FCC Test Report

Report No.:	RFBASM-WTW-P20120918-3
FCC ID:	QYLAX201NG
Test Model:	AX201NGW
Received Date:	Dec. 29, 2020
Test Date:	Jan. 07 ~ Mar. 30, 2021
Issued Date:	Apr. 08, 2021
Applicant:	Getac Technology Corporation.
Address:	5F., Building A, No. 209, Sec.1, Nangang Rd.,Nangang Dist., Taipei City 11568, Taiwan, R.O.C.
Issued By:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch Lin Kou Laboratories
Lab Address:	No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan
Test Location (1):	No.19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City 33383, Taiwan
Test Location (2):	B2F., No.215, Sec. 3, Beixin Rd., Xindian Dist., New Taipei City 231, Taiwan
FCC Registration / Designation Number:	788550 / TW0003 427177 / TW0011

Table of Contents

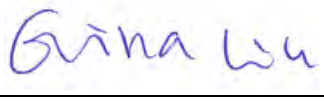
Release Control Record

Issue No.	Description	Date Issued
RFBASM-WTW-P20120918-3	Original Release	Apr. 08, 2021

1 Certificate of Conformity

Product:	WLAN and BT, 2x2 PCIe M.2 2230 adapter card
Brand:	Intel® Wi-Fi 6 AX201
Test Model:	AX201NGW
Sample Status:	Mass Product
Applicant:	Getac Technology Corporation.
Test Date:	Jan. 07 ~ Mar. 30, 2021
Standards:	47 CFR FCC Part 15, Subpart E (Section 15.407) ANSI C63.10:2013

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's RF characteristics under the conditions specified in this report.

Prepared by :  , **Date:** Apr. 08, 2021

Gina Liu / Specialist

Approved by :  , **Date:** Apr. 08, 2021

Dylan Chiou / Senior Project Engineer

2 Summary of Test Results

47 CFR FCC Part 15, Subpart E (Section 15.407)			
FCC Clause	**Test Item**	**Result**	**Remarks**
15.407(b)(8)	AC Power Conducted Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -17.78 dB at 0.462 MHz.
15.407(b) (1/2/3/4(i/ii)/8)	Radiated Emissions & Band Edge Measurement	Pass	Meet the requirement of limit. Minimum passing margin is -5.78 dB at 5725 MHz.
15.407(a)(1/2/3)	Max Average Transmit Power	Pass	Meet the requirement of limit.
---	Occupied Bandwidth Measurement	-	Reference only
15.407(a)(1/2/3)	Peak Power Spectral Density	Pass	Meet the requirement of limit.
15.407(e)	6 dB Bandwidth	Pass	Meet the requirement of limit. (U-NII-3 Band only)
15.407(g)	Frequency Stability	Pass	Meet the requirement of limit.
15.203	Antenna Requirement	Pass	Antenna connector is SMA. (The device is professionally installed)

Note:

1. For U-NII-3 band compliance with rule part 15.407(b)(4)(i), the OOBE test plots were recorded in Annex A.
2. For U-NII-1, U-NII-2A, U-NII-2C band compliance with rule 15.407(b) of the band-edge items, the test plots were recorded in Annex B. Test Procedures refer to report 4.1.3.
3. Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

2.1 Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

Measurement	Frequency	Expanded Uncertainty (k=2) (±)
Conducted Emissions at mains ports	150 kHz ~ 30 MHz	2.79 dB
Radiated Emissions up to 1 GHz	9 kHz ~ 30 MHz	3.04 dB
	30 MHz ~ 200 MHz	2.0153 dB
	200 MHz ~ 1000 MHz	2.0224 dB
Radiated Emissions above 1 GHz	1 GHz ~ 18 GHz	1.0121 dB
	18 GHz ~ 40 GHz	1.1508 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	WLAN and BT, 2x2 PCIe M.2 2230 adapter card
Brand	Intel® Wi-Fi 6 AX201
Test Model	AX201NGW
Status of EUT	Mass Product
Power Supply Rating	19 Vdc (adapter) 11.1 & 14.4 Vdc (battery)
Modulation Type	256QAM, 64QAM, 16QAM, QPSK, BPSK for OFDM 1024QAM, 256QAM, 64QAM, 16QAM, QPSK, BPSK for OFDMA
Modulation Technology	OFDM
Transfer Rate	802.11a: 54.0/ 48.0/ 36.0/ 24.0/ 18.0/ 12.0/ 9.0/ 6.0 Mbps 802.11n: up to 300.0 Mbps 802.11ac: up to 1733.3 Mbps 802.11ax: up to 2402.0 Mbps
Operating Frequency	5180 ~ 5250 MHz, 5250 ~ 5320 MHz, 5500 ~ 5720 MHz, 5745 ~ 5825 MHz
Number of Channel	5180 ~ 5250 MHz: 4 for 802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20) 2 for 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40) 1 for 802.11ac (VHT80), 802.11ax (HE80) 1 for 802.11ac (VHT160), 802.11ax (HE160) 5250 ~ 5320 MHz: 4 for 802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20) 2 for 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40) 1 for 802.11ac (VHT80), 802.11ax (HE80) 5500 ~ 5720 MHz: 12 for 802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20) 6 for 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40) 3 for 802.11ac (VHT80), 802.11ax (HE80) 1 for 802.11ac (VHT160), 802.11ax (HE160) 5745 ~ 5825 MHz: 5 for 802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20) 2 for 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40) 1 for 802.11ac (VHT80), 802.11ax (HE80)
Output Power	65.163 mW for 5180 ~ 5250 MHz 63.826 mW for 5250 ~ 5320 MHz 41.495 mW for 5500 ~ 5720 MHz 34.995 mW for 5745 ~ 5825 MHz
Antenna Type	PIFA antenna with 1.19 dBi gain (5180 ~ 5250 MHz) PIFA antenna with 3.08 dBi gain (5250 ~ 5320 MHz) PIFA antenna with 2.78 dBi gain (5500 ~ 5720 MHz) PIFA antenna with 2.45 dBi gain (5745 ~ 5825 MHz)
Antenna Connector	SMA
Accessory Device	Refer to Note as below

Data Cable Supplied	Refer to Note as below

Note:

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

Modulation Mode	Tx Function
802.11a	1TX
802.11n (HT20)	2TX
802.11n (HT40)	2TX
802.11ac (VHT20)	2TX
802.11ac (VHT40)	2TX
802.11ac (VHT80)	2TX
802.11ac (VHT160)	2TX
802.11ax (HE20)	2TX
802.11ax (HE40)	2TX
802.11ax (HE80)	2TX
802.11ax (HE160)	2TX

   * The modulation and bandwidth are similar for 802.11n mode for HT20 / HT40, 802.11ac mode for VHT20 / VHT40 / VHT80 / VHT160 and 802.11ax mode for HE20 / HE40 / HE80 / HE160, therefore investigated worst case to representative mode in test report. (Final test mode refer section 3.2.1)

2. The EUT is authorized for use in specific End-product. Please refer to below for more details.

Product	Brand	Model	Description
Tablet	Getac	K120	For marketing purpose
		K120G2	
		K120Y (Y= 10 characters, Y can be 0-9, a-z, A-Z, "-", "_" or blank for marketing purpose and no impact safety related critical components and constructions	

3. The End-product contains following accessory devices.

Product	Brand	Model	Description
Adapter	Chicony	A15-090P1A	INPUT: 100-240Vac, 1.2A max, 50-60Hz OUTPUT: 19.0Vdc, 4.74A, 90W
Battery	Getac	BP3S1P2100S-01	Rating: 11.1Vdc 2040mAh, 23Wh Typical Capacity: 2100mAh, 24Wh
Battery	Getac	BP4S1P3450P-01	Rating: 14.4Vdc 3300mAh, 48Wh Typical Capacity: 3450mAh, 50Wh
Earphone	N/A	N/A	--
USB Cable	N/A	N/A	--
LCD Panel	Innolux	N125HCE-HN1	FHD
Camera	Foxlink Foxlink FOXLINK	FN20FF-679H FN80AF-443H-2 FO20FF-790H	FHD 8M FHD

4. The above Antenna information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications, the laboratory shall not be held responsible.
5. The above EUT information is declared by manufacturer and for more detailed features description, please refers to the manufacturer's specifications or user's manual.

3.2 Description of Test Modes

For 5180 ~ 5250 MHz

4 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20):

Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	44	5220
40	5200	48	5240

2 channels are provided for 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40) :

Channel	Frequency (MHz)	Channel	Frequency (MHz)
38	5190	46	5230

1 channel is provided for 802.11ac (VHT80), 802.11ax (HE80):

Channel	Frequency (MHz)
42	5210

1 channel is provided for 802.11ac (VHT160), 802.11ax (HE160):

Channel	Frequency (MHz)
50	5250

For 5250 ~ 5320 MHz

4 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20):

Channel	Frequency (MHz)	Channel	Frequency (MHz)
52	5260	60	5300
56	5280	64	5320

2 channels are provided for 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40) :

Channel	Frequency (MHz)	Channel	Frequency (MHz)
54	5270	62	5310

1 channel is provided for 802.11ac (VHT80), 802.11ax (HE80):

Channel	Frequency (MHz)
58	5290

For 5500 ~ 5720 MHz

12 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20):

Channel	Frequency (MHz)	Channel	Frequency (MHz)
100	5500	124	5620
104	5520	128	5640
108	5540	132	5660
112	5560	136	5680
116	5580	140	5700
120	5600	144	5720

6 channels are provided for 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40) :

Channel	Frequency (MHz)	Channel	Frequency (MHz)
102	5510	126	5630
110	5550	134	5670
118	5590	142	5710

3 channels are provided for 802.11ac (VHT80), 802.11ac (HE160):

Channel	Frequency (MHz)	Channel	Frequency (MHz)
106	5530	138	5690
122	5610		

1 channel is provided for 802.11ac (VHT160), 802.11ax (HE160):

Channel	Frequency (MHz)
114	5570

For 5745 ~ 5825 MHz:

5 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20):

Channel	Frequency (MHz)	Channel	Frequency (MHz)
149	5745	161	5805
153	5765	165	5825
157	5785		

2 channels are provided for 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40) :

Channel	Frequency (MHz)	Channel	Frequency (MHz)
151	5755	159	5795

1 channel is provided for 802.11ac (VHT80), 802.11ax (HE80):

Channel	Frequency (MHz)
155	5775

3.2.1 Test Mode Applicability and Tested Channel Detail

EUT Configure Mode	Applicable To				Description
	RE≥1G	RE<1G	PLC	APCM	
-	√	√	√	√	-

Where **RE≥1G:** Radiated Emission above 1 GHz **RE<1G:** Radiated Emission below 1 GHz
PLC: Power Line Conducted Emission **APCM:** Antenna Port Conducted Measurement

Note:
1. The EUT had been pre-tested on the positioned of each 3 axis. The worst case was found when positioned on **X-plane**.
2. "-" means no effect.

Radiated Emission Test (Above 1 GHz):

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	Frequency Band (MHz)	Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
-	5180-5240	802.11a	36 to 48	36, 40, 48	OFDM	BPSK	6.0
-		802.11ax (HE20)	36 to 48	36, 40, 48	OFDMA	BPSK	MCS0
-		802.11ax (HE40)	38 to 46	38, 46	OFDMA	BPSK	MCS0
-		802.11ax (HE80)	42	42	OFDMA	BPSK	MCS0
-		802.11ax (HE160)	50	50	OFDMA	BPSK	MCS0
-	5260-5320	802.11a	52 to 64	52, 60, 64	OFDM	BPSK	6.0
-		802.11ax (HE20)	52 to 64	52, 60, 64	OFDMA	BPSK	MCS0
-		802.11ax (HE40)	54 to 62	54, 62	OFDMA	BPSK	MCS0
-		802.11ax (HE80)	58	58	OFDMA	BPSK	MCS0
-	5500-5720	802.11a	100 to 140	100, 116, 140	OFDM	BPSK	6.0
-		802.11ax (HE20)	100 to 144	100, 116, 140, 144	OFDMA	BPSK	MCS0
-		802.11ax (HE40)	102 to 142	102, 110, 134, 142	OFDMA	BPSK	MCS0
-		802.11ax (HE80)	106 to 138	106, 122, 138	OFDMA	BPSK	MCS0
-		802.11ax (HE160)	114	114	OFDMA	BPSK	MCS0
-	5745-5825	802.11a	149 to 165	149, 157, 165	OFDM	BPSK	6.0
-		802.11ax (HE20)	149 to 165	149, 157, 165	OFDMA	BPSK	MCS0
-		802.11ax (HE40)	151 to 159	151, 159	OFDMA	BPSK	MCS0
-		802.11ax (HE80)	155	155	OFDMA	BPSK	MCS0

Radiated Emission Test (Below 1 GHz):

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	Frequency Band (MHz)	Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
-	5500-5720	802.11ax (HE40)	102 to 142	134	OFDMA	BPSK	MCS0

Power Line Conducted Emission Test:

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	Frequency Band (MHz)	Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
-	5500-5720	802.11ax (HE40)	102 to 142	134	OFDM	BPSK	MCS0

Antenna Port Conducted Measurement:

☒ This item includes all test value of each mode, but only includes spectrum plot of worst value of each mode.

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	Frequency Band (MHz)	Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
-	5180-5240	802.11a	36 to 48	36, 40, 48	OFDM	BPSK	6.0
-		802.11n (HT20)	36 to 48	36, 40, 48	OFDM	BPSK	6.5
-		802.11n (HT40)	38 to 46	38, 46	OFDM	BPSK	13.5
-		802.11ac (VHT80)	42	42	OFDM	BPSK	29.3
		802.11ac (VHT160)	50	50	OFDM	BPSK	58.5
-		802.11ax (HE20)	36 to 48	36, 40, 48	OFDMA	BPSK	MCS0
-		802.11ax (HE40)	38 to 46	38, 46	OFDMA	BPSK	MCS0
-		802.11ax (HE80)	42	42	OFDMA	BPSK	MCS0
-		802.11ax (HE160)	50	50	OFDMA	BPSK	MCS0
-	5260-5320	802.11a	52 to 64	52, 60, 64	OFDM	BPSK	6.0
-		802.11n (HT20)	52 to 64	52, 60, 64	OFDM	BPSK	6.5
-		802.11n (HT40)	54 to 62	54, 62	OFDM	BPSK	13.5
-		802.11ac (VHT80)	58	58	OFDM	BPSK	29.3
-		802.11ax (HE20)	52 to 64	52, 60, 64	OFDMA	BPSK	MCS0
-		802.11ax (HE40)	54 to 62	54, 62	OFDMA	BPSK	MCS0
-		802.11ax (HE80)	58	58	OFDMA	BPSK	MCS0
-	5500-5720	802.11a	100 to 140	100, 116, 140	OFDM	BPSK	6.0
-		802.11n (HT20)	100 to 144	100, 116, 140, 144	OFDM	BPSK	6.5
-		802.11n (HT40)	102 to 142	102, 110, 134, 142	OFDM	BPSK	13.5
-		802.11ac (VHT80)	106 to 138	106, 122, 138	OFDM	BPSK	29.3
-		802.11ac (VHT160)	114	114	OFDM	BPSK	58.5
-		802.11ax (HE20)	100 to 144	100, 116, 140, 144	OFDMA	BPSK	MCS0
-		802.11ax (HE40)	102 to 142	102, 110, 134, 142	OFDMA	BPSK	MCS0
-		802.11ax (HE80)	106 to 138	106, 122, 138	OFDMA	BPSK	MCS0
-		802.11ax (HE160)	114	114	OFDMA	BPSK	MCS0

EUT Configure Mode	Frequency Band (MHz)	Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
-	5745-5825	802.11a	149 to 165	149, 157, 165	OFDM	BPSK	6.0
-		802.11n (HT20)	149 to 165	149, 157, 165	OFDM	BPSK	6.5
-		802.11n (HT40)	151 to 159	151, 159	OFDM	BPSK	13.5
-		802.11ac (VHT80)	155	155	OFDM	BPSK	29.3
-		802.11ax (HE20)	149 to 165	149, 157, 165	OFDMA	BPSK	MCS0
-		802.11ax (HE40)	151 to 159	151, 159	OFDMA	BPSK	MCS0
-		802.11ax (HE80)	155	155	OFDMA	BPSK	MCS0

For the measurement performed on the antenna port, except for the transmitter power which measures chain 0, chain 1, chain 0+1, the other measurement items are only the worst chain 0 measurement.

Test Condition:

Applicable To	Environmental Conditions	Input Power	Tested by
RE≥1G	25 deg. C, 65 % RH	120 Vac, 60 Hz	Charles Hsiao
RE<1G	25 deg. C, 65 % RH	120 Vac, 60 Hz	Charles Hsiao
PLC	25 deg. C, 65 % RH	120 Vac, 60 Hz	Cookie Ku
APCM	25 deg. C, 65 % RH	120 Vac, 60 Hz	Gavin Wu

3.3 Duty Cycle of Test Signal

MODULATION TYPE: BPSK

802.11a: Duty cycle = 2.085/2.133 = 0.977, Duty factor = 10 * log(1/0.977) = 0.10

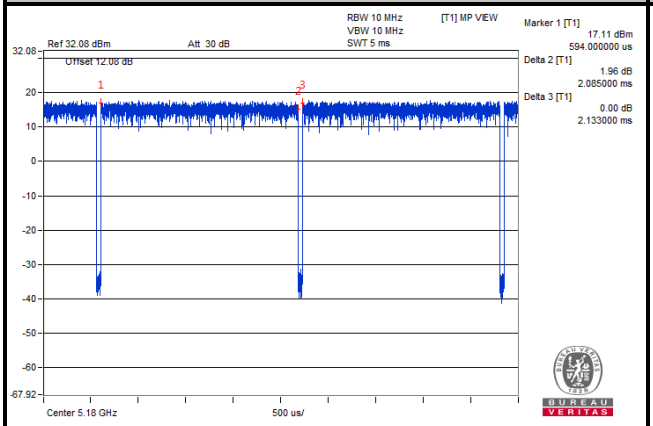
802.11ax (HE20): Duty cycle = 4.026/4.093 = 0.984, Duty cycle of test signal is ≥ 98 %, duty factor is not required.

802.11ax (HE40): Duty cycle = 3.946/4.005 = 0.985, Duty cycle of test signal is ≥ 98 %, duty factor is not required.

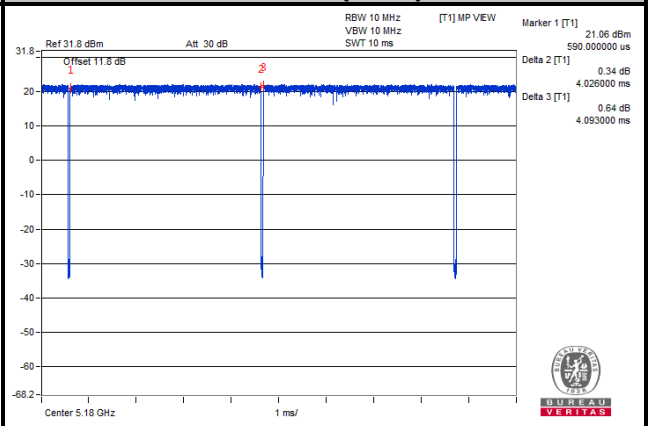
802.11ax (HE80): Duty cycle = 3.954/4.02 = 0.984, Duty cycle of test signal is ≥ 98 %, duty factor is not required.

802.11ax (HE160): Duty cycle = 3.96/4.005 = 0.989, Duty cycle of test signal is ≥ 98 %, duty factor is not required.

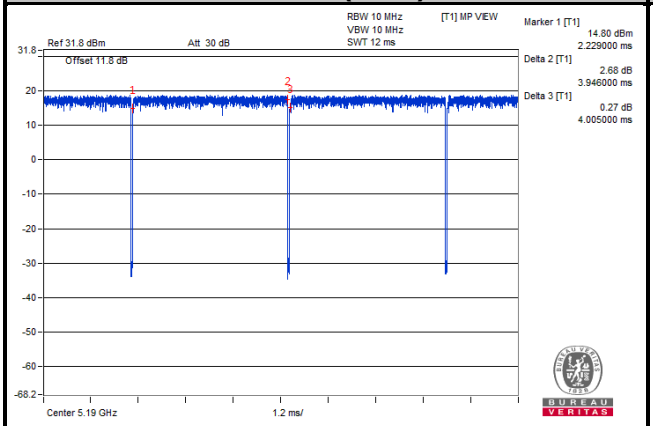
802.11a



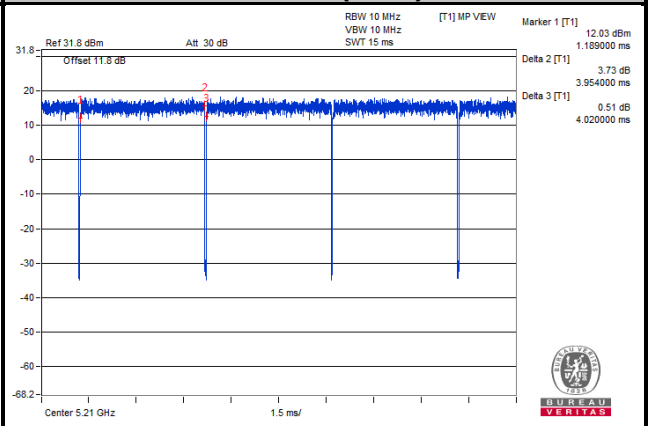
802.11ax (HE20)



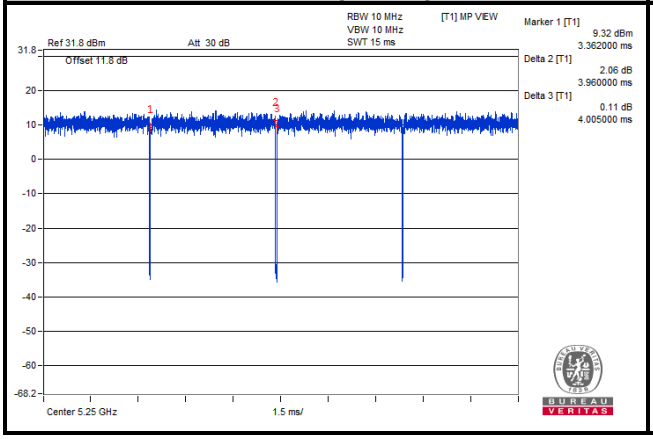
802.11ax (HE40)



802.11ax (HE80)



802.11ax (HE160)



3.4 Description of Support Units

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

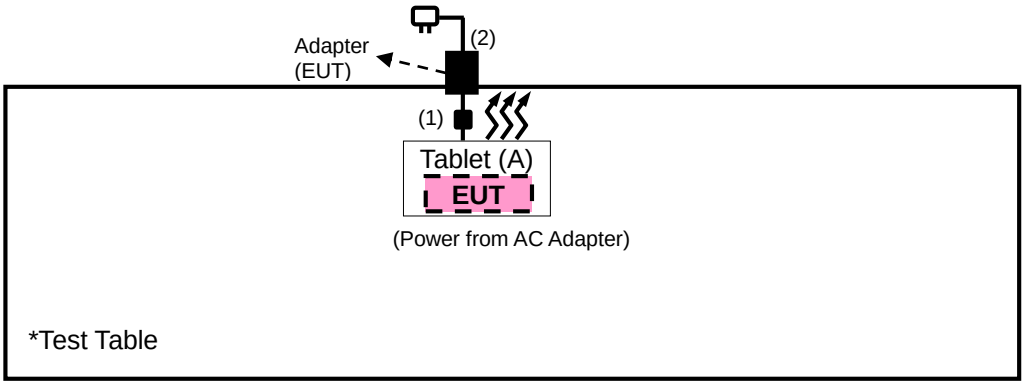
ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
1.	Tablet	K120	N/A	N/A	N/A	Provided by Client

ID	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	DC Cable	1	1.5	N	1	Accessory of the EUT
2.	AC Power Cable	1	1.7	N	0	Accessory of the EUT

Note:

1. All power cords of the above support units are non-shielded (1.8m).

3.4.1 Configuration of System under Test



3.5 General Description of Applied Standards and References

The EUT is a RF Product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards and references:

Test Standard:

FCC Part 15, Subpart E (15.407)
ANSI C63.10-2013

All test items have been performed and recorded as per the above standards.

References Test Guidance:

KDB 789033 D02 General UNII Test Procedures New Rules v02r01

All test items have been performed as a reference to the above KDB test guidance.

4 Test Types and Results

4.1 Radiated Emission and Bandedge Measurement

4.1.1 Limits of Radiated Emission and Bandedge Measurement

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table.

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

Note:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. For frequencies above 1000 MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20 dB under any condition of modulation.

Limits of Unwanted Emission Out of the Restricted Bands

Applicable To			Limit	
789033 D02 General UNII Test Procedures New Rules v02r01			Field Strength at 3 m	
			PK: 74 (dBμV/m)	AV: 54 (dBμV/m)
Frequency Band	**Applicable To**		**EIRP Limit**	**Equivalent Field Strength at 3 m**
5150~5250 MHz	15.407(b)(1)		PK: -27 (dBm/MHz)	PK: 68.2 (dBμV/m)
5250~5350 MHz	15.407(b)(2)			
5470~5725 MHz	15.407(b)(3)			
5725~5850 MHz	☒	15.407(b)(4)(i)	PK:-27 (dBm/MHz) *1 PK:10 (dBm/MHz) *2 PK:15.6 (dBm/MHz) *3 PK:27 (dBm/MHz) *4	PK: 68.2 (dBμV/m) *1 PK:105.2 (dBμV/m) *2 PK: 110.8 (dBμV/m) *3 PK:122.2 (dBμV/m) *4
	☐	15.407(b)(4)(ii)	Emission limits in section 15.247(d)	

*1 beyond 75 MHz or more above of the band edge.

*2 below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above.

*3 below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above.

*4 from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

Note:

The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength:

$$E = \frac{1000000\sqrt{30P}}{3}$$ μV/m, where P is the eirp (Watts).

4.1.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Date of Calibration	Due Date of Calibration
Test Receiver Agilent	N9038A	MY52260177	Aug. 24, 2020	Aug. 23, 2021
Spectrum Analyzer ROHDE & SCHWARZ	FSU43	100115	Feb. 07, 2020	Feb. 06, 2021
			Feb. 03, 2021	Feb. 02, 2022
Temperature & Humidity Chamber GIANT FORCE	GTH-120-40-CP-AR	MAA1306-019	Sep. 09, 2020	Sep. 08, 2021
DC power supply Keysight	U8002A	MY56330015	NA	NA
Digital Multimeter Fluke	87-III	70360742	Jun. 23, 2020	Jun. 22, 2021
Spectrum Analyzer ROHDE & SCHWARZ	FSU43	101261	Apr. 16, 2020	Apr. 15, 2021
HORN Antenna ETS-Lindgren	3117	00143293	Nov. 22, 2020	Nov. 21, 2021
BILOG Antenna SCHWARZBECK	VULB 9168	9168-616	Nov. 09, 2020	Nov. 08, 2021
HORN Antenna SCHWARZBECK	BBHA 9170	9170-480	Nov. 22, 2020	Nov. 21, 2021
Fixed Attenuator Mini-Circuits	MDCS18N-10	MDCS18N-10-01	Apr. 14, 2020	Apr. 13, 2021
Loop Antenna	EM-6879	269	Sep. 17, 2020	Sep. 16, 2021
MXG Vector signal generator Agilent	N5182B	MY53050430	Nov. 25, 2020	Nov. 24, 2021
Preamplifier Agilent	310N	187226	Jun. 17, 2020	Jun. 16, 2021
Preamplifier Agilent	83017A	MY39501357	Jun. 17, 2020	Jun. 16, 2021
Preamplifier EMCI	EMC 184045	980116	Oct. 07, 2020	Oct. 06, 2021
USB Wideband Power Sensor KEYSIGHT	U2021XA	MY55050005/MY55190004/MY55190007/MY55210005	Jul. 13, 2020	Jul. 12, 2021
RF signal cable ETS-LINDGREN	5D-FB	Cable-CH1-01(RFC-SMS-100-SMS-120+RFC-SMS-100-SMS-400)	Jun. 17, 2020	Jun. 16, 2021
RF signal cable ETS-LINDGREN	8D-FB	Cable-CH1-02(RFC-SMS-100-SMS-24)	Jun. 17, 2020	Jun. 17, 2021
Boresight Antenna Fixture	FBA-01	FBA-SIP01	NA	NA
Software BV ADT	E3 8.130425b	NA	NA	NA
Antenna Tower MF	NA	NA	NA	NA
Turn Table MF	NA	NA	NA	NA
Antenna Tower &Turn Table Controller MF	MF-7802	NA	NA	NA

Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

2. The test was performed in HsinTien Chamber 1.

4.1.3 Test Procedures

For Radiated Emission below 30 MHz

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.
b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
c. Parallel, perpendicular, and ground-parallel orientations of the antenna are set to make the measurement.
d. For each suspected emission, the EUT was arranged to its worst case and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
e. The test-receiver system was set to Quasi-Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

Note:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 9 kHz at frequency below 30 MHz.

For Radiated Emission above 30 MHz

a. The EUT was placed on the top of a rotating table 0.8 meters (for 30 MHz ~ 1 GHz) / 1.5 meters (for above 1 GHz) above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
c. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.
f. The test-receiver system was set to peak and average detected function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

Note:

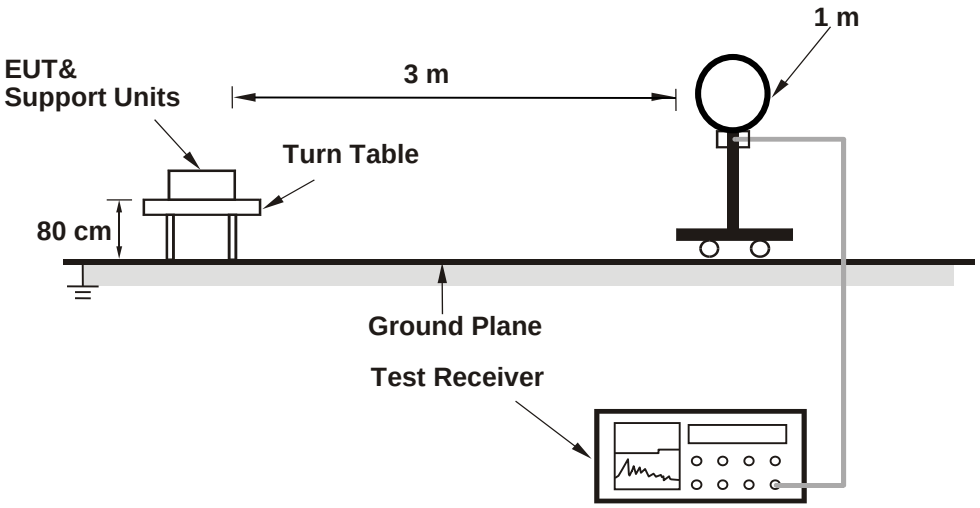
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 kHz for Quasi-peak detection (QP) or Peak detection (PK) at frequency below 1 GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1 GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is ≥ 1/T (Duty cycle < 98 %) or 10 Hz (Duty cycle ≥ 98 %) for Average detection (AV) at frequency above 1 GHz.
   (11a: RBW = 1 MHz, VBW = 1 kHz ; 11ax (HE20): RBW = 1 MHz, VBW = 10 Hz ;
   11ax (HE40): RBW = 1 MHz, VBW = 10 Hz ; 11ax (HE80): RBW = 1 MHz, VBW = 10 Hz;
   11ax (HE160): RBW = 1 MHz, VBW = 10 Hz)
4. All modes of operation were investigated and the worst-case emissions are reported.

4.1.4 Deviation from Test Standard

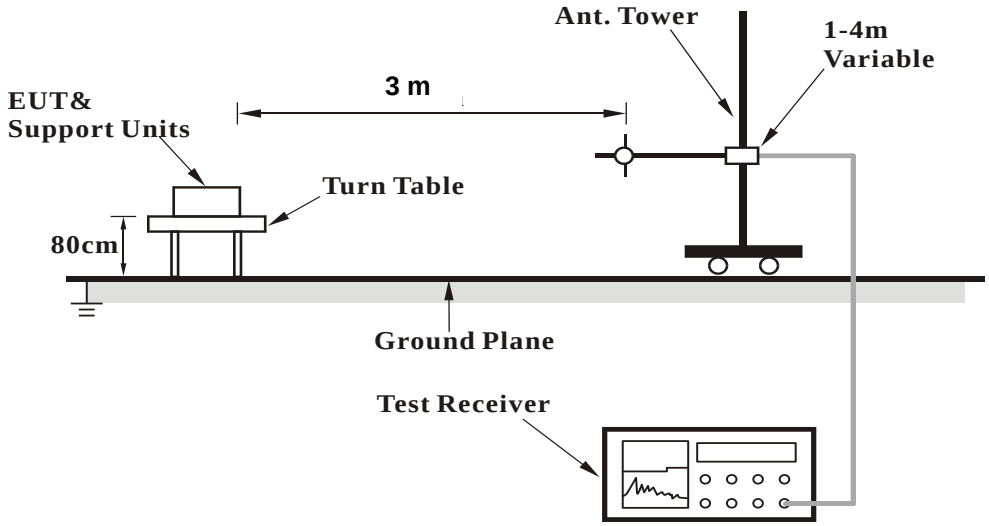
No deviation.

4.1.5 Test Setup

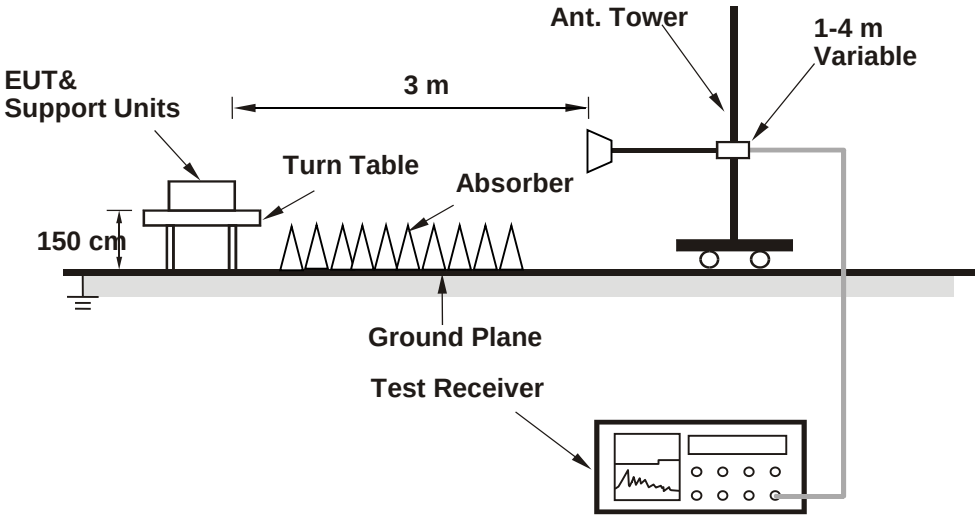
<Radiated Emission below 30 MHz>



<Radiated Emission 30 MHz to 1 GHz>



<Radiated Emission above 1 GHz>



For the actual test configuration, please refer to the attached file (Test Setup Photo).

4.1.6 EUT Operating Conditions

a. Placed the EUT on a testing table.
b. Use the software to control the EUT under transmission condition continuously at specific channel frequency.

4.1.7 Test Results

Above 1 GHz Data：

802.11a

EUT Test Condition		Measurement Detail	
Channel	Channel 36	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Charles Hsiao

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5150	44.33	34.28	10.05	54	-9.67	100	150	Average
5150	54.99	44.94	10.05	74	-19.01	100	150	Peak
5180	101.15	91.03	10.12			100	150	Average
5180	108.45	98.33	10.12			100	150	Peak
*10360	55.79	39.77	16.02	68.2	-12.41	159	9	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5150	43.27	33.22	10.05	54	-10.73	227	179	Average
5150	53.15	43.1	10.05	74	-20.85	227	179	Peak
5180	97.49	87.37	10.12			227	179	Average
5180	104.69	94.57	10.12			227	179	Peak
*10360	54.97	38.95	16.02	68.2	-13.23	118	54	Peak

Remarks:

1. Emission Level = Read Level + Factor
   Margin value = Emission level – Limit value
2. 5180 MHz: Fundamental Frequency
3. *: Out of Restricted Band
4. The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 40	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Charles Hsiao

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5150	43.49	33.44	10.05	54	-10.51	100	150	Average
5150	53.51	43.46	10.05	74	-20.49	100	150	Peak
5200	101.19	91.03	10.16			100	150	Average
5200	108.91	98.75	10.16			100	150	Peak
5350	42.65	32.42	10.23	54	-11.35	100	150	Average
5350	52.53	42.3	10.23	74	-21.47	100	150	Peak
*10400	55.3	39.12	16.18	68.2	-12.9	116	65	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5150	42.3	32.25	10.05	54	-11.7	227	179	Average
5150	53.2	43.15	10.05	74	-20.8	227	179	Peak
5200	97.19	87.03	10.16			227	179	Average
5200	104.51	94.35	10.16			227	179	Peak
5350	42.26	32.03	10.23	54	-11.74	227	179	Average
5350	52.74	42.51	10.23	74	-21.26	227	179	Peak
*10400	56.04	39.86	16.18	68.2	-12.16	119	54	Peak

Remarks:

1. Emission Level = Read Level + Factor
   Margin value = Emission level – Limit value
2. 5200 MHz: Fundamental Frequency
3. *: Out of Restricted Band
4. The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 48	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Charles Hsiao

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5240	104.26	94.12	10.14			100	150	Average
5240	111.79	101.65	10.14			100	150	Peak
5350	42.67	32.44	10.23	54	-11.33	100	150	Average
5350	54.05	43.82	10.23	74	-19.95	100	150	Peak
*10480	56.09	40.19	15.9	68.2	-12.11	105	119	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5240	100.48	90.34	10.14			227	179	Average
5240	107.17	97.03	10.14			227	179	Peak
5350	42.22	31.99	10.23	54	-11.78	227	179	Average
5350	53.14	42.91	10.23	74	-20.86	227	179	Peak
*10480	56.7	40.8	15.9	68.2	-11.5	122	22	Peak

Remarks:

1. Emission Level = Read Level + Factor
   Margin value = Emission level – Limit value
2. 5240 MHz: Fundamental Frequency
3. *: Out of Restricted Band
4. The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 52	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Charles Hsiao

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5150	42.66	32.61	10.05	54	-11.34	100	150	Average
5150	52.99	42.94	10.05	74	-21.01	100	150	Peak
5260	103.69	93.57	10.12			100	150	Average
5260	110.69	100.57	10.12			100	150	Peak
*10520	55.56	39.68	15.88	68.2	-12.64	116	6	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5150	42.42	32.37	10.05	54	-11.58	227	179	Average
5150	53	42.95	10.05	74	-21	227	179	Peak
5260	99.67	89.55	10.12			227	179	Average
5260	106.58	96.46	10.12			227	179	Peak
*10520	55.84	39.96	15.88	68.2	-12.36	118	241	Peak

Remarks:

1. Emission Level = Read Level + Factor
   Margin value = Emission level – Limit value
2. 5260 MHz: Fundamental Frequency
3. *: Out of Restricted Band
4. The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 60	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Charles Hsiao

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5150	42.3	32.25	10.05	54	-11.7	100	150	Average
5150	53.03	42.98	10.05	74	-20.97	100	150	Peak
5300	103.36	93.3	10.06			100	150	Average
5300	110.86	100.8	10.06			100	150	Peak
5350	44.96	34.73	10.23	54	-9.04	100	150	Average
5350	56.77	46.54	10.23	74	-17.23	100	150	Peak
10600	46.87	31.11	15.76	54	-7.13	154	4	Average
10600	56.41	40.65	15.76	74	-17.59	154	4	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5150	42.15	32.1	10.05	54	-11.85	227	179	Average
5150	52.6	42.55	10.05	74	-21.4	227	179	Peak
5300	99.58	89.52	10.06			227	179	Average
5300	106.2	96.14	10.06			227	179	Peak
5350	43.06	32.83	10.23	54	-10.94	227	179	Average
5350	54.28	44.05	10.23	74	-19.72	227	179	Peak
10600	47.01	31.25	15.76	54	-6.99	118	87	Average
10600	56.16	40.4	15.76	74	-17.84	118	87	Peak

Remarks:

1. Emission Level = Read Level + Factor
   Margin value = Emission level – Limit value
2. 5300 MHz: Fundamental Frequency
3. *: Out of Restricted Band
4. The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 64	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Charles Hsiao

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5320	100.84	90.75	10.09			100	150	Average
5320	107.74	97.65	10.09			100	150	Peak
5350	43.65	33.42	10.23	54	-10.35	100	150	Average
5350	53.8	43.57	10.23	74	-20.2	100	150	Peak
10640	47.35	31.36	15.99	54	-6.65	119	6	Average
10640	55.63	39.64	15.99	74	-18.37	119	6	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5320	96.47	86.38	10.09			227	179	Average
5320	103.13	93.04	10.09			227	179	Peak
5350	42.49	32.26	10.23	54	-11.51	227	179	Average
5350	53.9	43.67	10.23	74	-20.1	227	179	Peak
10640	47.24	31.25	15.99	54	-6.76	154	177	Average
10640	56.06	40.07	15.99	74	-17.94	154	177	Peak

Remarks:

1. Emission Level = Read Level + Factor
   Margin value = Emission level – Limit value
2. 5320 MHz: Fundamental Frequency
3. *: Out of Restricted Band
4. The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 100	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Charles Hsiao

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5460	43.2	32.69	10.51	54	-10.8	199	102	Average
5460	53.34	42.83	10.51	74	-20.66	199	102	Peak
*5470	52.75	42.22	10.53	68.2	-15.45	199	102	Peak
5500	100.57	89.97	10.6			199	102	Average
5500	107.38	96.78	10.6			199	102	Peak
11000	47.42	31.29	16.13	54	-6.58	165	22	Average
11000	56.39	40.26	16.13	74	-17.61	165	22	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5460	42.22	31.71	10.51	54	-11.78	227	179	Average
5460	53.82	43.31	10.51	74	-20.18	227	179	Peak
*5470	51.18	40.65	10.53	68.2	-17.02	227	179	Peak
5500	96.33	85.73	10.6			227	179	Average
5500	103.07	92.47	10.6			227	179	Peak
11000	47.41	31.28	16.13	54	-6.59	154	174	Average
11000	57.38	41.25	16.13	74	-16.62	154	174	Peak

Remarks:

1. Emission Level = Read Level + Factor
   Margin value = Emission level – Limit value
2. 5500 MHz: Fundamental Frequency
3. *: Out of Restricted Band
4. The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 116	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Charles Hsiao

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5460	42.64	32.13	10.51	54	-11.36	199	102	Average
5460	53.45	42.94	10.51	74	-20.55	199	102	Peak
5470	51.36	40.83	10.53	68.2	-16.84	199	102	Peak
5580	103.41	92.7	10.71			199	102	Average
5580	110.66	99.95	10.71			199	102	Peak
5725	52.57	41.65	10.92	68.2	-15.63	199	102	Peak
11160	47.65	31.29	16.36	54	-6.35	174	4	Average
11160	57.89	41.53	16.36	74	-16.11	174	4	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5460	42.3	31.79	10.51	54	-11.7	227	179	Average
5460	53.16	42.65	10.51	74	-20.84	227	179	Peak
5470	50.72	40.19	10.53	68.2	-17.48	227	179	Peak
5580	99.61	88.9	10.71			227	179	Average
5580	106.18	95.47	10.71			227	179	Peak
5725	51.75	40.83	10.92	68.2	-16.45	227	179	Peak
11160	47.62	31.26	16.36	54	-6.38	125	241	Average
11160	57.4	41.04	16.36	74	-16.6	125	241	Peak

Remarks:

1. Emission Level = Read Level + Factor
   Margin value = Emission level – Limit value
2. 5580 MHz: Fundamental Frequency
3. *: Out of Restricted Band
4. The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 140	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Charles Hsiao

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5700	100.55	89.6	10.95			199	102	Average
5700	107.22	96.27	10.95			199	102	Peak
*5725	55.64	44.72	10.92	68.2	-12.56	199	102	Peak
11400	47.7	31.51	16.19	54	-6.3	167	87	Average
11400	56.99	40.8	16.19	74	-17.01	167	87	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5700	96.25	85.3	10.95			227	179	Average
5700	103.04	92.09	10.95			227	179	Peak
*5725	53.62	42.7	10.92	68.2	-14.58	227	179	Peak
11400	47.73	31.54	16.19	54	-6.27	184	141	Average
11400	56.1	39.91	16.19	74	-17.9	184	141	Peak

Remarks:

1. Emission Level = Read Level + Factor
   Margin value = Emission level – Limit value
2. 5700 MHz: Fundamental Frequency
3. *: Out of Restricted Band
4. The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 149	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Charles Hsiao

<Spurious Emission>

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5745	104.11	93.23	10.88			199	102	Average
5745	111.02	100.14	10.88			199	102	Peak
11490	47.69	31.22	16.47	54	-6.31	174	48	Average
11490	56.97	40.5	16.47	74	-17.03	174	48	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5745	99.48	88.6	10.88			227	179	Average
5745	106.4	95.52	10.88			227	179	Peak
11490	47.76	31.29	16.47	54	-6.24	125	285	Average
11490	57.05	40.58	16.47	74	-16.95	125	285	Peak

<Out of Band Emission (OOBE)>

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
*5631.775	52.75	41.94	10.81	68.2	-15.45	199	102	Peak
5653.3	53.14	42.27	10.87	70.64	-17.5	199	102	Peak
5924.2	52.2	41.09	11.11	68.79	-16.59	199	102	Peak
*5983.525	54.14	42.88	11.26	68.2	-14.06	199	102	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
*5602.9	52.03	41.28	10.75	68.2	-16.17	227	179	Peak
5652.25	52.53	41.66	10.87	69.86	-17.33	227	179	Peak
5915.275	51.85	40.76	11.09	75.4	-23.55	227	179	Peak
*5945.725	52.81	41.63	11.18	68.2	-15.39	227	179	Peak

Remarks:

1. Emission Level = Read Level + Factor
   Margin value = Emission level – Limit value
2. 5745 MHz: Fundamental Frequency
3. *: Out of Restricted Band
4. The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 157	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Charles Hsiao

<Spurious Emission>

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5785	104.55	93.74	10.81			199	102	Average
5785	111.12	100.31	10.81			199	102	Peak
11570	47.89	31.4	16.49	54	-6.11	199	353	Average
11570	57	40.51	16.49	74	-17	199	353	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5785	99.84	89.03	10.81			245	181	Average
5785	106.02	95.21	10.81			245	181	Peak
11570	47.77	31.28	16.49	54	-6.23	125	285	Average
11570	56.43	39.94	16.49	74	-17.57	125	285	Peak

<Out of Band Emission (OOBE)>

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
*5622.325	53.08	42.29	10.79	68.2	-15.12	199	102	Peak
5657.5	52.92	42.05	10.87	73.75	-20.83	199	102	Peak
5916.325	52.99	41.9	11.09	74.62	-21.63	199	102	Peak
*5965.15	52.93	41.7	11.23	68.2	-15.27	199	102	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
*5648.05	52.81	41.96	10.85	68.2	-15.39	245	181	Peak
5655.925	51.07	40.2	10.87	72.58	-21.51	245	181	Peak
5915.275	52.78	41.69	11.09	75.4	-22.62	245	181	Peak
*5950.45	53.88	42.7	11.18	68.2	-14.32	245	181	Peak

Remarks:

1. Emission Level = Read Level + Factor
   Margin value = Emission level – Limit value
2. 5785 MHz: Fundamental Frequency
3. *: Out of Restricted Band
4. The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 165	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Charles Hsiao

<Spurious Emission>

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5825	104.53	93.65	10.88			199	102	Average
5825	111.41	100.53	10.88			199	102	Peak
11650	47.96	31.18	16.78	54	-6.04	125	5	Average
11650	58.01	41.23	16.78	74	-15.99	125	5	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5825	100.48	89.6	10.88			245	360	Average
5825	107.87	96.99	10.88			245	360	Peak
11650	48.2	31.42	16.78	54	-5.8	135	225	Average
11650	57.02	40.24	16.78	74	-16.98	135	225	Peak

<Out of Band Emission (OOBE)>

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
*5603.95	53.02	42.27	10.75	68.2	-15.18	199	102	Peak
5656.975	53	42.13	10.87	73.36	-20.36	199	102	Peak
5922.1	51.74	40.63	11.11	70.35	-18.61	199	102	Peak
*5979.325	53.35	42.09	11.26	68.2	-14.85	199	102	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
*5607.625	53.14	42.39	10.75	68.2	-15.06	245	360	Peak
5654.35	51.35	40.48	10.87	71.42	-20.07	245	360	Peak
5921.575	51.78	40.67	11.11	70.73	-18.95	245	360	Peak
*5941.525	53.23	42.05	11.18	68.2	-14.97	245	360	Peak

Remarks:

1. Emission Level = Read Level + Factor
   Margin value = Emission level – Limit value
2. 5825 MHz: Fundamental Frequency
3. *: Out of Restricted Band
4. The emission levels of other frequencies were very low against the limit

802.11ax (HE20)

EUT Test Condition		Measurement Detail	
Channel	Channel 36	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Charles Hsiao

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5150	42.94	32.89	10.05	54	-11.06	100	148	Average
5150	53.58	43.53	10.05	74	-20.42	100	148	Peak
5180	98.11	87.99	10.12			100	148	Average
5180	105.01	94.89	10.12			100	148	Peak
*10360	55.99	39.97	16.02	68.2	-12.21	125	22	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5150	42.3	32.25	10.05	54	-11.7	116	117	Average
5150	52.69	42.64	10.05	74	-21.31	116	117	Peak
5180	95.19	85.07	10.12			116	117	Average
5180	102.39	92.27	10.12			116	117	Peak
*10360	55.75	39.73	16.02	68.2	-12.45	154	144	Peak

Remarks:

1. Emission Level = Read Level + Factor
   Margin value = Emission level – Limit value
2. 5180 MHz: Fundamental Frequency
3. *: Out of Restricted Band
4. The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 40	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Charles Hsiao

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5150	43.21	33.16	10.05	54	-10.79	100	148	Average
5150	53.92	43.87	10.05	74	-20.08	100	148	Peak
5200	101.16	91	10.16			100	148	Average
5200	108.04	97.88	10.16			100	148	Peak
5350	42.62	32.39	10.23	54	-11.38	100	148	Average
5350	54.15	43.92	10.23	74	-19.85	100	148	Peak
*10400	55.1	38.92	16.18	68.2	-13.1	101	14	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5150	42.29	32.24	10.05	54	-11.71	116	116	Average
5150	53.2	43.15	10.05	74	-20.8	116	116	Peak
5200	97.48	87.32	10.16			116	116	Average
5200	104.66	94.5	10.16			116	116	Peak
5350	42.32	32.09	10.23	54	-11.68	116	116	Average
5350	52.36	42.13	10.23	74	-21.64	116	116	Peak
*10400	55.46	39.28	16.18	68.2	-12.74	119	54	Peak

Remarks:

1. Emission Level = Read Level + Factor
   Margin value = Emission level – Limit value
2. 5200 MHz: Fundamental Frequency
3. *: Out of Restricted Band
4. The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 48	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Charles Hsiao

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5240	101.29	91.15	10.14			100	148	Average
5240	108.55	98.41	10.14			100	148	Peak
5350	42.92	32.69	10.23	54	-11.08	100	148	Average
5350	53.56	43.33	10.23	74	-20.44	100	148	Peak
*10480	56.04	40.14	15.9	68.2	-12.16	187	8	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5240	97.39	87.25	10.14			100	129	Average
5240	104.88	94.74	10.14			100	129	Peak
5350	42.14	31.91	10.23	54	-11.86	100	129	Average
5350	53.53	43.3	10.23	74	-20.47	100	129	Peak
*10480	55.99	40.09	15.9	68.2	-12.21	113	254	Peak

Remarks:

1. Emission Level = Read Level + Factor
   Margin value = Emission level – Limit value
2. 5240 MHz: Fundamental Frequency
3. *: Out of Restricted Band
4. The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 52	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Charles Hsiao

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5150	44.14	34.09	10.05	54	-9.86	131	148	Average
5150	53.6	43.55	10.05	74	-20.4	131	148	Peak
5260	102.22	92.1	10.12			116	150	Average
5260	109.32	99.2	10.12			116	150	Peak
*10520	55.43	39.55	15.88	68.2	-12.77	194	37	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5150	43.19	33.14	10.05	54	-10.81	208	19	Average
5150	53.27	43.22	10.05	74	-20.73	208	19	Peak
5260	97.12	87	10.12			227	11	Average
5260	105.94	95.82	10.12			227	11	Peak
*10520	55.12	39.24	15.88	68.2	-13.08	182	114	Peak

Remarks:

1. Emission Level = Read Level + Factor
   Margin value = Emission level – Limit value
2. 5260 MHz: Fundamental Frequency
3. *: Out of Restricted Band
4. The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 60	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Charles Hsiao

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5150	43.71	33.66	10.05	54	-10.29	116	150	Average
5150	54.51	44.46	10.05	74	-19.49	116	150	Peak
5300	101.65	91.59	10.06			116	150	Average
5300	109.74	99.68	10.06			116	150	Peak
5350	44.53	34.3	10.23	54	-9.47	121	159	Average
5350	54.35	44.12	10.23	74	-19.65	121	159	Peak
10600	45.87	30.11	15.76	54	-8.13	316	227	Average
10600	56.11	40.35	15.76	74	-17.89	316	227	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5150	43.1	33.05	10.05	54	-10.9	207	18	Average
5150	52.83	42.78	10.05	74	-21.17	207	18	Peak
5300	98.13	88.07	10.06			227	11	Average
5300	106.02	95.96	10.06			227	11	Peak
5350	42.77	32.54	10.23	54	-11.23	227	15	Average
5350	53.61	43.38	10.23	74	-20.39	227	15	Peak
10600	45.58	29.82	15.76	54	-8.42	128	137	Average
10600	55.35	39.59	15.76	74	-18.65	128	137	Peak

Remarks:

1. Emission Level = Read Level + Factor
   Margin value = Emission level – Limit value
2. 5300 MHz: Fundamental Frequency
3. *: Out of Restricted Band
4. The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 64	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Charles Hsiao

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5320	98.6	88.51	10.09			116	150	Average
5320	107.3	97.21	10.09			116	150	Peak
5350	45.09	34.86	10.23	54	-8.91	138	150	Average
5350	55.03	44.8	10.23	74	-18.97	138	150	Peak
10640	45.69	29.7	15.99	54	-8.31	231	288	Average
10640	55.8	39.81	15.99	74	-18.2	231	288	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5320	96.66	86.57	10.09			227	4	Average
5320	104.77	94.68	10.09			227	4	Peak
5350	43.01	32.78	10.23	54	-10.99	214	6	Average
5350	53.44	43.21	10.23	74	-20.56	214	6	Peak
10640	45.94	29.95	15.99	54	-8.06	109	118	Average
10640	56	40.01	15.99	74	-18	109	118	Peak

Remarks:

1. Emission Level = Read Level + Factor
   Margin value = Emission level – Limit value
2. 5320 MHz: Fundamental Frequency
3. *: Out of Restricted Band
4. The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 100	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Charles Hsiao

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5460	44	33.49	10.51	54	-10	121	13	Average
5460	53.58	43.07	10.51	74	-20.42	121	13	Peak
*5470	53.92	43.39	10.53	68.2	-14.28	121	13	Peak
5500	101.17	90.57	10.6			121	13	Average
5500	108.42	97.82	10.6			121	13	Peak
11000	46.2	30.07	16.13	54	-7.8	160	21	Average
11000	56.38	40.25	16.13	74	-17.62	160	21	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5460	44.69	34.18	10.51	54	-9.31	200	354	Average
5460	53.81	43.3	10.51	74	-20.19	200	354	Peak
*5470	54.33	43.8	10.53	68.2	-13.87	200	354	Peak
5500	100.33	89.73	10.6			200	354	Average
5500	107.71	97.11	10.6			200	354	Peak
11000	46.56	30.43	16.13	54	-7.44	154	270	Average
11000	57.08	40.95	16.13	74	-16.92	154	270	Peak

Remarks:

1. Emission Level = Read Level + Factor
   Margin value = Emission level – Limit value
2. 5500 MHz: Fundamental Frequency
3. *: Out of Restricted Band
4. The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 116	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Charles Hsiao

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5460	42.85	32.34	10.51	54	-11.15	121	13	Average
5460	53.3	42.79	10.51	74	-20.7	121	13	Peak
*5470	51.84	41.31	10.53	68.2	-16.36	121	13	Peak
5580	103.19	92.48	10.71			121	13	Average
5580	110.7	99.99	10.71			121	13	Peak
*5725	52.82	41.9	10.92	68.2	-15.38	121	13	Peak
11160	46.5	30.14	16.36	54	-7.5	106	6	Average
11160	56.96	40.6	16.36	74	-17.04	106	6	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5460	42.95	32.44	10.51	54	-11.05	200	354	Average
5460	52.5	41.99	10.51	74	-21.5	200	354	Peak
*5470	52.36	41.83	10.53	68.2	-15.84	200	354	Peak
5580	102.38	91.67	10.71			200	354	Average
5580	109.33	98.62	10.71			200	354	Peak
*5725	53.71	42.79	10.92	68.2	-14.49	200	354	Peak
11160	46.71	30.35	16.36	54	-7.29	115	214	Average
11160	59.08	42.72	16.36	74	-14.92	115	214	Peak

Remarks:

1. Emission Level = Read Level + Factor
   Margin value = Emission level – Limit value
2. 5580 MHz: Fundamental Frequency
3. *: Out of Restricted Band
4. The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 140	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Charles Hsiao

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5700	101.91	90.96	10.95			121	13	Average
5700	108	97.05	10.95			121	13	Peak
*5725	55.99	45.07	10.92	68.2	-12.21	121	13	Peak
11400	46.23	30.04	16.19	54	-7.77	175	164	Average
11400	56.44	40.25	16.19	74	-17.56	175	164	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5700	100.41	89.46	10.95			200	354	Average
5700	107.46	96.51	10.95			200	354	Peak
*5725	57.47	46.55	10.92	68.2	-10.73	200	354	Peak
11400	46.39	30.2	16.19	54	-7.61	162	108	Average
11400	56.59	40.4	16.19	74	-17.41	162	108	Peak

Remarks:

1. Emission Level = Read Level + Factor
   Margin value = Emission level – Limit value
2. 5700 MHz: Fundamental Frequency
3. *: Out of Restricted Band
4. The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 144	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Charles Hsiao

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5460	42.27	31.76	10.51	54	-11.73	121	13	Average
5460	52.31	41.8	10.51	74	-21.69	121	13	Peak
*5470	51.09	40.56	10.53	68.2	-17.11	121	13	Peak
5720	100.41	89.49	10.92			121	13	Average
5720	107.66	96.74	10.92			121	13	Peak
11440	46.69	30.4	16.29	54	-7.31	231	210	Average
11440	56.53	40.24	16.29	74	-17.47	231	210	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5460	42.17	31.66	10.51	54	-11.83	200	354	Average
5460	52.57	42.06	10.51	74	-21.43	200	354	Peak
*5470	50.76	40.23	10.53	68.2	-17.44	200	354	Peak
5720	99.58	88.66	10.92			200	354	Average
5720	106.34	95.42	10.92			200	354	Peak
11440	46.82	30.53	16.29	54	-7.18	132	27	Average
11440	56.76	40.47	16.29	74	-17.24	132	27	Peak

Remarks:

1. Emission Level = Read Level + Factor
   Margin value = Emission level – Limit value
2. 5720 MHz: Fundamental Frequency
3. *: Out of Restricted Band
4. The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 149	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Charles Hsiao

<Spurious Emission>

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5745	102.36	91.48	10.88			121	13	Average
5745	109.04	98.16	10.88			121	13	Peak
11490	47.14	30.67	16.47	54	-6.86	195	148	Average
11490	56.87	40.4	16.47	74	-17.13	195	148	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5745	100.36	89.48	10.88			200	355	Average
5745	107.6	96.72	10.88			200	355	Peak
11490	47.59	31.12	16.47	54	-6.41	247	105	Average
11490	57.68	41.21	16.47	74	-16.32	247	105	Peak

<Out of Band Emission (OOBE)>

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
*5600.8	53.68	42.92	10.76	68.2	-14.52	121	13	Peak
5658.55	53.43	42.56	10.87	74.53	-21.1	121	13	Peak
5920.525	53.22	42.13	11.09	71.51	-18.29	121	13	Peak
*5970.4	53.13	41.88	11.25	68.2	-15.07	121	13	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
*5554.075	54.97	44.31	10.66	68.2	-13.23	200	355	Peak
5654.35	53.14	42.27	10.87	71.42	-18.28	200	355	Peak
5914.75	52.87	41.8	11.07	75.78	-22.91	200	355	Peak
*5939.425	54.1	42.92	11.18	68.2	-14.1	200	355	Peak

Remarks:

1. Emission Level = Read Level + Factor
   Margin value = Emission level – Limit value
2. 5745 MHz: Fundamental Frequency
3. *: Out of Restricted Band
4. The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 157	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Charles Hsiao

<Spurious Emission>

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5785	101.16	90.35	10.81			121	13	Average
5785	108.24	97.43	10.81			121	13	Peak
11570	46.24	29.75	16.49	54	-7.76	204	151	Average
11570	56.5	40.01	16.49	74	-17.5	204	151	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5785	100.31	89.5	10.81			200	355	Average
5785	107.72	96.91	10.81			200	355	Peak
11570	46.54	30.05	16.49	54	-7.46	184	129	Average
11570	56.78	40.29	16.49	74	-17.22	184	129	Peak

<Out of Band Emission (OOBE)>

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
*5620.75	53.1	42.31	10.79	68.2	-15.1	121	13	Peak
5651.2	51.03	40.16	10.87	69.09	-18.06	121	13	Peak
5917.375	52.51	41.42	11.09	73.84	-21.33	121	13	Peak
*5998.75	53.7	42.37	11.33	68.2	-14.5	121	13	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
*5622.85	53.75	42.96	10.79	68.2	-14.45	200	355	Peak
5651.725	53.13	42.26	10.87	69.48	-16.35	200	355	Peak
5923.15	52.57	41.46	11.11	69.57	-17	200	355	Peak
*5934.7	53.92	42.76	11.16	68.2	-14.28	200	355	Peak

Remarks:

1. Emission Level = Read Level + Factor
   Margin value = Emission level – Limit value
2. 5785 MHz: Fundamental Frequency
3. *: Out of Restricted Band
4. The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 165	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Charles Hsiao

<Spurious Emission>

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5825	102.1	91.22	10.88			121	13	Average
5825	109.54	98.66	10.88			121	13	Peak
11650	46.18	29.4	16.78	54	-7.82	206	248	Average
11650	56.29	39.51	16.78	74	-17.71	206	248	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5825	101.18	90.3	10.88			200	355	Average
5825	108.26	97.38	10.88			200	355	Peak
11650	47.38	30.6	16.78	54	-6.62	105	76	Average
11650	57.57	40.79	16.78	74	-16.43	105	76	Peak

<Out of Band Emission (OOBE)>

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
*5608.675	53.48	42.73	10.75	68.2	-14.72	121	13	Peak
5653.3	51.27	40.4	10.87	70.64	-19.37	121	13	Peak
5920	51.45	40.36	11.09	71.9	-20.45	121	13	Peak
*6006.625	54.25	42.9	11.35	68.2	-13.95	121	13	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
*5540.425	52.84	42.18	10.66	68.2	-15.36	200	355	Peak
5654.35	54.58	43.71	10.87	71.42	-16.84	200	355	Peak
5918.425	52.84	41.75	11.09	73.07	-20.23	200	355	Peak
*6023.425	53.41	42.05	11.36	68.2	-14.79	200	355	Peak

Remarks:

1. Emission Level = Read Level + Factor
   Margin value = Emission level – Limit value
2. 5825 MHz: Fundamental Frequency
3. *: Out of Restricted Band
4. The emission levels of other frequencies were very low against the limit

802.11ax (HE40)

EUT Test Condition		Measurement Detail	
Channel	Channel 38	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Charles Hsiao

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5150	44.76	34.71	10.05	54	-9.24	100	148	Average
5150	55.83	45.78	10.05	74	-18.17	100	148	Peak
5190	98.59	88.47	10.12			100	148	Average
5190	105.78	95.66	10.12			100	148	Peak
5350	42.68	32.45	10.23	54	-11.32	100	148	Average
5350	53.19	42.96	10.23	74	-20.81	100	148	Peak
*10380	56.26	40.16	16.1	68.2	-11.94	187	7	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5150	43.41	33.36	10.05	54	-10.59	116	117	Average
5150	53.63	43.58	10.05	74	-20.37	116	117	Peak
5190	94.19	84.07	10.12			116	117	Average
5190	101.11	90.99	10.12			116	117	Peak
5350	42.12	31.89	10.23	54	-11.88	116	117	Average
5350	53.24	43.01	10.23	74	-20.76	116	117	Peak
*10380	57.34	41.24	16.1	68.2	-10.86	113	274	Peak

Remarks:

1. Emission Level = Read Level + Factor
   Margin value = Emission level – Limit value
2. 5190 MHz: Fundamental Frequency
3. *: Out of Restricted Band
4. The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 46	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Charles Hsiao

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5150	44.34	34.29	10.05	54	-9.66	116	136	Average
5150	53.5	43.45	10.05	74	-20.5	116	136	Peak
5230	97.09	86.95	10.14			100	148	Average
5230	105.45	95.31	10.14			100	148	Peak
5350	44.05	33.82	10.23	54	-9.95	116	136	Average
5350	54.6	44.37	10.23	74	-19.4	116	136	Peak
*10460	55.64	39.64	16	68.2	-12.56	118	2	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5150	43.44	33.39	10.05	54	-10.56	124	158	Average
5150	53.13	43.08	10.05	74	-20.87	124	158	Peak
5230	92.2	82.06	10.14			100	129	Average
5230	101.42	91.28	10.14			100	129	Peak
5350	43.23	33	10.23	54	-10.77	115	128	Average
5350	53.05	42.82	10.23	74	-20.95	115	128	Peak
*10460	55.28	39.28	16	68.2	-12.92	118	241	Peak

Remarks:

1. Emission Level = Read Level + Factor
   Margin value = Emission level – Limit value
2. 5230 MHz: Fundamental Frequency
3. *: Out of Restricted Band
4. The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 54	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Charles Hsiao

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5150	42.38	32.33	10.05	54	-11.62	168	11	Average
5150	53.51	43.46	10.05	74	-20.49	168	11	Peak
5270	99.84	89.72	10.12			168	11	Average
5270	106.43	96.31	10.12			168	11	Peak
5350	43.09	32.86	10.23	54	-10.91	168	11	Average
5350	54.24	44.01	10.23	74	-19.76	168	11	Peak
*10540	56.33	40.5	15.83	68.2	-11.87	136	207	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5150	42.16	32.11	10.05	54	-11.84	227	3	Average
5150	53.32	43.27	10.05	74	-20.68	227	3	Peak
5270	95.49	85.37	10.12			227	3	Average
5270	102.72	92.6	10.12			227	3	Peak
5350	43.01	32.78	10.23	54	-10.99	227	3	Average
5350	54.03	43.8	10.23	74	-19.97	227	3	Peak
*10540	55.31	39.48	15.83	68.2	-12.89	164	225	Peak

Remarks:

1. Emission Level = Read Level + Factor
   Margin value = Emission level – Limit value
2. 5270 MHz: Fundamental Frequency
3. *: Out of Restricted Band
4. The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 62	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Charles Hsiao

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5150	42.31	32.26	10.05	54	-11.69	209	107	Average
5150	52.74	42.69	10.05	74	-21.26	209	107	Peak
5310	97.49	87.4	10.09			209	107	Average
5310	104.52	94.43	10.09			209	107	Peak
5350	47.14	36.91	10.23	54	-6.86	209	107	Average
5350	56.6	46.37	10.23	74	-17.4	209	107	Peak
10620	45.45	29.57	15.88	54	-8.55	281	123	Average
10620	55.7	39.82	15.88	74	-18.3	281	123	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5150	42.1	32.05	10.05	54	-11.9	227	3	Average
5150	52.8	42.75	10.05	74	-21.2	227	3	Peak
5310	93.6	83.51	10.09			227	3	Average
5310	100.66	90.57	10.09			227	3	Peak
5350	44.15	33.92	10.23	54	-9.85	227	3	Average
5350	54.19	43.96	10.23	74	-19.81	227	3	Peak
10620	45.69	29.81	15.88	54	-8.31	238	131	Average
10620	55.83	39.95	15.88	74	-18.17	238	131	Peak

Remarks:

1. Emission Level = Read Level + Factor
   Margin value = Emission level – Limit value
2. 5310 MHz: Fundamental Frequency
3. *: Out of Restricted Band
4. The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 102	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Charles Hsiao

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5460	47.35	36.84	10.51	54	-6.65	121	13	Average
5460	55.31	44.8	10.51	74	-18.69	121	13	Peak
*5470	55.98	45.45	10.53	68.2	-12.22	121	13	Peak
5510	98.55	87.95	10.6			121	13	Average
5510	105.42	94.82	10.6			121	13	Peak
*5725	52.54	41.62	10.92	68.2	-15.66	121	13	Peak
11020	46.08	29.92	16.16	54	-7.92	123	46	Average
11020	56.22	40.06	16.16	74	-17.78	123	46	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5460	44.74	34.23	10.51	54	-9.26	200	354	Average
5460	54.72	44.21	10.51	74	-19.28	200	354	Peak
*5470	56.12	45.59	10.53	68.2	-12.08	200	354	Peak
5510	97.49	86.89	10.6			200	354	Average
5510	104.48	93.88	10.6			200	354	Peak
*5725	53.73	42.81	10.92	68.2	-14.47	200	354	Peak
11020	46.74	30.58	16.16	54	-7.26	184	132	Average
11020	57.01	40.85	16.16	74	-16.99	184	132	Peak

Remarks:

1. Emission Level = Read Level + Factor
   Margin value = Emission level – Limit value
2. 5510 MHz: Fundamental Frequency
3. *: Out of Restricted Band
4. The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 110	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Charles Hsiao

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5460	45.54	35.03	10.51	54	-8.46	121	13	Average
5460	55.24	44.73	10.51	74	-18.76	121	13	Peak
*5470	55.77	45.24	10.53	68.2	-12.43	121	13	Peak
5550	100.37	89.69	10.68			121	13	Average
5550	107.16	96.48	10.68			121	13	Peak
*5725	52.24	41.32	10.92	68.2	-15.96	121	13	Peak
11100	46.47	30.2	16.27	54	-7.53	156	238	Average
11100	56.73	40.46	16.27	74	-17.27	156	238	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5460	43.93	33.42	10.51	54	-10.07	200	354	Average
5460	53.84	43.33	10.51	74	-20.16	200	354	Peak
*5470	53.13	42.6	10.53	68.2	-15.07	200	354	Peak
5550	99.62	88.94	10.68			200	354	Average
5550	106.2	95.52	10.68			200	354	Peak
*5725	52.99	42.07	10.92	68.2	-15.21	200	354	Peak
11100	47.1	30.83	16.27	54	-6.9	226	28	Average
11100	57.26	40.99	16.27	74	-16.74	226	28	Peak

Remarks:

1. Emission Level = Read Level + Factor
   Margin value = Emission level – Limit value
2. 5550 MHz: Fundamental Frequency
3. *: Out of Restricted Band
4. The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 134	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Charles Hsiao

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5460	42.53	32.02	10.51	54	-11.47	121	13	Average
5460	53.14	42.63	10.51	74	-20.86	121	13	Peak
*5470	51.22	40.69	10.53	68.2	-16.98	121	13	Peak
5670	101.33	90.43	10.9			121	13	Average
5670	108.78	97.88	10.9			121	13	Peak
*5725	60.09	49.17	10.92	68.2	-8.11	121	13	Peak
11340	46.38	29.96	16.42	54	-7.62	190	164	Average
11340	56.7	40.28	16.42	74	-17.3	190	164	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5460	42.62	32.11	10.51	54	-11.38	200	354	Average
5460	52.87	42.36	10.51	74	-21.13	200	354	Peak
*5470	51.36	40.83	10.53	68.2	-16.84	200	354	Peak
5670	100.55	89.65	10.9			200	354	Average
5670	107.62	96.72	10.9			200	354	Peak
*5725	62.42	51.5	10.92	68.2	-5.78	200	354	Peak
11340	46.62	30.2	16.42	54	-7.38	185	217	Average
11340	56.88	40.46	16.42	74	-17.12	185	217	Peak

Remarks:

1. Emission Level = Read Level + Factor
   Margin value = Emission level – Limit value
2. 5670 MHz: Fundamental Frequency
3. *: Out of Restricted Band
4. The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 142	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Charles Hsiao

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5460	42.26	31.75	10.51	54	-11.74	121	13	Average
5460	52.6	42.09	10.51	74	-21.4	121	13	Peak
*5470	52.14	41.61	10.53	68.2	-16.06	121	13	Peak
5710	98.45	87.54	10.91			121	13	Average
5710	105.35	94.44	10.91			121	13	Peak
11420	45.82	29.56	16.26	54	-8.18	215	327	Average
11420	55.99	39.73	16.26	74	-18.01	215	327	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5460	42.33	31.82	10.51	54	-11.67	200	354	Average
5460	52.53	42.02	10.51	74	-21.47	200	354	Peak
*5470	51.32	40.79	10.53	68.2	-16.88	200	354	Peak
5710	97.44	86.53	10.91			200	354	Average
5710	104.55	93.64	10.91			200	354	Peak
11420	46.91	30.65	16.26	54	-7.09	274	105	Average
11420	56.9	40.64	16.26	74	-17.1	274	105	Peak

Remarks:

1. Emission Level = Read Level + Factor
   Margin value = Emission level – Limit value
2. 5710 MHz: Fundamental Frequency
3. *: Out of Restricted Band
4. The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 151	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Charles Hsiao

<Spurious Emission>

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5755	99.71	88.81	10.9			133	24	Average
5755	109.11	98.21	10.9			133	24	Peak
11510	46.27	29.76	16.51	54	-7.73	138	43	Average
11510	55.98	39.47	16.51	74	-18.02	138	43	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5755	96.84	85.94	10.9			200	347	Average
5755	107.6	96.7	10.9			200	347	Peak
11510	46.2	29.69	16.51	54	-7.8	167	156	Average
11510	56.13	39.62	16.51	74	-17.87	167	156	Peak

<Out of Band Emission (OOBE)>

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
*5648.05	54.32	43.47	10.85	68.2	-13.88	133	24	Peak
5654.35	54.76	43.89	10.87	71.42	-16.66	133	24	Peak
5918.425	52.61	41.52	11.09	73.07	-20.46	133	24	Peak
*5938.375	53.37	42.21	11.16	68.2	-14.83	133	24	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
*5649.1	55.4	44.55	10.85	68.2	-12.8	200	347	Peak
5658.025	54.36	43.49	10.87	74.14	-19.78	200	347	Peak
5904.775	54.42	43.37	11.05	83.17	-28.75	200	347	Peak
*5927.35	53.24	42.13	11.11	68.2	-14.96	200	347	Peak

Remarks:

1. Emission Level = Read Level + Factor
   Margin value = Emission level – Limit value
2. 5755 MHz: Fundamental Frequency
3. *: Out of Restricted Band
4. The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 159	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Charles Hsiao

<Spurious Emission>

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5795	100.6	89.78	10.82			133	24	Average
5795	109.9	99.08	10.82			133	24	Peak
11590	46.58	30.07	16.51	54	-7.42	149	58	Average
11590	56.79	40.28	16.51	74	-17.21	149	58	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5795	98.02	87.2	10.82			200	347	Average
5795	107.6	96.78	10.82			200	347	Peak
11590	46.01	29.5	16.51	54	-7.99	190	134	Average
11590	55.82	39.31	16.51	74	-18.18	190	134	Peak

<Out of Band Emission (OOBE)>

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
*5640.175	53.38	42.55	10.83	68.2	-14.82	133	24	Peak
5659.6	53.28	42.41	10.87	75.3	-22.02	133	24	Peak
5915.8	52.48	41.39	11.09	75.01	-22.53	133	24	Peak
*5970.4	53.52	42.27	11.25	68.2	-14.68	133	24	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
*5642.8	53.04	42.21	10.83	68.2	-15.16	200	347	Peak
5664.325	54.65	43.76	10.89	78.8	-24.15	200	347	Peak
5922.1	53.26	42.15	11.11	70.35	-17.09	200	347	Peak
*5972.5	53.78	42.53	11.25	68.2	-14.42	200	347	Peak

Remarks:

1. Emission Level = Read Level + Factor
   Margin value = Emission level – Limit value
2. 5795 MHz: Fundamental Frequency
3. *: Out of Restricted Band
4. The emission levels of other frequencies were very low against the limit

802.11ax (HE80)

EUT Test Condition		Measurement Detail	
Channel	Channel 42	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Charles Hsiao

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5150	45.58	35.53	10.05	54	-8.42	105	152	Average
5150	54.55	44.5	10.05	74	-19.45	105	152	Peak
5210	92.45	82.28	10.17			102	153	Average
5210	103.18	93.01	10.17			102	153	Peak
5350	43.51	33.28	10.23	54	-10.49	102	149	Average
5350	53.05	42.82	10.23	74	-20.95	102	149	Peak
*10420	54.71	38.55	16.16	68.2	-13.49	119	98	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5150	43.74	33.69	10.05	54	-10.26	111	108	Average
5150	53.57	43.52	10.05	74	-20.43	111	108	Peak
5210	90.89	80.72	10.17			100	129	Average
5210	99.18	89.01	10.17			100	129	Peak
5350	43.15	32.92	10.23	54	-10.85	100	137	Average
5350	52.46	42.23	10.23	74	-21.54	100	137	Peak
*10420	54.78	38.62	16.16	68.2	-13.42	115	241	Peak

Remarks:

1. Emission Level = Read Level + Factor
   Margin value = Emission level – Limit value
2. 5210 MHz: Fundamental Frequency
3. *: Out of Restricted Band
4. The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 58	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Charles Hsiao

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5150	42.25	32.2	10.05	54	-11.75	209	107	Average
5150	52.8	42.75	10.05	74	-21.2	209	107	Peak
5290	94.19	84.09	10.1			209	107	Average
5290	101.12	91.02	10.1			209	107	Peak
5350	43.23	33	10.23	54	-10.77	209	107	Average
5350	54.35	44.12	10.23	74	-19.65	209	107	Peak
*10580	55.34	39.63	15.71	68.2	-12.86	254	283	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5150	42.21	32.16	10.05	54	-11.79	227	3	Average
5150	53.7	43.65	10.05	74	-20.3	227	3	Peak
5290	89.37	79.27	10.1			227	3	Average
5290	96.82	86.72	10.1			227	3	Peak
5350	42.48	32.25	10.23	54	-11.52	227	3	Average
5350	53.33	43.1	10.23	74	-20.67	227	3	Peak
*10580	55.68	39.97	15.71	68.2	-12.52	272	136	Peak

Remarks:

1. Emission Level = Read Level + Factor
   Margin value = Emission level – Limit value
2. 5290 MHz: Fundamental Frequency
3. *: Out of Restricted Band
4. The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 106	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Charles Hsiao

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5460	46.16	35.65	10.51	54	-7.84	121	13	Average
5460	54.68	44.17	10.51	74	-19.32	121	13	Peak
*5470	55.8	45.27	10.53	68.2	-12.4	121	13	Peak
5530	94.46	83.83	10.63			121	13	Average
5530	101.02	90.39	10.63			121	13	Peak
*5725	52.34	41.42	10.92	68.2	-15.86	121	13	Peak
11060	46.3	30.07	16.23	54	-7.7	182	105	Average
11060	56.5	40.27	16.23	74	-17.5	182	105	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5460	43.38	32.87	10.51	54	-10.62	200	354	Average
5460	53.38	42.87	10.51	74	-20.62	200	354	Peak
*5470	53.41	42.88	10.53	68.2	-14.79	200	354	Peak
5530	93.72	83.09	10.63			200	354	Average
5530	100.18	89.55	10.63			200	354	Peak
*5725	52.15	41.23	10.92	68.2	-16.05	200	354	Peak
11060	46.31	30.08	16.23	54	-7.69	238	104	Average
11060	56.54	40.31	16.23	74	-17.46	238	104	Peak

Remarks:

1. Emission Level = Read Level + Factor
   Margin value = Emission level – Limit value
2. 5530 MHz: Fundamental Frequency
3. *: Out of Restricted Band
4. The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 122	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Charles Hsiao

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5460	47.9	37.39	10.51	54	-6.1	121	13	Average
5460	58.21	47.7	10.51	74	-15.79	121	13	Peak
*5470	57.67	47.14	10.53	68.2	-10.53	121	13	Peak
5610	98.64	87.87	10.77			121	13	Average
5610	105.49	94.72	10.77			121	13	Peak
*5725	60.46	49.54	10.92	68.2	-7.74	121	13	Peak
11220	47.47	31.05	16.42	54	-6.53	129	354	Average
11220	57.77	41.35	16.42	74	-16.23	129	354	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5460	46.25	35.74	10.51	54	-7.75	200	354	Average
5460	57.06	46.55	10.51	74	-16.94	200	354	Peak
*5470	56.52	45.99	10.53	68.2	-11.68	200	354	Peak
5610	97.48	86.71	10.77			200	354	Average
5610	104.91	94.14	10.77			200	354	Peak
*5725	60.14	49.22	10.92	68.2	-8.06	200	354	Peak
11220	45.84	29.42	16.42	54	-8.16	125	173	Average
11220	55.92	39.5	16.42	74	-18.08	125	173	Peak

Remarks:

1. Emission Level = Read Level + Factor
   Margin value = Emission level – Limit value
2. 5610 MHz: Fundamental Frequency
3. *: Out of Restricted Band
4. The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 138	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Charles Hsiao

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5460	42.74	32.23	10.51	54	-11.26	121	13	Average
5460	53.59	43.08	10.51	74	-20.41	121	13	Peak
*5470	53.25	42.72	10.53	68.2	-14.95	121	13	Peak
5690	96.36	85.43	10.93			121	13	Average
5690	103.16	92.23	10.93			121	13	Peak
11380	47.68	31.41	16.27	54	-6.32	246	210	Average
11380	57.48	41.21	16.27	74	-16.52	246	210	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5460	42.58	32.07	10.51	54	-11.42	200	355	Average
5460	53.4	42.89	10.51	74	-20.6	200	355	Peak
*5470	52.21	41.68	10.53	68.2	-15.99	200	355	Peak
5690	95.14	84.21	10.93			200	355	Average
5690	102.01	91.08	10.93			200	355	Peak
11380	46.52	30.25	16.27	54	-7.48	135	109	Average
11380	56.79	40.52	16.27	74	-17.21	135	109	Peak

Remarks:

1. Emission Level = Read Level + Factor
   Margin value = Emission level – Limit value
2. 5690 MHz: Fundamental Frequency
3. *: Out of Restricted Band
4. The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 155	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Charles Hsiao

<Spurious Emission>

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5775	98.18	87.31	10.87			133	24	Average
5775	107.23	96.36	10.87			133	24	Peak
11550	46.96	30.46	16.5	54	-7.04	190	254	Average
11550	56.81	40.31	16.5	74	-17.19	190	254	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5775	96.55	85.68	10.87			200	347	Average
5775	104.89	94.02	10.87			200	347	Peak
11550	46.84	30.34	16.5	54	-7.16	237	21	Average
11550	57.04	40.54	16.5	74	-16.96	237	21	Peak

<Out of Band Emission (OOBE)>

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
*5634.4	57.77	46.94	10.83	68.2	-10.43	133	24	Peak
5653.825	56.75	45.88	10.87	71.03	-14.28	133	24	Peak
5920	52.47	41.38	11.09	71.9	-19.43	133	24	Peak
*5947.825	53.57	42.39	11.18	68.2	-14.63	133	24	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
*5624.95	57.59	46.8	10.79	68.2	-10.61	200	347	Peak
5653.825	55.7	44.83	10.87	71.03	-15.33	200	347	Peak
5922.1	52.16	41.05	11.11	70.35	-18.19	200	347	Peak
*5935.75	53.77	42.61	11.16	68.2	-14.43	200	347	Peak

Remarks:

1. Emission Level = Read Level + Factor
   Margin value = Emission level – Limit value
2. 5775 MHz: Fundamental Frequency
3. *: Out of Restricted Band
4. The emission levels of other frequencies were very low against the limit

802.11ax (HE160)

EUT Test Condition		Measurement Detail	
Channel	Channel 50	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Charles Hsiao

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5150	44.45	34.4	10.05	54	-9.55	209	107	Average
5150	53.95	43.9	10.05	74	-20.05	209	107	Peak
5250	90.19	80.09	10.1			209	107	Average
5250	97.58	87.48	10.1			209	107	Peak
5350	46.3	36.07	10.23	54	-7.7	209	107	Average
5350	55.65	45.42	10.23	74	-18.35	209	107	Peak
*10500	54.81	38.98	15.83	68.2	-13.39	274	18	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5150	42.35	32.3	10.05	54	-11.65	227	3	Average
5150	53.09	43.04	10.05	74	-20.91	227	3	Peak
5250	86.37	76.27	10.1			227	3	Average
5250	93.07	82.97	10.1			227	3	Peak
5350	44.27	34.04	10.23	54	-9.73	227	3	Average
5350	55.7	45.47	10.23	74	-18.3	227	3	Peak
*10500	55.46	39.63	15.83	68.2	-12.74	186	294	Peak

Remarks:

1. Emission Level = Read Level + Factor
   Margin value = Emission level – Limit value
2. 5250 MHz: Fundamental Frequency
3. *: Out of Restricted Band
4. The emission levels of other frequencies were very low against the limit

EUT Test Condition		Measurement Detail	
Channel	Channel 114	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Charles Hsiao

Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5460	45.25	34.74	10.51	54	-8.75	121	13	Average
5460	54.41	43.9	10.51	74	-19.59	121	13	Peak
*5470	53.88	43.35	10.53	68.2	-14.32	121	13	Peak
5570	91.16	80.46	10.7			121	13	Average
5570	98.01	87.31	10.7			121	13	Peak
*5725	57.17	46.25	10.92	68.2	-11.03	121	13	Peak
11140	47.61	31.27	16.34	54	-6.39	116	28	Average
11140	57.6	41.26	16.34	74	-16.4	116	28	Peak
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Factor (dB/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5460	44.2	33.69	10.51	54	-9.8	200	354	Average
5460	54.42	43.91	10.51	74	-19.58	200	354	Peak
*5470	53.74	43.21	10.53	68.2	-14.46	200	354	Peak
5570	90.67	79.97	10.7			200	354	Average
5570	97.55	86.85	10.7			200	354	Peak
*5725	57.2	46.28	10.92	68.2	-11	200	354	Peak
11140	46.49	30.15	16.34	54	-7.51	184	204	Average
11140	56.67	40.33	16.34	74	-17.33	184	204	Peak

Remarks:

1. Emission Level = Read Level + Factor
   Margin value = Emission level – Limit value
2. 5570 MHz: Fundamental Frequency
3. *: Out of Restricted Band
4. The emission levels of other frequencies were very low against the limit

9 kHz ~ 30 MHz Data:

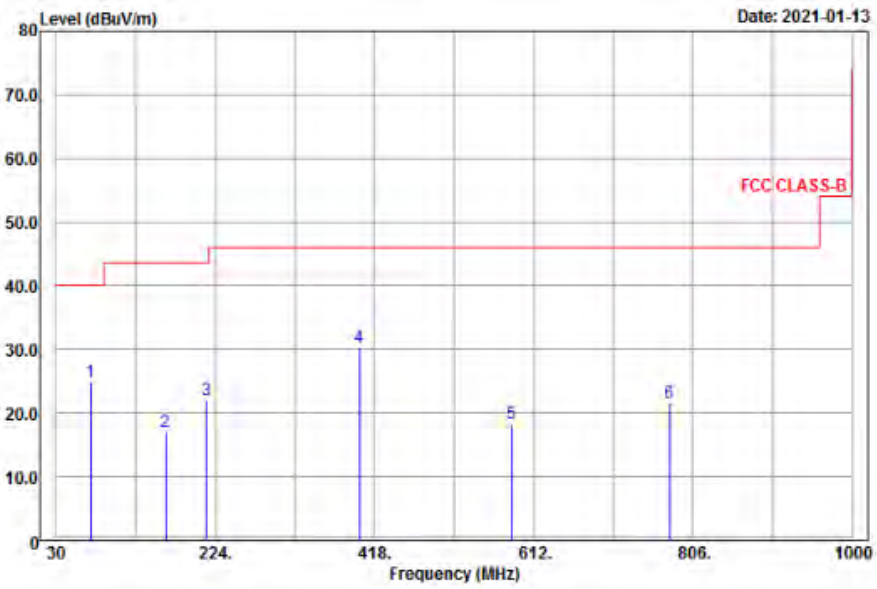
The amplitude of spurious emissions attenuated more than 20 dB below the permissible value is not required to be report.

30 MHz ~ 1 GHz Worst-Case Data:

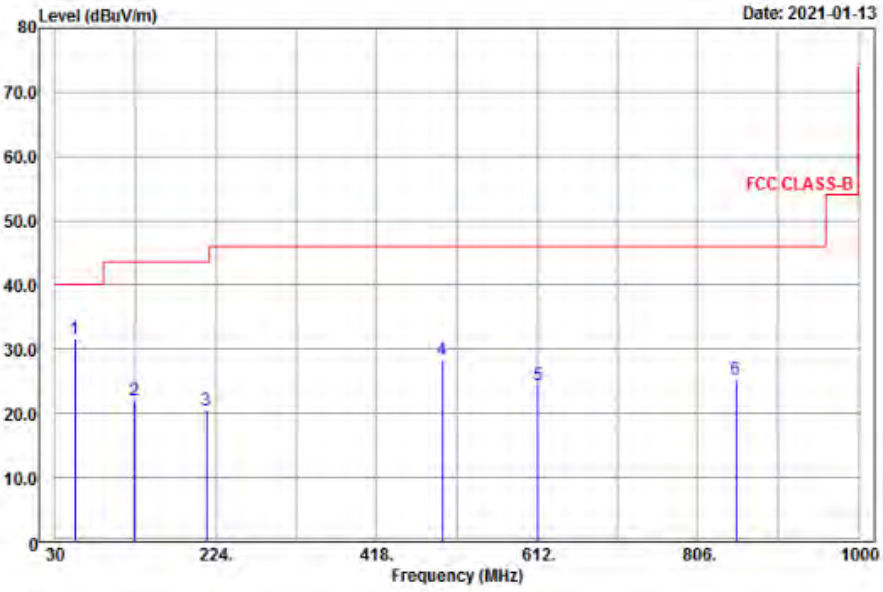
802.11ax (HE40)

EUT Test Condition		Measurement Detail	
Channel	Channel 134	**Frequency Range**	30 MHz ~ 1 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Quasi-peak (QP)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Charles Hsiao

Horizontal



Vertical



Antenna Polarity & Test Distance: Horizontal at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
72.93	24.86	45.41	-20.55	40	-15.14	250	174	QP
163.65	17.02	37.52	-20.5	43.5	-26.48	184	224	QP
213.6	22.12	40.17	-18.05	43.5	-21.38	196	143	QP
400.1	30.29	44.21	-13.92	46	-15.71	120	164	QP
585.6	18.32	29.23	-10.91	46	-27.68	195	217	QP
777.4	21.54	29.68	-8.14	46	-24.46	188	241	QP
Antenna Polarity & Test Distance: Vertical at 3 m								
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
54.3	31.66	47.09	-15.43	40	-8.34	209	164	QP
125.58	22.01	42.09	-20.08	43.5	-21.49	194	112	QP
212.25	20.39	38.46	-18.07	43.5	-23.11	342	184	QP
497.4	28.44	40.79	-12.35	46	-17.56	154	37	QP
612.9	24.4	34.83	-10.43	46	-21.6	112	119	QP
851.6	25.32	32.1	-6.78	46	-20.68	180	241	QP

Remarks:

1. Emission Level = Read Level + Factor
   Margin value = Emission level – Limit value
2. The emission levels of other frequencies were very low against the limit

4.2 Conducted Emission Measurement

4.2.1 Limits of Conducted Emission Measurement

Frequency (MHz)	Conducted Limit (dBuV)	
	Quasi-Peak	Average
0.15 - 0.5	66 - 56	56 - 46
0.50 - 5.0	56	46
5.0 - 30.0	60	50

Note: 1. The lower limit shall apply at the transition frequencies.
2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50 MHz.

4.2.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Date of Calibration	Due Date of Calibration
Test Receiver ROHDE & SCHWARZ	ESR3	102783	Jan. 06, 2021	Jan. 05, 2022
RF signal cable (with 10dB PAD) Woken	5D-FB	Cable-cond2-01	Sep. 04, 2020	Sep. 03, 2021
LISN ROHDE & SCHWARZ (EUT)	ESH2-Z5	100100	Jan. 18, 2021	Jan. 17, 2022
LISN ROHDE & SCHWARZ (Peripheral)	ESH3-Z5	100312	Aug. 18, 2020	Aug. 17, 2021
Software ADT	BV ADT_Cond_ V7.3.7.4	NA	NA	NA

Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in HwaYa Shielded Room 2 (Conduction 2).
3. The VCCI Site Registration No. is C-12047.

4.2.3 Test Procedures

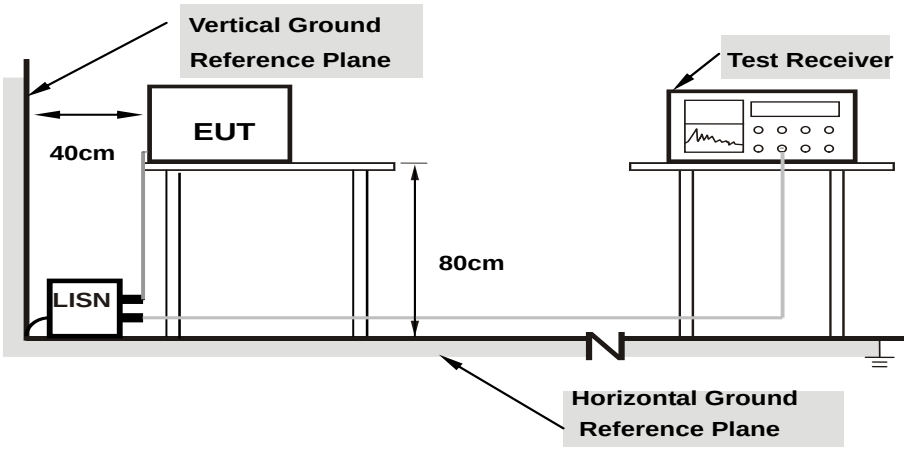
a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.
b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
c. The frequency range from 150 kHz to 30 MHz was searched. Emission levels under (Limit -20 dB) was not recorded.

Note: All modes of operation were investigated and the worst-case emissions are reported.

4.2.4 Deviation from Test Standard

No deviation.

4.2.5 Test Setup



Note: 1.Support units were connected to second LISN.
2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

For the actual test configuration, please refer to the attached file (Test Setup Photo).

4.2.6 EUT Operating Conditions

a. Placed the EUT on a testing table.
b. Use the software to control the EUT under transmission condition continuously at specific channel frequency.

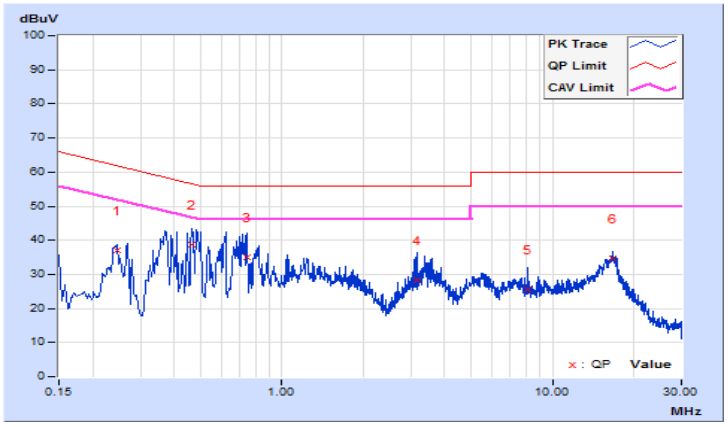
4.2.7 Test Results

Frequency Range	150kHz ~ 30MHz	**Detector Function & Resolution Bandwidth**	Quasi-Peak (QP) / Average (AV), 9kHz
Input Power	120Vac, 60Hz	**Environmental Conditions**	22℃, 66%RH
Tested by	Cookie Ku	**Test Date**	2021/3/30

Phase Of Power : Line (L)										
No	**Frequency (MHz)**	**Correction Factor (dB)**	**Reading Value (dBuV)**		**Emission Level (dBuV)**		**Limit (dBuV)**		**Margin (dB)**	
			Q.P.	**AV.**	**Q.P.**	**AV.**	**Q.P.**	**AV.**	**Q.P.**	**AV.**
1	0.24600	10.08	27.02	10.94	37.10	21.02	61.89	51.89	-24.79	-30.87
2	**0.46200**	**10.10**	**28.78**	**4.97**	**38.88**	**15.07**	**56.66**	**46.66**	**-17.78**	**-31.59**
3	0.74600	10.12	24.86	10.14	34.98	20.26	56.00	46.00	-21.02	-25.74
4	3.15000	10.19	18.20	8.35	28.39	18.54	56.00	46.00	-27.61	-27.46
5	8.09000	10.29	15.26	5.16	25.55	15.45	60.00	50.00	-34.45	-34.55
6	16.74200	10.40	24.28	11.31	34.68	21.71	60.00	50.00	-25.32	-28.29

Remarks:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level – Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value

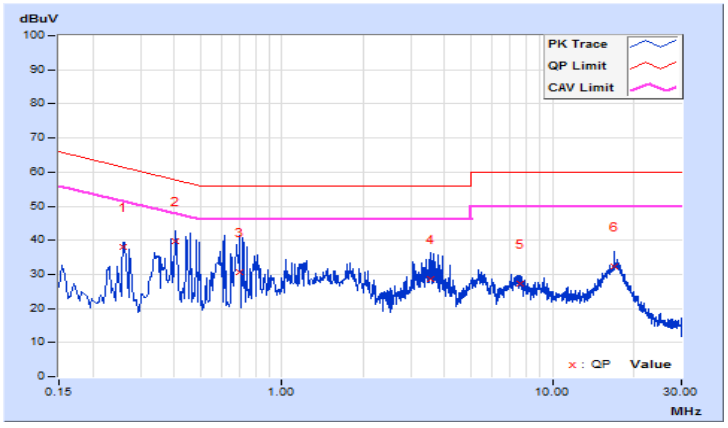


Frequency Range	150kHz ~ 30MHz	**Detector Function & Resolution Bandwidth**	Quasi-Peak (QP) / Average (AV), 9kHz
Input Power	120Vac, 60Hz	**Environmental Conditions**	22℃, 66%RH
Tested by	Cookie Ku	**Test Date**	2021/3/30

Phase Of Power : Neutral (N)										
No	**Frequency (MHz)**	**Correction Factor (dB)**	**Reading Value (dBuV)**		**Emission Level (dBuV)**		**Limit (dBuV)**		**Margin (dB)**	
			Q.P.	**AV.**	**Q.P.**	**AV.**	**Q.P.**	**AV.**	**Q.P.**	**AV.**
1	0.25800	10.09	27.85	15.73	37.94	25.82	61.50	51.50	-23.56	-25.68
2	0.40600	10.10	29.51	13.92	39.61	24.02	57.73	47.73	-18.12	-23.71
3	0.69800	10.12	20.39	1.03	30.51	11.15	56.00	46.00	-25.49	-34.85
4	3.55400	10.24	18.29	9.52	28.53	19.76	56.00	46.00	-27.47	-26.24
5	7.61800	10.35	17.02	6.63	27.37	16.98	60.00	50.00	-32.63	-33.02
6	16.98600	10.57	21.79	15.08	32.36	25.65	60.00	50.00	-27.64	-24.35

Remarks:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level – Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value



4.3 Transmit Power Measurement

4.3.1 Limits of Transmit Power Measurement

Operation Band	EUT Category		Limit
U-NII-1		Outdoor Access Point	1 Watt (30 dBm) (Max. e.i.r.p ≦ 125 mW (21 dBm) at any elevation angle above 30 degrees as measured from the horizon)
		Fixed point-to-point Access Point	1 Watt (30 dBm)
		Indoor Access Point	1 Watt (30 dBm)
	√	Mobile and Portable client device	250 mW (24 dBm)
U-NII-2A	√		250 mW (24 dBm) or 11 dBm + 10 log B*
U-NII-2C	√		250 mW (24 dBm) or 11 dBm + 10 log B*
U-NII-3	√		1 Watt (30 dBm)

*B is the 26 dB emission bandwidth in megahertz

Per KDB 662911 Method of conducted output power measurement on IEEE 802.11 devices,

Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;

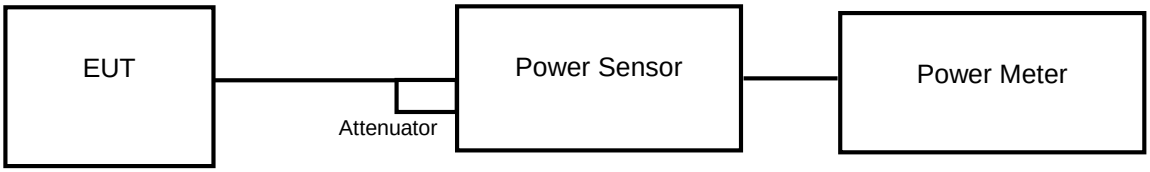
Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT};

Array Gain = 5 log(N_{ANT}/N_{SS}) dB or 3 dB, whichever is less for 20 MHz channel widths with $N_{ANT} \geq 5$.

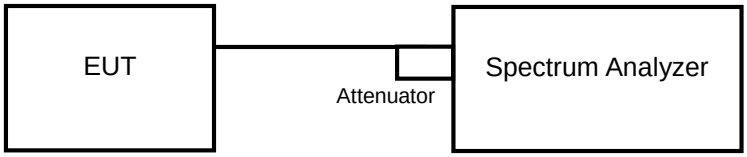
For power measurements on all other devices: Array Gain = 10 log(N_{ANT}/N_{SS}) dB.

4.3.2 Test Setup

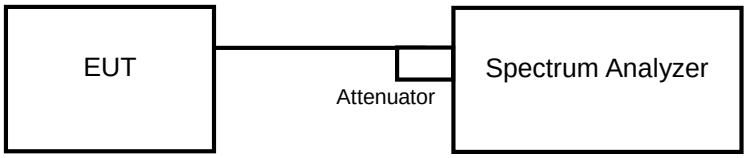
<Power Output Measurement>



or



<26 dB Bandwidth>



4.3.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.3.4 Test Procedure

Average Power Measurement

Method PM is used to perform output power measurement, trigger and gating function of wide band power meter is enabled to measure max output power of TX on burst. Duty factor is not added to measured value.

<Straddle Channel>

a. Set span to encompass the entire 26 dB EBW (or, alternatively, the entire 99 % occupied bandwidth) of the signal.
b. Set sweep trigger to “free run”.
c. Set RBW = 1 MHz.
d. Set VBW ≥ 3 MHz
e. Number of points in sweep ≥ 2 Span / RBW.
f. Sweep time ≤ (number of points in sweep) * T
g. Using emission bandwidth to determine the frequency span for integration the channel bandwidth.
h. Detector = RMS.
i. Trace mode = max hold.
j. Allow max hold to run for at least 60 seconds, or longer as needed to allow the trace to stabilize.
k. Compute power by integrating the spectrum across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal using the instrument’s band power measurement function with band limits set equal to the EBW (or occupied bandwidth) band edges. If the instrument does not have a band power function, sum the spectrum levels (in power units) at 1 MHz intervals extending across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the spectrum

26 dB Bandwidth

a. Set RBW = approximately 1 % of the emission bandwidth.
b. Set the VBW ≥ 3 x RBW.
c. Detector = Peak.
d. Trace mode = max hold.
e. Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1 %.

4.3.5 Deviation from Test Standard

No deviation.

4.3.6 EUT Operating Conditions

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

4.3.7 Test Results

Chain 0

Power Output:

802.11a

Channel	Frequency (MHz)	Maximum Conducted Power (mW)	Maximum Conducted Power (dBm)	Power Limit (dBm)	Pass / Fail
36	5180	62.373	17.95	24	Pass
40	5200	63.973	18.06	24	Pass
48	5240	63.387	18.02	24	Pass
52	5260	62.661	17.97	24	Pass
60	5300	62.517	17.96	24	Pass
64	5320	52.845	17.23	24	Pass
100	5500	23.227	13.66	24	Pass
116	5580	23.174	13.65	24	Pass
140	5700	23.388	13.69	24	Pass
149	5745	33.884	15.30	30	Pass
157	5785	34.277	15.35	30	Pass
165	5825	34.514	15.38	30	Pass

Note:

For U-NII-2A, U-NII-2C Band:

1. 11 dBm + 10log (23.19) = 24.65dBm > 24 dBm.
2. 11 dBm + 10log (23.40) = 24.69dBm > 24 dBm.
3. 11 dBm + 10log (23.40) = 24.69dBm > 24 dBm.
4. 11 dBm + 10log (23.53) = 24.71dBm > 24 dBm.
5. 11 dBm + 10log (23.85) = 24.77dBm > 24 dBm.
6. 11 dBm + 10log (23.66) = 24.74dBm > 24 dBm.

802.11n (HT20)

Channel	Frequency (MHz)	Maximum Conducted Power (mW)	Maximum Conducted Power (dBm)	Power Limit (dBm)	Pass / Fail
36	5180	65.163	18.14	24	Pass
40	5200	62.806	17.98	24	Pass
48	5240	62.23	17.94	24	Pass
52	5260	62.23	17.94	24	Pass
60	5300	61.944	17.92	24	Pass
64	5320	51.642	17.13	24	Pass
100	5500	22.699	13.56	24	Pass
116	5580	22.542	13.53	24	Pass
140	5700	22.803	13.58	24	Pass
144	5720 (U-NII-2C)	22.491	13.52	23.34	Pass
144	5720 (U-NII-3)	4.102	6.13	30	Pass
149	5745	33.574	15.26	30	Pass
157	5785	33.963	15.31	30	Pass
165	5825	34.198	15.34	30	Pass

Note:

For U-NII-2A, U-NII-2C Band:

1. 11 dBm + 10log (23.56) = 24.72dBm > 24 dBm.
2. 11 dBm + 10log (24.10) = 24.82dBm > 24 dBm.
3. 11 dBm + 10log (23.76) = 24.75dBm > 24 dBm.
4. 11 dBm + 10log (23.63) = 24.73dBm > 24 dBm.
5. 11 dBm + 10log (24.21) = 24.83dBm > 24 dBm.
6. 11 dBm + 10log (24.17) = 24.83dBm > 24 dBm.
7. 11 dBm + 10log (17.16) = 23.34dBm < 24 dBm.

802.11n (HT40)

Channel	Frequency (MHz)	Maximum Conducted Power (mW)	Maximum Conducted Power (dBm)	Power Limit (dBm)	Pass / Fail
38	5190	62.517	17.96	24	Pass
46	5230	63.387	18.02	24	Pass
54	5270	62.373	17.95	24	Pass
62	5310	42.855	16.32	24	Pass
102	5510	23.988	13.80	24	Pass
110	5550	23.823	13.77	24	Pass
134	5670	23.933	13.79	24	Pass
142	5710 (U-NII-2C)	23.067	13.63	24	Pass
142	5710 (U-NII-3)	1.352	1.31	30	Pass
151	5755	34.674	15.40	30	Pass
159	5795	34.435	15.37	30	Pass

Note:

For U-NII-2A, U-NII-2C Band:

1. 11 dBm + 10log (43.40) = 27.37dBm > 24 dBm.
2. 11 dBm + 10log (44.02) = 27.43dBm > 24 dBm.
3. 11 dBm + 10log (43.64) = 27.39dBm > 24 dBm.
4. 11 dBm + 10log (44.33) = 27.46dBm > 24 dBm.
5. 11 dBm + 10log (44.27) = 27.46dBm > 24 dBm.
6. 11 dBm + 10log (36.95) = 26.67dBm > 24 dBm.

802.11ac (VHT80)

Channel	Frequency (MHz)	Maximum Conducted Power (mW)	Maximum Conducted Power (dBm)	Power Limit (dBm)	Pass / Fail
42	5210	63.387	18.02	24	Pass
58	5290	56.754	17.54	24	Pass
106	5530	24.378	13.87	24	Pass
122	5610	23.714	13.75	24	Pass
138	5690 (U-NII-2C)	23.174	13.65	24	Pass
138	5690 (U-NII-3)	0.6152	-2.11	30	Pass
155	5775	34.277	15.35	30	Pass

Note:

For U-NII-2A, U-NII-2C Band:

1. 11 dBm + 10log (85.64) = 30.32dBm > 24 dBm.
2. 11 dBm + 10log (86.31) = 30.36dBm > 24 dBm.
3. 11 dBm + 10log (88.25) = 30.45dBm > 24 dBm.
4. 11 dBm + 10log (78.29) = 29.93dBm > 24 dBm.

802.11ac (VHT160)

Channel	Frequency (MHz)	Maximum Conducted Power (mW)	Maximum Conducted Power (dBm)	Power Limit (dBm)	Pass / Fail
50	5250 (U-NII-1)	15.069	11.78	24	Pass
50	5250 (U-NII-2A)	14.794	11.70	24	Pass
114	5570	24.774	13.94	24	Pass

Note:

For U-NII-2A, U-NII-2C Band:

1. 11 dBm + 10log (82.70) = 30.17dBm > 24 dBm.
2. 11 dBm + 10log (165.33) = 33.18dBm > 24 dBm.

802.11ax (HE20)

Channel	Frequency (MHz)	Maximum Conducted Power (mW)	Maximum Conducted Power (dBm)	Power Limit (dBm)	Pass / Fail
36	5180	63.241	18.01	24	Pass
40	5200	63.68	18.04	24	Pass
48	5240	62.806	17.98	24	Pass
52	5260	63.387	18.02	24	Pass
60	5300	63.533	18.03	24	Pass
64	5320	54.954	17.40	24	Pass
100	5500	22.803	13.58	24	Pass
116	5580	22.646	13.55	24	Pass
140	5700	22.909	13.60	24	Pass
144	5720 (U-NII-2C)	21.281	13.28	24	Pass
144	5720 (U-NII-3)	4.285	6.32	30	Pass
149	5745	34.198	15.34	30	Pass
157	5785	34.514	15.38	30	Pass
165	5825	34.754	15.41	30	Pass

Note:

For U-NII-2A, U-NII-2C Band:

1. 11 dBm + 10log (22.96) = 24.6dBm > 24 dBm.
2. 11 dBm + 10log (23.21) = 24.65dBm > 24 dBm.
3. 11 dBm + 10log (23.80) = 24.76dBm > 24 dBm.
4. 11 dBm + 10log (23.32) = 24.67dBm > 24 dBm.
5. 11 dBm + 10log (22.62) = 24.54dBm > 24 dBm.
6. 11 dBm + 10log (23.28) = 24.66dBm > 24 dBm.
7. 11 dBm + 10log (16.46) = 23.16dBm > 24 dBm.

802.11ax (HE40)

Channel	Frequency (MHz)	Maximum Conducted Power (mW)	Maximum Conducted Power (dBm)	Power Limit (dBm)	Pass / Fail
38	5190	59.704	17.76	24	Pass
46	5230	61.802	17.91	24	Pass
54	5270	63.826	18.05	24	Pass
62	5310	43.652	16.40	24	Pass
102	5510	24.155	13.83	24	Pass
110	5550	23.988	13.80	24	Pass
134	5670	24.099	13.82	24	Pass
142	5710 (U-NII-2C)	41.495	16.18	24	Pass
142	5710 (U-NII-3)	2.773	4.43	30	Pass
151	5755	34.995	15.44	30	Pass
159	5795	34.834	15.42	30	Pass

Note:

For U-NII-2A, U-NII-2C Band:

1. 11 dBm + 10log (42.88) = 27.32dBm > 24 dBm.
2. 11 dBm + 10log (43.19) = 27.35dBm > 24 dBm.
3. 11 dBm + 10log (43.16) = 27.35dBm > 24 dBm.
4. 11 dBm + 10log (43.60) = 27.39dBm > 24 dBm.
5. 11 dBm + 10log (43.56) = 27.39dBm > 24 dBm.
6. 11 dBm + 10log (36.70) = 26.64dBm > 24 dBm.

802.11ax (HE80)

Channel	Frequency (MHz)	Maximum Conducted Power (mW)	Maximum Conducted Power (dBm)	Power Limit (dBm)	Pass / Fail
42	5210	62.23	17.94	24	Pass
58	5290	54.075	17.33	24	Pass
106	5530	24.547	13.90	24	Pass
122	5610	24.044	13.81	24	Pass
138	5690 (U-NII-2C)	23.335	13.68	24	Pass
138	5690 (U-NII-3)	0.5834	-2.34	30	Pass
155	5775	34.514	15.38	30	Pass

Note:

For U-NII-2A, U-NII-2C Band:

1. 11 dBm + 10log (83.66) = 30.22dBm > 24 dBm.
2. 11 dBm + 10log (83.93) = 30.23dBm > 24 dBm.
3. 11 dBm + 10log (83.54) = 30.21dBm > 24 dBm.
4. 11 dBm + 10log (77.40) = 29.88dBm > 24 dBm.

802.11ax (HE160)

Channel	Frequency (MHz)	Maximum Conducted Power (mW)	Maximum Conducted Power (dBm)	Power Limit (dBm)	Pass / Fail
50	5250 (U-NII-1)	13.614	11.34	24	Pass
50	5250 (U-NII-2A)	13.552	11.32	24	Pass
114	5570	25.003	13.98	24	Pass

Note:

For U-NII-2A, U-NII-2C Band:

1. 11 dBm + 10log (82.60) = 30.16dBm > 24 dBm.
2. 11 dBm + 10log (165.39) = 33.18dBm > 24 dBm.

26 dB Bandwidth:

802.11a

Channel	Frequency (MHz)	26 dBc Bandwidth (MHz)
36	5180	23.86
40	5200	23.58
48	5240	23.99
52	5260	23.19
60	5300	23.40
64	5320	23.40
100	5500	23.53
116	5580	23.85
140	5700	23.66

802.11n (HT20)

Channel	Frequency (MHz)	26 dBc Bandwidth (MHz)
36	5180	24.09
40	5200	24.14
48	5240	24.00
52	5260	23.56
60	5300	24.10
64	5320	23.76
100	5500	23.63
116	5580	24.21
140	5700	24.17
144	5720 (U-NII-2C)	17.16
144	5720 (U-NII-3)	7.12

802.11n (HT40)

Channel	Frequency (MHz)	26 dBc Bandwidth (MHz)
38	5190	43.75
46	5230	44.17
54	5270	43.40
62	5310	44.02
102	5510	43.64
110	5550	44.33
134	5670	44.27
142	5710 (U-NII-2C)	36.95
142	5710 (U-NII-3)	6.78

802.11ac (VHT80)

Channel	Frequency (MHz)	26 dBc Bandwidth (MHz)
42	5210	86.94
58	5290	85.64
106	5530	86.31
122	5610	88.25
138	5690 (U-NII-2C)	78.29
138	5690 (U-NII-3)	7.48

802.11ac (VHT160)

Channel	Frequency (MHz)	26 dBc Bandwidth (MHz)
50	5250 (U-NII-1)	82.93
50	5250 (U-NII-2A)	82.70
114	5570	165.33

802.11ax (HE20)

Channel	Frequency (MHz)	26 dBc Bandwidth (MHz)
36	5180	23.00
40	5200	23.32
48	5240	22.75
52	5260	22.96
60	5300	23.21
64	5320	23.80
100	5500	23.32
116	5580	22.62
140	5700	23.28
144	5720 (U-NII-2C)	16.46
144	5720 (U-NII-3)	6.88

802.11ax (HE40)

Channel	Frequency (MHz)	26 dBc Bandwidth (MHz)
38	5190	43.14
46	5230	42.46
54	5270	42.88
62	5310	43.19
102	5510	43.16
110	5550	43.60
134	5670	43.56
142	5710 (U-NII-2C)	36.70
142	5710 (U-NII-3)	6.18

802.11ax (HE80)

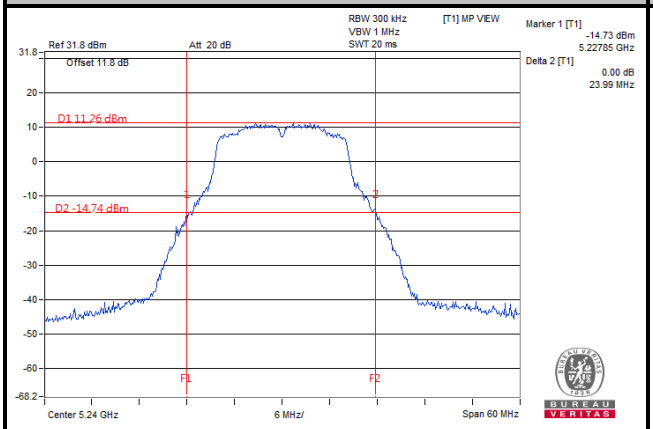
Channel	Frequency (MHz)	26 dBc Bandwidth (MHz)
42	5210	84.42
58	5290	83.66
106	5530	83.93
122	5610	83.54
138	5690 (U-NII-2C)	77.40
138	5690 (U-NII-3)	7.60

802.11ax (HE160)

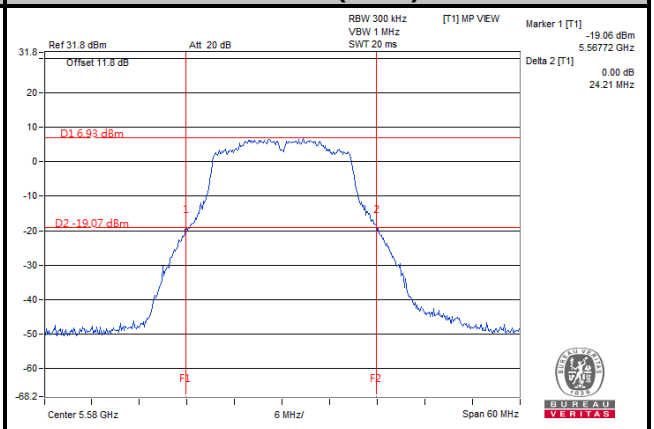
Channel	Frequency (MHz)	26 dBc Bandwidth (MHz)
50	5250 (U-NII-1)	82.73
50	5250 (U-NII-2A)	82.60
114	5570	165.39

Spectrum Plot of Worst Value

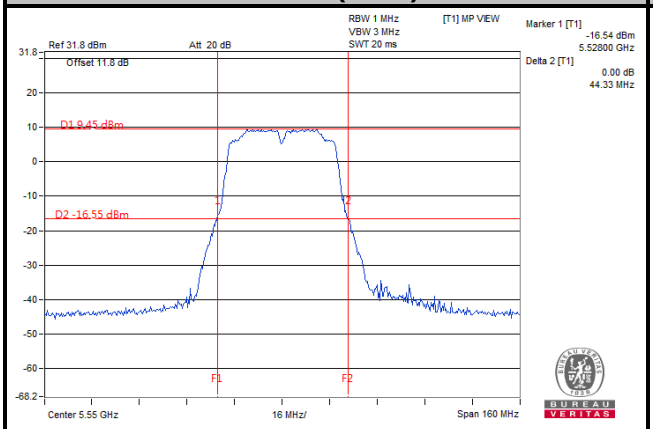
802.11a



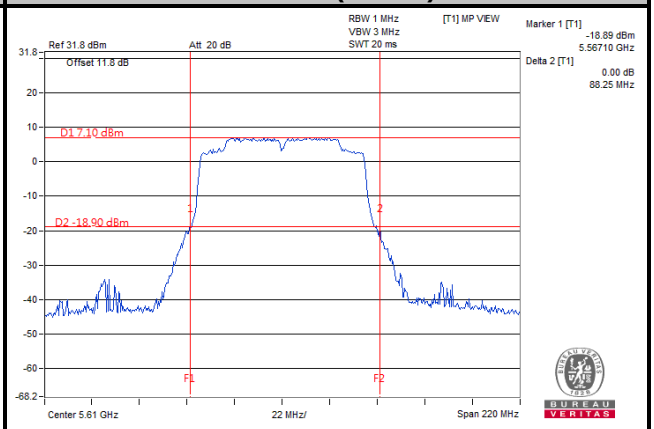
802.11n (HT20)



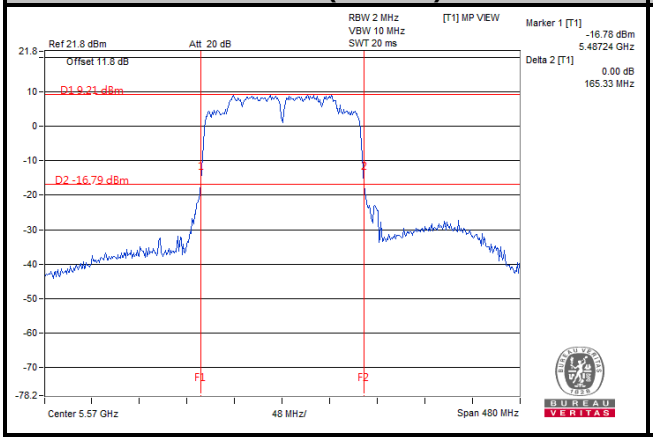
802.11n (HT40)



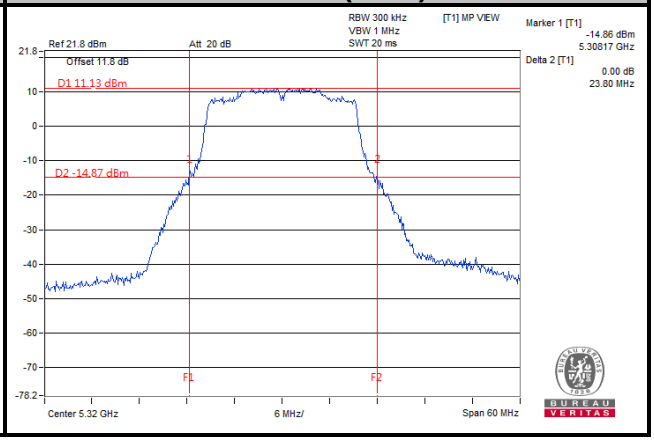
802.11ac (VHT80)



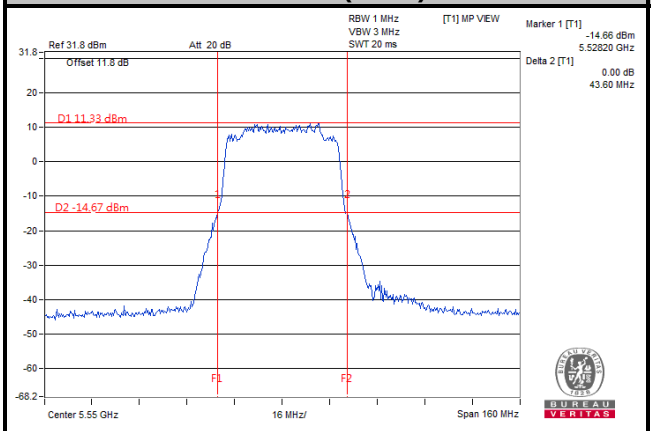
802.11ac (VHT160)



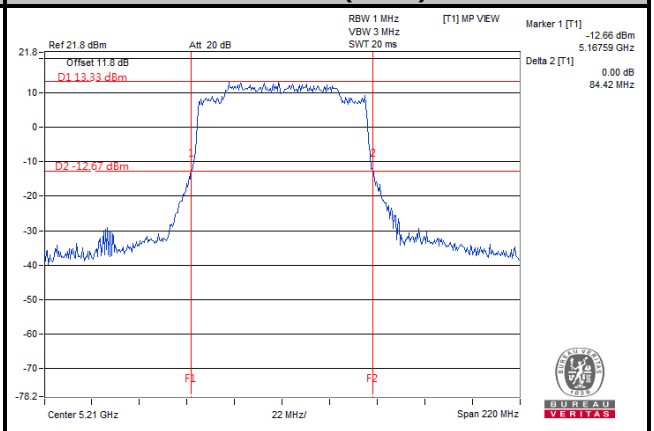
802.11ax (HE20)



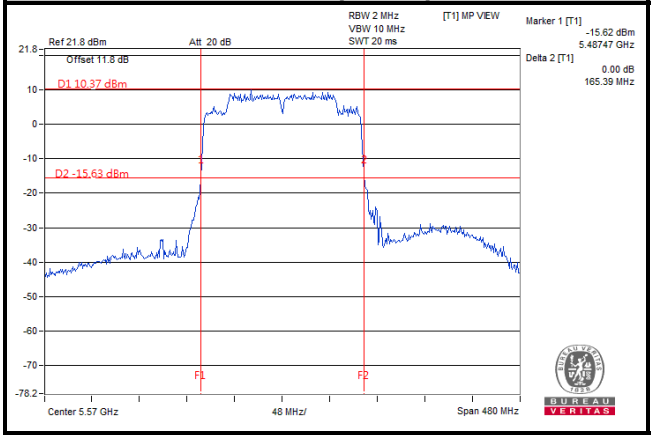
802.11ax (HE40)



802.11ax (HE80)



802.11ax (HE160)



Chain 1

Power Output:

802.11a

Channel	Frequency (MHz)	Maximum Conducted Power (mW)	Maximum Conducted Power (dBm)	Power Limit (dBm)	Pass / Fail
36	5180	14.028	11.47	24	Pass
40	5200	14.06	11.48	24	Pass
48	5240	13.868	11.42	24	Pass
52	5260	13.868	11.42	24	Pass
60	5300	13.964	11.45	24	Pass
64	5320	13.868	11.42	24	Pass
100	5500	12.303	10.90	24	Pass
116	5580	12.134	10.84	24	Pass
140	5700	12.359	10.92	24	Pass
149	5745	12.618	11.01	30	Pass
157	5785	12.735	11.05	30	Pass
165	5825	12.942	11.12	30	Pass

802.11n (HT20)

Channel	Frequency (MHz)	Maximum Conducted Power (mW)	Maximum Conducted Power (dBm)	Power Limit (dBm)	Pass / Fail
36	5180	14.093	11.49	24	Pass
40	5200	13.9	11.43	24	Pass
48	5240	13.932	11.44	24	Pass
52	5260	13.9	11.43	24	Pass
60	5300	13.932	11.44	24	Pass
64	5320	13.996	11.46	24	Pass
100	5500	12.078	10.82	24	Pass
116	5580	12.023	10.80	24	Pass
140	5700	12.134	10.84	24	Pass
144	5720 (U-NII-2C)	11.066	10.44	24	Pass
144	5720 (U-NII-3)	2.094	3.21	30	Pass
149	5745	12.274	10.89	30	Pass
157	5785	12.445	10.95	30	Pass
165	5825	12.531	10.98	30	Pass

802.11n (HT40)

Channel	Frequency (MHz)	Maximum Conducted Power (mW)	Maximum Conducted Power (dBm)	Power Limit (dBm)	Pass / Fail
38	5190	13.836	11.41	24	Pass
46	5230	13.868	11.42	24	Pass
54	5270	13.836	11.41	24	Pass
62	5310	13.772	11.39	24	Pass
102	5510	12.106	10.83	24	Pass
110	5550	12.05	10.81	24	Pass
134	5670	12.274	10.89	24	Pass
142	5710 (U-NII-2C)	10.257	10.11	24	Pass
142	5710 (U-NII-3)	0.6281	-2.02	30	Pass
151	5755	12.647	11.02	30	Pass
159	5795	12.735	11.05	30	Pass

802.11ac (VHT80)

Channel	Frequency (MHz)	Maximum Conducted Power (mW)	Maximum Conducted Power (dBm)	Power Limit (dBm)	Pass / Fail
42	5210	13.804	11.40	24	Pass
58	5290	13.868	11.42	24	Pass
106	5530	12.417	10.94	24	Pass
122	5610	12.359	10.92	24	Pass
138	5690 (U-NII-2C)	10.28	10.12	24	Pass
138	5690 (U-NII-3)	0.2438	-6.13	30	Pass
155	5775	13.122	11.18	30	Pass

802.11ac (VHT160)

Channel	Frequency (MHz)	Maximum Conducted Power (mW)	Maximum Conducted Power (dBm)	Power Limit (dBm)	Pass / Fail
50	5250 (U-NII-1)	6.778	8.31	24	Pass
50	5250 (U-NII-2A)	6.624	8.21	24	Pass
114	5570	13.614	11.34	24	Pass

802.11ax (HE20)

Channel	Frequency (MHz)	Maximum Conducted Power (mW)	Maximum Conducted Power (dBm)	Power Limit (dBm)	Pass / Fail
36	5180	14.093	11.49	24	Pass
40	5200	13.74	11.38	24	Pass
48	5240	13.9	11.43	24	Pass
52	5260	14.093	11.49	24	Pass
60	5300	13.964	11.45	24	Pass
64	5320	13.932	11.44	24	Pass
100	5500	12.246	10.88	24	Pass
116	5580	12.078	10.82	24	Pass
140	5700	12.246	10.88	24	Pass
144	5720 (U-NII-2C)	10.593	10.25	24	Pass
144	5720 (U-NII-3)	2.094	3.21	30	Pass
149	5745	12.359	10.92	30	Pass
157	5785	12.417	10.94	30	Pass
165	5825	12.706	11.04	30	Pass

802.11ax (HE40)

Channel	Frequency (MHz)	Maximum Conducted Power (mW)	Maximum Conducted Power (dBm)	Power Limit (dBm)	Pass / Fail
38	5190	13.964	11.45	24	Pass
46	5230	13.836	11.41	24	Pass
54	5270	13.868	11.42	24	Pass
62	5310	13.836	11.41	24	Pass
102	5510	12.19	10.86	24	Pass
110	5550	12.134	10.84	24	Pass
134	5670	12.331	10.91	24	Pass
142	5710 (U-NII-2C)	11.246	10.51	24	Pass
142	5710 (U-NII-3)	0.7568	-1.21	30	Pass
151	5755	12.853	11.09	30	Pass
159	5795	12.882	11.10	30	Pass

802.11ax (HE80)

Channel	Frequency (MHz)	Maximum Conducted Power (mW)	Maximum Conducted Power (dBm)	Power Limit (dBm)	Pass / Fail
42	5210	13.868	11.42	24	Pass
58	5290	13.9	11.43	24	Pass
106	5530	12.503	10.97	24	Pass
122	5610	12.445	10.95	24	Pass
138	5690 (U-NII-2C)	10.471	10.20	24	Pass
138	5690 (U-NII-3)	0.2366	-6.26	30	Pass
155	5775	13.274	11.23	30	Pass

802.11ax (HE160)

Channel	Frequency (MHz)	Maximum Conducted Power (mW)	Maximum Conducted Power (dBm)	Power Limit (dBm)	Pass / Fail
50	5250 (U-NII-1)	6.531	8.15	24	Pass
50	5250 (U-NII-2A)	6.457	8.10	24	Pass
114	5570	13.772	11.39	24	Pass

MIMO

Power Output:

802.11n (HT20)

Channel	Frequency (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
36	5180	11.44	11.12	26.874	14.29	24	Pass
40	5200	11.46	11.14	26.998	14.31	24	Pass
48	5240	11.43	11.13	26.871	14.29	24	Pass
52	5260	10.44	10.35	21.906	13.41	24	Pass
60	5300	10.42	10.36	21.88	13.40	24	Pass
64	5320	10.46	10.39	22.057	13.44	24	Pass
100	5500	9.20	9.10	16.446	12.16	24	Pass
116	5580	9.25	8.95	16.266	12.11	24	Pass
140	5700	9.25	8.89	16.159	12.08	24	Pass
144	5720 (U-NII-2C)	8.25	8.11	13.155	11.19	24	Pass
144	5720 (U-NII-3)	-1.67	0.63	1.8369	2.64	30	Pass
149	5745	11.07	10.84	24.928	13.97	30	Pass
157	5785	11.10	10.90	25.185	14.01	30	Pass
165	5825	11.12	10.94	25.358	14.04	30	Pass

802.11n (HT40)

Channel	Frequency (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
38	5190	11.48	11.15	27.092	14.33	24	Pass
46	5230	11.46	11.07	26.79	14.28	24	Pass
54	5270	10.45	10.33	21.881	13.40	24	Pass
62	5310	10.49	10.40	22.159	13.46	24	Pass
102	5510	9.29	8.74	15.973	12.03	24	Pass
110	5550	9.34	8.84	16.246	12.11	24	Pass
134	5670	9.33	8.93	16.387	12.14	24	Pass
142	5710 (U-NII-2C)	9.03	8.31	14.775	11.70	24	Pass
142	5710 (U-NII-3)	-3.12	-4.60	0.8343	-0.79	30	Pass
151	5755	11.13	10.98	25.503	14.07	30	Pass
159	5795	11.10	10.95	25.328	14.04	30	Pass

802.11ac (VHT80)

Channel	Frequency (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
42	5210	11.45	11.14	26.965	14.31	24	Pass
58	5290	10.43	10.39	21.98	13.42	24	Pass
106	5530	9.43	9.06	16.824	12.26	24	Pass
122	5610	9.34	9.10	16.718	12.23	24	Pass
138	5690 (U-NII-2C)	9.12	9.09	16.275	12.12	24	Pass
138	5690 (U-NII-3)	-7.71	-8.57	0.3084	-5.11	30	Pass
155	5775	11.34	10.82	25.693	14.10	30	Pass

802.11ac (VHT160)

Channel	Frequency (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
50	5250 (U-NII-1)	7.62	7.14	11.215	10.50	24	Pass
50	5250 (U-NII-2A)	7.46	7.12	10.976	10.40	24	Pass
114	5570	9.45	9.40	17.52	12.44	24	Pass

802.11ax (HE20)

Channel	Frequency (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
36	5180	11.51	11.18	27.28	14.36	24	Pass
40	5200	11.45	11.11	26.876	14.29	24	Pass
48	5240	11.45	11.12	26.906	14.30	24	Pass
52	5260	10.40	10.30	21.68	13.36	24	Pass
60	5300	10.40	10.33	21.754	13.38	24	Pass
64	5320	10.41	10.34	21.804	13.39	24	Pass
100	5500	9.25	9.13	16.599	12.20	24	Pass
116	5580	9.28	8.99	16.397	12.15	24	Pass
140	5700	9.28	8.95	16.325	12.13	24	Pass
144	5720 (U-NII-2C)	7.89	8.01	12.476	10.96	24	Pass
144	5720 (U-NII-3)	0.15	1.31	2.387	3.78	30	Pass
149	5745	11.11	10.89	25.187	14.01	30	Pass
157	5785	11.13	10.94	25.388	14.05	30	Pass
165	5825	11.16	10.99	25.622	14.09	30	Pass

802.11ax (HE40)

Channel	Frequency (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
38	5190	11.42	11.14	26.869	14.29	24	Pass
46	5230	11.43	11.07	26.693	14.26	24	Pass
54	5270	10.43	10.31	21.781	13.38	24	Pass
62	5310	10.44	10.36	21.93	13.41	24	Pass
102	5510	9.32	8.78	16.102	12.07	24	Pass
110	5550	9.36	8.88	16.357	12.14	24	Pass
134	5670	9.36	8.96	16.5	12.17	24	Pass
142	5710 (U-NII-2C)	8.31	8.09	13.218	11.21	24	Pass
142	5710 (U-NII-3)	-3.71	-3.77	0.8454	-0.73	30	Pass
151	5755	11.16	11.01	25.68	14.10	30	Pass
159	5795	11.14	10.99	25.562	14.08	30	Pass

802.11ax (HE80)

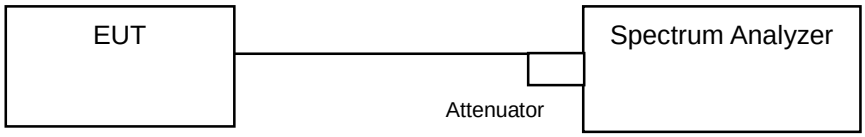
Channel	Frequency (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
42	5210	11.45	11.09	26.817	14.28	24	Pass
58	5290	10.41	10.32	21.755	13.38	24	Pass
106	5530	9.47	9.09	16.961	12.29	24	Pass
122	5610	9.37	9.13	16.834	12.26	24	Pass
138	5690 (U-NII-2C)	8.95	8.82	15.473	11.90	24	Pass
138	5690 (U-NII-3)	-7.22	-6.59	0.409	-3.88	30	Pass
155	5775	11.37	10.88	25.955	14.14	30	Pass

802.11ax (HE160)

Channel	Frequency (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
50	5250 (U-NII-1)	7.36	5.57	9.051	9.57	24	Pass
50	5250 (U-NII-2A)	7.04	5.55	8.647	9.37	24	Pass
114	5570	9.48	9.43	17.642	12.47	24	Pass

4.4 Occupied Bandwidth Measurement

4.4.1 Test Setup



4.4.2 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.4.3 Test Procedure

The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with resolution bandwidth in the range of 1 % to 5 % of the anticipated emission bandwidth, and a video bandwidth at least 3x the resolution bandwidth and set the detector to SAMPLE. The width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5 % of the total mean power of a given emission.

4.4.4 Test Results

Chain 0

802.11a

Channel	Channel Frequency (MHz)	Occupied Bandwidth (MHz)
36	5180	16.80
40	5200	16.80
48	5240	16.80
52	5260	16.68
60	5300	16.68
64	5320	16.68
100	5500	16.92
116	5580	16.80
140	5700	16.68
149	5745	16.80
157	5785	16.80
165	5825	16.80

802.11ax (HE20)

Channel	Channel Frequency (MHz)	Occupied Bandwidth (MHz)
36	5180	18.96
40	5200	18.96
48	5240	18.90
52	5260	18.90
60	5300	18.90
64	5320	18.90
100	5500	18.96
116	5580	18.96
140	5700	18.96
144	5720 (U-NII-2C)	14.60
144	5720 (U-NII-3)	4.36
149	5745	18.96
157	5785	18.96
165	5825	18.96

802.11ax (HE40)

Channel	Channel Frequency (MHz)	Occupied Bandwidth (MHz)
38	5190	37.68
46	5230	37.68
54	5270	37.68
62	5310	37.68
102	5510	37.68
110	5550	37.92
134	5670	37.68
142	5710 (U-NII-2C)	34.2
142	5710 (U-NII-3)	3.72
151	5755	37.68
159	5795	37.68

802.11ax (HE80)

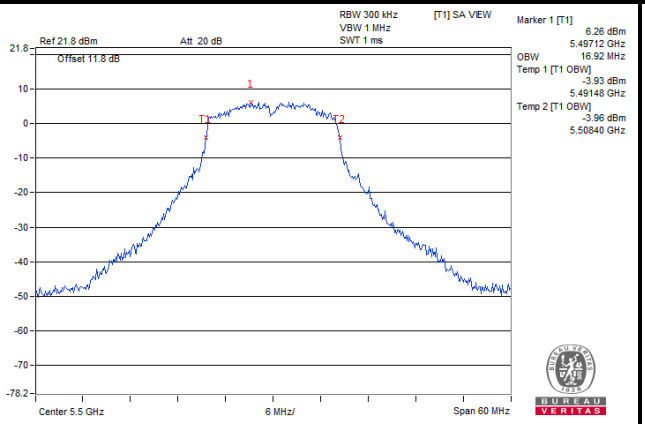
Channel	Channel Frequency (MHz)	Occupied Bandwidth (MHz)
42	5210	77.28
58	5290	76.8
106	5530	76.8
122	5610	76.8
138	5690 (U-NII-2C)	73.88
138	5690 (U-NII-3)	2.92
155	5775	77.28

802.11ax (HE160)

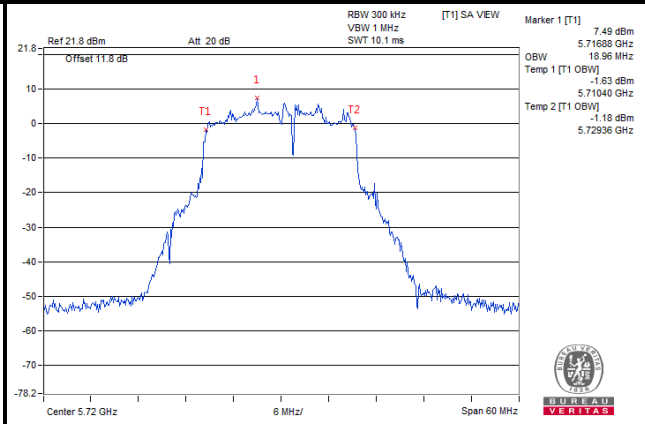
Channel	Channel Frequency (MHz)	Occupied Bandwidth (MHz)
50	5250 (U-NII-1)	78.72
50	5250 (U-NII-2A)	76.8
114	5570	154.56

Spectrum Plot of Worst Value

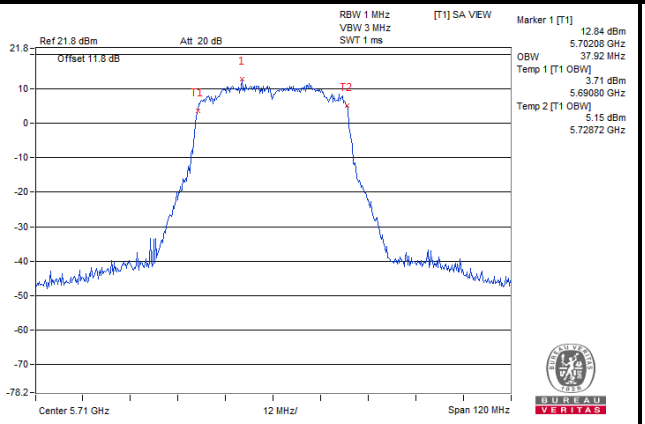
802.11a



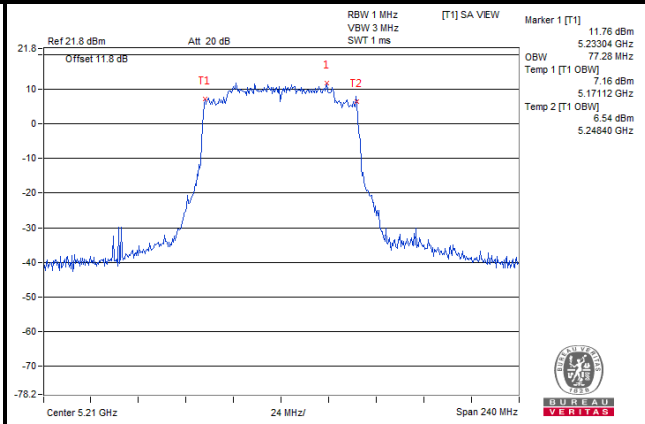
802.11ax (HE20)



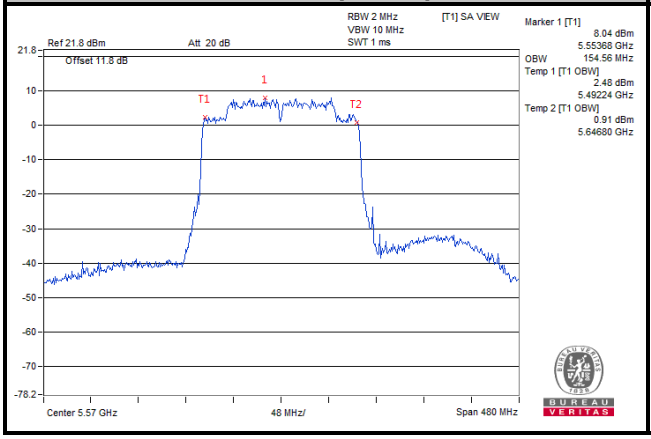
802.11ax (HE40)



802.11ax (HE80)



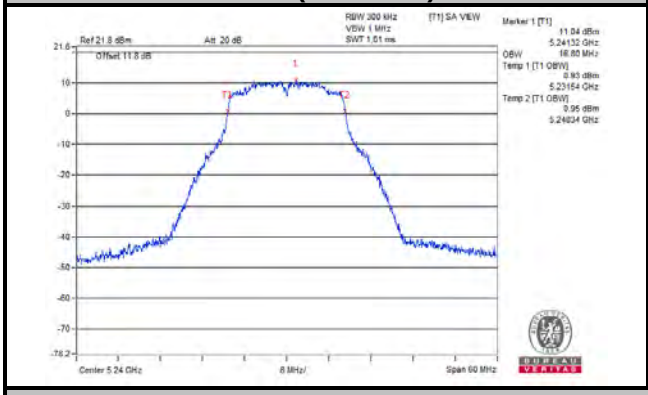
802.11ax (HE160)



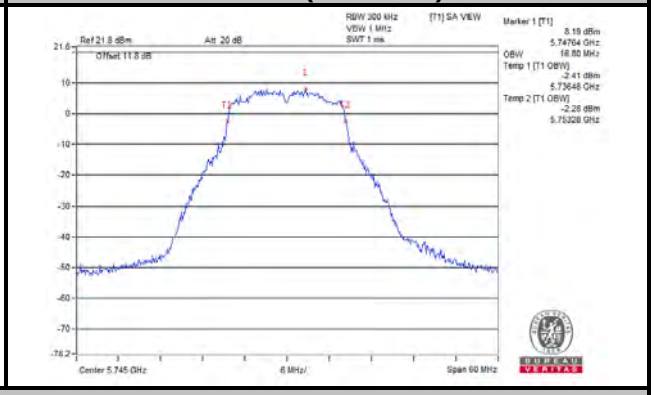
Spectrum Plot for Nearby DFS Band

802.11a

Ch 48 (5240 MHz)

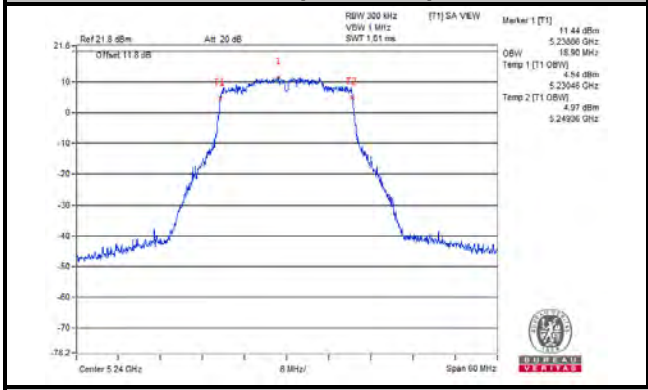


Ch 149 (5745 MHz)

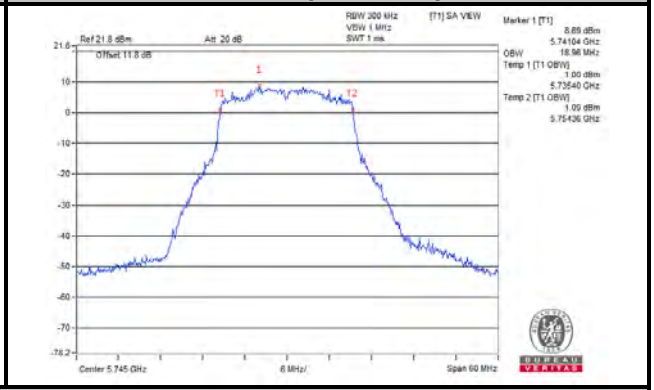


802.11ax (HE20)

Ch 48 (5240 MHz)

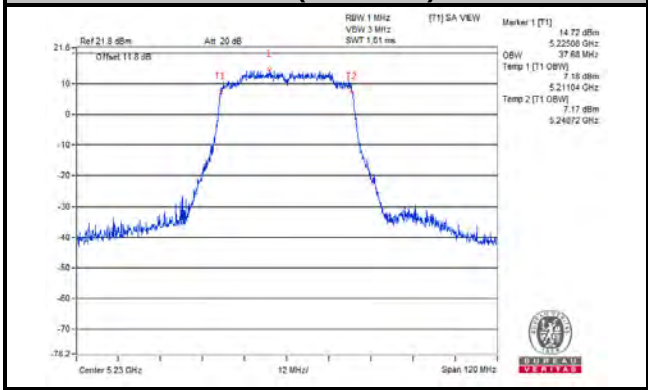


Ch 149 (5745 MHz)

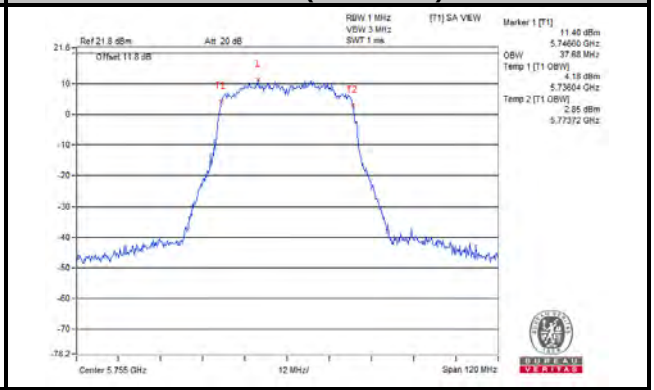


802.11ax (HE40)

Ch 46 (5230 MHz)

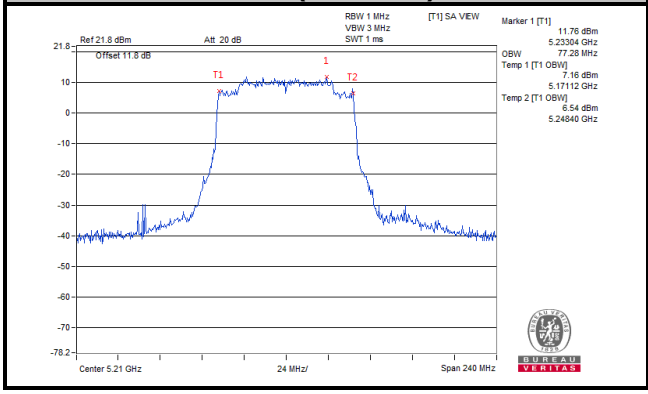


Ch 151 (5755 MHz)

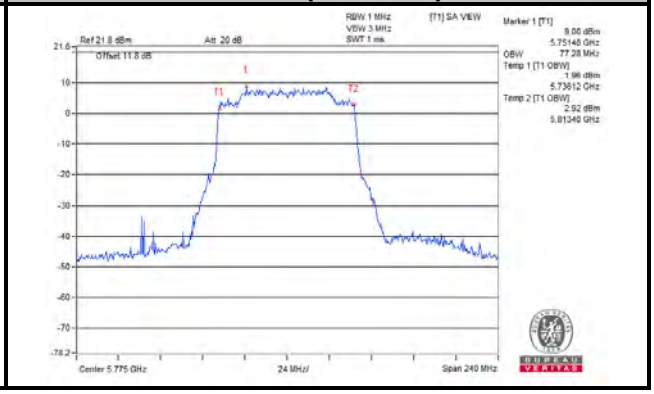


802.11ax (HE80)

Ch 42 (5210 MHz)



Ch 155 (5775 MHz)

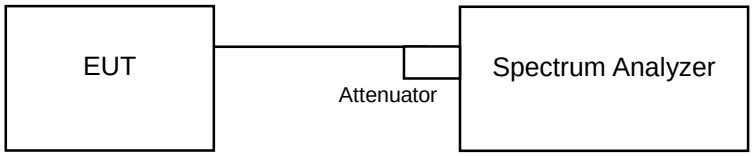


4.5 Peak Power Spectral Density Measurement

4.5.1 Limits of Peak Power Spectral Density Measurement

Operation Band	EUT Category		Limit
U-NII-1		Outdoor Access Point	17 dBm/MHz
		Fixed point-to-point Access Point	
		Indoor Access Point	
	√	Mobile and Portable client device	11 dBm/MHz
U-NII-2A	√		11 dBm/MHz
U-NII-2C	√		11 dBm/MHz
U-NII-3	√		30 dBm/500 kHz

4.5.2 Test Setup



4.5.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.5.4 Test Procedures

For U-NII-1, U-NII-2A, U-NII-2C band:

Using method SA-1

1. Set span to encompass the entire emission bandwidth (EBW) of the signal.
2. Set RBW = 1 MHz, Set VBW ≥ 3 RBW, Detector = RMS
3. Sweep time = auto, trigger set to “free run”.
4. Trace average at least 100 traces in power averaging mode.
5. Record the max value

Using method SA-2

1. Set span to encompass the entire emission bandwidth (EBW) of the signal.
2. Set RBW = 1 MHz, Set VBW ≥ 3 RBW, Detector = RMS
3. Sweep time = auto, trigger set to “free run”.
4. Trace average at least 100 traces in power averaging mode.
5. Record the max value and add 10 log (1/duty cycle)

※For U-NII-3:

1. Set span to encompass the entire emission bandwidth (EBW) of the signal.
2. Set RBW = 300 kHz, Set VBW ≥ 1 RBW, Detector = RMS
3. Use the peak marker function to determine the maximum power level in any 300 kHz band segment within the fundamental EBW.
4. Scale the observed power level to an equivalent value in 500 kHz by adjusting (increasing) the measured power by a bandwidth correction factor (BWCF) where BWCF = 10log(500 kHz / 300 kHz).
5. Sweep time = auto, trigger set to “free run”.
6. Trace average at least 100 traces in power averaging mode.
7. Record the max value

※For U-NII-3:

1. Set span to encompass the entire emission bandwidth (EBW) of the signal.
2. Set RBW = 300 kHz, Set VBW ≥ 1 RBW, Detector = RMS
3. Use the peak marker function to determine the maximum power level in any 300 kHz band segment within the fundamental EBW.
4. Scale the observed power level to an equivalent value in 500 kHz by adjusting (increasing) the measured power by a bandwidth correction factor (BWCF) where BWCF = 10log(500 kHz / 300 kHz).
5. Sweep time = auto, trigger set to “free run”.
6. Trace average at least 100 traces in power averaging mode.
7. Record the max value and add 10 log (1/duty cycle)

4.5.5 Deviation from Test Standard

No deviation.

4.5.6 EUT Operating Conditions

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

4.5.7 Test Results

For U-NII-1, U-NII-2A, U-NII-2C Band

802.11a

Channel	Frequency (MHz)	PSD w/o Duty Factor (dBm/MHz)	Duty Factor (dB)	PSD with Duty Factor (dBm/MHz)	Maximum Limit (dBm/MHz)	Pass / Fail
36	5180	7.23	0.10	7.33	11	Pass
40	5200	7.37	0.10	7.47	11	Pass
48	5240	7.33	0.10	7.43	11	Pass
52	5260	7.28	0.10	7.38	11	Pass
60	5300	7.23	0.10	7.33	11	Pass
64	5320	7.01	0.10	7.11	11	Pass
100	5500	3.76	0.10	3.86	11	Pass
116	5580	3.96	0.10	4.06	11	Pass
140	5700	3.73	0.10	3.83	11	Pass

Note: Refer to section 3.3 for duty cycle spectrum plot.

802.11ax (HE20)

Channel	Frequency (MHz)	PSD (dBm/MHz)	Maximum Limit (dBm/MHz)	Pass / Fail
36	5180	6.75	11	Pass
40	5200	6.86	11	Pass
48	5240	6.88	11	Pass
52	5260	6.78	11	Pass
60	5300	6.62	11	Pass
64	5320	6.09	11	Pass
100	5500	3.02	11	Pass
116	5580	3.23	11	Pass
140	5700	3.05	11	Pass
144	5720 (U-NII-2C)	2.90	11	Pass