TEST REPORT

Report Number: 14982436-E10V6

Applicant	:	APPLE INC. 1 APPLE PARK WAY CUPERTINO, CA 95014, U.S.A.
Model	:	A3083 (Parent Model) A3292, A3293, A3294 (Variant Models)
Brand	:	APPLE
FCC ID	:	BCG-E8666A (Parent Model) BCG-E8667A, BCG-E8668A, BCG-E8683A (Variant Models)
EUT Description	:	SMARTPHONE
Test Standard(s)	:	FCC 47 CFR PART 15 SUBPART E

Date Of Issue:
2024/08/23

Prepared by:
UL Verification Services Inc.
47173 Benicia Street
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REPORT REVISION HISTORY

Rev.	Issue Date	Revisions	Revised By
V1	2024/06/26	Initial Review	Tony Li
V2	2024/07/08	Addressed TCB Questions on Sections 3, 6, 8, and 9	Tony Li
V3	2024/07/10	Addressed TCB Questions on Section 9	Tony Li
V4	2024/07/12	Addressed TCB Questions on Section 9	Tony Li
V5	2024/08/14	Updated section 2, 9.2 and 9.3 to identify the 320MHz limit for emissions bandwidth	Tony Li
V6.1	2024/08/23	Updated Section 2, 9.2, 9.3 statements regarding limit for emissions bandwidths Updated Section 10 to add set up diagram	Tony Li

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1. ATTESTATION OF TEST RESULTS

Applicant Name and Address	APPLE INC. 1 APPLE PARK WAY CUPERTINO, CA 95014, U.S.A.
Model	A3083 (Parent Model) A3292, A3293, A3294 (Variant Models)
Brand	APPLE
FCC ID	BCG-E8666A (Parent Model) BCG-E8667A, BCG-E8668A, BCG-E8683A (Variant Models)
EUT Description	SMARTPHONE
Serial Number	C07GYF0008T0000FDV, C07H4F0015B0000FDT, QKPYHGJC7L, XK3DWHQHQW.
Sample Receipt Date	2023/12/19
Date Tested	2024/02/05 to 2024/06/24
Applicable Standards	CFR 47 Part 15 Subpart E
Test Results	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. This report must not be used by the client to claim product certification, approval, or endorsement by A2LA, NIST, any agency of the Federal Government, or any agency of the U.S. government.

Approved & Released By:	Prepared & Reviewed By:
Francisco de Anda Staff Engineer UL Verification Services, Inc.	Tony Li Lead Test Engineer UL Verification Services, Inc.

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 the validity of results after the integration of the data provided by the customer.

Below is a list of the data provided by the customer:
1. Antenna gain and type (see section 6.3)
2. Cable loss (see section 6.3)

Requirement Description	Requirement Clause Number (FCC)	Result	Comment
Duty Cycle	-	Reporting purposes only	ANSI C63.10 Section 12.2
99% BW	§15.407 (a) (11) KDB 987594 D03 v02 Q18	Compliant	ANSI C63.10 Section 6.9.3
26dB BW			ANSI C63.10 Section 6.9.3
Output Power EIRP	§15.407 (a) (7), (8)	Compliant	Dual Client
PSD EIRP	§15.407 (a) (7), (8)	Compliant	Dual Client
Emissions outside 5.925-7.125 GHz band	§15.407 (b) (6)	Compliant	None
Emissions within 5.925-7.125 GHz Band (Emissions Mask)	§15.407 (b) (7)	Compliant	None
Unwanted emissions in restricted bands	§15.205	Compliant	None
Radiated Spurious Emissions	§15.209	Compliant	None
AC Mains Conducted Emissions	§15.207	Compliant	None

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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 D01 v02r01
-   FCC KDB 789033 D02 v02r01
-   FCC KDB 987594 D01 General Requirements v02r02
-   FCC KDB 987594 D02 EMC Measurement v02r01
-   KDB 414788 D01 Radiated Test Site v01r01
-   ANSI C63.10-2013

4. FACILITIES AND ACCREDITATION

UL Verification Services Inc. is accredited by A2LA, certification #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}
Conducted Antenna Port Emission Measurement	1.940 dB
Power Spectral Density	2.466 dB
Time Domain Measurements Using SA	3.39 %
RF Power Measurement Direct Method Using Power Meter	0.450 dB (Peak) 1.300 dB (Ave)
Radio Frequency (Spectrum Analyzer)	141.16 Hz
Occupied Bandwidth	1.22%
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

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

6. EQUIPMENT UNDER TEST

6.1.   EUT DESCRIPTION

The Apple iPhone is a smartphone with cellular GSM, GPRS, EGPRS, WCDMA, LTE, 5GNR1, 5GNR2, IEEE 802.11a/b/g/n/ac/ax/be, Bluetooth (BT), Ultra-Wideband (UWB), Global Positioning System (GPS), Near-Field Communication (NFC), Narrow-Band (NB) UNII, 802.15.4, 802.15.4ab-Narrow Band (NB), WPT and Mobile Satellite Service (MSS) technologies. The rechargeable battery is not user accessible. This device is not user-serviceable and requires special tools to disassemble.

This report covers 6E 802.11 ax/be Wifi radio.

6.1.1. EUT DEVICE CLASS CATEGORY

Dual Client (6CD)	U-NII Bands of Operation			
	5	6	7	8
Indoor Client	☒	☒	☒	☒
Standard Client	☒	☐	☒	☐

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6.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum EIRP output power as follows:

6.2.1. LP

UNII-5 BAND

Frequency Range (MHz)	Mode	Output Power EIRP (dBm)	Output Power EIRP (mW)
UNII-5 Band, 1TX			
5955-6415	802.11be EHT20	8.62	7.28
5965-6405	802.11be EHT40	11.61	14.49
5985-6385	802.11be EHT80	14.57	28.64
6025-6345	802.11be EHT160	16.84	48.31
UNII-5 Band, 2TX			
5955-6415	802.11be EHT20 CDD	5.86	3.85
5955-6415	802.11be EHT20 SDM	8.62	7.28
5965-6405	802.11be EHT40 CDD	8.87	7.71
5965-6405	802.11be EHT40 SDM	11.62	14.52
5985-6385	802.11be EHT80 CDD	11.89	15.45
5985-6385	802.11be EHT80 SDM	14.60	28.84
6025-6345	802.11be EHT160 CDD	14.09	25.64
6025-6345	802.11be EHT160 SDM	16.86	48.53

UNII-6 BAND

Frequency Range (MHz)	Mode	Output Power EIRP (dBm)	Output Power EIRP (mW)
UNII-6 Band, 1TX			
6435 - 6515	802.11be EHT20	8.58	7.21
6445 - 6525	802.11be EHT40	11.64	14.59
6465	802.11be EHT80	14.59	28.77
6505	802.11be EHT160, Straddle Channel	16.74	47.21
UNII-6 band, 2TX			
6435 - 6515	802.11be EHT20 CDD	5.91	3.90
6435 - 6515	802.11be EHT20 SDM	8.65	7.33
6445 - 6525	802.11be EHT40 CDD	9.01	7.96
6445 - 6525	802.11be EHT40 SDM	11.72	14.86
6465	802.11be EHT80 CDD	11.93	15.60
6465	802.11be EHT80 SDM	14.66	29.24
6505	802.11be EHT160 CDD, Straddle	14.23	26.49
6505	802.11be EHT160 SDM Straddle	16.94	49.43

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UNII-7 BAND

Frequency Range (MHz)	Mode	Output Power EIRP (dBm)	Output Power EIRP (mW)
UNII-7 Band 1TX			
6535 - 6875	802.11be EHT20	8.45	7.00
6565 - 6845	802.11be EHT40	11.45	13.96
6545 - 6865	802.11be EHT80	14.45	27.86
6665 - 6825	802.11be EHT160	16.67	46.45
UNII-7 Band 2TX			
6535-6875	802.11be EHT20 CDD	6.30	4.27
6535-6875	802.11be EHT20 SDM	8.76	7.52
6565-6845	802.11be EHT40 CDD	9.13	8.18
6565-6845	802.11be EHT40 SDM	11.62	14.52
6545-6865	802.11be EHT80 CDD	12.29	16.94
6545-6865	802.11be EHT80 SDM	14.81	30.27
6665-6825	802.11be EHT160 CDD	14.51	28.25
6665-6825	802.11be EHT160 SDM	17.04	50.58

UNII-8 BAND

Frequency Range (MHz)	Mode	Output Power EIRP (dBm)	Output Power EIRP (mW)
UNII-8 Band 1TX			
6895-7115	802.11be EHT20	8.69	7.40
6885-7085	802.11be EHT40	11.72	14.86
6945-7025	802.11be EHT80	14.71	29.58
6985	802.11be EHT160	16.93	49.32
UNII-8 Band 2TX			
6895-7115	802.11be EHT20 CDD	5.77	3.78
6895-7115	802.11be EHT20 SDM	8.53	7.13
6885-7085	802.11be EHT40 CDD	9.28	8.47
6885-7085	802.11be EHT40 SDM	11.71	14.83
6945-7025	802.11be EHT80 CDD	11.79	15.10
6945-7025	802.11be EHT80 SDM	14.52	28.31
6985	802.11be EHT160 CDD	13.90	24.55
6985	802.11be EHT160 SDM	16.79	47.75

6.2.2. SP

UNII-5 BAND

Frequency Range (MHz)	Mode	Output Power EIRP (dBm)	Output Power EIRP (mW)
UNII-5 Band, 1TX			
5955-6415	802.11be EHT20	22.02	159.22
5965-6405	802.11be EHT40	22.06	160.69
5985-6385	802.11be EHT80	22.01	158.85
6025-6345	802.11be EHT160	22.04	159.96
UNII-5 Band, 2TX			
5955-6415	802.11be EHT20 CDD	23.37	217.27
5955-6415	802.11be EHT20 SDM	Covered by 802.11be EHT20 CDD	
5965-6405	802.11be EHT40 CDD	23.39	218.27
5955-6405	802.11be EHT40 SDM	Covered by 802.11be EHT40 CDD	
5985-6385	802.11be EHT80 CDD	23.39	218.27
5985-6385	802.11be EHT80 SDM	Covered by 802.11be EHT80 CDD	
6025-6345	802.11be EHT160 CDD	23.36	216.77
6025-6345	802.11be EHT160 SDM	Covered by 802.11be EHT160 CDD	

UNII-7 BAND (FCC)

Frequency Range (MHz)	Mode	Output Power EIRP (dBm)	Output Power EIRP (mW)
UNII-7 Band 1TX			
6535-6855	802.11be EHT20	21.98	157.76
6565-6845	802.11be EHT40	21.98	157.76
6625-6785	802.11be EHT80	21.98	157.76
6665	802.11be EHT160	21.96	157.04
UNII-7 Band 2TX			
6535-6855	802.11be EHT20 CDD	22.86	193.20
6535-6855	802.11be EHT20 SDM	Covered by 802.11be EHT20 CDD	
6565-6845	802.11be EHT40 CDD	22.85	192.75
6565-6845	802.11be EHT40 SDM	Covered by 802.11be EHT40 CDD	
6625-6785	802.11be EHT80 CDD	22.86	193.20
6625-6785	802.11be EHT80 SDM	Covered by 802.11be EHT80 CDD	
6665	802.11be EHT160 CDD	22.87	193.64
6665	802.11be EHT160 SDM	Covered by 802.11be EHT160 CDD	

6.3. DESCRIPTION OF AVAILABLE ANTENNAS AND CABLE LOSS

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

Type: IFA

Frequency Range (MHz)	Sub-band (MHz)	Antenna 6 (dBi)	Antenna 5 (dBi)	Uncorrelated Chains (dBi)	Correlated Chains (dBi)
5925 - 6425 UNII-5	Sub-band 1 (5955 - 6095)	0.10	-1.10	-0.46	2.53
	Sub-band 2 (6115 - 6255)	0.90	-2.40	-0.44	2.42
	Sub-band 3 (6275 - 6415)	1.60	-2.90	-0.09	2.65
6425 - 6525 UNII-6	N/A	1.90	-3.70	-0.05	2.55
UNII-6/7 (Straddle Channel)	N/A	2.00	-3.70	0.02	2.62
6525 - 6875 UNII-7	N/A	2.00	-4.40	-0.11	2.39
UNII-7/8 (Straddle Channel)	N/A	2.00	-3.50	0.07	2.69
6875 - 7125 UNII-8	N/A	1.00	-3.50	-0.69	2.05

Type: SMA

Cable Loss		
Frequency Range (MHz)	Antenna 6 (dB)	Antenna 5 (dB)
5925-6105	2.93	3.20
6105-6265	2.93	3.20
6265-6425	2.98	3.40
6425-6525	3.03	3.45
6525-6875	3.08	3.60
6875-7125	3.08	3.50

The cables were used for RF antenna port tests that had been offset to the test equipment during testing.

Note: ANT1 and ANT2 indicated in the test result sections are representative of ANT6 and ANT5, respectively.

6.4. SOFTWARE AND FIRMWARE

The EUT firmware installed during testing was 27_20_111_38.

6.5. WORST-CASE CONFIGURATION AND MODE

This device is classified as dual client and programmed with two output power levels: indoor client mode (LP) & standard client mode (SP).

For RF conducted tests, indoor client mode has been tested with SISO and 2TX CDD and SDM MIMO modes; for standard client mode, SISO and 2TX CDD modes were tested as 2TX CDD and SDM modes have the same tune up levels and 2TX CDD mode was tested on all antenna ports after investigation.

The 802.11a mode 20MHz covered by the 802.11ax mode since both have the same power.

Radiated was performed at the higher of the LP and SP power levels. The fundamental of the EUT was investigated in three orthogonal orientations X,Y,Z, it was determined that Y (Landscape) orientation was worst-case orientation for ANT6 and Z (Portrait) was the worst-case orientation for ANT5 and 2TX.

With same power on Full RU and SU higher data rate, investigations were performed on both for band edge to determine the worst case, and SU mode was determined to be the worst case. Radiated emissions below 1GHz, 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 below 30MHz within 20dB of the limit.

For radiated harmonics spurious below 1GHz, 1-18GHz L/M/H channels, 18-26GHz, 26-40GHz and power line conducted emissions were performed with the EUT set at the 2TX CDD mode among the CDD/SDM modes and 2TX EHT modes with power setting equal or higher than SISO modes as worst-case scenario.

For radiated band edge test, all test modes have been investigated with power setting equal or higher than conducted SISO modes as the worst-case scenario.

Below 1GHz tests were performed with EUT connected to AC power adapter as the worst case; and for above 1GHz tests, the worst-case configuration reported was with EUT only. For AC line conducted emission, test was investigated with AC power adapter and with laptop.

For conducted testing - all tests perform on both SU (highest output power) and Partial RU tones (highest PSD reading).

Low data rate was used to test on antenna port conducted tests and radiated spurious emissions since it has the highest maximum power. For the radiated band edge on UNII-5 (low channel) & UNII-8 (high channel), following are the worst-case data rates set for test:

802.11be EHT20/EHT40/EHT80/EHT160 Partial RU Tones and SU modes: MCS0 & MCS11 (report MCS11 only as worst-case mode).
802.11be EHT20 Channel 233: supports SU Mode only per manufacturer.

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 or lower than that of 802.11be mode, and the data rate of 802.11be mode is higher than 802.11ax mode, so 802.11be mode was tested to represent worst-case reporting.

For mask and bandwidth measurements partial RU allocations are tested with the RUs allocated at the lower and upper positions within the channel for the low mid and high channels in each band. Additionally, the center channel is also tested with the RU allocated in the center of the channel to verify that the low / high RU allocations are worst case.

After the investigation, it was found that the worst case of power and PSD modes for full testing as table shown below, in addition we also spot-checked Full RU and the rest of Partial RU modes on radiated bandedge, conducted emissions mask, and radiated spurious emissions.

6.5.1. LP

BW (MHz)	Tone (T)	RU Index	RU Index from Chipset support	Worst Case Tone (UNII-5)		Worst Case Tone (UNII-6)		Worst Case Tone (UNII-7)		Worst Case Tone (UNII-8)	
				Power	PSD	Power	PSD	Power	PSD	Power	PSD
20	26	0~8	0~8						X		
	52	37~40	37~40								
	52 + 26	70~81	70, 71, 72								
	106	53~54	53~54								
	106 + 26	82~89	82, 83		X		X				X
	242	61	61								
	SU	--	--	X		X		X		X	
40	26	0~17	0~17								
	52	37~44	37~44								
	52 + 26	70~81	70, 72, 72, 73, 74, 75								
	106	53~56	53~56								
	106 + 26	82~89	82, 83, 84, 85		X		X		X		X
	242	61~61	61~62								
	484	65	65								
	SU	--	--	X		X		X		X	
80	26	0~36	0~36								
	52	37~52	37~52		X		X		X		
	52 + 26	70~81	71,72,73,74,77,78,79,80								
	106	53~60	53~60								
	106 + 26	82~89	82, 85, 86, 89								
	242	61~64	61~64								
	484	65~66	65~66								X
	484 + 242	90, 91, 92, 93	90, 91, 92, 93								
	996	67	67								
	SU	--	--	X		X		X		X	
160	26	0~S36	0~S36								
	52	37~S52	37~S52								
	52 + 26	70~S81	sb0: 71,72,73,74,77,78,79,80 sb1: 71,72,73,74,77,78,79,80								
	106	53~S60	53~S60								
	106 + 26	82~89	82, 85, 86, 89								
	242	61~S64	61~S64								
	484	65~S66	65~S66		X		X		X		X
	484 + 242	sb0: 90, 91, 92, 93 sb1: 90, 91, 92, 93	sb0: 90, 91, 92, 93 sb1: 90, 91, 92, 93								
	996	67~S67	67~S67								
	996 + 484	sb0: 94, 95 sb1: 94, 95	sb0: 94, 95 sb1: 94, 95								
	996 + 484 + 242	sb0: 96, 97, 98, 99 sb1: 96, 97, 98, 99	sb0: 96, 97, 98, 99 sb1: 96, 97, 98, 99								
	996x2	S68	S68								
	SU	--	--	X		X		X		X	

6.5.2. SP

BW (MHz)	Tone (T)	RU Index	RU Index from Chipset support	Worst Case Tone (UNII-5)		Worst Case Tone (UNII-6)		Worst Case Tone (UNII-7)		Worst Case Tone (UNII-8)	
				Power	PSD	Power	PSD	Power	PSD	Power	PSD
20	26	0～8	0～8								
	52	37～40	37～40		X				X		
	52 + 26	70～81	70, 71, 72								
	106	53～54	53～54								
	106 + 26	82～89	82, 83								
	242	61	61								
	SU	--	--	X				X			
40	26	0～17	0～17								
	52	37～44	37～44								
	52 + 26	70～81	70, 72, 72, 73, 74, 75								
	106	53～56	53～56								
	106 + 26	82～89	82, 83, 84, 85								
	242	61～61	61～62		X				X		
	484	65	65								
	SU	--	--	X				X			
80	26	0～36	0～36								
	52	37～52	37～52								
	52 + 26	70～81	71,72,73,74,77,78,79,80								
	106	53～60	53～60								
	106 + 26	82～89	82, 85, 86, 89								
	242	61～64	61～64		X				X		
	484	65～66	65～66								
	484 + 242	90, 91, 92, 93	90, 91, 92, 93								
	996	67	67								
	SU	--	--	X				X			
160	26	0～S36	0～S36								
	52	37～S52	37～S52								
	52 + 26	70～S81	sb0: 71,72,73,74,77,78,79,80 sb1: 71,72,73,74,77,78,79,80								
	106	53～S60	53～S60								
	106 + 26	82～89	82, 85, 86, 89								
	242	61～S64	61～S64		X				X		
	484	65～S66	65～S66								
	484 + 242	sb0: 90, 91, 92, 93 sb1: 90, 91, 92, 93	sb0: 90, 91, 92, 93 sb1: 90, 91, 92, 93								
	996	67～S67	67～S67								
	996 + 484	sb0: 94, 95 sb1: 94, 95	sb0: 94, 95 sb1: 94, 95								
	996 + 484 + 242	sb0: 96, 97, 98, 99 sb1: 96, 97, 98, 99	sb0: 96, 97, 98, 99 sb1: 96, 97, 98, 99								
	996x2	S68	S68								
	SU	--	--	X				X			

6.6.   DESCRIPTION OF TEST SETUP

SUPPORT TEST EQUIPMENT				
Description	**Manufacturer**	**Model**	**Serial Number**	**FCC ID/ DoC**
Laptop	Apple	Macbook Pro	C02VD7SAHV22	BCGA1708
Laptop AC/DC adapter	Liteon Technology	A1424	NSW25679	DoC
EUT AC/DC adapter	Apple	A1720	C3D8417A7R93KVPA8	DoC
Conducted Switch Box	UL	n/a	208281	N/A

I/O CABLES (RF CONDUCTED TEST)						
Cable No.	**Port**	**# of Identical Ports**	**Connector Type**	**Cable Type**	**Cable Length (m)**	**Remarks**
1	SMA	1	SMA	Shielded	0.75	To spectrum Analyzer
2	Antenna	2	SMA	Shielded	0.2	To Conducted Switch Box
3	USB-C	1	USB-C	Shielded	1.0	N/A
4	AC	1	AC	Un-shielded	2	N/A

I/O CABLES (RF RADIATED AND AC LINE CONDUCTED TEST)						
Cable No.	**Port**	**# of Identical Ports**	**Connector Type**	**Cable Type**	**Cable Length (m)**	**Remarks**
1	DC	1	DC	Un-shielded	2	N/A
2	USB	1	USB-C	Shielded	1	N/A

TEST SETUP

The EUT setup is shown as below. Test software exercised the radio card.

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SETUP DIAGRAM FOR CONDUCTED TESTS
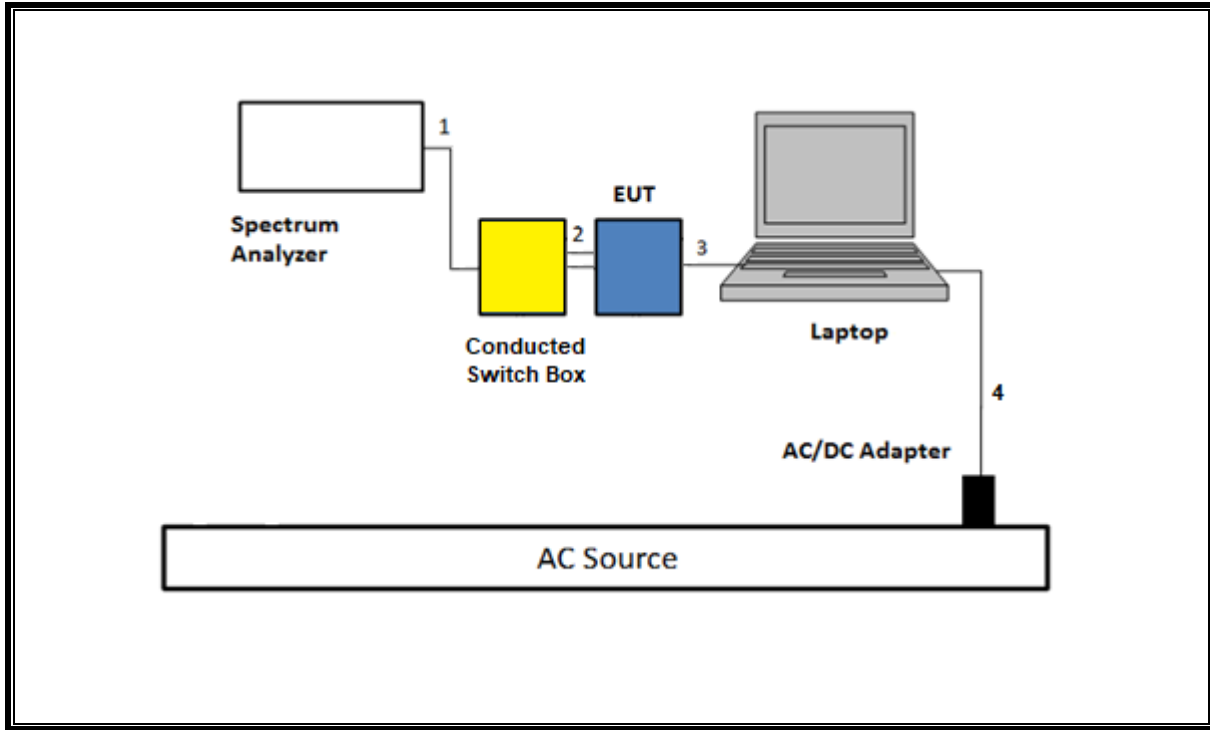
SETUP DIAGRAM FOR RADIATED TESTS Above 1 GHz (1 to 40GHz)

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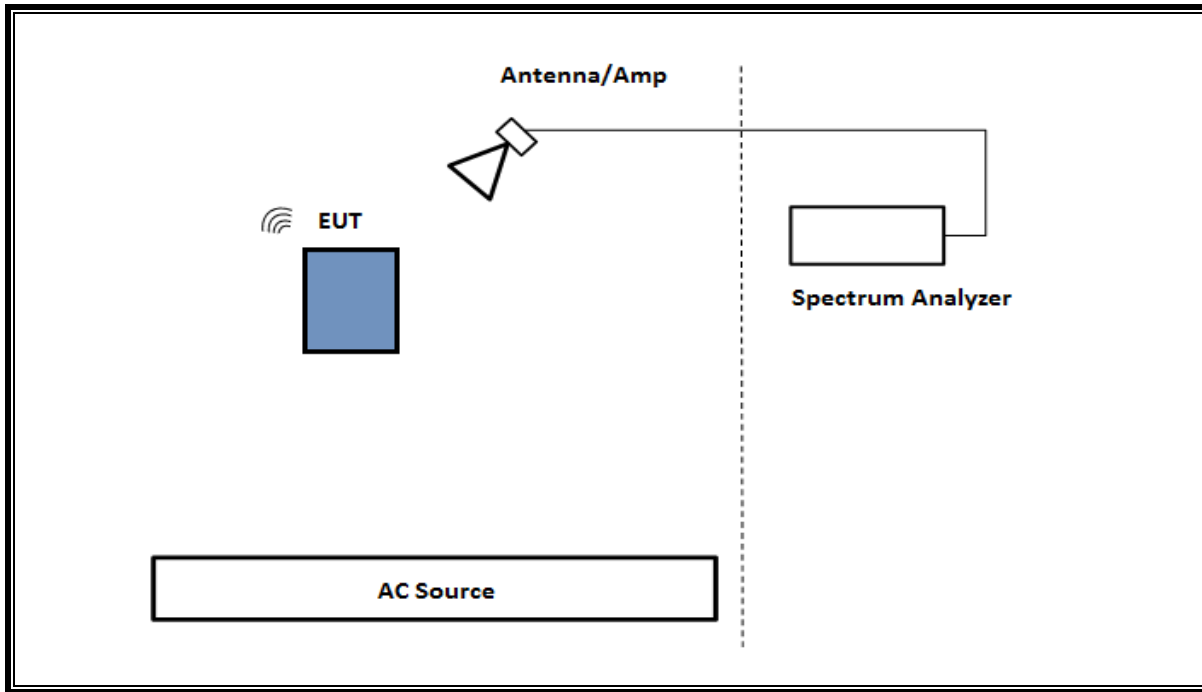
SETUP DIAGRAM FOR 30-1000MHz and AC LINE CONDUCTED TEST
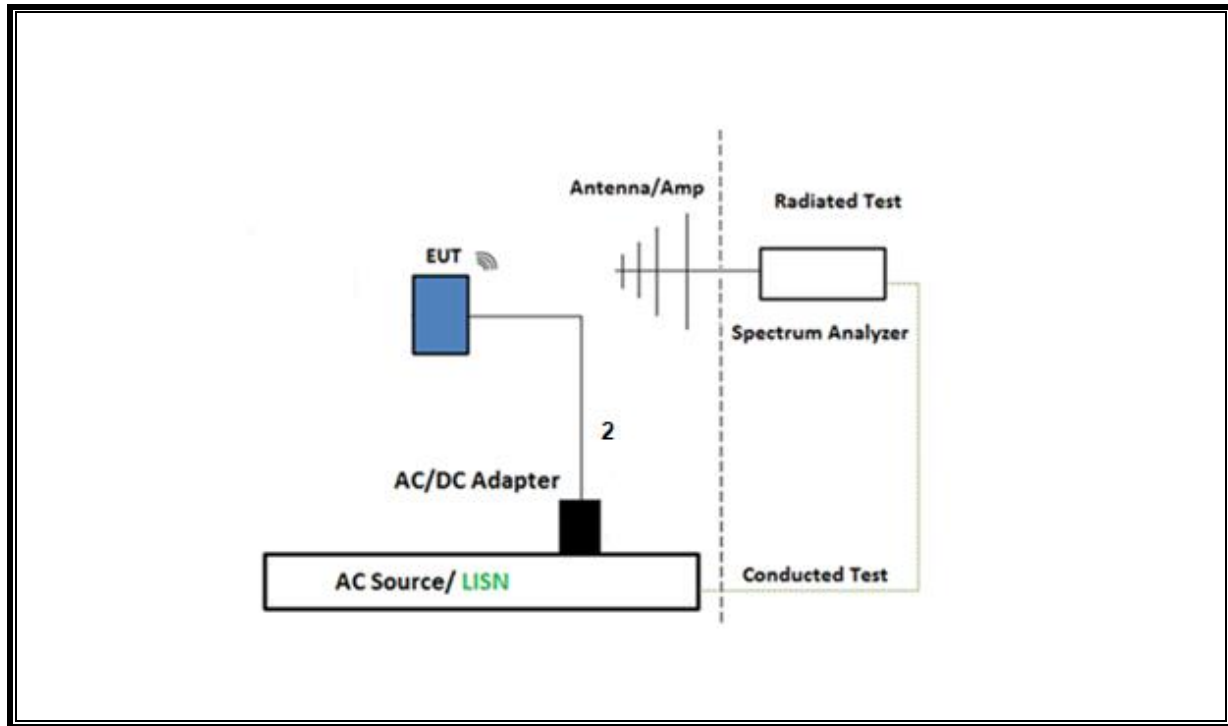
TEST SETUP- AC LINE CONDUCTED: LAPTOP CONFIGURATION

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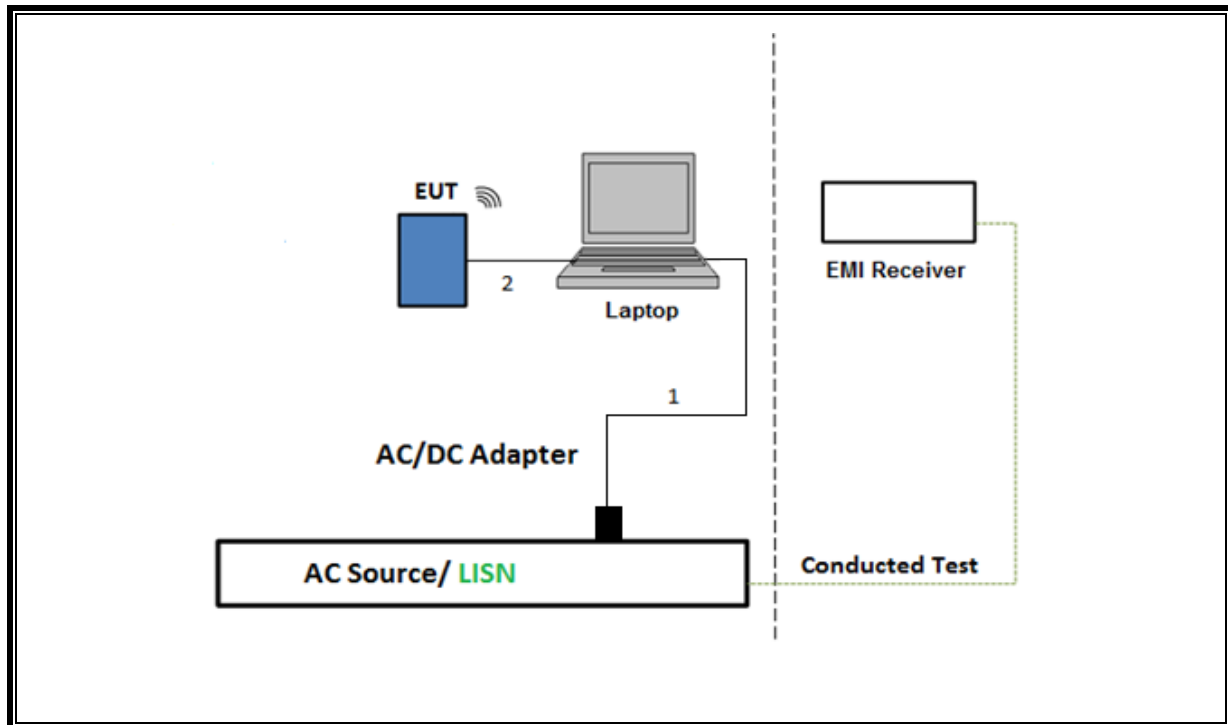
7. MEASUREMENT METHOD

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

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

99% Occupied Bandwidth: KDB 789033 D02 v02r01, Section II-D

Conducted Output Power: KDB 789033 D02 v02r01, Section II E.3.b (Method PM-G).

Power Spectral Density (PSD): KDB 789033 D02 v02r01, Section F

Spurious emissions within 5.925-7.125 GHz Band (Emissions Mask): KDB 987594 D02 EMC Measurement Section II-J

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

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, Horn 1-18GHz	ETS-Lindgren (Cedar Park, Texas)	3117	200785	2024/10/31	2022/10/25
Antenna, Horn 1-18GHz	ETS-Lindgren (Cedar Park, Texas)	3117	206807	2025/02/29	2023/02/14
RF Filter Box, 1-18GHz, 12 Port.	UL-FR1	Frankenstein	230878	2025/05/16	2024/05/16
EMI TEST RECEIVER	Rohde & Schwarz	ESW44	191428	2025/02/17	2024/02/17
Antenna, Horn 1-18GHz	ETS-Lindgren (Cedar Park, Texas)	3117	80430	2024/08/31	2022/08/08
RF Filter Box, 1-18GHz	UL-FR1	Frankenstein, 2 Amp version	237597	2024/09/30	2023/09/13
EMI TEST RECEIVER	Rohde & Schwarz	ESW44	169935	2025/02/28	2024/02/11
Antenna, Horn 1-18GHz	ETS-Lindgren (Cedar Park, Texas)	3117	80403	2024/06/30	2023/06/22
RF Filter Box, 1-18GHz, 17 Ports	UL-FR1	RATS 2	236726	2024/10/30	2023/10/10
EMI TEST RECEIVER	Rohde & Schwarz	ESW44	223460	2025/02/28	2024/02/19
Antenna, Horn 1-18GHz	ETS-Lindgren (Cedar Park, Texas)	3117	81887	2025/03/31	2023/03/20
RF Filter Box, 1-18GHz, 17 Ports	UL-FR1	RATS 2	225474	2025/04/30	2024/04/20
EMI TEST RECEIVER	Rohde & Schwarz	ESW44	201502	2025/02/28	2024/02/19
Antenna, Horn 1-18GHz	ETS-Lindgren	3117	222740	2024/08/31	2022/08/31
RF Filter Box, 1-18GHz, 17 Ports	UL-FR1	RATS 2	226781	2024/10/30	2023/10/10
EMI TEST RECEIVER	Rohde & Schwarz	ESW44	226078	2025/02/28	2024/02/18
Antenna, BroadBand Hybrid, 30MHz to 3GHz	SUNOL SCIENCES CORP.	JB3	230634	2025/01/31	2023/01/23
Amplifier, 9KHz to 1GHz, 32dB	SONOMA INSTRUMENT	310	79584	2025/01/31	2023/01/23
EMI TEST RECEIVER	Rohde & Schwarz	ESW44	235266	2025/02/28	2024/02/18
Antenna, Horn 18 to 26.5GHz	A.R.A.	MWH-1826/B	81139	2024/08/31	2023/08/08
RF Amplifier Assembly, 18-26.5GHz, 60dB Gain	AMPLICAL	AMP18G26.5-60	220194	2025/03/31	2024/03/11
Antenna, Horn 26.5 to 40GHz	A.R.A.	MWH-2640/B	172369	2025/11/30	2023/11/03
RF Amplifier Assembly, 26-40GHz, 65dB Gain	AMPLICAL	AMP26G40-65	221834	2025/03/31	2024/03/11
Conducted Switch Box	N/A	CSB	187984	2025/05/31	2024/05/09

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Below are Conducted Items					
Power Meter, P-series single channel	Keysight Technologies Inc	N1911A	90731	2025/01/31	2024/01/25
Power Sensor, P - series, 50MHz to 18GHz, Wideband	Keysight Technologies Inc	N1921A	80120	2025/01/31	2024/01/25
Power Meter, P-series single channel	Keysight Technologies Inc	N1911A	90719	2025/01/31	2024/01/25
Power Sensor, P - series, 50MHz to 18GHz, Wideband	Keysight Technologies Inc	N1921A	90389	2025/01/31	2024/01/25
10dB Fixed Attenuator	Pasternack Enterprises	PE7087-10	178557	Verified Before Use	
10dB Fixed Attenuator	Pasternack Enterprises	PE7087-10	178558	Verified Before Use	
Spectrum Analyzer, PXA, 3Hz to 44GHz	Keysight Technologies Inc	N9030A	80397	2025/01/31	2024/01/24
Spectrum Analyzer, PXA, 3Hz to 50GHz w/Ext. Mixer	Keysight Technologies Inc	N9030A	80400	2025/02/02	2024/02/07
Spectrum Analyzer, PXA, 3Hz to 44GHz	Keysight Technologies Inc	N9030A	125178	2025/01/31	2024/01/24
PXA Signal Analyzer 2Hz to 44GHz	Keysight Technologies Inc	N9030B	231739	2025/01/31	2024/01/31
Conducted Switch Box	N/A	CSB	208281	2025/05/30	2024/05/08
Antenna, Passive Loop 30Hz to 1MHz	Electro-Metrics	EM-6871	170013	2024/07/31	2023/07/31
Antenna, Passive Loop 100KHz - 30MHz	ELECTRO-METRICS	EM-6872	170015	2024/07/31	2023/07/31

AC Line Conducted					
Description	**Manufacturer**	**Model**	**ID Num**	**Cal Due**	**Last Cal**
EMI Test Receiver 9kHz-7GHz	Rohde & Schwarz	ESR	93091	2025/02/28	2024/02/28
LISN for Conducted Emissions CISPR-16	FISCHER CUSTOM COMMUNICATIONS	FCC-LISN-50/250-25-2-01-480V	175765	2025/01/31	2024/01/31
Transient Limiter	TE	TBFL1	207996	2024/08/31	2023/08/31
UL AUTOMATION SOFTWARE					
Radiated Software	UL	UL EMC	Ver 9.5, May 1, 2023		
Conducted Software	UL	UL EMC	2023.2.23		
AC Line Conducted Software	UL	UL EMC	Ver 9.5, Mar 3, 2023		

*Testing was completed before equipment calibration 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	Tone (T)	Data Rate (Mbps)	ON Time B (msec)	Period (msec)	Duty Cycle x (linear)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	1/B Minimum VBW (kHz)
EHT20	SU	MCS0	6.360	6.400	0.9938	99.38%	0.00	0.010
		MCS11	0.161	0.186	0.8652	86.52%	0.63	6.231
	52T	MCS0	3.763	3.800	0.9903	99.03%	0.00	0.010
		MCS11	2.778	3.154	0.8808	88.08%	0.55	0.360
	26T	MCS0	8.000	8.060	0.9926	99.26%	0.00	0.010
		MCS11	0.292	0.329	0.8875	88.75%	0.52	3.425
	MRU 106 + 26T	MCS0	3.540	3.580	0.9888	98.88%	0.00	0.010
		MCS11	0.264	0.284	0.9296	92.96%	0.32	3.788
EHT40	SU	MCS0	3.041	3.093	0.9832	98.32%	0.00	0.010
		MCS11	0.247	0.299	0.8259	82.59%	0.83	4.055
	242T	MCS0	3.043	3.081	0.9877	98.77%	0.00	0.010
		MCS11	233.600	272.100	0.8585	85.85%	0.66	0.004
	MRU 106 + 26T	MCS0	0.813	0.849	0.9576	95.76%	0.19	1.230
		MCS11	0.105	0.143	0.7368	73.68%	1.33	9.524
EHT80	SU	MCS0	1.956	2.020	0.9683	96.83%	0.14	0.511
		MCS11	0.182	0.241	0.7575	75.75%	1.21	5.482
	242T	MCS0	3.041	3.082	0.9867	98.67%	0.00	0.010
		MCS11	234.900	273.400	0.8592	85.92%	0.66	0.004
	484T	MCS0	8.025	8.055	0.9963	99.63%	0.00	0.010
		MCS11	0.291	0.313	0.9297	92.97%	0.32	3.436
	52T	MCS0	2.003	2.058	0.9733	97.33%	0.12	0.499
		MCS11	0.170	0.214	0.7910	79.10%	1.02	5.896
EHT160	SU	MCS0	1.011	1.071	0.9440	94.40%	0.25	0.989
		MCS11	0.125	0.189	0.6605	66.05%	1.80	8.032
	242T	MCS0	3.043	3.082	0.9873	98.73%	0.00	0.010
		MCS11	235.000	274.200	0.8570	85.70%	0.67	0.004
	484T	MCS0	8.025	8.070	0.9944	99.44%	0.00	0.010
		MCS11	0.292	0.313	0.9335	93.35%	0.30	3.425

Mode	Tone (T)	Data Rate (Mbps)	ON Time B (msec)	Period (msec)	Duty Cycle x (linear)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	1/B Minimum VBW (kHz)
EHT20 SDM	SU	MCS0	1.583	1.603	0.9879	98.79%	0.00	0.010
	26T	MCS0	3.985	4.021	0.9909	99.09%	0.00	0.010
	MRU 106 + 26T	MCS0	3.550	3.580	0.9916	99.16%	0.00	0.010
EHT40 SDM	SU	MCS0	1.564	1.584	0.9872	98.72%	0.00	0.010
	MRU 106 + 26T	MCS0	0.300	0.301	0.9966	99.66%	0.00	0.010
EHT80 SDM	SU	MCS0	0.738	0.790	0.9336	93.36%	0.30	1.356
	484T	MCS0	8.025	8.055	0.9963	99.63%	0.00	0.010
	52T	MCS0	3.791	3.858	0.9826	98.26%	0.00	0.010
EHT160 SDM	SU	MCS0	0.515	0.577	0.8917	89.17%	0.50	1.944
	484T	MCS0	4.025	4.059	0.9916	99.16%	0.00	0.010

Note: There are same duty cycle factor on 1TX and 2TX.

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DUTY CYCLE PLOTS

	Intentionally Blank
DUTY CYCLE 802.11be EHT20 RU26, MCS0	

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9.2. LP 26 dB AND 99% BANDWIDTH

LIMITS

§15.407 (a) (11)

The maximum bandwidth for U-NII devices in the 5.925-7.125 GHz band is 320 MHz. KDB 987594 D03 U-NII 6 GHz QA v02, modified by FCC TCB Workshop Presentation Review of TCB PAG Submissions - October 2023, allows the maximum bandwidths to be defined by either the 26dB bandwidth or the 99% bandwidth for a 320 MHz nominal channel bandwidth and by the 26dB bandwidth for all other nominal channel bandwidths. The KDB requires that the test report show the 99% and 26 dB bandwidth for all the nominal channel bandwidths used by the device.

PROCEDURE

ANSI C63.10: 2013 §6.9

Band	Tones	20MHz	40MHz	80MHz	160MHz
UNII-5	Partial RU	300kHz/910kHz	510kHz/1.6MHz	510kHz/1.6MHz	1MHz/3MHz
	SU	300kHz/910kHz	510kHz/1.6MHz	1MHz/3MHz	2MHz/6MHz
UNII-6	Partial RU	300kHz/910kHz	510kHz/1.6MHz	510kHz/1.6MHz	1MHz/3MHz
	SU	300kHz/910kHz	510kHz/1.6MHz	1MHz/3MHz	2MHz/6MHz
UNII-7	Partial RU	300kHz/910kHz	510kHz/1.6MHz	510kHz/1.6MHz	1MHz/3MHz
	SU	300kHz/910kHz	510kHz/1.6MHz	1MHz/3MHz	2MHz/6MHz
UNII-8	Partial RU	300kHz/910kHz	510kHz/1.6MHz	1MHz/3MHz	1MHz/3MHz
	SU	300kHz/910kHz	510kHz/1.6MHz	1MHz/3MHz	2MHz/6MHz

RESULTS

ID:	32543	Date:	5/16/2024

For mask and bandwidth measurements partial RU allocations are tested with the RUs allocated at the lower and upper positions within the channel for the low mid and high channels in each band. Additionally, the center channel is also tested with the RU allocated in the center of the channel to verify that the low / high RU allocations are worst case.

The plots in these sections are for reference settings only for different bandwidth and different antenna ports.

The tests performed on this device show that both 99% and 26dB bandwidths are less than 320 MHz. for all supported channel bandwidths.

9.2.1. 802.11be SISO MODE IN THE UNII-5 BAND

UNII-5 (SISO)	Frequency (MHz)	Channel Number	Tone	RU Index	26 dB Bandwidth (MHz)		99% Bandwidth (MHz)	
					Ant 1	Ant 2	Ant 1	Ant 2
20 MHz	5955	1	SU	--	21.03	21.33	19.0660	19.0000
			MRU106+26T	82	20.65	21.17	18.1250	17.8870
				83	21.39	21.59	18.0960	18.1300
	6175	45	SU	--	21.34	21.21	19.0970	19.0720
			MRU106+26T	82	21.30	21.29	17.7050	18.1380
				83	21.32	21.19	18.3030	18.2800
	6415	93	SU	--	21.43	21.16	19.0490	19.0470
			MRU106+26T	82	21.05	21.21	18.1490	18.1610
				83	21.48	21.09	18.2670	18.1600
40 MHz	5965	3	SU	--	40.14	39.97	37.6460	39.6730
			MRU106+26T	82	23.97	24.12	17.8120	17.7040
				--	--	--	--	--
				85	22.92	23.21	17.8600	17.8000
	6165	43	SU	--	40.12	40.02	37.6710	37.6650
			MRU106+26T	82	24.35	21.96	17.7980	17.7520
				84	28.80	28.31	19.6720	19.2460
				85	23.75	22.80	17.8940	17.9320
	6405	91	SU	--	40.06	40.11	37.6550	37.6720
			MRU106+26T	82	24.98	23.40	17.6430	17.8620
				--	--	--	--	--
				85	22.05	23.03	17.8400	17.9380
80MHz	5985	7	SU	--	81.78	81.49	77.4280	77.3180
			52T	37	19.61	18.86	17.9630	17.0720
				--	--	--	--	--
				52	22.18	20.89	18.2510	18.3370
	6145	39	SU	--	82.33	81.70	77.2530	77.3610
			52T	37	19.61	19.70	17.2500	18.1130
				45	24.16	22.63	20.7130	20.3410
				52	22.19	22.93	18.3390	18.1810
	6385	87	SU	--	82.21	81.45	77.2910	77.3790
			52T	37	19.77	19.31	18.1460	18.0270
				--	--	--	--	--
				52	22.35	21.36	18.2060	18.1310
160MHz	6025	15	SU	--	165.80	166.80	156.7500	157.2600
			484T	65	58.40	57.43	39.2840	39.0790
				S66	47.11	60.60	40.1070	39.4700
	6185	47	SU	--	165.50	164.60	157.1600	156.8000
			484T	65	58.81	50.87	38.9890	38.9500
				S66	61.85	63.13	39.8770	40.4990
	6345	79	SU	--	163.40	164.30	156.7100	156.9100
			484T	65	55.00	38.97	39.2070	54.5700
				S66	52.64	58.36	39.5500	40.0250

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20MHz - Mid Channel – SU (UNII-5) – Ant 1	20MHz - Mid Channel – MRU106+26T-RU82 - (UNII-5) – Ant 1

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9.2.2. 802.11be MIMO CDD MODE IN THE UNII-5 BAND

UNII-5 (MIMO CDD)	Frequency (MHz)	Channel Number	Tone	RU Index	26 dB Bandwidth (MHz)		99% Bandwidth (MHz)	
					Ant 1	Ant 2	Ant 1	Ant 2
20 MHz	5955	1	SU	--	20.86	20.79	19.1120	19.0340
			MRU106+26T	82	20.77	19.87	18.1260	17.0700
				83	20.70	21.10	18.2080	18.0310
	6175	45	SU	--	20.80	20.86	19.0530	19.0770
			MRU106+26T	82	20.57	19.91	18.1640	18.0730
				83	20.92	20.30	18.2710	18.0690
	6415	93	SU	--	20.98	21.00	19.0820	19.0600
			MRU106+26T	82	21.06	19.98	18.0470	18.0860
				83	21.50	20.32	18.2210	18.0820
40 MHz	5965	3	SU	--	40.05	40.13	37.6750	37.5980
			MRU106+26T	82	23.66	19.73	17.7080	17.7620
				--	--	--	--	--
				82	23.46	19.15	17.9690	17.6450
	6165	43	SU	--	40.04	40.11	37.6580	37.6920
			MRU106+26T	82	24.05	20.58	17.7740	17.7490
				84	27.34	25.18	19.4280	19.0460
				85	23.97	19.22	17.9010	17.6880
	6405	91	SU	--	39.91	39.87	37.6270	37.6780
			MRU106+26T	82	22.99	19.33	17.4080	17.7450
				--	--	--	--	--
				85	23.79	19.65	17.0050	17.6360
80MHz	5985	7	SU	--	81.06	80.24	77.1460	77.3160
			52T	37	18.77	19.48	17.0990	17.9450
				--	--	--	--	--
				52	21.81	19.35	18.0600	17.8470
	6145	39	SU	--	80.30	81.08	77.3510	77.3490
			52T	37	19.96	19.77	18.0950	17.6400
				45	24.54	22.78	20.8730	19.9380
				52	22.30	19.39	17.5950	17.7280
	6385	87	SU	--	81.47	81.33	77.1510	77.3580
			52T	37	19.44	19.60	17.0410	17.8250
				--	--	--	--	--
				52	23.01	19.52	18.3340	17.8360
160MHz	6025	15	SU	--	165.10	164.20	156.9100	156.8500
			484T	65	54.72	53.36	39.3110	38.8350
				S66	72.60	51.17	41.0070	39.1970
	6185	47	SU	--	164.70	162.80	156.9400	156.9300
			484T	65	55.76	48.96	39.5070	38.8210
				S66	62.54	53.41	40.7640	39.2250
	6345	79	SU	--	163.70	162.70	156.9800	156.9500
			484T	65	50.70	50.82	39.3070	38.8030
				S66	69.94	51.84	40.4820	38.8800
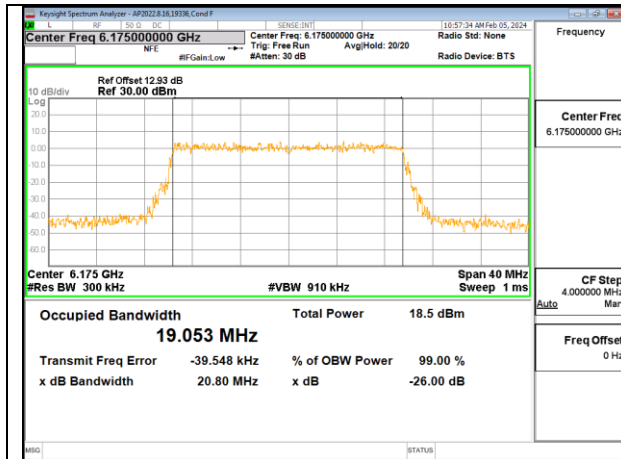
20MHz - Mid Channel – SU
(UNII-5) – Ant 1

20MHz - Mid Channel – SU
(UNII-5) – Ant 2
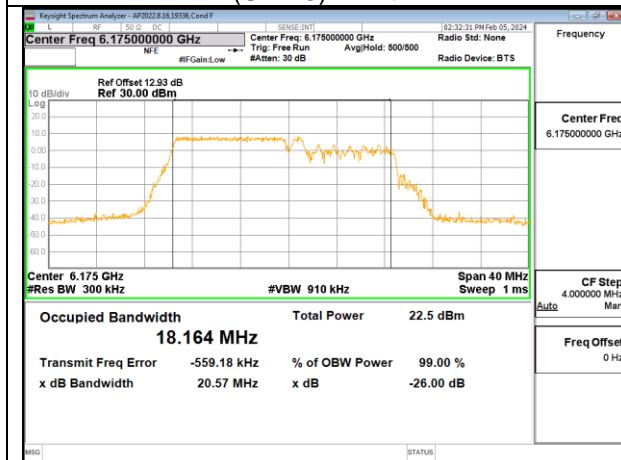
20MHz - Mid Channel – MRU106+26T-RU82
(UNII-5) – Ant 1
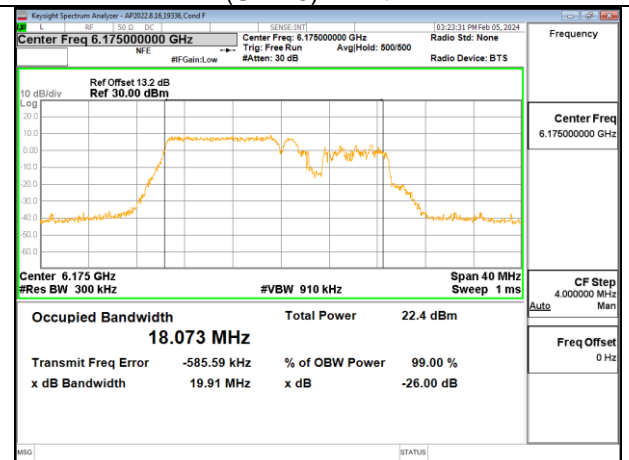
20MHz - Mid Channel – MRU106+26T-RU82
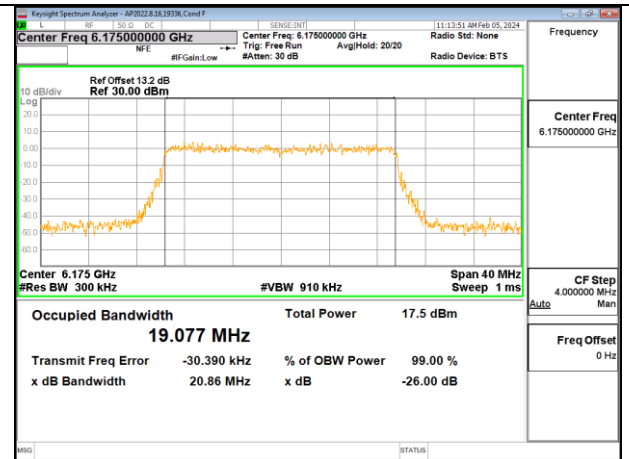(UNII-5) – Ant 2

9.2.3. 802.11be MIMO SDM MODE IN THE UNII-5 BAND

UNII-5 (MIMO SDM)	Frequency (MHz)	Channel Number	Tone	RU Index	26 dB Bandwidth (MHz)		99% Bandwidth (MHz)	
					Ant 1	Ant 2	Ant 1	Ant 2
20 MHz	5955	1	SU	--	20.66	20.68	19.1430	19.0950
			MRU106+26T	82	21.07	19.37	18.1780	17.9970
				83	21.24	18.94	18.2290	17.7120
	6175	45	SU	--	20.54	20.72	19.0950	19.0760
			MRU106+26T	82	21.06	18.68	18.2330	17.6620
				83	21.19	19.51	18.0980	18.0610
	6415	93	SU	--	20.73	20.45	19.1240	19.1060
			MRU106+26T	82	19.38	19.42	18.1800	18.1640
				83	20.24	19.39	18.2430	18.1550
40 MHz	5965	3	SU	--	39.28	39.26	37.5930	37.6150
			MRU106+26T	82	18.87	18.70	17.8370	17.6520
				--	--	--	--	--
				85	19.23	18.75	17.8330	17.6640
	6165	43	SU	--	39.38	39.31	37.7220	37.6640
			MRU106+26T	82	18.77	18.66	17.7560	17.5620
				84	22.48	19.24	19.4260	18.3170
				85	19.38	18.69	17.9720	17.7120
	6405	91	SU	--	39.32	39.37	37.6810	37.7010
			MRU106+26T	82	18.77	18.83	17.7900	17.7780
				--	--	--	--	--
				85	19.82	18.74	17.9010	17.6620
80MHz	5985	7	SU	--	80.01	80.06	77.3060	77.2540
			52T	37	19.96	18.76	18.1390	17.8050
				--	--	--	--	--
				52	22.19	18.53	18.2380	17.8740
	6145	39	SU	--	80.21	80.10	77.2790	77.3260
			52T	37	19.84	19.06	18.1100	17.9160
				45	22.65	19.68	20.3580	19.6800
				52	21.65	19.05	18.3750	17.9470
	6385	87	SU	--	79.98	80.29	77.2210	77.3440
			52T	37	19.78	18.86	17.9370	18.0020
				--	--	--	--	--
				52	20.08	18.91	18.1580	18.0150
160MHz	6025	15	SU	--	162.00	162.00	157.0900	157.1000
			484T	65	51.04	54.45	39.0670	38.7810
				S66	74.56	54.43	40.8580	38.9170
	6185	47	SU	--	162.20	164.30	157.2000	156.7700
			484T	65	57.57	56.27	39.2120	38.9720
				S66	66.47	50.34	40.6940	38.9670
	6345	79	SU	--	162.50	163.70	157.1000	157.2200
			484T	65	54.17	48.14	38.9110	38.7510
				S66	72.23	48.52	40.4420	38.8170

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20MHz - Mid Channel – SU (UNII-5) – Ant 1	20MHz - Mid Channel – MRU106+26T-RU82 - (UNII-5) – Ant 1

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9.2.4. 802.11be SISO MODE IN THE UNII-6 BAND

UNII-6 (SISO)	Frequency (MHz)	Channel Number	Tone	RU Index	26 dB Bandwidth (MHz)		99% Bandwidth (MHz)	
					Ant 1	Ant 2	Ant 1	Ant 2
20MHz	6435	97	SU	--	21.33	21.01	19.1200	19.0800
			MRU106+26	82	21.28	20.92	18.1220	18.1530
				83	21.24	21.41	18.2720	18.3470
	6475	105	SU	--	20.98	21.26	19.0260	19.1140
			MRU106+26	82	21.11	20.95	18.1660	18.1360
				83	21.46	21.25	17.8830	18.2940
	6515	113	SU	--	21.39	21.19	19.0260	19.0240
			MRU106+26	82	21.17	21.09	17.7680	18.1360
				83	21.50	21.50	18.2130	18.1910
40MHz	6445	99	SU	--	39.92	39.65	37.7170	37.6900
				82	20.97	22.57	17.7520	17.7950
			MRU106+26T	--	--	--	--	--
				85	24.57	24.20	17.8120	17.8050
	6485	107	SU	--	39.71	39.75	37.6650	37.5770
				82	24.12	23.67	17.8080	17.7990
			MRU106+26T	84	28.83	26.45	19.4990	19.5330
				85	25.78	23.65	17.7990	17.8590
	6525 (Straddle)	115	SU	--	39.49	39.21	37.5800	37.6620
				82	21.25	23.00	17.7260	17.8440
			MRU106+26T	--	--	--	--	--
				85	24.16	22.76	18.0220	17.9370
80MHz	6465	103	SU	--	81.44	80.54	77.3290	77.4630
				37	20.00	19.54	18.0690	17.7170
			52T	45	23.90	23.45	20.6810	19.5590
				52	20.71	19.43	18.2460	17.8830
160MHz	6505 (Straddle)	111	SU	--	164.20	162.70	156.8800	156.9500
			484T	65	60.39	53.12	39.1500	38.8880
				S66	61.03	66.96	40.8190	40.5670

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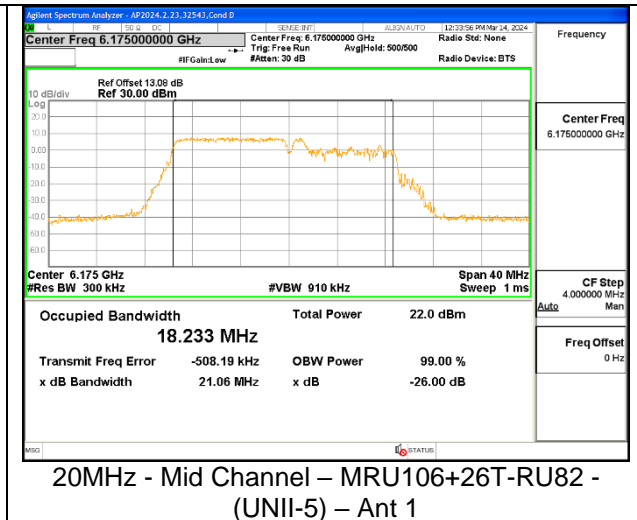
40MHz - Mid Channel - SU (UNII-6) – Ant 2	40MHz - Mid Channel – MRU106+26T-RU85 (UNII-6) – Ant 2

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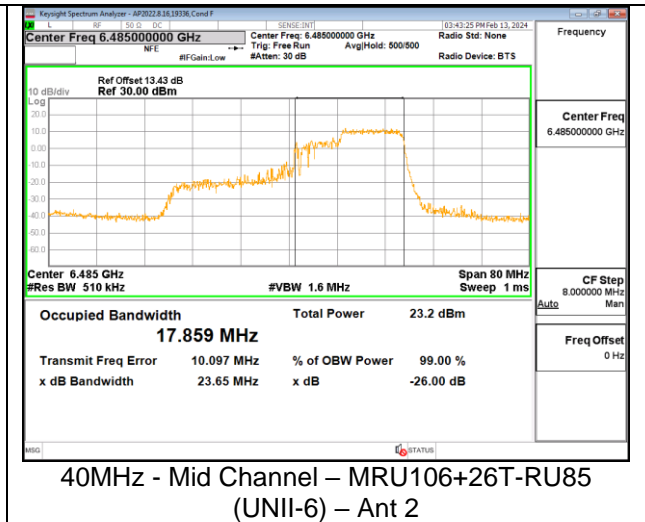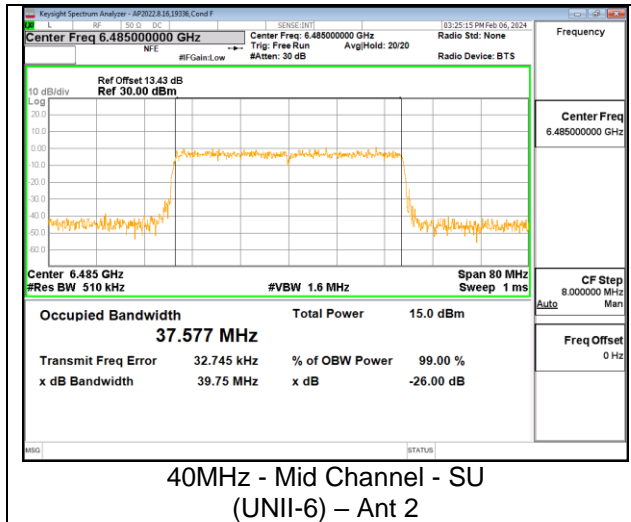
9.2.5. 802.11be MIMO CDD MODE IN THE UNII-6 BAND

UNII-6 (MIMO CDD)	Frequency (MHz)	Channel Number	Tone	RU Index	26 dB Bandwidth (MHz)		99% Bandwidth (MHz)	
					Ant 1	Ant 2	Ant 1	Ant 2
20MHz	6435	97	SU	--	21.81	21.34	19.0200	19.0340
			MRU106+26T	82	21.02	19.87	18.0140	18.0190
				83	21.24	20.35	18.2420	18.0100
	6475	105	SU	--	21.13	20.93	19.0030	18.9980
			MRU106+26T	82	21.15	20.05	17.8770	17.3140
				83	21.09	20.57	18.1740	18.0770
	6515	113	SU	--	21.13	21.50	19.0210	19.0510
			MRU106+26T	82	20.90	19.85	18.1900	17.8750
				83	21.47	20.02	18.2240	18.0110
40MHz	6445	99	SU	--	39.67	39.56	37.6800	37.5910
			MRU106+26T	82	20.94	20.29	17.7120	17.6620
				--	--	--	--	--
				85	22.90	19.43	17.9160	17.6410
	6485	107	SU	--	39.97	40.16	37.6130	37.7200
			MRU106+26T	82	22.18	19.48	17.7820	17.7270
				84	27.54	25.18	19.3190	18.9370
				85	24.13	19.21	17.8510	17.6230
	6525 (Straddle)	115	SU	--	39.41	39.32	37.6190	37.5480
			MRU106+26T	82	24.37	19.32	17.7400	17.5780
				--	--	--	--	--
				85	23.49	19.59	18.0490	17.6130
80MHz	6465	103	SU	--	80.67	80.97	77.2110	77.4210
			52T	37	19.86	19.70	18.1100	18.0030
				45	23.20	22.78	20.4030	19.5590
				52	22.94	19.26	18.2000	17.5680
160MHz	6505 (Straddle)	111	SU	--	164.70	164.90	157.0900	156.8800
			484T	65	47.92	54.35	38.9370	38.8110
				S66	66.79	49.20	41.7090	38.8780
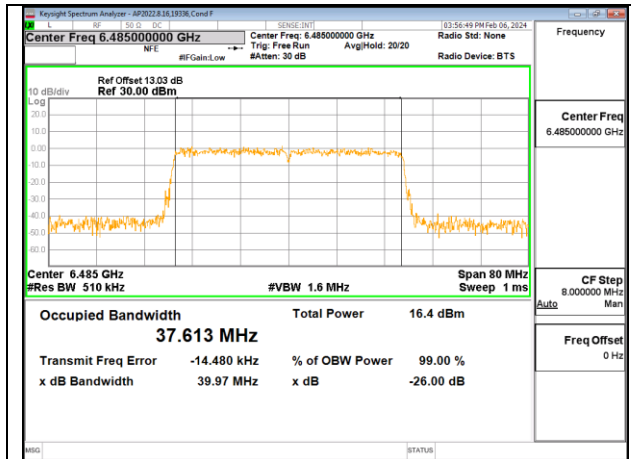
40MHz - Mid Channel - SU (UNII-6) – Ant 1	40MHz - Mid Channel – MRU106+26T-RU85 (UNII-6) – Ant 1

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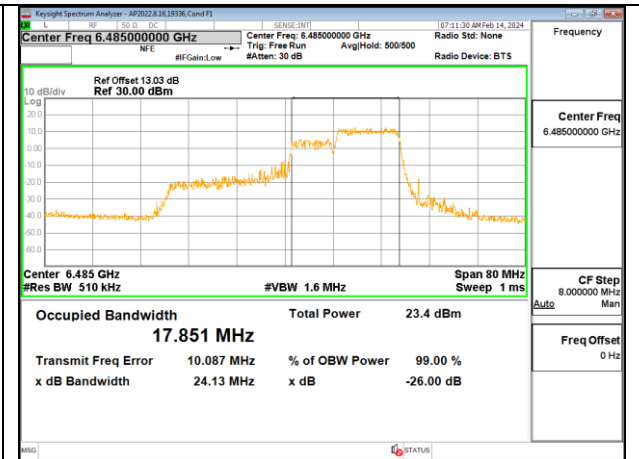
9.2.6. 802.11be MIMO SDM MODE IN THE UNII-6 BAND

UNII-6 (MIMO SDM)	Frequency (MHz)	Channel Number	Tone	RU Index	26 dB Bandwidth (MHz)		99% Bandwidth (MHz)	
					Ant 1	Ant 2	Ant 1	Ant 2
20MHz	6435	97	SU	--	20.63	20.62	19.1260	19.1050
			MRU106+26T	82	19.48	19.20	18.1660	18.1500
				83	19.80	19.47	18.0440	17.9860
	6475	105	SU	--	20.39	20.13	19.0460	19.0640
			MRU106+26T	82	18.54	18.60	17.4370	17.8060
				83	19.99	19.34	17.9240	18.0080
	6515	113	SU	--	20.17	20.05	19.0370	19.0320
			MRU106+26T	82	19.32	19.36	18.1020	18.1340
				83	20.01	19.30	17.9600	18.0890
40MHz	6445	99	SU	--	39.06	39.31	37.6380	37.6830
			MRU106+26T	82	18.53	18.76	17.6950	17.7400
				--	--	--	--	--
				85	19.85	18.12	17.9870	17.2730
	6485	107	SU	--	39.04	39.06	37.5680	37.5520
			MRU106+26T	82	18.78	18.79	17.8460	17.7080
				84	20.39	20.59	19.5510	18.9470
				85	19.96	18.63	17.6030	17.7110
	6525 (Straddle)	115	SU	--	38.91	39.12	37.6410	37.6010
			MRU106+26T	82	18.72	18.41	17.7960	17.4760
				--	--	--	--	--
				85	19.70	18.52	17.8740	17.5670
80MHz	6465	103	SU	--	79.82	79.65	77.2880	77.3930
			52T	37	18.95	18.79	18.0730	18.0360
				45	20.72	19.92	20.4530	19.6650
				52	18.64	18.85	17.9270	17.9390
160MHz	6505 (Straddle)	111	SU	--	161.60	161.30	156.6400	156.7400
			484T	65	52.82	52.75	38.9060	38.7680
				S66	74.08	49.25	42.8070	38.8040

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40MHz - Mid Channel - SU (UNII-6) – Ant 2	40MHz - Mid Channel – MRU106+26T-RU85 (UNII-6) – Ant 2

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9.2.7. 802.11be SISO MODE IN THE UNII-7 BAND

UNII-7 (SISO)	Frequency (MHz)	Channel Number	Tone	RU Index	26 dB Bandwidth (MHz)		99% Bandwidth (MHz)	
					Ant 1	Ant 2	Ant 1	Ant 2
20MHz	6535	117	SU	--	21.82	21.82	19.1420	19.0940
			26T	0	19.69	19.82	17.6620	18.2790
				--	--	--	--	--
				8	20.30	20.41	18.5000	18.5030
	6715	149	SU	--	21.69	21.91	19.1440	19.0980
			26T	0	19.78	19.80	17.8980	18.4810
				4	18.63	18.56	17.0460	16.9200
				8	20.37	20.60	18.4290	18.4400
	6875 (Straddle)	185	SU	--	21.64	21.66	19.0950	19.1410
			26T	0	19.73	19.83	18.3600	18.3890
				--	--	--	--	--
				8	20.21	20.31	18.4460	18.3570
40MHz	6565	123	SU	--	39.81	40.41	37.6440	37.6520
			MRU106+26T	82	21.14	24.33	17.7650	17.8450
				--	--	--	--	--
				85	23.40	24.11	17.9260	18.2450
	6685	147	SU	--	40.05	40.19	37.6490	37.6680
			MRU106+26T	82	23.68	23.04	17.5880	17.8470
				84	27.97	28.50	19.6420	20.5770
				85	23.77	23.99	17.9760	18.1450
	6845	179	SU	--	39.97	40.45	37.6610	37.7430
			MRU106+26T	82	24.37	22.99	17.7510	17.8460
				--	--	--	--	--
				85	25.66	24.01	17.9540	18.0070
80MHz	6545 (Straddle)	119	SU	--	86.34	82.09	77.5790	77.3540
			52T	37	19.86	20.00	18.0880	18.1810
				--	--	--	--	--
				52	22.29	21.84	18.4030	17.8640
	6705	151	SU	--	81.79	82.28	77.3350	77.4050
			52T	37	19.79	19.54	18.2010	18.0510
				45	22.45	24.54	20.6930	20.3480
				52	21.33	19.84	18.2740	18.0670
	6865 (Straddle)	183	SU	--	85.22	90.18	77.5170	77.5200
			52T	37	19.48	19.69	18.0570	18.0170
				--	--	--	--	--
				52	23.12	19.69	18.2910	17.9860
160MHz	6665	143	SU	--	165.40	165.90	157.2200	157.2800
			484T	65	59.94	60.22	40.4700	40.9860
				S66	68.98	68.51	44.4730	44.4730
	6825 (Straddle)	175	SU	--	165.80	167.50	157.2600	157.2600
			484T	65	57.11	52.91	39.7990	40.1490
				S66	61.66	68.35	42.6940	43.0970

80MHz - Mid Channel - SU (UNII-7) – Ant 1	80MHz - Mid Channel – 52T-RU37 (UNII-7) – Ant 1

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9.2.8. 802.11be MIMO CDD MODE IN THE UNII-7 BAND

UNII-7 (MIMO CDD)	Frequency (MHz)	Channel Number	Tone	RU Index	26 dB Bandwidth (MHz)		99% Bandwidth (MHz)	
					Ant 1	Ant 2	Ant 1	Ant 2
20MHz	6535	117	SU	--	21.84	21.42	19.1040	19.0420
			26T	0	19.73	19.77	18.3300	18.3060
				--	--	--	--	--
				8	19.78	19.65	18.0140	18.2060
	6715	149	SU	--	21.98	21.55	19.0910	19.1110
			26T	0	19.36	19.71	18.2740	18.4390
				4	18.71	18.28	16.9590	16.9410
				8	20.21	19.81	18.5130	18.4810
	6875 (Straddle)	185	SU	--	21.75	21.68	19.0810	19.1080
			26T	0	19.95	20.02	18.3870	18.3620
				--	--	--	--	--
				8	19.82	19.80	18.4220	18.4720
40MHz	6565	123	SU	--	40.39	40.14	37.6110	37.6160
			MRU106+26T	82	22.95	20.14	17.6810	17.6220
				--	--	--	--	--
				85	25.29	19.90	18.0240	17.7980
	6685	147	SU	--	40.31	39.89	37.6810	37.6720
			MRU106+26T	82	24.45	19.40	17.8170	17.6860
				84	25.91	25.03	19.6540	18.7650
				85	23.22	19.45	17.1370	17.7580
	6845	179	SU	--	40.10	40.01	37.6530	37.6220
			MRU106+26T	82	24.10	19.38	17.7040	17.7960
				--	--	--	--	--
				85	23.06	20.22	17.9060	17.7330
80MHz	6545 (Straddle)	119	SU	--	81.59	81.76	77.3110	77.3310
			52T	37	19.52	19.40	17.8790	17.9260
				--	--	--	--	--
				52	23.13	19.54	18.1990	17.9160
	6705	151	SU	--	81.82	81.62	77.3940	77.3630
			52T	37	20.00	19.70	18.1620	17.9890
				45	24.92	23.65	20.9540	20.0060
				52	21.14	19.96	18.1050	17.8760
	6865 (Straddle)	183	SU	--	81.78	81.43	77.3090	77.4130
			52T	37	20.13	19.54	18.0490	17.8930
				--	--	--	--	--
				52	21.10	18.95	18.2510	17.4850
160MHz	6665	143	SU	--	166.60	171.10	157.2800	157.4600
			484T	65	62.31	49.75	40.7570	39.3260
				S66	70.18	56.57	46.9870	40.3820
	6825 (Straddle)	175	SU	--	166.30	164.10	157.1500	157.2100
			484T	65	47.92	54.35	38.9370	38.8110
				S66	66.79	49.20	41.7090	38.8780

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80MHz - Mid Channel - SU (UNII-7) – Ant 2	80MHz - Mid Channel – 52T-RU37 (UNII-7) – Ant 2

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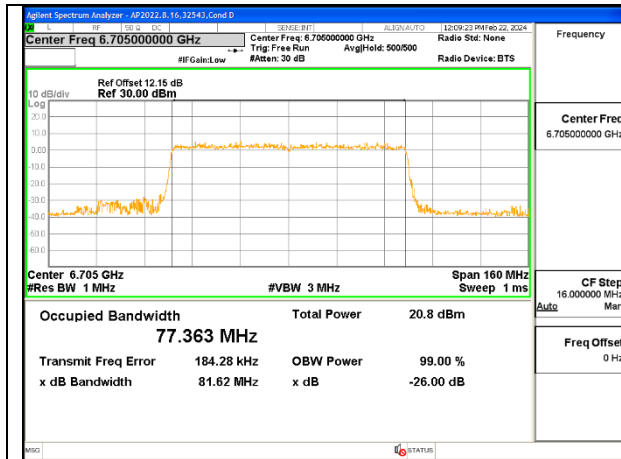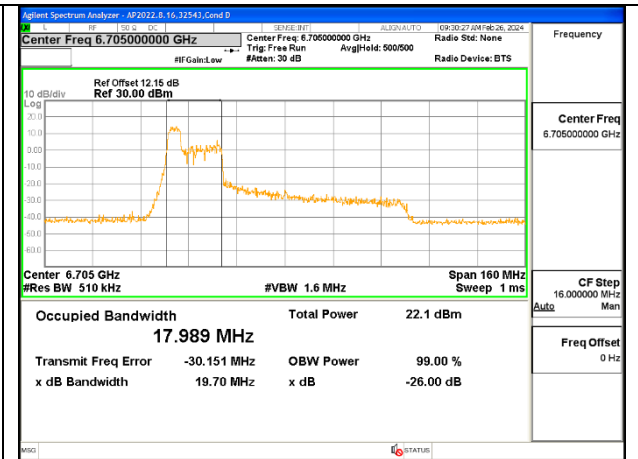
9.2.9. 802.11be MIMO SDM MODE IN THE UNII-7 BAND

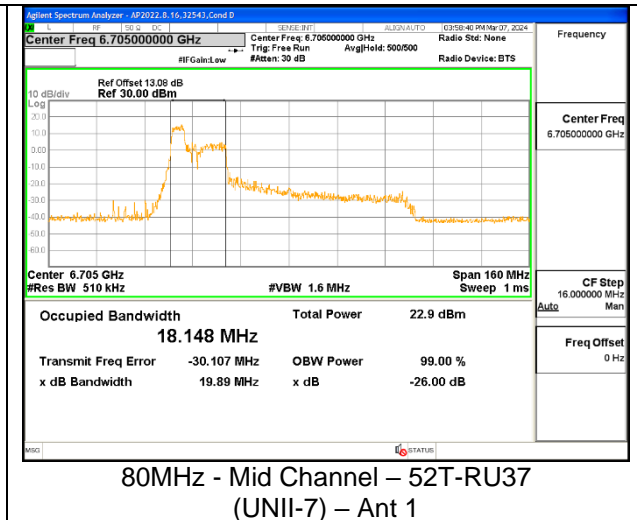| UNII-7 (MIMO SDM)	Frequency (MHz)	Channel Number	Tone	RU Index	26 dB Bandwidth (MHz)		99% Bandwidth (MHz)	
					Ant 1	Ant 2	Ant 1	Ant 2
20MHz	6535	117	SU	--	21.77	21.38	19.0950	19.1260
			26T	0	19.96	19.88	18.3930	17.6840
				--	--	--	--	--
				8	20.24	19.81	18.3950	18.3320
	6715	149	SU	--	21.67	21.52	19.1060	19.1150
			26T	0	19.93	19.74	18.3380	18.2730
				4	18.12	18.06	16.7980	16.8240
				8	19.81	19.76	18.4020	18.0840
	6875 (Straddle)	185	SU	--	21.63	21.79	19.1100	19.1260
			26T	0	19.69	19.67	18.3700	18.3790
				--	--	--	--	--
				8	20.10	19.65	18.3580	18.2210
40MHz	6565	123	SU	--	40.06	39.73	37.7630	37.6620
			MRU106+26T	82	22.29	20.30	17.8130	17.7300
				--	--	--	--	--
				85	24.92	19.34	17.9130	17.1790
	6685	147	SU	--	39.98	39.93	37.6180	37.5580
			MRU106+26T	82	25.13	19.25	17.7930	17.4720
				84	26.80	26.33	19.5040	18.8250
				85	24.11	19.56	17.9320	17.6790
	6845	179	SU	--	40.23	39.77	37.6540	37.6410
			MRU106+26T	82	21.11	19.21	17.7440	17.7280
				--	--	--	--	--
				85	23.61	19.21	17.8100	17.6530
80MHz	6545 (Straddle)	119	SU	--	81.37	81.29	77.4080	77.4290
			52T	37	20.25	19.54	18.1810	18.0210
				--	--	--	--	--
				52	22.18	19.52	18.2010	17.9760
	6705	151	SU	--	81.27	81.11	77.2780	77.2380
			52T	37	19.89	19.73	18.1480	17.9550
				45	23.27	22.68	20.7390	19.4890
				52	21.52	19.77	18.1660	17.4140
	6865 (Straddle)	183	SU	--	81.79	81.19	77.2620	77.4040
			52T	37	19.67	19.70	17.9950	17.9280
				--	--	--	--	--
				52	21.45	19.76	18.1080	17.9450
160MHz	6665	143	SU	--	165.10	164.60	157.1900	156.9700
			484T	65	50.81	47.89	39.3030	38.8410
				S66	65.82	50.54	39.9490	38.8400
	6825 (Straddle)	175	SU	--	165.80	164.70	157.1600	157.3700
			484T	65	51.94	46.66	38.9910	38.7510
				S66	55.82	52.69	41.4650	38.8130

80MHz - Mid Channel - SU (UNII-7) – Ant 1	80MHz - Mid Channel – 52T-RU37 (UNII-7) – Ant 1

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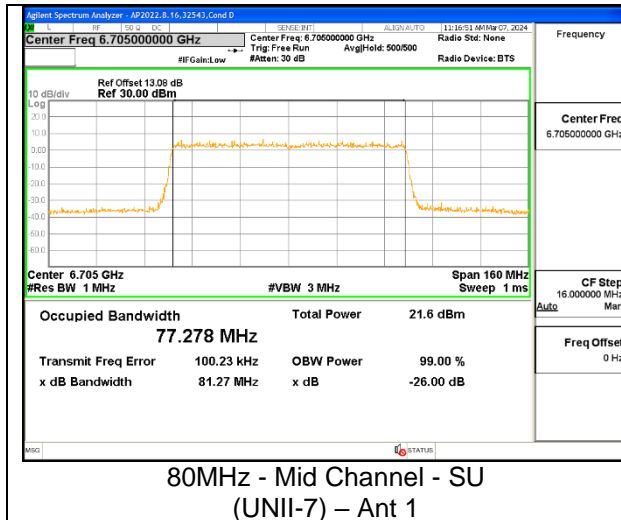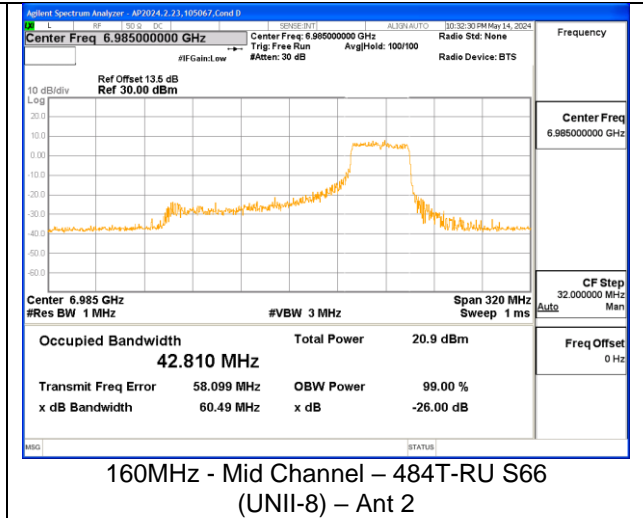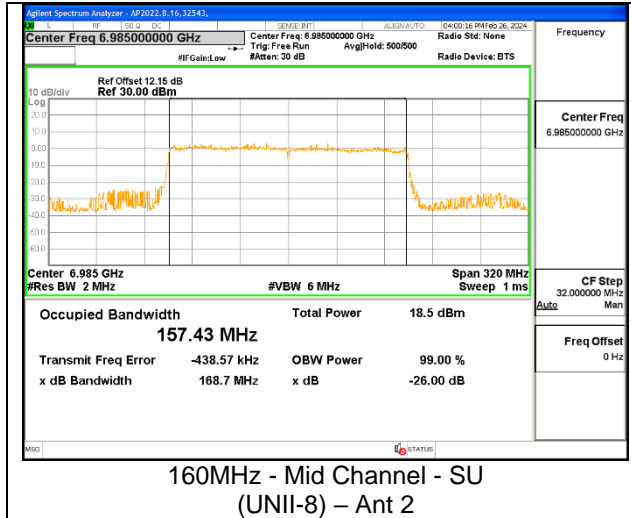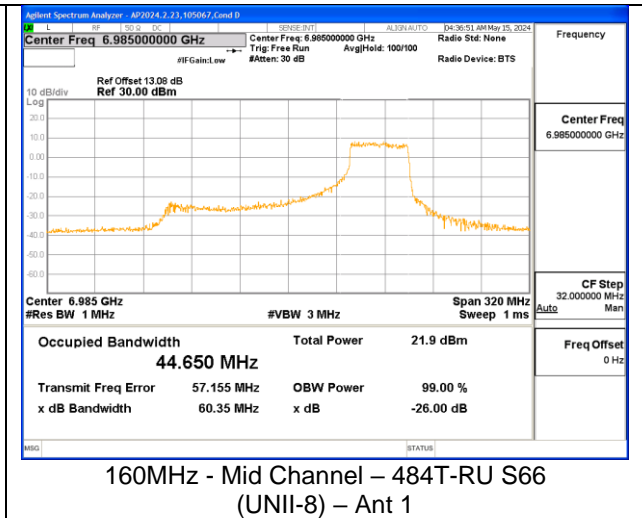
9.2.10.   802.11be SISO MODE IN THE UNII-8 BAND

UNII-8 (SISO)	Frequency (MHz)	Channel Number	Tone	RU Index	26 dB Bandwidth (MHz)		99% Bandwidth (MHz)	
					Ant 1	Ant 2	Ant 1	Ant 2
20MHz	6895	189	SU	--	21.71	21.52	19.1660	19.0370
			MRU106+26T	82	21.21	21.10	18.2430	18.0070
				83	21.53	21.43	18.2950	18.2110
	6995	209	SU	--	22.07	21.59	19.1040	19.0620
			MRU106+26T	82	21.08	20.52	18.2270	18.1630
				83	21.62	21.17	18.3290	18.2640
	7095	229	SU	--	21.88	21.70	19.1590	19.0860
			MRU106+26T	82	21.13	21.20	17.7510	17.7450
				83	21.47	21.27	17.9700	18.1410
	7115	233	SU	--	21.83	21.62	19.1380	19.0480
40MHz	6885 (Straddle)	187	SU	--	39.79	39.73	37.6160	37.6820
			MRU106+26T	82	22.87	23.10	17.7930	17.8630
				--	--	--	--	--
				85	24.36	24.21	18.0230	17.9070
	6965	203	SU	--	39.76	39.68	37.6070	37.6640
			MRU106+26T	82	23.75	22.45	17.7730	17.8040
				84	28.87	25.94	19.3920	19.6570
				85	25.74	22.82	18.0130	17.8710
	7085	227	SU	--	39.55	39.59	37.5460	37.5830
			MRU106+26T	82	22.42	23.43	17.7520	17.7840
				--	--	--	--	--
				85	24.10	25.65	18.0430	17.7840
80MHz	6945	199	SU	--	81.83	82.21	77.3970	77.4090
			484T	65	60.77	53.63	38.8670	38.9390
				66	64.20	64.61	39.7160	39.5460
	7025	215	SU	--	81.79	80.78	77.3870	77.1840
			484T	65	54.47	55.21	37.7270	38.7790
				66	66.21	66.50	39.9920	39.7700
160MHz	6985	207	SU	--	168.70	168.70	157.2500	157.4300
			484T	65	53.61	55.05	39.6790	39.7370
				S66	63.78	60.49	45.3580	42.8100

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160MHz - Mid Channel - SU (UNII-8) – Ant 2	160MHz - Mid Channel – 484T-RU S66 (UNII-8) – Ant 2

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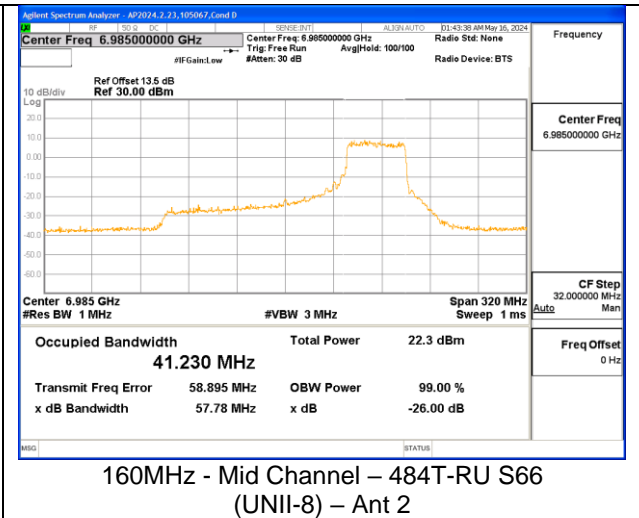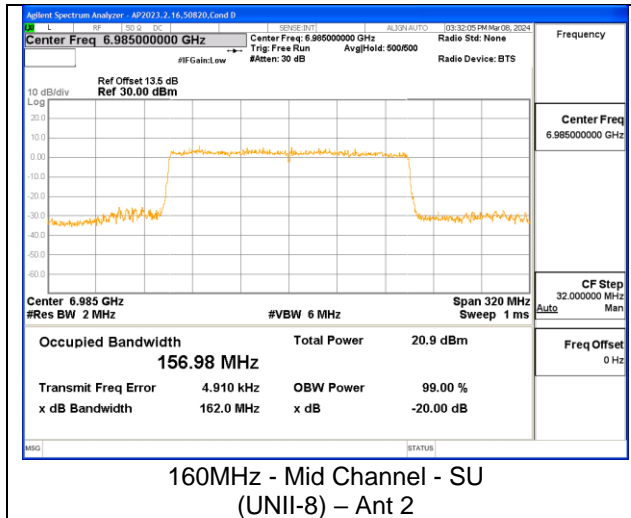
9.2.11.   802.11be MIMO CDD MODE IN THE UNII-8 BAND

UNII-8 (MIMO CDD)	Frequency (MHz)	Channel Number	Tone	RU Index	26 dB Bandwidth (MHz)		99% Bandwidth (MHz)	
					Ant 1	Ant 2	Ant 1	Ant 2
20MHz	6895	189	SU	--	21.50	21.48	19.0300	19.0820
			MRU106+26T	82	21.03	19.89	18.1110	18.0760
				83	21.28	20.44	18.2140	17.9000
	6995	209	SU	--	21.58	21.39	19.0460	19.1240
			MRU106+26T	82	21.12	20.10	18.1180	17.9490
				83	20.98	20.43	18.2100	18.0430
	7095	229	SU	--	21.39	21.45	19.0630	19.1190
			MRU106+26T	82	21.16	20.05	18.0380	18.2130
				83	20.10	20.63	18.3180	18.1070
	7115	233	SU	--	21.63	21.64	19.0370	19.0990
40MHz	6885 (Straddle)	187	SU	--	40.02	39.57	37.6760	37.6920
			MRU106+26T	82	24.03	19.45	17.7440	17.7070
				--	--	--	--	--
				85	24.41	19.25	17.7960	17.6910
	6965	203	SU	--	39.64	39.62	37.5650	37.5680
			MRU106+26T	82	23.45	19.25	17.7130	17.7340
				84	26.36	26.17	19.5110	19.1450
				85	25.83	19.48	17.9070	17.7860
	7085	227	SU	--	39.65	39.88	37.6870	37.6090
			MRU106+26T	82	23.50	19.37	17.4090	16.9660
				--	--	--	--	--
				85	24.39	20.36	17.9200	17.7270
80MHz	6945	199	SU	--	81.16	80.78	77.4080	77.1920
			484T	65	60.32	58.77	40.9570	40.4520
				66	73.53	51.28	42.9700	38.7900
	7025	215	SU	--	82.45	81.05	77.3610	77.4660
			484T	65	57.91	53.15	39.7710	38.5830
				66	68.68	55.14	43.1650	38.4600
160MHz	6985	207	SU	--	169.90	167.80	157.0700	157.2900
			484T	65	57.25	53.33	39.8400	39.0880
				S66	60.35	55.31	44.6500	40.2800

160MHz - Mid Channel - SU
(UNII-8) – Ant 1

160MHz - Mid Channel – 484T-RU S66
(UNII-8) – Ant 1

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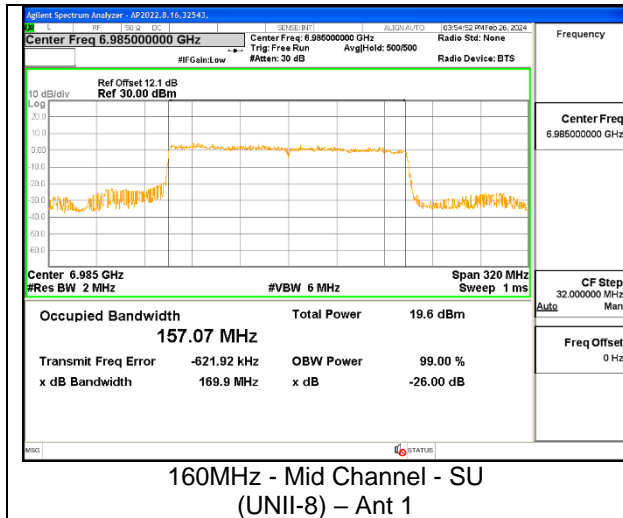
9.2.12.   802.11be MIMO SDM MODE IN THE UNII-8 BAND

UNII-8 (MIMO SDM)	Frequency (MHz)	Channel Number	Tone	RU Index	26 dB Bandwidth (MHz)		99% Bandwidth (MHz)	
					Ant 1	Ant 2	Ant 1	Ant 2
20MHz	6895	189	SU	--	20.90	20.80	19.1800	19.1220
			MRU106+26T	82	19.36	19.51	17.7390	18.1790
				83	20.07	19.24	18.2250	17.7150
	6995	209	SU	--	20.89	20.81	19.1370	19.1550
			MRU106+26T	82	19.52	19.29	18.1560	18.1570
				83	19.53	19.56	18.2170	18.1600
	7095	229	SU	--	21.06	20.66	19.1440	19.1570
			MRU106+26T	82	19.36	18.84	18.0930	17.5600
				83	20.12	19.33	18.2750	18.1930
	7115	233	SU	--	21.05	20.52	19.1050	19.1510
40MHz	6885 (Straddle)	187	SU	--	39.33	39.29	37.6940	37.6910
			MRU106+26T	82	18.96	18.70	17.8580	17.7290
				--	--	--	--	--
				85	19.81	18.91	18.0010	17.5530
	6965	203	SU	--	39.36	39.23	37.6660	37.7040
			MRU106+26T	82	18.80	18.79	17.7070	17.7100
				84	20.97	20.18	19.6580	18.8510
				85	19.02	18.61	17.9340	17.6740
	7085	227	SU	--	39.42	39.26	37.7130	37.6830
			MRU106+26T	82	18.88	18.68	17.7340	17.7190
				--	--	--	--	--
				85	19.76	18.73	18.0030	17.6950
80MHz	6945	199	SU	--	80.25	80.23	77.3280	77.3170
			484T	65	59.80	51.85	39.2870	38.6190
				66	63.78	56.28	41.0090	38.7360
	7025	215	SU	--	80.31	80.07	77.2310	77.4110
			484T	65	53.34	48.42	38.7950	38.6460
				66	62.12	56.73	41.3000	39.4150
160MHz	6985	207	SU	--	162.20	162.00	157.1700	156.9800
			484T	65	52.65	54.48	39.3070	39.0000
				S66	50.60	57.78	38.9580	41.2300

160MHz - Mid Channel - SU (UNII-8) – Ant 2	160MHz - Mid Channel – 484T-RU S66 (UNII-8) – Ant 2

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9.3. SP 26 dB AND 99% BANDWIDTH

LIMITS

§15.407 (a) (11)

The maximum bandwidth for U-NII devices in the 5.925-7.125 GHz band is 320 MHz. KDB 987594 D03 U-NII 6 GHz QA v02, modified by FCC TCB Workshop Presentation Review of TCB PAG Submissions - October 2023,   allows the maximum bandwidths to be defined by either the 26dB bandwidth or the 99% bandwidth for a 320 MHz nominal channel bandwidth and by the 26dB bandwidth for all other nominal channel bandwidths. The KDB requires that the test report show the 99% and 26 dB bandwidth for all the nominal channel bandwidths used by the device.

PROCEDURE

ANSI C63.10: 2013 §6.9

Band	Tones	20MHz	40MHz	80MHz	160MHz
UNII-5	Partial RU	300kHz/910kHz	510kHz/1.6MHz	510kHz/1.6MHz	510kHz/1.6MHz
	SU	300kHz/910kHz	510kHz/1.6MHz	1MHz/3MHz	2MHz/6MHz
UNII-7	Partial RU	300kHz/910kHz	510kHz/1.6MHz	510kHz/1.6MHz	1MHz/3MHz
	SU	300kHz/910kHz	510kHz/1.6MHz	1MHz/3MHz	2MHz/6MHz

RESULTS

ID:	32543	**Date:**	5/16/2024

For mask and bandwidth measurements partial RU allocations are tested with the RUs allocated at the lower and upper positions within the channel for the low mid and high channels in each band. Additionally, the center channel is also tested with the RU allocated in the center of the channel to verify that the low / high RU allocations are worst case.

The data in these sections follow the same testing parameters used for LP and SP modes bandwidth tests, therefore, for test setting please refer to LP mode bandwidth test plots.

Only additional 20MHz 52T, 40MHz 242T, 80MHz 242T, and 160MHz 242T test plots are added in this section.

The tests performed on this device show that both 99% and 26dB bandwidths are less than 320 MHz. for all supported channel bandwidths.

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9.3.1. 802.11be SISO MODE IN THE UNII-5 BAND

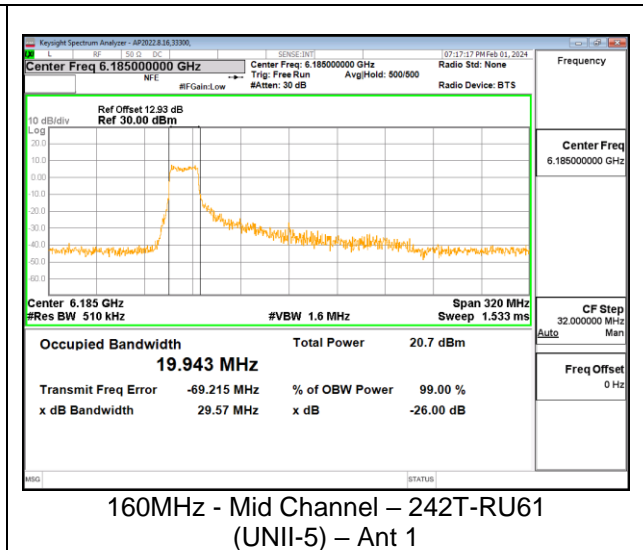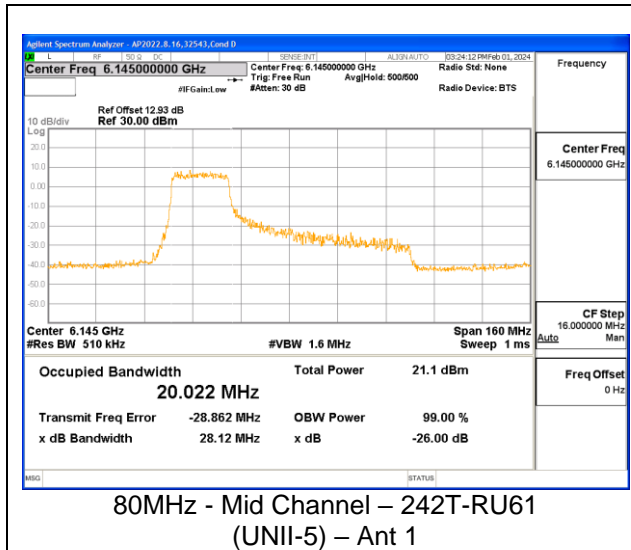| UNII-5 (SISO)	Frequency (MHz)	Channel Number	Tone	RU Index	26 dB Bandwidth (MHz)		99% Bandwidth (MHz)	
					Ant 1	Ant 2	Ant 1	Ant 2
20 MHz	5955	1	SU	--	21.72	21.38	19.0780	18.9430
			52T	37	19.91	20.02	18.2100	18.0760
				--	--	--	--	--
				40	20.89	20.88	18.2760	18.3740
	6175	45	SU	--	21.64	26.69	19.1060	19.1510
			52T	37	20.19	19.97	18.3660	18.3210
				38	19.68	18.33	17.1490	16.8980
				40	20.61	20.12	18.2740	18.3140
	6415	93	SU	--	21.77	22.03	19.1160	19.1270
			52T	37	19.98	20.14	18.3200	18.2690
				--	--	--	--	--
				40	20.84	20.86	18.3370	18.1530
40 MHz	5965	3	SU	--	40.27	41.38	37.5720	38.0670
			242T	61	32.06	30.09	19.6930	19.5510
				62	29.78	28.02	19.4780	19.6180
	6165	43	SU	--	39.76	41.39	37.6290	38.0550
			242T	61	28.66	28.88	19.5080	19.5000
				62	29.09	30.48	19.4430	19.5150
	6405	91	SU	--	39.77	41.87	37.7450	38.0840
			242T	61	34.92	31.68	19.4340	19.2890
				62	29.01	29.30	19.5010	19.4940
80MHz	5985	7	SU	--	80.63	81.09	77.2300	77.2730
			242T	61	30.15	30.47	20.2000	20.4900
				--	--	--	--	--
				64	29.33	31.30	20.1080	20.1770
	6145	39	SU	--	81.42	82.12	77.3280	77.2890
			242T	61	28.12	28.57	20.0220	19.8610
				62	37.14	38.43	20.3240	20.2740
				64	30.89	30.80	20.1960	19.9540
	6385	87	SU	--	81.75	81.13	77.2590	77.2230
			242T	61	28.35	30.22	19.9340	20.0900
				--	--	--	--	--
				64	29.97	32.18	20.2230	20.3530
160MHz	6025	15	SU	--	164.10	166.10	156.9700	157.2300
			242T	61	23.31	30.61	20.0170	20.5980
				--	--	--	--	--
				S64	30.40	29.44	20.7380	21.0420
	6185	47	SU	--	166.00	165.60	157.1100	156.9900
			242T	61	29.57	30.48	19.9430	20.3850
				62	35.68	31.42	20.4720	20.4280
				S64	31.15	29.14	20.1100	20.8840
	6345	79	SU	--	165.40	164.20	157.0700	157.2000
			242T	61	27.77	27.95	20.3260	20.1440
				--	--	--	--	--
				S64	28.30	30.43	20.4980	20.5370

20MHz - Mid Channel – 52T-RU37
(UNII-5) – Ant 1

40MHz - Mid Channel – 242T-RU61
(UNII-5) – Ant 1

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80MHz - Mid Channel – 242T-RU61 (UNII-5) – Ant 1	160MHz - Mid Channel – 242T-RU61 (UNII-5) – Ant 1

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9.3.2. 802.11be MIMO CDD MODE IN THE UNII-5 BAND

UNII-5 (MIMO CDD)	Frequency (MHz)	Channel Number	Tone	RU Index	26 dB Bandwidth (MHz)		99% Bandwidth (MHz)	
					Ant 1	Ant 2	Ant 1	Ant 2
20 MHz	5955	1	SU	--	21.52	26.08	19.0760	19.0870
			52T	37	19.88	19.71	18.0840	18.2350
				--	--	--	--	--
				40	20.87	19.93	18.2880	18.1460
	6175	45	SU	--	21.50	24.86	19.1070	19.1180
			52T	37	19.87	20.09	18.2260	18.1770
				38	19.48	18.45	16.9220	16.8410
				40	20.90	19.91	18.3490	17.9270
	6415	93	SU	--	21.72	26.66	19.1360	19.0920
			52T	37	19.87	19.95	18.3070	18.1080
				--	--	--	--	--
				40	20.63	19.76	18.1270	18.1470
40 MHz	5965	3	SU	--	40.22	40.04	37.5940	38.0120
			242T	61	32.12	26.99	19.6450	19.3230
				62	28.70	27.02	19.5320	19.2880
	6165	43	SU	--	39.65	41.31	37.6930	38.0620
			242T	61	28.55	31.88	19.4860	19.5290
				62	33.88	28.93	19.4920	19.2860
	6405	91	SU	--	40.09	41.30	37.6790	38.0260
			242T	61	30.41	26.21	19.5260	19.2260
				62	28.75	25.86	19.5960	19.2790
80MHz	5985	7	SU	--	82.00	81.89	77.3020	77.3950
			242T	61	31.34	27.01	20.5230	19.5730
				--	--	--	--	--
				64	28.18	27.33	19.8200	19.7270
	6145	39	SU	--	81.31	81.24	77.3790	77.3340
			242T	61	29.46	30.52	19.9530	19.5980
				62	37.07	30.96	20.0000	19.8110
				64	30.59	33.29	20.2590	19.5890
	6385	87	SU	--	81.63	81.43	77.2660	77.3700
			242T	61	28.73	26.54	20.0380	19.4650
				--	--	--	--	--
				64	30.56	26.54	20.3230	19.4210
160MHz	6025	15	SU	--	165.40	165.00	156.9500	157.1200
			242T	61	30.26	25.40	20.4200	19.6100
				--	--	--	--	--
				S64	28.35	26.14	20.0770	19.7380
	6185	47	SU	--	166.50	164.70	157.1100	157.1500
			242T	61	30.45	28.15	19.9880	19.6050
				62	33.14	32.74	20.0560	19.8870
				S64	29.45	25.51	20.1290	19.7220
	6345	79	SU	--	165.20	164.90	157.0800	157.3100
			242T	61	30.53	27.00	20.1160	19.7210
				--	--	--	--	--
				S64	28.21	26.08	20.5570	19.7140

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9.3.3. 802.11be SISO MODE IN THE UNII-7 BAND

UNII-7 (SISO)	Frequency (MHz)	Channel Number	Tone	RU Index	26 dB Bandwidth (MHz)		99% Bandwidth (MHz)	
					Ant 1	Ant 2	Ant 1	Ant 2
20MHz	6535	117	SU	--	21.49	21.85	19.0410	19.0840
			52T	37	19.96	19.90	18.3130	18.1030
				--	--	--	--	--
				40	20.89	20.74	18.1660	18.3670
	6715	149	SU	--	21.69	21.63	19.0380	19.0770
			52T	37	19.99	19.88	18.2720	18.3020
				38	19.00	19.34	17.1770	16.9590
				40	20.84	20.41	18.2080	18.2500
	6855	181	SU	--	21.57	21.66	19.0800	19.0910
			52T	37	19.81	20.11	18.1730	18.3340
				--	--	--	--	--
				40	20.81	20.76	18.3550	18.3160
40MHz	6565	123	SU	--	40.25	40.29	37.6290	37.6450
			242T	61	27.57	28.10	19.3920	19.4270
				62	31.28	30.41	19.5310	19.6060
	6685	147	SU	--	40.25	40.10	37.6630	37.7240
			242T	61	31.79	30.30	19.5710	19.4950
				62	32.42	28.68	19.4930	19.4770
	6845	179	SU	--	40.06	40.09	37.6910	37.7140
			242T	61	30.19	30.77	19.4100	19.3380
				62	33.61	31.70	19.5220	19.5310
80MHz (FCC)	6625	135	SU	--	81.34	81.77	77.3730	77.3560
			242T	61	30.74	30.12	20.0020	19.8880
				--	--	--	--	--
				64	29.75	30.37	20.1250	20.1200
80MHz	6705	151	SU	--	82.02	81.84	77.3860	77.3750
			242T	61	31.74	28.41	20.2480	19.8890
				62	36.89	36.54	20.3300	20.3280
				64	27.98	27.73	19.9940	20.2080
	6785	167	SU	--	81.24	81.84	77.2840	77.3000
			242T	61	29.00	27.27	20.3690	20.0940
				--	--	--	--	--
				64	31.44	30.44	20.6570	20.2800
160MHz	6665	143	SU	--	165.30	166.10	157.2500	157.1500
			242T	61	26.62	25.96	19.6500	19.5960
				62	28.47	31.15	19.1930	19.2560
				S64	27.24	29.46	19.5340	19.4010

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9.3.4. 802.11be MIMO CDD MODE IN THE UNII-7 BAND

UNII-7 (MIMO CDD)	Frequency (MHz)	Channel Number	Tone	RU Index	26 dB Bandwidth (MHz)		99% Bandwidth (MHz)	
					Ant 1	Ant 2	Ant 1	Ant 2
20MHz	6535	117	SU	--	21.61	21.14	19.0610	19.0770
			52T	37	20.11	19.81	18.2330	18.1520
				--	--	--	--	--
				40	20.62	19.73	18.2290	18.1590
	6715	149	SU	--	21.62	21.33	19.0840	19.0700
			52T	37	20.02	19.90	18.2360	18.0370
				38	19.26	18.38	17.0260	16.7570
				40	20.90	19.85	18.1610	18.2400
	6855	181	SU	--	21.53	21.77	19.0990	19.0430
			52T	37	19.68	20.21	18.2030	18.2330
				--	--	--	--	--
				40	20.88	19.83	18.3050	18.1620
40MHz	6565	123	SU	--	40.05	40.04	37.6530	37.6200
			242T	61	28.62	27.80	19.3660	19.1780
				62	32.81	29.18	19.4180	19.3110
	6685	147	SU	--	40.01	39.95	37.6300	37.7260
			242T	61	33.78	26.45	19.5660	19.2690
				62	28.80	27.76	19.4900	19.1990
	6845	179	SU	--	40.19	41.07	37.7070	37.7320
			242T	61	28.06	27.47	19.3970	19.3040
				62	30.30	28.24	19.6240	19.3030
80MHz (FCC)	6625	135	SU	--	81.73	81.22	77.3520	77.3240
			242T	61	30.03	24.23	20.0040	19.2820
				--	--	--	--	--
				64	30.35	28.72	20.5370	19.5020
80MHz	6705	151	SU	--	81.29	81.77	77.3690	77.3180
			242T	61	28.62	28.15	20.2350	19.3930
				62	38.51	29.93	20.0450	19.6770
				64	28.62	27.43	20.0910	19.7370
	6785	167	SU	--	81.82	81.86	77.3890	77.4690
			242T	61	31.91	25.24	19.9580	19.4510
				64	27.88	27.94	20.0080	19.5250
160MHz	6665	143	SU	--	167.20	164.90	157.3800	157.4000
			242T	61	26.10	27.09	19.3680	19.4030
				62	36.05	28.72	20.3970	19.8690
				S64	26.66	25.02	19.6640	19.4590

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9.4. LP OUTPUT POWER AND PSD

LIMITS

FCC §15.407

Band 5.925-7.125 GHz

(a)(8) For client devices operating under the control of an indoor access point in the 5.925-7.125 GHz bands, the maximum power spectral density must not exceed −1 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 24 dBm.

TEST PROCEDURE

Conducted Output Power: KDB 789033 D02 v02r01, Section II E.3.b (Method PM-G), because the gated power measurement is used the calculation of EIRP power does not include any corrections for duty factor.

The measurement method used for power spectral density is KDB 789033 D02 v02r01, Section F

RESULTS

The plots in these sections are for reference settings only for different bandwidth and different antenna ports.

DIRECTIONAL ANTENNA GAIN

For 1 TX:

There is only one transmitter output therefore the directional gain is equal to the antenna gain.

For 2 TX:

CDD MIMO Tx chains used uncorrelated gain for EIRP calculation and correlated gain for PSD EIRP calculation; SDM MIMO Tx chains used uncorrelated for both EIRP and PSD EIRP caculation. For the straddle channels, the higher antenna gains were chosen between two bands where straddle channels are located. The directional gains are as follows:

Frequency Range (MHz)	Sub-band (MHz)	Antenna 6 (dBi)	Antenna 5 (dBi)	Uncorrelated Chains (dBi)	Correlated Chains (dBi)
5925 - 6425 UNII-5	Sub-band 1 (5955 - 6095)	0.10	-1.10	-0.46	2.53
	Sub-band 2 (6115 - 6255)	0.90	-2.40	-0.44	2.42
	Sub-band 3 (6275 - 6415)	1.60	-2.90	-0.09	2.65
6425 - 6525 UNII-6	N/A	1.90	-3.70	-0.05	2.55
UNII-6/7 (Straddle Channel)	N/A	2.00	-3.70	0.02	2.62
6525 - 6875 UNII-7	N/A	2.00	-4.40	-0.11	2.39
UNII-7/8 (Straddle Channel)	N/A	2.00	-3.50	0.07	2.69
6875 - 7125 UNII-8	N/A	1.00	-3.50	-0.69	2.05

DIRECTIONAL GAIN CALCULATION:

ANSI C63.10-2013 section 14.4.3

Uncorrelated directional gain=$10*LOG((10^{(Ant6/10)}+10^{(Ant5/10)})/2)$
Correlated directional Gain=$10*LOG(((10^{(Ant6/20)}+10^{(Ant5/20)})^2)/2)$

Sample Calculation at UNII-5 Band:

Ant6=0.1, Ant5=-1.10

Uncorrelated Antenna gain=$10log[(10^{(0.1/10)}+10^{(-1.10/10)})/2]$=-0.46 dBi

Correlated Antenna gain=$10log[(10^{(0.1/20)}+10^{(-1.10/20)})^2/2]$=2.53 dBi

EIRP Calculation:
1Tx
EIRP corr'd power =Ant6 + Antenna Gain

Sample Calculation at UNII-5 Band:
Ant6(low channel – low index) Power=6.23 dBm

EIRP corr'd power = 6.23 + (0.10) =6.33 dBm

2Tx
EIRP corr'd power = 10*LOG(10^(Ant6/10)+10^(Ant5/10)) + uncorrelated directional gain

Sample Calculation at UNII-5 Band:
Ant6(low channel – low index) Power=0.74 dBm, Ant5 Power=0.74

EIRP corr'd power =10*LOG(10^(0.74/10)+10^(0.74/10)) + (-0.46) = 3.29 dBm

EIRP PSD Calculation:
1Tx
EIRP corr'd PSD = DCCF + Ant6 + Antenna Gain

Sample Calculation at UNII-5 Band:
Ant6(low channel – low index) PSD= -1.201 dBm/1MHz

EIRP corr'd PSD = 0 + -1.201 + (0.10) = -1.101 dBm/1MHz

2Tx (OFDMA)
EIRP corr'd PSD = (10*LOG(10^((DCCF +Ant6)/10)+10^((DCCF+Ant5)/10)))+correlated directional gain

Sample Calculation at UNII-5 Band:
Ant6(low channel – low index) PSD=-8.484 dBm/1MHz, Ant5 PSD=-8.313 dBm/1MHz

EIRP corr'd PSD = =(10*LOG(10^((0+(-8.484))/10)+10^((0+(-8.313))/10)))+(2.53) = -2.857dBm/1MHz

2Tx (SDM)
EIRP corr'd PSD = =(10*LOG(10^((DCCF+C39)/10)+10^((DCCF +D39)/10)))+uncorrelated directional gain

Sample Calculation at UNII-5 Band:
Ant6(low channel – low index) PSD=-5.566 dBm/1MHz, Ant5 PSD=-5.534 dBm/1MHz

EIRP corr'd PSD = =(10*LOG(10^((0+(-5.566))/10)+10^((0+(-5.534))/10)))+(-0.46) = -3.000 dBm/1MHz

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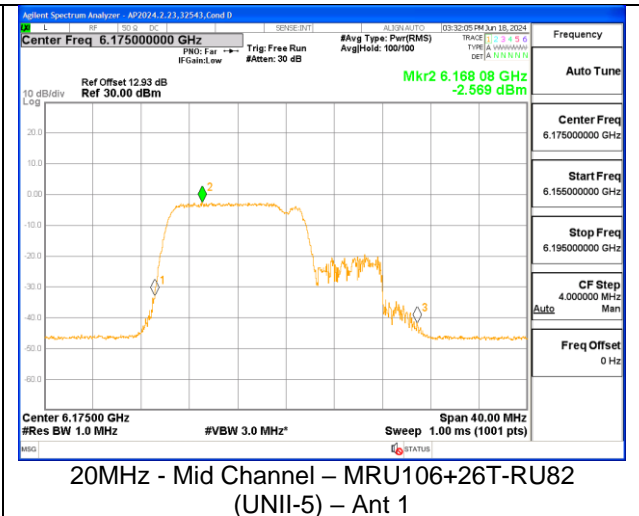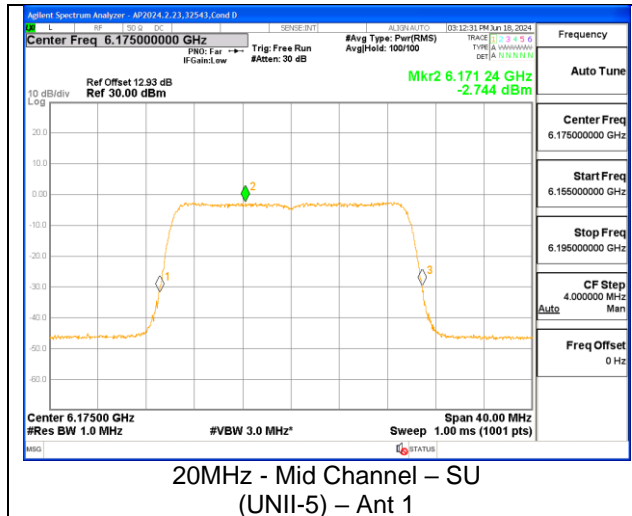
9.4.1. 802.11be SISO MODE IN THE UNII-5 BAND – LOW POWER

LP UNII-5 (SISO)	Duty Factor (dB)		Ant 1 Gain (dBi)	Ant 2 Gain (dBi)	Frequency (MHz)	Channel Number	Tone	RU Index	Conducted Power (Gated) (dBm)		EIRP Power (Limit = 24dBm EIRP)		Conducted PSD (dBm/MHz)		EIRP PSD (Limit = -1 dBm/MHz EIRP)	
	SU	Partial RU							Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2
20MHz	0	0	0.10	-1.10	5955	1	SU	--	8.47	8.45	8.57	7.35	-1.224	-1.458	-1.124	-2.558
							MRU	82	6.23	6.23	6.33	5.13	-1.201	-1.319	-1.101	-2.419
							106+26T	83	6.24	6.22	6.34	5.12	-1.201	-1.261	-1.101	-2.361
			0.90	-2.40	6175	45	SU	--	7.72	7.72	8.62	5.32	-2.744	-2.966	-1.844	-5.366
							MRU	82	5.47	5.46	6.37	3.06	-2.569	-2.794	-1.669	-5.194
							106+26T	83	5.46	5.46	6.36	3.06	-2.633	-2.577	-1.733	-4.977
			1.60	-2.90	6415	93	SU	--	6.91	6.98	8.51	4.08	-2.946	-3.084	-1.346	-5.984
							MRU	82	4.71	4.72	6.31	1.82	-3.254	-2.996	-1.654	-5.896
							106+26T	83	4.67	4.68	6.27	1.78	-3.013	-3.199	-1.413	-6.099
40MHz	0	0.19	0.10	-1.10	5965	3	SU	--	11.47	11.43	11.57	10.33	-1.652	-1.538	-1.552	-2.638
							MRU 106+26T	82	6.18	6.19	6.28	5.09	-1.856	-1.797	-1.566	-2.707
								84	6.23	6.23	6.33	5.13	-1.539	-1.499	-1.249	-2.409
								85	6.18	6.23	6.28	5.13	-1.524	-1.798	-1.234	-2.708
			0.90	-2.40	6165	43	SU	--	10.71	10.72	11.61	8.32	-2.897	-3.007	-1.997	-5.407
							MRU 106+26T	82	5.48	5.43	6.38	3.03	-3.055	-2.978	-1.965	-5.188
								84	5.43	5.48	6.33	3.08	-3.023	-2.718	-1.933	-4.928
								85	5.45	5.47	6.35	3.07	-2.708	-2.680	-1.618	-4.890
			1.60	-2.90	6405	91	SU	--	9.97	9.92	11.57	7.02	-3.275	-3.255	-1.675	-6.155
							MRU 106+26T	82	4.71	4.67	6.31	1.77	-3.377	-3.412	-1.587	-6.122
								84	4.68	4.68	6.28	1.78	-3.398	-3.291	-1.608	-6.001
								85	4.68	4.67	6.28	1.77	-3.267	-3.287	-1.477	-5.997
80MHz	0.14	0.12	0.10	-1.10	5985	7	SU	--	14.46	14.48	14.56	13.38	-3.169	-2.737	-2.929	-3.697
							52T	37	2.19	2.22	2.29	1.12	-3.027	-2.992	-2.807	-3.972
								45	2.23	2.24	2.33	1.14	-2.758	-2.788	-2.538	-3.768
								52	2.24	2.17	2.34	1.07	-2.928	-3.012	-2.708	-3.992
			0.90	-2.40	6145	39	SU	--	13.67	13.68	14.57	11.28	-4.049	-3.990	-3.009	-6.250
							52T	37	1.46	1.45	2.36	-0.95	-3.895	-3.848	-2.875	-6.128
								45	1.47	1.43	2.37	-0.97	-3.960	-3.827	-2.940	-6.107
								52	1.45	1.39	2.35	-1.01	-3.640	-3.691	-2.620	-5.971
			1.60	-2.90	6385	87	SU	--	12.93	12.95	14.53	10.05	-4.478	-4.537	-2.738	-7.297
							52T	37	0.69	0.72	2.29	-2.18	-4.599	-4.594	-2.879	-7.374
								45	0.72	0.72	2.32	-2.18	-4.343	-4.625	-2.623	-7.405
								52	0.69	0.73	2.29	-2.17	-4.379	-4.736	-2.659	-7.516
160MHz	0.25	0	0.10	-1.10	6025	15	SU	--	16.68	16.67	16.78	15.57	-2.929	-3.059	-2.579	-3.909
							484T	65	11.45	11.46	11.55	10.36	-3.082	-3.115	-2.982	-4.215
								S66	11.47	11.45	11.57	10.35	-2.902	-2.926	-2.802	-4.026
			0.90	-2.40	6185	47	SU	--	15.94	15.92	16.84	13.52	-4.438	-4.469	-3.288	-6.619
							484T	65	10.73	10.65	11.63	8.25	-3.526	-3.554	-2.626	-5.954
								S66	10.74	10.73	11.64	8.33	-3.494	-3.577	-2.594	-5.977
			1.60	-2.90	6345	79	SU	--	15.17	15.14	16.77	12.24	-5.137	-5.337	-3.287	-7.987
							484T	65	9.92	9.96	11.52	7.06	-4.597	-4.409	-2.997	-7.309
								S66	9.92	9.95	11.52	7.05	-4.239	-4.478	-2.639	-7.378

Note:
EIRP Output Power (dBm) = Measured Conducted Power (dBm)+ Peak Antenna Gain (dBi)

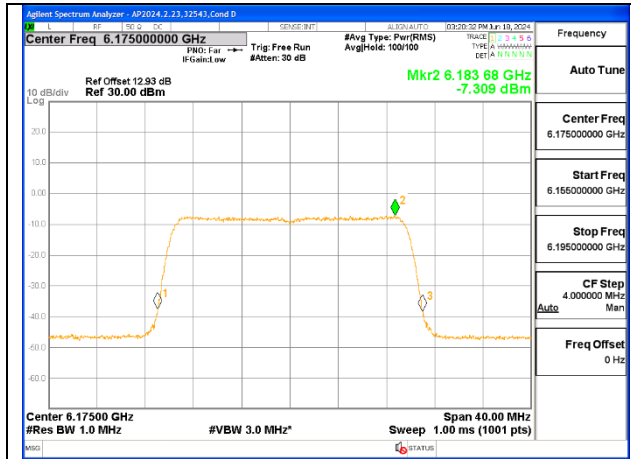EIRP PSD (dBm/MHz) = Measured Conducted PSD (dBm/MHz) + Duty Factor (dB) + Peak Antenna Gain (dBi)

| 20MHz - Mid Channel – SU (UNII-5) – Ant 1 | 20MHz - Mid Channel – MRU106+26T-RU82 (UNII-5) – Ant 1 |

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9.4.2. 802.11be MIMO CDD MODE IN THE UNII-5 BAND – LOW POWER

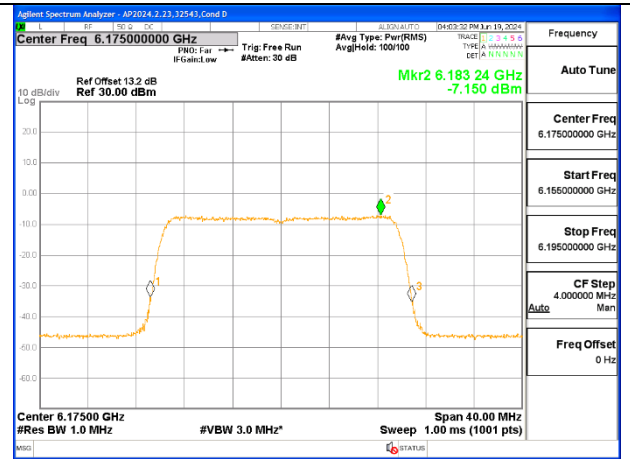| LP CDD UNII-5 (MIMO)	Duty Factor (dB)		Un-Correlated Antenna Gain (dBi)	Correlated Antenna Gain (dBi)	Frequency (MHz)	Channel Number	Tone	RU Index	Conducted Power (Gated)		EIRP MIMO Power (Limit = 24dBm EIRP)	Conducted PSD (dBm/MHz)		EIRP MIMO PSD (Limit = -1 dBm/MHz EIRP)
	SU	Partial Rus							Ant 1	Ant 2		Ant 1	Ant 2	
20MHz	0	0	-0.46	2.53	5955	1	SU	--	2.95	2.98	5.52	-8.097	-8.073	-2.545
							MRU	82	0.74	0.74	3.29	-8.484	-8.313	-2.857
							106+26T	83	0.68	0.70	3.24	-8.500	-8.456	-2.938
			-0.44	2.42	6175	45	SU	--	3.21	3.24	5.80	-7.309	-7.150	-1.798
							MRU	82	0.95	0.95	3.52	-7.117	-7.281	-1.768
							106+26T	83	0.96	0.96	3.53	-6.972	-7.208	-1.658
			-0.09	2.65	6415	93	SU	--	2.90	2.97	5.86	-8.410	-8.201	-2.644
							MRU	82	0.68	0.67	3.60	-8.062	-8.272	-2.505
							106+26T	83	0.72	0.68	3.62	-8.360	-8.252	-2.645
40MHz	0	0.19	-0.46	2.53	5965	3	SU	--	5.97	5.98	8.53	-6.902	-7.177	-1.497
							MRU 106+26T	82	0.68	0.73	3.26	-8.347	-8.309	-2.598
								84	0.69	0.69	3.24	-8.379	-8.227	-2.572
								85	0.69	0.71	3.25	-8.379	-8.461	-2.690
			-0.44	2.42	6165	43	SU	--	6.23	6.23	8.80	-6.612	-6.409	-1.079
							MRU 106+26T	82	0.93	0.95	3.51	-7.686	-7.500	-1.972
								84	0.89	0.92	3.48	-7.462	-7.300	-1.760
								85	0.96	0.91	3.51	-7.326	-7.553	-1.818
			-0.09	2.65	6405	91	SU	--	5.92	5.97	8.87	-7.146	-7.247	-1.536
							MRU 106+26T	82	0.74	0.71	3.65	-8.536	-8.561	-2.698
								84	0.66	0.67	3.59	-8.421	-8.541	-2.630
								85	0.73	0.72	3.65	-8.393	-8.369	-2.531
80MHz	0.14	0.12	-0.46	2.53	5985	7	SU	--	8.92	8.92	11.47	-8.511	-8.645	-2.897
							52T	37	-3.28	-3.28	-0.73	-8.332	-8.326	-2.669
								45	-3.31	-3.29	-0.75	-8.329	-8.278	-2.643
								52	-3.32	-3.28	-0.75	-8.143	-8.300	-2.560
			-0.44	2.42	6145	39	SU	--	9.18	9.24	11.78	-8.366	-8.224	-2.724
							52T	37	-3.02	-3.07	-0.47	-8.066	-8.007	-2.486
								45	-3.08	-3.05	-0.49	-8.091	-8.081	-2.536
								52	-3.03	-3.25	-0.57	-8.012	-8.066	-2.489
			-0.09	2.65	6385	87	SU	--	8.97	8.96	11.89	-8.576	-8.579	-2.777
							52T	37	-3.32	-3.38	-0.43	-8.594	-8.475	-2.754
								45	-3.30	-3.37	-0.41	-8.529	-8.457	-2.713
								52	-3.34	-3.31	-0.40	-8.365	-8.549	-2.676
160MHz	0.25	0	-0.46	2.53	6025	15	SU	--	11.18	11.22	13.75	-8.529	-8.745	-2.845
							484T	65	5.93	5.94	8.49	-8.249	-8.476	-2.821
								S66	5.92	5.92	8.47	-8.594	-8.440	-2.976
			-0.44	2.42	6185	47	SU	--	11.41	11.43	13.99	-8.112	-8.217	-2.484
							484T	65	6.21	6.17	8.76	-8.054	-8.061	-2.627
								S66	6.18	6.23	8.78	-8.012	-8.039	-2.595
			-0.09	2.65	6345	79	SU	--	11.18	11.16	14.09	-8.529	-8.809	-2.756
							484T	65	5.91	5.96	8.86	-8.381	-8.438	-2.749
								S66	5.97	5.95	8.88	-8.212	-8.553	-2.719

Note:
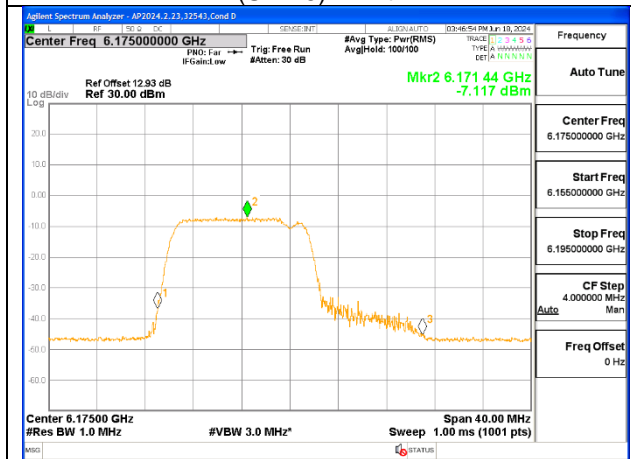EIRP MIMO Output Power (dBm) = Measured Conducted Power (dBm) (Ant 1 + Ant 2) + Un-Correlated Antenna Gain (dBi)

EIRP MIMO PSD (dBm/MHz) = Measured Conducted PSD (dBm/MHz) (Ant 1 + Ant 2) + Duty Factor (dB) + Correlated Antenna Gain (dBi)

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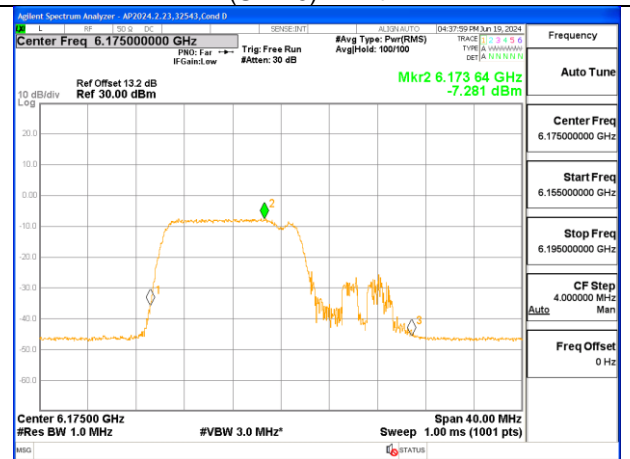
20MHz - Mid Channel – SU
(UNII-5) – Ant 1

20MHz - Mid Channel – SU
(UNII-5) – Ant 2

20MHz - Mid Channel – MRU106+26T-RU82
(UNII-5) – Ant 1

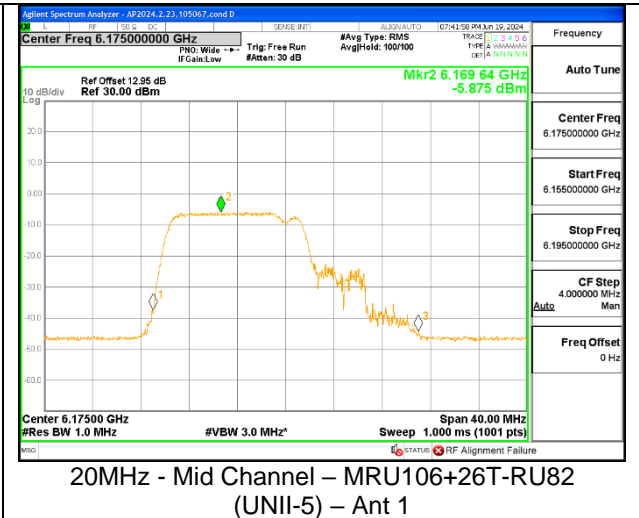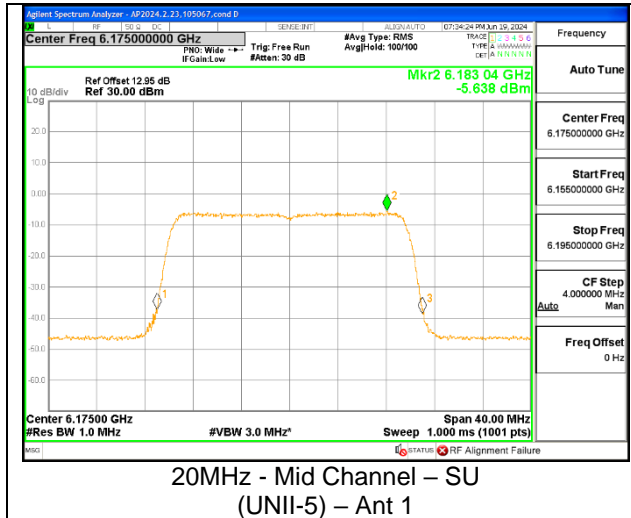20MHz - Mid Channel – MRU106+26T-RU82
(UNII-5) – Ant 2

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9.4.3. 802.11be MIMO SDM MODE IN THE UNII-5 BAND – LOW POWER

LP SDM UNII-5 (MIMO)	Duty Factor (dB) SU	Duty Factor (dB) Partial Rus	Un-Correlated Antenna Gain (dBi)	Correlated Antenna Gain (dBi)	Frequency (MHz)	Channel Number	Tone	RU Index	Conducted Power (Gated) Ant 1	Conducted Power (Gated) Ant 2	EIRP MIMO Power (Limit = 24dBm EIRP)	Conducted PSD (dBm/MHz) Ant 1	Conducted PSD (dBm/MHz) Ant 2	EIRP MIMO PSD (Limit = -1 dBm/MHz EIRP)
20MHz	0	0	-0.46	2.53	5955	1	SU	--	5.92	5.92	8.47	-5.688	-5.545	-3.066
							MRU 106+26T	82	3.71	3.72	6.27	-5.566	-5.534	-3.000
								83	3.74	3.71	6.28	-5.577	-5.684	-3.080
			-0.44	2.42	6175	45	SU	--	5.98	5.95	8.54	-5.638	-5.851	-3.173
							MRU 106+26T	82	3.74	3.66	6.27	-5.875	-6.044	-3.388
								83	3.68	3.69	6.26	-5.734	-5.693	-3.143
			-0.09	2.65	6415	93	SU	--	5.68	5.72	8.62	-6.064	-6.117	-3.170
							MRU 106+26T	82	3.42	3.46	6.36	-6.119	-6.007	-3.142
								83	3.42	3.41	6.34	-6.162	-5.832	-3.074
40MHz	0	0	-0.46	2.53	5965	3	SU	--	8.93	8.91	11.47	-5.566	-5.540	-3.003
							MRU 106+26T	82	3.68	3.70	6.24	-5.849	-5.852	-3.300
								84	3.71	3.66	6.24	-5.902	-5.919	-3.360
								85	3.70	3.73	6.27	-5.973	-5.979	-3.426
			-0.44	2.42	6165	43	SU	--	8.93	8.92	11.50	-5.773	-5.816	-3.224
							MRU 106+26T	82	3.68	3.68	6.25	-5.629	-5.846	-3.166
								84	3.66	3.69	6.25	-5.788	-5.812	-3.230
								85	3.74	3.68	6.28	-5.666	-5.698	-3.112
			-0.09	2.65	6405	91	SU	--	8.71	8.68	11.62	-6.052	-6.102	-3.157
							MRU 106+26T	82	3.46	3.43	6.37	-6.288	-6.399	-3.423
								84	3.44	3.47	6.38	-6.338	-6.204	-3.350
								85	3.45	3.41	6.35	-6.498	-6.374	-3.515
80MHz	0.3	0	-0.46	2.53	5985	7	SU	--	11.93	11.95	14.49	-5.412	-4.910	-2.303
							52T	37	-0.34	-0.36	2.20	-4.785	-4.734	-2.209
								45	-0.36	-0.36	2.19	-4.508	-4.887	-2.143
								52	-0.34	-0.42	2.17	-4.522	-4.726	-2.073
			-0.44	2.42	6145	39	SU	--	11.96	11.91	14.51	-5.509	-5.544	-2.656
							52T	37	-0.44	-0.32	2.19	-4.677	-4.507	-2.021
								45	-0.35	-0.31	2.24	-4.817	-4.871	-2.274
								52	-0.39	-0.32	2.22	-4.787	-4.772	-2.209
			-0.09	2.65	6385	87	SU	--	11.68	11.67	14.60	-6.031	-5.905	-2.747
							52T	37	-0.59	-0.54	2.36	-5.921	-5.997	-3.039
								45	-0.57	-0.54	2.37	-6.023	-6.023	-3.103
								52	-0.56	-0.52	2.38	-5.635	-5.725	-2.759
160MHz	0.5	0	-0.46	2.53	6025	15	SU	--	14.18	14.20	16.74	-5.691	-5.788	-2.689
							484T	65	8.96	8.97	11.52	-5.066	-5.390	-2.675
								S66	8.96	8.94	11.50	-5.091	-5.215	-2.602
			-0.44	2.42	6185	47	SU	--	14.22	14.18	16.77	-5.895	-5.835	-2.795
							484T	65	8.91	8.97	11.51	-5.190	-5.304	-2.676
								S66	8.93	8.93	11.50	-5.217	-5.499	-2.785
			-0.09	2.65	6345	79	SU	--	13.92	13.96	16.86	-6.357	-6.252	-2.884
							484T	65	8.69	8.72	11.63	-5.953	-5.897	-3.005
								S66	8.70	8.73	11.64	-5.664	-5.931	-2.875

Note:
EIRP MIMO Output Power (dBm) = Measured Conducted Power (dBm) (Ant 1 + Ant 2) + Un-Correlated Antenna Gain (dBi)

EIRP MIMO PSD (dBm/MHz) = Measured Conducted PSD (dBm/MHz) (Ant 1 + Ant 2) + Duty Factor (dB) + Un-Correlated Antenna Gain (dBi)
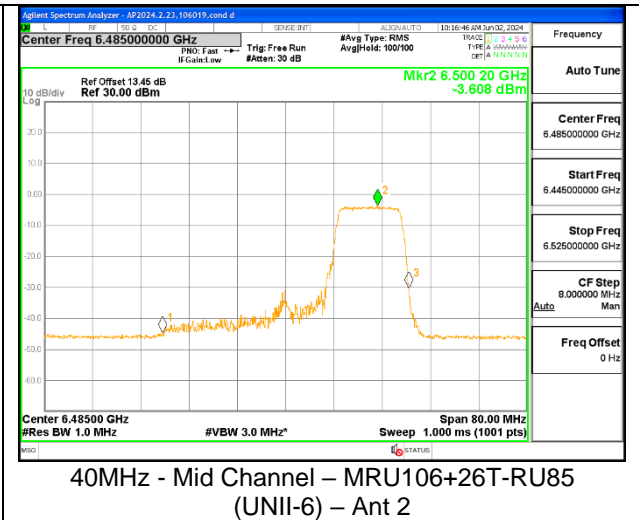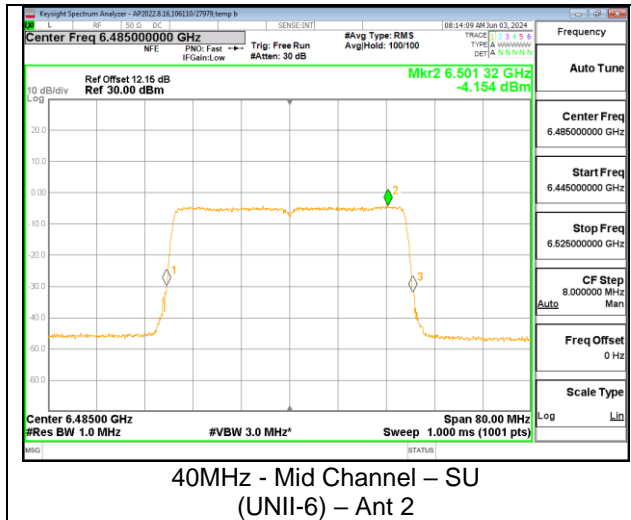
20MHz - Mid Channel – SU (UNII-5) – Ant 1	20MHz - Mid Channel – MRU106+26T-RU82 (UNII-5) – Ant 1

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9.4.4. 802.11be SISO MODE IN THE UNII-6 BAND – LOW POWER

LP UNII-6 (SISO)	Duty Factor (dB)		Ant 1 Gain (dBi)	Ant 2 Gain (dBi)	Frequency (MHz)	Channel Number	Tone	RU Index	Conducted Power (Gated) (dBm)		EIRP Power (Limit = 24dBm EIRP)		Conducted PSD (dBm/MHz)		EIRP PSD (Limit = -1 dBm/MHz EIRP)	
	SU	Partial RU							Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2
20MHz	0	0	1.90	-3.70	6435	97	SU	--	6.68	6.68	8.58	2.98	-4.192	-4.356	-2.292	-8.056
							MRU 106+26T	82	4.44	4.46	6.34	0.76	-3.301	-3.102	-1.401	-6.802
								83	4.46	4.41	6.36	0.71	-3.389	-2.902	-1.489	-6.602
					6475	105	SU	--	6.66	6.73	8.56	3.03	-4.281	-4.349	-2.381	-8.049
							MRU 106+26T	82	4.46	4.47	6.36	0.77	-3.359	-2.943	-1.459	-6.643
								83	4.47	4.45	6.37	0.75	-3.368	-3.105	-1.468	-6.805
					6515	113	SU	--	6.68	6.74	8.58	3.04	-4.450	-4.185	-2.550	-7.885
							MRU 106+26T	82	4.47	4.46	6.37	0.76	-3.366	-3.085	-1.466	-6.785
								83	4.42	4.47	6.32	0.77	-3.313	-3.019	-1.413	-6.719
40MHz	0	0.19	1.90	-3.70	6445	99	SU	--	9.74	9.72	11.64	6.02	-4.001	-4.027	-2.101	-7.727
							MRU 106+26T	82	4.42	4.41	6.32	0.71	-3.785	-4.015	-1.695	-7.525
								84	4.43	4.48	6.33	0.78	-3.699	-4.045	-1.609	-7.555
								85	4.47	4.41	6.37	0.71	-3.833	-4.030	-1.743	-7.540
					6485	107	SU	--	9.73	9.71	11.63	6.01	-3.824	-4.154	-1.924	-7.854
							MRU 106+26T	82	4.42	4.44	6.32	0.74	-4.163	-3.736	-2.073	-7.246
								84	4.46	4.43	6.36	0.73	-3.606	-3.709	-1.516	-7.219
								85	4.43	4.39	6.33	0.69	-3.842	-3.608	-1.752	-7.118
			2.00	-3.70	6525 (Straddle)	115	SU	--	9.48	9.48	11.48	5.78	-4.392	-4.330	-2.392	-8.030
							MRU 106+26T	82	4.23	4.16	6.23	0.46	-4.544	-4.323	-2.354	-7.833
								84	4.24	4.22	6.24	0.52	-4.318	-4.315	-2.128	-7.825
								85	4.22	4.24	6.22	0.54	-4.332	-4.399	-2.142	-7.909
80MHz	0.14	0.12	1.90	-3.70	6465	103	SU	--	12.69	12.72	14.59	9.02	-4.750	-4.563	-2.710	-8.123
							52T	37	0.44	0.43	2.34	-3.27	-5.083	-4.711	-3.063	-8.291
								45	0.41	0.39	2.31	-3.31	-5.387	-4.981	-3.367	-8.561
								52	0.46	0.43	2.36	-3.27	-4.898	-5.094	-2.878	-8.674
160MHz	0.25	0	2.00	-3.70	6505 (Straddle)	111	SU	--	14.74	14.73	16.74	11.03	-5.119	-5.240	-2.869	-8.690
							484T	65	9.49	9.42	11.49	5.72	-4.893	-5.021	-2.893	-8.721
								S66	9.42	9.47	11.42	5.77	-4.718	-5.038	-2.718	-8.738

Note:
EIRP Output Power (dBm) = Measured Conducted Power (dBm)+ Peak Antenna Gain (dBi)

EIRP PSD (dBm/MHz) = Measured Conducted PSD (dBm/MHz) + Duty Factor (dB) + Peak Antenna Gain (dBi)
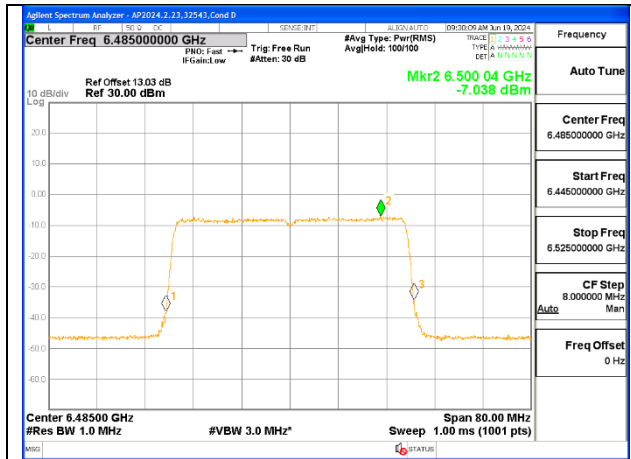
40MHz - Mid Channel – SU (UNII-6) – Ant 2	40MHz - Mid Channel – MRU106+26T-RU85 (UNII-6) – Ant 2

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9.4.5. 802.11be MIMO CDD MODE IN THE UNII-6 BAND – LOW POWER

LP CDD UNII-6 (MIMO)	Duty Factor (dB)		Un-Correlated Antenna Gain (dBi)	Correlated Antenna Gain (dBi)	Frequency (MHz)	Channel Number	Tone	RU Index	Conducted Power (Gated)		EIRP MIMO Power (Limit = 24dBm EIRP)	Conducted PSD (dBm/MHz)		EIRP MIMO PSD (Limit = -1 dBm/MHz EIRP)
	SU	Partial Rus							Ant 1	Ant 2		Ant 1	Ant 2	
20MHz	0	0	-0.05	2.55	6435	97	SU	--	2.89	2.92	5.87	-8.246	-8.492	-2.807
							MRU	82	0.69	0.71	3.66	-8.335	-8.022	-2.615
							106+26T	83	0.68	0.72	3.66	-8.020	-8.368	-2.630
					6475	105	SU	--	2.95	2.95	5.91	-8.398	-8.462	-2.870
							MRU	82	0.68	0.73	3.67	-8.490	-8.413	-2.891
							106+26T	83	0.71	0.68	3.66	-8.162	-8.239	-2.640
					6515	113	SU	--	2.93	2.91	5.88	-8.535	-8.368	-2.890
							MRU	82	0.74	0.69	3.68	-8.495	-8.266	-2.819
							106+26T	83	0.72	0.71	3.68	-8.460	-8.265	-2.801
40MHz	0	0.19	-0.05	2.55	6445	99	SU	--	5.97	5.95	8.92	-6.836	-7.021	-1.367
							MRU 106+26T	82	0.73	0.72	3.69	-7.697	-8.173	-2.178
								84	0.68	0.68	3.64	-7.772	-7.972	-2.121
								85	0.69	0.72	3.67	-8.107	-7.923	-2.264
					6485	107	SU	--	5.96	5.93	8.91	-7.038	-7.131	-1.524
							MRU 106+26T	82	0.72	0.69	3.67	-7.735	-8.013	-2.121
								84	0.69	0.71	3.66	-8.139	-7.837	-2.235
								85	0.74	0.72	3.69	-7.649	-8.202	-2.166
			0.02	2.62	6525 (Straddle)	115	SU	--	5.98	5.97	9.01	-7.029	-7.084	-1.426
							MRU 106+26T	82	0.69	0.74	3.75	-7.828	-7.669	-1.927
								84	0.67	0.67	3.70	-7.877	-7.999	-2.117
								85	0.72	0.71	3.75	-7.680	-7.663	-1.851
80MHz	0.14	0.12	-0.05	2.55	6465	103	SU	--	8.96	8.98	11.93	-7.134	-7.255	-1.494
							52T	37	-3.31	-3.31	-0.35	-7.824	-7.469	-1.963
								45	-3.27	-3.38	-0.36	-7.635	-7.653	-1.964
								52	-3.31	-3.29	-0.34	-7.688	-7.473	-1.899
160MHz	0.25	0	0.02	2.62	6505 (Straddle)	111	SU	--	11.22	11.17	14.23	-8.528	-8.999	-2.877
							484T	65	5.91	5.97	8.97	-8.265	-8.208	-2.606
								S66	5.95	5.98	9.00	-8.459	-8.322	-2.760

Note:
EIRP MIMO Output Power (dBm) = Measured Conducted Power (dBm) (Ant 1 + Ant 2) + Un-Correlated Antenna Gain (dBi)

EIRP MIMO PSD (dBm/MHz) = Measured Conducted PSD (dBm/MHz) (Ant 1 + Ant 2) + Duty Factor (dB) + Correlated Antenna Gain (dBi)

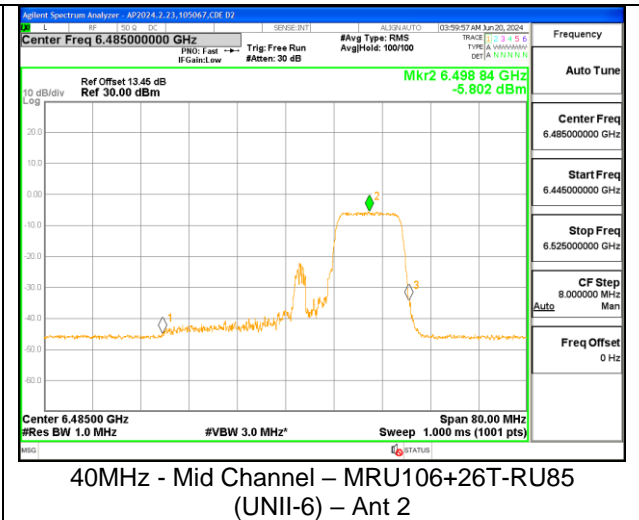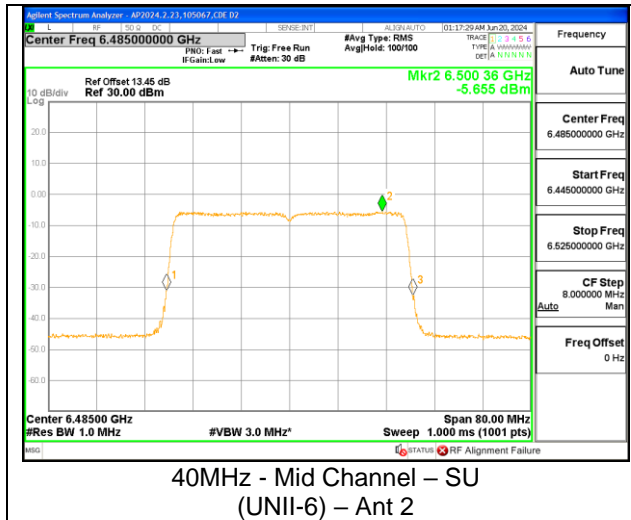| 40MHz - Mid Channel – SU (UNII-6) – Ant 1	40MHz - Mid Channel – MRU106+26T-RU85 (UNII-6) – Ant 1

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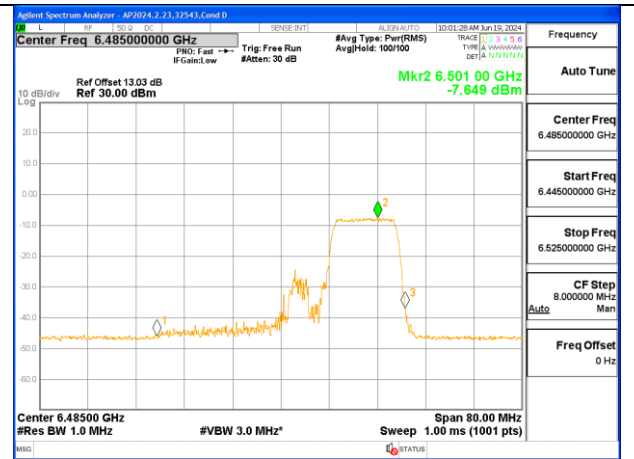
9.4.6. 802.11be MIMO SDM MODE IN THE UNII-6 BAND – LOW POWER

LP SDM UNII-6 (MIMO)	Duty Factor (dB)		Un-Correlated Antenna Gain (dBi)	Correlated Antenna Gain (dBi)	Frequency (MHz)	Channel Number	Tone	RU Index	Conducted Power (Gated)		EIRP MIMO Power (Limit = 24dBm EIRP)	Conducted PSD (dBm/MHz)		EIRP MIMO PSD (Limit = -1 dBm/MHz EIRP)
	SU	Partial Rus							Ant 1	Ant 2		Ant 1	Ant 2	
20MHz	0	0	-0.05	2.55	6435	97	SU	--	5.65	5.71	8.64	-5.514	-5.457	-2.525
							MRU	82	3.40	3.43	6.38	-5.730	-5.724	-2.767
							106+26T	83	3.43	3.48	6.42	-5.665	-5.367	-2.553
					6475	105	SU	--	5.72	5.66	8.65	-5.586	-5.173	-2.414
							MRU	82	3.44	3.46	6.41	-5.406	-5.325	-2.405
							106+26T	83	3.47	3.45	6.42	-5.403	-5.407	-2.445
					6515	113	SU	--	5.68	5.68	8.64	-5.319	-5.471	-2.434
							MRU	82	3.45	3.43	6.40	-5.556	-5.429	-2.532
							106+26T	83	3.43	3.47	6.41	-5.656	-5.718	-2.727
40MHz	0	0	-0.05	2.55	6445	99	SU	--	8.68	8.72	11.66	-5.903	-5.756	-2.869
							MRU 106+26T	82	3.46	3.39	6.39	-6.013	-5.997	-3.045
								84	3.45	3.47	6.42	-5.549	-5.939	-2.779
								85	3.46	3.47	6.43	-5.662	-5.777	-2.759
					6485	107	SU	--	8.66	8.70	11.64	-5.533	-5.655	-2.633
							MRU 106+26T	82	3.42	3.41	6.38	-5.824	-5.680	-2.791
								84	3.48	3.47	6.44	-5.838	-5.837	-2.877
								85	3.47	3.39	6.39	-5.833	-5.802	-2.857
			0.02	2.62	6525 (Straddle)	115	SU	--	8.69	8.68	11.72	-5.839	-5.919	-2.849
							MRU 106+26T	82	3.46	3.45	6.49	-5.471	-5.651	-2.530
								84	3.44	3.42	6.46	-5.786	-5.740	-2.733
								85	3.44	3.47	6.49	-5.874	-5.684	-2.748
80MHz	0.3	0	-0.05	2.55	6465	103	SU	--	11.71	11.68	14.66	-5.577	-5.652	-2.354
							52T	37	-0.57	-0.58	2.39	-5.813	-5.838	-2.865
								45	-0.53	-0.54	2.43	-5.867	-5.544	-2.742
								52	-0.52	-0.56	2.42	-5.660	-5.526	-2.632
160MHz	0.5	0	0.02	2.62	6505 (Straddle)	111	SU	--	13.92	13.89	16.94	-5.660	-5.254	-1.922
							484T	65	8.68	8.73	11.74	-5.263	-5.461	-2.331
								S66	8.69	8.67	11.71	-5.526	-5.514	-2.490

Note:
EIRP MIMO Output Power (dBm) = Measured Conducted Power (dBm) (Ant 1 + Ant 2) + Un-Correlated Antenna Gain (dBi)

EIRP MIMO PSD (dBm/MHz) = Measured Conducted PSD (dBm/MHz) (Ant 1 + Ant 2) + Duty Factor (dB) + Un-Correlated Antenna Gain (dBi)
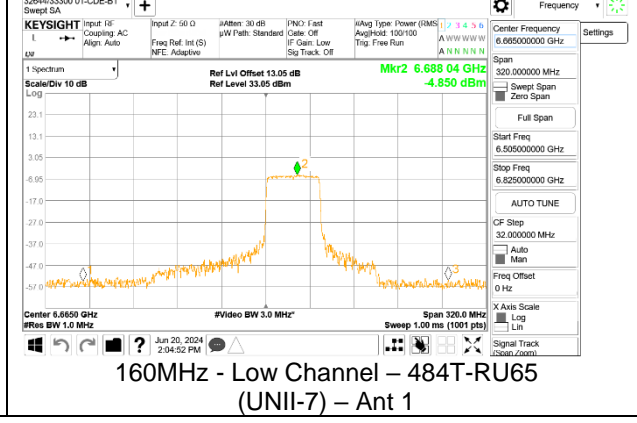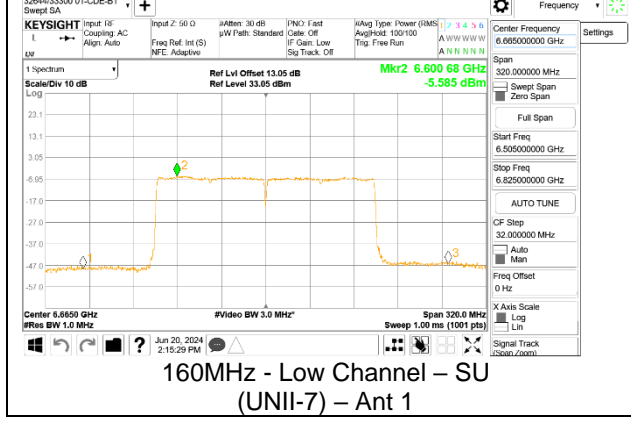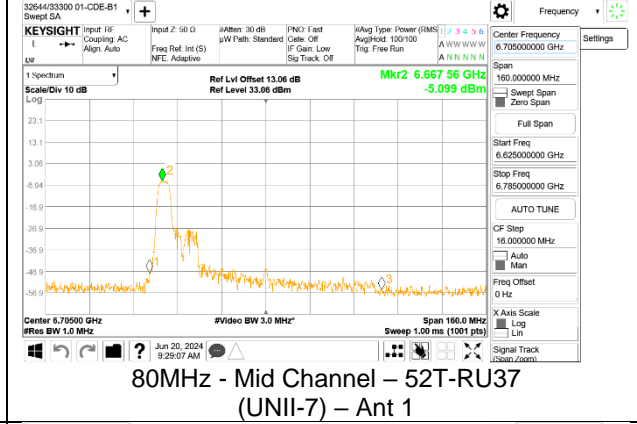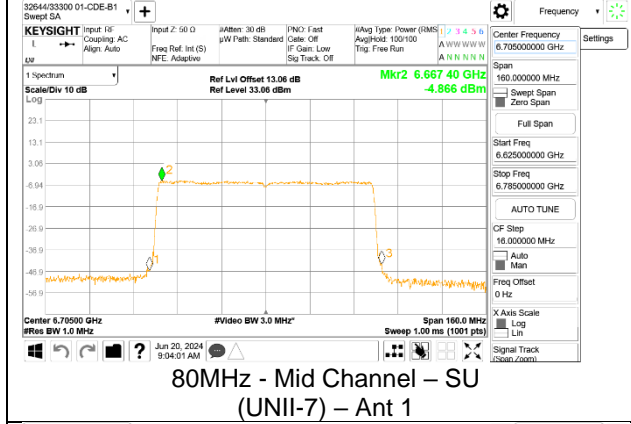
40MHz - Mid Channel – SU (UNII-6) – Ant 2	40MHz - Mid Channel – MRU106+26T-RU85 (UNII-6) – Ant 2

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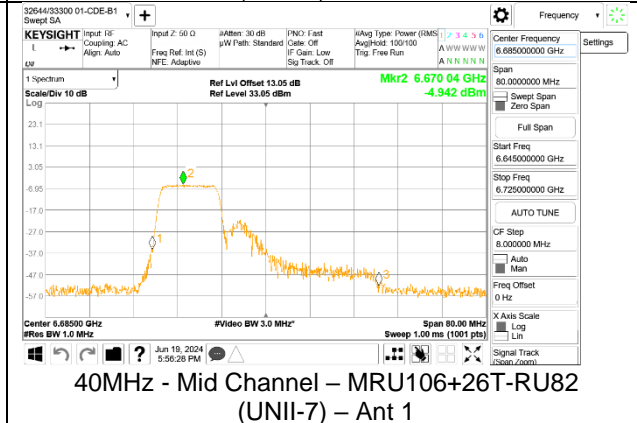*This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.*

9.4.7. 802.11be SISO MODE IN THE UNII-7 BAND – LOW POWER

LP UNII-7 (SISO)	Duty Factor (dB)		Ant 1 Gain (dBi)	Ant 2 Gain (dBi)	Frequency (MHz)	Channel Number	Tone	RU Index	Conducted Power (Gated) (dBm)		EIRP Power (Limit = 24dBm EIRP)		Conducted PSD (dBm/MHz)		EIRP PSD (Limit = -1 dBm/MHz EIRP)	
	SU	Partial RU							Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2
20MHz	0	0	2.00	-4.40	6535	117	SU	--	6.45	6.44	8.45	2.04	-5.371	-5.004	-3.371	-9.404
							26T	0	-2.63	-2.58	-0.63	-6.98	-4.807	-4.969	-2.807	-9.369
								4	-2.55	-2.56	-0.55	-6.96	-6.228	-6.180	-4.228	-10.580
								8	-2.59	-2.55	-0.59	-6.95	-5.164	-5.215	-3.164	-9.615
					6715	153	SU	--	6.43	6.45	8.43	2.05	-5.314	-5.219	-3.314	-9.619
							26T	0	-2.54	-2.51	-0.54	-6.91	-5.294	-4.998	-3.294	-9.398
								4	-2.55	-2.53	-0.55	-6.93	-6.234	-6.004	-4.234	-10.404
								8	-2.57	-2.54	-0.57	-6.94	-5.351	-5.252	-3.351	-9.652
			2.00	-3.50	6875 (Straddle)	185	SU	--	6.45	6.46	8.45	2.96	-5.271	-5.427	-3.271	-8.927
							26T	0	-2.53	-2.53	-0.53	-6.03	-5.170	-5.580	-3.170	-9.080
								4	-2.55	-2.51	-0.55	-6.01	-6.311	-6.118	-4.311	-9.618
								8	-2.57	-2.59	-0.57	-6.09	-5.152	-5.286	-3.152	-8.786
40MHz	0	0.19	2.00	-4.40	6565	123	SU	--	9.43	9.46	11.43	5.06	-5.105	-4.966	-3.105	-9.366
							MRU 106+26T	82	4.23	4.20	6.23	-0.20	-4.791	-5.090	-2.601	-9.300
								84	4.23	4.23	6.23	-0.17	-4.839	-4.911	-2.649	-9.121
								85	4.22	4.15	6.22	-0.25	-4.892	-4.877	-2.702	-9.087
					6685	147	SU	--	9.40	9.40	11.40	5.00	-5.087	-5.184	-3.087	-9.584
							MRU 106+26T	82	4.22	4.20	6.22	-0.20	-4.942	-4.887	-2.752	-9.097
								84	4.20	4.22	6.20	-0.18	-4.983	-4.925	-2.793	-9.135
								85	4.23	4.23	6.23	-0.17	-4.987	-4.985	-2.797	-9.195
					6845	179	SU	--	9.45	9.45	11.45	5.05	-5.214	-5.121	-3.214	-9.521
							MRU 106+26T	82	4.17	4.15	6.17	-0.25	-5.094	-5.216	-2.904	-9.426
								84	4.23	4.20	6.23	-0.20	-4.799	-5.092	-2.609	-9.302
								85	4.20	4.15	6.20	-0.25	-5.013	-5.202	-2.823	-9.412
80MHz	0.14	0.12	2.00	-3.70	6545 (Straddle)	119	SU	--	12.39	12.47	14.39	8.77	-4.849	-4.610	-2.709	-8.170
							52T	37	0.17	0.16	2.17	-3.54	-5.235	-4.919	-3.115	-8.499
								45	0.23	0.23	2.23	-3.47	-5.289	-5.268	-3.169	-8.848
								52	0.22	0.16	2.22	-3.54	-5.206	-5.215	-3.086	-8.795
			2.00	-4.40	6705	151	SU	--	12.45	12.46	14.45	8.06	-4.866	-4.619	-2.726	-8.879
							52T	37	0.18	0.24	2.18	-4.16	-5.099	-4.799	-2.979	-9.079
								45	0.19	0.19	2.19	-4.21	-5.234	-5.112	-3.114	-9.392
								52	0.15	0.23	2.15	-4.17	-5.335	-5.356	-3.215	-9.636
			2.00	-3.50	6865 (Straddle)	183	SU	--	12.45	12.41	14.45	8.91	-4.739	-5.125	-2.599	-8.485
							52T	37	0.23	0.23	2.23	-3.27	-5.091	-5.346	-2.971	-8.726
								45	0.17	0.21	2.17	-3.29	-5.226	-5.504	-3.106	-8.884
								52	0.23	0.15	2.23	-3.35	-5.254	-5.474	-3.134	-8.854
160MHz	0.25	0	2.00	-4.40	6665	143	SU	--	14.67	14.70	16.67	10.30	-5.585	-5.366	-3.335	-9.516
							484T	65	9.43	9.44	11.43	5.04	-4.850	-5.118	-2.850	-9.518
								S66	9.45	9.45	11.45	5.05	-5.051	-5.018	-3.051	-9.418
			2.00	-3.50	6825 (Straddle)	175	SU	--	14.65	14.67	16.65	11.17	-5.222	-5.306	-2.972	-8.556
							484T	65	9.40	9.46	11.40	5.96	-5.201	-5.202	-3.201	-8.702
								S66	9.44	9.45	11.44	5.95	-5.052	-4.915	-3.052	-8.415

Note:
EIRP Output Power (dBm) = Measured Conducted Power (dBm)+ Peak Antenna Gain (dBi)

EIRP PSD (dBm/MHz) = Measured Conducted PSD (dBm/MHz) + Duty Factor (dB) + Peak Antenna Gain (dBi)
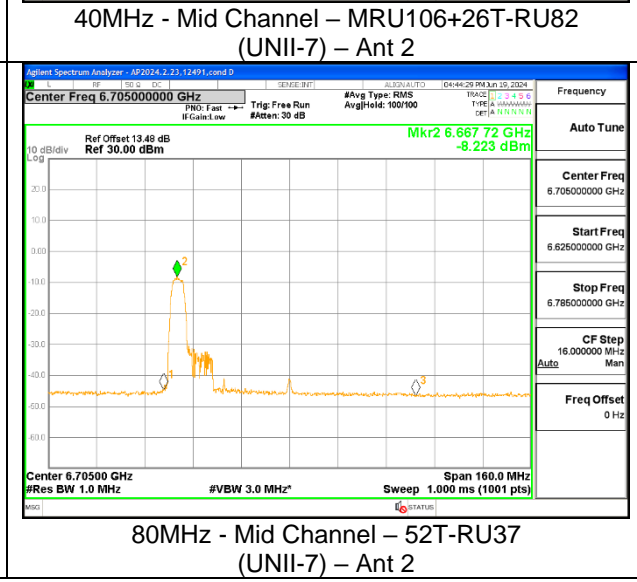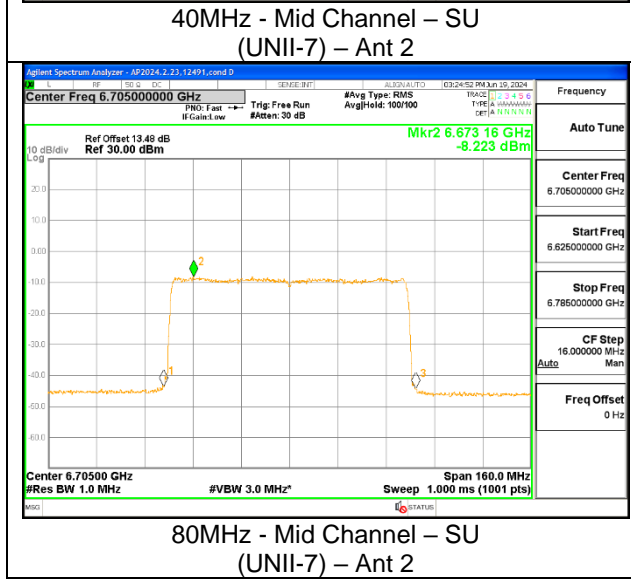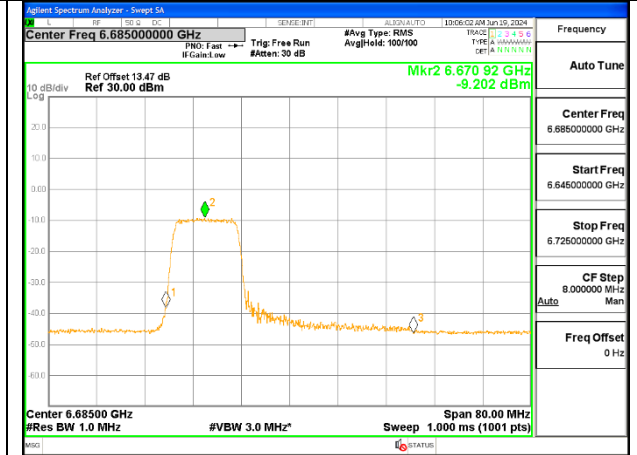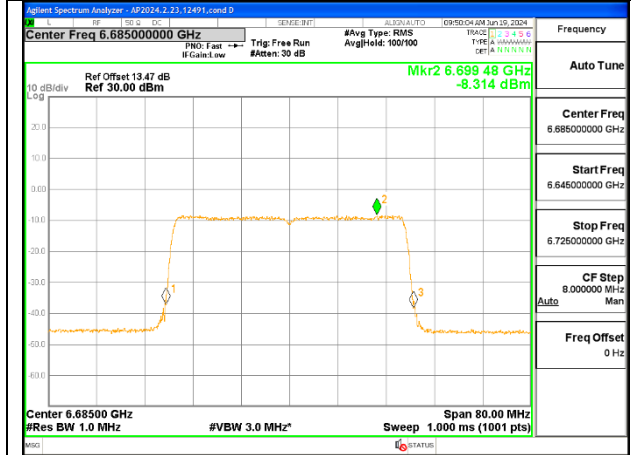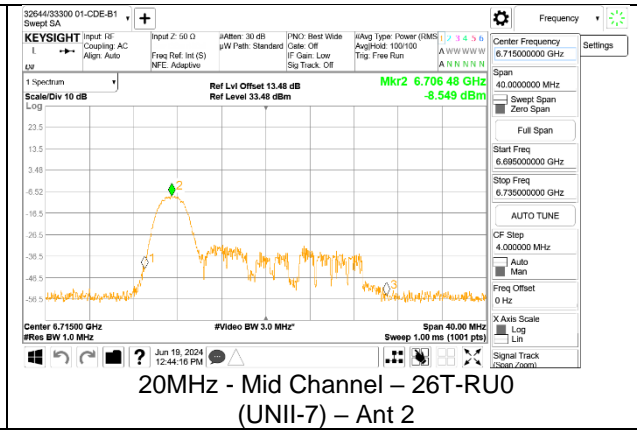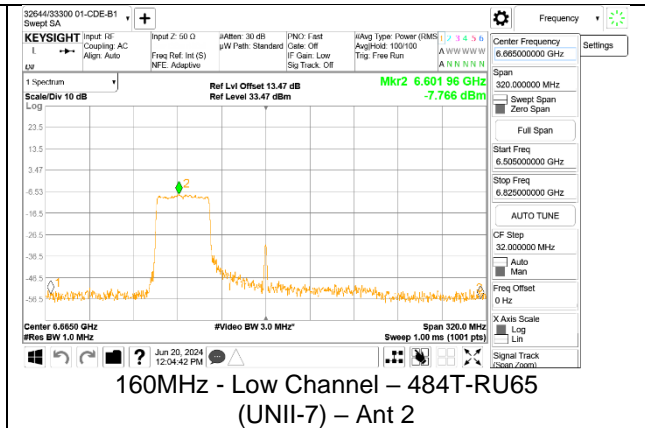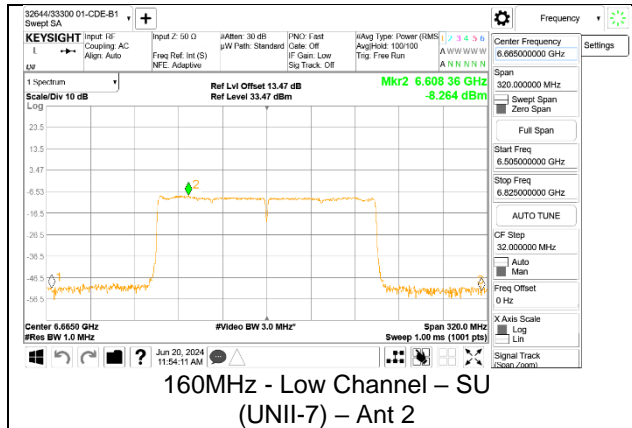
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20MHz - Mid Channel – SU
(UNII-7) – Ant 1

20MHz - Mid Channel – 26T-RU0
(UNII-7) – Ant 1

40MHz - Mid Channel – SU
(UNII-7) – Ant 1

40MHz - Mid Channel – MRU106+26T-RU82
(UNII-7) – Ant 1

80MHz - Mid Channel – SU
(UNII-7) – Ant 1

80MHz - Mid Channel – 52T-RU37
(UNII-7) – Ant 1

160MHz - Low Channel – SU
(UNII-7) – Ant 1

160MHz - Low Channel – 484T-RU65
(UNII-7) – Ant 1

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9.4.8. 802.11be MIMO CDD MODE IN THE UNII-7 BAND – LOW POWER

LP CDD UNII-7 (MIMO)	Duty Factor (dB)		Un-Correlated Antenna Gain (dBi)	Correlated Antenna Gain (dBi)	Frequency (MHz)	Channel Number	Tone	RU Index	Conducted Power (Gated)		EIRP MIMO Power (Limit = 24dBm EIRP)	Conducted PSD (dBm/MHz)		EIRP MIMO PSD (Limit = -1 dBm/MHz EIRP)
	SU	Partial Rus							Ant 1	Ant 2		Ant 1	Ant 2	
20MHz	0	0	-0.11	2.39	6535	117	SU	--	3.17	3.23	6.10	-8.476	-8.433	-3.054
							26T	0	-5.85	-5.77	-2.91	-8.519	-8.331	-3.024
								4	-5.80	-5.82	-2.91	-9.611	-9.556	-4.183
								8	-5.77	-5.80	-2.88	-8.533	-8.461	-3.097
					6715	153	SU	--	3.23	3.17	6.10	-8.591	-8.310	-3.048
							26T	0	-5.77	-5.82	-2.89	-8.542	-8.549	-3.145
								4	-5.82	5.80	5.98	-9.564	-9.661	-4.212
								8	-5.82	-5.80	-2.91	-8.506	-8.254	-2.978
			0.07	2.69	6875 (Straddle)	185	SU	--	3.20	3.23	**6.30**	-8.633	-8.345	-2.786
							26T	0	-5.86	-5.80	-2.75	-8.342	-8.613	-2.775
								4	-5.77	-5.82	-2.71	-9.652	-9.517	-3.884
								8	-5.82	-5.79	-2.72	-8.676	-8.603	-2.939
40MHz	0	0.19	-0.11	2.39	6565	123	SU	--	6.16	6.15	9.06	-8.203	-8.292	-2.847
							MRU 106+26T	82	0.89	0.91	3.80	-9.146	-9.059	-3.512
								84	0.91	0.88	3.80	-9.002	-9.006	-3.414
								85	0.83	0.89	3.76	-8.706	-9.051	-3.285
					6685	147	SU	--	6.14	6.23	9.09	-8.320	-8.314	-2.917
							MRU 106+26T	82	0.86	0.82	3.74	-8.807	-9.202	-3.410
								84	0.86	0.96	3.81	-9.373	-8.991	-3.588
								85	0.95	0.91	3.83	-9.143	-9.105	-3.534
					6845	179	SU	--	6.23	6.23	**9.13**	-8.595	-8.634	-3.214
							MRU 106+26T	82	0.86	0.86	3.76	-8.751	-8.907	-3.238
								84	0.92	0.87	3.80	-8.861	-9.128	-3.402
								85	0.92	0.86	3.79	-8.849	-9.320	-3.488
80MHz	0.14	0.12	0.02	2.62	6545 (Straddle)	119	SU	--	8.98	8.95	12.00	-8.630	-8.688	-2.889
							52T	37	-3.30	-3.29	-0.26	-8.803	-8.831	-3.067
								45	-3.26	-3.47	-0.33	-8.835	-9.204	-3.265
								52	-3.32	-3.33	-0.29	-8.972	-8.867	-3.169
			-0.11	2.39	6705	151	SU	--	9.23	9.23	12.13	-8.157	-8.223	-2.650
							52T	37	-3.04	-3.03	-0.13	-8.524	-8.223	-2.851
								45	-3.02	-3.09	-0.15	-8.451	-8.610	-3.009
								52	-3.02	-3.03	-0.12	-8.532	-8.280	-2.884
			0.07	2.69	6865 (Straddle)	183	SU	--	9.24	9.18	**12.29**	-8.486	-8.527	-2.666
							52T	37	-3.04	-3.02	0.05	-8.588	-8.589	-2.768
								45	-3.10	-3.06	0.00	-8.528	-8.578	-2.733
								52	-3.07	-3.10	0.00	-8.357	-8.433	-2.575
160MHz	0.25	0	-0.11	2.39	6665	143	SU	--	11.48	11.47	14.38	-8.482	-8.264	-2.721
							484T	65	6.23	6.23	9.13	-8.173	-7.766	-2.564
								S66	6.22	6.23	9.13	-8.161	-7.847	-2.601
			0.07	2.69	6825 (Straddle)	175	SU	--	11.41	11.45	**14.51**	-8.151	-8.129	-2.190
							484T	65	6.21	6.19	9.28	-8.097	-8.312	-2.503
								S66	6.19	6.17	9.26	-8.236	-8.301	-2.568

Note:
EIRP MIMO Output Power (dBm) = Measured Conducted Power (dBm) (Ant 1 + Ant 2) + Un-Correlated Antenna Gain (dBi)

EIRP MIMO PSD (dBm/MHz) = Measured Conducted PSD (dBm/MHz) (Ant 1 + Ant 2) + Duty Factor (dB) + Correlated Antenna Gain (dBi)
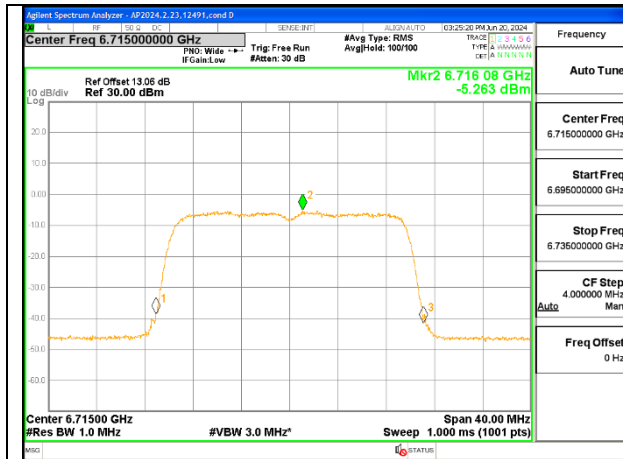
20MHz - Mid Channel – SU
(UNII-7) – Ant 2

20MHz - Mid Channel – 26T-RU0
(UNII-7) – Ant 2

40MHz - Mid Channel – SU
(UNII-7) – Ant 2

40MHz - Mid Channel – MRU106+26T-RU82
(UNII-7) – Ant 2

80MHz - Mid Channel – SU
(UNII-7) – Ant 2

80MHz - Mid Channel – 52T-RU37
(UNII-7) – Ant 2

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160MHz - Low Channel – SU
(UNII-7) – Ant 2

160MHz - Low Channel – 484T-RU65
(UNII-7) – Ant 2

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9.4.9. 802.11be MIMO SDM MODE IN THE UNII-7 BAND – LOW POWER

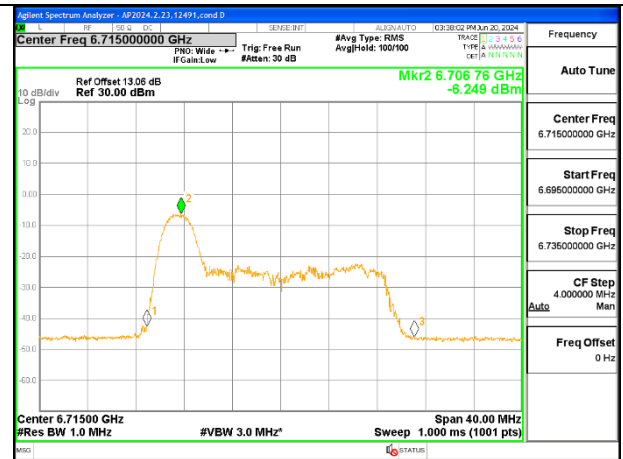| LP CDD UNII-7 (MIMO)	Duty Factor (dB)		Un-Correlated Antenna Gain (dBi)	Correlated Antenna Gain (dBi)	Frequency (MHz)	Channel Number	Tone	RU Index	Conducted Power (Gated)		EIRP MIMO Power (Limit = 24dBm EIRP)	Conducted PSD (dBm/MHz)		EIRP MIMO PSD (Limit = -1 dBm/MHz EIRP)
	SU	Partial Rus							Ant 1	Ant 2		Ant 1	Ant 2	
20MHz	0	0	-0.11	2.39	6535	117	SU	--	5.70	5.74	8.62	-5.387	-5.447	-2.517
							26T	0	-3.34	-3.32	-0.43	-6.349	-5.990	-3.265
								4	-3.39	-3.33	-0.46	-6.842	-6.861	-3.951
								8	-3.32	-3.32	-0.42	-5.984	-6.040	-3.112
					6715	153	SU	--	5.67	5.68	8.58	-5.263	-5.304	-2.383
							26T	0	-3.31	-3.31	-0.41	-6.249	-5.824	-3.131
								4	-3.32	-3.31	-0.41	-6.878	-6.811	-3.944
								8	-3.33	-3.31	-0.42	-6.247	-5.828	-3.132
			0.07	2.69	6875 (Straddle)	185	SU	--	5.69	5.67	**8.76**	-5.419	-5.194	-2.225
							26T	0	-3.27	-3.30	-0.20	-6.115	-6.047	-3.001
								4	-3.36	-3.34	-0.27	-7.245	-6.961	-4.020
								8	-3.32	-3.32	-0.24	-6.128	-5.849	-2.906
40MHz	0	0	-0.11	2.39	6565	123	SU	--	8.74	8.67	11.61	-4.789	-4.846	-1.917
							MRU 106+26T	82	3.42	3.43	6.33	-5.265	-5.212	-2.338
								84	3.43	3.47	6.35	-5.144	-4.961	-2.151
								85	3.47	3.47	6.37	-5.242	-4.940	-2.188
					6685	147	SU	--	8.72	8.71	**11.62**	-4.684	-4.592	-1.737
							MRU 106+26T	82	3.48	3.43	6.36	-4.900	-4.856	-1.978
								84	3.42	3.48	6.35	-4.926	-4.875	-2.000
								85	3.48	3.44	6.36	-4.936	-4.671	-1.901
					6845	179	SU	--	8.68	8.72	11.60	-4.942	-4.882	-2.012
							MRU 106+26T	82	3.44	3.48	6.36	-5.161	-4.925	-2.141
								84	3.41	3.46	6.34	-4.830	-4.929	-1.979
								85	3.41	3.46	6.34	-4.917	-4.890	-2.003
80MHz	0.3	0	0.02	2.62	6545 (Straddle)	119	SU	--	11.70	11.71	14.74	-4.677	-4.432	-1.222
							52T	37	-0.55	-0.53	2.49	-5.657	-5.630	-2.613
								45	-0.53	-0.52	2.51	-5.605	-5.870	-2.705
								52	-0.58	-0.57	2.46	-5.749	-5.655	-2.671
			-0.11	2.39	6705	151	SU	--	11.73	11.72	14.63	-4.709	-4.552	-1.429
							52T	37	-0.53	-0.55	2.36	-5.239	-5.339	-2.388
								45	-0.57	-0.56	2.34	-5.371	-5.224	-2.397
								52	-0.58	-0.53	2.35	-5.332	-5.301	-2.416
			0.07	2.69	6865 (Straddle)	183	SU	--	11.71	11.74	**14.81**	-4.617	-4.491	-1.173
							52T	37	-0.56	-0.56	2.52	-5.446	-5.404	-2.345
								45	-0.57	-0.59	2.50	-5.395	-5.478	-2.356
								52	-0.52	-0.57	2.54	-5.403	-5.195	-2.217
160MHz	0.5	0	-0.11	2.39	6665	143	SU	--	13.96	13.96	16.86	-5.337	-5.460	-1.998
							484T	65	8.67	8.74	11.61	-5.437	-5.421	-2.529
								S66	8.67	8.68	11.58	-5.626	-5.474	-2.649
			0.07	2.69	6825 (Straddle)	175	SU	--	13.97	13.94	**17.04**	-5.343	-5.158	-1.669
							484T	65	8.69	8.72	11.79	-5.147	-5.095	-2.041
								S66	8.74	8.68	11.79	-5.146	-5.595	-2.284

Note:
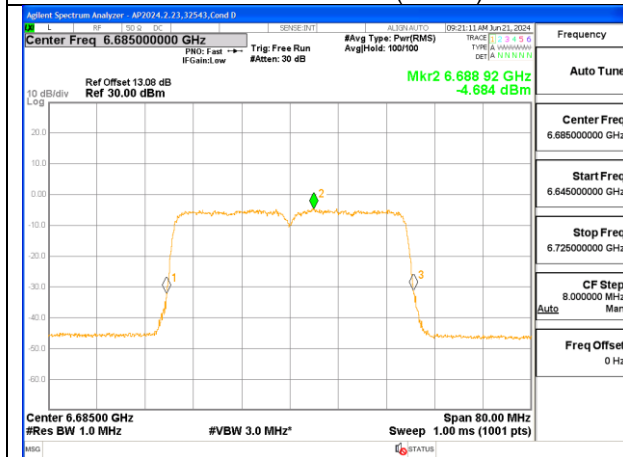EIRP MIMO Output Power (dBm) = Measured Conducted Power (dBm) (Ant 1 + Ant 2) + Un-Correlated Antenna Gain (dBi)

EIRP MIMO PSD (dBm/MHz) = Measured Conducted PSD (dBm/MHz) (Ant 1 + Ant 2) + Duty Factor (dB) + Un-Correlated Antenna Gain (dBi)

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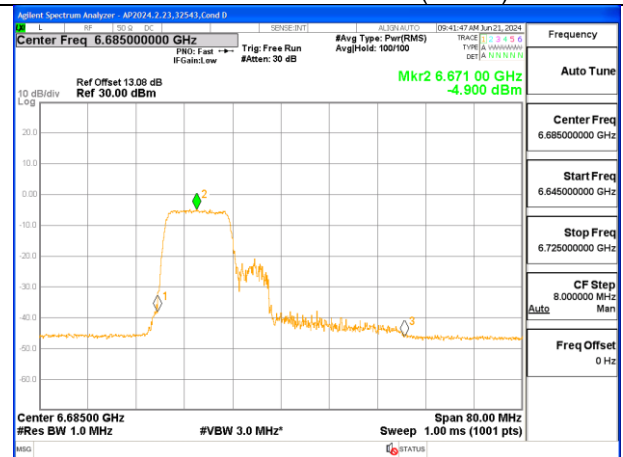
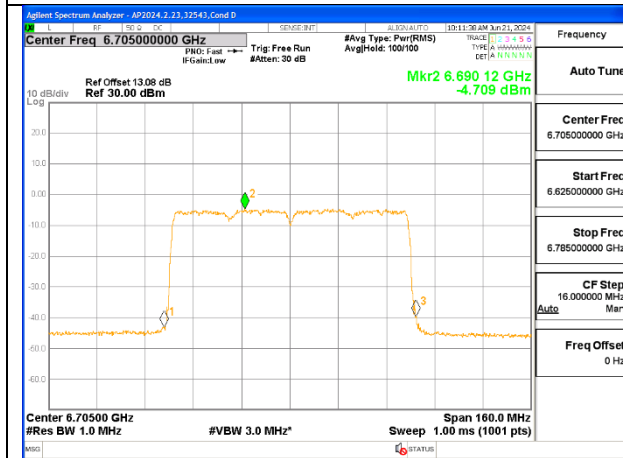20MHz - Mid Channel – SU (UNII-7) – Ant 1

20MHz - Mid Channel – 26T-RU0 (UNII-7) – Ant 1
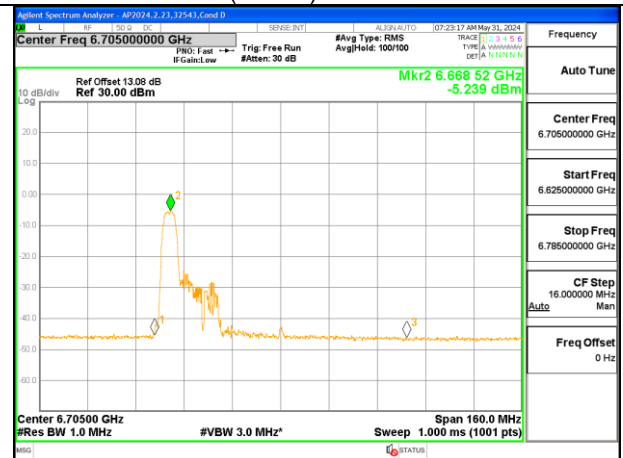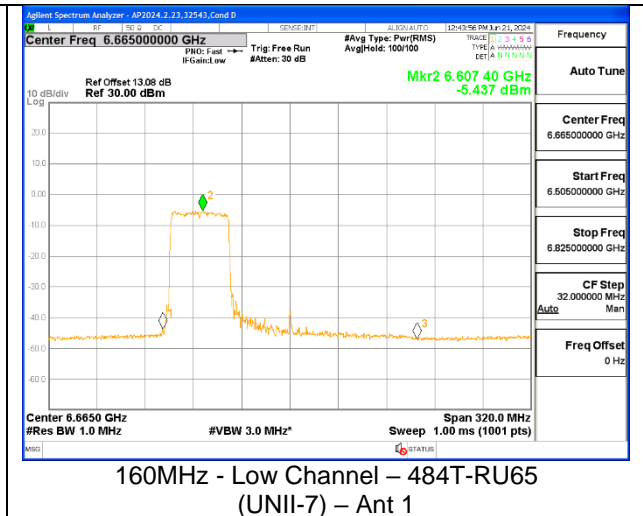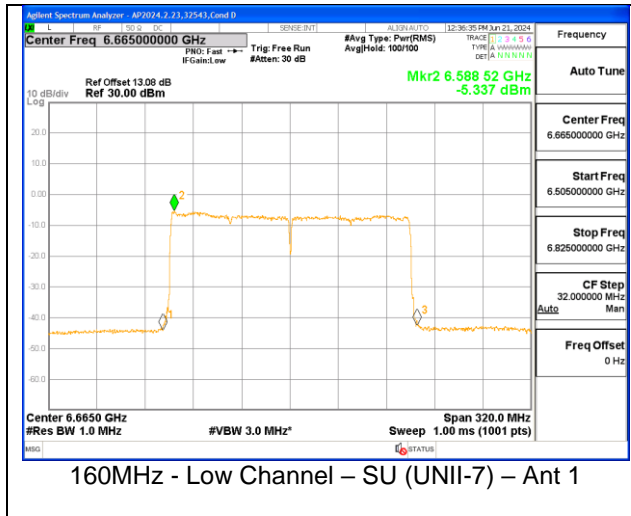

40MHz - Mid Channel – SU (UNII-7) – Ant 1

40MHz - Mid Channel – MRU106+26T-RU82 (UNII-7) – Ant 1

80MHz - Mid Channel – SU (UNII-7) – Ant 1

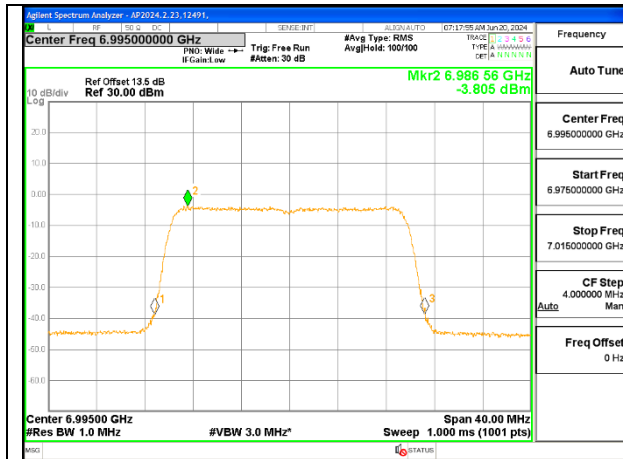80MHz - Mid Channel – 52T-RU37 (UNII-7) – Ant 1

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| 160MHz - Low Channel – SU (UNII-7) – Ant 1 | 160MHz - Low Channel – 484T-RU65 (UNII-7) – Ant 1 |

9.4.10. 802.11be SISO MODE IN THE UNII-8 BAND – LOW POWER

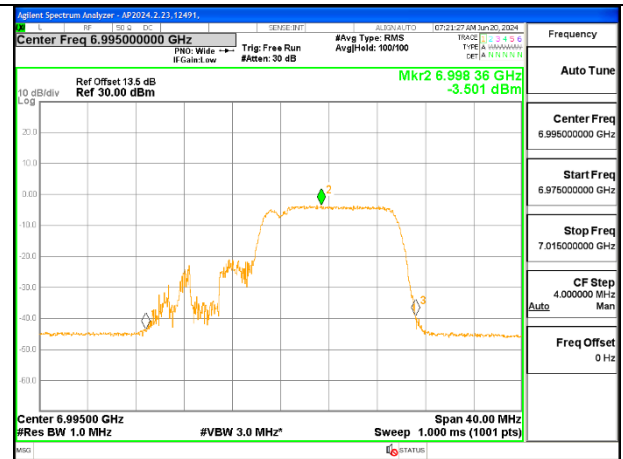| LP UNII-8 (SISO)	Duty Factor (dB)		Ant 1 Gain (dBi)	Ant 2 Gain (dBi)	Frequency (MHz)	Channel Number	Tone	RU Index	Conducted Power (Gated) (dBm)		EIRP Power (Limit = 24dBm EIRP)		Conducted PSD (dBm/MHz)		EIRP PSD (Limit = -1 dBm/MHz EIRP)	
	SU	Partial RU							Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2
20MHz	0	0	1.00	-3.50	6895	189	SU	--	7.69	7.73	**8.69**	4.23	-4.216	-3.685	-3.216	-7.185
							MRU 106+26T	82	5.45	5.46	6.45	1.96	-3.877	-4.067	-2.877	-7.567
								83	5.41	5.41	6.41	1.91	-3.874	-3.933	-2.874	-7.433
					6995	209	SU	--	7.67	7.72	8.67	4.22	-3.905	-3.805	-2.905	-7.305
							MRU 106+26T	82	5.46	5.44	6.46	1.94	-3.418	-3.564	-2.418	-7.064
								83	5.46	5.45	6.46	1.95	-3.664	-3.501	-2.664	-7.001
					7095	229	SU	--	7.65	7.67	8.65	4.17	-4.390	-4.181	-3.390	-7.681
							MRU 106+26T	82	5.47	5.43	6.47	1.93	-4.135	-4.069	-3.135	-7.569
								83	5.46	5.46	6.46	1.96	-4.093	-4.021	-3.093	-7.521
					7115	233	SU	--	-3.61	-3.55	-2.61	-7.05	-15.401	-15.698	-14.401	-19.198
40MHz	0	0.19	2.00	-3.50	6885 (Straddle)	187	SU	--	9.43	9.48	11.43	5.98	-5.585	-5.465	-3.585	-8.965
							MRU 106+26T	82	4.23	4.19	6.23	0.69	-5.201	-5.381	-3.011	-8.691
								84	4.23	4.21	6.23	0.71	-5.119	-4.913	-2.929	-8.223
								85	4.22	4.16	6.22	0.66	-4.994	-5.148	-2.804	-8.458
			1.00	-3.50	6965	203	SU	--	10.72	10.71	**11.72**	7.21	-3.308	-3.569	-2.308	-7.069
							MRU 106+26T	82	5.39	5.41	6.39	1.91	-3.709	-3.666	-2.519	-6.976
								84	5.43	5.48	6.43	1.98	-3.521	-3.527	-2.331	-6.837
								85	5.48	5.45	6.48	1.95	-3.546	-3.891	-2.356	-7.201
					7085	227	SU	--	10.68	10.68	11.68	7.18	-3.174	-3.247	-2.174	-6.747
							MRU 106+26T	82	5.39	5.46	6.39	1.96	-3.374	-3.631	-2.184	-6.941
								84	5.39	5.47	6.39	1.97	-3.472	-3.480	-2.282	-6.790
								85	5.46	5.39	6.46	1.89	-3.429	-3.720	-2.239	-7.030
80MHz	0.14	0.12	1.00	-3.50	6945	199	SU	--	13.67	13.67	14.67	10.17	-3.358	-3.630	-2.218	-6.990
							484T	65	10.69	10.69	11.69	7.19	-4.022	-4.160	-2.902	-7.540
								66	10.68	10.65	11.68	7.15	-4.104	-4.099	-2.984	-7.479
			1.00	-3.50	7025	215	SU	--	13.71	13.68	**14.71**	10.18	-3.428	-3.675	-2.288	-7.035
							484T	65	10.72	10.71	11.72	7.21	-4.048	-4.187	-2.928	-7.567
								66	10.71	10.69	11.71	7.19	-3.905	-4.274	-2.785	-7.654
160MHz	0.25	0	1.00	-3.50	6985	207	SU	--	15.93	15.94	**16.93**	12.44	-3.188	-3.268	-1.938	-6.518
							484T	65	10.71	10.66	11.71	7.16	-3.144	-3.102	-2.144	-6.602
								S66	10.68	10.67	11.68	7.17	-3.465	-3.615	-2.465	-7.115

Note:
EIRP Output Power (dBm) = Measured Conducted Power (dBm)+ Peak Antenna Gain (dBi)
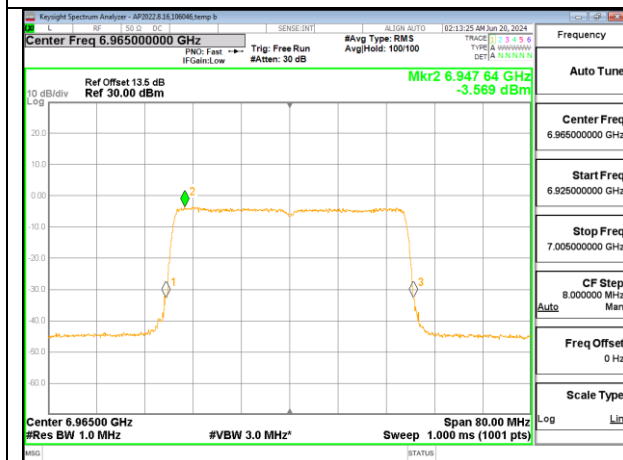
EIRP PSD (dBm/MHz) = Measured Conducted PSD (dBm/MHz) + Duty Factor (dB) + Peak Antenna Gain (dBi)

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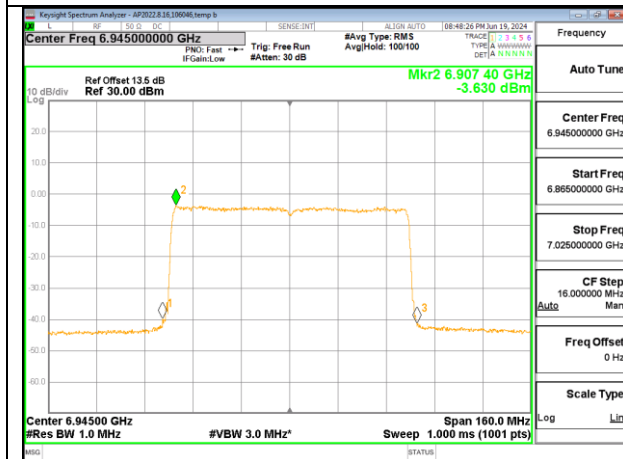20MHz - Mid Channel – SU (UNII-8) – Ant 2

20MHz - Mid Channel – MRU106+26T-RU83 (UNII-8) – Ant 2
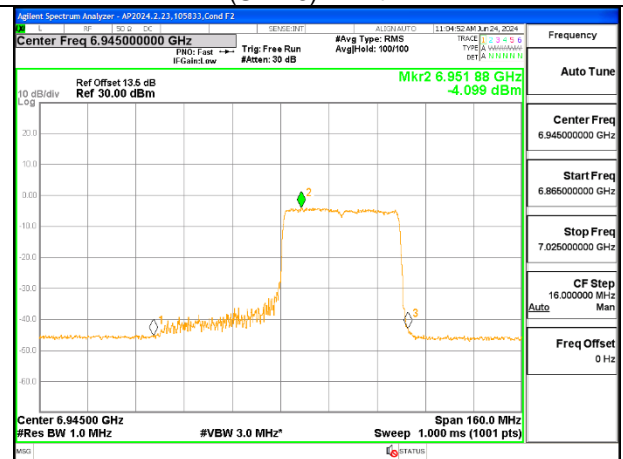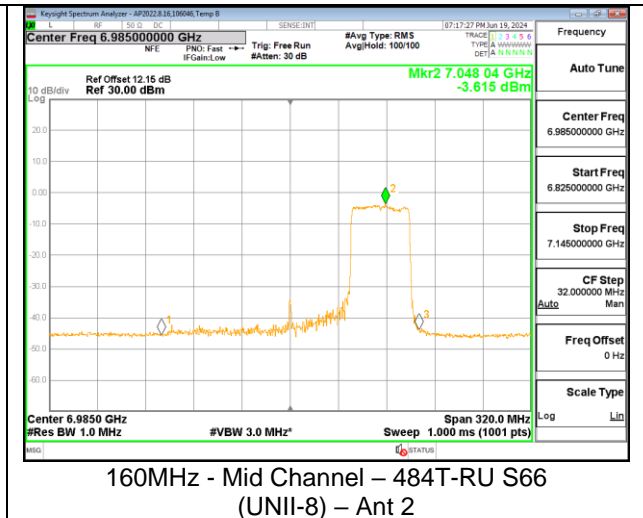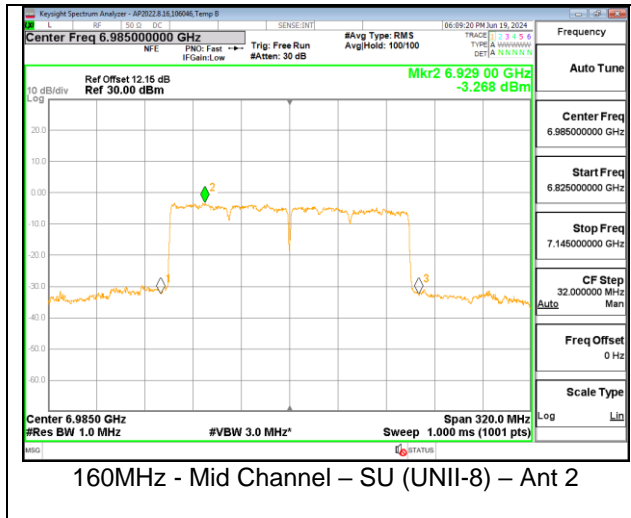

40MHz - Mid Channel – SU (UNII-8) – Ant 2

40MHz - Mid Channel – MRU106+26T-RU85 (UNII-8) – Ant 2

80MHz - Low Channel – SU (UNII-8) – Ant 2

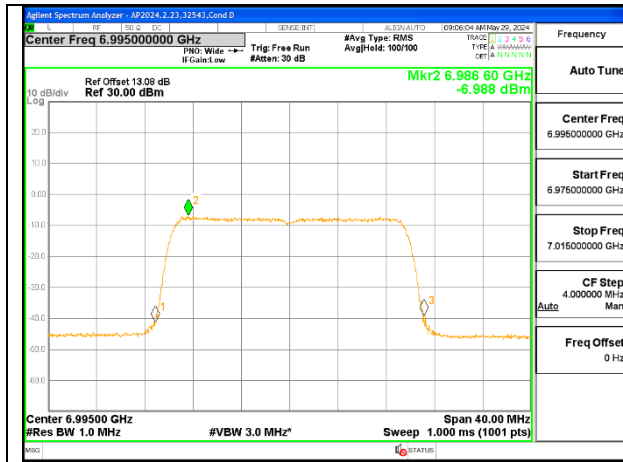80MHz - Low Channel – 484T-RU66 (UNII-8) – Ant 2

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160MHz - Mid Channel – SU (UNII-8) – Ant 2

160MHz - Mid Channel – 484T-RU S66 (UNII-8) – Ant 2

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9.4.11.   802.11be MIMO CDD MODE IN THE UNII-8 BAND – LOW POWER

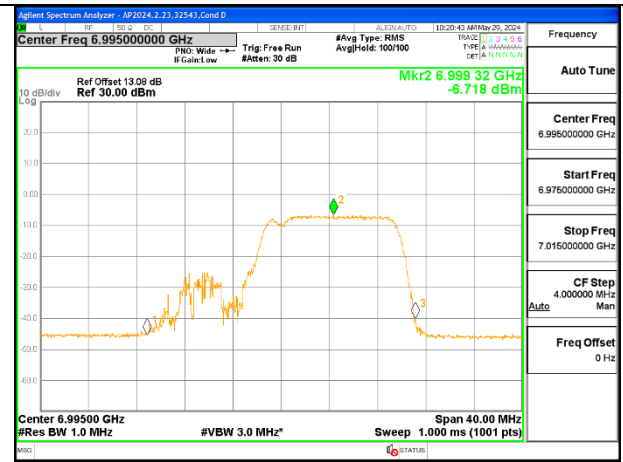| LP CDD UNII-8 (MIMO)	Duty Factor (dB)		Un-Correlated Antenna Gain (dBi)	Correlated Antenna Gain (dBi)	Frequency (MHz)	Channel Number	Tone	RU Index	Conducted Power (Gated)		EIRP MIMO Power (Limit = 24dBm EIRP)	Conducted PSD (dBm/MHz)		EIRP MIMO PSD (Limit = -1 dBm/MHz EIRP)
	SU	Partial Rus							Ant 1	Ant 2		Ant 1	Ant 2	
20MHz	0	0	-0.69	2.05	6895	189	SU	--	3.44	3.39	5.74	-7.372	-7.332	-2.292
							MRU 106+26T	82	1.21	1.16	3.51	-6.930	-6.972	-1.891
								83	1.16	1.23	3.52	-6.942	-6.737	-1.778
					6995	209	SU	--	3.47	3.42	**5.77**	-6.988	-7.205	-2.035
							MRU 106+26T	82	1.24	1.23	3.56	-6.631	-6.740	-1.625
								83	1.17	1.18	3.50	-6.718	-6.610	-1.603
					7095	229	SU	--	3.44	3.45	5.77	-7.406	-7.358	-2.322
							MRU 106+26T	82	1.24	1.20	3.54	-6.891	-6.855	-1.813
								83	1.24	1.11	3.50	-7.070	-6.854	-1.900
					7115	233	SU	--	-4.59	-4.56	-2.25	-16.081	-16.388	-11.171
40MHz	0	0.19	0.07	2.69	6885 (Straddle)	187	SU	--	6.16	6.24	**9.28**	-8.865	-8.862	-3.163
							MRU 106+26T	82	0.90	0.91	3.99	-7.278	-7.239	-1.368
								84	0.89	0.95	4.00	-7.286	-7.229	-1.367
								85	0.93	0.91	4.00	-7.411	-7.183	-1.405
			-0.69	2.05	6965	203	SU	--	6.37	6.35	8.68	-8.399	-8.075	-3.174
							MRU 106+26T	82	1.23	1.16	3.52	-6.755	-6.629	-1.441
								84	1.16	1.15	3.48	-6.509	-6.683	-1.345
								85	1.21	1.21	3.53	-6.943	-6.632	-1.534
					7085	227	SU	--	6.40	6.31	8.68	-8.169	-8.234	-3.141
							MRU 106+26T	82	1.20	1.21	3.53	-6.895	-6.814	-1.604
								84	1.19	1.23	3.53	-6.880	-6.739	-1.559
								85	1.16	1.24	3.52	-6.590	-6.856	-1.471
80MHz	0.14	0.12	-0.69	2.05	6945	199	SU	--	9.46	9.45	11.78	-7.942	-7.648	-2.592
							484T	65	6.46	6.46	8.78	-8.051	-8.082	-2.886
								66	6.47	6.39	8.75	-8.172	-7.952	-2.880
			-0.69	2.05	7025	215	SU	--	9.48	9.46	**11.79**	-7.529	-7.426	-2.277
							484T	65	6.45	6.47	8.78	-7.792	-7.711	-2.571
								66	6.41	6.46	8.76	-7.727	-7.948	-2.656
160MHz	0.25	0	-0.69	2.05	6985	207	SU	--	11.69	11.46	**13.90**	-7.209	-7.472	-2.028
							484T	65	6.48	6.47	8.80	-7.227	-7.402	-2.253
								S66	6.44	6.45	8.77	-7.602	-7.401	-2.440

Note:
EIRP MIMO Output Power (dBm) = Measured Conducted Power (dBm) (Ant 1 + Ant 2) + Un-Correlated Antenna Gain (dBi)
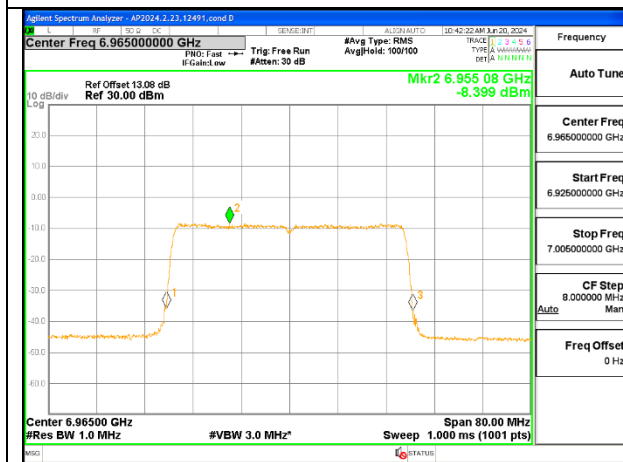
EIRP MIMO PSD (dBm/MHz) = Measured Conducted PSD (dBm/MHz) (Ant 1 + Ant 2) + Duty Factor (dB) + Correlated Antenna Gain (dBi)
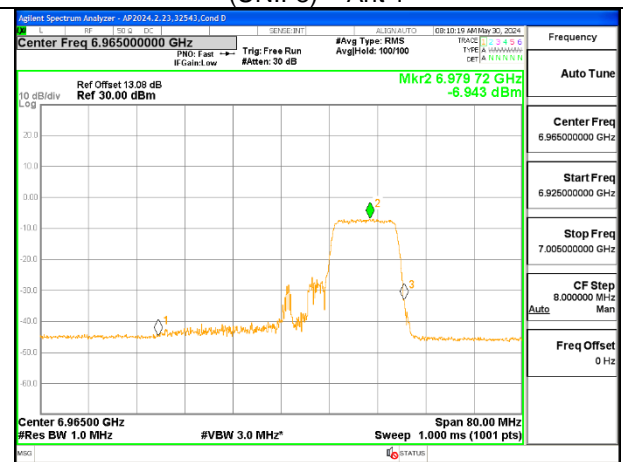
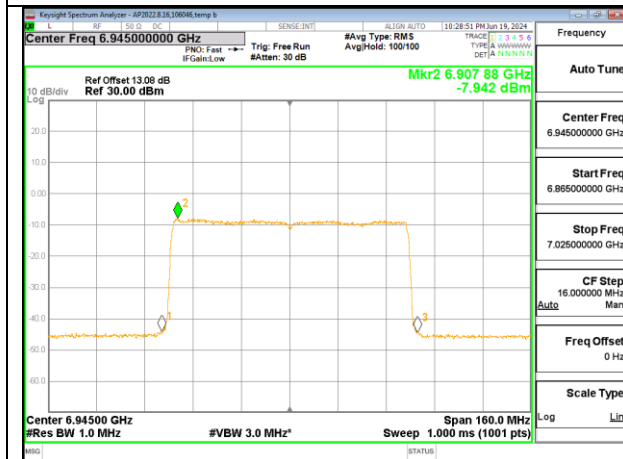20MHz - Mid Channel – SU (UNII-8) – Ant 1

20MHz - Mid Channel – MRU106+26T-RU83 (UNII-8) – Ant 1
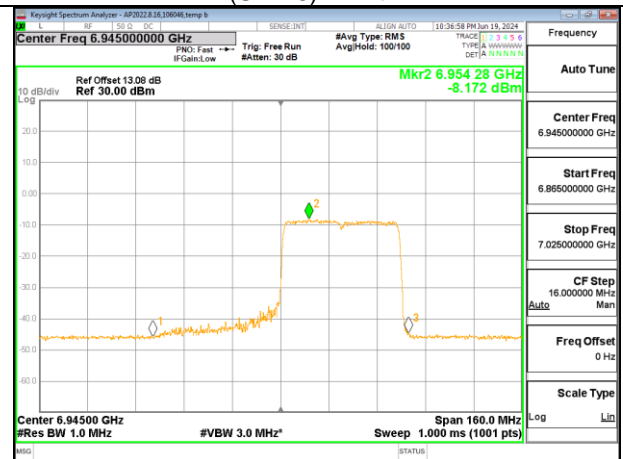

40MHz - Mid Channel – SU (UNII-8) – Ant 1

40MHz - Mid Channel – MRU106+26T-RU85 (UNII-8) – Ant 1

80MHz - Low Channel – SU (UNII-8) – Ant 1

80MHz - Low Channel – 484T-RU66 (UNII-8) – Ant 1

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