

FCC Test Report

Report No.: RFBHQC-WTW-P21090134-2

FCC ID: AK8J20H103

Test Model: J20H103

Received Date: 2021/9/3

Test Date: 2021/9/28 ~ 2021/10/27

Issued Date: 2021/12/1

Applicant: Sony Corporation

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Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
Hsin Chu Laboratory

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Taiwan

Test Location: E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300,
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**FCC Registration /
Designation Number:** 723255 / TW2022



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Release Control Record

Issue No.	Description	Date Issued
RFBHQC-WTW-P21090134-2	Original release.	2021/12/1

1 Certificate of Conformity

Product: 2TX 11ax (WiFi6E) + BT/BLE Combo Card

Brand: FOXCONN

Test Model: J20H103

Sample Status: Engineering sample

Applicant: Sony Corporation

Test Date: 2021/9/28 ~ 2021/10/27

Standard: 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 EMC characteristics under the conditions specified in this report.

Prepared by : Vivian Huang , **Date:** 2021/12/1
Vivian Huang / Specialist

Approved by : Clark Lin , **Date:** 2021/12/1
Clark Lin / Technical Manager

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 -17.93dB at 0.56797MHz.
15.407(b)(5)(8)	Radiated Emissions	PASS	Meet the requirement of limit. Minimum passing margin is -0.2dB at 5925.00MHz and 7125.00MHz.
15.407(b)(6)	In-Band Emission (Mask)	PASS	Meet the requirement of limit.
15.407(a)(4/5/6/7/8)	Max Average Transmit Power	PASS	Meet the requirement of limit.
15.407(a)(10)	Emission Bandwidth Measurement	PASS	Meet the requirement of limit.
15.407(a)(4/5/6/7/8)	Peak Power Spectral Density	PASS	Meet the requirement of limit.
15.407 (d)(6)	Contention-based Protocol.	PASS	Meet the requirement of limit.
15.407(g)	Frequency Stability	PASS	Meet the requirement of limit.
15.407(a)(7)(8)	Dual Client- Proper Power Adjustment	N/A	Device associates with low power indoor AP only.
15.407(d)	Operational restrictions for 6 GHz U-NII devices	PASS	Declaration by applicant
15.203	Antenna Requirement	PASS	No antenna connector is used.

Note:

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	150kHz ~ 30MHz	1.9 dB
Radiated Emissions up to 1 GHz	30MHz ~ 1GHz	3.1 dB
Radiated Emissions above 1 GHz	1GHz ~ 6GHz	5.4 dB
	6GHz ~ 18GHz	5.0 dB
	18GHz ~ 40GHz	5.3 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	2TX 11ax (WiFi6E) + BT/BLE Combo Card
Brand	FOXCONN
Test Model	J20H103
Status of EUT	Engineering sample
Power Supply Rating	3.3 Vdc from host equipment
Modulation Type	1024QAM for OFDMA in 11ax mode
Modulation Technology	OFDMA
Transfer Rate	802.11ax: up to 1201.0 Mbps
Operating Frequency	5.955 ~ 6.415GHz, 6.435 ~ 6.515GHz, 6.535 ~ 6.875GHz, 6.875 ~ 7.115GHz
Number of Channel	802.11ax (HE20): 59 802.11ax (HE40): 29 802.11ax (HE80): 14
Output Power	5.955 ~ 6.415GHz: 21.871 mW (EIRP: 15.21 dBm / 33.189 mW) 6.435 ~ 6.515GHz: 32.539 mW (EIRP: 15.41 dBm / 34.754 mW) 6.535 ~ 6.875GHz: 32.29 mW (EIRP: 15.29 dBm / 33.806 mW) 6.895 ~ 7.115GHz: 15.168 mW (EIRP: 13.89 dBm / 24.491 mW)
Antenna Type	Refer to Note
Antenna Connector	Refer to Note
Accessory Device	NA
Cable Supplied	NA

Note:

1. Simultaneously transmission condition.

Condition	Technology	
1	WLAN (2.4GHz)	WLAN (6GHz)
2	WLAN (2.4GHz)	WLAN (5GHz)
3	WLAN (6GHz)	Bluetooth
4	WLAN (5GHz)	Bluetooth
5	WLAN (2.4GHz)	Bluetooth

Note: The emission of the simultaneous operation has been evaluated and no non-compliance was found.

2. The EUT has below radios as following table:

Radio 1	Radio 2
WLAN (2.4GHz+5GHz+6GHz)	Bluetooth

3. The antennas provided to the EUT, please refer to the following table:

For WLAN					
Antenna NO.	RF Chain NO.	Antenna Net Gain(dBi)	Frequency range (GHz)	Antenna Type	Connector Type
0	0	-0.33	2.4~2.4835	Monopole	none
		1.45	5.15~5.25		
		1.52	5.25~5.35		
		1.58	5.47~5.725		
		1.22	5.725~5.85		
		1.72	5.955~6.415		
		0.29	6.435~6.515		
		0.2	6.535~6.855		
		2.08	6.875~7.115		
1	1	-0.2	2.4~2.4835	Monopole	none
		1.97	5.15~5.25		
		2.16	5.25~5.35		
		1.12	5.47~5.725		
		0.89	5.725~5.85		
		1.81	5.955~6.415		
		-0.06	6.435~6.515		
		-0.05	6.535~6.855		
		1.29	6.875~7.115		
For Bluetooth					
Antenna NO.	Antenna Net Gain(dBi)	Frequency range (GHz)	Antenna Type	Connector Type	
0	-3.1	2.4~2.4835	PIFA	none	
1	-3.13	2.4~2.4835	PIFA	none	

4. The EUT incorporates a MIMO function:

6GHz Band		
MODULATION MODE	TX & RX CONFIGURATION	
802.11ax (HE20)	2TX	2RX
802.11ax (HE40)	2TX	2RX
802.11ax (HE80)	2TX	2RX

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.

6. 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.

3.2 Description of Test Modes

U-NII-5 (5925 ~ 6425MHz)

24 channels are provided for 802.11ax (HE20):

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
1	5955 MHz	5	5975 MHz	9	5955 MHz	13	6015 MHz
17	6035 MHz	21	6055 MHz	25	6075 MHz	29	6095 MHz
33	6115 MHz	37	6135 MHz	41	6155 MHz	45	6175 MHz
49	6195 MHz	53	6215 MHz	57	6235 MHz	61	6255 MHz
65	6275 MHz	69	6295 MHz	73	6315 MHz	77	6335 MHz
81	6355 MHz	85	6375 MHz	89	6395 MHz	93	6415MHz

12 channels are provided for 802.11ax (HE40):

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
3	5965 MHz	11	6005 MHz	19	6045 MHz	27	6085 MHz
35	6125 MHz	43	6165 MHz	51	6205 MHz	59	6245 MHz
67	6285MHz	75	6325 MHz	83	6365 MHz	91	6405 MHz

6 channel is provided for 802.11ax (HE80):

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
7	5985 MHz	23	6065 MHz	39	6145 MHz	55	6225 MHz
71	6305 MHz	87	6385 MHz				

U-NII-6 (6425 ~ 6525MHz)

5 channels are provided for 802.11ax (HE20):

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
97	6435 MHz	101	6455 MHz	105	6475 MHz	109	6495 MHz
113	6515 MHz						

3 channels are provided for 802.11ax (HE40):

Channel	Frequency	Channel	Frequency	Channel	Frequency
99	6445 MHz	107	6485 MHz	*115	6525 MHz

1 channels is provided for 802.11ax (HE80):

Channel	Frequency
103	6465 MHz

U-NII-7 (6525 ~ 6875MHz)

18 channels are provided for 802.11ax (HE20):

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
117	6535 MHz	121	6555 MHz	125	6575 MHz	129	6595 MHz
133	6615 MHz	137	6635 MHz	141	6655 MHz	145	6675 MHz
149	6695 MHz	153	6715 MHz	157	6735 MHz	161	6755 MHz
165	6775 MHz	169	6795 MHz	173	6815 MHz	177	6835 MHz
181	6855 MHz	*185	6875 MHz				

8 channels are provided for 802.11ax (HE40):

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
123	6565 MHz	131	6605 MHz	139	6645 MHz	147	6685 MHz
155	6725 MHz	163	6765 MHz	171	6805 MHz	179	6845 MHz

5 channels are provided for 802.11ax (HE80):

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
*119	6545 MHz	135	6625 MHz	151	6705 MHz	167	6785 MHz
*183	6865 MHz						

U-NII-8 (6875 ~ 7125MHz)

12 channels are provided for 802.11ax (HE20):

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
189	6895 MHz	193	6915 MHz	197	6935 MHz	201	6955 MHz
205	6975 MHz	209	6995 MHz	213	7015 MHz	217	7035 MHz
221	7055 MHz	225	7075 MHz	229	7095 MHz	233	7115 MHz

6 channels are provided for 802.11ax (HE40):

Channel	Frequency	Channel	Frequency	Channel	Frequency
*187	6885 MHz	195	6925 MHz	203	6965 MHz
211	7005 MHz	219	7045 MHz	227	7085 MHz

2 channels is provided for 802.11ax (HE80):

Channel	Frequency	Channel	Frequency
199	6945 MHz	215	7025 MHz

Note: * mean this's straddle channel.

3.2.1 Test Mode Applicability and Tested Channel Detail

EUT Configure Mode	Applicable To						Description
	RE \geq 1G	RE<1G	IBE	PLC	CBP	APCM	
-	√	√	√	√	√	√	-

Where **RE \geq 1G**: Radiated Emission above 1GHz
RE<1G: Radiated Emission below 1GHz
PLC: Power Line Conducted Emission
APCM: Antenna Port Conducted Measurement
IBE: In-Band Emission (MASK)
CBP:Contention Based Protocol

Note: The EUT had been pre-tested on the positioned of each 3 axis. The worst case was found when positioned on X-plane.

Radiated Emission Measurement (Above 1GHz):

- 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.

Mode	FREQ. Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate Parameter
802.11ax (HE20)	5925-6425	1 to 93	1, 45, 93	OFDMA	BPSK	MCS0
	6425-6525	97 to 113	97, 105, 113	OFDMA	BPSK	MCS0
	6525-6875	117 to 185	117, 153, 181, 185	OFDMA	BPSK	MCS0
	6875-7125	185 to 233	213, 233	OFDMA	BPSK	MCS0
802.11ax (HE40)	5925-6425	3 to 91	3, 43, 91	OFDMA	BPSK	MCS0
	6425-6525	99 to 115	99, 107, 115	OFDMA	BPSK	MCS0
	6525-6875	115 to 187	123, 155, 179	OFDMA	BPSK	MCS0
	6875-7125	187 to 227	187, 211, 227	OFDMA	BPSK	MCS0
802.11ax (HE80)	5925-6425	7 to 87	7, 39, 87	OFDMA	BPSK	MCS0
	6425-6525	103	103	OFDMA	BPSK	MCS0
	6525-6875	119 to 183	119, 151, 167, 183	OFDMA	BPSK	MCS0
	6875-7125	183 to 215	199, 215	OFDMA	BPSK	MCS0

Radiated Emission Measurement (Below 1GHz):

- 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.

Mode	FREQ. Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate Parameter
802.11ax (HE80)	5925-6425	7 to 87	103	OFDMA	BPSK	MCS0
	6425-6525	103				
	6525-6875	119 to 183				
	6875-7125	183 to 215				

In-Band Emission (MASK) Measurement:

- 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.

Mode	FREQ. Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate Parameter
802.11ax (HE20)	5925-6425	1 to 93	1, 45, 93	OFDMA	BPSK	MCS0
	6425-6525	97 to 113	97, 105, 113	OFDMA	BPSK	MCS0
	6525-6875	117 to 185	117, 153, 181, 185	OFDMA	BPSK	MCS0
	6875-7125	185 to 233	209, 233	OFDMA	BPSK	MCS0
802.11ax (HE40)	5925-6425	3 to 91	3, 43, 91	OFDMA	BPSK	MCS0
	6425-6525	99 to 115	99, 107, 115	OFDMA	BPSK	MCS0
	6525-6875	115 to 187	123, 155, 179	OFDMA	BPSK	MCS0
	6875-7125	187 to 227	187, 211, 227	OFDMA	BPSK	MCS0
802.11ax (HE80)	5925-6425	7 to 87	7, 39, 87	OFDMA	BPSK	MCS0
	6425-6525	103	103	OFDMA	BPSK	MCS0
	6525-6875	119 to 183	119, 151, 183	OFDMA	BPSK	MCS0
	6875-7125	183 to 215	199, 215	OFDMA	BPSK	MCS0

Power Line Conducted Emission Measurement:

- 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.

Mode	FREQ. Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate Parameter
802.11ax (HE80)	5925-6425	7 to 87	103	OFDMA	BPSK	MCS0
	6425-6525	103				
	6525-6875	119 to 183				
	6875-7125	183 to 215				

Contention Based Protocol Measurement:

- 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.

Mode	FREQ. Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate Parameter
802.11ax (HE20)	5925-6425	1 to 93	33	OFDMA	BPSK	MCS0
	6425-6525	97 to 113	97	OFDMA	BPSK	MCS0
	6525-6875	117 to 185	129	OFDMA	BPSK	MCS0
	6875-7125	185 to 233	193	OFDMA	BPSK	MCS0
802.11ax (HE80)	5925-6425	7 to 87	39	OFDMA	BPSK	MCS0
	6425-6525	103	103	OFDMA	BPSK	MCS0
	6525-6875	119 to 183	135	OFDMA	BPSK	MCS0
	6875-7125	183 to 215	199	OFDMA	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.

Mode	FREQ. Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate Parameter
802.11ax (HE20)	5925-6425	1 to 93	1, 45, 93	OFDMA	BPSK	MCS0
	6425-6525	97 to 113	97, 105, 113	OFDMA	BPSK	MCS0
	6525-6875	117 to 185	117, 153, 181, 185	OFDMA	BPSK	MCS0
	6875-7125	185 to 233	209, 233	OFDMA	BPSK	MCS0
802.11ax (HE40)	5925-6425	3 to 91	3, 43, 91	OFDMA	BPSK	MCS0
	6425-6525	99 to 115	99, 107, 115	OFDMA	BPSK	MCS0
	6525-6875	115 to 187	123, 155, 179	OFDMA	BPSK	MCS0
	6875-7125	187 to 227	187, 211, 227	OFDMA	BPSK	MCS0
802.11ax (HE80)	5925-6425	7 to 87	7, 39, 87	OFDMA	BPSK	MCS0
	6425-6525	103	103	OFDMA	BPSK	MCS0
	6525-6875	119 to 183	119, 151, 183	OFDMA	BPSK	MCS0
	6875-7125	183 to 215	199, 215	OFDMA	BPSK	MCS0

Test Condition:

Applicable To	Environmental Conditions	Input Power (System)	Tested By
RE \geq 1G	25deg. C, 66%RH	120Vac, 60Hz	Tom Yang
RE<1G	25deg. C, 66%RH	120Vac, 60Hz	Tom Yang
PLC	25deg. C, 66%RH	120Vac, 60Hz	Tom Yang
IBE	25deg. C, 60%RH	120Vac, 60Hz	Jim Hung
CBP	25deg. C, 60%RH	120Vac, 60Hz	Tobey Chen
APCM	25deg. C, 60%RH	120Vac, 60Hz	Jim Hung

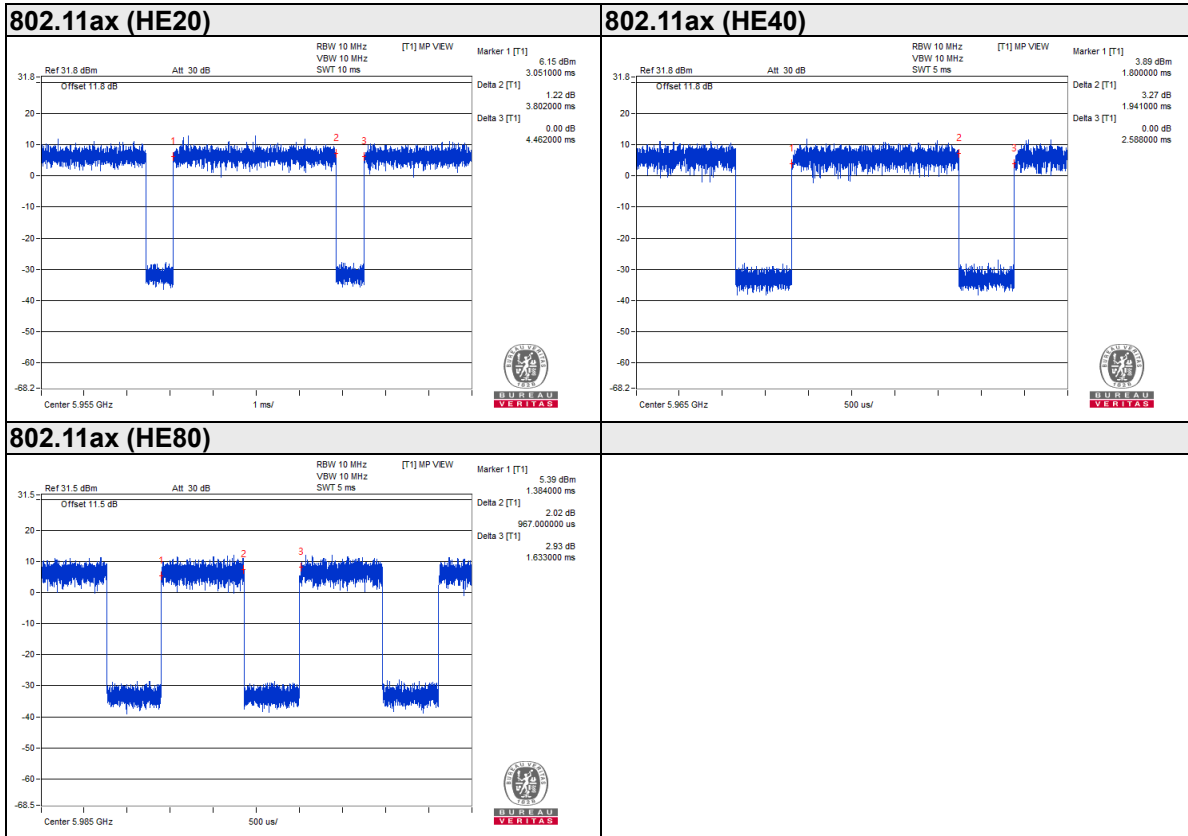
3.3 Duty Cycle of Test Signal

Duty cycle of test signal is < 98 %, duty factor is required

802.11ax (HE20): Duty cycle = 3.802 ms/4.462 ms= 0.852, Duty factor = 10 * log(1/ Duty cycle) = 0.70 dB

802.11ax (HE40): Duty cycle = 1.941 ms/2.588 ms= 0.75, Duty factor = 10 * log(1/ Duty cycle) = 1.25 dB

802.11ax (HE80): Duty cycle = 0.967 ms/1.633 ms= 0.592, Duty factor = 10 * log(1/ Duty cycle) = 2.28 dB



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.

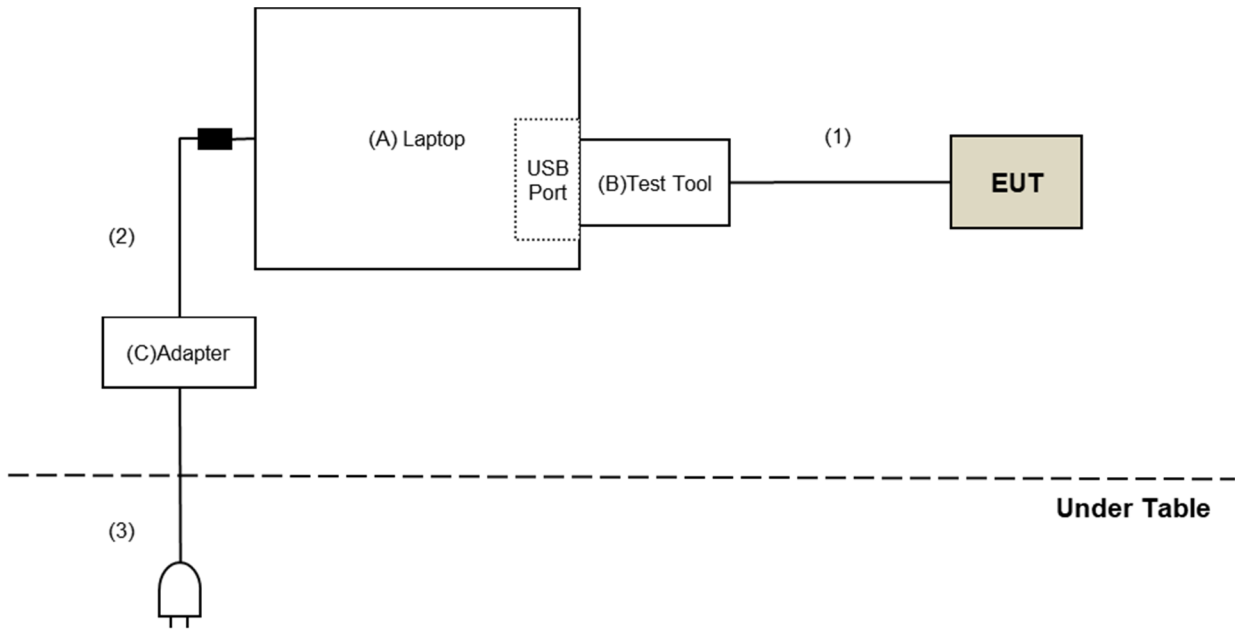
ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	Laptop	DELL	E5430	HYV4VY1	FCC DoC	Provided by Lab
B.	Test Tool	Foxconn	NA	NA	NA	Supplied by client
C.	Adapter	Dell	FA65NE0-00	NA	NA	Provided by Lab

ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	Console Cable	1	1.6	No	0	Supplied by client
2.	DC Cable	1	1.8	No	1	Provided by Lab
3.	AC Cable	1	1	No	0	Provided by Lab

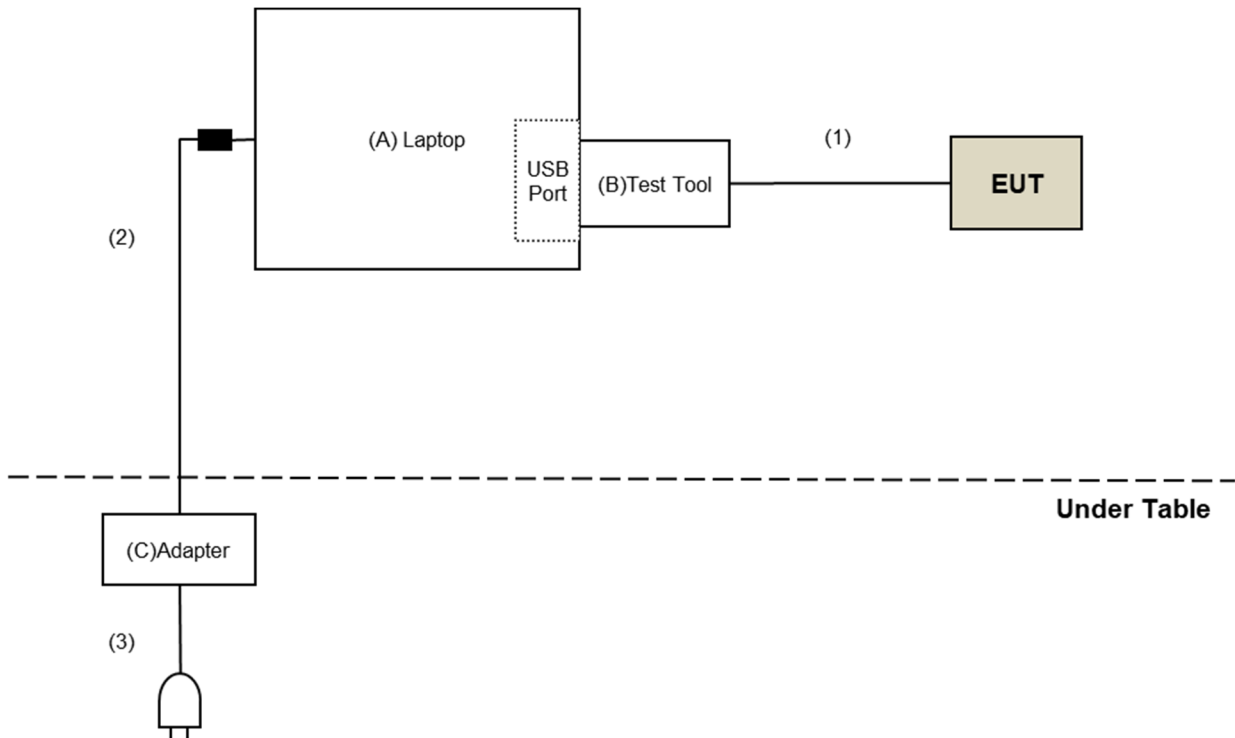
Note: The core is originally attached to the cable.

3.4.1 Configuration of System under Test

For Conducted Emission:



For Radiated Emission:



3.5 General Description of Applied Standard

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 987594 D02 EMC Measurement v01r01

KDB 789033 D02 General UNII Test Procedure New Rules v02r01

KDB 662911 D01 Multiple Transmitter Output 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 1000MHz, 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 20dB under any condition of modulation.

Limits of unwanted emission out of the restricted bands

Frequencies (MHz)	EIRP Limit	Equivalent Field Strength at 3m
5925MHz > F > 7125MHz	Peak:-7 (dBm/MHz)	88.2(dBμV/m)
	Average: -27 (dBm/MHz)	68.2(dBμV/m)

Note:

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

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

4.1.2 Test Instruments

For Radiated emission & Bandedge test:

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver Agilent	N9038A	MY50010156	2021/7/22	2022/7/21
Software	ADT_Radiated_V8.7.08	NA	NA	NA
Antenna Tower & Turn Table Max-Full	MF-7802	MF780208406	NA	NA
Pre_Amplifier EMCI	EMC001340	980142	2021/5/24	2022/5/23
LOOP ANTENNA Electro-Metrics	EM-6879	264	2021/3/5	2022/3/4
RF Coaxial Cable JYEBO	5D-FB	LOOPCAB-001	2021/1/7	2022/1/6
RF Coaxial Cable JYEBO	5D-FB	LOOPCAB-002	2021/1/7	2022/1/6
Pre_Amplifier Mini-Circuits	ZFL-1000VH2	QA0838008	2020/10/20	2021/10/19
Trilog Broadband Antenna SCHWARZBECK	VULB 9168	9168-361	2020/11/5	2021/11/4
RF Coaxial Cable COMMATE/PEWC	8D	966-3-1	2021/3/16	2022/3/15
RF Coaxial Cable COMMATE/PEWC	8D	966-3-2	2021/3/16	2022/3/15
RF Coaxial Cable COMMATE/PEWC	8D	966-3-3	2021/3/16	2022/3/15
Fixed attenuator Mini-Circuits	UNAT-5+	PAD-3m-3-01	2021/9/23	2022/9/22
Horn Antenna Schwarzbeck	BBHA9120-D	9120D-406	2020/11/22	2021/11/21
Pre_Amplifier EMCI	EMC12630SE	980384	2021/1/11	2022/1/10
RF Coaxial Cable EMCI	EMC104-SM-SM-1500	180504	2021/4/26	2022/4/25
RF Coaxial Cable EMCI	EMC104-SM-SM-2000	180601	2021/6/8	2022/6/7
RF Coaxial Cable EMCI	EMC104-SM-SM-6000	210201	2021/5/13	2022/5/12
Fix tool for Boresight antenna tower LIOW GUU	FBA-01	FBA_SIP01	NA	NA
Spectrum Analyzer Keysight	N9030A	MY54490679	2021/7/9	2022/7/8
Pre_Amplifier EMCI	EMC184045SE	980387	2021/1/11	2022/1/10
Horn Antenna Schwarzbeck	BBHA 9170	BBHA9170519	2020/11/22	2021/11/21
RF Cable-Frequency range: 1-40GHz EMCI	EMC102-KM-KM-1200	160924	2021/1/11	2022/1/10
RF cable (40GHz) EMCI	EMC-KM-KM-4000	200214	2021/3/10	2022/3/9

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 966 Chamber No. 3.
3. Tested Date: 2021/9/28 ~ 2021/10/2

For other test:

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Spectrum Analyzer R&S	FSV40	101516	2021/3/8	2022/3/7
Power Meter Anritsu	ML2495A	1529002	2021/6/21	2022/6/20
Pulse Power Sensor Anritsu	MA2411B	1339443	2021/5/31	2022/5/30
Attenuator WOKEN	MDCS18N-10	MDCS18N-10-01	2021/4/13	2022/4/12
Software	ADT_RF Test Software V6.6.5.4	NA	NA	NA
DC POWER SUPPLY Topward	6603D	795558	NA	NA
Temperature & Humidity Chamber Giant Force	GTH-150-40-SP-AR	MAA0812-008	2021/1/14	2022/1/13
True RMS Clamp Meter Fluke	325	31130711WS	2021/6/2	2022/6/1

- NOTE:**
1. The test was performed in Oven room 2.
 2. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
 3. Tested Date: 2021/10/27

4.1.3 Test Procedure

For Radiated emission below 30MHz

- 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 9kHz at frequency below 30MHz.

For Radiated emission above 30MHz

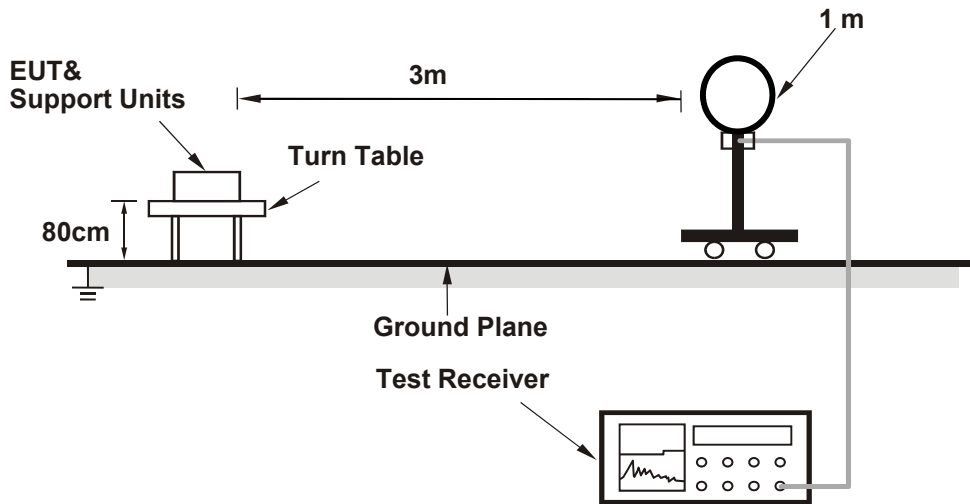
- a. The EUT was placed on the top of a rotating table 0.8 meters (for 30MHz ~ 1GHz) / 1.5 meters (for above 1GHz) above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving 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 detects 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 RMS detector is unnecessary.

Note:

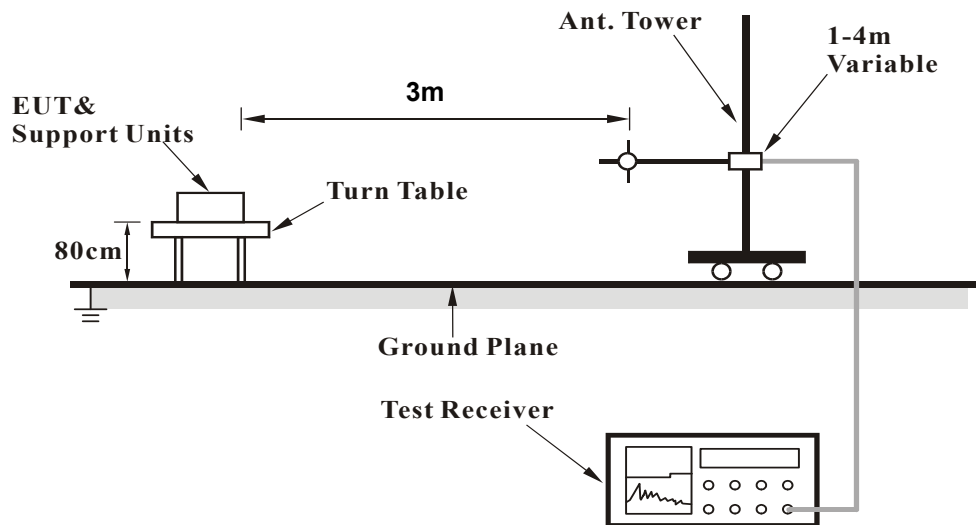
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
3. The detection is peak and the resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is $\geq 1/T$ (Duty cycle < 98%) or 10Hz (Duty cycle $\geq 98\%$) for Average measurement (AV) at frequency above 1GHz.
4. All modes of operation were investigated and the worst-case emissions are reported.

4.1.4 Test Setup

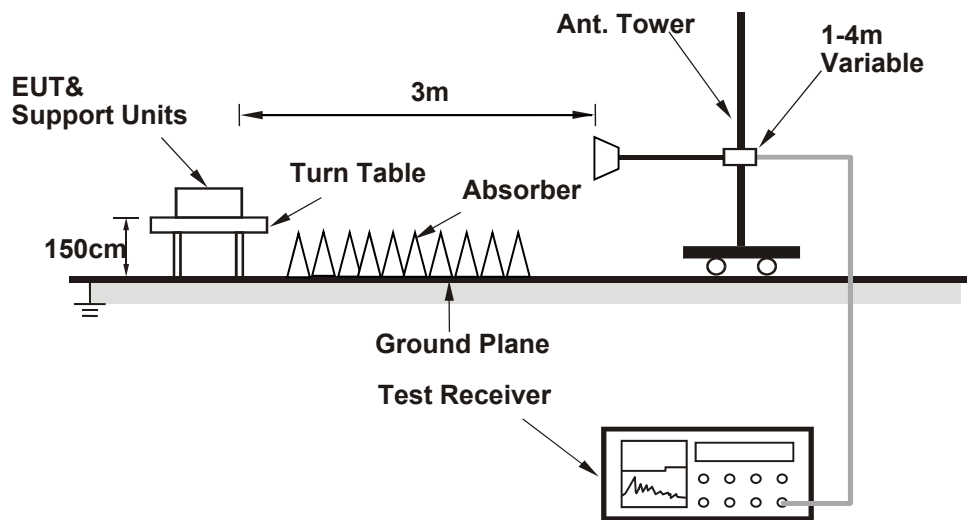
For Radiated emission below 30MHz



For Radiated emission 30MHz to 1GHz



For Radiated emission above 1GHz



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

4.1.5 EUT Operating Condition

- a. Connected the EUT with the Laptop which is placed on the testing table.
- b. Controlling software (QATool_Dbg) has been activated to set the EUT under transmission condition continuously.

4.1.6 Test Results

Above 1GHz Data:

RF Mode	TX 802.11ax (HE20)	Channel	CH 1 : 5955 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)
Input Power	120Vac, 60Hz	Environmental Conditions	25 °C, 66% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5925.00	82.1 PK	88.2	-6.1	1.32 H	204	77.0	5.1
2	#5925.00	68.0 AV	68.2	-0.2	1.32 H	204	62.9	5.1
3	*5955.00	117.6 PK			1.32 H	204	112.4	5.2
4	*5955.00	106.5 AV			1.32 H	204	101.3	5.2
5	11910.00	53.4 PK	74.0	-20.6	1.23 H	166	39.3	14.1
6	11910.00	40.4 AV	54.0	-13.6	1.23 H	166	26.3	14.1
7	17865.00	55.9 PK	74.0	-18.1	1.96 H	119	34.6	21.3
8	17865.00	43.7 AV	54.0	-10.3	1.96 H	119	22.4	21.3
9	23820.00	49.5 PK	74.0	-24.5	1.40 H	297	52.8	-3.3
10	23820.00	39.1 AV	54.0	-14.9	1.40 H	297	42.4	-3.3

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5925.00	74.0 PK	88.2	-14.2	3.77 V	271	68.9	5.1
2	#5925.00	61.1 AV	68.2	-7.1	3.77 V	271	56.0	5.1
3	*5955.00	114.7 PK			3.77 V	271	109.5	5.2
4	*5955.00	105.4 AV			3.77 V	271	100.2	5.2
5	11910.00	54.9 PK	74.0	-19.1	1.23 V	288	40.8	14.1
6	11910.00	41.9 AV	54.0	-12.1	1.23 V	288	27.8	14.1
7	17865.00	55.1 PK	74.0	-18.9	1.72 V	207	33.8	21.3
8	17865.00	42.8 AV	54.0	-11.2	1.72 V	207	21.5	21.3
9	23820.00	49.2 PK	74.0	-24.8	1.18 V	258	52.5	-3.3
10	23820.00	38.9 AV	54.0	-15.1	1.18 V	258	42.2	-3.3

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ax (HE20)	Channel	CH 45 : 6175 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)
Input Power	120Vac, 60Hz	Environmental Conditions	25 °C, 66% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6175.00	118.0 PK			1.38 H	204	112.5	5.5
2	*6175.00	106.6 AV			1.38 H	204	101.1	5.5
3	12350.00	53.2 PK	74.0	-20.8	1.17 H	167	39.3	13.9
4	12350.00	40.1 AV	54.0	-13.9	1.17 H	167	26.2	13.9
5	18525.00	55.8 PK	74.0	-18.2	1.99 H	110	62.4	-6.6
6	18525.00	43.6 AV	54.0	-10.4	1.99 H	110	50.2	-6.6
7	#24700.00	50.0 PK	88.2	-38.2	1.36 H	302	52.1	-2.1
8	#24700.00	39.6 AV	68.2	-28.6	1.36 H	302	41.7	-2.1

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6175.00	114.6 PK			3.73 V	268	109.1	5.5
2	*6175.00	105.1 AV			3.73 V	268	99.6	5.5
3	12350.00	55.2 PK	74.0	-18.8	1.28 V	299	41.3	13.9
4	12350.00	42.3 AV	54.0	-11.7	1.28 V	299	28.4	13.9
5	18525.00	54.5 PK	74.0	-19.5	1.76 V	200	61.1	-6.6
6	18525.00	42.4 AV	54.0	-11.6	1.76 V	200	49.0	-6.6
7	#24700.00	48.9 PK	88.2	-39.3	1.22 V	246	51.0	-2.1
8	#24700.00	38.6 AV	68.2	-29.6	1.22 V	246	40.7	-2.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * " : Fundamental frequency.
6. " # " : The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ax (HE20)	Channel	CH 93 : 6415 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)
Input Power	120Vac, 60Hz	Environmental Conditions	25 °C, 66% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6415.00	117.2 PK			1.29 H	192	110.5	6.7
2	*6415.00	106.0 AV			1.29 H	192	99.3	6.7
3	#12830.00	53.1 PK	88.2	-35.1	1.23 H	182	38.5	14.6
4	#12830.00	40.1 AV	68.2	-28.1	1.23 H	182	25.5	14.6
5	19245.00	55.6 PK	74.0	-18.4	1.92 H	118	62.2	-6.6
6	19245.00	43.5 AV	54.0	-10.5	1.92 H	118	50.1	-6.6
7	#25660.00	49.8 PK	88.2	-38.4	1.46 H	282	51.1	-1.3
8	#25660.00	39.3 AV	68.2	-28.9	1.46 H	282	40.6	-1.3

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6415.00	114.6 PK			3.72 V	279	107.9	6.7
2	*6415.00	105.2 AV			3.72 V	279	98.5	6.7
3	#12830.00	54.8 PK	88.2	-33.4	1.22 V	299	40.2	14.6
4	#12830.00	41.6 AV	68.2	-26.6	1.22 V	299	27.0	14.6
5	19245.00	54.5 PK	74.0	-19.5	1.71 V	209	61.1	-6.6
6	19245.00	42.4 AV	54.0	-11.6	1.71 V	209	49.0	-6.6
7	#25660.00	49.1 PK	88.2	-39.1	1.14 V	271	50.4	-1.3
8	#25660.00	38.8 AV	68.2	-29.4	1.14 V	271	40.1	-1.3

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * " : Fundamental frequency.
6. " # " : The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ax (HE20)	Channel	CH 97 : 6435 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)
Input Power	120Vac, 60Hz	Environmental Conditions	25 °C, 66% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6435.00	118.1 PK			1.31 H	211	111.2	6.9
2	*6435.00	106.8 AV			1.31 H	211	99.9	6.9
3	#12870.00	53.3 PK	88.2	-34.9	1.19 H	154	38.8	14.5
4	#12870.00	40.4 AV	68.2	-27.8	1.19 H	154	25.9	14.5
5	19305.00	55.2 PK	74.0	-18.8	2.00 H	122	61.7	-6.5
6	19305.00	43.3 AV	54.0	-10.7	2.00 H	122	49.8	-6.5
7	#25740.00	49.9 PK	88.2	-38.3	1.35 H	287	51.2	-1.3
8	#25740.00	39.3 AV	68.2	-28.9	1.35 H	287	40.6	-1.3

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6435.00	115.2 PK			3.71 V	268	108.3	6.9
2	*6435.00	105.4 AV			3.71 V	268	98.5	6.9
3	#12870.00	54.7 PK	88.2	-33.5	1.28 V	287	40.2	14.5
4	#12870.00	41.7 AV	68.2	-26.5	1.28 V	287	27.2	14.5
5	19305.00	55.2 PK	74.0	-18.8	1.70 V	199	61.7	-6.5
6	19305.00	43.0 AV	54.0	-11.0	1.70 V	199	49.5	-6.5
7	#25740.00	49.5 PK	88.2	-38.7	1.22 V	247	50.8	-1.3
8	#25740.00	39.0 AV	68.2	-29.2	1.22 V	247	40.3	-1.3

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * " : Fundamental frequency.
6. " # " : The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ax (HE20)	Channel	CH 105 : 6475 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)
Input Power	120Vac, 60Hz	Environmental Conditions	25 °C, 66% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6475.00	117.7 PK			1.25 H	190	110.6	7.1
2	*6475.00	106.4 AV			1.25 H	190	99.3	7.1
3	#12950.00	53.0 PK	88.2	-35.2	1.21 H	172	38.5	14.5
4	#12950.00	40.0 AV	68.2	-28.2	1.21 H	172	25.5	14.5
5	19425.00	56.0 PK	74.0	-18.0	2.00 H	104	62.2	-6.2
6	19425.00	43.8 AV	54.0	-10.2	2.00 H	104	50.0	-6.2
7	#25900.00	49.9 PK	88.2	-38.3	1.33 H	298	51.1	-1.2
8	#25900.00	39.2 AV	68.2	-29.0	1.33 H	298	40.4	-1.2

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6475.00	115.2 PK			3.74 V	255	108.1	7.1
2	*6475.00	105.6 AV			3.74 V	255	98.5	7.1
3	#12950.00	55.1 PK	88.2	-33.1	1.22 V	304	40.6	14.5
4	#12950.00	41.8 AV	68.2	-26.4	1.22 V	304	27.3	14.5
5	19425.00	54.7 PK	74.0	-19.3	1.71 V	201	60.9	-6.2
6	19425.00	42.8 AV	54.0	-11.2	1.71 V	201	49.0	-6.2
7	#25900.00	48.6 PK	88.2	-39.6	1.15 V	279	49.8	-1.2
8	#25900.00	38.5 AV	68.2	-29.7	1.15 V	279	39.7	-1.2

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * " : Fundamental frequency.
6. " # " : The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ax (HE20)	Channel	CH 113 : 6515 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)
Input Power	120Vac, 60Hz	Environmental Conditions	25 °C, 66% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6515.00	117.7 PK			1.29 H	198	110.6	7.1
2	*6515.00	106.3 AV			1.29 H	198	99.2	7.1
3	#13030.00	53.4 PK	88.2	-34.8	1.23 H	180	38.6	14.8
4	#13030.00	40.3 AV	68.2	-27.9	1.23 H	180	25.5	14.8
5	19545.00	55.8 PK	74.0	-18.2	1.87 H	108	62.0	-6.2
6	19545.00	43.9 AV	54.0	-10.1	1.87 H	108	50.1	-6.2
7	#26060.00	49.4 PK	88.2	-38.8	1.46 H	267	50.4	-1.0
8	#26060.00	39.1 AV	68.2	-29.1	1.46 H	267	40.1	-1.0

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6515.00	114.8 PK			3.67 V	265	107.7	7.1
2	*6515.00	105.2 AV			3.67 V	265	98.1	7.1
3	#13030.00	54.8 PK	88.2	-33.4	1.27 V	310	40.0	14.8
4	#13030.00	42.1 AV	68.2	-26.1	1.27 V	310	27.3	14.8
5	19545.00	54.9 PK	74.0	-19.1	1.81 V	187	61.1	-6.2
6	19545.00	42.7 AV	54.0	-11.3	1.81 V	187	48.9	-6.2
7	#26060.00	48.5 PK	88.2	-39.7	1.26 V	251	49.5	-1.0
8	#26060.00	38.4 AV	68.2	-29.8	1.26 V	251	39.4	-1.0

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * " : Fundamental frequency.
6. " # " : The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ax (HE20)	Channel	CH 117 : 6535 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)
Input Power	120Vac, 60Hz	Environmental Conditions	25 °C, 66% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6535.00	118.5 PK			1.26 H	225	111.1	7.4
2	*6535.00	107.1 AV			1.26 H	225	99.7	7.4
3	#13070.00	53.0 PK	88.2	-35.2	1.21 H	152	38.1	14.9
4	#13070.00	40.4 AV	68.2	-27.8	1.21 H	152	25.5	14.9
5	19605.00	55.4 PK	74.0	-18.6	2.06 H	114	61.6	-6.2
6	19605.00	43.6 AV	54.0	-10.4	2.06 H	114	49.8	-6.2
7	#26140.00	49.8 PK	88.2	-38.4	1.29 H	294	50.8	-1.0
8	#26140.00	39.0 AV	68.2	-29.2	1.29 H	294	40.0	-1.0

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6535.00	114.6 PK			3.68 V	256	107.2	7.4
2	*6535.00	105.1 AV			3.68 V	256	97.7	7.4
3	#13070.00	55.0 PK	88.2	-33.2	1.22 V	277	40.1	14.9
4	#13070.00	41.9 AV	68.2	-26.3	1.22 V	277	27.0	14.9
5	19605.00	54.9 PK	74.0	-19.1	1.71 V	214	61.1	-6.2
6	19605.00	42.6 AV	54.0	-11.4	1.71 V	214	48.8	-6.2
7	#26140.00	50.3 PK	88.2	-37.9	1.25 V	258	51.3	-1.0
8	#26140.00	39.5 AV	68.2	-28.7	1.25 V	258	40.5	-1.0

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ax (HE20)	Channel	CH 153 : 6715 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)
Input Power	120Vac, 60Hz	Environmental Conditions	25 °C, 66% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6715.00	118.8 PK			1.27 H	214	111.3	7.5
2	*6715.00	107.3 AV			1.27 H	214	99.8	7.5
3	#13430.00	53.3 PK	88.2	-34.9	1.18 H	181	37.5	15.8
4	#13430.00	40.4 AV	68.2	-27.8	1.18 H	181	24.6	15.8
5	20145.00	56.1 PK	74.0	-17.9	1.97 H	116	61.6	-5.5
6	20145.00	43.9 AV	54.0	-10.1	1.97 H	116	49.4	-5.5
7	#26860.00	49.9 PK	88.2	-38.3	1.51 H	290	50.8	-0.9
8	#26860.00	39.4 AV	68.2	-28.8	1.51 H	290	40.3	-0.9

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6715.00	115.5 PK			3.72 V	276	108.0	7.5
2	*6715.00	105.4 AV			3.72 V	276	97.9	7.5
3	#13430.00	55.1 PK	88.2	-33.1	1.28 V	301	39.3	15.8
4	#13430.00	41.8 AV	68.2	-26.4	1.28 V	301	26.0	15.8
5	20145.00	55.1 PK	74.0	-18.9	1.75 V	205	60.6	-5.5
6	20145.00	43.1 AV	54.0	-10.9	1.75 V	205	48.6	-5.5
7	#26860.00	48.2 PK	88.2	-40.0	1.12 V	269	49.1	-0.9
8	#26860.00	38.2 AV	68.2	-30.0	1.12 V	269	39.1	-0.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * " : Fundamental frequency.
6. " # " : The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ax (HE20)	Channel	CH 181 : 6855 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)
Input Power	120Vac, 60Hz	Environmental Conditions	25 °C, 66% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6855.00	118.5 PK			1.28 H	209	110.8	7.7
2	*6855.00	107.3 AV			1.28 H	209	99.6	7.7
3	#13710.00	52.4 PK	88.2	-35.8	1.21 H	188	36.3	16.1
4	#13710.00	39.6 AV	68.2	-28.6	1.21 H	188	23.5	16.1
5	20565.00	54.9 PK	74.0	-19.1	1.93 H	106	60.0	-5.1
6	20565.00	43.1 AV	54.0	-10.9	1.93 H	106	48.2	-5.1
7	#27420.00	49.6 PK	88.2	-38.6	1.44 H	290	51.1	-1.5
8	#27420.00	39.4 AV	68.2	-28.8	1.44 H	290	40.9	-1.5

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6855.00	114.4 PK			3.61 V	273	106.7	7.7
2	*6855.00	104.9 AV			3.61 V	273	97.2	7.7
3	#13710.00	55.1 PK	88.2	-33.1	1.24 V	308	39.0	16.1
4	#13710.00	41.9 AV	68.2	-26.3	1.24 V	308	25.8	16.1
5	20565.00	55.2 PK	74.0	-18.8	1.66 V	193	60.3	-5.1
6	20565.00	43.2 AV	54.0	-10.8	1.66 V	193	48.3	-5.1
7	#27420.00	48.3 PK	88.2	-39.9	1.21 V	264	49.8	-1.5
8	#27420.00	38.4 AV	68.2	-29.8	1.21 V	264	39.9	-1.5

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * " : Fundamental frequency.
6. " # " : The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ax (HE20)	Channel	CH 185 : 6875 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)
Input Power	120Vac, 60Hz	Environmental Conditions	25 °C, 66% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6875.00	118.8 PK			1.25 H	224	110.9	7.9
2	*6875.00	107.2 AV			1.25 H	224	99.3	7.9
3	#13750.00	52.2 PK	88.2	-36.0	1.20 H	196	35.9	16.3
4	#13750.00	39.4 AV	68.2	-28.8	1.20 H	196	23.1	16.3
5	20625.00	54.8 PK	74.0	-19.2	1.96 H	106	59.7	-4.9
6	20625.00	42.8 AV	54.0	-11.2	1.96 H	106	47.7	-4.9
7	#27500.00	49.4 PK	88.2	-38.8	1.48 H	300	50.8	-1.4
8	#27500.00	39.5 AV	68.2	-28.7	1.48 H	300	40.9	-1.4

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6875.00	114.9 PK			3.72 V	275	107.0	7.9
2	*6875.00	105.3 AV			3.72 V	275	97.4	7.9
3	#13750.00	55.3 PK	88.2	-32.9	1.18 V	282	39.0	16.3
4	#13750.00	42.4 AV	68.2	-25.8	1.18 V	282	26.1	16.3
5	20625.00	55.6 PK	74.0	-18.4	1.66 V	215	60.5	-4.9
6	20625.00	43.1 AV	54.0	-10.9	1.66 V	215	48.0	-4.9
7	#27500.00	50.3 PK	88.2	-37.9	1.24 V	258	51.7	-1.4
8	#27500.00	39.4 AV	68.2	-28.8	1.24 V	258	40.8	-1.4

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * " : Fundamental frequency.
6. " # " : The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ax (HE20)	Channel	CH 213 : 7015 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)
Input Power	120Vac, 60Hz	Environmental Conditions	25 °C, 66% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*7015.00	118.6 PK			1.25 H	210	110.0	8.6
2	*7015.00	107.0 AV			1.25 H	210	98.4	8.6
3	#14030.00	52.1 PK	88.2	-36.1	1.23 H	191	35.2	16.9
4	#14030.00	39.5 AV	68.2	-28.7	1.23 H	191	22.6	16.9
5	21045.00	54.5 PK	74.0	-19.5	1.96 H	99	59.0	-4.5
6	21045.00	42.6 AV	54.0	-11.4	1.96 H	99	47.1	-4.5
7	#28060.00	50.1 PK	88.2	-38.1	1.48 H	300	51.9	-1.8
8	#28060.00	39.8 AV	68.2	-28.4	1.48 H	300	41.6	-1.8

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*7015.00	114.5 PK			3.62 V	258	105.9	8.6
2	*7015.00	104.9 AV			3.62 V	258	96.3	8.6
3	#14030.00	55.3 PK	88.2	-32.9	1.24 V	279	38.4	16.9
4	#14030.00	41.9 AV	68.2	-26.3	1.24 V	279	25.0	16.9
5	21045.00	55.0 PK	74.0	-19.0	1.67 V	222	59.5	-4.5
6	21045.00	42.4 AV	54.0	-11.6	1.67 V	222	46.9	-4.5
7	#28060.00	50.5 PK	88.2	-37.7	1.25 V	251	52.3	-1.8
8	#28060.00	39.7 AV	68.2	-28.5	1.25 V	251	41.5	-1.8

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * " : Fundamental frequency.
6. " # " : The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ax (HE20)	Channel	CH 233 : 7115 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)
Input Power	120Vac, 60Hz	Environmental Conditions	25 °C, 66% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*7115.00	94.2 PK			1.30 H	315	84.6	9.6
2	*7115.00	82.6 AV			1.30 H	315	73.0	9.6
3	#7125.00	79.8 PK	88.2	-8.4	1.30 H	315	70.1	9.7
4	#7125.00	68.0 AV	68.2	-0.2	1.30 H	315	58.3	9.7
5	#14230.00	48.6 PK	88.2	-39.6	1.25 H	184	31.2	17.4
6	#14230.00	36.2 AV	68.2	-32.0	1.25 H	184	18.8	17.4
7	21345.00	49.5 PK	74.0	-24.5	1.92 H	111	53.7	-4.2
8	21345.00	38.9 AV	54.0	-15.1	1.92 H	111	43.1	-4.2
9	#28460.00	50.1 PK	88.2	-38.1	1.42 H	289	52.0	-1.9
10	#28460.00	39.9 AV	68.2	-28.3	1.42 H	289	41.8	-1.9

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*7115.00	88.5 PK			2.55 V	278	78.9	9.6
2	*7115.00	78.7 AV			2.55 V	278	69.1	9.6
3	#7125.00	66.3 PK	88.2	-21.9	2.55 V	278	56.6	9.7
4	#7125.00	50.3 AV	68.2	-17.9	2.55 V	278	40.6	9.7
5	#14230.00	48.5 PK	88.2	-39.7	1.20 V	266	31.1	17.4
6	#14230.00	36.3 AV	68.2	-31.9	1.20 V	266	18.9	17.4
7	21345.00	50.2 PK	74.0	-23.8	1.64 V	228	54.4	-4.2
8	21345.00	39.4 AV	54.0	-14.6	1.64 V	228	43.6	-4.2
9	#28460.00	49.9 PK	88.2	-38.3	1.26 V	266	51.8	-1.9
10	#28460.00	39.4 AV	68.2	-28.8	1.26 V	266	41.3	-1.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ax (HE40)	Channel	CH 3 : 5965 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)
Input Power	120Vac, 60Hz	Environmental Conditions	25 °C, 66% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5925.00	79.8 PK	88.2	-8.4	1.41 H	202	74.7	5.1
2	#5925.00	67.9 AV	68.2	-0.3	1.41 H	202	62.8	5.1
3	*5965.00	113.7 PK			1.41 H	202	108.5	5.2
4	*5965.00	102.6 AV			1.41 H	202	97.4	5.2
5	11930.00	48.1 PK	74.0	-25.9	1.16 H	170	34.0	14.1
6	11930.00	35.7 AV	54.0	-18.3	1.16 H	170	21.6	14.1
7	17895.00	49.0 PK	74.0	-25.0	1.91 H	128	27.4	21.6
8	17895.00	38.5 AV	54.0	-15.5	1.91 H	128	16.9	21.6
9	23860.00	49.9 PK	74.0	-24.1	1.39 H	272	53.2	-3.3
10	23860.00	39.8 AV	54.0	-14.2	1.39 H	272	43.1	-3.3

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5925.00	74.4 PK	88.2	-13.8	3.75 V	270	69.3	5.1
2	#5925.00	61.8 AV	68.2	-6.4	3.75 V	270	56.7	5.1
3	*5965.00	111.4 PK			3.75 V	270	106.2	5.2
4	*5965.00	101.4 AV			3.75 V	270	96.2	5.2
5	11930.00	48.2 PK	74.0	-25.8	1.25 V	262	34.1	14.1
6	11930.00	35.9 AV	54.0	-18.1	1.25 V	262	21.8	14.1
7	17895.00	50.5 PK	74.0	-23.5	1.64 V	219	28.9	21.6
8	17895.00	39.9 AV	54.0	-14.1	1.64 V	219	18.3	21.6
9	23860.00	50.0 PK	74.0	-24.0	1.24 V	277	53.3	-3.3
10	23860.00	39.7 AV	54.0	-14.3	1.24 V	277	43.0	-3.3

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ax (HE40)	Channel	CH 43 : 6165 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)
Input Power	120Vac, 60Hz	Environmental Conditions	25 °C, 66% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6165.00	113.3 PK			1.36 H	187	107.9	5.4
2	*6165.00	102.1 AV			1.36 H	187	96.7	5.4
3	12330.00	48.6 PK	74.0	-25.4	1.22 H	177	34.6	14.0
4	12330.00	36.1 AV	54.0	-17.9	1.22 H	177	22.1	14.0
5	18495.00	49.2 PK	74.0	-24.8	1.87 H	125	55.8	-6.6
6	18495.00	38.8 AV	54.0	-15.2	1.87 H	125	45.4	-6.6
7	#24660.00	50.4 PK	88.2	-37.8	1.36 H	279	52.5	-2.1
8	#24660.00	40.1 AV	68.2	-28.1	1.36 H	279	42.2	-2.1

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6165.00	111.1 PK			3.76 V	281	105.7	5.4
2	*6165.00	100.9 AV			3.76 V	281	95.5	5.4
3	12330.00	48.8 PK	74.0	-25.2	1.16 V	255	34.8	14.0
4	12330.00	36.4 AV	54.0	-17.6	1.16 V	255	22.4	14.0
5	18495.00	50.6 PK	74.0	-23.4	1.62 V	226	57.2	-6.6
6	18495.00	39.8 AV	54.0	-14.2	1.62 V	226	46.4	-6.6
7	#24660.00	50.0 PK	88.2	-38.2	1.25 V	271	52.1	-2.1
8	#24660.00	39.4 AV	68.2	-28.8	1.25 V	271	41.5	-2.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * " : Fundamental frequency.
6. " # " : The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ax (HE40)	Channel	CH 91 : 6405 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)
Input Power	120Vac, 60Hz	Environmental Conditions	25 °C, 66% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6405.00	113.8 PK			1.42 H	194	107.2	6.6
2	*6405.00	102.8 AV			1.42 H	194	96.2	6.6
3	#12810.00	49.1 PK	88.2	-39.1	1.30 H	177	34.5	14.6
4	#12810.00	36.7 AV	68.2	-31.5	1.30 H	177	22.1	14.6
5	19215.00	49.4 PK	74.0	-24.6	1.98 H	127	55.9	-6.5
6	19215.00	39.0 AV	54.0	-15.0	1.98 H	127	45.5	-6.5
7	#25620.00	50.8 PK	88.2	-37.4	1.43 H	273	52.1	-1.3
8	#25620.00	40.3 AV	68.2	-27.9	1.43 H	273	41.6	-1.3

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6405.00	111.5 PK			3.75 V	274	104.9	6.6
2	*6405.00	101.4 AV			3.75 V	274	94.8	6.6
3	#12810.00	48.3 PK	88.2	-39.9	1.29 V	263	33.7	14.6
4	#12810.00	36.1 AV	68.2	-32.1	1.29 V	263	21.5	14.6
5	19215.00	50.6 PK	74.0	-23.4	1.62 V	231	57.1	-6.5
6	19215.00	40.1 AV	54.0	-13.9	1.62 V	231	46.6	-6.5
7	#25620.00	50.4 PK	88.2	-37.8	1.27 V	271	51.7	-1.3
8	#25620.00	39.8 AV	68.2	-28.4	1.27 V	271	41.1	-1.3

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * " : Fundamental frequency.
6. " # " : The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ax (HE40)	Channel	CH 99 : 6445 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)
Input Power	120Vac, 60Hz	Environmental Conditions	25 °C, 66% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6445.00	113.6 PK			1.39 H	190	106.6	7.0
2	*6445.00	102.2 AV			1.39 H	190	95.2	7.0
3	#12890.00	48.5 PK	88.2	-39.7	1.30 H	180	34.1	14.4
4	#12890.00	36.1 AV	68.2	-32.1	1.30 H	180	21.7	14.4
5	19335.00	49.4 PK	74.0	-24.6	1.91 H	116	55.9	-6.5
6	19335.00	38.7 AV	54.0	-15.3	1.91 H	116	45.2	-6.5
7	#25780.00	50.4 PK	88.2	-37.8	1.37 H	284	51.6	-1.2
8	#25780.00	40.0 AV	68.2	-28.2	1.37 H	284	41.2	-1.2

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6445.00	111.3 PK			3.80 V	260	104.3	7.0
2	*6445.00	101.5 AV			3.80 V	260	94.5	7.0
3	#12890.00	48.3 PK	88.2	-39.9	1.23 V	248	33.9	14.4
4	#12890.00	36.0 AV	68.2	-32.2	1.23 V	248	21.6	14.4
5	19335.00	50.2 PK	74.0	-23.8	1.68 V	216	56.7	-6.5
6	19335.00	39.5 AV	54.0	-14.5	1.68 V	216	46.0	-6.5
7	#25780.00	50.2 PK	88.2	-38.0	1.24 V	290	51.4	-1.2
8	#25780.00	39.8 AV	68.2	-28.4	1.24 V	290	41.0	-1.2

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * " : Fundamental frequency.
6. " # " : The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ax (HE40)	Channel	CH 107 : 6485 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)
Input Power	120Vac, 60Hz	Environmental Conditions	25 °C, 66% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6485.00	113.6 PK			1.45 H	205	106.5	7.1
2	*6485.00	102.3 AV			1.45 H	205	95.2	7.1
3	#12970.00	48.5 PK	88.2	-39.7	1.22 H	189	33.8	14.7
4	#12970.00	36.0 AV	68.2	-32.2	1.22 H	189	21.3	14.7
5	19455.00	49.7 PK	74.0	-24.3	1.98 H	124	55.9	-6.2
6	19455.00	38.9 AV	54.0	-15.1	1.98 H	124	45.1	-6.2
7	#25940.00	50.3 PK	88.2	-37.9	1.37 H	282	51.4	-1.1
8	#25940.00	40.3 AV	68.2	-27.9	1.37 H	282	41.4	-1.1

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6485.00	111.4 PK			3.80 V	282	104.3	7.1
2	*6485.00	101.4 AV			3.80 V	282	94.3	7.1
3	#12970.00	48.5 PK	88.2	-39.7	1.11 V	252	33.8	14.7
4	#12970.00	36.0 AV	68.2	-32.2	1.11 V	252	21.3	14.7
5	19455.00	50.2 PK	74.0	-23.8	1.66 V	216	56.4	-6.2
6	19455.00	39.4 AV	54.0	-14.6	1.66 V	216	45.6	-6.2
7	#25940.00	49.5 PK	88.2	-38.7	1.22 V	279	50.6	-1.1
8	#25940.00	38.9 AV	68.2	-29.3	1.22 V	279	40.0	-1.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * " : Fundamental frequency.
6. " # " : The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ax (HE40)	Channel	CH 115 : 6525 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)
Input Power	120Vac, 60Hz	Environmental Conditions	25 °C, 66% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6525.00	114.1 PK			1.41 H	193	106.8	7.3
2	*6525.00	102.8 AV			1.41 H	193	95.5	7.3
3	#13050.00	48.4 PK	88.2	-39.8	1.32 H	181	33.6	14.8
4	#13050.00	36.3 AV	68.2	-31.9	1.32 H	181	21.5	14.8
5	19575.00	49.3 PK	74.0	-24.7	1.96 H	133	55.6	-6.3
6	19575.00	39.1 AV	54.0	-14.9	1.96 H	133	45.4	-6.3
7	#26100.00	50.7 PK	88.2	-37.5	1.43 H	288	51.7	-1.0
8	#26100.00	40.4 AV	68.2	-27.8	1.43 H	288	41.4	-1.0

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6525.00	111.9 PK			3.74 V	270	104.6	7.3
2	*6525.00	101.9 AV			3.74 V	270	94.6	7.3
3	#13050.00	48.4 PK	88.2	-39.8	1.29 V	247	33.6	14.8
4	#13050.00	35.9 AV	68.2	-32.3	1.29 V	247	21.1	14.8
5	19575.00	49.9 PK	74.0	-24.1	1.56 V	229	56.2	-6.3
6	19575.00	39.7 AV	54.0	-14.3	1.56 V	229	46.0	-6.3
7	#26100.00	50.7 PK	88.2	-37.5	1.29 V	259	51.7	-1.0
8	#26100.00	40.3 AV	68.2	-27.9	1.29 V	259	41.3	-1.0

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * " : Fundamental frequency.
6. " # " : The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ax (HE40)	Channel	CH 123 : 6565 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)
Input Power	120Vac, 60Hz	Environmental Conditions	25 °C, 66% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6565.00	113.6 PK			1.42 H	207	106.2	7.4
2	*6565.00	102.7 AV			1.42 H	207	95.3	7.4
3	#13130.00	49.0 PK	88.2	-39.2	1.30 H	167	34.0	15.0
4	#13130.00	36.8 AV	68.2	-31.4	1.30 H	167	21.8	15.0
5	19695.00	48.4 PK	74.0	-25.6	1.84 H	127	54.6	-6.2
6	19695.00	38.0 AV	54.0	-16.0	1.84 H	127	44.2	-6.2
7	#26260.00	50.6 PK	88.2	-37.6	1.34 H	299	51.6	-1.0
8	#26260.00	40.4 AV	68.2	-27.8	1.34 H	299	41.4	-1.0

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6565.00	111.5 PK			3.71 V	281	104.1	7.4
2	*6565.00	101.5 AV			3.71 V	281	94.1	7.4
3	#13130.00	48.4 PK	88.2	-39.8	1.31 V	256	33.4	15.0
4	#13130.00	36.5 AV	68.2	-31.7	1.31 V	256	21.5	15.0
5	19695.00	50.9 PK	74.0	-23.1	1.58 V	244	57.1	-6.2
6	19695.00	40.6 AV	54.0	-13.4	1.58 V	244	46.8	-6.2
7	#26260.00	50.0 PK	88.2	-38.2	1.29 V	263	51.0	-1.0
8	#26260.00	39.7 AV	68.2	-28.5	1.29 V	263	40.7	-1.0

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * " : Fundamental frequency.
6. " # " : The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ax (HE40)	Channel	CH 155 : 6725 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)
Input Power	120Vac, 60Hz	Environmental Conditions	25 °C, 66% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6725.00	113.9 PK			1.42 H	183	106.4	7.5
2	*6725.00	103.1 AV			1.42 H	183	95.6	7.5
3	#13450.00	48.2 PK	88.2	-40.0	1.26 H	159	32.3	15.9
4	#13450.00	36.1 AV	68.2	-32.1	1.26 H	159	20.2	15.9
5	20175.00	48.2 PK	74.0	-25.8	1.81 H	125	53.6	-5.4
6	20175.00	38.1 AV	54.0	-15.9	1.81 H	125	43.5	-5.4
7	#26900.00	50.5 PK	88.2	-37.7	1.39 H	303	51.5	-1.0
8	#26900.00	40.1 AV	68.2	-28.1	1.39 H	303	41.1	-1.0

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6725.00	112.2 PK			3.78 V	254	104.7	7.5
2	*6725.00	102.0 AV			3.78 V	254	94.5	7.5
3	#13450.00	48.9 PK	88.2	-39.3	1.27 V	260	33.0	15.9
4	#13450.00	36.2 AV	68.2	-32.0	1.27 V	260	20.3	15.9
5	20175.00	49.6 PK	74.0	-24.4	1.62 V	227	55.0	-5.4
6	20175.00	38.4 AV	54.0	-15.6	1.62 V	227	43.8	-5.4
7	#26900.00	50.7 PK	88.2	-37.5	1.32 V	258	51.7	-1.0
8	#26900.00	40.4 AV	68.2	-27.8	1.32 V	258	41.4	-1.0

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * " : Fundamental frequency.
6. " # " : The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ax (HE40)	Channel	CH 179 : 6845 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)
Input Power	120Vac, 60Hz	Environmental Conditions	25 °C, 66% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6845.00	114.1 PK			1.45 H	212	106.4	7.7
2	*6845.00	103.0 AV			1.45 H	212	95.3	7.7
3	#13690.00	48.8 PK	88.2	-39.4	1.23 H	162	32.7	16.1
4	#13690.00	36.1 AV	68.2	-32.1	1.23 H	162	20.0	16.1
5	20535.00	48.5 PK	74.0	-25.5	1.86 H	125	53.7	-5.2
6	20535.00	38.3 AV	54.0	-15.7	1.86 H	125	43.5	-5.2
7	#27380.00	50.8 PK	88.2	-37.4	1.34 H	274	52.2	-1.4
8	#27380.00	40.5 AV	68.2	-27.7	1.34 H	274	41.9	-1.4

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6845.00	111.9 PK			3.74 V	257	104.2	7.7
2	*6845.00	102.0 AV			3.74 V	257	94.3	7.7
3	#13690.00	48.7 PK	88.2	-39.5	1.05 V	255	32.6	16.1
4	#13690.00	36.3 AV	68.2	-31.9	1.05 V	255	20.2	16.1
5	20535.00	50.5 PK	74.0	-23.5	1.62 V	216	55.7	-5.2
6	20535.00	38.5 AV	54.0	-15.5	1.62 V	216	43.7	-5.2
7	#27380.00	48.8 PK	88.2	-39.4	1.17 V	281	50.2	-1.4
8	#27380.00	39.0 AV	68.2	-29.2	1.17 V	281	40.4	-1.4

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * " : Fundamental frequency.
6. " # " : The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ax (HE40)	Channel	CH 187 : 6885 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)
Input Power	120Vac, 60Hz	Environmental Conditions	25 °C, 66% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6885.00	114.0 PK			1.42 H	204	106.0	8.0
2	*6885.00	102.5 AV			1.42 H	204	94.5	8.0
3	#13770.00	48.3 PK	88.2	-39.9	1.17 H	205	31.9	16.4
4	#13770.00	35.7 AV	68.2	-32.5	1.17 H	205	19.3	16.4
5	20655.00	49.3 PK	74.0	-24.7	2.03 H	138	54.2	-4.9
6	20655.00	38.6 AV	54.0	-15.4	2.03 H	138	43.5	-4.9
7	#27540.00	51.0 PK	88.2	-37.2	1.40 H	280	52.5	-1.5
8	#27540.00	40.8 AV	68.2	-27.4	1.40 H	280	42.3	-1.5

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6885.00	111.9 PK			3.80 V	263	103.9	8.0
2	*6885.00	102.0 AV			3.80 V	263	94.0	8.0
3	#13770.00	48.7 PK	88.2	-39.5	1.06 V	257	32.3	16.4
4	#13770.00	36.0 AV	68.2	-32.2	1.06 V	257	19.6	16.4
5	20655.00	50.5 PK	74.0	-23.5	1.69 V	225	55.4	-4.9
6	20655.00	39.6 AV	54.0	-14.4	1.69 V	225	44.5	-4.9
7	#27540.00	49.7 PK	88.2	-38.5	1.20 V	268	51.2	-1.5
8	#27540.00	39.1 AV	68.2	-29.1	1.20 V	268	40.6	-1.5

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * " : Fundamental frequency.
6. " # " : The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ax (HE40)	Channel	CH 211 : 7005 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)
Input Power	120Vac, 60Hz	Environmental Conditions	25 °C, 66% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*7005.00	113.5 PK			1.35 H	182	105.0	8.5
2	*7005.00	102.3 AV			1.35 H	182	93.8	8.5
3	#14010.00	48.3 PK	88.2	-39.9	1.20 H	187	31.4	16.9
4	#14010.00	35.9 AV	68.2	-32.3	1.20 H	187	19.0	16.9
5	21015.00	49.6 PK	74.0	-24.4	1.93 H	124	54.1	-4.5
6	21015.00	38.8 AV	54.0	-15.2	1.93 H	124	43.3	-4.5
7	#28020.00	50.5 PK	88.2	-37.7	1.41 H	268	52.2	-1.7
8	#28020.00	40.2 AV	68.2	-28.0	1.41 H	268	41.9	-1.7

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*7005.00	111.7 PK			3.68 V	246	103.2	8.5
2	*7005.00	102.1 AV			3.68 V	246	93.6	8.5
3	#14010.00	48.5 PK	88.2	-39.7	1.07 V	254	31.6	16.9
4	#14010.00	36.2 AV	68.2	-32.0	1.07 V	254	19.3	16.9
5	21015.00	50.2 PK	74.0	-23.8	1.65 V	227	54.7	-4.5
6	21015.00	39.1 AV	54.0	-14.9	1.65 V	227	43.6	-4.5
7	#28020.00	49.2 PK	88.2	-39.0	1.18 V	296	50.9	-1.7
8	#28020.00	38.9 AV	68.2	-29.3	1.18 V	296	40.6	-1.7

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ax (HE40)	Channel	CH 227 : 7085 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)
Input Power	120Vac, 60Hz	Environmental Conditions	25 °C, 66% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*7085.00	110.7 PK			1.15 H	314	101.3	9.4
2	*7085.00	100.2 AV			1.15 H	314	90.8	9.4
3	#7125.00	80.6 PK	88.2	-7.6	1.15 H	314	70.9	9.7
4	#7125.00	68.0 AV	68.2	-0.2	1.15 H	314	58.3	9.7
5	#14170.00	48.4 PK	88.2	-39.8	1.24 H	174	31.2	17.2
6	#14170.00	36.4 AV	68.2	-31.8	1.24 H	174	19.2	17.2
7	21255.00	48.0 PK	74.0	-26.0	1.76 H	131	52.3	-4.3
8	21255.00	38.1 AV	54.0	-15.9	1.76 H	131	42.4	-4.3
9	#28340.00	50.1 PK	88.2	-38.1	1.45 H	296	51.7	-1.6
10	#28340.00	39.8 AV	68.2	-28.4	1.45 H	296	41.4	-1.6

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*7085.00	105.6 PK			2.63 V	281	96.2	9.4
2	*7085.00	95.9 AV			2.63 V	281	86.5	9.4
3	#7125.00	72.2 PK	88.2	-16.0	2.63 V	281	62.5	9.7
4	#7125.00	59.3 AV	68.2	-8.9	2.63 V	281	49.6	9.7
5	#14170.00	48.3 PK	88.2	-39.9	1.01 V	244	31.1	17.2
6	#14170.00	36.0 AV	68.2	-32.2	1.01 V	244	18.8	17.2
7	21255.00	50.3 PK	74.0	-23.7	1.64 V	210	54.6	-4.3
8	21255.00	38.1 AV	54.0	-15.9	1.64 V	210	42.4	-4.3
9	#28340.00	48.4 PK	88.2	-39.8	1.14 V	295	50.0	-1.6
10	#28340.00	39.4 AV	68.2	-28.8	1.14 V	295	41.0	-1.6

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ax (HE80)	Channel	CH 7 : 5985 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)
Input Power	120Vac, 60Hz	Environmental Conditions	25 °C, 66% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5925.00	79.9 PK	88.2	-8.3	1.07 H	204	74.8	5.1
2	#5925.00	67.5 AV	68.2	-0.7	1.07 H	204	62.4	5.1
3	*5985.00	110.1 PK			1.07 H	204	104.9	5.2
4	*5985.00	99.9 AV			1.07 H	204	94.7	5.2
5	11970.00	47.9 PK	74.0	-26.1	1.20 H	182	33.6	14.3
6	11970.00	36.0 AV	54.0	-18.0	1.20 H	182	21.7	14.3
7	17955.00	47.7 PK	74.0	-26.3	1.80 H	146	25.1	22.6
8	17955.00	37.8 AV	54.0	-16.2	1.80 H	146	15.2	22.6
9	23940.00	49.7 PK	74.0	-24.3	1.39 H	301	52.8	-3.1
10	23940.00	39.4 AV	54.0	-14.6	1.39 H	301	42.5	-3.1

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5925.00	70.8 PK	88.2	-17.4	3.73 V	272	65.7	5.1
2	#5925.00	57.6 AV	68.2	-10.6	3.73 V	272	52.5	5.1
3	*5985.00	107.4 PK			3.73 V	272	102.2	5.2
4	*5985.00	98.2 AV			3.73 V	272	93.0	5.2
5	11970.00	49.1 PK	74.0	-24.9	1.13 V	257	34.8	14.3
6	11970.00	36.8 AV	54.0	-17.2	1.13 V	257	22.5	14.3
7	17955.00	49.9 PK	74.0	-24.1	1.60 V	247	27.3	22.6
8	17955.00	38.6 AV	54.0	-15.4	1.60 V	247	16.0	22.6
9	23940.00	49.8 PK	74.0	-24.2	1.13 V	270	52.9	-3.1
10	23940.00	39.1 AV	54.0	-14.9	1.13 V	270	42.2	-3.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ax (HE80)	Channel	CH 39 : 6145 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)
Input Power	120Vac, 60Hz	Environmental Conditions	25 °C, 66% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6145.00	112.4 PK			1.14 H	212	107.0	5.4
2	*6145.00	101.4 AV			1.14 H	212	96.0	5.4
3	12290.00	47.9 PK	74.0	-26.1	1.20 H	178	33.6	14.3
4	12290.00	36.1 AV	54.0	-17.9	1.20 H	178	21.8	14.3
5	18435.00	48.2 PK	74.0	-25.8	1.73 H	123	54.8	-6.6
6	18435.00	38.3 AV	54.0	-15.7	1.73 H	123	44.9	-6.6
7	#24580.00	50.5 PK	88.2	-37.7	1.49 H	289	52.8	-2.3
8	#24580.00	40.3 AV	68.2	-27.9	1.49 H	289	42.6	-2.3

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6145.00	109.9 PK			3.74 V	258	104.5	5.4
2	*6145.00	100.3 AV			3.74 V	258	94.9	5.4
3	12290.00	49.1 PK	74.0	-24.9	1.10 V	280	34.8	14.3
4	12290.00	36.7 AV	54.0	-17.3	1.10 V	280	22.4	14.3
5	18435.00	49.7 PK	74.0	-24.3	1.68 V	239	56.3	-6.6
6	18435.00	38.8 AV	54.0	-15.2	1.68 V	239	45.4	-6.6
7	#24580.00	49.4 PK	88.2	-38.8	1.26 V	283	51.7	-2.3
8	#24580.00	38.6 AV	68.2	-29.6	1.26 V	283	40.9	-2.3

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * " : Fundamental frequency.
6. " # " : The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ax (HE80)	Channel	CH 87 : 6385 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)
Input Power	120Vac, 60Hz	Environmental Conditions	25 °C, 66% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6385.00	112.9 PK			1.05 H	212	106.5	6.4
2	*6385.00	101.8 AV			1.05 H	212	95.4	6.4
3	#12770.00	48.0 PK	88.2	-40.2	1.22 H	184	33.5	14.5
4	#12770.00	35.9 AV	68.2	-32.3	1.22 H	184	21.4	14.5
5	19155.00	47.6 PK	74.0	-26.4	1.80 H	135	54.1	-6.5
6	19155.00	37.7 AV	54.0	-16.3	1.80 H	135	44.2	-6.5
7	#25540.00	49.6 PK	88.2	-38.6	1.33 H	291	51.0	-1.4
8	#25540.00	39.2 AV	68.2	-29.0	1.33 H	291	40.6	-1.4

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6385.00	109.6 PK			3.69 V	265	103.2	6.4
2	*6385.00	99.9 AV			3.69 V	265	93.5	6.4
3	#12770.00	48.9 PK	88.2	-39.3	1.10 V	252	34.4	14.5
4	#12770.00	36.9 AV	68.2	-31.3	1.10 V	252	22.4	14.5
5	19155.00	49.4 PK	74.0	-24.6	1.66 V	240	55.9	-6.5
6	19155.00	38.4 AV	54.0	-15.6	1.66 V	240	44.9	-6.5
7	#25540.00	49.7 PK	88.2	-38.5	1.19 V	275	51.1	-1.4
8	#25540.00	39.2 AV	68.2	-29.0	1.19 V	275	40.6	-1.4

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * " : Fundamental frequency.
6. " # " : The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ax (HE80)	Channel	CH 103 : 6465 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)
Input Power	120Vac, 60Hz	Environmental Conditions	25 °C, 66% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6465.00	113.2 PK			1.08 H	210	106.2	7.0
2	*6465.00	101.9 AV			1.08 H	210	94.9	7.0
3	#12930.00	48.2 PK	88.2	-40.0	1.23 H	176	33.6	14.6
4	#12930.00	36.5 AV	68.2	-31.7	1.23 H	176	21.9	14.6
5	19395.00	48.4 PK	74.0	-25.6	1.70 H	115	54.6	-6.2
6	19395.00	38.5 AV	54.0	-15.5	1.70 H	115	44.7	-6.2
7	#25860.00	50.4 PK	88.2	-37.8	1.44 H	276	51.7	-1.3
8	#25860.00	40.2 AV	68.2	-28.0	1.44 H	276	41.5	-1.3

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6465.00	110.5 PK			3.68 V	258	103.5	7.0
2	*6465.00	100.7 AV			3.68 V	258	93.7	7.0
3	#12930.00	49.0 PK	88.2	-39.2	1.09 V	262	34.4	14.6
4	#12930.00	36.7 AV	68.2	-31.5	1.09 V	262	22.1	14.6
5	19395.00	48.9 PK	74.0	-25.1	1.70 V	225	55.1	-6.2
6	19395.00	38.4 AV	54.0	-15.6	1.70 V	225	44.6	-6.2
7	#25860.00	50.7 PK	88.2	-37.5	1.24 V	289	52.0	-1.3
8	#25860.00	39.8 AV	68.2	-28.4	1.24 V	289	41.1	-1.3

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * " : Fundamental frequency.
6. " # " : The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ax (HE80)	Channel	CH 119 : 6545 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)
Input Power	120Vac, 60Hz	Environmental Conditions	25 °C, 66% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6545.00	113.1 PK			1.01 H	240	105.7	7.4
2	*6545.00	101.9 AV			1.01 H	240	94.5	7.4
3	#13090.00	48.0 PK	88.2	-40.2	1.19 H	170	33.1	14.9
4	#13090.00	36.4 AV	68.2	-31.8	1.19 H	170	21.5	14.9
5	19635.00	48.8 PK	74.0	-25.2	1.68 H	108	55.1	-6.3
6	19635.00	38.6 AV	54.0	-15.4	1.68 H	108	44.9	-6.3
7	#26180.00	49.9 PK	88.2	-38.3	1.44 H	292	50.9	-1.0
8	#26180.00	39.9 AV	68.2	-28.3	1.44 H	292	40.9	-1.0

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6545.00	109.3 PK			3.74 V	251	101.9	7.4
2	*6545.00	99.6 AV			3.74 V	251	92.2	7.4
3	#13090.00	48.8 PK	88.2	-39.4	1.14 V	265	33.9	14.9
4	#13090.00	36.6 AV	68.2	-31.6	1.14 V	265	21.7	14.9
5	19635.00	49.4 PK	74.0	-24.6	1.65 V	228	55.7	-6.3
6	19635.00	38.4 AV	54.0	-15.6	1.65 V	228	44.7	-6.3
7	#26180.00	49.9 PK	88.2	-38.3	1.22 V	274	50.9	-1.0
8	#26180.00	39.1 AV	68.2	-29.1	1.22 V	274	40.1	-1.0

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ax (HE80)	Channel	CH 151 : 6705 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)
Input Power	120Vac, 60Hz	Environmental Conditions	25 °C, 66% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6705.00	112.1 PK			1.08 H	206	104.6	7.5
2	*6705.00	101.3 AV			1.08 H	206	93.8	7.5
3	#13410.00	48.1 PK	88.2	-40.1	1.22 H	165	32.3	15.8
4	#13410.00	36.5 AV	68.2	-31.7	1.22 H	165	20.7	15.8
5	20115.00	49.4 PK	74.0	-24.6	1.69 H	112	54.9	-5.5
6	20115.00	39.0 AV	54.0	-15.0	1.69 H	112	44.5	-5.5
7	#26820.00	49.9 PK	88.2	-38.3	1.42 H	305	50.7	-0.8
8	#26820.00	39.7 AV	68.2	-28.5	1.42 H	305	40.5	-0.8

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6705.00	108.8 PK			3.67 V	277	101.3	7.5
2	*6705.00	99.2 AV			3.67 V	277	91.7	7.5
3	#13410.00	48.7 PK	88.2	-39.5	1.15 V	255	32.9	15.8
4	#13410.00	36.5 AV	68.2	-31.7	1.15 V	255	20.7	15.8
5	20115.00	49.3 PK	74.0	-24.7	1.71 V	228	54.8	-5.5
6	20115.00	38.5 AV	54.0	-15.5	1.71 V	228	44.0	-5.5
7	#26820.00	49.7 PK	88.2	-38.5	1.20 V	286	50.5	-0.8
8	#26820.00	39.0 AV	68.2	-29.2	1.20 V	286	39.8	-0.8

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * " : Fundamental frequency.
6. " # " : The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ax (HE80)	Channel	CH 167 : 6785 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)
Input Power	120Vac, 60Hz	Environmental Conditions	25 °C, 66% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6785.00	112.1 PK			1.04 H	222	104.6	7.5
2	*6785.00	101.0 AV			1.04 H	222	93.5	7.5
3	#13570.00	48.2 PK	88.2	-40.0	1.23 H	173	32.0	16.2
4	#13570.00	36.7 AV	68.2	-31.5	1.23 H	173	20.5	16.2
5	20355.00	48.4 PK	74.0	-25.6	1.74 H	101	53.9	-5.5
6	20355.00	38.4 AV	54.0	-15.6	1.74 H	101	43.9	-5.5
7	#27140.00	49.7 PK	88.2	-38.5	1.40 H	268	51.1	-1.4
8	#27140.00	39.7 AV	68.2	-28.5	1.40 H	268	41.1	-1.4

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6785.00	109.9 PK			3.69 V	270	102.4	7.5
2	*6785.00	100.3 AV			3.69 V	270	92.8	7.5
3	#13570.00	48.9 PK	88.2	-39.3	1.05 V	255	32.7	16.2
4	#13570.00	36.6 AV	68.2	-31.6	1.05 V	255	20.4	16.2
5	20355.00	49.4 PK	74.0	-24.6	1.65 V	227	54.9	-5.5
6	20355.00	38.7 AV	54.0	-15.3	1.65 V	227	44.2	-5.5
7	#27140.00	50.5 PK	88.2	-37.7	1.26 V	283	51.9	-1.4
8	#27140.00	39.7 AV	68.2	-28.5	1.26 V	283	41.1	-1.4

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * " : Fundamental frequency.
6. " # " : The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ax (HE80)	Channel	CH 183 : 6865 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)
Input Power	120Vac, 60Hz	Environmental Conditions	25 °C, 66% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6865.00	112.1 PK			1.03 H	226	104.3	7.8
2	*6865.00	101.0 AV			1.03 H	226	93.2	7.8
3	#13730.00	47.9 PK	88.2	-40.3	1.25 H	186	31.6	16.3
4	#13730.00	36.4 AV	68.2	-31.8	1.25 H	186	20.1	16.3
5	20595.00	48.7 PK	74.0	-25.3	1.80 H	117	53.6	-4.9
6	20595.00	38.5 AV	54.0	-15.5	1.80 H	117	43.4	-4.9
7	#27460.00	49.8 PK	88.2	-38.4	1.44 H	265	51.3	-1.5
8	#27460.00	39.7 AV	68.2	-28.5	1.44 H	265	41.2	-1.5

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6865.00	109.4 PK			3.72 V	262	101.6	7.8
2	*6865.00	99.6 AV			3.72 V	262	91.8	7.8
3	#13730.00	48.7 PK	88.2	-39.5	1.05 V	262	32.4	16.3
4	#13730.00	36.3 AV	68.2	-31.9	1.05 V	262	20.0	16.3
5	20595.00	49.5 PK	74.0	-24.5	1.65 V	223	54.4	-4.9
6	20595.00	38.3 AV	54.0	-15.7	1.65 V	223	43.2	-4.9
7	#27460.00	49.7 PK	88.2	-38.5	1.20 V	312	51.2	-1.5
8	#27460.00	39.1 AV	68.2	-29.1	1.20 V	312	40.6	-1.5

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * " : Fundamental frequency.
6. " # " : The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ax (HE80)	Channel	CH 199 : 6945 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)
Input Power	120Vac, 60Hz	Environmental Conditions	25 °C, 66% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6945.00	112.0 PK			1.07 H	209	103.2	8.8
2	*6945.00	101.3 AV			1.07 H	209	92.5	8.8
3	#13890.00	48.1 PK	88.2	-40.1	1.16 H	168	31.6	16.5
4	#13890.00	36.4 AV	68.2	-31.8	1.16 H	168	19.9	16.5
5	20835.00	48.0 PK	74.0	-26.0	1.79 H	133	52.8	-4.8
6	20835.00	37.9 AV	54.0	-16.1	1.79 H	133	42.7	-4.8
7	#27780.00	50.7 PK	88.2	-37.5	1.31 H	312	52.4	-1.7
8	#27780.00	40.2 AV	68.2	-28.0	1.31 H	312	41.9	-1.7

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6945.00	109.5 PK			3.75 V	275	100.7	8.8
2	*6945.00	99.7 AV			3.75 V	275	90.9	8.8
3	#13890.00	48.5 PK	88.2	-39.7	1.05 V	247	32.0	16.5
4	#13890.00	36.1 AV	68.2	-32.1	1.05 V	247	19.6	16.5
5	20835.00	48.8 PK	74.0	-25.2	1.71 V	223	53.6	-4.8
6	20835.00	38.1 AV	54.0	-15.9	1.71 V	223	42.9	-4.8
7	#27780.00	49.8 PK	88.2	-38.4	1.19 V	290	51.5	-1.7
8	#27780.00	39.5 AV	68.2	-28.7	1.19 V	290	41.2	-1.7

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * " : Fundamental frequency.
6. " # " : The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ax (HE80)	Channel	CH 215 : 7025 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)
Input Power	120Vac, 60Hz	Environmental Conditions	25 °C, 66% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*7025.00	112.4 PK			1.06 H	217	103.7	8.7
2	*7025.00	101.4 AV			1.06 H	217	92.7	8.7
3	#7125.00	80.2 PK	88.2	-8.0	1.06 H	217	70.5	9.7
4	#7125.00	67.9 AV	68.2	-0.3	1.06 H	217	58.2	9.7
5	#14050.00	48.3 PK	88.2	-39.9	1.27 H	177	31.4	16.9
6	#14050.00	36.7 AV	68.2	-31.5	1.27 H	177	19.8	16.9
7	21075.00	48.7 PK	74.0	-25.3	1.64 H	120	53.1	-4.4
8	21075.00	38.5 AV	54.0	-15.5	1.64 H	120	42.9	-4.4
9	#28100.00	49.8 PK	88.2	-38.4	1.44 H	304	51.5	-1.7
10	#28100.00	39.8 AV	68.2	-28.4	1.44 H	304	41.5	-1.7

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*7025.00	106.4 PK			2.80 V	279	97.7	8.7
2	*7025.00	95.7 AV			2.80 V	279	87.0	8.7
3	#7125.00	71.2 PK	88.2	-17.0	2.80 V	279	61.5	9.7
4	#7125.00	62.0 AV	68.2	-6.2	2.80 V	279	52.3	9.7
5	#14050.00	48.5 PK	88.2	-39.7	1.10 V	253	31.6	16.9
6	#14050.00	36.1 AV	68.2	-32.1	1.10 V	253	19.2	16.9
7	21075.00	49.5 PK	74.0	-24.5	1.65 V	221	53.9	-4.4
8	21075.00	38.6 AV	54.0	-15.4	1.65 V	221	43.0	-4.4
9	#28100.00	49.8 PK	88.2	-38.4	1.23 V	297	51.5	-1.7
10	#28100.00	39.3 AV	68.2	-28.9	1.23 V	297	41.0	-1.7

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

Below 1GHz Data:

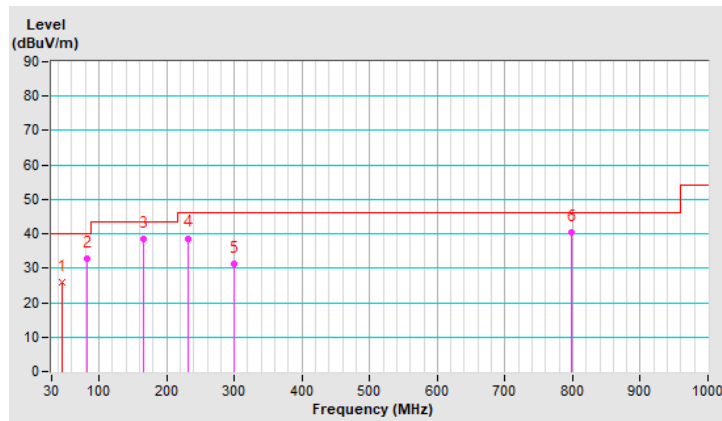
RF Mode	TX 802.11ax (HE80)	Channel	CH 103 : 6465 MHz
Frequency Range	9kHz ~ 1GHz	Detector Function	Quasi-Peak (QP)
Input Power	3.3Vdc	Environmental Conditions	25 °C, 66% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	45.11	25.9 QP	40.0	-14.1	2.00 H	360	34.1	-8.2
2	83.11	32.8 QP	40.0	-7.2	2.00 H	0	46.3	-13.5
3	165.99	38.4 QP	43.5	-5.1	2.00 H	0	46.4	-8.0
4	232.37	38.7 QP	46.0	-7.3	1.00 H	244	48.4	-9.7
5	298.71	31.2 QP	46.0	-14.8	1.00 H	299	38.0	-6.8
6	797.78	40.5 QP	46.0	-5.5	1.00 H	299	35.5	5.0

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.

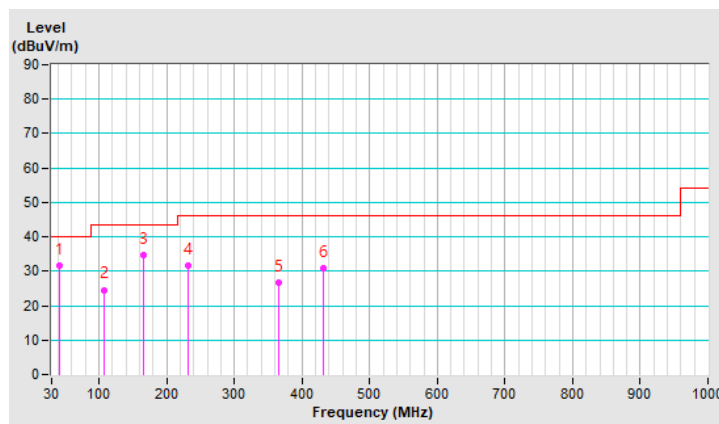


RF Mode	TX 802.11ax (HE80)	Channel	CH 103 : 6465 MHz
Frequency Range	9kHz ~ 1GHz	Detector Function	Quasi-Peak (QP)
Input Power	3.3Vdc	Environmental Conditions	25 °C, 66% RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	41.40	31.5 QP	40.0	-8.5	1.00 V	305	39.9	-8.4
2	108.40	24.6 QP	43.5	-18.9	1.00 V	238	35.5	-10.9
3	166.28	34.8 QP	43.5	-8.7	1.00 V	150	42.8	-8.0
4	232.34	31.6 QP	46.0	-14.4	1.00 V	171	41.3	-9.7
5	365.79	26.5 QP	46.0	-19.5	1.50 V	224	31.2	-4.7
6	431.99	30.8 QP	46.0	-15.2	1.50 V	5	33.4	-2.6

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.



4.2 In-Band Emission (Mask) Measurement

4.2.1 Limits of In-Band Emission (Mask) Measurement

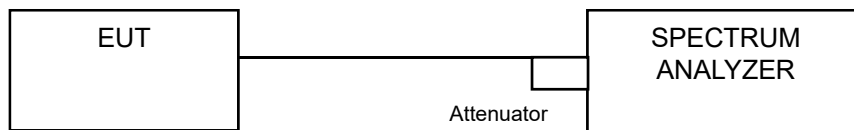
Test Item	Frequencies (MHz)	(X) dBc ^{*1}
Emission Mask	At 1 MHz outside of channel edge	20
	At one channel bandwidth from the channel center ^{*2}	28
	At one- and one-half times the channel bandwidth away from channel center ^{*3}	40
	More than one- and one-half times the channel bandwidth	40

^{*1} :The power spectral density must be suppressed by “x” dB

^{*2} : At frequencies between one megahertz outside an unlicensed device’s channel edge and one channel bandwidth from the center of the channel, the limits must be linearly interpolated between 20 dB and 28 dB suppression,

^{*3} : At frequencies between one and one- and one-half times an unlicensed device’s channel bandwidth, the limits must be linearly interpolated between 28 dB and 40 dB suppression.

4.2.2 Test Setup



4.2.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.2.4 Test Procedure

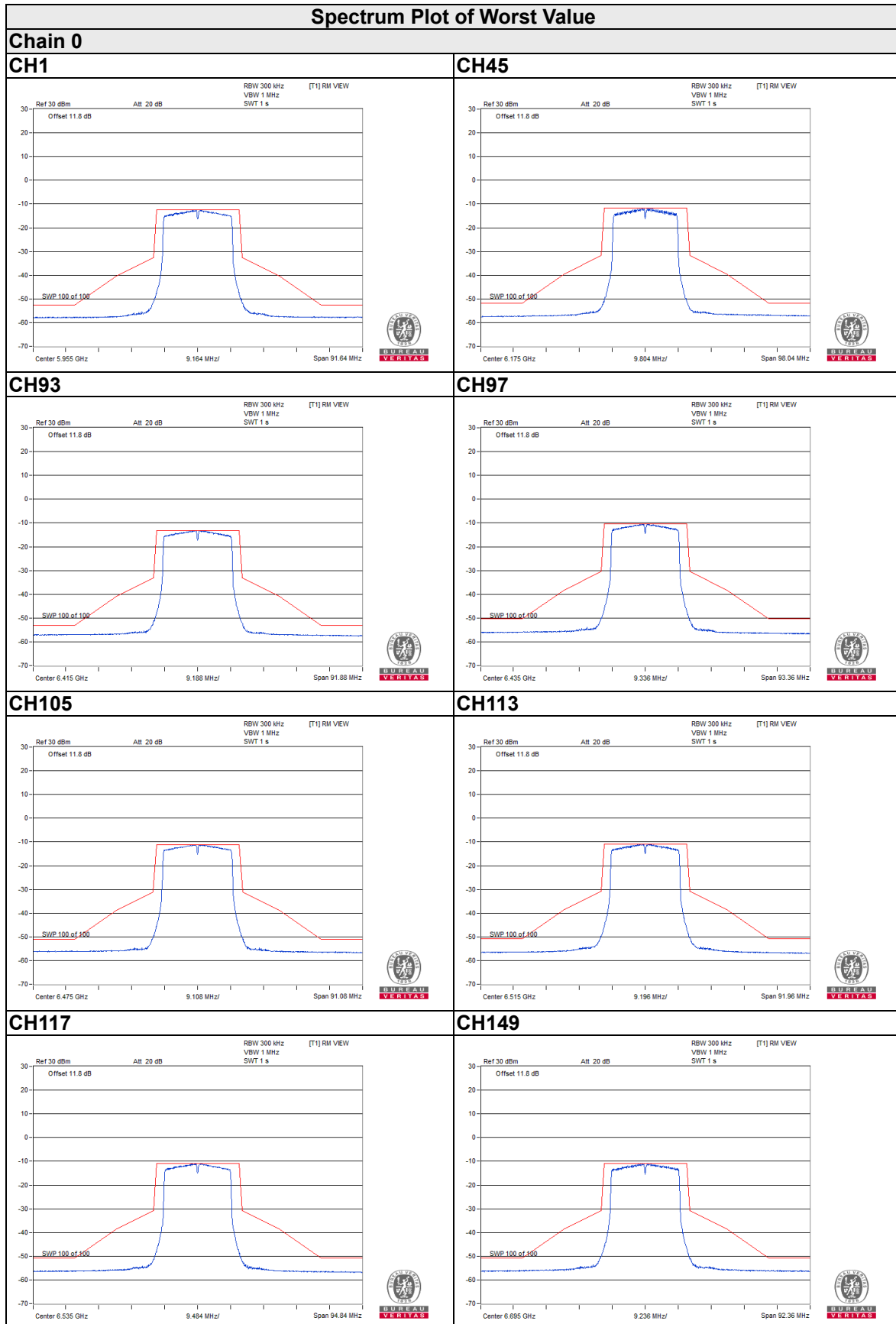
- a. Connect output of the antenna port to a spectrum analyzer and adjust appropriate attenuation.
- b. Measure the 26 dB EBW using the test procedure 12.4.1 of ANSI C63.10-2013. (Determine the channel edge.)
- c. Measure the power spectral density (for emissions mask reference) using the following procedure:
 - a) Set the span to encompass the entire 26 dB EBW of the signal.
 - b) Set RBW = same RBW used for 26 dB EBW measurement.
 - c) Set VBW $\geq 3 \times$ RBW
 - d) Number of points in sweep $\geq [2 \times \text{span} / \text{RBW}]$.
 - e) Sweep time = auto.
 - f) Detector = RMS (i.e., power averaging)
 - g) Trace average at least 100 traces in power averaging (rms) mode.
 - h) Use the peak search function on the instrument to find the peak of the spectrum.
- d. Using the measuring equipment limit line function, develop the emissions mask based on the following requirements. The emissions power spectral density must be reduced below the peak power spectral density (in dB) as follows:
 - a) Suppressed by 20 dB at 1 MHz outside of the channel edge. (The channel edge is defined as the 26-dB point on either side of the carrier center frequency.)
 - b) Suppressed by 28 dB at one channel bandwidth from the channel center.
 - c) Suppressed by 40 dB at one- and one-half times the channel bandwidth from the channel center.
- e. Adjust the span to encompass the entire mask as necessary and clear trace.
- f. Trace average at least 100 traces in power averaging (rms) mode.
- g. Adjust the reference level as necessary so that the crest of the channel touches the top of the emission mask

4.2.5 EUT Operating Condition

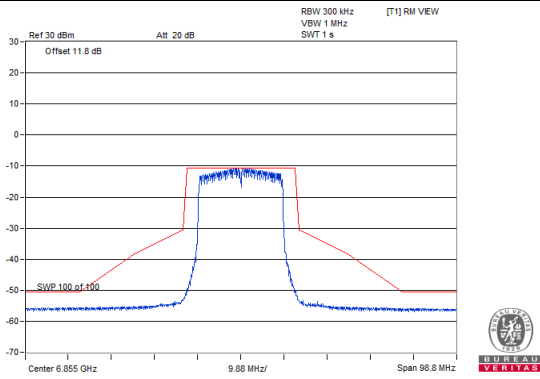
The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

4.2.6 Test Results

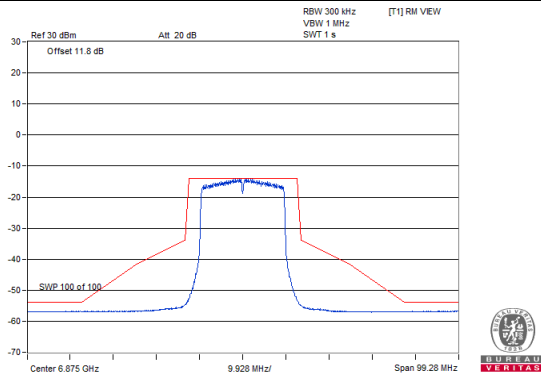
802.11ax (HE20)



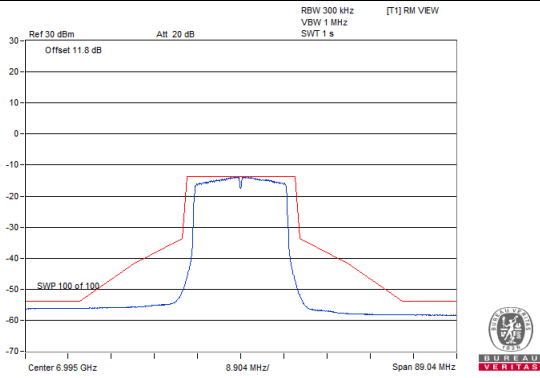
CH181



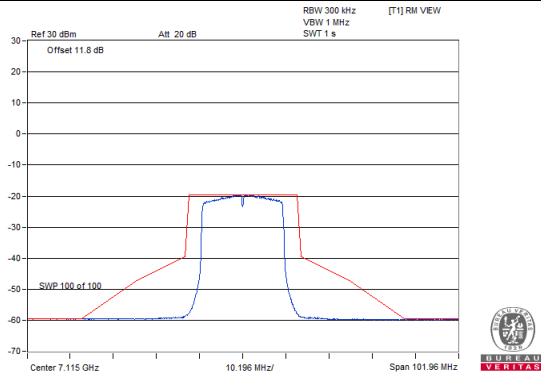
CH185



CH209



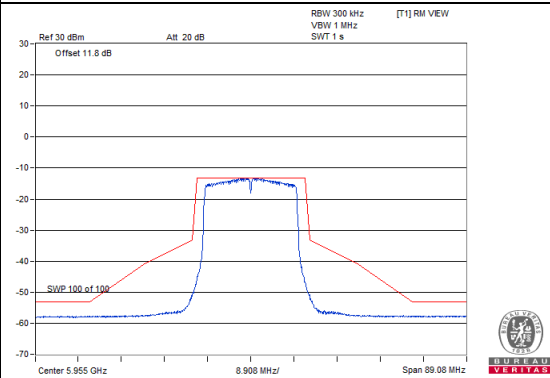
CH233



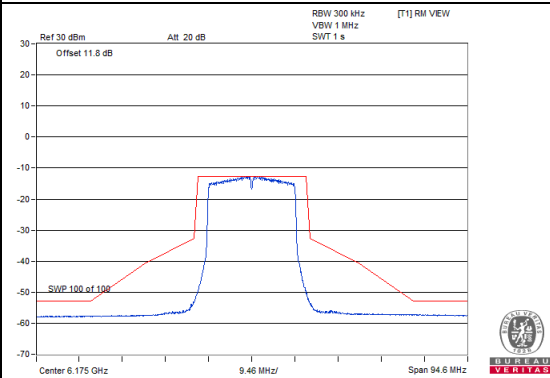
Spectrum Plot of Worst Value

Chain 1

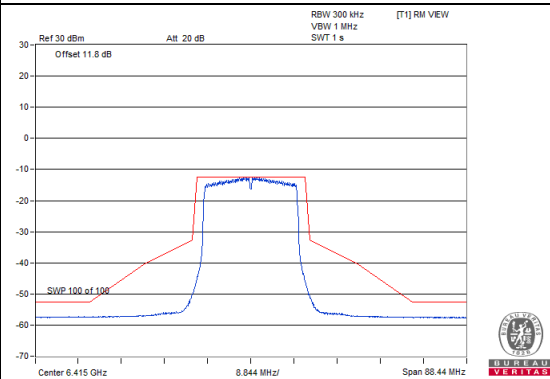
CH1



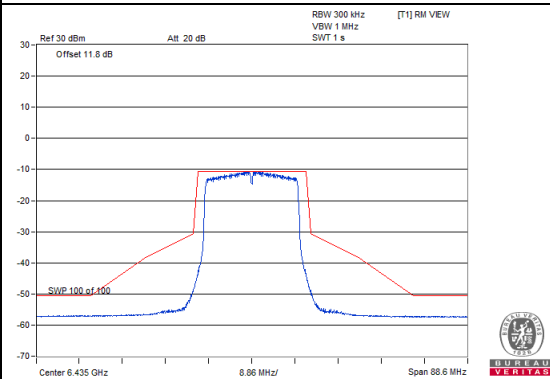
CH45



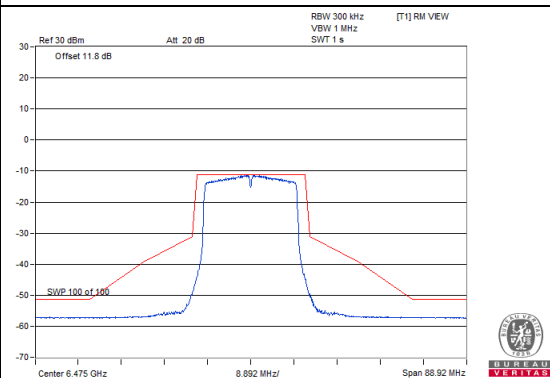
CH93



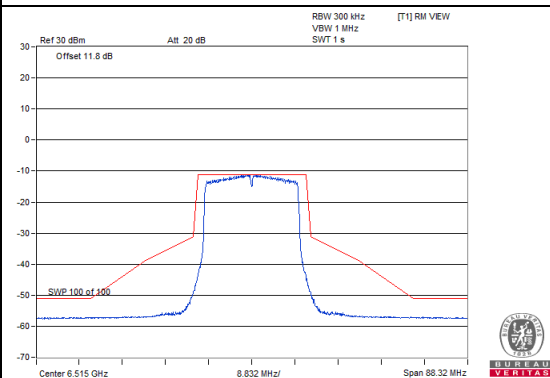
CH97



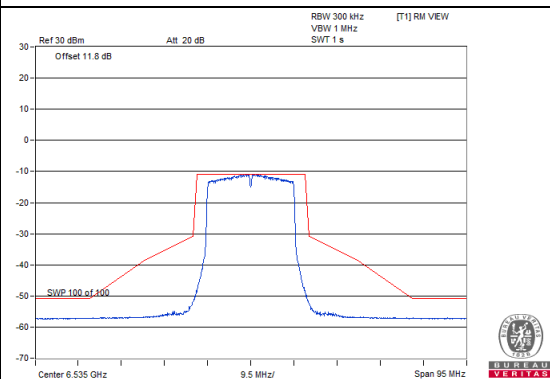
CH105



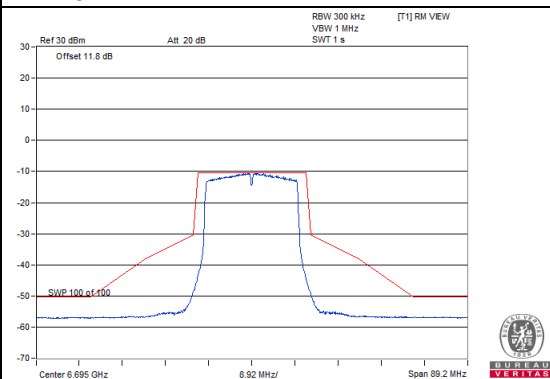
CH113



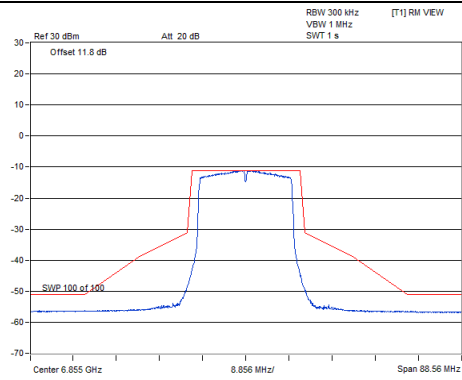
CH117



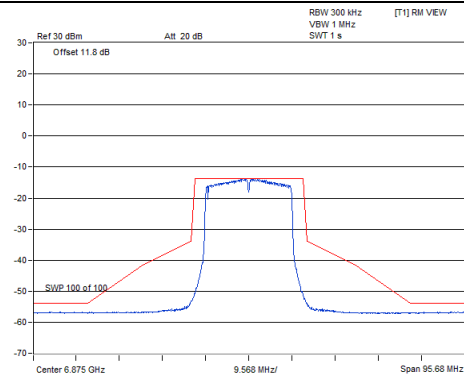
CH149



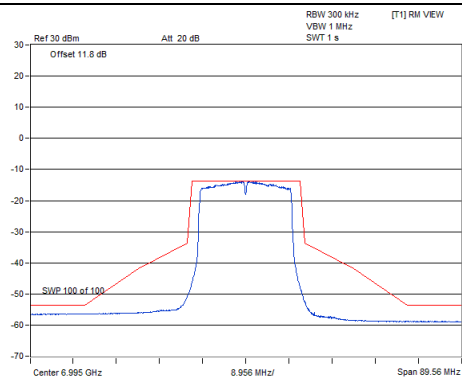
CH181



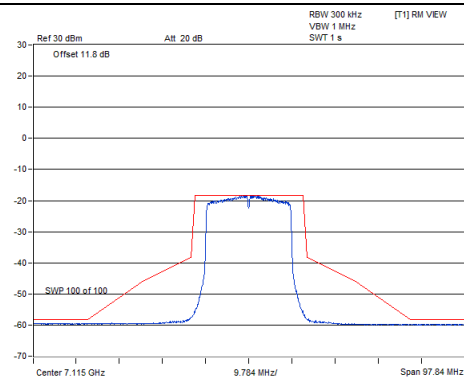
CH185



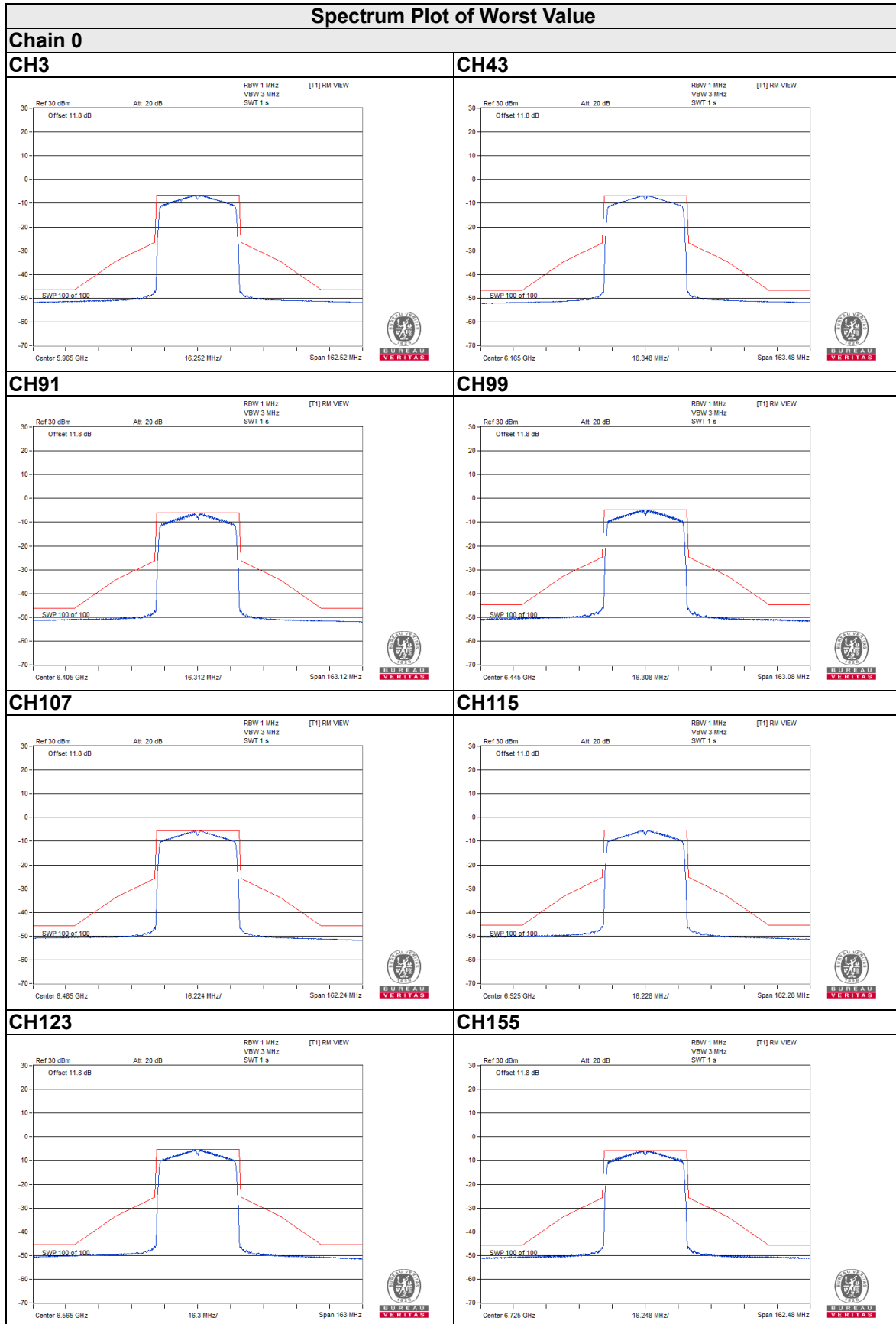
CH209



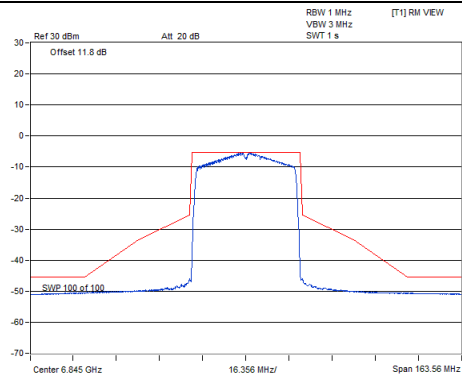
CH233



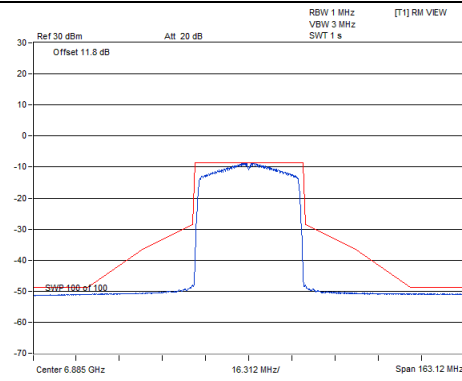
802.11ax (HE40)



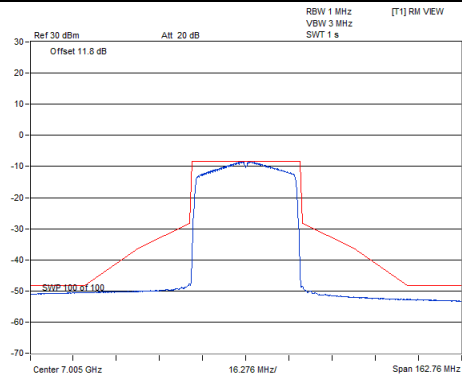
CH179



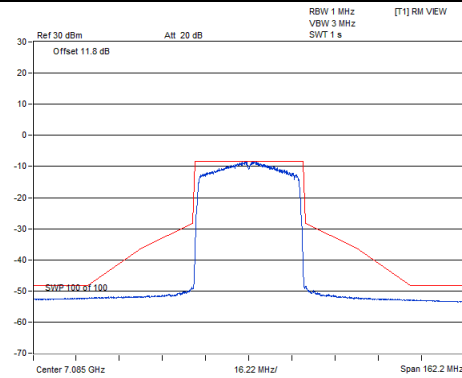
CH187



CH211



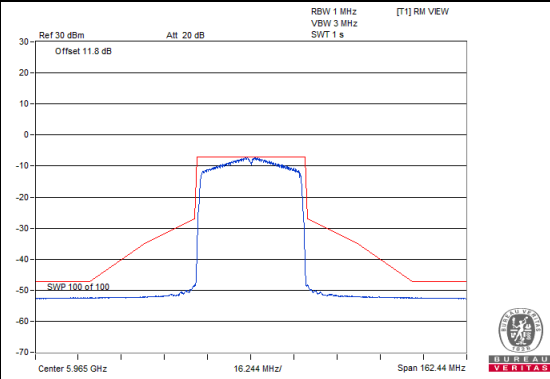
CH227



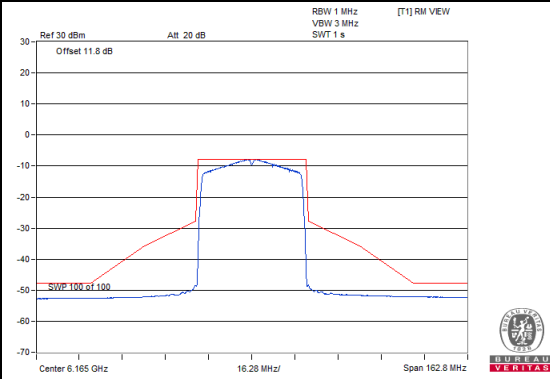
Spectrum Plot of Worst Value

Chain 1

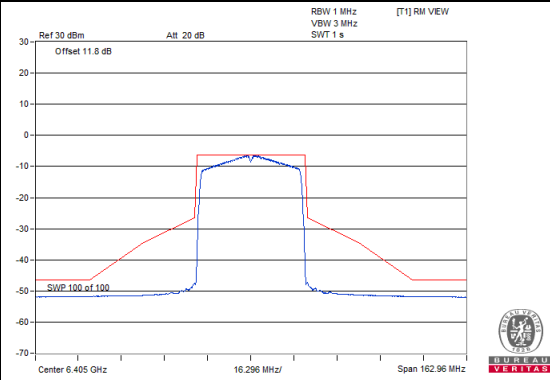
CH3



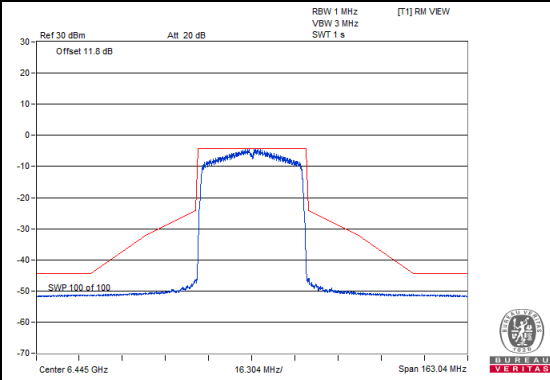
CH43



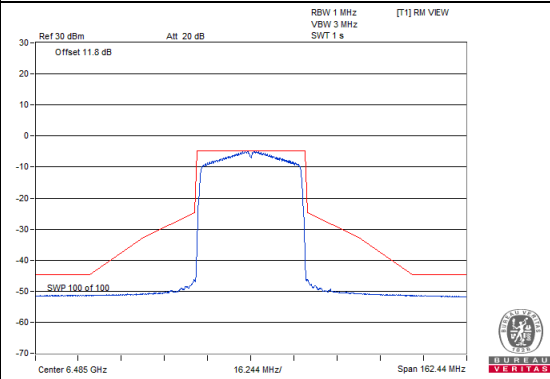
CH91



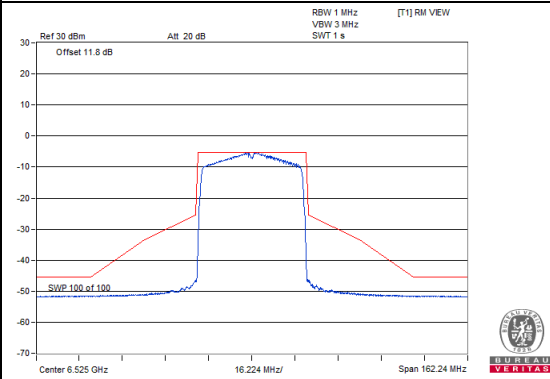
CH99



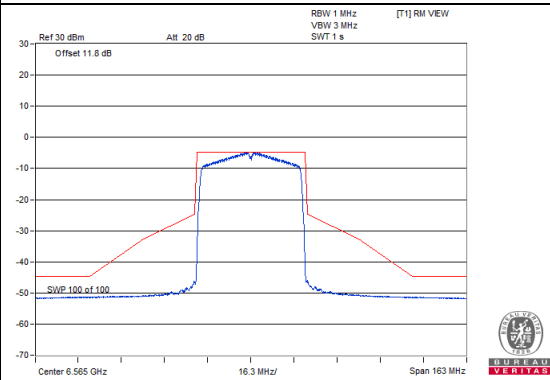
CH107



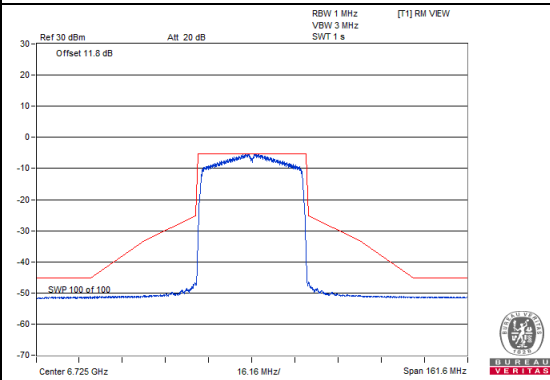
CH115



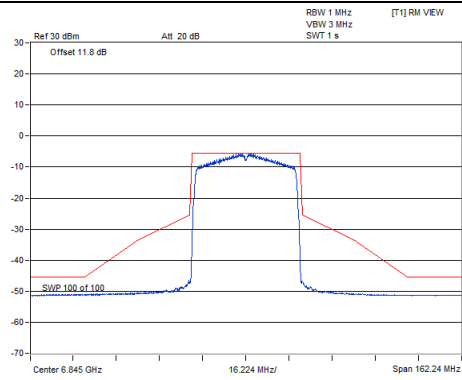
CH123



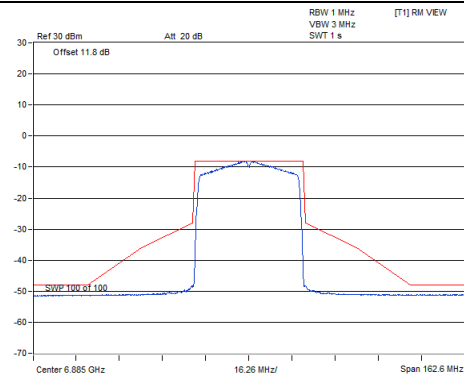
CH155



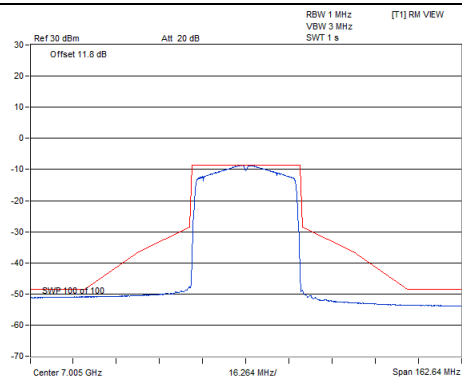
CH179



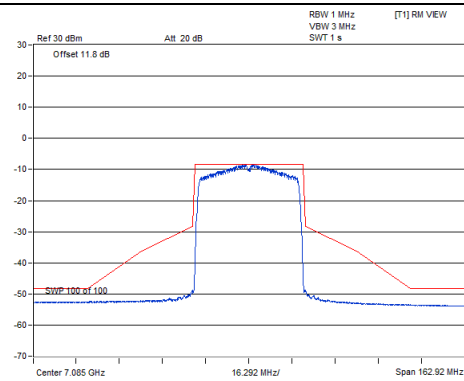
CH187



CH211



CH227

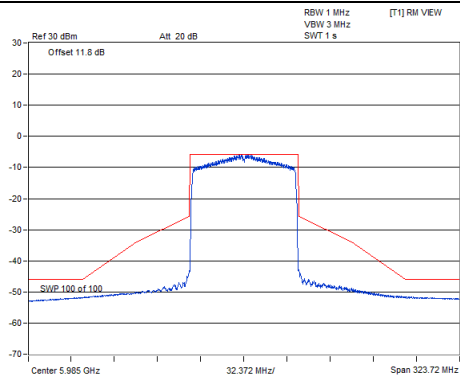


802.11ax (HE80)

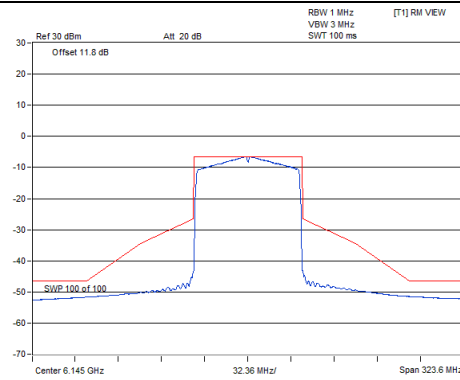
Spectrum Plot of Worst Value

Chain 0

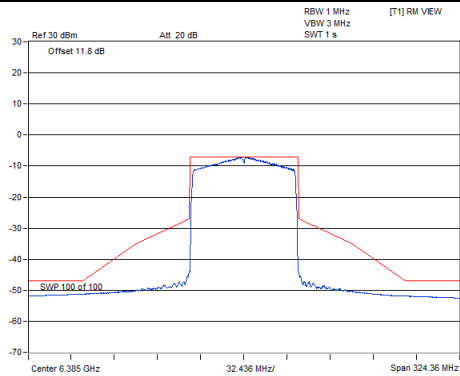
CH7



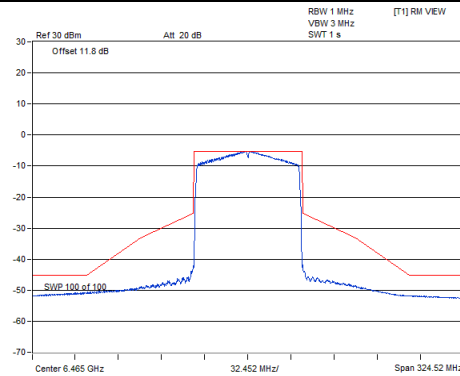
CH39



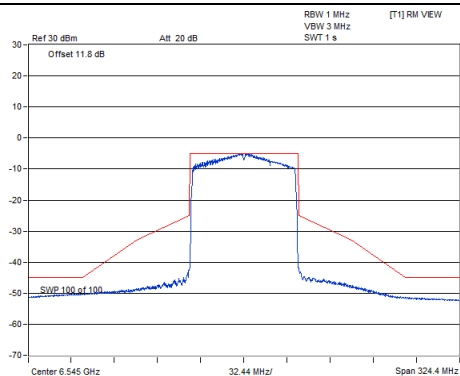
CH87



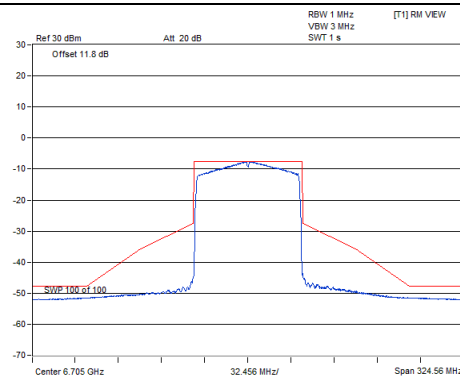
CH103



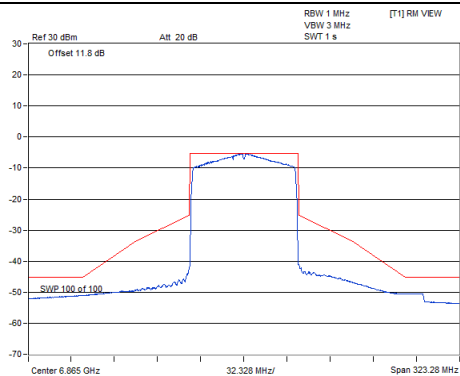
CH119



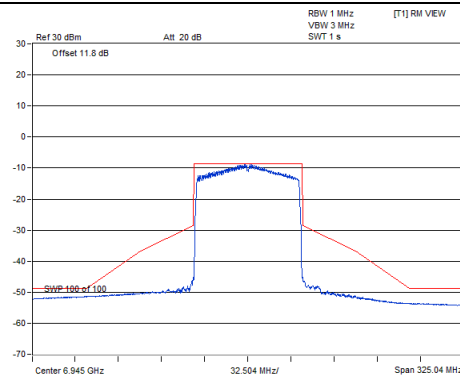
CH151



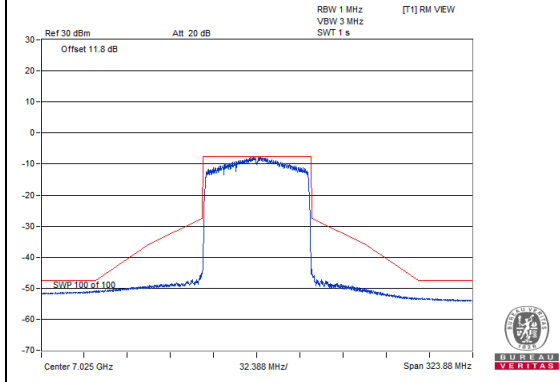
CH183



CH199



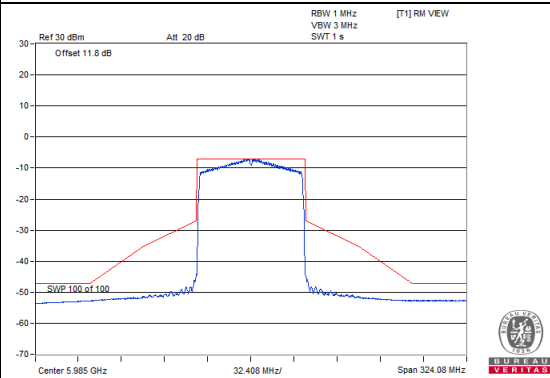
CH215



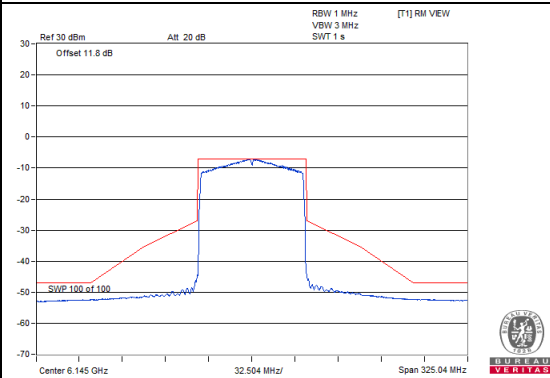
Spectrum Plot of Worst Value

Chain 1

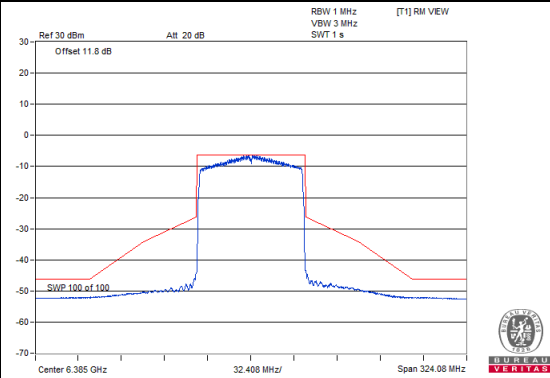
CH7



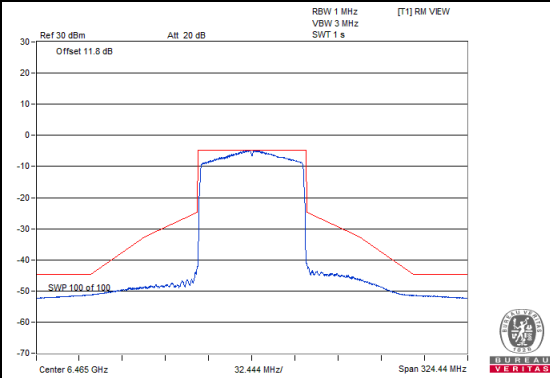
CH39



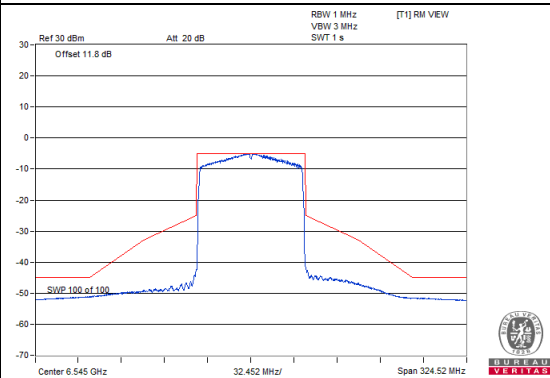
CH87



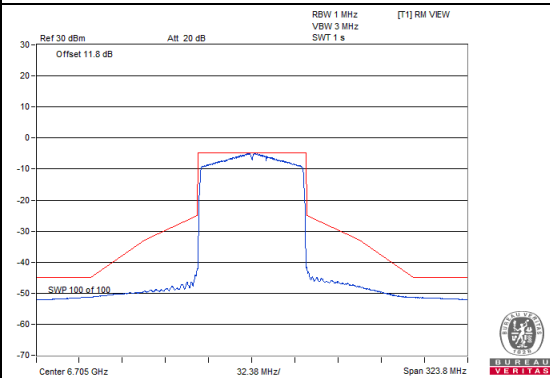
CH103



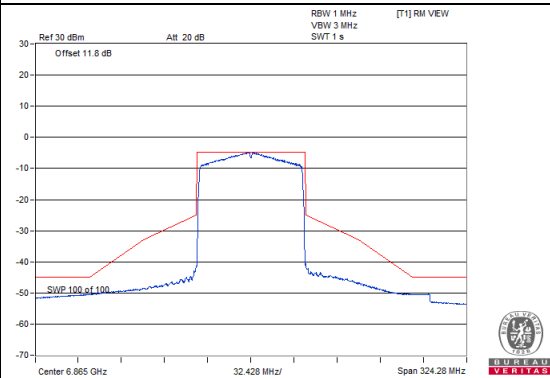
CH119



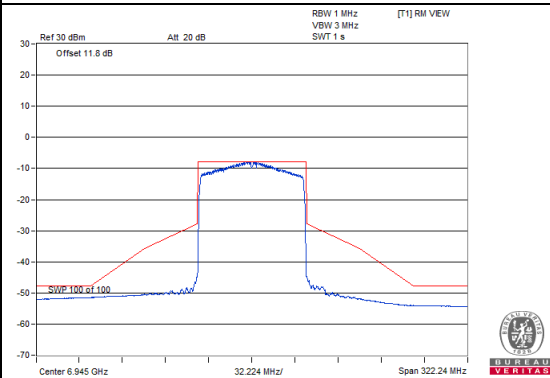
CH151



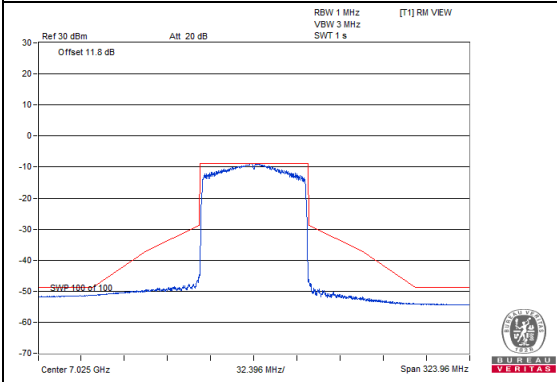
CH183



CH199



CH215



4.3 Conducted Emission Measurement

4.3.1 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 0.50MHz.

4.3.2 Test Instruments

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver R&S	ESCS 30	847124/029	2020/10/20	2021/10/19
LISN R&S	ESH3-Z5	848773/004	2020/10/27	2021/10/26
LISN R & S	ESH3-Z5	835239/001	2021/3/26	2022/3/25
50 ohms Terminator	50	3	2020/10/26	2021/10/25
RF Coaxial Cable JYEBO	5D-FB	COCCAB-001	2021/9/25	2022/9/24
Fixed attenuator STI	STI02-2200-10	005	2021/8/27	2022/8/26
Software BVADT	BVADT_Cond_V7.3.7.4	NA	NA	NA

Note:

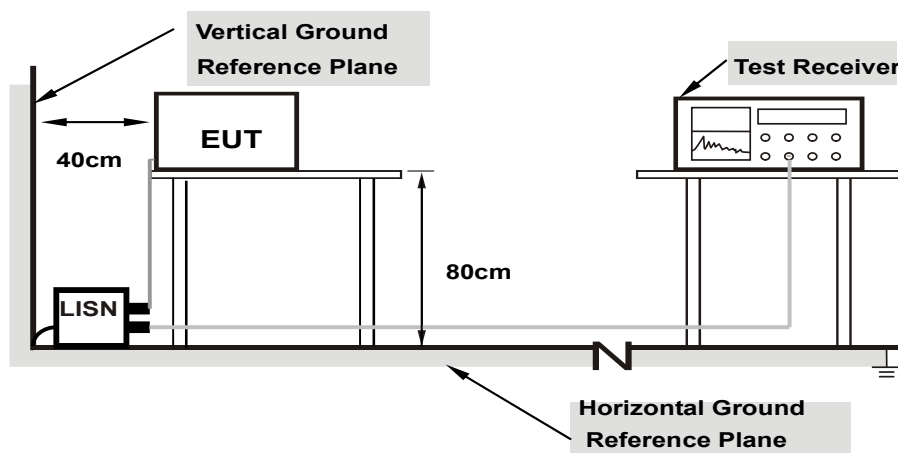
1. The calibration interval of the above test instruments are 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in Conduction 1.
- 3 Tested Date: 2021/10/1

4.3.3 Test Procedure

- 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.
- Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

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

4.3.4 Test Setup



Note: 1.Support units were connected to second LISN.

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

4.3.5 EUT Operating Condition

Same as 4.1.5

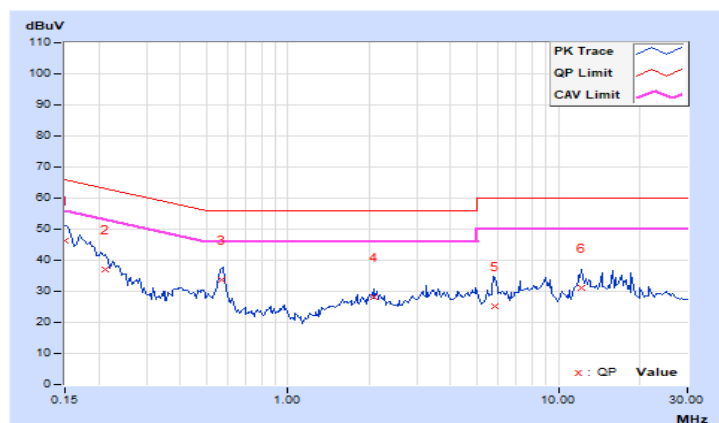
4.3.6 Test Results

RF Mode	TX 802.11ax (HE80)	Channel	CH 103 : 6465 MHz
Frequency Range	150kHz ~ 30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9kHz
Input Power (System)	120Vac, 60Hz	Environmental Conditions	25 °C, 66% RH
Tested By	Tom Yang		

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	0.15000	10.05	36.18	20.19	46.23	30.24	66.00	56.00	-19.77	-25.76
2	0.21250	10.05	26.94	10.24	36.99	20.29	63.11	53.11	-26.12	-32.82
3	0.56797	10.08	23.50	17.44	33.58	27.52	56.00	46.00	-22.42	-18.48
4	2.08594	10.16	18.05	8.27	28.21	18.43	56.00	46.00	-27.79	-27.57
5	5.84375	10.37	14.69	9.09	25.06	19.46	60.00	50.00	-34.94	-30.54
6	12.20313	10.75	20.19	14.86	30.94	25.61	60.00	50.00	-29.06	-24.39

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

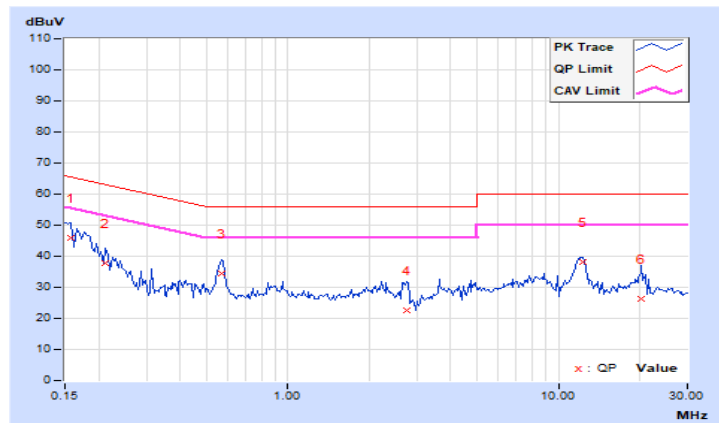


RF Mode	TX 802.11ax (HE80)	Channel	CH 103 : 6465 MHz
Frequency Range	150kHz ~ 30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9kHz
Input Power (System)	120Vac, 60Hz	Environmental Conditions	25 °C, 66% RH
Tested By	Tom Yang		

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	0.15781	10.02	35.82	16.24	45.84	26.26	65.58	55.58	-19.74	-29.32
2	0.21250	10.03	27.78	9.94	37.81	19.97	63.11	53.11	-25.30	-33.14
3	0.56797	10.05	24.26	18.02	34.31	28.07	56.00	46.00	-21.69	-17.93
4	2.73828	10.16	12.52	4.33	22.68	14.49	56.00	46.00	-33.32	-31.51
5	12.32422	10.60	27.72	16.60	38.32	27.20	60.00	50.00	-21.68	-22.80
6	20.14063	10.95	15.19	7.21	26.14	18.16	60.00	50.00	-33.86	-31.84

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



4.4 Transmit Power Measurement

4.4.1 Limits of Transmit Power Measurement

Operation Band	EUT Category	Limit
		Max Average Power
U-NII-5 U-NII-6 U-NII-7 U-NII-8	Client Devices (controlled of an indoor AP)	EIRP 24 dBm

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

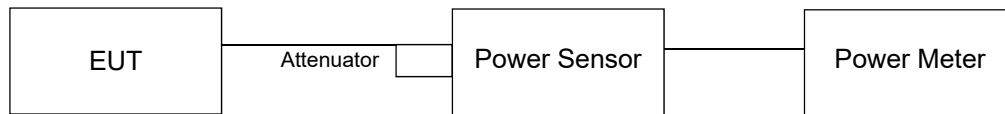
Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;

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.

4.4.2 Test Setup



4.4.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.4.4 Test Procedure

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.

4.4.5 EUT Operating Condition

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

4.4.6 Test Result

Power Output:

802.11ax (HE20)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Max. Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Pass / Fail
		Chain 0	Chain 1							
1	5955	4.29	3.73	5.046	7.03	1.81	7.656	8.84	24	Pass
45	6175	4.49	4.04	5.347	7.28	1.81	8.11	9.09	24	Pass
93	6415	3.73	4.10	4.931	6.93	1.81	7.482	8.74	24	Pass
97	6435	5.82	5.94	7.746	8.89	0.29	8.279	9.18	24	Pass
105	6475	5.25	5.46	6.865	8.37	0.29	7.345	8.66	24	Pass
113	6515	5.28	5.47	6.897	8.39	0.29	7.379	8.68	24	Pass
117	6535	5.65	5.85	7.519	8.76	0.20	7.87	8.96	24	Pass
149	6695	5.77	5.88	7.648	8.84	0.20	8.017	9.04	24	Pass
181	6855	5.02	5.64	6.841	8.35	0.20	7.161	8.55	24	Pass
185	6875	2.42	3.06	3.769	5.76	2.08	6.081	7.84	24	Pass
209	6995	3.34	3.24	4.266	6.30	2.08	6.887	8.38	24	Pass
233	7115	-2.30	-1.47	1.3017	1.15	2.08	2.104	3.23	24	Pass

802.11ax (HE40)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Max. Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Pass / Fail
		Chain 0	Chain 1							
3	5965	7.60	6.51	10.232	10.10	1.81	15.524	11.91	24	Pass
43	6165	7.05	6.36	9.395	9.73	1.81	14.256	11.54	24	Pass
91	6405	7.17	7.19	10.448	10.19	1.81	15.849	12	24	Pass
99	6445	8.73	9.07	15.537	11.91	0.29	16.596	12.2	24	Pass
107	6485	8.07	8.57	13.607	11.34	0.29	14.555	11.63	24	Pass
115	6525	8.25	8.55	13.845	11.41	0.29	14.791	11.7	24	Pass
123	6565	8.35	8.69	14.235	11.53	0.20	14.894	11.73	24	Pass
155	6725	8.03	8.38	13.24	11.22	0.20	13.868	11.42	24	Pass
179	6845	8.49	8.03	13.416	11.28	0.20	14.06	11.48	24	Pass
187	6885	5.45	5.77	7.283	8.62	2.08	11.749	10.7	24	Pass
211	7005	5.79	5.53	7.366	8.67	2.08	11.885	10.75	24	Pass
227	7085	5.47	5.56	7.121	8.53	2.08	11.508	10.61	24	Pass

802.11ax (HE80)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Max. Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Pass / Fail
		Chain 0	Chain 1							
7	5985	10.65	10.11	21.871	13.40	1.81	33.189	15.21	24	Pass
39	6145	10.72	10.02	21.849	13.39	1.81	33.113	15.2	24	Pass
87	6385	10.06	10.33	20.929	13.21	1.81	31.769	15.02	24	Pass
103	6465	11.83	12.38	32.539	15.12	0.29	34.754	15.41	24	Pass
119	6545	11.88	12.20	32.013	15.05	0.29	34.198	15.34	24	Pass
151	6705	11.69	12.09	30.938	14.90	0.20	32.359	15.1	24	Pass
183	6865	11.86	12.29	32.29	15.09	2.08	52.119	17.17	24	Pass
199	6945	8.02	9.32	14.889	11.73	2.08	24.044	13.81	24	Pass
215	7025	8.98	8.61	15.168	11.81	2.08	24.491	13.89	24	Pass

4.5 Emission Bandwidth Measurement

4.5.1 Limits of Emission Bandwidth Measurement

The fundamental bandwidth shall be less than 320MHz.

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 Procedure

FOR 99% OCCUPIED BANDWIDTH

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.

FOR 26dB BANDWIDTH

- Set RBW = approximately 1% of the emission bandwidth.
- Set the VBW > RBW.
- Detector = Peak.
- Trace mode = max hold.
- 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%.

4.5.5 Test Results

99% Occupied Bandwidth:
802.11ax (HE20)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain0	Chain1
1	5955	19.05	19.05
45	6175	19.08	19.08
93	6415	19.2	19.08
97	6435	19.2	19.13
105	6475	19.2	19.08
113	6515	19.08	19.08
117	6535	19.2	19.2
149	6695	19.13	18.96
181	6855	19.04	18.96
185	6875	18.96	19.13
209	6995	19.08	19.08
233	7115	18.96	19.13

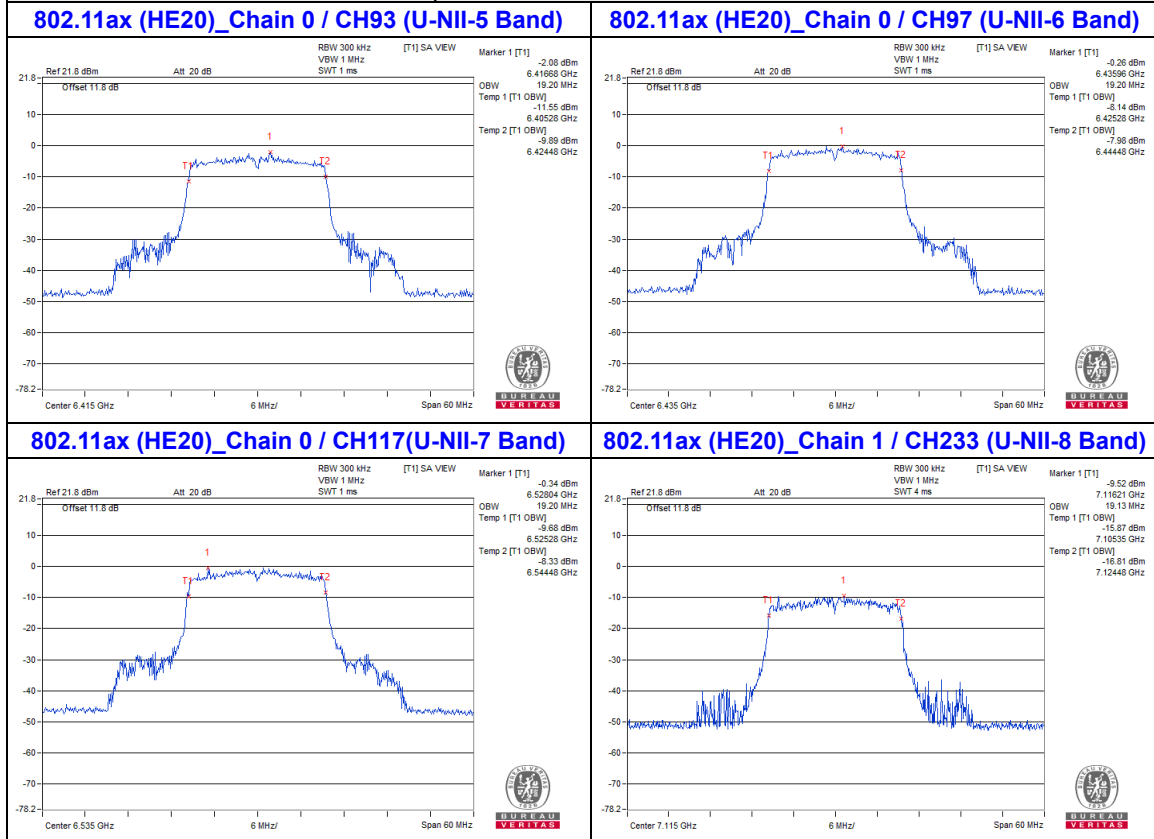
802.11ax (HE40)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain0	Chain1
3	5965	37.74	38.43
43	6165	37.68	37.68
91	6405	37.68	37.68
99	6445	37.68	37.68
107	6485	37.68	37.68
115	6525	38.26	38.26
123	6565	38.43	37.68
155	6725	37.68	37.68
179	6845	37.68	37.68
187	6885	38.26	37.68
211	7005	37.74	37.68
227	7085	37.57	37.68

802.11ax (HE80)

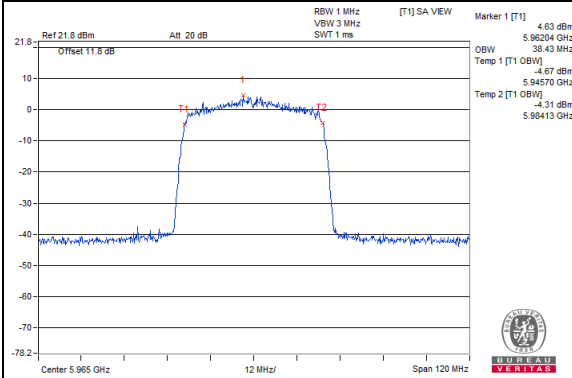
Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain0	Chain1
7	5985	76.87	77.92
39	6145	77.28	76.8
87	6385	76.8	76.8
103	6465	76.8	77.28
119	6545	76.8	76.8
151	6705	77.57	77.28
183	6865	76.87	77.28
199	6945	77.91	76.87
215	7025	76.8	76.52

Spectrum Plot of Max. Value

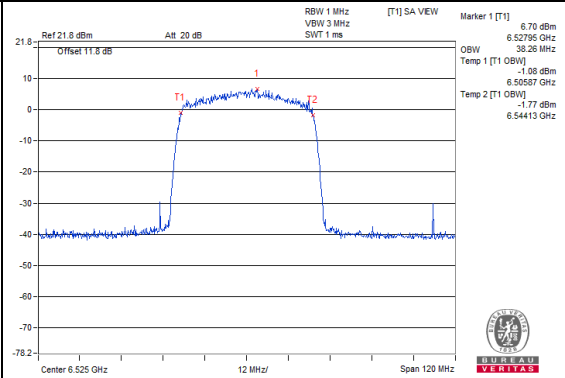


Spectrum Plot of Max. Value

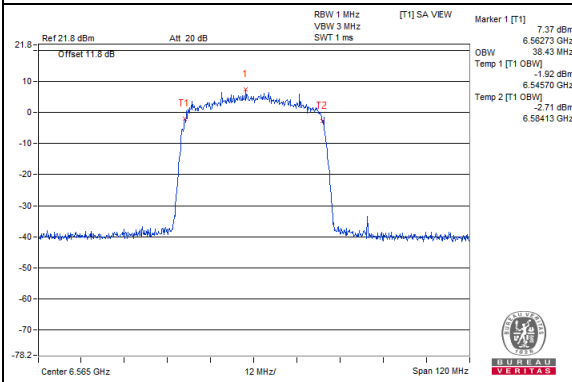
802.11ax (HE40)_Chain 1 / CH3 (U-NII-5 Band)



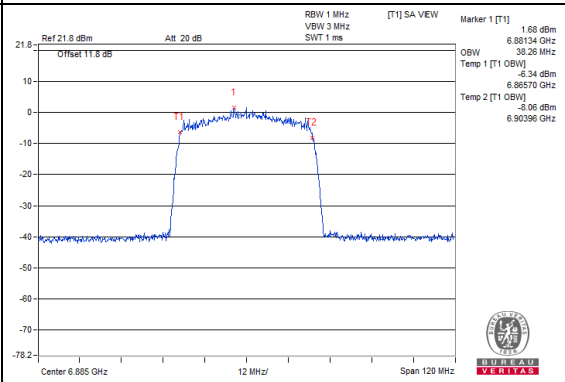
802.11ax (HE40)_Chain 0 / CH15 (U-NII-6 Band)



802.11ax (HE40)_Chain 0 / CH123 (U-NII-7 Band)

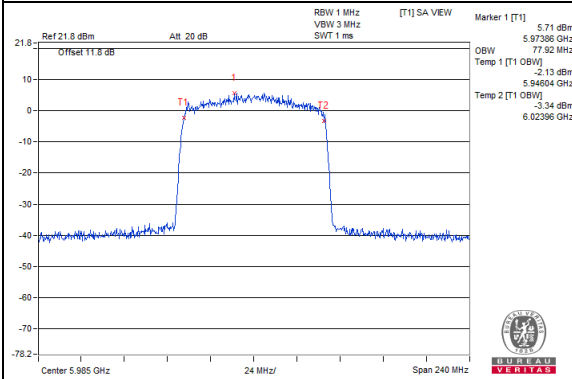


802.11ax (HE40)_Chain 0 / CH187 (U-NII-8 Band)

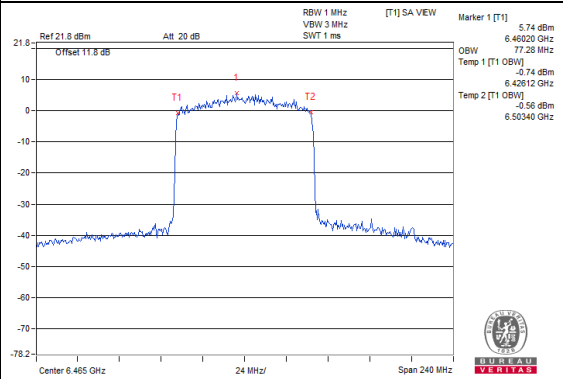


Spectrum Plot of Max. Value

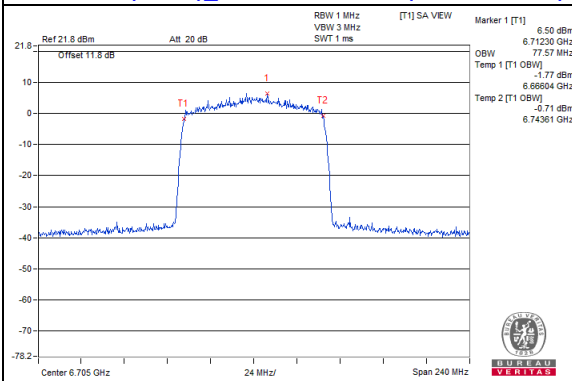
802.11ax (HE80)_Chain 1 / CH7 (U-NII-5 Band)



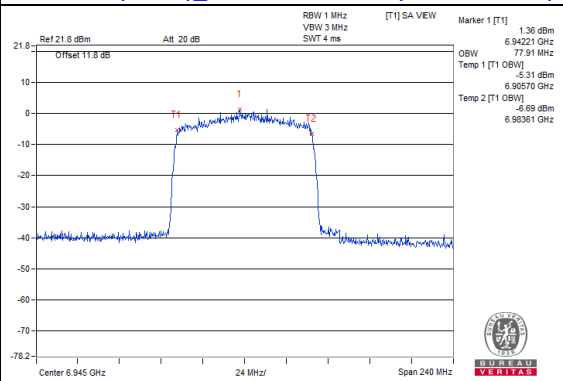
802.11ax (HE80)_Chain 1 / CH103 (U-NII-6 Band)



802.11ax (HE80)_Chain 0 / CH151 (U-NII-7 Band)



802.11ax (HE80)_Chain 0 / CH199 (U-NII-8 Band)



26dB Bandwidth:
802.11ax (HE20)

Channel	Frequency (MHz)	26dB Bandwidth (MHz)		
		Chain 0	Chain 1	Limit
1	5955	22.91	22.27	320
45	6175	24.51	23.65	320
93	6415	22.97	22.11	320
97	6435	23.34	22.15	320
105	6475	22.77	22.23	320
113	6515	22.99	22.08	320
117	6535	23.71	23.75	320
149	6695	23.09	22.3	320
181	6855	24.7	22.14	320
185	6875	24.82	23.92	320
209	6995	22.26	22.39	320
233	7115	25.49	24.46	320

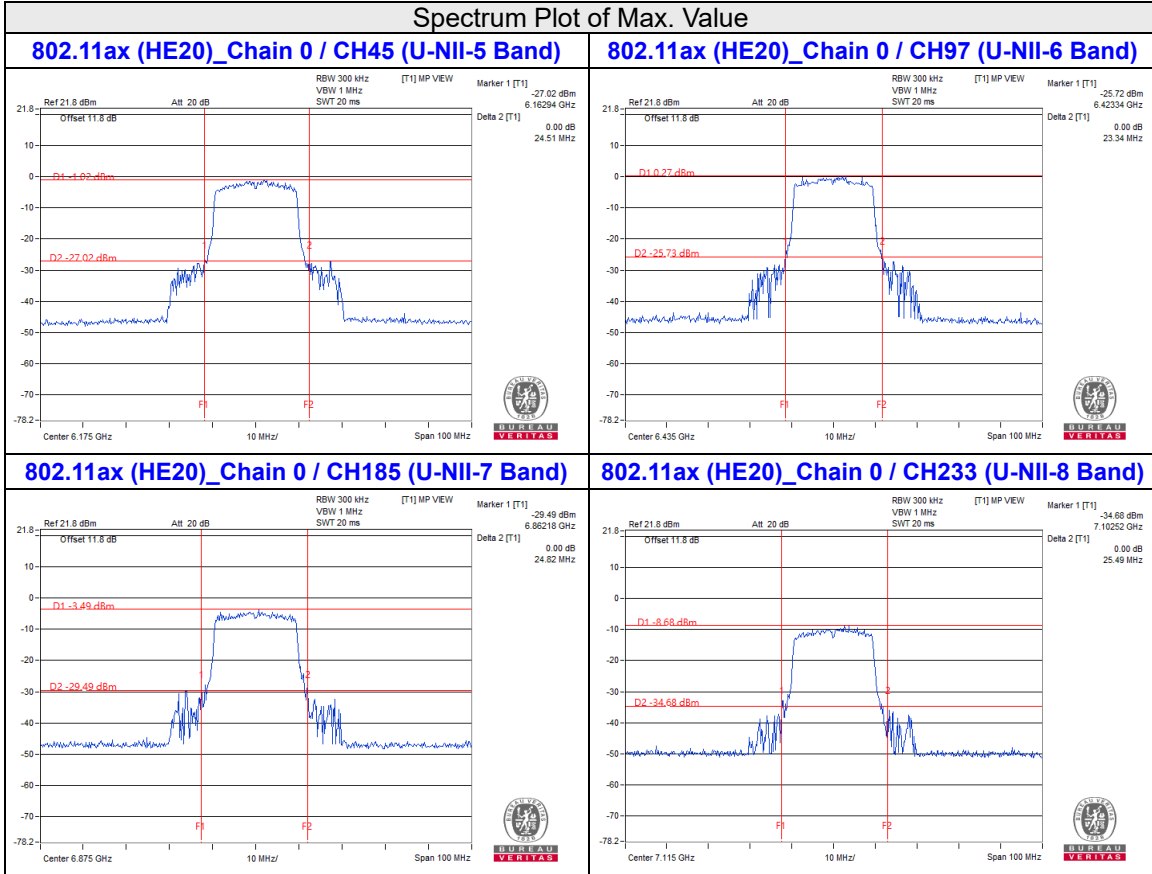
802.11ax (HE40)

Channel	Frequency (MHz)	26dB Bandwidth (MHz)		
		Chain 0	Chain 1	Limit
3	5965	40.63	40.61	320
43	6165	40.87	40.7	320
91	6405	40.78	40.74	320
99	6445	40.77	40.76	320
107	6485	40.56	40.61	320
115	6525	40.57	40.56	320
123	6565	40.75	40.75	320
155	6725	40.62	40.4	320
179	6845	40.89	40.56	320
187	6885	40.78	40.65	320
211	7005	40.69	40.66	320
227	7085	40.55	40.73	320

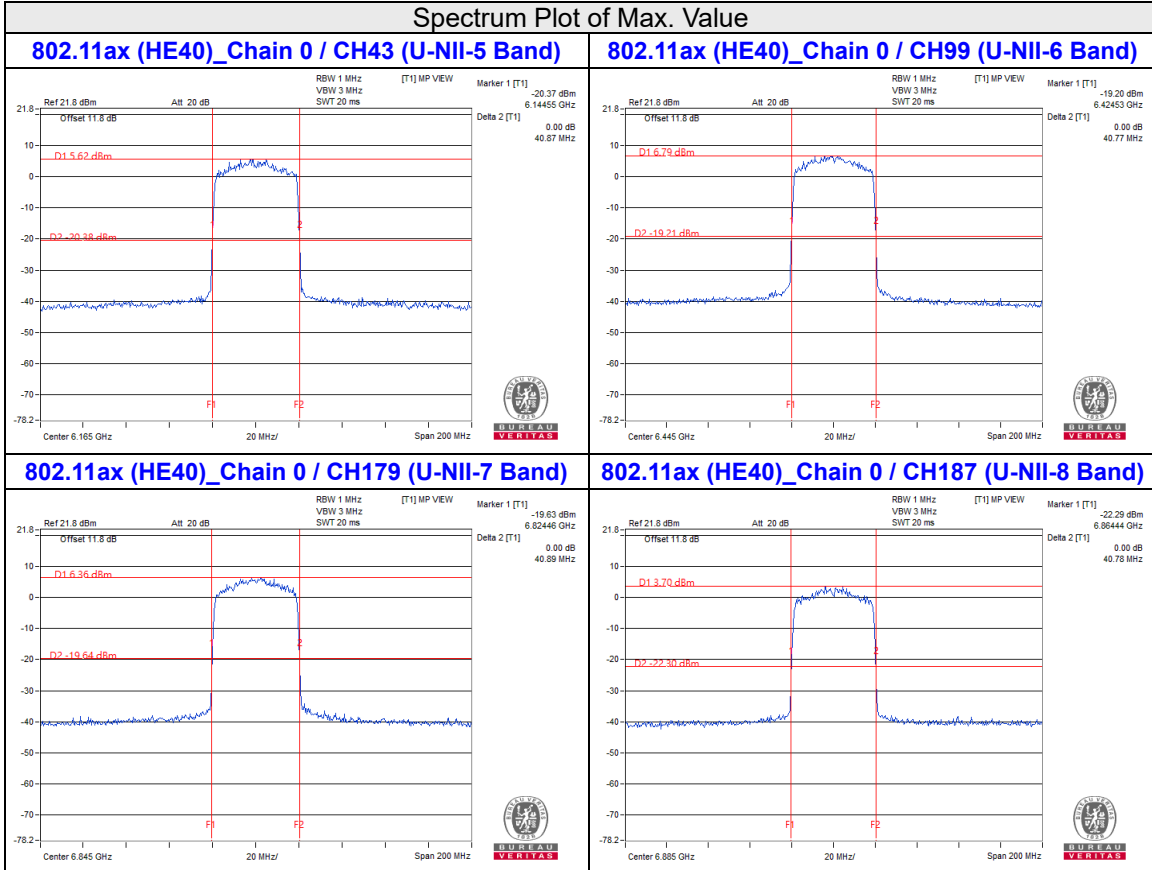
802.11ax (HE80)

Channel	Frequency (MHz)	26dB Bandwidth (MHz)		
		Chain 0	Chain 1	Limit
7	5985	80.93	81.02	320
39	6145	80.9	81.26	320
87	6385	81.09	81.02	320
103	6465	81.13	81.11	320
119	6545	81.1	81.13	320
151	6705	81.14	80.95	320
183	6865	80.82	81.07	320
199	6945	81.26	80.56	320
215	7025	80.97	80.99	320

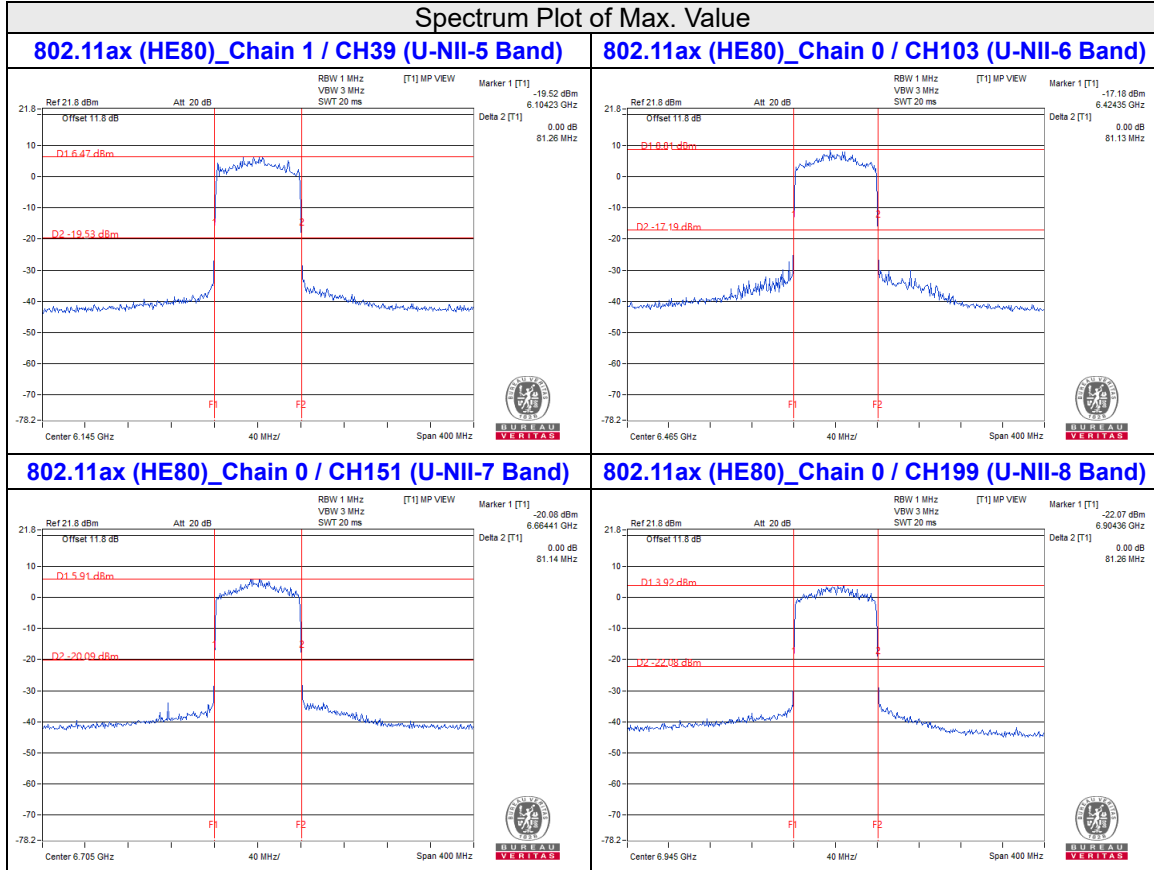
Spectrum Plot of Max. Value



Spectrum Plot of Max. Value



Spectrum Plot of Max. Value



4.6 Peak Power Spectral Density Measurement

4.6.1 Limits of Peak Power Spectral Density Measurement

Operation Band	EUT Category	Limit
		Peak Power Density (EIRP)
U-NII-5 U-NII-6 U-NII-7 U-NII-8	Client Devices (controlled of an indoor AP)	-1 dBm/MHz

4.6.2 Test Setup



4.6.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.6.4 Test Procedure

Using method SA-2

- Set span to encompass the entire emission bandwidth (EBW) of the signal.
- Set RBW = 1 MHz, Set VBW \geq 3 MHz
- Sweep time = auto, trigger set to "free run".
- Detector = RMS
- Trace average at least 100 traces in power averaging mode.
- Record the max value and add $10 \log (1/\text{duty cycle})$

4.6.5 EUT Operating Condition

Same as Item 4.4.5.

4.6.6 Test Results

802.11ax (HE20)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)		Duty Factor (dB)	Total PSD (dBm/MHz)	Directional Gain (dBi)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1						
1	5955	-9.77	-10.16	0.70	-6.26	4.78	-1.48	-1.00	Pass
45	6175	-9.91	-9.63	0.70	-6.06	4.78	-1.28	-1.00	Pass
93	6415	-10.10	-9.59	0.70	-6.13	4.78	-1.35	-1.00	Pass
97	6435	-8.09	-7.88	0.70	-4.28	3.13	-1.15	-1.00	Pass
105	6475	-8.24	-7.70	0.70	-4.26	3.13	-1.13	-1.00	Pass
113	6515	-8.53	-7.73	0.70	-4.41	3.13	-1.28	-1.00	Pass
117	6535	-8.06	-7.94	0.70	-4.29	3.09	-1.20	-1.00	Pass
149	6695	-8.11	-7.57	0.70	-4.13	3.09	-1.04	-1.00	Pass
181	6855	-8.89	-7.89	0.70	-4.66	3.09	-1.57	-1.00	Pass
185	6875	-10.14	-9.66	0.70	-6.19	4.70	-1.49	-1.00	Pass
209	6995	-9.47	-9.37	0.70	-5.71	4.70	-1.01	-1.00	Pass
233	7115	-16.64	-16.34	0.70	-12.78	4.70	-8.08	-1.00	Pass

Note: 1. Method a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.

2. U-NII-5: Directional gain = $10 \log[(10^{G0/20} + 10^{G1/20})^2 / 2] = 4.78 \text{ dBi}$
3. U-NII-6: Directional gain = $10 \log[(10^{G0/20} + 10^{G1/20})^2 / 2] = 3.13 \text{ dBi}$
4. U-NII-7: Directional gain = $10 \log[(10^{G0/20} + 10^{G1/20})^2 / 2] = 3.09 \text{ dBi}$
5. U-NII-8: Directional gain = $10 \log[(10^{G0/20} + 10^{G1/20})^2 / 2] = 4.7 \text{ dBi}$
6. Refer to section 3.3 for duty cycle spectrum plot.

802.11ax (HE40)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)		Duty Factor (dB)	Total PSD (dBm/MHz)	Directional Gain (dBi)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1						
3	5965	-9.48	-10.79	1.25	-5.83	4.78	-1.05	-1.00	Pass
43	6165	-10.21	-10.71	1.25	-6.19	4.78	-1.41	-1.00	Pass
91	6405	-10.35	-9.93	1.25	-5.88	4.78	-1.10	-1.00	Pass
99	6445	-8.42	-8.47	1.25	-4.19	3.13	-1.06	-1.00	Pass
107	6485	-8.91	-8.51	1.25	-4.45	3.13	-1.32	-1.00	Pass
115	6525	-8.26	-8.54	1.25	-4.14	3.13	-1.01	-1.00	Pass
123	6565	-8.32	-8.41	1.25	-4.10	3.09	-1.01	-1.00	Pass
155	6725	-8.86	-8.35	1.25	-4.34	3.09	-1.25	-1.00	Pass
179	6845	-8.45	-8.68	1.25	-4.30	3.09	-1.21	-1.00	Pass
187	6885	-9.91	-10.14	1.25	-5.76	4.70	-1.06	-1.00	Pass
211	7005	-9.57	-10.48	1.25	-5.74	4.70	-1.04	-1.00	Pass
227	7085	-10.04	-9.91	1.25	-5.71	4.70	-1.01	-1.00	Pass

Note: 1. Method a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.

2. U-NII-5: Directional gain = $10 \log[(10^{G0/20} + 10^{G1/20})^2 / 2] = 4.78 \text{ dBi}$
3. U-NII-6: Directional gain = $10 \log[(10^{G0/20} + 10^{G1/20})^2 / 2] = 3.13 \text{ dBi}$
4. U-NII-7: Directional gain = $10 \log[(10^{G0/20} + 10^{G1/20})^2 / 2] = 3.09 \text{ dBi}$
5. U-NII-8: Directional gain = $10 \log[(10^{G0/20} + 10^{G1/20})^2 / 2] = 4.7 \text{ dBi}$
6. Refer to section 3.3 for duty cycle spectrum plot.

802.11ax (HE80)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)		Duty Factor (dB)	Total PSD (dBm/MHz)	Directional Gain (dBi)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1						
7	5985	-10.91	-11.58	2.28	-5.95	4.78	-1.17	-1.00	Pass
39	6145	-10.89	-11.41	2.28	-5.86	4.78	-1.08	-1.00	Pass
87	6385	-11.07	-11.14	2.28	-5.82	4.78	-1.04	-1.00	Pass
103	6465	-9.95	-9.39	2.28	-4.37	3.13	-1.24	-1.00	Pass
119	6545	-9.68	-9.58	2.28	-4.34	3.13	-1.21	-1.00	Pass
151	6705	-9.60	-9.60	2.28	-4.31	3.09	-1.22	-1.00	Pass
183	6865	-11.24	-10.89	2.28	-5.78	4.70	-1.08	-1.00	Pass
199	6945	-12.03	-10.53	2.28	-5.93	4.70	-1.23	-1.00	Pass
215	7025	-10.78	-11.29	2.28	-5.74	4.70	-1.04	-1.00	Pass

Note: 1. Method a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.

2. U-NII-5: Directional gain = $10 \log[(10^{G0/20} + 10^{G1/20})^2 / 2] = 4.78 \text{ dBi}$

3. U-NII-6: Directional gain = $10 \log[(10^{G0/20} + 10^{G1/20})^2 / 2] = 3.13 \text{ dBi}$

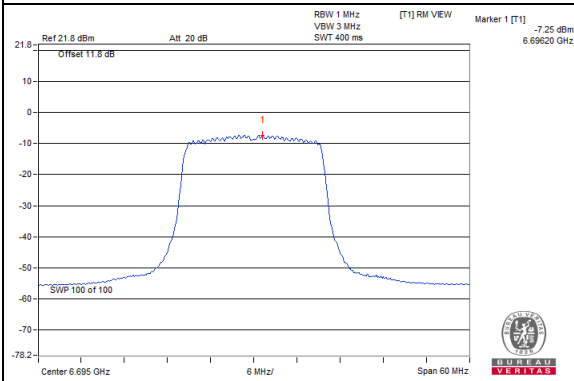
4. U-NII-7: Directional gain = $10 \log[(10^{G0/20} + 10^{G1/20})^2 / 2] = 3.09 \text{ dBi}$

5. U-NII-8: Directional gain = $10 \log[(10^{G0/20} + 10^{G1/20})^2 / 2] = 4.7 \text{ dBi}$

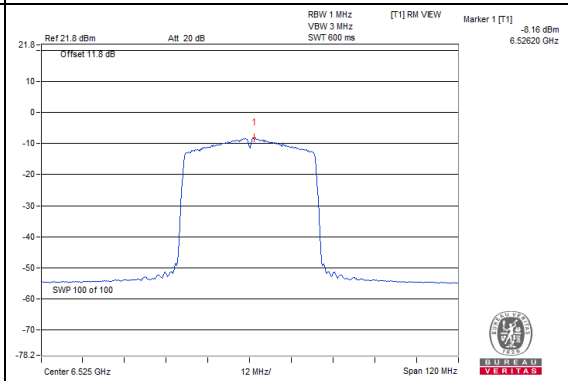
6. Refer to section 3.3 for duty cycle spectrum plot.

Spectrum Plot of Worst Value

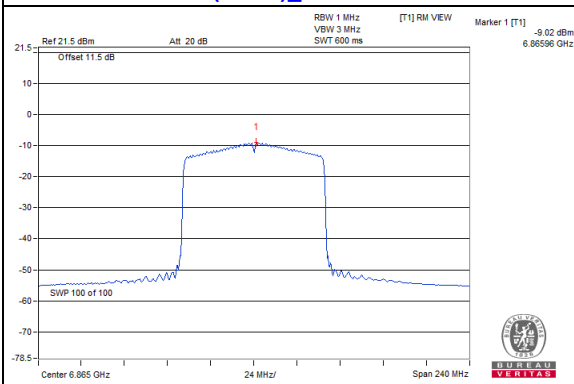
802.11ax (HE20)_Chain 1 / CH149



802.11ax (HE40)_Chain 0 / CH115



802.11ax (HE80)_Chain 1 / CH183

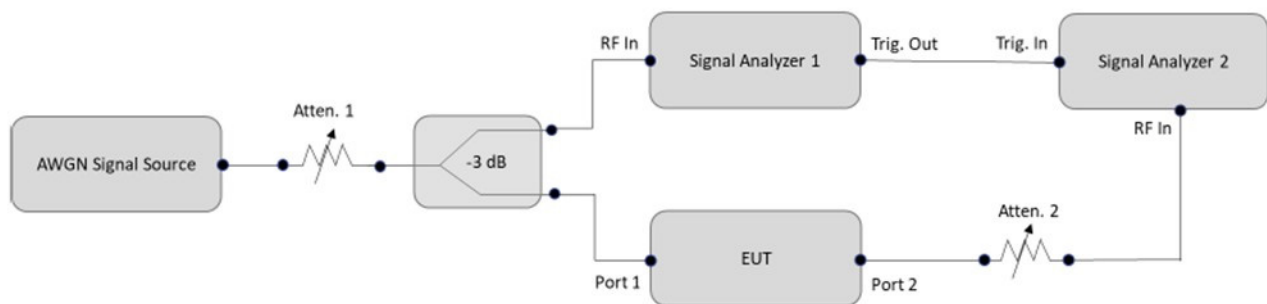


4.7 Contention Based Protocol Measurement

4.7.1 Limits of Contention Based Protocol Measurement

Unlicensed indoor low-power devices must detect co-channel radio frequency power that is at least -62 dBm (The threshold is referenced to a 0 dBi antenna gain.) or lower. Additionally, indoor low-power devices must detect co-channel energy with 90% or greater certainty.

4.7.2 Test Setup



4.7.3 Test Instruments

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Spectrum Analyzer KEYSIGHT	N9030B	MY57141948	2021/5/21	2022/5/20
N5182B MXG X-Series RF Vector Signal Generator Keysight	N5182B	MY59100182	2021/4/22	2022/4/21
Combiner / Splitter (Model:ZN2PD-9G) Mini-Circuits	ZN2PD-9G	ZN2PD-9G	2021/6/11	2022/6/10

- NOTE:**
1. The test was performed in Femtocell room.
 2. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
 3. Tested Date: 2021/10/18

4.7.4 Test Procedure

- a. Set the signal analyzer center frequency to the nominal EUT channel center frequency. The span range of the signal analyzer shall be between two times and five times the OBW of the EUT. Connect the output port of the EUT to the signal analyzer 2. Ensure that the attenuator 2 provides enough attenuation to not overload the signal analyzer 2 receiver.
- b. Monitoring the signal analyzer 2, verify the EUT is operating and transmitting with the parameters (set as following section 4.7.5 EUT operating condition).
- c. Determine number of times detection threshold test as following table,

If	Number of Tests	Placement of Incumbent Transmission
$BW_{EUT} \leq BW_{Inc}$	Once	Same as EUT transmission
$BW_{Inc} < BW_{EUT} \leq 2x BW_{Inc}$	Once	Contained within BW_{EUT}
$2x BW_{Inc} < BW_{EUT} \leq 4x BW_{Inc}$	Twice. (Incumbent transmission is contained within BW_{EUT})	Closely to the lower edge and upper edge of the EUT Channel
$BW_{EUT} > 4x BW_{Inc}$	Three times	Closely to the lower edge ,in the middle and upper edge of the EUT Channel

- d. Using an AWGN signal source, generate (but do not transmit, i.e., RF OFF) a 10 MHz-wide AWGN signal. Use step c table to determine the center frequency of the 10 MHz AWGN signal relative to the EUT's channel bandwidth and center frequency.
- e. Set the AWGN signal power to an extremely low level (more than 20 dB below the -62 dBm threshold). Connect the AWGN signal source, via a 3-dB splitter, to the signal analyzer 1 and the EUT.
- f. Transmit the AWGN signal (RF ON) and verify its characteristics on the signal analyzer 1.
- g. Monitor the signal analyzer 2 to verify if the AWGN signal has been detected and the EUT has ceased transmission. If the EUT continues to transmit, then incrementally increase the AWGN signal power level until the EUT stops transmitting.
- h. (Including all losses in the RF paths) Determine and record the AWGN signal power level (at the EUT's antenna port) at which the EUT ceased transmission. Repeat the procedure at least 10 times to verify the EUT can detect an AWGN signal with 90% (or better) level of certainty.
- i. Refer to step c table to determine number of times the detection threshold testing needs to be repeated. If testing is required more than once, then go back to step d, choose a different center frequency for the AWGN signal and repeat the process.

4.7.5 EUT Operating Condition

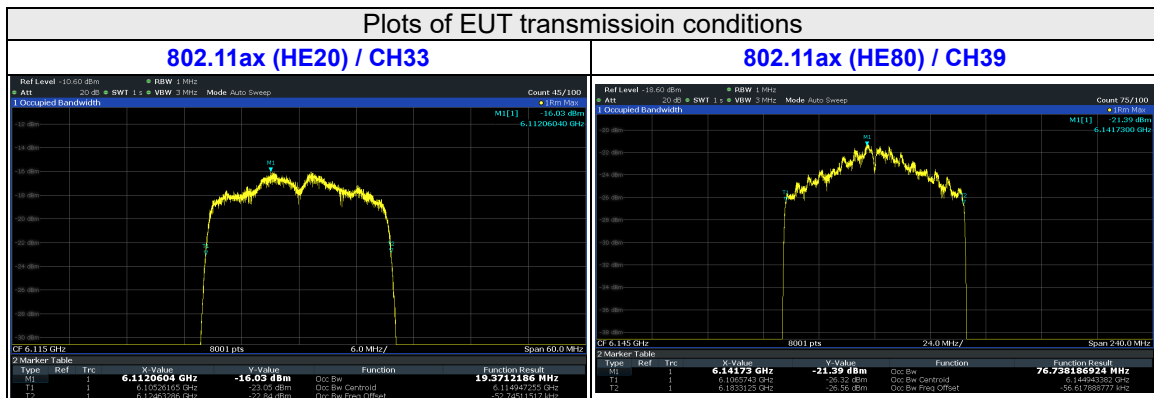
Set the EUT to transmit with a constant duty cycle and relative operating parameters which including power level, operating frequency, modulation and bandwidth.

4.7.6 Test Results

For U-NII-5 band

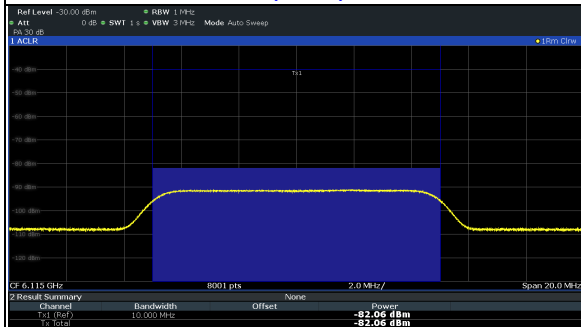
Contention Based Protocol Measurement									
Measurement Mode :		Conducted measurement		The Incumbent Signal(AWGN) Level(dBm) :			-82	at the antenna connector	
Device Type :		Indoor Client		Antenna Gain(dBi) :			0		
Operation Mode	Channel Bandwidth (MHz)	Channel Number	Channel Frequency (MHz)	AWGN Signal Frequency (MHz)	Number of Times	Number of Detected	Detection Rate	Minimum Limit	Pass/Fail
802.11ax	20	33	6115	6115	10	10	100%	90%	Pass
				6110	10	10	100%	90%	Pass
	80	39	6145	6145	10	10	100%	90%	Pass
				6180	10	10	100%	90%	Pass
Result		Complied							

Operation Mode	Channel Bandwidth (MHz)	Channel Number	Channel Frequency (MHz)	AWGN Signal Frequency (MHz)	Threshold Level (dBm)	EUT Status
802.11ax	20	33	6115	6115	-83	Detect signal but not stop transmitting
				6110	-83	Detect signal but not stop transmitting
	80	39	6145	6145	-83	Detect signal but not stop transmitting
				6180	-83	Detect signal but not stop transmitting

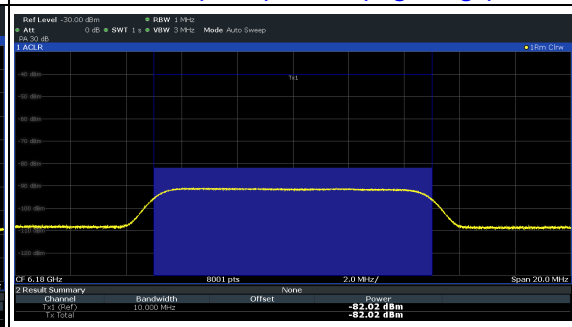


Plots of Incumbent signal (AWGN) level

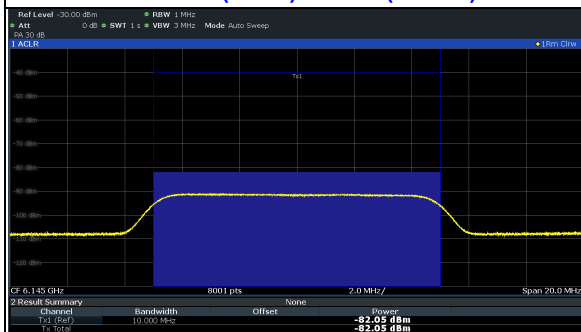
802.11ax (HE20) / CH33



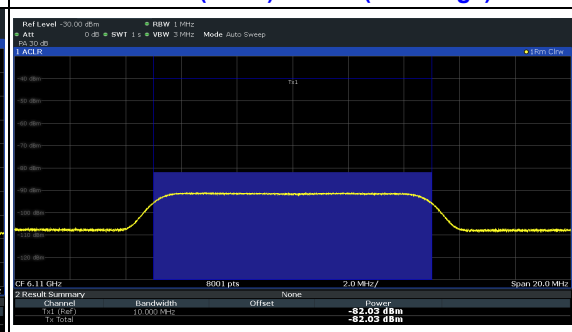
802.11ax (HE80) / CH39 (High Edge)



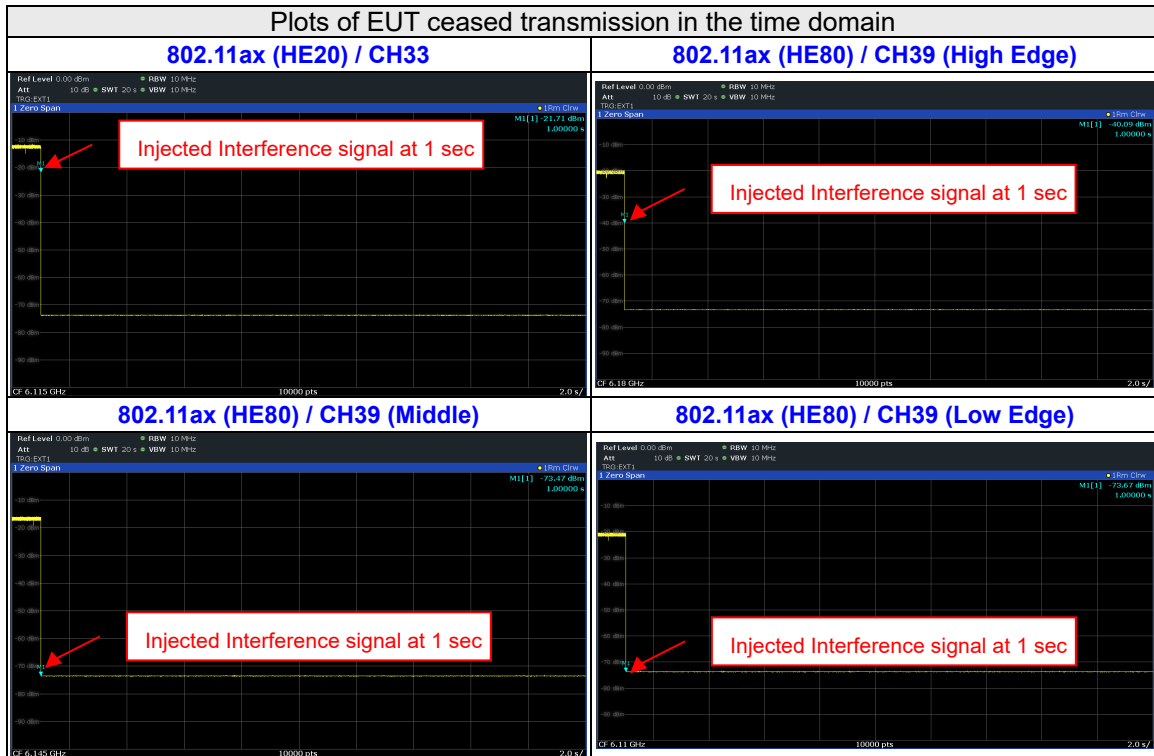
802.11ax (HE80) / CH39 (Middle)



802.11ax (HE80) / CH39 (Low Edge)



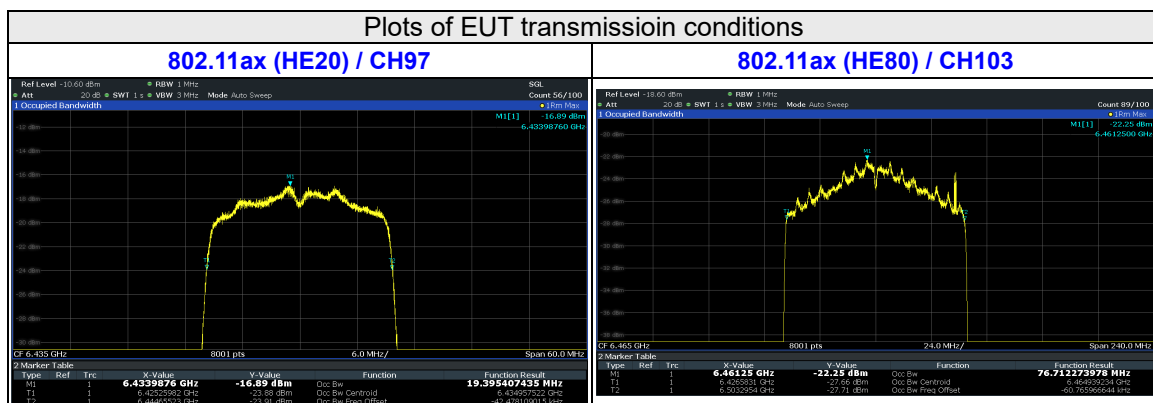
Plots of EUT ceased transmission in the time domain



For U-NII-6 band

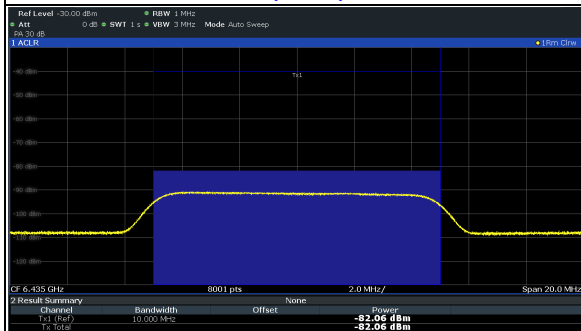
Contention Based Protocol Measurement									
Measurement Mode :		Conducted measurement		The Incumbent Signal(AWGN) Level(dBm) :			-82	at the antenna connector	
Device Type :		Indoor Client		Antenna Gain(dBi) :			0		
Operation Mode	Channel Bandwidth (MHz)	Channel Number	Channel Frequency (MHz)	AWGN Signal Frequency (MHz)	Number of Times	Number of Detected	Detection Rate	Minimum Limit	Pass/Fail
802.11ax	20	97	6435	6435	10	10	100%	90%	Pass
	80	103	6465	6430	10	10	100%	90%	Pass
				6465	10	10	100%	90%	Pass
				6500	10	10	100%	90%	Pass
Result	Complied								

Lowest Interference(AWGN) Level Check						
Operation Mode	Channel Bandwidth (MHz)	Channel Number	Channel Frequency (MHz)	AWGN Signal Frequency (MHz)	Threshold Level (dBm)	EUT Status
802.11ax	20	97	6435	6435	-83	Detect signal but not stop transmitting
	80	103	6465	6430	-83	Detect signal but not stop transmitting
				6465	-83	Detect signal but not stop transmitting
				6500	-83	Detect signal but not stop transmitting

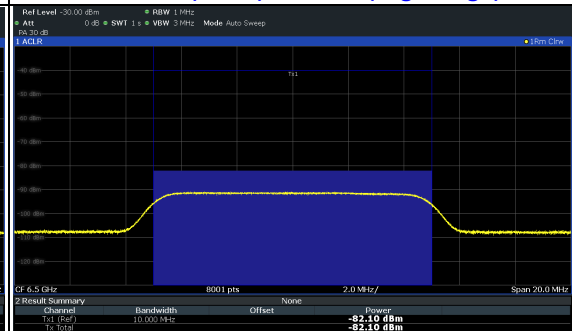


Plots of Incumbent signal (AWGN) level

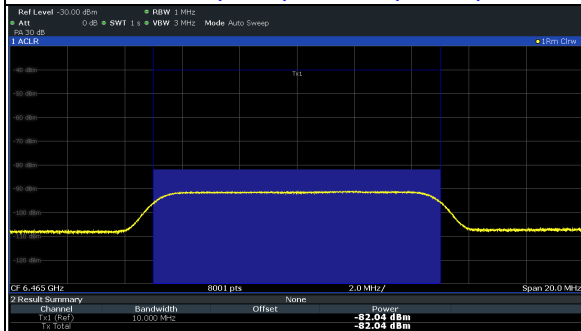
802.11ax (HE20) / CH97



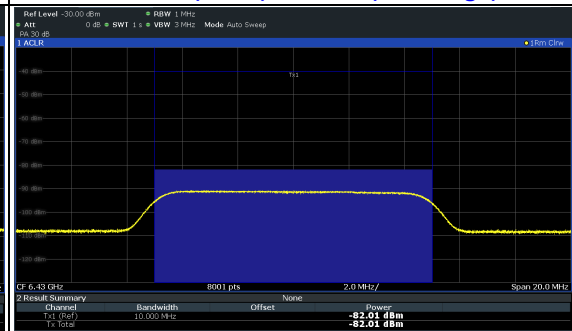
802.11ax (HE80) / CH103 (High Edge)



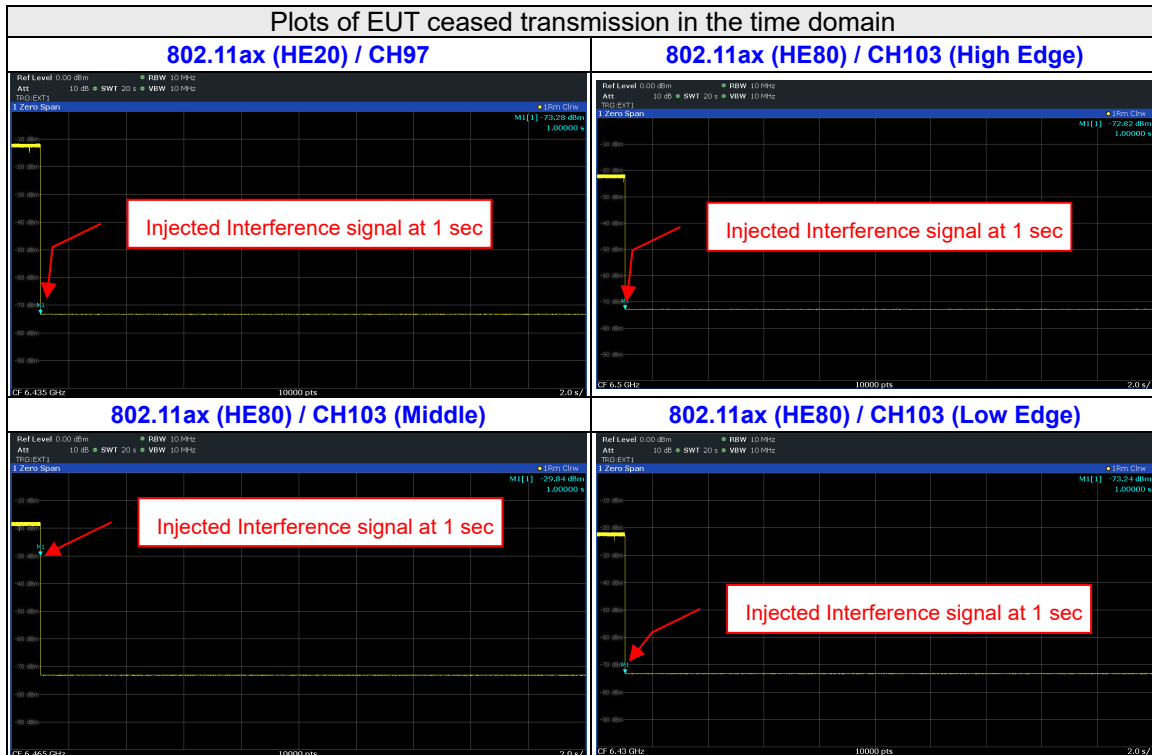
802.11ax (HE80) / CH103 (Middle)



802.11ax (HE80) / CH103 (Low Edge)



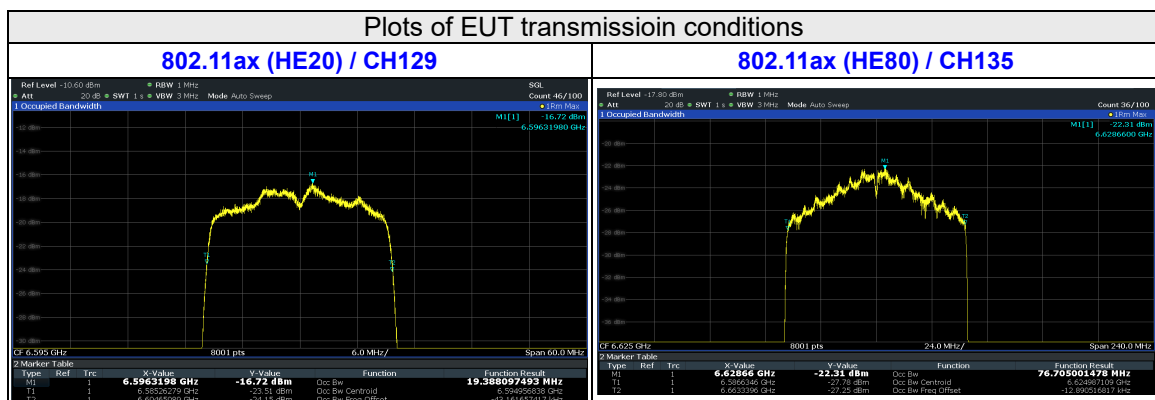
Plots of EUT ceased transmission in the time domain



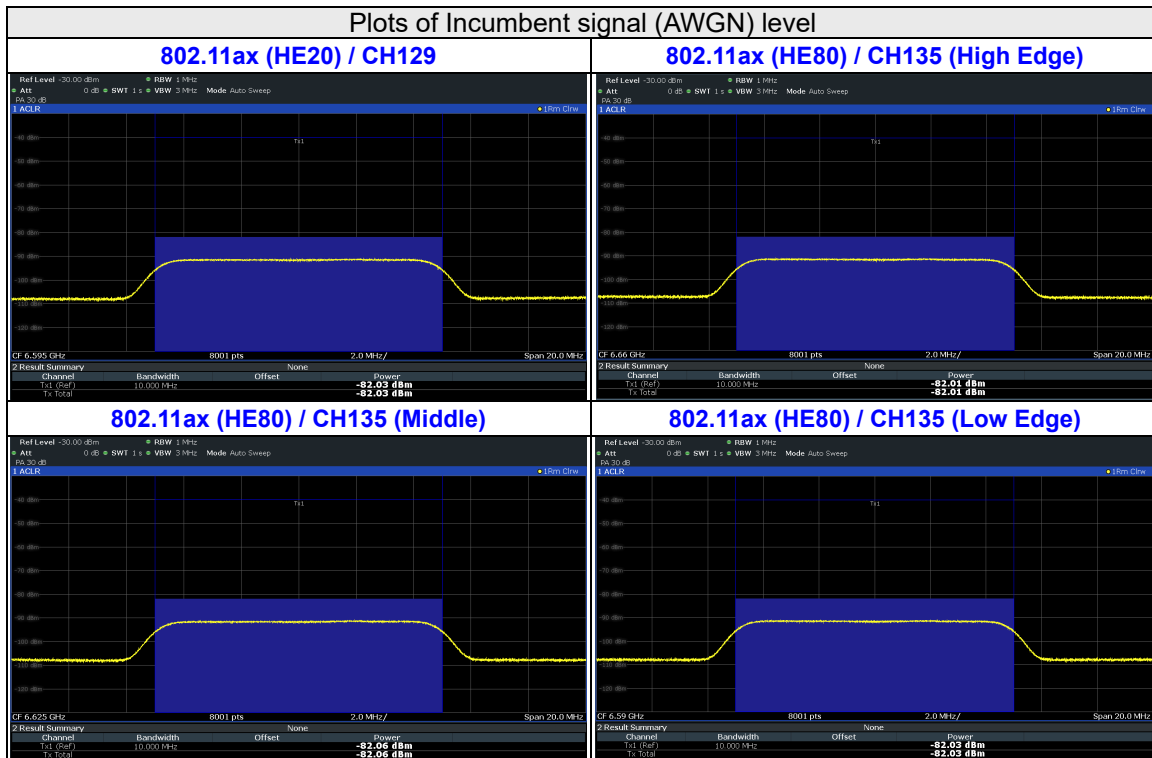
For U-NII-7 band

Contention Based Protocol Measurement									
Measurement Mode :		Conducted measurement		The Incumbent Signal(AWGN) Level(dBm) :			-82	at the antenna connector	
Device Type :		Indoor Client		Antenna Gain(dBi) :			0		
Operation Mode	Channel Bandwidth (MHz)	Channel Number	Channel Frequency (MHz)	AWGN Signal Frequency (MHz)	Number of Times	Number of Detected	Detection Rate	Minimum Limit	Pass/Fail
802.11ax	20	129	6595	6595	10	10	100%	90%	Pass
	80	135	6625	6590	10	10	100%	90%	Pass
				6625	10	10	100%	90%	Pass
				6660	10	10	100%	90%	Pass
Result	Complied								

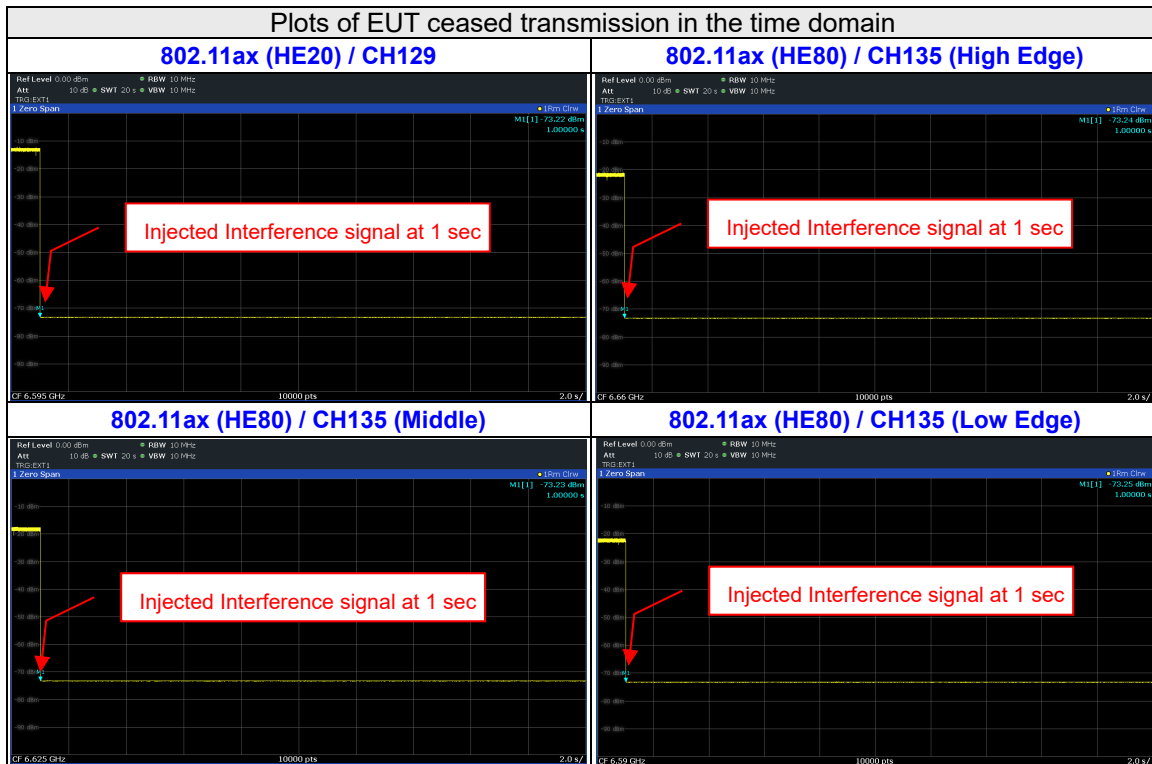
Lowest Interference(AWGN) Level Check						
Operation Mode	Channel Bandwidth (MHz)	Channel Number	Channel Frequency (MHz)	AWGN Signal Frequency (MHz)	Threshold Level (dBm)	EUT Status
802.11ax	20	129	6595	6595	-83	Detect signal but not stop transmitting
	80	135	6625	6590	-83	Detect signal but not stop transmitting
				6625	-83	Detect signal but not stop transmitting
				6660	-83	Detect signal but not stop transmitting



Plots of Incumbent signal (AWGN) level



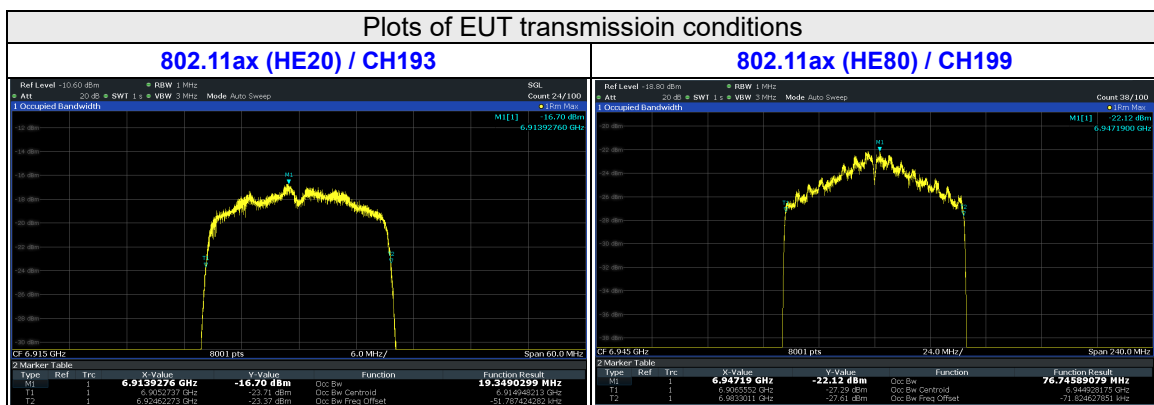
Plots of EUT ceased transmission in the time domain



For U-NII-8 band

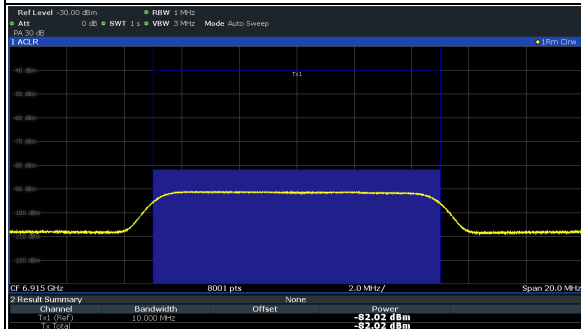
Contention Based Protocol Measurement									
Measurement Mode :		Conducted measurement		The Incumbent Signal(AWGN) Level(dBm) :			-82	at the antenna connector	
Device Type :		Indoor Client		Antenna Gain(dBi) :			0		
Operation Mode	Channel Bandwidth (MHz)	Channel Number	Channel Frequency (MHz)	AWGN Signal Frequency (MHz)	Number of Times	Number of Detected	Detection Rate	Minimum Limit	Pass/Fail
802.11ax	20	193	6915	6915	10	10	100%	90%	Pass
	80	199	6945	6910	10	10	100%	90%	Pass
				6945	10	10	100%	90%	Pass
				6980	10	10	100%	90%	Pass
Result	Complied								

Lowest Interference(AWGN) Level Check						
Operation Mode	Channel Bandwidth (MHz)	Channel Number	Channel Frequency (MHz)	AWGN Signal Frequency (MHz)	Threshold Level (dBm)	EUT Status
802.11ax	20	193	6915	6915	-83	Detect signal but not stop transmitting
	80	199	6945	6910	-83	Detect signal but not stop transmitting
				6945	-83	Detect signal but not stop transmitting
				6980	-83	Detect signal but not stop transmitting

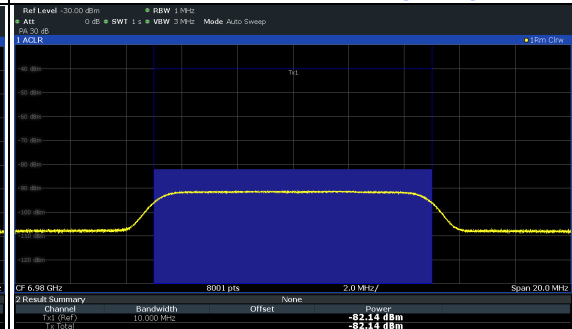


Plots of Incumbent signal (AWGN) level

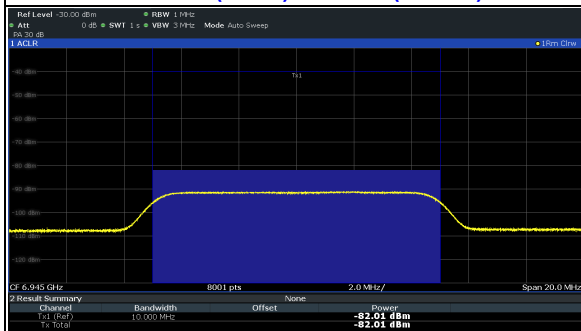
802.11ax (HE20) / CH193



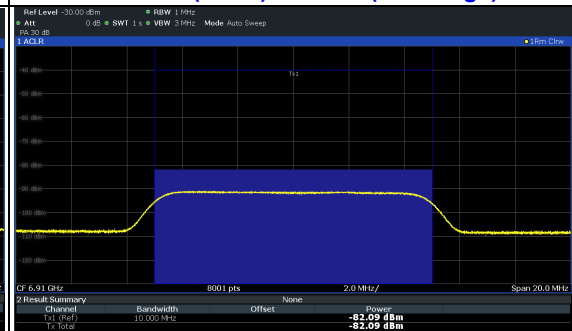
802.11ax (HE80) / CH199 (High Edge)



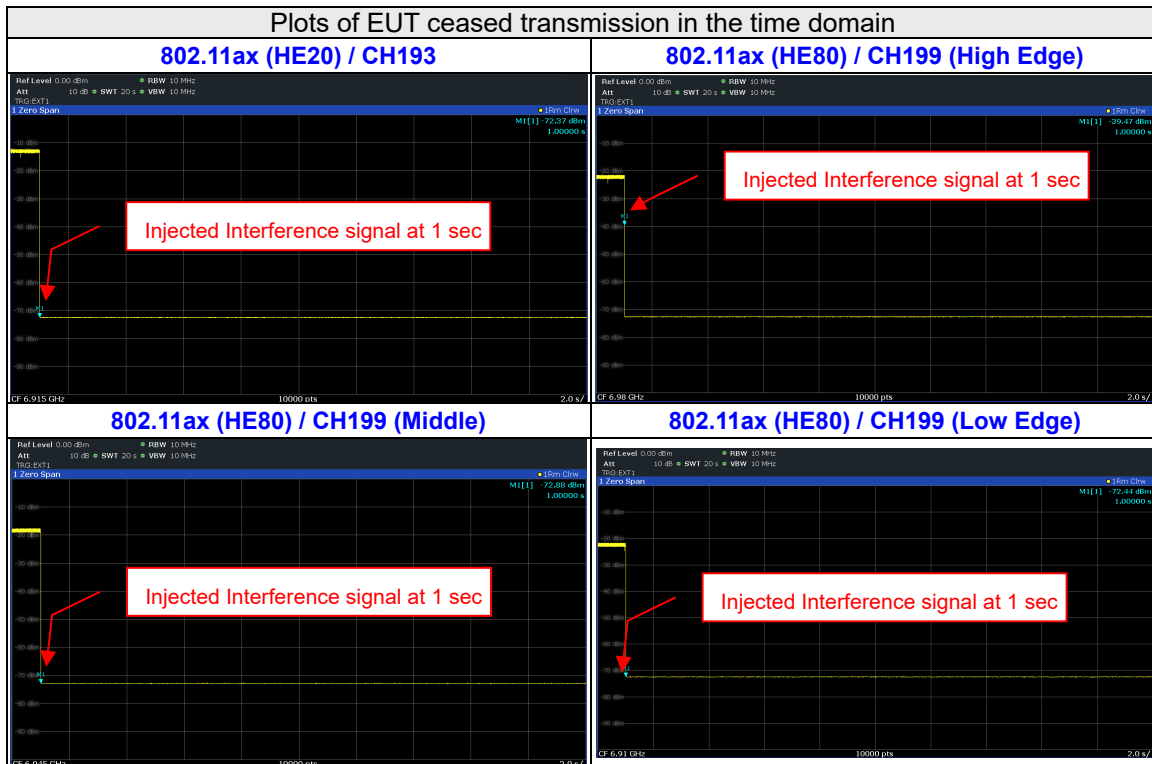
802.11ax (HE80) / CH199 (Middle)



802.11ax (HE80) / CH199 (Low Edge)



Plots of EUT ceased transmission in the time domain

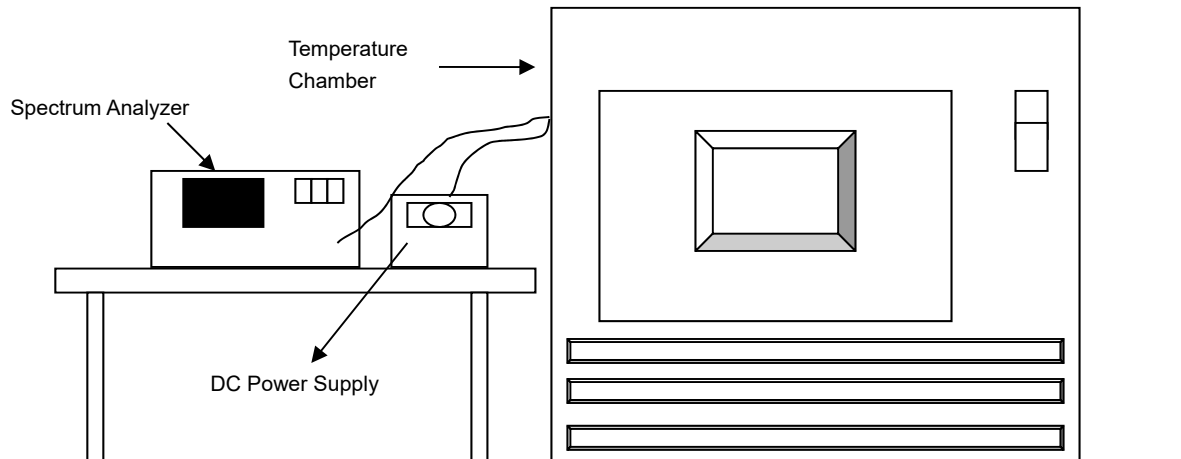


4.8 Frequency Stability Measurement

4.8.1 Limits of Frequency Stability Measurement

The frequency of the carrier signal shall be maintained within band of operation

4.8.2 Test Setup



4.8.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.8.4 Test Procedure

- The EUT was placed inside the environmental test chamber and powered by nominal DC voltage.
- Turn the EUT on and couple its output to a spectrum analyzer.
- Turn the EUT off and set the chamber to the highest temperature specified.
- Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize, turn the EUT on and measure the operating frequency after 2, 5, and 10 Minutes.
- Repeat step (d) with the temperature chamber set to the next desired temperature until measurements down to the lowest specified temperature have been completed..
- The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 Minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.

4.8.5 EUT Operating Condition

Set the EUT transmit at un-modulation mode to test frequency stability.

4.8.6 Test Results
 802.11ax (HE20)

Frequency Stability Versus Temp.									
Operating Frequency: 5955 MHz									
TEMP. (°C)	Power Supply (Vdc)	0 Minute		2 Minutes		5 Minutes		10 Minutes	
		Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result
60	3.3	5955.0177	Pass	5955.0167	Pass	5955.0173	Pass	5955.015	Pass
50	3.3	5955.0052	Pass	5955.0041	Pass	5955.0017	Pass	5955.0017	Pass
40	3.3	5955.0244	Pass	5955.0237	Pass	5955.0259	Pass	5955.0259	Pass
30	3.3	5954.9708	Pass	5954.9717	Pass	5954.9701	Pass	5954.974	Pass
20	3.3	5955.0278	Pass	5955.0277	Pass	5955.023	Pass	5955.0266	Pass
10	3.3	5954.9736	Pass	5954.9725	Pass	5954.9723	Pass	5954.9765	Pass
0	3.3	5954.9794	Pass	5954.9776	Pass	5954.9797	Pass	5954.9785	Pass
-10	3.3	5954.9731	Pass	5954.9713	Pass	5954.9699	Pass	5954.9733	Pass

Frequency Stability Versus Voltage									
Operating Frequency: 5955 MHz									
TEMP. (°C)	Power Supply (Vdc)	0 Minute		2 Minutes		5 Minutes		10 Minutes	
		Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result
20	3.795	5955.0251	Pass	5955.0263	Pass	5955.0233	Pass	5955.0283	Pass
	3.3	5955.0278	Pass	5955.0277	Pass	5955.023	Pass	5955.0266	Pass
	2.805	5955.0238	Pass	5955.0262	Pass	5955.0267	Pass	5955.025	Pass

4.9 Operational Restrictions for 6GHz U-NII Devices

4.9.1 Limits of Operational Restrictions for 6 GHz U-NII Devices

- (1) Operation of transmitters in the 5.925-7.125 GHz band is prohibited for control of or communications with unmanned aircraft systems.
- (2) Transmitters operating under indoor client are limited to indoor locations.
- (3) In the 5.925-7.125 GHz band, client devices must operate under the control of a indoor access point or subordinate devices; In all cases, an exception exists for transmitting brief messages to an access point when attempting to join its network after detecting a signal that confirms that an access point is operating on a particular channel. Client devices are prohibited from connecting directly to another client device.
- (4) Client devices operating in the 5.925-7.125 GHz band must employ a contention-based protocol.

4.9.2 Test Setup

N/A

4.9.3 Test Instruments

N/A

4.9.4 Test Procedure

N/A.

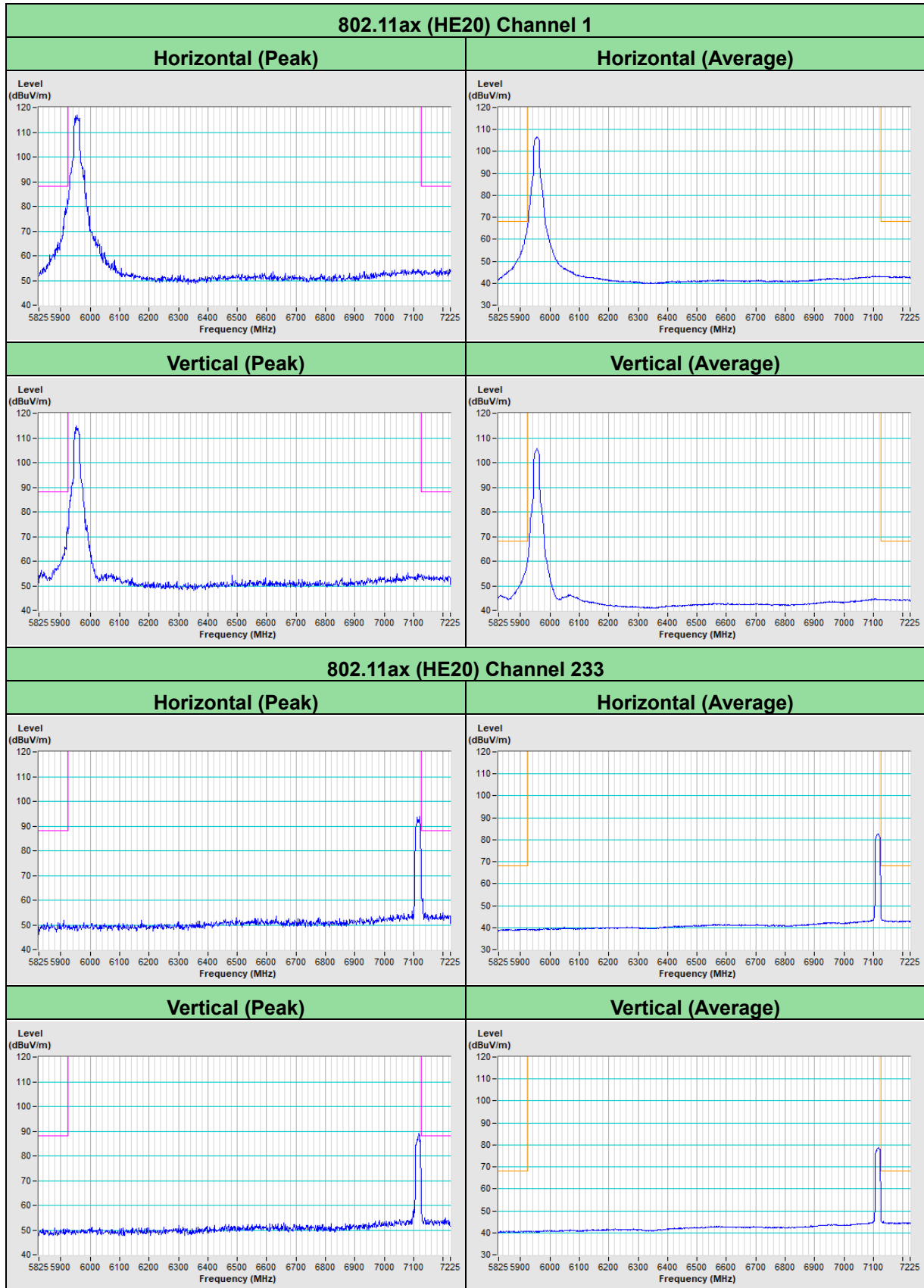
4.9.5 Test Results

Device is an indoor client device, all restrictions are meet the §15.407 (d) requirements. Please refer to the Attestation letter exhibit supplied within this application

5 Pictures of Test Arrangements

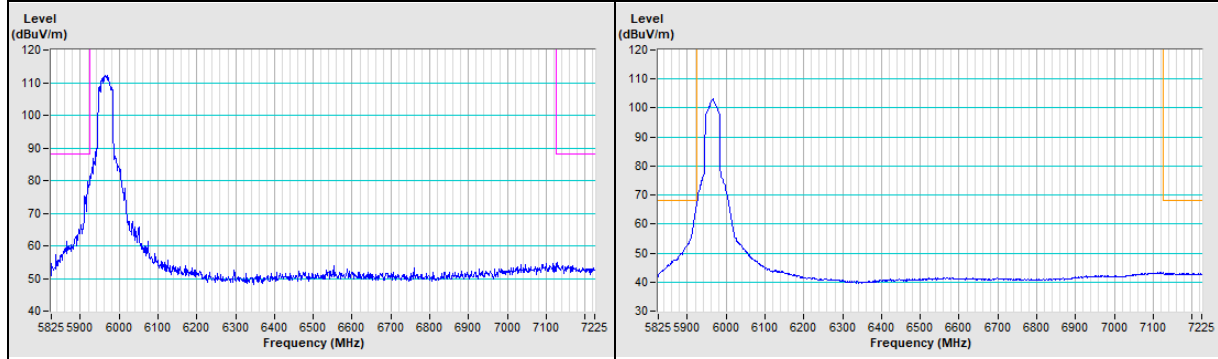
Please refer to the attached file (Test Setup Photo).

Annex A - Band-Edge Measurement

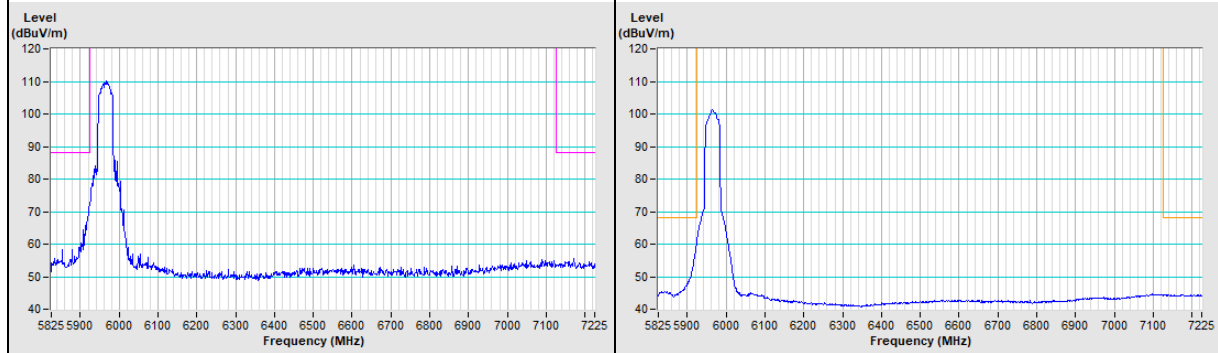


802.11ax (HE40) Channel 35

Horizontal (Peak)	Horizontal (Average)
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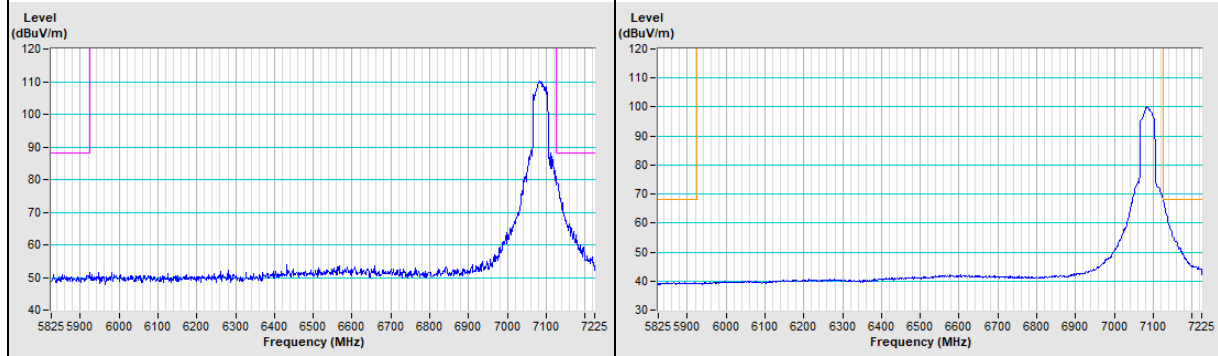


Vertical (Peak)	Vertical (Average)
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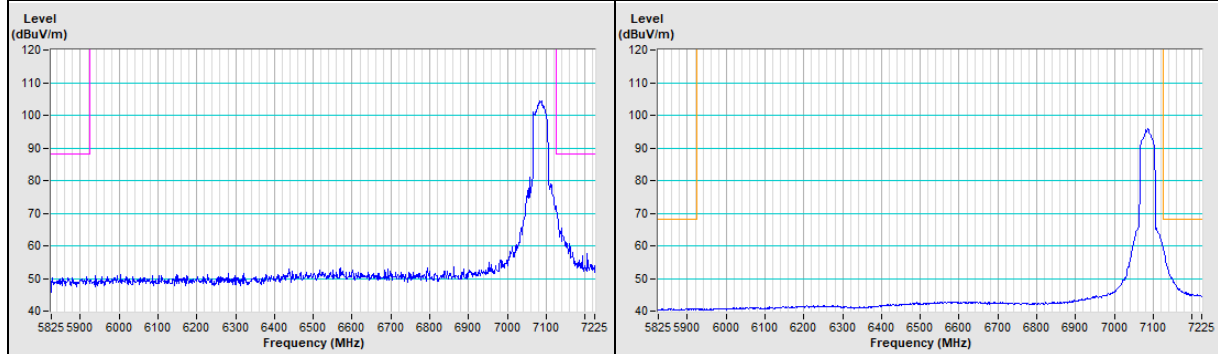


802.11ax (HE40) Channel 227

Horizontal (Peak)	Horizontal (Average)
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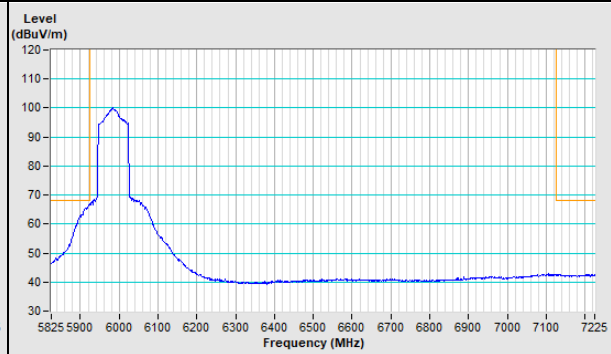
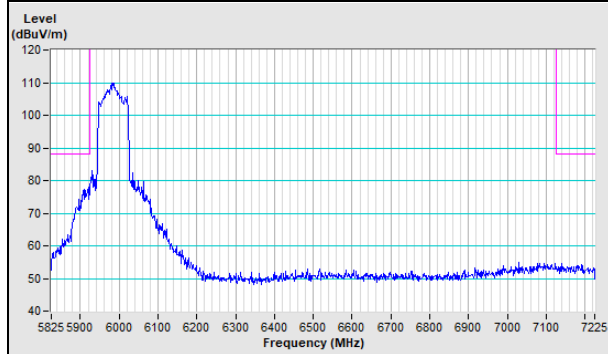


Vertical (Peak)	Vertical (Average)
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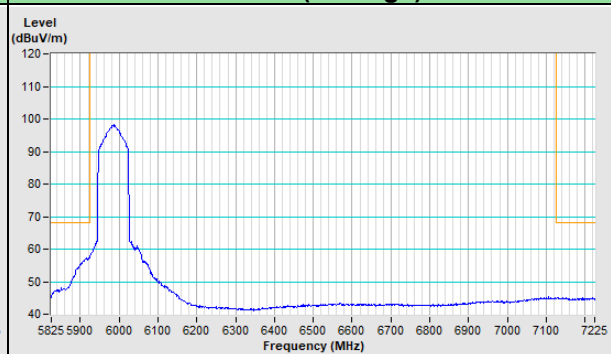
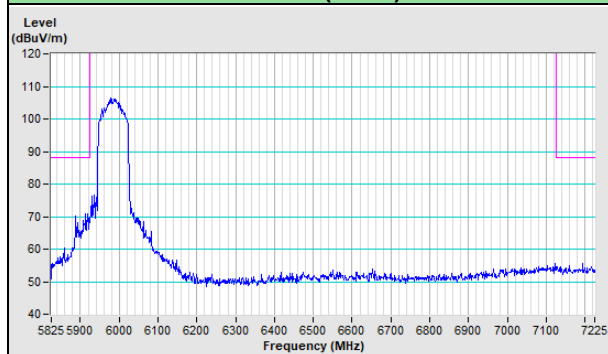


802.11ax (HE80) Channel 39

Horizontal (Peak)	Horizontal (Average)
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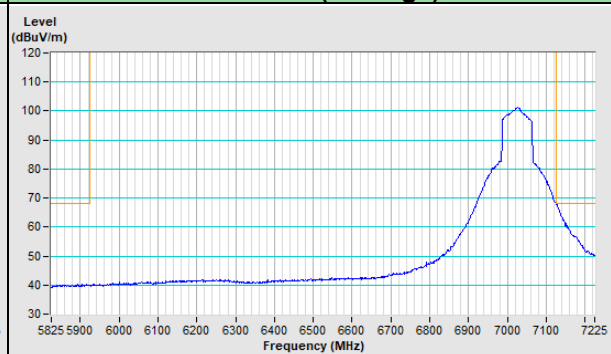
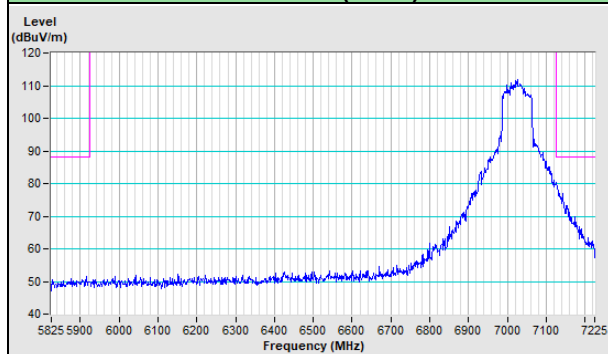


Vertical (Peak)	Vertical (Average)
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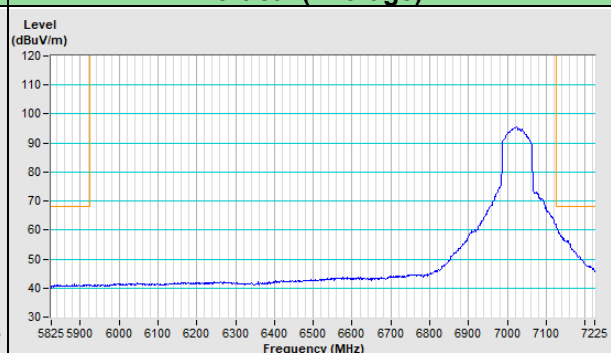
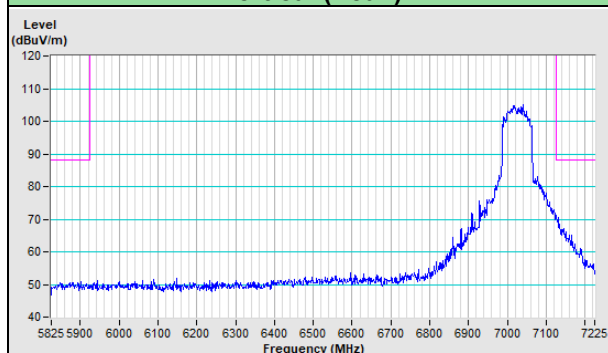


802.11ax (HE80) Channel 215

Horizontal (Peak)	Horizontal (Average)
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Vertical (Peak)	Vertical (Average)
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Appendix – Information of the Testing Laboratories

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are FCC recognized accredited test firms and accredited according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following:

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Fax: 886-2-26051924

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Fax: 886-3-3270892

Email: service.adt@tw.bureauveritas.com

Web Site: www.bureauveritas-adt.com

The address and road map of all our labs can be found in our web site also.

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