



FCCRadio Test Report FCC ID:V7TMESH3 This report concerns (check one):⊠Original Grant⊡Class I Change⊡Class II Chan	ge
Project No.: 1707C145Equipment: Whole Home Mesh WiFi SystemModel Name: Mesh3, MW6Applicant: SHENZHEN TENDA TECHNOLOGY CO.,LTDAddress: 6-8 Floor, Tower E3, No. 1001, Zhongshanyuan Road, Nanshan District, Shenzhen, China. 518052	
Date of Receipt : Jul. 18, 2017 Date of Test : Jul. 18, 2017 ~ Aug.02, 2017 Issued Date : Aug.03, 2017 Tested by : BTL Inc.	
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Table of Contents	Page
1. CERTIFICATION	6
2 . SUMMARY OF TEST RESULTS	7
2.1 TEST FACILITY	8
2.2 MEASUREMENT UNCERTAINTY	8
3 . GENERAL INFORMATION	9
3.1 GENERAL DESCRIPTION OF EUT	9
3.2 DESCRIPTION OF TEST MODES	11
3.3 TABLE OF PARAMETERS OF TEST SOFTWARE SETTING	13
3.4 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM T	ESTED 15
3.5 DESCRIPTION OF SUPPORT UNITS	15
4. EMC EMISSION TEST	16
4.1 CONDUCTED EMISSION MEASUREMENT	16
4.1.1 POWER LINE CONDUCTED EMISSION	16
4.1.2 TEST PROCEDURE	16
4.1.3 DEVIATION FROM TEST STANDARD 4.1.4 TEST SETUP	16 17
4.1.5 EUT OPERATING CONDITIONS	17
4.1.6 EUT TEST CONDITIONS	17
4.1.7 TEST RESULTS	17
4.2 RADIATED EMISSION MEASUREMENT	18
4.2.1 RADIATED EMISSION LIMITS	18
4.2.2 TEST PROCEDURE	19
4.2.3 DEVIATION FROM TEST STANDARD	19
4.2.4TEST SETUP 4.2.5 EUT OPERATING CONDITIONS	20 21
4.2.6 EUT TEST CONDITIONS	21
4.2.7 TEST RESULTS (9K TO 30MHz)	22
4.2.8 TEST RESULTS (BETWEEN 30 TO 1000 MHz)	22
4.2.9 TEST RESULTS (ABOVE 1000 MHz)	22
5 . SPECTRUM BANDWIDTH	23
5.1 APPLIED PROCEDURES / LIMIT	23
5.1.1 TEST PROCEDURE	23
5.1.2 DEVIATION FROM STANDARD 5.1.3 TEST SETUP	23 24
5.1.3 TEST SETUP 5.1.4 EUT OPERATION CONDITIONS	24 24
5.1.5 EUT TEST CONDITIONS	24 24
5.1.6 TEST RESULTS	24
6 . MAXIMUM CONDUCTED OUTPUT POWER	25





Table of Contents	Page
6.1 APPLIED PROCEDURES / LIMIT	25
6.1.1 TEST PROCEDURE	25
6.1.2 DEVIATION FROM STANDARD 6.1.3 TEST SETUP	26 26
6.1.4 EUT OPERATION CONDITIONS	26
6.1.5 EUT TEST CONDITIONS	26
6.1.6 TEST RESULTS	26
7 . POWER SPECTRAL DENSITY TEST	27
7.1 APPLIED PROCEDURES / LIMIT	27
8.1.1 TEST PROCEDURE	27
7.1.1 DEVIATION FROM STANDARD	28
7.1.2 TEST SETUP 7.1.3 EUT OPERATION CONDITIONS	28 28
7.1.4 EUT TEST CONDITIONS	28
7.1.5 TEST RESULTS	28
8 . FREQUENCY STABILITY MEASUREMENT	29
8.1 APPLIED PROCEDURES / LIMIT	29
8.1.1 TEST PROCEDURE	29
8.1.2 DEVIATION FROM STANDARD	29
8.1.3 TEST SETUP 8.1.4 EUT OPERATION CONDITIONS	30 30
8.1.5 EUT TEST CONDITIONS	30
8.1.6 TEST RESULTS	30
9 . MEASUREMENT INSTRUMENTS LIST	31
10 . EUT TEST PHOTOS	33
ATTACHMENTA -CONDUCTED EMISSION	37
ATTACHMENT B -RADIATED EMISSION (9KHZ TO 30MHZ)	40
ATTACHMENT C -RADIATED EMISSION (30MHZ TO 1000MHZ)	45
ATTACHMENT D -RADIATED EMISSION (ABOVE 1000MHZ)	58
ATTACHMENT E -BANDWIDTH	177
ATTACHMENT F - MAXIMUM OUTPUT POWER	218
ATTACHMENT H - POWER SPECTRAL DENSITY	240
ATTACHMENT H -FREQUENCY STABILITY	337





REPORT ISSUED HISTORY

Issued No.	Description	Issued Date
BTL-FCCP-1-1707C145	Original Issue.	Aug.03, 2017





1. CERTIFICATION

Equipment : Brand Name : Model Name :	
	SHENZHEN TENDA TECHNOLOGY CO.,LTD
	SHENZHEN TENDA TECHNOLOGY CO.,LTD
Address :	6-8 Floor, Tower E3, No. 1001, Zhongshanyuan Road, Nanshan District, Shenzhen, China. 518052
Date of Test :	Jul. 18, 2017 ~ Aug.02, 2017
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-1-1707C145) 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(15.407)				
Standard(s) Section	Test Item Judgment		Remark	
15.207	AC Power Line Conducted Emissions	PASS		
15.407(a)	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: 319330

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 astandard 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	1.94

B. Radiated Measurement:

Test Site	Method	Measurement Frequency Range	Ant. H / V	U, (dB)	
		9kHz~30MHz	V	3.79	
		9kHz~30MHz	Н	3.57	
		30MHz~200MHz	V	3.82	
DG-CB03 CISPR		30MHz~200MHz	Н	3.60	
	CISPR	200MHz~ 1,000MHz	V	3.86	
DG-CB03	CISER	200MHz~ 1,000MHz	Н	3.94	
		1GHz~18GHz	V	3.12	
		1GHz~18GHz	Н	3.68	
		18G	18GHz~40GHz	V	4.15
	-	18GHz~40GHz	Н	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	Whole Home Mesh WiFi System				
Brand Name	Tenda				
Model Name	Mesh3, MW6				
Mode Different	With two or more Mesh3 in a gift t	With two or more Mesh3 in a gift box.			
	Operation Frequency	UNII-1: 5150-5250MHz UNII-3: 5725-5850MHz			
	Modulation Type	OFDM			
	Bit Rate of Transmitter	300Mbps			
Product Description	Output Power (Max.)for UNII-1 - Non-Beamforming	802.11a:27.34dBm 802.11n (20M): 24.01dBm 802.11n (40M): 29.38dBm 802.11ac (20M): 25.43dBm 802.11ac (40M): 28.11dBm 802.11ac (80M): 20.65dBm			
	Output Power (Max.)for UNII-3- Non-Beamforming	802.11a:29.45dBm 802.11n (20M): 29.33dBm 802.11n (40M): 29.35dBm 802.11ac (20M): 29.42dBm 802.11ac (40M): 28.56dBm 802.11ac (80M): 22.84dBm			
	Output Power (Max.)for UNII-1 - Beamforming	802.11n (20M): 23.98dBm 802.11n (40M): 29.02dBm 802.11ac (20M): 25.17dBm 802.11ac (40M): 28.40dBm 802.11ac (80M): 20.82dBm			
	Output Power (Max.)for UNII-3- Beamforming	802.11n (20M): 29.30dBm 802.11n (40M): 28.93dBm 802.11ac (20M): 29.53dBm 802.11ac (40M): 28.61dBm 802.11ac (80M): 22.77dBm			
Power Source	DC voltage supplied from AC/DC adapter. Model:BN067-A18012U				
Power Rating	I/P:100-240V~50/60Hz 0.6A O/P:12V === 1.5A				





Note:

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

UNII-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				

UNI	UNII-3		UNII-3		II-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	Model Name	Antenna Type	Connector	Gain (dBi)	Note
1	N/A	N/A	PCB	N/A	3	N/A
2	N/A	N/A	PCB	N/A	3	N/A

4. Operating Mod

Operating Mode TX Mode	1TX	2TX
802.11a	V (ANT 1)	-
802.11n(20MHz)	-	V (ANT 1+ANT 2)
802.11n(40MHz)	-	V (ANT 1+ANT 2)
802.11ac (20MHz)	-	V (ANT 1+ANT 2)
802.11ac (40MHz)	-	V (ANT 1+ANT 2)
802.11ac (80MHz)	-	V (ANT 1+ANT 2)

ANT 1 for 1TX was found to be the worst case and recorded

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 AC20 Mode/ CH36, CH40, CH48 (UNII-1)
Mode 5	TX AC40 Mode/ CH38, CH46 (UNII-1)
Mode 6	TX AC80 Mode / CH42 (UNII-1)
Mode 7	TX A Mode / CH149,CH157,CH165 (UNII-3)
Mode 8	TX N20 Mode / CH149,CH157,CH165 (UNII-3)
Mode 9	TX N40 Mode / CH151,CH159 (UNII-3)
Mode 10	TX AC20 Mode / CH149,CH157,CH165 (UNII-3)
Mode 11	TX AC40 Mode / CH151,CH159 (UNII-3)
Mode 12	TX AC80 Mode / CH155 (UNII-3)
Mode 13	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 13 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 AC20 Mode/ CH36, CH40, CH48 (UNII-1)			
Mode 5	TX AC40 Mode/ CH38, CH46 (UNII-1)			
Mode 6	TX AC80 Mode / CH42 (UNII-1)			
Mode 7	TX A Mode / CH149,CH157,CH165 (UNII-3)			
Mode 8	TX N20 Mode / CH149,CH157,CH165 (UNII-3)			
Mode 9	TX N40 Mode / CH151,CH159 (UNII-3)			
Mode 10	TX AC20 Mode / CH149,CH157,CH165 (UNII-3)			
Mode 11	TX AC40 Mode / CH151,CH159 (UNII-3)			
Mode 12	TX AC80 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- Non-Beamforming				
Test Software Version		MP-v3.4		
Frequency (MHz)	5180	5200	5240	
A Mode	39	44	43	
N20 Mode	30	30	29	
Frequency (MHz)	5190	5230		
N40 Mode	30	40		
Frequency (MHz)	5180	5200	5240	
AC20 Mode	32	32	32	
Frequency (MHz)	5190	5230		
AC40 Mode	30	40		
Frequency (MHz)	5210			
AC80 Mode	28			

UNII-3- Non-Beamforming				
Test Software Version		MP-v3.4		
Frequency (MHz)	5745	5785	5825	
A Mode	50	54	54	
N20 Mode	40	40	40	
Frequency (MHz)	5755	5795		
N40 Mode	40	40		
Frequency (MHz)	5745	5785	5825	
AC20 Mode	40	40	40	
Frequency (MHz)	5755	5795		
AC40 Mode	39	39		
Frequency (MHz)	5775			
AC80 Mode	28			



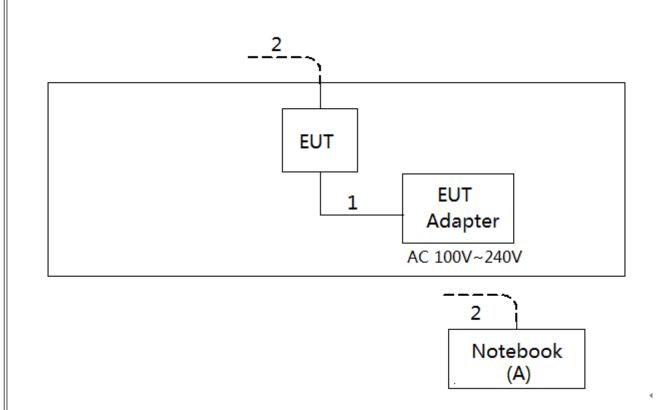
UNII-1- With Beamforming				
Test Software Version		MP-v3.4		
Frequency (MHz)	5180	5200	5240	
N20 Mode	30	30	29	
Frequency (MHz)	5190	5230		
N40 Mode	30	40		
Frequency (MHz)	5180	5200	5240	
AC20 Mode	32	32	32	
Frequency (MHz)	5190	5230		
AC40 Mode	30	40		
Frequency (MHz)	5210			
AC80 Mode	28			

UNII-3- With Beamforming				
Test Software Version		MP-v3.4		
Frequency (MHz)	5745	5785	5825	
N20 Mode	40	40	40	
Frequency (MHz)	5755	5795		
N40 Mode	40	40		
Frequency (MHz)	5745	5785	5825	
AC20 Mode	40	40	40	
Frequency (MHz)	5755	5795		
AC40 Mode	39	39		
Frequency (MHz)	5775			
AC80 Mode	28			





3.4BLOCKDIAGRAMSHOWINGTHECONFIGURATIONOFSYSTEMTESTED



3.5DESCRIPTION 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	Notebook	Lenovo	INSPIRON 1420	DOC	JX193A01SDC2

Item	Shielded Type	Ferrite Core	Length	Note
1	NO	NO	1.5M	DC Cable
2	NO	NO	10M	RJ-45 Cable





4.EMC EMISSION TEST

4.1CONDUCTED 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 equipmentspowered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Interconnecting cables that hang closer than 40 cm to the groundplane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- d. LISN at least 80 cm from nearest part of EUT chassis.
- e. For the actual test configuration, please refer to the related Item -EUT Test Photos.

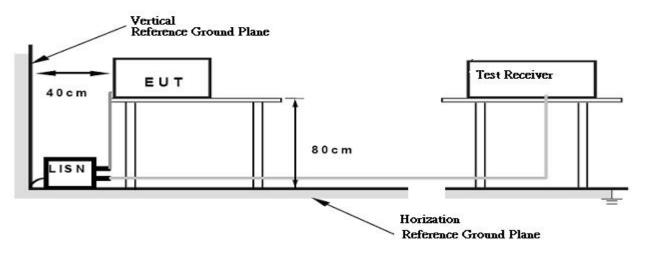
4.1.3DEVIATIONFROMTESTSTANDARD

No deviation





4.1.4 TESTSETUP



4.1.5EUT 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.

4.1.6EUT TEST CONDITIONS

Temperature: 25°CRelative Humidity: 53%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 ^ℂNote_□. 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

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
	-27(Note 2)	68.3
E70E E9E0	10(Note 2)	105.3
5725-5850	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: $E = \frac{100000\sqrt{30P}}{\mu}$ V/m, where P is the eirp (Watts)

3

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.

4.2.3DEVIATIONFROMTESTSTANDARD

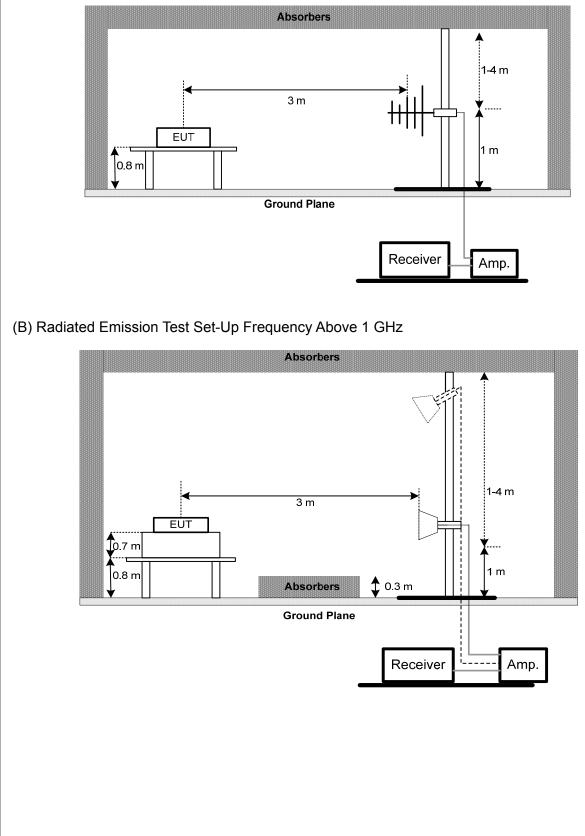
No deviation





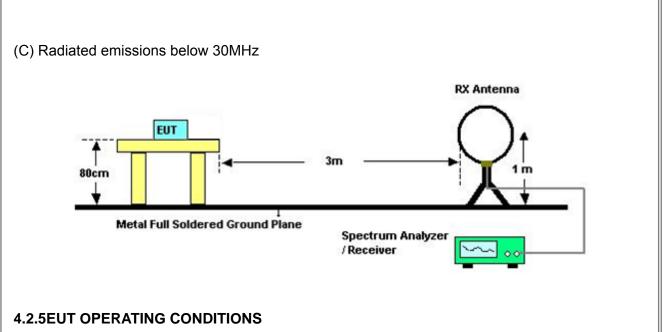
4.2.4TESTSETUP

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









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.

4.2.6EUT TEST CONDITIONS

Temperature: 25°CRelative Humidity: 60% Test Voltage: AC 120V/60Hz



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(BETWEEN30 TO 1000 MHz)

Please refer to the Attachment C.

4.2.9 TEST RESULTS (ABOVE1000 MHz)

Please refer to the Attachment D.

Remark:

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



5.SPECTRUM BANDWIDTH

5.1APPLIED PROCEDURES / LIMIT

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

5.1.1TEST 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)
	KBW	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

5.1.2DEVIATION FROM STANDARD

No deviation.





5.1.3TEST SETUP



5.1.4EUT 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.

5.1.5EUT TEST CONDITIONS

Temperature: 25°CRelative Humidity: 60% Test Voltage: AC 120V/60Hz

5.1.6TEST RESULTS

Please refer to the Attachment E.



6.MAXIMUM CONDUCTED OUTPUT POWER

6.1APPLIED PROCEDURES / LIMIT

FCC Part15, Subpart E				
Test Item	Test Item Limit		Result	
	Fixed:1 Watt (30dBm)			
Conducted Output	Mobile and portable:	5150-5250	PASS	
Power	250mW (24dBm)			
	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)				

6.1.1TEST 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 Fraguanov	Encompass the entire emissions bandwidth (EBW) of the
Span Frequency	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.





6.1.2DEVIATION FROM STANDARD

No deviation.

6.1.3TEST SETUP



6.1.4EUT 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.

6.1.5EUT TEST CONDITIONS

Temperature: 25°CRelative Humidity: 60% Test Voltage: AC 120V/60Hz

6.1.6TEST RESULTS

Please refer to the Attachment F.



7.POWER SPECTRAL DENSITY TEST

7.1APPLIED PROCEDURES / LIMIT

FCC Part15, Subpart E				
Test Item	Limit	Frequency Range (MHz)	Result	
Power Spectral Density			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 Fraguanov	Encompass the entire emissions bandwidth (EBW) of the
	Span Frequency	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.





7.1.1DEVIATION FROM STANDARD

No deviation.

7.1.2TEST SETUP

EUT	SPECTRUM	
	ANALYZER	

7.1.3EUT 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.

7.1.4EUT TEST CONDITIONS

Temperature: 25°CRelative Humidity: 60% Test Voltage: AC 120V/60Hz

7.1.5TEST RESULTS

Please refer to the Attachment H.



8.FREQUENCY STABILITY MEASUREMENT

8.1APPLIED PROCEDURES / LIMIT

FCC Part15, Subpart E				
Test Item Limit Frequency Range (MHz) Result				
Energy on an Otability	Specified in the	5150-5250	PASS	
Frequency Stability	user's manual	5725-5850	PASS	

8.1.1TEST PROCEDURE

a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,

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

- c. The test extreme voltage is to change the primary supply voltage from 85 to 115 percent of the nominal value.
- d. User manual temperature is0°C~40°C.

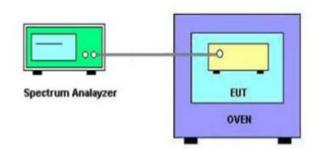
8.1.2DEVIATION FROM STANDARD

No deviation.





8.1.3TEST SETUP



8.1.4EUT 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.

8.1.5EUT TEST CONDITIONS

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

8.1.6TEST RESULTS Please refer to the Attachment 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. 26, 2018	
2	LISN	EMCO	3816/2	52765	Mar. 26, 2018	
3	50Ω Terminator	SHX	TF2-3G-A	8122901	Mar. 26, 2018	
4	TWO-LINE V-NETWORK	R&S	ENV216	101447	Mar. 26, 2018	
5	Measurement Software	Farad	EZ-EMC Ver.NB-03A1 -01	N/A	N/A	
6	Cable		RG223	12m	Oct. 20, 2017	

	Radiated Emission Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until	
1	Antenna	Schwarbeck	VULB9160	9160-3232	Mar. 26, 2018	
2	Amplifier	HP	8447D	2944A09673	Oct. 20, 2017	
3	Receiver	Agilent	N9038A	MY5213003 9	Sep. 04, 2017	
4	Cable	emci	LMR-400(30MH z-1GHz)(8m+5m)	N/A	Jun. 26, 2018	
5	Controller	СТ	SC100	N/A	N/A	
6	Controller	MF	MF-7802	MF78020841 6	N/A	
7	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A	
8	Double Ridged Guide Antenna	ETS	3115	75789	Mar. 26, 2018	
9	Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	9170319	Jun. 08, 2018	
10	Amplifier	Agilent	8449B	3008A02274	May. 16, 2018	
11	Microwave Preamplifier With Adaptor	EMC INSTRUMENT	EMC2654045	980039 & HA01	Mar. 26, 2018	
12	Antenna	EM	EM-6876-1	230	Jul. 07, 2018	
13	Controller	MF	MF-7802	MF78020841 6	N/A	
14	Cable	emci	EMC104-SM-S M-12000(12m)	N/A	Jun. 26, 2018	
15	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A	





	Spectrum BandwidthMeasurement				
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP40	100185	Sep. 04, 2017

	Maximum Conducted Output Power Measurement				
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	EMI Test Receiver	R&S	ESCI	100895	Mar. 26, 2018
2	Antenna	EM	EM-6876-1	230	Jul. 07, 2018

	Power Spectral Density Measurement				
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP40	100185	Sep. 04, 2017

	Frequency Stability Measurement				
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP40	100185	Sep. 04, 2017
2	Precision Oven Tester	Bell	BTH-50C	20170306001	Mar. 26, 2018

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





10.EUT TEST PHOTOS

Conducted Measurement Photos







Radiated Measurement Photos

9KHz to 30MHz









Radiated Measurement Photos

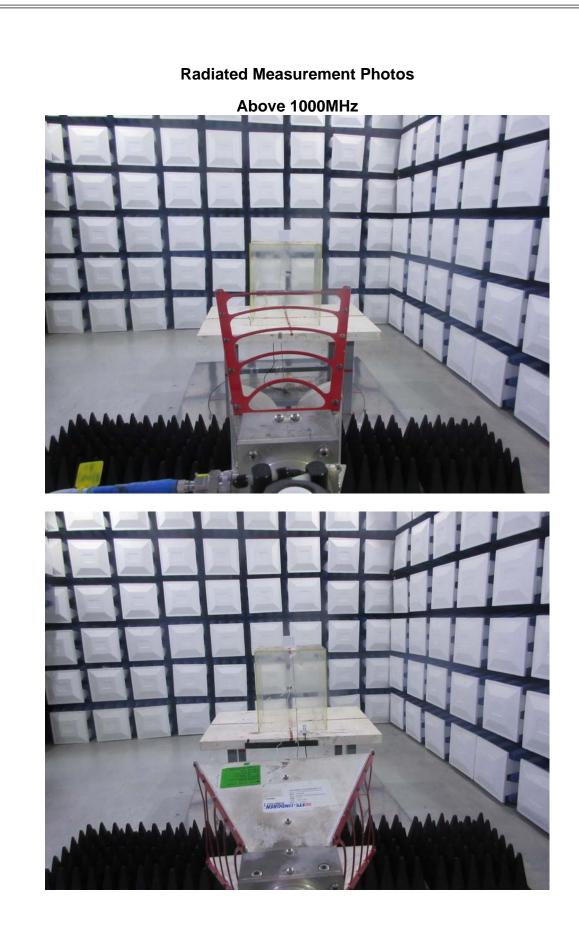
30MHz to 1000MHz









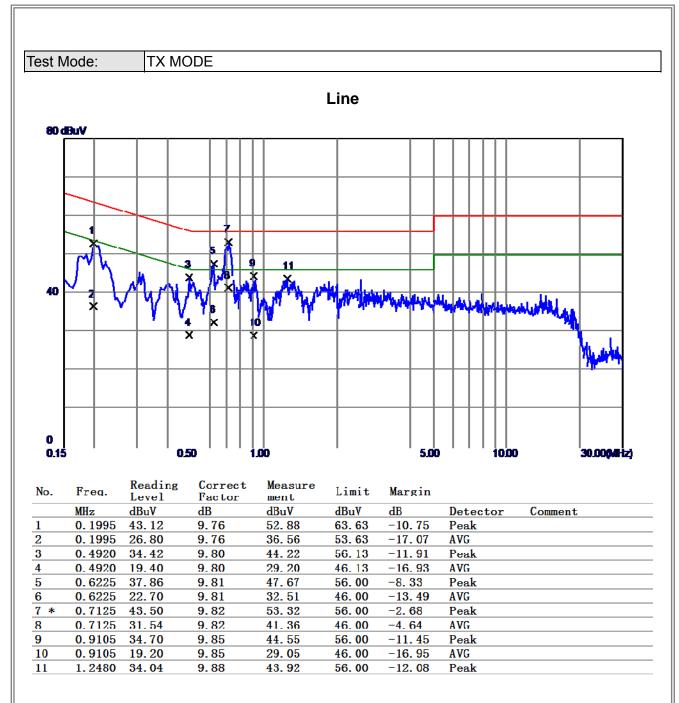




ATTACHMENTA -CONDUCTED EMISSION



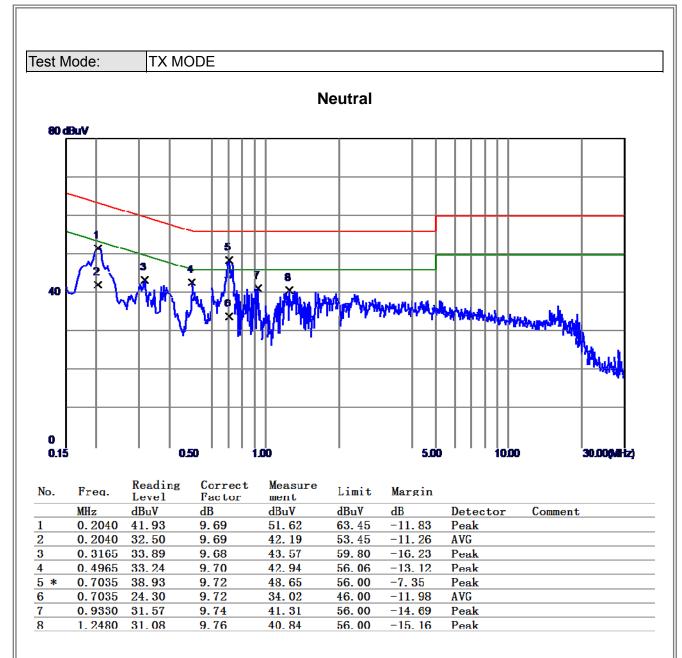




Note : The test result has included the cable loss.







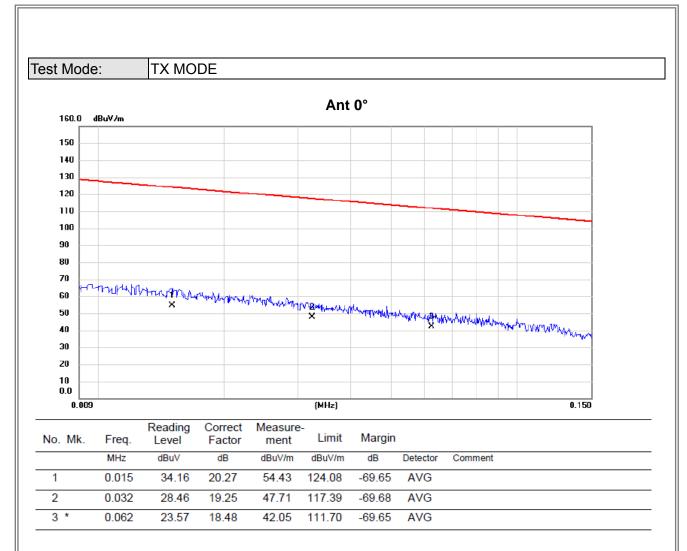
Note : The test result has included the cable loss.



ATTACHMENTB -RADIATED EMISSION (9KHZ TO 30MHZ)

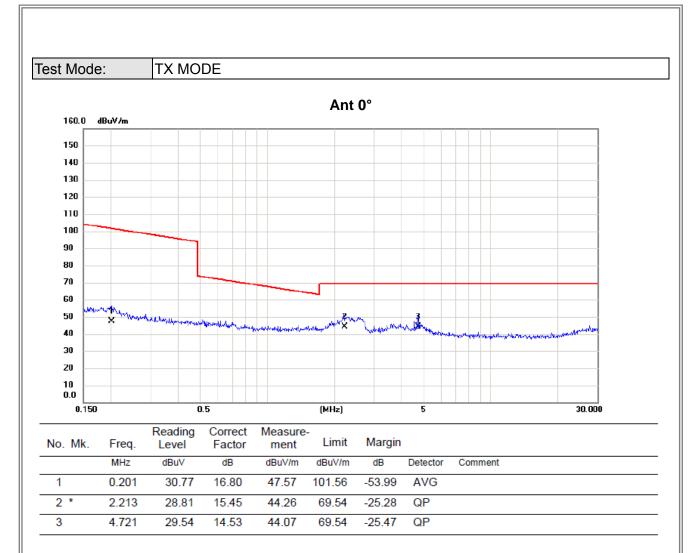






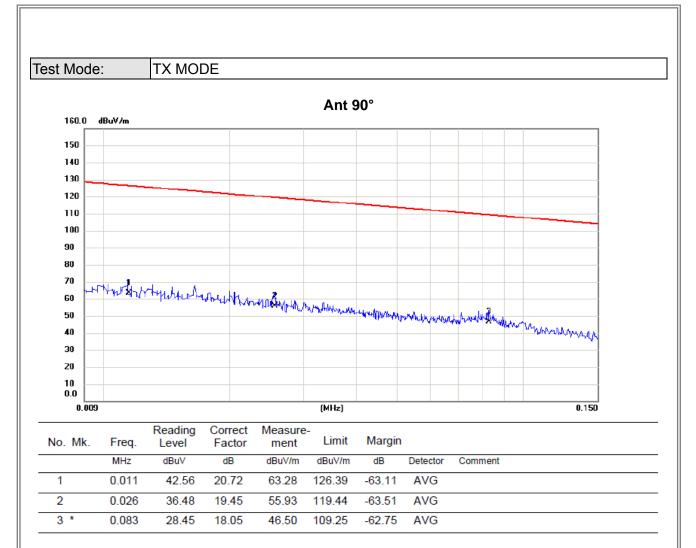






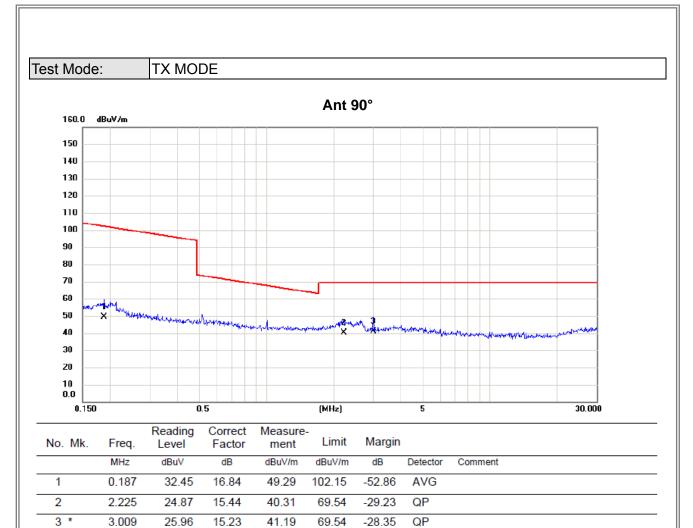












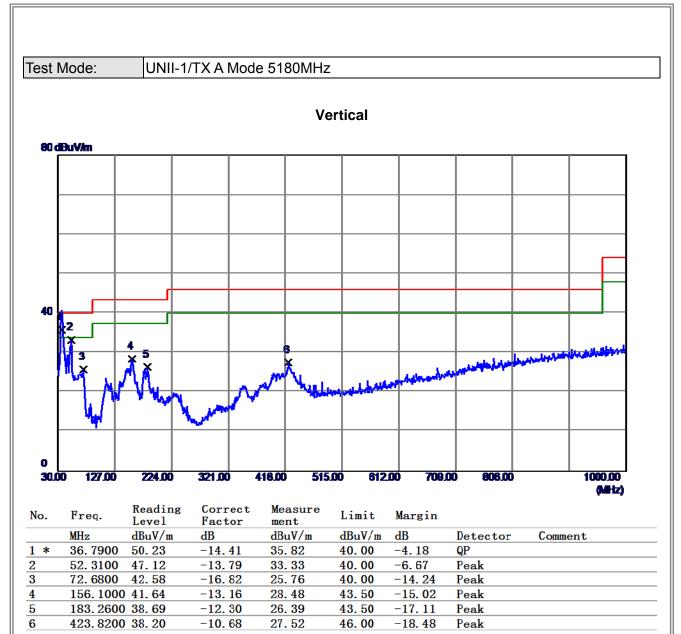




ATTACHMENTC -RADIATED EMISSION (30MHZ TO 1000MHZ)

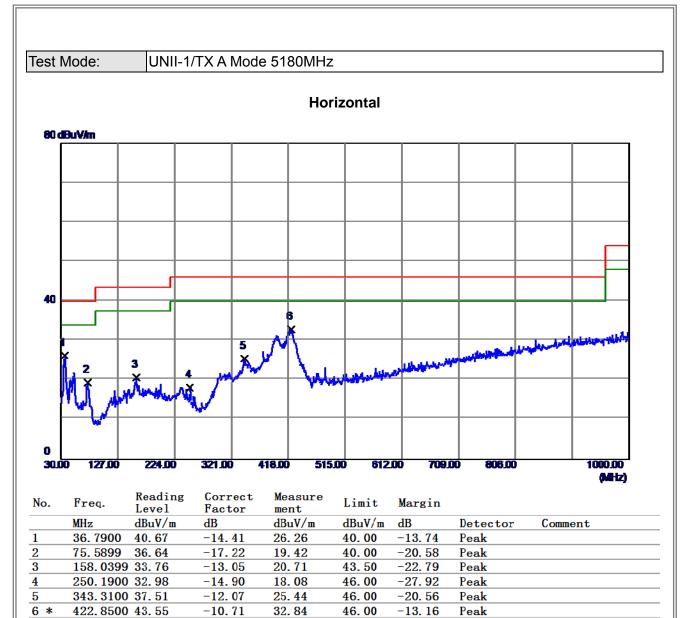






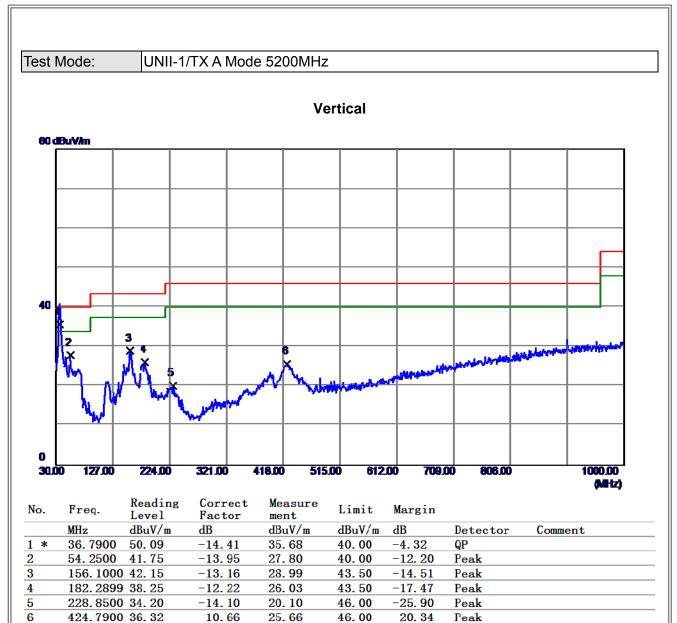






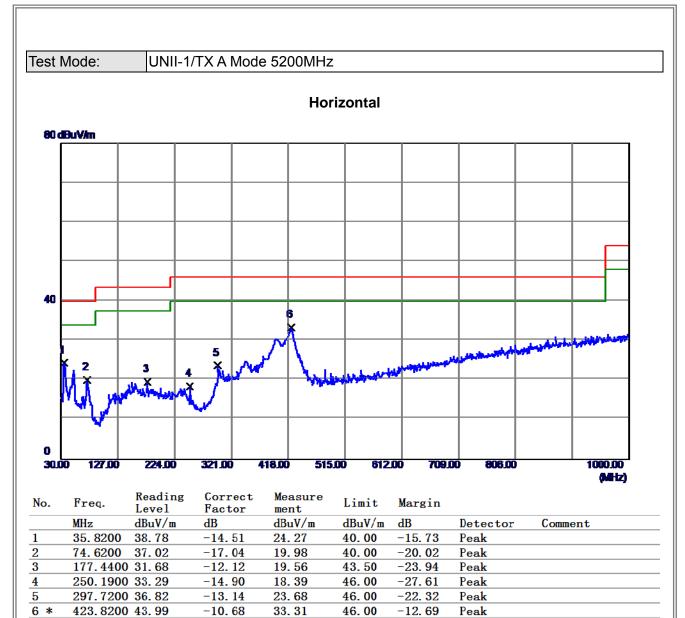






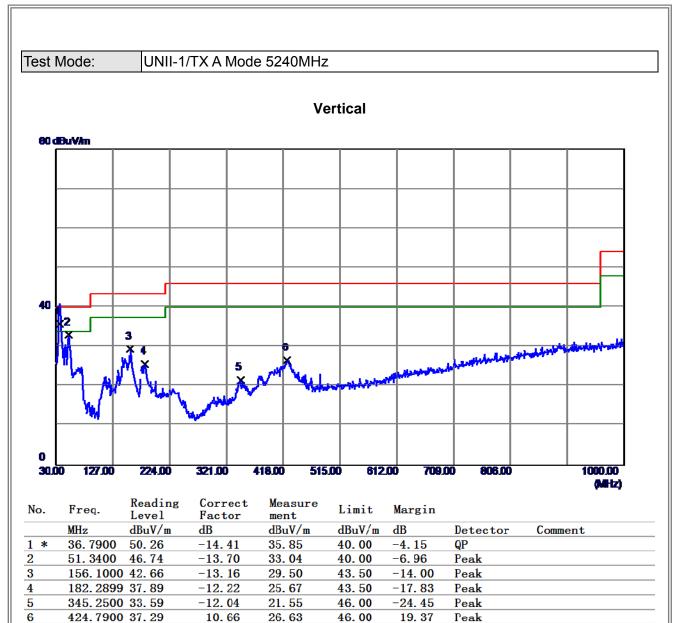






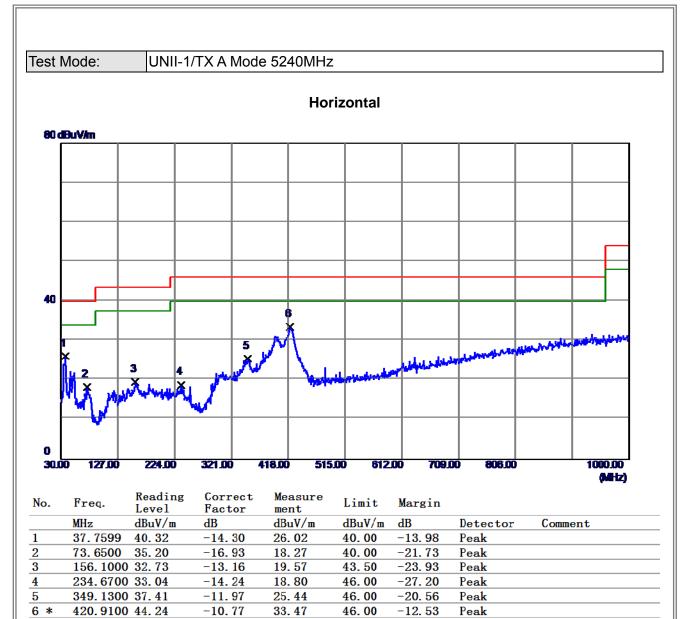






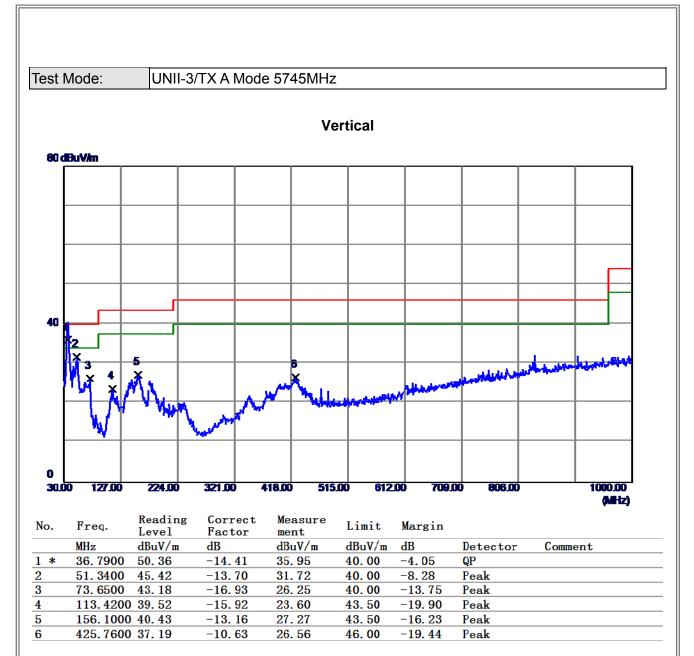






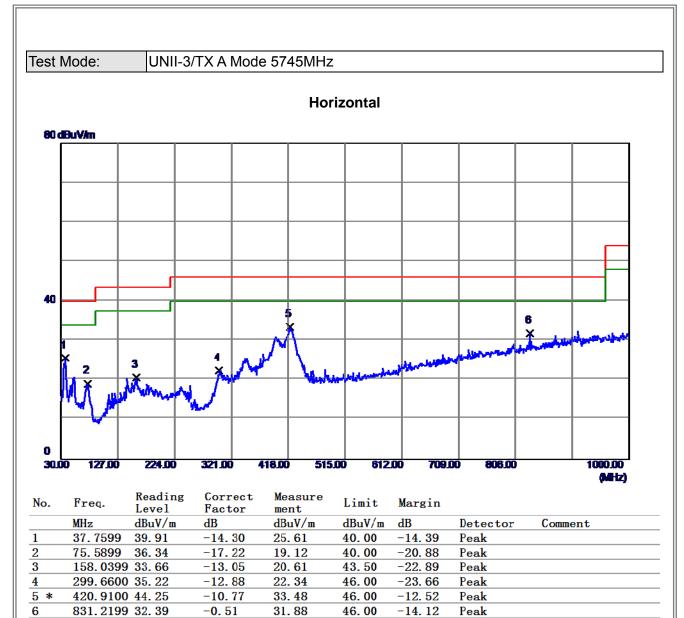






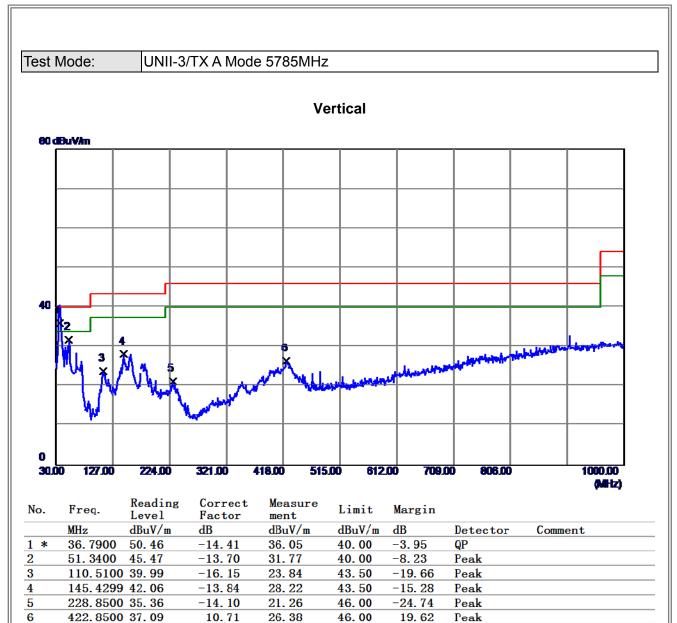






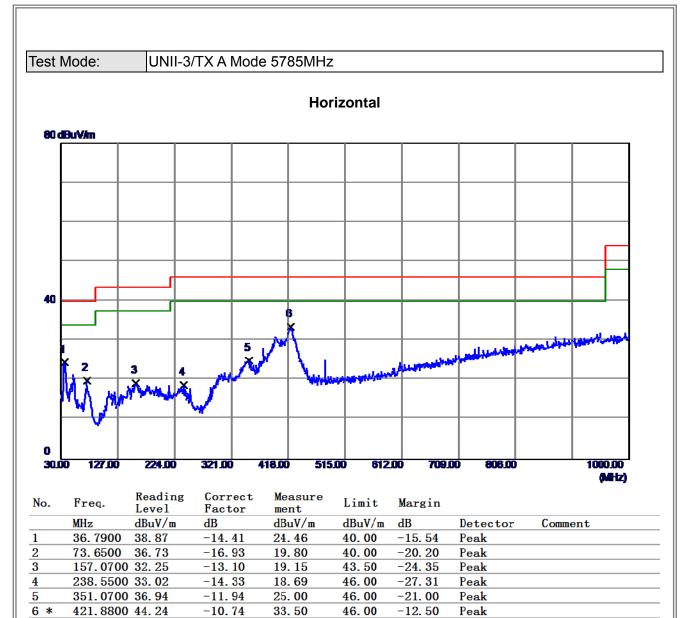












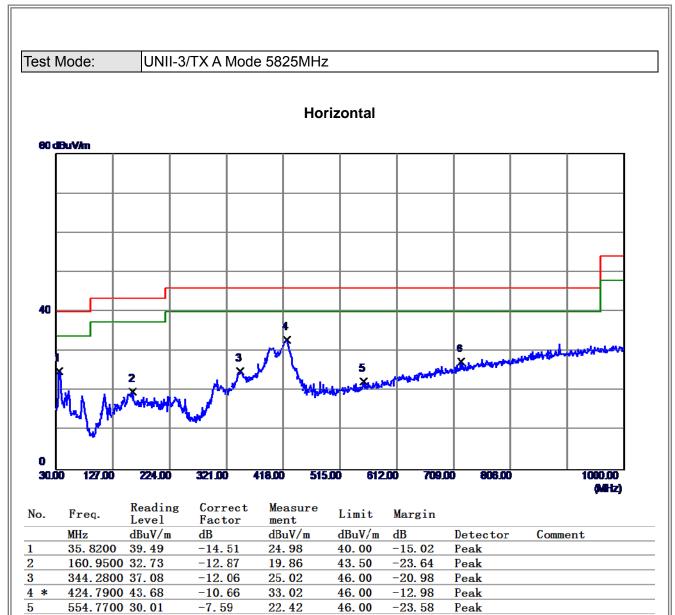












721.6100 30.72

6

-3.29

27.43

46.00

-18.57

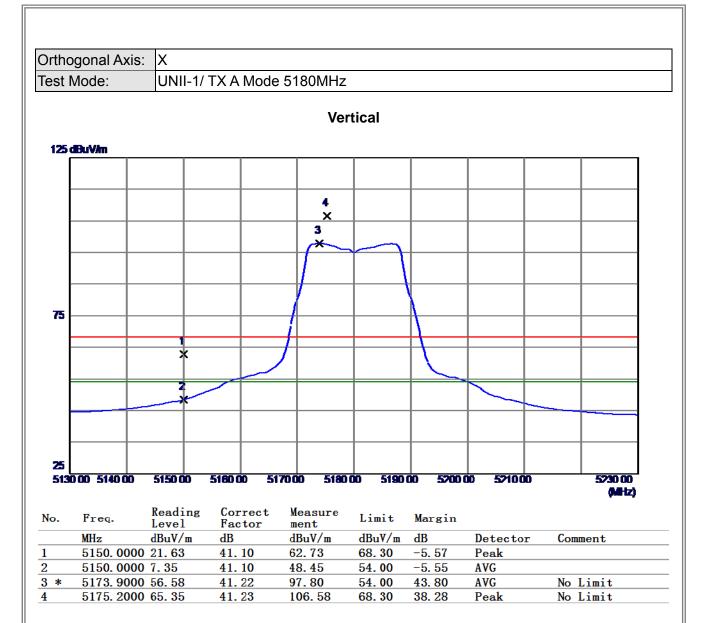
Peak



ATTACHMENTD -RADIATED EMISSION (ABOVE 1000MHZ)

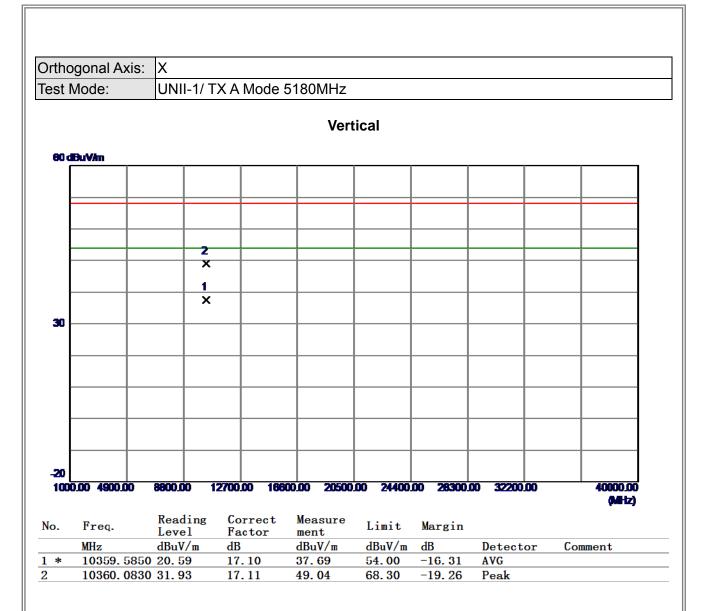






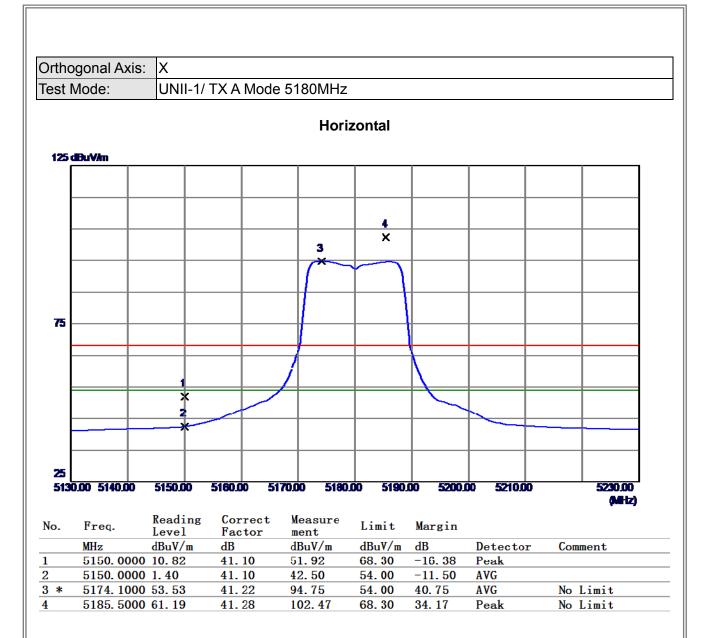






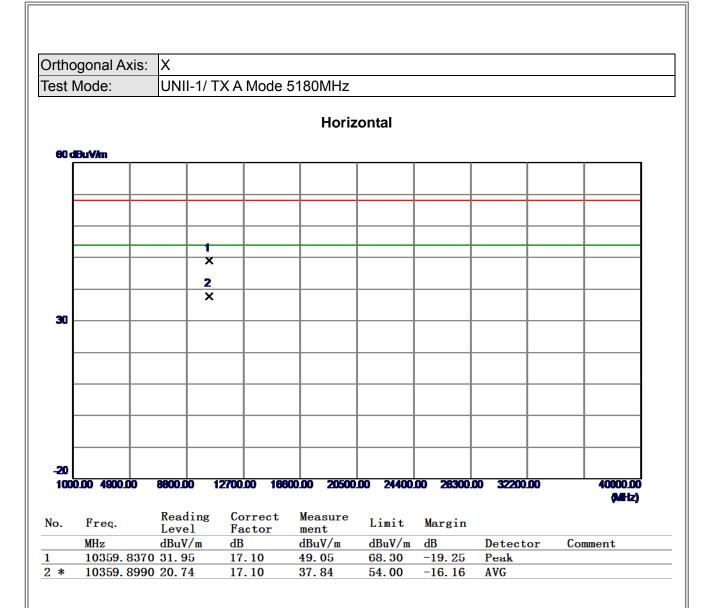






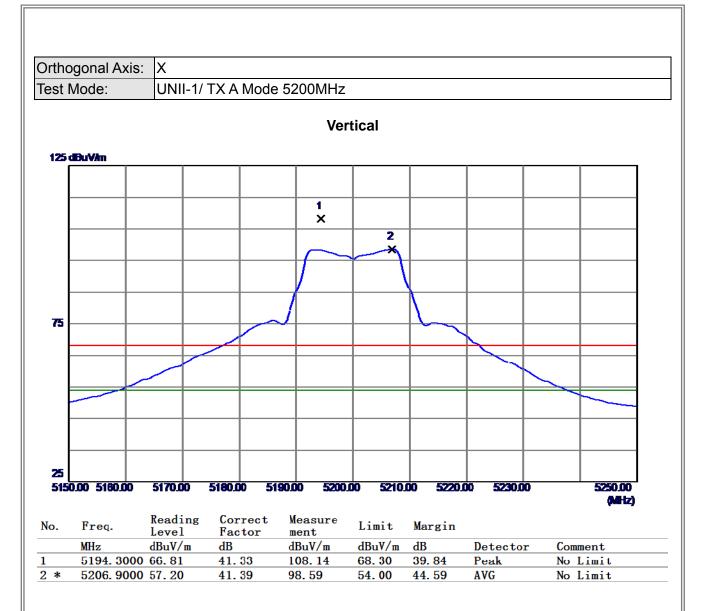






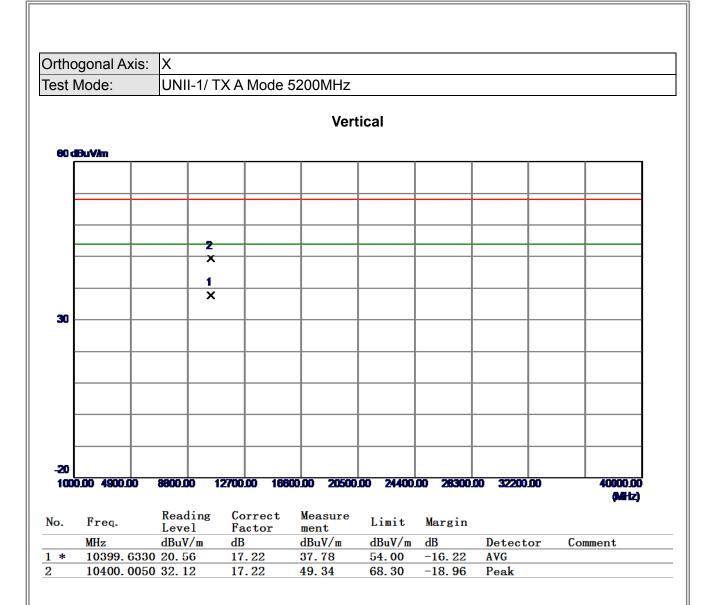






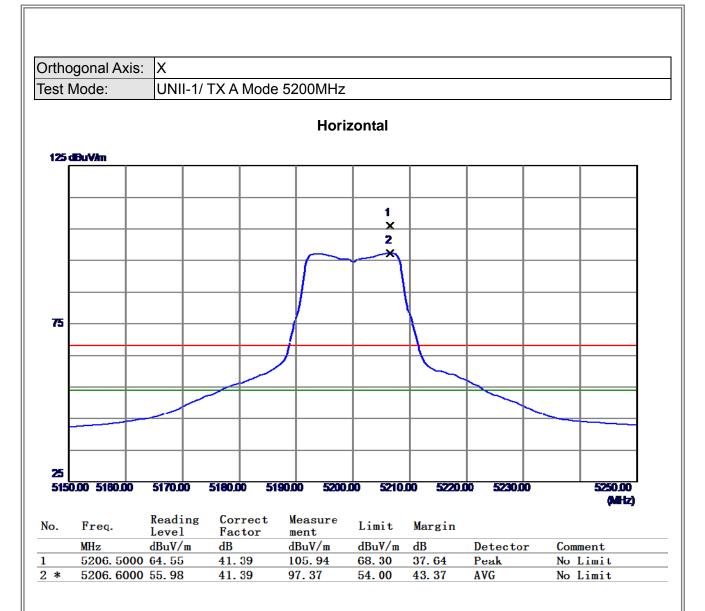






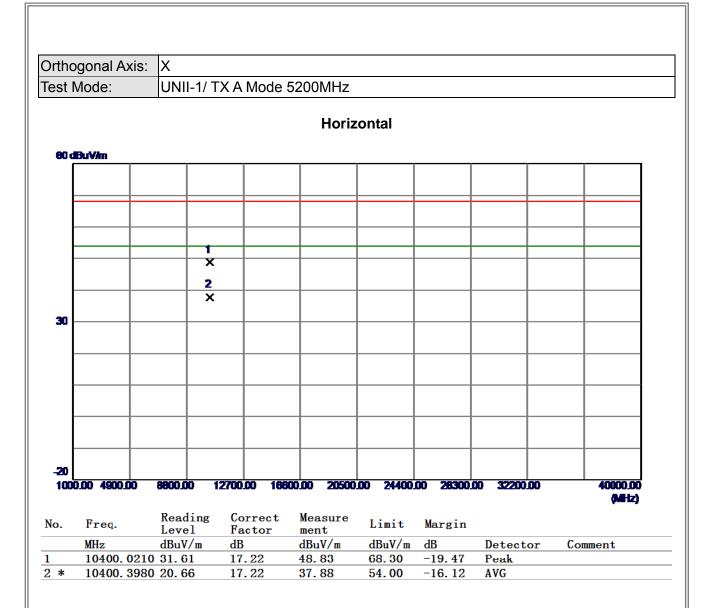






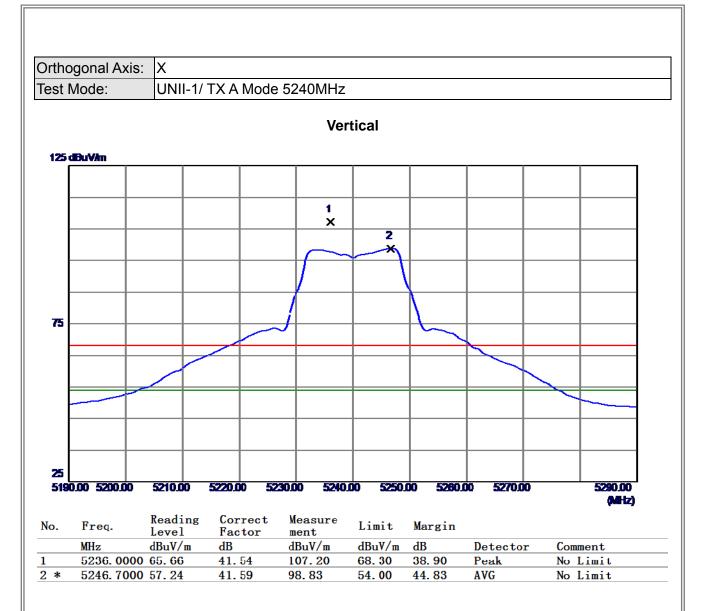






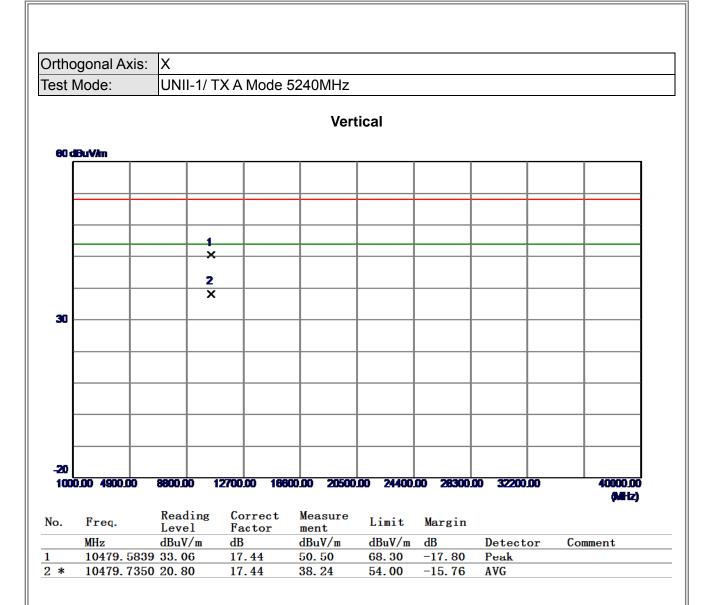






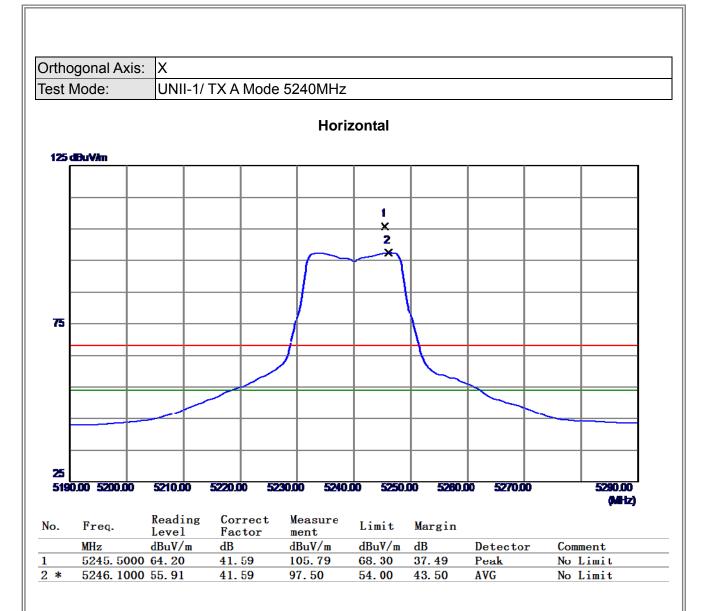






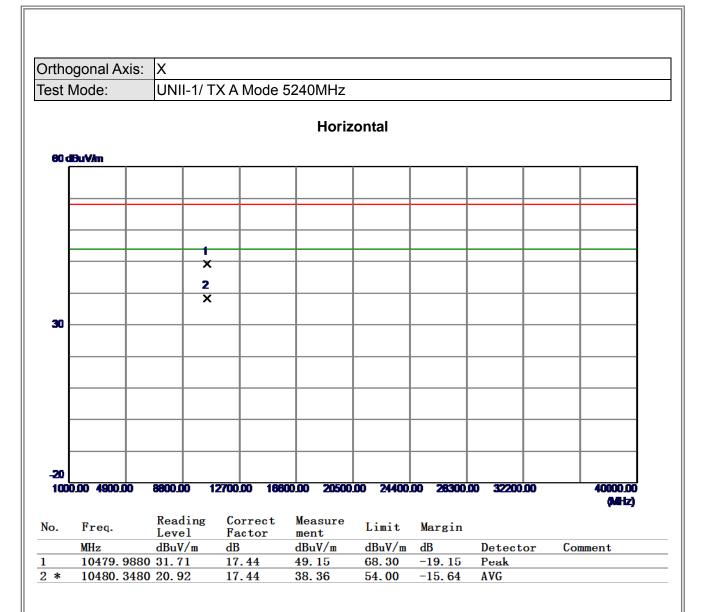






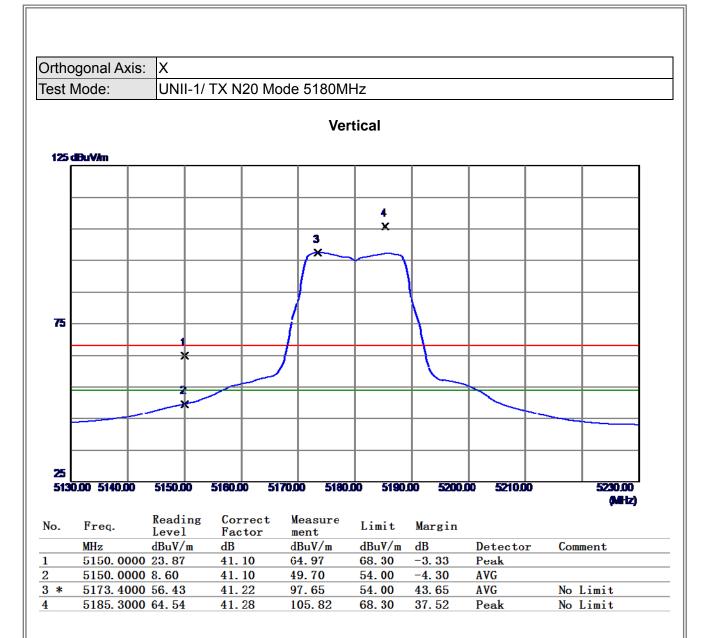






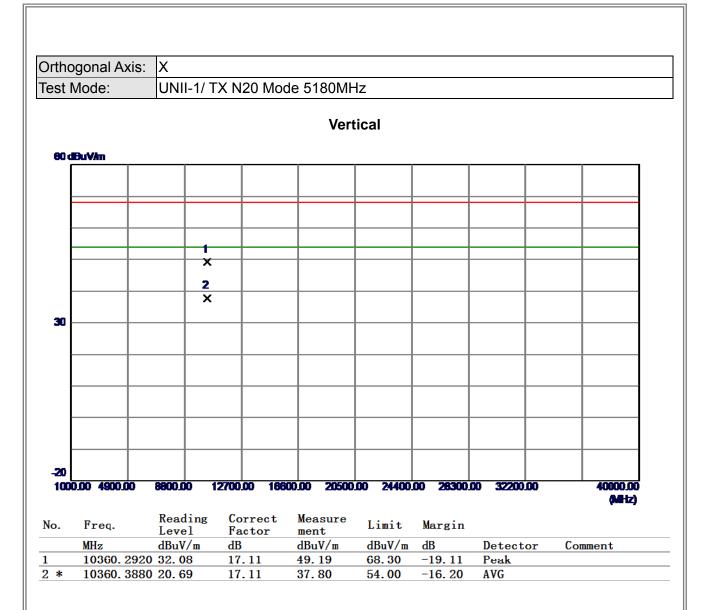






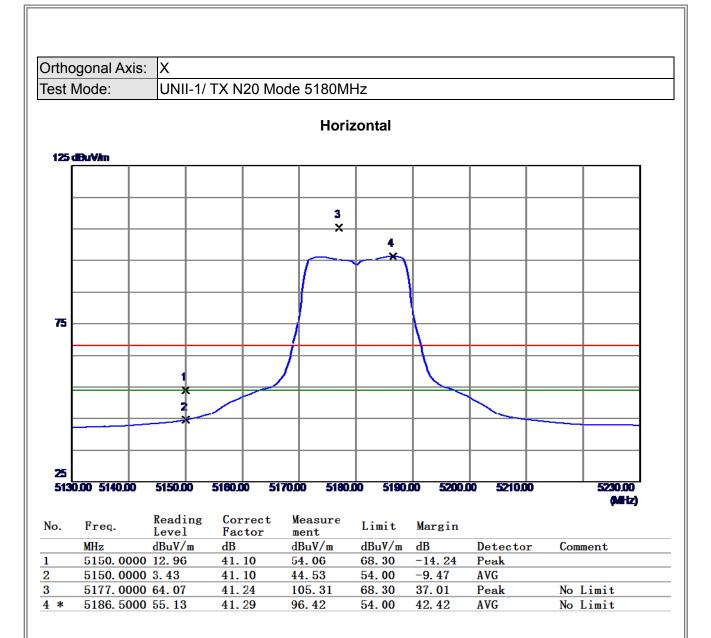






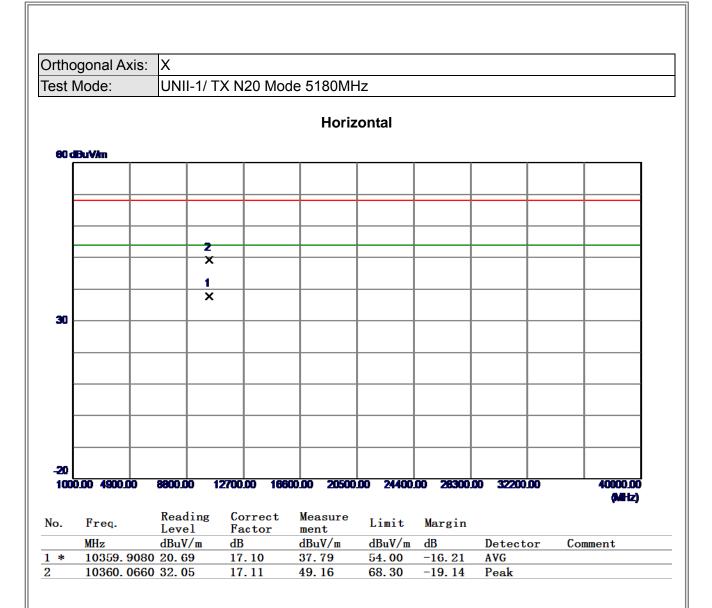






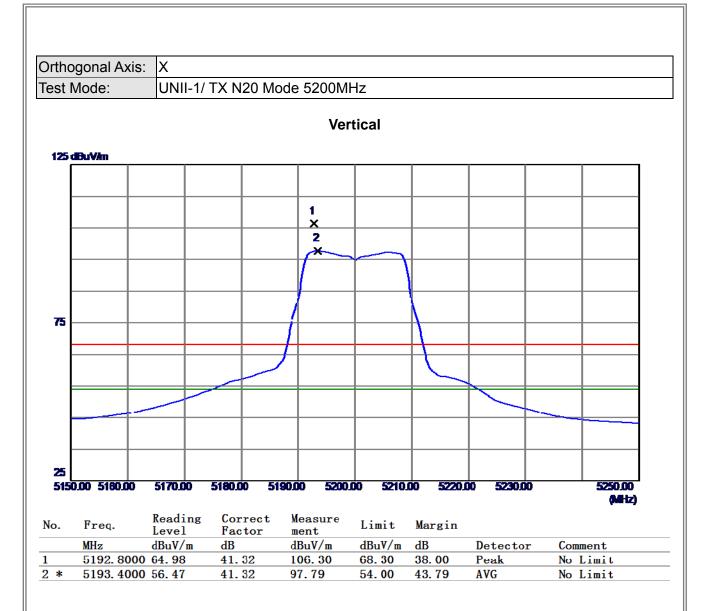






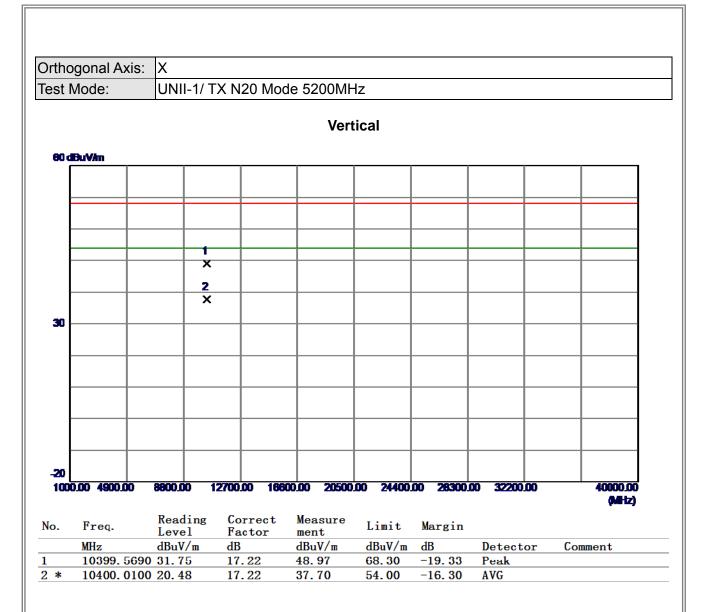






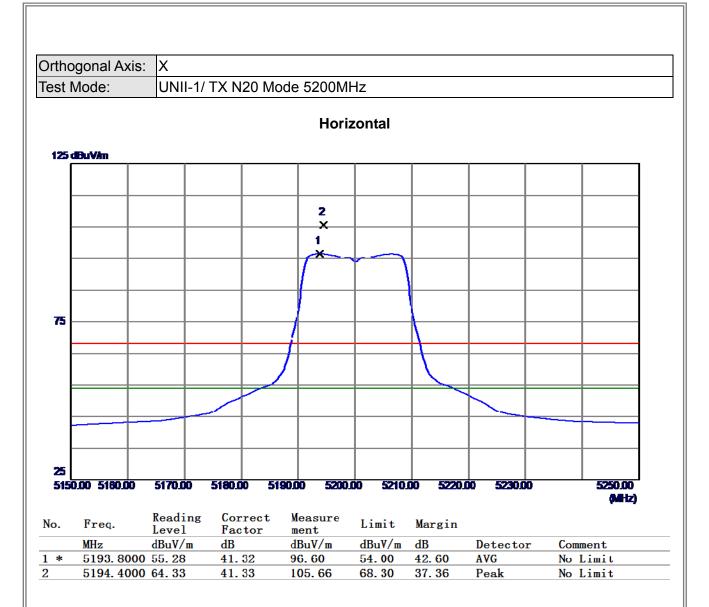






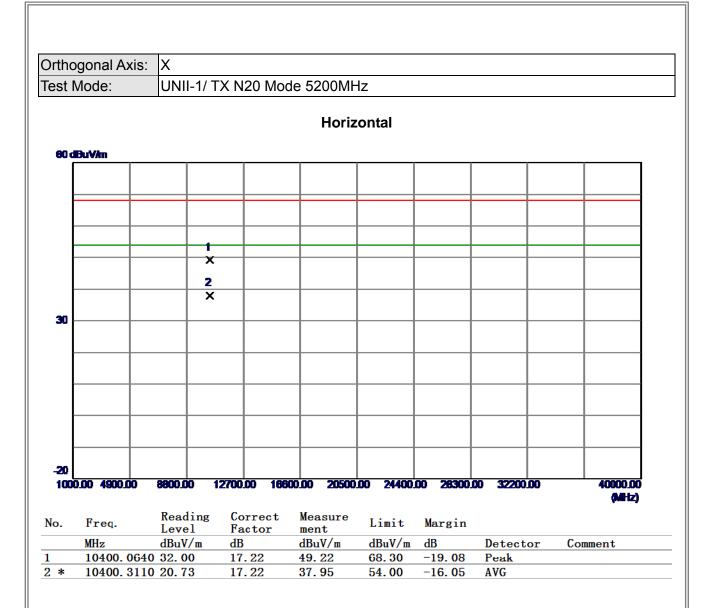






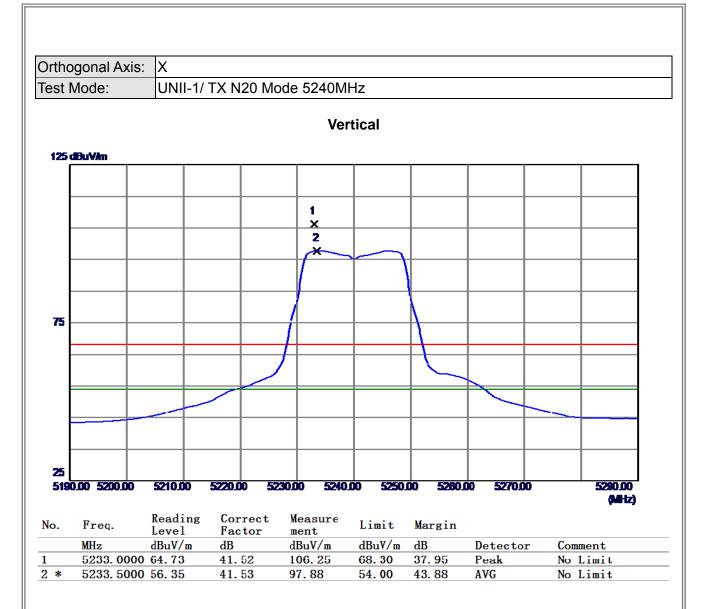






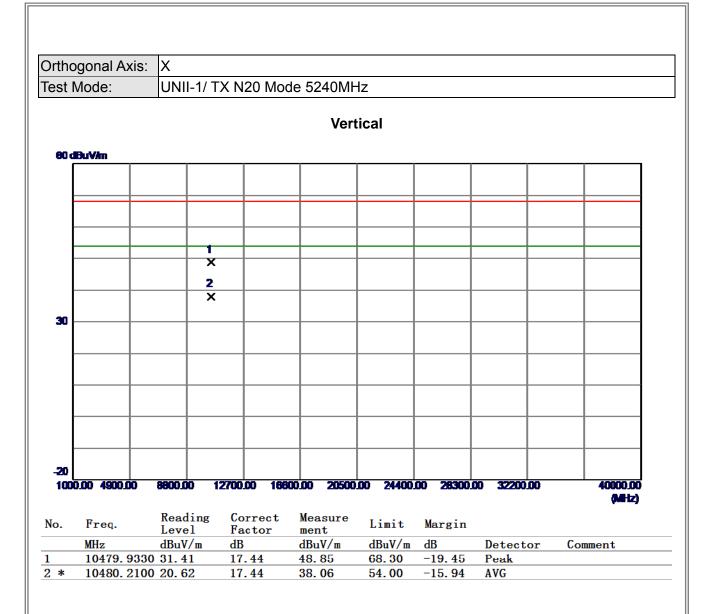






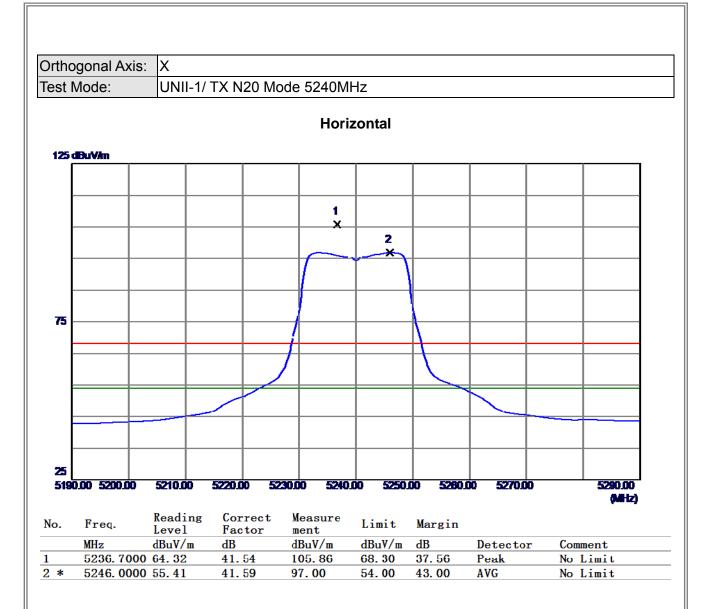






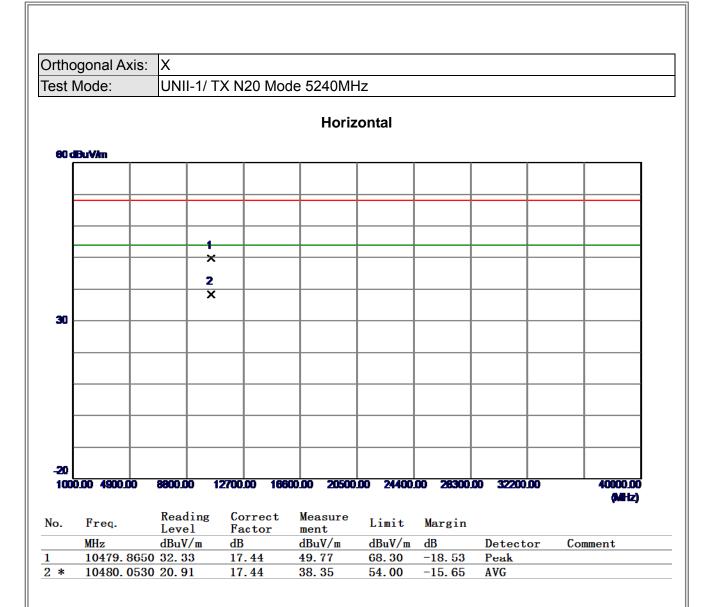






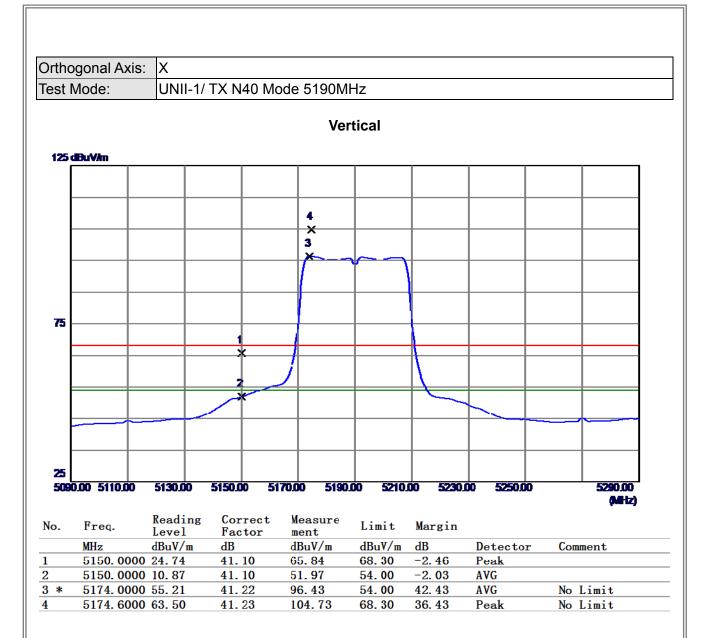






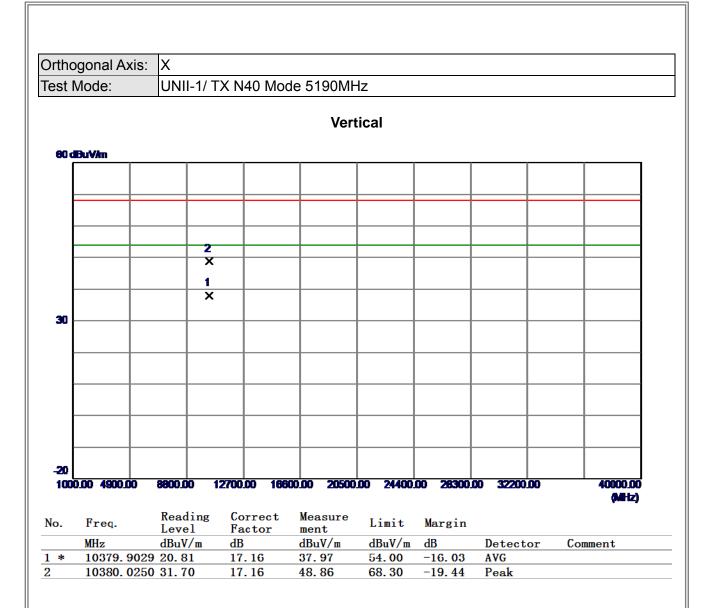






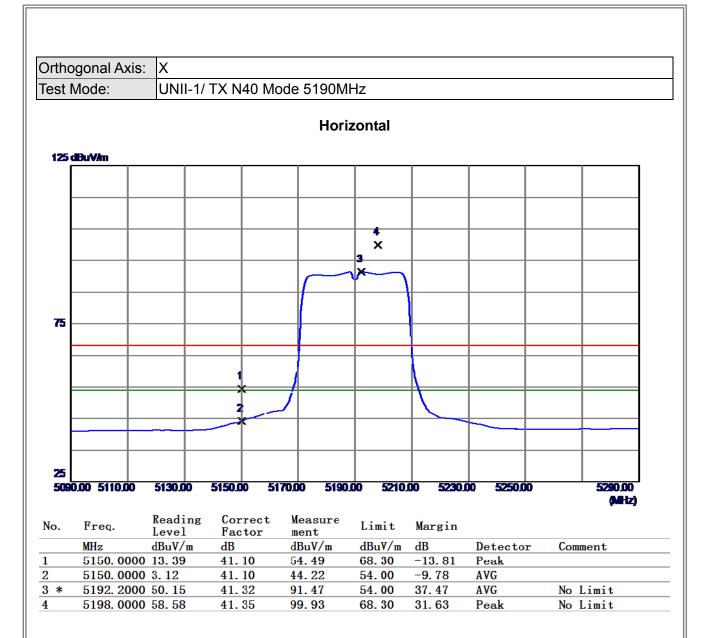






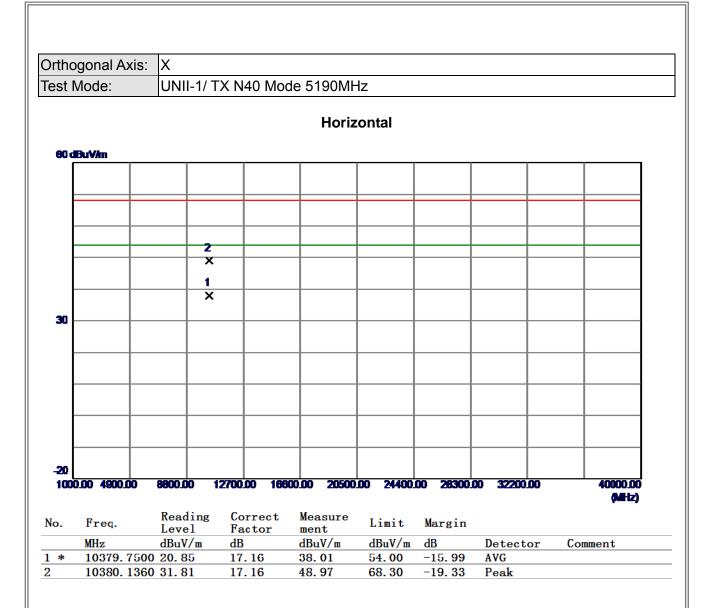






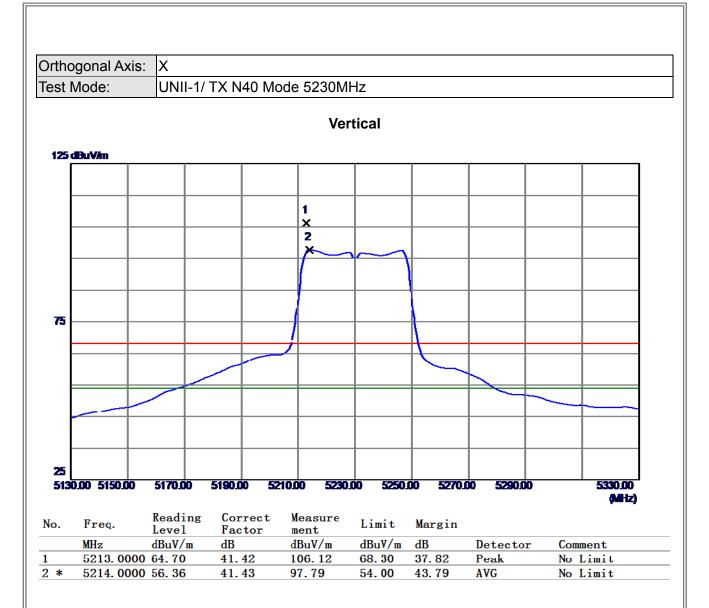






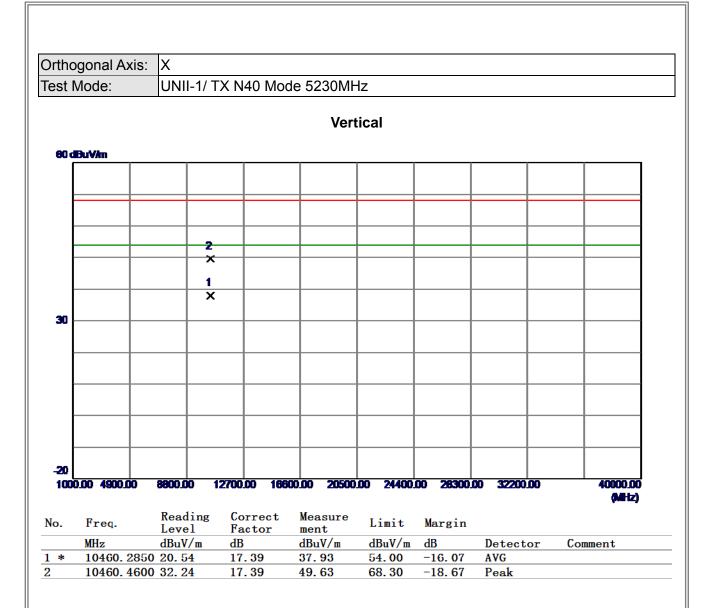






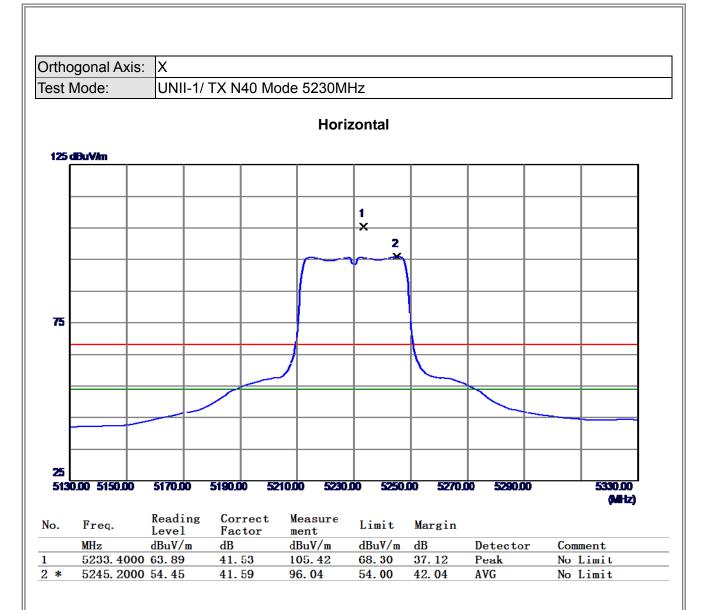






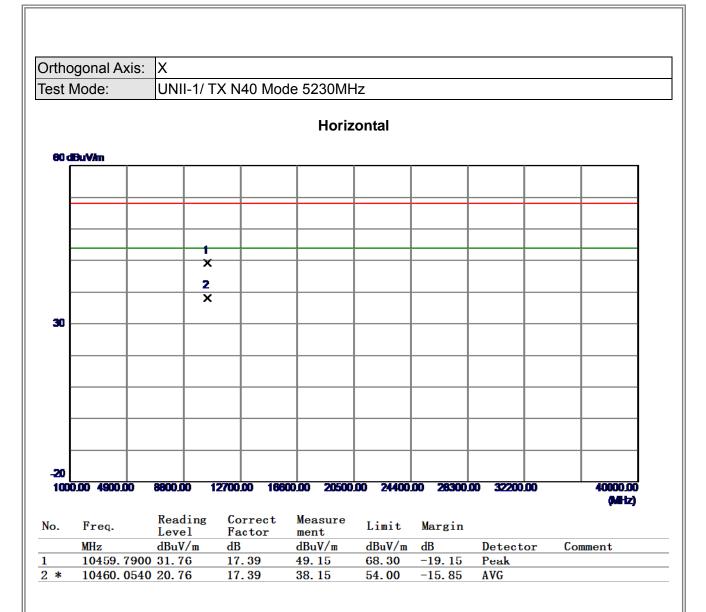






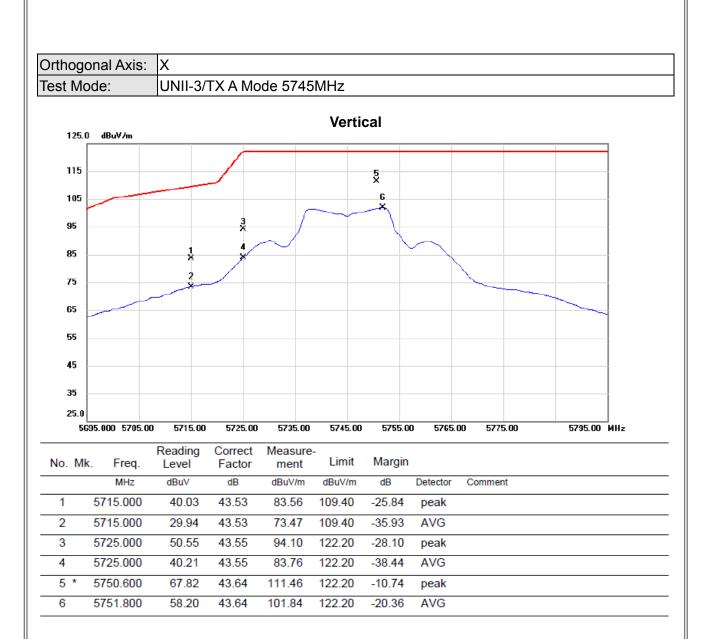






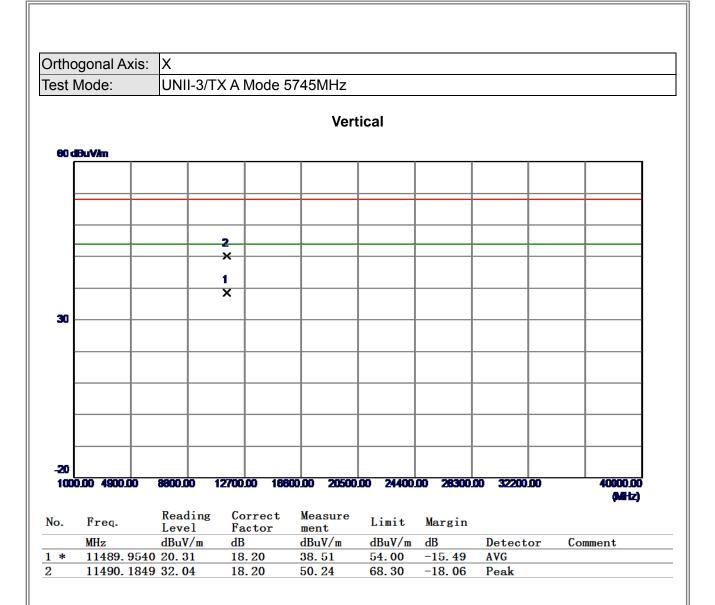






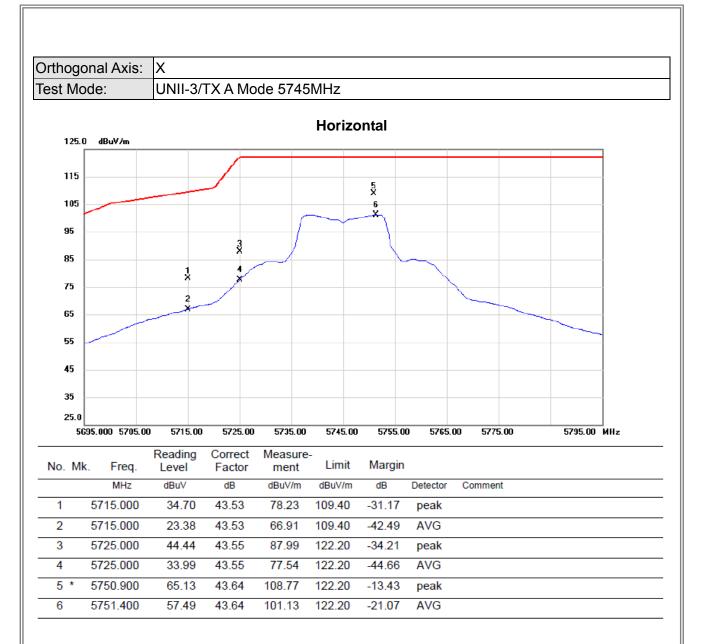






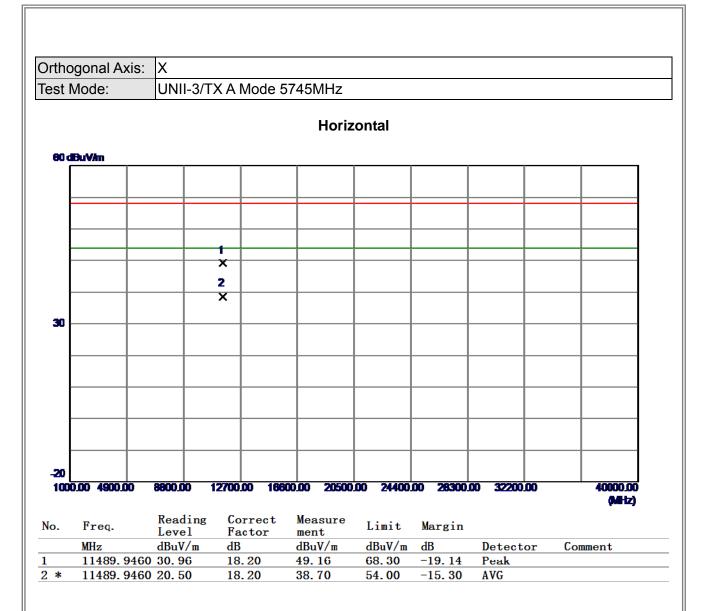






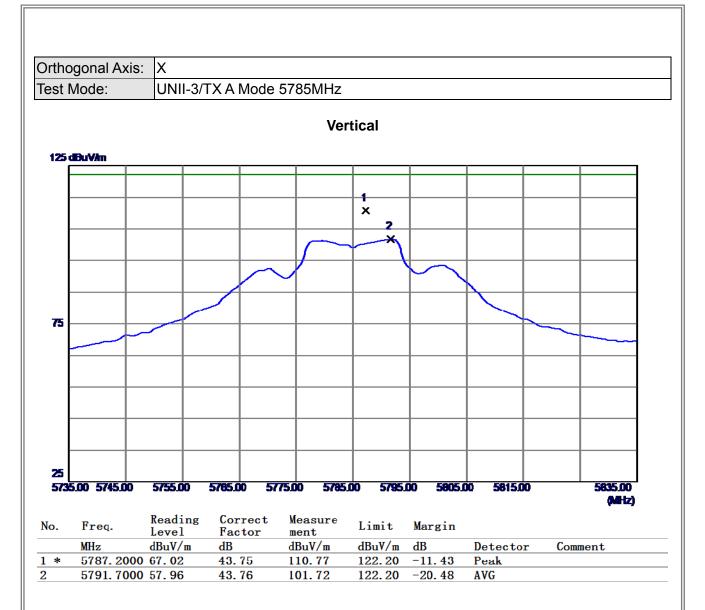






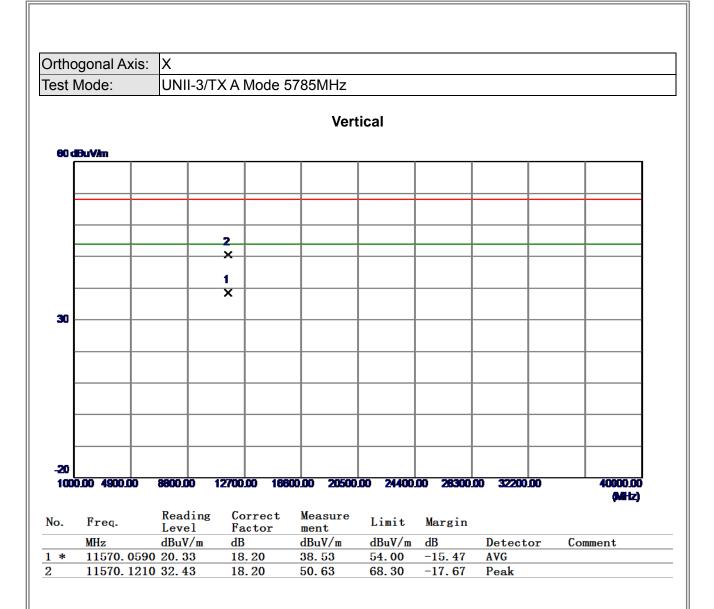






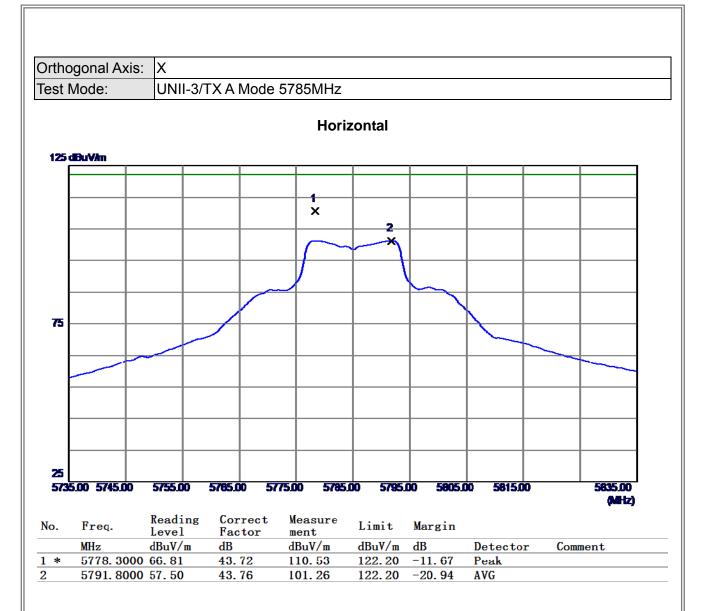






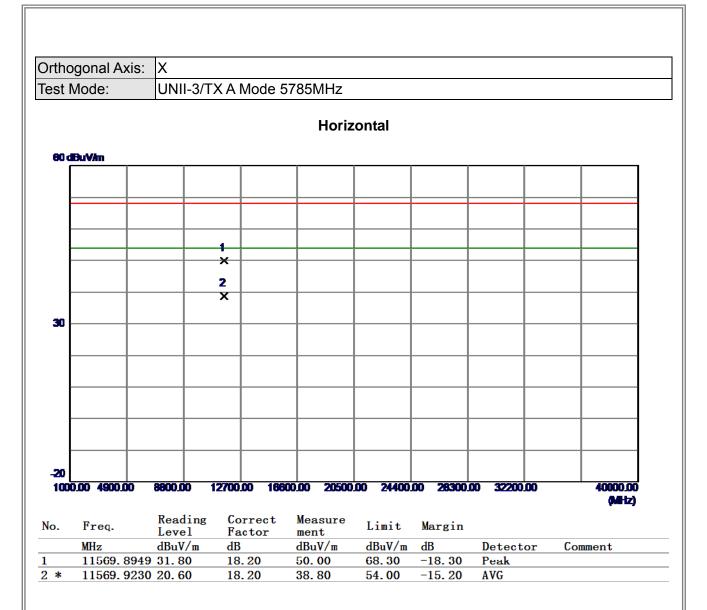






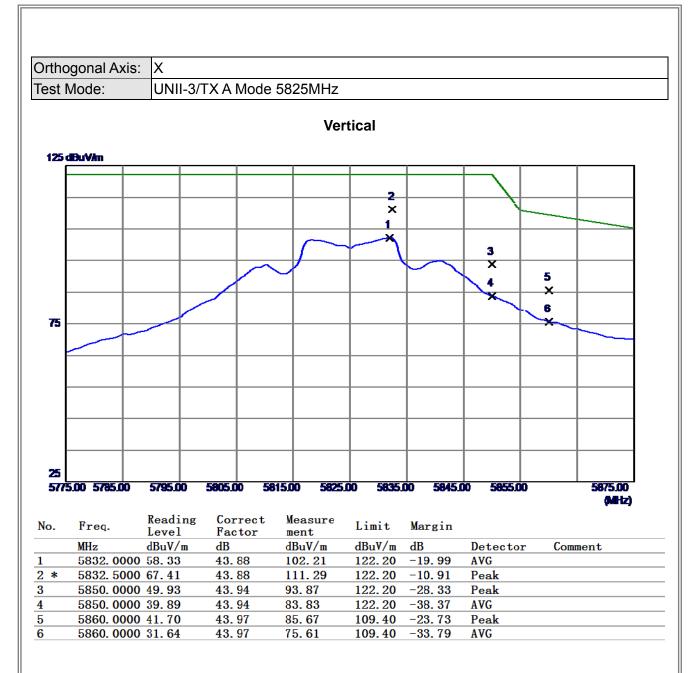






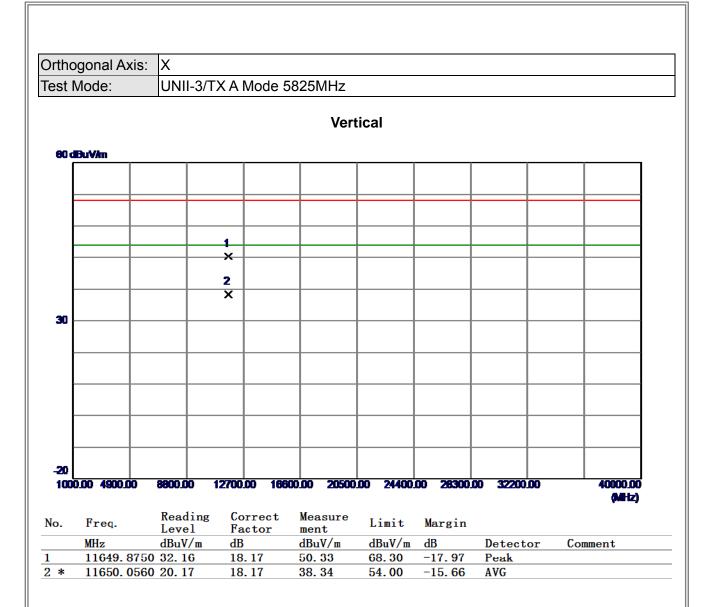






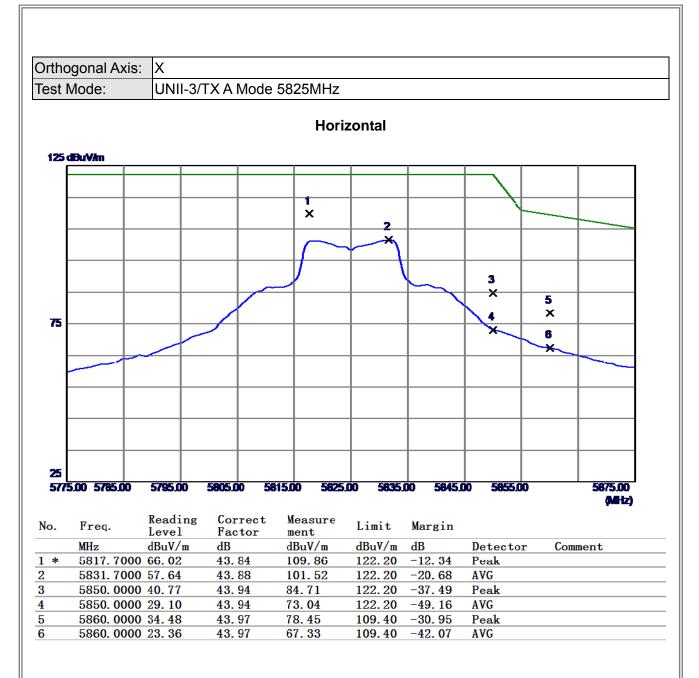






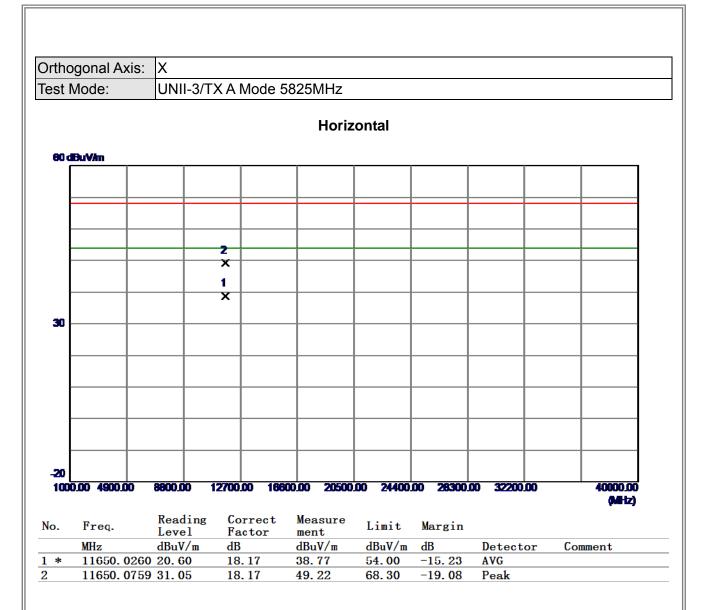






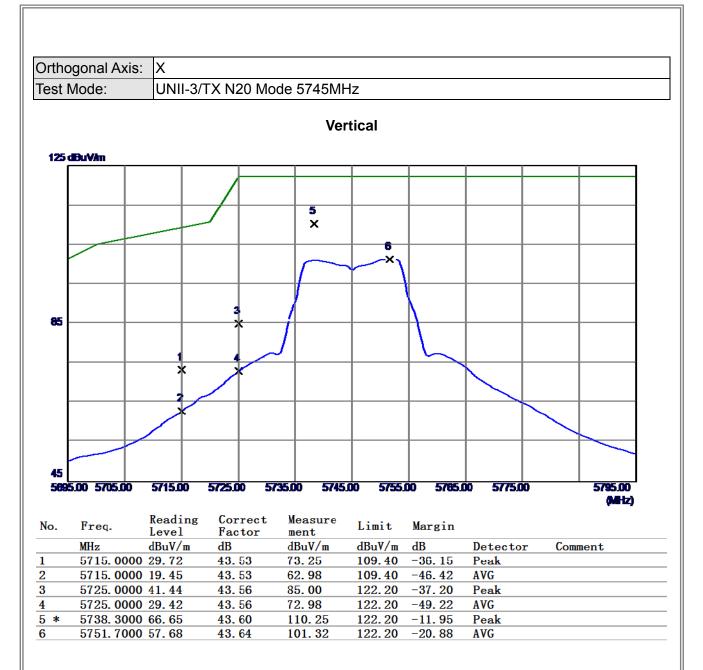






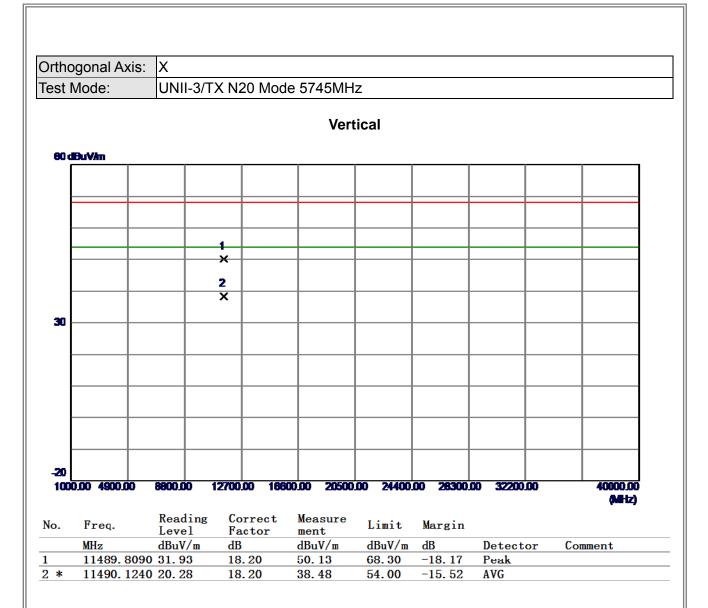






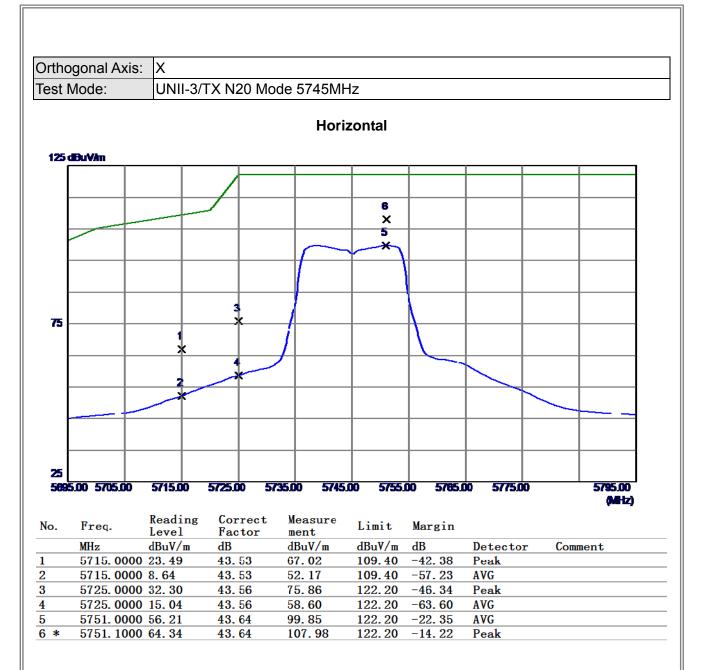












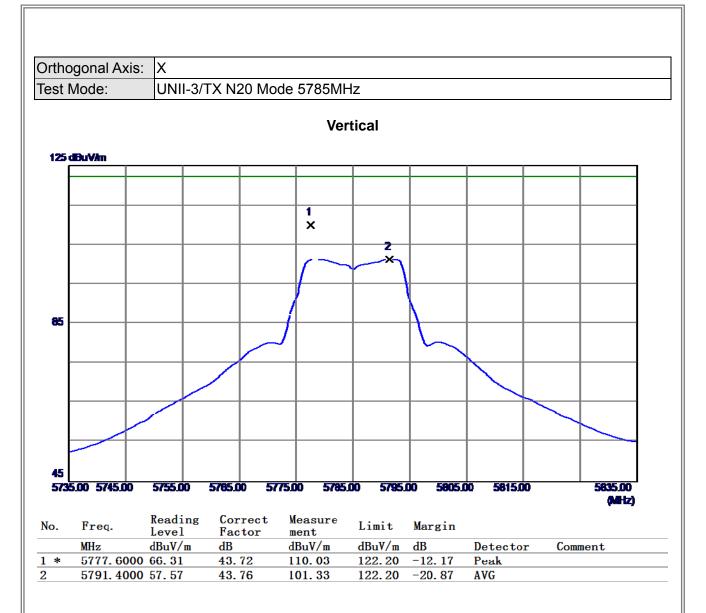






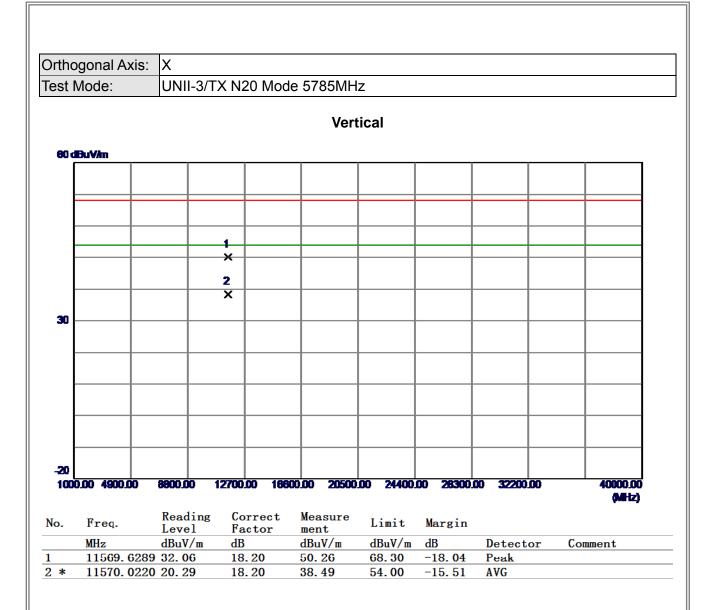






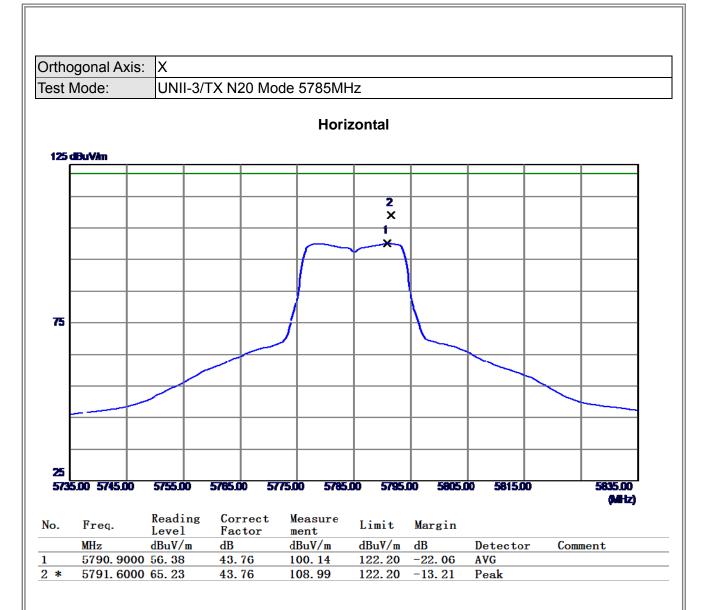






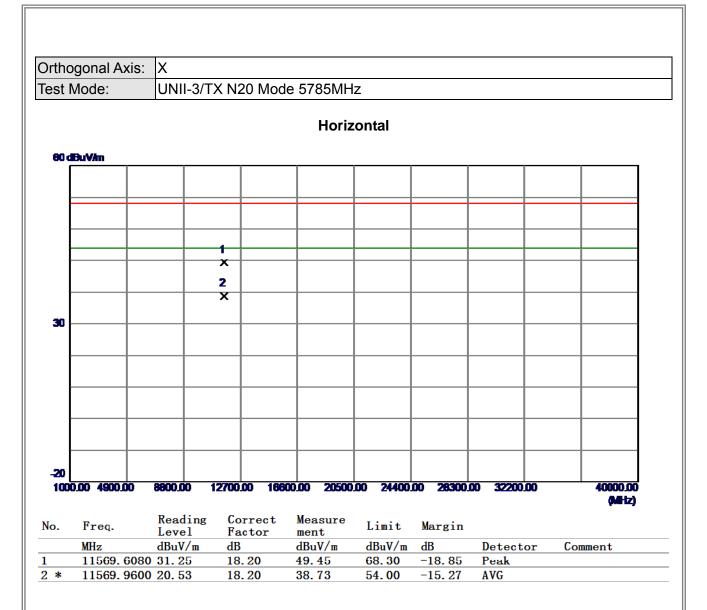






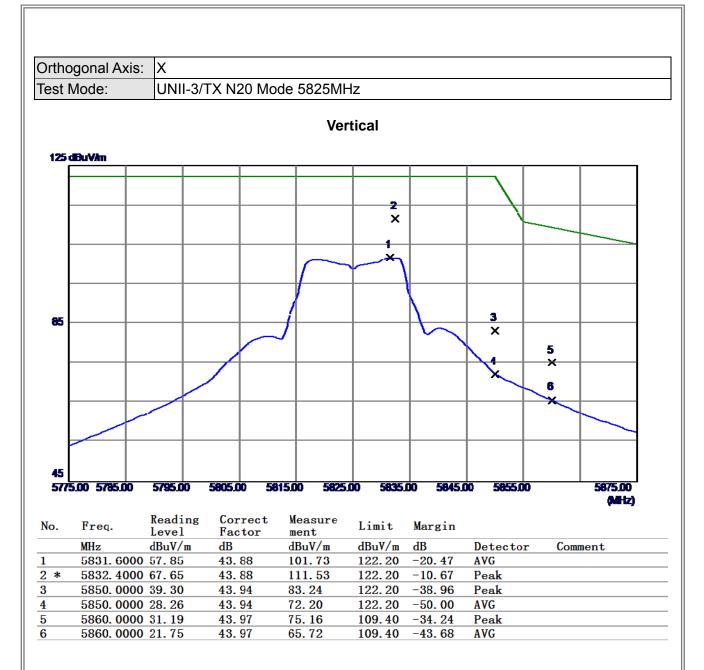






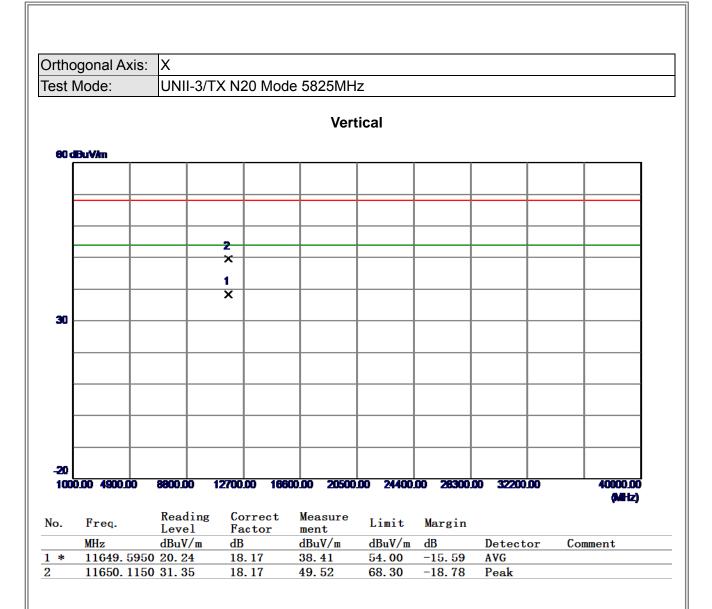






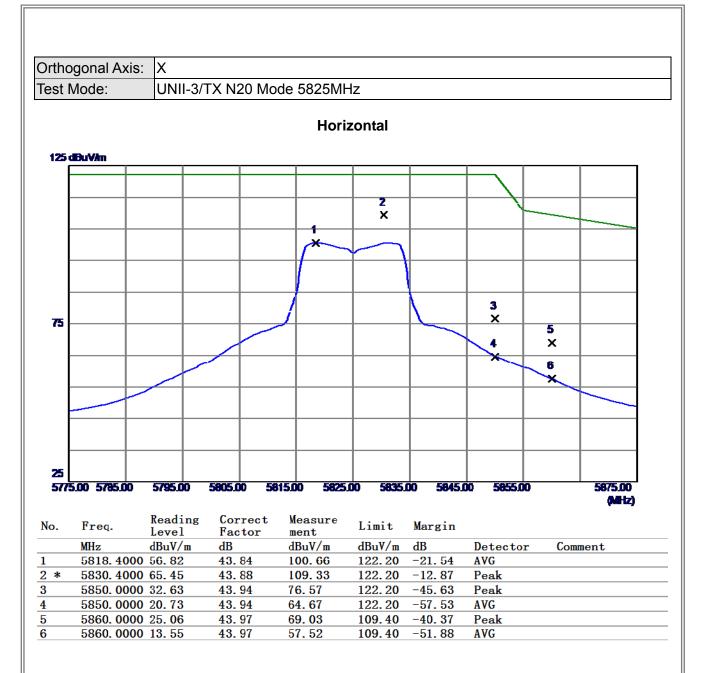






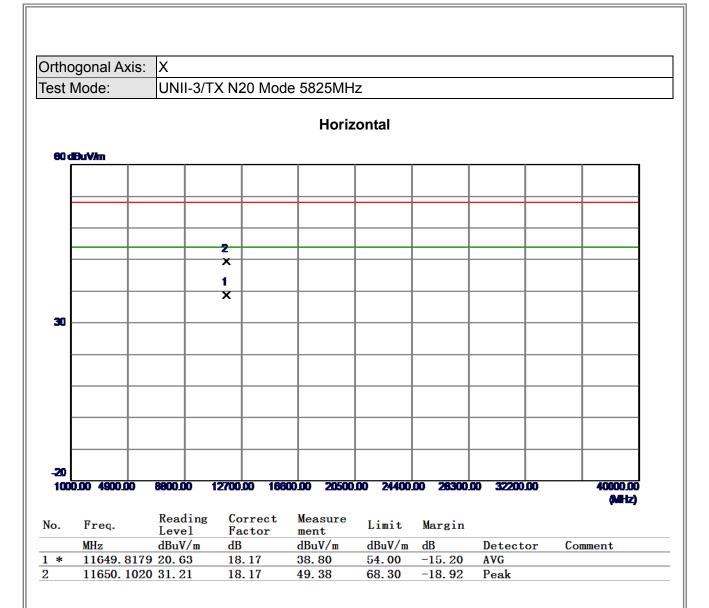






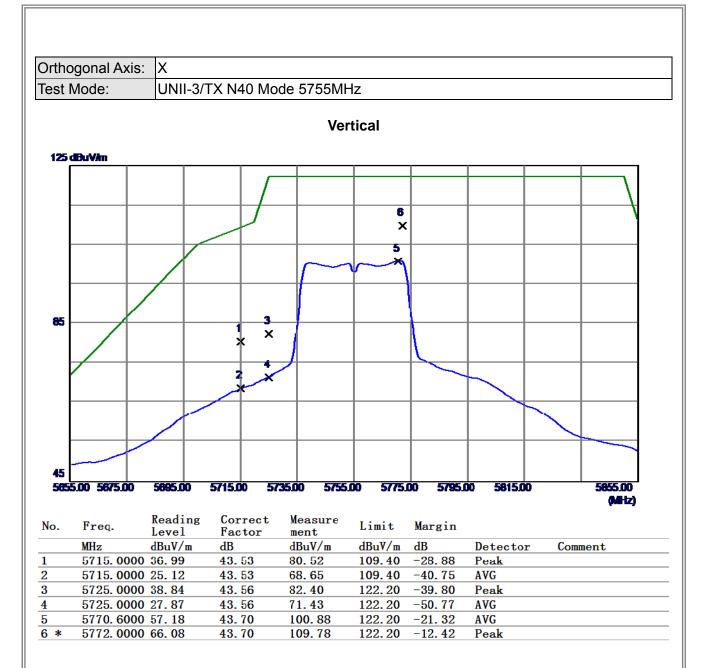






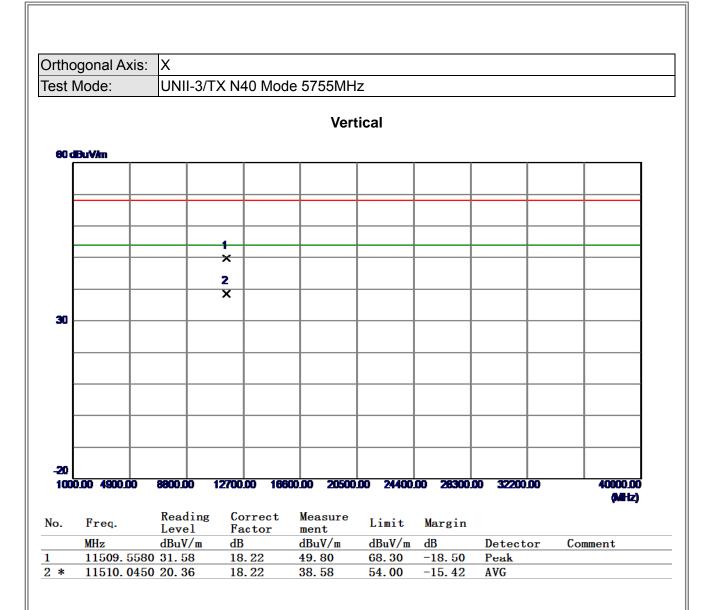






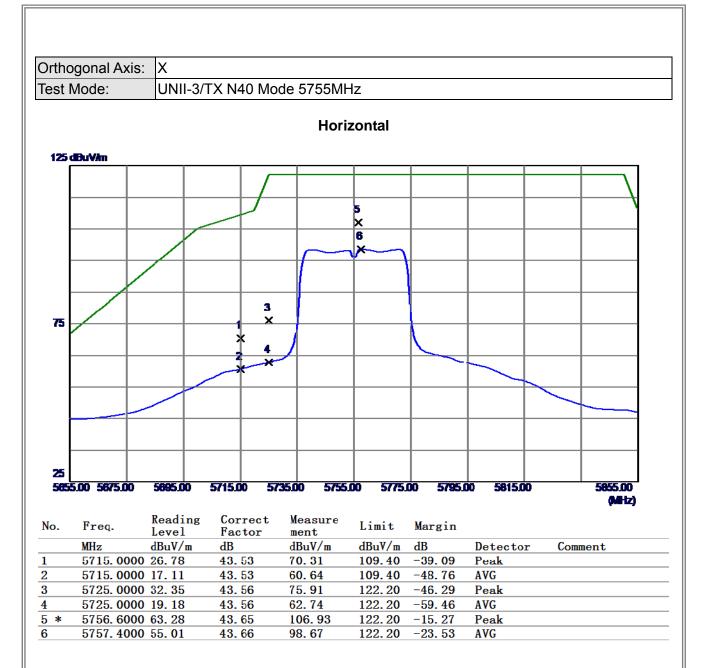






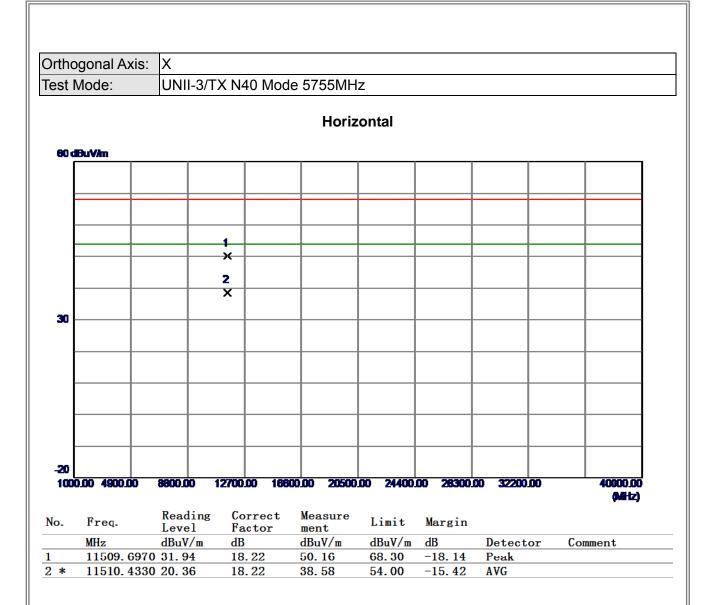






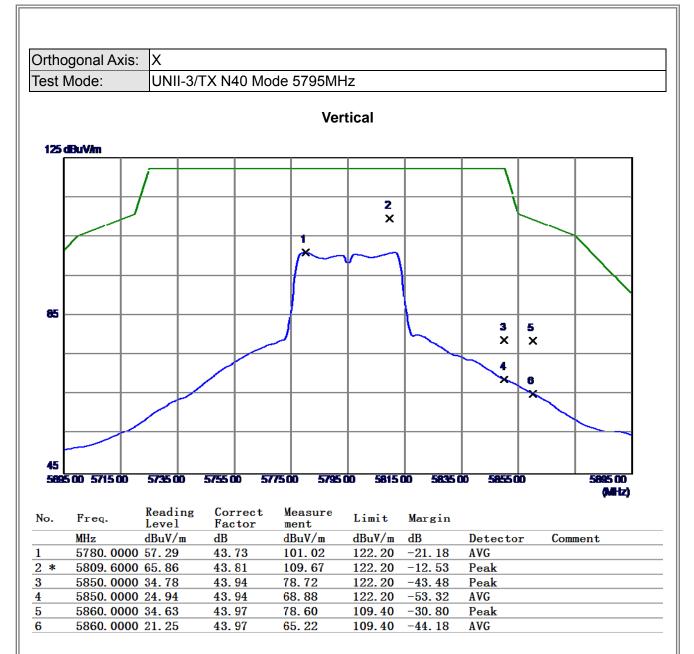






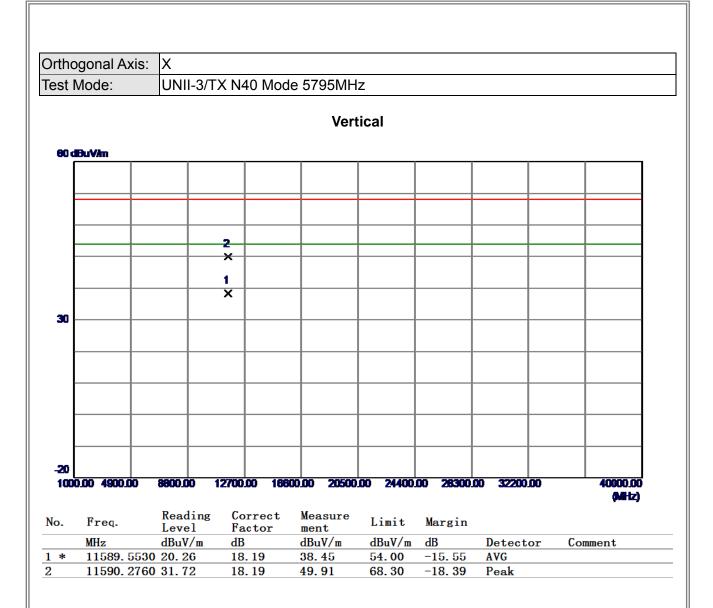






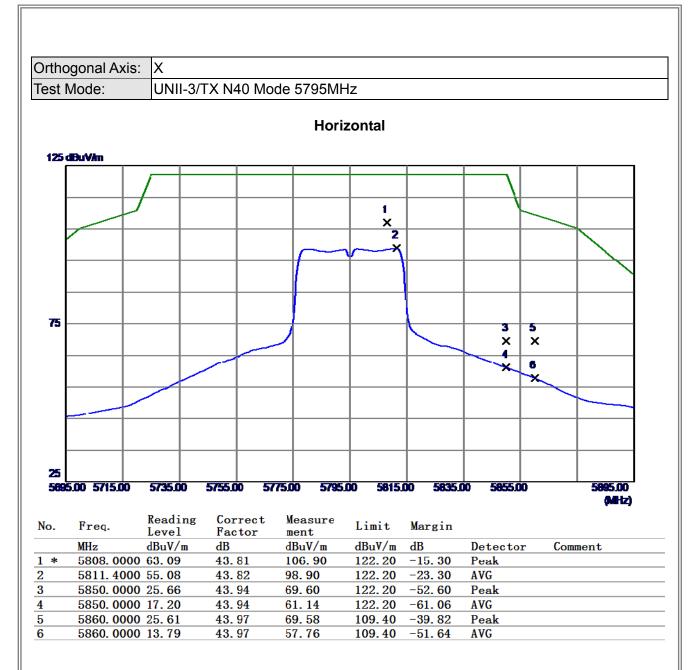






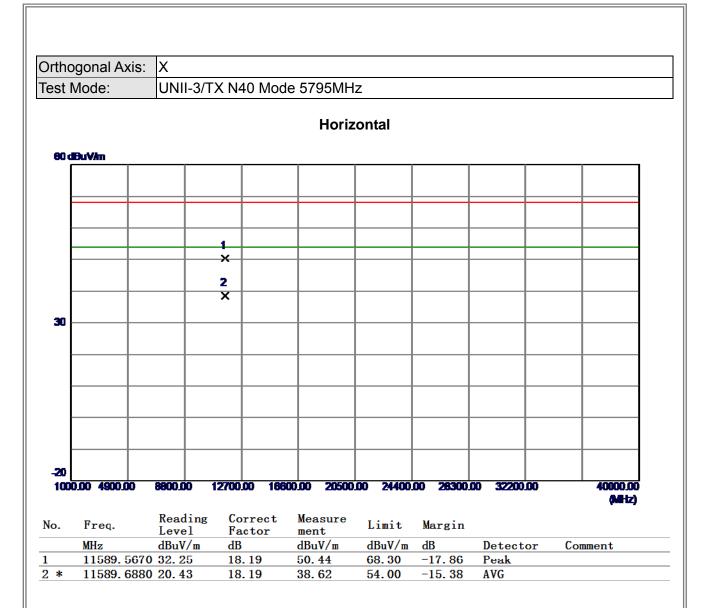






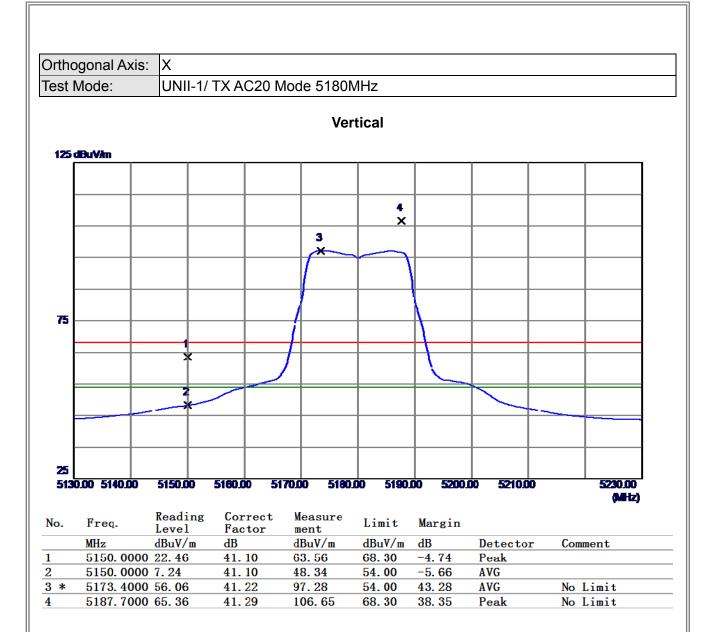






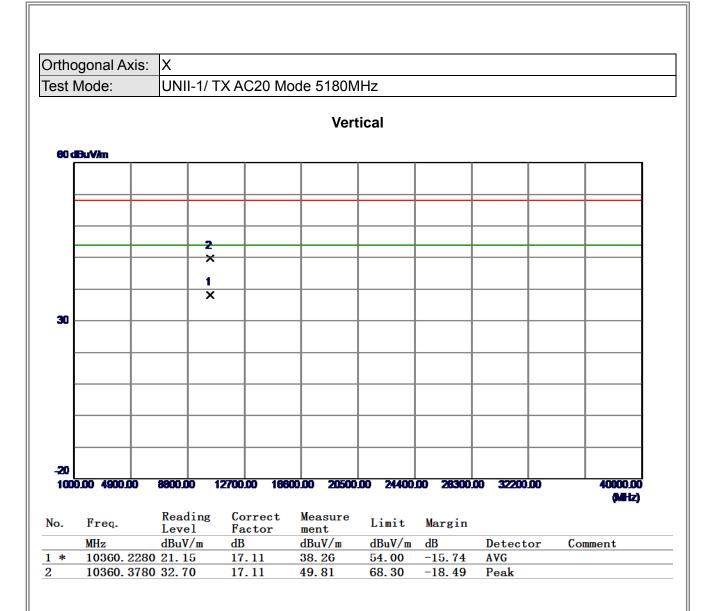






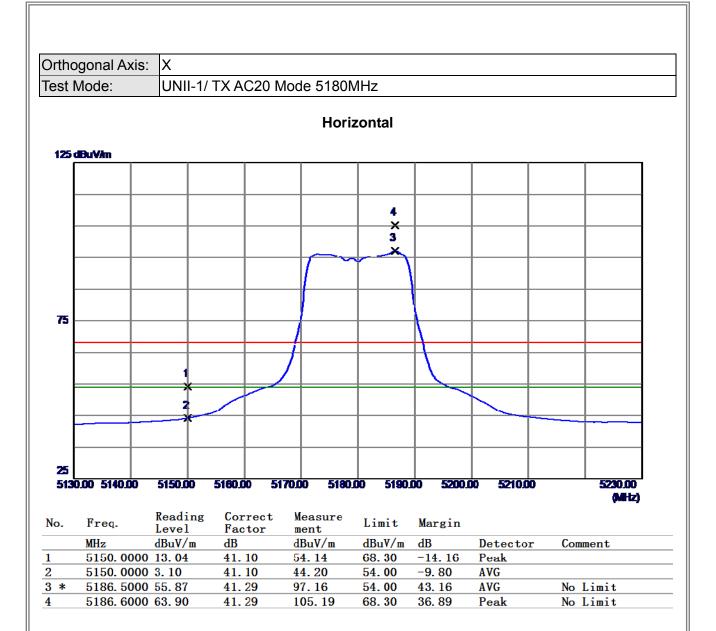






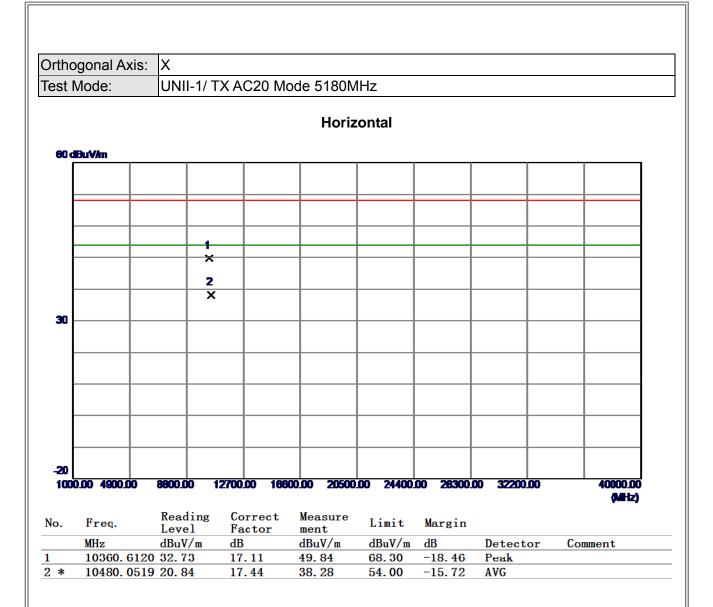






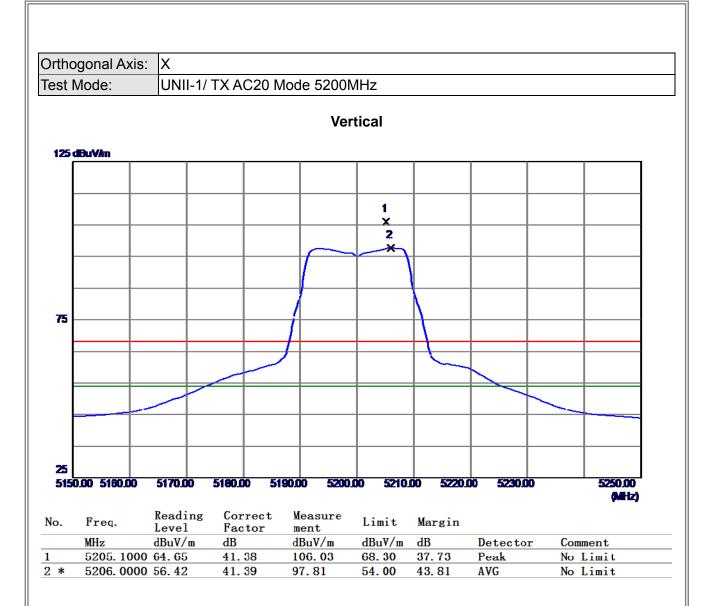






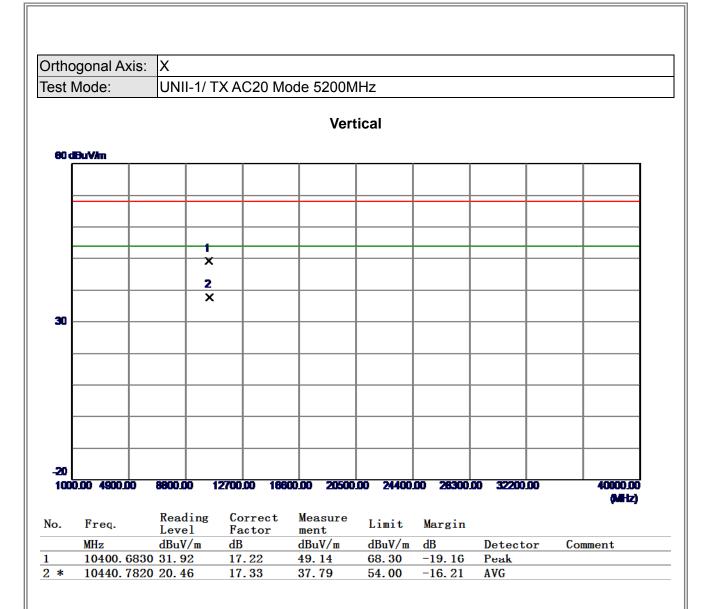






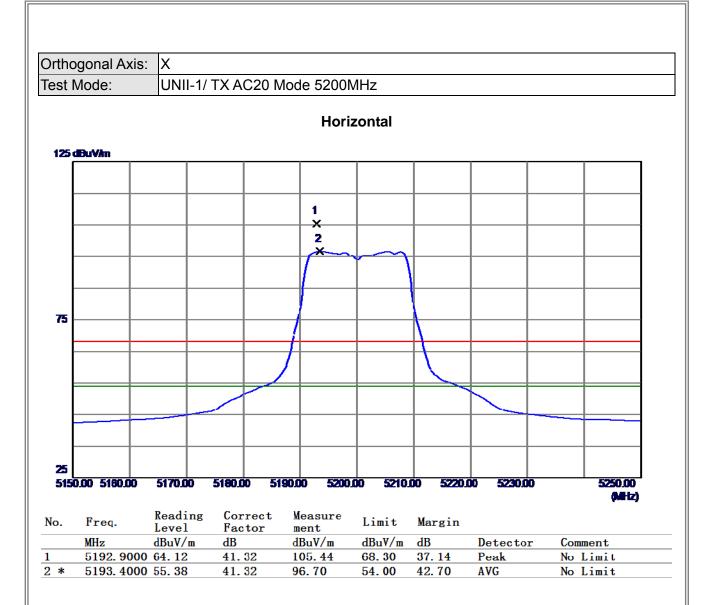






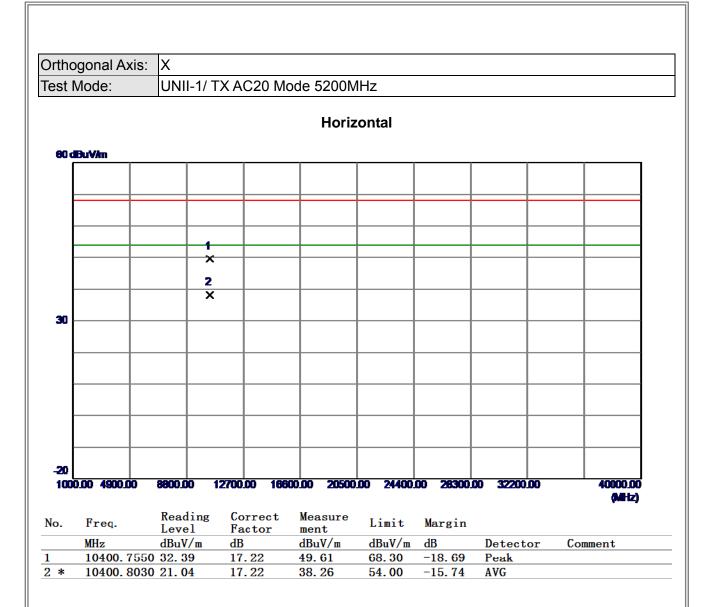






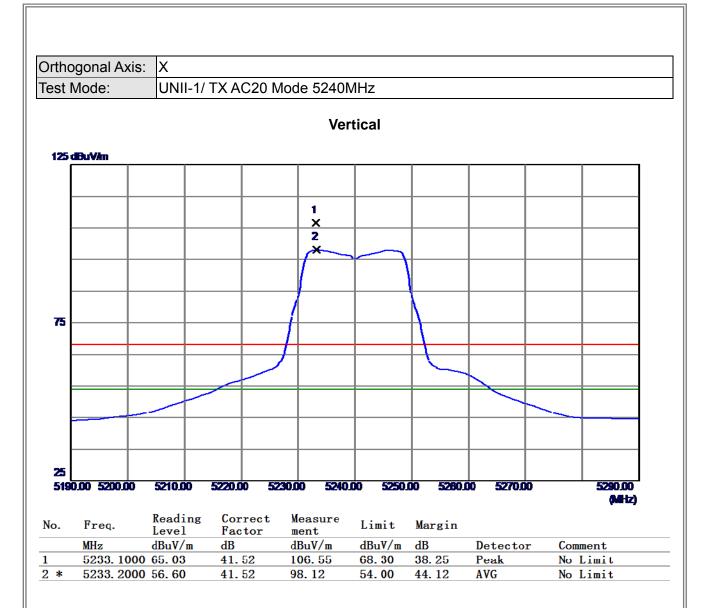






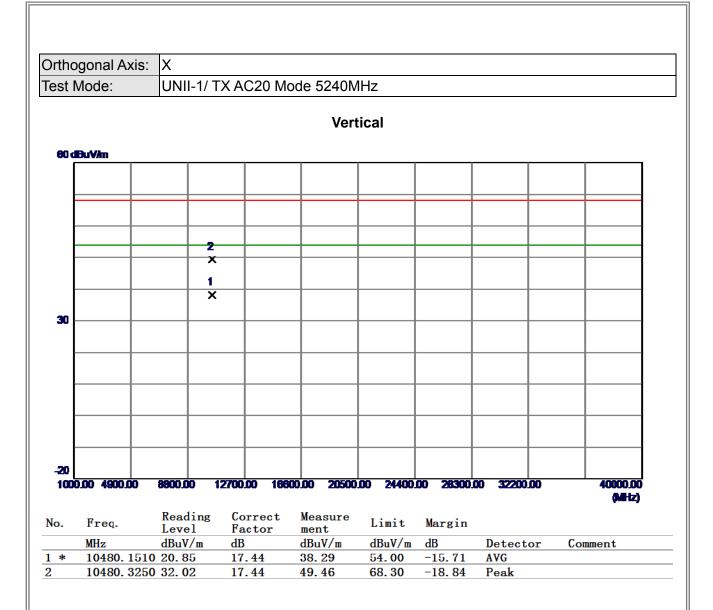






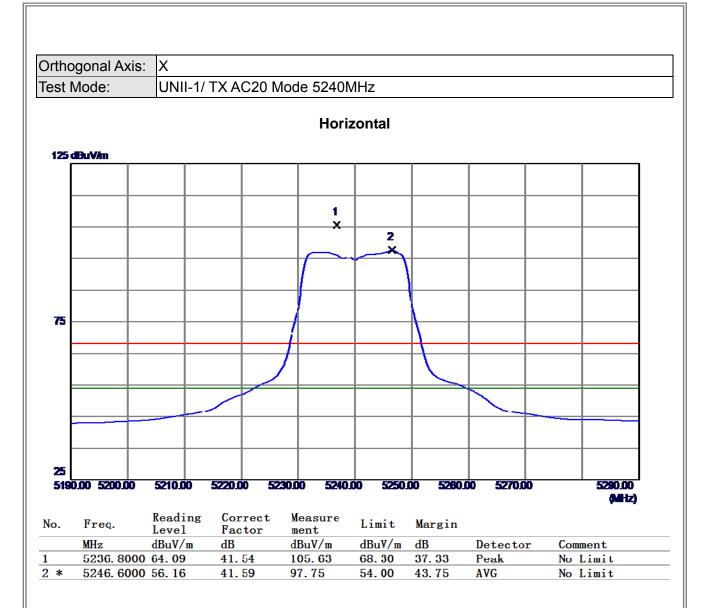






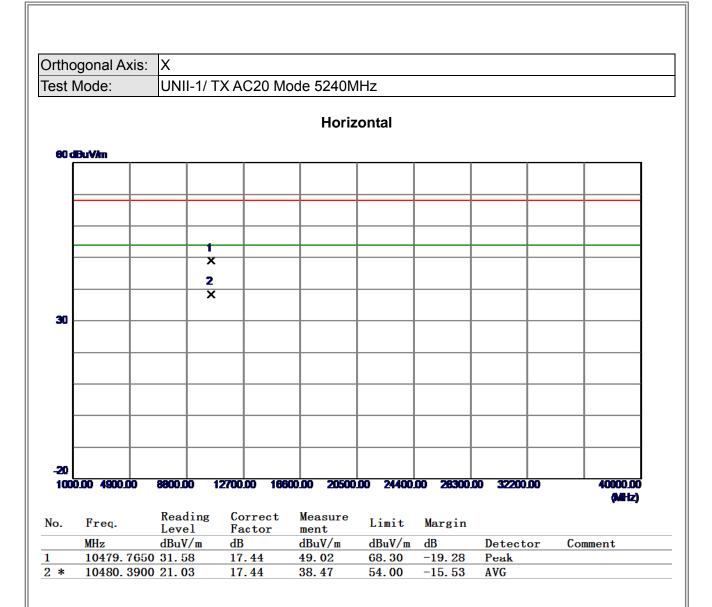






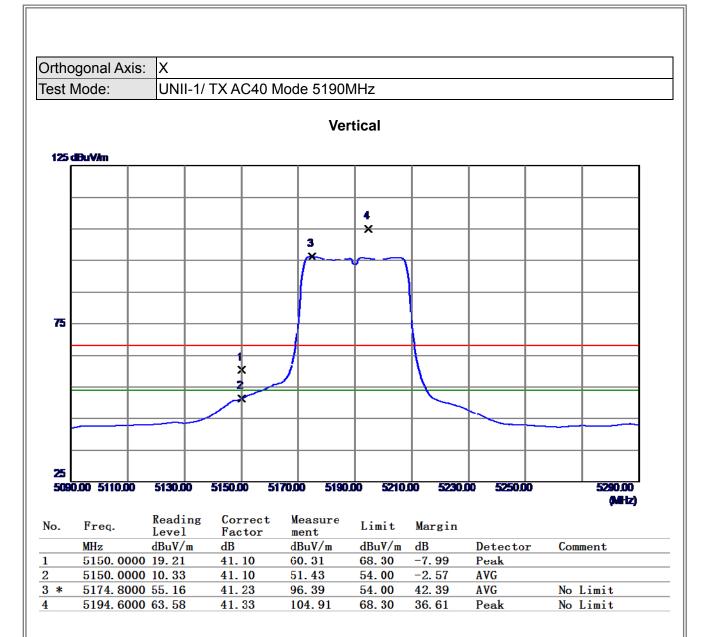






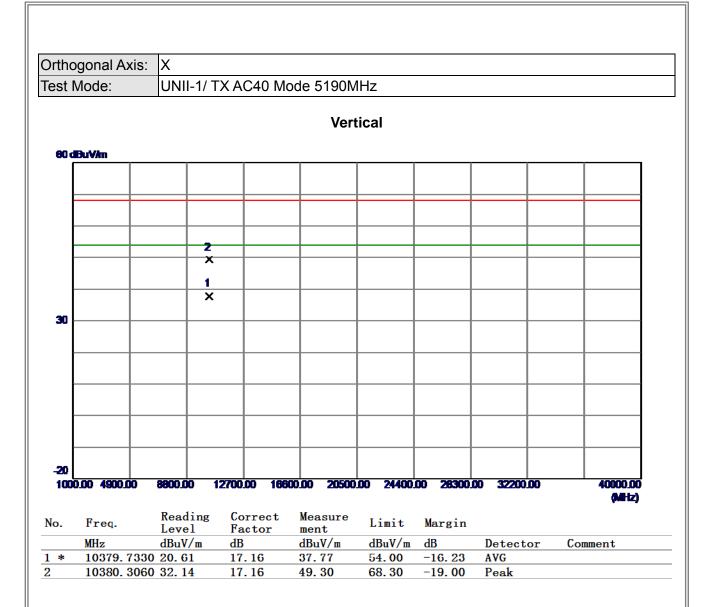






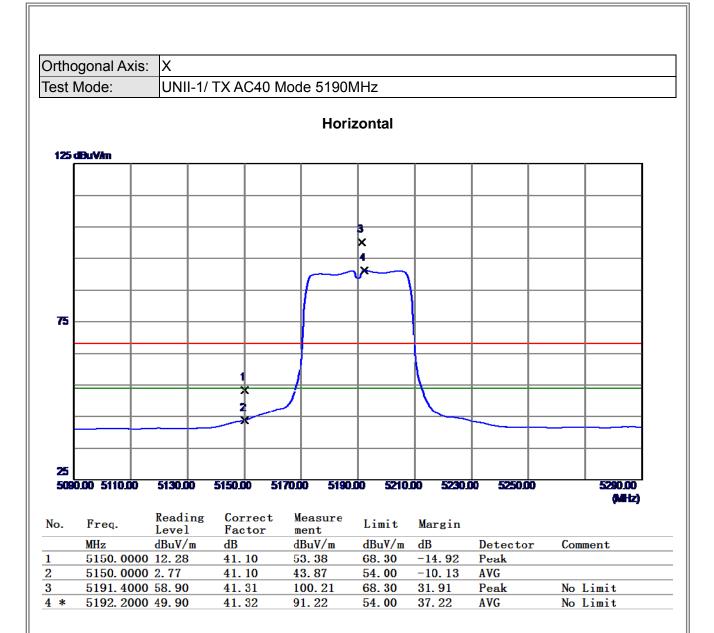






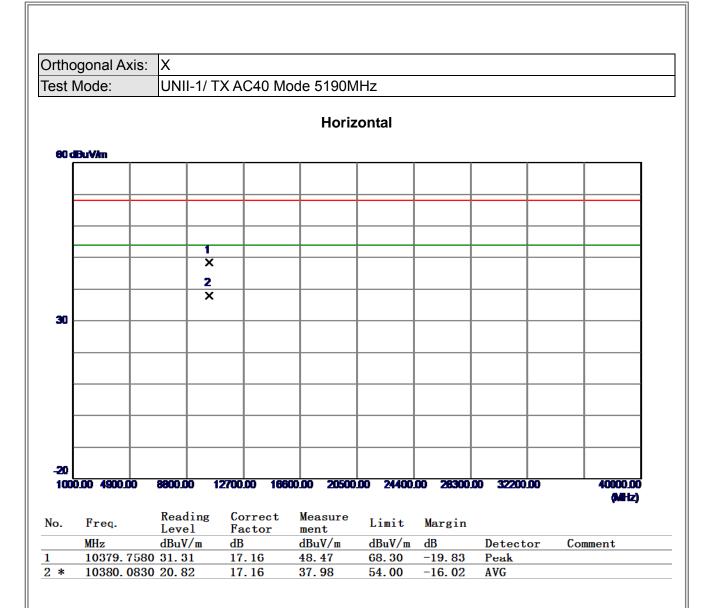






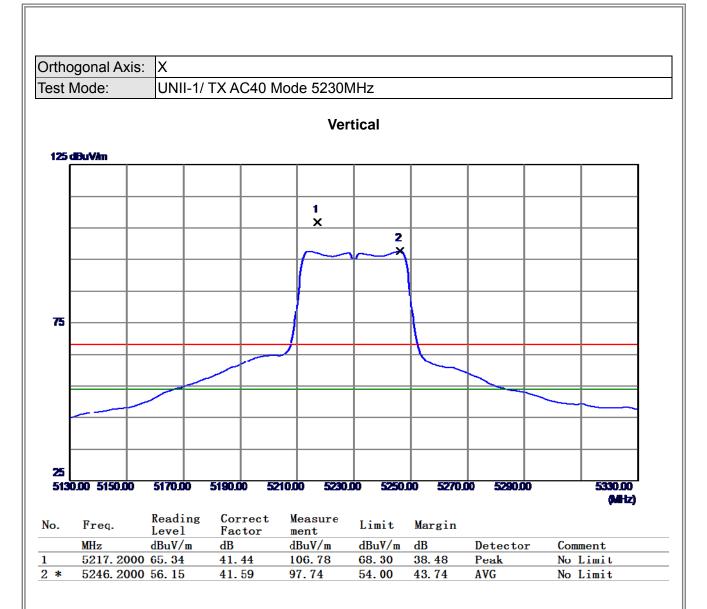






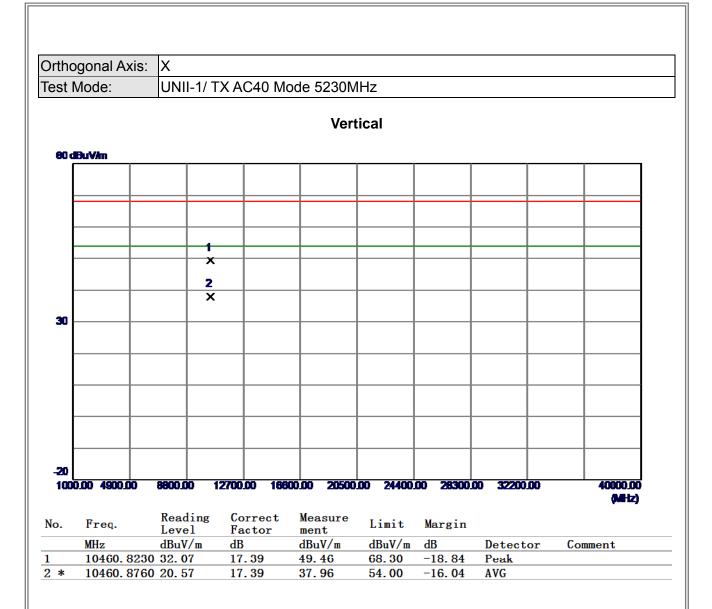






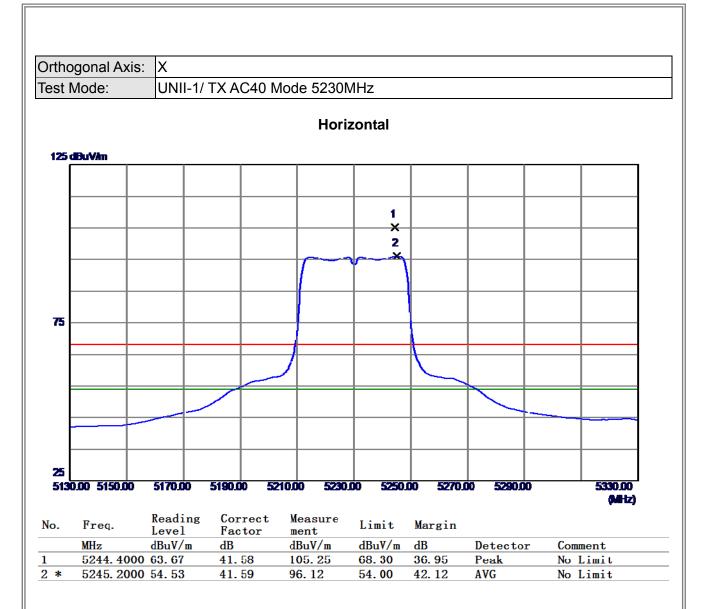






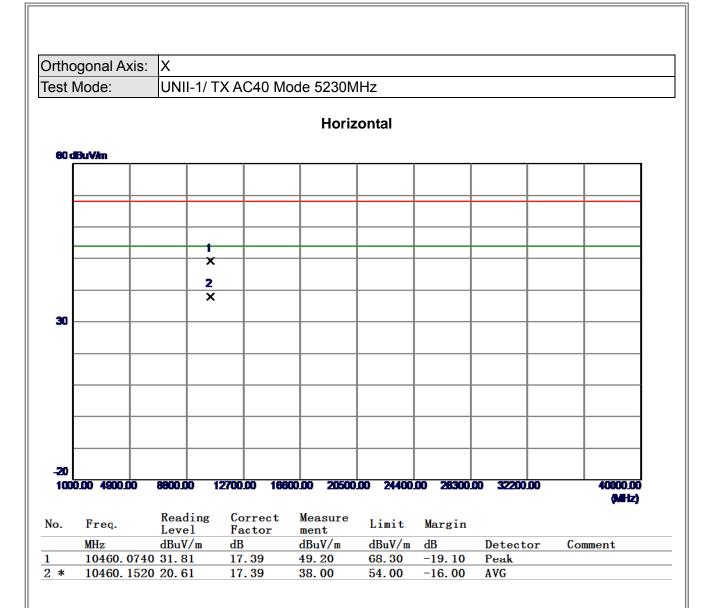






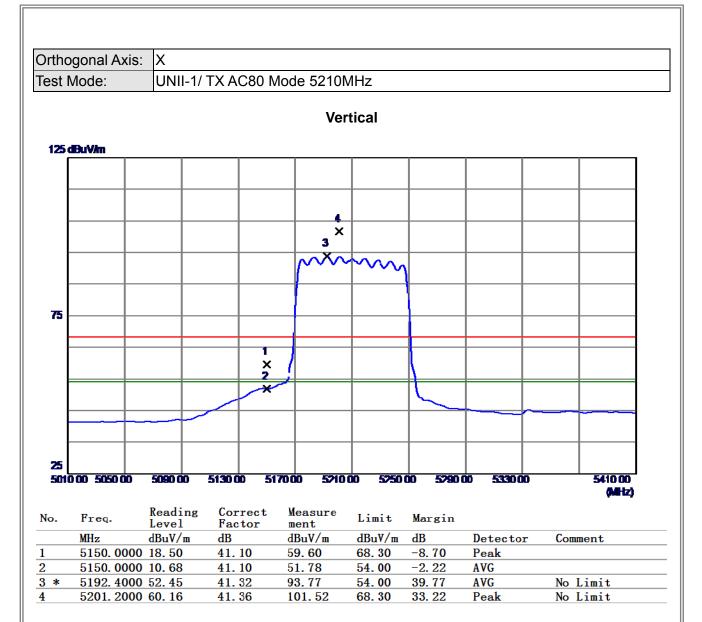






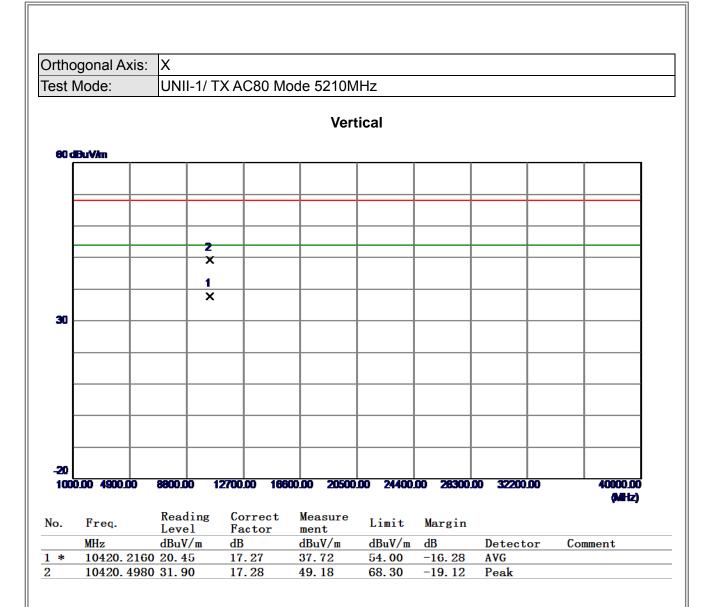






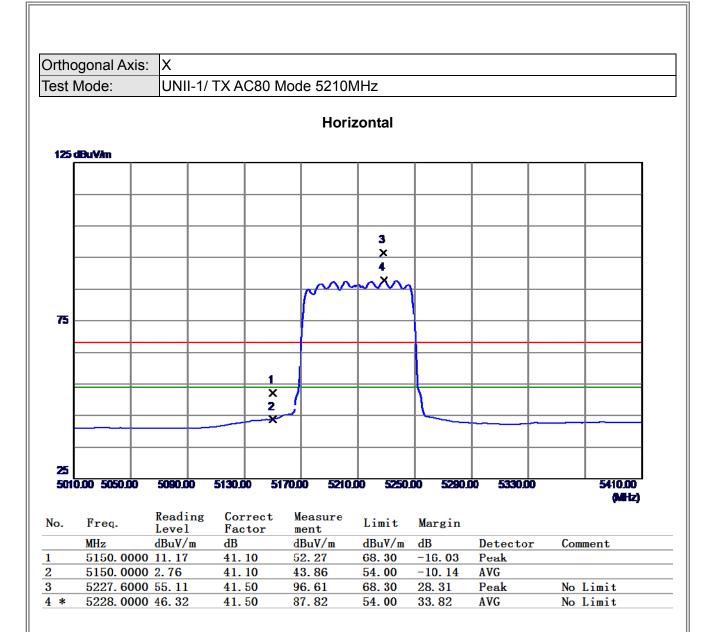






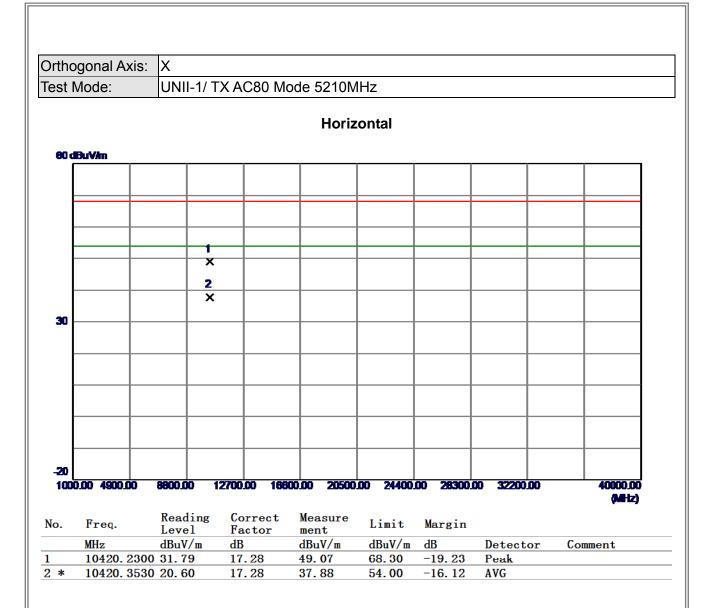






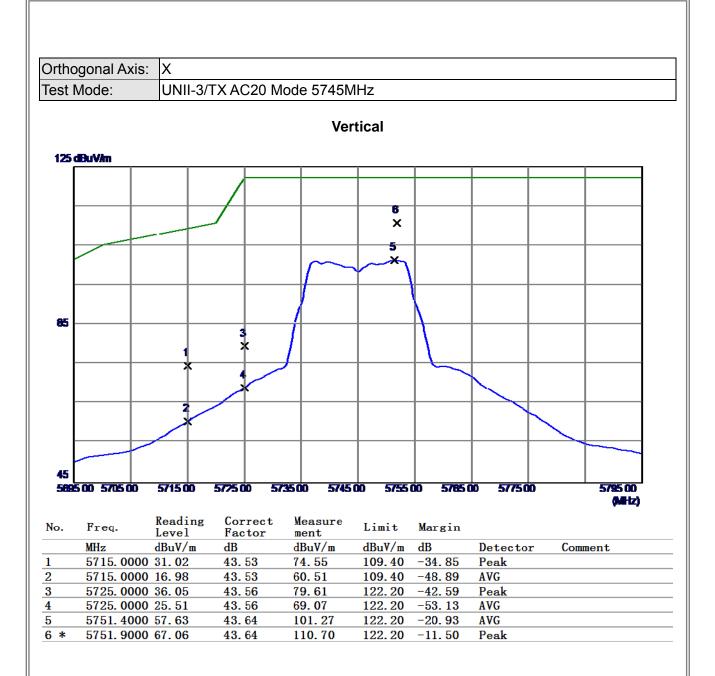






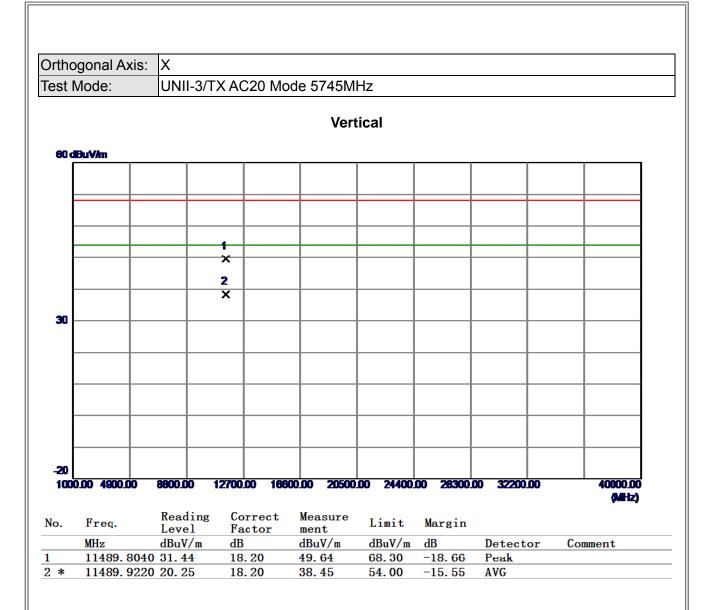






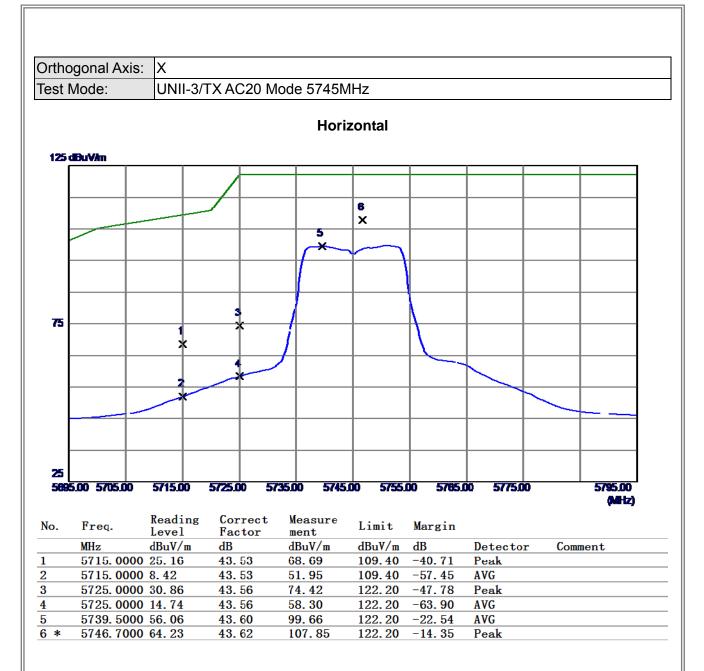






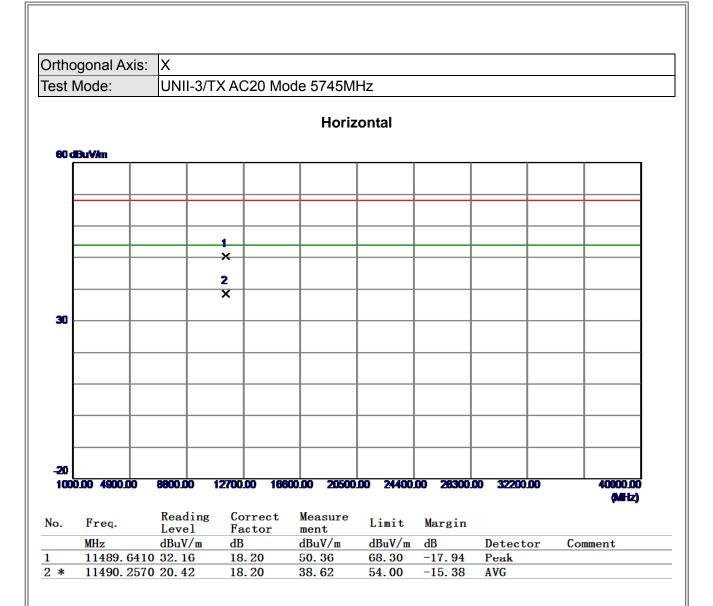






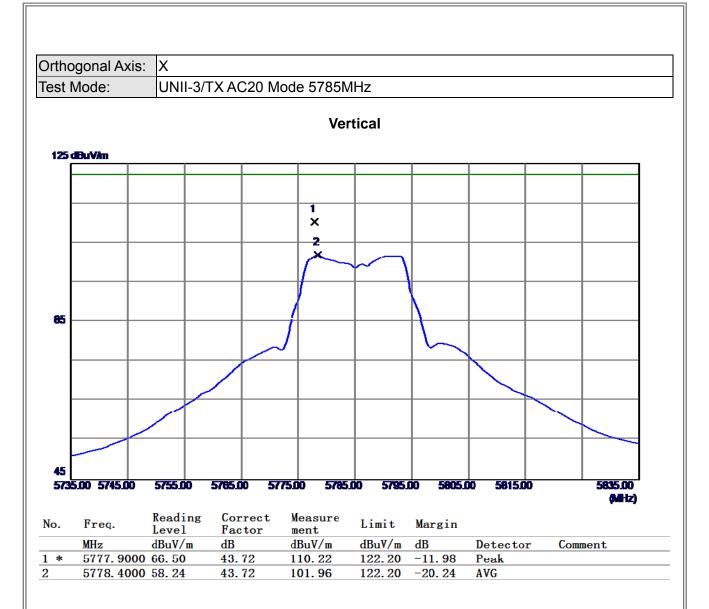






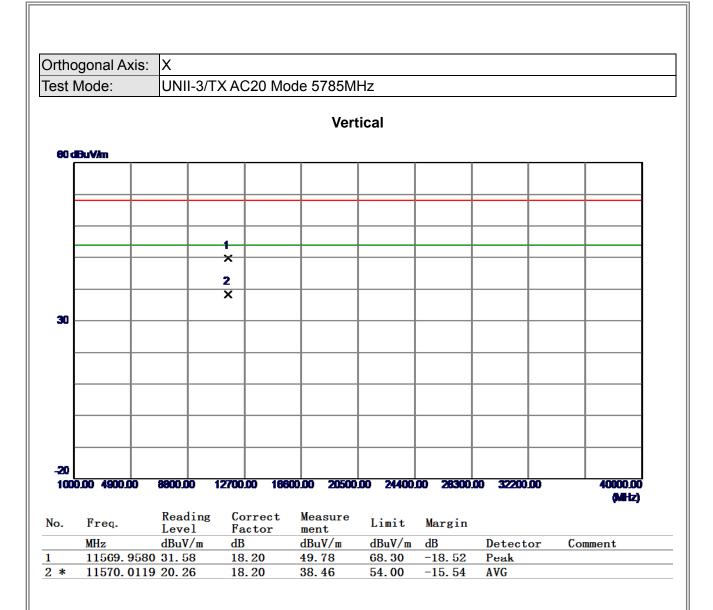






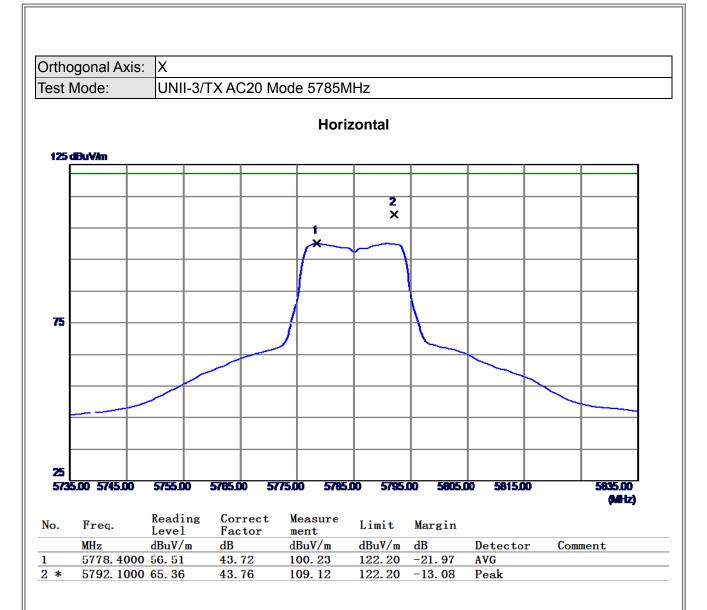






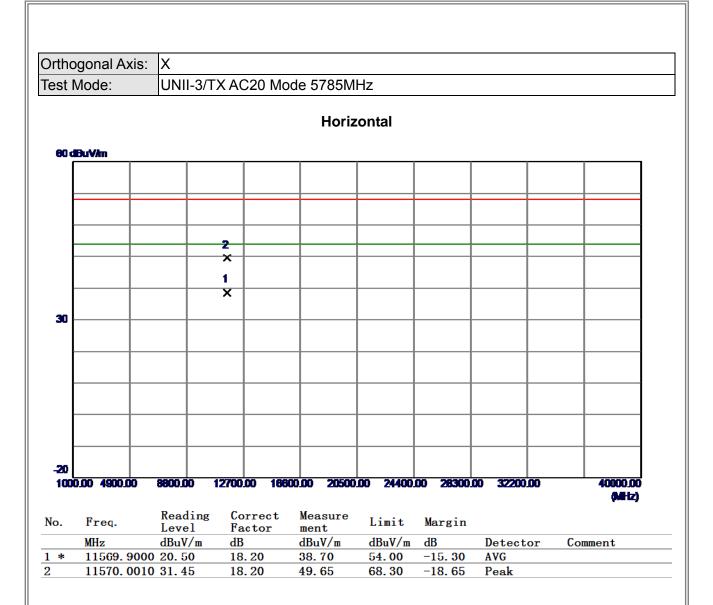






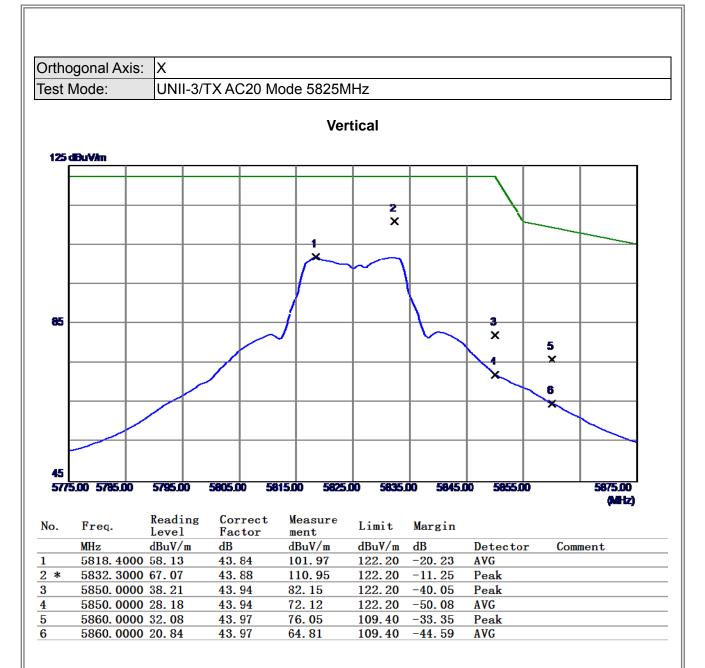






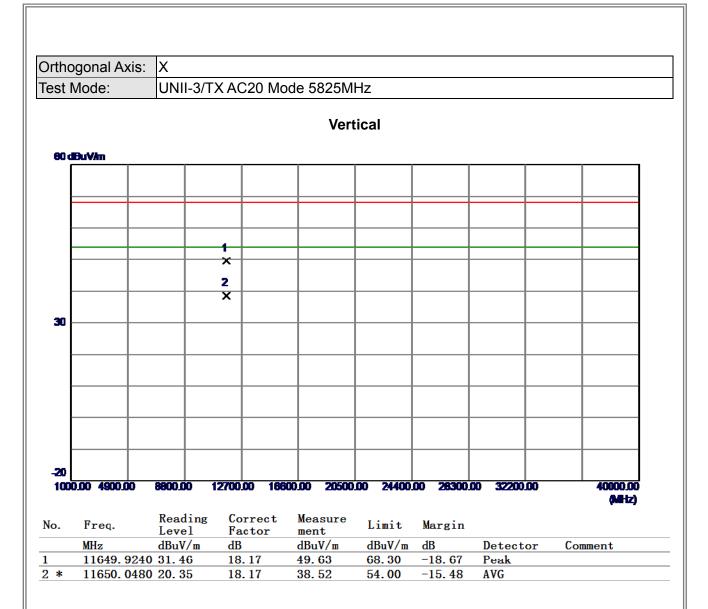






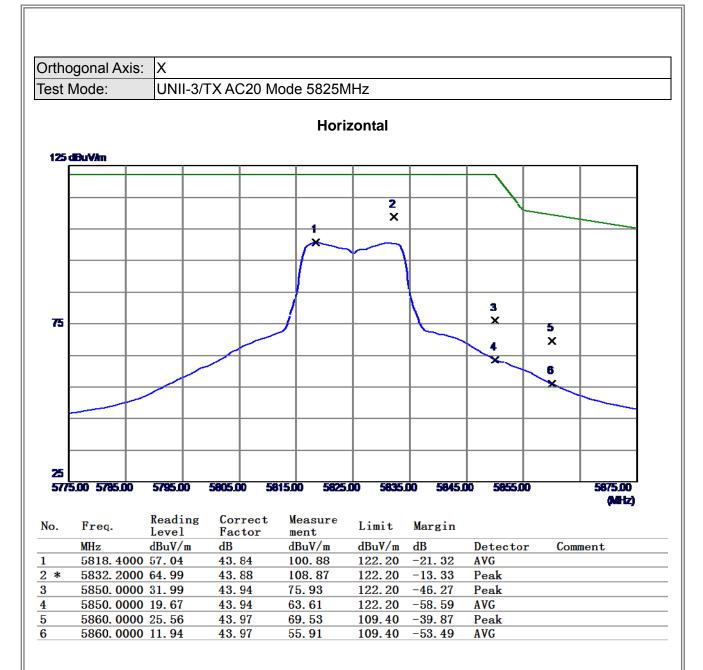






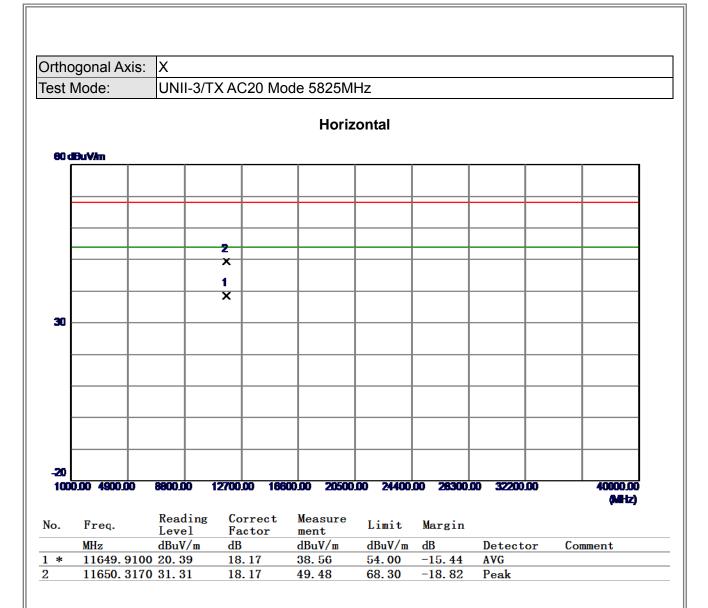






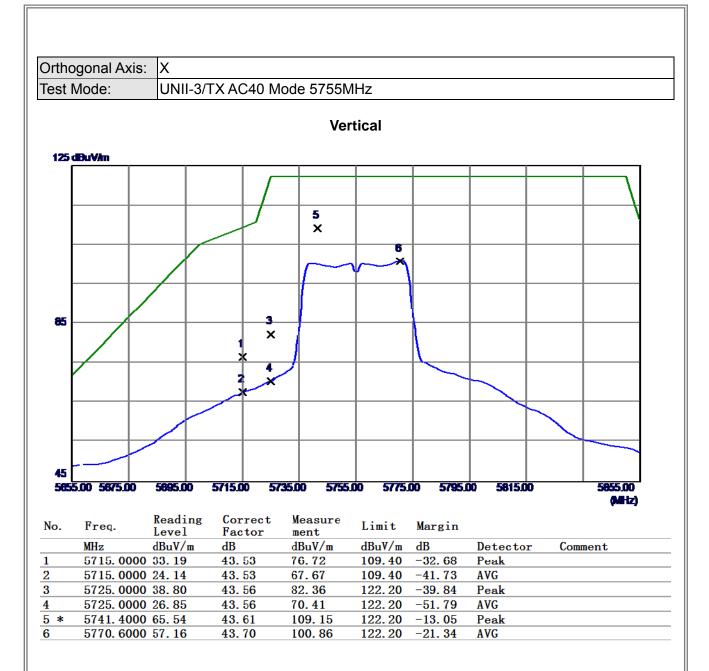






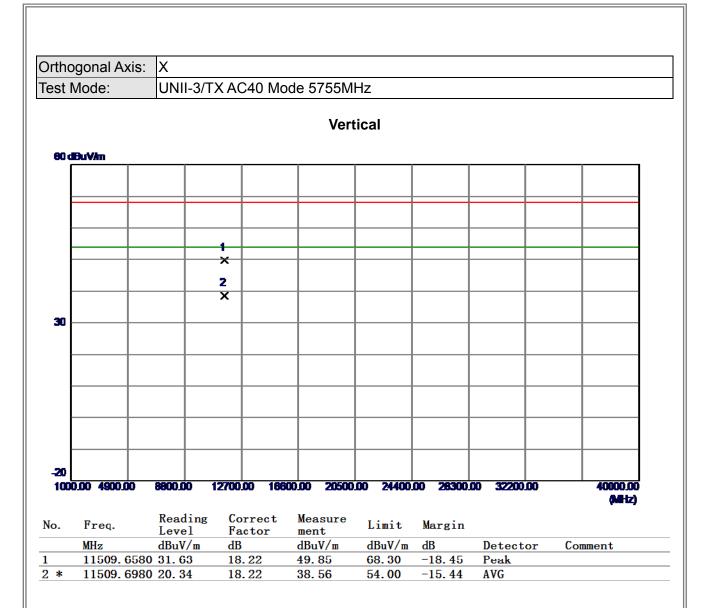






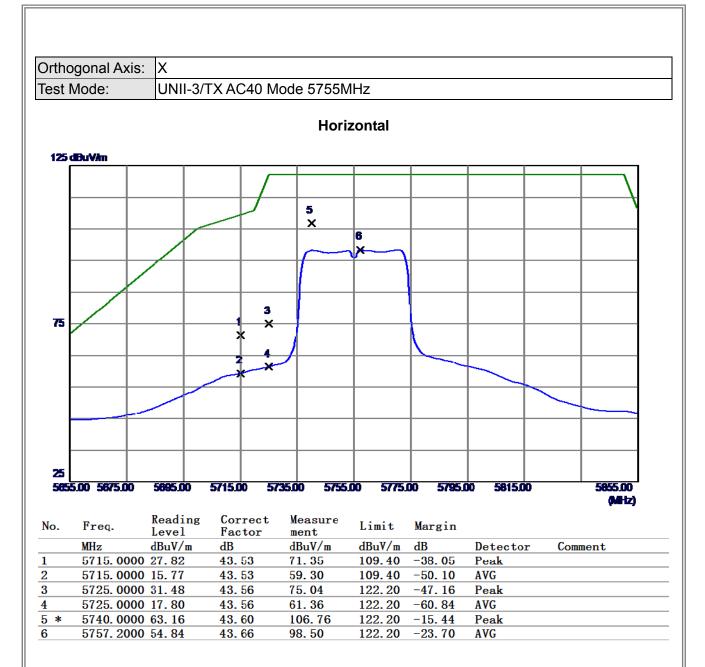






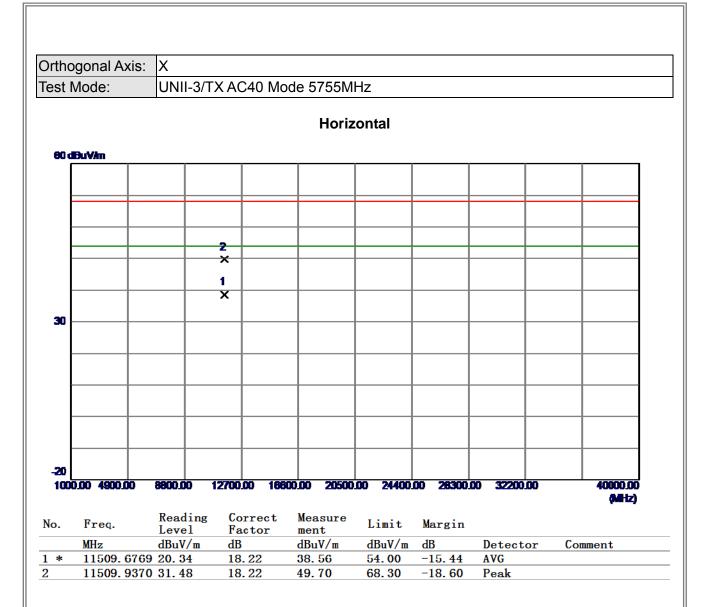






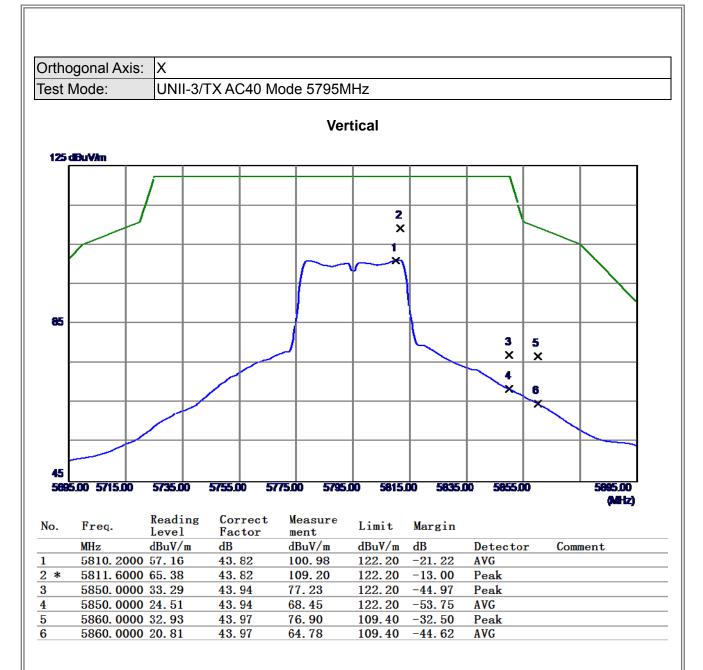






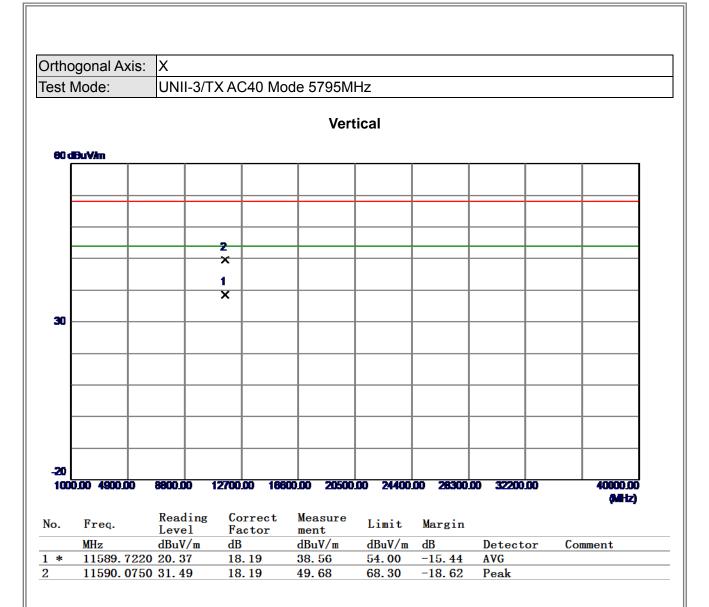






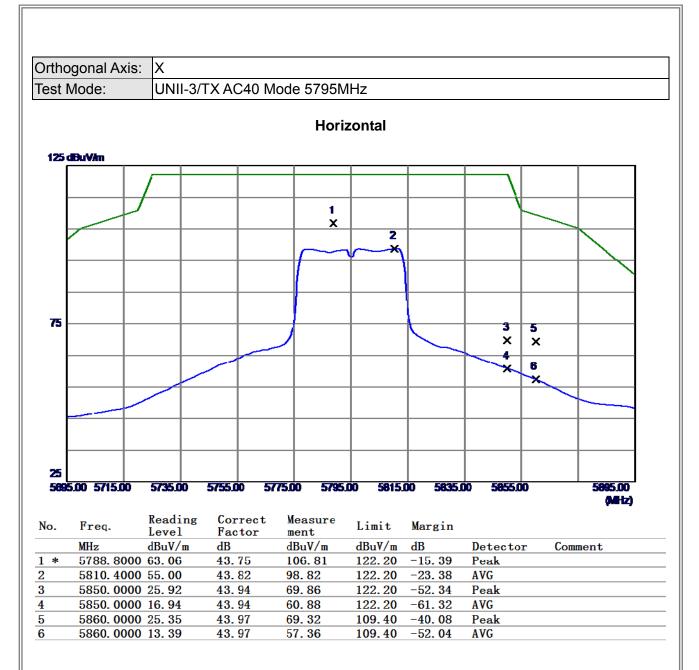






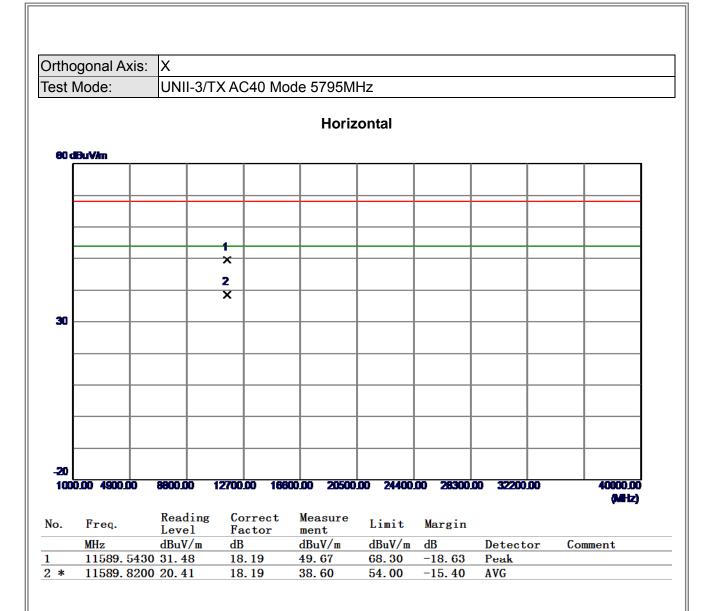






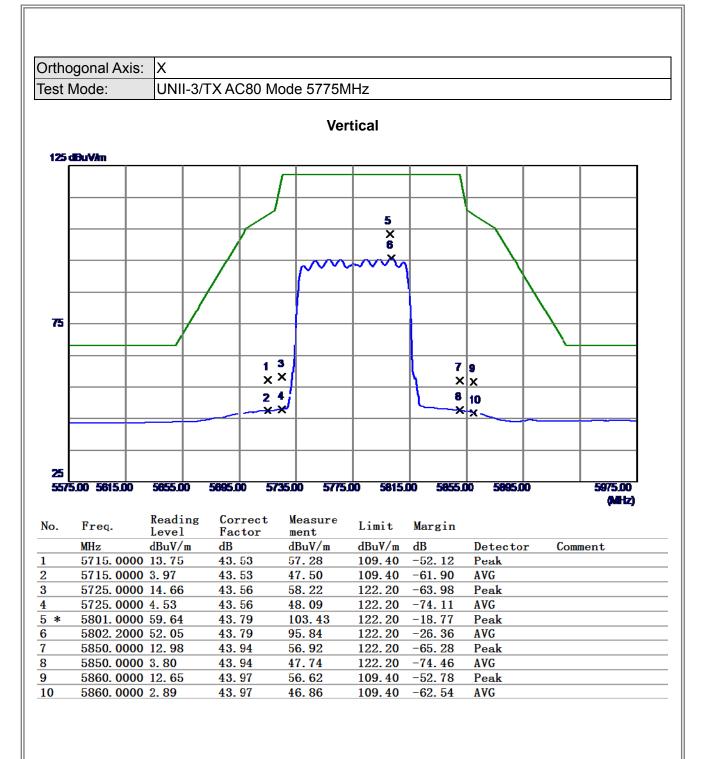






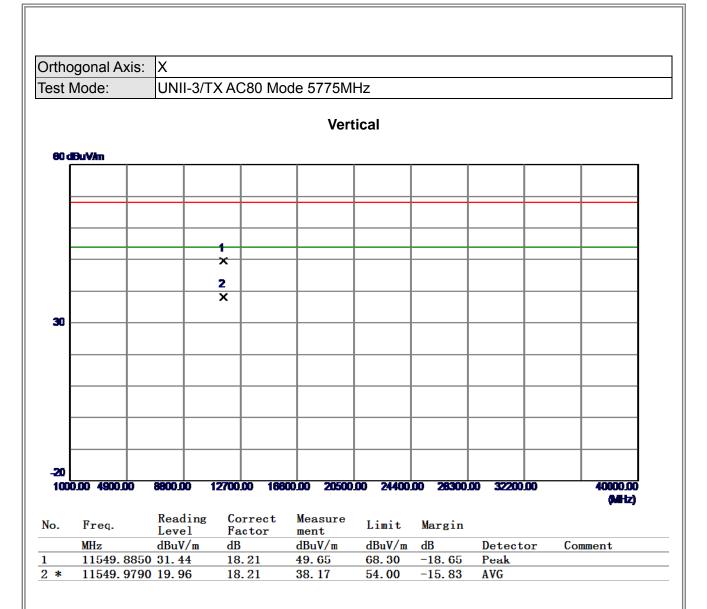






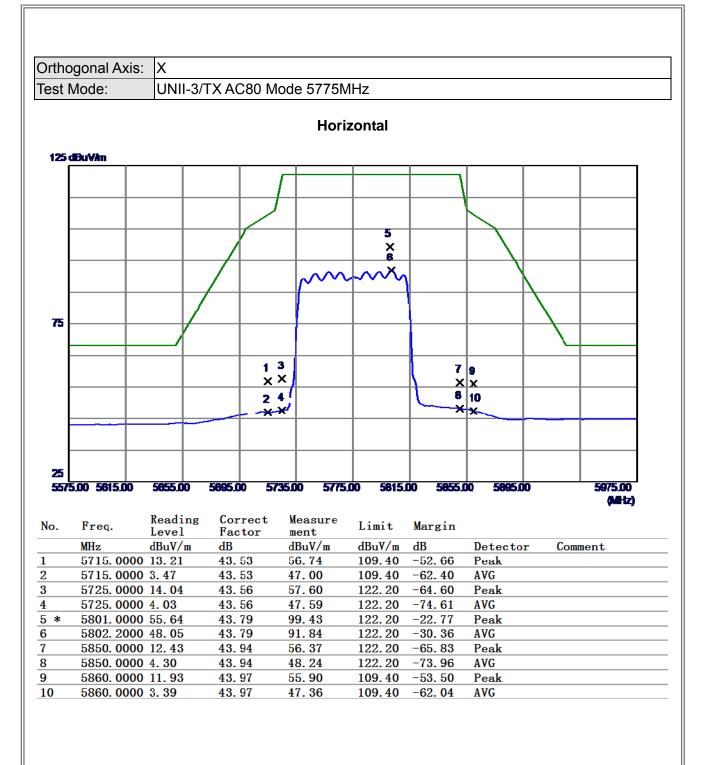






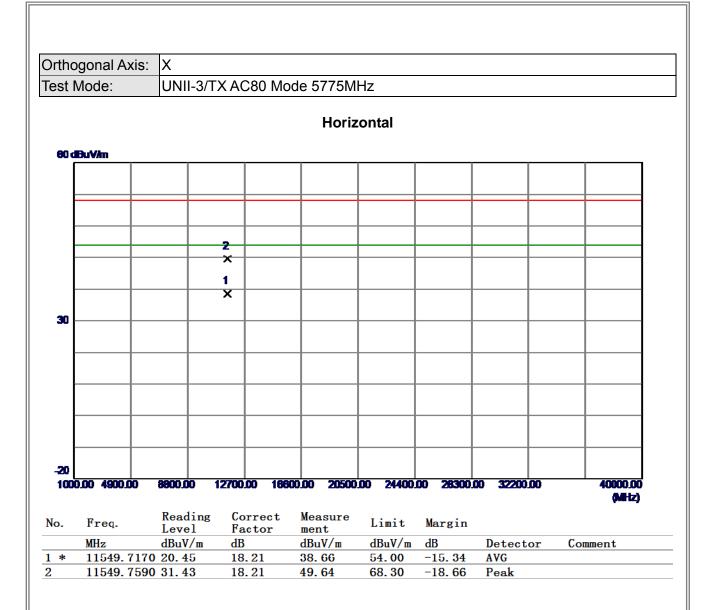




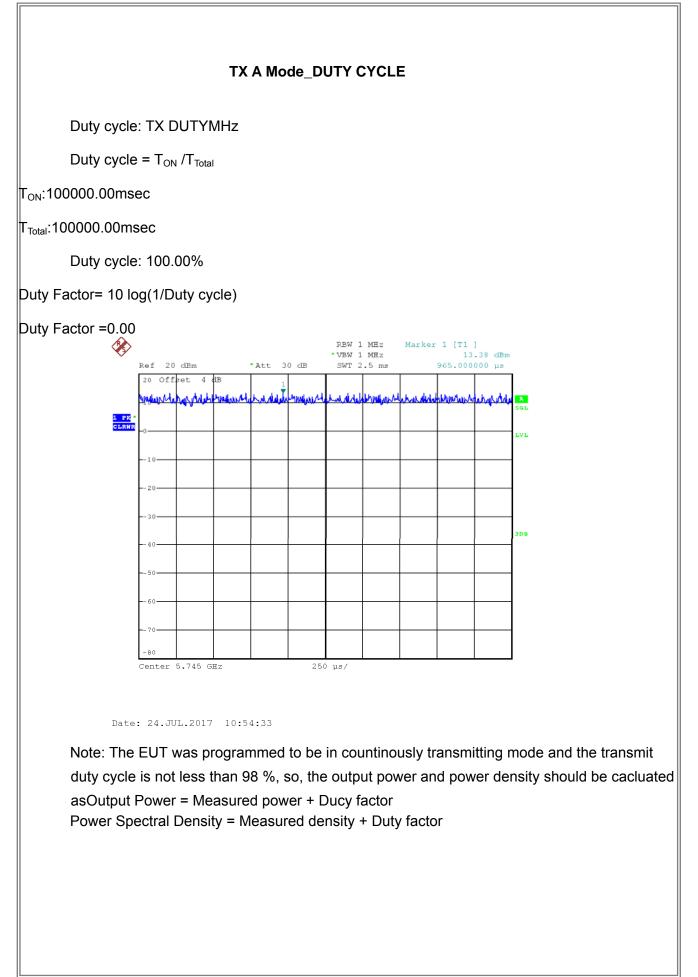




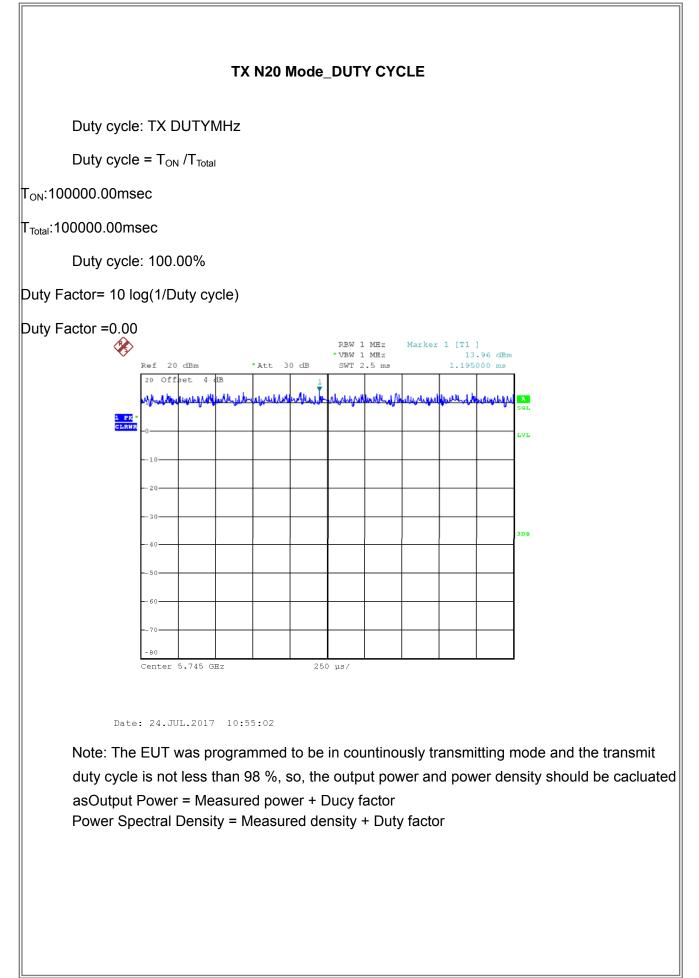




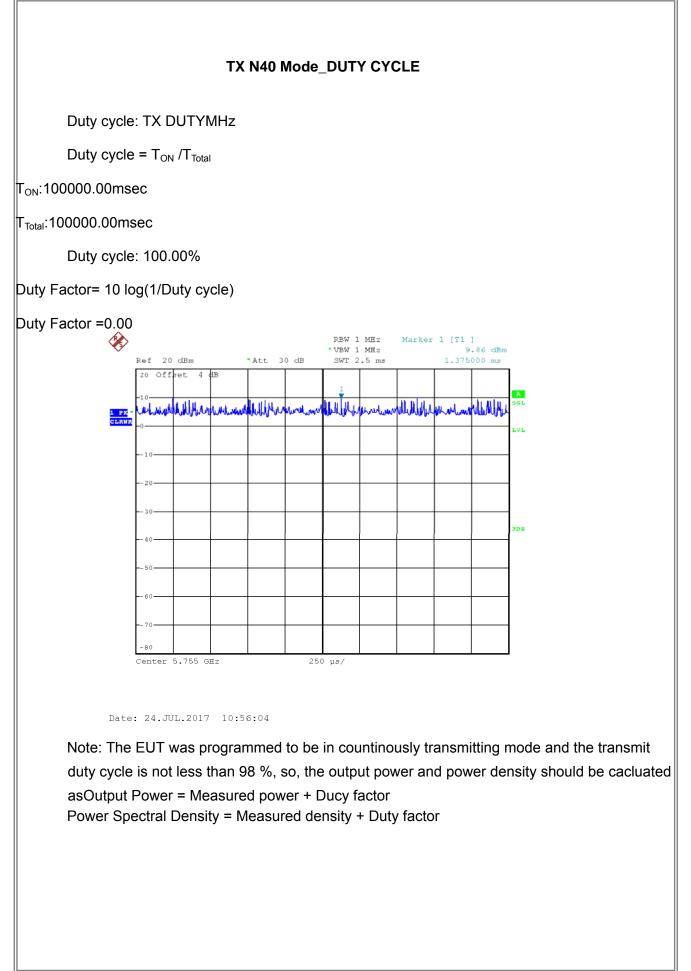




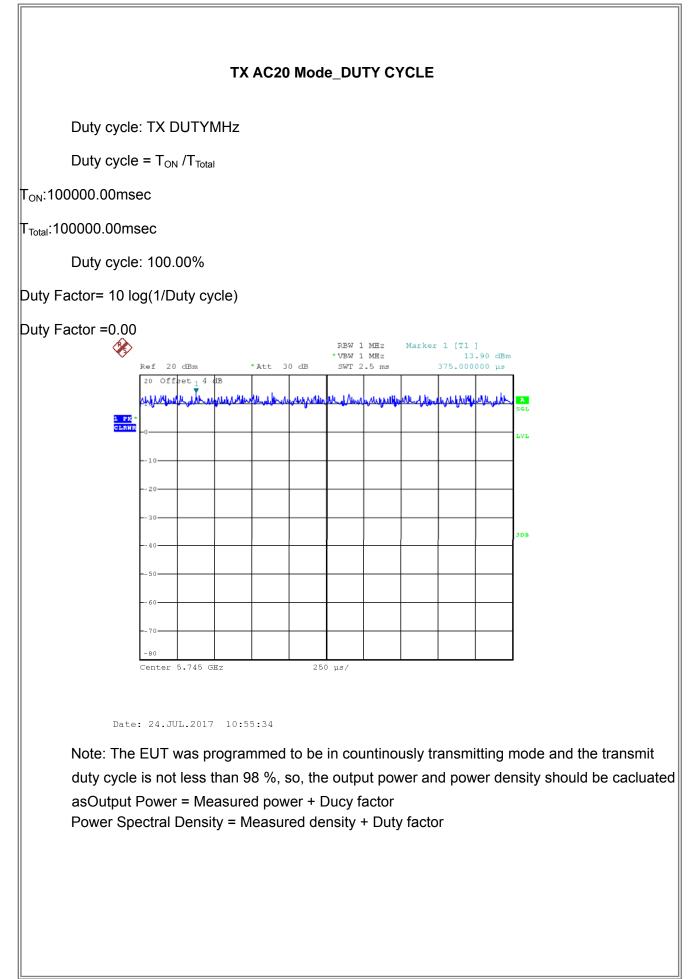




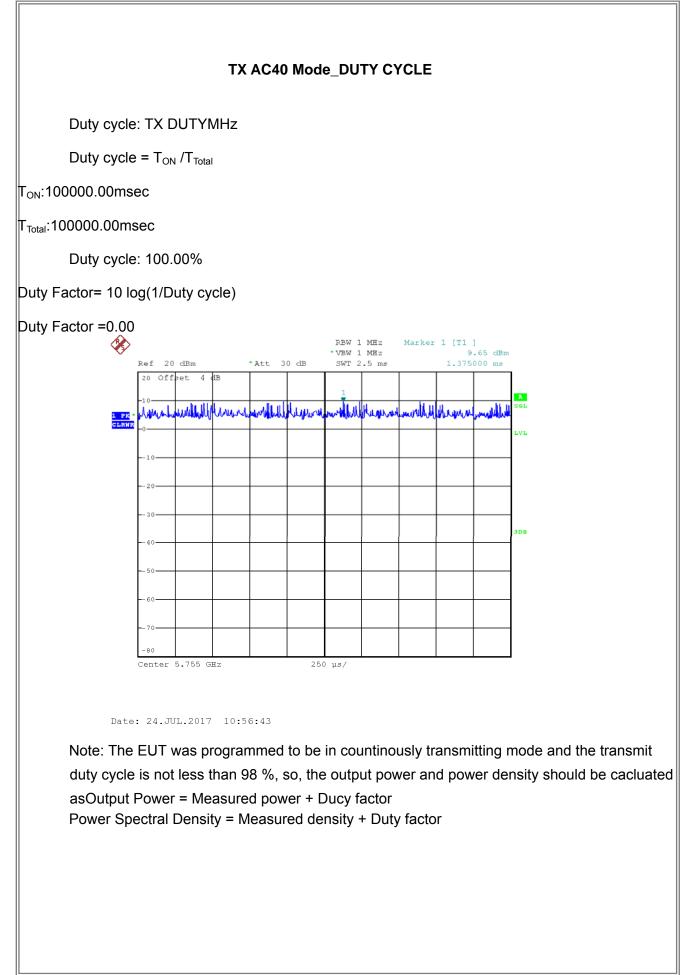




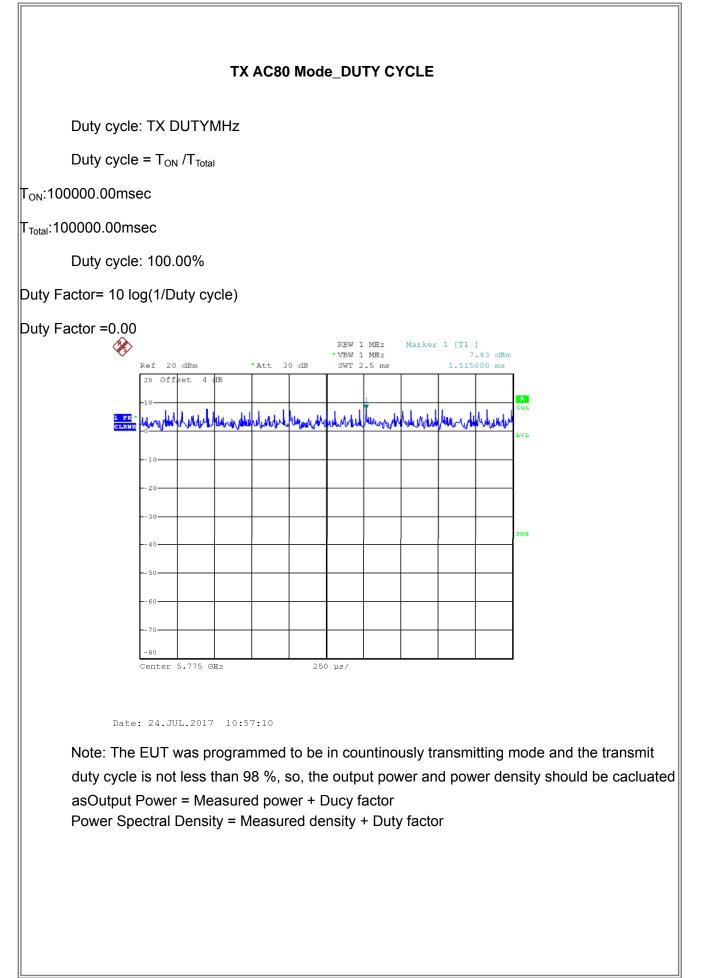














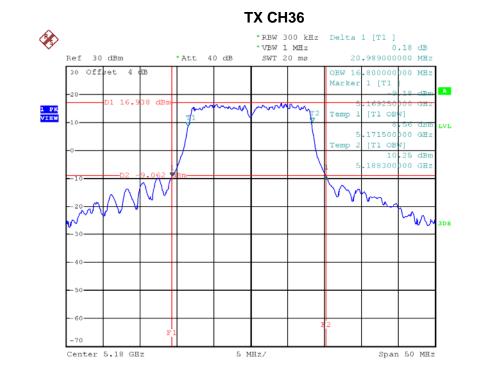
ATTACHMENTE - BANDWIDTH



Non-Beamforming

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

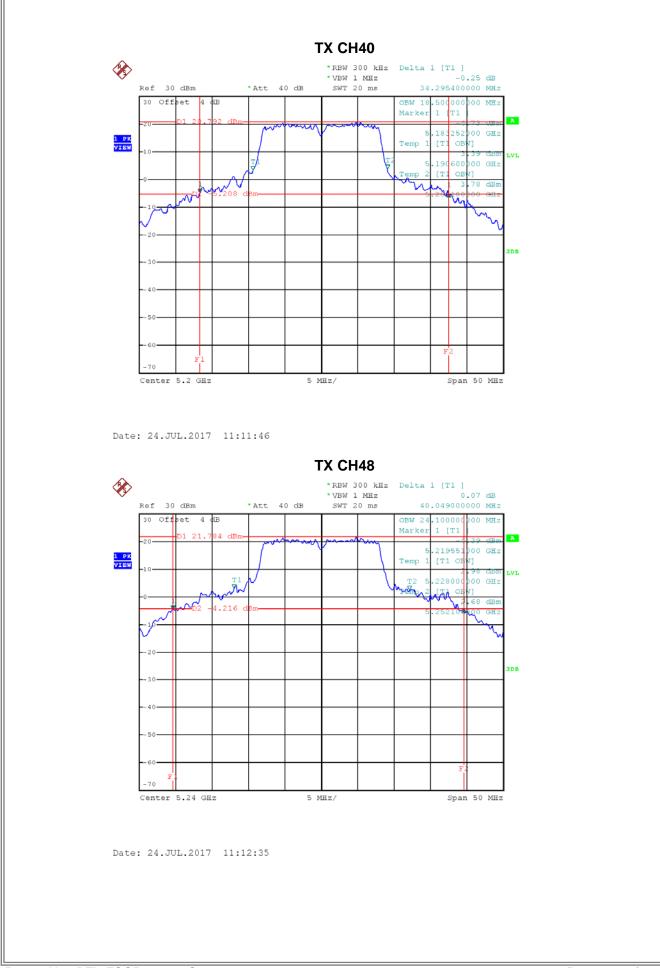
Channel	Frequency	26dB Bandwidth	99% Occupied Bandwidth
	(MHz)	(MHz)	(MHz)
CH36	5180	20.99	16.80
CH40	5200	34.30	18.50
CH48	5240	40.05	24.10



Date: 24.JUL.2017 10:58:58



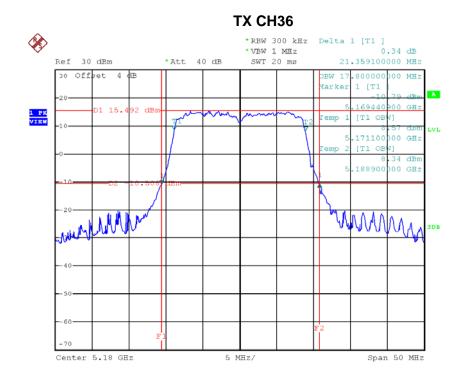






Test Mode: UNII-1/TXN20 Mode_CH36/CH40/CH48

Channel	Frequency	26dB Bandwidth	99% Occupied Bandwidth
	(MHz)	(MHz)	(MHz)
CH36	5180	21.36	17.80
CH40	5200	21.40	17.80
CH48	5240	20.79	16.80

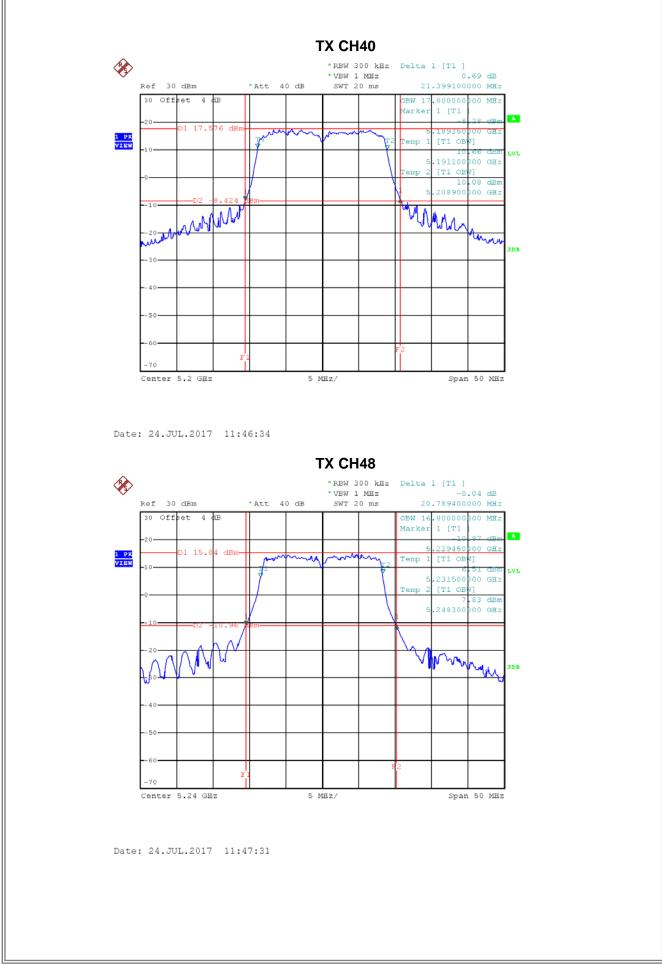


Date: 24.JUL.2017 11:45:38

Report No.: BTL-FCCP-2-1707C145







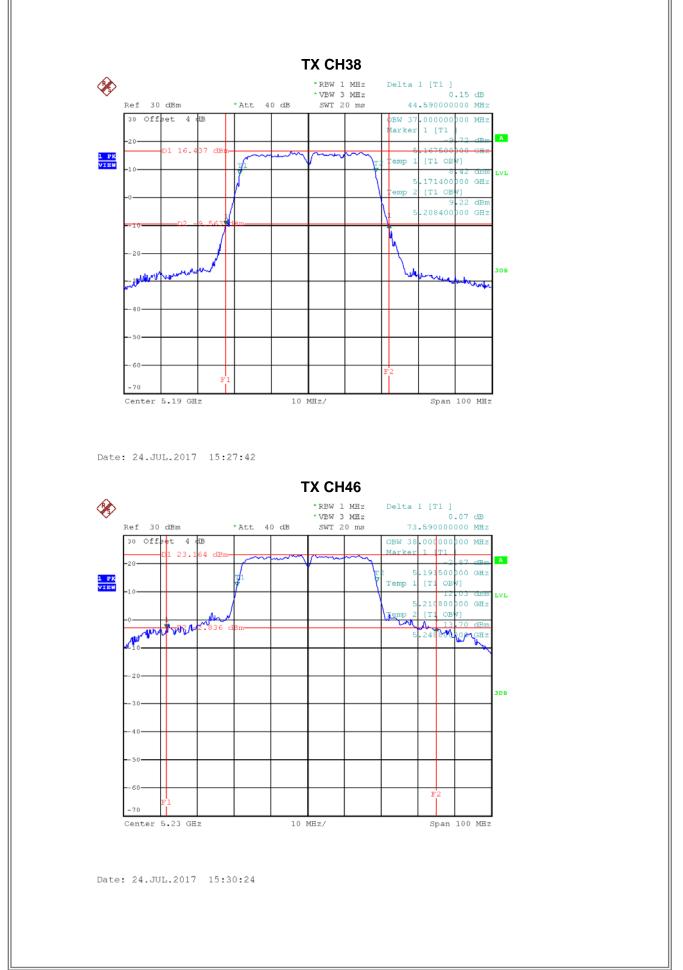


Test Mode: UNII-1/TX N40 Mode_CH38/CH46

Channel	Frequency	26dB Bandwidth	99% Occupied Bandwidth
	(MHz)	(MHz)	(MHz)
CH38	5190	44.59	37.00
CH46	5230	73.59	38.00





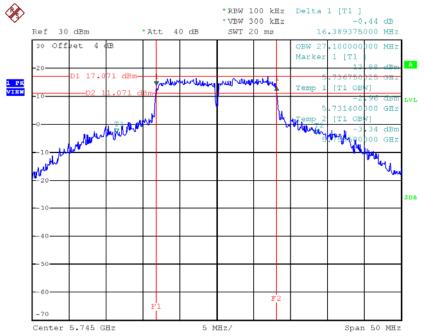






Test Mode: UNII-3/ TX A Mode_CH149/CH157/CH165					
Channel	Frequency	6dB Bandwidth	99% Occupied Bandwidth	Limit	
Channel	(MHz)	(MHz)	(MHz)	(kHz)	
CH149	5745	16.39	27.10	>=500	
CH157	5785	16.59	28.10	>=500	
CH165	5825	16.50	31.40	>=500	

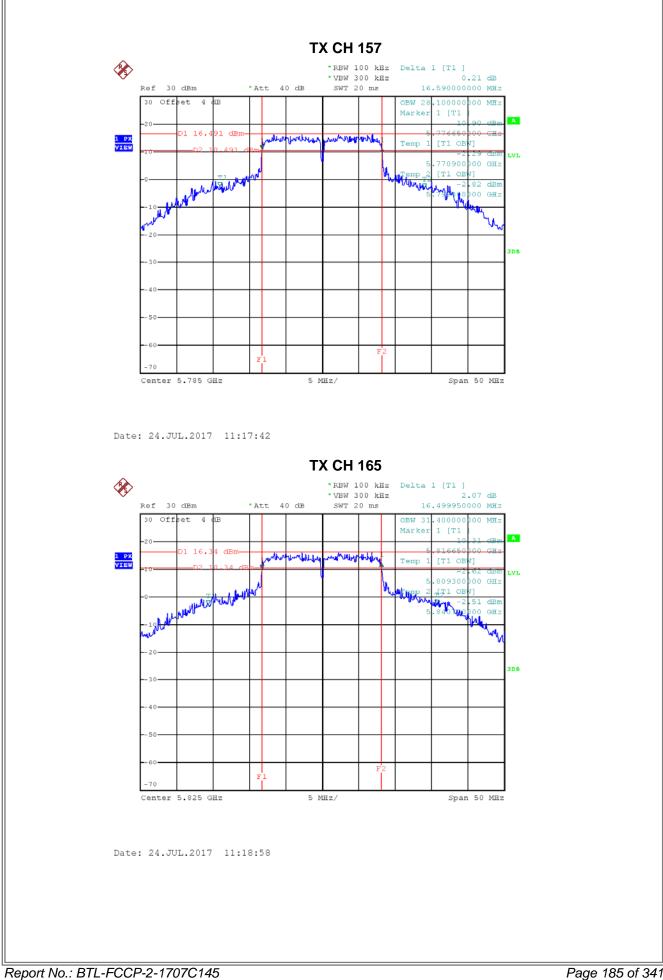




Date: 24.JUL.2017 11:13:48





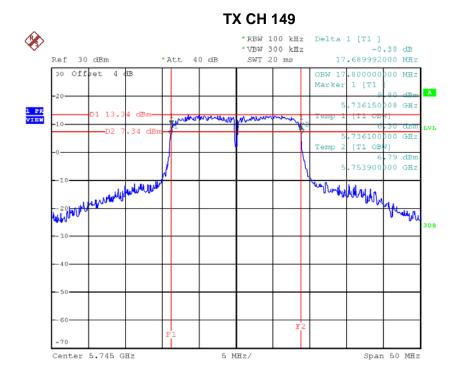






Test Mode: UNII-3/ TX N20 Mode_CH149/CH157/CH165

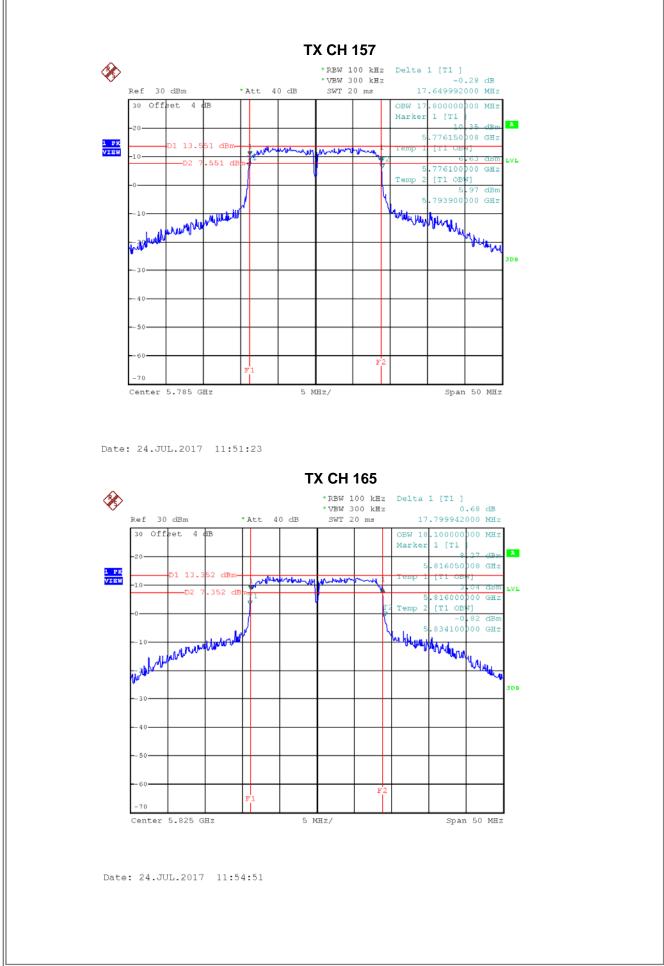
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Limit (kHz)
CH149	5745	17.69	17.80	>=500
CH157	5785	17.65	17.80	>=500
CH165	5825	17.80	18.10	>=500



Date: 24.JUL.2017 11:50:27











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

Channel	Frequency	6dB Bandwidth	99% Occupied Bandwidth	Limit
	(MHz)	(MHz)	(MHz)	(kHz)
CH151	5755	36.50	36.40	>=500
CH159	5795	36.60	36.40	>=500