

FCC Radio Test Report

FCC ID: TE7EX220G2V1

This report concerns: Class II Permissive Change

Project No.	:	1905C079C
Equipment	:	AX1500 Wi-Fi 6 Router
Brand Name	:	tp-link
Test Model	:	EX220-G2
Series Model	:	N/A
Applicant	:	TP-Link Technologies Co., Ltd.
Address	:	Building 24(floors1,3,4,5) and 28(floors1-4) Central Science and
		Technology Park, Shennan Rd, Nanshan, Shenzhen, China
Manufacturer	:	TP-Link Technologies Co., Ltd.
Address	:	Building 24(floors1,3,4,5) and 28(floors1-4) Central Science and
		Technology Park, Shennan Rd, Nanshan, Shenzhen, China
Date of Receipt	:	Nov. 28, 2019
		Aug. 17, 2020
Date of Test	:	Nov. 29, 2019 ~ Jan. 16, 2020
		Aug. 24, 2020 ~ Aug. 25, 2020
Issued Date	:	Sep. 25, 2020
Report Version	:	R00
Test Sample	:	Engineering Sample No.: DG2020010657,DG2020082033
Standard(s)	:	FCC Part15, Subpart E(15.407)
		ANSI C63.10-2013
		FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01 FCC KDB 662911 D01 Multiple Transmitter Output v02r01

The above equipment has been tested and found compliance with the requirement of the relative standards by BTL Inc.

Chay. Cai

Prepared by : Chay Cai

Chan 1

Approved by : Ethan Ma



Certificate #5123.02

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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's laboratory quality assurance procedures are in compliance with the **ISO/IEC 17025** requirements, and accredited by the conformity assessment authorities listed in this test report.

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 which may affect the validity of results, so it is manufacturer's responsibility to ensure that the apparatus meets the essential requirements of applied standards and 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. Please note that the measurement uncertainty is provided for informational purpose only and are not use in determining the Pass/Fail results.





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REPORT ISSUED HISTORY

Report Version	Description	Issued Date
R00	Compared with previous report (BTL-FCCP-2-1905C079A), changed the adapter, so the radiated emissions of below 1GHz and AC Power Line Conducted Emissions have been re-evaluated and recorded in the test report, the rest are kept the same.	Sep. 25, 2020



1. SUMMARY OF TEST RESULTS

FCC Part15, Subpart E(15.407)						
Standard(s) Section	Test Item	Test Result	Judgement	Remark		
15.207 15.407(b)	AC Power Line Conducted Emissions	APPENDIX A	PASS			
15.407(b) 15.205(a) 15.209(a)	Radiated Emissions	APPENDIX B APPENDIX C APPENDIX D	PASS			
15.407(a) 15.407(e)	Spectrum Bandwidth	APPENDIX E	PASS			
15.407(a)	Maximum Output Power	APPENDIX F	PASS			
15.407(a)	Power Spectral Density	APPENDIX G	PASS			
15.407(g)	Frequency Stability	APPENDIX H	PASS			
15.203	Antenna Requirements		PASS	NOTE (3)		
15.407(c)	Automatically Discontinue Transmission		PASS	NOTE (3)		

Test procedures according to the technical standard(s):

Note:

- (1) "N/A" denotes test is not applicable in this test report.
- (2) The device what use a permanently attached antenna were considered sufficient to comply with the provisions of 15.203.
- (3) During no any information transmission, the EUT can automatically discontinue transmission and become standby mode for power saving. the EUT can detect the controlling signal of ACK message transmitting from remote device and verify whether it shall resend or discontinue transmission.





1.1 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 Registration Number for FCC: 357015 BTL's Designation Number for FCC: CN1240

1.2 MEASUREMENT UNCERTAINTY

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2)) The BTL measurement uncertainty as below table:

A. AC power line conducted emissions test:

Test Site	Method	Measurement Frequency Range	U, (dB)
DG-C02	CISPR	150kHz ~ 30MHz	2.68

B. Radiated emissions test:

Test Site	e Method Measurement Frequency Range		Ant. H / V	U, (dB)
		9kHz ~ 30MHz	V	3.79
		9kHz ~ 30MHz	Н	3.57
	CISPR	30MHz ~ 200MHz	V	4.26
		30MHz ~ 200MHz	H	3.38
DG-CB03		200MHz ~ 1,000MHz	V	3.98
DG-CB03		200MHz ~ 1,000MHz	H	3.94
		1GHz ~ 6GHz	-	3.96
		6GHz ~ 18GHz	-	5.24
		18GHz ~ 26.5GHz	-	3.62
		26.5GHz ~ 40GHz	-	4.00

C. Other Measurement:

Test Item	Uncertainty
Spectrum Bandwidth	±3.8 %
Maximum Output Power	±0.95 dB
Power Spectral Density	±0.86 dB
Frequency Stability	±0.16 dB
Temperature	±0.08 °C
Time	±0.58 %
Supply voltages	±0.3 %

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

1.3 TEST ENVIRONMENT CONDITIONS

Test Item	Temperature	Humidity	Test Voltage	Tested By
AC Power Line Conducted Emissions	25°C	53%	AC 120V/60Hz	Hand Huang
Radiated Emissions-9K-30MHz	25°C	60%	AC 120V/60Hz	Kwok Guo
Radiated Emissions-30 MHz to 1GHz	24°C	68%	AC 120V/60Hz	Kwok Guo
Radiated Emissions-Above 1000 MHz	24°C	68%	AC 120V/60Hz	Kwok Guo
Spectrum Bandwidth	25°C	62%	DC 12V	Jonas Chen
Maximum Output Power	25°C	62%	DC 12V	Jonas Chen
Power Spectral Density	25°C	62%	DC 12V	Jonas Chen
Frequency Stability	Normal & Extreme	62%	Normal & Extreme	Jonas Chen

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Brand Name tp-link Test Model EX220-G2 Series Model N/A Model Difference(s) N/A Model Difference(s) N/A Software Version 1.0.0 P1[20191103-rel80377] Hardware Version 1.0 Power Source DC voltage supplied from AC/DC adapter. Model: T120100-281 Power Rating VP: 100-240V-50/60Hz 0.3A O/P: 12V === 1A Operation Frequency UNII-1: 5150 MHz-5550 MHz UNII-3: 5725 MHz-5850 MHz UNII-3: 5725 MHz-5850 MHz Modulation Type IEEE 802.11a: CPDMA Bit Rate of Transmitter Up to 2402 Mbps IEEE 802.11a: 26.42 dBm (0.4385 W) IEEE 802.11ac (VHT20): 25.49 dBm (0.3540 W) IEEE 802.11ac (VHT20): 25.49 dBm (0.1138 W) IEEE 802.11ac (VHT40): 25.69 dBm (0.1138 W) IEEE 802.11ac (VHT40): 25.69 dBm (0.1138 W) IEEE 802.11ac (VHT40): 25.65 dBm (0.3758 W) IEEE 802.11ac (VHT20): 25.75 dBm (0.43758 W) IEEE 802.11ac (VHT40): 25.86 dBm (0.4345 W) IEEE 802.11ac (VHT40): 25.86 dBm (0.4345 W) IEEE 802.11ac (VHT40): 26.06 dBm (0.4345 W) IEEE 802.11ac (VHT40): 26.05 dBm (0.4345 W) IEEE 802.11ac (VHT40): 26.15 dBm (0.4345 W) IEEE 802.11ac (VHT40): 26.16 dBm (0.2588 W) IEEE 802.11ac (VHT40): 26.16 dBm (0.2588 W) IEEE 802.11ac (VHT40): 26.16 dBm (0.4217 W) IEEE 802.11ac (VHT40): 25.61 dBm (0.2280 W) IEEE 802.11ac (VHT40): 25.61 dBm (0		
Test Model EX220-G2 Series Model N/A Model Difference(s) N/A Software Version 1.00 P1[20191103-rel80377] Hardware Version 1.0 Dower Source DC voltage supplied from AC/DC adapter. Model: T120100-2B1 Power Rating I/P: 100-240V-50/60Hz 0.3A O/P: 12V === 1A Operation Frequency UNII-1: 5150 MHz-5250 MHz UNII-1: 5150 MHz-5680 MHz UNII-3: 5725 MHz-5860 MHz Modulation Type IEEE 802.11a: OFDMA Bit Rate of Transmitter Up to 2402 Mbps Maximum Output Power for UNII-1 Non-Beamforming IEEE 802.11a: CVHT40): 25.04 dBm (0.3540 W) IEEE 802.11ac (VHT40): 25.04 dBm (0.3192 W) IEEE 802.11a: (HEW40): 24.08 dBm (0.3076 W) IEEE 802.11ac (VHT40): 25.75 dBm (0.3758 W) IEEE 802.11a: (HEW40): 24.88 dBm (0.3758 W) IEEE 802.11a: (HEW40): 25.75 dBm (0.3758 W) IEEE 802.11a: (HEW40): 25.75 dBm (0.3758 W) IEEE 802.11a: (HEW40): 26.38 dBm (0.4345 W) IEEE 802.11a: (HEW40): 26.38 dBm (0.4345 W) IEEE 802.11a: (HEW40): 26.38 dBm (0.4345 W) IEEE 802.11a: (HEW40): 26.38 dBm (0.4345 W) IEEE 802.11a: (HEW40): 26.38 dBm (0.4345 W) IEEE 802.11a: (HEW40): 26.36 dBm (0.4345 W) IEEE 802.11a: (HEW40): 26.38 dBm (0.4345 W) <td>Equipment</td> <td>AX1500 Wi-Fi 6 Router</td>	Equipment	AX1500 Wi-Fi 6 Router
Series Model N/A Model Difference(s) N/A Software Version 1.0.0 P1[20191103-rel80377] Hardware Version 1.0 Power Source DC voltage supplied from AC/DC adapter. Model: T120100-2B1 Power Rating I/P: 100-240V- 50/60Hz 0.3A O/P: 12V === 1A Operation Frequency UNII-1: 5150 MHz-5250 MHz UNII-3: 5725 MHz-5850 MHz Modulation Type IEEE 802.11a//ac: OFDM IEEE 802.11a: OFDM Bit Rate of Transmitter Up to 2402 Mbps Maximum Output Power for UNII-1 Non-Beamforming IEEE 802.11a: 26.42 dBm (0.4385 W) IEEE 802.11a: CVHT40): 25.04 dBm (0.3192 W) IEEE 802.11a: (VHT40): 25.04 dBm (0.3758 W) Maximum Output Power for UNII-1 Non-Beamforming IEEE 802.11a: (VHT40): 25.04 dBm (0.3758 W) IEEE 802.11a: (VHT40): 25.75 dBm (0.3758 W) Maximum Output Power for UNII-3 IEEE 802.11a: (VHT40): 25.75 dBm (0.3758 W) IEEE 802.11a: (VHT40): 25.75 dBm (0.4385 W) IEEE 802.11a: (VHT40): 25.75 dBm (0.4375 W) IEEE 802.11a: (VHT40): 25.75 dBm (0.4385 W) IEEE 802.11a: (VHT40): 26.26 dBm (0.4385 W) IEEE 802.11a: (VHT40): 26.26 dBm (0.4385 W) IEEE 802.11a: (VHT40): 25.75 dBm (0.3758 W) IEEE 802.11a: (VHT40): 25.75 dBm (0.4386 W) IEEE 802.11a: (VHT40): 26.26 dBm (0.43		
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Software Version 1.0.0 P1[20191103-rel80377] Hardware Version 1.0 Power Source DC voltage supplied from AC/DC adapter. Model: T120100-2B1 Power Rating //P: 100-240V- 50/60Hz 0.3A O/P: 12V === 1A Operation Frequency UNII-1: 5155 0 MHz-5250 MHz UNII-1: 5150 MHz-5250 MHz UNII-3: 5725 MHz-5850 MHz Modulation Type IEEE 802.11a//ac: OFDM IEEE 802.11a//ac: OFDM Bit Rate of Transmitter Up to 2402 Mbps IEEE 802.11a: C(VHT20): 25.49 dBm (0.3540 W) IEEE 802.11ac (VHT40): 25.04 dBm (0.3192 W) IEEE 802.11ac (VHT40): 25.04 dBm (0.4365 W) IEEE 802.11ac (VHT40): 25.04 dBm (0.4055 W) IEEE 802.11ac (VHT40): 25.04 dBm (0.4055 W) IEEE 802.11ac (VHT40): 25.05 dBm (0.4055 W) IEEE 802.11ac (VHT40): 25.05 dBm (0.4055 W) IEEE 802.11ac (VHT40): 25.85 dBm (0.4055 W) IEEE 802.11ac (VHT40): 25.85 dBm (0.3758 W) IEEE 802.11ac (VHT40): 25.85 dBm (0.3846 W) IEEE 802.11ac (VHT40): 25.85 dBm (0.4345 W) IEEE 802.11ac (VHT40): 26.38 dBm (0.4345 W) IEEE 802.11ac (VHT40): 26.38 dBm (0.4345 W) IEEE 802.11ac (VHT40): 26.55 dBm (0.4217 W) IEEE 802.11ac (VHT40): 26.25 dBm (0.4247 W) IEEE 802.11ac (VHT40): 26.25 dBm (0.4		
Hardware Version 1.0 Construct Construction Power Source DC voltage supplied from AC/DC adapter. Model: T120100-2B1 Power Rating VP: 100-240V- 50/60Hz 0.3A O/P: 12V == 1A Operation Frequency UNII-1: 5150 MHz-5250 MHz UNII-3: 5725 MHz-5850 MHz UNII-3: 5725 MHz-5850 MHz Modulation Type IEEE 802.11a/n/ac: OFDM IEEE 802.11a: 26.42 dBm (0.4385 W) Bit Rate of Transmitter Up to 2400 Mbps Maximum Output Power for UNII-1 Non-Beamforming IEEE 802.11a: CMTR0): 25.49 dBm (0.3540 W) IEEE 802.11a: CMTR0): 25.64 dBm (0.1318 W) IEEE 802.11a: CMTR0): 25.64 dBm (0.1318 W) IEEE 802.11a: CMTR0): 24.88 dBm (0.3076 W) IEEE 802.11a: CMTR0): 24.88 dBm (0.3076 W) IEEE 802.11a: CMTR0): 24.88 dBm (0.3076 W) IEEE 802.11a: CMTR0): 23.83 dBm (0.2415 W) IEEE 802.11a: CMTR0): 23.83 dBm (0.2415 W) IEEE 802.11a: CMTR0): 23.83 dBm (0.2415 W) IEEE 802.11a: CMTR0): 24.28 dBm (0.2679 W) IEEE 802.11a: CMTR0): 24.28 dBm (0.2679 W) Maximum Output Power for UNII-1 IEEE 802.11a: CMTR0): 23.58 dBm (0.4217 W) IEEE 802.11a: CMTR0): 29.96 dBm (0.0991 W) IEEE 802.11a: CMTR0): 24.28 dBm (0.2679 W) IEEE 802.11a: CMTR0): 29.96 dBm (0.0991 W) IEEE 802.11a: CMTR0): 24.50 dBm (0.4217 W) IEEE 8		
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Power Source Model: T120100-2B1 Power Rating IP: 100-240V- 50/60Hz 0.3A O/P: 12V == 1A Operation Frequency UNII-1: 5150 MHz-5250 MHz UNII-3: 5725 MHz-5850 MHz Modulation Type IEEE 802.11a/n/ac: OFDM IEEE 802.11ax: OFDMA Bit Rate of Transmitter Up to 2402 Mbps Maximum Output Power for UNII-1 Non-Beamforming IEEE 802.11a: 26.42 dBm (0.4385 W) IEEE 802.11ac (VHT20): 25.49 dBm (0.3192 W) IEEE 802.11ac (VHT40): 25.04 dBm (0.3192 W) IEEE 802.11ac (VHT80): 20.56 dBm (0.4055 W) IEEE 802.11ac (VHT80): 20.56 dBm (0.1138 W) IEEE 802.11ax (HEW40): 21.95 dBm (0.1667 W) IEEE 802.11ax (HEW40): 21.95 dBm (0.3758 W) IEEE 802.11ac (VHT40): 25.75 dBm (0.3855 W) IEEE 802.11ac (VHT40): 25.85 dBm (0.3846 W) IEEE 802.11ac (VHT40): 25.85 dBm (0.3846 W) IEEE 802.11ax (HEW40): 20.26.06 dBm (0.4036 W) IEEE 802.11ax (HEW40): 20.26.06 dBm (0.4036 W) IEEE 802.11ax (HEW40): 26.38 dBm (0.415 W) IEEE 802.11ax (HEW40): 26.38 dBm (0.4217 W) IEEE 802.11ax (HEW40): 24.13 dBm (0.2679 W) IEEE 802.11ax (HEW40): 24.13 dBm (0.2679 W) IEEE 802.11ax (HEW40): 23.56 dBm (0.4121 W) IEEE 802.11ax (HEW40): 23.58 dBm (0.2800 W) IEEE 802.11ax (HEW40): 26.25 dBm (0.394 W) IEEE 802.11ax (HEW40): 26.25 dBm (0.4121 W) IEEE 802.11ax (HEW40): 26.38 dBm (0.2800 W) IEEE 802.11ax (HEW40): 26.38 dBm (0.2800 W) IEEE 802.11ax (HEW40): 26.38 dBm (0.2800 W) IEEE 802.11ax (HEW40): 26.41 dBm (0.2800 W) IEEE 802.11ax (HEW40): 26.42 dBm (0.2707 W) IEEE 802.11ax (HEW40): 26.43 dBm (0.2707 W) IEEE 802.11ax (HEW40): 26.44 dBm (0.3707 W) IEEE 802.11ax (HEW40): 26.44 dBm (0.4305 W) Maximum Output Power for UNII-3 Beamforming IEEE 802.11ac (VHT40): 26.44 dBm (0.4305 W)	Hardware Version	
Model: 11/20100-281 Power Rating I/P: 100-240V- 50/60Hz 0.3A Operation Frequency UNII-1: 5150 MHz-5250 MHz Modulation Type IEEE 802.11a: CPDMA Bit Rate of Transmitter Up to 2402 Mbps Maximum Output Power for UNII-1 Non-Beamforming IEEE 802.11a: 26.42 dBm (0.4385 W) IEEE 802.11a: CVHT40): 25.04 dBm (0.3540 W) IEEE 802.11a: (VHT40): 25.04 dBm (0.3192 W) IEEE 802.11a: (VHT40): 25.04 dBm (0.3192 W) IEEE 802.11a: (VHT40): 25.04 dBm (0.1188 W) IEEE 802.11a: (VHT40): 25.04 dBm (0.3076 W) IEEE 802.11a: (VHT40): 24.88 dBm (0.3076 W) IEEE 802.11a: (VHT40): 25.75 dBm (0.1567 W) IEEE 802.11a: (VHT40): 25.75 dBm (0.3758 W) IEEE 802.11a: (VHT40): 25.75 dBm (0.3758 W) IEEE 802.11a: (VHT40): 25.83 dBm (0.2486 W) IEEE 802.11a: (VHT40): 26.38 dBm (0.3464 W) IEEE 802.11a: (HEW40): 24.28 dBm (0.2486 W) IEEE 802.11a: (VHT40): 26.38 dBm (0.4345 W) IEEE 802.11a: (HEW40): 26.38 dBm (0.4345 W) IEEE 802.11a: (VHT20): 26.05 dBm (0.4115 W) IEEE 802.11a: (HEW40): 24.28 dBm (0.2471 W) IEEE 802.11a: (VHT20): 26.25 dBm (0.4121 W) IEEE 802.11a: (HEW40): 24.33 dBm (0.2280 W) IEEE 802.11a: (VHT80): 19.96 dBm (0.0991 W) IEEE 802.11a: (HEW40): 26.35 dBm (0.4121 W) IEEE 802.11a: (VHT20): 26.22	Power Source	U
Power Rating O/P: 12V == 1A Operation Frequency UNII-1: 5150 MHz-5250 MHz Modulation Type IEEE 802.11a/n/ac: OFDM Bit Rate of Transmitter Up to 2402 Mbps Maximum Output Power for UNII-1 Non-Beamforming IEEE 802.11a: 26.42 dBm (0.4385 W) IEEE 802.11a: 26.42 dBm (0.4385 W) IEEE 802.11a: 26.42 dBm (0.3540 W) IEEE 802.11a: C(VHT40): 25.49 dBm (0.3540 W) IEEE 802.11a: C(VHT40): 25.49 dBm (0.3540 W) IEEE 802.11a: C(VHT40): 25.04 dBm (0.3192 W) IEEE 802.11a: C(VHT40): 25.05 dBm (0.3192 W) IEEE 802.11a: C(VHT40): 25.04 dBm (0.3540 W) IEEE 802.11a: C(VHT40): 25.05 dBm (0.3192 W) IEEE 802.11a: C(VHT40): 25.04 dBm (0.3076 W) IEEE 802.11a: C(VHT40): 24.88 dBm (0.3707 W) IEEE 802.11a: C(VHT20): 25.75 dBm (0.3758 W) IEEE 802.11a: C(VHT20): 25.75 dBm (0.3758 W) IEEE 802.11a: C(VHT20): 25.75 dBm (0.4215 W) IEEE 802.11a: C(VHT40): 24.28 dBm (0.2415 W) IEEE 802.11a: C(VHT20): 26.06 dBm (0.4036 W) IEEE 802.11a: C(VHT40): 24.28 dBm (0.2415 W) IEEE 802.11a: C(VHT20): 26.25 dBm (0.4217 W) IEEE 802.11a: C(VHT40): 24.13 dBm (0.2588 W) IEEE 802.11a: C(VHT20): 26.15 dBm (0.4217 W) IEEE 802.11a: C(VHT40): 24.13 dBm (0.2588 W) IEEE 802.11a: C(VHT40): 26.15 dBm (0.4217 W) IEEE 802.11a: C(VHT40): 24.20 dBm (0.279 W)	Fower Source	
Operation Frequency UNII-1: 5150 MHz-5250 MHz Modulation Type IEEE 802.11a/n/ac: OFDM IEEE 802.11ax: OFDMA Bit Rate of Transmitter Up to 2402 Mbps Maximum Output Power for UNII-1 Non-Beamforming IEEE 802.11a: CVHT40): 25.49 dBm (0.3540 W) IEEE 802.11ac (VHT40): 25.04 dBm (0.3192 W) IEEE 802.11ac (VHT40): 25.04 dBm (0.1138 W) IEEE 802.11ac (VHT40): 20.56 dBm (0.1138 W) IEEE 802.11ac (VHT40): 24.88 dBm (0.3076 W) IEEE 802.11ax (HEW40): 24.88 dBm (0.3076 W) IEEE 802.11ax (HEW40): 21.95 dBm (0.1567 W) Maximum Output Power for UNII-3 IEEE 802.11a: (VHT40): 25.75 dBm (0.3758 W) IEEE 802.11ac (VHT20): 25.75 dBm (0.3758 W) IEEE 802.11ac (VHT20): 26.38 dBm (0.3758 W) IEEE 802.11ac (VHT20): 26.38 dBm (0.3466 W) IEEE 802.11ac (VHT20): 26.25 dBm (0.4036 W) IEEE 802.11ac (VHT20): 26.25 dBm (0.4036 W) IEEE 802.11ac (VHT20): 26.25 dBm (0.4345 W) IEEE 802.11ac (VHT40): 24.38 dBm (0.4036 W) IEEE 802.11ac (VHT40): 24.38 dBm (0.4217 W) IEEE 802.11ac (VHT40): 26.38 dBm (0.4217 W) IEEE 802.11ac (VHT40): 26.35 dBm (0.0991 W) IEEE 802.11ac (VHT80): 19.96 dBm (0.0991 W) IEEE 802.11ac (VHT80): 21.13 dBm (0.2280 W) IEEE 802.11ac (VHT40): 26.25 dBm (0.4121 W) IEEE 802.11ac (VHT40): 26.35 dBm (0.3707 W) IEEE 802.11ac (VHT40): 26.35 dBm (0.3707 W) IEEE 802.11ac (VHT40): 26.34 dBm (0.3707 W) IEEE 802.11ac (VHT40): 26.34 dBm (0.280 W) IEEE 802.11ac (VHT40): 26.34 dBm (0.3707 W) IEEE 802.11ac (VHT40): 26.34 dBm (0.4305 W) Maximum Output Power for UNII-3 IEEE 802.11ac (VHT20): 26.22 dBm (0.4188 W) IEEE 802.11ac (VHT40): 26.34 dBm (0.4305 W)	Dower Poting	I/P: 100-240V~ 50/60Hz 0.3A
Operation Frequency UNII-3: 5725 MHz-5850 MHz Modulation Type IEEE 802.11a/n/ac: OFDM IEEE 802.11a: OFDMA Bit Rate of Transmitter Up to 2402 Mbps Maximum Output Power for UNII-1 Non-Beamforming IEEE 802.11a: C(HT20): 25.49 dBm (0.3540 W) IEEE 802.11ac (VHT40): 25.04 dBm (0.3192 W) IEEE 802.11ac (VHT40): 25.04 dBm (0.1138 W) IEEE 802.11ac (VHT80): 20.56 dBm (0.4055 W) IEEE 802.11ax (HEW40): 24.88 dBm (0.3076 W) IEEE 802.11ax (HEW40): 24.88 dBm (0.3076 W) IEEE 802.11ax (HEW40): 21.95 dBm (0.1567 W) Maximum Output Power for UNII-3 IEEE 802.11ac (VHT20): 25.75 dBm (0.3758 W) IEEE 802.11ac (VHT20): 25.75 dBm (0.3758 W) IEEE 802.11ac (VHT20): 26.86 dBm (0.4036 W) IEEE 802.11ac (VHT20): 26.86 dBm (0.4036 W) IEEE 802.11ac (VHT20): 26.25 dBm (0.4345 W) IEEE 802.11ac (VHT20): 26.25 dBm (0.4345 W) IEEE 802.11ac (VHT20): 26.25 dBm (0.4217 W) IEEE 802.11ac (VHT20): 26.25 dBm (0.4217 W) IEEE 802.11ac (VHT20): 26.25 dBm (0.4217 W) IEEE 802.11ac (VHT80): 19.96 dBm (0.0991 W) IEEE 802.11ax (HEW40): 23.58 dBm (0.288 W) IEEE 802.11ax (HEW40): 26.35 dBm (0.3280 W) IEEE 802.11ax (HEW40): 26.35 dBm (0.3280 W) IEEE 802.11ax (HEW40): 26.35 dBm (0.3280 W) IEEE 802.11ax (HEW40): 26.35 dBm (0.4121 W) IEEE 802.11ax (HEW40): 26.35 dBm (0.3707 W) IEEE 802.11ax (HEW40): 26.35 dBm (0.3707 W) IEEE 802.11ac (VHT40): 26.22 dBm (0.4188 W) IEEE 802.11ac (VHT40): 26.24 dBm (0.4305 W) Maximum Output Power for UNII-3 IEEE 802.11ac (VHT20): 26.24 dBm (0.4305 W) Beamforming IEEE 802.11ac (VHT40): 26.69 dBm (0.3707 W) IEEE 802.11ac (VHT40): 26.69 dBm (0.4305 W) </td <td>Fower Rating</td> <td>O/P: 12V 1A</td>	Fower Rating	O/P: 12V 1A
Modulation Type IEEE 802.11a/n/ac: OFDM IEEE 802.11ax: OFDMA Bit Rate of Transmitter Up to 2402 Mbps Maximum Output Power for UNII-1 Non-Beamforming IEEE 802.11a: 26.42 dBm (0.4385 W) IEEE 802.11ac (VHT20): 25.49 dBm (0.3540 W) IEEE 802.11ac (VHT40): 25.04 dBm (0.3540 W) IEEE 802.11ac (VHT40): 25.04 dBm (0.3192 W) IEEE 802.11ac (VHT80): 20.56 dBm (0.1138 W) IEEE 802.11ax (HEW20): 26.08 dBm (0.4055 W) IEEE 802.11ax (HEW20): 26.08 dBm (0.4055 W) IEEE 802.11ax (HEW40): 24.88 dBm (0.3076 W) IEEE 802.11ax (HEW40): 24.88 dBm (0.3768 W) IEEE 802.11ac (VHT20): 25.75 dBm (0.3758 W) Maximum Output Power for UNII-3 Non-Beamforming IEEE 802.11ac (VHT40): 25.85 dBm (0.3758 W) IEEE 802.11ax (HEW20): 26.08 dBm (0.4036 W) IEEE 802.11ax (HEW20): 26.08 dBm (0.4036 W) IEEE 802.11ax (HEW20): 26.08 dBm (0.4036 W) IEEE 802.11ax (HEW20): 26.26 dBm (0.4034 W) IEEE 802.11ax (HEW20): 26.25 dBm (0.4217 W) IEEE 802.11ax (HEW20): 26.15 dBm (0.2579 W) Maximum Output Power for UNII-1 Beamforming IEEE 802.11ac (VHT20): 26.25 dBm (0.4217 W) IEEE 802.11ac (VHT40): 23.58 dBm (0.2280 W) IEEE 802.11ac (VHT20): 26.25 dBm (0.4217 W) IEEE 802.11ac (HHW20): 26.15 dBm (0.4211 W) IEEE 802.11ac (HEW20): 26.15 dBm (0.4212 W) IEEE 802.11ac (HEW20): 26.15 dBm (0.4218 W) IEEE 802.11ac (HEW20): 26.20 dBm (0.4218 W) IEEE 802.11ac (HEW20): 26.20 dBm (0.4280 W) Maximum Output Power for UNII-3 Beamforming IEEE 802.11ac (WHT40): 25.69 dBm (0.3707 W) IEEE 802.11ac (WHT40): 25.69 dBm (0.4218 W) IEEE 802.11ac (WHT40): 25.69 dBm (0.4205 W) Maximum Output Power for UNII-3 Beamforming IEEE	Operation Frequency	UNII-1: 5150 MHz~5250 MHz
Modulation Type IEEE 802.11ax: OFDMA Bit Rate of Transmitter Up to 2402 Mbps Maximum Output Power for UNII-1 Non-Beamforming IEEE 802.11a: 26.42 dBm (0.4385 W) IEEE 802.11ac (VHT20): 25.49 dBm (0.3540 W) IEEE 802.11ac (VHT40): 25.04 dBm (0.3192 W) IEEE 802.11ac (VHT40): 25.05 dBm (0.1138 W) IEEE 802.11ax (HEW20): 26.08 dBm (0.4055 W) IEEE 802.11ax (HEW40): 24.88 dBm (0.3076 W) IEEE 802.11ax (HEW40): 24.88 dBm (0.3076 W) IEEE 802.11ax (HEW40): 24.88 dBm (0.3758 W) Maximum Output Power for UNII-3 Non-Beamforming IEEE 802.11ac (VHT40): 25.75 dBm (0.3758 W) IEEE 802.11ax (HEW20): 26.06 dBm (0.4036 W) IEEE 802.11ax (HEW20): 26.06 dBm (0.4036 W) IEEE 802.11ax (HEW20): 26.06 dBm (0.4345 W) IEEE 802.11ax (HEW20): 26.25 dBm (0.4345 W) IEEE 802.11ax (HEW40): 24.28 dBm (0.2679 W) Maximum Output Power for UNII-1 Beamforming IEEE 802.11ac (VHT20): 26.25 dBm (0.4217 W) IEEE 802.11ac (VHT20): 26.25 dBm (0.4217 W) IEEE 802.11ac (VHT40): 24.13 dBm (0.2588 W) IEEE 802.11ac (VHT40): 24.13 dBm (0.2588 W) IEEE 802.11ac (VHT40): 23.58 dBm (0.0991 W) IEEE 802.11ac (HEW20): 26.15 dBm (0.4121 W) IEEE 802.11ax (HEW40): 23.58 dBm (0.2280 W) IEEE 802.11ax (HEW40): 23.58 dBm (0.2280 W) IEEE 802.11ax (HEW40): 23.58 dBm (0.2280 W) IEEE 802.11ax (HEW40): 23.58 dBm (0.2780 W) IEEE 802.11ac (VHT40): 24.12 dBm (0.2984 W) IEEE 802.11ac (VHT40): 24.12 dBm (0.2984 W) IEEE 802.11ac (VHT40): 25.69 dBm (0.3707 W) IEEE 802.11ac (VHT40): 25.69 dBm (0.3707 W) IEEE 802.11ac (HEW20): 26.24 dBm (0.305 W) Maximum Output Power for UNII-3 Beamforming IEEE 802.11ac (VHT40): 25.69 dBm (0.4305 W) IEEE 802.11ac (VHT40): 25.69 dBm (0.4305 W) IEEE 802.11ac (VHT40): 25.69 dBm (0.4305 W)	Operation Frequency	UNII-3: 5725 MHz~5850 MHz
Bit Rate of Transmitter Up to 2402 Mbps Maximum Output Power for UNII-1 Non-Beamforming IEEE 802.11a: 26.42 dBm (0.4385 W) IEEE 802.11a: (VHT20): 25.49 dBm (0.3540 W) IEEE 802.11ac (VHT40): 25.04 dBm (0.3192 W) IEEE 802.11ac (VHT40): 25.04 dBm (0.4055 W) IEEE 802.11ax (HEW20): 26.08 dBm (0.4055 W) IEEE 802.11ax (HEW20): 26.08 dBm (0.4055 W) IEEE 802.11ax (HEW 80): 21.95 dBm (0.1567 W) Maximum Output Power for UNII-3 Non-Beamforming IEEE 802.11ac (VHT40): 25.75 dBm (0.3758 W) IEEE 802.11ax (HEW40): 24.88 dBm (0.3846 W) IEEE 802.11ax (HEW20): 26.06 dBm (0.4036 W) IEEE 802.11ax (HEW20): 26.06 dBm (0.4036 W) IEEE 802.11ax (HEW20): 26.26 dBm (0.4036 W) IEEE 802.11ax (HEW20): 26.25 dBm (0.4217 W) IEEE 802.11ax (HEW20): 26.25 dBm (0.4217 W) IEEE 802.11ac (VHT40): 24.13 dBm (0.2588 W) IEEE 802.11ac (VHT80): 19.96 dBm (0.0991 W) IEEE 802.11ac (HEW20): 26.15 dBm (0.4121 W) IEEE 802.11ax (HEW20): 26.15 dBm (0.4121 W) IEEE 802.11ax (HEW20): 26.25 dBm (0.4121 W) IEEE 802.11ax (HEW40): 23.58 dBm (0.280 W) IEEE 802.11ax (HEW40): 23.58 dBm (0.280 W) IEEE 802.11ax (HEW40): 23.58 dBm (0.2280 W) IEEE 802.11ax (HEW20): 26.15 dBm (0.4121 W) IEEE 802.11ax (HEW40): 23.58 dBm (0.280 W) IEEE 802.11ax (HEW40): 23.58 dBm (0.280 W) IEEE 802.11ax (HEW40): 26.20 dBm (0.4188 W) IEEE 802.11ax (HEW40): 26.20 dBm (0.4188 W) IEEE 802.11ax (HEW40): 26.20 dBm (0.4188 W) IEEE 802.11ax (HEW40): 26.50 dBm (0.4188 W) IEEE 802.11ax (HEW40): 26.60 dBm (0.4180 W) IEEE 802.11ax (HEW40): 26.60 dBm (0.4105 W)	Medulation Turne	IEEE 802.11a/n/ac: OFDM
Maximum Output Power for UNII-1 Non-Beamforming IEEE 802.11a: 26.42 dBm (0.4385 W) IEEE 802.11ac (VHT20): 25.49 dBm (0.3540 W) IEEE 802.11ac (VHT40): 25.04 dBm (0.3192 W) IEEE 802.11ac (VHT40): 20.56 dBm (0.1138 W) IEEE 802.11ax (HEW20): 26.08 dBm (0.4055 W) IEEE 802.11ax (HEW20): 26.08 dBm (0.3076 W) IEEE 802.11ax (HEW 80): 21.95 dBm (0.1567 W) Maximum Output Power for UNII-3 Non-Beamforming IEEE 802.11ac (VHT20): 25.75 dBm (0.3758 W) IEEE 802.11ac (VHT20): 25.75 dBm (0.3846 W) IEEE 802.11ac (VHT20): 26.06 dBm (0.4036 W) IEEE 802.11ax (HEW20): 26.06 dBm (0.4036 W) IEEE 802.11ax (HEW20): 26.06 dBm (0.4036 W) IEEE 802.11ax (HEW20): 26.28 dBm (0.2679 W) Maximum Output Power for UNII-1 Beamforming IEEE 802.11ac (VHT20): 26.25 dBm (0.4217 W) IEEE 802.11ac (VHT20): 26.15 dBm (0.4217 W) IEEE 802.11ac (VHT20): 26.15 dBm (0.4121 W) IEEE 802.11ac (HEW20): 26.15 dBm (0.4121 W) IEEE 802.11ax (HEW40): 23.58 dBm (0.2280 W) IEEE 802.11ax (HEW40): 23.58 dBm (0.2280 W) IEEE 802.11ax (HEW40): 23.58 dBm (0.2280 W) IEEE 802.11ac (VHT20): 26.26 dBm (0.4188 W) IEEE 802.11ac (VHT20): 26.69 dBm (0.3707 W) IEEE 802.11ac (VHT20): 26.69 dBm (0.3707 W) IEEE 802.11ac (VHT20): 26.34 dBm (0.4305 W)	Modulation Type	IEEE 802.11ax: OFDMA
Maximum Output Power for UNII-1 Non-Beamforming IEEE 802.11ac (VHT20): 25.49 dBm (0.3540 W) IEEE 802.11ac (VHT40): 25.04 dBm (0.3192 W) IEEE 802.11ac (VHT80): 20.56 dBm (0.1138 W) IEEE 802.11ax (HEW20): 26.08 dBm (0.4055 W) IEEE 802.11ax (HEW40): 24.88 dBm (0.3076 W) IEEE 802.11ax (HEW 80): 21.95 dBm (0.1567 W) Maximum Output Power for UNII-3 Non-Beamforming IEEE 802.11a: 25.86 dBm (0.3855 W) IEEE 802.11ax (HEW20): 25.75 dBm (0.3758 W) IEEE 802.11ac (VHT40): 25.85 dBm (0.3846 W) IEEE 802.11ac (VHT40): 25.85 dBm (0.4345 W) IEEE 802.11ax (HEW20): 26.06 dBm (0.4036 W) IEEE 802.11ax (HEW20): 26.06 dBm (0.4036 W) IEEE 802.11ax (HEW40): 24.28 dBm (0.2679 W) Maximum Output Power for UNII-1 Beamforming IEEE 802.11ac (VHT40): 24.13 dBm (0.2588 W) IEEE 802.11ac (VHT40): 24.13 dBm (0.2588 W) IEEE 802.11ax (HEW20): 26.15 dBm (0.4121 W) IEEE 802.11ax (HEW20): 26.15 dBm (0.4121 W) IEEE 802.11ax (HEW40): 23.58 dBm (0.2280 W) IEEE 802.11ax (HEW80): 19.96 dBm (0.0991 W) IEEE 802.11ax (HEW80): 19.93 dBm (0.0984 W) Maximum Output Power for UNII-3 Beamforming IEEE 802.11ac (VHT40): 26.22 dBm (0.4121 W) IEEE 802.11ax (HEW80): 19.93 dBm (0.3707 W) IEEE 802.11ac (VHT40): 26.24 dBm (0.3707 W) IEEE 802.11ac (VHT40): 25.42 dBm (0.3707 W) IEEE 802.11ac (VHT40): 26.34 dBm (0.3707 W) IEEE 802.11ac (VHT40): 26.34 dBm (0.4305 W)	Bit Rate of Transmitter	Up to 2402 Mbps
Maximum Output Power for UNII-1 Non-Beamforming IEEE 802.11ac (VHT20): 25.49 dBm (0.3540 W) IEEE 802.11ac (VHT40): 25.04 dBm (0.3192 W) IEEE 802.11ac (VHT80): 20.56 dBm (0.1138 W) IEEE 802.11ax (HEW20): 26.08 dBm (0.4055 W) IEEE 802.11ax (HEW40): 24.88 dBm (0.3076 W) IEEE 802.11ax (HEW 80): 21.95 dBm (0.1567 W) Maximum Output Power for UNII-3 Non-Beamforming IEEE 802.11a: 25.86 dBm (0.3855 W) IEEE 802.11ax (HEW20): 25.75 dBm (0.3758 W) IEEE 802.11ac (VHT40): 25.85 dBm (0.3846 W) IEEE 802.11ac (VHT40): 25.85 dBm (0.4345 W) IEEE 802.11ax (HEW20): 26.06 dBm (0.4036 W) IEEE 802.11ax (HEW20): 26.06 dBm (0.4036 W) IEEE 802.11ax (HEW40): 24.28 dBm (0.2679 W) Maximum Output Power for UNII-1 Beamforming IEEE 802.11ac (VHT40): 24.13 dBm (0.2588 W) IEEE 802.11ac (VHT40): 24.13 dBm (0.2588 W) IEEE 802.11ax (HEW20): 26.15 dBm (0.4121 W) IEEE 802.11ax (HEW20): 26.15 dBm (0.4121 W) IEEE 802.11ax (HEW40): 23.58 dBm (0.2280 W) IEEE 802.11ax (HEW80): 19.96 dBm (0.0991 W) IEEE 802.11ax (HEW80): 19.93 dBm (0.0984 W) Maximum Output Power for UNII-3 Beamforming IEEE 802.11ac (VHT40): 26.22 dBm (0.4121 W) IEEE 802.11ax (HEW80): 19.93 dBm (0.3707 W) IEEE 802.11ac (VHT40): 26.24 dBm (0.3707 W) IEEE 802.11ac (VHT40): 25.42 dBm (0.3707 W) IEEE 802.11ac (VHT40): 26.34 dBm (0.3707 W) IEEE 802.11ac (VHT40): 26.34 dBm (0.4305 W)		IEEE 802.11a; 26.42 dBm (0.4385 W)
Maximum Output Power for UNII-1 Non-Beamforming IEEE 802.11ac (VHT40): 25.04 dBm (0.3192 W) IEEE 802.11ac (VHT80): 20.56 dBm (0.1138 W) IEEE 802.11ac (VHT80): 20.56 dBm (0.4055 W) IEEE 802.11ax (HEW20): 26.08 dBm (0.4055 W) IEEE 802.11ax (HEW40): 24.88 dBm (0.3076 W) IEEE 802.11ax (HEW 80): 21.95 dBm (0.1567 W) IEEE 802.11ac (VHT20): 25.75 dBm (0.3758 W) Maximum Output Power for UNII-3 IEEE 802.11ac (VHT40): 25.85 dBm (0.3758 W) Non-Beamforming IEEE 802.11ac (VHT40): 25.85 dBm (0.3758 W) IEEE 802.11ac (VHT40): 25.85 dBm (0.4364 W) IEEE 802.11ac (VHT40): 25.85 dBm (0.3758 W) IEEE 802.11ac (VHT40): 25.85 dBm (0.4345 W) IEEE 802.11ax (HEW20): 26.06 dBm (0.4036 W) IEEE 802.11ax (HEW40): 26.38 dBm (0.2679 W) IEEE 802.11ac (VHT20): 26.25 dBm (0.4217 W) IEEE 802.11ac (VHT40): 24.13 dBm (0.2588 W) IEEE 802.11ac (VHT80): 19.96 dBm (0.0991 W) IEEE 802.11ac (VHT80): 19.96 dBm (0.280 W) IEEE 802.11ax (HEW40): 23.58 dBm (0.280 W) IEEE 802.11ax (HEW40): 23.61 dBm (0.280 W) IEEE 802.11ac (VHT20): 26.22 dBm (0.4188 W) IEEE 802.11ac (VHT20): 26.22 dBm (0.4188 W) IEEE 802.11ac (VHT40): 25.69 dBm (0.3707 W) Maximum Output Power for UNII-3 IEEE 802.11ac (VHT80): 21.11 dBm (0.1291 W) IEEE 802.11ac (VHT40): 25.69 dBm (0.3707 W) IEEE 802.11ac (VHT80): 21.11 dBm (0.43		
Maximum Output Power for UNII-1 Non-Beamforming IEEE 802.11ac (VHT80): 20.56 dBm (0.1138 W) IEEE 802.11ax (HEW20): 26.08 dBm (0.4055 W) IEEE 802.11ax (HEW40): 24.88 dBm (0.3076 W) IEEE 802.11ax (HEW40): 21.95 dBm (0.1567 W) Maximum Output Power for UNII-3 Non-Beamforming IEEE 802.11ac (VHT20): 25.75 dBm (0.3758 W) IEEE 802.11ac (VHT40): 25.85 dBm (0.3846 W) IEEE 802.11ac (VHT40): 25.85 dBm (0.4345 W) IEEE 802.11ax (HEW20): 26.06 dBm (0.4036 W) IEEE 802.11ax (HEW40): 26.38 dBm (0.4345 W) IEEE 802.11ax (HEW40): 26.25 dBm (0.4217 W) IEEE 802.11ac (VHT20): 26.25 dBm (0.4217 W) IEEE 802.11ac (VHT40): 24.13 dBm (0.2588 W) IEEE 802.11ac (VHT40): 24.13 dBm (0.2588 W) IEEE 802.11ac (VHT40): 26.15 dBm (0.4121 W) IEEE 802.11ac (HEW40): 23.58 dBm (0.2280 W) IEEE 802.11ax (HEW40): 20.56 dBm (0.4184 W) IEEE 802.11ac (VHT20): 26.22 dBm (0.4188 W) IEEE 802.11ac (VHT20): 26.29 dBm (0.4188 W) IEEE 802.11ac (VHT40): 25.69 dBm (0.4188 W) IEEE 802.11ac (VHT40): 25.69 dBm (0.4188 W) IEEE 802.11ac (VHT40): 25.69 dBm (0.4100 W) Maximum Output Power for UNII-3 Beamforming IEEE 802.11ac (VHT40): 25.69 dBm (0.4100 W) IEEE 802.11ac (VHT40): 25.69 dBm (0.4100 W) Maximum Output Power for UNII-3 Beamforming IEEE 802.11ac (VHT40): 25.69 dBm (0.4305 W)		
UNII-1 Non-Beamforming IEEE 802.11ax (HEW20): 26.08 dBm (0.4055 W) IEEE 802.11ax (HEW40): 24.88 dBm (0.3076 W) IEEE 802.11ax (HEW 80): 21.95 dBm (0.1567 W) Maximum Output Power for UNII-3 Non-Beamforming IEEE 802.11a: 25.86 dBm (0.3855 W) IEEE 802.11ac (VHT20): 25.75 dBm (0.3758 W) IEEE 802.11ac (VHT40): 25.85 dBm (0.3758 W) IEEE 802.11ac (VHT40): 25.85 dBm (0.3758 W) IEEE 802.11ac (VHT80): 23.83 dBm (0.2415 W) IEEE 802.11ax (HEW20): 26.06 dBm (0.4036 W) IEEE 802.11ax (HEW40): 26.38 dBm (0.4345 W) IEEE 802.11ax (HEW40): 26.25 dBm (0.4345 W) IEEE 802.11ac (VHT20): 26.25 dBm (0.2679 W) Maximum Output Power for UNII-1 Beamforming IEEE 802.11ac (VHT20): 26.25 dBm (0.4217 W) IEEE 802.11ac (VHT40): 24.13 dBm (0.2588 W) IEEE 802.11ac (VHT40): 23.58 dBm (0.4121 W) IEEE 802.11ac (HEW40): 23.58 dBm (0.4121 W) IEEE 802.11ax (HEW40): 23.58 dBm (0.2280 W) IEEE 802.11ax (HEW40): 19.93 dBm (0.0984 W) Maximum Output Power for UNII-3 Beamforming IEEE 802.11ac (VHT20): 26.22 dBm (0.4188 W) IEEE 802.11ac (VHT40): 25.69 dBm (0.3707 W) IEEE 802.11ac (VHT40): 25.69 dBm (0.3707 W) IEEE 802.11ac (VHT80): 19.93 dBm (0.3707 W) IEEE 802.11ac (VHT80): 21.11 dBm (0.1291 W)		
IEEE 802.11ax (HEW40): 24.88 dBm (0.3076 W) IEEE 802.11ax (HEW 80): 21.95 dBm (0.1567 W) Maximum Output Power for UNII-3 Non-Beamforming IEEE 802.11a: 25.86 dBm (0.3855 W) IEEE 802.11ac (VHT20): 25.75 dBm (0.3758 W) IEEE 802.11ac (VHT40): 25.85 dBm (0.3846 W) Maximum Output Power for UNII-3 Beamforming IEEE 802.11ac (VHT40): 25.85 dBm (0.4215 W) IEEE 802.11ax (HEW20): 26.06 dBm (0.4036 W) IEEE 802.11ax (HEW40): 26.38 dBm (0.4345 W) IEEE 802.11ax (HEW80): 24.28 dBm (0.2679 W) Maximum Output Power for UNII-1 Beamforming IEEE 802.11ac (VHT20): 26.25 dBm (0.4217 W) IEEE 802.11ac (VHT40): 24.13 dBm (0.2588 W) IEEE 802.11ac (VHT80): 19.96 dBm (0.0991 W) IEEE 802.11ax (HEW20): 26.15 dBm (0.4121 W) IEEE 802.11ax (HEW40): 23.58 dBm (0.2280 W) IEEE 802.11ax (HEW40): 23.58 dBm (0.2280 W) IEEE 802.11ax (HEW40): 23.58 dBm (0.280 W) IEEE 802.11ax (HEW40): 23.58 dBm (0.2984 W) Maximum Output Power for UNII-3 Bacamforming IEEE 802.11ac (VHT20): 26.22 dBm (0.4188 W) IEEE 802.11ac (VHT40): 25.69 dBm (0.3707 W) IEEE 802.11ac (VHT40): 25.69 dBm (0.3707 W) IEEE 802.11ac (VHT80): 21.11 dBm (0.1291 W) IEEE 802.11ax (HEW20): 26.34 dBm (0.4305 W)	UNII-1 Non-Beamforming	
IEEE 802.11ax (HEW 80): 21.95 dBm (0.1567 W) Maximum Output Power for UNII-3 Non-Beamforming IEEE 802.11a: 25.86 dBm (0.3855 W) IEEE 802.11ac (VHT20): 25.75 dBm (0.3758 W) IEEE 802.11ac (VHT40): 25.85 dBm (0.3846 W) IEEE 802.11ac (VHT40): 25.85 dBm (0.3846 W) IEEE 802.11ac (VHT80): 23.83 dBm (0.2415 W) IEEE 802.11ac (VHT80): 23.83 dBm (0.4036 W) IEEE 802.11ax (HEW20): 26.06 dBm (0.4036 W) IEEE 802.11ax (HEW40): 26.38 dBm (0.4345 W) IEEE 802.11ax (HEW80): 24.28 dBm (0.2679 W) Maximum Output Power for UNII-1 Beamforming IEEE 802.11ac (VHT20): 26.25 dBm (0.4217 W) IEEE 802.11ac (VHT40): 24.13 dBm (0.2588 W) IEEE 802.11ac (VHT80): 19.96 dBm (0.0991 W) IEEE 802.11ax (HEW20): 26.15 dBm (0.4121 W) IEEE 802.11ax (HEW40): 23.58 dBm (0.2280 W) IEEE 802.11ax (HEW40): 23.58 dBm (0.2280 W) IEEE 802.11ax (HEW80): 19.93 dBm (0.0984 W) IEEE 802.11ac (VHT20): 26.22 dBm (0.4188 W) IEEE 802.11ac (VHT40): 25.69 dBm (0.3707 W) Maximum Output Power for UNII-3 Bacamforming IEEE 802.11ac (VHT80): 21.11 dBm (0.1291 W) IEEE 802.11ax (HEW20): 26.34 dBm (0.4305 W) IEEE 802.11ax (HEW20): 26.34 dBm (0.4305 W)		
Maximum Output Power for UNII-3 Non-Beamforming IEEE 802.11ac (VHT20): 25.75 dBm (0.3758 W) IEEE 802.11ac (VHT40): 25.85 dBm (0.3846 W) IEEE 802.11ac (VHT40): 23.83 dBm (0.2415 W) IEEE 802.11ax (HEW20): 26.06 dBm (0.4036 W) IEEE 802.11ax (HEW40): 26.38 dBm (0.4345 W) IEEE 802.11ax (HEW80): 24.28 dBm (0.2679 W) Maximum Output Power for UNII-1 Beamforming IEEE 802.11ac (VHT20): 26.25 dBm (0.4217 W) IEEE 802.11ac (VHT40): 24.13 dBm (0.2588 W) IEEE 802.11ac (VHT40): 24.13 dBm (0.2588 W) IEEE 802.11ac (VHT80): 19.96 dBm (0.0991 W) IEEE 802.11ax (HEW20): 26.15 dBm (0.4121 W) IEEE 802.11ax (HEW40): 23.58 dBm (0.2280 W) IEEE 802.11ax (HEW40): 23.58 dBm (0.280 W) IEEE 802.11ax (HEW80): 19.93 dBm (0.0984 W) Maximum Output Power for UNII-3 Bacamforming IEEE 802.11ac (VHT40): 26.22 dBm (0.4188 W) IEEE 802.11ac (VHT40): 25.69 dBm (0.3707 W) IEEE 802.11ac (VHT80): 21.11 dBm (0.1291 W) IEEE 802.11ax (HEW20): 26.34 dBm (0.4305 W)		
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Maximum Output Power for UNII-3 Non-Beamforming IEEE 802.11ac (VHT40): 25.85 dBm (0.3846 W) IEEE 802.11ac (VHT80): 23.83 dBm (0.2415 W) IEEE 802.11ax (HEW20): 26.06 dBm (0.4036 W) IEEE 802.11ax (HEW40): 26.38 dBm (0.4345 W) IEEE 802.11ax (HEW80): 24.28 dBm (0.2679 W) IEEE 802.11ac (VHT20): 26.25 dBm (0.4217 W) IEEE 802.11ac (VHT40): 24.13 dBm (0.2588 W) IEEE 802.11ac (VHT40): 24.13 dBm (0.2991 W) IEEE 802.11ac (VHT80): 19.96 dBm (0.0991 W) IEEE 802.11ax (HEW20): 26.15 dBm (0.4121 W) IEEE 802.11ax (HEW40): 23.58 dBm (0.2280 W) IEEE 802.11ax (HEW80): 19.93 dBm (0.0984 W) IEEE 802.11ac (VHT40): 26.22 dBm (0.4188 W) IEEE 802.11ac (VHT40): 25.69 dBm (0.3707 W) IEEE 802.11ac (VHT80): 21.11 dBm (0.1291 W) IEEE 802.11ax (HEW20): 26.34 dBm (0.4305 W)		IEEE 802.11ac (VHT20): 25.75 dBm (0.3758 W)
UNII-3 Non-Beamforming IEEE 802.11ac (VHT80): 23.83 dBm (0.2415 W) IEEE 802.11ax (HEW20): 26.06 dBm (0.4036 W) IEEE 802.11ax (HEW40): 26.38 dBm (0.4345 W) IEEE 802.11ax (HEW40): 26.38 dBm (0.2679 W) IEEE 802.11ac (VHT20): 26.25 dBm (0.4217 W) Maximum Output Power for UNII-1 Beamforming IEEE 802.11ac (VHT40): 24.13 dBm (0.2588 W) IEEE 802.11ac (VHT40): 26.15 dBm (0.4121 W) IEEE 802.11ac (VHT80): 19.96 dBm (0.0991 W) IEEE 802.11ax (HEW20): 26.15 dBm (0.4121 W) IEEE 802.11ax (HEW40): 23.58 dBm (0.2280 W) IEEE 802.11ax (HEW40): 23.58 dBm (0.2280 W) IEEE 802.11ac (VHT20): 26.22 dBm (0.4188 W) IEEE 802.11ac (VHT20): 26.22 dBm (0.4188 W) IEEE 802.11ac (VHT40): 25.69 dBm (0.3707 W) IEEE 802.11ac (VHT80): 21.11 dBm (0.1291 W) IEEE 802.11ac (VHT80): 21.11 dBm (0.4305 W)	Maximum Output Power for	
Non-Beamforming IEEE 802.11ax (HEW20): 26.06 dBm (0.4036 W) IEEE 802.11ax (HEW40): 26.38 dBm (0.4345 W) IEEE 802.11ax (HEW80): 24.28 dBm (0.2679 W) Maximum Output Power for UNII-1 IEEE 802.11ac (VHT20): 26.25 dBm (0.4217 W) Beamforming IEEE 802.11ac (VHT40): 24.13 dBm (0.2588 W) IEEE 802.11ac (VHT80): 19.96 dBm (0.0991 W) IEEE 802.11ac (VHT80): 23.58 dBm (0.4121 W) IEEE 802.11ax (HEW20): 26.15 dBm (0.4121 W) IEEE 802.11ax (HEW40): 23.58 dBm (0.280 W) IEEE 802.11ax (HEW40): 19.93 dBm (0.0984 W) IEEE 802.11ac (VHT20): 26.22 dBm (0.4188 W) IEEE 802.11ac (VHT40): 25.69 dBm (0.3707 W) IEEE 802.11ac (VHT80): 21.11 dBm (0.1291 W) IEEE 802.11ax (HEW20): 26.34 dBm (0.4305 W) IEEE 802.11ax (HEW20): 26.34 dBm (0.4305 W)	•	
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Maximum Output Power for UNII-1 Beamforming IEEE 802.11ac (VHT20): 26.25 dBm (0.4217 W) IEEE 802.11ac (VHT40): 24.13 dBm (0.2588 W) IEEE 802.11ac (VHT80): 19.96 dBm (0.0991 W) IEEE 802.11ax (HEW20): 26.15 dBm (0.4121 W) IEEE 802.11ax (HEW40): 23.58 dBm (0.2280 W) IEEE 802.11ax (HEW40): 23.58 dBm (0.280 W) IEEE 802.11ax (HEW80): 19.93 dBm (0.0984 W) Maximum Output Power for UNII-3 Beamforming IEEE 802.11ac (VHT20): 26.22 dBm (0.4188 W) IEEE 802.11ac (VHT40): 25.69 dBm (0.3707 W) IEEE 802.11ac (VHT80): 21.11 dBm (0.1291 W) IEEE 802.11ax (HEW20): 26.34 dBm (0.4305 W)		IEEE 802.11ax (HEW40): 26.38 dBm (0.4345 W)
Maximum Output Power for UNII-1 Beamforming IEEE 802.11ac (VHT40): 24.13 dBm (0.2588 W) IEEE 802.11ac (VHT80): 19.96 dBm (0.0991 W) IEEE 802.11ac (VHT80): 26.15 dBm (0.4121 W) IEEE 802.11ax (HEW20): 26.15 dBm (0.4121 W) IEEE 802.11ax (HEW40): 23.58 dBm (0.2280 W) IEEE 802.11ax (HEW40): 23.58 dBm (0.0984 W) IEEE 802.11ac (VHT20): 26.22 dBm (0.0984 W) Maximum Output Power for UNII-3 Beamforming IEEE 802.11ac (VHT40): 25.69 dBm (0.3707 W) IEEE 802.11ac (VHT80): 21.11 dBm (0.1291 W) IEEE 802.11ax (HEW20): 26.34 dBm (0.4305 W)		IEEE 802.11ax (HEW80): 24.28 dBm (0.2679 W)
Maximum Output Power for UNII-1 Beamforming IEEE 802.11ac (VHT40): 24.13 dBm (0.2588 W) IEEE 802.11ac (VHT80): 19.96 dBm (0.0991 W) IEEE 802.11ac (VHT80): 26.15 dBm (0.4121 W) IEEE 802.11ax (HEW20): 26.15 dBm (0.4121 W) IEEE 802.11ax (HEW40): 23.58 dBm (0.2280 W) IEEE 802.11ax (HEW40): 23.58 dBm (0.0984 W) IEEE 802.11ac (VHT20): 26.22 dBm (0.0984 W) Maximum Output Power for UNII-3 Beamforming IEEE 802.11ac (VHT40): 25.69 dBm (0.3707 W) IEEE 802.11ac (VHT80): 21.11 dBm (0.1291 W) IEEE 802.11ax (HEW20): 26.34 dBm (0.4305 W)		IEEE 802.11ac (VHT20): 26.25 dBm (0.4217 W)
UNII-1 Beamforming IEEE 802.11ac (VH180): 19.96 dBm (0.0991 W) IEEE 802.11ax (HEW20): 26.15 dBm (0.4121 W) IEEE 802.11ax (HEW40): 23.58 dBm (0.2280 W) IEEE 802.11ax (HEW40): 23.58 dBm (0.0984 W) IEEE 802.11ax (HEW80): 19.93 dBm (0.0984 W) IEEE 802.11ac (VHT20): 26.22 dBm (0.4188 W) IEEE 802.11ac (VHT40): 25.69 dBm (0.3707 W) IEEE 802.11ac (VHT80): 21.11 dBm (0.1291 W) IEEE 802.11ax (HEW20): 26.34 dBm (0.4305 W)	Maximum Output Dawar far	IEEE 802.11ac (VHT40): 24.13 dBm (0.2588 W)
Beamforming IEEE 802.11ax (HEW20): 26.15 dBm (0.4121 W) IEEE 802.11ax (HEW40): 23.58 dBm (0.2280 W) IEEE 802.11ax (HEW40): 23.58 dBm (0.0984 W) Maximum Output Power for UNII-3 IEEE 802.11ac (VHT20): 26.22 dBm (0.4188 W) IEEE 802.11ac (VHT40): 25.69 dBm (0.3707 W) IEEE 802.11ac (VHT40): 21.11 dBm (0.1291 W) IEEE 802.11ax (HEW20): 26.34 dBm (0.4305 W) IEEE 802.11ax (HEW20): 26.34 dBm (0.4305 W)		IEEE 802.11ac (VHT80): 19.96 dBm (0.0991 W)
Maximum Output Power for UNII-3 IEEE 802.11ax (HEW40): 23.38 dBm (0.2280 W) IEEE 802.11ax (HEW80): 19.93 dBm (0.0984 W) IEEE 802.11ac (VHT20): 26.22 dBm (0.4188 W) IEEE 802.11ac (VHT40): 25.69 dBm (0.3707 W) IEEE 802.11ac (VHT80): 21.11 dBm (0.1291 W) IEEE 802.11ax (HEW20): 26.34 dBm (0.4305 W)		IEEE 802.11ax (HEW20): 26.15 dBm (0.4121 W)
Maximum Output Power for UNII-3 IEEE 802.11ac (VHT20): 26.22 dBm (0.4188 W) Beamforming IEEE 802.11ac (VHT40): 25.69 dBm (0.3707 W) IEEE 802.11ac (VHT80): 21.11 dBm (0.1291 W) IEEE 802.11ac (VHT80): 26.34 dBm (0.4305 W)	beamorning	IEEE 802.11ax (HEW40): 23.58 dBm (0.2280 W)
Maximum Output Power for UNII-3 IEEE 802.11ac (VHT40): 25.69 dBm (0.3707 W) Beamforming IEEE 802.11ac (VHT80): 21.11 dBm (0.1291 W) IEEE 802.11ax (HEW20): 26.34 dBm (0.4305 W)		
Maximum Output Power for UNII-3 IEEE 802.11ac (VHT80): 21.11 dBm (0.1291 W) Beamforming IEEE 802.11ax (HEW20): 26.34 dBm (0.4305 W)		IEEE 802.11ac (VHT20): 26.22 dBm (0.4188 W)
UNII-3 Beamforming IEEE 802.11ac (VH180): 21.11 dBin (0.1291 W) IEEE 802.11ax (HEW20): 26.34 dBm (0.4305 W)	Maximum Output Bower for	
Beamforming IEEE 802.11ax (HEW20): 26.34 dBm (0.4305 W)		IEEE 802.11ac (VHT80): 21.11 dBm (0.1291 W)
		IEEE 802.11ax (HEW20): 26.34 dBm (0.4305 W)
	Deamorning	IEEE 802.11ax (HEW40): 26.03 dBm (0.4009 W)
IEEE 802.11ax (HEW80): 21.26 dBm (0.1337 W)		IEEE 802.11ax (HEW80): 21.26 dBm (0.1337 W)

Note:

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

2. Channel List:

BL

IEEE 80 IEEE 802.11 IEEE 802.11a	ac (VHT20)	IEEE 802.11ac (VHT40) IEEE 802.11ax (HEW40)		IEEE 802.11ac (VHT80) IEEE 802.11ax (HEW80)	
UNI	II-1	UN	II-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				

IEEE 802.11a IEEE 802.11ac (VHT20) IEEE 802.11ax (HEW20):		IEEE 802.11ac (VHT40) IEEE 802.11ax (HEW40)		IEEE 802.11ac (VHT80) IEEE 802.11ax (HEW80)	
UNII-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.	Brand	P/N	Antenna Type	Connector	Gain (dBi)	Note
1	TP-LINK [®]	3101502560	Dipole	I-PEX	4.37	UNII-1
2	TP-LINK [°]	3101502559	Dipole	I-PEX	4.37	UNII-1
1	TP-LINK [®]	3101502560	Dipole	I-PEX	5.80	UNII-3
2	TP-LINK	3101502559	Dipole	I-PEX	5.80	UNII-3

Note: This EUT supports CDD, and all antennas have the same gain, Directional gain = G_{ANT} +Array Gain, where Array Gain is as follows:

1. For UNII-1 Non-Beamforming function,

For power spectral density measurements, $N_{ANT} = 2$, $N_{SS} = 1$. So Directional gain = G_{ANT} + Array Gain =10 log (N_{ANT}/N_{SS}) dB =4.37+10log(2/1)dBi=7.38. Then, the power spectral density limit is 17-(7.38-6)=15.62. For power measurements, Array Gain = 0 dB ($N_{ANT} \le 4$), so the Directional gain=4.37.

For UNII-3 Non-Beamforming function,

For power spectral density measurements, $N_{ANT} = 2$, $N_{SS} = 1$. So Directional gain = G_{ANT} + Array Gain =10 log (N_{ANT}/N_{SS}) dB =5.80+10log(2/1)dBi=8.81. Then, the power spectral density limit is 30-(8.81-6)=27.19. For power measurements, Array Gain = 0 dB ($N_{ANT} \le 4$), so the Directional gain=5.80.

2. For UNII-1 Beamforming function, Beamforming Gain: 3.00 dB. So Directional gain = 4.37+3.00=7.37. Then, output power limit is 30-(7.37-6)=28.63, the power density limit is 17-(7.37-6)=15.63.

For UNII-3 Beamforming function, Beamforming Gain: 3.00 dB. So Directional gain = 5.80+3.00=8.80. Then, output power limit is 30-(8.80-6)=27.20, the power density limit is 30-(8.80-6)=27.20

4. Table for Antenna Configuration:

Operating Mode TX Mode	2TX	
IEEE 802.11a	V (Ant. 1 + Ant. 2)	
IEEE 802.11ac (VHT20)	V (Ant. 1 + Ant. 2)	
IEEE 802.11ac (VHT40)	V (Ant. 1 + Ant. 2)	
IEEE 802.11ac (VHT80)	V (Ant. 1 + Ant. 2)	
IEEE 802.11ax (HEW20)	V (Ant. 1 + Ant. 2)	
IEEE 802.11ax (HEW40)	V (Ant. 1 + Ant. 2)	
IEEE 802.11ax (HEW80)	V (Ant. 1 + Ant. 2)	



2.2 TEST MODES

The test system was pre-tested based on the consideration of all possible combinations of EUT operation mode.

Pretest Mode	Description
Mode 1	TX A Mode / CH36, CH40, CH48 (UNII-1)
Mode 2	TX AC (VHT20) Mode / CH36, CH40, CH48 (UNII-1)
Mode 3	TX AC (VHT40) Mode / CH38, CH46 (UNII-1)
Mode 4	TX AC (VHT80) Mode / CH42 (UNII-1)
Mode 5	TX AX (HEW20) Mode / CH36, CH40, CH48 (UNII-1)
Mode 6	TX AX (HEW40) Mode / CH38, CH46 (UNII-1)
Mode 7	TX AX (HEW80) Mode / CH42 (UNII-1)
Mode 8	TX A Mode / CH149,CH157,CH165 (UNII-3)
Mode 9	TX AC (VHT20) Mode / CH149,CH157,CH165 (UNII-3)
Mode 10	TX AC (VHT40) Mode / CH151,CH159 (UNII-3)
Mode 11	TX AC (VHT80) Mode / CH155 (UNII-3)
Mode 12	TX AX (HEW20) Mode / CH149,CH157,CH165 (UNII-3)
Mode 13	TX AX (HEW40) Mode / CH151,CH159 (UNII-3)
Mode 14	TX AX (HEW80) Mode / CH155 (UNII-3)
Mode 15	TX A Mode / CH48 (UNII-1)

Following mode(s) was (were) found to be the worst case(s) and selected for the final test.

AC power line conducted emissions test		
Final Test Mode Description		
Mode 15 TX A Mode / CH48 (UNII-1)		

Radiated emissions test – Below 1G			
Final Test Mode Description			
Mode 15	TX A Mode / CH48 (UNII-1)		



Radiated emissions test _ Above 1G_ Non-Beamforming				
Final Test Mode	Description			
Mode 1	TX A Mode / CH36, CH40, CH48 (UNII-1)			
Mode 2	TX AC (VHT20) Mode / CH36, CH40, CH48 (UNII-1)			
Mode 3	TX AC (VHT40) Mode / CH38, CH46 (UNII-1)			
Mode 4	TX AC (VHT80) Mode / CH42 (UNII-1)			
Mode 5	TX AX (HEW20) Mode / CH36, CH40, CH48 (UNII-1)			
Mode 6	TX AX (HEW40) Mode / CH38, CH46 (UNII-1)			
Mode 7	TX AX (HEW80) Mode / CH42 (UNII-1)			
Mode 8	TX A Mode / CH149,CH157,CH165 (UNII-3)			
Mode 9	TX AC (VHT20) Mode / CH149,CH157,CH165 (UNII-3)			
Mode 10	TX AC (VHT40) Mode / CH151,CH159 (UNII-3)			
Mode 11	TX AC (VHT80) Mode / CH155 (UNII-3)			
Mode 12	TX AX (HEW20) Mode / CH149,CH157,CH165 (UNII-3)			
Mode 13	TX AX (HEW40) Mode / CH151,CH159 (UNII-3)			
Mode 14	TX AX (HEW80) Mode / CH155 (UNII-3)			

Radiated emissions test _ Above 1G_ Beamforming				
Final Test Mode	Description			
Mode 2	TX AC (VHT20) Mode / CH36, CH40, CH48 (UNII-1)			
Mode 3	TX AC (VHT40) Mode / CH38, CH46 (UNII-1)			
Mode 4	TX AC (VHT80) Mode / CH42 (UNII-1)			
Mode 5	TX AX (HEW20) Mode / CH36, CH40, CH48 (UNII-1)			
Mode 6	TX AX (HEW40) Mode / CH38, CH46 (UNII-1)			
Mode 7	TX AX (HEW80) Mode / CH42 (UNII-1)			
Mode 9	TX AC (VHT20) Mode / CH149,CH157,CH165 (UNII-3)			
Mode 10	TX AC (VHT40) Mode / CH151,CH159 (UNII-3)			
Mode 11	TX AC (VHT80) Mode / CH155 (UNII-3)			
Mode 12	TX AX (HEW20) Mode / CH149,CH157,CH165 (UNII-3)			
Mode 13	TX AX (HEW40) Mode / CH151,CH159 (UNII-3)			
Mode 14	TX AX (HEW80) Mode / CH155 (UNII-3)			



	Conducted test _ Non-Beamforming				
Test Mode	Description				
Mode 1	TX A Mode / CH36, CH40, CH48 (UNII-1)				
Mode 2	TX AC (VHT20) Mode / CH36, CH40, CH48 (UNII-1)				
Mode 3	TX AC (VHT40) Mode / CH38, CH46 (UNII-1)				
Mode 4	TX AC (VHT80) Mode / CH42 (UNII-1)				
Mode 5	TX AX (HEW20) Mode / CH36, CH40, CH48 (UNII-1)				
Mode 6	TX AX (HEW40) Mode / CH38, CH46 (UNII-1)				
Mode 7	TX AX (HEW80) Mode / CH42 (UNII-1)				
Mode 8	TX A Mode / CH149,CH157,CH165 (UNII-3)				
Mode 9	TX AC (VHT20) Mode / CH149,CH157,CH165 (UNII-3)				
Mode 10	TX AC (VHT40) Mode / CH151,CH159 (UNII-3)				
Mode 11	TX AC (VHT80) Mode / CH155 (UNII-3)				
Mode 12	TX AX (HEW20) Mode / CH149,CH157,CH165 (UNII-3)				
Mode 13	TX AX (HEW40) Mode / CH151,CH159 (UNII-3)				
Mode 14	TX AX (HEW80) Mode / CH155 (UNII-3)				

Conducted test _ Beamforming				
Test Mode	Description			
Mode 2	TX AC (VHT20) Mode / CH36, CH40, CH48 (UNII-1)			
Mode 3	TX AC (VHT40) Mode / CH38, CH46 (UNII-1)			
Mode 4	TX AC (VHT80) Mode / CH42 (UNII-1)			
Mode 5	TX AX (HEW20) Mode / CH36, CH40, CH48 (UNII-1)			
Mode 6	TX AX (HEW40) Mode / CH38, CH46 (UNII-1)			
Mode 7	TX AX (HEW80) Mode / CH42 (UNII-1)			
Mode 9	TX AC (VHT20) Mode / CH149,CH157,CH165 (UNII-3)			
Mode 10	TX AC (VHT40) Mode / CH151,CH159 (UNII-3)			
Mode 11	TX AC (VHT80) Mode / CH155 (UNII-3)			
Mode 12	TX AX (HEW20) Mode / CH149,CH157,CH165 (UNII-3)			
Mode 13	TX AX (HEW40) Mode / CH151,CH159 (UNII-3)			
Mode 14	TX AX (HEW80) Mode / CH155 (UNII-3)			

Note:

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

(2) For radiated emission above 1 GHz test, 1GHz~26.5GHz and 26.5GHz~40GHz have been pre-tested and in this report only recorded the worst case. The remaining spurious points are all below the limit value of 20dB.

(3) All the bit rate of transmitter have been tested and found the lowest rate is found to be the worst case and recorded.

(4) VHT20/VHT40 covers HT20/HT40, due to same modulation. The power setting for 802.11n HT20 and HT40 are the same or lower than 802.11ac VHT20 and VHT40.

2.3 PARAMETERS OF TEST SOFTWARE

Non-Beamforming				
Test Software	accessMTool v3.1.0.3			
Test Frequency (MHz)	5180	5200	5240	
IEEE 802.11a	79	93	93	
IEEE 802.11ac (VHT20)	81	83	88	
IEEE 802.11ax (HEW20)	82	91	91	
Test Frequency (MHz)	5190	5230		
IEEE 802.11ac (VHT40)	74	90		
IEEE 802.11ax (HEW40)	73	87		
Test Frequency (MHz)	5210			
IEEE 802.11ac (VHT80)	71			
IEEE 802.11ax (HEW80)	74			
Test Software		accessMTool v3.1.0.3		
Test Frequency (MHz)	5745	5785	5825	
IEEE 802.11a	95	94	89	
IEEE 802.11ac (VHT20)	93	93	94	
IEEE 802.11ax (HEW20)	93	96	96	
Test Frequency (MHz)	5755	5795		
IEEE 802.11ac (VHT40)	97	97		
IEEE 802.11ax (HEW40)	94	97		
Test Frequency (MHz)	5775			
IEEE 802.11ac (VHT80)	83			
IEEE 802.11ax (HEW80)	85			



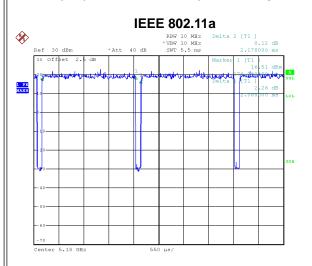
Beamforming				
Test Software	accessMTool v3.1.0.3			
Test Frequency (MHz)	5180	5200	5240	
IEEE 802.11ac (VHT20)	77	84	94	
IEEE 802.11ax (HEW20)	75	84	93	
Test Frequency (MHz)	5190	5230		
IEEE 802.11ac (VHT40)	64	84		
IEEE 802.11ax (HEW40)	64	82		
Test Frequency (MHz)	5210			
IEEE 802.11ac (VHT80)	68			
IEEE 802.11ax (HEW80)	67			

Test Software	accessMTool v3.1.0.3		
Test Frequency (MHz)	5745	5785	5825
IEEE 802.11ac (VHT20)	95	96	98
IEEE 802.11ax (HEW20)	95	94	97
Test Frequency (MHz)	5755	5795	
IEEE 802.11ac (VHT40)	93	97	
IEEE 802.11ax (HEW40)	91	97	
Test Frequency (MHz)	5775		
IEEE 802.11ac (VHT80)	75		
IEEE 802.11ax (HEW80)	74		



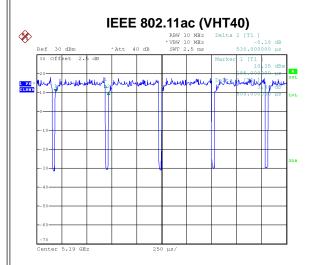
2.4 DUTY CYCLE

If duty cycle is \geq 98 %, duty factor is not required. If duty cycle is < 98 %, duty factor shall be considered. The output power = measured power + duty factor.



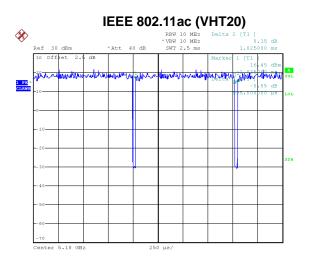
Date: 15.JAN.2020 15:55:26

Duty cycle = 2.068 ms / 2.178 ms = 94.95% Duty Factor = 10 log(1 / Duty cycle) = 0.23



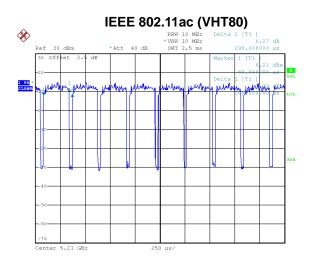
Date: 15.JAN.2020 15:59:02

Duty cycle = 0.500 ms / 0.530 ms = 94.34%Duty Factor = $10 \log(1 / \text{Duty cycle}) = 0.25$



Date: 15.JAN.2020 15:57:27

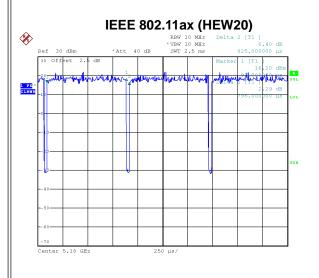
Duty cycle = 0.995 ms / 1.025 ms = 97.07%Duty Factor = $10 \log(1 / \text{Duty cycle}) = 0.13$



Date: 15.JAN.2020 15:59:34

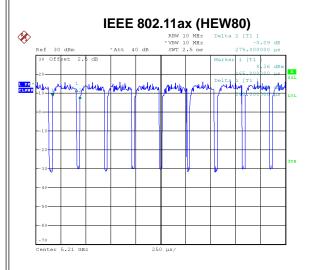
Duty cycle = 0.260 ms / 0.290 ms = 89.66% Duty Factor = 10 log(1 / Duty cycle) = 0.47

3TL



Date: 15.JAN.2020 16:01:10

Duty cycle = 0.795 ms / 0.825 ms = 96.36%Duty Factor = $10 \log(1 / \text{Duty cycle}) = 0.16$



Date: 15.JAN.2020 16:02:02

Duty cycle = 0.240 ms / 0.275 ms = 87.27%Duty Factor = $10 \log(1 / \text{Duty cycle}) = 0.59$

NOTE:

For IEEE 802.11a, IEEE 802.11n (HT20), IEEE 802.11ac (VHT20) and IEEE 802.11ax (HEW20):

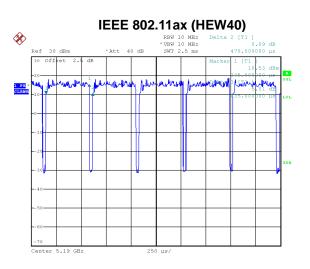
For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 1 kHz (Duty cycle < 98%).

For IEEE 802.11n (HT40), IEEE 802.11ac (VHT40) and IEEE 802.11ax (HEW40):

For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 2 kHz (Duty cycle < 98%).

For IEEE 802.11ac (VHT80) and IEEE 802.11ax (HEW80):

For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 kHz (Duty cycle < 98%).

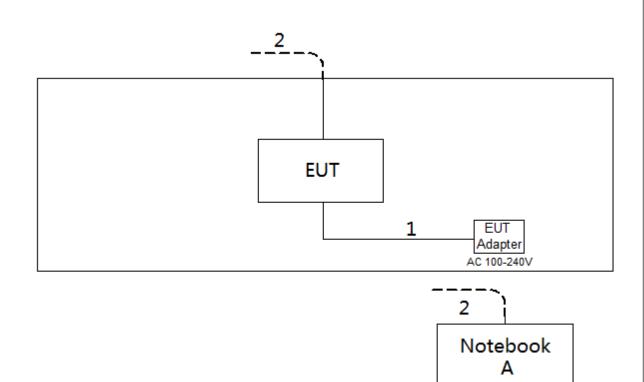


Date: 15.JAN.2020 16:01:37

Duty cycle = 0.435 ms / 0.470 ms = 92.55%Duty Factor = $10 \log(1 / \text{Duty cycle}) = 0.34$



2.5 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



2.6 SUPPORT UNITS

Item	Equipment	Brand	Model No.	Series No.
А	Notebook	Dell	Inspiron 15-7559	N/A
Item	Cable Type	Shielded Type	Ferrite Core	Length
1	DC Cable	NO	NO	1.5m
2	RJ45 Cable	NO	NO	10m



3. AC POWER LINE CONDUCTED EMISSIONS TEST

3.1 LIMIT

Frequency	Limit (dBµV)		
(MHz)	Quasi-peak	Average	
0.15 - 0.50	66 to 56*	56 to 46*	
0.50 - 5.0	56	46	
5.0 - 30.0	60	50	

NOTE:

- (1) The 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.

The following table is the setting of the receiver

Receiver Parameter	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 KHz

3.2 TEST PROCEDURE

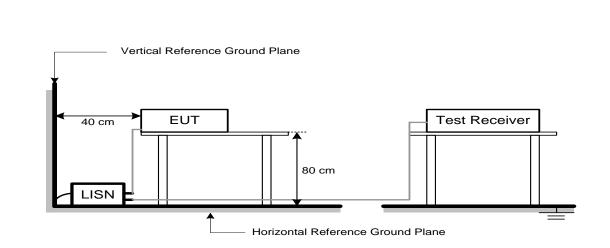
- a. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipment powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.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

3.3 DEVIATION FROM TEST STANDARD

No deviation

<u>3ĩL</u>

3.4 TEST SETUP



3.5 EUT OPERATION 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.

3.6 TEST RESULTS

Please refer to the APPENDIX A.



4. RADIATED EMISSIONS TEST

4.1 LIMIT

In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

LIMITS OF RADIATED EMISSIONS MEASUREMENT (9 kHz to 1000 MHz)

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

LIMITS OF UNWANTED EMISSION OUT OF THE RESTRICTED BANDS

Frequency	EIRP Limit	Equivalent Field Strength at 3m
(MHz)	(dBm/MHz)	(dBµV/m)
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: 1000000\sqrt{30P} E =

 μ V/m, where P is the eirp (Watts) 2

(2) According to 15.407(b)(4)(i), 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 25 MHz 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 27 dBm/MHz at the band edge.

4.2 TEST PROCEDURE

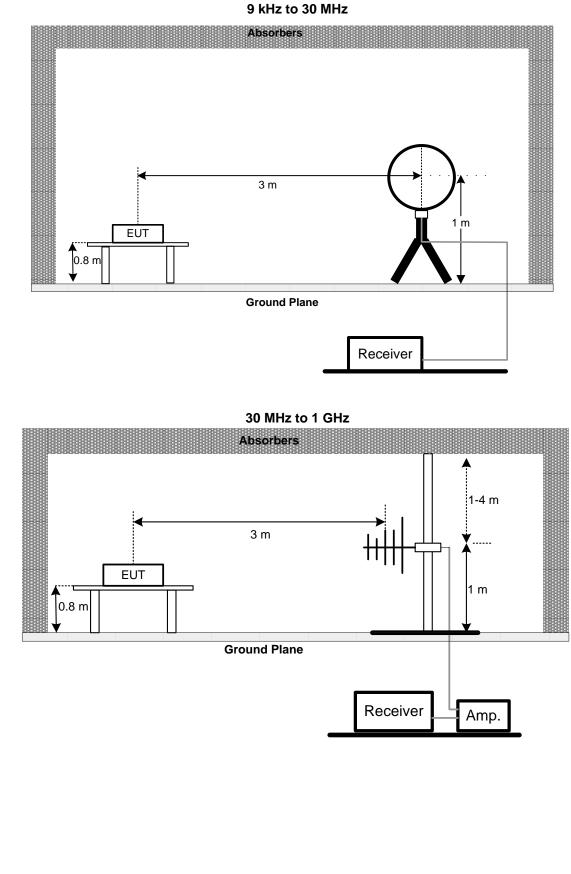
- a. The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(below 1GHz)
- b. The measuring distance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

4.3 DEVIATION FROM TEST STANDARD

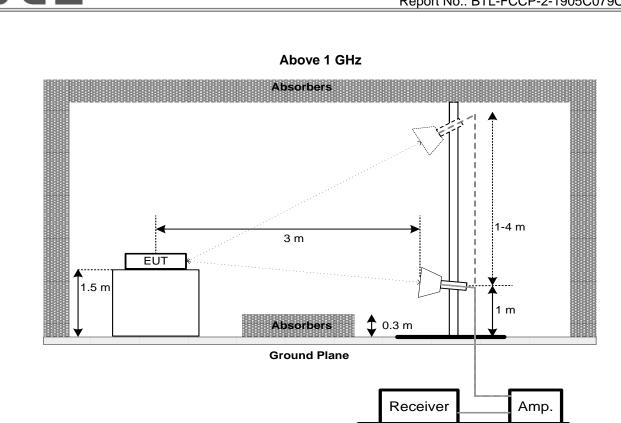
No deviation



4.4 TEST SETUP



Report No.: BTL-FCCP-2-1905C079C



4.5 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 3.5 unless otherwise a special operating condition is specified in the follows during the testing.

4.6 TEST RESULTS - 9 KHZ to 30 MHZ

Please refer to the APPENDIX B

Remark:

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

4.7 TEST RESULTS - 30 MHz TO 1000 MHz

Please refer to the APPENDIX C.

4.8 TEST RESULTS - ABOVE 1000 MHz

Please refer to the APPENDIX D.

Remark:

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



5. BANDWIDTH TEST

5.1 LIMIT

FCC Part15, Subpart E (15.407)				
Section Test Item Limit Frequency Range (MHz)				
15.407(a)	26 dB Bandwidth	-	5150-5250	
15.407(e)	6 dB Bandwidth	Minimum 500 kHz	5725-5850	

5.2 TEST PROCEDURE

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below
- b. Spectrum Setting: For UNII-1:

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

For UNII-3:

Spectrum Parameter	Setting		
Attenuation	Auto		
Span Frequency	6 dB Bandwidth		
RBW	100 kHz		
VBW	300 kHz		
Detector	Peak		
Trace	Max Hold		
Sweep Time	Auto		

c. Measured the spectrum width with power higher than 26 dB / 6dB below carrier

5.3 TEST PROCEDURE

No deviation.

5.4 TEST SETUP

EUT	SPECTRUM
	ANALYZER

5.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

5.6 TEST RESULTS

Please refer to the APPENDIX E.



6. MAXIMUM OUTPUT POWER TEST

6.1 LIMIT

FCC Part15, Subpart E (15.407)			
Section	Test Item	Limit	Frequency Range (MHz)
15.407(a)	Maximum Output Power	AP device: 1 Watt (30 dBm) Client device: 250 mW (24 dBm)	5150-5250
		1 Watt (30dBm)	5725-5850

Note:

a. For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).

6.2 TEST PROCEDURE

- a. The EUT was directly connected to the power meter and antenna output port as show in the block diagram below.
- b. Test test was performed in accordance with method of FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

6.3 DEVIATION FROM STANDARD

No deviation.

6.4 TEST SETUP



6.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

6.6 TEST RESULTS

Please refer to the APPENDIX F.



7. POWER SPECTRAL DENSITY TEST

7.1 LIMIT

FCC Part15, Subpart E (15.407)				
Section Test Item Limit Frequency Range (MHz)				
15.407(a)	Power Spectral Density	AP device: 17 dBm/MHz Client device: 11 dBm/MHz	5150-5250	
		30 dBm/500 kHz	5725-5850	

7.2 TEST PROCEDURE

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

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	Encompass the entire emissions bandwidth (EBW) of the signal
RBW	= 1 MHz.
VBW	≥ 3 MHz.
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 v02r01, section II.F.5., it is acceptable to set RBW at 1 MHz and VBW at 3 MHz if the spectrum analyzer does not have 500 kHz RBW.

2. The value measured with RBW=1 MHz is to be added with 10log(500 kHz/1 MHz) which is -3 dB. For example, if the measured value is +10dBm using RBW=1 MHz (that is +10 dBm/MHz), then the converted value will be +7dBm/500kHz.

7.3 DEVIATION FROM STANDARD

No deviation.

7.4 TEST SETUP

EUT	SPECTRUM
	ANALYZER

7.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

7.6 TEST RESULTS

Please refer to the APPENDIX G.



8. FREQUENCY STABILITY MEASUREMENT

8.1 LIMIT

	FCC Part15, Subpart E (15.407)						
Section	Section Test Item Limit Free						
		An emission is maintained within	5150-5250				
15.407(g)	Frequency Stability	the band of operation under all conditions of normal operation as specified in the users manual.	5725-5850				

8.2 TEST PROCEDURE

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- b. Spectrum Setting:

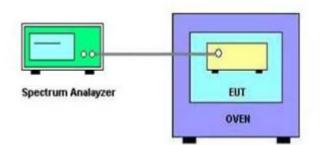
Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	Entire absence of modulation emissions bandwidth
RBW	10 kHz
VBW	10 kHz
Sweep Time	Auto

- 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.

8.3 DEVIATION FROM STANDARD

No deviation.

8.4 TEST SETUP



8.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

8.6 TEST RESULTS

Please refer to the APPENDIX H.

9. MEASUREMENT INSTRUMENTS LIST

	AC Power Line Conducted Emissions						
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until		
1	EMI Test Receiver	R&S	ESCI	100382	Feb. 28, 2021		
2	LISN	EMCO	3816/2	52765	Mar. 01, 2021		
3	TWO-LINE V-NETWORK	R&S	ENV216	101447	Feb. 28, 2021		
4	50Ω Terminator	SHX	TF5-3	15041305	Mar. 01, 2021		
5	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A		
6	Cable	N/A	RG223	12m	Mar. 10, 2021		
7	643 Shield Room	ETS	6*4*3m	N/A	N/A		

	Radiated Emissions - 9 kHz to 30 MHz						
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until		
1	Antenna	EM	EM-6876-1	230	Apr. 16, 2021		
2	Cable	N/A	RG 213/U	N/A	May 29, 2021		
3	EMI Test Receiver	R&S	ESCI	100895	Feb. 28, 2021		
4	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A		
5	966 Chambe Room	RM	9*6*6m	N/A	Jul. 25, 2021		

	Radiated Emissions - 30 MHz to 1 GHz						
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until		
1	Antenna	Schwarzbeck	VULB9160	9160-3232	Mar. 09, 2021		
2*	Amplifier	HP	8447D	2944A09673	Aug. 11, 2021		
3	Receiver	Agilent	N9038A	MY52130039	Jul. 25, 2021		
4	Cable	emci	LMR-400(30MHz-1 GHz)(8m+5m)	N/A	May 22, 2021		
5	Controller	СТ	SC100	N/A	N/A		
6 Controller MF MF-7802 MF780208416 N							
7	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A		
8	966 Chambe Room	RM	9*6*6m	N/A	Jul. 25, 2021		

	Radiated Emissions - Above 1 GHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until	
1	Double Ridged Guide Antenna	ETS	3115	75789	Mar. 09, 2020	
2	Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	9170319	Jun. 23, 2020	
3	Amplifier	Agilent	8449B	3008A02333	Mar. 10, 2020	
4	Microwave Preamplifier With Adaptor	EMC INSTRUMENT	EMC2654045	980039 & HA01	Mar. 10, 2020	
5	Receiver	Agilent	N9038A	MY52130039	Aug. 03, 2020	
6	Controller	СТ	SC100	N/A	N/A	
7	Controller	MF	MF-7802	MF780208416	N/A	
8	Cable	mitron	B10-01-01-12M	18072744	Jun. 29, 2020	
9	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A	
10	Band Reject Filter	Micro-Tronics	BRC50705-01	10	Feb. 28, 2021	
11	Band Reject Filter	Micro-Tronics	BRC50704-01	8	Feb. 28, 2021	
12	966 Chambe Room	RM	9*6*6m	N/A	Jul. 25, 2021	



Bandwidth & Power Spectral Density						
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until	
1	EXA Spectrum Analyzer	Agilent	N9010A	MY50520044	Mar. 01, 2021	
2	Spectrum Analyzer	R&S	FSP40	100185	Aug. 03, 2020	
3 RF Cable Tongkaichuan N/A N/A N/A						
4	DC Block	Mini	N/A	N/A	N/A	

	Maximum Output Power						
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until		
1	Peak Power Analyzer	Keysight	8990B	MY51000506	Aug. 07, 2021		
2	Wideband power sensor	Keysight	N1923A	MY58310004	Jul. 25, 2021		
3	Attenuator	WOKEN	6SM3502	VAS1214NL	Feb. 11, 2021		
4	RF Cable	Tongkaichuan	N/A	N/A	N/A		

	Frequency Stability						
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until		
1	Spectrum Analyzer	R&S	FSP40	100185	Aug. 03, 2020		
2	Precision Oven Tester	Bell	BTH-50C	20170306001	Mar. 10, 2020		
3	RF Cable	Tongkaichuan	N/A	N/A	N/A		
4	DC Block	Mini	N/A	N/A	N/A		

Remark: "N/A" denotes no model name, serial no. or calibration specified.

"*" calibration period of equipment list is three year.

Except * item, all calibration period of equipment list is one year.

10. EUT TEST PHOTOS

<u>3ĩL</u>

AC Power Line Conducted Emissions Test Photos



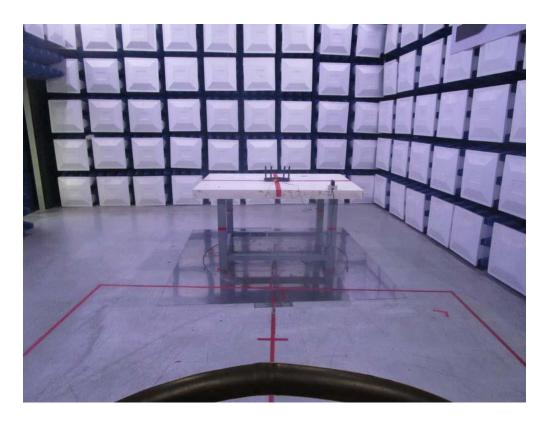




Radiated Emissions Test Photos

9 kHz to 30 MHz





Radiated Emissions Test Photos

30 MHz to 1 GHz



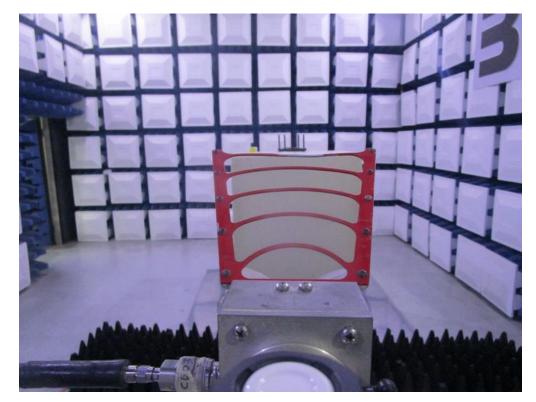


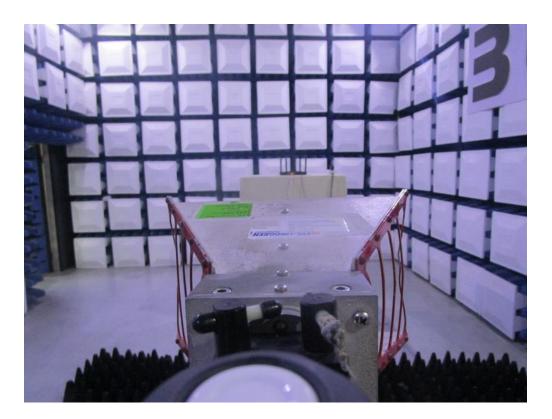


<u>3TL</u>

Radiated Emissions Test Photos

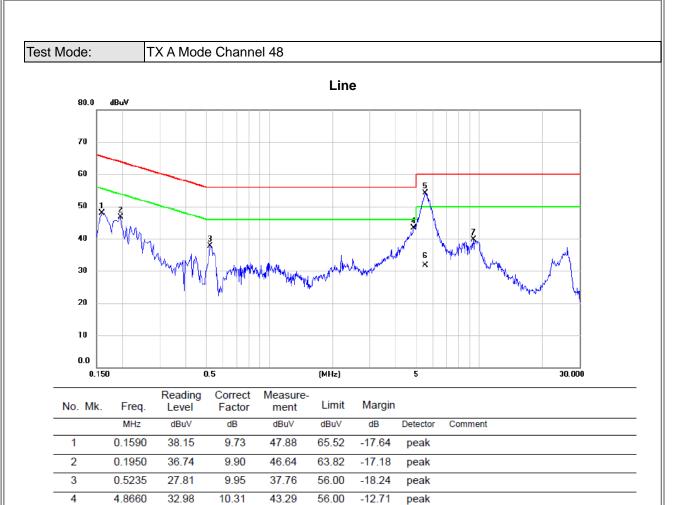
Above 1 GHz





APPENDIX A - AC POWER LINE CONDUCTED EMISSIONS

<u>31L</u>



REMARKS:

(1) Measurement Value = Reading Level + Correct Factor.

43.64

21.30

29.08

10.37

10.37

10.65

54.01

31.67

39.73

60.00

50.00

60.00

-5.99

-18.33

-20.27

peak

AVG

peak

(2) Margin Level = Measurement Value - Limit Value.

(3) The test result has included the cable loss.

5.5095

5.5095

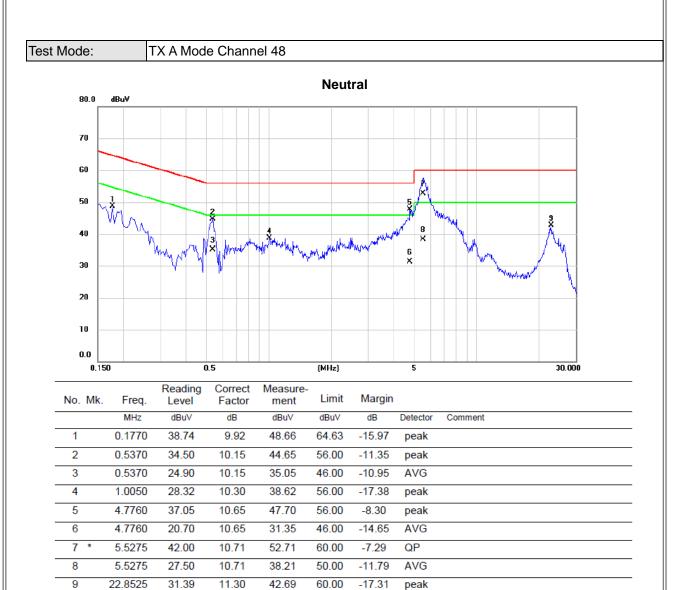
9.3570

5 *

6

7

<u>3ĩL</u>

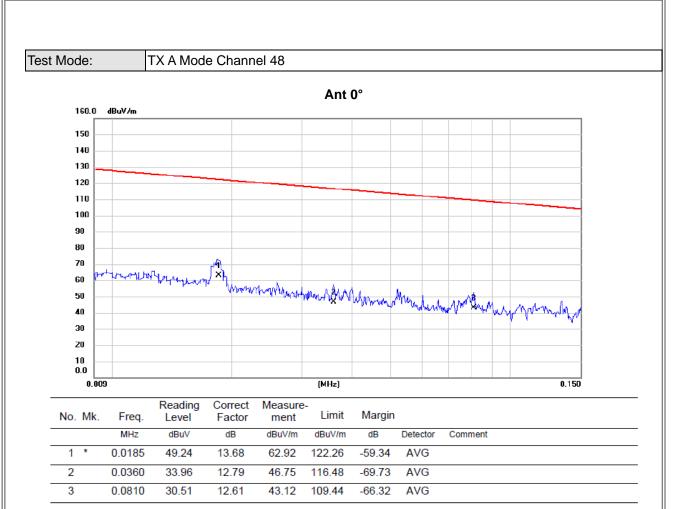


REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.
- (3) The test result has included the cable loss.

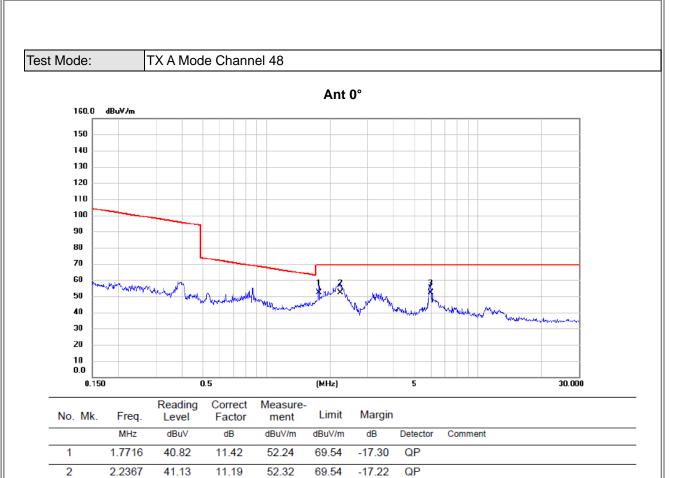


APPENDIX B - RADIATED EMISSION - 9 KHZ TO 30 MHZ



REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



REMARKS:

3 *

(1) Measurement Value = Reading Level + Correct Factor.

41.17

11.18

52.35

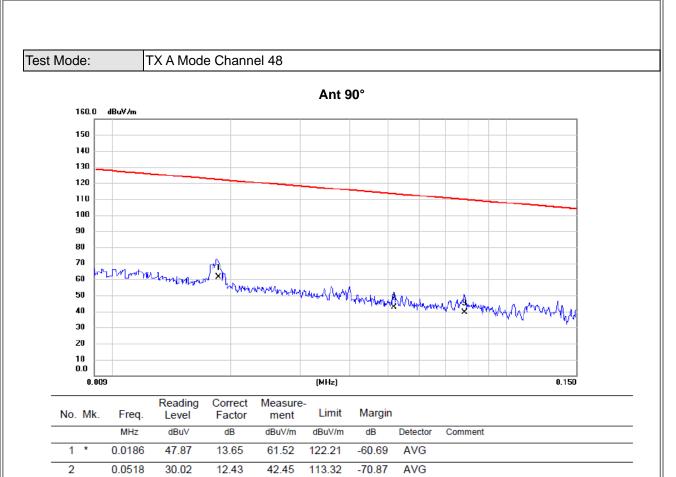
69.54

-17.19

QP

(2) Margin Level = Measurement Value - Limit Value.

5.9925



REMARKS:

3

(1) Measurement Value = Reading Level + Correct Factor.

26.65

12.59

39.24

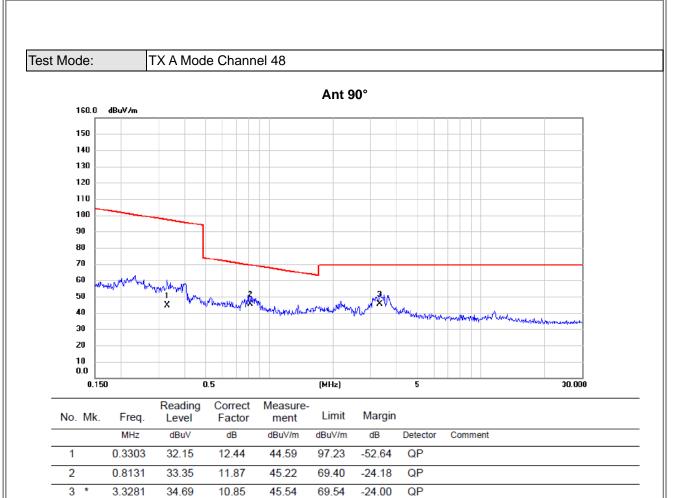
109.75

-70.51

AVG

(2) Margin Level = Measurement Value - Limit Value.

0.0781

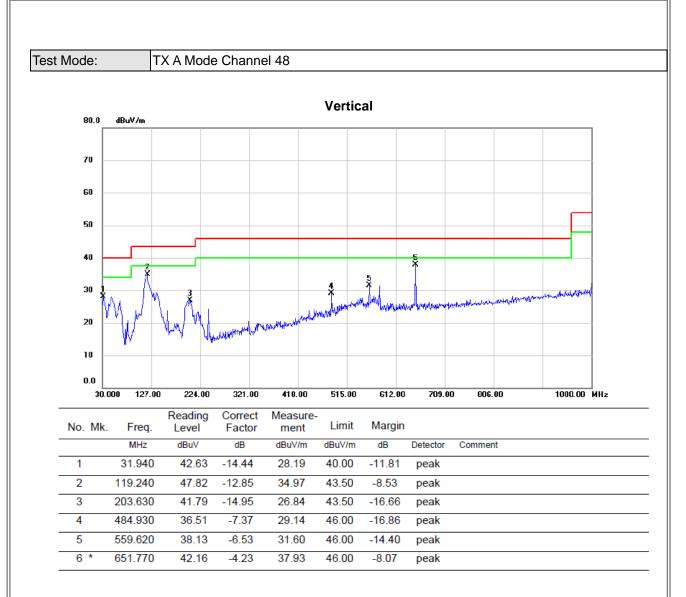


REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.

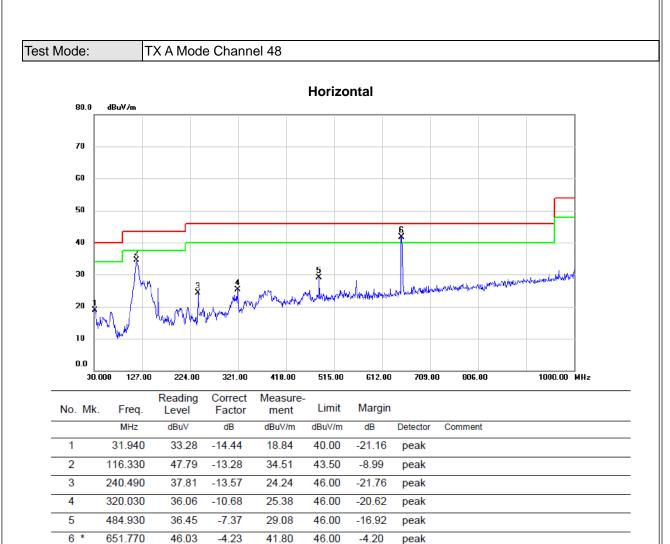


APPENDIX C - RADIATED EMISSION - 30 MHZ TO 1 GHZ



REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



6 *

(1) Measurement Value = Reading Level + Correct Factor.

-4.23

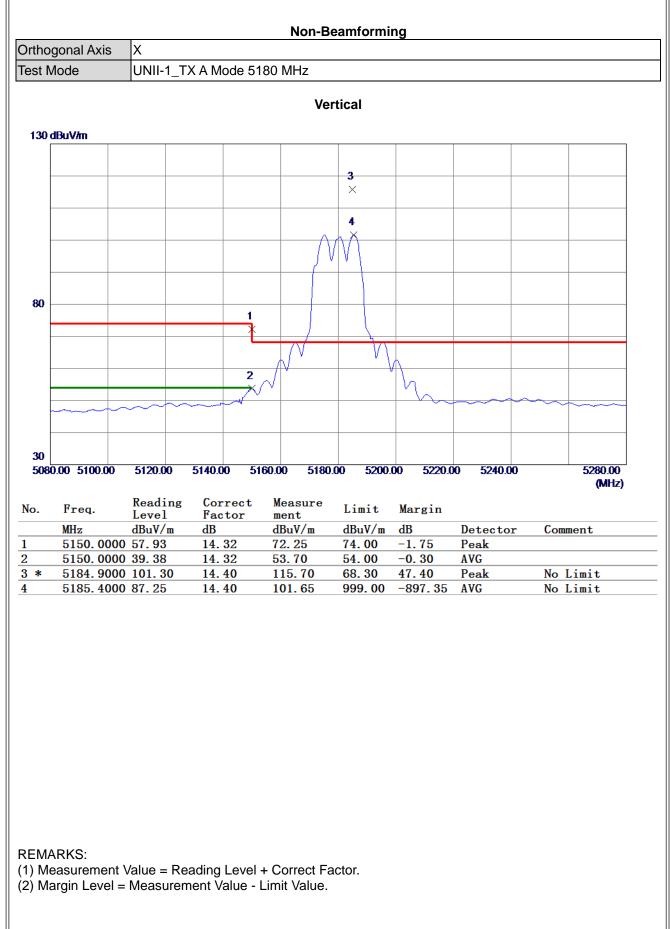
41.80

46.00

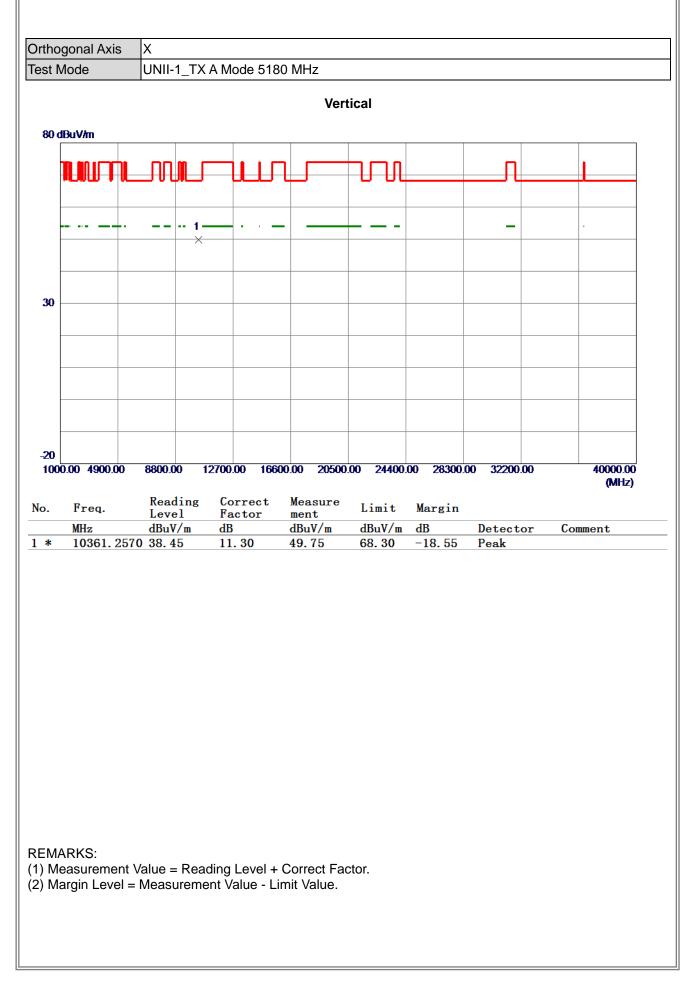
peak

APPENDIX D - RADIATED EMISSION - ABOVE 1000 MHZ

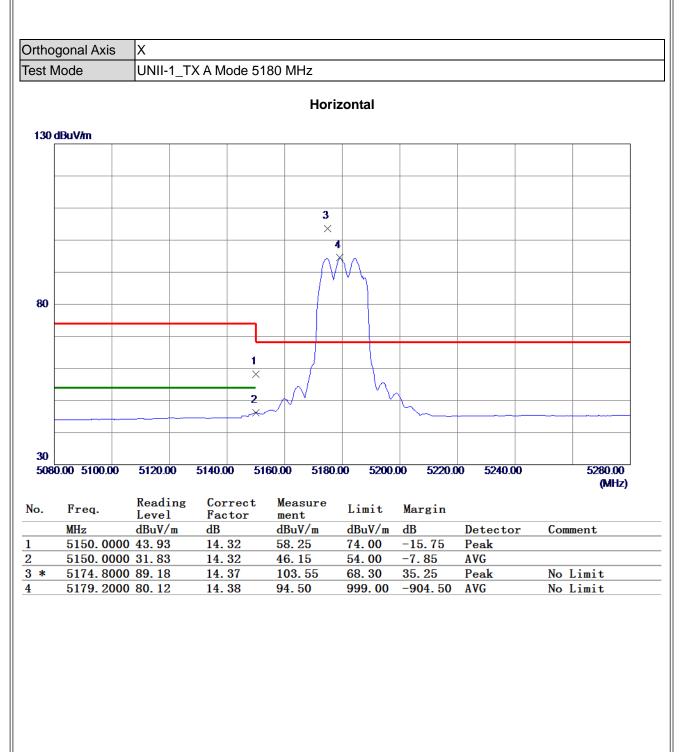






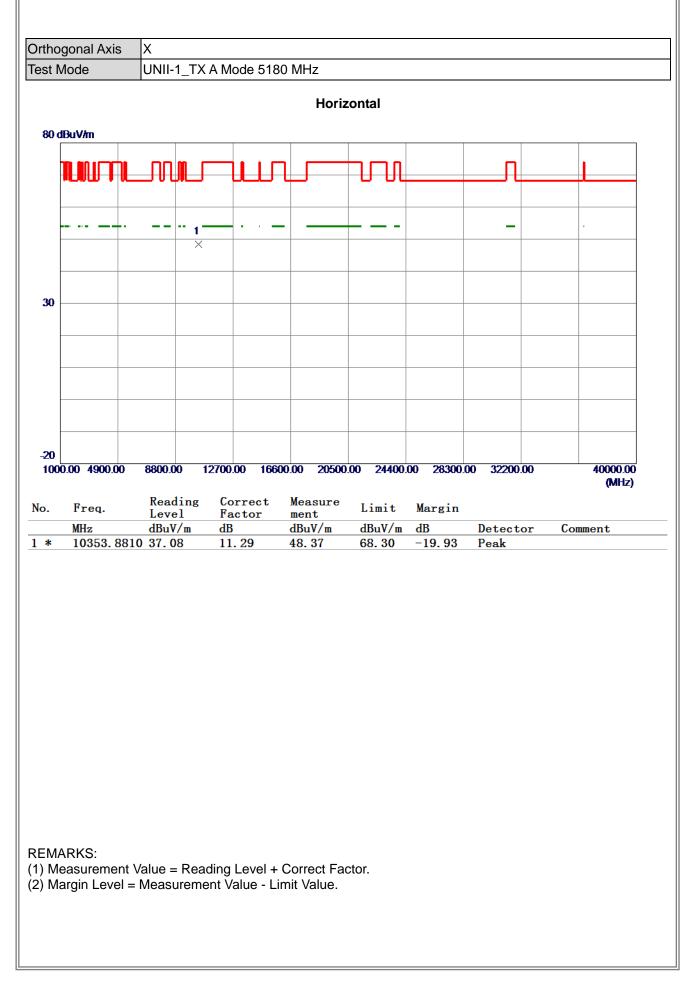




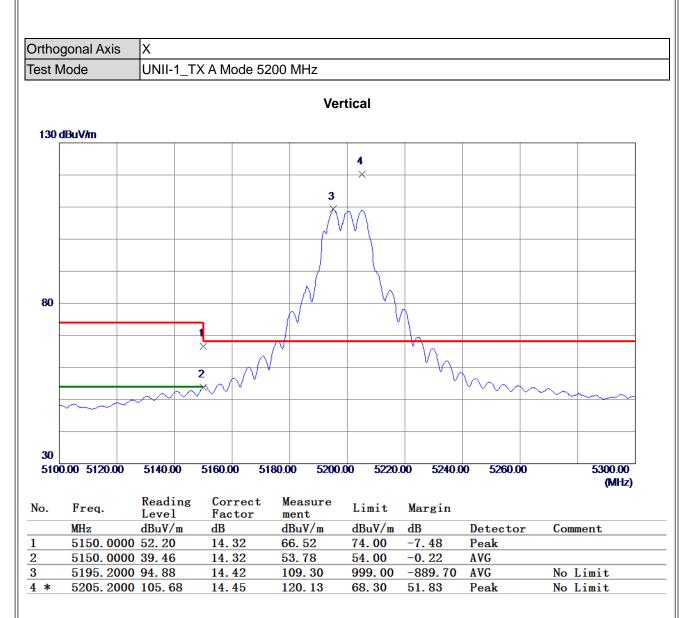


(1) Measurement Value = Reading Level + Correct Factor.



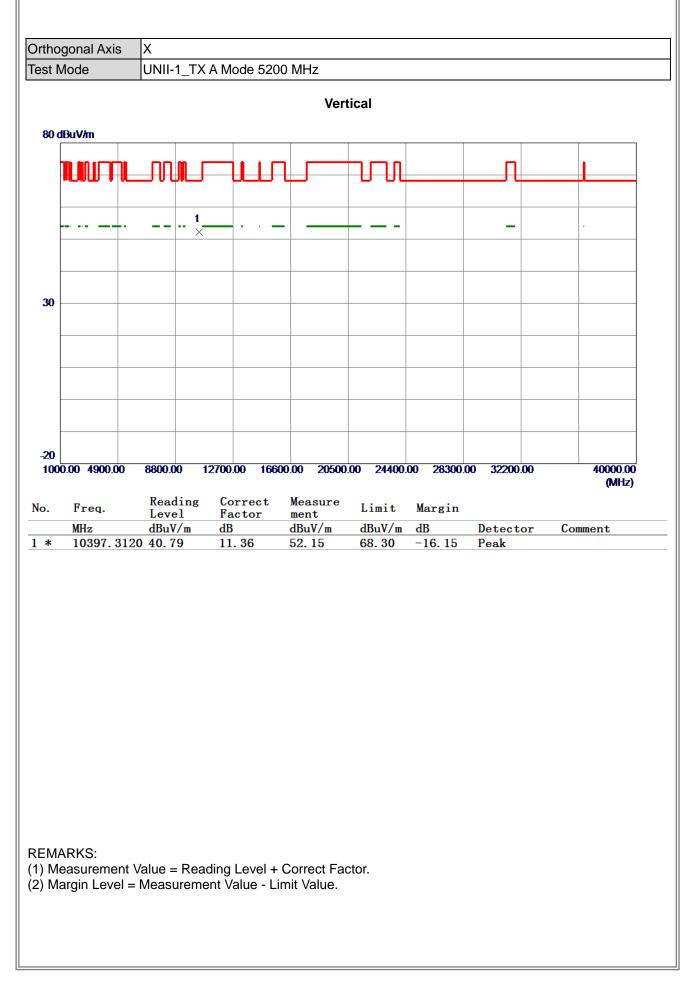




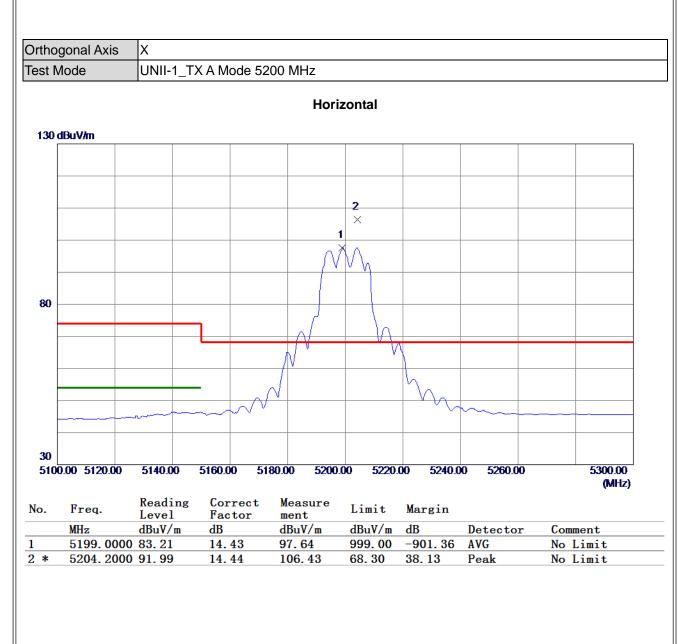


(1) Measurement Value = Reading Level + Correct Factor.



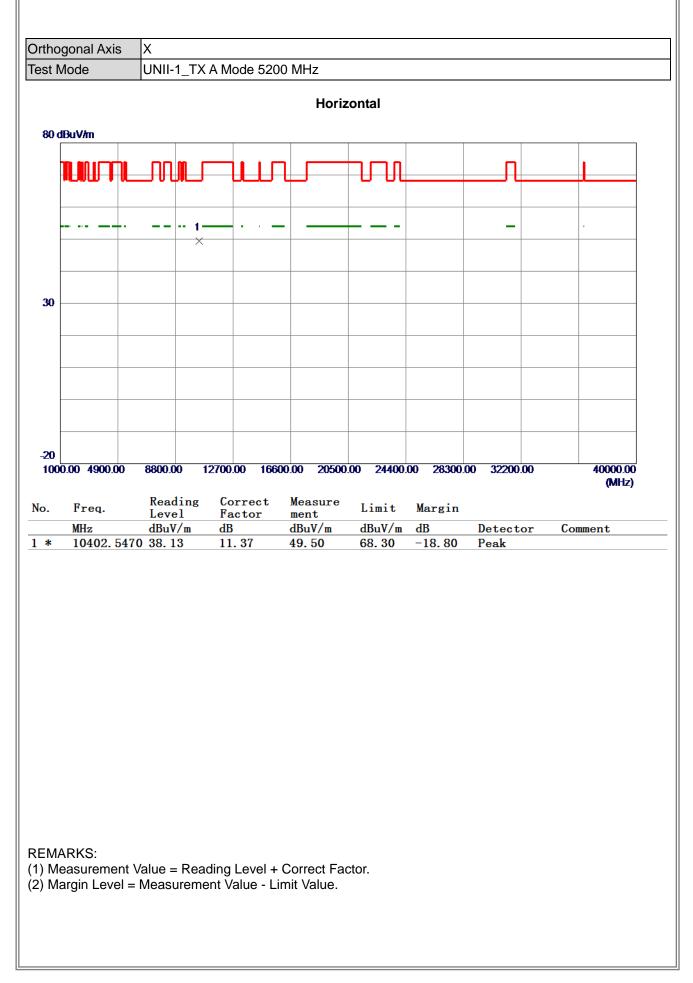




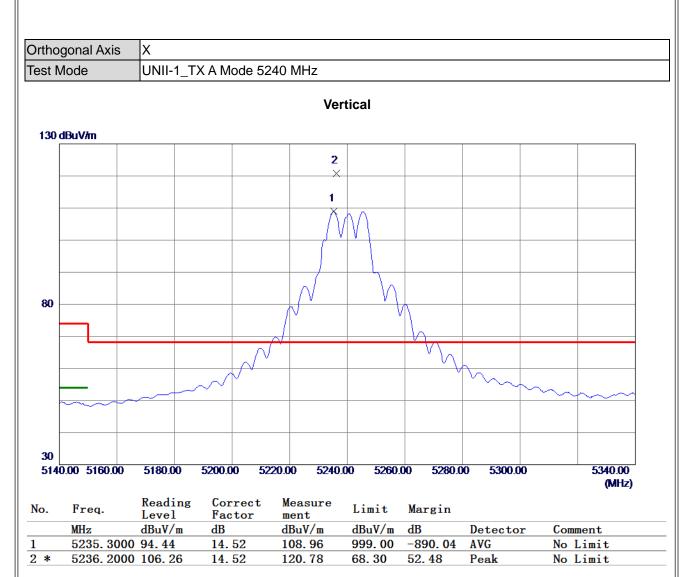


(1) Measurement Value = Reading Level + Correct Factor.



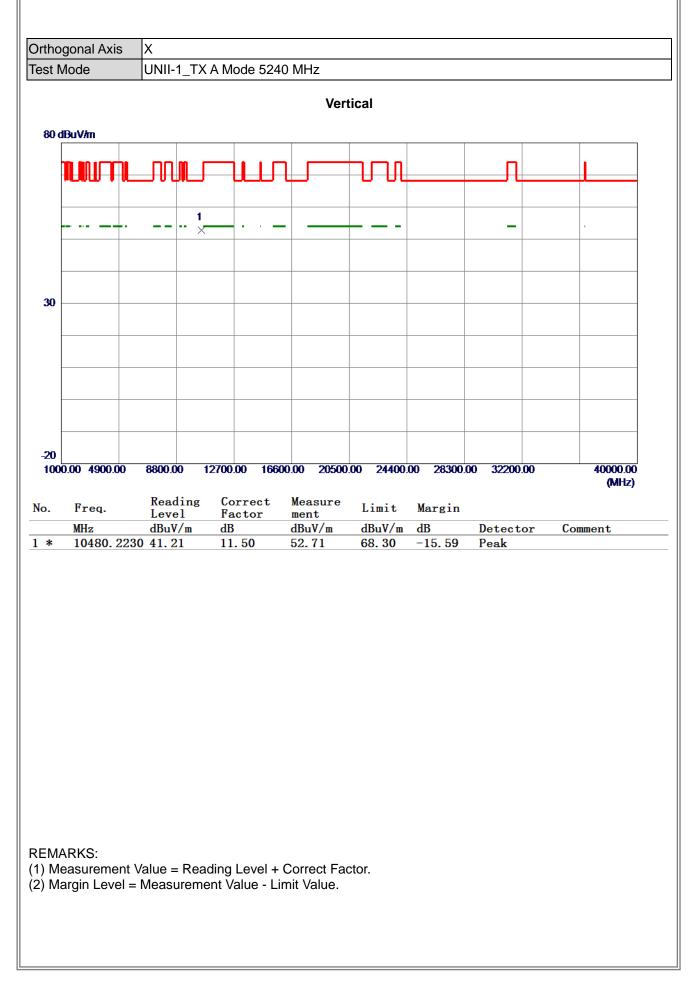




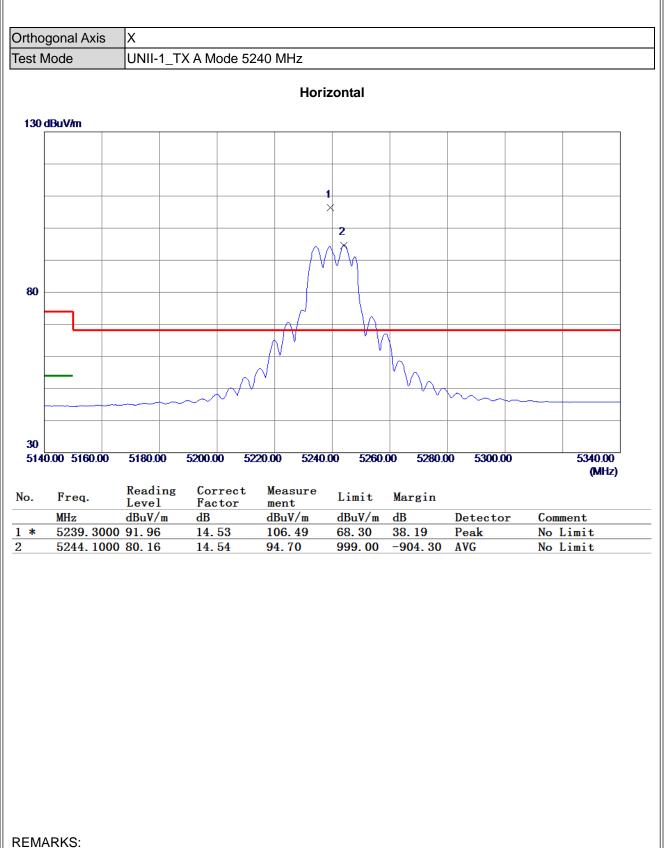


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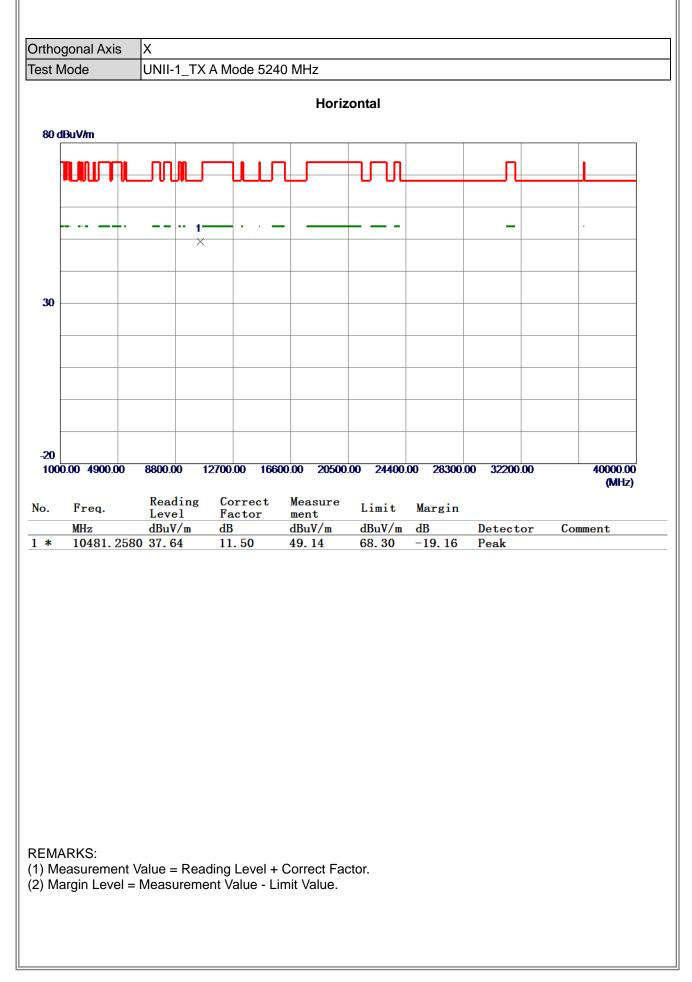




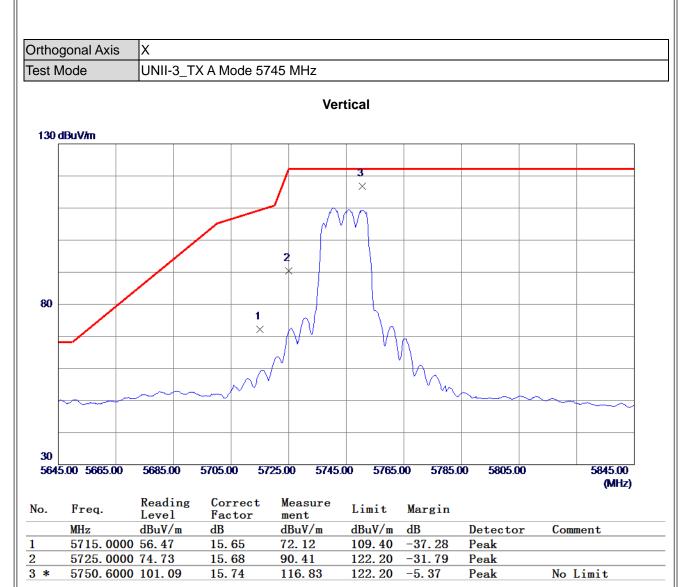


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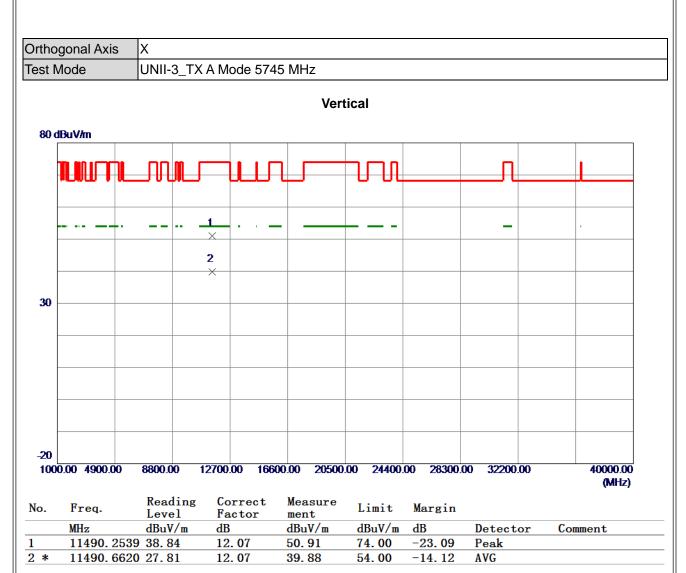






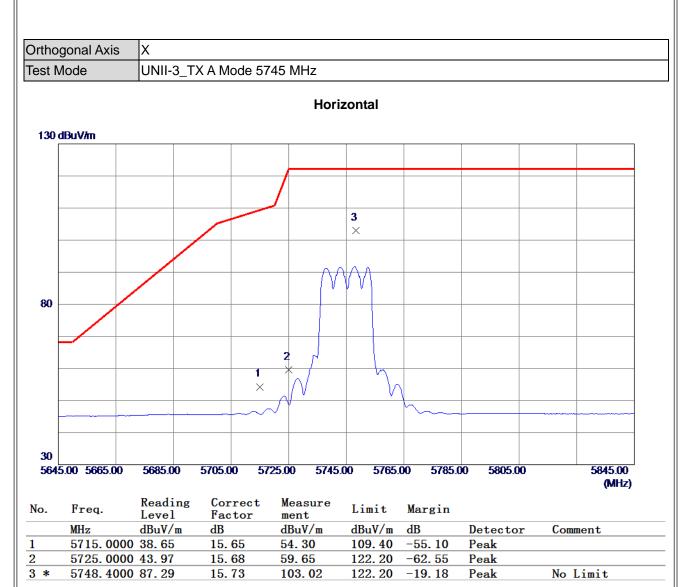
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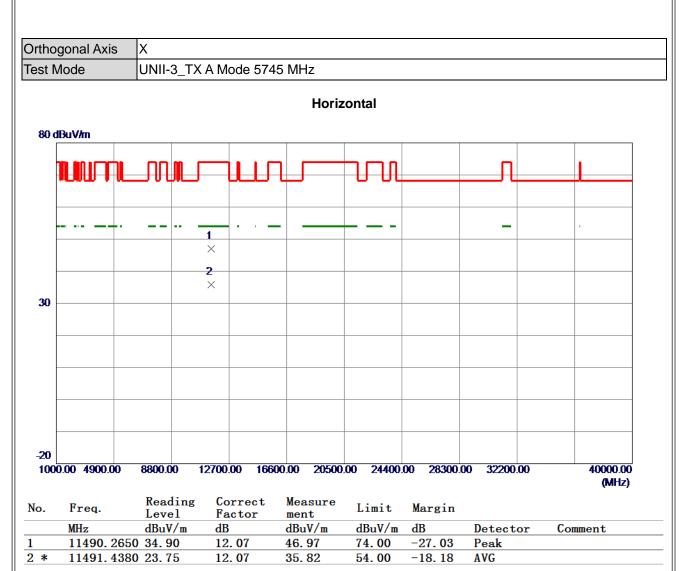
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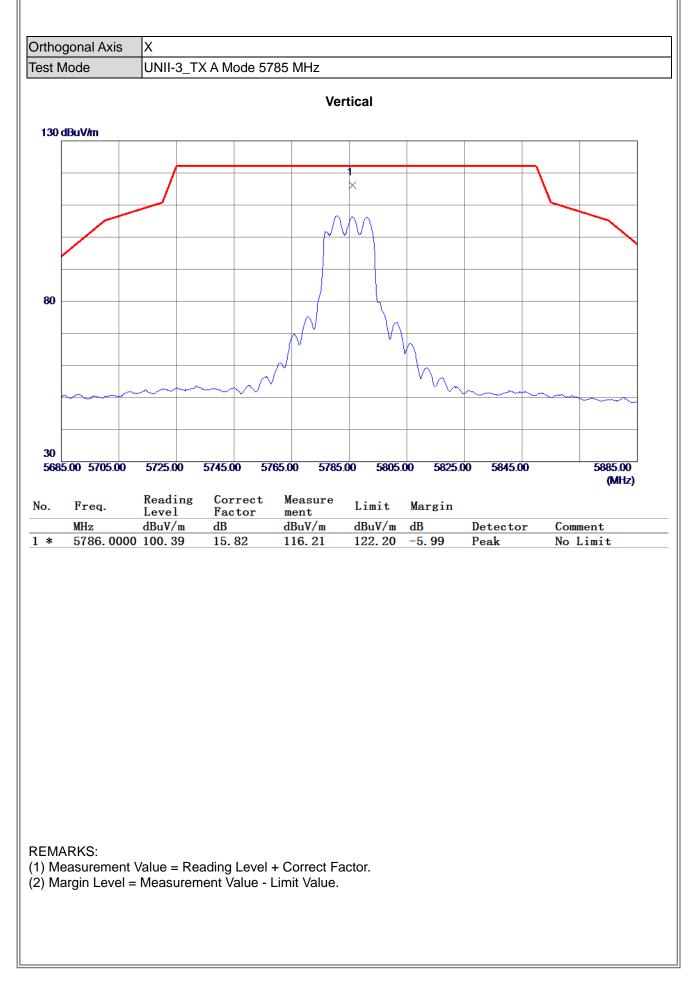
(1) Measurement Value = Reading Level + Correct Factor.





(1) Measurement Value = Reading Level + Correct Factor.



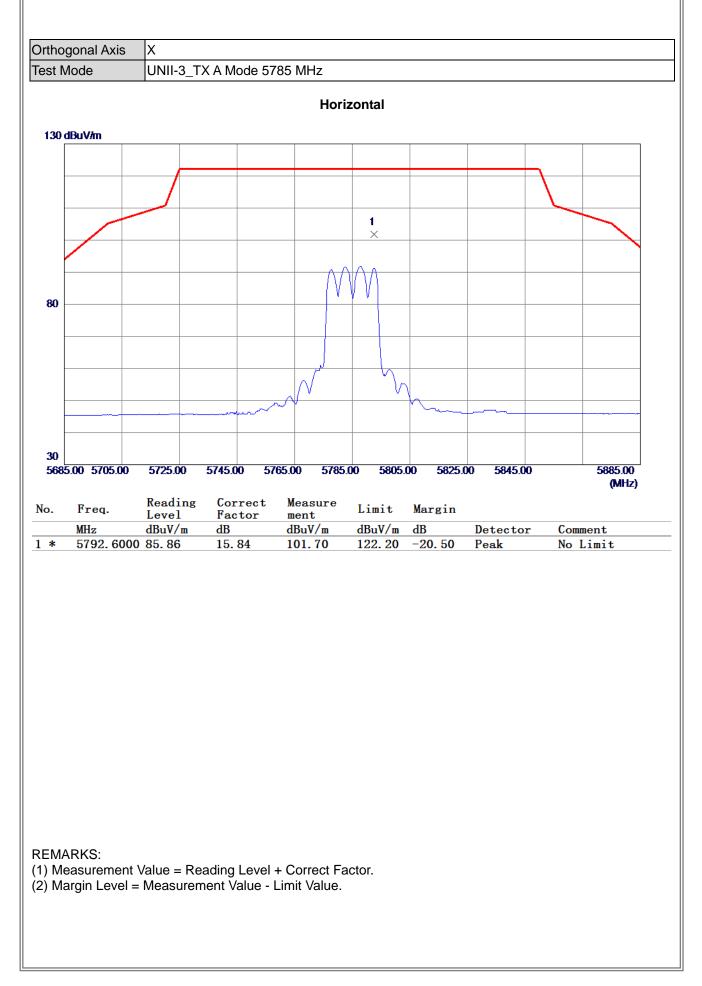




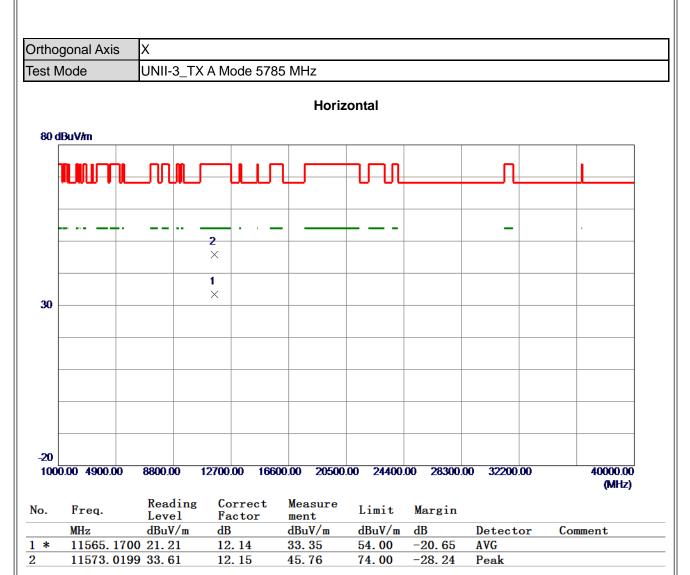


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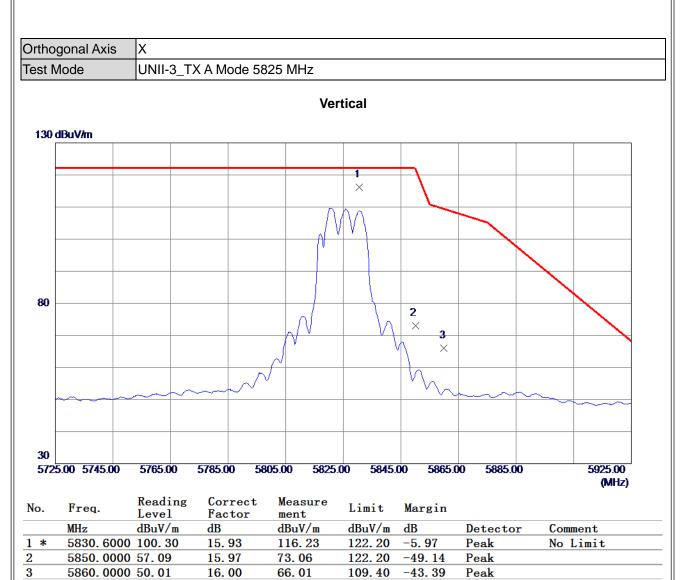






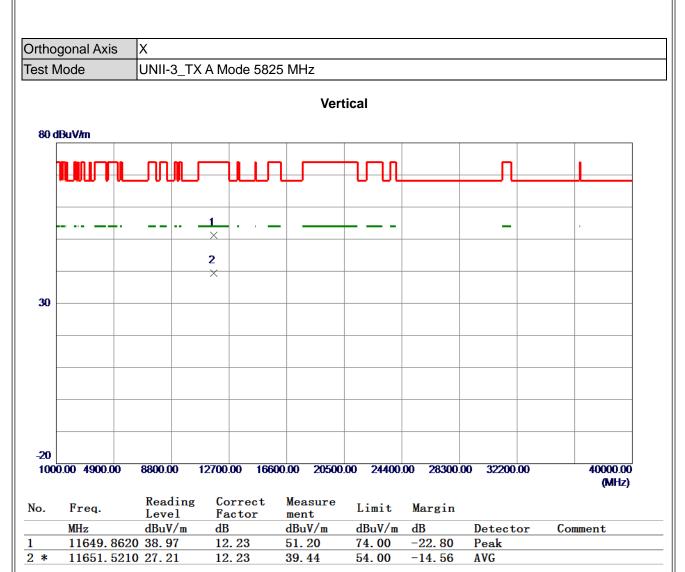
(1) Measurement Value = Reading Level + Correct Factor.





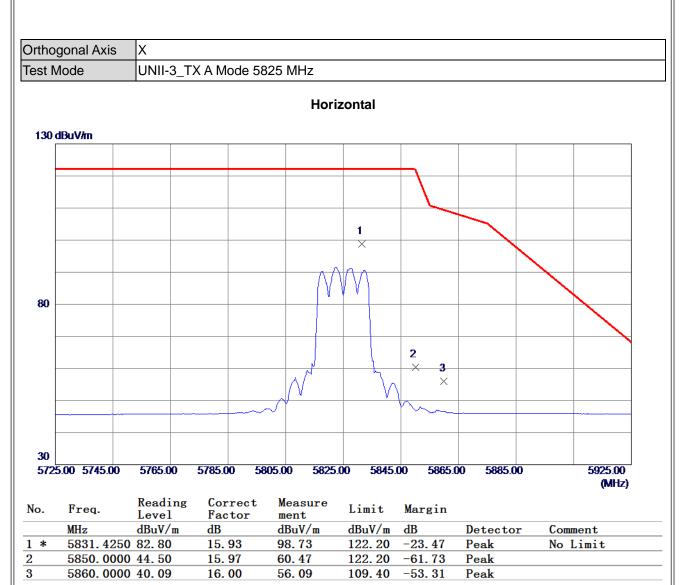
(1) Measurement Value = Reading Level + Correct Factor.





(1) Measurement Value = Reading Level + Correct Factor.





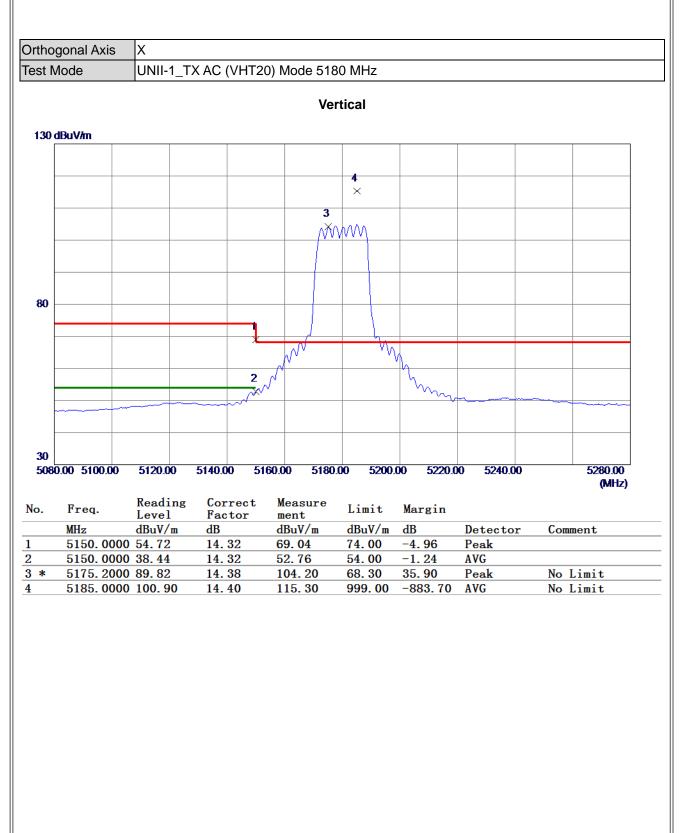
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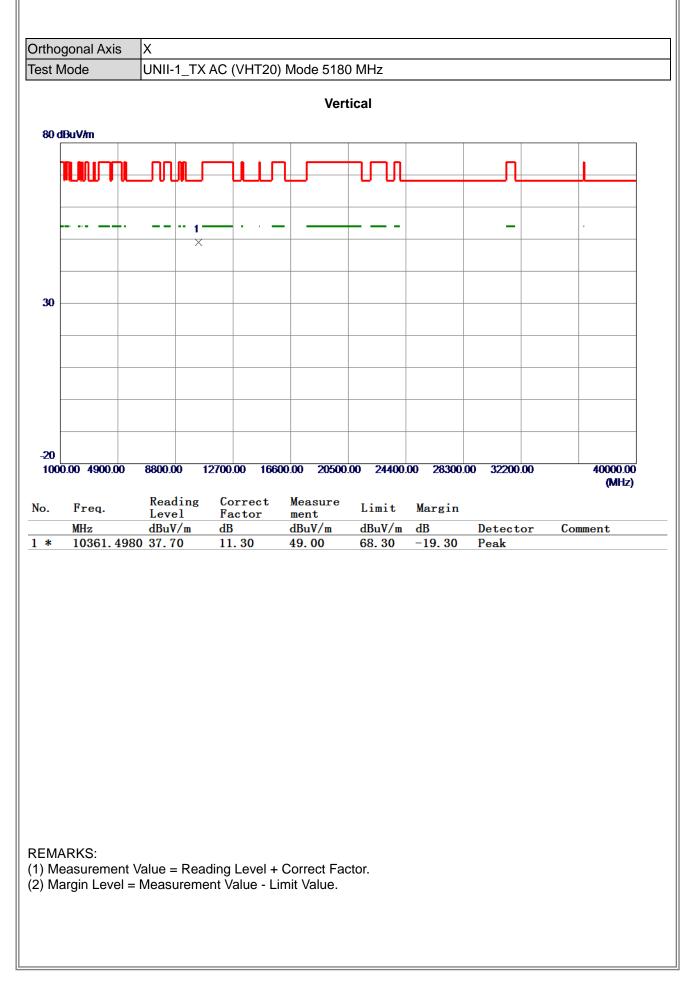
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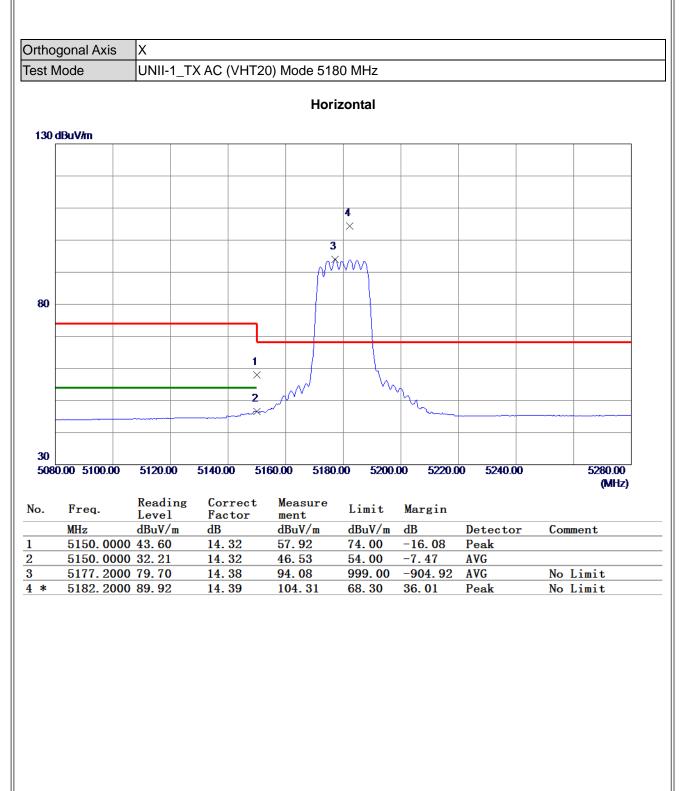


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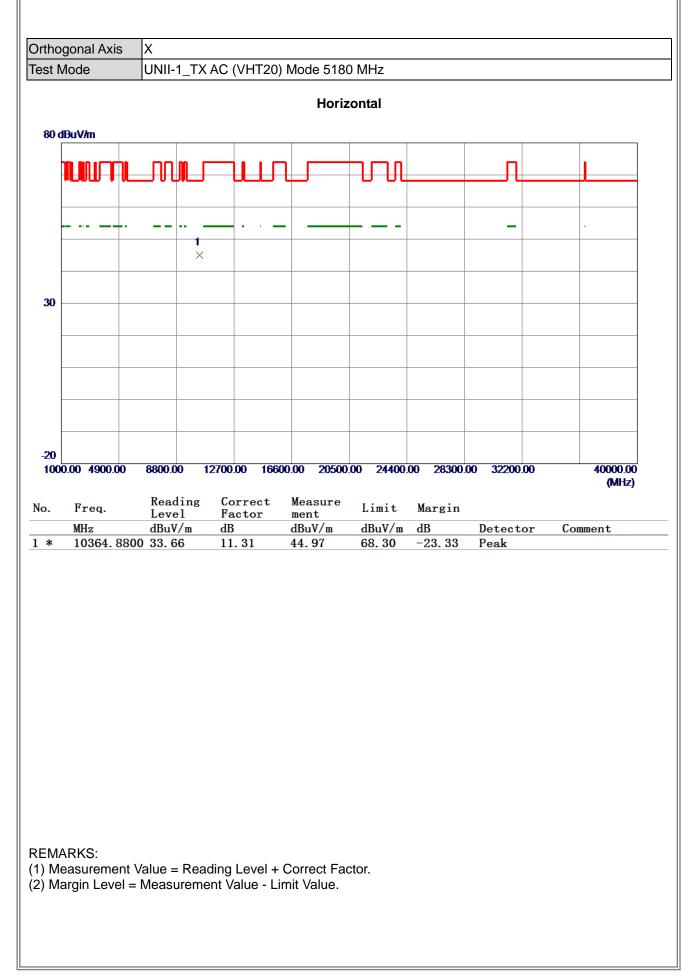




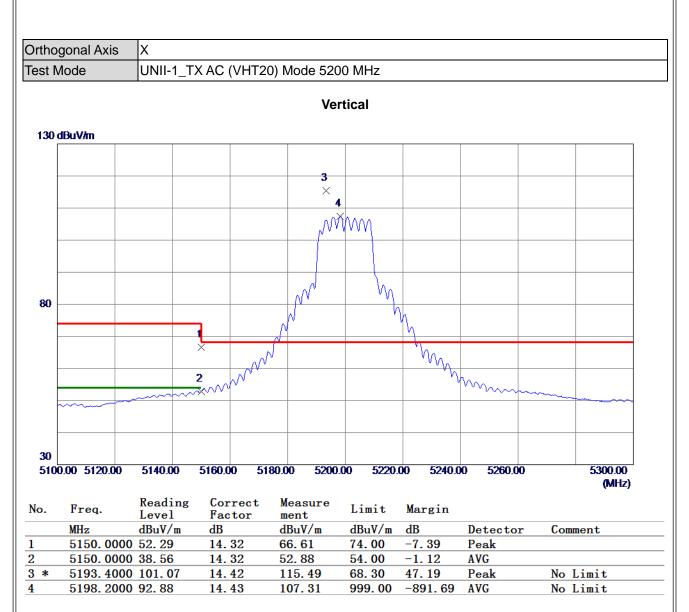


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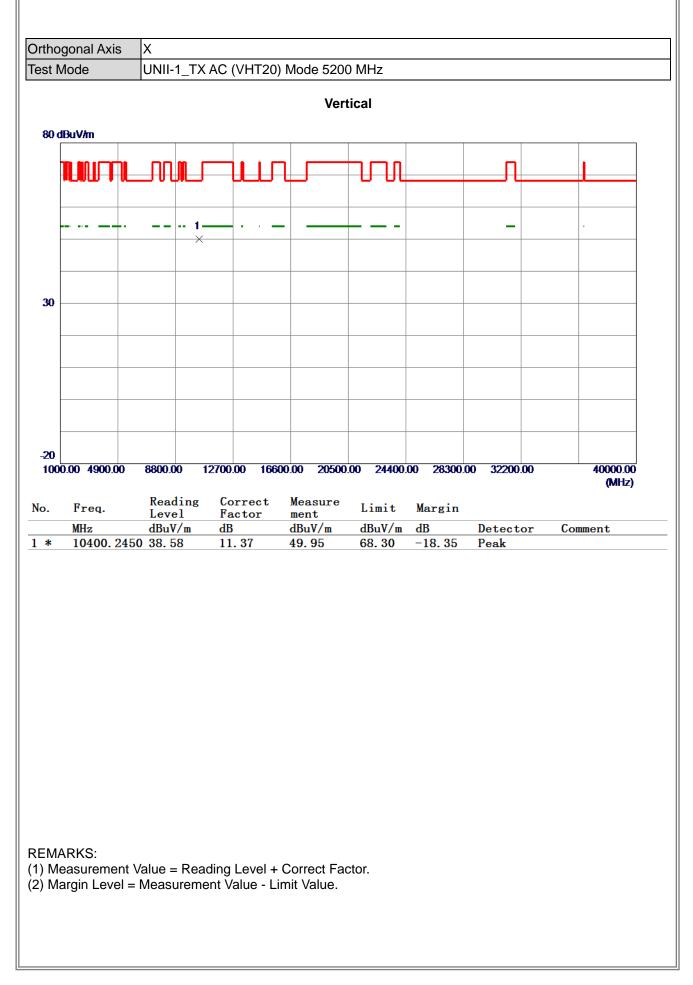




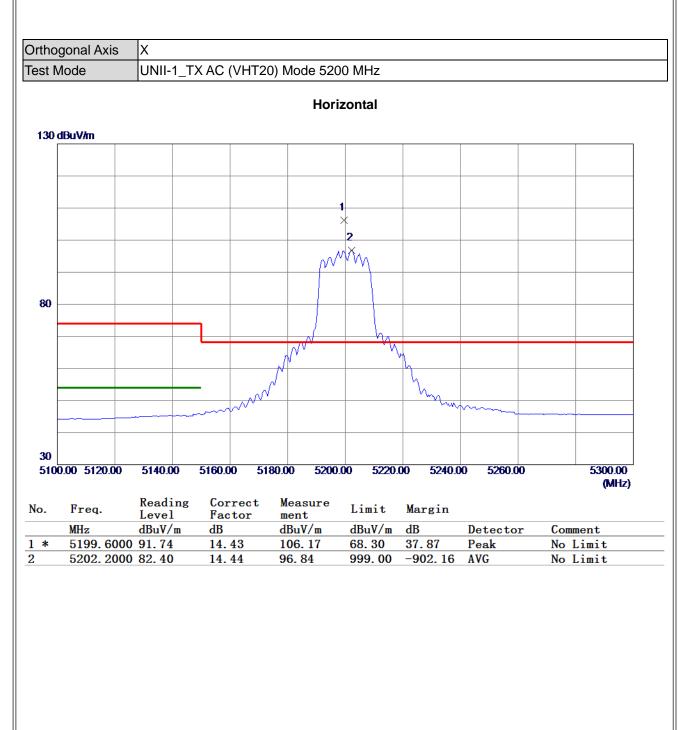


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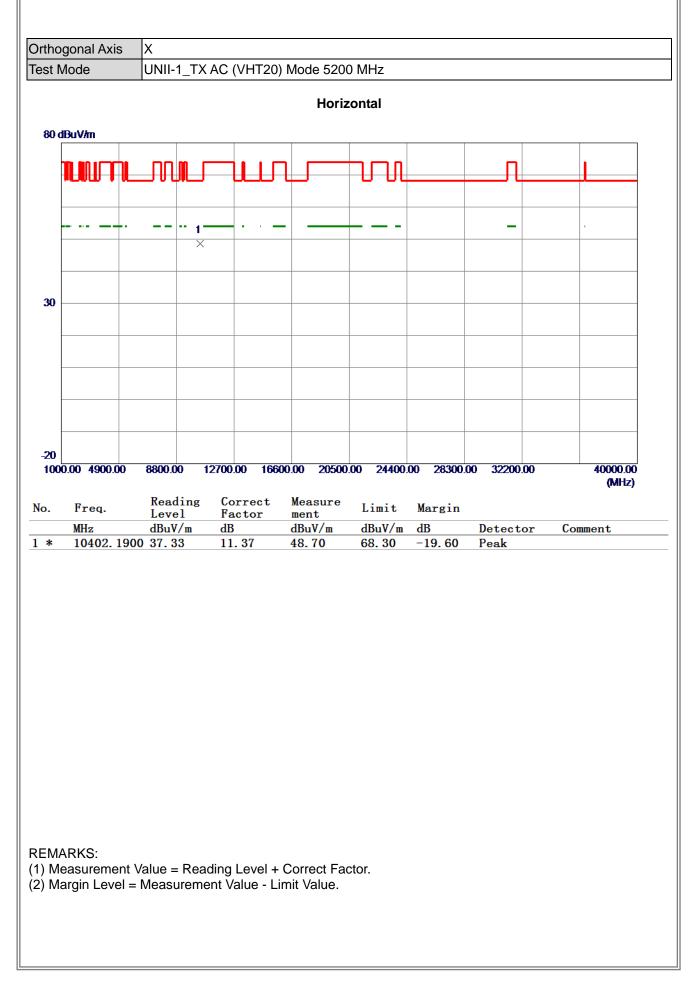




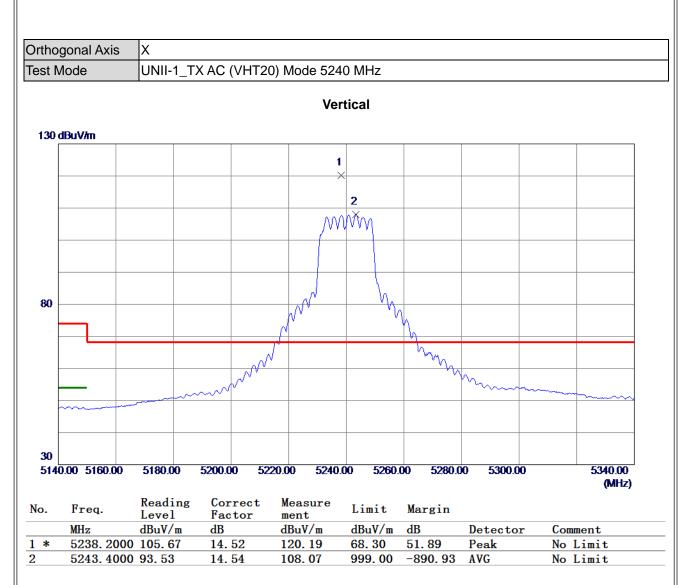


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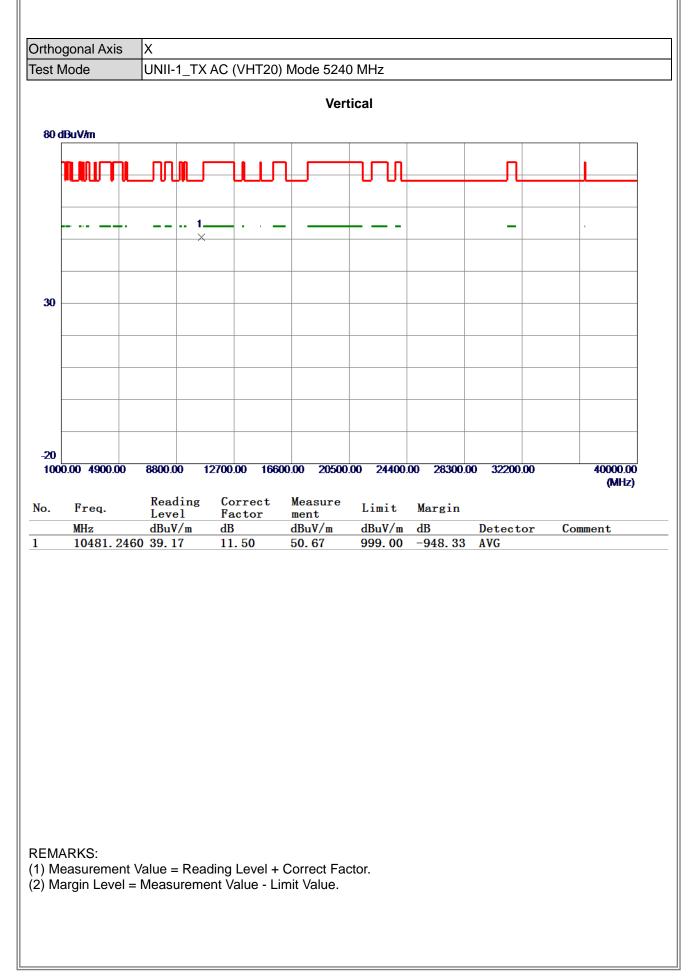




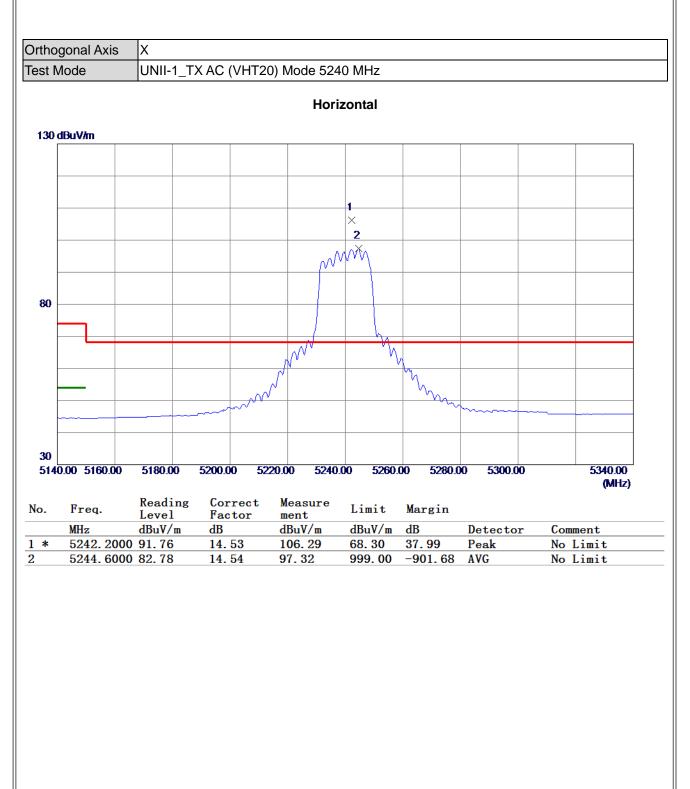


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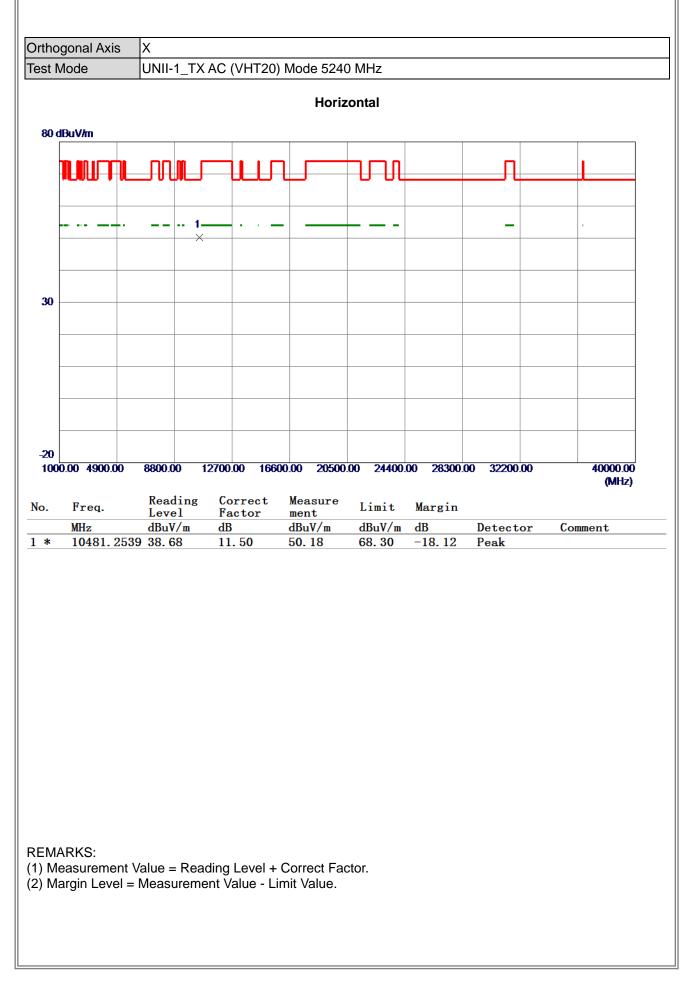




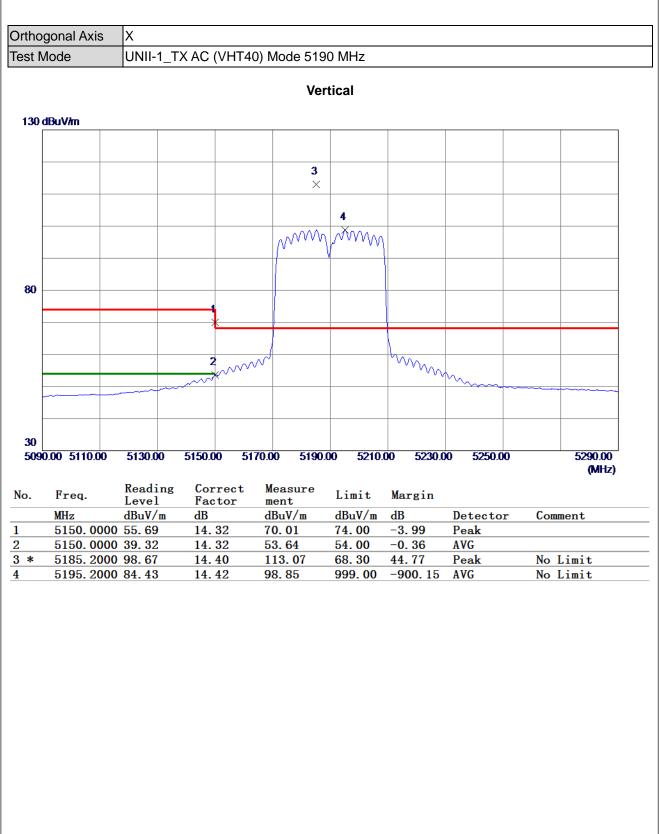


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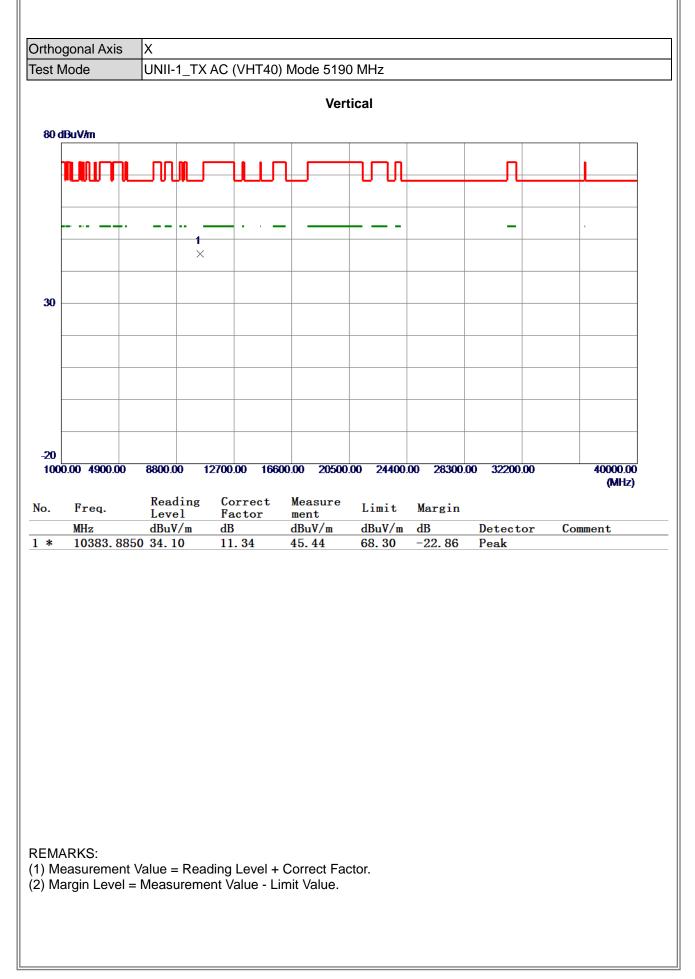




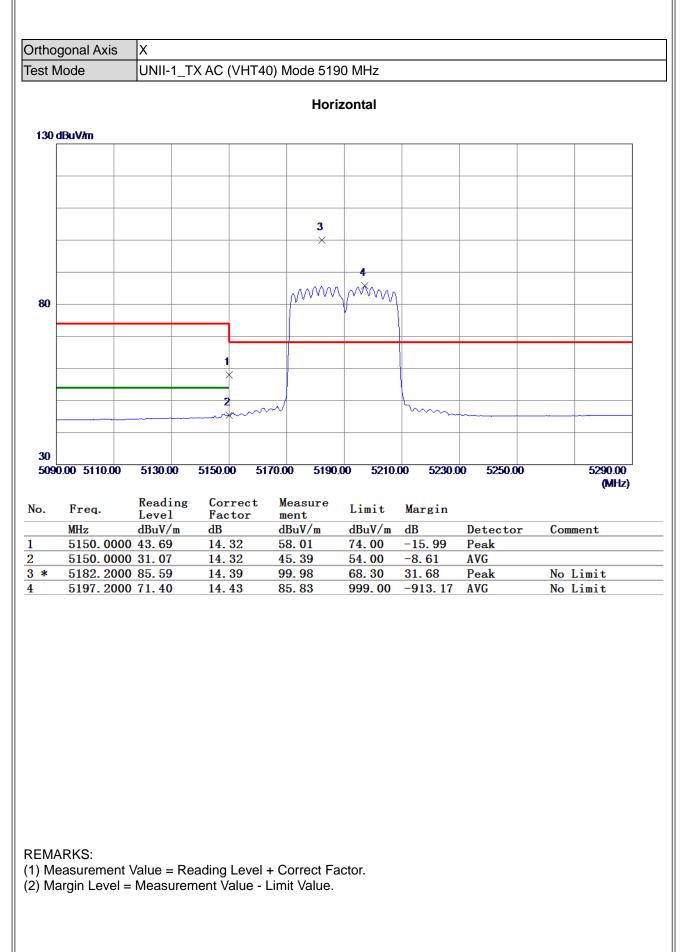


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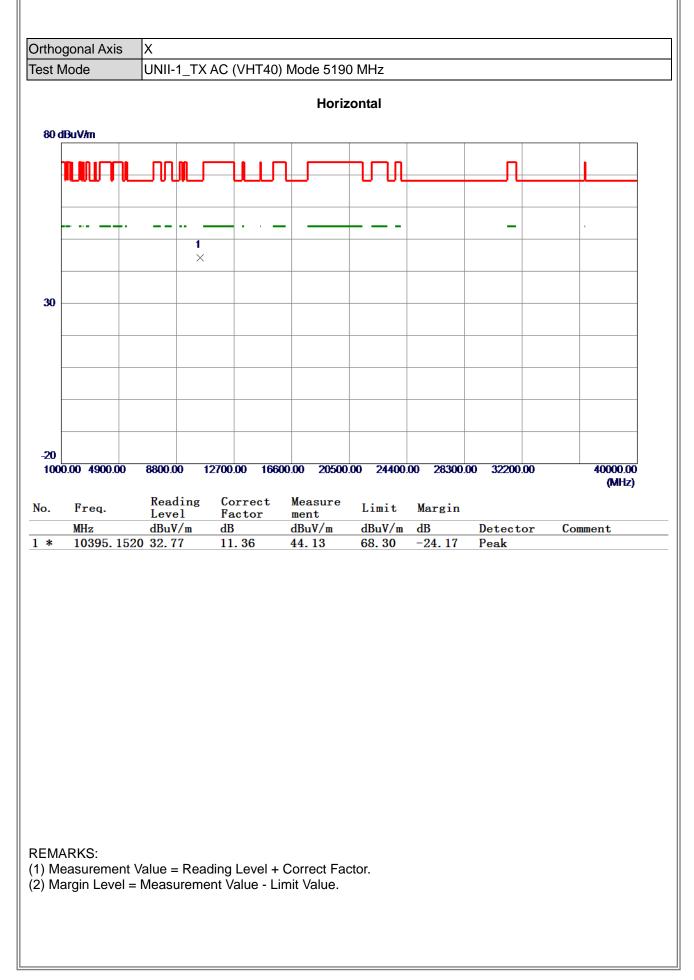




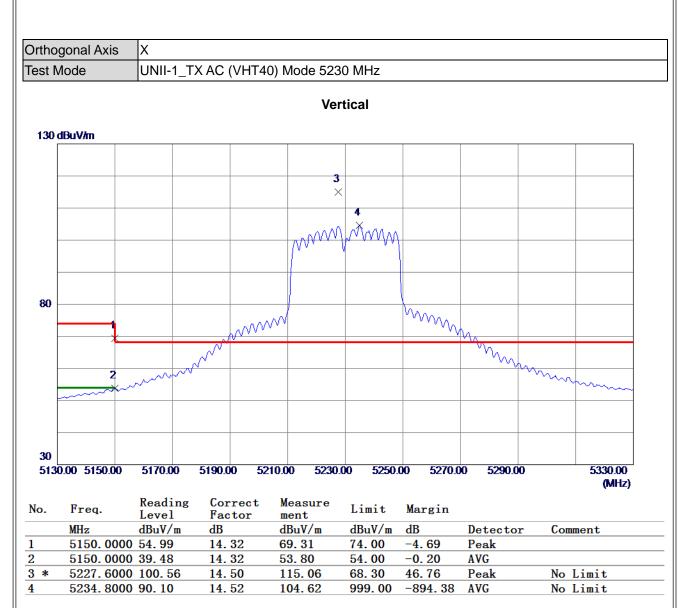






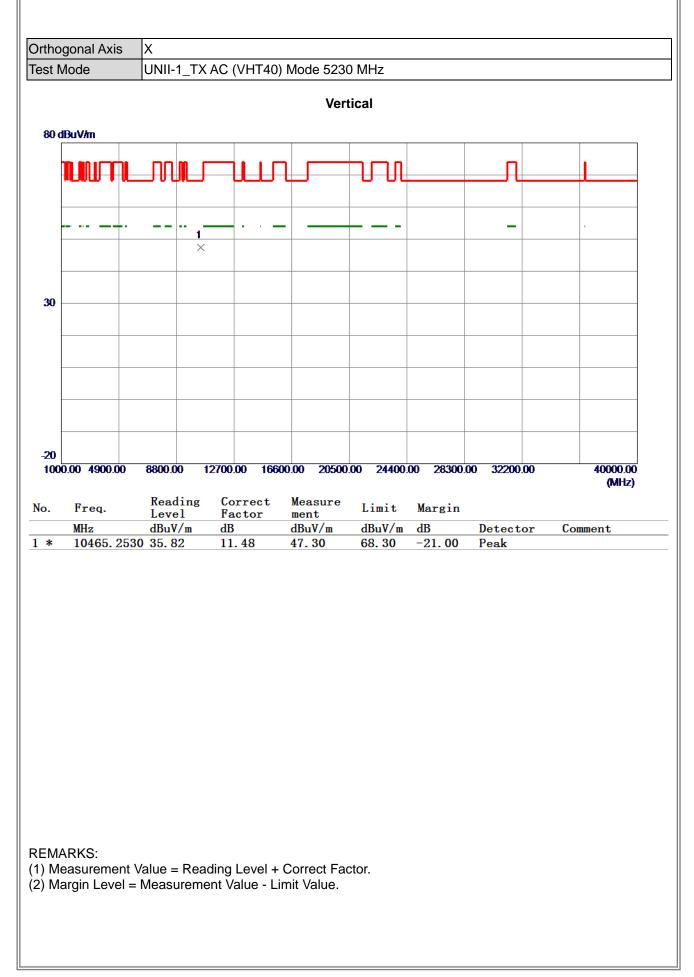




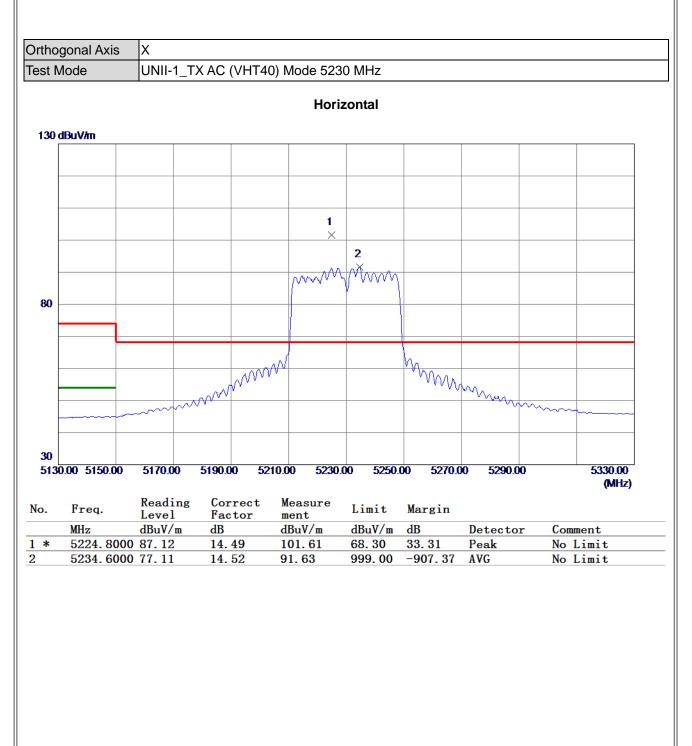


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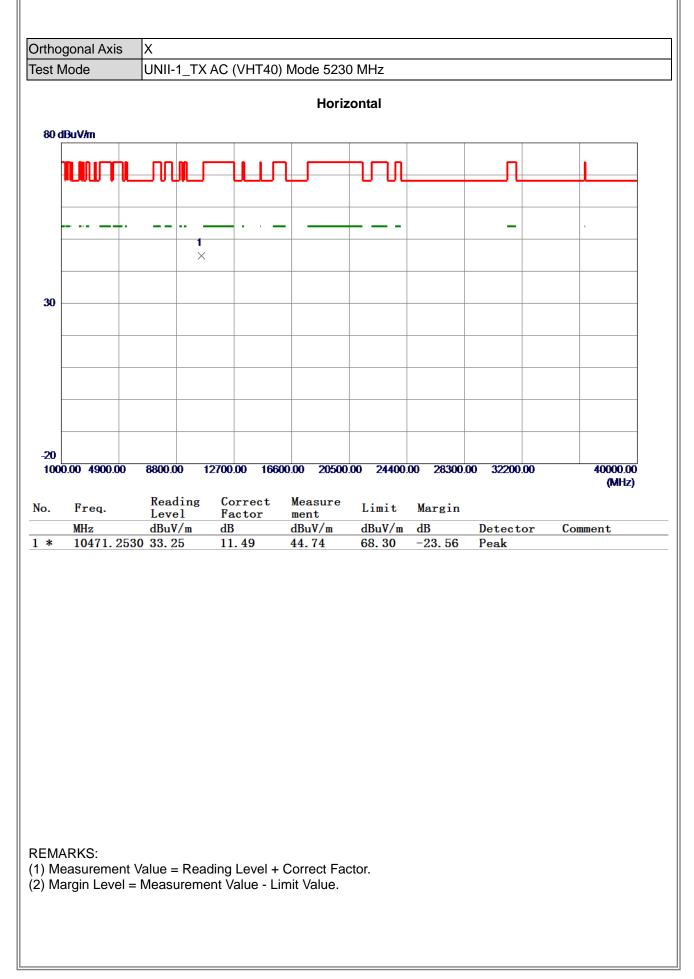




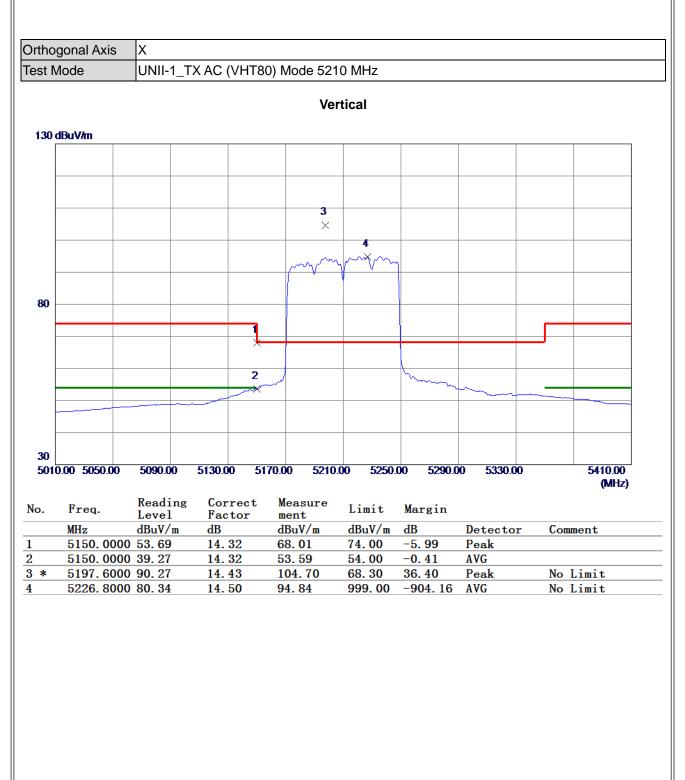


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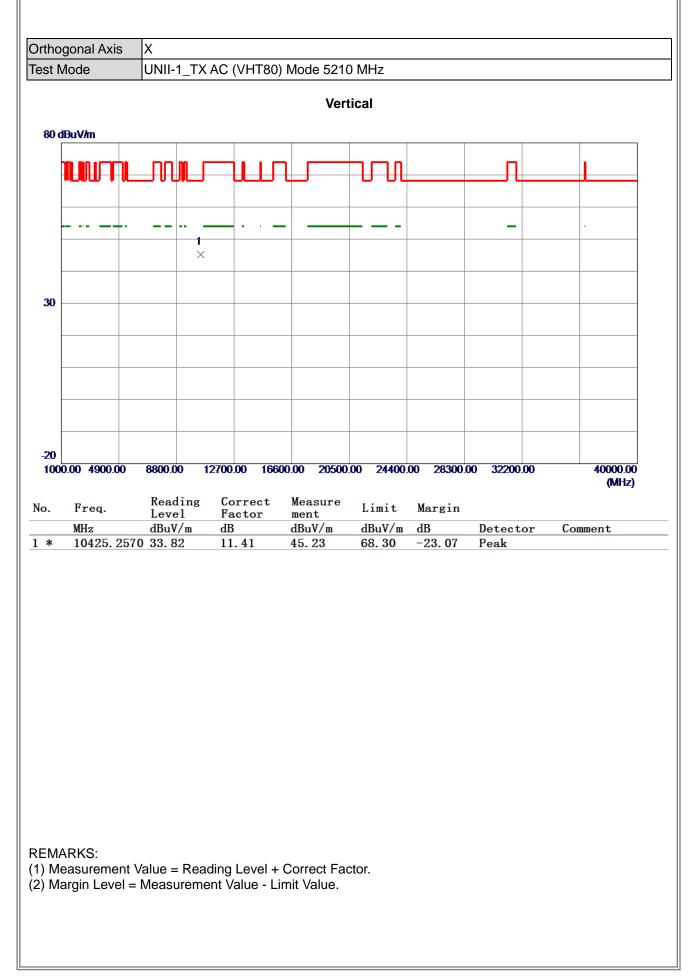




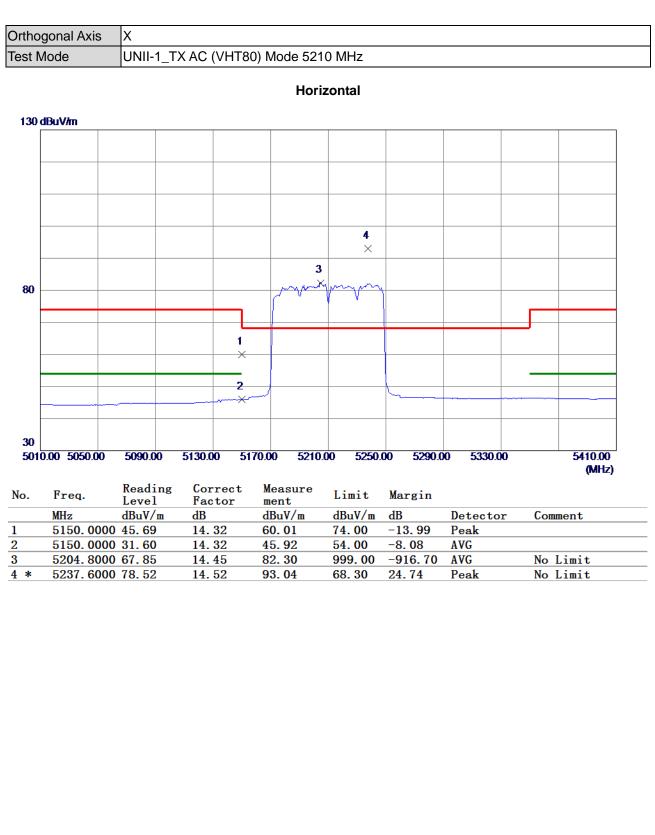


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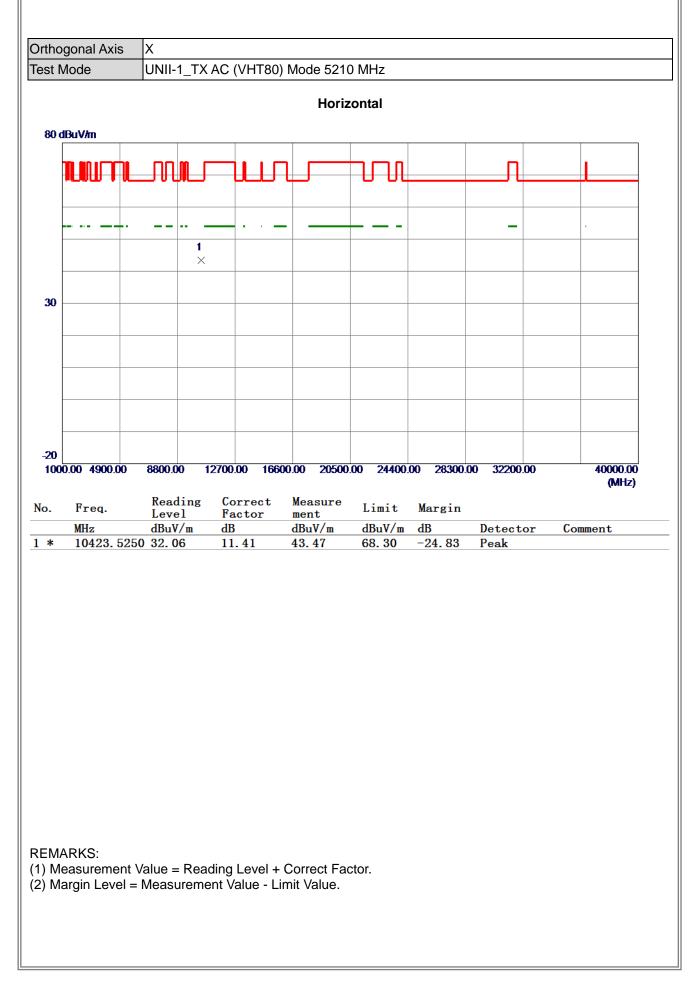




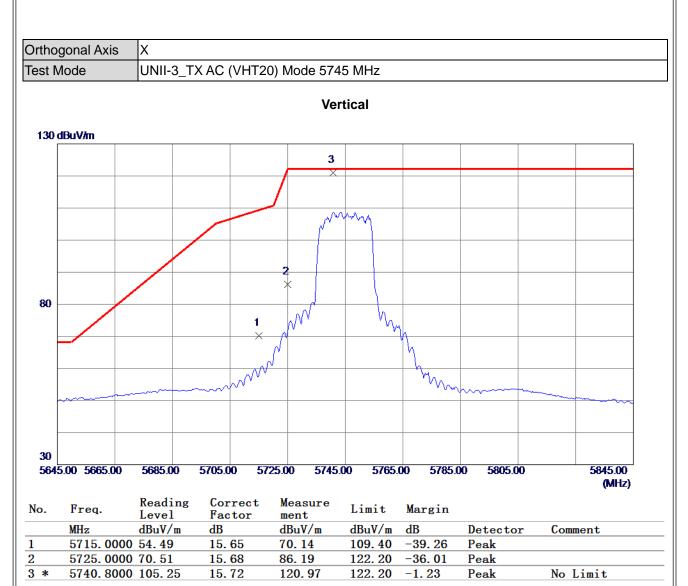


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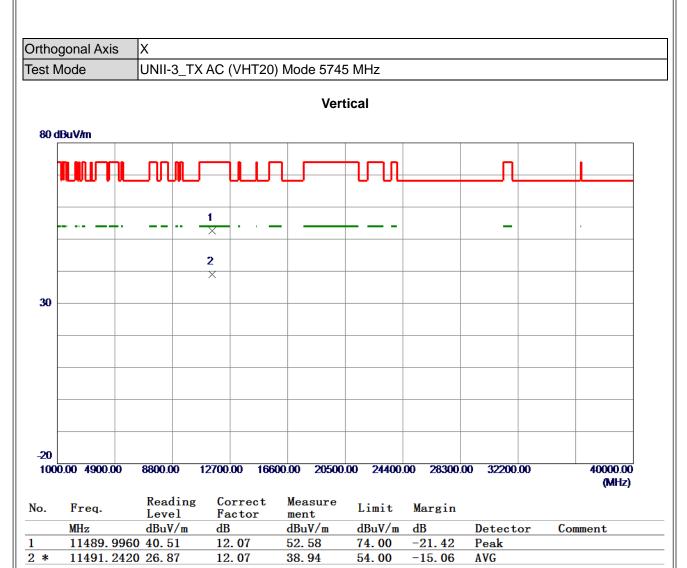






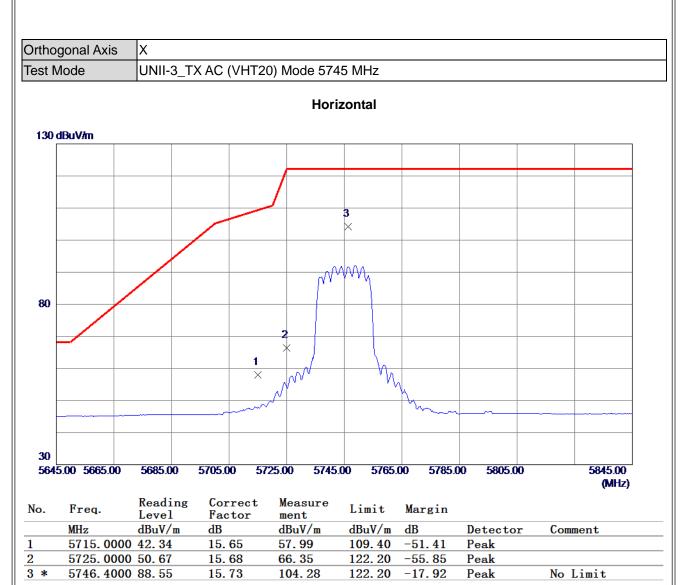
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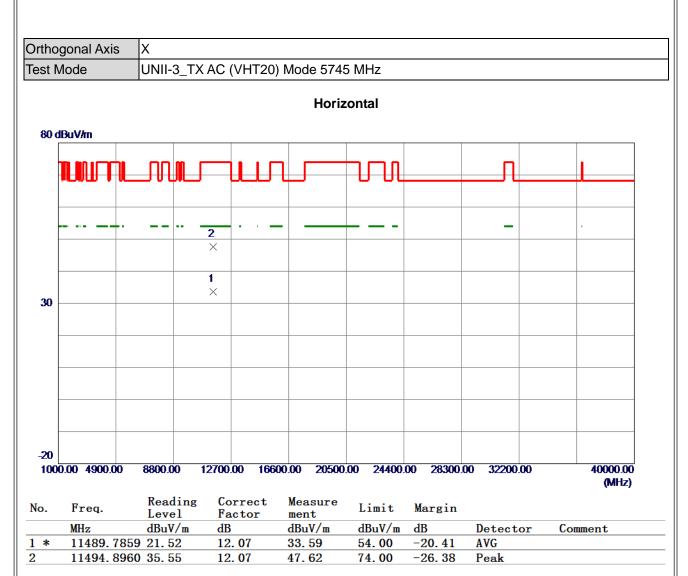
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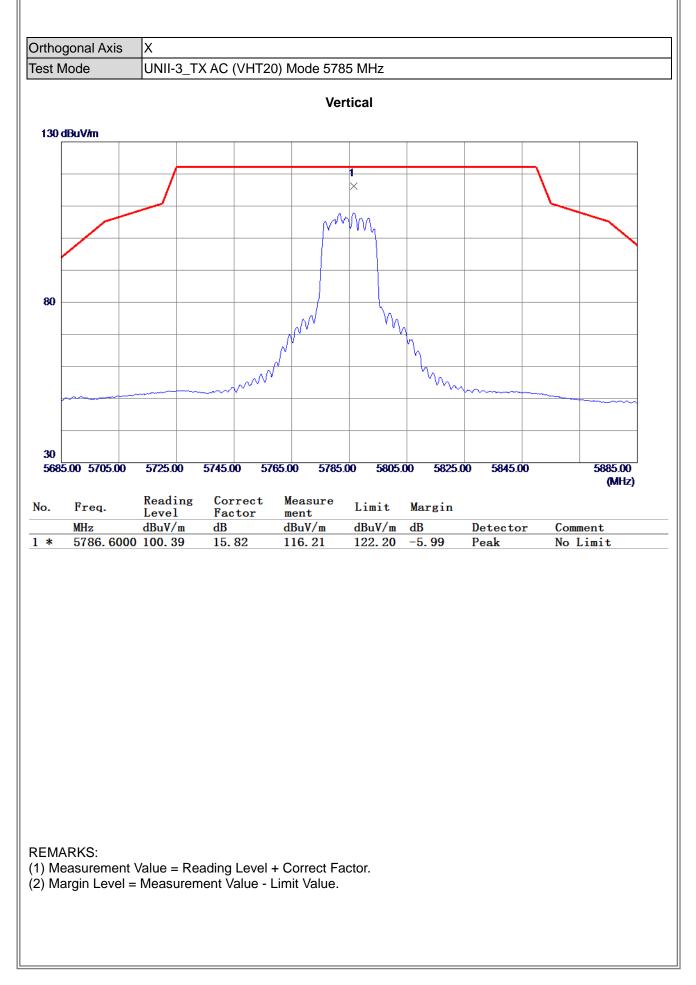
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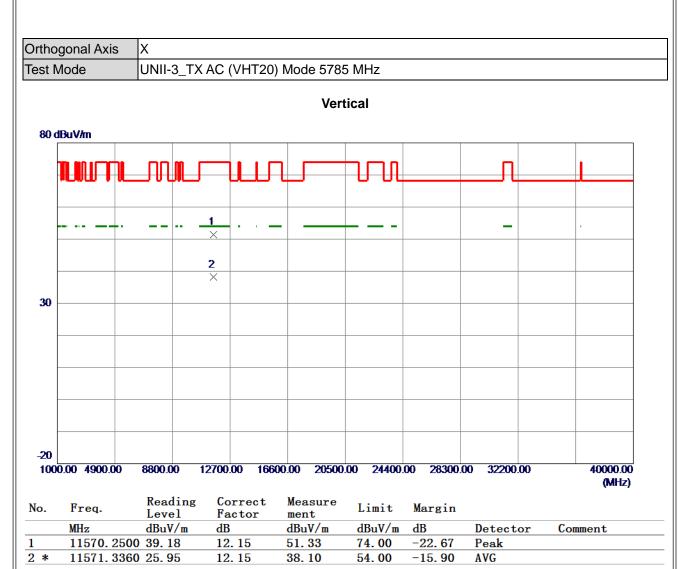


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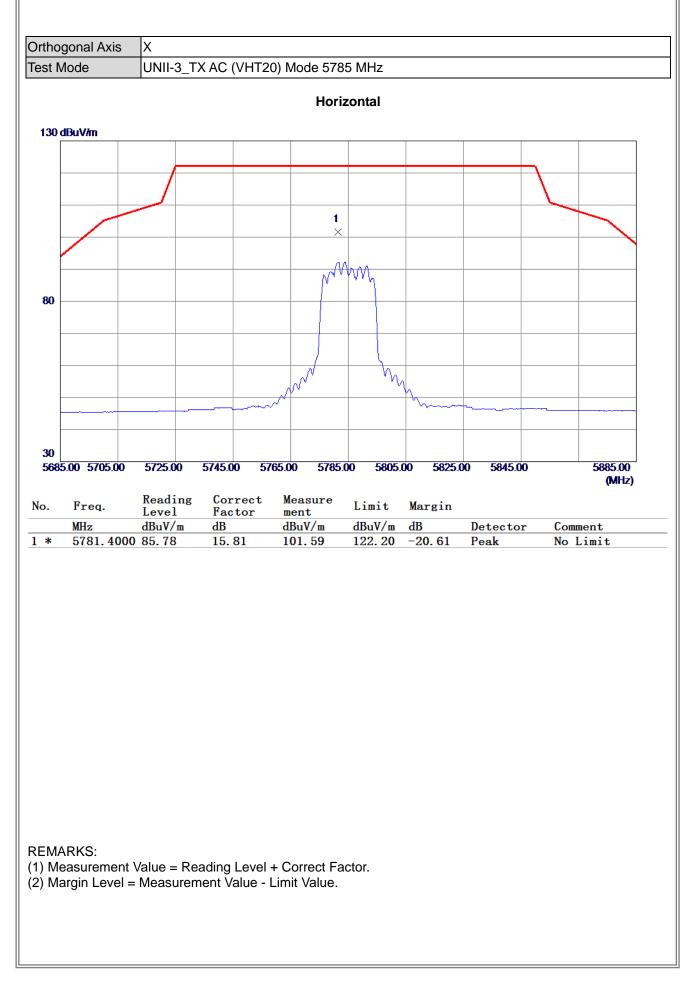




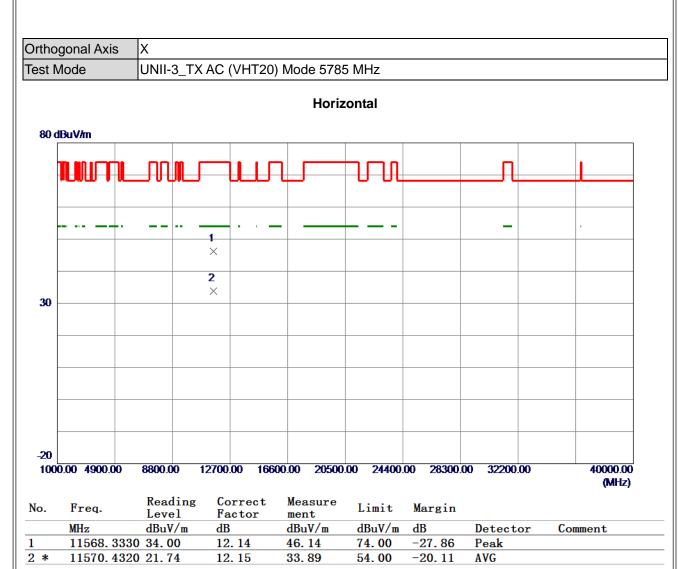


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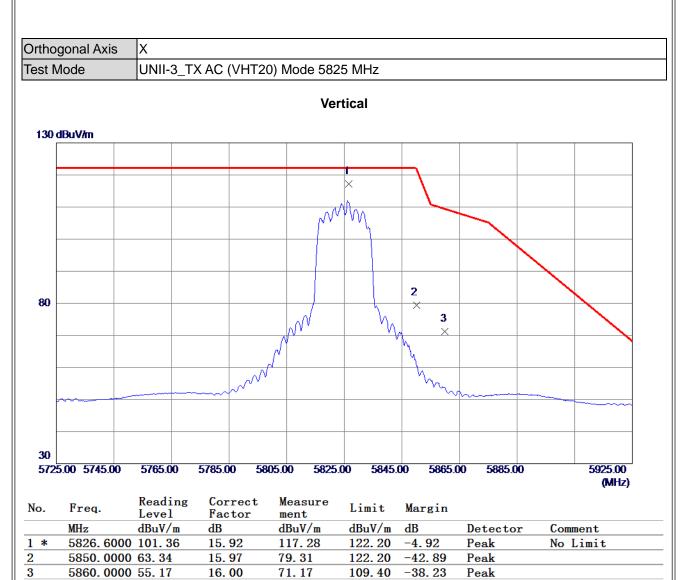






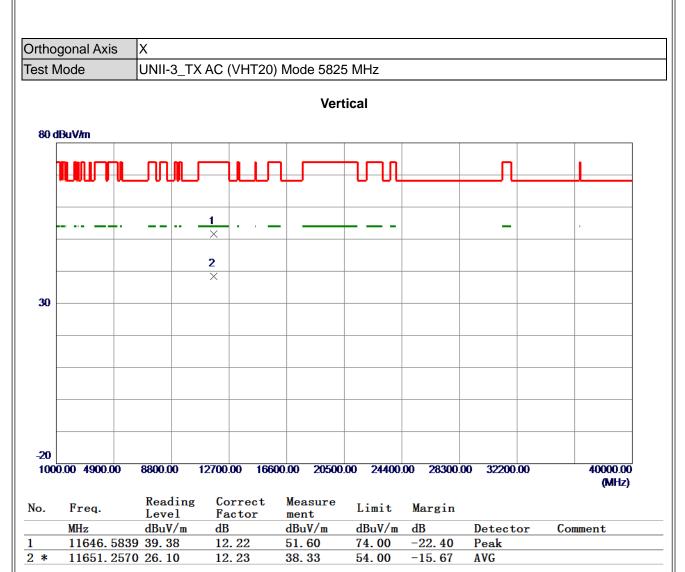
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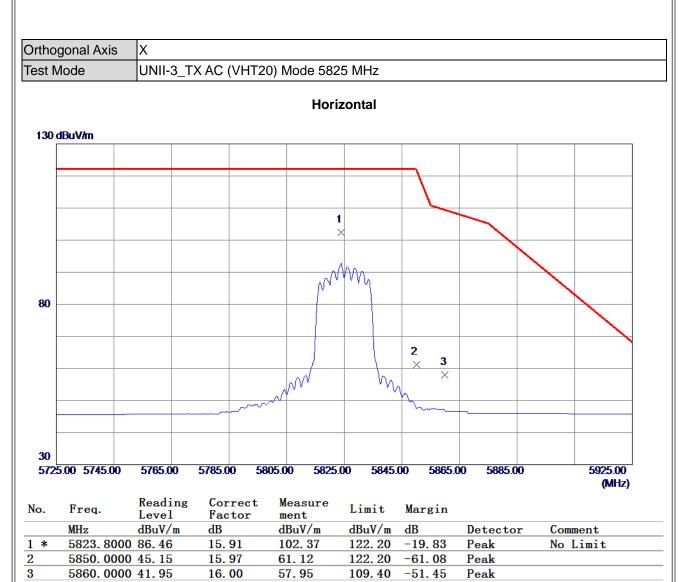
(1) Measurement Value = Reading Level + Correct Factor.





(1) Measurement Value = Reading Level + Correct Factor.





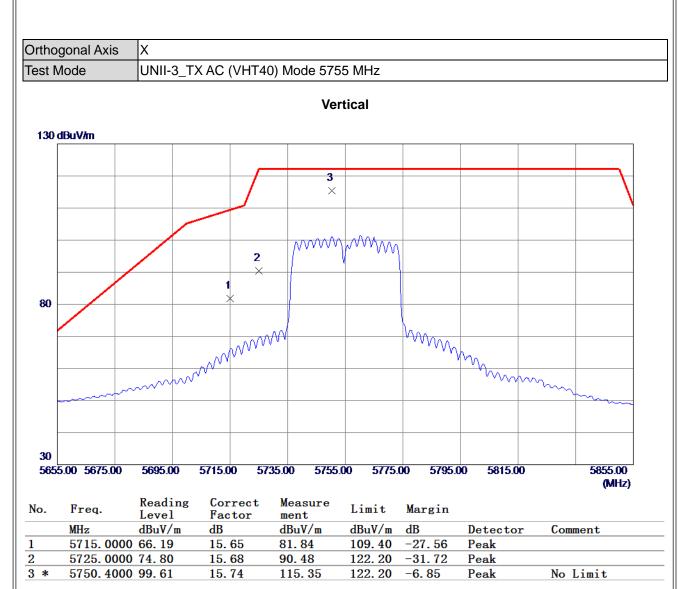
(1) Measurement Value = Reading Level + Correct Factor.





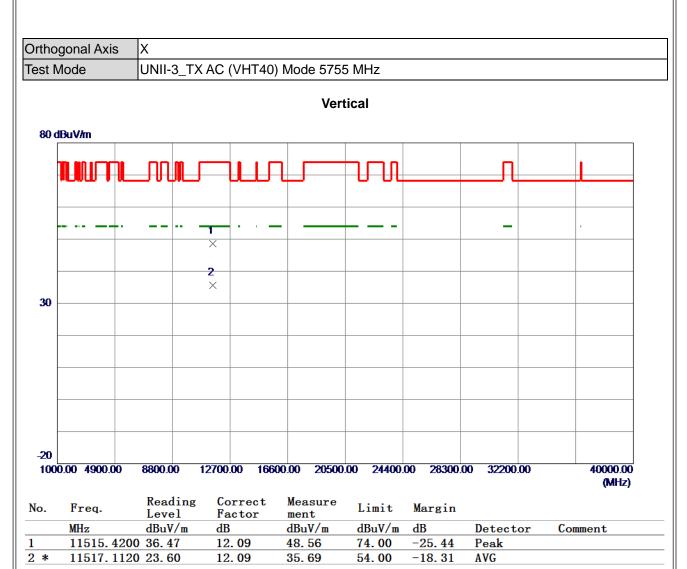
(1) Measurement Value = Reading Level + Correct Factor.





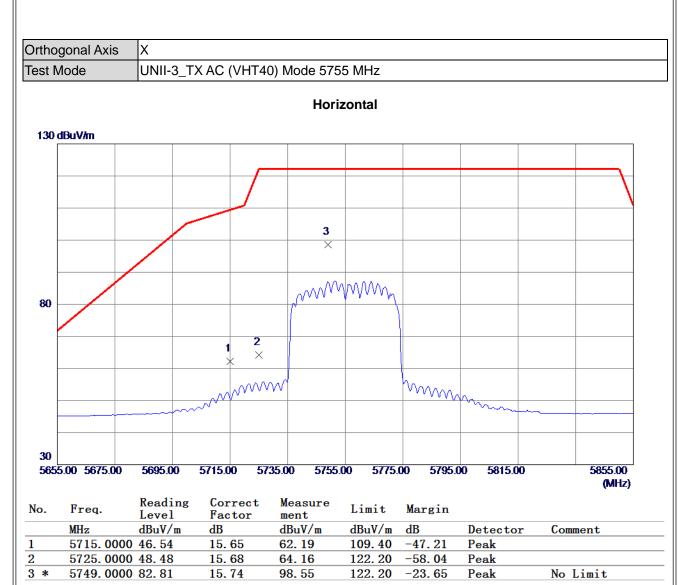
(1) Measurement Value = Reading Level + Correct Factor.





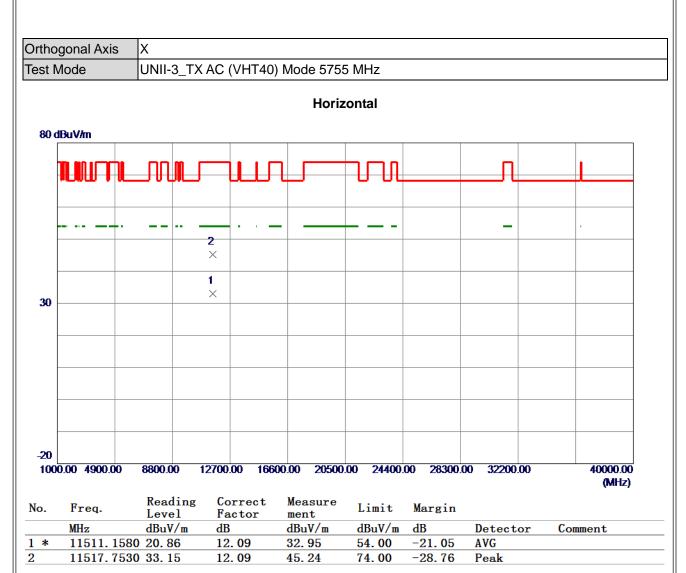
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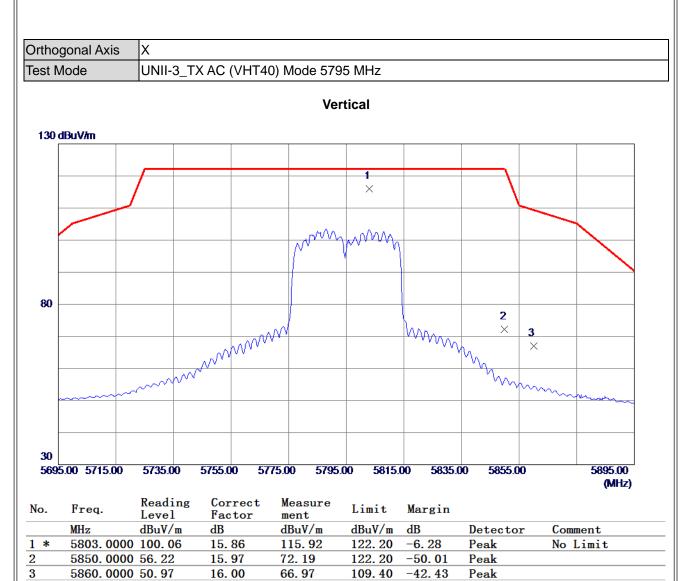
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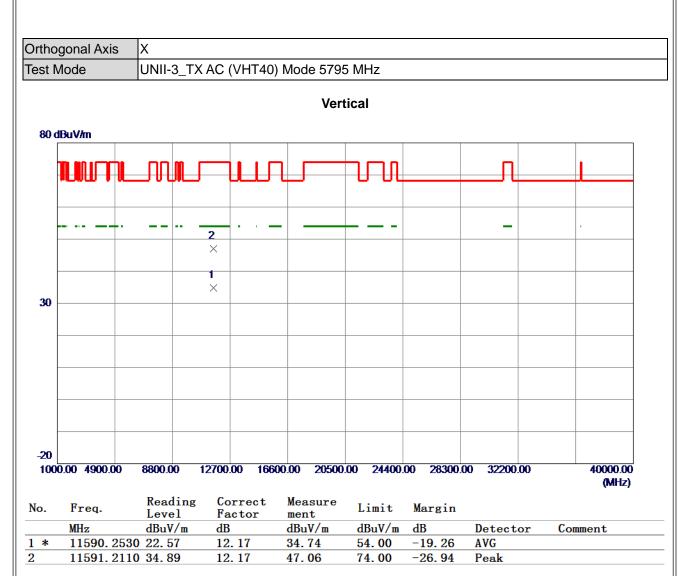
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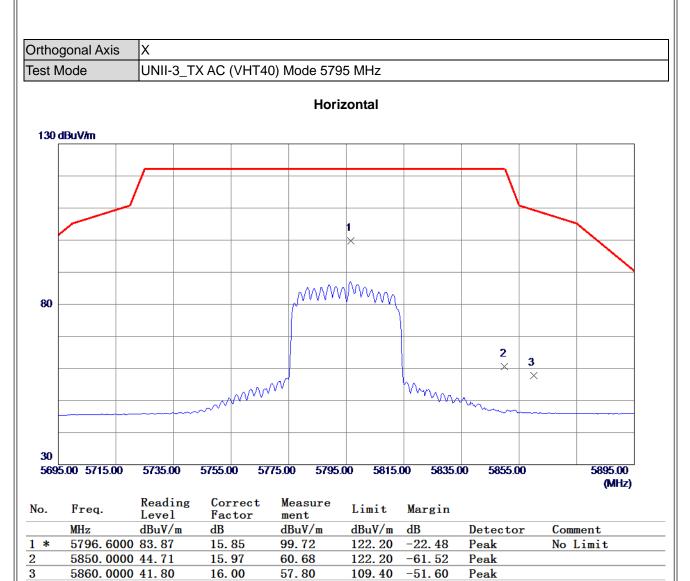
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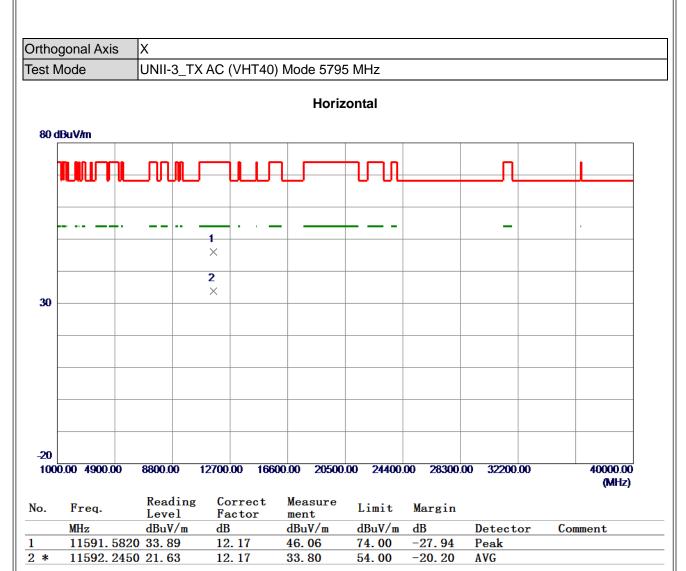
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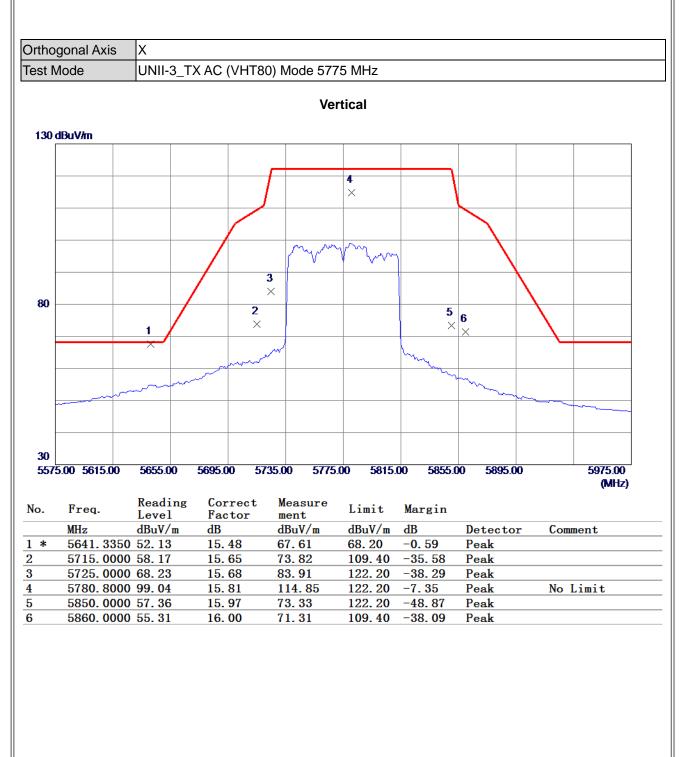
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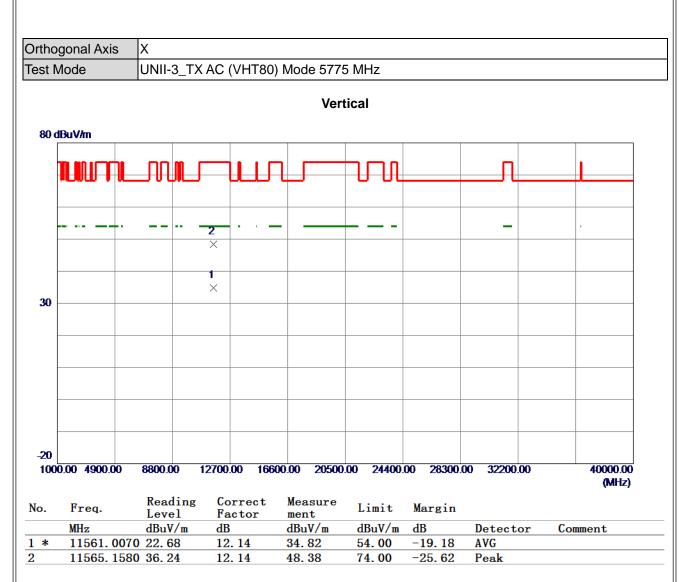
(1) Measurement Value = Reading Level + Correct Factor.





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