FCC Radio Test Report

FCC ID:Y3H306020180409

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

Project No.	:	1801C044
Equipment	:	Wireless Video Transmission System
Model Name	:	3060
Applicant	:	Shenzhen Crystal Video Technology Co.,LTD
Address	:	F13,F518 Idea Land,BaoYuan Road,Baoan Central Area,ShenZhen,China

Date of Receipt	:	Jan. 11, 2018
Date of Test	:	Jan. 12, 2018 ~ Apr. 08, 2018
Issued Date	:	Apr. 17, 2018
Tested by	:	BTL Inc.

Testing Engineer : Jivey Jiang
(~~Jivey~~ Jiang)

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(David Mao)

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(Steven Lu)

BTL INC.

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NVLAP TESTING
NVLAP LAB CODE 200788-0

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.

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REPORT ISSUED HISTORY

Issued No.	Description	Issued Date
BTL-FCCP-1-1801C044	Original Issue.	Apr. 17, 2018

1. CERTIFICATION

Equipment	:	Wireless Video Transmission System
Brand Name	:	Beamlink
Model Name	:	3060
Applicant	:	Shenzhen Crystal Video Technology Co.,LTD
Manufacturer	:	Shenzhen Crystal Video Technology Co.,LTD
Address	:	F13,F518 Idea Land,BaoYuan Road,Baoan Central Area,ShenZhen,China
Factory	:	Shenzhen Crystal Video Technology Co.,LTD
Address	:	F13,F518 Idea Land,BaoYuan Road,Baoan Central Area,ShenZhen,China
Date of Test	:	Jan. 12, 2018 ~ Apr. 08, 2018
Test Sample	:	ENGINEERING SAMPLE NO.D180100274
Standard(s)	:	FCC Part15, Subpart E(15.407) / 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-1-1801C044) were obtained utilizing the test procedures, test instruments, test sites that has been accredited by the Authority of NVLAP according to the ISO-17025 quality assessment standard and technical standard(s).

2. SUMMARY OF TEST RESULTS

Test procedures according to the technical standard(s):

FCC Part15, Subpart E(15.407)			
Standard(s) Section	Test Item	Judgment	Remark
15.207	AC Power Line Conducted Emissions	PASS	
15.407(a)	26dB Spectrum Bandwidth	PASS	
15.407(a)	Maximum Conducted Output Power	PASS	
15.407(a)	Power Spectral Density	PASS	
15.407(a)	Radiated Emissions	PASS	
15.407(b)	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 at the location of No.3,Jinshagang 1st Road, Shixia, Dalang Town, Dongguan, Guangdong, China.
BTL's test firm number for FCC: 854385
BTL's designation number for FCC: CN5020

2.2 MEASUREMENT UNCERTAINTY

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

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

B. Radiated Measurement:

Test Site	Method	Measurement Frequency Range	Ant. H / V	U, (dB)
DG-CB03	CISPR	9kHz~30MHz	V	3.79
		9kHz~30MHz	H	3.57
		30MHz ~ 200MHz	V	3.82
		30MHz ~ 200MHz	H	3.60
		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 Video Transmission System	
Brand Name	Beamlink	
Model Name	3060	
Mode Different	N/A	
Product Description	Operation Frequency	UNII-1: 5150-5250MHz UNII-3: 5725-5850MHz
	Modulation Type	OFDM
	Bit Rate of Transmitter	300Mbps
Power Source	Supplied from AC adapter. Model:GPEO24C-120200-Z	
Power Rating	I/P: 100-240V~50/60Hz 0.75A O/P: 12V ⎓ 2000mA 24W	
Output Power	Output Power (Max.)for UNII-1	802.11n (40M): 23.28dBm
	Output Power (Max.)for UNII-3	802.11n (40M): 24.04dBm

Note:

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

UNII-1	
Channel	Frequency (MHz)
38	5190
46	5230

UNII-3	
Channel	Frequency (MHz)
151	5755
159	5795

3. Antenna Specification:

Ant.	Manufacturer	Model Name	Antenna Type	Connector	Gain (dBi)
1	N/A	N/A	Dipole	R-SMA	4.5
2	N/A	N/A	Dipole	R-SMA	4.5
3	N/A	N/A	Dipole	R-SMA	4.5
4	N/A	N/A	Dipole	R-SMA	4.5

Note:
The EUT incorporates a MIMO function. Physically, the EUT provides two completed four transmitters (4TX), all transmit signals are completely uncorrelated, then, **Direction gain = G_{ANT}**, that is Directional gain=4.5.

4.

Operating Mode / TX Mode	4TX
802.11n (40MHz)	V (ANT+1 ANT 2+ANT 3+ANT 4)

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 N40 Mode / CH38, CH46 (UNII-1)
Mode 2	TX N40 Mode / CH151,CH159 (UNII-3)
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 N40 Mode / CH38, CH46 (UNII-1)
Mode 2	TX N40 Mode / CH151,CH159 (UNII-3)

Note:
(1) For radiated below 1GHz test, the 802.11a mode is found to be the worst case and recorded.

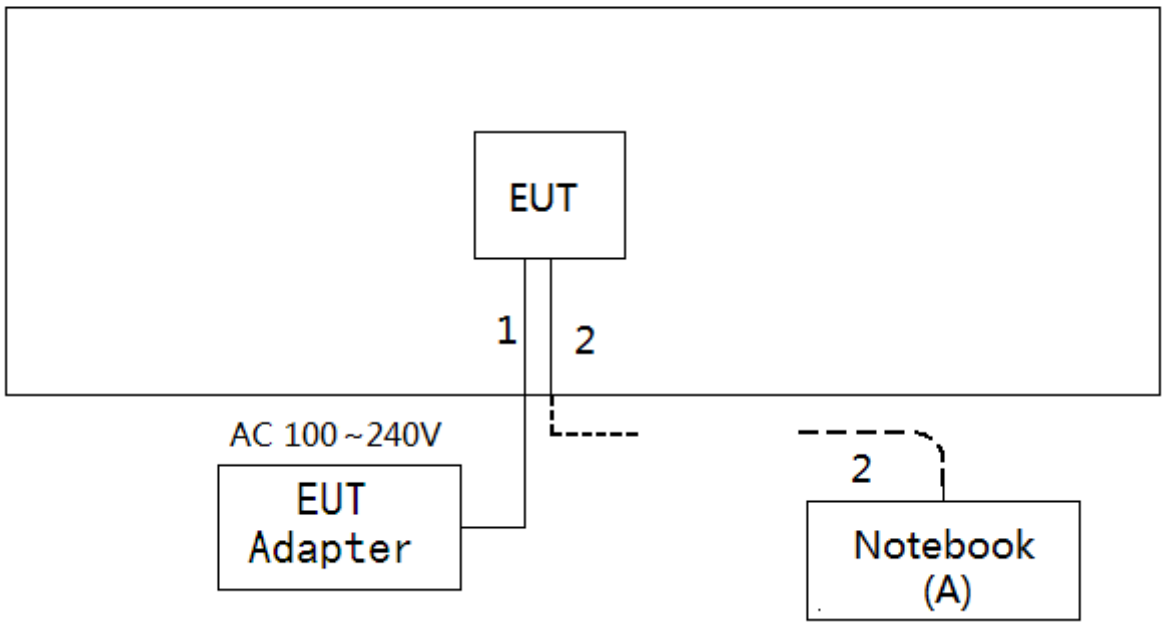
3.3 TABLE OF PARAMETERS OF TEST SOFTWARE SETTING

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-1		
Test Software Version	N/A	
Frequency (MHz)	5190	5230
N40 Mode	17	17

UNII-3		
Test Software Version	N/A	
Frequency (MHz)	5755	5795
N40 Mode	17	17

3.4 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



3.5 DESCRIPTION OF SUPPORT UNITS

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

Item	Equipment	Mfr/Brand	Model/Type No.	FCC ID	Series No.
A	Notebook	DELL	INSPIRON 1420	N/A	JX193A01SDC 2

Item	Shielded Type	Ferrite Core	Length	Note
1	NO	NO	1.2m	DC Cable
2	NO	NO	10m	RJ45 Cable

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.

4.1.2 TEST PROCEDURE

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

b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.

c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.

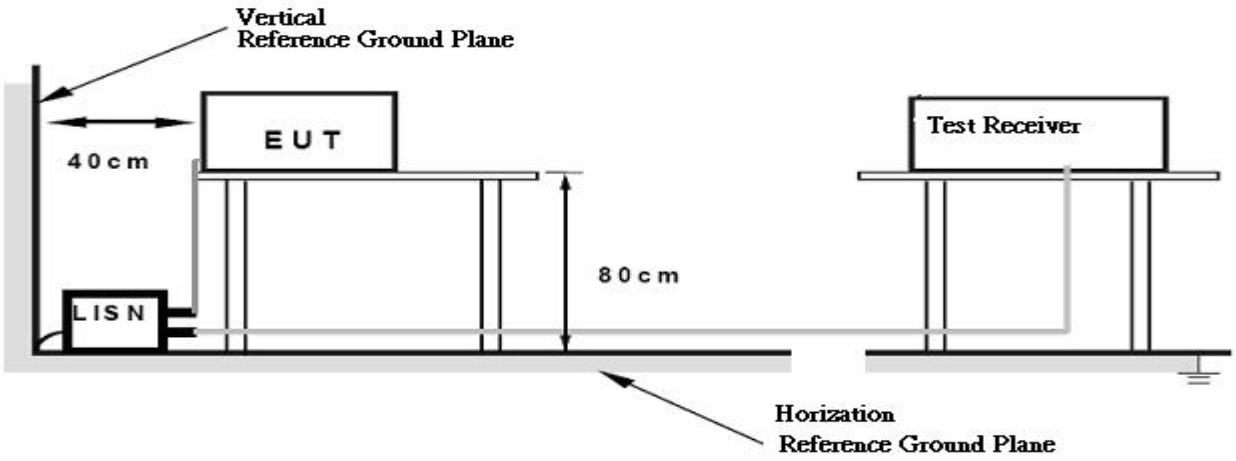
d. LISN at least 80 cm from nearest part of EUT chassis.

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

4.1.3 DEVIATION FROM TEST STANDARD

No deviation

4.1.4 TEST SETUP



4.1.5 EUT OPERATING CONDITIONS

The EUT was 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: 25°C Relative Humidity: 53% Test Voltage: AC 120V/60Hz

4.1.7 TEST RESULTS

Please refer to the Appendix 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

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.

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

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(Note 2)	68.3
	10(Note 2)	105.3
	15.6(Note 2)	110.9
	27(Note 2)	122.3

Note:

1. 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)

2. According to FCC 16-24,All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below theband edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above orbelow the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27dBm/MHz at the band edge.

4.2.2 TEST PROCEDURE

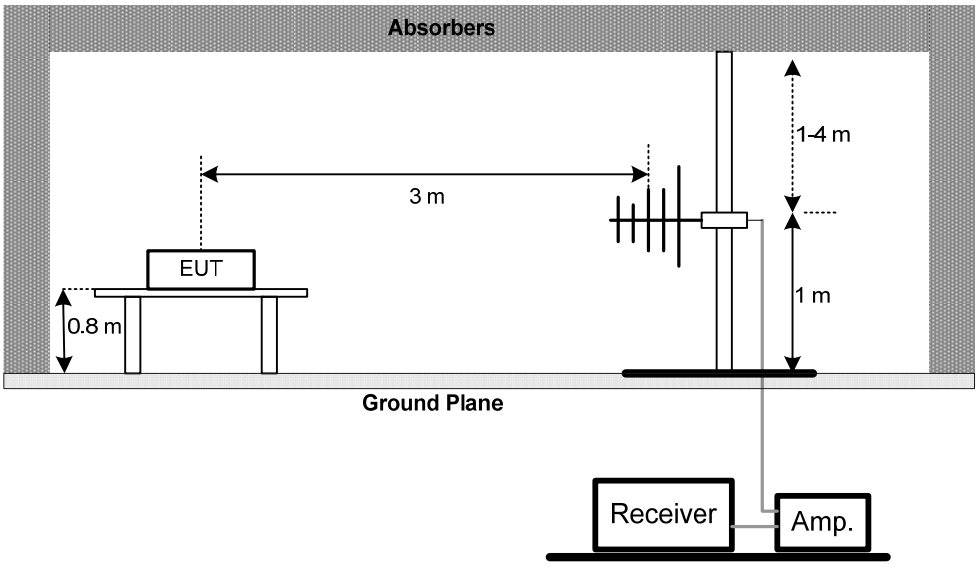
a. The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(below 1GHz)
b. The measuring distance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

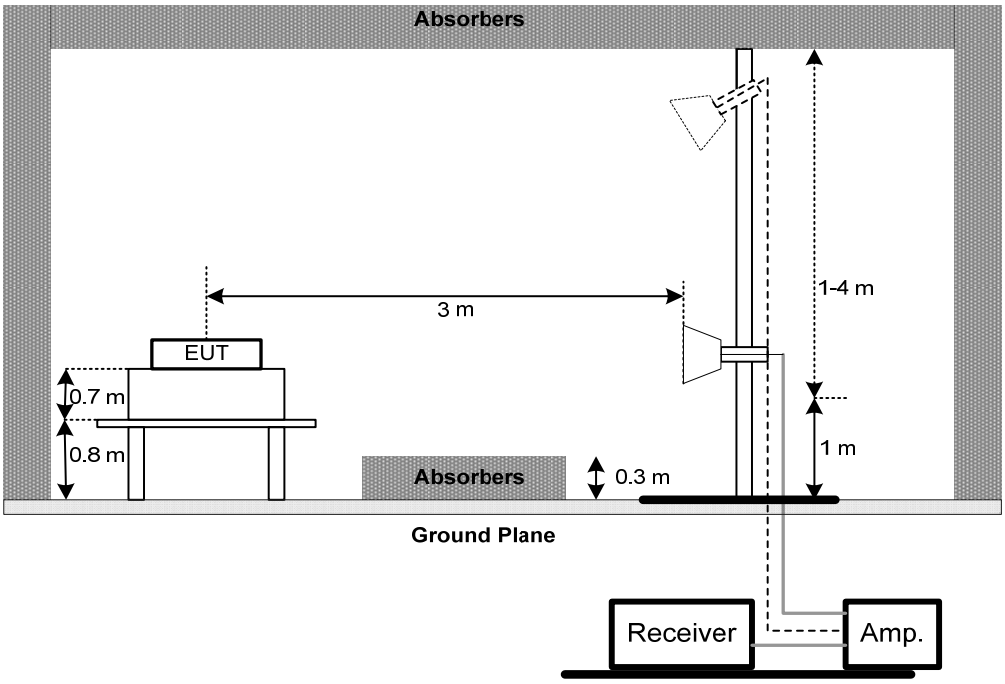
No deviation

4.2.4 TEST SETUP

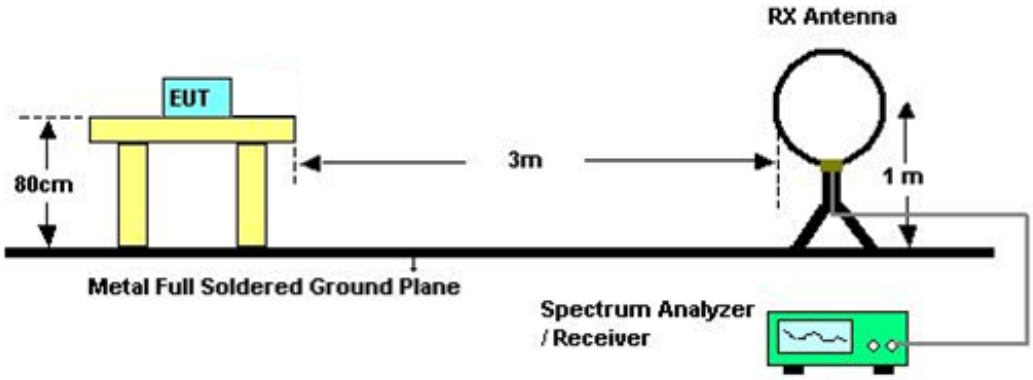
(A)Radiated Emission Test Set-Up Frequency Below 1GHz



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



(C) Radiated emissions below 30MHz



4.2.5 EUT OPERATING 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.

4.2.6 EUT TEST CONDITIONS

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

4.2.7 TEST RESULTS (9K TO 30MHz)

Please refer to the Appendix B

Remark:

(1) The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.
(2) Distance extrapolation factor = 40 log (specific distance / test distance) (dB);
(3) Limit line = specific limits (dBuV) + distance extrapolation factor.

4.2.8 TEST RESULTS (BETWEEN 30 TO 1000 MHz)

Please refer to the Appendix C.

4.2.9 TEST RESULTS (ABOVE 1000 MHz)

Please refer to the Appendix D.

Remark:

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

5. 26dB SPECTRUM BANDWIDTH

5.1 APPLIED PROCEDURES / LIMIT

FCC Part15, Subpart E			
Test Item	Limit	Frequency Range (MHz)	Result
Bandwidth	26 dB Bandwidth	5150-5250	PASS
	Minimum 500kHz 6dB Bandwidth	5725-5850	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.

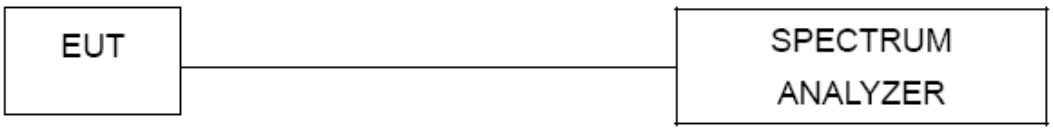
Spectrum Parameters	Setting
Attenuation	Auto
Span Frequency	> 26dB Bandwidth
RBW	300 kHz(Bandwidth 20MHz) 1MHz(Bandwidth 40MHz and 80MHz)
VBW	1MHz(Bandwidth 20MHz) 3MHz(Bandwidth 40MHz and 80MHz)
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

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

5.1.6 TEST RESULTS

Please refer to the Appendix E.

6. MAXIMUM CONDUCTED OUTPUT POWER

6.1 APPLIED PROCEDURES / LIMIT

FCC Part15, Subpart E			
Test Item	Limit	Frequency Range (MHz)	Result
Conducted Output Power	Fixed:1 Watt (30dBm) Mobile and portable: 250mW (24dBm)	5150-5250	PASS
	1 Watt (30dBm)	5725-5850	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 spectrum analyzer and antenna output port as show in the block diagram below,
b. Used spectrum analyzer band power measurement function.
c.

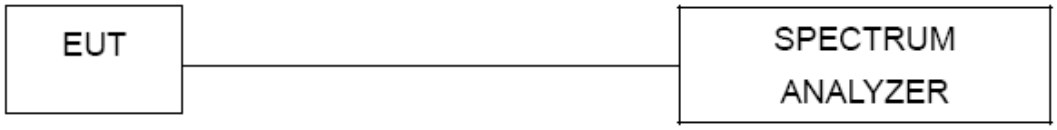
Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	Encompass the entire emissions bandwidth (EBW) of the signal
RBW	= 1MHz.
VBW	≥ 3MHz.
Sweep points	≥2 x span / RBW
Detector	RMS
Trace	Trace average at least 100 traces in power averaging(rms) mode.
Sweep Time	auto

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

6.1.6 TEST RESULTS

Please refer to the Appendix F.

7. POWER SPECTRAL DENSITY TEST

7.1 APPLIED PROCEDURES / LIMIT

FCC Part15, Subpart E			
Test Item	Limit	Frequency Range (MHz)	Result
Power Spectral Density	Other then Mobile and portable:17dBm/MHz Mobile and portable:11dBm/MHz	5150-5250	PASS
	30dBm/500kHz	5725-5850	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) of the signal
RBW	= 1MHz.
VBW	≥ 3MHz.
Detector	RMS
Trace average	100 trace
Sweep Time	Auto

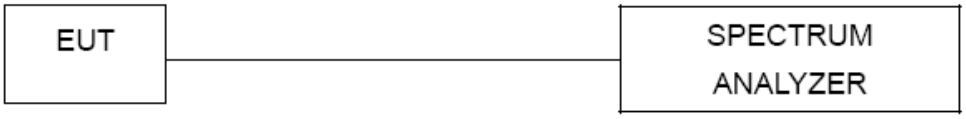
Note:

1. For UNII-3, according to KDB publication 789033 D02 General UNII Test Procedures New Rules v01r02, 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 +10dBm/MHz), then the converted value will be +7dBm/500kHz.

7.1.1 DEVIATION FROM STANDARD

No deviation.

7.1.2 TEST SETUP



7.1.3 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.

7.1.4 EUT TEST CONDITIONS

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

7.1.5 TEST RESULTS

Please refer to the Appendix H.

8. FREQUENCY STABILITY MEASUREMENT

8.1 APPLIED PROCEDURES / LIMIT

FCC Part15, Subpart E			
Test Item	Limit	Frequency Range (MHz)	Result
Frequency Stability	Specified in the user's manual	5150-5250	PASS
		5725-5850	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	Entire absence of modulation emissions bandwidth
RBW	10 kHz
VBW	10 kHz
Sweep Time	Auto

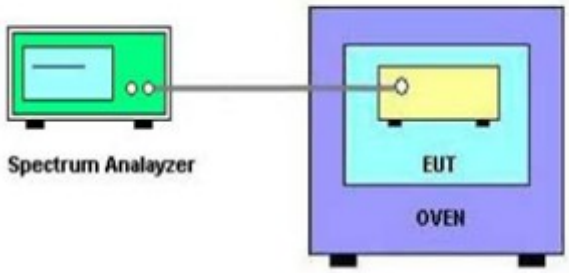
c. The test extreme voltage is to change the primary supply voltage from 85 to 115 percent of the nominal value.

d. User manual temperature is -10°C~50°C.

8.1.2 DEVIATION FROM STANDARD

No deviation.

8.1.3 TEST SETUP



8.1.4 EUT OPERATION CONDITIONS

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

8.1.5 EUT TEST CONDITIONS

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

8.1.6 TEST RESULTS

Please refer to the Appendix I.

9. MEASUREMENT INSTRUMENTS LIST

Conducted Emission Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	EMI Test Receiver	R&S	ESCI	100382	Mar. 11, 2019
2	LISN	EMCO	3816/2	52765	Mar. 11, 2019
3	50Ω Terminator	SHX	TF2-3G-A	8122901	Mar. 11, 2019
4	TWO-LINE V-NETWORK	R&S	ENV216	101447	Mar. 11, 2019
5	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
6	Cable	N/A	RG223	12m	Oct. 19, 2018

Radiated Emission Measurement - Below 1GHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Antenna	Schwarbeck	VULB9160	9160-3232	Mar. 11, 2019
2	Amplifier	HP	8447D	2944A09673	Oct. 19, 2018
3	Receiver	Agilent	N9038A	MY52130039	Aug. 20, 2018
4	Cable	emci	LMR-400(30MHz-1 GHz)(8m+5m)	N/A	Jun. 26, 2018
5	Controller	CT	SC100	N/A	N/A
6	Controller	MF	MF-7802	MF780208416	N/A
7	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
8	Antenna	EM	EM-6876-1	230	Feb. 07, 2019

Radiated Emission Measurement - Above 1GHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Double Ridged Guide Antenna	ETS	3115	75789	Mar. 11, 2019
2	Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	9170319	Jun. 08, 2018
3	Amplifier	Agilent	8449B	3008A02274	Mar. 11, 2019
4	Microwave Preamplifier With Adaptor	EMC INSTRUMENT	EMC2654045	980039 & HA01	Mar. 11, 2019
5	Receiver	Agilent	N9038A	MY52130039	Aug. 20, 2018
6	Controller	CT	SC100	N/A	N/A
7	Controller	MF	MF-7802	MF780208416	N/A
8	Cable	emci	EMC104-SM-SM-1 2000(12m)	N/A	Jun. 26, 2018
9	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A

Spectrum Bandwidth Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP40	100185	Aug. 20, 2018

Maximum Conducted Output Power Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP40	100185	Aug. 20, 2018

Power Spectral Density Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP40	100185	Aug. 20, 2018

Frequency Stability Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP40	100185	Aug. 20, 2018
2	Precision Oven Tester	Bell	BTH-50C	20170306001	Mar. 11, 2019

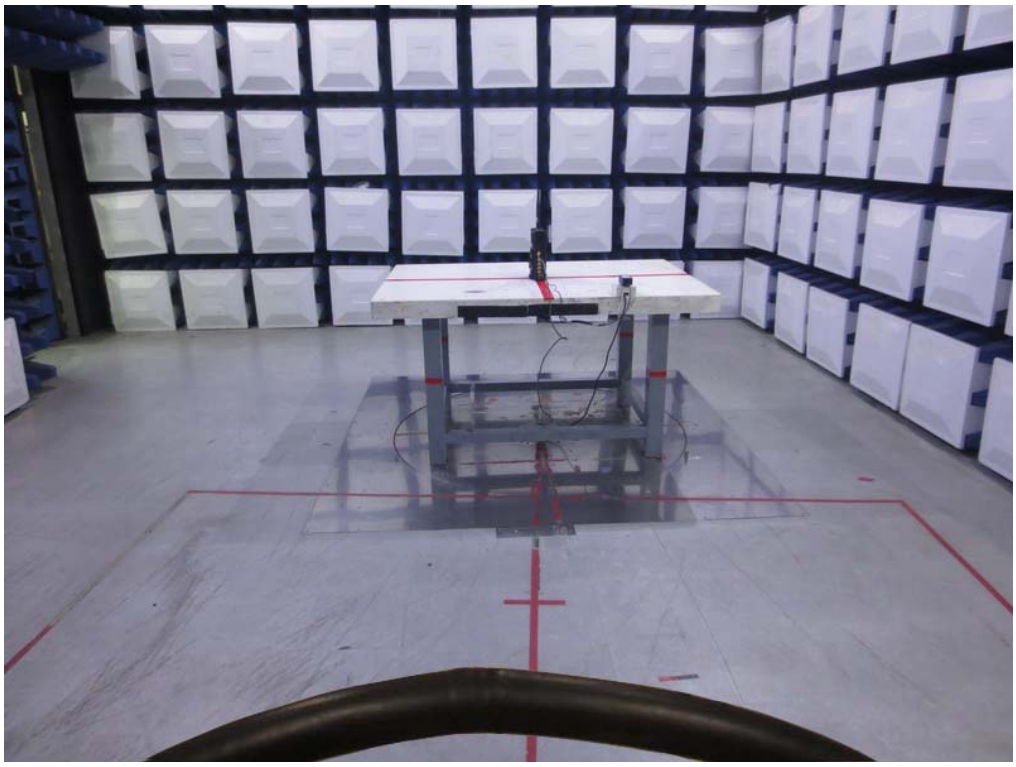
Remark: ”N/A” denotes no model name, serial no. or calibration specified.
All calibration period of equipment list is one year.

10. EUT TEST PHOTOS

Conducted Measurement Photos

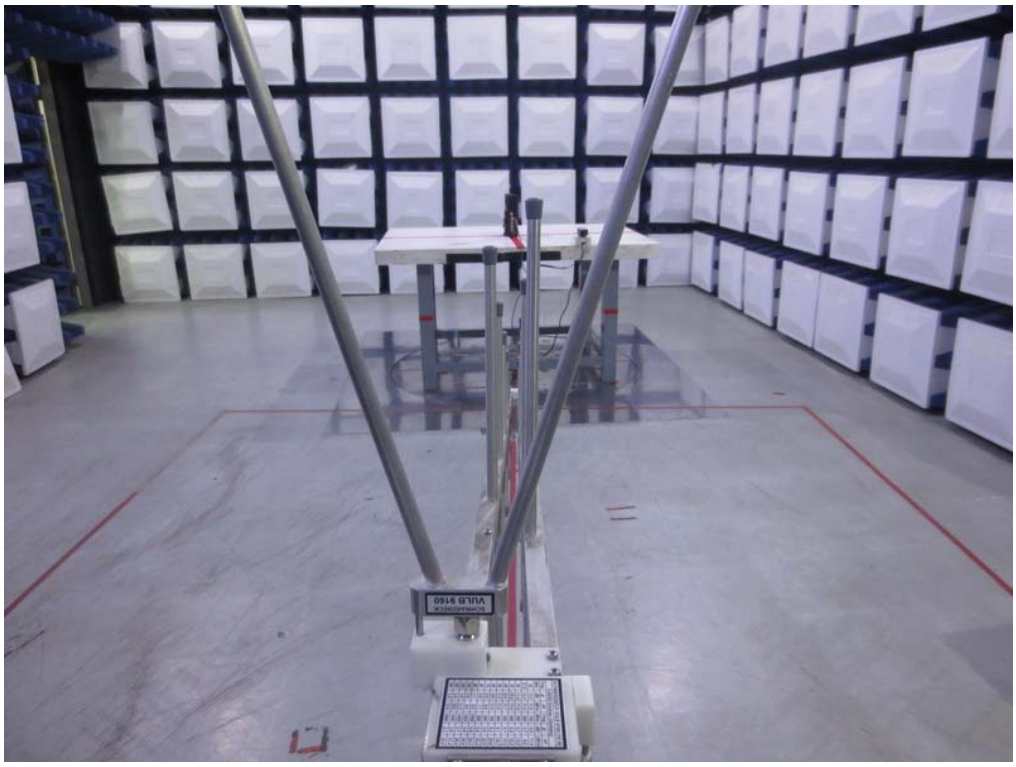
Radiated Measurement Photos

9kHz to 30MHz



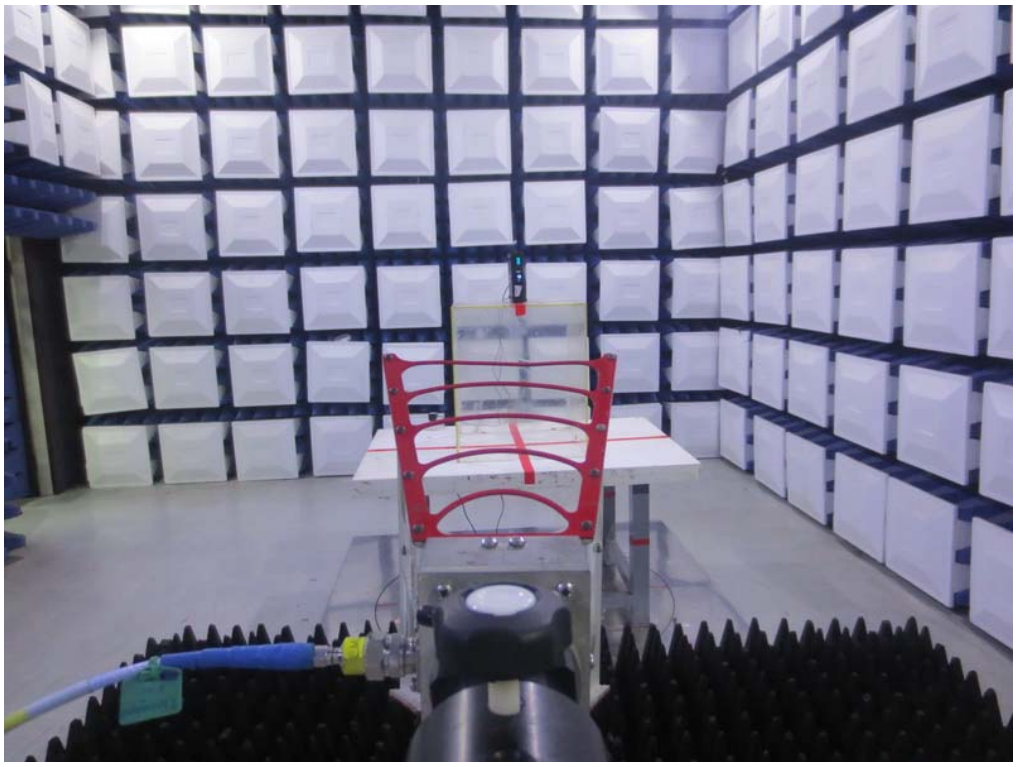
Radiated Measurement Photos

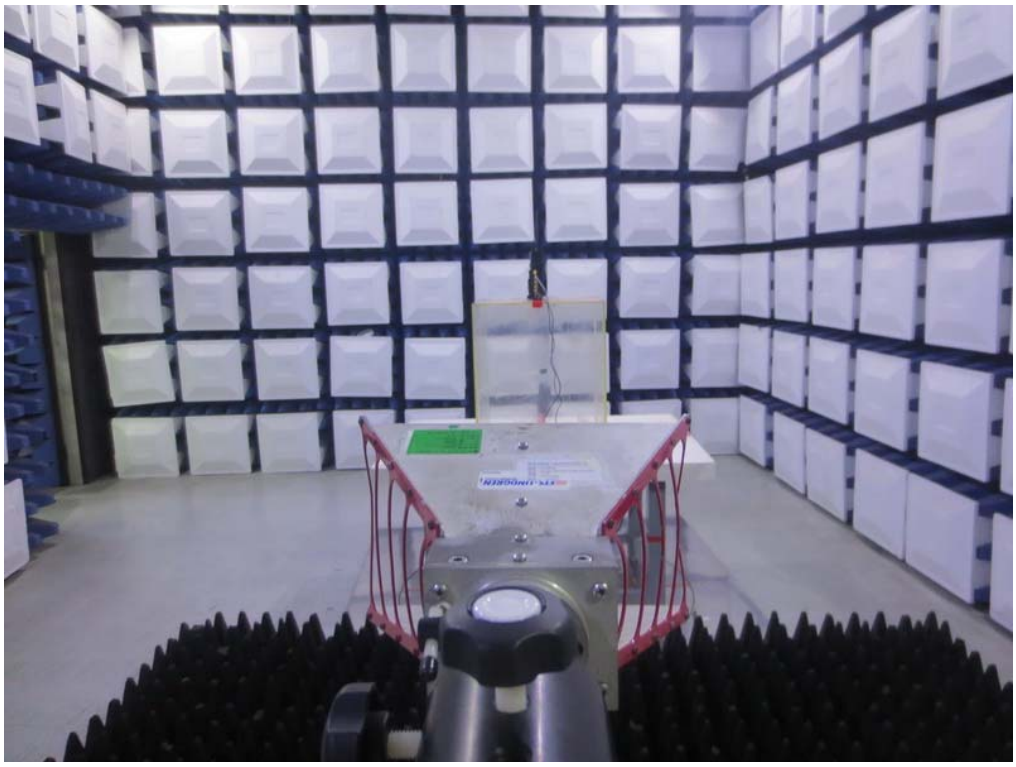
30MHz to 1000MHz



Radiated Measurement Photos

Above 1000MHz

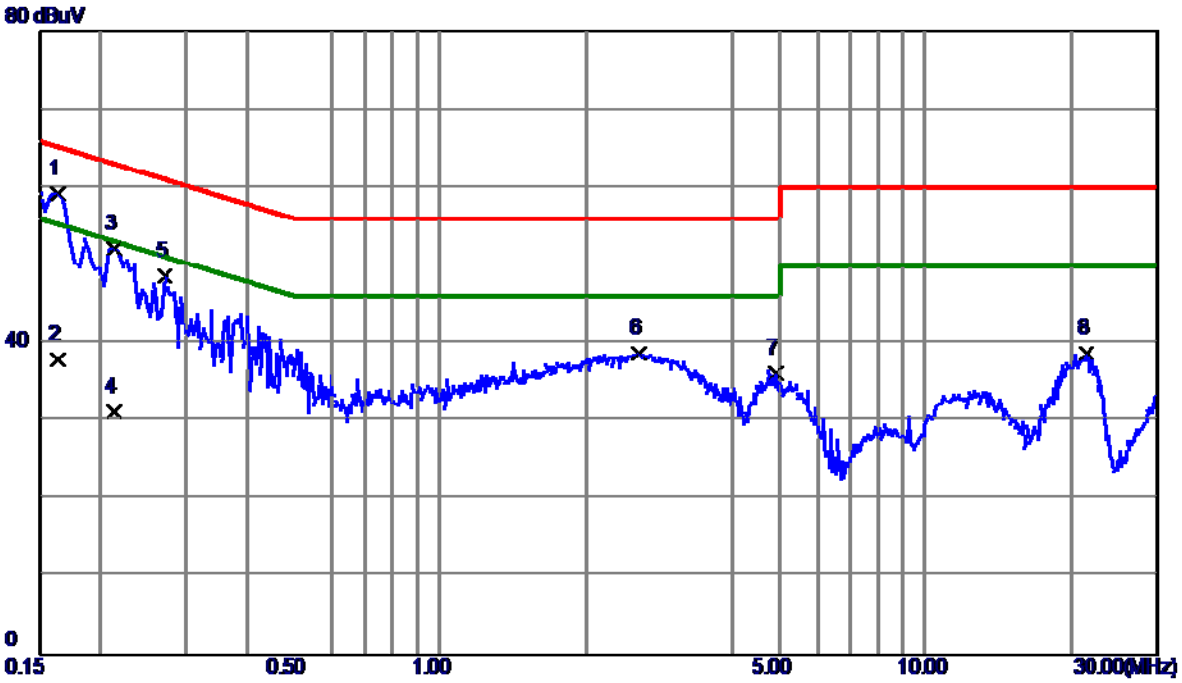




APPENDIX A - CONDUCTED EMISSION

Test Mode:	TX MODE

Line

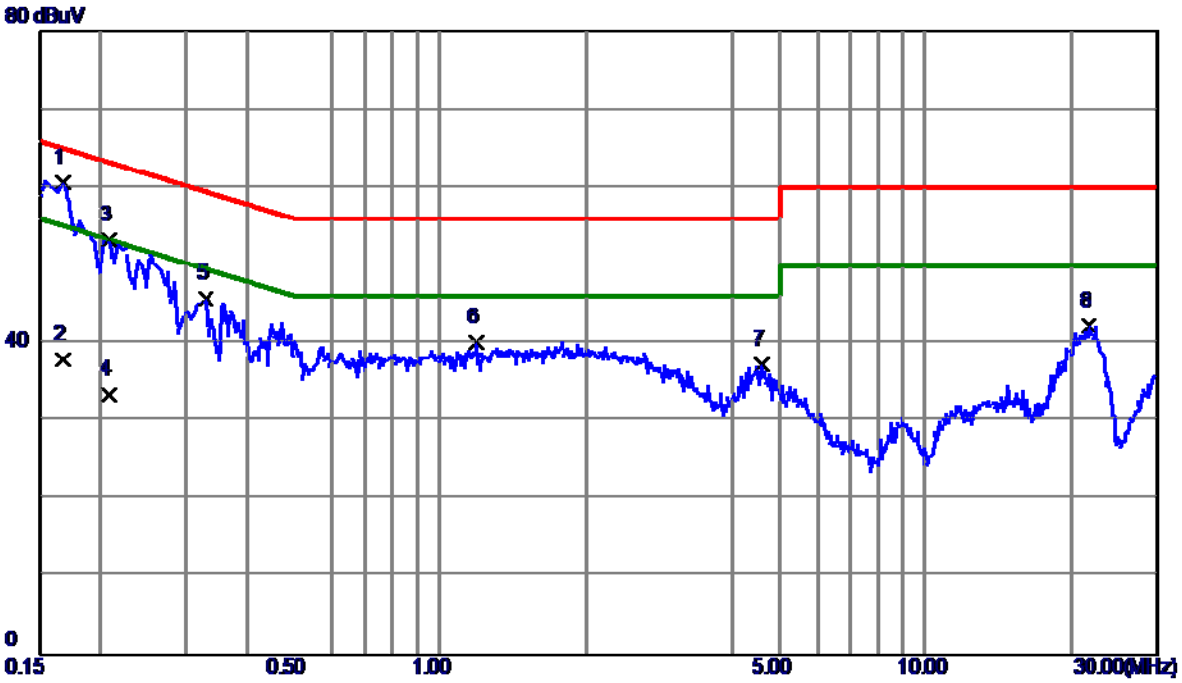


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1 *	0.1635	49.37	9.78	59.15	65.28	-6.13	Peak	
2	0.1635	28.20	9.78	37.98	55.28	-17.30	AVG	
3	0.2130	42.34	9.76	52.10	63.09	10.99	Peak	
4	0.2130	21.40	9.76	31.16	53.09	-21.93	AVG	
5	0.2714	38.95	9.76	48.71	61.07	-12.36	Peak	
6	2.5800	28.79	9.97	38.76	56.00	-17.24	Peak	
7	4.9155	26.09	10.07	36.16	56.00	-19.84	Peak	
8	21.4755	28.08	10.69	38.77	60.00	-21.23	Peak	

Note：The test result has included the cable loss.

Test Mode:	TX MODE

Neutral



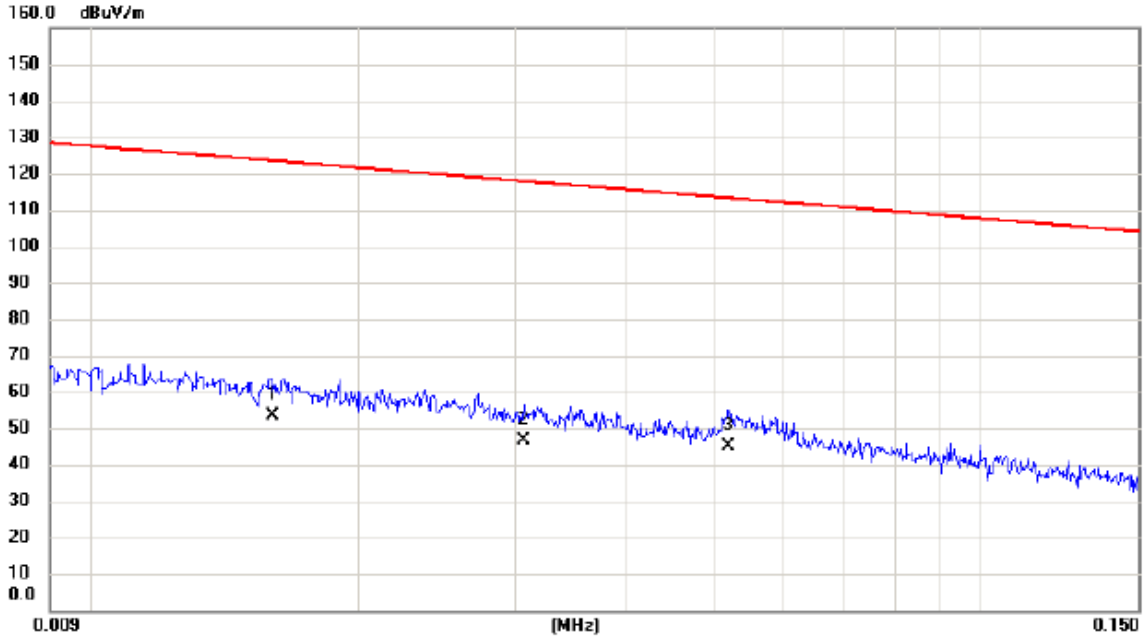
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1 *	0.1680	50.93	9.68	60.61	65.06	-4.45	Peak	
2	0.1680	28.20	9.68	37.88	55.06	-17.18	AVG	
3	0.2085	43.65	9.69	53.34	63.26	9.92	Peak	
4	0.2085	23.80	9.69	33.49	53.26	-19.77	AVG	
5	0.3300	36.00	9.69	45.69	59.45	-13.76	Peak	
6	1.1940	30.46	9.75	40.21	56.00	-15.79	Peak	
7	4.6185	27.35	9.99	37.34	56.00	-18.66	Peak	
8	21.6510	31.49	10.82	42.31	60.00	-17.69	Peak	

Note：The test result has included the cable loss.

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

Test Mode:	TX MODE

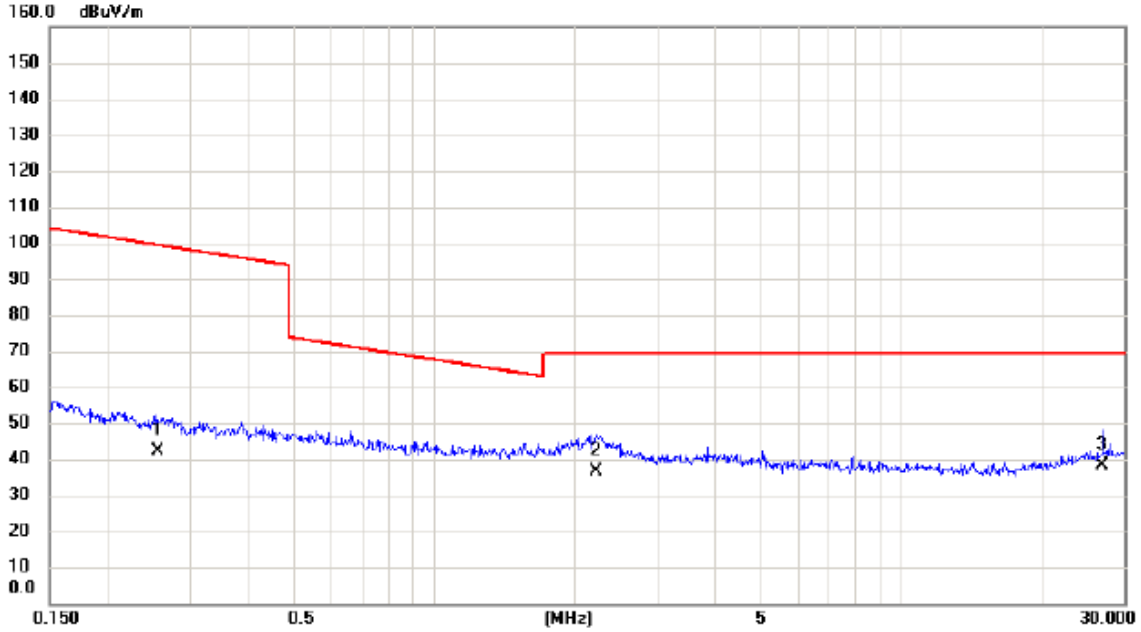
Ant 0°



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		0.0160	33.17	20.14	53.31	123.52	-70.21	AVG	
2		0.0306	27.46	19.30	46.76	117.89	-71.13	AVG	
3	*	0.0520	26.27	18.68	44.95	113.28	-68.33	AVG	

Test Mode:	TX MODE

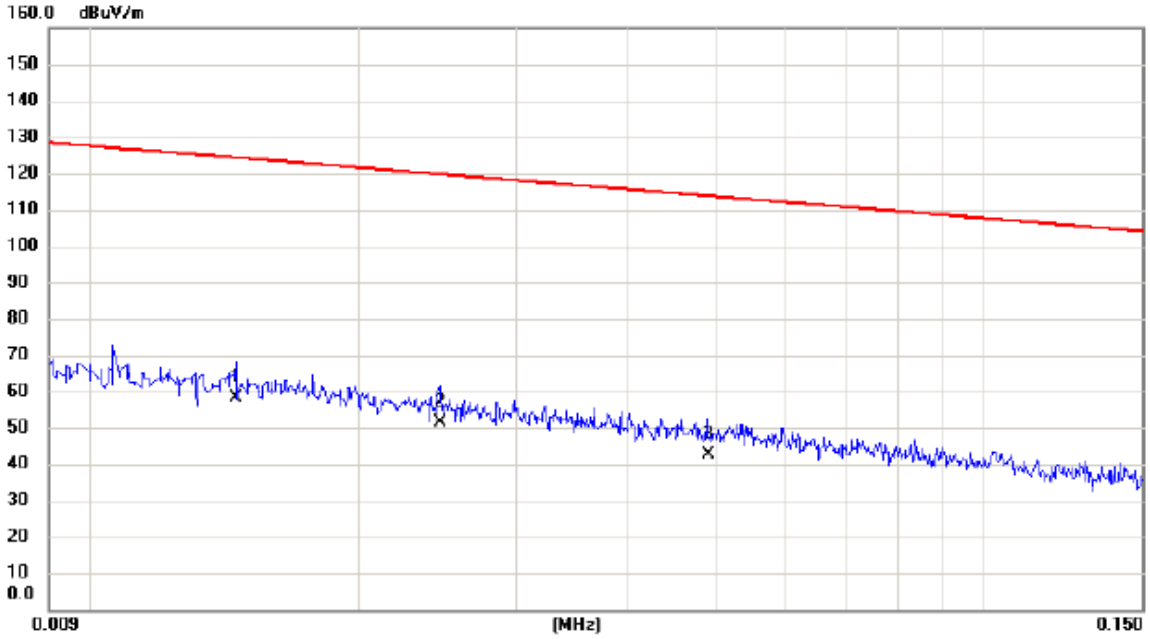
Ant 0°



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		0.2548	25.46	16.66	42.12	99.48	-57.36	AVG	
2		2.2132	21.20	15.45	36.65	69.54	-32.89	QP	
3	*	26.8411	18.09	20.21	38.30	69.54	-31.24	QP	

Test Mode:	TX MODE

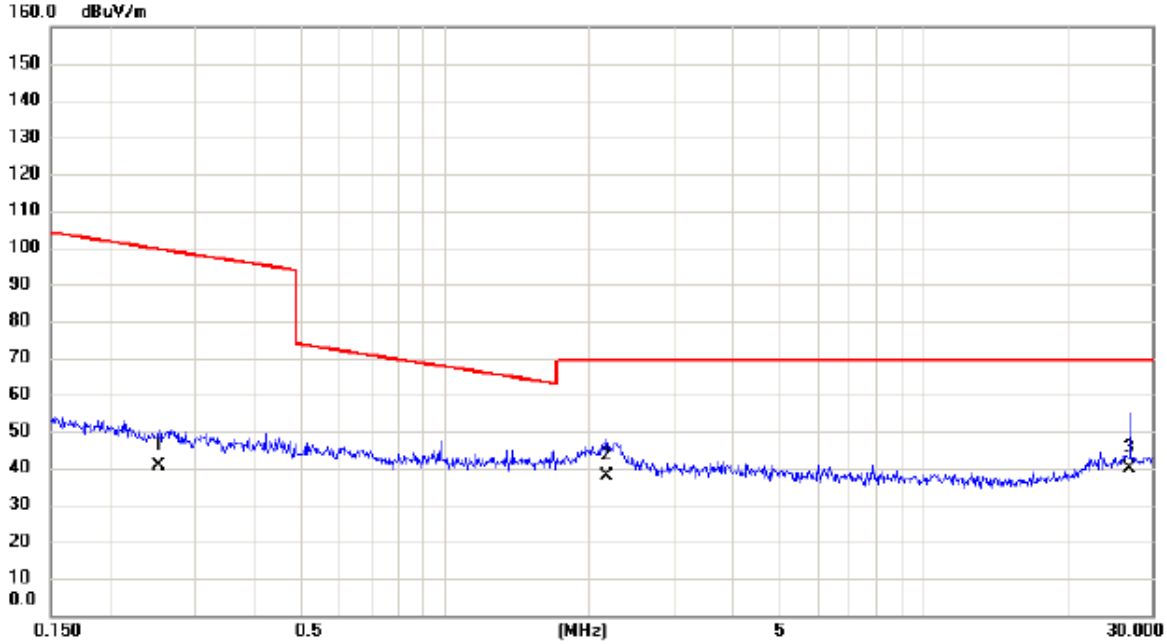
Ant 90°



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	0.0146	37.81	20.32	58.13	124.32	-66.19	AVG	
2		0.0246	31.85	19.48	51.33	119.79	-68.46	AVG	
3		0.0491	23.82	18.75	42.57	113.78	-71.21	AVG	

Test Mode:	TX MODE

Ant 90°

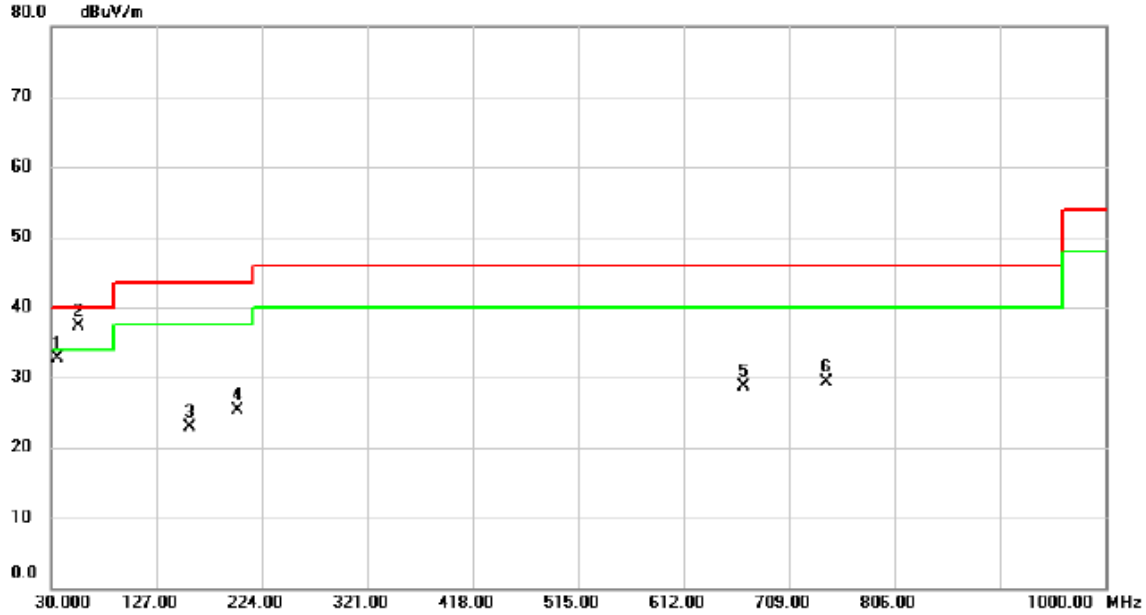


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		0.2521	23.88	16.66	40.54	99.57	-59.03	AVG	
2		2.1783	22.52	15.46	37.98	69.54	-31.56	QP	
3	*	26.8411	19.74	20.21	39.95	69.54	-29.59	QP	

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

Orthogonal Axis:	X
Test Mode:	TX N40 Mode 5190MHz

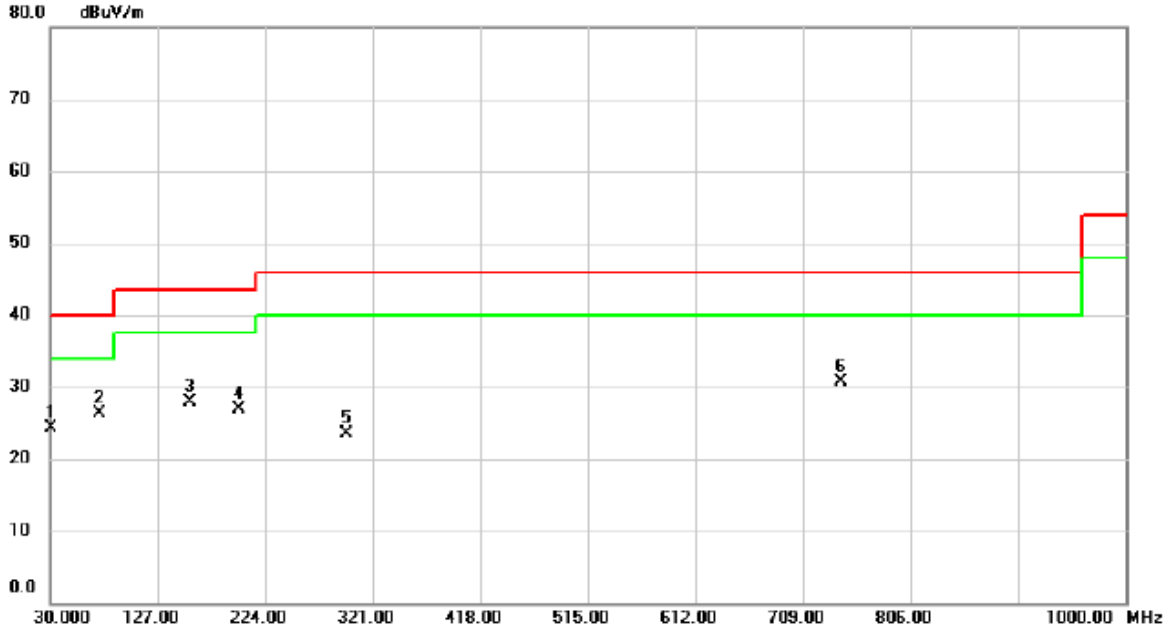
Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		35.820	47.24	-14.51	32.73	40.00	-7.27	peak	
2	*	55.220	51.16	-13.94	37.22	40.00	-2.78	peak	
3		157.070	36.09	-13.11	22.98	43.50	-20.52	peak	
4		201.690	39.19	-13.79	25.40	43.50	-18.10	peak	
5		666.320	33.66	-4.98	28.68	46.00	-17.32	peak	
6		742.950	31.88	-2.65	29.23	46.00	-16.77	peak	

Orthogonal Axis:	X
Test Mode:	TX N40 Mode 5190MHz

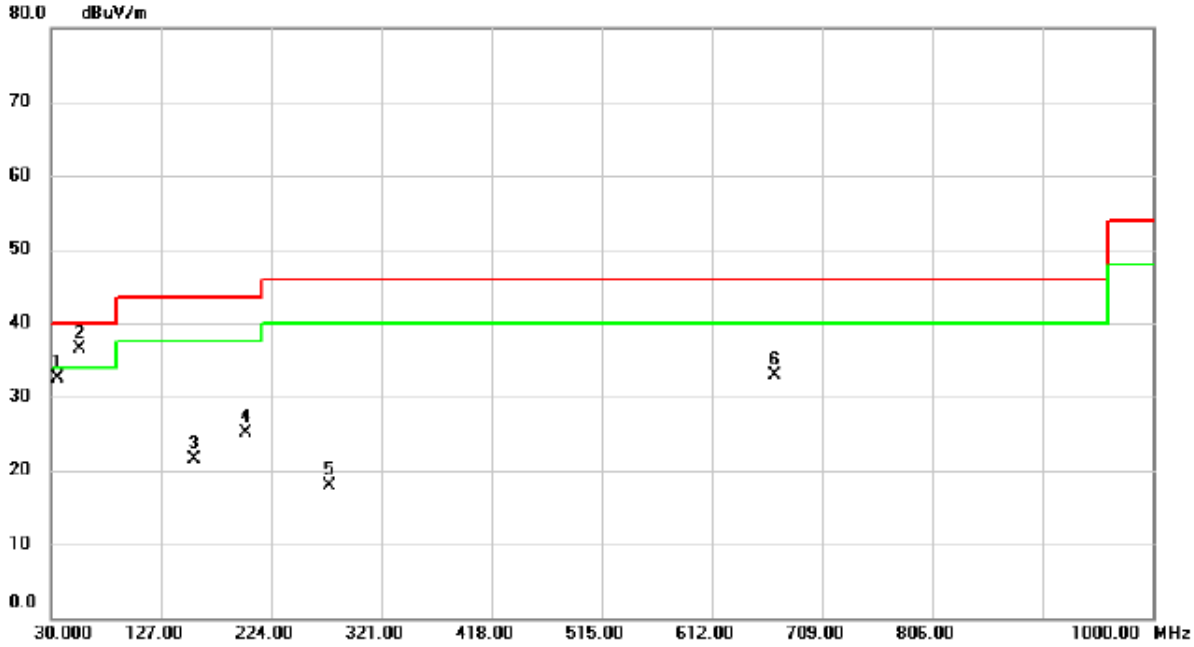
Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		30.970	39.41	-15.14	24.27	40.00	-15.73	peak	
2	*	74.620	43.28	-17.03	26.25	40.00	-13.75	peak	
3		156.100	40.98	-13.16	27.82	43.50	-15.68	peak	
4		199.750	40.60	-13.72	26.88	43.50	-16.62	peak	
5		296.750	36.86	-13.28	23.58	46.00	-22.42	peak	
6		742.950	33.45	-2.65	30.80	46.00	-15.20	peak	

Orthogonal Axis:	X
Test Mode:	TX N40 Mode 5230MHz

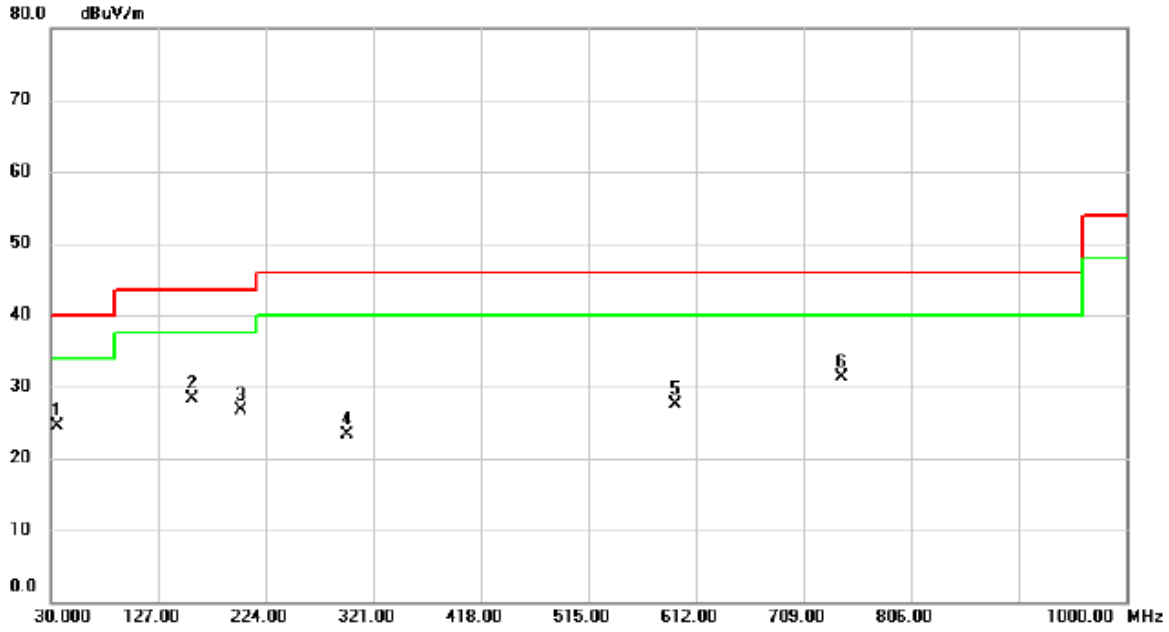
Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		35.820	47.05	-14.51	32.54	40.00	-7.46	peak	
2	*	55.220	50.50	-13.94	36.56	40.00	-3.44	peak	
3		156.100	34.58	-13.16	21.42	43.50	-22.08	peak	
4		201.690	38.84	-13.79	25.05	43.50	-18.45	peak	
5		275.410	33.15	-15.27	17.88	46.00	-28.12	peak	
6		666.320	37.94	-4.98	32.96	46.00	-13.04	peak	

Orthogonal Axis:	X
Test Mode:	TX N40 Mode 5230MHz

Horizontal

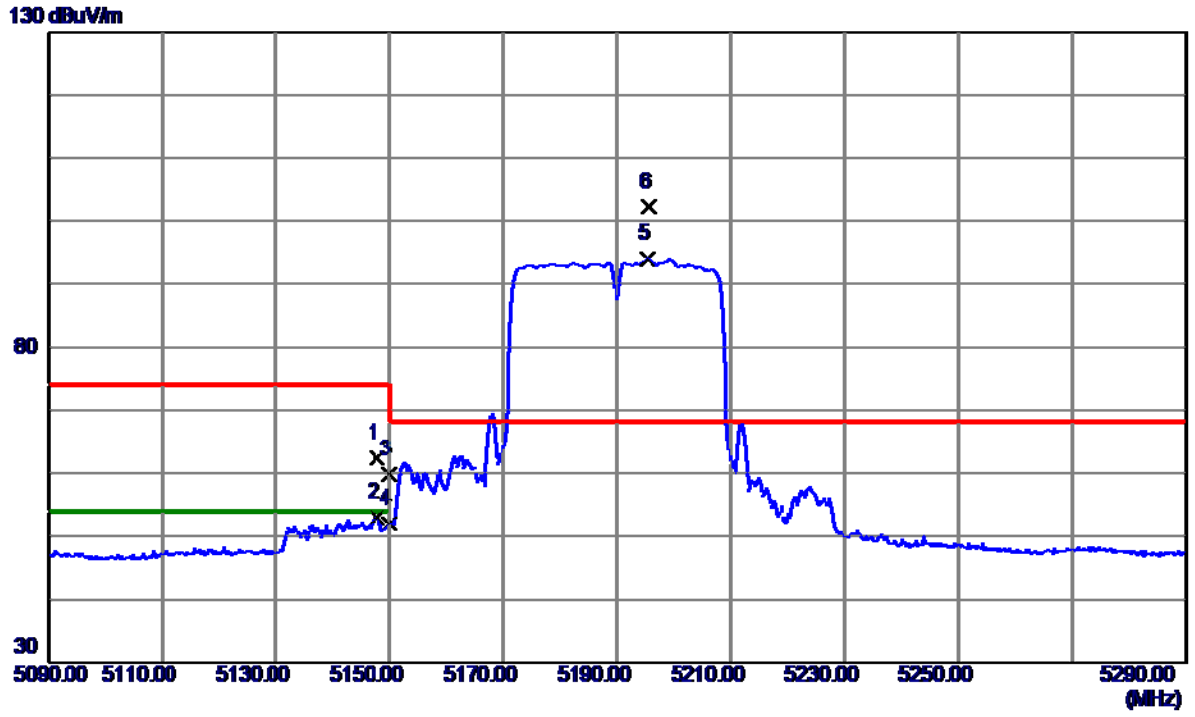


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		35.820	39.06	-14.51	24.55	40.00	-15.45	peak	
2		157.070	41.48	-13.11	28.37	43.50	-15.13	peak	
3		201.690	40.47	-13.79	26.68	43.50	-16.82	peak	
4		296.750	36.51	-13.28	23.23	46.00	-22.77	peak	
5		593.570	34.16	-6.59	27.57	46.00	-18.43	peak	
6	*	742.950	34.03	-2.65	31.38	46.00	-14.62	peak	

APPENDIX D - RADIATED EMISSION (ABOVE 1000MHZ)

Orthogonal Axis:	X
Test Mode:	UNII-1/ TX N40 Mode 5190MHz

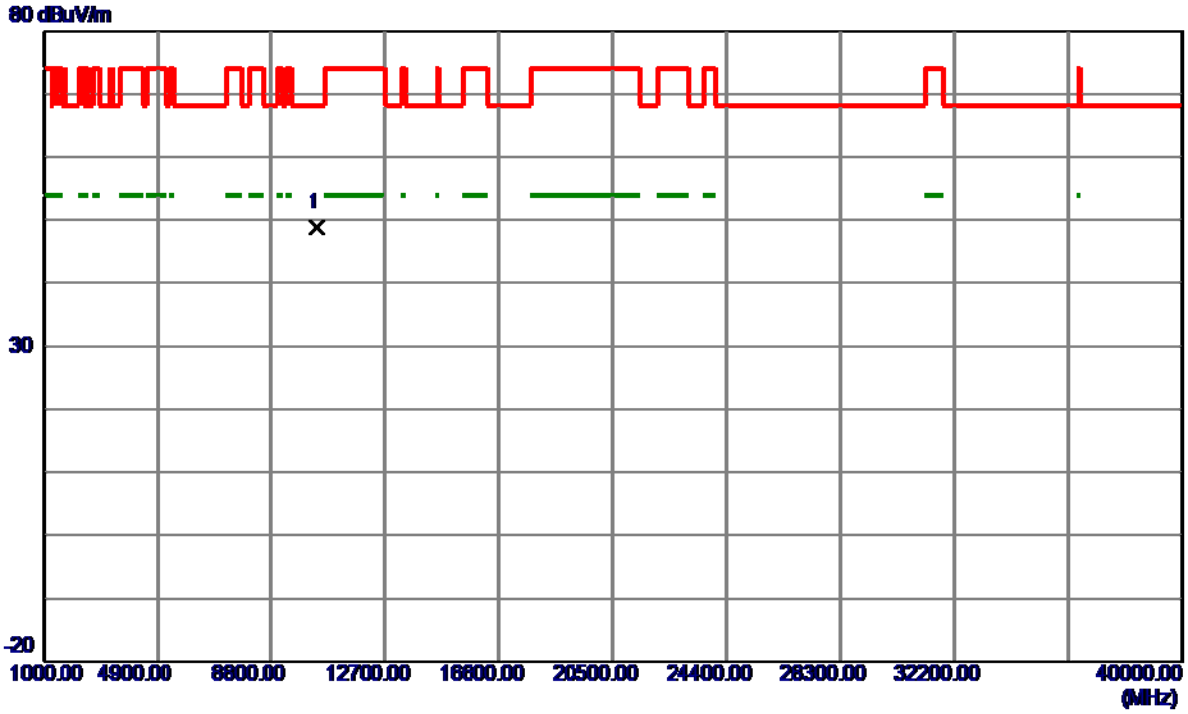
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5147.8000	44.17	18.18	62.35	74.00	-11.65	Peak	
2	5147.8000	34.85	18.18	53.03	54.00	-0.97	AVG	
3	5150.0000	41.66	18.19	59.85	74.00	-14.15	Peak	
4	5150.0000	33.84	18.19	52.03	54.00	-1.97	AVG	
5	5195.4000	75.63	18.47	94.10	999.00	-904.90	AVG	No Limit
6 *	5195.6000	83.73	18.47	102.20	68.30	33.90	Peak	No Limit

Orthogonal Axis:	X
Test Mode:	UNII-1/ TX N40 Mode 5190MHz

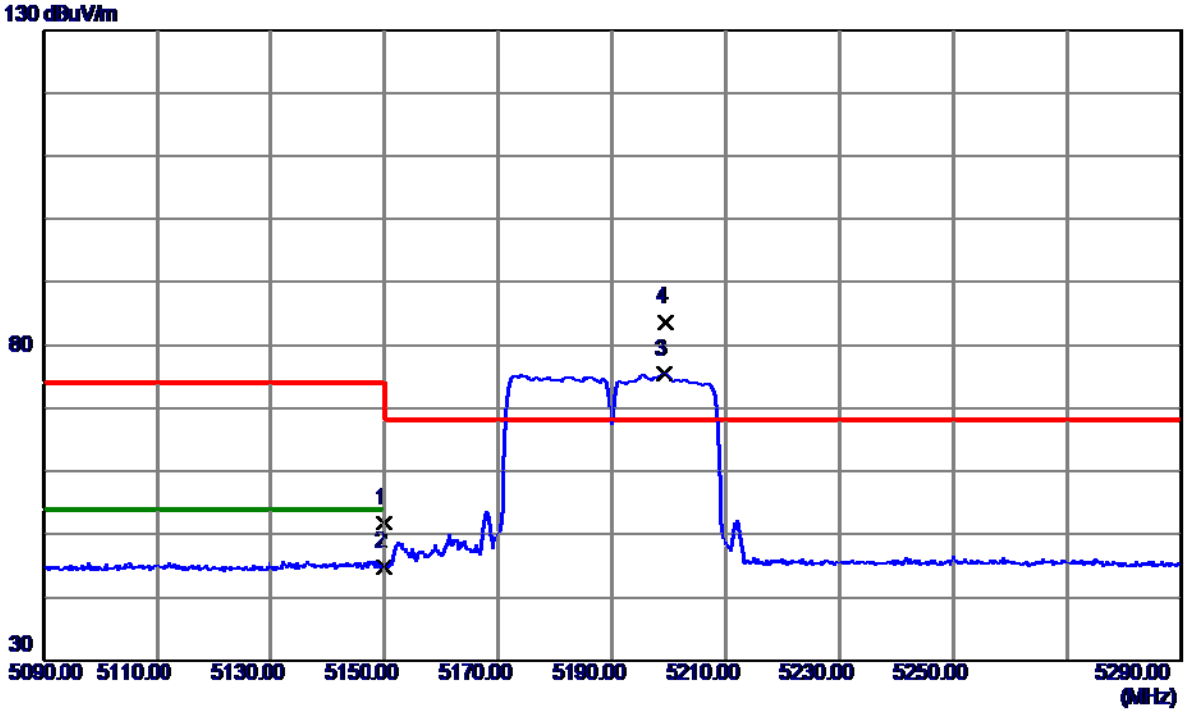
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10361.6000	32.50	16.34	48.84	68.30	-19.46	Peak	

Orthogonal Axis:	X
Test Mode:	UNII-1/ TX N40 Mode 5190MHz

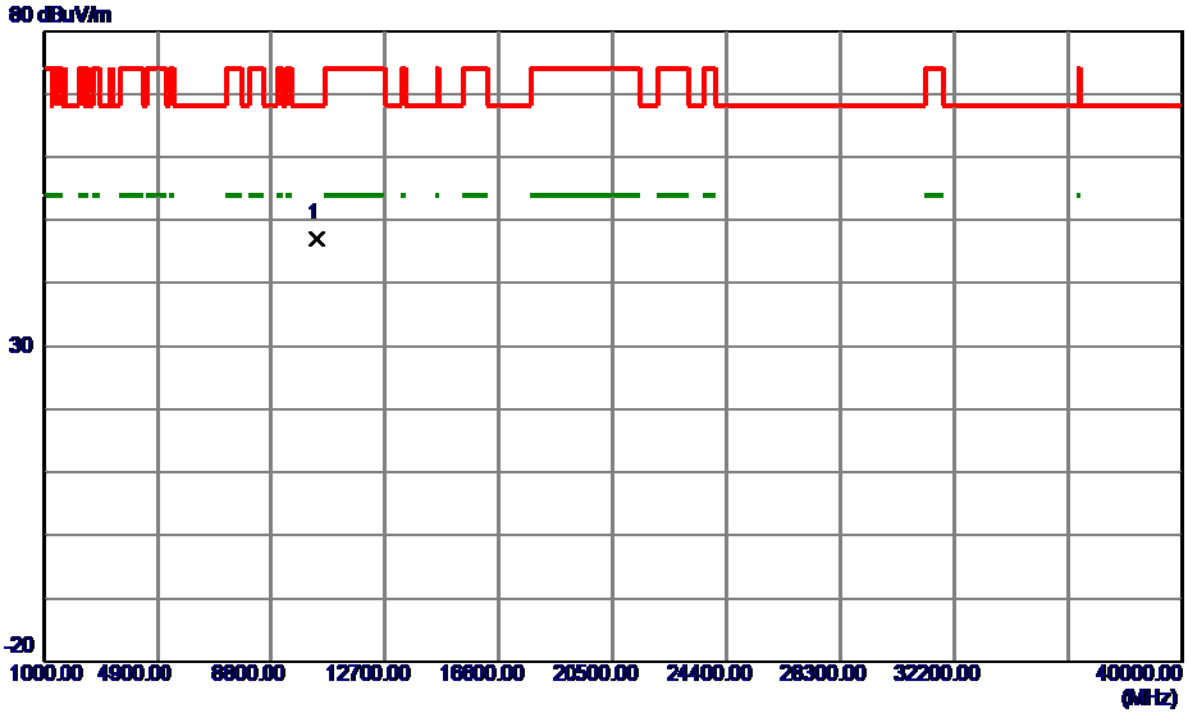
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5150.0000	33.58	18.19	51.77	74.00	-22.23	Peak	
2	5150.0000	26.68	18.19	44.87	54.00	-9.13	AVG	
3	5199.2000	56.94	18.49	75.43	999.00	-923.57	AVG	No Limit
4 *	5199.4000	65.19	18.49	83.68	68.30	15.38	Peak	No Limit

Orthogonal Axis:	X
Test Mode:	UNII-1/ TX N40 Mode 5190MHz

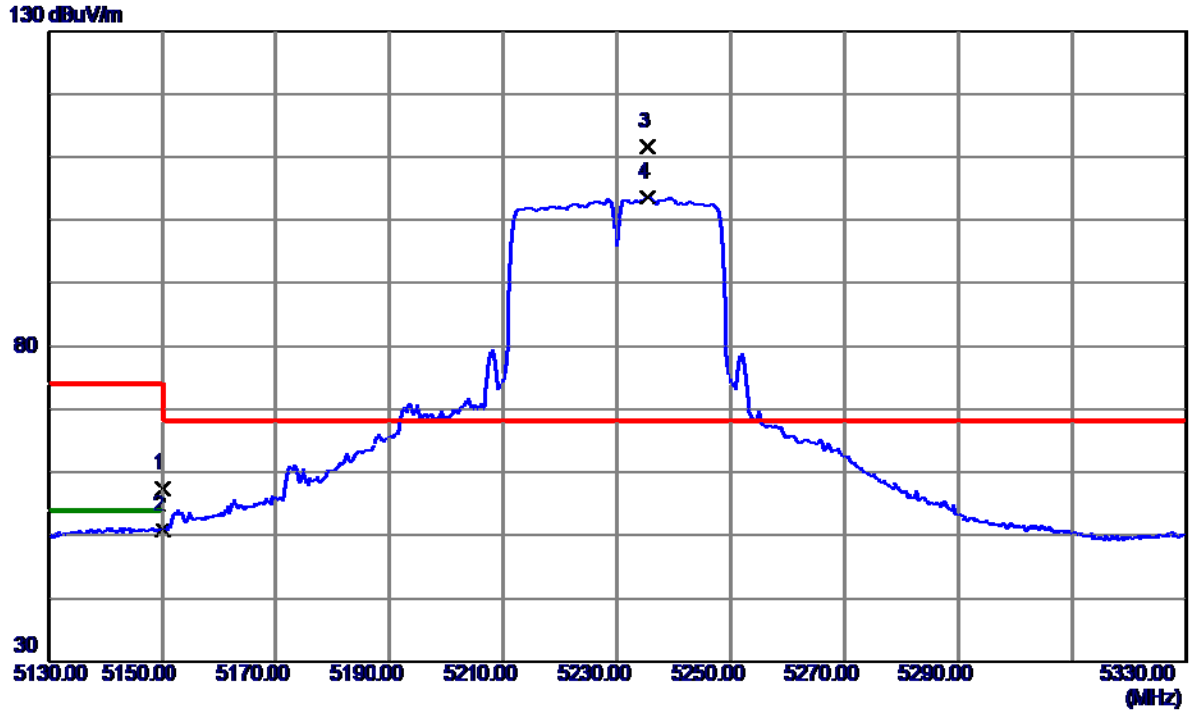
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10358.6500	30.61	16.33	46.94	68.30	-21.36	Peak	

Orthogonal Axis:	X
Test Mode:	UNII-1/ TX N40 Mode 5230MHz

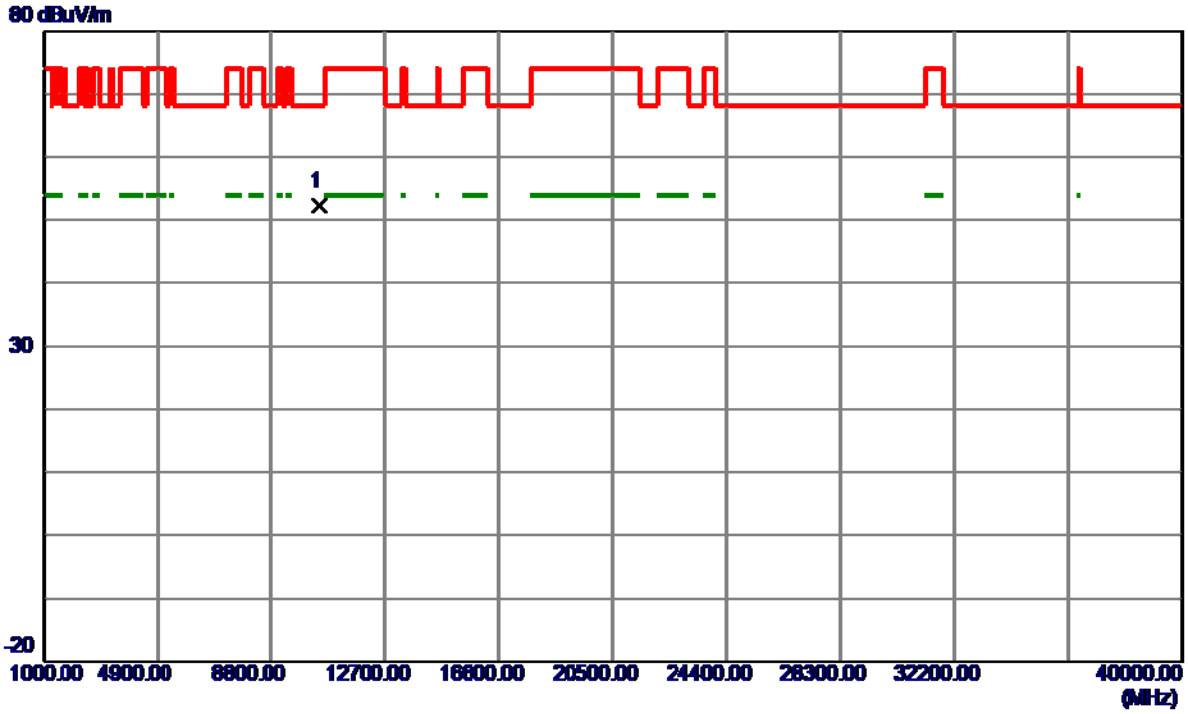
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5150.0000	39.13	18.19	57.32	74.00	-16.68	Peak	
2	5150.0000	32.61	18.19	50.80	54.00	-3.20	AVG	
3 *	5235.4000	92.90	18.71	111.61	68.30	43.31	Peak	No Limit
4	5235.4000	84.86	18.71	103.57	999.00	-895.43	AVG	No Limit

Orthogonal Axis:	X
Test Mode:	UNII-1/ TX N40 Mode 5230MHz

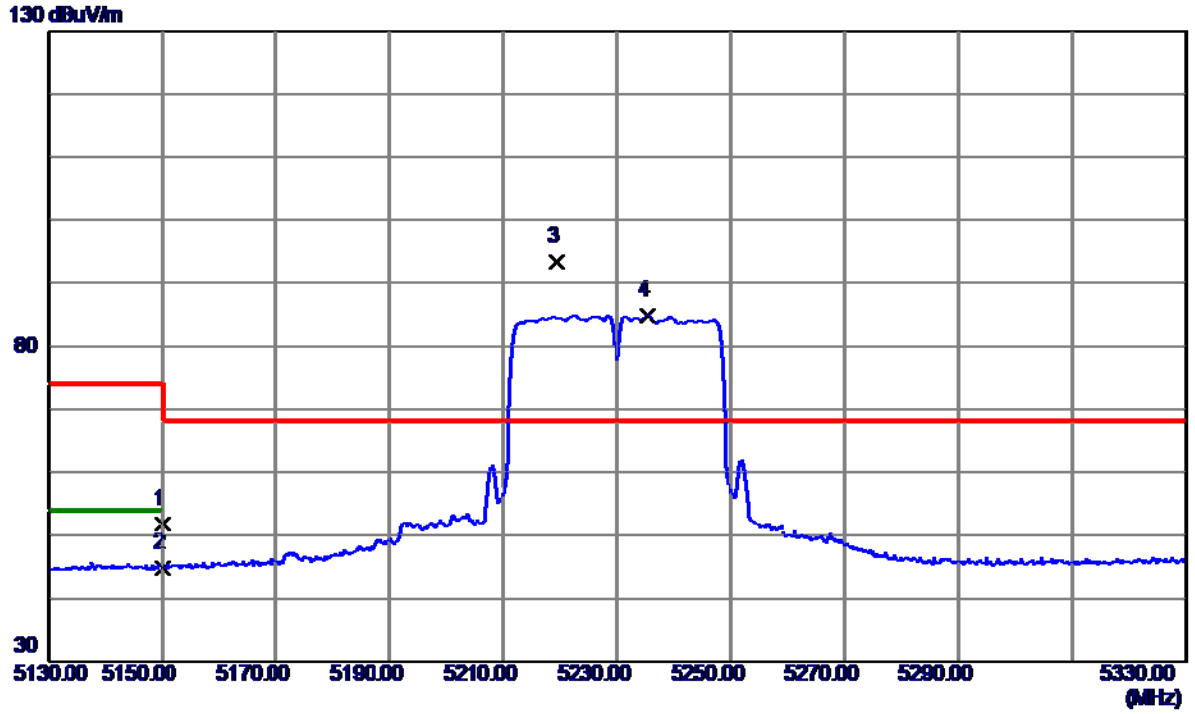
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10456.6000	35.68	16.59	52.27	68.30	-16.03	Peak	

Orthogonal Axis:	X
Test Mode:	UNII-1/ TX N40 Mode 5230MHz

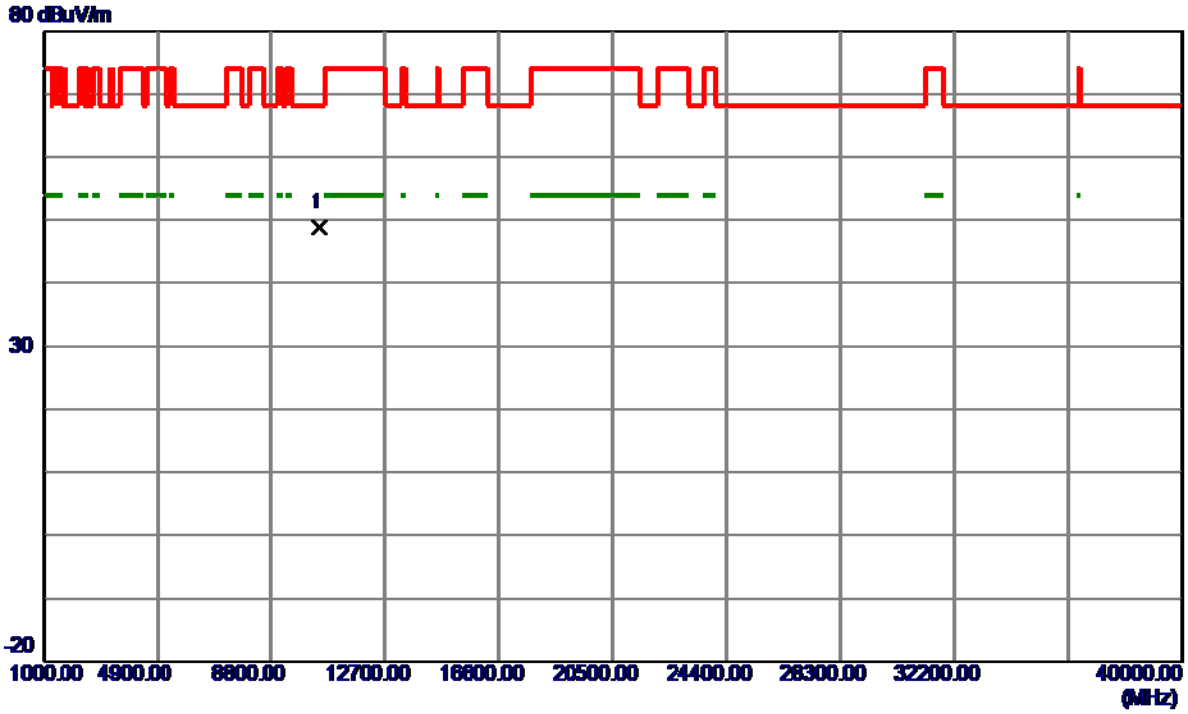
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5150.0000	33.60	18.19	51.79	74.00	-22.21	Peak	
2	5150.0000	26.69	18.19	44.88	54.00	-9.12	AVG	
3 *	5219.4000	74.79	18.61	93.40	68.30	25.10	Peak	No Limit
4	5235.4000	66.15	18.71	84.86	999.00	-914.14	AVG	No Limit

Orthogonal Axis:	X
Test Mode:	UNII-1/ TX N40 Mode 5230MHz

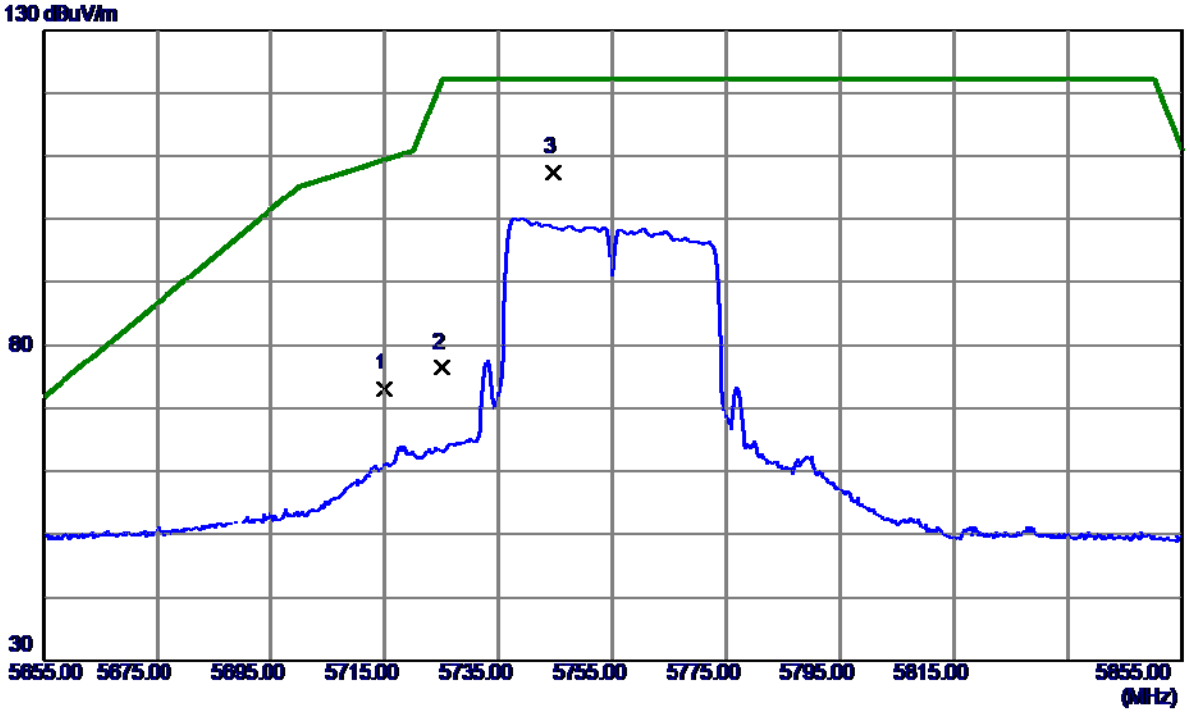
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10461.8500	32.21	16.60	48.81	68.30	-19.49	Peak	

Orthogonal Axis:	X
Test Mode:	UNII-3/TX N40 Mode 5755MHz

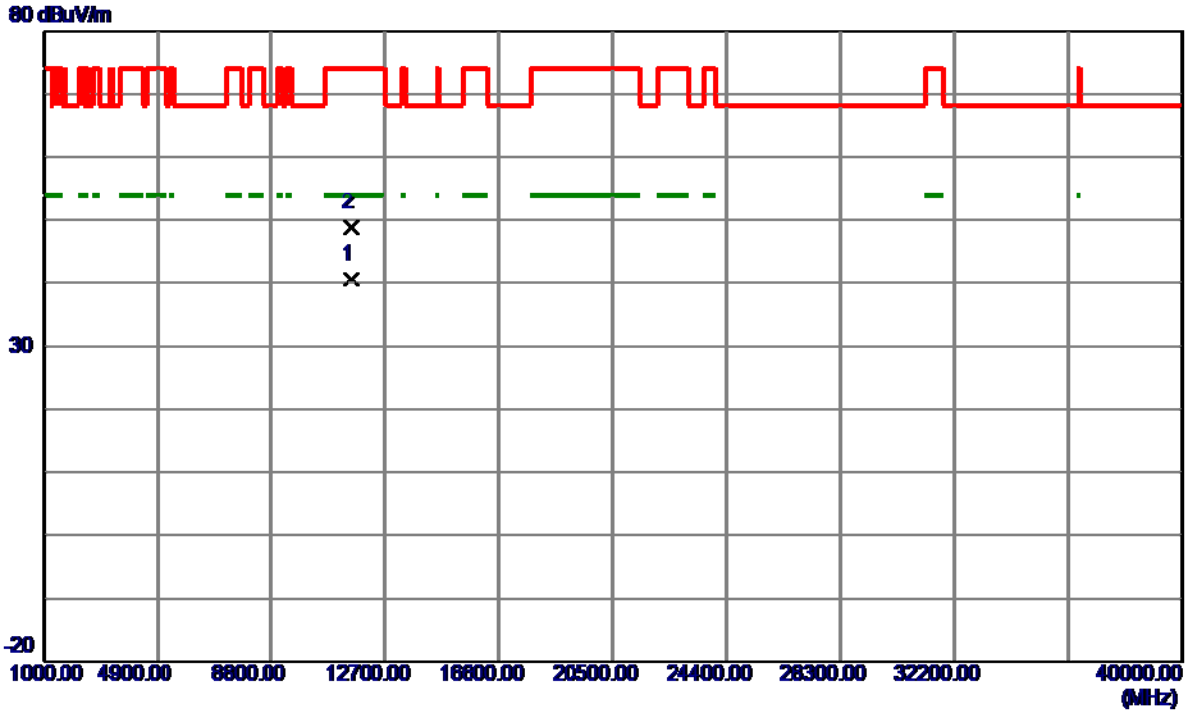
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5715.0000	51.94	21.16	73.10	109.40	-36.30	Peak	
2	5725.0000	55.25	21.20	76.45	122.20	-45.75	Peak	
3 *	5744.5000	86.16	21.28	107.44	122.20	-14.76	Peak	

Orthogonal Axis:	X
Test Mode:	UNII-3/TX N40 Mode 5755MHz

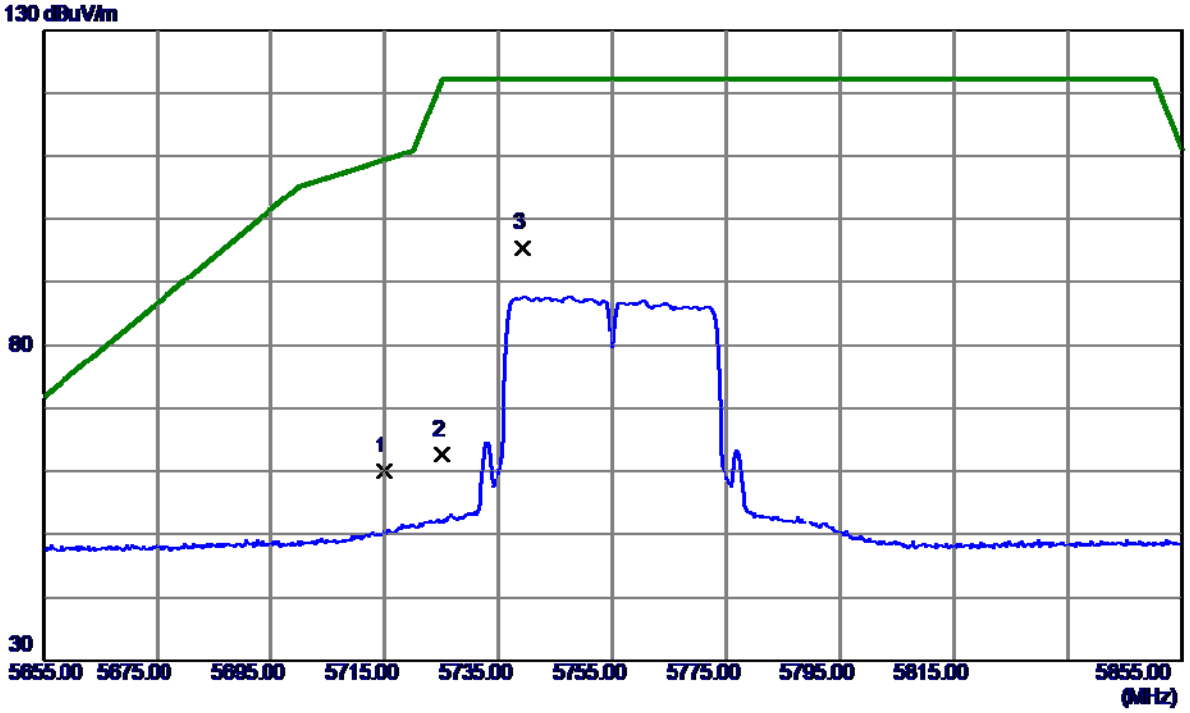
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	11509.9800	22.76	17.79	40.55	54.00	-13.45	AVG	
2	11514.3000	31.06	17.79	48.85	74.00	-25.15	Peak	

Orthogonal Axis:	X
Test Mode:	UNII-3/TX N40 Mode 5755MHz

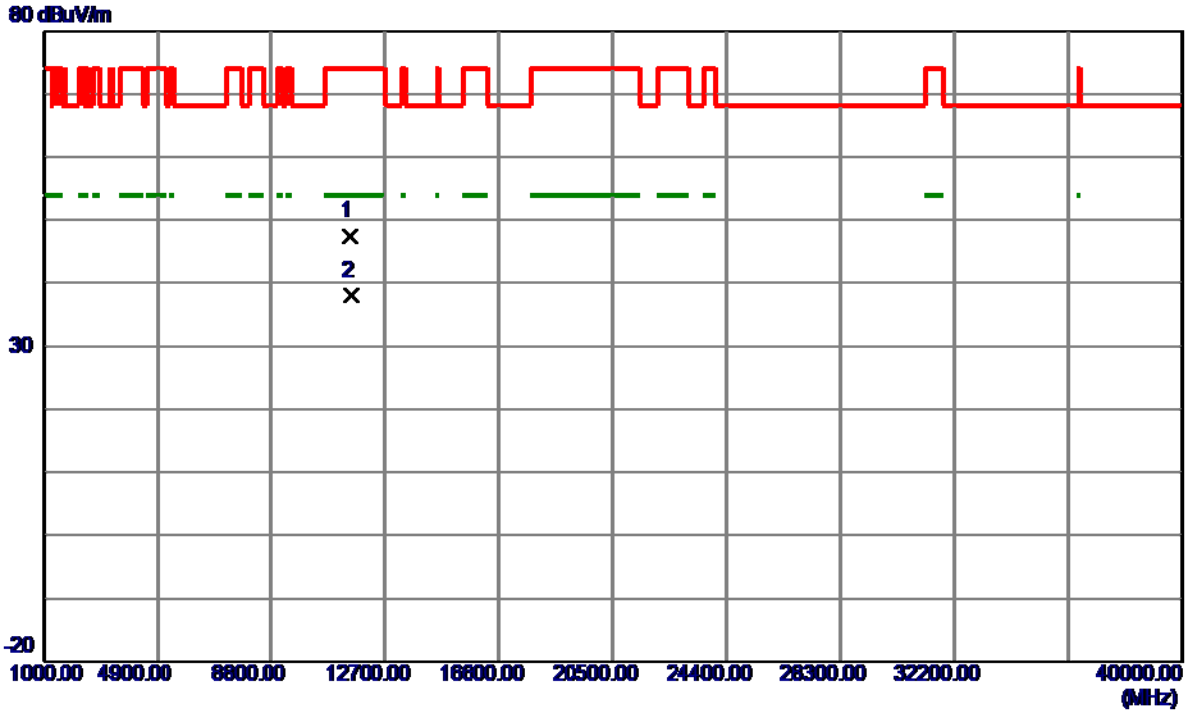
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5715.0000	38.86	21.16	60.02	109.40	-49.38	Peak	
2	5725.0000	41.46	21.20	62.66	122.20	-59.54	Peak	
3 *	5739.2000	74.16	21.25	95.41	122.20	-26.79	Peak	

Orthogonal Axis:	X
Test Mode:	UNII-3/TX N40 Mode 5755MHz

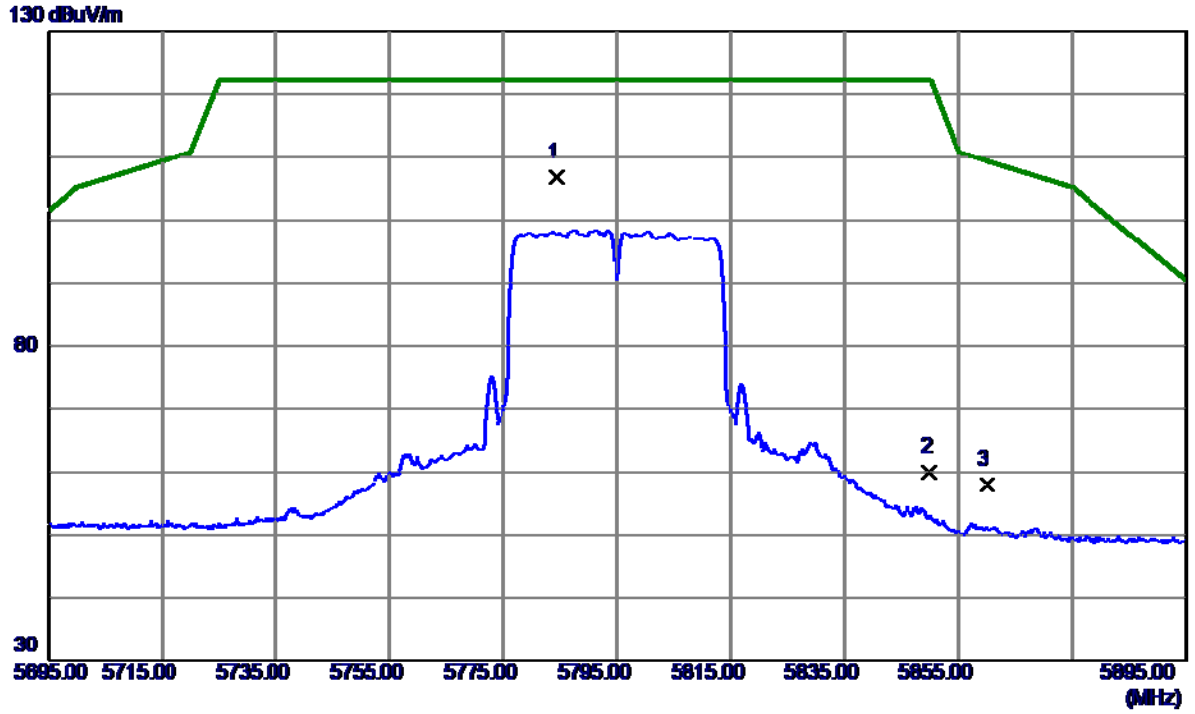
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	11505.3800	29.65	17.79	47.44	74.00	-26.56	Peak	
2 *	11509.9400	20.26	17.79	38.05	54.00	-15.95	AVG	

Orthogonal Axis:	X
Test Mode:	UNII-3/TX N40 Mode 5795MHz

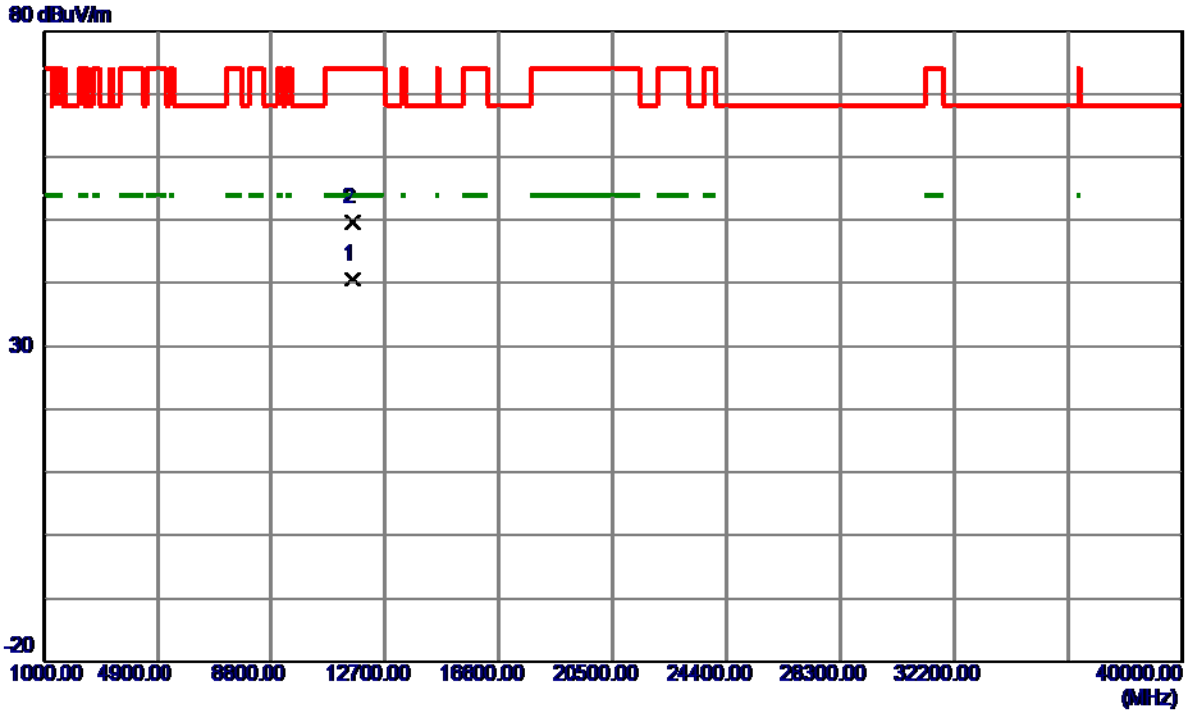
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	5784.4000	85.33	21.43	106.76	122.20	-15.44	Peak	
2	5850.0000	38.39	21.69	60.08	122.20	-62.12	Peak	
3	5860.0000	36.33	21.73	58.06	109.40	-51.34	Peak	

Orthogonal Axis:	X
Test Mode:	UNII-3/TX N40 Mode 5795MHz

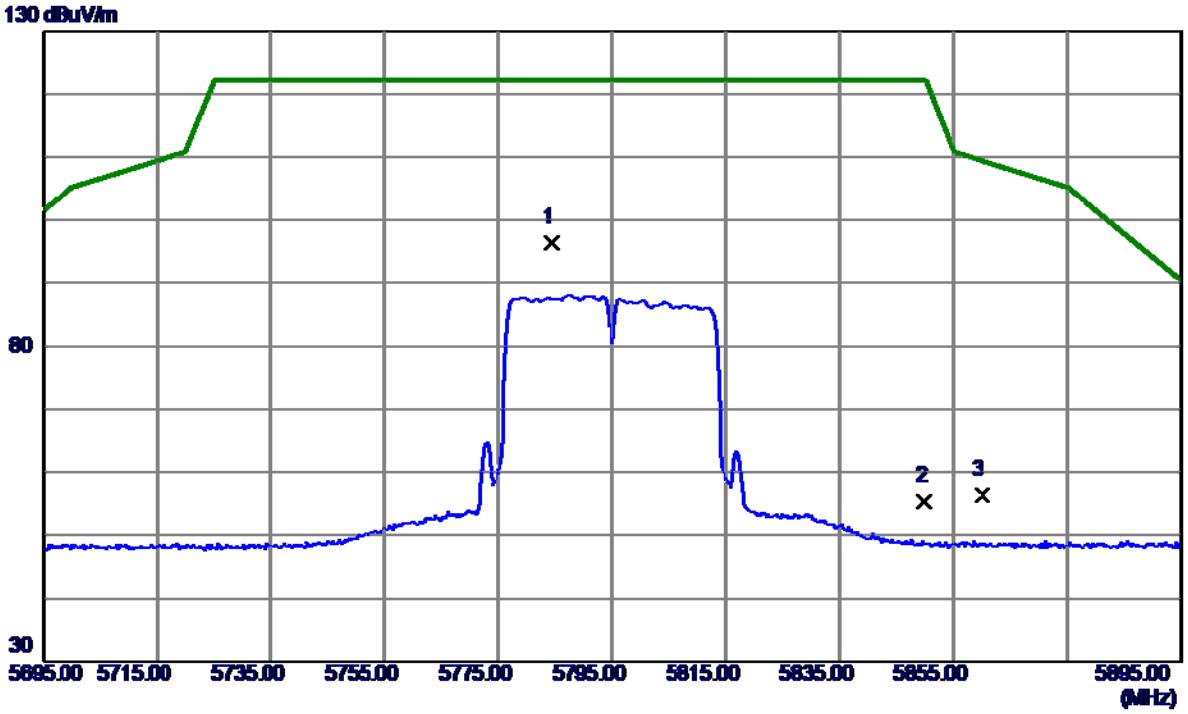
Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	11592.6900	22.83	17.83	40.66	54.00	-13.34	AVG	
2	11593.6500	31.69	17.83	49.52	74.00	-24.48	Peak	

Orthogonal Axis:	X
Test Mode:	UNII-3/TX N40 Mode 5795MHz

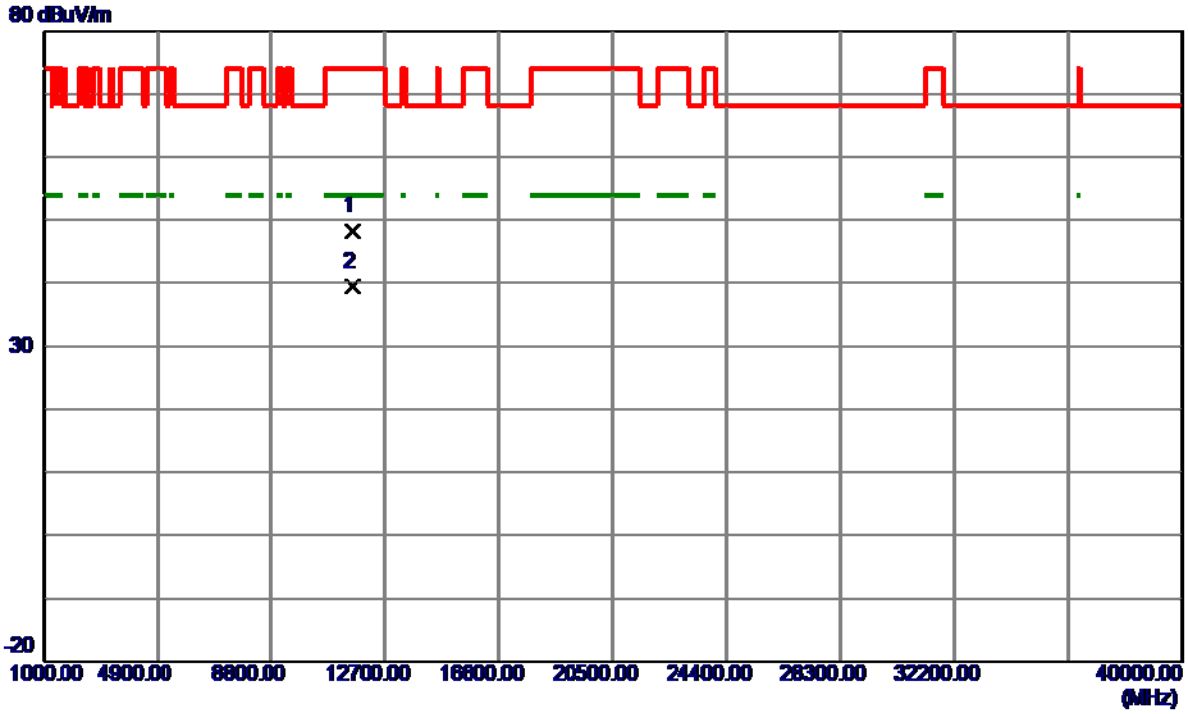
Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	5784.4000	74.96	21.43	96.39	122.20	-25.81	Peak	
2	5850.0000	33.75	21.69	55.44	122.20	-66.76	Peak	
3	5860.0000	34.76	21.73	56.49	109.40	-52.91	Peak	

Orthogonal Axis:	X
Test Mode:	UNII-3/TX N40 Mode 5795MHz

Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	11589.6300	30.35	17.83	48.18	74.00	-25.82	Peak	
2 *	11589.8400	21.59	17.83	39.42	54.00	-14.58	AVG	

TX N40 Mode_DUTY CYCLE

Duty cycle: TX DUTYMHz

Duty cycle = T_{ON} / T_{Total}

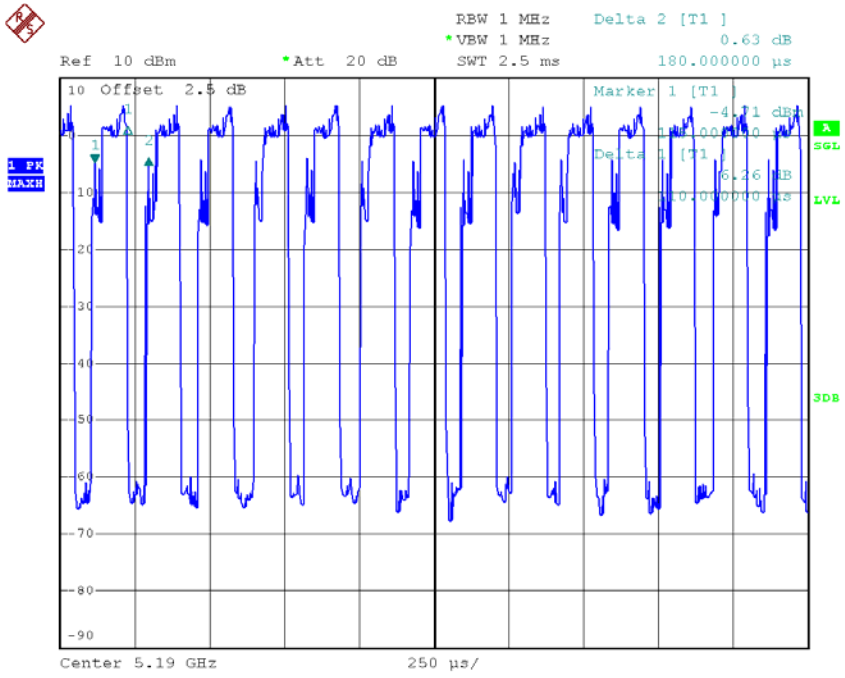
T_{ON}: 0.11 msec

T_{Total}: 0.18 msec

Duty cycle: 61.11%

Duty Factor = 10 log(1/Duty cycle)

Duty Factor = 2.14



Date: 4.APR.2018 10:43:07

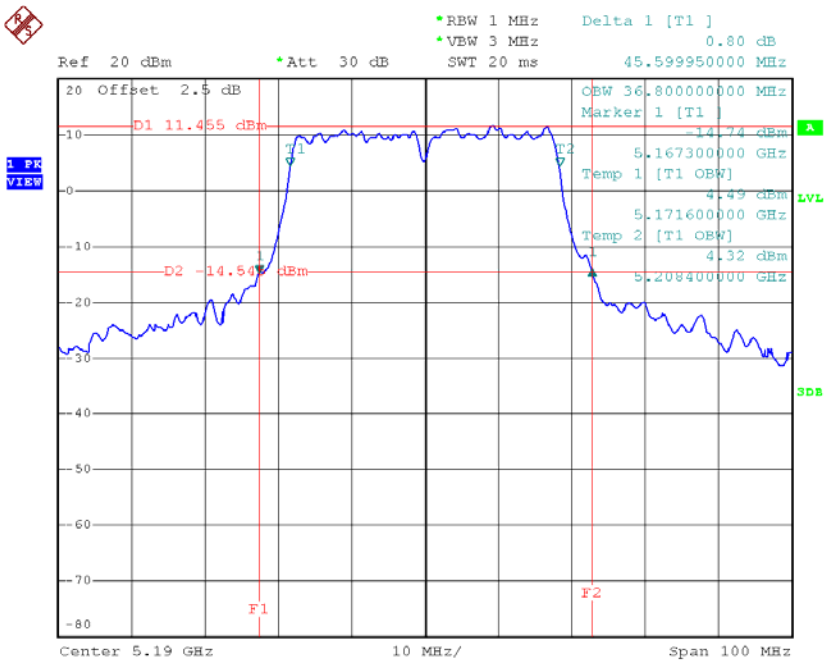
Note: The EUT was programmed to be in countinously transmitting mode and the transmit duty cycle is not less than 98 %, so, the output power and power density should be cacluated as Output Power = Measured power + Ducy factor
Power Spectral Density = Measured density + Duty factor

APPENDIX E - BANDWIDTH

Test Mode: UNII-1/TX N40 Mode_CH38/CH46

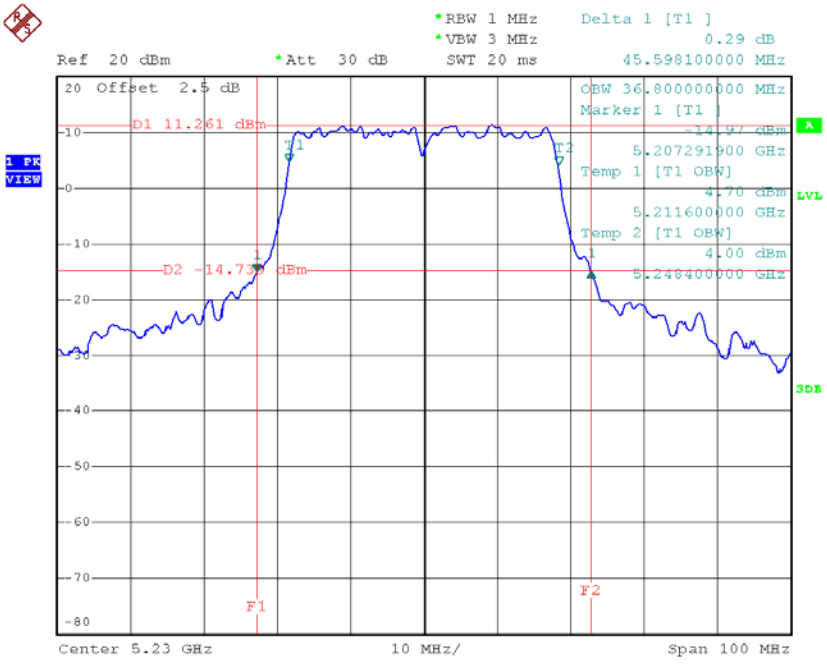
Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
CH38	5190	45.60	36.80
CH46	5230	45.60	36.80

TX CH38



Date: 4.APR.2018 10:42:49

TX CH46

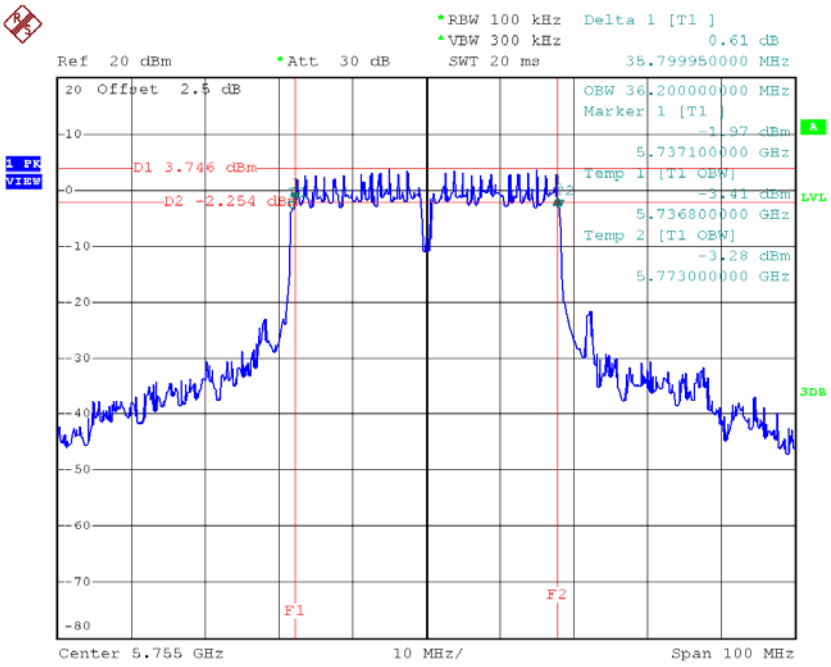


Date: 4.APR.2018 10:46:40

Test Mode: UNII-3/ TX N40 Mode_CH151/CH159

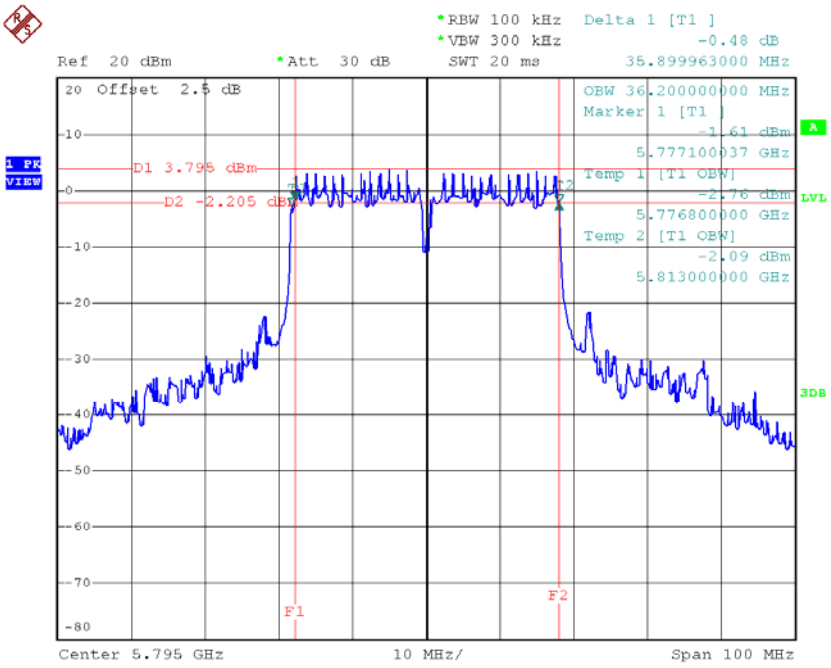
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Limit (kHz)
CH151	5755	35.80	36.20	>=500
CH159	5795	35.90	36.20	>=500

TX CH 151



Date: 4.APR.2018 10:48:00

TX CH 159



Date: 4.APR.2018 10:49:36

APPENDIX F - MAXIMUM OUTPUT POWER

Test Mode: UNII-1/TX N40 Mode_ANT 1						
Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Limit (dBm)	Limit (Watt)
CH38	5190	14.41	2.14	16.55	30.00	1.00
CH46	5230	14.13	2.14	16.27	30.00	1.00

Test Mode: UNII-1/TX N40 Mode_ANT 2						
Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Limit (dBm)	Limit (Watt)
CH38	5190	14.84	2.14	16.98	30.00	1.00
CH46	5230	14.95	2.14	17.09	30.00	1.00

Test Mode: UNII-1/TX N40 Mode_ANT 3						
Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Limit (dBm)	Limit (Watt)
CH38	5190	14.51	2.14	16.65	30.00	1.00
CH46	5230	15.25	2.14	17.39	30.00	1.00

Test Mode: UNII-1/TX N40 Mode_ANT 4						
Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Limit (dBm)	Limit (Watt)
CH38	5190	15.42	2.14	17.56	30.00	1.00
CH46	5230	15.97	2.14	18.11	30.00	1.00

Test Mode: UNII-1/TX N40 Mode _Total				
Channel	Frequency (MHz)	Output Power (dBm)	Limit (dBm)	Limit (Watt)
CH38	5190	22.97	30.00	1.00
CH46	5230	23.28	30.00	1.00

Test Mode: UNII-3/ TX N40 Mode_ANT 1						
Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Limit (dBm)	Limit (Watt)
CH151	5755	15.05	2.14	17.19	30.00	1.00
CH159	5795	14.83	2.14	16.97	30.00	1.00

Test Mode: UNII-3/ TX N40 Mode_ANT 2						
Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Limit (dBm)	Limit (Watt)
CH151	5755	15.53	2.14	17.67	30.00	1.00
CH159	5795	16.08	2.14	18.22	30.00	1.00

Test Mode: UNII-3/ TX N40 Mode_ANT 3						
Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Limit (dBm)	Limit (Watt)
CH151	5755	15.94	2.14	18.08	30.00	1.00
CH159	5795	16.09	2.14	18.23	30.00	1.00

Test Mode: UNII-3/ TX N40 Mode_ANT 4						
Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Limit (dBm)	Limit (Watt)
CH151	5755	16.24	2.14	18.38	30.00	1.00
CH159	5795	16.38	2.14	18.52	30.00	1.00

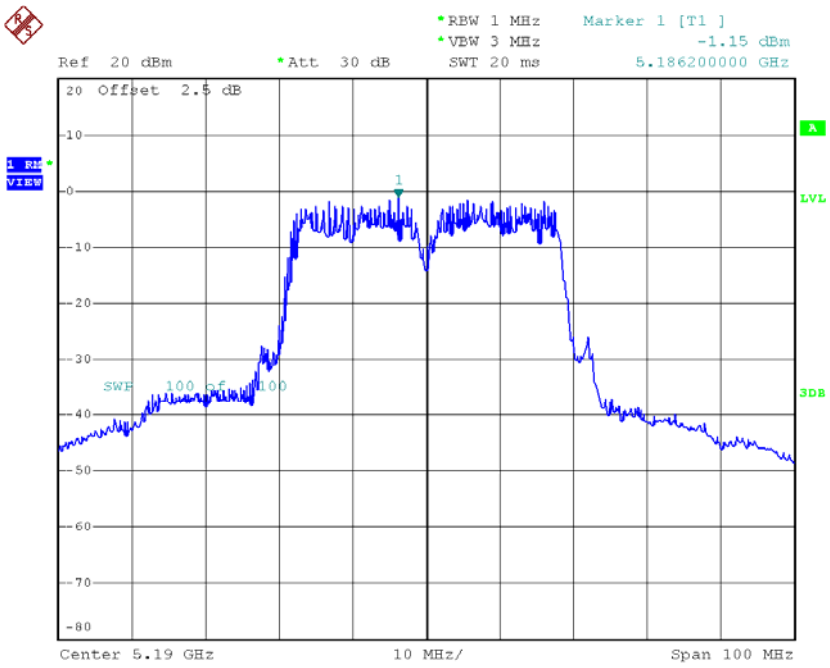
Test Mode: UNII-3/TX N40 Mode _Total				
Channel	Frequency (MHz)	Output Power (dBm)	Limit (dBm)	Limit (Watt)
CH151	5755	23.87	30.00	1.00
CH159	5795	24.04	30.00	1.00

APPENDIX G - POWER SPECTRAL DENSITY

Test Mode: UNII-1/TX N40 Mode_CH38/CH46_ANT 1

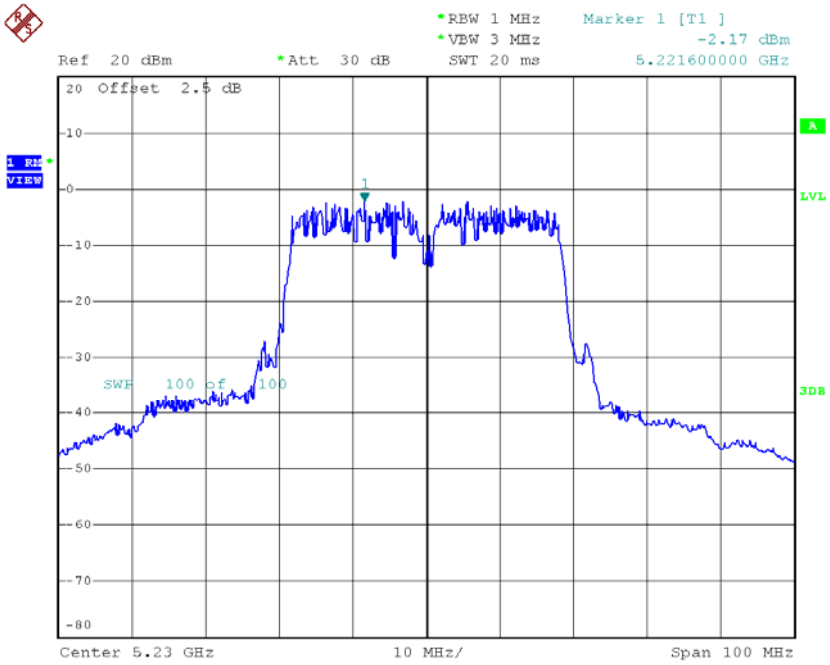
Channel	Frequency (MHz)	Power Density (dBm/MHz)	Duty Factor	Power Density + Duty Factor (dBm/MHz)	Limit (dBm/MHz)
CH38	5190	-1.15	2.14	0.99	17.00
CH46	5230	-2.17	2.14	-0.03	17.00

CH38



Date: 4.APR.2018 10:43:02

CH46

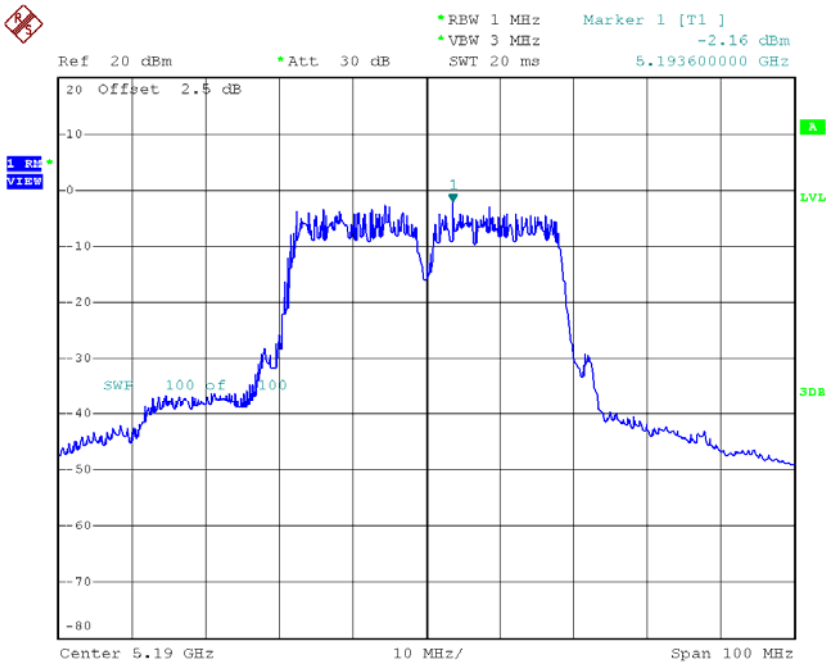


Date: 4.APR.2018 10:46:52

Test Mode: UNII-1/TX N40 Mode_CH38/CH46_ANT 2

Channel	Frequency (MHz)	Power Density (dBm/MHz)	Duty Factor	Power Density + Duty Factor (dBm/MHz)	Limit (dBm/MHz)
CH38	5190	-2.16	2.14	-0.02	17.00
CH46	5230	-2.56	2.14	-0.42	17.00

CH38



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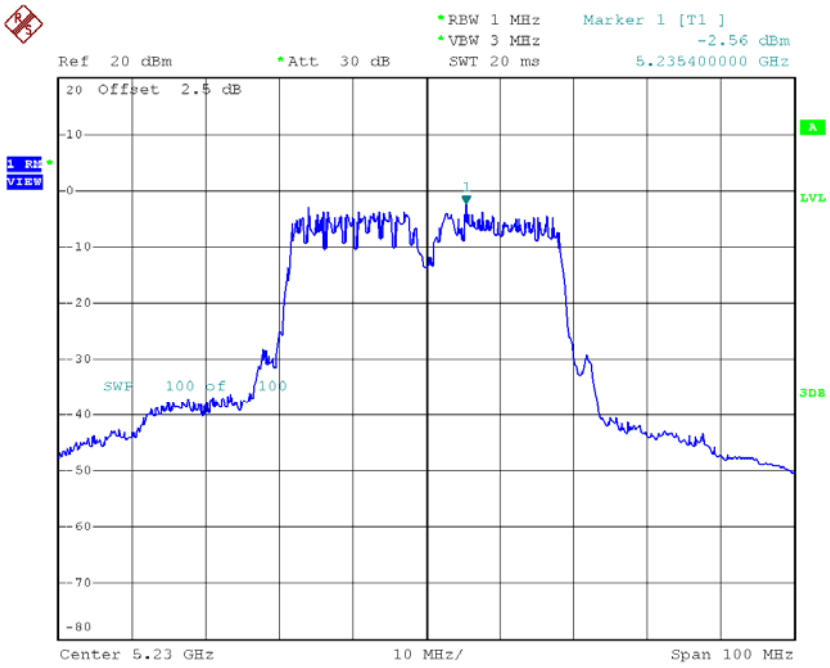
CH46

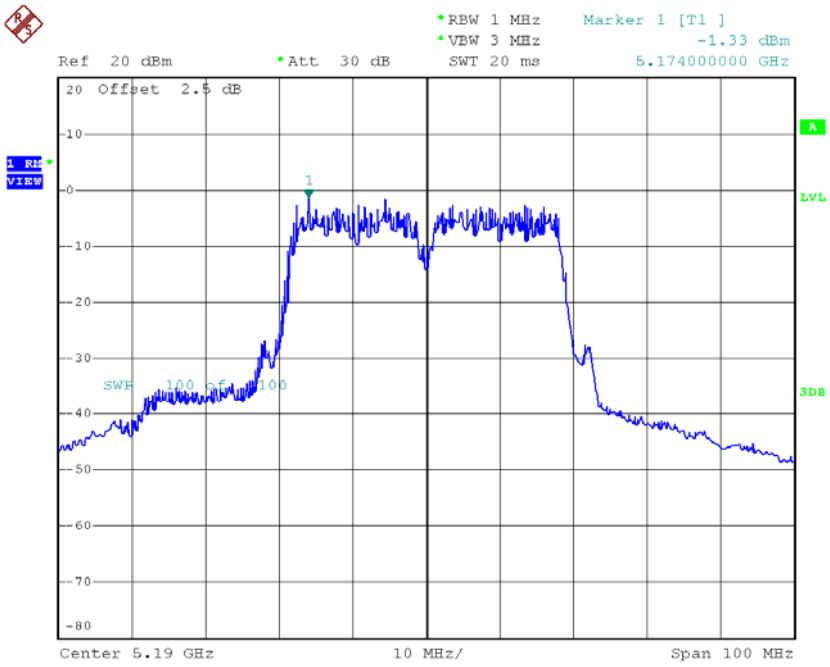


Date: 4.APR.2018 10:54:01

Test Mode: UNII-1/TX N40 Mode_CH38/CH46_ANT 3

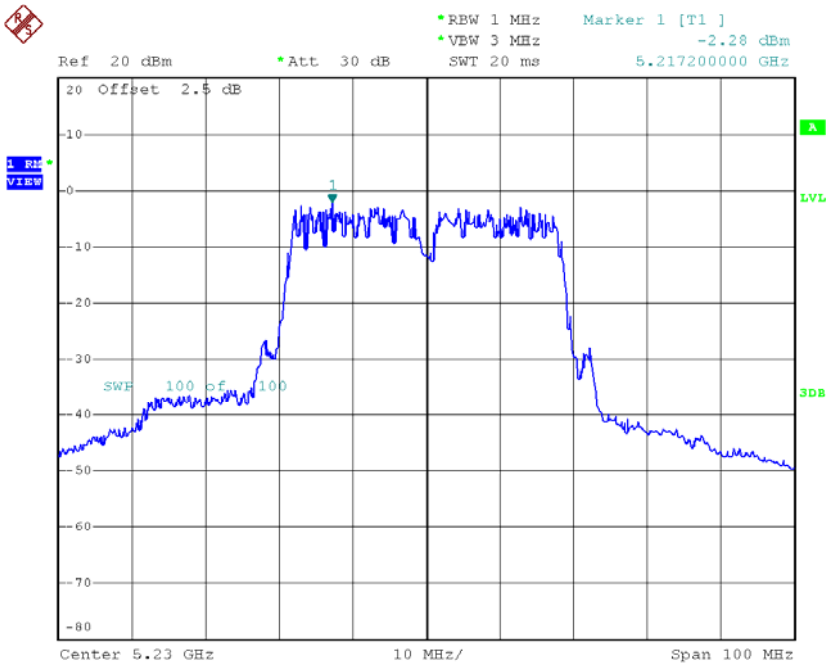
Channel	Frequency (MHz)	Power Density (dBm/MHz)	Duty Factor	Power Density + Duty Factor (dBm/MHz)	Limit (dBm/MHz)
CH38	5190	-1.33	2.14	0.81	17.00
CH46	5230	-2.28	2.14	-0.14	17.00

CH38



Date: 4.APR.2018 10:58:52

CH46

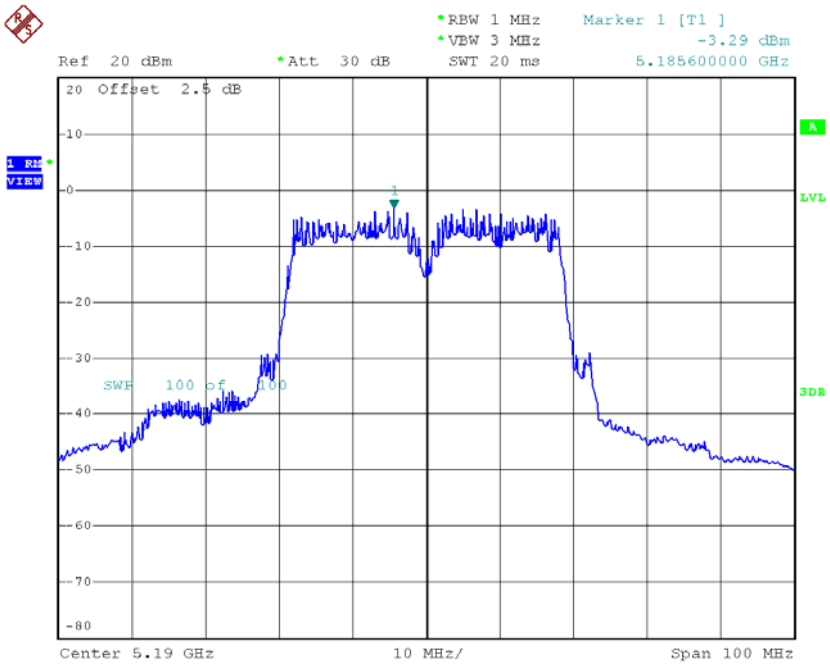


Date: 4.APR.2018 11:03:31

Test Mode: UNII-1/TX N40 Mode_CH38/CH46_ANT 4

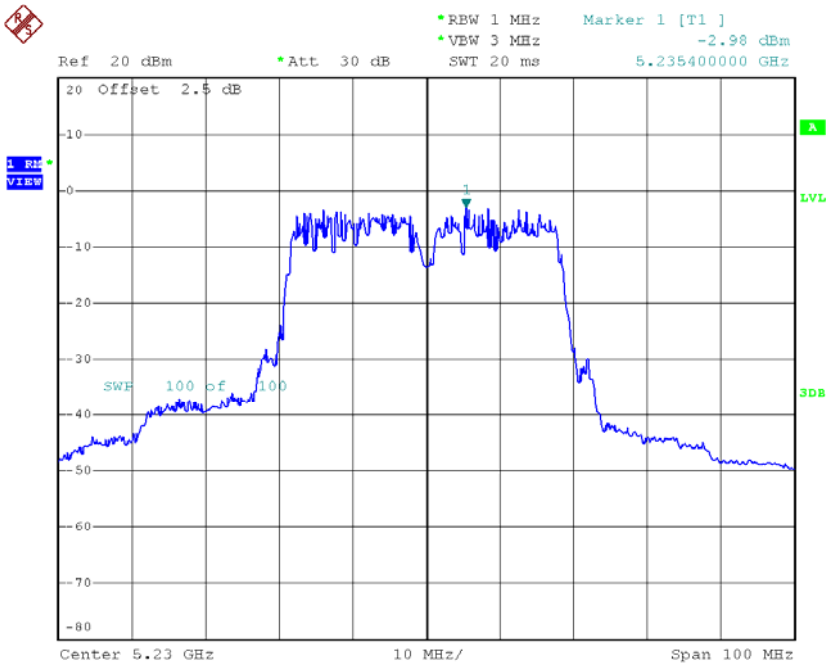
Channel	Frequency (MHz)	Power Density (dBm/MHz)	Duty Factor	Power Density + Duty Factor (dBm/MHz)	Limit (dBm/MHz)
CH38	5190	-3.29	2.14	-1.15	17.00
CH46	5230	-2.98	2.14	-0.84	17.00

CH38



Date: 4.APR.2018 11:09:41

CH46



Date: 4.APR.2018 11:10:55

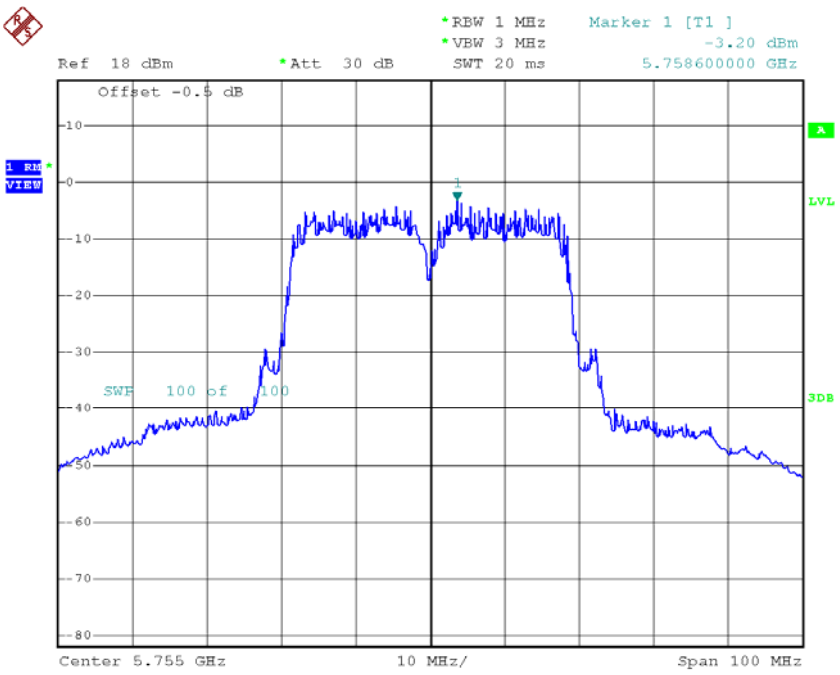
Test Mode: UNII-1/TX N40 Mode_CH38/CH46_Total			

Channel	Frequency (MHz)	Power Density (dBm/MHz)	Limit (dBm/MHz)
CH38	5190	6.26	17.00
CH46	5230	5.67	17.00

Test Mode: UNII-3/ TX N40 Mode_CH151/CH159_ANT 1

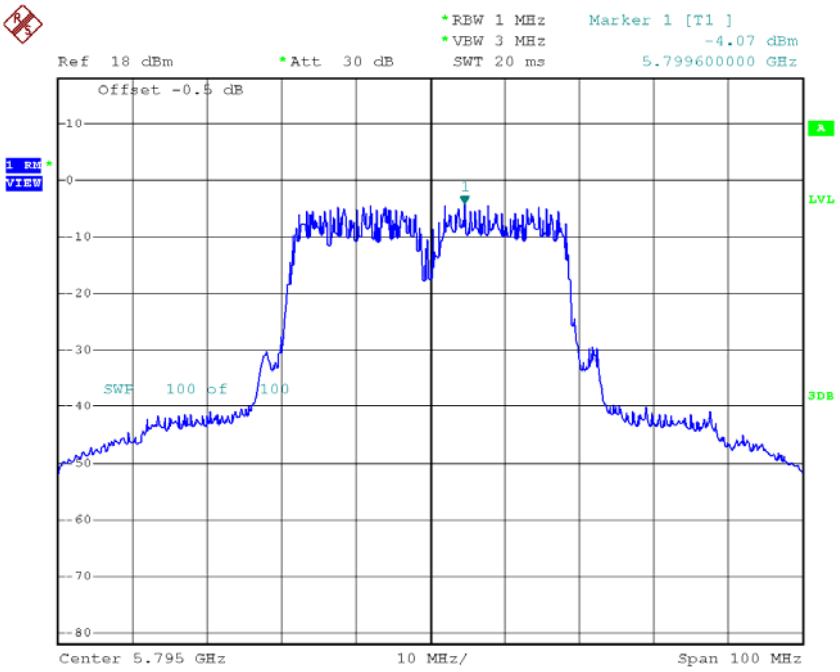
Channel	Frequency (MHz)	Power Density (dBm/500kHz)	Duty Factor	Power Density + Duty Factor (dBm/500kHz)	Limit (dBm/500kHz)
CH151	5755	-3.20	2.14	-1.06	30.00
CH159	5795	-4.07	2.14	-1.93	30.00

TX CH151



Date: 4.APR.2018 10:48:13

TX CH159

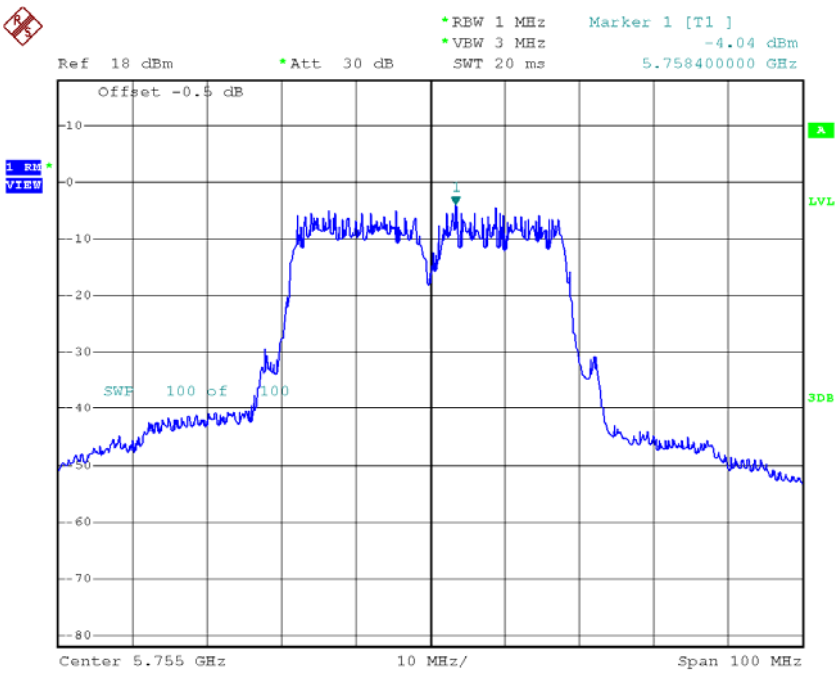


Date: 4.APR.2018 10:49:48

Test Mode: UNII-3/ TX N40 Mode_CH151/CH159_ANT 2

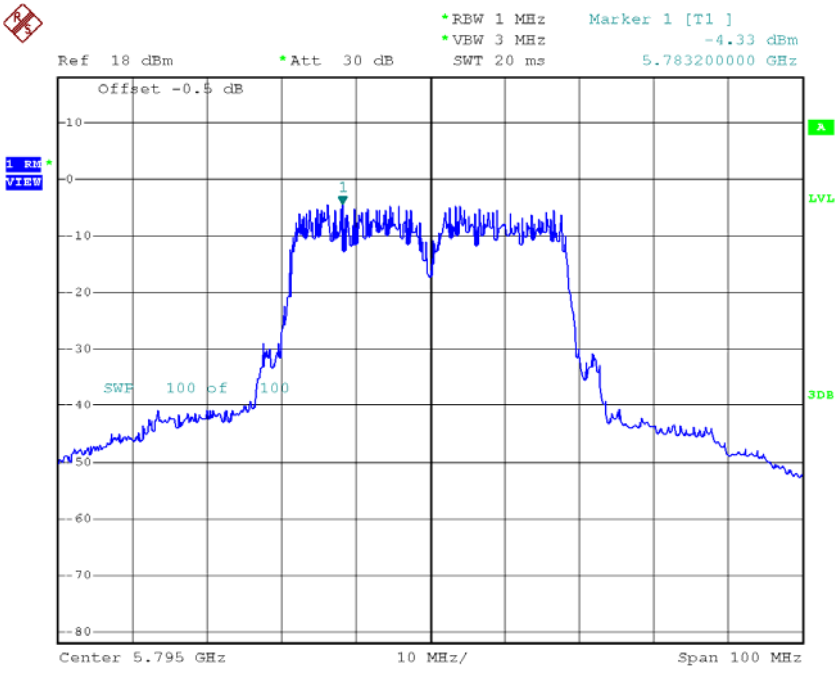
Channel	Frequency (MHz)	Power Density (dBm/500kHz)	Duty Factor	Power Density + Duty Factor (dBm/500kHz)	Limit (dBm/500kHz)
CH151	5755	-4.04	2.14	-1.90	30.00
CH159	5795	-4.33	2.14	-2.19	30.00

TX CH151



Date: 4.APR.2018 10:55:28

TX CH159

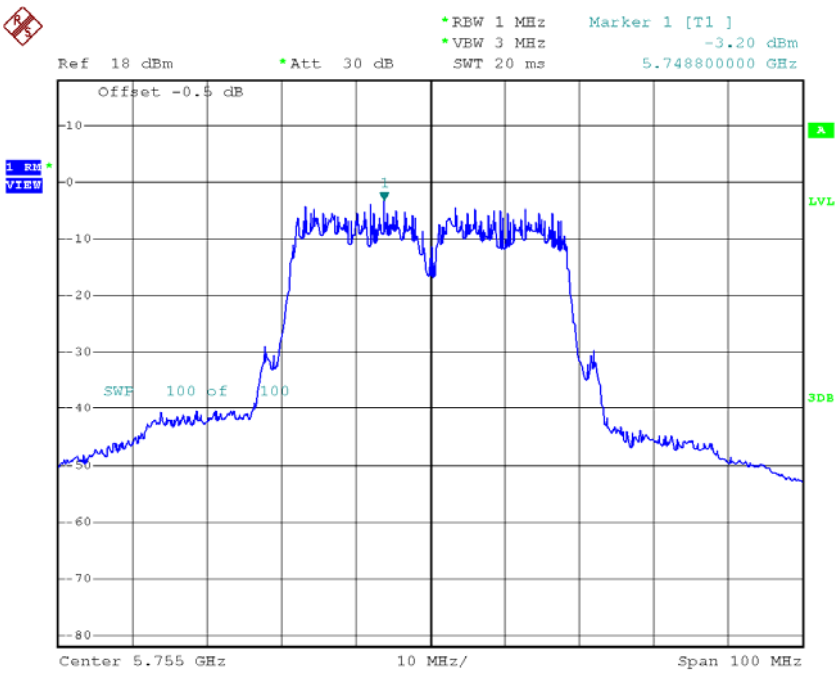


Date: 4.APR.2018 10:56:48

Test Mode: UNII-3/ TX N40 Mode_CH151/CH159_ANT 3

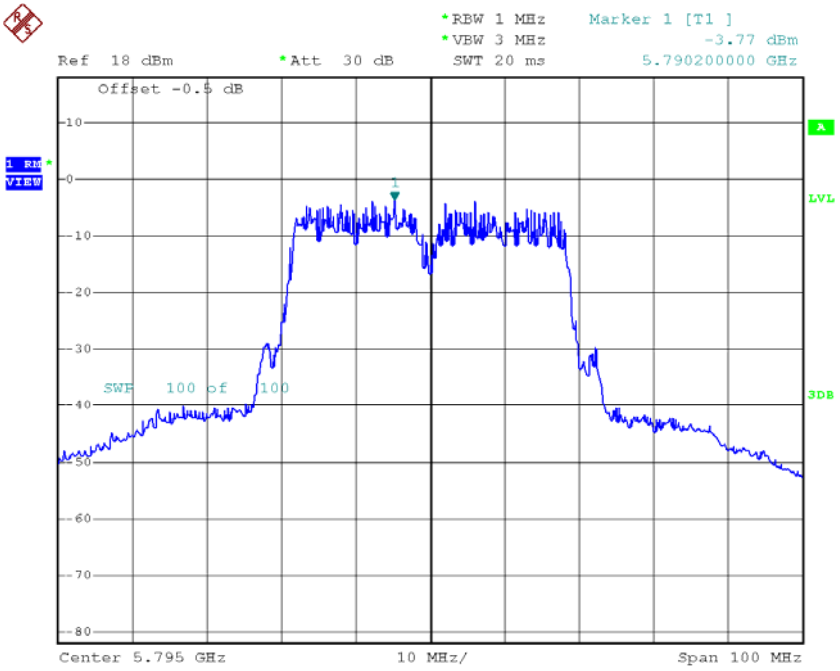
Channel	Frequency (MHz)	Power Density (dBm/500kHz)	Duty Factor	Power Density + Duty Factor (dBm/500kHz)	Limit (dBm/500kHz)
CH151	5755	-3.20	2.14	-1.06	30.00
CH159	5795	-3.77	2.14	-1.63	30.00

TX CH151



Date: 4.APR.2018 11:04:45

TX CH159

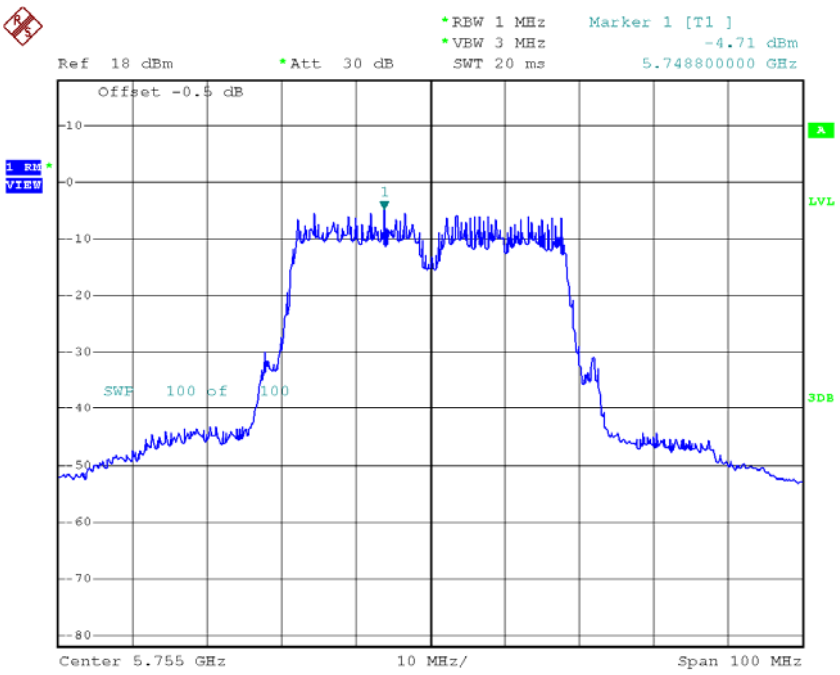


Date: 4.APR.2018 11:05:52

Test Mode: UNII-3/ TX N40 Mode_CH151/CH159_ANT 4

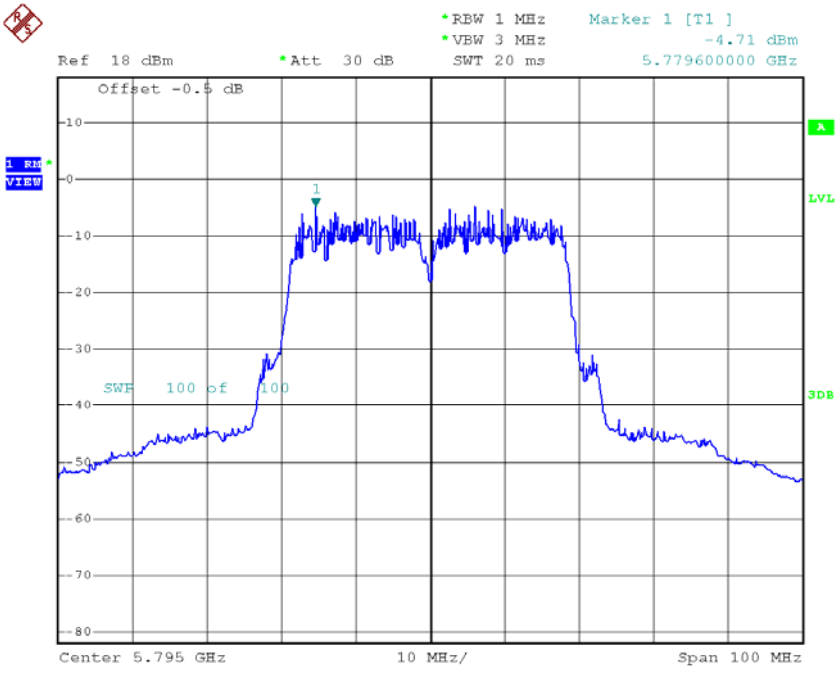
Channel	Frequency (MHz)	Power Density (dBm/500kHz)	Duty Factor	Power Density + Duty Factor (dBm/500kHz)	Limit (dBm/500kHz)
CH151	5755	-4.71	2.14	-2.57	30.00
CH159	5795	-4.71	2.14	-2.57	30.00

TX CH151



Date: 4.APR.2018 11:12:05

TX CH159



Date: 4.APR.2018 11:13:20

Test Mode: UNII-3/ TX N40 Mode_CH151/CH159_Total

Channel	Frequency (MHz)	Power Density (dBm/500kHz)	Limit (dBm/500kHz)
CH151	5755	4.42	30.00
CH159	5795	3.95	30.00

APPENDIX H - FREQUENCY STABILITY

Test Mode:	UNII-1

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)
(V)	5190.0000
132	5190.0098
120	5190.0000
108	5189.9997
Max. Deviation (MHz)	0.0098
Max. Deviation (ppm)	1.8882

Temperature vs. Frequency Stability

Voltage	Measurement Frequency (MHz)
(℃)	5190.0000
-5	5189.9999
5	5190.0090
15	5190.0093
25	5190.0095
35	5190.0097
45	5190.0094
50	5190.0092
Max. Deviation (MHz)	0.0097
Max. Deviation (ppm)	1.8690

Test Mode:	UNII-3

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)
(V)	5755.0000
138	5754.9700
120	5754.9600
108	5754.9800
Max. Deviation (MHz)	0.0400
Max. Deviation (ppm)	6.9505

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)
(℃)	5755.0000
-5	5754.9600
5	5754.9700
15	5754.9800
25	5754.9500
35	5754.9400
45	5754.9600
50	5754.9700
Max. Deviation (MHz)	0.0600
Max. Deviation (ppm)	10.4257