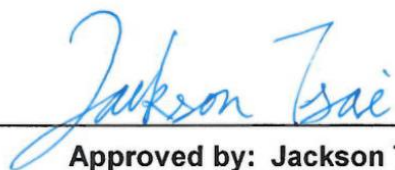


FCC Radio Test Report

FCC ID : QXO-AP4020
Equipment : Access Point
Brand Name : Extreme Networks
Model Name : AP4020X
Applicant : Extreme Networks, Inc.
2121 RDU Center Drive Morrisville North Carolina
United States 27560
Manufacturer : Extreme Networks, Inc.
2121 RDU Center Drive Morrisville North Carolina
United States 27560
Standard : 47 CFR FCC Part 15.407

The product was received on Dec. 13, 2024, and testing was started from Jan. 16, 2025 and completed on May 09, 2025. We, SPORTON INTERNATIONAL INC. Hsinhua 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. Hsinhua Laboratory, the test report shall not be reproduced except in full.



Approved by: Jackson Tsai

SPORTON INTERNATIONAL INC. Hsinhua Laboratory

No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333411, Taiwan (R.O.C.)



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History of this test report

[illegible]

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	15.207	AC Power-line Conducted Emissions	PASS	-
3.2	15.407(a)	Emission Bandwidth	PASS	-
3.3	15.407(a)	Maximum Conducted Output Power	PASS	-
3.4	15.407(a)	Peak Power Spectral Density	PASS	-
3.5	15.407(b)	Unwanted Emissions	PASS	-

Declaration of Conformity:

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

Comments and explanations:

The EUT supports beamforming and CDD modes, and the CDD mode is the worst case. Therefore, all test items are evaluated in the report. The beamforming mode only evaluates the output power.

Reviewed by: Barry Hsiao

Report Producer: Michelle Tsai

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		5500-5700	100-140 [11]
Straddle 5720		5720	144 [1]
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		5510-5670	102-134 [5]
Straddle 5710		5710	142 [1]
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		5530-5610	106-122 [2]
Straddle 5690		5690	138 [1]
5725-5850		5775	155 [1]
5150-5350	ac (VHT160), ax (HEW160), be (EHT160)	5250	50 [1]
5470-5725		5570	114 [1]

Non-Beamforming_Radio 2_Dipole Antenna_1T1S

Band	Mode	BWch	Nant
5.15-5.25GHz	802.11a	20	1TX
5.25-5.35GHz	802.11a	20	1TX
5.47-5.725GHz	802.11a	20	1TX
5.725-5.85GHz	802.11a	20	1TX
5.15-5.25GHz	802.11be EHT20	20	1TX
5.25-5.35GHz	802.11be EHT20	20	1TX
5.47-5.725GHz	802.11be EHT20	20	1TX
5.725-5.85GHz	802.11be EHT20	20	1TX
5.15-5.25GHz	802.11be EHT40	40	1TX
5.25-5.35GHz	802.11be EHT40	40	1TX
5.47-5.725GHz	802.11be EHT40	40	1TX
5.725-5.85GHz	802.11be EHT40	40	1TX



5.15-5.25GHz	802.11be EHT80	80	1TX
5.25-5.35GHz	802.11be EHT80	80	1TX
5.47-5.725GHz	802.11be EHT80	80	1TX
5.725-5.85GHz	802.11be EHT80	80	1TX
5.15-5.25GHz	802.11be EHT160	160	1TX
5.25-5.35GHz	802.11be EHT160	160	1TX
5.47-5.725GHz	802.11be EHT160	160	1TX

Non-Beamforming_Radio 2_Dipole Antenna_2T1S

Band	Mode	BWch	Nant
5.15-5.25GHz	802.11a	20	2TX
5.25-5.35GHz	802.11a	20	2TX
5.47-5.725GHz	802.11a	20	2TX
5.725-5.85GHz	802.11a	20	2TX
5.15-5.25GHz	802.11be EHT20	20	2TX
5.25-5.35GHz	802.11be EHT20	20	2TX
5.47-5.725GHz	802.11be EHT20	20	2TX
5.725-5.85GHz	802.11be EHT20	20	2TX
5.15-5.25GHz	802.11be EHT40	40	2TX
5.25-5.35GHz	802.11be EHT40	40	2TX
5.47-5.725GHz	802.11be EHT40	40	2TX
5.725-5.85GHz	802.11be EHT40	40	2TX
5.15-5.25GHz	802.11be EHT80	80	2TX
5.25-5.35GHz	802.11be EHT80	80	2TX
5.47-5.725GHz	802.11be EHT80	80	2TX
5.725-5.85GHz	802.11be EHT80	80	2TX
5.15-5.25GHz	802.11be EHT160	160	2TX
5.25-5.35GHz	802.11be EHT160	160	2TX
5.47-5.725GHz	802.11be EHT160	160	2TX

**Non-Beamforming_Radio 2_Dipole Antenna_2T2S**

Band	Mode	BWch	Nant
5.15-5.25GHz	802.11be EHT20	20	2TX
5.25-5.35GHz	802.11be EHT20	20	2TX
5.47-5.725GHz	802.11be EHT20	20	2TX
5.725-5.85GHz	802.11be EHT20	20	2TX
5.15-5.25GHz	802.11be EHT40	40	2TX
5.25-5.35GHz	802.11be EHT40	40	2TX
5.47-5.725GHz	802.11be EHT40	40	2TX
5.725-5.85GHz	802.11be EHT40	40	2TX
5.15-5.25GHz	802.11be EHT80	80	2TX
5.25-5.35GHz	802.11be EHT80	80	2TX
5.47-5.725GHz	802.11be EHT80	80	2TX
5.725-5.85GHz	802.11be EHT80	80	2TX
5.15-5.25GHz	802.11be EHT160	160	2TX
5.25-5.35GHz	802.11be EHT160	160	2TX
5.47-5.725GHz	802.11be EHT160	160	2TX

Non-Beamforming_Radio 2_Dual-Polarized MIMO Panel Antenna_1T1S

Band	Mode	BWch	Nant
5.15-5.25GHz	802.11a	20	1TX
5.25-5.35GHz	802.11a	20	1TX
5.47-5.725GHz	802.11a	20	1TX
5.725-5.85GHz	802.11a	20	1TX
5.15-5.25GHz	802.11be EHT20	20	1TX
5.25-5.35GHz	802.11be EHT20	20	1TX
5.47-5.725GHz	802.11be EHT20	20	1TX
5.725-5.85GHz	802.11be EHT20	20	1TX
5.15-5.25GHz	802.11be EHT40	40	1TX
5.25-5.35GHz	802.11be EHT40	40	1TX
5.47-5.725GHz	802.11be EHT40	40	1TX
5.725-5.85GHz	802.11be EHT40	40	1TX
5.15-5.25GHz	802.11be EHT80	80	1TX
5.25-5.35GHz	802.11be EHT80	80	1TX
5.47-5.725GHz	802.11be EHT80	80	1TX
5.725-5.85GHz	802.11be EHT80	80	1TX
5.15-5.25GHz	802.11be EHT160	160	1TX
5.25-5.35GHz	802.11be EHT160	160	1TX
5.47-5.725GHz	802.11be EHT160	160	1TX

**Non-Beamforming_Radio 2_Dual-Polarized MIMO Panel Antenna_2T1S**

Band	Mode	BWch	Nant
5.15-5.25GHz	802.11a	20	2TX
5.25-5.35GHz	802.11a	20	2TX
5.47-5.725GHz	802.11a	20	2TX
5.725-5.85GHz	802.11a	20	2TX
5.15-5.25GHz	802.11be EHT20	20	2TX
5.25-5.35GHz	802.11be EHT20	20	2TX
5.47-5.725GHz	802.11be EHT20	20	2TX
5.725-5.85GHz	802.11be EHT20	20	2TX
5.15-5.25GHz	802.11be EHT40	40	2TX
5.25-5.35GHz	802.11be EHT40	40	2TX
5.47-5.725GHz	802.11be EHT40	40	2TX
5.725-5.85GHz	802.11be EHT40	40	2TX
5.15-5.25GHz	802.11be EHT80	80	2TX
5.25-5.35GHz	802.11be EHT80	80	2TX
5.47-5.725GHz	802.11be EHT80	80	2TX
5.725-5.85GHz	802.11be EHT80	80	2TX
5.15-5.25GHz	802.11be EHT160	160	2TX
5.25-5.35GHz	802.11be EHT160	160	2TX
5.47-5.725GHz	802.11be EHT160	160	2TX

Non-Beamforming_Radio 2_Dual-Polarized MIMO Panel Antenna_2T2S

Band	Mode	BWch	Nant
5.15-5.25GHz	802.11be EHT20	20	2TX
5.25-5.35GHz	802.11be EHT20	20	2TX
5.47-5.725GHz	802.11be EHT20	20	2TX
5.725-5.85GHz	802.11be EHT20	20	2TX
5.15-5.25GHz	802.11be EHT40	40	2TX
5.25-5.35GHz	802.11be EHT40	40	2TX
5.47-5.725GHz	802.11be EHT40	40	2TX
5.725-5.85GHz	802.11be EHT40	40	2TX
5.15-5.25GHz	802.11be EHT80	80	2TX
5.25-5.35GHz	802.11be EHT80	80	2TX
5.47-5.725GHz	802.11be EHT80	80	2TX
5.725-5.85GHz	802.11be EHT80	80	2TX
5.15-5.25GHz	802.11be EHT160	160	2TX
5.25-5.35GHz	802.11be EHT160	160	2TX
5.47-5.725GHz	802.11be EHT160	160	2TX

**Non-Beamforming_Radio 2_MIMO-directional Antenna_1T1S**

Band	Mode	BWch	Nant
5.15-5.25GHz	802.11a	20	1TX
5.25-5.35GHz	802.11a	20	1TX
5.47-5.725GHz	802.11a	20	1TX
5.725-5.85GHz	802.11a	20	1TX
5.15-5.25GHz	802.11be EHT20	20	1TX
5.25-5.35GHz	802.11be EHT20	20	1TX
5.47-5.725GHz	802.11be EHT20	20	1TX
5.725-5.85GHz	802.11be EHT20	20	1TX
5.15-5.25GHz	802.11be EHT40	40	1TX
5.25-5.35GHz	802.11be EHT40	40	1TX
5.47-5.725GHz	802.11be EHT40	40	1TX
5.725-5.85GHz	802.11be EHT40	40	1TX
5.15-5.25GHz	802.11be EHT80	80	1TX
5.25-5.35GHz	802.11be EHT80	80	1TX
5.47-5.725GHz	802.11be EHT80	80	1TX
5.725-5.85GHz	802.11be EHT80	80	1TX
5.15-5.25GHz	802.11be EHT160	160	1TX
5.25-5.35GHz	802.11be EHT160	160	1TX
5.47-5.725GHz	802.11be EHT160	160	1TX

Non-Beamforming_Radio 2_MIMO-directional Antenna_2T1S

Band	Mode	BWch	Nant
5.15-5.25GHz	802.11a	20	2TX
5.25-5.35GHz	802.11a	20	2TX
5.47-5.725GHz	802.11a	20	2TX
5.725-5.85GHz	802.11a	20	2TX
5.15-5.25GHz	802.11be EHT20	20	2TX
5.25-5.35GHz	802.11be EHT20	20	2TX
5.47-5.725GHz	802.11be EHT20	20	2TX
5.725-5.85GHz	802.11be EHT20	20	2TX
5.15-5.25GHz	802.11be EHT40	40	2TX
5.25-5.35GHz	802.11be EHT40	40	2TX
5.47-5.725GHz	802.11be EHT40	40	2TX
5.725-5.85GHz	802.11be EHT40	40	2TX
5.15-5.25GHz	802.11be EHT80	80	2TX
5.25-5.35GHz	802.11be EHT80	80	2TX
5.47-5.725GHz	802.11be EHT80	80	2TX
5.725-5.85GHz	802.11be EHT80	80	2TX
5.15-5.25GHz	802.11be EHT160	160	2TX
5.25-5.35GHz	802.11be EHT160	160	2TX
5.47-5.725GHz	802.11be EHT160	160	2TX

**Non-Beamforming_Radio 2_MIMO-directional Antenna_2T2S**

Band	Mode	BWch	Nant
5.15-5.25GHz	802.11be EHT20	20	2TX
5.25-5.35GHz	802.11be EHT20	20	2TX
5.47-5.725GHz	802.11be EHT20	20	2TX
5.725-5.85GHz	802.11be EHT20	20	2TX
5.15-5.25GHz	802.11be EHT40	40	2TX
5.25-5.35GHz	802.11be EHT40	40	2TX
5.47-5.725GHz	802.11be EHT40	40	2TX
5.725-5.85GHz	802.11be EHT40	40	2TX
5.15-5.25GHz	802.11be EHT80	80	2TX
5.25-5.35GHz	802.11be EHT80	80	2TX
5.47-5.725GHz	802.11be EHT80	80	2TX
5.725-5.85GHz	802.11be EHT80	80	2TX
5.15-5.25GHz	802.11be EHT160	160	2TX
5.25-5.35GHz	802.11be EHT160	160	2TX
5.47-5.725GHz	802.11be EHT160	160	2TX

Non-Beamforming_Radio 3_Dipole Antenna_1T1S

Band	Mode	BWch	Nant
5.15-5.25GHz	802.11a	20	1TX
5.25-5.35GHz	802.11a	20	1TX
5.15-5.25GHz	802.11be EHT20	20	1TX
5.25-5.35GHz	802.11be EHT20	20	1TX
5.15-5.25GHz	802.11be EHT40	40	1TX
5.25-5.35GHz	802.11be EHT40	40	1TX
5.15-5.25GHz	802.11be EHT80	80	1TX
5.25-5.35GHz	802.11be EHT80	80	1TX

Non-Beamforming_Radio 3_Dipole Antenna_2T1S

Band	Mode	BWch	Nant
5.15-5.25GHz	802.11a	20	2TX
5.25-5.35GHz	802.11a	20	2TX
5.15-5.25GHz	802.11be EHT20	20	2TX
5.25-5.35GHz	802.11be EHT20	20	2TX
5.15-5.25GHz	802.11be EHT40	40	2TX
5.25-5.35GHz	802.11be EHT40	40	2TX
5.15-5.25GHz	802.11be EHT80	80	2TX
5.25-5.35GHz	802.11be EHT80	80	2TX

**Non-Beamforming_Radio 3_Dipole Antenna_2T2S**

Band	Mode	BWch	Nant
5.15-5.25GHz	802.11be EHT20	20	2TX
5.25-5.35GHz	802.11be EHT20	20	2TX
5.15-5.25GHz	802.11be EHT40	40	2TX
5.25-5.35GHz	802.11be EHT40	40	2TX
5.15-5.25GHz	802.11be EHT80	80	2TX
5.25-5.35GHz	802.11be EHT80	80	2TX

Non-Beamforming_Radio 3_Dual-Polarized MIMO Panel Antenna_1T1S

Band	Mode	BWch	Nant
5.15-5.25GHz	802.11a	20	1TX
5.25-5.35GHz	802.11a	20	1TX
5.15-5.25GHz	802.11be EHT20	20	1TX
5.25-5.35GHz	802.11be EHT20	20	1TX
5.15-5.25GHz	802.11be EHT40	40	1TX
5.25-5.35GHz	802.11be EHT40	40	1TX
5.15-5.25GHz	802.11be EHT80	80	1TX
5.25-5.35GHz	802.11be EHT80	80	1TX

Non-Beamforming_Radio 3_Dual-Polarized MIMO Panel Antenna_2T1S

Band	Mode	BWch	Nant
5.15-5.25GHz	802.11a	20	2TX
5.25-5.35GHz	802.11a	20	2TX
5.15-5.25GHz	802.11be EHT20	20	2TX
5.25-5.35GHz	802.11be EHT20	20	2TX
5.15-5.25GHz	802.11be EHT40	40	2TX
5.25-5.35GHz	802.11be EHT40	40	2TX
5.15-5.25GHz	802.11be EHT80	80	2TX
5.25-5.35GHz	802.11be EHT80	80	2TX

Non-Beamforming_Radio 3_Dual-Polarized MIMO Panel Antenna_2T2S

Band	Mode	BWch	Nant
5.15-5.25GHz	802.11be EHT20	20	2TX
5.25-5.35GHz	802.11be EHT20	20	2TX
5.15-5.25GHz	802.11be EHT40	40	2TX
5.25-5.35GHz	802.11be EHT40	40	2TX
5.15-5.25GHz	802.11be EHT80	80	2TX
5.25-5.35GHz	802.11be EHT80	80	2TX

**Non-Beamforming_Radio 3 MIMO-directional Antenna_1T1S**

Band	Mode	BWch	Nant
5.15-5.25GHz	802.11a	20	1TX
5.25-5.35GHz	802.11a	20	1TX
5.15-5.25GHz	802.11be EHT20	20	1TX
5.25-5.35GHz	802.11be EHT20	20	1TX
5.15-5.25GHz	802.11be EHT40	40	1TX
5.25-5.35GHz	802.11be EHT40	40	1TX
5.15-5.25GHz	802.11be EHT80	80	1TX
5.25-5.35GHz	802.11be EHT80	80	1TX

Non-Beamforming_Radio 3 MIMO-directional Antenna_2T1S

Band	Mode	BWch	Nant
5.15-5.25GHz	802.11a	20	2TX
5.25-5.35GHz	802.11a	20	2TX
5.15-5.25GHz	802.11be EHT20	20	2TX
5.25-5.35GHz	802.11be EHT20	20	2TX
5.15-5.25GHz	802.11be EHT40	40	2TX
5.25-5.35GHz	802.11be EHT40	40	2TX
5.15-5.25GHz	802.11be EHT80	80	2TX
5.25-5.35GHz	802.11be EHT80	80	2TX

Non-Beamforming_Radio 3 MIMO-directional Antenna_2T2S

Band	Mode	BWch	Nant
5.15-5.25GHz	802.11be EHT20	20	2TX
5.25-5.35GHz	802.11be EHT20	20	2TX
5.15-5.25GHz	802.11be EHT40	40	2TX
5.25-5.35GHz	802.11be EHT40	40	2TX
5.15-5.25GHz	802.11be EHT80	80	2TX
5.25-5.35GHz	802.11be EHT80	80	2TX

**Beamforming_Radio 2_Dipole Antenna**

Band	Mode	BWch	Nant
5.15-5.25GHz	802.11be EHT20-BF	20	2TX
5.25-5.35GHz	802.11be EHT20-BF	20	2TX
5.47-5.725GHz	802.11be EHT20-BF	20	2TX
5.725-5.85GHz	802.11be EHT20-BF	20	2TX
5.15-5.25GHz	802.11be EHT40-BF	40	2TX
5.25-5.35GHz	802.11be EHT40-BF	40	2TX
5.47-5.725GHz	802.11be EHT40-BF	40	2TX
5.725-5.85GHz	802.11be EHT40-BF	40	2TX
5.15-5.25GHz	802.11be EHT80-BF	80	2TX
5.25-5.35GHz	802.11be EHT80-BF	80	2TX
5.47-5.725GHz	802.11be EHT80-BF	80	2TX
5.725-5.85GHz	802.11be EHT80-BF	80	2TX
5.15-5.25GHz	802.11be EHT160-BF	160	2TX
5.25-5.35GHz	802.11be EHT160-BF	160	2TX
5.47-5.725GHz	802.11be EHT160-BF	160	2TX

Beamforming_Radio 2_Dual-Polarized MIMO Panel Antenna

Band	Mode	BWch	Nant
5.15-5.25GHz	802.11be EHT20-BF	20	2TX
5.25-5.35GHz	802.11be EHT20-BF	20	2TX
5.47-5.725GHz	802.11be EHT20-BF	20	2TX
5.725-5.85GHz	802.11be EHT20-BF	20	2TX
5.15-5.25GHz	802.11be EHT40-BF	40	2TX
5.25-5.35GHz	802.11be EHT40-BF	40	2TX
5.47-5.725GHz	802.11be EHT40-BF	40	2TX
5.725-5.85GHz	802.11be EHT40-BF	40	2TX
5.15-5.25GHz	802.11be EHT80-BF	80	2TX
5.25-5.35GHz	802.11be EHT80-BF	80	2TX
5.47-5.725GHz	802.11be EHT80-BF	80	2TX
5.725-5.85GHz	802.11be EHT80-BF	80	2TX
5.15-5.25GHz	802.11be EHT160-BF	160	2TX
5.25-5.35GHz	802.11be EHT160-BF	160	2TX
5.47-5.725GHz	802.11be EHT160-BF	160	2TX

**Beamforming_Radio 2_MIMO-directional Antenna**

Band	Mode	BWch	Nant
5.15-5.25GHz	802.11be EHT20-BF	20	2TX
5.25-5.35GHz	802.11be EHT20-BF	20	2TX
5.47-5.725GHz	802.11be EHT20-BF	20	2TX
5.725-5.85GHz	802.11be EHT20-BF	20	2TX
5.15-5.25GHz	802.11be EHT40-BF	40	2TX
5.25-5.35GHz	802.11be EHT40-BF	40	2TX
5.47-5.725GHz	802.11be EHT40-BF	40	2TX
5.725-5.85GHz	802.11be EHT40-BF	40	2TX
5.15-5.25GHz	802.11be EHT80-BF	80	2TX
5.25-5.35GHz	802.11be EHT80-BF	80	2TX
5.47-5.725GHz	802.11be EHT80-BF	80	2TX
5.725-5.85GHz	802.11be EHT80-BF	80	2TX
5.15-5.25GHz	802.11be EHT160-BF	160	2TX
5.25-5.35GHz	802.11be EHT160-BF	160	2TX
5.47-5.725GHz	802.11be EHT160-BF	160	2TX

Beamforming_Radio 3_Dipole Antenna

Band	Mode	BWch	Nant
5.15-5.25GHz	802.11be EHT20-BF	20	2TX
5.25-5.35GHz	802.11be EHT20-BF	20	2TX
5.15-5.25GHz	802.11be EHT40-BF	40	2TX
5.25-5.35GHz	802.11be EHT40-BF	40	2TX
5.15-5.25GHz	802.11be EHT80-BF	80	2TX
5.25-5.35GHz	802.11be EHT80-BF	80	2TX

Beamforming_Radio 3_Dual-Polarized MIMO Panel Antenna

Band	Mode	BWch	Nant
5.15-5.25GHz	802.11be EHT20-BF	20	2TX
5.25-5.35GHz	802.11be EHT20-BF	20	2TX
5.15-5.25GHz	802.11be EHT40-BF	40	2TX
5.25-5.35GHz	802.11be EHT40-BF	40	2TX
5.15-5.25GHz	802.11be EHT80-BF	80	2TX
5.25-5.35GHz	802.11be EHT80-BF	80	2TX

Beamforming_Radio 3_MIMO-directional Antenna

Band	Mode	BWch	Nant
5.15-5.25GHz	802.11be EHT20-BF	20	2TX
5.25-5.35GHz	802.11be EHT20-BF	20	2TX
5.15-5.25GHz	802.11be EHT40-BF	40	2TX
5.25-5.35GHz	802.11be EHT40-BF	40	2TX
5.15-5.25GHz	802.11be EHT80-BF	80	2TX
5.25-5.35GHz	802.11be EHT80-BF	80	2TX

**Non-Beamforming_Radio1_Scan**

Band	Mode	BWch	Nant
5.15-5.25GHz	a20	20	1TX
5.25-5.35GHz	a20	20	1TX
5.47-5.725GHz	a20	20	1TX
5.725-5.85GHz	a20	20	1TX
5.15-5.25GHz	a40	40	1TX
5.25-5.35GHz	a40	40	1TX
5.47-5.725GHz	a40	40	1TX
5.725-5.85GHz	a40	40	1TX
5.15-5.25GHz	a80	80	1TX
5.25-5.35GHz	a80	80	1TX
5.47-5.725GHz	a80	80	1TX
5.725-5.85GHz	a80	80	1TX
5.15-5.25GHz	a160	160	1TX
5.25-5.35GHz	a160	160	1TX
5.47-5.725GHz	a160	160	1TX

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 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.
- ♦ Evaluated EHT20/EHT40/EHT80/EHT160 mode only due to the similar modulation. The power setting of HT20/HT40/VHT20/VHT40/VHT80/VHT160/HEW20/HEW40/HEW80/HEW160 mode are the same or lower than EHT20/EHT40/EHT80/EHT160.

**1.1.2 Antenna Information**

Ant.	Brand	Model Name	Antenna Type	Connector	Support	Radio
1	AWAN	AW135SM003	Dipole	Reverse SMA	2.4G+5G	Radio 1_2.4G
						Radio 2_5G
2	AWAN	AW135SM003	Dipole	Reverse SMA	2.4G+5G	Radio 1_2.4G
						Radio 2_5G
3	AWAN	AW135SM003	Dipole	Reverse SMA	5G	Radio 3_5G
4	AWAN	AW135SM003	Dipole	Reverse SMA	5G+BT	Radio 3_5G
						BLE_chain 0 External
5	AWAN	AW158SM001-00	Dipole	I-Pex	6G	Radio 3_6G
6	AWAN	AW158SM001-00	Dipole	I-Pex	6G	Radio 3_6G
7	Sercomm	6172005QWA03	PIFA	I-Pex	2.4G+5G+6G	Radio 1_Scan
8	Sercomm	6172005QWA08	PIFA	I-Pex	BT	BLE_chain 0 Internal
9	Sercomm	6172005QWA09	PIFA	I-Pex	BT	BLE_chain 1_H
10	Sercomm	6172005QWA10	PIFA	I-Pex	BT	BLE_chain 1_V
11	Sercomm	6172005QWA11	PIFA	I-Pex	GPS	N/A
12	Extreme	WX4PB6508R	Dual-Polarized MIMO Panel	Reverse SMA	2.4G+5G+BT	Radio 1_2.4G
						Radio 2_5G
						Radio 3_5G
						BLE_chain 0 External
13	Extreme	AIO-DQ15021	MIMO-directional	Reverse SMA	2.4G+5G+BT	Radio 1_2.4G
						Radio 2_5G
						Radio 3_5G
						BLE_chain 0 External



Ant.	Port	Gain (dBi)												
		2.4G	5G				6G				BT0 External	BT0 Internal	BT1-H	BT1-V
			UNII-1	UNII-2A	UNII-2C	UNII-3	UNII-5	UNII-6	UNII-7	UNII-8				
1	1	3.14	5.19	5.33	5.29	5.16	-	-	-	-	-	-	-	-
2	2	3.14	5.19	5.33	5.29	5.16	-	-	-	-	-	-	-	-
3	1	-	5.19	5.33	-	-	-	-	-	-	-	-	-	-
4	2	-	5.19	5.33	-	-	-	-	-	-	3.14	-	-	-
5	1	-	-	-	-	-	5.13	4.95	5.36	5.44	-	-	-	-
6	2	-	-	-	-	-	5.13	4.95	5.36	5.44	-	-	-	-
7	1	4.5	5	5	5	5	5	5	5	5	-	-	-	-
8	1	-	-	-	-	-	-	-	-	-	-	4.9	-	-
9	1	-	-	-	-	-	-	-	-	-	-	-	4.1	
10	2	-	-	-	-	-	-	-	-	-	-	-	-	3.7
11	1	-	-	-	-	-	-	-	-	-	-	-	-	-
12-1	1	8	8	8	8	8	-	-	-	-	-	-	-	-
12-2	2	8	8	8	8	8	-	-	-	-	-	-	-	-
12-3	1	-	8	8	-	-	-	-	-	-	-	-	-	-
12-4	2	-	8	8	-	-	-	-	-	-	8	-	-	-
13-1	1	11.1	15	15	15	15	-	-	-	-	-	-	-	-
13-2	2	11.1	15	15	15	15	-	-	-	-	-	-	-	-
13-3	1	-	15	15	-	-	-	-	-	-	-	-	-	-
13-4	2	-	15	15	-	-	-	-	-	-	11.1	-	-	-

Note 1: The EUT has thirteen antennas.

For 2.4GHz function:

For IEEE 802.11 b/g/n/VHT/ax/be mode (1TX/2RX) (Radio 1)

Ant. 1 (port 1) could transmit/receive.

Ant. 12-1 (port 1) could transmit/receive.

Ant. 13-1 (port 1) could transmit/receive

For IEEE 802.11 b/g/n/VHT/ax/be mode (2TX/2RX) (Radio 1)

Ant. 1 (port 1) and Ant. 2 (port 2) could transmit/receive simultaneously.

Ant. 12-1 (port 1) and Ant. 12-2 (port 2) could transmit/receive simultaneously.

Ant. 13-1 (port 1) and Ant. 13-2 (port 2) could transmit/receive simultaneously.

For b20, g20 mode (1TX/1RX) (Radio 1_Scan)

Ant. 7 (port 1) could transmit/receive.

**For 5GHz function:**

For IEEE 802.11 a/n/ac/ax/be mode (1TX/2RX) (Radio 2)

Ant. 1 (port 1) could transmit/receive.

Ant. 12-1 (port 1) could transmit/receive.

Ant. 13-1 (port 1) could transmit/receive.

For IEEE 802.11 a/n/ac/ax/be mode (2TX/2RX) (Radio 2)

Ant. 1 (port 1) and Ant. 2 (port 2) could transmit/receive simultaneously.

Ant. 12-1 (port 1) and Ant. 12-2 (port 2) could transmit/receive simultaneously.

Ant. 13-1 (port 1) and Ant. 13-2 (port 2) could transmit/receive simultaneously.

For IEEE 802.11 a/n/ac/ax/be mode (1TX/2RX) (Radio 3)

Ant. 3 (port 1) could transmit/receive.

Ant. 12-3 (port 1) could transmit/receive.

Ant. 13-3 (port 1) could transmit/receive.

For IEEE 802.11 a/n/ac/ax/be mode (2TX/2RX) (Radio 3)

Ant. 3 (port 1) and Ant. 4 (port 2) could transmit/receive simultaneously.

Ant. 12-3 (port 1) and Ant. 12-4 (port 2) could transmit/receive simultaneously.

Ant. 13-3 (port 1) and Ant. 13-4 (port 2) could transmit/receive simultaneously.

For a20, a40, a80, a160 (1TX/1RX) (Radio 1_Scan)

Ant. 7 (port 1) could transmit/receive.

For BT function:

For IEEE 802.15.1 Bluetooth mode (1TX/1RX) (Chain 0)

Ant. 4 (port 2) could transmit/receive.

Ant. 8 (port 1) could transmit/receive.

Ant. 12-4 (port 2) could transmit/receive.

Ant. 13-4 (port 2) could transmit/receive.

For IEEE 802.15.1 Bluetooth mode (1TX/2RX) (Chain 1)

Ant. 9 (port 1) or Ant. 10 (port 2) could transmit/receive

Support diversity function and pre-tested on each single chain, the worst case was Ant. 9 (port 1) and it was recorded in this test report.

For 6GHz function:

For IEEE 802.11 a/ax/be mode (1TX/2RX) (Radio3)

Ant. 5 (port 1) could transmit/receive.

For IEEE 802.11 a/ax/be mode (2TX/2RX) (Radio 3)

Ant. 5 (port 1) and Ant. 6 (port 2) could transmit/receive simultaneously.

For 11a20, 11a40, 11a80, 11a160 (1TX/1RX) (Radio 1_Scan)

Ant. 7 (port 1) could transmit/receive.

Note 2: Directional gain information

	Maximum Output Power	Power Spectral Density
Non-BF	Directional gain = Max.gain + array gain. For power measurements on IEEE 802.11 devices Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$	$DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right]$
BF	$DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right]$	$DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right]$

1.1.3 EUT Information

Operational Condition			
EUT Power Type	From AC Adapter / PoE		
EUT Function	☐	Outdoor AP	☒ Indoor AP
	☐	Fixed P2P AP	☐ Client
	☐ OEM Device installed in vehicle		
Beamforming Function	☒	With beamforming	☐ Without beamforming
TPC Function	☒	With TPC Function	☐ Without TPC Function
Weather Band	☒	With 5600~5650MHz	☐ Without 5600~5650MHz
Resource Unit	☒	Full RU	☐ Partial RU
	☐	MRU(static preamble puncturing)	☐ MRU(dynamic preamble puncturing)
Type of EUT			
☒	Stand-alone		
☐	Combined (EUT where the radio part is fully integrated within another device)		
	Combined Equipment - Brand Name / Model No.:		...
☐	Plug-in radio (EUT intended for a variety of host systems)		
	Host System - Brand Name / Model No.:		
☐	Other:		

1.1.4 Table for Permissive Change

This product is an extension of original one reported under Sporton project number: FR462705AN

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

Modifications	Performance Checking
Model name was added. (AP4020X) (Wi-Fi Antenna change to External Antenna)	All test items.

1.1.5 Mode Test Duty Cycle

Non-Beamforming_Radio 2_Dipole Antenna_1T1S

Mode	DC	DCF (dB)	T (s)	VBW (Hz)_1/T
802.11a_Nss1,(6Mbps)_1TX	0.990	0.04	3.012m	10Hz (DC>=0.98)
802.11be EHT20_Nss1,(MCS0)_1TX	0.989	0.05	2.869m	10Hz (DC>=0.98)
802.11be EHT40_Nss1,(MCS0)_1TX	0.99	0.04	2.853m	10Hz (DC>=0.98)
802.11be EHT80_Nss1,(MCS0)_1TX	0.989	0.05	2.847m	10Hz (DC>=0.98)
802.11be EHT160_Nss1,(MCS0)_1TX	0.981	0.08	1.913m	10Hz (DC>=0.98)

Note. If DC < 0.98, the DCF was added while measuring Output power and PSD.

Non-Beamforming_Radio 2_Dipole Antenna_2T1S

Mode	DC	DCF (dB)	T (s)	VBW (Hz)_1/T
802.11a_Nss1,(6Mbps)_2TX	0.990	0.04	3.012m	10Hz (DC>=0.98)
802.11be EHT20_Nss1,(MCS0)_2TX	0.989	0.05	2.869m	10Hz (DC>=0.98)
802.11be EHT40_Nss1,(MCS0)_2TX	0.989	0.05	2.853m	10Hz (DC>=0.98)
802.11be EHT80_Nss1,(MCS0)_2TX	0.989	0.05	2.847m	10Hz (DC>=0.98)
802.11be EHT160_Nss1,(MCS0)_2TX	0.982	0.08	1.913m	10Hz (DC>=0.98)

Note. If DC < 0.98, the DCF was added while measuring Output power and PSD.

Non-Beamforming_Radio 2_Dipole Antenna_2T2S

Mode	DC	DCF (dB)	T (s)	VBW (Hz)_1/T
802.11be EHT20_Nss2,(MCS0)_2TX	0.989	0.05	2.856m	10Hz (DC>=0.98)
802.11be EHT40_Nss2,(MCS0)_2TX	0.989	0.05	2.85m	10Hz (DC>=0.98)
802.11be EHT80_Nss2,(MCS0)_2TX	0.989	0.05	2.85m	10Hz (DC>=0.98)
802.11be EHT160_Nss2,(MCS0)_2TX	0.989	0.05	2.85m	10Hz (DC>=0.98)

Note. If DC < 0.98, the DCF was added while measuring Output power and PSD.

Non-Beamforming_Radio 2_Dual-Polarized MIMO Panel Antenna_1T1S

Mode	DC	DCF (dB)	T (s)	VBW (Hz)_1/T
802.11a_Nss1,(6Mbps)_1TX	0.990	0.04	3.011m	10Hz (DC>=0.98)
802.11be EHT20_Nss1,(MCS0)_1TX	0.989	0.05	2.867m	10Hz (DC>=0.98)
802.11be EHT40_Nss1,(MCS0)_1TX	0.989	0.05	2.853m	10Hz (DC>=0.98)
802.11be EHT80_Nss1,(MCS0)_1TX	0.989	0.05	2.847m	10Hz (DC>=0.98)
802.11be EHT160_Nss1,(MCS0)_1TX	0.981	0.08	1.913m	10Hz (DC>=0.98)

Note. If DC < 0.98, the DCF was added while measuring Output power and PSD.

Non-Beamforming_Radio 2_Dual-Polarized MIMO Panel Antenna_2T1S

Mode	DC	DCF (dB)	T (s)	VBW (Hz)_1/T
802.11a_Nss1,(6Mbps)_2TX	0.990	0.04	3.012m	10Hz (DC>=0.98)
802.11be EHT20_Nss1,(MCS0)_2TX	0.989	0.05	2.867m	10Hz (DC>=0.98)
802.11be EHT40_Nss1,(MCS0)_2TX	0.99	0.04	2.853m	10Hz (DC>=0.98)
802.11be EHT80_Nss1,(MCS0)_2TX	0.99	0.04	2.847m	10Hz (DC>=0.98)
802.11be EHT160_Nss1,(MCS0)_2TX	0.981	0.08	1.909m	10Hz (DC>=0.98)

Note. If DC < 0.98, the DCF was added while measuring Output power and PSD.

Non-Beamforming_Radio 2_Dual-Polarized MIMO Panel Antenna_2T2S

Mode	DC	DCF (dB)	T (s)	VBW (Hz)_1/T
802.11be EHT20_Nss2,(MCS0)_2TX	0.989	0.05	2.856m	10Hz (DC>=0.98)
802.11be EHT40_Nss2,(MCS0)_2TX	0.989	0.05	2.85m	10Hz (DC>=0.98)
802.11be EHT80_Nss2,(MCS0)_2TX	0.989	0.05	2.85m	10Hz (DC>=0.98)
802.11be EHT160_Nss2,(MCS0)_2TX	0.989	0.05	2.85m	10Hz (DC>=0.98)

Note. If DC < 0.98, the DCF was added while measuring Output power and PSD.

Non-Beamforming_Radio 2_MIMO-directional Antenna_1T1S

Mode	DC	DCF (dB)	T (s)	VBW (Hz)_1/T
802.11a_Nss1,(6Mbps)_1TX	0.990	0.04	3.011m	10Hz (DC>=0.98)
802.11be EHT20_Nss1,(MCS0)_1TX	0.989	0.05	2.867m	10Hz (DC>=0.98)
802.11be EHT40_Nss1,(MCS0)_1TX	0.989	0.05	2.853m	10Hz (DC>=0.98)
802.11be EHT80_Nss1,(MCS0)_1TX	0.989	0.05	2.847m	10Hz (DC>=0.98)
802.11be EHT160_Nss1,(MCS0)_1TX	0.981	0.08	1.913m	10Hz (DC>=0.98)

Note. If DC < 0.98, the DCF was added while measuring Output power and PSD.

Non-Beamforming_Radio 2_MIMO-directional Antenna_2T1S

Mode	DC	DCF (dB)	T (s)	VBW (Hz)_1/T
802.11a_Nss1,(6Mbps)_2TX	0.990	0.04	3.012m	10Hz (DC>=0.98)
802.11be EHT20_Nss1,(MCS0)_2TX	0.989	0.05	2.867m	10Hz (DC>=0.98)
802.11be EHT40_Nss1,(MCS0)_2TX	0.99	0.04	2.853m	10Hz (DC>=0.98)
802.11be EHT80_Nss1,(MCS0)_2TX	0.99	0.04	2.847m	10Hz (DC>=0.98)
802.11be EHT160_Nss1,(MCS0)_2TX	0.981	0.08	1.909m	10Hz (DC>=0.98)

Note. If DC < 0.98, the DCF was added while measuring Output power and PSD.

**Non-Beamforming_Radio 2_MIMO-directional Antenna_2T2S**

Mode	DC	DCF (dB)	T (s)	VBW (Hz)_1/T
802.11be EHT20_Nss2,(MCS0)_2TX	0.989	0.05	2.856m	10Hz (DC>=0.98)
802.11be EHT40_Nss2,(MCS0)_2TX	0.989	0.05	2.85m	10Hz (DC>=0.98)
802.11be EHT80_Nss2,(MCS0)_2TX	0.989	0.05	2.85m	10Hz (DC>=0.98)
802.11be EHT160_Nss2,(MCS0)_2TX	0.989	0.05	2.85m	10Hz (DC>=0.98)

Note. If DC < 0.98, the DCF was added while measuring Output power and PSD.

Non-Beamforming_Radio 3_Dipole Antenna_1T1S

Mode	DC	DCF (dB)	T (s)	VBW (Hz)_1/T
802.11a_Nss1,(6Mbps)_1TX	0.990	0.04	3.012m	10Hz (DC>=0.98)
802.11be EHT20_Nss1,(MCS0)_1TX	0.989	0.05	2.869m	10Hz (DC>=0.98)
802.11be EHT40_Nss1,(MCS0)_1TX	0.989	0.05	2.853m	10Hz (DC>=0.98)
802.11be EHT80_Nss1,(MCS0)_1TX	0.989	0.05	2.847m	10Hz (DC>=0.98)

Note. If DC < 0.98, the DCF was added while measuring Output power and PSD.

Non-Beamforming_Radio 3_Dipole Antenna_2T1S

Mode	DC	DCF (dB)	T (s)	VBW (Hz)_1/T
802.11a_Nss1,(6Mbps)_2TX	0.990	0.04	3.012m	10Hz (DC>=0.98)
802.11be EHT20_Nss1,(MCS0)_2TX	0.989	0.05	2.869m	10Hz (DC>=0.98)
802.11be EHT40_Nss1,(MCS0)_2TX	0.989	0.05	2.853m	10Hz (DC>=0.98)
802.11be EHT80_Nss1,(MCS0)_2TX	0.989	0.05	2.847m	10Hz (DC>=0.98)

Note. If DC < 0.98, the DCF was added while measuring Output power and PSD.

Non-Beamforming_Radio 3_Dipole Antenna_2T2S

Mode	DC	DCF (dB)	T (s)	VBW (Hz)_1/T
802.11be EHT20_Nss2,(MCS0)_2TX	0.989	0.05	2.856m	10Hz (DC>=0.98)
802.11be EHT40_Nss2,(MCS0)_2TX	0.989	0.05	2.85m	10Hz (DC>=0.98)
802.11be EHT80_Nss2,(MCS0)_2TX	0.979	0.09	1.466m	1k

Note. If DC < 0.98, the DCF was added while measuring Output power and PSD.

Non-Beamforming_Radio 3_Dual-Polarized MIMO Panel Antenna_1T1S

Mode	DC	DCF (dB)	T (s)	VBW (Hz)_1/T
802.11a_Nss1,(6Mbps)_1TX	0.990	0.04	3.012m	10Hz (DC>=0.98)
802.11be EHT20_Nss1,(MCS0)_1TX	0.989	0.05	2.869m	10Hz (DC>=0.98)
802.11be EHT40_Nss1,(MCS0)_1TX	0.989	0.05	2.853m	10Hz (DC>=0.98)
802.11be EHT80_Nss1,(MCS0)_1TX	0.989	0.05	2.847m	10Hz (DC>=0.98)

Note. If DC < 0.98, the DCF was added while measuring Output power and PSD.

**Non-Beamforming_Radio 3_Dual-Polarized MIMO Panel Antenna_2T1S**

Mode	DC	DCF (dB)	T (s)	VBW (Hz)_1/T
802.11a_Nss1,(6Mbps)_2TX	0.990	0.04	3.012m	10Hz (DC>=0.98)
802.11be EHT20_Nss1,(MCS0)_2TX	0.989	0.05	2.869m	10Hz (DC>=0.98)
802.11be EHT40_Nss1,(MCS0)_2TX	0.989	0.05	2.853m	10Hz (DC>=0.98)
802.11be EHT80_Nss1,(MCS0)_2TX	0.989	0.05	2.847m	10Hz (DC>=0.98)

Note. If DC < 0.98, the DCF was added while measuring Output power and PSD.

Non-Beamforming_Radio 3_Dual-Polarized MIMO Panel Antenna_2T2S

Mode	DC	DCF (dB)	T (s)	VBW (Hz)_1/T
802.11be EHT20_Nss2,(MCS0)_2TX	0.989	0.05	2.856m	10Hz (DC>=0.98)
802.11be EHT40_Nss2,(MCS0)_2TX	0.989	0.05	2.85m	10Hz (DC>=0.98)
802.11be EHT80_Nss2,(MCS0)_2TX	0.979	0.09	1.466m	1k

Note. If DC < 0.98, the DCF was added while measuring Output power and PSD.

Non-Beamforming_Radio 3_MIMO-directional Antenna_1T1S

Mode	DC	DCF (dB)	T (s)	VBW (Hz)_1/T
802.11a_Nss1,(6Mbps)_1TX	0.990	0.04	3.012m	10Hz (DC>=0.98)
802.11be EHT20_Nss1,(MCS0)_1TX	0.989	0.05	2.869m	10Hz (DC>=0.98)
802.11be EHT40_Nss1,(MCS0)_1TX	0.989	0.05	2.853m	10Hz (DC>=0.98)
802.11be EHT80_Nss1,(MCS0)_1TX	0.989	0.05	2.847m	10Hz (DC>=0.98)

Note. If DC < 0.98, the DCF was added while measuring Output power and PSD.

Non-Beamforming_Radio 3_MIMO-directional Antenna_2T1S

Mode	DC	DCF (dB)	T (s)	VBW (Hz)_1/T
802.11a_Nss1,(6Mbps)_2TX	0.990	0.04	3.012m	10Hz (DC>=0.98)
802.11be EHT20_Nss1,(MCS0)_2TX	0.989	0.05	2.869m	10Hz (DC>=0.98)
802.11be EHT40_Nss1,(MCS0)_2TX	0.989	0.05	2.853m	10Hz (DC>=0.98)
802.11be EHT80_Nss1,(MCS0)_2TX	0.989	0.05	2.847m	10Hz (DC>=0.98)

Note. If DC < 0.98, the DCF was added while measuring Output power and PSD.

Non-Beamforming_Radio 3_MIMO-directional Antenna_2T2S

Mode	DC	DCF (dB)	T (s)	VBW (Hz)_1/T
802.11be EHT20_Nss2,(MCS0)_2TX	0.989	0.05	2.856m	10Hz (DC>=0.98)
802.11be EHT40_Nss2,(MCS0)_2TX	0.989	0.05	2.85m	10Hz (DC>=0.98)
802.11be EHT80_Nss2,(MCS0)_2TX	0.979	0.09	1.466m	1k

Note. If DC < 0.98, the DCF was added while measuring Output power and PSD.

**Beamforming_Radio 2 Dipole Antenna**

Mode	DC	DCF (dB)	T (s)	VBW (Hz)_1/T
802.11be EHT20-BF_Nss1,(MCS0)_2TX	0.989	0.05	2.869m	10Hz (DC>=0.98)
802.11be EHT40-BF_Nss1,(MCS0)_2TX	0.989	0.05	2.853m	10Hz (DC>=0.98)
802.11be EHT80-BF_Nss1,(MCS0)_2TX	0.989	0.05	2.847m	10Hz (DC>=0.98)
802.11be EHT160-BF_Nss1,(MCS0)_2TX	0.982	0.08	1.913m	10Hz (DC>=0.98)

Note. If DC < 0.98, the DCF was added while measuring Output power and PSD.

Beamforming_Radio 2 Dual-Polarized MIMO Panel Antenna

Mode	DC	DCF (dB)	T (s)	VBW (Hz)_1/T
802.11be EHT20-BF_Nss1,(MCS0)_2TX	0.989	0.05	2.867m	10Hz (DC>=0.98)
802.11be EHT40-BF_Nss1,(MCS0)_2TX	0.990	0.04	2.853m	10Hz (DC>=0.98)
802.11be EHT80-BF_Nss1,(MCS0)_2TX	0.990	0.04	2.847m	10Hz (DC>=0.98)
802.11be EHT160-BF_Nss1,(MCS0)_2TX	0.981	0.08	1.909m	10Hz (DC>=0.98)

Note. If DC < 0.98, the DCF was added while measuring Output power and PSD.

Beamforming_Radio 2 MIMO-directional Antenna

Mode	DC	DCF (dB)	T (s)	VBW (Hz)_1/T
802.11be EHT20-BF_Nss1,(MCS0)_2TX	0.989	0.05	2.867m	10Hz (DC>=0.98)
802.11be EHT40-BF_Nss1,(MCS0)_2TX	0.990	0.04	2.853m	10Hz (DC>=0.98)
802.11be EHT80-BF_Nss1,(MCS0)_2TX	0.990	0.04	2.847m	10Hz (DC>=0.98)
802.11be EHT160-BF_Nss1,(MCS0)_2TX	0.981	0.08	1.909m	10Hz (DC>=0.98)

Note. If DC < 0.98, the DCF was added while measuring Output power and PSD.

Beamforming_Radio 3 Dipole Antenna

Mode	DC	DCF (dB)	T (s)	VBW (Hz)_1/T
802.11be EHT20-BF_Nss1,(MCS0)_2TX	0.989	0.05	2.869m	10Hz (DC>=0.98)
802.11be EHT40-BF_Nss1,(MCS0)_2TX	0.989	0.05	2.853m	10Hz (DC>=0.98)
802.11be EHT80-BF_Nss1,(MCS0)_2TX	0.989	0.05	2.847m	10Hz (DC>=0.98)

Note. If DC < 0.98, the DCF was added while measuring Output power and PSD.

Beamforming_Radio 3 Dual-Polarized MIMO Panel Antenna

Mode	DC	DCF (dB)	T (s)	VBW (Hz)_1/T
802.11be EHT20-BF_Nss1,(MCS0)_2TX	0.989	0.05	2.869m	10Hz (DC>=0.98)
802.11be EHT40-BF_Nss1,(MCS0)_2TX	0.989	0.05	2.853m	10Hz (DC>=0.98)
802.11be EHT80-BF_Nss1,(MCS0)_2TX	0.989	0.05	2.847m	10Hz (DC>=0.98)

Note. If DC < 0.98, the DCF was added while measuring Output power and PSD.

**Beamforming_Radio 3 MIMO-directional Antenna**

Mode	DC	DCF (dB)	T (s)	VBW (Hz) 1/T
802.11be EHT20-BF_Nss1,(MCS0)_2TX	0.989	0.05	2.869m	10Hz (DC>=0.98)
802.11be EHT40-BF_Nss1,(MCS0)_2TX	0.989	0.05	2.853m	10Hz (DC>=0.98)
802.11be EHT80-BF_Nss1,(MCS0)_2TX	0.989	0.05	2.847m	10Hz (DC>=0.98)

Note. If DC < 0.98, the DCF was added while measuring Output power and PSD.

Non-Beamforming_Radio1_Scan

Mode	DC	DCF (dB)	T (s)	VBW (Hz) 1/T
a20_Nss1,(6Mbps)_1TX	0.546	2.63	129.375u	10k
a40_Nss1,(6Mbps)_1TX	0.543	2.65	129.375u	10k
a80_Nss1,(6Mbps)_1TX	0.545	2.64	129.375u	10k
a160_Nss1,(6Mbps)_1TX	0.538	2.69	129.375u	10k

Note. If DC < 0.98, the DCF was added while measuring Output power and PSD.

1.2 Testing Applied 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
- ♦ KDB 789033 D02 v02r01

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

- ♦ KDB 662911 D01 v02r01
- ♦ KDB 414788 D01 v01r01

1.3 Testing Location Information

Test Lab. : Sporton International Inc. Hsinhua Laboratory				
☒ Hsinhua (TAF: 3785)	ADD: No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333411, Taiwan (R.O.C.)			
	TEL: 886-3-327-3456		FAX: 886-3-327-0973	
Test site Designation No. TW3785 with FCC.				
Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
AC Conduction	CO04-HY	Simon Cheng	22.5~24.6°C / 52~55%	08/May/2025~09/May/2025
RF Conducted (Radio 1 Scan)	TH07-HY	Xun Hsieh	21.8~23.9°C / 52~67%	16/Jan/2025~22/Apr/2025
Radiated (Radio 2_Band 4 TX Above 1GHz) + (Radio 1 Scan)	03CH02-HY	Vasari Huang	22.2~23.4°C / 50~52%	24/Jan/2025~24/Apr/2025
Radiated (Below 1GHz) (Radio 2,3)	03CH02-HY	Vasari Huang	19.9~21.0°C / 50~52%	23/Jan/2025~04/Mar/2025
Radiated (Co-location)	03CH02-HY	Vasari Huang	20.1~21.3°C / 52~56%	05/Feb/2025~07/Feb/2025
☒ Wenhua 3rd. (TAF: 3785)	ADD: No. 58, Aly. 75, Ln. 564, Wenhua 3rd Rd., Guishan Dist. Taoyuan City 333, Taiwan (R.O.C.)			
	TEL: 886-3-327-0868			
Test site Designation No. TW0036 with FCC.				
Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
RF Conducted (Radio 2,3)	TH06-HY	Johnny Yu	21.8~23.9°C / 55~63%	16/Jan/2025~05/Mar/2025
Radiated (Above 1GHz) (Radio 2 Band 1~3) (Radio 3)	03CH25-HY	Rian Chung	19.6~20.1°C / 52~55%	23/Jan/2025~14/Feb/2025

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
AC Power-line Conducted Emissions	4.53 dB	Confidence levels of 95%
Emission Bandwidth	3 MHz	Confidence levels of 95%
Maximum Conducted Output Power	2 dB	Confidence levels of 95%
Power Spectral Density	2 dB	Confidence levels of 95%
Unwanted Emissions	4.8 dB	Confidence levels of 95%
Temperature	0.41 °C	Confidence levels of 95%
Humidity	3.4 %	Confidence levels of 95%



2 Test Configuration of EUT

2.1 Test Channel Mode

Test Software Version	accessMTool_REL_3_3_0_4
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Non-Beamforming_Radio 2_Dipole Antenna_1T1S

Mode	Power Setting
802.11a_Nss1,(6Mbps)_1TX	-
5180MHz	80
5200MHz	80
5240MHz	80
5260MHz	80
5300MHz	80
5320MHz	80
5500MHz	80
5580MHz	80
5700MHz	71
5720MHz Straddle 5.47-5.725GHz	80
5720MHz Straddle 5.725-5.85GHz	80
5745MHz	80
5785MHz	80
5825MHz	80
802.11be EHT20_Nss1,(MCS0)_1TX	-
5180MHz	80
5200MHz	80
5240MHz	80
5260MHz	80
5300MHz	80
5320MHz	80
5500MHz	80
5580MHz	80
5700MHz	60
5720MHz Straddle 5.47-5.725GHz	80
5720MHz Straddle 5.725-5.85GHz	80
5745MHz	80
5785MHz	80
5825MHz	80
802.11be EHT40_Nss1,(MCS0)_1TX	-
5190MHz	80
5230MHz	80
5270MHz	80
5310MHz	80



5510MHz	79
5550MHz	80
5670MHz	80
5710MHz Straddle 5.47-5.725GHz	80
5710MHz Straddle 5.725-5.85GHz	80
5755MHz	80
5795MHz	80
802.11be EHT80_Nss1,(MCS0)_1TX	-
5210MHz	80
5290MHz	80
5530MHz	80
5610MHz	80
5690MHz Straddle 5.47-5.725GHz	80
5690MHz Straddle 5.725-5.85GHz	80
5775MHz	80
802.11be EHT160_Nss1,(MCS0)_1TX	-
5250MHz Straddle 5.15-5.25GHz	75
5250MHz Straddle 5.25-5.35GHz	75
5570MHz	70

Non-Beamforming_Radio 2_Dipole Antenna_2T1S

Mode	Power Setting
802.11a_Nss1,(6Mbps)_2TX	-
5180MHz	80
5200MHz	80
5240MHz	80
5260MHz	80
5300MHz	80
5320MHz	80
5500MHz	80
5580MHz	80
5700MHz	61
5720MHz Straddle 5.47-5.725GHz	80
5720MHz Straddle 5.725-5.85GHz	80
5745MHz	80
5785MHz	80
5825MHz	80
802.11be EHT20_Nss1,(MCS0)_2TX	-
5180MHz	80
5200MHz	80
5240MHz	80
5260MHz	80
5300MHz	80



5320MHz	80
5500MHz	80
5580MHz	80
5700MHz	57
5720MHz Straddle 5.47-5.725GHz	80
5720MHz Straddle 5.725-5.85GHz	80
5745MHz	80
5785MHz	80
5825MHz	80
802.11be EHT40_Nss1,(MCS0)_2TX	-
5190MHz	80
5230MHz	80
5270MHz	80
5310MHz	80
5510MHz	78
5550MHz	80
5670MHz	78
5710MHz Straddle 5.47-5.725GHz	80
5710MHz Straddle 5.725-5.85GHz	80
5755MHz	80
5795MHz	80
802.11be EHT80_Nss1,(MCS0)_2TX	-
5210MHz	80
5290MHz	80
5530MHz	80
5610MHz	80
5690MHz Straddle 5.47-5.725GHz	80
5690MHz Straddle 5.725-5.85GHz	80
5775MHz	80
802.11be EHT160_Nss1,(MCS0)_2TX	-
5250MHz Straddle 5.15-5.25GHz	71
5250MHz Straddle 5.25-5.35GHz	71
5570MHz	64

**Non-Beamforming_Radio 2_Dipole Antenna_2T2S**

Mode	Power Setting
802.11be EHT20_Nss2,(MCS0)_2TX	-
5180MHz	80
5200MHz	80
5240MHz	80
5260MHz	80
5300MHz	80
5320MHz	80
5500MHz	80
5580MHz	80
5700MHz	61
5720MHz Straddle 5.47-5.725GHz	80
5720MHz Straddle 5.725-5.85GHz	80
5745MHz	80
5785MHz	80
5825MHz	80
802.11be EHT40_Nss2,(MCS0)_2TX	-
5190MHz	80
5230MHz	80
5270MHz	80
5310MHz	80
5510MHz	79
5550MHz	80
5670MHz	80
5710MHz Straddle 5.47-5.725GHz	80
5710MHz Straddle 5.725-5.85GHz	80
5755MHz	80
5795MHz	80
802.11be EHT80_Nss2,(MCS0)_2TX	-
5210MHz	80
5290MHz	80
5530MHz	80
5610MHz	80
5690MHz Straddle 5.47-5.725GHz	80
5690MHz Straddle 5.725-5.85GHz	80
5775MHz	80
802.11be EHT160_Nss2,(MCS0)_2TX	-
5250MHz Straddle 5.15-5.25GHz	73
5250MHz Straddle 5.25-5.35GHz	73
5570MHz	65

**Non-Beamforming_Radio 2_Dual-Polarized MIMO Panel Antenna_1T1S**

Mode	Power Setting
802.11a_Nss1,(6Mbps)_1TX	-
5180MHz	80
5200MHz	80
5240MHz	80
5260MHz	80
5300MHz	80
5320MHz	80
5500MHz	80
5580MHz	80
5700MHz	72
5720MHz Straddle 5.47-5.725GHz	80
5720MHz Straddle 5.725-5.85GHz	80
5745MHz	80
5785MHz	80
5825MHz	80
802.11be EHT20_Nss1,(MCS0)_1TX	-
5180MHz	80
5200MHz	80
5240MHz	80
5260MHz	80
5300MHz	80
5320MHz	80
5500MHz	80
5580MHz	80
5700MHz	64
5720MHz Straddle 5.47-5.725GHz	80
5720MHz Straddle 5.725-5.85GHz	80
5745MHz	80
5785MHz	80
5825MHz	80
802.11be EHT40_Nss1,(MCS0)_1TX	-
5190MHz	80
5230MHz	80
5270MHz	80
5310MHz	80
5510MHz	79
5550MHz	80
5670MHz	80
5710MHz Straddle 5.47-5.725GHz	80
5710MHz Straddle 5.725-5.85GHz	80
5755MHz	80



5795MHz	80
802.11be EHT80_Nss1,(MCS0)_1TX	-
5210MHz	80
5290MHz	80
5530MHz	80
5610MHz	80
5690MHz Straddle 5.47-5.725GHz	80
5690MHz Straddle 5.725-5.85GHz	80
5775MHz	80
802.11be EHT160_Nss1,(MCS0)_1TX	-
5250MHz Straddle 5.15-5.25GHz	79
5250MHz Straddle 5.25-5.35GHz	79
5570MHz	71

Non-Beamforming_Radio 2_Dual-Polarized MIMO Panel Antenna_2T1S

Mode	Power Setting
802.11a_Nss1,(6Mbps)_2TX	-
5180MHz	80
5200MHz	80
5240MHz	80
5260MHz	70
5300MHz	73
5320MHz	73
5500MHz	70
5580MHz	74
5700MHz	61
5720MHz Straddle 5.47-5.725GHz	71
5720MHz Straddle 5.725-5.85GHz	71
5745MHz	80
5785MHz	80
5825MHz	80
802.11be EHT20_Nss1,(MCS0)_2TX	-
5180MHz	80
5200MHz	80
5240MHz	80
5260MHz	72
5300MHz	75
5320MHz	75
5500MHz	72
5580MHz	76
5700MHz	58
5720MHz Straddle 5.47-5.725GHz	72
5720MHz Straddle 5.725-5.85GHz	72



5745MHz	80
5785MHz	80
5825MHz	80
802.11be EHT40_Nss1,(MCS0)_2TX	-
5190MHz	80
5230MHz	80
5270MHz	79
5310MHz	80
5510MHz	79
5550MHz	80
5670MHz	78
5710MHz Straddle 5.47-5.725GHz	80
5710MHz Straddle 5.725-5.85GHz	80
5755MHz	80
5795MHz	80
802.11be EHT80_Nss1,(MCS0)_2TX	-
5210MHz	80
5290MHz	80
5530MHz	80
5610MHz	80
5690MHz Straddle 5.47-5.725GHz	80
5690MHz Straddle 5.725-5.85GHz	80
5775MHz	80
802.11be EHT160_Nss1,(MCS0)_2TX	-
5250MHz Straddle 5.15-5.25GHz	78
5250MHz Straddle 5.25-5.35GHz	78
5570MHz	68

**Non-Beamforming_Radio 2_Dual-Polarized MIMO Panel Antenna_2T2S**

Mode	Power Setting
802.11be EHT20_Nss2,(MCS0)_2TX	-
5180MHz	80
5200MHz	80
5240MHz	80
5260MHz	79
5300MHz	80
5320MHz	80
5500MHz	79
5580MHz	80
5700MHz	61
5720MHz Straddle 5.47-5.725GHz	80
5720MHz Straddle 5.725-5.85GHz	80
5745MHz	80
5785MHz	80
5825MHz	80
802.11be EHT40_Nss2,(MCS0)_2TX	-
5190MHz	80
5230MHz	80
5270MHz	77
5310MHz	80
5510MHz	78
5550MHz	79
5670MHz	79
5710MHz Straddle 5.47-5.725GHz	80
5710MHz Straddle 5.725-5.85GHz	80
5755MHz	80
5795MHz	80
802.11be EHT80_Nss2,(MCS0)_2TX	-
5210MHz	80
5290MHz	80
5530MHz	80
5610MHz	80
5690MHz Straddle 5.47-5.725GHz	80
5690MHz Straddle 5.725-5.85GHz	80
5775MHz	80
802.11be EHT160_Nss2,(MCS0)_2TX	-
5250MHz Straddle 5.15-5.25GHz	75
5250MHz Straddle 5.25-5.35GHz	75
5570MHz	67

**Non-Beamforming_Radio 2_MIMO-directional Antenna_1T1S**

Mode	Power Setting
802.11a_Nss1,(6Mbps)_1TX	-
5180MHz	80
5200MHz	80
5240MHz	80
5260MHz	68
5300MHz	70
5320MHz	71
5500MHz	66
5580MHz	71
5700MHz	64
5720MHz Straddle 5.47-5.725GHz	68
5720MHz Straddle 5.725-5.85GHz	68
5745MHz	80
5785MHz	80
5825MHz	80
802.11be EHT20_Nss1,(MCS0)_1TX	-
5180MHz	80
5200MHz	80
5240MHz	80
5260MHz	68
5300MHz	70
5320MHz	70
5500MHz	65
5580MHz	70
5700MHz	63
5720MHz Straddle 5.47-5.725GHz	69
5720MHz Straddle 5.725-5.85GHz	69
5745MHz	80
5785MHz	80
5825MHz	80
802.11be EHT40_Nss1,(MCS0)_1TX	-
5190MHz	80
5230MHz	80
5270MHz	65
5310MHz	68
5510MHz	65
5550MHz	69
5670MHz	66
5710MHz Straddle 5.47-5.725GHz	67
5710MHz Straddle 5.725-5.85GHz	67
5755MHz	80



5795MHz	80
802.11be EHT80_Nss1,(MCS0)_1TX	-
5210MHz	80
5290MHz	68
5530MHz	70
5610MHz	69
5690MHz Straddle 5.47-5.725GHz	67
5690MHz Straddle 5.725-5.85GHz	67
5775MHz	80
802.11be EHT160_Nss1,(MCS0)_1TX	-
5250MHz Straddle 5.15-5.25GHz	79
5250MHz Straddle 5.25-5.35GHz	79
5570MHz	68

Non-Beamforming_Radio 2_MIMO-directional Antenna_2T1S

Mode	Power Setting
802.11a_Nss1,(6Mbps)_2TX	-
5180MHz	69
5200MHz	68
5240MHz	68
5260MHz	41
5300MHz	43
5320MHz	43
5500MHz	40
5580MHz	45
5700MHz	39
5720MHz Straddle 5.47-5.725GHz	42
5720MHz Straddle 5.725-5.85GHz	42
5745MHz	74
5785MHz	79
5825MHz	80
802.11be EHT20_Nss1,(MCS0)_2TX	-
5180MHz	71
5200MHz	71
5240MHz	71
5260MHz	43
5300MHz	46
5320MHz	46
5500MHz	43
5580MHz	47
5700MHz	41
5720MHz Straddle 5.47-5.725GHz	44
5720MHz Straddle 5.725-5.85GHz	44



5745MHz	73
5785MHz	79
5825MHz	80
802.11be EHT40_Nss1,(MCS0)_2TX	-
5190MHz	77
5230MHz	77
5270MHz	48
5310MHz	50
5510MHz	48
5550MHz	50
5670MHz	49
5710MHz Straddle 5.47-5.725GHz	52
5710MHz Straddle 5.725-5.85GHz	52
5755MHz	74
5795MHz	79
802.11be EHT80_Nss1,(MCS0)_2TX	-
5210MHz	79
5290MHz	50
5530MHz	52
5610MHz	52
5690MHz Straddle 5.47-5.725GHz	53
5690MHz Straddle 5.725-5.85GHz	53
5775MHz	79
802.11be EHT160_Nss1,(MCS0)_2TX	-
5250MHz Straddle 5.15-5.25GHz	65
5250MHz Straddle 5.25-5.35GHz	65
5570MHz	48

**Non-Beamforming_Radio 2_MIMO-directional Antenna_2T2S**

Mode	Power Setting
802.11be EHT20_Nss2,(MCS0)_2TX	-
5180MHz	78
5200MHz	78
5240MHz	78
5260MHz	50
5300MHz	51
5320MHz	52
5500MHz	49
5580MHz	53
5700MHz	47
5720MHz Straddle 5.47-5.725GHz	51
5720MHz Straddle 5.725-5.85GHz	51
5745MHz	73
5785MHz	78
5825MHz	79
802.11be EHT40_Nss2,(MCS0)_2TX	-
5190MHz	78
5230MHz	77
5270MHz	48
5310MHz	49
5510MHz	48
5550MHz	49
5670MHz	49
5710MHz Straddle 5.47-5.725GHz	51
5710MHz Straddle 5.725-5.85GHz	51
5755MHz	74
5795MHz	78
802.11be EHT80_Nss2,(MCS0)_2TX	-
5210MHz	76
5290MHz	50
5530MHz	51
5610MHz	51
5690MHz Straddle 5.47-5.725GHz	51
5690MHz Straddle 5.725-5.85GHz	51
5775MHz	78
802.11be EHT160_Nss2,(MCS0)_2TX	-
5250MHz Straddle 5.15-5.25GHz	65
5250MHz Straddle 5.25-5.35GHz	65
5570MHz	48

**Non-Beamforming_Radio 3_Dipole Antenna_1T1S**

Mode	Power Setting
802.11a_Nss1,(6Mbps)_1TX	-
5180MHz	80
5200MHz	80
5240MHz	80
5260MHz	80
5300MHz	80
5320MHz	80
802.11be EHT20_Nss1,(MCS0)_1TX	-
5180MHz	80
5200MHz	80
5240MHz	80
5260MHz	80
5300MHz	80
5320MHz	80
802.11be EHT40_Nss1,(MCS0)_1TX	-
5190MHz	80
5230MHz	80
5270MHz	80
5310MHz	80
802.11be EHT80_Nss1,(MCS0)_1TX	-
5210MHz	79
5290MHz	80

**Non-Beamforming_Radio 3_Dipole Antenna_2T1S**

Mode	Power Setting
802.11a_Nss1,(6Mbps)_2TX	-
5180MHz	80
5200MHz	80
5240MHz	80
5260MHz	80
5300MHz	77
5320MHz	78
802.11be EHT20_Nss1,(MCS0)_2TX	-
5180MHz	80
5200MHz	80
5240MHz	80
5260MHz	80
5300MHz	80
5320MHz	80
802.11be EHT40_Nss1,(MCS0)_2TX	-
5190MHz	74
5230MHz	80
5270MHz	80
5310MHz	73
802.11be EHT80_Nss1,(MCS0)_2TX	-
5210MHz	70
5290MHz	72

Non-Beamforming_Radio 3_Dipole Antenna_2T2S

Mode	Power Setting
802.11be EHT20_Nss2,(MCS0)_2TX	-
5180MHz	80
5200MHz	80
5240MHz	80
5260MHz	80
5300MHz	80
5320MHz	80
802.11be EHT40_Nss2,(MCS0)_2TX	-
5190MHz	77
5230MHz	80
5270MHz	80
5310MHz	76
802.11be EHT80_Nss2,(MCS0)_2TX	-
5210MHz	72
5290MHz	75

**Non-Beamforming_Radio 3_Dual-Polarized MIMO Panel Antenna_1T1S**

Mode	Power Setting
802.11a_Nss1,(6Mbps)_1TX	-
5180MHz	80
5200MHz	80
5240MHz	80
5260MHz	80
5300MHz	80
5320MHz	80
802.11be EHT20_Nss1,(MCS0)_1TX	-
5180MHz	80
5200MHz	80
5240MHz	80
5260MHz	80
5300MHz	80
5320MHz	80
802.11be EHT40_Nss1,(MCS0)_1TX	-
5190MHz	80
5230MHz	80
5270MHz	80
5310MHz	80
802.11be EHT80_Nss1,(MCS0)_1TX	-
5210MHz	80
5290MHz	80

Non-Beamforming_Radio 3_Dual-Polarized MIMO Panel Antenna_2T1S

Mode	Power Setting
802.11a_Nss1,(6Mbps)_2TX	-
5180MHz	80
5200MHz	80
5240MHz	80
5260MHz	70
5300MHz	65
5320MHz	66
802.11be EHT20_Nss1,(MCS0)_2TX	-
5180MHz	80
5200MHz	80
5240MHz	80
5260MHz	72
5300MHz	67
5320MHz	68
802.11be EHT40_Nss1,(MCS0)_2TX	-
5190MHz	75
5230MHz	80



5270MHz	78
5310MHz	75
802.11be EHT80_Nss1,(MCS0)_2TX	-
5210MHz	74
5290MHz	75

Non-Beamforming_Radio 3_Dual-Polarized MIMO Panel Antenna_2T2S

Mode	Power Setting
802.11be EHT20_Nss2,(MCS0)_2TX	-
5180MHz	80
5200MHz	80
5240MHz	80
5260MHz	79
5300MHz	75
5320MHz	78
802.11be EHT40_Nss2,(MCS0)_2TX	-
5190MHz	73
5230MHz	80
5270MHz	78
5310MHz	75
802.11be EHT80_Nss2,(MCS0)_2TX	-
5210MHz	72
5290MHz	78

Non-Beamforming_Radio 3_MIMO-directional Antenna_1T1S

Mode	Power Setting
802.11a_Nss1,(6Mbps)_1TX	-
5180MHz	80
5200MHz	80
5240MHz	80
5260MHz	63
5300MHz	58
5320MHz	58
802.11be EHT20_Nss1,(MCS0)_1TX	-
5180MHz	80
5200MHz	80
5240MHz	80
5260MHz	63
5300MHz	58
5320MHz	57
802.11be EHT40_Nss1,(MCS0)_1TX	-
5190MHz	76
5230MHz	80
5270MHz	60



5310MHz	56
802.11be EHT80_Nss1,(MCS0)_1TX	-
5210MHz	70
5290MHz	61

Non-Beamforming_Radio 3_MIMO-directional Antenna_2T1S

Mode	Power Setting
802.11a_Nss1,(6Mbps)_2TX	-
5180MHz	64
5200MHz	67
5240MHz	72
5260MHz	40
5300MHz	37
5320MHz	39
802.11be EHT20_Nss1,(MCS0)_2TX	-
5180MHz	67
5200MHz	69
5240MHz	73
5260MHz	43
5300MHz	39
5320MHz	39
802.11be EHT40_Nss1,(MCS0)_2TX	-
5190MHz	68
5230MHz	78
5270MHz	47
5310MHz	45
802.11be EHT80_Nss1,(MCS0)_2TX	-
5210MHz	66
5290MHz	48

**Non-Beamforming_Radio 3_MIMO-directional Antenna_2T2S**

Mode	Power Setting
802.11be EHT20_Nss2,(MCS0)_2TX	-
5180MHz	75
5200MHz	77
5240MHz	78
5260MHz	50
5300MHz	45
5320MHz	46
802.11be EHT40_Nss2,(MCS0)_2TX	-
5190MHz	68
5230MHz	78
5270MHz	47
5310MHz	45
802.11be EHT80_Nss2,(MCS0)_2TX	-
5210MHz	64
5290MHz	48

**Beamforming_Radio 2_Dipole Antenna**

Mode	Power Setting
802.11be EHT20-BF_Nss1,(MCS0)_2TX	-
5180MHz	80
5200MHz	80
5240MHz	80
5260MHz	78
5300MHz	79
5320MHz	80
5500MHz	78
5580MHz	80
5700MHz	57
5720MHz Straddle 5.47-5.725GHz	80
5720MHz Straddle 5.725-5.85GHz	80
5745MHz	80
5785MHz	80
5825MHz	80
802.11be EHT40-BF_Nss1,(MCS0)_2TX	-
5190MHz	80
5230MHz	80
5270MHz	77
5310MHz	79
5510MHz	77
5550MHz	78
5670MHz	78
5710MHz Straddle 5.47-5.725GHz	79
5710MHz Straddle 5.725-5.85GHz	79
5755MHz	80
5795MHz	80
802.11be EHT80-BF_Nss1,(MCS0)_2TX	-
5210MHz	80
5290MHz	80
5530MHz	80
5610MHz	80
5690MHz Straddle 5.47-5.725GHz	80
5690MHz Straddle 5.725-5.85GHz	80
5775MHz	80
802.11be EHT160-BF_Nss1,(MCS0)_2TX	-
5250MHz Straddle 5.15-5.25GHz	71
5250MHz Straddle 5.25-5.35GHz	71
5570MHz	64

**Beamforming_Radio 2 Dual-Polarized MIMO Panel Antenna**

Mode	Power Setting
802.11be EHT20-BF_Nss1,(MCS0)_2TX	-
5180MHz	80
5200MHz	80
5240MHz	80
5260MHz	69
5300MHz	70
5320MHz	71
5500MHz	67
5580MHz	71
5700MHz	58
5720MHz Straddle 5.47-5.725GHz	71
5720MHz Straddle 5.725-5.85GHz	71
5745MHz	80
5785MHz	80
5825MHz	80
802.11be EHT40-BF_Nss1,(MCS0)_2TX	-
5190MHz	80
5230MHz	80
5270MHz	68
5310MHz	69
5510MHz	67
5550MHz	69
5670MHz	67
5710MHz Straddle 5.47-5.725GHz	69
5710MHz Straddle 5.725-5.85GHz	69
5755MHz	80
5795MHz	80
802.11be EHT80-BF_Nss1,(MCS0)_2TX	-
5210MHz	80
5290MHz	70
5530MHz	72
5610MHz	72
5690MHz Straddle 5.47-5.725GHz	71
5690MHz Straddle 5.725-5.85GHz	71
5775MHz	80
802.11be EHT160-BF_Nss1,(MCS0)_2TX	-
5250MHz Straddle 5.15-5.25GHz	78
5250MHz Straddle 5.25-5.35GHz	78
5570MHz	67

**Beamforming_Radio 2 MIMO-directional Antenna**

Mode	Power Setting
802.11be EHT20-BF_Nss1,(MCS0)_2TX	-
5180MHz	66
5200MHz	66
5240MHz	66
5260MHz	37
5300MHz	39
5320MHz	39
5500MHz	38
5580MHz	40
5700MHz	34
5720MHz Straddle 5.47-5.725GHz	40
5720MHz Straddle 5.725-5.85GHz	40
5745MHz	61
5785MHz	67
5825MHz	70
802.11be EHT40-BF_Nss1,(MCS0)_2TX	-
5190MHz	65
5230MHz	65
5270MHz	36
5310MHz	38
5510MHz	36
5550MHz	38
5670MHz	37
5710MHz Straddle 5.47-5.725GHz	39
5710MHz Straddle 5.725-5.85GHz	39
5755MHz	62
5795MHz	67
802.11be EHT80-BF_Nss1,(MCS0)_2TX	-
5210MHz	67
5290MHz	38
5530MHz	40
5610MHz	40
5690MHz Straddle 5.47-5.725GHz	40
5690MHz Straddle 5.725-5.85GHz	40
5775MHz	67
802.11be EHT160-BF_Nss1,(MCS0)_2TX	-
5250MHz Straddle 5.15-5.25GHz	55
5250MHz Straddle 5.25-5.35GHz	55
5570MHz	36

**Beamforming_Radio 3 Dipole Antenna**

Mode	Power Setting
802.11be EHT20-BF_Nss1,(MCS0)_2TX	-
5180MHz	80
5200MHz	80
5240MHz	80
5260MHz	78
5300MHz	76
5320MHz	76
802.11be EHT40-BF_Nss1,(MCS0)_2TX	-
5190MHz	74
5230MHz	80
5270MHz	77
5310MHz	73
802.11be EHT80-BF_Nss1,(MCS0)_2TX	-
5210MHz	70
5290MHz	72

Beamforming_Radio 3 Dual-Polarized MIMO Panel Antenna

Mode	Power Setting
802.11be EHT20-BF_Nss1,(MCS0)_2TX	-
5180MHz	80
5200MHz	80
5240MHz	80
5260MHz	68
5300MHz	64
5320MHz	65
802.11be EHT40-BF_Nss1,(MCS0)_2TX	-
5190MHz	75
5230MHz	80
5270MHz	66
5310MHz	63
802.11be EHT80-BF_Nss1,(MCS0)_2TX	-
5210MHz	74
5290MHz	67

**Beamforming_Radio 3 MIMO-directional Antenna**

Mode	Power Setting
802.11be EHT20-BF_Nss1,(MCS0)_2TX	-
5180MHz	61
5200MHz	64
5240MHz	68
5260MHz	37
5300MHz	32
5320MHz	33
802.11be EHT40-BF_Nss1,(MCS0)_2TX	-
5190MHz	62
5230MHz	66
5270MHz	35
5310MHz	33
802.11be EHT80-BF_Nss1,(MCS0)_2TX	-
5210MHz	63
5290MHz	36

Non-Beamforming_Radio1_Scan

Test Software Version	PuTTY Release 0.62
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Mode	Power Setting
a20_Nss1,(6Mbps)_1TX	-
5180MHz	34
5200MHz	36
5240MHz	37
5260MHz	66
5300MHz	66
5320MHz	54
5500MHz	56
5580MHz	65
5700MHz	58
5720MHz Straddle 5.47-5.725GHz	72
5720MHz Straddle 5.725-5.85GHz	72
5745MHz	72
5785MHz	72
5825MHz	71
a40_Nss1,(6Mbps)_1TX	-
5190MHz	31
5230MHz	40
5270MHz	55
5310MHz	37
5510MHz	35
5550MHz	60



5670MHz	55
5710MHz Straddle 5.47-5.725GHz	65
5710MHz Straddle 5.725-5.85GHz	65
5755MHz	62
5795MHz	68
a80_Nss1,(6Mbps)_1TX	-
5210MHz	33
5290MHz	40
5530MHz	39
5610MHz	66
5690MHz Straddle 5.47-5.725GHz	70
5690MHz Straddle 5.725-5.85GHz	70
5775MHz	57
a160_Nss1,(6Mbps)_1TX	-
5250MHz Straddle 5.15-5.25GHz	33
5250MHz Straddle 5.25-5.35GHz	33
5570MHz	35

2.2 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	CTX
1	Adapter Mode

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

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		
1	Adapter Mode ; Radio 2_Dipole Antenna		
2	Adapter Mode ; Radio 2_Dual-Polarized MIMO Panel Antenna		
3	Adapter Mode ; Radio 2_MIMO-directional Antenna		
4	Adapter Mode ; Radio 3_Dipole Antenna		
5	Adapter Mode ; Radio 3_Dual-Polarized MIMO Panel Antenna		
6	Adapter Mode ; Radio 3_MIMO-directional Antenna		
7	Adapter Mode ; Radio 1_Scan		
Operating Mode > 1GHz	CTX		
Orthogonal Planes of EUT	X Plane	Y Plane	Z Plane
			
Worst Planes of EUT			
Dipole Antenna_1T1S	V (Radio 3)		V (Radio 2)
Dipole Antenna_2T1S	V (Radio 3)	V (Radio 2)	
Dipole Antenna_2T2S	V (Radio 2)	V (Radio 3)	
Dual-Polarized MIMO Panel Antenna			V (Radio 2,3)
MIMO-directional Antenna			V (Radio 2,3)
Radio 1_Scan			V



The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis
Test Condition	Radiated measurement
Operating Mode	CTX
1	R1:2.4G+R2:5G Full+R3:6G Full+R1:Scan 2.4G+R1:Scan 5G +R1:Scan 6G+BT(chain0)
2	R1:2.4G+R2:5G High(Band3/4)+R3:5G Low(Band1/2)+R1:Scan 2.4G+R1:Scan 5G +R1:Scan 6G+BT(chain0)
3	R1:2.4G+R2:5G Full+R3:6G Full+R1:Scan 2.4G+R1:Scan 5G +R1:Scan 6G+BT(chain1)
4	R1:2.4G+R2:5G High(Band3/4)+R3:5G Low(Band1/2)+R1:Scan 2.4G+R1:Scan 5G +R1:Scan 6G+BT(chain1)
5	R1:2.4G+R2:5G Full+R3:6G Full+R1:Scan 2.4G+R1:Scan 5G +R1:Scan 6G+BT(chain0)
6	R1:2.4G+R2:5G High(Band3/4)+R3:5G Low(Band1/2)+R1:Scan 2.4G+R1:Scan 5G +R1:Scan 6G+BT(chain0)
Refer to Sporton Test Report No.: FA462705-02 for Co-location RF Exposure Evaluation and Appendix F for Radiated Emission Co-location.	

2.3 Support Equipment

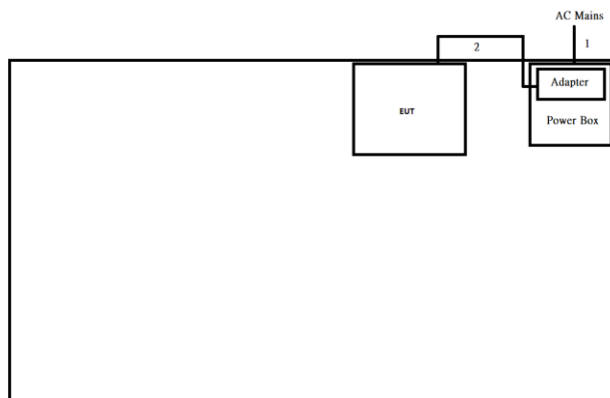
Support Equipment – AC Conduction					
No.	Equipment	Brand Name	Model Name	FCC ID	Remark
1	Adapter	Powertron	PA1045-120HIB300	-	-

Support Equipment – Conducted					
No.	Equipment	Brand Name	Model Name	FCC ID	Remark
1	Notebook	DELL	E5410	-	-
2	Adapter for NB	DELL	HA65NM130	-	-

Support Equipment – Radiated					
No.	Equipment	Brand Name	Model Name	FCC ID	Remark
1	RJ-45 Cable	Power sync	CAT-6E-10	-	-
2	Notebook	HP	5220M	-	-
3	Adapter	Powertron	PA1045-120HIB300	-	-
4	Client	Extreme	AP4020X	-	Provided by Customer/ Remote

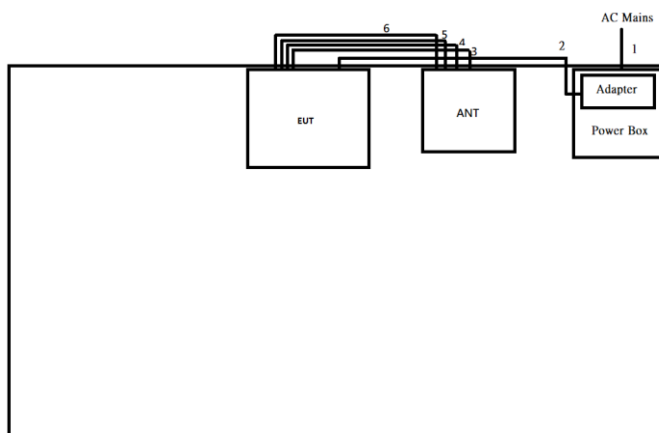
2.4 Test Setup Diagram

Test Setup Diagram – AC Line Conducted Emission Test (Dipole Antenna)

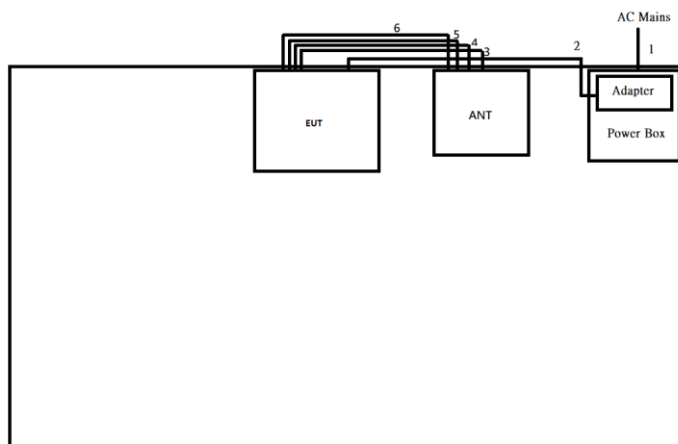


Item	Connection	Shielded	Length(m)	Remark
1	AC Power Cable	No	1.8	-
2	DC Power Cable	No	1.5	-

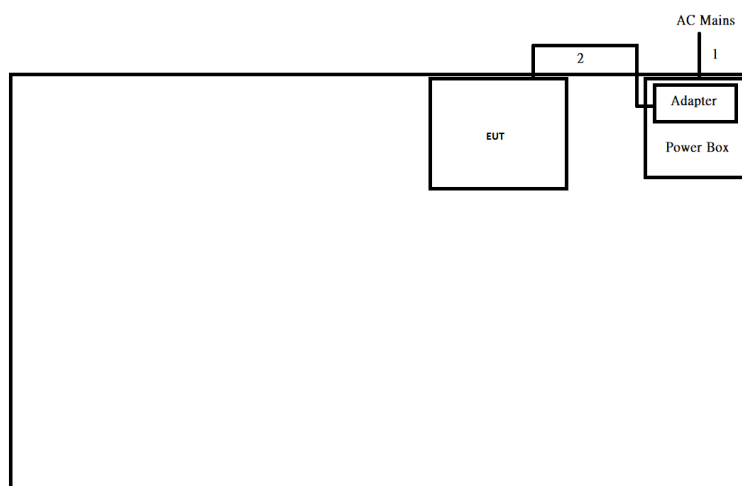
Test Setup Diagram – AC Line Conducted Emission Test (Dual-Polarized MIMO Panel Antenna)



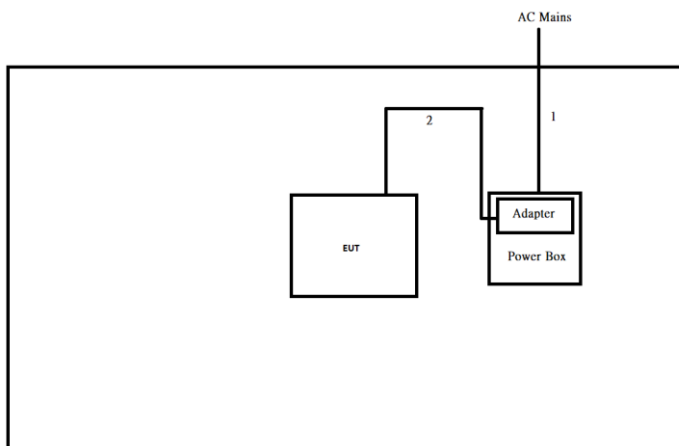
Item	Connection	Shielded	Length(m)	Remark
1	AC Power Cable	No	1.8	-
2	DC Power Cable	No	1.5	-
3	RF Cable	No	1.0	-
4	RF Cable	No	1.0	-
5	RF Cable	No	1.0	-
6	RF Cable	No	1.0	-

Test Setup Diagram – AC Line Conducted Emission Test (MIMO-directional Antenna)


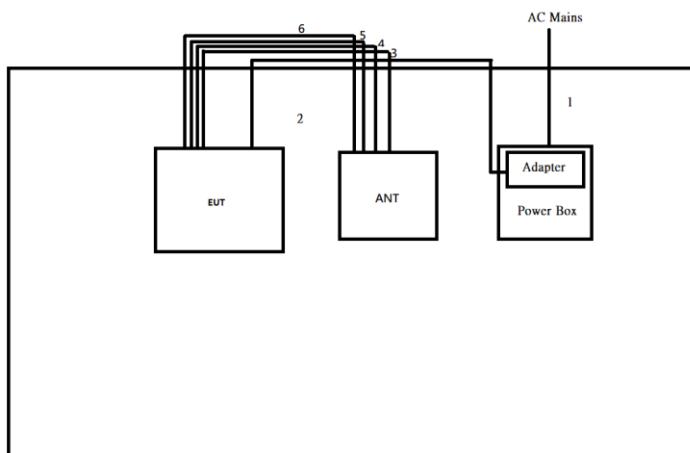
Item	Connection	Shielded	Length(m)	Remark
1	AC Power Cable	No	1.8	-
2	DC Power Cable	No	1.5	-
3	RF Cable	No	1.0	-
4	RF Cable	No	1.0	-
5	RF Cable	No	1.0	-
6	RF Cable	No	1.0	-

Test Setup Diagram – AC Line Conducted Emission Test (Radio 1_Scan)


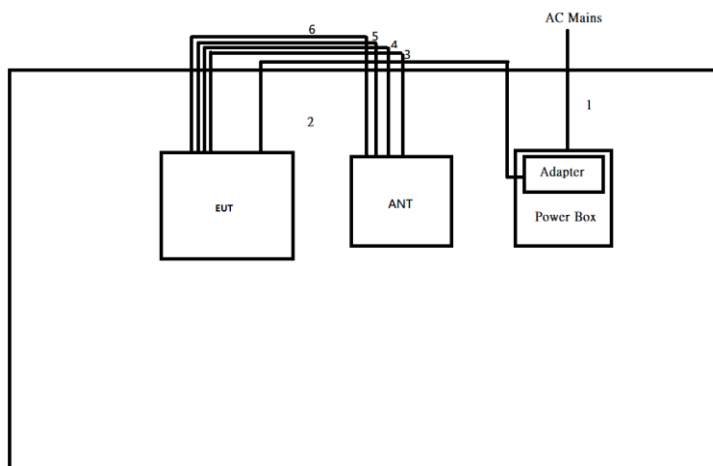
Item	Connection	Shielded	Length(m)	Remark
1	AC Power Cable	No	1.8	-
2	DC Power Cable	No	1.5	-

Test Setup Diagram – Radiated Test (Dipole Antenna)


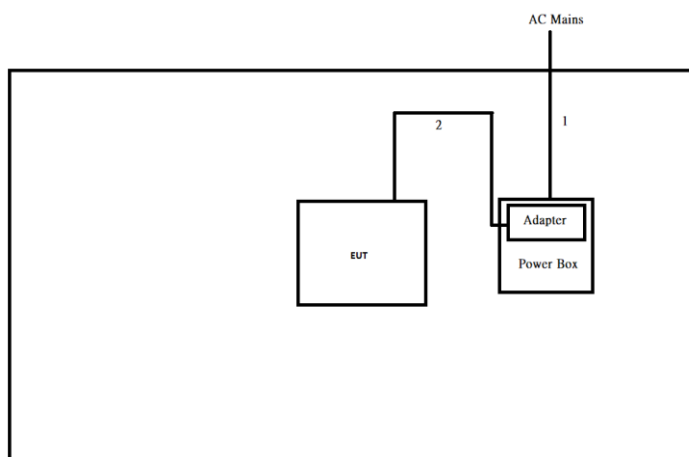
Item	Connection	Shielded	Length(m)	Remark
1	AC Power Cable	No	1.8	-
2	DC Power Cable	No	0.8	-

Test Setup Diagram – Radiated Test (Dual-Polarized MIMO Panel Antenna)


Item	Connection	Shielded	Length(m)	Remark
1	AC Power Cable	No	1.8	-
2	DC Power Cable	No	0.8	-
3	RF Cable	No	1.0	-
4	RF Cable	No	1.0	-
5	RF Cable	No	1.0	-
6	RF Cable	No	1.0	-

Test Setup Diagram – Radiated Test (MIMO-directional Antenna)


Item	Connection	Shielded	Length(m)	Remark
1	AC Power Cable	No	1.8	-
2	DC Power Cable	No	0.8	-
3	RF Cable	No	1.0	-
4	RF Cable	No	1.0	-
5	RF Cable	No	1.0	-
6	RF Cable	No	1.0	-

Test Setup Diagram – Radiated Test (Radio 1_Scan)


Item	Connection	Shielded	Length(m)	Remark
1	AC Power Cable	No	1.8	-
2	DC Power Cable	No	0.8	-

3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 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.		

3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

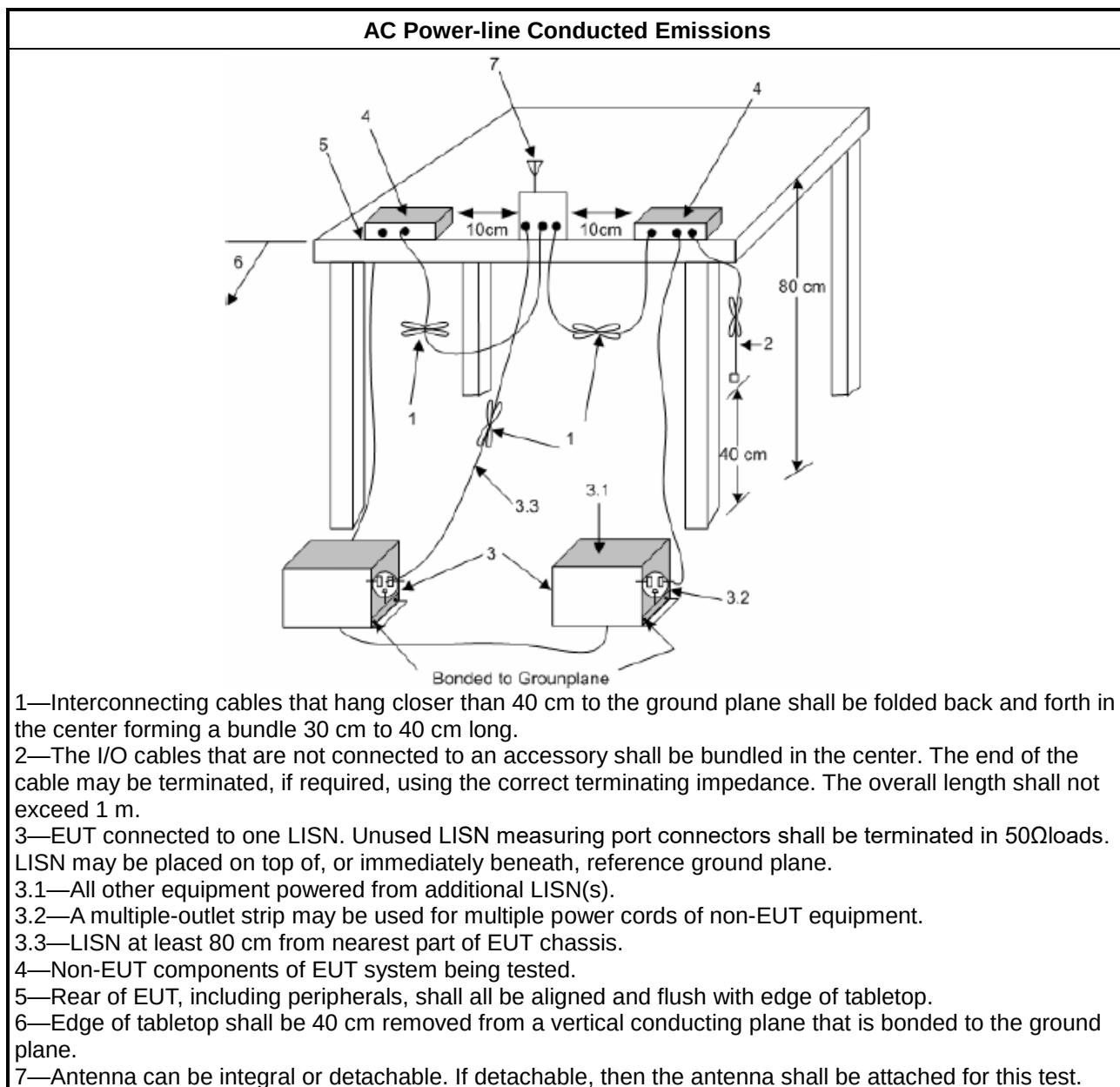
Test Method
☒ Refer as ANSI C63.10-2013, clause 6.2 for AC power-line conducted emissions.

3.1.4 Measurement Results Calculation

The measured Level is calculated using:

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

3.1.5 Test Setup



3.1.6 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

3.2 Emission Bandwidth

3.2.1 Emission Bandwidth Limit

Emission Bandwidth Limit	
UNII Devices	
☒	For the 5.15-5.25 GHz band, N/A
☒	For the 5.25-5.35 GHz band, N/A
☒	For the 5.47-5.725 GHz band, N/A
☒	For the 5.725-5.85 GHz band, 6 dB emission bandwidth $\geq$ 500kHz.

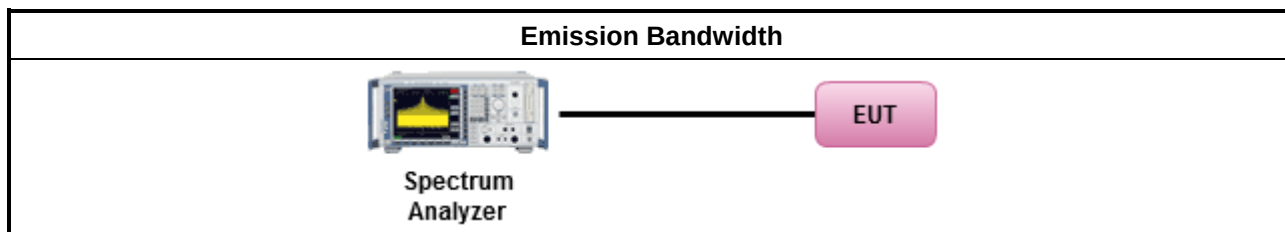
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

Test Method	
For the emission bandwidth shall be measured using one of the options below:	
☒	Refer as KDB 789033, clause C for EBW and clause D for OBW measurement.
☐	Refer as ANSI C63.10, clause 6.9.3 for occupied bandwidth testing.
☐	Refer as IC RSS-Gen, clause 6.7 for bandwidth testing.

3.2.4 Test Setup



3.2.5 Test Result of Emission Bandwidth

Refer as Appendix B

3.3 Maximum Conducted Output Power

3.3.1 Maximum Conducted Output Power Limit

Maximum Conducted 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 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 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 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 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 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 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 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 1 W.
P_{Out} = maximum conducted output power in dBm, G_{TX} = the maximum transmitting antenna directional gain in dBi.	

3.3.2 Measuring Instruments

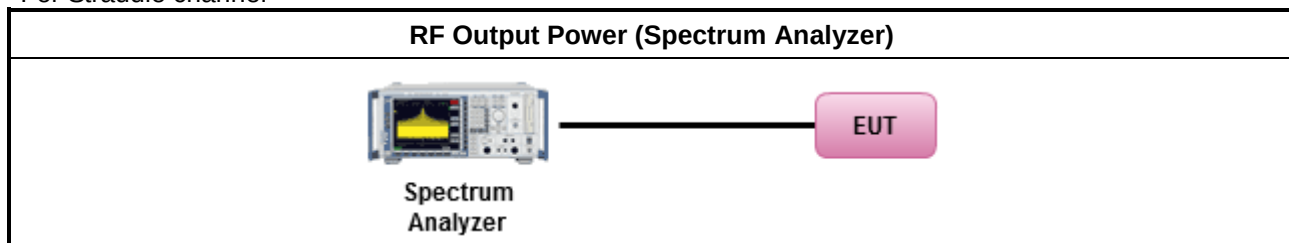
Refer a test equipment and calibration data table in this test report.

3.3.3 Test Procedures

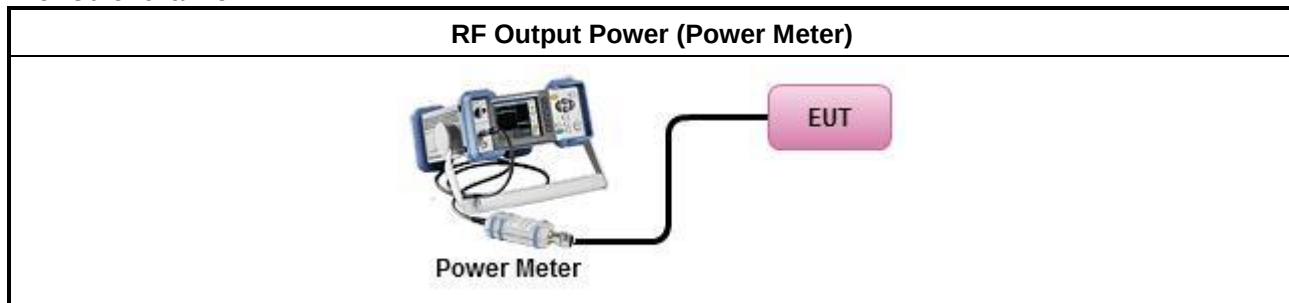
Test Method	
Maximum Conducted Output Power	
	Duty cycle $\geq 98\%$
☒	Refer as KDB 789033, clause E Method SA-2 (spectral trace averaging).
	Duty cycle $< 98\%$
☒	Refer as KDB 789033, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)
	Wideband RF power meter and average over on/off periods with duty factor
☒	Refer as KDB 789033, clause E Method PM (using an RF average power meter).
For conducted measurement.	
	If the EUT supports multiple transmit chains using options given below: Refer as 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: $P_{\text{total}} = P_1 + P_2 + \dots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $\text{EIRP}_{\text{total}} = P_{\text{total}} + \text{DG}$

3.3.4 Test Setup

For Straddle channel



For Other channel



3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C

3.4 Peak Power Spectral Density

3.4.1 Peak Power Spectral Density Limit

Peak Power Spectral Density Limit	
UNII Devices	
☒ For the 5.15-5.25 GHz band:	
	Outdoor AP: the peak power spectral density (PPSD) shall not exceed 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 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 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 $PPSD = 11 - (G_{TX} - 6)$.
☒ For the 5.25-5.35 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz. If $G_{TX} > 6$ dBi, then $PPSD = 11 - (G_{TX} - 6)$.	
☒ For the 5.47-5.725 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz. If $G_{TX} > 6$ dBi, then $PPSD = 11 - (G_{TX} - 6)$.	
☒ For the 5.725-5.85 GHz band:	
	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.	

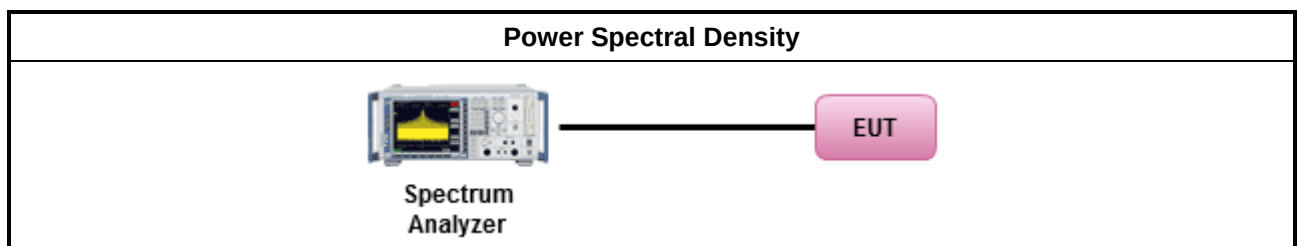
3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

Test Method	
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:	
☐ Refer as KDB 789033, 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%	
☒ Refer as KDB 789033, clause E Method SA-2 (spectral trace averaging). Duty cycle < 98%	
☒ Refer as KDB 789033, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)	
For conducted measurement.	
If the EUT supports multiple transmit chains using options given below:	
- Measure and sum the spectra across the outputs. Refer as 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.	
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]) $EIRP_{total} = PPSD_{total} + DG$	

3.4.4 Test Setup



3.4.5 Test Result of Peak Power Spectral Density

Refer as Appendix D

3.5 Unwanted Emissions

3.5.1 Transmitter Radiated 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	5.650-5700 GHz: e.i.r.p. -27 ~ 10 dBm [68.2 ~ 105.2 dBuV/m@3m] 5.700-5720 GHz: e.i.r.p. 10 ~ 15.6 dBm [105.2 ~ 110.8 dBuV/m@3m] 5.720-5725 GHz: e.i.r.p. 15.6 ~ 27 dBm [110.8 ~ 122.2 dBuV/m@3m] 5.850-5.855 GHz: e.i.r.p. 27 ~ 15.6 dBm [122.2 ~ 110.8 dBuV/m@3m] 5.855-5.875 GHz: e.i.r.p. 15.6 ~ 10 dBm [110.8 ~ 105.2 dBuV/m@3m] 5.875-5.925 GHz: e.i.r.p. 10 ~ -27 dBm [105.2 ~ 68.2dBuV/m@3m] Other un-restricted band: e.i.r.p. -27 dBm [68.2 dBuV/m@3m]

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).

3.5.2 Measuring Instruments

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

3.5.3 Test Procedures

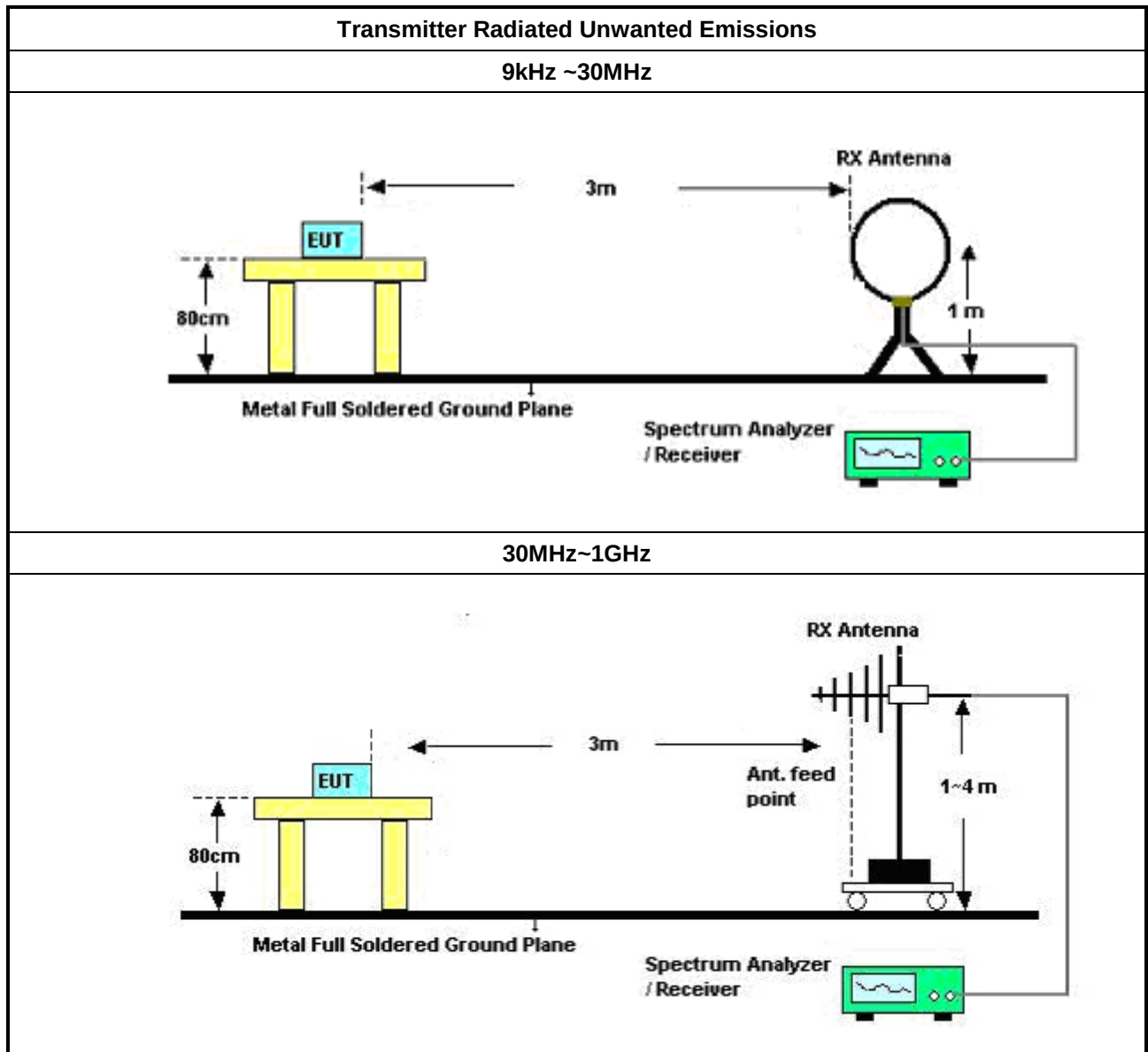
Test Method	
Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. Measurements shall not be performed at a distance greater than 30 m for frequencies above 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 $\geq$ 98 or duty factor].	
For the transmitter unwanted emissions shall be measured using following options below:	
	Refer as KDB 789033, clause G)2) for unwanted emissions into non-restricted bands.
	Refer as KDB 789033, clause G)1) for unwanted emissions into restricted bands.
☒	Refer as KDB 789033, G)6) Method VB (ANSI C63.10, clause 4.1.4.2.3), Reduced VBW.
☒	Refer as KDB 789033, clause G)5) (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.	
Use the following spectrum analyzer settings:	
	Set RBW=100 kHz for $f < 1$ GHz; VBW=3 * RBW; Sweep = auto; Detector function = peak; Trace = max hold.
	Set RBW = 1 MHz, VBW= 3MHz for $f \geq 1$ GHz for peak measurement. For average measurement, refer as 1.1.4.
KDB 414788 Open-Field Test Sites and Chamber Correlation Justification.	
	Based on FCC 15.31(f)(2): measurements may be performed at a distance closer than that specified in regulations; however, an attempt should be made to avoid making measurements in the near field.
	Open-field site and chamber correlation testing had been performed and chamber measured test result is the worst case test result.

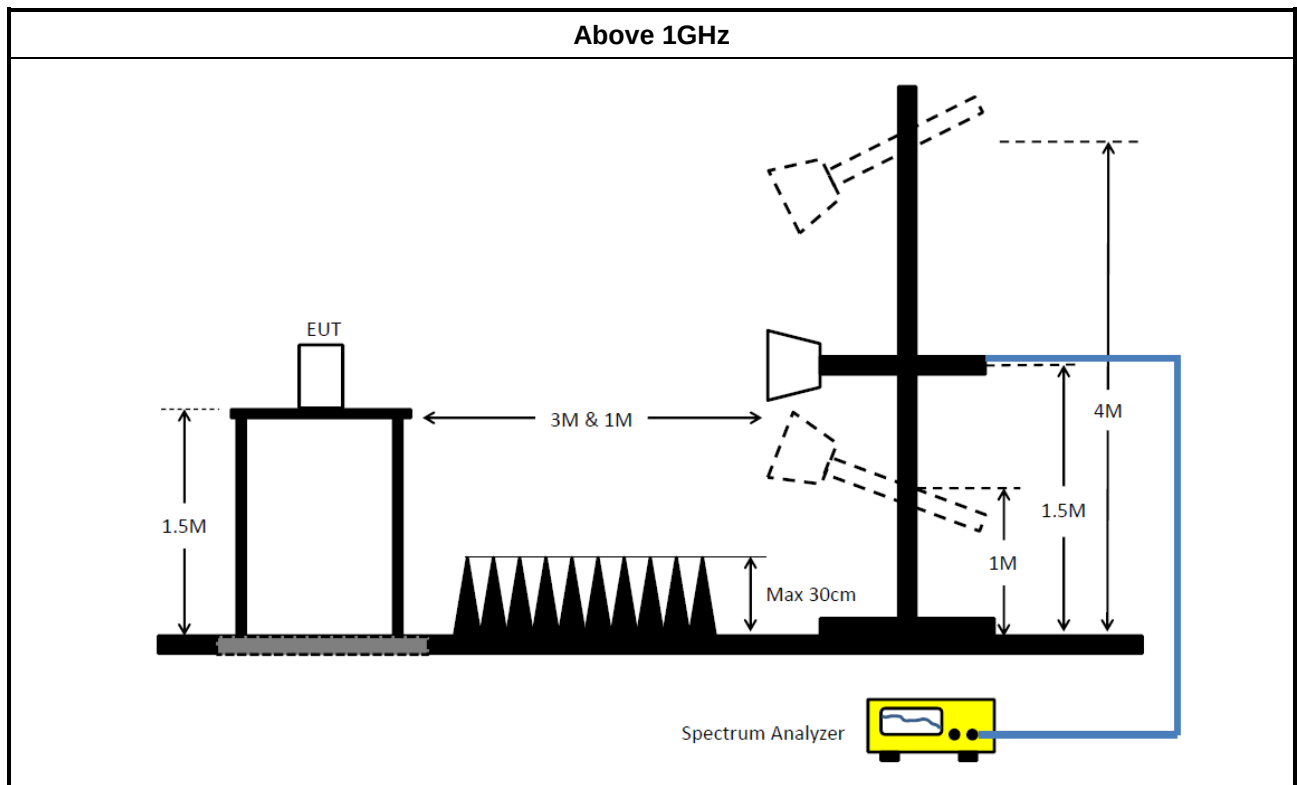
3.5.4 Measurement Results Calculation

The measured Level is calculated using:

Corrected Reading: Raw(Read Level) + AF(Antenna Factor) + CL(Cable Loss) - PA(Preamp Factor)

3.5.5 Test Setup





3.5.6 Transmitter Unwanted Emissions (Below 30MHz)

The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

3.5.7 Test Result of Transmitter Unwanted Emissions

Refer as Appendix E



4 Test Equipment and Calibration Data

Instrument for AC Conduction

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
EMI Test Receiver	ROHDE & SCHWARZ	ESR3	102051	9kHz ~ 3.6GHz	17/May/2024	16/May/2025
Two-Line V-Network	ROHDE & SCHWARZ	ENV 216	100003	9kHz ~ 30MHz	18/Apr/2025	17/Apr/2026
RF Cable 5m	TITAN	TITAN	CO04-cable-01	9 kHz~200MHz	26/Feb/2025	25/Feb/2026
Impuls Begrenzer Pulse Limiter	SCHWARZBECK	VTSD 9561-F	9561-F041	9kHz ~ 30MHz	17/Oct/2024	16/Oct/2025
Software	Sporton	SENSE-EMI	V5.11.3	-	NCR	NCR

NCR: No Calibration Required

Instrument for Conducted Test (TH07-HY)

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Signal Analyzer	R&S	FSV 40	101515	10Hz~40GHz	02/Feb/2024	01/Feb/2025
Signal Analyzer	R&S	FSV 40	101515	10Hz~40GHz	23/Jan/2025	22/Jan/2026
SMB100A Signal Generator	R&S	SMB100A	181147	100kHz~40GHz	16/Oct/2024	15/Oct/2025
Power Meter	Anritsu	ML2495A	1517010	300MHz~40GHz	18/Dec/2024	17/Dec/2025
Pulse Sensor	Anritsu	MA2411B	1339407	300MHz~40GHz	18/Dec/2024	17/Dec/2025

Instrument for Conducted Test (TH06-HY)

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Signal Analyzer	R&S	FSV 40	101029	10Hz~40GHz	28/Oct/2024	27/Oct/2025
SMB100A Signal Generator	R&S	SMB100A	181147	100kHz~40GHz	16/Oct/2024	15/Oct/2025
Power Meter	Anritsu	ML2495A	1124009	300MHz~40GHz	01/Apr/2024	31/Mar/2025
Pulse Sensor	Anritsu	MA2411B	1027452	300MHz~40GHz	02/Apr/2024	01/Apr/2025
SENSE-15407_NII	Sporton	V5.11.23	N/A	N/A	N/A	N/A

**Instrument for Radiated Test (03CH02-HY) (Co-location)**

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Site V.S.W.R	SIDT FRANKONIA	SAC-3M	03CH02-HY	1GHz~18GHz 3M	14/Jul/2024	13/Jul/2025
Signal Analyzer	R&S	FSP 40	100593	9kHz~40GHz	11/Mar/2024	10/Mar/2025
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	02268	1GHz~18GHz	23/Sep/2024	22/Sep/2025
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA 9170154	18GHz~40GHz	04/Jun/2024	03/Jun/2025
RF Cable-R03m	HUBER+SUHNER	SUCOFLEX 104	03CH02-cable -01	1GHz~40GHz	15/Feb/2024	14/Feb/2025
Microwave Preamplifier	Agilent	8449B	3008A02373	1GHz~26.5GHz	01/Oct/2024	30/Sep/2025
Microwave Preamplifier	EMC INSTRUMENTS	EM18G40G	060604	18GHz ~40GHz	19/Apr/2024	18/Apr/2025
SENSE-EMI	Sporton	V5.11.9	N/A	N/A	N/A	N/A

Instrument for Radiated Test (03CH25-HY)

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Site V.S.W.R	TDK	SAC-3M	03CH25-HY	1GHz~18GHz	08/Aug/2024	07/Aug/2025
Signal Analyzer	ROHDE& SCHWARZ	FSV3044	101410	10Hz~44GHz	18/Nov/2024	17/Nov/2025
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	02876	1GHz~18GHz	11/Jul/2024	10/Jul/2025
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	01248	18GHz~40GHz	04/Oct/2024	03/Oct/2025
RF Cable	HUBER+SUHNER	SUOFLEX 104	CB007	1GHz~40GHz	23/Apr/2024	22/Apr/2025
Preamplifier	SGH	PRAMP 118-H	20230515-3	1GHz~18GHz	24/May/2024	23/May/2025
Preamplifier	EMCI	EM01G18G	060940	1GHz~18GHz	24/May/2024	23/May/2025
Amplifier	EM	EM18G40GA	060874	18GHz ~ 40GHz	15/Apr/2024	14/Apr/2025
SENSE-15407-NII	Sporton	V5.11.23	N/A	N/A	N/A	N/A

Instrument for Radiated Test (03CH02-HY)

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
N.S.A. Measurement	SIDT FRANKONIA	SAC-3M	03CH02-HY	30MHz~1GHz 3M	14/Jul/2024	13/Jul/2025
Site V.S.W.R	SIDT FRANKONIA	SAC-3M	03CH02-HY	1GHz~18GHz 3M	14/Jul/2024	13/Jul/2025
EMI Test Receiver	R&S	ESR	102052	9kHz~3.6GHz	03/May/2024	02/May/2025
Signal Analyzer	R&S	FSP 40	100593	9kHz~40GHz	11/Mar/2024	10/Mar/2025
Loop Antenna	TESEQ	HLA 6120	31244	9kHz~30MHz	19/Mar/2024	18/Mar/2025
Bilog Antenna & 5dB Attenuator	SCHAFFNER / MTJ	CBL 6112B / MTJ6102-05	2723/2	30MHz~1GHz	26/Aug/2024	25/Aug/2025
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	02268	1GHz~18GHz	23/Sep/2024	22/Sep/2025
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA 9170154	18GHz~40GHz	04/Jun/2024	03/Jun/2025
RF Cable	MVE	400LL+SN 200207	03CH02-cable -02	9kHz~30MHz	26/Nov/2024	25/Nov/2025
RF Cable	MVE	400LL+SN 200207	03CH02-cable -02	30MHz~1GHz	26/Nov/2024	25/Nov/2025
RF Cable-R03m	HUBER+SUHNER	SUCOFLEX 104	03CH02-cable -01	1GHz~40GHz	15/Feb/2024	14/Feb/2025
RF Cable-R03m	HUBER+SUHNER	SUCOFLEX 104	03CH02-cable -01	1GHz~40GHz	13/Feb/2025	12/Feb/2026
Amplifier	Agilent	8447D	2944A11149	100kHz~1.3GHz	29/Jun/2024	28/Jun/2025
Microwave Preamplifier	Agilent	8449B	3008A02373	1GHz~26.5GHz	01/Oct/2024	30/Sep/2025
Microwave Preamplifier	EMC INSTRUMENTS	EM18G40G	060604	18GHz ~40GHz	19/Apr/2024	18/Apr/2025
SENSE-15407-NII	Sporton	V5.11.23	N/A	N/A	N/A	N/A



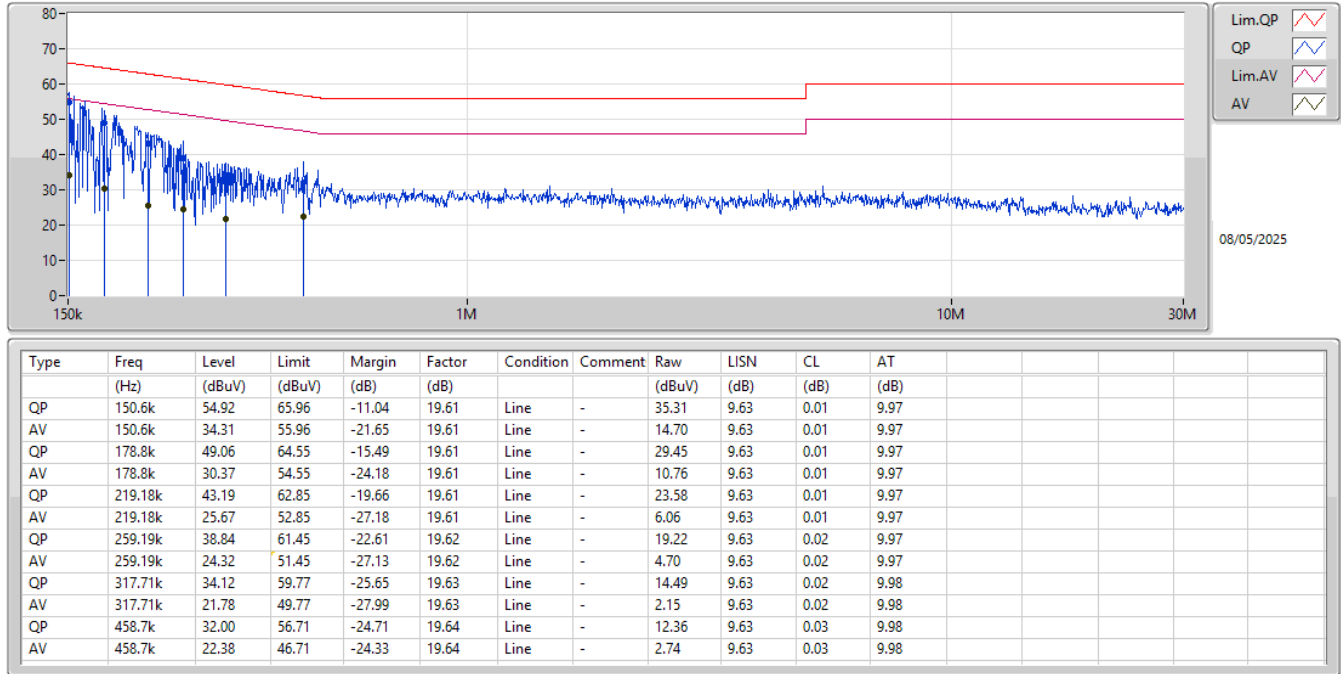
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	QP	150.6k	54.92	65.96	-11.04	Line

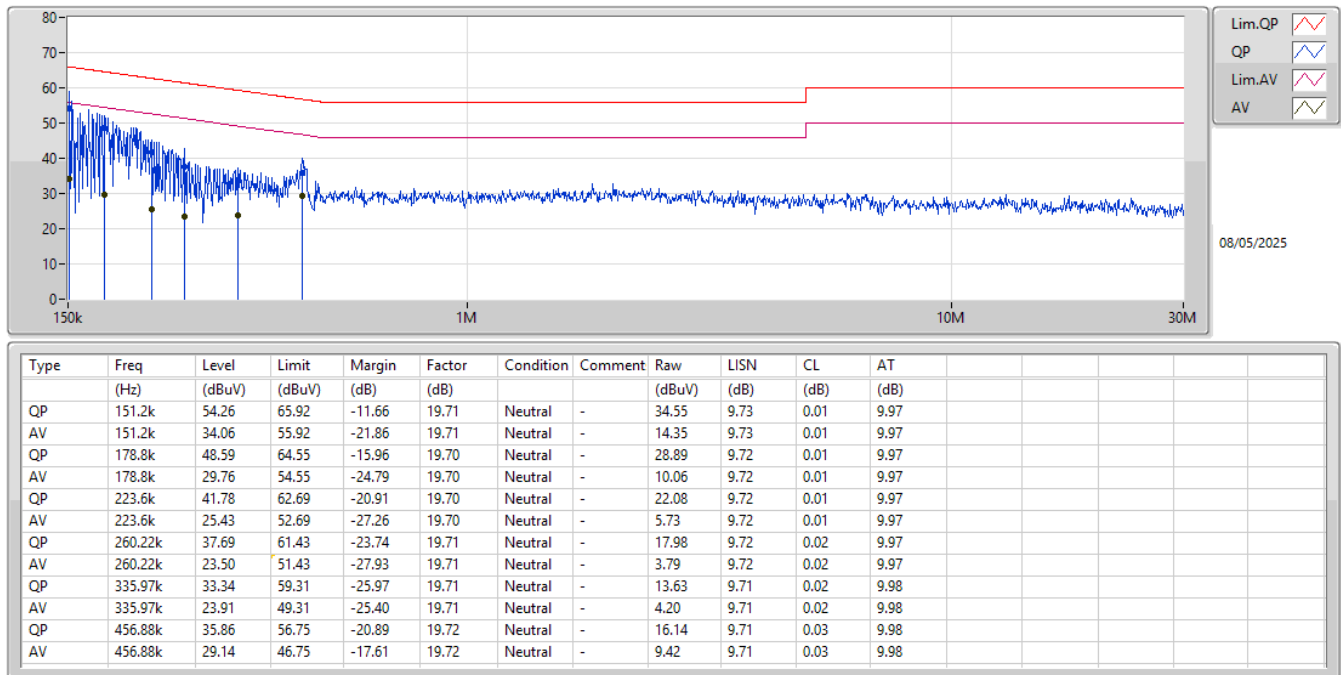
Result

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	QP	150.6k	54.92	65.96	-11.04	Line
Mode 1	Pass	AV	150.6k	34.31	55.96	-21.65	Line
Mode 1	Pass	QP	178.8k	49.06	64.55	-15.49	Line
Mode 1	Pass	AV	178.8k	30.37	54.55	-24.18	Line
Mode 1	Pass	QP	219.18k	43.19	62.85	-19.66	Line
Mode 1	Pass	AV	219.18k	25.67	52.85	-27.18	Line
Mode 1	Pass	QP	259.19k	38.84	61.45	-22.61	Line
Mode 1	Pass	AV	259.19k	24.32	51.45	-27.13	Line
Mode 1	Pass	QP	317.71k	34.12	59.77	-25.65	Line
Mode 1	Pass	AV	317.71k	21.78	49.77	-27.99	Line
Mode 1	Pass	QP	458.7k	32.00	56.71	-24.71	Line
Mode 1	Pass	AV	458.7k	22.38	46.71	-24.33	Line
Mode 1	Pass	QP	151.2k	54.26	65.92	-11.66	Neutral
Mode 1	Pass	AV	151.2k	34.06	55.92	-21.86	Neutral
Mode 1	Pass	QP	178.8k	48.59	64.55	-15.96	Neutral
Mode 1	Pass	AV	178.8k	29.76	54.55	-24.79	Neutral
Mode 1	Pass	QP	223.6k	41.78	62.69	-20.91	Neutral
Mode 1	Pass	AV	223.6k	25.43	52.69	-27.26	Neutral
Mode 1	Pass	QP	260.22k	37.69	61.43	-23.74	Neutral
Mode 1	Pass	AV	260.22k	23.50	51.43	-27.93	Neutral
Mode 1	Pass	QP	335.97k	33.34	59.31	-25.97	Neutral
Mode 1	Pass	AV	335.97k	23.91	49.31	-25.40	Neutral
Mode 1	Pass	QP	456.88k	35.86	56.75	-20.89	Neutral
Mode 1	Pass	AV	456.88k	29.14	46.75	-17.61	Neutral

Conducted Emissions at Powerline_Mode 1



Conducted Emissions at Powerline_Mode 1





**Conducted Emissions at Powerline_Radio 2_
Dual-Polarized MIMO Panel Antenna**

Appendix A.2

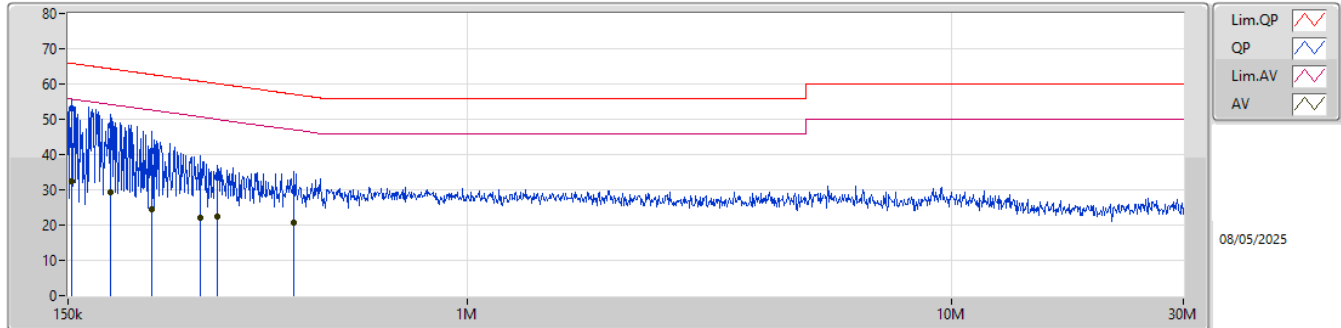
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	QP	151.2k	53.40	65.92	-12.52	Neutral

Result

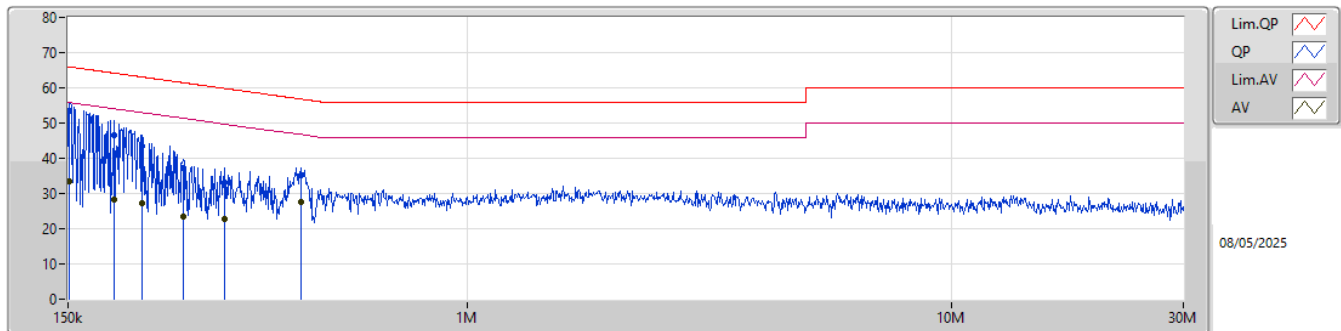
Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	QP	153.02k	53.02	65.83	-12.81	Line
Mode 1	Pass	AV	153.02k	32.58	55.83	-23.25	Line
Mode 1	Pass	QP	183.14k	48.33	64.34	-16.01	Line
Mode 1	Pass	AV	183.14k	29.26	54.34	-25.08	Line
Mode 1	Pass	QP	223.6k	40.88	62.69	-21.81	Line
Mode 1	Pass	AV	223.6k	24.46	52.69	-28.23	Line
Mode 1	Pass	QP	280.73k	34.29	60.80	-26.51	Line
Mode 1	Pass	AV	280.73k	22.08	50.80	-28.72	Line
Mode 1	Pass	QP	304.06k	33.46	60.13	-26.67	Line
Mode 1	Pass	AV	304.06k	22.25	50.13	-27.88	Line
Mode 1	Pass	QP	439k	29.72	57.09	-27.37	Line
Mode 1	Pass	AV	439k	20.75	47.09	-26.34	Line
Mode 1	Pass	QP	151.2k	53.40	65.92	-12.52	Neutral
Mode 1	Pass	AV	151.2k	33.54	55.92	-22.38	Neutral
Mode 1	Pass	QP	186.83k	46.56	64.18	-17.62	Neutral
Mode 1	Pass	AV	186.83k	28.22	54.18	-25.96	Neutral
Mode 1	Pass	QP	213.14k	43.59	63.07	-19.48	Neutral
Mode 1	Pass	AV	213.14k	27.37	53.07	-25.70	Neutral
Mode 1	Pass	QP	259.19k	37.11	61.45	-24.34	Neutral
Mode 1	Pass	AV	259.19k	23.28	51.45	-28.17	Neutral
Mode 1	Pass	QP	316.44k	33.06	59.80	-26.74	Neutral
Mode 1	Pass	AV	316.44k	22.63	49.80	-27.17	Neutral
Mode 1	Pass	QP	453.24k	35.22	56.82	-21.60	Neutral
Mode 1	Pass	AV	453.24k	27.75	46.82	-19.07	Neutral

Conducted Emissions at Powerline_Mode 1



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)						
QP	153.02k	53.02	65.83	-12.81	19.61	Line	-	33.41	9.63	0.01	9.97						
AV	153.02k	32.58	55.83	-23.25	19.61	Line	-	12.97	9.63	0.01	9.97						
QP	183.14k	48.33	64.34	-16.01	19.61	Line	-	28.72	9.63	0.01	9.97						
AV	183.14k	29.26	54.34	-25.08	19.61	Line	-	9.65	9.63	0.01	9.97						
QP	223.6k	40.88	62.69	-21.81	19.61	Line	-	21.27	9.63	0.01	9.97						
AV	223.6k	24.46	52.69	-28.23	19.61	Line	-	4.85	9.63	0.01	9.97						
QP	280.73k	34.29	60.80	-26.51	19.62	Line	-	14.67	9.63	0.02	9.97						
AV	280.73k	22.08	50.80	-28.72	19.62	Line	-	2.46	9.63	0.02	9.97						
QP	304.06k	33.46	60.13	-26.67	19.63	Line	-	13.83	9.63	0.02	9.98						
AV	304.06k	22.25	50.13	-27.88	19.63	Line	-	2.62	9.63	0.02	9.98						
QP	439k	29.72	57.09	-27.37	19.64	Line	-	10.08	9.63	0.03	9.98						
AV	439k	20.75	47.09	-26.34	19.64	Line	-	1.11	9.63	0.03	9.98						

Conducted Emissions at Powerline_Mode 1



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)						
QP	151.2k	53.40	65.92	-12.52	19.71	Neutral	-	33.69	9.73	0.01	9.97						
AV	151.2k	33.54	55.92	-22.38	19.71	Neutral	-	13.83	9.73	0.01	9.97						
QP	186.83k	46.56	64.18	-17.62	19.70	Neutral	-	26.86	9.72	0.01	9.97						
AV	186.83k	28.22	54.18	-25.96	19.70	Neutral	-	8.52	9.72	0.01	9.97						
QP	213.14k	43.59	63.07	-19.48	19.70	Neutral	-	23.89	9.72	0.01	9.97						
AV	213.14k	27.37	53.07	-25.70	19.70	Neutral	-	7.67	9.72	0.01	9.97						
QP	259.19k	37.11	61.45	-24.34	19.71	Neutral	-	17.40	9.72	0.02	9.97						
AV	259.19k	23.28	51.45	-28.17	19.71	Neutral	-	3.57	9.72	0.02	9.97						
QP	316.44k	33.06	59.80	-26.74	19.71	Neutral	-	13.35	9.71	0.02	9.98						
AV	316.44k	22.63	49.80	-27.17	19.71	Neutral	-	2.92	9.71	0.02	9.98						
QP	453.24k	35.22	56.82	-21.60	19.72	Neutral	-	15.50	9.71	0.03	9.98						
AV	453.24k	27.75	46.82	-19.07	19.72	Neutral	-	8.03	9.71	0.03	9.98						



**Conducted Emissions at Powerline_Radio 2_
MIMO-directional Antenna**

Appendix A.3

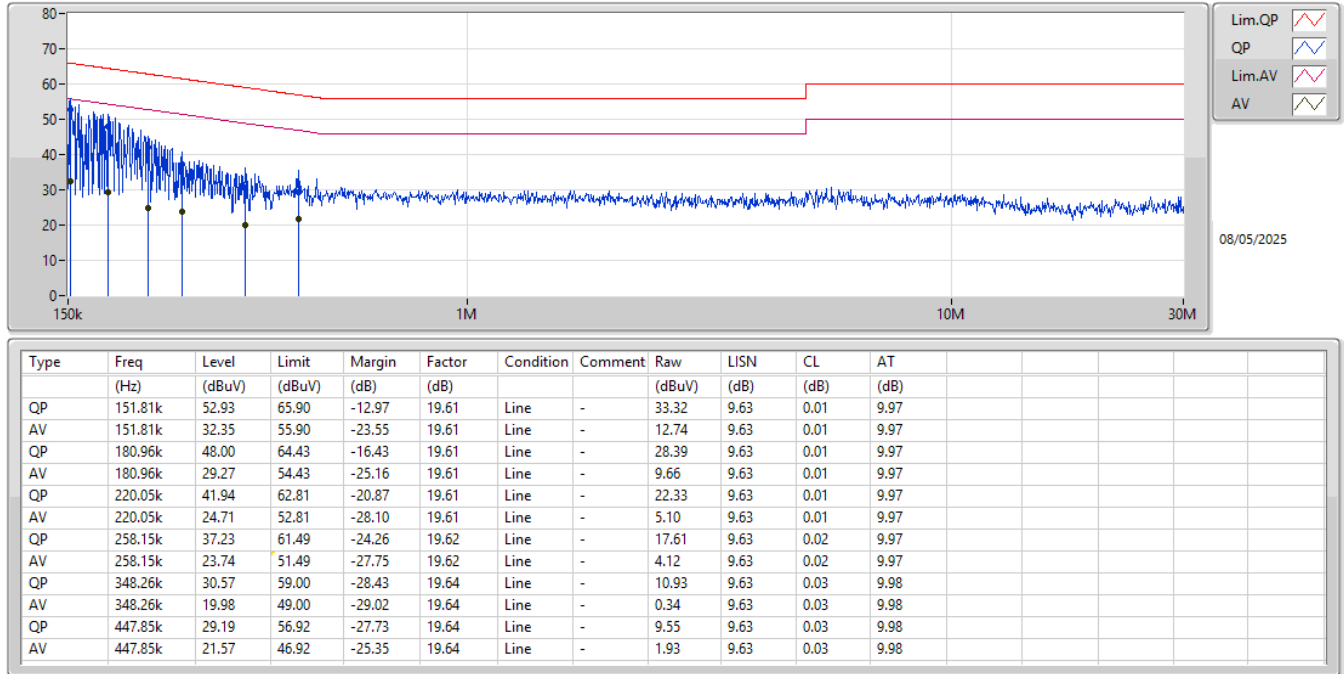
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	QP	151.2k	53.04	65.92	-12.88	Neutral

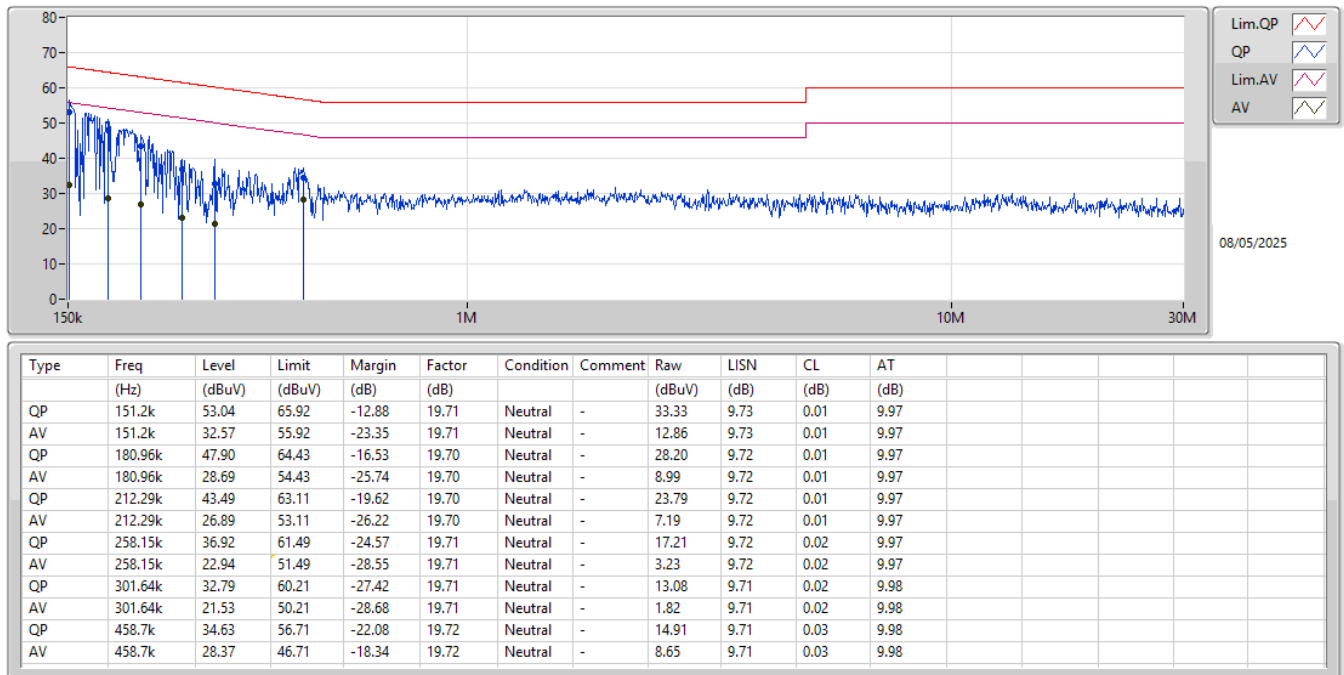
Result

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	QP	151.81k	52.93	65.90	-12.97	Line
Mode 1	Pass	AV	151.81k	32.35	55.90	-23.55	Line
Mode 1	Pass	QP	180.96k	48.00	64.43	-16.43	Line
Mode 1	Pass	AV	180.96k	29.27	54.43	-25.16	Line
Mode 1	Pass	QP	220.05k	41.94	62.81	-20.87	Line
Mode 1	Pass	AV	220.05k	24.71	52.81	-28.10	Line
Mode 1	Pass	QP	258.15k	37.23	61.49	-24.26	Line
Mode 1	Pass	AV	258.15k	23.74	51.49	-27.75	Line
Mode 1	Pass	QP	348.26k	30.57	59.00	-28.43	Line
Mode 1	Pass	AV	348.26k	19.98	49.00	-29.02	Line
Mode 1	Pass	QP	447.85k	29.19	56.92	-27.73	Line
Mode 1	Pass	AV	447.85k	21.57	46.92	-25.35	Line
Mode 1	Pass	QP	151.2k	53.04	65.92	-12.88	Neutral
Mode 1	Pass	AV	151.2k	32.57	55.92	-23.35	Neutral
Mode 1	Pass	QP	180.96k	47.90	64.43	-16.53	Neutral
Mode 1	Pass	AV	180.96k	28.69	54.43	-25.74	Neutral
Mode 1	Pass	QP	212.29k	43.49	63.11	-19.62	Neutral
Mode 1	Pass	AV	212.29k	26.89	53.11	-26.22	Neutral
Mode 1	Pass	QP	258.15k	36.92	61.49	-24.57	Neutral
Mode 1	Pass	AV	258.15k	22.94	51.49	-28.55	Neutral
Mode 1	Pass	QP	301.64k	32.79	60.21	-27.42	Neutral
Mode 1	Pass	AV	301.64k	21.53	50.21	-28.68	Neutral
Mode 1	Pass	QP	458.7k	34.63	56.71	-22.08	Neutral
Mode 1	Pass	AV	458.7k	28.37	46.71	-18.34	Neutral

Conducted Emissions at Powerline_Mode 1



Conducted Emissions at Powerline_Mode 1





Conducted Emissions at Powerline_Radio 3_ Dipole Antenna

Appendix A.4

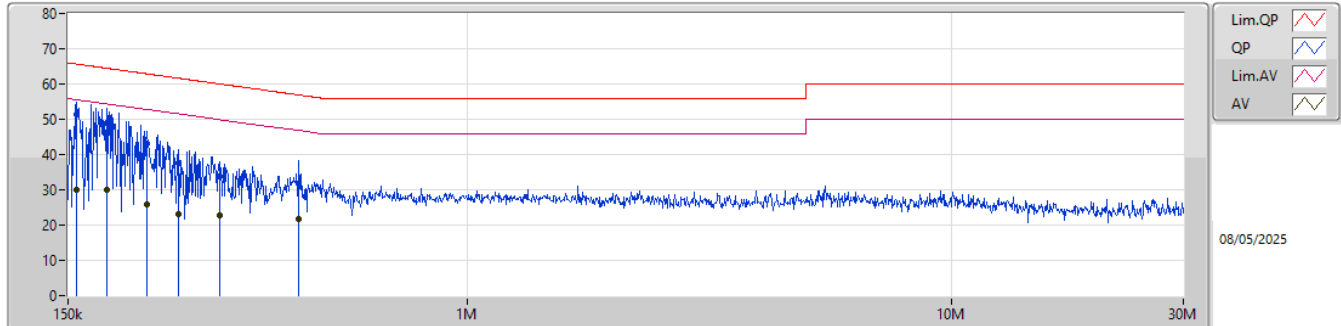
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	QP	150.6k	54.00	65.96	-11.96	Neutral

Result

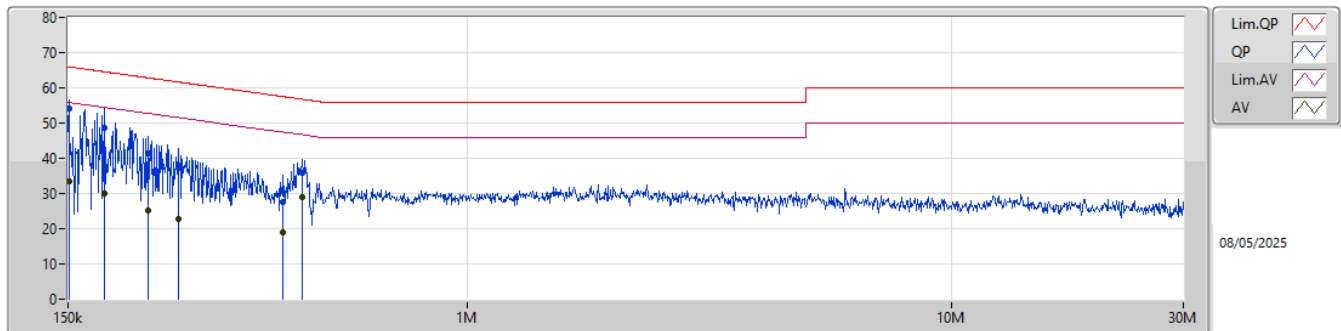
Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	QP	156.11k	51.24	65.67	-14.43	Line
Mode 1	Pass	AV	156.11k	30.08	55.67	-25.59	Line
Mode 1	Pass	QP	180.24k	48.95	64.47	-15.52	Line
Mode 1	Pass	AV	180.24k	29.94	54.47	-24.53	Line
Mode 1	Pass	QP	218.3k	43.23	62.88	-19.65	Line
Mode 1	Pass	AV	218.3k	26.01	52.88	-26.87	Line
Mode 1	Pass	QP	254.06k	37.75	61.62	-23.87	Line
Mode 1	Pass	AV	254.06k	23.18	51.62	-28.44	Line
Mode 1	Pass	QP	307.72k	33.76	60.03	-26.27	Line
Mode 1	Pass	AV	307.72k	22.74	50.03	-27.29	Line
Mode 1	Pass	QP	449.64k	31.83	56.88	-25.05	Line
Mode 1	Pass	AV	449.64k	21.56	46.88	-25.32	Line
Mode 1	Pass	QP	150.6k	54.00	65.96	-11.96	Neutral
Mode 1	Pass	AV	150.6k	33.35	55.96	-22.61	Neutral
Mode 1	Pass	QP	178.8k	48.55	64.55	-16.00	Neutral
Mode 1	Pass	AV	178.8k	29.98	54.55	-24.57	Neutral
Mode 1	Pass	QP	220.05k	41.44	62.81	-21.37	Neutral
Mode 1	Pass	AV	220.05k	25.24	52.81	-27.57	Neutral
Mode 1	Pass	QP	253.05k	37.33	61.66	-24.33	Neutral
Mode 1	Pass	AV	253.05k	22.93	51.66	-28.73	Neutral
Mode 1	Pass	QP	416.79k	27.46	57.51	-30.05	Neutral
Mode 1	Pass	AV	416.79k	19.02	47.51	-28.49	Neutral
Mode 1	Pass	QP	456.88k	35.77	56.75	-20.98	Neutral
Mode 1	Pass	AV	456.88k	29.07	46.75	-17.68	Neutral

Conducted Emissions at Powerline_Mode 1



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)						
QP	156.11k	51.24	65.67	-14.43	19.61	Line	-	31.63	9.63	0.01	9.97						
AV	156.11k	30.08	55.67	-25.59	19.61	Line	-	10.47	9.63	0.01	9.97						
QP	180.24k	48.95	64.47	-15.52	19.61	Line	-	29.34	9.63	0.01	9.97						
AV	180.24k	29.94	54.47	-24.53	19.61	Line	-	10.33	9.63	0.01	9.97						
QP	218.3k	43.23	62.88	-19.65	19.61	Line	-	23.62	9.63	0.01	9.97						
AV	218.3k	26.01	52.88	-26.87	19.61	Line	-	6.40	9.63	0.01	9.97						
QP	254.06k	37.75	61.62	-23.87	19.62	Line	-	18.13	9.63	0.02	9.97						
AV	254.06k	23.18	51.62	-28.44	19.62	Line	-	3.56	9.63	0.02	9.97						
QP	307.72k	33.76	60.03	-26.27	19.63	Line	-	14.13	9.63	0.02	9.98						
AV	307.72k	22.74	50.03	-27.29	19.63	Line	-	3.11	9.63	0.02	9.98						
QP	449.64k	31.83	56.88	-25.05	19.64	Line	-	12.19	9.63	0.03	9.98						
AV	449.64k	21.56	46.88	-25.32	19.64	Line	-	1.92	9.63	0.03	9.98						

Conducted Emissions at Powerline_Mode 1



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)						
QP	150.6k	54.00	65.96	-11.96	19.71	Neutral	-	34.29	9.73	0.01	9.97						
AV	150.6k	33.35	55.96	-22.61	19.71	Neutral	-	13.64	9.73	0.01	9.97						
QP	178.8k	48.55	64.55	-16.00	19.70	Neutral	-	28.85	9.72	0.01	9.97						
AV	178.8k	29.98	54.55	-24.57	19.70	Neutral	-	10.28	9.72	0.01	9.97						
QP	220.05k	41.44	62.81	-21.37	19.70	Neutral	-	21.74	9.72	0.01	9.97						
AV	220.05k	25.24	52.81	-27.57	19.70	Neutral	-	5.54	9.72	0.01	9.97						
QP	253.05k	37.33	61.66	-24.33	19.71	Neutral	-	17.62	9.72	0.02	9.97						
AV	253.05k	22.93	51.66	-28.73	19.71	Neutral	-	3.22	9.72	0.02	9.97						
QP	416.79k	27.46	57.51	-30.05	19.72	Neutral	-	7.74	9.71	0.03	9.98						
AV	416.79k	19.02	47.51	-28.49	19.72	Neutral	-	-0.70	9.71	0.03	9.98						
QP	456.88k	35.77	56.75	-20.98	19.72	Neutral	-	16.05	9.71	0.03	9.98						
AV	456.88k	29.07	46.75	-17.68	19.72	Neutral	-	9.35	9.71	0.03	9.98						



**Conducted Emissions at Powerline_Radio 3_
Dual-Polarized MIMO Panel Antenna**

Appendix A.5

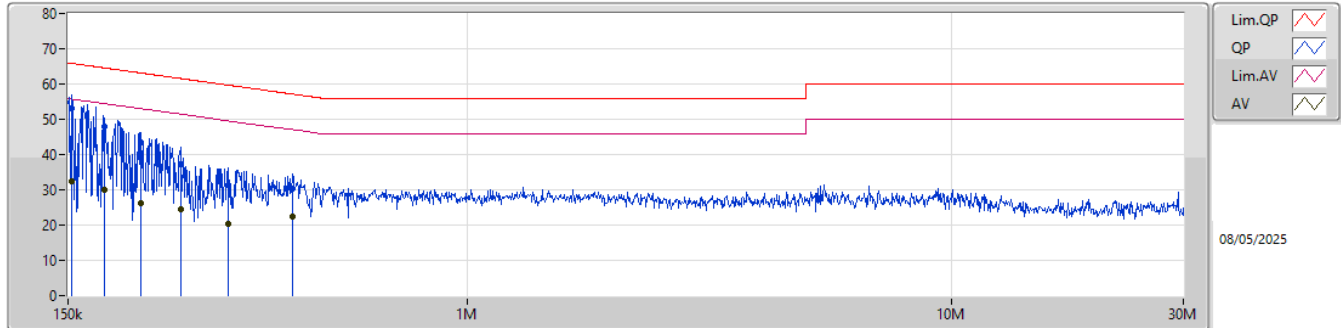
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	QP	152.41k	53.18	65.87	-12.69	Line

Result

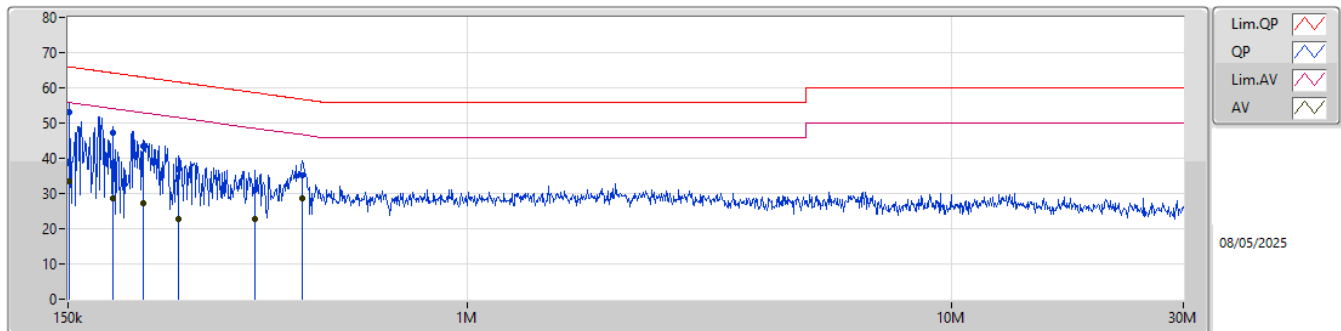
Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	QP	152.41k	53.18	65.87	-12.69	Line
Mode 1	Pass	AV	152.41k	32.26	55.87	-23.61	Line
Mode 1	Pass	QP	178.09k	47.94	64.57	-16.63	Line
Mode 1	Pass	AV	178.09k	29.90	54.57	-24.67	Line
Mode 1	Pass	QP	212.29k	43.57	63.11	-19.54	Line
Mode 1	Pass	AV	212.29k	26.26	53.11	-26.85	Line
Mode 1	Pass	QP	256.1k	37.22	61.56	-24.34	Line
Mode 1	Pass	AV	256.1k	24.40	51.56	-27.16	Line
Mode 1	Pass	QP	321.54k	31.42	59.67	-28.25	Line
Mode 1	Pass	AV	321.54k	20.30	49.67	-29.37	Line
Mode 1	Pass	QP	435.5k	30.21	57.15	-26.94	Line
Mode 1	Pass	AV	435.5k	22.42	47.15	-24.73	Line
Mode 1	Pass	QP	151.2k	53.15	65.92	-12.77	Neutral
Mode 1	Pass	AV	151.2k	33.32	55.92	-22.60	Neutral
Mode 1	Pass	QP	185.34k	47.34	64.24	-16.90	Neutral
Mode 1	Pass	AV	185.34k	28.57	54.24	-25.67	Neutral
Mode 1	Pass	QP	213.99k	43.37	63.06	-19.69	Neutral
Mode 1	Pass	AV	213.99k	27.23	53.06	-25.83	Neutral
Mode 1	Pass	QP	253.05k	36.90	61.66	-24.76	Neutral
Mode 1	Pass	AV	253.05k	22.78	51.66	-28.88	Neutral
Mode 1	Pass	QP	365.35k	30.98	58.60	-27.62	Neutral
Mode 1	Pass	AV	365.35k	22.68	48.60	-25.92	Neutral
Mode 1	Pass	QP	456.88k	35.18	56.75	-21.57	Neutral
Mode 1	Pass	AV	456.88k	28.68	46.75	-18.07	Neutral

Conducted Emissions at Powerline_Mode 1



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)						
QP	152.41k	53.18	65.87	-12.69	19.61	Line	-	33.57	9.63	0.01	9.97						
AV	152.41k	32.26	55.87	-23.61	19.61	Line	-	12.65	9.63	0.01	9.97						
QP	178.09k	47.94	64.57	-16.63	19.61	Line	-	28.33	9.63	0.01	9.97						
AV	178.09k	29.90	54.57	-24.67	19.61	Line	-	10.29	9.63	0.01	9.97						
QP	212.29k	43.57	63.11	-19.54	19.61	Line	-	23.96	9.63	0.01	9.97						
AV	212.29k	26.26	53.11	-26.85	19.61	Line	-	6.65	9.63	0.01	9.97						
QP	256.1k	37.22	61.56	-24.34	19.62	Line	-	17.60	9.63	0.02	9.97						
AV	256.1k	24.40	51.56	-27.16	19.62	Line	-	4.78	9.63	0.02	9.97						
QP	321.54k	31.42	59.67	-28.25	19.63	Line	-	11.79	9.63	0.02	9.98						
AV	321.54k	20.30	49.67	-29.37	19.63	Line	-	0.67	9.63	0.02	9.98						
QP	435.5k	30.21	57.15	-26.94	19.64	Line	-	10.57	9.63	0.03	9.98						
AV	435.5k	22.42	47.15	-24.73	19.64	Line	-	2.78	9.63	0.03	9.98						

Conducted Emissions at Powerline_Mode 1



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)						
QP	151.2k	53.15	65.92	-12.77	19.71	Neutral	-	33.44	9.73	0.01	9.97						
AV	151.2k	33.32	55.92	-22.60	19.71	Neutral	-	13.61	9.73	0.01	9.97						
QP	185.34k	47.34	64.24	-16.90	19.70	Neutral	-	27.64	9.72	0.01	9.97						
AV	185.34k	28.57	54.24	-25.67	19.70	Neutral	-	8.87	9.72	0.01	9.97						
QP	213.99k	43.37	63.06	-19.69	19.70	Neutral	-	23.67	9.72	0.01	9.97						
AV	213.99k	27.23	53.06	-25.83	19.70	Neutral	-	7.53	9.72	0.01	9.97						
QP	253.05k	36.90	61.66	-24.76	19.71	Neutral	-	17.19	9.72	0.02	9.97						
AV	253.05k	22.78	51.66	-28.88	19.71	Neutral	-	3.07	9.72	0.02	9.97						
QP	365.35k	30.98	58.60	-27.62	19.72	Neutral	-	11.26	9.71	0.03	9.98						
AV	365.35k	22.68	48.60	-25.92	19.72	Neutral	-	2.96	9.71	0.03	9.98						
QP	456.88k	35.18	56.75	-21.57	19.72	Neutral	-	15.46	9.71	0.03	9.98						
AV	456.88k	28.68	46.75	-18.07	19.72	Neutral	-	8.96	9.71	0.03	9.98						



**Conducted Emissions at Powerline_Radio 3_
MIMO-directional Antenna**

Appendix A.6

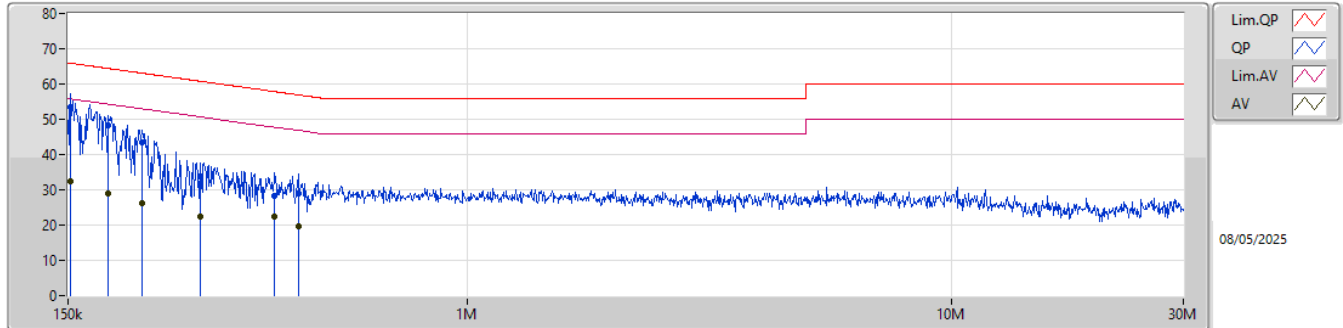
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	QP	151.81k	53.33	65.90	-12.57	Line

Result

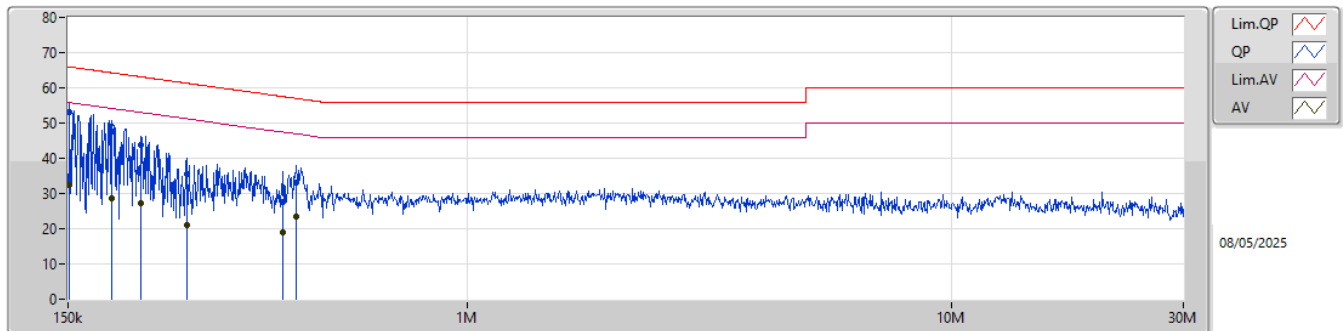
Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	QP	151.81k	53.33	65.90	-12.57	Line
Mode 1	Pass	AV	151.81k	32.58	55.90	-23.32	Line
Mode 1	Pass	QP	181.68k	48.16	64.41	-16.25	Line
Mode 1	Pass	AV	181.68k	28.83	54.41	-25.58	Line
Mode 1	Pass	QP	213.14k	43.58	63.07	-19.49	Line
Mode 1	Pass	AV	213.14k	26.23	53.07	-26.84	Line
Mode 1	Pass	QP	280.73k	33.95	60.80	-26.85	Line
Mode 1	Pass	AV	280.73k	22.27	50.80	-28.53	Line
Mode 1	Pass	QP	400.48k	28.28	57.84	-29.56	Line
Mode 1	Pass	AV	400.48k	22.50	47.84	-25.34	Line
Mode 1	Pass	QP	447.85k	29.06	56.92	-27.86	Line
Mode 1	Pass	AV	447.85k	19.82	46.92	-27.10	Line
Mode 1	Pass	QP	151.2k	53.08	65.92	-12.84	Neutral
Mode 1	Pass	AV	151.2k	32.53	55.92	-23.39	Neutral
Mode 1	Pass	QP	184.61k	47.52	64.28	-16.76	Neutral
Mode 1	Pass	AV	184.61k	28.47	54.28	-25.81	Neutral
Mode 1	Pass	QP	212.29k	43.69	63.11	-19.42	Neutral
Mode 1	Pass	AV	212.29k	27.25	53.11	-25.86	Neutral
Mode 1	Pass	QP	263.36k	35.60	61.32	-25.72	Neutral
Mode 1	Pass	AV	263.36k	21.09	51.32	-30.23	Neutral
Mode 1	Pass	QP	416.79k	27.65	57.51	-29.86	Neutral
Mode 1	Pass	AV	416.79k	19.03	47.51	-28.48	Neutral
Mode 1	Pass	QP	444.28k	33.19	56.98	-23.79	Neutral
Mode 1	Pass	AV	444.28k	23.44	46.98	-23.54	Neutral

Conducted Emissions at Powerline_Mode 1



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)						
QP	151.81k	53.33	65.90	-12.57	19.61	Line	-	33.72	9.63	0.01	9.97						
AV	151.81k	32.58	55.90	-23.32	19.61	Line	-	12.97	9.63	0.01	9.97						
QP	181.68k	48.16	64.41	-16.25	19.61	Line	-	28.55	9.63	0.01	9.97						
AV	181.68k	28.83	54.41	-25.58	19.61	Line	-	9.22	9.63	0.01	9.97						
QP	213.14k	43.58	63.07	-19.49	19.61	Line	-	23.97	9.63	0.01	9.97						
AV	213.14k	26.23	53.07	-26.84	19.61	Line	-	6.62	9.63	0.01	9.97						
QP	280.73k	33.95	60.80	-26.85	19.62	Line	-	14.33	9.63	0.02	9.97						
AV	280.73k	22.27	50.80	-28.53	19.62	Line	-	2.65	9.63	0.02	9.97						
QP	400.48k	28.28	57.84	-29.56	19.64	Line	-	8.64	9.63	0.03	9.98						
AV	400.48k	22.50	47.84	-25.34	19.64	Line	-	2.86	9.63	0.03	9.98						
QP	447.85k	29.06	56.92	-27.86	19.64	Line	-	9.42	9.63	0.03	9.98						
AV	447.85k	19.82	46.92	-27.10	19.64	Line	-	0.18	9.63	0.03	9.98						

Conducted Emissions at Powerline_Mode 1



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)						
QP	151.2k	53.08	65.92	-12.84	19.71	Neutral	-	33.37	9.73	0.01	9.97						
AV	151.2k	32.53	55.92	-23.39	19.71	Neutral	-	12.82	9.73	0.01	9.97						
QP	184.61k	47.52	64.28	-16.76	19.70	Neutral	-	27.82	9.72	0.01	9.97						
AV	184.61k	28.47	54.28	-25.81	19.70	Neutral	-	8.77	9.72	0.01	9.97						
QP	212.29k	43.69	63.11	-19.42	19.70	Neutral	-	23.99	9.72	0.01	9.97						
AV	212.29k	27.25	53.11	-25.86	19.70	Neutral	-	7.55	9.72	0.01	9.97						
QP	263.36k	35.60	61.32	-25.72	19.71	Neutral	-	15.89	9.72	0.02	9.97						
AV	263.36k	21.09	51.32	-30.23	19.71	Neutral	-	1.38	9.72	0.02	9.97						
QP	416.79k	27.65	57.51	-29.86	19.72	Neutral	-	7.93	9.71	0.03	9.98						
AV	416.79k	19.03	47.51	-28.48	19.72	Neutral	-	-0.69	9.71	0.03	9.98						
QP	444.28k	33.19	56.98	-23.79	19.72	Neutral	-	13.47	9.71	0.03	9.98						
AV	444.28k	23.44	46.98	-23.54	19.72	Neutral	-	3.72	9.71	0.03	9.98						



Conducted Emissions at Powerline_Radio 1_Scan

Appendix A.7

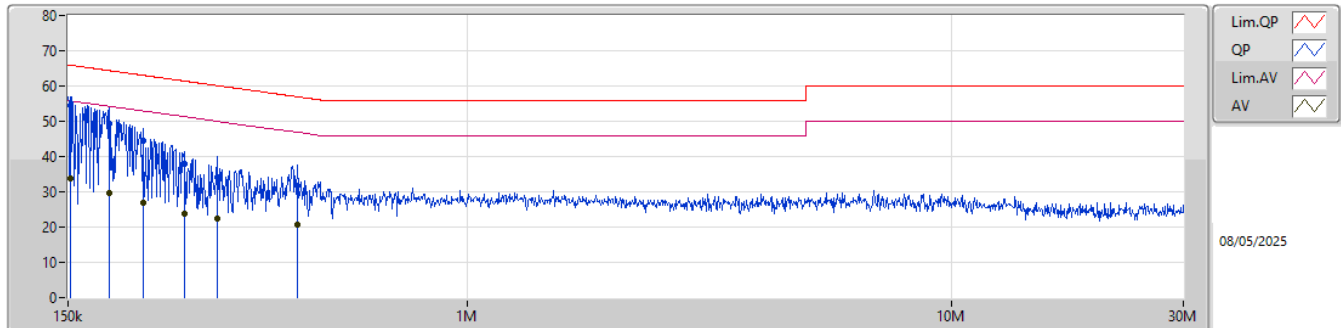
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	QP	151.81k	54.34	65.90	-11.56	Line

Result

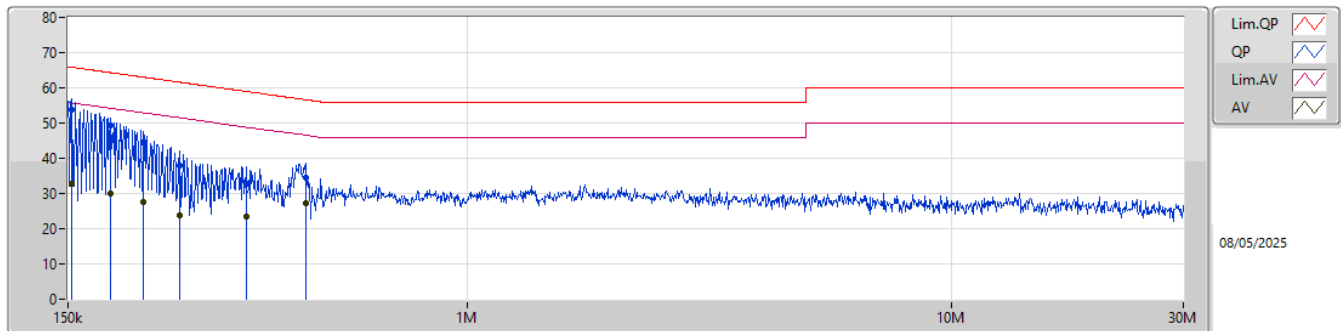
Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	QP	151.81k	54.34	65.90	-11.56	Line
Mode 1	Pass	AV	151.81k	33.64	55.90	-22.26	Line
Mode 1	Pass	QP	182.41k	49.37	64.37	-15.00	Line
Mode 1	Pass	AV	182.41k	29.62	54.37	-24.75	Line
Mode 1	Pass	QP	213.99k	44.58	63.06	-18.48	Line
Mode 1	Pass	AV	213.99k	26.97	53.06	-26.09	Line
Mode 1	Pass	QP	260.22k	38.06	61.43	-23.37	Line
Mode 1	Pass	AV	260.22k	23.73	51.43	-27.70	Line
Mode 1	Pass	QP	304.06k	34.08	60.13	-26.05	Line
Mode 1	Pass	AV	304.06k	22.32	50.13	-27.81	Line
Mode 1	Pass	QP	446.06k	31.84	56.96	-25.12	Line
Mode 1	Pass	AV	446.06k	20.71	46.96	-26.25	Line
Mode 1	Pass	QP	153.02k	53.71	65.83	-12.12	Neutral
Mode 1	Pass	AV	153.02k	32.74	55.83	-23.09	Neutral
Mode 1	Pass	QP	183.14k	49.39	64.34	-14.95	Neutral
Mode 1	Pass	AV	183.14k	30.11	54.34	-24.23	Neutral
Mode 1	Pass	QP	213.99k	44.44	63.06	-18.62	Neutral
Mode 1	Pass	AV	213.99k	27.52	53.06	-25.54	Neutral
Mode 1	Pass	QP	255.08k	37.83	61.58	-23.75	Neutral
Mode 1	Pass	AV	255.08k	23.64	51.58	-27.94	Neutral
Mode 1	Pass	QP	349.65k	32.93	58.96	-26.03	Neutral
Mode 1	Pass	AV	349.65k	23.57	48.96	-25.39	Neutral
Mode 1	Pass	QP	464.23k	34.51	56.61	-22.10	Neutral
Mode 1	Pass	AV	464.23k	27.14	46.61	-19.47	Neutral

Conducted Emissions at Powerline_Mode 1



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)						
QP	151.81k	54.34	65.90	-11.56	19.61	Line	-	34.73	9.63	0.01	9.97						
AV	151.81k	33.64	55.90	-22.26	19.61	Line	-	14.03	9.63	0.01	9.97						
QP	182.41k	49.37	64.37	-15.00	19.61	Line	-	29.76	9.63	0.01	9.97						
AV	182.41k	29.62	54.37	-24.75	19.61	Line	-	10.01	9.63	0.01	9.97						
QP	213.99k	44.58	63.06	-18.48	19.61	Line	-	24.97	9.63	0.01	9.97						
AV	213.99k	26.97	53.06	-26.09	19.61	Line	-	7.36	9.63	0.01	9.97						
QP	260.22k	38.06	61.43	-23.37	19.62	Line	-	18.44	9.63	0.02	9.97						
AV	260.22k	23.73	51.43	-27.70	19.62	Line	-	4.11	9.63	0.02	9.97						
QP	304.06k	34.08	60.13	-26.05	19.63	Line	-	14.45	9.63	0.02	9.98						
AV	304.06k	22.32	50.13	-27.81	19.63	Line	-	2.69	9.63	0.02	9.98						
QP	446.06k	31.84	56.96	-25.12	19.64	Line	-	12.20	9.63	0.03	9.98						
AV	446.06k	20.71	46.96	-26.25	19.64	Line	-	1.07	9.63	0.03	9.98						

Conducted Emissions at Powerline_Mode 1



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)						
QP	153.02k	53.71	65.83	-12.12	19.71	Neutral	-	34.00	9.73	0.01	9.97						
AV	153.02k	32.74	55.83	-23.09	19.71	Neutral	-	13.03	9.73	0.01	9.97						
QP	183.14k	49.39	64.34	-14.95	19.70	Neutral	-	29.69	9.72	0.01	9.97						
AV	183.14k	30.11	54.34	-24.23	19.70	Neutral	-	10.41	9.72	0.01	9.97						
QP	213.99k	44.44	63.06	-18.62	19.70	Neutral	-	24.74	9.72	0.01	9.97						
AV	213.99k	27.52	53.06	-25.54	19.70	Neutral	-	7.82	9.72	0.01	9.97						
QP	255.08k	37.83	61.58	-23.75	19.71	Neutral	-	18.12	9.72	0.02	9.97						
AV	255.08k	23.64	51.58	-27.94	19.71	Neutral	-	3.93	9.72	0.02	9.97						
QP	349.65k	32.93	58.96	-26.03	19.72	Neutral	-	13.21	9.71	0.03	9.98						
AV	349.65k	23.57	48.96	-25.39	19.72	Neutral	-	3.85	9.71	0.03	9.98						
QP	464.23k	34.51	56.61	-22.10	19.72	Neutral	-	14.79	9.71	0.03	9.98						
AV	464.23k	27.14	46.61	-19.47	19.72	Neutral	-	7.42	9.71	0.03	9.98						

**Summary**

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.15-5.25GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX	23.43M	17.305M	17M3D1D	21.23M	16.778M
802.11be EHT20_Nss1,(MCS0)_1TX	29.48M	19.265M	19M3D1D	21.835M	19.065M
802.11be EHT40_Nss1,(MCS0)_1TX	40.81M	37.781M	37M8D1D	40.7M	37.731M
802.11be EHT80_Nss1,(MCS0)_1TX	83.16M	77.261M	77M3D1D	83.16M	77.261M
802.11be EHT160_Nss1,(MCS0)_1TX	79.76M	77.001M	77M0D1D	79.76M	77.001M
5.25-5.35GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX	23.54M	17.305M	17M3D1D	21.175M	16.778M
802.11be EHT20_Nss1,(MCS0)_1TX	23.815M	19.19M	19M2D1D	21.56M	19.04M
802.11be EHT40_Nss1,(MCS0)_1TX	43.67M	37.731M	37M7D1D	42.57M	37.731M
802.11be EHT80_Nss1,(MCS0)_1TX	80.3M	77.361M	77M4D1D	80.3M	77.361M
802.11be EHT160_Nss1,(MCS0)_1TX	79.44M	77.161M	77M2D1D	79.44M	77.161M
5.47-5.725GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX	22.44M	17.173M	17M2D1D	15.84M	13.598M
802.11be EHT20_Nss1,(MCS0)_1TX	32.065M	19.04M	19M0D1D	20.4M	14.633M
802.11be EHT40_Nss1,(MCS0)_1TX	48.18M	37.781M	37M8D1D	42.595M	33.793M
802.11be EHT80_Nss1,(MCS0)_1TX	87.34M	77.261M	77M3D1D	77.475M	72.939M
802.11be EHT160_Nss1,(MCS0)_1TX	159.28M	156.522M	157MD1D	159.28M	156.522M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX	16.555M	17.239M	17M2D1D	3.28M	5.057M
802.11be EHT20_Nss1,(MCS0)_1TX	19.085M	19.065M	19M1D1D	4.52M	5.017M
802.11be EHT40_Nss1,(MCS0)_1TX	37.84M	37.831M	37M8D1D	4M	13.513M
802.11be EHT80_Nss1,(MCS0)_1TX	76.56M	77.261M	77M3D1D	4.06M	18.011M

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)
802.11a_Nss1,(6Mbps)_1TX	-	-	-	-
5180MHz	Pass	Inf	21.23M	17.305M
5200MHz	Pass	Inf	23.43M	16.778M
5240MHz	Pass	Inf	21.615M	16.8M
5260MHz	Pass	Inf	21.505M	17.305M
5300MHz	Pass	Inf	21.175M	16.778M
5320MHz	Pass	Inf	23.54M	16.91M
5500MHz	Pass	Inf	21.505M	16.866M
5580MHz	Pass	Inf	22.44M	17.173M
5700MHz	Pass	Inf	21.67M	16.514M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	15.84M	13.598M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	3.28M	5.057M
5745MHz	Pass	500k	16.555M	16.712M
5785MHz	Pass	500k	16.555M	16.602M
5825MHz	Pass	500k	16.5M	17.239M
802.11be EHT20_Nss1,(MCS0)_1TX	-	-	-	-
5180MHz	Pass	Inf	26.29M	19.14M
5200MHz	Pass	Inf	21.835M	19.265M
5240MHz	Pass	Inf	29.48M	19.065M
5260MHz	Pass	Inf	21.56M	19.19M
5300MHz	Pass	Inf	23.815M	19.04M
5320MHz	Pass	Inf	21.56M	19.165M
5500MHz	Pass	Inf	32.065M	19.015M
5580MHz	Pass	Inf	22.11M	19.04M
5700MHz	Pass	Inf	21.34M	18.966M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	20.4M	14.633M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	4.52M	5.017M
5745MHz	Pass	500k	19.03M	19.015M
5785MHz	Pass	500k	19.085M	19.04M
5825MHz	Pass	500k	18.755M	19.065M
802.11be EHT40_Nss1,(MCS0)_1TX	-	-	-	-
5190MHz	Pass	Inf	40.81M	37.781M
5230MHz	Pass	Inf	40.7M	37.731M
5270MHz	Pass	Inf	43.67M	37.731M
5310MHz	Pass	Inf	42.57M	37.731M
5510MHz	Pass	Inf	43.01M	37.781M
5550MHz	Pass	Inf	45.98M	37.781M
5670MHz	Pass	Inf	48.18M	37.631M
5710MHz Straddle 5.47-5.725GHz	Pass	Inf	42.595M	33.793M
5710MHz Straddle 5.725-5.85GHz	Pass	500k	4M	13.513M
5755MHz	Pass	500k	37.29M	37.831M
5795MHz	Pass	500k	37.84M	37.731M
802.11be EHT80_Nss1,(MCS0)_1TX	-	-	-	-



Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
5210MHz	Pass	Inf	83.16M	77.261M
5290MHz	Pass	Inf	80.3M	77.361M
5530MHz	Pass	Inf	87.34M	77.261M
5610MHz	Pass	Inf	86.46M	77.261M
5690MHz Straddle 5.47-5.725GHz	Pass	Inf	77.475M	72.939M
5690MHz Straddle 5.725-5.85GHz	Pass	500k	4.06M	18.011M
5775MHz	Pass	500k	76.56M	77.261M
802.11be EHT160_Nss1,(MCS0)_1TX	-	-	-	-
5250MHz Straddle 5.15-5.25GHz	Pass	Inf	79.76M	77.001M
5250MHz Straddle 5.25-5.35GHz	Pass	Inf	79.44M	77.161M
5570MHz	Pass	Inf	159.28M	156.522M

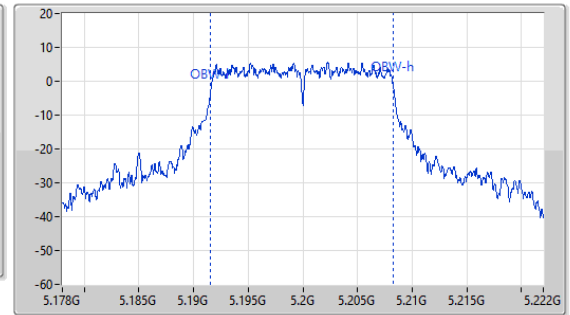
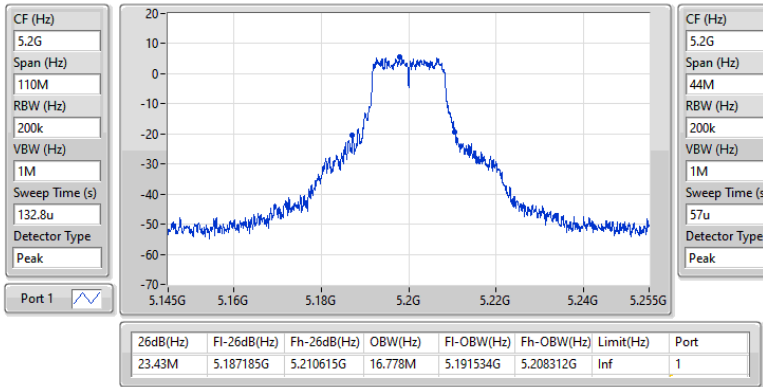
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band
Port X-OBW = Port X 99% occupied bandwidth

5.15-5.25GHz_802.11a_Nss1,(6Mbps)_1TX

EBW

5200MHz

16/01/2025

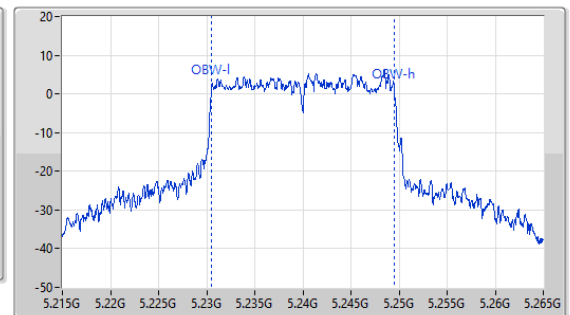
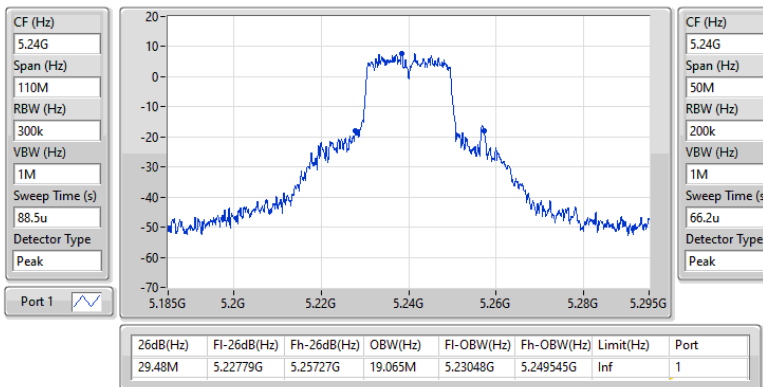


5.15-5.25GHz_802.11be EHT20_Nss1,(MCS0)_1TX

EBW

5240MHz

16/01/2025

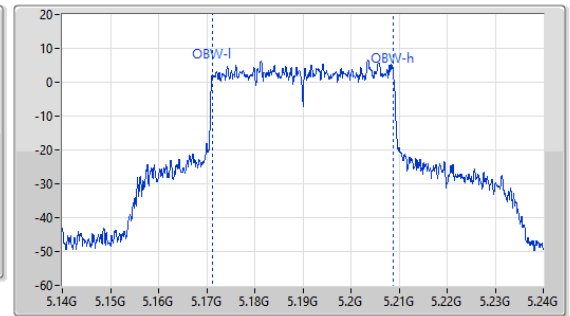
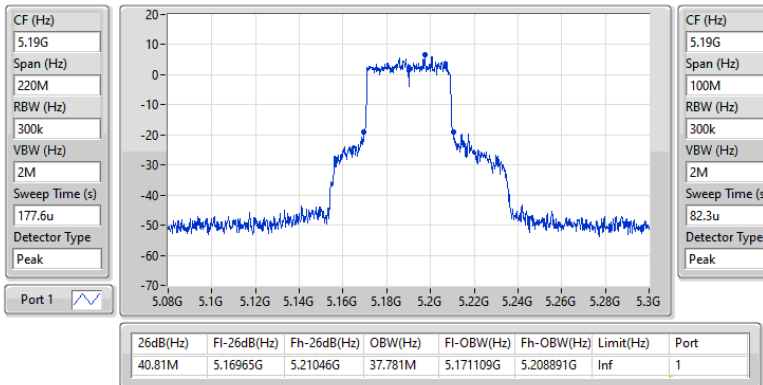


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EBW

5190MHz

16/01/2025

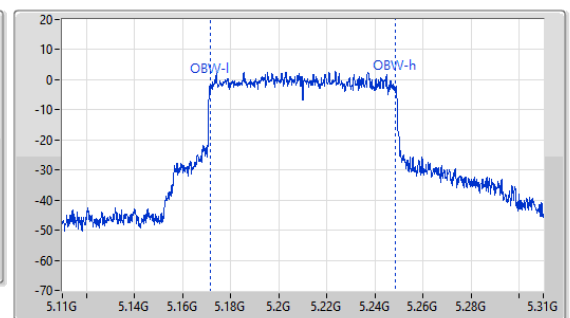
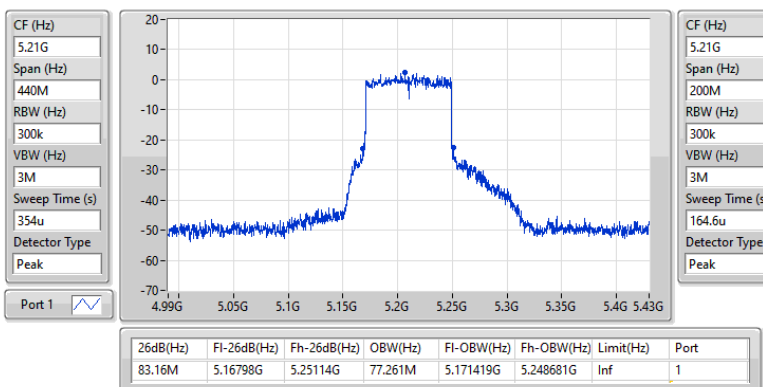


5.15-5.25GHz_802.11be EHT80_Nss1,(MCS0)_1TX

EBW

5210MHz

16/01/2025

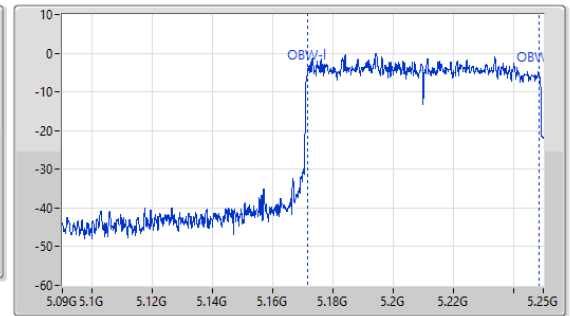
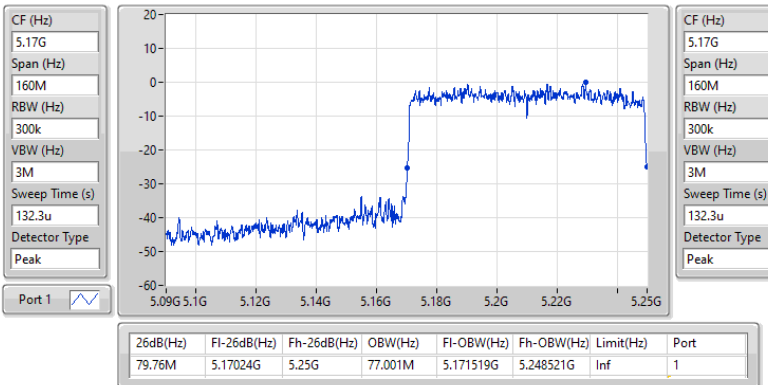


5.15-5.25GHz_802.11be EHT160_Nss1,(MCS0)_1TX

EBW

5250MHz Straddle 5.15-5.25GHz

25/02/2025

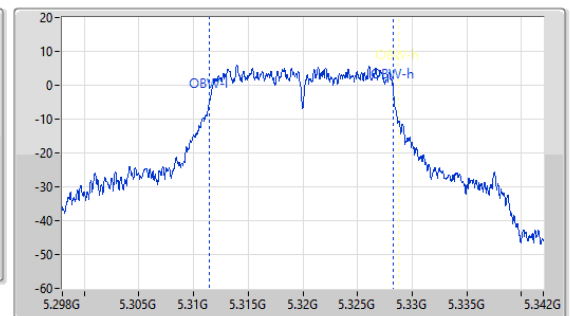
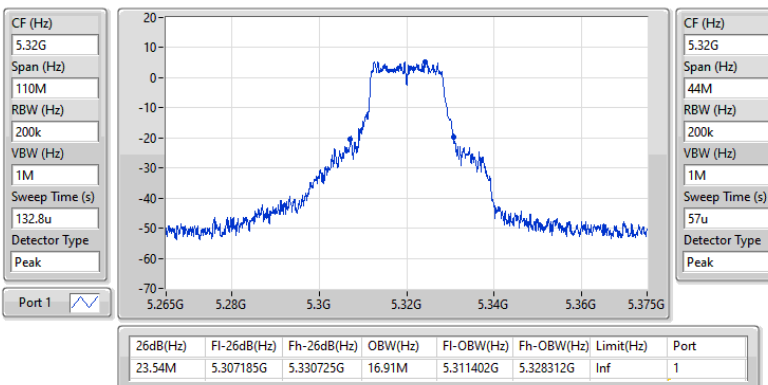


5.25-5.35GHz_802.11a_Nss1,(6Mbps)_1TX

EBW

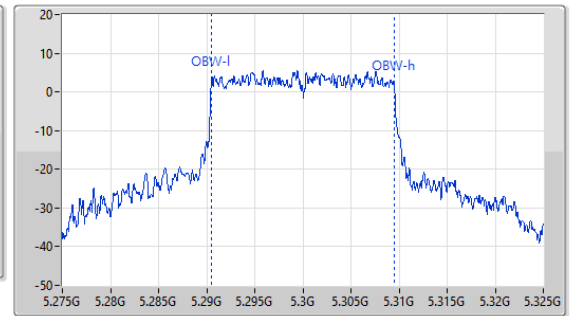
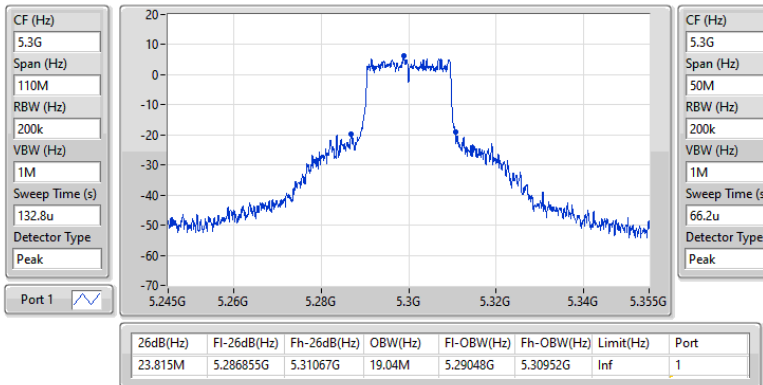
5320MHz

16/01/2025

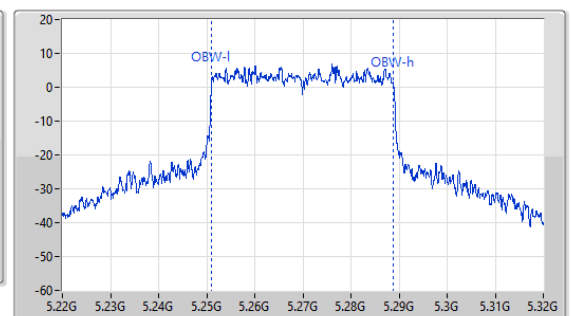
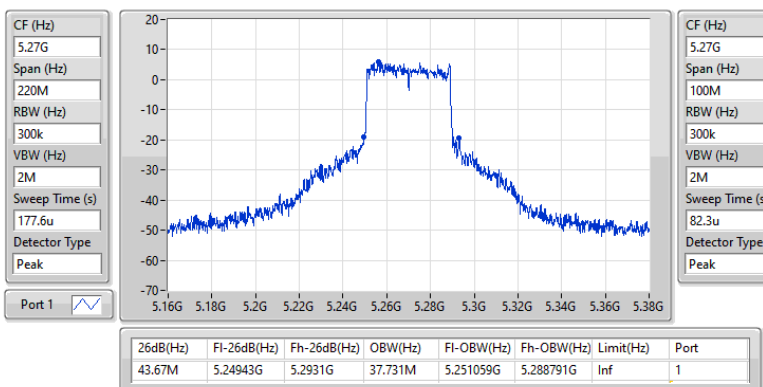


5.25-5.35GHz_802.11be EHT20_Nss1,(MCS0)_1TX
EBW
5300MHz

16/01/2025


5.25-5.35GHz_802.11be EHT40_Nss1,(MCS0)_1TX
EBW
5270MHz

16/01/2025

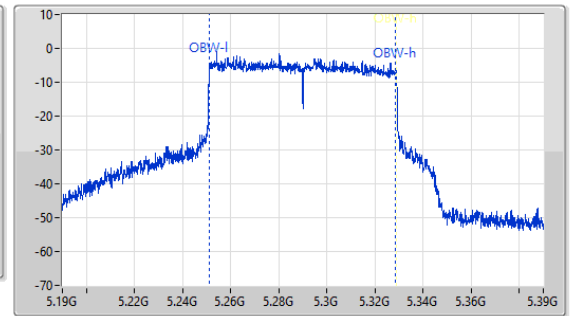
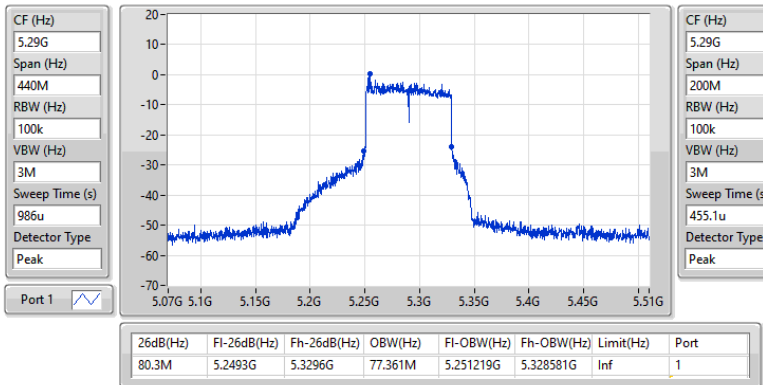


5.25-5.35GHz_802.11be EHT80_Nss1,(MCS0)_1TX

EBW

5290MHz

16/01/2025

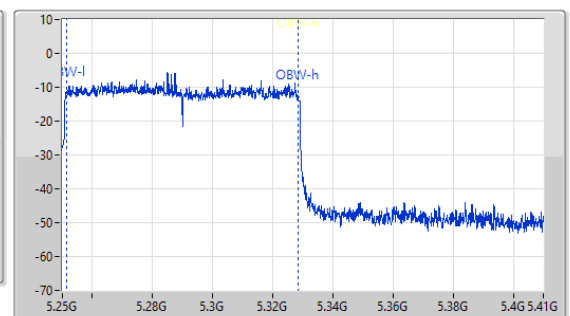
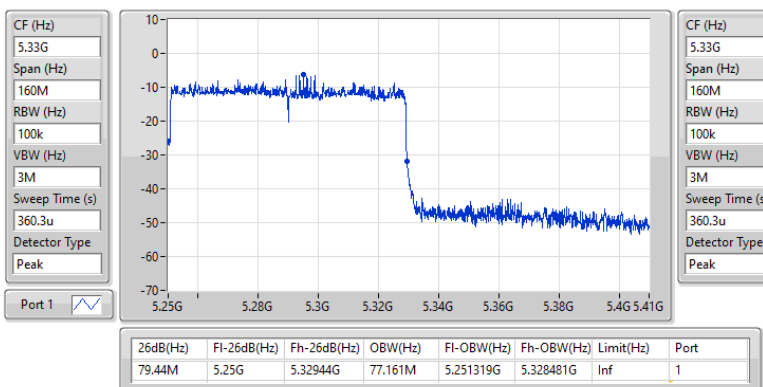


5.25-5.35GHz_802.11be EHT160_Nss1,(MCS0)_1TX

EBW

5250MHz Straddle 5.25-5.35GHz

25/02/2025

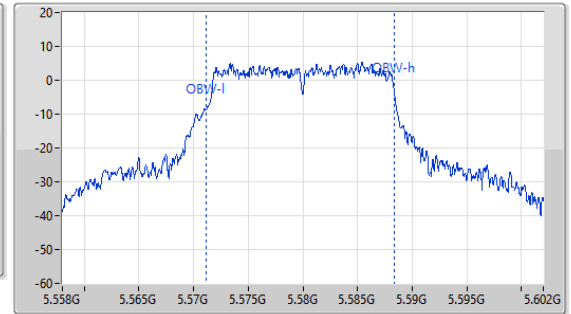
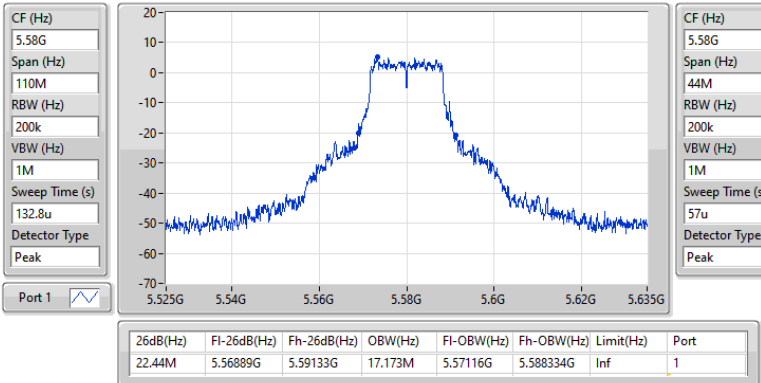


5.47-5.725GHz_802.11a_Nss1,(6Mbps)_1TX

EBW

5580MHz

16/01/2025

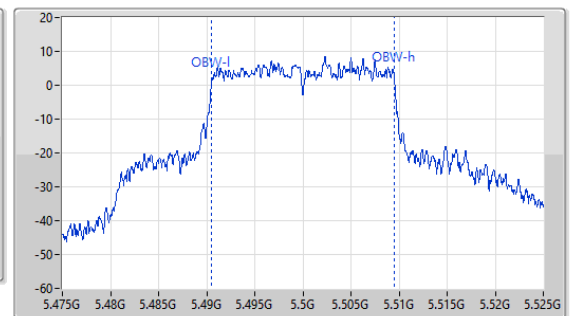
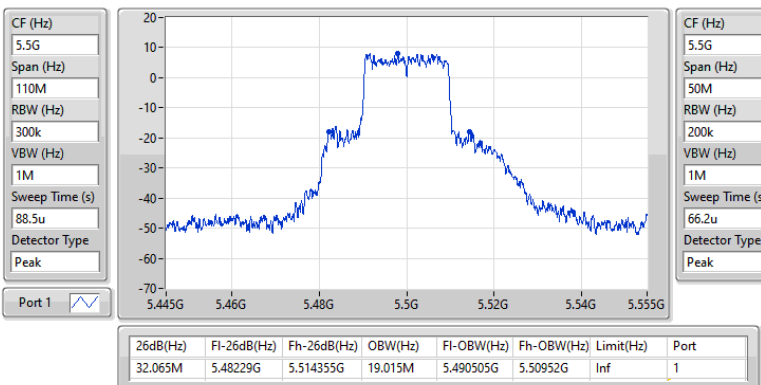


5.47-5.725GHz_802.11be EHT20_Nss1,(MCS0)_1TX

EBW

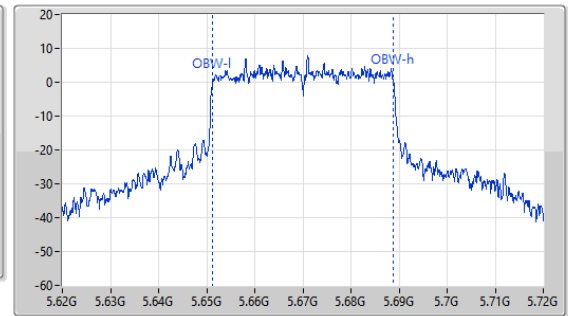
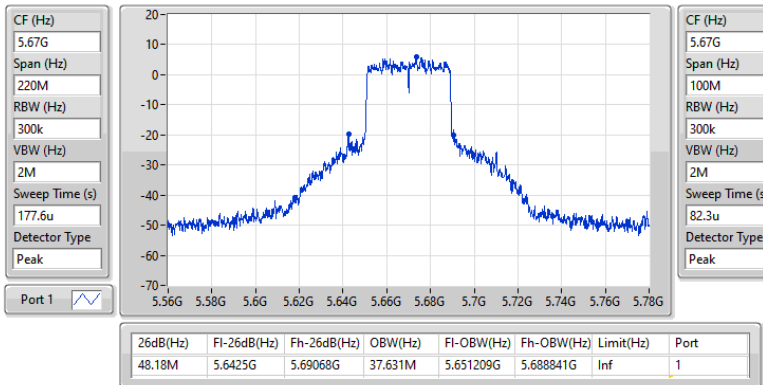
5500MHz

16/01/2025

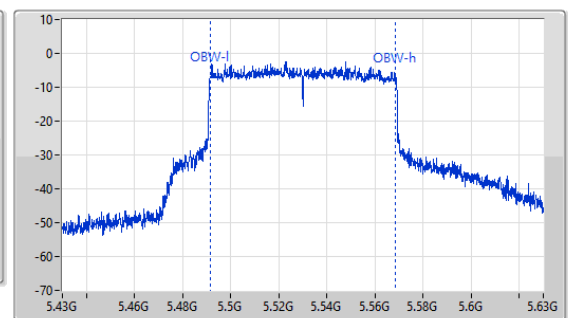
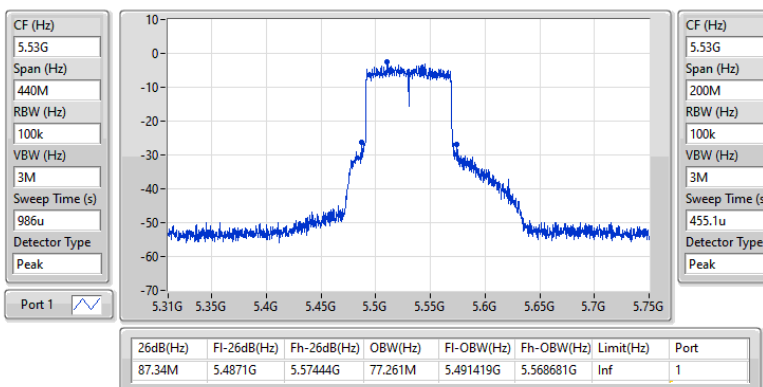


5.47-5.725GHz_802.11be EHT40_Nss1,(MCS0)_1TX
EBW
5670MHz

16/01/2025


5.47-5.725GHz_802.11be EHT80_Nss1,(MCS0)_1TX
EBW
5530MHz

16/01/2025

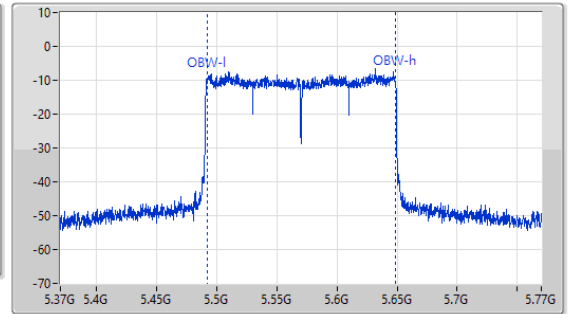
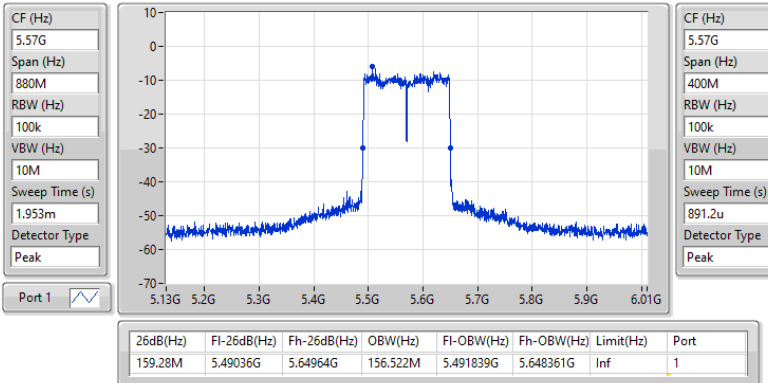


5.47-5.725GHz_802.11be EHT160_Nss1,(MCS0)_1TX

EBW

5570MHz

25/02/2025

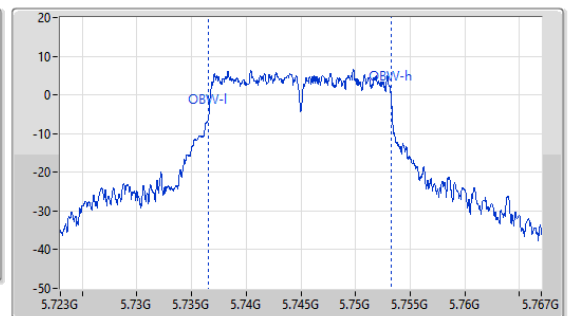
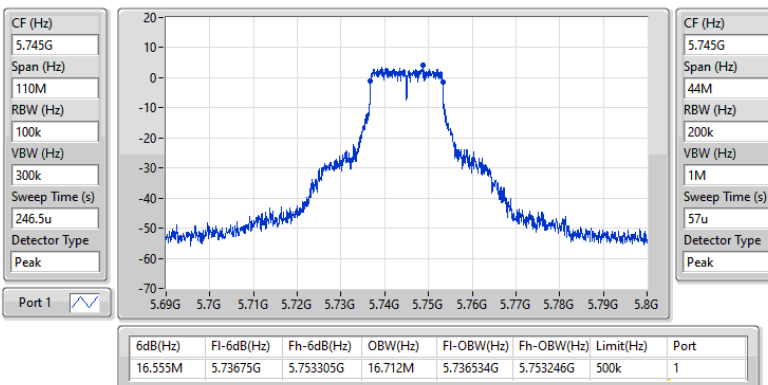


5.725-5.85GHz_802.11a_Nss1,(6Mbps)_1TX

EBW

5745MHz

16/01/2025



5.725-5.85GHz_802.11a_Nss1,(6Mbps)_1TX

EBW

5745MHz

16/01/2025

CF (Hz)
5.745G

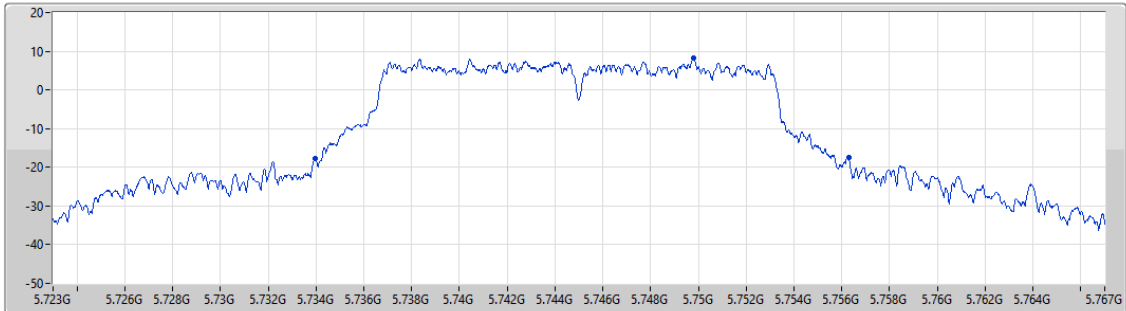
Span (Hz)
44M

RBW (Hz)
300k

VBW (Hz)
1M

Sweep Time (s)
57u

Detector Type
Peak



26dB(Hz)	FI-26dB(Hz)	Fh-26dB(Hz)	Limit(Hz)	Port
22.33M	5.733956G	5.756286G	Inf	1

5.725-5.85GHz_802.11be EHT20_Nss1,(MCS0)_1TX

EBW

5785MHz

16/01/2025

CF (Hz)
5.785G

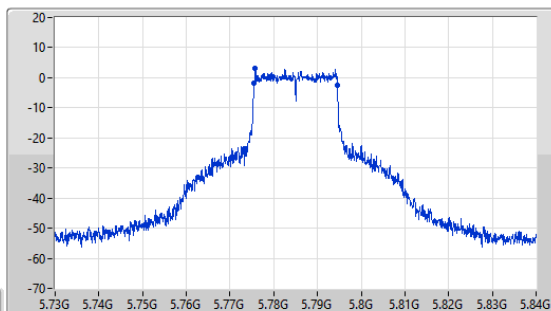
Span (Hz)
110M

RBW (Hz)
100k

VBW (Hz)
300k

Sweep Time (s)
246.5u

Detector Type
Peak



6dB(Hz)	FI-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	FI-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
19.085M	5.773485G	5.79457G	19.04M	5.775505G	5.794545G	500k	1

CF (Hz)
5.785G

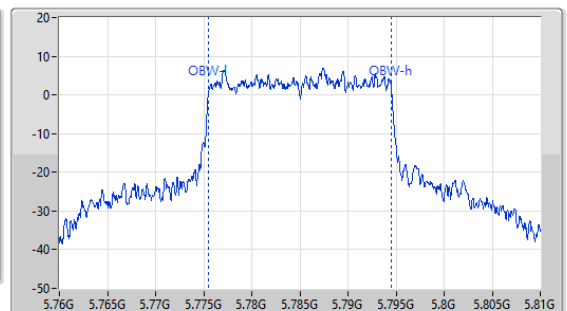
Span (Hz)
50M

RBW (Hz)
200k

VBW (Hz)
1M

Sweep Time (s)
66.2u

Detector Type
Peak



5.725-5.85GHz_802.11be EHT20_Nss1,(MCS0)_1TX

EBW

5785MHz

16/01/2025

CF (Hz)
5.785G

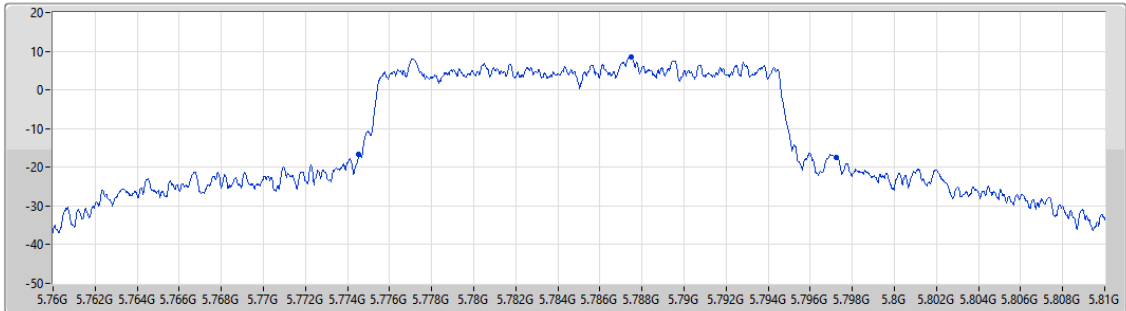
Span (Hz)
50M

RBW (Hz)
300k

VBW (Hz)
1M

Sweep Time (s)
66.2u

Detector Type
Peak



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	Limit(Hz)	Port
22.725M	5.774525G	5.79725G	Inf	1

5.725-5.85GHz_802.11be EHT40_Nss1,(MCS0)_1TX

EBW

5795MHz

16/01/2025

CF (Hz)
5.795G

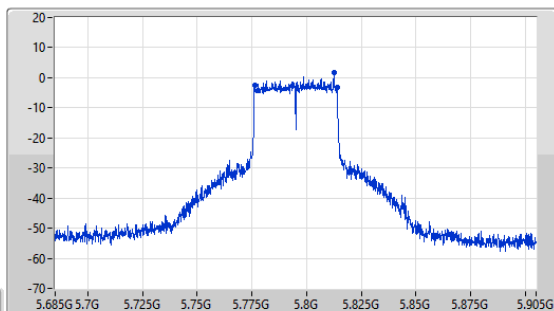
Span (Hz)
220M

RBW (Hz)
100k

VBW (Hz)
300k

Sweep Time (s)
493u

Detector Type
Peak



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
37.84M	5.77619G	5.81403G	37.731M	5.776159G	5.813891G	500k	1

CF (Hz)
5.795G

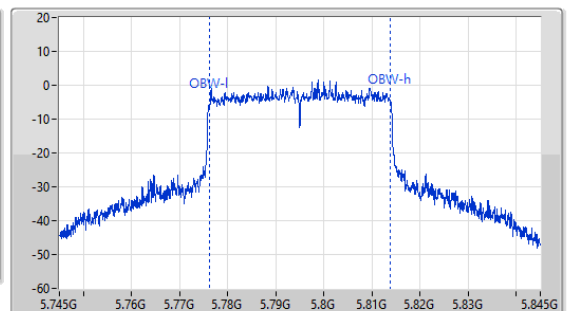
Span (Hz)
100M

RBW (Hz)
100k

VBW (Hz)
2M

Sweep Time (s)
227.9u

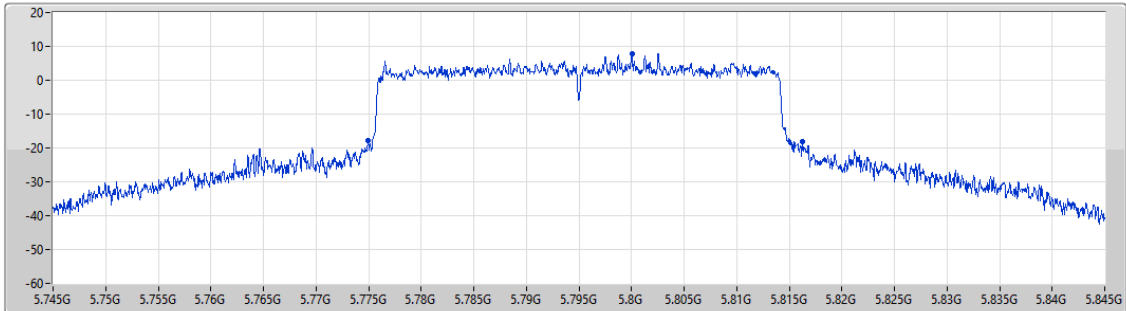
Detector Type
Peak



5.725-5.85GHz_802.11be EHT40_Nss1,(MCS0)_1TX
EBW
5795MHz

16/01/2025

CF (Hz)	5.795G
Span (Hz)	100M
RBW (Hz)	500k
VBW (Hz)	2M
Sweep Time (s)	227.9u
Detector Type	Peak



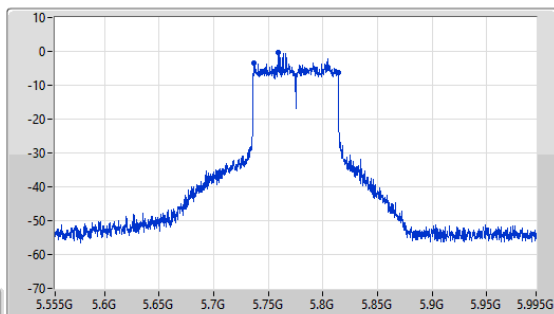
Port 1

26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	Limit(Hz)	Port
41.35M	5.77495G	5.8163G	Inf	1

5.725-5.85GHz_802.11be EHT80_Nss1,(MCS0)_1TX
EBW
5775MHz

16/01/2025

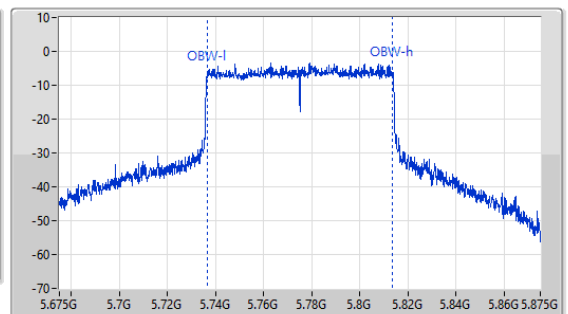
CF (Hz)	5.775G
Span (Hz)	440M
RBW (Hz)	100k
VBW (Hz)	300k
Sweep Time (s)	986u
Detector Type	Peak

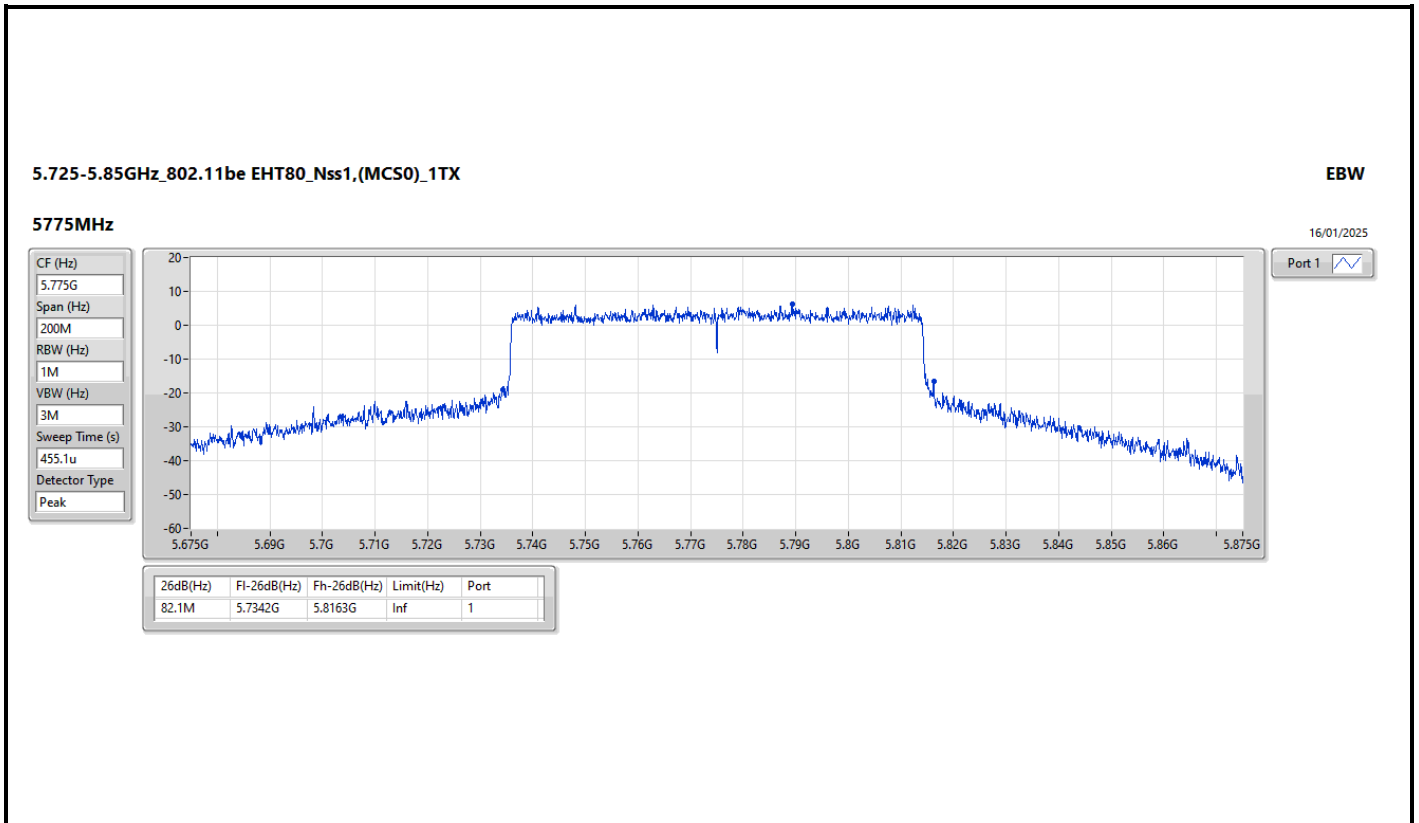


Port 1

6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
76.56M	5.73716G	5.81372G	77.261M	5.736419G	5.813681G	500k	1

CF (Hz)	5.775G
Span (Hz)	200M
RBW (Hz)	100k
VBW (Hz)	3M
Sweep Time (s)	455.1u
Detector Type	Peak





**Summary**

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.15-5.25GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	23.595M	17.151M	17M2D1D	21.285M	16.668M
802.11be EHT20_Nss1,(MCS0)_2TX	24.86M	19.14M	19M1D1D	22.605M	19.015M
802.11be EHT40_Nss1,(MCS0)_2TX	48.62M	37.731M	37M7D1D	41.25M	37.631M
802.11be EHT80_Nss1,(MCS0)_2TX	82.72M	77.261M	77M3D1D	81.84M	77.061M
802.11be EHT160_Nss1,(MCS0)_2TX	79.52M	77.241M	77M2D1D	79.44M	77.161M
5.25-5.35GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	22.495M	17.195M	17M2D1D	21.12M	16.646M
802.11be EHT20_Nss1,(MCS0)_2TX	24.365M	19.29M	19M3D1D	21.285M	19.015M
802.11be EHT40_Nss1,(MCS0)_2TX	45.54M	37.731M	37M7D1D	40.81M	37.681M
802.11be EHT80_Nss1,(MCS0)_2TX	83.82M	77.261M	77M3D1D	80.96M	77.061M
802.11be EHT160_Nss1,(MCS0)_2TX	79.52M	77.321M	77M3D1D	79.36M	77.161M
5.47-5.725GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	23.65M	17.085M	17M1D1D	16.905M	13.508M
802.11be EHT20_Nss1,(MCS0)_2TX	22.22M	19.24M	19M2D1D	15.51M	14.468M
802.11be EHT40_Nss1,(MCS0)_2TX	50.93M	37.831M	37M8D1D	35M	33.723M
802.11be EHT80_Nss1,(MCS0)_2TX	93.5M	77.261M	77M3D1D	75.675M	72.939M
802.11be EHT160_Nss1,(MCS0)_2TX	159.28M	156.122M	156MD1D	159.28M	156.122M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	16.555M	16.954M	17M0D1D	3.24M	4.998M
802.11be EHT20_Nss1,(MCS0)_2TX	19.195M	19.115M	19M1D1D	4.56M	5.697M
802.11be EHT40_Nss1,(MCS0)_2TX	38.17M	37.831M	37M8D1D	4.08M	9.315M
802.11be EHT80_Nss1,(MCS0)_2TX	78.1M	77.361M	77M4D1D	4.04M	19.45M

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)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	21.505M	16.69M	23.595M	16.668M
5200MHz	Pass	Inf	21.285M	17.063M	21.615M	16.712M
5240MHz	Pass	Inf	21.725M	17.151M	23.155M	16.822M
5260MHz	Pass	Inf	21.12M	16.712M	21.725M	17.195M
5300MHz	Pass	Inf	21.56M	16.646M	21.505M	16.954M
5320MHz	Pass	Inf	21.175M	16.932M	22.495M	16.888M
5500MHz	Pass	Inf	23.65M	16.822M	21.285M	17.085M
5580MHz	Pass	Inf	21.505M	16.932M	21.45M	16.602M
5700MHz	Pass	Inf	20.35M	16.558M	21.23M	16.756M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	16.905M	13.613M	17.49M	13.508M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	3.28M	4.998M	3.24M	5.077M
5745MHz	Pass	500k	16.555M	16.822M	16.5M	16.778M
5785MHz	Pass	500k	16.555M	16.756M	16.335M	16.954M
5825MHz	Pass	500k	16.335M	16.91M	16.555M	16.734M
802.11be EHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	24.035M	19.04M	24.805M	19.015M
5200MHz	Pass	Inf	22.605M	19.14M	24.86M	19.065M
5240MHz	Pass	Inf	23.1M	19.04M	23.595M	19.015M
5260MHz	Pass	Inf	21.285M	19.015M	22.935M	19.115M
5300MHz	Pass	Inf	22.55M	19.09M	24.365M	19.09M
5320MHz	Pass	Inf	23.155M	19.29M	22.715M	19.065M
5500MHz	Pass	Inf	22.22M	19.24M	22M	19.165M
5580MHz	Pass	Inf	21.67M	19.04M	21.34M	19.015M
5700MHz	Pass	Inf	21.56M	18.941M	21.395M	19.015M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	15.51M	14.468M	17.505M	14.528M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	4.56M	5.697M	4.56M	6.097M
5745MHz	Pass	500k	19.085M	19.04M	19.03M	19.04M
5785MHz	Pass	500k	19.195M	19.09M	19.03M	18.966M
5825MHz	Pass	500k	18.975M	19.09M	19.03M	19.115M
802.11be EHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	Inf	48.62M	37.631M	43.89M	37.731M
5230MHz	Pass	Inf	43.23M	37.681M	41.25M	37.681M
5270MHz	Pass	Inf	41.14M	37.731M	45.54M	37.681M
5310MHz	Pass	Inf	40.81M	37.681M	42.02M	37.681M
5510MHz	Pass	Inf	45.32M	37.831M	45.87M	37.831M
5550MHz	Pass	Inf	42.02M	37.831M	40.26M	37.781M
5670MHz	Pass	Inf	50.93M	37.831M	42.13M	37.781M
5710MHz Straddle 5.47-5.725GHz	Pass	Inf	35.455M	33.933M	35M	33.723M
5710MHz Straddle 5.725-5.85GHz	Pass	500k	4.08M	10.475M	4.14M	9.315M
5755MHz	Pass	500k	38.17M	37.831M	36.3M	37.831M
5795MHz	Pass	500k	38.06M	37.781M	38.06M	37.831M
802.11be EHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-



Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
5210MHz	Pass	Inf	81.84M	77.061M	82.72M	77.261M
5290MHz	Pass	Inf	80.96M	77.061M	83.82M	77.261M
5530MHz	Pass	Inf	93.5M	77.161M	81.4M	77.261M
5610MHz	Pass	Inf	80.52M	77.161M	80.96M	77.261M
5690MHz Straddle 5.47-5.725GHz	Pass	Inf	76.35M	72.939M	75.675M	73.013M
5690MHz Straddle 5.725-5.85GHz	Pass	500k	4.04M	20.79M	4.14M	19.45M
5775MHz	Pass	500k	78.1M	77.361M	78.1M	77.261M
802.11be EHT160_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5250MHz Straddle 5.15-5.25GHz	Pass	Inf	79.52M	77.161M	79.44M	77.241M
5250MHz Straddle 5.25-5.35GHz	Pass	Inf	79.52M	77.321M	79.36M	77.161M
5570MHz	Pass	Inf	159.28M	156.122M	159.28M	156.122M

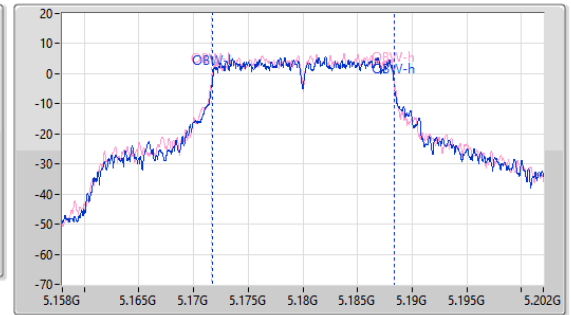
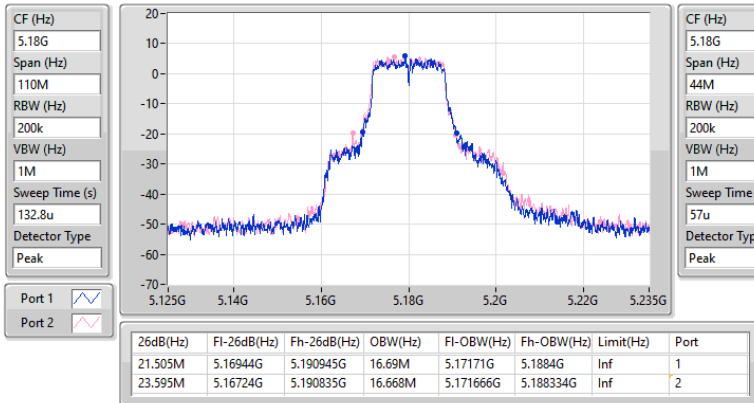
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band
Port X-OBW = Port X 99% occupied bandwidth

5.15-5.25GHz_802.11a_Nss1,(6Mbps)_2TX

EBW

5180MHz

16/01/2025

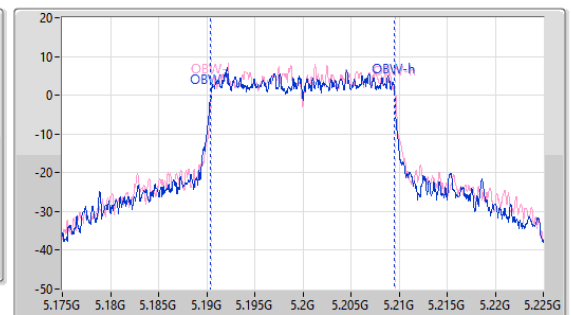
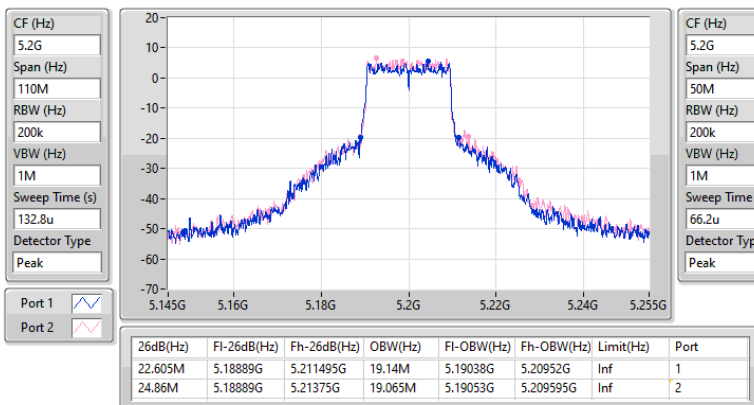


5.15-5.25GHz_802.11be EHT20_Nss1,(MCS0)_2TX

EBW

5200MHz

16/01/2025

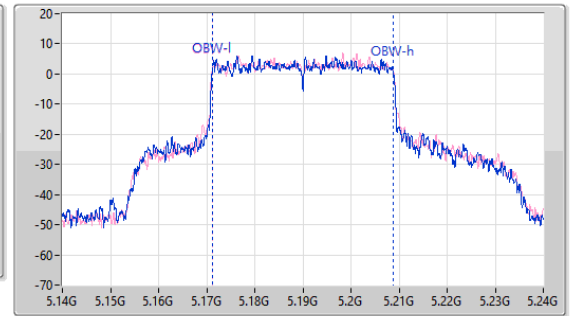
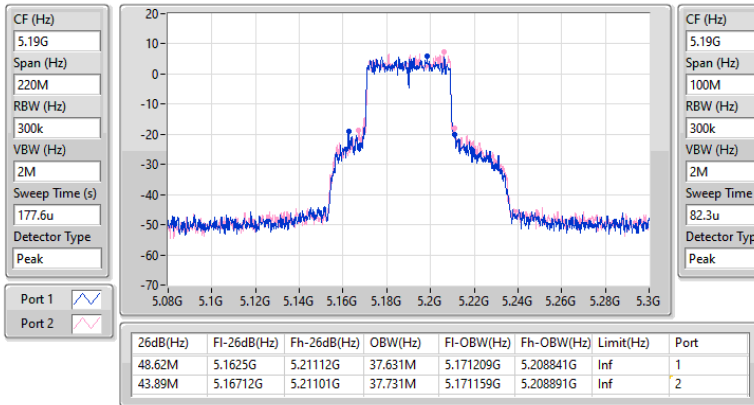


5.15-5.25GHz_802.11be EHT40_Nss1,(MCS0)_2TX

EBW

5190MHz

16/01/2025

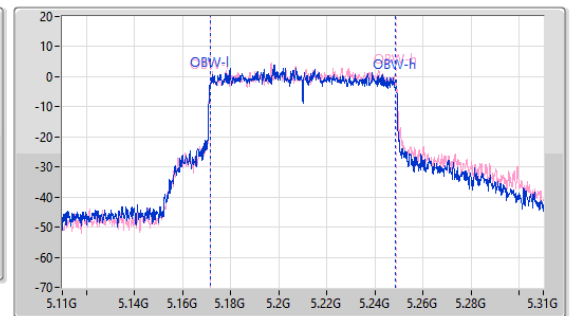
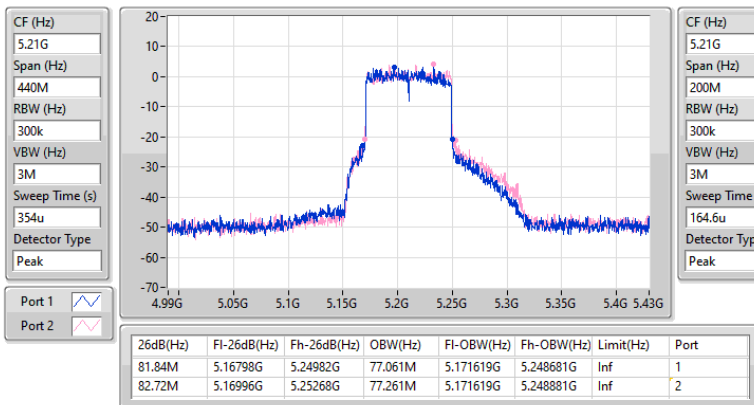


5.15-5.25GHz_802.11be EHT80_Nss1,(MCS0)_2TX

EBW

5210MHz

16/01/2025

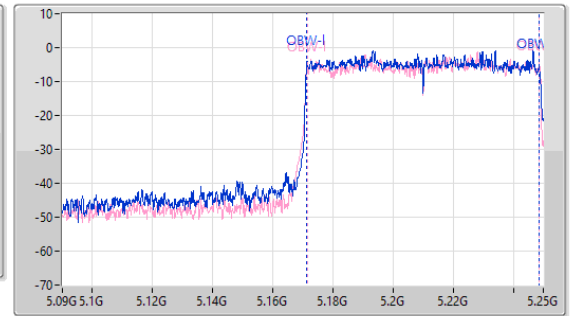
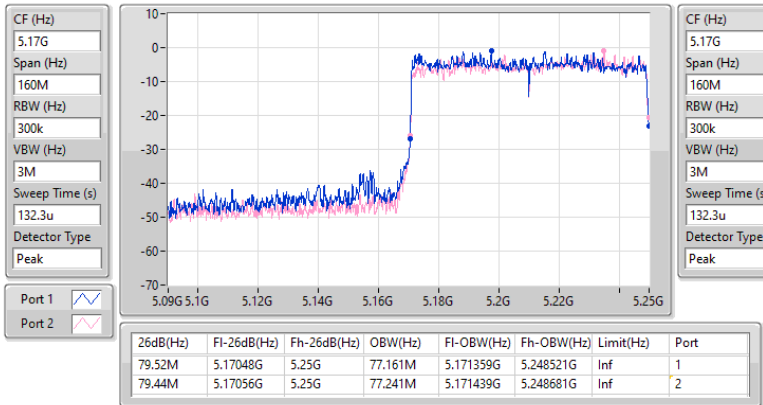


5.15-5.25GHz_802.11be EHT160_Nss1,(MCS0)_2TX

EBW

5250MHz Straddle 5.15-5.25GHz

25/02/2025

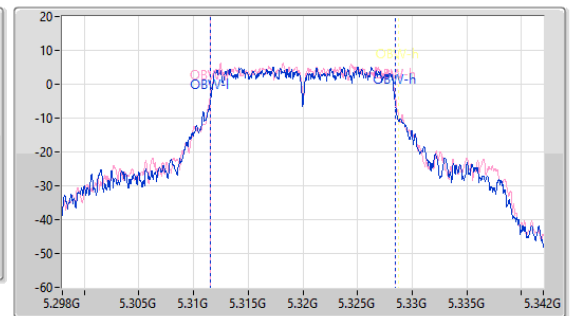
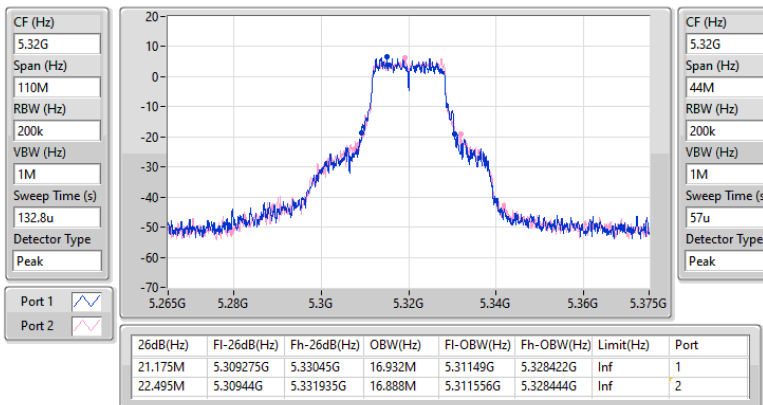


5.25-5.35GHz_802.11a_Nss1,(6Mbps)_2TX

EBW

5320MHz

16/01/2025

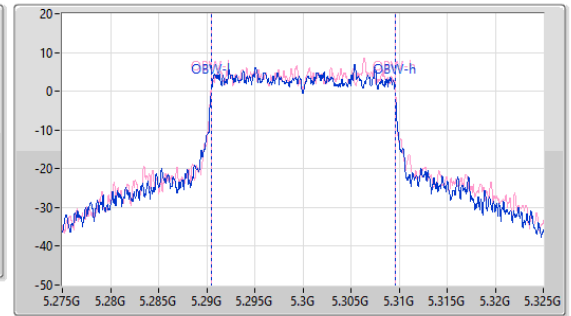
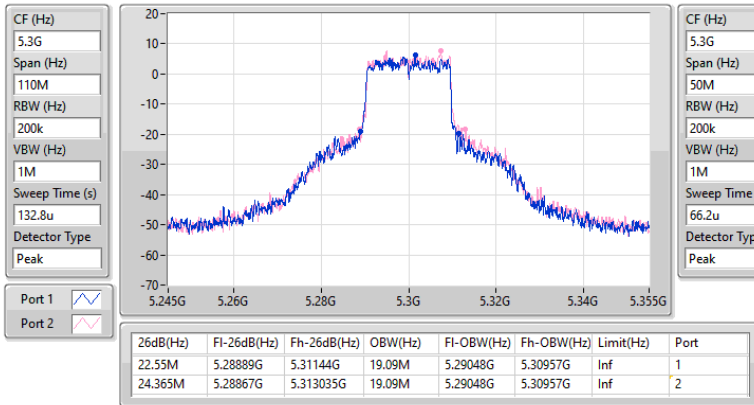


5.25-5.35GHz_802.11be EHT20_Nss1,(MCS0)_2TX

EBW

5300MHz

16/01/2025

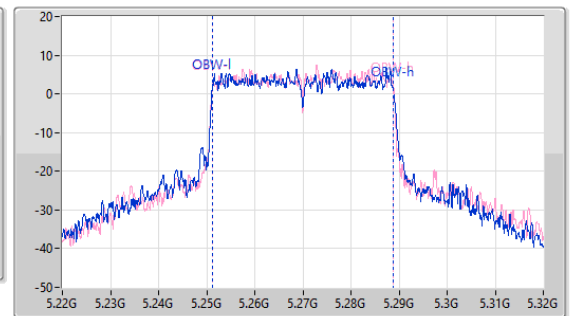
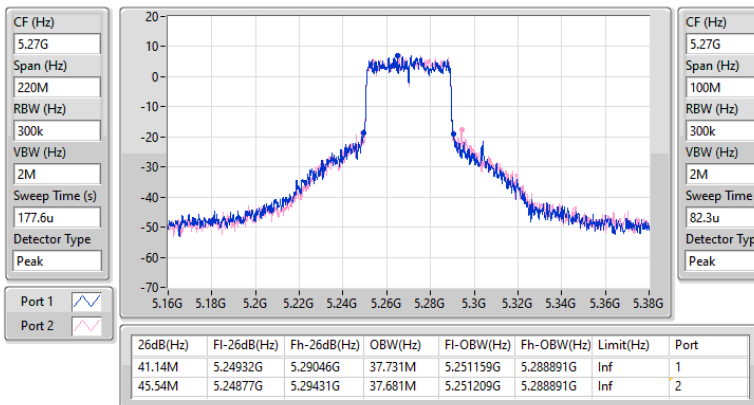


5.25-5.35GHz_802.11be EHT40_Nss1,(MCS0)_2TX

EBW

5270MHz

16/01/2025

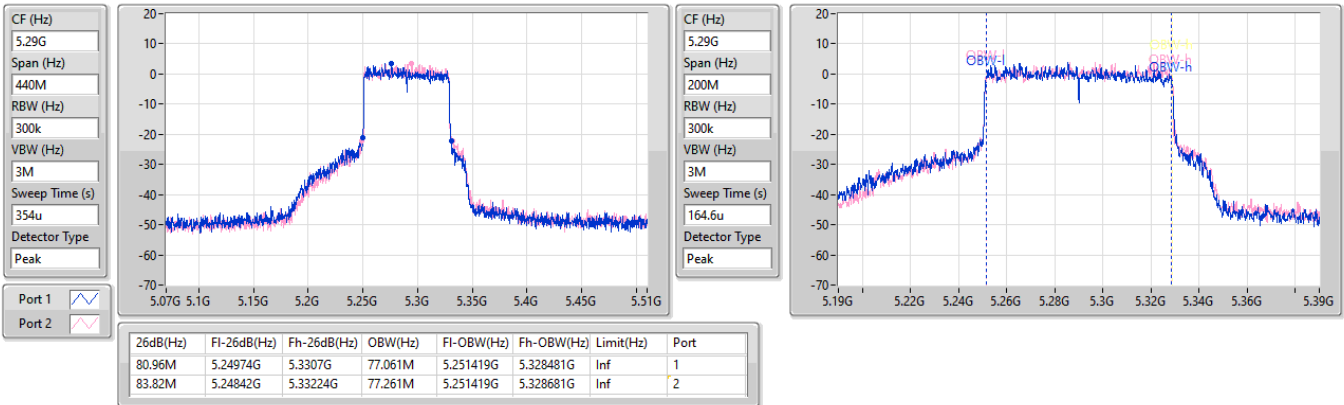


5.25-5.35GHz_802.11be EHT80_Nss1,(MCS0)_2TX

EBW

5290MHz

16/01/2025

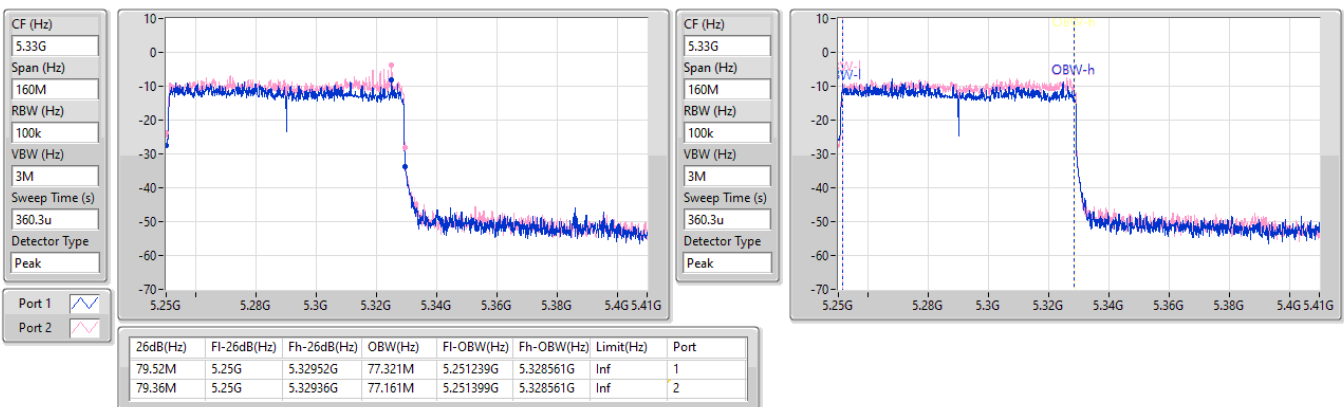


5.25-5.35GHz_802.11be EHT160_Nss1,(MCS0)_2TX

EBW

5250MHz Straddle 5.25-5.35GHz

25/02/2025

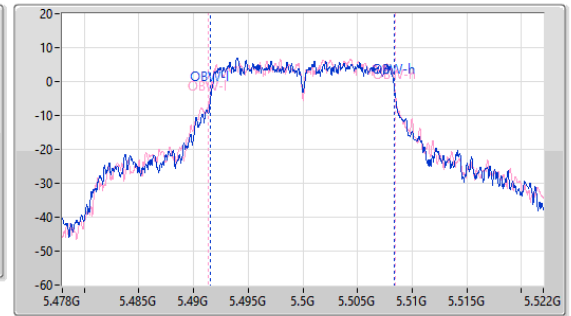
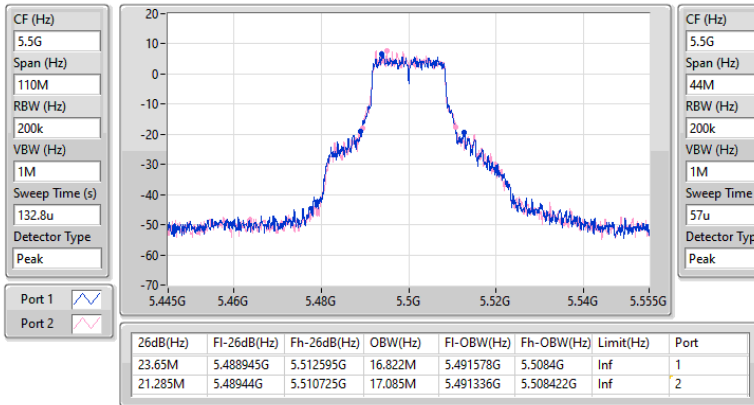


5.47-5.725GHz_802.11a_Nss1,(6Mbps)_2TX

EBW

5500MHz

16/01/2025

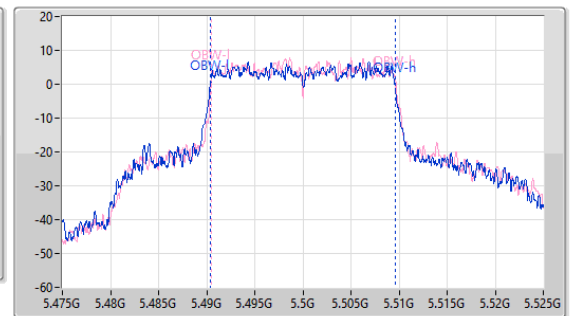
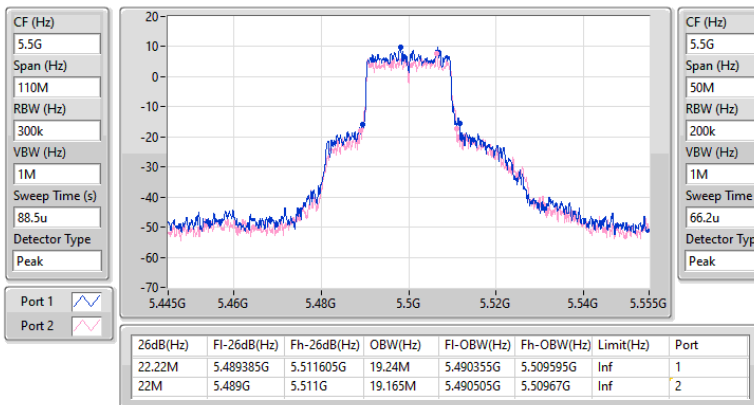


5.47-5.725GHz_802.11be EHT20_Nss1,(MCS0)_2TX

EBW

5500MHz

16/01/2025

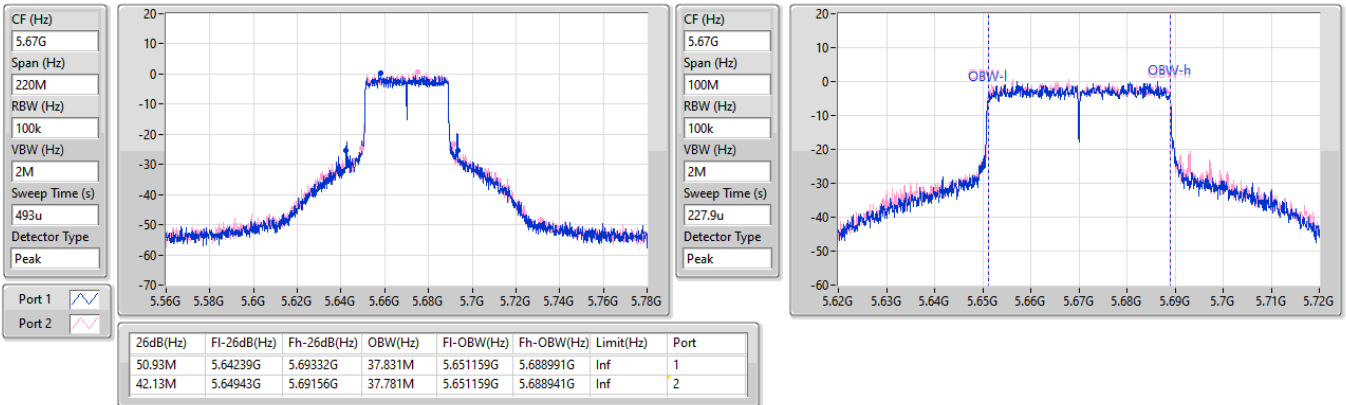


5.47-5.725GHz_802.11be EHT40_Nss1,(MCS0)_2TX

EBW

5670MHz

16/01/2025

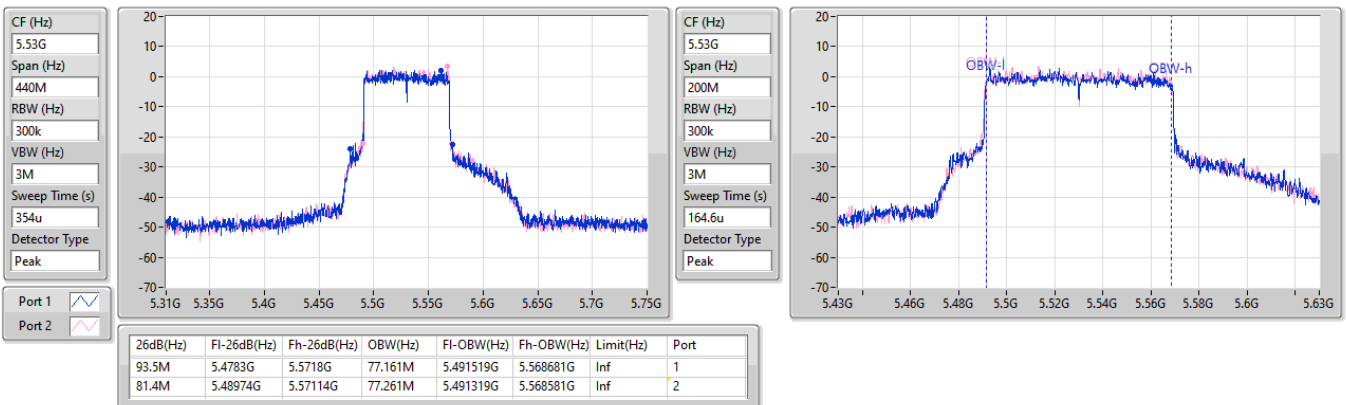


5.47-5.725GHz_802.11be EHT80_Nss1,(MCS0)_2TX

EBW

5530MHz

16/01/2025

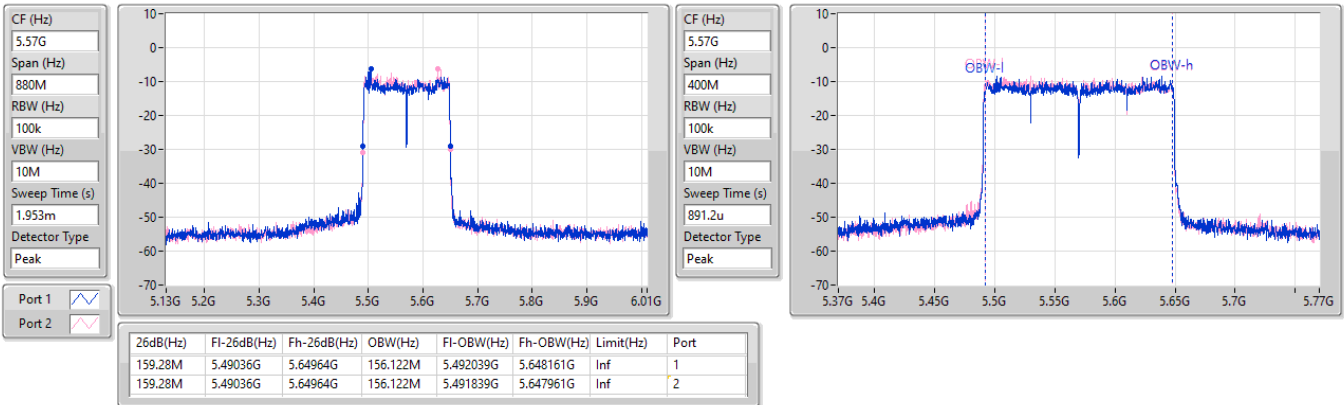


5.47-5.725GHz_802.11be EHT160_Nss1,(MCS0)_2TX

EBW

5570MHz

25/02/2025

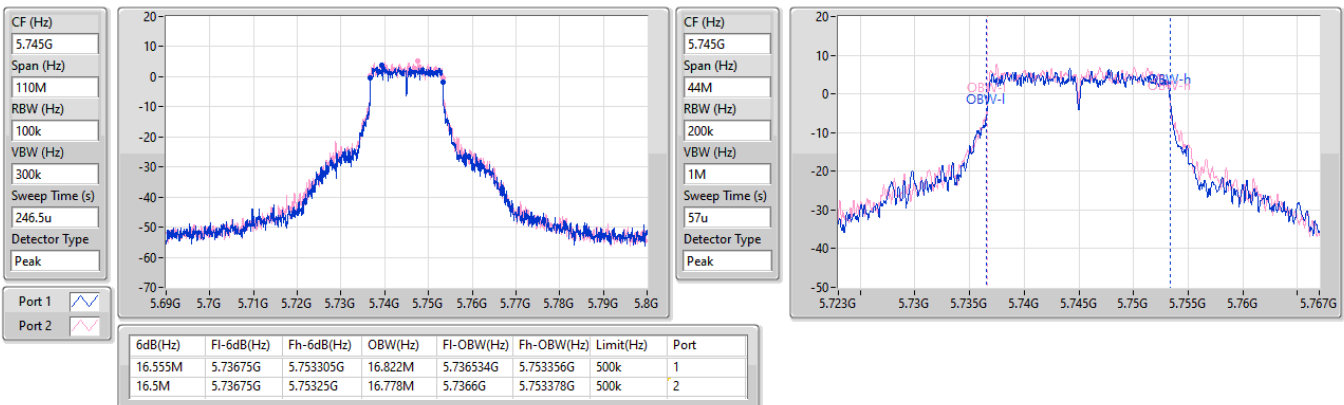


5.725-5.85GHz_802.11a_Nss1,(6Mbps)_2TX

EBW

5745MHz

16/01/2025

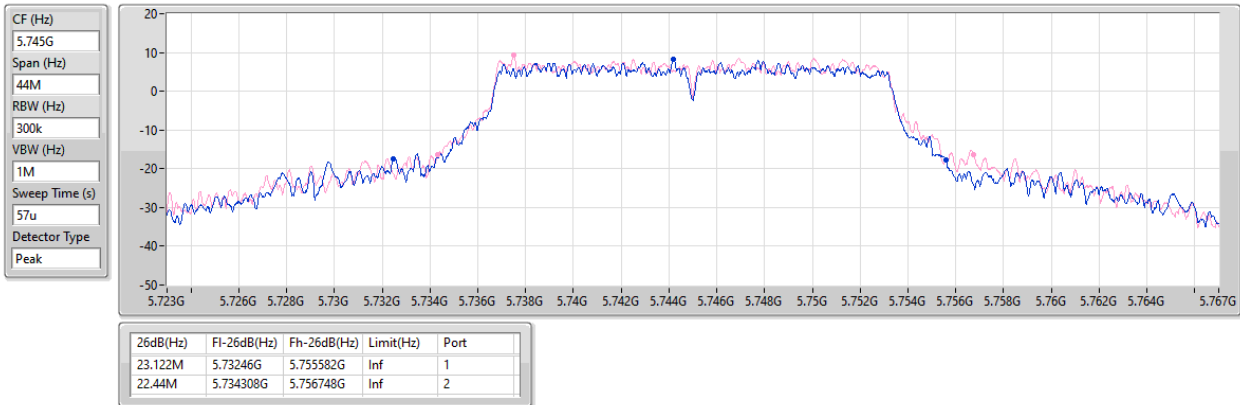


5.725-5.85GHz_802.11a_Nss1,(6Mbps)_2TX

EBW

5745MHz

16/01/2025

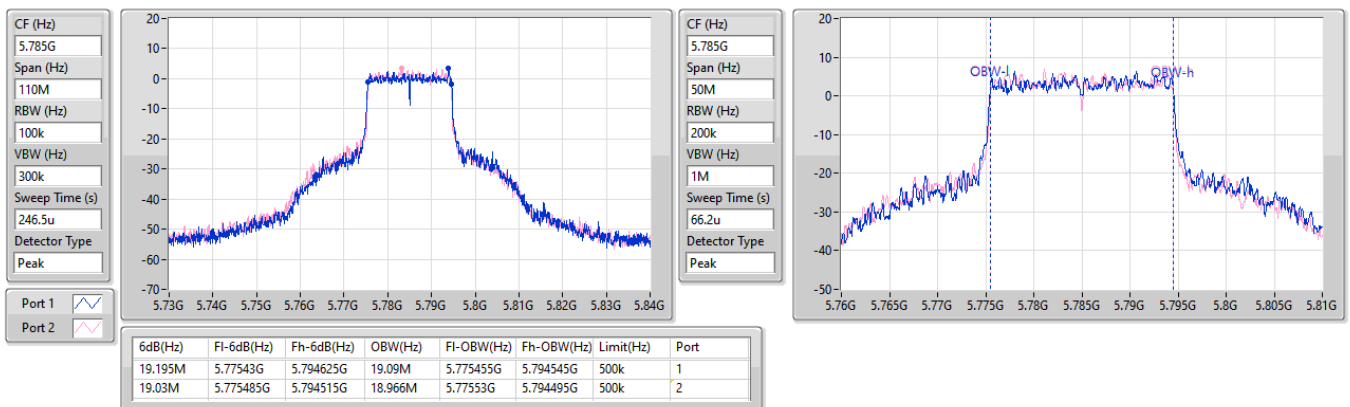


5.725-5.85GHz_802.11be EHT20_Nss1,(MCS0)_2TX

EBW

5785MHz

16/01/2025

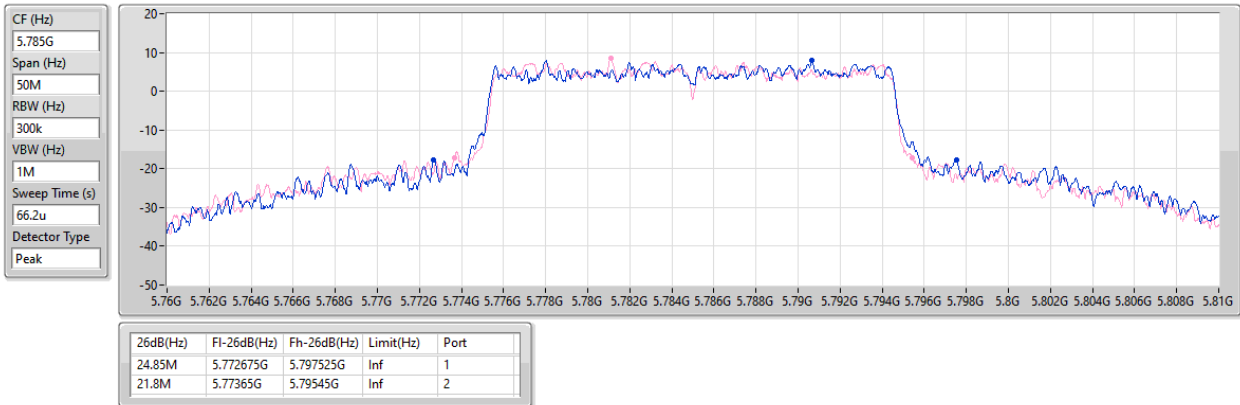


5.725-5.85GHz_802.11be EHT20_Nss1,(MCS0)_2TX

EBW

5785MHz

16/01/2025

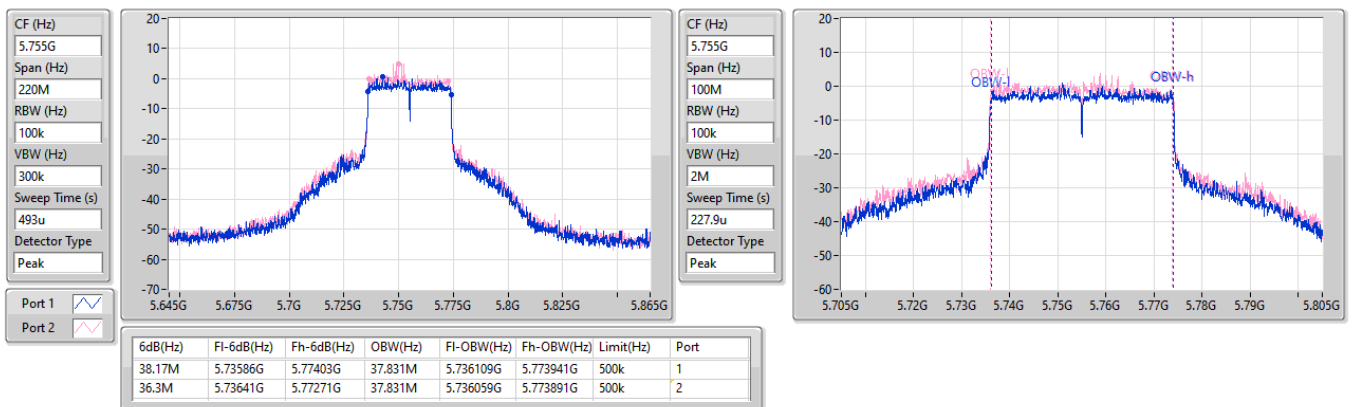


5.725-5.85GHz_802.11be EHT40_Nss1,(MCS0)_2TX

EBW

5755MHz

16/01/2025

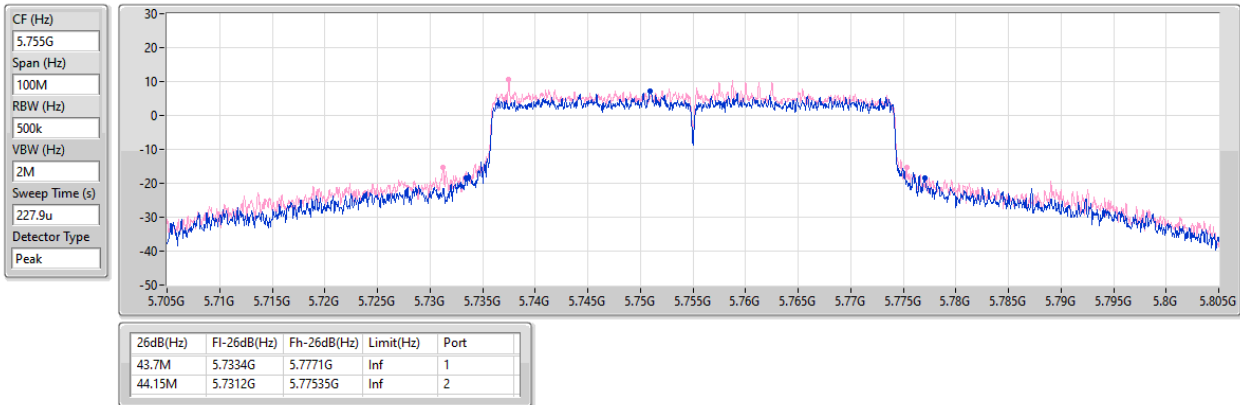


5.725-5.85GHz_802.11be EHT40_Nss1,(MCS0)_2TX

EBW

5755MHz

16/01/2025

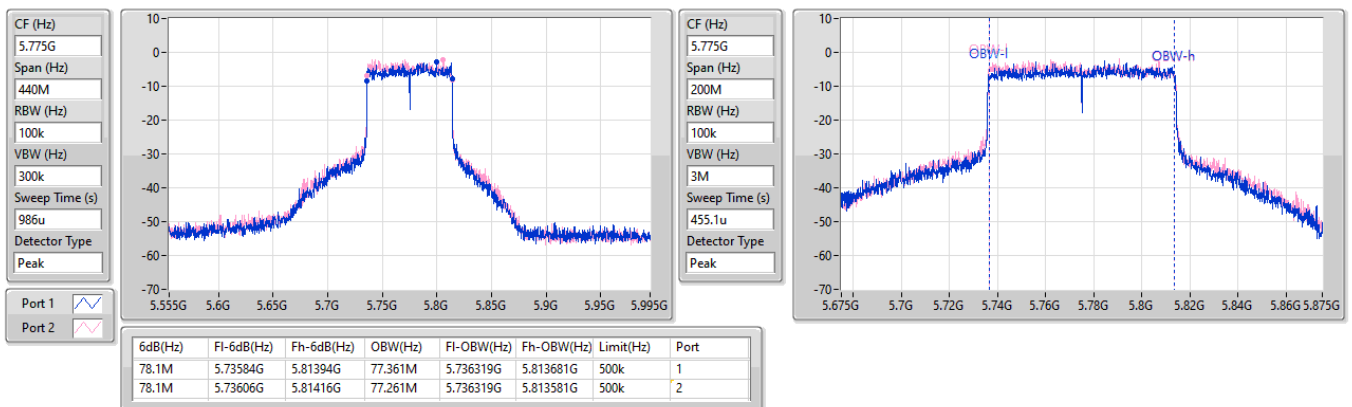


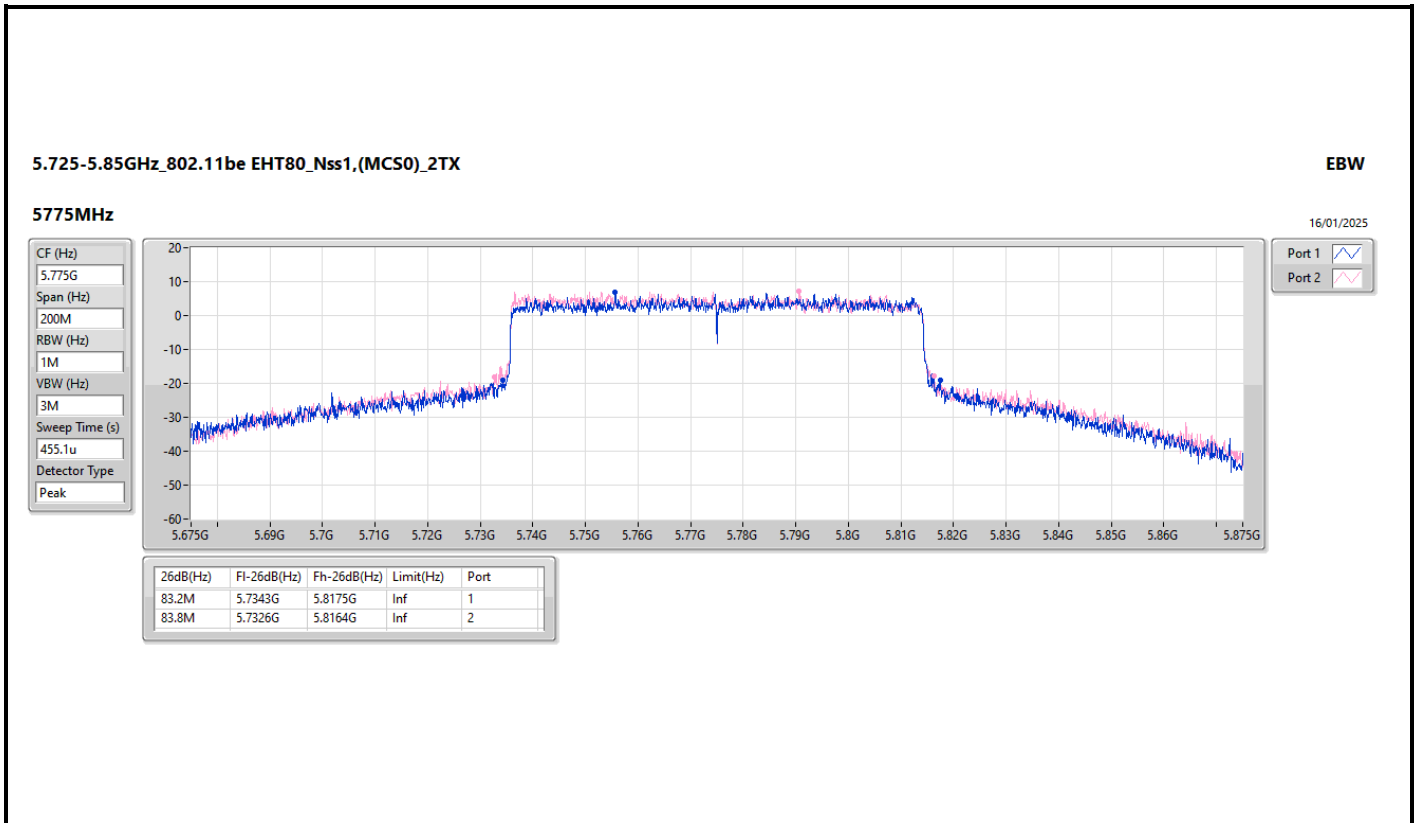
5.725-5.85GHz_802.11be EHT80_Nss1,(MCS0)_2TX

EBW

5775MHz

16/01/2025





**Summary**

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.15-5.25GHz	-	-	-	-	-
802.11be EHT20_Nss2,(MCS0)_2TX	24.805M	19.14M	19M1D1D	21.45M	19.015M
802.11be EHT40_Nss2,(MCS0)_2TX	42.46M	37.781M	37M8D1D	41.36M	37.681M
802.11be EHT80_Nss2,(MCS0)_2TX	82.72M	77.161M	77M2D1D	79.64M	77.061M
802.11be EHT160_Nss2,(MCS0)_2TX	79.76M	77.321M	77M3D1D	79.6M	77.161M
5.25-5.35GHz	-	-	-	-	-
802.11be EHT20_Nss2,(MCS0)_2TX	29.92M	19.24M	19M2D1D	21.395M	18.941M
802.11be EHT40_Nss2,(MCS0)_2TX	49.72M	37.831M	37M8D1D	40.37M	37.631M
802.11be EHT80_Nss2,(MCS0)_2TX	85.8M	77.261M	77M3D1D	83.38M	77.161M
802.11be EHT160_Nss2,(MCS0)_2TX	79.76M	77.481M	77M5D1D	79.36M	77.321M
5.47-5.725GHz	-	-	-	-	-
802.11be EHT20_Nss2,(MCS0)_2TX	28.435M	19.19M	19M2D1D	15.885M	14.528M
802.11be EHT40_Nss2,(MCS0)_2TX	44M	37.781M	37M8D1D	35.98M	33.653M
802.11be EHT80_Nss2,(MCS0)_2TX	91.74M	77.361M	77M4D1D	76.125M	73.088M
802.11be EHT160_Nss2,(MCS0)_2TX	160.16M	156.722M	157MD1D	159.28M	156.322M
5.725-5.85GHz	-	-	-	-	-
802.11be EHT20_Nss2,(MCS0)_2TX	19.085M	19.165M	19M2D1D	4.56M	5.697M
802.11be EHT40_Nss2,(MCS0)_2TX	38.17M	37.781M	37M8D1D	4.06M	10.055M
802.11be EHT80_Nss2,(MCS0)_2TX	77.66M	77.561M	77M6D1D	4.06M	16.872M

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)
802.11be EHT20_Nss2,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	21.505M	19.14M	24.805M	19.09M
5200MHz	Pass	Inf	21.56M	19.065M	22M	19.115M
5240MHz	Pass	Inf	21.45M	19.015M	23.21M	19.115M
5260MHz	Pass	Inf	23.43M	19.24M	29.92M	19.04M
5300MHz	Pass	Inf	26.235M	19.19M	25.465M	19.015M
5320MHz	Pass	Inf	22.99M	19.04M	21.395M	18.941M
5500MHz	Pass	Inf	26.4M	19.19M	28.435M	19.065M
5580MHz	Pass	Inf	25.74M	19.04M	26.95M	19.14M
5700MHz	Pass	Inf	21.01M	18.941M	20.955M	19.165M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	16.605M	14.618M	15.885M	14.528M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	4.56M	6.057M	4.6M	5.697M
5745MHz	Pass	500k	19.085M	19.165M	19.085M	19.165M
5785MHz	Pass	500k	19.085M	19.165M	19.03M	19.04M
5825MHz	Pass	500k	19.03M	19.065M	19.085M	19.115M
802.11be EHT40_Nss2,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	Inf	42.46M	37.681M	41.8M	37.731M
5230MHz	Pass	Inf	41.8M	37.781M	41.36M	37.781M
5270MHz	Pass	Inf	40.37M	37.681M	41.58M	37.631M
5310MHz	Pass	Inf	49.72M	37.831M	47.63M	37.831M
5510MHz	Pass	Inf	41.58M	37.781M	41.36M	37.631M
5550MHz	Pass	Inf	44M	37.781M	41.69M	37.781M
5670MHz	Pass	Inf	41.58M	37.731M	40.26M	37.781M
5710MHz Straddle 5.47-5.725GHz	Pass	Inf	42.56M	33.688M	35.98M	33.653M
5710MHz Straddle 5.725-5.85GHz	Pass	500k	4.1M	11.154M	4.06M	10.055M
5755MHz	Pass	500k	38.06M	37.731M	37.95M	37.731M
5795MHz	Pass	500k	37.62M	37.731M	38.17M	37.781M
802.11be EHT80_Nss2,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	Inf	79.64M	77.161M	82.72M	77.061M
5290MHz	Pass	Inf	85.8M	77.161M	83.38M	77.261M
5530MHz	Pass	Inf	91.74M	77.161M	89.32M	77.261M
5610MHz	Pass	Inf	82.06M	77.161M	82.94M	77.361M
5690MHz Straddle 5.47-5.725GHz	Pass	Inf	77.775M	73.163M	76.125M	73.088M
5690MHz Straddle 5.725-5.85GHz	Pass	500k	4.06M	19.97M	4.06M	16.872M
5775MHz	Pass	500k	77M	77.561M	77.66M	77.261M
802.11be EHT160_Nss2,(MCS0)_2TX	-	-	-	-	-	-
5250MHz Straddle 5.15-5.25GHz	Pass	Inf	79.76M	77.321M	79.6M	77.161M
5250MHz Straddle 5.25-5.35GHz	Pass	Inf	79.36M	77.481M	79.76M	77.321M
5570MHz	Pass	Inf	160.16M	156.322M	159.28M	156.722M

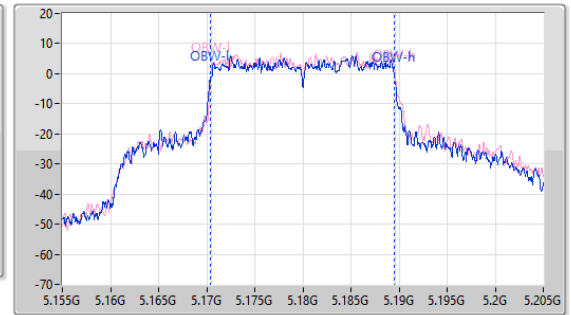
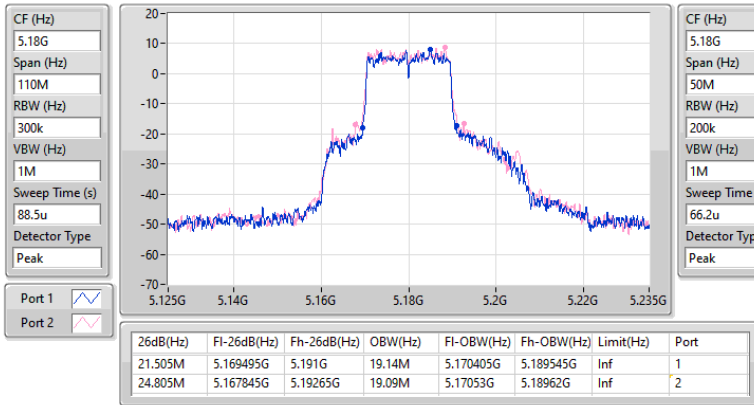
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band
Port X-OBW = Port X 99% occupied bandwidth

5.15-5.25GHz_802.11be EHT20_Nss2,(MCS0)_2TX

EBW

5180MHz

16/01/2025

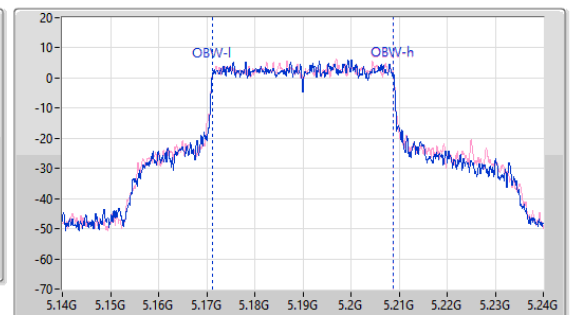
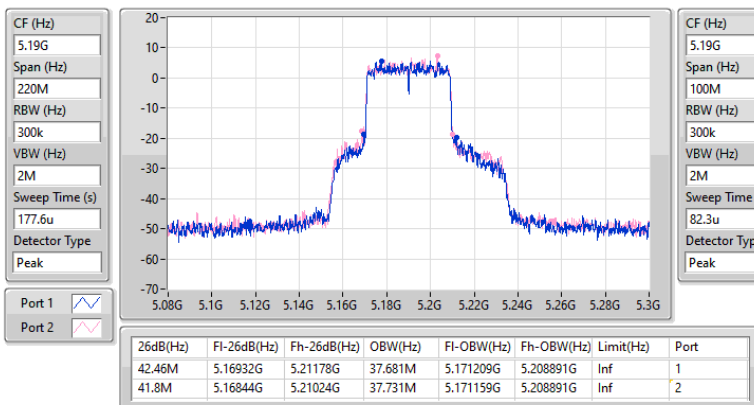


5.15-5.25GHz_802.11be EHT40_Nss2,(MCS0)_2TX

EBW

5190MHz

16/01/2025

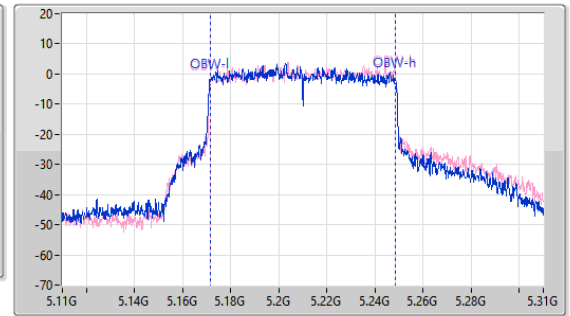
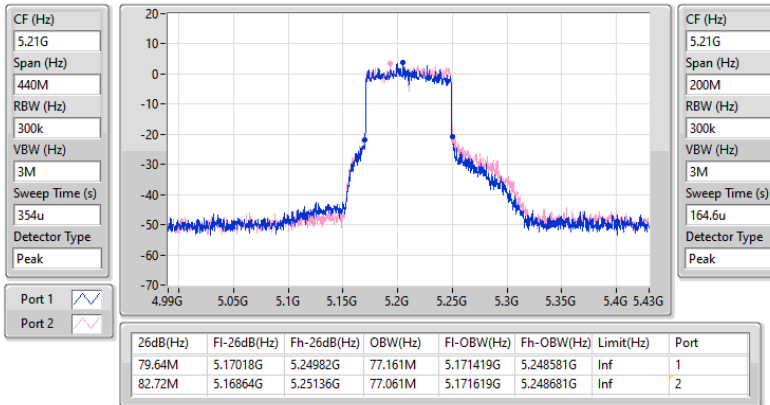


5.15-5.25GHz_802.11be EHT80_Nss2,(MCS0)_2TX

EBW

5210MHz

16/01/2025

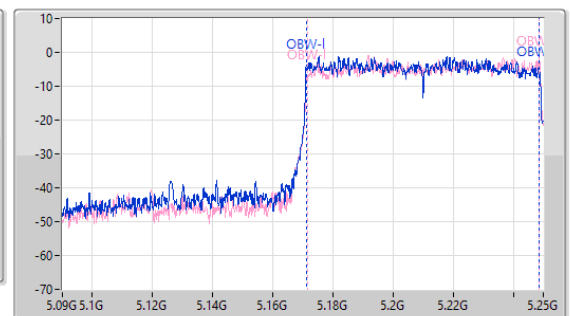
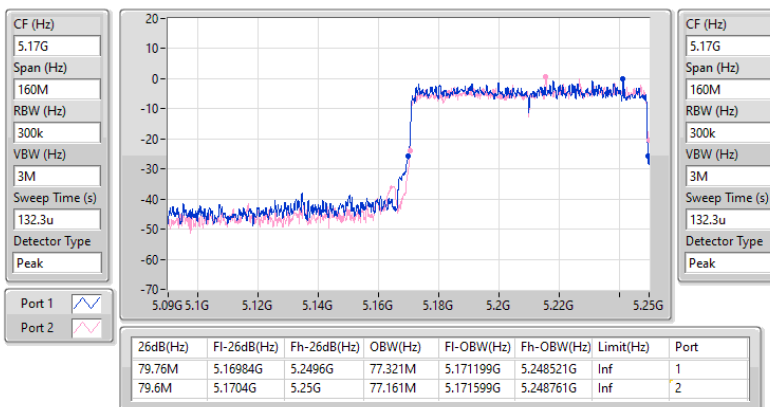


5.15-5.25GHz_802.11be EHT160_Nss2,(MCS0)_2TX

EBW

5250MHz Straddle 5.15-5.25GHz

25/02/2025

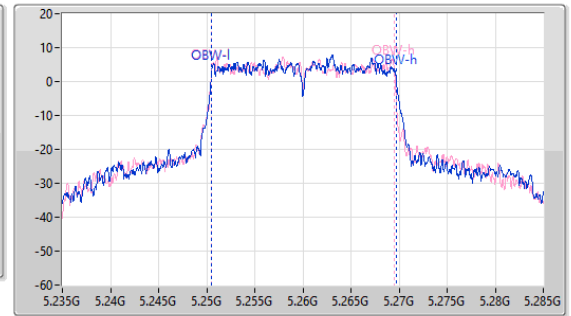
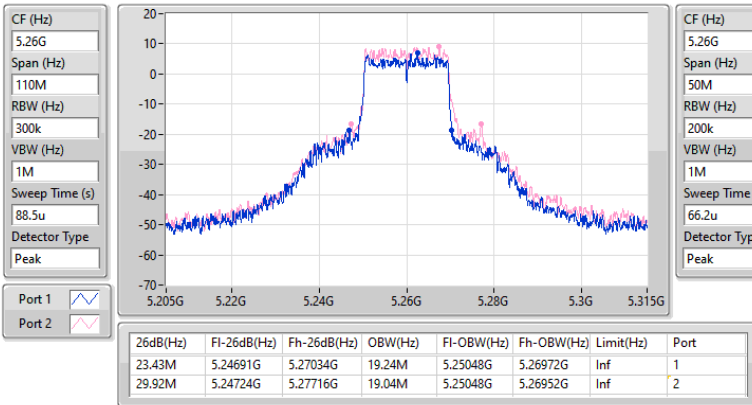


5.25-5.35GHz_802.11be EHT20_Nss2,(MCS0)_2TX

EBW

5260MHz

16/01/2025

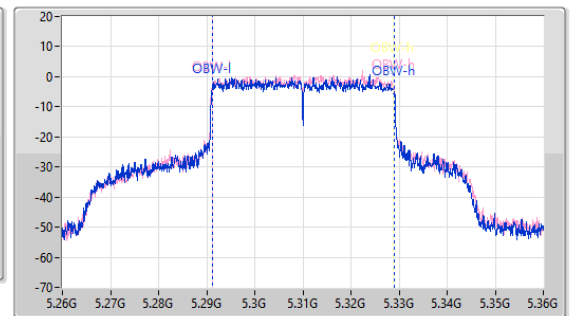
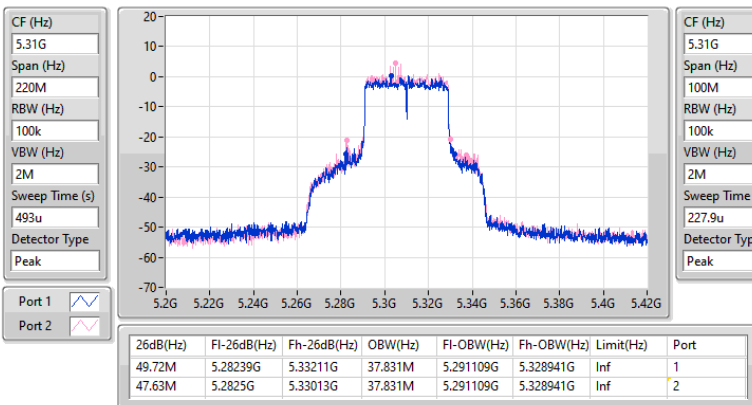


5.25-5.35GHz_802.11be EHT40_Nss2,(MCS0)_2TX

EBW

5310MHz

16/01/2025

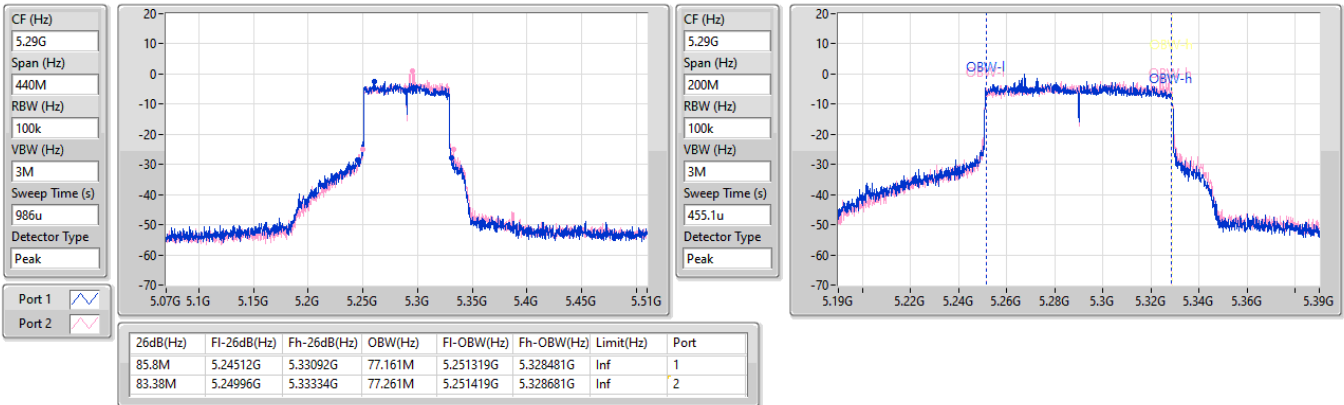


5.25-5.35GHz_802.11be EHT80_Nss2,(MCS0)_2TX

EBW

5290MHz

16/01/2025

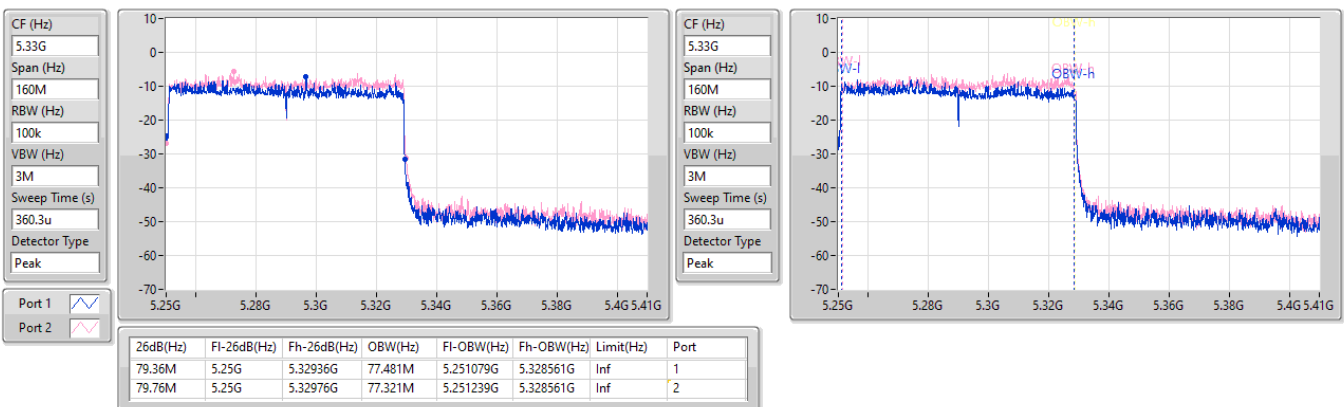


5.25-5.35GHz_802.11be EHT160_Nss2,(MCS0)_2TX

EBW

5250MHz Straddle 5.25-5.35GHz

25/02/2025

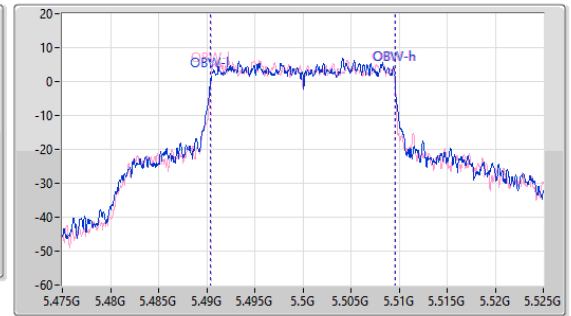
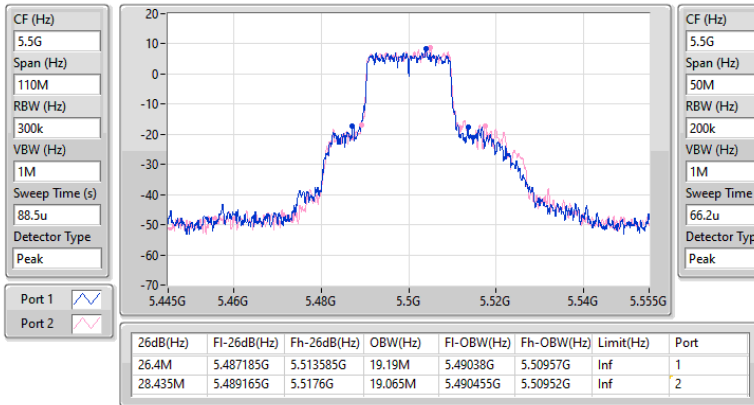


5.47-5.725GHz_802.11be EHT20_Nss2,(MCS0)_2TX

EBW

5500MHz

16/01/2025

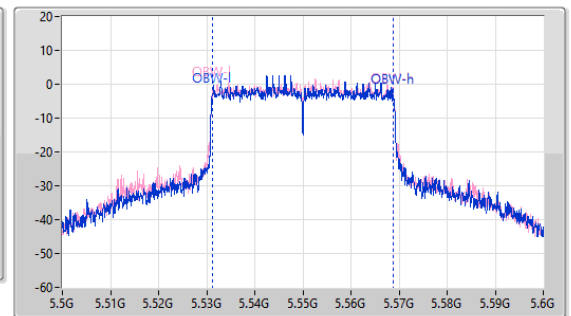
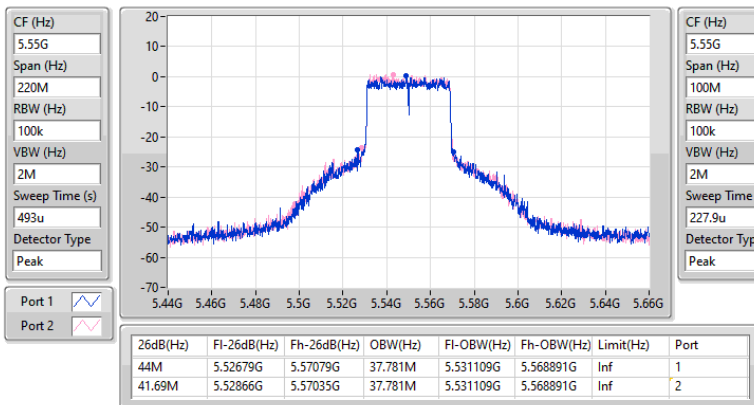


5.47-5.725GHz_802.11be EHT40_Nss2,(MCS0)_2TX

EBW

5500MHz

16/01/2025

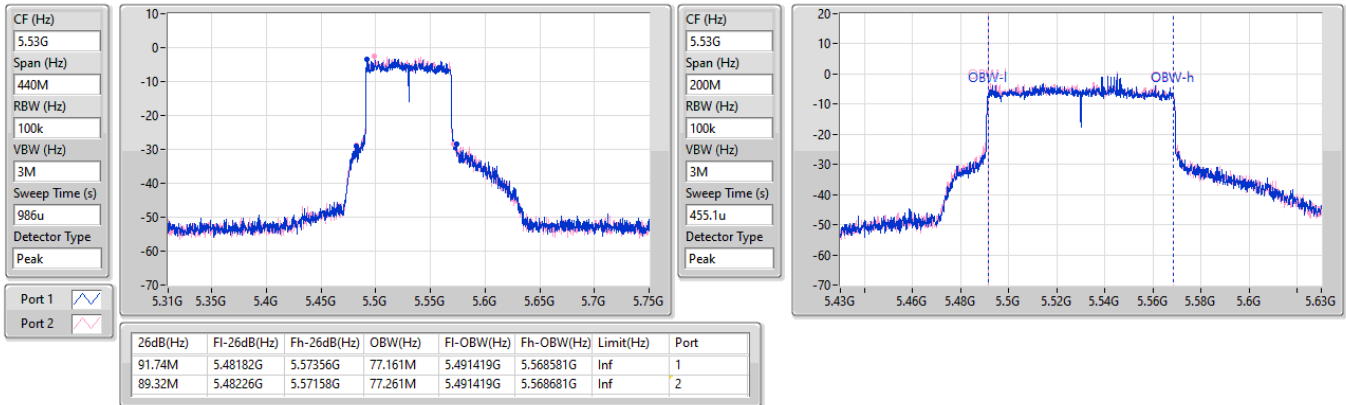


5.47-5.725GHz_802.11be EHT80_Nss2,(MCS0)_2TX

EBW

5530MHz

16/01/2025

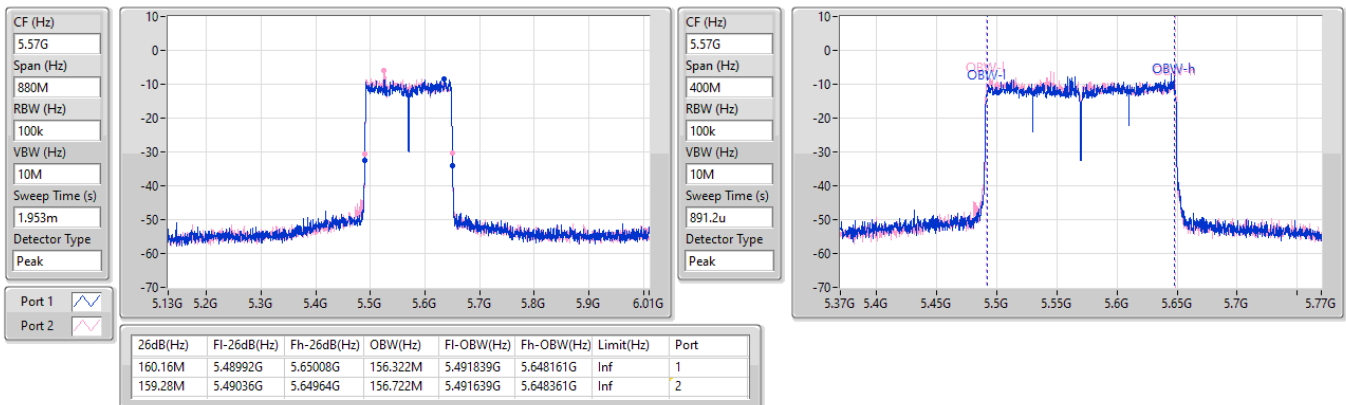


5.47-5.725GHz_802.11be EHT160_Nss2,(MCS0)_2TX

EBW

5570MHz

25/02/2025

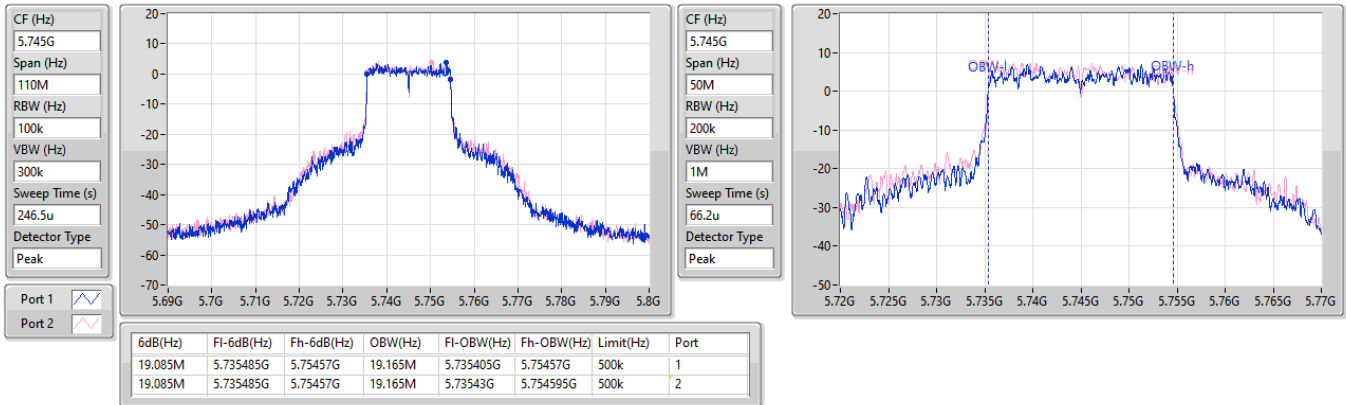


5.725-5.85GHz_802.11be EHT20_Nss2,(MCS0)_2TX

EBW

5745MHz

16/01/2025

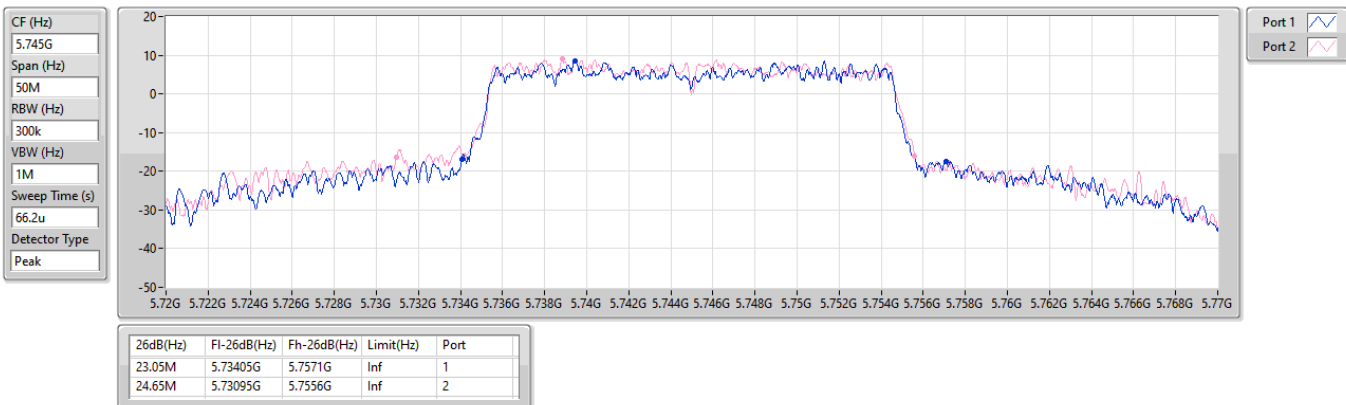


5.725-5.85GHz_802.11be EHT20_Nss2,(MCS0)_2TX

EBW

5745MHz

16/01/2025

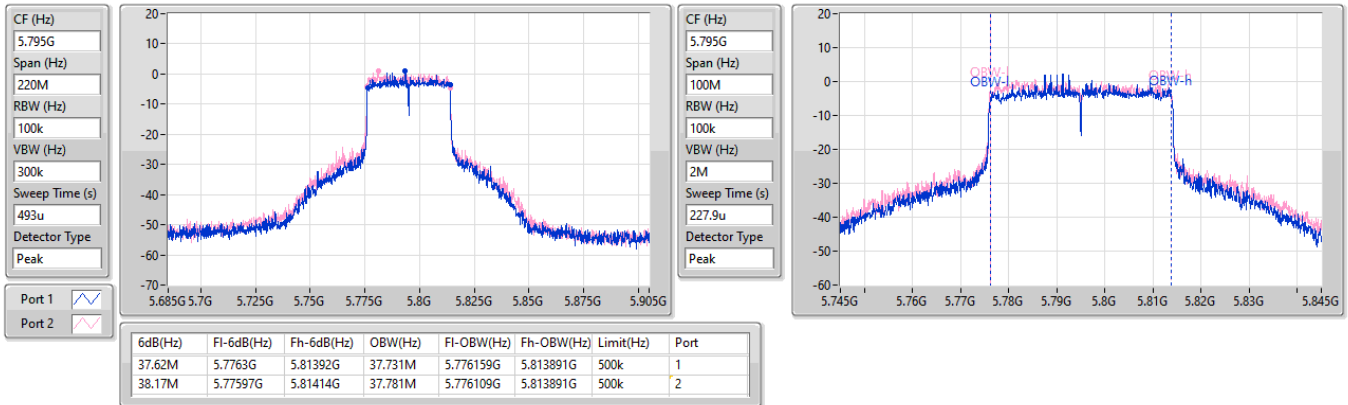


5.725-5.85GHz_802.11be EHT40_Nss2,(MCS0)_2TX

EBW

5795MHz

16/01/2025

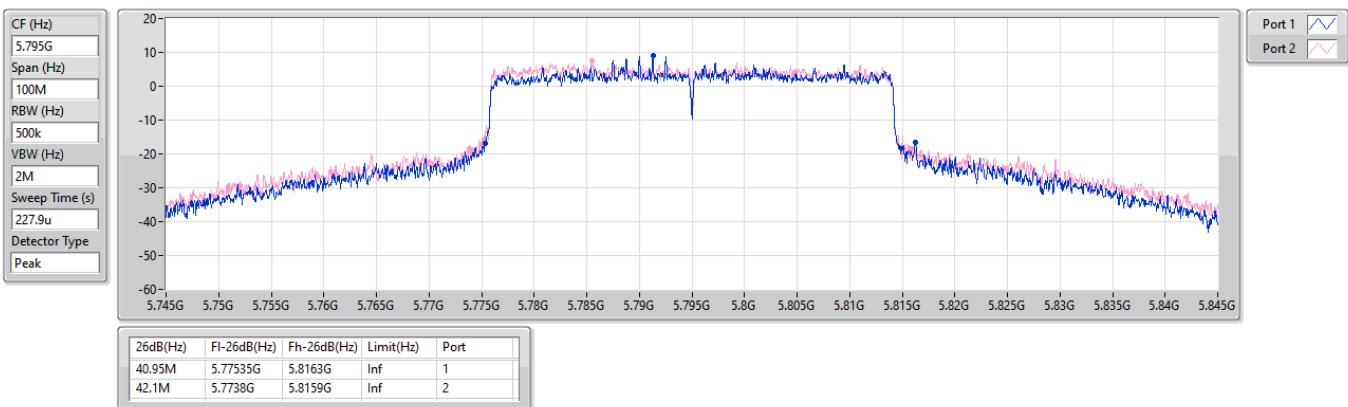


5.725-5.85GHz_802.11be EHT40_Nss2,(MCS0)_2TX

EBW

5795MHz

16/01/2025

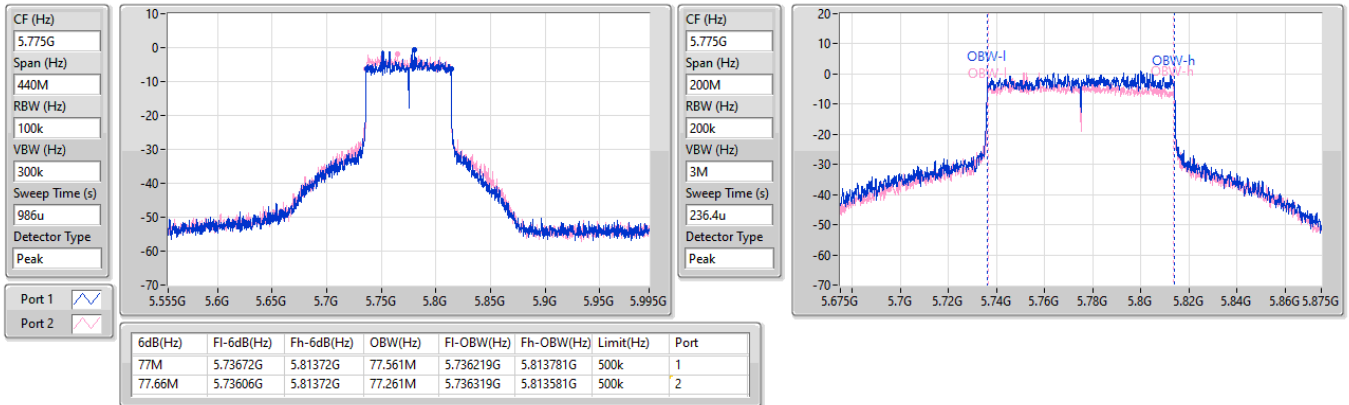


5.725-5.85GHz_802.11be EHT80_Nss2,(MCS0)_2TX

EBW

5775MHz

16/01/2025

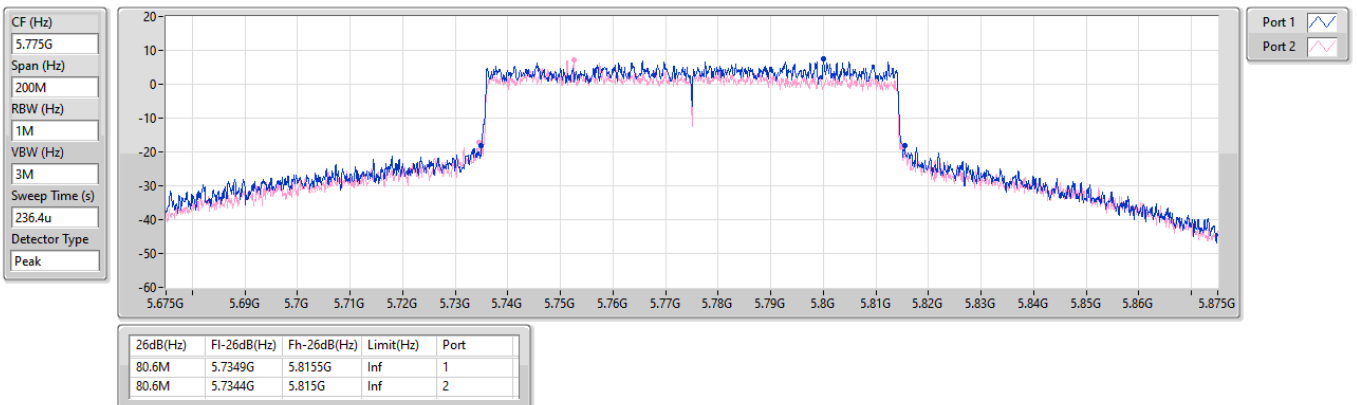


5.725-5.85GHz_802.11be EHT80_Nss2,(MCS0)_2TX

EBW

5775MHz

16/01/2025





EBW_Non-Beamforming_Radio 2_ Dual-Polarized MIMO Panel Antenna_1T1S

Appendix B.4

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.15-5.25GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX	21.78M	16.932M	16M9D1D	21.56M	16.624M
802.11be EHT20_Nss1,(MCS0)_1TX	23.375M	19.315M	19M3D1D	21.505M	19.015M
802.11be EHT40_Nss1,(MCS0)_1TX	48.07M	37.731M	37M7D1D	44.11M	37.731M
802.11be EHT80_Nss1,(MCS0)_1TX	80.52M	77.061M	77M1D1D	80.52M	77.061M
802.11be EHT160_Nss1,(MCS0)_1TX	79.6M	77.001M	77M0D1D	79.6M	77.001M
5.25-5.35GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX	21.945M	17.173M	17M2D1D	20.68M	16.624M
802.11be EHT20_Nss1,(MCS0)_1TX	23.485M	19.115M	19M1D1D	22.055M	19.015M
802.11be EHT40_Nss1,(MCS0)_1TX	45.32M	37.881M	37M9D1D	41.25M	37.731M
802.11be EHT80_Nss1,(MCS0)_1TX	80.3M	77.261M	77M3D1D	80.3M	77.261M
802.11be EHT160_Nss1,(MCS0)_1TX	79.44M	77.321M	77M3D1D	79.44M	77.321M
5.47-5.725GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX	21.78M	17.041M	17M0D1D	15.795M	13.613M
802.11be EHT20_Nss1,(MCS0)_1TX	23.43M	19.09M	19M1D1D	16.275M	14.558M
802.11be EHT40_Nss1,(MCS0)_1TX	48.84M	37.881M	37M9D1D	35.595M	33.863M
802.11be EHT80_Nss1,(MCS0)_1TX	81.4M	77.361M	77M4D1D	79.64M	73.088M
802.11be EHT160_Nss1,(MCS0)_1TX	161.04M	156.522M	157MD1D	161.04M	156.522M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX	16.5M	16.778M	16M8D1D	3.1M	4.618M
802.11be EHT20_Nss1,(MCS0)_1TX	19.14M	18.991M	19M0D1D	4.6M	5.317M
802.11be EHT40_Nss1,(MCS0)_1TX	37.95M	37.781M	37M8D1D	4.04M	11.394M
802.11be EHT80_Nss1,(MCS0)_1TX	78.1M	77.261M	77M3D1D	3.98M	19.69M

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)
802.11a_Nss1,(6Mbps)_1TX	-	-	-	-
5180MHz	Pass	Inf	21.56M	16.668M
5200MHz	Pass	Inf	21.78M	16.624M
5240MHz	Pass	Inf	21.725M	16.932M
5260MHz	Pass	Inf	21.56M	17.173M
5300MHz	Pass	Inf	20.68M	16.624M
5320MHz	Pass	Inf	21.945M	16.734M
5500MHz	Pass	Inf	21.78M	16.954M
5580MHz	Pass	Inf	21.285M	17.041M
5700MHz	Pass	Inf	20.68M	16.69M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	15.795M	13.613M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	3.1M	4.618M
5745MHz	Pass	500k	16.5M	16.778M
5785MHz	Pass	500k	16.5M	16.646M
5825MHz	Pass	500k	16.445M	16.712M
802.11be EHT20_Nss1,(MCS0)_1TX	-	-	-	-
5180MHz	Pass	Inf	22.55M	19.015M
5200MHz	Pass	Inf	21.505M	19.315M
5240MHz	Pass	Inf	23.375M	19.065M
5260MHz	Pass	Inf	22.055M	19.015M
5300MHz	Pass	Inf	23.1M	19.04M
5320MHz	Pass	Inf	23.485M	19.115M
5500MHz	Pass	Inf	23.43M	19.09M
5580MHz	Pass	Inf	23.045M	19.09M
5700MHz	Pass	Inf	21.01M	19.065M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	16.275M	14.558M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	4.6M	5.317M
5745MHz	Pass	500k	19.14M	18.991M
5785MHz	Pass	500k	18.645M	18.991M
5825MHz	Pass	500k	19.085M	18.991M
802.11be EHT40_Nss1,(MCS0)_1TX	-	-	-	-
5190MHz	Pass	Inf	44.11M	37.731M
5230MHz	Pass	Inf	48.07M	37.731M
5270MHz	Pass	Inf	41.25M	37.731M
5310MHz	Pass	Inf	45.32M	37.881M
5510MHz	Pass	Inf	48.84M	37.881M
5550MHz	Pass	Inf	43.45M	37.831M
5670MHz	Pass	Inf	40.81M	37.781M
5710MHz Straddle 5.47-5.725GHz	Pass	Inf	35.595M	33.863M
5710MHz Straddle 5.725-5.85GHz	Pass	500k	4.04M	11.394M
5755MHz	Pass	500k	37.95M	37.731M
5795MHz	Pass	500k	37.18M	37.781M
802.11be EHT80_Nss1,(MCS0)_1TX	-	-	-	-
5210MHz	Pass	Inf	80.52M	77.061M
5290MHz	Pass	Inf	80.3M	77.261M
5530MHz	Pass	Inf	79.64M	77.361M



**EBW_Non-Beamforming_Radio 2_
Dual-Polarized MIMO Panel Antenna_1T1S**

Appendix B.4

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
5610MHz	Pass	Inf	81.4M	77.261M
5690MHz Straddle 5.47-5.725GHz	Pass	Inf	80.175M	73.088M
5690MHz Straddle 5.725-5.85GHz	Pass	500k	3.98M	19.69M
5775MHz	Pass	500k	78.1M	77.261M
802.11be EHT160_Nss1,(MCS0)_1TX	-	-	-	-
5250MHz Straddle 5.15-5.25GHz	Pass	Inf	79.6M	77.001M
5250MHz Straddle 5.25-5.35GHz	Pass	Inf	79.44M	77.321M
5570MHz	Pass	Inf	161.04M	156.522M

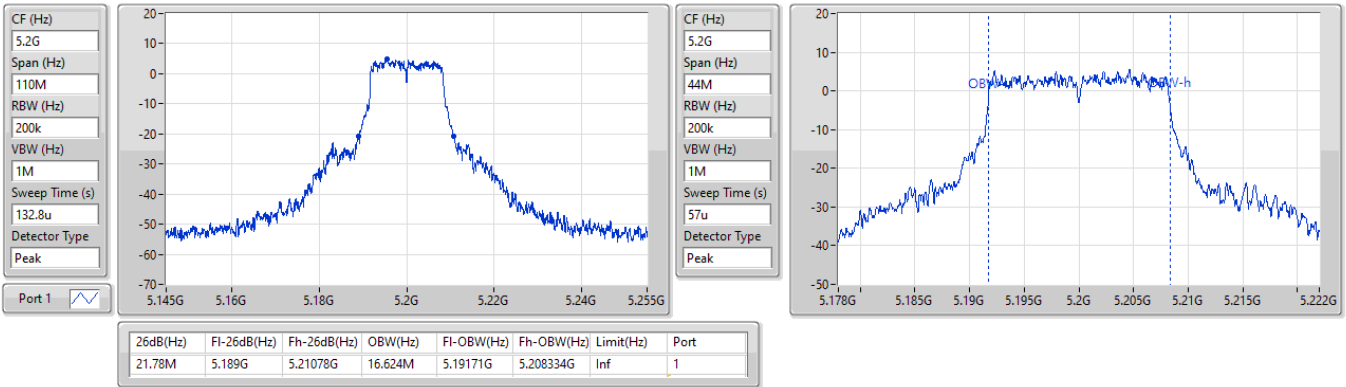
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band
Port X-OBW = Port X 99% occupied bandwidth

5.15-5.25GHz_802.11a_Nss1,(6Mbps)_1TX

EBW

5200MHz

25/02/2025

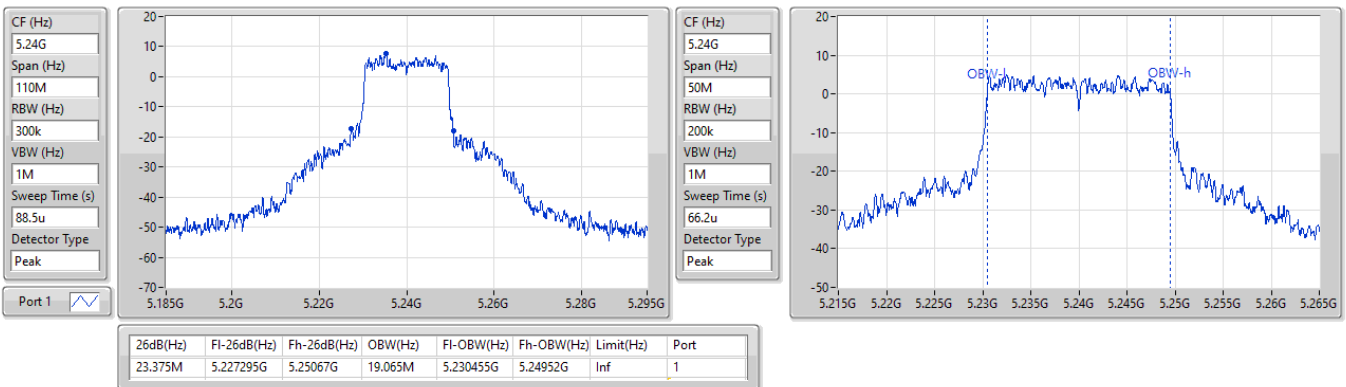


5.15-5.25GHz_802.11be EHT20_Nss1,(MCS0)_1TX

EBW

5240MHz

25/02/2025

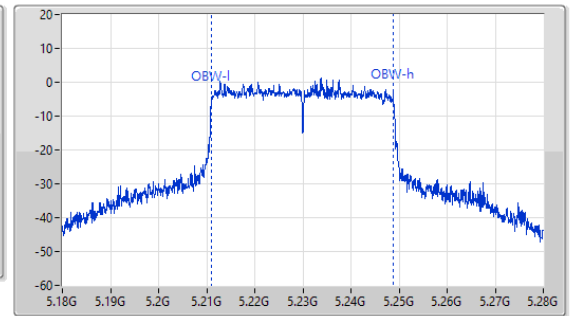
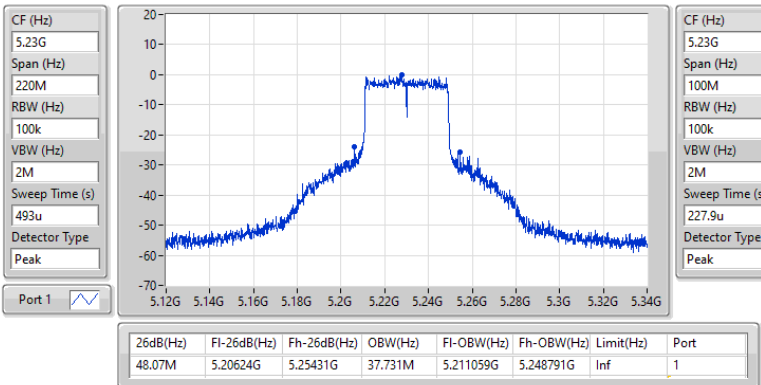


5.15-5.25GHz_802.11be EHT40_Nss1,(MCS0)_1TX

EBW

5230MHz

25/02/2025

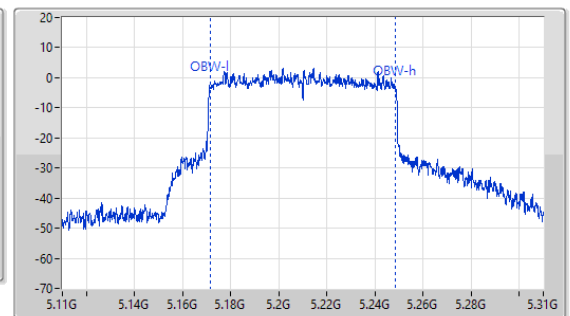
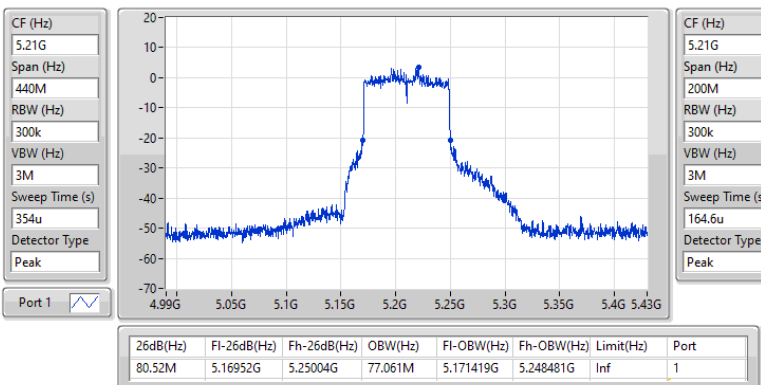


5.15-5.25GHz_802.11be EHT80_Nss1,(MCS0)_1TX

EBW

5210MHz

25/02/2025

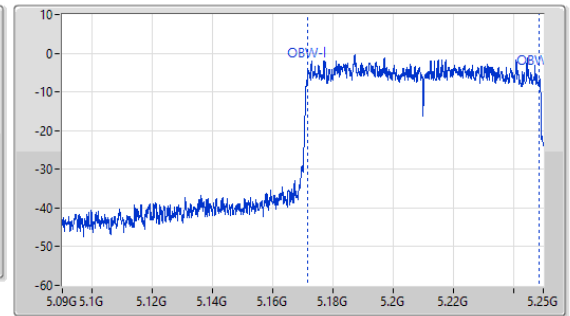
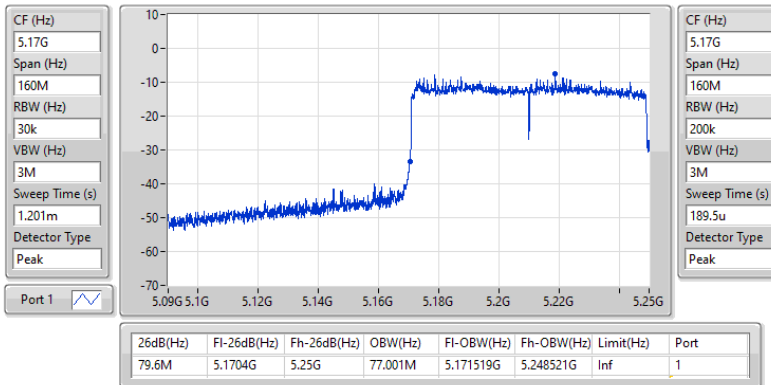


5.15-5.25GHz_802.11be EHT160_Nss1,(MCS0)_1TX

EBW

5250MHz Straddle 5.15-5.25GHz

25/02/2025

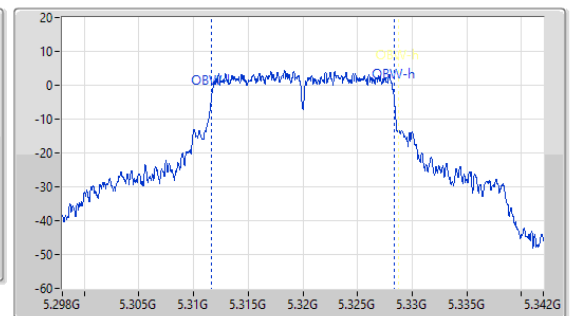
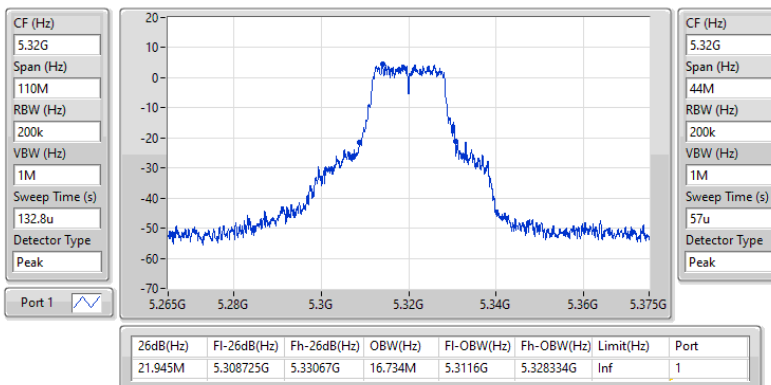


5.25-5.35GHz_802.11a_Nss1,(6Mbps)_1TX

EBW

5320MHz

25/02/2025

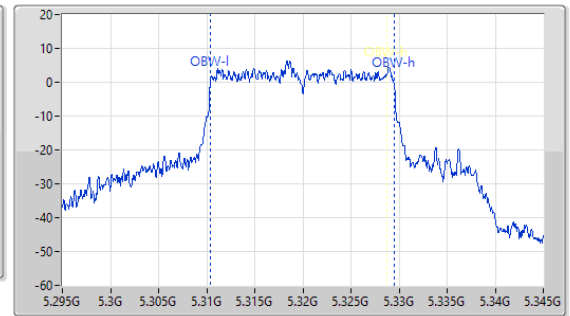
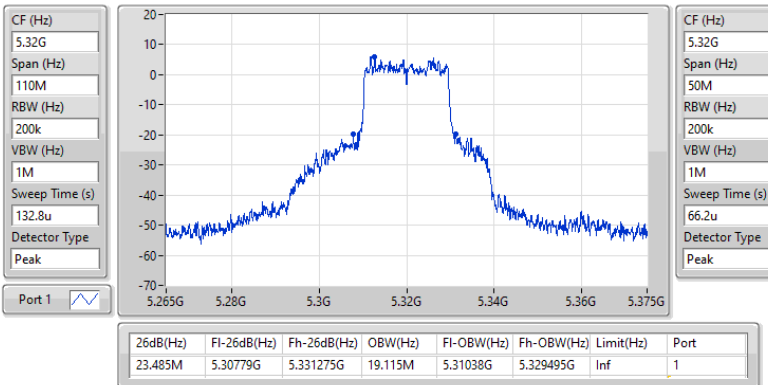


5.25-5.35GHz_802.11be EHT20_Nss1,(MCS0)_1TX

EBW

5320MHz

25/02/2025

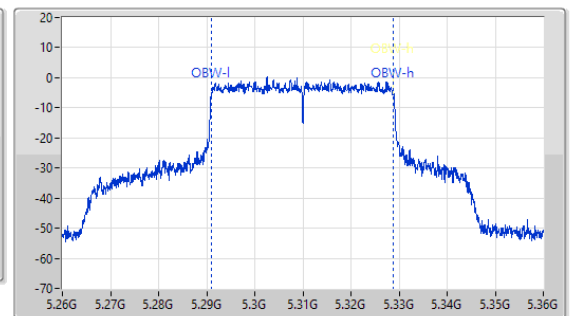
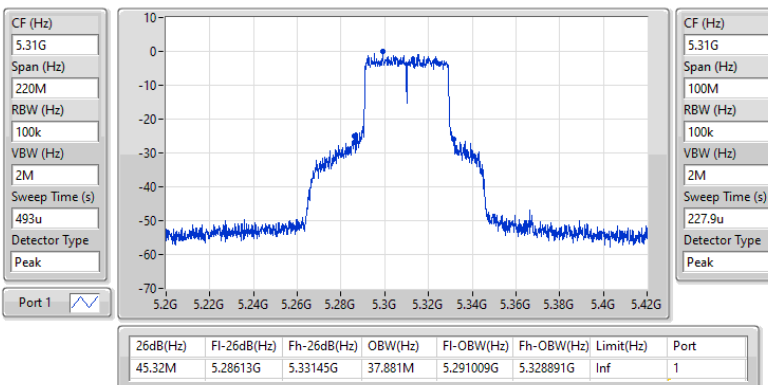


5.25-5.35GHz_802.11be EHT40_Nss1,(MCS0)_1TX

EBW

5310MHz

25/02/2025

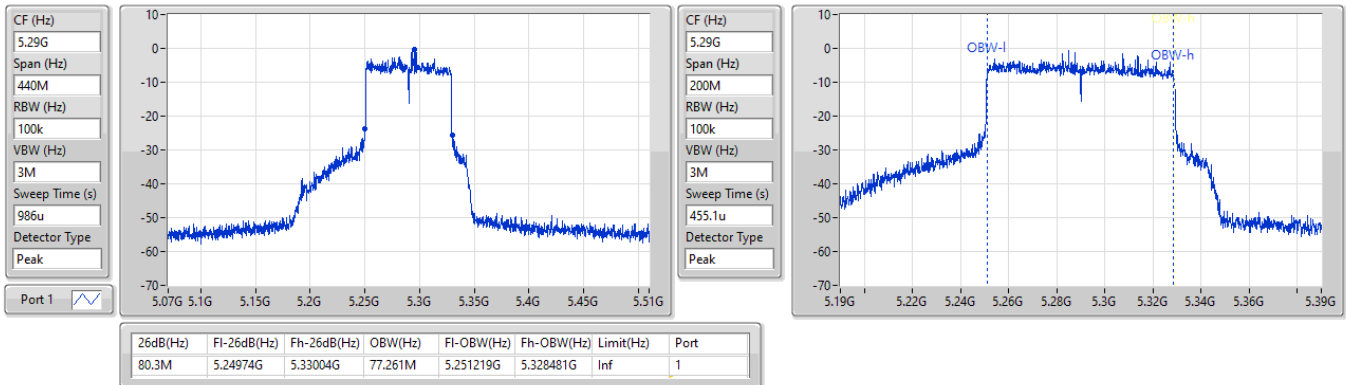


5.25-5.35GHz_802.11be EHT80_Nss1,(MCS0)_1TX

EBW

5290MHz

25/02/2025

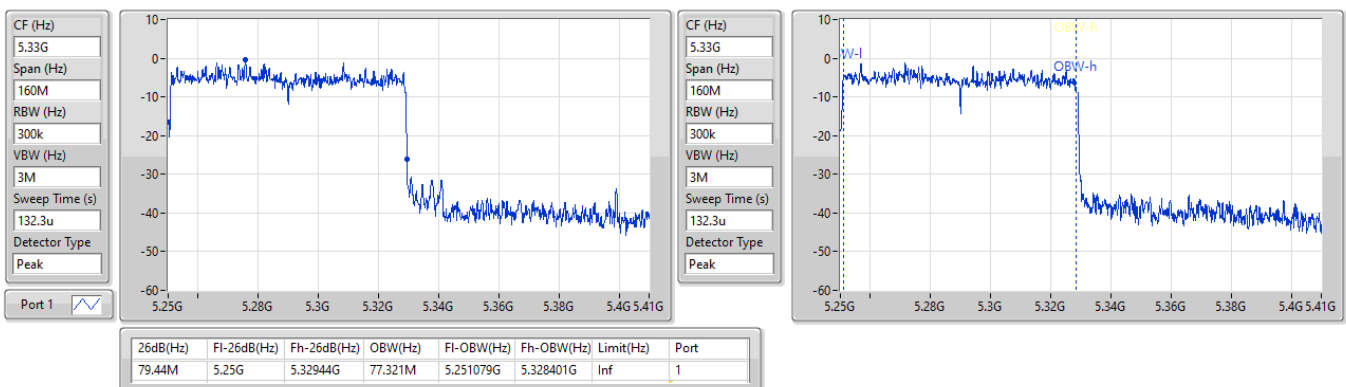


5.25-5.35GHz_802.11be EHT160_Nss1,(MCS0)_1TX

EBW

5250MHz Straddle 5.25-5.35GHz

25/02/2025

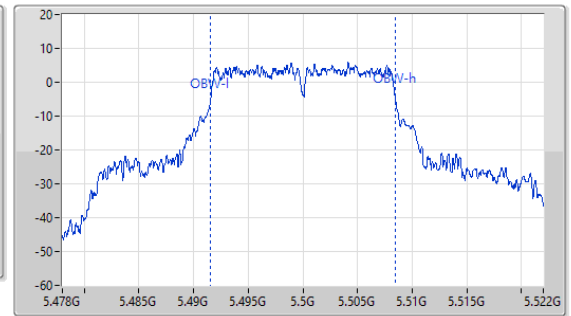
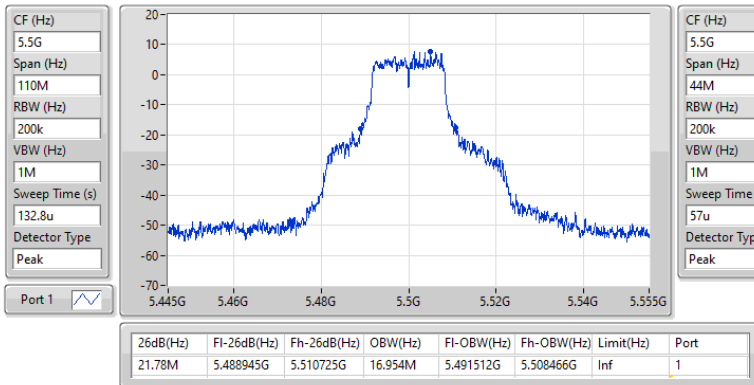


5.47-5.725GHz_802.11a_Nss1,(6Mbps)_1TX

EBW

5500MHz

25/02/2025

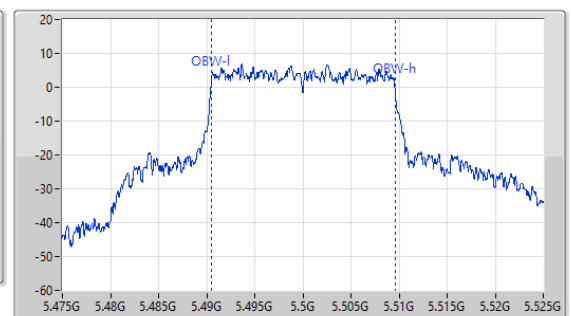
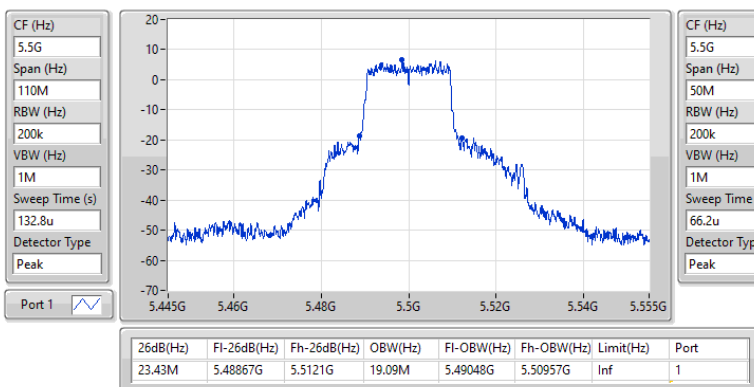


5.47-5.725GHz_802.11be EHT20_Nss1,(MCS0)_1TX

EBW

5500MHz

25/02/2025

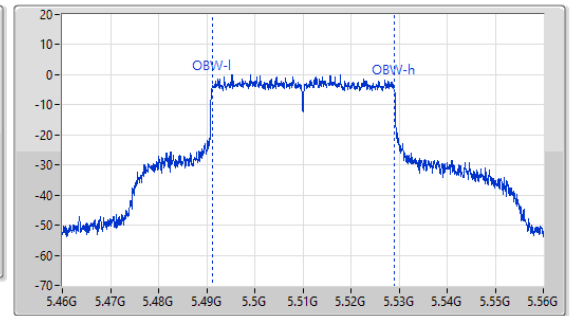
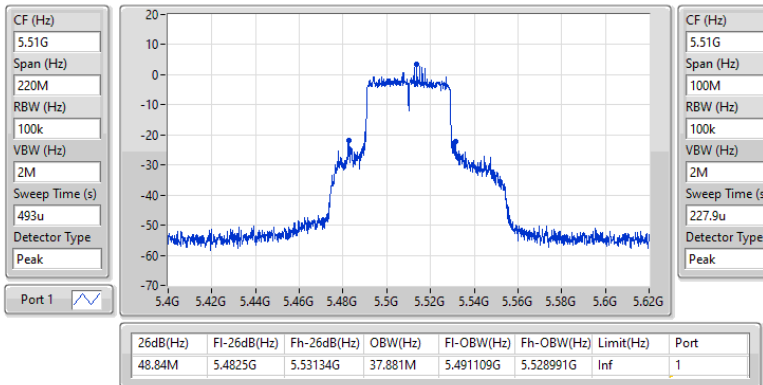


5.47-5.725GHz_802.11be EHT40_Nss1,(MCS0)_1TX

EBW

5510MHz

25/02/2025

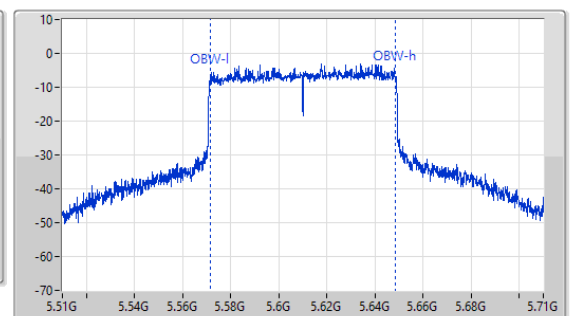
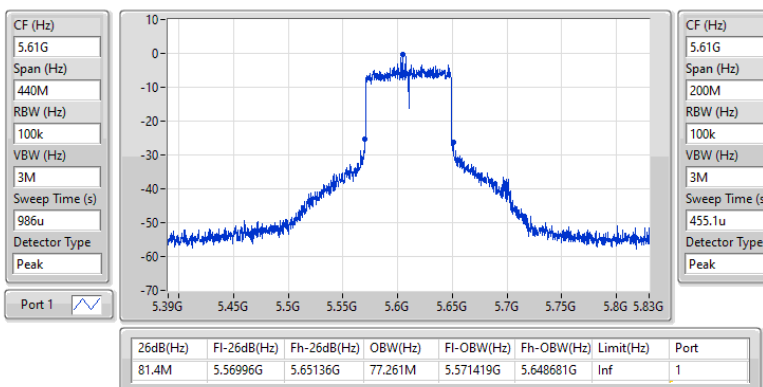


5.47-5.725GHz_802.11be EHT80_Nss1,(MCS0)_1TX

EBW

5610MHz

25/02/2025

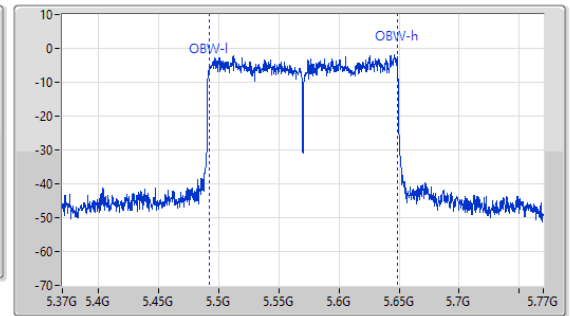
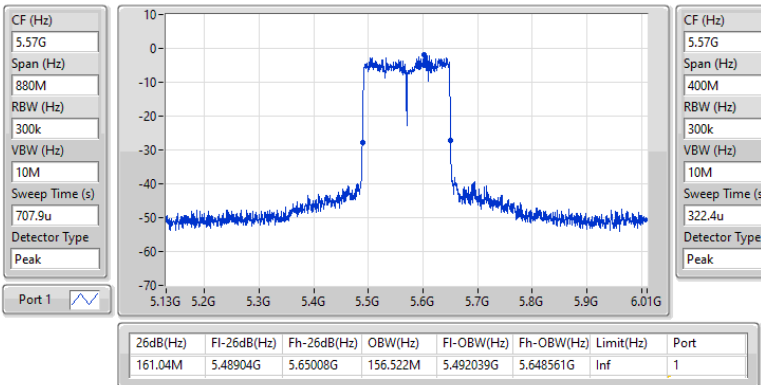


5.47-5.725GHz_802.11be EHT160_Nss1,(MCS0)_1TX

EBW

5570MHz

25/02/2025

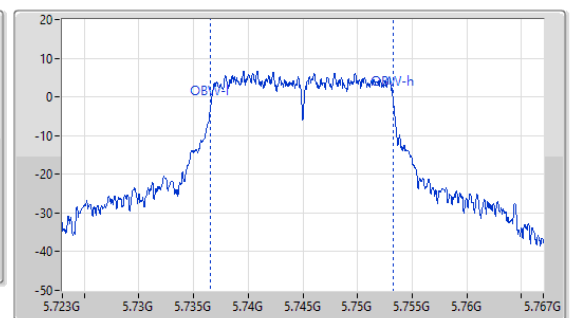
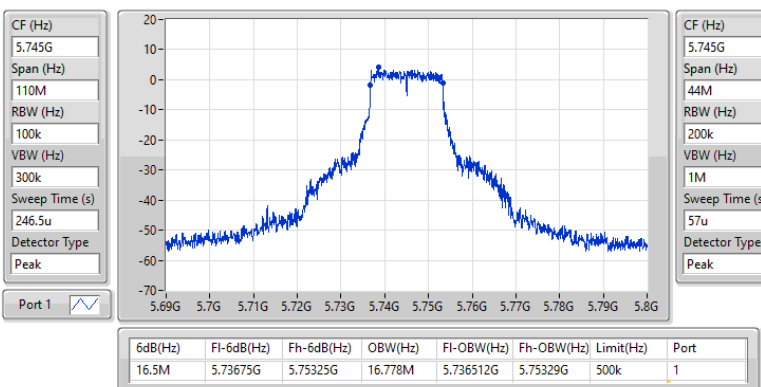


5.725-5.85GHz_802.11a_Nss1,(6Mbps)_1TX

EBW

5745MHz

25/02/2025

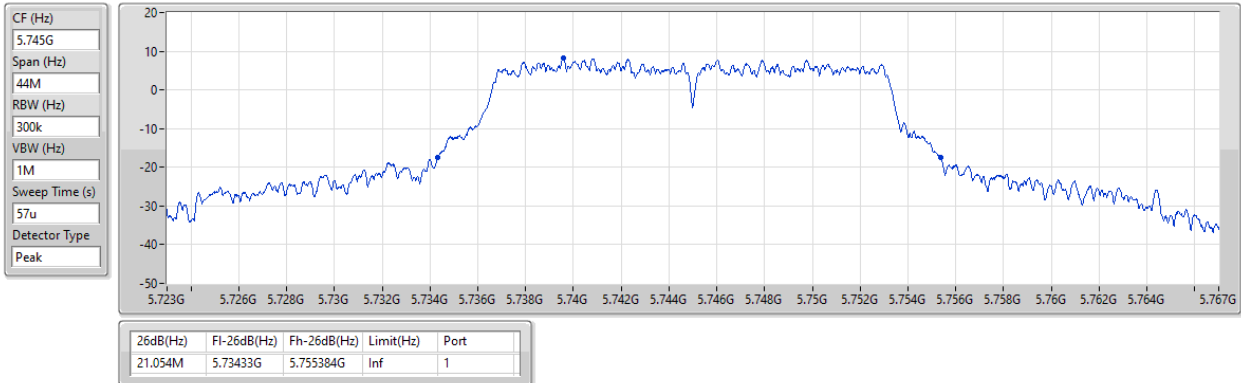


5.725-5.85GHz_802.11a_Nss1,(6Mbps)_1TX

EBW

5745MHz

25/02/2025

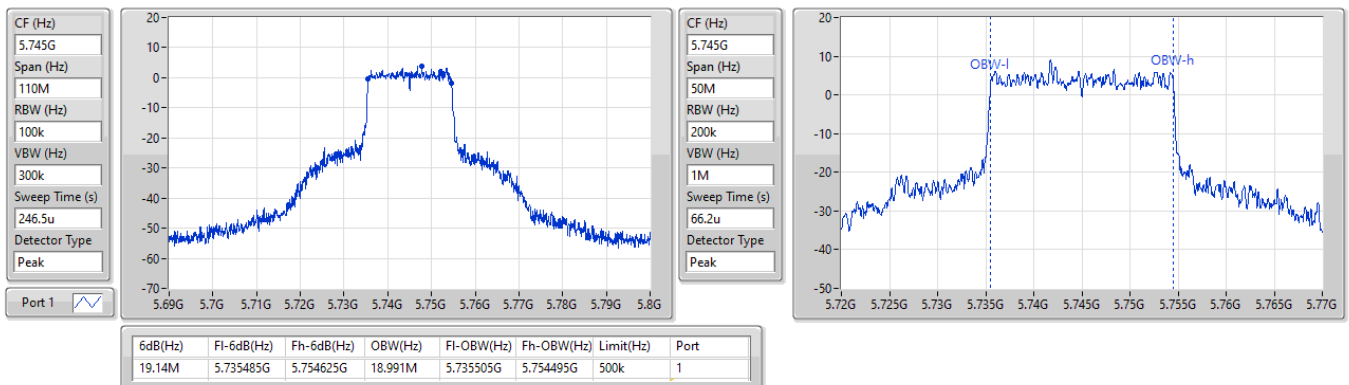


5.725-5.85GHz_802.11be EHT20_Nss1,(MCS0)_1TX

EBW

5745MHz

25/02/2025

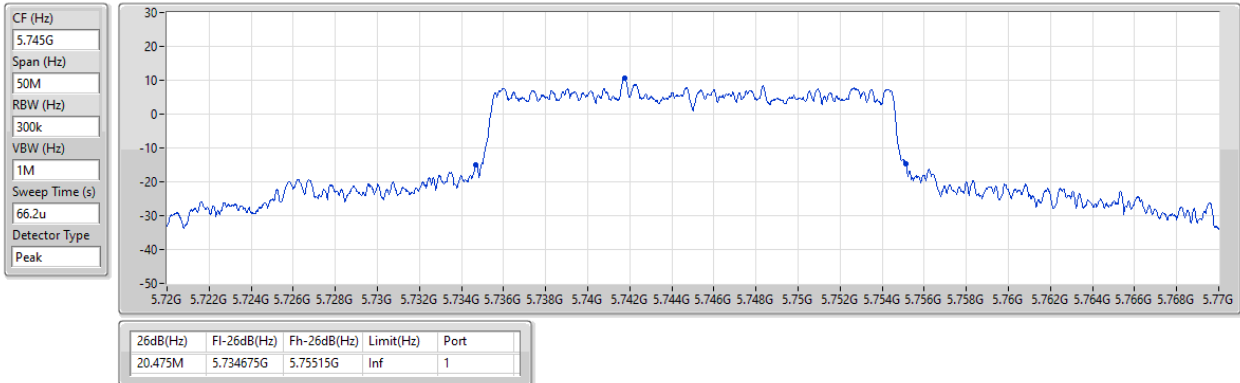


5.725-5.85GHz_802.11be EHT20_Nss1,(MCS0)_1TX

EBW

5745MHz

25/02/2025

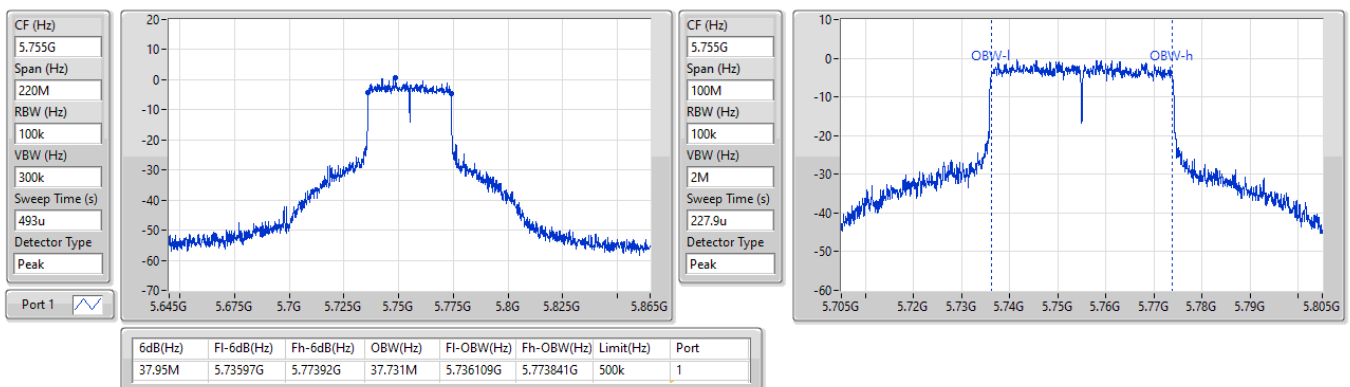


5.725-5.85GHz_802.11be EHT40_Nss1,(MCS0)_1TX

EBW

5755MHz

25/02/2025

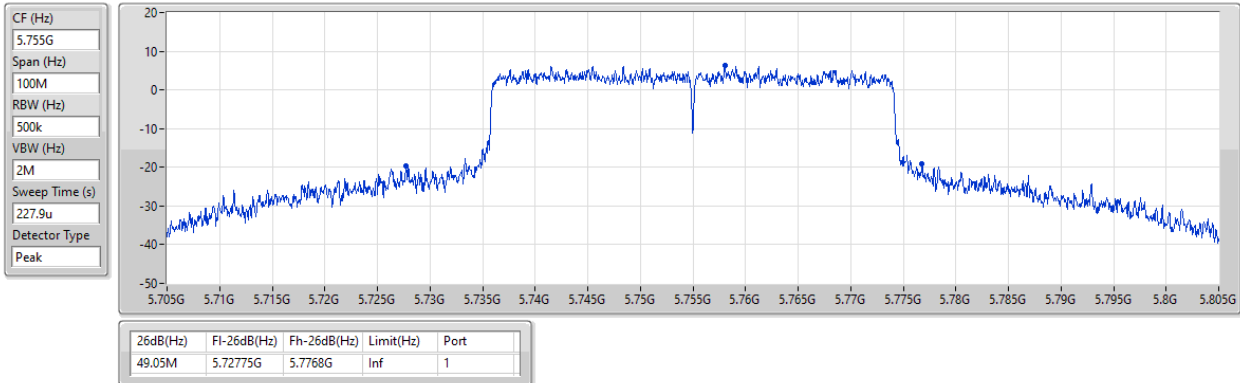


5.725-5.85GHz_802.11be EHT40_Nss1,(MCS0)_1TX

EBW

5755MHz

25/02/2025

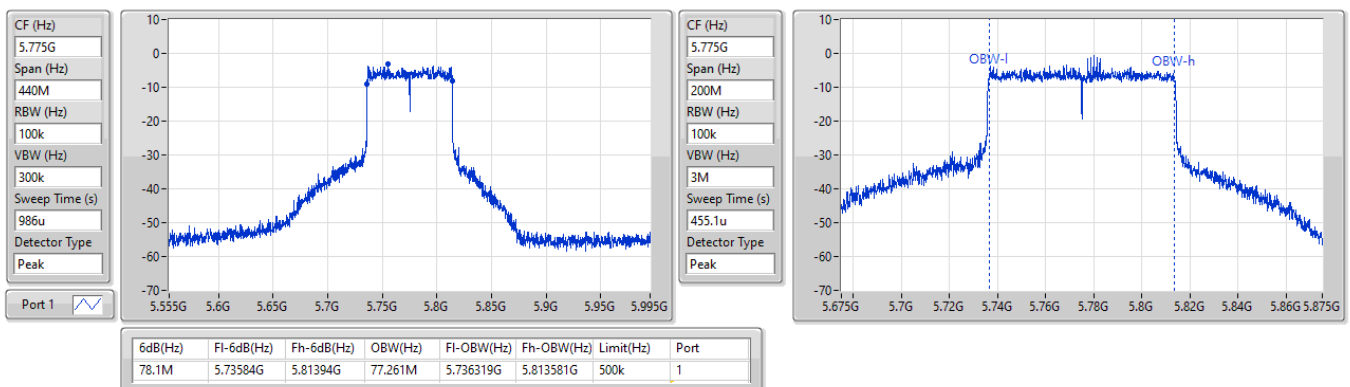


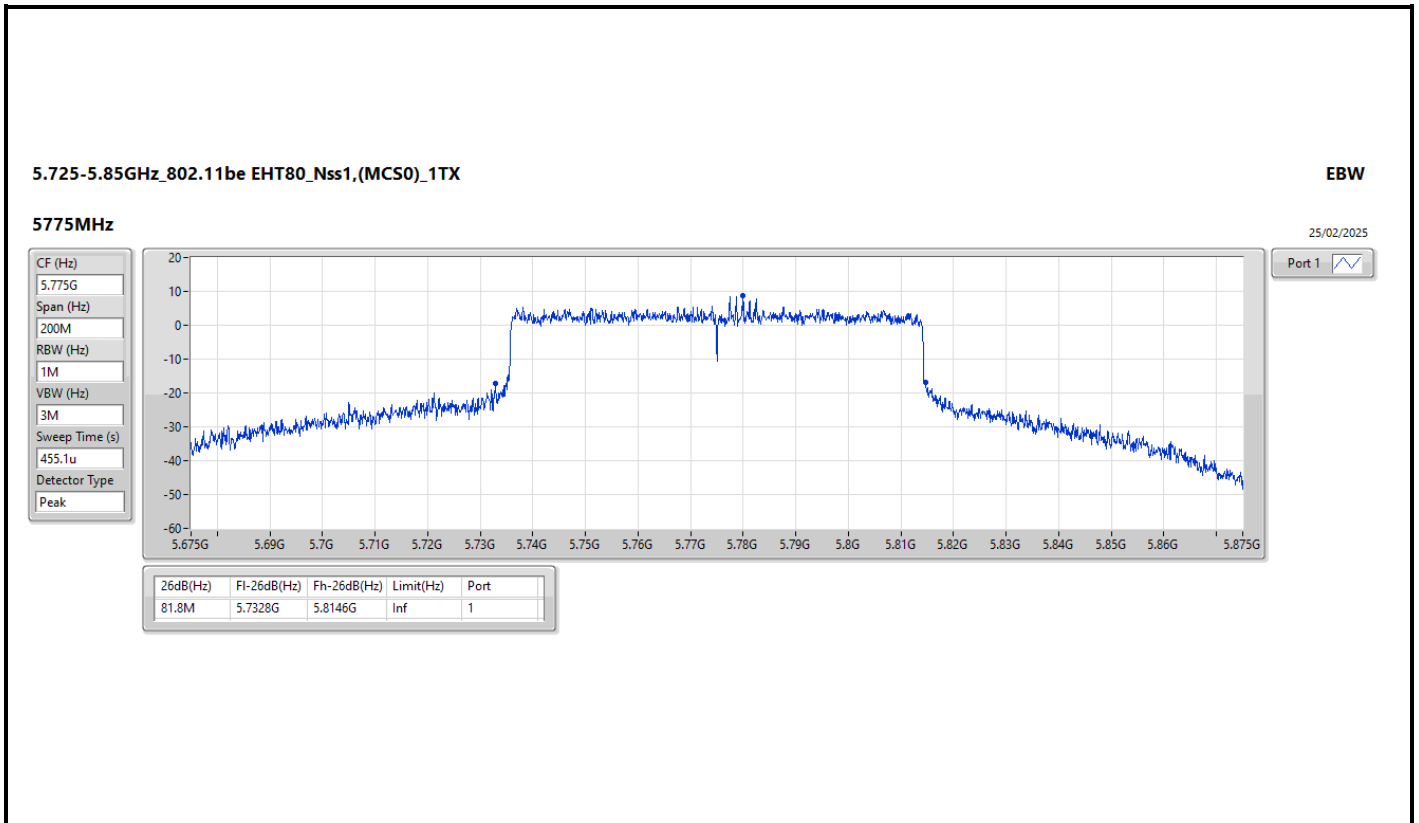
5.725-5.85GHz_802.11be EHT80_Nss1,(MCS0)_1TX

EBW

5775MHz

25/02/2025







EBW_Non-Beamforming_Radio 2_ Dual-Polarized MIMO Panel Antenna_2T1S

Appendix B.5

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.15-5.25GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	22.77M	17.129M	17M1D1D	21.12M	16.712M
802.11be EHT20_Nss1,(MCS0)_2TX	24.365M	19.265M	19M3D1D	21.45M	19.04M
802.11be EHT40_Nss1,(MCS0)_2TX	50.82M	37.781M	37M8D1D	40.26M	37.681M
802.11be EHT80_Nss1,(MCS0)_2TX	84.04M	77.261M	77M3D1D	81.4M	77.261M
802.11be EHT160_Nss1,(MCS0)_2TX	79.52M	77.241M	77M2D1D	79.28M	77.241M
5.25-5.35GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	22.825M	17.195M	17M2D1D	21.395M	16.668M
802.11be EHT20_Nss1,(MCS0)_2TX	24.695M	19.265M	19M3D1D	21.56M	19.015M
802.11be EHT40_Nss1,(MCS0)_2TX	51.59M	37.831M	37M8D1D	40.04M	37.631M
802.11be EHT80_Nss1,(MCS0)_2TX	83.16M	77.261M	77M3D1D	80.96M	77.161M
802.11be EHT160_Nss1,(MCS0)_2TX	80M	77.481M	77M5D1D	79.44M	77.321M
5.47-5.725GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	22.11M	17.261M	17M3D1D	15.66M	13.193M
802.11be EHT20_Nss1,(MCS0)_2TX	24.64M	19.19M	19M2D1D	17.415M	14.558M
802.11be EHT40_Nss1,(MCS0)_2TX	48.18M	37.881M	37M9D1D	36.75M	33.688M
802.11be EHT80_Nss1,(MCS0)_2TX	87.56M	77.361M	77M4D1D	74.55M	73.238M
802.11be EHT160_Nss1,(MCS0)_2TX	159.72M	156.122M	156MD1D	159.28M	156.122M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	16.555M	17.019M	17M0D1D	3.26M	4.618M
802.11be EHT20_Nss1,(MCS0)_2TX	19.085M	19.215M	19M2D1D	4.56M	5.497M
802.11be EHT40_Nss1,(MCS0)_2TX	38.06M	37.781M	37M8D1D	4.08M	10.075M
802.11be EHT80_Nss1,(MCS0)_2TX	78.1M	77.361M	77M4D1D	4.06M	16.432M

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)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	21.285M	16.866M	22.77M	16.8M
5200MHz	Pass	Inf	21.12M	16.822M	21.78M	16.712M
5240MHz	Pass	Inf	22M	17.129M	21.67M	16.8M
5260MHz	Pass	Inf	22.055M	17.195M	22.385M	16.734M
5300MHz	Pass	Inf	21.395M	16.756M	22.825M	16.756M
5320MHz	Pass	Inf	22.605M	16.668M	21.45M	16.822M
5500MHz	Pass	Inf	21.89M	16.866M	21.615M	17.261M
5580MHz	Pass	Inf	21.285M	16.8M	22.11M	16.822M
5700MHz	Pass	Inf	20.955M	16.756M	21.065M	16.8M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	15.915M	13.193M	15.66M	13.433M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	3.28M	4.878M	3.26M	4.618M
5745MHz	Pass	500k	16.5M	16.866M	16.5M	17.019M
5785MHz	Pass	500k	16.5M	16.668M	16.445M	16.932M
5825MHz	Pass	500k	16.5M	16.778M	16.555M	16.69M
802.11be EHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	21.67M	19.04M	23.76M	19.265M
5200MHz	Pass	Inf	22.275M	19.04M	24.365M	19.115M
5240MHz	Pass	Inf	21.45M	19.165M	23.76M	19.24M
5260MHz	Pass	Inf	21.67M	19.065M	22.22M	19.115M
5300MHz	Pass	Inf	22M	19.19M	23.65M	19.015M
5320MHz	Pass	Inf	24.695M	19.04M	21.56M	19.265M
5500MHz	Pass	Inf	23.925M	19.015M	24.64M	19.19M
5580MHz	Pass	Inf	21.56M	18.991M	24.31M	19.015M
5700MHz	Pass	Inf	21.12M	19.065M	21.065M	18.966M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	17.415M	14.603M	18.405M	14.558M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	4.56M	5.597M	4.6M	5.497M
5745MHz	Pass	500k	19.085M	19.14M	19.03M	19.04M
5785MHz	Pass	500k	19.085M	19.015M	19.03M	19.04M
5825MHz	Pass	500k	18.81M	18.991M	19.03M	19.215M
802.11be EHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	Inf	50.82M	37.781M	41.58M	37.781M
5230MHz	Pass	Inf	41.58M	37.681M	40.26M	37.731M
5270MHz	Pass	Inf	40.48M	37.781M	40.04M	37.631M
5310MHz	Pass	Inf	51.59M	37.831M	45.87M	37.781M
5510MHz	Pass	Inf	40.92M	37.781M	44.11M	37.831M
5550MHz	Pass	Inf	44.77M	37.831M	48.18M	37.881M
5670MHz	Pass	Inf	40.37M	37.781M	45.87M	37.781M
5710MHz Straddle 5.47-5.725GHz	Pass	Inf	36.75M	33.723M	41.65M	33.688M
5710MHz Straddle 5.725-5.85GHz	Pass	500k	4.08M	10.075M	4.1M	11.454M
5755MHz	Pass	500k	38.06M	37.781M	37.84M	37.781M
5795MHz	Pass	500k	37.62M	37.781M	37.95M	37.731M
802.11be EHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-



**EBW_Non-Beamforming_Radio 2_
Dual-Polarized MIMO Panel Antenna_2T1S**

Appendix B.5

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
5210MHz	Pass	Inf	81.4M	77.261M	84.04M	77.261M
5290MHz	Pass	Inf	83.16M	77.261M	80.96M	77.161M
5530MHz	Pass	Inf	84.48M	77.261M	87.56M	77.261M
5610MHz	Pass	Inf	82.94M	77.261M	80.08M	77.361M
5690MHz Straddle 5.47-5.725GHz	Pass	Inf	77.55M	73.238M	74.55M	73.238M
5690MHz Straddle 5.725-5.85GHz	Pass	500k	4.06M	19.69M	4.12M	16.432M
5775MHz	Pass	500k	77.66M	77.261M	78.1M	77.361M
802.11be EHT160_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5250MHz Straddle 5.15-5.25GHz	Pass	Inf	79.52M	77.241M	79.28M	77.241M
5250MHz Straddle 5.25-5.35GHz	Pass	Inf	79.44M	77.321M	80M	77.481M
5570MHz	Pass	Inf	159.28M	156.122M	159.72M	156.122M

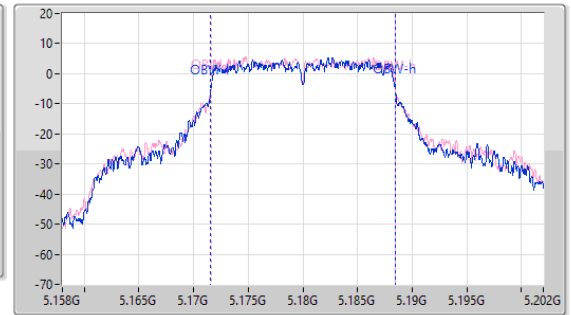
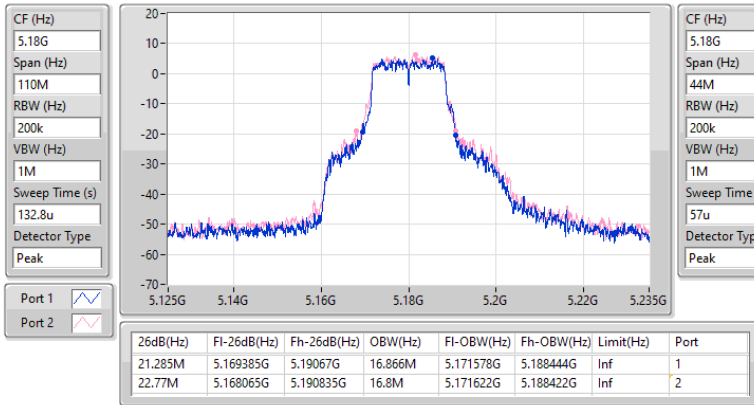
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band
Port X-OBW = Port X 99% occupied bandwidth

5.15-5.25GHz_802.11a_Nss1,(6Mbps)_2TX

EBW

5180MHz

26/02/2025

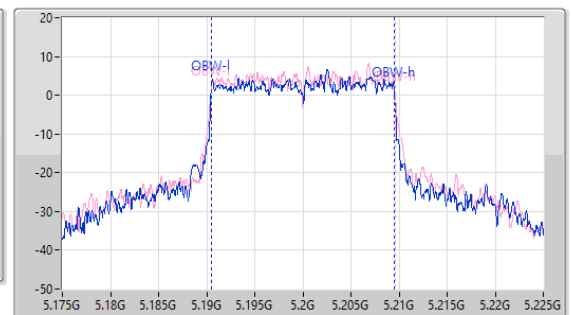
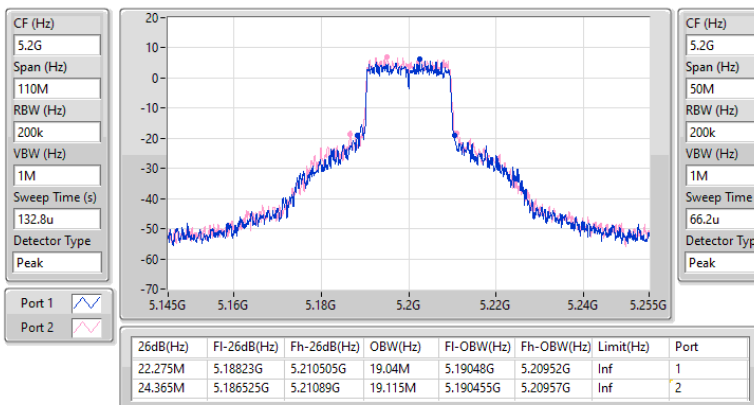


5.15-5.25GHz_802.11be EHT20_Nss1,(MCS0)_2TX

EBW

5200MHz

26/02/2025

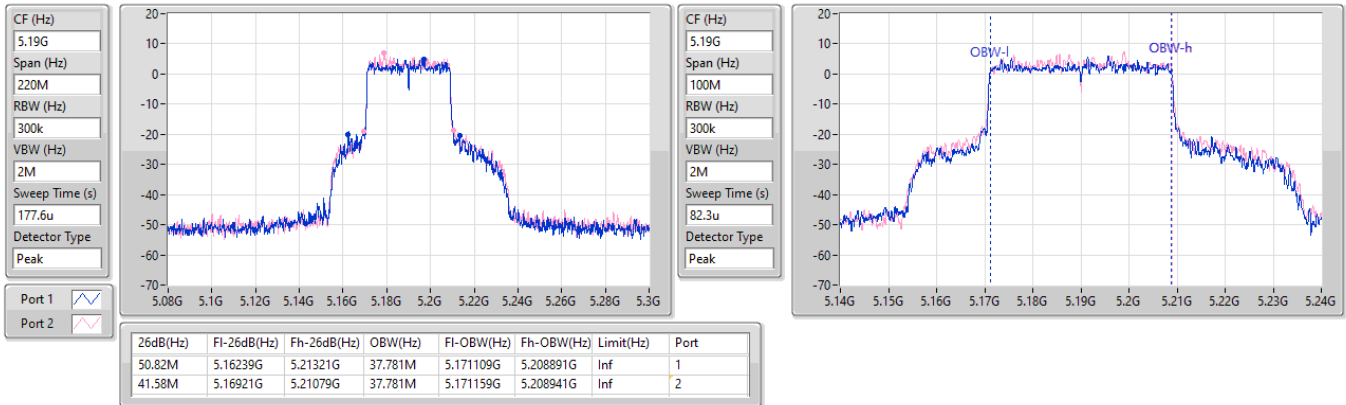


5.15-5.25GHz_802.11be EHT40_Nss1,(MCS0)_2TX

EBW

5190MHz

26/02/2025

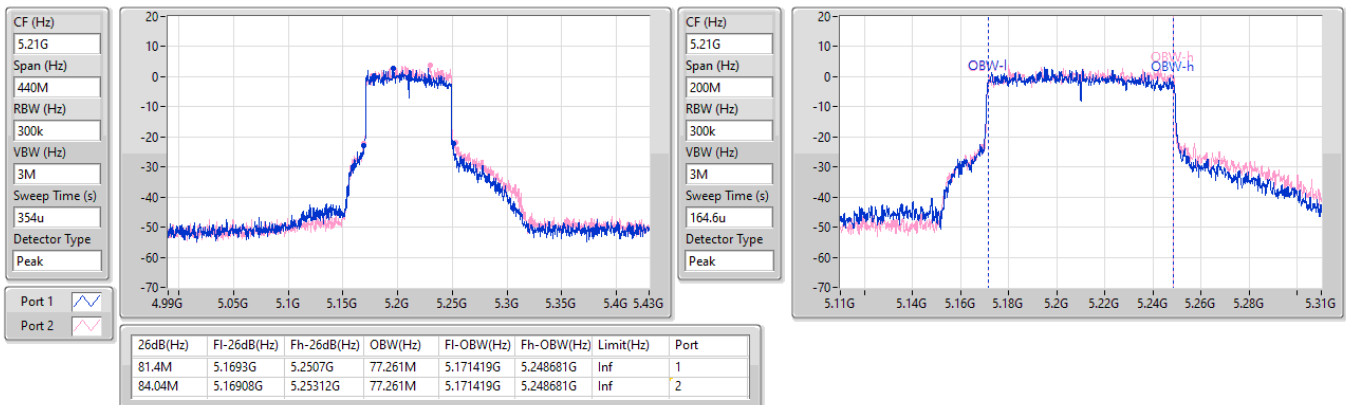


5.15-5.25GHz_802.11be EHT80_Nss1,(MCS0)_2TX

EBW

5210MHz

26/02/2025

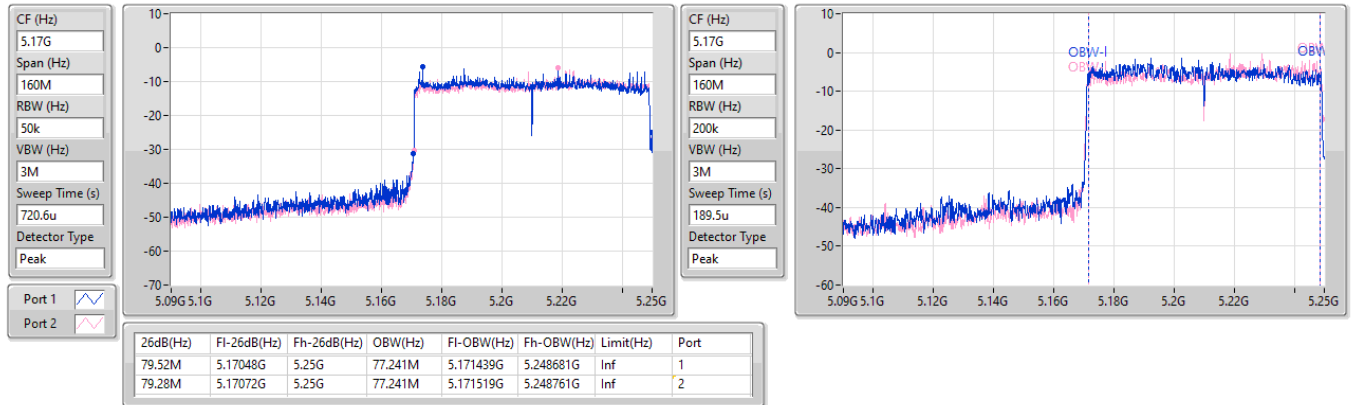


5.15-5.25GHz_802.11be EHT160_Nss1,(MCS0)_2TX

EBW

5250MHz Straddle 5.15-5.25GHz

26/02/2025

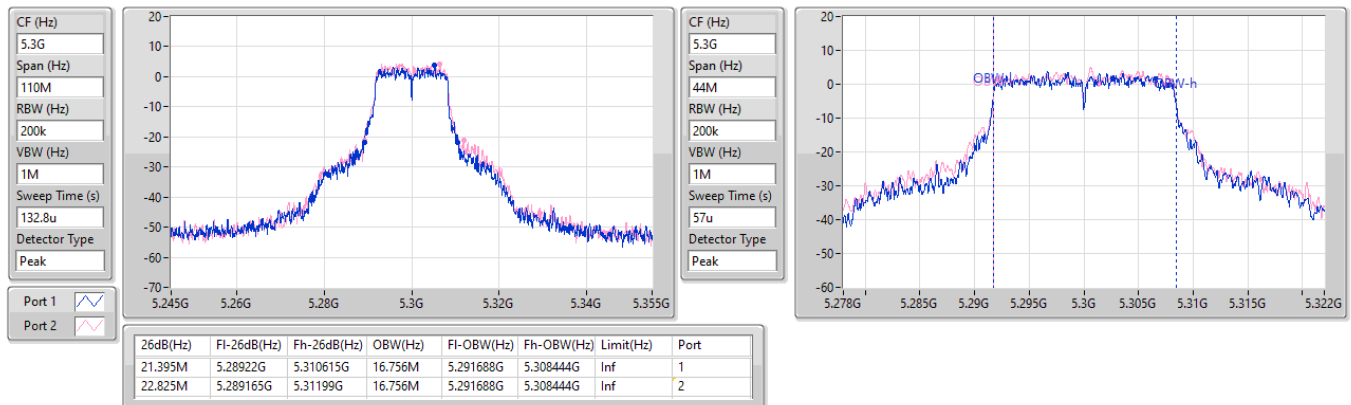


5.25-5.35GHz_802.11a_Nss1,(6Mbps)_2TX

EBW

5300MHz

26/02/2025

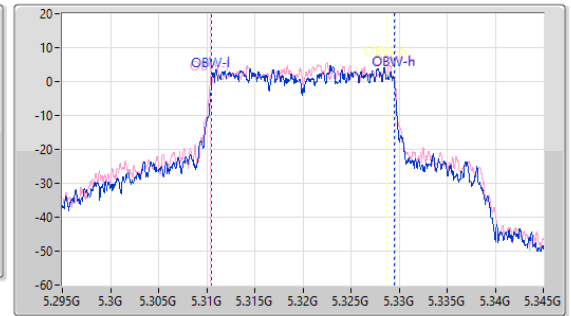
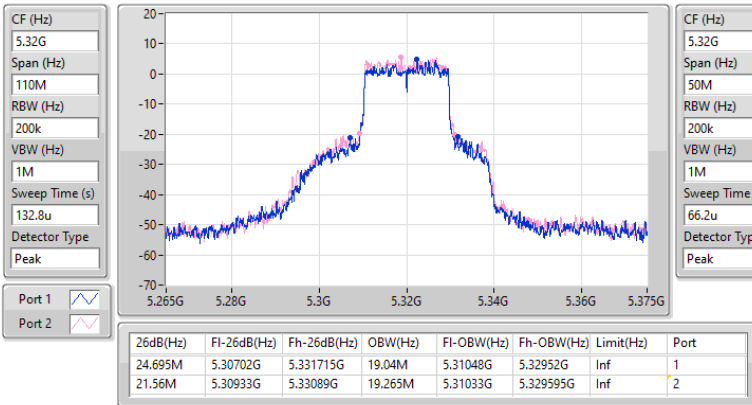


5.25-5.35GHz_802.11be EHT20_Nss1,(MCS0)_2TX

EBW

5320MHz

26/02/2025

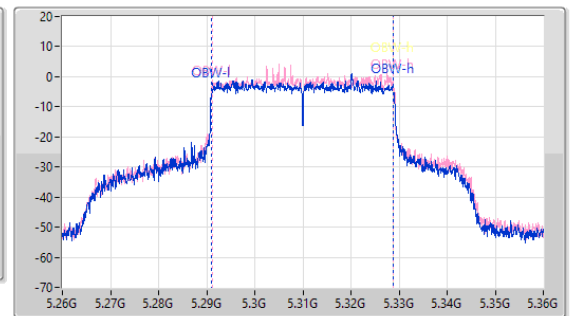
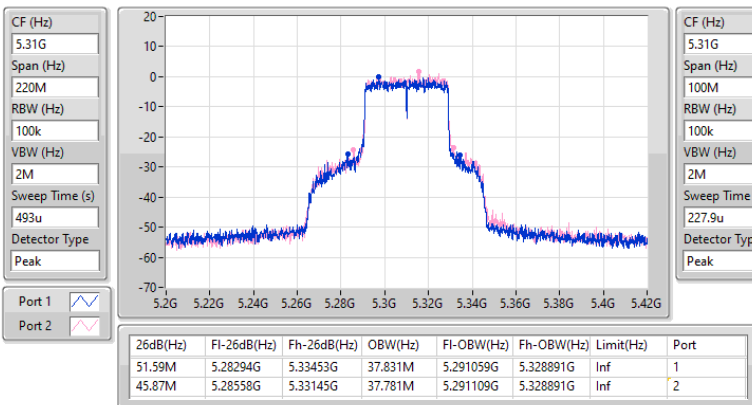


5.25-5.35GHz_802.11be EHT40_Nss1,(MCS0)_2TX

EBW

5310MHz

26/02/2025

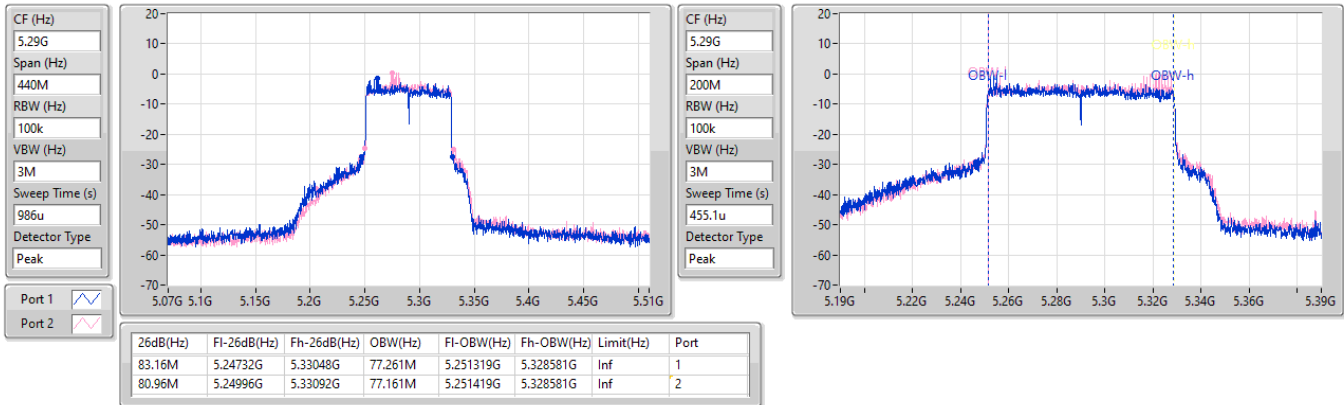


5.25-5.35GHz_802.11be EHT80_Nss1,(MCS0)_2TX

EBW

5290MHz

26/02/2025

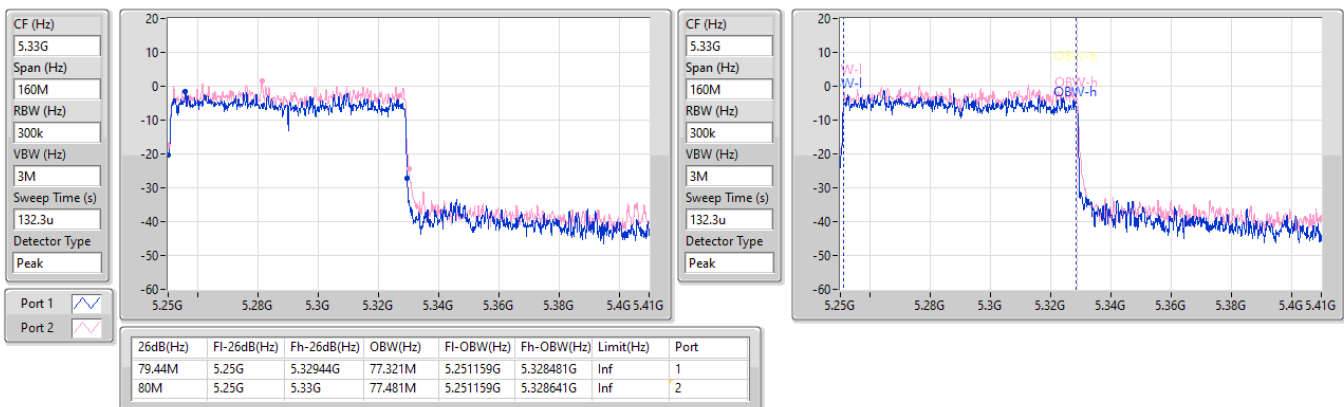


5.25-5.35GHz_802.11be EHT160_Nss1,(MCS0)_2TX

EBW

5250MHz Straddle 5.25-5.35GHz

26/02/2025

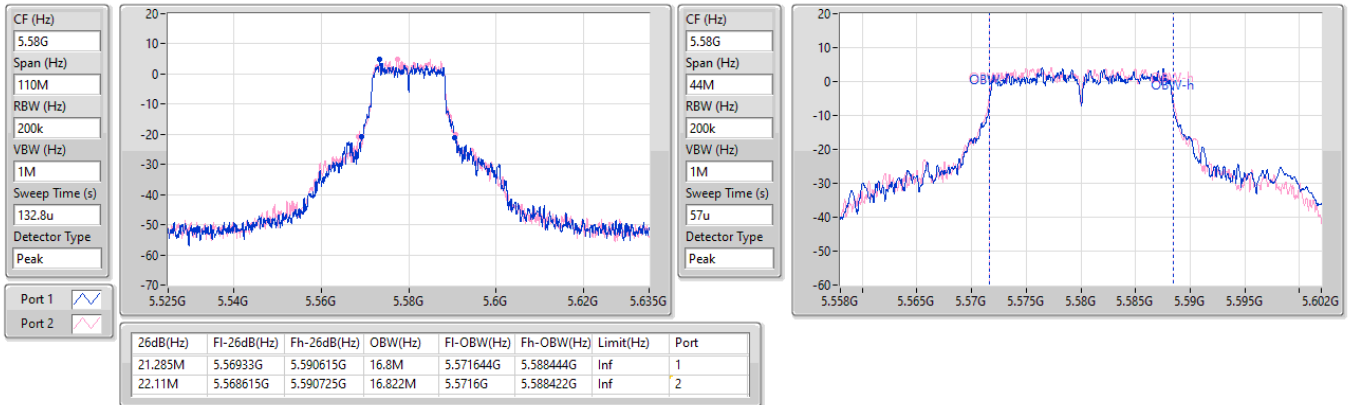


5.47-5.725GHz_802.11a_Nss1,(6Mbps)_2TX

EBW

5580MHz

26/02/2025

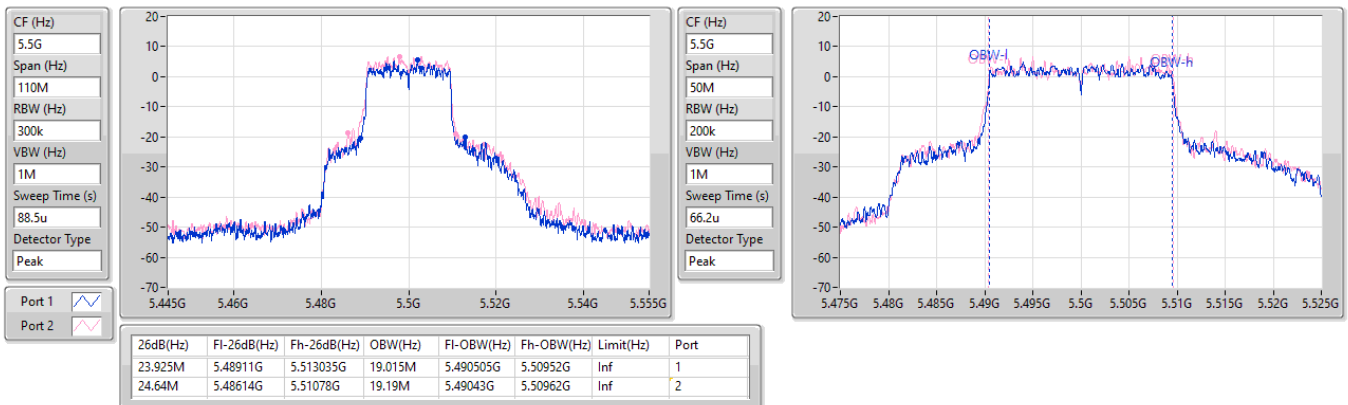


5.47-5.725GHz_802.11be EHT20_Nss1,(MCS0)_2TX

EBW

5500MHz

26/02/2025

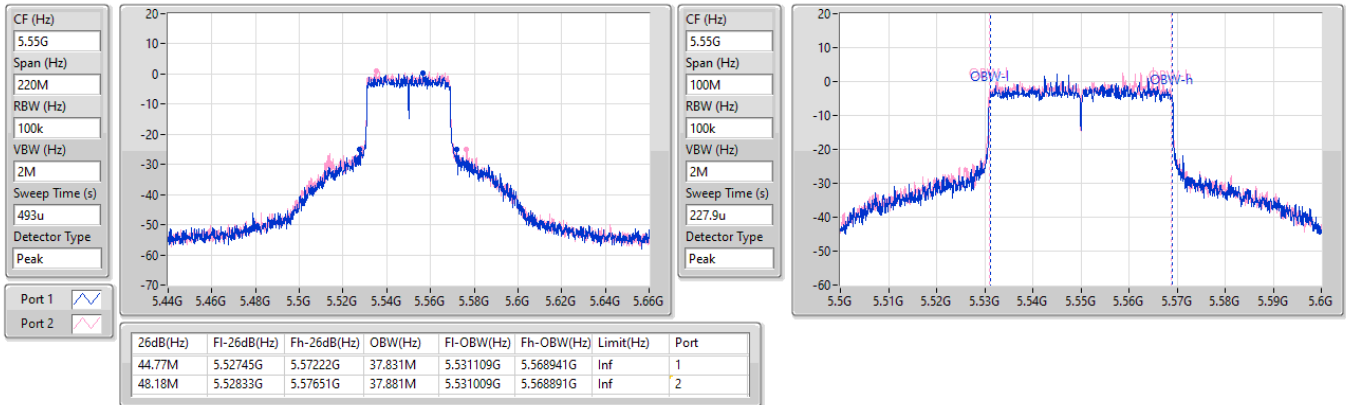


5.47-5.725GHz_802.11be EHT40_Nss1,(MCS0)_2TX

EBW

5550MHz

26/02/2025

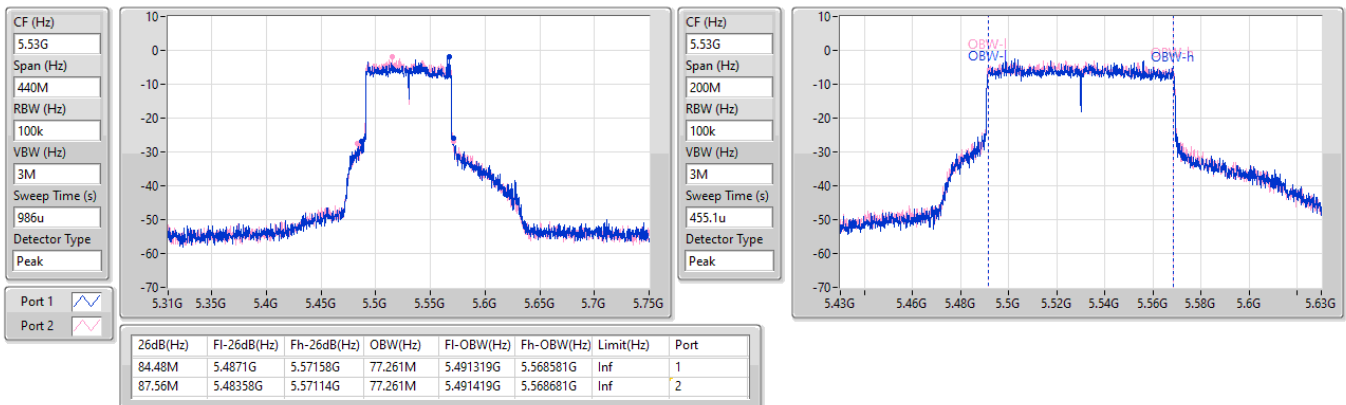


5.47-5.725GHz_802.11be EHT80_Nss1,(MCS0)_2TX

EBW

5530MHz

26/02/2025

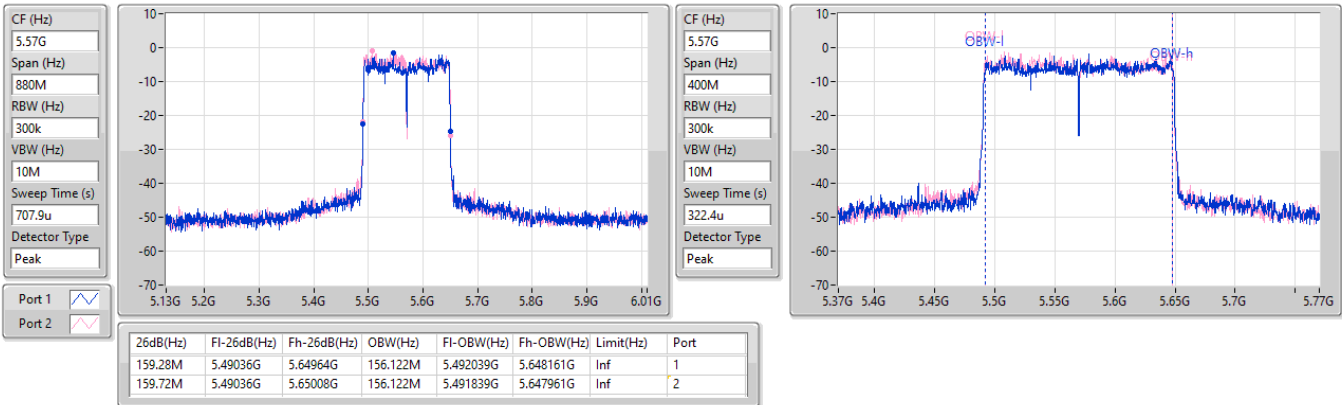


5.47-5.725GHz_802.11be EHT160_Nss1,(MCS0)_2TX

EBW

5570MHz

26/02/2025



5.725-5.85GHz_802.11a_Nss1,(6Mbps)_2TX

EBW

5825MHz

26/02/2025

