TEST REPORT

Report Number: 15107858-E10V5

Applicant	:	Google LLC 1600 Amphitheatre Parkway Mountain View, CA 94043 U.S.A.
Model	:	GGX8B
FCC ID	:	A4RGGX8B
EUT Description	:	Phone
Test Standard(s)	:	FCC 47 CFR PART 15 SUBPART E

Date Of Issue:
2024-05-06

Prepared by:
UL VERIFICATION SERVICES INC.
47173 Benicia Street
Fremont, CA 94538 U.S.A.
TEL: (510) 319-4000
FAX: (510) 661-0888

ACCREDITED
CERT #0751.05

REPORT REVISION HISTORY

Rev.	Issue Date	Revisions	Revised By
V1	2024-04-26	Initial Issue	--
V2	2024-04-30	Revised report to address TCB's questions	Tina Chu
V3	2024-05-01	Updated 5.9G power/PSD and max power summary table	Tina Chu
V4	2024-05-01	Corrected Page 353-354 DCCF, Section 10.1.35	Tina Chu
V5	2024-05-06	Revised Section 6.2, 9.3.2, 9.3.5 and Section 10.1.26 to 10.1.32	Tina Chu

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47173 Benicia Street, Fremont, CA 94538, USA TEL:(510) 319-4000 FAX:(510) 661-0888

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: Google LLC
1600 Amphitheatre Parkway
Mountain View, CA 94043 U.S.A.

EUT DESCRIPTION: Phone

MODEL NUMBER: GGX8B

SERIAL NUMBER: 41031FDAS000A7 (Radiated)
41121FDAS000BS, 41121FDAS00093 (Conducted)

SAMPLE RECEIPT DATE: 2024-01-23

DATE TESTED: 2024-01-10 TO 2024-05-06

APPLICABLE STANDARDS	
STANDARD	**TEST RESULTS**
CFR 47 Part 15 Subpart E	Complies

UL Verification Services Inc. tested the above equipment in accordance with the requirements set forth in the above standards. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. It is the manufacturer's responsibility to assure that additional production units of this model are manufactured with identical electrical and mechanical components. All samples tested were in good operating condition throughout the entire test program. Measurement Uncertainties are published for informational purposes only and were not taken into account unless noted otherwise.

This document may not be altered or revised in any way unless done so by UL Verification Services Inc. and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL Verification Services Inc. will constitute fraud and shall nullify the document.

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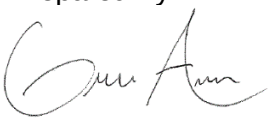
Approved & Released For
UL Verification Services Inc. By:

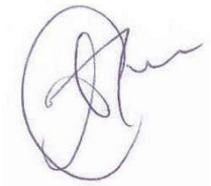
Frank Ibrahim
Staff Engineer
Consumer Technology Division
UL Verification Services Inc.

Prepared By:



Gerardo Abrego
Senior Test Engineer
Consumer Technology Division
UL Verification Services Inc.

Reviewed By:



Tina Chu
Senior Project Engineer
Consumer Technology Division
UL Verification Services Inc.

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2. TEST RESULT SUMMARY

This report contains data provided by the customer which can impact the validity of results. UL Verification Services Inc. is only responsible for correctly integrating customer-provided data with measurements performed by UL Verification Services Inc.

Below is a list of the data provided by the customer:

1) Antenna gain and type (see section 6.3)

FCC Clause	Requirement	Result	Comment
See Comment	Duty Cycle	Reporting purposes only	Per ANSI C63.10, Section 12.2.
See Comment	26dB BW/99% OBW	Reporting purposes only	Per ANSI C63.10 Sections 6.9.2 and 6.9.3
15.407 (e)	6 dB BW	Complies	None.
15.407 (a) (1-4), (h) (1)	Output Power	Complies	None.
15.407 (a) (1-3, 5)	PSD	Complies	None.
15.209, 15.205, 15.407 (b)	Radiated Emissions	Complies	None.
15.207	AC Mains Conducted Emissions	Complies	None.

3. TEST METHODOLOGY

The tests documented in this report were performed in accordance with;

- FCC CFR 47 Part 2
- FCC CFR 47 Part 15,
- FCC KDB 662911 Measurement of Transmitters with Multiple Output, MIMO
- FCC KDB 905462 D02/D03/D06
- FCC KDB 789033 D02 UNII Test Procedures New Rules
- KDB 414788 D01 Radiated Test Site
- KDB 291074 D02 EMC Measurement v01 for 5.9GHz Device
- ANSI C63.10-2013

4. FACILITIES AND ACCREDITATION

UL Verification Services Inc. is accredited by A2LA, Certificate Number 0751.05, for all testing performed within the scope of this report. Testing was performed at the locations noted below.

	Address	ISED CABID	ISED Company Number	FCC Registration
☐	Building 1: 47173 Benicia Street, Fremont, CA 94538, USA	US0104	2324A	550739
☐	Building 2: 47266 Benicia Street, Fremont, CA 94538, USA			
☐	Building 3: 843 Auburn Court, Fremont, CA 94538, USA			
☒	Building 4: 47658 Kato Rd, Fremont, CA 94538, USA			
☒	Building 5: 47670 Kato Rd, Fremont, CA 94538, USA			

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5. DECISION RULES AND MEASUREMENT UNCERTAINTY

5.1. METROLOGICAL TRACEABILITY

All test and measuring equipment utilized to perform the tests documented in this report are calibrated on a regular basis, with a maximum time between calibrations of one year or the manufacturers' recommendation, whichever is less, and where applicable is traceable to recognized national standards.

5.2. DECISION RULES

The Decision Rule is based on Simple Acceptance in accordance with ISO Guide 98-4:2012 Clause 8.2. (Measurement uncertainty is not taken into account when stating conformity with a specified requirement.)

5.3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

PARAMETER	U_{Lab}
Radio Frequency (Spectrum Analyzer)	141.16 Hz
Occupied Bandwidth	1.22%
Power Spectral Density	2.47 dB
RF Power Measurement Direct Method Using Power Meter	1.3 dB (PK) / 0.45 dB (AV)
RF Power Measurement Using Spectrum Analyzer	0.33dB
Unwanted Emissions, Conducted	1.94 dB
Worst Case Conducted Disturbance, 9kHz to 0.15 MHz	3.78 dB
Worst Case Conducted Disturbance, 0.15 to 30 MHz	3.40 dB
Worst Case Radiated Disturbance, 9kHz to 30 MHz	2.87 dB
Worst Case Radiated Disturbance, 30 to 1000 MHz	6.01 dB
Worst Case Radiated Disturbance, 1000 to 18000 MHz	4.73 dB
Worst Case Radiated Disturbance, 18000 to 26000 MHz	4.51 dB
Worst Case Radiated Disturbance, 26000 to 40000 MHz	5.29 dB
Time Domain Measurements	3.39%
Temperature	0.57˚C
Humidity	3.39%
DC Supply Voltages	0.57%

Uncertainty figures are valid to a confidence level of 95%.

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5.4. SAMPLE CALCULATION

RADIATED EMISSIONS

Where relevant, the following sample calculation is provided:
Field Strength (dBuV/m) = Measured Voltage (dBuV) + Antenna Factor (dB/m) + Cable Loss (dB) – Preamp Gain (dB)
36.5 dBuV + 18.7 dB/m + 0.6 dB – 26.9 dB = 28.9 dBuV/m

MAINS CONDUCTED EMISSIONS

Where relevant, the following sample calculation is provided:
Final Voltage (dBuV) = Measured Voltage (dBuV) + Cable Loss (dB) + Limiter Factor (dB) + LISN Insertion Loss.
36.5 dBuV + 0 dB +10.1 dB+ 0 dB = 46.6 dBuV

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6. EQUIPMENT UNDER TEST

6.1. EUT DESCRIPTION

The EUT is a phone.

6.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum conducted output power as follows:

5.2 GHz BAND

Band	Mode	Min Frequency (MHz)	Max Frequency (MHz)	Output Power (dBm)	Output Power (mW)
NII_1 (FCC)	11a	5180	5240	20.27	106.41
	11n HT20			20.32	107.65
	11be EHT20			20.45	***110.92***
	11n HT40	5190	5230	22.69	185.78
	11be EHT40			22.76	***188.80***
	11ac VHT80	5210	5210	10.93	12.39
	11be EHT80			12.43	***17.50***

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5.3/5.6/5.8GHz BAND

Band	Mode	Min Frequency (MHz)	Max Frequency (MHz)	Output Power (dBm)	Output Power (mW)
NII_2A	11a	5260	5320	20.42	110.15
	11n HT20			20.70	***117.49***
	11be EHT20			20.41	109.90
	11n HT40	5270	5310	21.64	***145.88***
	11be EHT40			18.35	68.39
	11ac VHT80	5290	5290	17.21	***52.60***
	11be EHT80			15.67	36.90
	11ac VHT160	5250	5250	14.88	***30.76***
	11be EHT160			13.86	24.32
NII_2C	11a	5500	5720	20.39	109.40
	11n HT20			20.32	107.65
	11be EHT20			20.92	***123.59***
	11n HT40	5510	5710	23.47	***222.33***
	11be EHT40			23.37	217.27
	11ac VHT80	5530	5690	23.58	228.03
	11be EHT80			23.75	***237.14***
	11ac VHT160	5570	5570	15.06	32.06
	11be EHT160			17.40	***54.95***
NII_3	11a	5745	5825	24.56	285.76
	11n HT20			24.58	***287.08***
	11be EHT20			24.23	264.85
	11n HT40	5755	5795	24.01	251.77
	11be EHT40			24.03	***252.93***
	11ac VHT80	5775	5775	23.55	***226.46***
	11be EHT80			21.75	149.62

5.9GHz BAND

Mode	Min Frequency (MHz)	Max Frequency (MHz)	EIRP Output Power (dBm)	EIRP Output Power (mW)
11a	5845	5885	20.44	110.66
11n HT20			21.06	***127.64***
11be EHT20			21.05	127.35
11n HT40	5835	5875	20.85	121.62
11be EHT40			21.16	***130.62***
11ac VHT80	5855	5855	16.87	48.64
11be EHT80			17.09	***51.17***
11ac VHT160	5815	5815	16.78	47.64
11be EHT160			17.01	***50.23***

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6.3. DESCRIPTION OF AVAILABLE ANTENNAS

The antenna(s) gain and type as provided by the manufacturer' are as follows:

The radio utilizes one IFA antenna (Ant3) and one ILA antenna (Ant4) for unlicensed radios.

Band	Antenna Peak Gain	
	Tx0 (Ant3) (dBi)	Tx1 (Ant4) (dBi)
5.2	-1.4	-3.4
5.3	-2.4	-4
5.6	-3.9	-3.9
5.8	-1.6	-4.1
5.9	-1.9	-3.2

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6.4. WORST-CASE CONFIGURATION AND MODE

EUT supports 5G 802.11a, n, ac, ax, be MIMO with MRU and channel puncturing features. The following are used for investigations.

MRU:

Bandwidth	RU Size
20MHz	52+26
	106+26

Puncturing:

Bandwidth	RU Size
80MHz	484+242
160MHz	996+484
	996+484+242

802.11ac VHT20 and VHT40 is either same or lower power as 802.11n HT20 and 802.11n HT40, so 802.11n HT20 and 802.11n HT40 were tested as worst case.

For 802.11ax and 802.11be investigation was performed on SU and Full tone, and it was determined that 802.11be Full tone mode is the worst case. The modulation and bandwidth of 802.11ax and 802.11be modes are similar at 20 MHz (40 MHz, 80 MHz, 160 MHz), and the target power of 802.11ax mode is equal to 802.11be mode, so 802.11be mode is performed in the test to represent worst-case reporting.

Investigation has been performed on power and PSD, partial RU/MRU/Punctured are lower than Full tone. Also, investigation performed on bandedge and spurious emissions on Full tone and 26 Tone, 802.11be Full tone is the worse case and set for all testing with additional spot check on partial RU/MRU/ Punctured power/PSD combinations.
Note that 160MHz SU (2x996) is tested as worse case due to Full tone only supports 1x996.

Radiated emissions below 1GHz, 1GHz to 18GHz, above 18GHz, and power line conducted emission were performed with the EUT set to transmit at the channel with highest output power as worst-case scenario. There were no emissions found with less than 20dB of margin from 9kHz to 30MHz and above 18GHz.

5G simultaneous transmission with the Bluetooth/2.4G WLAN + Cellular was investigated, and no noticeable emission was found.

Investigation was performed with/without adapter. Also, the fundamental of the EUT was investigated in three orthogonal orientations X,Y,Z, the following is the worst-case orientation:

- For 2Tx: Z (Portrait) orientation was worst-case orientation with adapter

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Worst-case data rates as provided by the client were:

- 802.11a mode: 6Mbps
- 802.11n HT20 mode: MCS0
- 802.11n HT40 mode: MCS0
- 802.11ac VHT20 mode: MCS0
- 802.11ac VHT40 mode: MCS0
- 802.11ac VHT80 mode: MCS0
- 802.11ac VHT160 mode: MCS0
- 802.11ax HE20 mode: MCS0
- 802.11ax HE40 mode: MCS0
- 802.11ax HE80 mode: MCS0
- 802.11ax HE160 mode: MCS0
- 802.11be EHT20 mode: MCS0
- 802.11be EHT40 mode: MCS0
- 802.11be EHT80 mode: MCS0
- 802.11be EHT160 mode: MCS0

Plots included in the report are representative of the method and settings parameters used for the test.

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7. MEASUREMENT METHOD

On Time and Duty Cycle: KDB 789033 D02 v02r01, Section B.

6 dB Emission BW: KDB 789033 D02 v02r01, Section C.2

26 dB Emission BW: KDB 789033 D02 v02r01, Section C.1

99% Occupied BW: KDB 789033 D02 v02r01, Section D.

Conducted Output Power: KDB 789033 D02 v02r01, Section II E.2.d (Method SA-2).

Power Spectral Density (PSD): KDB 789033 D02 v02r01, Section F.3.a (Method SA-2).

Unwanted emissions in restricted bands: KDB 789033 D02 v02r01, Sections G.3, G.4, G.5, and G.6.

Unwanted emissions in non-restricted bands: KDB 789033 D02 v02r01, Sections G.3, G.4, and G.5.

AC Power Line Conducted Emissions: ANSI C63.10-2013, Section 6.2.

Radiated Spurious Emissions Below 30MHz: ANSI C63.10-2013 Section 6.4

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8. TEST AND MEASUREMENT EQUIPMENT

The following test and measurement equipment was utilized for the tests documented in this report:

TEST EQUIPMENT LIST					
Description	**Manufacturer**	**Model**	**ID Num**	**Cal Due**	**Last Cal**
Antenna, Passive Loop 30Hz - 1MHz	ELECTRO METRICS	EM-6871	219908	2024-09-30	2023-09-13
Antenna, Passive Loop 100KHz - 30MHz	ELECTRO METRICS	EM-6872	219910	2024-05-31	2023-05-31
Antenna, Broadband Hybrid, 30MHz to 2000MHz	Sunol Sciences Corp.	JB1	80293	*2024-04-30	2023-04-11
Amplifier,9KHz to 1GHz, 32dB	SONOMA INSTRUMENT	310	213877	2024-12-31	2023-12-27
Antenna, Horn 1-18GHz (Chamber T)	ETS-Lindgren	3117	80430	2024-08-31	2022-08-08
Antenna, Horn 1-18GHz (Chamber I)	ETS-Lindgren	3117	84797	2024-09-30	2023-09-25
Antenna, Horn 1-18GHz (Chamber J)	ETS-Lindgren	3117	222741	2024-08-31	2022-08-22
RF Filter Box, 1-18GHz (Chamber T)	UL-FR1	RATS 2	226781	2024-09-30	2023-09-30
RF Filter Box, 1-18GHz (Chamber I)	UL-FR1	NA	171389	2024-05-31	2023-05-15
RF Filter Box, 1-18GHz (Chamber J)	UL-FR1	NA	171875	2024-05-31	2023-05-30
EMI TEST RECEIVER (Chamber T)	Rohde & Schwarz	ESW44	169935	2025-02-28	2024-02-11
EMI TEST RECEIVER (Chamber I)	Rohde & Schwarz	ESW44	201497	2025-02-28	2024-02-11
EMI TEST RECEIVER (Chamber J)	Rohde & Schwarz	ESW44	171875	2024-05-31	2023-05-30
EMI TEST RECEIVER (Chamber K)	Rohde & Schwarz	ESW44	225688	2025-02-11	2024-02-11
Antenna, Horn 18 to 26.5GHz	A.R.A.	MWH-1826/B	199659	2024-12-31	2022-12-06
Amplifier 18-26.5GHz, +5Vdc, - 54dBm P1dB	AMPLICAL	AMP18G26.5-60	234683	*2024-03-31	2023-03-18
Antenna, Horn 26.5 to 40GHz	A.R.A.	MWH-2640/B	199660	2026-02-28	2024-02-02
RF Device, Active, Amplifier	AMPLICAL	AMP26G40-60	224141	2025-01-31	2024-01-25
Spectrum Analyzer, PXA, 3Hz to 44GHz	Keysight Technologies Inc	N9030B	222074	2024-08-31	2023-08-14
Spectrum Analyzer, PXA, 3Hz to 44GHz	Keysight Technologies Inc	N9030B	222073	2024-08-31	2023-08-14
10dB Fixed Attenuator, up to 26GHz	Pasternack Enterprises	PE7087-10	236189	Verified/characterized before use	
PXA Signal Analyzer	Keysight Technologies Inc	N9030B	222073	2024-08-31	2023-08-14
PXA Signal Analyzer	Keysight Technologies Inc	N9030B	222074	2024-08-31	2023-08-14
AC Line Conducted					
LISN	Fischer Custom Communications, Inc	FCC-LISN-50/250-25-2-01-480V	175765	2025-01-31	2024-01-26
EMI TEST RECEIVER	Rohde & Schwarz	ESR	171646	2025-02-28	2024-02-27
Transient Limiter	TE	TBFL1	127455	2025-02-28	2024-02-27
UL TEST SOFTWARE LIST					
Radiated Software	UL	UL EMC	Ver 2023-01-18, 2023-03-03, 2023-05-01		
Antenna Port Software	UL	UL RF	Ver 2022-08-16		
AC Line Conducted Software	UL	UL EMC	Rev 9.5, 2022-02-17		

*Test was performed before calibration due date.

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9. ANTENNA PORT TEST RESULTS

9.1. ON TIME AND DUTY CYCLE

LIMITS

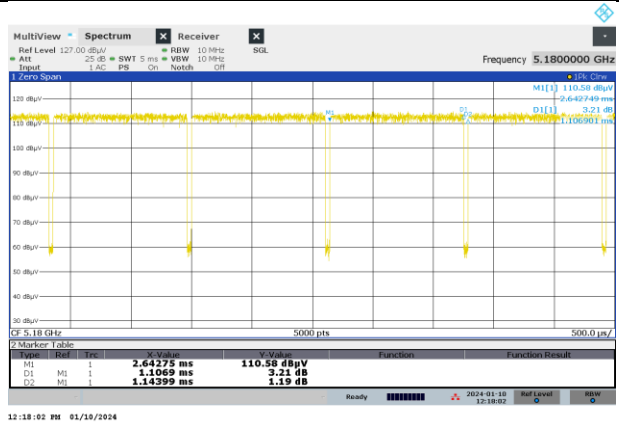
None; for reporting purposes only.

PROCEDURE

KDB 558074 Zero-Span Spectrum Analyzer Method.

ON TIME AND DUTY CYCLE RESULTS

Mode	ON Time T (msec)	Period (msec)	Duty Cycle x (linear)	Duty Cycle (%)	DCCF (dB)	1/T Minimum VBW (kHz)
802.11a	4.07281	4.09082	1.00	99.56	0.00	0.01
802.11n CDD HT20	3.76675	3.78776	0.99	99.45	0.00	0.01
802.11be OFDMA EHT20 242T	1.1069	1.14399	0.97	96.76	0.14	0.90
802.11be OFDMA EHT20 106T	1.30194	1.33903	0.97	97.23	0.12	0.77
802.11be OFDMA EHT20 52T	1.45997	1.49706	0.98	97.52	0.11	0.68
802.11be OFDMA EHT20 26T	1.6196	1.65669	0.98	97.76	0.10	0.62
802.11be OFDMA EHT20 52T + 26T	13.89	13.95	1.00	99.57	0.00	0.01
802.11be OFDMA EHT20 106T + 26T	1.996	2.034	0.98	98.13	0.00	0.01
802.11n CDD HT40	1.83205	1.85113	0.99	98.97	0.00	0.01
802.11be OFDMA EHT40 484T	0.584297	0.623305	0.94	93.74	0.28	1.71
802.11ac CDD VHT80	0.871754	0.892158	0.98	97.71	0.10	1.15
802.11be OFDMA EHT80 996T	0.315663	0.35247	0.90	89.56	0.48	3.17
802.11be OFDMA EHT80 484T + 242T Puncture 20MHz	1.008	1.122	0.90	89.84	0.47	0.99
802.11ac CDD VHT160	0.456091	0.475695	0.96	95.88	0.18	2.19
802.11be OFDMA EHT160 SU	0.40653	0.42717	0.95	95.17	0.22	2.46
802.11be OFDMA EHT160 996T + 484T Puncture 40MHz	0.52	0.546	0.95	95.24	0.21	1.92
802.11be OFDMA EHT160 996T + 484T + 242T Puncture 20MHz	0.46	0.483	0.95	95.24	0.21	2.17



DUTY CYCLE EHT20 OFDMA 242T

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9.2. 99% BANDWIDTH & 26 dB BANDWIDTH & 6 dB BANDWIDTH

99% BANDWIDTH LIMITS

None; for reporting purposes only.

26dB BANDWIDTH LIMITS

None; for reporting purposes only.

6 dB BANDWIDTH LIMITS

FCC §15.407 (e)

The minimum 6 dB bandwidth shall be at least 500 kHz.

RESULTS

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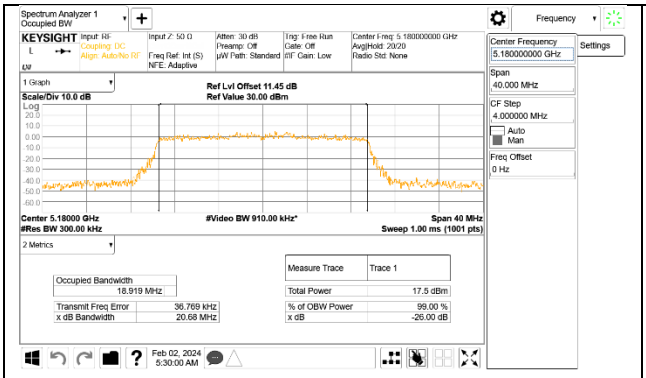
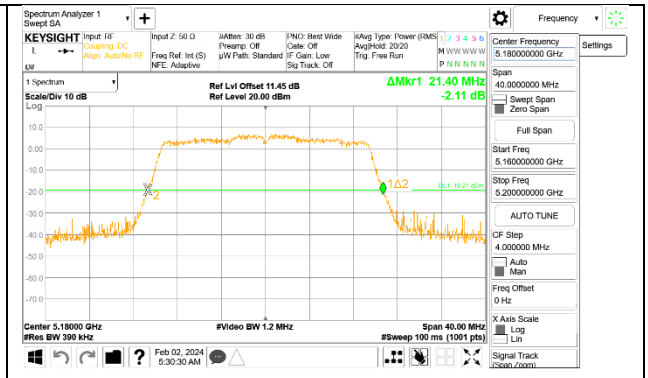
9.2.1. 5.2 GHz BAND

2TX Tx0 + Tx1 CDD MODE

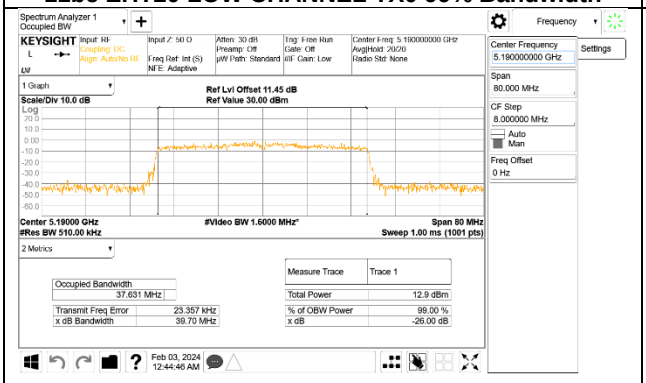
Band (GHz)	No. of Tx	Mode	Channel	Freq (MHz)	Tones	RU Index	99% Bandwidth (MHz)		26dB Bandwidth (MHz)	
							Tx0	Tx1	Tx0	Tx1
5.2	2	11a	36	5180	[redacted]		16.555	16.635	21.200	21.280
			40	5200			16.572	16.532	21.160	21.440
			48	5240			16.581	**16.665**	21.360	21.280
		11n HT20	36	5180			17.707	17.728	21.480	21.320
			40	5200			17.752	**17.783**	21.600	21.240
			48	5240			17.702	17.721	21.600	21.240
		11be EHT20	36	5180	242T	61	18.919	18.881	21.400	21.200
			40	5200			18.912	**18.997**	21.440	21.120
			48	5240			18.948	18.842	21.480	21.040
		11n HT40	38	5190	[redacted]		36.163	36.253	41.280	40.800
			46	5230			36.165	**36.331**	40.960	40.720
		11be EHT40	38	5190	484T	65	37.631	**37.683**	40.960	40.880
			46	5230			37.656	37.506	40.960	40.720
		11ac VHT80	42	5210	[redacted]		75.605	**75.623**	83.040	82.880
		11be EHT80	42	5210	996T	67	**77.069**	76.768	82.880	82.880



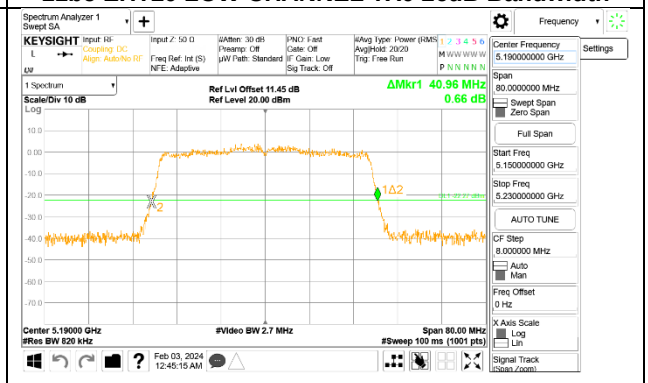
11be EHT20 LOW CHANNEL TX0 99% Bandwidth



11be EHT20 LOW CHANNEL TX0 26dB Bandwidth



11be EHT40 LOW CHANNEL TX0 99% Bandwidth



11be EHT40 LOW CHANNEL TX0 26dB Bandwidth

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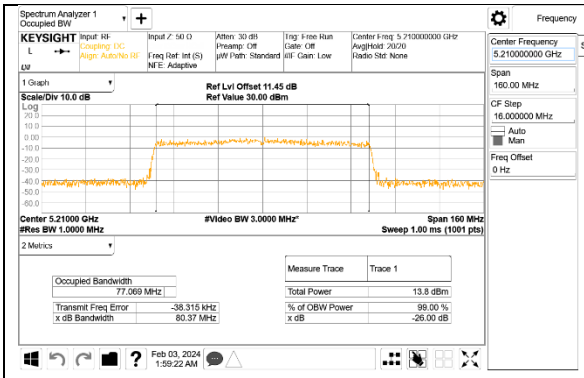
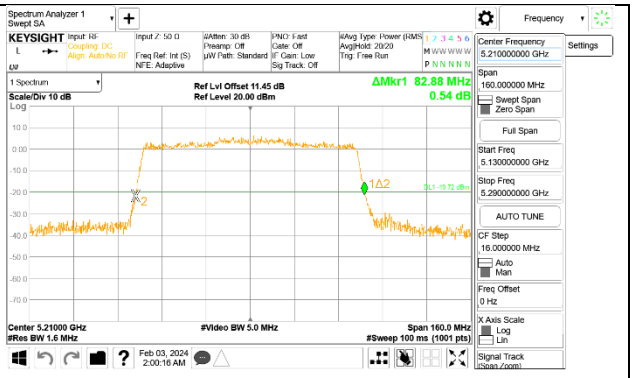


11be EHT80 MID CHANNEL TX0 99% Bandwidth



11be EHT80 MID CHANNEL TX0 26dB Bandwidth

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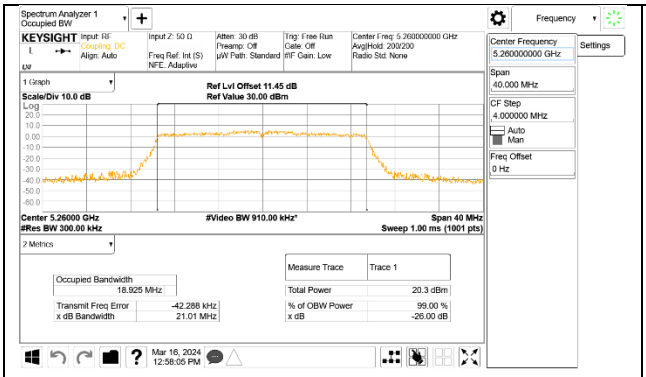
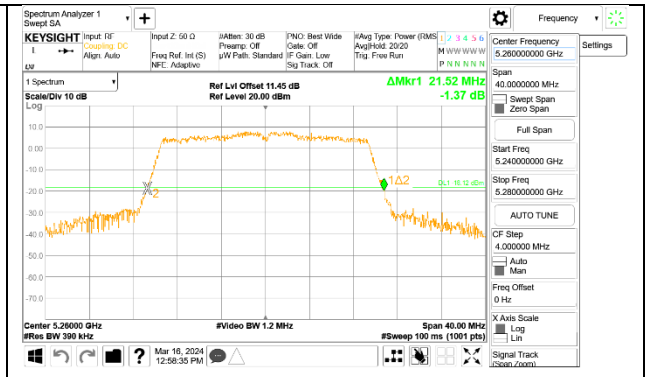
9.2.2. 5.3 GHz BAND

2TX Tx0 + Tx1 CDD MODE

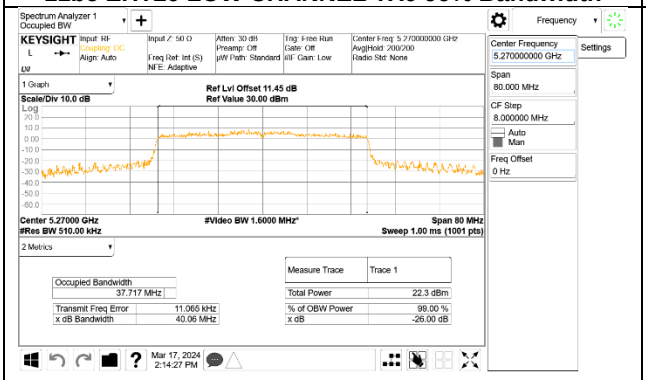
Band (GHz)	No. of Tx	Mode	Channel	Freq (MHz)	Tones	RU Index	99% Bandwidth (MHz)		26dB Bandwidth (MHz)	
							Tx0	Tx1	Tx0	Tx1
5.3	2	11a	52	5260	[redacted]		16.939	17.117	27.080	28.680
			60	5300			17.014	17.062	29.520	29.760
			64	5320			**17.149**	**17.149**	29.720	29.680
		11n HT20	52	5260			18.092	**18.145**	30.840	29.960
			60	5300			18.135	18.144	29.880	28.440
			64	5320			18.075	18.004	27.840	27.800
		11be EHT20	52	5260	242T	61	18.925	19.022	21.520	23.040
			60	5300			**19.071**	19.018	21.560	25.200
			64	5320			19.015	18.994	21.600	21.480
		11n HT40	54	5270	[redacted]		**36.724**	36.436	67.440	63.920
			62	5310			36.419	36.321	50.720	52.480
		11be EHT40	54	5270	484T	65	37.717	37.740	41.280	40.800
			62	5310			37.662	**37.743**	41.280	40.960
		11ac VHT80	58	5290	[redacted]		**75.783**	75.727	83.840	83.040
		11be EHT80	58	5290	996T	67	**77.052**	77.037	83.360	82.880
		11ac VHT160	50	5250	[redacted]		154.800	**155.090**	83.840	83.040
		11be EHT160	50	5250	SU		156.480	**156.620**	169.600	168.000



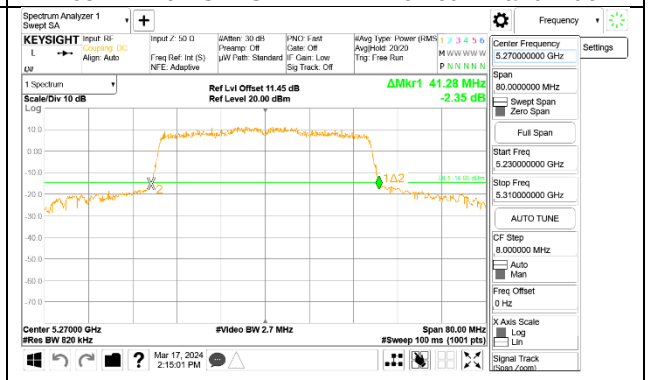
11be EHT20 LOW CHANNEL TX0 99% Bandwidth



11be EHT20 LOW CHANNEL TX0 26dB Bandwidth



11be EHT40 LOW CHANNEL TX0 99% Bandwidth



11be EHT40 LOW CHANNEL TX0 26dB Bandwidth

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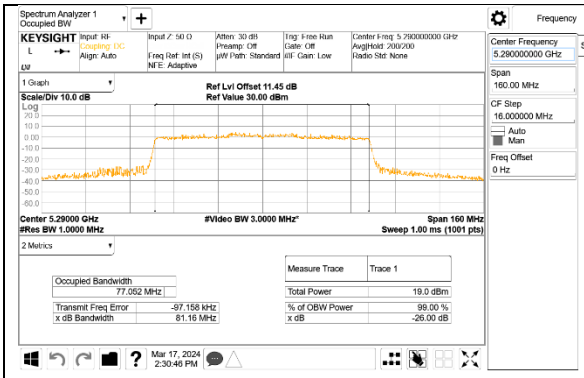
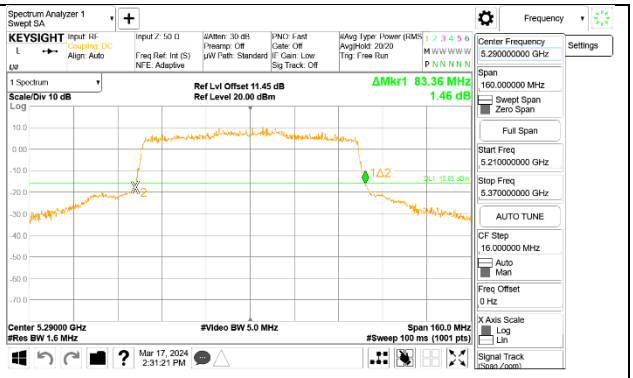
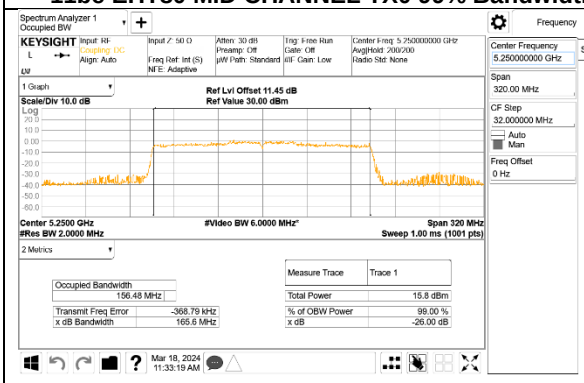


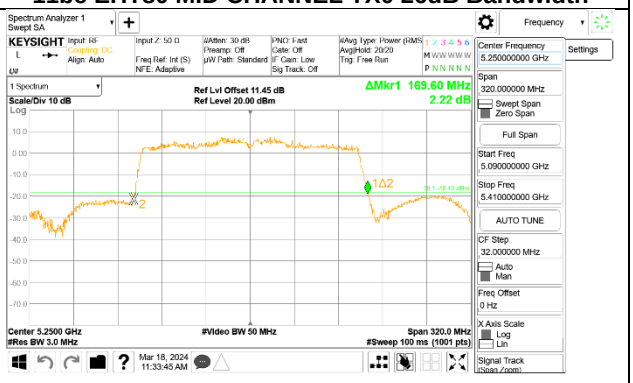
11be EHT80 MID CHANNEL TX0 99% Bandwidth



11be EHT80 MID CHANNEL TX0 26dB Bandwidth



11be EHT160 MID CHANNEL TX0 99% Bandwidth



11be EHT160 MID CHANNEL TX0 26dB Bandwidth

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9.2.3. 5.6 GHz BAND

2TX Tx0 + Tx1 CDD MODE

Band (GHz)	No. of Tx	Mode	Channel	Freq (MHz)	Tones	RU Index	99% Bandwidth (MHz)		26dB Bandwidth (MHz)		6dB Bandwidth (MHz)		6dB Minimum Limit (MHz)
							Tx0	Tx1	Tx0	Tx1	Tx0	Tx1	
5.6	2	11a	100	5500			18.211	**18.995**	22.280	21.400			
			116	5580			16.666	16.716	27.680	23.680			
			140	5700			16.692	16.756	21.440	21.210			
			144	5720			16.842	16.692	23.720	21.400	3.136	3.260	0.5
		11n HT20	100	5500			17.910	17.867	28.800	22.440			
			116	5580			17.870	**17.970**	27.960	25.120			
			140	5700			17.865	17.820	24.960	23.760			
			144	5720			17.913	17.835	24.760	24.840	3.880	3.848	0.5
		11be EHT20	100	5500	242T	61	18.977	18.986	22.240	24.800			
			116	5580			**18.996**	18.974	25.280	24.520			
			140	5700			18.937	18.956	21.520	21.800			
			144	5720			18.906	18.963	21.360	21.720	4.488	4.524	0.5
			100	5500	26T	0							
			116	5580		4							
			140	5700		8							
			144	5720							2.012	1.972	0.5
		11n HT40	102	5510			36.307	36.230	41.040	40.960			
			110	5550			**39.229**	36.385	43.520	41.840			
			134	5670			37.084	36.869	42.960	43.520			
			142	5710			38.751	37.118	41.200	40.800	3.248	3.248	0.5
		11be EHT40	102	5510	484T	65	37.675	37.731	41.200	40.800			
			110	5550			37.721	37.691	41.200	40.960			
			134	5670			37.761	37.818	57.120	54.640			
			142	5710			37.949	**37.953**	64.800	65.600	4.056	3.408	0.5
		11ac VHT80	106	5530			75.726	75.775	83.680	83.040			
			122	5610			**78.359**	77.504	83.360	82.880			
			138	5690			76.811	76.296	83.520	82.880	3.240	2.904	0.5
		11be EHT80	106	5530	996T	67	77.036	77.160	83.840	83.200			
			122	5610			77.584	**78.365**	83.520	83.040			
			138	5690			77.124	77.051	84.160	84.000	3.640	4.024	0.5
		11ac VHT160	114	5570			**155.100**	155.070	168.640	167.680			
		11be EHT160	114	5570	SU		156.820	**157.110**	271.680	281.280			

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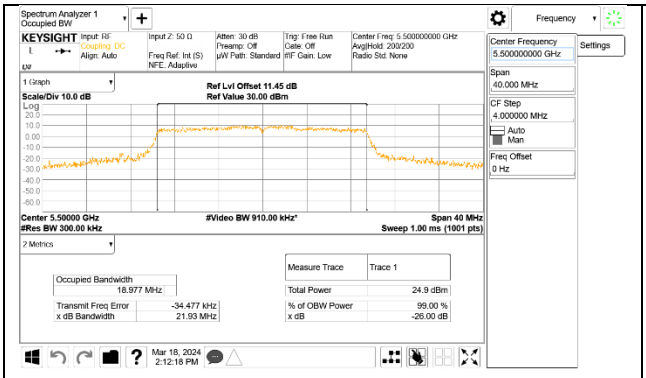
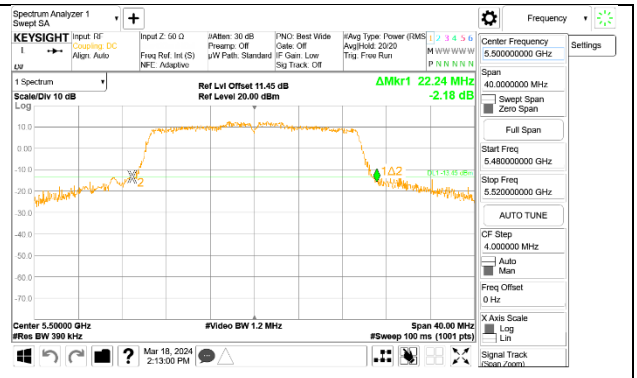
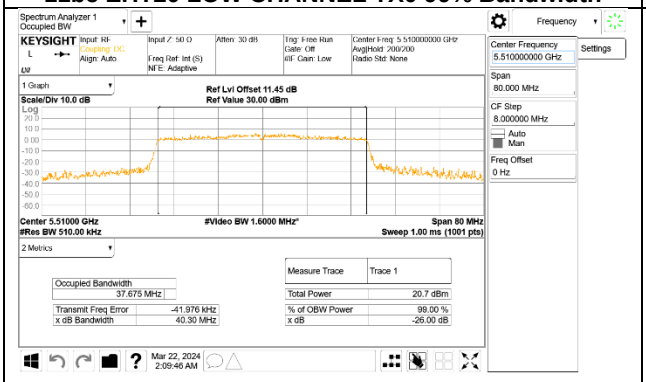


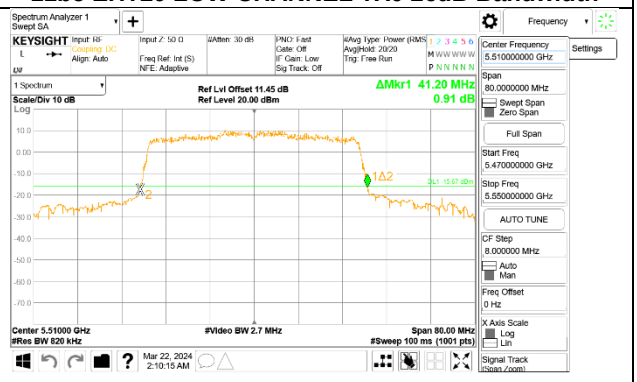
11be EHT20 LOW CHANNEL TX0 99% Bandwidth



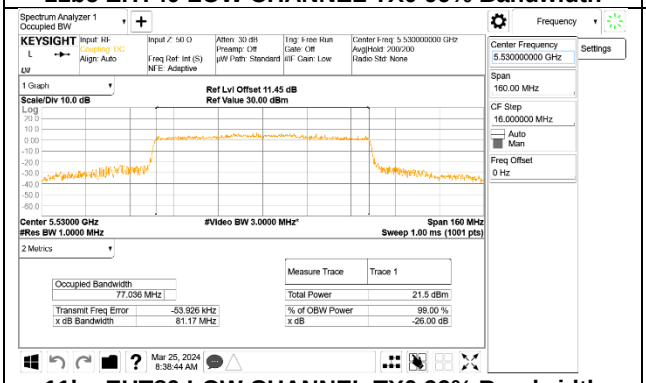
11be EHT20 LOW CHANNEL TX0 26dB Bandwidth



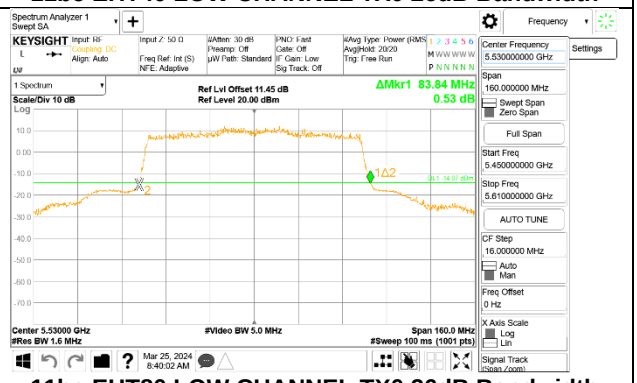
11be EHT40 LOW CHANNEL TX0 99% Bandwidth



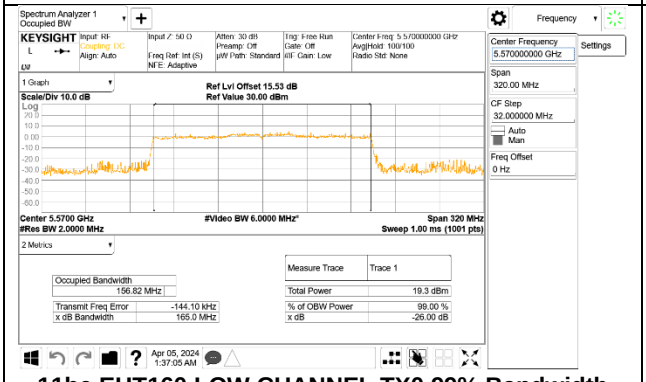
11be EHT40 LOW CHANNEL TX0 26dB Bandwidth



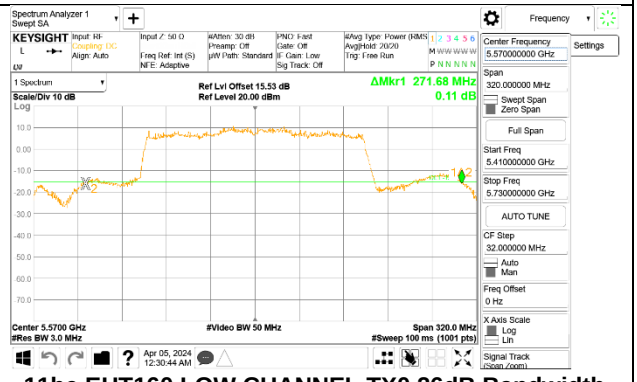
11be EHT80 LOW CHANNEL TX0 99% Bandwidth



11be EHT80 LOW CHANNEL TX0 26dB Bandwidth



11be EHT160 LOW CHANNEL TX0 99% Bandwidth



11be EHT160 LOW CHANNEL TX0 26dB Bandwidth

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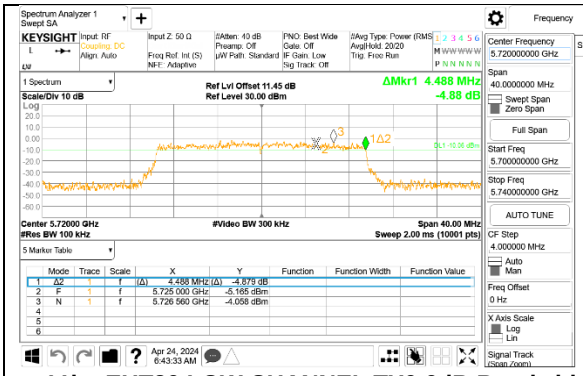
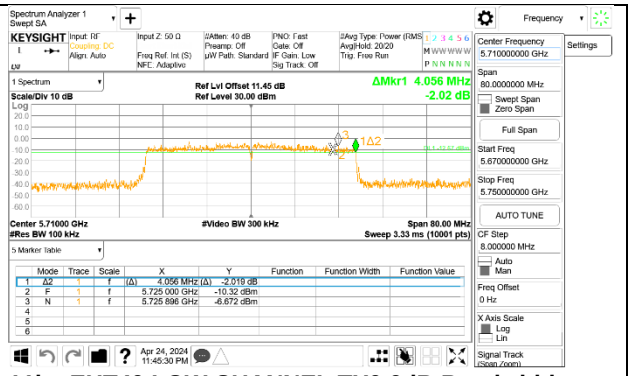


11be EHT20 LOW CHANNEL TX0 6dB Bandwidth



11be EHT40 LOW CHANNEL TX0 6dB Bandwidth

11be EHT80 LOW CHANNEL TX0 6dB Bandwidth

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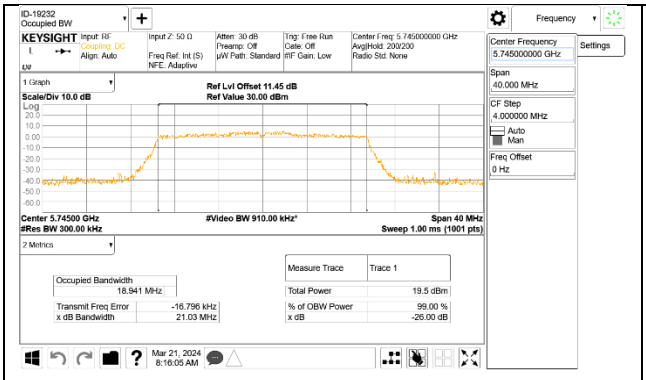
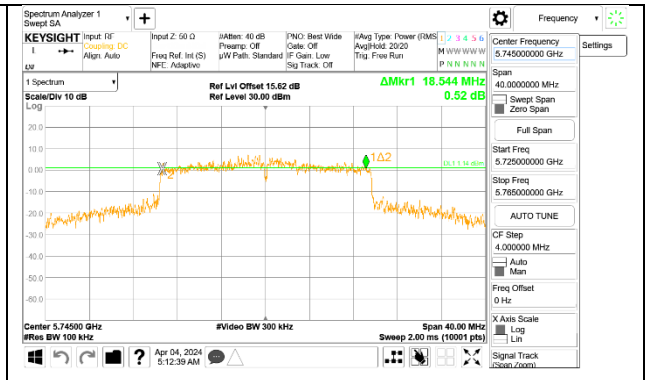
9.2.4. 5.8 GHz BAND

2TX Tx0 + Tx1 CDD MODE

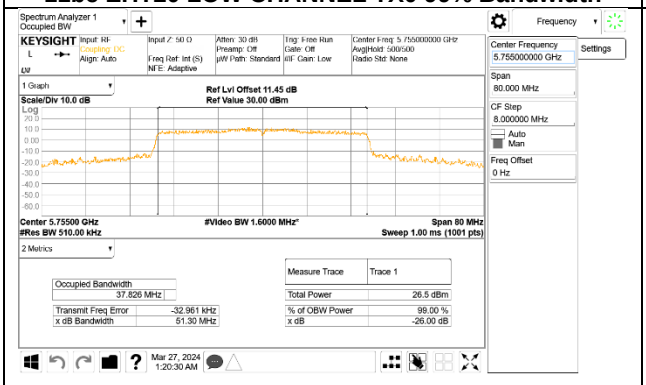
Band (GHz)	No. of Tx	Mode	Channel	Freq (MHz)	Tones	RU Index	99% Bandwidth (MHz)		6dB Bandwidth (MHz)		6dB Minimum Limit (MHz)
							Tx0	Tx1	Tx0	Tx1	
5.8	2	11a	149	5745			18.507	19.442	16.352	16.044	0.5
			157	5785			20.793	20.106	16.384	16.332	0.5
			165	5825			**22.792**	21.052	16.324	16.316	0.5
		11n HT20	149	5745			20.301	19.725	17.612	17.600	0.5
			157	5785			21.703	20.235	17.596	17.608	0.5
			165	5825			**24.624**	22.421	17.532	17.160	0.5
		11be EHT20	149	5745	242T	61	18.941	**18.964**	18.544	18.744	0.5
			157	5785			18.919	18.926	18.580	18.916	0.5
			165	5825			18.917	18.912	18.640	18.632	0.5
			149	5745	26T	0			2.080	2.040	0.5
			157	5785		4			2.512	2.556	0.5
			165	5825		8			2.008	2.012	0.5
		11n HT40	151	5755			39.410	37.585	36.328	35.480	0.5
			159	5795			**41.642**	39.168	36.024	36.352	0.5
		11be EHT40	151	5755	484T	65	37.826	37.754	37.736	37.504	0.5
			159	5795			**46.545**	45.252	37.456	37.472	0.5
		11ac VHT80	155	5775			**77.266**	76.814	75.232	75.312	0.5
		11be EHT80	155	5775	996T	67	77.392	**77.467**	77.312	75.184	0.5



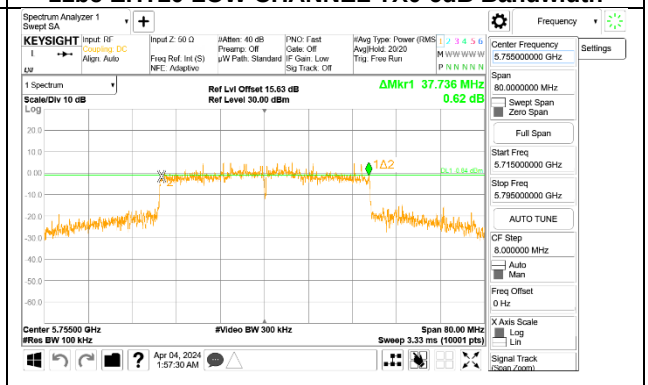
11be EHT20 LOW CHANNEL TX0 99% Bandwidth



11be EHT20 LOW CHANNEL TX0 6dB Bandwidth



11be EHT40 LOW CHANNEL TX0 99% Bandwidth



11be EHT40 LOW CHANNEL TX0 6dB Bandwidth

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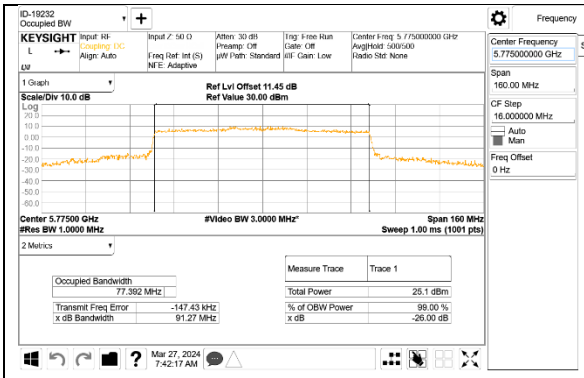
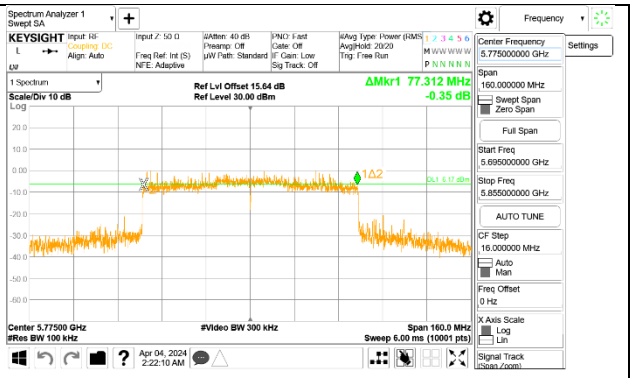


11be EHT80 MID CHANNEL TX0 99% Bandwidth



11be EHT80 MID CHANNEL TX0 6dB Bandwidth

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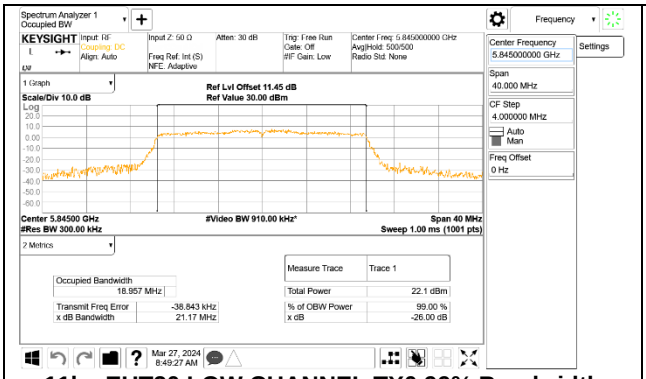
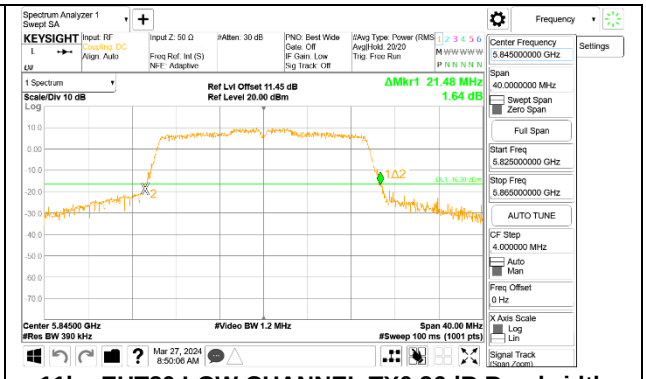
9.2.5. 5.9 GHz BAND

2TX Tx0 + Tx1 CDD MODE

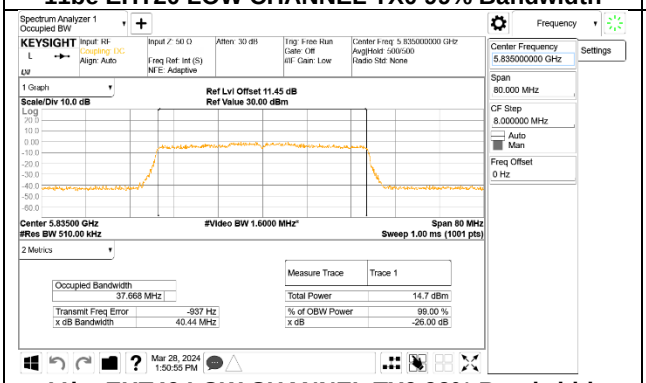
Band (GHz)	No. of Tx	Mode	Channel	Freq (MHz)	Tones	RU Index	99% Bandwidth (MHz)		26dB Bandwidth (MHz)		6dB Bandwidth (MHz)		6dB Minimum Limit (MHz)
							Tx0	Tx1	Tx0	Tx1	Tx0	Tx1	
5.9	2	11a	169	5845			18.452	18.521	35.080	33.800	16.332	16.380	0.5
			173	5865			**18.910**	17.865	35.280	33.000	16.360	16.348	0.5
			177	5885			16.836	16.734	22.280	21.400	16.332	16.376	0.5
		11n HT20	169	5845			**20.425**	19.476	39.920	35.800	17.616	17.568	0.5
			173	5865			19.672	18.463	21.680	21.200	17.632	17.592	0.5
			177	5885			18.088	17.765	30.280	21.240	17.596	17.620	0.5
		11be EHT20	169	5845	242T	61	18.957	**18.967**	21.480	21.440	18.732	18.520	0.5
			173	5865			18.961	18.924	21.520	21.400	18.472	18.080	0.5
			177	5885			18.925	18.962	21.640	21.200	18.120	18.772	0.5
			169	5845	26T	0					2.000	2.052	0.5
			173	5865		4					2.676	2.568	0.5
			177	5885		8					2.052	2.032	0.5
		11n HT40	167	5835			**42.453**	36.764	41.120	40.640	35.176	35.688	0.5
			175	5875			36.323	36.268	46.960	45.920	36.400	35.960	0.5
		11be EHT40	167	5835	484T	65	**37.668**	37.591	41.040	40.800	37.464	36.264	0.5
			175	5875			37.600	37.616	41.120	40.720	37.152	36.304	0.5
		11ac VHT80	171	5855			**75.716**	75.607	83.040	83.040	75.088	74.656	0.5
		11be EHT80	171	5855	996T	67	77.086	**77.089**	83.040	83.200	76.896	75.728	0.5
		11ac VHT160	163	5815			**156.100**	155.820	167.040	166.720	155.424	147.648	0.5
		11be EHT160	163	5815	SU		**156.730**	156.640	168.960	167.680	155.808	153.664	0.5



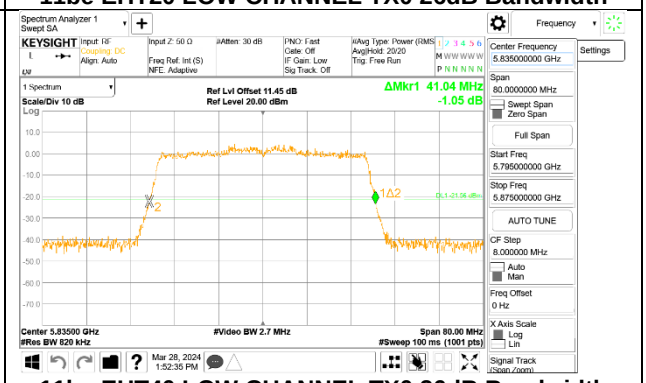
11be EHT20 LOW CHANNEL TX0 99% Bandwidth



11be EHT20 LOW CHANNEL TX0 26dB Bandwidth



11be EHT40 LOW CHANNEL TX0 99% Bandwidth



11be EHT40 LOW CHANNEL TX0 26dB Bandwidth

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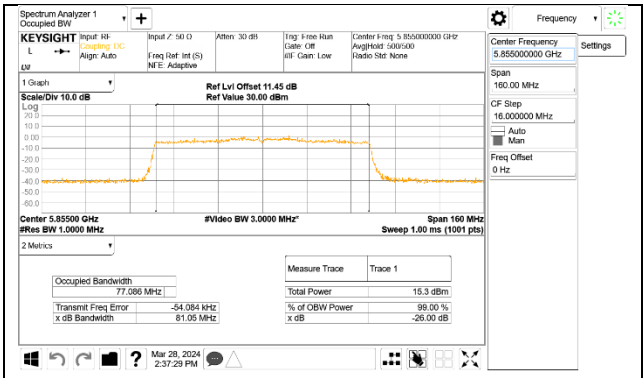
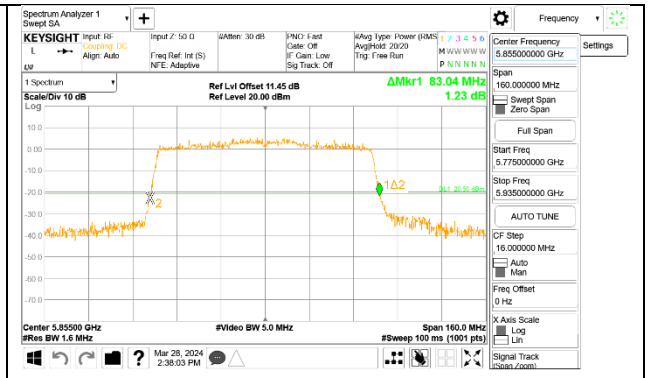
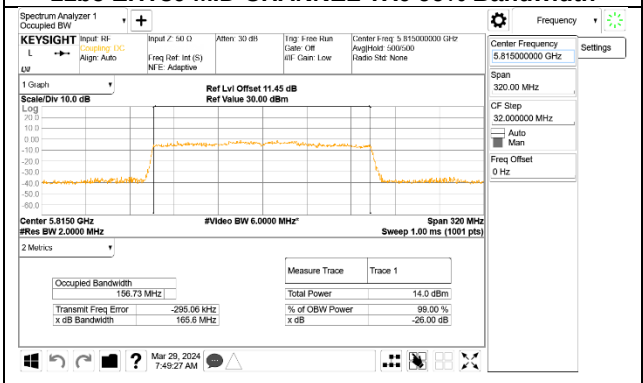


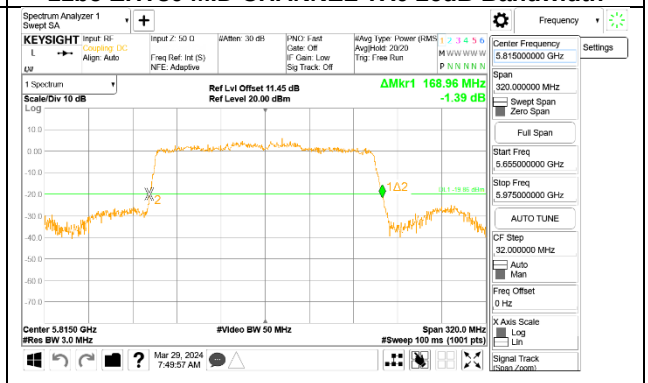
11be EHT80 MID CHANNEL TX0 99% Bandwidth



11be EHT80 MID CHANNEL TX0 26dB Bandwidth

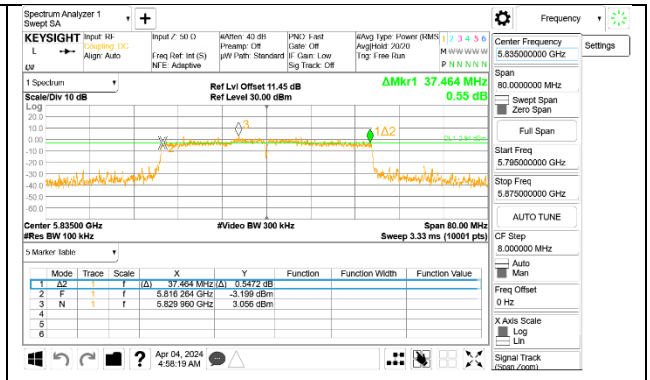


11be EHT160 MID CHANNEL TX0 99% Bandwidth

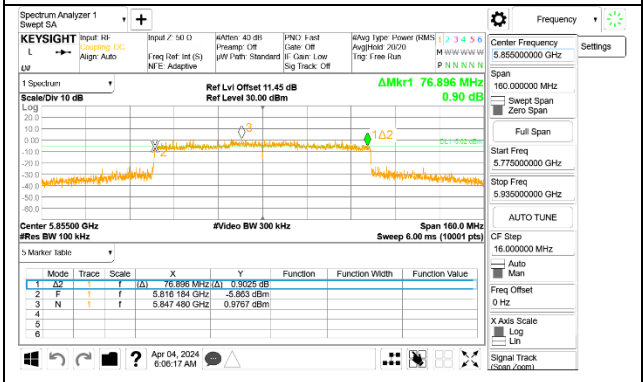


11be EHT160 MID CHANNEL TX0 26dB Bandwidth

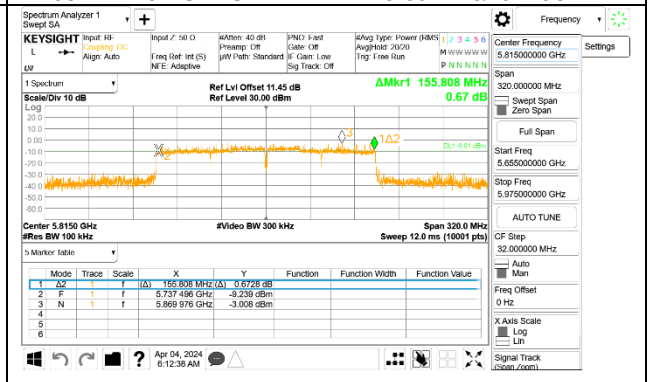
11be EHT20 LOW CHANNEL TX0 6dB Bandwidth



11be EHT40 LOW CHANNEL TX0 6dB Bandwidth



11be EHT80 MID CHANNEL TX0 6dB Bandwidth



11be EHT160 MID CHANNEL TX0 6dB Bandwidth

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9.3. OUTPUT POWER & POWER SPECTRAL DENSITY

LIMITS

FCC §15.407

Band 5.15–5.25 GHz
(iv) For mobile and portable client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Bands 5.25-5.35 GHz and 5.47-5.725 GHz
The maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Band 5.725-5.85 GHz
The maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information.

Band 5850-5895 GHz
For client devices operating under the control of an indoor access point in the 5.850-5.895 GHz band, the maximum power spectral density must not exceed 14 dBm e.i.r.p. in any 1-megahertz band, and the maximum e.i.r.p. over the frequency band of operation must not exceed 30 dBm. Client devices operating on a channel that spans the 5.725-5.850 GHz and 5.850-5.895 GHz bands must not exceed an e.i.r.p. of 30 dBm.

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DIRECTIONAL ANTENNA GAIN

For 2 TX:
Tx chains are uncorrelated for power and correlated for PSD due to the device supporting CDD in all MIMO modes. The directional gains are as follows:

Band (GHz)	No. of Tx	Mode	Channel	Freq (MHz)	Tones	RU Index	Tx0 Gain (dBi)	Tx1 Gain (dBi)	Uncorrelated Directional Gain (dBi)	Correlated Directional Gain (dBi)	FCC Power Limit (dBm)	FCC PSD Limit (dBm/1MHz)
5.2	2	11a	36	5180			-1.40	-3.40	-2.29	0.67	24.00	11.00
			40	5200			-1.40	-3.40	-2.29	0.67	24.00	11.00
			48	5240			-1.40	-3.40	-2.29	0.67	24.00	11.00
		11n HT20	36	5180			-1.40	-3.40	-2.29	0.67	24.00	11.00
			40	5200			-1.40	-3.40	-2.29	0.67	24.00	11.00
			48	5240			-1.40	-3.40	-2.29	0.67	24.00	11.00
		11be EHT20	36	5180	242T	61	-1.40	-3.40	-2.29	0.67	24.00	11.00
			40	5200			-1.40	-3.40	-2.29	0.67	24.00	11.00
			48	5240			-1.40	-3.40	-2.29	0.67	24.00	11.00
		11n HT40	38	5190			-1.40	-3.40	-2.29	0.67	24.00	11.00
			46	5230			-1.40	-3.40	-2.29	0.67	24.00	11.00
		11be EHT40	38	5190	484T	65	-1.40	-3.40	-2.29	0.67	24.00	11.00
			46	5230			-1.40	-3.40	-2.29	0.67	24.00	11.00
		11ac VHT80	42	5210			-1.40	-3.40	-2.29	0.67	24.00	11.00
		11be EHT80	42	5210	996T	67	-1.40	-3.40	-2.29	0.67	24.00	11.00

Band (GHz)	No. of Tx	Mode	Channel	Freq (MHz)	Tones	RU Index	Min 26% BW (MHz)	Tx0 Gain (dBi)	Tx1 Gain (dBi)	Uncorrelated Directional Gain (dBi)	Correlated Directional Gain (dBi)	FCC Power Limit (dBm)	FCC PSD Limit (dBm/1MHz)
5.3	2	11a	52	5260			27.080	-2.40	-4.00	-3.13	-0.15	24.00	11.00
			60	5300			29.520	-2.40	-4.00	-3.13	-0.15	24.00	11.00
			64	5320			29.680	-2.40	-4.00	-3.13	-0.15	24.00	11.00
		11n HT20	52	5260			29.960	-2.40	-4.00	-3.13	-0.15	24.00	11.00
			60	5300			28.440	-2.40	-4.00	-3.13	-0.15	24.00	11.00
			64	5320			27.800	-2.40	-4.00	-3.13	-0.15	24.00	11.00
		11be EHT20	52	5260	242T	61	21.520	-2.40	-4.00	-3.13	-0.15	24.00	11.00
			60	5300			21.560	-2.40	-4.00	-3.13	-0.15	24.00	11.00
			64	5320			21.480	-2.40	-4.00	-3.13	-0.15	24.00	11.00
		11n HT40	54	5270			63.920	-2.40	-4.00	-3.13	-0.15	24.00	11.00
			62	5310			50.720	-2.40	-4.00	-3.13	-0.15	24.00	11.00
		11be EHT40	54	5270	484T	65	40.800	-2.40	-4.00	-3.13	-0.15	24.00	11.00
			62	5310			40.960	-2.40	-4.00	-3.13	-0.15	24.00	11.00
		11ac VHT80	58	5290			83.040	-2.40	-4.00	-3.13	-0.15	24.00	11.00
		11be EHT80	58	5290	996T	67	82.880	-2.40	-4.00	-3.13	-0.15	24.00	11.00
		11ac VHT160	50	5250			83.040	-2.40	-4.00	-3.13	-0.15	24.00	11.00
		11be EHT160	50	5250	SU		168.000	-2.40	-4.00	-3.13	-0.15	24.00	11.00
5.6	2	11a	100	5500			21.400	-3.90	-3.90	-3.90	-0.89	24.00	11.00
			116	5580			23.680	-3.90	-3.90	-3.90	-0.89	24.00	11.00
			140	5700			21.210	-3.90	-3.90	-3.90	-0.89	24.00	11.00
			144	5720			21.400	-3.90	-3.90	-3.90	-0.89	24.00	11.00
		11n HT20	100	5500			22.440	-3.90	-3.90	-3.90	-0.89	24.00	11.00
			116	5580			25.120	-3.90	-3.90	-3.90	-0.89	24.00	11.00
			140	5700			23.760	-3.90	-3.90	-3.90	-0.89	24.00	11.00
			144	5720			24.760	-3.90	-3.90	-3.90	-0.89	24.00	11.00
		11be EHT20	100	5500	242T	61	22.240	-3.90	-3.90	-3.90	-0.89	24.00	11.00
			116	5580			24.520	-3.90	-3.90	-3.90	-0.89	24.00	11.00
			140	5700			21.520	-3.90	-3.90	-3.90	-0.89	24.00	11.00
			144	5720			21.360	-3.90	-3.90	-3.90	-0.89	24.00	11.00
		11n HT40	102	5510			40.960	-3.90	-3.90	-3.90	-0.89	24.00	11.00
			110	5550			41.840	-3.90	-3.90	-3.90	-0.89	24.00	11.00
			134	5670			42.960	-3.90	-3.90	-3.90	-0.89	24.00	11.00
			142	5710			40.800	-3.90	-3.90	-3.90	-0.89	24.00	11.00
		11be EHT40	102	5510	484T	65	40.800	-3.90	-3.90	-3.90	-0.89	24.00	11.00
			110	5550			40.960	-3.90	-3.90	-3.90	-0.89	24.00	11.00
			134	5670			54.640	-3.90	-3.90	-3.90	-0.89	24.00	11.00
			142	5710			64.800	-3.90	-3.90	-3.90	-0.89	24.00	11.00
		11ac VHT80	106	5530			83.040	-3.90	-3.90	-3.90	-0.89	24.00	11.00
			122	5610			82.880	-3.90	-3.90	-3.90	-0.89	24.00	11.00
			138	5690			82.880	-3.90	-3.90	-3.90	-0.89	24.00	11.00
		11be EHT80	106	5530	996T	67	83.200	-3.90	-3.90	-3.90	-0.89	24.00	11.00
			122	5610			83.040	-3.90	-3.90	-3.90	-0.89	24.00	11.00
			138	5690			84.000	-3.90	-3.90	-3.90	-0.89	24.00	11.00
		11ac VHT160	114	5570			167.680	-3.90	-3.90	-3.90	-0.89	24.00	11.00
		11be EHT160	114	5570	SU		271.680	-3.90	-3.90	-3.90	-0.89	24.00	11.00

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Band (GHz)	No. of Tx	Mode	Channel	Freq (MHz)	Tones	RU Index	Tx0 Gain (dBi)	Tx1 Gain (dBi)	Uncorrelated Directional Gain (dBi)	Correlated Directional Gain (dBi)	FCC Power Limit (dBm)	FCC PSD Limit (dBm/500kHz)
5.8	2	11a	149	5745			-1.60	-4.10	-2.67	0.25	30.00	30.00
			157	5785			-1.60	-4.10	-2.67	0.25	30.00	30.00
			165	5825			-1.60	-4.10	-2.67	0.25	30.00	30.00
		11n HT20	149	5745			-1.60	-4.10	-2.67	0.25	30.00	30.00
			157	5785			-1.60	-4.10	-2.67	0.25	30.00	30.00
			165	5825			-1.60	-4.10	-2.67	0.25	30.00	30.00
		11be EHT20	149	5745	242T	61	-1.60	-4.10	-2.67	0.25	30.00	30.00
			157	5785			-1.60	-4.10	-2.67	0.25	30.00	30.00
			165	5825			-1.60	-4.10	-2.67	0.25	30.00	30.00
		11n HT40	151	5755			-1.60	-4.10	-2.67	0.25	30.00	30.00
			159	5795			-1.60	-4.10	-2.67	0.25	30.00	30.00
		11be EHT40	151	5755	484T	65	-1.60	-4.10	-2.67	0.25	30.00	30.00
			159	5795			-1.60	-4.10	-2.67	0.25	30.00	30.00
		11ac VHT80	155	5775			-1.60	-4.10	-2.67	0.25	30.00	30.00
		11be EHT80	155	5775	996T	67	-1.60	-4.10	-2.67	0.25	30.00	30.00

Band (GHz)	No. of Tx	Mode	Channel	Freq (MHz)	Tones	RU Index	Tx0 Gain (dBi)	Tx1 Gain (dBi)	Uncorrelated Directional Gain (dBi)	Correlated Directional Gain (dBi)	FCC EIRP Power Limit (dBm)	Max FCC Power Limit (dBm)	FCC EIRP PSD PSD Limit (dBm/1MHz)	FCC PSD Limit (dBm/1MHz)
5.9	2	11a	169	5845			-1.90	-3.20	-2.50	0.48	30.00	32.50	14.00	13.52
			173	5865			-1.90	-3.20	-2.50	0.48	30.00	32.50	14.00	13.52
			177	5885			-1.90	-3.20	-2.50	0.48	30.00	32.50	14.00	13.52
		11n HT20	169	5845			-1.90	-3.20	-2.50	0.48	30.00	32.50	14.00	13.52
			173	5865			-1.90	-3.20	-2.50	0.48	30.00	32.50	14.00	13.52
			177	5885			-1.90	-3.20	-2.50	0.48	30.00	32.50	14.00	13.52
		11be EHT20	169	5845	242T	61	-1.90	-3.20	-2.50	0.48	30.00	32.50	14.00	13.52
			173	5865			-1.90	-3.20	-2.50	0.48	30.00	32.50	14.00	13.52
			177	5885			-1.90	-3.20	-2.50	0.48	30.00	32.50	14.00	13.52
		11n HT40	167	5835			-1.90	-3.20	-2.50	0.48	30.00	32.50	14.00	13.52
			175	5875			-1.90	-3.20	-2.50	0.48	30.00	32.50	14.00	13.52
		11be EHT40	167	5835	484T	65	-1.90	-3.20	-2.50	0.48	30.00	32.50	14.00	13.52
			175	5875			-1.90	-3.20	-2.50	0.48	30.00	32.50	14.00	13.52
		11ac VHT80	171	5855			-1.90	-3.20	-2.50	0.48	30.00	32.50	14.00	13.52
		11be EHT80	171	5855	996T	67	-1.90	-3.20	-2.50	0.48	30.00	32.50	14.00	13.52
		11ac VHT160	163	5815			-1.90	-3.20	-2.50	0.48	30.00	32.50	14.00	13.52
		11be EHT160	163	5815	SU		-1.90	-3.20	-2.50	0.48	30.00	32.50	14.00	13.52

Directional Gain Calculation:

ANSI C63.10-2013 section 14.4.3

Uncorrelated directional gain=10*LOG((10^(Tx0/10)+10^(Tx1/10))/2)
Correlated directional Gain=10*LOG(((10^(Tx0/20)+10^(Tx1/20))^2)/2)

Sample Calculation at 5.2G Band:

Tx0=-1.40dBi, Tx1=-3.40dBi

Uncorrelated Antenna gain=10log[(10^(-1.40/10)+10^(-3.40/10))/2]=-2.29 dBi

Correlated Antenna gain=10log[(10^(-1.40/20)+10^(-3.40/20))^2)/2]=0.67dBi

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POWER CALCULATION:

For 5.2/5.3/5.6/5.8GHz
P= measured conducted Avg Power (including cable loss + 10dB attenuator)
DCCF= duty cycle correction factor in dB
2Tx Total Corrected MIMO Conducted Avg Power with DCCF (dBm)=
10log[10^((P1+DCCF)/10) + 10^((P2+DCCF)/10)]

Sample Calculation 5.2G EHT20 242T MIMO:
2Tx Total Corrected MIMO Conducted Avg Power with DCCF (dBm)=
10log[10^((11.88+0.14)/10) + 10^((12.41+0.14)/10)] = 15.31dBm

For 5.9GHz
P= measured conducted Avg Power (including cable loss + 10dB attenuator)
DCCF= duty cycle correction factor in dB
2Tx Total Corrected MIMO Conducted Avg EIRP Power with DCCF (dBm)=
10log[10^((P1+DCCF)/10) + 10^((P2+DCCF)/10)]+ (uncorrelated directional gain)

Sample Calculation 5.9G EHT20 242T MIMO:
2Tx Total Corrected MIMO Conducted Avg EIRP Power (dBm)=
10log[10^((20.33+0.14)/10) + 10^((20.46+0.14)/10)]+ (-2.50) = 21.05dBm

PSD CALCULATION:

PSD= measured PSD (including cable loss + 10dB attenuator)
DCCF= duty cycle correction factor in dB
2Tx Corrected PSD with DCCF (dBm/1MHz)= 10log[10^((PSD1+DCCF)/10) +
10^((PSD2+DCCF)/10)]

Sample Calculation 5.2G EHT20 242T MIMO:
2Tx Corrected PSD with DCCF (dBm/1MHz)=10log[10^((2.108+0.14)/10) +
10^((2.653+0.14)/10)] = 5.54dBm/1MHz

RESULTS

Partial plots included in PSD for each band are representative of the method and settings parameters used for the test. Partial power plots only shown in 5.9G as representative of the method and settings parameters used for the test.

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9.3.1. 5.2 GHz BAND

2TX Tx0 + Tx1 CDD MODE (FCC)

Test Engineer:	NM 19232, HN 27979, 32480 BY
Test Date:	2024-02-01 TO 2024-04-01

Band (GHz)	Mode	Channel	Frequency (MHz)	Tones	RU Index	Measured Conducted Avg Power (dBm) Tx0	Measured Conducted Avg Power (dBm) Tx1	Total Corrected MIMO Conducted Avg Power with DCCF (dBm)	Power Limit (dBm)	Power Margin (dB)	PSD (dBm/1MHz) Tx0	PSD (dBm/1MHz) Tx1	Corrected PSD with DCCF (dBm/1MHz)	PSD Limit (dBm/1MHz)	PSD Margin (dB)
5.2 (FCC)	11a	36	5180			13.31	12.38	15.88	24.00	-8.12	4.129	3.081	6.65	11.00	-4.35
		40	5200			17.16	17.23	20.21	24.00	-3.79	7.762	7.780	10.78	11.00	-0.22
		48	5240			17.49	17.01	20.27	24.00	-3.73	7.747	7.461	10.62	11.00	-0.38
	11n HT20	36	5180			12.13	12.69	15.43	24.00	-8.57	2.551	3.065	5.83	11.00	-5.17
		40	5200			17.15	17.01	20.09	24.00	-3.91	7.524	7.346	10.45	11.00	-0.55
		48	5240			17.35	17.27	20.32	24.00	-3.68	7.658	7.730	10.70	11.00	-0.30
	11be EHT20	36	5180	242T	61	11.88	12.41	15.31	24.00	-8.69	2.108	2.653	5.54	11.00	-5.46
		40	5200			16.94	16.67	19.96	24.00	-4.04	7.616	7.118	10.53	11.00	-0.47
		48	5240			17.35	17.24	20.45	24.00	-3.55	7.652	7.341	10.65	11.00	-0.35
		36	5180	106T	53	8.86	8.96	12.04	24.00	-11.96	1.204	1.505	4.49	11.00	-6.51
		40	5200			14.73	14.61	17.80	24.00	-6.20	6.980	6.979	10.11	11.00	-0.89
		48	5240		54	15.89	15.42	18.79	24.00	-5.21	7.557	7.333	10.58	11.00	-0.42
		36	5180	52T	37	6.49	7.48	10.13	24.00	-13.87	2.033	2.737	5.52	11.00	-5.48
		40	5200		38	12.47	12.61	15.66	24.00	-8.34	7.188	7.286	10.36	11.00	-0.64
		48	5240		40	12.44	11.94	15.32	24.00	-8.68	7.647	7.039	10.47	11.00	-0.53
		36	5180	26T	0	3.98	4.57	7.39	24.00	-16.61	2.204	2.637	5.53	11.00	-5.47
		40	5200		4	10.27	10.98	13.75	24.00	-10.25	6.874	7.582	10.35	11.00	-0.65
		48	5240		8	9.73	10.28	13.12	24.00	-10.88	7.161	7.601	10.50	11.00	-0.50
		36	5180	52T + 26T	70	6.87	7.39	10.15	24.00	-13.85	0.725	3.591	5.40	11.00	-5.60
		40	5200		71	13.58	13.55	16.58	24.00	-7.42	7.396	7.004	10.21	11.00	-0.79
		48	5240		72	13.96	13.82	16.90	24.00	-7.10	7.620	7.363	10.50	11.00	-0.50
		36	5180	106T + 26T	82	9.60	10.24	12.94	24.00	-11.06	1.385	3.389	5.51	11.00	-5.49
		40	5200		83	15.84	15.71	18.79	24.00	-5.21	7.475	7.242	10.37	11.00	-0.63
		48	5240			16.26	16.03	19.16	24.00	-4.84	7.569	7.362	10.48	11.00	-0.52
	11n HT40	38	5190			9.65	10.41	13.06	24.00	-10.94	-2.582	-1.776	0.85	11.00	-10.15
		46	5230			19.80	19.55	22.69	24.00	-1.31	7.727	7.488	10.62	11.00	-0.38
	11be EHT40	38	5190	484T	65	7.23	7.90	10.87	24.00	-13.13	-5.285	-4.709	-1.70	11.00	-12.70
		46	5230			19.63	19.31	22.76	24.00	-1.24	7.555	7.102	10.63	11.00	-0.37
	11ac VHT80	42	5210			7.66	7.97	10.93	24.00	-13.07	-8.500	-7.987	-5.13	11.00	-16.13
	11be EHT80	42	5210	996T	67	8.93	8.96	12.43	24.00	-11.57	-7.186	-6.909	-3.56	11.00	-14.56
		42	5210	484T + 242T Puncture 20MHz	8	5.93	6.34	9.62	24.00	-14.38	-8.959	-6.271	-3.93	11.00	-14.93

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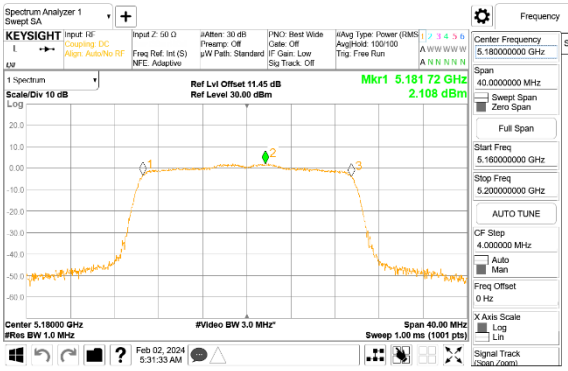
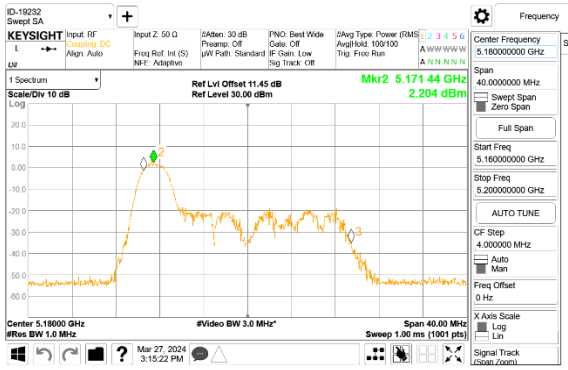
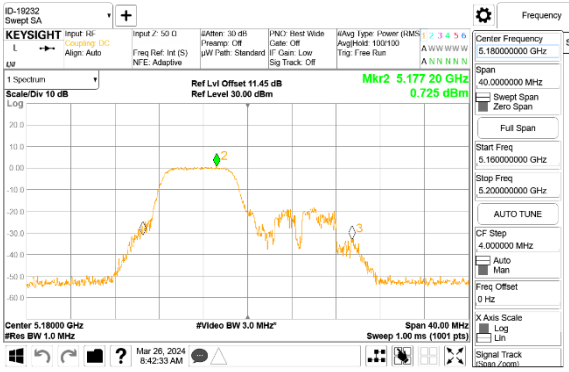
PSD



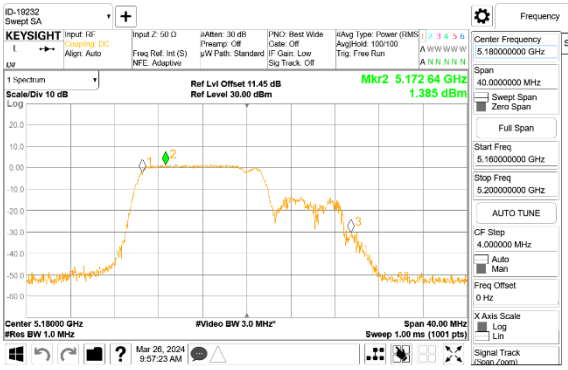
11be EHT20 242T LOW CHANNEL TX0 PSD



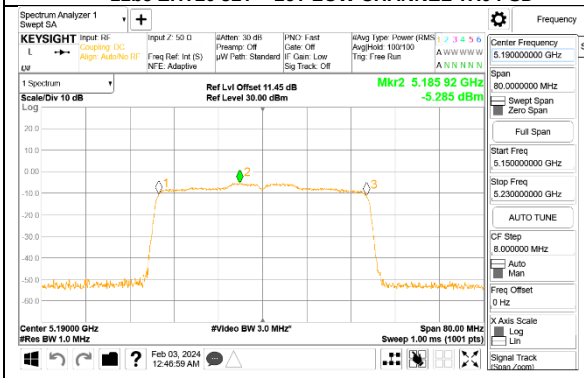
11be EHT20 26T LOW CHANNEL TX0 PSD



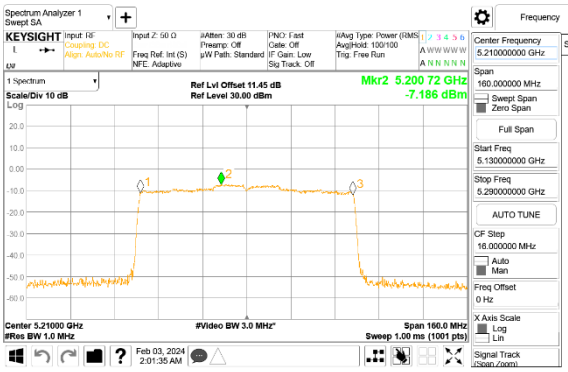
11be EHT20 52T + 26T LOW CHANNEL TX0 PSD



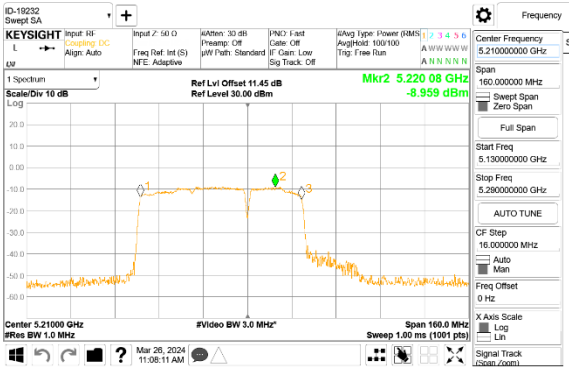
11be EHT20 106T + 26T LOW CHANNEL TX0 PSD



11be EHT40 484T LOW CHANNEL TX0 PSD



11be EHT80 996T MID CHANNEL TX0 PSD



11be EHT80 484T + 242T Puncture 20MHz MID CHANNEL TX0 PSD

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9.3.2. 5.3 GHz BAND

2TX Tx0 + Tx1 CDD MODE

Test Engineer:	NM 19232, HN 27979, 32480 BY
Test Date:	2024-02-01 TO 2024-05-06

Band (GHz)	Mode	Channel	Frequency (MHz)	Tones	RU Index	Measured Conducted Avg Power (dBm) Tx0	Measured Conducted Avg Power (dBm) Tx1	Total Corrected MIMO Conducted Avg Power with DCCF (dBm)	Power Limit (dBm)	Power Margin (dB)	PSD (dBm/1MHz) Tx0	PSD (dBm/1MHz) Tx1	Corrected PSD with DCCF (dBm/1MHz)	PSD Limit (dBm/1MHz)	PSD Margin (dB)
5.3	11a	52	5260			17.25	16.74	20.01	23.29	-3.28	7.556	7.287	10.43	11.00	-0.57
		60	5300			17.51	17.27	20.40	23.31	-2.91	7.786	7.542	10.68	11.00	-0.32
		64	5320			17.57	17.24	20.42	23.34	-2.92	7.875	7.432	10.67	11.00	-0.33
	11n HT20	52	5260			17.70	17.35	20.54	23.57	-3.04	7.880	7.694	10.80	11.00	-0.20
		60	5300			17.96	17.41	20.70	23.59	-2.88	7.996	7.515	10.77	11.00	-0.23
		64	5320			17.47	17.30	20.40	23.55	-3.16	7.402	7.274	10.35	11.00	-0.65
	11be EHT20	52	5260	242T	61	17.52	16.34	20.12	23.77	-3.65	7.875	6.648	10.46	11.00	-0.54
		60	5300			17.66	16.80	20.40	23.79	-3.39	7.793	6.978	10.56	11.00	-0.44
		64	5320			17.74	16.72	20.41	23.79	-3.37	7.816	6.627	10.42	11.00	-0.58
		52	5260	106T	53	14.25	13.90	17.21	23.77	-6.56	6.214	6.133	9.31	11.00	-1.69
		60	5300			15.32	14.75	18.18	23.79	-5.62	7.319	6.910	10.25	11.00	-0.75
		64	5320		54	15.29	14.81	18.19	23.79	-5.60	7.240	6.772	10.14	11.00	-0.86
		52	5260	52T	37	12.28	11.67	15.10	23.77	-8.67	7.404	6.589	10.13	11.00	-0.87
		60	5300		38	12.54	12.08	15.44	23.79	-8.36	7.223	6.684	10.08	11.00	-0.92
		64	5320		40	12.66	12.25	15.58	23.79	-8.21	7.411	7.014	10.34	11.00	-0.66
		52	5260	26T	0	9.91	9.08	12.62	23.77	-11.15	7.647	6.914	10.40	11.00	-0.60
		60	5300		4	9.72	9.59	12.76	23.79	-11.03	6.421	6.408	9.52	11.00	-1.48
		64	5320		8	9.92	9.31	12.73	23.79	-11.05	7.349	6.871	10.23	11.00	-0.77
		52	5260	52T + 26T	70	14.31	13.17	16.79	23.77	-6.98	7.588	6.976	10.30	11.00	-0.70
		60	5300		71	14.26	13.35	16.84	23.79	-6.95	7.794	6.955	10.41	11.00	-0.59
		64	5320		72	14.22	13.38	16.83	23.79	-6.96	7.663	6.766	10.25	11.00	-0.75
		52	5260	106T + 26T	82	16.35	15.54	18.97	23.77	-4.80	7.479	6.683	10.11	11.00	-0.89
		60	5300		83	16.39	15.91	19.17	23.79	-4.62	7.502	6.637	10.10	11.00	-0.90
		64	5320			16.58	15.88	19.25	23.79	-4.53	7.566	7.033	10.32	11.00	-0.68
	11n HT40	54	5270			18.65	18.60	21.64	24.00	-2.36	6.081	5.943	9.02	11.00	-1.98
		62	5310			16.26	15.86	19.07	24.00	-4.93	3.344	3.040	6.20	11.00	-4.80
	11be EHT40	54	5270	484T	65	15.49	14.57	18.35	24.00	-5.65	2.532	1.756	5.45	11.00	-5.55
		62	5310			15.29	14.62	18.26	24.00	-5.74	1.955	1.441	5.00	11.00	-6.00
	11ac VHT80	58	5290			14.39	13.79	17.21	24.00	-6.79	-1.429	-2.210	1.31	11.00	-9.69
	11be EHT80	58	5290	996T	67	12.48	11.86	15.67	24.00	-8.33	-3.387	-4.509	-0.42	11.00	-11.42
		58	5290	484T + 242T Puncture 20MHz	1	11.32	10.30	14.32	24.00	-9.68	-3.650	-4.879	-0.75	11.00	-11.75
	11ac VHT160	50	5250			11.98	11.38	14.88	24.00	-9.12	-6.887	-7.555	-4.02	11.00	-15.02
	11be EHT160	50	5250	SU		10.79	10.47	13.86	24.00	-10.14	-8.415	-8.788	-5.37	11.00	-16.37
		50	5250	996T + 484T Puncture 40MHz	192	10.48	9.72	13.34	24.00	-10.66	-8.647	-8.803	-5.50	11.00	-16.50
		50	5250	996T + 484T + 242T Puncture 20MHz	1	10.44	10.46	13.67	24.00	-10.33	-8.538	-8.907	-5.50	11.00	-16.50

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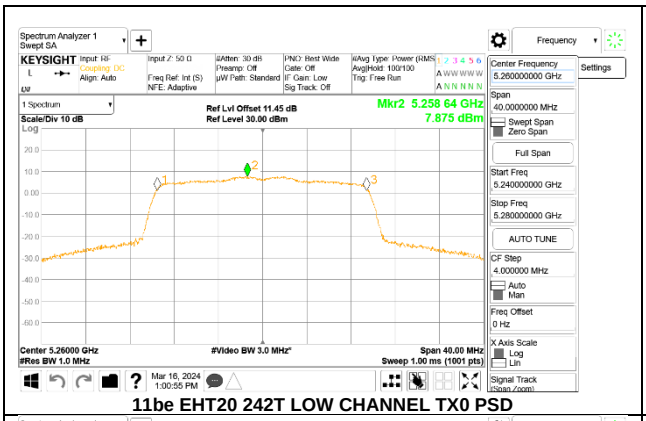
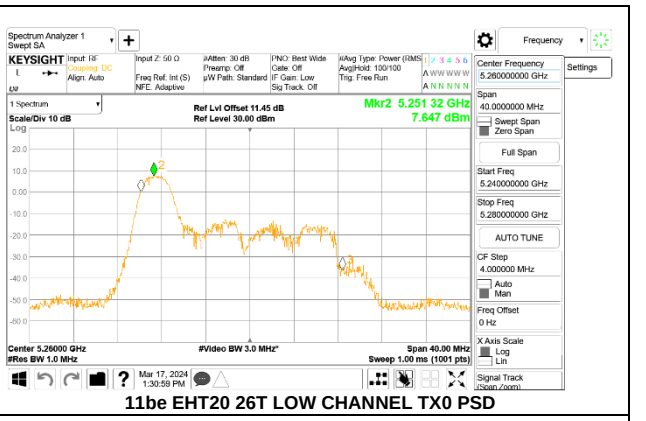
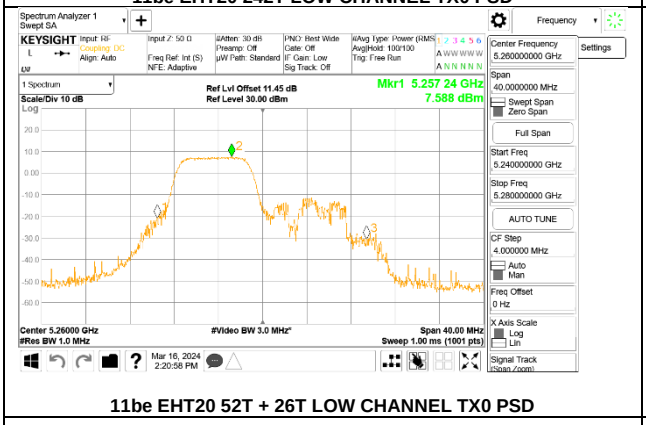
PSD



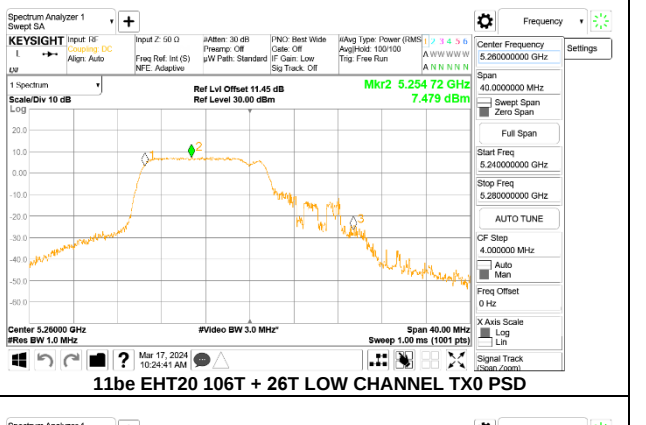
11be EHT20 242T LOW CHANNEL TX0 PSD



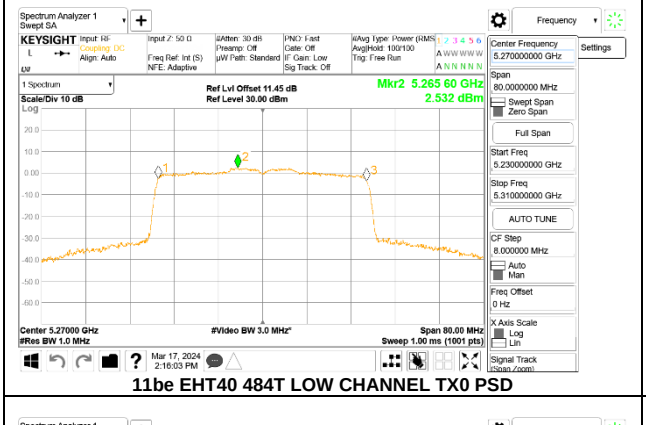
11be EHT20 26T LOW CHANNEL TX0 PSD



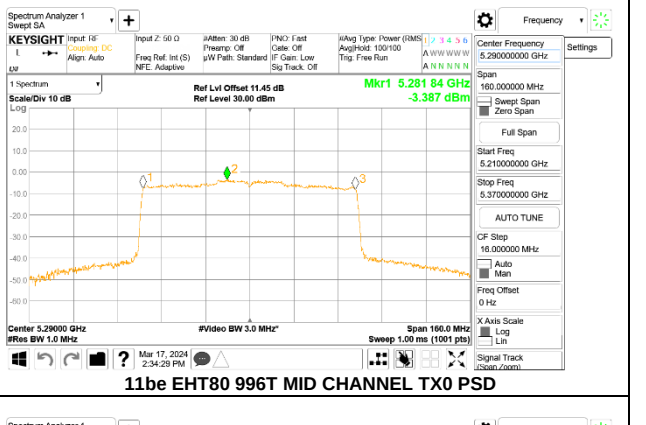
11be EHT20 52T + 26T LOW CHANNEL TX0 PSD



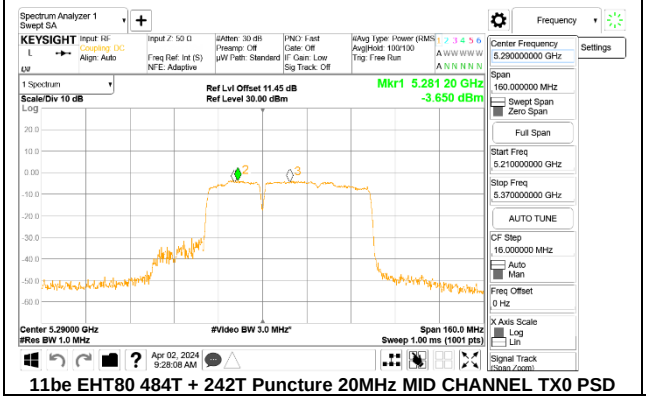
11be EHT20 106T + 26T LOW CHANNEL TX0 PSD



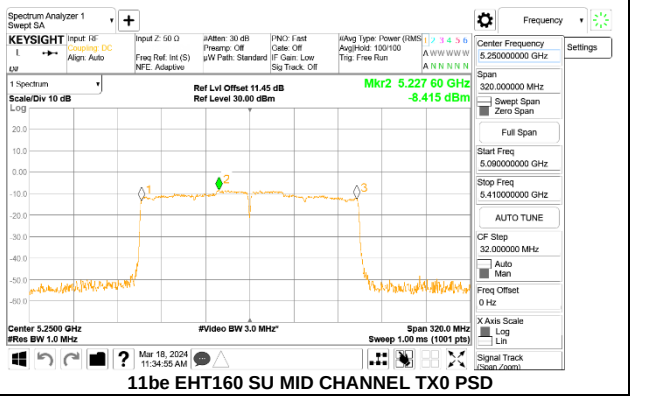
11be EHT40 484T LOW CHANNEL TX0 PSD



11be EHT80 996T MID CHANNEL TX0 PSD



11be EHT80 484T + 242T Puncture 20MHz MID CHANNEL TX0 PSD



11be EHT160 SU MID CHANNEL TX0 PSD

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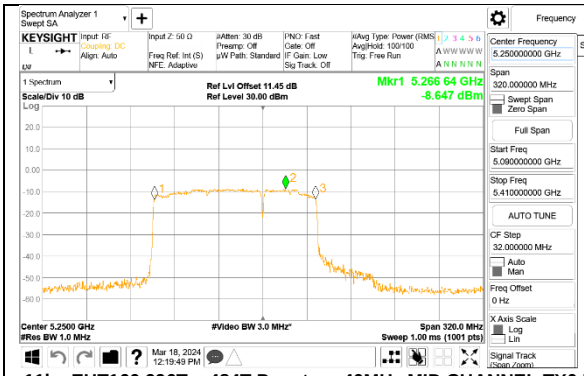
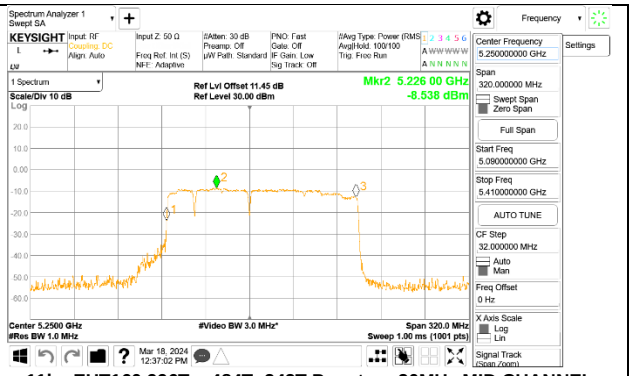


11be EHT160 996T + 484T Puncture 40MHz MID CHANNEL TX0 PSD



11be EHT160 996T + 484T+242T Puncture 20MHz MID CHANNEL TX0 PSD

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9.3.3. 5.6 GHz BAND

2TX Tx0 + Tx1 CDD MODE

Test Engineer:	NM 19232, HN 27979, 32480 BY
Test Date:	2024-02-01 TO 2024-04-08

Mode	Channel	Frequency (MHz)	Tones	RU Index	Measured Conducted Avg Power (dBm) Tx0	Measured Conducted Avg Power Tx1	Total Corrected MIMO Conducted Avg Power with DCCF (dBm)	Power Limit (dBm)	Power Margin (dB)	PSD (dBm/1MHz) Tx0	PSD (dBm/1MHz) Tx1	Corrected PSD with DCCF (dBm/1MHz)	PSD Limit (dBm/1MHz)	PSD Margin (dB)
11a	100	5500			17.63	16.99	20.33	24.00	-3.67	7.861	7.205	10.56	11.00	-0.44
	116	5580			17.51	17.25	20.39	24.00	-3.61	7.535	7.368	10.46	11.00	-0.54
	140	5700			17.32	17.13	20.24	24.00	-3.76	7.624	7.802	10.72	11.00	-0.28
	144	5720 (Straddle)			16.56	16.78	19.68	24.00	-4.32	7.272	7.340	10.32	11.00	-0.68
11n HT20	100	5500			17.44	16.84	20.16	24.00	-3.84	7.371	7.237	10.31	11.00	-0.69
	116	5580			17.51	17.10	20.32	24.00	-3.68	7.258	7.134	10.21	11.00	-0.79
	140	5700			15.56	15.23	18.41	24.00	-5.59	5.669	5.832	8.76	11.00	-2.24
	144	5720(Straddle)			17.15	17.00	20.09	24.00	-3.91	7.411	7.561	10.50	11.00	-0.50
11be EHT20	100	5500	242T	61	17.30	17.35	20.48	24.00	-3.52	7.358	7.625	10.65	11.00	-0.35
	116	5580			16.89	18.07	20.67	24.00	-3.33	6.857	7.779	10.50	11.00	-0.50
	140	5700			15.50	15.30	18.55	24.00	-5.45	5.555	5.782	8.82	11.00	-2.18
	144	5720			17.36	18.13	20.92	24.00	-3.08	7.048	7.832	10.61	11.00	-0.39
	100	5500	106T	53	14.67	14.97	17.95	24.00	-6.05	7.006	7.219	10.25	11.00	-0.75
	116	5580			15.06	15.52	18.43	24.00	-5.57	6.792	7.635	10.37	11.00	-0.63
	140	5700		54	13.29	13.60	16.58	24.00	-7.42	5.018	5.423	8.36	11.00	-2.64
	144	5720(Straddle)			15.45	15.40	18.56	24.00	-5.44	6.703	7.404	10.20	11.00	-0.80
	100	5500	52T	37	12.17	12.28	15.34	24.00	-8.66	7.396	7.398	10.52	11.00	-0.48
	116	5580		38	11.62	12.29	15.09	24.00	-8.91	6.580	7.907	10.41	11.00	-0.59
	140	5700		40	9.86	10.34	13.23	24.00	-10.77	4.683	5.331	8.14	11.00	-2.86
	144	5720(Straddle)			12.12	12.41	15.39	24.00	-8.61	7.088	7.257	10.29	11.00	-0.71
	100	5500	26T	0	10.13	9.74	13.05	24.00	-10.95	7.157	7.325	10.35	11.00	-0.65
	116	5580		4	10.24	10.29	13.37	24.00	-10.63	7.250	7.098	10.28	11.00	-0.72
	140	5700		8	7.52	8.14	10.95	24.00	-13.05	5.076	5.311	8.30	11.00	-2.70
	144	5720(Straddle)			9.68	9.62	12.76	24.00	-11.24	6.868	7.036	10.06	11.00	-0.94
	100	5500	52T + 26T	70	13.71	13.64	16.69	24.00	-7.31	7.153	6.712	9.95	11.00	-1.05
	116	5580		71	13.74	14.45	17.12	24.00	-6.88	6.941	7.665	10.33	11.00	-0.67
	140	5700		72	11.47	10.82	14.17	24.00	-9.83	5.429	3.975	7.77	11.00	-3.23
	144	5720(Straddle)			13.48	13.53	16.52	24.00	-7.48	7.124	6.809	9.98	11.00	-1.02
	100	5500	106T + 26T	82	15.98	16.49	19.25	24.00	-4.75	7.153	7.396	10.29	11.00	-0.71
	116	5580		83	16.30	16.77	19.55	24.00	-4.45	7.100	7.489	10.31	11.00	-0.69
	140	5700			13.88	14.14	17.02	24.00	-6.98	5.188	5.507	8.36	11.00	-2.64
	144	5720(Straddle)			15.49	16.02	18.77	24.00	-5.23	6.658	7.211	9.95	11.00	-1.05
11n HT40	102	5510			14.81	15.29	18.07	24.00	-5.93	1.969	2.579	5.30	11.00	-5.70
	110	5550			20.74	20.17	23.47	24.00	-0.53	7.675	6.886	10.31	11.00	-0.69
	134	5670			19.55	20.29	22.95	24.00	-1.05	7.133	7.524	10.34	11.00	-0.66
	142	5710(Straddle)			20.37	20.04	23.22	24.00	-0.78	7.943	7.461	10.72	11.00	-0.28
11be EHT40	102	5510	484T	65	14.47	15.03	18.05	24.00	-5.95	1.974	2.136	5.35	11.00	-5.65
	110	5550			20.08	19.67	23.17	24.00	-0.83	6.948	6.392	9.97	11.00	-1.03
	134	5670			19.71	20.41	23.37	24.00	-0.63	7.004	7.903	10.77	11.00	-0.23
	142	5710(Straddle)			19.84	19.65	23.04	24.00	-0.96	7.024	7.237	10.42	11.00	-0.58
11ac VHT80	106	5530			12.85	13.24	16.16	24.00	-7.84	-2.981	-2.967	0.14	11.00	-10.86
	122	5610			20.19	20.73	23.58	24.00	-0.42	4.002	4.812	7.54	11.00	-3.46
	138	5690(Straddle)			19.92	19.18	22.68	24.00	-1.32	4.143	3.684	7.03	11.00	-3.97
11be EHT80	106	5530	996	67	13.24	13.28	16.75	24.00	-7.25	-3.016	-2.599	0.69	11.00	-10.31
	122	5610			20.01	20.49	23.75	24.00	-0.25	3.854	4.326	7.59	11.00	-3.41
	138	5690(Straddle)			20.22	19.66	23.44	24.00	-0.56	4.119	3.621	7.37	11.00	-3.63
	106	5530	484T + 242T Puncture 20MHz	8	12.68	12.58	16.11	24.00	-7.89	-3.158	-2.874	0.46	11.00	-10.54
	122	5610		4	18.31	18.78	22.03	24.00	-1.97	3.775	4.381	7.56	11.00	-3.44
	138	5690(Straddle)		1	19.05	18.61	22.31	24.00	-1.69	3.912	3.470	7.17	11.00	-3.83
11ac VHT160	114	5570			11.53	12.18	15.06	24.00	-8.94	-7.501	-6.852	-3.97	11.00	-14.97
11be EHT160	114	5570	SU		13.89	14.44	17.40	24.00	-6.60	-5.986	-5.159	-2.33	11.00	-13.33
	114	5570	996T + 484T Puncture 40MHz	192	13.08	12.81	16.17	24.00	-7.83	-5.894	-6.020	-2.73	11.00	-13.73
	114	5570	996T + 484T + 242T Puncture 20MHz	1	13.68	13.52	16.82	24.00	-7.18	-6.038	-6.024	-2.81	11.00	-13.81

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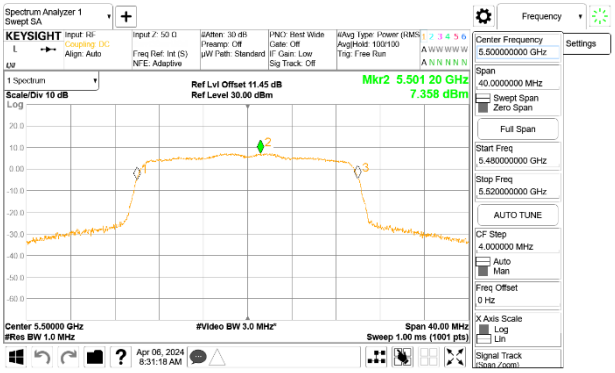
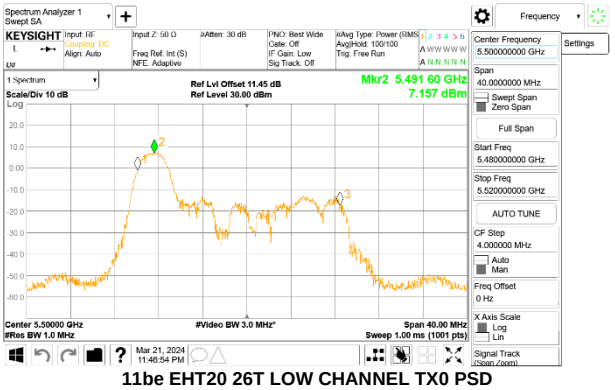
PSD



11be EHT20 242T LOW CHANNEL TX0 PSD



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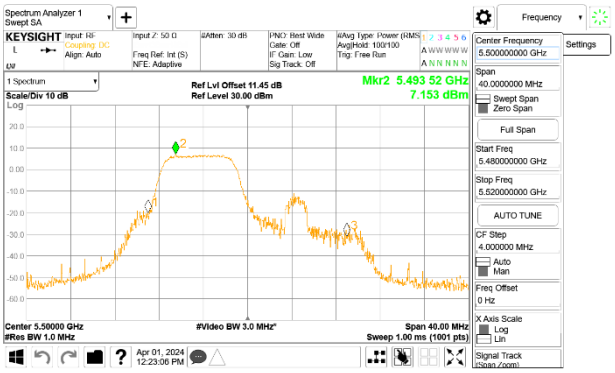

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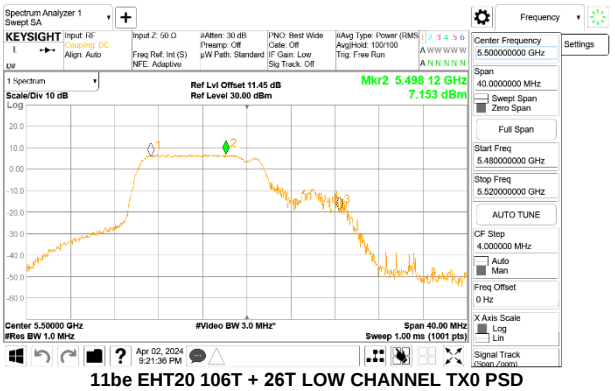

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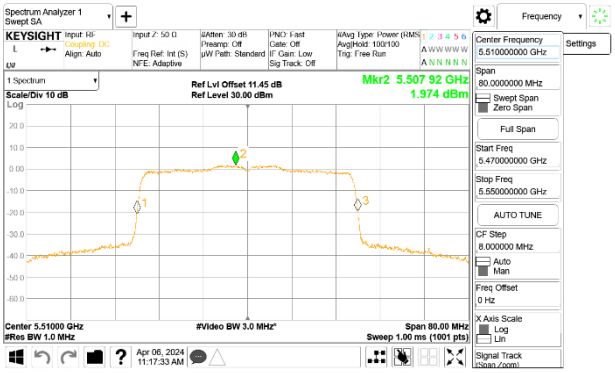

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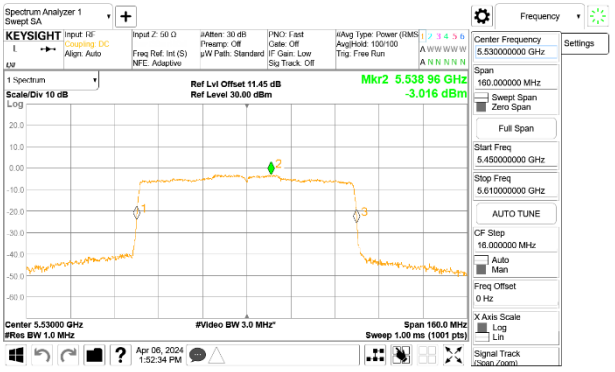
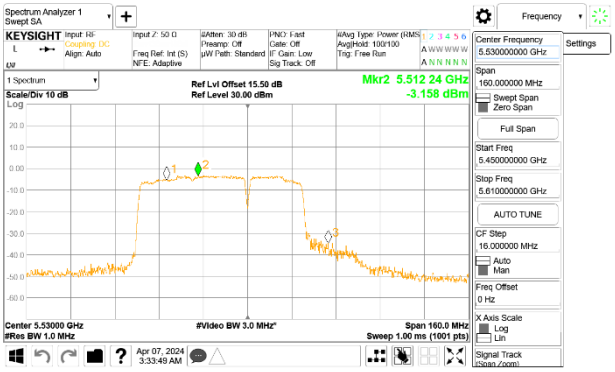
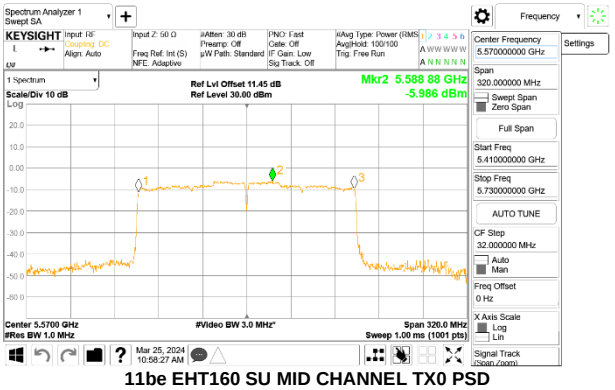


11be EHT80 996T LOW CHANNEL TX0 PSD



11be EHT80 484T + 242T Puncture 20MHz LOW CHANNEL TX0 PSD



11be EHT160 SU MID CHANNEL TX0 PSD

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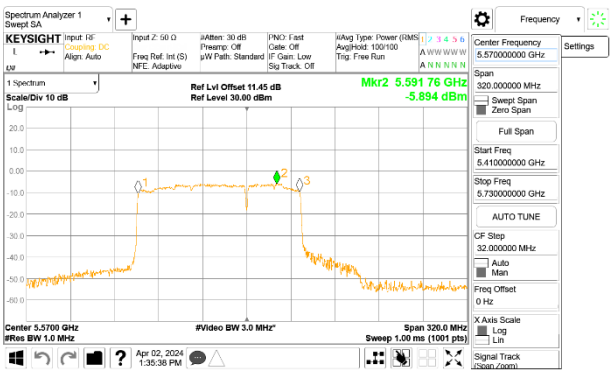
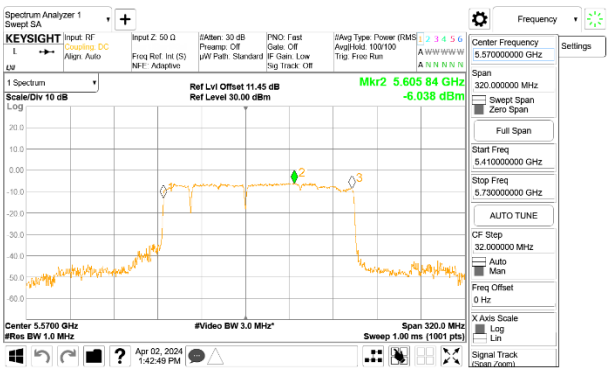


11be EHT160 996T + 484T Puncture 40MHz MID CHANNEL TX0 PSD



11be EHT160 996T + 484T+242T Puncture 20MHz MID CHANNEL TX0 PSD

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9.3.4. 5.8 GHz BAND

2TX Tx0 + Tx1 CDD MODE

Test Engineer:	NM 19232, HN 27979, 32480 BY
Test Date:	2024-02-01 TO 2024-04-01

Band (GHz)	Mode	Channel	Frequency (MHz)	Tones	RU Index	Measured Conducted Avg Power (dBm) Tx0	Measured Conducted Avg Power (dBm) Tx1	Total Corrected MIMO Conducted Avg Power	Power Limit (dBm)	Power Margin (dB)	PSD (dBm/500kHz) Tx0	PSD (dBm/500kHz) Tx1	Corrected PSD with DCCF (dBm/500kHz)	PSD Limit (dBm/500kHz)	PSD Margin (dB)
5.8	11a	149	5745			20.89	21.07	23.99	30.00	-6.01	8.695	8.906	11.81	30.00	-18.19
		157	5785			21.27	21.10	24.20	30.00	-5.80	8.632	8.742	11.70	30.00	-18.30
		165	5825			21.65	21.45	24.56	30.00	-5.44	8.867	8.710	11.80	30.00	-18.20
	11n HT20	149	5745			21.02	21.18	24.11	30.00	-5.89	8.112	8.165	11.15	30.00	-18.85
		157	5785			21.22	21.35	24.30	30.00	-5.70	8.182	8.048	11.13	30.00	-18.87
		165	5825			21.62	21.52	24.58	30.00	-5.42	8.568	8.725	11.66	30.00	-18.34
	11be EHT20	149	5745	242T	61	20.66	20.95	23.96	30.00	-6.04	7.725	8.111	11.08	30.00	-18.92
		157	5785			20.92	21.05	24.14	30.00	-5.86	7.915	8.134	11.18	30.00	-18.82
		165	5825			20.97	21.19	24.23	30.00	-5.77	7.703	8.245	11.14	30.00	-18.86
		149	5745	106T	53	18.77	18.84	21.94	30.00	-8.06	7.831	7.949	11.02	30.00	-18.98
		157	5785			18.82	18.75	21.92	30.00	-8.08	7.865	8.153	11.14	30.00	-18.86
		165	5825		54	18.81	18.76	21.92	30.00	-8.08	7.722	7.674	10.83	30.00	-19.17
		149	5745	52T	37	15.67	15.48	18.70	30.00	-11.30	7.681	8.040	10.98	30.00	-19.02
		157	5785		38	15.31	15.47	18.51	30.00	-11.49	7.904	8.071	11.11	30.00	-18.89
		165	5825		40	15.27	15.25	18.38	30.00	-11.62	8.109	7.909	11.13	30.00	-18.87
		149	5745	26T	0	12.09	11.97	15.14	30.00	-14.86	7.717	8.123	11.03	30.00	-18.97
		157	5785		4	13.24	12.57	16.03	30.00	-13.97	7.782	8.286	11.15	30.00	-18.85
		165	5825		8	11.03	12.43	14.89	30.00	-15.11	6.605	8.055	10.50	30.00	-19.50
		149	5745	52T + 26T	70	14.94	18.88	20.35	30.00	-9.65	5.051	9.796	11.05	30.00	-18.95
		157	5785		71	14.14	18.87	20.13	30.00	-9.87	5.521	9.684	11.09	30.00	-18.91
		165	5825		72	15.44	19.12	20.67	30.00	-9.33	5.818	9.530	11.07	30.00	-18.93
		149	5745	106T + 26T	82	15.55	20.27	21.53	30.00	-8.47	5.384	9.268	10.76	30.00	-19.24
		157	5785		83	16.62	21.15	22.46	30.00	-7.54	5.024	9.473	10.81	30.00	-19.19
		165	5825			17.19	21.47	22.85	30.00	-7.15	5.414	9.514	10.94	30.00	-19.06
	11n HT40	151	5755			20.92	20.88	23.91	30.00	-6.09	5.182	5.724	8.47	30.00	-21.53
		159	5795			21.07	20.92	24.01	30.00	-5.99	5.090	5.058	8.08	30.00	-21.92
	11be EHT40	151	5755	484T	65	20.79	20.69	24.03	30.00	-5.97	5.591	5.669	8.92	30.00	-21.08
		159	5795			20.49	20.87	23.98	30.00	-6.02	4.709	4.916	8.10	30.00	-21.90
	11ac VHT80	155	5775			20.38	20.49	23.55	30.00	-6.45	1.383	1.409	4.51	30.00	-25.49
	11be EHT80	155	5775	996T	67	17.92	18.57	21.75	30.00	-8.25	-0.522	-0.012	3.23	30.00	-26.77
		155	5775	484T + 242T Puncture 20MHz	8	17.90	18.12	21.49	30.00	-8.51	-0.414	-0.235	3.15	30.00	-26.85

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