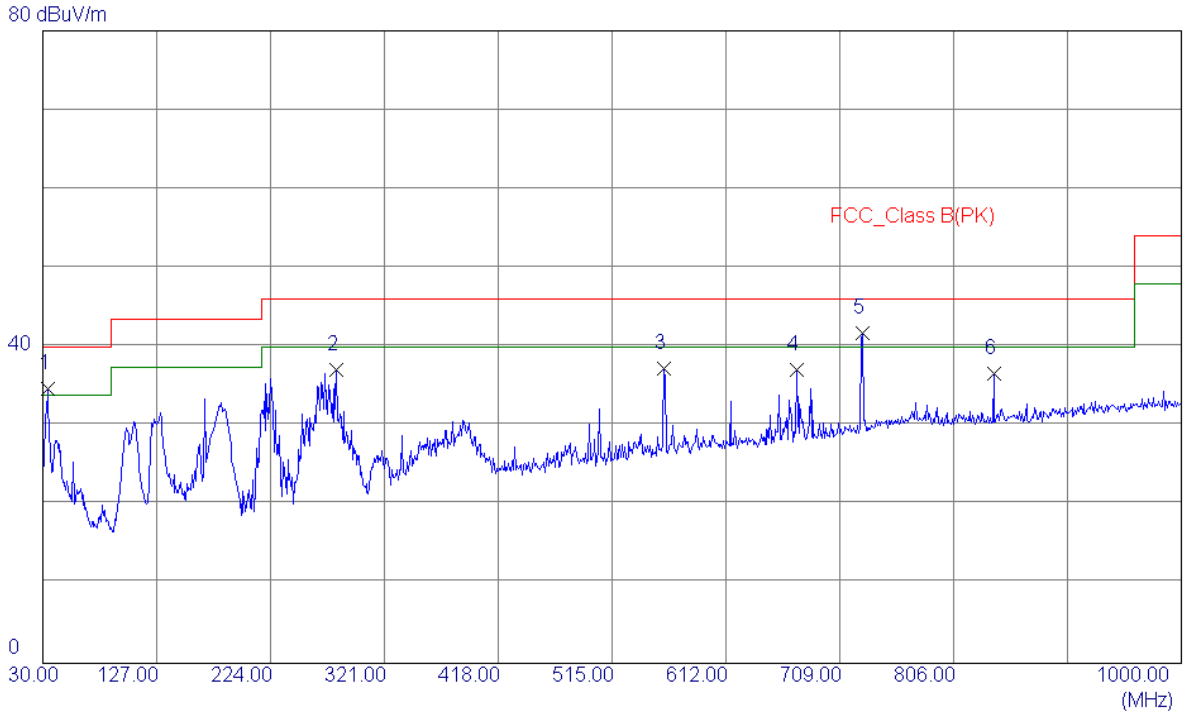


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	0.9261	31.48	11.97	43.45	69.91	-26.46	Peak	
2	2.2395	24.62	11.44	36.06	69.54	-33.48	Peak	
3	5.2842	16.97	11.39	28.36	69.54	-41.18	Peak	
4	8.4780	13.54	11.33	24.87	69.54	-44.67	Peak	
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	

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

Test Mode:	TX B MODE CHANNEL 01

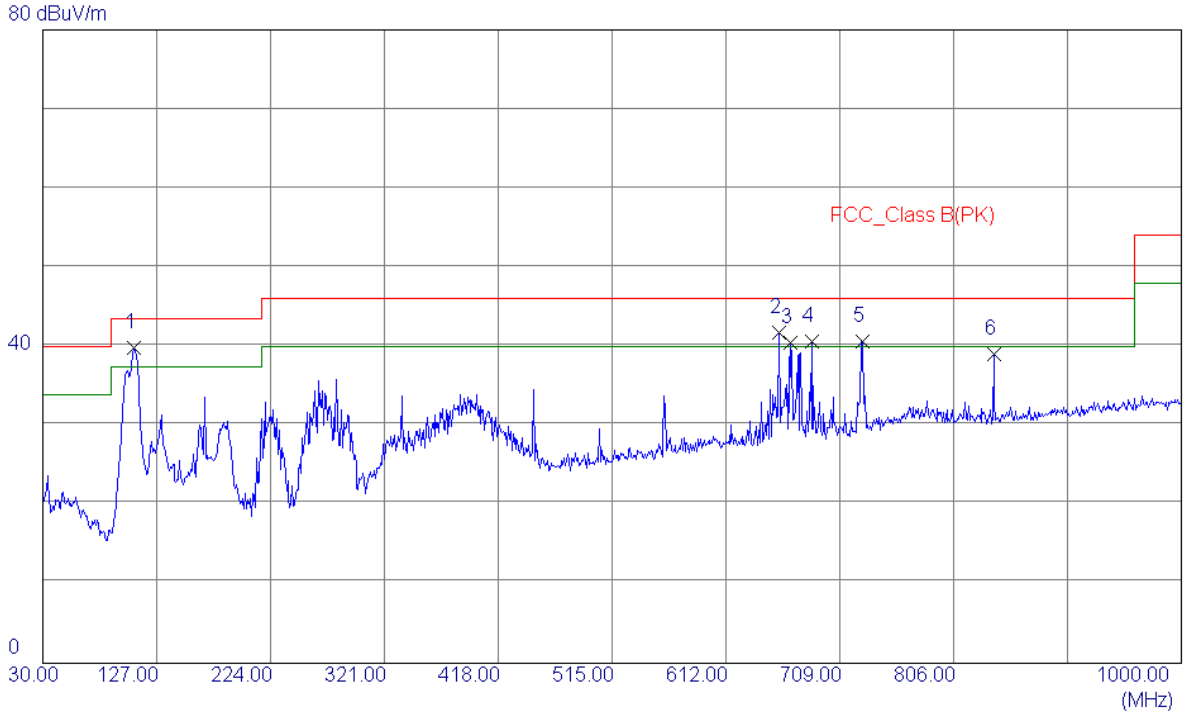
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	33.8800	43.75	-9.08	34.67	40.00	-5.33	Peak	
2	280.2600	45.34	-8.22	37.12	46.00	-8.88	Peak	
3	559.6200	38.88	-1.67	37.21	46.00	-8.79	Peak	
4	672.1400	36.87	0.25	37.12	46.00	-8.88	Peak	
5 *	728.4000	40.28	1.45	41.73	46.00	-4.27	Peak	
6	839.9500	33.69	2.98	36.67	46.00	-9.33	Peak	

Test Mode:	TX B MODE CHANNEL 01

Horizontal

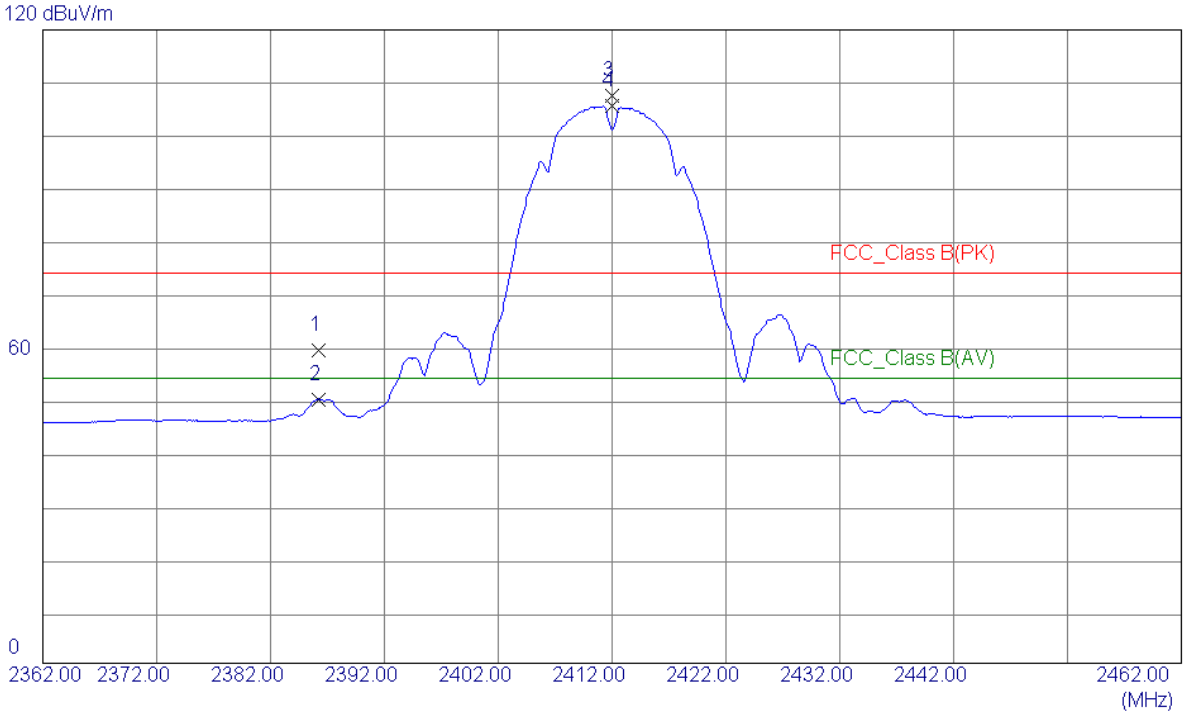


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	107.6000	51.52	-11.66	39.86	43.50	-3.64	Peak	
2	657.5900	41.76	-0.06	41.70	46.00	-4.30	Peak	
3	667.2900	40.28	0.15	40.43	46.00	-5.57	Peak	
4	685.7199	40.12	0.55	40.67	46.00	-5.33	Peak	
5	728.4000	39.25	1.45	40.70	46.00	-5.30	Peak	
6	839.9500	36.11	2.98	39.09	46.00	-6.91	Peak	

ATTACHMENT D - RADIATED EMISSION (ABOVE 1000MHZ)

Test Mode :	TX B MODE 2412MHz

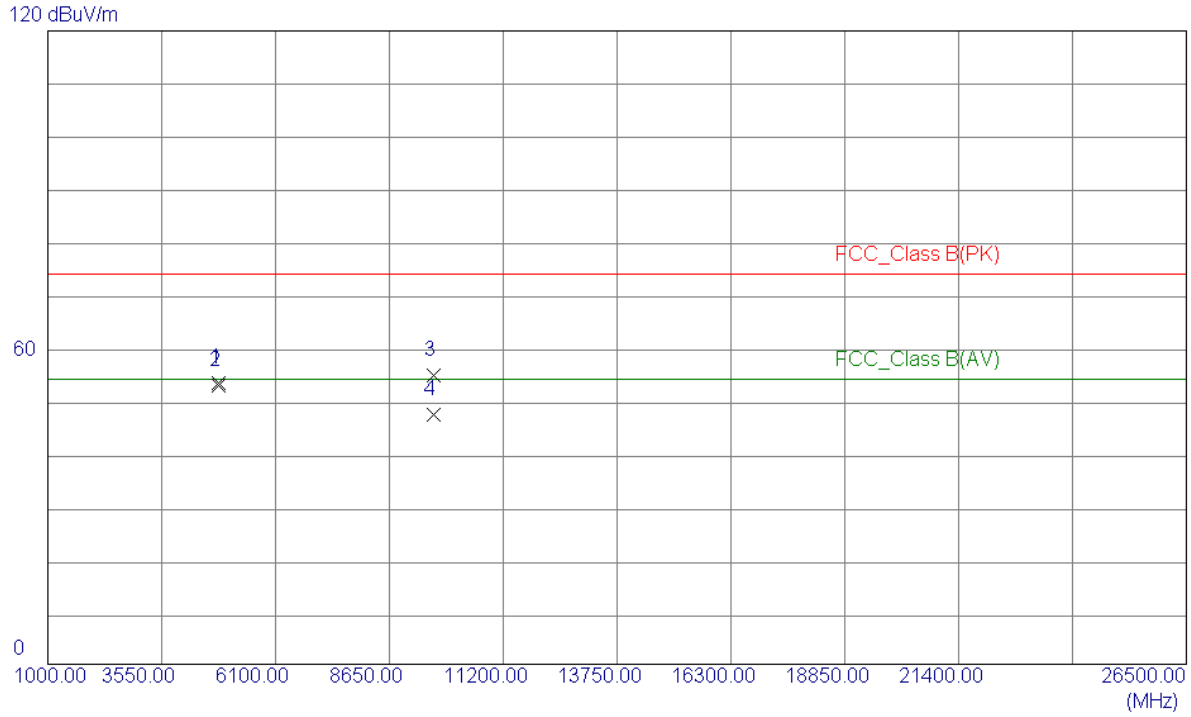
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2386.2480	28.24	30.95	59.19	74.00	-14.81	Peak	
2	2386.2480	19.08	30.95	50.03	54.00	-3.97	AVG	
3	2412.0000	76.55	31.05	107.60	74.00	33.60	Peak	No Limit
4 *	2412.0000	74.45	31.05	105.50	54.00	51.50	AVG	No Limit

Test Mode :	TX B MODE 2412MHz

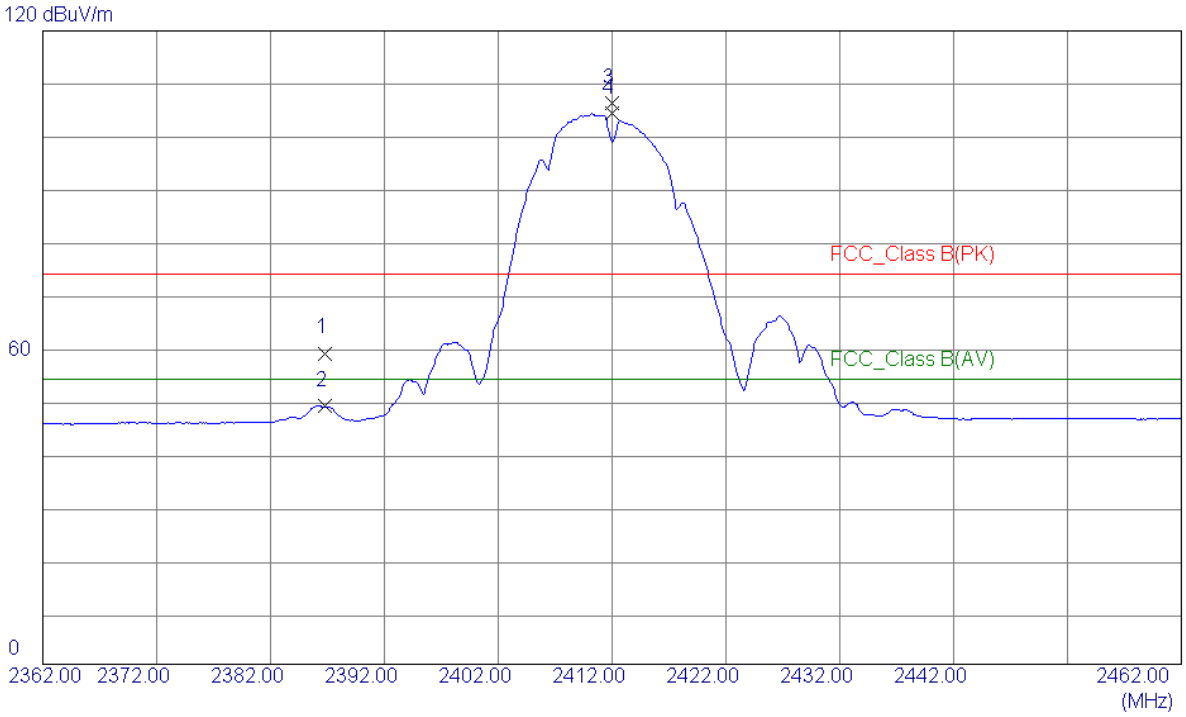
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4824.0000	64.86	-11.47	53.39	74.00	-20.61	Peak	
2 *	4824.0000	64.21	-11.47	52.74	54.00	-1.26	AVG	
3	9648.0000	53.93	0.81	54.74	74.00	-19.26	Peak	
4	9648.0000	46.53	0.81	47.34	54.00	-6.66	AVG	

Test Mode :	TX B MODE 2412MHz

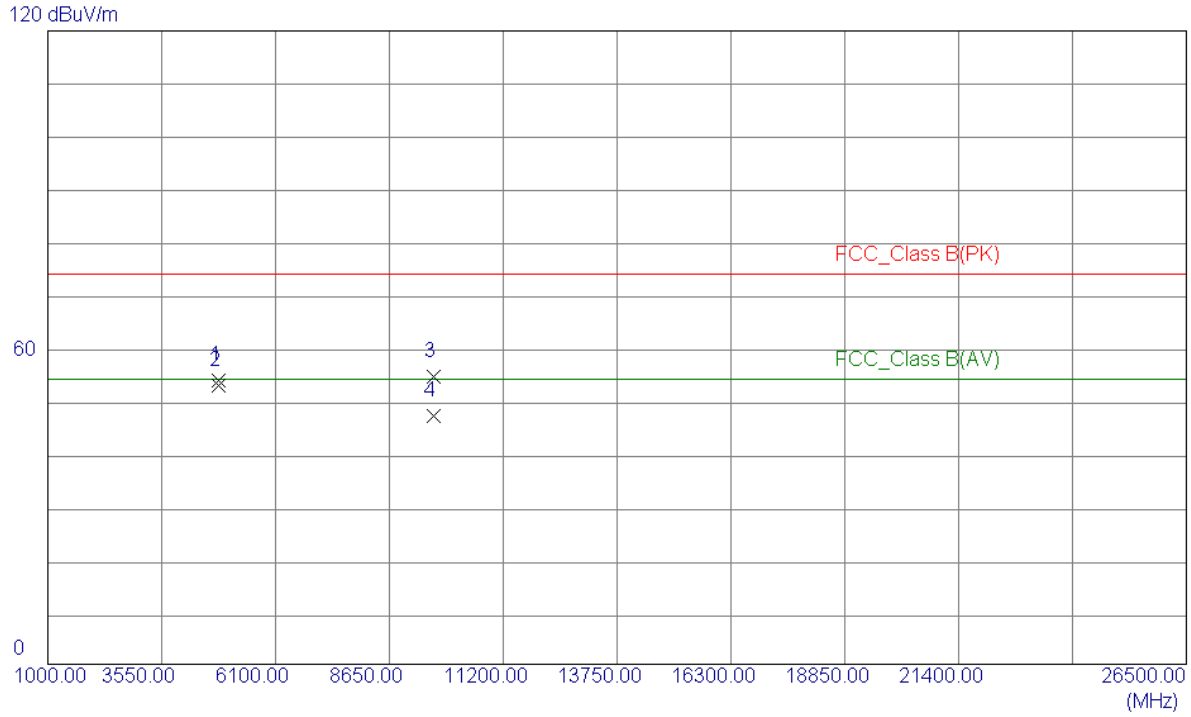
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2386.7520	27.97	30.95	58.92	74.00	-15.08	Peak	
2	2386.7520	17.99	30.95	48.94	54.00	-5.06	AVG	
3	2412.0000	75.24	31.05	106.29	74.00	32.29	Peak	No Limit
4 *	2412.0000	73.23	31.05	104.28	54.00	50.28	AVG	No Limit

Test Mode :	TX B MODE 2412MHz

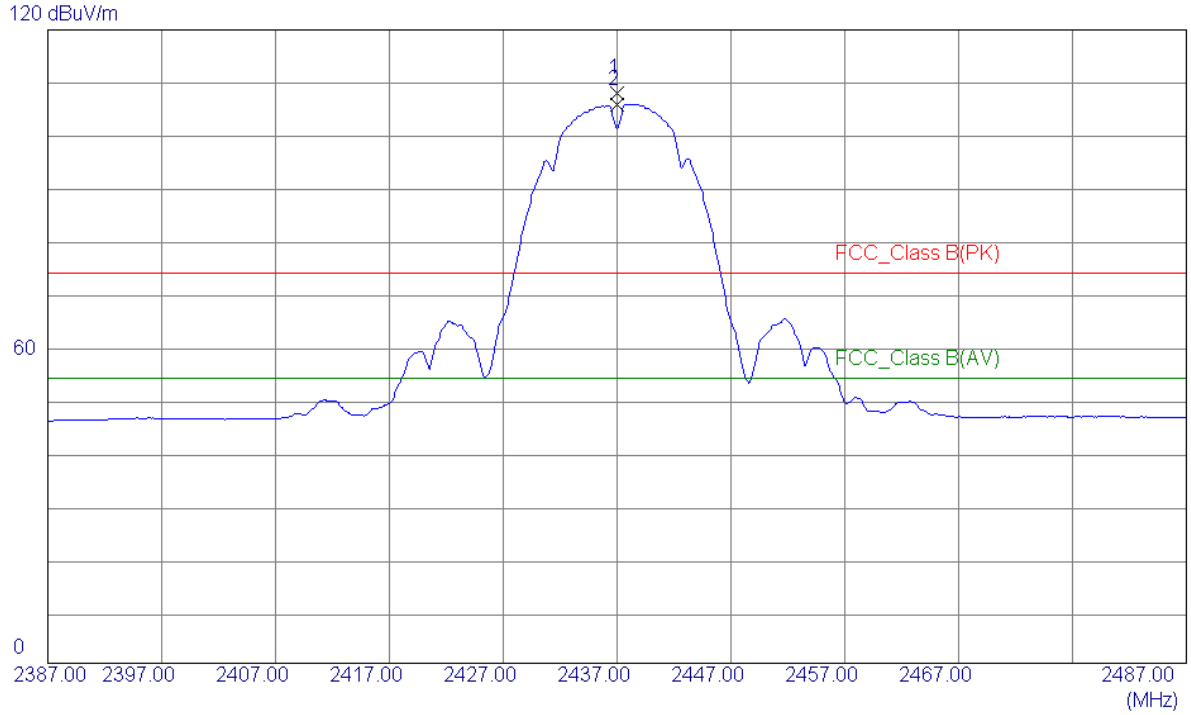
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4824.0000	65.17	-11.47	53.70	74.00	-20.30	Peak	
2 *	4824.0000	64.36	-11.47	52.89	54.00	-1.11	AVG	
3	9648.0000	53.69	0.81	54.50	74.00	-19.50	Peak	
4	9648.0000	46.16	0.81	46.97	54.00	-7.03	AVG	

Test Mode :	TX B MODE 2437MHz

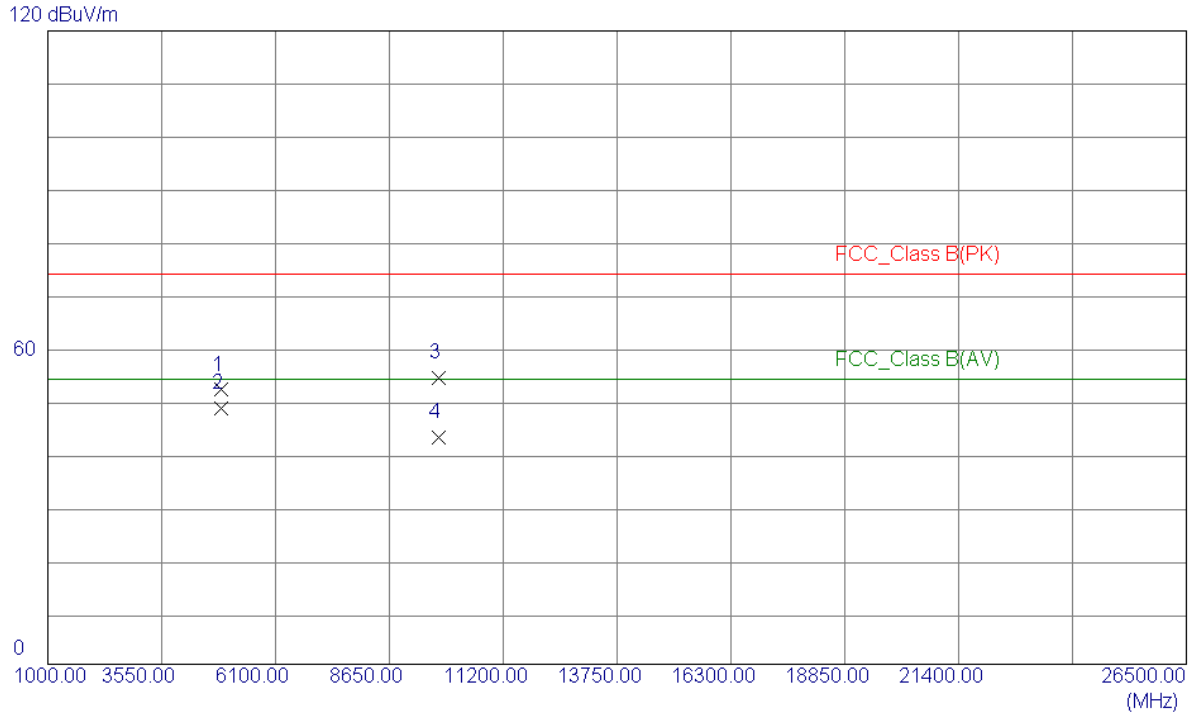
Vertical



No.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2437.0000	76.90	31.14	108.04	74.00	34.04	Peak	No Limit
2 *	2437.0000	74.80	31.14	105.94	54.00	51.94	AVG	No Limit

Test Mode :	TX B MODE 2437MHz

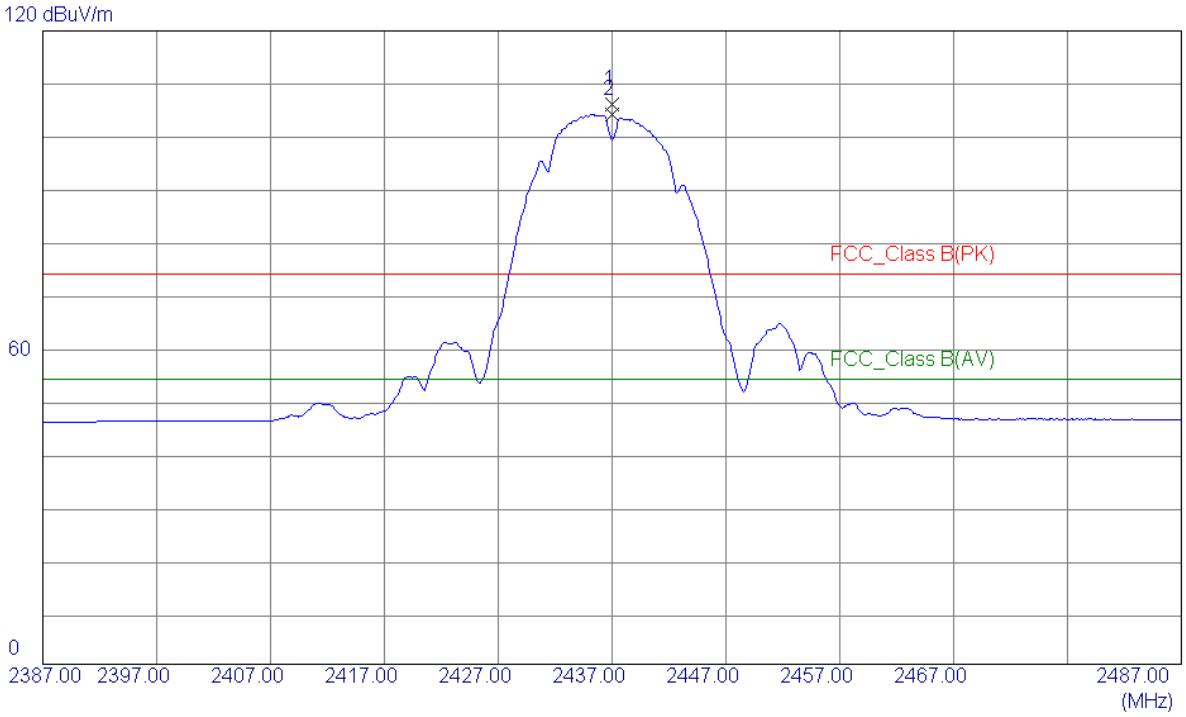
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4874.0000	63.35	-11.39	51.96	74.00	-22.04	Peak	
2 *	4874.0000	59.83	-11.39	48.44	54.00	-5.56	AVG	
3	9748.0000	53.05	1.10	54.15	74.00	-19.85	Peak	
4	9748.0000	41.81	1.10	42.91	54.00	-11.09	AVG	

Test Mode :	TX B MODE 2437MHz

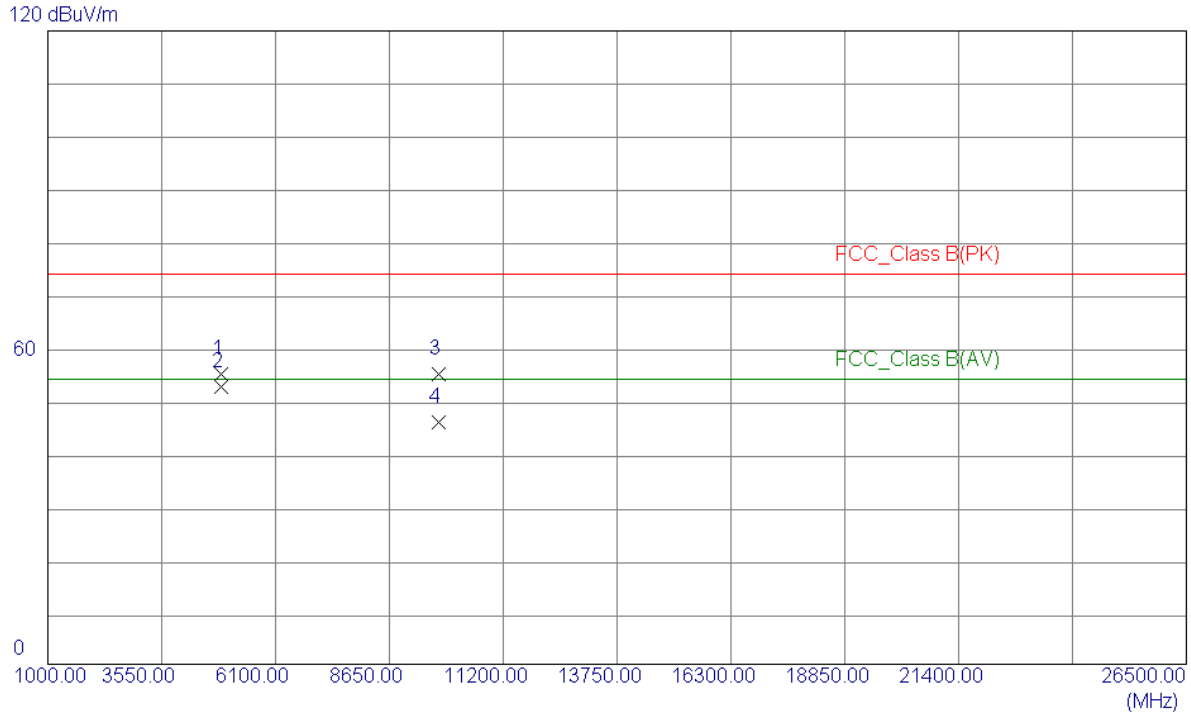
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2437.0000	74.95	31.14	106.09	74.00	32.09	Peak	No Limit
2 *	2437.0000	73.00	31.14	104.14	54.00	50.14	AVG	No Limit

Test Mode :	TX B MODE 2437MHz

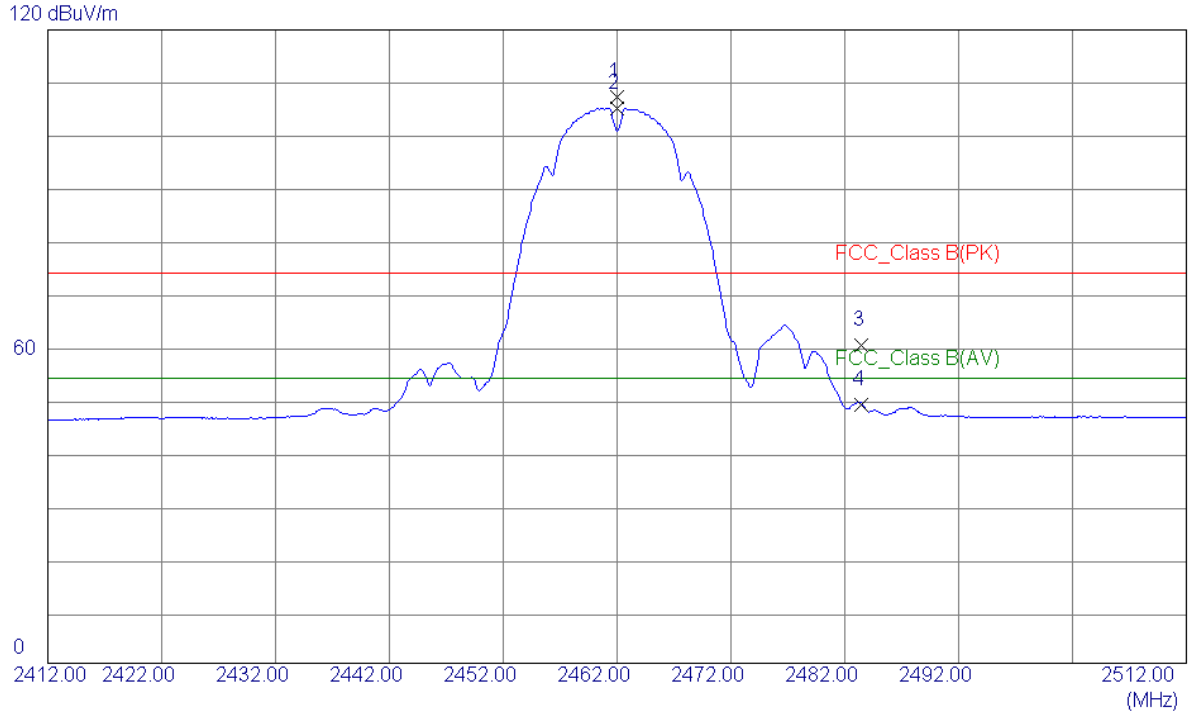
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4874.0000	66.36	-11.39	54.97	74.00	-19.03	Peak	
2 *	4874.0000	63.94	-11.39	52.55	54.00	-1.45	AVG	
3	9748.0000	53.96	1.10	55.06	74.00	-18.94	Peak	
4	9748.0000	44.68	1.10	45.78	54.00	-8.22	AVG	

Test Mode :	TX B MODE 2462MHz

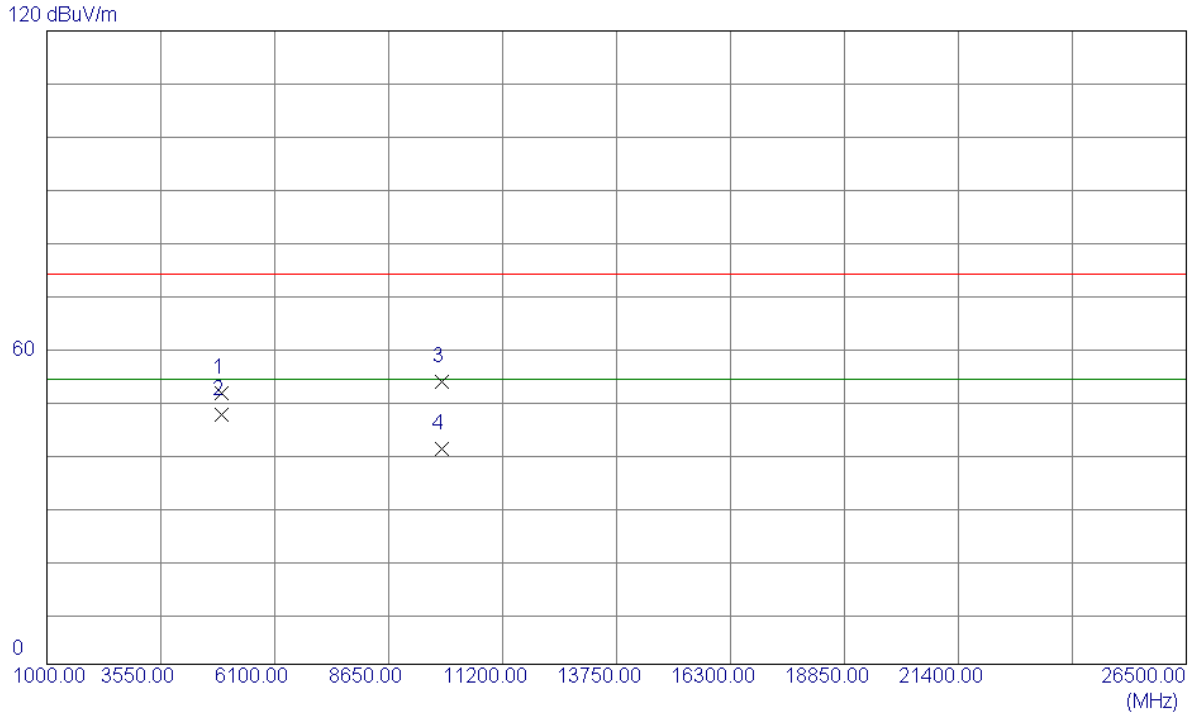
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2462.0000	76.06	31.23	107.29	74.00	33.29	Peak	No Limit
2 *	2462.0000	73.95	31.23	105.18	54.00	51.18	AVG	No Limit
3	2483.5000	28.91	31.31	60.22	74.00	-13.78	Peak	
4	2483.5000	17.73	31.31	49.04	54.00	-4.96	AVG	

Test Mode :	TX B MODE 2462MHz

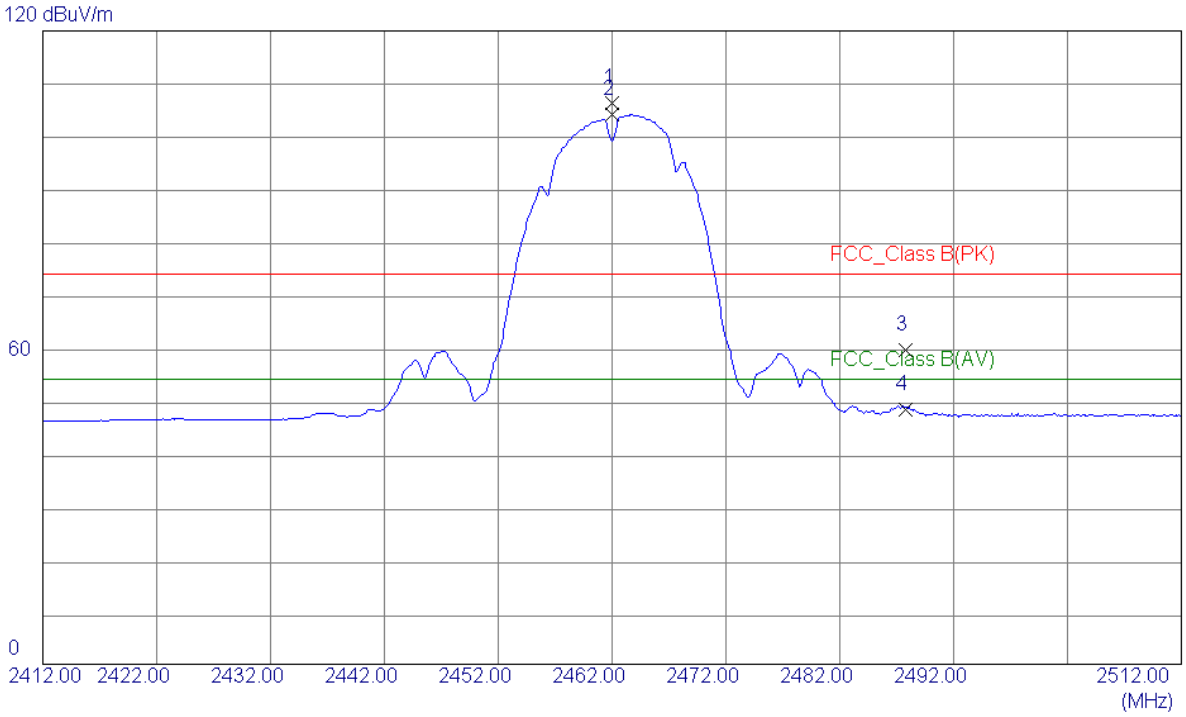
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4924.0000	62.62	-11.32	51.30	74.00	-22.70	Peak	
2 *	4924.0000	58.63	-11.32	47.31	54.00	-6.69	AVG	
3	9848.0000	52.13	1.39	53.52	74.00	-20.48	Peak	
4	9848.0000	39.51	1.39	40.90	54.00	-13.10	AVG	

Test Mode :	TX B MODE 2462MHz

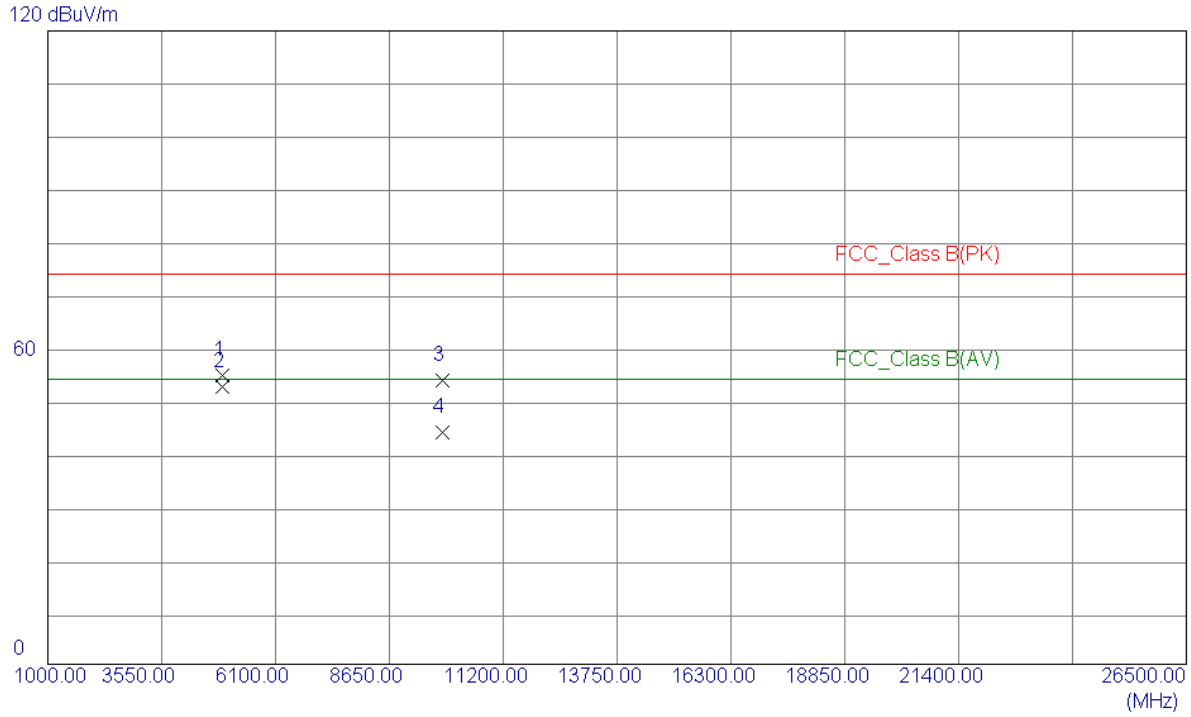
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2462.0000	74.98	31.23	106.21	74.00	32.21	Peak	No Limit
2 *	2462.0000	72.95	31.23	104.18	54.00	50.18	AVG	No Limit
3	2487.7730	28.15	31.32	59.47	74.00	-14.53	Peak	
4	2487.7730	16.84	31.32	48.16	54.00	-5.84	AVG	

Test Mode :	TX B MODE 2462MHz

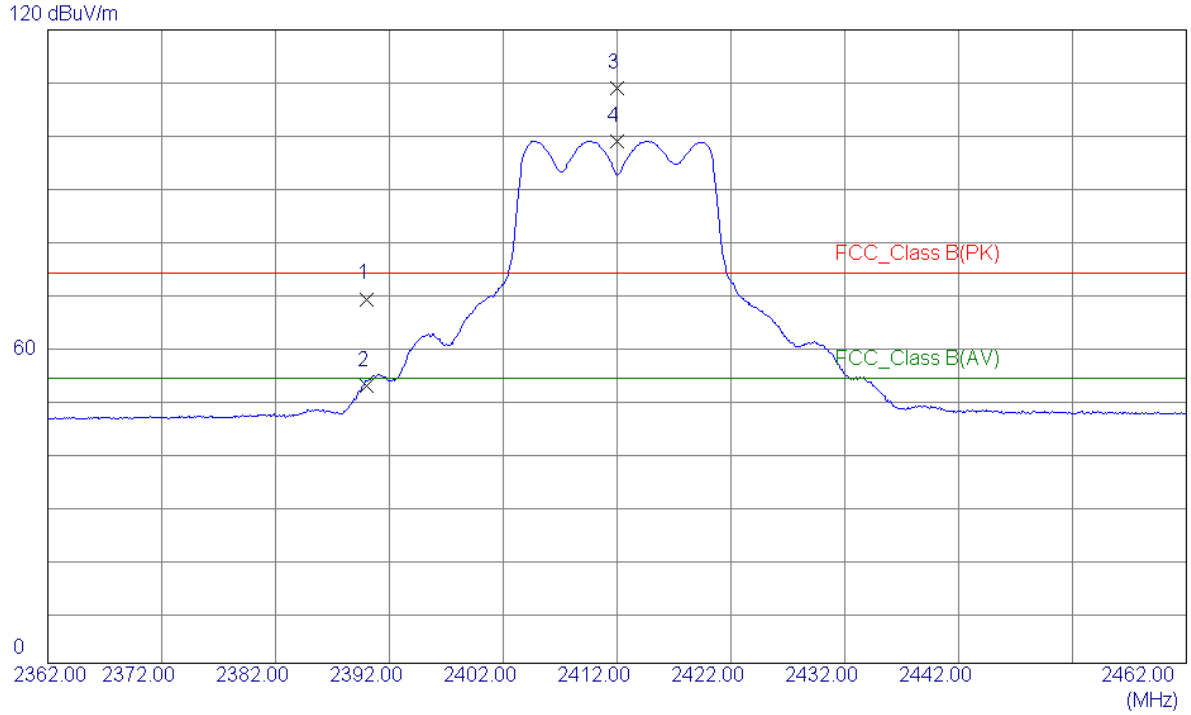
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4924.0000	65.98	-11.32	54.66	74.00	-19.34	Peak	
2 *	4924.0000	63.99	-11.32	52.67	54.00	-1.33	AVG	
3	9848.0000	52.43	1.39	53.82	74.00	-20.18	Peak	
4	9848.0000	42.44	1.39	43.83	54.00	-10.17	AVG	

Test Mode :	TX G MODE 2412MHz

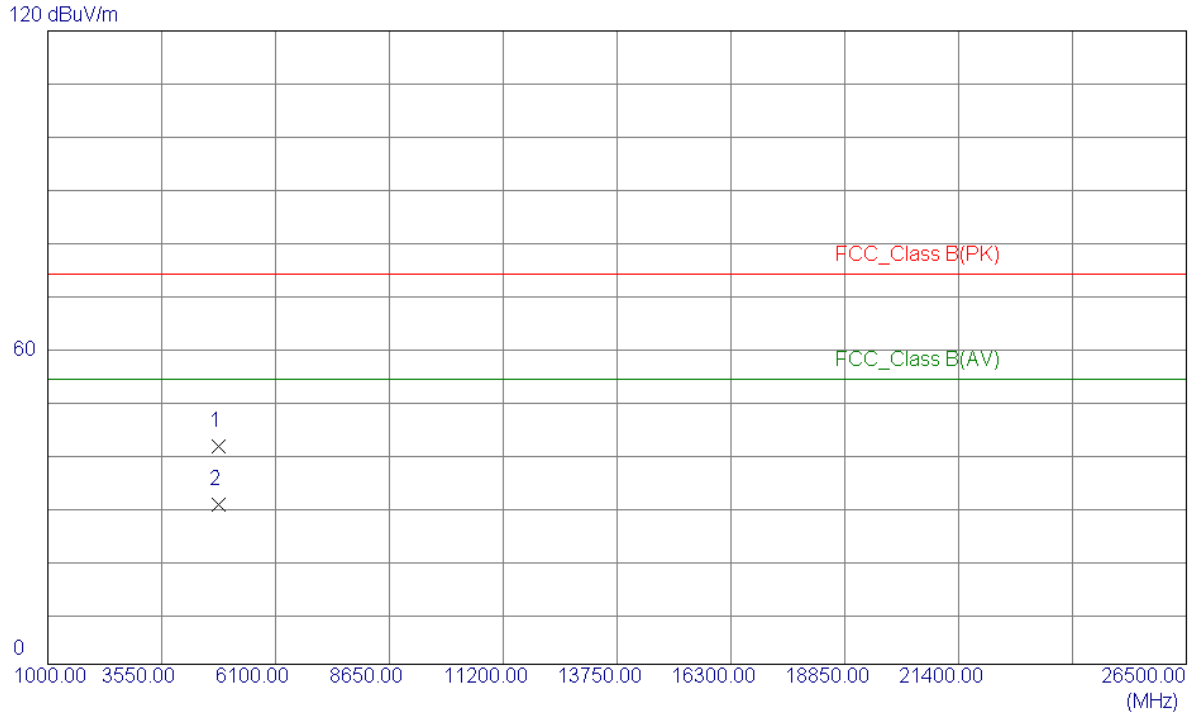
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	38.03	30.97	69.00	74.00	-5.00	Peak	
2	2390.0000	21.63	30.97	52.60	54.00	-1.40	AVG	
3	2412.0000	77.91	31.05	108.96	74.00	34.96	Peak	No Limit
4 *	2412.0000	67.84	31.05	98.89	54.00	44.89	AVG	No Limit

Test Mode :	TX G MODE 2412MHz

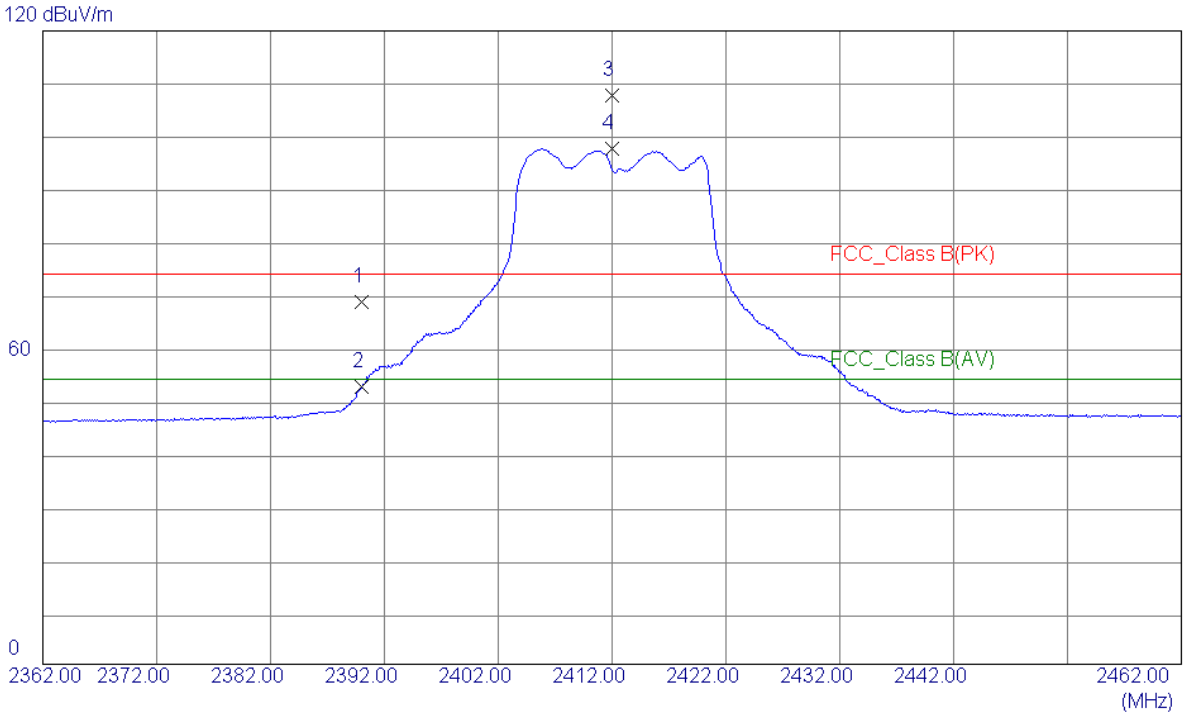
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4824.0000	52.68	-11.47	41.21	74.00	-32.79	Peak	
2 *	4824.0000	41.66	-11.47	30.19	54.00	-23.81	AVG	

Test Mode :	TX G MODE 2412MHz

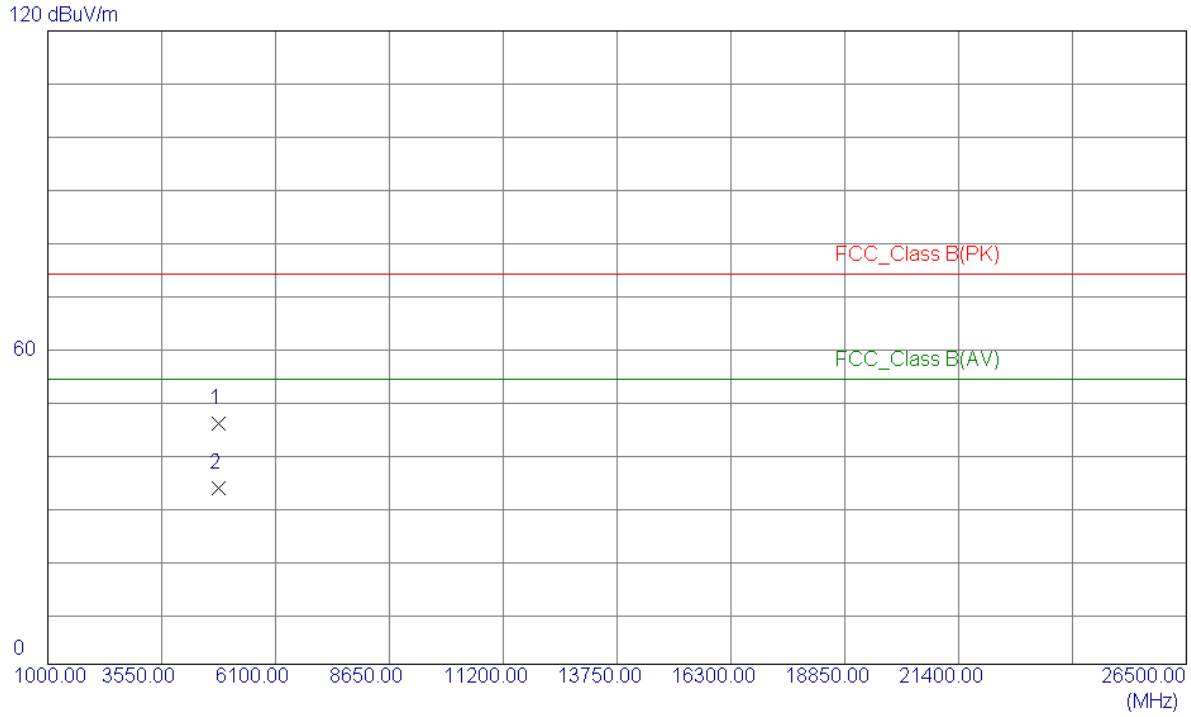
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	37.60	30.97	68.57	74.00	-5.43	Peak	
2	2390.0000	21.48	30.97	52.45	54.00	-1.55	AVG	
3	2412.0000	76.71	31.05	107.76	74.00	33.76	Peak	No Limit
4 *	2412.0000	66.58	31.05	97.63	54.00	43.63	AVG	No Limit

Test Mode :	TX G MODE 2412MHz

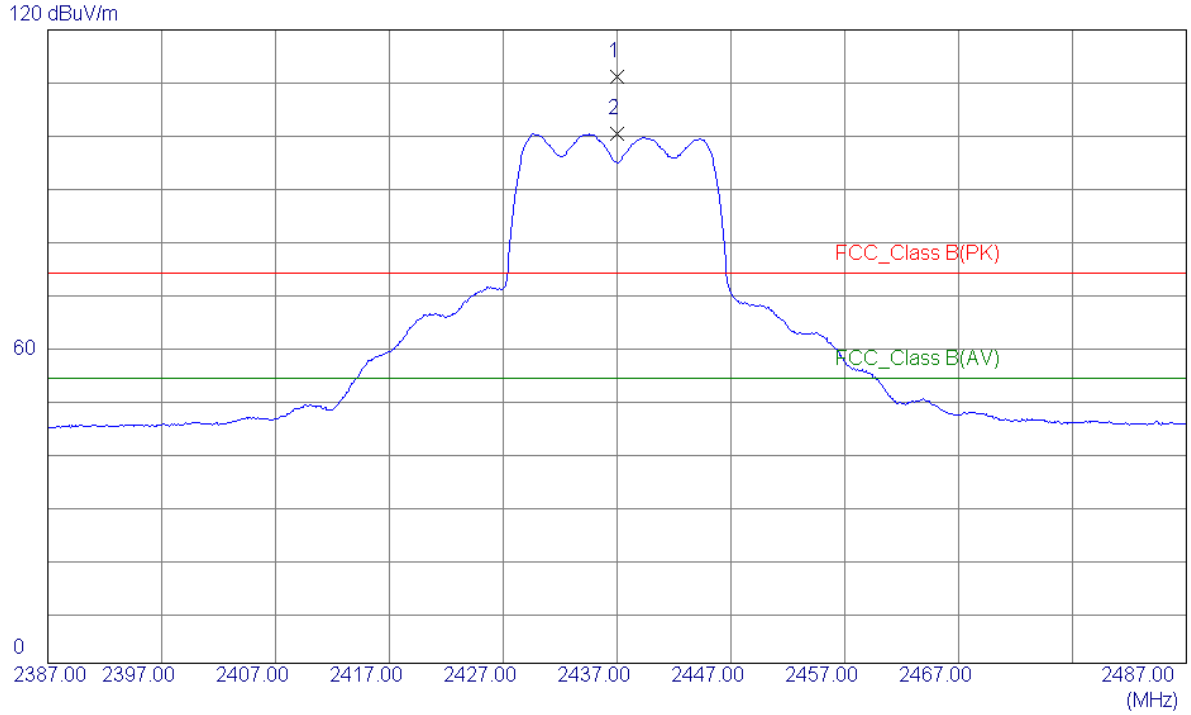
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4824.0000	57.13	-11.47	45.66	74.00	-28.34	Peak	
2 *	4824.0000	44.80	-11.47	33.33	54.00	-20.67	AVG	

Test Mode :	TX G MODE 2437MHz

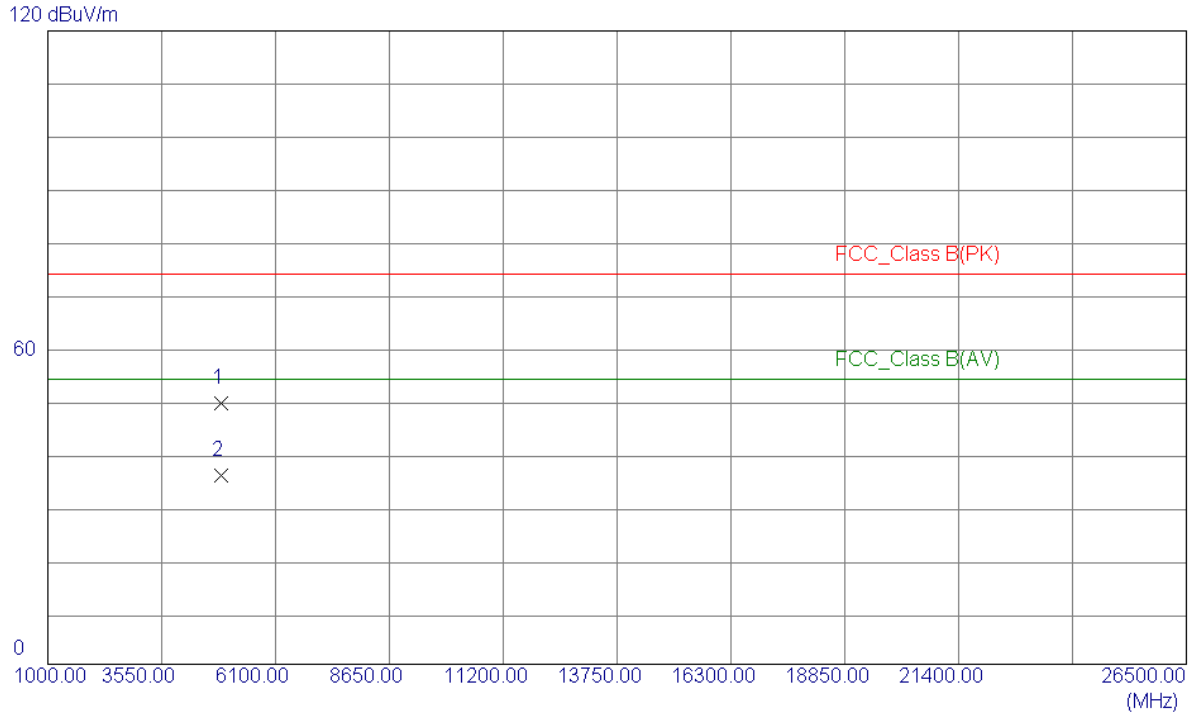
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2437.0000	79.87	31.14	111.01	74.00	37.01	Peak	No Limit
2 *	2437.0000	69.12	31.14	100.26	54.00	46.26	AVG	No Limit

Test Mode :	TX G MODE 2437MHz

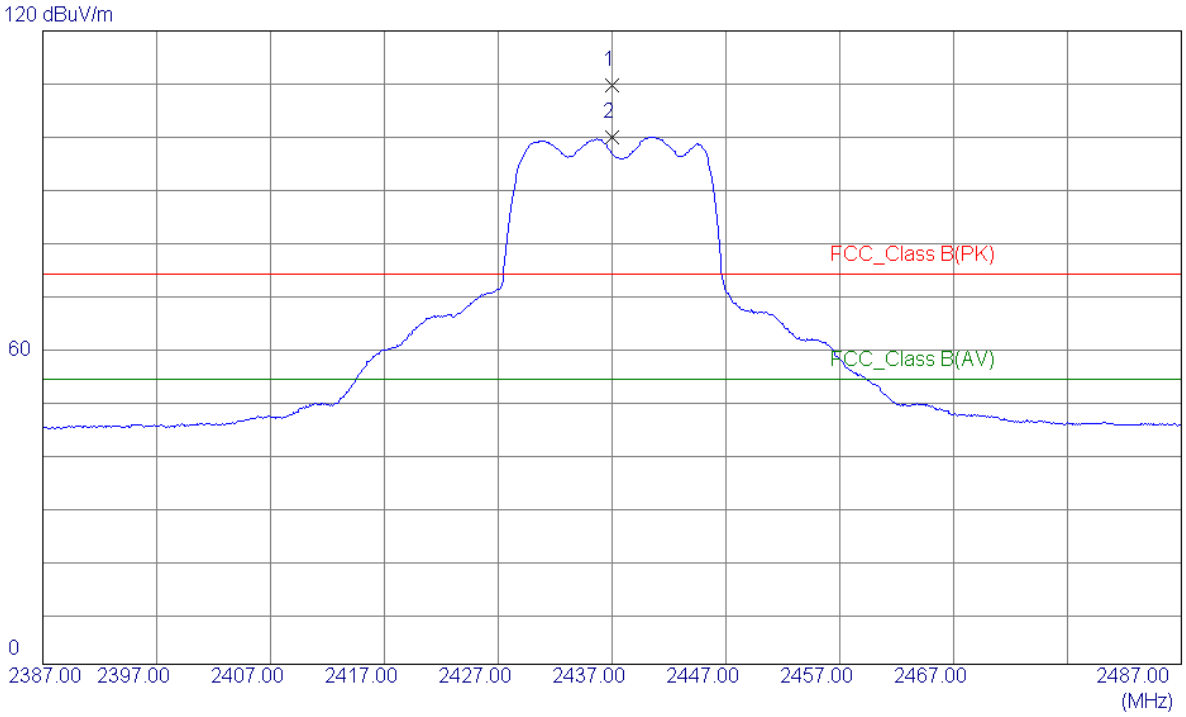
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4874.0000	60.74	-11.39	49.35	74.00	-24.65	Peak	
2 *	4874.0000	47.13	-11.39	35.74	54.00	-18.26	AVG	

Test Mode :	TX G MODE 2437MHz

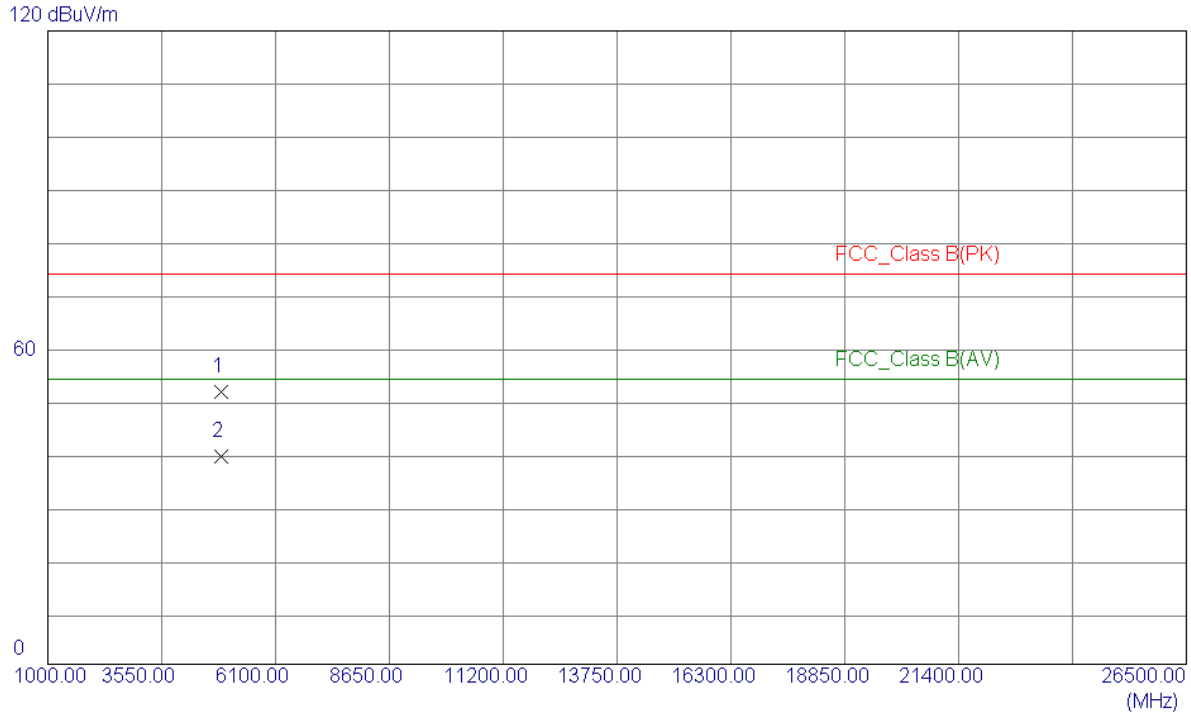
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2437.0000	78.49	31.14	109.63	74.00	35.63	Peak	No Limit
2 *	2437.0000	68.76	31.14	99.90	54.00	45.90	AVG	No Limit

Test Mode :	TX G MODE 2437MHz

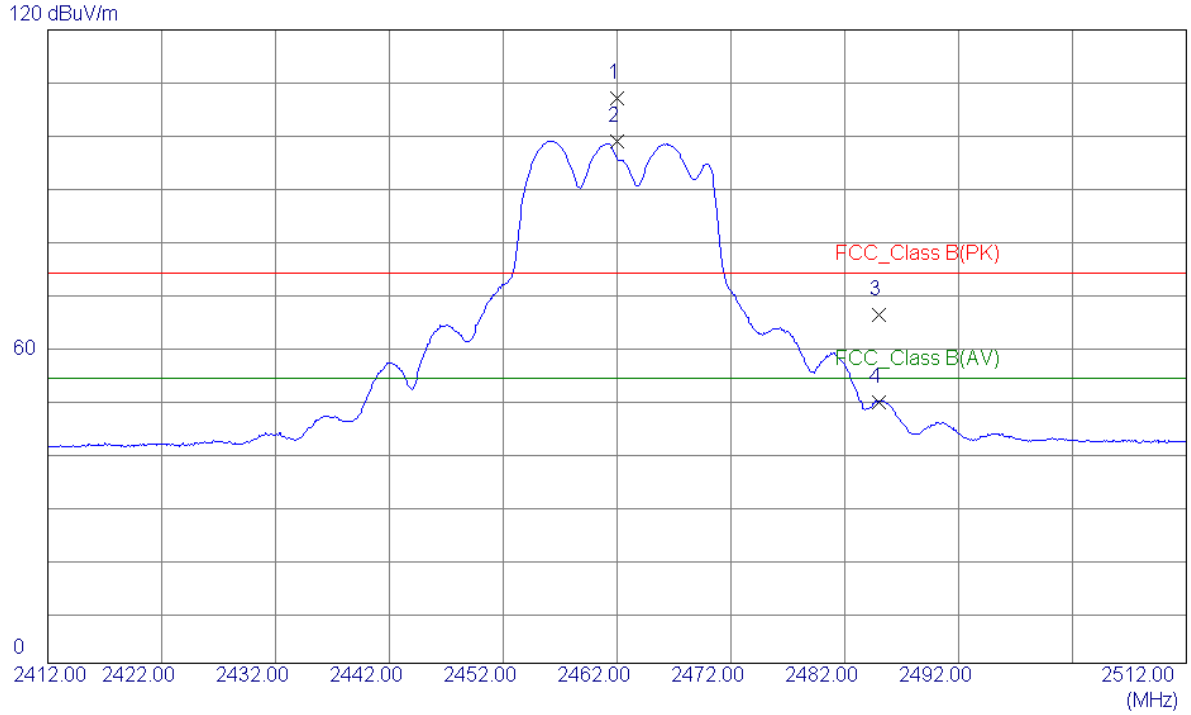
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4874.0000	62.94	-11.39	51.55	74.00	-22.45	Peak	
2 *	4874.0000	50.83	-11.39	39.44	54.00	-14.56	AVG	

Test Mode :	TX G MODE 2462MHz

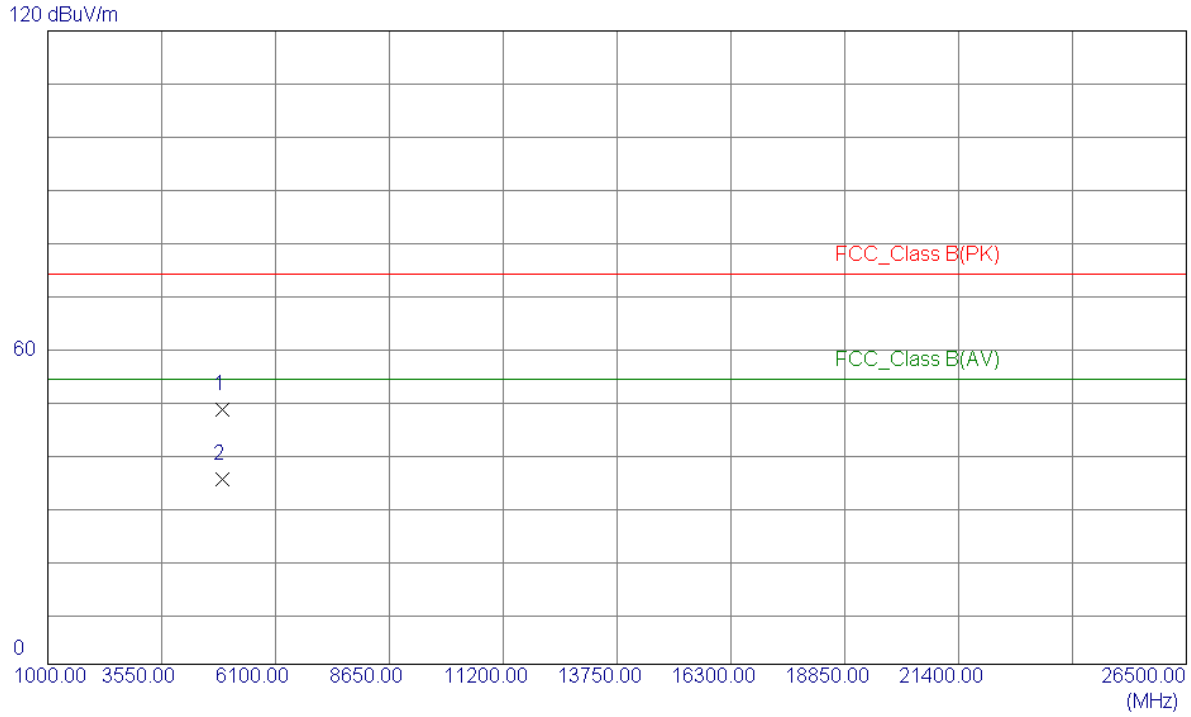
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2462.0000	75.71	31.23	106.94	74.00	32.94	Peak	No Limit
2 *	2462.0000	67.66	31.23	98.89	54.00	44.89	AVG	No Limit
3	2485.0180	34.58	31.31	65.89	74.00	-8.11	Peak	
4	2485.0180	18.14	31.31	49.45	54.00	-4.55	AVG	

Test Mode :	TX G MODE 2462MHz

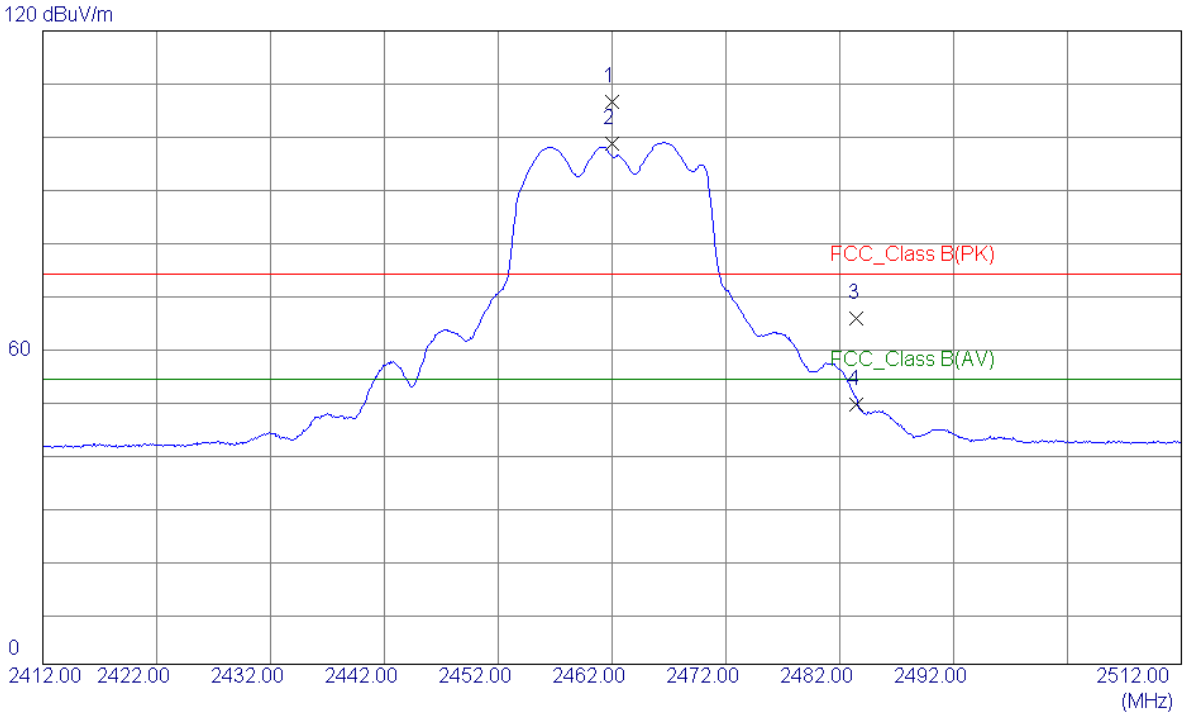
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4924.0000	59.57	-11.32	48.25	74.00	-25.75	Peak	
2 *	4924.0000	46.40	-11.32	35.08	54.00	-18.92	AVG	

Test Mode :	TX G MODE 2462MHz

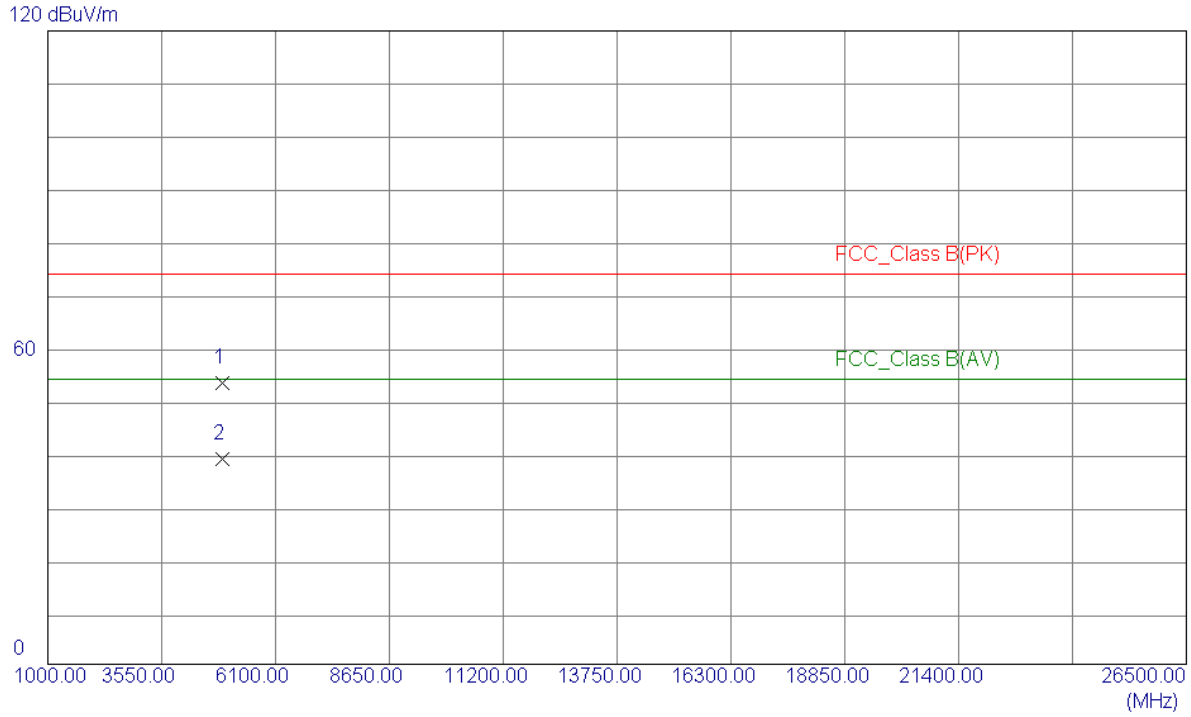
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2462.0000	75.25	31.23	106.48	74.00	32.48	Peak	No Limit
2 *	2462.0000	67.44	31.23	98.67	54.00	44.67	AVG	No Limit
3	2483.5000	34.25	31.31	65.56	74.00	-8.44	Peak	
4	2483.5000	17.95	31.31	49.26	54.00	-4.74	AVG	

Test Mode :	TX G MODE 2462MHz

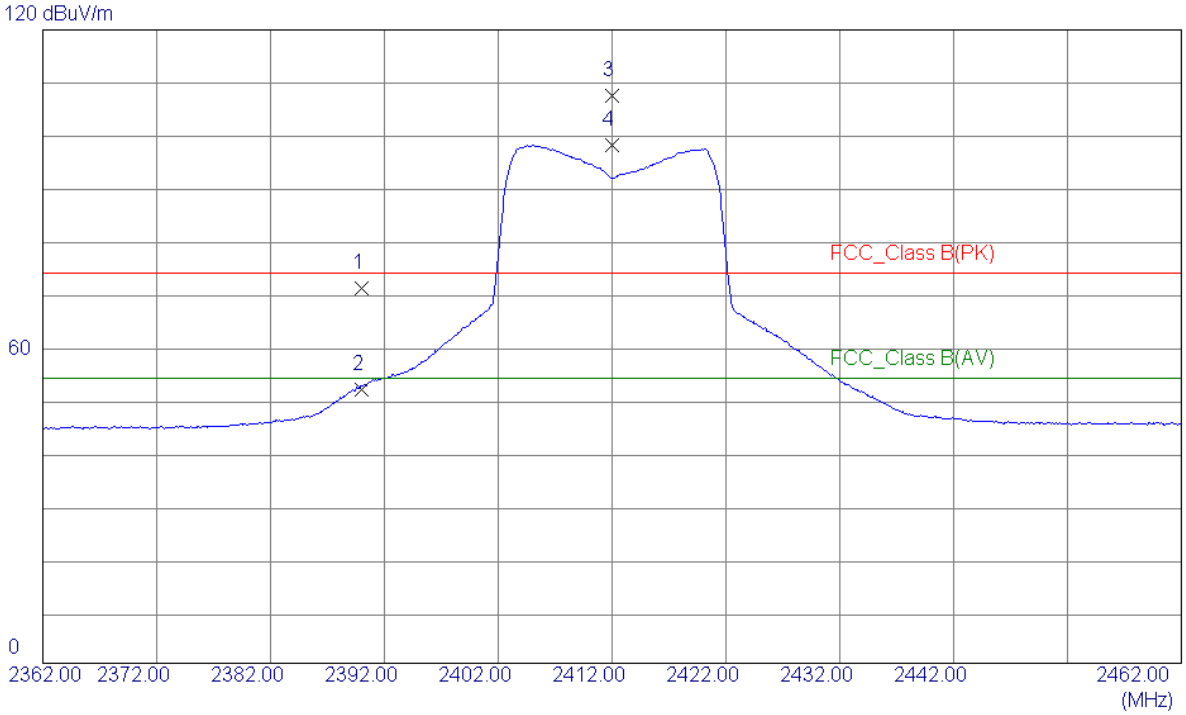
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4924.0000	64.61	-11.32	53.29	74.00	-20.71	Peak	
2 *	4924.0000	50.22	-11.32	38.90	54.00	-15.10	AVG	

Test Mode :	TX N-20M MODE 2412MHz

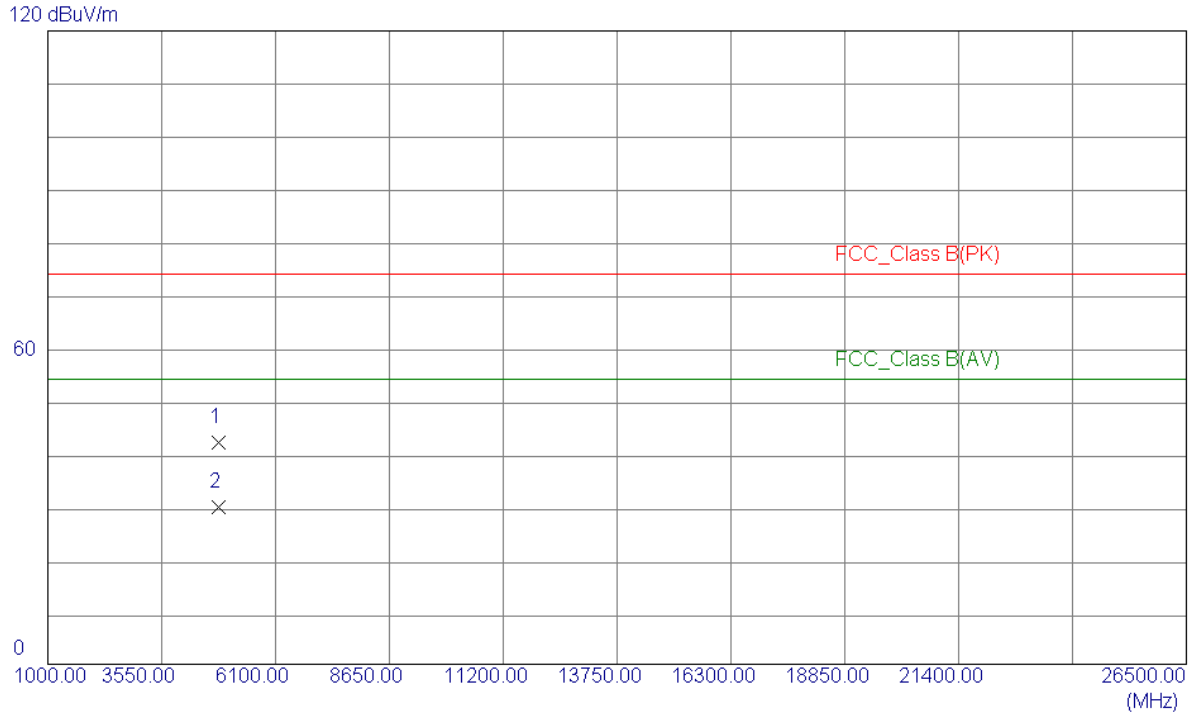
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	40.18	30.97	71.15	74.00	-2.85	Peak	
2	2390.0000	20.85	30.97	51.82	54.00	-2.18	AVG	
3	2412.0000	76.37	31.05	107.42	74.00	33.42	Peak	No Limit
4 *	2412.0000	67.07	31.05	98.12	54.00	44.12	AVG	No Limit

Test Mode :	TX N-20M MODE 2412MHz

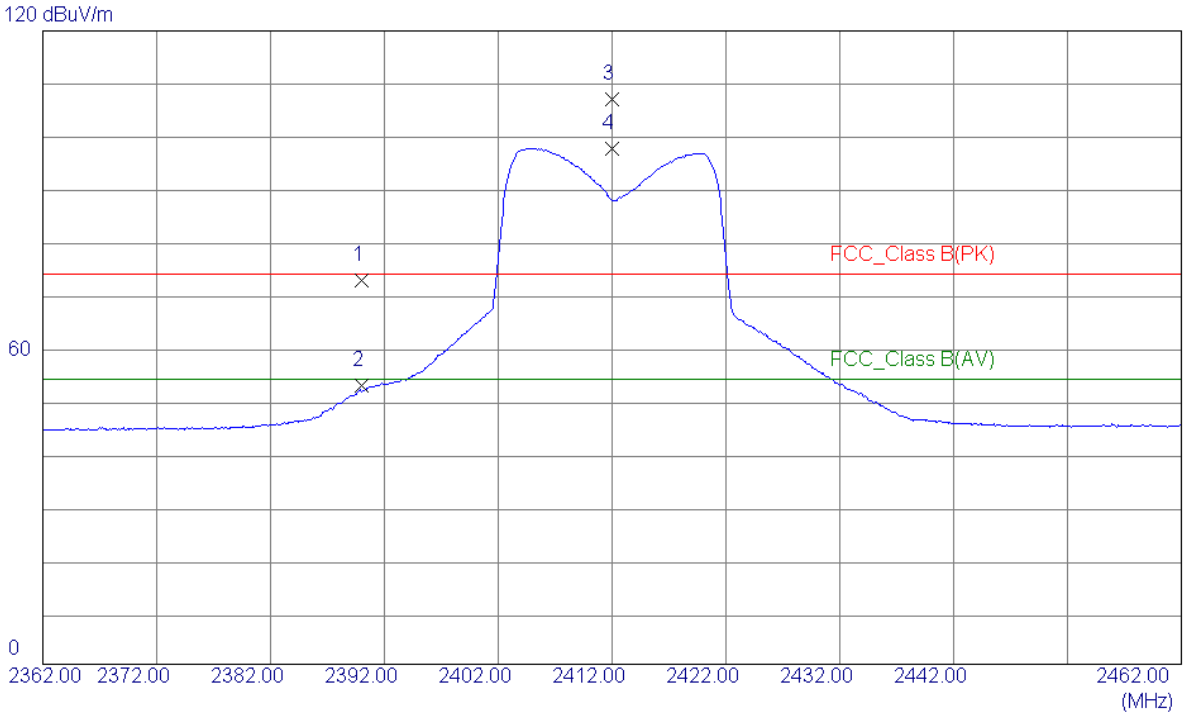
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4824.0000	53.41	-11.47	41.94	74.00	-32.06	Peak	
2 *	4824.0000	41.20	-11.47	29.73	54.00	-24.27	AVG	

Test Mode :	TX N-20M MODE 2412MHz

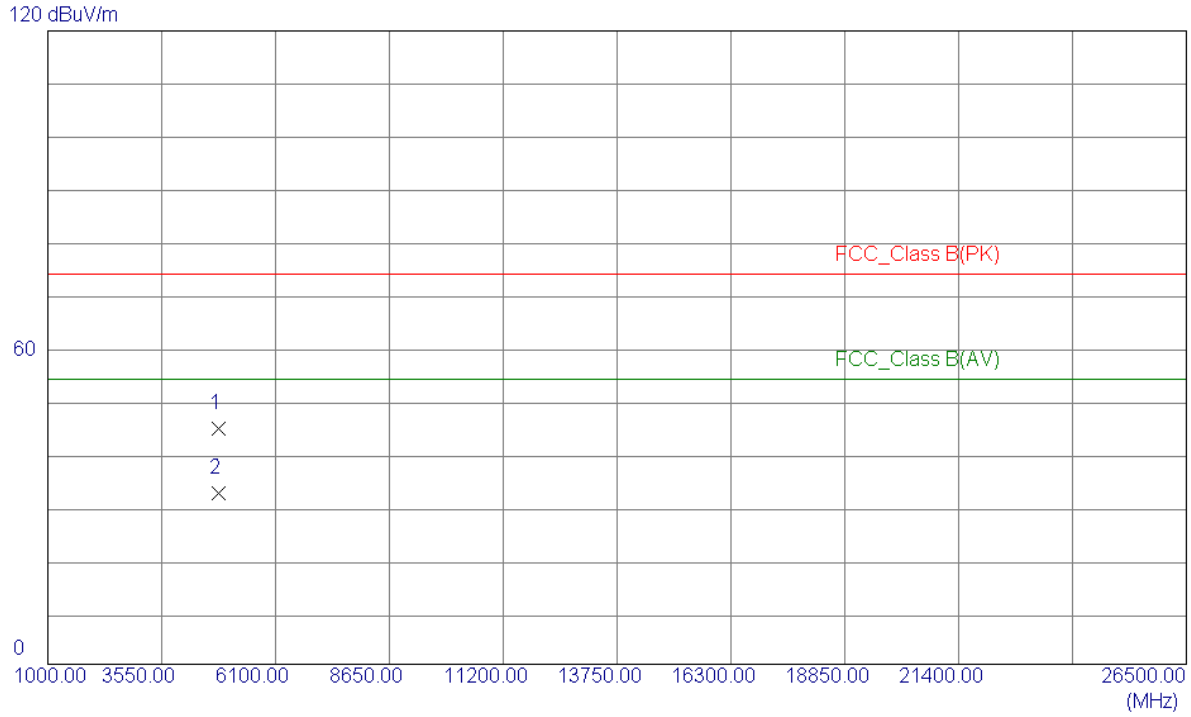
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	41.78	30.97	72.75	74.00	-1.25	Peak	
2	2390.0000	21.88	30.97	52.85	54.00	-1.15	AVG	
3	2412.0000	76.03	31.05	107.08	74.00	33.08	Peak	No Limit
4 *	2412.0000	66.69	31.05	97.74	54.00	43.74	AVG	No Limit

Test Mode :	TX N-20M MODE 2412MHz

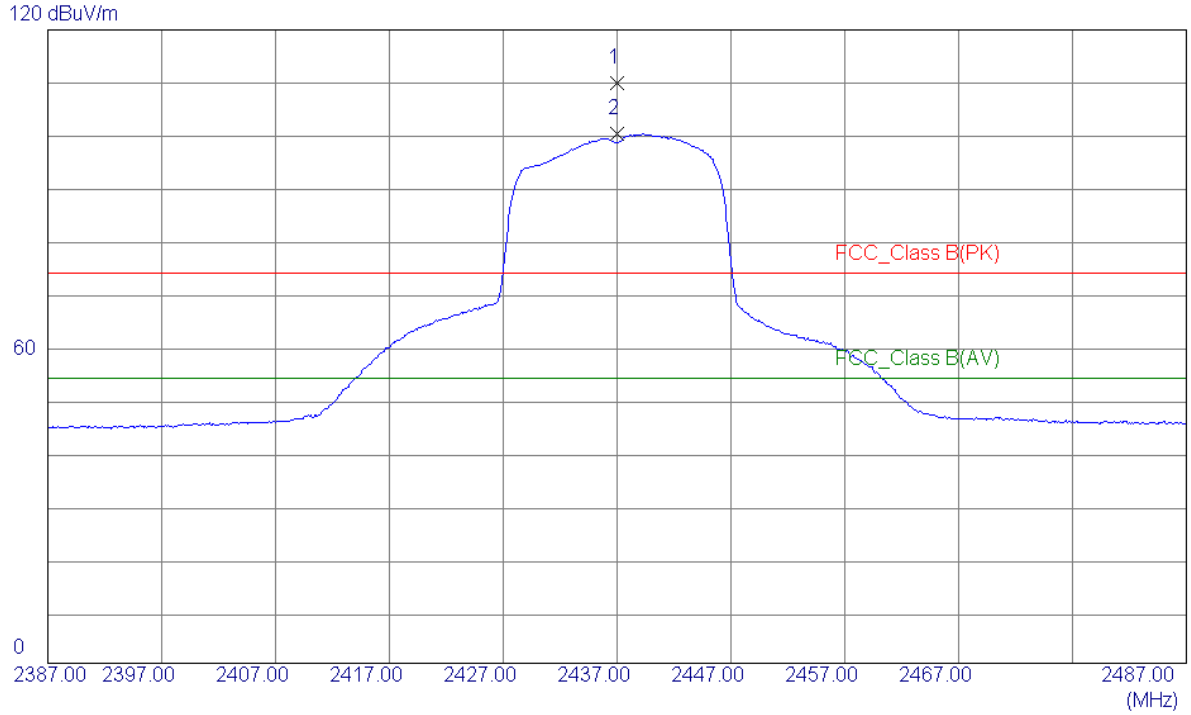
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4824.0000	56.01	-11.47	44.54	74.00	-29.46	Peak	
2 *	4824.0000	43.95	-11.47	32.48	54.00	-21.52	AVG	

Test Mode :	TX N-20M MODE 2437MHz

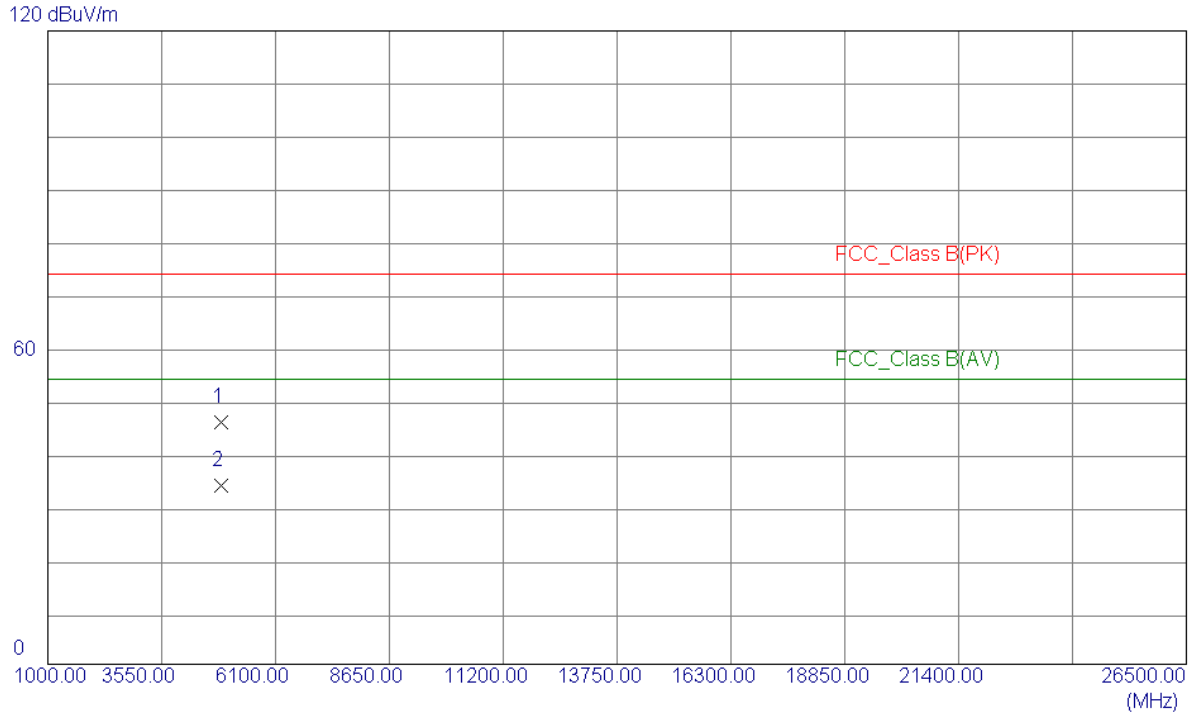
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2437.0000	78.83	31.14	109.97	74.00	35.97	Peak	No Limit
2 *	2437.0000	69.23	31.14	100.37	54.00	46.37	AVG	No Limit

Test Mode :	TX N-20M MODE 2437MHz

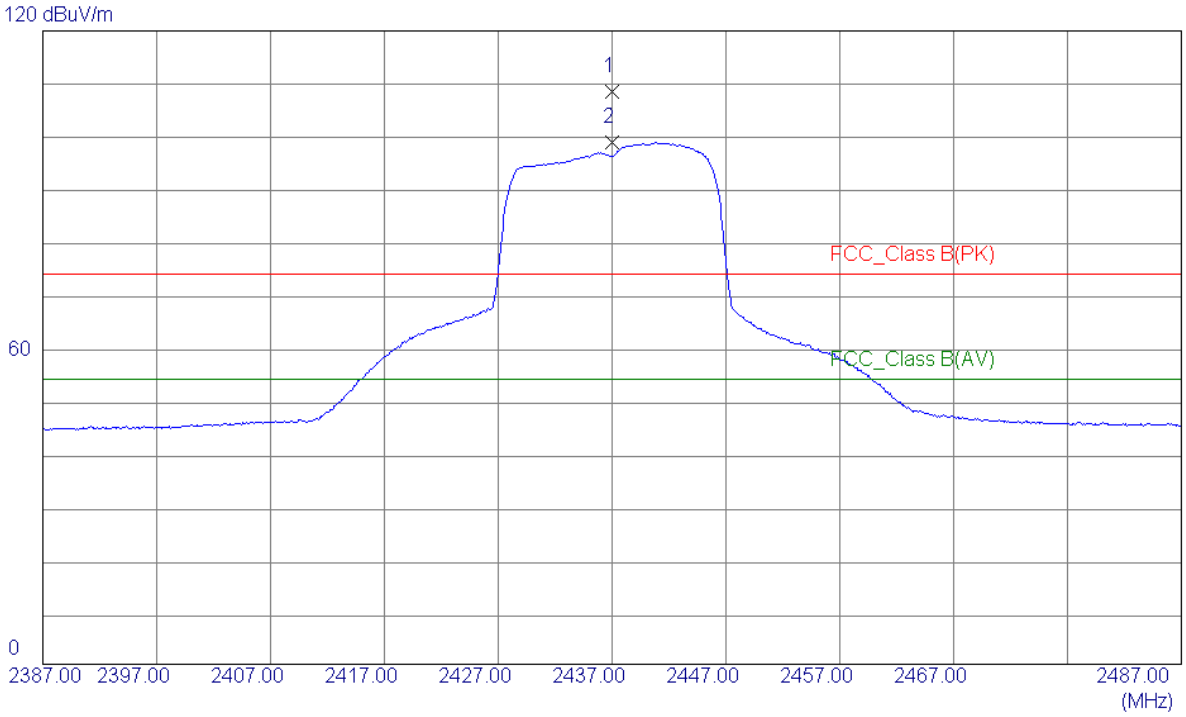
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4874.0000	57.33	-11.39	45.94	74.00	-28.06	Peak	
2 *	4874.0000	45.27	-11.39	33.88	54.00	-20.12	AVG	

Test Mode :	TX N-20M MODE 2437MHz

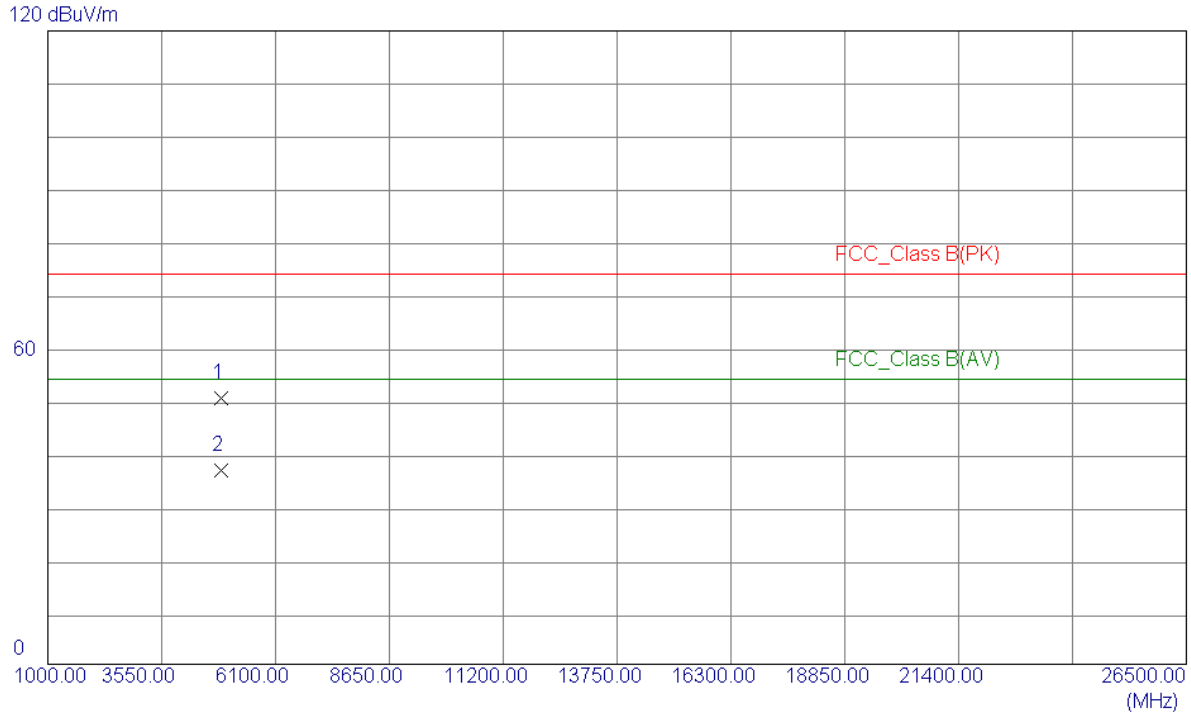
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2437.0000	77.29	31.14	108.43	74.00	34.43	Peak	No Limit
2 *	2437.0000	67.63	31.14	98.77	54.00	44.77	AVG	No Limit

Test Mode :	TX N-20M MODE 2437MHz

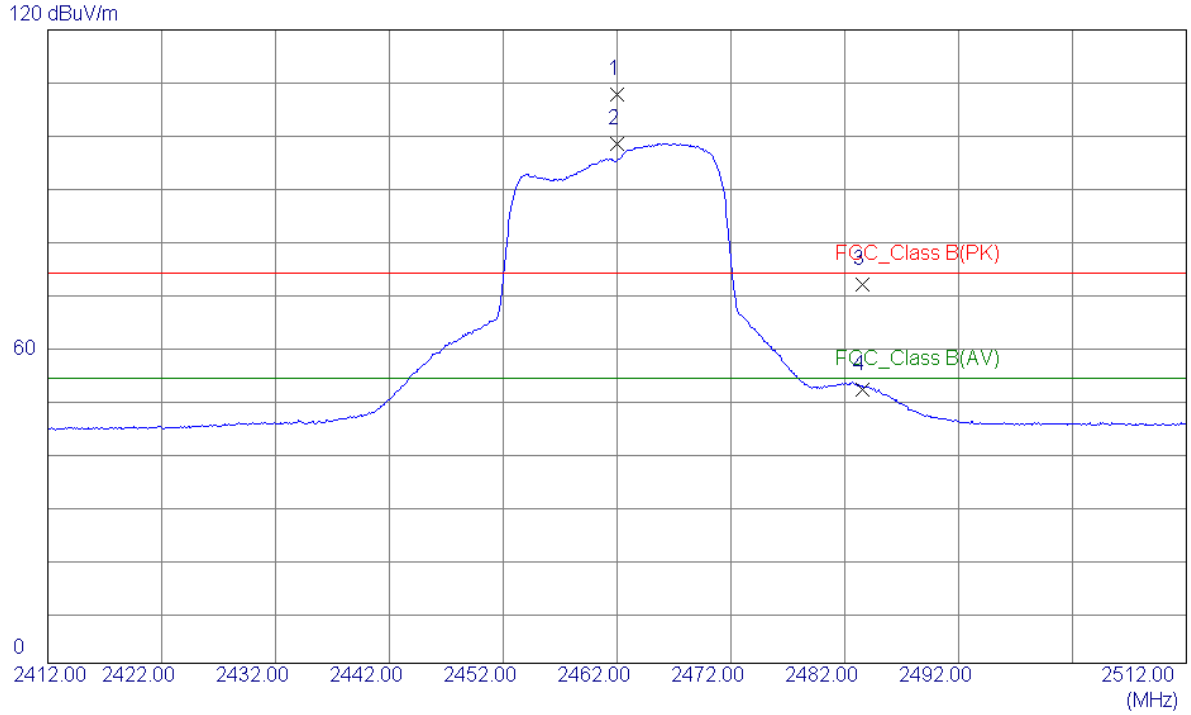
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4874.0000	61.70	-11.39	50.31	74.00	-23.69	Peak	
2 *	4874.0000	48.17	-11.39	36.78	54.00	-17.22	AVG	

Test Mode :	TX N-20M MODE 2462MHz

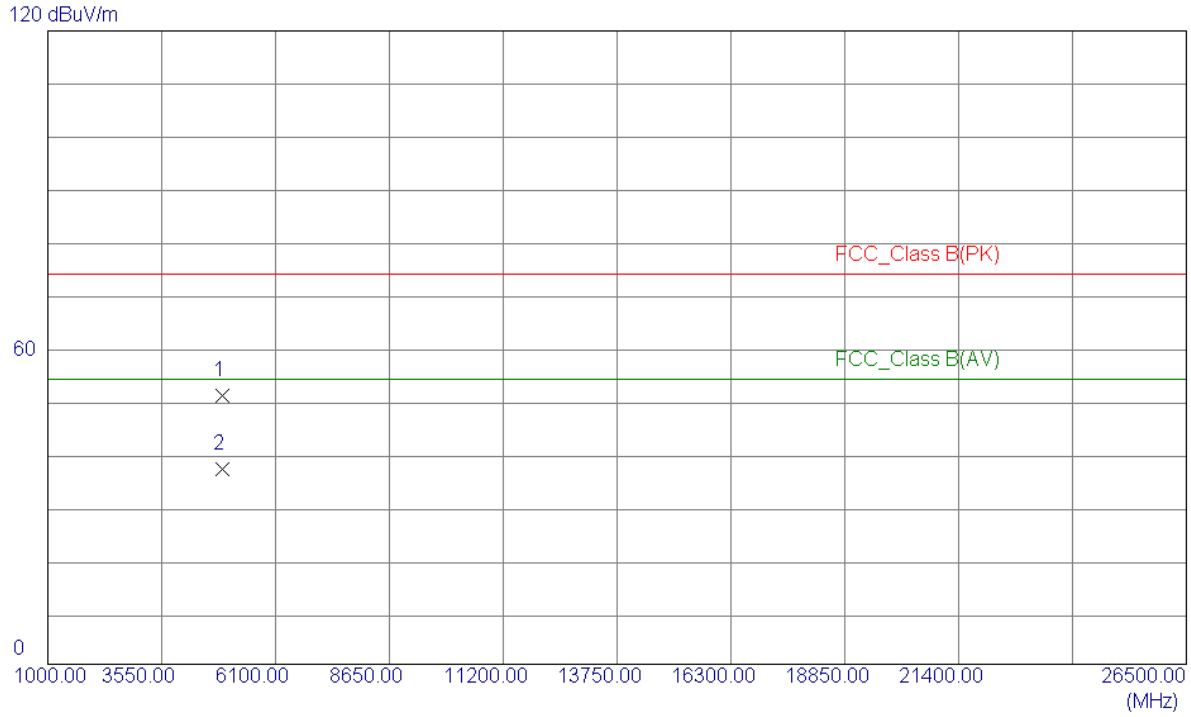
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2462.0000	76.56	31.23	107.79	74.00	33.79	Peak	No Limit
2 *	2462.0000	67.22	31.23	98.45	54.00	44.45	AVG	No Limit
3	2483.5500	40.48	31.31	71.79	74.00	-2.21	Peak	
4	2483.5500	20.47	31.31	51.78	54.00	-2.22	AVG	

Test Mode :	TX N-20M MODE 2462MHz

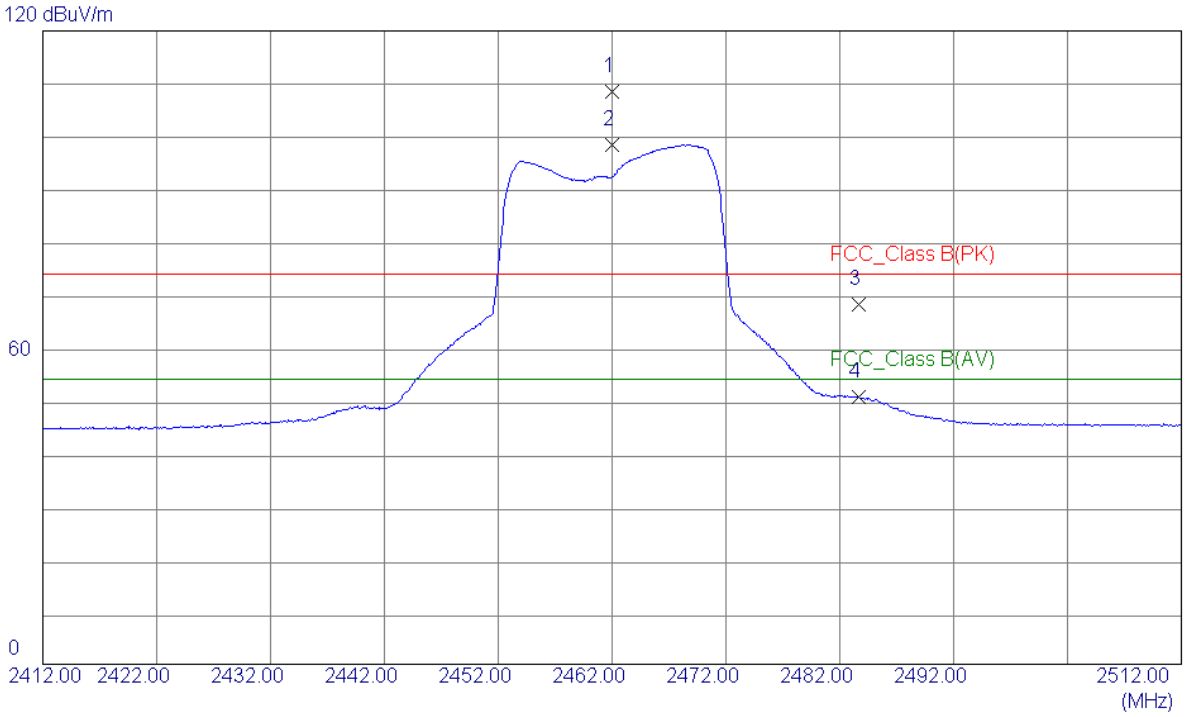
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4924.0000	62.19	-11.32	50.87	74.00	-23.13	Peak	
2 *	4924.0000	48.18	-11.32	36.86	54.00	-17.14	AVG	

Test Mode :	TX N-20M MODE 2462MHz

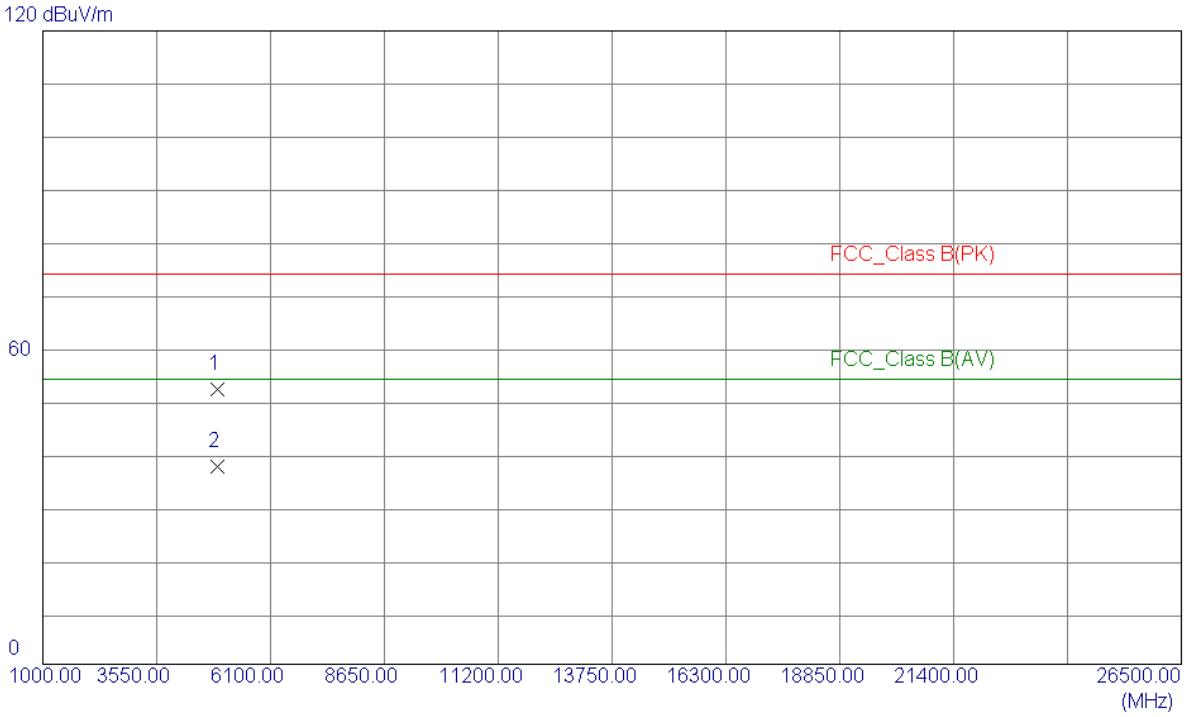
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2462.0000	77.13	31.23	108.36	74.00	34.36	Peak	No Limit
2 *	2462.0000	67.17	31.23	98.40	54.00	44.40	AVG	No Limit
3	2483.7000	36.96	31.31	68.27	74.00	-5.73	Peak	
4	2483.7000	19.32	31.31	50.63	54.00	-3.37	AVG	

Test Mode :	TX N-20M MODE 2462MHz

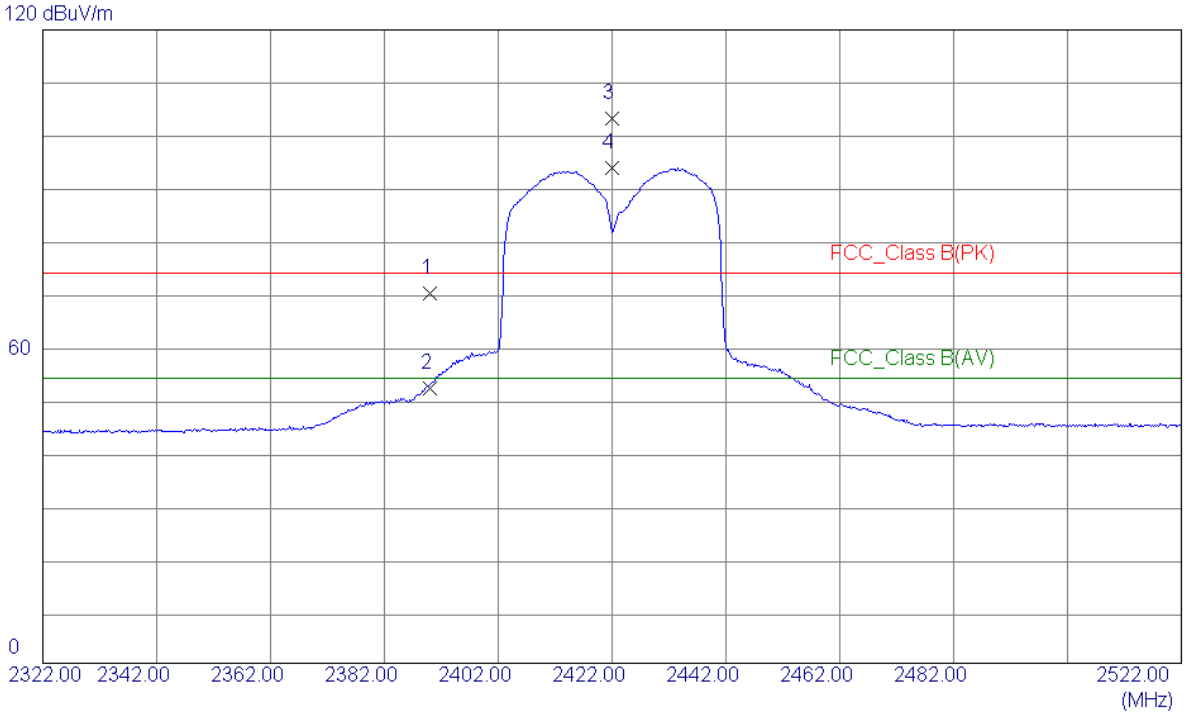
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4924.0000	63.31	-11.32	51.99	74.00	-22.01	Peak	
2 *	4924.0000	48.65	-11.32	37.33	54.00	-16.67	AVG	

Test Mode :	TX N-40M MODE 2422MHz

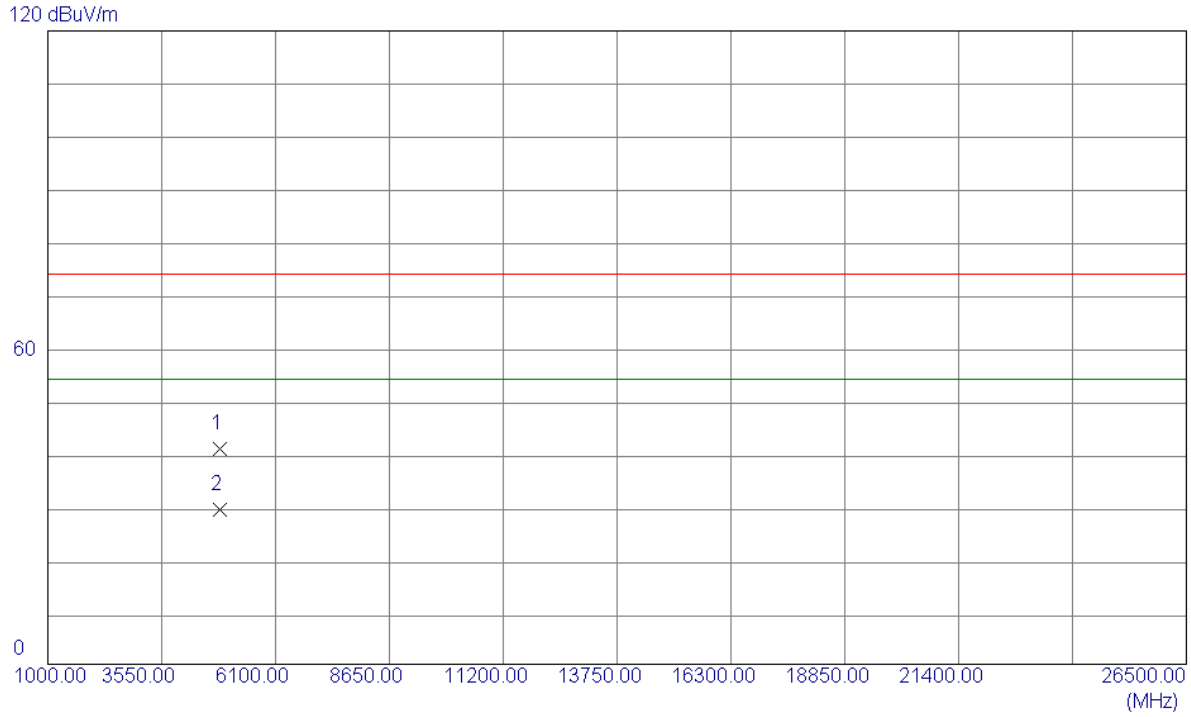
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	39.15	30.97	70.12	74.00	-3.88	Peak	
2	2390.0000	21.04	30.97	52.01	54.00	-1.99	AVG	
3	2422.0000	72.09	31.08	103.17	74.00	29.17	Peak	No Limit
4 *	2422.0000	62.74	31.08	93.82	54.00	39.82	AVG	No Limit

Test Mode :	TX N-40M MODE 2422MHz

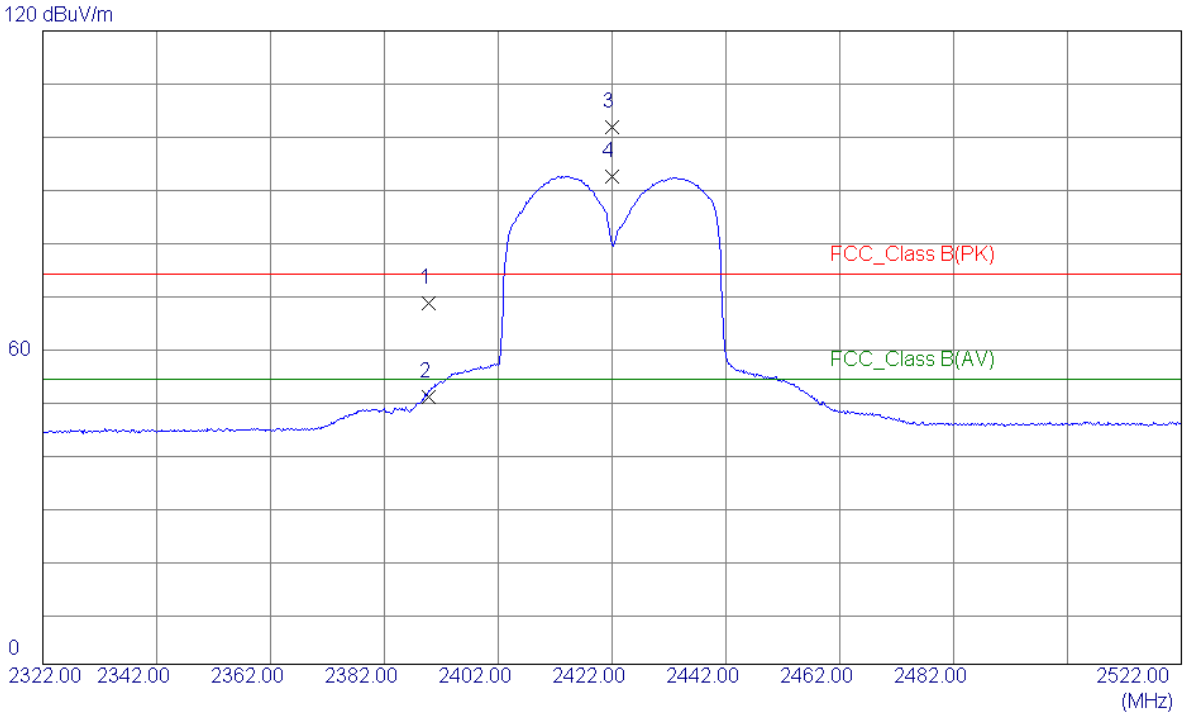
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4844.0000	52.33	-11.44	40.89	74.00	-33.11	Peak	
2 *	4844.0000	40.81	-11.44	29.37	54.00	-24.63	AVG	

Test Mode :	TX N-40M MODE 2422MHz

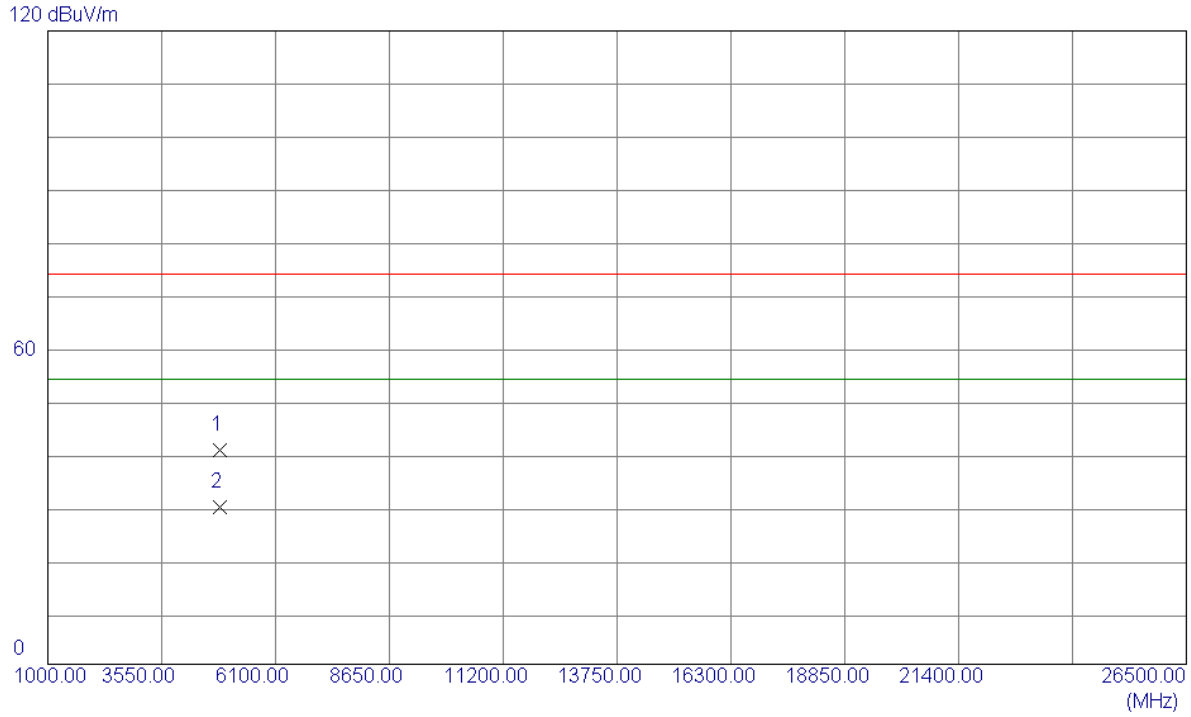
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2389.8640	37.42	30.96	68.38	74.00	-5.62	Peak	
2	2389.8640	19.60	30.96	50.56	54.00	-3.44	AVG	
3	2422.0000	70.60	31.08	101.68	74.00	27.68	Peak	No Limit
4 *	2422.0000	61.42	31.08	92.50	54.00	38.50	AVG	No Limit

Test Mode :	TX N-40M MODE 2422MHz

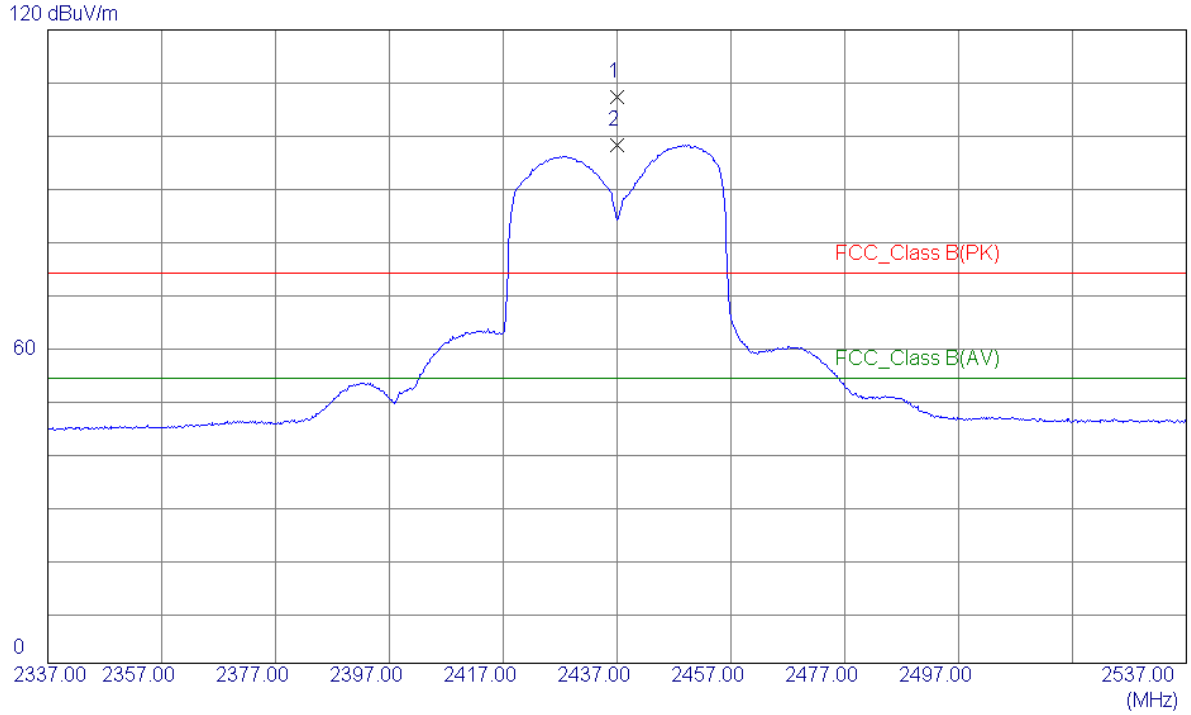
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4844.0000	52.10	-11.44	40.66	74.00	-33.34	Peak	
2 *	4844.0000	41.18	-11.44	29.74	54.00	-24.26	AVG	

Test Mode :	TX N-40M MODE 2437MHz

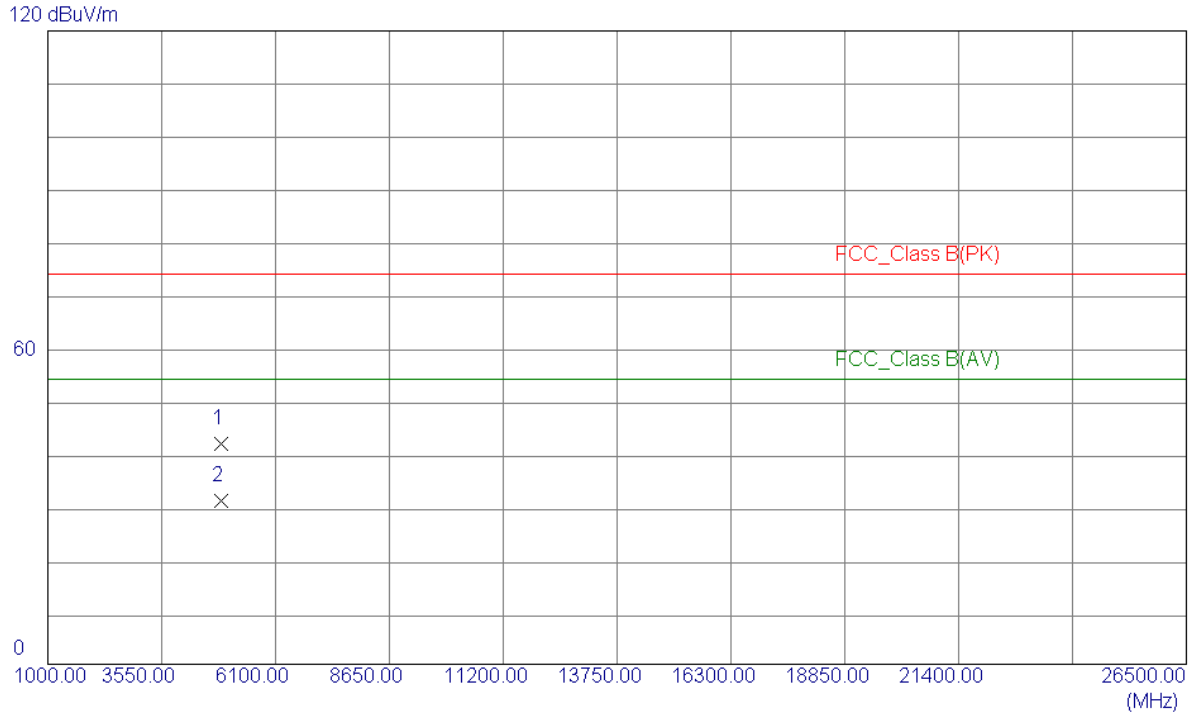
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2437.0000	76.19	31.14	107.33	74.00	33.33	Peak	No Limit
2 *	2437.0000	66.96	31.14	98.10	54.00	44.10	AVG	No Limit

Test Mode :	TX N-40M MODE 2437MHz

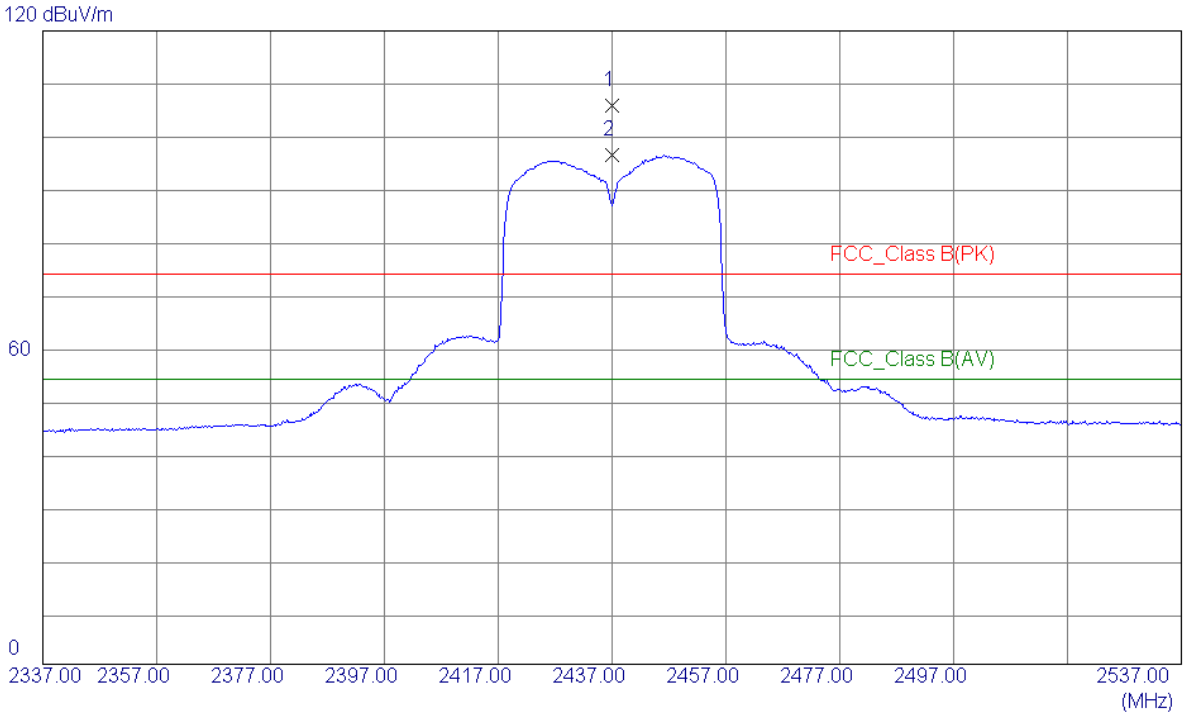
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4874.0000	53.15	-11.39	41.76	74.00	-32.24	Peak	
2 *	4874.0000	42.46	-11.39	31.07	54.00	-22.93	AVG	

Test Mode :	TX N-40M MODE 2437MHz

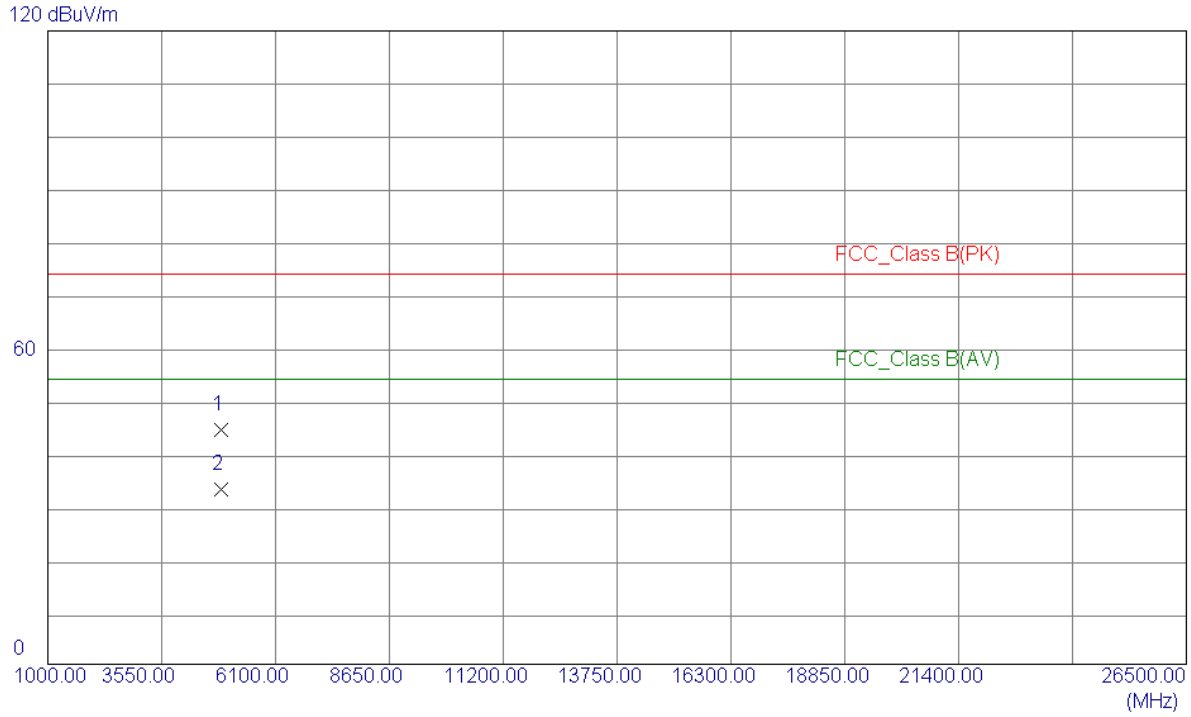
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2437.0000	74.66	31.14	105.80	74.00	31.80	Peak	No Limit
2 *	2437.0000	65.29	31.14	96.43	54.00	42.43	AVG	No Limit

Test Mode :	TX N-40M MODE 2437MHz

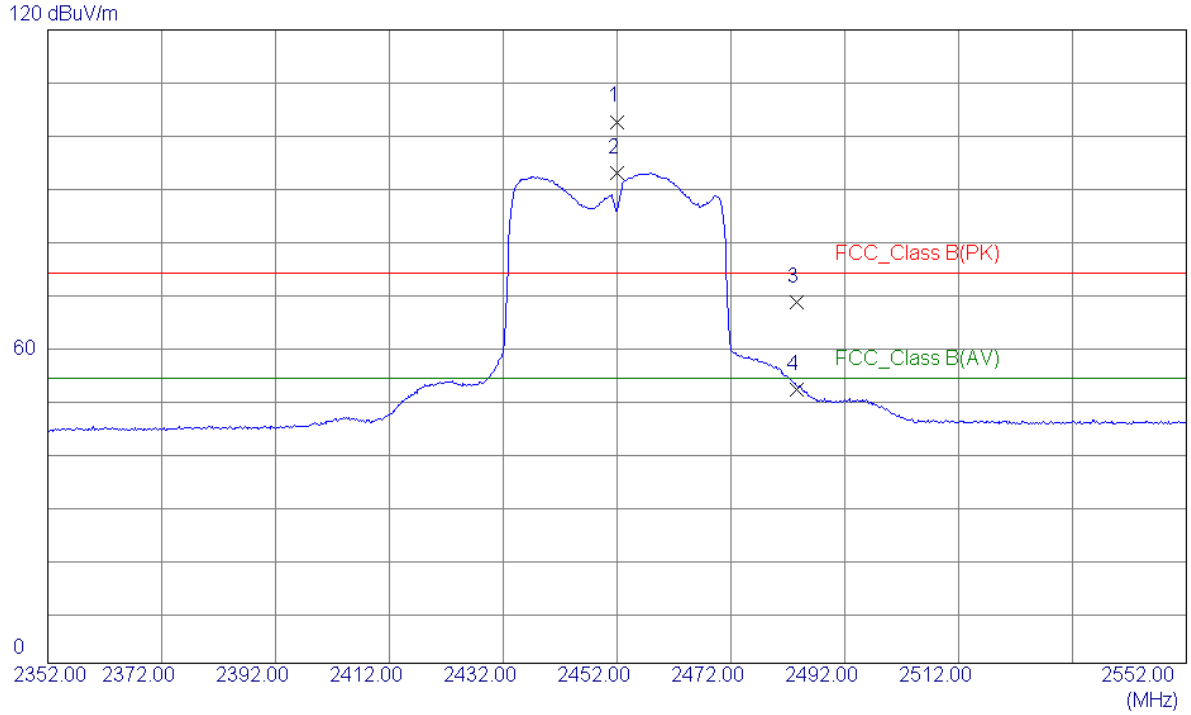
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4874.0000	55.88	-11.39	44.49	74.00	-29.51	Peak	
2 *	4874.0000	44.47	-11.39	33.08	54.00	-20.92	AVG	

Test Mode :	TX N-40M MODE 2452MHz

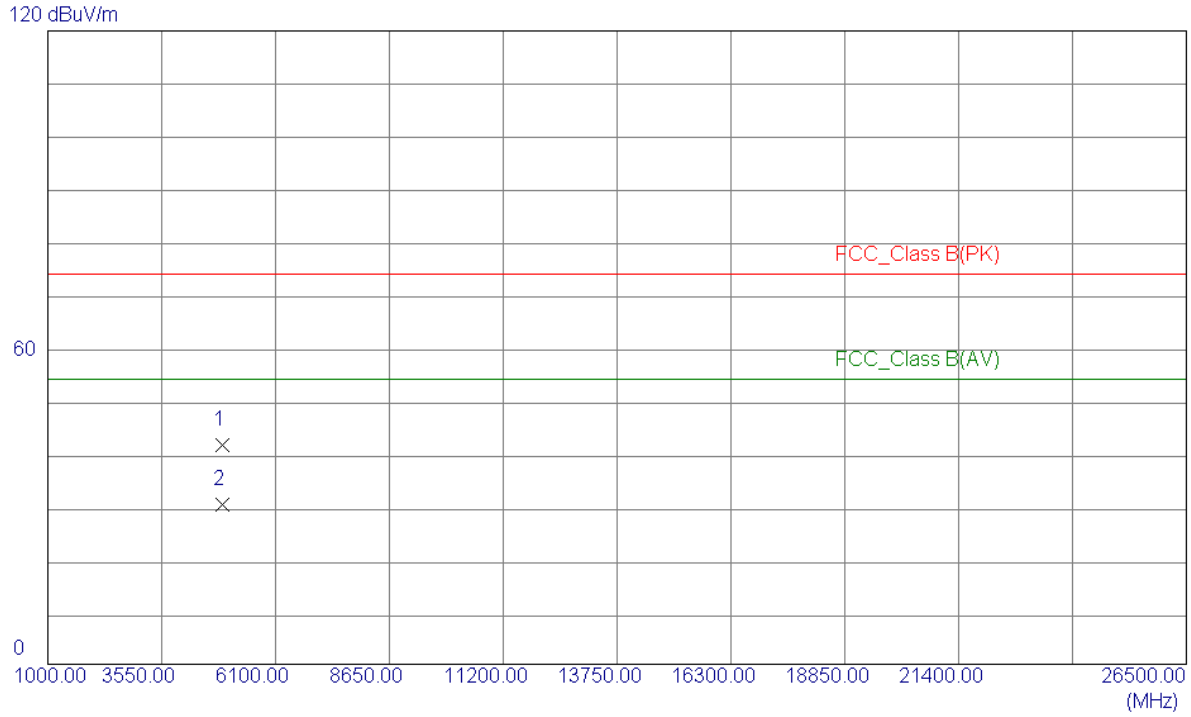
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2452.0000	71.41	31.19	102.60	74.00	28.60	Peak	No Limit
2 *	2452.0000	61.79	31.19	92.98	54.00	38.98	AVG	No Limit
3	2483.5000	37.19	31.31	68.50	74.00	-5.50	Peak	
4	2483.5000	20.61	31.31	51.92	54.00	-2.08	AVG	

Test Mode :	TX N-40M MODE 2452MHz

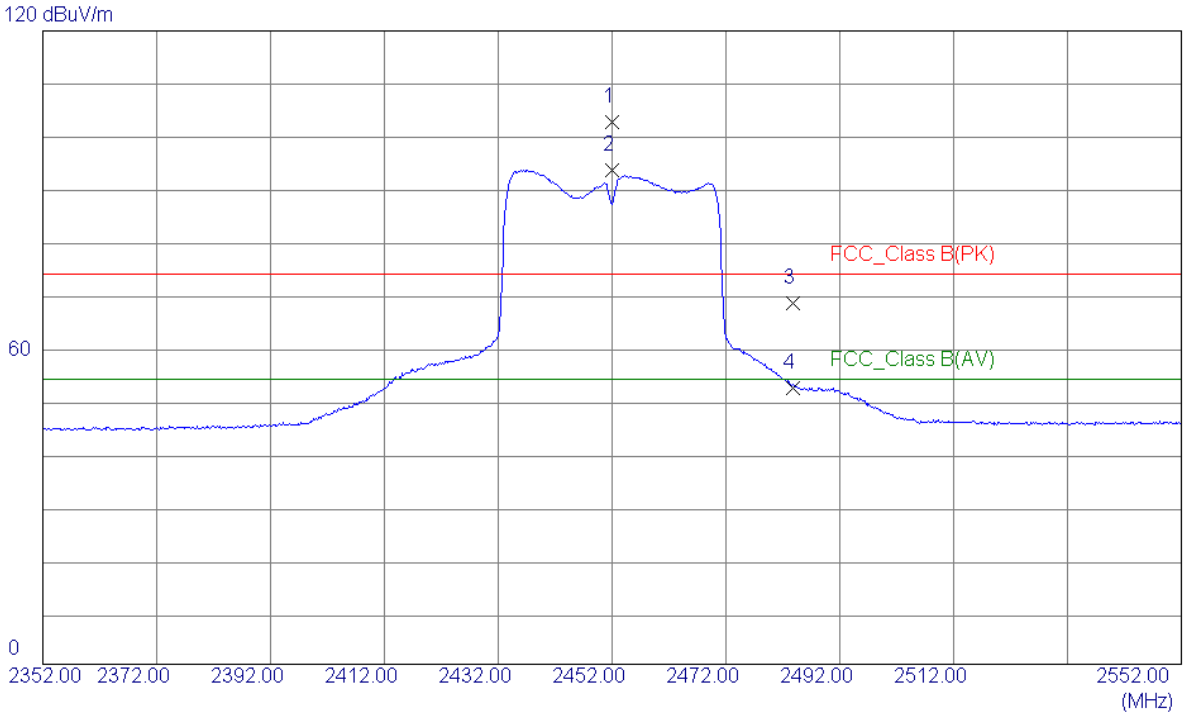
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4904.0000	52.93	-11.35	41.58	74.00	-32.42	Peak	
2 *	4904.0000	41.49	-11.35	30.14	54.00	-23.86	AVG	

Test Mode :	TX N-40M MODE 2452MHz

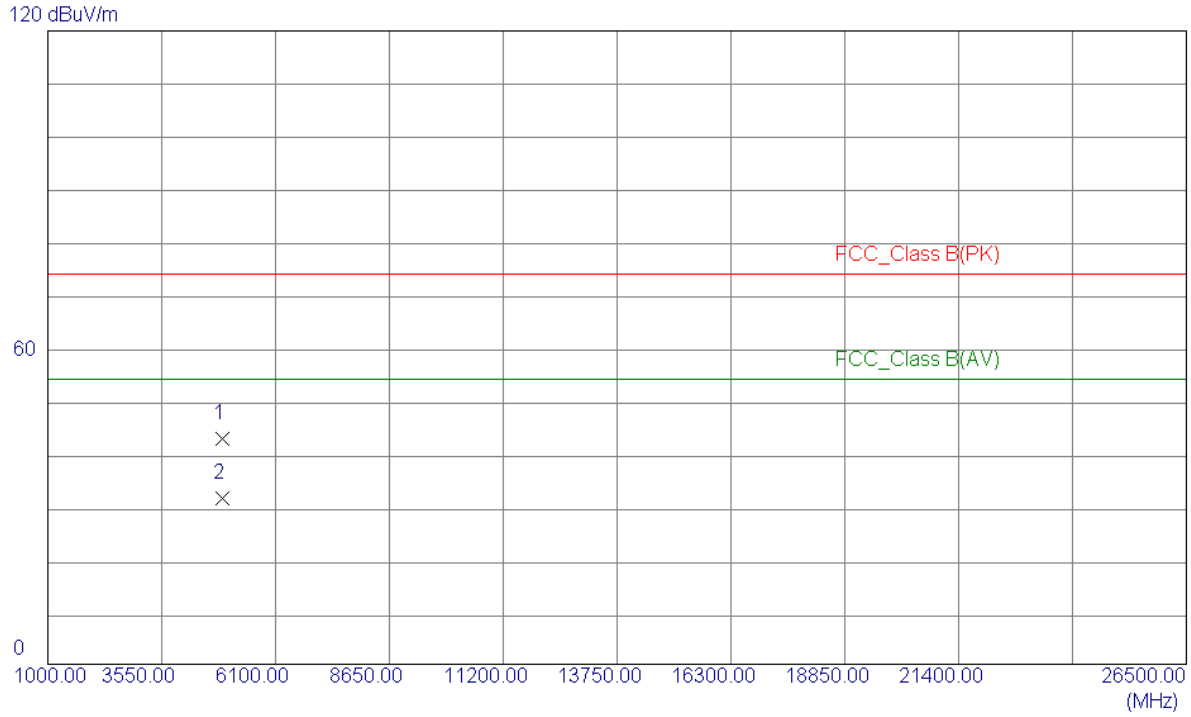
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2452.0000	71.58	31.19	102.77	74.00	28.77	Peak	No Limit
2 *	2452.0000	62.43	31.19	93.62	54.00	39.62	AVG	No Limit
3	2483.8300	37.18	31.31	68.49	74.00	-5.51	Peak	
4	2483.8300	21.07	31.31	52.38	54.00	-1.62	AVG	

Test Mode :	TX N-40M MODE 2452MHz

Horizontal



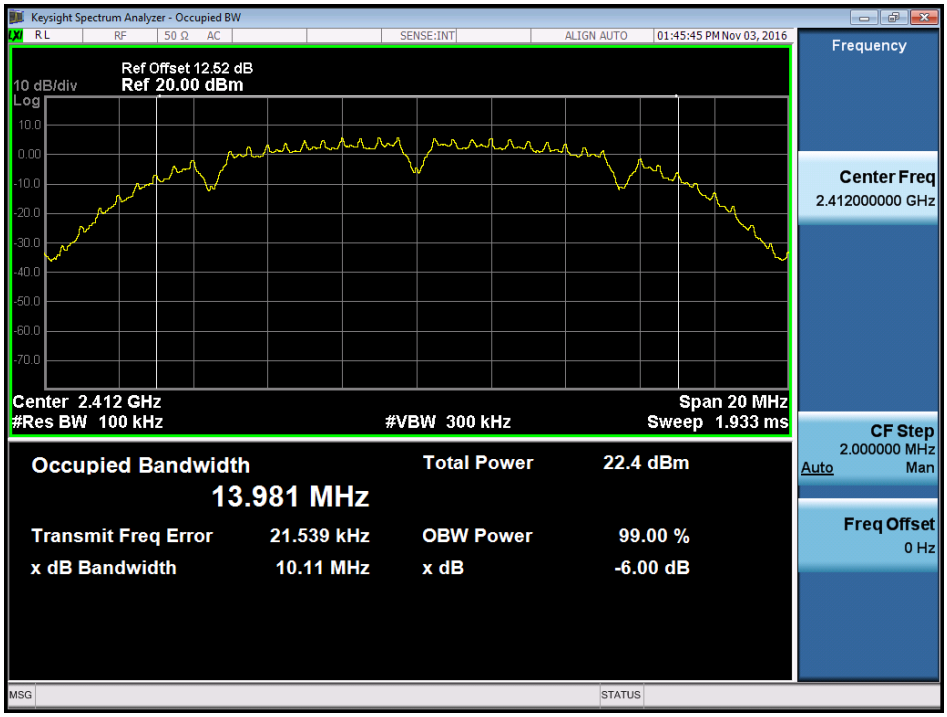
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4904.0000	54.09	-11.35	42.74	74.00	-31.26	Peak	
2 *	4904.0000	42.79	-11.35	31.44	54.00	-22.56	AVG	

ATTACHMENT E - BANDWIDTH

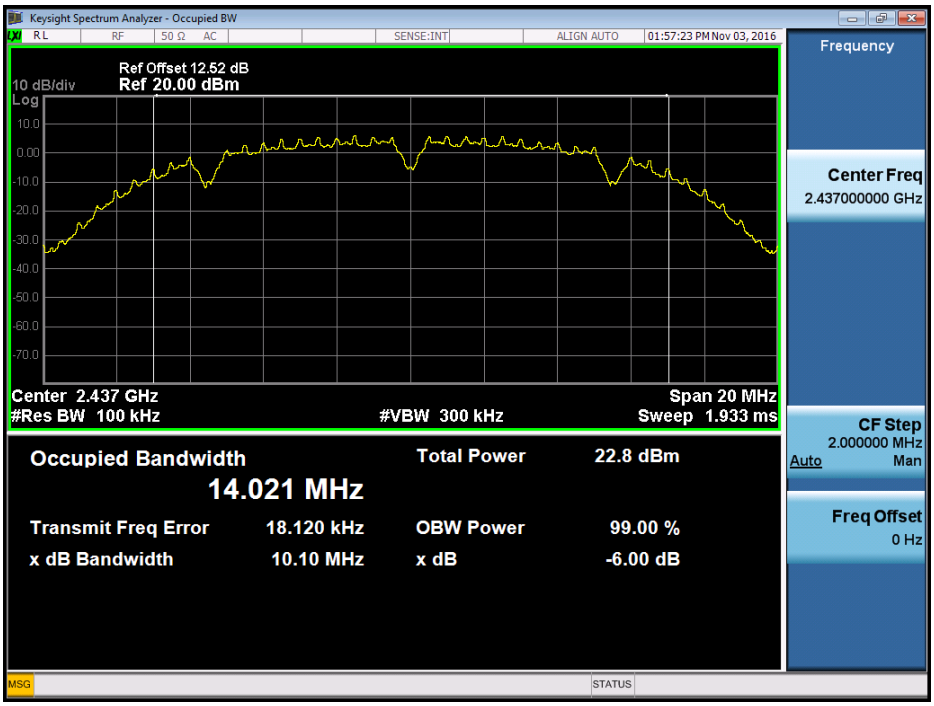
Test Mode : TX B Mode_CH01/06/11

Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied BW (MHz)	Min. Limit (kHz)	Test Result
2412	10.11	13.98	500	Complies
2437	10.10	14.02	500	Complies
2462	10.10	14.00	500	Complies

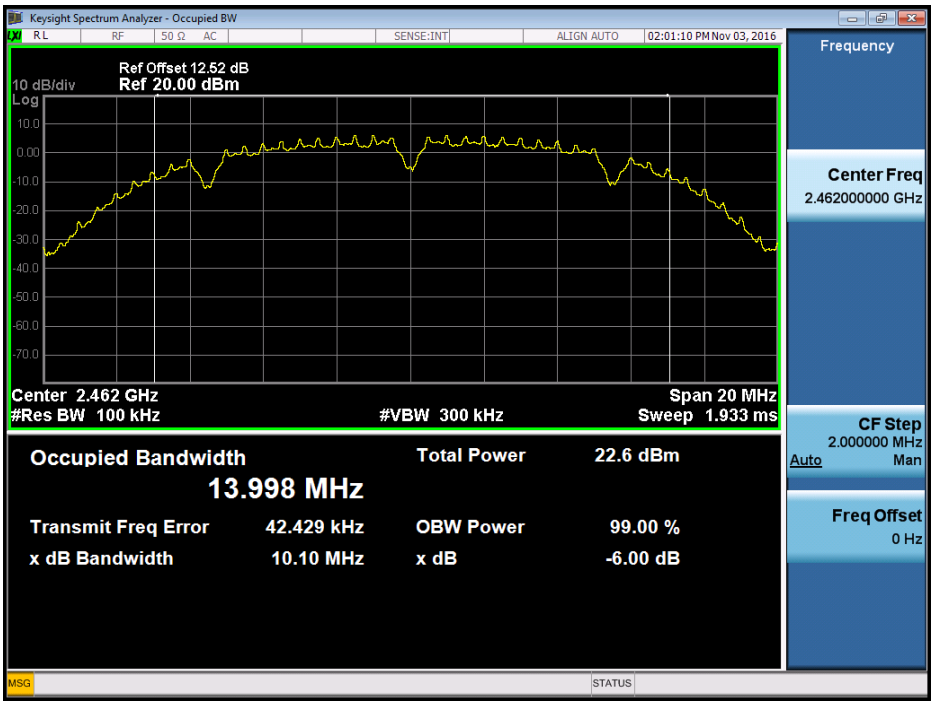
TX CH01



TX CH06



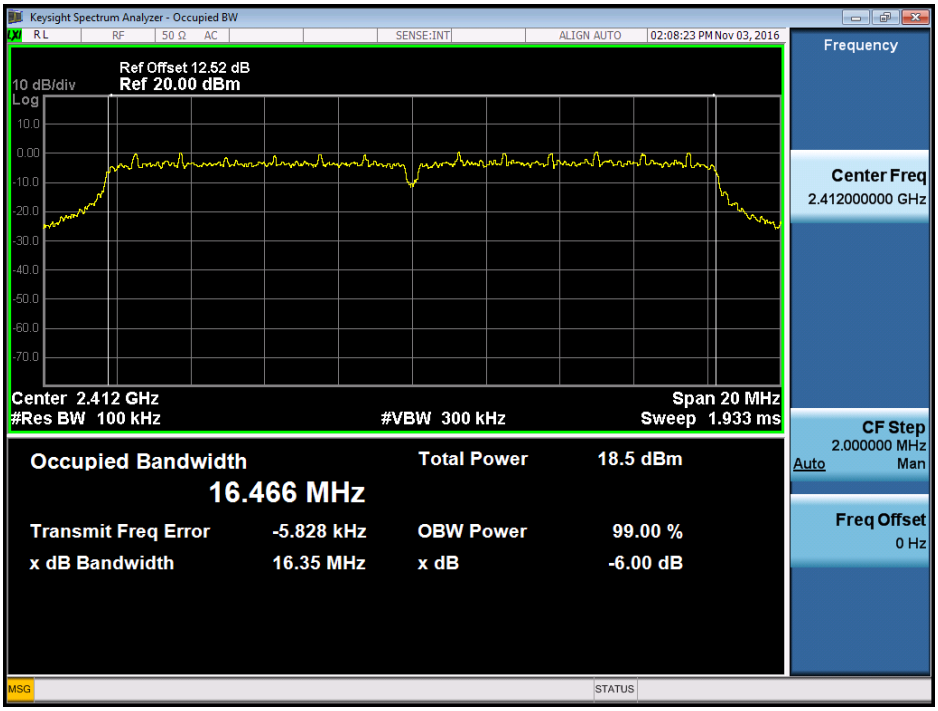
TX CH11



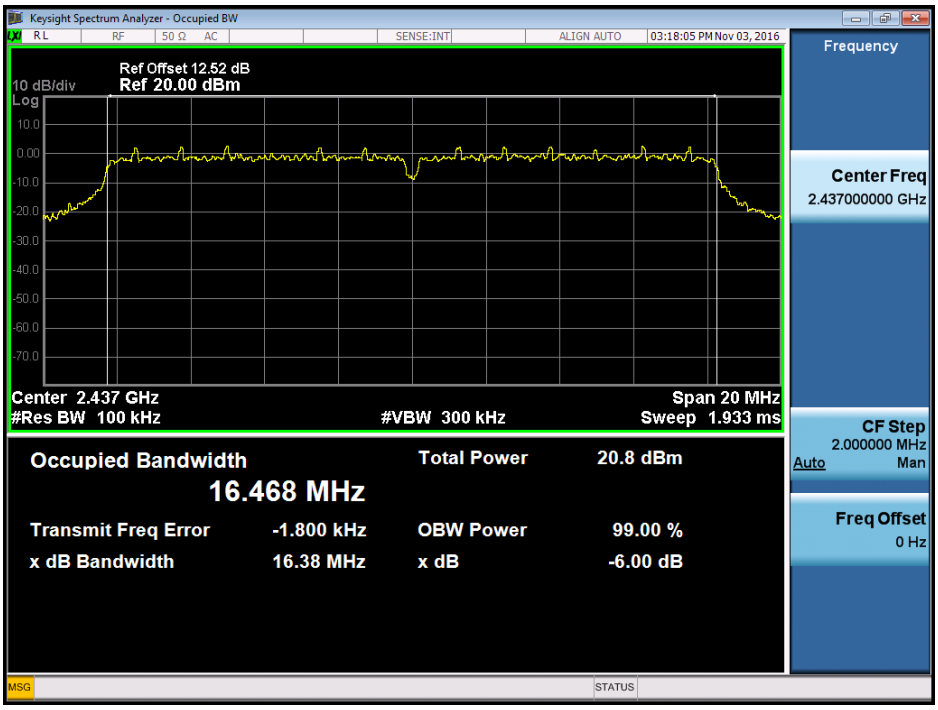
Test Mode: TX G Mode_CH01/06/11

Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied BW (MHz)	Min. Limit (kHz)	Test Result
2412	16.35	16.47	500	Complies
2437	16.38	16.47	500	Complies
2462	16.35	16.47	500	Complies

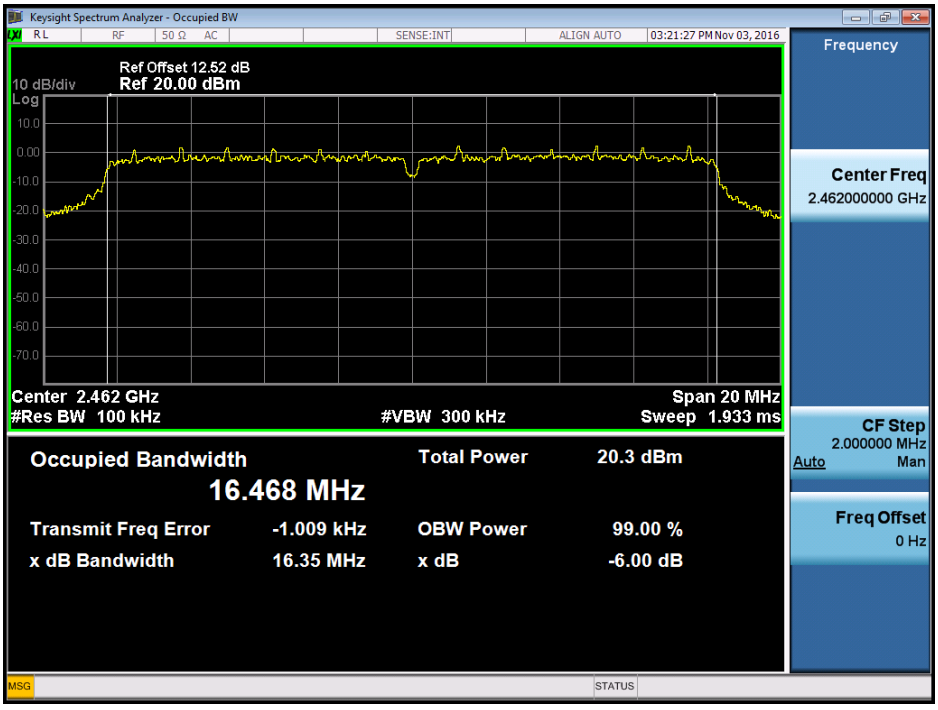
TX CH01



TX CH06



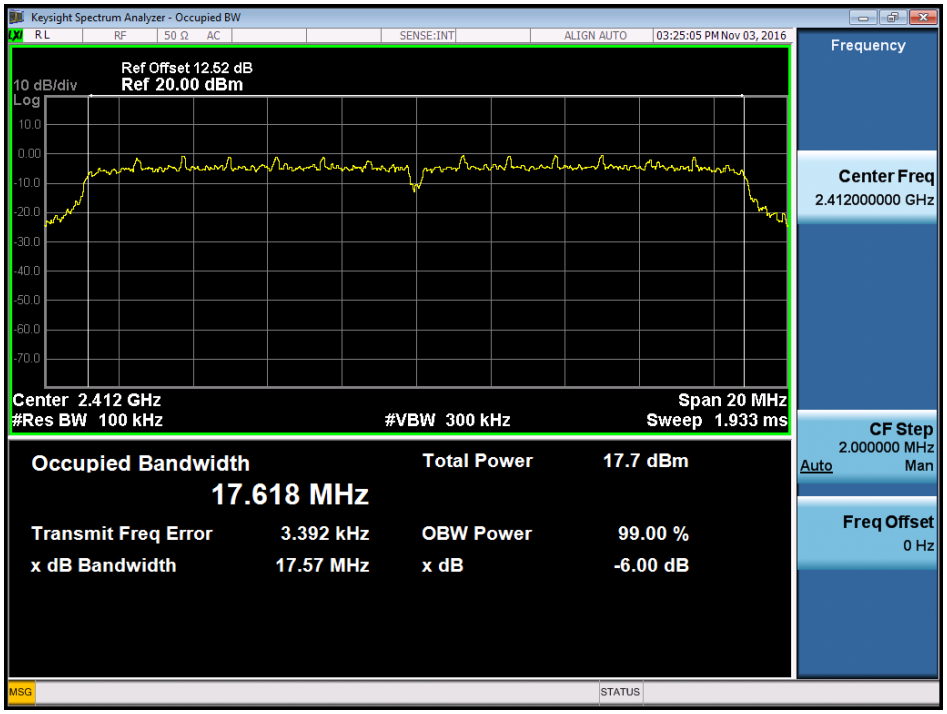
TX CH11



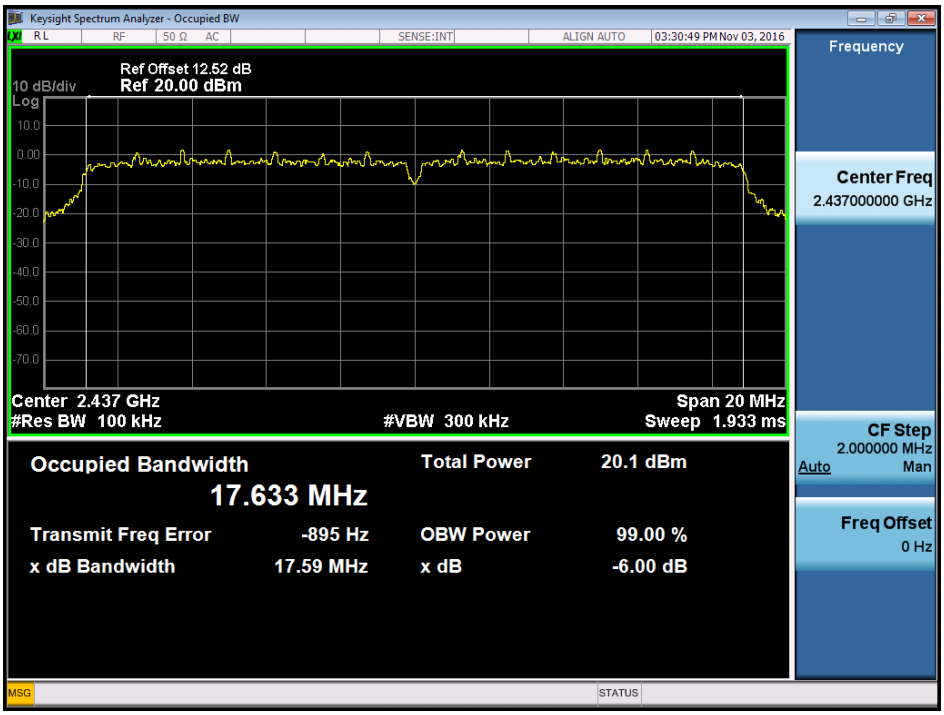
Test Mode : TX N-20MHz Mode_CH01/06/11

Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied BW (MHz)	Min. Limit (kHz)	Test Result
2412	17.57	17.62	500	Complies
2437	17.59	17.63	500	Complies
2462	17.32	17.62	500	Complies

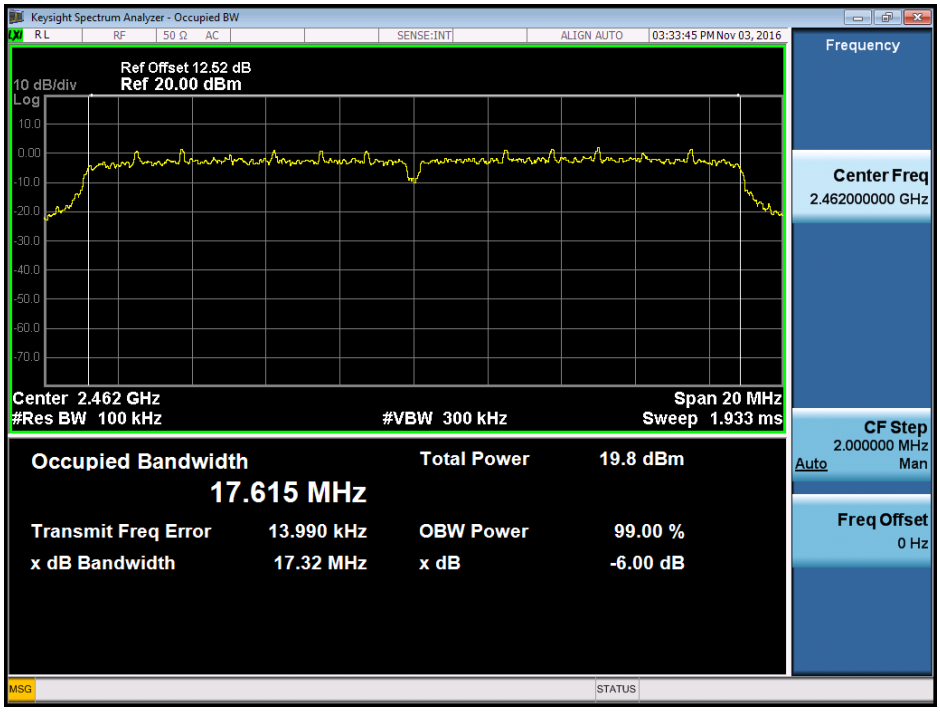
TX CH01



TX CH06



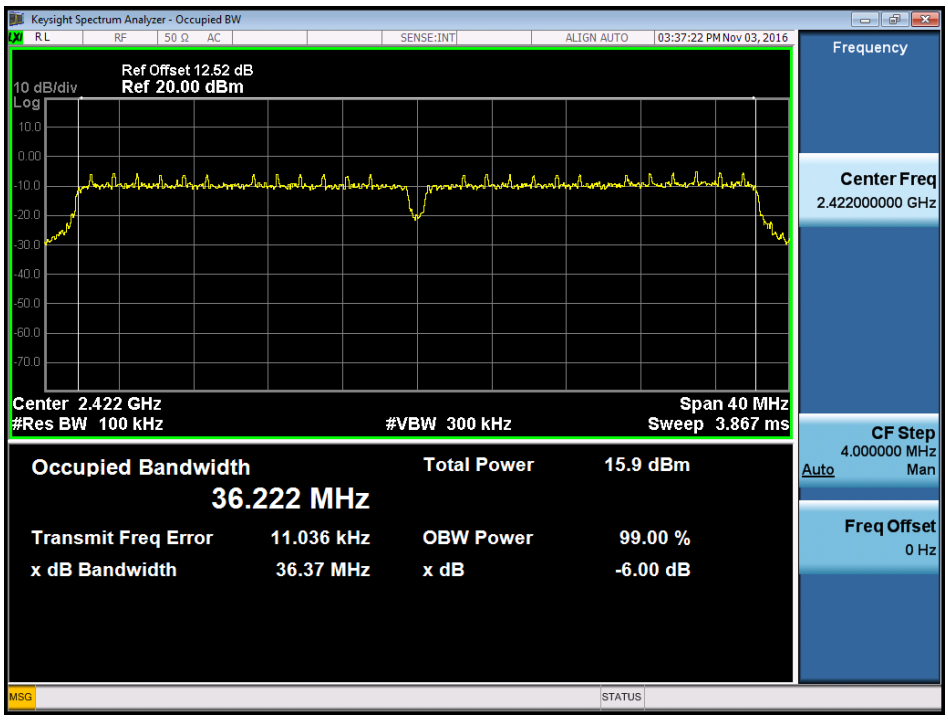
TX CH11



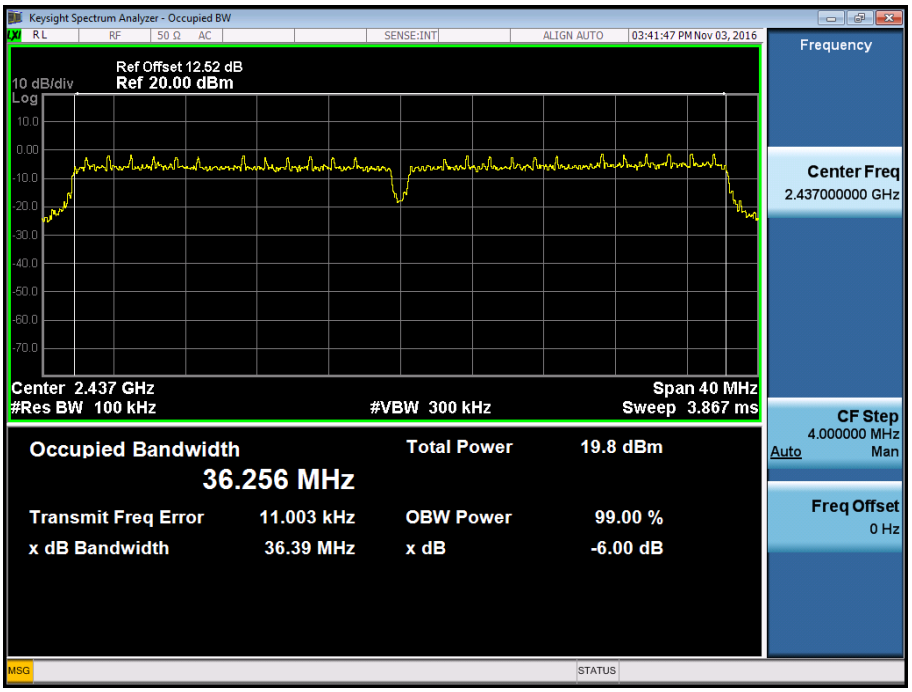
Test Mode : TX N-40MHz Mode_CH03/06/09

Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied BW (MHz)	Min. Limit (kHz)	Test Result
2422	36.37	36.22	500	Complies
2437	36.39	36.26	500	Complies
2452	36.08	36.25	500	Complies

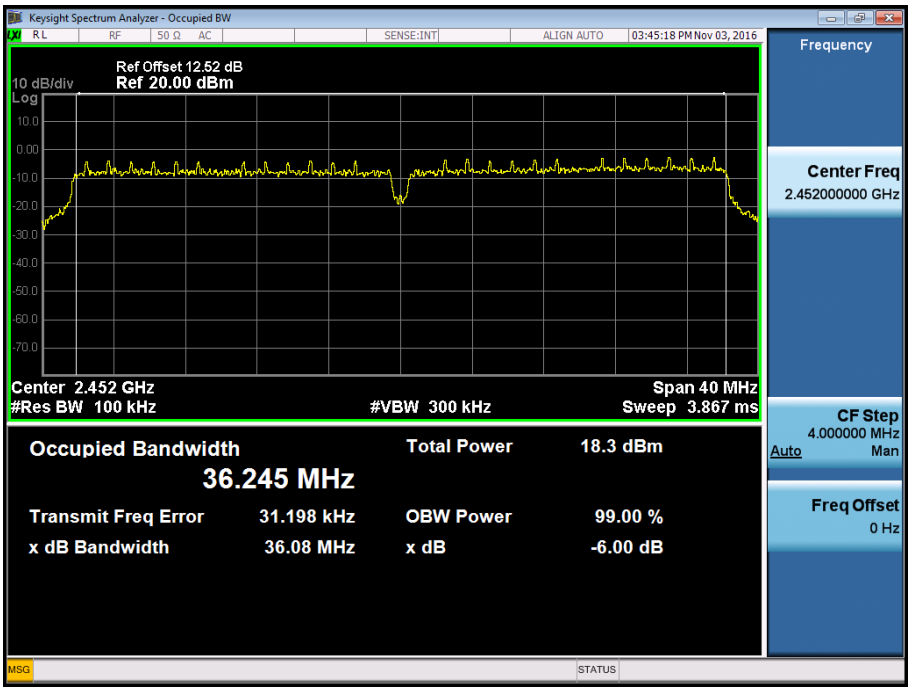
TX CH03



TX CH06



TX CH09



ATTACHMENT F – MAXIMUM PEAK CONDUCTED OUTPUT POWER

Test Mode :TX B Mode_CH01/06/11_ANT 1					
Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2412	17.25	0.05	29.50	0.89	Complies
2437	17.59	0.06	29.50	0.89	Complies
2462	17.48	0.06	29.50	0.89	Complies

Test Mode :TX B Mode_CH01/06/11_ANT 2					
Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2412	18.17	0.07	29.50	0.89	Complies
2437	18.27	0.07	29.50	0.89	Complies
2462	17.76	0.06	29.50	0.89	Complies

Test Mode :TX B Mode_CH01/06/11_Total					
Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2412	20.74	0.12	29.50	0.89	Complies
2437	20.95	0.12	29.50	0.89	Complies
2462	20.63	0.12	29.50	0.89	Complies

Test Mode :TX G Mode_CH01/06/11_ANT 1					
Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2412	20.15	0.10	29.50	0.89	Complies
2437	24.00	0.25	29.50	0.89	Complies
2462	22.69	0.19	29.50	0.89	Complies

Test Mode :TX G Mode_CH01/06/11_ANT 2					
Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2412	21.58	0.14	29.50	0.89	Complies
2437	24.44	0.28	29.50	0.89	Complies
2462	22.34	0.17	29.50	0.89	Complies

Test Mode :TX G Mode_CH01/06/11_Total					
Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2412	23.93	0.25	29.50	0.89	Complies
2437	27.24	0.53	29.50	0.89	Complies
2462	25.53	0.36	29.50	0.89	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	19.28	0.08	29.50	0.89	Complies
2437	23.08	0.20	29.50	0.89	Complies
2462	22.95	0.20	29.50	0.89	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	20.54	0.11	29.50	0.89	Complies
2437	23.29	0.21	29.50	0.89	Complies
2462	23.40	0.22	29.50	0.89	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	22.97	0.20	29.50	0.89	Complies
2437	26.20	0.42	29.50	0.89	Complies
2462	26.19	0.42	29.50	0.89	Complies

Test Mode :TX N40 Mode_CH03/06/09_ANT 1					
Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2422	17.32	0.05	29.50	0.89	Complies
2437	22.56	0.18	29.50	0.89	Complies
2452	19.04	0.08	29.50	0.89	Complies

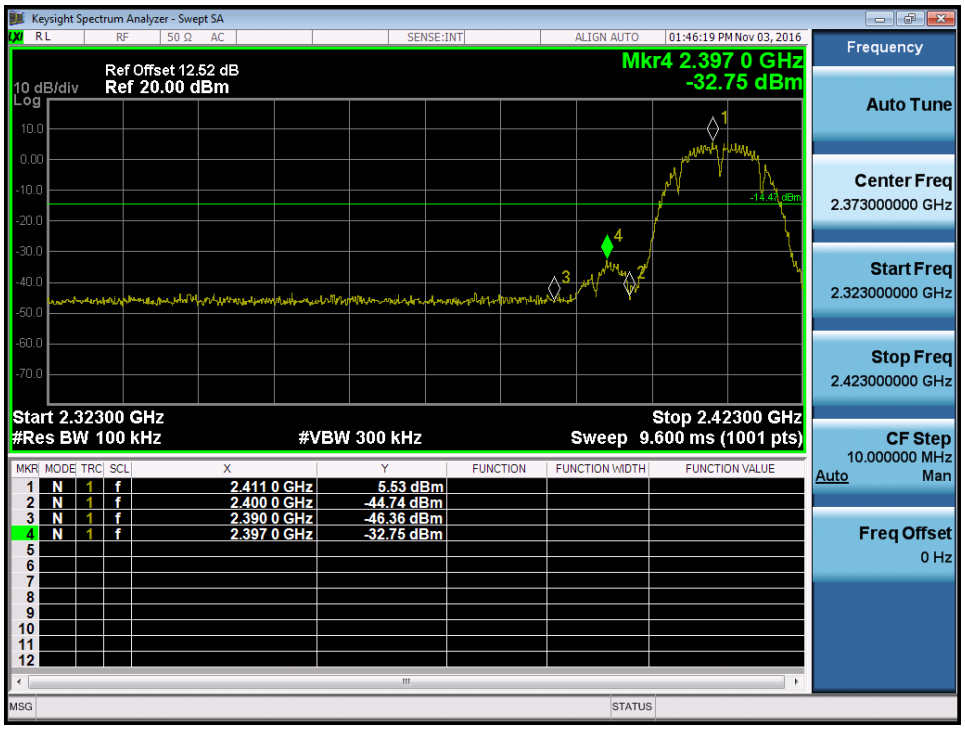
Test Mode :TX N40 Mode_CH03/06/09_ANT 2					
Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2422	17.66	0.06	29.50	0.89	Complies
2437	23.23	0.21	29.50	0.89	Complies
2452	21.54	0.14	29.50	0.89	Complies

Test Mode :TX N40 Mode_CH03/06/09_Total					
Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2422	20.50	0.11	29.50	0.89	Complies
2437	25.92	0.39	29.50	0.89	Complies
2452	23.48	0.22	29.50	0.89	Complies

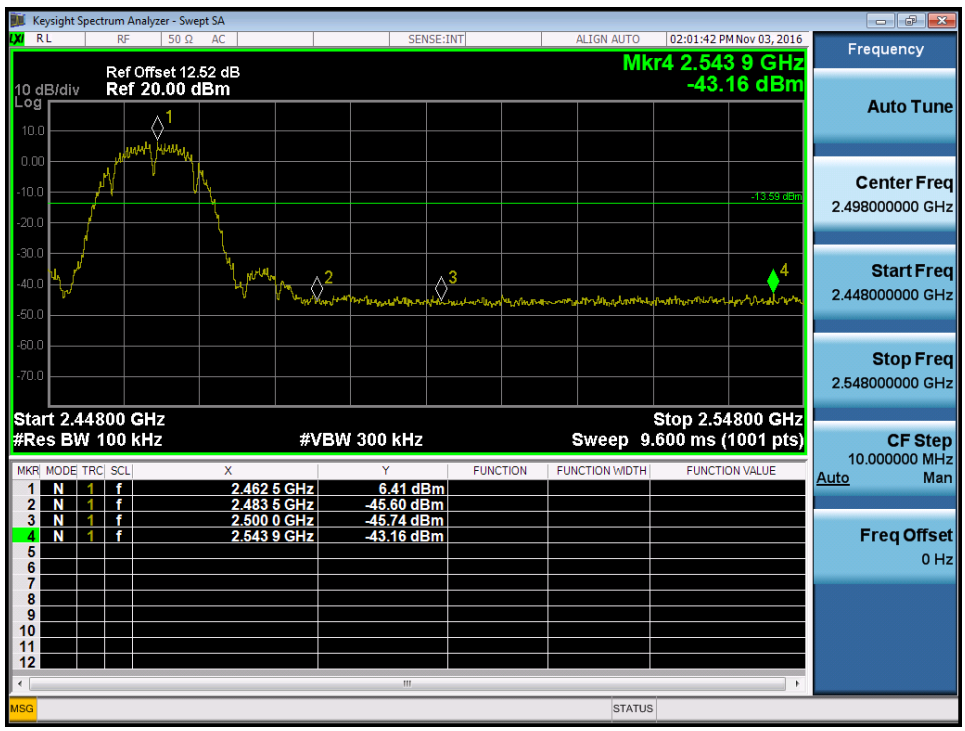
ATTACHMENT G - ANTENNA CONDUCTED SPURIOUS EMISSION

Test Mode :	TX B Mode_ANT 1

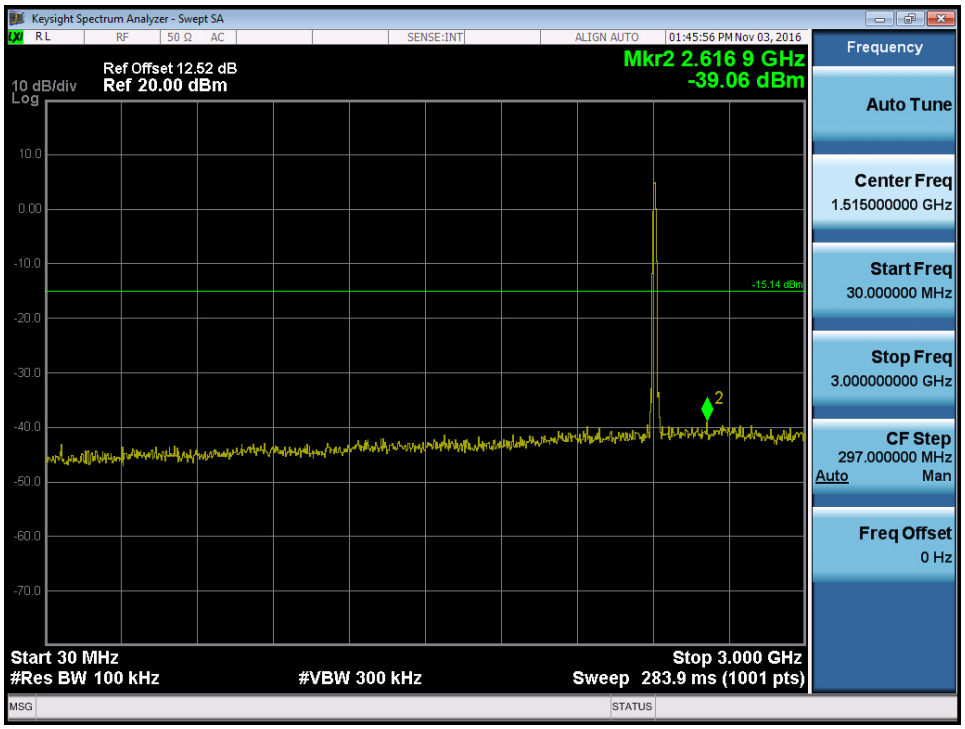
TX B mode CH01

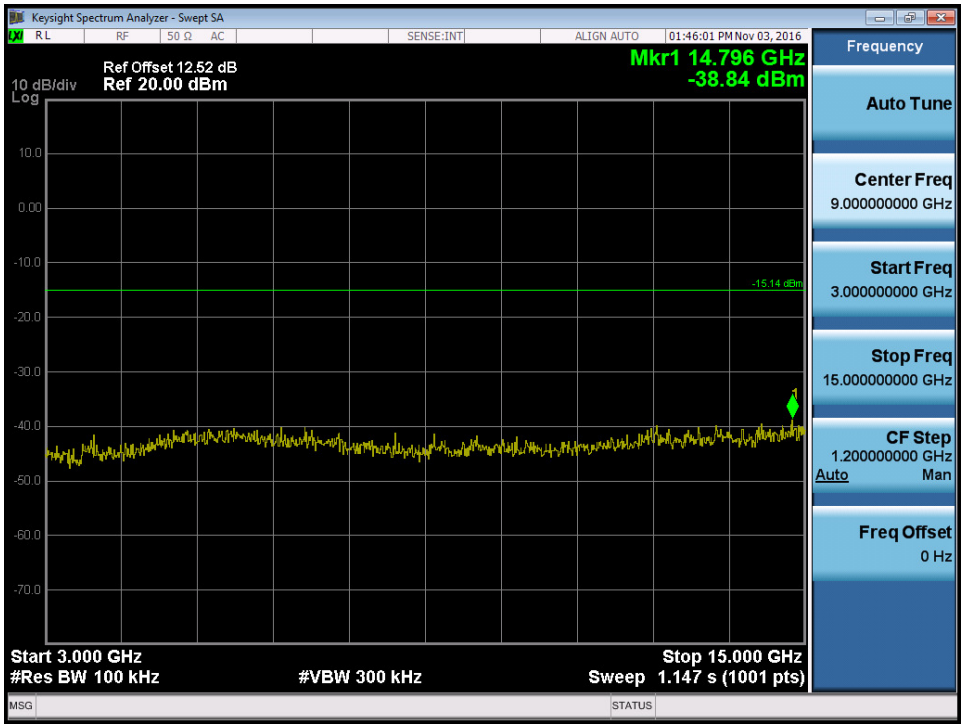


TX B mode CH11

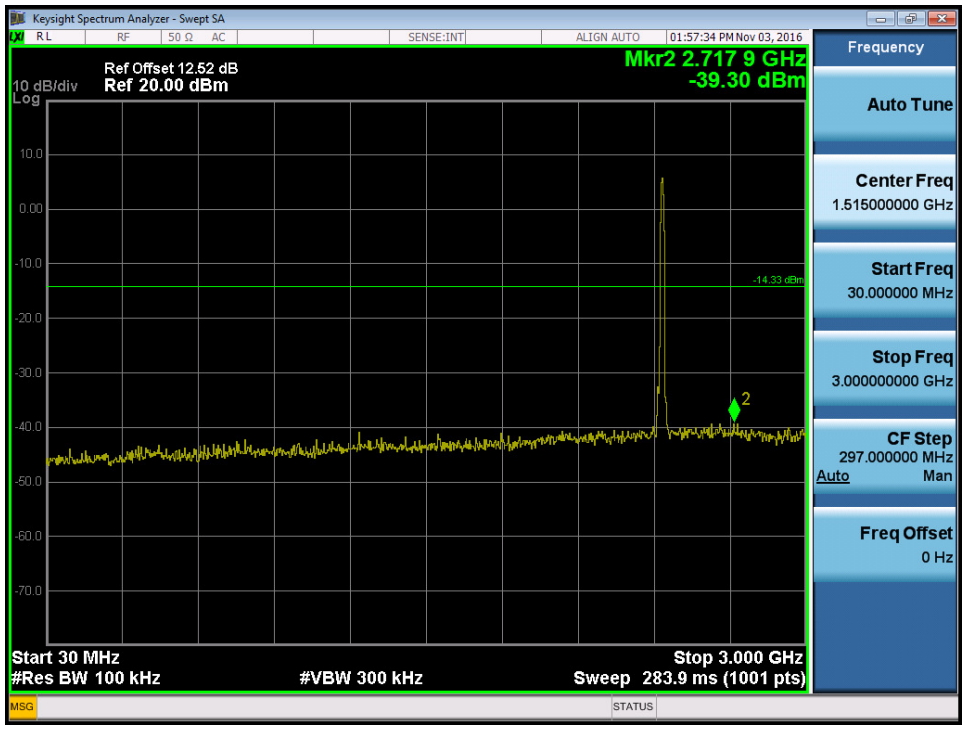


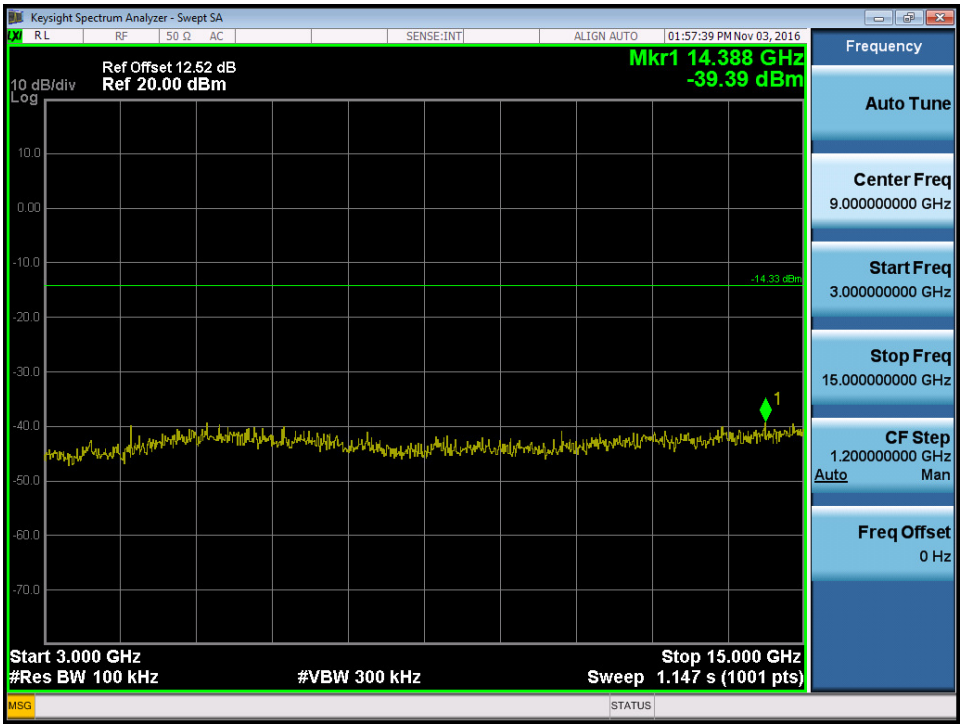
TX B mode CH01 (10 Harmonic of the frequency)





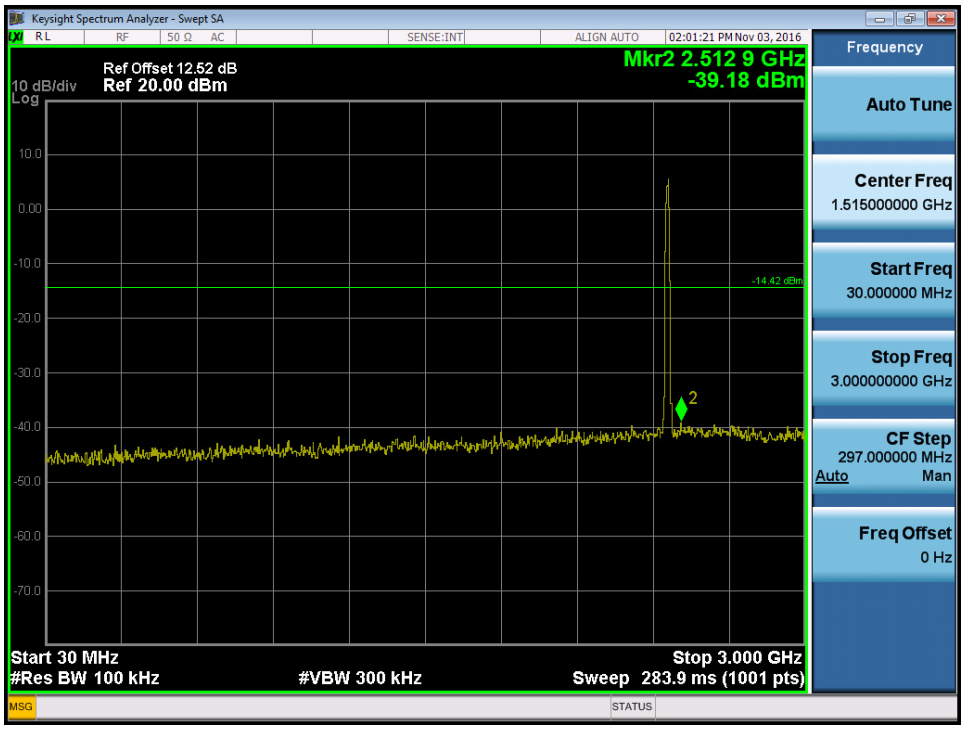
TX B mode CH06 (10 Harmonic of the frequency)

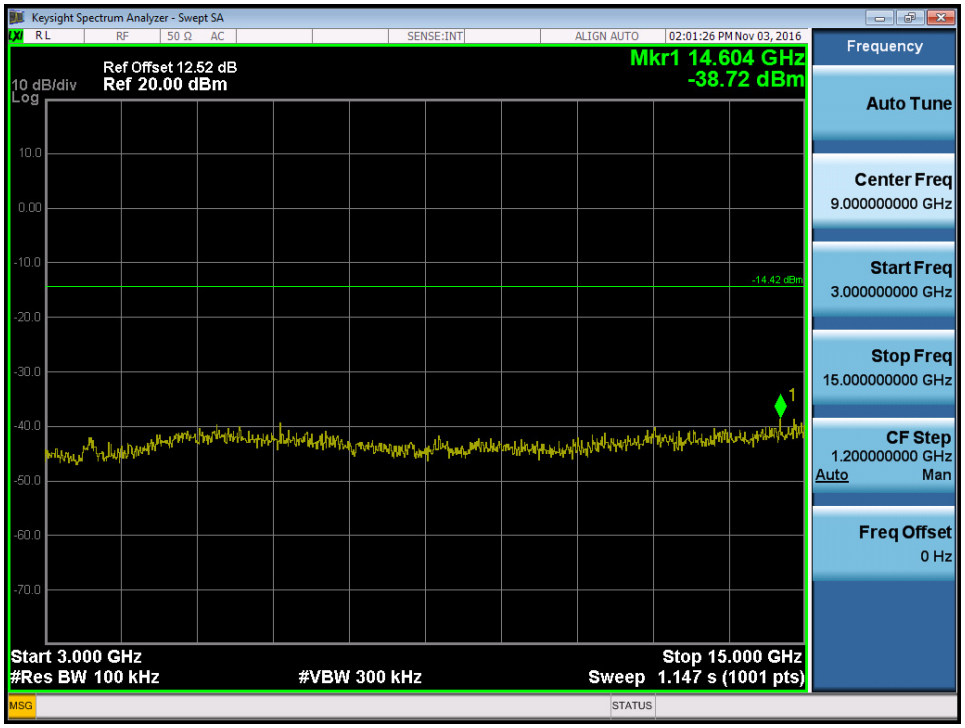



Keysight Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
01:57:39 PM Nov 03, 2016
Ref Offset 12.52 dB
10 dB/div
Log
Ref 20.00 dBm
Mkr1 14.388 GHz
-39.39 dBm
-14.33 dBm
Start 3.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 15.000 GHz
Sweep 1.147 s (1001 pts)
Frequency
Auto Tune
Center Freq
9.000000000 GHz
Start Freq
3.000000000 GHz
Stop Freq
15.000000000 GHz
CF Step
1.200000000 GHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS


Keysight Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
01:57:44 PM Nov 03, 2016
Ref Offset 12.52 dB
10 dB/div
Log
Ref 20.00 dBm
Mkr1 24.994 GHz
-28.09 dBm
-14.33 dBm
Start 15.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 26.500 GHz
Sweep 1.099 s (1001 pts)
Frequency
Auto Tune
Center Freq
20.750000000 GHz
Start Freq
15.000000000 GHz
Stop Freq
26.500000000 GHz
CF Step
1.150000000 GHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS

TX B mode CH11 (10 Harmonic of the frequency)

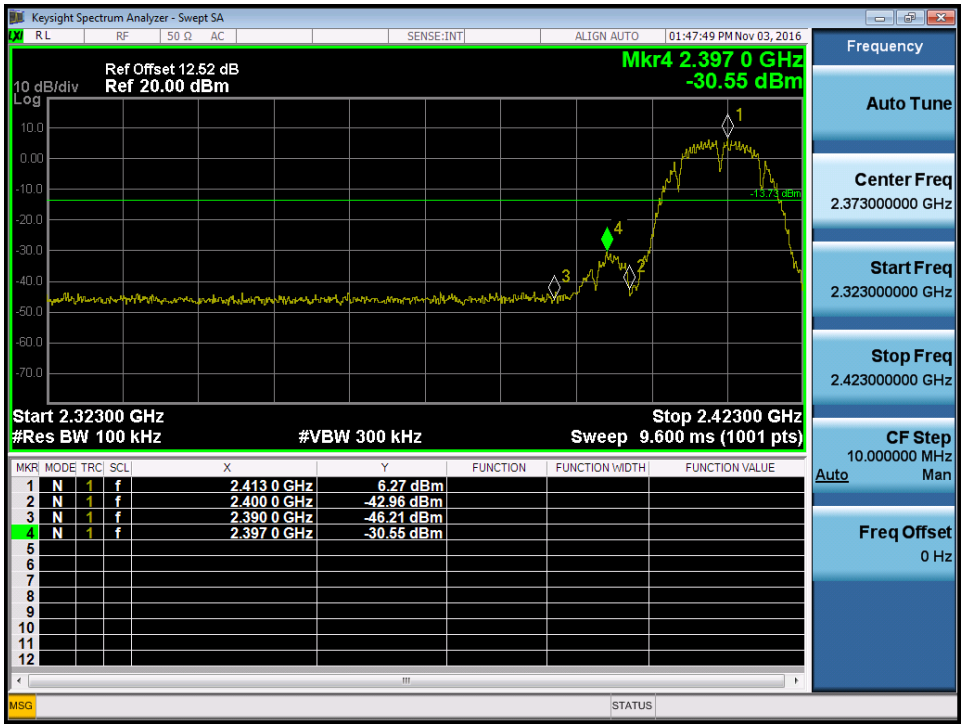




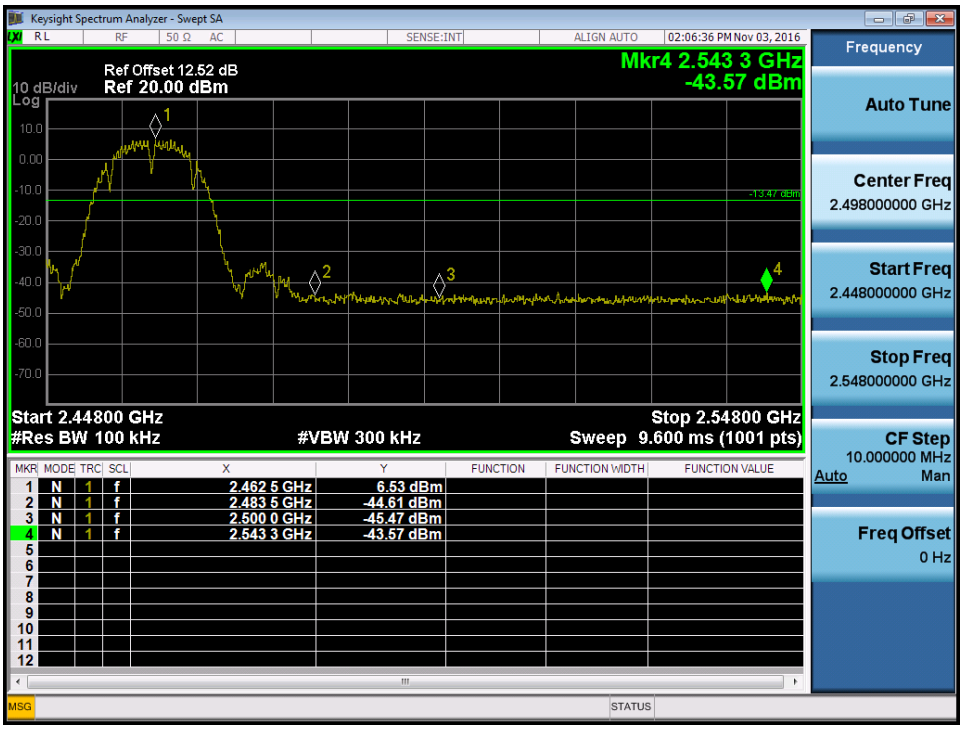

Keysight Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
02:01:31 PM Nov 03, 2016
Ref Offset 12.52 dB
10 dB/div Ref 20.00 dBm
Log
Mkr1 26.006 GHz
-27.61 dBm
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-14.42 dBm
1
Start 15.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 26.500 GHz
Sweep 1.099 s (1001 pts)
Frequency
Auto Tune
Center Freq
20.750000000 GHz
Start Freq
15.000000000 GHz
Stop Freq
26.500000000 GHz
CF Step
1.150000000 GHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS

Test Mode :	TX B Mode_ANT 2

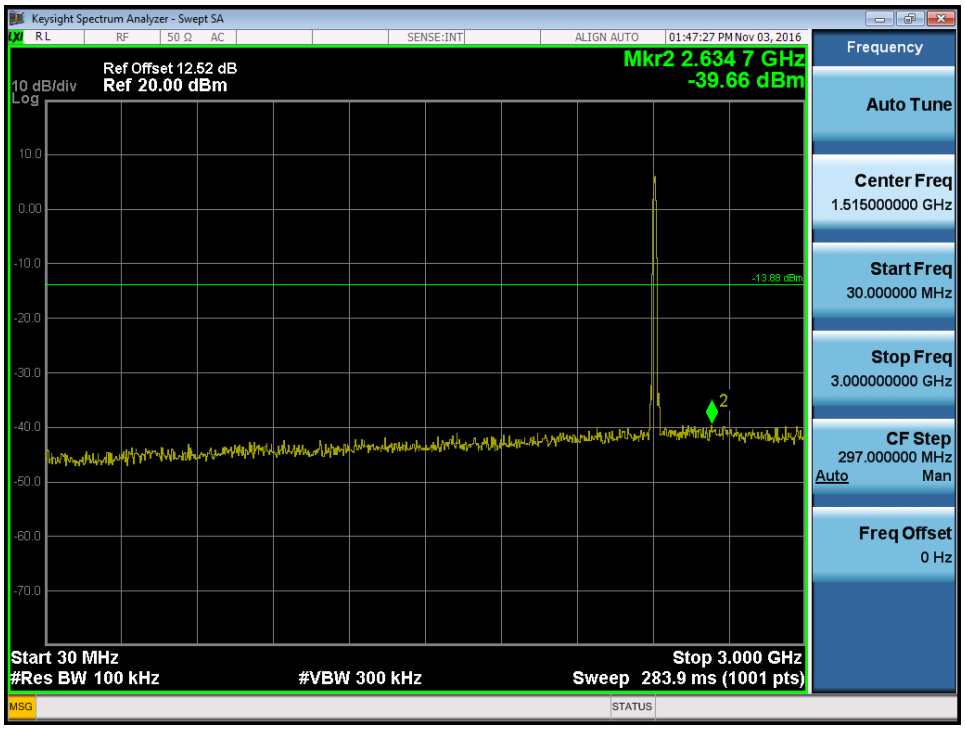
TX B mode CH01

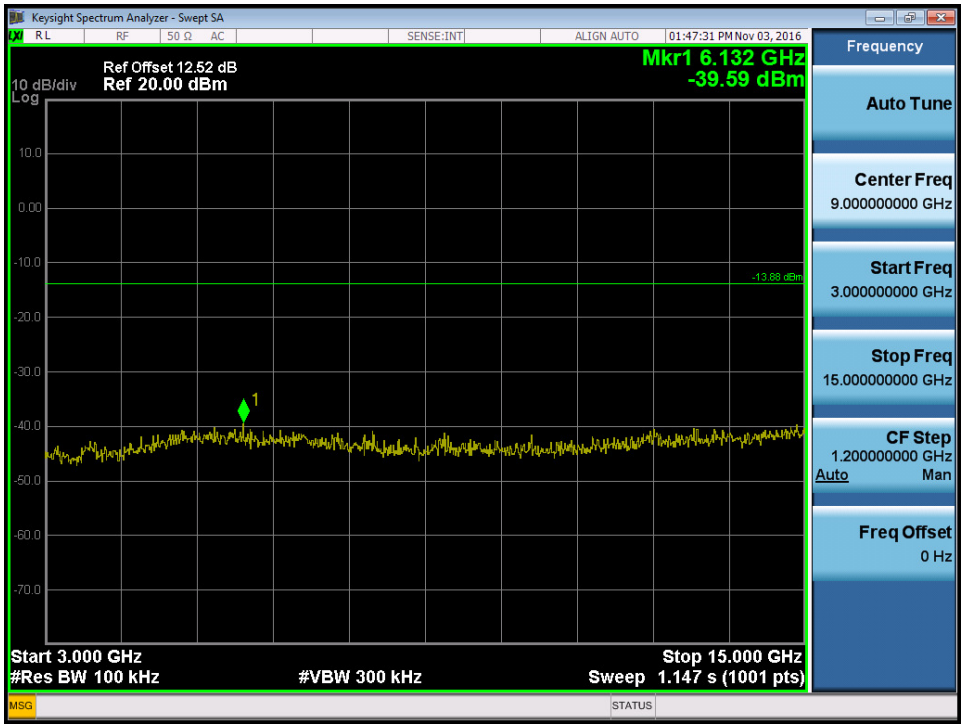


TX B mode CH11

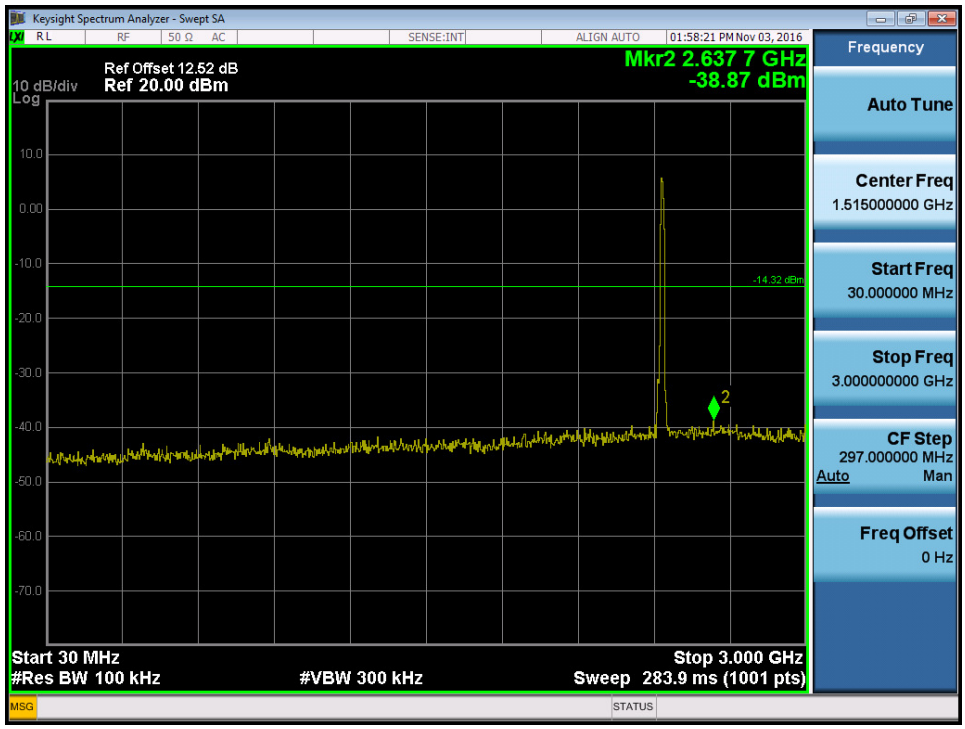


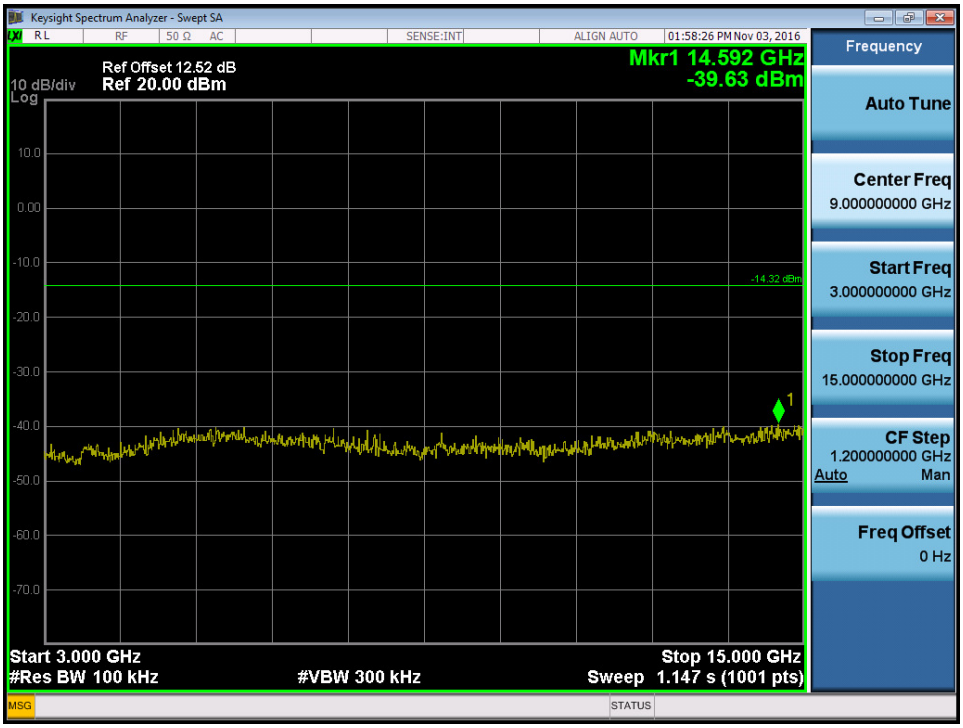
TX B mode CH01 (10 Harmonic of the frequency)

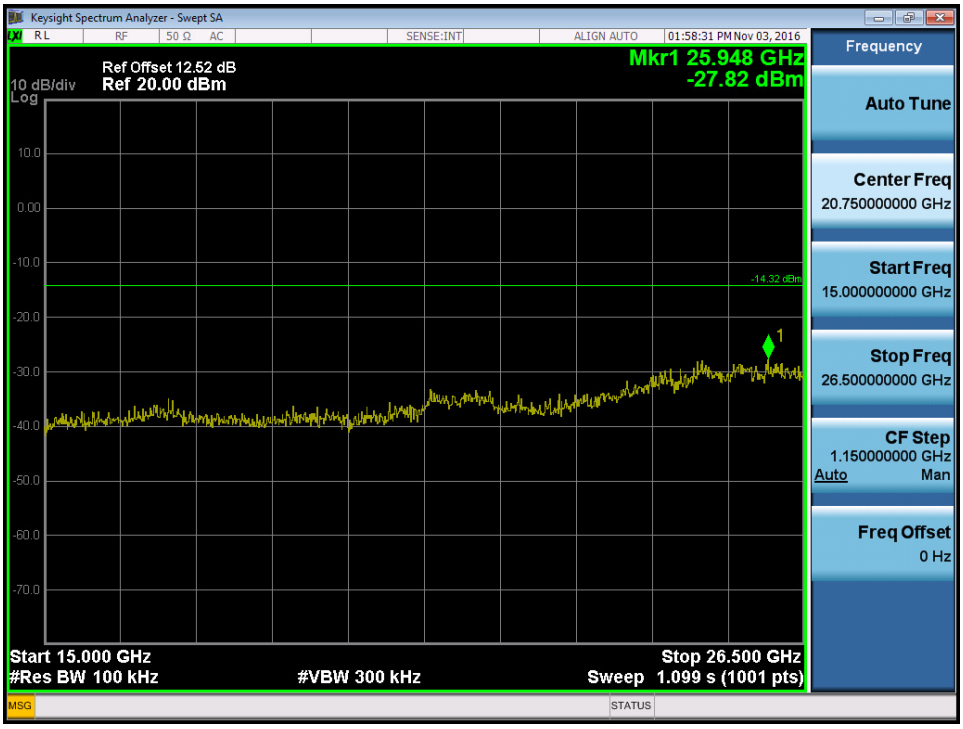




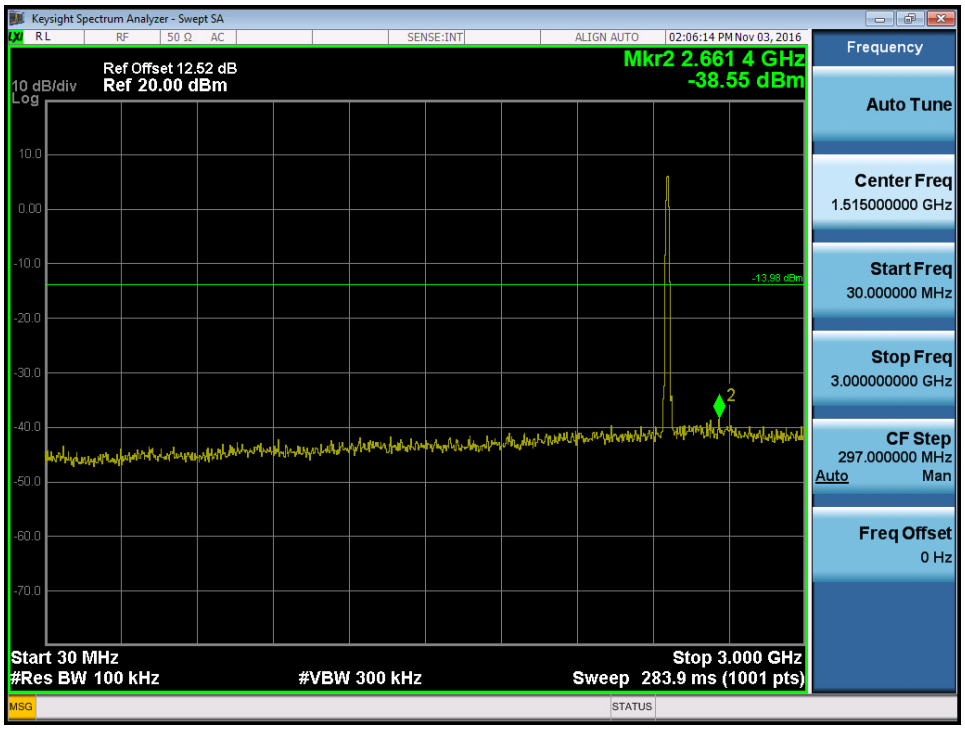
TX B mode CH06 (10 Harmonic of the frequency)

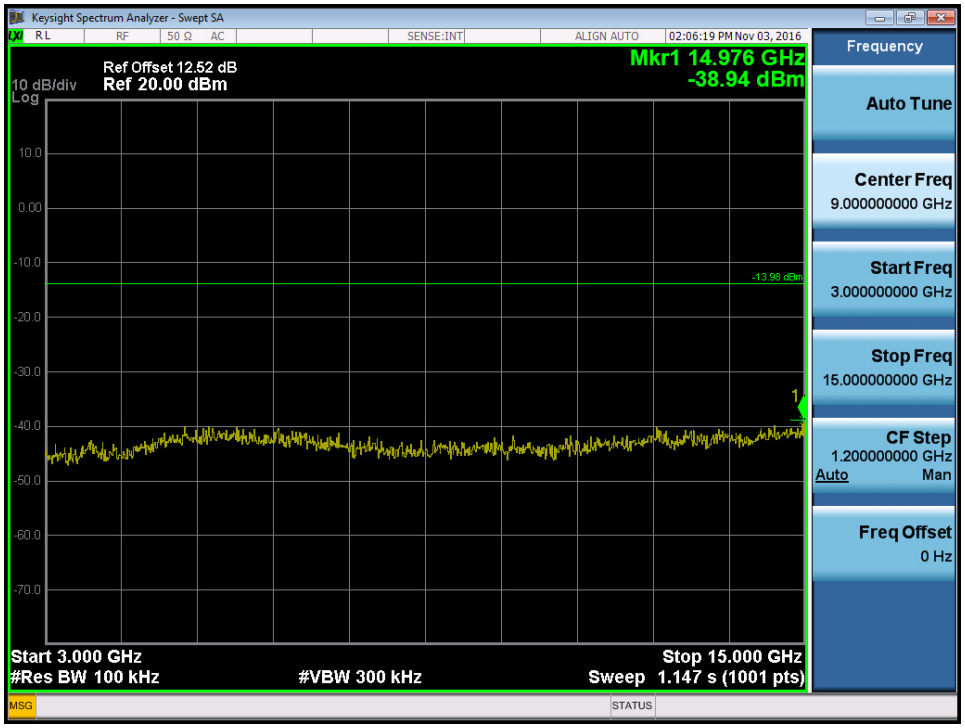



Keysight Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
01:58:26 PM Nov 03, 2016
Ref Offset 12.52 dB
10 dB/div Ref 20.00 dBm
Log
Mkr1 14.592 GHz
-39.63 dBm
-14.32 dBm
Start 3.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 15.000 GHz
Sweep 1.147 s (1001 pts)
Frequency
Auto Tune
Center Freq
9.000000000 GHz
Start Freq
3.000000000 GHz
Stop Freq
15.000000000 GHz
CF Step
1.200000000 GHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS


Keysight Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
01:58:31 PM Nov 03, 2016
Ref Offset 12.52 dB
10 dB/div Ref 20.00 dBm
Log
Mkr1 25.948 GHz
-27.82 dBm
-14.32 dBm
Start 15.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 26.500 GHz
Sweep 1.099 s (1001 pts)
Frequency
Auto Tune
Center Freq
20.750000000 GHz
Start Freq
15.000000000 GHz
Stop Freq
26.500000000 GHz
CF Step
1.150000000 GHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS

TX B mode CH11 (10 Harmonic of the frequency)

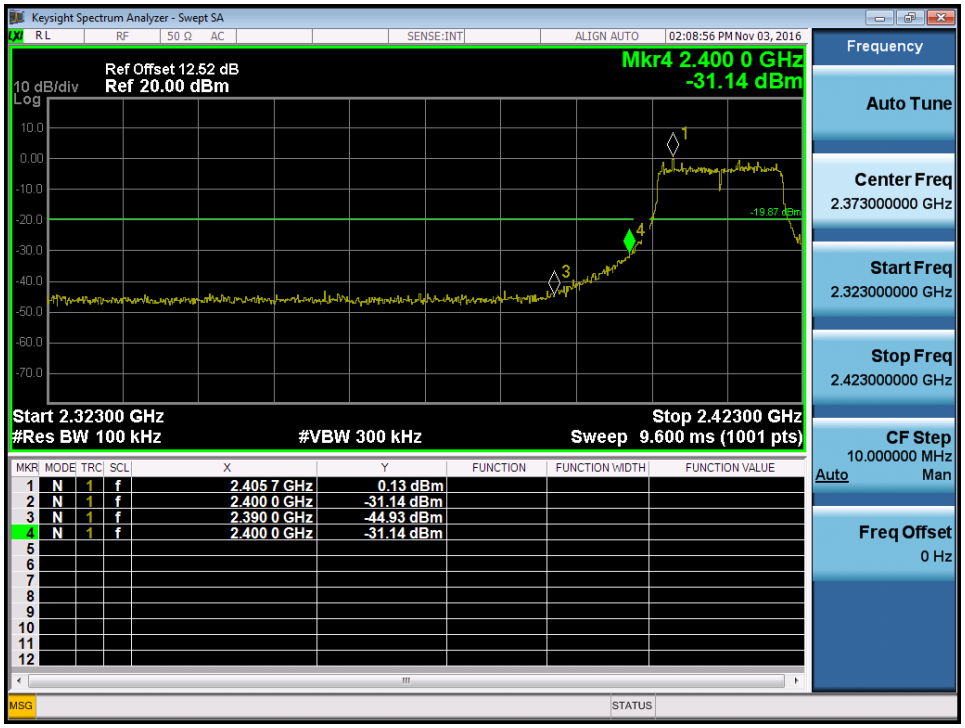




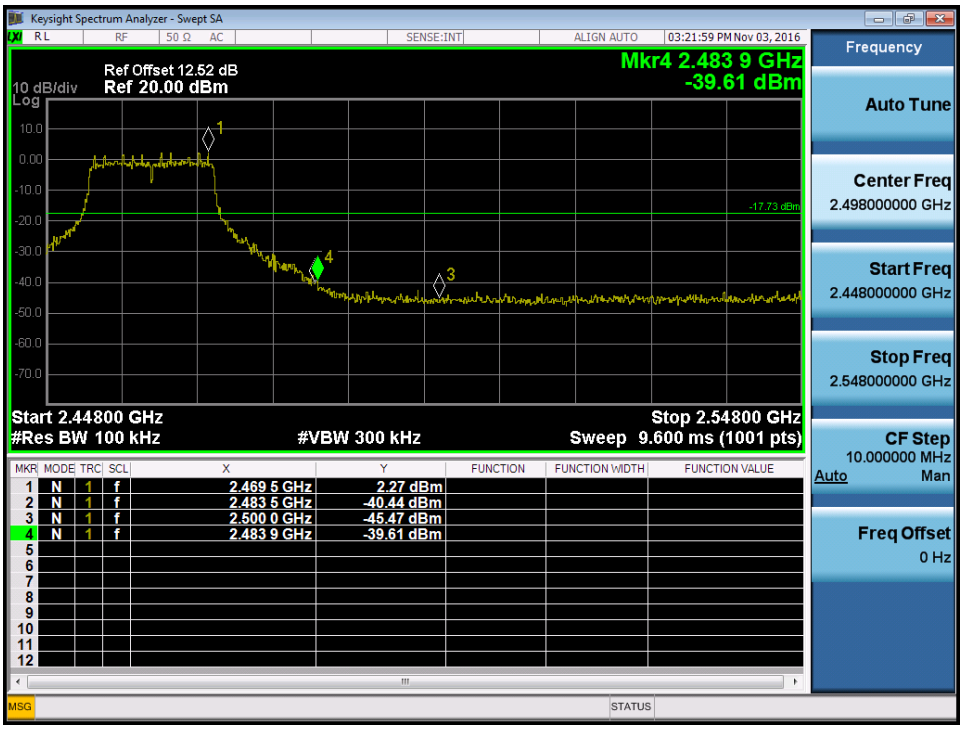

Keysight Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
02:06:23 PM Nov 03, 2016
Ref Offset 12.52 dB
10 dB/div
Log
Ref 20.00 dBm
Mkr1 24.936 GHz
-27.72 dBm
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-13.98 dBm
1
Start 15.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 26.500 GHz
Sweep 1.099 s (1001 pts)
Frequency
Auto Tune
Center Freq
20.750000000 GHz
Start Freq
15.000000000 GHz
Stop Freq
26.500000000 GHz
CF Step
1.150000000 GHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS

Test Mode :	TX G Mode_ANT 1

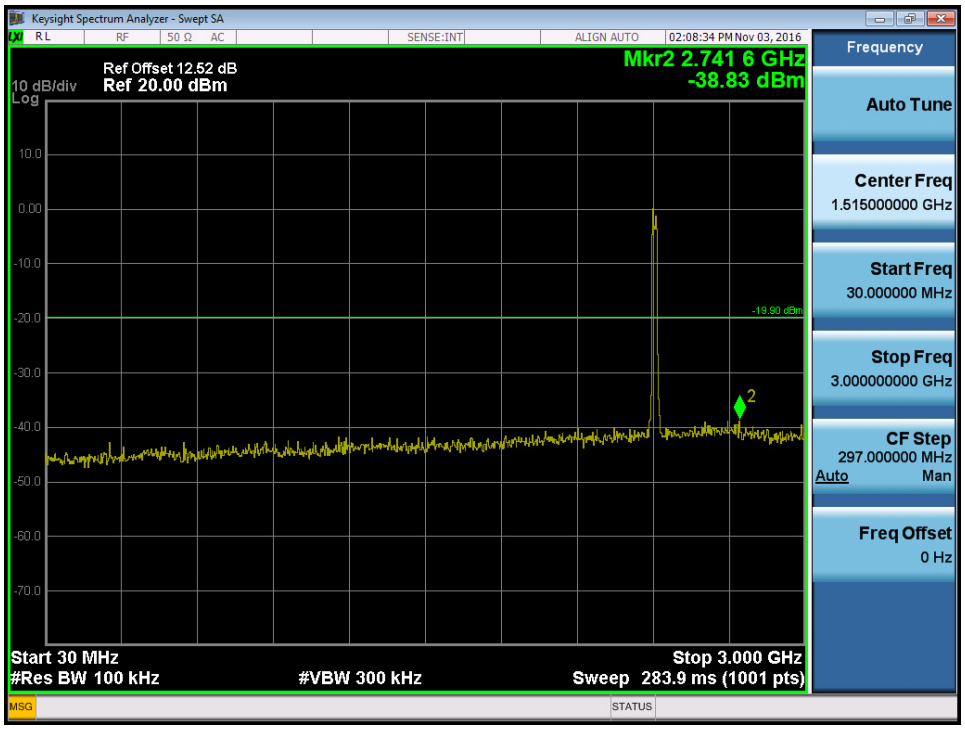
TX G mode CH01

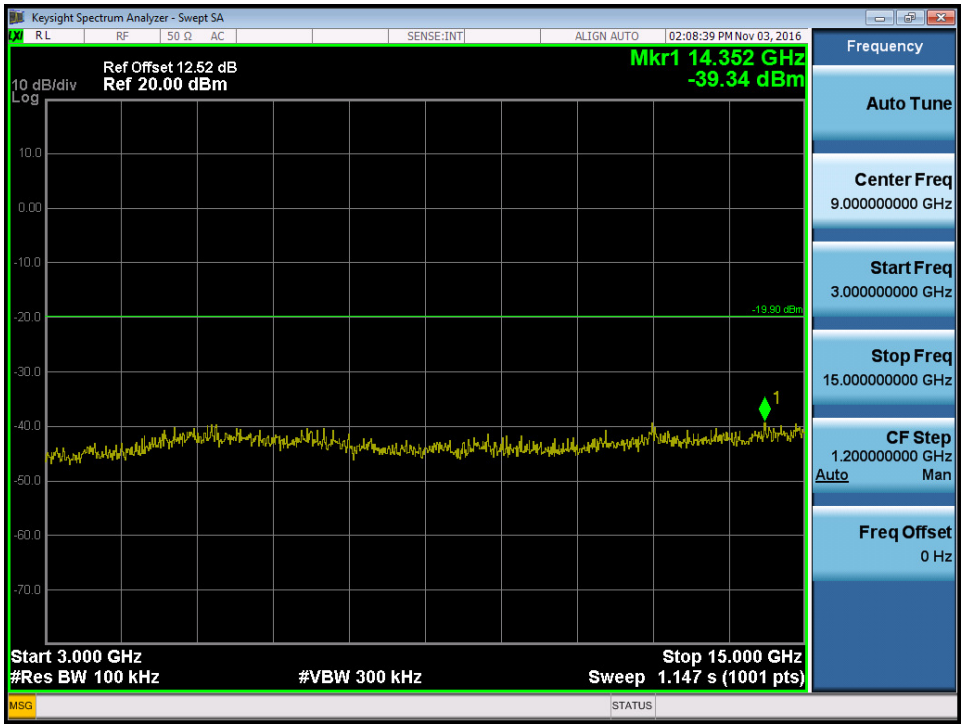


TX G mode CH11

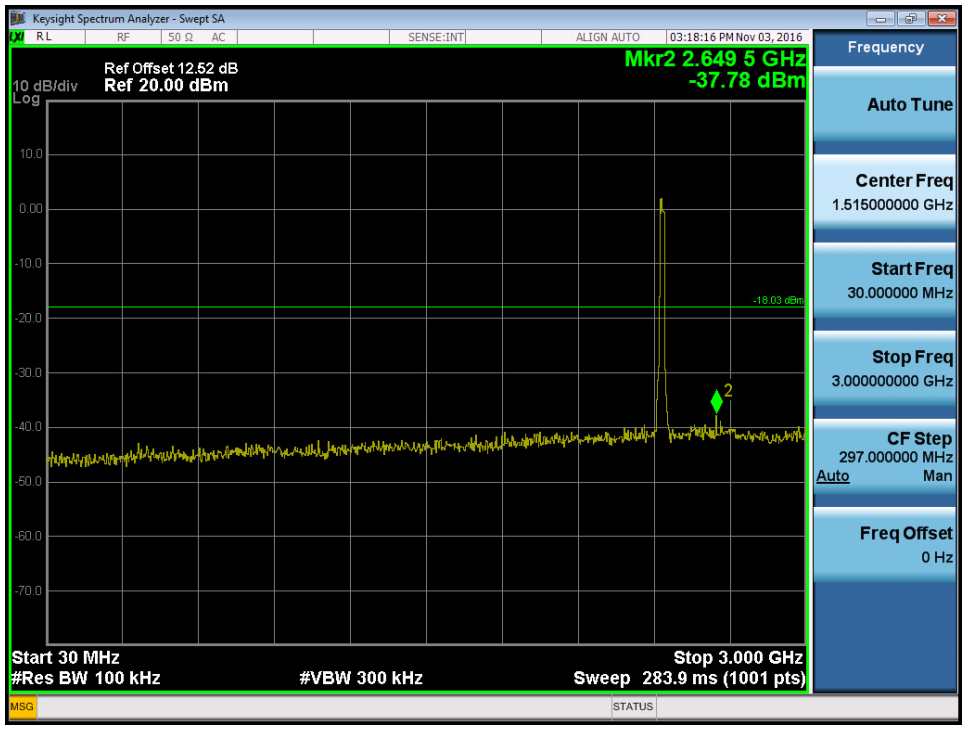


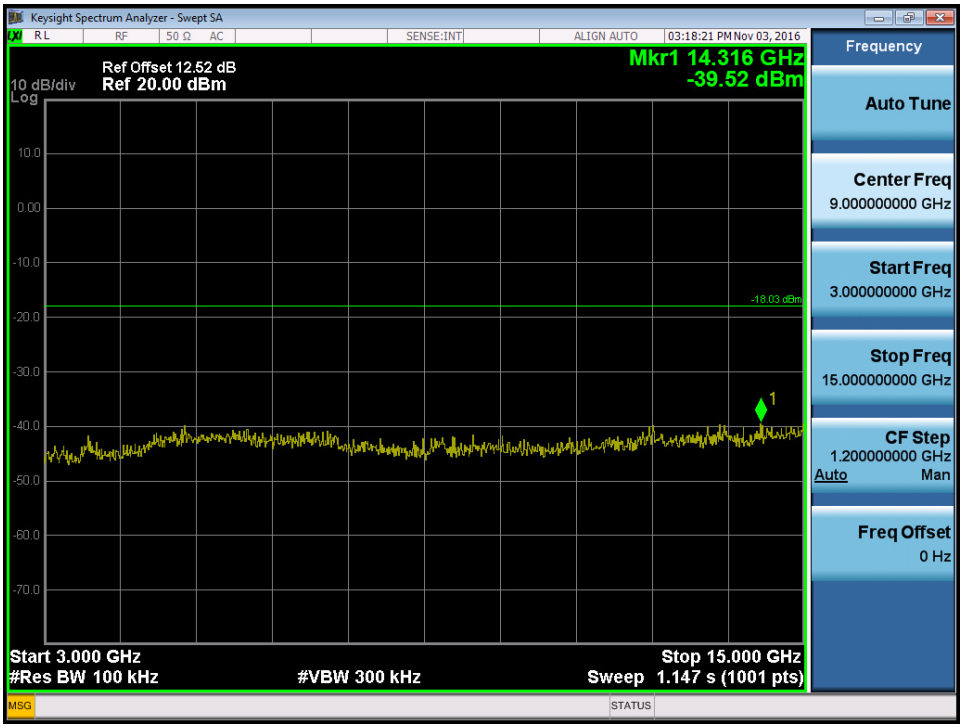
TX G mode CH01 (10 Harmonic of the frequency)

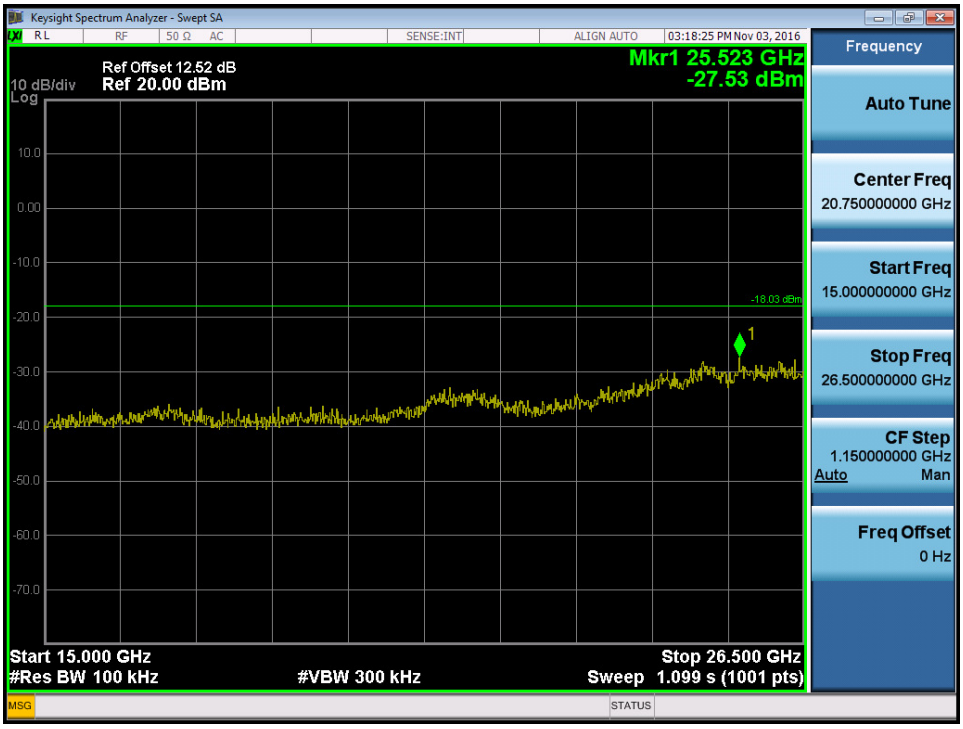




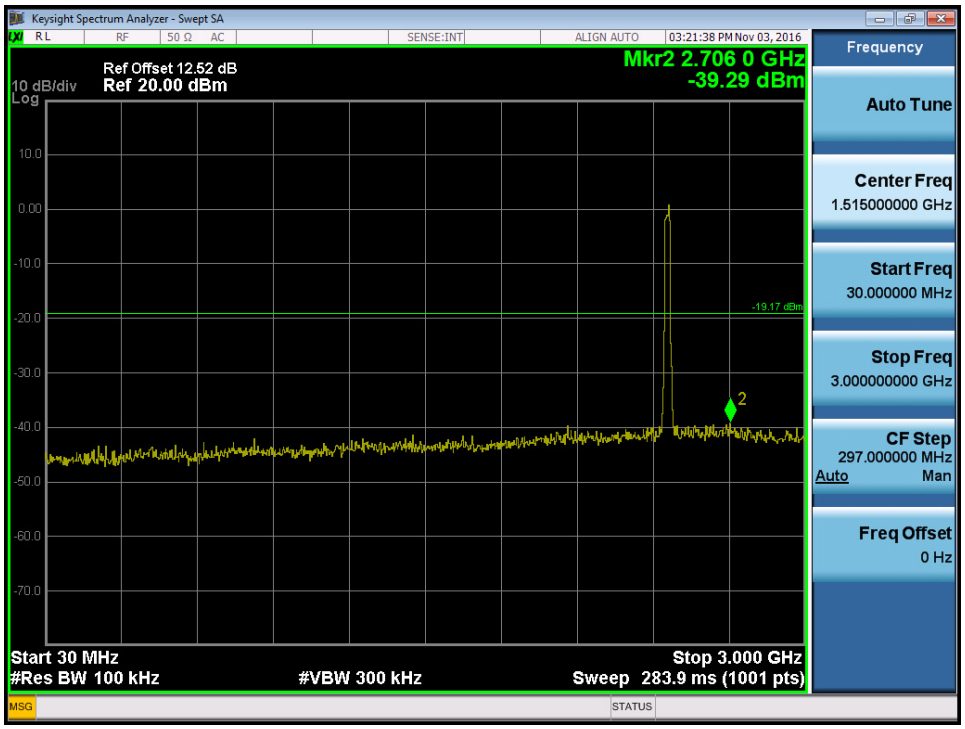
TX G mode CH06 (10 Harmonic of the frequency)

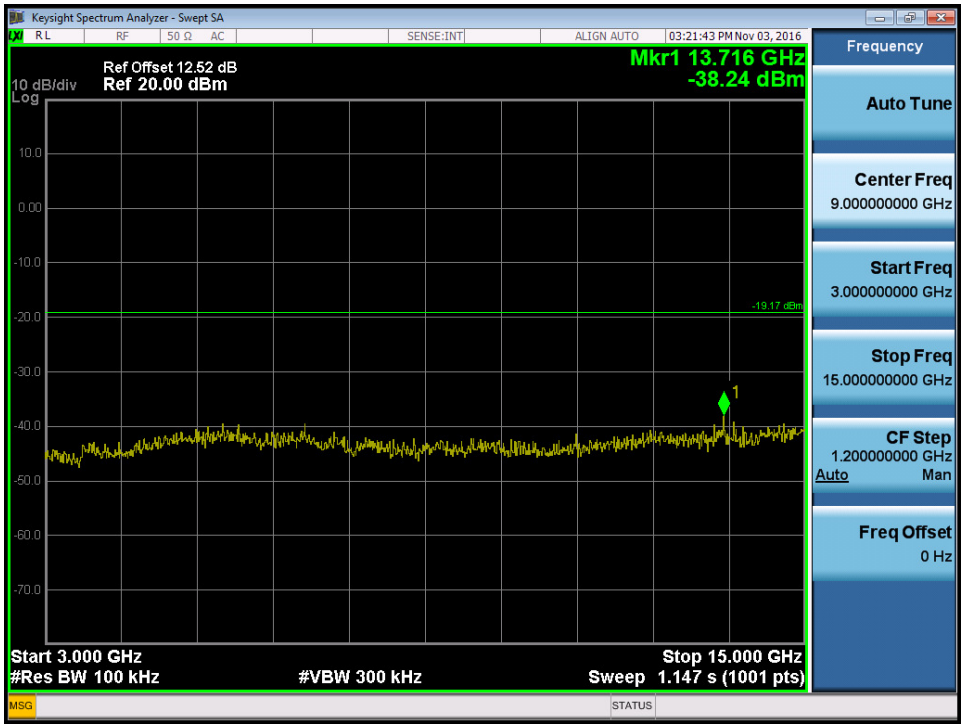



Keysight Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
03:18:21 PM Nov 03, 2016
Ref Offset 12.52 dB
10 dB/div Ref 20.00 dBm
Log
Mkr1 14.316 GHz
-39.52 dBm
-18.03 dBm
Start 3.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 15.000 GHz
Sweep 1.147 s (1001 pts)
Frequency
Auto Tune
Center Freq
9.000000000 GHz
Start Freq
3.000000000 GHz
Stop Freq
15.000000000 GHz
CF Step
1.200000000 GHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS


Keysight Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
03:18:25 PM Nov 03, 2016
Ref Offset 12.52 dB
10 dB/div Ref 20.00 dBm
Log
Mkr1 25.523 GHz
-27.53 dBm
-18.03 dBm
Start 15.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 26.500 GHz
Sweep 1.099 s (1001 pts)
Frequency
Auto Tune
Center Freq
20.750000000 GHz
Start Freq
15.000000000 GHz
Stop Freq
26.500000000 GHz
CF Step
1.150000000 GHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS

TX G mode CH11 (10 Harmonic of the frequency)

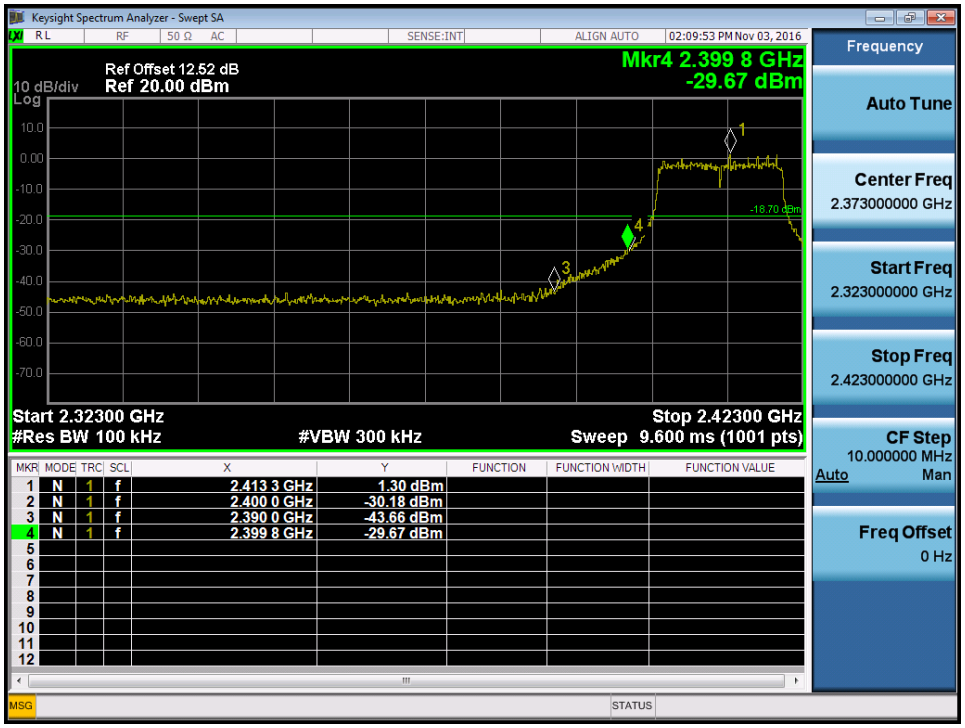





Keysight Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
03:21:47 PM Nov 03, 2016
Ref Offset 12.52 dB
10 dB/div Ref 20.00 dBm
Log
Mkr1 25.580 GHz
-27.77 dBm
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-19.17 dBm
1
Start 15.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 26.500 GHz
Sweep 1.099 s (1001 pts)
Frequency
Auto Tune
Center Freq
20.750000000 GHz
Start Freq
15.000000000 GHz
Stop Freq
26.500000000 GHz
CF Step
1.150000000 GHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS

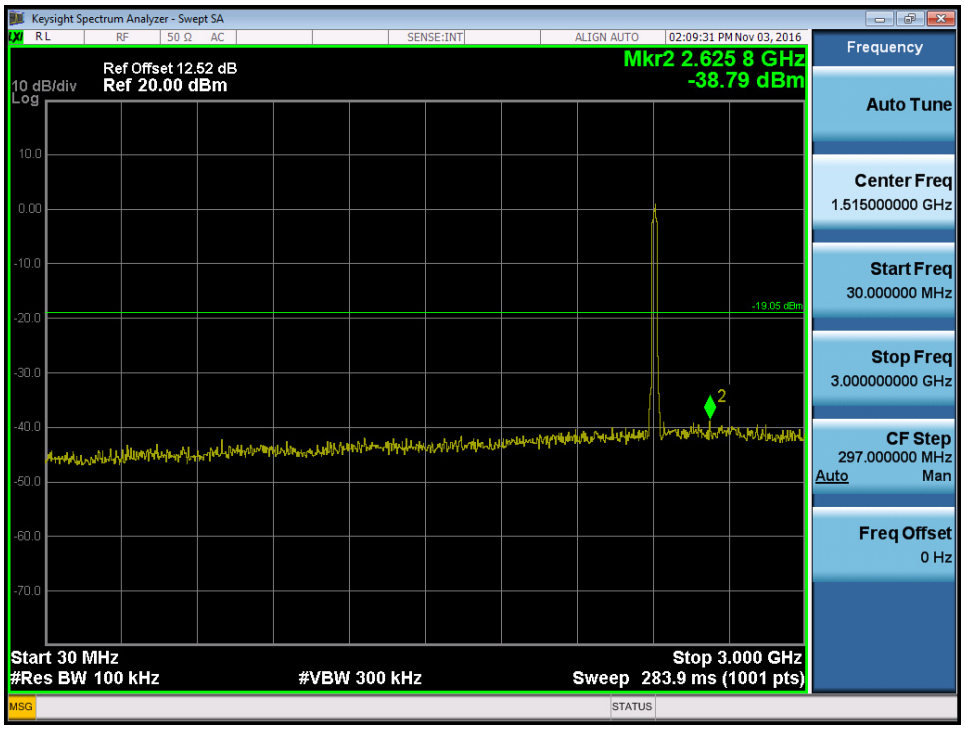
Test Mode :	TX G Mode_ANT 2

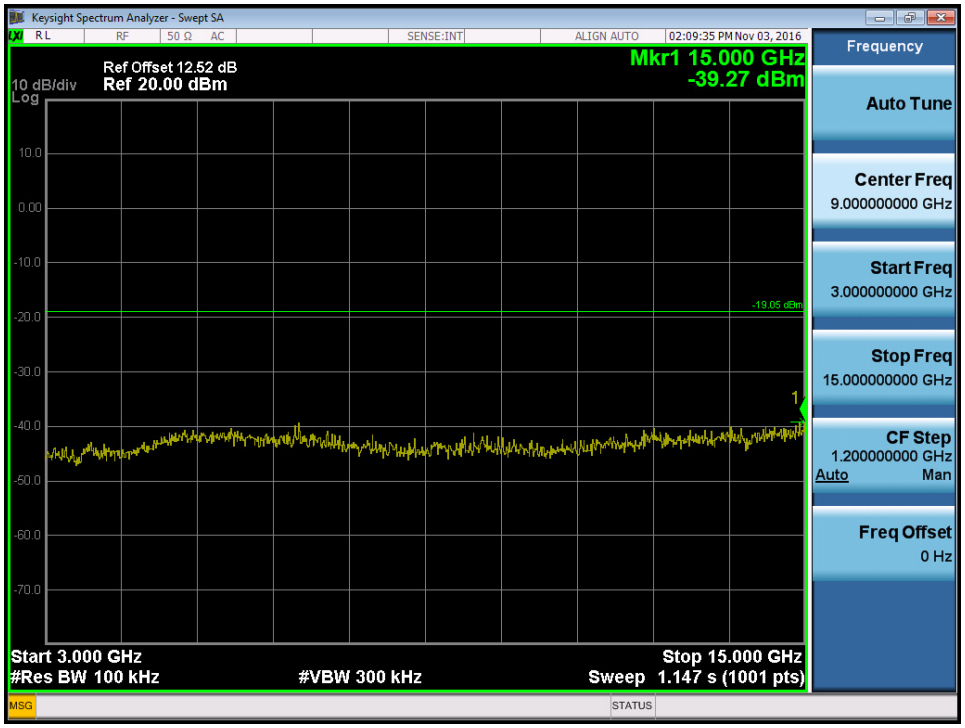
TX G mode CH01



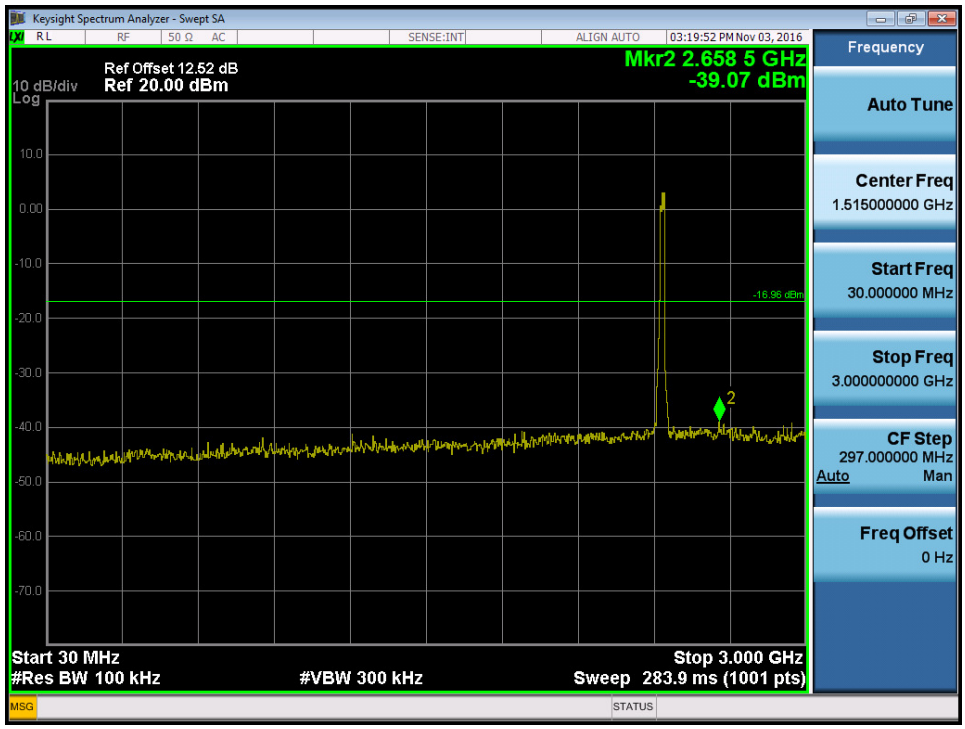
TX G mode CH11

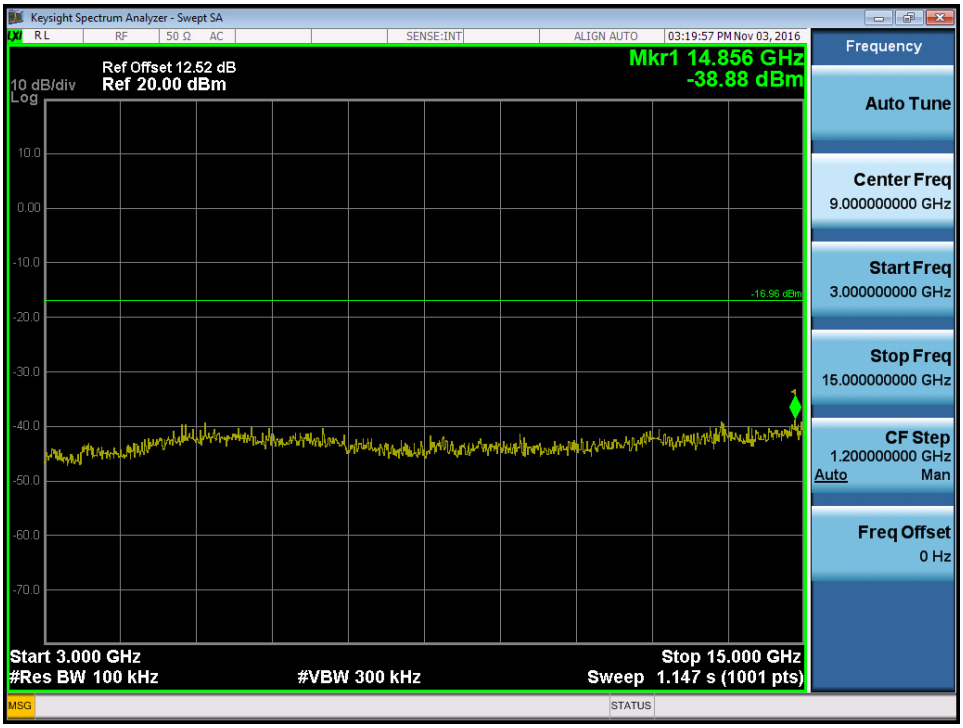
TX G mode CH01 (10 Harmonic of the frequency)

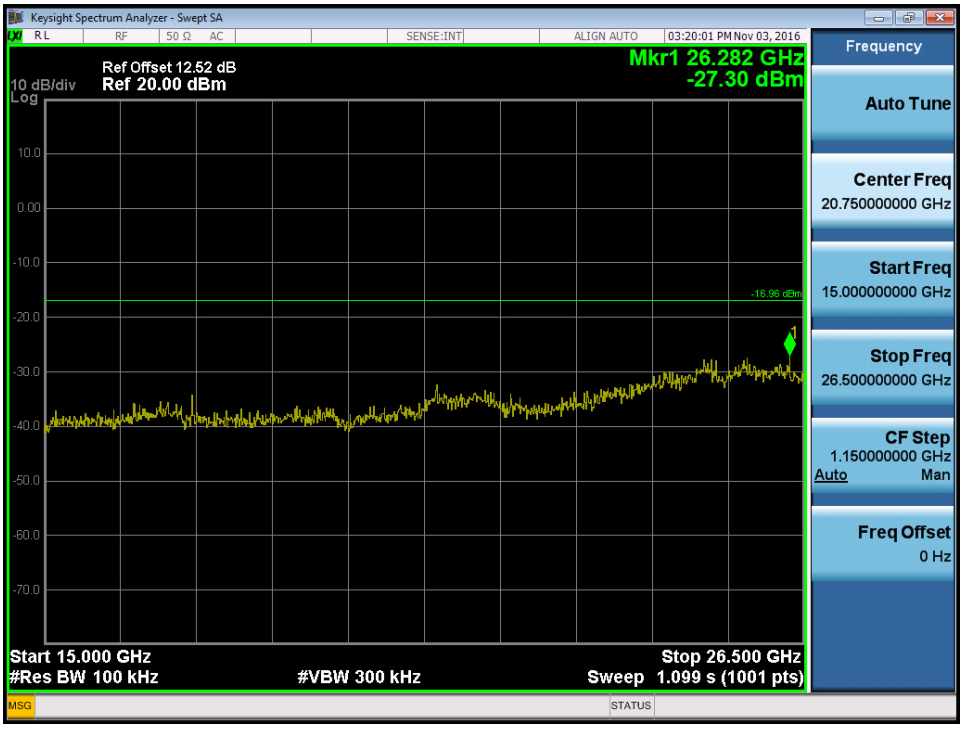




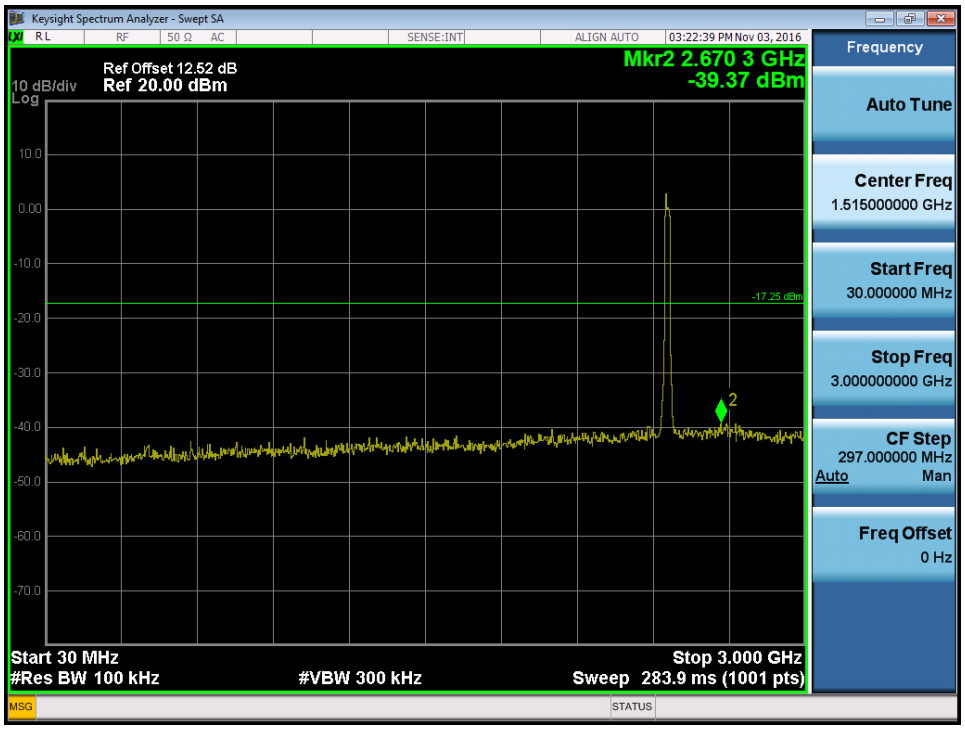
TX G mode CH06 (10 Harmonic of the frequency)

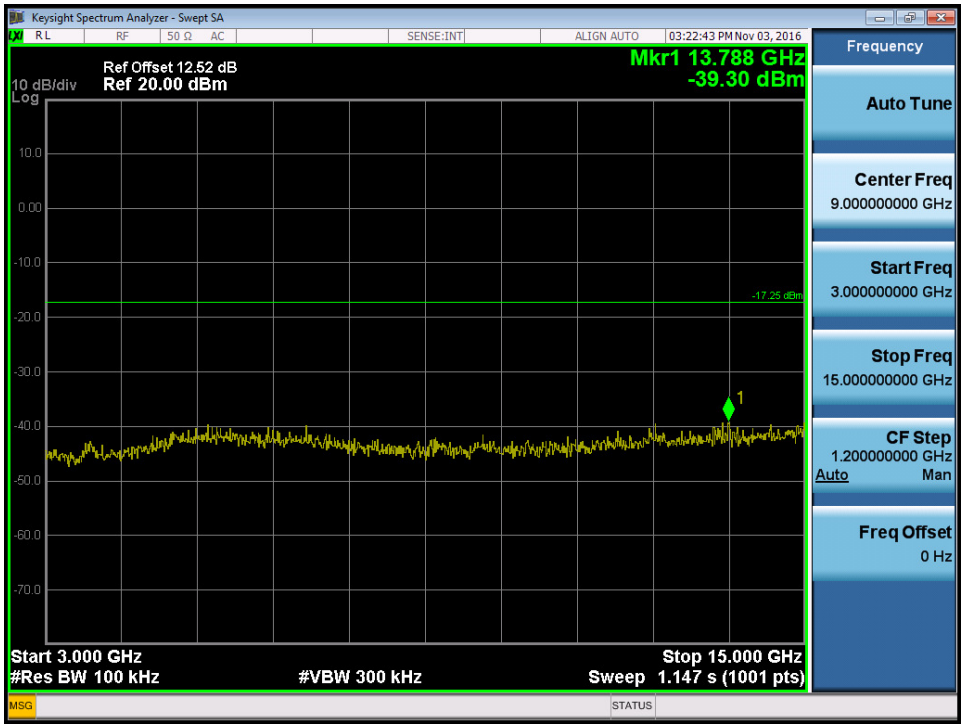



Keysight Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
03:19:57 PM Nov 03, 2016
Ref Offset 12.52 dB
10 dB/div Ref 20.00 dBm
Log
Mkr1 14.856 GHz
-38.88 dBm
-16.96 dBm
Start 3.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 15.000 GHz
Sweep 1.147 s (1001 pts)
Frequency
Auto Tune
Center Freq
9.000000000 GHz
Start Freq
3.000000000 GHz
Stop Freq
15.000000000 GHz
CF Step
1.200000000 GHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS


Keysight Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
03:20:01 PM Nov 03, 2016
Ref Offset 12.52 dB
10 dB/div Ref 20.00 dBm
Log
Mkr1 26.282 GHz
-27.30 dBm
-16.96 dBm
Start 15.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 26.500 GHz
Sweep 1.099 s (1001 pts)
Frequency
Auto Tune
Center Freq
20.750000000 GHz
Start Freq
15.000000000 GHz
Stop Freq
26.500000000 GHz
CF Step
1.150000000 GHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS

TX G mode CH11 (10 Harmonic of the frequency)

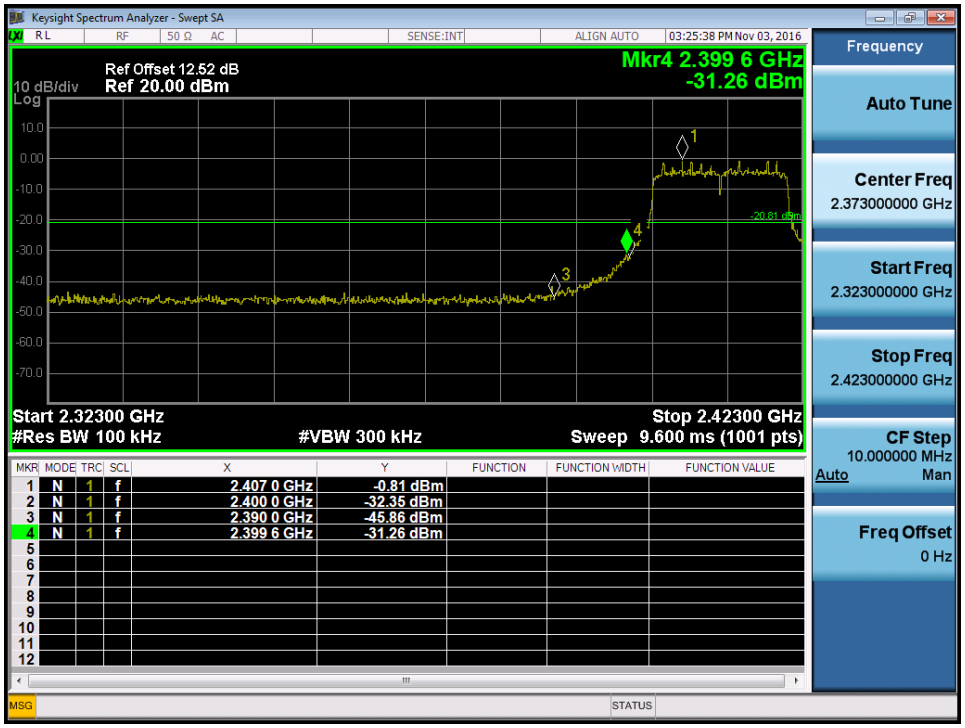





Keysight Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
03:22:49 PM Nov 03, 2016
Ref Offset 12.52 dB
10 dB/div
Log
Ref 20.00 dBm
Mkr2 25.063 GHz
-27.63 dBm
10.0
0.00
-10.0
-17.25 dBm
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
2
Start 15.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 26.500 GHz
Sweep 1.099 s (1001 pts)
Frequency
Auto Tune
Center Freq
20.750000000 GHz
Start Freq
15.000000000 GHz
Stop Freq
26.500000000 GHz
CF Step
1.150000000 GHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS

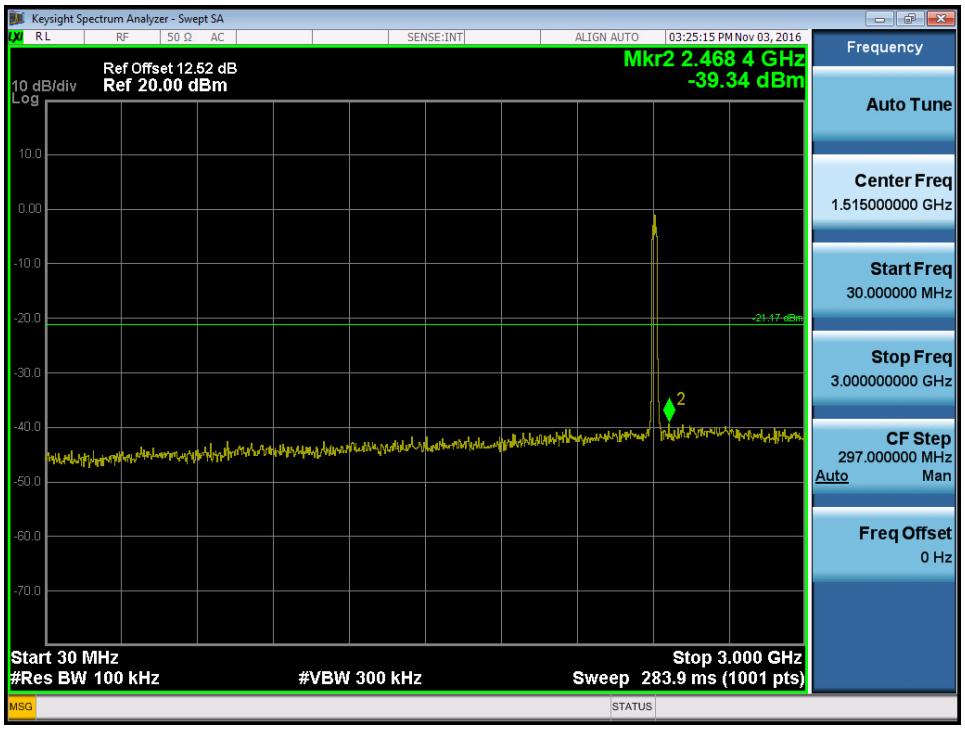
Test Mode :	TX N-20M Mode_ANT 1

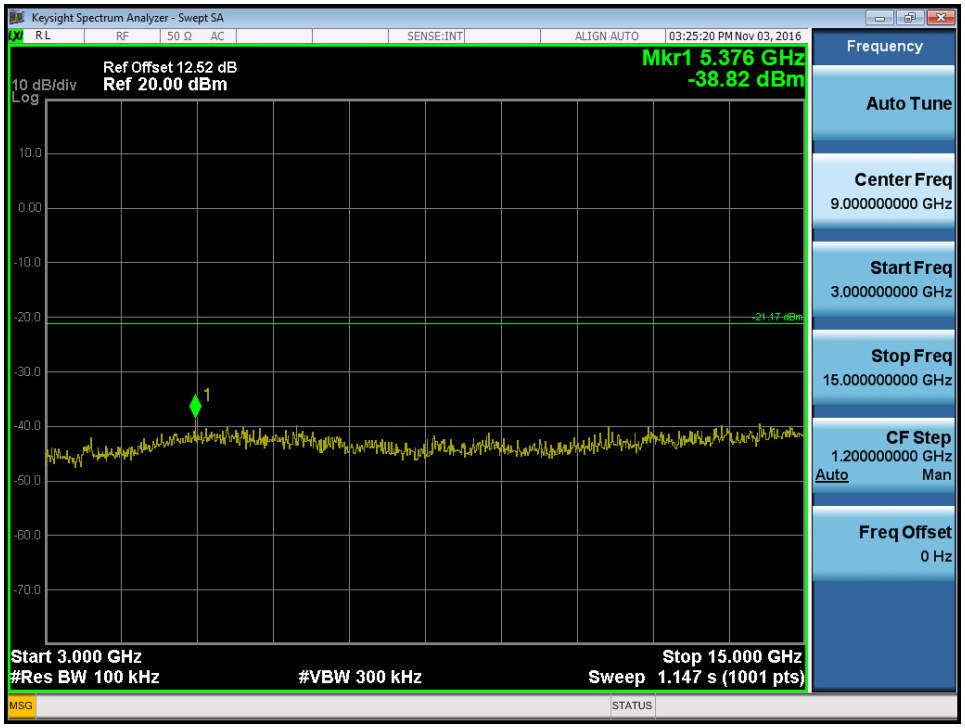
TX HT20 mode CH01



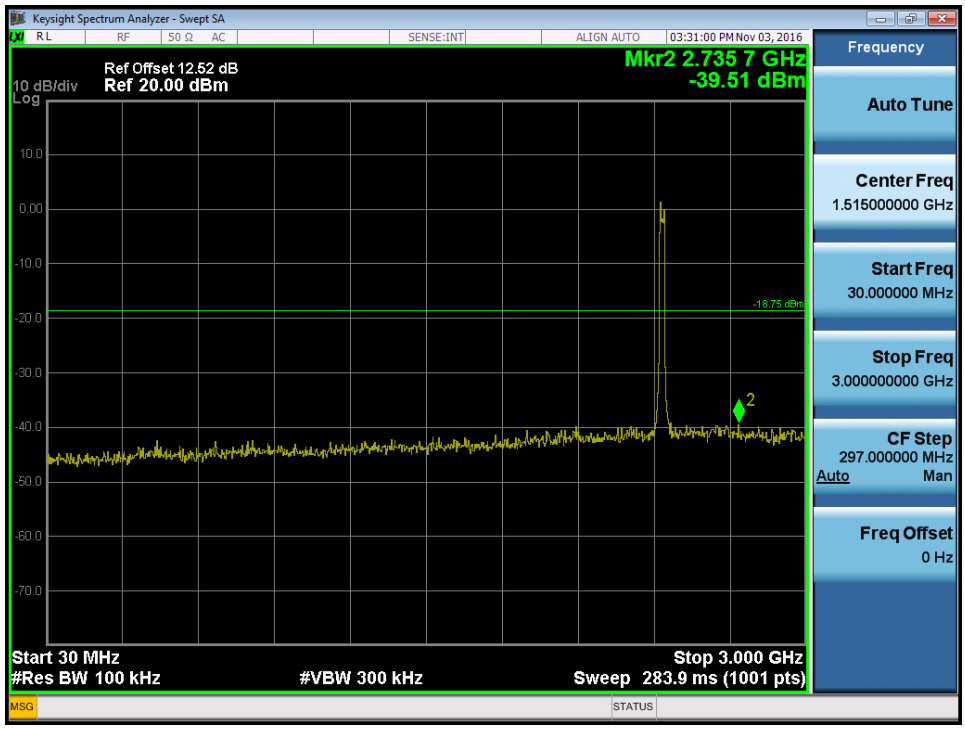
TX HT20 mode CH11

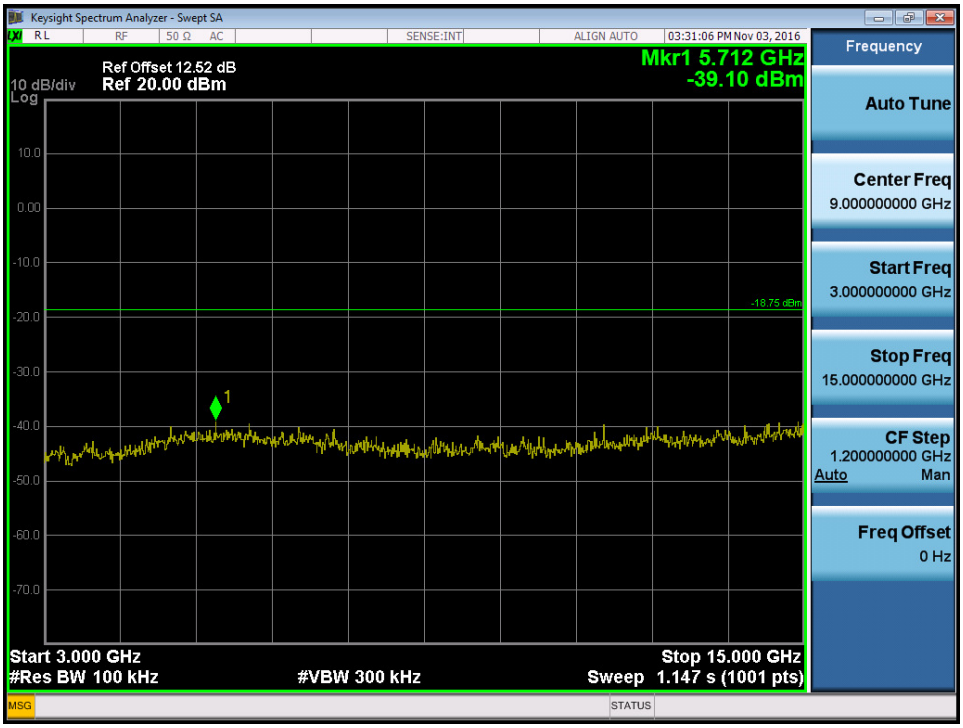
TX HT20 mode CH01 (10 Harmonic of the frequency)





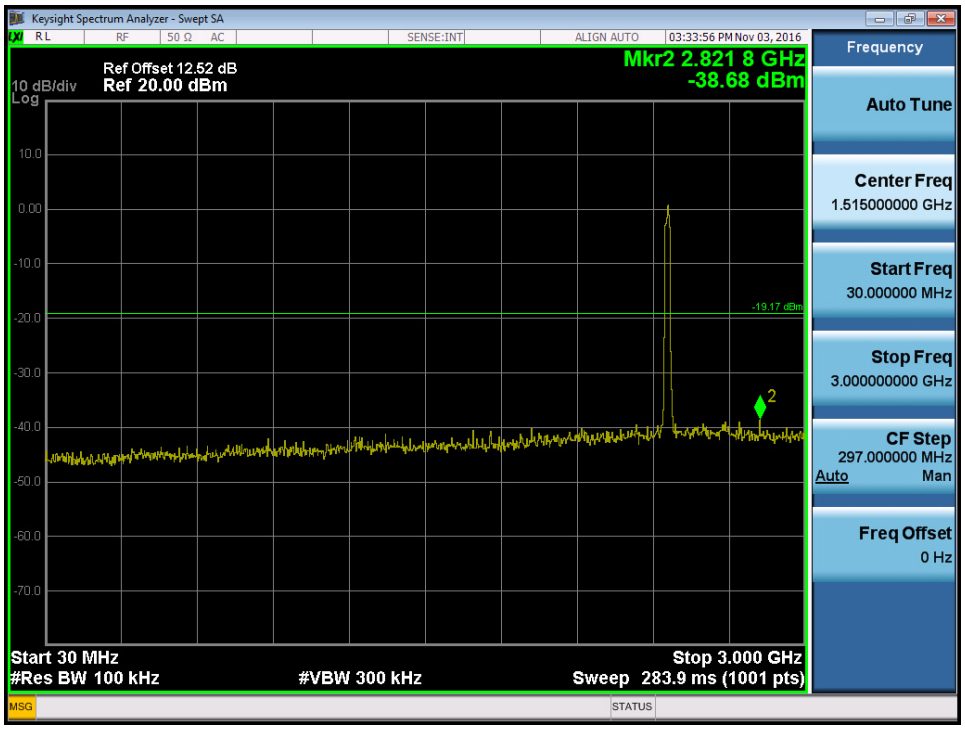
TX HT20 mode CH06 (10 Harmonic of the frequency)

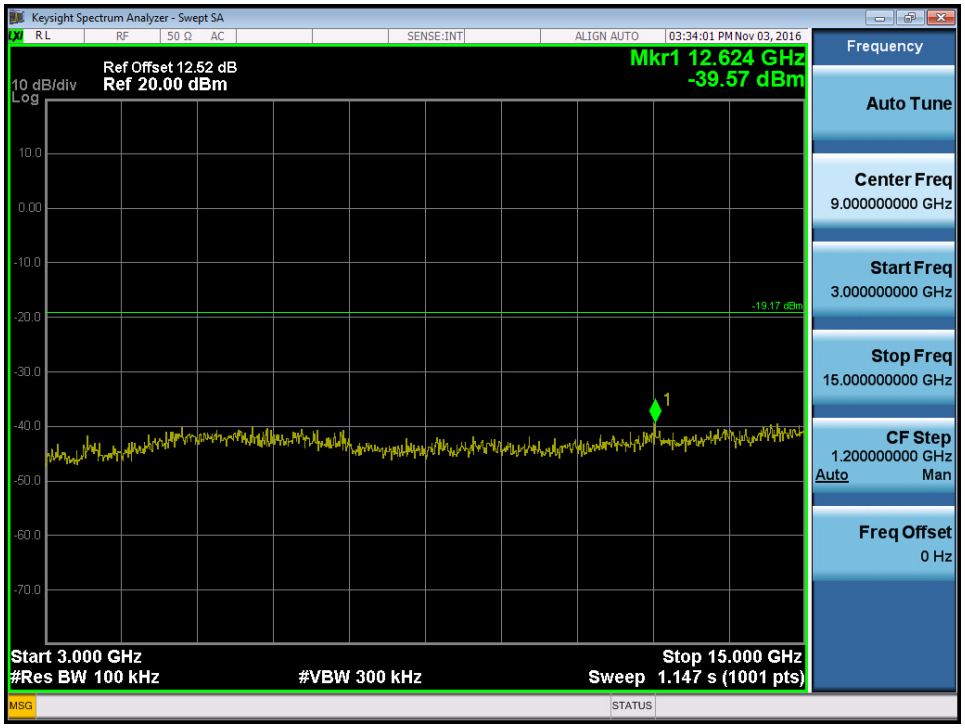



Keysight Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
03:31:06 PM Nov 03, 2016
Ref Offset 12.52 dB
10 dB/div
Log
Ref 20.00 dBm
Mkr1 5.712 GHz
-39.10 dBm
-18.75 dBm
Start 3.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 15.000 GHz
Sweep 1.147 s (1001 pts)
Frequency
Auto Tune
Center Freq
9.000000000 GHz
Start Freq
3.000000000 GHz
Stop Freq
15.000000000 GHz
CF Step
1.200000000 GHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS


Keysight Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
03:31:19 PM Nov 03, 2016
Ref Offset 12.52 dB
10 dB/div
Log
Ref 20.00 dBm
Mkr1 26.086 GHz
-27.66 dBm
-18.75 dBm
Start 15.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 26.500 GHz
Sweep 1.099 s (1001 pts)
Frequency
Auto Tune
Center Freq
20.750000000 GHz
Start Freq
15.000000000 GHz
Stop Freq
26.500000000 GHz
CF Step
1.150000000 GHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS

TX HT20 mode CH11 (10 Harmonic of the frequency)






Keysight Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
03:34:06 PM Nov 03, 2016
Ref Offset 12.52 dB
10 dB/div Ref 20.00 dBm
Log
Mkr1 25.580 GHz
-28.05 dBm
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-19.17 dBm
1
Start 15.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 26.500 GHz
Sweep 1.099 s (1001 pts)
Frequency
Auto Tune
Center Freq
20.750000000 GHz
Start Freq
15.000000000 GHz
Stop Freq
26.500000000 GHz
CF Step
1.150000000 GHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS