FCC&IC Radio Test Report

FCC:VOB-P2570

IC:7361A-P2570

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

Project No.	:	1404C046B
Equipment	:	Wireless Controller
Model Name	:	P2570
Applicant	:	NVIDIA Corporation
Address	:	2701 San Tomas Expressway Santa Clara,CA95050

Date of Receipt	:	May 20, 2015
Date of Test	:	May 20, 2015 ~ Jun. 08, 2015
Issued Date	:	Jun. 09, 2015
Tested by	:	BTL Inc.

Testing Engineer : David Mao
(David Mao)

Technical Manager : Leo Hung
(Leo Hung)

Authorized Signatory : Steven Lu
(Steven Lu)

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Declaration

BTLrepresents to the client that testing is done in accordance with standard procedures as applicable and that test instruments used has been calibrated with the standards traceable to National Measurement Laboratory (**NML**) of **R.O.C**., or National Institute of Standards and Technology (**NIST**) of **U.S.A.**

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

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BTL's laboratory quality assurance procedures are in compliance with the **ISO Guide17025** requirements, and accredited by the conformity assessment authorities listed in this test report.

Limitation

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

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REPORT ISSUED HISTORY

Issued No.	Description	Issued Date
NEI-FICP-2-1404C046	Original Report	May 20, 2014
BTL-FICP-1-1404C046B	Compared with the previous report (NEI-FICP-2-1404C046), the frequency bands:5250~5350&5470~5725 are added by applicant via software configuration control which other party cannot make modification. Only new test results of frequency bands are recorded on this report.	Jun. 09, 2015

1. CERTIFICATION

Equipment	:	Wireless Controller
Brand Name	:	NVIDIA
Model Name	:	P2570
Applicant	:	NVIDIA Corporation
Manufacturer	:	NVIDIA Corporation
Address	:	2701 San Tomas Expressway Santa Clara,CA95050
Factory	:	NVIDIA Corporation
Address	:	NVIDIA Corporation
Date of Test	:	May 20, 2015 ~ Jun. 08, 2015
Test Sample	:	ENGINEERING SAMPLE
Standard(s)	:	FCC Part15, Subpart E(15.407) / ANSI C63.10: 2013 FCC KDB 789033 D02 General UNII Test Procedures New Rules v01. Canada RSS-247 Issue 1 May 2015 RSS-GEN Issue 4, Nov 2014

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-FICP-1-1404C046B) 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):

FCC Part15, Subpart E Canada RSS-247 Issue 1May 2015/RSS-GEN Issue 4, Nov 2014				
Standard(s) Section		Test Item	Judgment	Remark
FCC	IC			
15.207	RSS-GEN 8.8	AC Power Line Conducted Emissions	PASS	
15.407(a)	RSS-247 6.2.2 (1)	26dB Spectrum Bandwidth	PASS	
15.407(a)	RSS-247 6.2.2 (1)	Maximum Conducted Output Power	PASS	
15.407(a)	RSS-247 6.2.2 (1)	Power Spectral Density	PASS	
15.407(a)	RSS-247 6.2.2 (2)	Radiated Emissions	PASS	
15.407(b)	RSS-247 6.2.2 (2)	Band Edge Emissions	PASS	
15.407(g)	-	Frequency Stability	PASS	
15.203	-	Antenna Requirements	PASS	

NOTE:

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

2.1 TEST FACILITY

The test facilities used to collect the test data in this report is **DG-C02/DG-CB03** at the location of No.3,Jinshagang 1st Road, Shixia, Dalang Town, Dongguan, Guangdong, China.

BTL's test firm number for FCC: 319330

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

2.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement **y** ±**U**, where expended uncertainty **U** is based on astandard uncertainty multiplied by a coverage factor of **k=2**, providing a level of confidence of approximately **95**% ◦

The BTL measurement uncertainty is less than the CISPR 16-4-2 U_{cispr} requirement.

A. Conducted Measurement:

Test Site	Method	Measurement Frequency Range	U, (dB)	NOTE
DG-C02	CISPR	150 KHz~30MHz	1.94	

B. Radiated Measurement:

Test Site	Method	Measurement Frequency Range	Ant. H / V	U, (dB)	NOTE
DG-CB03	CISPR	9kHz~30MHz	V	3.79	
		9kHz~30MHz	H	3.57	
		30MHz~200MHz	V	3.82	
		30MHz~200MHz	H	3.60	
		200MHz~ 1,000MHz	V	3.86	
		200MHz~ 1,000MHz	H	3.94	
		1GHz~18GHz	V	3.12	
		1GHz~18GHz	H	3.68	
		18GHz~40GHz	V	4.15	
		18GHz~40GHz	H	4.14	

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	Wireless Controller	
Brand Name	NVIDIA	
Model Name	P2570	
Mode Different	NA	
Product Description	Operation Frequency	UNII-2A: 5250-5350MHz UNII-2C: 5470-5725MHz
	Modulation Type	OFDM
	Bit Rate of Transmitter	24Mbps
	Output Power (Max.)	802.11a:3.76dBm (UNII-2A)
		802.11a:3.43dBm (UNII-2C)
Power Source	#1 Supplied from Lithium-ion Polymer rechargeable battery. 1)Model:PT553759 2)Model:LC18650-2200mAh #2 Supplied from USB port.	
Power Rating	#1 1) DC 3.7V 1250mAh 2) DC 3.6V 2200mAh #2 DC 5V 0.5A	

Note:

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

UNII-2A	
Channel	Frequency (MHz)
52	5260
56	5280
60	5300
64	5320

UNII-2C	
Channel	Frequency (MHz)
100	5500
104	5520
108	5540
112	5560
116	5580
132	5660
136	5680
140	5700

3. Table for Filed Antenna

Ant.	Manufacturer	Model Name	Antenna Type	Connector	Gain (dBi)
1	Yageo Corp.	ANT5320LL24R2455A	Chip	N/A	3.51
2	Yageo Corp.	ANT5320LL24R2455A	Chip	N/A	3.51

Note:

The EUT incorporates a SISOfunction and only one antenna used per time.

Operating Mode / TX Mode	1TX
802.11a	V (ANT 1 or ANT 2)

3.2 DESCRIPTION OF TEST MODES

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

Pretest Test Mode	Description
Mode 1	TX A Mode/ CH52, CH60, CH64 (UNII-2A)
Mode 2	TX A Mode/ CH100, CH116, CH140 (UNII-2C)
Mode 3	TX Mode

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

For Conducted Test	
Final Test Mode	Description
Mode 3	TX Mode

For Radiated Test	
Final Test Mode	Description
Mode 1	TX A Mode/ CH52, CH60, CH64 (UNII-2A)
Mode 2	TX A Mode/ CH100, CH116, CH140 (UNII-2C)

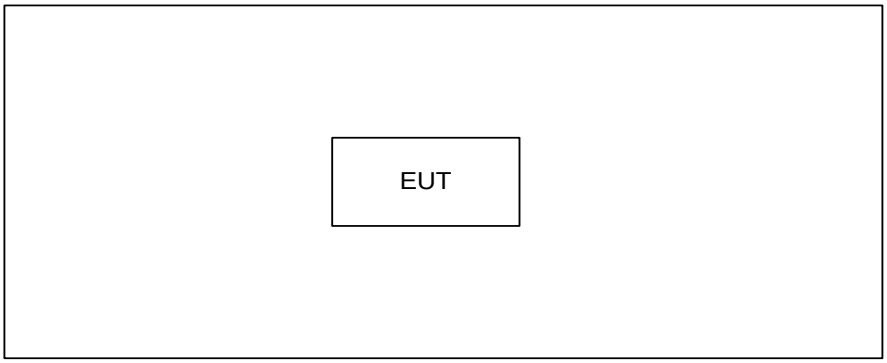
3.3 TABLE OF PARAMETERS OF TEST SOFTWARE SETTING

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

UNII-2A			
Test Software Version	Tera Term		
Frequency (MHz)	5260	5300	5320
A Mode	0	0	0

UNII-2C			
Test Software Version	Tera Term		
Frequency (MHz)	5500	5580	5700
A Mode	0	0	0

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.	Note
-	-	-	-	-	-	

Item	Shielded Type	Ferrite Core	Length	Note
-	-	-	-	

4. EMC EMISSION TEST

4.1 CONDUCTED EMISSION MEASUREMENT

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

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

Note:

(1) The tighter limit applies at the band edges.

(2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

(3) 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

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 equipmentspowered 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 groundplane 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.

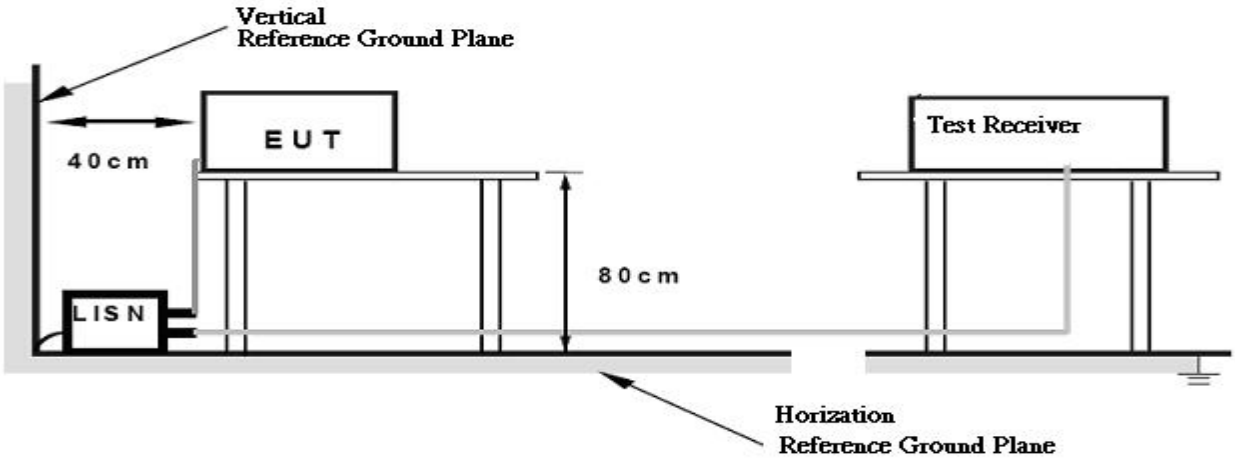
d. LISN at least 80 cm from nearest part of EUT chassis.

e. For the actual test configuration, please refer to the related Item –EUT Test Photos.

4.1.3 DEVIATIONFROMTESTSTANDARD

No deviation

4.1.4 TESTSETUP



4.1.5 EUT OPERATING CONDITIONS

The EUT was configured for testing in a typical fashion (as a customer would normally use it).The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.
The EUT was programmed to be in continuously transmitting/TX Mode mode.

4.1.6 EUT TEST CONDITIONS

Temperature: 27°C Relative Humidity: 50% Test Voltage: AC 120V/60Hz

4.1.7 TEST RESULTS

Please refer to the Attachment A.

Remark:

(1) All readings are QP Mode value unless otherwise stated AVG in column of『Note』. If the QP Mode Measured value compliance with the QP Limits and lower than AVG Limits,the EUT shall be deemed to meet both QP & AVG Limits and then only QP Mode was measured, but AVG Mode didn't perform。In this case, a " * " marked in AVG Mode column of Interference Voltage Measured。

(2) Measuring frequency range from 150kHz to 30MHz。

4.2 RADIATED EMISSION MEASUREMENT

4.2.1 RADIATED EMISSION LIMITS

20dBc in any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on 15.205(a) andRSS-247 6.2.2 (2), then the15.209(a) andRSS-Gen limit in the table below has to be followed.

Frequencies (MHz)	Field Strength (micorvolts/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
Above 960	500	3

Note:

(1) The limit for radiated test was performed according to FCC PART 15C&RSS-247.

(2) The tighter limit applies at the band edges.

LIMITS OF UNWANTED EMISSION OUT OF THE RESTRICTED BANDS

Frequencies (MHz)	EIRP Limit (dBm)	Equivalent Field Strength at 3m (dBμV/m)
5150-5250	-27	68.3
5250-5350	-27	68.3
5470-5725	-27	68.3
5725-5850	-27 (beyond 10MHz of the bandedge)	68.3
	-17 (within 10 MHz of band edge)	78.3

Note: The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength: $E = \frac{1000000\sqrt{30P}}{3}$ μV/m, where P is the eirp (Watts)

4.2.2 TESTPROCEDURE

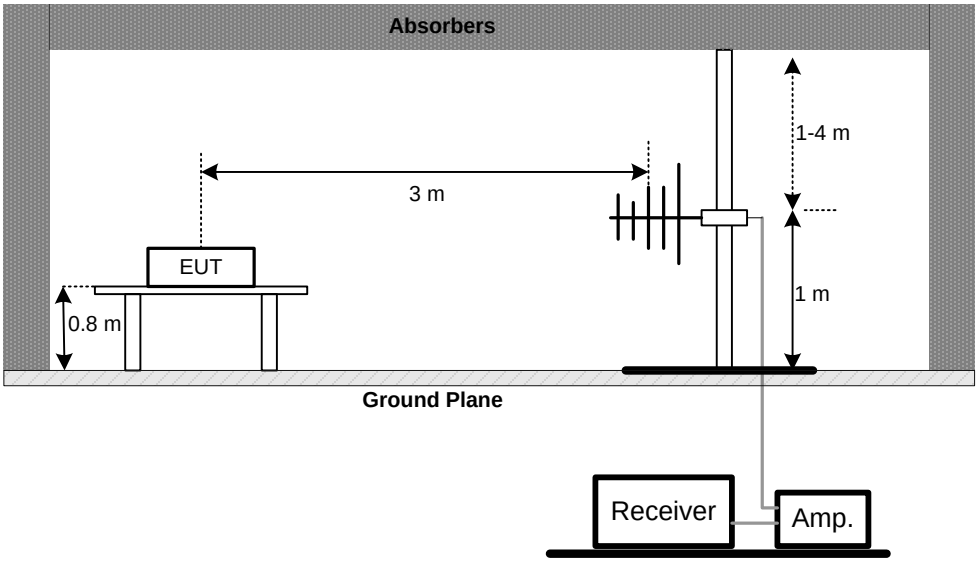
a. The measuring distance of at 3m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.
b. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(Below 1GHz)
c. The EUT was placed on the top of a rotating table 0.8m or 1.5 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(Above 1GHz)
d. The height of the equipment or of the substitution antenna shall be 0.8 mor 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.
e. The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
f. If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.
g. For the actual test configuration, please refer to the related Item –EUT Test Photos.

4.2.3 DEVIATIONFROMTESTSTANDARD

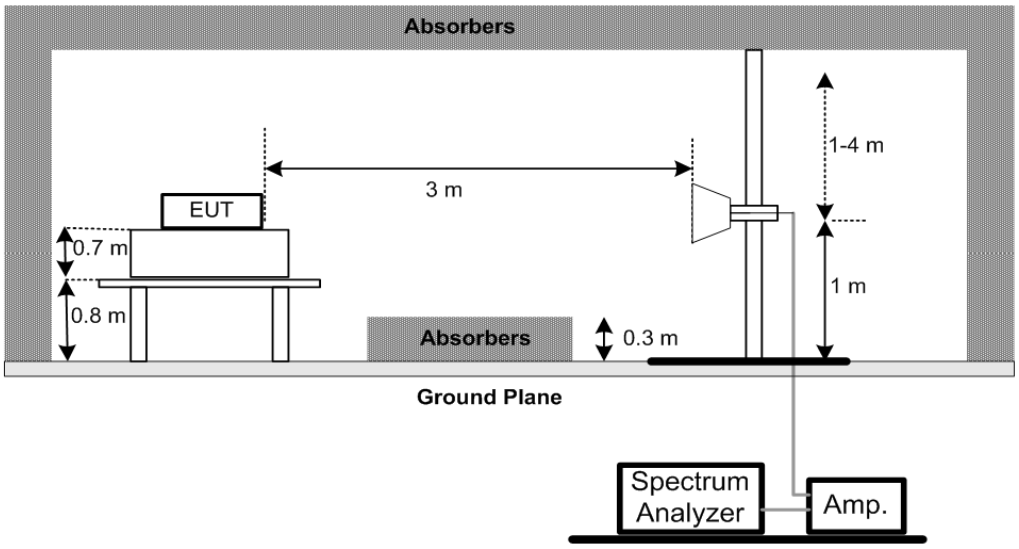
No deviation

4.2.4 TESTSETUP

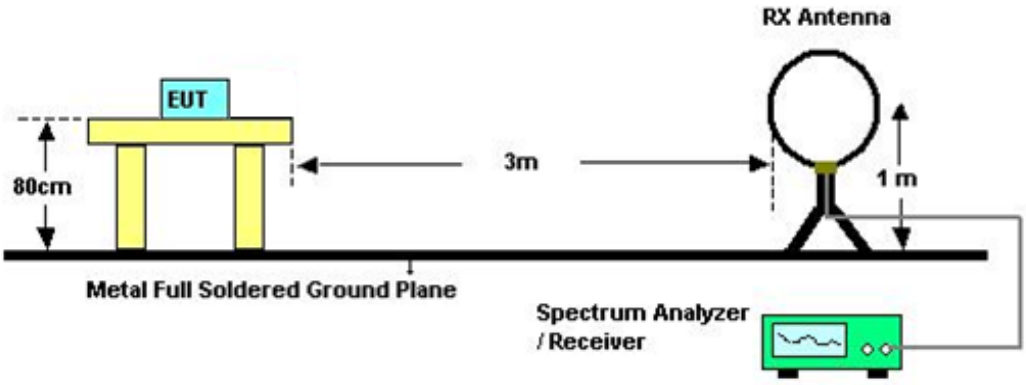
(A) Radiated Emission Test Set-Up FrequencyBetween 30 to 1000 MHz



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



(C) Radiated emissions 9KHz to 30MHz



4.2.5 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of 4.1.5Unless otherwise a special operating condition is specified in the follows during the testing.

4.2.6 EUT TEST CONDITIONS

Temperature: 28°C Relative Humidity: 52% Test Voltage: DC 3.7V

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(30 AND 1000 MHz)

Please refer to the Attachment C.

Remark:

(1) Reading in which marked as QP or Peak means measurements by using are Quasi-Peak Mode or Peak Modewith Detector BW=120kHz；SPA setting in RBW=120kHz, VBW =120kHz, Swp. Time = 0.3 sec./MHz。
(2) All readings are Peak unless otherwise stated QP in column of『Note』. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform。
(3) Measuring frequency range from 30MHz to 1000MHz。
(4) If the peak scan value lower limit more than 20dB, then this signal data does not show in table。

4.2.9 TEST RESULTS (ABOVE1000 MHz)

Please refer to the Attachment D.

Remark:

(1) Spectrum Setting: 30MHz – 1000MHz , RBW= 100kHz, VBW=100kHz, Sweep time = 200 ms. 1GHz- 40GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto
(2) All readings are Peak unless otherwise stated AV in column of『Note』. Peak denotes that the Peak reading compliance with the AV Limits and then AV Mode measurement didn't perform.
(3) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。
(4) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
(5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
(6) EUT Orthogonal Axes:
"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand
(7) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.
(8) No limit:This is fundamental signal, the judgment is not applicable.
For fundamental signal judgment was referred to Peak output test.

5. 26dB SPECTRUM BANDWIDTH

5.1 APPLIED PROCEDURES / LIMIT

FCC Part15, Subpart E/ RSS-247			
Test Item	Limit	Frequency Range (MHz)	Result
Bandwidth	26 dB Bandwidth	5250-5350	PASS
		5470-5725	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 Parameters	Setting
Attenuation	Auto
Span Frequency	> 26dB Bandwidth
RBW	300 kHz
VBW	1000 kHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

c. Measured the spectrum width with power higher than 26dB below carrier

5.1.2 DEVIATION FROM STANDARD

No deviation.

5.1.3 TEST SETUP

5.1.4 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 4.1.5 Unless otherwise a special operating condition is specified in the follows during the testing.

5.1.5 EUT TEST CONDITIONS

Temperature: 27°C Relative Humidity: 52% Test Voltage: DC 3.7V

5.1.6 TEST RESULTS

Please refer to the Attachment E.

6. MAXIMUM CONDUCTED OUTPUT POWER

6.1 APPLIED PROCEDURES / LIMIT

FCC Part15, Subpart E/ RSS-247			
Test Item	Limit	Frequency Range (MHz)	Result
Conducted Output Power	250mW (24dBm)	5250-5350	PASS
	250mW (24dBm)	5470-5725	PASS
Note: The maximum e.i.r.p at anyelevation angle above 30 degrees as measured from the horizon must not exceed 125mW(21dBm)			

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.

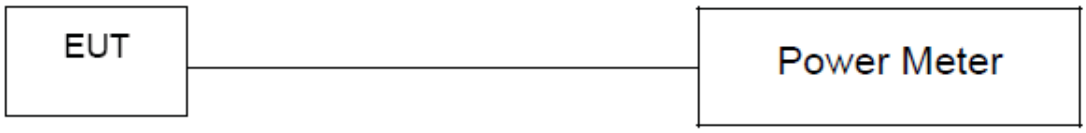
Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	Encompass the entire emissions bandwidth (EBW) ofthe signal
RBW	= 1MHz.
VBW	⩾ 3MHz.
Detector	RMS
Trace	Max Hold
Sweep Time	auto

c. Test was performed in accordance with method of KDB 789033 D02.

6.1.2 DEVIATION FROM STANDARD

No deviation.

6.1.3 TEST SETUP



6.1.4 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 4.1.5 Unless otherwise a special operating condition is specified in the follows during the testing.

6.1.5 EUT TEST CONDITIONS

Temperature: 26°C Relative Humidity: 52% Test Voltage: DC 3.7V

6.1.6 TEST RESULTS

Please refer to the Attachment F.

7. ANTENNA CONDUCTED SPURIOUS EMISSION

7.1 APPLIED PROCEDURES / LIMIT

FCC Part15, Subpart E/ RSS-247			
Test Item	Limit	Frequency Range (MHz)	Result
Antenna conducted Spurious Emission	-27dBm/MHz	5250-5350	PASS
	-27dBm/MHz	5470-5725	PASS

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,

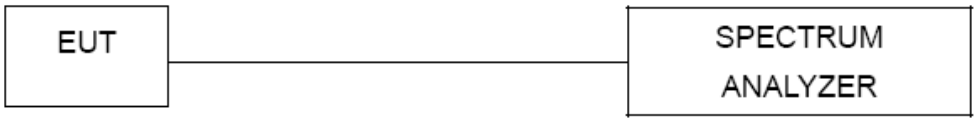
b.

Spectrum Parameter	Setting
Attenuation	Auto
RBW	1000kHz
VBW	1000kHz
Trace	Max Hold
Sweep Time	Auto

7.1.2 DEVIATION FROM STANDARD

No deviation.

7.1.3 TEST SETUP



7.1.4 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 4.1.5 Unless otherwise a special operating condition is specified in the follows during the testing.

7.1.5 EUT TEST CONDITIONS

Temperature: 29°C Relative Humidity: 52% Test Voltage: DC 3.7V

7.1.6 TEST RESULTS

Please refer to the Attachment G.

8. POWER SPECTRAL DENSITY TEST

8.1 APPLIED PROCEDURES / LIMIT

FCC Part15, Subpart E/ RSS-247			
Test Item	Limit	Frequency Range (MHz)	Result
Power Spectral Density	11dBm/MHz	5250-5350	PASS
	11dBm/MHz	5470-5725	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 Parameter	Setting
Attenuation	Auto
Span Frequency	Encompass the entire emissions bandwidth (EBW) ofthe signal
RBW	= 1MHz.
VBW	≥ 3MHz.
Detector	RMS
Trace	Max Hold
Sweep Time	Auto

Note:

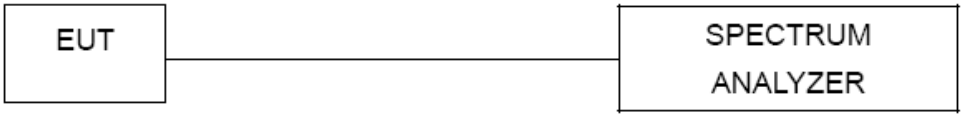
1.For UNII-3, according to KDB publication 789033 D02 General UNII Test Procedures New Rules v01, section II.F.5., it is acceptable to set RBW at 1MHz and VBW at 3MHz if the spectrum analyzer does not have 500kHz RBW.

2.The value measured with RBW=1MHz is to be added with 10log(500kHz/1MHz) which is -3dB. For example, if the measured value is +10dBm using RBW=1MHz (that is

8.1.1 DEVIATION FROM STANDARD

No deviation.

8.1.2 TEST SETUP



8.1.3 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 4.1.5 Unless otherwise a special operating condition is specified in the follows during the testing.

8.1.4 EUT TEST CONDITIONS

Temperature: 26°C Relative Humidity: 52% Test Voltage: DC 3.7V

8.1.5 TEST RESULTS

Please refer to the Attachment H.

9. FREQUENCY STABILITY MEASUREMENT

9.1 APPLIED PROCEDURES / LIMIT

FCC Part15, Subpart E/ RSS-247			
Test Item	Limit	Frequency Range (MHz)	Result
Frequency Stability	Specified in the user's manual	5250-5350	PASS
		5470-5725	PASS

9.1.1 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 Parameter	Setting
Attenuation	Auto
Span Frequency	Entire absence of modulation emissionsbandwidth
RBW	10 kHz
VBW	10kHz
Sweep Time	Auto

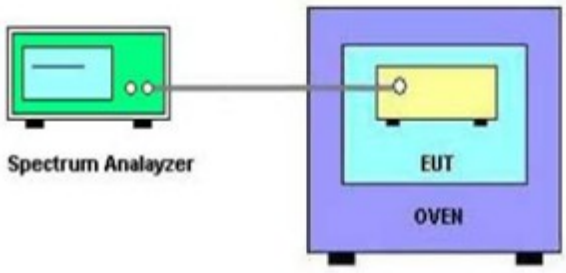
c. The test extreme voltage is to change the primary supply voltage from 85 to 115 percent of the nominal value.

d. User manual temperature is0°C~55°C.

9.1.2 DEVIATION FROM STANDARD

No deviation.

9.1.3 TEST SETUP



9.1.4 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 4.1.5 Unless otherwise a special operating condition is specified in the follows during the testing.

9.1.5 EUT TEST CONDITIONS

Temperature: 27°C Relative Humidity: 55%Test Voltage: DC 3.7V

9.1.6 TEST RESULTS

Please refer to the Attachment I.

10. MEASUREMENT INSTRUMENTS LIST

Conducted Emission Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	LISN	EMCO	3816/2	00052765	Mar. 28, 2016
2	LISN	R&S	ENV216	101447	Mar. 28, 2016
3	Test Cable	N/A	C_17	N/A	Mar.13, 2016
4	EMI TEST RECEIVER	R&S	ESCS30	833364/017	Mar. 28, 2016
5	50Ω Terminator	SHX	TF2-3G-A	08122902	Mar. 28, 2016
6	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A

Radiated Emission Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Antenna	Schwarbeck	VULB9160	9160-3232	Mar. 28, 2016
2	Amplifier	HP	8447D	2944A09673	Nov. 17, 2015
3	Receiver	AGILENT	N9038A	MY52130039	Sep. 30, 2015
4	Test Cable	N/A	C-01_CB03	N/A	Jul. 01, 2015
5	Controller	CT	SC100	N/A	N/A
6	Antenna	ETS	3115	00075789	Mar. 28, 2016
7	Amplifier	Agilent	8449B	3008A02274	Nov. 02, 2015
8	Receiver	AGILENT	N9038A	MY52130039	Sep. 30, 2015
9	Test Cable	N/A	C-68	N/A	Jul. 01, 2015
10	Controller	CT	SC100	N/A	N/A
11	Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	9170319	Mar. 28, 2016
12	Microwave Preamplifier With Adaptor	EMC INSTRUMENT	EMC2654045	980039 & HA01	Mar. 28, 2016
13	Active Loop Antenna	R&S	HFH2-Z2	830749/020	Aug. 16, 2015
14	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A

Spectrum BandwidthMeasurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP 40	100185	Nov. 02, 2015

Maximum Conducted Output Power Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	power Meter	ANRITSU	ML2495A	1128009	Mar. 28, 2016
2	Pulse Power Sensor	ANRITSU	MA 2411B	1027500	Mar. 28, 2016

Antenna Conducted Spurious Emission Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP 40	100185	Nov. 02, 2015

Power Spectral Density Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP 40	100185	Nov. 02, 2015

Frequency Stability Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP 40	100185	Nov. 02, 2015

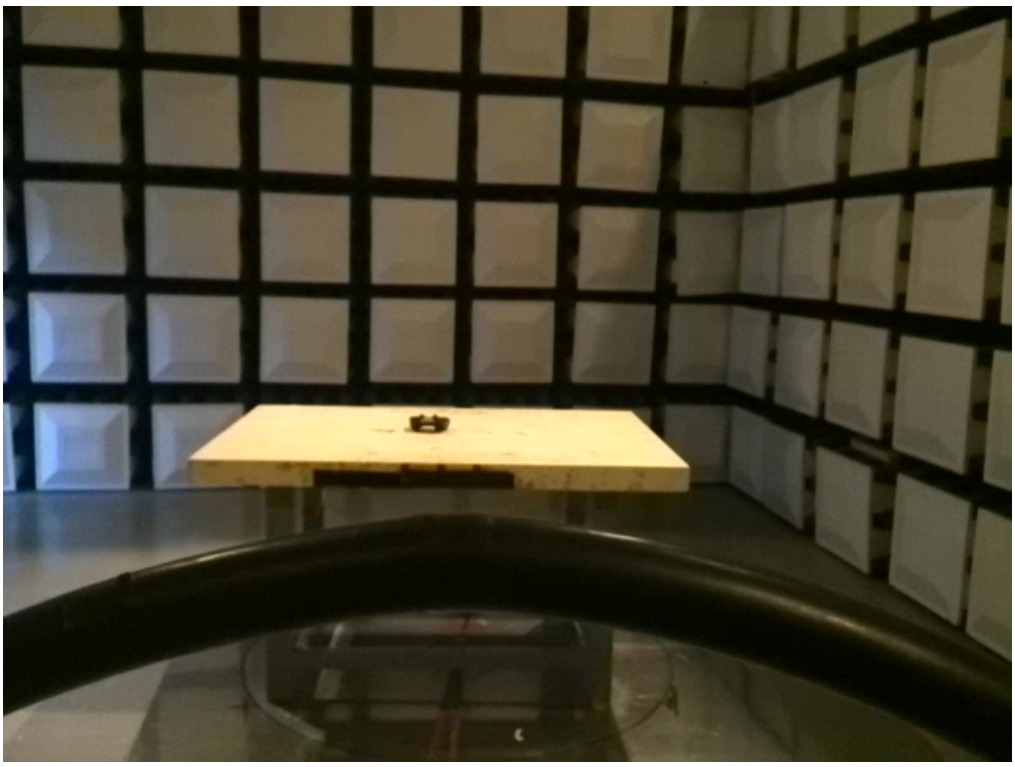
Remark: ”N/A” denotes no model name, serial no. or calibration specified.
All calibration period of equipment list is one year.

11. EUT TEST PHOTOS

Conducted Measurement Photos

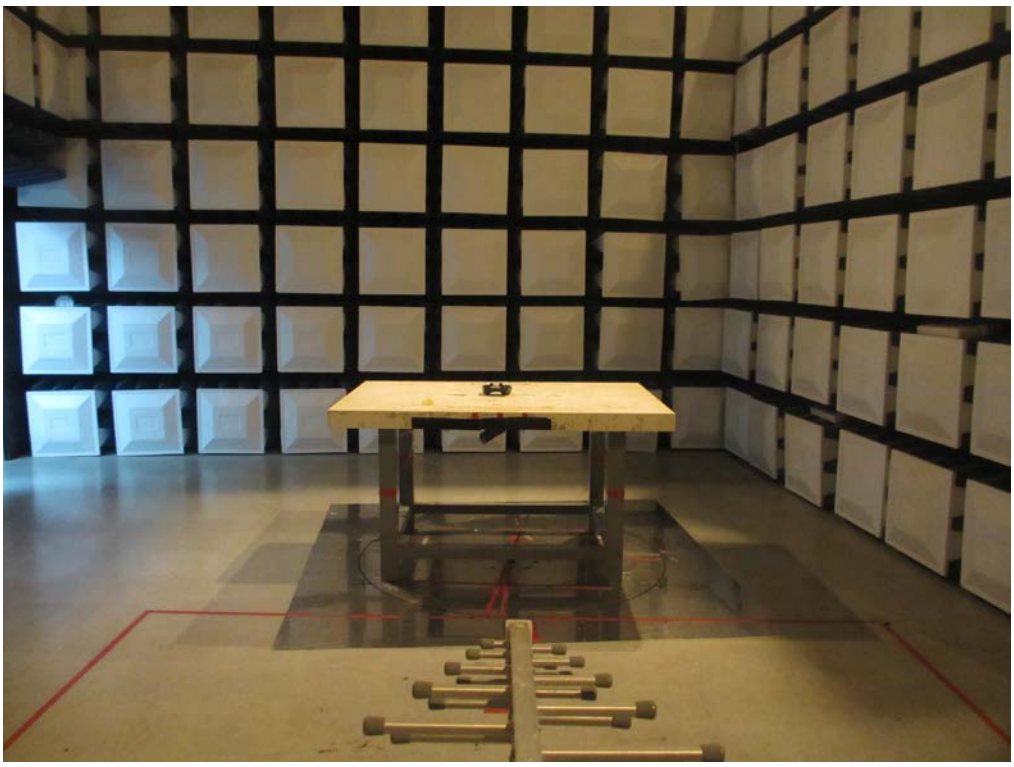
Radiated Measurement Photos

9kHz to 30MHz



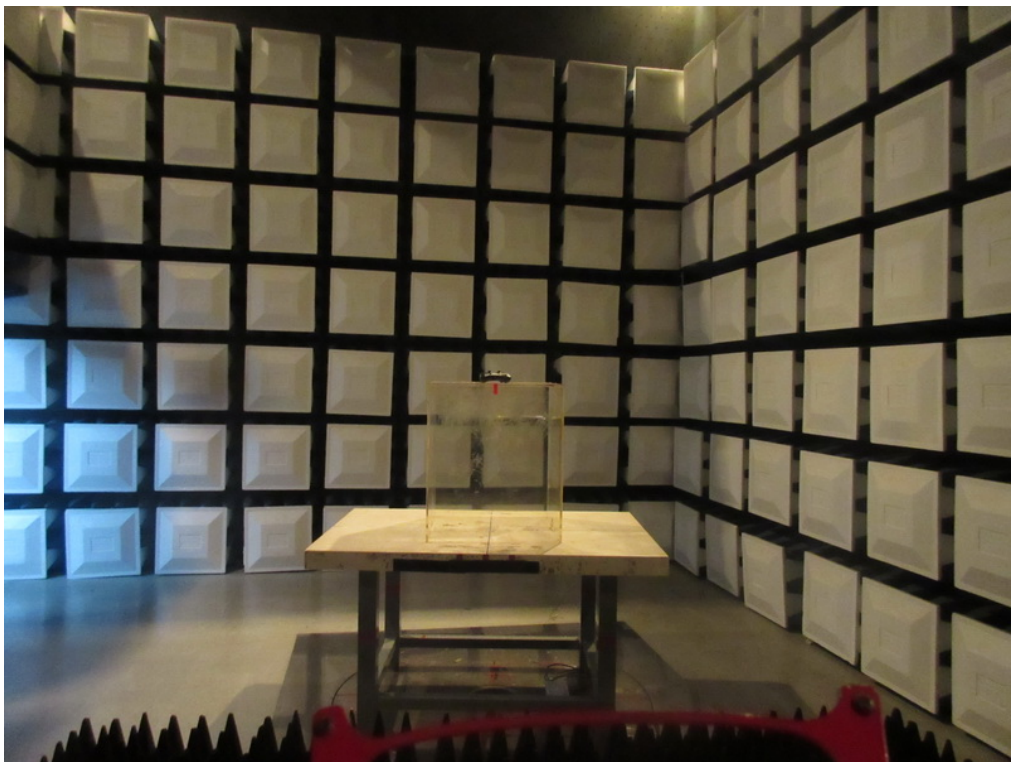
Radiated Measurement Photos

30MHz to 1000MHz



Radiated Measurement Photos

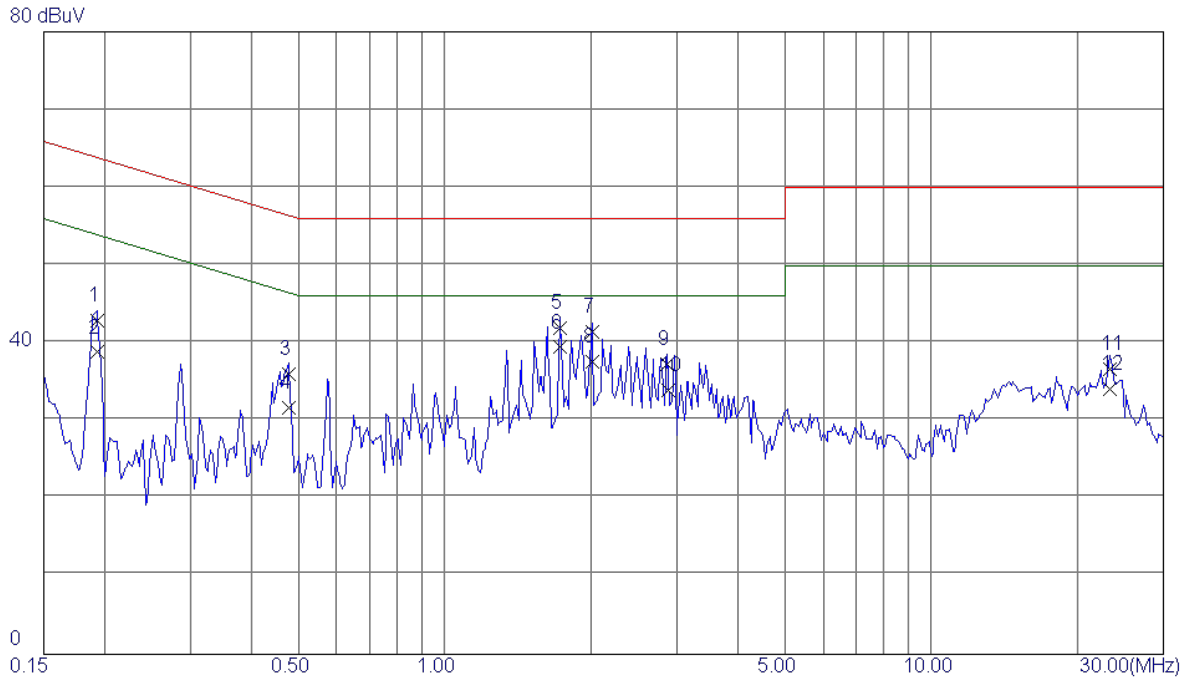
Above 1000MHz



ATTACHMENT A -CONDUCTED EMISSION

Test Mode:	TX Mode

Line

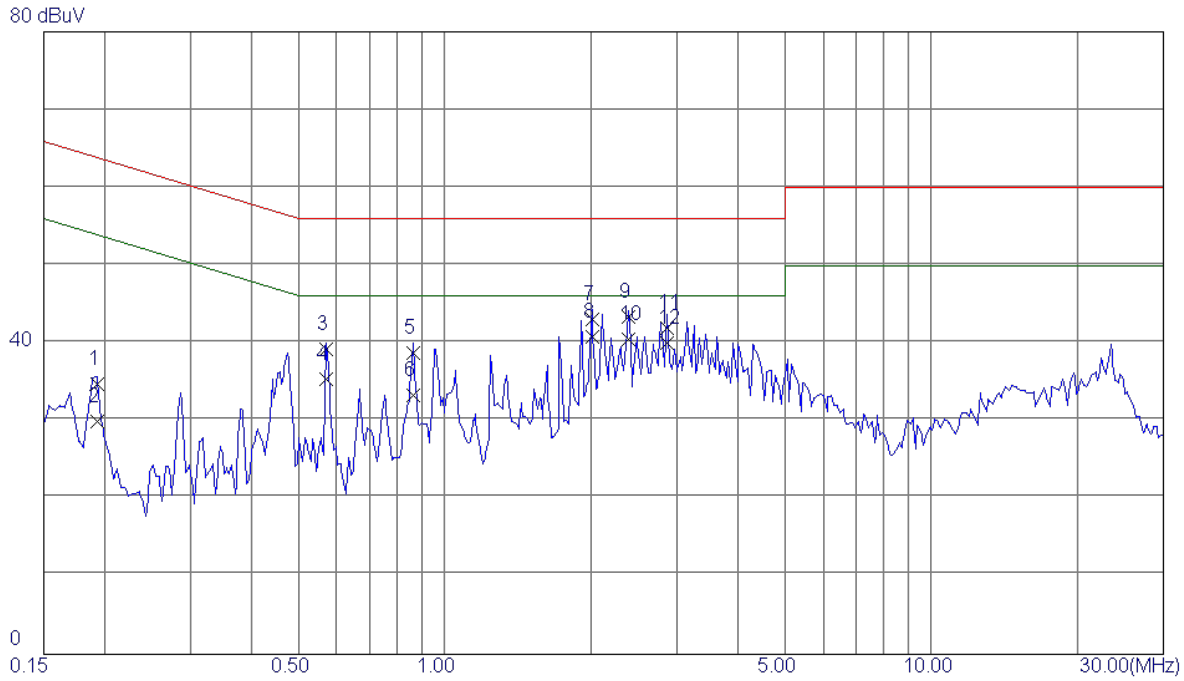


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	0.1930	33.26	9.65	42.91	63.91	-21.00	QP	
2	0.1930	29.15	9.65	38.80	53.91	-15.11	AVG	
3	0.4781	26.31	9.70	36.01	56.37	-20.36	QP	
4	0.4781	22.05	9.70	31.75	46.37	-14.62	AVG	
5	1.7242	32.14	9.81	41.95	56.00	-14.05	QP	
6	1.7242	29.63	9.81	39.44	46.00	-6.56	AVG	
7	2.0093	31.65	9.84	41.49	56.00	-14.51	QP	
8	2.0094	27.75	9.84	37.59	46.00	-8.41	AVG	
9	2.8726	27.36	9.86	37.22	56.00	-18.78	QP	
10	2.8727	24.01	9.86	33.87	46.00	-12.13	AVG	
11	23.2420	26.32	10.29	36.61	60.00	-23.39	QP	
12	23.2422	23.79	10.29	34.08	50.00	-15.92	AVG	

Note：The test result has included the cable loss.

Test Mode:	TX Mode

Neutral



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	0.1930	25.01	9.71	34.72	63.91	-29.19	QP	
2	0.1930	20.26	9.71	29.97	53.91	-23.94	AVG	
3	0.5718	29.53	9.74	39.27	56.00	-16.73	QP	
4	0.5720	25.56	9.74	35.30	46.00	-10.70	AVG	
5	0.8610	29.02	9.76	38.78	56.00	-17.22	QP	
6	0.8610	23.52	9.76	33.28	46.00	-12.72	AVG	
7	2.0094	33.23	9.86	43.09	56.00	-12.91	QP	
8	2.0094	30.90	9.86	40.76	46.00	-5.24	AVG	
9	2.3921	33.53	9.87	43.40	56.00	-12.60	QP	
10	2.3922	30.61	9.87	40.48	46.00	-5.52	AVG	
11	2.8687	32.10	9.89	41.99	56.00	-14.01	QP	
12	2.8687	30.13	9.89	40.02	46.00	-5.98	AVG	

Note：The test result has included the cable loss.

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

Test Mode:	TX Mode

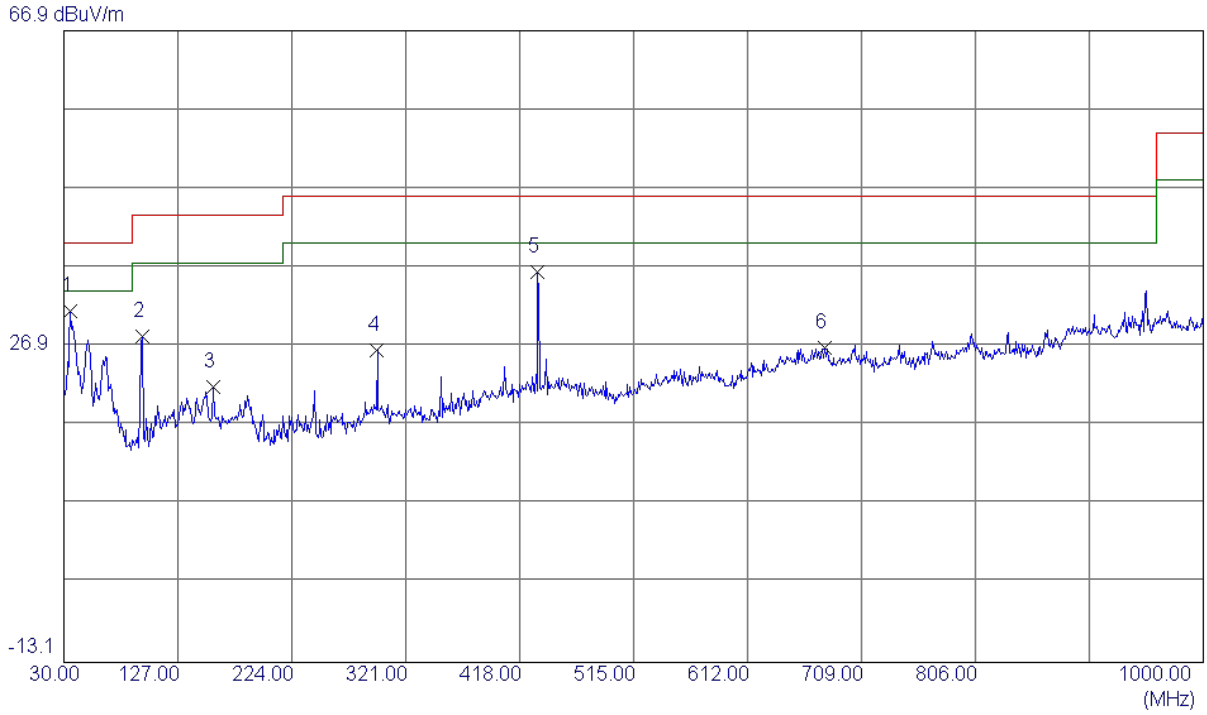
Frequency (MHz)	Ant 0°/90°	Read level dBuV/m	Factor (dB)	Measured(FS) (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Note
0.0082	0°	12.23	25.0473	37.2773	129.3279	-92.0506	AVG
0.0082	0°	15.46	25.0473	40.5073	149.3279	-108.8206	PEAK
0.0216	0°	8.16	24.1987	32.3587	120.9151	-88.5565	AVG
0.0216	0°	10.69	24.1987	34.8887	140.9151	-106.0265	PEAK
0.0328	0°	5.46	23.4893	28.9493	117.2867	-88.3374	AVG
0.0328	0°	8.36	23.4893	31.8493	137.2867	-105.4374	PEAK
0.0469	0°	3.05	22.5963	25.6463	114.1808	-88.5344	AVG
0.0469	0°	5.41	22.5963	28.0063	134.1808	-106.1744	PEAK
0.4958	0°	20.36	19.8101	40.1701	73.6981	-33.5280	QP
1.7236	0°	22.97	19.5276	42.4976	69.5400	-27.0424	QP

Frequency (MHz)	Ant 0°/90°	Read level dBuV/m	Factor (dB)	Measured(FS) (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Note
0.0092	90°	13.69	24.3000	37.9900	128.3285	-90.3385	AVG
0.0092	90°	15.19	24.3000	39.4900	148.3285	-108.8385	PEAK
0.0251	90°	9.18	23.9770	33.1570	119.6108	-86.4538	AVG
0.0251	90°	12.69	23.9770	36.6670	139.6108	-102.9438	PEAK
0.0336	90°	7.15	23.4387	30.5887	117.0774	-86.4888	AVG
0.0336	90°	10.39	23.4387	33.8287	137.0774	-103.2488	PEAK
0.0419	90°	5.22	22.9130	28.1330	115.1599	-87.0269	AVG
0.0419	90°	7.91	22.9130	30.8230	135.1599	-104.3369	PEAK
0.4936	90°	21.68	19.8154	41.4954	73.7367	-32.2414	QP
1.7169	90°	24.06	19.5283	43.5883	69.5400	-25.9517	QP

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

Test Mode:	UNII-2A/TX A Mode 5260MHz

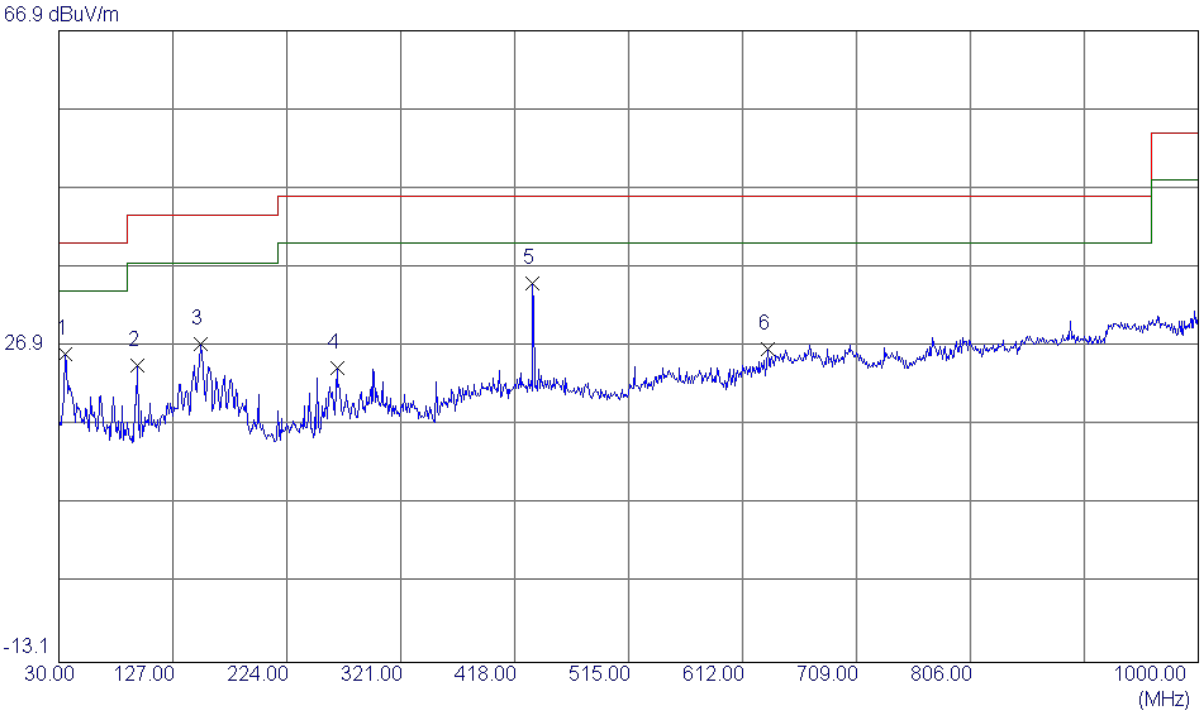
Vertical



No.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	35.8200	44.42	-13.08	31.34	40.00	-8.66	Peak	
2	96.9300	43.31	-15.19	28.12	43.50	-15.38	Peak	
3	157.0700	33.91	-12.07	21.84	43.50	-21.66	Peak	
4	296.7500	36.11	-9.66	26.45	46.00	-19.55	Peak	
5	433.5200	42.72	-6.35	36.37	46.00	-9.63	Peak	
6	677.9600	28.35	-1.54	26.81	46.00	-19.19	Peak	

Test Mode:	UNII-2A/TX A Mode 5260MHz

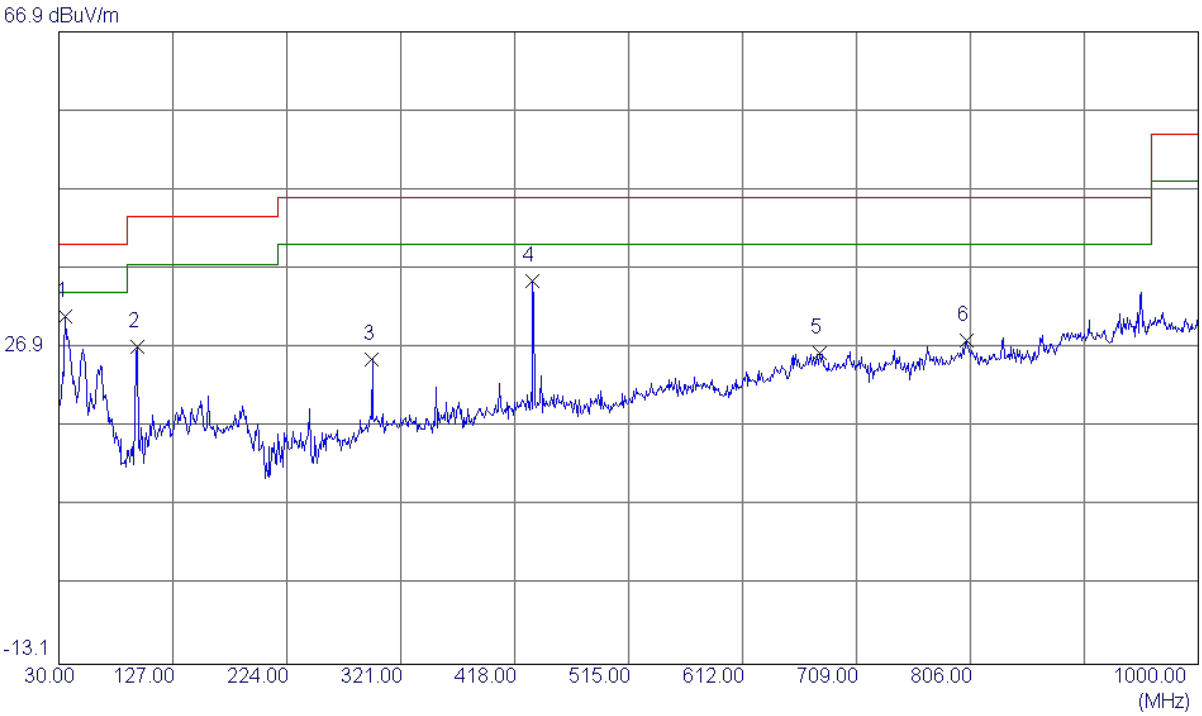
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	35.8200	39.03	-13.08	25.95	40.00	-14.05	Peak	
2	96.9300	39.69	-15.19	24.50	43.50	-19.00	Peak	
3	150.2800	38.83	-11.62	27.21	43.50	-16.29	Peak	
4	266.6800	36.21	-12.07	24.14	46.00	-21.86	Peak	
5	433.5200	41.25	-6.35	34.90	46.00	-11.10	Peak	
6	633.3400	29.18	-2.64	26.54	46.00	-19.46	Peak	

Test Mode:	UNII-2A/TX A Mode 5300MHz

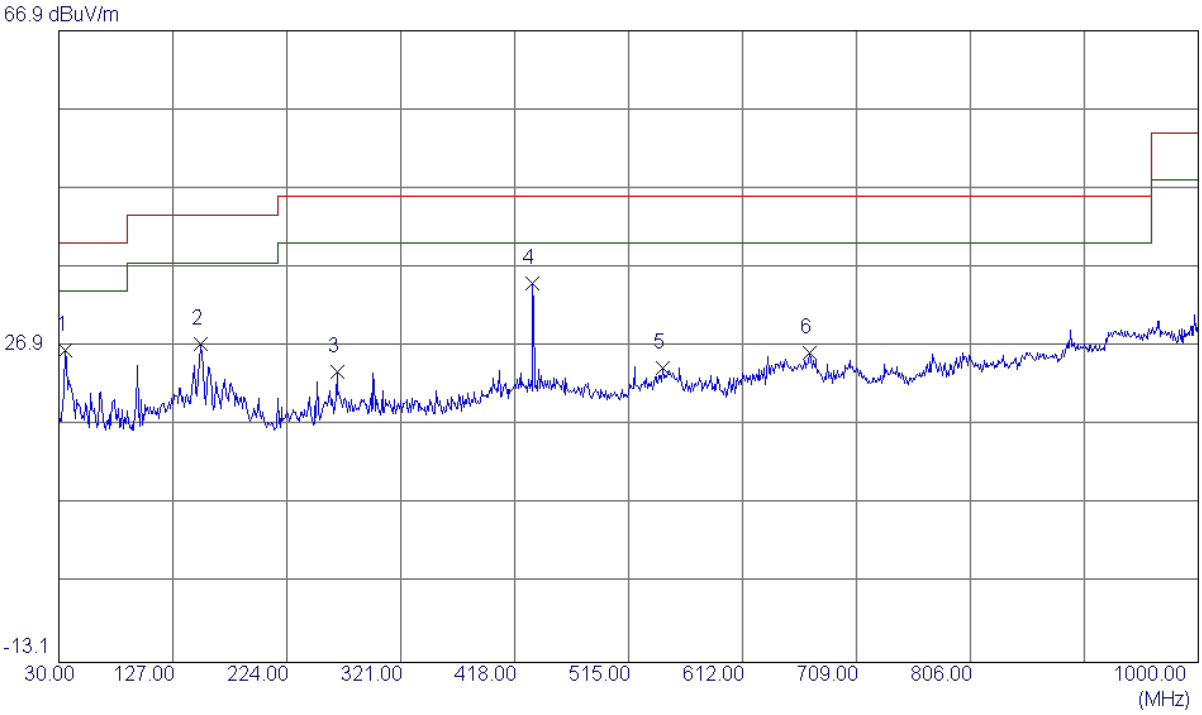
Vertical



No.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	35.8200	43.92	-13.08	30.84	40.00	-9.16	Peak	
2	96.9300	42.31	-15.19	27.12	43.50	-16.38	Peak	
3	296.7500	35.11	-9.66	25.45	46.00	-20.55	Peak	
4	433.5200	41.72	-6.35	35.37	46.00	-10.63	Peak	
5	677.9600	27.85	-1.54	26.31	46.00	-19.69	Peak	
6	803.0900	27.78	0.16	27.94	46.00	-18.06	Peak	

Test Mode:	UNII-2A/TX A Mode 5300MHz

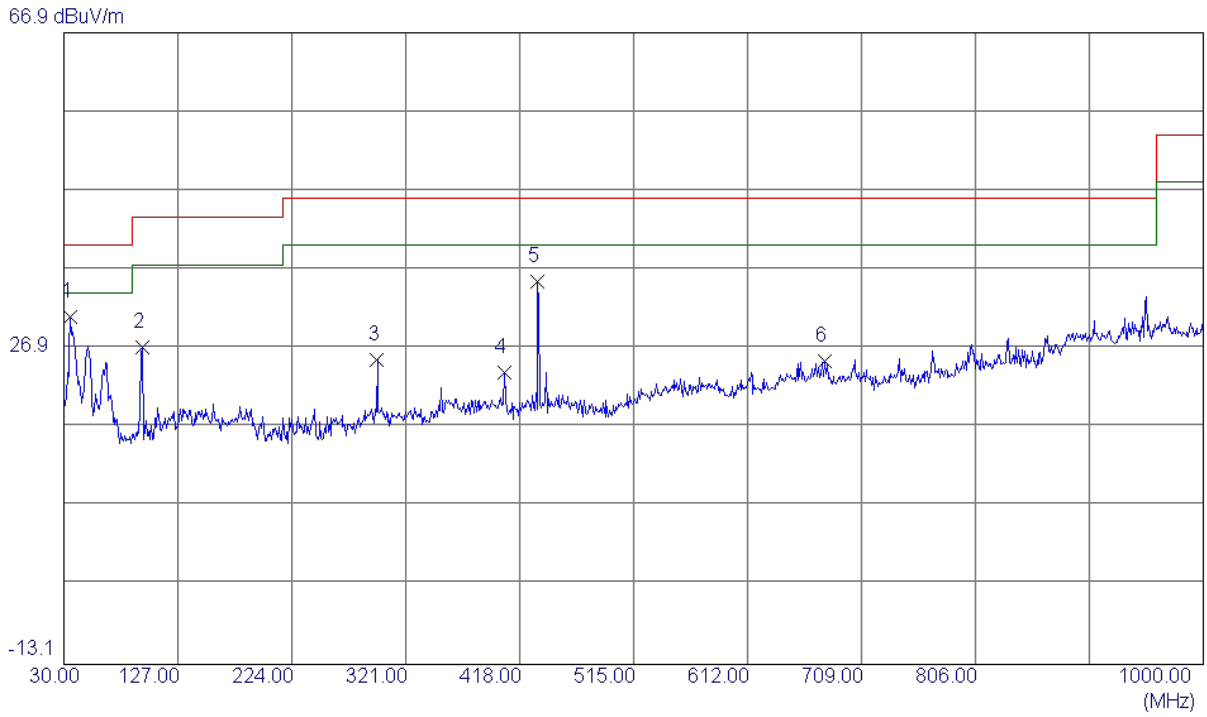
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	35.8200	39.53	-13.08	26.45	40.00	-13.55	Peak	
2	150.2800	38.83	-11.62	27.21	43.50	-16.29	Peak	
3	266.6800	35.71	-12.07	23.64	46.00	-22.36	Peak	
4	433.5200	41.25	-6.35	34.90	46.00	-11.10	Peak	
5	544.1000	29.06	-4.95	24.11	46.00	-21.89	Peak	
6	669.2300	27.61	-1.57	26.04	46.00	-19.96	Peak	

Test Mode:	UNII-2A/TX A Mode 5320MHz

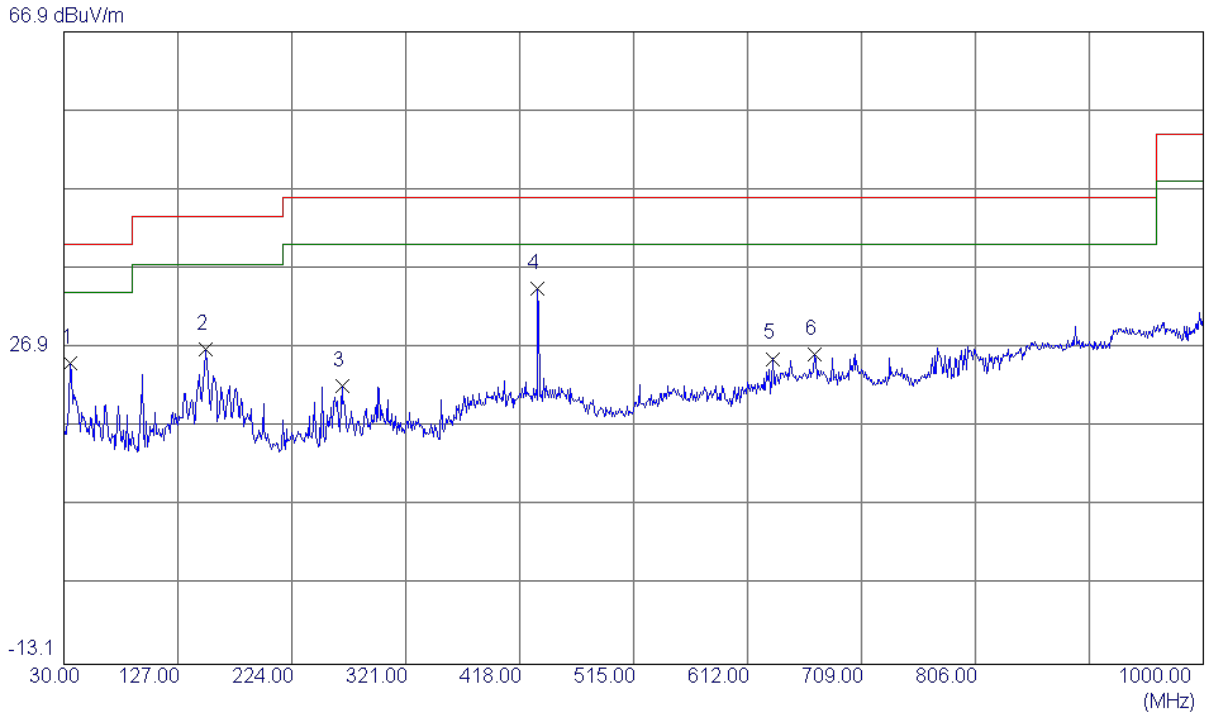
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	35.8200	43.92	-13.08	30.84	40.00	-9.16	Peak	
2	96.9300	42.31	-15.19	27.12	43.50	-16.38	Peak	
3	296.7500	35.11	-9.66	25.45	46.00	-20.55	Peak	
4	405.3900	30.96	-7.12	23.84	46.00	-22.16	Peak	
5	433.5200	41.72	-6.35	35.37	46.00	-10.63	Peak	
6	677.9600	26.85	-1.54	25.31	46.00	-20.69	Peak	

Test Mode:	UNII-2A/TX A Mode 5320MHz

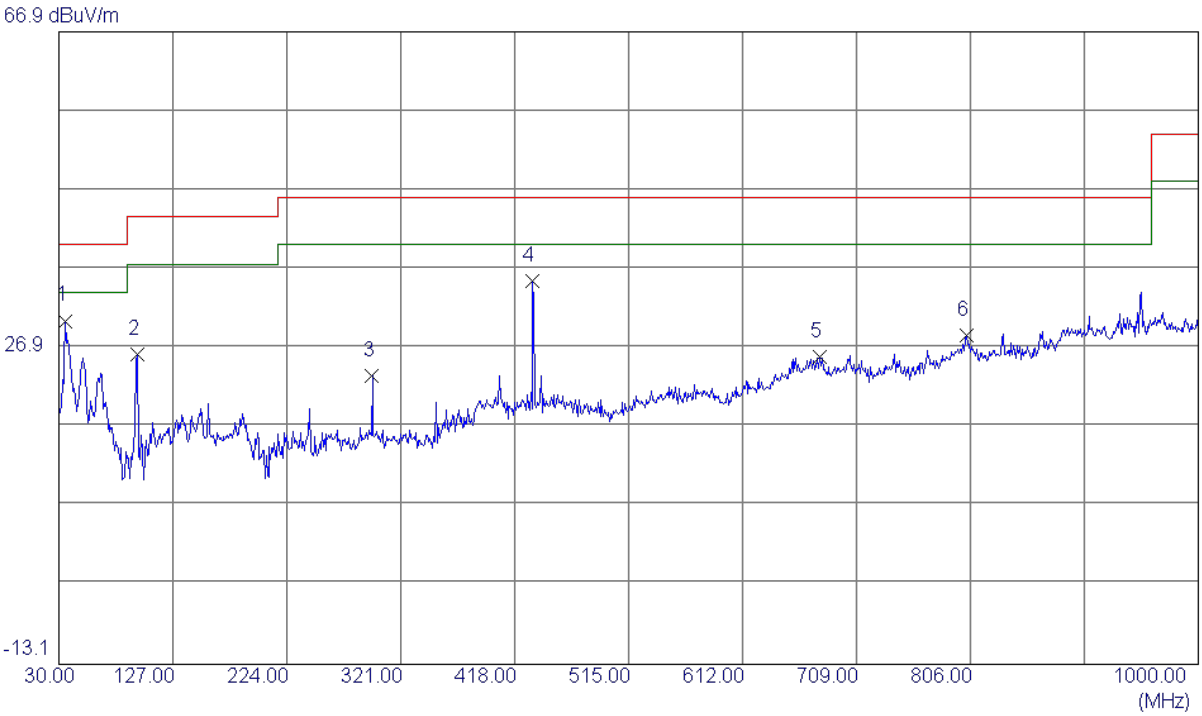
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	35.8200	38.03	-13.08	24.95	40.00	-15.05	Peak	
2	150.2800	38.33	-11.62	26.71	43.50	-16.79	Peak	
3	266.6800	34.21	-12.07	22.14	46.00	-23.86	Peak	
4	433.5200	40.75	-6.35	34.40	46.00	-11.60	Peak	
5	633.3400	28.18	-2.64	25.54	46.00	-20.46	Peak	
6	669.2300	27.61	-1.57	26.04	46.00	-19.96	Peak	

Test Mode:	UNII-2C/TX A Mode 5500MHz

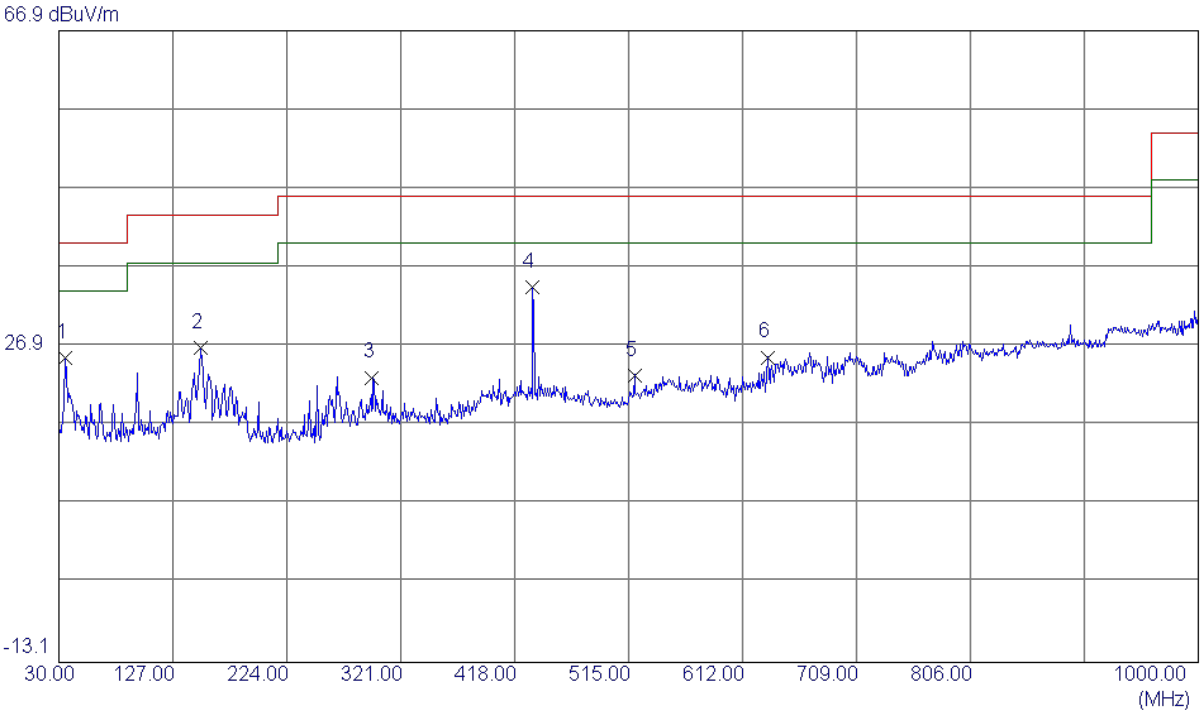
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	35.8200	43.42	-13.08	30.34	40.00	-9.66	Peak	
2	96.9300	41.31	-15.19	26.12	43.50	-17.38	Peak	
3	296.7500	33.11	-9.66	23.45	46.00	-22.55	Peak	
4	433.5200	41.72	-6.35	35.37	46.00	-10.63	Peak	
5	677.9600	27.35	-1.54	25.81	46.00	-20.19	Peak	
6	803.0900	28.28	0.16	28.44	46.00	-17.56	Peak	

Test Mode:	UNII-2C/TX A Mode 5500MHz

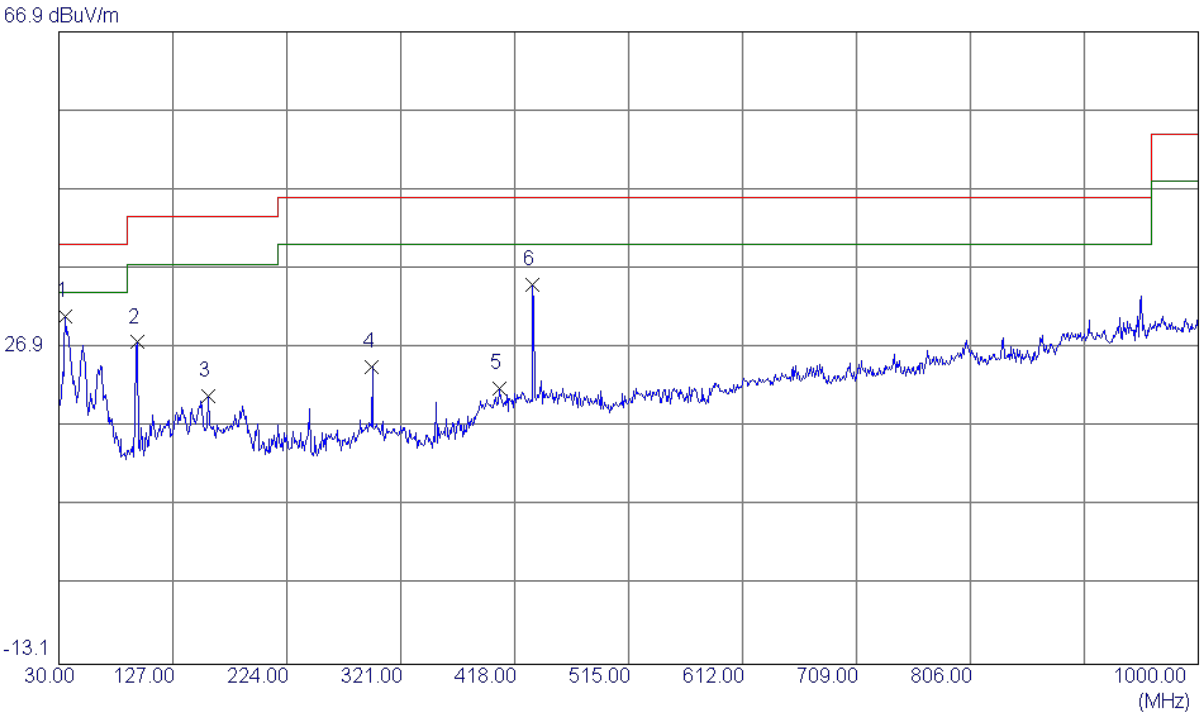
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	35.8200	38.53	-13.08	25.45	40.00	-14.55	Peak	
2	150.2800	38.33	-11.62	26.71	43.50	-16.79	Peak	
3	296.7500	32.64	-9.66	22.98	46.00	-23.02	Peak	
4	433.5200	40.75	-6.35	34.40	46.00	-11.60	Peak	
5	519.8500	29.59	-6.29	23.30	46.00	-22.70	Peak	
6	633.3400	28.18	-2.64	25.54	46.00	-20.46	Peak	

Test Mode:	UNII-2C/TX A Mode 5580MHz

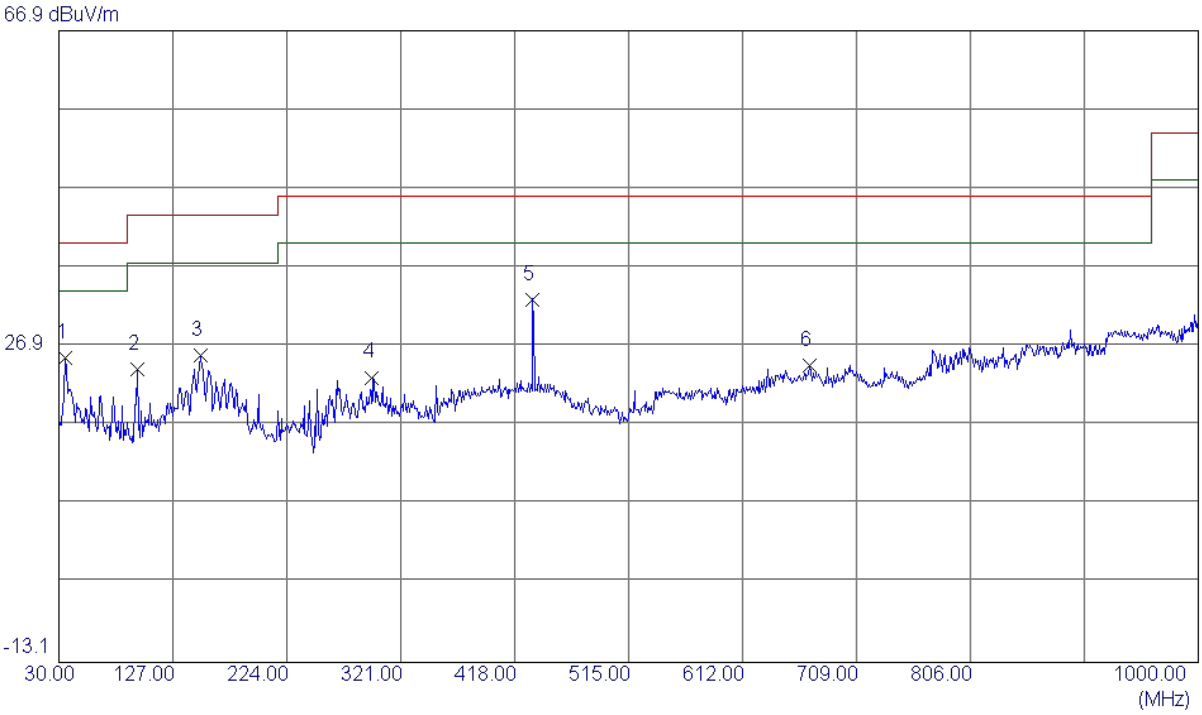
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	35.8200	43.92	-13.08	30.84	40.00	-9.16	Peak	
2	96.9300	42.81	-15.19	27.62	43.50	-15.88	Peak	
3	157.0700	32.91	-12.07	20.84	43.50	-22.66	Peak	
4	296.7500	34.11	-9.66	24.45	46.00	-21.55	Peak	
5	405.3900	28.96	-7.12	21.84	46.00	-24.16	Peak	
6	433.5200	41.22	-6.35	34.87	46.00	-11.13	Peak	

Test Mode:	UNII-2C/TX A Mode 5580MHz

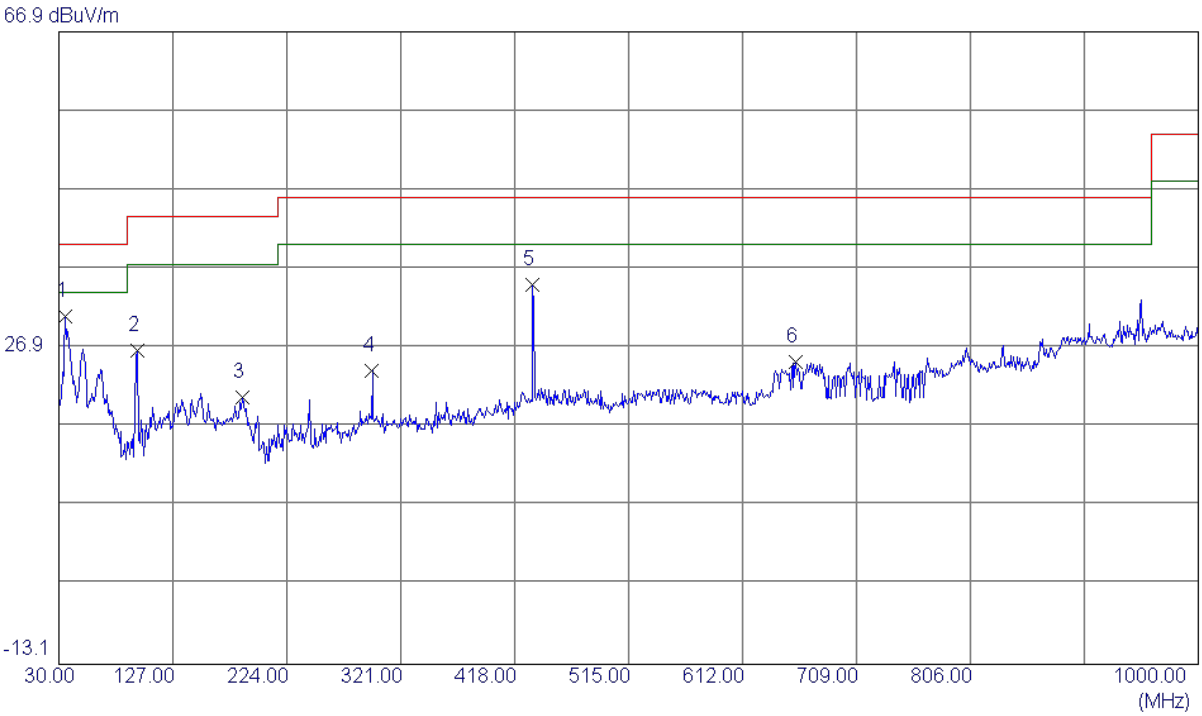
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	35.8200	38.53	-13.08	25.45	40.00	-14.55	Peak	
2	96.9300	39.19	-15.19	24.00	43.50	-19.50	Peak	
3	150.2800	37.33	-11.62	25.71	43.50	-17.79	Peak	
4	296.7500	32.64	-9.66	22.98	46.00	-23.02	Peak	
5	433.5200	39.25	-6.35	32.90	46.00	-13.10	Peak	
6	669.2300	26.11	-1.57	24.54	46.00	-21.46	Peak	

Test Mode:	UNII-2C/TX A Mode 5700MHz

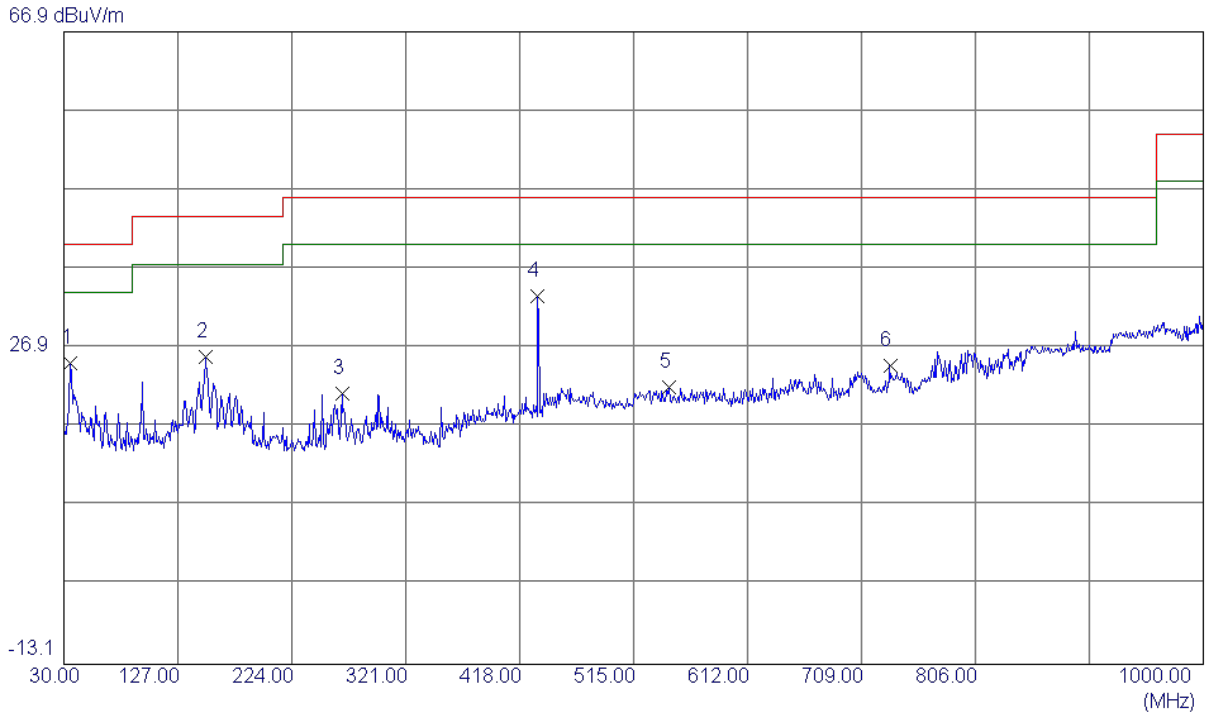
Vertical



No.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	35.8200	43.92	-13.08	30.84	40.00	-9.16	Peak	
2	96.9300	41.81	-15.19	26.62	43.50	-16.88	Peak	
3	186.1700	33.01	-12.41	20.60	43.50	-22.90	Peak	
4	296.7500	33.61	-9.66	23.95	46.00	-22.05	Peak	
5	433.5200	41.22	-6.35	34.87	46.00	-11.13	Peak	
6	657.5900	26.72	-1.61	25.11	46.00	-20.89	Peak	

Test Mode:	UNII-2C/TX A Mode 5700MHz

Horizontal



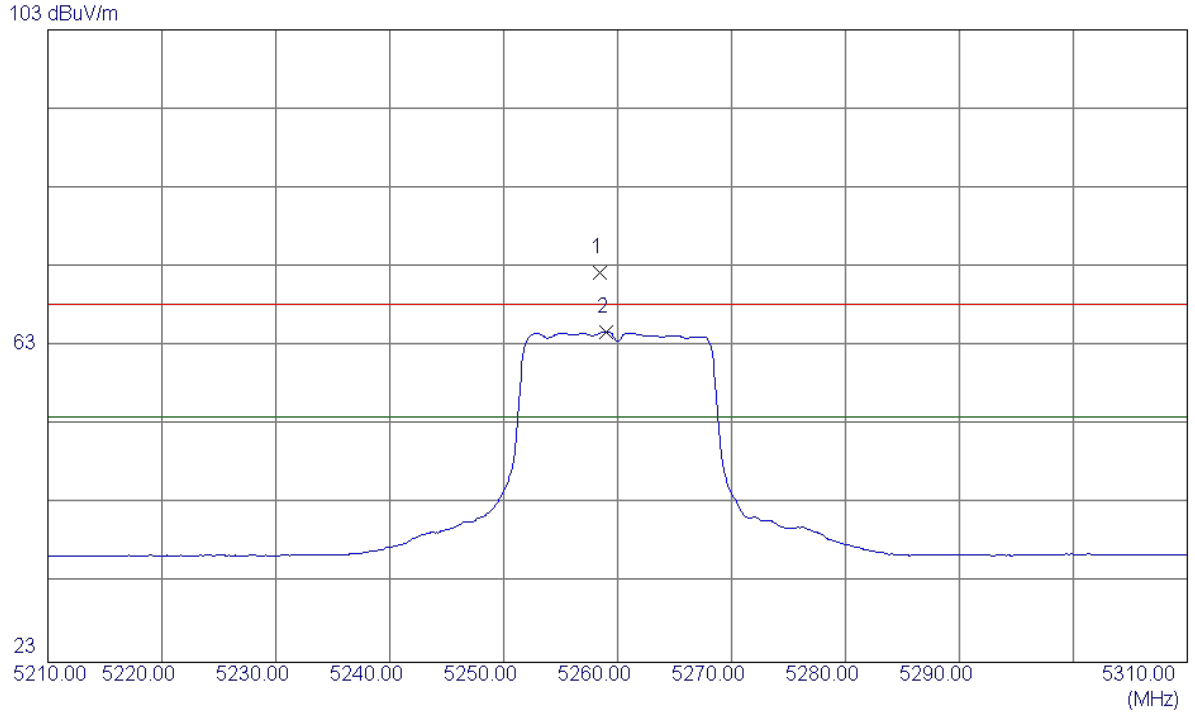
No.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	35.8200	38.03	-13.08	24.95	40.00	-15.05	Peak	
2	150.2800	37.33	-11.62	25.71	43.50	-17.79	Peak	
3	266.6800	33.21	-12.07	21.14	46.00	-24.86	Peak	
4	433.5200	39.75	-6.35	33.40	46.00	-12.60	Peak	
5	545.0700	26.79	-4.89	21.90	46.00	-24.10	Peak	
6	733.2500	26.11	-1.44	24.67	46.00	-21.33	Peak	

ATTACHMENT D -RADIATED EMISSION (ABOVE 1000MHZ)

Orthogonal Axis :	X
Test Mode :	UNII-2A/ TX A Mode 5260MHz

No.	Freq.	Reading	Ant./CF	Measurement (dBuV/m)	Limit (dBuV/m)	Measurement (dBm)	Limit (dBm)	Over	Detector
	(MHz)	(dBuV)						dB	
1	5258.40	31.51	40.79	72.30	68.30	-23.00	-27.00	4.00	Peak
2	5259.00	24.01	40.80	64.81	54.00	-30.49	-41.30	10.81	AVG

Vertical

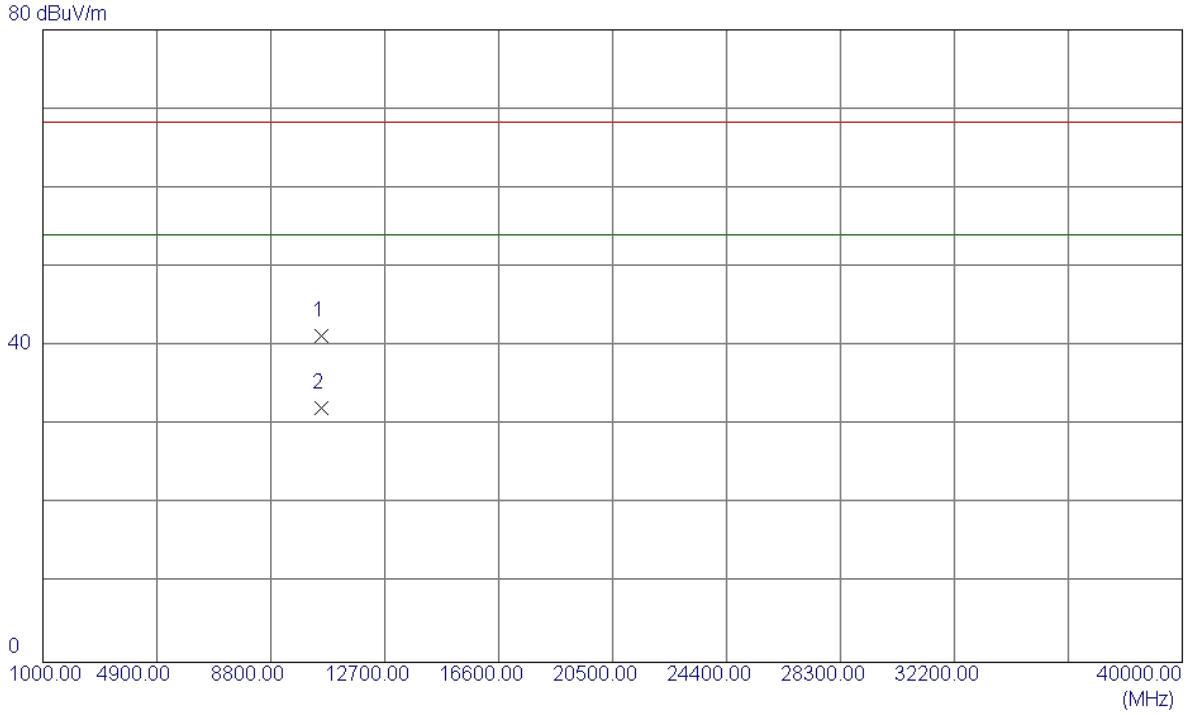


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5258.4000	31.51	40.79	72.30	68.30	4.00	Peak	no limit
2	5259.0000	24.01	40.80	64.81	54.00	10.81	AVG	no limit

Orthogonal Axis :	X
Test Mode :	UNII-2A/ TX A Mode 5260MHz

No.	Freq.	Reading	Ant./CF	Measurement (dBuV/m)	Limit (dBuV/m)	Measurement (dBm)	Limit (dBm)	Over	Detector
	(MHz)	(dBuV)						dB	
1	10520.46	25.40	15.88	41.28	68.30	-54.02	-27.00	-27.02	Peak
2	10520.46	16.31	15.88	32.19	54.00	-63.11	-41.30	-21.81	AVG

Vertical

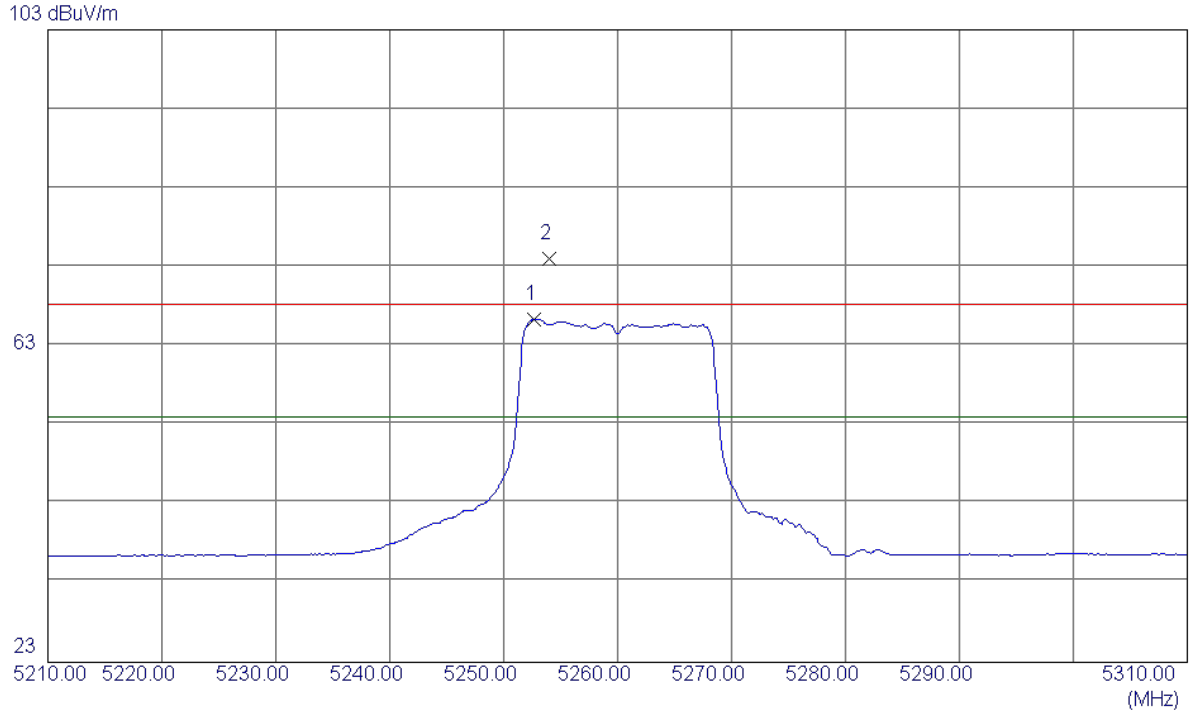


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	10520.4600	25.40	15.88	41.28	68.30	-27.02	Peak	
2	10520.4600	16.31	15.88	32.19	54.00	-21.81	AVG	

Orthogonal Axis :	X
Test Mode :	UNII-2A/ TX A Mode 5260MHz

No.	Freq.	Reading	Ant./CF	Measurement (dBuV/m)	Limit (dBuV/m)	Measurement (dBm)	Limit (dBm)	Over	Detector
	(MHz)	(dBuV)						dB	
1	5257.70	25.61	40.77	66.38	54.00	-28.92	-41.30	12.38	Peak
2	5254.00	33.24	40.78	74.02	68.30	-21.28	-27.00	5.72	AVG

Horizontal

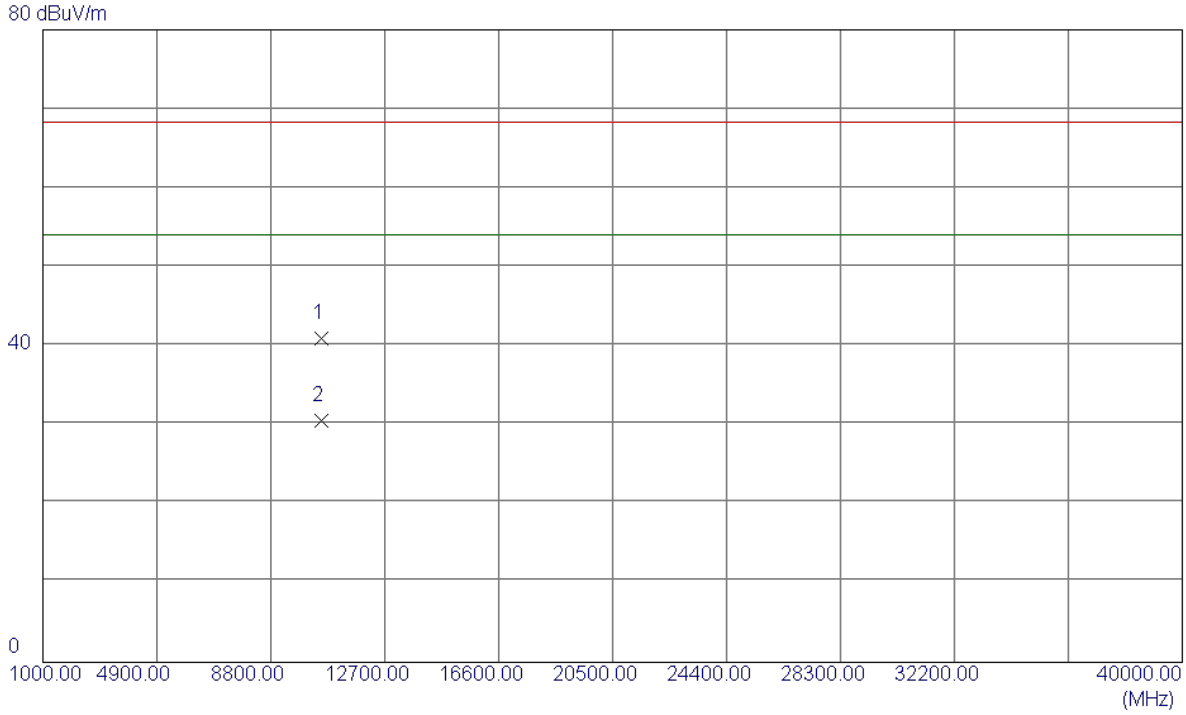


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5252.7000	25.61	40.77	66.38	54.00	12.38	AVG	no limit
2	5254.0000	33.24	40.78	74.02	68.30	5.72	Peak	no limit

Orthogonal Axis :	X
Test Mode :	UNII-2A/ TX A Mode 5260MHz

No.	Freq.	Reading	Ant./CF	Measurement (dBuV/m)	Limit (dBuV/m)	Measurement (dBm)	Limit (dBm)	Over	Detector
	(MHz)	(dBuV)						dB	
1	10520.36	25.09	15.88	40.97	68.30	-54.33	-27.00	-27.33	Peak
2	10520.36	14.64	15.88	30.52	54.00	-64.78	-41.30	-23.48	AVG

Horizontal

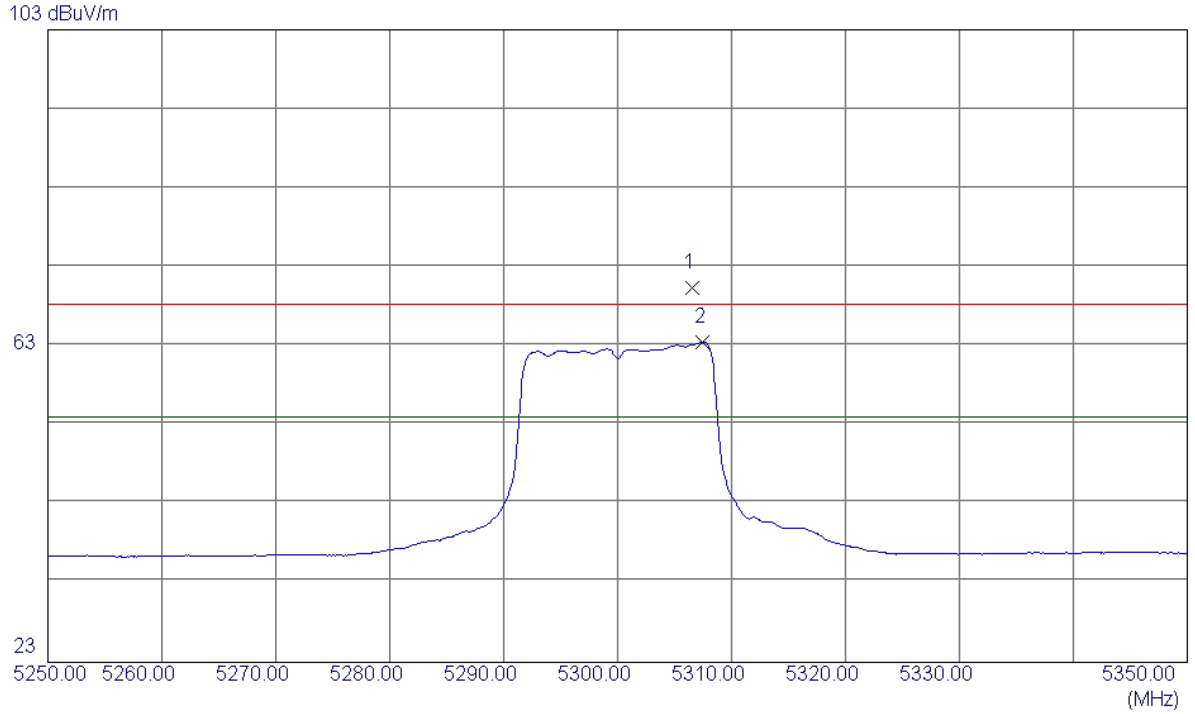


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	10520.3600	25.09	15.88	40.97	68.30	-27.33	Peak	
2	10520.3600	14.64	15.88	30.52	54.00	-23.48	AVG	

Orthogonal Axis :	X
Test Mode :	UNII-2A/ TX A Mode 5300MHz

No.	Freq.	Reading	Ant./CF	Measurement (dBuV/m)	Limit (dBuV/m)	Measurement (dBm)	Limit (dBm)	Over	Detector
	(MHz)	(dBuV)						dB	
1	5306.60	29.33	40.96	70.29	68.30	-25.01	-27.00	1.99	Peak
2	5307.50	22.57	40.96	63.53	54.00	-31.77	-41.30	9.53	AVG

Vertical

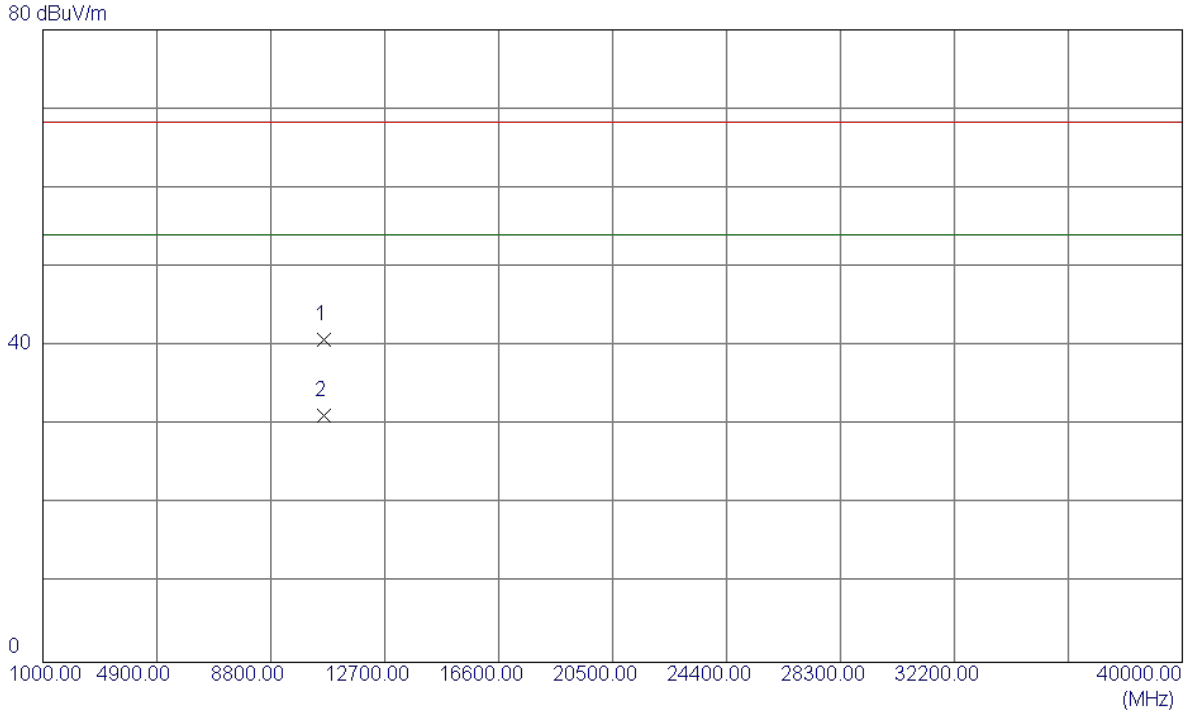


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5306.6000	29.33	40.96	70.29	68.30	1.99	Peak	no limit
2	5307.5000	22.57	40.96	63.53	54.00	9.53	AVG	no limit

Orthogonal Axis :	X
Test Mode :	UNII-2A/ TX A Mode 5300MHz

No.	Freq.	Reading	Ant./CF	Measurement (dBuV/m)	Limit (dBuV/m)	Measurement (dBm)	Limit (dBm)	Over	Detector
	(MHz)	(dBuV)						dB	
1	10600.06	24.74	16.11	40.85	68.30	-54.45	-27.00	-27.45	Peak
2	10600.06	15.15	16.11	31.26	54.00	-64.04	-41.30	-22.74	AVG

Vertical

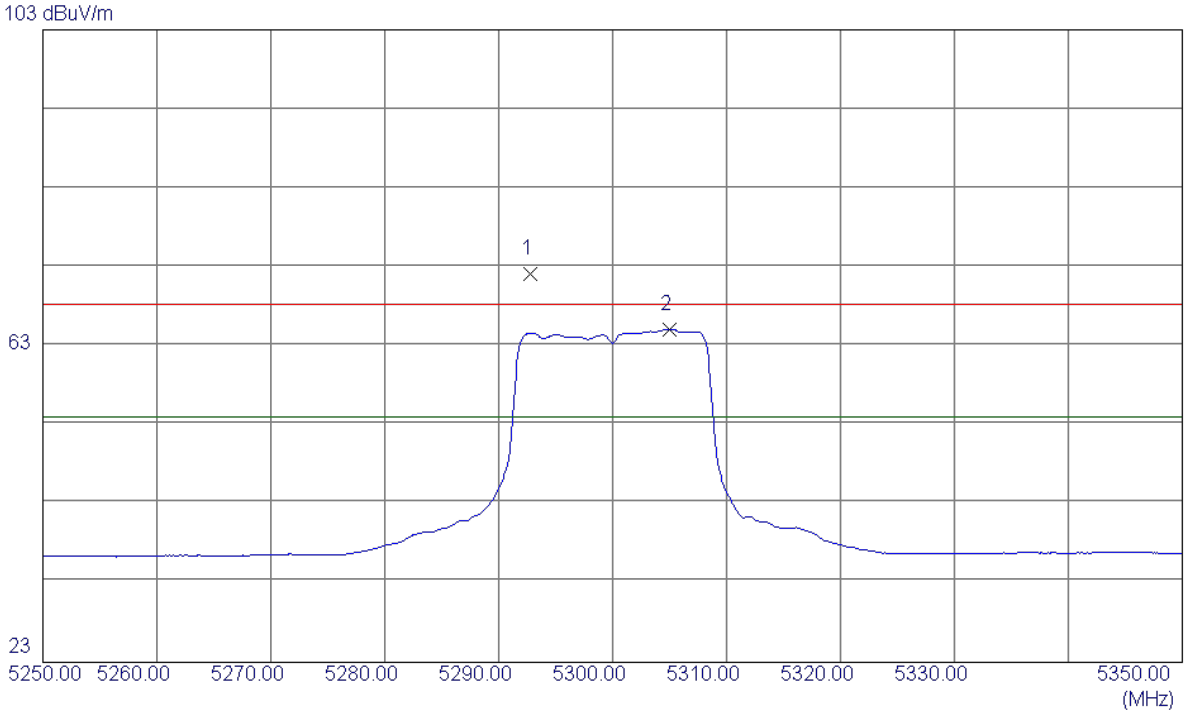


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	10600.0599	24.74	16.11	40.85	68.30	-27.45	Peak	
2	10600.0599	15.15	16.11	31.26	54.00	-22.74	AVG	

Orthogonal Axis :	X
Test Mode :	UNII-2A/ TX A Mode 5300MHz

No.	Freq.	Reading	Ant./CF	Measurement (dBuV/m)	Limit (dBuV/m)	Measurement (dBm)	Limit (dBm)	Over	Detector
	(MHz)	(dBuV)						dB	
1	5292.80	31.19	40.91	72.10	68.30	-23.20	-27.00	3.80	Peak
2	5305.00	24.18	40.96	65.14	54.00	-30.16	-41.30	11.14	AVG

Horizontal

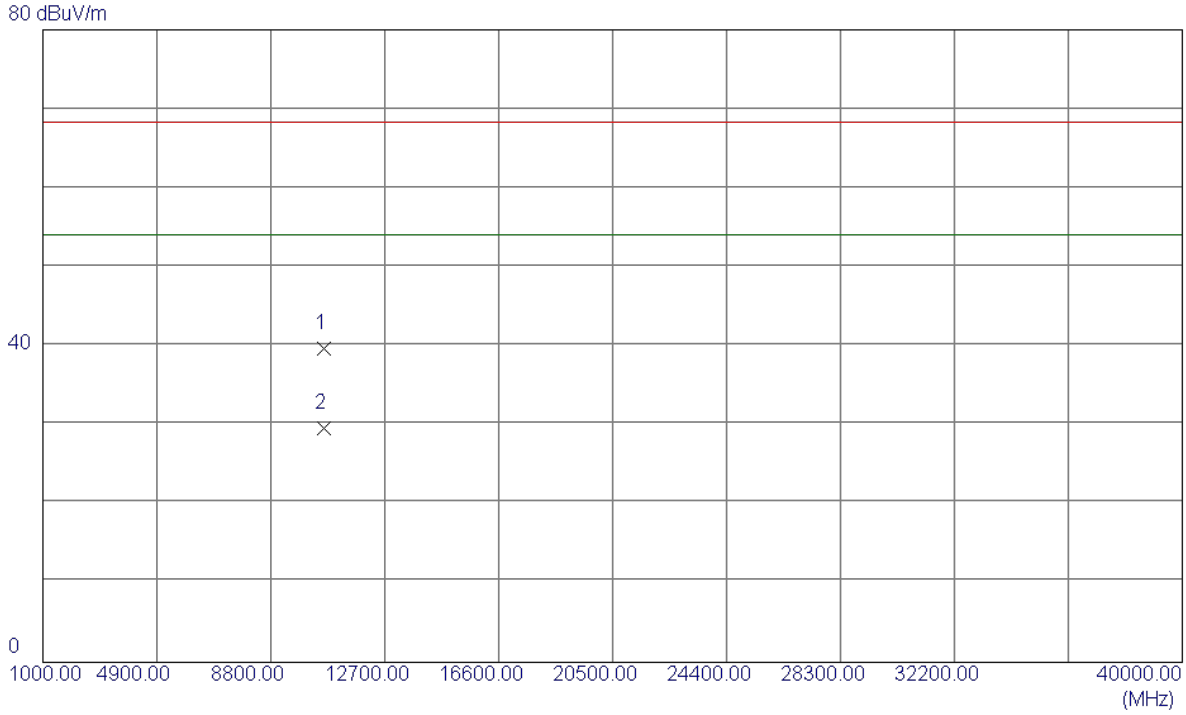


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5292.8000	31.19	40.91	72.10	68.30	3.80	Peak	no limit
2	5305.0000	24.18	40.96	65.14	54.00	11.14	AVG	no limit

Orthogonal Axis :	X
Test Mode :	UNII-2A/ TX A Mode 5300MHz

No.	Freq.	Reading	Ant./CF	Measurement (dBuV/m)	Limit (dBuV/m)	Measurement (dBm)	Limit (dBm)	Over	Detector
	(MHz)	(dBuV)						dB	
1	10601.20	23.64	16.11	39.75	68.30	-55.55	-27.00	-28.55	Peak
2	10601.20	13.50	16.11	29.61	54.00	-65.69	-41.30	-24.39	AVG

Horizontal

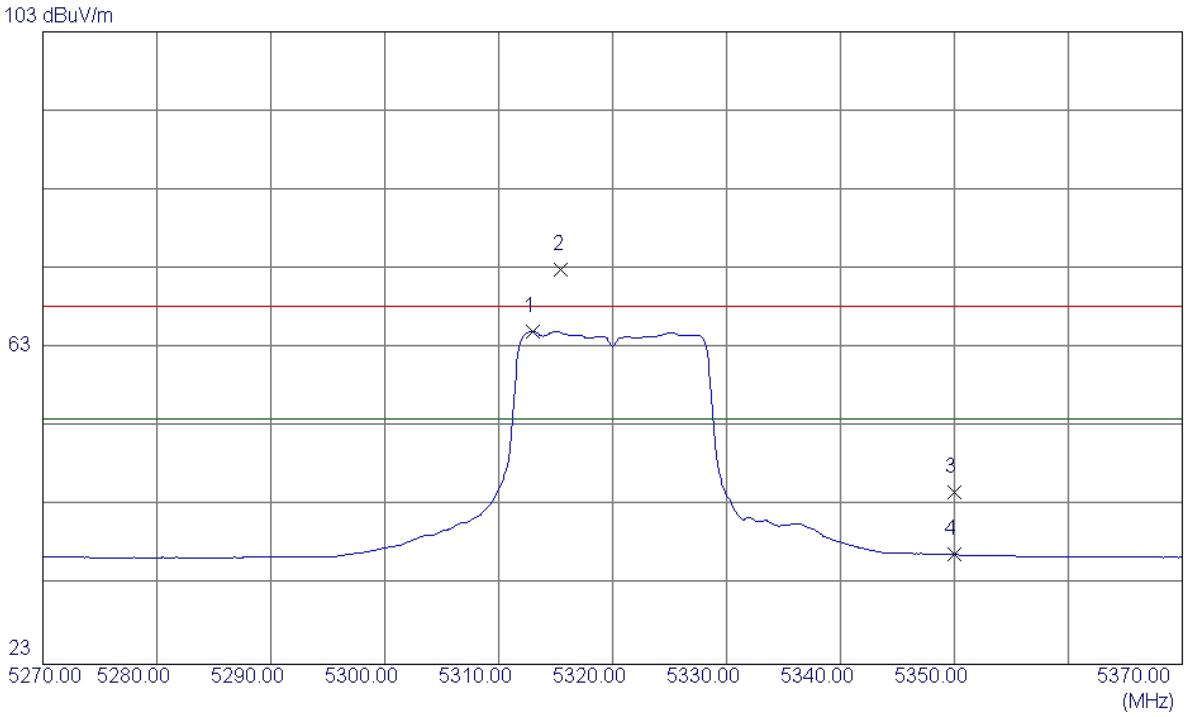


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	10601.2000	23.64	16.11	39.75	68.30	-28.55	Peak	
2	10601.2000	13.50	16.11	29.61	54.00	-24.39	AVG	

Orthogonal Axis :	X
Test Mode :	UNII-2A/ TX A Mode 5320MHz

No.	Freq.	Reading	Ant./CF	Measurement (dBuV/m)	Limit (dBuV/m)	Measurement (dBm)	Limit (dBm)	Over	Detector
	(MHz)	(dBuV)						dB	
1	5313.00	24.08	40.98	65.06	54.00	-30.24	-41.30	11.06	Peak
2	5315.50	31.94	40.99	72.93	68.30	-22.37	-27.00	4.63	AVG
3	5350.00	3.67	41.11	44.78	-	-50.52	-	-	Peak
4	5350.00	-4.25	41.11	36.86	-	-58.44	-	-	AVG

Vertical

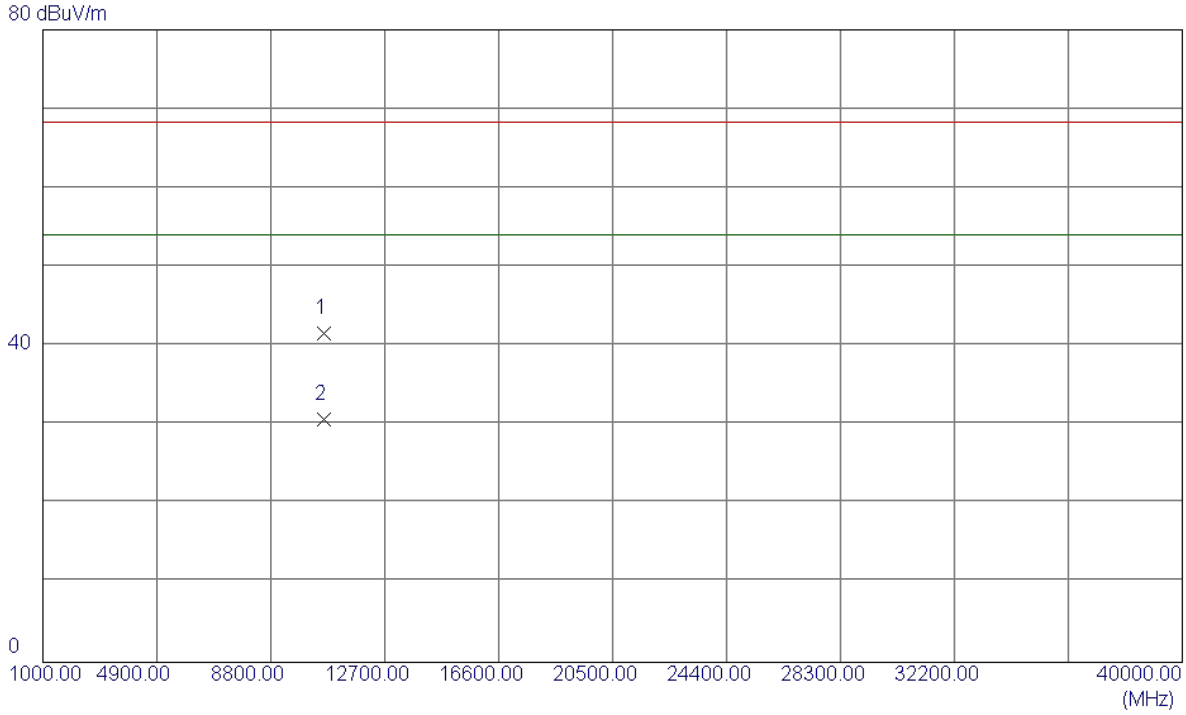


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5313.0000	24.08	40.98	65.06	54.00	11.06	AVG	no limit
2	5315.5000	31.94	40.99	72.93	68.30	4.63	Peak	no limit
3	5350.0000	3.67	41.11	44.78	68.30	-23.52	Peak	
4	5350.0000	-4.25	41.11	36.86	54.00	-17.14	AVG	

Orthogonal Axis :	X
Test Mode :	UNII-2A/ TX A Mode 5320MHz

No.	Freq.	Reading	Ant./CF	Measurement (dBuV/m)	Limit (dBuV/m)	Measurement (dBm)	Limit (dBm)	Over	Detector
	(MHz)	(dBuV)						dB	
1	10640.58	25.45	16.22	41.67	68.30	-53.63	-27.00	-26.63	Peak
2	10640.58	14.47	16.22	30.69	54.00	-64.61	-41.30	-23.31	AVG

Vertical

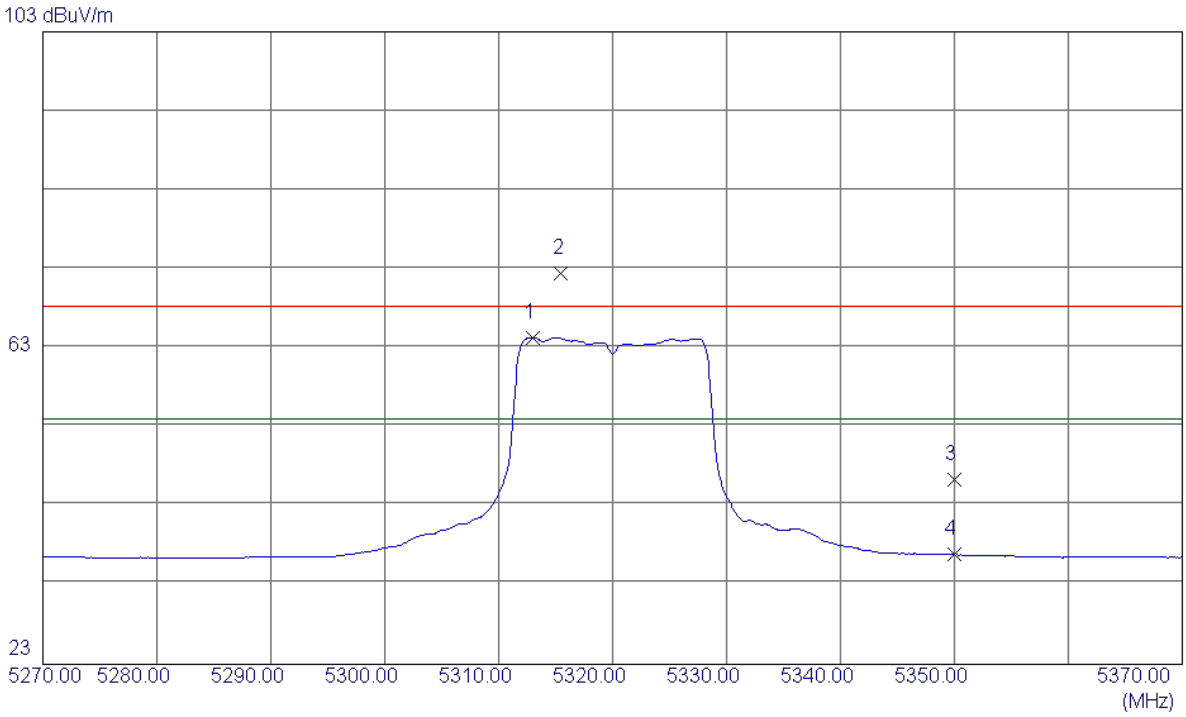


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	10640.5800	25.45	16.22	41.67	68.30	-26.63	Peak	
2	10640.5800	14.47	16.22	30.69	54.00	-23.31	AVG	

Orthogonal Axis :	X
Test Mode :	UNII-2A/ TX A Mode 5320MHz

No.	Freq.	Reading	Ant./CF	Measurement (dBuV/m)	Limit (dBuV/m)	Measurement (dBm)	Limit (dBm)	Over	Detector
	(MHz)	(dBuV)						dB	
1	5313.00	23.37	40.98	64.35	54.00	-30.95	-41.30	10.35	Peak
2	5315.50	31.38	40.99	72.37	68.30	-22.93	-27.00	4.07	AVG
3	5350.00	5.23	41.11	46.34	-	-48.96	-	-	Peak
4	5350.00	-4.25	41.11	36.86	-	-58.44	-	-	AVG

Horizontal

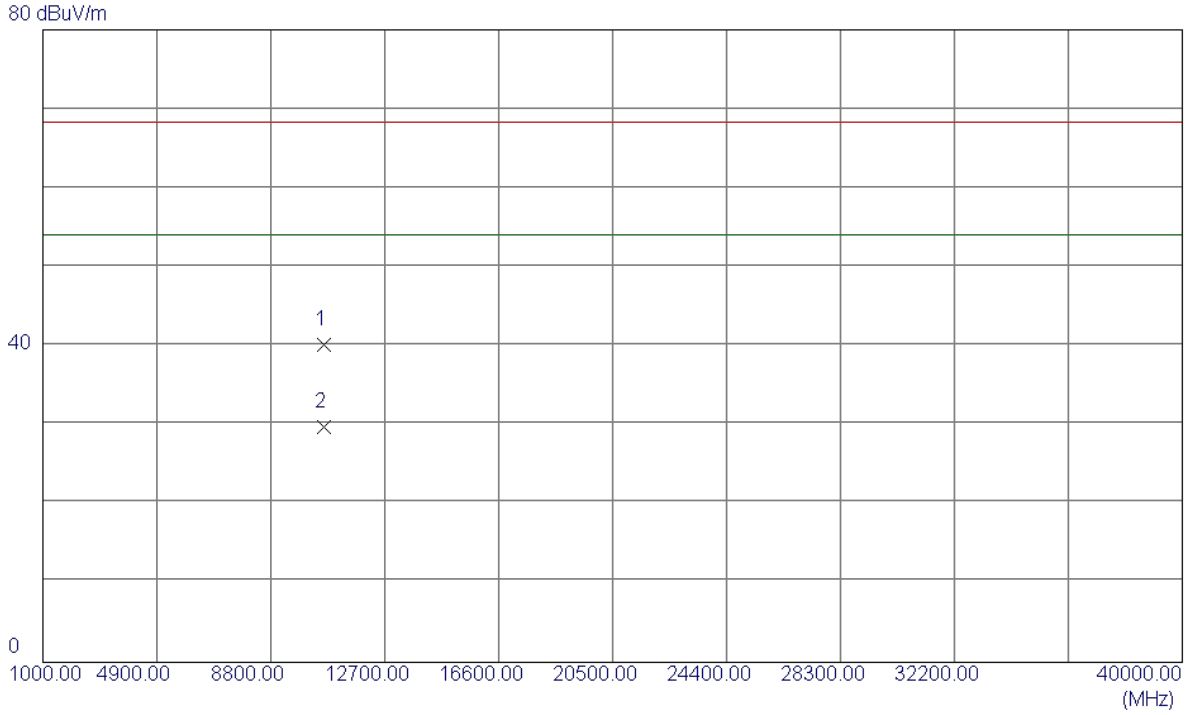


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5313.0000	23.37	40.98	64.35	54.00	10.35	AVG	no limit
2	5315.5000	31.38	40.99	72.37	68.30	4.07	Peak	no limit
3	5350.0000	5.23	41.11	46.34	68.30	-21.96	Peak	
4	5350.0000	-4.25	41.11	36.86	54.00	-17.14	AVG	

Orthogonal Axis :	X
Test Mode :	UNII-2A/ TX A Mode 5320MHz

No.	Freq.	Reading	Ant./CF	Measurement (dBuV/m)	Limit (dBuV/m)	Measurement (dBm)	Limit (dBm)	Over	Detector
	(MHz)	(dBuV)						dB	
1	10640.15	23.94	16.22	40.16	68.30	-55.14	-27.00	-28.14	Peak
2	10640.15	13.55	16.22	29.77	54.00	-65.53	-41.30	-24.23	AVG

Horizontal

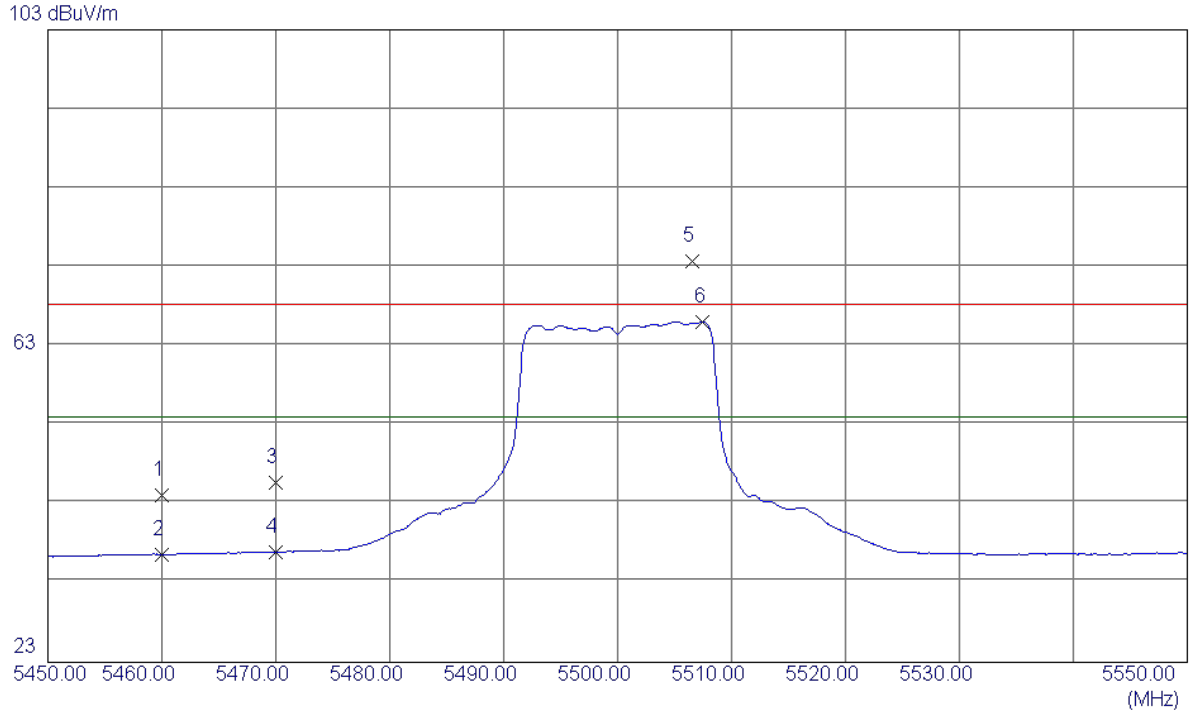


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	10640.1500	23.94	16.22	40.16	68.30	-28.14	Peak	
2	10640.1500	13.55	16.22	29.77	54.00	-24.23	AVG	

Orthogonal Axis :	X
Test Mode :	UNII-2C/ TX A Mode 5500MHz

No.	Freq.	Reading	Ant./CF	Measurement (dBuV/m)	Limit (dBuV/m)	Measurement (dBm)	Limit (dBm)	Over	Detector
	(MHz)	(dBuV)						dB	
1	5460.00	2.70	41.49	44.19	68.30	-51.11	-27.00	-24.11	Peak
2	5460.00	-4.83	41.49	36.66	54.00	-58.64	-41.30	-17.34	AVG
3	5470.00	4.12	41.53	45.65	-	-49.65	-	-	Peak
4	5470.00	-4.54	41.53	36.99	-	-58.31	-	-	AVG
5	5506.60	32.08	41.66	73.74	-	-21.56	-	-	AVG
6	5507.50	24.37	41.66	66.03	-	-29.27	-	-	AVG

Vertical

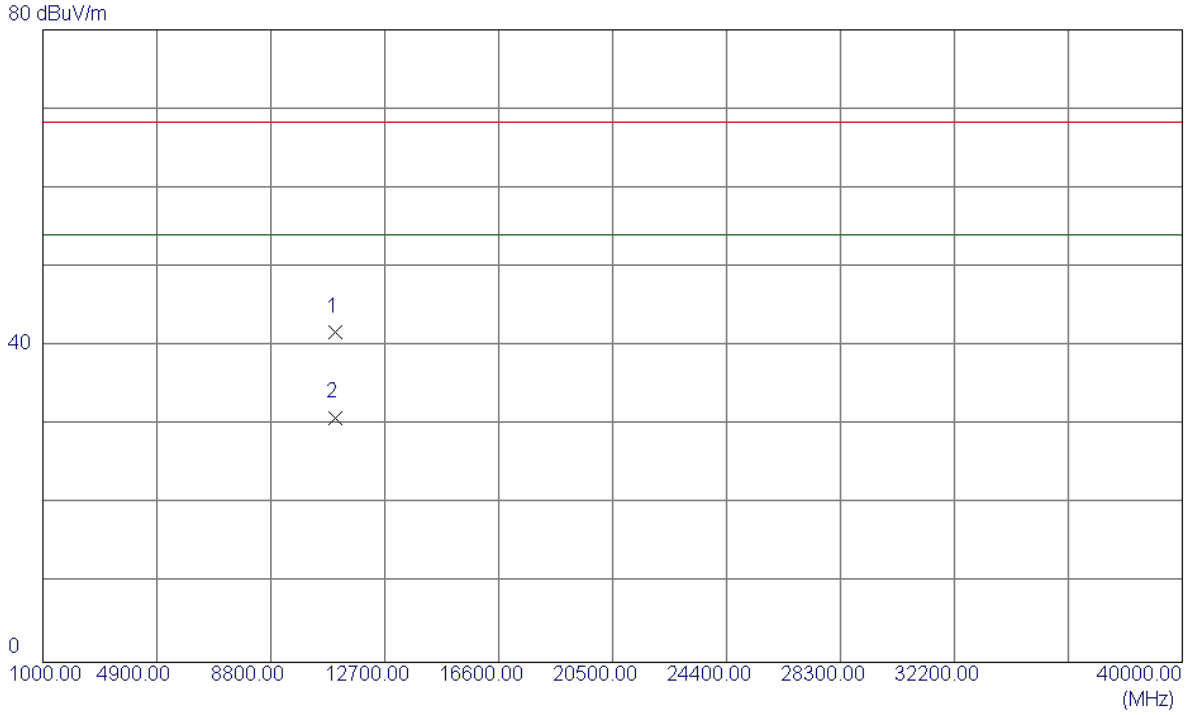


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5460.0000	2.70	41.49	44.19	68.30	-24.11	Peak	
2	5460.0000	-4.83	41.49	36.66	54.00	-17.34	AVG	
3	5470.0000	4.12	41.53	45.65	68.30	-22.65	Peak	
4	5470.0000	-4.54	41.53	36.99	54.00	-17.01	AVG	
5	5506.6000	32.08	41.66	73.74	68.30	5.44	Peak	no limit
6	5507.5000	24.37	41.66	66.03	54.00	12.03	AVG	no limit

Orthogonal Axis :	X
Test Mode :	UNII-2C/ TX A Mode 5500MHz

No.	Freq.	Reading	Ant./CF	Measurement (dBuV/m)	Limit (dBuV/m)	Measurement (dBm)	Limit (dBm)	Over	Detector
	(MHz)	(dBuV)						dB	
1	11000.27	24.49	17.26	41.75	68.30	-53.55	-27.00	-26.55	Peak
2	11000.27	13.70	17.26	30.96	54.00	-64.34	-41.30	-23.04	AVG

Vertical

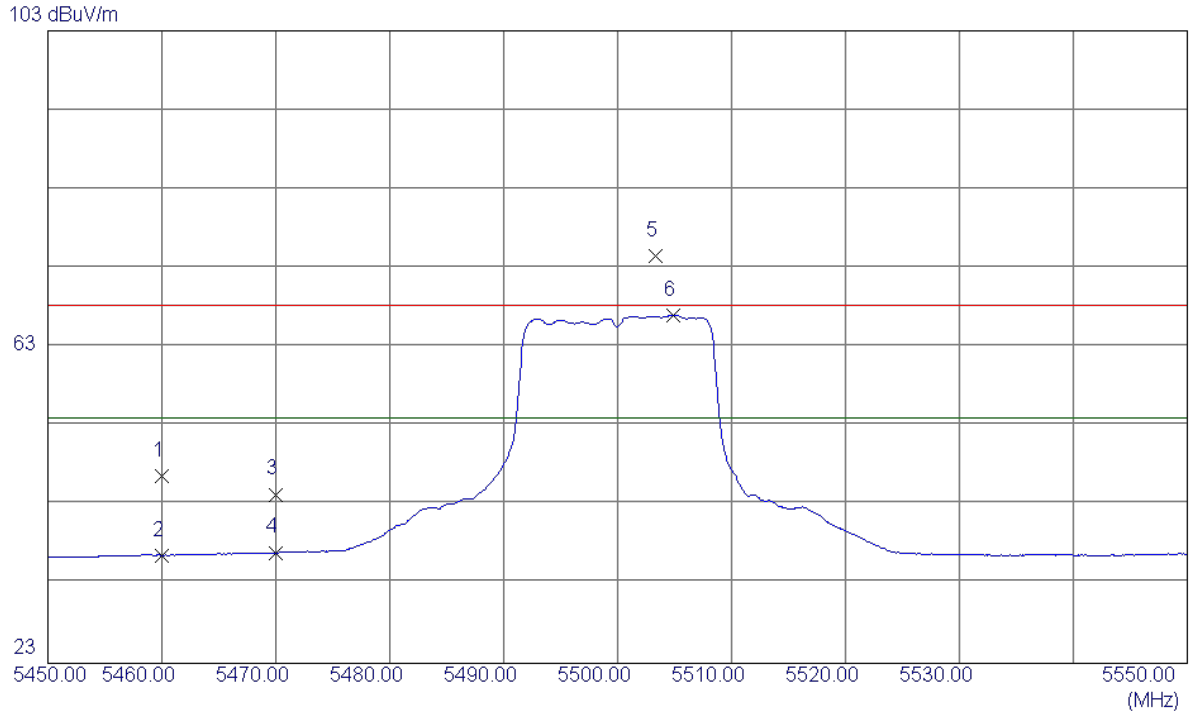


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	11000.2699	24.49	17.26	41.75	68.30	-26.55	Peak	
2	11000.2699	13.70	17.26	30.96	54.00	-23.04	AVG	

Orthogonal Axis :	X
Test Mode :	UNII-2C/ TX A Mode 5500MHz

No.	Freq.	Reading	Ant./CF	Measurement (dBuV/m)	Limit (dBuV/m)	Measurement (dBm)	Limit (dBm)	Over	Detector
	(MHz)	(dBuV)						dB	
1	5460.00	5.20	41.49	46.69	68.30	-48.61	-27.00	-21.61	Peak
2	5460.00	-4.82	41.49	36.67	54.00	-58.63	-41.30	-17.33	AVG
3	5470.00	2.83	41.53	44.36	-	-50.94	-	-	Peak
4	5470.00	-4.53	41.53	37.00	-	-58.30	-	-	AVG
5	5503.30	32.92	41.65	74.57	-	-20.73	-	-	AVG
6	5504.90	25.34	41.65	66.99	-	-28.31	-	-	AVG

Horizontal

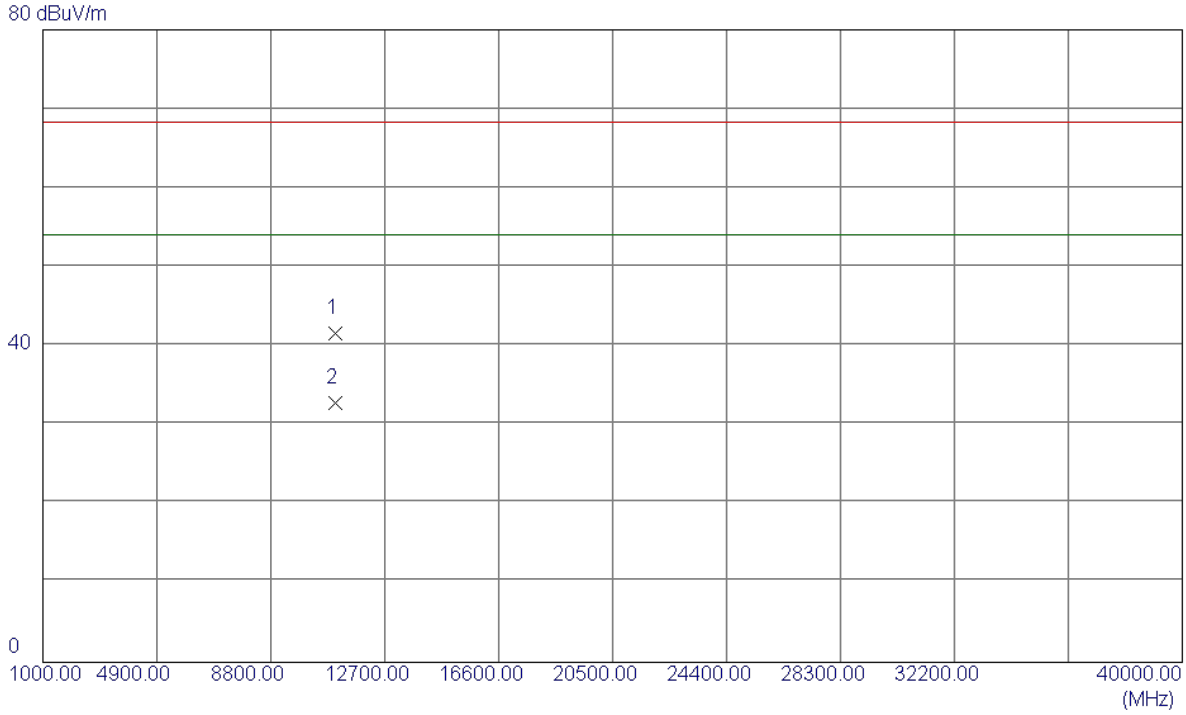


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5460.0000	5.20	41.49	46.69	68.30	-21.61	Peak	
2	5460.0000	-4.82	41.49	36.67	54.00	-17.33	AVG	
3	5470.0000	2.83	41.53	44.36	68.30	-23.94	Peak	
4	5470.0000	-4.53	41.53	37.00	54.00	-17.00	AVG	
5	5503.3000	32.93	41.64	74.57	68.30	6.27	Peak	no limit
6	5504.9000	25.34	41.65	66.99	54.00	12.99	AVG	no limit

Orthogonal Axis :	X
Test Mode :	UNII-2C/ TX A Mode 5500MHz

No.	Freq.	Reading	Ant./CF	Measurement (dBuV/m)	Limit (dBuV/m)	Measurement (dBm)	Limit (dBm)	Over	Detector
	(MHz)	(dBuV)						dB	
1	11000.85	24.38	17.26	41.64	68.30	-53.66	-27.00	-26.66	Peak
2	11000.85	15.61	17.26	32.87	54.00	-62.43	-41.30	-21.13	AVG

Horizontal

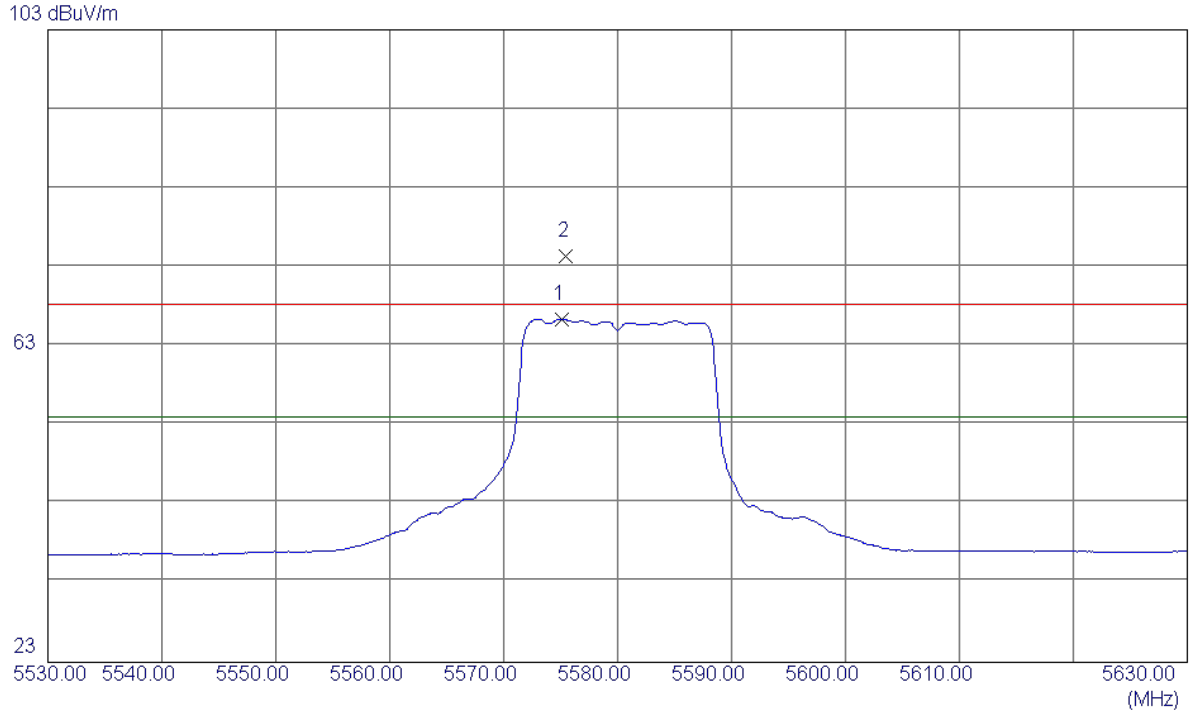


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	11000.8500	24.38	17.26	41.64	68.30	-26.66	Peak	
2	11000.8500	15.61	17.26	32.87	54.00	-21.13	AVG	

Orthogonal Axis :	X
Test Mode :	UNII-2C/ TX A Mode 5580MHz

No.	Freq.	Reading	Ant./CF	Measurement (dBuV/m)	Limit (dBuV/m)	Measurement (dBm)	Limit (dBm)	Over	Detector
	(MHz)	(dBuV)						dB	
1	5575.10	24.46	41.97	66.43	54.00	-28.87	-41.30	12.43	Peak
2	5575.50	32.40	41.97	74.37	68.30	-20.93	-27.00	6.07	AVG

Vertical

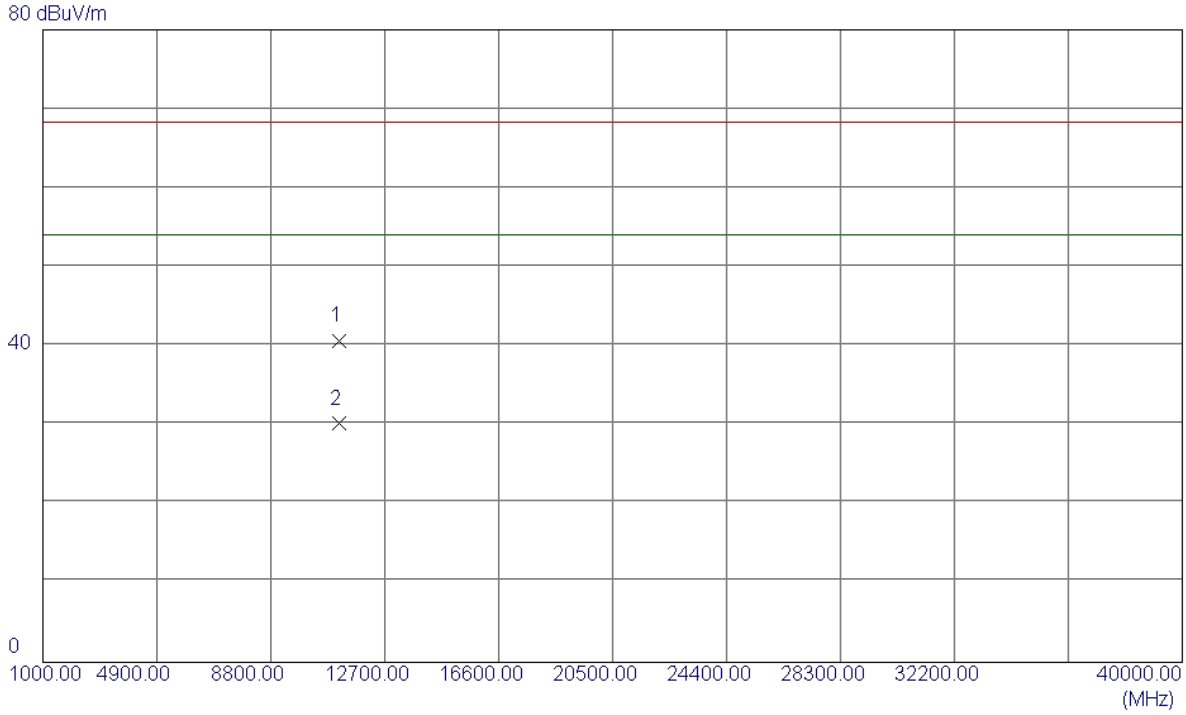


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5575.1000	24.46	41.97	66.43	54.00	12.43	AVG	no limit
2	5575.5000	32.40	41.97	74.37	68.30	6.07	Peak	no limit

Orthogonal Axis :	X
Test Mode :	UNII-2C/ TX A Mode 5580MHz

No.	Freq.	Reading	Ant./CF	Measurement (dBuV/m)	Limit (dBuV/m)	Measurement (dBm)	Limit (dBm)	Over	Detector
	(MHz)	(dBuV)						dB	
1	11160.29	22.92	17.65	40.57	68.30	-54.73	-27.00	-27.73	Peak
2	11160.29	12.51	17.65	30.16	54.00	-65.14	-41.30	-23.84	AVG

Vertical

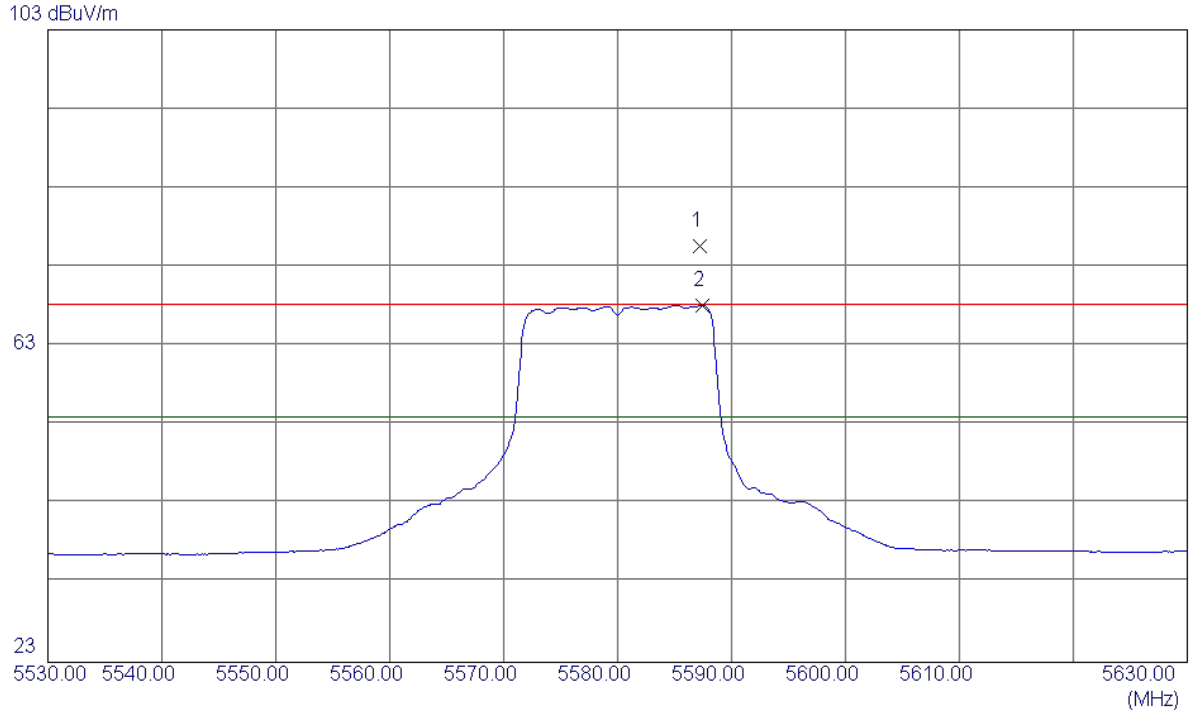


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	11160.2900	22.92	17.65	40.57	68.30	-27.73	Peak	
2	11160.2900	12.51	17.65	30.16	54.00	-23.84	AVG	

Orthogonal Axis :	X
Test Mode :	UNII-2C/ TX A Mode 5580MHz

No.	Freq.	Reading	Ant./CF	Measurement (dBuV/m)	Limit (dBuV/m)	Measurement (dBm)	Limit (dBm)	Over	Detector
	(MHz)	(dBuV)						dB	
1	5587.20	33.59	42.03	75.62	68.30	-19.68	-27.00	7.32	Peak
2	5587.40	26.11	42.03	68.14	54.00	-27.16	-41.30	14.14	AVG

Horizontal

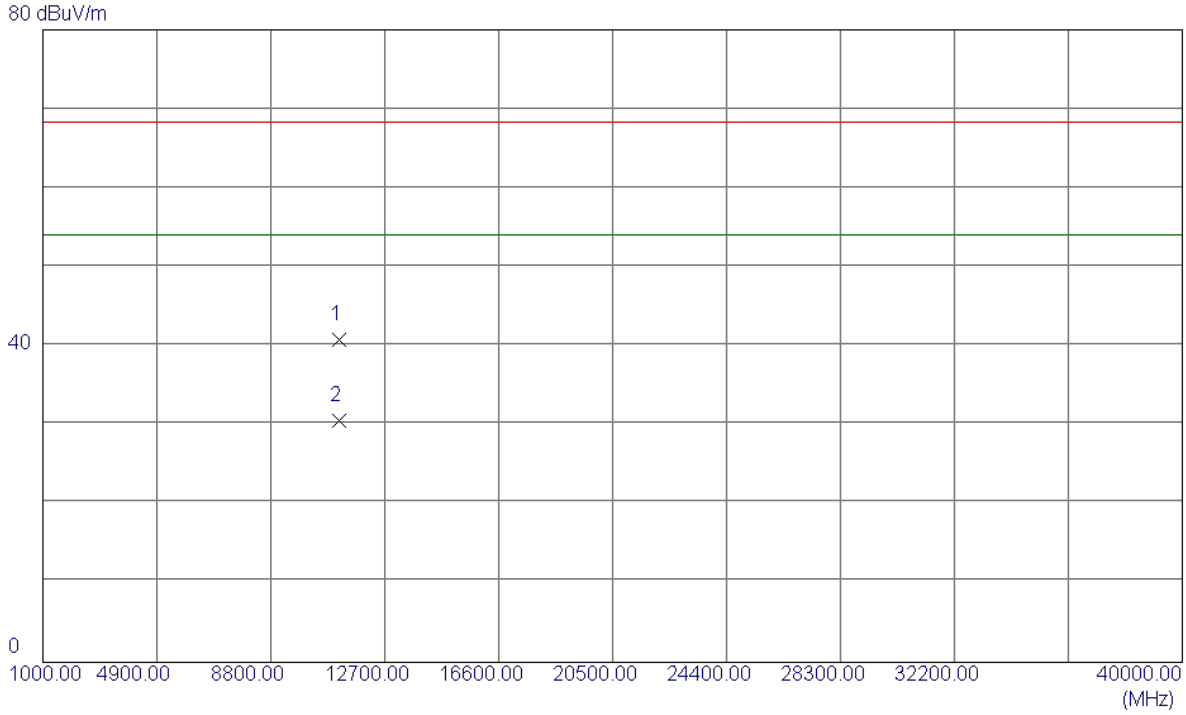


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5587.2000	33.59	42.03	75.62	68.30	7.32	Peak	no limit
2	5587.4000	26.11	42.03	68.14	54.00	14.14	AVG	no limit

Orthogonal Axis :	X
Test Mode :	UNII-2C/ TX A Mode 5580MHz

No.	Freq.	Reading	Ant./CF	Measurement (dBuV/m)	Limit (dBuV/m)	Measurement (dBm)	Limit (dBm)	Over	Detector
	(MHz)	(dBuV)						dB	
1	11160.25	23.20	17.65	40.85	68.30	-54.45	-27.00	-27.45	Peak
2	11160.25	12.96	17.65	30.61	54.00	-64.69	-41.30	-23.39	AVG

Horizontal

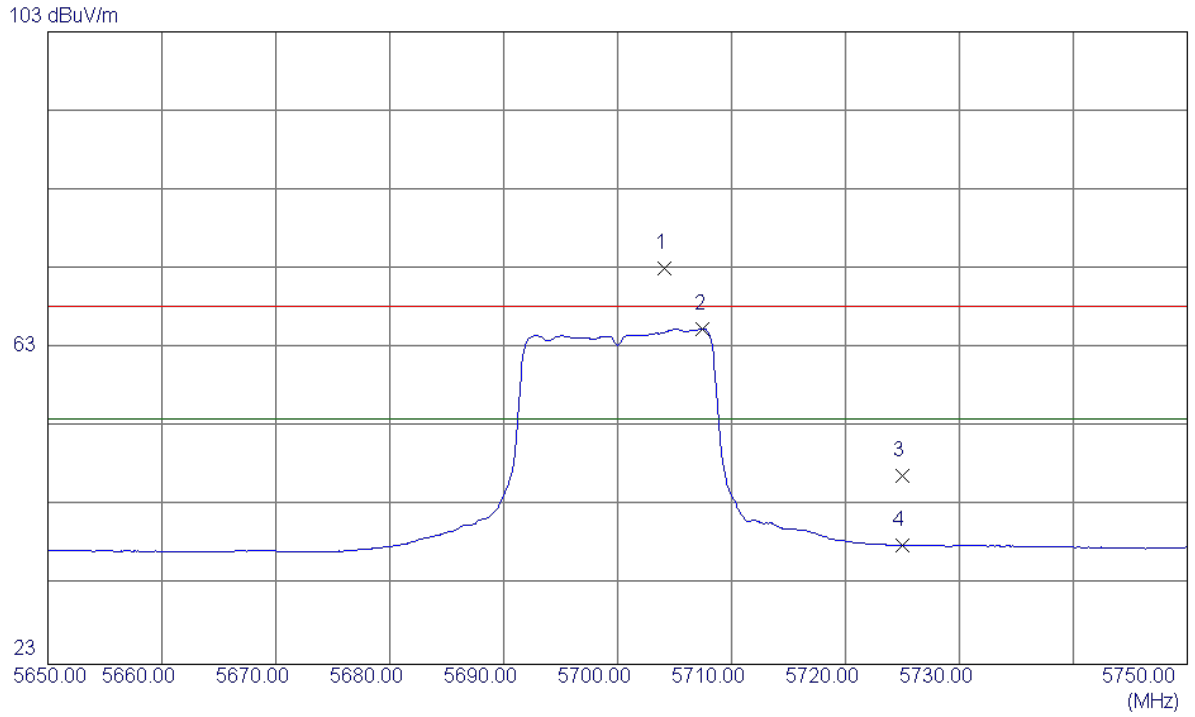


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	11160.2500	23.20	17.65	40.85	68.30	-27.45	Peak	
2	11160.2500	12.96	17.65	30.61	54.00	-23.39	AVG	

Orthogonal Axis :	X
Test Mode :	UNII-2C/ TX A Mode 5700MHz

No.	Freq.	Reading	Ant./CF	Measurement (dBuV/m)	Limit (dBuV/m)	Measurement (dBm)	Limit (dBm)	Over	Detector
	(MHz)	(dBuV)						dB	
1	5704.10	30.58	42.56	73.14	68.30	-22.16	-27.00	4.84	Peak
2	5707.50	22.86	42.58	65.44	54.00	-29.86	-41.30	11.44	AVG
3	5725.00	4.22	42.66	46.88	-	-48.42	-	-	Peak
4	5725.00	-4.63	42.66	38.03	-	-57.27	-	-	AVG

Vertical

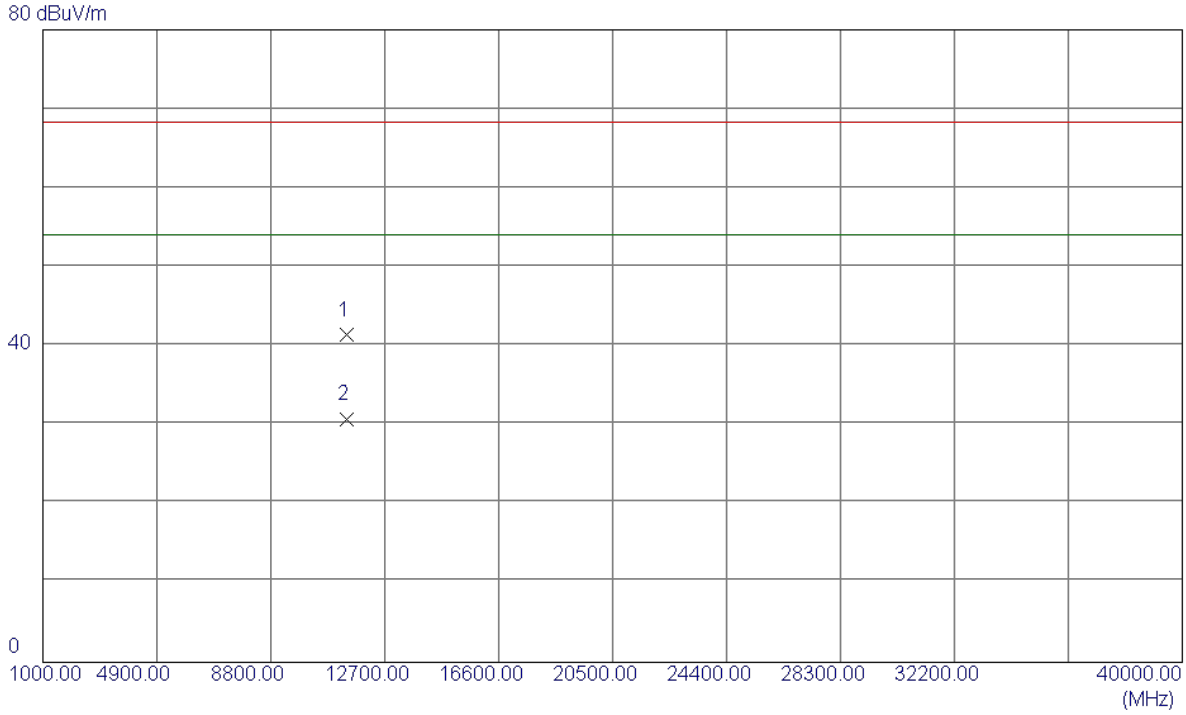


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5704.1000	30.58	42.56	73.14	68.30	4.84	Peak	no limit
2	5707.5000	22.86	42.58	65.44	54.00	11.44	AVG	no limit
3	5725.0000	4.22	42.66	46.88	68.30	-21.42	Peak	
4	5725.0000	-4.63	42.66	38.03	54.00	-15.97	AVG	

Orthogonal Axis :	X
Test Mode :	UNII-2C/ TX A Mode 5700MHz

No.	Freq.	Reading	Ant./CF	Measurement (dBuV/m)	Limit (dBuV/m)	Measurement (dBm)	Limit (dBm)	Over	Detector
	(MHz)	(dBuV)						dB	
1	11400.71	23.11	18.25	41.36	68.30	-53.94	-27.00	-26.94	Peak
2	11400.71	12.44	18.25	30.69	54.00	-64.61	-41.30	-23.31	AVG

Vertical

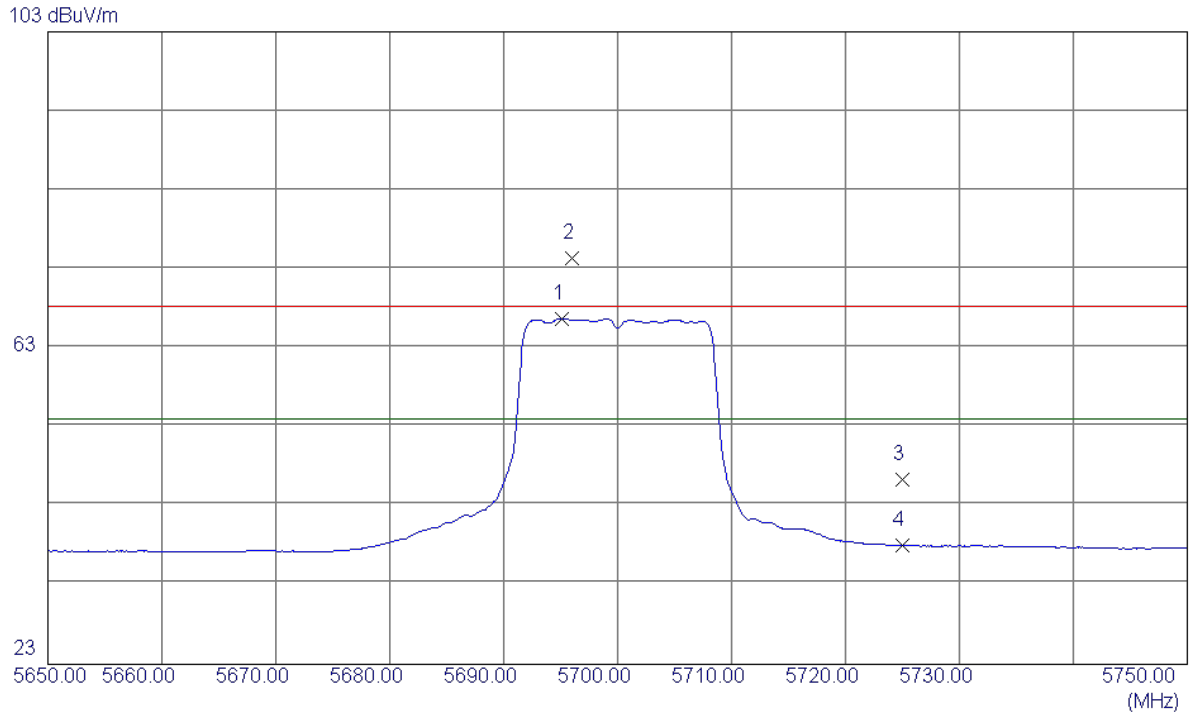


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	11400.7100	23.11	18.25	41.36	68.30	-26.94	Peak	
2	11400.7100	12.44	18.25	30.69	54.00	-23.31	AVG	

Orthogonal Axis :	X
Test Mode :	UNII-2C/ TX A Mode 5700MHz

No.	Freq.	Reading	Ant./CF	Measurement (dBuV/m)	Limit (dBuV/m)	Measurement (dBm)	Limit (dBm)	Over	Detector
	(MHz)	(dBuV)						dB	
1	5695.10	24.21	42.52	66.73	54.00	-28.57	-41.30	12.73	Peak
2	5696.00	31.79	42.52	74.31	68.30	-20.99	-27.00	6.01	AVG
3	5725.00	3.73	42.66	46.39	-	-48.91	-	-	Peak
4	5725.00	-4.62	42.66	38.04	-	-57.26	-	-	AVG

Horizontal

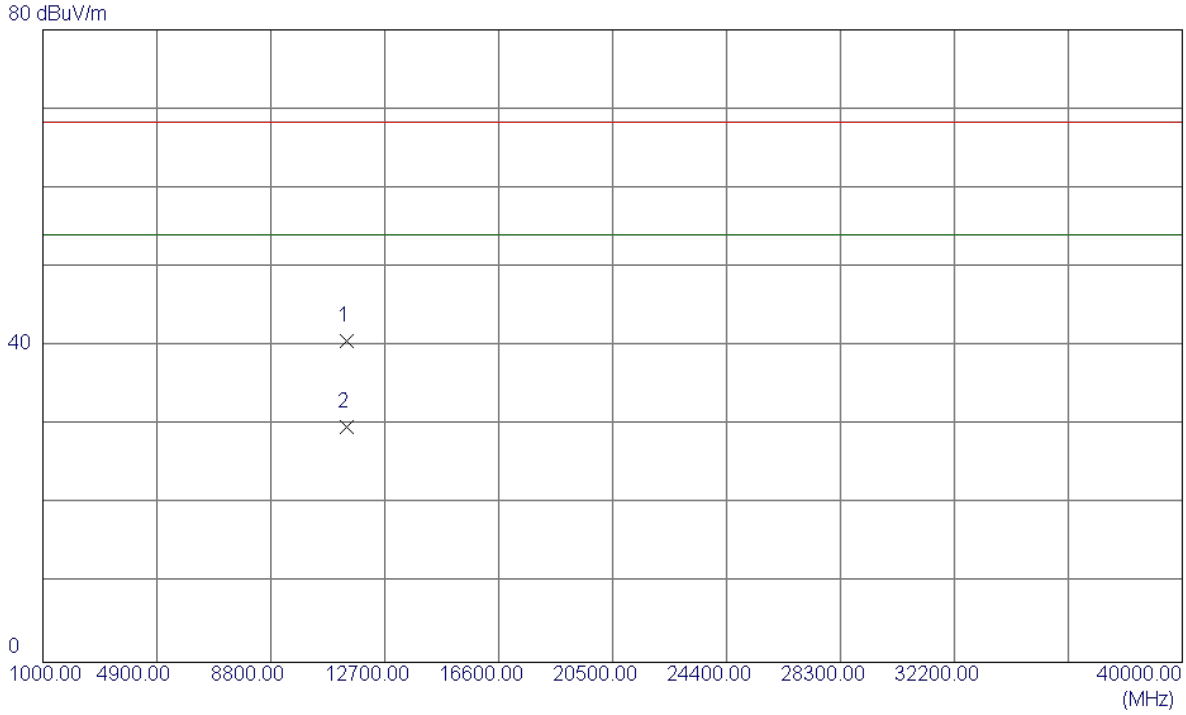


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5695.1000	24.21	42.52	66.73	54.00	12.73	AVG	no limit
2	5696.0000	31.79	42.52	74.31	68.30	6.01	Peak	no limit
3	5725.0000	3.73	42.66	46.39	68.30	-21.91	Peak	
4	5725.0000	-4.62	42.66	38.04	54.00	-15.96	AVG	

Orthogonal Axis :	X
Test Mode :	UNII-2C/ TX A Mode 5700MHz

No.	Freq.	Reading	Ant./CF	Measurement (dBuV/m)	Limit (dBuV/m)	Measurement (dBm)	Limit (dBm)	Over	Detector
	(MHz)	(dBuV)						dB	
1	11400.17	22.47	18.24	40.71	68.30	-54.59	-27.00	-27.59	Peak
2	11400.17	11.58	18.24	29.82	54.00	-65.48	-41.30	-24.18	AVG

Horizontal



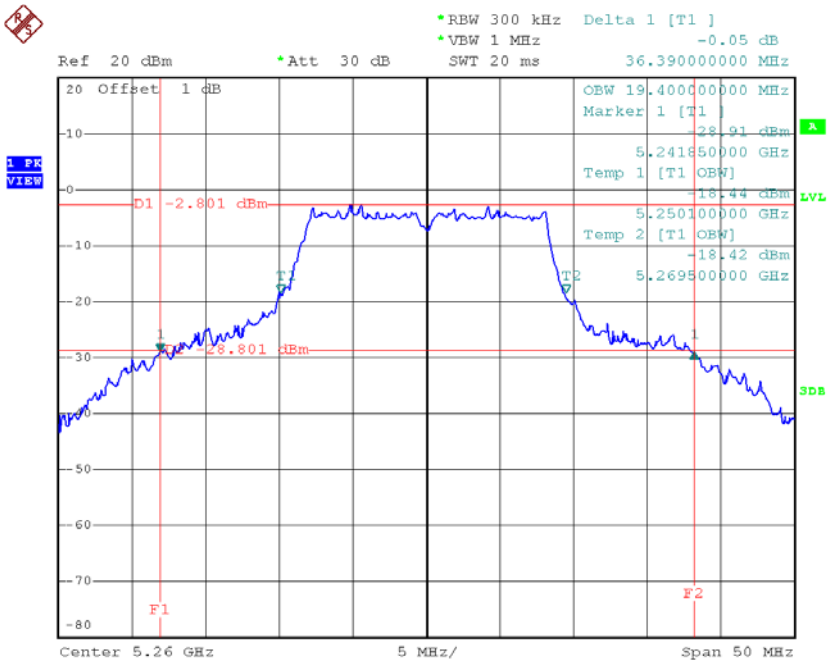
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	11400.1700	22.47	18.24	40.71	68.30	-27.59	Peak	
2	11400.1700	11.58	18.24	29.82	54.00	-24.18	AVG	

ATTACHMENT E -BANDWIDTH

Test Mode: UNII-2A/TX A Mode_CH52/CH60/CH64

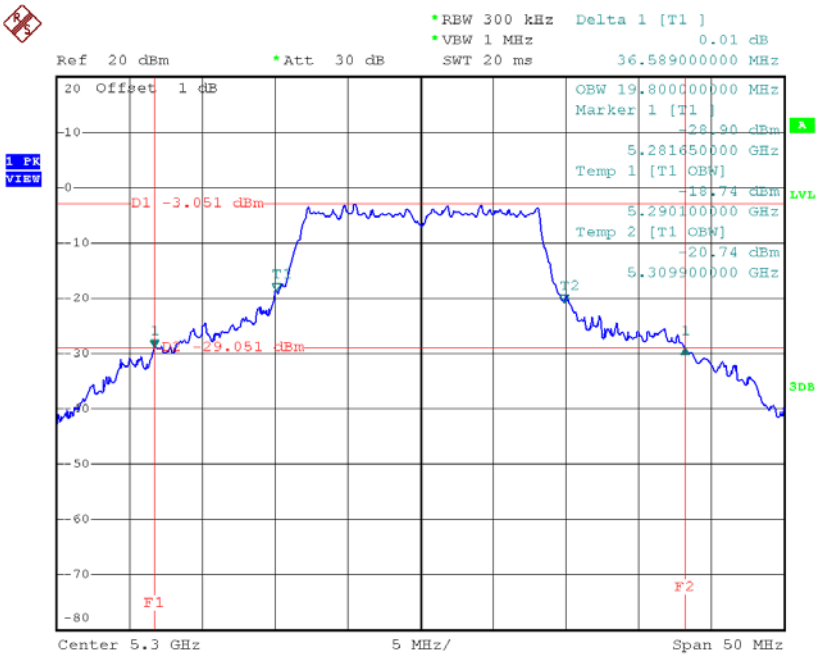
Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
CH52	5260	36.39	19.40
CH60	5300	36.59	19.80
CH64	5320	36.69	20.40

TX CH52



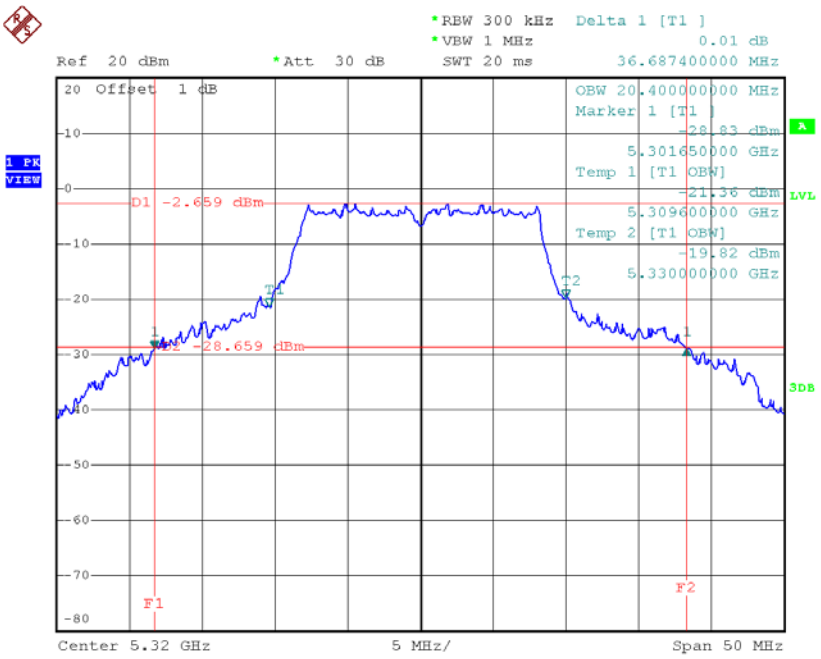
Date: 1.JUN.2015 09:32:30

TX CH60



Date: 1.JUN.2015 09:35:56

TX CH64

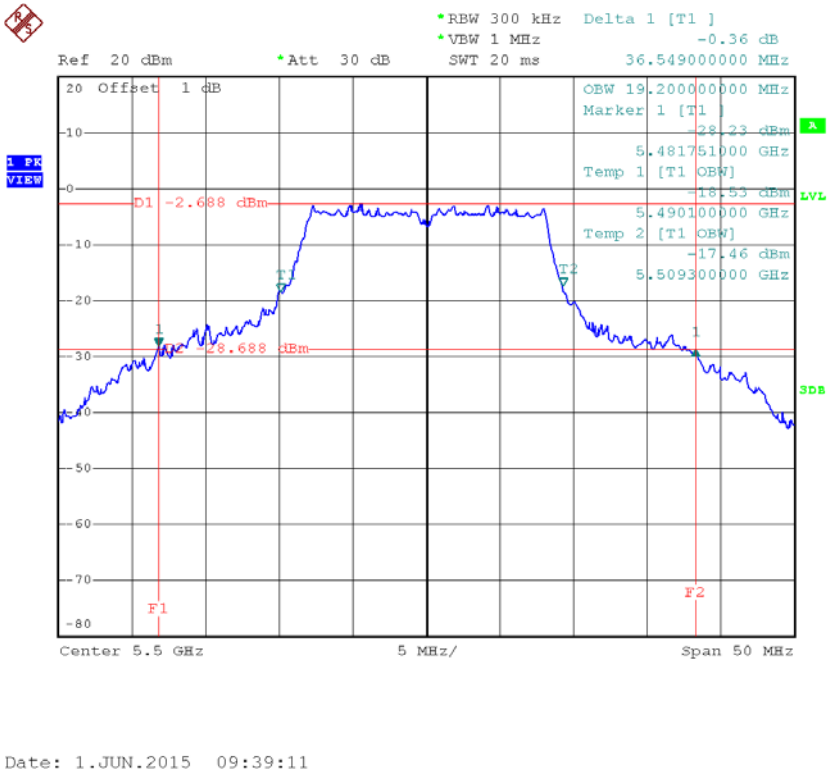


Date: 1.JUN.2015 09:37:28

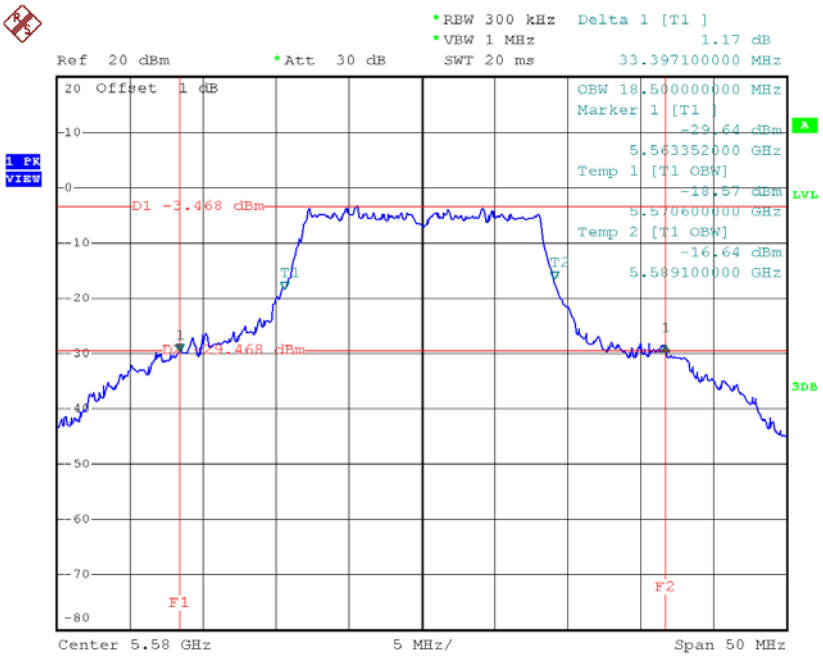
Test Mode: UNII-2C/TX A Mode_CH100/CH116/CH140

Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
CH100	5500	36.55	19.20
CH116	5580	33.40	18.50
CH140	5700	28.70	17.90

TX CH100

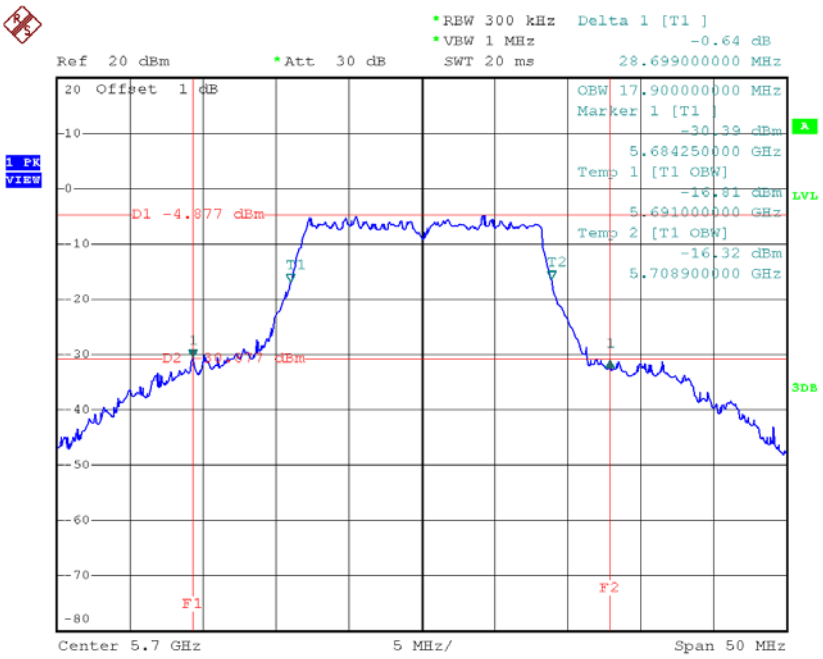


TX CH116



Date: 1.JUN.2015 09:41:06

TX CH140



Date: 1.JUN.2015 09:43:44

ATTACHMENT F - MAXIMUM OUTPUT POWER

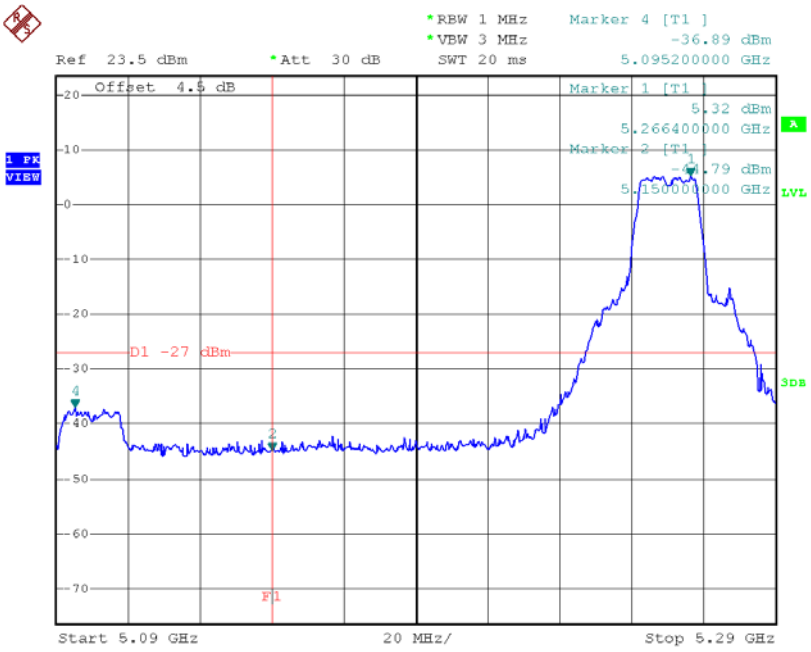
Test Mode: UNII-2A/TX A Mode				
Channel	Frequency (MHz)	Output Power (dBm)	Limit (dBm)	Limit (Watt)
CH52	5260	3.68	24.00	0.25
CH60	5300	3.51	24.00	0.25
CH64	5320	3.76	24.00	0.25

Test Mode: UNII-2C/TX A Mode				
Channel	Frequency (MHz)	Output Power (dBm)	Limit (dBm)	Limit (Watt)
CH100	5500	3.43	24.00	0.25
CH116	5580	3.26	24.00	0.25
CH140	5700	2.19	24.00	0.25

ATTACHMENT G - ANTENNA CONDUCTED SPURIOUS EMISSION

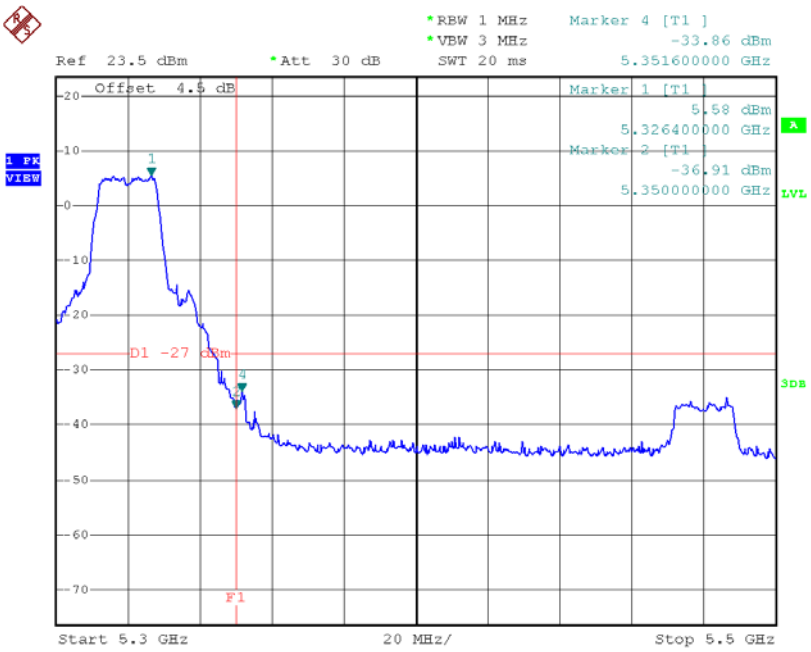
Test Mode:	UNII-2A/TX A Mode

TX mode CH52



Date: 1.JUN.2015 09:32:47

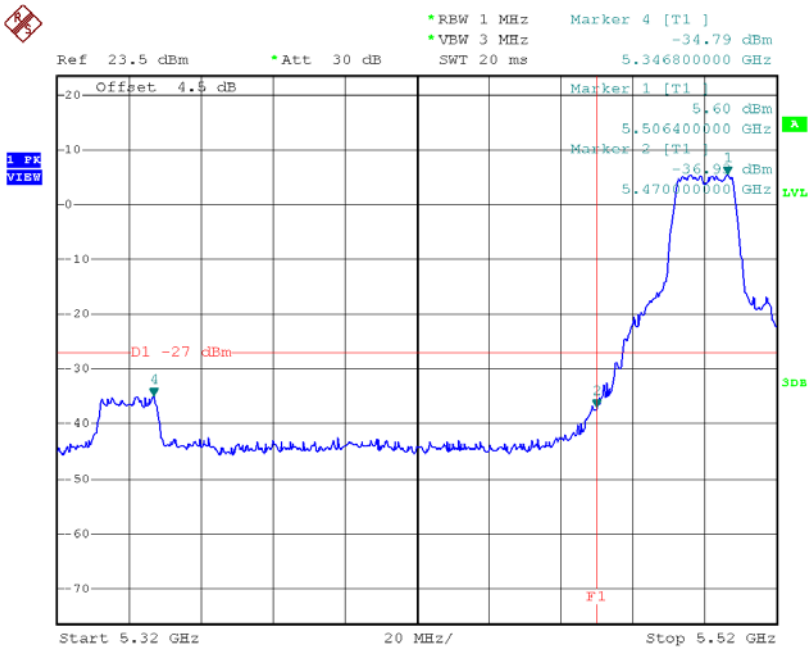
TX modeCH64



Date: 1.JUN.2015 09:37:46

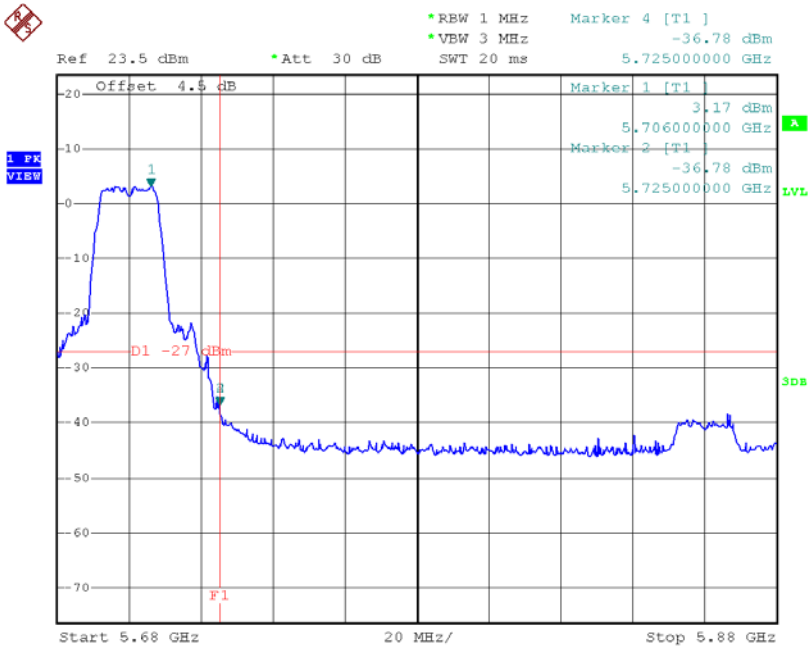
Test Mode:	UNII-2C/TX A Mode

TX mode CH100



Date: 1.JUN.2015 09:39:27

TX modeCH140



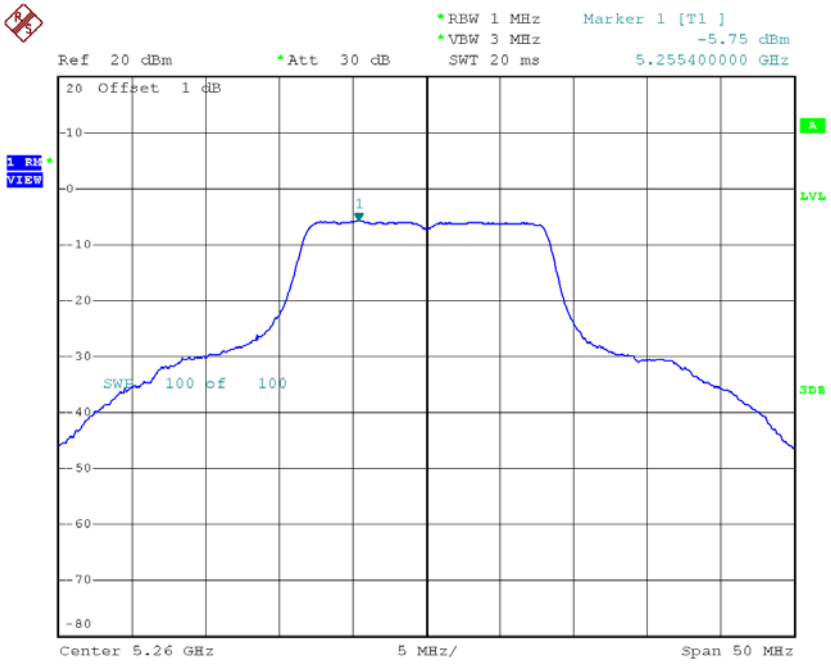
Date: 1.JUN.2015 09:44:01

ATTACHMENT H - POWER SPECTRAL DENSITY

Test Mode: UNII-2A/ TX A Mode_CH52/CH60/CH64

Channel	Frequency (MHz)	Power Density (dBm/MHz)	Limit (dBm/MHz)
CH52	5260	-5.75	11.00
CH60	5300	-5.93	11.00
CH64	5320	-5.69	11.00

CH52



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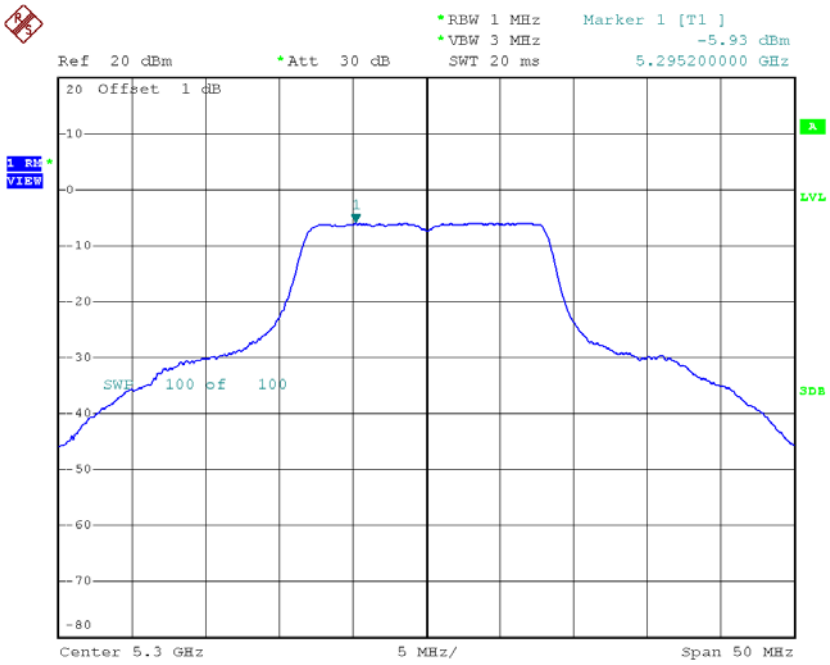
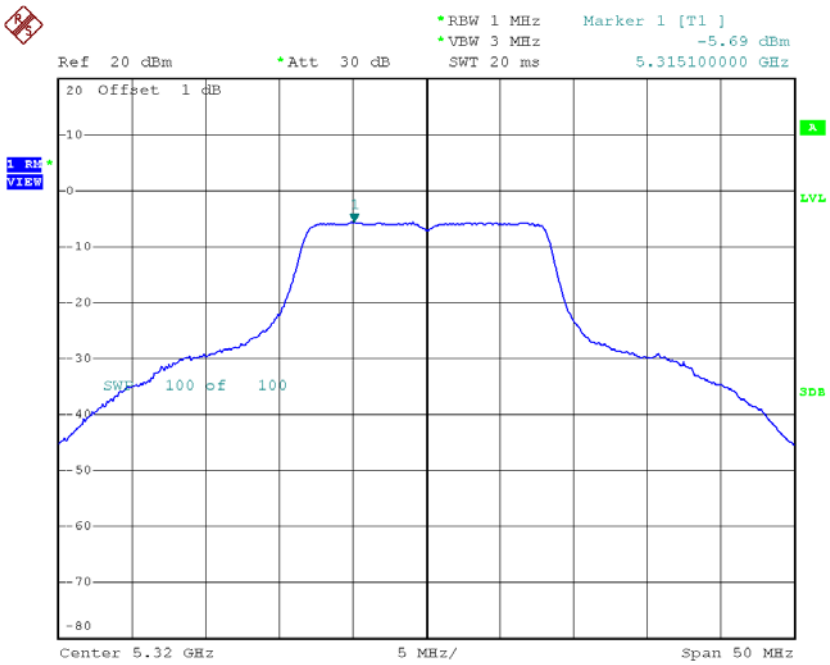
CH60



Date: 1.JUN.2015 09:36:05

CH64

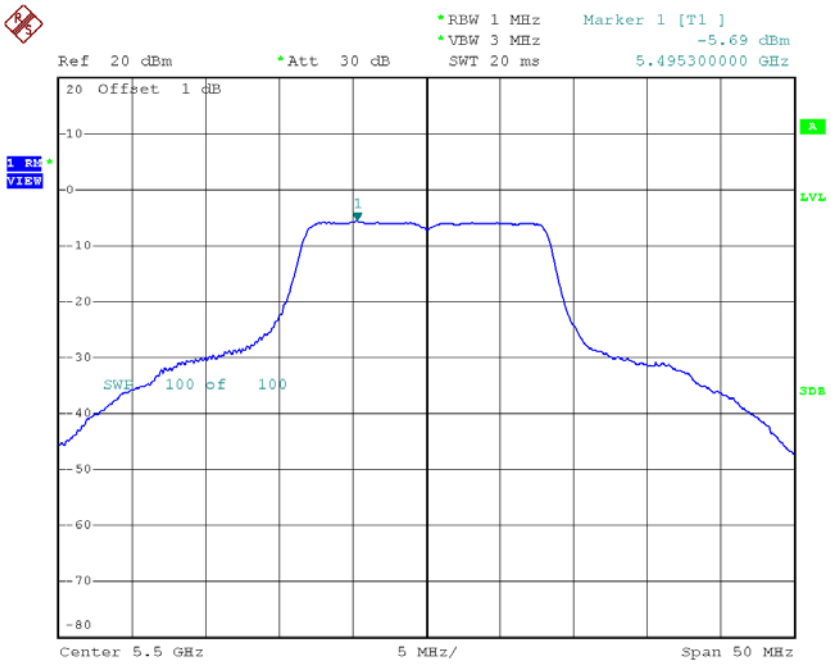


Date: 1.JUN.2015 09:37:38

Test Mode: UNII-2C/ TX A Mode_CH100/CH116/CH140

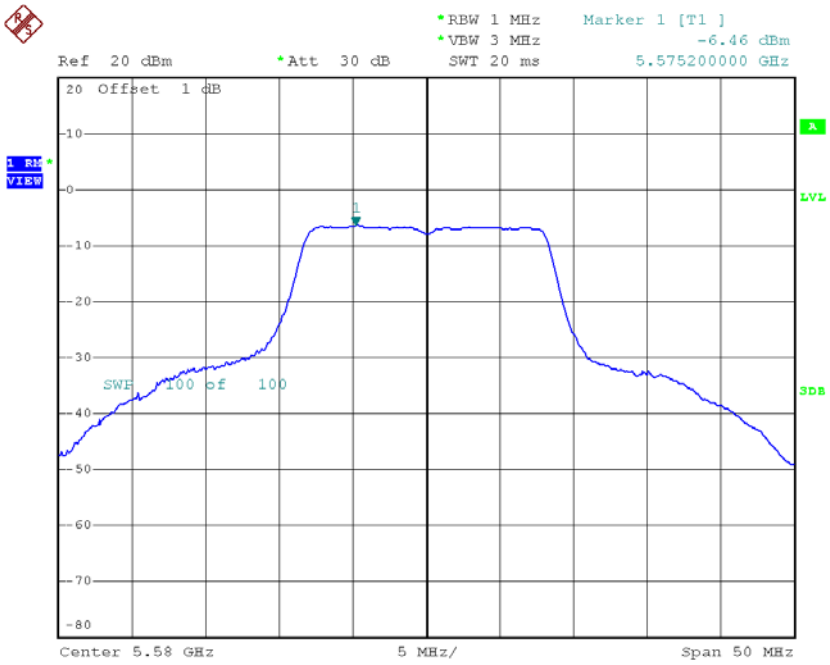
Channel	Frequency (MHz)	Power Density (dBm/MHz)	Limit (dBm/MHz)
CH100	5500	-5.69	11.00
CH116	5580	-6.46	11.00
CH140	5700	-8.04	11.00

CH100



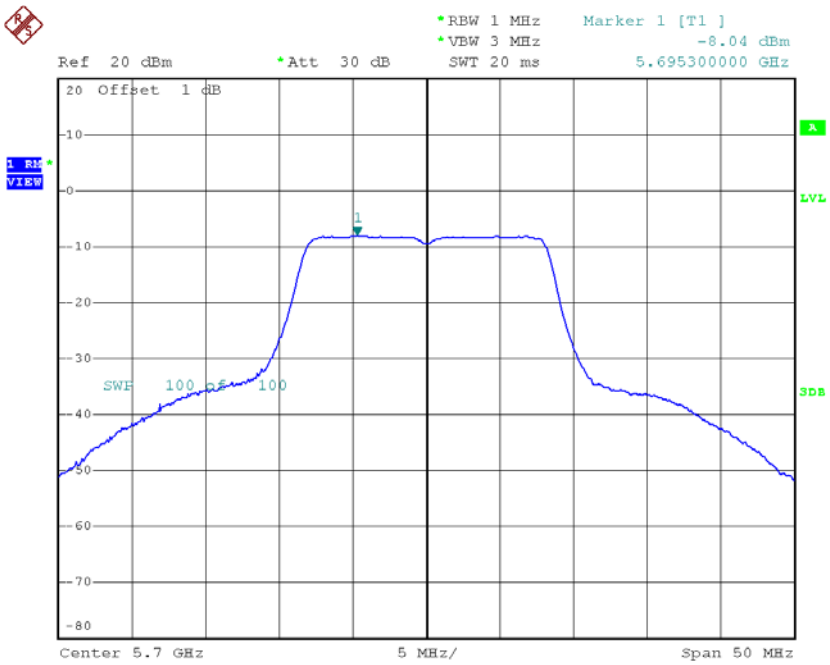
Date: 1.JUN.2015 09:39:20

CH116



Date: 1.JUN.2015 09:41:16

CH140



Date: 1.JUN.2015 09:43:54

ATTACHMENT I-FREQUENCY STABILITY

Test Mode:	UNII-2A

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)
(V)	5320.0000
132	5320.019600
120	5320.019500
108	5320.018300
Max. Deviation (MHz)	0.019600
Max. Deviation (ppm)	3.68

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)
(℃)	5320.0000
-5	5320.019800
5	5320.019300
15	5320.019500
25	5320.019600
35	5320.019700
45	5320.019500
50	5320.019600
Max. Deviation (MHz)	0.019800
Max. Deviation (ppm)	3.721805

Test Mode:	UNII-2C

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)
(V)	5500.0000
132	5700.020400
120	5700.020900
108	5700.020500
Max. Deviation (MHz)	0.020900
Max. Deviation (ppm)	3.67

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)
(℃)	5500.0000
-5	5700.020600
5	5700.020800
15	5700.020500
25	5700.020900
35	5700.020800
45	5700.020600
50	5700.020700
Max. Deviation (MHz)	0.020900
Max. Deviation (ppm)	3.666667