

## **FCC 15.407 NII 5 GHz Report**

**for**

**Elitegroup Computer Systems Co., Ltd.**

**No. 239, Sec. 2, Ti Ding Blvd,  
Taipei, Taiwan 11493**

**Product Name : 7" Multi Function Pad**  
**Model Name : mPAD2-7.....**  
**Brand : ECS**  
**FCC ID : WL6TC7A-W**

**Prepared by: : AUDIX Technology Corporation,  
EMC Department**



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## TEST REPORT CERTIFICATION

Applicant : Elitegroup Computer Systems Co., Ltd.  
EUT Description  
(1) Product : 7" Multi Function Pad  
(2) Model : mPAD2-7.....  
(3) Brand : ECS

Applicable Standards:

47 CFR FCC Part 15 Subpart E  
ANSI C63.10:2013  
KDB 789033 D02 General UNII Test Procedures New Rules v01r02

**Audix Technology Corp.** tested the equipment mentioned in accordance with the requirements set forth in the above standards. Test results indicate that the equipment tested is capable of demonstrating compliance with the requirements as documented within this report.


**Audix Technology Corp.** does not assume responsibility for any conclusions and generalizations drawn from the test results with regard to other specimens and samples.

Date of Report: 2017. 03. 16

Reviewed by:

 (Tina Huang/Administrator)

Approved by:

 (Ben Cheng/Manager)

## 1. REVISION RECORD OF TEST REPORT

Edition No	Issued Data	Revision Summary	Report Number
0	2017. 03. 16	Original Report	EM-F170101

## 2. SUMMARY OF TEST RESULTS

Rule	Description	Results
15.207	Conducted Emission	<b>PASS</b>
15.205	Radiated Band Edge and Radiated Spurious Emission	<b>PASS</b>
15.407(a)(5)/15.407(e)	Emission Bandwidth Measurement	<b>PASS</b>
15.407(a)	Maximum Output	<b>PASS</b>
15.407(b)	Conducted Band Edges and Conducted Spurious Emission	<b>PASS</b>
15.407(a)	Power Spectral Density	<b>PASS</b>
15.203	Antenna Requirement	<b>PASS</b>

### 3. GENERAL INFORMATION

#### 3.1. Description of Application

Applicant	Elitegroup Computer Systems Co., Ltd. No. 239, Sec. 2., TiDing Blvd., Taipei, Taiwan 11493
Product	7" Multi Function Pad
Model	mPAD2-7..... (The "." in the model name can be 0 to 9, A to Z, a to z, "-", "_", "\", "/" or blank for marketing use only)
Brand	ECS

### 3.2. Description of EUT

Test Model	mPAD2-7-CHT4-I	
Serial Number	N/A	
Power Rating	Refer to AC adapter rating.	
RF Features	WLAN: 802.11a/b/g/n/ac Bluetooth: BT and BLE NFC, GPS	
Transmit Type	2.4 GHz	
	802.11b	2T2R
	802.11g	2T2R
	802.11n-HT20	2T2R
	802.11n-HT40	2T2R
	BT/BLE	1T1R
	UNII Bands	
	802.11a	2T2R
	802.11n-HT20/ 802.11ac-VHT20	2T2R
	802.11n-HT40/ 802.11ac-VHT40	2T2R
	802.11ac-VHT80	2T2R
	13.56MHz	
	NFC	1T1R
Device Category	<input type="checkbox"/> Outdoor Access Point <input type="checkbox"/> Fixed point-to-point Access Point <input type="checkbox"/> Indoor Access Point <input checked="" type="checkbox"/> Mobile and Portable client device	



Accessories	<ul style="list-style-type: none"><li>• Barcode Scanner mPAD (Option)</li><li>• SCR mPAD (Option)</li><li>• MSR Module (Option)</li><li>• USB Ethernet mPAD (Option)</li><li>• 7" Pad Docking (Option)</li><li>• 30 Pin to USB Cable</li><li>• 30 Pin to HDMI Cable</li><li>• 30 Pin to DC Jack Cable</li><li>• Power Adapter</li></ul>
Date of Receipt	2017. 01. 25
Date of Test	2017. 02. 24 ~ 03. 15

### 3.3. EUT Specifications Assessed in Current Report

Mode	UNII Band	Fundamental Range (MHz)	Channel Number
802.11a	I	5180-5240	4
	II-2A	5260-5320	4
	II-2C	5500-5720	12
	III	5745-5825	5
802.11n-HT20/ 802.11ac-VHT20	I	5180-5240	4
	II-2A	5260-5320	4
	II-2C	5500-5720	12
	III	5745-5825	5
802.11n-HT40/ 802.11ac-VHT40	I	5190-5230	2
	II-2A	5270-5310	2
	II-2C	5510-5710	6
	III	5755-5795	2
802.11ac-VHT80	I	5210	1
	II-2A	5290	1
	II-2C	5530-5690	3
	III	5775	1
Remark: UNII Band II (DFS Function, Slave/no In service monitor, no Ad-Hoc mode)			

Mode	Modulation	Data Rate (Mbps)
802.11a	OFDM (BPSK/QPSK/16QAM/64QAM)	Up to 54
802.11n-HT20	OFDM (BPSK/QPSK/16QAM/64QAM)	Up to 144.4
802.11n-HT40		Up to 300
802.11ac-HT20	OFDM (BPSK/QPSK/16QAM/64QAM/256QAM)	Up to 173.3
802.11ac-HT40		Up to 400
802.11ac-VHT80		Up to 866.7

Channel List					
802.11a/802.11n-HT20/802.11ac-VHT20					
UNII Band	Channel Number	Frequency (MHz)	UNII Band	Channel Number	Frequency (MHz)
I	36	5180	II-2C	120	5600
	40	5200		124	5620
	44	5220		128	5640
	48	5240		132	5660
II-2A	52	5260		136	5680
	56	5280		140	5700
	60	5300		144	5720
	64	5320		149	5745
II-2C	100	5500	III	153	5765
	104	5520		157	5785
	108	5540		161	5805
	112	5560		165	5825
	116	5580			

Channel List					
802.11n-HT40/802.11ac-VHT40					
UNII Band	Channel Number	Frequency (MHz)	UNII Band	Channel Number	Frequency (MHz)
I	38	5190	II-2C	118	5590
	46	5230		126	5630
II-2A	54	5270		134	5670
	62	5310		142	5710
II-2C	102	5510	III	151	5755
	110	5550		159	5795

Channel List					
802.11ac-VHT80					
UNII Band	Channel Number	Frequency (MHz)	UNII Band	Channel Number	Frequency (MHz)
I	42	5210	II-2C	138	5690
II-2A	58	5290	III	155	5775
II-2C	106	5530			
	122	5610			

Note 1: 802.11ac has similar modulation to 802.11n at 20 MHz and 40 MHz bandwidths, we assess the worst case to be the representative mode in this report.

2: Test modes are presented at section 3.7.

### 3.4. Antenna Information

GPS Antenna					
No.	Antenna Part Number	Manufacture	Antenna Type	Frequency (MHz)	Max Gain (dBi)
1	13-130-JC5150	Joinsoon Electronics MFG. CO.,LTD	PCB	1510 to 1602	4.62

2.4G Antenna					
No.	Antenna Part Number	Manufacture	Antenna Type	Frequency (MHz)	Max Gain (dBi)
1	13-130-002075 (Tx1 Antenna)	Joinsoon Electronics MFG. CO.,LTD	PIFA	2400 to 2500	-2.53
2	13-130-002076 (Tx2 Antenna)		PIFA	2400 to 2500	-1.15

5G Antenna					
No.	Antenna Part Number	Manufacture	Antenna Type	Frequency (MHz)	Max Gain (dBi)
1	13-130-002075 (Tx1 Antenna)	Joinsoon Electronics MFG. CO.,LTD	PIFA	5150 to 5350	-0.53
2				5470 to 5725	0.82
3				5725 to 5850	0.82
4	13-130-002076 (Tx2 Antenna)	Joinsoon Electronics MFG. CO.,LTD	PIFA	5150 to 5350	0.90
5				5470 to 5725	0.53
6				5725 to 5850	0.53

### 3.5. Description of Key Components

#### 3.5.1. For the All Component Lists

Item	Supplier	Model / Type	Character
Main Board	ECS	TC71A	---
CPU (Socket: BGA1380)	Intel	Z8550	1.44GHz, up to 2.4GHz
Memory (On Board)	SK hynix	H9CCNNNBPTBL	LPDDR3 1600MHz 4GB
7" LCD Panel	KD	KD070D30-31NB-A18	LCD.WXGA.7.800*1280
Touch Module	TOPGROUP EETI	ZC-122A-0776AT EXC3102	Support 10-points multi-touch(Capacitive)
Storage	SanDisk	SDINADF4-64G	64GB
	SanDisk	SDIN9DW4-32G	32GB
Front Camera	Brodsands	BLX2722E-TC7AW-F	Front Camera : 2.0M
Rear Camera	Brodsands	BLX8858E-TC7AW-CB	Rear Camera: 8.0M
Wi-Fi +BT Module	Qualcomm (Azurewave)	QCNFA324 (AW-CM217NF)	Wi-Fi 802.11 a/b/g/n/ac + BT 4.0
GPS	Boradcam	BCM4752	GPS&GLONASS
NFC	NXP	NPC100	---
Battery	Sunwoda	MICA-071	3.7Vdc,4100mAh / 15.17Wh
AC Adapter	Asian Power Devices Inc.	WA-36A12R (Wall-mount, 2C)	I/P: AC 100-240V, 50-60Hz, 0.9A Max. O/P: DC 12V, 3A
		DC Power Cord: Unshielded, Undetachable, 1.8m With one ferrite core	
mPad Module (Option)	ECS	Barcode Scanner mPAD	Barcode Scanner
	ECS	SCR mPAD	Smart Card Reader (SCR)
	ECS	MSR mPAD	Magnetic Stripe Reader (MSR)
	ECS	USB Ethernet mPAD	Giga LAN Port
7" Pad Docking (Option)	ECS	DOCKING mPAD-7	Docking

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

3.5.2. The EUT collocates with following worst components, which are used to establish a basic configuration of system during test:

Item	Supplier	Model / Type	Character
Main Board	ECS	TC71A	---
CPU (Socket: BGA1380)	Intel	Z8550	1.44GHz, up to 2.4GHz
Memory (On Board)	SK hynix	H9CCNNNBPTBL	LPDDR3 1600MHz 4GB
7" LCD Panel	KD	KD070D30-31NB-A18	LCD.WXGA.7.800*1280
Touch Module	TOPGROUP EETI	ZC-122A-0776AT EXC3102	Support 10-points multi-touch(Capacitive)
Storage	SanDisk	SDIN9DW4-32G	32GB
Front Camera	Brodsands	BLX2722E-TC7AW-F	Front Camera : 2.0M
Rear Camera	Brodsands	BLX8858E-TC7AW-CB	Rear Camera: 8.0M
Wi-Fi +BT Module	Qualcomm (Azurewave)	QCNFA324 (AW-CM217NF)	Wi-Fi 802.11 a/b/g/n/ac + BT 4.0
GPS	Boradcam	BCM4752	GPS&GLONASS
NFC	NXP	NPC100	---
Battery	Sunwoda	MICA-071	3.7Vdc,4100mAh / 15.17Wh
AC Adapter	Asian Power Devices Inc.	WA-36A12R (Wall-mount, 2C)	I/P: AC 100-240V, 50-60Hz, 0.9A Max. O/P: DC 12V, 3A
		DC Power Cord: Unshielded, Undetachable, 1.8m With one ferrite core	
mPad Module (Option)	ECS	Barcode Scanner mPAD	Barcode Scanner
7" Pad Docking (Option)	ECS	DOCKING mPAD-7	Docking

### 3.6. Data Rate Relative to Output Power

802.11a				802.11ac-VHT20			
Channel	Modulation	Date Rate	Power (dBm)	Channel	Modulation	Date Rate	Power (dBm)
36	BPSK	6	16.96	36	BPSK	MCS8	19.12
36	QPSK	9	16.74	36	QPSK	MCS9	19.03
36	QPSK	12	16.32	36	QPSK	MCS10	18.85
36	16-QAM	18	16.53	36	16-QAM	MCS11	18.94
36	16-QAM	24	16.42	36	16-QAM	MCS12	18.76
36	64-QAM	36	16.25	36	64-QAM	MCS13	18.67
36	64-QAM	48	16.13	36	64-QAM	MCS14	18.47
36	64-QAM	54	16.02	36	64-QAM	MCS15	18.30

802.11ac-VHT40				802.11ac-VHT80			
Channel	Modulation	Date Rate	Power (dBm)	Channel	Modulation	Date Rate	Power (dBm)
38	BPSK	MCS8	13.43	42	BPSK	MCS8	13.25
38	QPSK	MCS9	13.29	42	QPSK	MCS9	13.06
38	QPSK	MCS10	13.05	42	QPSK	MCS10	12.92
38	16-QAM	MCS11	12.94	42	16-QAM	MCS11	12.75
38	16-QAM	MCS12	12.76	42	16-QAM	MCS12	12.61
38	64-QAM	MCS13	12.58	42	64-QAM	MCS13	12.48
38	64-QAM	MCS14	12.32	42	64-QAM	MCS14	12.39
38	64-QAM	MCS15	12.25	42	64-QAM	MCS15	12.29

Note: Above results are assessed in peak power.

### 3.7. Test Configuration

Mode	Duty Cycle (x)	T (ms)	Duty Cycle Factor (dB)
802.11a	0.95	2.02	1.05
802.11n-HT20/802.11ac-VHT20	0.65	0.1944	1.54
802.11n-HT40/802.11ac-VHT40	0.53	0.1152	1.89
802.11ac-VHT80	0.46	0.076	2.17

Note: When duty cycle is less than 98% (0.98) that duty cycle factor  $10\log(1/x)$  is needed to add in conducted test items measured in average detector.

AC Conduction	
Test Case	Normal operation

Item		Mode	Data Rate	Test Channel
Radiated Test Case	Radiated Band Edge <small>Note1</small>	802.11a	6 Mbps	36/64/100/140/144
		802.11ac-VHT20	MCS8	38/62/102/134/142
		802.11ac-VHT40	MCS8	42/58/106/122/138
		802.11ac-VHT80	MCS8	48/52/120/144/165
	Radiated Spurious Emission <small>Note1 &amp; 2</small>	802.11a	6 Mbps	48/52/120/144/165
		802.11ac-VHT20	MCS8	46/54/118/142/159
		802.11ac-VHT40	MCS8	42/58/122/138/155
		802.11ac-VHT80	MCS8	36/40/48/52/60/64 100/120/140/144/149/157/165
Conducted Test Case	Emission Bandwidth	802.11a	6 Mbps	36/40/48/52/60/64 100/120/140/144/149/157/165
		802.11ac-VHT20	MCS8	38/46/54/62/102 118/134/142/151/159
		802.11ac-VHT40	MCS8	42/58/106/122/138/155
		802.11ac-VHT80	MCS8	36/40/48/52/60/64 100/120/140/144/149/157/165
	Maximum output power	802.11a	6 Mbps	36/40/48/52/60/64 100/120/140/144/149/157/165
		802.11ac-VHT20	MCS8	38/46/54/62/102 118/134/142/151/159
		802.11ac-VHT40	MCS8	42/58/106/122/138/155
		802.11ac-VHT80	MCS8	36/40/48/52/60/64 100/120/140/144/149/157/165
	Emission Limitations	802.11a	6 Mbps	36/40/48/52/60/64 100/120/140/144/149/157/165
		802.11ac-VHT20	MCS8	38/46/54/62/102 118/134/142/151/159
		802.11ac-VHT40	MCS8	42/58/106/122/138/155
		802.11ac-VHT80	MCS8	36/40/48/52/60/64 100/120/140/144/149/157/165
	Power spectral density	802.11a	6 Mbps	36/40/48/52/60/64 100/120/140/144/149/157/165
		802.11ac-VHT20	MCS8	38/46/54/62/102 118/134/142/151/159
		802.11ac-VHT40	MCS8	42/58/106/122/138/155
		802.11ac-VHT80	MCS8	36/40/48/52/60/64 100/120/140/144/149/157/165

Note 1:

■ Mobile Device: Device was pre-assessed with docking and portable (3 axis), the worst case is tested with docking.

□ Portable Device, and 3 axis were assessed.

□ Lie

□ Side

□ Stand

Note 2: Low, mid, and high channels were measured, only the worst channel of each modulation was presented in this report.

### 3.8. Tested Supporting System List

#### 3.8.1. Support Peripheral Unit

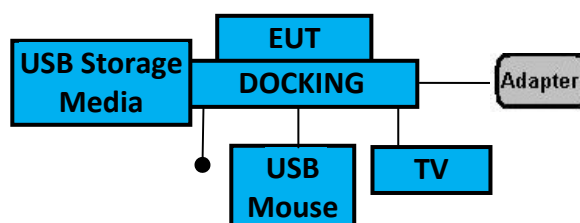
No.	Product	Brand	Model No.	Serial No.	FCC ID
1.	TV	LG	22LK330-DB	N/A	N/A
2.	USB Mouse	DELL	MOC5UO	J0M02S8L	By DoC
3.	USB Storage Media	Toshiba	Hayabusa	N/A	N/A

#### 3.8.2. Cable Lists

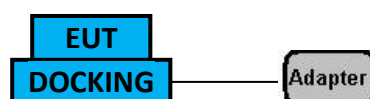
No.	Cable Description Of The Above Support Units
1.	HDMI Cable: Unshielded, Detachable, 1.0m AC Power Cord: Unshielded, Detachable, 1.5m
2.	USB Cable: Unshielded, Detachable, 1.5m
3.	---
4.	LAN Cable: Unshielded, Detachable, 1.0m

### 3.9. Setup Configuration

#### 3.9.1. EUT Configuration for Power Line & Radiated Emission



#### 3.9.2. EUT Configuration for RF Conducted Test Items





### 3.10. Operating Condition of EUT

Test program “QCA Radio Control Toolkit” is used for enabling EUT WLAN function under continues transmitting and choosing data rate/ channel.

### 3.11. Description of Test Facility

Name of Test Firm	Audix Technology Corporation / EMC Department No. 53-11, Dingfu, Linkou Dist., New Taipei City 244, Taiwan Tel: +886-2-26092133 Fax: +886-2-26099303 Website : www.audixtech.com Contact e-mail: sales@audixtech.com
Accreditations	The laboratory is accredited by following organizations under ISO/IEC 17025:2005 (1) NVLAP(USA) NVLAP Lab Code 200077-0 (2) TAF(Taiwan) No. 1724 (3) FCC OET Designation No. TW1004 & TW1090
Test Facilities	(1) No. 8 Shielding Room (2) Semi-Anechoic Chamber (IC Test Site Registration No.: 5183B-1) (3) Fully Anechoic Chamber (IC Test Site Registration No.: 5183B-4)

### 3.12. Measurement Uncertainty

Test Item	Frequency Range	Uncertainty
Conduction Test	150kHz~30MHz	±3.50dB
Radiation Test (Distance: 3m)	30MHz~1000MHz	± 3.68dB
	Above 1GHz	± 5.82dB

Remark : Uncertainty =  $ku_c(y)$

Test Item	Uncertainty
Emission Bandwidth	± 0.2kHz
Maximum output power	± 0.33dB
Power spectral density	± 0.13dB
Conducted Emission Limitations	± 0.13dB

## 4. MEASUREMENT EQUIPMENT LIST

### 4.1. Conducted Emission Measurement

Item	Type	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
1.	Test Receiver	R&S	ESR3	101774	2017. 02. 07	2018. 02. 06
2.	A.M.N.	R&S	ENV4200	100169	2016. 04. 21	2017. 04. 20
3.	L.I.S.N.	Kyoritsu	KNW-407	8-855-9	2016. 12. 23	2017. 12. 22
4.	Pulse Limiter	R&S	ESH3-Z2	100354	2017. 01. 16	2018. 01. 15
5.	Test Software	Audix	e3	V.6.120424	N.C.R.	N.C.R.

### 4.2. Radiated Emission Measurement

Item	Type	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
1.	Spectrum Analyzer	Agilent	N9010A-526	MY53400071	2016. 09. 19	2017. 09. 18
2.	Spectrum Analyzer	Agilent	N9010A-526	MY52220368	2016. 12. 01	2017. 11. 30
3.	Test Receiver	R & S	ESCS30	100338	2016. 06. 22	2017. 06. 21
4.	Amplifier	HP	8447D	2944A06305	2017. 02. 16	2018. 02. 15
5.	Amplifier	Sonoma	310N	187161	2016. 06. 14	2017. 06. 13
6.	Bilog Antenna	CHASE	CBL6112D	33821	2017. 01. 21	2018. 01. 20
7.	Loop Antenna	R&S	HFH2-Z2	891847/27	2016. 12. 23	2017. 12. 22
8.	Double-Ridged Waveguide Horn	ETS-Lindgren	3117	00135902	2016. 03. 09	2017. 03. 08
9.	Horn Antenna	EMCO	3116	2653	2016. 10. 24	2017. 10. 23
10.	5G Notch Filter	Microwave Circuits	N0452502	459775	2017. 01. 27	2018. 01. 26
11.	5G Notch Filter	Microwave Circuits	N0555983	459481	2016. 05. 21	2017. 05. 20
12.	5G Notch Filter	Microwave Circuits	N0257881	459776	2017. 01. 27	2018. 01. 26
13.	Test Software	Audix	e3	V.6.110601	N.C.R.	N.C.R.

### 4.3. RF Conducted Measurement

Item	Type	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
1.	Spectrum Analyzer	Keysight	N9010B-544	MY55460198	2016. 04. 20	2017. 04. 19
2.	Power Meter	Anritsu	ML2495A	1145008	2016. 10. 27	2017. 10. 26
3.	Power Sensor	Anritsu	MA2411B	1126096	2016. 10. 27	2017. 10. 26

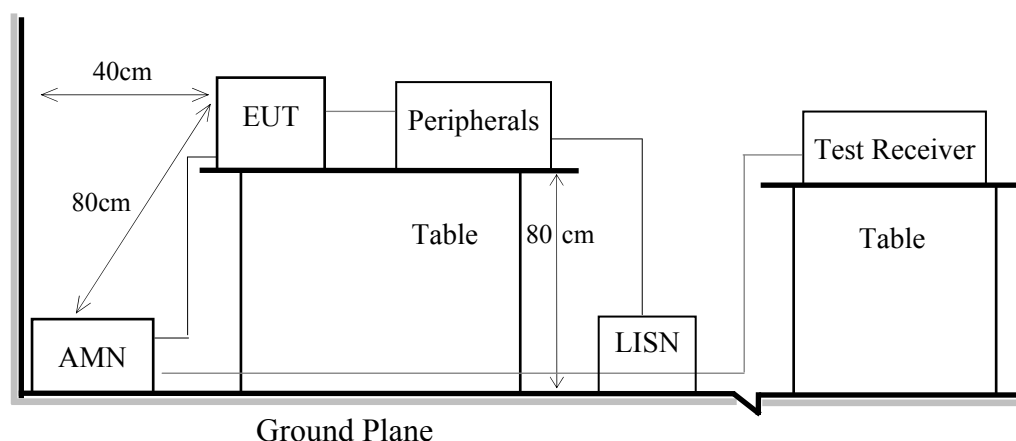
## 5. CONDUCTED EMISSION

### 5.1. Block Diagram of Test Setup

#### 5.1.1. Block Diagram of EUT

Indicated as section 3.9

#### 5.1.2. Shielded Room Setup Diagram



### 5.2. Conducted Emission Limit

Frequency	Conducted Limit	
	Quasi-Peak Level	Average Level
150kHz ~ 500kHz	66 ~ 56 dB $\mu$ V	56 ~ 46 dB $\mu$ V
500kHz ~ 5MHz	56 dB $\mu$ V	46 dB $\mu$ V
5MHz ~ 30MHz	60 dB $\mu$ V	50 dB $\mu$ V

Remark 1.: If the average limit is met when using a Quasi-Peak detector, the measurement using the average detector is not required.

2.: The lower limit applies to the band edges.

### 5.3. Test Procedure

- 5.3.1. To set up the EUT as indicated in ANSI C 63.10. The EUT was placed on the table which has 80 cm height to the ground and 40 cm distance to the conducting wall.
- 5.3.2. Power supplier of the EUT was connected to the AC mains through an Artificial Mains Network (A.M.N.).
- 5.3.3. The AC power supplies to all peripheral devices must be provided through line impedance stabilization network (L.I.S.N.)
- 5.3.4. Checking frequency range from 150 kHz to 30 MHz and record the emission which does not have 20 dB below limit.

## **5.4. Test Results**

Please refer to Appendix A.

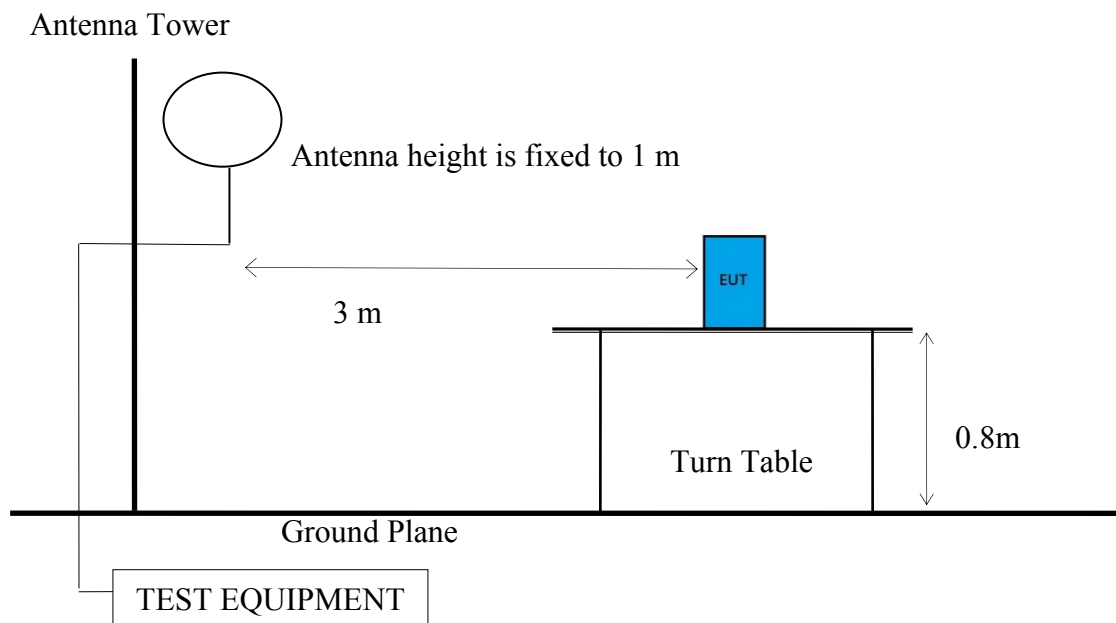
## 6. RADIATED EMISSION

### 6.1. Block Diagram of Test Setup

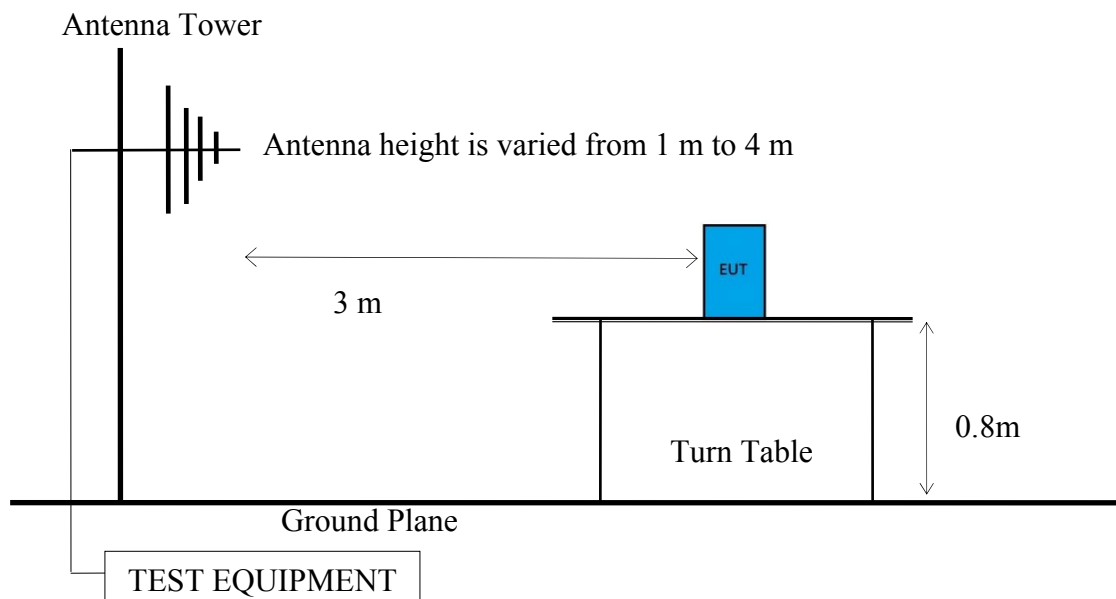
#### 6.1.1. Block Diagram of EUT

Indicated as section 3.9

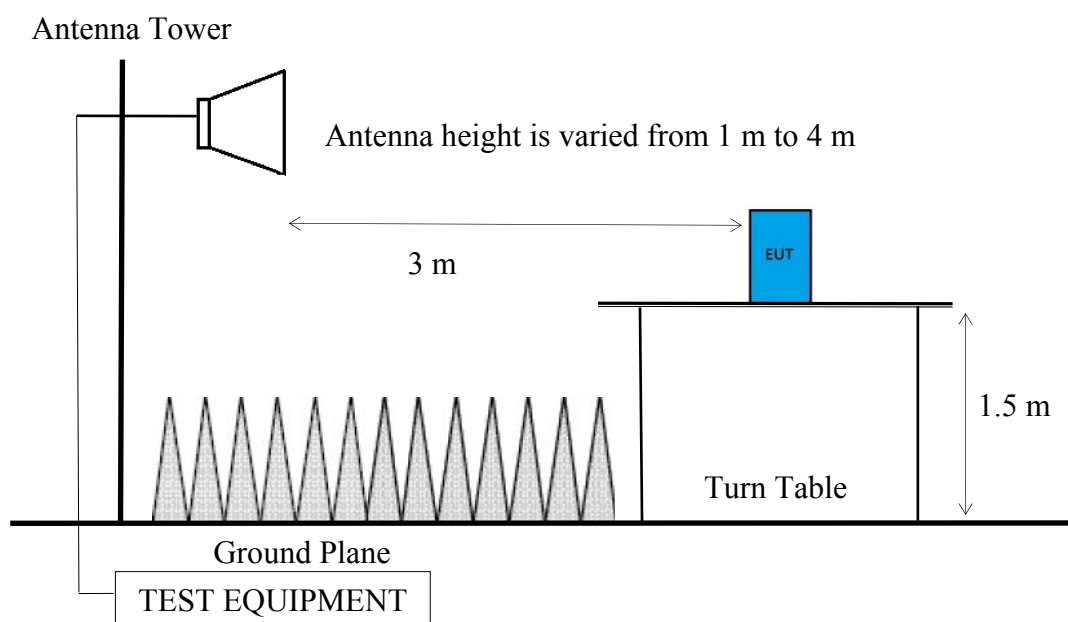
#### 6.1.2. Setup Diagram for 9kHz-30MHz



#### 6.1.3. Setup Diagram for 30-1000 MHz



#### 6.1.4. Setup Diagram for above 1GHz



## 6.2. Radiated Emission Limits

Radiated emissions fall in restricted bands, as defined in Section 15.205 must be in compliance with the radiated emission limits specified in 15.209 as below.

### 6.2.1. General Limit

Frequency (MHz)	Distance (m)	Limits	
		dB $\mu$ V/m	$\mu$ V/m
0.009 - 0.490	300	67.6	2400/kHz
0.490 - 1.705	30	87.6	24000/kHz
1.705 - 30	30	29.5	30
30 - 88	3	40.0	100
88- 216	3	43.5	150
216- 960	3	46.0	200
Above 960	3	54.0	500
Above 1000	3	74.0 dB $\mu$ V/m (Peak) 54.0 dB $\mu$ V/m (Average)	

Remark : (1) dB $\mu$ V/m = 20 log ( $\mu$ V/m)

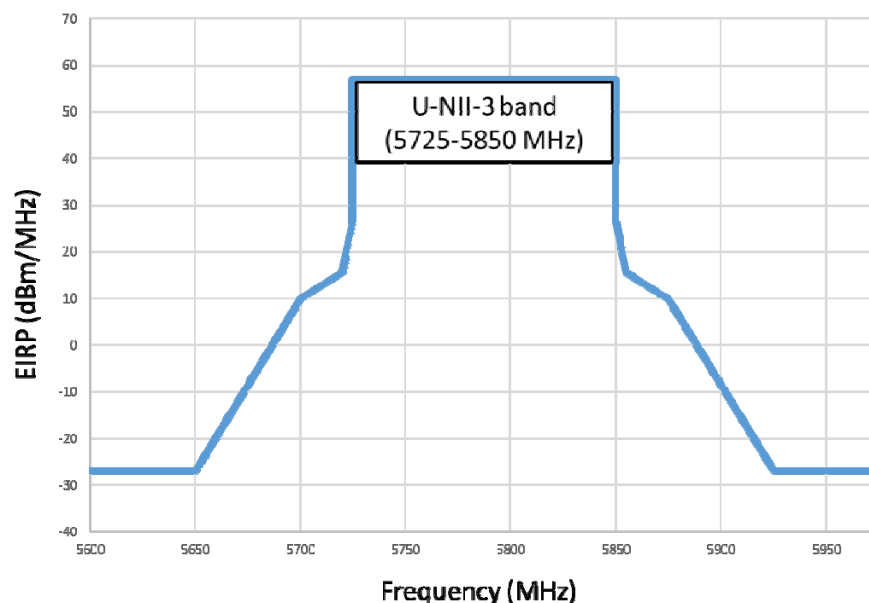
- (2) The tighter limit applies to the edge between two frequency bands.
- (3) Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.
- (4) Fundamental and emission fall within operation band are exempted from this section.
- (5) Pursuant to ANSI C63.10: 6.6.4.3, if the maximized peak measured value complies with the average limit, then it is unnecessary to perform an average measurement.

### 6.2.2. Limit for non-restricted frequency above 1 GHz

Frequency Band (MHz)	E.I.R.P. Limit	Field Strength Limit at 3 m
5150 to 5250	-27 dBm	68.2
5250 to 5350		68.2
5470 to 5725		68.2

Note: Field Strength at 3 m= E.I.R.P. + 95.2 dB

Frequency Band (MHz)	Field Strength Limit at 3 m	
5725 to 5850	<input checked="" type="checkbox"/>	15.407(b)(4)(i) All emissions shall be limited to a level of 68.2 dBμV/m at 75 MHz or more above or below the band edge increasing linearly to 105.2dBμV/m 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 110.8 dBμV/m 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 68.2 dBμV/m at the band edge.
	<input type="checkbox"/>	15.407(b)(4)(ii) ,compliance with the emission limits in § 15.247(d) Shall be at least 30dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power,. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c))



### 6.3. Test Procedure

#### **Frequency Range 9kHz~30MHz:**

The EUT setup on the turn table which has 0.8 m height to the ground. The turn table rotated 360 degrees and antenna fixed to 1 m to find the maximum emission level. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.10-2013 regulation.

- (1) RBW = 9kHz with peak and average detector.
- (2) Detector: average and peak (9kHz-490kHz)  
Q.P. (490kHz-30MHz)

#### **Frequency Range 30MHz ~ 40GHz:**

The EUT setup on the turn find table which has 80 cm (for 30-1000 MHz) and 1.5m (for above 1GHz) height to the ground. The turn table rotated 360 degrees and antenna varied from 1 m to 4 m to find the maximum emission level. Both horizontal and vertical polarization are required. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.10-2013 regulation.

#### **Frequency below 1 GHz:**

Spectrum Analyzer is used for pre-testing with following setting:

- (1) RBW = 120KHz
- (2) VBW  $\geq 3 \times$  RBW.
- (3) Detector = Peak.
- (4) Sweep time = auto.
- (5) Trace mode = max hold.
- (6) Allow sweeps to continue until the trace stabilizes.
- (7) When peak-detected value is lower than limit that the measurement using the Q.P. detector is not required. Otherwise using Q.P. for finally measurement.

#### **Frequency above 1GHz to 10th harmonic (up to 40 GHz):**

##### **Peak Detector:**

- (1) RBW = 1MHz
- (2) VBW  $\geq 3 \times$  RBW.
- (3) Detector = Peak.
- (4) Sweep time = auto.
- (5) Trace mode = max hold.
- (6) Allow sweeps to continue until the trace stabilizes.
- (7) When peak-detected value is lower than limit that the measurement using the average detector is not required. Otherwise using average detector for finally measurement.



**Average Detector:**☒ **Option 1:**

(1) RBW = 1MHz

(2) VBW  $\geq 1/T$ .

Modulation Type	T (ms)	1/ T (kHz)	VBW Setting (kHz)
802.11a	2.02	0.495	0.51
802.11ac-VHT20	0.1944	5.144	5.1
802.11ac-VHT40	0.1152	8.681	9.1
802.11ac-VHT80	0.076	13.158	13.0

N/A: 1/ T is not implemented when duty cycle presented in section 3.7 is  $\geq 98\%$ .

(1) Detector = Peak.

(2) Sweep time = auto.

(3) Trace mode = max hold.

(4) Allow sweeps to continue until the trace stabilizes.

☐ **Option 2:**

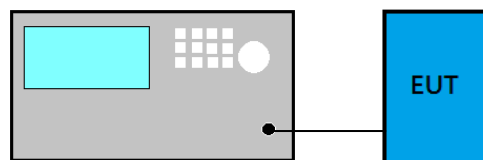
Average Emission Level = Peak Emission Level + D.C.C.F.

**6.4. Measurement Result Explanation**☒ Peak Emission Level = Antenna Factor + Cable Loss + Meter Reading☒ Average Emission Level = Antenna Factor + Cable Loss + Meter Reading☐ Average Emission Level = Peak Emission Level + DCCFDuty Cycle Correction Factor (DCCF) =  $20\log(TX_{on}/TX_{on+off})$  presented in section 3.7☐ ERP = Peak Emission Level - 95.2dB - 2.14dB**6.5. Test Results**

Please refer to Appendix A.

## 7. EMISSION BANDWIDTH

### 7.1. Block Diagram of Test Setup



### 7.2. Specification Limits

Frequency Band (MHz)	Limit
5150 to 5250	Reference only
5250 to 5350	
5470 to 5725	
5725 to 5850	$\geq 500\text{kHz}$

### 7.3. Test Procedure

Following measurement procedure is reference to KDB 789033 D02 General UNII Test Procedures New Rules v01r02:

■ Applicable to all bands except to 5725 MHz- 5850 MHz

- (1) Set RBW = 1% of the emission bandwidth
- (2) Set VBW > RBW
- (3) Detector = Peak
- (4) Trace mode = max hold
- (5) Setting channel bandwidth function x dB to -26 dB to record the final bandwidth.

■ 5725 MHz- 5850 MHz

- (1) Set RBW = 100 kHz.
- (2) Set the video bandwidth (VBW)  $\geq 3 \times \text{RBW}$ .
- (3) Detector = Peak.
- (4) Trace mode = max hold.
- (5) Sweep = auto couple.
- (6) Allow the trace to stabilize.
- (7) Setting channel bandwidth function x dB to -6 dB to record the final bandwidth.

### 7.4. Test Results

Please refer to Appendix A

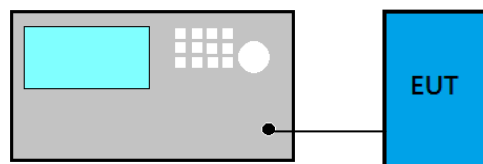
## 8. MAXIMUM OUTPUT POWER

### 8.1. Block Diagram of Test Setup

- 8.1.1. For except 802.11ac-VHT80, 802.11a/802.11ac-VHT20 (5720MHz) and 802.11ac-VHT40 (5710MHz)



- 8.1.2. 802.11ac-VHT80, 802.11a/802.11ac-VHT20 (5720MHz) and 802.11ac-VHT40 (5710MHz)



### 8.2. Specification Limits

Frequency Band (MHz)	Category	Limit
5150 to 5250	Outdoor Access Point	1 W(30 dBm)/ Max e.i.r.p. $\leq 125$ mW(21 dBm) at any elevation angle above 30 degrees as measured from the horizon
	Fixed point-to-point Access Point	1 W(30 dBm)
	Indoor Access Point	1 W(30 dBm)
	Mobile and Portable client device	250 mW(24 dBm)
5250 to 5350	N/A	250 mW or $11 \text{ dBm} + 10 \log B^{\text{Note1}}$
5470 to 5725		250 mW or $11 \text{ dBm} + 10 \log B^{\text{Note1}}$
5725 to 5850		1 W(30 dBm)

Note 1: B is the 26 dB emission bandwidth, which presented in section 7 and appendix A.1.

### 8.3. Test Procedure

Following measurement procedure is reference to KDB 789033 D02 General UNII Test Procedures New Rules v01r02:

■ **Method AVGPM (Measurement using an RF average power meter):**

EUT is connected to power sensor and record the maximum average output power and duty cycle factor is added when duty cycle presented in section 3.5 is < 98%.

■ **Method AVGSA-2 (Spectrum channel power)**

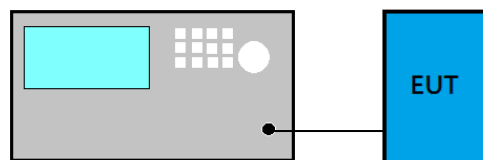
- (1) Set span to at least 1.5 times the OBW
- (2) Set RBW = 1 MHz
- (3) Set the video bandwidth (VBW)  $\geq$  3 MHz.
- (4) Detector = RMS.
- (5) Trace mode = trace average at least 100 traces
- (6) Sweep = auto couple.
- (7) Compute power by integrating the spectrum across the OBW of the signal using the instrument's band power measurement function with band limits set equal to the OBW band edges.
- (8) Duty cycle factor is added when duty cycle presented in section 3.7 is < 98%.

### 8.4. Test Results

Please refer to Appendix A

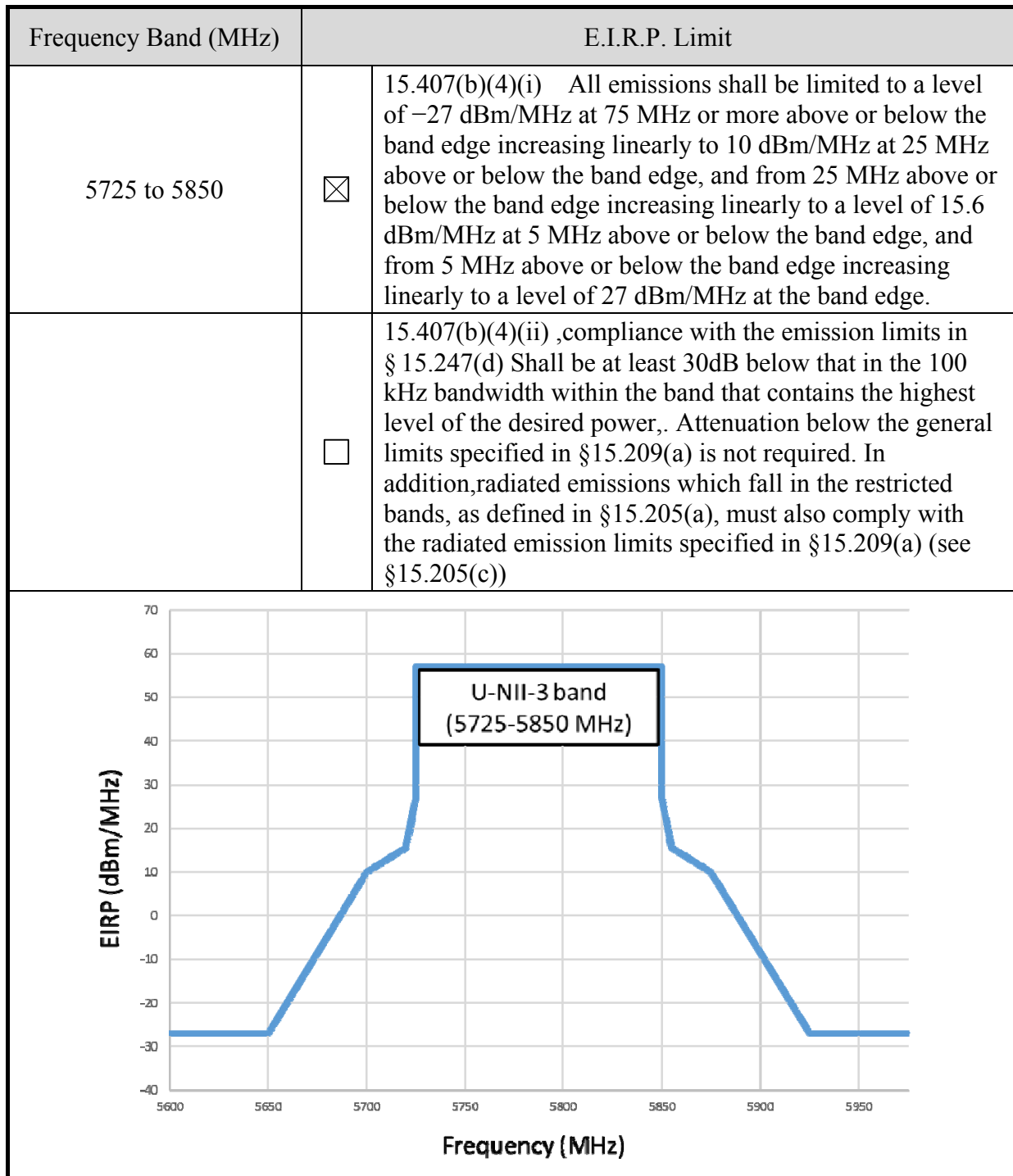
## 9. EMISSION LIMITATIONS MEASUREMENT

### 9.1. Block Diagram of Test Setup



### 9.2. Specification Limits

Frequency Band (MHz)	E.I.R.P. Limit
5150 to 5250	-27 dBm
5250 to 5350	
5470 to 5725	



### **9.3. Test Procedure**

Following measurement procedure is reference to KDB 789033 D02 General UNII Test Procedures New Rules v01r02:

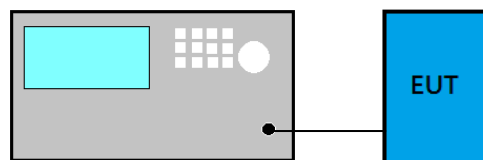
- (1) RBW = 1 MHz
- (2) VBW  $\geq 3 \times$  RBW
- (3) Detector = Peak
- (4) Sweep time = auto
- (5) Trace mode = max hold
- (6) Allow sweeps to continue until the trace stabilizes.

### **9.4. Test Results**

Please refer to Appendix A

## 10. POWER SPECTRAL DENSITY

### 10.1. Block Diagram of Test Setup



### 10.2. Specification Limits

Frequency Band (MHz)	Category	Limit
5150 to 5250	Outdoor Access Point	17dBm
	Fixed point-to-point Access Point	
	Indoor Access Point	
	Mobile and Portable client device	11 dBm/MHz
5250 to 5350	N/A	11 dBm/MHz
5470 to 5725		11 dBm/MHz
5725 to 5850		30dBm/500 kHz

### 10.3. Test Procedure

Following measurement procedure is reference to KDB 789033 D02 General UNII Test Procedures New Rules v01r02:

#### ■ Method AVGSA-2 (Spectrum channel power)

- (1) Set span to at least 1.5 times the OBW
- (2) Set RBW = 1 MHz
- (3) Set the video bandwidth (VBW)  $\geq 3$  MHz.
- (4) Detector = RMS.
- (5) Trace mode = trace average at least 100 traces
- (6) Sweep = auto couple.
- (7) Use peak search function to find out the maximum power density.
- (8) Duty cycle factor is added when duty cycle presented in section 3.7 is  $< 98\%$ .

### 10.4. Test Results

Please refer to Appendix A



## 11.DEVIATION TO TEST SPECIFICATIONS

【NONE】



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---

**APPENDIX A**

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# APPDNDIX A

## TEST DATA AND PLOTS

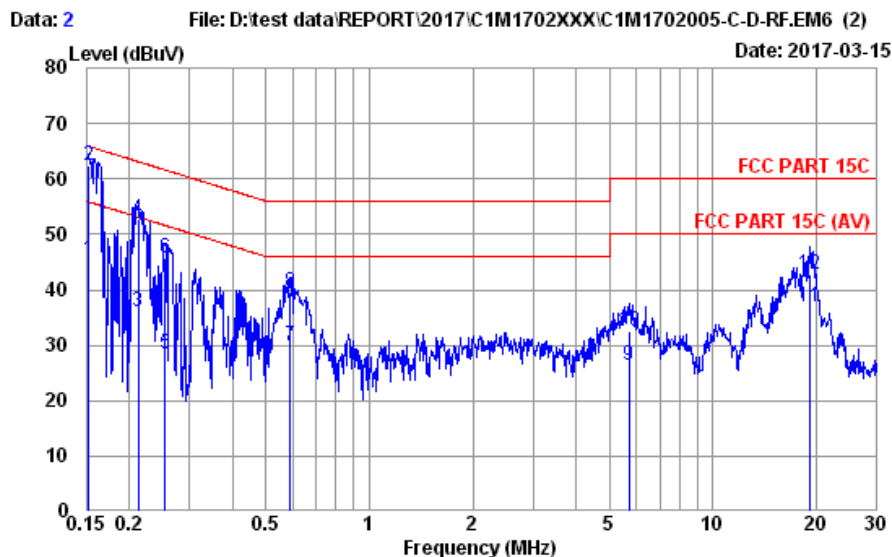
(Model: mPAD2-7-CHT4-I)

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## A.1 CONDUCTED EMISSION

Test Date	2017/03/15	Temp./Hum.	23°C/52%
Test Voltage	AC 120V, 60Hz (with Docking via AC Adapter)		

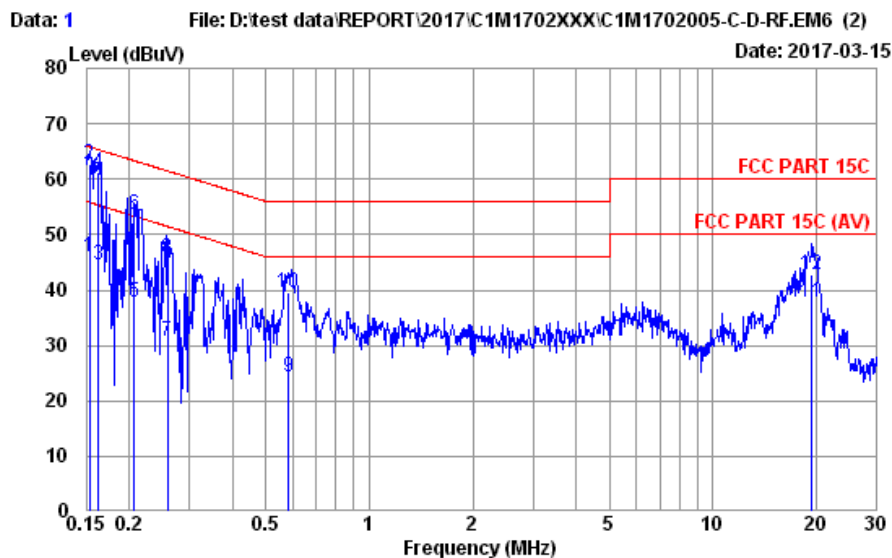


Site no. : No.8 Shielded Room Data no. : 2  
Condition : ENV4200 358/003 LISN Phase : NEUTRAL  
Limit : FCC PART 15C  
Env. / Ins. : 23°C / 52% ESR3 (1774) Engineer : Jemy  
EUT : mPAD-7-CHT4-I  
Power Rating : 120Vac/60Hz  
Test Mode : Operating

	Freq. (MHz)	AMN Factor (dB)	Cable Loss (dB)	Pulse Att. (dB)	Reading (dBμV)	Emission Level (dBμV)	Limits (dBμV)	Margin (dB)	Remark
1	0.152	10.30	0.03	9.86	25.11	45.30	55.88	10.58	Average
2	0.152	10.30	0.03	9.86	42.19	62.38	65.88	3.50	QP
3	0.213	10.33	0.03	9.86	15.96	36.18	53.10	16.92	Average
4	0.213	10.33	0.03	9.86	32.39	52.61	63.10	10.49	QP
5	0.255	10.32	0.03	9.86	8.28	28.49	51.59	23.10	Average
6	0.255	10.32	0.03	9.86	25.45	45.66	61.59	15.93	QP
7	0.588	10.28	0.05	9.86	9.66	29.85	46.00	16.15	Average
8	0.588	10.28	0.05	9.86	19.27	39.46	56.00	16.54	QP
9	5.711	10.29	0.14	9.87	5.99	26.29	50.00	23.71	Average
10	5.711	10.29	0.14	9.87	12.31	32.61	60.00	27.39	QP
11	19.240	10.14	0.26	9.93	16.48	36.81	50.00	13.19	Average
12	19.240	10.14	0.26	9.93	22.55	42.88	60.00	17.12	QP

Remarks: 1. Emission Level= AMN Factor + Cable Loss + Pulse Att. + Reading.  
2. If the average limit is met when using a quasi-peak detector, the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.

Test Date	2017/03/15	Temp./Hum.	23°C/52%
Test Voltage	AC 120V, 60Hz (with Docking via AC Adapter)		



Site no. : No.8 Shielded Room Data no. : 1  
Condition : ENV4200 358/003 LISN Phase : LINE  
Limit : FCC PART 15C  
Env. / Ins. : 23°C / 52% ESR3 (1774) Engineer : Jemy  
EUT : mPAD-7-CHT4-I  
Power Rating : 120Vac/60Hz  
Test Mode : Operating

	Freq. (MHz)	AMN Factor (dB)	Cable Loss (dB)	Pulse Att. (dB)	Reading (dBμV)	Emission Level (dBμV)	Limits (dBμV)	Margin (dB)	Remark
1	0.154	10.22	0.03	9.86	25.94	46.05	55.80	9.75	Average
2	0.154	10.22	0.03	9.86	42.48	62.59	65.80	3.21	QP
3	0.162	10.23	0.03	9.86	24.43	44.55	55.34	10.79	Average
4	0.162	10.23	0.03	9.86	41.18	61.30	65.34	4.04	QP
5	0.207	10.27	0.03	9.86	17.54	37.70	53.32	15.62	Average
6	0.207	10.27	0.03	9.86	33.52	53.68	63.32	9.64	QP
7	0.258	10.27	0.03	9.86	10.75	30.91	51.49	20.58	Average
8	0.258	10.27	0.03	9.86	25.64	45.80	61.49	15.69	QP
9	0.583	10.24	0.05	9.86	4.28	24.43	46.00	21.57	Average
10	0.583	10.24	0.05	9.86	19.50	39.65	56.00	16.35	QP
11	19.410	10.09	0.27	9.93	17.45	37.74	50.00	12.26	Average
12	19.410	10.09	0.27	9.93	22.41	42.70	60.00	17.30	QP

Remarks: 1. Emission Level= AMN Factor + Cable Loss + Pulse Att. + Reading.  
2. If the average limit is met when using a quasi-peak detector,  
the EUT shall be deemed to meet both limits and measurement  
with average detector is unnecessary.

## A.2 RADIATED EMISSION

Test Date	2017/02/24	Temp./Hum.	23°C/53%
Test Voltage	AC 120V, 60Hz (with Docking via AC Adapter)		

### A.2.1 Emissions within Restricted Frequency Bands

#### A.2.1.1 Frequency 9kHz~30MHz

**The emissions (9kHz~30MHz) not reported for there is no emission be found.**

#### A.2.1.2 Frequency Below 1 GHz

Mode	802.11a	UNII Band	II
		Frequency	TX 5200MHz

#### Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
157.07	10.98	2.90	15.40	29.28	43.50	14.22	Peak
230.79	11.57	3.64	25.26	40.47	46.00	5.53	Peak
353.01	15.00	5.01	18.71	38.72	46.00	7.28	Peak
522.76	17.45	6.50	3.75	27.70	46.00	18.30	Peak

#### Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
47.46	10.95	1.53	18.44	30.92	40.00	9.08	Peak
230.79	11.57	3.64	19.19	34.40	46.00	11.60	Peak
353.01	15.00	5.01	7.98	27.99	46.00	18.01	Peak
615.88	18.43	6.81	6.10	31.34	46.00	14.66	Peak

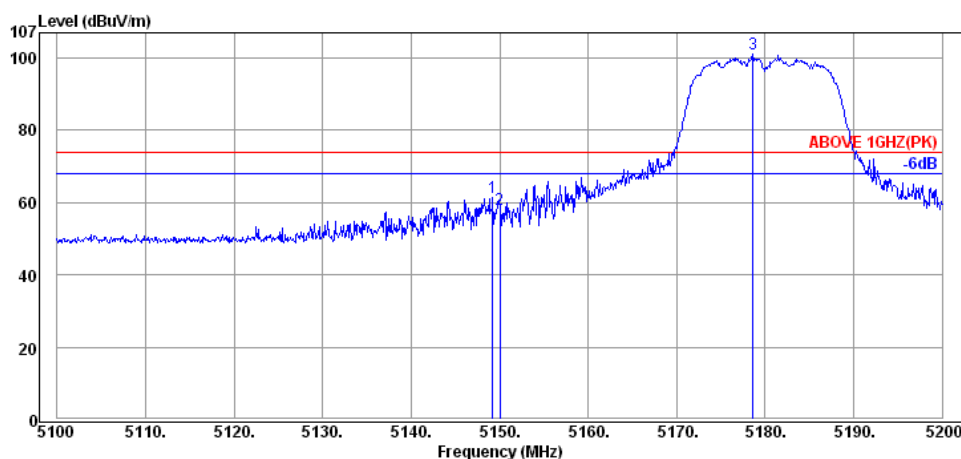
AUDIX Technology Corp.  
No. 53-11, Dingfu, Linkou, Dist.,  
New Taipei City 244, Taiwan

Tel: +886 2 26099301  
Fax: +886 2 26099303

### A.2.1.3 Frequency Above 1 GHz to 10<sup>th</sup> harmonics

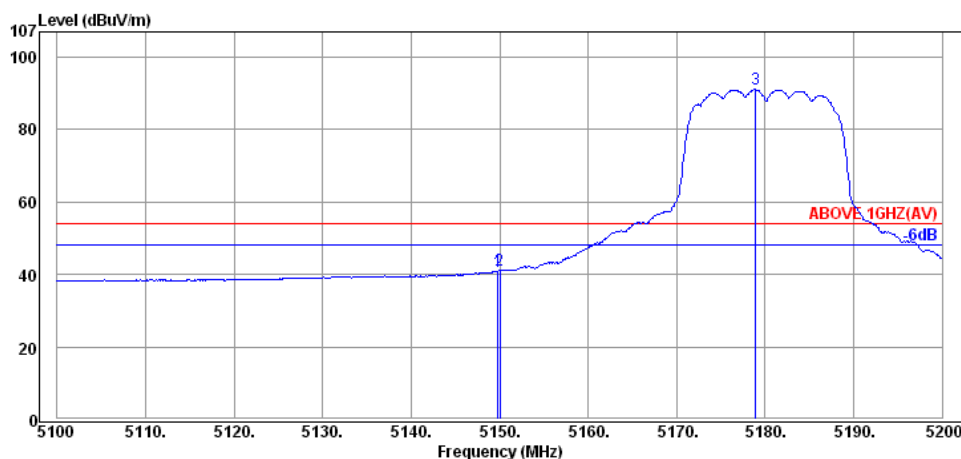
#### Band Edge:

Mode	802.11a	UNII Band	I
		Frequency	TX 5180MHz



#### Antenna at Horizontal Polarization

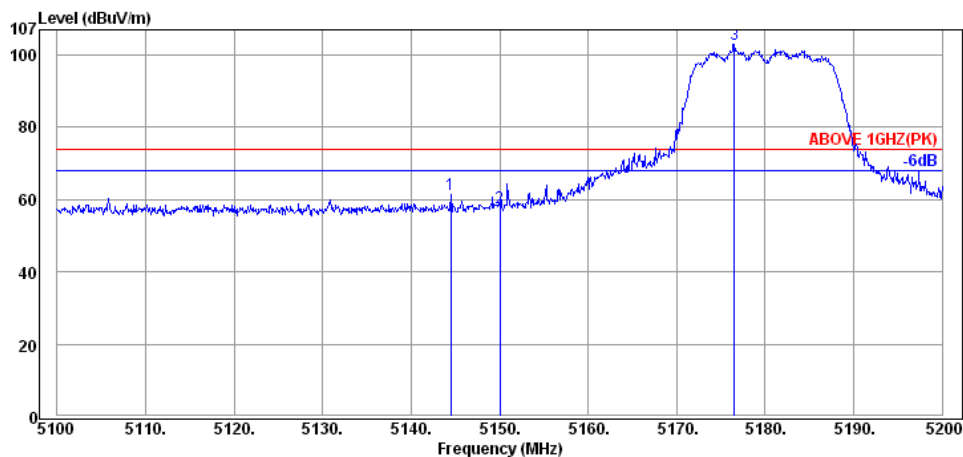
Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5149.20	34.45	8.84	18.20	61.49	74.00	12.51	Peak
5150.00	34.45	8.84	14.65	57.94	74.00	16.06	Peak
5178.60	34.48	8.77	57.79	101.04	---	---	Peak



#### Antenna at Horizontal Polarization

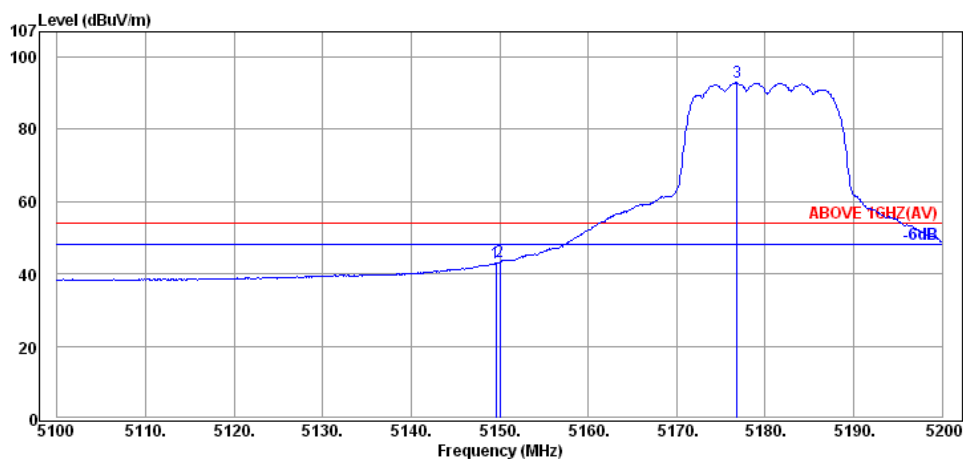
Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5149.80	34.45	8.84	-2.38	40.91	54.00	13.09	Average
5150.00	34.45	8.84	-2.21	41.08	54.00	12.92	Average
5178.90	34.48	8.77	47.78	91.03	---	---	Average

Mode	802.11a	UNII Band	I
		Frequency	TX 5180MHz



#### Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5144.50	34.45	8.84	17.95	61.24	74.00	12.76	Peak
5150.00	34.45	8.84	14.38	57.67	74.00	16.33	Peak
5176.50	34.48	8.77	59.78	103.03	---	---	Peak



#### Antenna at Vertical Polarization

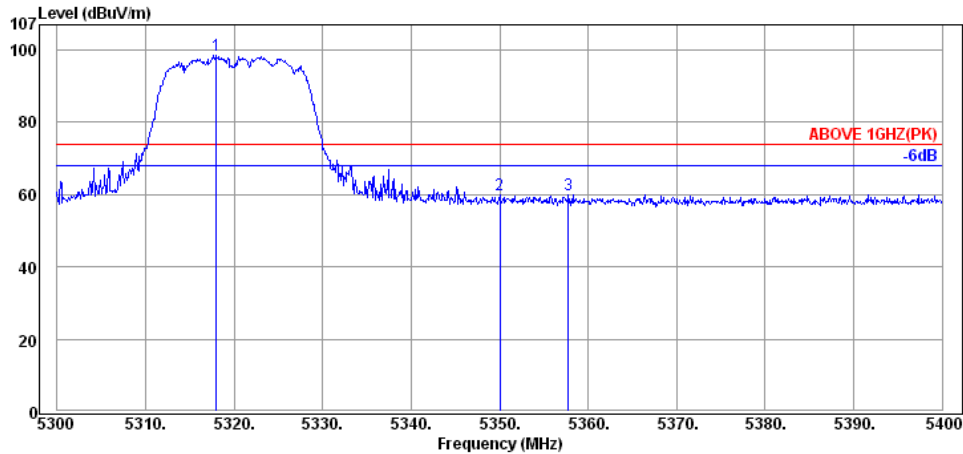
Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5149.60	34.45	8.84	-0.30	42.99	54.00	11.01	Average
5150.00	34.45	8.84	0.00	43.29	54.00	10.71	Average
5176.80	34.48	8.77	49.71	92.96	---	---	Average



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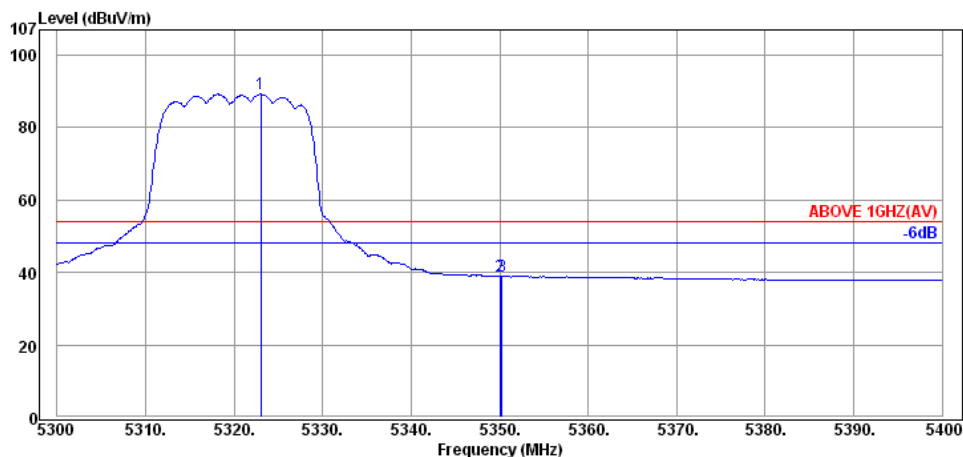
Tel: +886 2 26099301  
Fax: +886 2 26099303

Mode	802.11a	UNII Band	II-2A
		Frequency	TX 5320MHz



#### Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5318.00	34.62	8.70	55.32	98.64	---	---	Peak
5350.00	34.65	8.61	16.76	60.02	74.00	13.98	Peak
5357.80	34.65	8.61	16.84	60.10	74.00	13.90	Peak



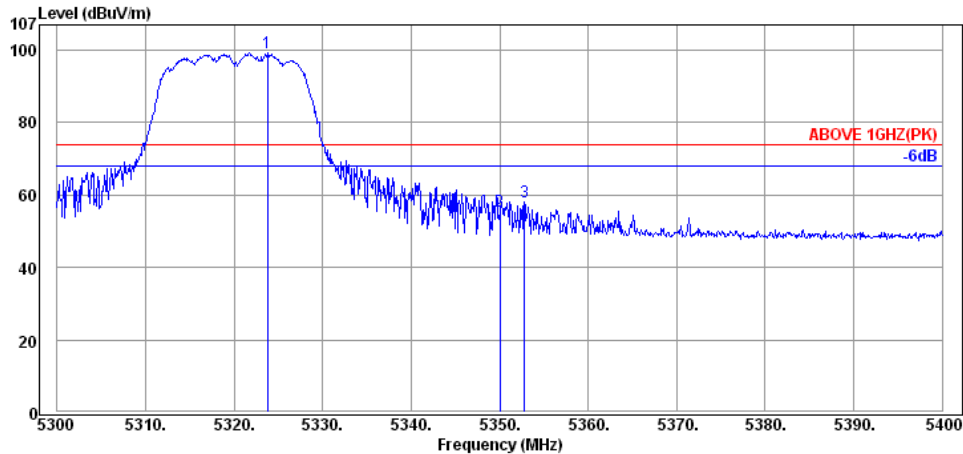
#### Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5323.00	34.62	8.70	46.02	89.34	---	---	Average
5350.00	34.65	8.61	-4.27	38.99	54.00	15.01	Average
5350.30	34.65	8.61	-4.21	39.05	54.00	14.95	Average

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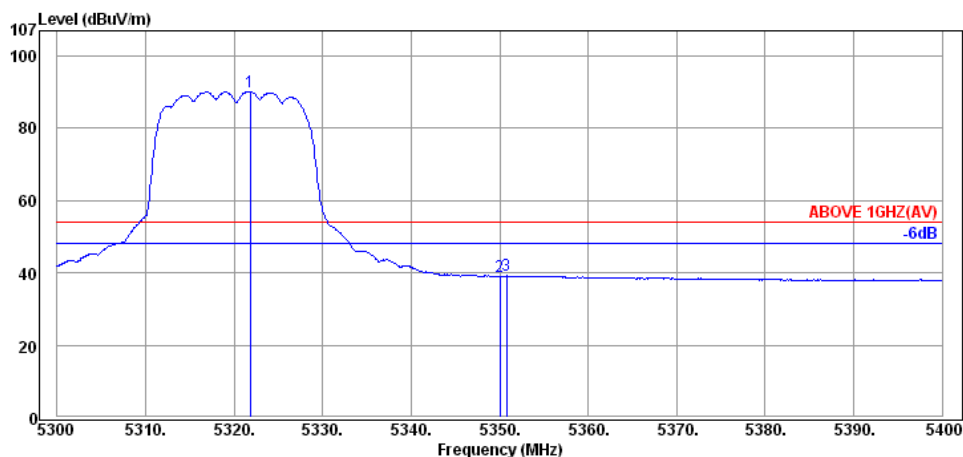
Tel: +886 2 26099301  
Fax: +886 2 26099303

Mode	802.11a	UNII Band	II-2A
		Frequency	TX 5320MHz



#### Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5323.80	34.62	8.70	56.04	99.36	---	---	Peak
5350.00	34.65	8.61	12.25	55.51	74.00	18.49	Peak
5352.80	34.65	8.61	14.78	58.04	74.00	15.96	Peak



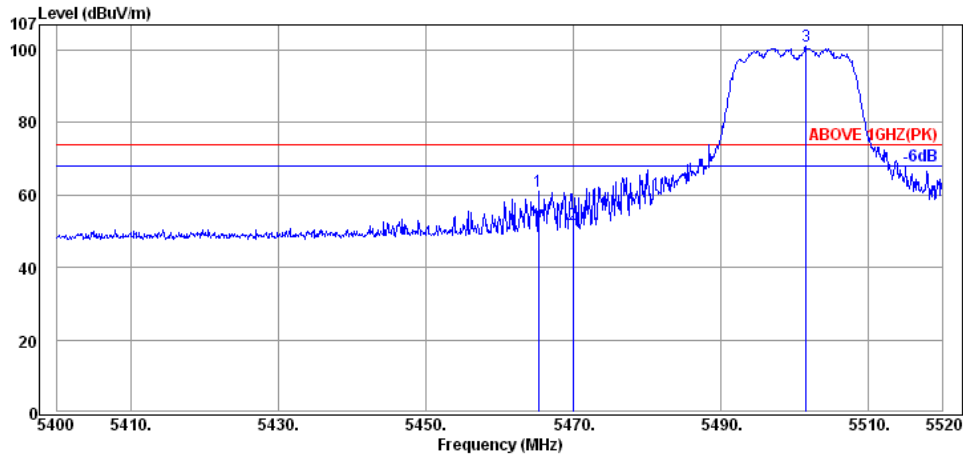
#### Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5321.80	34.62	8.70	46.90	90.22	---	---	Average
5350.00	34.65	8.61	-4.23	39.03	54.00	14.97	Average
5350.80	34.65	8.61	-4.07	39.19	54.00	14.81	Average

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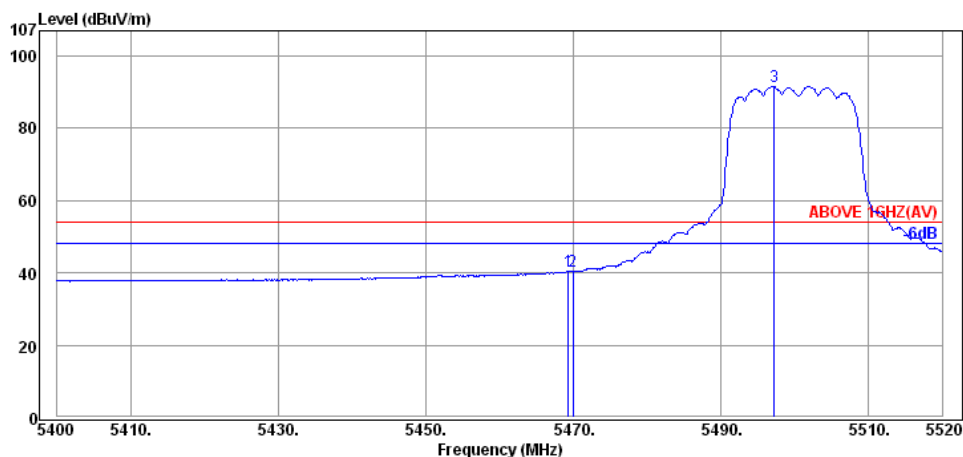
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Fax: +886 2 26099303

Mode	802.11a	UNII Band	II-2C
		Frequency	TX 5500MHz



#### Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5465.28	34.77	8.65	17.76	61.18	74.00	12.82	Peak
5469.96	34.77	8.65	8.37	51.79	74.00	22.21	Peak
5501.52	34.80	8.73	57.45	100.98	---	---	Peak



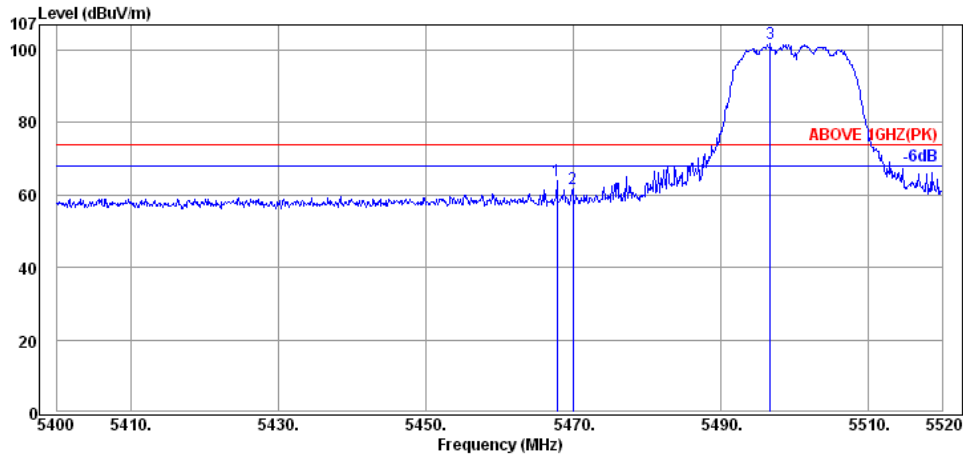
#### Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5469.36	34.77	8.65	-3.00	40.42	54.00	13.58	Average
5469.96	34.77	8.65	-2.97	40.45	54.00	13.55	Average
5497.20	34.80	8.73	48.06	91.59	---	---	Average

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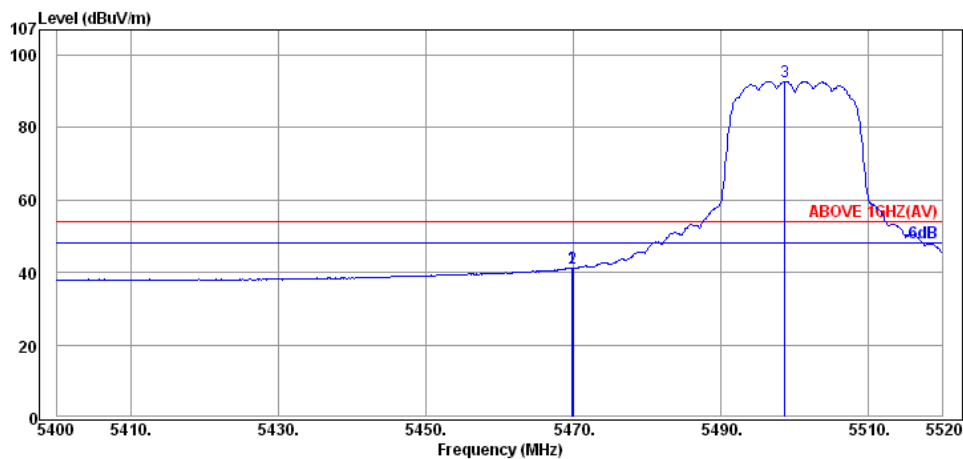
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Fax: +886 2 26099303

Mode	802.11a	UNII Band	II-2C
		Frequency	TX 5500MHz



#### Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5467.80	34.77	8.65	20.41	63.83	74.00	10.17	Peak
5469.96	34.77	8.65	18.25	61.67	74.00	12.33	Peak
5496.72	34.80	8.73	58.41	101.94	---	---	Peak



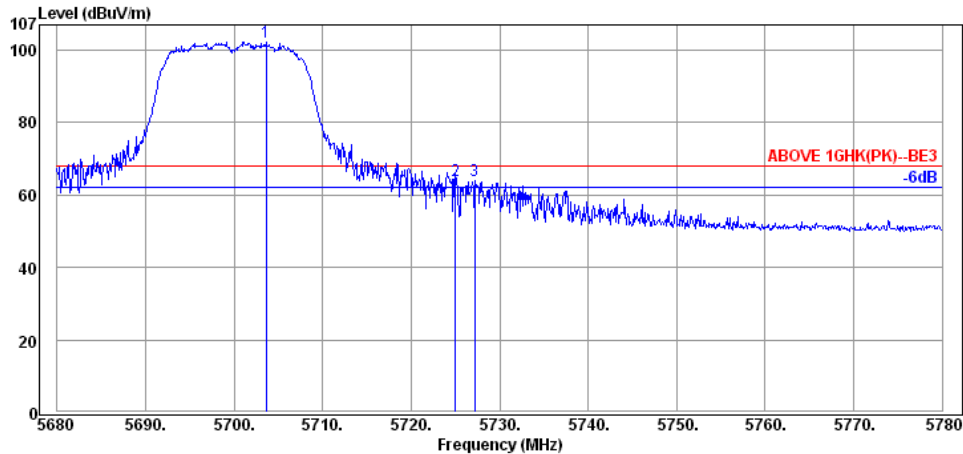
#### Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5469.84	34.77	8.65	-2.29	41.13	54.00	12.87	Average
5469.96	34.77	8.65	-2.34	41.08	54.00	12.92	Average
5498.64	34.80	8.73	49.30	92.83	---	---	Average

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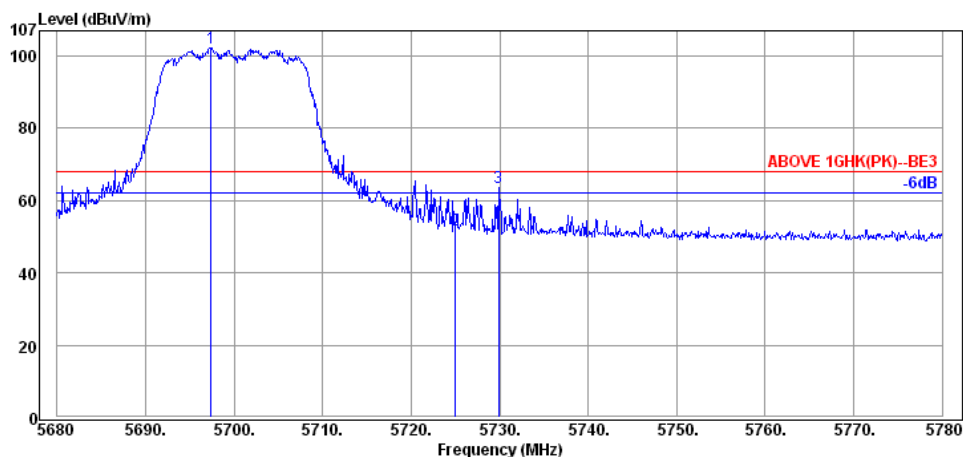
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Fax: +886 2 26099303

Mode	802.11a	UNII Band	II-2C
		Frequency	TX 5700MHz



#### Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5703.60	35.05	9.73	57.42	102.20	68.20	---	Peak
5725.00	35.07	9.78	19.02	63.87	68.20	4.33	Peak
5727.20	35.07	9.78	19.18	64.03	68.20	4.17	Peak



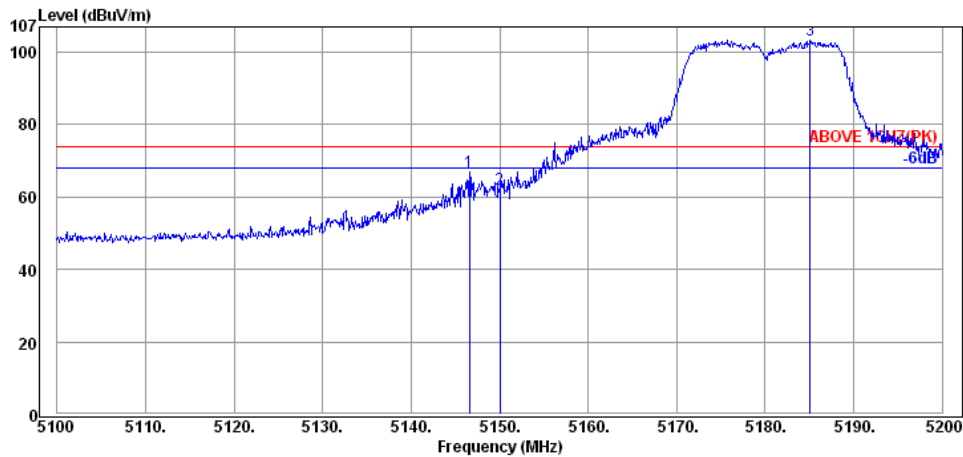
#### Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5697.40	35.03	9.68	57.67	102.38	68.20	---	Peak
5725.00	35.07	9.78	6.89	51.74	68.20	16.46	Peak
5729.90	35.07	9.78	18.63	63.48	68.20	4.72	Peak

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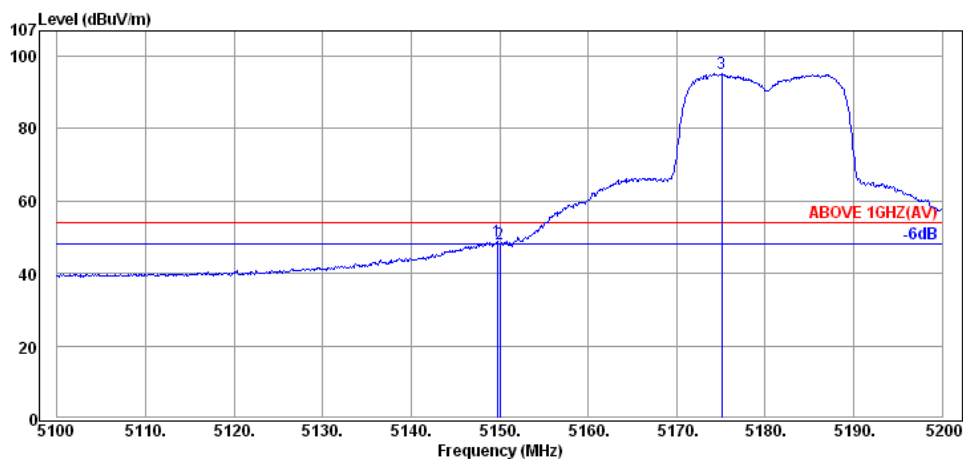
Tel: +886 2 26099301  
Fax: +886 2 26099303

Mode	802.11ac-VHT20	UNII Band	I
		Frequency	TX 5180MHz



#### Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5146.60	34.45	8.84	23.46	66.75	74.00	7.25	Peak
5150.00	34.45	8.84	18.84	62.13	74.00	11.87	Peak
5185.10	34.48	8.77	60.25	103.50	---	---	Peak



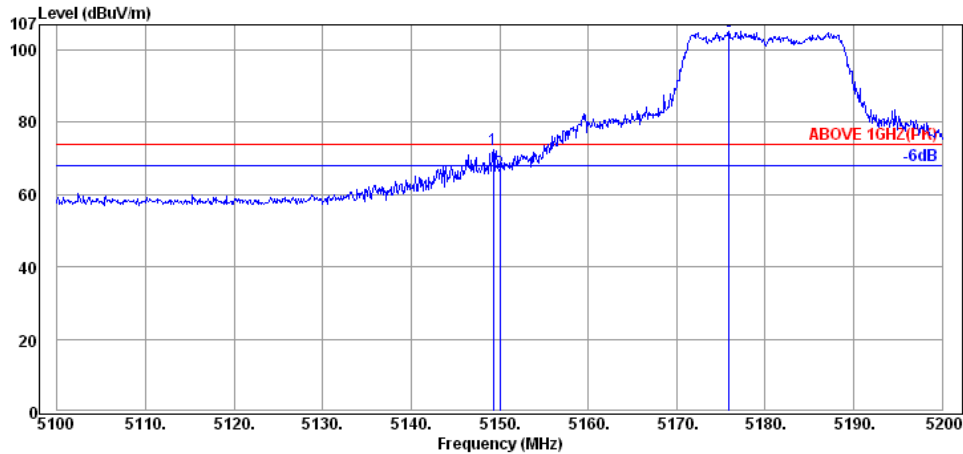
#### Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5149.70	34.45	8.84	5.50	48.79	54.00	5.21	Average
5150.00	34.45	8.84	4.75	48.04	54.00	5.96	Average
5175.10	34.48	8.77	51.94	95.19	---	---	Average

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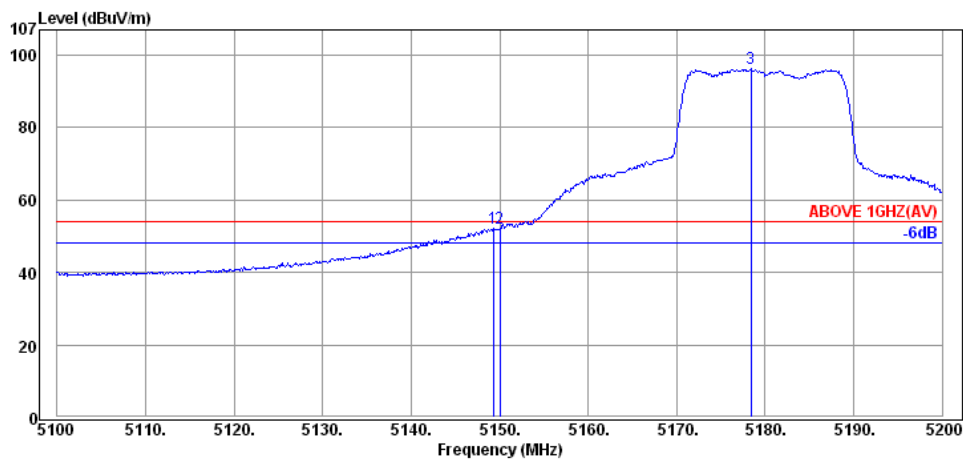
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Mode	802.11ac-VHT20	UNII Band	I
		Frequency	TX 5180MHz



#### Antenna at Vertical Polarization

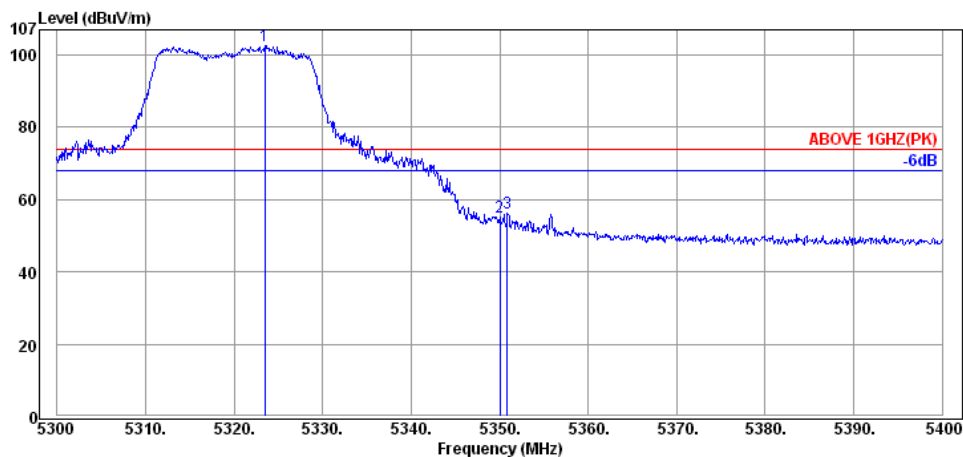
Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5149.30	34.45	8.84	29.12	72.41	74.00	1.59	Peak
5150.00	34.45	8.84	23.01	66.30	74.00	7.70	Peak
5175.90	34.48	8.77	62.04	105.29	---	---	Peak



#### Antenna at Vertical Polarization

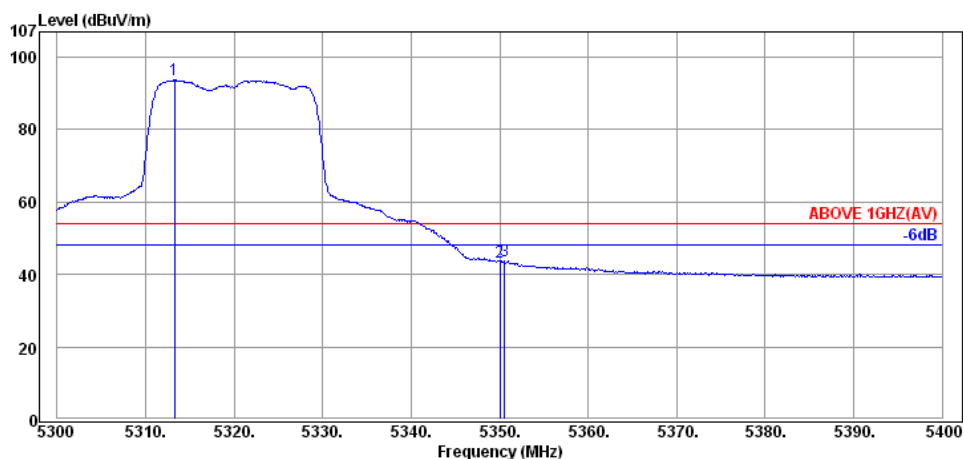
Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5149.30	34.45	8.84	8.76	52.05	54.00	1.95	Average
5150.00	34.45	8.84	9.04	52.33	54.00	1.67	Average
5178.40	34.48	8.77	53.16	96.41	---	---	Average

Mode	802.11ac-VHT20	UNII Band	II-2A
		Frequency	TX 5320MHz



#### Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5323.50	34.62	8.70	59.34	102.66	---	---	Peak
5350.00	34.65	8.61	11.83	55.09	74.00	18.91	Peak
5350.90	34.65	8.61	12.94	56.20	74.00	17.80	Peak



#### Antenna at Horizontal Polarization

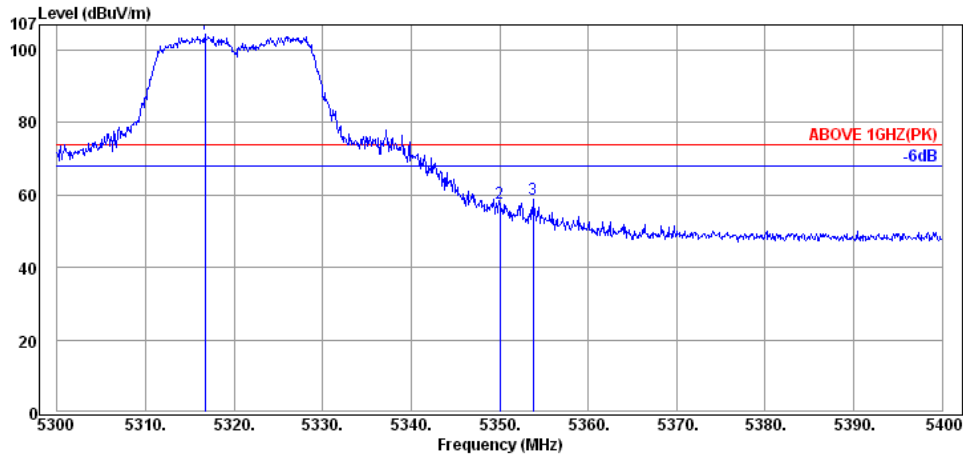
Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5313.30	34.62	8.70	50.40	93.72	---	---	Average
5350.00	34.65	8.61	0.19	43.45	54.00	10.55	Average
5350.60	34.65	8.61	0.44	43.70	54.00	10.30	Average



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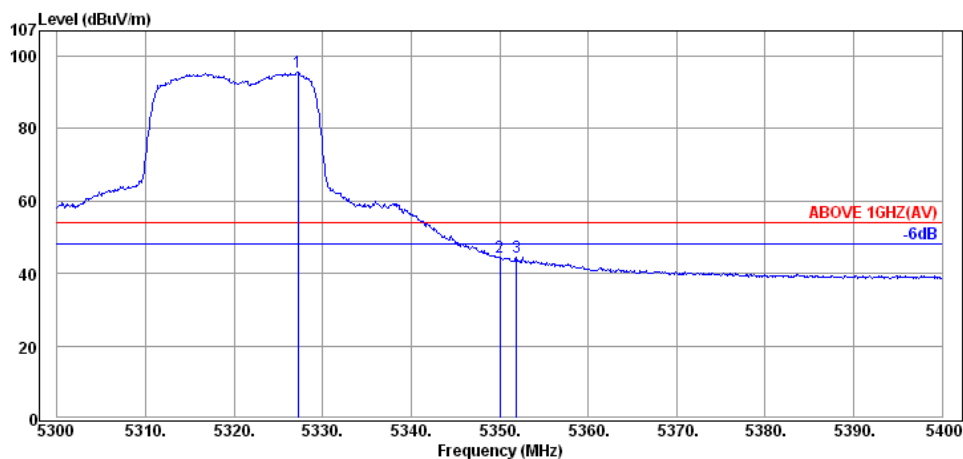
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Mode	802.11ac-VHT20	UNII Band	II-2A
		Frequency	TX 5320MHz



#### Antenna at Vertical Polarization

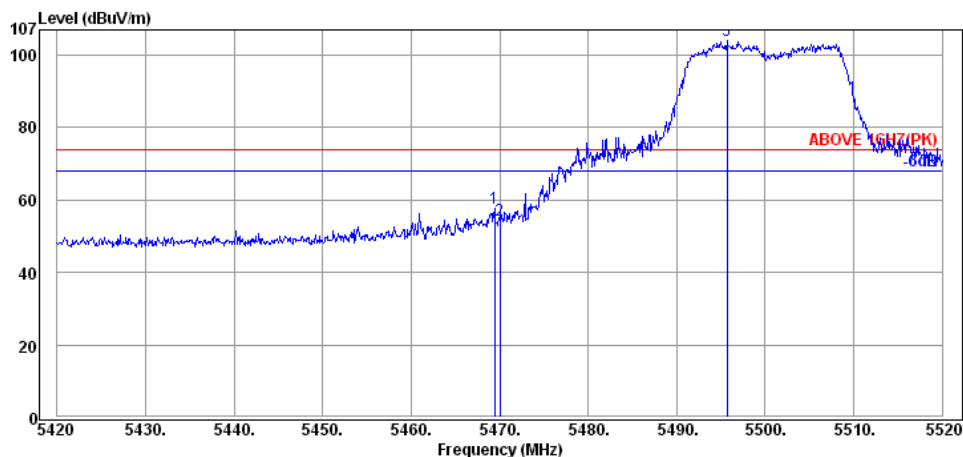
Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5316.70	34.62	8.70	61.20	104.52	---	---	Peak
5350.00	34.65	8.61	14.39	57.65	74.00	16.35	Peak
5353.80	34.65	8.61	15.64	58.90	74.00	15.10	Peak



#### Antenna at Vertical Polarization

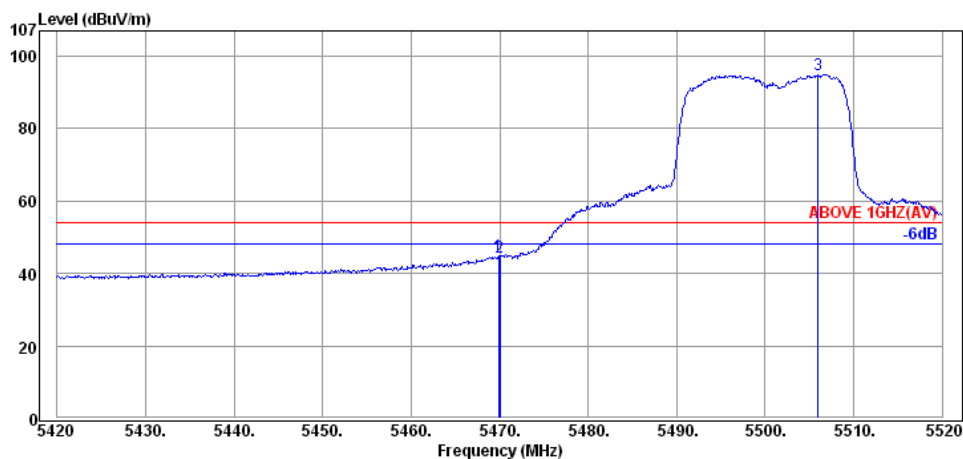
Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5327.20	34.63	8.66	52.38	95.67	---	---	Average
5350.00	34.65	8.61	1.21	44.47	54.00	9.53	Average
5351.90	34.65	8.61	1.08	44.34	54.00	9.66	Average

Mode	802.11ac-VHT20	UNII Band	II-2C
		Frequency	TX 5500MHz



#### Antenna at Horizontal Polarization

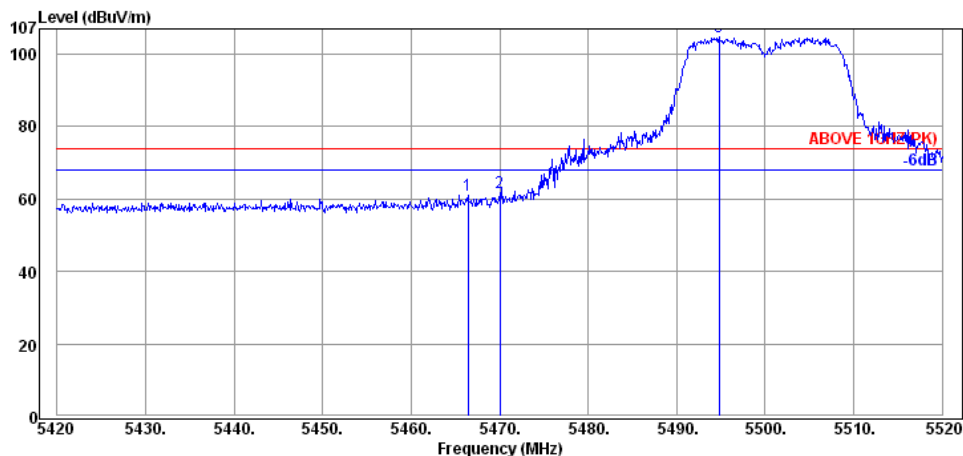
Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5469.40	34.77	8.65	14.23	57.65	74.00	16.35	Peak
5470.00	34.77	8.65	11.15	54.57	74.00	19.43	Peak
5495.70	34.78	8.69	60.66	104.13	---	---	Peak



#### Antenna at Horizontal Polarization

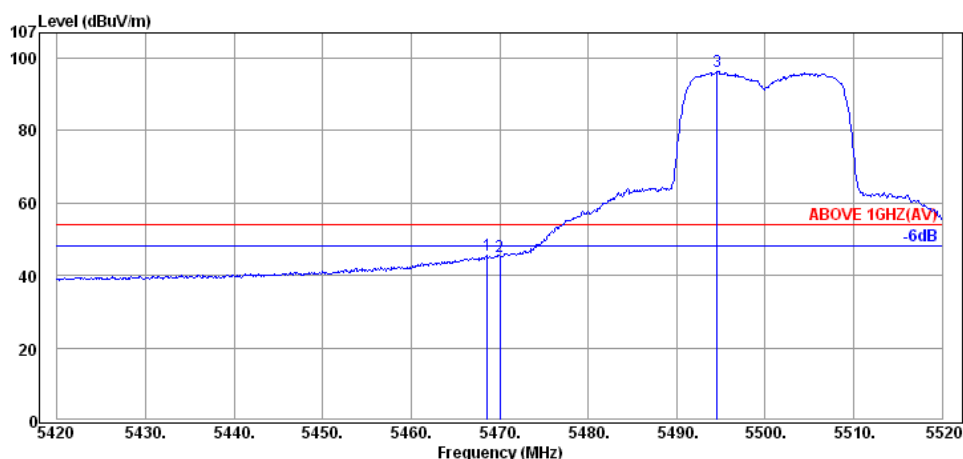
Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5469.90	34.77	8.65	1.50	44.92	54.00	9.08	Average
5470.00	34.77	8.65	1.24	44.66	54.00	9.34	Average
5506.00	34.80	8.73	51.50	95.03	---	---	Average

Mode	802.11ac-VHT20	UNII Band	II-2C
		Frequency	TX 5500MHz



#### Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5466.40	34.77	8.65	17.74	61.16	74.00	12.84	Peak
5470.00	34.77	8.65	18.41	61.83	74.00	12.17	Peak
5494.80	34.78	8.69	61.26	104.73	---	---	Peak



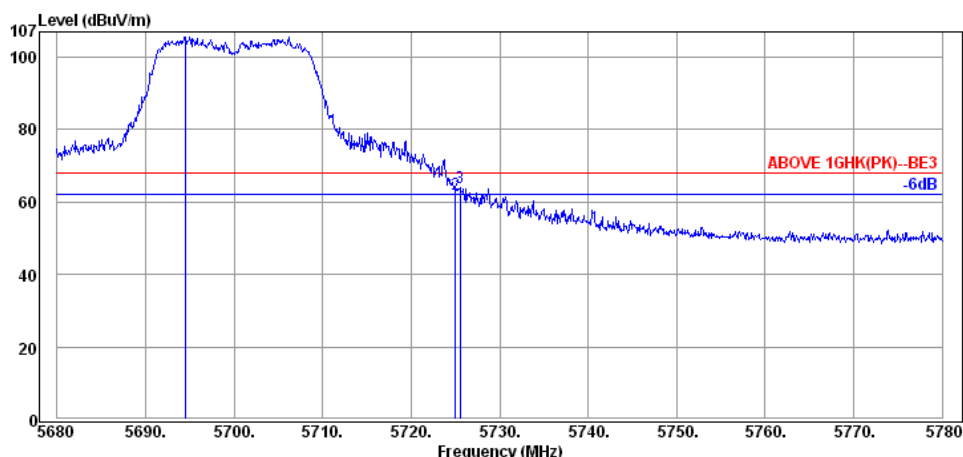
#### Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5468.60	34.77	8.65	2.32	45.74	54.00	8.26	Average
5470.00	34.77	8.65	1.82	45.24	54.00	8.76	Average
5494.60	34.78	8.69	52.88	96.35	---	---	Average

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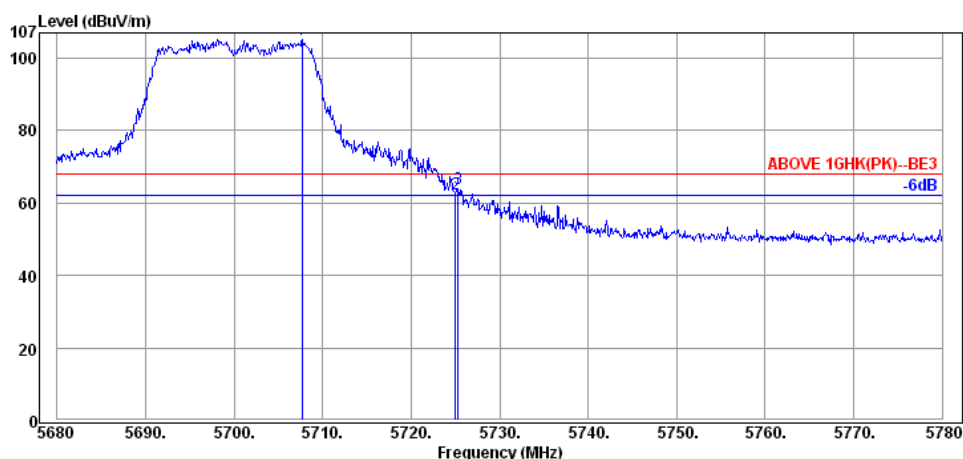
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Mode	802.11ac-VHT20	UNII Band	II-2C
		Frequency	TX 5700MHz



#### Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5694.50	35.03	9.68	60.99	105.70	68.20	---	Peak
5725.00	35.07	9.78	17.35	62.20	68.20	6.00	Peak
5725.50	35.07	9.78	19.12	63.97	68.20	4.23	Peak



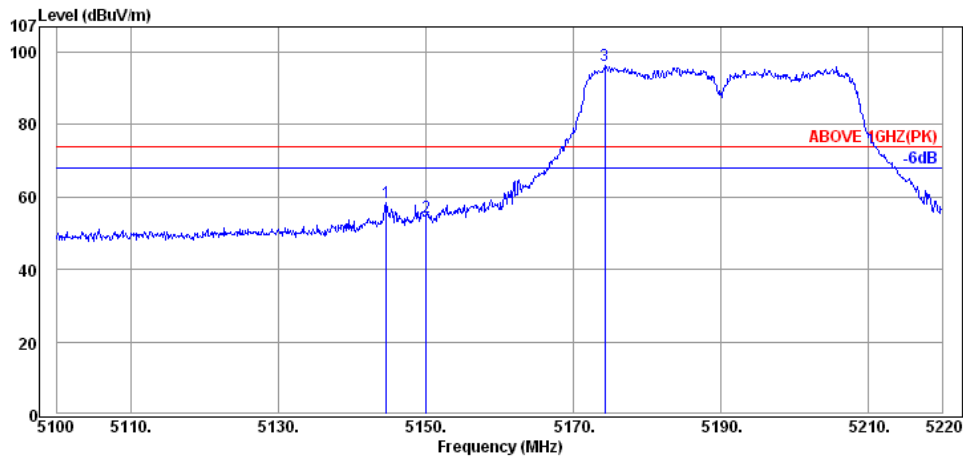
#### Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5707.70	35.05	9.73	60.25	105.03	68.20	---	Peak
5725.00	35.07	9.78	17.59	62.44	68.20	5.76	Peak
5725.30	35.07	9.78	19.05	63.90	68.20	4.30	Peak

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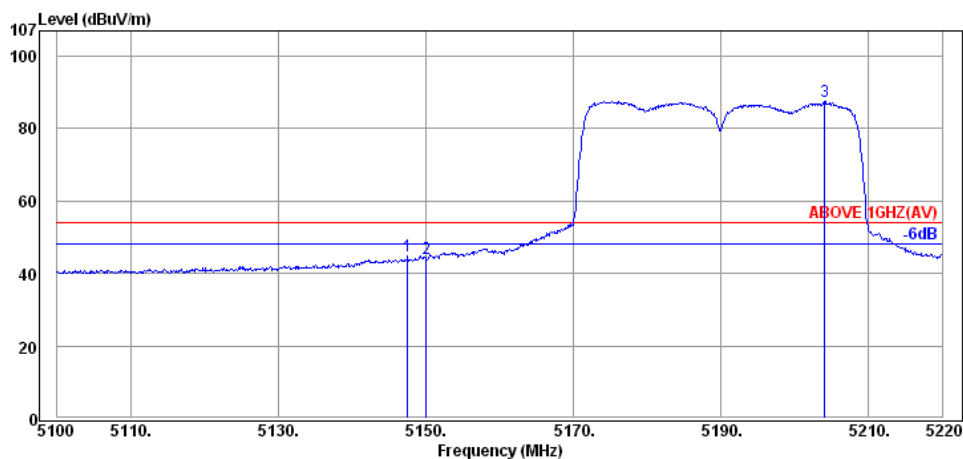
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Mode	802.11ac-VHT40	UNII Band	I
		Frequency	TX 5190MHz



#### Antenna at Horizontal Polarization

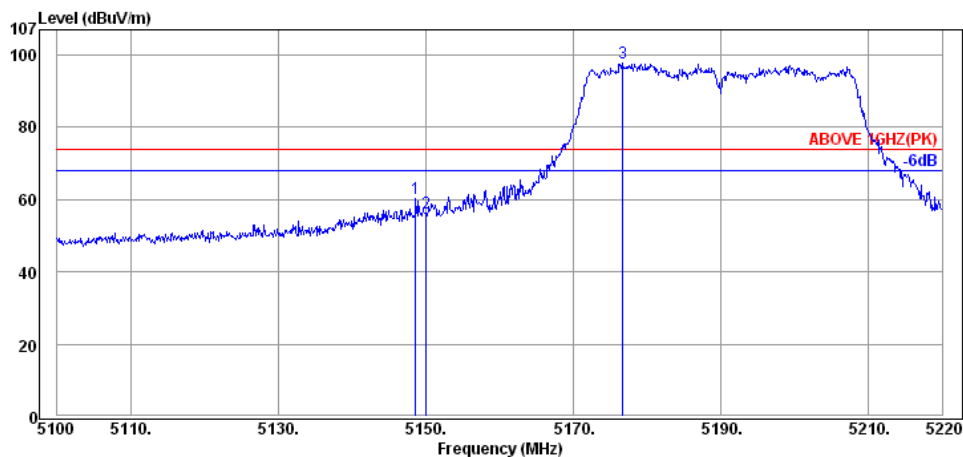
Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5144.64	34.45	8.84	15.30	58.59	74.00	15.41	Peak
5150.04	34.45	8.84	11.20	54.49	74.00	19.51	Peak
5174.28	34.48	8.77	53.10	96.35	---	---	Peak



#### Antenna at Horizontal Polarization

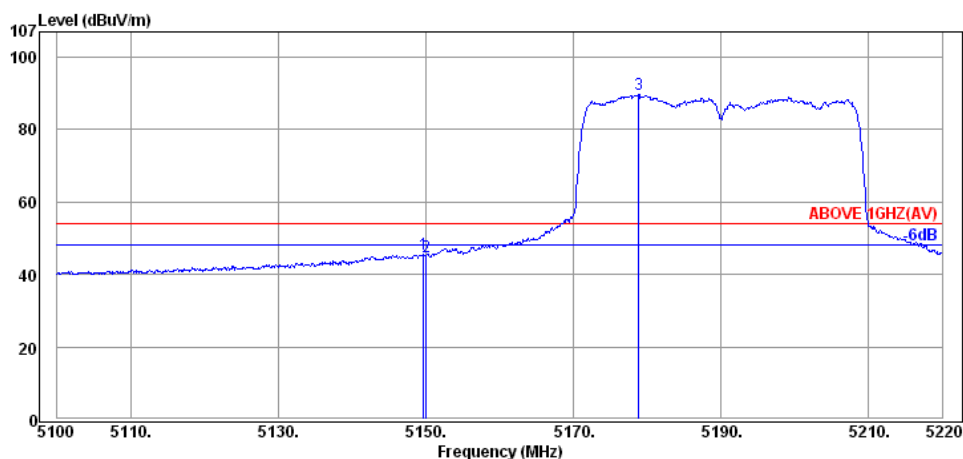
Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5147.52	34.45	8.84	1.47	44.76	54.00	9.24	Average
5150.04	34.45	8.84	0.88	44.17	54.00	9.83	Average
5204.04	34.50	8.74	44.41	87.65	---	---	Average

Mode	802.11ac-VHT40	UNII Band	I
		Frequency	TX 5190MHz



#### Antenna at Vertical Polarization

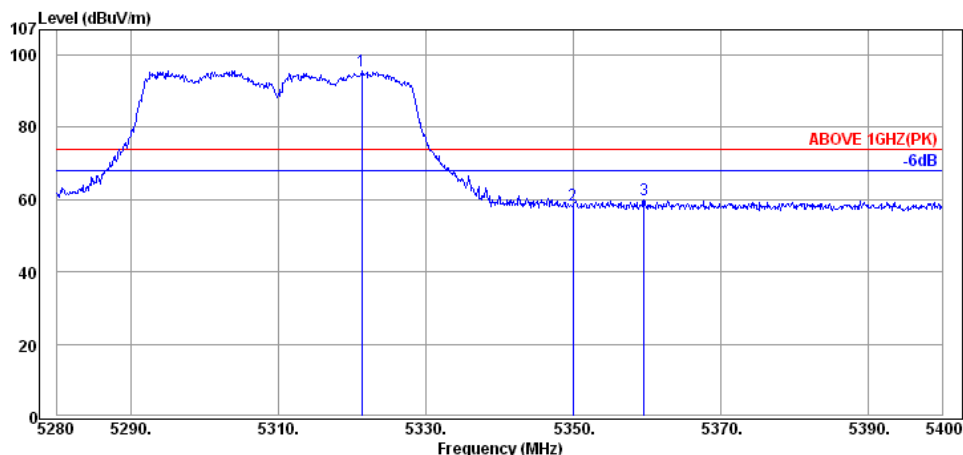
Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5148.60	34.45	8.84	17.12	60.41	74.00	13.59	Peak
5150.04	34.45	8.84	12.79	56.08	74.00	17.92	Peak
5176.68	34.48	8.77	54.69	97.94	---	---	Peak



#### Antenna at Vertical Polarization

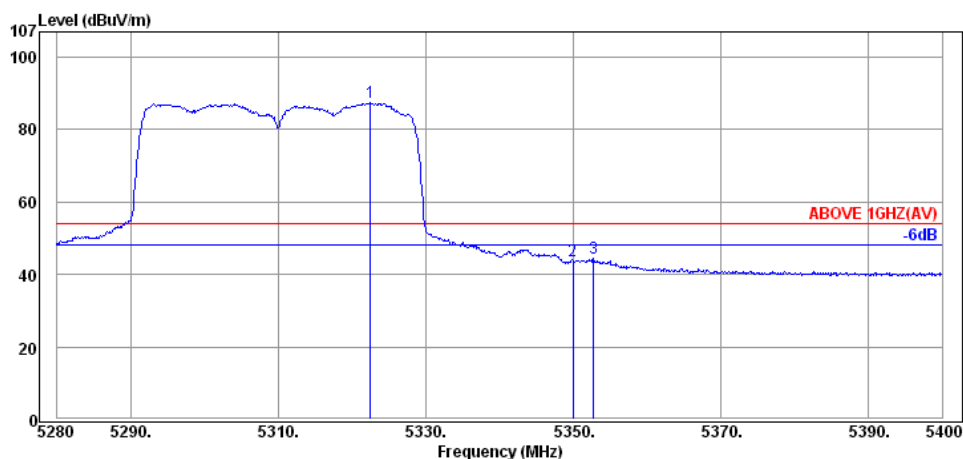
Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5149.68	34.45	8.84	2.13	45.42	54.00	8.58	Average
5150.04	34.45	8.84	1.56	44.85	54.00	9.15	Average
5178.84	34.48	8.77	46.31	89.56	---	---	Average

Mode	802.11ac-VHT40	UNII Band	II-2A
		Frequency	TX 5310MHz



#### Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5321.28	34.62	8.70	52.36	95.68	---	---	Peak
5349.96	34.65	8.61	15.12	58.38	74.00	15.62	Peak
5359.56	34.65	8.61	16.59	59.85	74.00	14.15	Peak



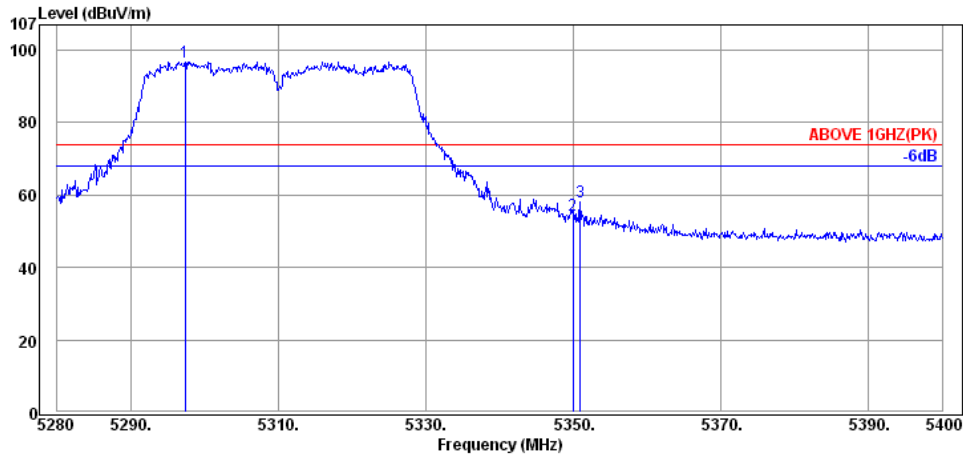
#### Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5322.48	34.62	8.70	44.18	87.50	---	---	Average
5349.96	34.65	8.61	0.58	43.84	54.00	10.16	Average
5352.72	34.65	8.61	1.06	44.32	54.00	9.68	Average

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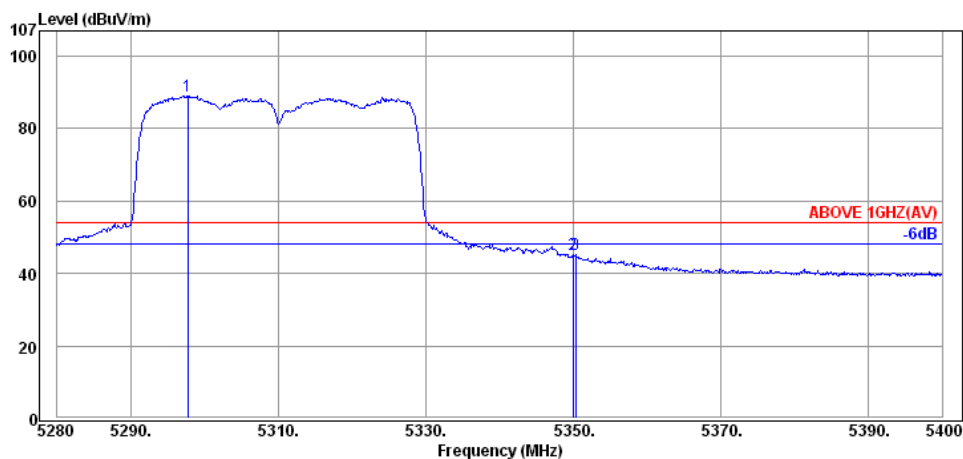
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Fax: +886 2 26099303

Mode	802.11ac-VHT40	UNII Band	II-2A
		Frequency	TX 5310MHz



#### Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5297.40	34.60	8.74	53.50	96.84	---	---	Peak
5349.96	34.65	8.61	11.14	54.40	74.00	19.60	Peak
5350.92	34.65	8.61	15.00	58.26	74.00	15.74	Peak



#### Antenna at Vertical Polarization

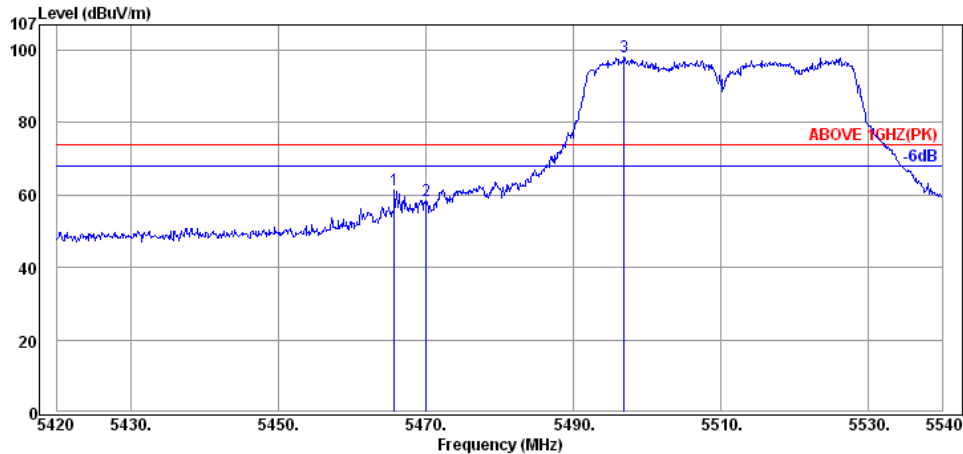
Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5297.76	34.60	8.74	45.72	89.06	---	---	Average
5349.96	34.65	8.61	1.98	45.24	54.00	8.76	Average
5350.32	34.65	8.61	1.81	45.07	54.00	8.93	Average



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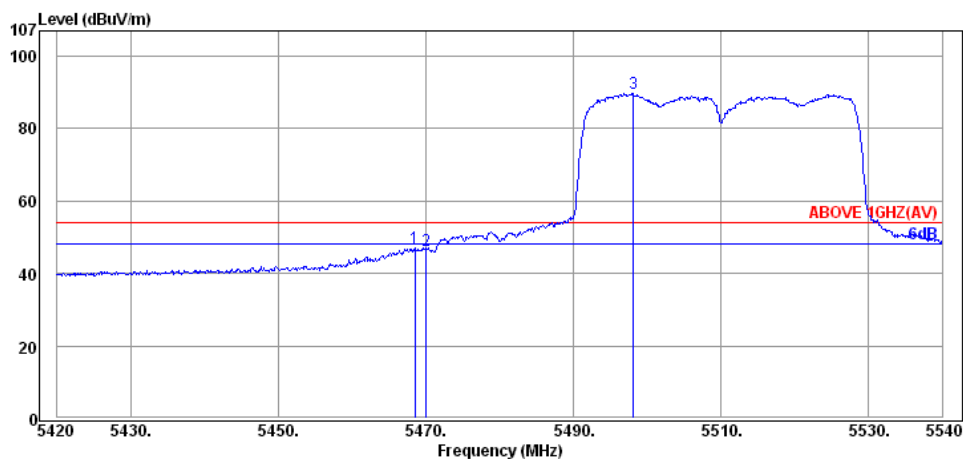
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Fax: +886 2 26099303

Mode	802.11ac-VHT40	UNII Band	II-2C
		Frequency	TX 5510MHz



#### Antenna at Horizontal Polarization

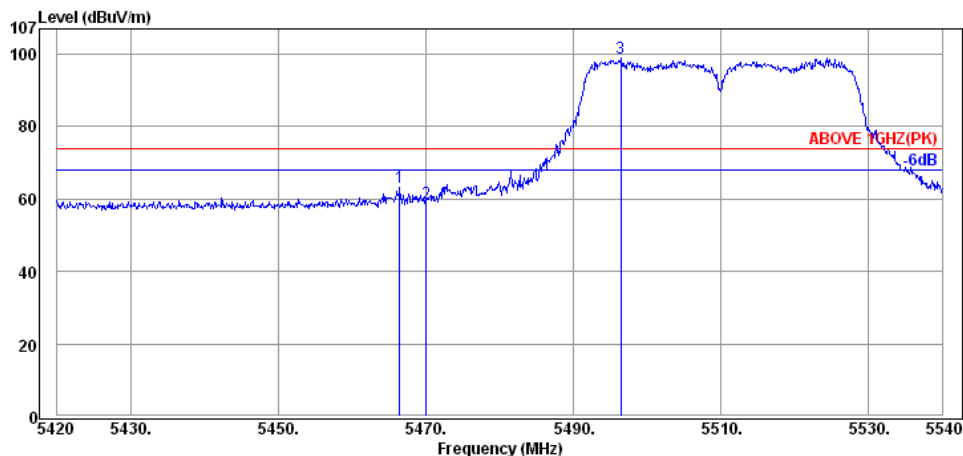
Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5465.72	34.77	8.65	17.89	61.31	74.00	12.69	Peak
5470.04	34.77	8.65	14.95	58.37	74.00	15.63	Peak
5496.92	34.80	8.73	54.68	98.21	---	---	Peak



#### Antenna at Horizontal Polarization

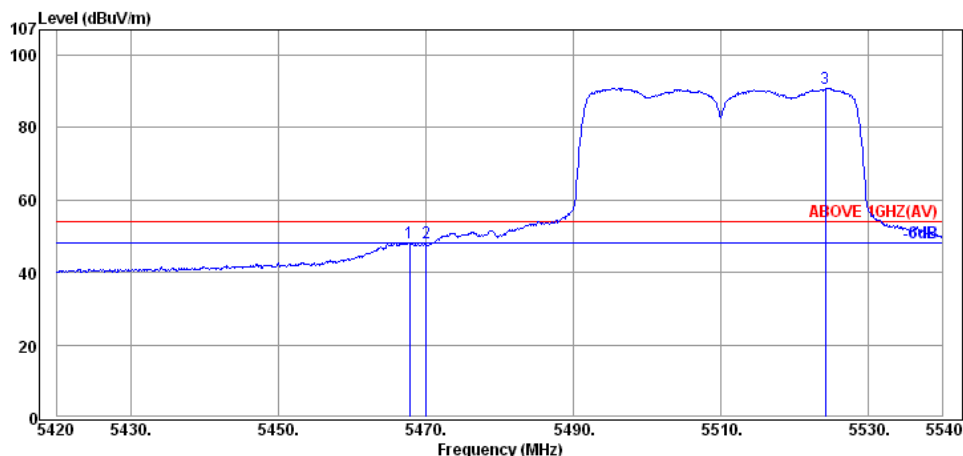
Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5468.48	34.77	8.65	3.58	47.00	54.00	7.00	Average
5470.04	34.77	8.65	2.95	46.37	54.00	7.63	Average
5498.12	34.80	8.73	46.25	89.78	---	---	Average

Mode	802.11ac-VHT40	UNII Band	II-2C
		Frequency	TX 5510MHz



#### Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5466.44	34.77	8.65	19.68	63.10	74.00	10.90	Peak
5470.04	34.77	8.65	15.59	59.01	74.00	14.99	Peak
5496.44	34.78	8.69	55.60	99.07	---	---	Peak



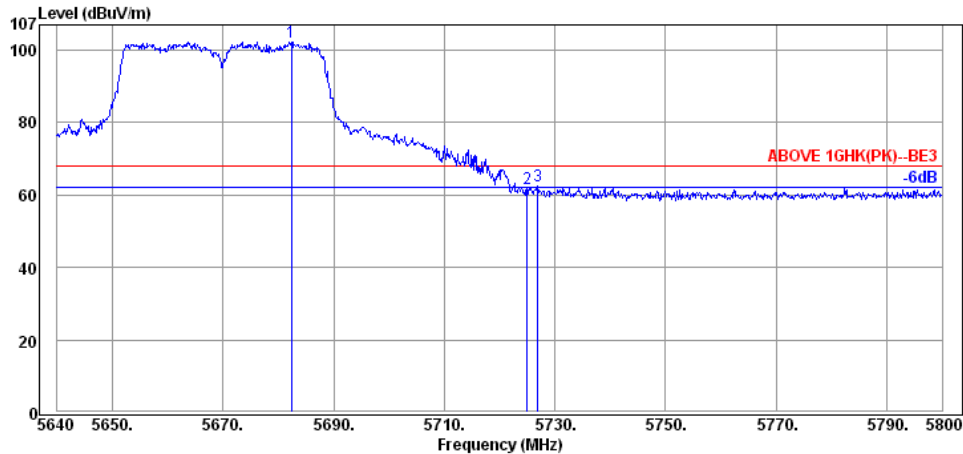
#### Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5467.76	34.77	8.65	4.80	48.22	54.00	5.78	Average
5470.04	34.77	8.65	4.61	48.03	54.00	5.97	Average
5524.16	34.82	8.80	47.32	90.94	---	---	Average

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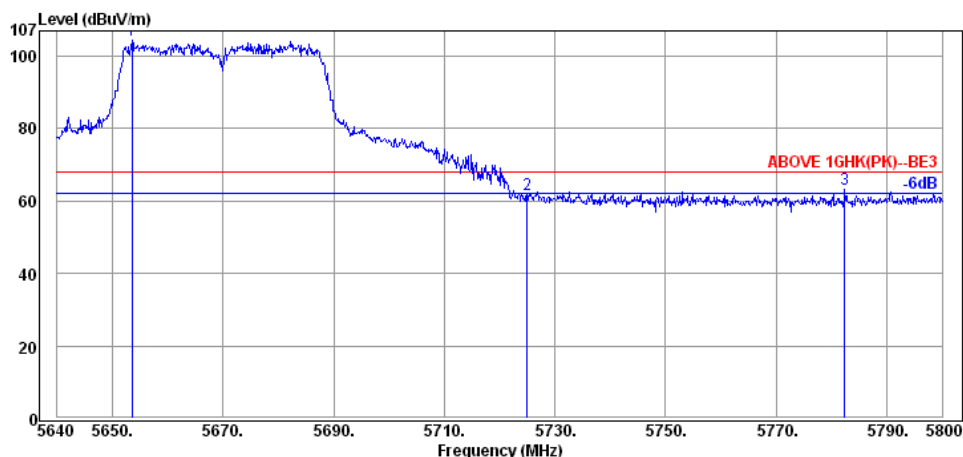
Tel: +886 2 26099301  
Fax: +886 2 26099303

Mode	802.11ac-VHT40	UNII Band	II-2C
		Frequency	TX 5670MHz



#### Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5682.40	35.01	9.57	57.68	102.26	68.20	---	Peak
5724.96	35.07	9.78	16.74	61.59	68.20	6.61	Peak
5726.88	35.07	9.78	17.71	62.56	68.20	5.64	Peak



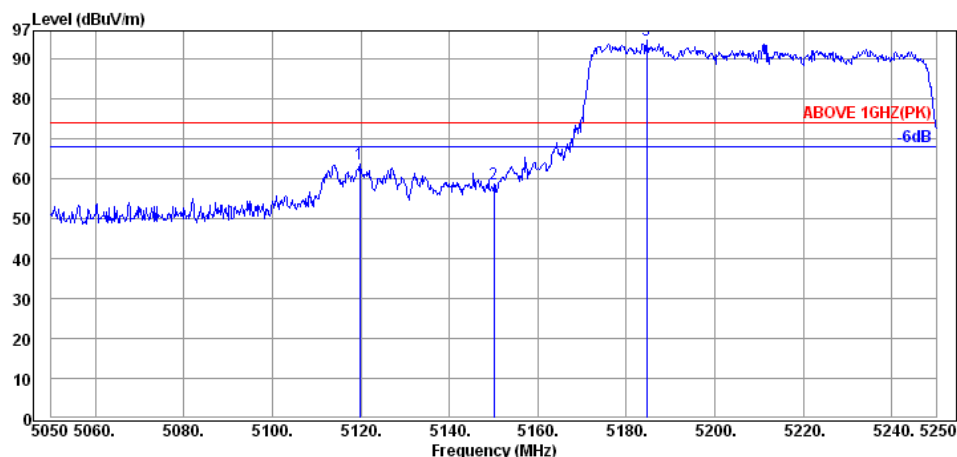
#### Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5653.60	34.99	9.47	59.93	104.39	68.20	---	Peak
5724.96	35.07	9.78	16.74	61.59	68.20	6.61	Peak
5782.40	35.13	9.93	18.02	63.08	68.20	5.12	Peak

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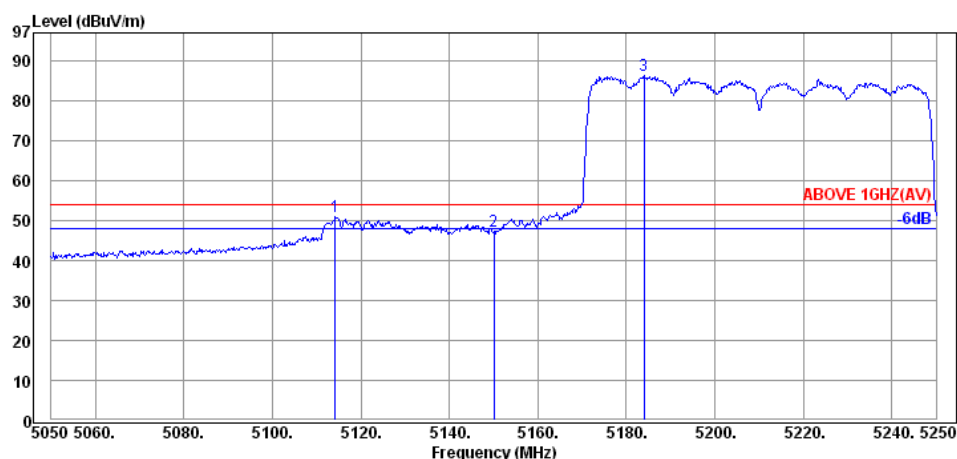
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Fax: +886 2 26099303

Mode	802.11ac-VHT80	UNII Band	I
		Frequency	TX 5210MHz



#### Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5119.80	34.42	8.91	20.25	63.58	74.00	10.42	Peak
5150.00	34.45	8.84	15.54	58.83	74.00	15.17	Peak
5184.60	34.48	8.77	51.27	94.52	---	---	Peak



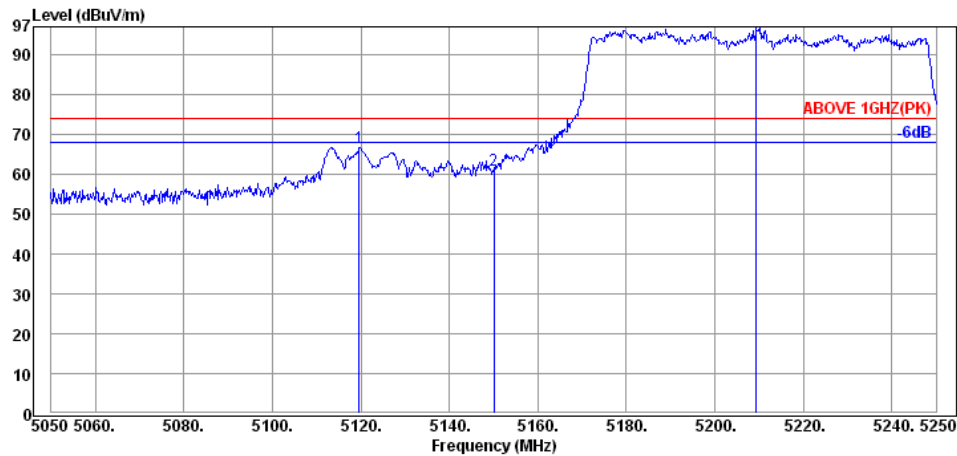
#### Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5114.20	34.42	8.91	7.76	51.09	54.00	2.91	Average
5150.00	34.45	8.84	4.15	47.44	54.00	6.56	Average
5184.00	34.48	8.77	43.00	86.25	---	---	Average

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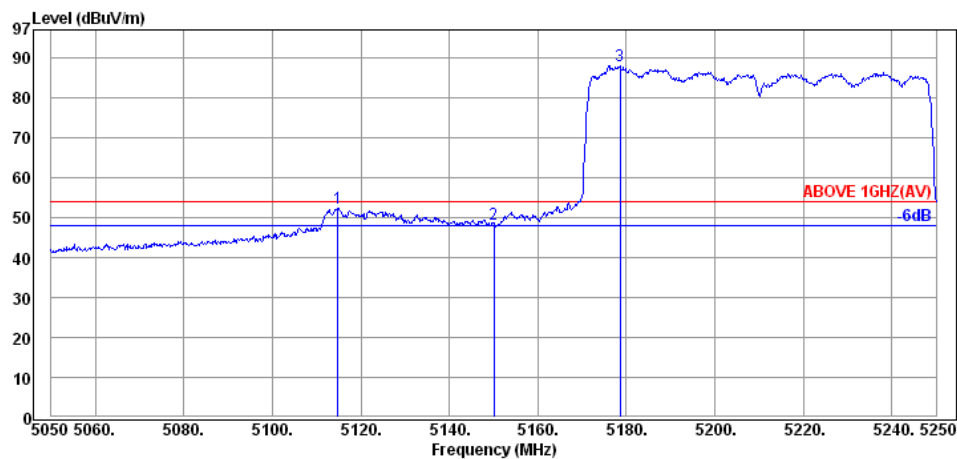
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Fax: +886 2 26099303

Mode	802.11ac-VHT80	UNII Band	I
		Frequency	TX 5210MHz



#### Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5119.60	34.42	8.91	23.33	66.66	74.00	7.34	Peak
5150.00	34.45	8.84	17.87	61.16	74.00	12.84	Peak
5209.40	34.52	8.74	53.46	96.72	---	---	Peak



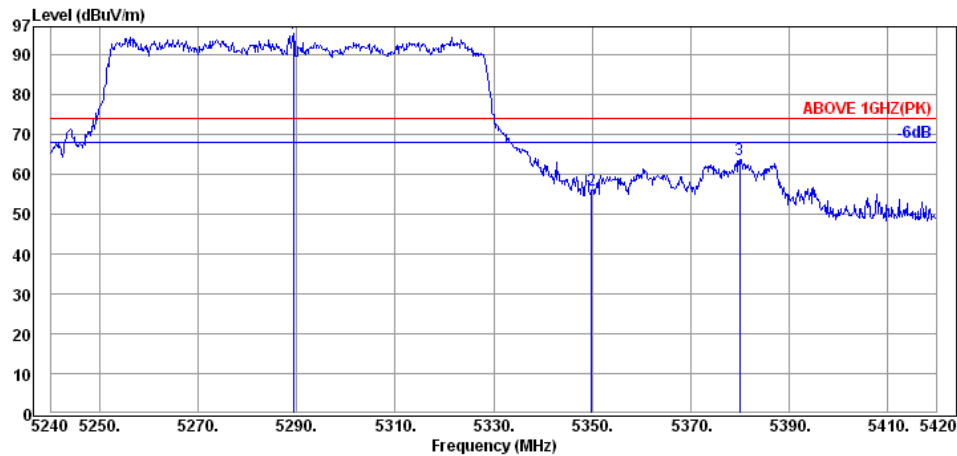
#### Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5114.80	34.42	8.91	9.12	52.45	54.00	1.55	Average
5150.00	34.45	8.84	5.04	48.33	54.00	5.67	Average
5178.60	34.48	8.77	44.83	88.08	---	---	Average

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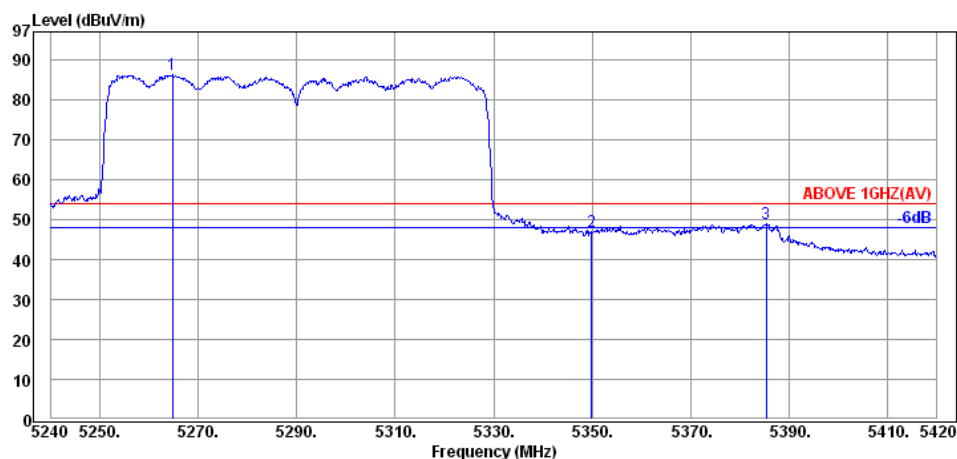
Tel: +886 2 26099301  
Fax: +886 2 26099303

Mode	802.11ac-VHT80	UNII Band	II-2A
		Frequency	TX 5290MHz



#### Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5289.32	34.58	8.74	52.15	95.47	---	---	Peak
5349.98	34.65	8.61	12.85	56.11	74.00	17.89	Peak
5380.04	34.68	8.53	20.40	63.61	74.00	10.39	Peak



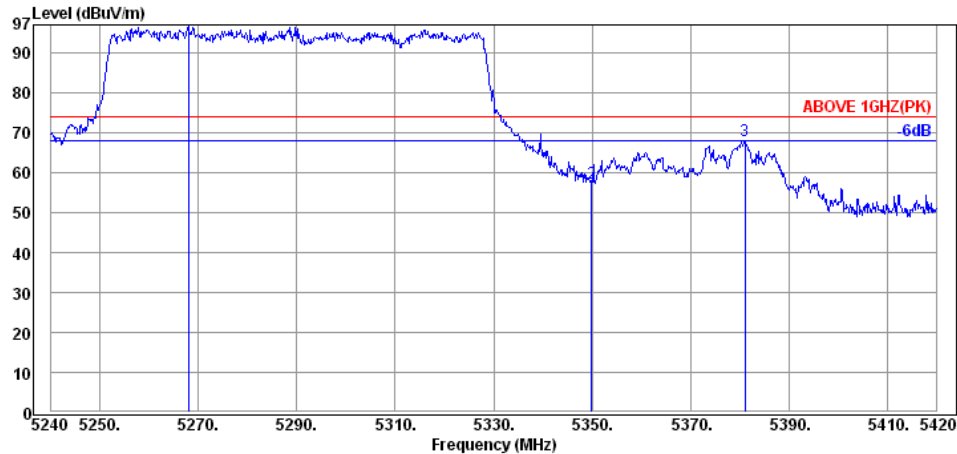
#### Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5264.66	34.57	8.74	42.93	86.24	---	---	Average
5349.98	34.65	8.61	3.62	46.88	54.00	7.12	Average
5385.44	34.68	8.53	5.81	49.02	54.00	4.98	Average

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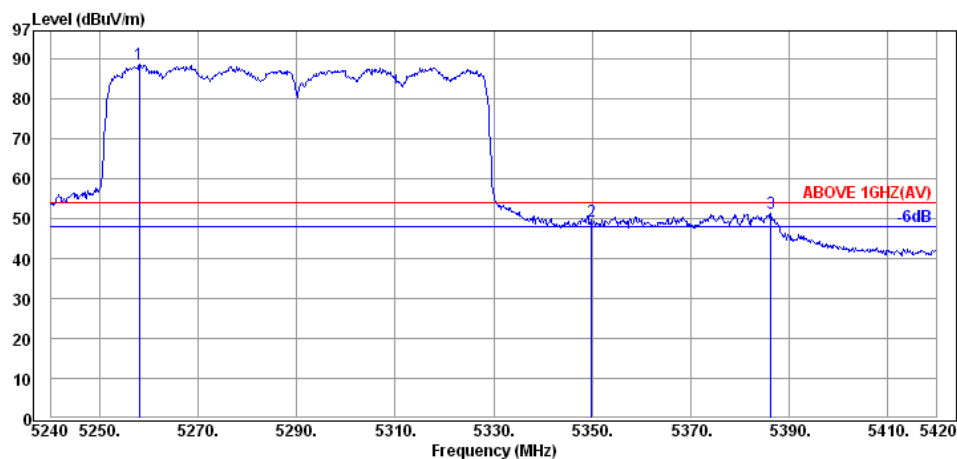
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Fax: +886 2 26099303

Mode	802.11ac-VHT80	UNII Band	II-2A
		Frequency	TX 5290MHz



#### Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5267.90	34.57	8.74	53.47	96.78	---	---	Peak
5349.98	34.65	8.61	14.02	57.28	74.00	16.72	Peak
5381.12	34.68	8.53	24.79	68.00	74.00	6.00	Peak



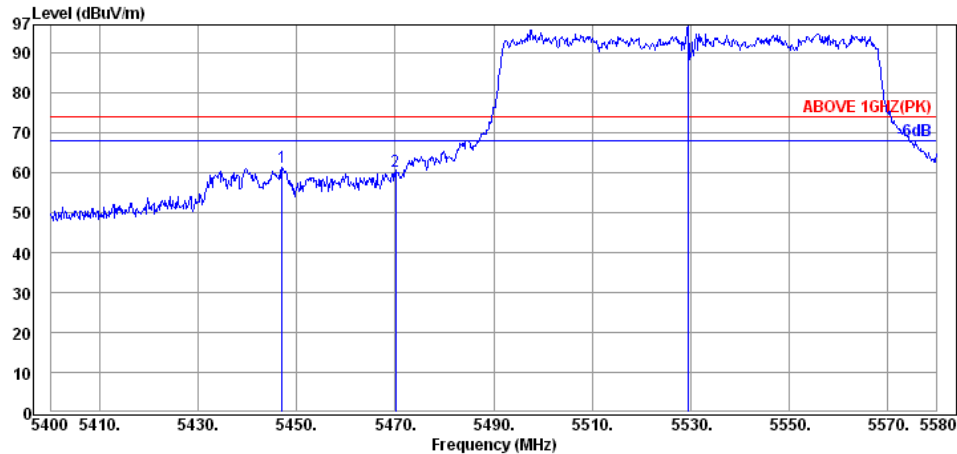
#### Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5258.00	34.55	8.74	45.46	88.75	---	---	Average
5349.98	34.65	8.61	5.94	49.20	54.00	4.80	Average
5386.34	34.68	8.53	8.06	51.27	54.00	2.73	Average

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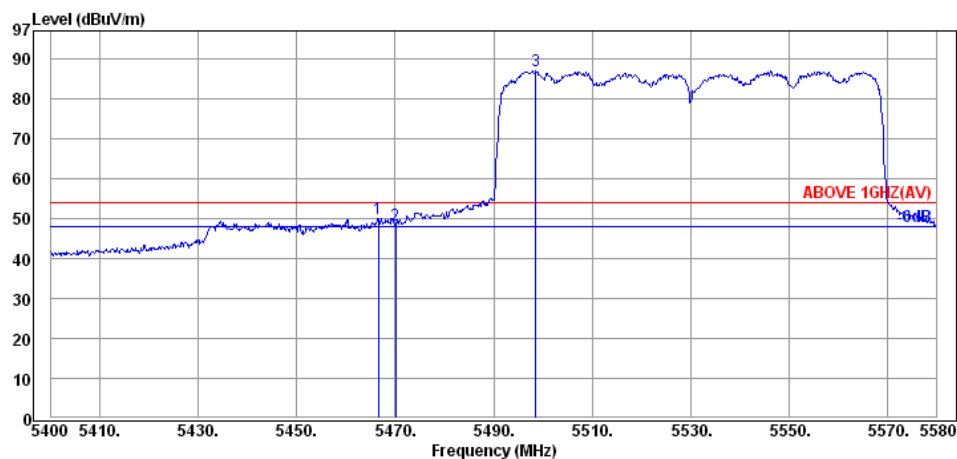
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Mode	802.11ac-VHT80	UNII Band	II-2C
		Frequency	TX 5530MHz



#### Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5446.98	34.75	8.61	17.98	61.34	74.00	12.66	Peak
5470.02	34.77	8.65	16.85	60.27	74.00	13.73	Peak
5529.60	34.82	8.80	53.26	96.88	---	---	Peak

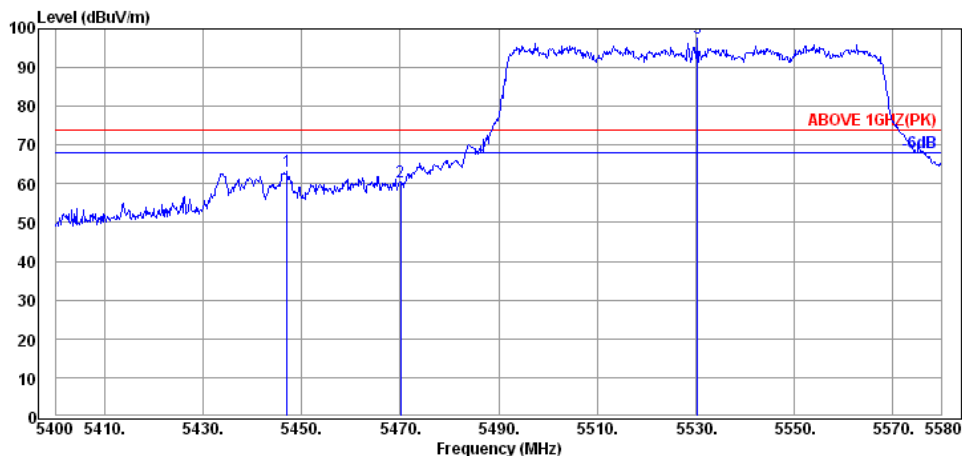


#### Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5466.60	34.77	8.65	6.62	50.04	54.00	3.96	Average
5470.02	34.77	8.65	4.82	48.24	54.00	5.76	Average
5498.64	34.80	8.73	43.49	87.02	---	---	Average

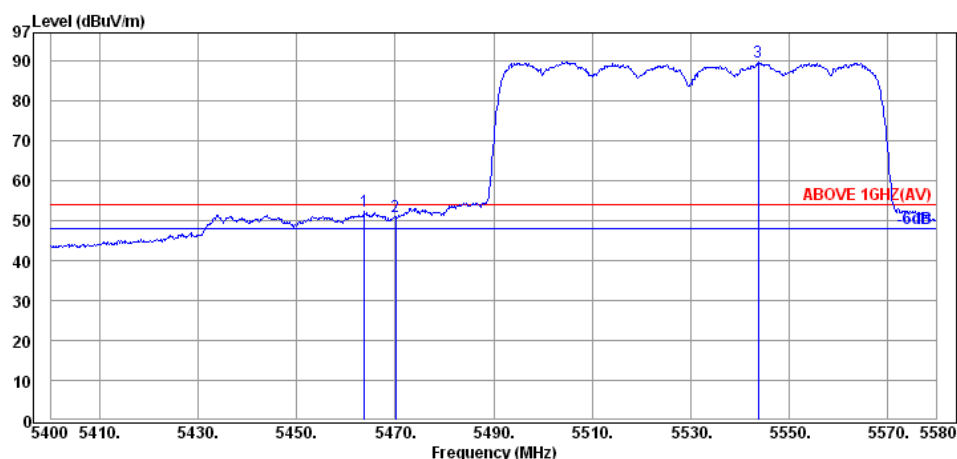


Mode	802.11ac-VHT80	UNII Band	II-2C
		Frequency	TX 5530MHz



#### Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5446.98	34.75	8.61	19.79	63.15	74.00	10.85	Peak
5470.02	34.77	8.65	17.07	60.49	74.00	13.51	Peak
5530.50	34.82	8.80	53.95	97.57	---	---	Peak



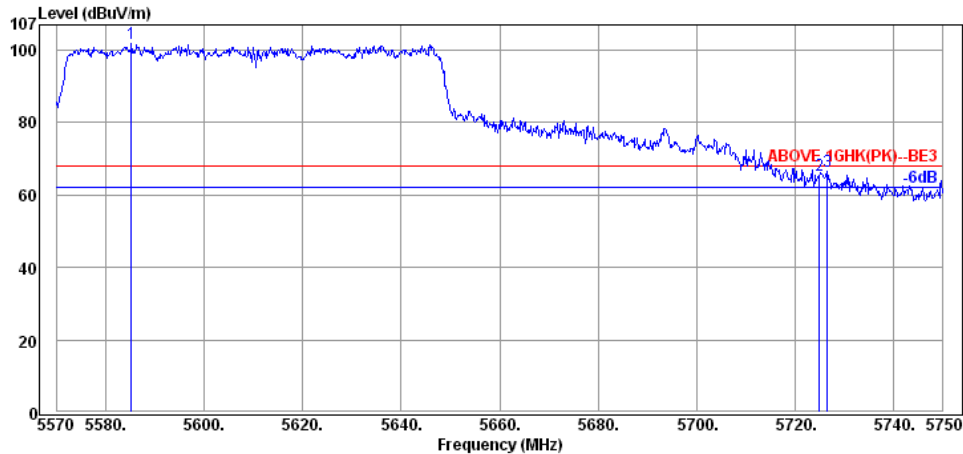
#### Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5463.72	34.77	8.65	8.94	52.36	54.00	1.64	Average
5470.02	34.77	8.65	7.54	50.96	54.00	3.04	Average
5543.82	34.84	8.87	45.88	89.59	---	---	Average

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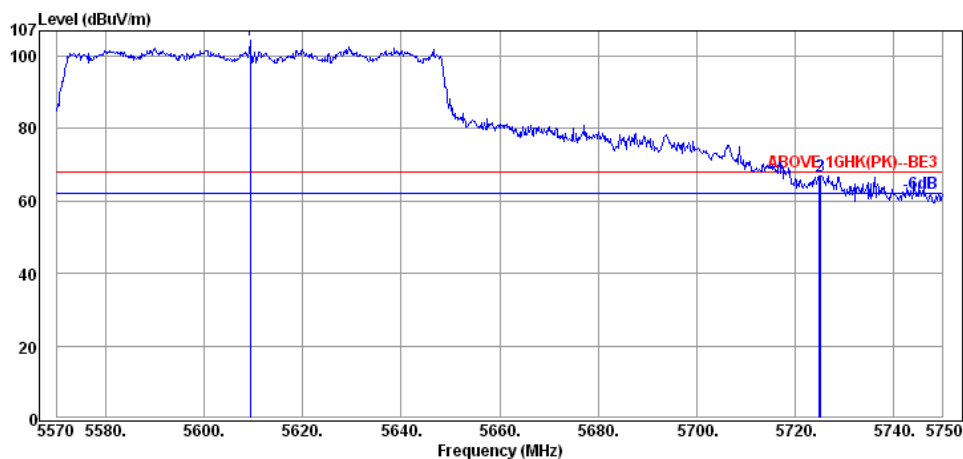
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Fax: +886 2 26099303

Mode	802.11ac-VHT80	UNII Band	II-2C
		Frequency	TX 5610MHz



#### Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5585.12	34.90	9.08	57.99	101.97	68.20	---	Peak
5724.98	35.07	9.78	20.61	65.46	68.20	2.74	Peak
5726.60	35.07	9.78	21.68	66.53	68.20	1.67	Peak



#### Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5609.24	34.92	9.15	60.19	104.26	68.20	---	Peak
5724.98	35.07	9.78	22.12	66.97	68.20	1.23	Peak
5725.34	35.07	9.78	22.22	67.07	68.20	1.13	Peak

## A.2.2 Emissions outside the frequency band:

The emissions (up to 40GHz) not reported for there is no emission be found.

Mode	802.11a	UNII Band	I
		Frequency	TX 5200MHz

**Antenna at Horizontal Polarization**

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4140.00	33.54	7.82	3.12	44.48	54.00	9.52	Peak
5000.00	34.30	8.78	3.71	46.79	54.00	7.21	Peak

**Antenna at Vertical Polarization**

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
3865.00	33.18	7.07	4.12	44.37	54.00	9.63	Peak
5000.00	34.30	8.78	7.90	50.98	54.00	3.02	Peak

Mode	802.11a	UNII Band	II-2A
		Frequency	TX 5260MHz

**Antenna at Horizontal Polarization**

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4015.00	33.33	7.28	4.73	45.34	54.00	8.66	Peak
4995.00	34.30	8.78	3.51	46.59	54.00	7.41	Peak

**Antenna at Vertical Polarization**

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4105.00	33.49	7.71	2.24	43.44	54.00	10.56	Peak
5000.00	34.30	8.78	7.14	50.22	54.00	3.78	Peak

Mode	802.11a	UNII Band	II-2C
		Frequency	TX 5600MHz

**Antenna at Horizontal Polarization**

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dB $\mu$ V)	Emission Level (dB $\mu$ V/m)	Limits (dB $\mu$ V/m)	Margin (dB)	Detector
3735.00	33.04	7.17	4.97	45.18	54.00	8.82	Peak
4995.00	34.30	8.78	5.18	48.26	54.00	5.74	Peak

**Antenna at Vertical Polarization**

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dB $\mu$ V)	Emission Level (dB $\mu$ V/m)	Limits (dB $\mu$ V/m)	Margin (dB)	Detector
3735.00	33.04	7.17	3.79	44.00	54.00	10.00	Peak
4995.00	34.30	8.78	6.01	49.09	54.00	4.91	Peak

Mode	802.11a	UNII Band	II-2C
		Frequency	TX 5720MHz

**Antenna at Horizontal Polarization**

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dB $\mu$ V)	Emission Level (dB $\mu$ V/m)	Limits (dB $\mu$ V/m)	Margin (dB)	Detector
3815.00	33.13	7.06	6.05	46.24	54.00	7.76	Peak
4995.00	34.30	8.78	4.94	48.02	54.00	5.98	Peak

**Antenna at Vertical Polarization**

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dB $\mu$ V)	Emission Level (dB $\mu$ V/m)	Limits (dB $\mu$ V/m)	Margin (dB)	Detector
3815.00	33.13	7.06	5.98	46.17	54.00	7.83	Peak
4995.00	34.30	8.78	6.61	49.69	54.00	4.31	Peak

Mode	802.11a	UNII Band	III
		Frequency	TX 5785MHz

**Antenna at Horizontal Polarization**

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dB $\mu$ V)	Emission Level (dB $\mu$ V/m)	Limits (dB $\mu$ V/m)	Margin (dB)	Detector
3855.00	33.16	7.07	8.10	48.33	54.00	5.67	Peak
4995.00	34.30	8.78	5.40	48.48	54.00	5.52	Peak

**Antenna at Vertical Polarization**

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dB $\mu$ V)	Emission Level (dB $\mu$ V/m)	Limits (dB $\mu$ V/m)	Margin (dB)	Detector
3855.00	33.16	7.07	6.26	46.49	54.00	7.51	Peak
5000.00	34.30	8.78	5.80	48.88	54.00	5.12	Peak

Mode	802.11ac-VHT20	UNII Band	I
		Frequency	TX 5240MHz

**Antenna at Horizontal Polarization**

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
3640.00	32.94	7.34	4.05	44.33	54.00	9.67	Peak
4995.00	34.30	8.78	3.89	46.97	54.00	7.03	Peak

**Antenna at Vertical Polarization**

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
3680.00	32.99	7.25	4.77	45.01	54.00	8.99	Peak
5000.00	34.30	8.78	6.48	49.56	54.00	4.44	Peak

Mode	802.11ac-VHT20	UNII Band	II-2A
		Frequency	TX 5260MHz

**Antenna at Horizontal Polarization**

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4990.00	34.30	8.78	4.17	47.25	54.00	6.75	Peak
10520.00	37.70	12.56	2.37	52.63	54.00	1.37	Peak

**Antenna at Vertical Polarization**

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4995.00	34.30	8.78	5.35	48.43	54.00	5.57	Peak
10520.00	37.70	12.56	1.44	51.70	54.00	2.30	Peak

Mode	802.11ac-VHT20	UNII Band	II-2C
		Frequency	TX 5600MHz

**Antenna at Horizontal Polarization**

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dB $\mu$ V)	Emission Level (dB $\mu$ V/m)	Limits (dB $\mu$ V/m)	Margin (dB)	Detector
3625.00	32.92	7.37	4.29	44.58	54.00	9.42	Peak
4995.00	34.30	8.78	5.29	48.37	54.00	5.63	Peak

**Antenna at Vertical Polarization**

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dB $\mu$ V)	Emission Level (dB $\mu$ V/m)	Limits (dB $\mu$ V/m)	Margin (dB)	Detector
4140.00	33.54	7.82	3.99	45.35	54.00	8.65	Peak
4995.00	34.30	8.78	6.90	49.98	54.00	4.02	Peak

Mode	802.11ac-VHT20	UNII Band	II-2C
		Frequency	TX 5720MHz

**Antenna at Horizontal Polarization**

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dB $\mu$ V)	Emission Level (dB $\mu$ V/m)	Limits (dB $\mu$ V/m)	Margin (dB)	Detector
3815.00	33.13	7.06	5.88	46.07	54.00	7.93	Peak
4995.00	34.30	8.78	5.06	48.14	54.00	5.86	Peak

**Antenna at Vertical Polarization**

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dB $\mu$ V)	Emission Level (dB $\mu$ V/m)	Limits (dB $\mu$ V/m)	Margin (dB)	Detector
4175.00	33.59	7.93	2.72	44.24	54.00	9.76	Peak
4995.00	34.30	8.78	6.37	49.45	54.00	4.55	Peak

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Mode	802.11ac-VHT20	UNII Band	III
		Frequency	TX 5825MHz

**Antenna at Horizontal Polarization**

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dB $\mu$ V)	Emission Level (dB $\mu$ V/m)	Limits (dB $\mu$ V/m)	Margin (dB)	Detector
3885.00	33.20	7.07	9.24	49.51	54.00	4.49	Peak
4995.00	34.30	8.78	4.00	47.08	54.00	6.92	Peak

**Antenna at Vertical Polarization**

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dB $\mu$ V)	Emission Level (dB $\mu$ V/m)	Limits (dB $\mu$ V/m)	Margin (dB)	Detector
3885.00	33.20	7.07	5.26	45.53	54.00	8.47	Peak
5000.00	34.30	8.78	6.65	49.73	54.00	4.27	Peak



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Mode	802.11ac-VHT40	UNII Band	I
		Frequency	TX 5230MHz

#### Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4295.00	33.78	8.01	2.17	43.96	54.00	10.04	Peak
4990.00	34.30	8.78	3.89	46.97	54.00	7.03	Peak

#### Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4280.00	33.75	8.01	3.30	45.06	54.00	8.94	Peak
4990.00	34.30	8.78	6.23	49.31	54.00	4.69	Peak

Mode	802.11ac-VHT40	UNII Band	II-2A
		Frequency	TX 5270MHz

#### Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4050.00	33.38	7.43	3.70	44.51	54.00	9.49	Peak
4995.00	34.30	8.78	3.63	46.71	54.00	7.29	Peak

#### Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4475.00	34.05	7.74	2.67	44.46	54.00	9.54	Peak
4995.00	34.30	8.78	6.35	49.43	54.00	4.57	Peak

Mode	802.11ac-VHT40	UNII Band	II-2C
		Frequency	TX 5590MHz

**Antenna at Horizontal Polarization**

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dB $\mu$ V)	Emission Level (dB $\mu$ V/m)	Limits (dB $\mu$ V/m)	Margin (dB)	Detector
4595.00	34.13	7.60	3.02	44.75	54.00	9.25	Peak
5000.00	34.30	8.78	4.39	47.47	54.00	6.53	Peak

**Antenna at Vertical Polarization**

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dB $\mu$ V)	Emission Level (dB $\mu$ V/m)	Limits (dB $\mu$ V/m)	Margin (dB)	Detector
4145.00	33.54	7.82	2.79	44.15	54.00	9.85	Peak
5000.00	34.30	8.78	6.94	50.02	54.00	3.98	Peak

Mode	802.11ac-VHT40	UNII Band	II-2C
		Frequency	TX 5710MHz

**Antenna at Horizontal Polarization**

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dB $\mu$ V)	Emission Level (dB $\mu$ V/m)	Limits (dB $\mu$ V/m)	Margin (dB)	Detector
4595.00	34.13	7.60	2.33	44.06	54.00	9.94	Peak
5000.00	34.30	8.78	5.83	48.91	54.00	5.09	Peak

**Antenna at Vertical Polarization**

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dB $\mu$ V)	Emission Level (dB $\mu$ V/m)	Limits (dB $\mu$ V/m)	Margin (dB)	Detector
1322.00	28.03	3.84	12.24	44.11	54.00	9.89	Peak
1798.00	30.16	4.74	13.57	48.47	54.00	5.53	Peak

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Mode	802.11ac-VHT40	UNII Band	III
		Frequency	TX 5795MHz

**Antenna at Horizontal Polarization**

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dB $\mu$ V)	Emission Level (dB $\mu$ V/m)	Limits (dB $\mu$ V/m)	Margin (dB)	Detector
3865.00	33.18	7.07	6.80	47.05	54.00	6.95	Peak
5000.00	34.30	8.78	4.34	47.42	54.00	6.58	Peak

**Antenna at Vertical Polarization**

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dB $\mu$ V)	Emission Level (dB $\mu$ V/m)	Limits (dB $\mu$ V/m)	Margin (dB)	Detector
3865.00	33.18	7.07	4.64	44.89	54.00	9.11	Peak
5000.00	34.30	8.78	5.26	48.34	54.00	5.66	Peak

Mode	802.11ac-VHT80	UNII Band	I
		Frequency	TX 5210MHz

**Antenna at Horizontal Polarization**

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dB $\mu$ V)	Emission Level (dB $\mu$ V/m)	Limits (dB $\mu$ V/m)	Margin (dB)	Detector
3620.00	32.92	7.37	3.63	43.92	54.00	10.08	Peak
4995.00	34.30	8.78	3.56	46.64	54.00	7.36	Peak

**Antenna at Vertical Polarization**

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dB $\mu$ V)	Emission Level (dB $\mu$ V/m)	Limits (dB $\mu$ V/m)	Margin (dB)	Detector
3490.00	32.80	7.24	3.34	43.38	54.00	10.62	Peak
5000.00	34.30	8.78	6.82	49.90	54.00	4.10	Peak

Mode	802.11ac-VHT80	UNII Band	II-2A
		Frequency	TX 5290MHz

**Antenna at Horizontal Polarization**

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dB $\mu$ V)	Emission Level (dB $\mu$ V/m)	Limits (dB $\mu$ V/m)	Margin (dB)	Detector
4345.00	33.86	7.91	2.52	44.29	54.00	9.71	Peak
4975.00	34.29	8.73	5.34	48.36	54.00	5.64	Peak

**Antenna at Vertical Polarization**

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dB $\mu$ V)	Emission Level (dB $\mu$ V/m)	Limits (dB $\mu$ V/m)	Margin (dB)	Detector
4455.00	34.02	7.76	2.68	44.46	54.00	9.54	Peak
4990.00	34.30	8.78	5.76	48.84	54.00	5.16	Peak

Mode	802.11ac-VHT80	UNII Band	II-2C
		Frequency	TX 5610MHz

**Antenna at Horizontal Polarization**

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dB $\mu$ V)	Emission Level (dB $\mu$ V/m)	Limits (dB $\mu$ V/m)	Margin (dB)	Detector
4375.00	33.91	7.85	2.30	44.06	54.00	9.94	Peak
5000.00	34.30	8.78	4.52	47.60	54.00	6.40	Peak

**Antenna at Vertical Polarization**

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dB $\mu$ V)	Emission Level (dB $\mu$ V/m)	Limits (dB $\mu$ V/m)	Margin (dB)	Detector
3655.00	32.96	7.31	3.89	44.16	54.00	9.84	Peak
4995.00	34.30	8.78	6.18	49.26	54.00	4.74	Peak

Mode	802.11ac-VHT80	UNII Band	II-2C
		Frequency	TX 5690MHz

**Antenna at Horizontal Polarization**

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dB $\mu$ V)	Emission Level (dB $\mu$ V/m)	Limits (dB $\mu$ V/m)	Margin (dB)	Detector
3795.00	33.09	7.09	4.38	44.56	54.00	9.44	Peak
5000.00	34.30	8.78	4.22	47.30	54.00	6.70	Peak

**Antenna at Vertical Polarization**

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dB $\mu$ V)	Emission Level (dB $\mu$ V/m)	Limits (dB $\mu$ V/m)	Margin (dB)	Detector
3795.00	33.09	7.09	3.99	44.17	54.00	9.83	Peak
5000.00	34.30	8.78	7.08	50.16	54.00	3.84	Peak

Mode	802.11ac-VHT80	UNII Band	III
		Frequency	TX 5775MHz

**Antenna at Horizontal Polarization**

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dB $\mu$ V)	Emission Level (dB $\mu$ V/m)	Limits (dB $\mu$ V/m)	Margin (dB)	Detector
3850.00	33.16	7.07	6.12	46.35	54.00	7.65	Peak
4990.00	34.30	8.78	3.80	46.88	54.00	7.12	Peak

**Antenna at Vertical Polarization**

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dB $\mu$ V)	Emission Level (dB $\mu$ V/m)	Limits (dB $\mu$ V/m)	Margin (dB)	Detector
3850.00	33.16	7.07	4.80	45.03	54.00	8.97	Peak
4990.00	34.30	8.78	5.28	48.36	54.00	5.64	Peak

**A.2.3 Emissions in Non-restricted Frequency Bands:**

Pursuant to KDB 789033 D02 General NII Test Procedures New Rules V01 that emission levels below the 15.209 general radiated emissions limits is not required.

### A.3 EMISSION BANDWIDTH

Test Date	2017/03/01~03	Temp./Hum.	24~25°C/55~56%
Cable Loss	4dB	Test Voltage	AC 120V, 60Hz (with Docking via AC Adapter)

#### A.3.1 Emission Bandwidth Result

Mode	UNII Band	Centre Frequency (MHz)	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Limit
802.11a	I	5180	19.32	16.283	Reference only
		5200	18.84	16.293	
		5240	18.83	16.308	
	II-2A	5260	24.02	16.459	
		5300	19.17	16.291	
		5320	19.14	16.275	
	II-2C	5500	18.89	16.286	
		5600	19.12	16.296	
		5700	19.06	16.287	
		5720	18.85	16.308	
802.11ac-VHT20	I	5180	28.03	17.966	Reference only
		5200	26.43	18.001	
		5240	32.49	18.235	
	II-2A	5260	30.60	18.050	
		5300	27.57	17.957	
		5320	22.87	17.813	
	II-2C	5500	22.05	17.781	
		5600	24.57	17.802	
		5700	22.37	17.747	
		5720	22.17	17.785	

Mode	UNII Band	Centre Frequency (MHz)	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Limit
802.11ac-VHT40	I	5190	43.84	36.456	Reference only
		5230	62.82	36.897	
	II-2A	5270	65.35	37.277	
		5310	44.16	36.401	
	II-2C	5510	43.58	36.414	
		5590	48.87	36.589	
		5670	44.11	36.594	
		5710	43.42	36.531	
802.11ac-VHT80	I	5210	87.41	76.066	Reference only
	II-2A	5290	84.07	76.113	
	II-2C	5530	83.70	75.921	
		5610	101.60	76.517	
		5690	102.20	76.591	

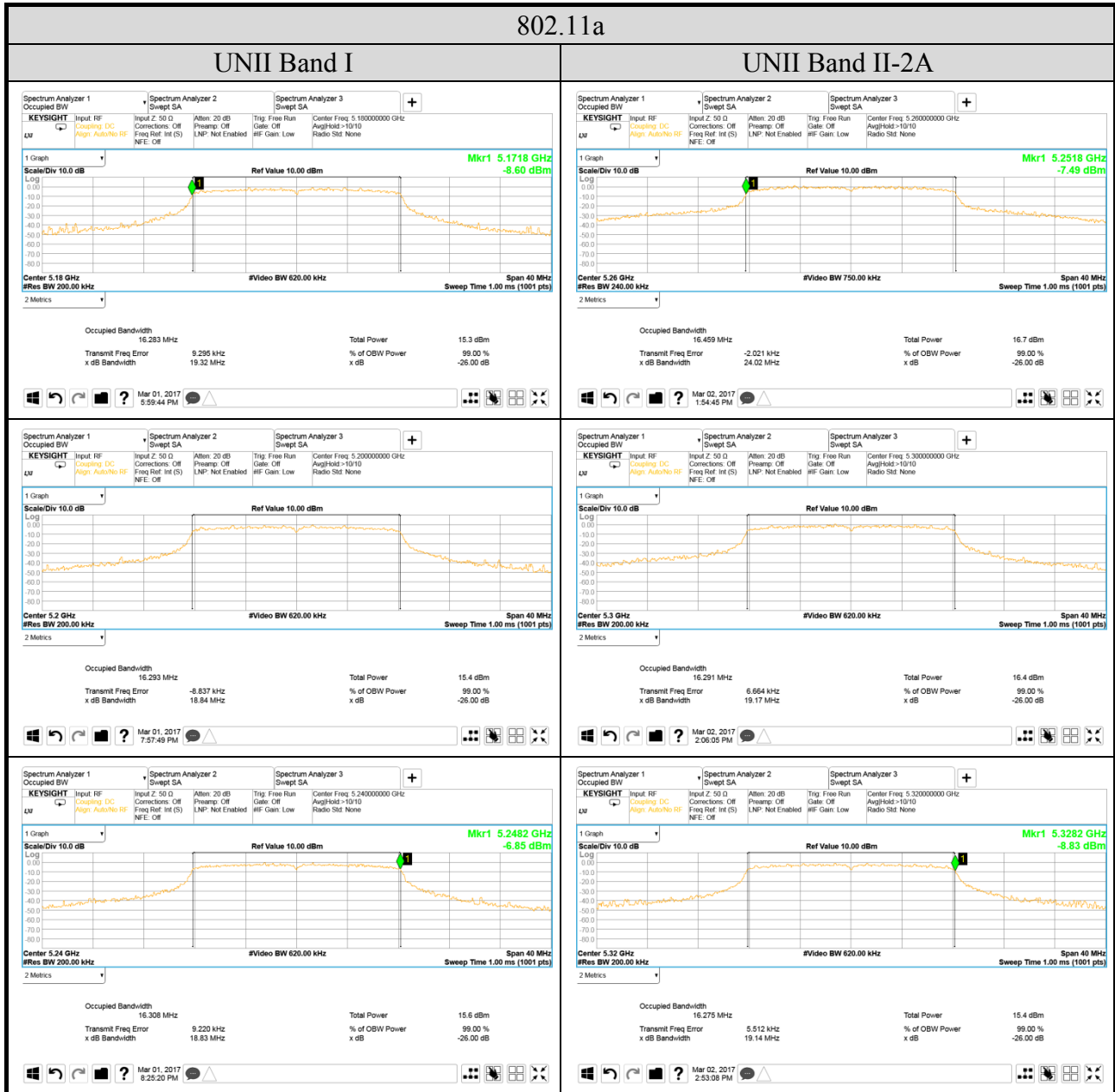
Mode	UNII Band	Centre Frequency (MHz)	6dB Bandwidth (MHz)	Limit
802.11a	III	5745	15.15	≥ 500kHz
		5785	15.16	
		5825	15.16	
802.11ac-VHT20	III	5745	17.66	
		5785	17.68	
		5825	17.62	
802.11ac-VHT40	III	5755	36.49	
		5795	36.45	
802.11ac-VHT80	III	5775	75.99	



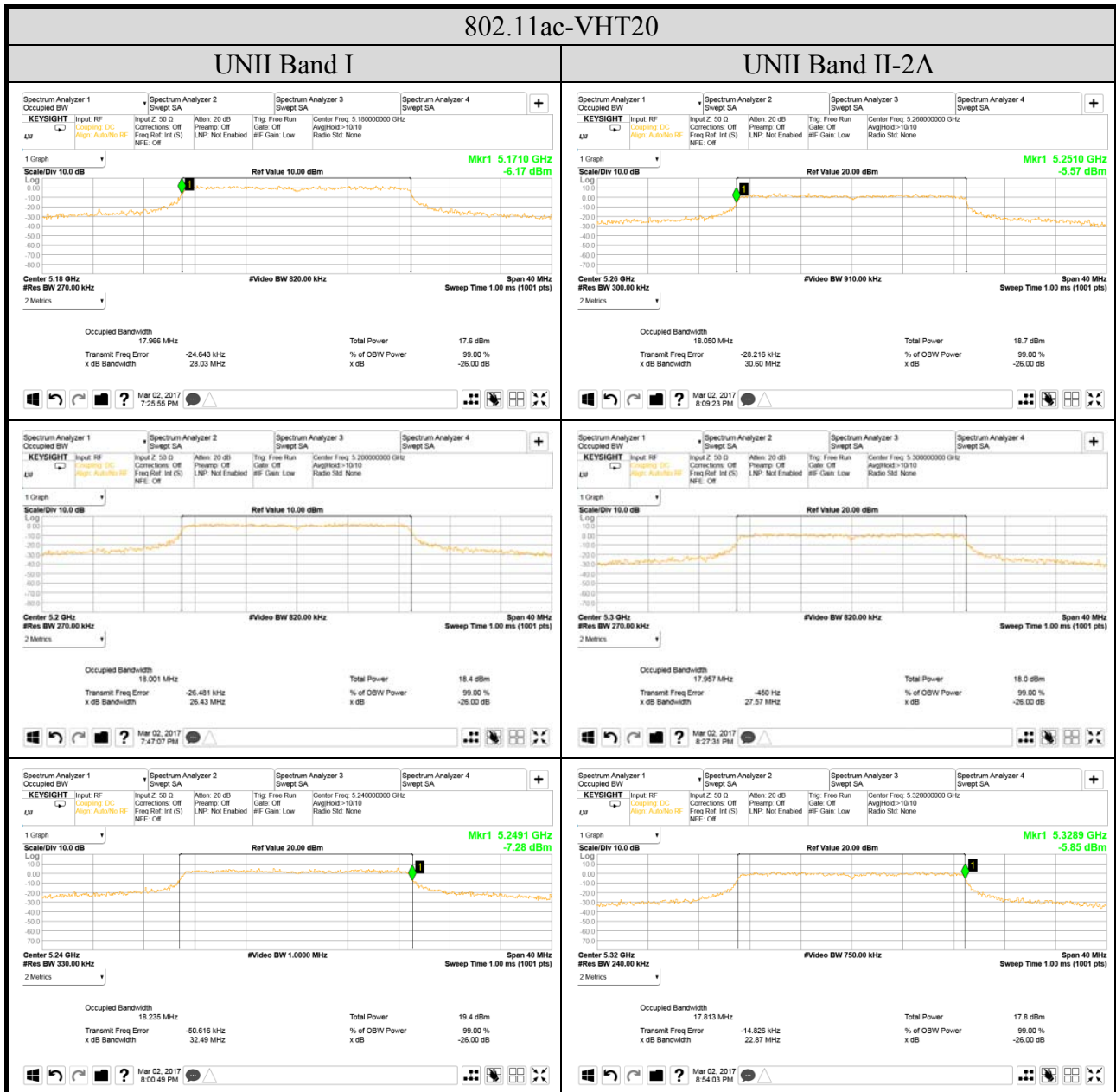
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### A.3.2 Measurement Plots







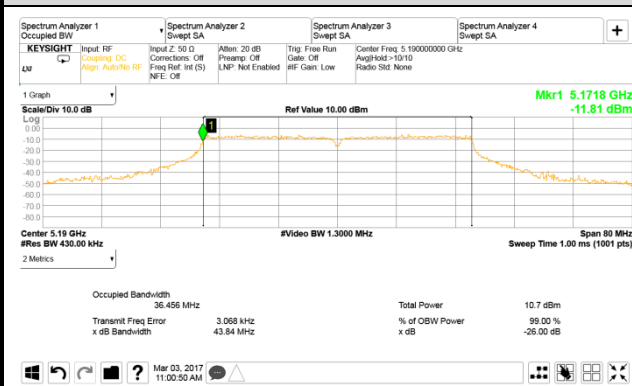
## 802.11ac-VHT20

### UNII Band II-2C

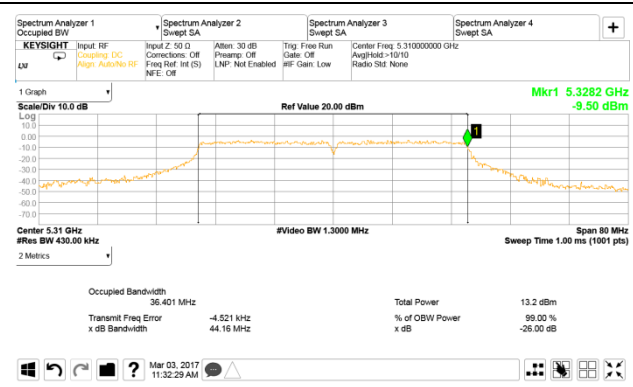
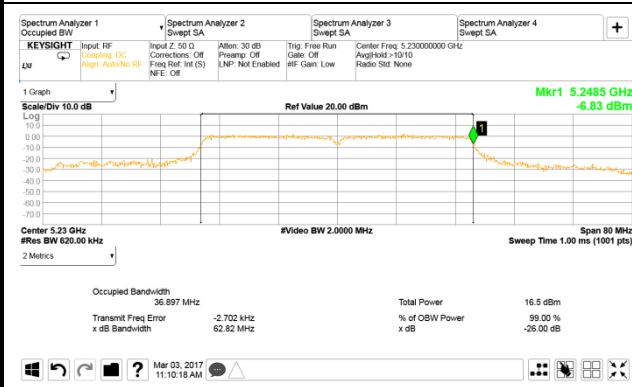
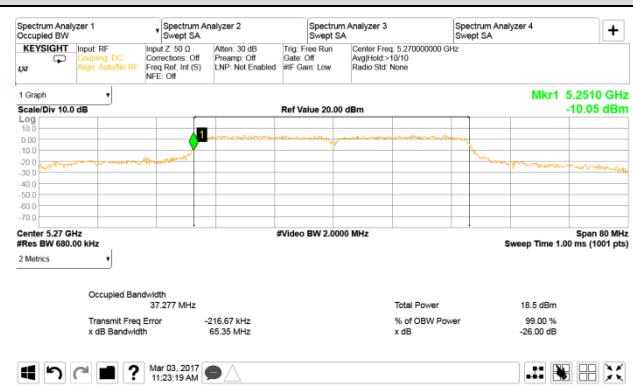


## 802.11ac-VHT40

### UNII Band I



### UNII Band II-2A



## 802.11ac-VHT40

### UNII Band II-2C

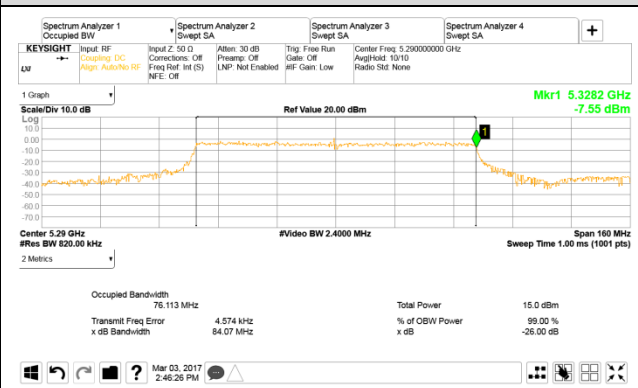


## 802.11ac-VHT80

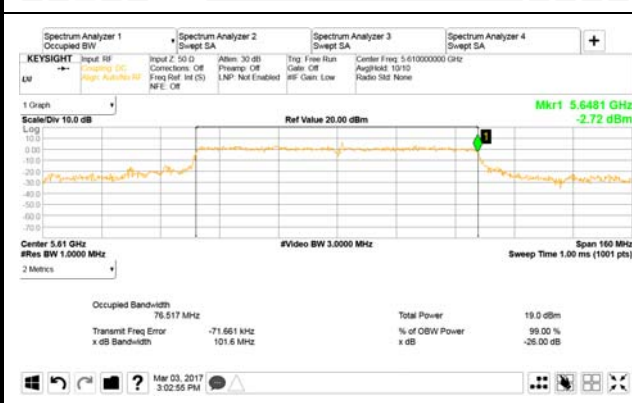
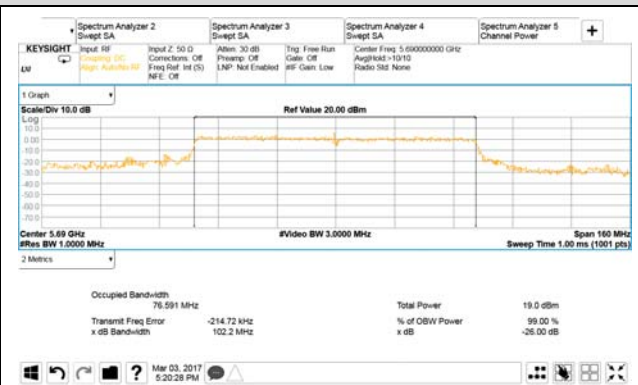
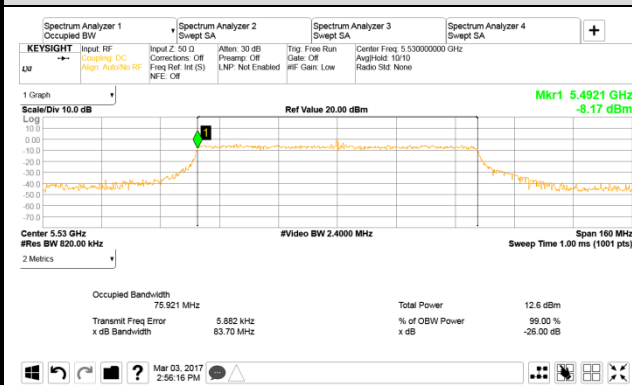
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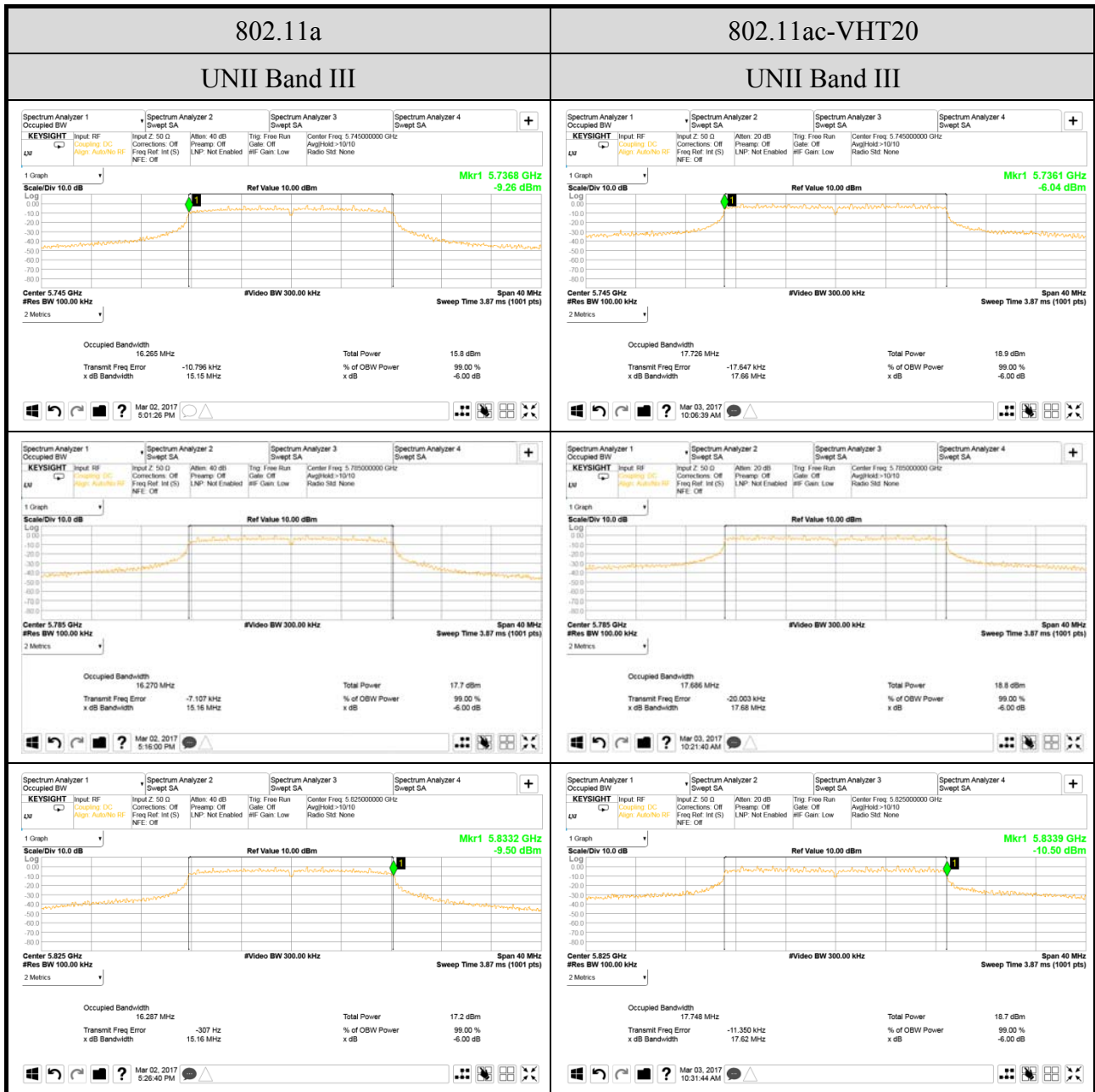
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### UNII Band II-2C



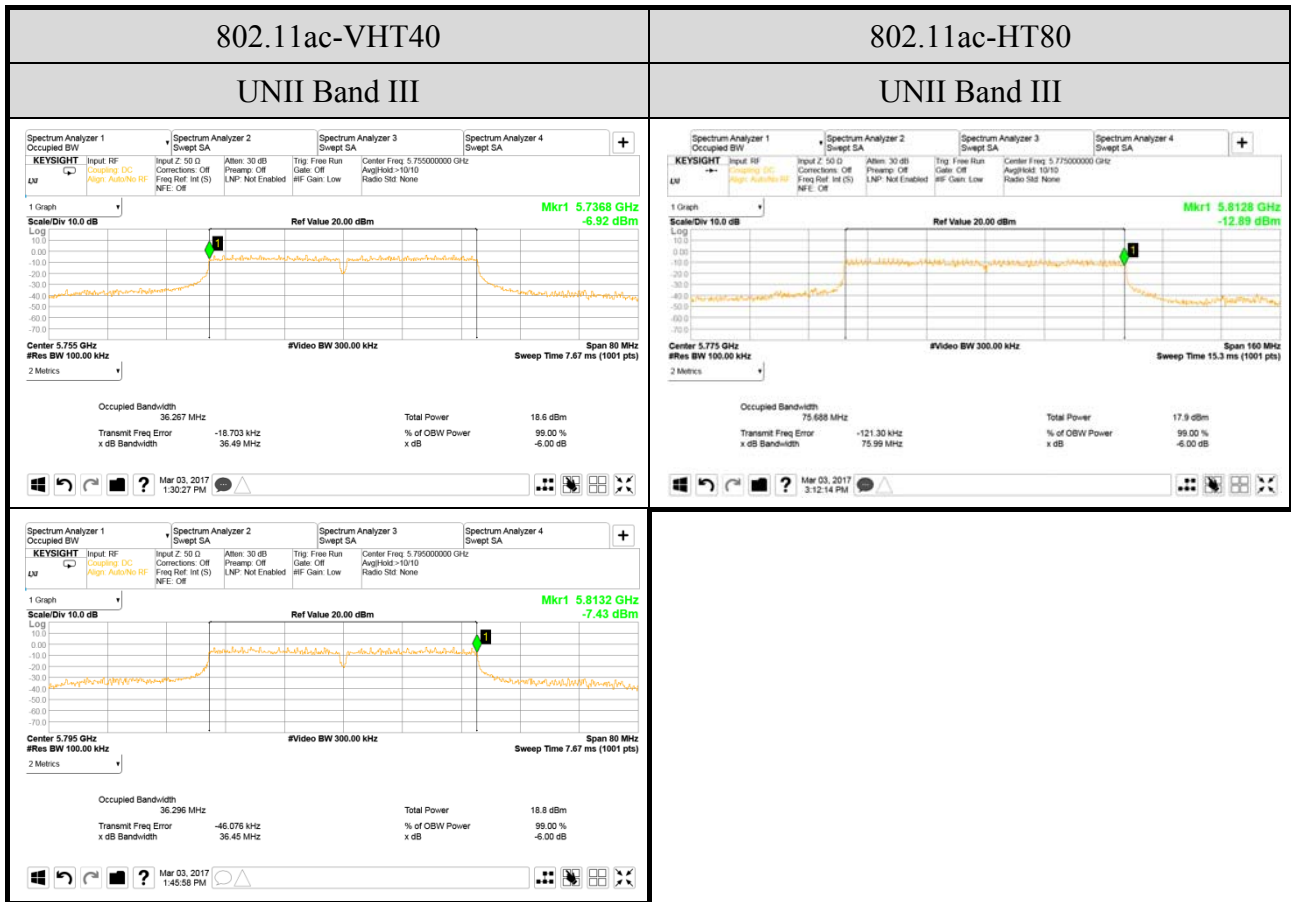






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## A.4 MAXIMUM PEAK OUTPUT POWER

Test Date	2017/03/09	Temp./Hum.	24°C/56%
Cable Loss	4dB	Test Voltage	AC 120V, 60Hz (with Docking via AC Adapter)

### A.4.1 Average Output Power

Mode	UNII Band	Centre Frequency (MHz)	Average Output Power (dBm)		10log (1/X)	Total Average Output Power		Limit
			Chain 0	Chain 1		(dBm)	(W)	
802.11a	I	5180	13.46	13.97	0.22	16.96	0.049659	< 250 mW (24 dBm)
		5200	14.72	14.22		17.71	0.059020	
		5240	14.33	14.57		17.68	0.058614	
	II-2A	5260	14.91	15.24		18.31	0.067764	
		5300	14.76	15.21		18.22	0.066374	
		5320	13.00	13.26		16.37	0.043351	
	II-2C	5500	13.42	12.61		16.27	0.042364	
		5600	14.14	15.23		17.95	0.062373	
		5700	12.46	12.97		15.96	0.039446	
		5720	11.39	13.10		15.56	0.035975	
	III	5720	4.07	5.72		8.20	0.006607	< 1 W (30 dBm)
		5745	13.06	13.65		16.60	0.045709	
		5785	14.33	15.36		18.11	0.064714	
		5825	14.08	15.30		17.97	0.062661	

Note: The results have been included cable loss.

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Mode	UNII Band	Centre Frequency (MHz)	Average Output Power(dBm)		10log (1/X)	Total Average Output Power		Limit
			Chain 0	Chain 1		(dBm)	(W)	
802.11ac- VHT20	I	5180	14.39	14.08	1.87	19.12	0.081658	< 250 mW (24 dBm)
		5200	14.79	14.39		19.48	0.088716	
		5240	15.01	15.36		20.07	0.101625	
	II-2A	5260	14.70	15.03		19.75	0.094406	
		5300	14.07	14.84		19.35	0.086099	
		5320	13.64	14.30		18.86	0.076913	
	II-2C	5500	13.37	13.08		18.11	0.064714	
		5600	13.82	14.47		19.04	0.080168	
		5700	12.55	13.07		17.70	0.058884	
		5720	11.36	12.71		16.97	0.049774	
	III	5720	6.06	7.03		11.45	0.013964	< 1 W (30 dBm)
		5745	12.75	13.68		18.12	0.064863	
		5785	13.06	14.45		18.69	0.073961	
		5825	13.74	15.07		19.34	0.085901	
802.11ac- VHT40	I	5190	8.02	7.28	2.76	13.43	0.022029	< 250 mW (24 dBm)
		5230	13.21	13.51		19.13	0.081846	
	II-2A	5270	13.17	13.28		18.99	0.079250	
		5310	7.88	8.87		14.17	0.026122	
	II-2C	5510	8.52	8.39		14.22	0.026424	
		5590	13.02	13.48		19.02	0.079799	
		5670	11.90	12.43		17.94	0.062230	
		5710	11.39	12.85		17.95	0.062373	
	III	5710	1.83	2.71		8.06	0.006397	< 1 W (30 dBm)
		5755	11.09	11.92		17.29	0.053580	
		5795	12.27	13.28		18.57	0.071945	

Note: The results have been included cable loss.

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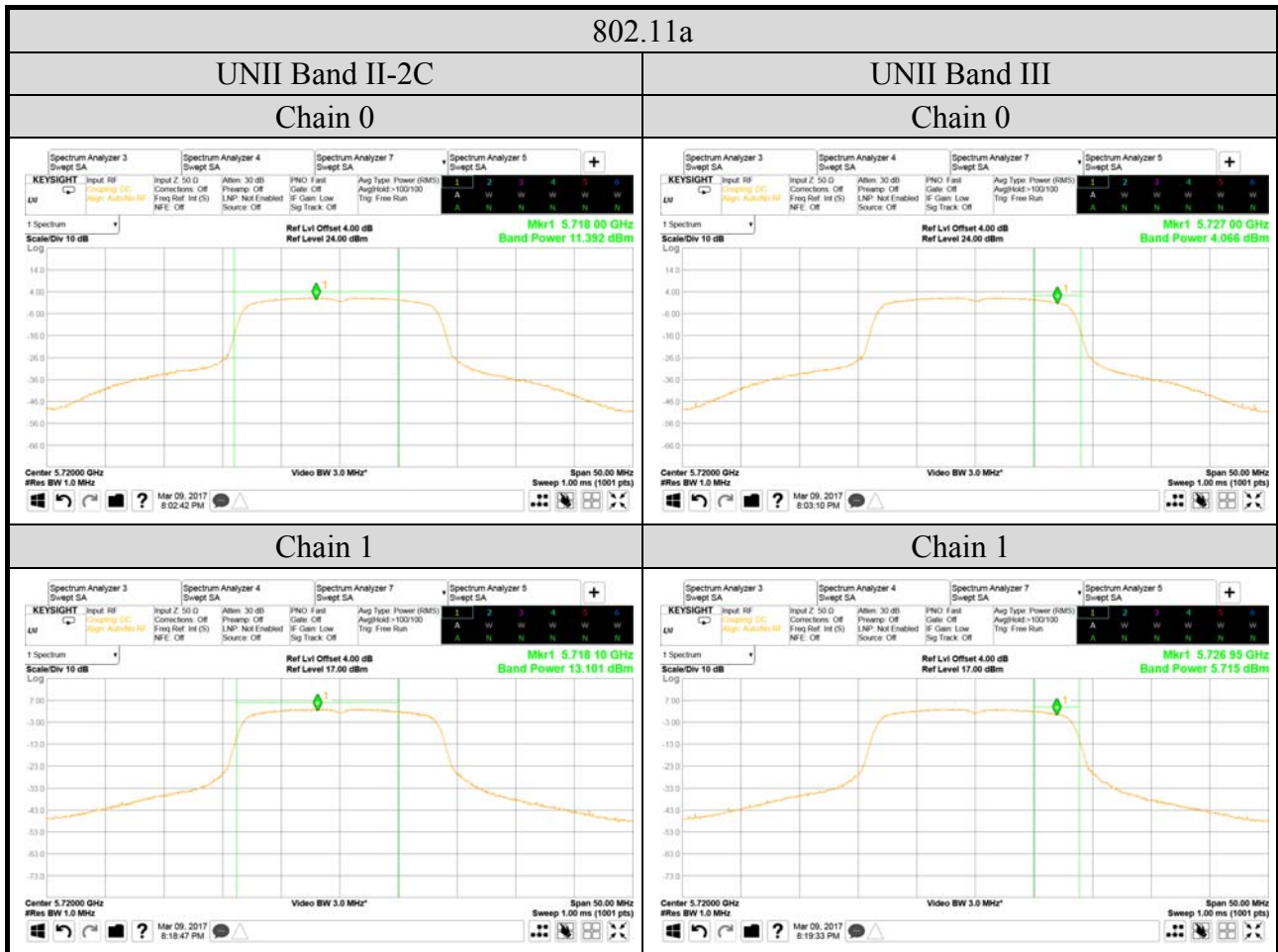
Mode	UNII Band	Centre Frequency (MHz)	Average Output Power (dBm)		10log (1/X)	Total Average Output Power		Limit
			Chain 0	Chain 1		(dBm)	(W)	
802.11ac- VHT80	I	5210	6.24	7.41	3.37	13.25	0.021135	< 250 mW (24 dBm)
	II-2A	5290	8.23	9.74		15.43	0.034914	
	II-2C	5530	6.82	7.45		13.53	0.022542	
		5610	12.94	13.65		19.69	0.093111	
		5690	12.36	13.79		19.52	0.089536	
	III	5690	-1.32	0.30		5.95	0.003936	< 1 W (30 dBm)
		5775	9.89	11.21		16.68	0.046559	

Note: The results have been included cable loss.

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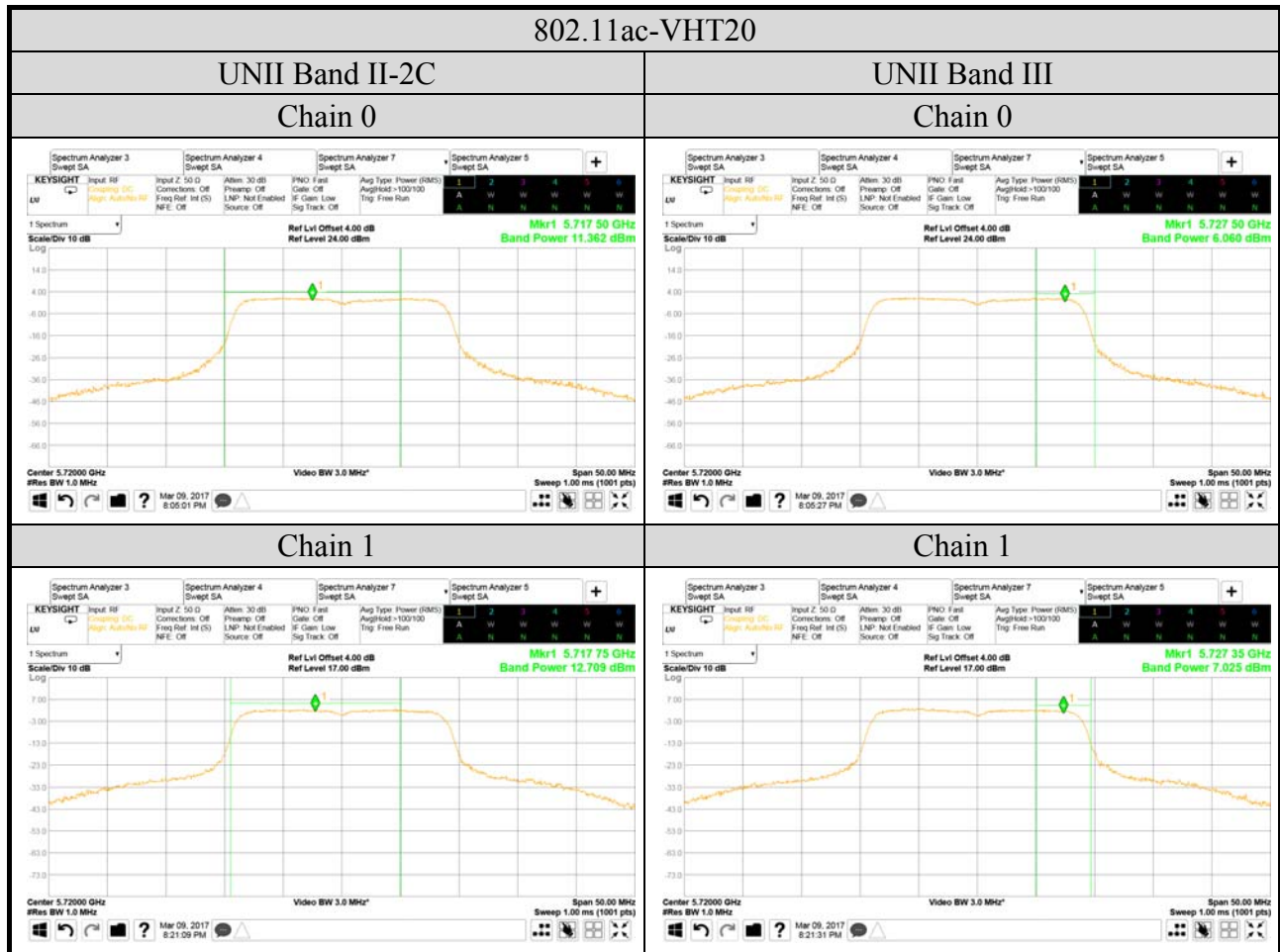
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## A.4.2 Measurement Plots



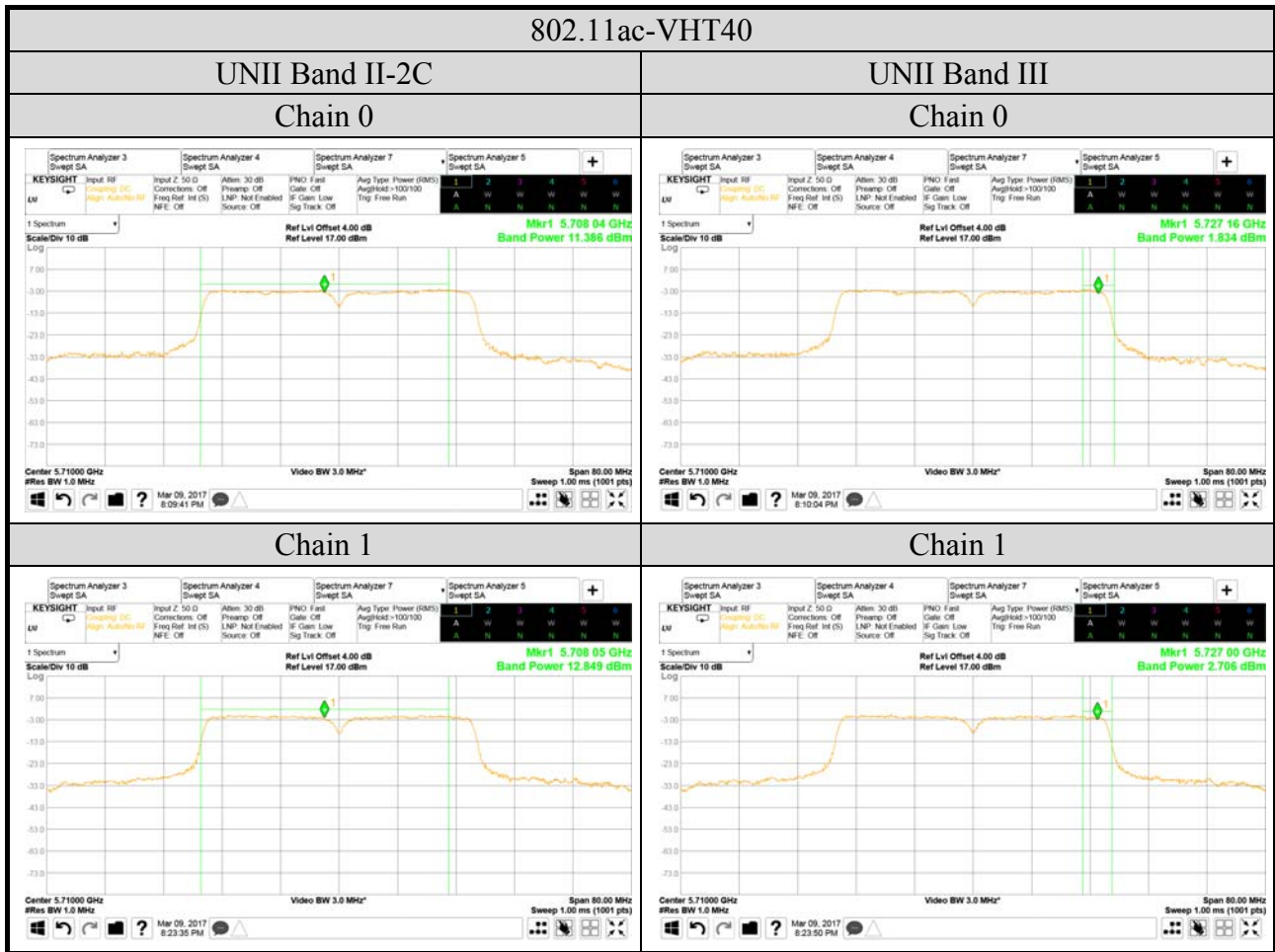
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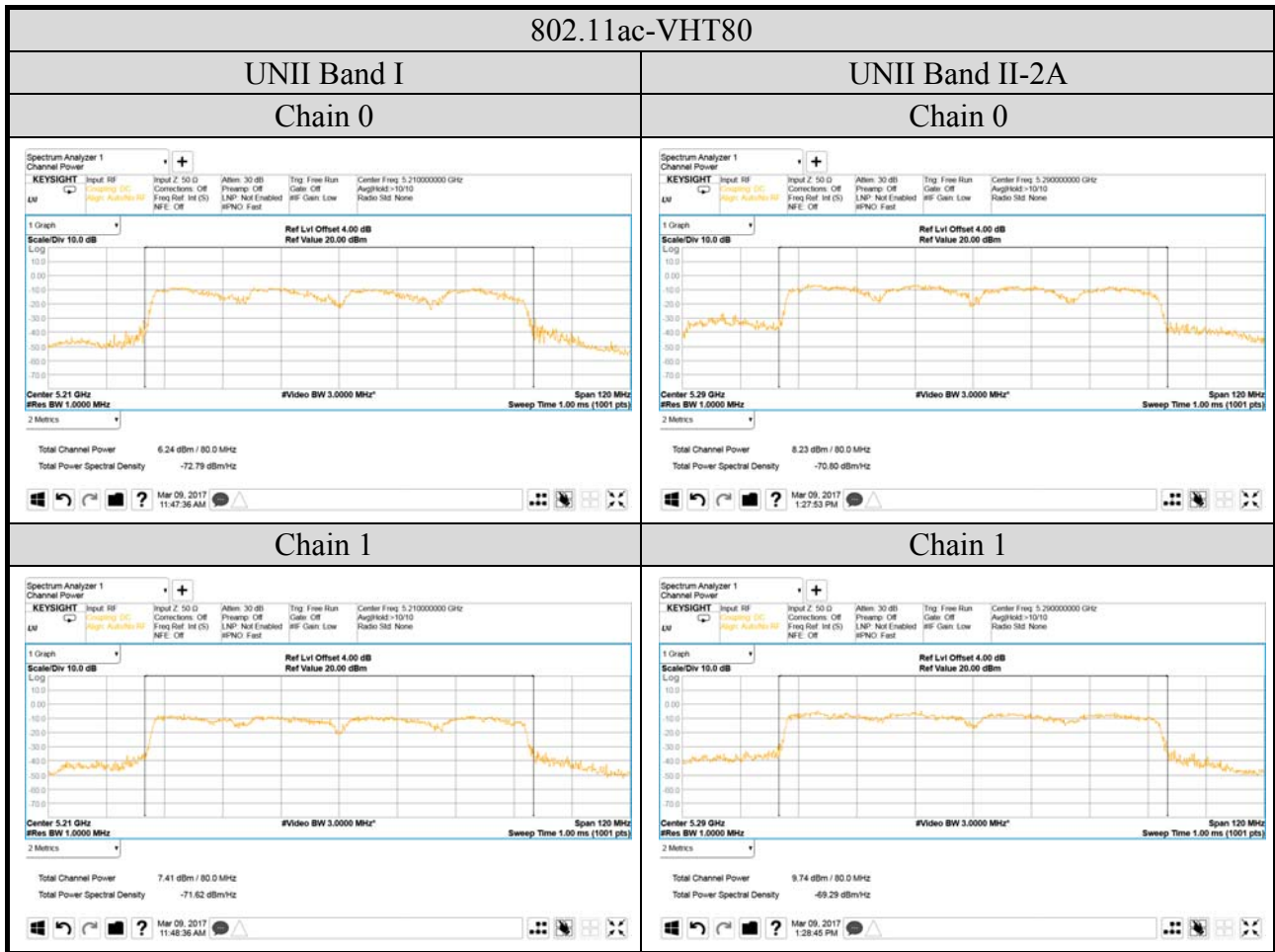
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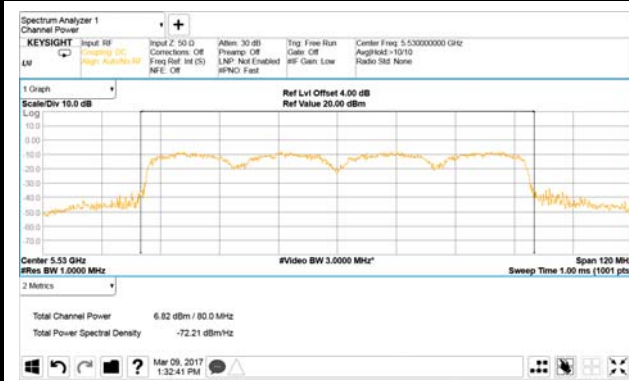




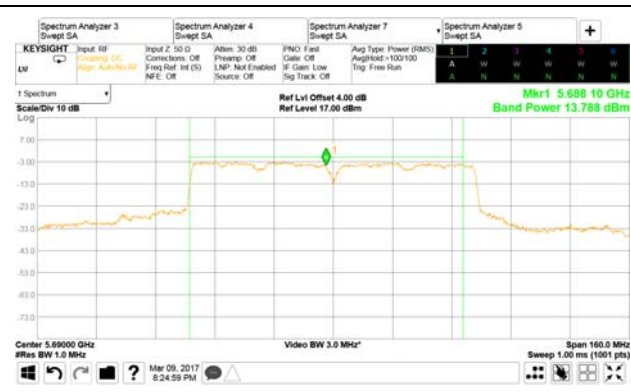
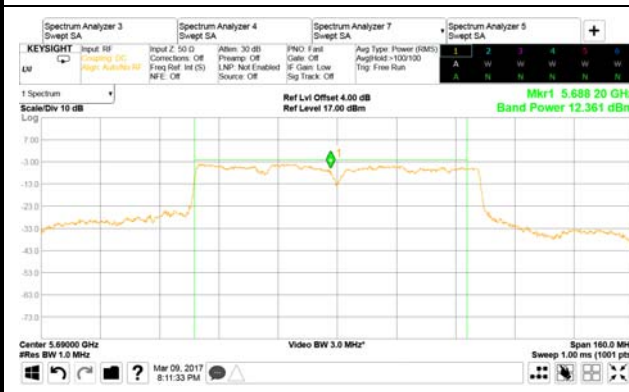
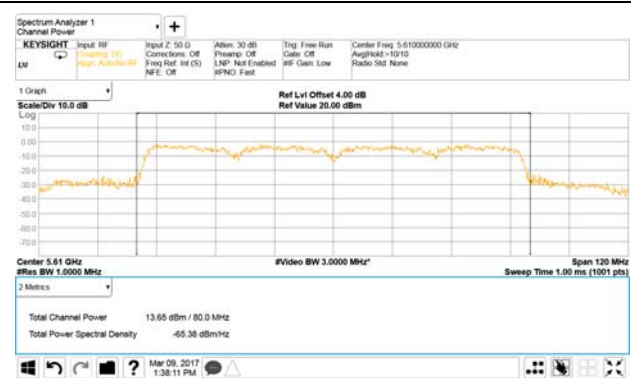
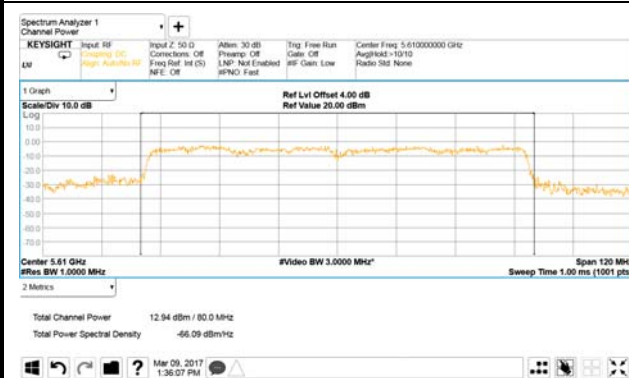
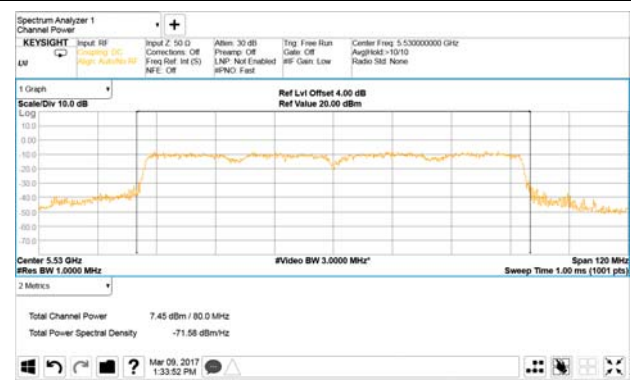
## 802.11ac-VHT80

### UNII Band II-2C

#### Chain 0



#### Chain 1



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