

FCC Test Report

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FCC ID: PY320300508

Test Model: RAXE500

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Release Control Record

Issue No.	Description	Date Issued
RFBBQZ-WTW-P20110526-4	Original release.	Dec. 30, 2020

1 Certificate of Conformity

Product: Nighthawk AXE11000 Tri-Band WiFi 6E Router

Brand: NETGEAR

Test Model: RAXE500

Sample Status: Engineering sample

Applicant: NETGEAR, Inc.

Test Date: Nov. 24 to Dec. 29, 2020

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:** Dec. 30, 2020
Vivian Huang / Specialist

Approved by : Clark Lin , **Date:** Dec. 30, 2020
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 -15.87dB at 0.15781MHz.
15.407(b)(5)(8)	Radiated Emissions	PASS	Meet the requirement of limit. Minimum passing margin is -0.2dB at 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(d)	Operational restrictions for 6 GHz U-NII devices	PASS	Declaration by applicant
15.203	Antenna Requirement	PASS	Antenna connector is i-pex(MHF) not a standard connector.

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	5.5 dB
	6GHz ~ 18GHz	5.1 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	Nighthawk AXE11000 Tri-Band WiFi 6E Router
Brand	NETGEAR
Test Model	RAXE500
Status of EUT	Engineering sample
Power Supply Rating	19Vdc from power adapter
Modulation Type	64QAM, 16QAM, QPSK, BPSK for OFDM 256QAM for OFDM in 11ac mode 1024QAM for OFDMA in 11ax HE mode
Modulation Technology	OFDM, OFDMA
Transfer Rate	802.11a: up to 54 Mbps 802.11n: up to 600 Mbps 802.11ac: up to 3466.7 Mbps 802.11ax: up to 4803.9 Mbps
Operating Frequency	6.115 ~ 6.415GHz, 6.435 ~ 6.525GHz, 6.525 ~ 6.875GHz, 6.875 ~ 7.115GHz
Number of Channel	802.11a, 802.11ax (HE20): 51 802.11ax (HE40): 25 802.11ax (HE80): 12 802.11ax (HE160): 6
Output Power	Mode 1(Nss1): CDD Mode: 6.105 ~ 6.425GHz: 129.205 mW (EIRP: 24.05 dBm / 254.10 mW) 6.425 ~ 6.525GHz: 65.432 mW (EIRP: 21.07 dBm / 127.938 mW) 6.525 ~ 6.875GHz: 126.161 mW (EIRP: 24.00 dBm / 251.189 mW) 6.875 ~ 7.125GHz: 135.772 mW (EIRP: 24.25 dBm / 266.073 mW) Beamforming Mode: 6.105 ~ 6.425GHz: 84.635 mW (EIRP: 26.15 dBm / 412.098 mW) 6.425 ~ 6.525GHz: 43.926 mW (EIRP: 23.3 dBm / 213.796 mW) 6.525 ~ 6.875GHz: 89.205 mW (EIRP: 26.48 dBm / 444.631 mW) 6.875 ~ 7.125GHz: 86.849 mW (EIRP: 26.29 dBm / 425.598 mW) Mode 2(Nss4): SDM Mode: 6.105 ~ 6.425GHz: 211.997 mW (EIRP: 26.25 dBm / 421.70 mW) 6.425 ~ 6.525GHz: 131.407 mW (EIRP: 24.15 dBm / 260.016 mW) 6.525 ~ 6.875GHz: 208.485 mW (EIRP: 26.13 dBm / 410.204 mW) 6.875 ~ 7.125GHz: 218.928 mW (EIRP: 26.31 dBm / 427.563 mW) Beamforming Mode: 6.105 ~ 6.425GHz: 211.997 mW (EIRP: 26.22 dBm / 418.79 mW) 6.425 ~ 6.525GHz: 131.407 mW (EIRP: 24.18 dBm / 261.818 mW) 6.525 ~ 6.875GHz: 208.485 mW (EIRP: 26.15 dBm / 412.098 mW) 6.875 ~ 7.125GHz: 218.928 mW (EIRP: 26.37 dBm / 433.511 mW)
Antenna Type	Refer to Note
Antenna Connector	Refer to Note
Accessory Device	Adapter x1
Data Cable Supplied	NA

Note:

1. The EUT has three radios as following table:

Radio 1	Radio 2	Radio 3
WLAN(2.4 GHz)	WLAN(5GHz)	WLAN(6GHz)

2. Simultaneously transmission condition.

Condition	Technology
1	WLAN(2.4GHz) + WLAN(5GHz) + WLAN(6GHz)

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

3. The EUT must be supplied one power adapter and following different models could be chosen as following table:

No.	Brand	Model name	P/N	Spec
1	NETGEAR	2ABS060K	332-11474-01	Input: 100-240Vac, 50-60Hz, 1.7A Output: 19Vdc, 3.16A Output Cable: Unshielded, 1.8m
2	NETGEAR	AD2073F20	332-11482-01	Input: 100-240Vac, 50-60Hz, 1.5A Output: 19Vdc, 3.16A Output Cable: Unshielded, 1.8m

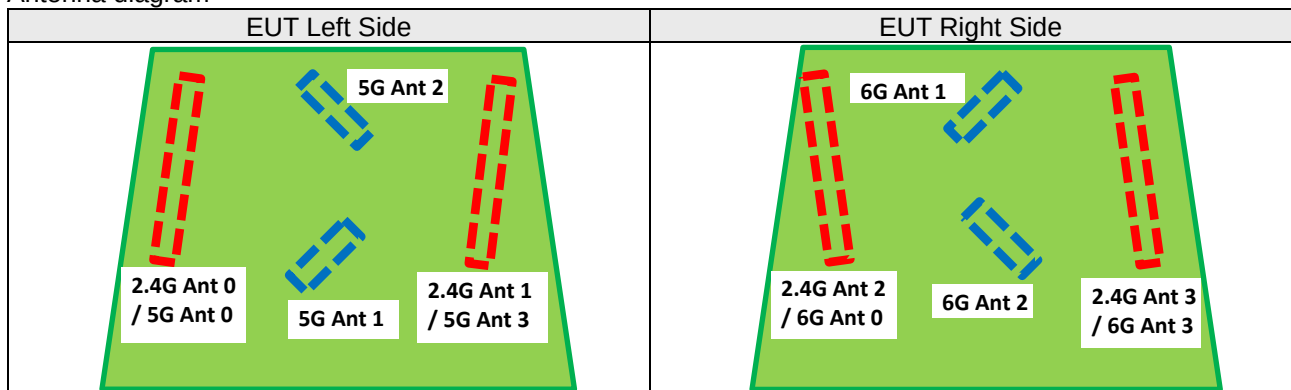
Note: From the above models, the worst Radiated Emissions and Conducted Emissions test was found in Adapter 1. Therefore only the test data of the modes were recorded in this report.

4. The directional antenna gain, please refer to the following table:

Frequency Range (GHz)	Mode	Nss	Directional Antenna Gain (dBi)		Antenna Type	Antenna Connector
			For Power	For PSD		
5.925~6.425	CDD	Nss1	2.94	4.92	Dipole	i-pex(MHF)
	SDM	Nss4	2.99	2.90		
	Beamforming	Nss1	6.87	6.77		
		Nss4	2.96	2.94		
6.425~6.525	CDD	Nss1	2.91	4.99		
	SDM	Nss4	2.96	2.98		
	Beamforming	Nss1	6.87	6.95		
		Nss4	2.99	2.97		
6.525~6.875	CDD	Nss1	2.99	4.97		
	SDM	Nss4	2.94	2.95		
	Beamforming	Nss1	6.98	6.77		
		Nss4	2.96	2.91		
6.875~7.125	CDD	Nss1	2.92	4.96		
	SDM	Nss4	2.91	2.90		
	Beamforming	Nss1	6.90	6.86		
		Nss4	2.97	2.95		

Note: More detailed information, please refer to antenna specification.

Antenna diagram



5. The EUT has two different pin-to-pin FEM, after pretest the mode 1 was the worst case for final test.

Mode	Description
1	1 st FEM
2	2 nd FEM
Note: The detail information please refer to "Internal Photo"	

6. The EUT incorporates a MIMO function:

6GHz Band-Nss1		
MODULATION MODE	TX & RX CONFIGURATION	
802.11a	4TX	4RX
802.11ax (HE20)	4TX	4RX
802.11ax (HE40)	4TX	4RX
802.11ax (HE80)	4TX	4RX
802.11ax (HE160)	4TX	4RX
6GHz Band-Nss4		
MODULATION MODE	TX & RX CONFIGURATION	
802.11ax (HE20)	4TX	4RX
802.11ax (HE40)	4TX	4RX
802.11ax (HE80)	4TX	4RX
802.11ax (HE160)	4TX	4RX

Note:

1. All of modulation mode support beamforming function except 802.11a modulation mode.
2. The EUT support Beamforming and CDD mode, therefore both mode were investigated and the worst case scenario was identified. The worst case data were presented in test report.

7. The above EUT information is declared by manufacturer and for more detailed features description, please refers to the manufacturer's specifications or user's manual.

3.2 Description of Test Modes

FOR 6105 ~ 6425MHz (U-NII-5 band)

16 channels are provided for 802.11a, 802.11ax (HE20):

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
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	6415 MHz

8 channels are provided for 802.11ax (HE40):

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
35	6125 MHz	43	6165 MHz	51	6205 MHz	59	6245 MHz
67	6285 MHz	75	6325 MHz	83	6365 MHz	91	6405 MHz

4 channel is provided for 802.11ax (HE80):

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
39	6145 MHz	55	6225 MHz	71	6305 MHz	87	6385 MHz

2 channel is provided for 802.11ax (HE160):

Channel	Frequency	Channel	Frequency
47	6185 MHz	79	6345 MHz

FOR 6425 ~ 6525MHz (U-NII-6 band)

5 channels are provided for 802.11a, 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

2 channel is provided for 802.11ax (HE80):

Channel	Frequency	Channel	Frequency
103	6465 MHz	*119	6545 MHz

1 channel is provided for 802.11ax (HE160):

Channel	Frequency
*111	6505 MHz

Note: * mean this's straddle channel.

FOR 6525 ~ 6875MHz (U-NII-7 band)

18 channels are provided for 802.11a, 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				

9 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
*187	6885 MHz						

4 channels are provided for 802.11ax (HE80):

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

2 channel is provided for 802.11ax (HE160):

Channel	Frequency	Channel	Frequency
143	6665 MHz	*175	6825 MHz

Note: * mean this's straddle channel.

FOR 6875 ~ 7125MHz (U-NII-8 band):

12 channels are provided for 802.11a, 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

5 channels are provided for 802.11ax (HE40):

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

2 channel is provided for 802.11ax (HE80):

Channel	Frequency	Channel	Frequency
199	6945 MHz	215	7025 MHz

1 channel is provided for 802.11ax (HE160):

Channel	Frequency
207	6985 MHz

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	
1	√	-	√	-	-	√	Nss1
2	√	√	√	√	√	√	Nss4

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

Note: The EUT had been pre-tested on the positioned of each 2 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.

CDD Mode						
Nss1						
Mode	FREQ. Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate Parameter
802.11a	6115-6415	33 to 93	33, 61, 93	OFDM	BPSK	6Mb/s
	6435-6515	97 to 113	97, 105, 113	OFDM	BPSK	6Mb/s
	6535-6875	117 to 185	117, 153, 181, 185	OFDM	BPSK	6Mb/s
	6875-7115	185 to 233	185, 213, 233	OFDM	BPSK	6Mb/s
802.11ax (HE20)	6115-6415	33 to 93	33, 61, 93	OFDMA	BPSK	MCS0
	6435-6515	97 to 113	97, 105, 113	OFDMA	BPSK	MCS0
	6535-6875	117 to 185	117, 153, 181, 185	OFDMA	BPSK	MCS0
	6875-7115	185 to 233	185, 213, 229, 233	OFDMA	BPSK	MCS0
802.11ax (HE40)	6125-6405	35 to 91	35, 59, 91	OFDMA	BPSK	MCS0
	6445 to 6525	99 to 115	99, 107, 115	OFDMA	BPSK	MCS0
	6525 to 6885	115 to 187	115, 123, 155, 179, 187	OFDMA	BPSK	MCS0
	6885 to 7085	187 to 227	187, 211, 227	OFDMA	BPSK	MCS0
802.11ax (HE80)	6145-6385	39 to 87	39, 55, 87	OFDMA	BPSK	MCS0
	6465-6525	103 to 119	103, 119	OFDMA	BPSK	MCS0
	6525-6875	119 to 183	119, 135, 151, 167, 183	OFDMA	BPSK	MCS0
	6875-7025	183 to 215	183, 199, 215	OFDMA	BPSK	MCS0
802.11ax (HE160)	6185-6385	47 to 79	47, 79	OFDMA	BPSK	MCS0
	6505	111	111	OFDMA	BPSK	MCS0
	6525-6875	143 to 175	143, 175	OFDMA	BPSK	MCS0
	6985	207	207	OFDMA	BPSK	MCS0

SDM Mode						
Nss4						
Mode	FREQ. Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate Parameter
802.11ax (HE20)	6115-6415	33 to 93	33, 61, 93	OFDMA	BPSK	MCS0
	6435-6515	97 to 113	97, 105, 113	OFDMA	BPSK	MCS0
	6535-6875	117 to 185	117, 153, 181, 185	OFDMA	BPSK	MCS0
	6875-7115	185 to 233	185, 213, 229, 233	OFDMA	BPSK	MCS0
802.11ax (HE40)	6125-6405	35 to 91	35, 59, 91	OFDMA	BPSK	MCS0
	6445 to 6525	99 to 115	99, 107, 115	OFDMA	BPSK	MCS0
	6525 to 6885	115 to 187	115, 123, 155, 179, 187	OFDMA	BPSK	MCS0
	6885 to 7085	187 to 227	187, 211, 227	OFDMA	BPSK	MCS0
802.11ax (HE80)	6145-6385	39 to 87	39, 55, 87	OFDMA	BPSK	MCS0
	6465-6525	103 to 119	103, 119	OFDMA	BPSK	MCS0
	6525-6875	119 to 183	119, 135, 151, 167, 183	OFDMA	BPSK	MCS0
	6875-7025	183 to 215	183, 199, 215	OFDMA	BPSK	MCS0
802.11ax (HE160)	6185-6385	47 to 79	47, 79	OFDMA	BPSK	MCS0
	6505	111	111	OFDMA	BPSK	MCS0
	6525-6875	143 to 175	143, 175	OFDMA	BPSK	MCS0
	6985	207	207	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.

SDM Mode						
Nss4						
Mode	FREQ. Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate Parameter
802.11ax (HE160)	6185-6385	47 to 79	207	OFDMA	BPSK	MCS0
	6505	111				
	6525-6875	143 to 175				
	6985	207				

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.

CDD Mode						
Nss1						
Mode	FREQ. Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate Parameter
802.11a	6115-6415	33 to 93	33, 61, 93	OFDM	BPSK	6Mb/s
	6435-6515	97 to 113	97, 105, 113	OFDM	BPSK	6Mb/s
	6535-6875	117 to 185	117, 153, 181, 185	OFDM	BPSK	6Mb/s
	6875-7115	185 to 233	185, 213, 233	OFDM	BPSK	6Mb/s
802.11ax (HE20)	6115-6415	33 to 93	33, 61, 93	OFDMA	BPSK	MCS0
	6435-6515	97 to 113	97, 105, 113	OFDMA	BPSK	MCS0
	6535-6875	117 to 185	117, 153, 181, 185	OFDMA	BPSK	MCS0
	6875-7115	185 to 233	185, 213, 229, 233	OFDMA	BPSK	MCS0
802.11ax (HE40)	6125-6405	35 to 91	35, 59, 91	OFDMA	BPSK	MCS0
	6445 to 6525	99 to 115	99, 107, 115	OFDMA	BPSK	MCS0
	6525 to 6885	115 to 187	115, 123, 155, 179, 187	OFDMA	BPSK	MCS0
	6885 to 7085	187 to 227	187, 211, 227	OFDMA	BPSK	MCS0
802.11ax (HE80)	6145-6385	39 to 87	39, 55, 87	OFDMA	BPSK	MCS0
	6465-6525	103 to 119	103, 119	OFDMA	BPSK	MCS0
	6525-6875	119 to 183	119, 135, 151, 167, 183	OFDMA	BPSK	MCS0
	6875-7025	183 to 215	183, 199, 215	OFDMA	BPSK	MCS0
802.11ax (HE160)	6185-6385	47 to 79	47, 79	OFDMA	BPSK	MCS0
	6505	111	111	OFDMA	BPSK	MCS0
	6525-6875	143 to 175	143, 175	OFDMA	BPSK	MCS0
	6985	207	207	OFDMA	BPSK	MCS0

SDM Mode						
Nss4						
Mode	FREQ. Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate Parameter
802.11ax (HE20)	6115-6415	33 to 93	33, 61, 93	OFDMA	BPSK	MCS0
	6435-6515	97 to 113	97, 105, 113	OFDMA	BPSK	MCS0
	6535-6875	117 to 185	117, 153, 181, 185	OFDMA	BPSK	MCS0
	6875-7115	185 to 233	185, 213, 229, 233	OFDMA	BPSK	MCS0
802.11ax (HE40)	6125-6405	35 to 91	35, 59, 91	OFDMA	BPSK	MCS0
	6445 to 6525	99 to 115	99, 107, 115	OFDMA	BPSK	MCS0
	6525 to 6885	115 to 187	115, 123, 155, 179, 187	OFDMA	BPSK	MCS0
	6885 to 7085	187 to 227	187, 211, 227	OFDMA	BPSK	MCS0
802.11ax (HE80)	6145-6385	39 to 87	39, 55, 87	OFDMA	BPSK	MCS0
	6465-6525	103 to 119	103, 119	OFDMA	BPSK	MCS0
	6525-6875	119 to 183	119, 135, 151, 167, 183	OFDMA	BPSK	MCS0
	6875-7025	183 to 215	183, 199, 215	OFDMA	BPSK	MCS0
802.11ax (HE160)	6185-6385	47 to 79	47, 79	OFDMA	BPSK	MCS0
	6505	111	111	OFDMA	BPSK	MCS0
	6525-6875	143 to 175	143, 175	OFDMA	BPSK	MCS0
	6985	207	207	OFDMA	BPSK	MCS0
Beamforming Mode						
Nss1 / Nss4						
Mode	FREQ. Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate Parameter
802.11ax (HE20)	6115-6415	33 to 93	33, 61, 93	OFDMA	BPSK	MCS0
	6435-6515	97 to 113	97, 105, 113	OFDMA	BPSK	MCS0
	6535-6875	117 to 185	117, 153, 181, 185	OFDMA	BPSK	MCS0
	6875-7115	185 to 233	185, 213, 229, 233	OFDMA	BPSK	MCS0
802.11ax (HE40)	6125-6405	35 to 91	35, 59, 91	OFDMA	BPSK	MCS0
	6445 to 6525	99 to 115	99, 107, 115	OFDMA	BPSK	MCS0
	6525 to 6885	115 to 187	115, 123, 155, 179, 187	OFDMA	BPSK	MCS0
	6885 to 7085	187 to 227	187, 211, 227	OFDMA	BPSK	MCS0
802.11ax (HE80)	6145-6385	39 to 87	39, 55, 87	OFDMA	BPSK	MCS0
	6465-6525	103 to 119	103, 119	OFDMA	BPSK	MCS0
	6525-6875	119 to 183	119, 135, 151, 167, 183	OFDMA	BPSK	MCS0
	6875-7025	183 to 215	183, 199, 215	OFDMA	BPSK	MCS0
802.11ax (HE160)	6185-6385	47 to 79	47, 79	OFDMA	BPSK	MCS0
	6505	111	111	OFDMA	BPSK	MCS0
	6525-6875	143 to 175	143, 175	OFDMA	BPSK	MCS0
	6985	207	207	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.

SDM Mode						
Nss4						
Mode	FREQ. Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate Parameter
802.11ax (HE160)	6185-6385	47 to 79	207	OFDMA	BPSK	MCS0
	6505	111				
	6525-6875	143 to 175				
	6985	207				

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.

CDD Mode						
Nss1						
Mode	FREQ. Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate Parameter
802.11a	6115-6415	33 to 93	33, 61, 93	OFDM	BPSK	6Mb/s
	6435-6515	97 to 113	97, 105, 113	OFDM	BPSK	6Mb/s
	6535-6875	117 to 185	117, 153, 181, 185	OFDM	BPSK	6Mb/s
	6875-7115	185 to 233	185, 213, 233	OFDM	BPSK	6Mb/s
802.11ax (HE20)	6115-6415	33 to 93	33, 61, 93	OFDMA	BPSK	MCS0
	6435-6515	97 to 113	97, 105, 113	OFDMA	BPSK	MCS0
	6535-6875	117 to 185	117, 153, 181, 185	OFDMA	BPSK	MCS0
	6875-7115	185 to 233	185, 213, 229, 233	OFDMA	BPSK	MCS0
802.11ax (HE40)	6125-6405	35 to 91	35, 59, 91	OFDMA	BPSK	MCS0
	6445 to 6525	99 to 115	99, 107, 115	OFDMA	BPSK	MCS0
	6525 to 6885	115 to 187	115, 123, 155, 179, 187	OFDMA	BPSK	MCS0
	6885 to 7085	187 to 227	187, 211, 227	OFDMA	BPSK	MCS0
802.11ax (HE80)	6145-6385	39 to 87	39, 55, 87	OFDMA	BPSK	MCS0
	6465-6525	103 to 119	103, 119	OFDMA	BPSK	MCS0
	6525-6875	119 to 183	119, 135, 151, 167, 183	OFDMA	BPSK	MCS0
	6875-7025	183 to 215	183, 199, 215	OFDMA	BPSK	MCS0
802.11ax (HE160)	6185-6385	47 to 79	47, 79	OFDMA	BPSK	MCS0
	6505	111	111	OFDMA	BPSK	MCS0
	6525-6875	143 to 175	143, 175	OFDMA	BPSK	MCS0
	6985	207	207	OFDMA	BPSK	MCS0

SDM Mode						
Nss4						
Mode	FREQ. Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate Parameter
802.11ax (HE20)	6115-6415	33 to 93	33, 61, 93	OFDMA	BPSK	MCS0
	6435-6515	97 to 113	97, 105, 113	OFDMA	BPSK	MCS0
	6535-6875	117 to 185	117, 153, 181, 185	OFDMA	BPSK	MCS0
	6875-7115	185 to 233	185, 213, 229, 233	OFDMA	BPSK	MCS0
802.11ax (HE40)	6125-6405	35 to 91	35, 59, 91	OFDMA	BPSK	MCS0
	6445 to 6525	99 to 115	99, 107, 115	OFDMA	BPSK	MCS0
	6525 to 6885	115 to 187	115, 123, 155, 179, 187	OFDMA	BPSK	MCS0
	6885 to 7085	187 to 227	187, 211, 227	OFDMA	BPSK	MCS0
802.11ax (HE80)	6145-6385	39 to 87	39, 55, 87	OFDMA	BPSK	MCS0
	6465-6525	103 to 119	103, 119	OFDMA	BPSK	MCS0
	6525-6875	119 to 183	119, 135, 151, 167, 183	OFDMA	BPSK	MCS0
	6875-7025	183 to 215	183, 199, 215	OFDMA	BPSK	MCS0
802.11ax (HE160)	6185-6385	47 to 79	47, 79	OFDMA	BPSK	MCS0
	6505	111	111	OFDMA	BPSK	MCS0
	6525-6875	143 to 175	143, 175	OFDMA	BPSK	MCS0
	6985	207	207	OFDMA	BPSK	MCS0
Beamforming Mode						
Nss1 / Nss4						
Mode	FREQ. Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate Parameter
802.11ax (HE20)	6115-6415	33 to 93	33, 61, 93	OFDMA	BPSK	MCS0
	6435-6515	97 to 113	97, 105, 113	OFDMA	BPSK	MCS0
	6535-6875	117 to 185	117, 153, 181, 185	OFDMA	BPSK	MCS0
	6875-7115	185 to 233	185, 213, 229, 233	OFDMA	BPSK	MCS0
802.11ax (HE40)	6125-6405	35 to 91	35, 59, 91	OFDMA	BPSK	MCS0
	6445 to 6525	99 to 115	99, 107, 115	OFDMA	BPSK	MCS0
	6525 to 6885	115 to 187	115, 123, 155, 179, 187	OFDMA	BPSK	MCS0
	6885 to 7085	187 to 227	187, 211, 227	OFDMA	BPSK	MCS0
802.11ax (HE80)	6145-6385	39 to 87	39, 55, 87	OFDMA	BPSK	MCS0
	6465-6525	103 to 119	103, 119	OFDMA	BPSK	MCS0
	6525-6875	119 to 183	119, 135, 151, 167, 183	OFDMA	BPSK	MCS0
	6875-7025	183 to 215	183, 199, 215	OFDMA	BPSK	MCS0
802.11ax (HE160)	6185-6385	47 to 79	47, 79	OFDMA	BPSK	MCS0
	6505	111	111	OFDMA	BPSK	MCS0
	6525-6875	143 to 175	143, 175	OFDMA	BPSK	MCS0
	6985	207	207	OFDMA	BPSK	MCS0

Contention Based Protocol Measurement:

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

Nss4						
Mode	FREQ. Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate Parameter
802.11ax (HE20)	6115-6415	33 to 93	33	OFDMA	BPSK	MCS0
	6435-6515	97 to 113	97	OFDMA	BPSK	MCS0
	6535-6875	117 to 185	153	OFDMA	BPSK	MCS0
	6875-7115	185 to 233	151	OFDMA	BPSK	MCS0
802.11ax (HE80)	6465-6525	103 to 119	103	OFDMA	BPSK	MCS0
802.11ax (HE160)	6185-6385	47 to 79	47	OFDMA	BPSK	MCS0
	6525-6875	143 to 175	143	OFDMA	BPSK	MCS0
	6985	207	207	OFDMA	BPSK	MCS0

Test Condition:

Applicable To	Environmental Conditions	Input Power	Tested By
RE $\geq$ 1G	24deg. C, 68%RH	120Vac, 60Hz	Eric Peng
RE<1G	23deg. C, 65%RH	120Vac, 60Hz	Sampson Chen
PLC	25deg. C, 63%RH	120Vac, 60Hz	Sampson Chen
APCM	25deg. C, 60%RH	120Vac, 60Hz	Jyunchun Lin

3.3 Duty Cycle of Test Signal

For Mode 1:

Duty cycle of test signal is $\geq 98\%$, duty factor is not required.

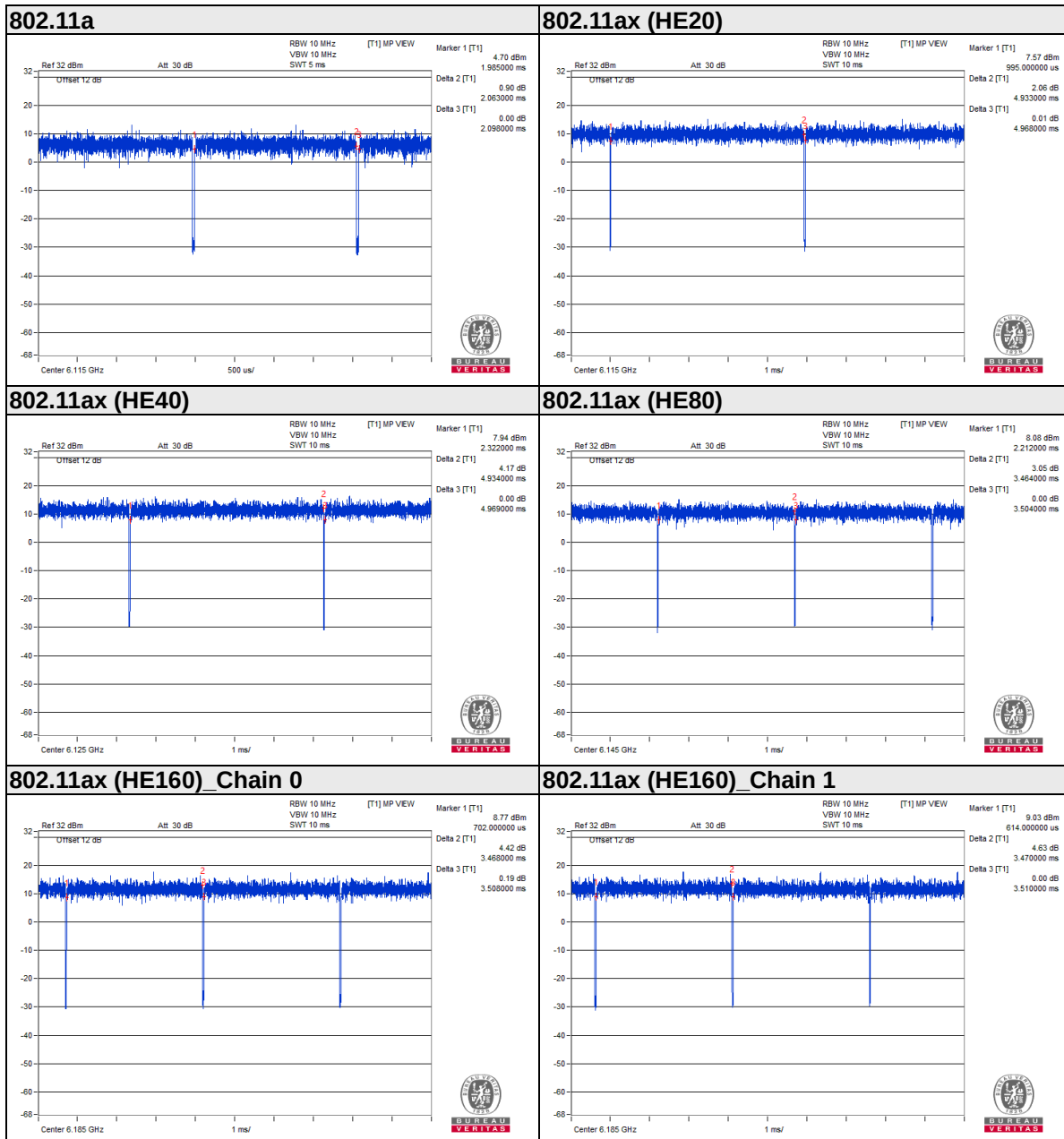
802.11a: Duty cycle = 2.063 ms/2.098 ms= 0.983

802.11ax (HE20): Duty cycle = 4.933 ms/4.968 ms= 0.993

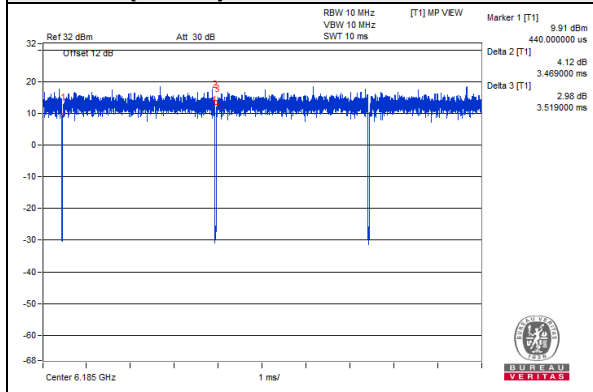
802.11ax (HE40): Duty cycle = 4.934 ms/4.969 ms= 0.993

802.11ax (HE80): Duty cycle = 3.464 ms/3.504 ms= 0.989

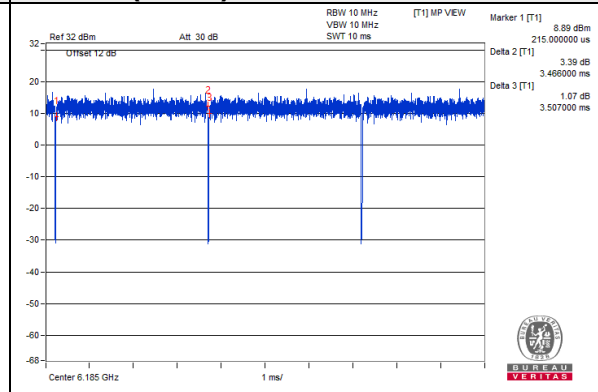
802.11ax (HE160): Duty cycle = 3.468 ms/3.508 ms= 0.989



802.11ax (HE160) Chain 2



802.11ax (HE160) Chain 3



For Mode 2:

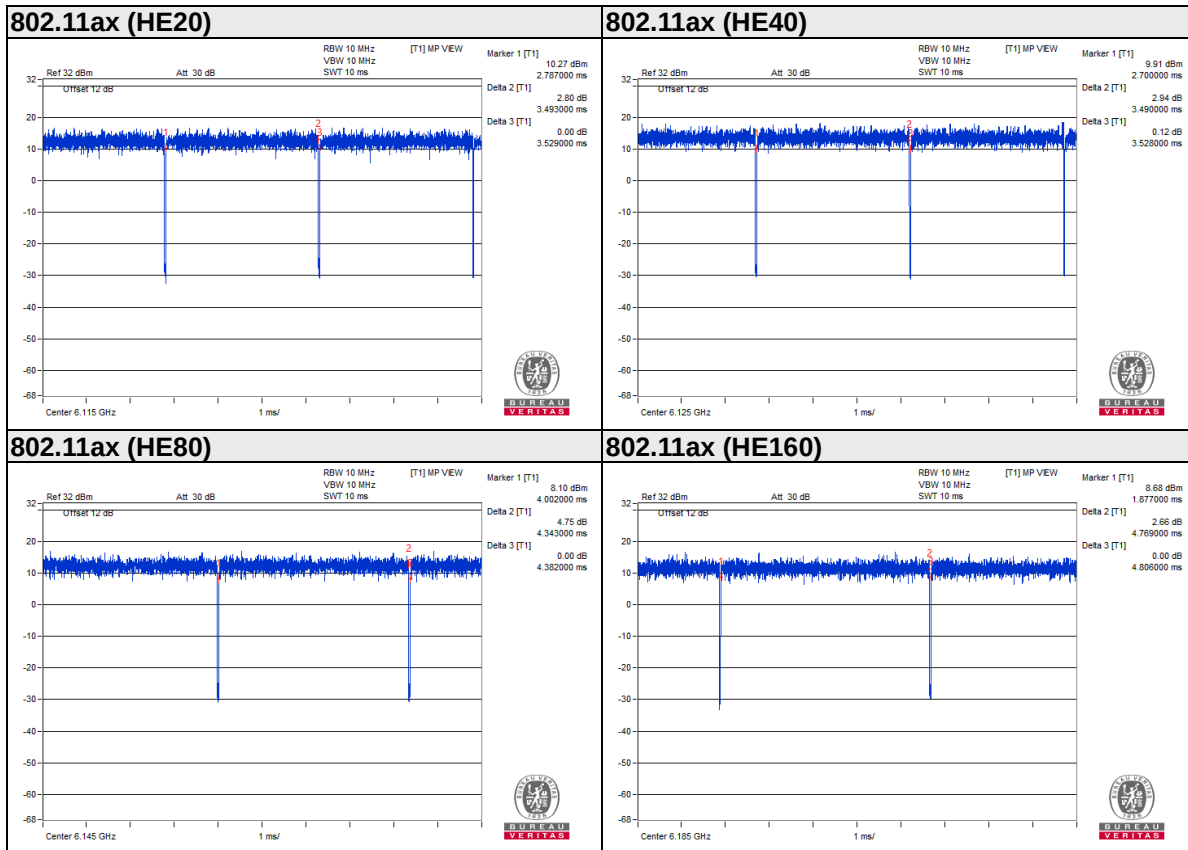
Duty cycle of test signal is $\geq 98\%$, duty factor is not required.

802.11ax (HE20): Duty cycle = 3.493 ms/3.529 ms= 0.99

802.11ax (HE40): Duty cycle = 3.49 ms/3.528 ms= 0.989

802.11ax (HE80): Duty cycle = 4.343 ms/4.382 ms= 0.991

802.11ax (HE160): Duty cycle = 4.769 ms/4.806 ms= 0.992



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.

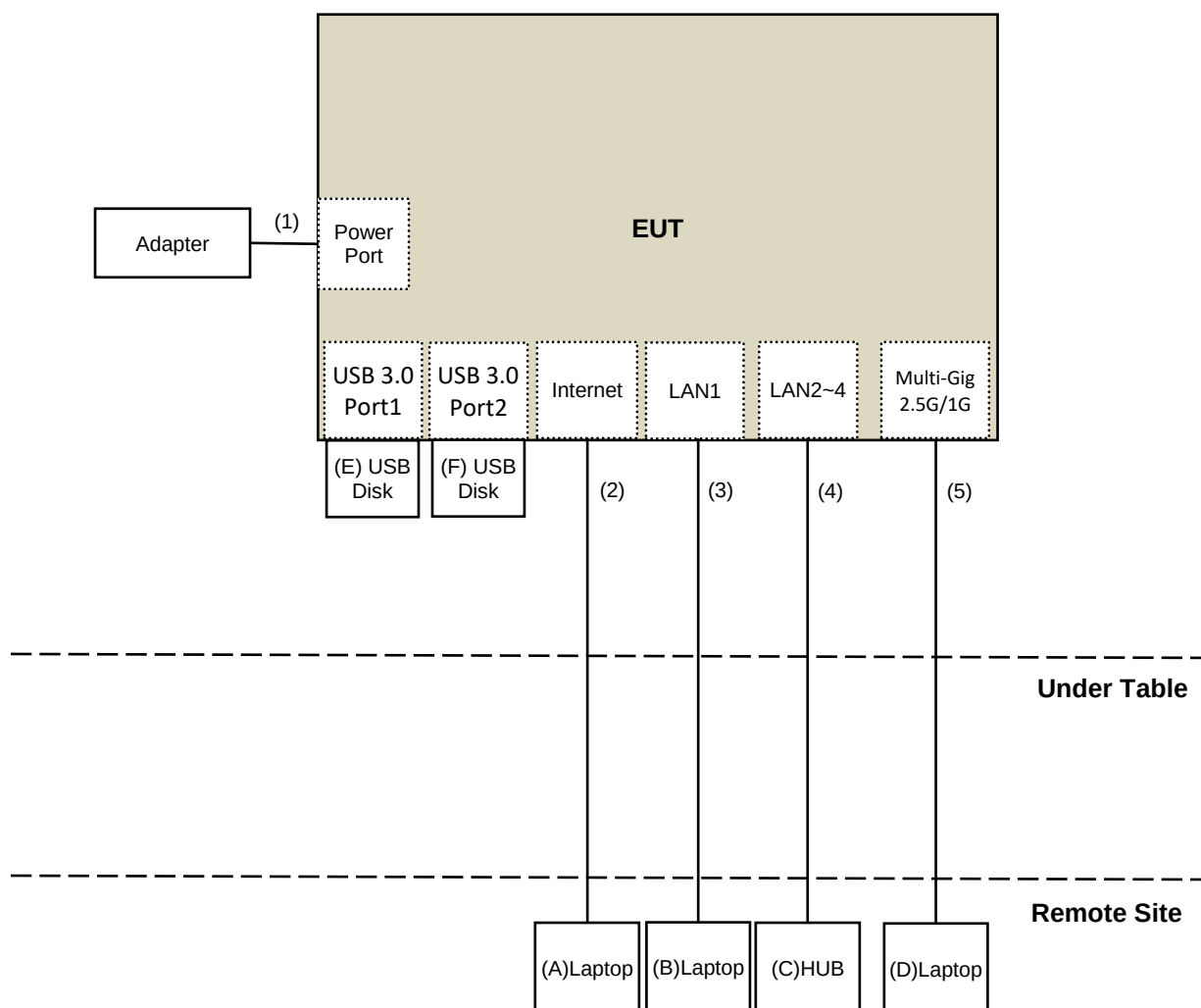
ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	Laptop	DELL	E6420	H62T3R1	DoC	Provided by Lab
B.	Laptop	DELL	E6420	482T3R1	DoC	Provided by Lab
C.	HUB	D-Link	DGS-1005D	DR8WC92000523	NA	Provided by Lab
D.	Laptop	EDLL	E5430	HL3SKV1	DoC	Provided by Lab
E.	USB Disk	SanDink	BM181225896Z	NA	NA	Provided by Lab
F.	USB Disk	SanDink	BM181225896Z	NA	NA	Provided by Lab

Note:

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

ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	DC Cable	1	1.8	No	0	Supplied by client
2.	RJ-45 Cable	1	10	No	0	Provided by Lab
3.	RJ-45 Cable	1	10	No	0	Provided by Lab
4.	RJ-45 Cable	3	10	No	0	Provided by Lab
5.	RJ-45 Cable	1	10	No	0	Provided by Lab

3.4.1 Configuration of System under Test



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 v01

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:

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

4.1.2 Test Instruments

For Radiated emission test:

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver Agilent	N9038A	MY51210202	Dec. 01, 2020	Nov. 30, 2021
Pre-Amplifier EMCI	EMC001340	980142	May 25, 2020	May 24, 2021
Loop Antenna Electro-Metrics	EM-6879	264	Feb. 18, 2020	Feb. 17, 2021
RF Cable	NA	LOOPCAB-001	Jan. 08, 2020	Jan. 07, 2021
RF Cable	NA	LOOPCAB-002	Jan. 08, 2020	Jan. 07, 2021
Pre-Amplifier Mini-Circuits	ZFL-1000VH2B	AMP-ZFL-05	Apr. 28, 2020	Apr. 27, 2021
Trilog Broadband Antenna SCHWARZBECK	VULB 9168	9168-406	Nov. 06, 2020	Nov. 05, 2021
RF Cable	8D	966-4-1	Mar. 18, 2020	Mar. 17, 2021
RF Cable	8D	966-4-2	Mar. 18, 2020	Mar. 17, 2021
RF Cable	8D	966-4-3	Mar. 18, 2020	Mar. 17, 2021
Fixed attenuator Mini-Circuits	UNAT-5+	PAD-3m-4-01	Sep. 24, 2020	Sep. 23, 2021
Horn_Antenna SCHWARZBECK	BBHA 9120D	9120D-783	Nov. 22, 2020	Nov. 21, 2021
Pre-Amplifier EMCI	EMC 12630 SE	980638	Apr. 08, 2020	Apr. 07, 2021
RF Cable	EMC104-SM-SM-1200	160923	Jan. 15, 2020	Jan. 14, 2021
RF Cable	EMC104-SM-SM-2000	180502	Apr. 29, 2020	Apr. 28, 2021
RF Cable	EMC104-SM-SM-6000	180418	Apr. 29, 2020	Apr. 28, 2021
Pre-Amplifier EMCI	EMC184045SE	980387	Jan. 15, 2020	Jan. 14, 2021
Horn_Antenna SCHWARZBECK	BBHA 9170	BBHA9170519	Nov. 22, 2020	Nov. 21, 2021
RF Cable	EMC102-KM-KM-1200	160924	Jan. 15, 2020	Jan. 14, 2021
RF Cable	EMC-KM-KM-4000	200214	Mar. 11, 2020	Mar. 10, 2021
Software	ADT_Radiated_V8.7.08	NA	NA	NA
Boresight Antenna Tower & Turn Table Max-Full	MF-7802BS	MF780208530	NA	NA

Note:

1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in 966 Chamber No. 4.
3. Tested Date: Dec. 12, 2020

For Bandedge test:

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver Agilent	N9038A	MY51210202	Dec. 13, 2019	Dec. 12, 2020
Horn_Antenna SCHWARZBECK	BBHA 9120D	9120D-783	Nov. 22, 2020	Nov. 21, 2021
Pre-Amplifier EMCI	EMC 12630 SE	980638	Apr. 08, 2020	Apr. 07, 2021
RF Cable	EMC104-SM-SM-1200	160923	Jan. 15, 2020	Jan. 14, 2021
RF Cable	EMC104-SM-SM-2000	180502	Apr. 29, 2020	Apr. 28, 2021
RF Cable	EMC104-SM-SM-6000	180418	Apr. 29, 2020	Apr. 28, 2021
Pre-Amplifier EMCI	EMC184045SE	980387	Jan. 15, 2020	Jan. 14, 2021
Horn_Antenna SCHWARZBECK	BBHA 9170	BBHA9170519	Nov. 22, 2020	Nov. 21, 2021
RF Cable	EMC102-KM-KM-1200	160924	Jan. 15, 2020	Jan. 14, 2021
RF Cable	EMC-KM-KM-4000	200214	Mar. 11, 2020	Mar. 10, 2021
Software	ADT_Radiated_V8.7.08	NA	NA	NA
Boresight Antenna Tower & Turn Table Max-Full	MF-7802BS	MF780208530	NA	NA

Note:

1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in 966 Chamber No. 4.
3. Tested Date: Nov. 24, 2020

For other test items:

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Spectrum Analyzer R&S	FSV40	100964	May 29, 2020	May 28, 2021
Power meter Anritsu	ML2495A	1529002	July 22, 2020	July 21, 2021
Power sensor Anritsu	MA2411B	1339443	July 22, 2020	July 21, 2021
Fixed Attenuator Mini-Circuits	MDCS18N-10	MDCS18N-10-01	Apr. 14, 2020	Apr. 13, 2021
AC Power Source Extech Electronics	6205	1440452	NA	NA
Temperature & Humidity Chamber Giant Force	GTH-150-40-SP-AR	MAA0812-008	Jan. 16, 2020	Jan. 15, 2021
True RMS Clamp Meter FLUKE	325	31130711WS	June 06, 2020	June 05, 2021
Software	ADT_RF Test Software V6.6.5.4	NA	NA	NA

- 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: Dec. 19, 2020

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

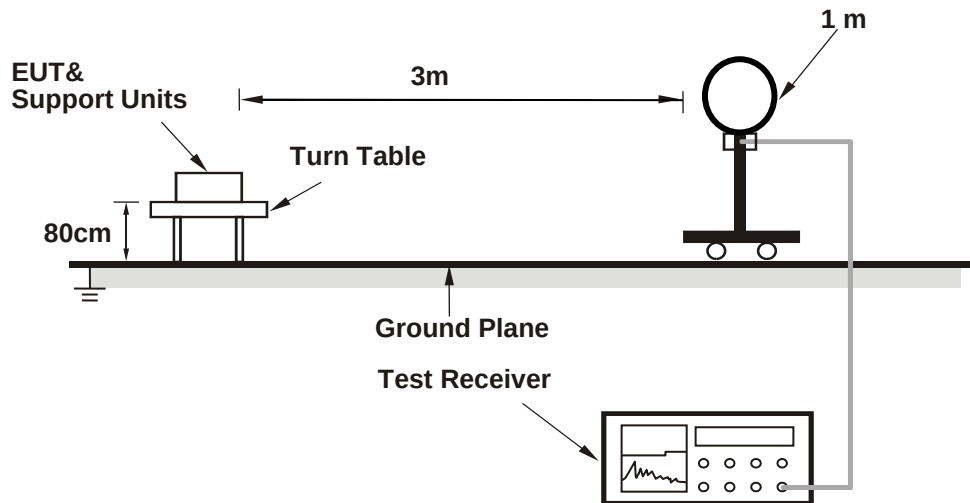
- a. The EUT was placed on the top of a rotating table 0.8 meters (for 30MHz ~ 1GHz) / 1.5 meters (for above 1GHz) above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving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

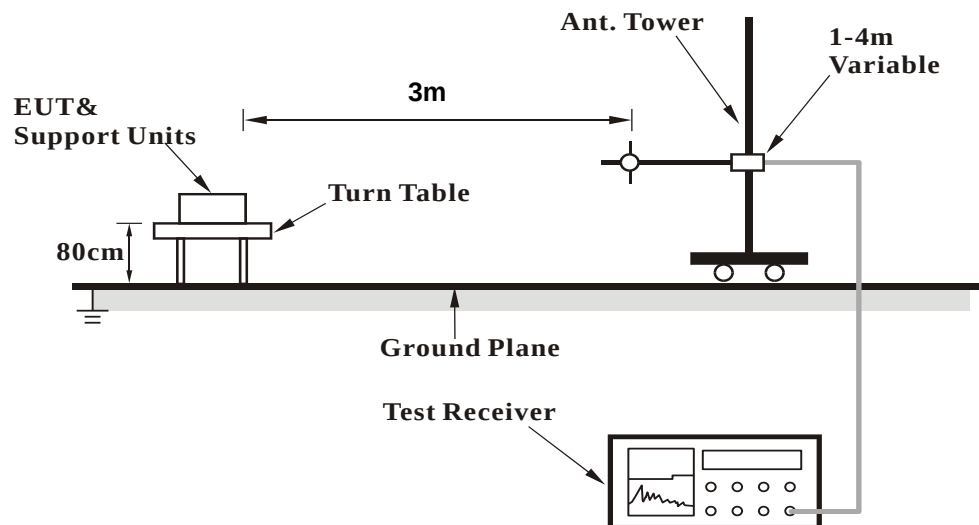
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
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

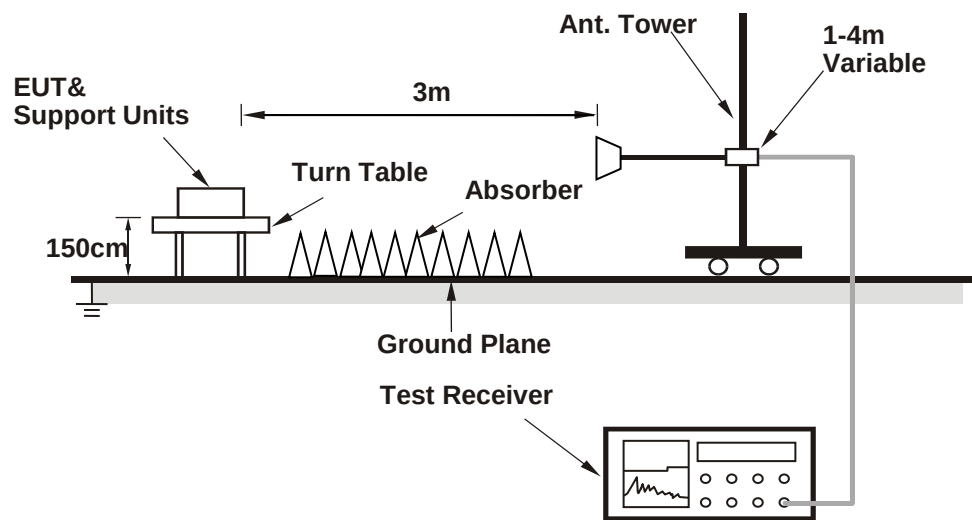
For Radiated emission below 30MHz



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

- Connected the EUT with the Laptop which is placed on the testing table.
- Controlling software (accessMTool_REL_3_2_1-1.zip) has been activated to set the EUT under transmission condition continuously.

4.1.6 Test Results (Mode 1)

Above 1GHz Data:

RF Mode	TX 802.11a 6G	Channel	CH 33 : 6115 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	#5909.94	52.3 PK	88.2	-35.9	1.38 H	138	48.6	3.7
2	#5909.94	41.6 AV	68.2	-26.6	1.38 H	138	37.9	3.7
3	*6115.00	112.9 PK			1.38 H	138	108.6	4.3
4	*6115.00	104.8 AV			1.38 H	138	100.5	4.3
5	12230.00	48.4 PK	74.0	-25.6	1.62 H	335	35.3	13.1
6	12230.00	40.4 AV	54.0	-13.6	1.62 H	335	27.3	13.1
7	18345.00	48.4 PK	74.0	-25.6	1.19 H	319	55.6	-7.2
8	18345.00	36.1 AV	54.0	-17.9	1.19 H	319	43.3	-7.2
9	#24460.00	46.4 PK	88.2	-41.8	1.31 H	320	48.5	-2.1
10	#24460.00	36.4 AV	68.2	-31.8	1.31 H	320	38.5	-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	#5851.35	52.8 PK	88.2	-35.4	1.60 V	355	48.9	3.9
2	#5851.35	40.4 AV	68.2	-27.8	1.60 V	355	36.5	3.9
3	*6115.00	119.1 PK			1.60 V	355	114.8	4.3
4	*6115.00	110.4 AV			1.60 V	355	106.1	4.3
5	12230.00	48.1 PK	74.0	-25.9	1.64 V	321	35.0	13.1
6	12230.00	40.1 AV	54.0	-13.9	1.64 V	321	27.0	13.1
7	18345.00	50.4 PK	74.0	-23.6	1.24 V	317	57.6	-7.2
8	18345.00	42.1 AV	54.0	-11.9	1.24 V	317	49.3	-7.2
9	#24460.00	48.4 PK	88.2	-39.8	1.32 V	311	50.5	-2.1
10	#24460.00	38.0 AV	68.2	-30.2	1.32 V	311	40.1	-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 802.11a 6G	Channel	CH 61 : 6255 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	*6255.00	113.0 PK			1.41 H	144	108.3	4.7
2	*6255.00	104.8 AV			1.41 H	144	100.1	4.7
3	12510.00	48.2 PK	74.0	-25.8	1.63 H	333	35.8	12.4
4	12510.00	40.0 AV	54.0	-14.0	1.63 H	333	27.6	12.4
5	18765.00	48.7 PK	74.0	-25.3	1.16 H	326	55.5	-6.8
6	18765.00	36.4 AV	54.0	-17.6	1.16 H	326	43.2	-6.8
7	#25020.00	46.2 PK	88.2	-42.0	1.30 H	311	48.0	-1.8
8	#25020.00	36.1 AV	68.2	-32.1	1.30 H	311	37.9	-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	*6255.00	118.5 PK			1.63 V	352	113.8	4.7
2	*6255.00	110.0 AV			1.63 V	352	105.3	4.7
3	12510.00	48.4 PK	74.0	-25.6	1.59 V	314	36.0	12.4
4	12510.00	40.3 AV	54.0	-13.7	1.59 V	314	27.9	12.4
5	18765.00	50.6 PK	74.0	-23.4	1.26 V	333	57.4	-6.8
6	18765.00	42.2 AV	54.0	-11.8	1.26 V	333	49.0	-6.8
7	#25020.00	48.4 PK	88.2	-39.8	1.36 V	298	50.2	-1.8
8	#25020.00	38.2 AV	68.2	-30.0	1.36 V	298	40.0	-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 802.11a 6G	Channel	CH 93 : 6415 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	112.7 PK			1.42 H	129	107.4	5.3
2	*6415.00	104.7 AV			1.42 H	129	99.4	5.3
3	#12830.00	48.2 PK	88.2	-40.0	1.66 H	341	34.8	13.4
4	#12830.00	40.2 AV	68.2	-28.0	1.66 H	341	26.8	13.4
5	19245.00	48.7 PK	74.0	-25.3	1.21 H	331	55.4	-6.7
6	19245.00	36.4 AV	54.0	-17.6	1.21 H	331	43.1	-6.7
7	#25660.00	46.7 PK	88.2	-41.5	1.25 H	333	48.3	-1.6
8	#25660.00	36.6 AV	68.2	-31.6	1.25 H	333	38.2	-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	*6415.00	119.1 PK			1.60 V	350	113.8	5.3
2	*6415.00	110.6 AV			1.60 V	350	105.3	5.3
3	#12830.00	47.5 PK	88.2	-40.7	1.67 V	315	34.1	13.4
4	#12830.00	39.7 AV	68.2	-28.5	1.67 V	315	26.3	13.4
5	19245.00	50.1 PK	74.0	-23.9	1.20 V	324	56.8	-6.7
6	19245.00	41.6 AV	54.0	-12.4	1.20 V	324	48.3	-6.7
7	#25660.00	48.6 PK	88.2	-39.6	1.28 V	315	50.2	-1.6
8	#25660.00	38.3 AV	68.2	-29.9	1.28 V	315	39.9	-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 802.11a 6G	Channel	CH 97 : 6435 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	112.7 PK			1.40 H	141	107.3	5.4
2	*6435.00	104.9 AV			1.40 H	141	99.5	5.4
3	#12870.00	48.4 PK	88.2	-39.8	1.66 H	320	35.0	13.4
4	#12870.00	40.6 AV	68.2	-27.6	1.66 H	320	27.2	13.4
5	19305.00	48.1 PK	74.0	-25.9	1.20 H	303	54.8	-6.7
6	19305.00	35.7 AV	54.0	-18.3	1.20 H	303	42.4	-6.7
7	#25740.00	46.3 PK	88.2	-41.9	1.33 H	335	47.7	-1.4
8	#25740.00	36.1 AV	68.2	-32.1	1.33 H	335	37.5	-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	*6435.00	119.1 PK			1.55 V	344	113.7	5.4
2	*6435.00	110.2 AV			1.55 V	344	104.8	5.4
3	#12870.00	48.0 PK	88.2	-40.2	1.68 V	325	34.6	13.4
4	#12870.00	40.3 AV	68.2	-27.9	1.68 V	325	26.9	13.4
5	19305.00	50.1 PK	74.0	-23.9	1.30 V	327	56.8	-6.7
6	19305.00	41.7 AV	54.0	-12.3	1.30 V	327	48.4	-6.7
7	#25740.00	48.6 PK	88.2	-39.6	1.33 V	303	50.0	-1.4
8	#25740.00	38.3 AV	68.2	-29.9	1.33 V	303	39.7	-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 802.11a 6G	Channel	CH 105 : 6475 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	113.1 PK			1.40 H	125	107.4	5.7
2	*6475.00	105.3 AV			1.40 H	125	99.6	5.7
3	#12950.00	48.5 PK	88.2	-39.7	1.66 H	324	35.2	13.3
4	#12950.00	40.4 AV	68.2	-27.8	1.66 H	324	27.1	13.3
5	19425.00	48.6 PK	74.0	-25.4	1.22 H	320	55.4	-6.8
6	19425.00	36.3 AV	54.0	-17.7	1.22 H	320	43.1	-6.8
7	#25900.00	46.7 PK	88.2	-41.5	1.26 H	330	48.7	-2.0
8	#25900.00	36.8 AV	68.2	-31.4	1.26 H	330	38.8	-2.0

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	*6475.00	119.0 PK			1.57 V	347	113.3	5.7
2	*6475.00	110.2 AV			1.57 V	347	104.5	5.7
3	#12950.00	48.1 PK	88.2	-40.1	1.68 V	320	34.8	13.3
4	#12950.00	40.0 AV	68.2	-28.2	1.68 V	320	26.7	13.3
5	19425.00	50.2 PK	74.0	-23.8	1.24 V	321	57.0	-6.8
6	19425.00	42.1 AV	54.0	-11.9	1.24 V	321	48.9	-6.8
7	#25900.00	48.7 PK	88.2	-39.5	1.26 V	310	50.7	-2.0
8	#25900.00	38.3 AV	68.2	-29.9	1.26 V	310	40.3	-2.0

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 802.11a 6G	Channel	CH 113 : 6515 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	113.3 PK			1.33 H	124	107.3	6.0
2	*6515.00	105.2 AV			1.33 H	124	99.2	6.0
3	#13030.00	48.5 PK	88.2	-39.7	1.68 H	336	35.2	13.3
4	#13030.00	40.7 AV	68.2	-27.5	1.68 H	336	27.4	13.3
5	19545.00	48.0 PK	74.0	-26.0	1.13 H	321	54.2	-6.2
6	19545.00	35.7 AV	54.0	-18.3	1.13 H	321	41.9	-6.2
7	#26060.00	46.8 PK	88.2	-41.4	1.29 H	323	48.2	-1.4
8	#26060.00	36.6 AV	68.2	-31.6	1.29 H	323	38.0	-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	*6515.00	119.4 PK			1.59 V	9	113.4	6.0
2	*6515.00	110.7 AV			1.59 V	9	104.7	6.0
3	#13030.00	47.4 PK	88.2	-40.8	1.68 V	312	34.1	13.3
4	#13030.00	39.7 AV	68.2	-28.5	1.68 V	312	26.4	13.3
5	19545.00	50.1 PK	74.0	-23.9	1.22 V	331	56.3	-6.2
6	19545.00	41.6 AV	54.0	-12.4	1.22 V	331	47.8	-6.2
7	#26060.00	48.9 PK	88.2	-39.3	1.27 V	307	50.3	-1.4
8	#26060.00	38.3 AV	68.2	-29.9	1.27 V	307	39.7	-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 802.11a 6G	Channel	CH 117 : 6535 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	112.3 PK			1.34 H	126	106.3	6.0
2	*6535.00	104.3 AV			1.34 H	126	98.3	6.0
3	#13070.00	48.0 PK	88.2	-40.2	1.67 H	340	34.6	13.4
4	#13070.00	40.2 AV	68.2	-28.0	1.67 H	340	26.8	13.4
5	19605.00	47.9 PK	74.0	-26.1	1.16 H	332	54.0	-6.1
6	19605.00	35.7 AV	54.0	-18.3	1.16 H	332	41.8	-6.1
7	#26140.00	46.4 PK	88.2	-41.8	1.28 H	333	47.7	-1.3
8	#26140.00	36.4 AV	68.2	-31.8	1.28 H	333	37.7	-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	*6535.00	119.1 PK			1.54 V	349	113.1	6.0
2	*6535.00	110.3 AV			1.54 V	349	104.3	6.0
3	#13070.00	48.6 PK	88.2	-39.6	1.62 V	308	35.2	13.4
4	#13070.00	40.5 AV	68.2	-27.7	1.62 V	308	27.1	13.4
5	19605.00	50.3 PK	74.0	-23.7	1.24 V	314	56.4	-6.1
6	19605.00	42.0 AV	54.0	-12.0	1.24 V	314	48.1	-6.1
7	#26140.00	48.1 PK	88.2	-40.1	1.26 V	305	49.4	-1.3
8	#26140.00	37.5 AV	68.2	-30.7	1.26 V	305	38.8	-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 802.11a 6G	Channel	CH 153 : 6715 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	112.8 PK			1.40 H	133	106.7	6.1
2	*6715.00	105.0 AV			1.40 H	133	98.9	6.1
3	#13430.00	48.4 PK	88.2	-39.8	1.64 H	325	33.5	14.9
4	#13430.00	40.1 AV	68.2	-28.1	1.64 H	325	25.2	14.9
5	20145.00	48.0 PK	74.0	-26.0	1.18 H	329	53.4	-5.4
6	20145.00	35.7 AV	54.0	-18.3	1.18 H	329	41.1	-5.4
7	#26860.00	46.1 PK	88.2	-42.1	1.28 H	313	47.2	-1.1
8	#26860.00	36.3 AV	68.2	-31.9	1.28 H	313	37.4	-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	*6715.00	119.4 PK			1.59 V	4	113.3	6.1
2	*6715.00	110.6 AV			1.59 V	4	104.5	6.1
3	#13430.00	47.7 PK	88.2	-40.5	1.70 V	318	32.8	14.9
4	#13430.00	40.0 AV	68.2	-28.2	1.70 V	318	25.1	14.9
5	20145.00	50.8 PK	74.0	-23.2	1.29 V	333	56.2	-5.4
6	20145.00	42.4 AV	54.0	-11.6	1.29 V	333	47.8	-5.4
7	#26860.00	48.1 PK	88.2	-40.1	1.28 V	298	49.2	-1.1
8	#26860.00	37.9 AV	68.2	-30.3	1.28 V	298	39.0	-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 802.11a 6G	Channel	CH 181 : 6855 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	112.2 PK			1.34 H	136	105.4	6.8
2	*6855.00	104.4 AV			1.34 H	136	97.6	6.8
3	#13710.00	48.6 PK	88.2	-39.6	1.61 H	338	32.9	15.7
4	#13710.00	40.4 AV	68.2	-27.8	1.61 H	338	24.7	15.7
5	20565.00	48.9 PK	74.0	-25.1	1.17 H	322	53.8	-4.9
6	20565.00	36.5 AV	54.0	-17.5	1.17 H	322	41.4	-4.9
7	#27420.00	46.5 PK	88.2	-41.7	1.30 H	335	48.1	-1.6
8	#27420.00	36.6 AV	68.2	-31.6	1.30 H	335	38.2	-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	*6855.00	118.8 PK			1.59 V	334	112.0	6.8
2	*6855.00	110.1 AV			1.59 V	334	103.3	6.8
3	#13710.00	47.8 PK	88.2	-40.4	1.69 V	328	32.1	15.7
4	#13710.00	40.3 AV	68.2	-27.9	1.69 V	328	24.6	15.7
5	20565.00	50.9 PK	74.0	-23.1	1.31 V	345	55.8	-4.9
6	20565.00	42.4 AV	54.0	-11.6	1.31 V	345	47.3	-4.9
7	#27420.00	48.3 PK	88.2	-39.9	1.22 V	300	49.9	-1.6
8	#27420.00	37.9 AV	68.2	-30.3	1.22 V	300	39.5	-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 802.11a 6G	Channel	CH 185 : 6875 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	112.9 PK			1.42 H	150	105.9	7.0
2	*6875.00	105.1 AV			1.42 H	150	98.1	7.0
3	#13750.00	48.5 PK	88.2	-39.7	1.64 H	340	32.7	15.8
4	#13750.00	40.2 AV	68.2	-28.0	1.64 H	340	24.4	15.8
5	20625.00	48.5 PK	74.0	-25.5	1.14 H	322	53.3	-4.8
6	20625.00	36.5 AV	54.0	-17.5	1.14 H	322	41.3	-4.8
7	#27500.00	46.7 PK	88.2	-41.5	1.35 H	320	47.9	-1.2
8	#27500.00	36.4 AV	68.2	-31.8	1.35 H	320	37.6	-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	*6875.00	118.7 PK			1.64 V	323	111.7	7.0
2	*6875.00	109.8 AV			1.64 V	323	102.8	7.0
3	#13750.00	48.1 PK	88.2	-40.1	1.59 V	329	32.3	15.8
4	#13750.00	40.2 AV	68.2	-28.0	1.59 V	329	24.4	15.8
5	20625.00	50.5 PK	74.0	-23.5	1.29 V	315	55.3	-4.8
6	20625.00	42.3 AV	54.0	-11.7	1.29 V	315	47.1	-4.8
7	#27500.00	48.9 PK	88.2	-39.3	1.27 V	311	50.1	-1.2
8	#27500.00	38.4 AV	68.2	-29.8	1.27 V	311	39.6	-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 802.11a 6G	Channel	CH 213 : 7015 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	113.3 PK			1.40 H	128	105.4	7.9
2	*7015.00	105.2 AV			1.40 H	128	97.3	7.9
3	#14030.00	48.2 PK	88.2	-40.0	1.68 H	331	32.3	15.9
4	#14030.00	39.8 AV	68.2	-28.4	1.68 H	331	23.9	15.9
5	21045.00	48.4 PK	74.0	-25.6	1.18 H	318	52.8	-4.4
6	21045.00	36.5 AV	54.0	-17.5	1.18 H	318	40.9	-4.4
7	#28060.00	46.6 PK	88.2	-41.6	1.31 H	331	48.0	-1.4
8	#28060.00	36.6 AV	68.2	-31.6	1.31 H	331	38.0	-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	*7015.00	118.4 PK			1.53 V	337	110.5	7.9
2	*7015.00	109.6 AV			1.53 V	337	101.7	7.9
3	#14030.00	48.1 PK	88.2	-40.1	1.63 V	336	32.2	15.9
4	#14030.00	39.8 AV	68.2	-28.4	1.63 V	336	23.9	15.9
5	21045.00	51.0 PK	74.0	-23.0	1.29 V	319	55.4	-4.4
6	21045.00	42.6 AV	54.0	-11.4	1.29 V	319	47.0	-4.4
7	#28060.00	48.1 PK	88.2	-40.1	1.27 V	313	49.5	-1.4
8	#28060.00	38.0 AV	68.2	-30.2	1.27 V	313	39.4	-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 802.11a 6G	Channel	CH 233 : 7115 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	100.3 PK			1.65 H	10	92.2	8.1
2	*7115.00	92.8 AV			1.65 H	10	84.7	8.1
3	#7125.00	81.4 PK	88.2	-6.8	1.65 H	10	73.2	8.2
4	#7125.00	62.6 AV	68.2	-5.6	1.65 H	10	54.4	8.2
5	#14230.00	48.6 PK	88.2	-39.6	1.67 H	347	31.5	17.1
6	#14230.00	40.1 AV	68.2	-28.1	1.67 H	347	23.0	17.1
7	21345.00	48.0 PK	74.0	-26.0	1.10 H	327	52.2	-4.2
8	21345.00	36.1 AV	54.0	-17.9	1.10 H	327	40.3	-4.2
9	#28460.00	47.3 PK	88.2	-40.9	1.40 H	314	48.7	-1.4
10	#28460.00	36.9 AV	68.2	-31.3	1.40 H	314	38.3	-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	*7115.00	109.1 PK			1.50 V	342	101.0	8.1
2	*7115.00	100.0 AV			1.50 V	342	91.9	8.1
3	#7125.00	87.7 PK	88.2	-0.5	1.50 V	342	79.5	8.2
4	#7125.00	58.2 AV	68.2	-10.0	1.50 V	342	50.0	8.2
5	#14230.00	47.9 PK	88.2	-40.3	1.59 V	307	30.8	17.1
6	#14230.00	40.1 AV	68.2	-28.1	1.59 V	307	23.0	17.1
7	21345.00	50.1 PK	74.0	-23.9	1.18 V	326	54.3	-4.2
8	21345.00	41.8 AV	54.0	-12.2	1.18 V	326	46.0	-4.2
9	#28460.00	49.1 PK	88.2	-39.1	1.31 V	315	50.5	-1.4
10	#28460.00	38.4 AV	68.2	-29.8	1.31 V	315	39.8	-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 33 : 6115 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	#5831.00	53.7 PK	88.2	-34.5	1.95 H	256	49.9	3.8
2	#5831.00	41.6 AV	68.2	-26.6	1.95 H	256	37.8	3.8
3	*6115.00	113.3 PK			1.95 H	256	109.0	4.3
4	*6115.00	103.1 AV			1.95 H	256	98.8	4.3
5	12230.00	48.7 PK	74.0	-25.3	1.60 H	331	35.6	13.1
6	12230.00	40.2 AV	54.0	-13.8	1.60 H	331	27.1	13.1
7	18345.00	48.7 PK	74.0	-25.3	1.13 H	323	55.9	-7.2
8	18345.00	36.6 AV	54.0	-17.4	1.13 H	323	43.8	-7.2
9	#24460.00	46.2 PK	88.2	-42.0	1.33 H	325	48.3	-2.1
10	#24460.00	36.0 AV	68.2	-32.2	1.33 H	325	38.1	-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	#5831.00	52.6 PK	88.2	-35.6	1.62 V	351	48.8	3.8
2	#5831.00	40.4 AV	68.2	-27.8	1.62 V	351	36.6	3.8
3	*6115.00	121.2 PK			1.62 V	351	116.9	4.3
4	*6115.00	110.2 AV			1.62 V	351	105.9	4.3
5	12230.00	48.6 PK	74.0	-25.4	1.69 V	321	35.5	13.1
6	12230.00	40.3 AV	54.0	-13.7	1.69 V	321	27.2	13.1
7	18345.00	50.6 PK	74.0	-23.4	1.28 V	317	57.8	-7.2
8	18345.00	42.2 AV	54.0	-11.8	1.28 V	317	49.4	-7.2
9	#24460.00	48.5 PK	88.2	-39.7	1.27 V	299	50.6	-2.1
10	#24460.00	38.2 AV	68.2	-30.0	1.27 V	299	40.3	-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 61 : 6255 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	*6255.00	113.5 PK			1.94 H	252	108.8	4.7
2	*6255.00	103.1 AV			1.94 H	252	98.4	4.7
3	12510.00	49.1 PK	74.0	-24.9	1.64 H	331	36.7	12.4
4	12510.00	40.6 AV	54.0	-13.4	1.64 H	331	28.2	12.4
5	18765.00	48.5 PK	74.0	-25.5	1.15 H	307	55.3	-6.8
6	18765.00	36.8 AV	54.0	-17.2	1.15 H	307	43.6	-6.8
7	#25020.00	47.1 PK	88.2	-41.1	1.37 H	305	48.9	-1.8
8	#25020.00	36.8 AV	68.2	-31.4	1.37 H	305	38.6	-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	*6255.00	121.4 PK			1.57 V	348	116.7	4.7
2	*6255.00	110.4 AV			1.57 V	348	105.7	4.7
3	12510.00	48.0 PK	74.0	-26.0	1.60 V	314	35.6	12.4
4	12510.00	40.0 AV	54.0	-14.0	1.60 V	314	27.6	12.4
5	18765.00	50.0 PK	74.0	-24.0	1.26 V	320	56.8	-6.8
6	18765.00	41.9 AV	54.0	-12.1	1.26 V	320	48.7	-6.8
7	#25020.00	49.0 PK	88.2	-39.2	1.32 V	321	50.8	-1.8
8	#25020.00	38.3 AV	68.2	-29.9	1.32 V	321	40.1	-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 93 : 6415 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	112.8 PK			1.93 H	243	107.5	5.3
2	*6415.00	102.8 AV			1.93 H	243	97.5	5.3
3	#12830.00	48.2 PK	88.2	-40.0	1.70 H	328	34.8	13.4
4	#12830.00	39.7 AV	68.2	-28.5	1.70 H	328	26.3	13.4
5	19245.00	49.1 PK	74.0	-24.9	1.14 H	316	55.8	-6.7
6	19245.00	36.9 AV	54.0	-17.1	1.14 H	316	43.6	-6.7
7	#25660.00	46.6 PK	88.2	-41.6	1.33 H	312	48.2	-1.6
8	#25660.00	36.1 AV	68.2	-32.1	1.33 H	312	37.7	-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	*6415.00	120.7 PK			1.56 V	5	115.4	5.3
2	*6415.00	109.9 AV			1.56 V	5	104.6	5.3
3	#12830.00	48.0 PK	88.2	-40.2	1.69 V	306	34.6	13.4
4	#12830.00	39.8 AV	68.2	-28.4	1.69 V	306	26.4	13.4
5	19245.00	50.5 PK	74.0	-23.5	1.28 V	325	57.2	-6.7
6	19245.00	42.3 AV	54.0	-11.7	1.28 V	325	49.0	-6.7
7	#25660.00	48.8 PK	88.2	-39.4	1.38 V	298	50.4	-1.6
8	#25660.00	38.2 AV	68.2	-30.0	1.38 V	298	39.8	-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 (HE20)	Channel	CH 97 : 6435 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	113.9 PK			1.97 H	263	108.5	5.4
2	*6435.00	103.5 AV			1.97 H	263	98.1	5.4
3	#12870.00	48.8 PK	88.2	-39.4	1.60 H	332	35.4	13.4
4	#12870.00	40.4 AV	68.2	-27.8	1.60 H	332	27.0	13.4
5	19305.00	48.9 PK	74.0	-25.1	1.11 H	335	55.6	-6.7
6	19305.00	36.8 AV	54.0	-17.2	1.11 H	335	43.5	-6.7
7	#25740.00	46.3 PK	88.2	-41.9	1.31 H	330	47.7	-1.4
8	#25740.00	36.0 AV	68.2	-32.2	1.31 H	330	37.4	-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	*6435.00	121.2 PK			1.62 V	349	115.8	5.4
2	*6435.00	110.2 AV			1.62 V	349	104.8	5.4
3	#12870.00	47.8 PK	88.2	-40.4	1.62 V	315	34.4	13.4
4	#12870.00	39.6 AV	68.2	-28.6	1.62 V	315	26.2	13.4
5	19305.00	50.0 PK	74.0	-24.0	1.25 V	303	56.7	-6.7
6	19305.00	41.6 AV	54.0	-12.4	1.25 V	303	48.3	-6.7
7	#25740.00	47.8 PK	88.2	-40.4	1.37 V	313	49.2	-1.4
8	#25740.00	37.6 AV	68.2	-30.6	1.37 V	313	39.0	-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 105 : 6475 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

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	113.3 PK			1.95 H	253	107.6	5.7
2	*6475.00	103.1 AV			1.95 H	253	97.4	5.7
3	#12950.00	48.8 PK	88.2	-39.4	1.69 H	332	35.5	13.3
4	#12950.00	40.4 AV	68.2	-27.8	1.69 H	332	27.1	13.3
5	19425.00	48.4 PK	74.0	-25.6	1.09 H	310	55.2	-6.8
6	19425.00	36.3 AV	54.0	-17.7	1.09 H	310	43.1	-6.8
7	#25900.00	46.8 PK	88.2	-41.4	1.36 H	308	48.8	-2.0
8	#25900.00	36.3 AV	68.2	-31.9	1.36 H	308	38.3	-2.0
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	*6475.00	120.9 PK			1.58 V	6	115.2	5.7
2	*6475.00	109.8 AV			1.58 V	6	104.1	5.7
3	#12950.00	48.8 PK	88.2	-39.4	1.62 V	307	35.5	13.3
4	#12950.00	40.5 AV	68.2	-27.7	1.62 V	307	27.2	13.3
5	19425.00	50.6 PK	74.0	-23.4	1.25 V	323	57.4	-6.8
6	19425.00	42.3 AV	54.0	-11.7	1.25 V	323	49.1	-6.8
7	#25900.00	49.2 PK	88.2	-39.0	1.29 V	321	51.2	-2.0
8	#25900.00	38.5 AV	68.2	-29.7	1.29 V	321	40.5	-2.0

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.