

TEST REPORT

Report Number: 14982490-E32V2

Applicant : APPLE INC.
1 APPLE PARK WAY
CUPERTINO, CA 95014, U.S.A.

Model : A3289 (Parent Model)
A3290, A3291 (Variant Models)

Brand : APPLE

FCC ID : BCG-E8693A (Parent Model)
BCG-E8694A, BCG-E8695A (Variant Models)

EUT Description : SMARTPHONE

Test Standard(s) : FCC 47 CFR PART 15 SUBPART E

Date Of Issue:
2024/08/26

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REPORT REVISION HISTORY

Rev.		Issue Date		Revisions		Revised By
V1		2024/08/23		Initial Review		---
V2		2024/08/26		Addressed TCB Questions		Chris Xiong

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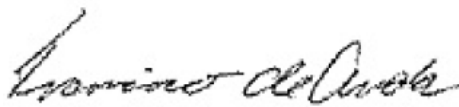
1. ATTESTATION OF TEST RESULTS

Applicant Name and Address	APPLE INC. 1 APPLE PARK WAY CUPERTINO, CA 95014, U.S.A.
Model	A3289, A3290, A3291
Brand	APPLE
FCC ID	BCG-E8693A (Parent Model) BCG-E8694A, BCG-E8695A (Variant Models)
EUT Description	SMARTPHONE
Serial Number	C7HH540005H0000HBU, C7HH6C0002W0000HC1, C7HH6B0001H0000HBS
Sample Receipt Date	2024/06/24, 2024/07/03
Date Tested	2024/08/02 – 2024/08/26
Applicable Standards	47 CFR 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.	Chris Xiong Senior 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 correctly integrating customer-provided data with measurements performed by UL Verification Services Inc.

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

1. Antenna gain and type (see section 6.3)
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			
Output Power EIRP	§15.407 (a) (9)	Compliant	Dual Client
PSD EIRP	§15.407 (a) (9)	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

3. TEST METHODOLOGY

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

- FCC 47 CFR Part 2
- FCC 47 CFR 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
- 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			

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	1.94 dB
Power Spectral Density	2.47 dB
Time Domain Measurements Using SA	3.39%
RF Power Measurement Direct Method Using Power Meter	1.30 dB (Peak) 0.45 dB (Average)
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%.

5.4. SAMPLE CALCULATION

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, 5G NR1, 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), Wireless Power Transfer (WPT) and 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

Class	U-NII Bands of Operation			
	5	6	7	8
Dual Client (6CD) Very Low Power Client (6VL)	☒	☐	☒	☐

6.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum EIRP output power as follows:

6.2.1. VLP

UNII-5 BAND

Frequency Range (MHz)	Mode	Output Power EIRP (dBm)	Output Power EIRP (mW)
UNII-5 Band, 1TX			
6115-6415	802.11be EHT20	4.55	2.85
6125-6405	802.11be EHT40	7.54	5.68
6145-6385	802.11be EHT80	10.60	11.48
6185-6345	802.11be EHT160	12.82	19.14
UNII-5 Band, 2TX			
6115-6415	802.11be EHT20 CDD	1.70	1.48
6115-6415	802.11be EHT20 SDM	4.58	2.87
6125-6405	802.11be EHT40 CDD	4.69	2.94
6125-6405	802.11be EHT40 SDM	7.58	5.73
6145-6385	802.11be EHT80 CDD	7.78	6.00
6145-6385	802.11be EHT80 SDM	10.60	11.48
6185-6345	802.11be EHT160 CDD	9.92	9.82
6185-6345	802.11be EHT160 SDM	12.79	19.01

UNII-7 BAND

Frequency Range (MHz)	Mode	Output Power EIRP (dBm)	Output Power EIRP (mW)
UNII-7 Band 1TX			
6535-6855	802.11be EHT20	4.45	2.79
6565-6845	802.11be EHT40	7.45	5.56
6625-6785	802.11be EHT80	10.45	11.09
6665	802.11be EHT160	12.70	18.62
UNII-7 Band 2TX			
6535-6855	802.11be EHT20 CDD	2.43	1.75
6535-6855	802.11be EHT20 SDM	5.14	3.27
6565-6845	802.11be EHT40 CDD	5.48	3.53
6565-6845	802.11be EHT40 SDM	8.11	6.47
6625-6785	802.11be EHT80 CDD	8.49	7.06
6625-6785	802.11be EHT80 SDM	11.10	12.88
6665	802.11be EHT160 CDD	10.70	11.75
6665	802.11be EHT160 SDM	13.39	21.83

6.3. DESCRIPTION OF AVAILABLE ANTENNAS AND CABLE LOSS

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

Antenna Type: IFA

Band	Sub-band Frequency Range (MHz)	Antenna 6 (dBi)	Antenna 5 (dBi)	Uncorrelated Chains (dBi)	Correlated Chains (dBi)
UNII-5	Sub-band 1 (5955 - 6095) [Disabled]	0.30	-3.30	-1.14	1.70
	Sub-band 2 (6115 - 6255)	0.40	-2.70	-0.88	2.00
	Sub-band 3 (6275 - 6415)	-0.20	-3.80	-1.64	1.20
UNII-7	6535 - 6855	1.80	-3.90	-0.18	2.42

The cable loss and type, as provided by the manufacturer' are as follows:

Cable Type: SMA

Cable Loss		
Frequency Range (MHz)	Antenna 6 (dB)	Antenna 5 (dB)
5925-6425	2.90	3.40
6525-6875	3.00	3.60

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

6.4. SOFTWARE AND FIRMWARE

The EUT firmware installed during testing was 27_20_111_38.

6.5. WORST-CASE CONFIGURATION AND MODE

This report is to document the very low power client mode only. The standard power client and indoor low power client mode are documented in a separate 6CD report.

For RF conducted tests, VLP has been tested with SISO, CDD MIMO, and SDM MIMO modes and was tested on all antenna ports after investigation.

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

Radiated tests is covered by standard power and indoor low power client modes as they have the higher tune up.

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 since it has the highest maximum power.

The modulation and bandwidth of 802.11ax and 802.11be modes are similar at 20 MHz, 40 MHz, 80 MHz and 160 MHz. The target power of 802.11ax mode is equal to or lower than that of 802.11be mode. Also, the data rate of 802.11be mode is higher than 802.11ax mode. Therefore, 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 for Power and PSD modes for full testing are as shown in the table 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. VLP

WIFI 7 - 802.11be							
BW (MHz)	Tone (T)	RU Index	RU Index from Chipset support	Worst Case Tone (UNII-5)		Worst Case Tone (UNII-7)	
				Power	PSD	Power	PSD
20	26	0 ~ 8	0 ~ 8				
	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
	242	61	61				
	SU	--	--	X		X	
40	26	0 ~ 17	0 ~ 17				
	52	37 ~ 44	37 ~ 44				
	52 + 26	70 ~ 81	70, 72, 73, 74, 75				
	106	53 ~ 56	53 ~ 56				
	106 + 26	82 ~ 89	82, 83, 84, 85		X		X
	242	61 ~ 61	61 ~ 62				
	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				
	484	65 ~ 66	65 ~ 66				
	484 + 242	90, 91, 92, 93	90, 91, 92, 93		X		X
	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:				
	106	53 ~ S60	53 ~ S60				
	106 + 26	82 ~ 89	82, 85, 86, 89				
	242	61 ~ S64	61 ~ S64				
	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		X		X
	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	

6.5.2. RE-USE STATEMENT AND COMPARISON TABLE

The maximum output power for A3082 (FCC ID: BCG-E8692A), A3289 (FCC ID: BCG-E8693A), A3290 (FCC ID: BCG-E8694A) and A3291 (FCC ID: BCG-E8695A) are identical across all power tables for ANT5. ANT6 power for Models A3289, A3290, A3291 compared to Model A3082 are as follows;

BANDS	MAXIMUM OUTPUT POWER DIFFERENCE					
	SISO a/HE/EHT20 All Rates		2Tx CDD HE/EHT20 All Rates		2Tx SDM HE/EHT20 All Rates	
UNII-5	LOWER CH33-61 6115-6255MHz	HIGHER CH65-93 6275-6415MHz	SAME CH33-61 6115-6255MHz	HIGHER CH65-93 6275-6415MHz	LOWER CH33-61 6115-6255MHz	HIGHER CH65-93 6275-6415MHz
UNII-7	LOWER		LOWER (Disabled Partial RU)		LOWER	

BANDS	MAXIMUM OUTPUT POWER DIFFERENCE					
	SISO HE/EHT40 All Rates		2Tx CDD HE/EHT40 All Rates		2Tx SDM HE/EHT40 All Rates	
UNII-5	LOWER CH35-59 6125-6245MHz	HIGHER CH67-91 6285-6405MHz	SAME CH35-59 6125-6245MHz	HIGHER CH67-91 6285-6405MHz	LOWER CH35-59 6125-6245MHz	HIGHER CH67-91 6285-6405MHz
UNII-7	LOWER		LOWER (Disabled Partial RU)		LOWER	

BANDS	MAXIMUM OUTPUT POWER DIFFERENCE					
	SISO HE/EHT80 All Rates		2Tx CDD HE/EHT80 All Rates		2Tx SDM HE/EHT80 All Rates	
UNII-5	LOWER CH39-55 6145-6225MHz	HIGHER CH71-87 6305-6385MHz	SAME CH39-55 6145-6225MHz	HIGHER CH71-87 6305-6385MHz	LOWER CH39-55 6145-6225MHz	HIGHER CH71-87 6305-6385MHz
UNII-7	LOWER		LOWER		LOWER	

BANDS	MAXIMUM OUTPUT POWER DIFFERENCE					
	SISO HE/EHT160 All Rates		2Tx CDD HE/EHT160 All Rates		2Tx SDM HE/EHT160 All Rates	
UNII-5	LOWER CH47 6185MHz	HIGHER CH79 6345MHz	SAME CH47 6185MHz	HIGHER CH79 6345MHz	LOWER CH47 6185MHz	HIGHER CH79 6345MHz
UNII-7	LOWER		LOWER		LOWER	

According to the VLP mode output power change mentioned in the above table and antenna gain increased on UNII-5 and UNII-7 as documented in section 6.3, Model A3289 ANT6 port was retested on Output Power, PSD and Emission Mask to cover model A3290/A3291.

ANT5 RF conducted test results are re-used from the reference model A3082. The data re-use plan has been approved by FCC manufacturer inquiry.

All radiated tests are covered by standard power and indoor low power client modes as they have the higher tune up.

6.6. DESCRIPTION OF TEST SETUP

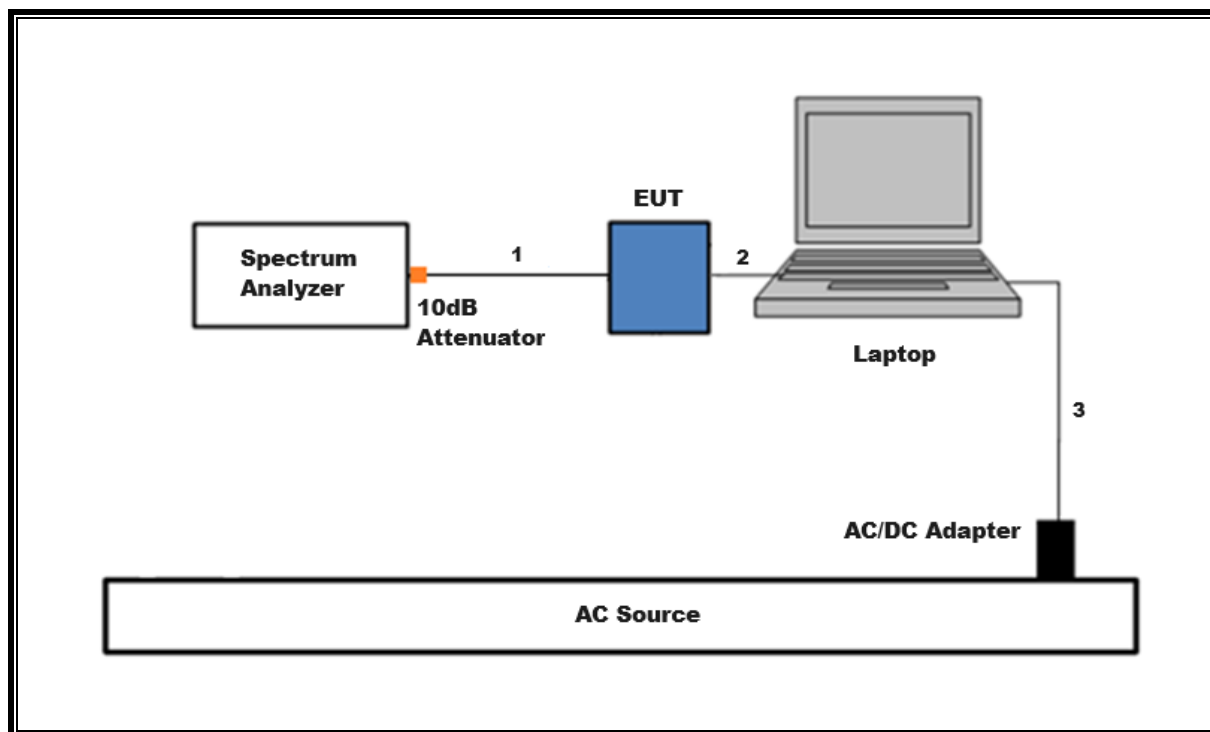
SUPPORT TEST EQUIPMENT				
Description	Manufacturer	Model	Serial Number	FCC ID/ DoC
Laptop	Apple	MacBook Pro	C02CWHQ4ML7H	BCGA2251
Laptop AC/DC adapter	Apple	A1718	C4H021107C2PM0WAW	DoC
EUT AC/DC adapter	Apple	A2305	HHY23570SL11PW9A1	DoC

I/O CABLES (RF CONDUCTED TEST)						
Cable No.	Port	# of Identical Ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	Antenna	2	SMA	Shielded	0.2	To spectrum Analyzer
2	USB-C	1	USB-C	Shielded	1.0	N/A
3	DC	1	DC	Shielded	2.0	From AC/DC adapter

TEST SETUP

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

SETUP DIAGRAM FOR CONDUCTED TESTS



7. MEASUREMENT METHOD

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

26 dB Emission Bandwidth: 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 v02r01, Section II-J

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 Number	Cal Due
PXA Signal Analyzer 2Hz to 44GHz	Keysight Technologies Inc	N9030B	231739	2025/01/31
Spectrum Analyzer, PXA, 3Hz to 44GHz	Keysight Technologies Inc	N9030A	85313	2025/02/28
Spectrum Analyzer, PXA, 3Hz to 44GHz	Keysight Technologies Inc	N9030A	125178	2025/01/31
10dB Fixed Attenuator, Up to 6GHz	Pasternack Enterprises	PE7162-10	236284	2024/08/31
10dB Fixed Attenuator, 2 Watts Up to 26.5 GHz	Pasternack Enterprises	PE7024-10	238178	2024/08/31
10 dB Attenuator, Up to 18 GHz Rated to 2 Watts	Fairview Microwave	SA18H-10	236400	2024/08/31
Power Meter, P-series single channel	Keysight Technologies Inc	N1911A	90719	2025/01/31
Power Sensor, P - series, 50MHz to 18GHz, Wideband	Keysight Technologies Inc	N1921A	90389	2025/01/31
Power Meter, P-series single channel	Keysight Technologies Inc	N1911A	90731	2025/01/31
Power Sensor, P - series, 50MHz to 18GHz, Wideband	Keysight Technologies Inc	N1921A	80120	2025/01/31

UL AUTOMATION SOFTWARE			
Conducted Software	UL	UL EMC	2023.2.23

9. ANTENNA PORT TEST RESULTS

9.1. ON TIME AND DUTY CYCLE

LIMITS

None; for reporting purposes only.

PROCEDURE

KDB 789033 Zero-Span Spectrum Analyzer Method.

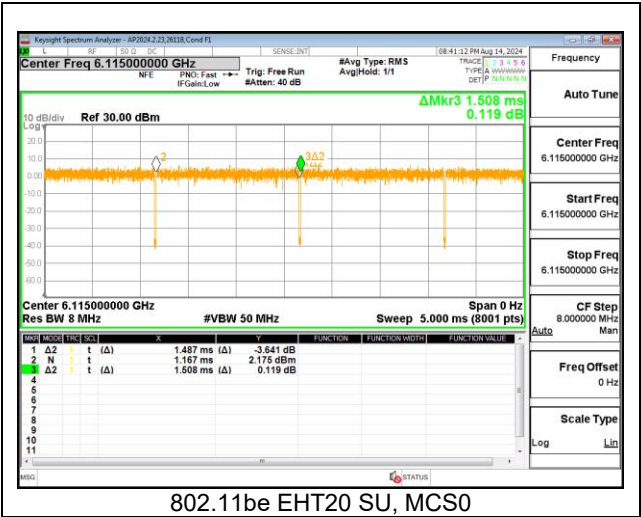
ON TIME AND DUTY CYCLE RESULTS

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	1.487	1.508	0.9861	98.61%	0.00	0.010
	106+26	MCS0	3.540	3.560	0.9944	99.44%	0.00	0.010
EHT40	SU	MCS0	1.470	1.495	0.9833	98.33%	0.00	0.010
	106+26	MCS0	3.545	3.585	0.9888	98.88%	0.00	0.010
EHT80	SU	MCS0	1.404	1.424	0.9860	98.60%	0.00	0.010
	484+242	MCS0	2.700	2.720	0.9926	99.26%	0.00	0.010
EHT160	SU	MCS0	0.952	0.974	0.9774	97.74%	0.10	1.050
	484+242	MCS0	2.695	2.715	0.9926	99.26%	0.00	0.010

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	0.780	0.801	0.9738	97.38%	0.12	1.282
SDM	106+26	MCS0	3.540	3.560	0.9944	99.44%	0.00	0.010
EHT40	SU	MCS0	0.771	0.792	0.9735	97.35%	0.12	1.297
SDM	106+26	MCS0	3.546	3.582	0.9899	98.99%	0.00	0.010
EHT80	SU	MCS0	0.738	0.762	0.9685	96.85%	0.14	1.355
SDM	484+242	MCS0	2.695	2.720	0.9908	99.08%	0.00	0.010
EHT160	SU	MCS0	0.515	0.537	0.9590	95.90%	0.18	1.942
	484+242	MCS0	2.700	2.720	0.9926	99.26%	0.00	0.010

Note: Duty Cycle is the same for 1TX and 2TX. The plot in this section is for reference settings only.

DUTY CYCLE PLOT



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

RESULTS

ID:	33300 26118	Date:	2024/08/08 – 2024/08/14
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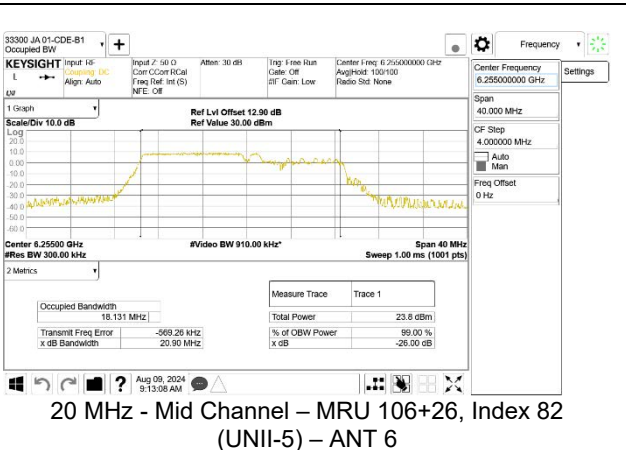
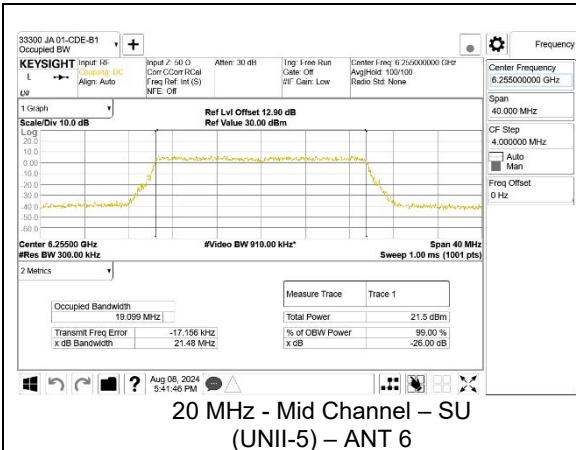
For mask and bandwidth measurements partial RU allocations are tested with the RUs allocated at the lower and upper positions within the channel for the low mid and high channels in each band. Additionally, the center channel is also tested with the RU allocated in the center of the channel to verify that the low / high RU allocations are worst case.

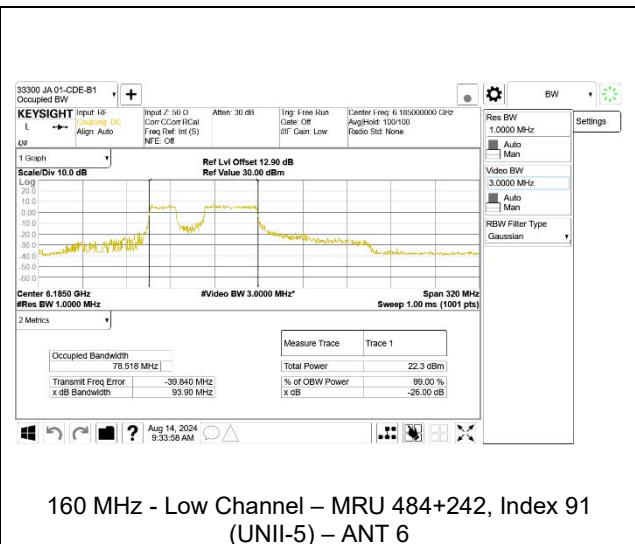
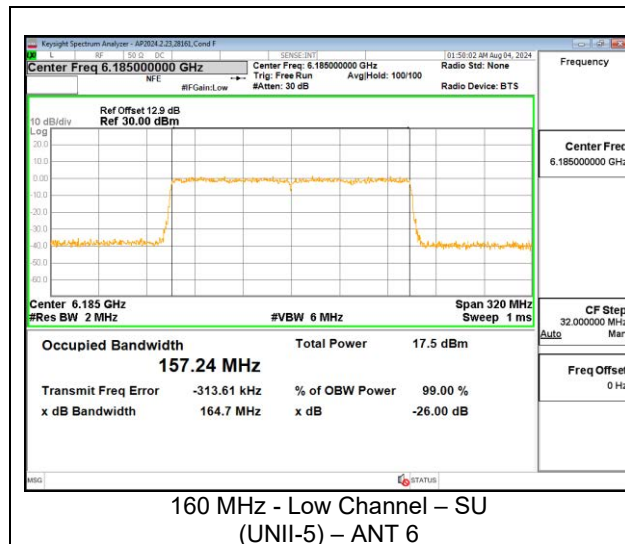
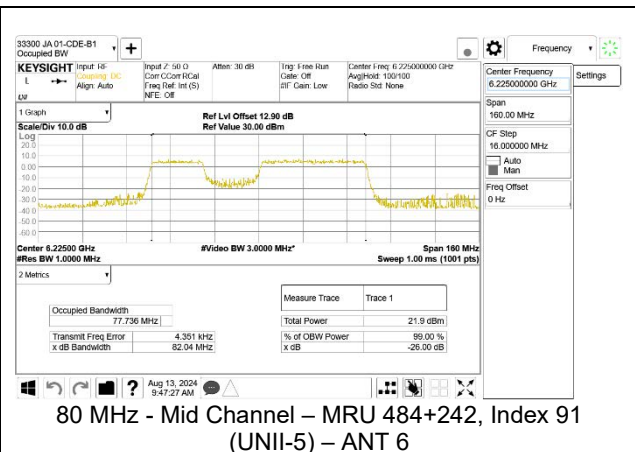
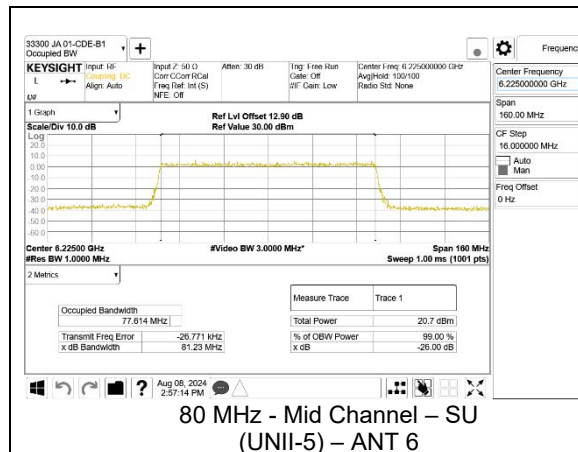
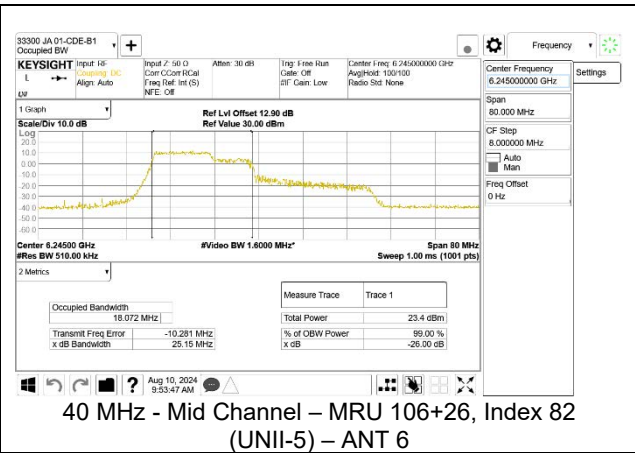
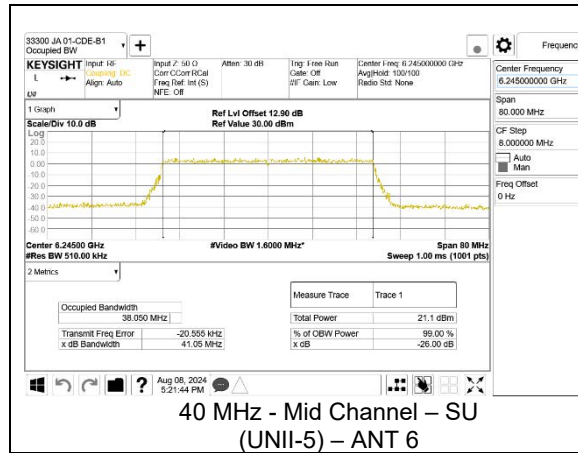
The plots in these sections are for reference settings only for different bandwidth and different antenna ports.

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

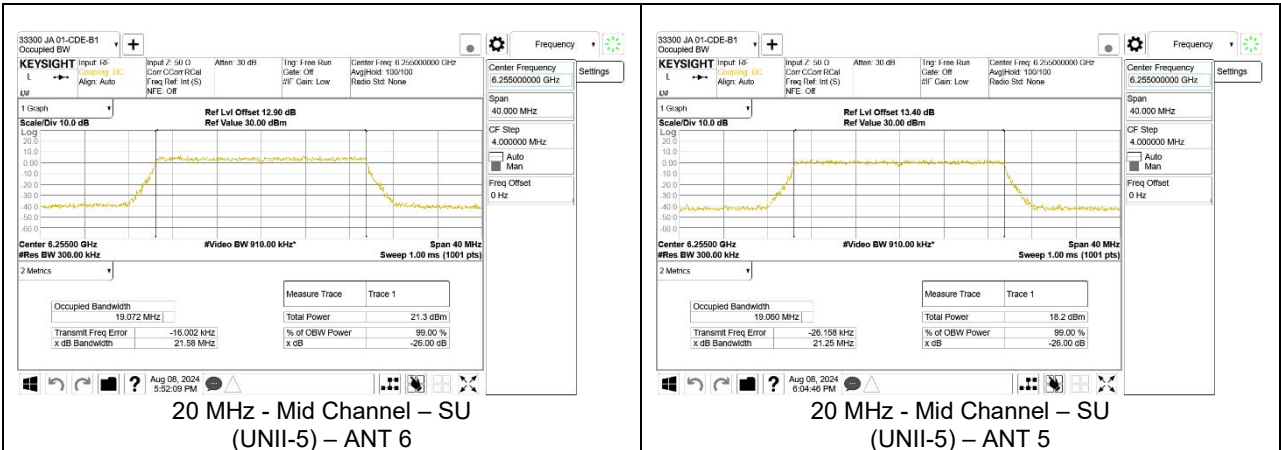
UNII-5 (SISO)	Frequency (MHz)	Channel Number	Tone	RU Index	26 dB Bandwidth (MHz)		99% Bandwidth (MHz)	
					ANT 6	ANT 5	ANT 6	ANT 5
20 MHz	6115	33	SU	--	21.33	21.25	19.075	19.071
			MRU 106+26	82	20.87	21.03	18.123	18.166
				83	21.09	21.15	18.261	18.283
	6255	61	SU	--	21.48	21.26	19.099	19.111
			MRU 106+26	82	20.90	20.92	18.131	18.114
				83	21.04	21.06	18.197	18.203
	6415	93	SU	--	21.14	21.22	19.104	19.072
			MRU 106+26	82	20.87	20.58	18.132	18.124
				83	21.06	20.86	18.321	18.214
40 MHz	6125	35	SU	--	41.38	41.23	38.012	37.990
			MRU 106+26	82	24.54	23.54	18.150	18.058
				83	29.11	27.83	19.876	20.076
	6245	59	SU	--	41.05	41.51	38.050	37.995
			MRU 106+26	82	25.15	25.24	18.072	18.049
				83	27.02	27.81	19.797	19.822
	6405	91	SU	--	41.38	41.47	38.063	38.047
			MRU 106+26	82	22.66	23.61	18.041	17.977
				83	26.06	27.51	19.474	19.839
				85	25.01	22.41	18.295	18.142
80 MHz	6145	39	SU	--	81.45	81.41	77.430	77.563
			MRU 484+242	91	81.24	81.33	77.760	77.810
				92	81.52	81.49	77.734	77.672
	6225	55	SU	--	81.23	81.49	77.614	77.501
			MRU 484+242	91	82.04	81.53	77.736	77.742
				92	81.47	81.15	77.522	77.669
	6385	87	SU	--	81.27	81.73	77.546	77.649
			MRU 484+242	91	81.90	81.87	77.730	77.711
				92	81.73	81.73	77.787	77.663
				93	71.15	74.84	58.760	58.674
160 MHz	6185	47	SU	--	164.70	164.40	157.240	157.160
			MRU 484+242	91	93.90	94.51	78.518	78.429
				92	96.27	92.07	78.449	78.319
	6345	79	SU	--	165.20	164.20	157.180	157.280
			MRU 484+242	91	91.25	94.68	78.385	78.524
				92	89.25	86.77	78.250	78.192
				S92	91.69	92.35	78.509	78.105

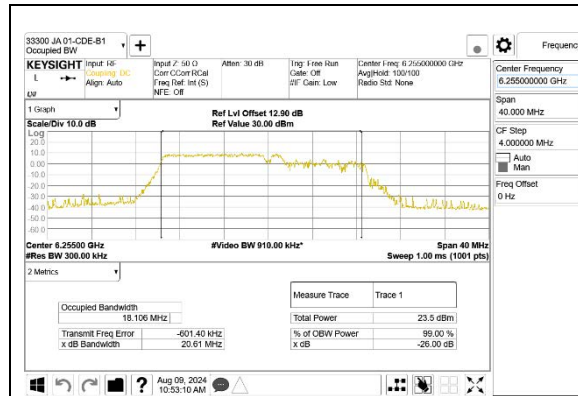




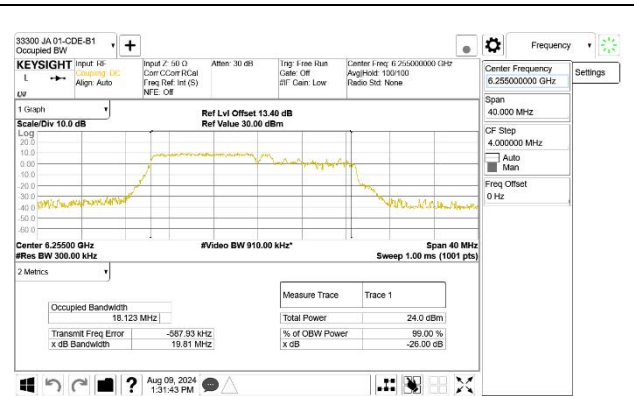
9.2.2. 802.11be MIMO CDD MODE IN THE UNII-5 BAND

UNII-5 (MIMO)	Frequency (MHz)	Channel Number	Tone	RU Index	26 dB Bandwidth (MHz)		99% Bandwidth (MHz)	
					ANT 6	ANT 5	ANT 6	ANT 5
20 MHz	6115	33	SU	--	21.16	21.41	19.083	19.073
			MRU 106+26	82	20.92	19.84	18.156	18.107
				83	21.14	20.07	18.259	18.080
	6255	61	SU	--	21.58	21.25	19.072	19.060
			MRU 106+26	82	20.61	19.81	18.106	18.123
				83	20.42	20.11	18.193	18.147
	6415	93	SU	--	21.12	21.52	19.153	19.098
			MRU 106+26	82	20.91	19.80	18.140	17.988
				83	20.97	19.86	18.241	18.122
40 MHz	6125	35	SU	--	41.72	41.22	38.039	38.025
			MRU 106+26	82	24.49	20.10	18.089	17.809
				83	29.07	25.10	20.039	18.879
	6245	59	SU	--	23.82	20.14	18.195	17.918
			MRU 106+26	82	41.36	41.55	37.971	38.052
				83	24.34	19.99	18.081	17.843
	6405	91	SU	--	26.90	23.24	19.853	19.127
			MRU 106+26	85	25.09	20.46	18.213	17.903
				--	41.48	41.51	38.018	38.045
			MRU 484+242	82	24.38	20.86	18.052	17.844
				83	28.23	26.00	19.729	19.392
				85	24.78	20.82	18.224	17.967
80 MHz	6145	39	SU	--	80.86	81.53	77.482	77.522
			MRU 484+242	91	81.92	80.68	77.759	77.754
				92	81.47	81.47	77.788	77.781
	6225	55	SU	--	78.53	70.16	58.772	58.622
			MRU 484+242	91	81.10	81.66	77.495	77.487
				92	81.48	81.42	77.719	77.727
	6385	87	SU	--	81.91	80.97	77.799	77.639
			MRU 484+242	93	70.88	68.05	58.688	58.656
				--	81.04	81.29	77.525	77.587
			MRU 484+242	91	81.45	81.11	77.750	77.691
				92	81.62	81.07	77.779	77.760
				93	72.15	70.20	58.822	58.651
160 MHz	6185	47	SU	--	164.70	164.60	157.220	157.270
			MRU 484+242	91	93.73	94.25	78.449	78.050
				92	91.92	88.41	78.011	78.140
	6345	79	SU	--	94.19	89.84	78.246	78.282
			MRU 484+242	S92	163.30	164.70	157.120	157.380
				91	96.52	86.39	78.170	78.223
				92	97.50	89.50	78.298	78.277
				S92	90.87	94.60	78.423	78.025





20 MHz - Mid Channel – MRU 106+26, Index 82
(UNII-5) – ANT 6



20 MHz - Mid Channel – MRU 106+26, Index 82
(UNII-5) – ANT 5

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

UNII-5 (SISO)	Frequency (MHz)	Channel Number	Tone	RU Index	26 dB Bandwidth (MHz)		99% Bandwidth (MHz)	
					ANT 6	ANT 5	ANT 6	ANT 5
20 MHz	6115	33	SU	--	21.26	21.04	19.072	19.064
			MRU 106+26	82	20.71	19.80	18.181	18.074
				83	20.42	20.12	18.074	17.891
	6255	61	SU	--	21.08	21.40	19.079	19.077
			MRU 106+26	82	20.97	19.80	18.151	18.104
				83	21.09	20.23	18.298	18.050
	6415	93	SU	--	21.14	20.96	19.056	19.113
			MRU 106+26	82	20.83	19.84	18.165	18.104
				83	21.06	20.68	18.300	18.092
40 MHz	6125	35	SU	--	41.23	41.32	38.065	38.022
			MRU 106+26	82	22.99	19.87	17.997	17.805
				83	27.88	24.29	19.627	19.054
				85	24.19	20.75	18.167	17.936
	6245	59	SU	--	40.71	41.28	38.054	37.975
			MRU 106+26	82	23.11	19.98	18.037	17.944
				83	26.22	27.77	19.694	19.020
				85	24.25	20.66	18.129	17.920
	6405	91	SU	--	41.61	41.32	38.053	37.967
			MRU 106+26	82	24.53	20.02	18.073	17.917
				83	29.01	24.41	19.803	19.379
				85	24.38	20.18	18.159	17.888
80 MHz	6145	39	SU	--	81.36	81.69	77.358	77.450
			MRU 484+242	91	81.97	81.50	77.678	77.745
				92	81.48	80.83	77.787	77.614
				93	74.10	69.47	58.700	58.769
	6225	55	SU	--	81.47	81.13	77.516	77.445
			MRU 484+242	91	81.48	81.93	77.704	77.758
				92	81.16	81.51	77.728	77.804
				93	79.07	71.06	58.700	58.659
	6385	87	SU	--	82.31	81.26	77.375	77.516
			MRU 484+242	91	82.35	80.83	77.697	77.616
				92	81.42	81.07	77.689	77.721
				93	73.00	76.25	58.547	58.624
160 MHz	6185	47	SU	--	164.00	164.10	157.140	157.100
			MRU 484+242	91	93.99	88.55	78.276	78.115
				92	93.31	85.87	78.240	78.140
				S92	93.49	92.86	78.364	78.046
	6345	79	SU	--	164.70	163.90	157.190	157.180
			MRU 484+242	91	95.79	90.10	78.335	78.096
				92	91.16	90.22	78.290	78.262
				S92	103.50	88.58	78.174	78.180

9.2.4. 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 6	ANT 5	ANT 6	ANT 5
20MHz	6535	117	SU	--	21.30	21.43	19.047	19.086
			MRU 106+26	82	20.93	20.93	18.190	18.033
				83	21.35	21.12	18.331	18.250
	6715	153	SU	--	21.22	21.47	19.024	19.037
			MRU 106+26	82	20.97	20.89	18.079	18.156
				83	21.12	20.93	18.271	18.245
	6855	181	SU	--	21.16	21.41	19.046	19.082
			MRU 106+26	82	20.79	20.94	18.143	18.159
				83	21.19	21.21	18.331	18.284
40MHz	6565	123	SU	--	41.30	41.06	38.036	38.074
			MRU 106+26	82	24.39	23.74	18.100	18.077
				83	27.57	27.39	19.881	20.175
				85	24.63	24.86	18.314	18.337
	6685	147	SU	--	41.63	41.57	37.991	38.079
			MRU 106+26	82	24.71	24.21	18.022	18.015
				83	25.66	29.14	19.623	19.901
				85	24.71	24.21	18.161	18.190
	6845	179	SU	--	41.27	41.50	37.966	37.982
			MRU 106+26	82	25.19	23.44	18.101	18.071
				83	27.73	28.91	19.685	19.838
				85	25.00	24.60	18.209	18.094
80MHz	6625	135	SU	--	81.50	80.87	77.462	77.450
			MRU 484+242	91	81.92	82.11	77.725	77.747
				92	81.30	82.13	77.753	77.776
				93	71.24	72.26	58.731	58.638
	6705	151	SU	--	82.07	81.58	77.668	77.592
			MRU 484+242	91	82.08	81.32	77.677	77.782
				92	81.27	81.44	77.659	77.658
				93	73.70	71.55	58.643	58.697
	6785	167	SU	--	82.14	82.12	77.557	77.593
			MRU 484+242	91	81.59	81.26	77.796	77.759
				92	81.14	81.30	77.621	77.682
				93	70.13	75.90	58.662	58.582
160MHz	6665	143	SU	--	164.30	164.60	156.980	157.340
			MRU 484+242	91	94.23	99.61	78.198	78.681
				92	93.71	93.94	78.222	78.096
				S92	94.43	94.63	78.039	78.280

9.2.5. 802.11be MIMO CDD MODE IN THE UNII-7 BAND

UNII-7 (MIMO)	Frequency (MHz)	Channel Number	Tone	RU Index	26 dB Bandwidth (MHz)		99% Bandwidth (MHz)	
					ANT 6	ANT 5	ANT 6	ANT 5
20MHz	6535	117	SU	--	21.16	21.08	19.130	19.018
	6715	153	SU	--	20.96	21.07	19.111	19.053
	6855	181	SU	--	21.34	21.14	19.070	19.069
40MHz	6565	123	SU	--	41.59	41.19	38.076	38.048
	6685	147	SU	--	41.05	41.56	38.026	37.998
	6845	179	SU	--	41.38	41.23	38.025	37.973
80MHz	6625	135	SU	--	81.34	81.48	77.605	77.507
			MRU 484+242	91	81.58	81.48	77.709	77.731
				92	51.62	81.83	77.776	77.814
				93	71.05	71.95	58.708	58.717
	6705	151	SU	--	81.35	81.28	77.577	77.494
			MRU 484+242	91	81.36	82.05	77.678	77.747
				92	81.28	81.59	77.756	77.762
				93	74.72	69.67	58.752	58.600
	6785	167	SU	--	82.16	81.82	77.572	77.431
			MRU 484+242	91	81.12	81.80	77.700	77.670
				92	81.52	81.16	77.758	77.783
				93	73.54	69.70	58.705	58.793
160MHz	6665	143	SU	--	163.90	164.30	157.240	157.140
			MRU 484+242	91	86.91	97.89	77.995	77.971
				92	93.43	94.70	78.129	78.079
				S92	96.24	88.91	78.129	77.938

9.2.6. 802.11be MIMO SDM MODE IN THE UNII-7 BAND

UNII-7 (MIMO)	Frequency (MHz)	Channel Number	Tone	RU Index	26 dB Bandwidth (MHz)		99% Bandwidth (MHz)	
					ANT 6	ANT 5	ANT 6	ANT 5
20MHz	6535	117	SU	--	21.26	21.14	19.119	19.048
			MRU 106+26	82	19.76	19.74	18.098	18.134
				83	21.16	20.07	18.295	18.087
	6715	153	SU	--	21.43	21.20	19.113	19.084
			MRU 106+26	82	20.62	19.80	18.152	18.102
				83	21.10	20.17	18.228	18.099
	6855	181	SU	--	21.15	21.20	19.053	19.103
			MRU 106+26	82	21.80	20.46	18.192	18.202
				83	23.00	21.12	18.325	18.189
40MHz	6565	123	SU	--	41.18	41.22	37.979	37.997
			MRU 106+26	82	23.89	20.04	17.992	17.878
				83	28.30	25.15	19.986	19.153
				85	24.30	20.35	18.224	17.850
	6685	147	SU	--	41.40	40.98	38.099	38.030
			MRU 106+26	82	24.98	19.88	18.074	17.824
				83	27.73	26.29	19.560	19.243
				85	23.26	20.86	18.263	17.918
	6845	179	SU	--	41.72	41.10	38.027	38.123
			MRU 106+26	82	25.44	20.02	18.031	17.873
				83	28.13	24.15	19.580	18.973
				85	25.16	20.09	18.233	17.897
80MHz	6625	135	SU	--	81.40	81.38	77.408	77.542
			MRU 484+242	91	81.50	81.15	77.646	77.769
				92	81.82	81.18	77.635	77.685
				93	72.71	68.50	58.759	58.578
	6705	151	SU	--	81.14	81.19	77.509	77.588
			MRU 484+242	91	81.28	82.05	77.859	77.745
				92	81.90	81.08	77.771	77.653
				93	75.52	70.33	58.806	58.673
	6785	167	SU	--	81.03	80.95	77.500	77.440
			MRU 484+242	91	81.77	81.28	77.730	77.703
				92	82.02	81.32	77.713	77.673
				93	73.39	74.57	58.662	58.724
160MHz	6665	143	SU	--	164.70	165.10	157.100	157.180
			MRU 484+242	91	95.88	89.46	78.310	78.125
				92	102.90	91.19	78.154	78.275
				S92	94.39	91.52	78.267	78.175

9.3. VLP OUTPUT POWER AND PSD

LIMITS

FCC §15.407

Bands: 5.925–6.425 GHz and 6.525–6.875 GHz

(9) For very low power devices operating in the 5.925-6.425 GHz and 6.525-6.875 GHz bands, the maximum power spectral density must not exceed –5 dBm e.i.r.p in any 1-megahertz band and the maximum e.i.r.p must not exceed 14 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 calculation.

The directional gains are as follows:

Band	Sub-band Frequency Range (MHz)	Antenna 6 (dBi)	Antenna 5 (dBi)	Uncorrelated Chains (dBi)	Correlated Chains (dBi)
UNII-5	Sub-band 1 (5955 - 6095) [Disabled]	0.30	-3.30	-1.14	1.70
	Sub-band 2 (6115 - 6255)	0.40	-2.70	-0.88	2.00
	Sub-band 3 (6275 - 6415)	-0.20	-3.80	-1.64	1.20
UNII-7	6535 - 6855	1.80	-3.90	-0.18	2.42

DIRECTIONAL GAIN CALCULATIONS:

ANSI C63.10-2013 section 14.4.3

$$\text{Uncorrelated Directional Gain} = 10 * \text{LOG} \left[\frac{10^{\frac{\text{ANT4}}{10}} + 10^{\frac{\text{ANT3}}{10}}}{2} \right]$$

$$\text{Correlated Directional Gain} = 10 * \text{LOG} \left[\frac{\left(10^{\frac{\text{ANT4}}{20}} + 10^{\frac{\text{ANT3}}{20}} \right)^2}{2} \right]$$

Sample Calculation at UNII-5 Band:

ANT 6 = 0.40 dB

ANT 5 = -2.70 dB

$$\text{Uncorrelated Directional Gain} = 10 * \text{LOG} \left[\frac{10^{\frac{0.40}{10}} + 10^{\frac{-2.70}{10}}}{2} \right] = -0.88 \text{ dBi}$$

$$\text{Correlated Directional Gain} = 10 * \text{LOG} \left[\frac{\left(10^{\frac{0.40}{20}} + 10^{\frac{-2.70}{20}} \right)^2}{2} \right] = 2.00 \text{ dBi}$$

EIRP CALCULATIONS:

1Tx

EIRP corr'd power = ANT 6 + Antenna Gain

Sample Calculation at UNII-5 Band:

ANT6 (20 MHz, low channel, MRU106+26T/RU82) Power = 1.73 dBm

EIRP corr'd power = 1.73 + 0.20 = 1.93 dBm

2Tx

EIRP corr'd power = 10*LOG(10^(ANT6/10)+10^(ANT5/10)) + uncorrelated directional gain

Sample Calculation at UNII-5 Band:

(20 MHz, MIMO CDD, SU channel 33)

ANT6 Power = -0.60 dBm

ANT5 Power = -0.50 dBm

EIRP corr'd power = 10*LOG(10^(-0.60/10)+10^(-0.50/10)) + (-0.88) = 1.58 dBm

EIRP PSD CALCULATIONS:

1Tx

EIRP corr'd PSD = DCCF + Ant6 + Antenna Gain

Sample Calculation at UNII-5 Band:

ANT6 (20 MHz, low channel MRU106+26T/RU82) PSD= -7.203 dBm/1MHz

EIRP corr'd PSD = 0 + (-7.203) + (0.20) = -7.003 dBm/1MHz

2Tx (OFDMA)

EIRP corr'd PSD = $(10 \cdot \log(10^{((DCCF + ANT6)/10)} + 10^{((DCCF + ANT5)/10)})) + \text{correlated directional gain}$

Sample Calculation at UNII-5 Band:

(20 MHz, low channel MRU106+26T/RU82)

ANT6 PSD = -12.063 dBm/1MHz

ANT5 PSD = -11.789 dBm/1MHz

$$\begin{aligned} \text{EIRP corr'd PSD} &= (10 \cdot \log(10^{((0 + (-12.063))/10)} + 10^{((0 + (-11.789))/10)})) + (2.00) \\ &= -6.914 \text{ dBm/1MHz} \end{aligned}$$

2Tx (SDM)

EIRP corr'd PSD = $(10 \cdot \log(10^{((DCCF + ANT6)/10)} + 10^{((DCCF + ANT5)/10)})) + \text{uncorrelated directional gain}$

Sample Calculation at UNII-5 Band:

(20 MHz, low channel MRU106+26T/RU82)

ANT6 PSD = -9.260 dBm/1MHz

ANT5 PSD = -8.765 dBm/1MHz

$$\begin{aligned} \text{EIRP corr'd PSD} &= (10 \cdot \log(10^{((0 + (-9.260))/10)} + 10^{((0 + (-8.765))/10)})) + (-0.88) \\ &= -6.875 \text{ dBm/1MHz} \end{aligned}$$

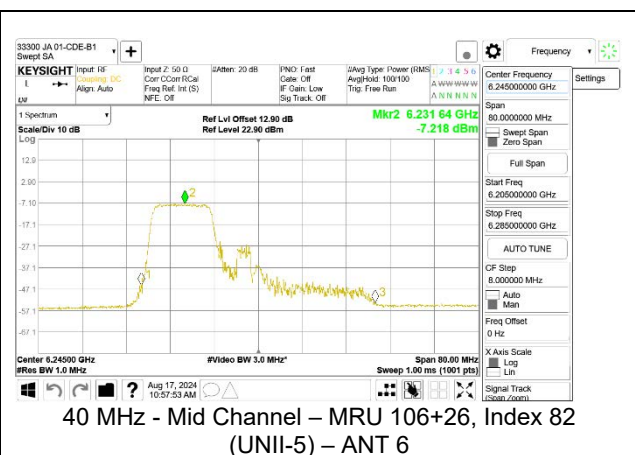
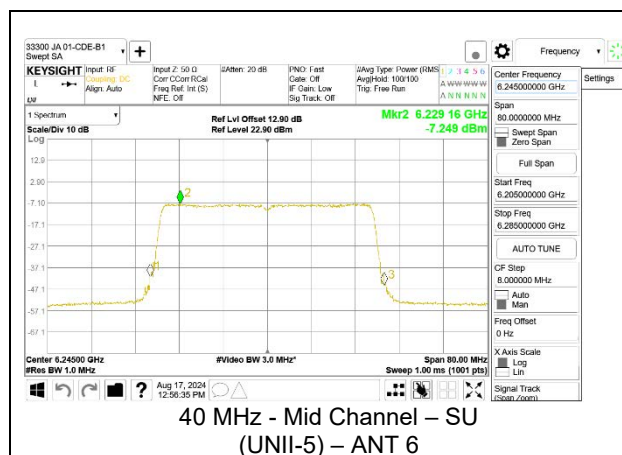
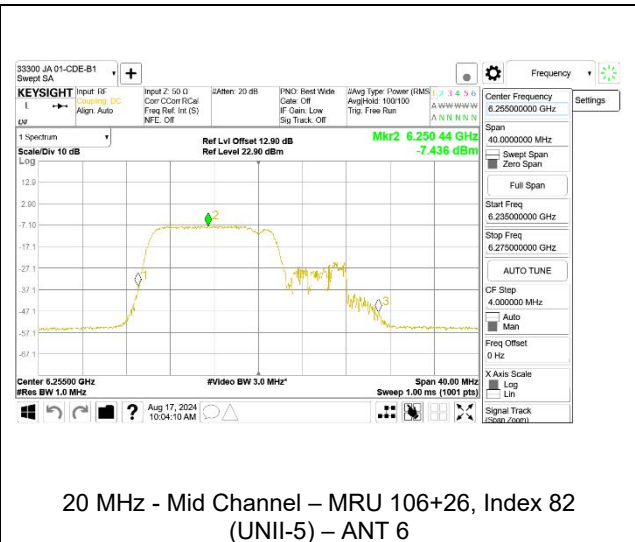
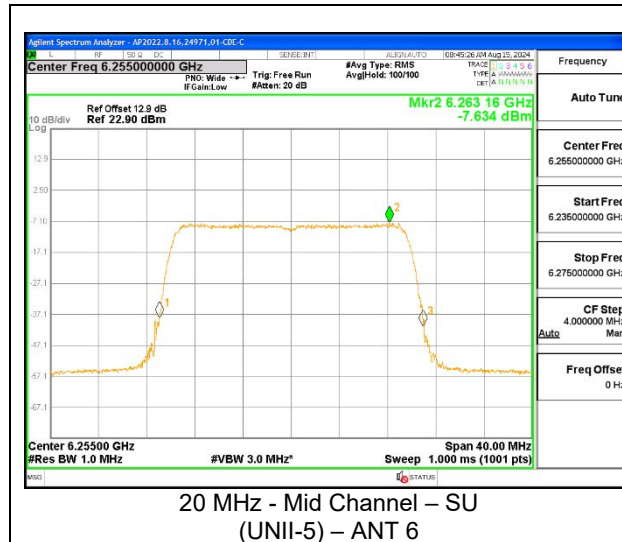
9.3.1. 802.11be SISO MODE IN THE UNII-5 BAND

VLP UNII-5 (SISO)	Duty Factor (dB)		ANT 6 Gain (dBi)	ANT 5 Gain (dBi)	Frequency (MHz)	Channel Number	Tone	RU Index	Conducted Power (Gated) (dBm)		EIRP Power (Limit = 14dBm EIRP)		Conducted PSD (dBm/MHz)		EIRP PSD (Limit = -5 dBm/MHz EIRP)				
	SU	Partial RU							ANT 6	ANT 5	ANT 6	ANT 5	ANT 6	ANT 5	ANT 6	ANT 5			
20MHz	0	0	0.40	-2.70	6115	33	SU	--	4.15	4.21	4.55	1.51	-8.128	-6.702	-7.728	-9.402			
							MRU 106+26	82	1.73	2.10	2.13	-0.60	-7.203	-7.246	-6.803	-9.946			
								83	1.71	1.95	2.11	-0.75	-7.482	-7.333	-7.082	-10.033			
			0.40	-2.70	6255	61	SU	--	4.11	4.23	4.51	1.53	-7.634	-6.735	-7.234	-9.435			
							MRU 106+26	82	1.70	1.97	2.10	-0.73	-7.436	-7.113	-7.036	-9.813			
								83	1.72	1.97	2.12	-0.73	-7.089	-7.212	-6.689	-9.912			
			-0.20	-3.80	6415	93	SU	--	4.55	4.29	4.35	0.49	-6.892	-7.107	-7.092	-10.907			
							MRU 106+26	82	2.41	2.04	2.21	-1.76	-6.594	-7.236	-6.794	-11.036			
								83	2.42	1.97	2.22	-1.83	-6.659	-7.273	-6.859	-11.073			
			40MHz	0	0	0.40	-2.70	6125	35	SU	--	7.14	7.20	7.54	4.50	-7.193	-7.110	-6.793	-9.810
										MRU 106+26	82	1.85	1.93	2.25	-0.77	-7.326	-6.729	-6.926	-9.429
											83	1.90	1.97	2.30	-0.73	-7.194	-6.695	-6.794	-9.395
85	1.73	1.94									2.13	-0.76	-7.340	-6.678	-6.940	-9.378			
0.40	-2.70	6245				59	SU	--	7.14	7.40	7.54	4.70	-7.249	-6.806	-6.849	-9.506			
							MRU 106+26	82	1.86	2.17	2.26	-0.53	-7.218	-6.890	-6.818	-9.590			
								83	1.70	1.94	2.10	-0.76	-7.406	-6.867	-7.006	-9.567			
								85	1.79	2.14	2.19	-0.56	-7.301	-6.788	-6.901	-9.488			
-0.20	-3.80	6405				91	SU	--	7.64	7.28	7.44	3.48	-6.663	-6.836	-6.863	-10.636			
							MRU 106+26	82	2.33	2.14	2.13	-1.66	-6.804	-6.924	-7.004	-10.724			
								83	2.23	2.15	2.03	-1.65	-6.690	-6.901	-6.890	-10.701			
								85	2.37	1.93	2.17	-1.87	-6.782	-7.020	-6.982	-10.820			
80MHz	0	0	0.40	-2.70	6145	39	SU	--	10.18	10.37	10.58	7.67	-7.108	-6.731	-6.708	-9.431			
							MRU 484+242	91	8.71	9.09	9.11	6.39	-7.020	-7.150	-6.620	-9.850			
								92	8.76	9.10	9.16	6.40	-7.311	-7.226	-6.911	-9.926			
								93	8.79	9.11	9.19	6.41	-7.396	-7.088	-6.996	-9.788			
			0.40	-2.70	6225	55	SU	--	10.20	10.37	10.60	7.67	-7.211	-6.871	-6.811	-9.571			
							MRU 484+242	91	8.71	9.10	9.11	6.40	-7.234	-7.060	-6.834	-9.760			
								92	8.72	9.12	9.12	6.42	-7.372	-7.078	-6.972	-9.778			
								93	8.70	9.14	9.10	6.44	-7.351	-7.049	-6.951	-9.749			
			-0.20	-3.80	6385	87	SU	--	10.55	10.40	10.35	6.60	-6.553	-7.158	-6.753	-10.958			
							MRU 484+242	91	9.27	8.94	9.07	5.14	-6.824	-7.241	-7.024	-11.041			
								92	9.25	8.96	9.05	5.16	-6.787	-6.959	-6.987	-10.759			
								93	9.41	9.01	9.21	5.21	-6.469	-7.022	-6.669	-10.822			
160MHz	0.1	0	0.40	-2.70	6185	47	SU	--	12.42	12.55	12.82	9.85	-7.833	-7.067	-7.333	-9.667			
							MRU 484+242	91	8.86	9.16	9.26	6.46	-7.733	-7.345	-7.333	-10.045			
								92	8.81	9.20	9.21	6.50	-7.689	-7.218	-7.289	-9.918			
								S92	8.90	9.09	9.30	6.39	-7.766	-7.602	-7.366	-10.302			
							SU	--	12.87	12.62	12.67	8.82	-7.139	-7.308	-7.239	-11.008			
							-0.20	-3.80	6345	79	MRU 484+242	91	9.34	9.10	9.14	5.30	-7.030	-7.634	-7.230
			92	9.36	9.08	9.16						5.28	-7.160	-7.588	-7.360	-11.388			
			S92	9.29	9.16	9.09						5.36	-7.111	-7.609	-7.311	-11.409			

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)



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

VLP 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 = 14dBm EIRP)	Conducted PSD (dBm/MHz)		EIRP MIMO PSD (Limit = -5 dBm/MHz EIRP)					
	SU	Partial RU							ANT 6	ANT 5		ANT 6	ANT 5						
20MHz	0	0	-0.88	2.00	6115	33	SU	--	-0.60	-0.50	1.58	-12.216	-11.562	-6.866					
							MRU 106+26	82	-2.70	-2.61	-0.52	-12.063	-11.789	-6.914					
								83	-2.65	-2.77	-0.58	-11.958	-12.003	-6.970					
						61	SU	--	-0.42	-0.44	1.70	-12.171	-11.808	-6.975					
							MRU 106+26	82	-2.65	-2.78	-0.58	-12.108	-12.126	-7.107					
								83	-2.60	-2.65	-0.49	-12.031	-11.735	-6.870					
			-1.64	1.20	93	SU	--	0.30	-0.29	1.39	-11.209	-11.969	-7.362						
						MRU 106+26	82	-1.96	-2.48	-0.84	-11.092	-11.921	-7.276						
							83	-1.91	-2.37	-0.76	-11.305	-11.954	-7.407						
					40MHz	0	0	-0.88	2.00	6125	35	SU	--	2.49	2.51	4.63	-12.012	-11.592	-6.787
												MRU 106+26	82	-2.79	-2.66	-0.59	-12.886	-12.418	-7.635
													83	-2.74	-2.74	-0.61	-12.610	-14.494	-8.440
59	SU	--	2.60	2.52							4.69	-11.910	-11.892	-6.891					
	MRU 106+26	82	-2.79	-2.74							-0.63	-12.819	-12.381	-7.584					
		83	-2.64	-2.70							-0.54	-12.476	-12.624	-7.539					
-1.64	1.20	91	SU	--				3.40	2.90	4.53	-11.075	-11.316	-6.984						
			MRU 106+26	82				-1.85	-2.35	-0.72	-11.671	-12.042	-7.642						
				83				-2.07	-2.50	-0.91	-11.906	-12.006	-7.745						
		80MHz	0	0				-0.88	2.00	6145	39	SU	--	5.48	5.59	7.67	-11.829	-11.863	-6.836
												MRU 484+242	91	4.29	4.38	6.47	-12.036	-12.088	-7.052
													92	4.34	4.28	6.44	-11.837	-12.241	-7.024
55	SU				--	5.65	5.65				7.78	-11.884	-11.758	-6.810					
	MRU 484+242				91	4.35	4.22				6.42	-11.887	-12.292	-7.074					
					92	4.26	4.36				6.44	-12.032	-12.275	-7.142					
-1.64	1.20				87	SU	--	6.28	5.89	7.46	-10.956	-11.694	-7.099						
						MRU 484+242	91	5.12	4.62	6.25	-11.123	-11.868	-7.269						
							92	5.02	4.56	6.17	-11.043	-11.817	-7.202						
					160MHz	0.1	0	-0.88	2.00	6185	47	SU	--	7.77	7.81	9.92	-12.609	-12.090	-7.231
												MRU 484+242	91	4.40	4.28	6.47	-11.942	-12.521	-7.212
													92	4.40	4.22	6.44	-11.911	-12.539	-7.203
79	SU	--	8.52	8.11							9.69	-11.770	-12.166	-7.653					
	MRU 484+242	91	5.00	4.47							6.11	-11.520	-12.117	-7.598					
		92	5.10	4.47							6.17	-11.405	-12.246	-7.595					
-1.64	1.20	S92	4.99	4.56				6.15	-11.405	-12.491	-7.704								

Note:

EIRP MIMO Output Power (dBm) = Measured Conducted Power (dBm) (ANT 6 + ANT 5) + Un-Correlated Antenna Gain (dBi)

EIRP MIMO PSD (dBm/MHz) = Measured Conducted PSD (dBm/MHz) (ANT 6 + ANT 5) + Duty Factor (dB) + Correlated Antenna Gain (dBi)

9.3.3. 802.11be MIMO SDM MODE IN THE UNII-5 BAND

VLP SDM 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 = 14dBm EIRP)	Conducted PSD (dBm/MHz)		EIRP MIMO PSD (Limit = -5 dBm/MHz EIRP)				
	SU	Partial RU							ANT 6	ANT 5		ANT 6	ANT 5					
20 MHz	0	0	-0.88	2.00	6115	33	SU	--	2.32	2.56	4.57	-8.838	-8.777	-6.677				
							MRU 106+26	82	0.08	0.40	2.37	-9.260	-8.765	-6.875				
								83	0.03	0.38	2.34	-9.453	-8.726	-6.944				
			-0.88	2.00	6255	61	SU	--	2.40	2.49	4.58	-8.850	-8.838	-6.714				
							MRU 106+26	82	0.05	0.43	2.37	-9.316	-8.565	-6.794				
								83	0.10	0.36	2.36	-9.124	-8.763	-6.809				
			-1.64	1.20	6415	93	SU	--	3.04	2.91	4.35	-8.064	-8.572	-6.940				
							MRU 106+26	82	0.82	0.42	1.99	-8.346	-8.835	-7.213				
								83	0.90	0.60	2.12	-8.039	-8.684	-6.979				
40 MHz	0	0	-0.88	2.00	6125	35	SU	--	5.40	5.45	7.56	-8.882	-8.848	-6.735				
							MRU 106+26	82	0.15	0.28	2.35	-8.977	-9.009	-6.863				
								83	0.09	0.31	2.33	-9.073	-9.248	-7.029				
								85	0.02	0.27	2.28	-8.919	-8.904	-6.781				
							-0.88	2.00	6245	59	SU	--	5.24	5.65	7.58	-9.052	-8.693	-6.738
											MRU 106+26	82	0.07	0.37	2.35	-8.823	-8.944	-6.753
			83	0.04	0.21	2.26						-9.046	-9.086	-6.936				
			-1.64	1.20	6405	91	SU	85	0.06	0.35		2.34	-9.025	-9.034	-6.899			
								MRU 106+26	--	6.01	5.75	7.25	-8.299	-8.324	-6.941			
									82	0.76	0.60	2.05	-8.192	-8.811	-7.120			
							83		0.79	0.57	2.05	-8.262	-8.632	-7.073				
							85	0.83	0.54	2.06	-8.152	-8.798	-7.093					
80 MHz	0	0					-0.88	2.00	6145	39	SU	--	8.29	8.62	10.59	-9.535	-8.684	-6.958
			MRU 484+242	91	7.06	7.17					9.25	-9.497	-8.918	-7.068				
				92	6.96	7.29					9.26	-9.384	-8.759	-6.930				
				93	7.07	7.28					9.31	-9.412	-8.861	-6.997				
			-0.88	2.00	6225	55					SU	--	8.29	8.64	10.60	-9.664	-8.748	-7.052
											MRU 484+242	91	7.15	7.30	9.36	-9.581	-8.803	-7.044
							92	7.03	7.36	9.33		-9.606	-8.877	-7.096				
							93	7.06	7.28	9.30		-9.472	-8.655	-6.914				
							-1.64	1.20	6385	87	SU	--	9.04	8.90	10.34	-8.463	-8.490	-7.106
											MRU 484+242	91	7.83	7.63	9.10	-8.393	-8.377	-7.015
			92	7.86	7.48	9.04						-8.258	-8.370	-6.943				
			93	7.70	7.46	8.95						-8.218	-8.498	-6.985				
160 MHz	0	0	-0.88	2.00	6185	47					SU	--	10.55	10.77	12.79	-9.886	-9.438	-7.526
											MRU 484+242	91	7.15	7.30	9.36	-9.213	-8.418	-6.667
							92	6.99	7.36	9.31		-9.448	-8.455	-6.793				
							S92	6.98	7.26	9.25		-9.160	-8.799	-6.845				
			-1.64	1.20	6345	79	SU	--	11.31	11.05	12.55	-9.187	-9.144	-7.795				
							MRU 484+242	91	7.85	7.61	9.10	-8.435	-8.281	-6.987				
								92	7.82	7.56	9.06	-8.666	-8.138	-7.024				
								S92	7.84	7.56	9.07	-8.584	-8.472	-7.157				

Note:

EIRP MIMO Output Power (dBm) = Measured Conducted Power (dBm) (ANT 6 + ANT 5) + Un-Correlated Antenna Gain (dBi)

EIRP MIMO PSD (dBm/MHz) = Measured Conducted PSD (dBm/MHz) (ANT 6 + ANT 5) + Duty Factor (dB) + Un-Correlated Antenna Gain (dBi)

9.3.4. 802.11be SISO MODE IN THE UNII-7 BAND

VLP UNII-7 (SISO)	Duty Factor (dB)		ANT 6 Gain (dBi)	ANT 5 Gain (dBi)	Frequency (MHz)	Channel Number	Tone	RU Index	Conducted Power (Gated) (dBm)		EIRP Power (Limit = 14dBm EIRP)		Conducted PSD (dBm/MHz)		EIRP PSD (Limit = -5 dBm/MHz EIRP)	
	SU	Partial RU							ANT 6	ANT 5	ANT 6	ANT 5	ANT 6	ANT 5	ANT 6	ANT 5
20MHz	0	0	1.80	-3.90	6535	117	SU	--	2.65	4.15	4.45	0.25	-8.798	-7.353	-6.998	-11.253
							MRU 106+26	82	0.25	1.90	2.05	-2.00	-8.121	-7.034	-6.321	-10.934
								83	0.31	1.63	2.11	-2.27	-8.293	-7.374	-6.493	-11.274
					6715	153	SU	--	2.60	4.00	4.40	0.10	-8.611	-7.325	-6.811	-11.225
							MRU 106+26	82	0.31	1.69	2.11	-2.21	-8.258	-6.974	-6.458	-10.874
								83	0.20	1.65	2.00	-2.25	-8.273	-7.125	-6.473	-11.025
					6855	181	SU	--	2.64	4.07	4.44	0.17	-8.902	-7.195	-7.102	-11.095
							MRU 106+26	82	0.40	1.74	2.20	-2.16	-8.129	-7.028	-6.329	-10.928
								83	0.35	1.70	2.15	-2.20	-8.240	-6.954	-6.440	-10.854
40MHz	0	0	1.80	-3.90	6565	123	SU	--	5.56	7.04	7.36	3.14	-8.954	-7.477	-7.154	-11.377
							MRU 106+26	82	0.20	1.80	2.00	-2.10	-9.043	-7.056	-7.243	-10.956
								83	0.25	1.76	2.05	-2.14	-8.725	-7.160	-6.925	-11.060
								85	0.34	1.78	2.14	-2.12	-8.697	-7.067	-6.897	-10.967
					6685	147	SU	--	5.58	7.15	7.38	3.25	-9.027	-7.193	-7.227	-11.093
							MRU 106+26	82	0.29	1.77	2.09	-2.13	-8.698	-6.940	-6.898	-10.840
								83	0.34	1.89	2.14	-2.01	-8.616	-6.878	-6.816	-10.778
								85	0.27	1.72	2.07	-2.18	-8.780	-6.954	-6.980	-10.854
					6845	179	SU	--	5.65	7.15	7.45	3.25	-9.281	-7.287	-7.481	-11.187
							MRU 106+26	82	0.28	1.76	2.08	-2.14	-8.648	-6.807	-6.848	-10.707
								83	0.40	1.81	2.20	-2.09	-8.305	-6.818	-6.505	-10.718
								85	0.36	1.66	2.16	-2.24	-8.446	-6.895	-6.646	-10.795
80MHz	0	0	1.80	-3.90	6625	135	SU	--	8.65	10.01	10.45	6.11	-8.787	-7.567	-6.987	-11.467
							MRU 484+242	91	7.33	8.76	9.13	4.86	-8.761	-7.353	-6.961	-11.253
								92	7.25	8.72	9.05	4.82	-8.983	-7.546	-7.183	-11.446
								93	7.30	8.76	9.10	4.86	-8.521	-7.446	-6.721	-11.346
					6705	151	SU	--	8.55	10.15	10.35	6.25	-8.937	-7.358	-8.937	-7.358
							MRU 484+242	91	7.26	8.90	9.06	5.00	-8.594	-7.256	-8.594	-7.256
								92	7.21	8.74	9.01	4.84	-8.716	-7.204	-8.716	-7.204
								93	7.38	8.79	9.18	4.89	-8.611	-7.341	-8.611	-7.341
					6785	167	SU	--	8.56	10.08	10.36	6.18	-8.655	-7.334	-8.655	-7.334
							MRU 484+242	91	7.24	8.87	9.04	4.97	-8.566	-7.148	-8.566	-7.148
								92	7.22	8.94	9.02	5.04	-8.595	-7.116	-8.595	-7.116
								93	7.40	8.84	9.20	4.94	-8.303	-7.147	-8.303	-7.147
160MHz	0.1	0	1.80	-3.90	6665	143	SU	--	10.90	12.25	12.70	8.35	-9.082	-8.382	-7.182	-12.182
							MRU 484+242	91	7.40	8.75	9.20	4.85	-8.901	-7.446	-7.101	-11.346
								92	7.35	8.71	9.15	4.81	-8.672	-7.193	-6.872	-11.093
								S92	7.20	8.76	9.00	4.86	-8.952	-7.351	-7.152	-11.251

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)



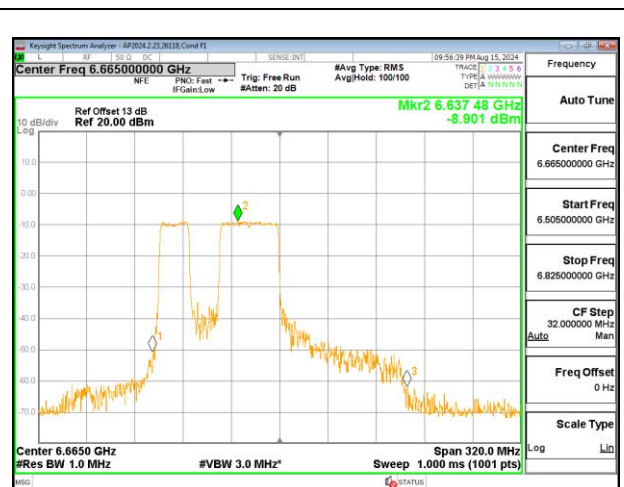
80 MHz - Mid Channel – SU
(UNII-5) – ANT 6



80 MHz - Mid Channel – MRU 484+242, Index 91
(UNII-5) – ANT 6



160 MHz - Mid Channel – SU
(UNII-5) – ANT 6



160 MHz - Mid Channel – MRU 484+242, Index 91
(UNII-5) – ANT 6

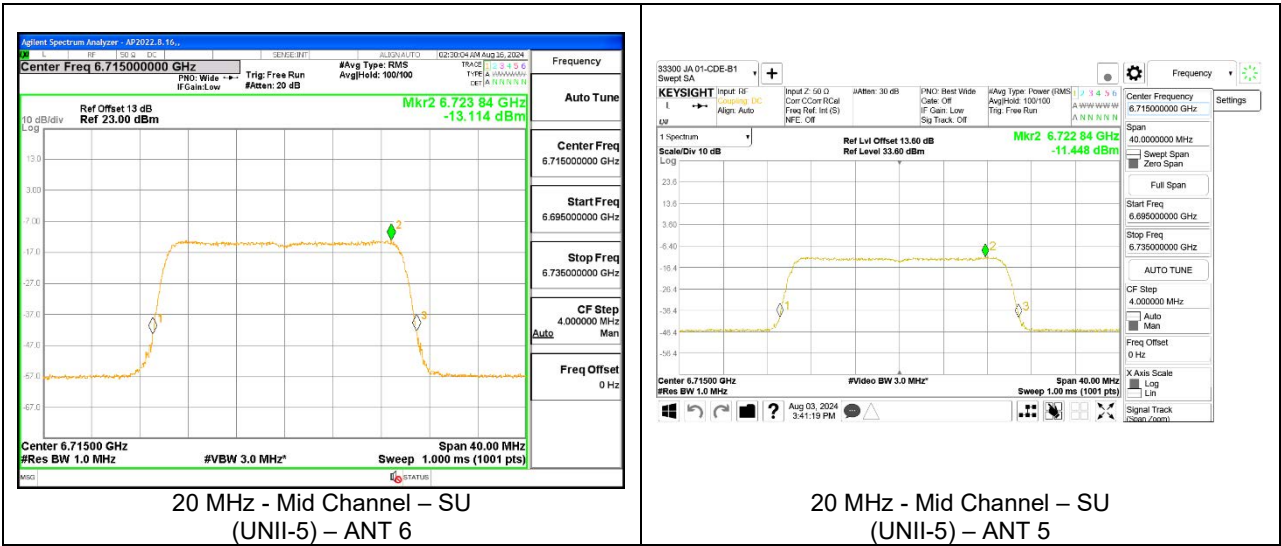
9.3.5. 802.11be MIMO CDD MODE IN THE UNII-7 BAND

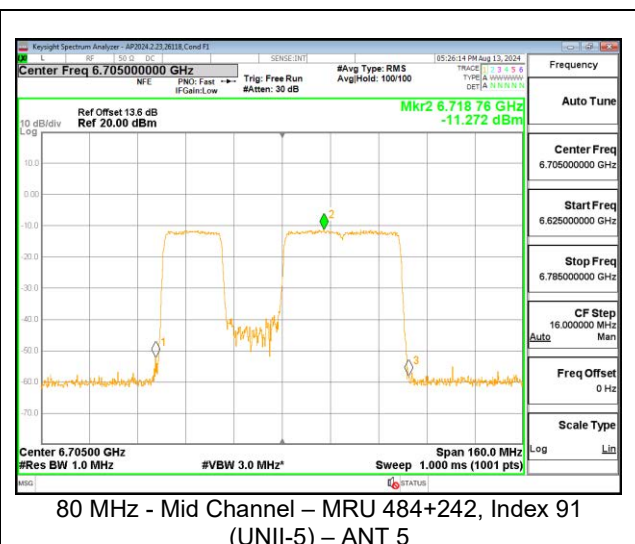
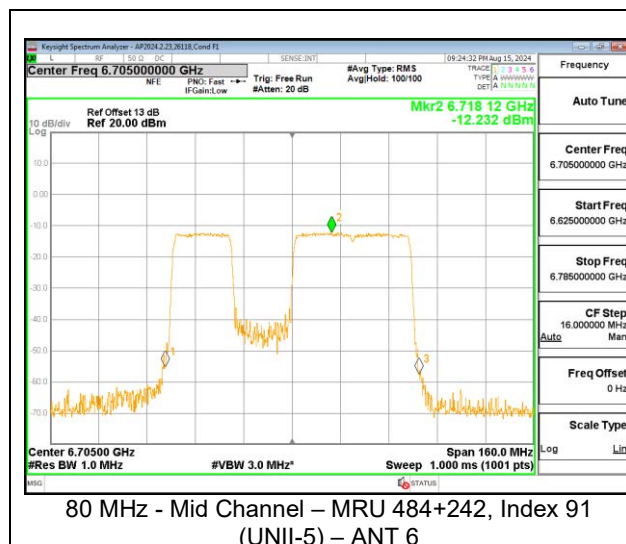
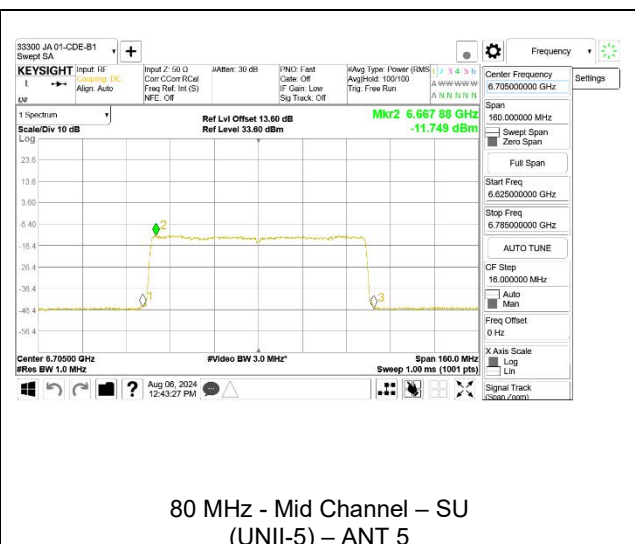
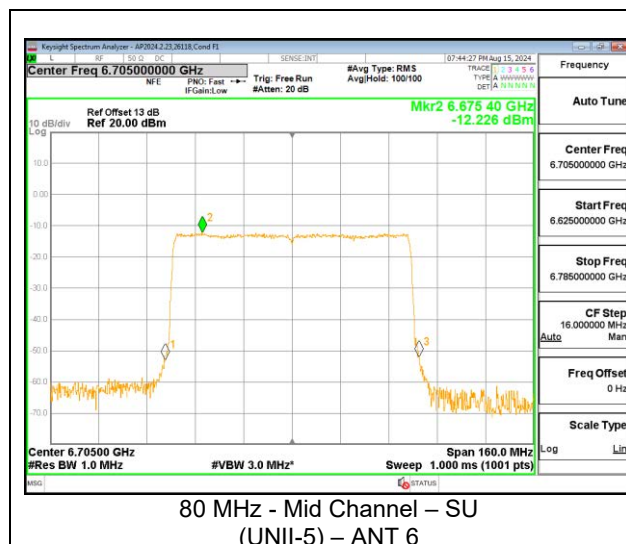
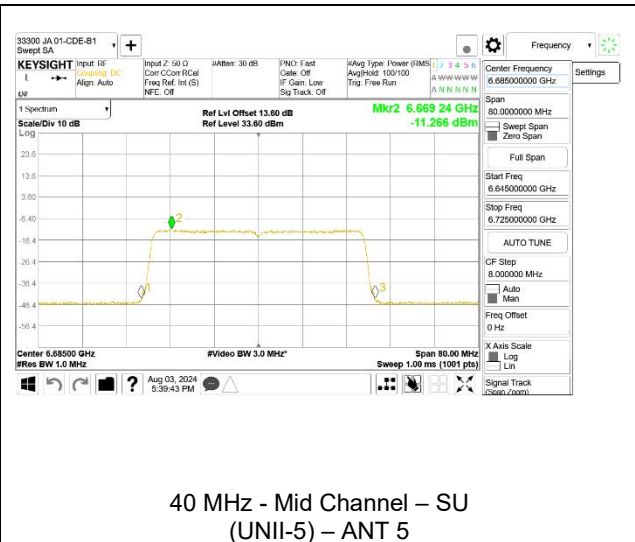
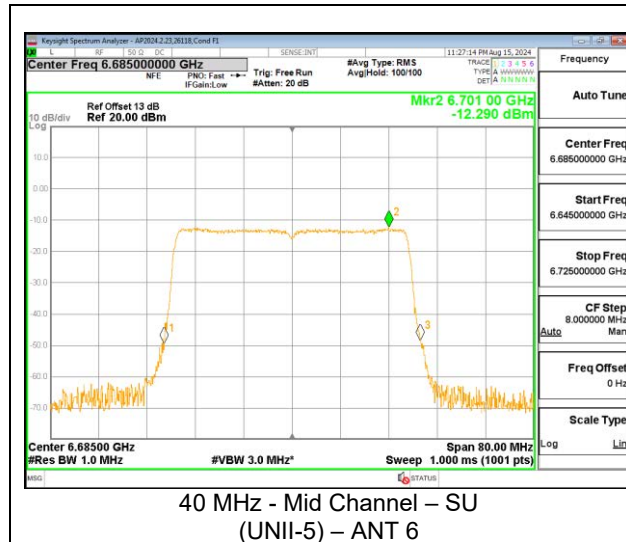
VLP CDD UNII-7 (MIMO)	Duty Factor (dB)		Un- Correlated Antenna Gain (dBi)	Correlated Antenna Gain (dBi)	Frequency (MHz)	Channel Number	Tone	RU Index	Conducted Power (Gated)		EIRP MIMO Power (Limit = 14dBm EIRP)	Conducted PSD (dBm/MHz)		EIRP MIMO PSD (Limit = -5 dBm/MHz EIRP)
	SU	Partial RU							ANT 6	ANT 5		ANT 6	ANT 5	
20 MHz	0	0	-0.18	2.42	6535	117	SU	--	-0.90	0.04	2.43	-12.844	-11.528	-6.706
					6695	149	SU	--	-1.05	0.13	2.41	-13.114	-11.448	-6.771
					6855	181	SU	--	-1.01	0.09	2.41	-13.100	-11.436	-6.758
40 MHz	0	0	-0.18	2.42	6565	123	SU	--	2.03	3.00	5.37	-12.465	-11.491	-6.520
					6685	147	SU	--	2.07	3.01	5.40	-12.290	-11.266	-6.318
					6845	179	SU	--	2.15	3.10	5.48	-12.110	-11.242	-6.224
80 MHz	0	0	-0.18	2.42	6625	135	SU	--	5.02	6.15	8.45	-12.111	-11.769	-6.506
							MRU 484+242	91	3.83	4.70	7.12	-12.063	-11.455	-6.318
							MRU 484+242	92	3.87	4.69	7.13	-12.017	-11.364	-6.248
							MRU 484+242	93	3.90	4.83	7.22	-12.141	-11.036	-6.123
					6705	151	SU	--	4.98	6.11	8.41	-12.226	-11.749	-6.551
							MRU 484+242	91	3.82	4.67	7.10	-12.232	-11.272	-6.295
							MRU 484+242	92	3.83	4.76	7.15	-12.101	-11.136	-6.161
							MRU 484+242	93	3.75	4.90	7.19	-12.324	-11.026	-6.196
					6785	167	SU	--	5.15	6.12	8.49	-12.215	-11.428	-6.373
							MRU 484+242	91	3.78	4.76	7.13	-11.914	-11.288	-6.159
							MRU 484+242	92	3.73	4.82	7.14	-12.245	-11.106	-6.208
							MRU 484+242	93	3.79	4.96	7.24	-12.020	-11.203	-6.162
160 MHz	0.1	0	-0.18	2.42	6665	143	SU	--	7.32	8.36	10.70	-12.913	-12.347	-7.090
							MRU 484+242	91	3.88	4.78	7.18	-12.004	-11.066	-6.079
							MRU 484+242	92	3.90	4.90	7.26	-12.036	-11.093	-6.109
							MRU 484+242	S92	3.87	4.70	7.14	-12.178	-11.375	-6.328

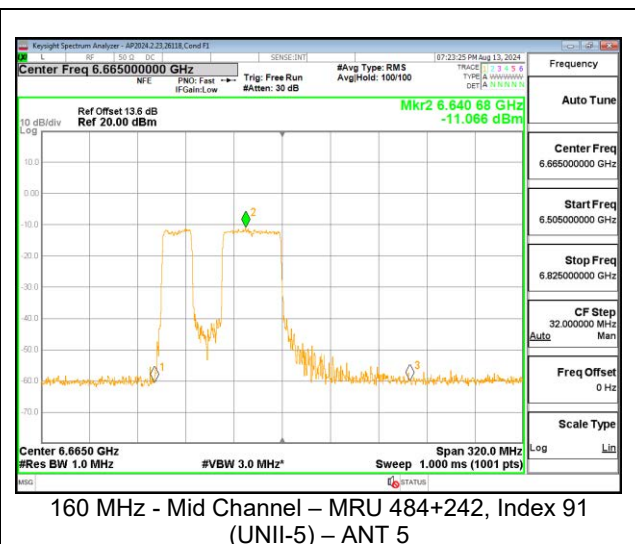
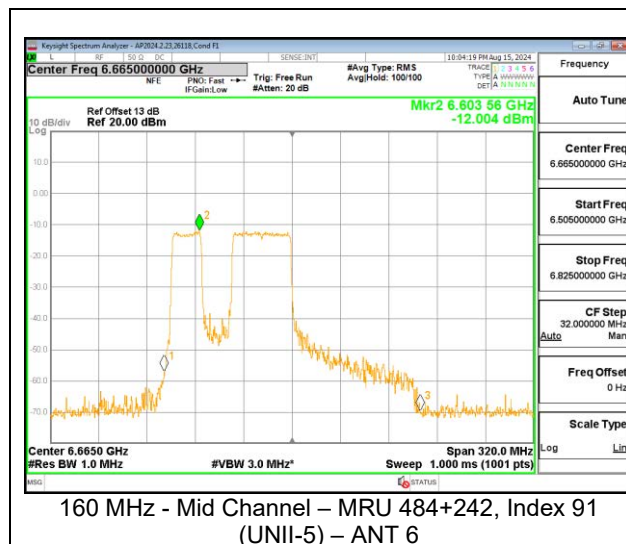
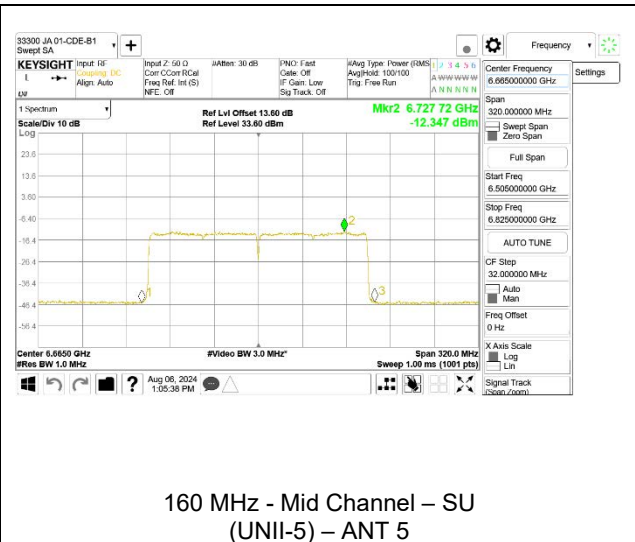
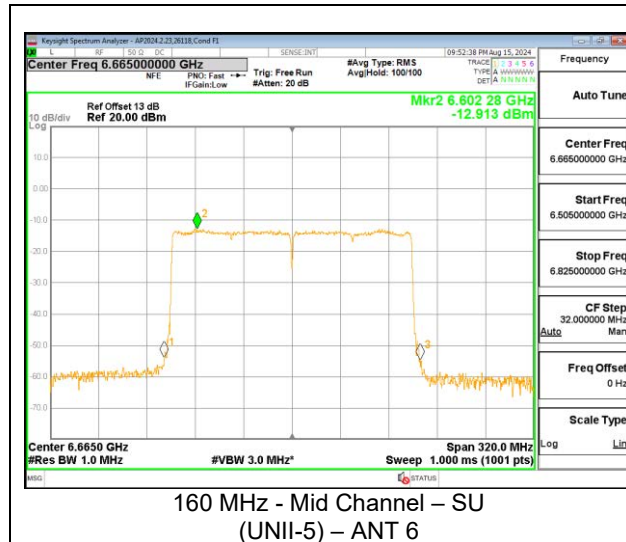
Note:

EIRP MIMO Output Power (dBm) = Measured Conducted Power (dBm) (ANT 6 + ANT 5) + Un-Correlated Antenna Gain (dBi)

EIRP MIMO PSD (dBm/MHz) = Measured Conducted PSD (dBm/MHz) (ANT 6 + ANT 5) + Duty Factor (dB) + Correlated Antenna Gain (dBi)







9.3.6. 802.11be MIMO SDM MODE IN THE UNII-7 BAND

VLP SDM 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 = 14dBm EIRP)	Conducted PSD (dBm/MHz)		EIRP MIMO PSD (Limit = -5 dBm/MHz EIRP)
	SU	Partial RU							ANT 6	ANT 5		ANT 6	ANT 5	
20 MHz	0	0	-0.18	2.42	6535	117	SU	—	1.65	2.85	5.12	-10.392	-8.535	-6.535
							MRU 106+26	82	-0.77	0.56	2.78	-10.256	-8.496	-6.457
								83	-0.65	0.56	2.83	-10.143	-8.463	-6.392
					6695	149	SU	—	1.60	2.76	5.05	-10.067	-8.576	-6.428
							MRU 106+26	82	-0.60	0.65	2.90	-10.238	-8.188	-6.263
								83	-0.72	0.61	2.83	-10.150	-8.137	-6.198
					6855	181	SU	—	1.61	2.92	5.14	-9.926	-8.587	-6.375
							MRU 106+26	82	-0.72	0.42	2.72	-10.201	-8.397	-6.376
								83	-0.71	0.40	2.71	-10.355	-8.306	-6.380
40 MHz	0	0	-0.18	2.42	6565	123	SU	—	4.65	5.65	8.01	-9.778	-8.755	-6.406
							MRU 106+26	82	-0.77	0.62	2.81	-10.345	-8.473	-6.479
								83	-0.75	0.65	2.84	-10.282	-8.057	-6.198
								85	-0.65	0.61	2.86	-10.151	-8.263	-6.275
					6685	147	SU	—	4.55	5.90	8.11	-10.284	-8.480	-6.459
							MRU 106+26	82	-0.66	0.59	2.84	-10.505	-8.544	-6.584
								83	-0.67	0.61	2.85	-10.692	-8.484	-6.619
								85	-0.80	0.64	2.81	-10.643	-8.392	-6.543
					6845	179	SU	—	4.52	5.71	7.99	-11.291	-8.598	-6.909
							MRU 106+26	82	-0.70	0.64	2.85	-11.267	-8.322	-6.719
								83	-0.60	0.48	2.80	-11.111	-8.159	-6.559
								85	-0.71	0.39	2.71	-11.090	-8.437	-6.734
80 MHz	0	0	-0.18	2.42	6625	135	SU	—	7.65	8.81	11.10	-9.842	-8.442	-6.256
							MRU 484+242	91	6.39	7.65	9.90	-9.725	-8.103	-6.008
								92	6.34	7.46	9.77	-9.905	-8.336	-6.220
								93	6.40	7.42	9.77	-10.082	-8.515	-6.398
					6705	151	SU	—	7.54	8.77	11.03	-10.469	-8.687	-6.657
							MRU 484+242	91	6.30	7.63	9.85	-10.287	-8.455	-6.445
								92	6.22	7.50	9.74	-10.211	-8.456	-6.415
								93	6.32	7.61	9.84	-10.336	-8.463	-6.469
					6785	167	SU	—	7.50	8.73	10.99	-10.717	-8.804	-6.826
							MRU 484+242	91	6.30	7.67	9.87	-10.674	-8.421	-6.573
								92	6.32	7.62	9.85	-10.586	-8.289	-6.457
								93	6.28	7.56	9.80	-10.565	-8.169	-6.374
160 MHz	0	0	-0.18	2.42	6665	143	SU	—	9.90	11.13	13.39	-10.248	-9.427	-6.988
							MRU 484+242	91	6.40	7.52	9.83	-9.608	-8.313	-6.082
								92	6.39	7.43	9.77	-9.966	-8.239	-6.187
								S92	6.29	7.58	9.81	-9.969	-8.518	-6.353

Note:

EIRP MIMO Output Power (dBm) = Measured Conducted Power (dBm) (ANT 6 + ANT 5) + Un-Correlated Antenna Gain (dBi)

EIRP MIMO PSD (dBm/MHz) = Measured Conducted PSD (dBm/MHz) (ANT 6 + ANT 5) + Duty Factor (dB) + Un- Correlated Antenna Gain (dBi)

9.4. VLP SPURIOUS EMISSIONS IN-BAND– EMISSION MASK

LIMITS

FCC §15.407

(b)(7) For transmitters operating within the 5.925-7.125 GHz bands: power spectral density must be suppressed by 20 dB at 1 MHz outside of channel edge, by 28 dB at one channel bandwidth from the channel center, and by 40 dB at one- and one-half times the channel bandwidth away from channel center. At frequencies between one megahertz outside an unlicensed device's channel edge and one channel bandwidth from the center of the channel, the limits must be linearly interpolated between 20 dB and 28 dB suppression, and at frequencies between one and one- and one-half times an unlicensed device's channel bandwidth, the limits must be linearly interpolated between 28 dB and 40 dB suppression. Emissions removed from the channel center by more than one- and one-half times the channel bandwidth must be suppressed by at least 40 dB.

TEST PROCEDURE

Follow KDB 987594 D02 v01r01, Section II-J, RBW & VBW settings were based on 26dB bandwidth test settings. Only Partial RU for all bandwidths, the RBW & VBW settings were used equal or greater than 26dB bandwidth test settings.

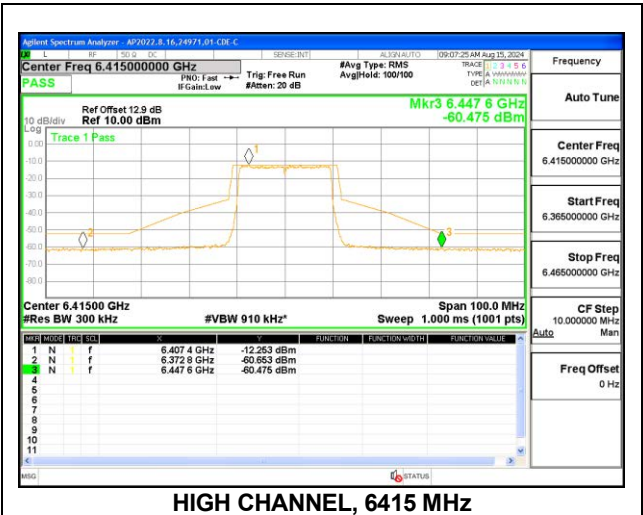
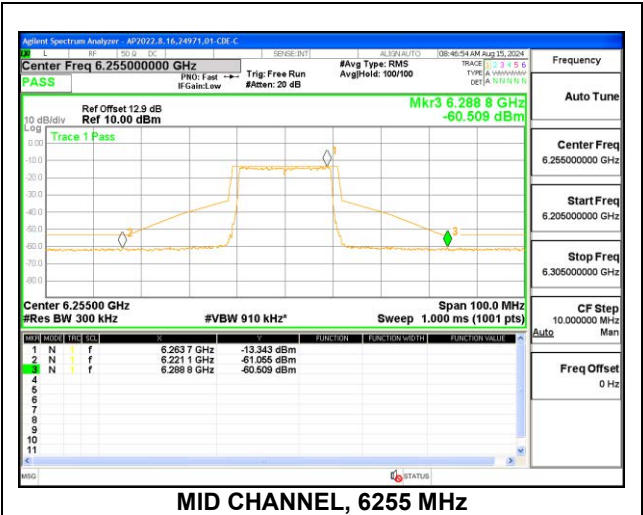
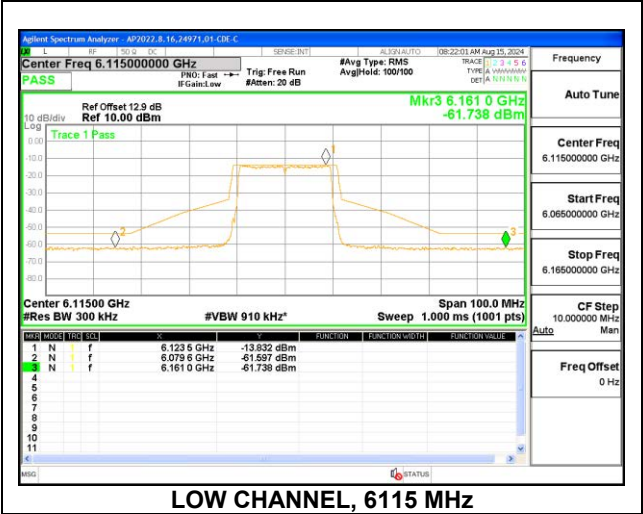
Band	Tones	20 MHz	40 MHz	80 MHz	160 MHz
UNII-5	Partial RU	300kHz/910kHz	510kHz/1.6MHz	1MHz/3MHz	1MHz/3MHz
	SU	300kHz/910kHz	510kHz/1.6MHz	1MHz/3MHz	2MHz/6MHz
UNII-7	Partial RU	300kHz/910kHz	510kHz/1.6MHz	1MHz/3MHz	1MHz/3MHz
	SU	300kHz/910kHz	510kHz/1.6MHz	1MHz/3MHz	2MHz/6MHz

RESULTS

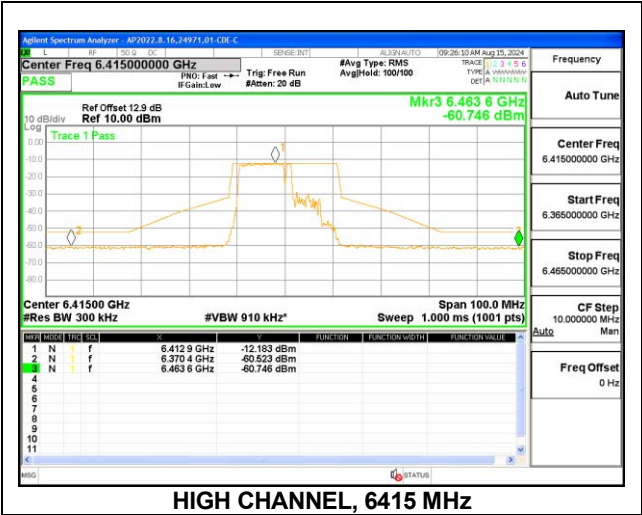
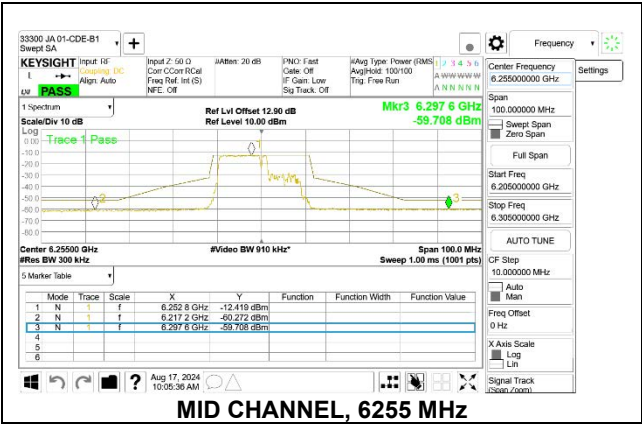
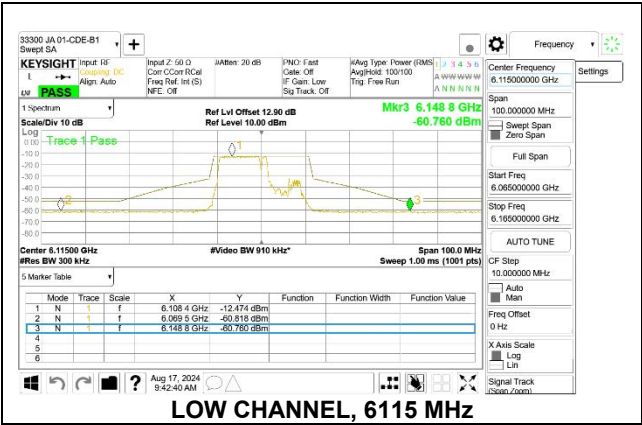
For mask and bandwidth measurements partial RU allocations are tested with the RUs allocated at the lower and upper positions within the channel for the low mid and high channels in each band. Additionally, the center channel is also tested with the RU allocated in the center of the channel to verify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

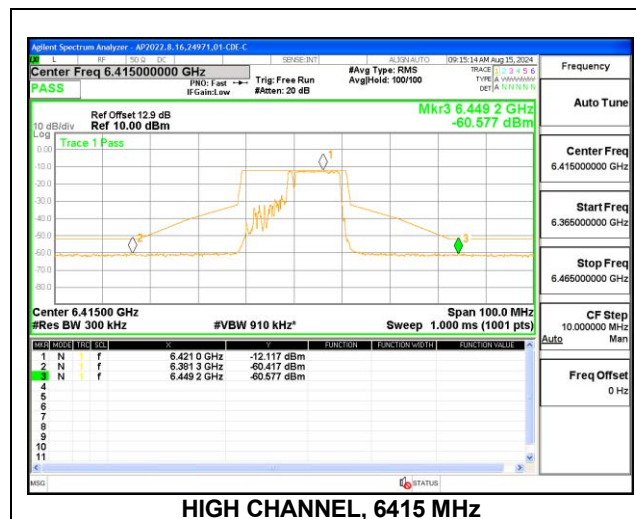
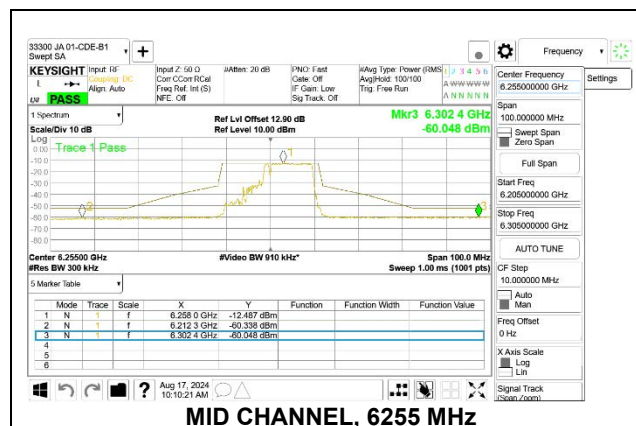
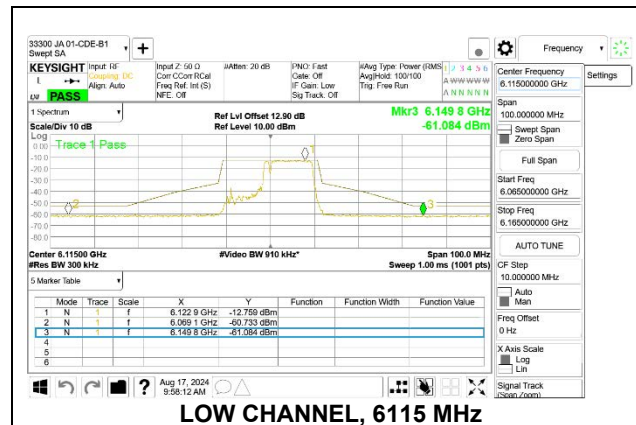
9.4.1. 802.11be EHT20 MODE IN THE UNII-5 BAND

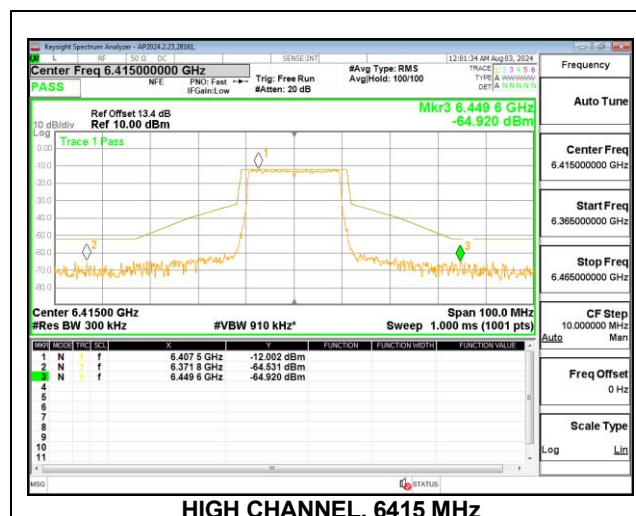
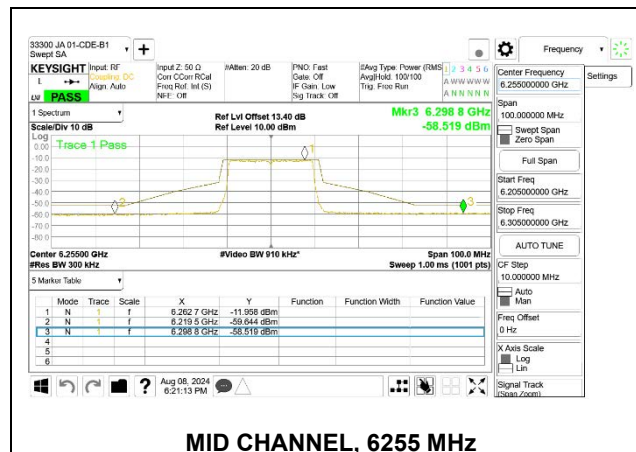
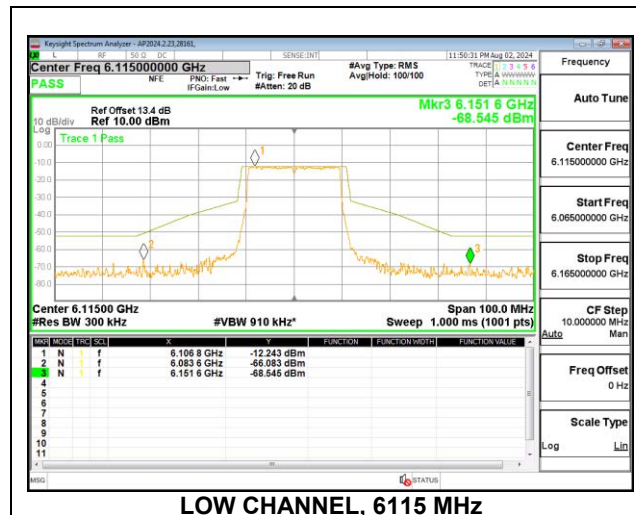
1TX Antenna 6 MODE – SU

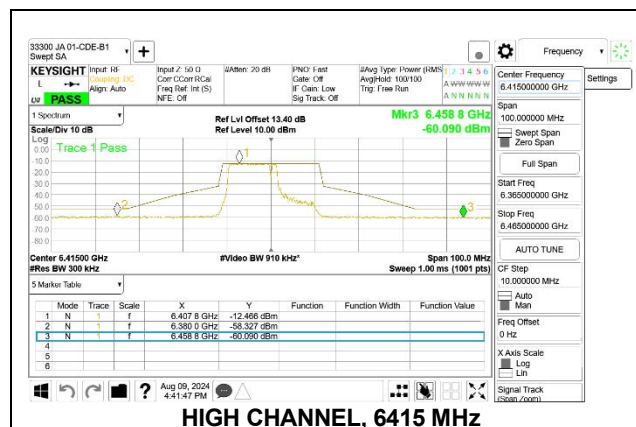
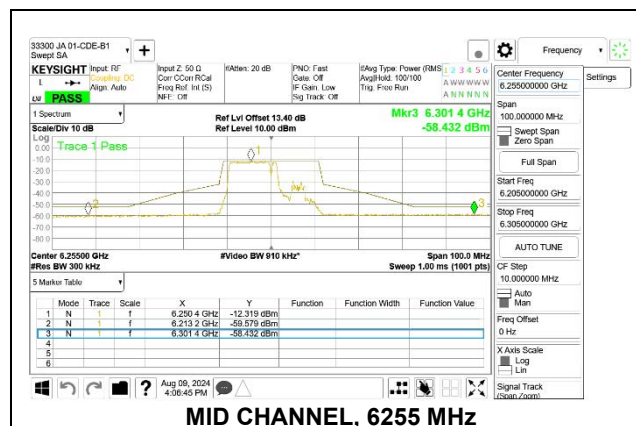
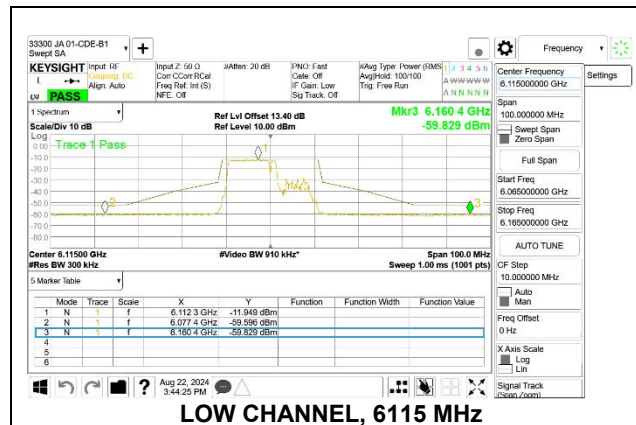


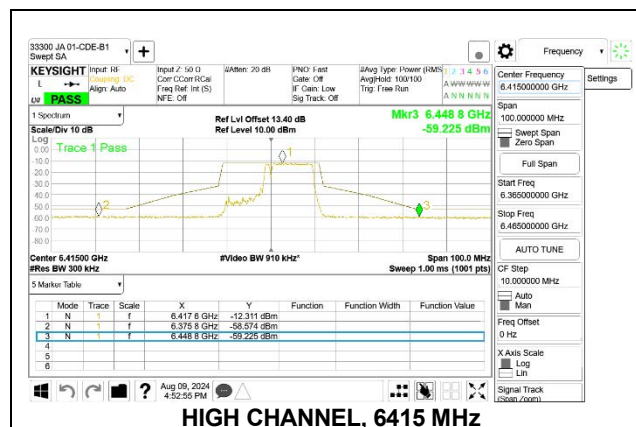
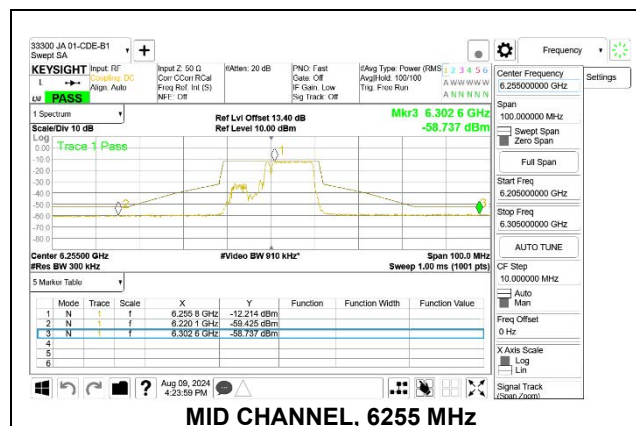
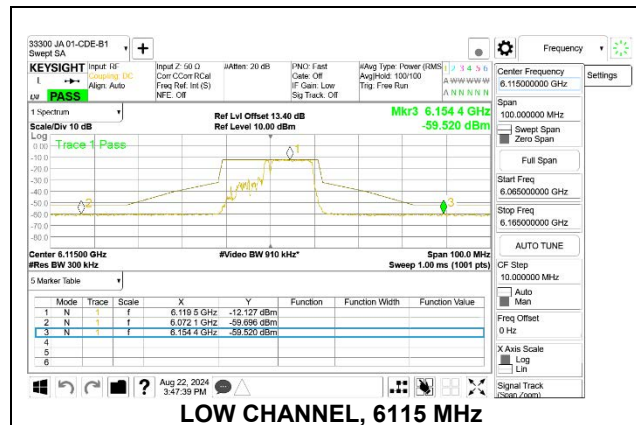
1TX Antenna 6 MODE – MRU 106+26, Index 82

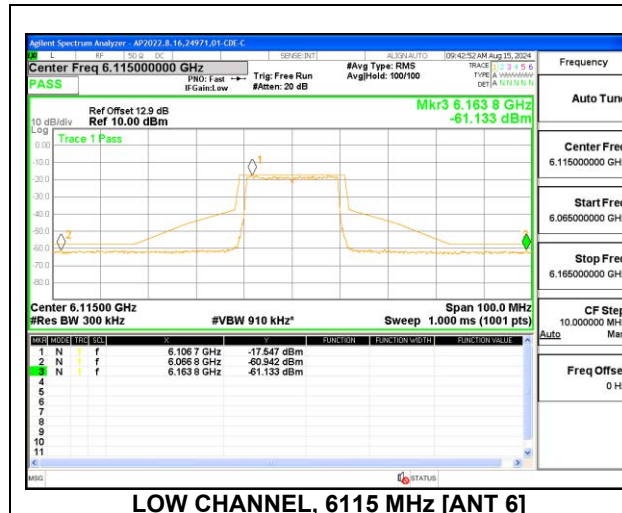
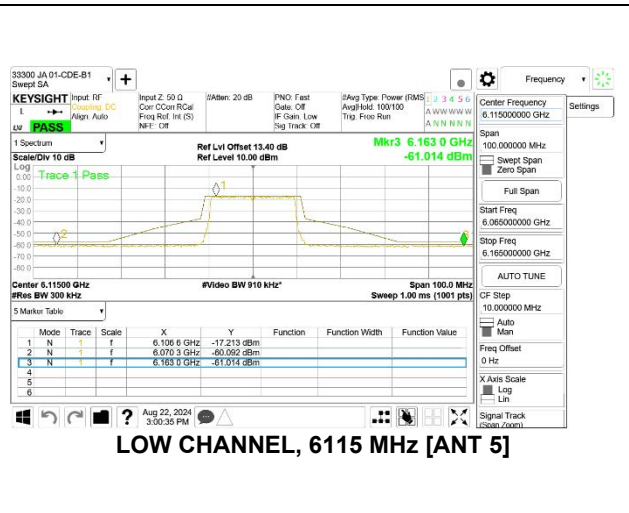
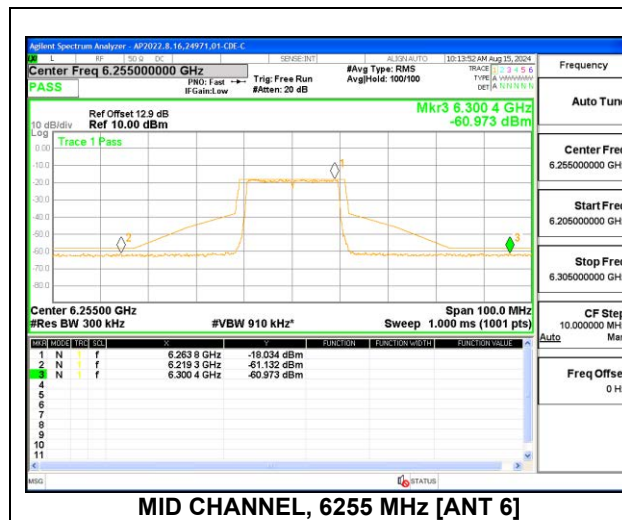
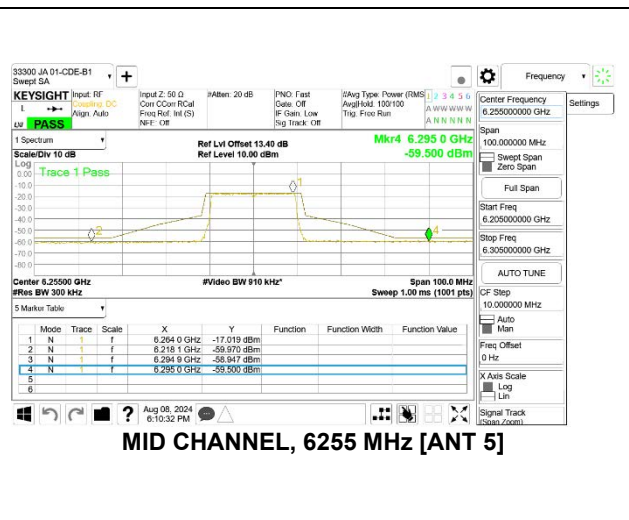
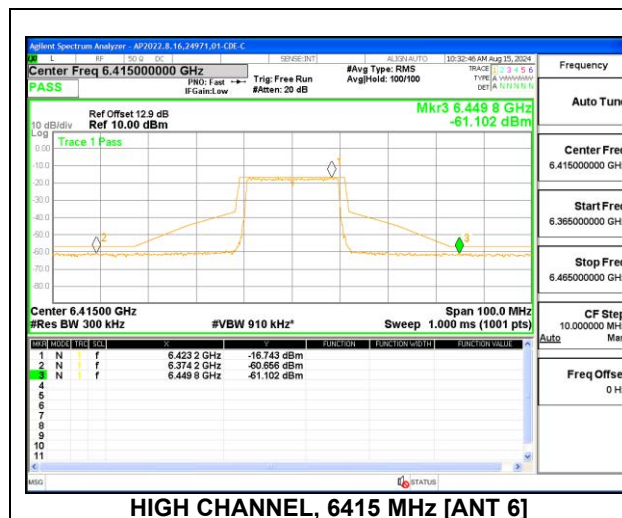
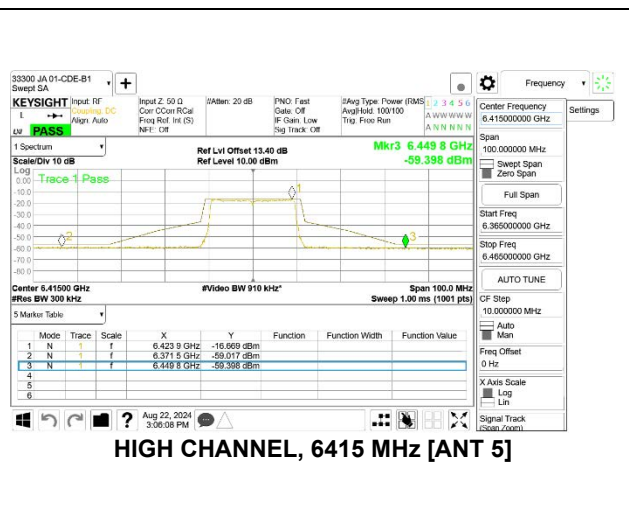


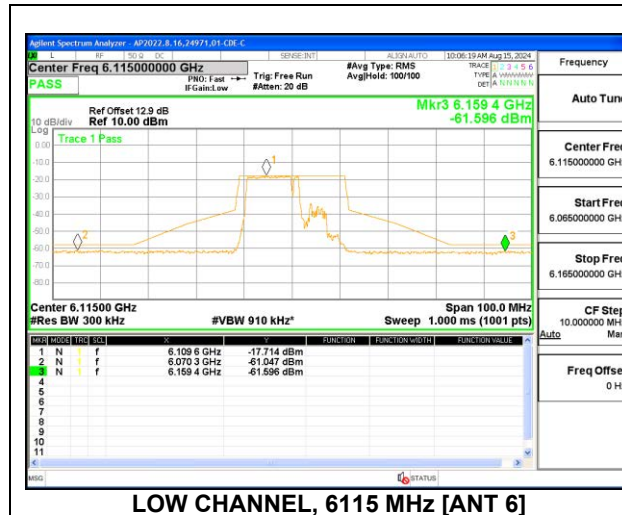
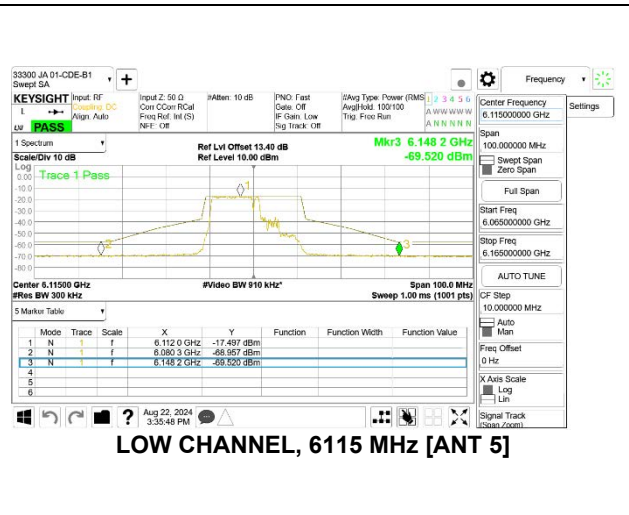
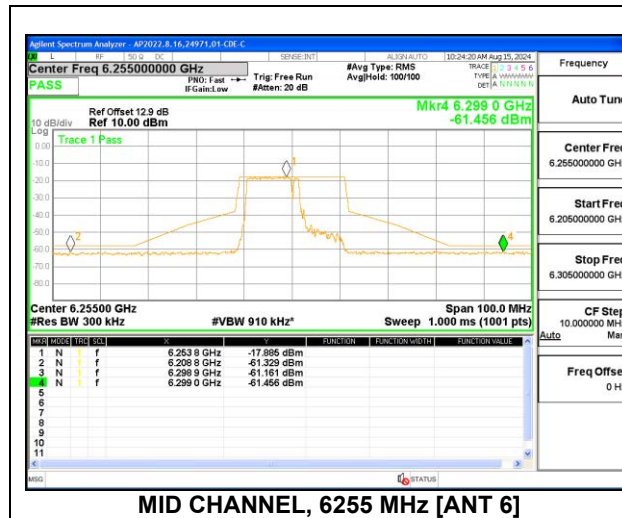
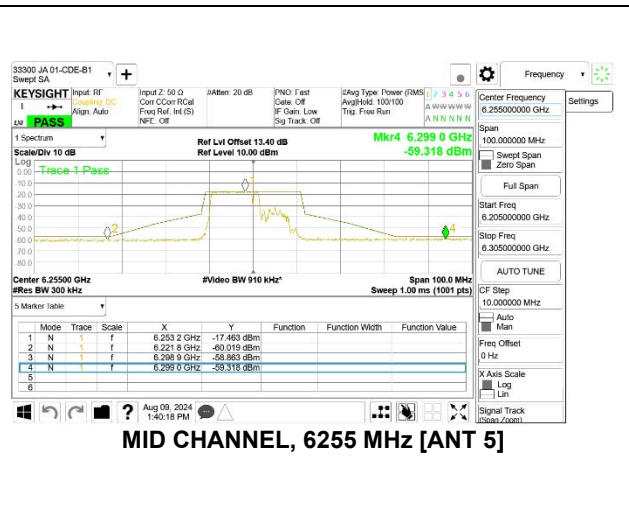
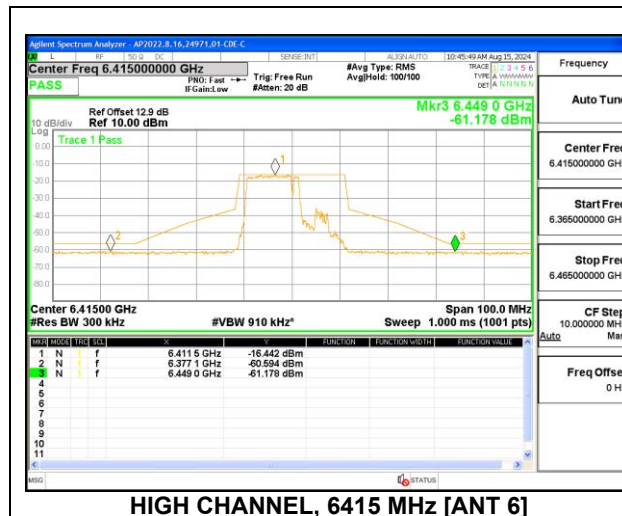
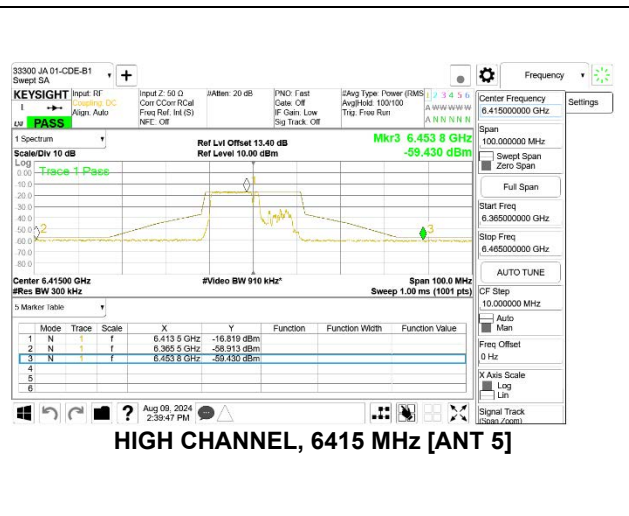
1TX Antenna 6 MODE – MRU 106+26, Index 83

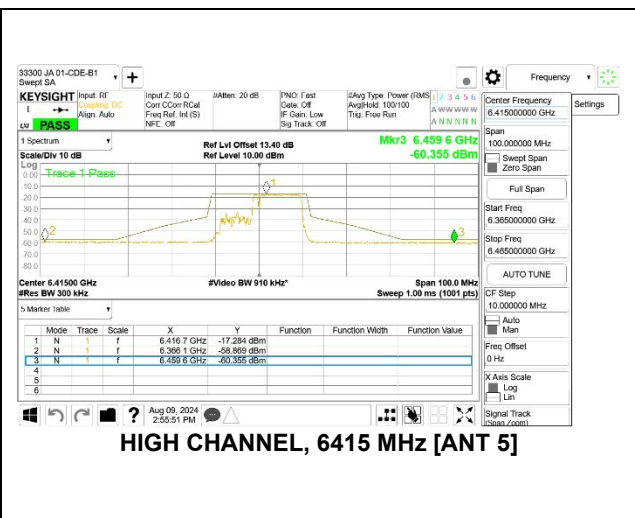
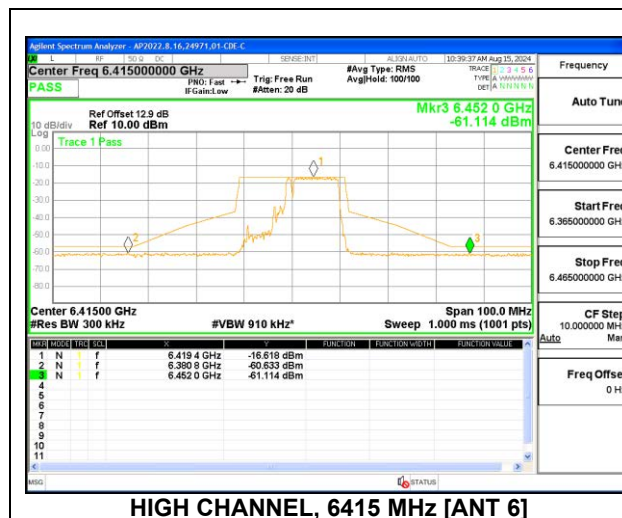
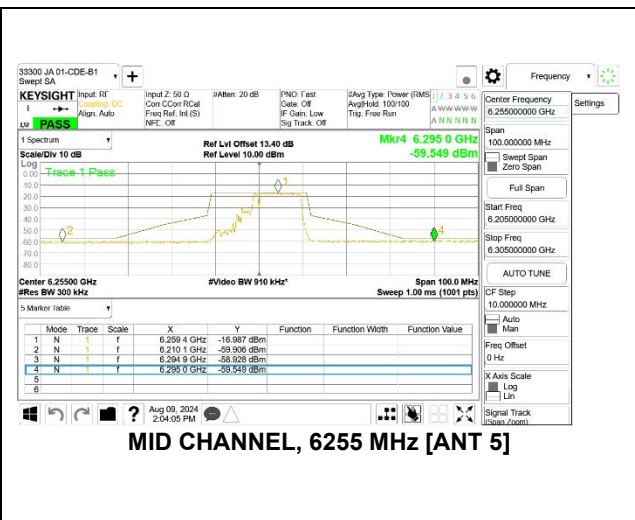
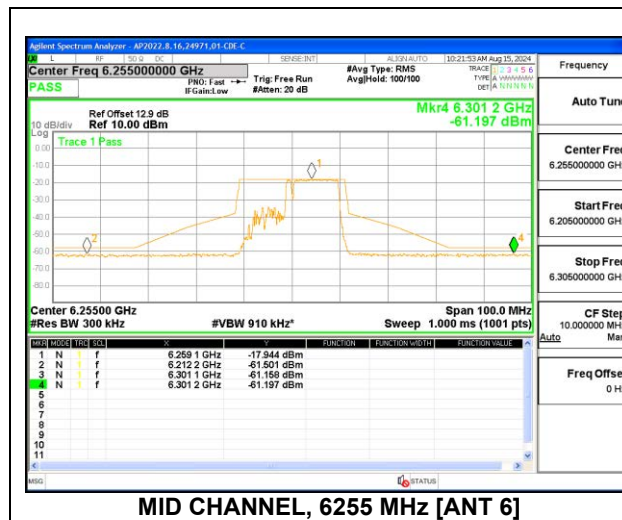
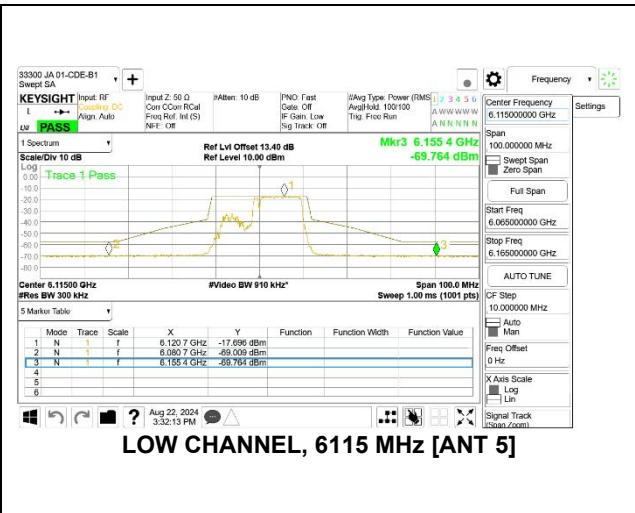
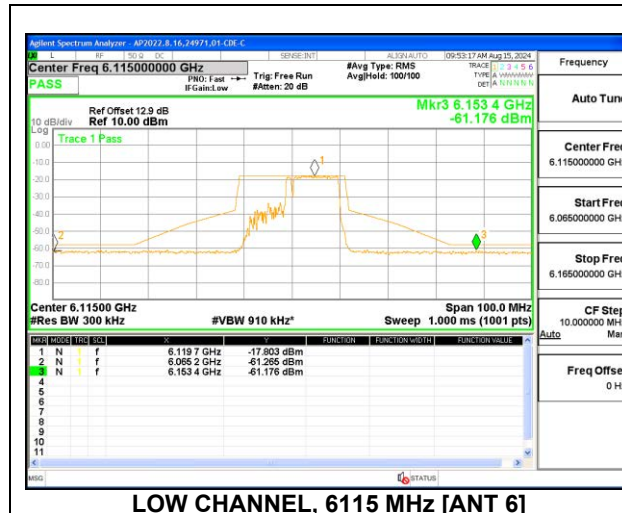
1TX Antenna 5 MODE – SU

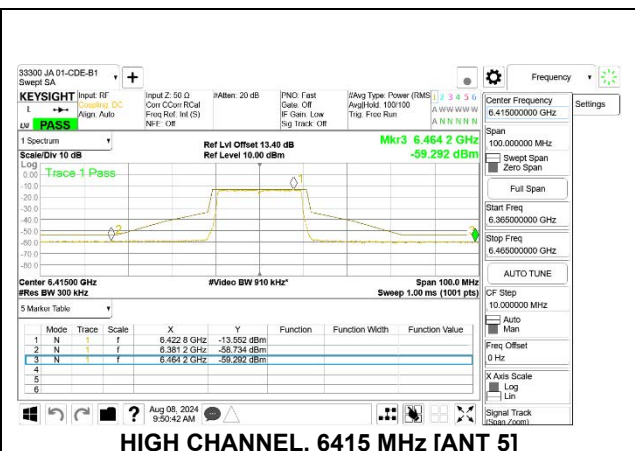
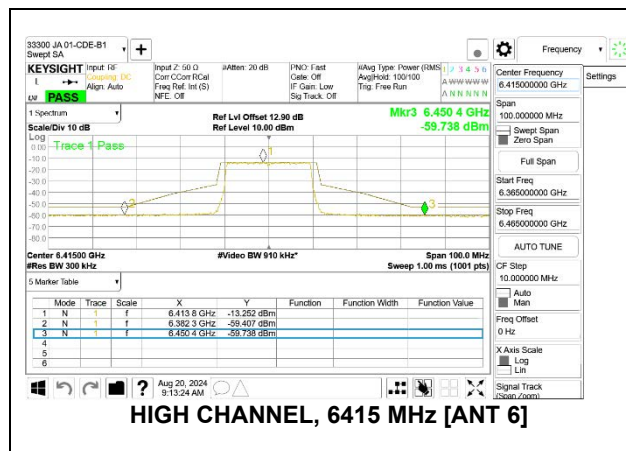
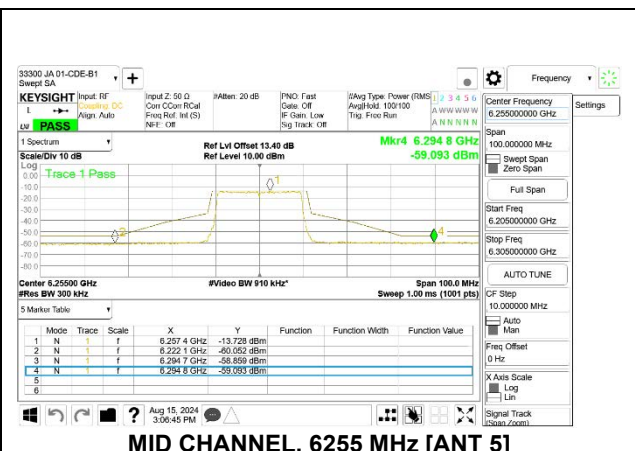
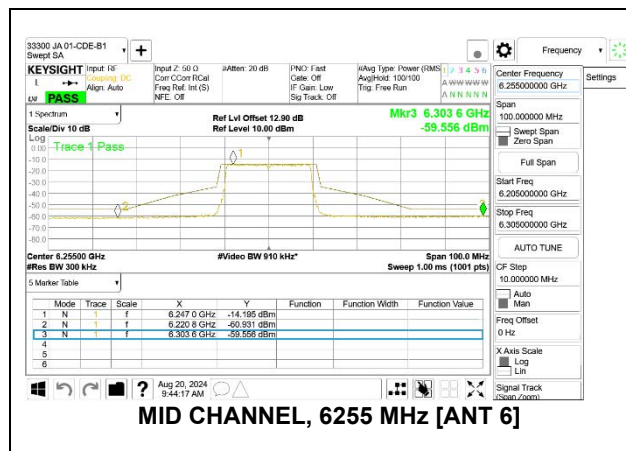
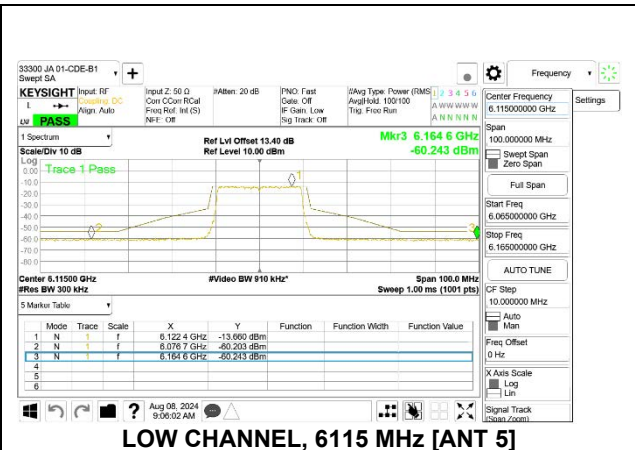
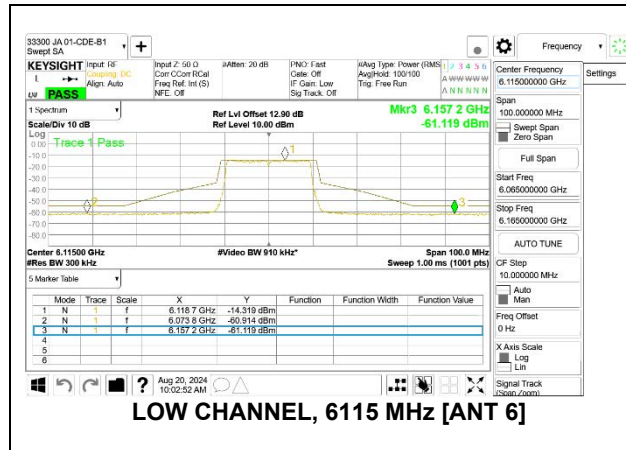
1TX Antenna 5 MODE – MRU 106+26, Index 82

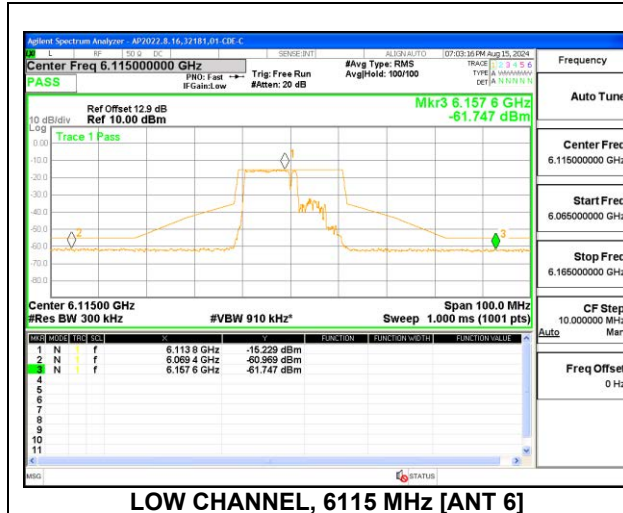
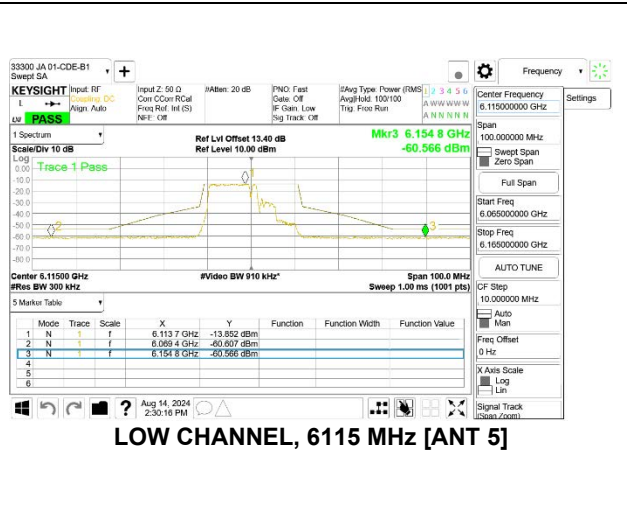
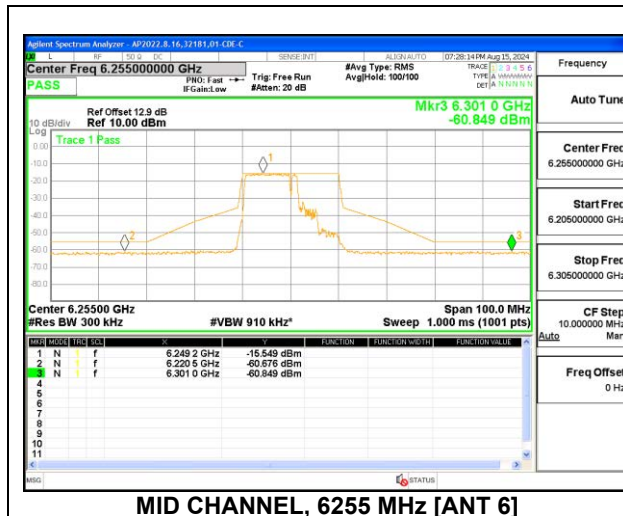
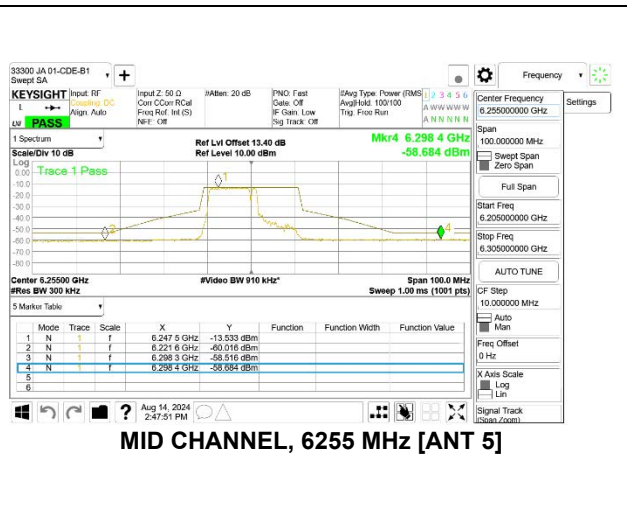
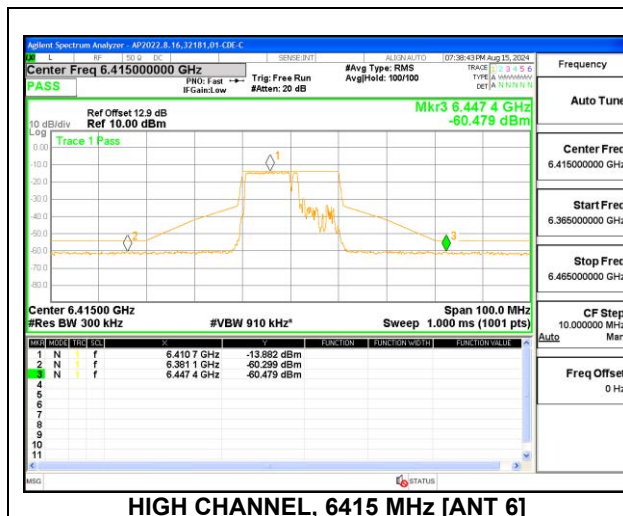
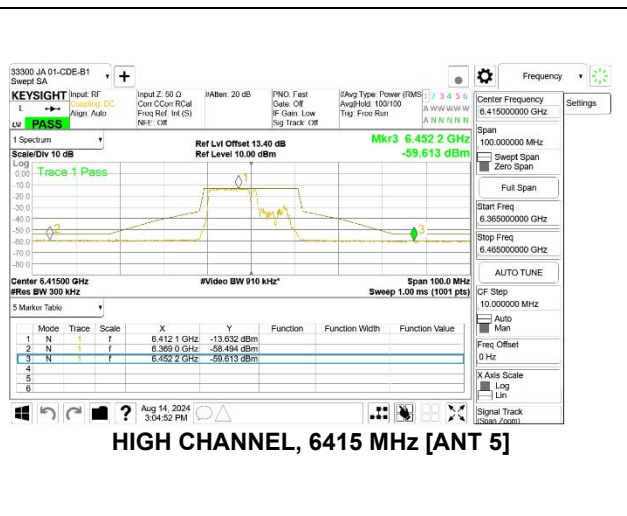
1TX Antenna 5 MODE – MRU 106+26, Index 83

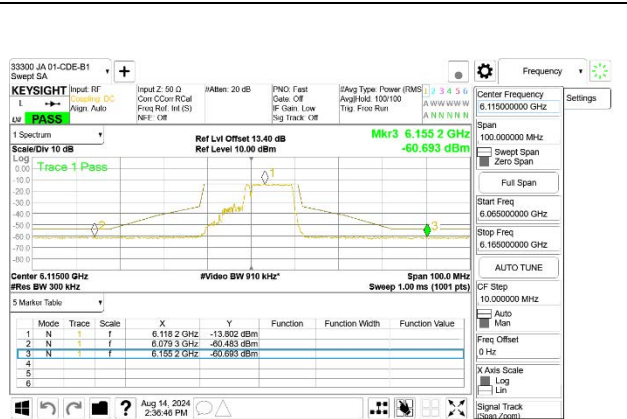
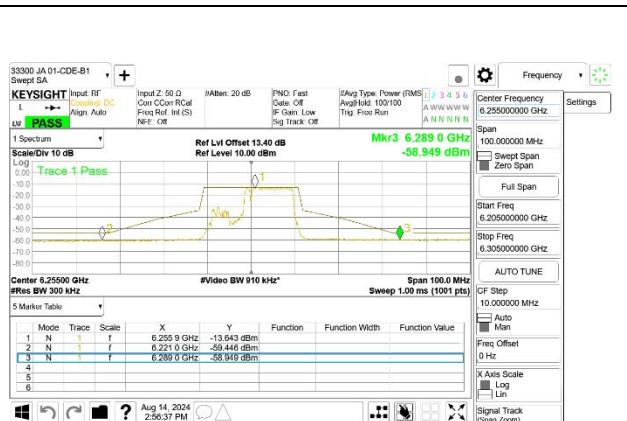
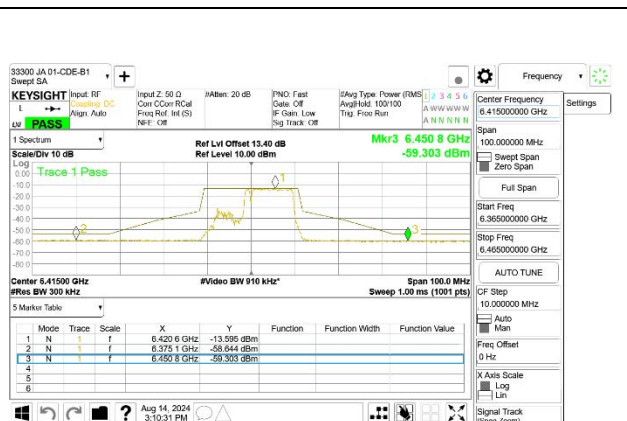
2TX Antenna 6 + Antenna 5 CDD MODE – SU**LOW CHANNEL, 6115 MHz [ANT 6]****LOW CHANNEL, 6115 MHz [ANT 5]****MID CHANNEL, 6255 MHz [ANT 6]****MID CHANNEL, 6255 MHz [ANT 5]****HIGH CHANNEL, 6415 MHz [ANT 6]****HIGH CHANNEL, 6415 MHz [ANT 5]**

2TX Antenna 6 + Antenna 5 CDD MODE – MRU 106+26, Index 82**LOW CHANNEL, 6115 MHz [ANT 6]****LOW CHANNEL, 6115 MHz [ANT 5]****MID CHANNEL, 6255 MHz [ANT 6]****MID CHANNEL, 6255 MHz [ANT 5]****HIGH CHANNEL, 6415 MHz [ANT 6]****HIGH CHANNEL, 6415 MHz [ANT 5]**

2TX Antenna 6 + Antenna 5 CDD MODE – MRU 106+26, Index 83

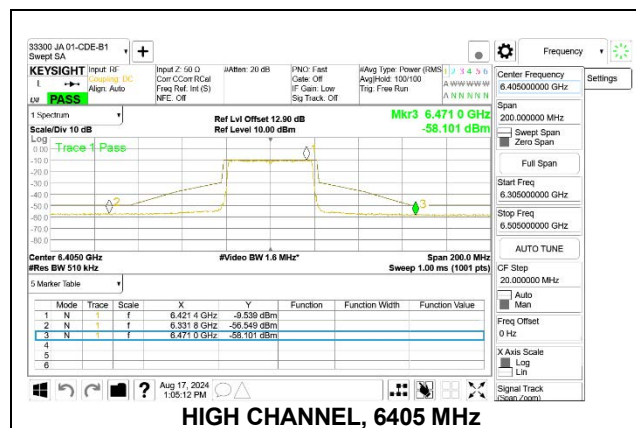
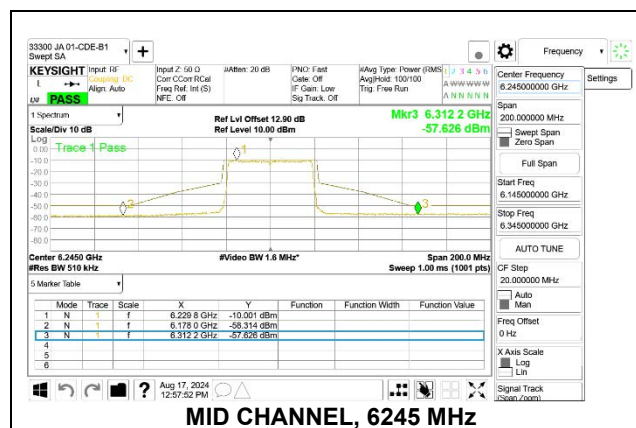
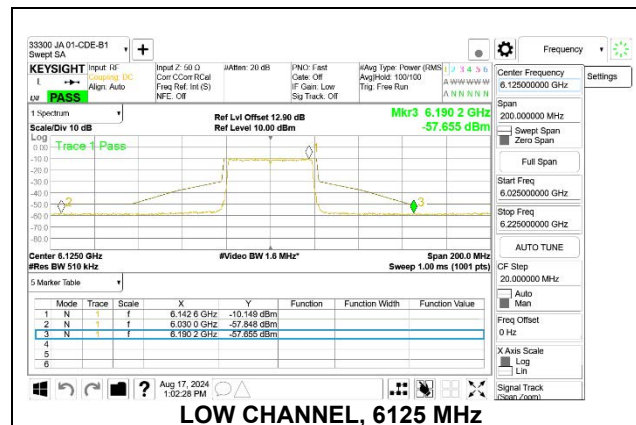
2TX Antenna 6 + Antenna 5 SDM MODE – SU

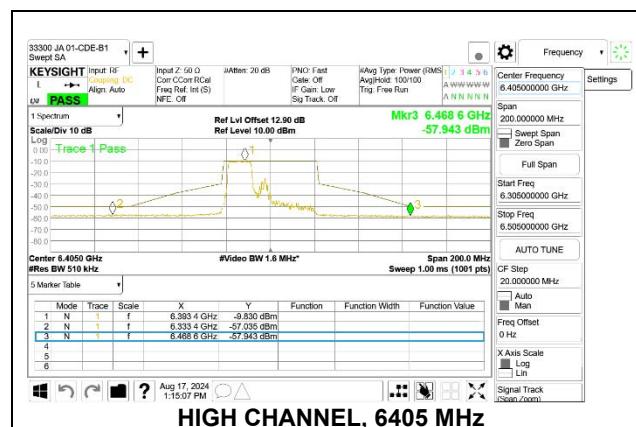
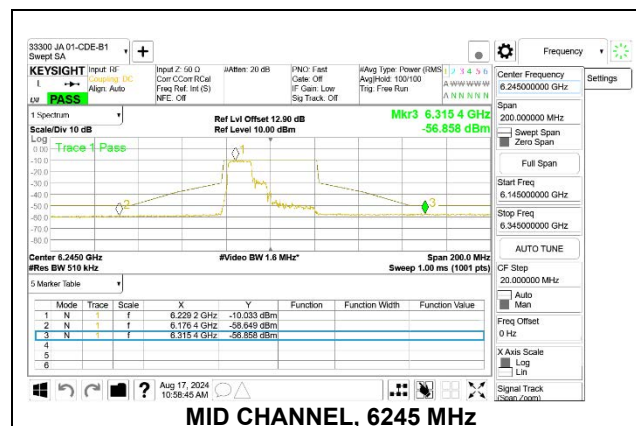
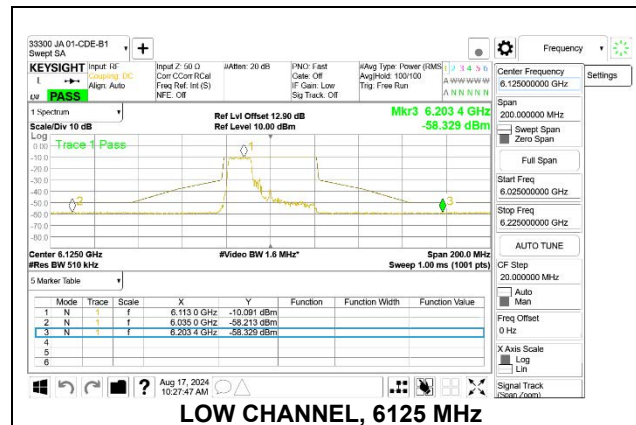
2TX Antenna 6 + Antenna 5 SDM MODE – MRU 106+26, Index 82**LOW CHANNEL, 6115 MHz [ANT 6]****LOW CHANNEL, 6115 MHz [ANT 5]****MID CHANNEL, 6255 MHz [ANT 6]****MID CHANNEL, 6255 MHz [ANT 5]****HIGH CHANNEL, 6415 MHz [ANT 6]****HIGH CHANNEL, 6415 MHz [ANT 5]**

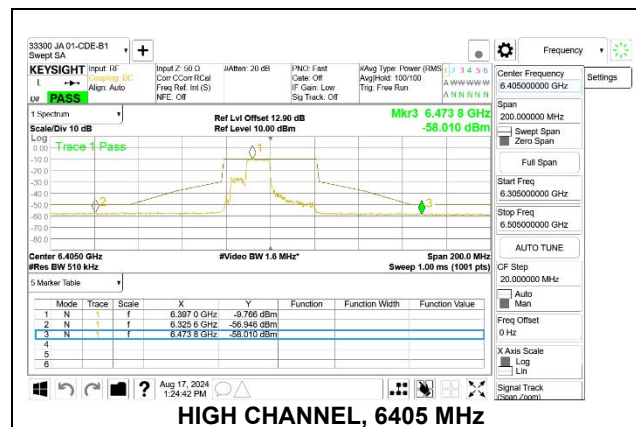
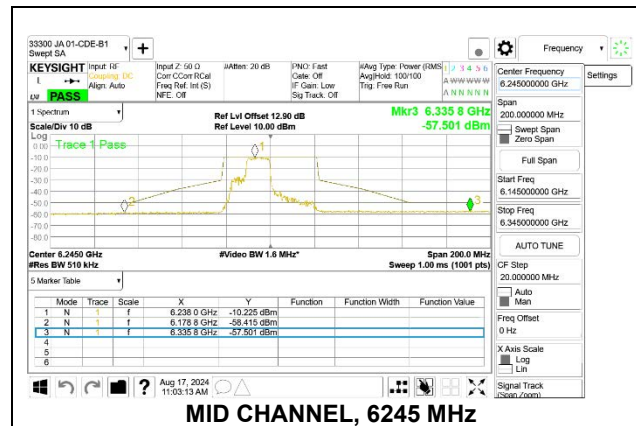
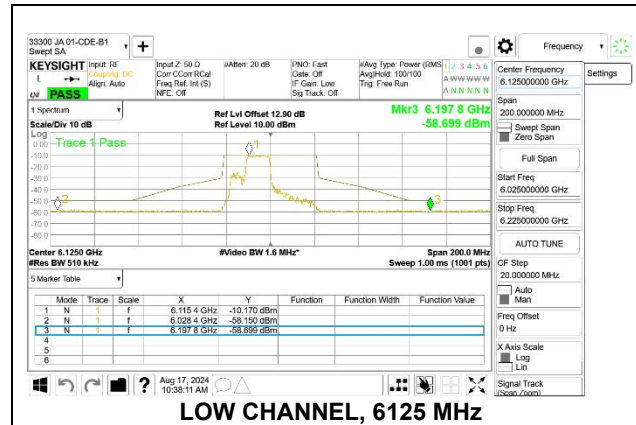
2TX Antenna 6 + Antenna 5 SDM MODE – MRU 106+26, Index 83**LOW CHANNEL, 6115 MHz [ANT 6]****LOW CHANNEL, 6115 MHz [ANT 5]****MID CHANNEL, 6255 MHz [ANT 6]****MID CHANNEL, 6255 MHz [ANT 5]****HIGH CHANNEL, 6415 MHz [ANT 6]****HIGH CHANNEL, 6415 MHz [ANT 5]**

9.4.2. 802.11be EHT40 MODE IN THE UNII-5 BAND

1TX Antenna 6 MODE – SU



1TX Antenna 6 MODE – MRU 106+26, Index 82

1TX Antenna 6 MODE – MRU 106+26, Index 83

1TX Antenna 6 MODE – MRU 106+26, Index 85