

CERTIFICATION TEST REPORT

Report Number. : 4790841159-E4V2

Applicant : SAMSUNG ELECTRONICS CO., LTD.
129 SAMSUNG-RO, YEONGTONG-GU, SUWON-SI,
GYEONGGI-DO, 16677, KOREA

Model : SM-X510

FCC ID : A3LSMX510

IC : 649E-SMX510

EUT Description : BT/BLE Tablet + DTS/UNII a/b/g/n/ac/ax and Digitizer

Test Standard(s) : FCC 47 CFR PART 15 SUBPART E
INDUSTRY CANADA RSS-247 Issue 2
INDUSTRY CANADA RSS-GEN Issue 5

Date Of Issue:
2023-08-01

Prepared by:
UL KOREA LTD.

26th floor, 152, Teheran-ro, Gangnam-gu Seoul, 06236, Korea

Suwon Test Site: UL KOREA LTD. Suwon Laboratory
218 Maeyeong-ro, Yeongtong-gu,
Suwon-si, Gyeonggi-do, 16675, Korea
TEL: (031) 337-9902
FAX: (031) 213-5433

Revision History

<u>Rev.</u>	<u>Issue Date</u>	<u>Revisions</u>	<u>Revised By</u>
V1	2023-07-19	Initial issue	Hyunsik(Dexter) Yun
V2	2023-08-01	Updated to address TCB's question	Hyunsik(Dexter) Yun

TABLE OF CONTENTS

1. ATTESTATION OF TEST RESULTS	6
1.1. INTRODUCTION OF TEST DATA DEVIATION	7
1.2. DIFFERENCE.....	7
1.3. SPOT CHECK VERIFICATION DATA	7
1.4. REFERENCE DETAIL	8
2. TEST METHODOLOGY	9
3. FACILITIES AND ACCREDITATION	9
4. CALIBRATION AND UNCERTAINTY	9
4.1. MEASURING INSTRUMENT CALIBRATION	9
4.2. SAMPLE CALCULATION	10
4.3. MEASUREMENT UNCERTAINTY.....	10
4.4. DECISION RULE.....	10
5. EQUIPMENT UNDER TEST	11
5.1. DESCRIPTION OF EUT	11
5.2. DESCRIPTION OF AVAILABLE ANTENNAS	14
5.3. List of test reduction and modes covering other modes:	15
5.4. WORST-CASE CONFIGURATION AND MODE.....	15
5.5. DESCRIPTION OF TEST SETUP.....	18
6. TEST AND MEASUREMENT EQUIPMENT	20
7. SUMMARY TABLE	21
8. MEASUREMENT METHODS	22
9. REFERENCE MEASUREMENTS RESULTS	23
9.1. ON TIME AND DUTY CYCLE RESULTS.....	23
9.2. DUTY CYCLE PLOTS	24
9.3. 26 dB & 99% BANDWIDTH	28
9.3.1. 802.11a.....	30
9.3.2. 802.11n HT20.....	30
9.3.3. 802.11n HT40.....	30
9.3.4. 802.11ac VHT80.....	31
9.3.5. 802.11ax HE20.....	31
9.3.6. 802.11ax HE40.....	31
9.3.7. 802.11ax HE80.....	32
9.3.8. STRADDLE CHANNEL.....	32

9.3.9.	802.11ax HE20(RU).....	33
9.3.10.	802.11ax HE40(RU).....	34
9.3.11.	802.11ax HE80(RU).....	34
9.3.12.	802.11ax STRADDLE CHANNEL(RU).....	35
10.	ANTENNA PORT TEST RESULTS.....	36
10.1.	6 dB & 99% BANDWIDTH.....	36
10.1.1.	UNII-3 BAND.....	38
10.1.2.	UNII-3 BAND(RU).....	38
10.1.3.	UNII-3 BAND (99% BANDWIDTH).....	39
10.1.4.	UNII-3 BAND(SU) (99% BANDWIDTH).....	39
10.2.	OUTPUT POWER AND PPSD.....	40
10.2.1.	802.11a MODE.....	42
10.2.2.	802.11n HT20 MODE.....	43
10.2.3.	802.11n HT40 MODE.....	44
10.2.4.	802.11ac VHT80 MODE.....	45
10.2.5.	STRADDLE CHANNEL.....	46
10.2.6.	802.11ax HE20 MODE.....	47
10.2.7.	802.11ax HE40 MODE.....	54
10.2.8.	802.11ax HE80 MODE.....	61
10.2.9.	STRADDLE CHANNEL(802.11ax).....	65
10.2.10.	OUTPUT POWER AND PPSD PLOTS(WORST CASE).....	66
11.	TRANSMITTER ABOVE 1 GHz.....	79
11.1.	TX ABOVE 1GHz 2Tx MODE IN THE 5.2GHz BAND.....	83
11.2.	TX ABOVE 1GHz 2Tx MODE IN THE 5.3GHz BAND.....	87
11.3.	TX ABOVE 1GHz 2Tx MODE IN THE 5.5 GHz BAND.....	91
11.4.	TX ABOVE 1GHz 2Tx MODE IN THE 5.8 GHz BAND.....	96
12.	WORST-CASE BELOW 1 GHz.....	100
13.	AC POWER LINE CONDUCTED EMISSIONS.....	101
14.	DYNAMIC FREQUENCY SELECTION.....	104
14.1.	OVERVIEW.....	104
14.1.1.	LIMITS.....	104
14.1.2.	TEST AND MEASUREMENT SYSTEM.....	107
14.1.3.	SETUP OF EUT.....	110
14.1.4.	DESCRIPTION OF EUT.....	111
14.2.	RESULTS FOR 80 MHz BANDWIDTH (UNII-2A BAND).....	112
14.2.1.	TEST CHANNEL.....	112
14.2.2.	RADAR WAVEFORM AND TRAFFIC.....	112
14.2.3.	OVERLAPPING CHANNEL TESTS.....	113
14.2.4.	MOVE AND CLOSING TIME.....	113
14.3.	RESULTS FOR 80 MHz BANDWIDTH (UNII-2C BAND).....	116

14.3.1. TEST CHANNEL	116
14.3.2. RADAR WAVEFORM AND TRAFFIC	116
14.3.3. OVERLAPPING CHANNEL TESTS	117
14.3.4. MOVE AND CLOSING TIME	117
15. SPOT-CHECK TEST RESULT	120

1. ATTESTATION OF TEST RESULTS

COMPANY NAME: SAMSUNG ELECTRONICS CO., LTD.

EUT DESCRIPTION: BT/BLE Tablet + DTS/UNII a/b/g/n/ac/ax and Digitizer

MODEL NUMBER: SM-X510

SERIAL NUMBER: R32W500GF0B, 74134cec50397ece (CONDUCTED, Original);
74b2c4c8e3397ece, 74134cec51397ece (RADIATED, Original);
74ab47181e397ece, 74ab471fe397ece (CONDUCTED, DFS test);
74ab471810397ece, 74aadb216a397ece, R32W600ADXF (RADIATED, Spot-check);

DATE TESTED: 2023-06-07 ~ 2023-07-18(Original);
2023-07-07 ~ 2023-07-19(Spot-check);

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
CFR 47 Part 15 Subpart E	Complies
INDUSTRY CANADA RSS-247 Issue 2	Complies
INDUSTRY CANADA RSS-GEN Issue 5	Complies

UL KOREA LTD. tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by UL KOREA LTD. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Note: The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. This document may not be altered or revised in any way unless done so by UL KOREA LTD. and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL KOREA LTD. 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 IAS, any agency of the Federal Government, or any agency of any government.

Approved & Released For
UL KOREA LTD. By:



Seokhwan Hong
Suwon Lab Engineer
UL KOREA LTD.

Tested By:



Dexter(Hyunsik) Yun
Suwon Lab Engineer
UL KOREA LTD.

1.1. INTRODUCTION OF TEST DATA DEVIATION

This report referenced from the FCC ID: A3LSMX516B NII WLAN (FCC CFR 47 Part 15E). And the applicant takes full responsibility that the test data as referenced in this report represent compliance for this FCC ID.

1.2. DIFFERENCE

Except for removing WWAN RF components, The SM-X510(IC: 649E-SMX510) model shares the same enclosure and circuit board as SM-X516B. The WLAN antennas and surrounding circuitry and layout are identical between these two units.

After confirming through preliminary radiated emissions that the performance of the SM-X510 (IC: 649E-SMX510) remains representative of SM-X516B. The test data of SM-X516B being submitted for this application to cover WLAN features.

1.3. SPOT CHECK VERIFICATION DATA

(Worst case of the radiated band-edge and radiated spurious emissions)

Band	Test Item	Mode	Frequency	Test Limit	Original model	Spot check model	Deviation	Remark
					SM-X516B Results	SM-X510 Results		
					FCC ID : A3LSMX516B	FCC ID : A3LSMX510		
NII WLAN (5GHz)	BANDEDGE	802.11n_HT40_5190 MIMO	5190 MHz	54.0 dBuV/m	51.80 dBuV/m	51.76 dBuV/m	-0.04 dB	
	RSE	802.11a_5180 MIMO	6734 MHz	68.2 dBuV/m	58.07 dBuV/m	59.31 dBuV/m	1.24 dB	
	BANDEDGE	802.11ac_VHT80_5290 MIMO	5290 MHz	54.0 dBuV/m	51.95 dBuV/m	48.28 dBuV/m	-3.67 dB	
	RSE	802.11a_5260 MIMO	6838 MHz	68.2 dBuV/m	54.07 dBuV/m	54.22 dBuV/m	0.15 dB	
	BANDEDGE	802.11ac_VHT80_5530 MIMO	5530 MHz	68.2 dBuV/m	65.39 dBuV/m	60.62 dBuV/m	-4.77 dB	
	RSE	802.11a_5580 MIMO	16740 MHz	68.2 dBuV/m	57.58 dBuV/m	56.34 dBuV/m	-1.24 dB	Noise floor
	BANDEDGE	802.11a_5745 MIMO	5745 MHz	-27.00 dBm	-34.84 dBm	-35.35 dBm	-0.51 dB	
	RSE	802.11a_5825 MIMO	17475 MHz	68.2 dBuV/m	58.58 dBuV/m	58.40 dBuV/m	-0.18 dB	Noise floor
	BANDEDGE	802.11ax HE40_5190_SU MIMO	5190 MHz	54.0 dBuV/m	49.23 dBuV/m	51.19 dBuV/m	1.96 dB	
	RSE	802.11ax HE20_5180_26T_RU4 MIMO	6907 MHz	68.2 dBuV/m	59.55 dBuV/m	60.32 dBuV/m	0.77 dB	
	BANDEDGE	802.11ax HE40_5310_SU MIMO	5310 MHz	54.0 dBuV/m	51.42 dBuV/m	48.75 dBuV/m	-2.67 dB	
	RSE	802.11ax HE20_5300_26T_RU4 MIMO	7067 MHz	68.2 dBuV/m	54.82 dBuV/m	54.03 dBuV/m	-0.79 dB	
	BANDEDGE	802.11ax HE20_5700_SU MIMO	5700 MHz	68.2 dBuV/m	61.92 dBuV/m	61.28 dBuV/m	-0.64 dB	
	RSE	802.11ax HE20_5580_26T_RU4 MIMO	16740 MHz	68.2 dBuV/m	58.04 dBuV/m	57.30 dBuV/m	-0.74 dB	Noise floor
	BANDEDGE	802.11ax HE40_5755_SU MIMO	5755 MHz	-27.00 dBm	-34.88 dBm	-34.88 dBm	0.00 dB	
	RSE	802.11ax HE20_5745_26T_RU4 MIMO	17235 MHz	68.2 dBuV/m	58.75 dBuV/m	58.53 dBuV/m	-0.22 dB	Noise floor

Comparison of two models, upper deviation is within 3 dB range and all test results are under FCC Technical Limits.

1.4. REFERENCE DETAIL

Reference application that contains the reused reference data in the individual test reports:

Equipment Class	Reference FCC ID (Parent)	Application Type	Reference Test report number	Exhibit Type	Variant Test Report Number	Data Re-used
DTS	A3LSMX516B	Original Grant	4790841155-E5 (802.11b/g/n/ax)	Test Report	4790841159-E1 (802.11b/g/n/ax)	Partial Note1
DSS	A3LSMX516B	Original Grant	4790841155-E7 (Bluetooth)	Test Report	4790841159-E3 (Bluetooth)	All
NII	A3LSMX516B	Original Grant	4790841155-E8 (802.11a/n/ac/ax)	Test Report	4790841159-E4 (802.11a/n/ac/ax)	Partial Note2
DCD	A3LSMX516B	Original Grant	4790841155-E9 (Digitizer)	Test Report	4790841159-E5 (Digitizer)	All

Note1. 802.11b & 802.11n HT20 mode with changed target power was fully tested.

Note2. DFS was fully tested.

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with following methods.

1. FCC CFR 47 Part 2.
2. FCC CFR 47 Part 15.
3. KDB 789033 D02 General UNII Test Procedures New Rules v02r01
4. KDB 905462 D02 UNII DFS Compliance Procedures New Rules v02
5. KDB 905462 D03 UNII Clients Without Radar Detection New Rules v01r02
6. KDB 662911 D01 v02r01
7. KDB 484596 D01 Referencing Test Data v01
8. IC RSS-GEN Issue 5.
9. IC RSS-247 Issue 2.
10. ANSI C63.10-2013.

3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 218 Maeyeong-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16675, Korea. Line conducted emissions are measured only at the 218 address. The following table identifies which facilities were utilized for radiated emission measurements documented in this report. Specific facilities are also identified in the test results sections.

218 Maeyeong-ro	
<input checked="" type="checkbox"/>	Chamber 1(3m semi-anechoic chamber)
<input checked="" type="checkbox"/>	Chamber 2(3m semi-anechoic chamber)
<input checked="" type="checkbox"/>	Chamber 3(3m semi-anechoic chamber)
<input type="checkbox"/>	Chamber 4(3m Full-anechoic chamber)
<input type="checkbox"/>	Chamber 5(3m Full-anechoic chamber)

Used ISED Test Site Reg.(company number): 2324L
CAB Identifier: KR0161

UL KOREA LTD. is accredited by IAS, Laboratory Code TL-637. The full scope of accreditation can be viewed at <https://www.iasonline.org/wp-content/uploads/2017/05/TL-637-cert-New.pdf>.

4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations, and is traceable to recognized national standards.

4.2. SAMPLE CALCULATION

Where relevant, the following sample calculation is provided:

$$\begin{aligned} \text{Field Strength (dBuV/m)} &= \text{Measured Voltage (dBuV)} + \text{Antenna Factor (dB/m)} + \\ &\text{Cable Loss (dB)} - \text{Preamp Gain (dB)} \\ 36.5 \text{ dBuV} + 18.7 \text{ dB/m} + 0.6 \text{ dB} - 26.9 \text{ dB} &= 28.9 \text{ dBuV/m} \end{aligned}$$

4.3. MEASUREMENT UNCERTAINTY

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

PARAMETER	UNCERTAINTY
RF Output Power	1.30 dB
Power Spectral Density	1.30 dB
Time	2.50 %
Occupied Bandwidth	0.20 %
Conducted Spurious Emissions	1.30 dB
Conducted Disturbance, 0.15 to 30 MHz	2.80 dB
Radiated Disturbance, 30 MHz to 1 GHz	3.92 dB
Radiated Disturbance, 1 GHz to 18 GHz	5.06 dB
Radiated Disturbance, 18 GHz to 40 GHz	6.02 dB

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

4.4. DECISION RULE

Decision rule for statement(s) of conformity is based on Procedure 2, Clause 4.4.3 in IEC Guide 115:2021.

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

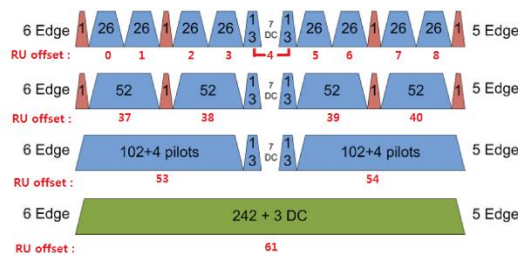
The EUT is a BT/BLE Tablet + DTS/UNII a/b/g/n/ac/ax and Digitizer.
 This test report addresses the NII (WLAN) operational mode.

WiFi operating mode

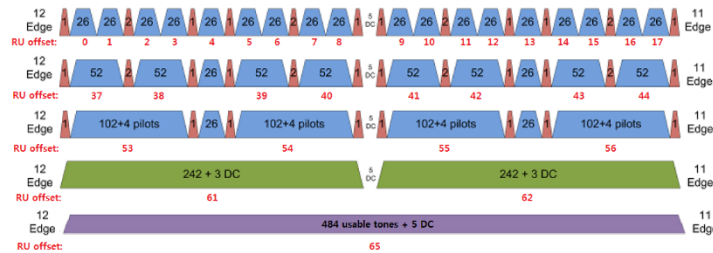
Frequency range	Mode	ANT1	ANT2
5GHz (5180 MHz ~ 5885 MHz)	802.11a MIMO	TX/RX	TX/RX
	802.11n MIMO	TX/RX	TX/RX
	802.11ac MIMO	TX/RX	TX/RX
	802.11ax MIMO	TX/RX	TX/RX

802.11ax RU allocations

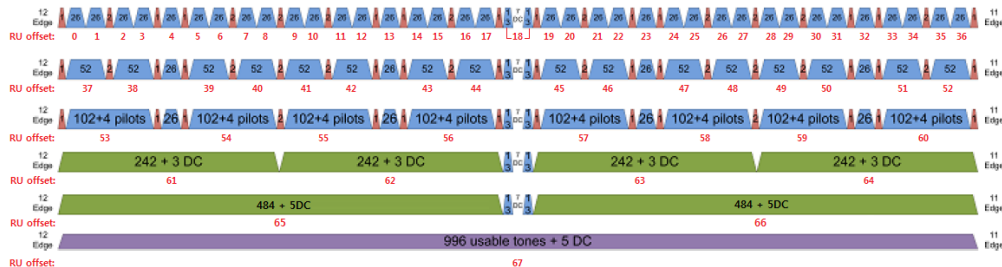
- HE 20 Mode - 20 MHz



- HE 40 Mode - 40 MHz



- HE 80(996T) & 160 Mode(996T + 996T) -



Test RU offset for tones in each modes

Mode	Tones	RU offset
HE20	26T	0
		4
		8
	52T	37
		38
40		
106T	53	
	54	
242T / SU ^{Note}	61 / -	
HE40	26T	0
		9
		17
	52T	37
		41
	44	
	106T	53
54		
56		
242T	61	
	62	
484T / SU ^{Note}	63 / -	
HE80	26T	0
		18
		36
	52T	37
		45
	52	
	106T	53
		57
	60	
	242T	61
62		
64		
484T	65	
	66	
996T / SU ^{Note}	67 / -	

Note: Full RU(Resource Unit) mode and SU(Single Unit) mode have no difference in physical waveform. This report has been reported the SU mode with highest output power in MIMO.

Band portion of RU allocation about straddle channels

Mode	Channel	Tones	RU offset	Portion
HE20	Straddle 5720 MHz	26T	6	UNII 2C & UNII 3
		242T / SU	61 / -	
HE40	Straddle 5710 MHz	26T	15	UNII 2C & UNII 3
		484T / SU	65 / -	
HE80	Straddle 5690 MHz	26T	34	UNII 2C & UNII 3
		996T / SU	67 / -	

Note: In case of RU straddle channel, test was performed overlapping RU position.

MAXIMUM OUTPUT POWER

The transmitter has a maximum total conducted average output power as follows:

Band	Frequency Range [MHz]	Mode	Output Power [dBm]	Output Power [mW]
UNII-1 FCC	5180 - 5240	802.11a MIMO	17.38	54.70
		802.11n(HT20) MIMO	16.19	41.59
		802.11ax(HE20) MIMO	16.15	41.21
	5190 - 5230	802.11n(HT40) MIMO	14.21	26.36
		802.11ax(HE40) MIMO	14.12	25.82
	5210	802.11ac(VHT80) MIMO	9.98	9.95
UNII-2A	5260 - 5320	802.11a MIMO	17.26	53.21
		802.11n(HT20) MIMO	16.29	42.56
		802.11ax(HE20) MIMO	16.23	41.98
	5190 - 5230	802.11n(HT40) MIMO	14.15	26.00
		802.11ax(HE40) MIMO	14.23	26.49
	5270 - 5310	802.11ac(VHT80) MIMO	10.47	11.14
UNII-2C	5500 - 5720	802.11a MIMO	19.11	81.47
		802.11n(HT20) MIMO	18.01	63.24
		802.11ax(HE20) MIMO	18.10	64.57
	5510 - 5710	802.11n(HT40) MIMO	16.02	39.99
		802.11ax(HE40) MIMO	16.14	41.11
	5530 - 5690	802.11ac(VHT80) MIMO	15.16	32.81
UNII-3	5745 - 5825	802.11a MIMO	19.09	81.10
		802.11n(HT20) MIMO	18.23	66.53
		802.11ax(HE20) MIMO	18.02	63.39
	5755 - 5795	802.11n(HT40) MIMO	16.17	41.40
		802.11ax(HE40) MIMO	15.98	39.63
	5775	802.11ac(VHT80) MIMO	15.20	33.11
		802.11ax(HE80) MIMO	15.23	33.34

Band	Frequency Range [MHz]	Mode	e.i.r.p. Output Power [dBm]	e.i.r.p. Output Power [mW]
UNII-1 IC	5180 - 5240	802.11a MIMO	14.40	27.54
		802.11n(HT20) MIMO	13.21	20.94
		802.11ax(HE20) MIMO	13.17	20.75
	5190 - 5230	802.11n(HT40) MIMO	11.23	13.27
		802.11ax(HE40) MIMO	11.14	13.00
	5210	802.11ac(VHT80) MIMO	7.00	5.01
		802.11ax(HE80) MIMO	8.73	7.46

5.2. DESCRIPTION OF AVAILABLE ANTENNAS

An intentional radiator antenna shall be designed to ensure that no antenna other than that furnished by the responsible party can be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.

**The internal antenna was Permanently attached.
 Therefore this E.U.T Complies with the requirement of §15.203.**

The radio utilizes a internal antenna, with a maximum gain of:

Frequency Band [MHz]	ANT1 Gain [dBi]	ANT2 Gain [dBi]	Correlated Chains Directional Gain [dBi]
UNII 1 5150 - 5250	-5.50	-6.50	-2.98
UNII 2A 5250 - 5350	-6.00	-6.10	-3.04
UNII 2C 5470 - 5725	-5.90	-6.20	-3.04
UNII 3 5725 - 5850	-6.20	-6.00	-3.09

Directional gain for the MIMO operations is determined using KDB 662911 D01 Multiple Transmitter Output section F (2)(d)(1) for *Unequal antenna gains, with equal transmit powers*. The gain is calculated using the formula for correlated transmissions across the two transmit antennas.

Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / N_{ANT}]$ dBi.

Sample calculation for this device with $N_{ANT} = 2$

Directional gain = $10 \log[(10^{-3.5/20} + 10^{-7.1/20})^2 / 2] = -2.1$ dBi

“Wifi1” and “Wifi2” as indicated in antenna specification are written as ANT1 and ANT2 in this report.

5.3. List of test reduction and modes covering other modes:

The output power on covered modes is equal to or less than one referenced.

Authorized Frequency Band			
Mode	Antenna Stream	Mode	Covered by
802.11a	MIMO	802.11a 2TX	
802.11n HT20		802.11n HT20 2TX	
802.11ac VHT20		802.11ac VHT20 2TX	802.11n HT20 2TX
802.11ax HE20(SU)		802.11ax HE20 RU(242T) 2TX	802.11ax HE20 SU 2TX
802.11n HT40		802.11n HT40 2TX	
802.11ac VHT40		802.11ac VHT40 2TX	802.11n HT40 2TX
802.11ax HE40(SU)		802.11ax HE40 RU(484T) 2TX	802.11ax HE40 SU 2TX
802.11ac VHT80		802.11ac VHT80 2TX	
802.11ax HE80(SU)		802.11ax HE80 RU(996T) 2TX	802.11ax HE80 SU 2TX

5.4. WORST-CASE CONFIGURATION AND MODE

Radiated emission below 1GHz and power line conducted emission were performed with the EUT set to transmit at the channel with highest output power as worst-case scenario.

Radiated emission above 1GHz was performed with the EUT set to transmit low/mid/high channels.

For MIMO, the fundamental of the EUT was investigated in three orthogonal orientations X, Y and Z it was determined that Y orientation was worst-case orientation; therefore, all final radiated testing was performed with the EUT in Y orientation.

Based on the baseline scan, the worst-case data rates were:

802.11a mode: 6 Mbps 2Tx 802.11n HT20 mode: MCS0 2Tx 802.11ax HE20 mode: MCS0 2Tx
 802.11n HT40 mode: MCS0 2Tx 802.11ax HE40 mode: MCS0 2Tx
 802.11ac VHT80 mode: MCS0 2Tx 802.11ax HE80 mode: MCS0 2Tx

Radiation test for 802.11a / n HT20 & HT40 / ac VHT80 / ax HE20 & HE40 & HE80 were evaluated at MIMO mode.

Note : All radiated and power line conducted tests were performed connected with charger for evaluation of worst case mode.

Worst-case selection criteria for 802.11ax test items :

- For the 6dB Bandwidth, it was tested at the RU allocation with lowest tones number for each bandwidth.

Note : All radiated and power line conducted tests were performed connected with charger for evaluation of worst case mode.

Test case configuration for 802.11a, 802.11n HT20 & 40, 802.11ac VHT20 & 40 & 80, 802.11ax HE20 & 40 & 80(SU) modes :

Mode	Band	SISO ANT2 Target[dBm]				MIMO Target[dBm]			
		802.11a	802.11n	802.11ac	802.11ax (SU)	802.11a	802.11n	802.11ac	802.11ax (SU)
5GHz (20 MHz)	UNII-1	14	13	13	13	17	16	16	16
	UNII-2A	14	13	13	13	17	16	16	16
	UNII-2C	16	15	15	15	19	18	18	18
	UNII-3	16	15	15	15	19	18	18	18
5GHz (40 MHz)	UNII-1		11	11	11		14	14	14
	UNII-2A		11	11	11		14	14	14
	UNII-2C		13	13	13		16	16	16
	UNII-3		13	13	13		16	16	16
5GHz (80 MHz)	UNII-1			7	7			10	10
	UNII-2A			7	7			10	10
	UNII-2C			12	12			15	15
	UNII-3			12	12			15	15

	Band-Edge & Spurious Emission
	Band-Edge & Spurious Emission Spot-Check
	Band-Edge

Note. Compared to the 802.11a mode, target power is the same or lower and the density is low, so only the spot-check test was performed in the 802.11n & 802.11ac & 802.11ax mode. Spot check test was performed in the worst tested band of 802.11a mode.

Test case configuration for 802.11ax HE20 & 40 & 80(RU) modes :

Band	Mode	Freq.	Tone	RU offset	Test Case		
					MIMO		
UNII-1	HE20	5180	26T	0	-		
				4	O		
				8	-		
		5200		0	-		
				4	O		
				8	-		
	5240	0		-			
		4		O			
		8		-			
	HE40	5190		0	-		
				9	O		
				17	-		
				HE80	5210	0	-
						18	O
						36	-
UNII-2A	HE20	5300	26T	0	-		
				4	O		
				8	-		
UNII-2C	HE20	5580	26T	0	-		
				4	O		
				8	-		
UNII-3	HE20	5745	26T	0	-		
				4	O		
				8	-		

Note1. Radiated spurious test was performed on the 26 tone with worst power density.

Note2. Since the target of 26 tones are all the same, spurious test was performed once in each UNII band.

Note3. Spot-check test was performed in HE40, HE80 modes.

5.5. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List				
Description	Manufacturer	Model	Serial Number	FCC ID
Charger	SAMSUNG	EP-TA800	R37M9KN2LV2DK3	N/A
Data Cable	SAMSUNG	EP-DN980	GH39-02115A	N/A

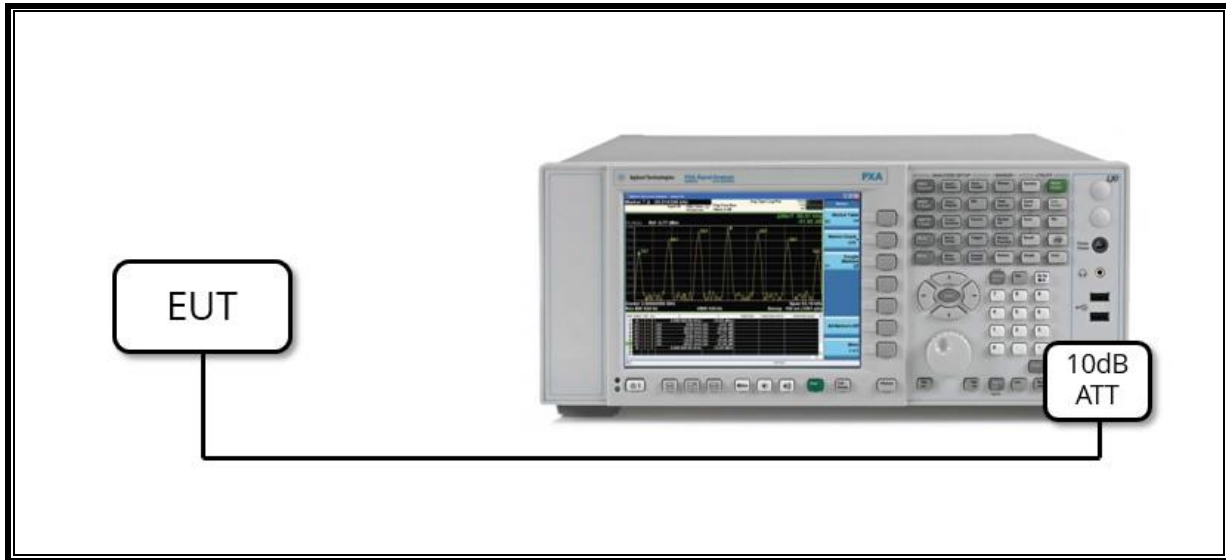
I/O CABLE

I/O Cable List						
Cable No.	Port	# of identical ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	DC Power	1	C Type	Shielded	1.0 m	N/A

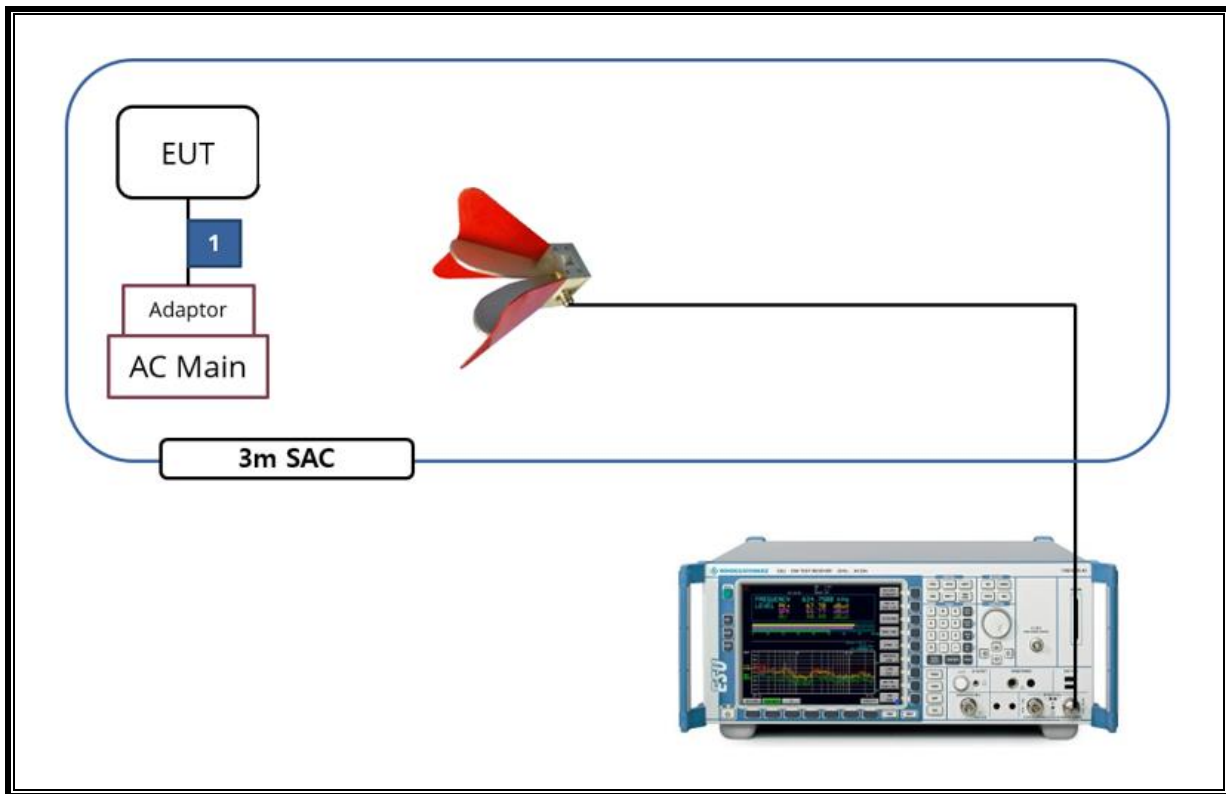
TEST SETUP

The EUT is a stand-alone unit during the tests.
 Test software exercised the EUT to enable NII mode.

SETUP DIAGRAM FOR TESTS (CONDUCTED TEST SETUP)



SETUP DIAGRAM FOR TESTS (RADIATED TEST SETUP)



6. 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	S/N	Cal Due
Antenna, Bilog, 30MHz-1GHz	SCHWARZBECK	VULB9163	750	2024-08-15
Antenna, Bilog, 30MHz-1GHz	SCHWARZBECK	VULB9163	749	2024-08-15
Antenna, Bilog, 30MHz-1GHz	SCHWARZBECK	VULB9163	845	2024-08-15
Antenna, Horn, 18 GHz	ETS	3115	00167211	2024-08-04
Antenna, Horn, 18 GHz	ETS	3115	00161451	2024-08-21
Antenna, Horn, 18 GHz	ETS	3117	00168724	2024-08-04
Antenna, Horn, 18 GHz	ETS	3117	00168717	2024-08-21
Antenna, Horn, 18 GHz	ETS	3117	00218957	2023-01-15
Antenna, Horn, 40 GHz	ETS	3116C	00166155	2024-08-02
Antenna, Horn, 40 GHz	ETS	3116C	00168645	2023-10-13
Preamplifier	ETS	3115-PA	00167475	2023-08-04
Preamplifier	ETS	3116C-PA	00168841	2023-08-04
Preamplifier, 1000 MHz	Sonoma	310N	341282	2023-08-02
Preamplifier, 1000 MHz	Sonoma	310N	351741	2023-08-02
Preamplifier, 1000 MHz	Sonoma	310N	370599	2023-08-02
Preamplifier, 18 GHz	Miteq	AFS42-00101800-25-S-42	1896138	2023-08-01
Preamplifier, 18 GHz	Miteq	AFS42-00101800-25-S-42	2029169	2023-08-01
Spectrum Analyzer, 44 GHz	Agilent / HP	N9030A	MY54170614	2023-08-03
Spectrum Analyzer, 44 GHz	Agilent / HP	N9030A	MY54490312	2023-08-01
Spectrum Analyzer, 44 GHz	KEYSIGHT	N9030B	MY60070693	2024-01-09
Spectrum Analyzer, 44 GHz	KEYSIGHT	N9040B	MY60080268	2024-01-09
Average Power Sensor	Agilent / HP	U2000	MY54270007	2023-08-03
Average Power Sensor	Agilent / HP	U2000	MY54260010	2023-08-03
Attenuator	PASTERNAK	PE7087-10	A001	2023-08-03
Attenuator	PASTERNAK	PE7087-10	A008	2023-08-03
Attenuator	PASTERNAK	PE7004-10	2	2023-08-01
Attenuator	PASTERNAK	PE7087-10	A009	2023-08-03
EMI Test Receive, 40 GHz	R&S	ESU40	100439	2023-08-02
EMI Test Receive, 40 GHz	R&S	ESU40	100457	2023-07-29
EMI Test Receive, 3 GHz	R&S	ESR3	101832	2023-08-01
Notch Filter	Micro-Tronics	BRM50702-02	G037	2023-08-01
Notch Filter	Micro-Tronics	BRM50716-2	006	2023-08-01
Low Pass Filter 5GHz	Micro-Tronics	LPS17541	009	2023-08-02
Low Pass Filter 5GHz	Micro-Tronics	LPS17541	015	2023-08-01
Low Pass Filter 5GHz	Micro-Tronics	LPS17541	020	2023-08-01
High Pass Filter 3GHz	Micro-Tronics	HPM17543	010	2023-08-02
High Pass Filter 3GHz	Micro-Tronics	HPM17543	015	2023-08-01
High Pass Filter 3GHz	Micro-Tronics	HPM17543	020	2023-08-01
High Pass Filter 6GHz	Micro-Tronics	HPS17542	009	2023-08-02
High Pass Filter 6GHz	Micro-Tronics	HPS17542	016	2023-08-01
High Pass Filter 6GHz	Micro-Tronics	HPS17542	021	2023-08-01
LISN	R&S	ENV-216	101837	2023-08-04
Antenna, Loop, 9kHz-30MHz	R&S	HFH2-Z2	100418	2023-10-06
Termination	WEINSCHL	M1406A	T09	2023-08-03
Attenuator	WEINSCHL	WA76-30-21	A015	2023-08-03
UL Software				
Description	Manufacturer	Model	Version	
Radiated software	UL	UL EMC	Ver 9.5	
AC Line Conducted software	UL	UL EMC	Ver 9.5	

7. SUMMARY TABLE

FCC Part Section	IC Part Section	Test Description	Test Limit	Test Condition	Test Result
15.407(e)	RSS-247 6.2.4.1	6dB Band width (5.8GHz)	> 500kHz	Conducted	Complies
15.407 (a)(1)(iv)	RSS-247 6.2.1.1	TX Cond. Power (5.150-5.250)	< 24dBm		Complies
15.407 (a)(2)	6.2.2.1 6.2.3.1	TX Cond. Power (5.250-5.350 & 5.470-5.725)	< 24dBm or 11+10Log(26dB BW)		Complies
15.407 (a)(3)(i)	RSS-247 6.2.4.1	TX Cond. Power (5.725-5.850)	< 30dBm		Complies
15.407 (a)(1)(iv) & (a)(2)	RSS-247 6.2.1.1 6.2.2.1 6.2.3.1	PSD (5.150-5.250 5.250-5.350 & 5.470-5.725)	< 11dBm/MHz		Complies
15.407 (a)(3)	RSS-247 6.2.4.1	PSD (5.725-5.850)	< 30dBm/500kHz		Complies
15.207 (a)	RSS-GEN Clause 8.8	AC Power Line conducted emissions	Section 13	Radiated	Complies
15.407 (b) & 15.209	RSS-GEN Clause 7 & 8.9	Radiated Spurious Emission	< 74dBuV/m PK < 54dBuV/m AV		Complies
15.407 (h)(2)	RSS-247 6.3	Dynamic Frequency Selection	N/A	Condcuted	Complies ^{Note}

Note. This EUT does not support channel puncturing.

8. MEASUREMENT METHODS

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

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

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

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

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

Conducted Output Power for Straddle Channel (ch144/142/138 for 20/40/80MHz BW):

KDB 789033 D02 v02r01, Section II.E.2.b(Method SA-1)

Power Spectral Density : KDB 789033 D02 v02r01, Section II.F.

Unwanted emissions in restricted bands : KDB 789033 D02 v02r01, Section II.G.3 – II.G.6.

Unwanted emissions in non-restricted bands : KDB 789033 D02 v02r01, Section II.G.3 – II.G.6.

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

9. REFERENCE MEASUREMENTS RESULTS

9.1. ON TIME AND DUTY CYCLE RESULTS

Mode	On Time [ms]	Period [ms]	Duty Cycle X [Linear]	Duty Cycle X [%]	Duty Cycle Correction Factor[dB]
802.11a MIMO	3.127	3.230	0.968	96.811	0.14
802.11n(HT20) MIMO	6.223	6.334	0.982	98.248	-
802.11n(HT40) MIMO	4.723	4.832	0.977	97.744	0.10
802.11ac(VHT80) MIMO	1.131	1.251	0.904	90.408	0.44

Mode	ANT.	Tone	On Time [ms]	Period [ms]	Duty Cycle X [Linear]	Duty Cycle X [%]	Duty Cycle Correction Factor[dB]
802.11ax HE20	MIMO	26T	5.140	5.240	0.981	98.092	-
		52T	5.545	5.667	0.978	97.847	0.09
		106T	5.546	5.666	0.979	97.882	0.09
		SU	2.546	2.638	0.965	96.513	0.15
802.11ax HE40	MIMO	26T	5.138	5.239	0.981	98.072	-
		52T	5.546	5.668	0.978	97.848	0.09
		106T	5.546	5.677	0.977	97.692	0.10
		242T	2.548	2.665	0.956	95.610	0.19
		SU	1.308	1.418	0.922	92.243	0.35
802.11ax HE80	MIMO	26T	5.139	5.231	0.982	98.241	-
		52T	5.545	5.668	0.978	97.830	0.10
		106T	5.545	5.677	0.977	97.675	0.10
		242T	2.547	2.656	0.959	95.896	0.18
		484T	1.308	1.417	0.923	92.308	0.35
		SU	0.991	1.092	0.908	90.788	0.42

Note. If the duty cycle is over 98%, compensation is not included in average measurement.

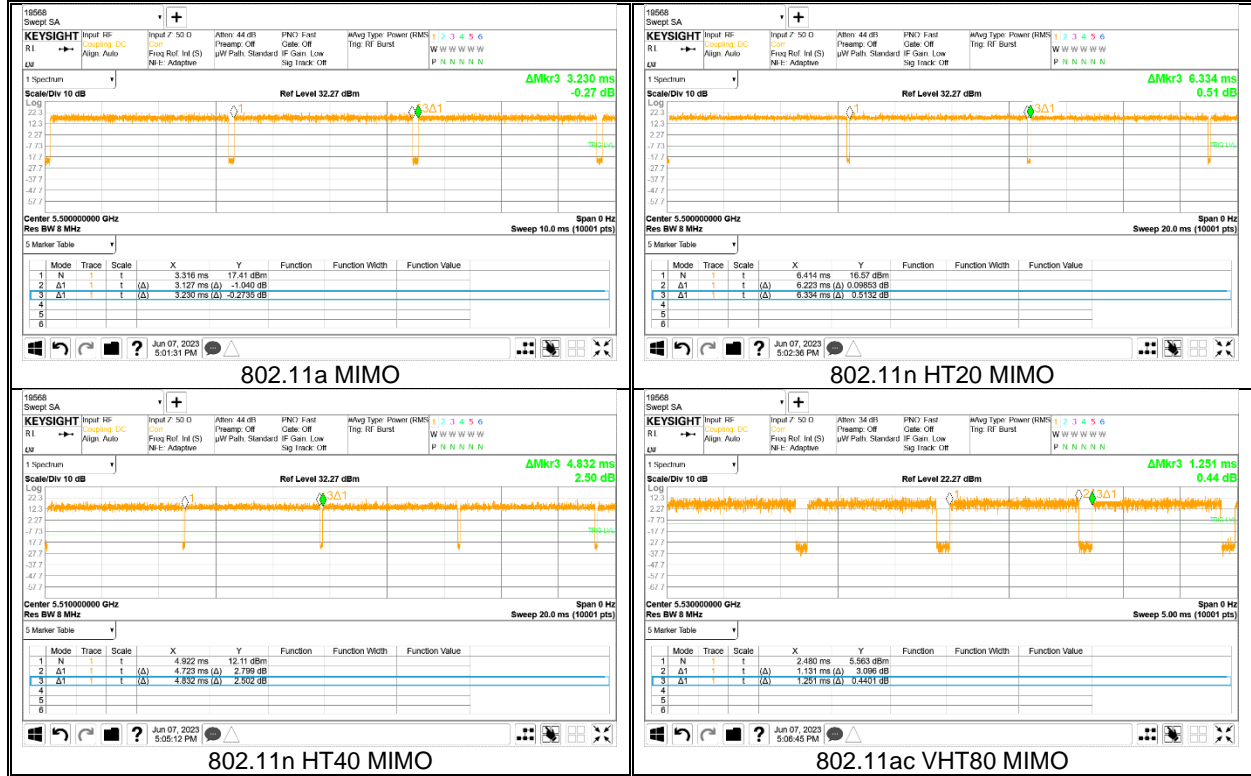
LIMITS

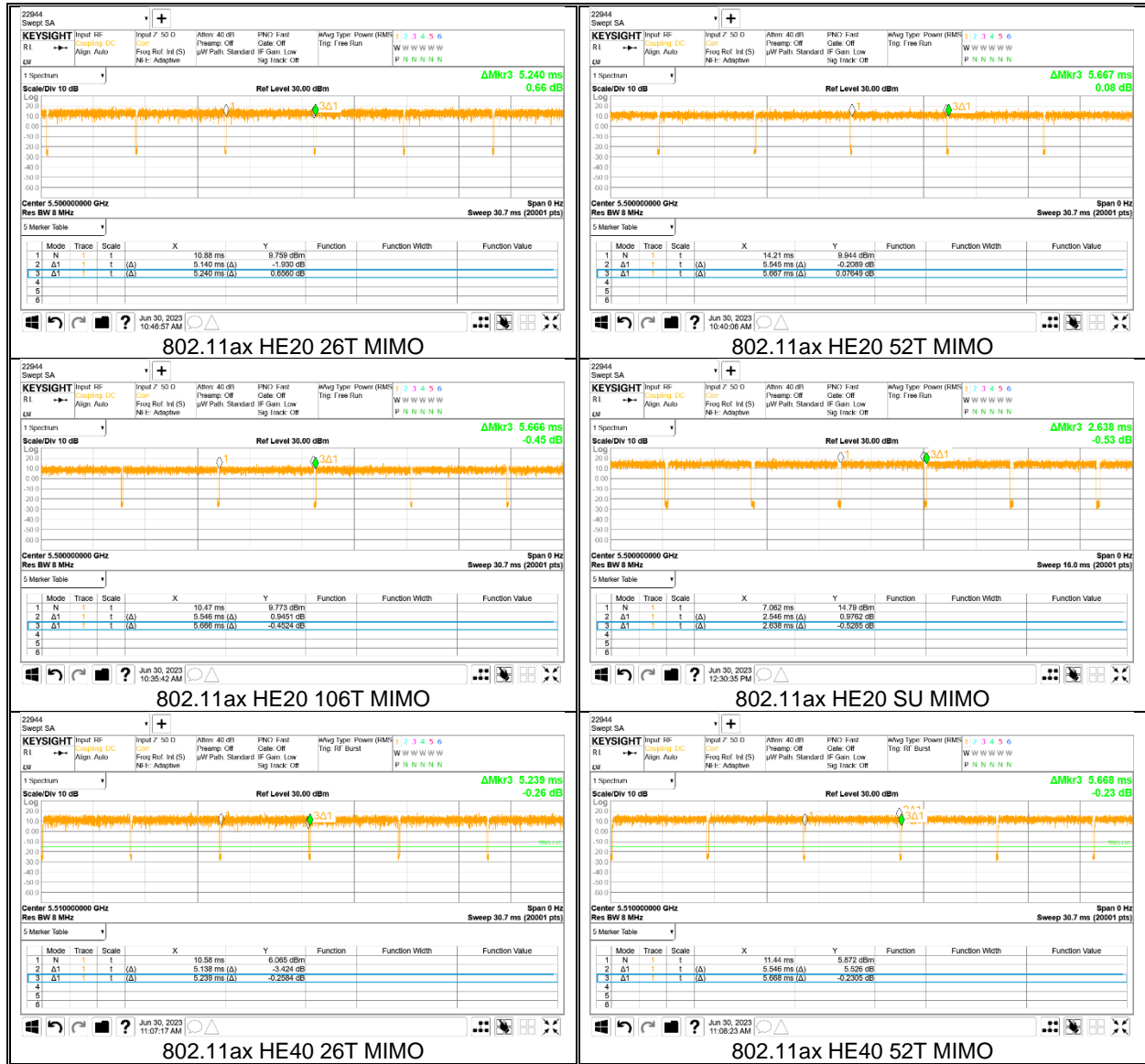
None; for reporting purposes only.

PROCEDURE

KDB 789033 D02 v02r01 Zero-Span Spectrum Analyzer Method.

9.2. DUTY CYCLE PLOTS









9.3. 26 dB & 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

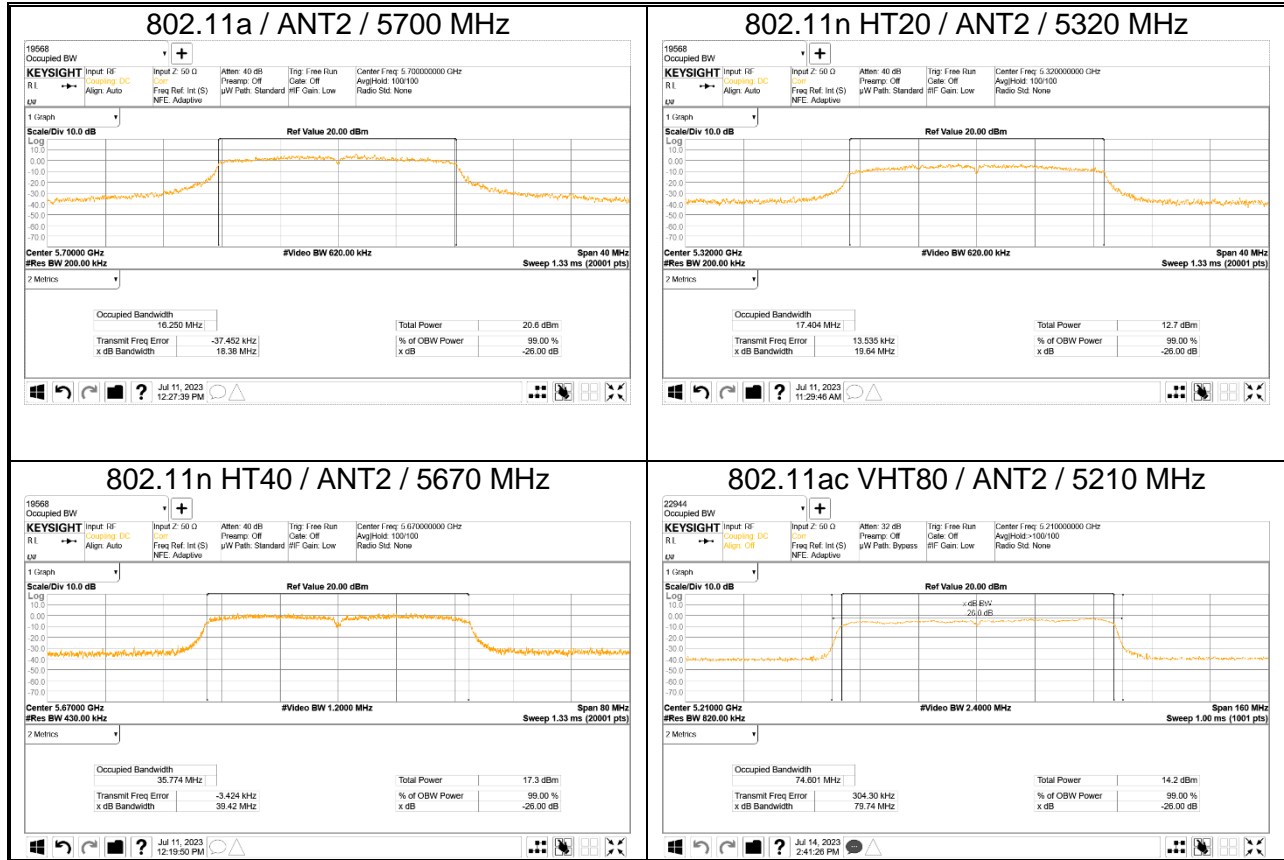
TEST PROCEDURE

Reference to 789033 D02 General UNII Test Procedures New Rules v02r01: The transmitter output is connected to a spectrum analyzer with the RBW set to approximately 1% of EBW, the VBW > RBW, peak detector and max hold.

RESULTS

- Please refer to the next page

WORST CASE TEST PLOTS





9.3.1. 802.11a

Band	Channel	Center Freq. [MHz]	26 dB BW [MHz]		Worst	99% BW [MHz]	
			ANT1	ANT2		ANT1	ANT2
UNII-1 ^{Note}	36	5180	18.92	18.55	18.55	16.28	16.23
	40	5200	18.93	19.10		16.29	16.24
	48	5240	19.20	19.19		16.30	16.27
UNII-2A ^{Note}	52	5260	19.10	19.15	18.68	16.30	16.26
	60	5300	18.68	19.42		16.26	16.25
	64	5320	19.12	19.23		16.30	16.25
UNII-2C	100	5500	19.33	19.75	18.38	16.26	16.26
	116	5580	18.97	18.60		16.27	16.25
	140	5700	19.14	18.38		16.28	16.25

Note. As a result of 99% bandwidth test, the bandwidth of UNII-1 does not interfere with UNII-2A.

9.3.2. 802.11n HT20

Band	Channel	Center Freq. [MHz]	26 dB BW [MHz]		Worst	99% BW [MHz]	
			ANT1	ANT2		ANT1	ANT2
UNII-1 ^{Note}	36	5180	19.73	19.71	19.71	17.44	17.37
	40	5200	19.93	19.90		17.45	17.40
	48	5240	19.89	19.87		17.43	17.41
UNII-2A ^{Note}	52	5260	20.02	20.05	19.64	17.45	17.41
	60	5300	19.98	19.77		17.42	17.40
	64	5320	20.21	19.64		17.43	17.40
UNII-2C	100	5500	20.05	20.16	19.78	17.39	17.42
	116	5580	20.06	19.78		17.40	17.41
	140	5700	19.93	19.86		17.44	17.40

Note. As a result of 99% bandwidth test, the bandwidth of UNII-1 does not interfere with UNII-2A.

9.3.3. 802.11n HT40

Band	Channel	Center Freq. [MHz]	26 dB BW [MHz]		Worst	99% BW [MHz]	
			ANT1	ANT2		ANT1	ANT2
UNII-1 ^{Note}	38	5190	40.27	39.45	39.45	35.82	35.99
	46	5230	40.02	40.50		35.89	35.95
UNII-2A ^{Note}	54	5270	40.18	40.09	39.57	35.96	35.95
	62	5310	40.52	39.57		35.89	36.09
UNII-2C	102	5510	40.15	39.49	39.42	35.94	35.91
	110	5550	40.42	39.74		35.91	35.94
	134	5670	39.72	39.42		35.85	35.77

Note. As a result of 99% bandwidth test, the bandwidth of UNII-1 does not interfere with UNII-2A.

9.3.4. 802.11ac VHT80

Band	Channel	Center Freq. [MHz]	26 dB BW [MHz]		Worst	99% BW [MHz]	
			ANT1	ANT2		ANT1	ANT2
UNII-1 ^{Note}	42	5210	80.06	79.74	79.74	74.68	74.60
UNII-2A ^{Note}	58	5290	80.14	80.30	80.14	74.81	74.87
UNII-2C	106	5530	80.77	79.86	79.76	74.89	74.81
	122	5610	79.78	79.76		75.00	74.89

Note. As a result of 99% bandwidth test, the bandwidth of UNII-1 does not interfere with UNII-2A.

9.3.5. 802.11ax HE20

Band	Channel	Center Freq. [MHz]	26 dB BW [MHz]		Worst	99% BW [MHz](^{Note})	
			ANT1	ANT2		ANT1	ANT2
UNII-1 ^{Note}	36	5180	20.54	20.42	20.42	18.62	18.61
	40	5200	20.76	20.48		18.65	18.61
	48	5240	20.81	20.54		18.58	18.62
UNII-2A ^{Note}	52	5260	20.97	20.30	20.30	18.59	18.63
	60	5300	21.01	20.59		18.55	18.61
	64	5320	20.51	20.50		18.61	18.61
UNII-2C	100	5500	20.82	20.51	20.40	18.60	18.58
	116	5580	20.93	20.49		18.59	18.59
	140	5700	20.76	20.40		18.61	18.65

Note. As a result of 99% bandwidth test, the bandwidth of UNII-1 does not interfere with UNII-2A.

9.3.6. 802.11ax HE40

Band	Channel	Center Freq. [MHz]	26 dB BW [MHz]		Worst	99% BW [MHz](^{Note})	
			ANT1	ANT2		ANT1	ANT2
UNII-1 ^{Note}	38	5190	40.36	40.27	40.25	37.28	37.15
	46	5230	40.43	40.25		37.19	37.22
UNII-2A ^{Note}	54	5270	40.52	40.59	40.21	37.32	37.25
	62	5310	40.21	40.38		37.23	37.18
UNII-2C	102	5510	40.76	40.19	40.17	37.20	37.12
	110	5550	40.65	40.17		37.25	37.15
	134	5670	40.35	40.24		37.29	37.22

Note. As a result of 99% bandwidth test, the bandwidth of UNII-1 does not interfere with UNII-2A.

9.3.7. 802.11ax HE80

Band	Channel	Center Freq. [MHz]	26 dB BW [MHz]		Worst	99% BW [MHz](Note)	
			ANT1	ANT2		ANT1	ANT2
UNII-1 ^{Note}	42	5210	80.64	80.75	80.64	76.13	76.17
UNII-2A ^{Note}	58	5290	80.92	80.47	80.47	76.24	76.04
UNII-2C	106	5530	80.68	80.43	80.43	75.80	75.84
	122	5610	80.81	80.57		75.80	75.73

Note. As a result of 99% bandwidth test, the bandwidth of UNII-1 does not interfere with UNII-2A.

9.3.8. STRADDLE CHANNEL

Mode	Channel	Center Freq. [MHz]	26 dB BW [MHz]			
			ANT1		ANT2	
			UNII-2C	UNII-3	UNII-2C	UNII-3
802.11a	Straddle	5720	14.73	4.77	15.04	4.66
802.11n HT20	Straddle	5720	15.30	5.06	15.22	5.21
802.11n HT40	Straddle	5710	35.75	5.20	34.88	4.90
802.11ac VHT80	Straddle	5690	75.20	4.87	75.21	4.74
802.11ax HE20(SU)	Straddle	5720	15.36	5.27	15.29	5.19
802.11ax HE40(SU)	Straddle	5710	35.02	5.03	35.08	4.93
802.11ax HE80(SU)	Straddle	5690	75.22	5.06	75.02	4.80

9.3.9. 802.11ax HE20(RU)

Band Mode	Center Freq. [MHz]	Tones	RU offset	26 dB BW [MHz]		99% BW [MHz]	
				ANT1	ANT2	ANT1	ANT2
UNII-1 ^{Note}	5180	26T	0	19.97	19.59	18.04	17.87
			4	17.89	17.72	15.55	15.21
			8	20.00	19.63	17.98	17.95
	5200		0	20.04	19.85	18.11	17.81
			4	17.80	17.73	15.50	15.24
			8	19.96	19.60	18.00	18.02
	5240		0	20.13	19.94	18.13	17.91
			4	17.90	17.77	15.40	15.38
			8	19.98	19.59	17.99	18.02
UNII-2A ^{Note}	5260	26T	0	20.16	19.56	18.10	17.95
			4	17.80	17.73	15.49	15.30
			8	20.00	19.75	17.92	17.95
	5300		0	20.32	19.59	18.20	17.96
			4	17.84	17.73	15.36	15.18
			8	20.00	19.76	17.96	18.02
	5320		0	20.07	19.73	18.17	17.96
			4	17.87	17.77	15.55	15.33
			8	19.82	19.63	18.00	17.94
UNII-2C	5500	26T	0	20.06	19.46	17.95	17.80
			4	17.89	17.76	15.40	15.47
			8	20.01	19.82	18.02	17.94
	5580		0	19.99	19.61	17.92	17.79
			4	17.88	17.76	15.21	15.33
			8	19.77	19.70	18.00	17.93
	5700		0	20.15	19.66	17.83	17.79
			4	17.76	17.78	15.63	15.39
			8	20.16	19.51	18.22	18.01

Note. As a result of 99% bandwidth test, the bandwidth of UNII-1 does not interfere with UNII-2A.

9.3.10. 802.11ax HE40(RU)

Band	Center Freq. [MHz]	Tones	RU offset	26 dB BW [MHz]		99% BW [MHz]	
				ANT1	ANT2	ANT1	ANT2
UNII-1 ^{Note}	5190	26T	0	20.75	20.17	18.45	18.15
			9	22.24	21.61	19.63	19.10
			17	20.16	19.75	18.25	18.16
	5230		0	20.20	19.78	18.25	18.26
			9	21.64	21.52	19.58	19.24
			17	20.35	19.77	18.22	18.16
UNII-2A ^{Note}	5270	26T	0	20.45	19.93	18.30	18.14
			9	21.95	21.78	19.72	19.18
			17	20.22	19.81	18.16	18.19
	5310		0	20.07	19.66	18.15	18.05
			9	22.51	21.29	19.60	19.23
			17	20.00	20.04	18.10	18.21
UNII-2C	5510	26T	0	20.29	19.81	18.20	18.07
			9	22.31	23.76	19.40	19.75
			17	20.66	21.35	18.20	18.19
	5550		0	20.04	19.79	18.15	18.09
			9	22.88	24.40	19.58	20.49
			17	20.92	21.23	18.35	18.24
	5670		0	19.70	19.76	17.99	18.04
			9	23.00	23.78	19.35	19.22
			17	20.20	21.26	18.33	18.24

Note. As a result of 99% bandwidth test, the bandwidth of UNII-1 does not interfere with UNII-2A.

9.3.11. 802.11ax HE80(RU)

Band	Center Freq. [MHz]	Tones	RU offset	26 dB BW [MHz]		99% BW [MHz]	
				ANT1	ANT2	ANT1	ANT2
UNII-1 ^{Note}	5210	26T	0	21.42	20.29	19.09	18.51
			18	38.45	38.30	36.23	35.98
			36	20.27	20.40	18.57	18.46
UNII-2A ^{Note}	5290	26T	0	20.53	20.53	18.91	18.69
			18	38.34	38.55	36.30	35.90
			36	21.11	20.30	18.69	18.36
UNII-2C	5530	26T	0	20.61	20.23	18.60	18.53
			18	38.29	38.36	36.23	36.29
			36	21.32	20.16	18.82	18.59
	5610	26T	0	20.75	20.05	18.46	18.52
			18	38.62	38.45	35.98	36.17
			36	21.57	20.45	18.78	18.64

Note. As a result of 99% bandwidth test, the bandwidth of UNII-1 does not interfere with UNII-2A.

9.3.12. 802.11ax STRADDLE CHANNEL(RU)

Band	Mode	Center Freq. [MHz]	Tones	RU offset	26 dB BW [MHz]			
					ANT1		ANT2	
					UNII-2C	UNII-3	UNII-2C	UNII-3
Straddle Channel	HE20	5720	26T	6	13.96	3.41	13.95	3.99
	HE40	5710		15	14.20	3.90	14.10	3.82
	HE80	5690		34	14.98	4.05	14.31	3.96

10. ANTENNA PORT TEST RESULTS

10.1. 6 dB & 99% BANDWIDTH

LIMITS

FCC §15.407

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

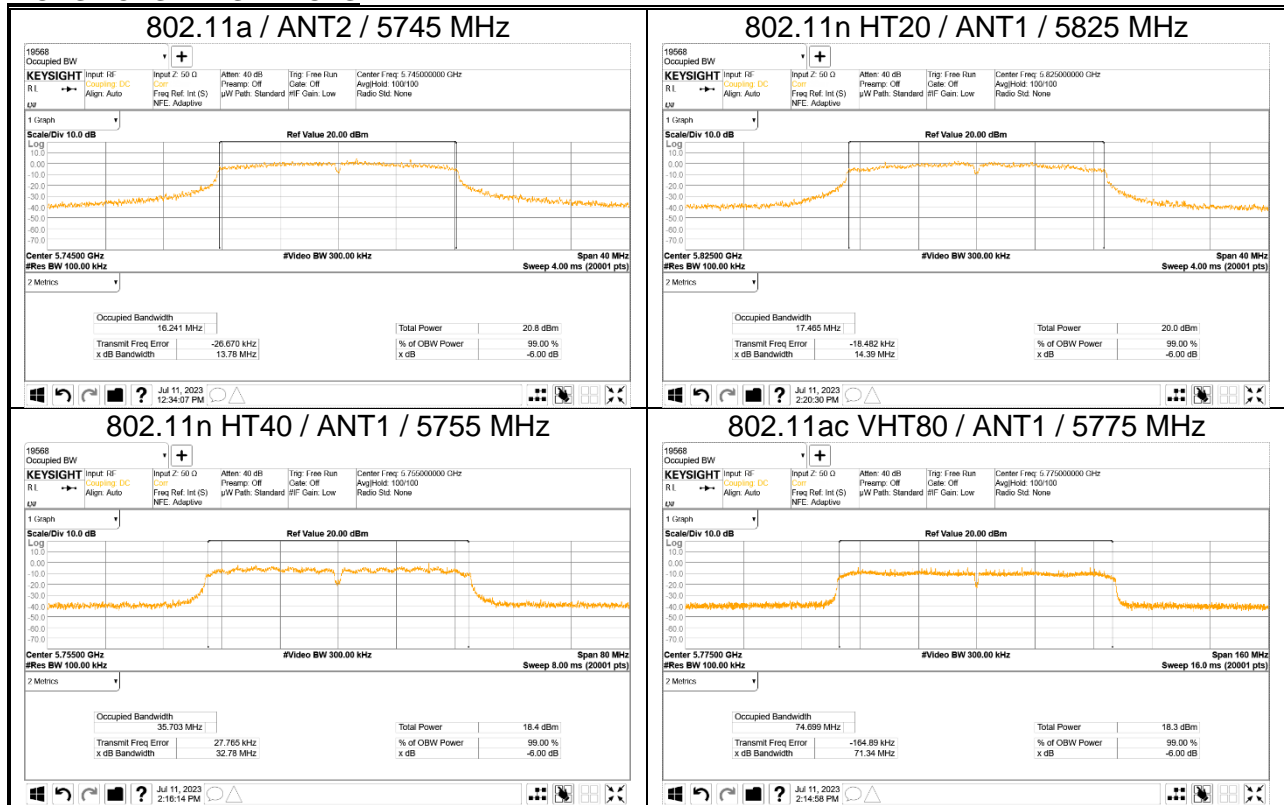
TEST PROCEDURE

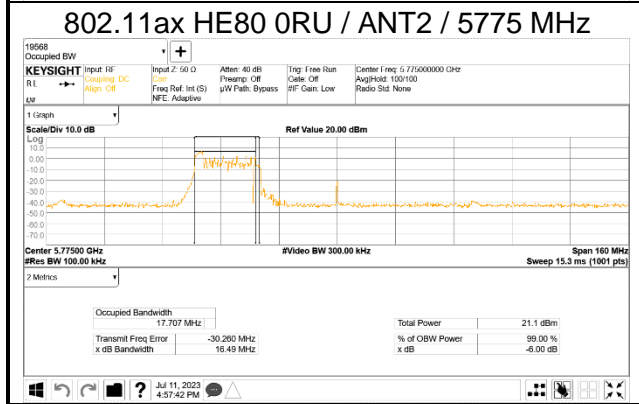
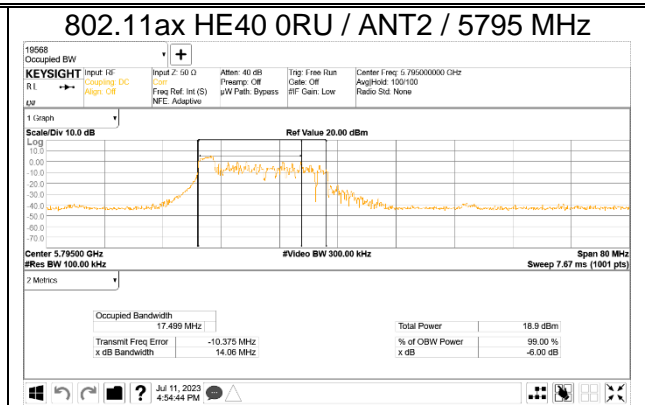
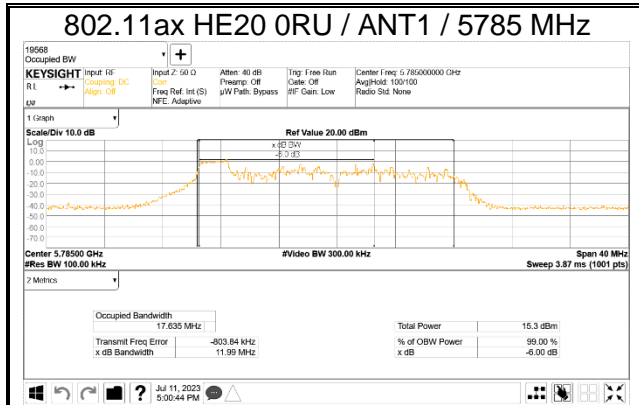
Reference to 789033 D02 General UNII Test Procedures New Rules v02r01: The transmitter output is connected to a spectrum analyzer with the RBW set to 100kHz, the VBW >= 3 x RBW, peak detector and max hold.

RESULTS

- Please refer to the next page

WORST CASE TEST PLOTS





10.1.1. UNII-3 BAND

Mode	Channel	Center Freq. [MHz]	6 dB BW [MHz]		Worst	Minimum Limit [MHz]
			ANT1	ANT2		
802.11a	149	5745	16.02	13.78	13.78	0.5
	157	5785	15.75	15.44		
	165	5825	14.42	15.06		
802.11n HT20	149	5745	15.08	16.29	14.39	
	157	5785	14.59	16.25		
	165	5825	14.39	15.89		
802.11n HT40	151	5755	32.78	35.08	32.78	
	159	5795	32.94	34.18		
802.11ac VHT80	155	5775	71.34	73.20	71.34	
802.11ax HE20(SU)	149	5745	15.15	16.04	15.15	
	157	5785	15.15	15.68		
	165	5825	15.31	15.39		
802.11ax HE40(SU)	151	5755	35.99	35.75	35.20	
	159	5795	35.21	35.20		
802.11ax HE80(SU)	155	5775	75.29	75.24	75.24	

10.1.2. UNII-3 BAND(RU)

Mode	Channel	Center Freq. [MHz]	Tones	RU offset	6 dB BW [MHz]		Minimum Limit [MHz]
					ANT1	ANT2	
HE20	149	5745	26T	0	12.00	12.01	0.5
	157	5785			11.99	14.48	
	165	5825			12.03	11.99	
Minimum 6dB Bandwidth					11.99		
HE40	151	5755	26T	0	16.59	16.60	
	159	5795			16.49	14.06	
	Minimum 6dB Bandwidth					14.06	
HE80	155	5775	26T	0	16.64	16.49	
	Minimum 6dB Bandwidth					16.49	

10.1.3. UNII-3 BAND (99% BANDWIDTH)

Mode	Channel	Center Freq. [MHz]	99% BW [MHz]		Limit [MHz]
			ANT1	ANT2	
802.11a	149	5745	16.27	16.28	-
	157	5785	16.26	16.29	
	165	5825	16.28	16.31	
802.11n HT20	149	5745	17.38	17.42	
	157	5785	17.38	17.42	
	165	5825	17.40	17.44	
802.11n HT40	151	5755	35.87	35.79	
	159	5795	35.86	35.79	
802.11ac VHT80	155	5775	74.83	74.70	

10.1.4. UNII-3 BAND(SU) (99% BANDWIDTH)

Mode	Channel	Center Freq. [MHz]	99% BW [MHz]		Limit [MHz]
			ANT1	ANT2	
802.11ax HE20	149	5745	18.62	18.59	-
	157	5785	18.61	18.61	
	165	5825	18.55	18.58	
802.11ax HE40	151	5755	37.22	37.23	
	159	5795	37.22	37.27	
802.11ax HE80	155	5775	75.71	75.89	

10.2. OUTPUT POWER AND PPSD

LIMITS

RSS-247

FCC §15.407 (a)(1)(iv), (a)(2), (a)(3)(i), (a)(3)(iii)

IC

For client devices in the 5.15-5.25 GHz band,
For other devices, the maximum e.i.r.p. shall not exceed 200 mW or $10 + 10 \log_{10} B$, dBm, whichever power is less. B is the 99% emission bandwidth in megahertz.
The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands,
The maximum conducted output power shall not exceed 250 mW or $11 + 10 \log_{10} B$, dBm, whichever is less. The power spectral density shall not exceed 11 dBm in any 1.0 MHz band.
The maximum e.i.r.p. shall not exceed 1.0 W or $17 + 10 \log_{10} B$, dBm, whichever is less. B is the 99% emission bandwidth in megahertz. Note that devices with a maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p. of 1 W.

For the band 5.725-5.850 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

FCC

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

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

For the band 5.725-5.850 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

TEST PROCEDURE

KDB 789033 Method PM is used for output power.

KDB 789033 Method SA-2 is used for PSD. RBW set to 1MHz(500kHz for the band 5.725-5.85 GHz, the VBW >= 3 x RBW, RMS detector and trace averaging).

Straddle Channel(UNII-2C&3)

KDB 789033 Method SA-2 is used for only power of straddle Ch. and PSD. RBW set to 1MHz(500kHz for the band 5.725-5.85 GHz, the VBW >= 3 x RBW, RMS detector and trace averaging). Band power function used for power and peak marker value of the spectrum is used for PSD.

Straddle Channel(UNII-3)

KDB 789033 Method PM is used for total power of straddle Ch.

(verification that both limit of UNII-3 and UNII-4 power & e.i.r.p. are satisfied)

KDB 789033 Method SA-2 is used for only PSD of straddle Ch. RBW set to 1MHz(500kHz for the band 5.725-5.85 GHz, the VBW >= 3 x RBW, RMS detector and trace averaging).

Peak marker value of the spectrum is used for PSD.

DIRECTIONAL ANTENNA GAIN

For OUTPUT POWER and PSD: The TX chains are correlated and the antenna gains are unequal among the chains. The directional gain is:

Frequency Band [MHz]	ANT1 Gain [dBi]	ANT2 Gain [dBi]	Correlated Chains Directional Gain [dBi]
UNII 1 5150 - 5250	-5.50	-6.50	-2.98
UNII 2A 5250 - 5350	-6.00	-6.10	-3.04
UNII 2C 5470 - 5725	-5.90	-6.20	-3.04
UNII 3 5725 - 5850	-6.20	-6.00	-3.09

10.2.1. 802.11a MODE

Output Power Results

Band	Channel	Center Freq. [MHz]	Average Power [dBm]		Direct. Gain [dBi]	Corr'd Power [dBm]	Limit [dBm]
			ANT1	ANT2			
UNII-1 FCC	36	5180	14.03	14.69	-	17.38	23.98
	40	5200	14.13	14.55	-	17.36	
	48	5240	13.82	13.87	-	16.86	
UNII-1 IC	36	5180	14.03	14.69	-2.98	14.40	22.10 e.i.r.p.
	40	5200	14.13	14.55	-2.98	14.38	
	48	5240	13.82	13.87	-2.98	13.88	
UNII-2A	52	5260	14.31	13.62	-	16.99	23.71 _(FCC) 23.11 _(IC)
	60	5300	13.95	13.97	-	16.97	
	64	5320	14.45	14.03	-	17.26	
UNII-2C	100	5500	15.60	16.07	-	18.85	23.64 _(FCC) 23.11 _(IC)
	116	5580	16.26	15.40	-	18.86	
	140	5700	16.38	15.79	-	19.11	
UNII-3	149	5745	16.35	15.79	-	19.09	30.00
	157	5785	16.12	15.75	-	18.95	
	165	5825	15.93	16.01	-	18.98	

* Calculation of Output Power : Average Power = Meas Power + Duty CF[dB]
 Corr'd Power = Ant1 Average Power + Ant2 Average Power

PSD Results

Band	Channel	Center Freq. [MHz]	Meas PSD [dBm/MHz]		DCCF.	Direct. Gain [dBi]	Corr'd PSD [dBm]	Limit [dBm/MHz]
			ANT1	ANT2				
UNII-1 FCC	36	5180	4.12	4.66	0.14	-	7.55	11.00
	40	5200	3.85	4.41	0.14	-	7.28	
	48	5240	3.92	3.59	0.14	-	6.90	
UNII-1 IC	36	5180	4.12	4.66	0.14	-2.98	4.57	10.00 e.i.r.p.
	40	5200	3.85	4.41	0.14	-2.98	4.30	
	48	5240	3.92	3.59	0.14	-2.98	3.92	
UNII-2A	52	5260	4.34	3.66	0.14	-	7.16	11.00
	60	5300	5.79	3.23	0.14	-	7.84	
	64	5320	4.81	4.11	0.14	-	7.63	
UNII-2C	100	5500	6.21	6.34	0.14	-	9.43	11.00
	116	5580	7.19	6.97	0.14	-	10.23	
	140	5700	6.46	6.23	0.14	-	9.49	
UNII-3	149	5745	3.89	3.78	0.14	-	6.98	30.00/500kHz
	157	5785	3.60	2.62	0.14	-	6.29	
	165	5825	3.87	1.88	0.14	-	6.14	

* Calculation of PSD: Corr'd PSD = Ant1 PSD + Ant2 PSD + Duty CF [dB]

10.2.2. 802.11n HT20 MODE

Output Power Results

Band	Channel	Center Freq. [MHz]	Average Power [dBm]		Direct. Gain [dBi]	Corr'd Power [dBm]	Limit [dBm]
			ANT1	ANT2			
UNII-1 FCC	36	5180	12.86	13.47	-	16.19	23.98
	40	5200	12.74	13.41	-	16.10	
	48	5240	13.11	12.98	-	16.06	
UNII-1 IC	36	5180	12.86	13.47	-2.98	13.21	22.40 e.i.r.p.
	40	5200	12.74	13.41	-2.98	13.12	
	48	5240	13.11	12.98	-2.98	13.08	
UNII-2A	52	5260	13.43	13.13	-	16.29	23.93(FCC) 23.40(IC)
	60	5300	12.64	12.85	-	15.76	
	64	5320	13.12	12.94	-	16.04	
UNII-2C	100	5500	14.63	15.34	-	18.01	23.96
	116	5580	15.06	14.62	-	17.86	
	140	5700	14.93	14.95	-	17.95	
UNII-3	149	5745	15.24	15.19	-	18.23	30.00
	157	5785	15.07	14.70	-	17.90	
	165	5825	15.12	15.01	-	18.08	

* Calculation of Output Power : Average Power = Meas Power + Duty CF[dB]
 Corr'd Power = Ant1 Average Power + Ant2 Average Power

PSD Results

Band	Channel	Center Freq. [MHz]	Meas PSD [dBm/MHz]		DCCF.	Direct. Gain [dBi]	Corr'd PSD [dBm]	Limit [dBm/MHz]
			ANT1	ANT2				
UNII-1 FCC	36	5180	3.51	3.75	0.00	-	6.64	11.00
	40	5200	3.43	3.28	0.00	-	6.37	
	48	5240	3.74	3.23	0.00	-	6.50	
UNII-1 IC	36	5180	3.51	3.75	0.00	-2.98	3.66	10.00 e.i.r.p.
	40	5200	3.43	3.28	0.00	-2.98	3.39	
	48	5240	3.74	3.23	0.00	-2.98	3.52	
UNII-2A	52	5260	3.71	2.74	0.00	-	6.26	11.00
	60	5300	4.47	2.12	0.00	-	6.46	
	64	5320	3.77	2.54	0.00	-	6.21	
UNII-2C	100	5500	5.68	5.53	0.00	-	8.61	11.00
	116	5580	5.94	5.28	0.00	-	8.63	
	140	5700	5.53	5.50	0.00	-	8.52	
UNII-3	149	5745	3.12	3.28	0.00	-	6.21	30.00/500kHz
	157	5785	3.21	2.30	0.00	-	5.79	
	165	5825	3.36	1.59	0.00	-	5.57	

* Calculation of PSD: Corr'd PSD = Ant1 PSD + Ant2 PSD + Duty CF [dB]

10.2.3. 802.11n HT40 MODE

Output Power Results

Band	Channel	Center Freq. [MHz]	Average Power [dBm]		Direct. Gain [dBi]	Corr'd Power [dBm]	Limit [dBm]
			ANT1	ANT2			
UNII-1 FCC	38	5190	11.34	11.05	-	14.21	23.98
	46	5230	11.23	10.50	-	13.89	
UNII-1 IC	38	5190	11.34	11.05	-2.98	11.23	23.01 e.i.r.p.
	46	5230	11.23	10.50	-2.98	10.91	
UNII-2A	54	5270	11.39	10.88	-	14.15	23.98
	62	5310	10.86	10.73	-	13.81	
UNII-2C	102	5510	12.35	13.35	-	15.89	23.98
	110	5550	13.34	12.65	-	16.02	
	134	5670	13.19	12.62	-	15.92	
UNII-3	151	5755	13.93	12.22	-	16.17	30.00
	159	5795	13.25	12.07	-	15.71	

* Calculation of Output Power : Average Power = Meas Power + Duty CF[dB]
 Corr'd Power = Ant1 Average Power + Ant2 Average Power

PSD Results

Band	Channel	Center Freq. [MHz]	Meas PSD [dBm/MHz]		DCCF.	Direct. Gain [dBi]	Corr'd PSD [dBm]	Limit [dBm/MHz]
			ANT1	ANT2				
UNII-1 FCC	38	5190	-3.01	-4.31	0.10	-	-0.50	11.00
	46	5230	-3.88	-3.67	0.10	-	-0.66	
UNII-1 IC	38	5190	-3.01	-4.31	0.10	-2.98	-3.48	10.00 e.i.r.p.
	46	5230	-3.88	-3.67	0.10	-2.98	-3.64	
UNII-2A	54	5270	-2.36	-2.24	0.10	-	0.81	11.00
	62	5310	-0.17	-3.59	0.10	-	1.56	
UNII-2C	102	5510	-0.83	0.25	0.10	-	2.85	11.00
	110	5550	0.25	-0.17	0.10	-	3.15	
	134	5670	0.11	-0.08	0.10	-	3.13	
UNII-3	151	5755	-2.74	-2.42	0.10	-	0.53	30.00/500kHz
	159	5795	-2.86	-2.42	0.10	-	0.47	

* Calculation of PSD: Corr'd PSD = Ant1 PSD + Ant2 PSD + Duty CF [dB]

10.2.4. 802.11ac VHT80 MODE

Output Power Results

Band	Channel	Center Freq. [MHz]	Average Power [dBm]		Direct. Gain [dBi]	Corr'd Power [dBm]	Limit [dBm]
			ANT1	ANT2			
UNII-1 FCC	42	5210	6.94	7.00	-	9.98	23.98
UNII-1 IC	42	5210	6.94	7.00	-2.98	7.00	23.01 e.i.r.p.
UNII-2A	58	5290	7.66	7.24	-	10.47	23.98
UNII-2C	106	5530	12.45	11.82	-	15.16	23.98
	122	5610	12.63	11.58	-	15.15	
UNII-3	155	5775	12.95	11.26	-	15.20	30.00

* Calculation of Output Power : Average Power = Meas Power + Duty CF[dB]
 Corr'd Power = Ant1 Average Power + Ant2 Average Power

PSD Results

Band	Channel	Center Freq. [MHz]	Meas PSD [dBm/MHz]		DCCF.	Direct. Gain [dBi]	Corr'd PSD [dBm]	Limit [dBm/MHz]
			ANT1	ANT2				
UNII-1 FCC	42	5210	-9.55	-9.68	0.44	-	-6.16	11.00
UNII-1 IC	42	5210	-9.55	-9.68	0.44	-2.98	-9.14	10.00 e.i.r.p.
UNII-2A	58	5290	-8.72	-9.17	0.44	-	-5.49	11.00
UNII-2C	106	5530	-3.77	-3.87	0.44	-	-0.37	11.00
	122	5610	-3.86	-4.79	0.44	-	-0.85	
UNII-3	155	5775	-8.09	-7.32	0.44	-	-4.24	30.00/500kHz

* Calculation of PSD: Corr'd PSD = Ant1 PSD + Ant2 PSD + Duty CF [dB]

10.2.5. STRADDLE CHANNEL

Output Power Results

Mode	Band	Center Freq. [MHz]	Meas Power [dBm]		DCCF.	Corr'd Power [dBm]	Limit [dBm]
			ANT1	ANT2			
802.11a	UNII-2C	5720	14.81	15.39	0.14	18.26	22.68
	UNII-3		6.88	7.27	0.14	10.23	30.00
802.11n HT20	UNII-2C	5720	14.37	14.80	0.00	17.60	22.85
	UNII-3		6.73	6.99	0.00	9.87	30.00
802.11n HT40	UNII-2C	5710	12.31	12.48	0.10	15.50	23.98
	UNII-3		0.07	0.03	0.10	3.16	30.00
802.11ac VHT80	UNII-2C	5690	11.74	11.09	0.44	14.88	23.98
	UNII-3		-4.98	-5.83	0.44	-1.93	30.00

* Calculation of Output Power : Corr'd Power = Ant1 meas. Power + Ant2 meas. Power + Duty CF [dB]

PSD Results

Mode	Band	Center Freq. [MHz]	Meas PSD [dBm/MHz]		DCCF.	Corr'd PSD [dBm]	Limit [dBm/MHz]
			ANT1	ANT2			
802.11a	UNII-2C	5720	5.81	5.17	0.14	8.65	11.00
	UNII-3		-0.24	0.32	0.14	3.20	30.00/500kHz
802.11n HT20	UNII-2C	5720	5.16	4.98	0.00	8.08	11.00
	UNII-3		-0.15	-0.16	0.00	2.86	30.00/500kHz
802.11n HT40	UNII-2C	5710	-0.03	-2.91	0.10	1.88	11.00
	UNII-3		-6.12	-6.79	0.10	-3.33	30.00/500kHz
802.11ac VHT80	UNII-2C	5690	-4.54	-1.48	0.44	0.70	11.00
	UNII-3		-11.13	-8.33	0.44	-6.06	30.00/500kHz

* Calculation of PSD: Corr'd PSD = Ant1 PSD + Ant2 PSD + Duty CF [dB]

10.2.6. 802.11ax HE20 MODE

Output Power Results

Band	Channel	Center Freq. [MHz]	Tones	RU offset	Average Power [dBm]		Corr'd Power [dBm]	Limit [dBm]
					ANT1	ANT2		
UNII-1 FCC	36	5180	26T	0	2.90	3.93	6.46	23.98
				4	8.29	8.70	11.51	
				8	3.78	4.46	7.14	
			52T	37	5.34	5.88	8.63	
				38	8.25	9.01	11.66	
				40	5.59	6.38	9.01	
			106T	53	8.02	8.85	11.47	
				54	8.31	9.10	11.73	
			SU	-	12.67	13.19	15.95	
	40	5200	26T	0	3.07	3.56	6.33	
				4	8.30	8.56	11.44	
				8	3.60	4.13	6.88	
			52T	37	5.60	5.84	8.73	
				38	8.63	8.84	11.75	
				40	6.10	6.43	9.28	
			106T	53	8.11	8.88	11.52	
				54	8.71	8.70	11.72	
			SU	-	13.08	13.20	16.15	
	48	5240	26T	0	3.51	3.22	6.38	
				4	8.83	8.26	11.56	
				8	3.80	3.73	6.78	
			52T	37	5.50	5.59	8.56	
				38	8.66	8.72	11.70	
				40	6.17	5.67	8.94	
106T			53	8.57	8.32	11.46		
			54	8.82	8.67	11.76		
SU			-	12.97	13.00	16.00		

* Calculation of Output Power : Average Power = Meas Power + Duty CF[dB]
 Corr'd Power = Ant1 Average Power + Ant2 Average Power

Band	Channel	Center Freq. [MHz]	Tones	RU offset	Average Power [dBm]		Direct. Gain [dBi]	Corr'd Power [dBm]	Limit [dBm]
					ANT1	ANT2			
UNII-1 IC	36	5180	26T	0	2.90	3.93	-2.98	3.48	21.82 e.i.r.p.
				4	8.29	8.70	-2.98	8.53	
				8	3.78	4.46	-2.98	4.16	
			52T	37	5.34	5.88	-2.98	5.65	
				38	8.25	9.01	-2.98	8.68	
				40	5.59	6.38	-2.98	6.03	
			106T	53	8.02	8.85	-2.98	8.49	
				54	8.31	9.10	-2.98	8.75	
			SU	-	12.67	13.19	-2.98	12.97	
	40	5200	26T	0	3.07	3.56	-2.98	3.35	
				4	8.30	8.56	-2.98	8.46	
				8	3.60	4.13	-2.98	3.90	
			52T	37	5.60	5.84	-2.98	5.75	
				38	8.63	8.84	-2.98	8.77	
				40	6.10	6.43	-2.98	6.30	
			106T	53	8.11	8.88	-2.98	8.54	
				54	8.71	8.70	-2.98	8.74	
			SU	-	13.08	13.20	-2.98	13.17	
	48	5240	26T	0	3.51	3.22	-2.98	3.40	
				4	8.83	8.26	-2.98	8.58	
				8	3.80	3.73	-2.98	3.80	
			52T	37	5.50	5.59	-2.98	5.58	
				38	8.66	8.72	-2.98	8.72	
				40	6.17	5.67	-2.98	5.96	
			106T	53	8.57	8.32	-2.98	8.48	
				54	8.82	8.67	-2.98	8.78	
			SU	-	12.97	13.00	-2.98	13.02	

* Calculation of Output Power : Average Power = Meas Power + Duty CF[dB]
 Corr'd Power = Ant1 Average Power + Ant2 Average Power

Band	Channel	Center Freq. [MHz]	Tones	RU offset	Average Power [dBm]		Corr'd Power [dBm]	Limit [dBm]
					ANT1	ANT2		
UNII-2A	52	5260	26T	0	3.74	3.27	6.52	23.49 (FCC) 22.81 (IC)
				4	8.87	8.38	11.64	
				8	4.38	3.89	7.15	
			52T	37	5.35	5.08	8.23	
				38	8.76	8.20	11.50	
				40	6.08	5.44	8.78	
			106T	53	8.56	8.26	11.42	
				54	8.40	8.34	11.38	
			SU	-	13.51	12.91	16.23	
	60	5300	26T	0	3.53	3.45	6.50	
				4	8.64	8.68	11.67	
				8	3.99	3.97	6.99	
			52T	37	5.14	5.41	8.29	
				38	8.30	8.61	11.47	
				40	5.71	5.91	8.82	
			106T	53	8.43	8.67	11.56	
				54	8.50	8.35	11.44	
			SU	-	12.58	13.07	15.84	
	64	5320	26T	0	3.30	3.34	6.33	
				4	8.52	8.69	11.62	
				8	3.86	3.85	6.87	
			52T	37	5.63	5.65	8.65	
				38	8.60	8.64	11.63	
				40	6.29	6.34	9.33	
106T			53	8.53	8.20	11.38		
			54	8.76	8.55	11.67		
SU			-	13.12	13.04	16.09		

* Calculation of Output Power : Average Power = Meas Power + Duty CF[dB]
 Corr'd Power = Ant1 Average Power + Ant2 Average Power

Band	Channel	Center Freq. [MHz]	Tones	RU offset	Average Power [dBm]		Corr'd Power [dBm]	Limit [dBm]
					ANT1	ANT2		
UNII-2C	100	5500	26T	0	5.70	6.08	8.90	23.49 (FCC) 22.82 (IC)
				4	10.27	10.55	13.42	
				8	5.51	5.88	8.71	
			52T	37	7.40	8.12	10.79	
				38	10.53	10.65	13.60	
				40	7.27	7.51	10.40	
			106T	53	10.55	10.82	13.70	
				54	10.40	10.62	13.52	
			SU	-	14.95	15.06	18.02	
	116	5580	26T	0	6.41	5.33	8.91	
				4	10.97	10.16	13.59	
				8	5.66	5.36	8.52	
			52T	37	8.00	7.45	10.74	
				38	10.94	10.31	13.65	
				40	7.85	7.15	10.52	
			106T	53	10.84	10.28	13.58	
				54	10.96	10.05	13.54	
			SU	-	15.44	14.54	18.02	
	140	5700	26T	0	5.90	5.75	8.84	
				4	10.50	10.10	13.31	
				8	5.35	5.20	8.29	
			52T	37	7.75	7.46	10.62	
				38	10.51	10.07	13.31	
				40	7.09	7.26	10.19	
106T			53	10.58	10.28	13.44		
			54	10.30	10.13	13.23		
SU			-	15.34	14.83	18.10		

* Calculation of Output Power : Average Power = Meas Power + Duty CF[dB]
 Corr'd Power = Ant1 Average Power + Ant2 Average Power

Band	Channel	Center Freq. [MHz]	Tones	RU offset	Average Power [dBm]		Corr'd Power [dBm]	Limit [dBm]
					ANT1	ANT2		
UNII-3	149	5745	26T	0	6.03	6.48	9.27	30.00
				4	10.30	10.89	13.62	
				8	5.18	5.89	8.56	
			52T	37	7.36	7.82	10.61	
				38	10.24	10.62	13.44	
				40	7.34	7.39	10.38	
			106T	53	10.35	10.95	13.67	
				54	10.56	10.46	13.52	
			SU	-	14.95	15.06	18.02	
	157	5785	26T	0	5.32	6.09	8.73	
				4	10.28	10.51	13.41	
				8	5.18	5.01	8.11	
			52T	37	7.69	8.16	10.94	
				38	10.53	10.57	13.56	
				40	7.39	7.60	10.51	
			106T	53	10.26	10.92	13.61	
				54	10.41	10.40	13.42	
			SU	-	15.34	14.23	17.83	
	165	5825	26T	0	5.44	5.94	8.71	
				4	10.26	10.66	13.47	
				8	5.18	5.66	8.44	
			52T	37	6.99	7.67	10.35	
				38	10.19	10.39	13.30	
				40	6.55	7.63	10.13	
			106T	53	10.10	10.49	13.31	
				54	10.20	10.72	13.48	
			SU	-	15.59	14.02	17.89	

* Calculation of Output Power : Average Power = Meas Power + Duty CF[dB]
 Corr'd Power = Ant1 Average Power + Ant2 Average Power

PSD Results

Band	Channel	Center Freq. [MHz]	Tones	RU offset	Meas PSD [dBm/MHz]		Corr'd PSD [dBm/MHz]	PSD Limit [dBm/MHz]
					ANT1	ANT2		
UNII-1 FCC	36	5180	26T	0	2.62	1.73	5.21	11.00
				4	4.59	5.00	7.81	
				8	1.21	1.74	4.49	
			SU	-	3.21	3.69	6.62	
	40	5200	26T	0	0.76	1.27	4.03	
				4	4.65	4.86	7.76	
				8	1.40	1.79	4.61	
			SU	-	3.23	3.07	6.31	
	48	5240	26T	0	1.21	1.00	4.12	
				4	4.92	4.64	7.79	
				8	1.72	1.23	4.49	
			SU	-	3.54	2.96	6.42	
UNII-2A	52	5260	26T	0	1.19	0.56	3.90	11.00
				4	4.98	4.33	7.68	
				8	1.77	1.49	4.64	
			SU	-	3.50	2.50	6.19	
	60	5300	26T	0	2.86	0.29	4.77	
				4	6.83	4.33	8.76	
				8	3.87	1.39	5.82	
			SU	-	4.36	2.22	6.58	
	64	5320	26T	0	2.21	0.12	4.30	
				4	5.22	4.40	7.84	
				8	2.24	1.06	4.70	
			SU	-	4.11	2.94	6.73	
UNII-2C	100	5500	26T	0	4.25	3.70	6.99	11.00
				4	7.61	6.68	10.18	
				8	3.87	3.49	6.69	
			SU	-	5.94	5.48	8.88	
	116	5580	26T	0	4.90	3.66	7.34	
				4	8.22	6.53	10.47	
				8	4.83	3.10	7.06	
			SU	-	6.70	5.03	9.10	
	140	5700	26T	0	3.95	3.98	6.98	
				4	6.99	7.19	10.10	
				8	4.08	3.85	6.98	
			SU	-	6.22	5.84	9.19	

* Calculation of PSD: Corr'd PSD = Ant1 PSD + Ant2 PSD + Duty CF [dB]

Band	Channel	Center Freq. [MHz]	Tones	RU offset	Meas PSD [dBm]		Direct. Gain [dBi]	Corr'd PSD [dBm]	PSD Limit [dBm]
					ANT1	ANT2			
UNII-3	149	5745	26T	0	1.18	1.75	-	4.49	30.00 /500kHz
				4	5.80	5.87	-	8.84	
				8	1.03	1.72	-	4.40	
			SU	-	3.33	2.94	-	6.30	
	157	5785	26T	0	1.10	2.00	-	4.58	
				4	4.92	5.63	-	8.30	
				8	0.47	1.22	-	3.87	
			SU	-	3.48	1.99	-	5.96	
	165	5825	26T	0	1.17	1.95	-	4.59	
				4	4.95	5.42	-	8.20	
				8	0.87	1.26	-	4.08	
			SU	-	3.05	0.77	-	5.22	

* Calculation of PSD: Corr'd PSD = Ant1 PSD + Ant2 PSD + Duty CF [dB]

Band	Channel	Center Freq. [MHz]	Tones	RU offset	Meas PSD [dBm]		Direct. Gain [dBi]	Corr'd PSD [dBm]	PSD Limit [dBm]
					ANT1	ANT2			
UNII-1 IC	36	5180	26T	0	2.62	1.73	-2.98	2.23	10.00 e.i.r.p.
				4	4.59	5.00	-2.98	4.83	
				8	1.21	1.74	-2.98	1.51	
			SU	-	3.21	3.69	-2.98	3.64	
	40	5200	26T	0	0.76	1.27	-2.98	1.05	
				4	4.65	4.86	-2.98	4.78	
				8	1.40	1.79	-2.98	1.63	
			SU	-	3.23	3.07	-2.98	3.33	
	48	5240	26T	0	1.21	1.00	-2.98	1.14	
				4	4.92	4.64	-2.98	4.81	
				8	1.72	1.23	-2.98	1.51	
			SU	-	3.54	2.96	-2.98	3.44	

* Calculation of PSD: Corr'd PSD = Ant1 PSD + Ant2 PSD + Duty CF [dB]

10.2.7. 802.11ax HE40 MODE

Output Power Results

Band	Channel	Center Freq. [MHz]	Tones	RU offset	Average Power [dBm]		Corr'd Power [dBm]	Limit [dBm]
					ANT1	ANT2		
UNII-1 FCC	38	5190	26T	0	5.41	5.04	8.24	23.98
				9	8.73	8.26	11.51	
				17	6.93	6.35	9.66	
			52T	37	6.22	5.96	9.10	
				41	8.37	7.96	11.18	
				44	7.61	7.20	10.42	
			106T	53	8.94	8.18	11.59	
				54	8.75	8.39	11.58	
				56	8.65	8.48	11.58	
			242T	61	8.53	8.20	11.38	
				62	8.45	8.22	11.35	
			SU	-	11.26	10.65	13.98	
	46	5230	26T	0	5.25	5.29	8.28	
				9	8.47	8.69	11.59	
				17	6.43	6.47	9.46	
			52T	37	5.97	6.51	9.26	
				41	8.35	8.61	11.49	
				44	7.26	7.48	10.38	
			106T	53	8.20	8.60	11.41	
				54	8.74	8.74	11.75	
				56	8.31	8.52	11.43	
			242T	61	8.28	8.67	11.49	
				62	8.31	8.72	11.53	
			SU	-	11.02	11.19	14.12	

* Calculation of Output Power : Average Power = Meas Power + Duty CF[dB]
 Corr'd Power = Ant1 Average Power + Ant2 Average Power

Band	Channel	Center Freq. [MHz]	Tones	RU offset	Average Power [dBm]		Direct. Gain [dBi]	Corr'd Power [dBm]	Limit [dBm]
					ANT1	ANT2			
UNII-1 IC	38	5190	26T	0	5.41	5.04	-2.98	5.26	22.59 e.i.r.p.
				9	8.73	8.26	-2.98	8.53	
				17	6.93	6.35	-2.98	6.68	
			52T	37	6.22	5.96	-2.98	6.12	
				41	8.37	7.96	-2.98	8.20	
				44	7.61	7.20	-2.98	7.44	
			106T	53	8.94	8.18	-2.98	8.61	
				54	8.75	8.39	-2.98	8.60	
				56	8.65	8.48	-2.98	8.60	
			242T	61	8.53	8.20	-2.98	8.40	
				62	8.45	8.22	-2.98	8.37	
			SU	-	11.26	10.65	-2.98	11.00	
	46	5230	26T	0	5.25	5.29	-2.98	5.30	
				9	8.47	8.69	-2.98	8.61	
				17	6.43	6.47	-2.98	6.48	
			52T	37	5.97	6.51	-2.98	6.28	
				41	8.35	8.61	-2.98	8.51	
				44	7.26	7.48	-2.98	7.40	
			106T	53	8.20	8.60	-2.98	8.43	
				54	8.74	8.74	-2.98	8.77	
				56	8.31	8.52	-2.98	8.45	
			242T	61	8.28	8.67	-2.98	8.51	
				62	8.31	8.72	-2.98	8.55	
			SU	-	11.02	11.19	-2.98	11.14	

* Calculation of Output Power : Average Power = Meas Power + Duty CF[dB]
 Corr'd Power = Ant1 Average Power + Ant2 Average Power

Band	Channel	Center Freq. [MHz]	Tones	RU offset	Average Power [dBm]		Corr'd Power [dBm]	Limit [dBm]
					ANT1	ANT2		
UNII-2A	54	5270	26T	0	5.17	5.73	8.47	23.94 (FCC)
				9	8.60	8.78	11.70	
				17	6.59	6.91	9.76	
			52T	37	5.86	6.68	9.30	
				41	8.11	8.86	11.51	
				44	6.93	7.70	10.34	
			106T	53	8.26	8.47	11.38	
				54	8.13	8.66	11.41	
				56	8.22	8.48	11.36	
			242T	61	8.22	8.47	11.36	
				62	8.46	8.64	11.56	
			SU	-	10.95	11.48	14.23	
	62	5310	26T	0	4.85	5.19	8.03	23.56 (IC)
				9	8.36	8.29	11.34	
				17	6.39	6.17	9.29	
			52T	37	5.84	6.11	8.99	
				41	8.36	8.35	11.37	
				44	7.36	7.08	10.23	
			106T	53	8.49	8.52	11.52	
				54	8.52	8.24	11.39	
				56	8.83	8.48	11.67	
			242T	61	8.49	8.67	11.59	
				62	8.64	8.24	11.45	
			SU	-	10.99	10.72	13.87	

* Calculation of Output Power : Average Power = Meas Power + Duty CF[dB]
 Corr'd Power = Ant1 Average Power + Ant2 Average Power

Band	Channel	Center Freq. [MHz]	Tones	RU offset	Average Power [dBm]		Corr'd Power [dBm]	Limit [dBm]
					ANT1	ANT2		
UNII-2C	102	5510	26T	0	7.69	8.94	11.37	23.94 (FCC) 23.55 (IC)
				9	9.63	10.88	13.31	
				17	7.06	8.18	10.67	
			52T	37	8.56	10.46	12.62	
				41	10.04	11.20	13.67	
				44	8.06	9.62	11.92	
			106T	53	9.85	11.18	13.58	
				54	9.95	11.25	13.66	
				56	9.87	11.16	13.57	
	242T	61	9.37	11.09	13.32			
		62	9.75	10.89	13.37			
	SU	-	12.31	13.49	15.95			
	110	5550	26T	0	8.06	8.22	11.15	
				9	10.33	10.53	13.44	
				17	7.15	7.34	10.26	
			52T	37	9.18	9.78	12.50	
				41	10.34	10.40	13.38	
				44	8.32	8.57	11.46	
			106T	53	10.42	10.27	13.36	
				54	10.56	10.60	13.59	
				56	10.60	10.31	13.47	
	242T	61	10.63	10.53	13.59			
		62	10.73	10.62	13.69			
	SU	-	12.95	13.04	16.01			
	134	5670	26T	0	8.45	9.12	11.81	
				9	10.49	10.68	13.60	
				17	7.78	7.83	10.82	
52T			37	9.53	9.42	12.49		
			41	10.27	10.31	13.30		
			44	8.25	8.40	11.34		
106T			53	10.59	10.59	13.60		
			54	10.52	10.68	13.61		
			56	10.54	10.61	13.59		
242T	61	10.53	10.52	13.54				
	62	10.62	10.49	13.57				
SU	-	13.25	13.01	16.14				

* Calculation of Output Power : Average Power = Meas Power + Duty CF[dB]
 Corr'd Power = Ant1 Average Power + Ant2 Average Power

Band	Channel	Center Freq. [MHz]	Tones	RU offset	Average Power [dBm]		Corr'd Power [dBm]	Limit [dBm]
					ANT1	ANT2		
UNII-3	151	5755	26T	0	8.60	9.34	12.00	30.00
				9	10.73	10.47	13.61	
				17	7.71	8.05	10.89	
			52T	37	9.17	10.09	12.66	
				41	10.42	10.81	13.63	
				44	8.46	8.73	11.61	
			106T	53	10.31	10.35	13.34	
				54	10.73	10.63	13.69	
				56	10.16	10.45	13.32	
			242T	61	10.39	10.98	13.71	
				62	10.30	10.66	13.49	
			SU	-	12.90	12.85	15.89	
	159	5795	26T	0	7.65	8.65	11.19	
				9	9.93	10.45	13.21	
				17	6.95	7.53	10.26	
			52T	37	9.03	10.05	12.58	
				41	10.16	10.64	13.42	
				44	8.33	9.01	11.69	
			106T	53	10.37	11.13	13.78	
				54	10.11	10.99	13.58	
				56	10.54	10.71	13.64	
			242T	61	10.07	11.01	13.58	
				62	10.36	10.79	13.59	
			SU	-	12.63	13.29	15.98	

* Calculation of Output Power : Average Power = Meas Power + Duty CF[dB]
 Corr'd Power = Ant1 Average Power + Ant2 Average Power

PSD Results

Band	Channel	Center Freq. [MHz]	Tones	RU offset	Meas PSD [dBm/MHz]		Corr'd PSD [dBm/MHz]	PSD Limit [dBm/MHz]	
					ANT1	ANT2			
UNII-1 FCC	38	5190	26T	0	2.16	2.42	5.30	11.00	
				9	5.41	5.40	8.41		
				17	4.06	3.66	6.88		
	46	5230	26T	SU	-	-1.72	-2.81		1.13
				0	2.49	2.98	5.75		
				9	5.71	5.84	8.79		
17	4.11	4.32	7.23						
SU	-	-1.25	-1.90	1.80					
UNII-2A	54	5270	26T	0	2.77	3.25	6.03	11.00	
				9	6.13	6.07	9.11		
				17	4.29	4.64	7.48		
	62	5310	26T	SU	-	-2.27	-2.13		1.16
				0	4.72	1.54	6.42		
				9	8.09	4.82	9.77		
17	6.78	3.62	8.49						
SU	-	0.41	-3.54	2.23					
UNII-2C	102	5510	26T	0	5.91	6.21	9.07	11.00	
				9	7.48	8.24	10.88		
				17	5.27	5.97	8.64		
				SU	-	0.38	0.85		3.98
	110	5550	26T	0	6.11	5.90	9.02		
				9	8.37	7.47	10.95		
				17	5.68	5.06	8.39		
				SU	-	0.78	-0.10		3.72
	134	5670	26T	0	6.75	6.16	9.47		
				9	7.83	7.87	10.86		
				17	5.72	4.50	8.16		
				SU	-	0.33	-0.27		3.40

* Calculation of PSD: Corr'd PSD = Ant1 PSD + Ant2 PSD + Duty CF [dB]

Band	Channel	Center Freq. [MHz]	Tones	RU offset	Meas PSD [dBm]		Direct. Gain [dBi]	Corr'd PSD [dBm]	PSD Limit [dBm]
					ANT1	ANT2			
UNII-3	151	5755	26T	0	3.58	3.92	-	6.77	30.00 /500kHz
				9	5.95	5.90	-	8.94	
				17	3.02	3.28	-	6.16	
			SU	-	-3.40	-2.58	-	0.39	
	159	5795	26T	0	2.48	3.83	-	6.22	
				9	4.46	5.26	-	7.89	
				17	2.62	2.96	-	5.80	
			SU	-	-2.60	-2.04	-	1.05	

* Calculation of PSD: Corr'd PSD = Ant1 PSD + Ant2 PSD + Duty CF [dB]

Band	Channel	Center Freq. [MHz]	Tones	RU offset	Meas PSD [dBm]		Direct. Gain [dBi]	Corr'd PSD [dBm]	PSD Limit [dBm]
					ANT1	ANT2			
UNII-1 IC	38	5190	26T	0	2.16	2.42	-2.98	2.32	10.00 e.i.r.p.
				9	5.41	5.40	-2.98	5.43	
				17	4.06	3.66	-2.98	3.90	
			SU	-	-1.72	-2.81	-2.98	-1.85	
	46	5230	26T	0	2.49	2.98	-2.98	2.77	
				9	5.71	5.84	-2.98	5.81	
				17	4.11	4.32	-2.98	4.25	
			SU	-	-1.25	-1.90	-2.98	-1.18	

* Calculation of PSD: Corr'd PSD = Ant1 PSD + Ant2 PSD + Duty CF [dB]

10.2.8. 802.11ax HE80 MODE

Output Power Results

Band	Channel	Center Freq. [MHz]	Tones	RU offset	Average Power [dBm]		Corr'd Power [dBm]	Limit [dBm]
					ANT1	ANT2		
UNII-1 FCC	42	5210	26T	0	2.86	3.00	5.94	23.98
				18	8.52	8.59	11.57	
				36	5.59	5.72	8.67	
			52T	37	4.17	4.51	7.35	
				45	8.46	8.55	11.52	
				52	7.10	7.17	10.15	
			106T	53	8.44	8.33	11.40	
				57	8.31	8.39	11.36	
				60	8.61	8.57	11.60	
			242T	61	8.66	8.60	11.64	
				62	8.82	8.57	11.71	
				64	8.48	8.62	11.56	
			484T	65	8.49	8.46	11.49	
				66	8.60	8.78	11.70	
			SU	-	7.25	6.95	10.11	
UNII-2A	58	5290	26T	0	2.92	3.07	6.01	23.98 (FCC) 23.64 (IC)
				18	8.58	8.71	11.66	
				36	5.57	5.51	8.55	
			52T	37	4.26	4.64	7.46	
				45	8.53	8.42	11.49	
				52	7.19	7.11	10.16	
			106T	53	8.58	8.85	11.73	
				57	8.37	8.44	11.42	
				60	8.05	8.53	11.31	
			242T	61	8.34	8.65	11.51	
				62	8.66	8.64	11.66	
				64	8.26	8.78	11.54	
			484T	65	8.45	8.72	11.60	
				66	8.37	8.52	11.46	
			SU	-	7.30	7.10	10.21	

* Calculation of Output Power : Average Power = Meas Power + Duty CF[dB]
 Corr'd Power = Ant1 Average Power + Ant2 Average Power

Band	Channel	Center Freq. [MHz]	Tones	RU offset	Average Power [dBm]		Corr'd Power [dBm]	Limit [dBm]
					ANT1	ANT2		
UNII-2C	106	5530	26T	0	6.89	7.50	10.22	23.98 (FCC) 23.66 (IC)
				18	10.23	10.91	13.59	
				36	4.87	5.53	8.22	
			52T	37	8.29	8.96	11.65	
				45	9.98	10.93	13.49	
				52	6.85	7.55	10.22	
			106T	53	10.10	10.64	13.39	
				57	10.17	10.84	13.53	
				60	9.97	10.54	13.27	
			242T	61	10.24	10.87	13.58	
				62	10.18	10.85	13.54	
				64	9.91	10.56	13.26	
	484T	65	9.94	10.51	13.24			
		66	10.25	11.04	13.67			
	SU	-	11.95	12.45	15.22			
	122	5610	26T	0	7.71	6.93	10.35	
				18	11.15	10.34	13.77	
				36	5.94	5.21	8.60	
			52T	37	9.56	8.69	12.16	
				45	10.76	10.11	13.46	
				52	7.64	6.88	10.29	
			106T	53	11.09	10.23	13.69	
				57	10.96	9.72	13.39	
				60	11.07	9.89	13.53	
242T			61	10.88	10.22	13.57		
			62	10.95	9.95	13.49		
			64	11.00	9.55	13.35		
484T	65	11.00	10.06	13.57				
	66	10.78	9.86	13.35				
SU	-	12.69	11.53	15.16				

* Calculation of Output Power : Average Power = Meas Power + Duty CF[dB]
 Corr'd Power = Ant1 Average Power + Ant2 Average Power

Band	Channel	Center Freq. [MHz]	Tones	RU offset	Average Power [dBm]		Corr'd Power [dBm]	Limit [dBm]
					ANT1	ANT2		
UNII-3	155	5775	26T	0	6.90	7.40	10.17	30.00
				18	10.47	10.67	13.58	
				36	5.12	5.06	8.10	
			52T	37	8.91	9.23	12.08	
				45	10.54	10.62	13.59	
				52	7.54	7.52	10.54	
			106T	53	10.31	10.70	13.52	
				57	10.45	10.26	13.37	
				60	10.79	10.28	13.55	
			242T	61	10.76	10.53	13.66	
				62	10.76	10.64	13.71	
				64	10.67	10.66	13.68	
			484T	65	10.55	10.79	13.68	
				66	10.62	10.68	13.66	
			SU	-	12.43	11.99	15.23	

* Calculation of Output Power : Average Power = Meas Power + Duty CF[dB]
 Corr'd Power = Ant1 Average Power + Ant2 Average Power

Band	Channel	Center Freq. [MHz]	Tones	RU offset	Average Power [dBm]		Direct. Gain [dBi]	Corr'd Power [dBm]	Limit [dBm]
					ANT1	ANT2			
UNII-1 IC	42	5210	26T	0	2.86	3.00	-2.98	2.96	22.66 e.i.r.p.
				18	8.52	8.59	-2.98	8.59	
				36	5.59	5.72	-2.98	5.69	
			52T	37	4.17	4.51	-2.98	4.37	
				45	8.46	8.55	-2.98	8.54	
				52	7.10	7.17	-2.98	7.17	
			106T	53	8.44	8.33	-2.98	8.42	
				57	8.31	8.39	-2.98	8.38	
				60	8.61	8.57	-2.98	8.62	
			242T	61	8.66	8.60	-2.98	8.66	
				62	8.82	8.57	-2.98	8.73	
				64	8.48	8.62	-2.98	8.58	
			484T	65	8.49	8.46	-2.98	8.51	
				66	8.60	8.78	-2.98	8.72	
			SU	-	7.25	6.95	-2.98	7.13	

* Calculation of Output Power : Average Power = Meas Power + Duty CF[dB]
 Corr'd Power = Ant1 Average Power + Ant2 Average Power

PSD Results

Band	Channel	Center Freq. [MHz]	Tones	RU offset	Meas PSD [dBm/MHz]		Corr'd PSD [dBm/MHz]	PSD Limit [dBm/MHz]
					ANT1	ANT2		
UNII-1 FCC	42	5210	26T	0	-0.34	-0.74	2.47	11.00
				18	4.70	3.79	7.28	
				36	2.98	2.79	5.89	
			SU	-	-10.09	-9.09	-6.13	
UNII-2A	58	5290	26T	0	0.04	-0.66	2.72	11.00
				18	4.97	4.02	7.53	
				36	2.88	2.15	5.54	
			SU	-	-9.11	-9.82	-6.02	
UNII-2C	106	5530	26T	0	5.20	4.95	8.09	11.00
				18	7.26	6.58	9.94	
				36	3.54	2.92	6.25	
			SU	-	-2.82	-2.86	0.59	
	122	5610	26T	0	5.84	4.92	8.41	
				18	7.91	7.14	10.55	
				36	3.99	2.61	6.36	
			SU	-	-2.99	-3.65	0.12	

Band	Channel	Center Freq. [MHz]	Tones	RU offset	Meas PSD [dBm]		Direct. Gain [dBi]	Corr'd PSD [dBm]	PSD Limit [dBm]
					ANT1	ANT2			
UNII-3	155	5775	26T	0	2.15	2.70	-	5.44	30.00 /500kHz
				18	5.36	5.63	-	8.51	
				36	0.55	0.81	-	3.69	
			SU	-	-5.74	-5.99	-	-2.43	

* Calculation of PSD: Corr'd PSD = Ant1 PSD + Ant2 PSD + Duty CF [dB]

Band	Channel	Center Freq. [MHz]	Tones	RU offset	Meas PSD [dBm]		Direct. Gain [dBi]	Corr'd PSD [dBm]	PSD Limit [dBm]
					ANT1	ANT2			
UNII-1 IC	42	5210	26T	0	-0.34	-0.74	-2.98	-0.51	10.00 e.i.r.p.
				18	4.70	3.79	-2.98	4.30	
				36	2.98	2.79	-2.98	2.91	
			SU	-	-10.09	-9.09	-2.98	-9.11	

* Calculation of PSD: Corr'd PSD = Ant1 PSD + Ant2 PSD + Duty CF [dB]

10.2.9. STRADDLE CHANNEL(802.11ax)

Output Power Results(SU)

Mode	Band	Center Freq. [MHz]	Meas Power [dBm]		Corr'd Power [dBm]	Limit [dBm]
			ANT1	ANT2		
HE20	UNII-2C	5720	14.19	14.33	0.15	22.87
	UNII-3		6.80	6.75	0.15	30.00
HE40	UNII-2C	5710	12.65	12.87	0.35	23.98
	UNII-3		0.73	0.82	0.35	30.00
HE80	UNII-2C	5690	12.34	12.01	0.42	23.98
	UNII-3		-4.11	-4.62	0.42	30.00

* Calculation of Output Power : Corr'd Power = Ant1 meas. Power + Ant2 meas. Power + Duty CF [dB]

PSD Results(SU)

Mode	Band	Center Freq. [MHz]	Meas PSD [dBm/MHz]		DCCF.	Corr'd PSD [dBm]	Limit [dBm/MHz]
			ANT1	ANT2			
HE20	UNII-2C	5720	5.60	5.88	0.15	8.90	11.00
	UNII-3		1.06	0.76	0.15	4.07	30.00/500kHz
HE40	UNII-2C	5710	0.99	0.47	0.35	4.10	11.00
	UNII-3		-4.75	-5.48	0.35	-1.74	30.00/500kHz
HE80	UNII-2C	5690	-3.38	-4.01	0.42	-0.25	11.00
	UNII-3		-9.69	-10.60	0.42	-6.69	30.00/500kHz

* Calculation of PSD: Corr'd PSD = Ant1 PSD + Ant2 PSD + Duty CF [dB]

Output Power Results(RU)

Mode	Band	Center Freq. [MHz]	Meas Power [dBm]		Corr'd Power [dBm]	Limit [dBm]
			ANT1	ANT2		
HE20	UNII-2C	5720 (6RU)	8.45	8.41	11.44	22.45
	UNII-3		1.80	1.74	4.78	30.00
HE40	UNII-2C	5710 (15RU)	10.80	10.74	13.78	22.49
	UNII-3		-3.23	-3.15	-0.18	30.00
HE80	UNII-2C	5690 (34RU)	10.55	9.07	12.88	22.56
	UNII-3		-3.61	-4.92	-1.21	30.00

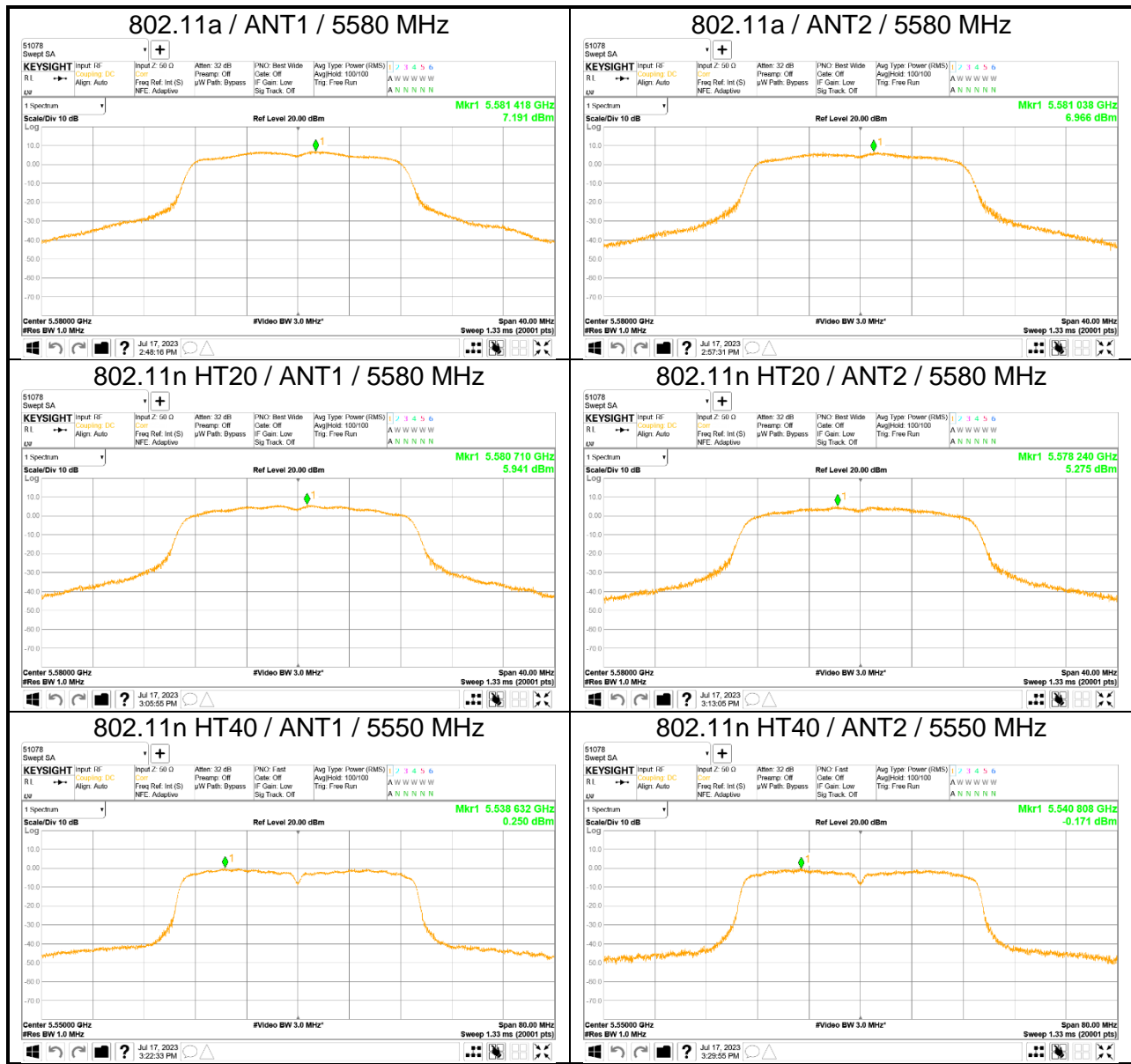
* Calculation of Output Power : Corr'd Power = Ant1 meas. Power + Ant2 meas. Power + Duty CF [dB]

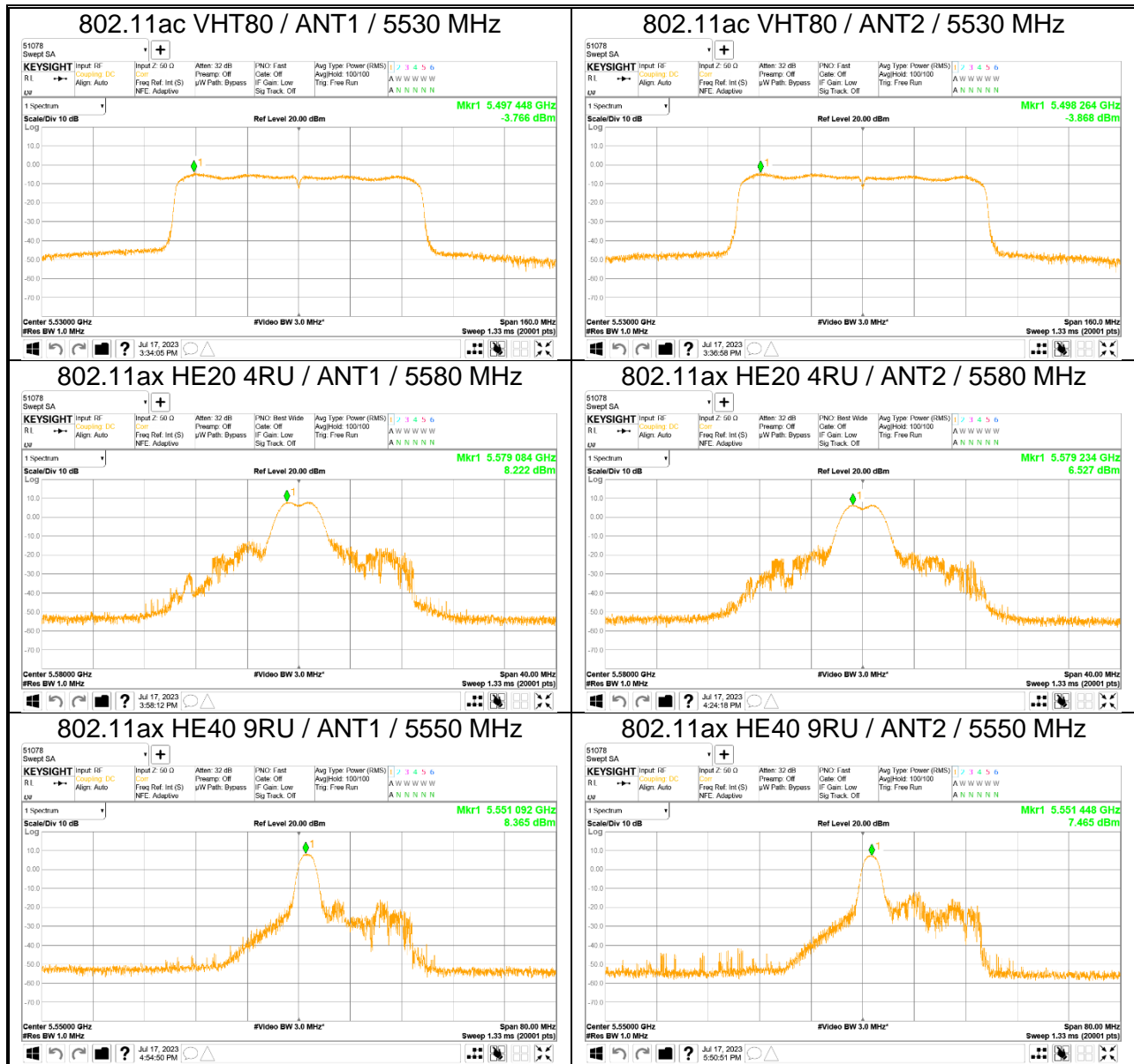
PSD Results(RU)

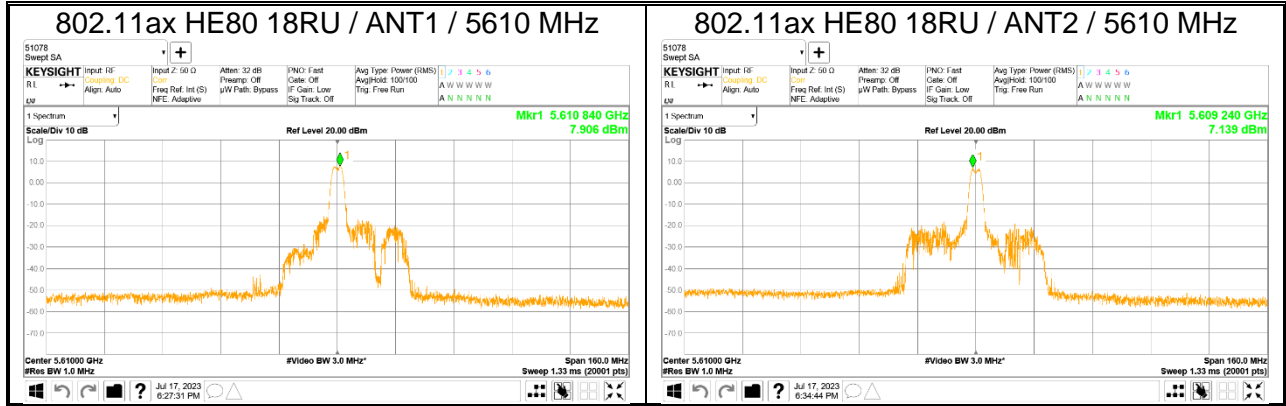
Mode	Band	Center Freq. [MHz]	Meas PSD [dBm/MHz]		DCCF.	Corr'd PSD [dBm]	Limit [dBm/MHz]
			ANT1	ANT2			
HE20	UNII-2C	5720 (6RU)	7.28	7.38	0.00	10.34	11.00
	UNII-3		3.39	3.76	0.00	6.59	30.00/500kHz
HE40	UNII-2C	5710 (15RU)	8.26	7.07	0.00	10.72	11.00
	UNII-3		-2.62	-4.27	0.00	-0.36	30.00/500kHz
HE80	UNII-2C	5690 (34RU)	7.69	5.90	0.00	9.90	11.00
	UNII-3		-3.22	-4.97	0.00	-1.00	30.00/500kHz

* Calculation of PSD: Corr'd PSD = Ant1 PSD + Ant2 PSD + Duty CF [dB]

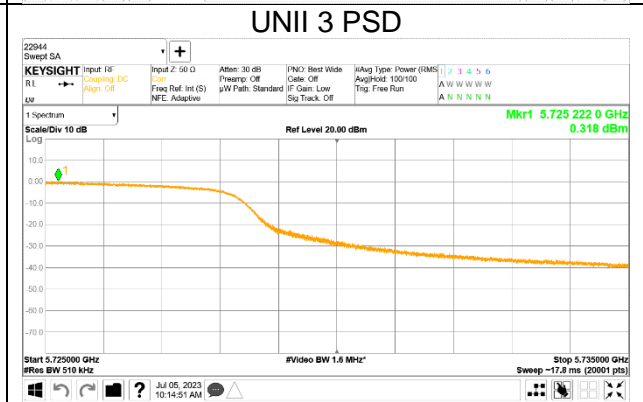
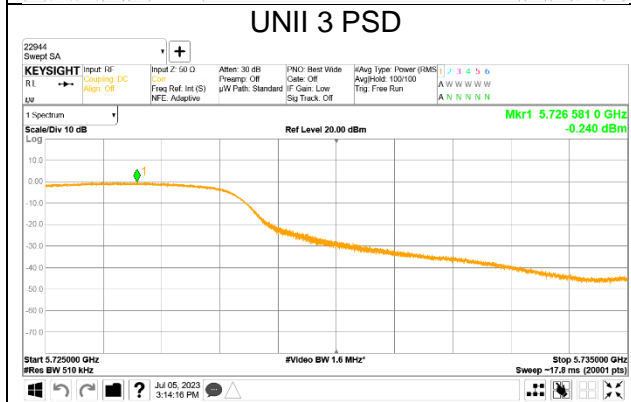
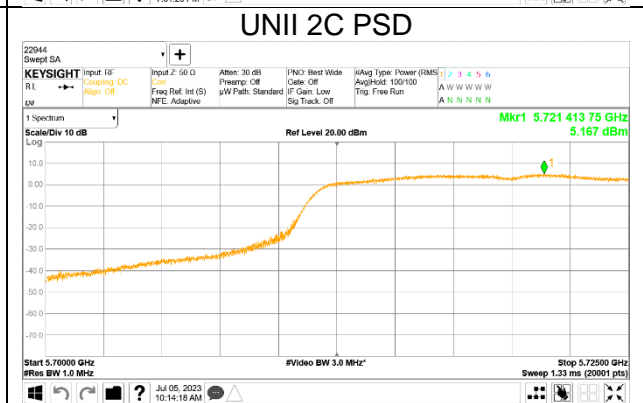
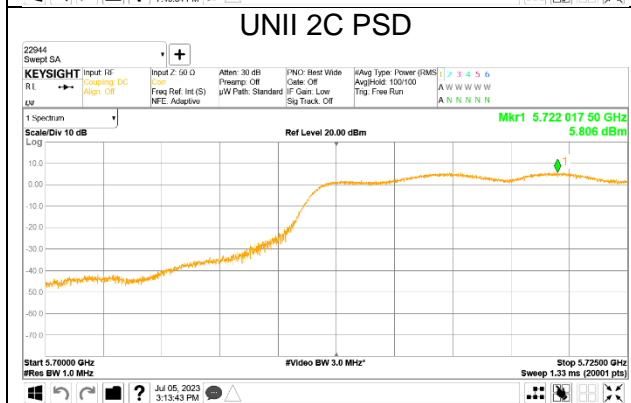
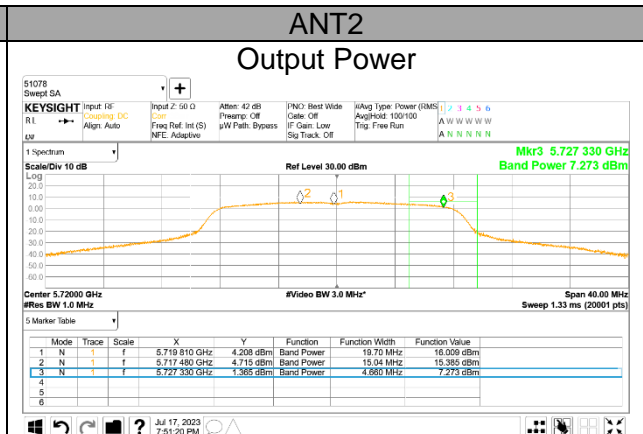
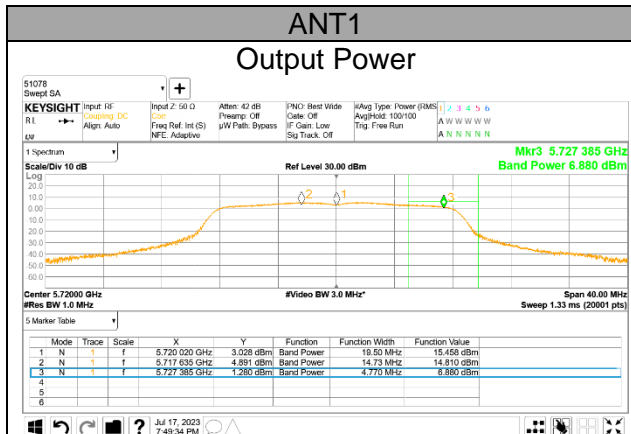
10.2.10. OUTPUT POWER AND PPSD PLOTS(WORST CASE)



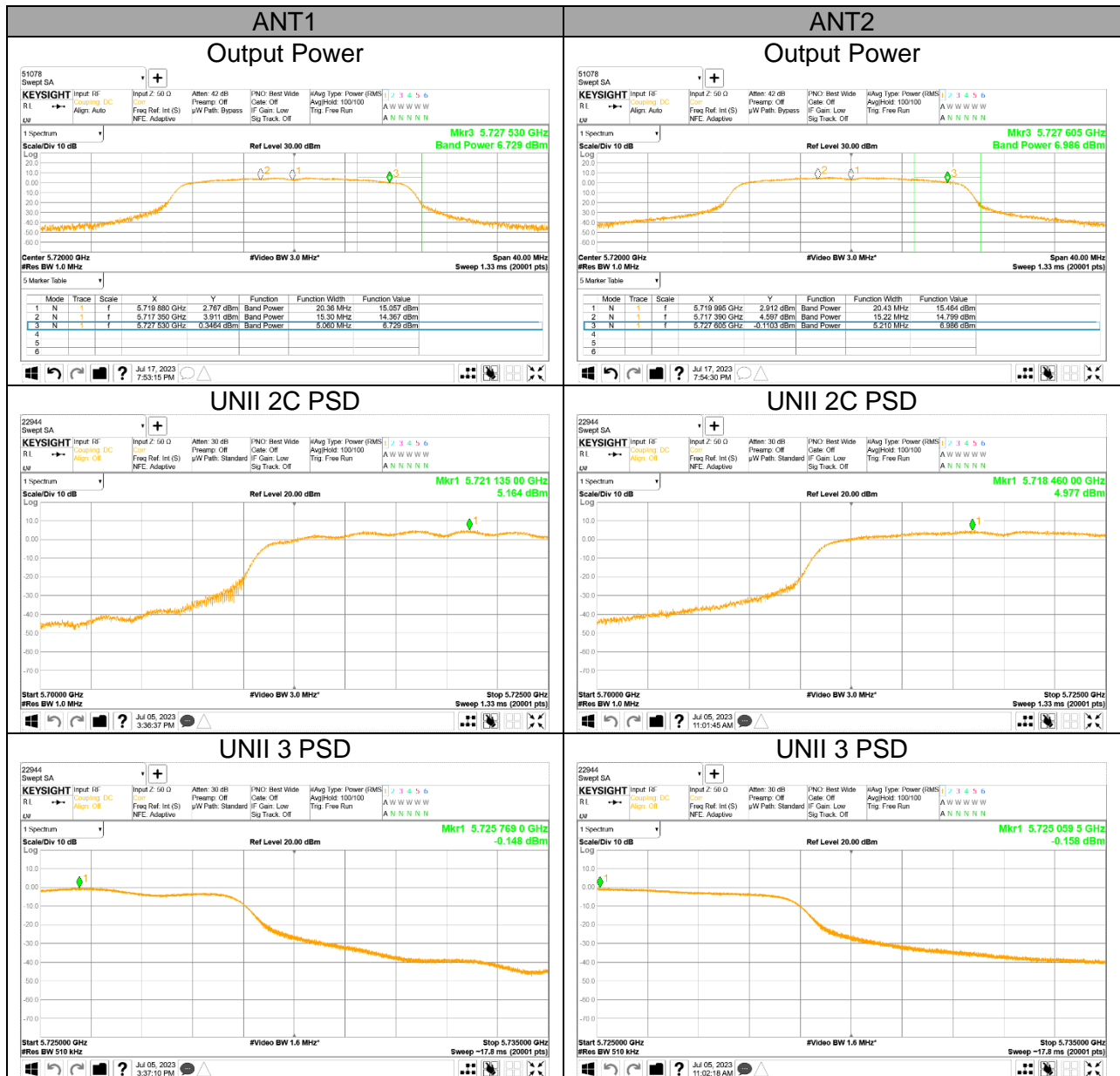




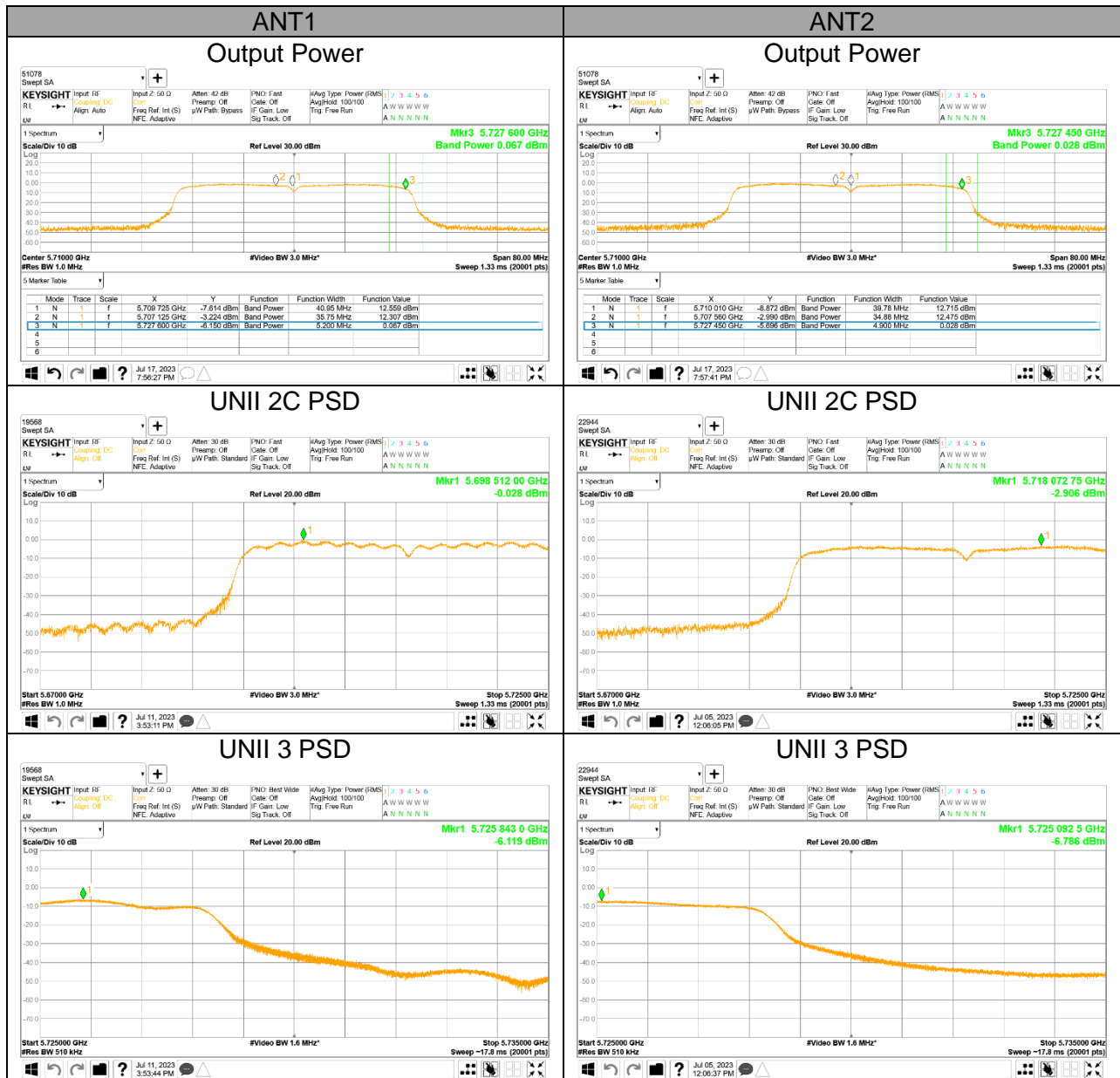
UNII Straddle Ch. IEEE 802.11a mode Output Power and PSD



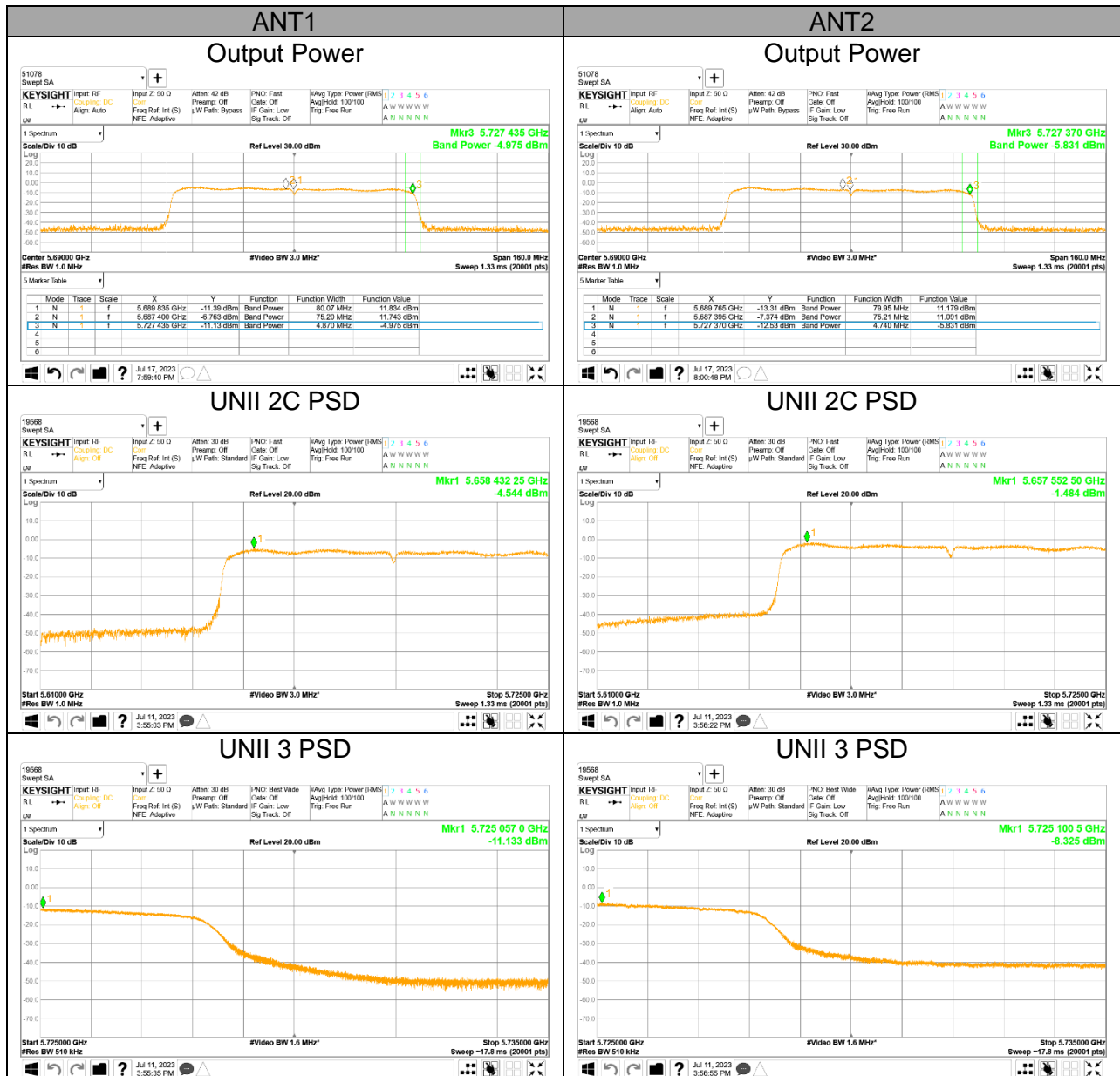
UNII Straddle Ch. IEEE 802.11n HT20 mode Output Power and PSD



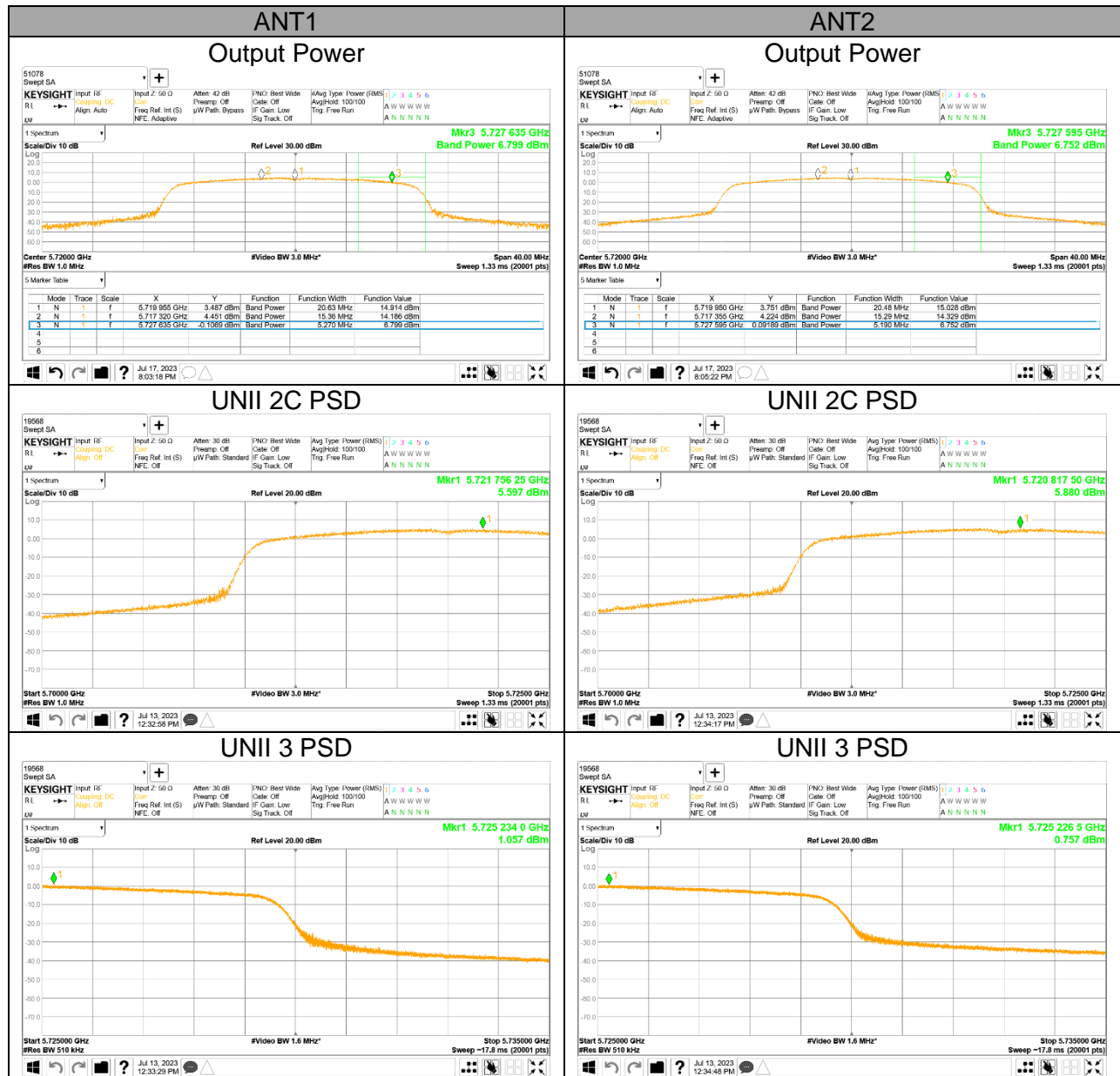
UNII Straddle Ch. IEEE 802.11n HT40 mode Output Power and PSD



UNII Straddle Ch. IEEE 802.11ac VHT80 mode Output Power and PSD



UNII Straddle Ch. IEEE 802.11ax HE20(SU) mode Output Power and PSD



UNII Straddle Ch. IEEE 802.11ax HE40(SU) mode Output Power and PSD

