

	FCC ID: YZKECW100
This report conce	erns (check one): ⊠Original Grant
Project No. Equipment Test Model Series Model Applicant Address	 1807T018 In-Wall Access Point ECW100 N/A Edgecore Networks Corporation No.1 Creation Rd. III, Hsinchu Science Park, Hsinchu 30077, Taiwan, R.O.C.
Date of Receipt Date of Test Issued Date Tested by	
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Declaration

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

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 is not responsible for the sampling stage, so the results only apply to the sample as received.

The information, data and test plan are provided by manufacturer, so it is manufacturer's responsibility to ensure that the apparatus meets the essential requirements in all the possible configurations as representative of its intended use.

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-2-1609061	Original Report.	Dec. 14, 2016
BTL-FCCP-2-1807T018	Compared with the previous report (BTL-FCCP-2-1609061), product, brand, model name and applicant information are changed.	Jul. 12, 2018



1. CERTIFICATION

Equipment :	In-Wall Access Point
Brand Name :	Edgecore
Test Model :	ECW100
Series Model :	N/A
Applicant :	Edgecore Networks Corporation
Manufacturer :	Edgecore Networks Corporation
Address :	No.1 Creation Rd. III, Hsinchu Science Park, Hsinchu 30077, Taiwan, R.O.C.
Date of Test :	Sep. 20, 2016 ~ Nov. 10, 2016
Test Sample :	Engineering Sample
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-2-1807T018) 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			
Standard(s) Section	Test Item	Judgment	Remark
15.207	AC Power Line Conducted Emissions	PASS	
15.407(a)	26dB Spectrum Bandwidth	PASS	
15.407(e)	6dB 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:

Conducted emission Test:

C05: (VCCI RN: C-14742; FCC RN:674415; FCC DN:TW0659) No. 68-1, Ln. 169, Sec. 2, Datong Rd., Xizhi Dist., New Taipei City 221, Taiwan (R.O.C.)

Radiated emission Test (Below 1 GHz):

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

Radiated emission Test (Above 1 GHz):

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

2.2 MEASUREMENT UNCERTAINTY

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

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

A. Conducted emission test:

Test Site	Method	Measurement Frequency Range	U,(dB)
C05	CISPR	150 kHz ~ 30MHz	3.06

B. Radiated emission test:

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

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

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

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



Our calculated Measurement Instrumentation Uncertainty is shown in the tables above. These are our U_{lab} values in CISPR 16-4-2 terminology.

Since Table 1 of CISPR 16-4-2 has values of measurement instrumentation uncertainty, called U_{CISPR}, as follows:

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

It can be seen that our U_{lab} values are smaller than U_{CISPR} .

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



3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

Equipment	In-Wall Access Point			
Brand Name	Edgecore	Edgecore		
Test Model	ECW100			
Series Model	N/A			
Model Difference	N/A			
EUT Power Rating	I/P: DC 48V via PoE.			
	Operation Frequency	UNII-1: 5150-5250MHz UNII-3: 5725-5850MHz		
Product Description	Modulation Type	OFDM		
	Bit Rate of Transmitter	866Mbps		
Output Dower	Output Power (Max.)for UNII-1	802.11A: 15.41 dBm 802.11N (20M): 15.54 dBm 802.11N (40M): 16.21 dBm 802.11AC (VHT80MHz): 13.61 dBm		
Output Power	Output Power (Max.)for UNII-3	802.11A: 15.75 dBm 802.11N (20M): 15.47 dBm 802.11N (40M): 16.00 dBm 802.11AC (VHT80MHz): 14.42 dBm		

Note:

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

802.11a 802.11n 20MHz 802.11ac 20MHz		802.11n 40MHz 802.11ac 40MHz		802.11ac 80MHz	
UNI	I-1	UNII-1		UNII-1	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	38	5190	42	5210
40	5200	46	5230		
44	5220				
48	5240				

802.11a 802.11n 20MHz 802.11ac 20MHz		802.11n 40MHz 802.11ac 40MHz		802.11ac 80MHz	
UNI	I-3	UNII-3		UNII-3	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
149	5745	151	5755	155	5775
153	5765	159	5795		
157	5785				
161	5805				
165	5825				



3. Antenna Specification:

Ant. Manufacturer			Antenna Type		Gain (dBi)	
		Model Name		Connector	5150-5250 MHz	5725-5850 MHz
1	N/A	N/A	PIFA	IPEX	2.80	3.21
2	N/A	N/A	PIFA	IPEX	2.46	2.27

Note:

BIL

(1) The EUT incorporates a MIMO function. Physically, the EUT provides two completed two transmitters and two receivers (2T2R).

(2) Directional gain = 10 log(((10^(Ant 1/20)+10^(Ant 2/20))^2)/2) 5150-5250MHz: Directional gain = 5.64 dBi. Reduced value = 0 dB. (5.64 dBi < 6 dBi) 5725-5850MHz: Directional gain = 5.76 dBi. Reduced value = 0 dB. (5.76 dBi < 6 dBi)

4.

Operating Mode TX Mode	2TX
802.11A	V (ANT 1+ANT 2)
802.11N (20MHz)	V (ANT 1+ANT 2)
802.11N (40MHz)	V (ANT 1+ANT 2)
802.11AC (VHT80MHz)	V (ANT 1+ANT 2)



3.2 DESCRIPTION OF TEST MODES

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

Pretest Mode	Description
Mode 1	TX A Mode / CH36, CH40, CH48 (UNII-1)
Mode 2	TX N20 Mode / CH36, CH40, CH48 (UNII-1)
Mode 3	TX N40 Mode / CH38, CH46 (UNII-1)
Mode 4	TX AC(VHT80) Mode / CH42 (UNII-1)
Mode 5	TX A Mode / CH149,CH157,CH165 (UNII-3)
Mode 6	TX N20 Mode / CH149,CH157,CH165 (UNII-3)
Mode 7	TX N40 Mode / CH151,CH159 (UNII-3)
Mode 8	TX AC(VHT80) Mode / CH155 (UNII-3)
Mode 9	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 9	TX Mode			

For Radiated Test				
Final Test Mode	Description			
Mode 1	TX A Mode / CH36, CH40, CH48 (UNII-1)			
Mode 2	TX N20 Mode / CH36, CH40, CH48 (UNII-1)			
Mode 3	TX N40 Mode / CH38, CH46 (UNII-1)			
Mode 4	TX AC(VHT80) Mode / CH42 (UNII-1)			
Mode 5	TX A Mode / CH149,CH157,CH165 (UNII-3)			
Mode 6	TX N20 Mode / CH149,CH157,CH165 (UNII-3)			
Mode 7	TX N40 Mode / CH151,CH159 (UNII-3)			
Mode 8	TX AC(VHT80) Mode / CH155 (UNII-3)			

Note:

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



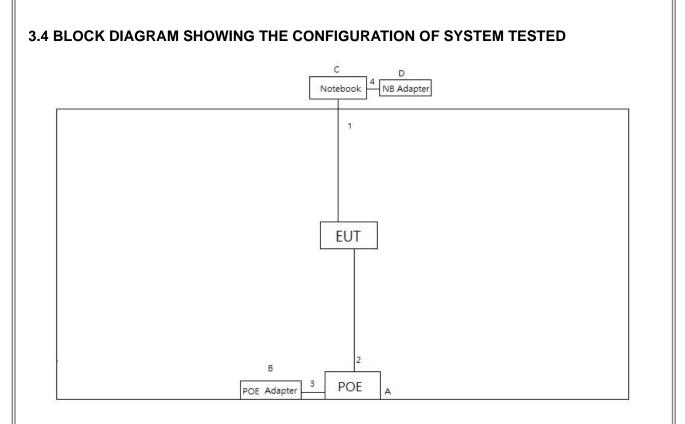
3.3 TABLE OF PARAMETERS OF TEST SOFTWARE SETTING

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		QA Tool					
Frequency (MHz)	5180 5200 5240						
A Mode	19	19	19				
N20 Mode	19	19	19				
Frequency (MHz)	5190	5230					
N40 Mode	19	19					
Frequency (MHz)	5210						
AC(VHT80) Mode	15						

UNII-3							
Test Software Version		QA Tool					
Frequency (MHz)	5745	5785	5825				
A Mode	19	19	19				
N20 Mode	19	19	19				
Frequency (MHz)	5755	5795					
N40 Mode	19	19					
Frequency (MHz)	5775						
AC(VHT80) Mode	19						





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.
А	POE	N/A	N/A	N/A	N/A
В	POE Adapter	DVE	DSA-48PFA-480204801 00	N/A	N/A
С	Notebook PC	acer	MS2392	DOC	X450JN-0023D 4200H
D	AC Adapter	acer	PA-1450-26	DOC	N/A

Item	Shielded Type	Ferrite Core	Length	Note
1	NO	NO	5.0m	RJ45
2	NO	NO	5.0m	RJ45
3	NO	NO	1.5m	Power Cable
4	NO	NO	1.0m	Power Cable



4. EMC EMISSION TEST

4.1 CONDUCTED EMISSION MEASUREMENT

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

	Class A	(dBuV)	Class B (dBuV)	
FREQUENCY (MHz)	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

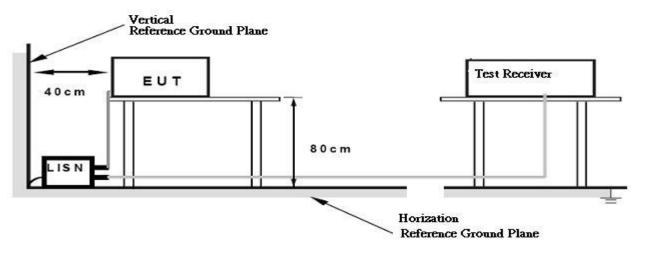
- a. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- 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: 55% 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

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	Field Strength	Measurement Distance
(MHz)	(micorvolts/meter)	(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.

(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(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: $E = \frac{1000000\sqrt{30P}}{1000000\sqrt{30P}}$

 μ V/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 the band 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 or below 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

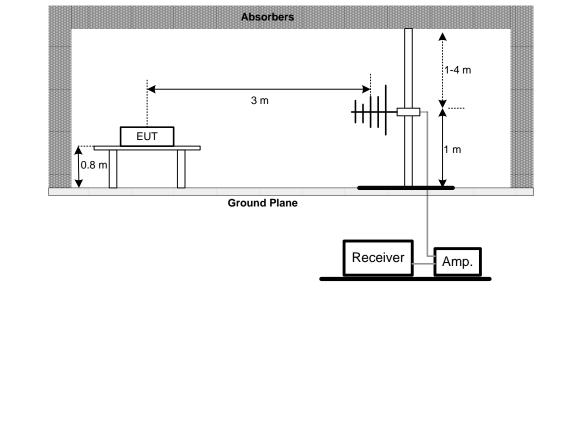
- a. The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(below 1GHz)
- b. The measuring distance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

4.2.3 DEVIATION FROM TEST STANDARD

No deviation

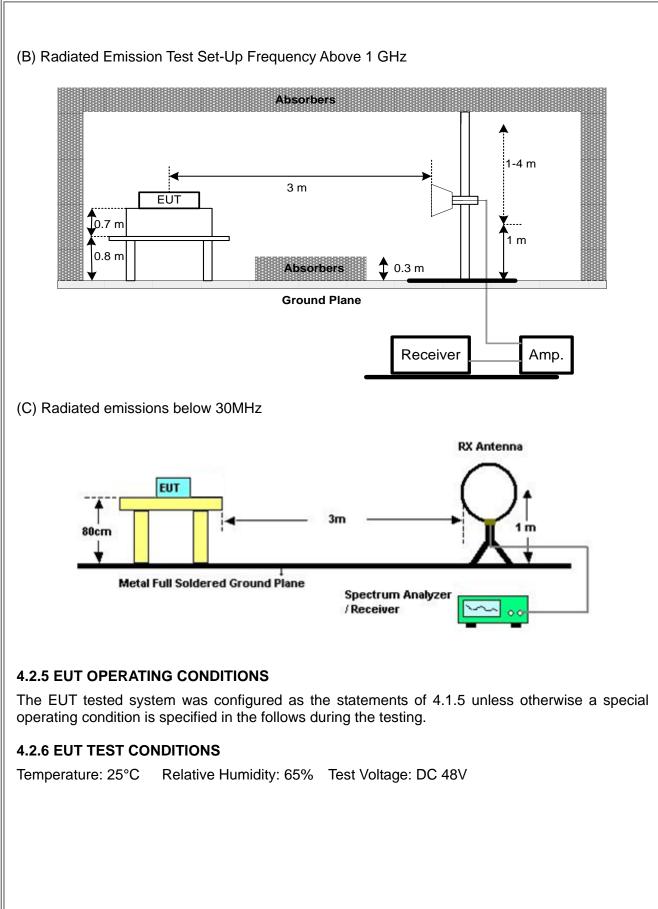
4.2.4 TEST SETUP

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











4.2.7 TEST RESULTS (9K 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 (BETWEEN 30 TO 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 Mode with 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 $\,{}^{\mathbb{F}}$ Note $_{\mathbb{J}}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform $_{\circ}$
- (3) Measuring frequency range from 30MHz to 1000MHz \circ
- (4) If the peak scan value lower limit more than 20dB, then this signal data does not show in table ${\scriptstyle \circ}$

4.2.9 TEST RESULTS (ABOVE 1000 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 \circ
- (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			
Test Item Limit Frequency Range Result		Result	
	26 dB Bandwidth	5150-5250	PASS
Bandwidth	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
	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: 25°C Relative Humidity: 55% Test Voltage: DC 48V

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			
Test Item	Limit	Frequency Range (MHz)	Result
	Fixed:1 Watt (30dBm)		
Conducted Output	Mobile and portable:	5150-5250	PASS
Power	250mW (24dBm)		
1 Watt (30dBm) 5725-5850 PASS		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) of the 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

EUT	Power Meter

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: DC 48V

6.1.6 TEST RESULTS

Please refer to the Attachment F.



7. POWER SPECTRAL DENSITY TEST

7.1 APPLIED PROCEDURES / LIMIT

FCC Part15, Subpart E			
Test Item	m Limit		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
	Soon Fraguenov	Encompass the entire emissions bandwidth (EBW) of the
	Span Frequency	signal
RBW = 1MHz.		= 1MHz.
	VBW	≥ 3MHz.
Detector RMS		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 v02r01, 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.
- 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

EUT	SPECTRUM
	ANALYZER

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: DC 48V

7.1.5 TEST RESULTS Please refer to the Attachment G.



8. FREQUENCY STABILITY MEASUREMENT

8.1 APPLIED PROCEDURES / LIMIT

FCC Part15, Subpart E			
Test Item Limit Frequency Rang (MHz)		Frequency Range (MHz)	Result
England and Otab ility	Specified in the		PASS
Frequency Stability user's manual		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 0°C~40°C.

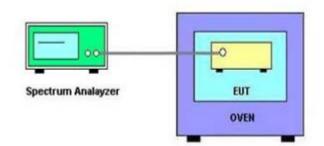
8.1.2 DEVIATION FROM STANDARD

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: DC 48V

8.1.6 TEST RESULTS Please refer to the Attachment H.



9. MEASUREMENT INSTRUMENTS LIST

	Conducted Emission Measurement								
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until				
1	TWO-LINE V-NETWORK	R&S	ENV216	101050	Jan. 26, 2017				
2	Test Cable	TIMES	CFD300-NL	C02	Jun. 15, 2017				
3	EMI Test Receiver	R&S	ESR7	101433	Dec. 10, 2016				
4	Measurement Software	EZ	EZ_EMC (Version NB-03A)	N/A	N/A				

	Radiated Emission Measurement								
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until				
1	Trilog-Broadband Antenna	Schwarzbeck	VULB9168-352	9168-352	Feb. 04, 2017				
2	Horn Antenna	Schwarzbeck	BBHA 9120	D-546	Nov. 05, 2017				
3	Pre-Amplifier	HP	8447D	2944A08891	Mar. 09 2017				
4	Pre-Amplifier	Agilent	8449B	3008A02331	Jan. 24, 2017				
5	Test Cable	EMCI	EMC8D-NM-NM -8000	150301	Mar. 09, 2017				
6	Test Cable	EMCI	EMC104-SM-S M-2500	150303	Mar. 09, 2017				
7	Test Cable	EMCI	EMC104-NM-S M-1000	150304	Mar. 09, 2017				
8	Test Cable	EMCI	EMC104-SM-S M-5000	150302	Mar. 29, 2017				
9	Test Cable	EMCI	EMC104-SM-S M-800	150305	Mar. 29, 2017				
10	EXA Spectrum Analyzer	Agilent	N9010A	MY5222099 0	Feb. 24, 2017				
11	EMI Test Receiver	Agilent	N9038A	MY5121021 5	Jan. 08, 2017				
12	Loop Antenna	EMCO	6502	00042960	Nov. 05. 2017				
13	Horn Antenna	Schwarzbeck	BBHA-9170	187	May 12, 2017				



Spectrum Bandwidth Measurement								
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until			
1	Spectrum Analyzer	R&S	FSP-40	100129	Jan. 18, 2017			

	Maximum Conducted Output Power Measurement							
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until			
1	Power Meter	Anritsu	ML2487A	6K00004714	May 18, 2017			
2	Power Meter Sensor	Anritsu	MA2491A	034138	May 17, 2017			

Power Spectral Density Measurement								
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until			
1	Spectrum Analyzer	R&S	FSP-40	100129	Jan. 18, 2017			

Frequency Stability Measurement								
tem	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until			
1	Spectrum Analyzer	R&S	FSP-40	100129	Jan. 18, 2017			
2	Thermal Chamber	HOLINK	CHOLINK/H- T-1F-D	BA03101701	Jun. 07, 2017			

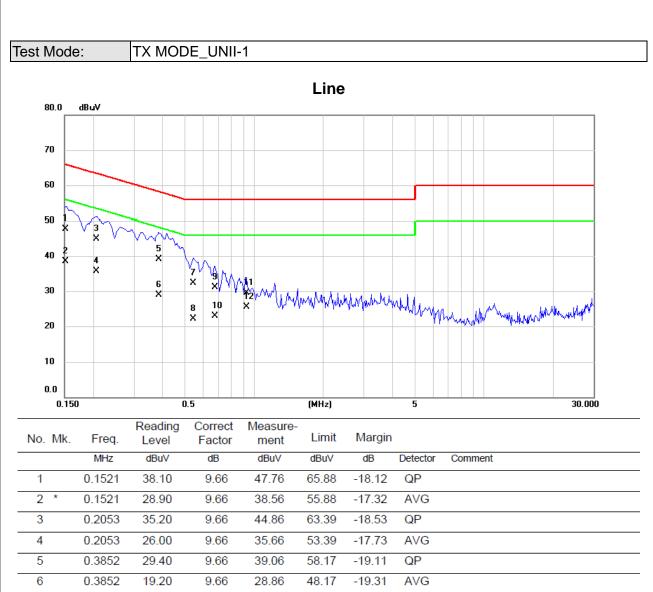
Remark: "N/A" denotes no model name, serial no. or calibration specified. All calibration period of equipment list is one year.



ATTACHMENT A - CONDUCTED EMISSION

_





0	0.0002	13.20	3.00	20.00	40.17	-13.51	AVO	
7	0.5450	22.60	9.67	32.27	56.00	-23.73	QP	
8	0.5450	12.40	9.67	22.07	46.00	-23.93	AVG	
9	0.6800	21.40	9.67	31.07	56.00	-24.93	QP	
10	0.6800	13.30	9.67	22.97	46.00	-23.03	AVG	
11	0.9230	19.80	9.67	29.47	56.00	-26.53	QP	
12	0.9230	15.90	9.67	25.57	46.00	-20.43	AVG	

Note : The test result has included the cable loss.

4

5

6

7

8

9

10

11

12

0.2074

0.4188

0.4188

0.6170

0.6170

0.8510

0.8510

1.2380

1.2380

25.90

29.70

21.30

23.70

15.60

17.40

10.20

18.40

16.80

9.66

9.66

9,66

9.67

9.67

9.68

9.68

9.69

9.69

35.56

39.36

30.96

33.37

25.27

27.08

19.88

28.09

26.49

53.31

57.47

47.47

56.00

46.00

56.00

46.00

56.00

46.00

-17.75

-18.11

-16.51

-22.63

-20.73

-28.92

-26.12

-27.91

-19.51

AVG

QP

AVG QP

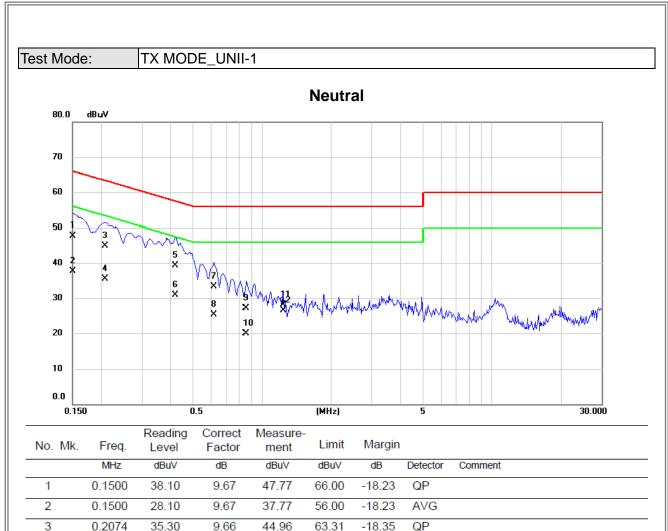
AVG

QP

AVG QP

AVG





Note : The test result has in	ncluded the cable loss.

4

5

6

7

8

9

10

11

12

0.2040

0.3865

0.3865

0.9230

0.9230

4.3430

4.3430

8.6500

8.6500

26.70

30.60

20.90

24.20

21.40

19.90

17.10

18.30

17.70

9.66

9.66

9.66

9.67

9.67

9.80

9.80

9.82

9.82

36.36

40.26

30.56

33.87

31.07

29.70

26.90

28.12

27.52

53.45

58.14

48.14

56.00

46.00

56.00

46.00

60.00

50.00

-17.09

-17.88

-17.58

-22.13

-14.93

-26.30

-19.10

-31.88

-22.48

AVG

QP

AVG QP

AVG

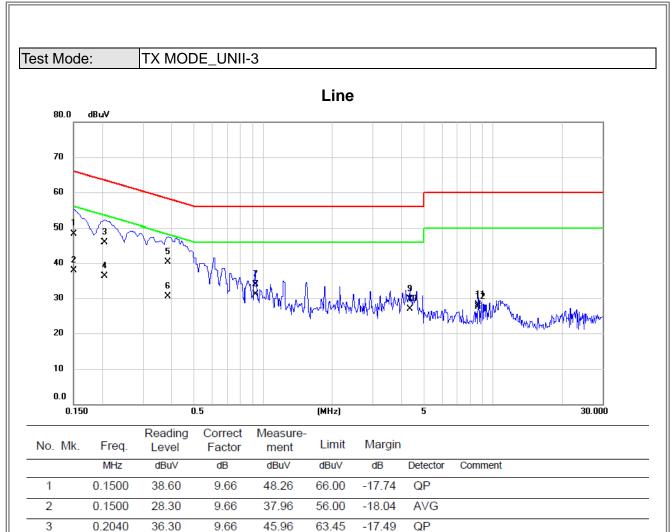
AVG

QP

AVG

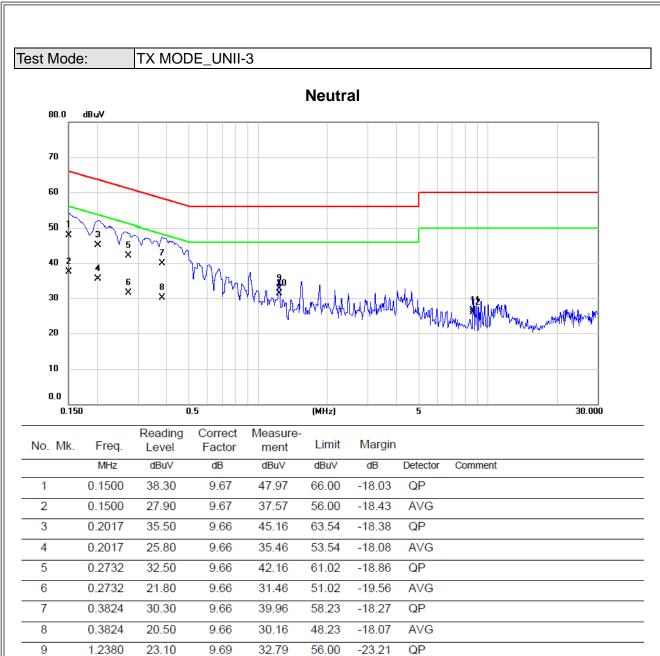
QP





Note: The test result has included the cable loss.	





Note : The test result has included the cable loss.

9.69

9.83

9.83

31.39

26.43

25.93

46.00

60.00

50.00

-14.61

-33.57

-24.07

AVG

QP

AVG

21.70

16.60

16.10

10

11

12

1.2380

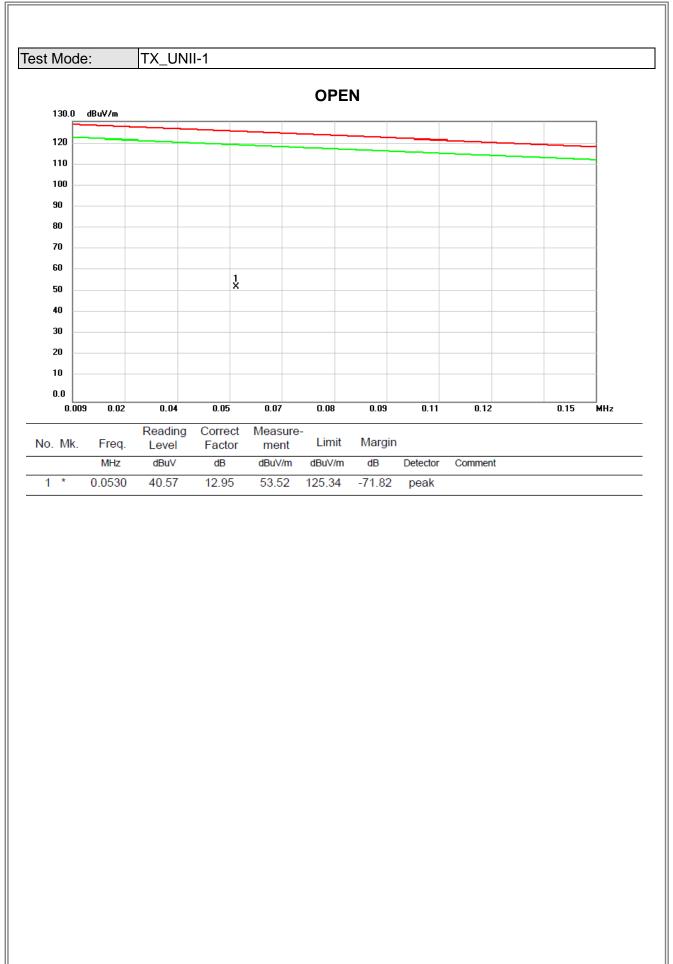
8.6500

8.6500



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





BTL



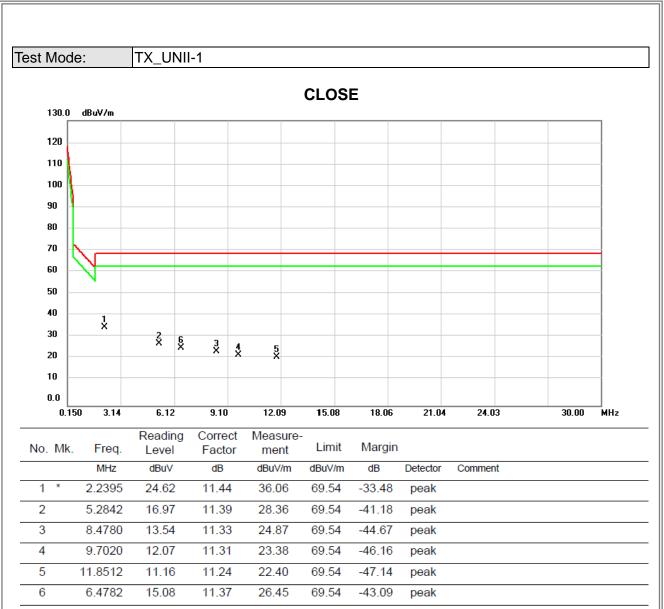




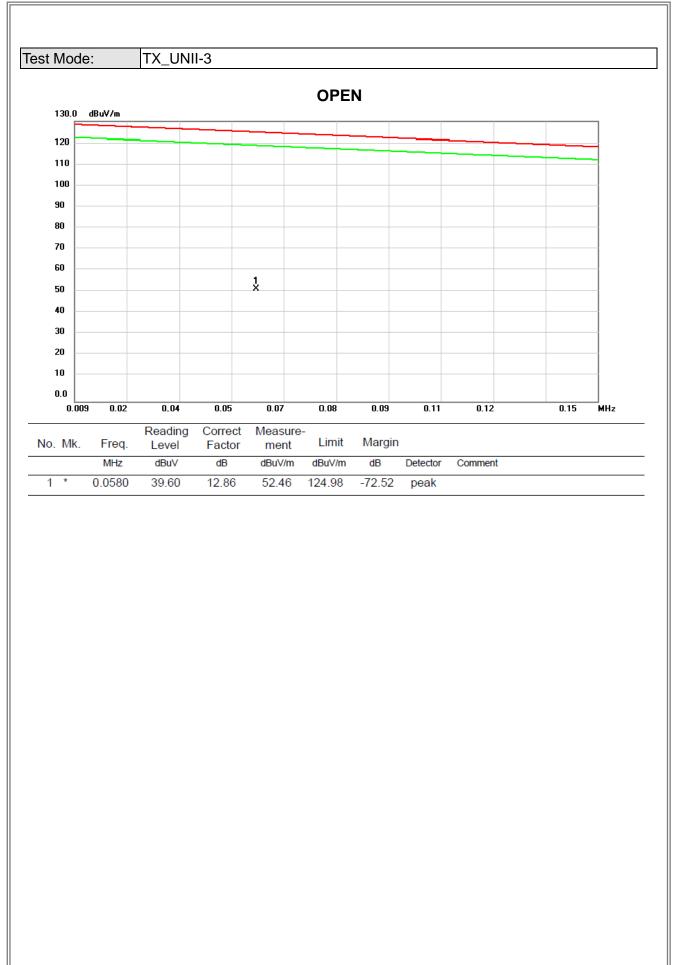


3TL









ЗĨL









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

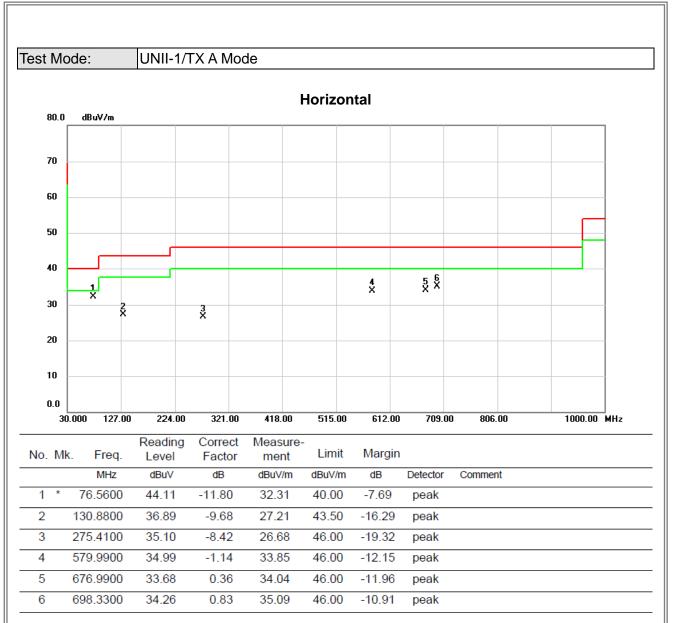






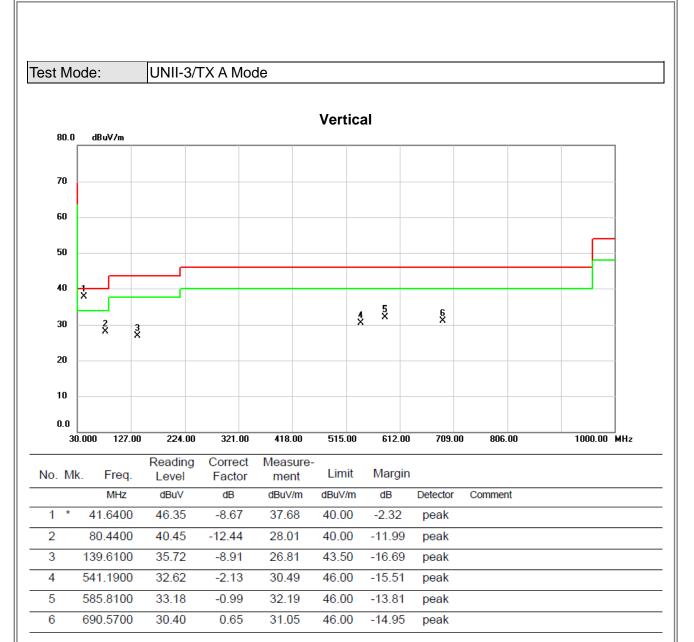
BTL











BTL



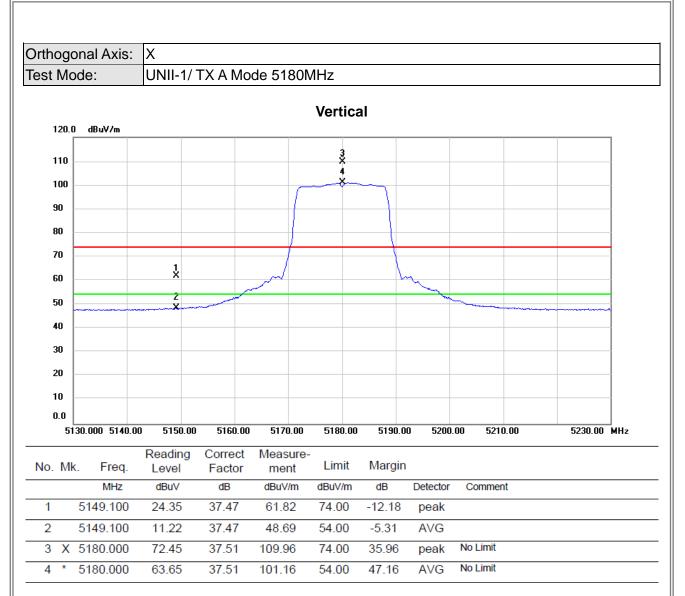




ATTACHMENT D - RADIATED EMISSION (ABOVE 1000MHZ)

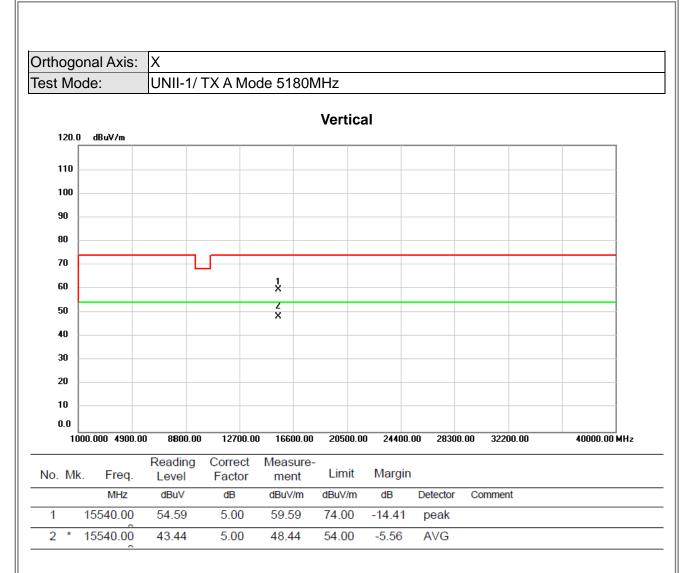






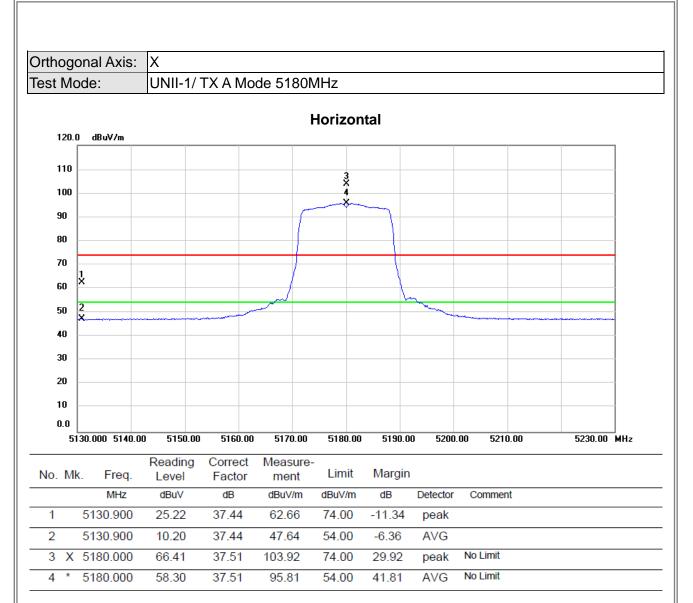






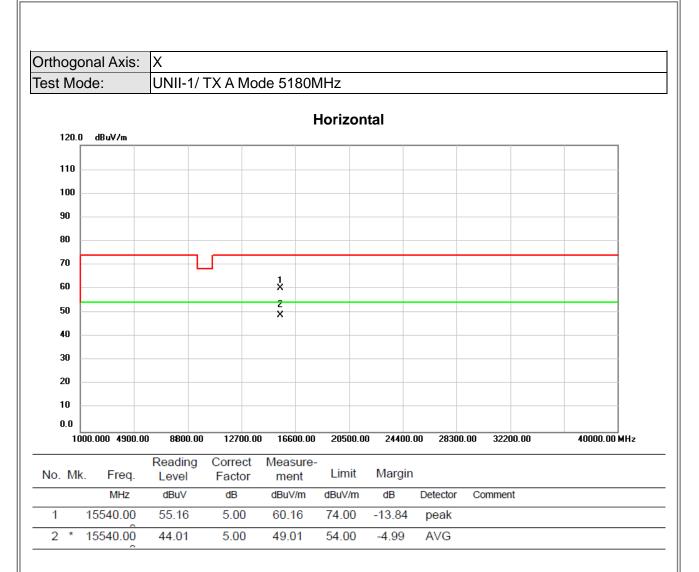






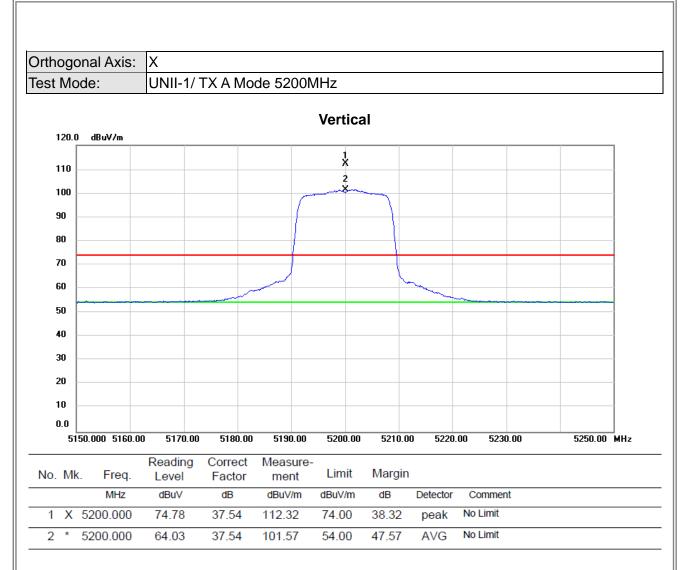






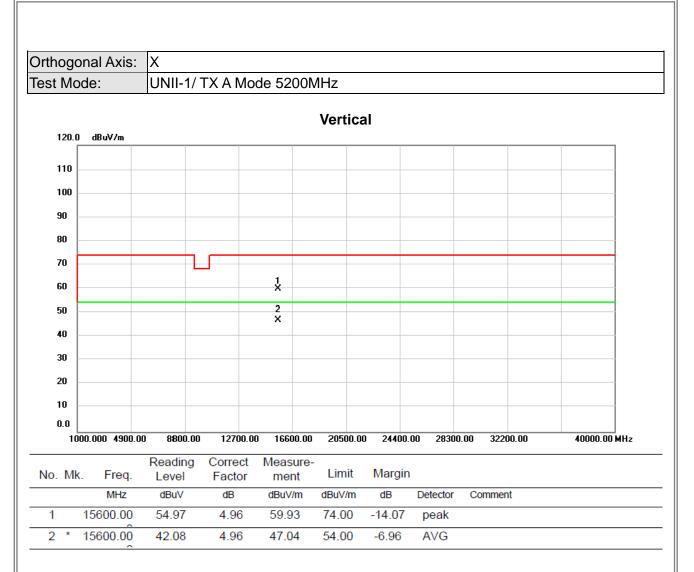






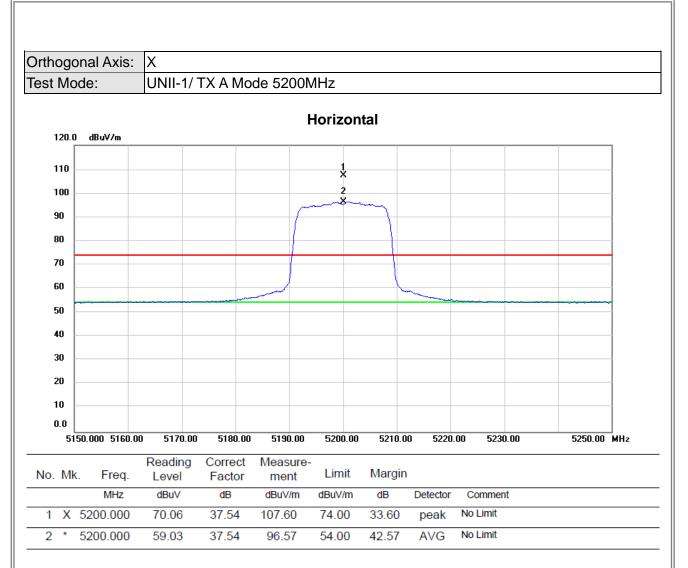












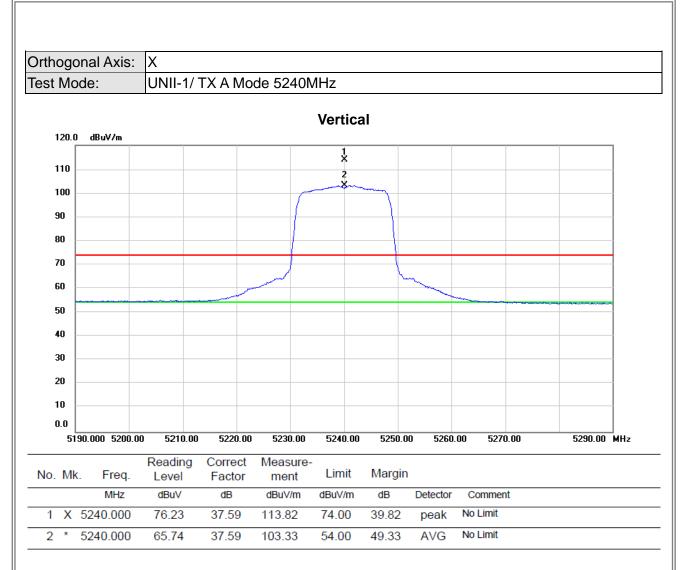






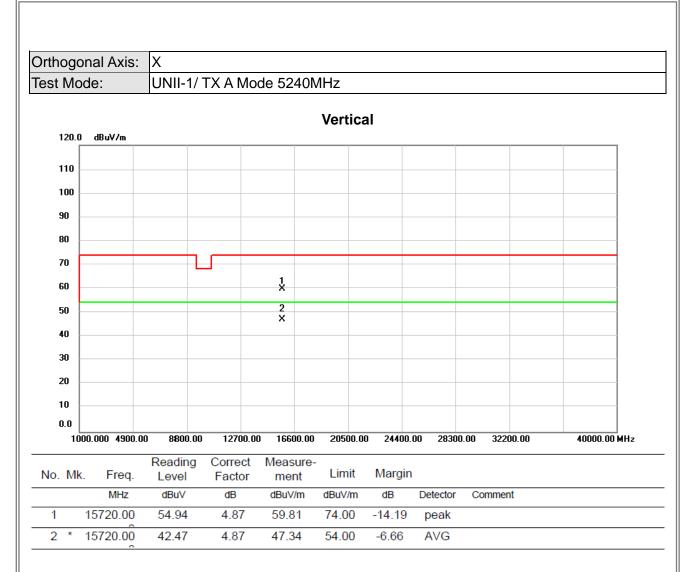






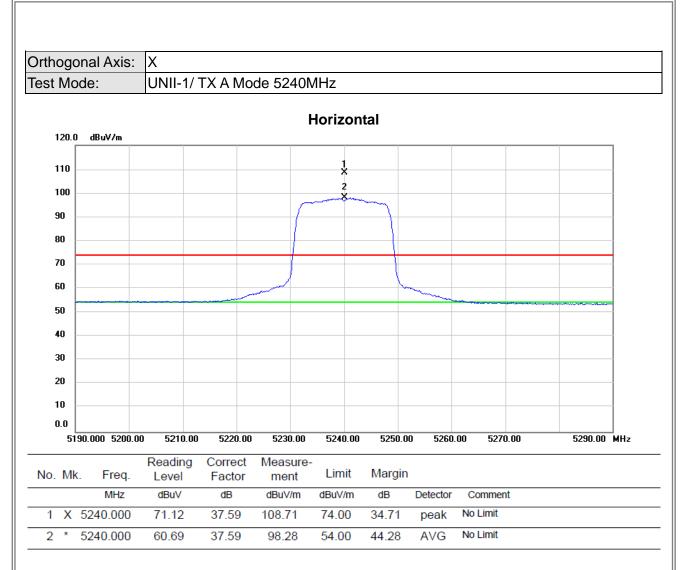












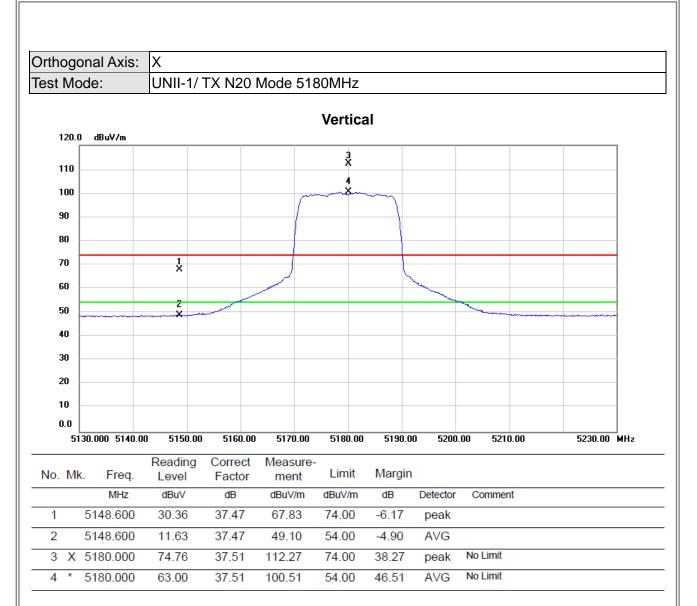






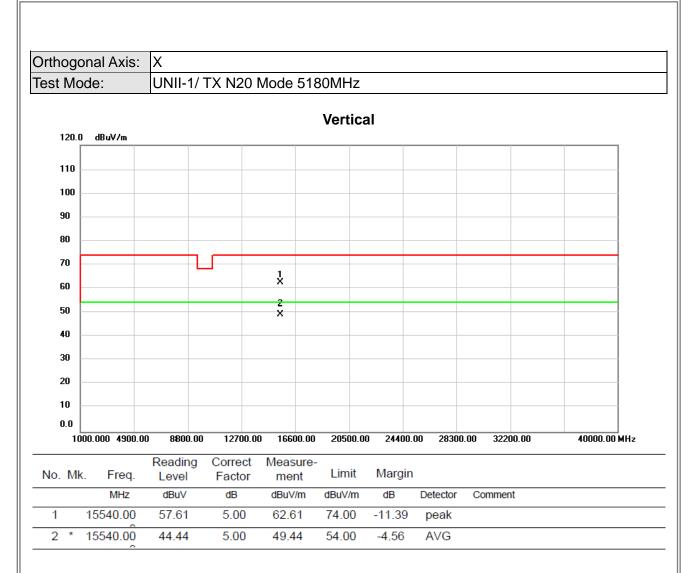






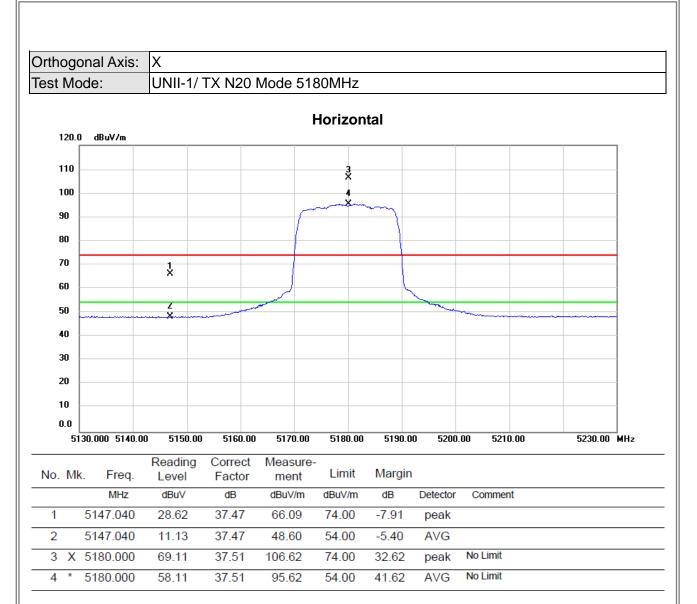












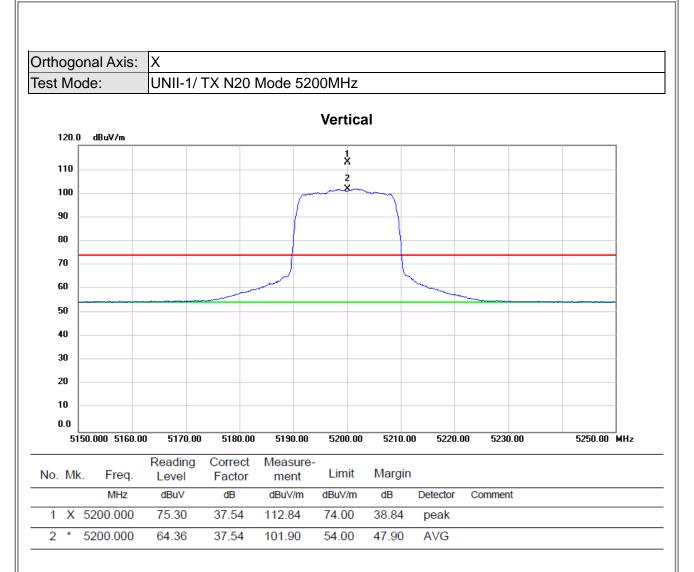






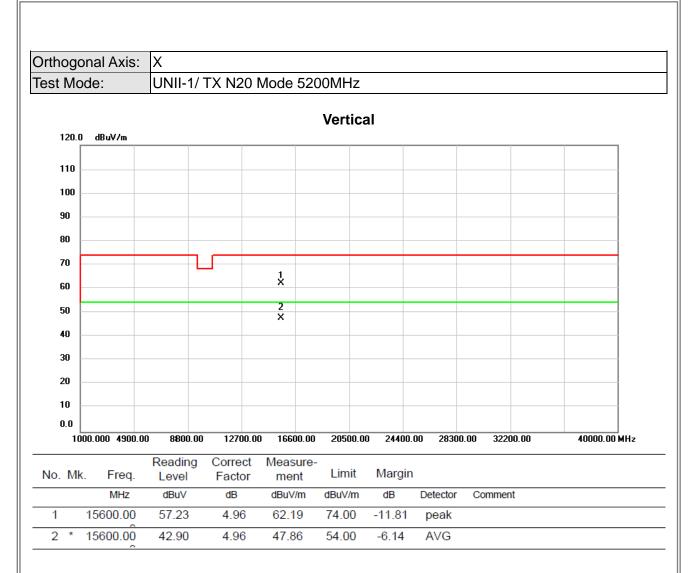






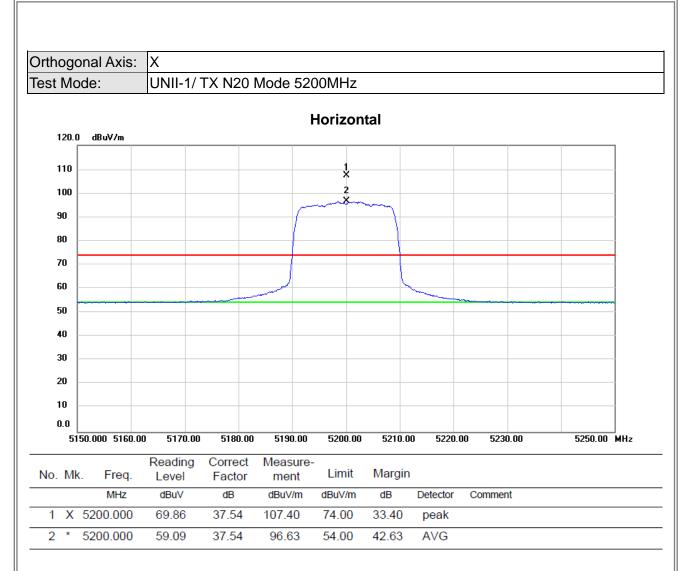












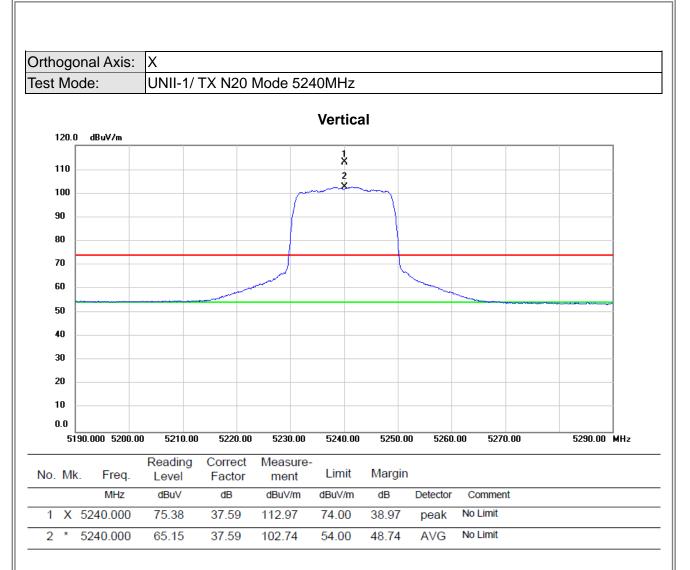












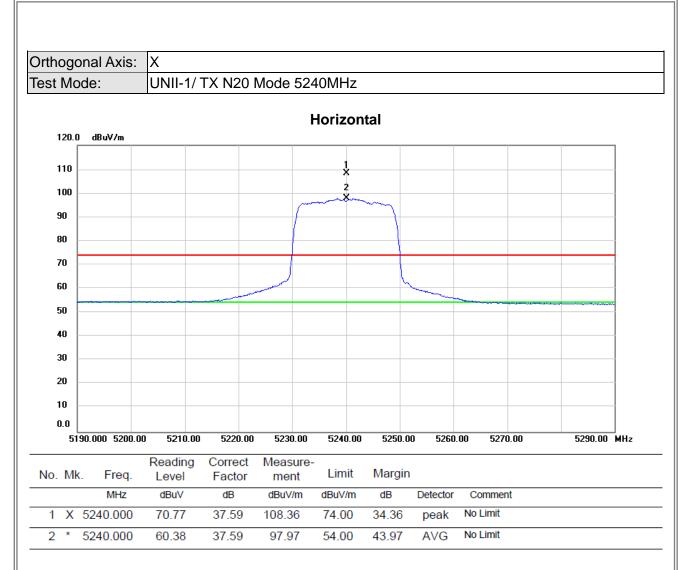












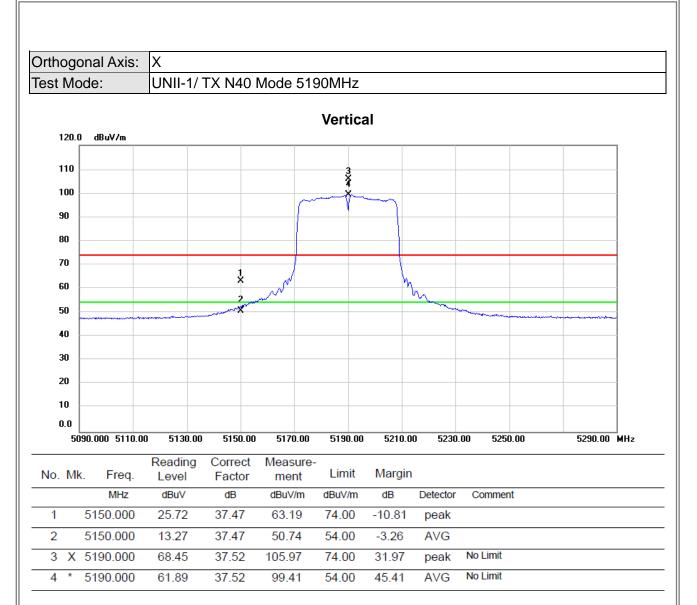






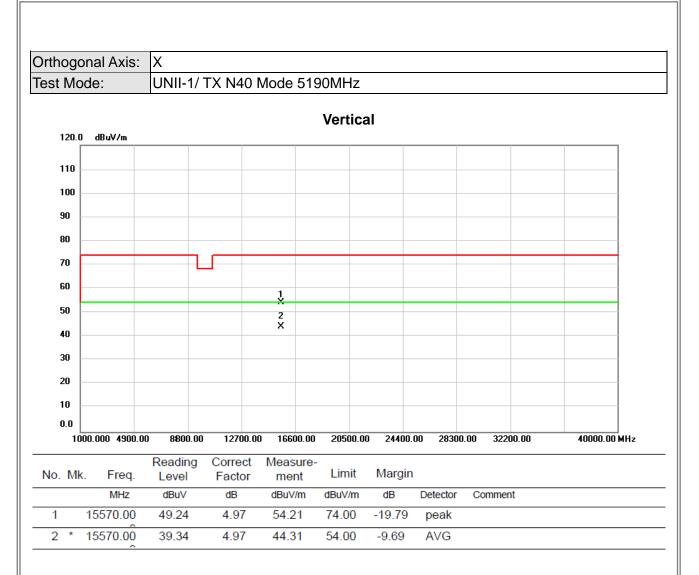






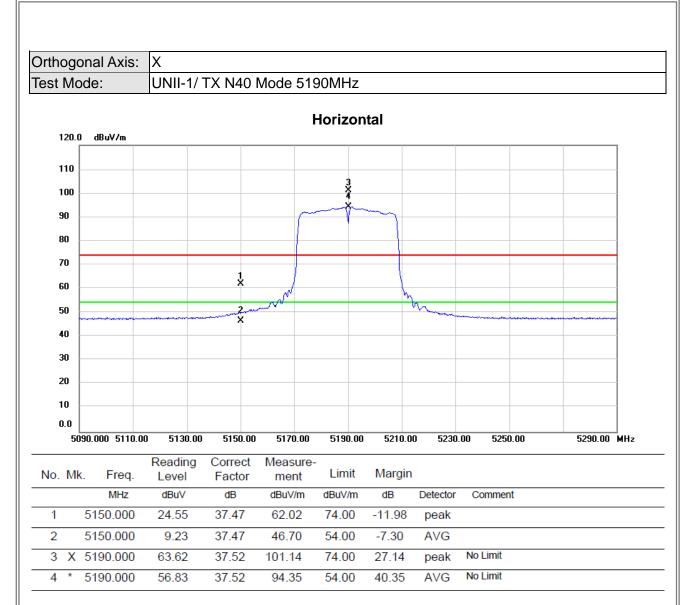












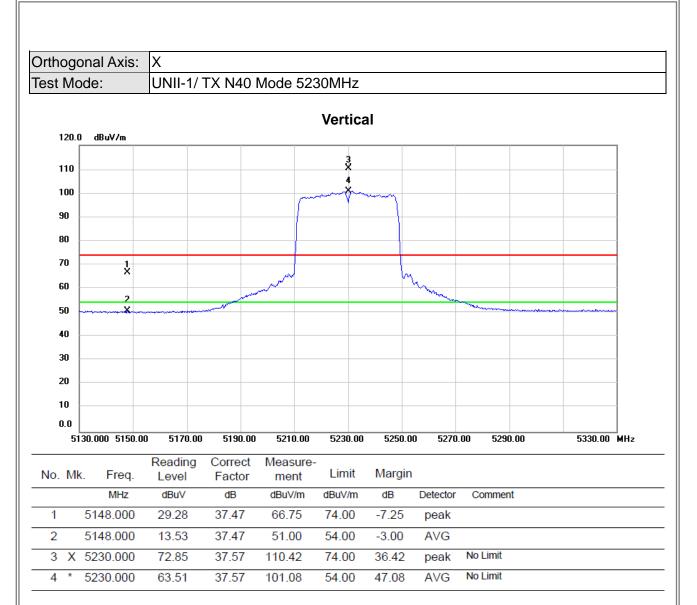






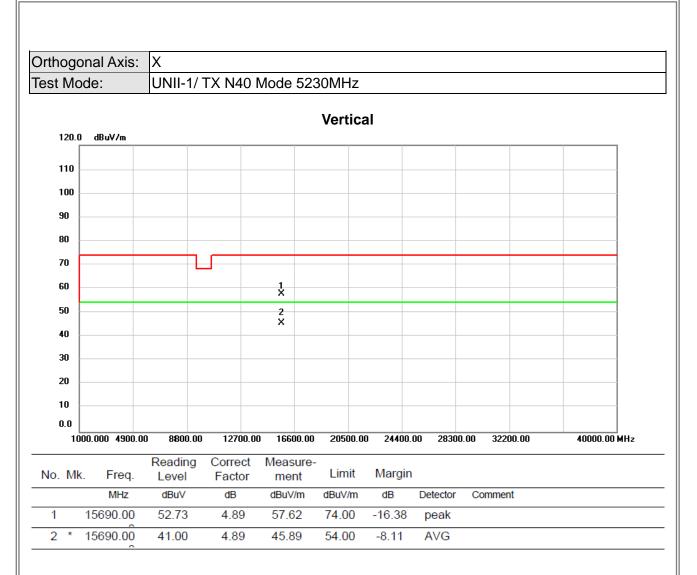






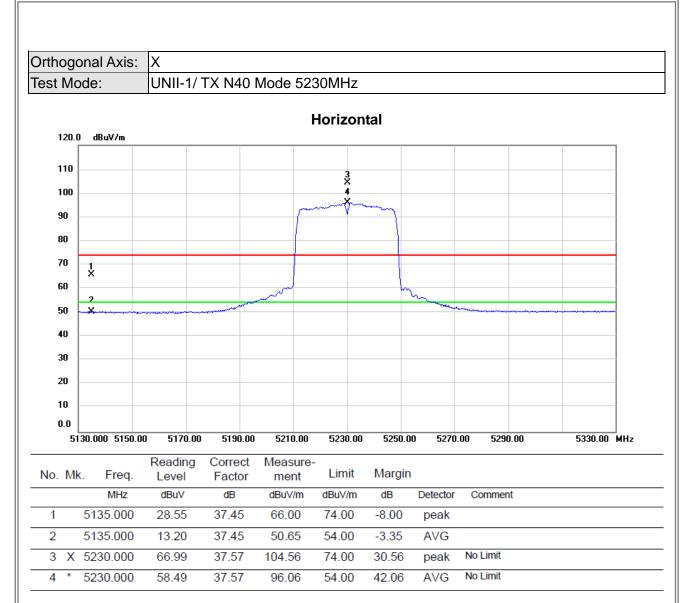












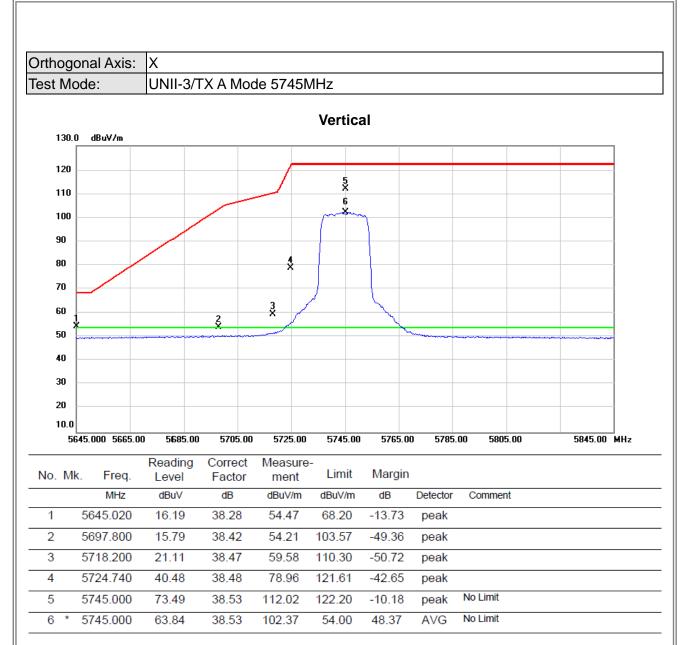






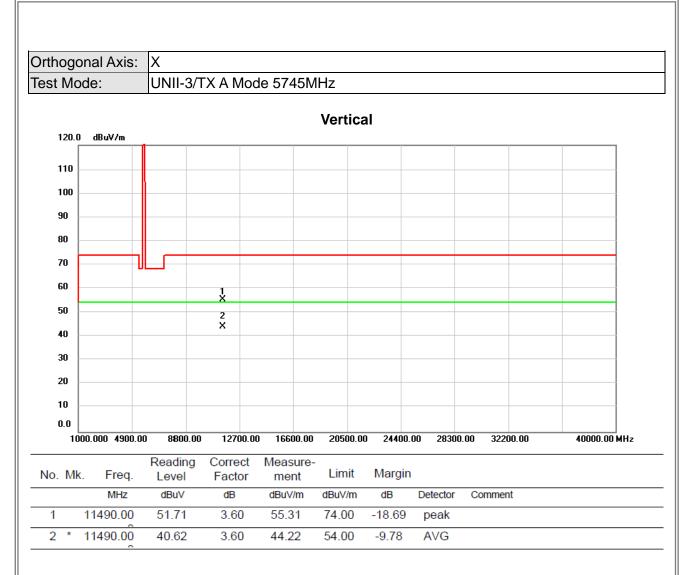






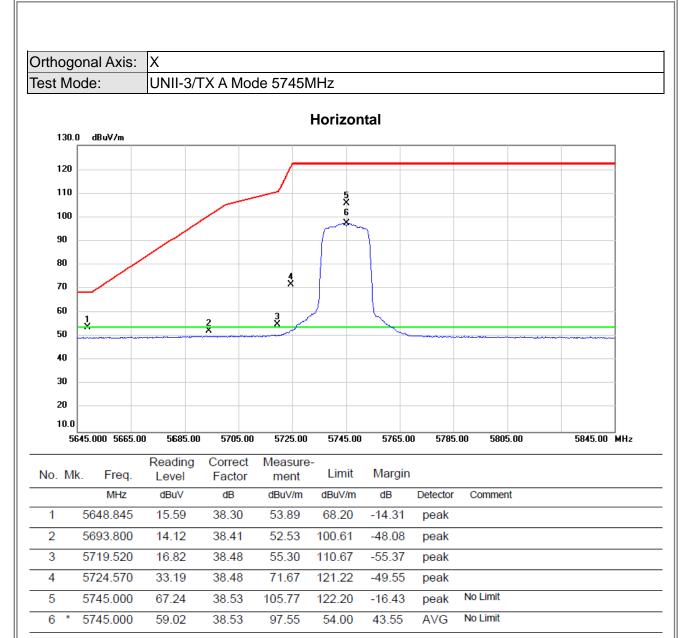












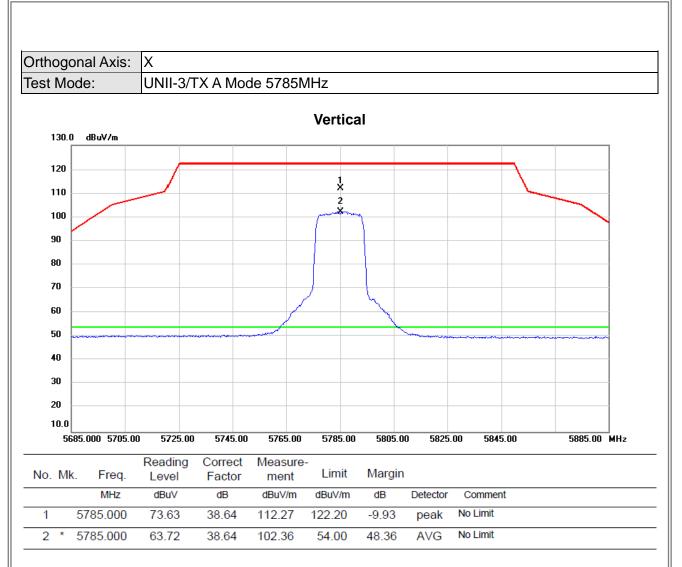






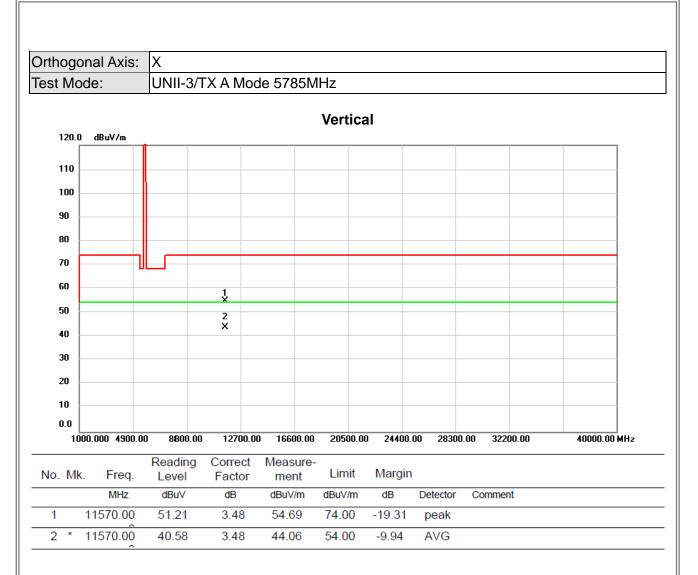






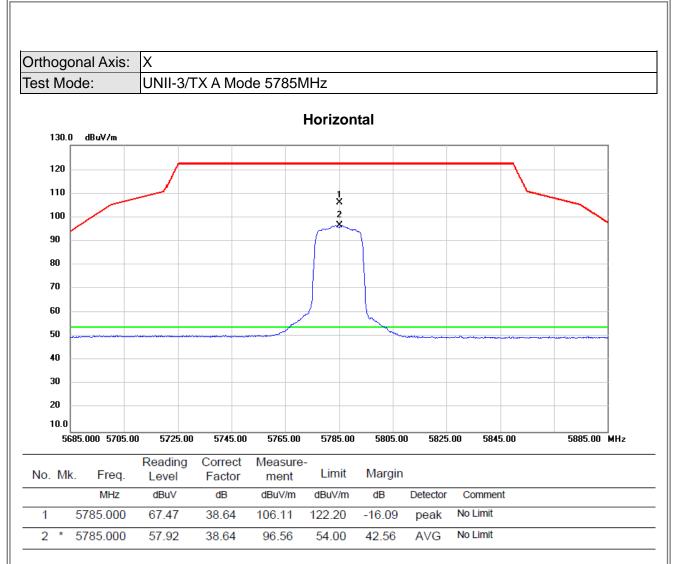












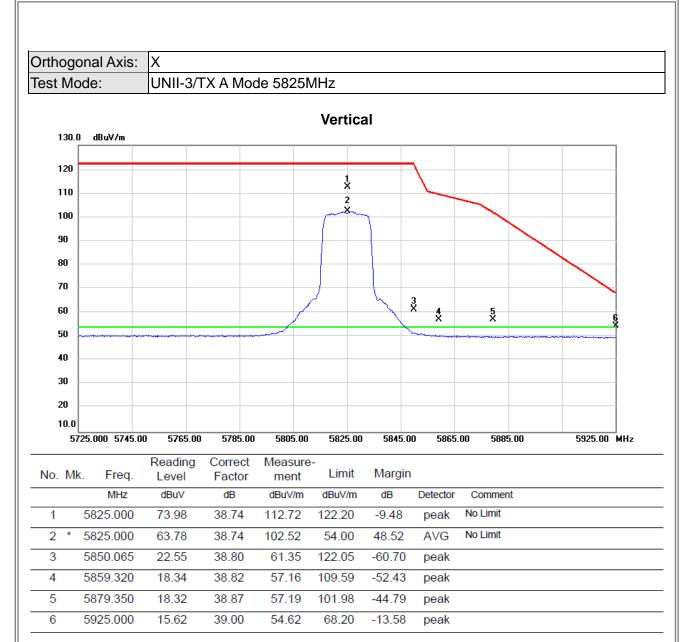






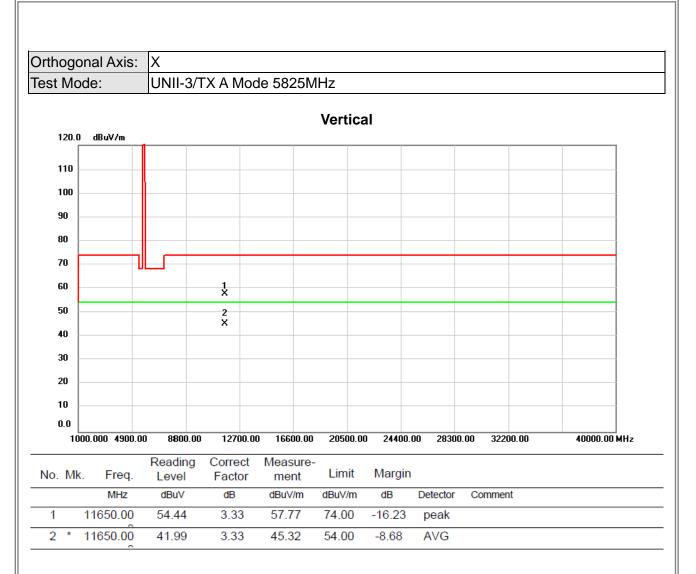






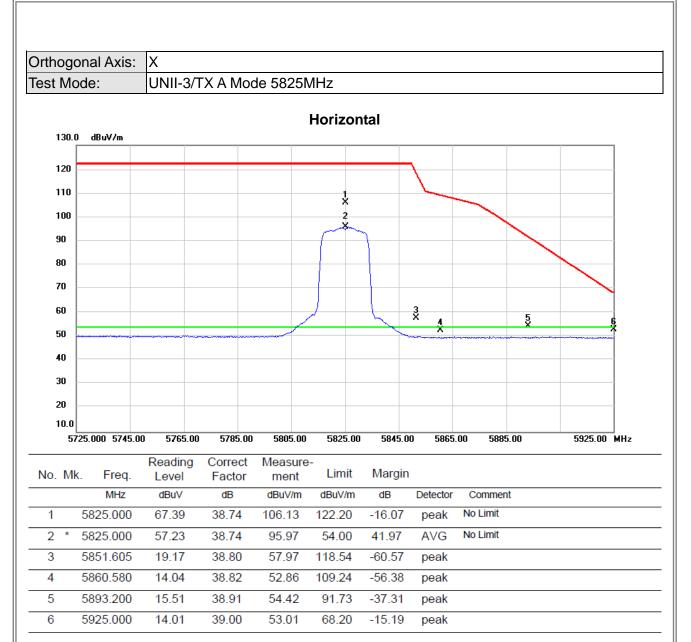












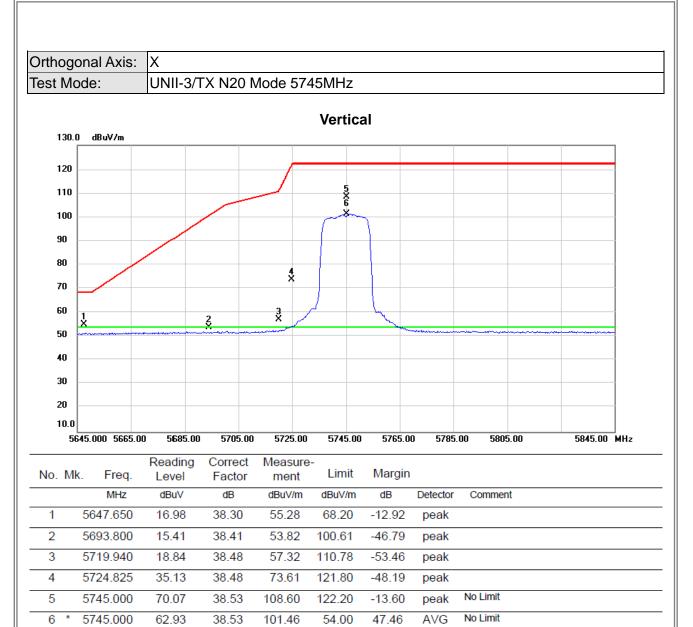






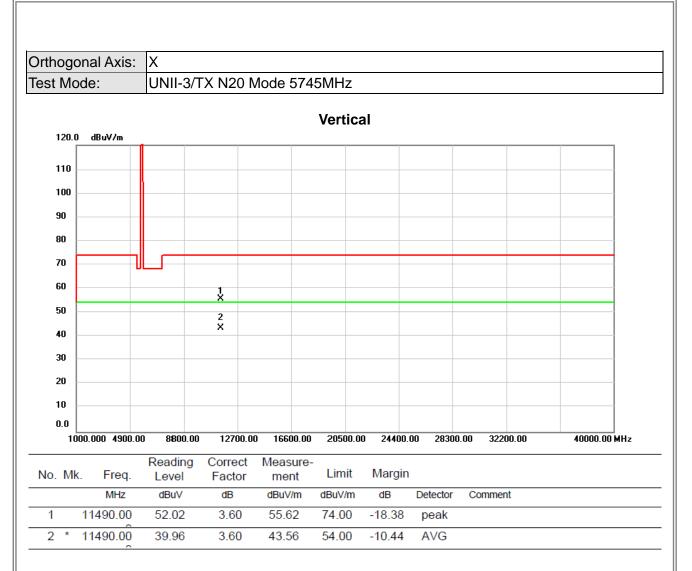






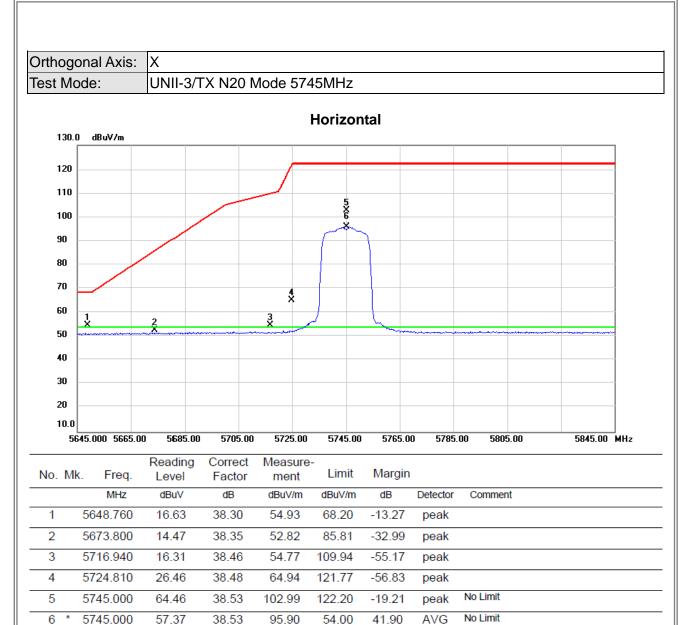












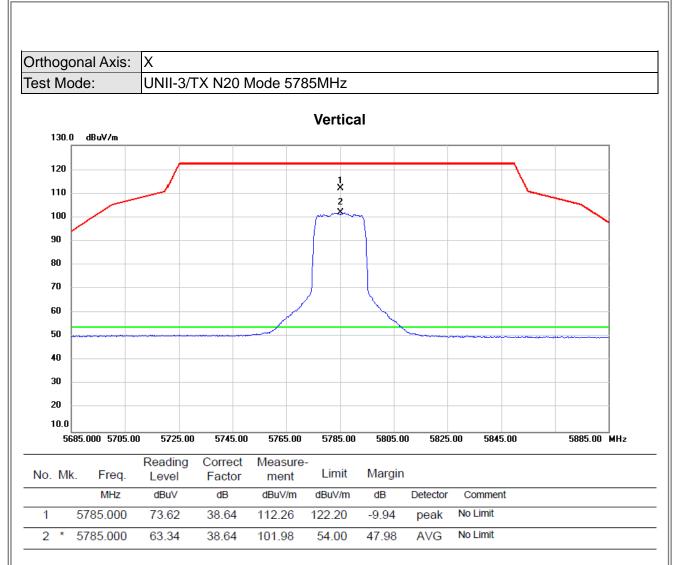






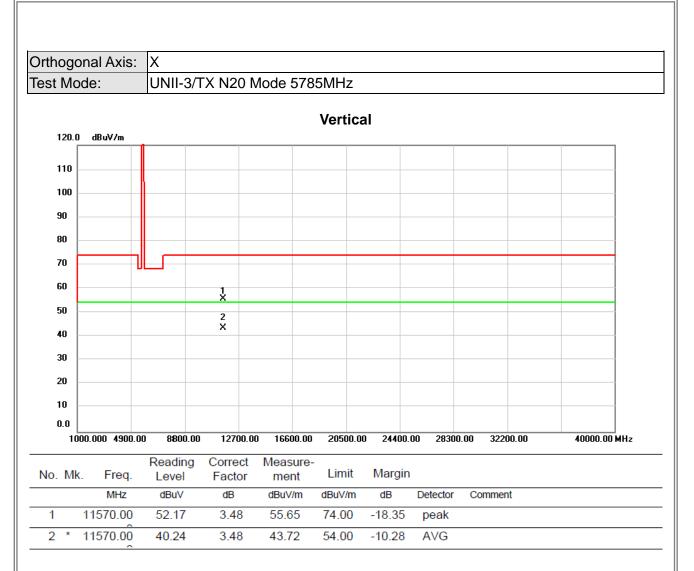






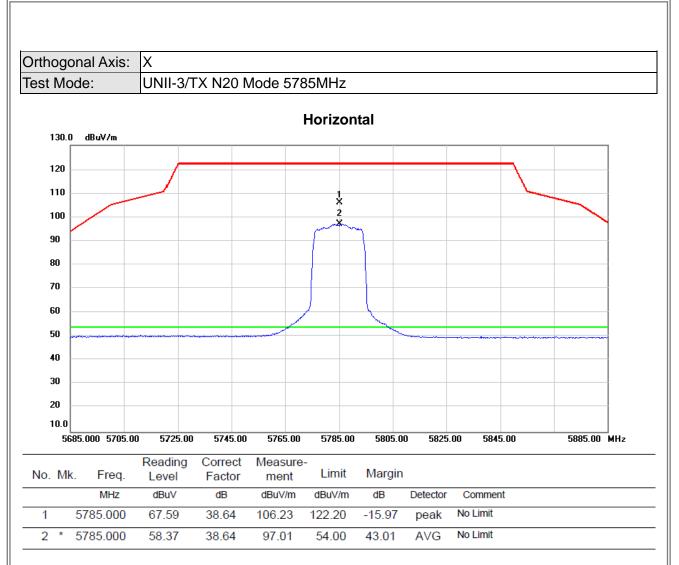












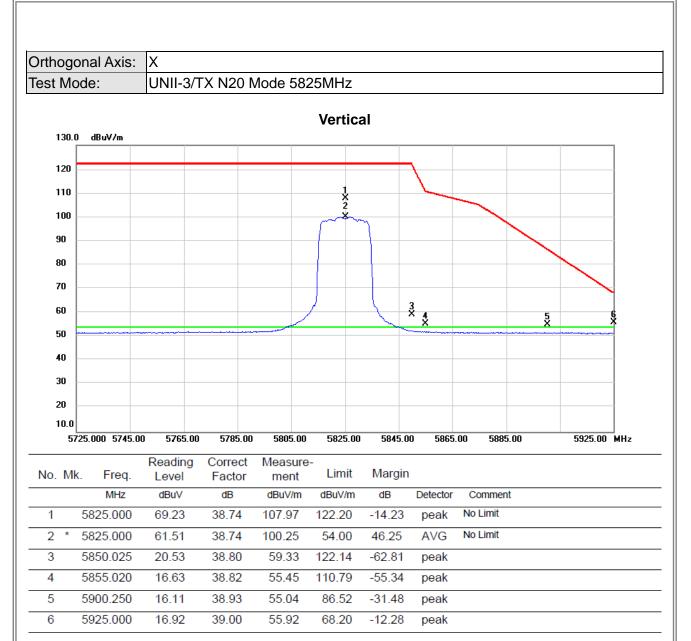






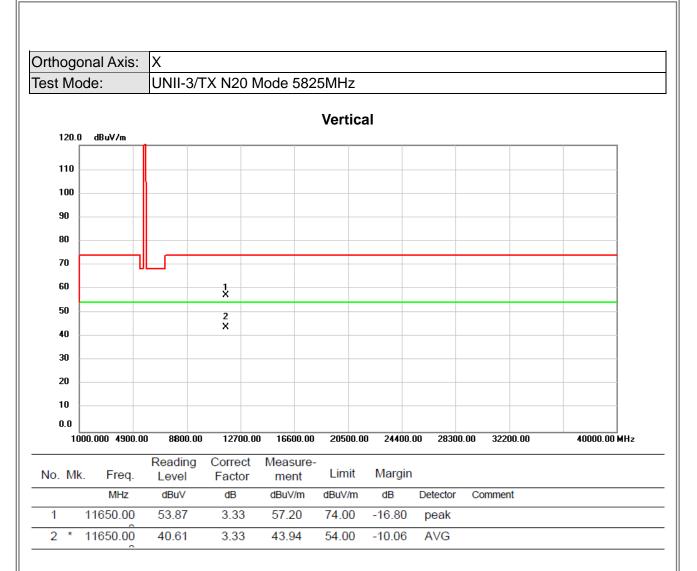






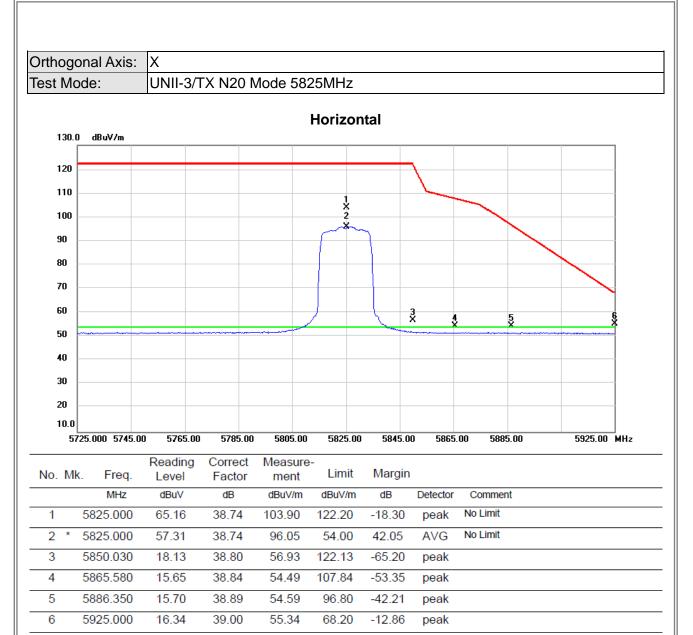






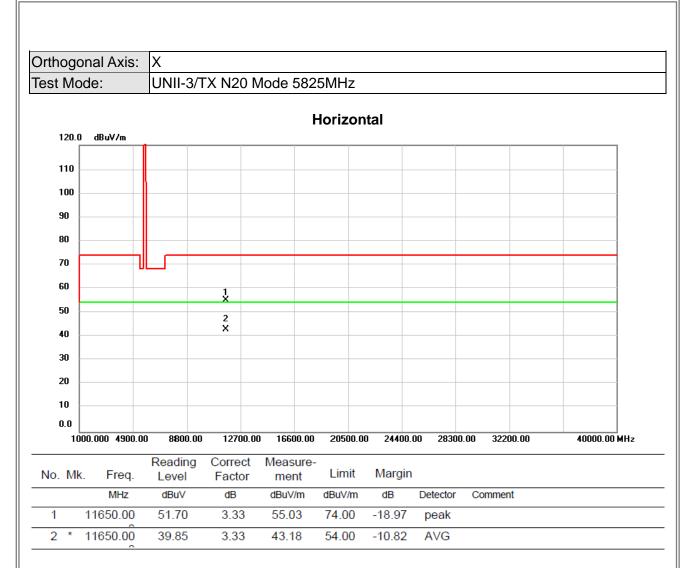






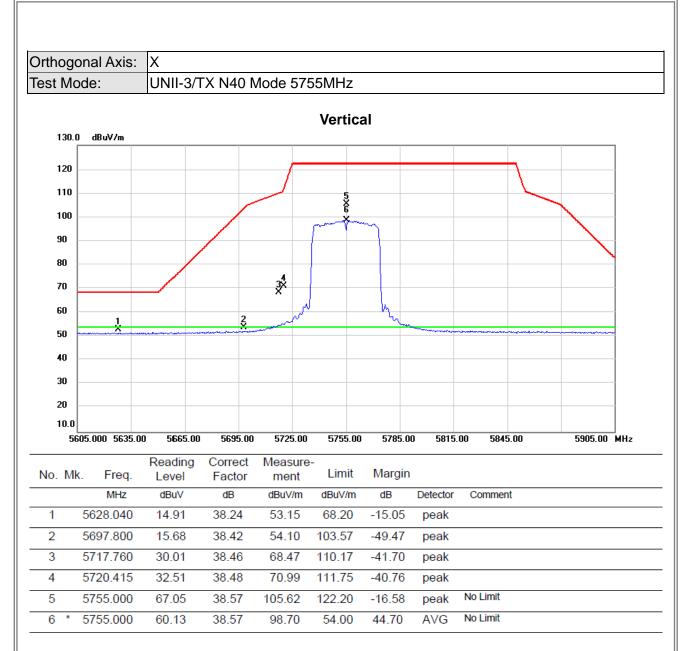






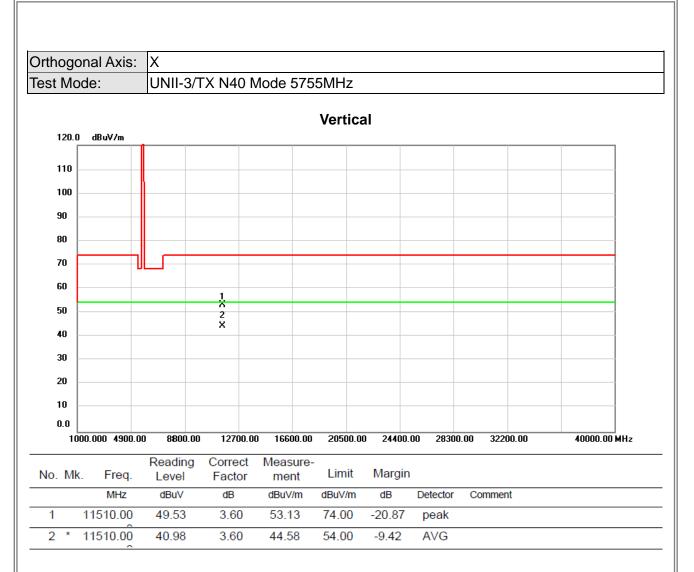






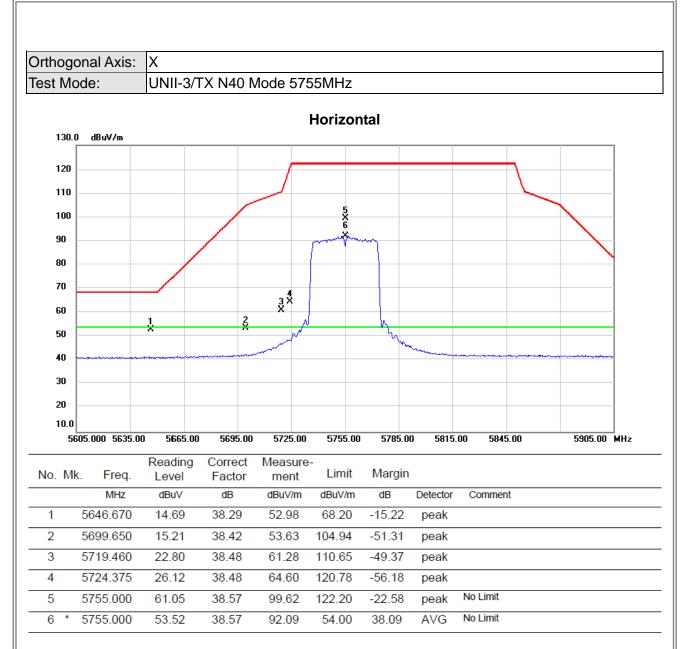












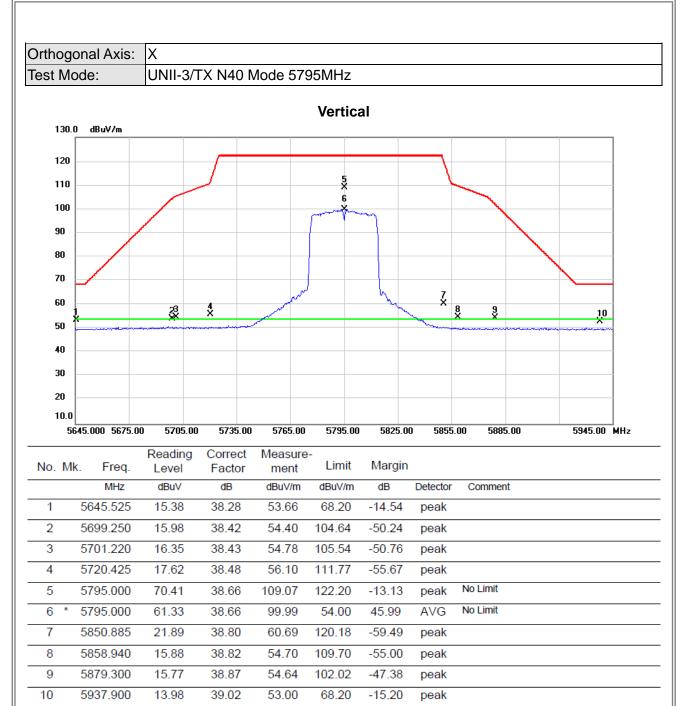






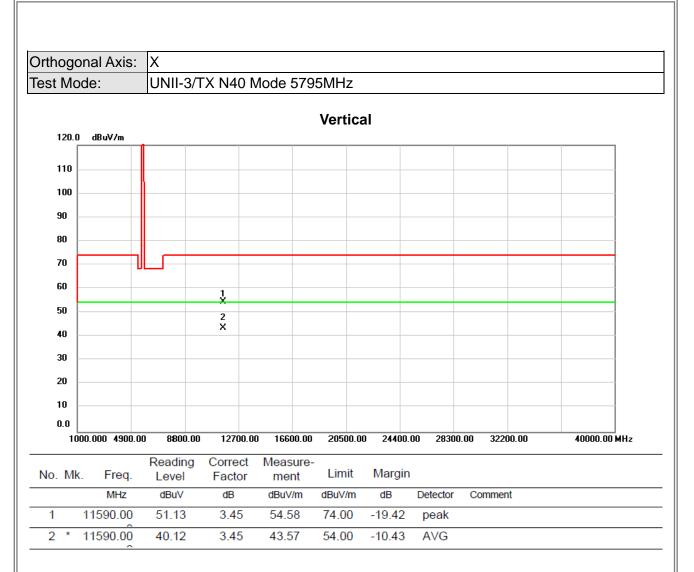






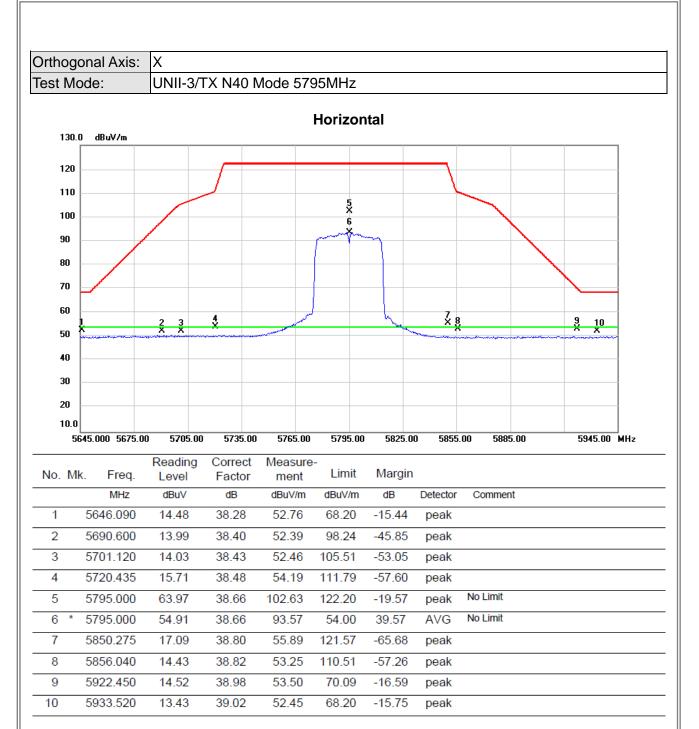












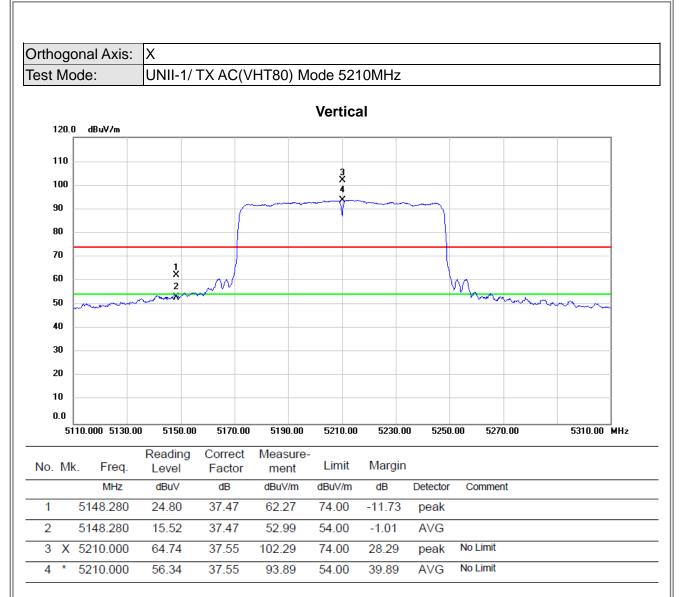






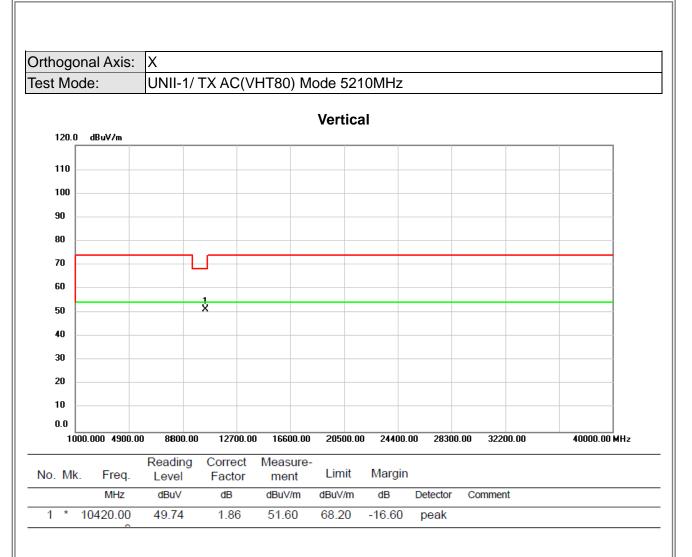






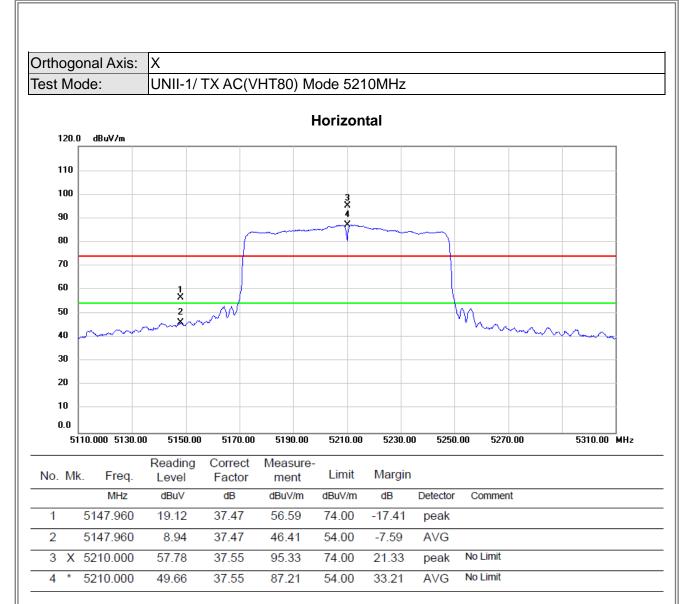






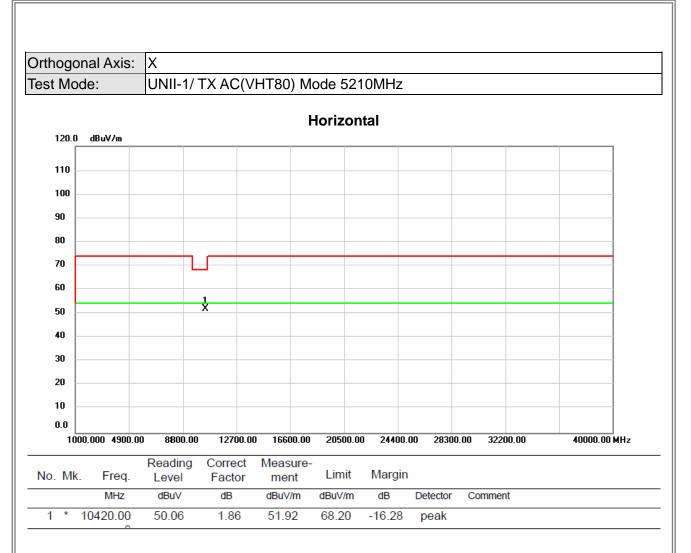






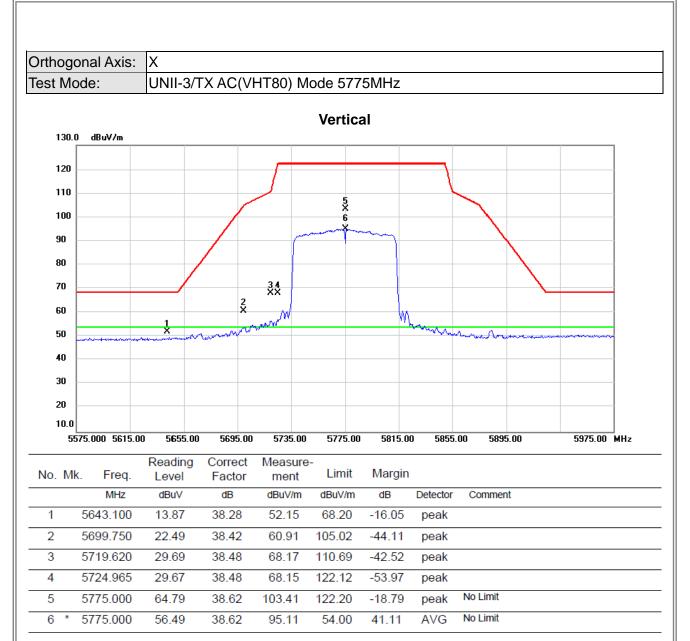






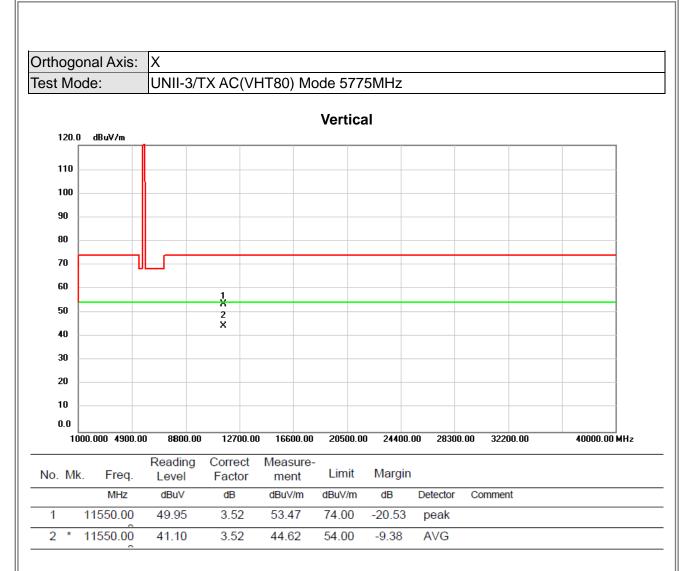






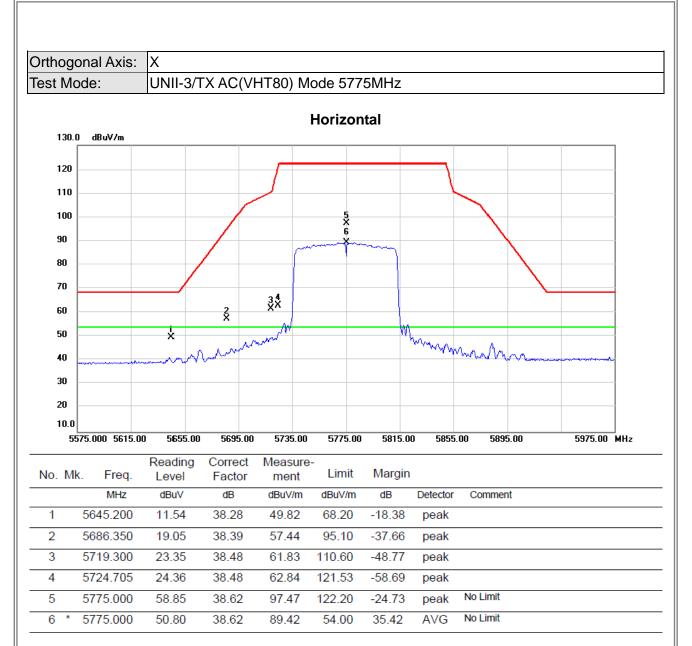










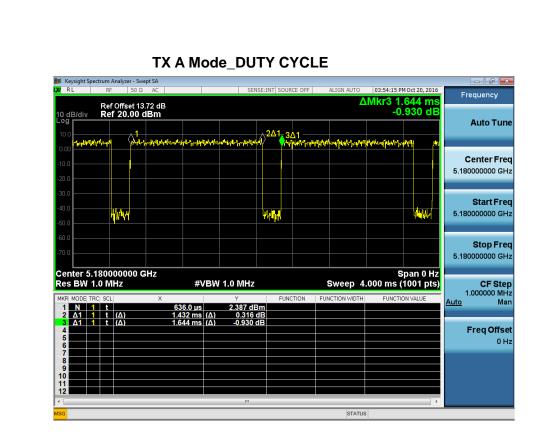












Duty cycle: TX 5180 MHz

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

T_{ON}: 1.432 msec

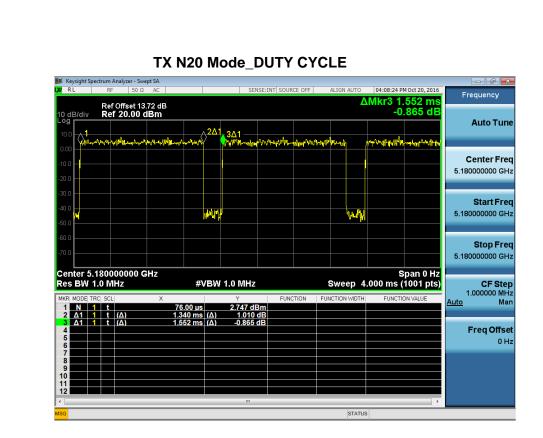
T_{Total}: 1.644 msec

Duty cycle: 87.10 %

Duty Factor = 10 log(1/Duty cycle)

Duty Factor = 0.60





Duty cycle: TX 5180 MHz

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

T_{ON}: 1.340 msec

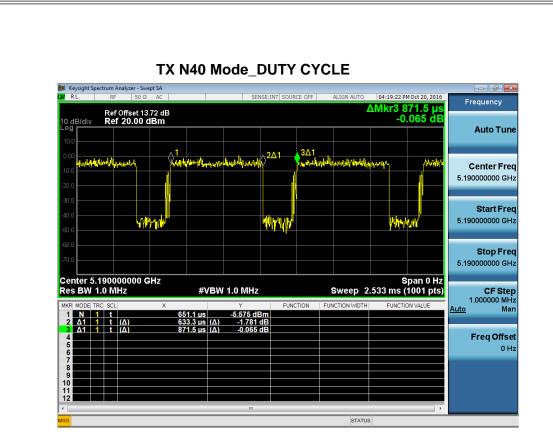
T_{Total}: 1.552 msec

Duty cycle: 86.34 %

Duty Factor = 10 log(1/Duty cycle)

Duty Factor = 0.64





Duty cycle: TX 5190 MHz

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

T_{ON}: 0.6333 msec

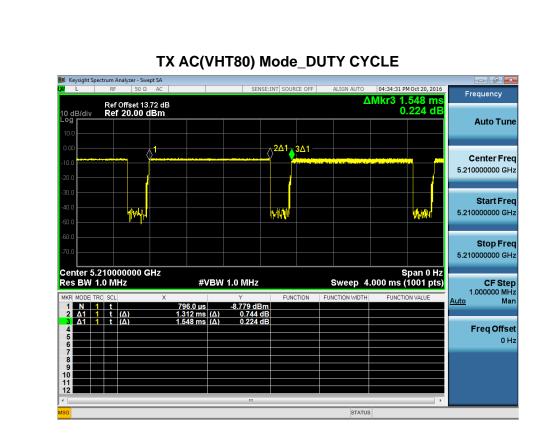
T_{Total}: 0.8715 msec

Duty cycle: 72.67 %

Duty Factor = 10 log(1/Duty cycle)

Duty Factor = 1.39





Duty cycle: TX 5210 MHz

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

T_{ON}: 1.312 msec

T_{Total}: 1.548 msec

Duty cycle: 84.75 %

Duty Factor = 10 log(1/Duty cycle)

Duty Factor = 0.72



ATTACHMENT E - BANDWIDTH

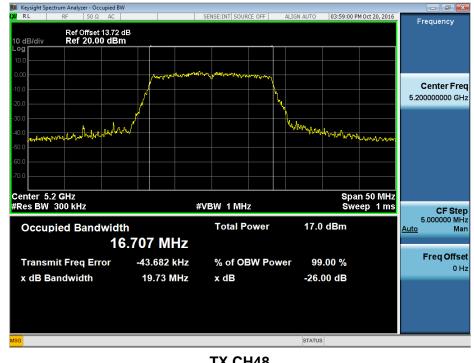


Test Mode: UNII-1/TX A Mode_CH36/CH40/CH48

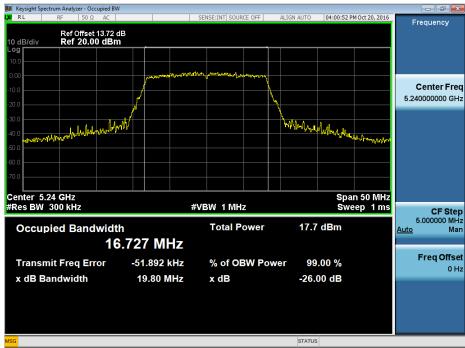
Channel	Frequency	26dB Bandwidth	99% Occupied Bandwidth
Channel	(MHz)	(MHz)	(MHz)
CH36	5180	19.57	16.76
CH40	5200	19.73	16.71
CH48	5240	19.80	16.73









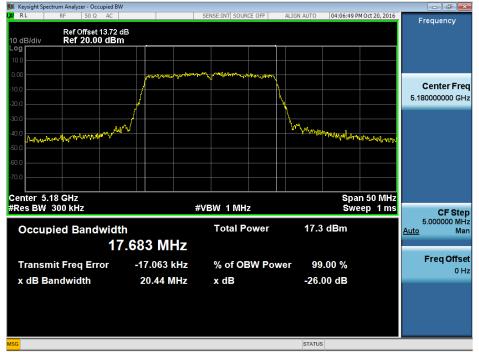




Test Mode: UNII-1/TX N20 Mode_CH36/CH40/CH48

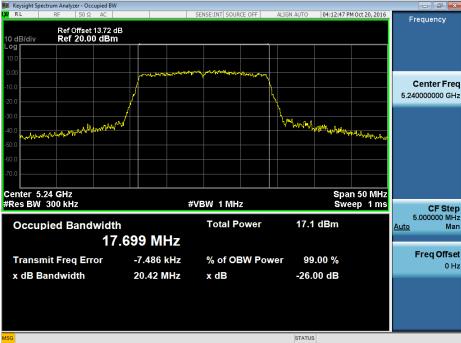
Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
CH36	5180	20.44	17.68
CH40	5200	20.39	17.68
CH48	5240	20.42	17.70







TX CH40 ALIGN AUTO 04:10:05 PM Oct 20, 2016 RL Frequency Ref Offset 13.72 dB Ref 20.00 dBm **Center Freq** 5.200000000 GHz adlyn h-value /* Analah له يمار. Span 50 MHz Sweep 1 ms Center 5.2 GHz #Res BW 300 kHz #VBW 1 MHz CF Step 5.000000 MHz Man Total Power 17.3 dBm **Occupied Bandwidth** <u>Auto</u> 17.680 MHz Freq Offset Transmit Freq Error -3.626 kHz % of OBW Power 99.00 % 0 Hz x dB Bandwidth 20.39 MHz -26.00 dB x dB STATUS **TX CH48** e X SENSE:INT SOURCE OFF ALIGN AUTO 04:12:47 PM Oct 20, 2016



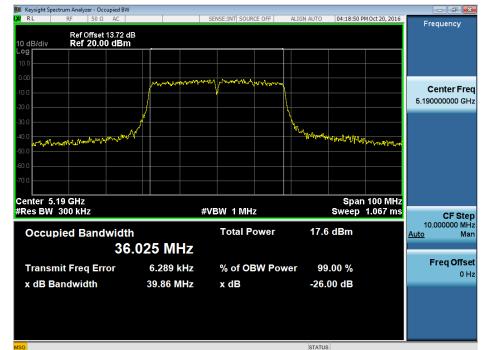


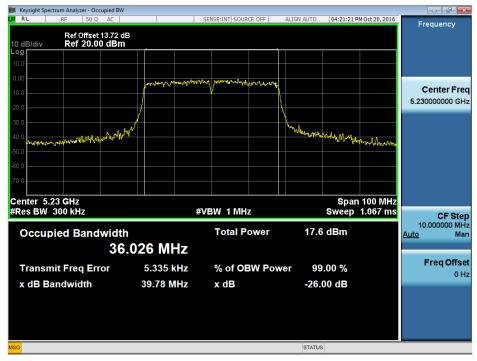
Test Mode: UNII-1/TX N40 Mode_CH38/CH46

Channel	Frequency	26dB Bandwidth	99% Occupied Bandwidth
Channel	(MHz)	(MHz)	(MHz)
CH38	5190	39.86	36.03
CH46	5230	39.78	36.03



TX CH38

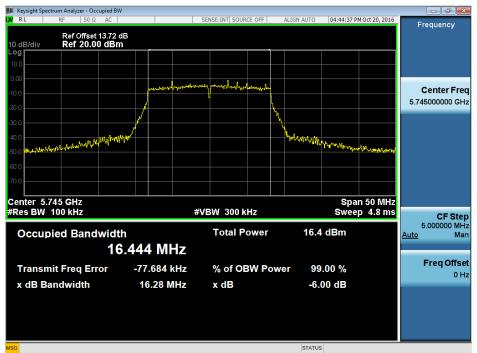




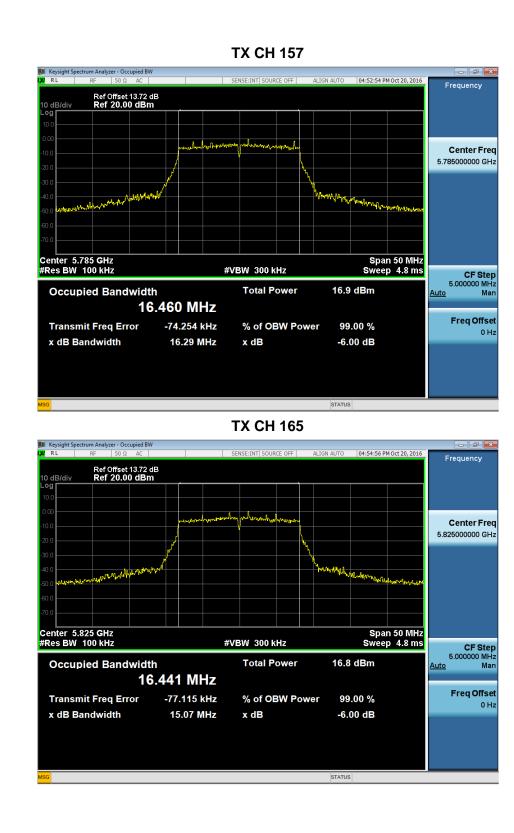




Test Mode: UNII-3/ TX A Mode_CH149/CH157/CH165						
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Limit (kHz)		
CH149	5745	16.28	16.44	>=500		
CH157	5785	16.29	16.46	>=500		
CH165	5825	15.07	16.44	>=500		







Report No.: BTL-FCCP-2-1807T018

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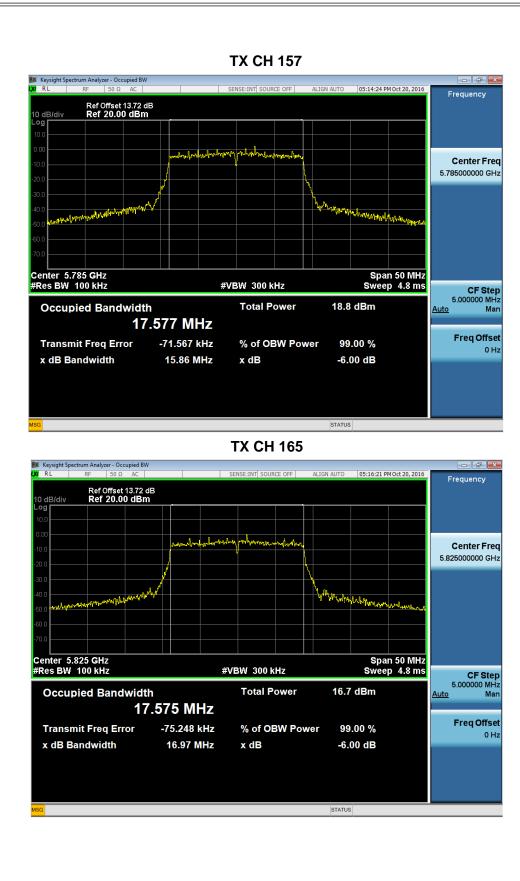


Test Mode: UNII-3/ TX N20 Mode_CH149/CH157/CH165

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Limit (kHz)
CH149	5745	17.58	17.57	>=500
CH157	5785	15.86	17.58	>=500
CH165	5825	16.97	17.58	>=500





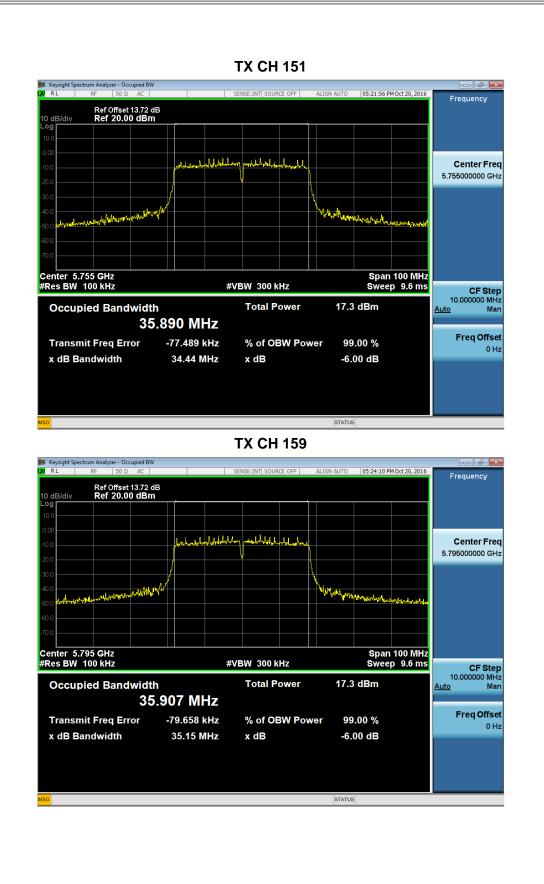




Test Mode: UNII-3/ TX N40 Mode_CH151/CH159

Channel	Frequency	6dB Bandwidth	99% Occupied Bandwidth	Limit
Channel	(MHz)	(MHz)	(MHz)	(kHz)
CH151	5755	34.44	35.89	>=500
CH159	5795	35.15	35.91	>=500

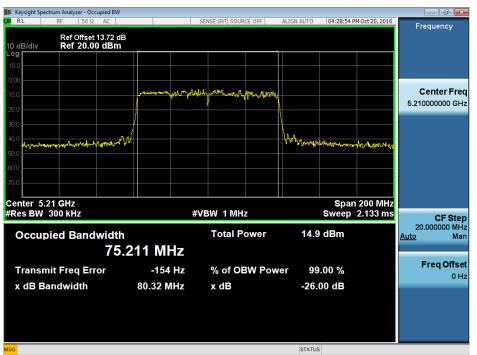






Test Mode: UNII-1/TX AC(VHT80) Mode_CH42

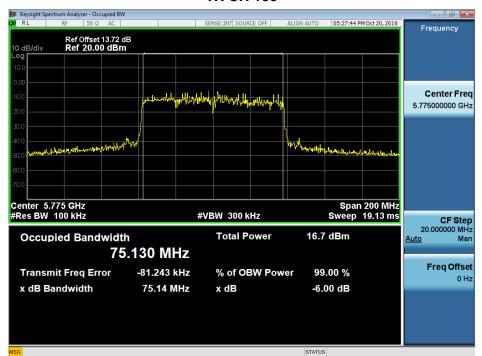
Channel	Frequency	26dB Bandwidth	99% Occupied Bandwidth
Channel	(MHz)	(MHz)	(MHz)
CH42	5210	80.32	75.21





Test Mode: UNII-3/ TX AC(VHT80) Mode_CH155

Channel	Frequency	6dB Bandwidth	99% Occupied Bandwidth	Limit
	(MHz)	(MHz)	(MHz)	(kHz)
CH155	5775	75.14	75.13	>=500





ATTACHMENT F - MAXIMUM OUTPUT POWER



Test Mode: UNII-1/TX A Mode_ANT 1						
Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor (dBm)	Output Power + Duty Factor (dBm)	Limit (dBm)	Limit (Watt)
CH36	5180	12.26	0.60	12.86	30.00	1.0000
CH40	5200	12.24	0.60	12.84	30.00	1.0000
CH48	5240	12.30	0.60	12.90	30.00	1.0000

Test Mode: UNII-1/TX A Mode_ANT 2

	-	-				
Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor (dBm)	Output Power + Duty Factor (dBm)	Limit (dBm)	Limit (Watt)
CH36	5180	11.28	0.60	11.88	30.00	1.0000
CH40	5200	11.19	0.60	11.79	30.00	1.0000
CH48	5240	11.15	0.60	11.75	30.00	1.0000

		Test Mode: UNII-1/TX A Mode_Total		
Channel	Frequency (MHz)	Output Power + Duty Factor (dBm)	Limit (dBm)	Limit (Watt)
CH36	5180	15.41	30.00	1.0000
CH40	5200	15.36	30.00	1.0000
CH48	5240	15.37	30.00	1.0000



Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor (dBm)	Output Power + Duty Factor (dBm)	Limit (dBm)	Limit (Watt)
CH36	5180	12.19	0.64	12.83	30.00	1.0000
CH40	5200	12.13	0.64	12.77	30.00	1.0000
CH48	5240	12.35	0.64	12.99	30.00	1.0000

Test Mode: UNII-1/TX N20 Mode_ANT 2

Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor (dBm)	Output Power + Duty Factor (dBm)	Limit (dBm)	Limit (Watt)
CH36	5180	11.54	0.64	12.18	30.00	1.0000
CH40	5200	11.16	0.64	11.80	30.00	1.0000
CH48	5240	11.38	0.64	12.02	30.00	1.0000

Test Mode: UNII-1/TX N20 Mode_Total							
Channel	Frequency Output Power + Duty Factor (MHz) (dBm)		Limit (dBm)	Limit (Watt)			
CH36	5180	15.53	30.00	1.0000			
CH40	5200	15.32	30.00	1.0000			
CH48	5240	15.54	30.00	1.0000			



Test Mode: UNII-1/TX N40 Mode_ANT 1							
Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor (dBm)	Output Power + Duty Factor (dBm)	Limit (dBm)	Limit (Watt)	
CH38	5190	12.21	1.39	13.60	30.00	1.0000	
CH46	5230	12.35	1.39	13.74	30.00	1.0000	

Test Mode: UNII-1/TX N40 Mode_ANT 2

Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor (dBm)	Output Power + Duty Factor (dBm)	Limit (dBm)	Limit (Watt)
CH38	5190	11.37	1.39	12.76	30.00	1.0000
CH46	5230	11.01	1.39	12.40	30.00	1.0000

Test Mode: UNII-1/TX N40 Mode_Total

Channel	Frequency	Output Power + Duty Factor	Limit	Limit
Channel	(MHz)	(dBm)	(dBm)	(Watt)
CH38	5190	16.21	30.00	1.0000
CH46	5230	16.13	30.00	1.0000



Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor (dBm)	Output Power + Duty Factor (dBm)	Limit (dBm)	Limit (Watt)
CH149	5745	12.21	0.60	12.81	30.00	1.0000
CH157	5785	12.20	0.60	12.80	30.00	1.0000
CH165	5825	12.23	0.60	12.83	30.00	1.0000

Test Mode: UNII-3/ TX A Mode_ANT 2

Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor (dBm)	Output Power + Duty Factor (dBm)	Limit (dBm)	Limit (Watt)
CH149	5745	11.86	0.60	12.46	30.00	1.0000
CH157	5785	11.61	0.60	12.21	30.00	1.0000
CH165	5825	12.05	0.60	12.65	30.00	1.0000

Test Mode: UNII-3/ TX A Mode_Total							
Channel	Frequency (MHz)	Output Power + Duty Factor (dBm)	Limit (dBm)	Limit (Watt)			
CH149	5745	15.65	30.00	1.0000			
CH157	5785	15.52	30.00	1.0000			
CH165	5825	15.75	30.00	1.0000			



Test Mode: UNII-3/TX N20 Mode ANT 1	ANT 1
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Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor (dBm)	Output Power + Duty Factor (dBm)	Limit (dBm)	Limit (Watt)
CH149	5745	11.72	0.64	12.36	30.00	1.0000
CH157	5785	12.13	0.64	12.77	30.00	1.0000
CH165	5825	11.52	0.64	12.16	30.00	1.0000

Test Mode: UNII-3/TX N20 Mode_ANT 2

Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor (dBm)	Output Power + Duty Factor (dBm)	Limit (dBm)	Limit (Watt)
CH149	5745	11.61	0.64	12.25	30.00	1.0000
CH157	5785	11.48	0.64	12.12	30.00	1.0000
CH165	5825	11.95	0.64	12.59	30.00	1.0000

Test Mode: UNII-3/TX N20 Mode_Total

Channel	Frequency (MHz)	Output Power + Duty Factor (dBm)	Limit (dBm)	Limit (Watt)
CH149	5745	15.31	30.00	1.0000
CH157	5785	15.47	30.00	1.0000
CH165	5825	15.39	30.00	1.0000



Test Mode: UNII-3/ TX N40 Mode_ANT 1							
Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor (dBm)	Output Power + Duty Factor (dBm)	Limit (dBm)	Limit (Watt)	
CH151	5755	11.74	1.39	13.13	30.00	1.0000	
CH159	5795	11.76	1.39	13.15	30.00	1.0000	

Test Mode: UNII-3/ TX N40 Mode_ANT 2

Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor (dBm)	Output Power + Duty Factor (dBm)	Limit (dBm)	Limit (Watt)
CH151	5755	11.31	1.39	12.70	30.00	1.0000
CH159	5795	11.43	1.39	12.82	30.00	1.0000

Test Mode: UNII-3/ TX N40 Mode_Total

Channel	Frequency	Output Power + Duty Factor	Limit	Limit
Channel	(MHz)	(dBm)	(dBm)	(Watt)
CH151	5755	15.93	30.00	1.0000
CH159	5795	16.00	30.00	1.0000



Test Mode: UNII-1/TX AC(VHT80) Mode_ANT 1							
Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor (dBm)	Output Power + Duty Factor (dBm)	Limit (dBm)	Limit (Watt)	
CH42	5210	10.44	0.72	11.16	30.00	1.0000	

Test Mode: UNII-1/TX AC(VHT80) Mode_ANT 2

Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor (dBm)	Output Power + Duty Factor (dBm)	Limit (dBm)	Limit (Watt)
CH42	5210	9.24	0.72	9.24	30.00	1.0000

Test Mode: UNII-1/TX AC(VHT80) Mode_Total

Channel	Frequency	Output Power + Duty Factor	Limit	Limit
Channel (MHz)		(dBm)	(dBm)	(Watt)
CH42	5210	13.61	30.00	1.0000



Test Mode: UNII-3/TX AC(VHT80) Mode_ANT 1							
Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor (dBm)	Output Power + Duty Factor (dBm)	Limit (dBm)	Limit (Watt)	
CH155	5775	10.97	0.72	11.69	30.00	1.0000	

Test Mode: UNII-3/TX AC(VHT80) Mode_ANT 2

Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor (dBm)	Output Power + Duty Factor (dBm)	Limit (dBm)	Limit (Watt)
CH155	5775	10.39	0.72	11.11	30.00	1.0000

Test Mode: UNII-3/TX AC(VHT80) Mode_Total

Channel	Frequency	Output Power + Duty Factor	Limit	Limit
Channel (MHz)		(dBm)	(dBm)	(Watt)
CH155	5775	14.42	30.00	1.0000



ATTACHMENT G - POWER SPECTRAL DENSITY



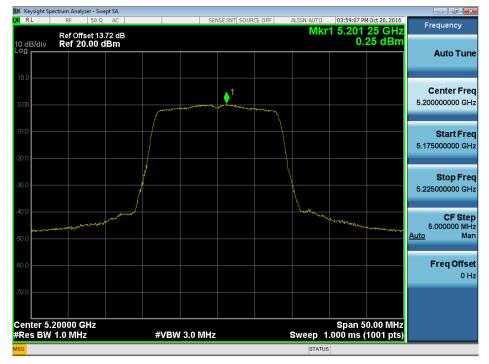
Test Mode: UNII-1/ TX A Mode_CH36/CH40/CH48_ANT 1

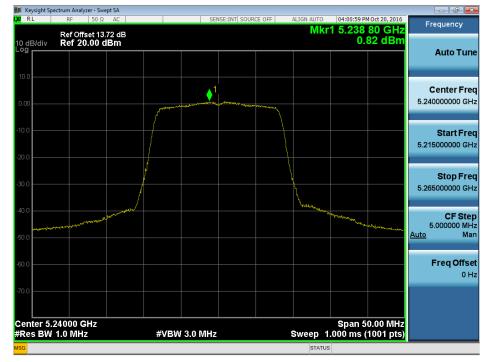
Channel	Frequency (MHz)	Power Density (dBm/MHz)	Duty Factor (dBm/MHz)	Power Density + Duty Factor (dBm/MHz)	Limit (dBm/MHz)
CH36	5180	0.26	0.60	0.86	17.00
CH40	5200	0.25	0.60	0.85	17.00
CH48	5240	0.82	0.60	1.42	17.00







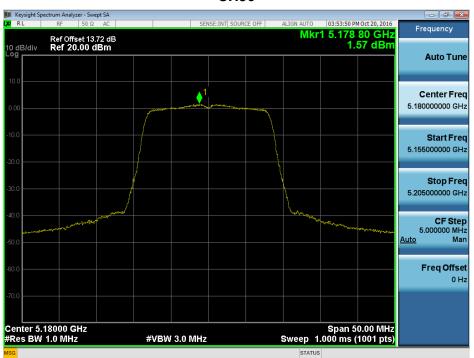






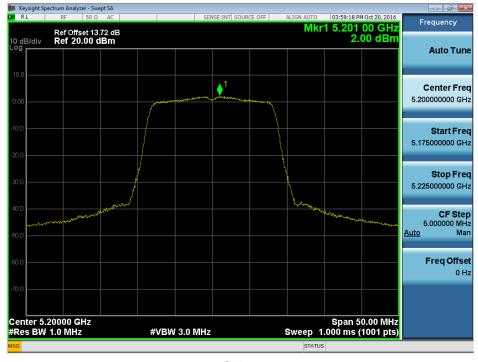
Test Mode: UNII-1/ TX A Mode_CH36/CH40/CH48_ANT 2

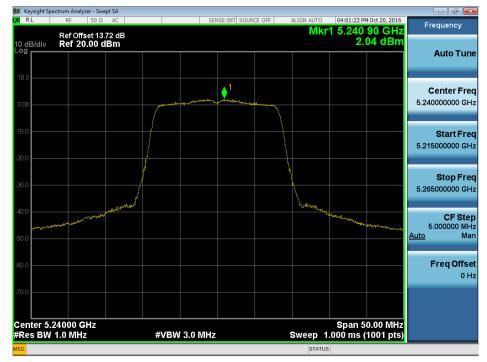
Channel	Frequency (MHz)	Power Density (dBm/MHz)	Duty Factor (dBm/MHz)	Power Density + Duty Factor (dBm/MHz)	Limit (dBm/MHz)
CH36	5180	1.57	0.60	2.17	17.00
CH40	5200	2.00	0.60	2.60	17.00
CH48	5240	2.04	0.60	2.64	17.00















Test Mode: UNII-1/ TX A Mode_CH36/CH40/CH48_Total

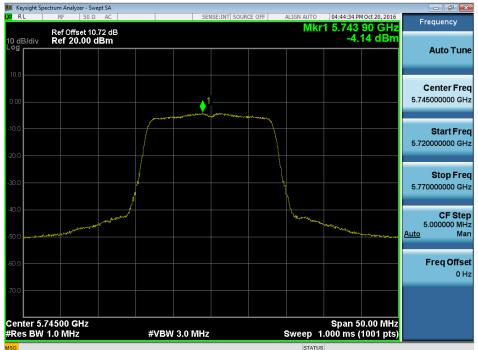
Channel	Frequency (MHz)	Power Density + Duty Factor (dBm/MHz)	Limit (dBm/MHz)
CH36	5180	4.57	17.00
CH40	5200	4.82	17.00
CH48	5240	5.08	17.00



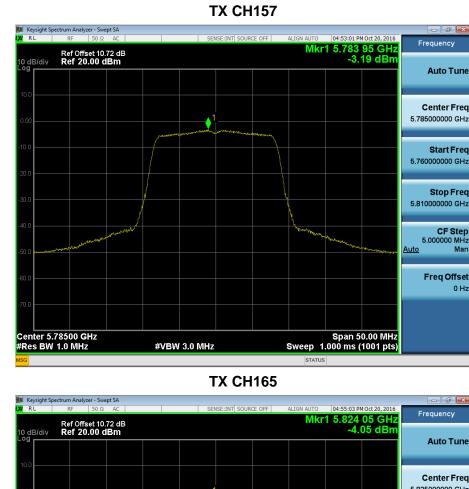
Test Mode: UNII-3/TX A Mode_CH149/CH157/CH165_ANT 1

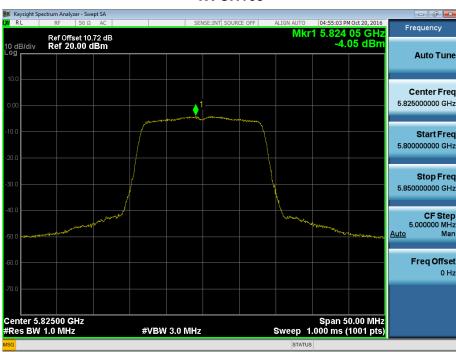
Channel	Frequency (MHz)	Power Density (dBm/500kHz)	Duty Factor (dBm/MHz)	Power Density + Duty Factor (dBm/500kHz)	Limit (dBm/500kHz)
CH149	5745	-4.14	0.60	-3.54	30.00
CH157	5785	-3.19	0.60	-2.59	30.00
CH165	5825	-4.05	0.60	-3.45	30.00









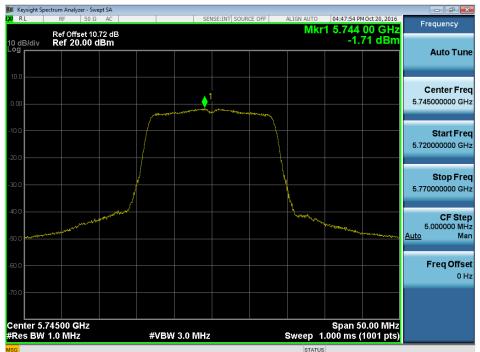




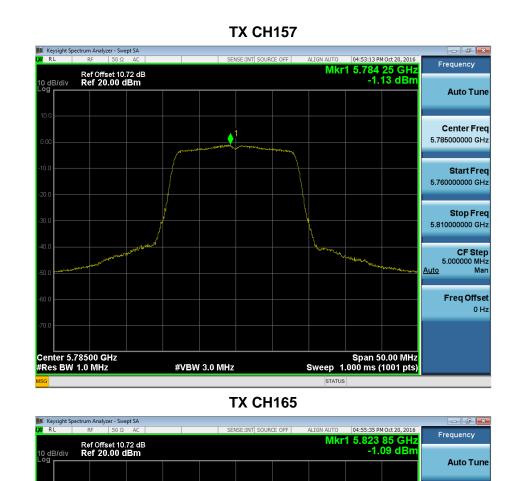
Test Mode: UNII-3/TX A Mode_CH149/CH157/CH165_ANT 2

Channel	Frequency (MHz)	Power Density (dBm/500kHz)	Duty Factor (dBm/MHz)	Power Density + Duty Factor (dBm/500kHz)	Limit (dBm/500kHz)
CH149	5745	-1.71	0.60	-1.11	30.00
CH157	5785	-1.13	0.60	-0.53	30.00
CH165	5825	-1.09	0.60	-0.49	30.00

TX CH149







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#VBW 3.0 MHz

Center Freq

Start Freq 5.80000000 GHz

Stop Freq 5.85000000 GHz

> CF Step 5.000000 MHz Man

Freq Offset

<u>Auto</u>

Span 50.00 MHz Sweep 1.000 ms (1001 pts) 5.825000000 GHz

Center 5.82500 GHz #Res BW 1.0 MHz





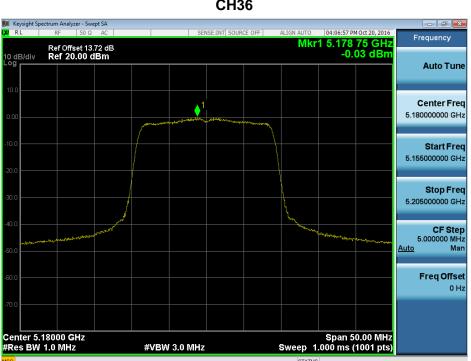
Test Mode: UNII-3/TX A Mode_CH149/CH157/CH165_Total

Channel	Frequency (MHz)	Power Density + Duty Factor (dBm/500kHz)	Limit (dBm/500kHz)
CH149	5745	0.85	30.00
CH157	5785	1.57	30.00
CH165	5825	1.29	30.00



Test Mode: UNII-1/TX N20 Mode_CH36/CH40/CH48_ANT 1

Channel	Frequency (MHz)	Power Density (dBm/MHz)	Duty Factor (dBm/MHz)	Power Density + Duty Factor (dBm/MHz)	Limit (dBm/MHz)
CH36	5180	-0.03	0.64	0.61	17.00
CH40	5200	-0.18	0.64	0.46	17.00
CH48	5240	-0.50	0.64	0.14	17.00







CH40 Keysight Spectrum Analyzer - Swept SA X RL RF 50 Ω AC 04:10:12 PM Oct 20, 2016 T SOURCE OFF ALIGN AUTO Frequency Mkr1 5.198 90 GHz -0.18 dBm Ref Offset 13.72 dB Ref 20.00 dBm I0 dB/div Auto Tune **Center Freq** ۵ 5.20000000 GHz Start Freq 5.175000000 GHz Stop Freq 5.225000000 GHz CF Step 5.000000 MHz Man <u>Auto</u> Freq Offset 0 Hz Center 5.20000 GHz #Res BW 1.0 MHz Span 50.00 MHz Sweep 1.000 ms (1001 pts) #VBW 3.0 MHz STATUS **CH48** Keysight Spectrum Analyzer - Swept SA R L RF 50 Ω AC 04:12:55 PM Oct 20, 2016 GN AUTO Frequency Mkr1 5.238 85 GHz -0.50 dBm Ref Offset 13.72 dB Ref 20.00 dBm I0 dB/div Auto Tune **Center Freq** ١ 5.240000000 GHz Start Freq 5.215000000 GHz Stop Freq 5.265000000 GHz CF Step 5.000000 MHz Man <u>Auto</u> Freq Offset 0 Hz Center 5.24000 GHz #Res BW 1.0 MHz Span 50.00 MHz Sweep 1.000 ms (1001 pts) #VBW 3.0 MHz

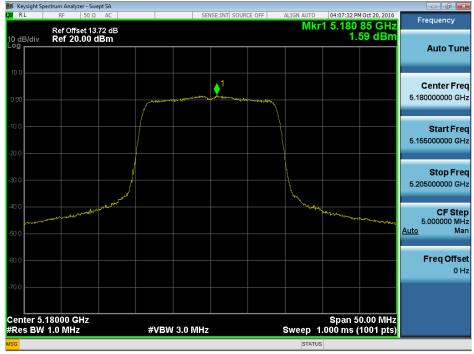
STATUS



Test Mode: UNII-1/TX N20 Mode_CH36/CH40/CH48_ANT 2

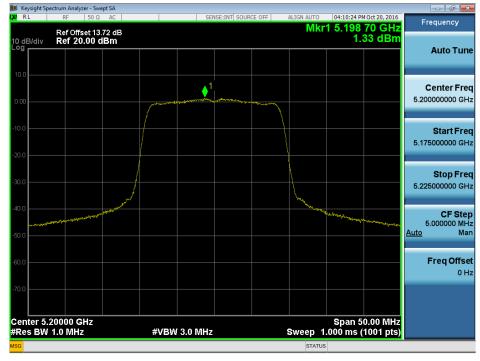
Channel	Frequency (MHz)	Power Density (dBm/MHz)	Duty Factor (dBm/MHz)	Power Density + Duty Factor (dBm/MHz)	Limit (dBm/MHz)
CH36	5180	1.59	0.64	2.23	17.00
CH40	5200	1.33	0.64	1.97	17.00
CH48	5240	1.52	0.64	2.16	17.00

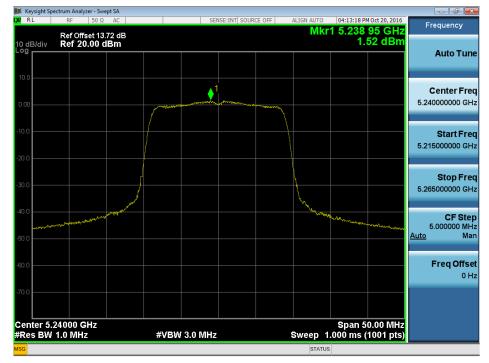














Test Mode: UNII-1/TX N20 Mode_CH36/CH40/CH48_Total

Channel	Frequency (MHz)	Power Density + Duty Factor (dBm/500kHz)	Limit (dBm/MHz)
CH36	5180	4.50	17.00
CH40	5200	4.29	17.00
CH48	5240	4.27	17.00



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

Channel	Frequency (MHz)	Power Density (dBm/MHz)	Duty Factor (dBm/MHz)	Power Density + Duty Factor (dBm/MHz)	Limit (dBm/MHz)
CH38	5190	-3.67	1.39	-2.28	17.00
CH46	5230	-4.08	1.39	-2.69	17.00