SPOT CHECK RADIO PARTIAL TEST REPORT

FCC ID	:	MSQ-RTBE6J00
Equipment	:	ROG Rapture GT-BE19000 WiFi 7 Tri-band Gaming Router
Brand Name	:	ASUS
Model Name	:	GT-BE19000
Applicant	:	ASUSTeK COMPUTER INC. 1F., No. 15, Lide Rd., Beitou, Taipei City 112, Taiwan
Standard	:	47 CFR FCC Part 15.407

The product was received on Mar. 04, 2024, and testing was started from Mar. 11, 2024 and completed on May 09, 2024. We, Sporton International Inc. Hsinchu Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

The test results in this partial report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. Hsinchu Laboratory, the test report shall not be reproduced except in full.

Approved by: Sam Chen

Sporton International Inc. Hsinchu Laboratory
No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County 302010, Taiwan (R.O.C.)

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History of this test report

Report No.	Version	Description	Issued Date
FR422102AB	01	Initial issue of report	May 17, 2024

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
1.1.2	15.203	Antenna Requirement	PASS	-
4.1	15.207	AC Power-line Conducted Emissions	PASS	-
-	15.407(a)	Emission Bandwidth	N/A	Refer to note
4.2	15.407(a)	Maximum Output Power	PASS	-
-	15.407(a)	Power Spectral Density	NA	Refer to note
4.3	15.407(b)	Unwanted Emissions	PASS	-

Note:
This report is a spot-check partial report to the original Sporton report no.: FR 262427-01AB and FR262427-05AB (FCC ID: MSQ-RTBE6G00).
The variant device of this application (FCC ID: MSQ-RTBE6J00) is electrically identical to the reference device (FCC ID: MSQ-RTBE6G00) for the portions of the circuitry corresponding to the data referencing.
The differences compared with the reference device design are as follows. Exhibit prepared for the spot-check verification report, the format, test items, and amount of spot-check test data are decided by the applicant's engineering judgment. Therefore, only AC Power-line Conducted Emissions, Output Power, and Unwanted Emissions were verified and recorded in this report. Output Power, and Unwanted Emissions above 1GHz tests according to the original report worst channel.
The applicant takes full responsibility that the test data as referenced in FCC ID: MSQ-RTBE6G00 represents compliance for the new FCC ID: MSQRTBE6J00.
Difference:
1. The appearance design is different.
2. The heatsink design on the back of the EUT is different.
3. Add a LAN port.
4. Add 2.4G band pass filter
5. Add pressure sensor.

Conformity Assessment Condition:

1. The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacturer who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.
2. The measurement uncertainty please refer to each test result in the chapter "Measurement Uncertainty".

Disclaimer:

The product specifications of the EUT presented in the test report that may affect the test assessments are declared by the manufacturer who shall take full responsibility for the authenticity.

Reviewed by: Sam Chen
Report Producer: Vicky Huang

1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	IEEE Std. 802.11	Ch. Frequency (MHz)	Channel Number
5150-5250	a, n (HT20), ac (VHT20), ax (HEW20), be (EHT20)	5180-5240	36-48 [4]
5250-5350		5260-5320	52-64 [4]
5470-5725		5500-5720	100-144 [12]
5725-5850		5745-5825	149-165 [5]
5150-5250	n (HT40), ac (VHT40), ax (HEW40), be (EHT40)	5190-5230	38-46 [2]
5250-5350		5270-5310	54-62 [2]
5470-5725		5510-5710	102-142 [6]
5725-5850		5755-5795	151-159 [2]
5150-5250	ac (VHT80), ax (HEW80), be (EHT80)	5210	42 [1]
5250-5350		5290	58 [1]
5470-5725		5530-5690	106-138 [3]
5725-5850		5775	155 [1]
5150-5350	ac (VHT160), ax (HEW160), be (EHT160)	5250	50 [1]
5470-5725		5570	114 [1]

Band	Mode	BWch (MHz)	Nant
5.15-5.25GHz	802.11a	20	4TX
5.15-5.25GHz	802.11n HT20	20	4TX
5.15-5.25GHz	802.11n HT20-BF	20	4TX
5.15-5.25GHz	802.11ac VHT20	20	4TX
5.15-5.25GHz	802.11ac VHT20-BF	20	4TX
5.15-5.25GHz	802.11ax HEW20	20	4TX
5.15-5.25GHz	802.11ax HEW20-BF	20	4TX
5.15-5.25GHz	802.11be EHT20	20	4TX
5.15-5.25GHz	802.11be EHT20-BF	20	4TX
5.15-5.25GHz	802.11n HT40	40	4TX
5.15-5.25GHz	802.11n HT40-BF	40	4TX
5.15-5.25GHz	802.11ac VHT40	40	4TX
5.15-5.25GHz	802.11ac VHT40-BF	40	4TX
5.15-5.25GHz	802.11ax HEW40	40	4TX
5.15-5.25GHz	802.11ax HEW40-BF	40	4TX
5.15-5.25GHz	802.11be EHT40	40	4TX

Band	Mode	BWch (MHz)	Nant
5.15-5.25GHz	802.11be EHT40-BF	40	4TX
5.15-5.25GHz	802.11ac VHT80	80	4TX
5.15-5.25GHz	802.11ac VHT80-BF	80	4TX
5.15-5.25GHz	802.11ax HEW80	80	4TX
5.15-5.25GHz	802.11ax HEW80-BF	80	4TX
5.15-5.25GHz	802.11be EHT80	80	4TX
5.15-5.25GHz	802.11be EHT80-BF	80	4TX
5.15-5.35GHz	802.11ac VHT160	160	4TX
5.15-5.35GHz	802.11ac VHT160-BF	160	4TX
5.15-5.35GHz	802.11ax HEW160	160	4TX
5.15-5.35GHz	802.11ax HEW160-BF	160	4TX
5.15-5.35GHz	802.11be EHT160	160	4TX
5.15-5.35GHz	802.11be EHT160-BF	160	4TX
5.25-5.35GHz	802.11a	20	4TX
5.25-5.35GHz	802.11n HT20	20	4TX
5.25-5.35GHz	802.11n HT20-BF	20	4TX
5.25-5.35GHz	802.11ac VHT20	20	4TX
5.25-5.35GHz	802.11ac VHT20-BF	20	4TX
5.25-5.35GHz	802.11ax HEW20	20	4TX
5.25-5.35GHz	802.11ax HEW20-BF	20	4TX
5.25-5.35GHz	802.11be EHT20	20	4TX
5.25-5.35GHz	802.11be EHT20-BF	20	4TX
5.25-5.35GHz	802.11n HT40	40	4TX
5.25-5.35GHz	802.11n HT40-BF	40	4TX
5.25-5.35GHz	802.11ac VHT40	40	4TX
5.25-5.35GHz	802.11ac VHT40-BF	40	4TX
5.25-5.35GHz	802.11ax HEW40	40	4TX
5.25-5.35GHz	802.11ax HEW40-BF	40	4TX
5.25-5.35GHz	802.11be EHT40	40	4TX
5.25-5.35GHz	802.11be EHT40-BF	40	4TX
5.25-5.35GHz	802.11ac VHT80	80	4TX
5.25-5.35GHz	802.11ac VHT80-BF	80	4TX
5.25-5.35GHz	802.11ax HEW80	80	4TX
5.25-5.35GHz	802.11ax HEW80-BF	80	4TX
5.25-5.35GHz	802.11be EHT80	80	4TX
5.25-5.35GHz	802.11be EHT80-BF	80	4TX
5.47-5.725GHz	802.11a	20	4TX
5.47-5.725GHz	802.11n HT20	20	4TX
5.47-5.725GHz	802.11n HT20-BF	20	4TX
5.47-5.725GHz	802.11ac VHT20	20	4TX

Band	Mode	BWch (MHz)	Nant
5.47-5.725GHz	802.11ac VHT20-BF	20	4TX
5.47-5.725GHz	802.11ax HEW20	20	4TX
5.47-5.725GHz	802.11ax HEW20-BF	20	4TX
5.47-5.725GHz	802.11be EHT20	20	4TX
5.47-5.725GHz	802.11be EHT20-BF	20	4TX
5.47-5.725GHz	802.11n HT40	40	4TX
5.47-5.725GHz	802.11n HT40-BF	40	4TX
5.47-5.725GHz	802.11ac VHT40	40	4TX
5.47-5.725GHz	802.11ac VHT40-BF	40	4TX
5.47-5.725GHz	802.11ax HEW40	40	4TX
5.47-5.725GHz	802.11ax HEW40-BF	40	4TX
5.47-5.725GHz	802.11be EHT40	40	4TX
5.47-5.725GHz	802.11be EHT40-BF	40	4TX
5.47-5.725GHz	802.11ac VHT80	80	4TX
5.47-5.725GHz	802.11ac VHT80-BF	80	4TX
5.47-5.725GHz	802.11ax HEW80	80	4TX
5.47-5.725GHz	802.11ax HEW80-BF	80	4TX
5.47-5.725GHz	802.11be EHT80	80	4TX
5.47-5.725GHz	802.11be EHT80-BF	80	4TX
5.47-5.725GHz	802.11ac VHT160	160	4TX
5.47-5.725GHz	802.11ac VHT160-BF	160	4TX
5.47-5.725GHz	802.11ax HEW160	160	4TX
5.47-5.725GHz	802.11ax HEW160-BF	160	4TX
5.47-5.725GHz	802.11be EHT160	160	4TX
5.47-5.725GHz	802.11be EHT160-BF	160	4TX
5.725-5.85GHz	802.11a	20	4TX
5.725-5.85GHz	802.11n HT20	20	4TX
5.725-5.85GHz	802.11n HT20-BF	20	4TX
5.725-5.85GHz	802.11ac VHT20	20	4TX
5.725-5.85GHz	802.11ac VHT20-BF	20	4TX
5.725-5.85GHz	802.11ax HEW20	20	4TX
5.725-5.85GHz	802.11ax HEW20-BF	20	4TX
5.725-5.85GHz	802.11be EHT20	20	4TX
5.725-5.85GHz	802.11be EHT20-BF	20	4TX
5.725-5.85GHz	802.11n HT40	40	4TX
5.725-5.85GHz	802.11n HT40-BF	40	4TX
5.725-5.85GHz	802.11ac VHT40	40	4TX
5.725-5.85GHz	802.11ac VHT40-BF	40	4TX
5.725-5.85GHz	802.11ax HEW40	40	4TX
5.725-5.85GHz	802.11ax HEW40-BF	40	4TX

Band	Mode	BWch (MHz)	Nant
5.725-5.85GHz	802.11be EHT40	40	4TX
5.725-5.85GHz	802.11be EHT40-BF	40	4TX
5.725-5.85GHz	802.11ac VHT80	80	4TX
5.725-5.85GHz	802.11ac VHT80-BF	80	4TX
5.725-5.85GHz	802.11ax HEW80	80	4TX
5.725-5.85GHz	802.11ax HEW80-BF	80	4TX
5.725-5.85GHz	802.11be EHT80	80	4TX
5.725-5.85GHz	802.11be EHT80-BF	80	4TX

Note:
- 11a, HT20 and HT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.
- VHT20, VHT40, VHT80 and VHT160 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM modulation.
- HEW20, HEW40, HEW80 and HEW160 use a combination of OFDMA-BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM modulation.
- EHT20, EHT40, EHT80 and EHT160 use a combination of OFDMA-BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM, 4096QAM modulation.
- BWch is the nominal channel bandwidth.

1.1.2 Antenna Information

For EUT 1:

Ant.	Port			Brand	Model Name	Antenna Type	Connector	Gain (dBi)
	WLAN 6GHz	WLAN 2.4GHz	WLAN 5GHz					
1	1	-	-	WHA Yu	C660-510587-A	Dipole Antenna	I-PEX	Note 1
2	2	-	-	WHA Yu	C660-510588-A	Dipole Antenna	I-PEX	
3	3	-	-	WHA Yu	C660-510589-A	Dipole Antenna	I-PEX	
4	4	-	-	WHA Yu	C660-510590-A	Dipole Antenna	I-PEX	
5	-	1	1	WHA Yu	C660-510591-A	Dipole Antenna	I-PEX	
6	-	4	4	WHA Yu	C660-510592-A	Dipole Antenna	I-PEX	
7	-	3	3	WHA Yu	C660-510593-A	Dipole Antenna	I-PEX	
8	-	2	2	WHA Yu	C660-510594-A	Dipole Antenna	I-PEX	

For EUT 2:

Ant.	Port			Brand	Model Name	Antenna Type	Connector	Gain (dBi)
	WLAN 6GHz	WLAN 2.4GHz	WLAN 5GHz					
1	1	-	-	WHA Yu	C660-510587-AW1	Dipole Antenna	I-PEX	Note 1
2	2	-	-	WHA Yu	C660-510588-AW1	Dipole Antenna	I-PEX	
3	3	-	-	WHA Yu	C660-510589-AW1	Dipole Antenna	I-PEX	
4	4	-	-	WHA Yu	C660-510590-AW1	Dipole Antenna	I-PEX	
5	-	1	1	WHA Yu	C660-510591-AW1	Dipole Antenna	I-PEX	
6	-	4	4	WHA Yu	C660-510592-AW1	Dipole Antenna	I-PEX	
7	-	3	3	WHA Yu	C660-510593-AW1	Dipole Antenna	I-PEX	
8	-	2	2	WHA Yu	C660-510594-AW1	Dipole Antenna	I-PEX	

Note 1

Ant.	Antenna Gain (dBi)								
	WLAN 2.4GHz	WLAN 5GHz UNII 1	WLAN 5GHz UNII 2A	WLAN 5GHz UNII 2C	WLAN 5GHz UNII 3	WLAN 6GHz UNII 5	WLAN 6GHz UNII 6	WLAN 6GHz UNII 7	WLAN 6GHz UNII 8
1	-	-	-	-	-	1.75	1.52	2.13	2.17
2	-	-	-	-	-	1.95	2.41	2.19	1.64
3	-	-	-	-	-	1.61	1.96	1.51	1.93
4	-	-	-	-	-	1.98	1.44	1.47	2.21
5	2.09	1.52	1.17	1.98	1.08	-	-	-	-
6	1.84	2.29	2.9	3.09	2.51	-	-	-	-
7	2.91	2.7	3.04	2.48	3.39	-	-	-	-
8	2.14	1.21	1.19	3.23	1.87	-	-	-	-

Item	Directional gain (dBi)								
	WLAN 2.4GHz	WLAN 5GHz UNII 1	WLAN 5GHz UNII 2A	WLAN 5GHz UNII 2C	WLAN 5GHz UNII 3	WLAN 6GHz UNII 5	WLAN 6GHz UNII 6	WLAN 6GHz UNII 7	WLAN 6GHz UNII 8
4T1S	5.99	4.72	5.97	5.72	5.64	5.99	5.46	5.38	5.5
4T2S	2.99	2.7	3.04	3.23	3.39	2.99	2.46	2.38	2.5

Note 2: The above information(excepting antenna gain and directional gain) was declared by manufacturer.
Note 3: The antenna gain and directional gain are measured which follow the procedure of KDB 662911 D03.

Note 4: **For 2.4GHz function:**
For IEEE 802.11 b/g/n/VHT/ax/be (4TX/4RX):
Port 1, Port 2, Port 3 and Port 4 can be used as transmitting/receiving antenna.
Port 1, Port 2, Port 3 and Port 4 could transmit/receive simultaneously.
For 5GHz function:
For IEEE 802.11a/n/ac/ax/be (4TX/4RX):
Port 1, Port 2, Port 3 and Port 4 can be used as transmitting/receiving antenna.
Port 1, Port 2, Port 3 and Port 4 could transmit/receive simultaneously.
For 6GHz function:
For IEEE 802.11ax/be mode (4TX/4RX):
Port 1, Port 2, Port 3 and Port 4 can be used as transmitting/receiving antenna.
Port 1, Port 2, Port 3 and Port 4 could transmit/receive simultaneously.

1.1.3 Mode Test Duty Cycle

Mode	DC	DCF (dB)	T (s)	VBW (Hz)_1/T
802.11a_Nss 1,(6D)	0.95	0.22	2.065m	1k
802.11be EHT20-BF_Nss 1,(M0)	0.897	0.47	1.612m	1k
802.11be EHT40-BF_Nss 1,(M0)	0.836	0.78	841.875u	3k
802.11be EHT80-BF_Nss 1,(M0)	0.876	0.57	1.515m	1k
802.11be EHT160-BF_Nss 1,(M0)	0.952	0.21	5.111m	300

Note:
- DC is Duty Cycle.
- DCF is Duty Cycle Factor.

1.1.4 EUT Operational Condition

EUT Power Type	From Power Adapter			
Beamforming Function	☒	With beamforming	☐	Without beamforming
	The product has beamforming function for n/VHT/ax/be in 2.4GHz, n/ac/ax/be in 5GHz and ax/be in 6GHz.			
Weather Band	☒	With 5600~5650MHz	☐	Without 5600~5650MHz
Function	☐	Outdoor P2M	☒	Indoor P2M
	☐	Fixed P2P	☐	Client
	☒	Point-to-multipoint	☐	Point-to-point
TPC Function	☒	With TPC	☐	Without TPC
Channel Puncturing Function	☐	Supported	☒	Unsupported
Support RU	☒	Full RU	☐	Partial RU
Test Software Version	accessMtool 3.3.0.4			

Note: The above information was declared by manufacturer.

1.1.5 Table for Multiple Listing

The difference for each EUT is shown as below:

EUT	Enclosure/Antenna Color	Heatsink Color on the Back of the EUT
1	Black	Red
2	White	Black

Note 1: The difference between EUT 1 and EUT 2 is only color, there is only EUT 1 tested and recorded in this report.

Note 2: The above information was declared by manufacturer.

1.1.6 Table for EUT Supports Functions

Function	Support Type
AP Router	Master
Bridge	Slave without radar detection
Extender	Master
Mesh	Master

Note 1: After evaluating, AP Router mode was selected to test and recorded in the report.

Note 2: The above information was declared by manufacturer.

1.1.7 Table for Radio Function

Radio 1	Radio 2	Radio 3
WLAN 2.4GHz	WLAN 5GHz UNII 1~3	WLAN 6GHz UNII 5~8

Note: The above information was declared by manufacturer.

1.2 Applicable Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- 47 CFR FCC Part 15
- ANSI C63.10-2013
- FCC KDB 789033 D02 v02r01

The following reference test guidance is not within the scope of accreditation of TAF.

- FCC KDB 662911 D03 v01
- FCC KDB 412172 D01 v01r01
- FCC KDB 414788 D01 v01r01

1.3 Testing Location Information

Testing Location Information	
Test Lab.：Sporton International Inc. Hsinchu Laboratory	
Hsinchu (TAF: 3787)	ADD: No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County 302010, Taiwan (R.O.C.) TEL: 886-3-656-9065 FAX: 886-3-656-9085 Test site Designation No. TW3787 with FCC. Conformity Assessment Body Identifier (CABID) TW3787 with ISED.

Test Condition	Test Site No.	Test Engineer	Test Environment (°C / %)	Test Date
RF Conducted	TH01-CB	Jay Lo	22.2~23.2 / 64~66	Mar. 11, 2024~ Mar. 12, 2024
Radiated (below 1GHz)	03CH05-CB	Stim Sung	21.8-22.7 / 56-59	May 09, 2024
Radiated (above 1GHz)	03CH01-CB	Stim Sung	22.7-23.8 / 56-59	Mar. 12, 2024~ Mar. 21, 2024
	03CH06-CB		21.9-22.4 / 55-58	
Radiated (Co-location)	03CH03-CB	Stim Sung	21.4-22.5 / 55-58	Apr. 20, 2024
AC Conduction	CO01-CB	Gray Lee	22~23 / 51~52	May 09, 2024

1.4 Measurement Uncertainty

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2)

Test Items	Uncertainty	Remark
Conducted Emission (150kHz ~ 30MHz)	3.4 dB	Confidence levels of 95%
Radiated Emission (9kHz ~ 30MHz)	3.7 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	5.1 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	4.1 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	4.2 dB	Confidence levels of 95%
Conducted Emission	3.1 dB	Confidence levels of 95%
Output Power Measurement	0.8 dB	Confidence levels of 95%

2 Spot Check Test Plan

2.1 Cross Reference Table

Rule	Test Item	Data Referencing (FCC ID: MSQ-RTBE6G00)	Description	Reference Report No.
15.207	AC Power-line Conducted Emissions	N	Full Test	-
15.407(a)	Emission Bandwidth	Y	Data referencing	FR262427-05AB
15.407(a)	Maximum Output Power	Y	Data referencing	
15.407(a)	Power Spectral Density	Y	Data referencing	
15.407(b)	Unwanted Emissions Below 1GHz	N	Full Test	-
	Unwanted Emissions Above 1GHz	Y	Data referencing	FR262427-01AB
15.407(h)	Dynamic Frequency Selection (DFS)	N	Full Test	-

2.2 Spot Check Verification Data Section

The evaluation of test items against the variant model based on the worst-case condition from the original model was performed in this filing to demonstrate the test data from the original model remains representative of the variant model.
All test procedures follow the related section of the parent report.

For any given test, the maximum identified difference between spot check and reference data shall be no larger than 3dB.

Formula :

$$d_{dB} = | V_{dB} - R_{dB} | \leq 3 \text{ dB}$$

Where between V_{dB} , the variant spot-check level in dB, and R_{dB} is the corresponding measurement level in dB for the reference model.

2.3 Results of Spot-Check

Test Items	Mode	Reference Worst Level(dBuV/m)	Variant Spot-Check Level(dBuV/m)	Deviation(dB)	Limit(dB)
Unwanted Emissions (Band edge)	802.11a 5200MHz 4TX	53.88	50.84	-3.04	≤ 3
Unwanted Emissions(Harmonic)	802.11a 5200MHz 4TX	41.28	40.44	-0.84	≤ 3
Unwanted Emissions (Band edge)	802.11be20(MCS0 Nss1) 5200MHz 4TX_Beamforming	53.95	53.9	-0.05	≤ 3
Unwanted Emissions(Harmonic)	802.11be20(MCS0 Nss1) 5200MHz 4TX_Beamforming	47.72	48.53	0.81	**≤ 3**
Unwanted Emissions (Band edge)	802.11be40(MCS0 Nss1) 5230MHz 4TX_Beamforming	53.98	53.92	-0.06	**≤ 3**
Unwanted Emissions(Harmonic)	802.11be40(MCS0 Nss1) 5230MHz 4TX_Beamforming	47.93	49.13	1.2	**≤ 3**
Unwanted Emissions (Band edge)	802.11be80(MCS0 Nss1) 5210MHz 4TX_Beamforming	53.87	53.08	-0.79	**≤ 3**
Unwanted Emissions(Harmonic)	802.11be80(MCS0 Nss1) 5210MHz 4TX_Beamforming	46.95	48.21	1.26	**≤ 3**
Unwanted Emissions (Band edge)	802.11be160(MCS0 Nss1) 5570MHz 4TX_Beamforming	53.73	53.88	0.15	**≤ 3**
Unwanted Emissions(Harmonic)	802.11be160(MCS0 Nss1) 5570MHz 4TX_Beamforming	57.22	48.25	-8.97	**≤ 3**
Test Items	**Mode**	**Reference Worst Level(dBm)**	**Variant Spot-Check Level(dBm)**	**Deviation(dB)**	**Limit(dB)**
Maximum Conducted Output Power	802.11a 5200MHz 4TX	29.88	29.86	-0.02	**≤ 3**
Maximum Conducted Output Power	802.11be20(MCS0 Nss1) 5200MHz 4TX_Beamforming	29.8	29.77	-0.03	**≤ 3**
Maximum Conducted Output Power	802.11be40(MCS0 Nss1) 5230MHz 4TX_Beamforming	29.9	29.87	-0.03	**≤ 3**
Maximum Conducted Output Power	802.11be80(MCS0 Nss1) 5210MHz 4TX_Beamforming	25.27	25.19	-0.08	**≤ 3**
Maximum Conducted Output Power	802.11be160(MCS0 Nss1) 5570MHz 4TX_Beamforming	23.91	23.87	-0.04	**≤ 3**

2.4 Conclusion

Based on the above tables (Results of Spot-Check), the test data from the reference device still represents the variant device and demonstrates compliance.

We confirm that the test data referencing policy of FCC 484596 D01 Referencing Test Data v02r03 has been followed and the test data as referenced from the reports of the reference device (FCC ID: MSQ-RTBE6G00) represent compliance of variant device with FCC ID: MSQ-RTBE6J00.

3 Test Configuration of EUT

3.1 Test Channel Mode

Mode
802.11a_Nss1,(6Mbps)_4TX
5200MHz
802.11be EHT20-BF_Nss1,(MCS0)_4TX
5200MHz
802.11be EHT40-BF_Nss1,(MCS0)_4TX
5230MHz
802.11be EHT80-BF_Nss1,(MCS0)_4TX
5210MHz
802.11be EHT160-BF_Nss1,(MCS0)_4TX
5570MHz

3.2 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
Tests Item	AC power-line conducted emissions
Condition	AC power-line conducted measurement for line and neutral Test Voltage: 120Vac / 60Hz
Operating Mode	Normal Link
1	AP Router Mode / WAN Mode_EUT 1-10G WAN/LAN1 (WAN) + 2.5G WAN/LAN1 (LAN) + 2.5G LAN 2 (LAN) + 1G LAN 5 (LAN) + 10G LAN 6 (LAN) + USB 2.0 Port (Read/Write) + USB 3.0 Port (Read/Write) + Adapter 1 with power cord
2	AP Router Mode / WAN Mode_EUT 1-2.5G WAN/LAN1 (WAN) + 10G WAN/LAN1 (LAN) + 2.5G LAN 2 (LAN) + 1G LAN 5 (LAN) + 10G LAN 6 (LAN) + USB 2.0 Port (Read/Write) + USB 3.0 Port (Read/Write) + Adapter 1 with power cord
3	AP Router Mode / WWAN Mode_EUT 1-10G WAN/LAN1 (LAN) + 2.5G WAN/LAN1 (LAN) + 2.5G LAN 2 (LAN) + 1G LAN 5 (LAN) + 10G LAN 6 (LAN) + USB 2.0 Port (WWAN) + USB 3.0 Port (Read/Write) + Adapter 1 with power cord
4	AP Router Mode / WWAN Mode_EUT 1-10G WAN/LAN1 (LAN) + 2.5G WAN/LAN1 (LAN) + 2.5G LAN 2 (LAN) + 1G LAN 5 (LAN) + 10G LAN 6 (LAN) + USB 2.0 Port (Read/Write) + USB 3.0 Port (WWAN) + Adapter 1 with power cord
Mode 4 has been evaluated to be the worst case among Mode 1~4, thus measurement for Mode 5 will follow this same test mode.	
5	AP Router Mode / WWAN Mode_EUT 1-10G WAN/LAN1 (LAN) + 2.5G WAN/LAN1 (LAN) + 2.5G LAN 2 (LAN) + 1G LAN 5 (LAN) + 10G LAN 6 (LAN) + USB 2.0 Port (Read/Write) + USB 3.0 Port (WWAN) + Adapter 3
For operating mode 5 is the worst case and it was record in this test report.	

The Worst Case Mode for Following Conformance Tests		
Tests Item	Maximum Output Power	
Test Condition	Conducted measurement at transmit chains	
Operating Mode	1	EUT 1

The Worst Case Mode for Following Conformance Tests	
Tests Item	Unwanted Emissions
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.

Operating Mode < 1GHz	CTX
	After evaluating, the worst case was found at Z axis, thus the measurement will follow this same test configuration.
1	EUT 1 in Z axis_WLAN 2.4GHz + Adapter 1 with power cord
2	EUT 1 in Z axis_WLAN 5GHz + Adapter 1 with power cord
3	EUT 1 in Z axis_WLAN 6GHz + Adapter 1 with power cord
Mode 1 has been evaluated to be the worst case among Mode 1~3, so measurement for Mode 4 will follow this same test mode.	
4	EUT 1 in Z axis_WLAN 2.4GHz + Adapter 3
For operating mode 4 is the worst case and it was record in this test report.	
Operating Mode > 1GHz	CTX
	After evaluating, the worst case was found at Z axis, thus the measurement will follow this same test configuration.
1	EUT 1 in Z axis

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Radiated Emission Co-location
Test Condition	Radiated measurement
Operating Mode	Normal Link
	After evaluating, the worst case was found at Z axis, thus the measurement will follow this same test configuration.
1	EUT 1 in Z axis_WLAN 2.4GHz + WLAN 5GHz
Refer to Appendix D for Radiated Emission Co-location.	

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Co-location RF Exposure Evaluation
Operating Mode	
1	EUT 1-WLAN 2.4GHz + WLAN 5GHz + WLAN 6GHz
2	EUT 1-WLAN 2.4GHz + WLAN 5GHz + WLAN 6GHz + WWAN
Refer to Sporton Test Report No.: FA422102 for Co-location RF Exposure Evaluation.	

3.3 EUT Operation during Test

For CTX Mode:

non-beamforming mode:

The EUT was programmed to be in continuously transmitting mode.

beamforming mode:

For Conducted Mode:

The EUT was programmed to be in continuously transmitting mode.

For Radiated Mode:

During the test, the following programs under WIN 7 were executed.
The program was executed as follows:
1. During the test, the EUT operation to normal function.
2. Executed command fixed test channel under DOS.
3. Executed "Lantest.exe" to link with the remote workstation to transmit and receive packet by Router and transmit duty cycle no less than 98%.

For Normal Link Mode:

During the test, the EUT operation to normal function.

3.4 Accessories

Power	Brand	Model	Rating	Remark
Adapter 1	AcBel	ADD011	INPUT: 100-240V~ 1.7A, 50-60Hz OUTPUT: +19.5V, 3.33A, 65.0W MAX.	With the DC cable: Non-shielded, 1.5m
Adapter 2	AcBel	ADD011	INPUT: 100-240V~ 1.7A, 50-60Hz OUTPUT: +19.5V, 3.33A, 65.0W MAX.	With the DC cable: Non-shielded, 1.5m
Adapter 3	LEI	MU60B3120500-A1	INPUT: 100-240V~50/60Hz, 1.5A OUTPUT: 12.0V, 5.0A	-
Others				
RJ-45 cable*1: Shielded, 1.5m Power cord*1: Non-shielded, 0.9m for Adapter 1 and Adapter 2 use				

Note1: Adapter 1 & Adapter 2 is identical; Therefore, Adapter 1 were selected to test and recorded in this report.
Note2: Refer to photographs of EUT for the detail information of difference between Adapter 1 & Adapter 2.

3.5 Support Equipment

For AC Conduction:

Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
A	10G WAN/LAN1 PC	DELL	OPTIPLEX 3010	N/A
B	3G Dongle	CHT	E169	N/A
C	2.5G WAN/LAN1 PC	DELL	OPTIPLEX 3010	N/A
D	1G LAN5 PC	DELL	OPTIPLEX 3010	N/A
E	2.4G NB	Apple	A1278	N/A
F	5G NB	Apple	A1278	N/A
G	Flash disk3.0	Transcend	JetFlash-703	N/A
H	2.5G LAN4 PC	DELL	OPTIPLEX 3010	N/A
I	SIM Card	Anritsu	N/A	N/A
J	10G LAN6 PC	DELL	OPTIPLEX 3010	N/A
K	6G Client	ASUS	GT-AXE16000	N/A
L	6G Client NB	DELL	E6430	N/A
M	LTE Base station	Anritsu	MT8820C	N/A

For Radiated (below 1GHz):

Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
A	NB	DELL	E4300	N/A

For Radiated (above 1GHz):
Non-beamforming mode:

Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
A	NB	DELL	E4300	N/A

Beamforming mode:

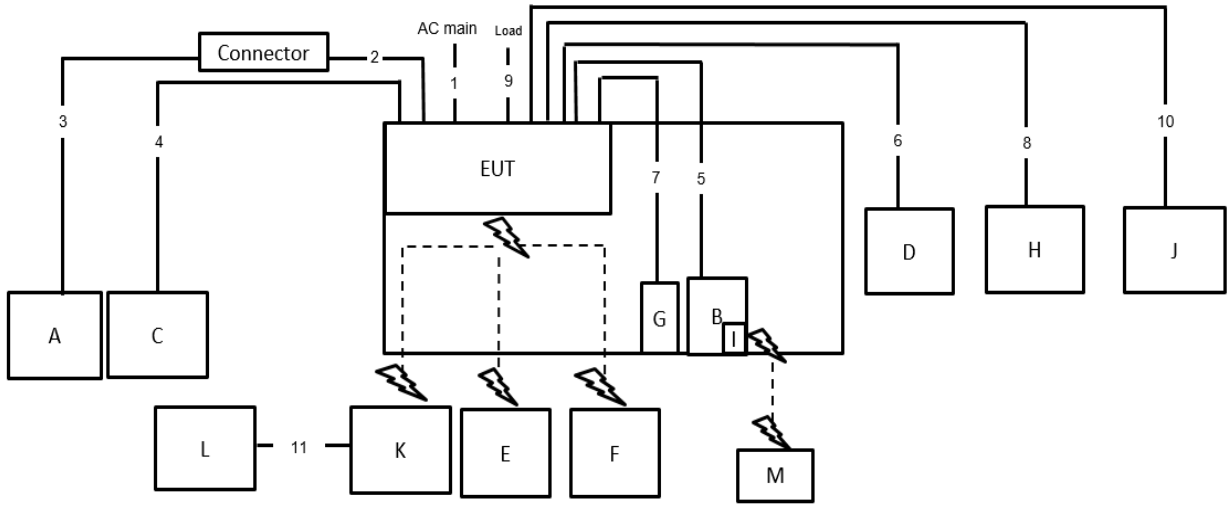
Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
A	NB	DELL	E4300	N/A
B	Router	ASUS	GT-BE19000 AFC	N/A
C	NB	DELL	E4300	N/A

For RF Conducted:

Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
A	NB	DELL	E4300	N/A

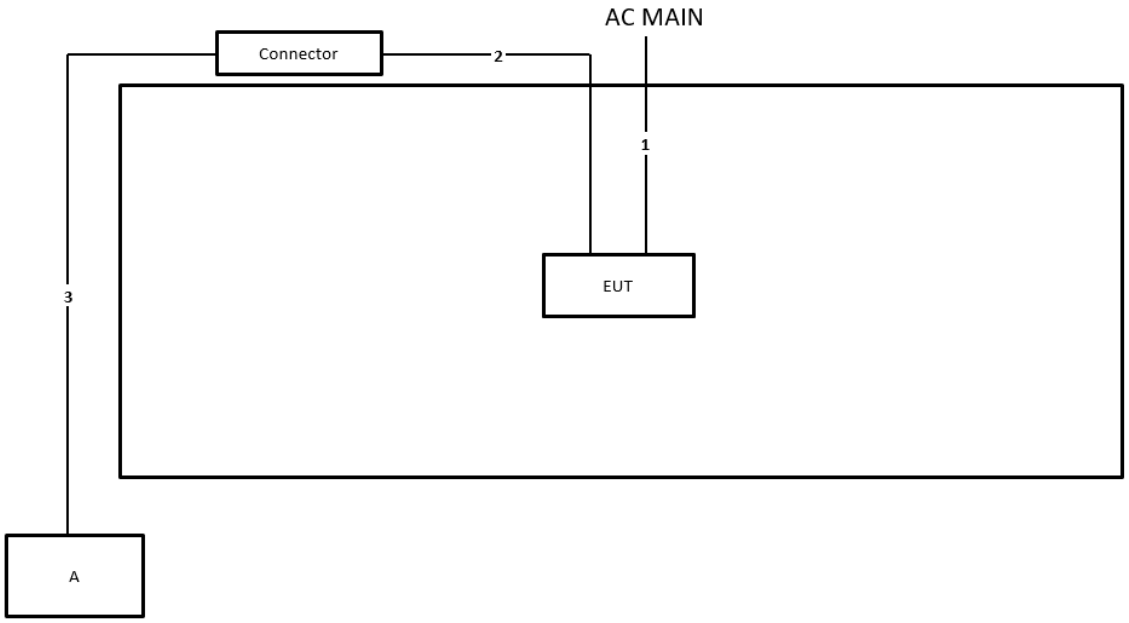
3.6 Test Setup Diagram

Test Setup Diagram – AC Line Conducted Emission Test



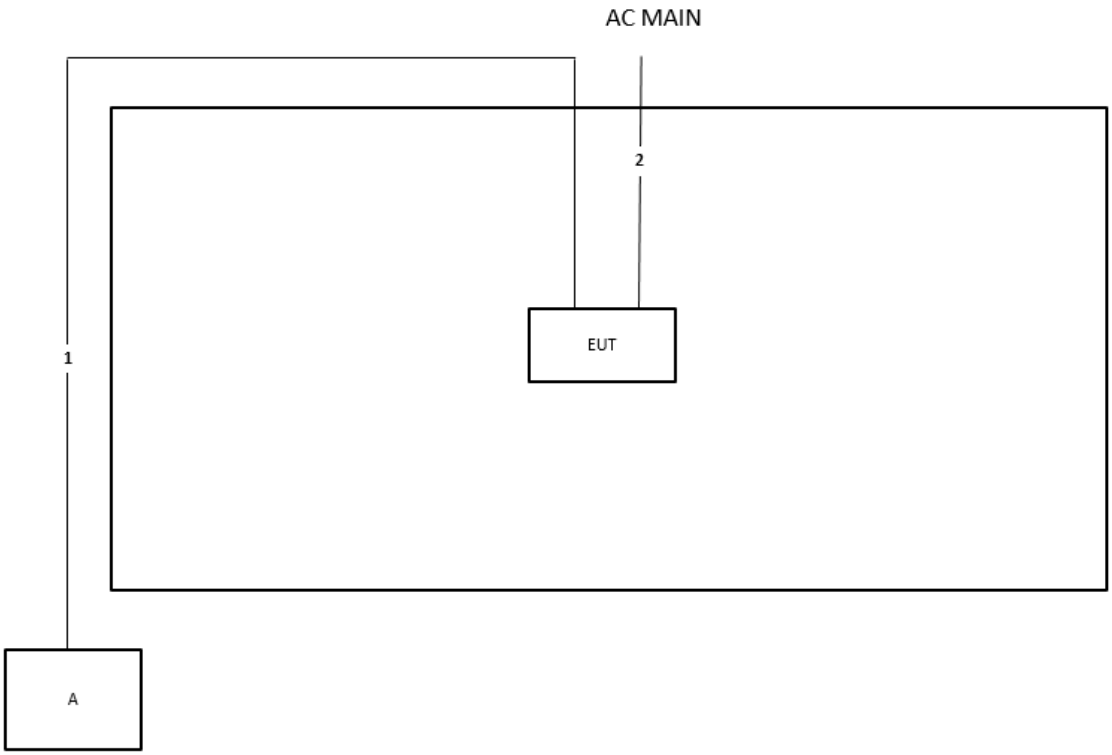
Item	Connection	Shielded	Length
1	Power cable	No	1.8m
2	Cat.6 RJ-45 cable	Yes	1.5m
3	Cat.6 RJ-45 cable	Yes	10m
4	Cat.5e RJ-45 cable	No	10m
5	USB cable	Yes	1.8m
6	Cat.5e RJ-45 cable	No	10m
7	USB cable	Yes	1.8m
8	Cat.5e RJ-45 cable	No	10m
9	Cat.5e RJ-45 cable*2	No	1.5m
10	Cat.6 RJ-45 cable	No	10m
11	Cat.5e RJ-45 cable	No	1.5m

Test Setup Diagram - Radiated Test < 1GHz



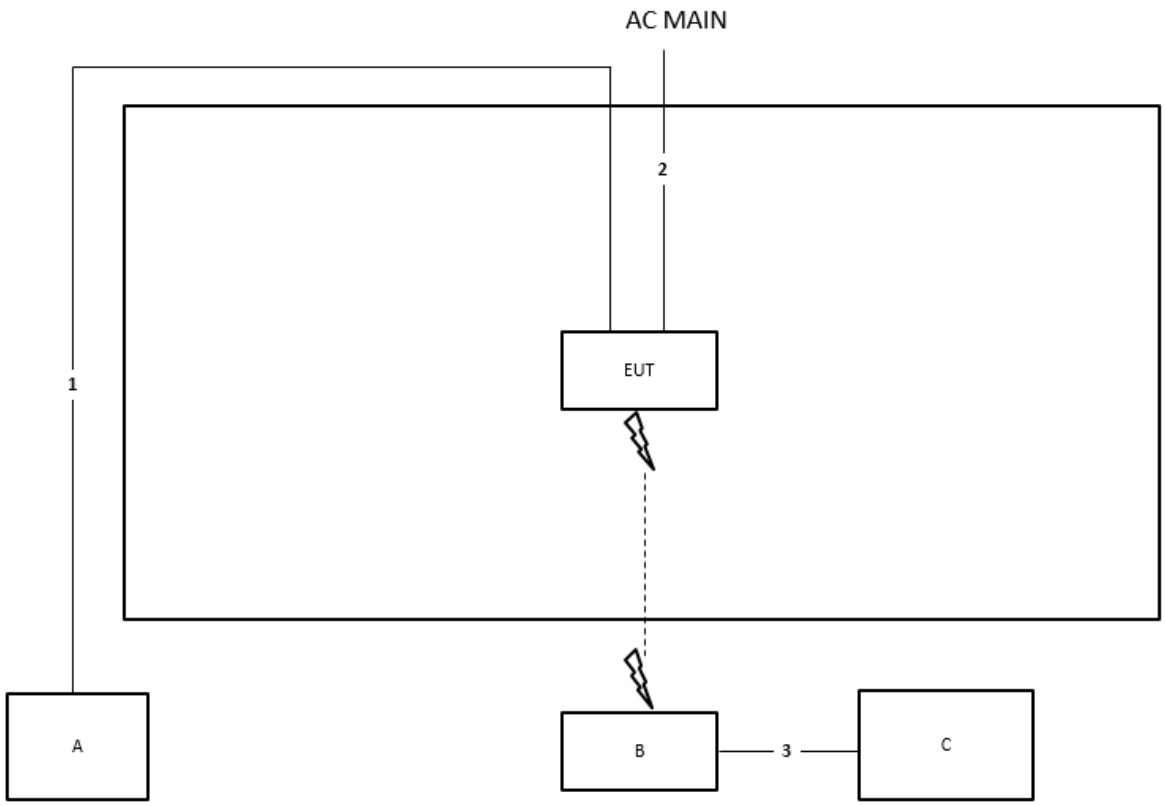
Item	Connection	Shielded	Length
1	Power cable	No	1.8m
2	RJ-45 cable	Yes	1.5m
3	RJ-45 cable	Yes	10m

Test Setup Diagram - Radiated Test > 1GHz
(Non-beamforming mode)



Item	Connection	Shielded	Length
1	RJ-45 cable	No	10m
2	Power cable	No	2.4m

Test Setup Diagram - Radiated Test > 1GHz
(Beamforming mode)



Item	Connection	Shielded	Length
1	RJ-45 cable	No	10m
2	Power cable	No	2.4m
3	RJ-45 cable	No	1.5m

4 Transmitter Test Result

4.1 AC Power-line Conducted Emissions

4.1.1 AC Power-line Conducted Emissions Limit

AC Power-line Conducted Emissions Limit		
Frequency Emission (MHz)	**Quasi-Peak**	**Average**
0.15-0.5	66 - 56 *	56 - 46 *
0.5-5	56	46
5-30	60	50
Note 1: * Decreases with the logarithm of the frequency.		

4.1.2 Measuring Instruments

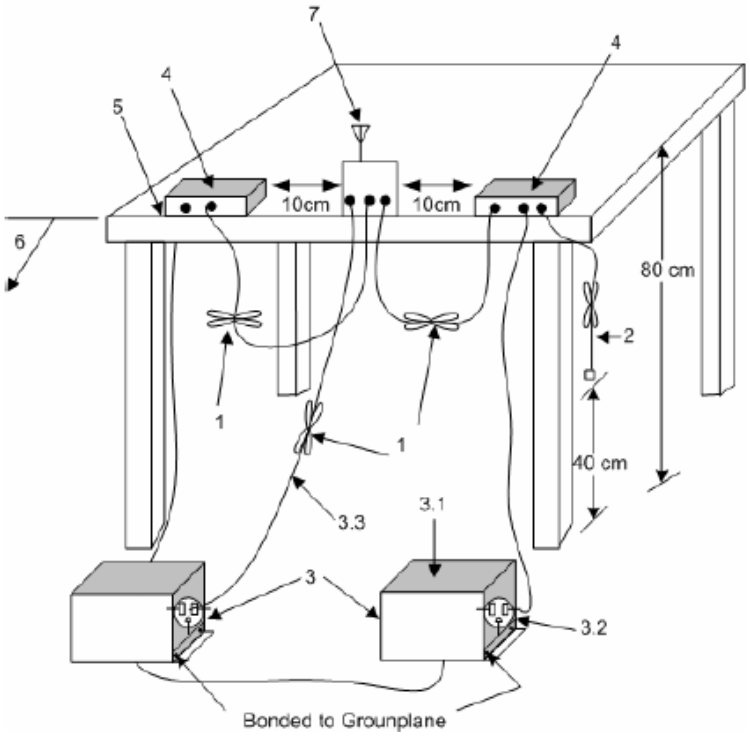
Refer a test equipment and calibration data table in this test report.

4.1.3 Test Procedures

Test Method
☒ Refer as ANSI C63.10-2013, clause 6.2 for AC power-line conducted emissions.

4.1.4 Test Setup

AC Power-line Conducted Emissions



1—Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 cm to 40 cm long.
2—The I/O cables that are not connected to an accessory shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
3—EUT connected to one LISN. Unused LISN measuring port connectors shall be terminated in 50 Ω loads. LISN may be placed on top of, or immediately beneath, reference ground plane.
3.1—All other equipment powered from additional LISN(s).
3.2—A multiple-outlet strip may be used for multiple power cords of non-EUT equipment.
3.3—LISN at least 80 cm from nearest part of EUT chassis.
4—Non-EUT components of EUT system being tested.
5—Rear of EUT, including peripherals, shall all be aligned and flush with edge of tabletop.
6—Edge of tabletop shall be 40 cm removed from a vertical conducting plane that is bonded to the ground plane.
7—Antenna can be integral or detachable. If detachable, then the antenna shall be attached for this test.

4.1.5 Measurement Results Calculation

The measured Level is calculated using:

a. Corrected Reading: LISN Factor (LISN) + Attenuator (AT/AUX) + Cable Loss (CL) + Read Level (Raw) = Level

b. Margin = -Limit + Level

4.1.6 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

4.2 Maximum Output Power

4.2.1 Limit

Maximum Output Power Limit	
UNII Devices	
☒	For the 5.15-5.25 GHz band:
	▪ Outdoor AP: the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. If G_{TX} > 6 dBi, then P_{Out} = 30 – (G_{TX} – 6). e.i.r.p. at any elevation angle above 30 degrees ≤ 125mW [21dBm]
	▪ Indoor AP: the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. If G_{TX} > 6 dBi, then P_{Out} = 30 – (G_{TX} – 6)
	▪ Point-to-point AP: the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W If G_{TX} > 23 dBi, then P_{Out} = 30 – (G_{TX} – 23).
	▪ Mobile or Portable Client: the maximum conducted output power (P_{Out}) shall not exceed the lesser of 250 mW. If G_{TX} > 6 dBi, then P_{Out} = 24 – (G_{TX} – 6).
☒	For the 5.25-5.35 GHz band, the maximum conducted output power (P_{Out}) shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz. If G_{TX} > 6 dBi, then P_{Out} = 24 – (G_{TX} – 6).
☒	For the 5.47-5.725 GHz band, the maximum conducted output power (P_{Out}) shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz. If G_{TX} > 6 dBi, then P_{Out} = 24 – (G_{TX} – 6).
☒	For the 5.725-5.85 GHz band:
	▪ Point-to-multipoint systems (P2M): the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. If G_{TX} > 6 dBi, then P_{Out} = 30 – (G_{TX} – 6).
	▪ Point-to-point systems (P2P): the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W.
LE-LAN Devices	
☐	For the 5.15-5.25 GHz band:
	▪ For other devices: The maximum e.i.r.p. shall not exceed 200 mW or 10 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz.
	▪ Vehicles devices: The maximum e.i.r.p. shall not exceed 30 mW or 1.76 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz.
☐	For the 5.25-5.35 GHz band:
	▪ For other devices: The maximum conducted output power shall not exceed 250 mW or 11 + 10 log 10 B, dBm, and the maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz
	▪ Vehicles devices: The maximum e.i.r.p. shall not exceed 30 mW or 1.76 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz.
☐	For the 5.47-5.6 GHz band and 5.65-5.725 GHz band, the maximum conducted output power shall not exceed 250 mW or 11 + 10 log 10 B, dBm, and the maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz.

☐	For the 5.725-5.85 GHz band:
	▪ Point-to-multipoint systems (P2M): the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. If G_{TX} > 6 dBi, then P_{Out} = 30 – (G_{TX} – 6).
	▪ Point-to-point systems (P2P): the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W.
P_{Out} = maximum conducted output power in dBm, **G_{TX}** = the maximum transmitting antenna directional gain in dBi.	

4.2.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

4.2.3 Test Procedures

Test Method	
	Average over on/off periods with duty factor
	☐ Refer as FCC KDB 789033 D02, clause E Method SA-2 (spectral trace averaging).
	☐ Refer as FCC KDB 789033 D02, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)
	Wideband RF power meter and average over on/off periods with duty factor
	☒ Refer as FCC KDB 789033 D02, clause E Method PM-G (using an RF average power meter).
☒	For conducted measurement.
	▪ If the EUT supports multiple transmit chains using options given below: Refer as FCC KDB 662911, In-band power measurements. Using the measure-and-sum approach, measured all transmit ports individually. Sum the power (in linear power units e.g., mW) of all ports for each individual sample and save them.
	▪ If multiple transmit chains, EIRP calculation could be following as methods: $P_{total} = P_1 + P_2 + \ldots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = P_{total} + DG$
☐	For radiated measurement.
	▪ Refer as FCC KDB 789033 D02 clause II A.1.F ”Antenna-port Conducted versus Radiated Testing”
	▪ Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz.
	▪ Refer as FCC KDB 412172 D01 clause 2.2 for EIRP calculation.

4.2.4 Test Setup

Conducted Measurement (Power Meter)


4.2.5 Test Result of Maximum Output Power

Refer as Appendix B

4.3 Unwanted Emissions

4.3.1 Transmitter Unwanted Emissions Limit

Unwanted emissions below 1 GHz and restricted band emissions above 1GHz limit			
Frequency Range (MHz)	**Field Strength (uV/m)**	**Field Strength (dBuV/m)**	**Measure Distance (m)**
0.009~0.490	2400/F(kHz)	48.5 - 13.8	300
0.490~1.705	24000/F(kHz)	33.8 - 23	30
1.705~30.0	30	29	30
30~88	100	40	3
88~216	150	43.5	3
216~960	200	46	3
Above 960	500	54	3

Note 1: Test distance for frequencies at or above 30 MHz, measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).

Note 2: Test distance for frequencies at below 30 MHz, measurements may be performed at a distance closer than the EUT limit distance; however, an attempt should be made to avoid making measurements in the near field. When performing measurements below 30 MHz at a closer distance than the limit distance, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two or more distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB/decade). The test report shall specify the extrapolation method used to determine compliance of the EUT.

Note 3: Using the distance of 1m during the test for above 18 GHz, and the test value to correct for the distance factor at 3m.

Un-restricted band emissions above 1GHz Limit	
Operating Band	**Limit**
☒ 5.15 - 5.25 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
☒ 5.25 - 5.35 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
☒ 5.47 - 5.725 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
☒ 5.725 - 5.85 GHz	all emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

Note 1: Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).

4.3.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

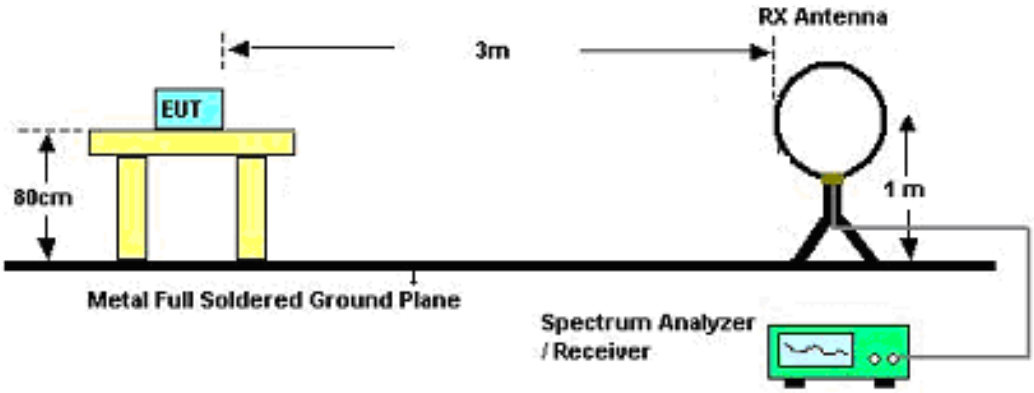
4.3.3 Test Procedures

Test Method		
▪ Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. Measurements shall not be performed at a distance greater than 30 m for frequencies above 30 MHz, unless it can be further demonstrated that measurements at a distance of 30 m or less are impractical. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).		
▪ The average emission levels shall be measured in [duty cycle ≥ 98 or duty factor].		
▪ For the transmitter unwanted emissions shall be measured using following options below:		
	▪ Refer as FCC KDB 789033 D02, clause G)2) for unwanted emissions into non-restricted bands.	
	▪ Refer as FCC KDB 789033 D02, clause G)1) for unwanted emissions into restricted bands.	
		☐ Refer as FCC KDB 789033 D02, G)6) Method AD (Trace Averaging).
		☒ Refer as FCC KDB 789033 D02, G)6) Method VB (Reduced VBW).
		☐ Refer as ANSI C63.10, clause 11.12.2.5.3 (Reduced VBW). VBW ≥ 1/T, where T is pulse time.
		☐ Refer as ANSI C63.10, clause 7.5 average value of pulsed emissions.
		☒ Refer as FCC KDB 789033 D02, clause G)5) measurement procedure peak limit.
		☐ Refer as ANSI C63.10, clause 4.1.4.2.2 measurement procedure peak limit.
▪ For radiated measurement.		
	▪ Refer as ANSI C63.10, clause 6.4 for radiated emissions below 30 MHz and test distance is 3m.	
	▪ Refer as ANSI C63.10, clause 6.5 for radiated emissions 30 MHz to 1 GHz and test distance is 3m.	
	▪ Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz.	
▪ The any unwanted emissions level shall not exceed the fundamental emission level.		
▪ All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.		

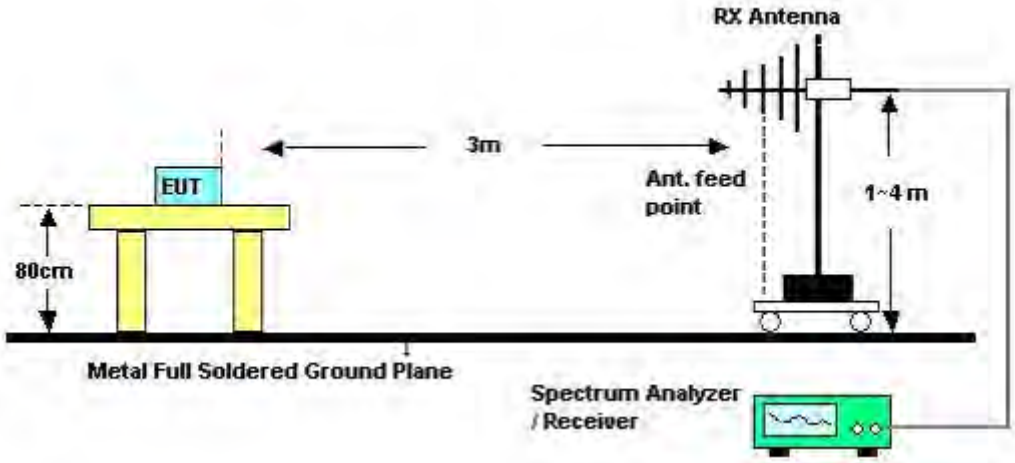
4.3.4 Test Setup

Transmitter Radiated Unwanted Emissions

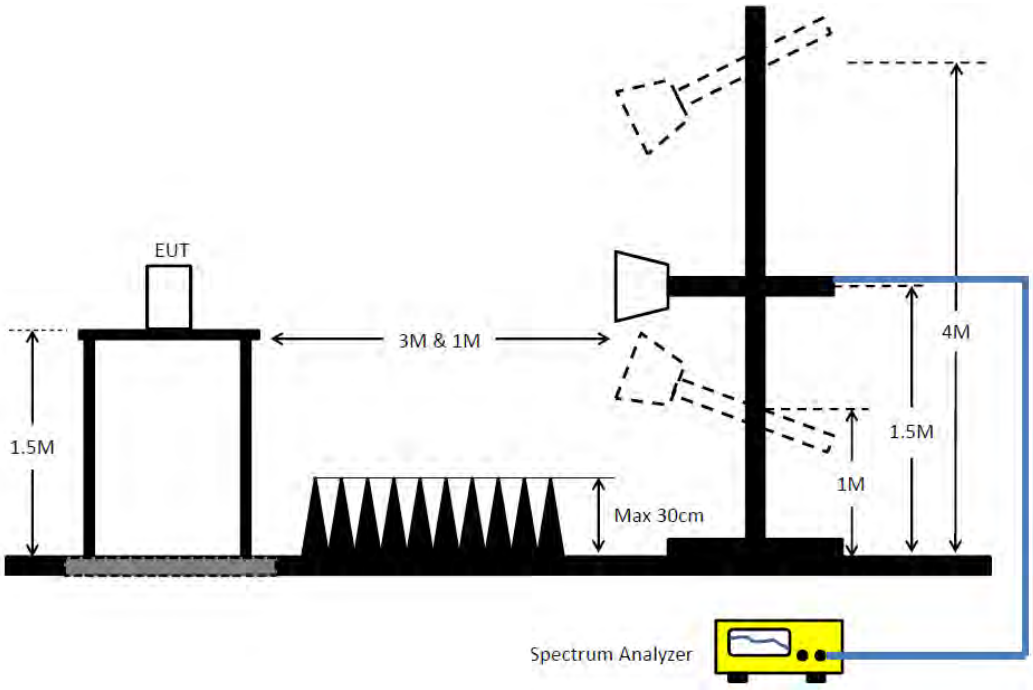
9kHz ~30MHz



30MHz~1GHz



Above 1GHz



4.3.5 Measurement Results Calculation

The measured Level is calculated using:
Corrected Reading: Antenna factor (AF) + Cable loss (CL) + Read level (Raw) - Preamp factor (PA)(if applicable) = Level.

4.3.6 Transmitter Unwanted Emissions (Below 30MHz)

There is a comparison data of both open-field test site and alternative test site - semi-Anechoic chamber according to KDB414788 Radiated Test Site, and the result came out very similar.
All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.
The radiated emissions were investigated from 9 kHz or the lowest frequency generated within the device, up to the 10th harmonic or 40 GHz, whichever is appropriate.

4.3.7 Test Result of Transmitter Unwanted Emissions

Refer as Appendix C

5 Test Equipment and Calibration Data

Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
EMI Receiver	Agilent	N9038A	My52260123	9kHz ~ 8.4GHz	Mar. 01, 2024	Feb. 28, 2025	Conduction (CO01-CB)
LISN	F.C.C.	FCC-LISN-50-16-2	04083	150kHz ~ 100MHz	Feb. 19, 2024	Feb. 18, 2025	Conduction (CO01-CB)
LISN	Schwarzbeck	NSLK 8127	8127647	9kHz ~ 30MHz	Apr. 24, 2024	Apr. 23, 2025	Conduction (CO01-CB)
Pulse Limiter	Rohde& Schwarz	ESH3-Z2	100430	9kHz ~ 30MHz	Feb. 08, 2024	Feb. 07, 2025	Conduction (CO01-CB)
COND Cable	Woken	Cable	Low cable-CO01	9kHz ~ 30MHz	Oct. 17, 2023	Oct. 16, 2024	Conduction (CO01-CB)
Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conduction (CO01-CB)
3m Semi Anechoic Chamber NSA	TDK	SAC-3M	03CH05-CB	30 MHz ~ 1 GHz	Aug. 02, 2023	Aug. 01, 2024	Radiation (03CH05-CB)
Bilog Antenna with 6dB Attenuator	TESEQ & EMCI	CBL 6112D & N-6-06	35236 & AT-N0610	30MHz ~ 2GHz	Mar. 23, 2024	Mar. 22, 2025	Radiation (03CH05-CB)
Loop Antenna	Teseq	HLA 6121	65417	9kHz - 30 MHz	Oct. 13, 2023	Oct. 12, 2024	Radiation (03CH05-CB)
Amplifier	EMCI	EMC330N	980331	20MHz ~ 3GHz	May 02, 2024	May 01, 2025	Radiation (03CH05-CB)
Spectrum Analyzer	R&S	FSP40	100304	9kHz ~ 40GHz	Apr. 17, 2024	Apr. 16, 2025	Radiation (03CH05-CB)
EMI Test Receiver	R&S	ESCS	826547/017	9kHz ~ 2.75GHz	Jun. 13, 2023	Jun. 12, 2024	Radiation (03CH05-CB
RF Cable-low	Woken	RG402	Low Cable-04+23	30MHz~1GHz	Dec. 06, 2023	Dec. 05, 2024	Radiation (03CH05-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH05-CB)
3m Semi Anechoic Chamber VSWR	TDK	SAC-3M	03CH01-CB	1GHz ~18GHz 3m	May 05, 2023	May 04, 2024	Radiation (03CH01-CB)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA 9120D-01816	1GHz~18GHz	Dec. 20, 2023	Dec. 19, 2024	Radiation (03CH01-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Sep. 04, 2023	Sep. 03, 2024	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02121	1GHz ~ 26.5GHz	May 18, 2023	May 17, 2024	Radiation (03CH01-CB)
Pre-Amplifier	SGH	SGH184	20221107-3	18GHz ~ 40GHz	Nov. 24, 2023	Nov. 23, 2024	Radiation (03CH01-CB)

Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
Signal Analyzer	R&S	FSV3044	101437	10kHz ~ 44GHz	Nov. 28, 2023	Nov. 27, 2024	Radiation (03CH01-CB)
RF Cable-low	Woken	RG402	Low Cable-31+32	30 MHz ~ 1 GHz	Nov. 06, 2023	Nov. 05, 2024	Radiation (03CH01-CB)
RF Cable-high	Woken	RG402	High Cable-16	1 GHz ~ 18 GHz	Nov. 06, 2023	Nov. 05, 2024	Radiation (03CH01-CB)
RF Cable-high	Woken	RG402	High Cable-16+17	1 GHz ~ 18 GHz	Nov. 06, 2023	Nov. 05, 2024	Radiation (03CH01-CB)
High Cable	Woken	WCA0929M	40G#5+6	1GHz ~ 40 GHz	Jan. 11, 2024	Jan. 10, 2025	Radiation (03CH01-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH01-CB)
3m Semi Anechoic Chamber VSWR	TDK	SAC-3M	03CH06-CB	1GHz ~18GHz 3m	Oct. 02, 2023	Oct. 01, 2024	Radiation (03CH06-CB)
Horn Antenna	SCHWARZBECK	BBHA9120D	BBHA 9120D-1292	1GHz~18GHz	Jul. 31, 2023	Jul. 30, 2024	Radiation (03CH06-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Sep. 04, 2023	Sep. 03, 2024	Radiation (03CH06-CB)
Pre-Amplifier	Agilent	83017A	MY53270064	0.5GHz ~ 26.5GHz	Aug. 01, 2023	Jul. 31, 2024	Radiation (03CH06-CB)
Pre-Amplifier	SGH	SGH184	20221107-3	18GHz ~ 40GHz	Nov. 24, 2023	Nov. 23, 2024	Radiation (03CH06-CB)
Signal Analyzer	R&S	FSV40	101903	9kHz ~ 40GHz	May 29, 2023	May 28, 2024	Radiation (03CH06-CB)
RF Cable-high	Woken	RG402	High Cable-05+68	1GHz~18GHz	Oct. 02, 2023	Oct. 01, 2024	Radiation (03CH06-CB)
High Cable	Woken	WCA0929M	40G#5+6	1GHz ~ 40 GHz	Jan. 11, 2024	Jan. 10, 2025	Radiation (03CH06-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH06-CB)
3m Semi Anechoic Chamber VSWR	TDK	SAC-3M	03CH03-CB	1GHz ~18GHz 3m	May 04, 2023	May 03, 2024	Radiation (03CH03-CB)
Horn Antenna	ETS·Lindgren	3115	6821	750MHz~18GHz	Jan. 24, 2024	Jan. 23, 2025	Radiation (03CH03-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Sep. 04, 2023	Sep. 03, 2024	Radiation (03CH03-CB)
Pre-Amplifier	Agilent	8449B	3008A02097	1GHz ~ 26.5GHz	Jun. 30, 2023	Jun. 29, 2024	Radiation (03CH03-CB)
Pre-Amplifier	SGH	SGH184	20221107-3	18GHz ~ 40GHz	Nov. 24, 2023	Nov. 23, 2024	Radiation (03CH03-CB)
RF Cable-high	Woken	RG402	High Cable-20+29	1GHz ~ 18GHz	Feb. 29, 2024	Feb. 28, 2025	Radiation (03CH03-CB)

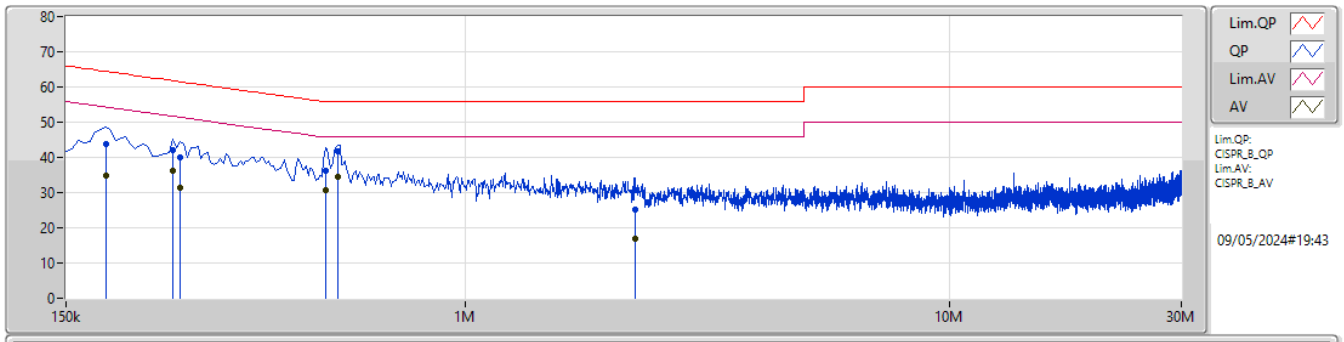
Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
RF Cable-high	Woken	RG402	High Cable-29	1GHz ~ 18GHz	Feb. 29, 2024	Feb. 28, 2025	Radiation (03CH03-CB)
High Cable	Woken	WCA0929M	40G#5+6	1GHz ~ 40 GHz	Jan. 11, 2024	Jan. 10, 2025	Radiation (03CH03-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH03-CB)
Spectrum analyzer	R&S	FSV40	100979	9kHz~40GHz	May 29, 2023	May 28, 2024	Conducted (TH01-CB)
Switch	SPTCB	SP-SWI	SWI-01	1~26.5 GHz	Oct. 03, 2023	Oct. 02, 2024	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-06	1 GHz – 18 GHz	Oct. 02, 2023	Oct. 01, 2024	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-07	1 GHz – 18 GHz	Oct. 02, 2023	Oct. 01, 2024	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-08	1 GHz – 18 GHz	Oct. 02, 2023	Oct. 01, 2024	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-09	1 GHz – 18 GHz	Oct. 02, 2023	Oct. 01, 2024	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-10	1 GHz – 18 GHz	Oct. 02, 2023	Oct. 01, 2024	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-30	1 GHz – 18 GHz	Oct. 02, 2023	Oct. 01, 2024	Conducted (TH01-CB)
Power Sensor	Agilent	E9327A	US40442088	50MHz~18GHz	Mar. 01, 2024	Feb. 28, 2025	Conducted (TH01-CB)
Power Meter	Agilent	E4416A	GB41291199	50MHz~18GHz	Mar. 04, 2024	Mar. 03, 2025	Conducted (TH01-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conducted (TH01-CB)

Note: Calibration Interval of instruments listed above is one year.
NCR means Non-Calibration required.

Summary

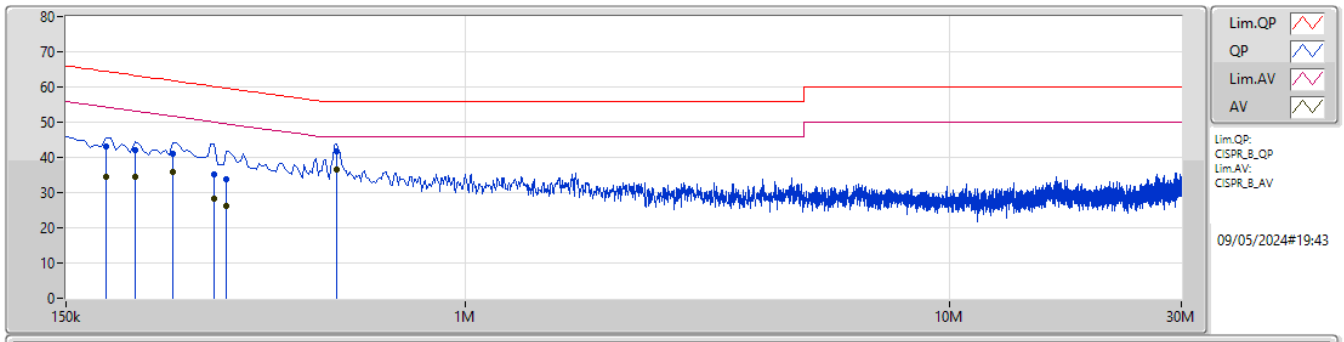
Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 5	Pass	AV	541.5k	36.60	46.00	-9.40	Neutral

Mode 5



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	181.5k	43.70	64.41	-20.71	9.92	Line	-	33.78	0.04	0.02	9.86
AV	181.5k	34.78	54.41	-19.63	9.92	Line	-	24.86	0.04	0.02	9.86
QP	249k	42.11	61.79	-19.68	9.92	Line	-	32.19	0.04	0.02	9.86
AV	249k	36.07	51.79	-15.72	9.92	Line	-	26.15	0.04	0.02	9.86
QP	258k	39.98	61.49	-21.51	9.92	Line	-	30.06	0.04	0.02	9.86
AV	258k	31.22	51.49	-20.27	9.92	Line	-	21.30	0.04	0.02	9.86
QP	514.5k	36.13	56.00	-19.87	9.98	Line	-	26.15	0.06	0.02	9.90
AV	514.5k	30.86	46.00	-15.14	9.98	Line	-	20.88	0.06	0.02	9.90
QP	546k	41.78	56.00	-14.22	9.98	Line	-	31.80	0.06	0.02	9.90
AV	546k	34.65	46.00	-11.35	9.98	Line	"Worst"	24.67	0.06	0.02	9.90
QP	2.238M	25.21	56.00	-30.79	10.08	Line	-	15.13	0.11	0.08	9.89
AV	2.238M	17.03	46.00	-28.97	10.08	Line	-	6.95	0.11	0.08	9.89

Mode 5



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	181.5k	43.16	64.41	-21.25	9.94	Neutral	-	33.22	0.06	0.02	9.86
AV	181.5k	34.52	54.41	-19.89	9.94	Neutral	-	24.58	0.06	0.02	9.86
QP	208.5k	42.00	63.27	-21.27	9.93	Neutral	-	32.07	0.06	0.02	9.85
AV	208.5k	34.55	53.27	-18.72	9.93	Neutral	-	24.62	0.06	0.02	9.85
QP	249k	41.12	61.79	-20.67	9.94	Neutral	-	31.18	0.06	0.02	9.86
AV	249k	35.82	51.79	-15.97	9.94	Neutral	-	25.88	0.06	0.02	9.86
QP	303k	35.25	60.17	-24.92	9.95	Neutral	-	25.30	0.06	0.02	9.87
AV	303k	28.31	50.17	-21.86	9.95	Neutral	-	18.36	0.06	0.02	9.87
QP	321k	33.76	59.67	-25.91	9.96	Neutral	-	23.80	0.06	0.02	9.88
AV	321k	26.06	49.67	-23.61	9.96	Neutral	-	16.10	0.06	0.02	9.88
QP	541.5k	41.58	56.00	-14.42	9.98	Neutral	-	31.60	0.06	0.02	9.90
AV	541.5k	36.60	46.00	-9.40	9.98	Neutral	"Worst"	26.62	0.06	0.02	9.90

Result

Reference Device / FCC ID: MSQ-RTBE6G00								
Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Port 4 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11a_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-
5200MHz	Pass	2.70	23.67	23.85	24.14	23.76	29.88	30.00
Variant Device / FCC ID: MSQ-RTBE6J00								
Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Port 4 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11a_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-
5200MHz	Pass	2.70	23.93	24.07	23.68	23.67	29.86	30.00

Reference Device / FCC ID: MSQ-RTBE6G00								
Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Port 4 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11be EHT20-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5200MHz	Pass	4.72	24.08	23.37	23.79	23.83	29.80	30.00
Variant Device / FCC ID: MSQ-RTBE6J00								
Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Port 4 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11be EHT20-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5200MHz	Pass	4.72	24.05	23.68	23.76	23.47	29.77	30.00

Reference Device / FCC ID: MSQ-RTBE6G00								
Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Port 4 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11be EHT40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5230MHz	Pass	4.72	24.26	23.51	23.88	23.82	29.90	30.00
Variant Device / FCC ID: MSQ-RTBE6J00								
Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Port 4 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11be EHT40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5230MHz	Pass	4.72	24.07	23.51	23.96	23.85	29.87	30.00

Reference Device / FCC ID: MSQ-RTBE6G00								
Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Port 4 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11be EHT80-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5210MHz	Pass	4.72	19.33	19.32	19.27	19.08	25.27	30.00
Variant Device / FCC ID: MSQ-RTBE6J00								
Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Port 4 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11be EHT80-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5210MHz	Pass	4.72	19.16	19.13	19.56	18.80	25.19	30.00

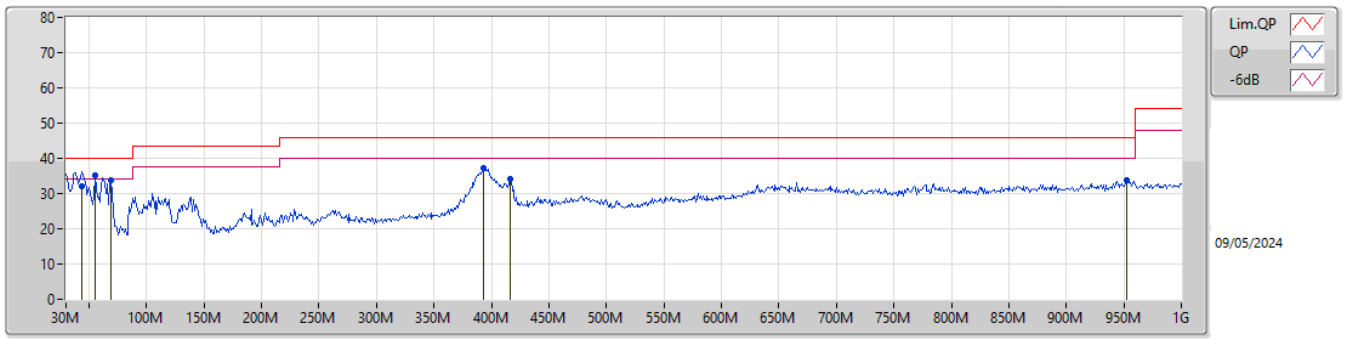
Reference Device / FCC ID: MSQ-RTBE6G00								
Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Port 4 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11be EHT160-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5570MHz	Pass	5.72	17.74	17.67	18.04	18.08	23.91	23.98
Variant Device / FCC ID: MSQ-RTBE6J00								
Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Port 4 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11be EHT160-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5570MHz	Pass	5.72	18.17	17.95	17.58	17.68	23.87	23.98

DG = Directional Gain; Port X = Port X output power

Summary

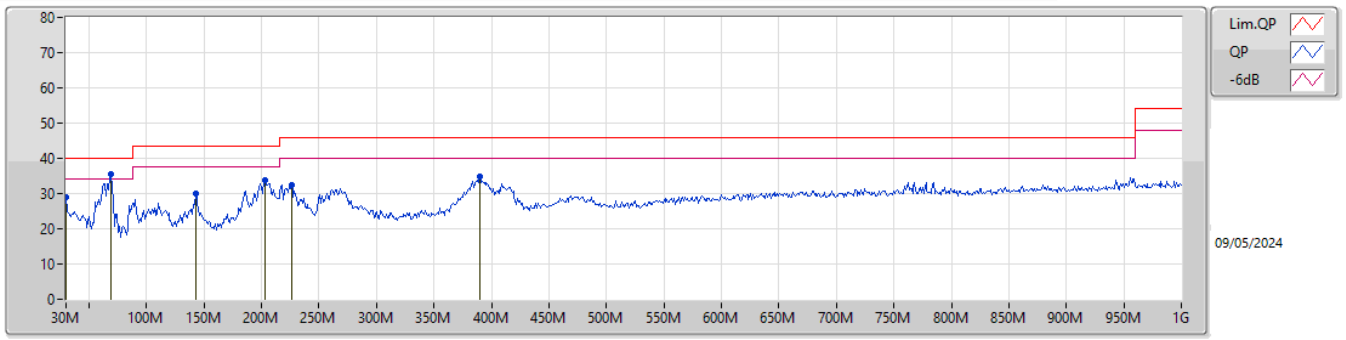
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Condition
Mode 4	Pass	PK	68.8M	35.56	40.00	-4.44	Horizontal

Mode 4



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB/m)	(m)		(°)	(m)		(dBuV/m)	(dB/m)	(dB)	(dB)
QP	43.58M	32.06	40.00	-7.94	-13.28	3	Vertical	249	1.00	-	45.34	17.10	1.21	31.59
PK	55.22M	35.26	40.00	-4.74	-17.33	3	Vertical	2	1.00	"Worst"	52.59	13.00	1.33	31.66
PK	68.8M	33.95	40.00	-6.05	-17.64	3	Vertical	0	3.00	-	51.59	12.58	1.48	31.70
PK	392.78M	37.35	46.00	-8.65	-7.14	3	Vertical	358	1.25	-	44.49	21.19	3.65	31.98
PK	416.06M	34.04	46.00	-11.96	-5.93	3	Vertical	324	1.25	-	39.97	22.31	3.77	32.01
PK	952.47M	33.91	46.00	-12.09	0.32	3	Vertical	283	1.50	-	33.59	26.63	5.99	32.30

Mode 4



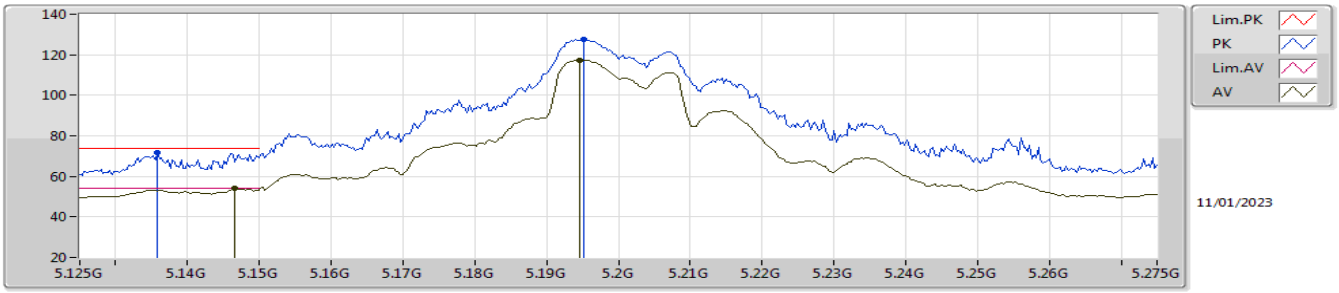
Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB/m)	(m)		(°)	(m)		(dBuV/m)	(dB/m)	(dB)	(dB)
PK	30M	28.95	40.00	-11.05	-6.36	3	Horizontal	337	1.50	-	35.31	24.26	0.76	31.38
PK	68.8M	35.56	40.00	-4.44	-17.64	3	Horizontal	310	3.00	"Worst"	53.20	12.58	1.48	31.70
PK	142.52M	30.06	43.50	-13.44	-12.66	3	Horizontal	146	2.00	-	42.72	17.00	2.09	31.75
PK	202.66M	33.93	43.50	-9.57	-13.92	3	Horizontal	2	1.25	-	47.85	15.33	2.52	31.77
PK	225.94M	32.30	46.00	-13.70	-13.47	3	Horizontal	92	1.50	-	45.77	15.66	2.67	31.80
PK	389.87M	34.89	46.00	-11.11	-7.25	3	Horizontal	238	1.00	-	42.14	21.09	3.64	31.98

Result

Reference Device / FCC ID: MSQ-RTBE6G00 / Unwanted Emissions (Band edge): 802.11a 5200MHz 4TX

5.15-5.25GHz_802.11a_Nss1,(6Mbps)_4TX

5200MHz_TX



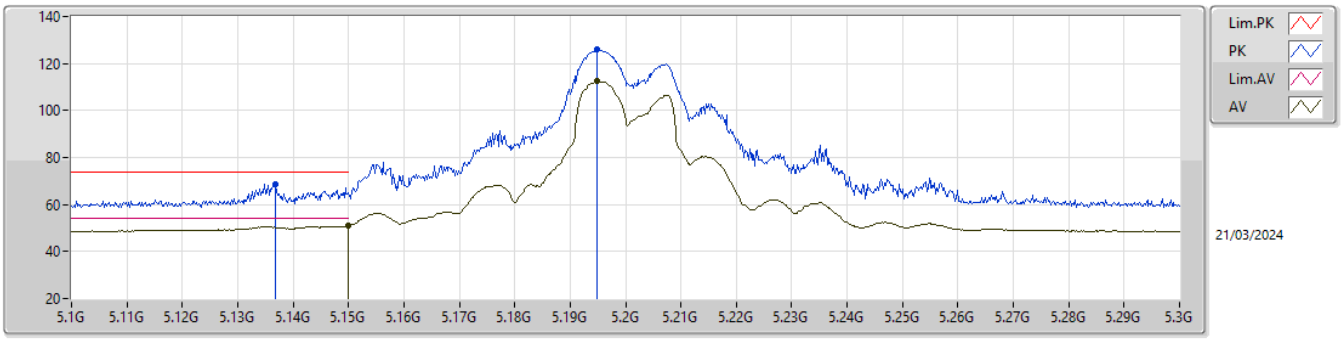
EUT Z_4TX
Setting 103
01-B-R-6-10

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	5.1358G	71.67	74.00	-2.33	65.39	3	Vertical	114	1.80	-	33.10	5.97	32.79
AV	5.1466G	53.88	54.00	-0.12	47.60	3	Vertical	114	1.80	-	33.10	5.97	32.79
PK	5.1952G	127.63	Inf	-Inf	121.21	3	Vertical	114	1.80	-	33.19	6.00	32.77
AV	5.1946G	117.45	Inf	-Inf	111.03	3	Vertical	114	1.80	-	33.19	6.00	32.77

Variant Device / FCC ID: MSQ-RTBE6J00 / Unwanted Emissions (Band edge): 802.11a 5200MHz 4TX

5.15-5.25GHz_802.11a_Nss1,(6Mbps)_4TX

5200MHz_TX



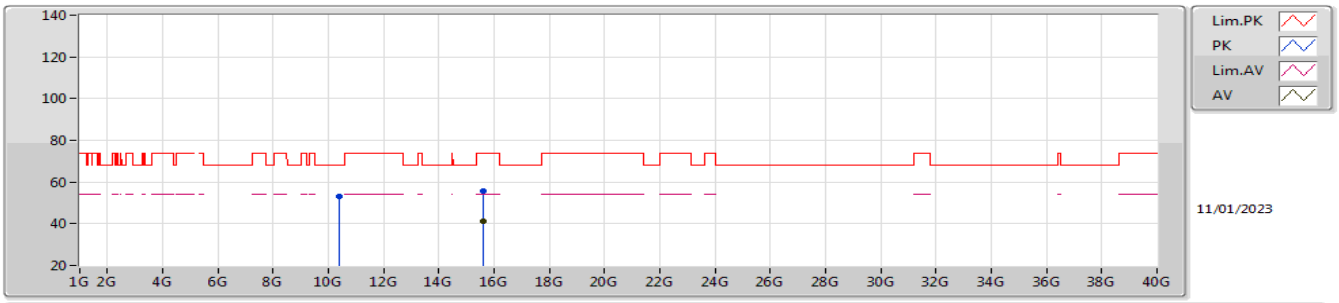
EUT Z_4TX
Setting 96
01-R-A-4-10

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	5.1368G	68.50	74.00	-5.50	62.12	3	Vertical	56.1	1.80	-	32.05	7.23	32.90
AV	5.15G	50.84	54.00	-3.16	44.40	3	Vertical	56.1	1.80	-	32.10	7.24	32.90
PK	5.1948G	125.84	Inf	-Inf	119.62	3	Vertical	56.1	1.80	-	31.83	7.28	32.89
AV	5.1948G	112.52	Inf	-Inf	106.30	3	Vertical	56.1	1.80	-	31.83	7.28	32.89

Reference Device / FCC ID: MSQ-RTBE6G00 / Unwanted Emissions (Harmonic): 802.11a 5200MHz 4TX

5.15-5.25GHz_802.11a_Nss1,(6Mbps)_4TX

5200MHz_TX

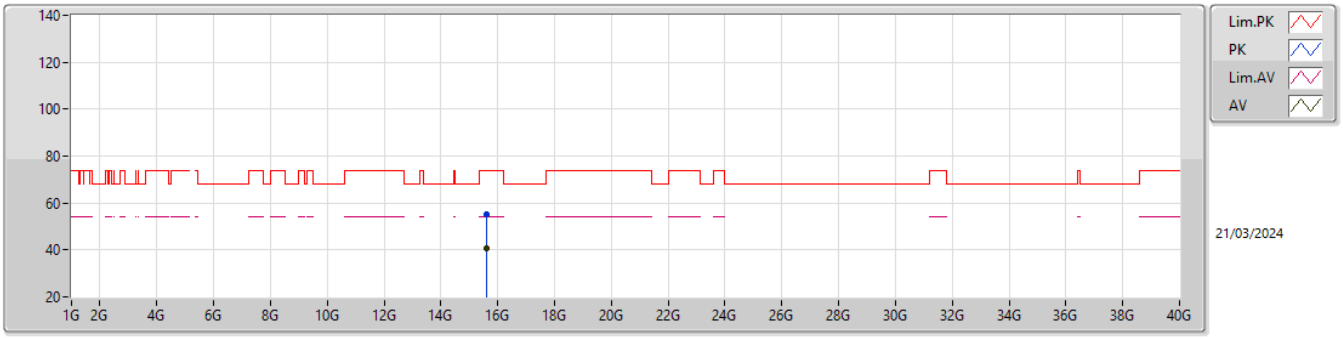


Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	10.406G	52.94	68.20	-15.26	48.26	3	Vertical	4	1.80	-	38.80	8.46	42.58
PK	15.59616G	55.67	74.00	-18.33	48.67	3	Vertical	331	1.80	-	38.41	10.54	41.95
AV	15.59696G	41.28	54.00	-12.72	34.28	3	Vertical	331	1.80	-	38.41	10.54	41.95

Variant Device / FCC ID: MSQ-RTBE6J00 / Unwanted Emissions (Harmonic): 802.11a 5200MHz 4TX

5.15-5.25GHz_802.11a_Nss1,(6Mbps)_4TX

5200MHz_TX

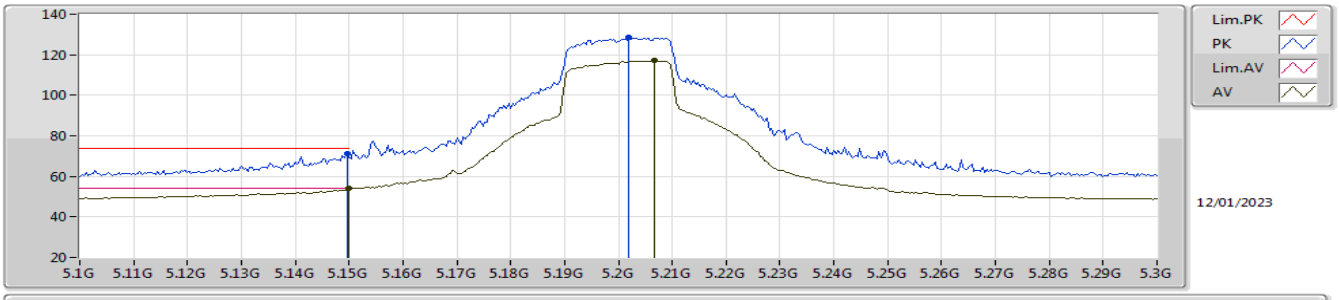


Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	15.5945G	55.32	74.00	-18.68	37.05	3	Vertical	220	2.79	-	38.63	12.48	32.84
AV	15.5961G	40.44	54.00	-13.56	22.18	3	Vertical	220	2.79	-	38.62	12.48	32.84

Reference Device / FCC ID: MSQ-RTBE6G00 / Unwanted Emissions (Band edge): 802.11be20(MCS0 Nss1) 5200MHz 4TX_Beamforming

5.15-5.25GHz_802.11be EHT20-BF_Nss1,(MCS0)_4TX

5200MHz_TX



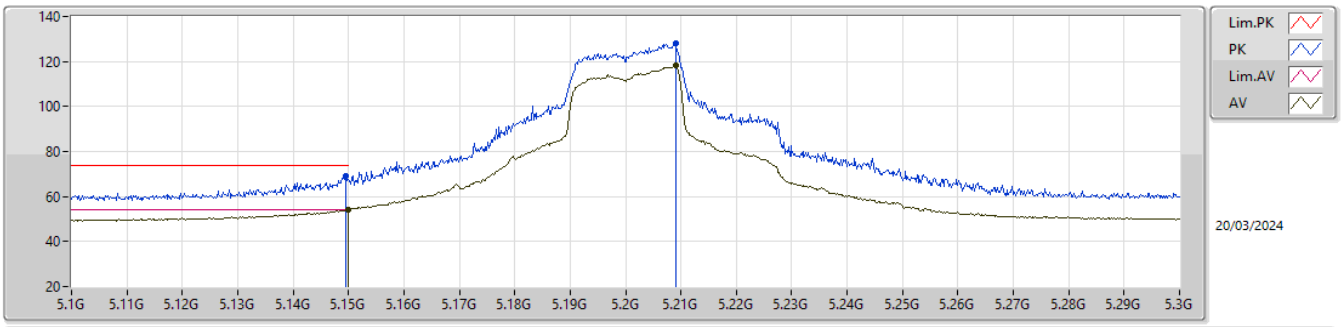
EUT Z_4TX
Setting 95
01-B-C-6-10

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	5.1496G	71.32	74.00	-2.68	65.04	3	Vertical	45	1.80	-	33.10	5.97	32.79
AV	5.15G	53.95	54.00	-0.05	47.67	3	Vertical	45	1.80	-	33.10	5.97	32.79
PK	5.202G	128.57	Inf	-Inf	122.14	3	Vertical	45	1.80	-	33.20	6.00	32.77
AV	5.2068G	117.02	Inf	-Inf	110.57	3	Vertical	45	1.80	-	33.21	6.00	32.76

Variant Device / FCC ID: MSQ-RTBE6J00 / Unwanted Emissions (Band edge): 802.11be20(MCS0 Nss1) 5200MHz 4TX_Beamforming

5.15-5.25GHz_be20-BF_20MHz_Nss1,(MCS0)_4TX

5200MHz_TX



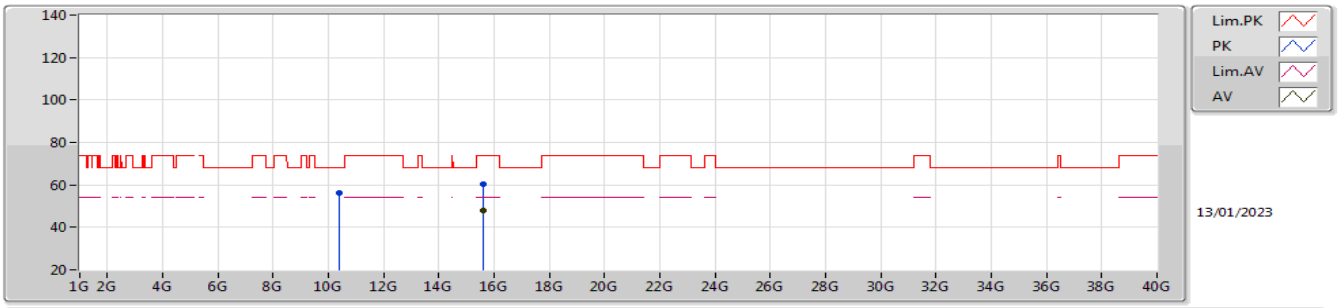
EUT Z_4TX
Setting 93
01-R-A-4-10

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	5.1494G	69.25	74.00	-4.75	62.81	3	Vertical	83.3	1.80	-	32.10	7.24	32.90
AV	5.15G	53.90	54.00	-0.10	47.46	3	Vertical	83.3	1.80	-	32.10	7.24	32.90
PK	5.209G	128.11	Inf	-Inf	121.99	3	Vertical	83.3	1.80	-	31.73	7.28	32.89
AV	5.209G	118.26	Inf	-Inf	112.14	3	Vertical	83.3	1.80	-	31.73	7.28	32.89

Reference Device / FCC ID: MSQ-RTBE6G00 / Unwanted Emissions (Harmonic): 802.11be20(MCS0 Nss1) 5200MHz 4TX_Beamforming

5.15-5.25GHz_802.11be EHT20-BF_Nss1,(MCS0)_4TX

5200MHz_TX

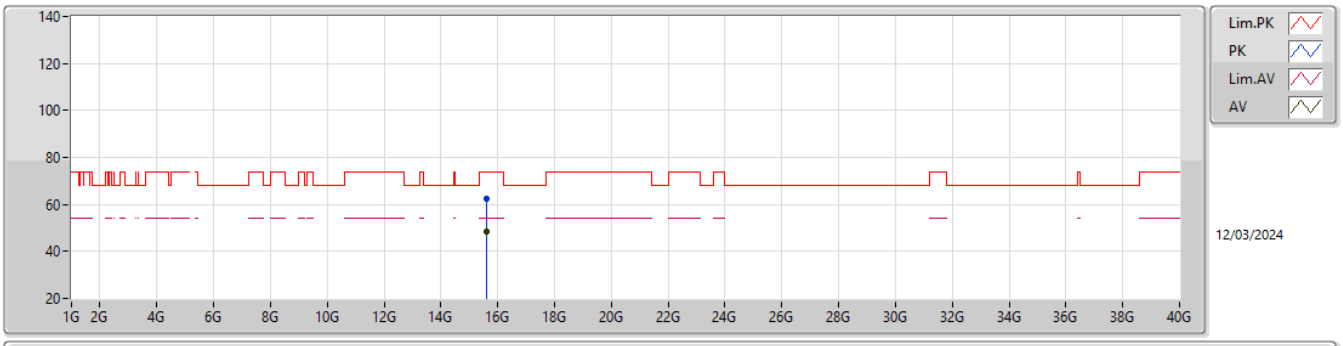


Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	10.40752G	56.40	68.20	-11.80	40.88	3	Vertical	218	1.80	-	38.80	8.46	31.74
PK	15.59856G	60.47	74.00	-13.53	42.23	3	Vertical	238	1.80	-	38.40	10.54	30.70
AV	15.59012G	47.72	54.00	-6.28	29.46	3	Vertical	238	1.80	-	38.42	10.54	30.70

Variant Device / FCC ID: MSQ-RTBE6J00 / Unwanted Emissions (Harmonic): 802.11be20(MCS0 Nss1) 5200MHz 4TX_Beamforming

5.15-5.25GHz_be20-BF_20MHz_Nss1,(MCS0)_4TX

5200MHz_TX

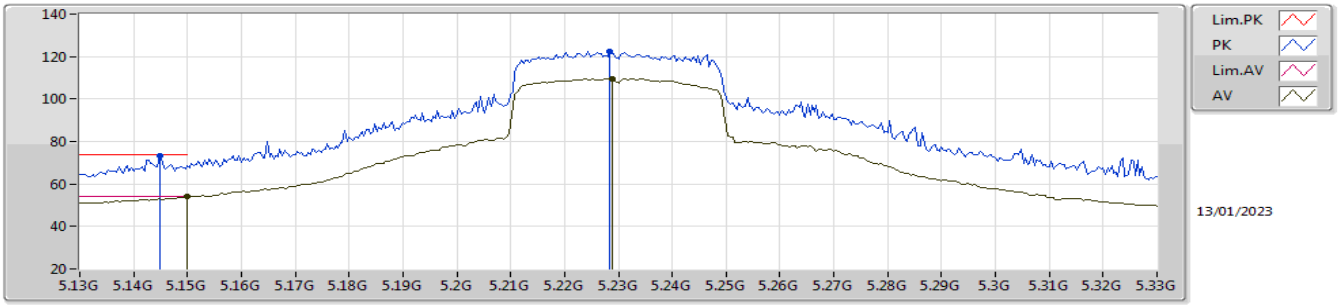


Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	15.59444G	62.17	74.00	-11.83	43.90	3	Horizontal	49	1.76	-	38.63	12.48	32.84
AV	15.59118G	48.53	54.00	-5.47	30.24	3	Horizontal	49	1.76	-	38.65	12.48	32.84

Reference Device / FCC ID: MSQ-RTBE6G00 / Unwanted Emissions (Band edge): 802.11be40(MCS0 Nss1) 5230MHz 4TX_Beamforming

5.15-5.25GHz_802.11be EHT40-BF_Nss1,(MCS0)_4TX

5230MHz_TX



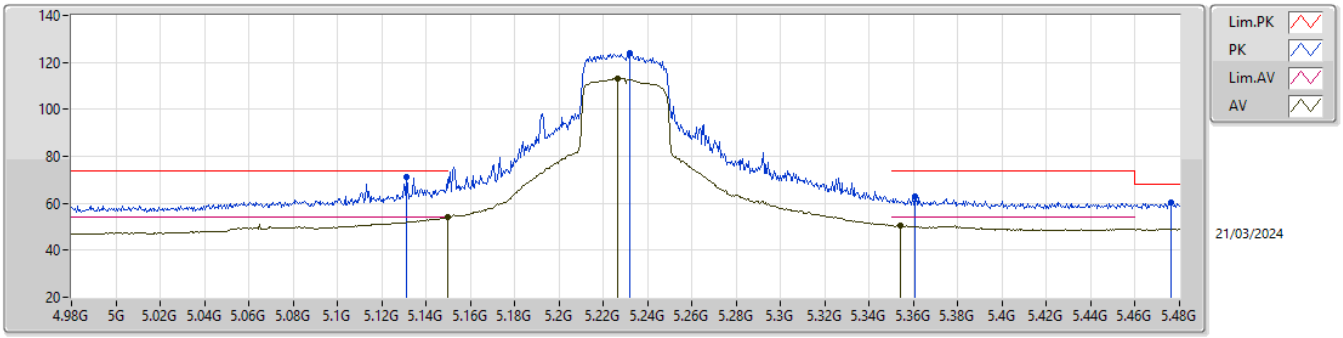
EUT Z_4TX
Setting 93
01-B-R-6-10

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	5.1448G	73.52	74.00	-0.48	67.24	3	Vertical	129	1.80	-	33.10	5.97	32.79
AV	5.15G	53.98	54.00	-0.02	47.70	3	Vertical	129	1.80	-	33.10	5.97	32.79
PK	5.2284G	122.47	Inf	-Inf	115.95	3	Vertical	129	1.80	-	33.26	6.01	32.75
AV	5.2288G	109.60	Inf	-Inf	103.08	3	Vertical	129	1.80	-	33.26	6.01	32.75

Variant Device / FCC ID: MSQ-RTBE6J00 / Unwanted Emissions (Band edge): 802.11be40(MCS0 Nss1) 5230MHz 4TX_Beamforming

5.15-5.25GHz_be40-BF_40MHz_Nss1,(MCS0)_4TX

5230MHz_TX



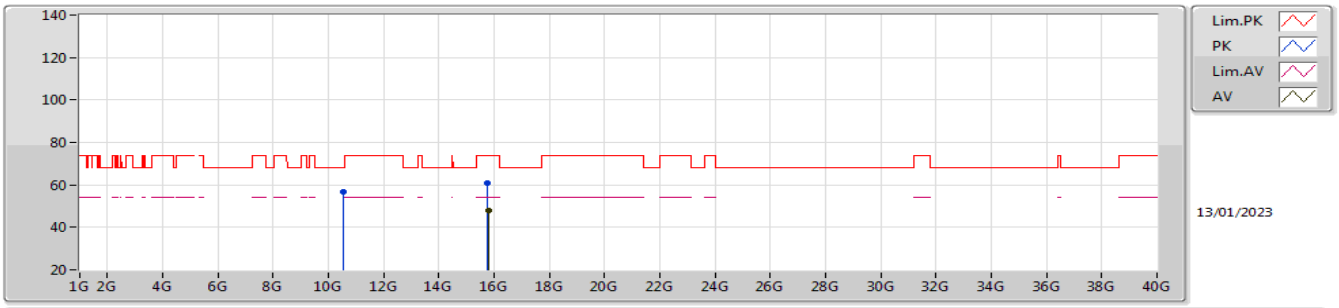
EUT Z_4TX
Setting 94
01-R-A-4-10

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	5.131G	71.16	74.00	-2.84	64.82	3	Vertical	68	1.80	-	32.02	7.22	32.90
AV	5.15G	53.92	54.00	-0.08	47.48	3	Vertical	68	1.80	-	32.10	7.24	32.90
PK	5.232G	123.88	Inf	-Inf	117.93	3	Vertical	68	1.80	-	31.54	7.29	32.88
AV	5.2265G	113.27	Inf	-Inf	107.27	3	Vertical	68	1.80	-	31.59	7.29	32.88
PK	5.3605G	62.79	74.00	-11.21	56.88	3	Vertical	68	1.80	-	31.42	7.35	32.86
AV	5.354G	50.52	54.00	-3.48	44.62	3	Vertical	68	1.80	-	31.41	7.35	32.86
PK	5.476G	60.09	68.20	-8.11	53.69	3	Vertical	68	1.80	-	31.80	7.43	32.83

Reference Device / FCC ID: MSQ-RTBE6G00 / Unwanted Emissions (Harmonic): 802.11be40(MCS0 Nss1) 5230MHz 4TX_Beamforming

5.15-5.25GHz_802.11be EHT40-BF_Nss1,(MCS0)_4TX

5230MHz_TX



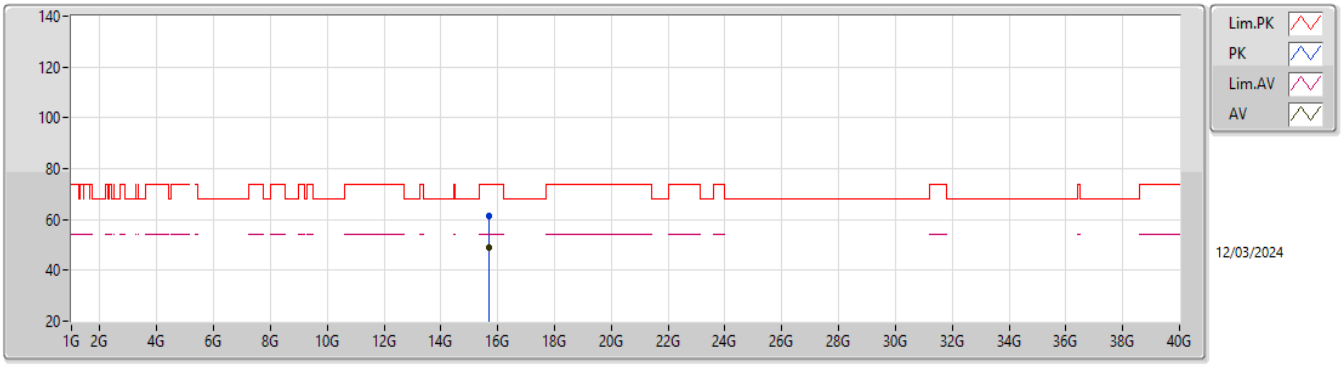
EUT Z_4TX
Setting 93
01-B-R-6

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	10.5496G	56.53	68.20	-11.67	40.89	3	Vertical	251	1.80	-	38.80	8.52	31.68
PK	15.772G	60.87	74.00	-13.13	42.39	3	Vertical	1	1.80	-	38.52	10.61	30.65
AV	15.784G	47.93	54.00	-6.07	29.41	3	Vertical	1	1.80	-	38.55	10.61	30.64

Variant Device / FCC ID: MSQ-RTBE6J00 / Unwanted Emissions (Harmonic): 802.11be40(MCS0 Nss1) 5230MHz 4TX_Beamforming

5.15-5.25GHz_be40-BF_40MHz_Nss1,(MCS0)_4TX

5230MHz_TX



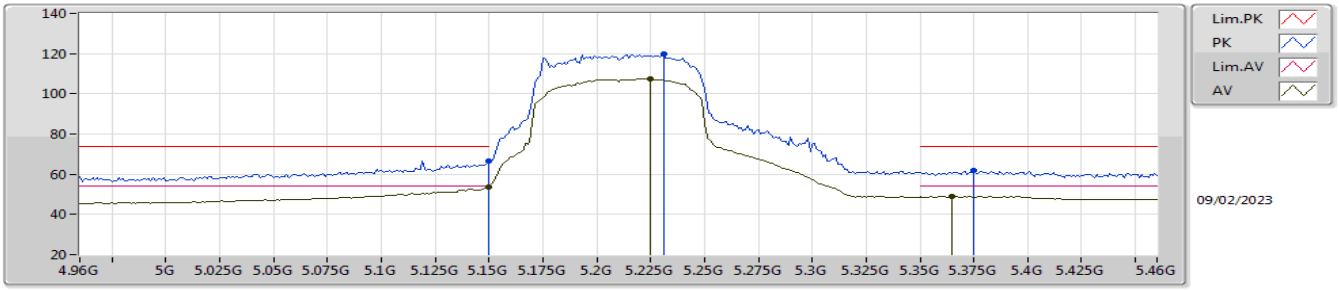
EUT Z_4TX
SET 94
06-K-S-5

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	15.69588G	61.17	74.00	-12.83	43.31	3	Horizontal	339	1.06	-	38.19	12.53	32.86
AV	15.69568G	49.13	54.00	-4.87	31.27	3	Horizontal	339	1.06	-	38.19	12.53	32.86

Reference Device / FCC ID: MSQ-RTBE6G00 / Unwanted Emissions (Band edge): 802.11be80(MCS0 Nss1) 5210MHz 4TX_Beamforming

5.15-5.25GHz_802.11be EHT80-BF_Nss1,(MCS0)_4TX

5210MHz_TX



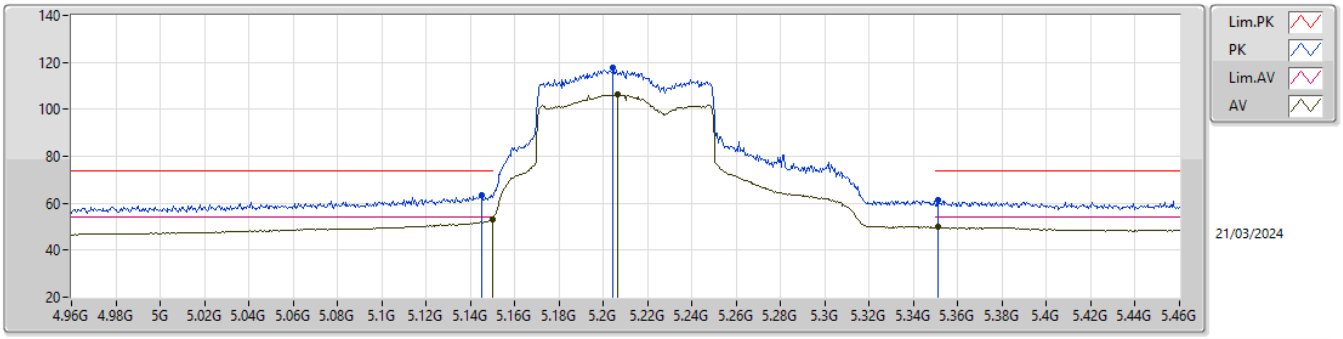
EUT Z_4TX
Setting 82
01-B-C-6-10

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	5.15G	66.51	74.00	-7.49	60.23	3	Vertical	50	1.80	-	33.10	5.97	32.79
AV	5.15G	53.87	54.00	-0.13	47.59	3	Vertical	50	1.80	-	33.10	5.97	32.79
PK	5.231G	119.61	Inf	-Inf	113.08	3	Vertical	50	1.80	-	33.26	6.02	32.75
AV	5.225G	107.64	Inf	-Inf	101.14	3	Vertical	50	1.80	-	33.25	6.01	32.76
PK	5.375G	61.87	74.00	-12.13	54.87	3	Vertical	50	1.80	-	33.60	6.09	32.69
AV	5.365G	48.93	54.00	-5.07	41.99	3	Vertical	50	1.80	-	33.56	6.08	32.70

Variant Device / FCC ID: MSQ-RTBE6J00 / Unwanted Emissions (Band edge): 802.11be80(MCS0 Nss1) 5210MHz 4TX_Beamforming

5.15-5.25GHz_be80-BF_80MHz_Nss1,(MCS0)_4TX

5210MHz_TX



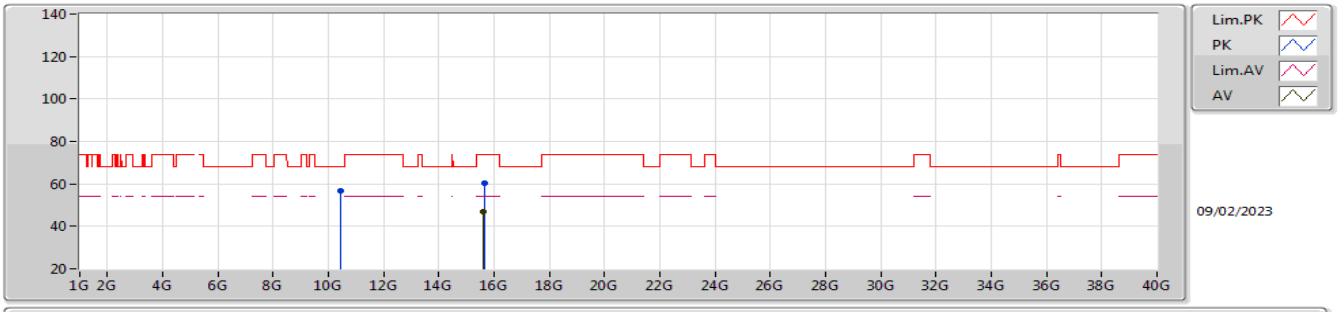
EUT Z_4TX
Setting 76
01-R-A-4-10

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	5.145G	63.54	74.00	-10.46	57.13	3	Vertical	115.8	1.80	-	32.08	7.23	32.90
AV	5.15G	53.08	54.00	-0.92	46.64	3	Vertical	115.8	1.80	-	32.10	7.24	32.90
PK	5.2045G	118.01	Inf	-Inf	111.86	3	Vertical	115.8	1.80	-	31.76	7.28	32.89
AV	5.2065G	106.13	Inf	-Inf	99.99	3	Vertical	115.8	1.80	-	31.75	7.28	32.89
PK	5.351G	61.17	74.00	-12.83	55.28	3	Vertical	115.8	1.80	-	31.40	7.35	32.86
AV	5.351G	49.80	54.00	-4.20	43.91	3	Vertical	115.8	1.80	-	31.40	7.35	32.86

Reference Device / FCC ID: MSQ-RTBE6G00 / Unwanted Emissions (Band edge): 802.11be80(MCS0 Nss1) 5210MHz 4TX_Beamforming

5.15-5.25GHz_802.11be EHT80-BF_Nss1,(MCS0)_4TX

5210MHz_TX

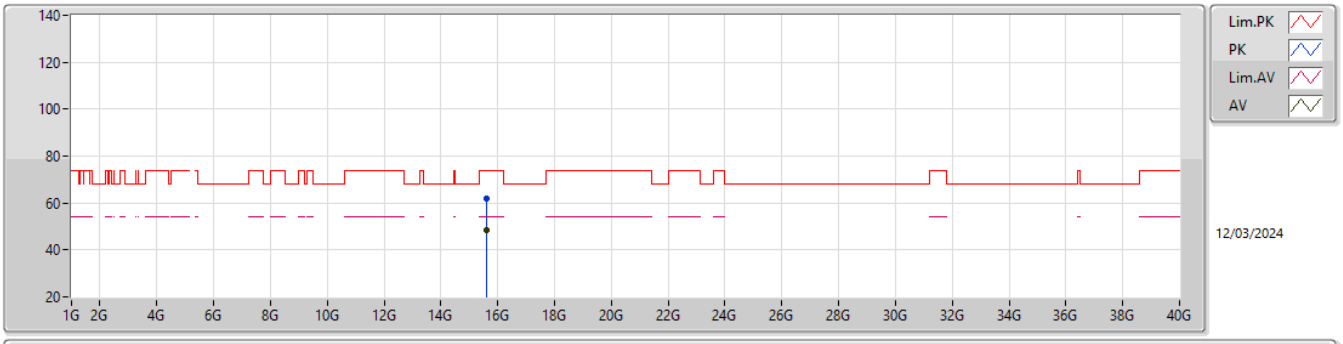


Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	10.42624G	56.68	68.20	-11.52	41.13	3	Vertical	16	1.80	-	38.80	8.47	31.72
PK	15.63984G	60.54	74.00	-13.46	42.31	3	Vertical	88	1.84	-	38.36	10.56	30.69
AV	15.62416G	46.95	54.00	-7.05	28.71	3	Vertical	88	1.84	-	38.38	10.55	30.69

Variant Device / FCC ID: MSQ-RTBE6J00 / Unwanted Emissions (Band edge): 802.11be80(MCS0 Nss1) 5210MHz 4TX_Beamforming

5.15-5.25GHz_be80-BF_80MHz_Nss1,(MCS0)_4TX

5210MHz_TX

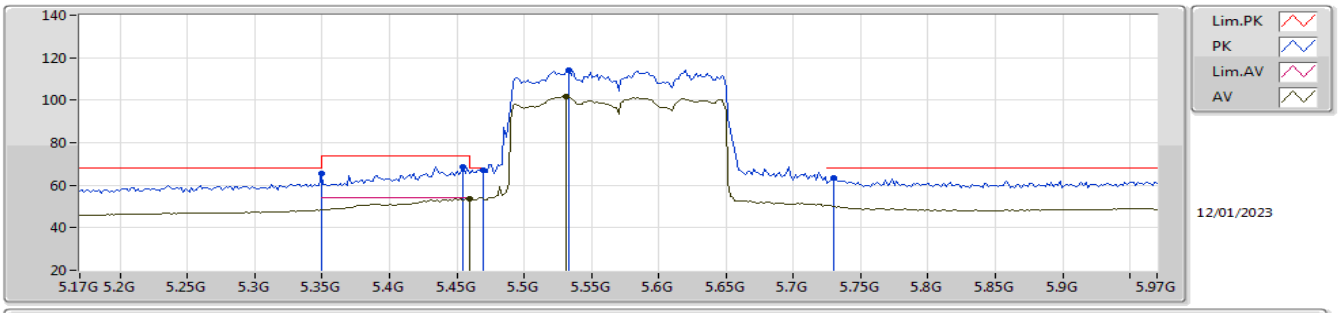


Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	15.62194G	61.97	74.00	-12.03	43.94	3	Vertical	322	2.83	-	38.38	12.49	32.84
AV	15.62164G	48.21	54.00	-5.79	30.18	3	Vertical	322	2.83	-	38.38	12.49	32.84

Reference Device / FCC ID: MSQ-RTBE6G00 / Unwanted Emissions (Band edge): 802.11be160(MCS0 Nss1) 5570MHz 4TX _Beamforming

5.47-5.725GHz_802.11be EHT160-BF_Nss1,(MCS0)_4TX

5570MHz_TX



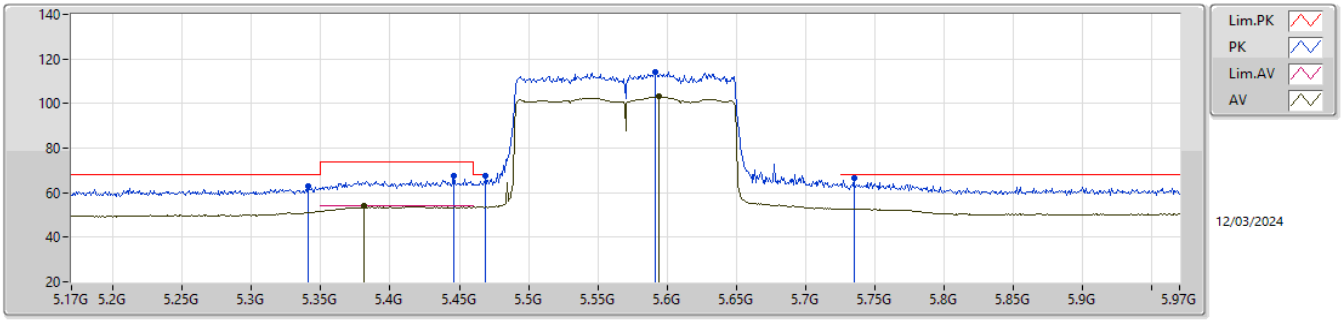
EUT Z_4TX
Setting 71
01-B-R-6-10

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	5.3492G	65.32	68.20	-2.88	58.45	3	Vertical	38	1.80	-	33.50	6.07	32.70
PK	5.4548G	68.65	74.00	-5.35	61.26	3	Vertical	38	1.80	-	33.92	6.13	32.66
AV	5.4596G	53.73	54.00	-0.27	46.32	3	Vertical	38	1.80	-	33.94	6.13	32.66
PK	5.4692G	67.30	68.20	-0.90	59.84	3	Vertical	38	1.80	-	33.98	6.13	32.65
PK	5.5332G	114.13	Inf	-Inf	106.51	3	Vertical	38	1.80	-	34.10	6.17	32.65
AV	5.5316G	101.91	Inf	-Inf	94.29	3	Vertical	38	1.80	-	34.10	6.17	32.65
PK	5.73G	63.45	68.20	-4.75	55.42	3	Vertical	38	1.80	-	34.50	6.26	32.73

Variant Device / FCC ID: MSQ-RTBE6J00 / Unwanted Emissions (Band edge): 802.11be160(MCS0 Nss1) 5570MHz 4TX_Beamforming

5.47-5.725GHz_be160-BF_160MHz_Nss1,(MCS0)_4TX

5570MHz_TX



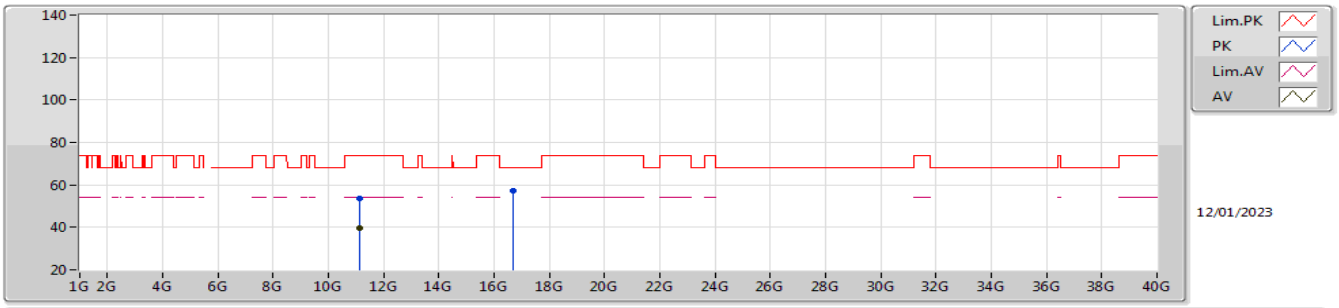
EUT Z_4TX
SET 74
06-K-S-5-10

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	5.3412G	62.78	68.20	-5.42	55.69	3	Vertical	229.6	1.80	-	31.50	7.05	31.46
AV	5.3812G	53.88	54.00	-0.12	46.73	3	Vertical	229.6	1.80	-	31.56	7.08	31.49
PK	5.446G	67.34	74.00	-6.66	59.96	3	Vertical	229.6	1.80	-	31.78	7.12	31.52
PK	5.4692G	67.68	68.20	-0.52	60.24	3	Vertical	229.6	1.80	-	31.84	7.13	31.53
PK	5.5916G	114.28	Inf	-Inf	106.81	3	Vertical	229.6	1.80	-	31.82	7.21	31.56
AV	5.594G	103.03	Inf	-Inf	95.56	3	Vertical	229.6	1.80	-	31.81	7.22	31.56
PK	5.7348G	66.51	68.20	-1.69	58.65	3	Vertical	229.6	1.80	-	32.11	7.33	31.58

Reference Device / FCC ID: MSQ-RTBE6G00 / Unwanted Emissions (Band edge): 802.11be160(MCS0 Nss1) 5570MHz 4TX _Beamforming

5.47-5.725GHz_802.11be EHT160-BF_Nss1,(MCS0)_4TX

5570MHz_TX

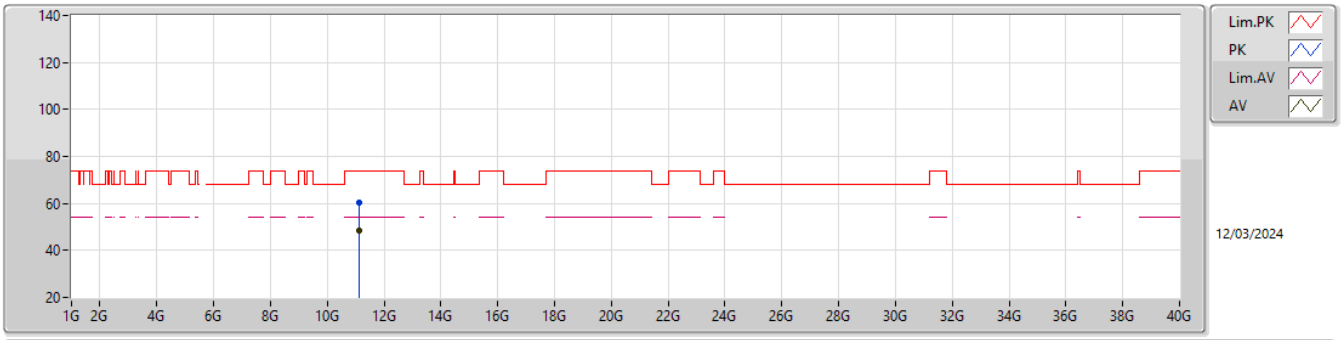


Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	11.14768G	53.77	74.00	-20.23	49.04	3	Horizontal	79	1.00	-	38.65	8.76	42.68
AV	11.14928G	39.48	54.00	-14.52	34.75	3	Horizontal	79	1.00	-	38.65	8.76	42.68
PK	16.70656G	57.22	68.20	-10.98	47.49	3	Horizontal	230	1.52	-	40.63	10.98	41.88

Variant Device / FCC ID: MSQ-RTBE6J00 / Unwanted Emissions (Band edge): 802.11be160(MCS0 Nss1) 5570MHz 4TX_Beamforming

5.47-5.725GHz_be160-BF_160MHz_Nss1,(MCS0)_4TX

5570MHz_TX

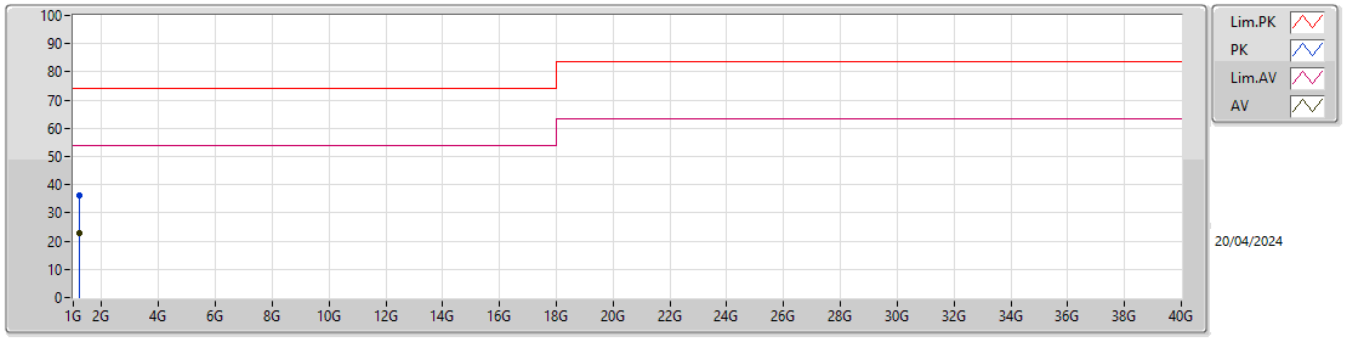


Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	11.1321G	60.40	74.00	-13.60	42.62	3	Horizontal	340	1.13	-	39.97	10.40	32.59
AV	11.13G	48.25	54.00	-5.75	30.46	3	Horizontal	340	1.13	-	39.98	10.40	32.59

Summary

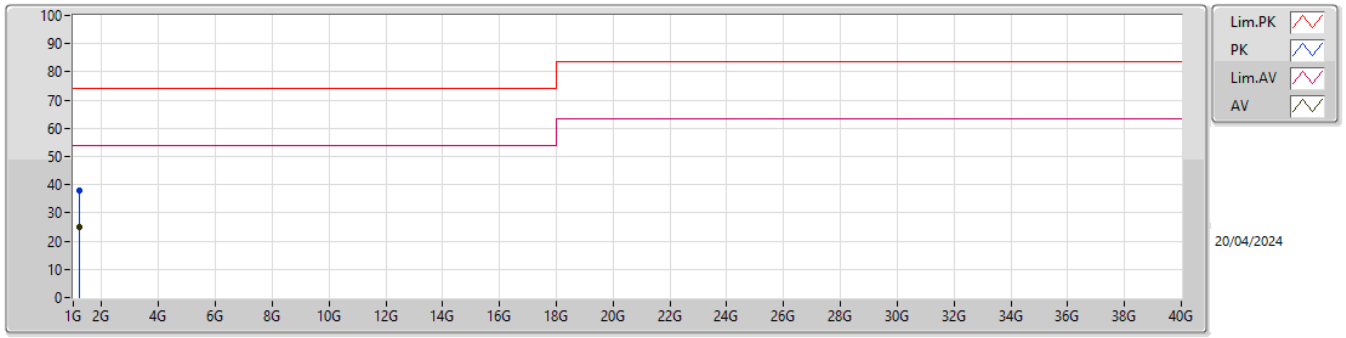
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Condition
Mode 1	Pass	AV	1.19636G	25.12	54.00	-28.88	Horizontal

Mode 1



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB/m)	(m)		(°)	(m)		(dBuV/m)	(dB/m)	(dB)	(dB)
PK	1.20291G	36.35	74.00	-37.65	-6.43	3	Vertical	45	1.00	-	42.78	24.60	3.39	34.42
AV	1.19606G	23.03	54.00	-30.97	-6.44	3	Vertical	45	1.00	"Worst"	29.47	24.60	3.38	34.42

Mode 1



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB/m)	(m)		(°)	(m)		(dBuV/m)	(dB/m)	(dB)	(dB)
PK	1.20453G	37.77	74.00	-36.23	-6.42	3	Horizontal	221	1.00	-	44.19	24.60	3.40	34.42
AV	1.19636G	25.12	54.00	-28.88	-6.44	3	Horizontal	221	1.00	"Worst"	31.56	24.60	3.38	34.42