FCC Test Report

Report No.:	RFBBQZ-WTW-P20110514-3
FCC ID:	PY321200536
Test Model:	Perseverance
Series Model:	Ingenuity, Phobos, Deimos
Received Date:	Nov. 17, 2020
Test Date:	Nov. 21, 2020 to Apr. 01, 2021
Issued Date:	July 19, 2021
Applicant:	NETGEAR, Inc.
Address:	350 East Plumeria Drive San Jose, CA 95134
Issued By:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch Hsin Chu Laboratory
Lab Address:	E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwa.
Test Location:	E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan.
FCC Registration / Designation Number:	723255 / TW2022

Testing Laboratory
2022

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Release Control Record

Issue No.	Description	Date Issued
RFBBQZ-WTW-P20110514-3	Original release.	July 19, 2021

1 Certificate of Conformity

Product:	WiFi Device
Brand:	NETGEAR
Test Model:	Perseverance
Series Model	Ingenuity, Phobos, Deimos
Sample Status:	Engineering sample
Applicant:	NETGEAR, Inc.
Test Date:	Nov. 21, 2020 to Apr. 01, 2021
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 : _____ , **Date:** July 19, 2021

Claire Kuan / Specialist

Approved by : _____ , **Date:** July 19, 2021

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 -17.48dB at 0.49766MHz.
15.407(b)(5) (8)	Radiated Emissions	PASS	Meet the requirement of limit. Minimum passing margin is -0.1dB at 7129.2MHz.
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	9kHz ~ 30MHz	3.1 dB
	30MHz ~ 1GHz	5.5 dB
Radiated Emissions above 1 GHz	1GHz ~ 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	WiFi Device
Brand	NETGEAR
Test Model	Perseverance
Series Model	Ingenuity, Phobos, Deimos
Status of EUT	Engineering sample
Power Supply Rating	19Vdc from power adapter
Modulation Type	1024QAM for OFDMA in 11ax HE mode
Modulation Technology	OFDMA
Transfer Rate	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	**NSS1** **CDD Mode:** **6.105 ~ 6.425GHz:** EIRP: 20.15 dBm / 103.514 mW **6.425 ~ 6.525GHz:** EIRP: 20.15 dBm / 103.514 mW **6.525 ~ 6.875GHz:** EIRP: 19.65 dBm / 92.257 mW **6.875 ~ 7.125GHz:** EIRP: 19.95 dBm / 98.855 mW **Beamforming Mode:** **6.105 ~ 6.425GHz:** EIRP: 26.45 dBm / 441.57 mW **6.425 ~ 6.525GHz:** EIRP: 26.15 dBm / 412.098 mW **6.525 ~ 6.875GHz:** EIRP: 26.55 dBm / 451.856 mW **6.875 ~ 7.125GHz:** EIRP: 26.25 dBm / 421.697 mW **NSS4** **SDM Mode:** **6.105 ~ 6.425GHz:** EIRP: 27.05 dBm / 506.991 mW **6.425 ~ 6.525GHz:** EIRP: 26.25 dBm / 421.697 mW **6.525 ~ 6.875GHz:** EIRP: 26.25 dBm / 421.697 mW **6.875 ~ 7.125GHz:** EIRP: 26.35 dBm / 431.519 mW **Beamforming Mode:** **6.105 ~ 6.425GHz:** EIRP: 27.05 dBm / 506.991 mW **6.425 ~ 6.525GHz:** EIRP: 26.35 dBm / 431.519 mW **6.525 ~ 6.875GHz:** EIRP: 26.25 dBm / 421.697 mW **6.875 ~ 7.125GHz:** EIRP: 26.55 dBm / 451.856 mW
Antenna Type	Refer to Note
Antenna Connector	Refer to Note
Accessory Device	Adapter x1
Data Cable Supplied	NA

Note:

1. The EUT has below product names and model names which are identical to each other in all aspects except for the followings:

Product Name	Model Name	Description	Equipment Class
WiFi Device	Perseverance	Function: Master WAN port*1;LAN port*4	6ID
WiFi Device	Ingenuity	Function: Master WAN port*1;LAN port*4	6ID
WiFi Device	Phobos	Function: Master + Client LAN port*4	6PP
WiFi Device	Deimos	Function: Master + Client LAN port*4	6PP
Note: From the above models, model: Perseverance was selected as representative model for the test and its data was recorded in this report.			

2. The EUT has two radios as following table:

Radio 1	Radio 2	Radio 3	Radio 3
WLAN 2.4GHz	WLAN 5GHz (Low Band)	WLAN 5GHz (High Band)	WLAN 6GHz

3. Simultaneously transmission condition.

Condition	Technology			
1	WLAN 2.4GHz	WLAN 5GHz (Low Band)	WLAN 5GHz (High Band)	WLAN 6GHz
Note: The emission of the simultaneous operation has been evaluated and no non-compliance was found.				

4. The device has two kinds pin to pin FEM as following table:

No.	FEM
1	1st source
2	2nd source
Note: From the above FEMs, the worse case was found in 1st source. Therefore only the test data of the mode was recorded in this report.	

5. The EUT must be supplied with a power adapter as following table:

No.	Brand	Model No.	P/N	Spec.
1	NETGEAR	AD2003F10	332-11488-01	Input: 100-240Vac, 1.5A, 0-60Hz Output: 19Vdc, 3.16A DC Output cable: Unshielded, 1.8m
2	NETGEAR	2AEC060K1 L	332-11578-01	Input: 100-240Vac, 1.5A, 0-60Hz Output: 19Vdc, 3.16A DC Output cable: Unshielded, 1.8m
Note: From the above adapters, the AC Power Conducted Emissions and Radiated Emissions worse case was found in **Adapter 1**. Therefore only the test data of the mode was recorded in this report.				

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

Antenna No.	RF Chain No.	Antenna Net Gain(dBi)	Frequency range	Antenna Type	Connector Type
6E-1	6G Chain0	4.09	5.925~6.425GHz	Dipole	i-pex(MHF)
		1.78	6.425~6.525GHz		
		3.37	6.525~6.875GHz		
		4.31	6.875~7.125GHz		
6E-2	6G Chain1	4.39	5.925~6.425GHz	Dipole	i-pex(MHF)
		2.16	6.425~6.525GHz		
		3.51	6.525~6.875GHz		
		4.45	6.875~7.125GHz		
6E-3	6G Chain2	3.77	5.925~6.425GHz	Dipole	i-pex(MHF)
		2.62	6.425~6.525GHz		
		3.75	6.525~6.875GHz		
		4.48	6.875~7.125GHz		
6E-4	6G Chain3	4.38	5.925~6.425GHz	Dipole	i-pex(MHF)
		4.38	6.425~6.525GHz		
		4.48	6.525~6.875GHz		
		3.9	6.875~7.125GHz		

7. The EUT incorporates a MIMO function:

Modulation Mode	CDD Mode	Beamforming Mode	TX Function
802.11a	Support	Non-Support	4TX
802.11ax (HE20)	Support	Support	4TX
802.11ax (HE40)	Support	Support	4TX
802.11ax (HE80)	Support	Support	4TX
802.11ax (HE160)	Support	Support	4TX

* 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.

8. 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.

9. The above Antenna information is declared by manufacturer, the laboratory shall not be held responsible.

3.2 Description of Test Modes

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

16 channels are provided for 802.11a and 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 and 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 and 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≥1G	RE<1G	IBE	PLC	CBP	APCM	
1	√	-	√	-	-	√	NSS1
2	√	√	√	√	√	√	NSS4

Where **RE≥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

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

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

CDD Mode & SDM Mode						
Mode	FREQ. Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate Parameter
802.11a (Only NSS1)	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, 233	OFDMA	BPSK	MCS0
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						
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.

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	149	OFDMA	BPSK	MCS0
	6875-7115	185 to 233	193	OFDMA	BPSK	MCS0
802.11ax (HE160)	6185-6385	47 to 79	47	OFDMA	BPSK	MCS0
	6505	111	111	OFDMA	BPSK	MCS0
	6525-6875	143 to 175	143	OFDMA	BPSK	MCS0
	6985	207	207	OFDMA	BPSK	MCS0

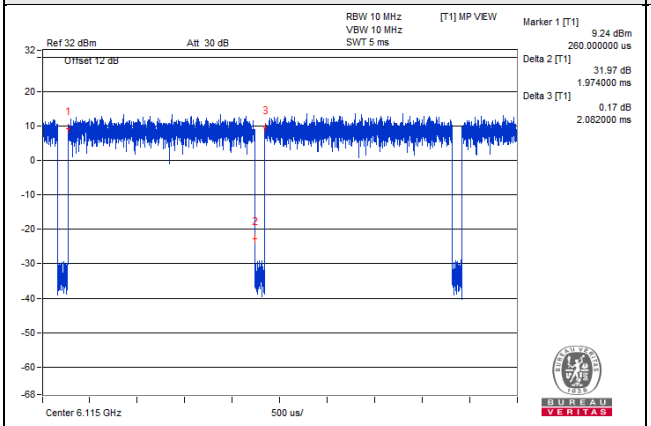
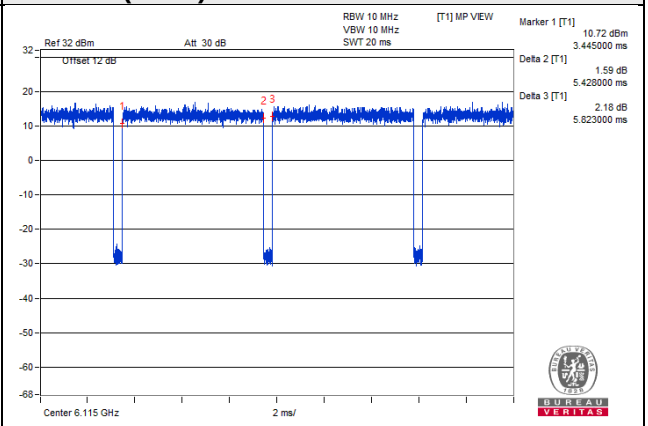
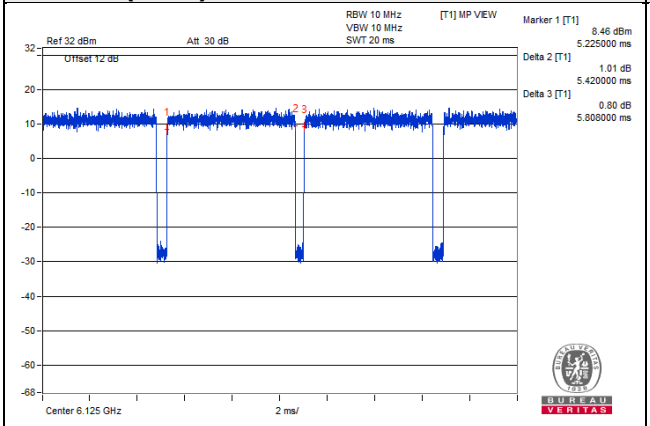
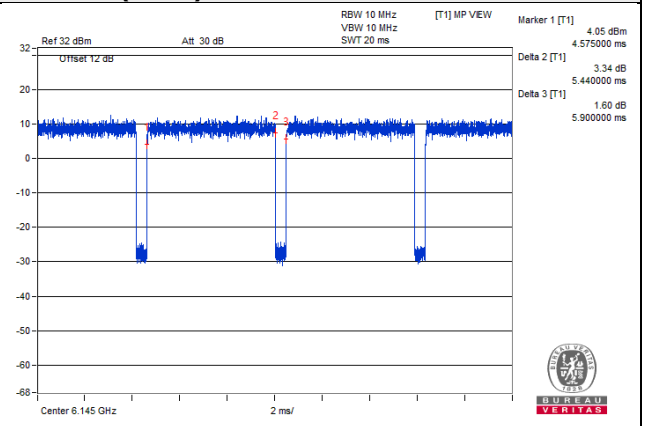
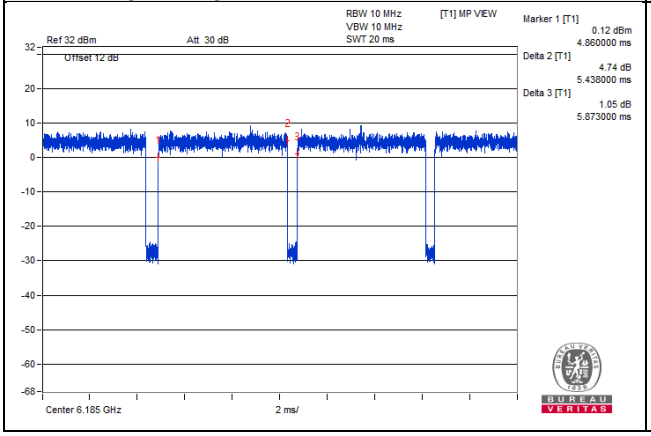
Test Condition:

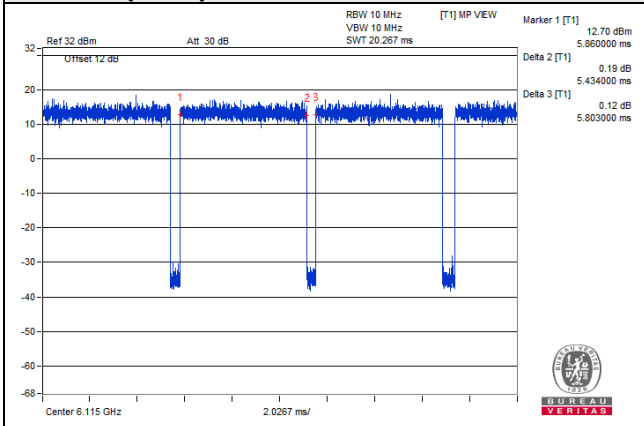
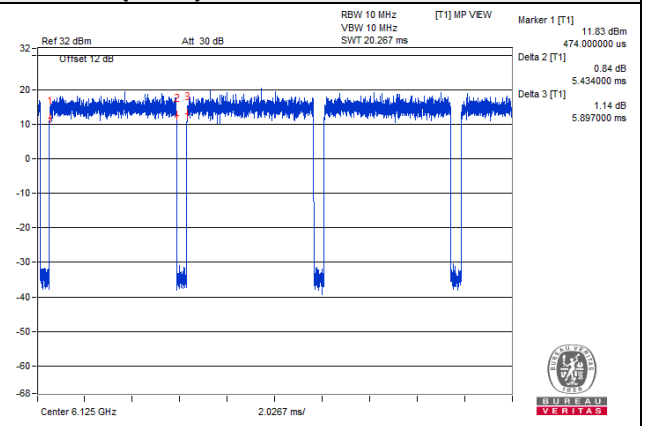
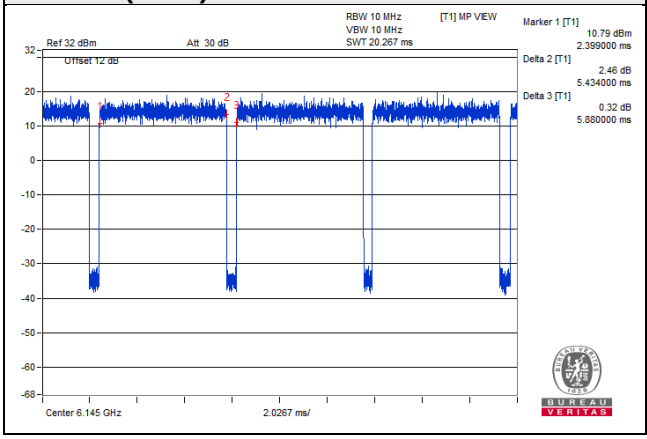
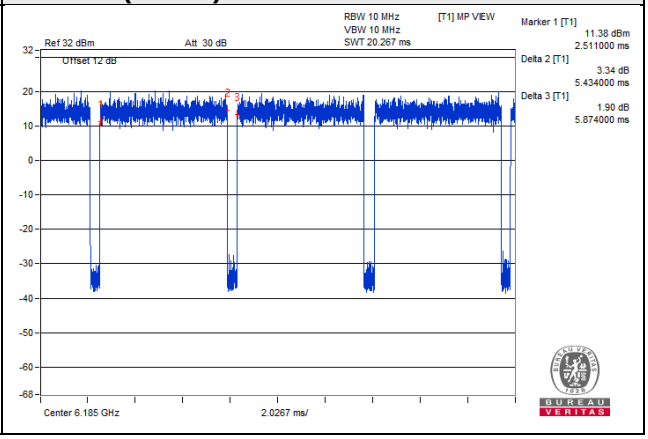
Applicable To	Environmental Conditions	Input Power	Tested By
RE≥1G	25deg. C, 65%RH 25deg. C, 65%RH 23deg. C, 70%RH	120Vac, 60Hz	Carter Lin Ryan Du Tom Yang
RE<1G	22deg. C, 70%RH	120Vac, 60Hz	Ryan Du
PLC	25deg. C, 69%RH	120Vac, 60Hz	Sampson Chen
APCM	25deg. C, 60%RH	120Vac, 60Hz	Eric Peng

3.3 Duty Cycle of Test Signal

Duty cycle of test signal is < 98%, duty factor shall be considered.

Duty Cycle				
	Tx on (ms)	Tx total (ms)	%	Duty Factor (dB)
802.11a_NSS1	1.974	2.082	94.8	0.23
802.11ax (HE20) _NSS1	5.428	5.823	93.2	0.31
802.11ax (HE40) _NSS1	5.42	5.808	93.3	0.30
802.11ax (HE80) _NSS1	5.44	5.9	92.2	0.35
802.11ax (HE160) _NSS1	5.438	5.873	92.6	0.33
802.11ax (HE20) _NSS4	5.434	5.803	93.6	0.29
802.11ax (HE40) _NSS4	5.434	5.897	92.1	0.36
802.11ax (HE80) _NSS4	5.434	5.88	92.4	0.34
802.11ax (HE160) _NSS4	5.434	5.874	92.5	0.34

NSS1	
802.11a	**802.11ax (HE20)**
	
802.11ax (HE40)	**802.11ax (HE80)**
	
802.11ax (HE160)	
	

NSS4	
802.11ax (HE20)	802.11ax (HE40)
	
802.11ax (HE80)	802.11ax (HE160)
	

3.4 Description of Support Units

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

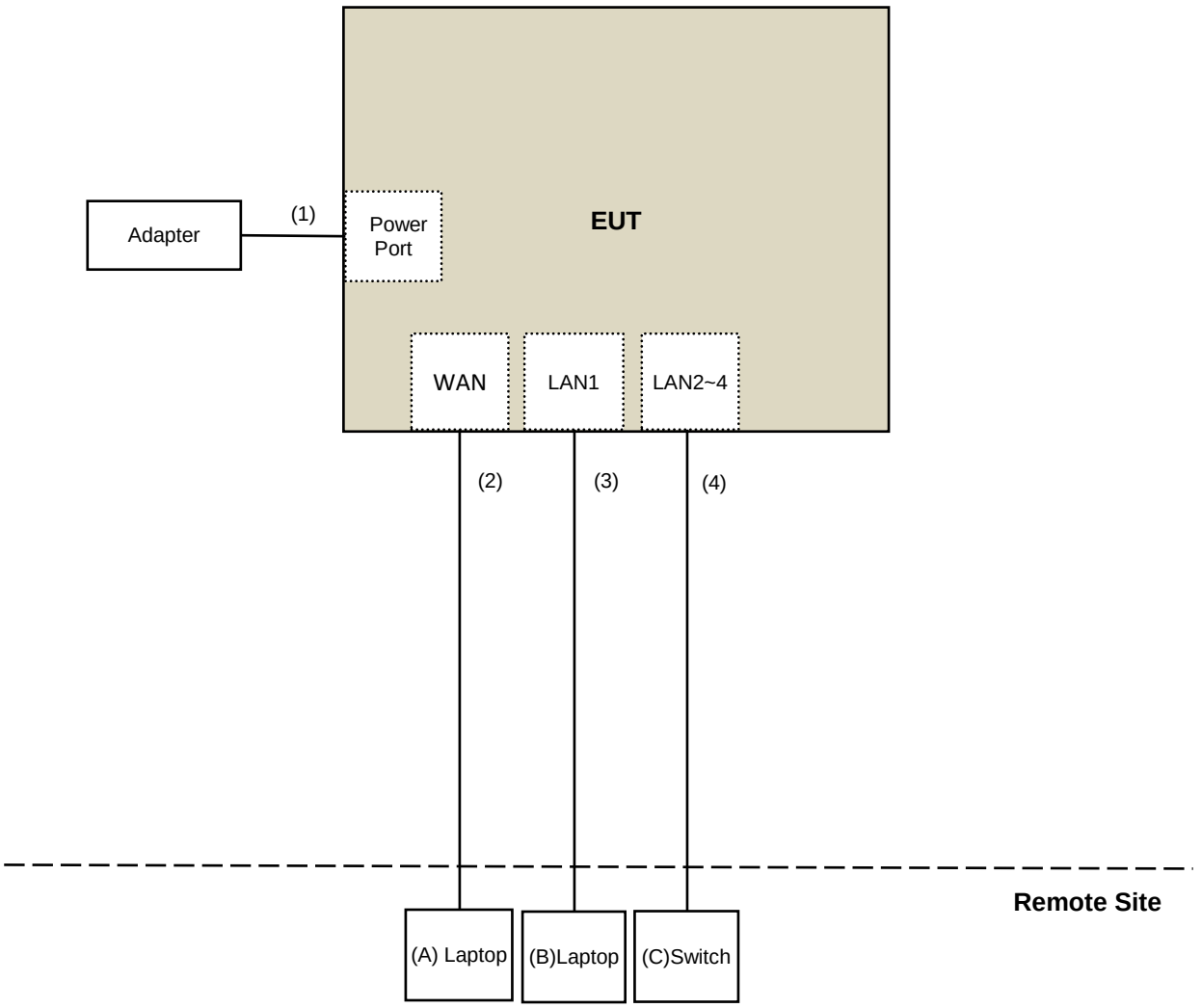
ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	Laptop	DELL	Inspiron 7570	DW3CSJ2	NA	Provided by Lab
B.	Laptop	DELL	E6420	482T3R1	DoC	Provided by Lab
C.	Switch	D-Link	DGS-1005D	DR8WC92000523	NA	Provided by Lab

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	Yes	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 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:

$$E = \frac{1000000\sqrt{30P}}{3}$$ μV/m, where P 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. 13, 2019	Dec. 12, 2020
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	5D-FB	LOOPCAB-001	Jan. 08, 2020	Jan. 07, 2021
RF Cable	5D-FB	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	966-6-1	Apr. 04, 2020	Apr. 03, 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: Nov. 24 to 26, 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. 24, 2019	Nov. 23, 2020
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. 24, 2019	Nov. 23, 2020
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. 21, 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
10dB Attenuator Woken	MDCS18N-10	MDCS18N-10-01	Apr. 13, 2021	Apr. 12, 2022
AC Power Source Extech Electronics	6905S	1991551	NA	NA
DC Power Supply Topward	6603D	795558	NA	NA
Temperature & Humidity Chamber Giant Force	GTH-150-40-SP-AR	MAA0812-008	Jan. 14, 2021	Jan. 13, 2022
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: Apr. 01, 2021

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.

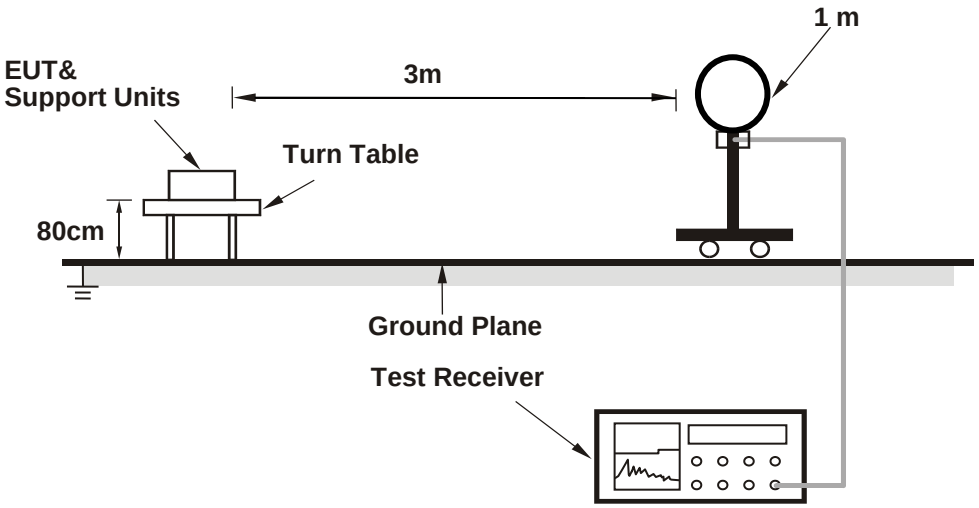
f. The test-receiver system was set to peak detects function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the RMS detector is unnecessary.

Note:

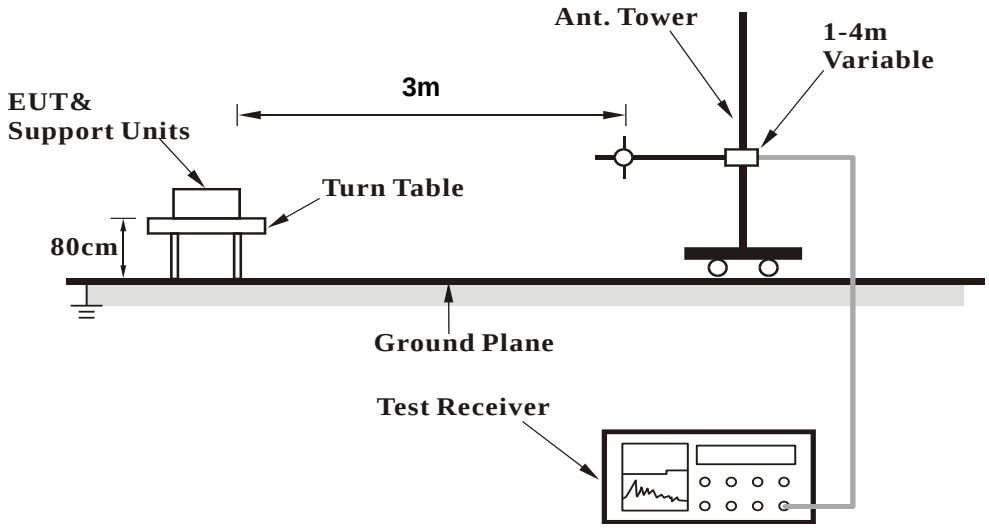
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
3. The detection is peak and the resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is ≥ 1/T (Duty cycle < 98%) or 10Hz (Duty cycle ≥ 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

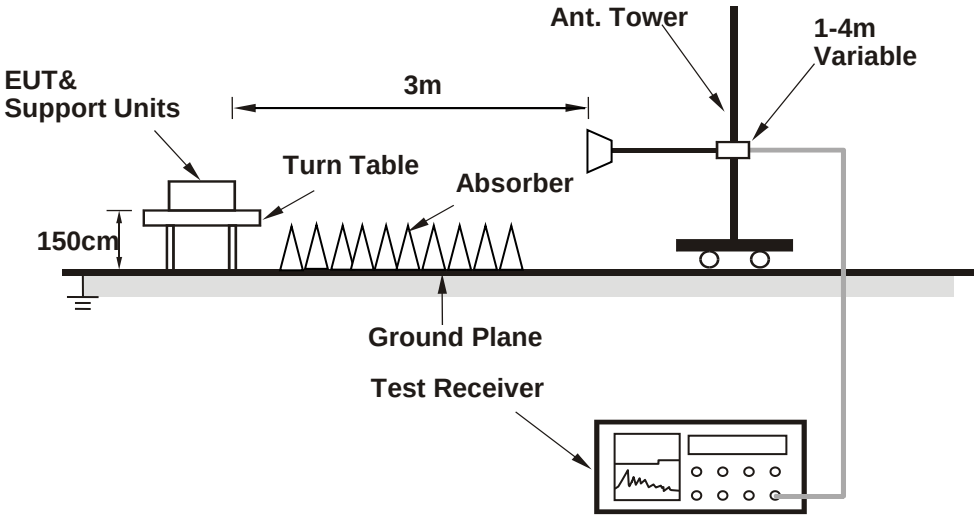
For Radiated emission below 30MHz



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 (30-YE085-700_REVB_PING6G) 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	#5925.00	50.2 PK	88.2	-38.0	1.51 H	120	46.5	3.7
2	#5925.00	39.7 AV	68.2	-28.5	1.51 H	120	36.0	3.7
3	*6115.00	116.2 PK			1.51 H	120	111.9	4.3
4	*6115.00	106.5 AV			1.51 H	120	102.2	4.3
5	12230.00	48.6 PK	74.0	-25.4	1.63 H	8	35.5	13.1
6	12230.00	43.5 AV	54.0	-10.5	1.63 H	8	30.4	13.1
7	18345.00	40.6 PK	74.0	-33.4	1.50 H	344	47.8	-7.2
8	18345.00	29.3 AV	54.0	-24.7	1.50 H	344	36.5	-7.2
9	#24460.00	46.5 PK	88.2	-41.7	1.45 H	303	48.6	-2.1
10	#24460.00	44.7 AV	68.2	-23.5	1.45 H	303	46.8	-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	#5925.00	51.0 PK	88.2	-37.2	1.50 V	122	47.3	3.7
2	#5925.00	39.9 AV	68.2	-28.3	1.50 V	122	36.2	3.7
3	*6115.00	119.1 PK			1.50 V	122	114.8	4.3
4	*6115.00	109.7 AV			1.50 V	122	105.4	4.3
5	12230.00	49.2 PK	74.0	-24.8	2.60 V	0	36.1	13.1
6	12230.00	43.6 AV	54.0	-10.4	2.60 V	0	30.5	13.1
7	18345.00	37.1 PK	74.0	-36.9	1.63 V	219	44.3	-7.2
8	18345.00	26.9 AV	54.0	-27.1	1.63 V	219	34.1	-7.2
9	#24460.00	44.2 PK	88.2	-44.0	1.53 V	12	46.3	-2.1
10	#24460.00	38.7 AV	68.2	-29.5	1.53 V	12	40.8	-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	116.4 PK			1.50 H	105	111.7	4.7
2	*6255.00	106.7 AV			1.50 H	105	102.0	4.7
3	12510.00	48.8 PK	74.0	-25.2	1.63 H	17	36.4	12.4
4	12510.00	43.8 AV	54.0	-10.2	1.63 H	17	31.4	12.4
5	18765.00	40.4 PK	74.0	-33.6	1.51 H	330	47.2	-6.8
6	18765.00	29.0 AV	54.0	-25.0	1.51 H	330	35.8	-6.8
7	#25020.00	46.5 PK	88.2	-41.7	1.42 H	315	48.3	-1.8
8	#25020.00	44.9 AV	68.2	-23.3	1.42 H	315	46.7	-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	119.0 PK			1.49 V	120	114.3	4.7
2	*6255.00	109.5 AV			1.49 V	120	104.8	4.7
3	12510.00	49.6 PK	74.0	-24.4	2.58 V	6	37.2	12.4
4	12510.00	43.9 AV	54.0	-10.1	2.58 V	6	31.5	12.4
5	18765.00	36.8 PK	74.0	-37.2	1.65 V	210	43.6	-6.8
6	18765.00	26.9 AV	54.0	-27.1	1.65 V	210	33.7	-6.8
7	#25020.00	44.0 PK	88.2	-44.2	1.58 V	16	45.8	-1.8
8	#25020.00	38.3 AV	68.2	-29.9	1.58 V	16	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 802.11a 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	116.3 PK			1.52 H	124	111.0	5.3
2	*6415.00	106.3 AV			1.52 H	124	101.0	5.3
3	#12830.00	49.2 PK	88.2	-39.0	1.65 H	18	35.8	13.4
4	#12830.00	44.0 AV	68.2	-24.2	1.65 H	18	30.6	13.4
5	19245.00	41.0 PK	74.0	-33.0	1.47 H	331	47.7	-6.7
6	19245.00	29.3 AV	54.0	-24.7	1.47 H	331	36.0	-6.7
7	#25660.00	47.0 PK	88.2	-41.2	1.41 H	327	48.6	-1.6
8	#25660.00	45.4 AV	68.2	-22.8	1.41 H	327	47.0	-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	118.7 PK			1.54 V	107	113.4	5.3
2	*6415.00	109.6 AV			1.54 V	107	104.3	5.3
3	#12830.00	49.5 PK	88.2	-38.7	2.63 V	13	36.1	13.4
4	#12830.00	43.7 AV	68.2	-24.5	2.63 V	13	30.3	13.4
5	19245.00	37.1 PK	74.0	-36.9	1.69 V	228	43.8	-6.7
6	19245.00	26.8 AV	54.0	-27.2	1.69 V	228	33.5	-6.7
7	#25660.00	43.9 PK	88.2	-44.3	1.53 V	25	45.5	-1.6
8	#25660.00	38.5 AV	68.2	-29.7	1.53 V	25	40.1	-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	116.7 PK			1.47 H	106	111.3	5.4
2	*6435.00	106.8 AV			1.47 H	106	101.4	5.4
3	#12870.00	48.4 PK	88.2	-39.8	1.61 H	13	35.0	13.4
4	#12870.00	43.4 AV	68.2	-24.8	1.61 H	13	30.0	13.4
5	19305.00	40.2 PK	74.0	-33.8	1.48 H	317	46.9	-6.7
6	19305.00	28.7 AV	54.0	-25.3	1.48 H	317	35.4	-6.7
7	#25740.00	46.1 PK	88.2	-42.1	1.39 H	325	47.5	-1.4
8	#25740.00	44.6 AV	68.2	-23.6	1.39 H	325	46.0	-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	*6435.00	118.9 PK			1.48 V	113	113.5	5.4
2	*6435.00	109.8 AV			1.48 V	113	104.4	5.4
3	#12870.00	48.9 PK	88.2	-39.3	2.61 V	16	35.5	13.4
4	#12870.00	43.4 AV	68.2	-24.8	2.61 V	16	30.0	13.4
5	19305.00	40.0 PK	74.0	-34.0	1.65 V	209	46.7	-6.7
6	19305.00	29.9 AV	54.0	-24.1	1.65 V	209	36.6	-6.7
7	#25740.00	44.1 PK	88.2	-44.1	1.56 V	6	45.5	-1.4
8	#25740.00	38.8 AV	68.2	-29.4	1.56 V	6	40.2	-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	116.1 PK			1.53 H	135	110.4	5.7
2	*6475.00	106.4 AV			1.53 H	135	100.7	5.7
3	#12950.00	48.2 PK	88.2	-40.0	1.63 H	2	34.9	13.3
4	#12950.00	43.4 AV	68.2	-24.8	1.63 H	2	30.1	13.3
5	19425.00	40.6 PK	74.0	-33.4	1.51 H	315	47.4	-6.8
6	19425.00	29.4 AV	54.0	-24.6	1.51 H	315	36.2	-6.8
7	#25900.00	46.8 PK	88.2	-41.4	1.46 H	311	48.8	-2.0
8	#25900.00	44.9 AV	68.2	-23.3	1.46 H	311	46.9	-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	119.2 PK			1.54 V	107	113.5	5.7
2	*6475.00	110.0 AV			1.54 V	107	104.3	5.7
3	#12950.00	49.6 PK	88.2	-38.6	2.57 V	8	36.3	13.3
4	#12950.00	44.1 AV	68.2	-24.1	2.57 V	8	30.8	13.3
5	19425.00	39.8 PK	74.0	-34.2	1.65 V	220	46.6	-6.8
6	19425.00	29.7 AV	54.0	-24.3	1.65 V	220	36.5	-6.8
7	#25900.00	44.2 PK	88.2	-44.0	1.55 V	12	46.2	-2.0
8	#25900.00	38.8 AV	68.2	-29.4	1.55 V	12	40.8	-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	116.8 PK			1.50 H	121	110.8	6.0
2	*6515.00	106.9 AV			1.50 H	121	100.9	6.0
3	#13030.00	48.3 PK	88.2	-39.9	1.67 H	9	35.0	13.3
4	#13030.00	43.6 AV	68.2	-24.6	1.67 H	9	30.3	13.3
5	19545.00	40.9 PK	74.0	-33.1	1.51 H	333	47.1	-6.2
6	19545.00	29.4 AV	54.0	-24.6	1.51 H	333	35.6	-6.2
7	#26060.00	46.0 PK	88.2	-42.2	1.41 H	322	47.4	-1.4
8	#26060.00	44.7 AV	68.2	-23.5	1.41 H	322	46.1	-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	*6515.00	118.9 PK			1.47 V	125	112.9	6.0
2	*6515.00	109.4 AV			1.47 V	125	103.4	6.0
3	#13030.00	49.4 PK	88.2	-38.8	2.62 V	4	36.1	13.3
4	#13030.00	43.9 AV	68.2	-24.3	2.62 V	4	30.6	13.3
5	19545.00	40.7 PK	74.0	-33.3	1.67 V	231	46.9	-6.2
6	19545.00	30.4 AV	54.0	-23.6	1.67 V	231	36.6	-6.2
7	#26060.00	44.3 PK	88.2	-43.9	1.58 V	23	45.7	-1.4
8	#26060.00	39.0 AV	68.2	-29.2	1.58 V	23	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 802.11a 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	116.8 PK			1.46 H	135	110.8	6.0
2	*6535.00	106.9 AV			1.46 H	135	100.9	6.0
3	#13070.00	48.7 PK	88.2	-39.5	1.61 H	12	35.3	13.4
4	#13070.00	43.9 AV	68.2	-24.3	1.61 H	12	30.5	13.4
5	19605.00	40.5 PK	74.0	-33.5	1.46 H	343	46.6	-6.1
6	19605.00	29.1 AV	54.0	-24.9	1.46 H	343	35.2	-6.1
7	#26140.00	46.2 PK	88.2	-42.0	1.47 H	312	47.5	-1.3
8	#26140.00	44.7 AV	68.2	-23.5	1.47 H	312	46.0	-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	119.5 PK			1.47 V	125	113.5	6.0
2	*6535.00	109.9 AV			1.47 V	125	103.9	6.0
3	#13070.00	49.3 PK	88.2	-38.9	2.61 V	14	35.9	13.4
4	#13070.00	43.8 AV	68.2	-24.4	2.61 V	14	30.4	13.4
5	19605.00	40.0 PK	74.0	-34.0	1.60 V	216	46.1	-6.1
6	19605.00	29.6 AV	54.0	-24.4	1.60 V	216	35.7	-6.1
7	#26140.00	44.9 PK	88.2	-43.3	1.58 V	16	46.2	-1.3
8	#26140.00	39.2 AV	68.2	-29.0	1.58 V	16	40.5	-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	115.9 PK			1.54 H	124	109.8	6.1
2	*6715.00	106.2 AV			1.54 H	124	100.1	6.1
3	#13430.00	48.9 PK	88.2	-39.3	1.62 H	20	34.0	14.9
4	#13430.00	43.7 AV	68.2	-24.5	1.62 H	20	28.8	14.9
5	20145.00	40.4 PK	74.0	-33.6	1.53 H	332	45.8	-5.4
6	20145.00	29.0 AV	54.0	-25.0	1.53 H	332	34.4	-5.4
7	#26860.00	46.5 PK	88.2	-41.7	1.45 H	315	47.6	-1.1
8	#26860.00	45.1 AV	68.2	-23.1	1.45 H	315	46.2	-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	119.5 PK			1.53 V	107	113.4	6.1
2	*6715.00	110.1 AV			1.53 V	107	104.0	6.1
3	#13430.00	49.4 PK	88.2	-38.8	2.59 V	7	34.5	14.9
4	#13430.00	43.7 AV	68.2	-24.5	2.59 V	7	28.8	14.9
5	20145.00	44.4 PK	74.0	-29.6	1.59 V	210	49.8	-5.4
6	20145.00	34.3 AV	54.0	-19.7	1.59 V	210	39.7	-5.4
7	#26860.00	43.5 PK	88.2	-44.7	1.57 V	7	44.6	-1.1
8	#26860.00	38.2 AV	68.2	-30.0	1.57 V	7	39.3	-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	116.1 PK			1.57 H	125	109.3	6.8
2	*6855.00	106.5 AV			1.57 H	125	99.7	6.8
3	#13710.00	48.7 PK	88.2	-39.5	1.61 H	6	33.0	15.7
4	#13710.00	43.4 AV	68.2	-24.8	1.61 H	6	27.7	15.7
5	20565.00	40.6 PK	74.0	-33.4	1.53 H	331	45.5	-4.9
6	20565.00	29.2 AV	54.0	-24.8	1.53 H	331	34.1	-4.9
7	#27420.00	46.5 PK	88.2	-41.7	1.45 H	323	48.1	-1.6
8	#27420.00	44.9 AV	68.2	-23.3	1.45 H	323	46.5	-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	118.6 PK			1.53 V	132	111.8	6.8
2	*6855.00	109.3 AV			1.53 V	132	102.5	6.8
3	#13710.00	49.5 PK	88.2	-38.7	2.61 V	16	33.8	15.7
4	#13710.00	43.9 AV	68.2	-24.3	2.61 V	16	28.2	15.7
5	20565.00	44.4 PK	74.0	-29.6	1.58 V	224	49.3	-4.9
6	20565.00	34.2 AV	54.0	-19.8	1.58 V	224	39.1	-4.9
7	#27420.00	44.8 PK	88.2	-43.4	1.55 V	0	46.4	-1.6
8	#27420.00	39.2 AV	68.2	-29.0	1.55 V	0	40.8	-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 802.11a 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	116.2 PK			1.51 H	114	109.2	7.0
2	*6875.00	106.5 AV			1.51 H	114	99.5	7.0
3	#13750.00	48.9 PK	88.2	-39.3	1.56 H	22	33.1	15.8
4	#13750.00	44.0 AV	68.2	-24.2	1.56 H	22	28.2	15.8
5	20625.00	40.6 PK	74.0	-33.4	1.55 H	342	45.4	-4.8
6	20625.00	29.1 AV	54.0	-24.9	1.55 H	342	33.9	-4.8
7	#27500.00	47.2 PK	88.2	-41.0	1.45 H	330	48.4	-1.2
8	#27500.00	45.6 AV	68.2	-22.6	1.45 H	330	46.8	-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	119.2 PK			1.45 V	132	112.2	7.0
2	*6875.00	110.0 AV			1.45 V	132	103.0	7.0
3	#13750.00	49.0 PK	88.2	-39.2	2.56 V	12	33.2	15.8
4	#13750.00	43.7 AV	68.2	-24.5	2.56 V	12	27.9	15.8
5	20625.00	44.5 PK	74.0	-29.5	1.58 V	215	49.3	-4.8
6	20625.00	34.1 AV	54.0	-19.9	1.58 V	215	38.9	-4.8
7	#27500.00	44.5 PK	88.2	-43.7	1.53 V	3	45.7	-1.2
8	#27500.00	39.1 AV	68.2	-29.1	1.53 V	3	40.3	-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	116.4 PK			1.56 H	136	108.5	7.9
2	*7015.00	106.7 AV			1.56 H	136	98.8	7.9
3	#14030.00	49.6 PK	88.2	-38.6	1.65 H	29	33.7	15.9
4	#14030.00	44.1 AV	68.2	-24.1	1.65 H	29	28.2	15.9
5	21045.00	40.3 PK	74.0	-33.7	1.56 H	327	44.7	-4.4
6	21045.00	28.7 AV	54.0	-25.3	1.56 H	327	33.1	-4.4
7	#28060.00	46.3 PK	88.2	-41.9	1.48 H	323	47.7	-1.4
8	#28060.00	45.1 AV	68.2	-23.1	1.48 H	323	46.5	-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	*7015.00	118.7 PK			1.44 V	118	110.8	7.9
2	*7015.00	109.4 AV			1.44 V	118	101.5	7.9
3	#14030.00	49.6 PK	88.2	-38.6	2.66 V	12	33.7	15.9
4	#14030.00	44.0 AV	68.2	-24.2	2.66 V	12	28.1	15.9
5	21045.00	44.7 PK	74.0	-29.3	1.63 V	209	49.1	-4.4
6	21045.00	34.5 AV	54.0	-19.5	1.63 V	209	38.9	-4.4
7	#28060.00	45.2 PK	88.2	-43.0	1.58 V	0	46.6	-1.4
8	#28060.00	39.5 AV	68.2	-28.7	1.58 V	0	40.9	-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	104.3 PK			1.50 H	82	96.2	8.1
2	*7115.00	95.1 AV			1.50 H	82	87.0	8.1
3	#7125.00	74.2 PK	88.2	-14.0	1.50 H	82	66.0	8.2
4	#7125.00	57.6 AV	68.2	-10.6	1.50 H	82	49.4	8.2
5	#14230.00	45.5 PK	88.2	-42.7	1.57 H	21	28.4	17.1
6	#14230.00	40.1 AV	68.2	-28.1	1.57 H	21	23.0	17.1
7	21345.00	40.2 PK	74.0	-33.8	1.50 H	345	44.4	-4.2
8	21345.00	28.9 AV	54.0	-25.1	1.50 H	345	33.1	-4.2
9	#28460.00	41.8 PK	88.2	-46.4	1.41 H	330	43.2	-1.4
10	#28460.00	40.2 AV	68.2	-28.0	1.41 H	330	41.6	-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	*7115.00	109.1 PK			2.06 V	212	101.0	8.1
2	*7115.00	100.3 AV			2.06 V	212	92.2	8.1
3	#7125.00	83.1 PK	88.2	-5.1	2.06 V	212	74.9	8.2
4	#7125.00	68.0 AV	68.2	-0.2	2.06 V	212	59.8	8.2
5	#14230.00	46.0 PK	88.2	-42.2	2.57 V	3	28.9	17.1
6	#14230.00	40.1 AV	68.2	-28.1	2.57 V	3	23.0	17.1
7	21345.00	37.2 PK	74.0	-36.8	1.74 V	231	41.4	-4.2
8	21345.00	26.8 AV	54.0	-27.2	1.74 V	231	31.0	-4.2
9	#28460.00	40.4 PK	88.2	-47.8	1.56 V	22	41.8	-1.4
10	#28460.00	34.8 AV	68.2	-33.4	1.56 V	22	36.2	-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	#5925.00	49.7 PK	88.2	-38.5	1.44 H	123	46.0	3.7
2	#5925.00	39.1 AV	68.2	-29.1	1.44 H	123	35.4	3.7
3	*6115.00	115.9 PK			1.44 H	123	111.6	4.3
4	*6115.00	105.6 AV			1.44 H	123	101.3	4.3
5	12230.00	42.8 PK	74.0	-31.2	1.58 H	7	29.7	13.1
6	12230.00	37.9 AV	54.0	-16.1	1.58 H	7	24.8	13.1
7	18345.00	41.2 PK	74.0	-32.8	1.45 H	328	48.4	-7.2
8	18345.00	29.7 AV	54.0	-24.3	1.45 H	328	36.9	-7.2
9	#24460.00	40.2 PK	88.2	-48.0	1.48 H	315	42.3	-2.1
10	#24460.00	38.6 AV	68.2	-29.6	1.48 H	315	40.7	-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	#5925.00	50.4 PK	88.2	-37.8	1.51 V	123	46.7	3.7
2	#5925.00	39.7 AV	68.2	-28.5	1.51 V	123	36.0	3.7
3	*6115.00	120.6 PK			1.51 V	123	116.3	4.3
4	*6115.00	109.5 AV			1.51 V	123	105.2	4.3
5	12230.00	40.6 PK	74.0	-33.4	2.54 V	18	27.5	13.1
6	12230.00	35.2 AV	54.0	-18.8	2.54 V	18	22.1	13.1
7	18345.00	37.7 PK	74.0	-36.3	1.68 V	228	44.9	-7.2
8	18345.00	27.1 AV	54.0	-26.9	1.68 V	228	34.3	-7.2
9	#24460.00	40.7 PK	88.2	-47.5	1.51 V	15	42.8	-2.1
10	#24460.00	35.1 AV	68.2	-33.1	1.51 V	15	37.2	-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	116.2 PK			1.46 H	124	111.5	4.7
2	*6255.00	105.7 AV			1.46 H	124	101.0	4.7
3	12510.00	42.6 PK	74.0	-31.4	1.52 H	7	30.2	12.4
4	12510.00	37.7 AV	54.0	-16.3	1.52 H	7	25.3	12.4
5	18765.00	41.1 PK	74.0	-32.9	1.44 H	322	47.9	-6.8
6	18765.00	29.6 AV	54.0	-24.4	1.44 H	322	36.4	-6.8
7	#25020.00	40.0 PK	88.2	-48.2	1.43 H	317	41.8	-1.8
8	#25020.00	38.4 AV	68.2	-29.8	1.43 H	317	40.2	-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	120.3 PK			1.53 V	115	115.6	4.7
2	*6255.00	109.4 AV			1.53 V	115	104.7	4.7
3	12510.00	40.6 PK	74.0	-33.4	2.60 V	33	28.2	12.4
4	12510.00	35.0 AV	54.0	-19.0	2.60 V	33	22.6	12.4
5	18765.00	37.1 PK	74.0	-36.9	1.69 V	232	43.9	-6.8
6	18765.00	26.8 AV	54.0	-27.2	1.69 V	232	33.6	-6.8
7	#25020.00	40.7 PK	88.2	-47.5	1.53 V	19	42.5	-1.8
8	#25020.00	35.0 AV	68.2	-33.2	1.53 V	19	36.8	-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	116.2 PK			1.39 H	110	110.9	5.3
2	*6415.00	106.0 AV			1.39 H	110	100.7	5.3
3	#12830.00	43.1 PK	88.2	-45.1	1.59 H	12	29.7	13.4
4	#12830.00	38.1 AV	68.2	-30.1	1.59 H	12	24.7	13.4
5	19245.00	41.6 PK	74.0	-32.4	1.48 H	323	48.3	-6.7
6	19245.00	29.9 AV	54.0	-24.1	1.48 H	323	36.6	-6.7
7	#25660.00	40.9 PK	88.2	-47.3	1.50 H	328	42.5	-1.6
8	#25660.00	39.1 AV	68.2	-29.1	1.50 H	328	40.7	-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	120.4 PK			1.54 V	130	115.1	5.3
2	*6415.00	109.4 AV			1.54 V	130	104.1	5.3
3	#12830.00	40.8 PK	88.2	-47.4	2.57 V	25	27.4	13.4
4	#12830.00	35.7 AV	68.2	-32.5	2.57 V	25	22.3	13.4
5	19245.00	37.2 PK	74.0	-36.8	1.70 V	226	43.9	-6.7
6	19245.00	26.8 AV	54.0	-27.2	1.70 V	226	33.5	-6.7
7	#25660.00	40.8 PK	88.2	-47.4	1.54 V	7	42.4	-1.6
8	#25660.00	35.5 AV	68.2	-32.7	1.54 V	7	37.1	-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	115.6 PK			1.40 H	117	110.2	5.4
2	*6435.00	105.5 AV			1.40 H	117	100.1	5.4
3	#12870.00	43.1 PK	88.2	-45.1	1.56 H	4	29.7	13.4
4	#12870.00	38.0 AV	68.2	-30.2	1.56 H	4	24.6	13.4
5	19305.00	41.5 PK	74.0	-32.5	1.50 H	343	48.2	-6.7
6	19305.00	29.9 AV	54.0	-24.1	1.50 H	343	36.6	-6.7
7	#25740.00	40.0 PK	88.2	-48.2	1.42 H	327	41.4	-1.4
8	#25740.00	38.6 AV	68.2	-29.6	1.42 H	327	40.0	-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	*6435.00	120.0 PK			1.47 V	110	114.6	5.4
2	*6435.00	109.2 AV			1.47 V	110	103.8	5.4
3	#12870.00	40.2 PK	88.2	-48.0	2.52 V	24	26.8	13.4
4	#12870.00	34.9 AV	68.2	-33.3	2.52 V	24	21.5	13.4
5	19305.00	37.5 PK	74.0	-36.5	1.70 V	217	44.2	-6.7
6	19305.00	26.9 AV	54.0	-27.1	1.70 V	217	33.6	-6.7
7	#25740.00	40.8 PK	88.2	-47.4	1.47 V	16	42.2	-1.4
8	#25740.00	35.1 AV	68.2	-33.1	1.47 V	16	36.5	-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	115.9 PK			1.41 H	127	110.2	5.7
2	*6475.00	105.9 AV			1.41 H	127	100.2	5.7
3	#12950.00	42.8 PK	88.2	-45.4	1.53 H	14	29.5	13.3
4	#12950.00	38.1 AV	68.2	-30.1	1.53 H	14	24.8	13.3
5	19425.00	41.2 PK	74.0	-32.8	1.49 H	335	48.0	-6.8
6	19425.00	29.7 AV	54.0	-24.3	1.49 H	335	36.5	-6.8
7	#25900.00	40.5 PK	88.2	-47.7	1.53 H	327	42.5	-2.0
8	#25900.00	38.8 AV	68.2	-29.4	1.53 H	327	40.8	-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	121.4 PK			1.57 V	111	115.7	5.7
2	*6475.00	110.0 AV			1.57 V	111	104.3	5.7
3	#12950.00	40.7 PK	88.2	-47.5	2.51 V	10	27.4	13.3
4	#12950.00	35.3 AV	68.2	-32.9	2.51 V	10	22.0	13.3
5	19425.00	37.4 PK	74.0	-36.6	1.73 V	221	44.2	-6.8
6	19425.00	26.6 AV	54.0	-27.4	1.73 V	221	33.4	-6.8
7	#25900.00	40.9 PK	88.2	-47.3	1.56 V	18	42.9	-2.0
8	#25900.00	35.2 AV	68.2	-33.0	1.56 V	18	37.2	-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 802.11ax (HE20)	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	116.0 PK			1.40 H	132	110.0	6.0
2	*6515.00	105.7 AV			1.40 H	132	99.7	6.0
3	#13030.00	42.8 PK	88.2	-45.4	1.59 H	5	29.5	13.3
4	#13030.00	37.7 AV	68.2	-30.5	1.59 H	5	24.4	13.3
5	19545.00	40.8 PK	74.0	-33.2	1.46 H	330	47.0	-6.2
6	19545.00	29.5 AV	54.0	-24.5	1.46 H	330	35.7	-6.2
7	#26060.00	40.7 PK	88.2	-47.5	1.43 H	314	42.1	-1.4
8	#26060.00	39.0 AV	68.2	-29.2	1.43 H	314	40.4	-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	*6515.00	120.6 PK			1.56 V	114	114.6	6.0
2	*6515.00	109.6 AV			1.56 V	114	103.6	6.0
3	#13030.00	40.7 PK	88.2	-47.5	2.52 V	5	27.4	13.3
4	#13030.00	35.4 AV	68.2	-32.8	2.52 V	5	22.1	13.3
5	19545.00	38.2 PK	74.0	-35.8	1.70 V	229	44.4	-6.2
6	19545.00	27.4 AV	54.0	-26.6	1.70 V	229	33.6	-6.2
7	#26060.00	41.0 PK	88.2	-47.2	1.52 V	14	42.4	-1.4
8	#26060.00	35.5 AV	68.2	-32.7	1.52 V	14	36.9	-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 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	115.3 PK			1.43 H	107	109.3	6.0
2	*6535.00	105.2 AV			1.43 H	107	99.2	6.0
3	#13070.00	42.8 PK	88.2	-45.4	1.57 H	13	29.4	13.4
4	#13070.00	37.8 AV	68.2	-30.4	1.57 H	13	24.4	13.4
5	19605.00	40.8 PK	74.0	-33.2	1.42 H	315	46.9	-6.1
6	19605.00	29.4 AV	54.0	-24.6	1.42 H	315	35.5	-6.1
7	#26140.00	40.5 PK	88.2	-47.7	1.54 H	325	41.8	-1.3
8	#26140.00	39.0 AV	68.2	-29.2	1.54 H	325	40.3	-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	121.0 PK			1.52 V	122	115.0	6.0
2	*6535.00	109.9 AV			1.52 V	122	103.9	6.0
3	#13070.00	40.6 PK	88.2	-47.6	2.54 V	33	27.2	13.4
4	#13070.00	34.9 AV	68.2	-33.3	2.54 V	33	21.5	13.4
5	19605.00	38.2 PK	74.0	-35.8	1.63 V	231	44.3	-6.1
6	19605.00	27.6 AV	54.0	-26.4	1.63 V	231	33.7	-6.1
7	#26140.00	40.9 PK	88.2	-47.3	1.53 V	26	42.2	-1.3
8	#26140.00	35.5 AV	68.2	-32.7	1.53 V	26	36.8	-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 802.11ax (HE20)	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	115.9 PK			1.42 H	113	109.8	6.1
2	*6715.00	105.7 AV			1.42 H	113	99.6	6.1
3	#13430.00	42.9 PK	88.2	-45.3	1.52 H	2	28.0	14.9
4	#13430.00	37.8 AV	68.2	-30.4	1.52 H	2	22.9	14.9
5	20145.00	41.6 PK	74.0	-32.4	1.45 H	332	47.0	-5.4
6	20145.00	30.2 AV	54.0	-23.8	1.45 H	332	35.6	-5.4
7	#26860.00	40.2 PK	88.2	-48.0	1.50 H	313	41.3	-1.1
8	#26860.00	38.8 AV	68.2	-29.4	1.50 H	313	39.9	-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	120.4 PK			1.50 V	126	114.3	6.1
2	*6715.00	109.1 AV			1.50 V	126	103.0	6.1
3	#13430.00	40.7 PK	88.2	-47.5	2.53 V	26	25.8	14.9
4	#13430.00	35.4 AV	68.2	-32.8	2.53 V	26	20.5	14.9
5	20145.00	37.8 PK	74.0	-36.2	1.73 V	224	43.2	-5.4
6	20145.00	27.4 AV	54.0	-26.6	1.73 V	224	32.8	-5.4
7	#26860.00	41.0 PK	88.2	-47.2	1.53 V	0	42.1	-1.1
8	#26860.00	35.2 AV	68.2	-33.0	1.53 V	0	36.3	-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 (HE20)	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	116.0 PK			1.49 H	134	109.2	6.8
2	*6855.00	106.0 AV			1.49 H	134	99.2	6.8
3	#13710.00	42.3 PK	88.2	-45.9	1.54 H	12	26.6	15.7
4	#13710.00	37.6 AV	68.2	-30.6	1.54 H	12	21.9	15.7
5	20565.00	41.0 PK	74.0	-33.0	1.51 H	337	45.9	-4.9
6	20565.00	29.3 AV	54.0	-24.7	1.51 H	337	34.2	-4.9
7	#27420.00	39.7 PK	88.2	-48.5	1.48 H	311	41.3	-1.6
8	#27420.00	38.3 AV	68.2	-29.9	1.48 H	311	39.9	-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	120.5 PK			1.49 V	128	113.7	6.8
2	*6855.00	109.2 AV			1.49 V	128	102.4	6.8
3	#13710.00	40.9 PK	88.2	-47.3	2.53 V	24	25.2	15.7
4	#13710.00	35.6 AV	68.2	-32.6	2.53 V	24	19.9	15.7
5	20565.00	37.2 PK	74.0	-36.8	1.66 V	239	42.1	-4.9
6	20565.00	26.9 AV	54.0	-27.1	1.66 V	239	31.8	-4.9
7	#27420.00	40.4 PK	88.2	-47.8	1.54 V	14	42.0	-1.6
8	#27420.00	34.6 AV	68.2	-33.6	1.54 V	14	36.2	-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.