

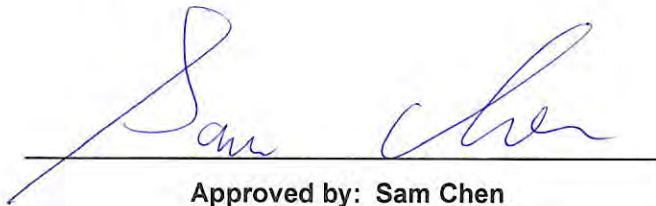


RADIO TEST REPORT

FCC ID : MSQ-RTAX5X00
Equipment : ROG Rapture AX10000 Tri-band Gaming Mesh Router
Brand Name : ASUS
Model Name : GT6
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 Oct. 30, 2023, and testing was started from Oct. 30, 2023 and completed on Apr. 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 variant 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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Photographs of EUT v01



Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
1.1.2	15.203	Antenna Requirement	PASS	-
3.1	15.407(a)	Emission Bandwidth	PASS	-
3.2	15.407(a)	Maximum Output Power	PASS	-
3.3	15.407(a)	Power Spectral Density	PASS	-
3.4	15.407(b)	Unwanted Emissions	PASS	-

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/manufacture 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: Sophia Shiung



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)	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]
5725-5895		5845-5885	169-177[3]
5150-5250	n (HT40), ac (VHT40), ax (HEW40)	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]
5725-5895		5835-5875	167-175[2]
5150-5250	ac (VHT80), ax (HEW80)	5210	42 [1]
5250-5350		5290	58 [1]
5470-5725		5530-5690	106-138 [3]
5725-5850		5775	155 [1]
5725-5895		5855	171[1]
5150-5350	ac (VHT160), ax (HEW160)	5250	50 [1]
5470-5725		5570	114 [1]
5725-5895		5815	163[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	802.11n 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



Band	Mode	BWch (MHz)	Nant
5.15-5.25GHz	802.11ax HEW40-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	802.11ac VHT160	160	4TX
5.15-5.25GHz	802.11ac VHT160-BF	160	4TX
5.15-5.25GHz	802.11ax HEW160	160	4TX
5.15-5.25GHz	802.11ax HEW160-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	802.11n 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	802.11ac 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	802.11ac VHT160	160	4TX
5.25-5.35GHz	802.11ac VHT160-BF	160	4TX
5.25-5.35GHz	802.11ax HEW160	160	4TX
5.25-5.35GHz	802.11ax HEW160-BF	160	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
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	802.11n HT40	40	4TX
5.47-5.725GHz	802.11n HT40-BF	40	4TX
5.47-5.725GHz	802.11ac VHT40	40	4TX



Band	Mode	BWch (MHz)	Nant
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	802.11ac 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	802.11ac 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
5.725-5.85GHz	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	802.11n 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
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
5.725-5.895GHz	802.11a	20	4TX
5.725-5.895GHz	802.11n HT20	20	4TX
5.725-5.895GHz	802.11n HT20-BF	20	4TX
5.725-5.895GHz	802.11ac VHT20	20	4TX
5.725-5.895GHz	802.11ac VHT20-BF	20	4TX
5.725-5.895GHz	802.11ax HEW20	20	4TX
5.725-5.895GHz	802.11ax HEW20-BF	20	4TX
5.725-5.895GHz	802.11n HT40	40	4TX
5.725-5.895GHz	802.11n HT40-BF	40	4TX
5.725-5.895GHz	802.11ac VHT40	40	4TX
5.725-5.895GHz	802.11ac VHT40-BF	40	4TX
5.725-5.895GHz	802.11ax HEW40	40	4TX



Band	Mode	BWch (MHz)	Nant
5.725-5.895GHz	802.11ax HEW40-BF	40	4TX
5.725-5.895GHz	802.11ac VHT80	80	4TX
5.725-5.895GHz	802.11ac VHT80-BF	80	4TX
5.725-5.895GHz	802.11ax HEW80	80	4TX
5.725-5.895GHz	802.11ax HEW80-BF	80	4TX
5.725-5.895GHz	802.11ac VHT160	160	4TX
5.725-5.895GHz	802.11ac VHT160-BF	160	4TX
5.725-5.895GHz	802.11ax HEW160	160	4TX
5.725-5.895GHz	802.11ax HEW160-BF	160	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.
- ♦ BWch is the nominal channel bandwidth.



1.1.2 Antenna Information

Ant.	Port				Brand Name	Model Name	Antenna Type	Connector	Gain (dBi)
	WLAN 2.4GHz	WLAN 5GHz UNII 1~2A	WLAN 5GHz UNII 2C~4 (Mode 1)	WLAN 5GHz UNII 2C~4 (Mode 2)					
1	2	4	-	-	LYNwave	MLX22M-121AA1-A / MLX22M-121AA1-B	Dipole	I-PEX	Note 1
2	1	3	-	-	LYNwave	MLX22M-121AA1-A / MLX22M-121AA1-B	Dipole	I-PEX	
3	-	2	-	-	LYNwave	MLX22M-121AA1-A / MLX22M-121AA1-B	Dipole	I-PEX	
4	-	1	-	-	LYNwave	MLX22M-121AA1-A / MLX22M-121AA1-B	Dipole	I-PEX	
5	-	-	4	4	LYNwave	MLX22M-121AA1-A / MLX22M-121AA1-B	Dipole	I-PEX	
6	-	-	1	1	LYNwave	MLX22M-121AA1-A / MLX22M-121AA1-B	Dipole	I-PEX	
7	-	-	3	3	LYNwave	MLX22M-121AA1-A / MLX22M-121AA1-B	Dipole	I-PEX	
8	-	-	2	-	LYNwave	MLX22M-121AA1-A / MLX22M-121AA1-B	Dipole	I-PEX	
9	-	-	-	2	LYNwave	MLX22M-121AA1-A / MLX22M-121AA1-B	Dipole	I-PEX	

Note 1:

<Antenna gain>

Ant.	Port				Gain(dBi)								
	WLAN 2.4GHz	WLAN 5GHz UNII 1~2A	WLAN 5GHz UNII 2C~4 (Mode 1)	WLAN 5GHz UNII 2C~4 (Mode 2)	WLAN 2.4GHz	WLAN 5GHz							
						UNII 1	UNII 2A	UNII 2C		UNII 3		UNII 4	
Mode1	Mode2	Mode1	Mode2	Mode1	Mode2	Mode1	Mode2						
1	2	4	-	-	4.1	3.53	3.81	-	-	-	-	-	-
2	1	3	-	-	3.39	3.26	4.32	-	-	-	-	-	-
3	-	2	-	-	-	2.32	2.96	-	-	-	-	-	-
4	-	1	-	-	-	2.31	2.44	-	-	-	-	-	-
5	-	-	4	4	-	-	-	1.43	1.43	2.08	2.08	2.5	2.5
6	-	-	1	1	-	-	-	1.66	1.66	1.91	1.91	2.89	2.89
7	-	-	3	3	-	-	-	2.8	2.8	3.51	3.51	3.79	3.79
8	-	-	2	-	-	-	-	2.55	-	3.36	-	3.65	-
9	-	-	-	2	-	-	-	-	3.64	-	3.64	-	3.29



<Directional Gain>

Directional Gain(dBi)									
Item	WLAN 2.4GHz	WLAN 5GHz							
		UNII 1	UNII 2A	UNII 2C		UNII 3		UNII 4	
				Mode1	Mode2	Mode1	Mode2	Mode1	Mode2
2T1S	6.01	-	-	-	-	-	-	-	-
2T2S	4.1	-	-	-	-	-	-	-	-
4T1S	-	6.24	6.43	6.13	4.83	7.23	5.25	6.76	4.95
4T2S	-	-	4.32	-	-	4.23	3.64	3.79	3.79

Note 2: The above information (except gain) was declared by manufacturer.

The directional gain is measured which follows the procedure of KDB 662911 D03.

Note 3: Mode1 was Ant.5~7+Ant.8 and Mode 2 was Ant. 5~7+Ant.9.

Note 4: The EUT support the antenna with TX/RX diversity functions. The Ant.8 and Ant.9 can be used as transmitting and receiving antennas, but only one of them will be used at one time.

Ant. 8 generated be the worst case, so it was selected to test and recorded in the report.

Note 5: The antennas' model: "MLX22M-121AA1-A" and "MLX22M-121AA1-B" are same type of antennas. Model "MLX22M-121AA1-A" is for black outer case use; model "MLX22M-121AA1-B" is for white outer case use.

Note 6: **For 2.4GHz function:**

For IEEE 802.11b/g/n/VHT/ax (2TX/2RX):

Port 1 and Port 2 can be used as transmitting/receiving antenna.

Port 1 and Port 2 could transmit/receive simultaneously.

For 5GHz function:

For IEEE 802.11a/n/ac/ax (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
802.11ax HEW20-BF_Nss 1,(M0)	0.992	0.03	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11ax HEW40-BF_Nss 1,(M0)	0.989	0.05	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11ax HEW80-BF_Nss 1,(M0)	0.989	0.05	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11ax HEW160-BF_Nss 1,(M0)	0.992	0.03	n/a (DC>=0.98)	n/a (DC>=0.98)

Note:

- ◆ DC is Duty Cycle.
- ◆ DCF is Duty Cycle Factor.

1.1.4 EUT Operational Condition

EUT Power Type	From Power Adapter			
Beamforming Function	<input checked="" type="checkbox"/>	With beamforming	<input type="checkbox"/>	Without beamforming
	The product has beamforming function for 11n/VHT/ax in 2.4GHz and 11n/ac/ax in 5GHz.			
Function	<input type="checkbox"/>	Outdoor P2M	<input checked="" type="checkbox"/>	Indoor P2M
	<input type="checkbox"/>	Fixed P2P	<input type="checkbox"/>	Client
	<input checked="" type="checkbox"/>	Point-to-multipoint	<input type="checkbox"/>	Point-to-point
Test Software Version	accessMtool v3.2.1.5			

Note: The above information was declared by manufacturer.

1.1.5 Table for EUT supports functions

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

Note: The above information was declared by manufacturer.

1.1.6 Table for EUT Information

EUT	PCB board Version	Color of outer case and heatsink	
		Black outer case	White outer case
1	R1.20	With silver heatsink	With silver heatsink
2	R2.00		
3	R2.00	With black heatsink	With silver heatsink



EUT	Source	
	MLCC - SMD/SMT MLCC 1PF/25V (0201) NPO 0.1PF (Location: CB293, CB296, CB299, CB302)	Resistance - SMD/SMT RES 0 OHM 1/20W (0201) JUMP (Location: RB58, RB75, RB91, RB107)
1	Brand : MURATA Model : GRM0335C1E1R0BA01D	Brand : TA-I
2		Brand : RM02JTN0
3	Brand : DARFON Model : C0603NP0109BFT	Brand : WALSIN Brand : WR02X000PAL

Note 1: The EUT 3 (Black outer case) was selected to test all the test items.

Note 2: The above information was declared by manufacturer.

1.1.7 Table for Permissive Change

This product is an extension of original one reported under Sporton project number: FR221807-01AB.

Below is the table for the change of the product with respect to the original one.

Modifications	Performance Checking
1. Adding EUT 3 for the device (Refer to section 1.1.6 for detailed information):	1. Unwanted Emissions below 1GHz test 2. Emission Bandwidth 3. Maximum Output Power 4. Power Spectral Density 5. Unwanted Emissions above 1GHz test For above item 2~5: Evaluating the affected frequencies only.
2. Removing the Manufacturers' information.	After evaluation, the test results don't be affected.



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	Mason Chen	22.1~23.1 / 64~66	Jan. 16, 2024~ Jan. 18, 2024
Radiated < 1GHz	03CH05-CB	Roy Mai	21.9~22.4 / 55~58	Apr. 09, 2024
Radiated > 1GHz	03CH02-CB	Roy Mai	22~23 / 55~58	Oct. 30, 2023~ Dec. 06, 2023
	03CH06-CB		21.2~22.3 / 56~59	

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))

Parameter	Uncertainty	Remark
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%
Power Density Measurement	3.1 dB	Confidence levels of 95%
Bandwidth Measurement	2.2%	Confidence levels of 95%



2 Test Configuration of EUT

2.1 Test Channel Mode

Mode
802.11ax HEW20-BF_Nss1,(MCS0)_4TX
5180MHz
802.11ax HEW40-BF_Nss1,(MCS0)_4TX
5190MHz
802.11ax HEW80-BF_Nss1,(MCS0)_4TX
5210MHz
802.11ax HEW160-BF_Nss1,(MCS0)_4TX
5250MHz Straddle 5.15-5.25GHz
5250MHz Straddle 5.25-5.35GHz

Note:

- The EUT supports non-beamforming and beamforming modes. After evaluating, the beamforming mode was selected to test.
- Evaluated HEW20 / HEW40 / HEW80 / HEW160 mode only due to the similar modulation. The power setting of HT20 / HT40 / VHT20 / VHT40 / VHT80 / VHT160 mode are the same or lower than HEW20 / HEW40 / HEW80 / HEW160.



2.2 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
Tests Item	Emission Bandwidth Maximum Output Power Power Spectral Density
Test Condition	Conducted measurement at transmit chains
Operating Mode	
1	EUT 3

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
	According to the original test report, "EUT in Y axis + 2.4GHz + Adapter 1" has been evaluated to be the worst case, so the measurement will follow this same test configuration.
1	EUT 3 in Y axis + 2.4GHz + Adapter 1
Operating Mode > 1GHz	CTX
	The EUT was performed at X axis, Y axis and Z axis position, and the worst case was found at Y axis.
1	EUT 3 in Y axis (For Channels: HEW20-BF: 5180MHz, HEW40-BF: 5190MHz, HEW80-BF: 5210MHz and HEW160-BF: 5250MHz)

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Co-location RF Exposure Evaluation
Operating Mode	
1	EUT 3 - WLAN 2.4GHz + WLAN 5GHz UNII 1, 2A + WLAN 5GHz UNII 2C~4
Refer to Sporton Test Report No.: FA22187-05 for Co-location RF Exposure Evaluation.	



2.3 EUT Operation during Test

For Conducted Mode:

The EUT was programmed to be in continuously transmitting mode.

For Radiated Mode:

For non-beamforming mode:

The EUT was programmed to be in continuously transmitting mode.

For beamforming 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 accessMtool v3.2.1.5.
3. Executed "Lantest.exe" to link with the remote workstation to transmit and receive packet by WLAN module and transmit duty cycle no less than 98%.

2.4 Accessories

Accessories					
No.	Equipment Name	Brand Name	Model Name	Rating	Remark
1	Adapter 1	DELTA	ADP-45FE F	INPUT: 100-240V~1.2A, 50-60Hz OUTPUT: 19V, 2.37A	With the DC cable: Non-shielded, 1.6m
2	Adapter 2	AcBel	ADH011	INPUT: 100-240V~1.4A, 50-60Hz OUTPUT: 19.5V, 2.31A, 45W MAX	With the DC cable: Non-shielded, 1.6m
Others					
RJ-45 cable*1: Non-shielded, 1.5m Power cord*2: Non-shielded, 0.8m					



2.5 Support Equipment

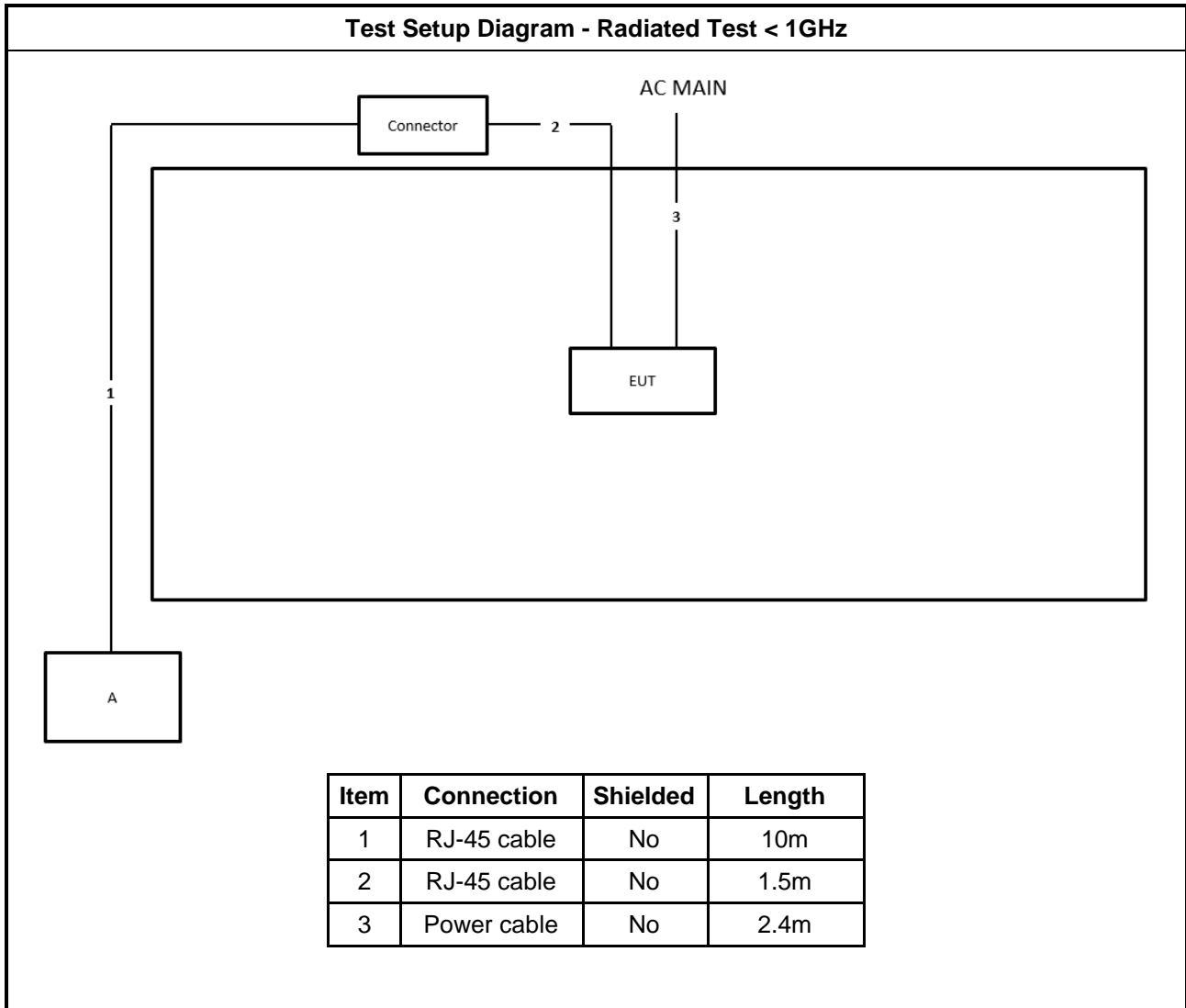
For Radiated < 1GHz and RF Conducted:

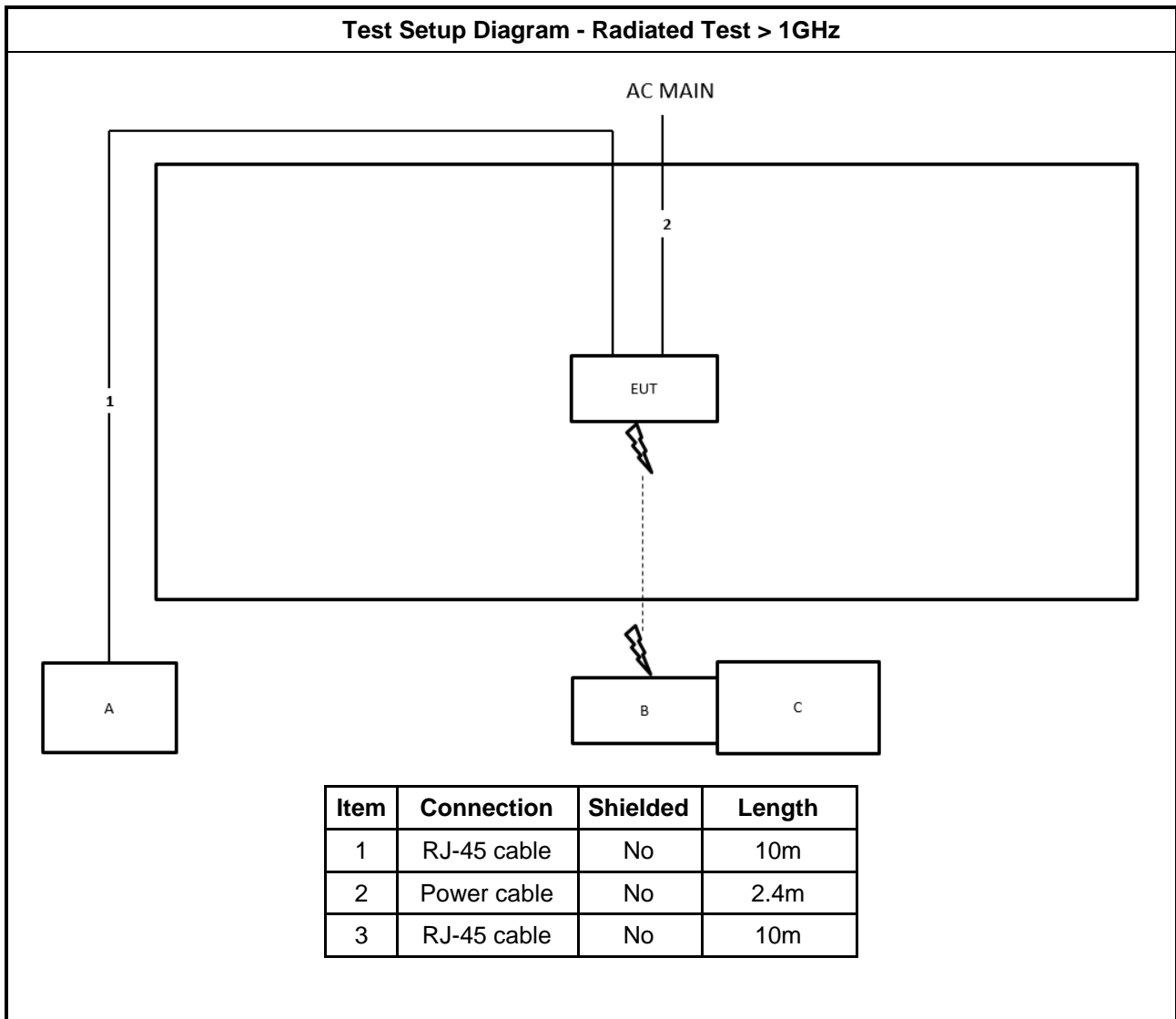
Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	Notebook	DELL	E4300	N/A

For Radiated > 1GHz:

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	Notebook	DELL	E4300	N/A
B	WLAN module	Intel	AX210NGW	PD9AX210NG
C	Notebook	DELL	E4300	N/A

2.6 Test Setup Diagram







3 Transmitter Test Result

3.1 Emission Bandwidth

3.1.1 Emission Bandwidth Limit

Emission Bandwidth Limit	
UNII Devices	
<input checked="" type="checkbox"/>	For the 5.15-5.25 GHz band, N/A
<input checked="" type="checkbox"/>	For the 5.25-5.35 GHz band, the maximum conducted output power shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz.
<input checked="" type="checkbox"/>	For the 5.47-5.725 GHz band, the maximum conducted output power shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz.
<input checked="" type="checkbox"/>	For the 5.725-5.85 GHz band, 26 dB emission bandwidth ,N/A. 6 dB emission bandwidth ≥ 500kHz.
<input checked="" type="checkbox"/>	For the 5.85-5.895 GHz band, 26 dB emission bandwidth ,N/A. 6 dB emission bandwidth ≥ 500kHz.
LE-LAN Devices	
<input type="checkbox"/>	For the band 5.15-5.25 GHz, 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.
<input type="checkbox"/>	For the 5.25-5.35 GHz band, 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
<input type="checkbox"/>	For the 5.47-5.6 GHz band and 5.65-5.725 GHz band, 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
<input type="checkbox"/>	For the 5.725-5.85 GHz band, 6 dB emission bandwidth ≥ 500kHz.

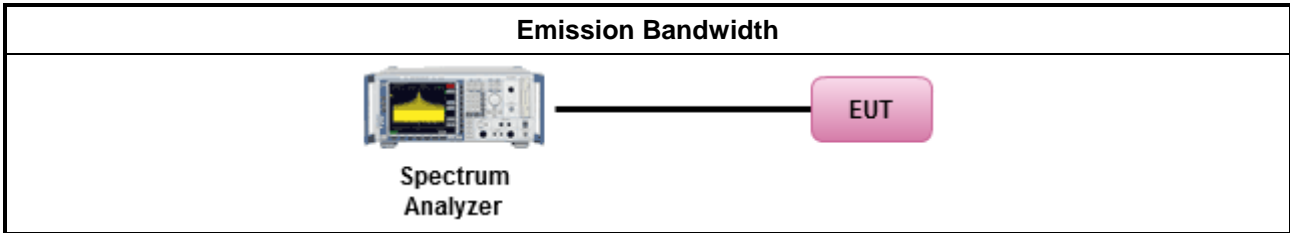
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

Test Method	
▪ For the emission bandwidth shall be measured using one of the options below:	
<input checked="" type="checkbox"/>	Refer as FCC KDB 789033 D02, clause C for EBW and clause D for OBW measurement.
<input type="checkbox"/>	Refer as ANSI C63.10, clause 6.9.1 for occupied bandwidth testing.
<input type="checkbox"/>	Refer as IC RSS-Gen, clause 4.6 for bandwidth testing.

3.1.4 Test Setup



3.1.5 Test Result of Emission Bandwidth

Refer as Appendix A



3.2 Maximum Output Power

3.2.1 Limit

Maximum Output Power Limit	
UNII Devices	
<input checked="" type="checkbox"/> For the 5.15-5.25 GHz band:	
	<ul style="list-style-type: none"> ▪ 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 $\leq 125mW$ [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 $P_{Out} = 24 - (G_{TX} - 6)$.
<input checked="" type="checkbox"/> For the 5.25-5.35 GHz band, the maximum conducted output power (P_{Out}) shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 24 - (G_{TX} - 6)$.	
<input checked="" type="checkbox"/> For the 5.47-5.725 GHz band, the maximum conducted output power (P_{Out}) shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 24 - (G_{TX} - 6)$.	
<input checked="" type="checkbox"/> For the 5.725-5.85 GHz band:	
	<ul style="list-style-type: none"> ▪ 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.
<input checked="" type="checkbox"/> For the 5.85-5.895 GHz band:	
	<ul style="list-style-type: none"> ▪ Indoor AP & subordinate device $< 36 \text{ dBm}$ ▪ Client device $< 30 \text{ dBm}$
LE-LAN Devices	
<input type="checkbox"/> For the 5.15-5.25 GHz band:	
	<ul style="list-style-type: none"> ▪ 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.
<input type="checkbox"/> For the 5.25-5.35 GHz band:	
	<ul style="list-style-type: none"> ▪ 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.



<input type="checkbox"/>	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.
<input type="checkbox"/>	For the 5.725-5.85 GHz band:
	<ul style="list-style-type: none"> ▪ 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.	

3.2.2 Measuring Instruments

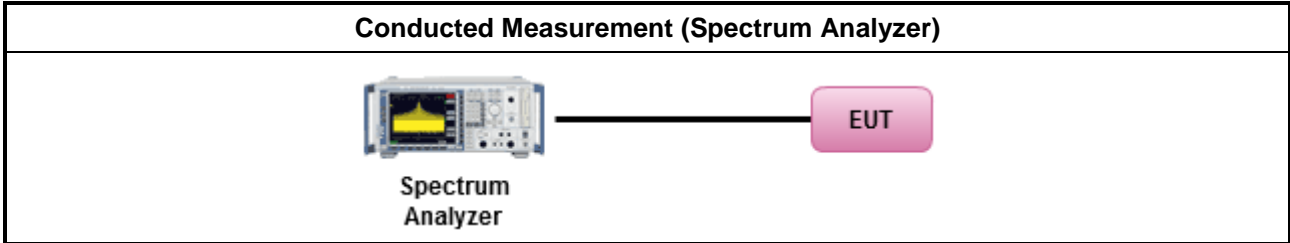
Refer a test equipment and calibration data table in this test report.

3.2.3 Test Procedures

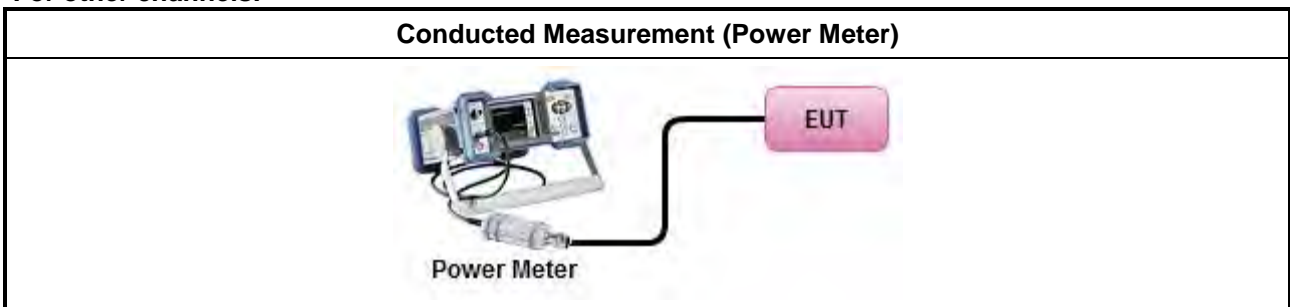
Test Method	
	Average over on/off periods with duty factor
<input checked="" type="checkbox"/>	Refer as FCC KDB 789033 D02, clause E Method SA-2 (spectral trace averaging).
<input type="checkbox"/>	Refer as FCC KDB 789033 D02, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)
	Wideband RF power meter and average over on/off periods with duty factor
<input checked="" type="checkbox"/>	Refer as FCC KDB 789033 D02, clause E Method PM-G (using an RF average power meter).
<input checked="" type="checkbox"/>	For conducted measurement.
	<ul style="list-style-type: none"> ▪ 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: $P_{total} = P_1 + P_2 + \dots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = P_{total} + DG$
<input type="checkbox"/>	For radiated measurement.
	<ul style="list-style-type: none"> ▪ 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.

3.2.4 Test Setup

For straddle channels:



For other channels:



3.2.5 Test Result of Maximum Output Power

Refer as Appendix B



3.3 Power Spectral Density

3.3.1 Limit

Peak Power Spectral Density Limit	
UNII Devices	
<input checked="" type="checkbox"/> For the 5.15-5.25 GHz band:	
<input type="checkbox"/>	<ul style="list-style-type: none"> Outdoor AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 17 - (G_{TX} - 6)$. Indoor AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 17 - (G_{TX} - 6)$. Point-to-point AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If $G_{TX} > 23$ dBi, then $P_{Out} = 17 - (G_{TX} - 23)$. Mobile or Portable Client: the peak power spectral density (PPSD) ≤ 11 dBm/MHz. If $G_{TX} > 6$ dBi, then $PPSD = 11 - (G_{TX} - 6)$.
<input checked="" type="checkbox"/> For the 5.25-5.35 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz. If $G_{TX} > 6$ dBi, then $PPSD = 11 - (G_{TX} - 6)$.	
<input checked="" type="checkbox"/> For the 5.47-5.725 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz. If $G_{TX} > 6$ dBi, then $PPSD = 11 - (G_{TX} - 6)$.	
<input checked="" type="checkbox"/> For the 5.725-5.85 GHz band:	
<input type="checkbox"/>	<ul style="list-style-type: none"> Point-to-multipoint systems (P2M): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz. If $G_{TX} > 6$ dBi, then $PPSD = 30 - (G_{TX} - 6)$. Point-to-point systems (P2P): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz.
<input checked="" type="checkbox"/> For the 5.85-5.895 GHz band:	
<input type="checkbox"/>	<ul style="list-style-type: none"> Indoor AP & subordinate device < 20dBm/MHz Client device < 14dBm/MHz
LE-LAN Devices	
<input type="checkbox"/> For the 5.15-5.25 GHz band, the e.i.r.p. peak power spectral density (PPSD) ≤ 10 dBm/MHz.	
<input type="checkbox"/> For the 5.25-5.35 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz.	
<input type="checkbox"/>	<ul style="list-style-type: none"> e.i.r.p. greater than 200 mW shall comply with the following e.i.r.p. at different elevations, where θ is the angle above the local horizontal plane (of the Earth) as shown below: -13 dBW/MHz for $0^\circ \leq \theta < 8^\circ$; -13 - 0.716 ($\theta - 8$) dBW/MHz for $8^\circ \leq \theta < 40^\circ$ -35.9 - 1.22 ($\theta - 40$) dBW/MHz for $40^\circ \leq \theta \leq 45^\circ$; -42 dBW/MHz for $\theta > 45^\circ$
<input type="checkbox"/> For the 5.47-5.6 GHz band and 5.65-5.725 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz.	
<input type="checkbox"/> For the 5.725-5.85 GHz band:	
<input type="checkbox"/>	<ul style="list-style-type: none"> Point-to-multipoint systems (P2M): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz. If $G_{TX} > 6$ dBi, then $PPSD = 30 - (G_{TX} - 6)$. Point-to-point systems (P2P): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz.
PPSD = peak power spectral density that he same method as used to determine the conducted output power shall be used to determine the power spectral density. And power spectral density in dBm/MHz	



G_{TX} = the maximum transmitting antenna directional gain in dBi.

3.3.2 Measuring Instruments

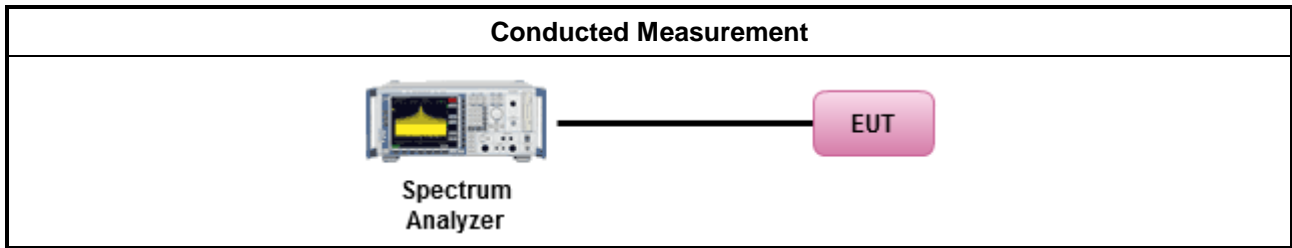
Refer a test equipment and calibration data table in this test report.

3.3.3 Test Procedures

Test Method	
	<ul style="list-style-type: none"> ▪ Peak power spectral density procedures that the same method as used to determine the conducted output power shall be used to determine the peak power spectral density and use the peak search function on the spectrum analyzer to find the peak of the spectrum. For the peak power spectral density shall be measured using below options:
<input type="checkbox"/>	Refer as FCC KDB 789033 D02, F)5) power spectral density can be measured using resolution bandwidths < 1 MHz provided that the results are integrated over 1 MHz bandwidth
	[duty cycle ≥ 98% or external video / power trigger]
<input checked="" type="checkbox"/>	Refer as FCC KDB 789033 D02, clause E Method SA-1 (spectral trace averaging).
<input type="checkbox"/>	Refer as FCC KDB 789033 D02, clause E Method SA-1 Alt. (RMS detection with slow sweep speed)
	duty cycle < 98% and average over on/off periods with duty factor
<input checked="" type="checkbox"/>	Refer as FCC KDB 789033 D02, clause E Method SA-2 (spectral trace averaging).
<input type="checkbox"/>	Refer as FCC KDB 789033 D02, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)
<input checked="" type="checkbox"/>	For conducted measurement.
	<ul style="list-style-type: none"> ▪ If the EUT supports multiple transmit chains using options given below:
<input checked="" type="checkbox"/>	Option 1: Measure and sum the spectra across the outputs. Refer as FCC KDB 662911, In-band power spectral density (PSD). Sample all transmit ports simultaneously using a spectrum analyzer for each transmit port. Where the trace bin-by-bin of each transmit port summing can be performed. (i.e., in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 and that from the first spectral bin of output 3, and so on up to the NTX output to obtain the value for the first frequency bin of the summed spectrum.). Add up the amplitude (power) values for the different transmit chains and use this as the new data trace.
<input type="checkbox"/>	Option 2: Measure and sum spectral maxima across the outputs. With this technique, spectra are measured at each output of the device at the required resolution bandwidth. The maximum value (peak) of each spectrum is determined. These maximum values are then summed mathematically in linear power units across the outputs. These operations shall be performed separately over frequency spans that have different out-of-band or spurious emission limits,
<input type="checkbox"/>	Option 3: Measure and add 10 log(N) dB, where N is the number of transmit chains. Refer as FCC KDB 662911, In-band power spectral density (PSD). Performed at each transmit chains and each transmit chains shall be compared with the limit have been reduced with 10 log(N). Or each transmit chains shall be add 10 log(N) to compared with the limit.
	<ul style="list-style-type: none"> ▪ If multiple transmit chains, EIRP PPSD calculation could be following as methods: $PPSD_{total} = PPSD_1 + PPSD_2 + \dots + PPSD_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = PPSD_{total} + DG$

Test Method	
<input type="checkbox"/>	For radiated measurement.
	<ul style="list-style-type: none"> ▪ 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.

3.3.4 Test Setup



3.3.5 Test Result of Power Spectral Density

Refer as Appendix C



3.4 Unwanted Emissions

3.4.1 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
<input checked="" type="checkbox"/> 5.15 - 5.25 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
<input checked="" type="checkbox"/> 5.25 - 5.35 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
<input checked="" type="checkbox"/> 5.47 - 5.725 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
<input checked="" type="checkbox"/> 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.
<input checked="" type="checkbox"/> 5.85 - 5.895 GHz	(i) For an indoor access point or subordinate device, all emissions at or above 5.895 GHz shall not exceed an e.i.r.p. of 15 dBm/MHz and shall decrease linearly to an e.i.r.p. of -7 dBm/MHz at or above 5.925 GHz. (ii) For a client device, all emissions at or above 5.895 GHz shall not exceed an e.i.r.p. of -5 dBm/MHz and shall decrease linearly to an e.i.r.p. of -27 dBm/MHz at or above 5.925 GHz. (iii) For a client device or indoor access point or subordinate device, all emissions below 5.725 GHz shall not exceed an e.i.r.p. of -27 dBm/MHz at 5.65 GHz increasing linearly to 10 dBm/ MHz at 5.7 GHz, and from 5.7 GHz increasing linearly to a level of 15.6 dBm/MHz at 5.72 GHz, and from 5.72 GHz increasing linearly to a level of 27 dBm/MHz at 5.725 GHz.
<p>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).</p>	

3.4.2 Measuring Instruments

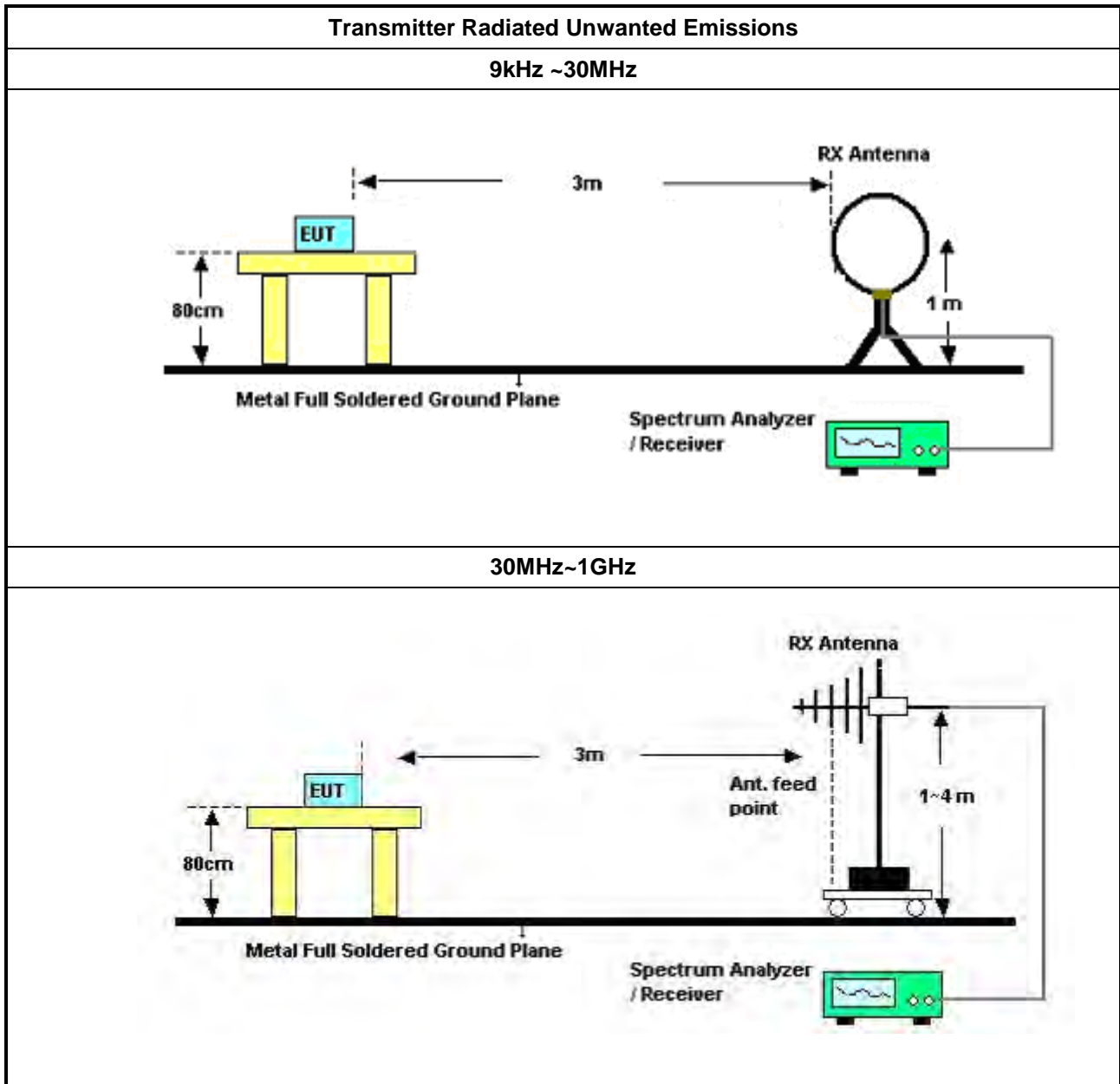
Refer a test equipment and calibration data table in this test report.

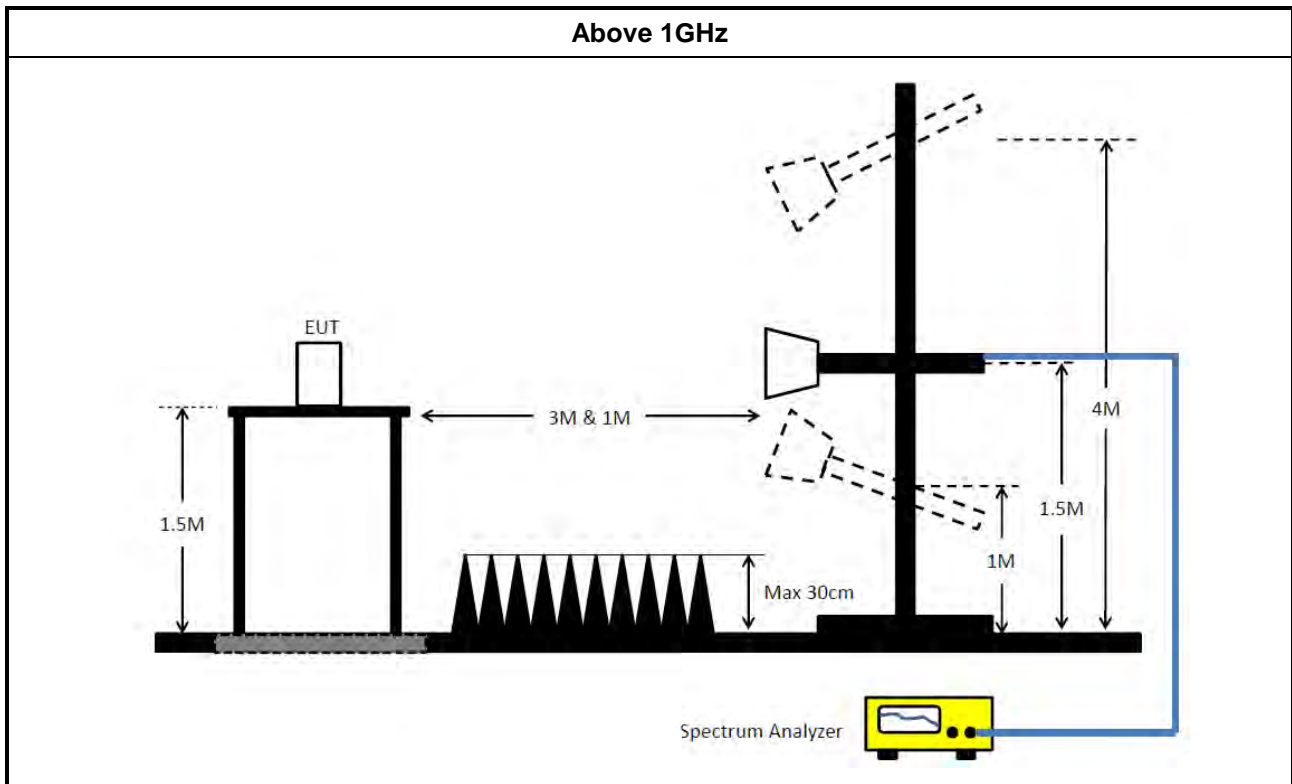


3.4.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> ▪ 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). 	
<ul style="list-style-type: none"> ▪ The average emission levels shall be measured in [duty cycle ≥ 98 or duty factor]. 	
<ul style="list-style-type: none"> ▪ For the transmitter unwanted emissions shall be measured using following options below: 	
	<ul style="list-style-type: none"> ▪ Refer as FCC KDB 789033 D02, clause G)2) for unwanted emissions into non-restricted bands.
	<ul style="list-style-type: none"> ▪ Refer as FCC KDB 789033 D02, clause G)1) for unwanted emissions into restricted bands.
	<input type="checkbox"/> Refer as FCC KDB 789033 D02, G)6) Method AD (Trace Averaging).
	<input checked="" type="checkbox"/> Refer as FCC KDB 789033 D02, G)6) Method VB (Reduced VBW).
	<input type="checkbox"/> Refer as ANSI C63.10, clause 11.12.2.5.3 (Reduced VBW). VBW ≥ 1/T, where T is pulse time.
	<input type="checkbox"/> Refer as ANSI C63.10, clause 7.5 average value of pulsed emissions.
	<input checked="" type="checkbox"/> Refer as FCC KDB 789033 D02, clause G)5) measurement procedure peak limit.
	<input type="checkbox"/> Refer as ANSI C63.10, clause 4.1.4.2.2 measurement procedure peak limit.
<ul style="list-style-type: none"> ▪ For radiated measurement. 	
	<ul style="list-style-type: none"> ▪ Refer as ANSI C63.10, clause 6.4 for radiated emissions below 30 MHz and test distance is 3m.
	<ul style="list-style-type: none"> ▪ Refer as ANSI C63.10, clause 6.5 for radiated emissions 30 MHz to 1 GHz and test distance is 3m.
	<ul style="list-style-type: none"> ▪ Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz.
<ul style="list-style-type: none"> ▪ The any unwanted emissions level shall not exceed the fundamental emission level. 	
<ul style="list-style-type: none"> ▪ All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported. 	

3.4.4 Test Setup





3.4.5 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.

3.4.6 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.

3.4.7 Test Result of Transmitter Unwanted Emissions

Refer as Appendix D



4 Test Equipment and Calibration Data

Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
Loop Antenna	Teseq	HLA 6121	65417	9kHz - 30 MHz	Oct. 13, 2023	Oct. 12, 2024	Radiation (03CH05-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)
Amplifier	EMCI	EMC330N	980331	20MHz ~ 3GHz	May 03, 2023	May 02, 2024	Radiation (03CH05-CB)
Spectrum Analyzer	R&S	FSP40	100304	9kHz ~ 40GHz	Apr. 18, 2023	Apr. 17, 2024	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	RIKEN	SAC-3M	03CH02-CB	1GHz ~18GHz	Mar. 25, 2023	Mar. 24, 2024	Radiation (03CH02-CB)
Horn Antenna	EMCO	3115	9610-4976	1GHz ~ 18GHz	Apr. 18, 2023	Apr. 17, 2024	Radiation (03CH02-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Sep. 04, 2023	Sep. 03, 2024	Radiation (03CH02-CB)
Pre-Amplifier	Agilent	83017A	MY39501305	1GHz ~ 26.5GHz	Jun. 30, 2023	Jun. 29, 2024	Radiation (03CH02-CB)
Pre-Amplifier	SGH	SGH184	20230109-3	18~40GHz	Jan. 13, 2023	Jan. 12, 2024	Radiation (03CH02-CB)
Spectrum analyzer	R&S	FSU	100015	9kHz~26GHz	Dec. 05, 2022	Dec. 04, 2023	Radiation (03CH02-CB)
Signal Analyzer	R&S	FSV3044	101437	10kHz ~ 44GHz	Nov. 28, 2023	Nov. 27, 2024	Radiation (03CH02-CB)
RF Cable-high	Woken	RG402	High Cable-18	1GHz ~ 18GHz	Oct. 02, 2023	Oct. 01, 2024	Radiation (03CH02-CB)
RF Cable-high	Woken	RG402	High Cable-18+19	1GHz ~ 18GHz	Oct. 02, 2023	Oct. 01, 2024	Radiation (03CH02-CB)
High Cable	Woken	WCA0929M	40G#5+6	1GHz ~ 40GHz	Oct. 02, 2023	Oct. 01, 2024	Radiation (03CH02-CB)



Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
High Cable	Woken	WCA0929M	40G#5	1GHz ~ 40GHz	Oct. 02, 2023	Oct. 01, 2024	Radiation (03CH02-CB)
High Cable	Woken	WCA0929M	40G#6	1GHz ~ 40GHz	Oct. 02, 2023	Oct. 01, 2024	Radiation (03CH02-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH02-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	20230109-3	18~40GHz	Jan. 13, 2023	Jan. 12, 2024	Radiation (03CH06-CB)
Spectrum analyzer	R&S	FSP40	100080	9kHz~40GHz	Dec. 21, 2022	Dec. 20, 2023	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 ~ 40GHz	Oct. 02, 2023	Oct. 01, 2024	Radiation (03CH06-CB)
High Cable	Woken	WCA0929M	40G#5	1GHz ~ 40GHz	Oct. 02, 2023	Oct. 01, 2024	Radiation (03CH06-CB)
High Cable	Woken	WCA0929M	40G#6	1GHz ~ 40GHz	Oct. 02, 2023	Oct. 01, 2024	Radiation (03CH06-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH06-CB)
Spectrum analyzer	R&S	FSV40	100979	9kHz~40GHz	May 29, 2023	May 28, 2024	Conducted (TH01-CB)
Switch	SPTCB	SP-SWI	SWI-01	1~26.5GHz	Oct. 03, 2023	Oct. 02, 2024	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-06	1GHz ~ 18GHz	Oct. 02, 2023	Oct. 01, 2024	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-07	1GHz ~ 18GHz	Oct. 02, 2023	Oct. 01, 2024	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-08	1GHz ~ 18GHz	Oct. 02, 2023	Oct. 01, 2024	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-09	1GHz ~ 18GHz	Oct. 02, 2023	Oct. 01, 2024	Conducted (TH01-CB)



Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
RF Cable-high	Woken	RG402	High Cable-10	1GHz – 18GHz	Oct. 02, 2023	Oct. 01, 2024	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-30	1GHz – 18GHz	Oct. 02, 2023	Oct. 01, 2024	Conducted (TH01-CB)
Power Sensor	Anritsu	MA2411B	1339408	300MHz~40GHz	Sep. 12, 2023	Sep. 11, 2024	Conducted (TH01-CB)
Power Meter	Anritsu	ML2495A	1517009	300MHz~40GHz	Sep. 12, 2023	Sep. 11, 2024	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	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.15-5.25GHz	-	-	-	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	23.485M	19.19M	19M2D1D	21.67M	19.015M
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	45.87M	37.831M	37M8D1D	40.04M	37.681M
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	91.74M	77.261M	77M3D1D	79.86M	77.161M
802.11ax HEW160-BF_Nss1,(MCS0)_4TX	80.08M	77.561M	77M6D1D	79.44M	77.321M
5.25-5.35GHz	-	-	-	-	-
802.11ax HEW160-BF_Nss1,(MCS0)_4TX	80M	77.481M	77M5D1D	79.52M	77.241M

Max-N dB = Maximum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;
 Max-OBW = Maximum 99% occupied bandwidth;
 Min-N dB = Minimum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;
 Min-OBW = Minimum 99% occupied bandwidth

Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)	Port 3-N dB (Hz)	Port 3-OBW (Hz)	Port 4-N dB (Hz)	Port 4-OBW (Hz)
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	Inf	23.485M	19.015M	22M	19.04M	21.67M	19.19M	23.155M	19.04M
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5190MHz	Pass	Inf	42.13M	37.781M	40.04M	37.831M	45.87M	37.731M	42.79M	37.681M
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz	Pass	Inf	85.36M	77.161M	79.86M	77.261M	91.74M	77.161M	79.86M	77.161M
802.11ax HEW160-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5250MHz Straddle 5.15-5.25GHz	Pass	Inf	79.92M	77.481M	80.08M	77.321M	79.44M	77.561M	79.76M	77.481M
5250MHz Straddle 5.25-5.35GHz	Pass	Inf	80M	77.321M	79.52M	77.241M	79.52M	77.321M	79.76M	77.481M

Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band
 Port X-OBW = Port X 99% occupied bandwidth

5.15-5.25GHz_802.11ax HEW20-BF_Nss1,(MCS0)_4TX

EBW

5180MHz

16/01/2024

CF (Hz)
5.18G

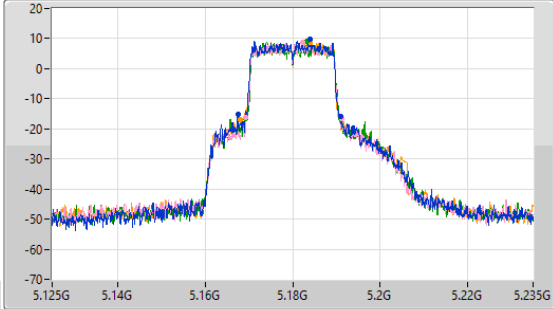
Span (Hz)
110M

RBW (Hz)
200k

VBW (Hz)
1M

Sweep Time (s)
132.8u

Detector Type
Peak



CF (Hz)
5.18G

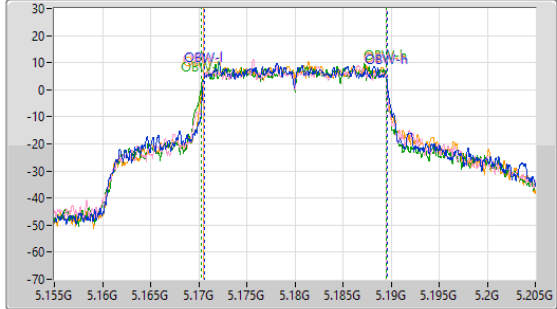
Span (Hz)
50M

RBW (Hz)
200k

VBW (Hz)
1M

Sweep Time (s)
66.2u

Detector Type
Peak



Port 1

Port 2

Port 3

Port 4

26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
23.485M	5.16746G	5.190945G	19.015M	5.170555G	5.18957G	Inf	1
22M	5.169275G	5.191275G	19.04M	5.17048G	5.18952G	Inf	2
21.67M	5.16933G	5.191G	19.19M	5.170305G	5.189495G	Inf	3
23.155M	5.16812G	5.191275G	19.04M	5.170455G	5.189495G	Inf	4

5.15-5.25GHz_802.11ax HEW40-BF_Nss1,(MCS0)_4TX

EBW

5190MHz

16/01/2024

CF (Hz)
5.19G

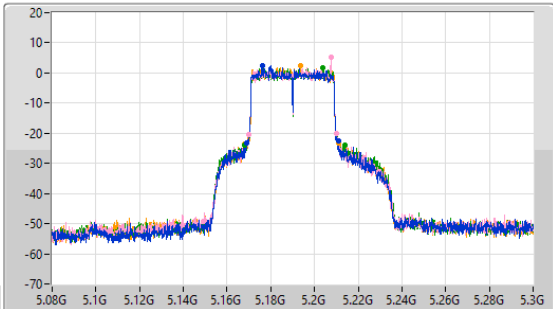
Span (Hz)
220M

RBW (Hz)
100k

VBW (Hz)
2M

Sweep Time (s)
493u

Detector Type
Peak



CF (Hz)
5.19G

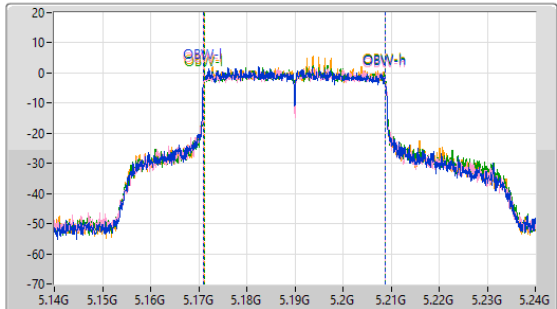
Span (Hz)
100M

RBW (Hz)
100k

VBW (Hz)
2M

Sweep Time (s)
227.9u

Detector Type
Peak



Port 1

Port 2

Port 3

Port 4

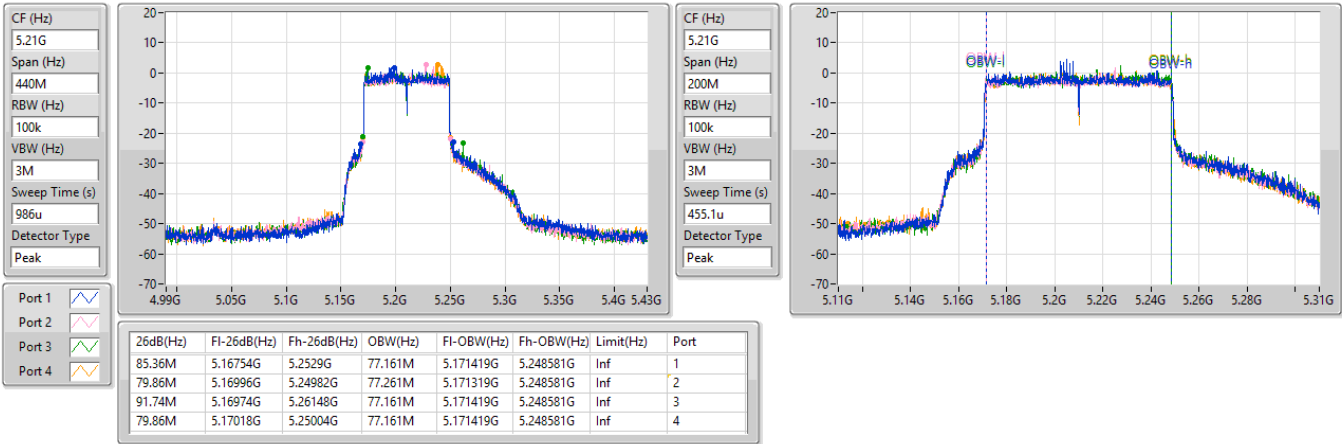
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
42.13M	5.16877G	5.2109G	37.781M	5.171009G	5.208791G	Inf	1
40.04M	5.16998G	5.21002G	37.831M	5.171059G	5.208891G	Inf	2
45.87M	5.168G	5.21387G	37.731M	5.171159G	5.208891G	Inf	3
42.79M	5.16822G	5.21101G	37.681M	5.171159G	5.208841G	Inf	4

5.15-5.25GHz_802.11ax_HEW80-BF_Nss1,(MCS0)_4TX

EBW

5210MHz

16/01/2024

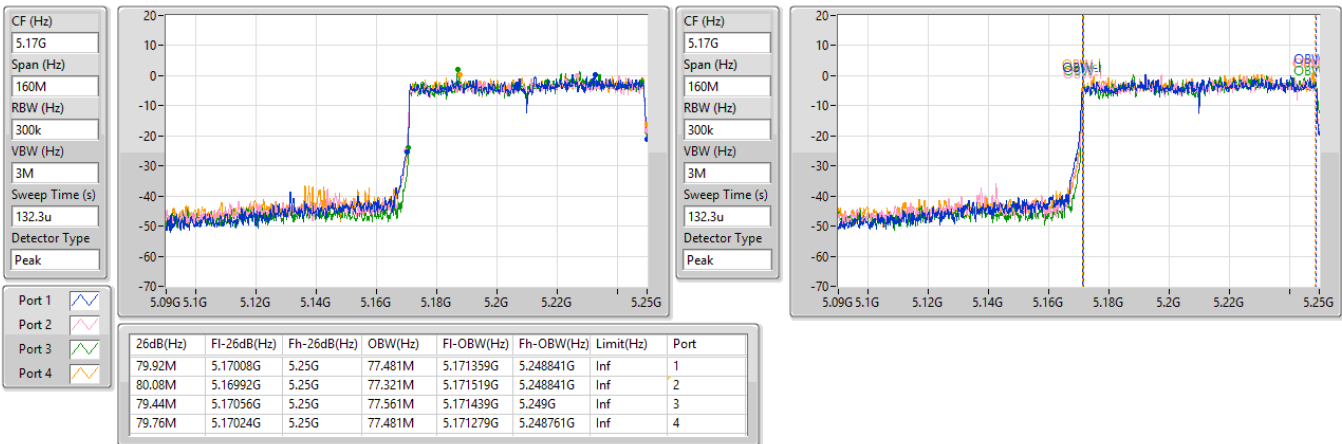


5.15-5.25GHz_802.11ax_HEW160-BF_Nss1,(MCS0)_4TX

EBW

5250MHz Straddle 5.15-5.25GHz

16/01/2024

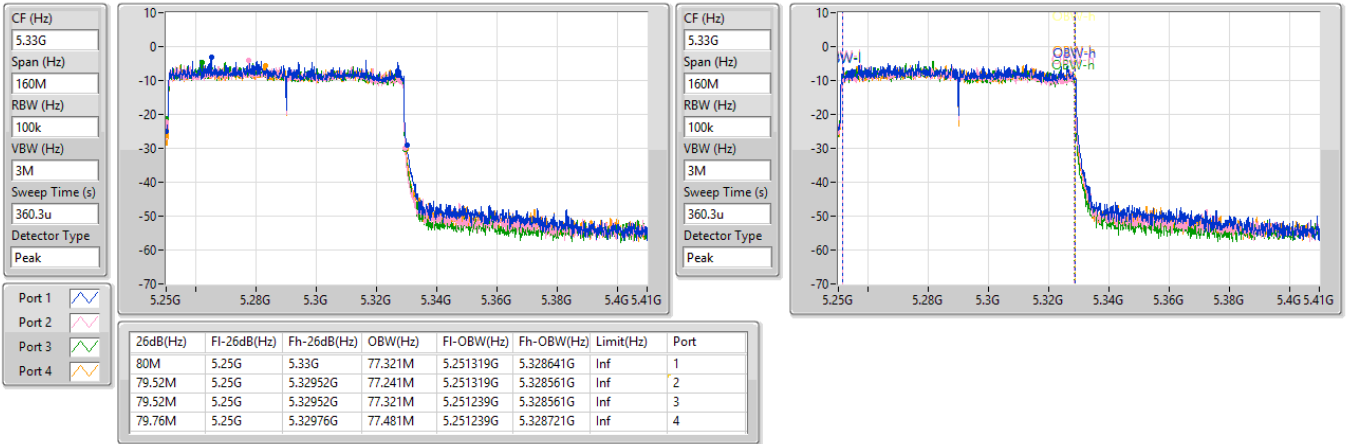


5.25-5.35GHz_802.11ax_HEW160-BF_Nss1,(MCS0)_4TX

EBW

5250MHz Straddle 5.25-5.35GHz

16/01/2024





Summary

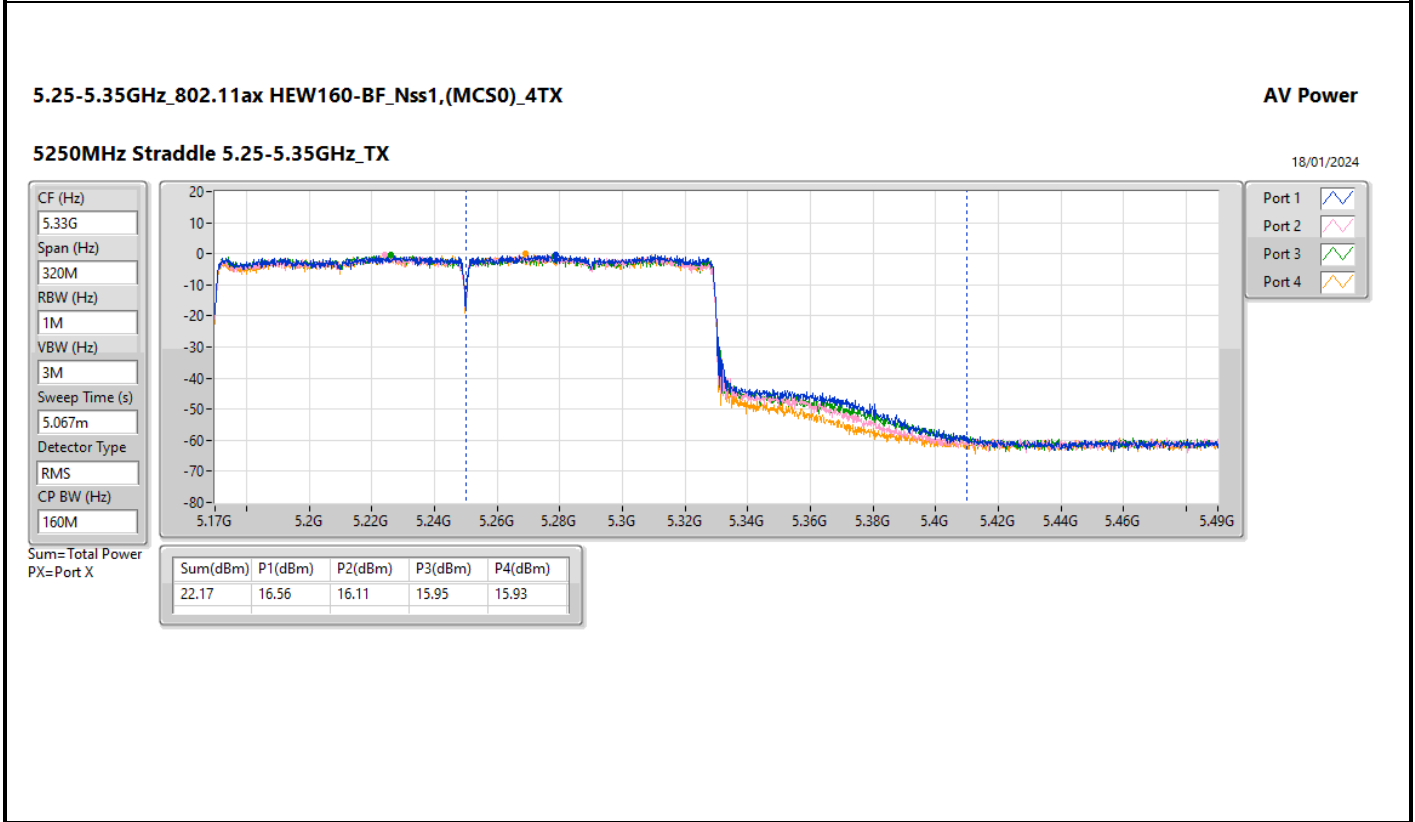
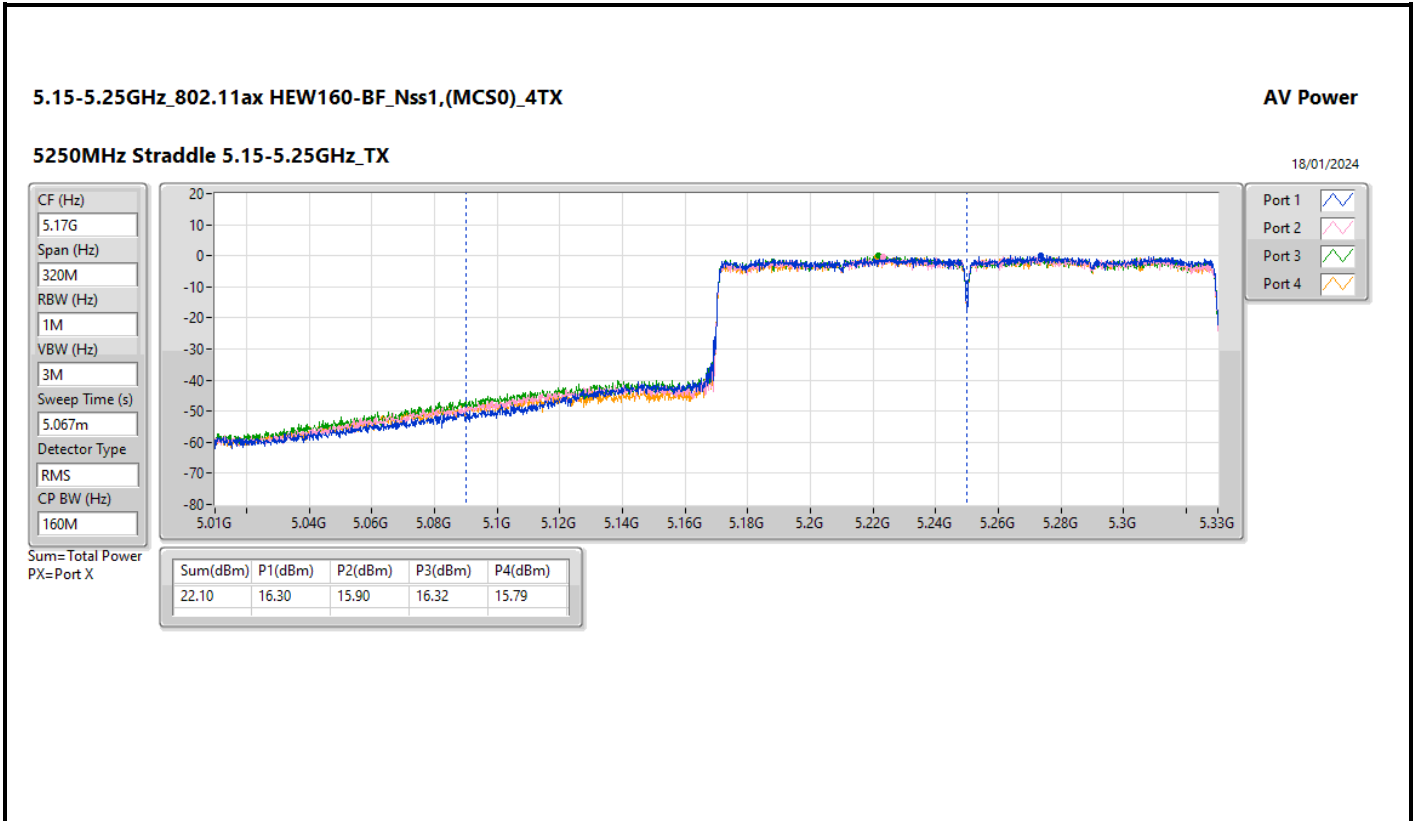
Mode	Total Power (dBm)	Total Power (W)
5.15-5.25GHz	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	27.29	0.53580
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	26.22	0.41879
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	27.22	0.52723
802.11ax HEW160-BF_Nss1,(MCS0)_4TX	22.10	0.16218
5.25-5.35GHz	-	-
802.11ax HEW160-BF_Nss1,(MCS0)_4TX	22.17	0.16482



Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Port 4 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5180MHz	Pass	6.24	21.48	21.27	20.92	21.39	27.29	29.76
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5190MHz	Pass	6.24	20.33	20.01	20.10	20.33	26.22	29.76
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5210MHz	Pass	6.24	21.29	20.85	21.34	21.28	27.22	29.76
802.11ax HEW160-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5250MHz Straddle 5.15-5.25GHz	Pass	6.24	16.30	15.90	16.32	15.79	22.10	29.76
5250MHz Straddle 5.25-5.35GHz	Pass	6.43	16.56	16.11	15.95	15.93	22.17	23.55

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



Summary

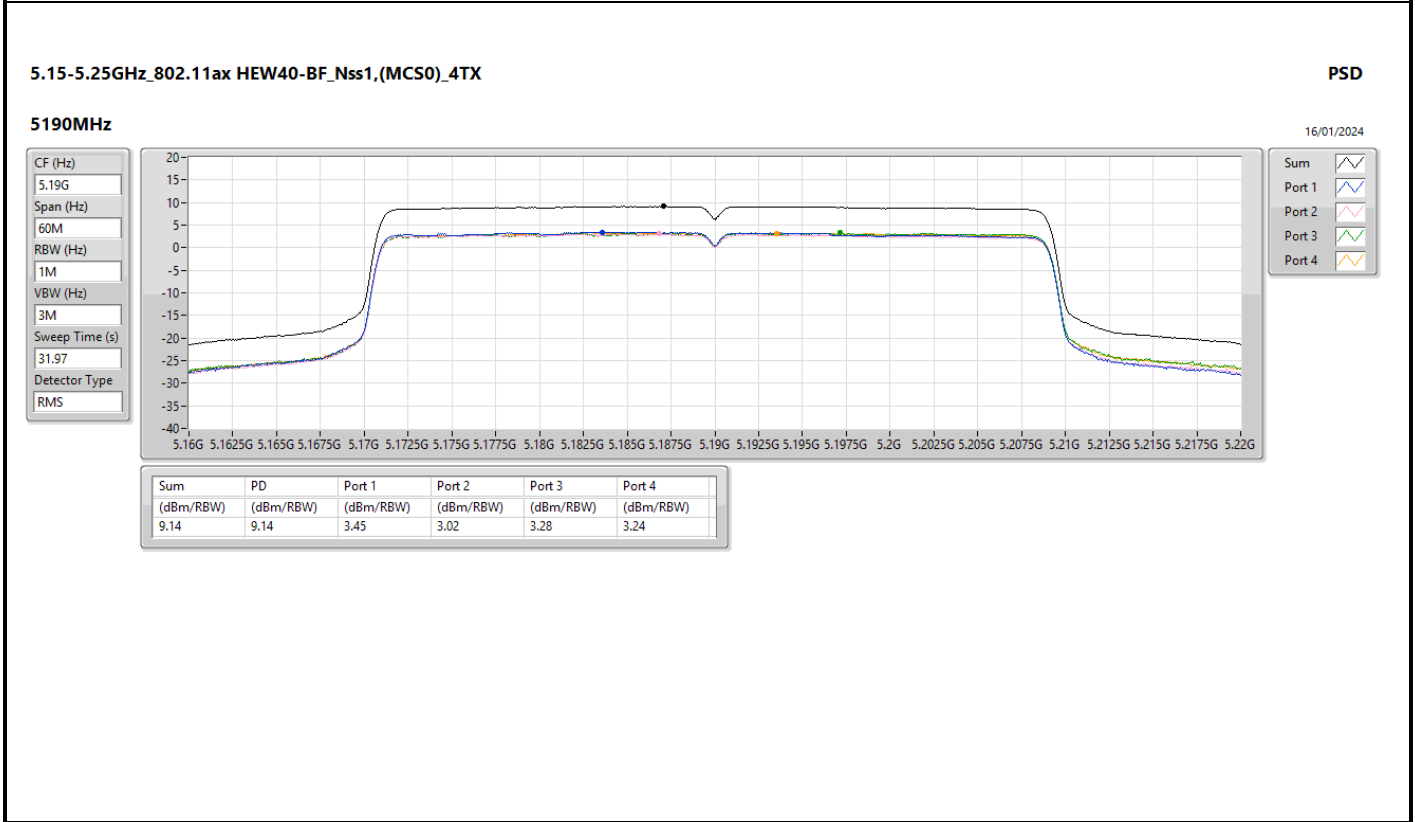
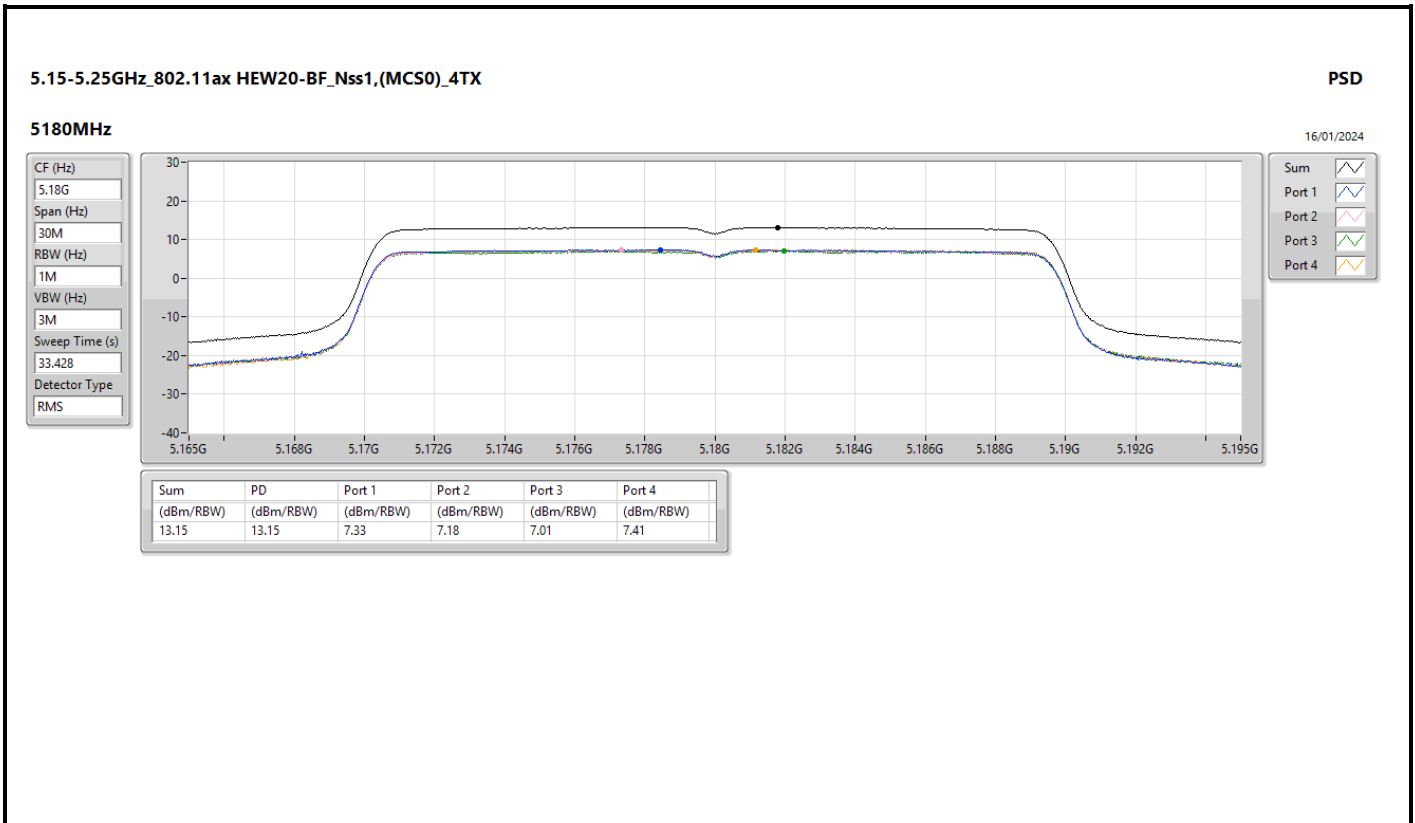
Mode	PD (dBm/RBW)
5.15-5.25GHz	-
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	13.15
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	9.14
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	7.31
802.11ax HEW160-BF_Nss1,(MCS0)_4TX	2.88
5.25-5.35GHz	-
802.11ax HEW160-BF_Nss1,(MCS0)_4TX	2.82

RBW = 500kHz for 5.725-5.85GHz band / 1MHz for other band:

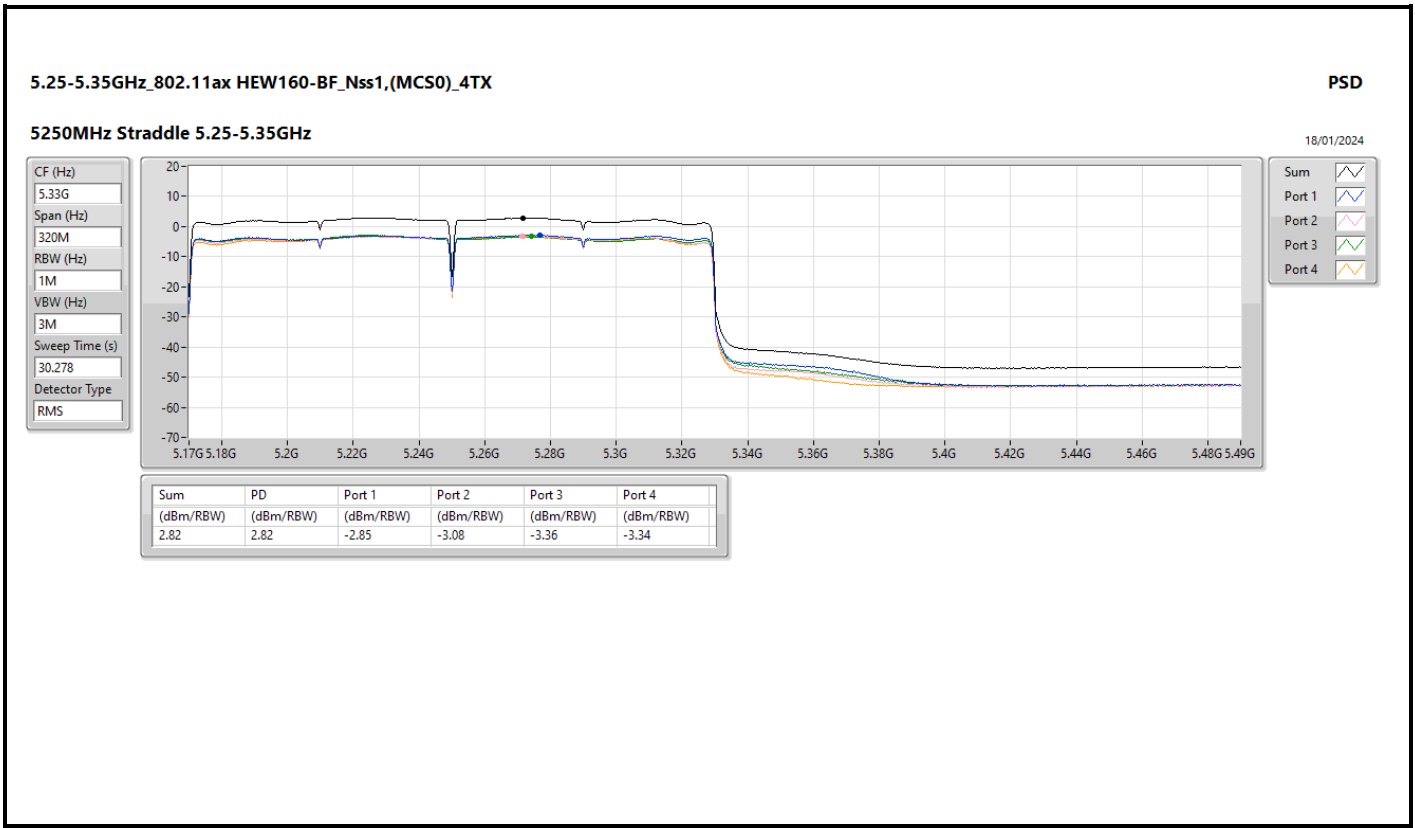
Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	Port 3 (dBm/RBW)	Port 4 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5180MHz	Pass	6.24	7.33	7.18	7.01	7.41	13.15	16.76
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5190MHz	Pass	6.24	3.45	3.02	3.28	3.24	9.14	16.76
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5210MHz	Pass	6.24	1.24	1.29	1.68	1.63	7.31	16.76
802.11ax HEW160-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5250MHz Straddle 5.15-5.25GHz	Pass	6.24	-3.08	-3.25	-2.91	-3.25	2.88	16.76
5250MHz Straddle 5.25-5.35GHz	Pass	6.43	-2.85	-3.08	-3.36	-3.34	2.82	10.57

DG = Directional Gain; RBW = 500kHz for 5.725-5.85GHz band / 1MHz for other band;
 PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; Port X = Port X Power Density;





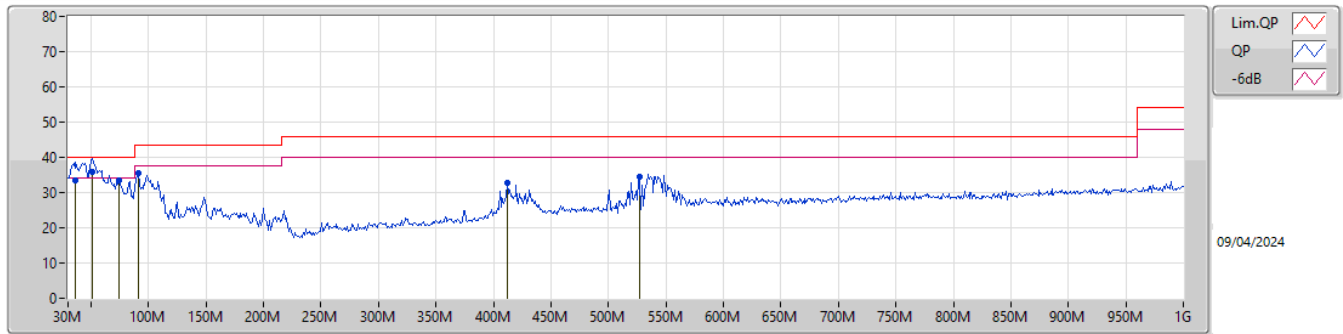




Summary

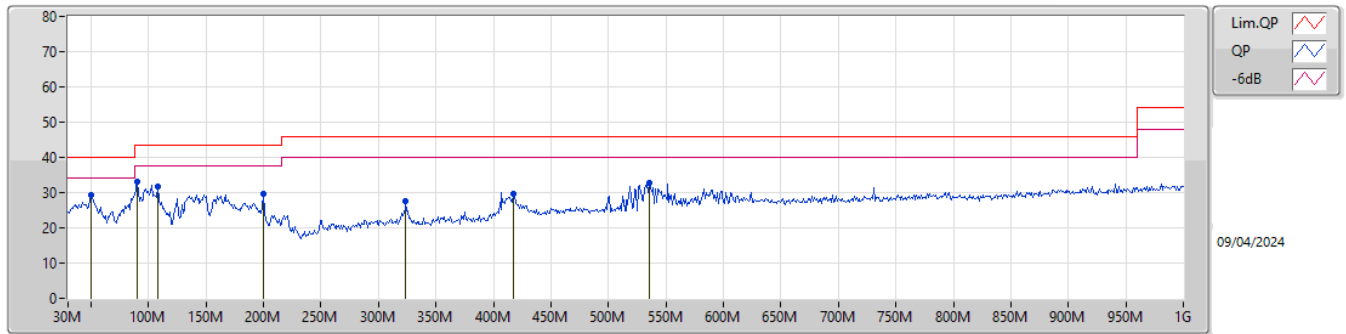
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Condition
Mode 1	Pass	QP	51.34M	35.79	40.00	-4.21	Vertical

Mode 1



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB/m)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV/m)	AF (dB/m)	CL (dB)	PA (dB)
QP	36.79M	33.60	40.00	-6.40	-9.76	3	Vertical	293	1.00	-	43.36	20.83	1.12	31.71
QP	51.34M	35.79	40.00	-4.21	-16.71	3	Vertical	0	1.00	"Worst"	52.50	13.88	1.29	31.88
PK	74.62M	33.45	40.00	-6.55	-17.65	3	Vertical	197	1.00	-	51.10	12.76	1.53	31.94
PK	91.11M	35.52	43.50	-7.98	-15.05	3	Vertical	0	1.50	-	50.57	15.24	1.69	31.98
PK	412.18M	32.83	46.00	-13.17	-6.27	3	Vertical	63	1.25	-	39.10	22.19	3.75	32.21
PK	526.64M	34.38	46.00	-11.62	-4.75	3	Vertical	116	1.00	-	39.13	23.32	4.30	32.37

Mode 1



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB/m)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV/m)	AF (dB/m)	CL (dB)	PA (dB)
PK	50.37M	29.27	40.00	-10.73	-16.35	3	Horizontal	49	2.00	-	45.62	14.25	1.28	31.88
PK	90.14M	32.94	43.50	-10.56	-15.24	3	Horizontal	85	2.00	"Worst"	48.18	15.06	1.68	31.98
PK	107.6M	31.76	43.50	-11.74	-12.66	3	Horizontal	241	3.00	-	44.42	17.48	1.82	31.96
PK	199.75M	29.68	43.50	-13.82	-14.26	3	Horizontal	102	1.50	-	43.94	15.25	2.50	32.01
PK	323.91M	27.60	46.00	-18.40	-9.24	3	Horizontal	360	1.00	-	36.84	19.63	3.27	32.14
PK	417.03M	29.75	46.00	-16.25	-6.11	3	Horizontal	359	1.00	-	35.86	22.33	3.78	32.22
PK	535.37M	32.87	46.00	-13.13	-4.33	3	Horizontal	350	2.00	-	37.20	23.73	4.34	32.40

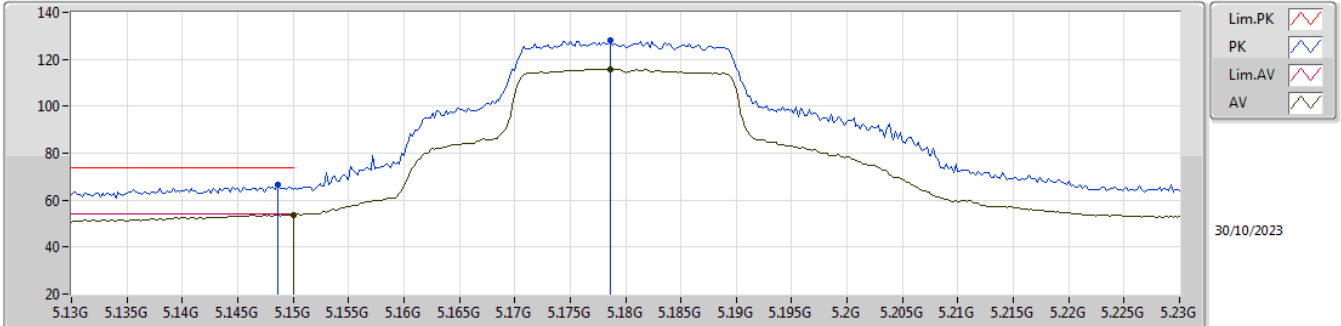


Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
5.15-5.25GHz	-	-	-	-	-	-	-	-	-	-	-
802.11ax HEW160-BF_Nss1,(MCS0)_4TX	Pass	AV	5.1492G	53.96	54.00	-0.04	3	Vertical	309	1.80	-

5.15-5.25GHz_802.11ax_HEW20-BF_Nss1,(MCS0)_4TX

5180MHz_TX

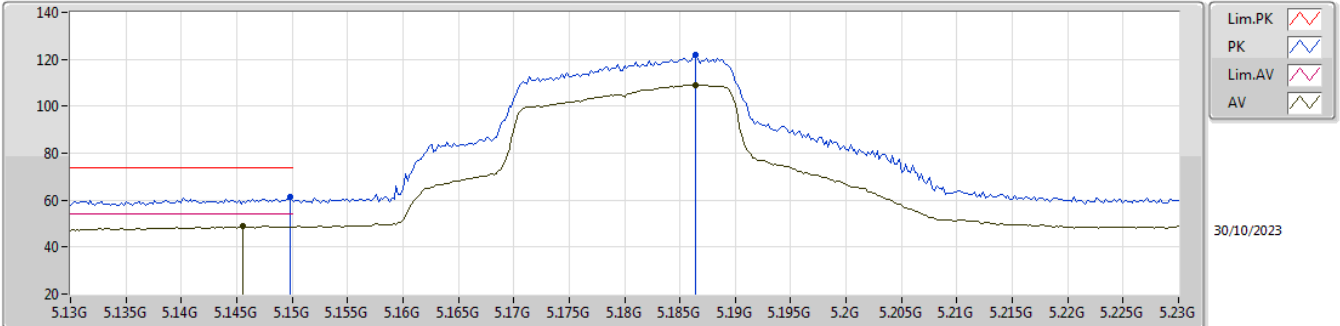


EUT Y_4TX
Setting 86
02-E-V-1

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	5.1486G	66.64	74.00	-7.36	58.41	3	Vertical	306	1.80	-	33.60	5.31	30.68
AV	5.15G	53.83	54.00	-0.17	45.59	3	Vertical	306	1.80	-	33.60	5.32	30.68
PK	5.1786G	128.08	Inf	-Inf	119.72	3	Vertical	306	1.80	-	33.71	5.35	30.70
AV	5.1786G	115.89	Inf	-Inf	107.53	3	Vertical	306	1.80	-	33.71	5.35	30.70

5.15-5.25GHz_802.11ax_HEW20-BF_Nss1,(MCS0)_4TX

5180MHz_TX

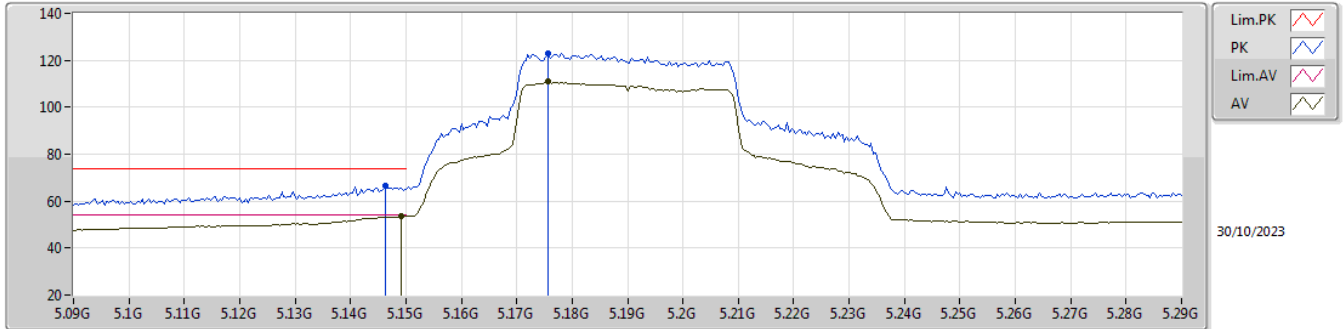


EUT Y_4TX
Setting 86
02-E-V-1

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	5.1498G	61.28	74.00	-12.72	53.05	3	Horizontal	224	1.81	-	33.60	5.31	30.68
AV	5.1456G	48.77	54.00	-5.23	40.55	3	Horizontal	224	1.81	-	33.59	5.31	30.68
PK	5.1864G	121.75	Inf	-Inf	113.35	3	Horizontal	224	1.81	-	33.75	5.36	30.71
AV	5.1864G	108.97	Inf	-Inf	100.57	3	Horizontal	224	1.81	-	33.75	5.36	30.71

5.15-5.25GHz 802.11ax HEW40-BF_Nss1,(MCS0)_4TX

5190MHz_TX

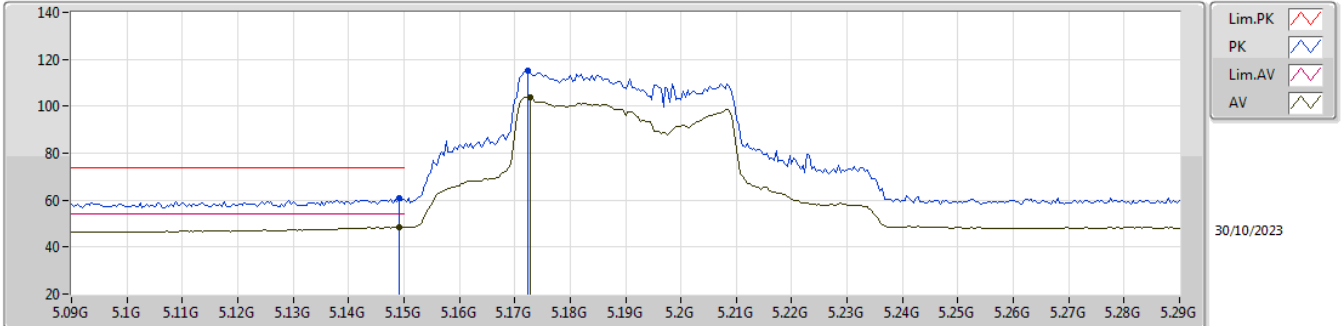


EUT_Y_4TX
Setting 81
02-E-V-1

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	5.1464G	66.33	74.00	-7.67	58.11	3	Vertical	308	1.77	-	33.59	5.31	30.68
AV	5.1492G	53.61	54.00	-0.39	45.38	3	Vertical	308	1.77	-	33.60	5.31	30.68
PK	5.1756G	122.83	Inf	-Inf	114.49	3	Vertical	308	1.77	-	33.70	5.34	30.70
AV	5.1756G	110.78	Inf	-Inf	102.44	3	Vertical	308	1.77	-	33.70	5.34	30.70

5.15-5.25GHz_802.11ax_HEW40-BF_Nss1,(MCS0)_4TX

5190MHz_TX

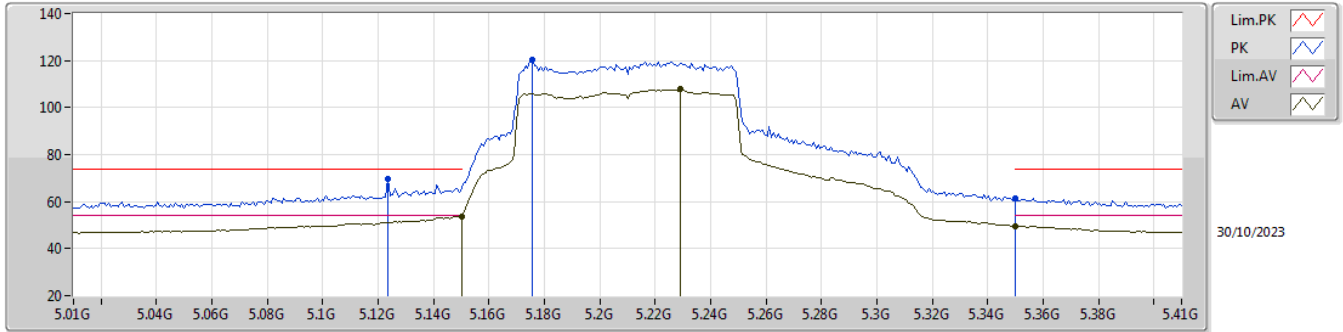


EUT Y_4TX
Setting 81
02-E-V-1

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	5.1492G	60.78	74.00	-13.22	52.55	3	Horizontal	29	1.77	-	33.60	5.31	30.68
AV	5.1492G	48.45	54.00	-5.55	40.22	3	Horizontal	29	1.77	-	33.60	5.31	30.68
PK	5.1724G	115.41	Inf	-Inf	107.08	3	Horizontal	29	1.77	-	33.69	5.34	30.70
AV	5.1728G	103.83	Inf	-Inf	95.50	3	Horizontal	29	1.77	-	33.69	5.34	30.70

5.15-5.25GHz_802.11ax HEW80-BF_Nss1,(MCS0)_4TX

5210MHz_TX

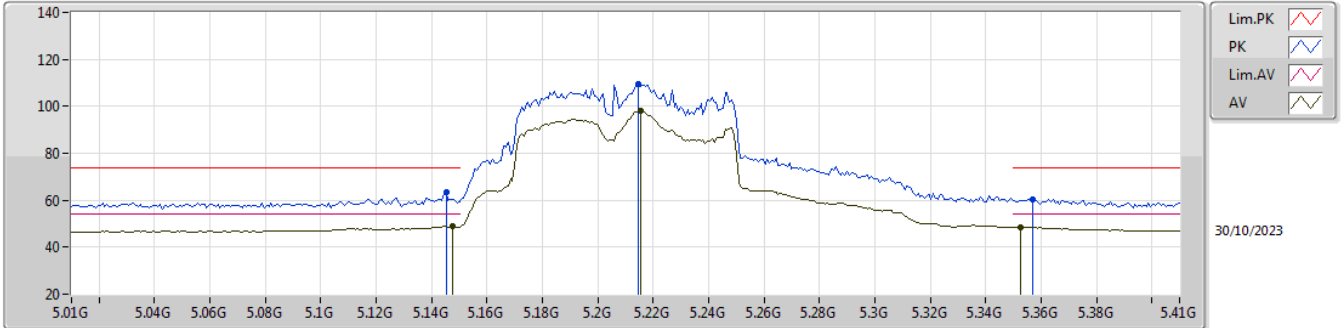


EUT Y_4TX
Setting 86
02-E-J-8

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	5.1236G	69.75	74.00	-4.25	61.57	3	Vertical	46	1.80	-	33.55	5.29	30.66
AV	5.15G	53.79	54.00	-0.21	45.55	3	Vertical	46	1.80	-	33.60	5.32	30.68
PK	5.1756G	120.51	Inf	-Inf	112.17	3	Vertical	46	1.80	-	33.70	5.34	30.70
AV	5.2292G	107.74	Inf	-Inf	99.30	3	Vertical	46	1.80	-	33.80	5.38	30.74
PK	5.35G	61.35	74.00	-12.65	52.79	3	Vertical	46	1.80	-	34.00	5.40	30.84
AV	5.35G	49.74	54.00	-4.26	41.18	3	Vertical	46	1.80	-	34.00	5.40	30.84

5.15-5.25GHz 802.11ax HEW80-BF_Nss1,(MCS0)_4TX

5210MHz_TX

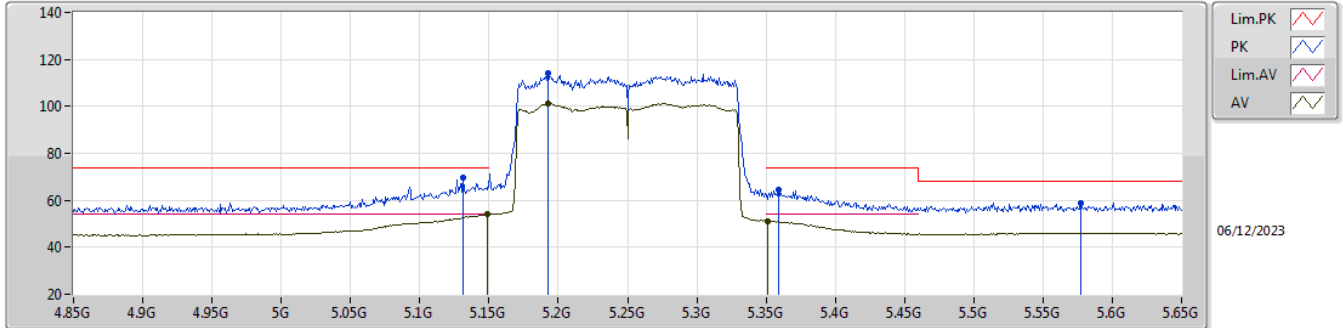


EUT_Y_4TX
Setting 86
02-E-J-8

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	5.1452G	63.25	74.00	-10.75	55.03	3	Horizontal	166	2.28	-	33.59	5.31	30.68
AV	5.1476G	48.73	54.00	-5.27	40.50	3	Horizontal	166	2.28	-	33.60	5.31	30.68
PK	5.2148G	109.67	Inf	-Inf	101.23	3	Horizontal	166	2.28	-	33.80	5.37	30.73
AV	5.2156G	98.35	Inf	-Inf	89.91	3	Horizontal	166	2.28	-	33.80	5.37	30.73
PK	5.3572G	60.59	74.00	-13.41	52.04	3	Horizontal	166	2.28	-	34.00	5.40	30.85
AV	5.3524G	48.48	54.00	-5.52	39.92	3	Horizontal	166	2.28	-	34.00	5.40	30.84

5.15-5.25GHz 802.11ax HEW160-BF_Nss1,(MCS0)_4TX

5250MHz Straddle 5.15-5.25GHz_TX

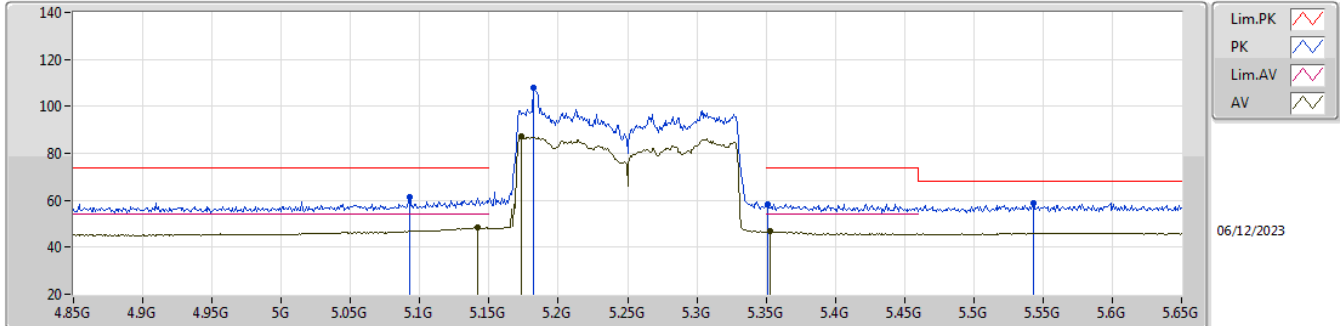


EUT Y_4TX
Setting 72
06-C-J-8-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	5.1316G	69.73	74.00	-4.27	62.07	3	Vertical	309	1.80	-	32.10	6.91	31.35
AV	5.1492G	53.96	54.00	-0.04	46.31	3	Vertical	309	1.80	-	32.10	6.91	31.36
PK	5.1924G	113.97	Inf	-Inf	106.56	3	Vertical	309	1.80	-	31.85	6.94	31.38
AV	5.1924G	101.37	Inf	-Inf	93.96	3	Vertical	309	1.80	-	31.85	6.94	31.38
PK	5.3588G	64.49	74.00	-9.51	57.38	3	Vertical	309	1.80	-	31.52	7.06	31.47
AV	5.3508G	51.25	54.00	-2.75	44.17	3	Vertical	309	1.80	-	31.50	7.05	31.47
PK	5.5772G	58.89	68.20	-9.31	51.39	3	Vertical	309	1.80	-	31.85	7.21	31.56

5.15-5.25GHz_802.11ax_HEW160-BF_Nss1,(MCS0)_4TX

5250MHz Straddle 5.15-5.25GHz_TX



EUT_Y_4TX
Setting 72
06-C-J-8-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	5.0924G	61.28	74.00	-12.72	53.64	3	Horizontal	47	1.96	-	32.08	6.89	31.33
PK	5.182G	107.84	Inf	-Inf	100.38	3	Horizontal	47	1.96	-	31.91	6.93	31.38
AV	5.142G	48.31	54.00	-5.69	40.66	3	Horizontal	47	1.96	-	32.10	6.91	31.36
AV	5.1732G	87.09	Inf	-Inf	79.57	3	Horizontal	47	1.96	-	31.96	6.93	31.37
PK	5.3508G	58.48	74.00	-15.52	51.40	3	Horizontal	47	1.96	-	31.50	7.05	31.47
AV	5.3532G	46.74	54.00	-7.26	39.65	3	Horizontal	47	1.96	-	31.51	7.05	31.47
PK	5.5428G	58.92	68.20	-9.28	51.40	3	Horizontal	47	1.96	-	31.90	7.18	31.56