

## **ELEMENT WASHINGTON DC LLC**

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# MEASUREMENT REPORT FCC PART 15.407 802.11ax/be WiFi 6E (OFDMA)

**Applicant Name:** 

Samsung Electronics Co., Ltd.

129, Samsung-ro,

Yeongtong-gu, Suwon-si Gyeonggi-do, 16677, Korea Date of Testing:

03/14/2024 - 04/25/2024

**Test Report Issue Date:** 

04/26/2024

Test Site/Location:

Element lab., Columbia, MD, USA

Test Report Serial No.: 1M2403190019-10.A3L

FCC ID: A3LNP940XMA

APPLICANT: Samsung Electronics Co., Ltd.

Application Type: Certification
Model: NP940XMA
Additional Model: NP944XMA

**EUT Type:** Portable Computing Device

Frequency Range: 5935 – 7115MHz

Modulation Type: OFDMA

**FCC Classification:** 15E 6GHz Low Power Dual Client (6CD)

FCC Rule Part(s): Part 15 Subpart E (15.407)

**Test Procedure(s):** ANSI C63.10-2013, KDB 987594 D02 v02r01

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in ANSI C63.10-2013. Test results reported herein relate only to the item(s) tested.

I attest to the accuracy of data. All measurements reported herein were performed by me or were made under my supervision and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them.

RJ Ortanez Executive Vice President





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# **MEASUREMENT REPORT**

Channel		Tx	MIMO		
Bandwidth [MHz]	UNII Band	Frequency [MHz]	Max. Power [mW]	Max. Power [dBm]	
	5	5935 - 6415	9.82	9.92	
20	6	6435 - 6515	10.95	10.39	
20	7	6535 - 6875	9.89	9.95	
	8	6895 - 7115	7.69	8.86	
	5	5965 - 6405	19.80	12.97	
40	6	6445 - 6525	20.30	13.07	
40	7	6565 - 6845	17.35	12.39	
	8	6885 - 7085	13.21	11.21	
	5	5985 - 6385	28.82	14.60	
80	6	6465	29.93	14.76	
80	7	6545 - 6865	26.88	14.29	
	8	6945 - 7025	18.95	12.78	
	5	6025 - 6345	29.45	14.69	
160	6	6505	30.92	14.90	
100	7	6665 - 6825	25.82	14.12	
	8	6985	20.51	13.12	
000	5	6105 - 6265	32.09	15.06	
	6	6425	29.63	14.72	
320	7	6585 - 6745	25.31	14.03	
	8	6905	19.61	12.93	

## **EUT Overview - Low Power Indoor Client - EIRP**

Channel		UNII Band Frequency [MHz]	МІМО	
Bandwidth [MHz]	UNII Band		Max. Power [mW]	Max. Power [dBm]
20	5	5935 - 6415	30.14	14.79
20	7	6535 - 6875	26.80	14.28
40	5	5965 - 6405	30.27	14.81
40	7	6565 - 6845	24.38	13.87
80	5	5985 - 6385	29.13	14.64
	7	6545 - 6865	26.63	14.25
160	5	6025 - 6345	29.45	14.69
	7	6665 - 6825	25.82	14.12
320	5	6105 - 6265	32.09	15.06
	7	6585 - 6745	25.07	13.99

**EUT Overview - Standard Power Client - EIRP** 

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## 1 INTRODUCTION

## 1.1 Scope

Measurement and determination of electromagnetic emissions (EMC) of radio frequency devices including intentional and\or unintentional radiators for compliance with the technical rules and regulations of the Federal Communications Commission and the Innovation, Science and Economic Development Canada.

### 1.2 Element Test Location

These measurement tests were conducted at the Element laboratory located at 7185 Oakland Mills Road, Columbia, MD 21046. The measurement facility is compliant with the test site requirements specified in ANSI C63.4-2014.

## 1.3 Test Facility / Accreditations

Measurements were performed at Element lab located in Columbia, MD 21046, U.S.A.

- Element Washington DC LLC is an ISO 17025-2017 accredited test facility under the American Association for Laboratory Accreditation (A2LA) with Certificate number 2041.01 for Specific Absorption Rate (SAR), Hearing Aid Compatibility (HAC) testing, where applicable, and Electromagnetic Compatibility (EMC) testing for FCC and Innovation, Science, and Economic Development Canada rules.
- Element Washington DC LLC TCB is a Telecommunication Certification Body (TCB) accredited to ISO\\IEC 17065-2012 by A2LA (Certificate number 2041.03) in all scopes of FCC Rules and ISED Standards (RSS).
- Element Washington DC LLC facility is a registered (2451B) test laboratory with the site description on file with ISED.
- Element Washington DC LLC is a Recognized U.S. Certification Assessment Body (CAB # US0110) for ISED Canada as designated by NIST under the U.S. and Canada Mutual Recognition Agreements (MRAs).

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## 2 PRODUCT INFORMATION

## 2.1 Equipment Description

The Equipment Under Test (EUT) is the **Samsung Electronics Co., Ltd. Portable Computing Device FCC ID: A3LNP940XMA**. The test data contained in this report pertains only to the emissions due to the EUT's UNII transmitter while operating in the 6GHz band.

Test Device Serial No.: 0260A, 0019H, 0270X, 0015V

## 2.2 Device Capabilities

This device contains the following capabilities:

802.11b/g/n/ax/be WLAN, 802.11a/n/ac/ax/be UNII (5GHz and 6GHz), Bluetooth (1x, EDR, LE)

Band 5
--------

Ch.	Frequency (MHz)
2	5935
:	:
45	6175
:	:
93	6415

## Band 6

Ch.	Frequency (MHz)
97	6435
:	:
105	6475
:	•
113	6515

### Band 7

Ch.	Frequency (MHz)
117	6535
• •	•
149	6695
• •	•
185	6875

## Band 8

Ch.	Frequency (MHz)
189	6895
:	:
209	6995
:	:
233	7115

Table 2-1. 802.11ax/be (20MHz) Frequency / Channel Operations

### Band 5

Ch.	Frequency (MHz)
3	5965
:	
43	6165
:	:
91	6405

### Band 6

Ch.	Frequency (MHz)
99	6445
:	:
107	6485
:	:
115	6525

## Band 7

Ch.	Frequency (MHz)
123	6565
:	
155	6725
:	:
179	6845

### Band 8

Ch.	Frequency (MHz)
187	6885
•	:
211	7005
:	:
227	7085

Table 2-2. 802.11 ax/be (40MHz BW) Frequency / Channel Operations

## Band 5

Ch.	Frequency (MHz)
7	5985
	••
39	6145
:	:
87	6385

## Band 6

Ch.	Frequency (MHz)
103	6465

### Band 7

Ch.	Frequency (MHz)
119	6545
	:
151	6705
:	:
183	6865

## Band 8

Frequency (MHz)
6945
:
7025

Table 2-3. 802.11 ax/be (80MHz BW) Frequency / Channel Operations

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### Band 5

Ch.	Frequency (MHz)
15	6025
:	:
47	6185
:	:
79	6345

## Band 6

Ch.	Frequency (MHz)
111	6505

## Band 7

Frequency (MHz)
6665
:
6825

## Band 8

Ch.	Frequency (MHz)
207	6985

## Table 2-4. 802.11ax/be (160MHz BW) Frequency / Channel Operations

R۶	an	d	5

Ch.	Frequency (MHz)
31	6105
63	6265

## Band 6

Ch.	Frequency (MHz)
95	6425

## Band 7

Ch.	Frequency (MHz)
127	6585
159	6745

Band 8

Ch.	Frequency (MHz)
191	6905

Table 2-5. 802.11be (320MHz BW) Frequency / Channel Operations

## Notes:

1. 6GHz NII operation is possible in 20MHz, 40MHz, 80MHz, 160MHz, and 320MHz channel bandwidths. The maximum achievable duty cycles for all modes were determined based on measurements performed on a spectrum analyzer in zero-span mode with RBW = 8MHz, VBW = 50MHz, and detector = peak per the guidance of Section B)2)b) of ANSI C63.10-2013. The RBW and VBW were both greater than 50/T, where T is the minimum transmission duration, and the number of sweep points across T was greater than 100. The duty cycles are as follows:

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Band	Bandwidth	Tone Type	Tone Size	Duty Cycle [%]	
			26T	99.65	
		DII	52T	99.65	
	201411-	RU	106T	99.35	
	20MHz		242T	98.50	
		MDII	52+26T	99.51	
		MRU	106+26T	99.08	
			26T	99.67	
			52T	99.67	
	40MHz	RU	106T	99.35	
			242T	98.66	
			484T	97.39	
			26T	99.65	
			52T	99.65	
		RU	106T	99.32	
	80MHz	INO	242T	98.58	
			484T	97.41	
			996T	97.38	
		MRU	484+242T	98.05	
6GHz			26T	99.63	
			52T	99.65	
			106T	99.35	
	160MHz	RU	242T	98.58	
	TOOIVITIE		484T	97.41	
			996T	97.38	
			2x996T	99.67	
		MRU	966+484T	98.02	
			26T	99.65	
			52T	99.65	
			106T	99.35	
		RU	242T	98.58	
		KU KU	484T	98.15	
	320MHz		996T	97.37	
			2x996T	97.36	
			4x996T	97.98	
			2x996+484T	97.14	
		MRU	3x996T	96.64	
			3x996+484T	96.23	

**Table 2-6. Measured Duty Cycles** 

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2. The device employs MIMO technology. Below are the possible configurations.

WiFi Configurations		SIS	SO	CI	DD	SDM		
		ANT1	ANT2	ANT1	ANT2	ANT1	ANT2	
	11a	×	*	✓	✓	*	*	
6 GHz	11ax	*	*	✓	✓	✓	✓	
	11be	×	×	✓	✓	✓	✓	

Table 2-7. Frequency / Channel Operations

✓ = Support; × = NOT Support

SISO = Single Input Single Output

**SDM** = Spatial Diversity Multiplexing – MIMO function

**CDD** = Cyclic Delay Diversity - 2Tx Function

3. The device supports the following data rates (shown in Mbps):

MCS	Spatial		OFDMA (802.11ax)																			
Index	Stream	26T 52T				106T 242T				484T			996T				2x996T					
HE	1	0.8μs GI	1.6µs GI	3.2µs Gl	0.8µs GI	1.6μs GI	3.2μs GI	0.8μs GI	1.6µs GI	3.2µs GI	0.8µs GI	1.6µs GI	3.2µs GI	0.8µs GI	1.6μs GI	3.2µs GI	0.8μs GI	1.6µs GI	3.2µs GI	0.8μs GI	1.6μs GI	3.2µs GI
0	1	0.9	0.8	0.8	1.8	1.7	1.5	3.8	3.5	3.2	8.6	8.1	7.3	17.2	16.3	14.6	36	34	30.6	72.1	68.1	61.3
1	1	1.8	1.7	1.5	3.5	3.3	3	7.5	7.1	6.4	17.2	16.3	14.6	34.4	32.5	29.3	72.1	68.1	61.3	144.1	136.1	122.5
2	1	2.6	2.5	2.3	5.3	5	4.5	11.3	10.6	9.6	25.8	24.4	21.9	51.6	48.8	43.9	108.1	102.1	91.9	216.2	204.2	183.8
3	1	3.5	3.3	3	7.1	6.7	6	15	14.2	12.8	34.4	32.5	29.3	68.8	65	58.5	144.1	136.1	122.5	288.2	272.2	245
4	1	5.3	5	4.5	10.6	10	9	22.5	21.3	19.1	51.6	48.8	43.9	103.2	97.5	87.8	216.2	204.2	183.8	432.4	408.3	367.5
5	1	7.1	6.7	6	14.1	13.3	12	30	28.3	25.5	68.8	65	58.5	137.6	130	117	288.2	272.2	245	576.5	544.4	490
6	1	7.9	7.5	6.8	15.9	15	13.5	33.8	31.9	28.7	77.4	73.1	65.8	154.9	146.3	131.6	324.3	306.3	275.6	648.5	612.5	551.3
7	1	8.8	8.3	7.5	17.6	16.7	15	37.5	35.4	31.9	86	81.3	73.1	172.1	162.5	146.3	360.3	340.3	306.3	720.6	680.6	612.5
8	1	10.6	10	9	21.2	20	18	45	42.5	38.3	103.2	97.5	87.8	206.5	195	175.5	432.4	408.3	367.5	864.7	816.7	735
9	1	11.8	11.1	10	23.5	22.2	20	50	47.2	42.5	114.7	108.3	97.5	229.4	216.7	195	480.4	453.7	408.3	960.8	907.4	816.7
10	1	13.2	12.5	11.3	26.5	25	22.5	56.3	53.1	47.8	129	121.9	109.7	258.1	243.8	219.4	540.4	510.4	459.4	1080.9	1020.8	918.8
11	1	14.7	13.9	12.5	29.4	27.8	25	62.5	59	53.1	143.4	135.4	121.9	286.8	270.8	243.8	600.5	567.1	510.4	1201	1134.3	1020.8
0	2	1.8	1.7	1.5	3.5	3.3	3	7.5	7.1	6.4	17.2	16.3	14.6	34.4	32.5	29.3	72.1	68.1	61.3	144.1	136.1	122.5
1	2	3.5	3.3	3	7.1	6.7	6	15	14.2	12.8	34.4	32.5	29.3	68.8	65	58.5	144.1	136.1	122.5	288.2	272.2	245
2	2	5.3	5	4.5	10.6	10	9	22.5	21.3	19.1	51.6	48.8	43.9	103.2	97.5	87.8	216.2	204.2	183.8	432.4	408.3	367.5
3	2	7.1	6.7	6	14.1	13.3	12	30	28.3	25.5	68.8	65	58.5	137.6	130	117	288.2	272.2	245	576.5	544.4	490
4	2	10.6	10	9	21.2	20	18	45	42.5	38.3	103.2	97.5	87.8	206.5	195	175.5	432.4	408.3	367.5	864.7	816.7	735
5	2	14.1	13.3	12	28.2	26.7	24	60	56.7	51	137.6	130	117	275.3	260	234	576.5	544.4	490	1152.9	1088.9	980
6	2	15.9	15	13.5	31.8	30	27	67.5	63.8	57.4	154.9	146.3	131.6	309.7	292.5	263.3	648.5	612.5	551.3	1297.1	1225	1102.5
7	2	17.6	16.7	15	35.3	33.3	30	75	70.8	63.8	172.1	162.5	146.3	344.1	325	292.5	720.6	680.6	612.5	1441.2	1361.1	1225
8	2	21.2	20	18	42.4	40	36	90	85	76.5	206.5	195	175.5	412.9	390	351	864.7	816.7	735	1729.4	1633.3	1470
9	2	23.5	22.2	20	47.1	44.4	40	100	94.4	85	229.4	216.7	195	458.8	433.3	390	960.8	907.4	816.7	1921.6	1814.8	1633.3
10	2	26.5	25	22.5	52.9	50	45	112.5	106.3	95.6	258.1	243.8	219.4	516.2	487.5	438.8	1080.9	1020.8	918.8	2161.8	2041.7	1837.5
11	2	29.4	27.8	25	58.8	55.6	50	125	118.1	106.3	286.8	270.8	243.8	573.5	541.7	487.5	1201	1134.3	1020.8	2402	2268.5	2041.7

**Table 2-8. Supported Data Rates** 

4. The device supports either Standard Power (SP) or Low Power Indoor (LPI) operation in the following UNII bands:

UNII Band	Standard Power (SP)	Low Power Indoor (LPI)
UNII 5	✓	✓
UNII 6	×	✓
UNII 7	✓	✓
UNII 8	×	✓

**Table 2-9. Power Operation** 

✓= Support; × = NOT Support

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## **Antenna Description**

The following antenna gains are used in this device per the "Antenna Gain" document provided by the client. This document is also included in the filing as a public exhibit.

	Ant1 Peak Gain [dBi]	Ant2 Peak Gain [dBi]	Directional Gain [dBi]
5925 – 6425 MHz	0.55	-0.74	3.17
6425 – 6525 MHz	0.02	0.36	3.19
6525 – 6875 MHz	-0.56	-0.44	2.51
6875 – 7125 MHz	-1.65	-1.62	1.38

Table 2-10. Antenna Peak Gain

	Ant1 Peak Gain [dBi]	Ant2 Peak Gain [dBi]	Directional Gain [dBi]
5925 – 6425 MHz	-0.01	-1.58	2.25
6425 – 6525 MHz	0.00	-1.75	2.18
6525 – 6875 MHz	-1.33	-0.86	1.92
6875 – 7125 MHz	-2.26	-3.96	-0.06

Table 2-11. Antenna Peak Gain (Lowest gain)

#### 2.4 **Test Configuration**

ANSI C63.10-2013 was used to reference the appropriate EUT setup for radiated spurious emissions testing and AC line conducted testing. See Sections 3.2 for AC line conducted emissions test setups, 3.3 for radiated emissions test setups, and 7.2, 7.3, 7.4, 7.5 and 7.6 for antenna port conducted emissions test setups.

This device supports operation under control of either a low-power indoor access point or standard power access point for frequency ranges 5925 - 6425 MHz and 6525 - 6875 MHz. Power for the EUT may vary depending on whether the device is connected to a standard access point (SP Operation) or a low-power indoor access point (LPI Operation). In cases where these targets differ two data sets have been provided to demonstrate compliance. The worst-case emissions data is shown in this report.

#### 2.5 Software and Firmware

ct.info@element.com.

The test was conducted with firmware version REV 1.0 and software version Windows 11 installed on the EUT.

## **EMI Suppression Device(s) / Modifications**

No EMI suppression device(s) were added and/or no modifications were made during testing.

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## 3 DESCRIPTION OF TESTS

### 3.1 Evaluation Procedure

The measurement procedures described in the American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices (ANSI C63.10-2013) and the guidance provided in KDB 987594 D02 v01r01 were used in the measurement of the EUT.

Deviation from measurement procedure......None

## 3.2 AC Line Conducted Emissions

The line-conducted facility is located inside a 10'x16'x9' shielded enclosure. The shielded enclosure is manufactured by ETS Lindgren RF Enclosures. The shielding effectiveness of the shielded room is in accordance with MIL-Std-285 or NSA 65-5. A 1m x 1.5m wooden table 80cm high is placed 40cm away from the vertical wall and 80cm away from the sidewall of the shielded room. Two 10kHz-30MHz,  $50\Omega/50\mu$ H Line-Impedance Stabilization Networks (LISNs) are bonded to the shielded room floor. Power to the LISNs is filtered by external high-current high-insertion loss power line filters. The external power line filter is an ETS Lindgren Model LPRX-4X30 (100dB Attenuation, 14kHz-18GHz) and the two EMI/RFI filters are ETS Lindgren Model LRW-2030-S1 (100dB Minimum Insertion Loss, 14kHz – 10GHz). These filters attenuate ambient signal noise from entering the measurement lines. These filters are also bonded to the shielded enclosure.

The EUT is powered from one LISN and the support equipment is powered from the second LISN. If the EUT is a DC-powered device, power will be derived from the source power supply it normally will be powered from and this supply line(s) will be connected to the second LISN. All interconnecting cables more than 1 meter were shortened to a 1-meter length by non-inductive bundling (serpentine fashion) and draped over the back edge of the test table. All cables were at least 40cm above the horizontal reference groundplane. Power cables for support equipment were routed down to the second LISN while ensuring that that cables were not draped over the second LISN.

Sufficient time for the EUT, support equipment, and test equipment was allowed in order for them to warm up to their normal operating condition. The RF output of the LISN was connected to the spectrum analyzer and exploratory measurements were made to determine the frequencies producing the maximum emission from the EUT. The spectrum was scanned from 150kHz to 30MHz with a spectrum analyzer. The detector function was set to peak mode for exploratory measurements while the bandwidth of the analyzer was set to 10kHz. The EUT, support equipment, and interconnecting cables were arranged and manipulated to maximize each emission. Once the worst-case emissions have been identified, the one EUT cable configuration/arrangement and mode of operation that produced these emissions is used for final measurements on the same test site. The analyzer is set to CISPR quasi-peak and average detectors with a 9kHz resolution bandwidth for final measurements.

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## **Radiated Emissions**

The radiated test facilities consisted of an indoor 3-meter semi-anechoic chamber used for final measurements and exploratory measurements, when necessary. The measurement area is contained within the semi-anechoic chamber which is shielded from any ambient interference. The test site inside the chamber is a 6m x 5.2m elliptical, obstruction-free area in accordance with Figure 5.7 of Clause 5 in ANSI C63.4-2014. Absorbers are arranged on the floor between the turn table and the antenna mast in such a way so as to maximize the reduction of reflections for measurements above 1GHz. An 80cm tall test table made of Styrodur is placed on top of the turn table. For measurements above 1GHz, an additional Styrodur pedestal is placed on top of the test table to bring the total table height to 1.5m.

For all measurements, the spectrum was scanned through all EUT azimuths and from 1 to 4 meter receive antenna height using a broadband antenna from 30MHz up to the upper frequency shown in 15.33 depending on the highest frequency generated or used in the device or on which the device operates or tunes. For frequencies above 1GHz, linearly polarized double ridge horn antennas were used. For frequencies below 30MHz, a calibrated loop antenna was used. When exploratory measurements were necessary, they were performed at 1 meter test distance inside the semi-anechoic chamber using broadband antennas, broadband amplifiers, and spectrum analyzers to determine the frequencies and modes producing the maximum emissions. Sufficient time for the EUT, support equipment, and test equipment was allowed in order for them to warm up to their normal operating condition. The test set-up was placed on top of the 1 x 1.5 meter table. The EUT, support equipment, and interconnecting cables were arranged and manipulated to maximize each emission. Appropriate precaution was taken to ensure that all emissions from the EUT were maximized and investigated. The system configuration, mode of operation, turntable azimuth, and receive antenna height was noted for each frequency found.

Final measurements were made in the semi-anechoic chamber using calibrated, linearly polarized broadband and horn antennas. The test setup was configured to the setup that produced the worst case emissions. The spectrum analyzer was set to investigate all frequencies required for testing to compare the highest radiated disturbances with respect to the specified limits. The turntable containing the EUT was rotated through 360 degrees and the height of the receive antenna was varied 1 to 4 meters and stopped at the azimuth and height producing the maximum emission. Each emission was maximized by changing the orientation of the EUT through three orthogonal planes and changing the polarity of the receive antenna, whichever produced the worst-case emissions.

All radiated measurements are performed in a chamber that meets the site requirements per ANSI C63.4-2014. Additionally, radiated emissions below 30MHz are also validated on an Open Area Test Site to assert correlation with the chamber measurements per the requirements of KDB 414788 D01 v01r01.

#### **Environmental Conditions** 3.4

The temperature is controlled within range of 15°C to 35°C. The relative humidity is controlled within range of 10% to 75%. The atmospheric pressure is monitored within the range 86-106kPa (860-1060mbar).

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## **ANTENNA REQUIREMENTS**

## Excerpt from §15.203 of the FCC Rules/Regulations:

"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 antennas of the EUT are **permanently attached.**
- There are no provisions for connection to an external antenna.

### **Conclusion:**

The EUT complies with the requirement of §15.203.

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## **MEASUREMENT UNCERTAINTY**

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI C63.10-2013. All measurement uncertainty values are shown with a coverage factor of k = 2 to indicate a 95% level of confidence. The measurement uncertainty shown below meets or exceeds the  $U_{CISPR}$  measurement uncertainty values specified in CISPR 16-4-2 and, thus, can be compared directly to specified limits to determine compliance.

Contribution	Expanded Uncertainty (±dB)
Contention Based Protocol Conducted Measurements	0.86
Conducted Bench Top Measurements	1.13
Line Conducted Disturbance	3.09
Radiated Disturbance (<1GHz)	4.98
Radiated Disturbance (>1GHz)	5.07
Radiated Disturbance (>18GHz)	5.09

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# 6 TEST EQUIPMENT CALIBRATION DATA

Test Equipment Calibration is traceable to the National Institute of Standards and Technology (NIST). Measurements antennas used during testing were calibrated in accordance to the requirements of ANSI C63.5-2017.

Manufacturer	Model	Description	Cal Date	Cal Interval	Cal Due	Serial Number
N/A	WL25-1	Conducted Cable Set (25GHz)	11/15/2023	Annual	11/15/2024	WL25-1
N/A	WL25-2	WLAN Cable Set (25GHz)	11/15/2023	Annual	11/15/2024	WL25-2
N/A	WL40-1	WLAN Cable Set (40GHz)	11/15/2023	Annual	11/15/2024	WL40-1
N/A	ETS-001	EMC Cable and Switch System	11/15/2023	Annual	11/15/2024	ETS-001
N/A	ETS-002	EMC Cable and Switch System	11/15/2023	Annual	11/15/2024	ETS-002
N/A	AP1-002	EMC Cable and Switch System	11/15/2023	Annual	11/15/2024	AP1-002
N/A	AP2-001	EMC Cable and Switch System	11/15/2023	Annual	11/15/2024	AP2-001
N/A	AP2-002	EMC Cable and Switch System	11/15/2023	Annual	11/15/2024	AP2-002
Anritsu	MA2411B	Pulse Power Sensor	11/8/2023	Annual	11/8/2024	1027293
Anritsu	MA2411B	Pulse Power Sensor	6/14/2023	Annual	6/14/2024	1911105
Keysight Technologies	N9038A	MXE EMI Receiver	8/30/2023	Annual	8/30/2024	MY51210133
Keysight Technologies	N9030A	PXA Signal Analyzer	2/29/2024	Annual	3/1/2025	MY55410501
Keysight Technologies	N9020A	MXA Signal Analyzer	4/11/2024	Annual	4/11/2025	MY54500644
Pasternack	NMLC-2	Line Conducted Emissions Cable (NM)	11/15/2023	Annual	11/15/2024	NMLC-2
Rohde & Schwarz	ESU26	EMI Test Receiver (26.5GHz)	9/25/2023	Annual	9/25/2024	100342
Rohde & Schwarz	ESU40	EMI Test Receiver (40GHz)	9/11/2023	Annual	9/11/2024	100348
Rohde & Schwarz	FSW67	Signal / Spectrum Analyzer	2/15/2024	Annual	2/15/2025	103200
Rohde & Schwarz	SFUNIT-Rx	Shielded Filter Unit	3/15/2023	Biennial	3/15/2025	102136
Rohde & Schwarz	SFUNIT-Rx	Shielded Filter Unit	3/15/2023	Biennial	3/15/2025	102132
Rohde & Schwarz	SFUNIT-Rx	Shielded Filter Unit	1/11/2024	Annual	1/11/2025	102151
Sunol Sciences	DRH-118	Horn (Small)	2/21/2024	Biennial	2/21/2026	A050307
Sunol Sciences	JB5	Bi-Log Antenna (30M-5GHz)	8/30/2022	Biennial	8/30/2024	A051107

Table 6-1. Annual Test Equipment Calibration Schedule

## Note:

For equipment listed above that has a calibration date or calibration due date that falls within the test date range, care was taken to ensure that this equipment was used after the calibration date and before the calibration due date.

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# TEST RESULTS

7.1 Summary

Company Name: Samsung Electronics Co., Ltd.

A3LNP940XMA FCC ID:

15E 6GHz Low Power Dual Client (6CD) FCC Classification:

FCC Part Section(s)	Test Description	Test Limit	Test Condition	Test Result	Reference
2.1046, 15.407(a)(12)	Maximum Conducted Output Power	N/A		PASS	Section 7.3
15.407(a)(8)	Maximum Radiated Output Power (LPI)	< 24dBm over the frequency band of operation		PASS	Section 7.3
15.407(a)(7)	Maximum Radiated Output Power (SP)	< 30dBm over the frequency band of operation		PASS	Section 7.3
2.1049, 15.407(a)(11)	Occupied Bandwidth/ 26dB Bandwidth	99% of the occupied bandwidth of any channel must be contained within each of its respective U-NII sub bands. The maximum transmitter channel bandwidth for U-NII devices in the 5.925-7.125 GHz band is 320 megahertz.	its ds. r NII		Section 7.2
15.407(a)(8)	Maximum Power Spectral Density (LPI)	< -1dBm/MHz e.i.r.p.	CONDUCTED	PASS	Section 7.4
15.407(a)(7)	Maximum Power Spectral Density (SP)	< 17dBm/MHz e.i.r.p.		PASS	Section 7.4
15.407(a)(7)	Power Reduction Verification for standard client device	EUT must limit its power to no more than 6 dB below its associated standard power access point's authorized transmit power		PASS	Attestation
15.407(b)(7)	In-Band Emissions	EUT must meet the limits detailed in RSS-248 [4.6.2]		PASS	Section 7.5
15.407(d)(6)	Contention Based Protocol	EUT must detect AWGN signal with 90% (or better) certainty		PASS	Section 7.6
15.407(b)(6)	Undesirable Emissions	< -27dBm/MHz e.i.r.p. outside of the 5.925 – 7.125GHz band		PASS	Section 7.7
15.205, 15.209	General Field Strength Limits (Restricted Bands and Radiated Emission Limits)	Emissions shall comply with RSS-Gen (8.9) limits	RADIATED	PASS	Section 7.7
15.407(b)(9)	AC Conducted Emissions (150kHz – 30MHz)	< RSS-Gen [8.8] limits	LINE CONDUCTED	PASS	See UNII 6E OFDM Report

Table 7-1. Summary of Test Results

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### Notes:

- 1) All channels, modes, and modulations/data rates were investigated among all UNII bands. The test results shown in the following sections represent the worst case emissions.
- 2) The analyzer plots shown in this section were all taken with a correction table loaded into the analyzer. The correction table was used to account for the losses of the cables and attenuators used as part of the system to connect the EUT to the analyzer at all frequencies of interest.
- 3) All antenna port conducted emissions testing was performed on a test bench with the antenna port of the EUT connected to the spectrum analyzer through calibrated cables and attenuators.
- 4) For conducted spurious emissions, automated test software was used to measure emissions and capture the corresponding plots necessary to show compliance. The measurement software utilized is Element "UNII Automation," Version 4.7.
- 5) For radiated band edge, automated test software was used to measure emissions and capture the corresponding plots necessary to show compliance. The measurement software utilized is Element "Chamber Automation," Version 1.3.1.
- 6) Per 15.407(a)(7), a device operating under the control of a standard power access point in 5.925-6.425 GHz and 6.525-6.875 GHz bands must not have the maximum power spectral density exceed 17 dBm/MHz e.i.r.p., must limit the maximum e.i.r.p. over the frequency band of operation not exceed 30 dBm, and must limit its power to no more than 6 dB below its associated standard power access point's authorized transmit power. Compliance to this clause is addressed via submission of an attestation following Appendix B of KDB 987594 D01 v01r03.
- 7) 802.11be OFDMA testing was performed for all signal tone configurations as specified by the 802.11be standard. Worst case results are determined and reported per the guidance provided at the October 2018 TCB Workshop.

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### 7.2 26dB Bandwidth Measurement

### **Test Overview and Limit**

The bandwidth at 26dB down from the highest in-band spectral density is measured with a spectrum analyzer connected to the antenna terminal while the EUT is operating at its maximum duty cycle, at its maximum power control level, as defined in ANSI C63.10-2013, and at the appropriate frequencies. The spectrum analyzer's bandwidth measurement function is configured to measure the 26dB bandwidth.

## **Test Procedure Used**

ANSI C63.10-2013 - Section 12.4

## **Test Settings**

- 1. The signal analyzers' automatic bandwidth measurement capability was used to perform the 26dB bandwidth measurement. The "X" dB bandwidth parameter was set to X = 26. The automatic bandwidth measurement function also has the capability of simultaneously measuring the 99% occupied bandwidth. The bandwidth measurement was not influenced by any intermediate power nulls in the fundamental emission.
- 2. RBW = approximately 1% of the emission bandwidth
- 3.  $VBW > 3 \times RBW$
- 4. Detector = Peak
- 5. Trace mode = max hold

### **Test Setup**

The EUT and measurement equipment were set up as shown in the diagram below.



Figure 7-1. Test Instrument & Measurement Setup

### **Test Notes**

- 1) In this section, the bandwidth data tables (Tables 7-2 and 7-3) include mainly the 26dB bandwidth measurements. For partial tone operation, all values in Table 7-2 are 26dB bandwidth measurements. For full-tone operation in Table 7-3, in case of 320MHz operation, an occupied bandwidth measurement was included in the table to demonstrate compliance. Thus, all measurements in the tables are 26dB bandwidth measurements except for the 320MHz bandwidth cases for full-tone operation which are occupied bandwidth measurements.
- 2) For 320MHz operation, the EUT is limited to a maximum bandwidth of 160MHz (2x9996T).

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				Antenna-1	Antenna-2
	Frequency	Channel	802.11	26dB Bandwidth	26dB Bandwidth
	[MHz]	Chainel	MODE	[MHz]	[MHz]
	5935	2	be (20MHz)	19.95	19.92
	6175	45	be (20MHz)	19.76	20.00
	6415	93	be (20MHz)	19.75	20.10
	5965	3	be (40MHz)	23.38	26.17
	6165	43	be (40MHz)	26.03	25.07
	6405	91	be (40MHz)	25.51	24.90
<u>10</u>	5985	7	be (40MHz)	35.07	36.42
Band 5	6145	39	be (80MHz)	33.10	32.03
άč		87		35.76	
	6385		be (80MHz)		37.01
	6025	15	be (160MHz)	40.32	37.97
	6185	47	be (160MHz)	37.22	33.15
	6345	79	be (160MHz)	38.18	37.31
	6105	31	be (320MHz)	44.67	28.84
	6265	63	be (320MHz)	41.64	33.67
	6435	97	be (20MHz)	20.13	20.02
	6475	105	be (20MHz)	19.85	19.97
9	6515	113	be (20MHz)	20.01	19.91
Band 6	6445	99	be (40MHz)	24.87	25.40
B	6485	107	be (40MHz)	25.16	24.44
	6525	115	be (40MHz)	25.37	25.75
	6465	103	be (80MHz)	34.13	37.18
	6505	111	be (160MHz)	35.95	40.56
Band 5/6/7	6425	95	be (320MHz)	40.97	44.38
	6695	117	be (20MHz)	20.15	19.89
	6695	149	be (20MHz)	19.82	20.08
	6875	185	be (20MHz)	19.85	19.95
	6565	123	be (40MHz)	25.57	25.40
Band 7	6685	155	be (40MHz)	25.46	25.18
gan	6845	179	be (40MHz)	24.21	24.78
	6545	119	be (80MHz)	34.34	32.46
	6705	151	be (80MHz)	35.05	35.18
	6865	183	be (80MHz)	31.43	37.08
	6665	143	be (160MHz)	37.77	34.43
	6825	175	be (160MHz)	35.45	32.62
Band 6/7	6585	127	be (320MHz)	38.43	35.45
Band 7/8	6745	159	be (320MHz)	36.54	36.05
	6895	189	be (20MHz)	19.99	20.01
	6995	209	be (20MHz)	19.94	19.83
	7115	233	be (20MHz)	19.76	19.99
∞ 5	6885	187	be (40MHz)	25.40	24.88
Band	6965	211	be (40MHz)	25.17	25.64
- ш	7085	227	be (40MHz)	26.08	26.57
	6945	199	be (80MHz)	34.18	34.58
	7025	215	be (80MHz)	37.01	34.73
	6985	207	be (160MHz)	40.50	35.51
Band 7/8	6905	191	be (320MHz)	43.39	37.30
Tal	-I- 7 0 O	لمماصيمم	Randwidth M		OCT

Table 7-2. Occupied Bandwidth Measurements - 26T

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	Frequency [MHz]	Channel	802.11 MODE	Antenna-1 26dB Bandwidth [MHz]	Antenna-2 6dB Bandwidth [MHz]	Antenna-1 Occupied Bandwidth [MHz]	Antenna-2 Occupied Bandwidth [MHz]
	5935	2	be (20MHz)	21.37	21.28	-	-
	6175	45	be (20MHz)	21.37	21.15	-	-
	6415	93	be (20MHz)	21.47	21.23	-	-
	5965	3	be (40MHz)	42.37	42.32	-	-
	6165	43	be (40MHz)	42.21	42.05	-	-
	6405	91	be (40MHz)	43.41	42.07	-	-
	5985	7	be (80MHz)	84.98	86.19	-	-
d 5	6145	39	be (80MHz)	87.02	90.10	-	-
Band 5	6385	87	be (80MHz)	92.19	89.62	-	-
	6025	15	be (160MHz)	172.26	173.08	-	-
	6185	47	be (160MHz)	175.94	173.36	-	-
	6345	79	be (160MHz)	173.73	173.75	-	-
	6105	31	be (320MHz)(L)*	-	-	234.73	229.16
	6105	31	be (320MHz)(U)*	-	-	210.14	230.30
	6265	63	be (320MHz)(L)*	-	-	235.32	233.83
	6265	63	be (320MHz)(U)*	-	-	211.45	219.74
	6435	97	be (20MHz)	21.23	21.08	-	-
	6475	105	be (20MHz)	21.34	21.63	-	-
	6515	113	be (20MHz)	21.39	21.37	-	-
9 pı	6445	99	be (40MHz)	43.09	42.14	-	-
Band	6485	107	be (40MHz)	43.01	42.06	-	-
	6525	115	be (40MHz)	42.04	42.08	-	-
	6465	103	be (80MHz)	86.04	88.99	-	-
	6505	111	be (160MHz)	172.93	175.15	-	-
Band 5/6/7	6425	95	be (320MHz)(L)*	-	-	232.11	226.92
<i>Dana</i> 3, 3, 7	6425	95	be (320MHz)(U)*	-	-	213.30	212.74
	6695	117	be (20MHz)	21.39	21.46	-	-
	6695	149	be (20MHz)	21.20	21.03	-	-
	6875	185	be (20MHz)	21.67	21.40	-	-
	6565	123	be (40MHz)	42.81	43.07	-	-
47	6685	155	be (40MHz)	42.30	41.96	-	-
Band 7	6845	179	be (40MHz)	42.75	42.13	-	-
ш.	6545	119	be (80MHz)	91.62	89.12	-	-
	6705	151	be (80MHz)	86.61	85.56	-	-
	6865	183	be (80MHz)	92.21	84.81	-	-
	6665	143	be (160MHz)	171.56	173.50	-	-
	6825	175	be (160MHz)	174.25	171.80	-	-
- 10/-	6585	127	be (320MHz)(L)*	-	=	228.04	228.30
Band 6/7	6585	127	be (320MHz)(U)*	-	-	226.17	228.10
Day d 7/0	6745	159	be (320MHz)(L)*	-	-	228.31	226.69
Band 7/8	6745	159	be (320MHz)(U)*	- 24.72	-	232.06	231.45
	7115	189	be (20MHz)	21.73	21.11	-	-
	6995	209	be (20MHz)	21.11	20.97	-	-
	7115 6885	233 187	be (20MHz) be (40MHz)	21.42 41.99	21.19 42.98		
8 pt		211	be (40MHz)	42.04	42.98	-	-
Band	6965 7085	227	be (40MHz)	42.04	42.41	-	-
	6945	199	be (80MHz)	91.86	85.69	-	-
	7025	215	be (80MHz)	86.70	85.82		-
	6985	207	be (80MHz)	174.54	173.92	-	-
	6905	191	be (320MHz)(L)*	1/4.34	-	231.00	226.00
Band 7/8	0303	131	DE (SZUMITZ)(L)	_	_	231.00	220.00

Table 7-3. Occupied Bandwidth Measurements – Full Tones

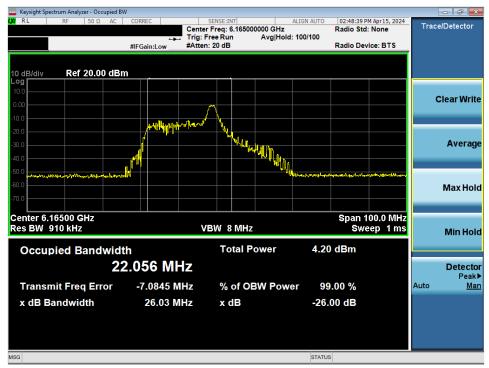
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# 7.2.1 MIMO Antenna-1 Bandwidth Measurements - (Partial Tones)



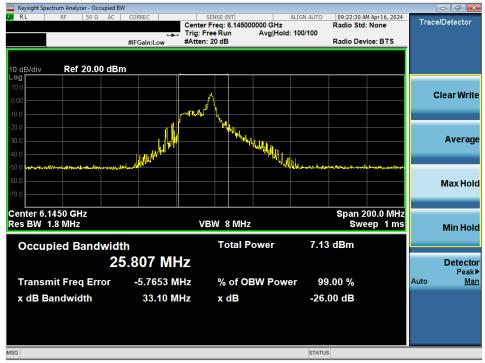
Plot 7-1. Occupied Bandwidth Plot MIMO ANT1 (20MHz BW 802.11be (26 Tones) (UNII Band 5) - Ch. 45)



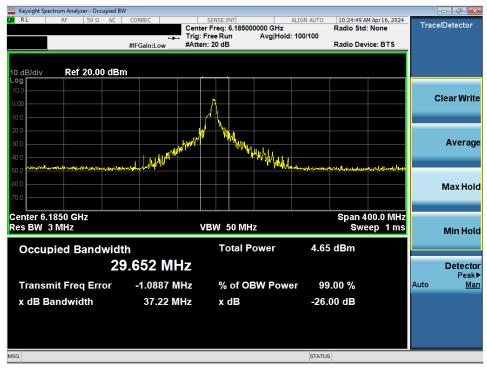
Plot 7-2. Occupied Bandwidth Plot MIMO ANT1 (40MHz BW 802. 11be (26 Tones) (UNII Band 5) - Ch. 43)

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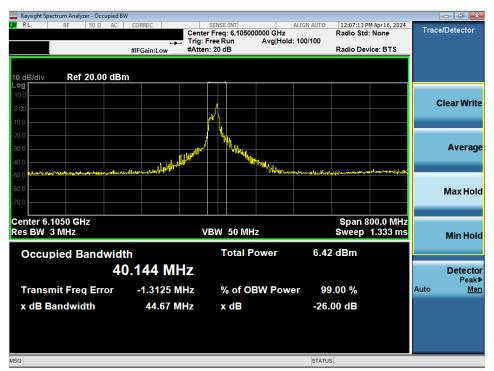
Plot 7-3. Occupied Bandwidth Plot MIMO ANT1 (80MHz BW 802. 11be (26 Tones) (UNII Band 5) - Ch. 39)



Plot 7-4. Occupied Bandwidth Plot MIMO ANT1 (160MHz BW 802. 11be (26 Tones) (UNII Band 5) - Ch. 47)

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Plot 7-5. Occupied Bandwidth Plot MIMO ANT1 (320MHz BW 802. 11be (26 Tones) (UNII Band 5) - Ch. 31)

FCC ID: A3LNP940XMA		Approved by: Technical Manager	
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# MIMO Antenna-1 Bandwidth Measurements - (Partial Tones)



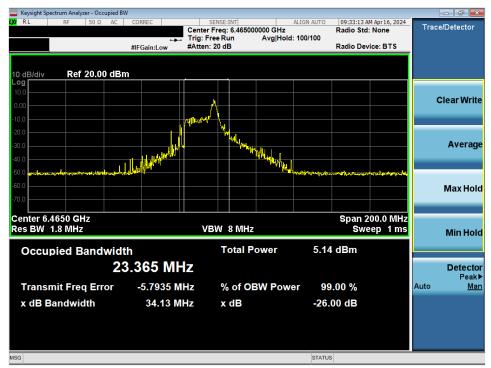
Plot 7-6. Occupied Bandwidth Plot MIMO ANT1 (20MHz BW 802. 11be (26 Tones) (UNII Band 6) - Ch. 105)



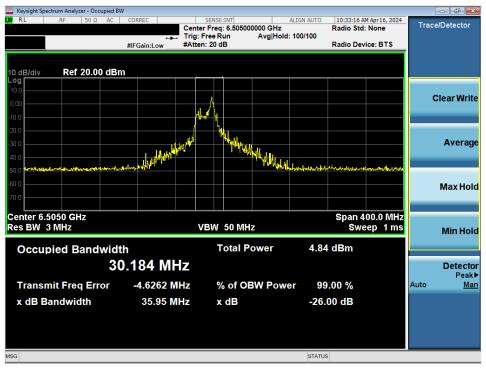
Plot 7-7. Occupied Bandwidth Plot MIMO ANT1 (40MHz BW 802. 11be (26 Tones) (UNII Band 6) - Ch. 107)

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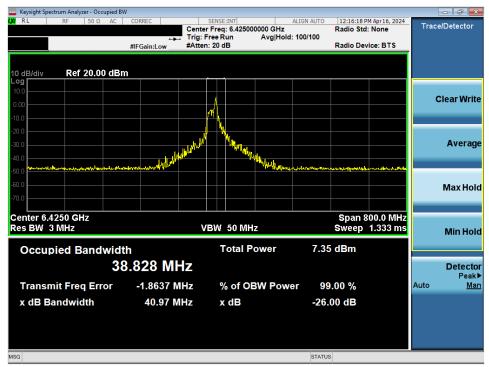
Plot 7-8. Occupied Bandwidth Plot MIMO ANT1 (80MHz BW 802. 11be (26 Tones) (UNII Band 6) - Ch. 103)



Plot 7-9. Occupied Bandwidth Plot MIMO ANT1 (160MHz BW 802. 11be (26 Tones) (UNII Band 6) - Ch. 111)

FCC ID: A3LNP940XMA	MEASUREMENT REPORT		Approved by: Technical Manager	
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Plot 7-10. Occupied Bandwidth Plot MIMO ANT1 (320MHz BW 802. 11be (26 Tones) (UNII Band 6) - Ch. 95)

FCC ID: A3LNP940XMA	MEASUREMENT REPORT		Approved by: Technical Manager	
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# MIMO Antenna-1 Bandwidth Measurements - (Partial Tones)



Plot 7-11. Occupied Bandwidth Plot MIMO ANT1 (20MHz BW 802. 11be (26 Tones) (UNII Band 7) - Ch. 149)



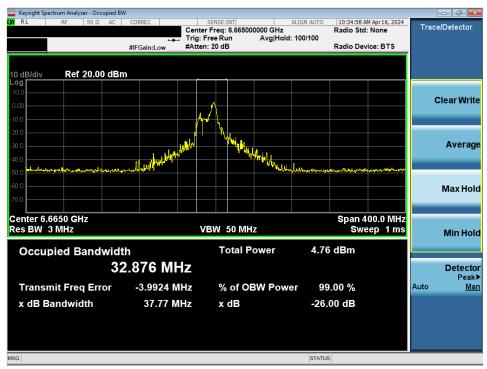
Plot 7-12. Occupied Bandwidth Plot MIMO ANT1 (40MHz BW 802. 11be (26 Tones) (UNII Band 7) - Ch. 155)

FCC ID: A3LNP940XMA	MEASUREMENT REPORT		Approved by: Technical Manager	
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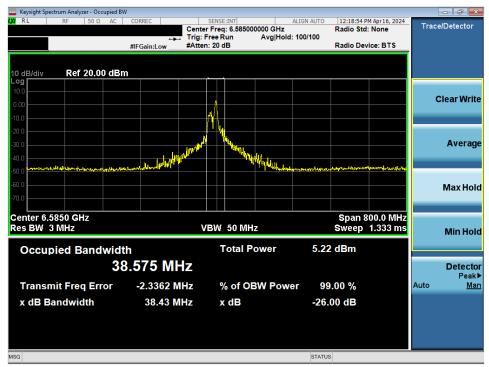
Plot 7-13. Occupied Bandwidth Plot MIMO ANT1 (80MHz BW 802. 11be (26 Tones) (UNII Band 7) - Ch. 151)



Plot 7-14. Occupied Bandwidth Plot MIMO ANT1 (160MHz BW 802. 11be (26 Tones) (UNII Band 7) - Ch. 143)

FCC ID: A3LNP940XMA	MEASUREMENT REPORT		Approved by: Technical Manager	
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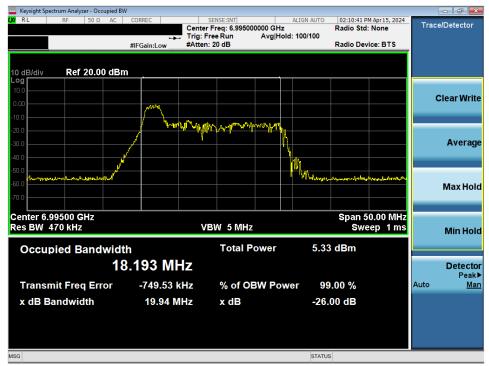


Plot 7-15. Occupied Bandwidth Plot MIMO ANT1 (320MHz BW 802. 11be (26 Tones) (UNII Band 7) - Ch. 127)

FCC ID: A3LNP940XMA	MEASUREMENT REPORT		Approved by: Technical Manager	
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## MIMO Antenna-1 Bandwidth Measurements - (Partial Tones)



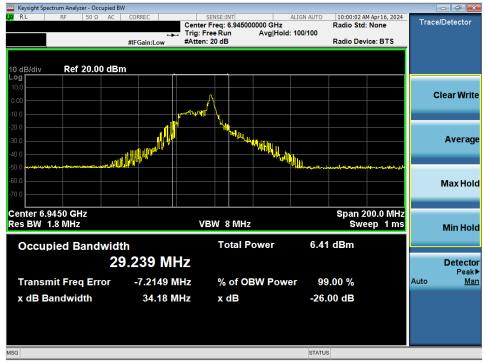
Plot 7-16. Occupied Bandwidth Plot MIMO ANT1 (20MHz BW 802. 11be (26 Tones) (UNII Band 8) - Ch. 209)



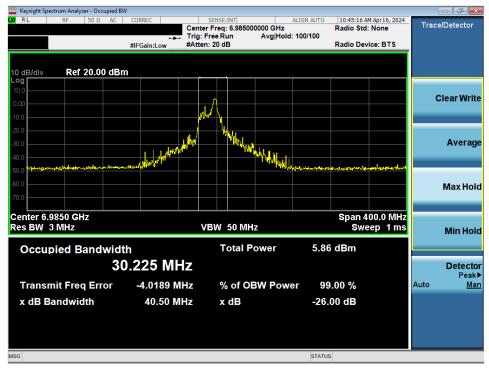
Plot 7-17. Occupied Bandwidth Plot MIMO ANT1 (40MHz BW 802. 11be (26 Tones) (UNII Band 8) - Ch. 211)

FCC ID: A3LNP940XMA	MEASUREMENT REPORT		Approved by: Technical Manager	
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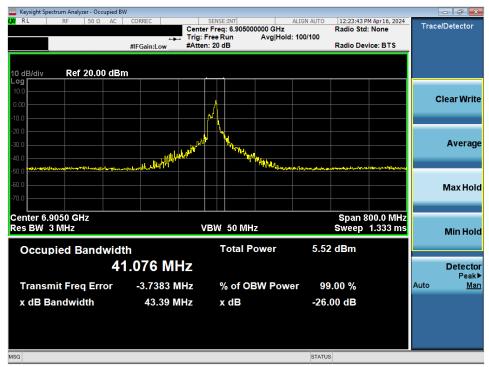
Plot 7-18. Occupied Bandwidth Plot MIMO ANT1 (80MHz BW 802. 11be (26 Tones) (UNII Band 8) - Ch. 199)



Plot 7-19. Occupied Bandwidth Plot MIMO ANT1 (160MHz BW 802. 11be (26 Tones) (UNII Band 8) - Ch. 207)

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Plot 7-20. Occupied Bandwidth Plot MIMO ANT1 (320MHz BW 802. 11be (26 Tones) (UNII Band 8) - Ch. 191)

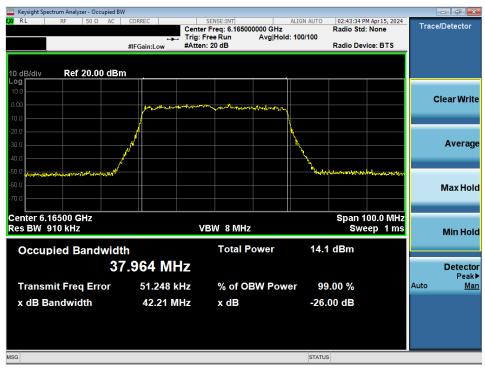
FCC ID: A3LNP940XMA	MEASUREMENT REPORT		Approved by: Technical Manager	
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## 7.2.2 MIMO Antenna-1 Bandwidth Measurements - (Full Tones)



Plot 7-21. Occupied Bandwidth Plot MIMO ANT1 (20MHz BW 802. 11be (Full Tone) (UNII Band 5) - Ch. 45)



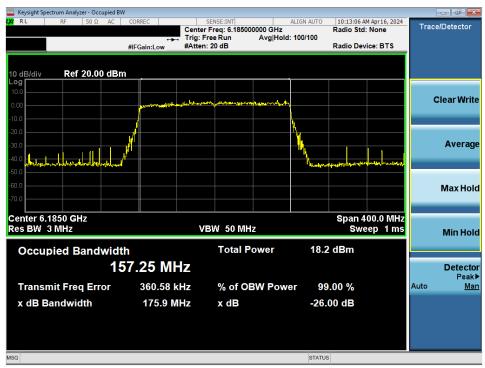
Plot 7-22. Occupied Bandwidth Plot MIMO ANT1 (40MHz BW 802. 11be (Full Tone) (UNII Band 5) - Ch. 43)

FCC ID: A3LNP940XMA	MEASUREMENT REPORT		Approved by: Technical Manager	
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Plot 7-23. Occupied Bandwidth Plot MIMO ANT1 (80MHz BW 802. 11be (Full Tone) (UNII Band 5) - Ch. 39)



Plot 7-24. Occupied Bandwidth Plot MIMO ANT1 (160MHz BW 802. 11be (Full Tone) (UNII Band 5) - Ch. 47)

FCC ID: A3LNP940XMA	MEASUREMENT REPORT		Approved by: Technical Manager	
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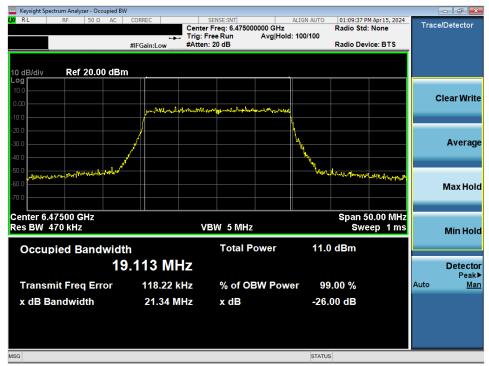


Plot 7-25. Occupied Bandwidth Plot MIMO ANT1 (320MHz BW 802. 11be (Full Tones) (UNII Band 5) - Ch. 31)

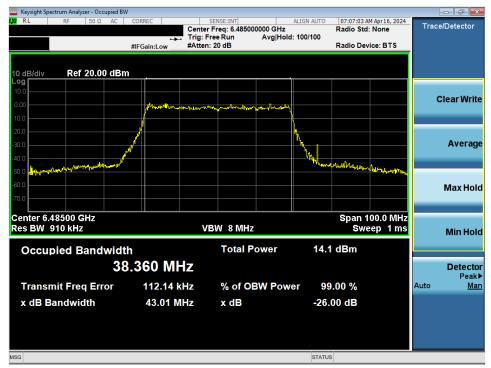
FCC ID: A3LNP940XMA	MEASUREMENT REPORT		Approved by: Technical Manager
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# MIMO Antenna-1 Bandwidth Measurements - (Full Tones)



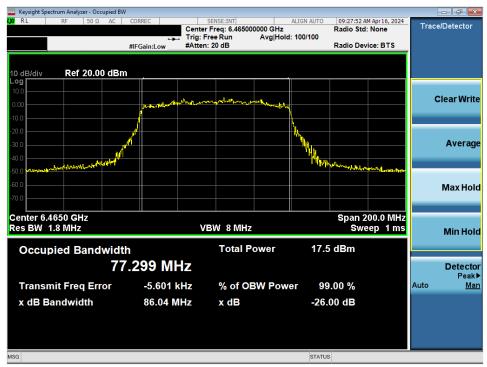
Plot 7-26. Occupied Bandwidth Plot MIMO ANT1 (20MHz BW 802. 11be (Full Tone) (UNII Band 6) - Ch. 105)



Plot 7-27. Occupied Bandwidth Plot MIMO ANT1 (40MHz BW 802. 11be (Full Tone) (UNII Band 6) - Ch. 107)

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Plot 7-28. Occupied Bandwidth Plot MIMO ANT1 (80MHz BW 802. 11be (Full Tone) (UNII Band 6) - Ch. 103)



Plot 7-29. Occupied Bandwidth Plot MIMO ANT1 (160MHz BW 802. 11be (Full Tone) (UNII Band 6) - Ch. 111)

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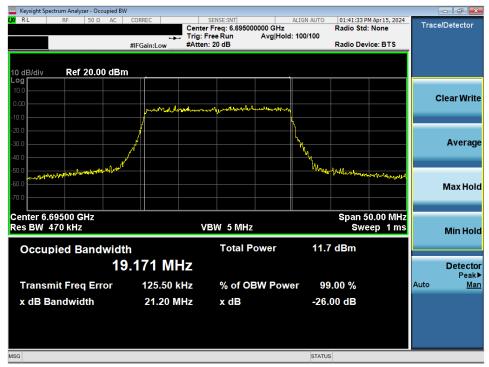


Plot 7-30. Occupied Bandwidth Plot MIMO ANT1 (320MHz BW 802. 11be (Full Tones) (UNII Band 6) - Ch. 95)

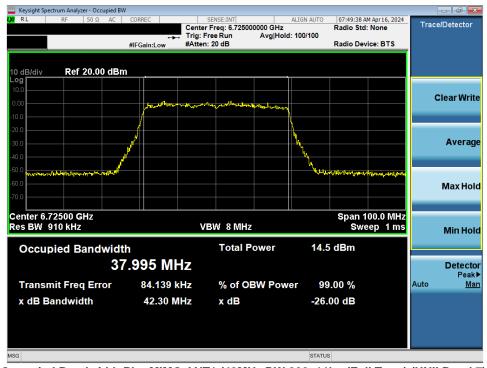
FCC ID: A3LNP940XMA	MEASUREMENT REPORT		Approved by: Technical Manager	
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## MIMO Antenna-1 Bandwidth Measurements - (Full Tones)



Plot 7-31. Occupied Bandwidth Plot MIMO ANT1 (20MHz BW 802. 11be (Full Tone) (UNII Band 7) - Ch. 149)



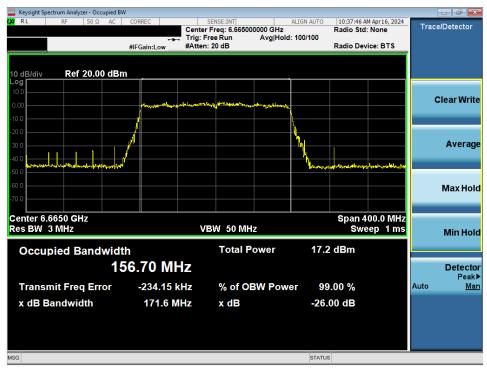
Plot 7-32. Occupied Bandwidth Plot MIMO ANT1 (40MHz BW 802. 11be (Full Tone) (UNII Band 7) - Ch. 155)

FCC ID: A3LNP940XMA	MEASUREMENT REPORT		Approved by: Technical Manager	
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Plot 7-33. Occupied Bandwidth Plot MIMO ANT1 (80MHz BW 802. 11be (Full Tone) (UNII Band 7) - Ch. 151)



Plot 7-34. Occupied Bandwidth Plot MIMO ANT1 (160MHz BW 802. 11be (Full Tone) (UNII Band 7) - Ch. 143)

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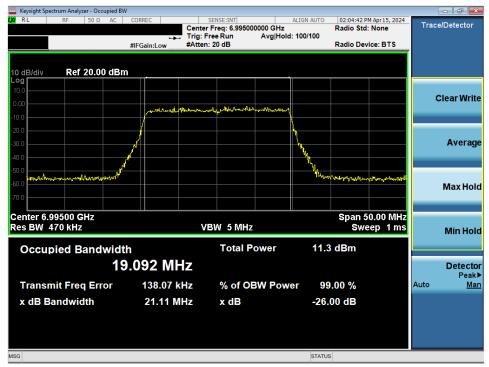


Plot 7-35. Occupied Bandwidth Plot MIMO ANT1 (320MHz BW 802. 11be (Full Tone) (UNII Band 7) - Ch. 127)

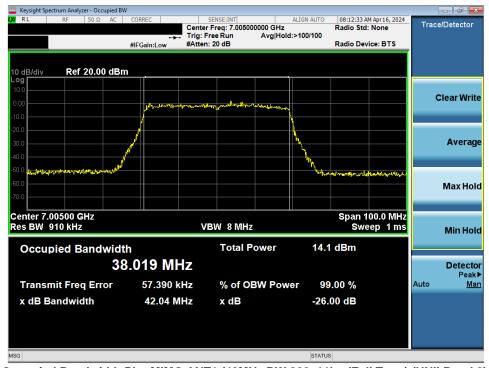
FCC ID: A3LNP940XMA	MEASUREMENT REPORT		Approved by: Technical Manager	
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## MIMO Antenna-1 Bandwidth Measurements - (Full Tones)



Plot 7-36. Occupied Bandwidth Plot MIMO ANT1 (20MHz BW 802. 11be (Full Tone) (UNII Band 8) - Ch. 209)



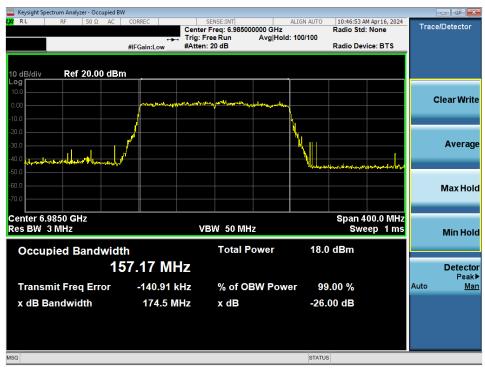
Plot 7-37. Occupied Bandwidth Plot MIMO ANT1 (40MHz BW 802. 11be (Full Tone) (UNII Band 8) - Ch. 211)

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Plot 7-38. Occupied Bandwidth Plot MIMO ANT1 (80MHz BW 802. 11be (Full Tone) (UNII Band 8) - Ch. 199)



Plot 7-39. Occupied Bandwidth Plot MIMO ANT1 (160MHz BW 802. 11be (Full Tone) (UNII Band 8) - Ch. 207)

FCC ID: A3LNP940XMA	MEASUREMENT REPORT		Approved by: Technical Manager	
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Plot 7-40. Occupied Bandwidth Plot MIMO ANT1 (320MHz BW 802. 11be (Full Tones) (UNII Band 8) - Ch. 191)

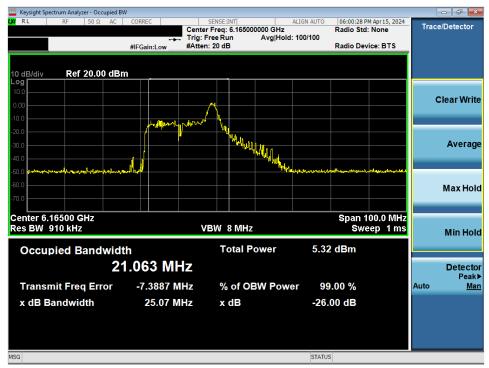
FCC ID: A3LNP940XMA	MEASUREMENT REPORT		Approved by: Technical Manager	
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## 7.2.3 MIMO Antenna-2 Bandwidth Measurements - (Partial Tones)



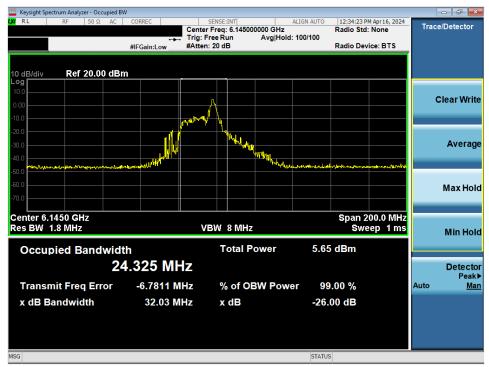
Plot 7-41. Occupied Bandwidth Plot MIMO ANT2 (20MHz BW 802.11be (26 Tones) (UNII Band 5) - Ch. 45)



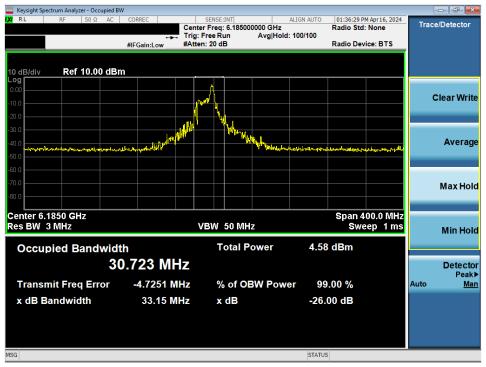
Plot 7-42. Occupied Bandwidth Plot MIMO ANT2 (40MHz BW 802. 11be (26 Tones) (UNII Band 5) - Ch. 43)

FCC ID: A3LNP940XMA	MEASUREMENT REPORT		Approved by: Technical Manager	
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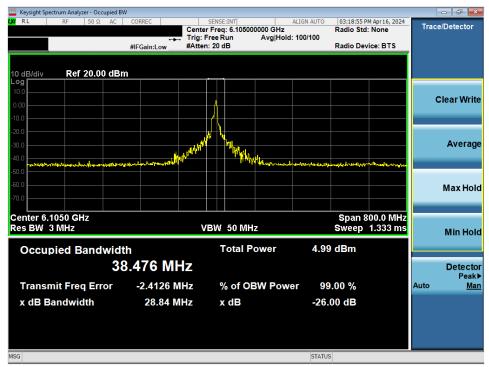
Plot 7-43. Occupied Bandwidth Plot MIMO ANT2 (80MHz BW 802. 11be (26 Tones) (UNII Band 5) - Ch. 39)



Plot 7-44. Occupied Bandwidth Plot MIMO ANT2 (160MHz BW 802. 11be (26 Tones) (UNII Band 5) - Ch. 47)

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Plot 7-45. Occupied Bandwidth Plot MIMO ANT2 (320MHz BW 802. 11be (26 Tones) (UNII Band 5) - Ch. 31)

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## MIMO Antenna-2 Bandwidth Measurements - (Partial Tones)



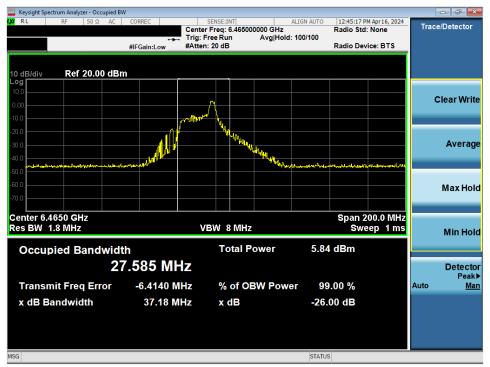
Plot 7-46. Occupied Bandwidth Plot MIMO ANT2 (20MHz BW 802. 11be (26 Tones) (UNII Band 6) - Ch. 105)



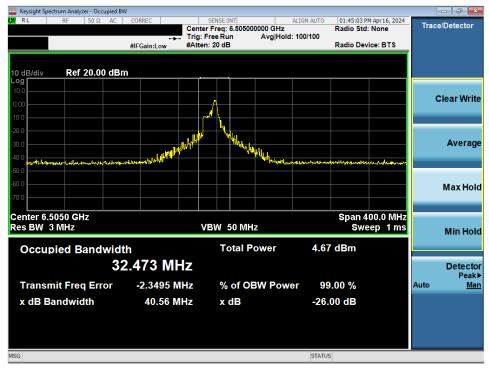
Plot 7-47. Occupied Bandwidth Plot MIMO ANT2 (40MHz BW 802. 11be (26 Tones) (UNII Band 6) - Ch. 107)

FCC ID: A3LNP940XMA	MEASUREMENT REPORT		Approved by: Technical Manager	
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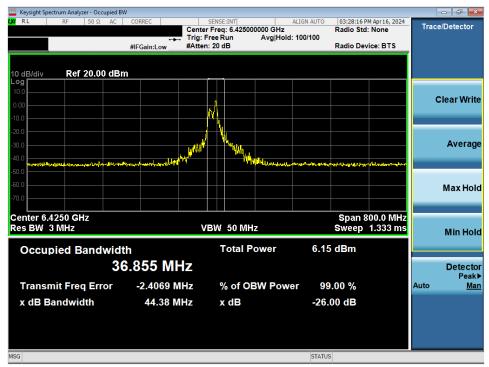
Plot 7-48. Occupied Bandwidth Plot MIMO ANT2 (80MHz BW 802. 11be (26 Tones) (UNII Band 6) - Ch. 103)



Plot 7-49. Occupied Bandwidth Plot MIMO ANT2 (160MHz BW 802. 11be (26 Tones) (UNII Band 6) - Ch. 111)

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Plot 7-50. Occupied Bandwidth Plot MIMO ANT2 (320MHz BW 802. 11be (26 Tones) (UNII Band 6) - Ch. 95)

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## MIMO Antenna-2 Bandwidth Measurements - (Partial Tones)



Plot 7-51. Occupied Bandwidth Plot MIMO ANT2 (20MHz BW 802. 11be (26 Tones) (UNII Band 7) - Ch. 149)



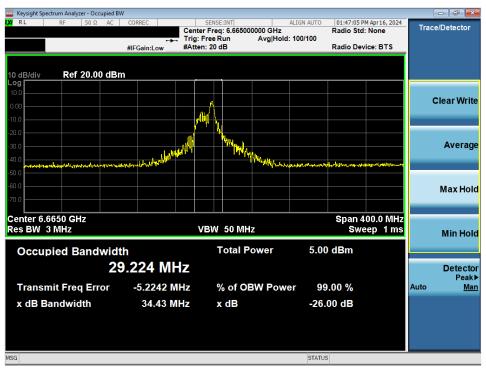
Plot 7-52. Occupied Bandwidth Plot MIMO ANT2 (40MHz BW 802. 11be (26 Tones) (UNII Band 7) - Ch. 155)

FCC ID: A3LNP940XMA	MEASUREMENT REPORT		Approved by: Technical Manager	
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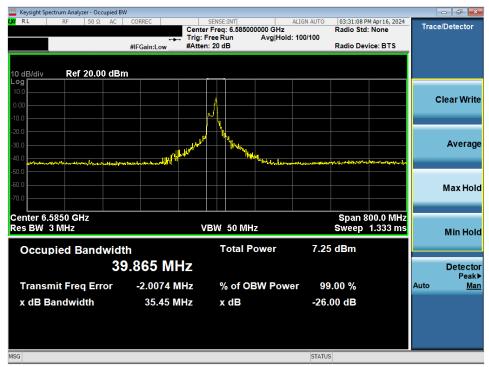
Plot 7-53. Occupied Bandwidth Plot MIMO ANT2 (80MHz BW 802. 11be (26 Tones) (UNII Band 7) - Ch. 151)



Plot 7-54. Occupied Bandwidth Plot MIMO ANT2 (160MHz BW 802. 11be (26 Tones) (UNII Band 7) - Ch. 143)

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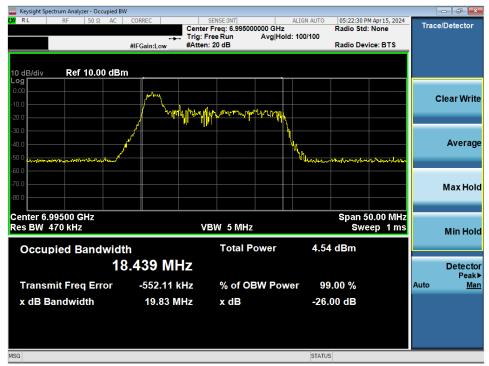


Plot 7-55. Occupied Bandwidth Plot MIMO ANT2 (320MHz BW 802. 11be (26 Tones) (UNII Band 7) - Ch. 127)

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## MIMO Antenna-2 Bandwidth Measurements - (Partial Tones)



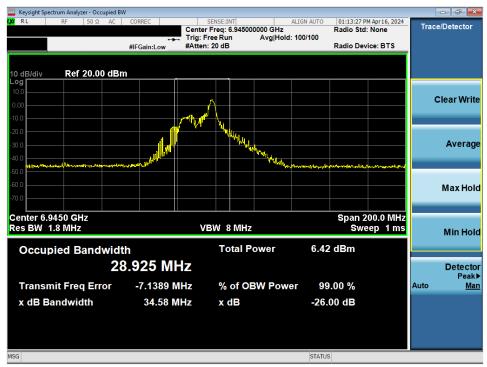
Plot 7-56. Occupied Bandwidth Plot MIMO ANT2 (20MHz BW 802. 11be (26 Tones) (UNII Band 8) - Ch. 209)



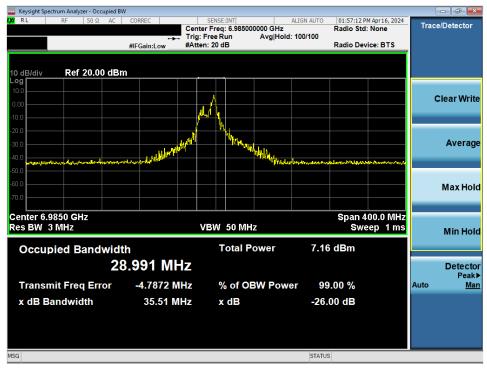
Plot 7-57. Occupied Bandwidth Plot MIMO ANT2 (40MHz BW 802. 11be (26 Tones) (UNII Band 8) - Ch. 211)

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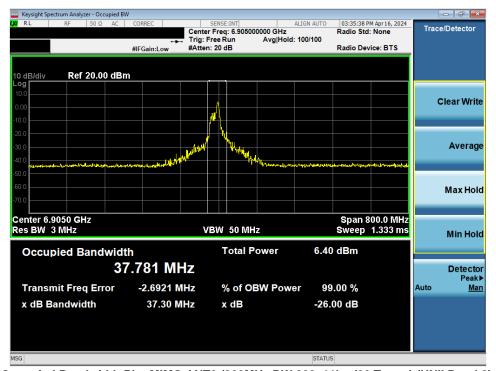
Plot 7-58. Occupied Bandwidth Plot MIMO ANT2 (80MHz BW 802. 11be (26 Tones) (UNII Band 8) - Ch. 199)



Plot 7-59. Occupied Bandwidth Plot MIMO ANT2 (160MHz BW 802. 11be (26 Tones) (UNII Band 8) - Ch. 207)

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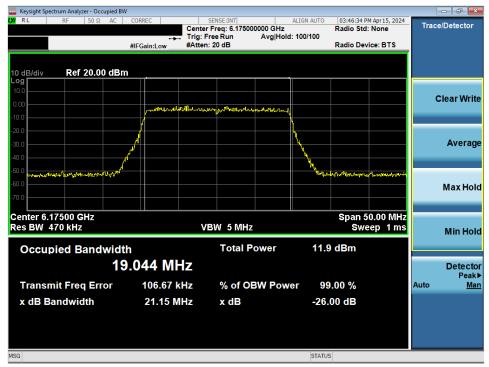


Plot 7-60. Occupied Bandwidth Plot MIMO ANT2 (320MHz BW 802. 11be (26 Tones) (UNII Band 8) - Ch. 191)

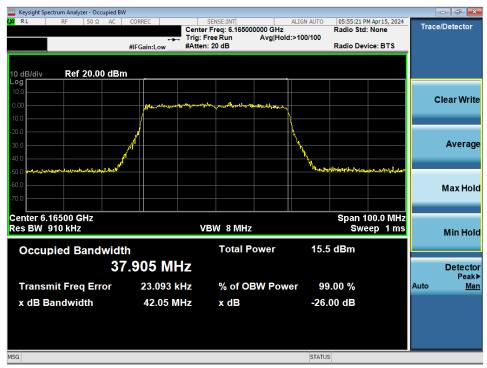
FCC ID: A3LNP940XMA	MEASUREMENT REPORT		Approved by: Technical Manager
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## 7.2.4 MIMO Antenna-2 Bandwidth Measurements - (Full Tones)



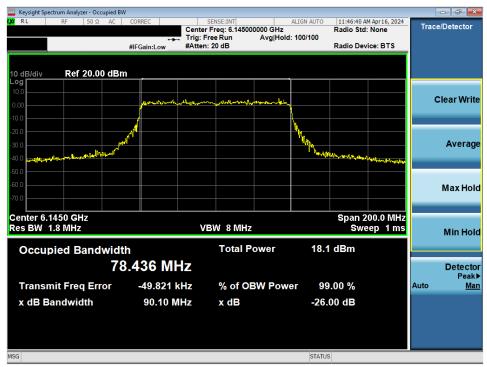
Plot 7-61. Occupied Bandwidth Plot MIMO ANT2 (20MHz BW 802. 11be (Full Tone) (UNII Band 5) - Ch. 45)



Plot 7-62. Occupied Bandwidth Plot MIMO ANT2 (40MHz BW 802. 11be (Full Tone) (UNII Band 5) - Ch. 43)

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Plot 7-63. Occupied Bandwidth Plot MIMO ANT2 (80MHz BW 802. 11be (Full Tone) (UNII Band 5) - Ch. 39)



Plot 7-64. Occupied Bandwidth Plot MIMO ANT2 (160MHz BW 802. 11be (Full Tone) (UNII Band 5) - Ch. 47)

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Plot 7-65. Occupied Bandwidth Plot MIMO ANT2 (320MHz BW 802. 11be (Full Tones) (UNII Band 5) - Ch. 31)

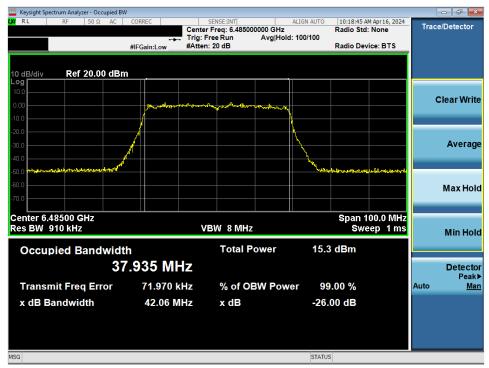
FCC ID: A3LNP940XMA	MEASUREMENT REPORT		Approved by: Technical Manager	
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## MIMO Antenna-2 Bandwidth Measurements - (Full Tones)



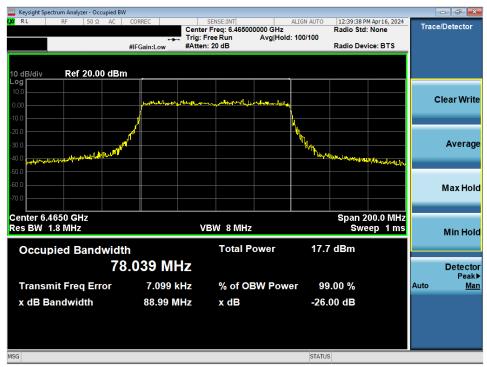
Plot 7-66. Occupied Bandwidth Plot MIMO ANT2 (20MHz BW 802. 11be (Full Tone) (UNII Band 6) - Ch. 105)



Plot 7-67. Occupied Bandwidth Plot MIMO ANT2 (40MHz BW 802. 11be (Full Tone) (UNII Band 6) - Ch. 107)

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Plot 7-68. Occupied Bandwidth Plot MIMO ANT2 (80MHz BW 802. 11be (Full Tone) (UNII Band 6) - Ch. 103)



Plot 7-69. Occupied Bandwidth Plot MIMO ANT2 (160MHz BW 802. 11be (Full Tone) (UNII Band 6) - Ch. 111)

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Plot 7-70. Occupied Bandwidth Plot MIMO ANT2 (320MHz BW 802. 11be (Full Tones) (UNII Band 6) - Ch. 95)

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## MIMO Antenna-2 Bandwidth Measurements - (Full Tones)



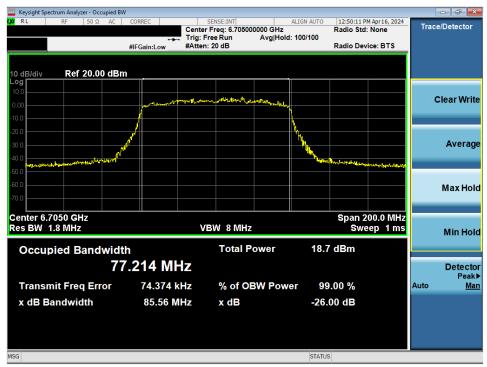
Plot 7-71. Occupied Bandwidth Plot MIMO ANT2 (20MHz BW 802. 11be (Full Tone) (UNII Band 7) - Ch. 149)



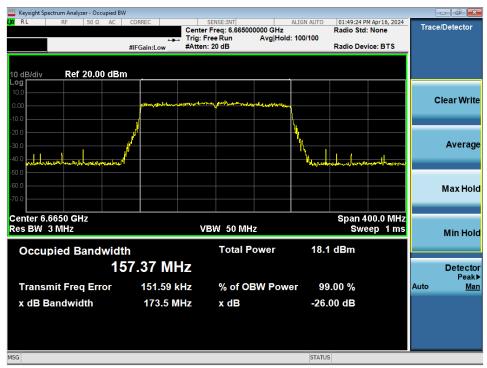
Plot 7-72. Occupied Bandwidth Plot MIMO ANT2 (40MHz BW 802. 11be (Full Tone) (UNII Band 7) - Ch. 155)

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Plot 7-73. Occupied Bandwidth Plot MIMO ANT2 (80MHz BW 802. 11be (Full Tone) (UNII Band 7) - Ch. 151)



Plot 7-74. Occupied Bandwidth Plot MIMO ANT2 (160MHz BW 802. 11be (Full Tone) (UNII Band 7) - Ch. 143)

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Plot 7-75. Occupied Bandwidth Plot MIMO ANT2 (320MHz BW 802. 11be (Full Tone) (UNII Band 7) - Ch. 127)

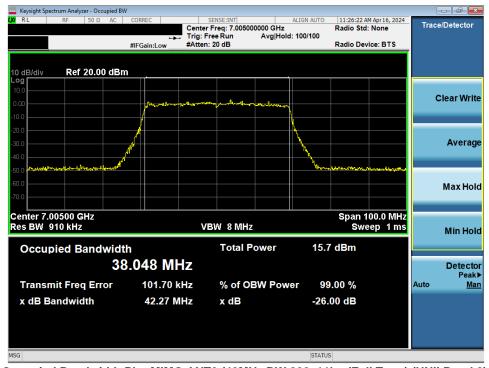
FCC ID: A3LNP940XMA		MEASUREMENT REPORT	Approved by: Technical Manager
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## MIMO Antenna-2 Bandwidth Measurements - (Full Tones)



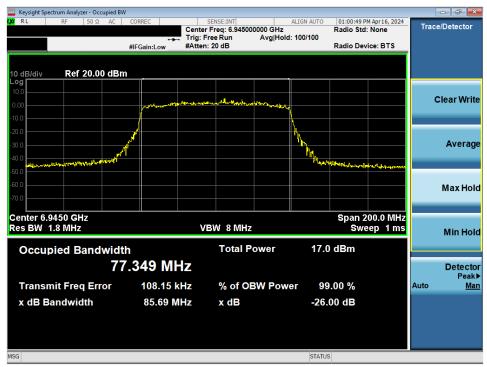
Plot 7-76. Occupied Bandwidth Plot MIMO ANT2 (20MHz BW 802. 11be (Full Tone) (UNII Band 8) - Ch. 209)



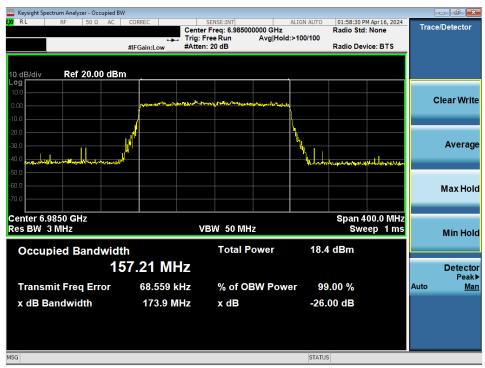
Plot 7-77. Occupied Bandwidth Plot MIMO ANT2 (40MHz BW 802. 11be (Full Tone) (UNII Band 8) - Ch. 211)

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Plot 7-78. Occupied Bandwidth Plot MIMO ANT2 (80MHz BW 802. 11be (Full Tone) (UNII Band 8) - Ch. 199)



Plot 7-79. Occupied Bandwidth Plot MIMO ANT2 (160MHz BW 802. 11be (Full Tone) (UNII Band 8) - Ch. 207)

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Plot 7-80. Occupied Bandwidth Plot MIMO ANT2 (320MHz BW 802. 11be (Full Tones) (UNII Band 8) - Ch. 191)

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#### 7.3 UNII Output Power Measurement

#### **Test Overview and Limits**

A transmitter antenna terminal of the EUT is connected to the input of an RF pulse power sensor. Measurement is made using a broadband average power meter while the EUT is operating at its maximum duty cycle, at its maximum power control level, as defined in ANSI C63.10-2013, and at the appropriate frequencies.

For client devices operating under the control of an indoor access point in the 5.925-7.125 GHz bands, the maximum e.i.r.p. over the frequency band of operation must not exceed 24 dBm. For client devices operating under the control of a standard power access point, the maximum e.i.r.p. over the frequency band of operation must not exceed 30 dBm and the device must limit its power to no more than 6 dB below its associated standard power access point's authorized transmit power.

#### **Test Procedure Used**

ANSI C63.10-2013 - Section 12.3.3.2 Method PM-G ANSI C63.10-2013 - Section 14.2 Measure-and-Sum Technique

#### **Test Settings**

Average power measurements were performed only when the EUT was transmitting at its maximum power control level using a broadband power meter with a pulse sensor. The power meter implemented triggering and gating capabilities which were set up such that power measurements were recorded only during the ON time of the transmitter. The trace was averaged over 100 traces to obtain the final measured average power.

#### **Test Setup**

The EUT and measurement equipment were set up as shown in the diagram below.



Figure 7-2. Test Instrument & Measurement Setup

#### **Test Notes**

Compliance for this device while operating under the control of either an indoor low power access point or a standard power access point is demonstrated by applying either the low power indoor access point limit of 24dBm e.i.r.p. or the standard power access point limit of 30dBm e.i.r.p. as shown in the tables.

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# MIMO Maximum Conducted Output Power Measurements - LPI

		1						Average	e Conducted Pow	er (dBm)							
	Band	Freq [MHz]	Channel	Tones				Arciug	RU Index	ci (ubiii)				Dir. Ant. Gain	Max e.i.r.p	e.i.r.p Limit	e.i.r.p Margin
	Dana	r red [wir iz]	Citatillei	Tones	ANT1	0 ANT2	MIMO	ANT1	ANT2	MIMO	ANT1	8 ANT2	MIMO	[dBi]	[dBm]	[dBm]	[dB]
	_	5935	2	26T	-6.11	-5.14	-2.59	-6.40	-5.11	-2.70	-6.17	-5.28	-2.69	3.17	0.58	24.0	-23.42
3	5	6175	45	26T 26T	-4.73	-6.24	-2.41	-4.75	-6.40	-2.49	-4.80	-6.32	-2.48	3.17	0.76	24.0	-23.24 -23.01
<u> </u>	_	6415 6435	93 97	261 26T	-4.77 -4.95	-6.16 -5.17	-2.40 -2.05	-4.63 -4.59	-5.82 -5.71	-2.17 -2.10	-4.62 -4.68	-6.07 -5.14	-2.27 -1.89	3.17 3.19	0.99 1.30	24.0 24.0	-23.01 -22.70
Ę	6	6475	105	26T 26T	-4.73	-5.05	-1.88	-4.51	-5.71 -5.72	-2.06	-4.55	-5.15	-1.83	3.19	1.36	24.0	-22.64
ő		6515 6535	113 117	26T 26T	-4.99 -4.72	-5.32 -5.44	-2.14 -2.05	-4.86 -4.56	-5.86 -5.01	-2.32 -1.77	-4.86 -4.55	-5.40 -5.29	-2.11 -1.89	3.19 2.51	1.08 0.74	24.0 24.0	-22.92 -23.26
	7	6695	149	26T	-4.72	-5.04	-2.05 -1.81	-4.55 -4.65	-5.01	-1.77	-4.55 -4.84	-5.29	-1.89	2.51	0.74	24.0	-23.26
		6875	185	26T	-4.77	-5.81	-2.25	-5.13	-4.89	-2.00	-4.74	-5.70	-2.18	2.51	0.51	24.0	-23.49
		6895 6995	189 209	26T 26T	-4.56 -4.54	-5.93 -5.70	-2.18	-5.12 -4.86	-5.07 -5.55	-2.08 -2.18	-4.81 -4.77	-5.84 -6.26	-2.28 -2.44	1.38	-0.71 -0.70	24.0	-24.71 -24.70
	8	7115	233	26T	-4.54 -4.76	-5.78	-2.07 -2.23	-4.86 -4.90	-5.55	-2.18	-4.77	-5.95	-2.44	1.38	-0.70	24.0	-24.61
		1							e Conducted Pow								
	Band	Freq [MHz]	Channel	Tones		37			RU Index			40		Dir. Ant. Gain	Max e.i.r.p	e.i.r.p Limit [dBm]	e.i.r.p Margin
					ANT1	ANT2	MIMO	ANT1	ANT2	MIMO	ANT1	ANT2	MIMO	[dBi]	[dBm]	[ubiii]	[dB]
		5935	2	52T	-3.45	-2.41	0.11	-3.56	-2.31	0.12	-3.67	-2.58	-0.08	3.17	3.29	24.0	-20.71
≥	5	6175 6415	45 93	52T 52T	-2.44 -2.26	-3.97 -3.05	-0.13 0.37	-2.31 -2.11	-3.88 -3.25	-0.01 0.37	-2.17 -2.25	-3.68 -2.96	0.15 0.42	3.17 3.17	3.32 3.59	24.0 24.0	-20.68 -20.41
N		6435	97	52T	-2.41	-2.76	0.43	-2.04	-2.97	0.53	-2.10	-2.70	0.62	3.19	3.81	24.0	-20.19
₹	6	6475	105	52T	-2.01	-2.64	0.70	-2.18	-3.45	0.24	-2.28	-3.23	0.28	3.19	3.89	24.0	-20.11
2	_	6515 6535	113 117	52T 52T	-2.32 -2.14	-2.90 -2.28	0.41 0.80	-2.01 -2.39	-3.04 -3.94	0.52 -0.09	-2.07 -2.28	-2.81 -2.68	0.59 0.53	3.19 2.51	3.78 3.31	24.0 24.0	-20.22 -20.69
	7	6695	149	52T	-2.19	-2.97	0.45	-2.35	-2.81	0.44	-2.26	-3.25	0.28	2.51	2.96	24.0	-21.04
		6875	185	52T	-2.38	-3.20	0.24	-2.10	-2.36	0.78	-2.18	-3.55	0.20	2.51	3.29	24.0	-20.71
	8	6895	189 209	52T 52T	-2.27	-3.34 -3.18	0.24	-2.17 -2.01	-2.46 -2.97	0.70 0.55	-2.23 -2.28	-3.68 -3.65	0.12 0.10	1.38 1.38	2.07 1.92	24.0 24.0	-21.93 -22.08
		6995 7115	233	52T	-2.26 -2.37	-3.26	0.22	-2.01	-2.77	0.64	-2.11	-3.45	0.28	1.38	2.01	24.0	-21.99
								Average	e Conducted Pow RU Index	er (dBm)				Dir. Ant. Gain	Max e.i.r.p	e.i.r.p Limit	e.i.r.p Margin
	Band	Freq [MHz]	Channel	Tones		53			RU Index 54			NA		(dBi)	Max e.i.r.p [dBm]	e.i.r.p Limit [dBm]	e.i.r.p margin [dB]
					ANT1	ANT2	MIMO	ANT1	ANT2	MIMO	ANT1	ANT2	MIMO				
		5935 6175	2 45	106T 106T	-0.31 0.80	0.77 -0.87	3.27	-0.58 0.99	0.60 -0.58	3.06 3.29				3.17 3.17	6.44 6.45	24.0	-17.56 -17.55
á		6415	93	106T		-0.45		0.64	-0.40	3.16				3.17	6.33	24.0 24.0	-17.67
7		6435	93 97	106T	0.55 0.53	-0.45 -0.09	3.09 3.24	0.79	-0.04	3.16 3.41				3.19	6.33 6.60	24.0 24.0	-17.40
\ \	6	6475 6515	105 113	106T 106T	0.70 0.94	-0.17 0.13	3.30 3.56	0.96 0.73	-0.11 -0.18	3.47 3.31				3.19 3.19	6.66	24.0 24.0	-17.34 -17.24
8		6535	113	106T	0.94	0.13	3.56	0.73	-0.18 0.43	3.31				3.19 2.51	6.24	24.0	-17.24 -17.76
	7	6695	149	106T	0.99	0.68	3.85	0.99	0.45	3.74				2.51	6.36	24.0	-17.64
		6875 6895	185 189	106T 106T	0.71 0.80	0.42 0.27	3.58 3.55	0.81 0.78	0.27 0.14	3.56 3.48				2.51 1.38	6.09 4.93	24.0 24.0	-17.91 -19.07
	8	6995	209	106T	0.80	0.20	3.52	0.78	-0.29	3.32				1.38	4.90	24.0	-19.10
		7115	233	106T	0.60	0.14	3.39	0.90	-0.16	3.41				1.38	4.79	24.0	-19.21
								Average	e Conducted Pow RU Index	er (dBm)				Dir. Ant. Gain	Max e.i.r.p	e.i.r.p Limit	e.i.r.p Margin
	Band	Freq [MHz]	Channel	Tones		61			NA NA			NA		[dBi]	[dBm]	[dBm]	[dB]
					ANT1	ANT2	MIMO	ANT1	ANT2	MIMO	ANT1	ANT2	MIMO				
		5935 5955	1	242T 242T	2.03 3.88	1.80 3.49	4.93 6.70				1			3.17 3.17	8.09 9.87	24.0 24.0	-15.91 -14.13
3	5	6175	45	242T	4.14	3.31	6.76							3.17	9.92	24.0	-14.08
N N		6415	93	242T	3.69	3.62	6.67							3.17	9.83	24.0	-14.17
Ŧ	6	6435 6475	97 105	242T 242T	4.15 4.45	3.76 3.62	6.97 7.07							3.19 3.19	10.16 10.26	24.0 24.0	-13.84 -13.74
Ö,	ľ	6515	113	242T	4.39	3.98	7.20							3.19	10.39	24.0	-13.61
	_	6535	117	242T 242T	4.22 4.07	3.94 4.21	7.09 7.15							2.51 2.51	9.60 9.66	24.0	-14.40 -14.34
	7	6875	185		4.07	4.21	7.15							2.51	9.00		-14.34
		6895	189	242T 242T	4.46	4.49	7.49							1.38	8.86	24.0 24.0	-15.14
	8	6995	209	242T	4.49	4.49 4.15	7.49 7.33							1.38 1.38	8.86 8.71	24.0	-15.29
	8			242T 242T 242T		4.49	7.49	Average	e Conducted Pow	er (dBm)				1.38 1.38 1.38	8.86	24.0 24.0	-15.29 -15.23
	8 Band	6995 7115	209	242T	4.49	4.49 4.15 4.35	7.49 7.33	Average	e Conducted Pow RU Index	er (dBm)				1.38 1.38 1.38 Dir. Ant. Gain	8.86 8.71 8.77 Max e.i.r.p	24.0 24.0 e.i.r.p Limit	-15.29 -15.23 e.i.r.p Margin
		6995	209 233	242T 242T	4.49 4.42	4.49 4.15 4.35	7.49 7.33 7.40		RU Index NA		ANT1	NA ANT?	MIMO	1.38 1.38 1.38	8.86 8.71 8.77	24.0 24.0	-15.29 -15.23
		6995 7115 Freq [MHz]	209 233	242T 242T Tones	4.49 4.42 ANT1	4.49 4.15 4.35 65 ANT2	7.49 7.33 7.40	Average	RU Index	er (dBm)	ANT1	NA ANT2	MIMO	1.38 1.38 1.38 Dir. Ant. Gain [dBi]	8.86 8.71 8.77 Max e.i.r.p [dBm]	24.0 24.0 e.i.r.p Limit [dBm]	-15.29 -15.23 e.i.r.p Margin [dB]
,	Band	6995 7115 Freq [MHz] 5965 6005	209 233 Channel	242T 242T Tones 484T 484T	4.49 4.42 ANT1 6.99 6.99	4.49 4.15 4.35 65 ANT2 5.98 6.58	7.49 7.33 7.40 MIMO 9.52 9.80		RU Index NA		ANT1		MIMO	1.38 1.38 1.38 Dir. Ant. Gain [dBi] 3.17	8.86 8.71 8.77 Max e.i.r.p [dBm] 12.69 12.97	24.0 24.0 e.i.r.p Limit [dBm] 24.0 24.0	-15.29 -15.23 e.i.r.p Margin [dB] -11.31 -11.03
BW		6995 7115 Freq [MHz] 5965 6005 6165 6405	209 233 Channel 3 11 43 91	242T 242T Tones 484T 484T 484T 484T	4.49 4.42 ANT1 6.99 6.99 6.99 6.54	4.49 4.15 4.35 65 ANT2 5.98 6.58 6.50 6.60	7.49 7.33 7.40 MIMO 9.52 9.80 9.76 9.58		RU Index NA		ANT1		MIMO	1.38 1.38 1.38 Dir. Ant. Gain (dBi) 3.17 3.17 3.17 3.17	8.86 8.71 8.77 Max e.i.r.p [dBm] 12.69 12.93 12.75	24.0 24.0 e.i.r.p Limit [dBm] 24.0 24.0 24.0 24.0	-15.29 -15.23 e.i.r.p Margin [dB]
Hz BW	Band 5	6995 7115 Freq [MHz] 5965 6005 6165 6405 6445	209 233 Channel 3 11 43 91 99	242T 242T Tones 484T 484T 484T 484T 484T	4.49 4.42 ANT1 6.99 6.99 6.99 6.54 6.99	4.49 4.15 4.35 65 ANT2 5.98 6.58 6.50 6.60 6.75	7.49 7.33 7.40 MIMO 9.52 9.80 9.76 9.58 9.88		RU Index NA		ANT1		MIMO	1.38 1.38 1.38 Dir. Ant. Gain [dBi] 3.17 3.17 3.17 3.17	8.86 8.71 8.77 Max e.i.r.p [dBm] 12.69 12.97 12.93 12.75 13.07	24.0 24.0 e.i.r.p Limit [dBm] 24.0 24.0 24.0 24.0 24.0 24.0 24.0	-15.29 -15.23 e.i.r.p Margin [dB] -11.31 -11.03 -11.07 -11.25 -10.93
OMHz BW	Band	6995 7115 Freq [MHz] 5965 6005 6165 6405 6445 6485	209 233 Channel 3 11 43 91 99	242T 242T Tones 484T 484T 484T 484T 484T 484T	4.49 4.42 ANT1 6.99 6.99 6.99 6.54 6.99 6.99	4.49 4.15 4.35 65 ANT2 5.98 6.58 6.50 6.60 6.75 6.49	7.49 7.33 7.40 MIMO 9.52 9.80 9.76 9.58 9.88 9.76		RU Index NA		ANT1		MIMO	1.38 1.38 1.38 Dir. Ant. Gain [dBi] 3.17 3.17 3.17 3.17 3.19	8.86 8.71 8.77 Max e.i.r.p [dBm] 12.69 12.97 12.93 12.75 13.07 12.95	24.0 24.0 e.i.r,p Limit [dBm] 24.0 24.0 24.0 24.0 24.0 24.0	-15.29 -15.23 e.i.r.p.Margin [dB] -11.31 -11.03 -11.07 -11.25 -10.93 -11.05
40MHz BW	Band 5	6995 7115 Freq [MHz] 5965 6005 6165 6405 6445 6485 6485 6525 6556	209 233 Channel 3 11 43 91 99 107 115 123	242T 242T Tones 484T 484T 484T 484T 484T 484T 484T 484	ANT1 6.99 6.99 6.99 6.54 6.99 6.68 6.68	4.49 4.15 4.35 65 ANT2 5.98 6.58 6.50 6.60 6.75 6.49 6.39	7.49 7.33 7.40 MIMO 9.52 9.80 9.76 9.58 9.88 9.76 9.55 9.64		RU Index NA		ANTI		MIMO	1.38 1.38 1.38 Dir. Ant. Gain [dBi] 3.17 3.17 3.17 3.17 3.19 3.19 3.19 2.51	8.86 8.71 8.77 Max e.i.r.p [dBm] 12.69 12.97 12.93 12.75 13.07 12.95 12.74 12.15	24.0 24.0 e.i.r.p Limit [dBm] 24.0 24.0 24.0 24.0 24.0 24.0 24.0 24.0	-15.29 -15.23 e.i.r.p Margin [dB] -11.31 -11.03 -11.07 -11.25 -10.93
40MHz BW	Band 5	6995 7115 Freq [MHz] 5965 6005 6165 6405 6445 6485 6525 6565 6685	209 233 Channel 3 11 43 91 99 107 115 123 147	242T 242T  Tones  484T 484T 484T 484T 484T 484T 484T 48	ANT1 6.99 6.99 6.54 6.99 6.68 6.61 6.75	4.49 4.15 4.35 4.35 5.98 6.58 6.50 6.60 6.75 6.49 6.39 6.65	7.49 7.33 7.40 MIMO 9.52 9.80 9.76 9.58 9.88 9.76 9.55 9.64		RU Index NA		ANT1		MIMO	1.38 1.38 1.38 1.38  Dir. Ant. Gain [dBi] 3.17 3.17 3.17 3.19 3.19 3.19 2.51	8.86 8.71 8.77 Max e.i.r.p [dBm] 12.69 12.97 12.93 12.75 13.07 12.95 12.74 12.15	24.0 24.0 e.i.r.p Limit (dBm) 24.0 24.0 24.0 24.0 24.0 24.0 24.0 24.0	-15.29 -15.23 e.i.r.p Margin [dB] -11.31 -11.03 -11.07 -11.25 -10.93 -11.05 -11.26 -11.85 -11.61
40MHz BW	Band 5	6995 7115 Freq [MHz] 5965 6005 6165 6405 6445 6485 6525 6565 6685 6685	209 233 Channel 3 11 43 91 99 107 115 123 147	242T 242T  Tones  484T 484T 484T 484T 484T 484T 484T 48	ANT1 6.99 6.99 6.54 6.99 6.68 6.61 6.75 6.34	4.49 4.15 4.35 4.35 65 ANT2 5.98 6.58 6.50 6.60 6.75 6.49 6.39 6.65 6.99	7.49 7.33 7.40 MIMO 9.52 9.80 9.76 9.58 9.88 9.76 9.55 9.64 9.88 9.67		RU Index NA		ANTI		мімо	1.38 1.38 1.38 Dir. Ant. Gain [dBi] 3.17 3.17 3.17 3.17 3.19 3.19 3.19 2.51 2.51	8.86 8.71 8.77 Max e.i.r.p [dBm] 12.69 12.97 12.93 12.75 13.07 12.95 12.74 12.15 12.39 12.18	24.0 24.0 e.i.r.p Limit [dBm]  24.0 24.0 24.0 24.0 24.0 24.0 24.0 24.	-15.29 -15.23  e.i.r.p Margin [dB] -11.31 -11.07 -11.25 -11.05 -11.05 -11.185 -11.185 -11.182
40MHz BW	Band 5	6995 7115 Freq [MHz] 5965 6005 6165 6445 6445 6485 6525 6565 6685 6885	209 233 Channel 3 11 43 91 99 107 115 123 147 179 187 211	242T 242T Tones  484T 484T 484T 484T 484T 484T 484T 48	ANT1 6.99 6.99 6.99 6.54 6.99 6.68 6.61 6.75 6.34 6.82	4.49 4.15 4.35 65 ANT2 5.98 6.59 6.50 6.60 6.75 6.49 6.39 6.65 6.99 6.95	7.49 7.33 7.40 MIMO 9.52 9.80 9.76 9.58 9.76 9.55 9.64 9.64 9.67 9.88 9.67		RU Index NA		ANTI		MIMO	1.38 1.39 1.38 Dir. Ant. Gain [dBi] 3.17 3.17 3.17 3.19 3.19 3.19 3.19 3.19 3.19 3.19 3.19	8.86 8.71 8.77 Max e.i.r.p [dBm] 12.97 12.93 12.75 13.07 12.95 12.74 12.15 12.39 12.18 11.21	240 240 e.i.r,p Limit [dBm]  240 240 240 240 240 240 240 240 240 24	-15.29 -15.23  e.i.r.p Margin [de] -11.31 -11.03 -11.07 -11.25 -10.93 -11.05 -11.85 -11.61 -11.82 -12.79 -12.88
40MHz BW	<b>Band</b> 5 6	6995 7115 Freq [MHz] 5965 6005 6165 6405 6445 6485 6525 6566 6685 6845	209 233 Channel 3 111 43 91 99 107 115 123 147 179 187	242T 242T Tones  484T 484T 484T 484T 484T 484T 484T 48	ANT1 6.99 6.99 6.99 6.54 6.99 6.68 6.61 6.75 6.34	4.49 4.15 4.35 65 ANT2 5.98 6.58 6.50 6.60 6.75 6.49 6.39 6.65 6.99 6.95	7.49 7.33 7.40 MIMO 9.52 9.80 9.76 9.58 9.88 9.76 9.55 9.64 9.88	ANTI	RU Index NA ANT2	MIMO	ANTI		MIMO	1.38 1.38 1.38 1.38 Dir. Ant. Gain [dB] 3.17 3.17 3.17 3.17 3.19 3.19 3.19 2.51 2.51 2.51	8.86 8.71 8.77 Max e.i.r.p [dBm] 12.69 12.97 12.93 12.75 13.07 12.95 12.74 12.15 12.39 12.18 11.21	24.0  e.i.r.p Limit [dBm]  24.0  24.0  24.0  24.0  24.0  24.0  24.0  24.0  24.0  24.0  24.0  24.0  24.0	-15.29 -15.23 -1.5.23 -1.5.23 -1.7.24 -1.7.25 -1.0.93 -1.1.05 -1.1.05 -1.1.25 -1.1.81 -1.1.81 -1.1.82 -1.2.79
40MHz BW	8 Band	6995 7115 Freq [MHz] 5965 6005 6165 6445 6445 6445 6525 6565 6685 6885 7005 7085	209 233 Channel 3 111 43 91 99 107 115 123 147 179 187 211 227	242T 242T Tones  484T 484T 484T 484T 484T 484T 484T 48	ANT1 6.99 6.99 6.99 6.54 6.99 6.68 6.61 6.75 6.34 6.82	4.49 4.15 4.35 65 ANT2 5.98 6.59 6.50 6.60 6.75 6.49 6.39 6.65 6.99 6.95 6.83	7.49 7.33 7.40 MIMO 9.52 9.80 9.76 9.58 9.76 9.55 9.64 9.64 9.67 9.88 9.67	ANTI	RU Index NA	MIMO	ANTI		МІМО	1.38 1.39 1.38 Dir. Ant. Gain [dBi] 3.17 3.17 3.17 3.19 3.19 3.19 3.19 3.19 3.19 3.19 3.19	8.86 8.71 8.77 Max e.i.r.p [dBm] 12.97 12.93 12.75 13.07 12.95 12.74 12.15 12.39 12.18 11.21	240 240 e.i.r,p Limit [dBm]  240 240 240 240 240 240 240 240 240 24	-15.29 -15.23  e.i.r.p Margin [de] -11.31 -11.03 -11.07 -11.25 -10.93 -11.05 -11.85 -11.61 -11.82 -12.79 -12.88
40MHz BW	<b>Band</b> 5 6	6995 7115 Freq [MHz] 5965 6005 6165 6445 6445 6485 6525 6565 6685 6885	209 233 Channel 3 11 43 91 99 107 115 123 147 179 187 211	242T 242T Tones  484T 484T 484T 484T 484T 484T 484T 48	ANT1 6.99 6.99 6.54 6.99 6.68 6.61 6.75 6.34 6.82 6.85 6.91	4.49 4.15 4.35 65 ANT2 5.98 6.58 6.50 6.60 6.75 6.49 6.65 6.99 6.83 6.62 6.58	7,49 7,33 7,40 MIMO 9,52 9,80 9,76 9,58 9,88 9,76 9,55 9,64 9,87 9,87 9,87 9,87 9,87	ANT1	RU Index NA ANT2 ANT2	MIMO MIMO er (dBm)		ANT2		1.38 1.38 1.38 1.38 1.38 1.38 1.38 1.38	8.86 8.71 8.77 Max e.i.r.p [dBm] 12.97 12.93 12.75 13.07 12.95 12.74 12.15 12.39 12.18 11.21 11.21 11.13	240 240 e.i.r.p.Limit [d8m] 240 240 240 240 240 240 240 240 240 240	-15.29 -15.23  e.i.r.p.Margin [dB] -11.31 -11.03 -11.07 -11.25 -10.93 -11.105 -11.85 -11.61 -11.82 -12.79 -12.88
W 40MHz BW	8 Band	6995 7115 Freq [MHz] 5965 6005 6105 6405 6405 6485 6525 6885 6885 7005 7085	209 233 Channel 3 111 43 91 99 107 115 123 147 179 187 211 227	242T 242T Tones  484T 484T 484T 484T 484T 484T 484T 48	4.49 4.42 4.42 ANT1 6.99 6.99 6.99 6.54 6.99 6.68 6.61 6.75 6.34 6.82 6.82	65 AV12 65 AV2 65 65 65 65 65 65 65 65 65 65 65 65 65	7.49 7.33 7.40  MiMO 9.52 9.80 9.76 9.58 9.88 9.76 9.55 9.64 9.88 9.67 9.89 9.67 9.75	ANTI	RU Index NA ANT2 ANT2  • Conducted Pow RU Index	MIMO	ANTI	ANT2	MIMO	1.38 1.38 1.38 1.38 1.38 1.38 1.38 1.38	8.86 8.71 8.77 Max e.i.r.p [d8m] 12.69 12.97 12.93 12.75 12.95 12.15 12.18 12.18 11.12 11.13 Max e.i.r.p [d8m]	240 e.i.r, p.Limit [dBm] 240 240 240 240 240 240 240 240 240 240	-15.29 -15.23 e.i.r.p Margin [dB] -11.31 -11.03 -11.07 -11.25 -10.93 -11.05 -11.05 -11.05 -11.05 -11.25 -11.05 -11.25 -12.28 -12.287 e.i.r.p Margin [dB]
z BW 40MHz BW	8 Band	6995 Freq [MHz] 5965 6005 6165 6445 6445 6485 6555 6565 6885 7005 7085 Freq [MHz] 5985	209 233 Channel  3 11 43 91 99 107 115 123 147 179 187 211 227 Channel	242T 242T 7ones  484T 484T 484T 484T 484T 484T 484T 48	4.49 4.42 ANT1 6.99 6.99 6.59 6.59 6.69 6.61 6.75 6.34 6.82 6.85 6.91	65 ANT2 4.45 4.45 4.45 6.58 6.58 6.59 6.59 6.69 6.69 6.69 6.69 6.69 6.69	7.49 7.49 7.33 7.40 MIMO 9.52 9.80 9.76 9.59 9.88 9.76 9.59 9.64 9.75 9.76 9.75 9.76 9.76 9.75 9.76	ANT1	RU Index NA ANT2 ANT2	MIMO MIMO er (dBm)		ANT2		1.38 1.38 1.38 1.38 1.38 1.38 1.38 1.37 2.17 2.17 2.17 2.17 2.17 2.19 2.51 2.51 1.38 1.38 1.38 1.38 1.38 1.38 1.31 1.31	8.86 8.71 8.77 Max e.i.r.p. [dBm] 12.69 12.69 12.75 13.07 12.75 12.75 12.15 12.29 12.15 12.18 11.11 11.12 11.13 Max e.i.r.p. [dBm] 14.35 14.45	240 240 e.i.r.p timit [dm] [dm] 240 240 240 240 240 240 240 240 240 240	-15.29 -15.23 e.i.r.p Margin [de] -11.31 -11.03 -11.07 -11.25 -11.09 -11.26 -11.26 -11.27 -11.28 -11.81 -11.82 -12.79 -12.88 -12.87 -12.87 -13.84 -19.65 -19.65 -9.40
	8 Band 5	6995 Freq [MHz]  Freq [MHz]  5965 6005 6105 6405 6405 6405 6405 6485 6525 6685 6885 6705 7085  Freq [MHz]	209 233 Channel  3 111 43 91 107 115 122 147 179 227 Channel  7 39 87	242T 242T Tones  484T 494T 494T 494T 494T 494T 494T 494	ANT1 6.99 6.99 6.99 6.54 6.99 6.68 6.61 6.75 6.82 6.82 6.82 6.81 ANT1 ANT1 ANT1 ANT1 ANT1 ANT1 ANT1 ANT	4.49 4.49 4.15 4.35 65 ANT2 6.59 6.59 6.60 6.60 6.60 6.60 6.60 6.60 6.60 6.6	7,49 7,33 7,40 MIMO 9,52 9,80 9,76 9,59 9,88 9,76 9,59 9,88 9,76 9,59 9,88 10,76 11,19 11,13 11,14	ANT1	RU Index NA ANT2 ANT2	MIMO MIMO er (dBm)		ANT2		1.38 1.38 1.38 1.38 1.38 1.38 1.38 1.38	8.86 8.71 8.77 Max e.i.r.p. [dBm] 12.69 12.97 12.93 12.75 13.07 12.95 12.75 13.07 12.18 12.18 12.18 11.12 11.13 Max e.i.r.p. [dBm] 14.60 14.58	240 240 e.i.r.p.Limit [dbm] 240 240 240 240 240 240 240 240 240 240	-15.29 -15.23  e.i.r.p Margin   del  -11.33 -11.03 -11.03 -11.05 -11.05 -11.05 -11.05 -11.85 -11.81 -11.82 -12.79 -12.88 -12.87 -12.87 -13.87 -14.87 -15.88 -16.99.65 -9.40 -9.42
	8 Band	6995 Freq [MHz] 5965 6005 6165 6445 6485 6525 6565 6885 7005 7085 Freq [MHz] 5985 6145 6883 6465 6883 6883 6883 6883 6883 6884 6885 6885 6885 6885 6885 6885 6885	209 233 Channel 3 11 143 91 107 115 123 147 179 211 227 Channel 7 39 87	242T 242T Tones  484T 484T 484T 484T 484T 484T 484T 48	4.49 4.42  ANT1 6.99 6.99 6.94 6.99 6.54 6.99 6.66 6.75 6.65 6.75 6.87 ANT1 8.64 8.76 8.74 8.99	4.49 4.49 4.35 65 65 65 6.50 6.50 6.50 6.75 6.75 6.75 6.75 6.75 6.75 6.75 6.82 6.82 6.83 6.82 6.83 6.82 8.04 8.04	7.49 7.33 7.40 MilMO 9.52 9.60 9.60 9.88 9.88 9.86 9.67 9.59 9.67 9.59 9.76 9.76 9.81 11.13	ANT1	RU Index NA ANT2 ANT2	MIMO MIMO er (dBm)		ANT2		1.38 1.38 1.38 1.38 1.38 1.38 1.38 1.38	8.86 8.71 8.77 Max e.l.r.p [dbm] 12.69 12.97 12.93 12.75 13.07 12.75 12.75 12.15 12.29 12.18 11.12 11.13 Max e.l.r.p [dbm] [dbm]	240 240 e.i.r.p.Limit [dbm] 240 240 240 240 240 240 240 240 240 240	-15.29 -15.23 e.i.r.p Margin [de] -11.31 -11.03 -11.07 -11.25 -10.93 -11.05 -11.26 -11.86 -11.81 -11.81 -12.89 -12.87 -12
80MHz BW 40MHz BW	8 Band 5	6995 7115 Freq [MHz] 5965 6005 6165 6405 6485 6485 6585 6585 7085 Freq [MHz] 6385 6485 6586 6846 6886 6846 6886 6886 68	209 233 Channel 3 3 111 43 91 107 115 123 147 179 211 227 Channel 7 9 87 103 119 151	242T 242T Tones  494T 494T 494T 494T 494T 494T 494T 49	4.49 4.42  ANT1 6.99 6.99 6.99 6.54 6.99 6.66 6.75 6.68 6.61 6.75 6.82 6.85 6.81  ANT1 8.64 8.76 8.76 8.74 8.99 8.94	4.49 4.49 4.35 65 ANT2 6.59 6.59 6.59 6.59 6.69 6.69 6.99 6.83 6.62 6.59 6.89 8.68 8.68	7,49 7,49 7,33 7,40 MilMO 9,52 9,80 9,50 9,50 9,50 9,50 9,50 9,50 9,50 9,5	ANT1	RU Index NA ANT2 ANT2	MIMO MIMO er (dBm)		ANT2		1.38 1.38 1.38 1.38 1.38 1.38 1.38 1.38	8.86 8.71 8.77 Max e.l.r.p [dbm] 12.69 12.97 12.93 12.93 12.93 12.75 12.75 12.75 12.19 12.11 11.21 11.13 Max e.l.r.p [dbm] 14.35 14.458 14.58 14.58 14.59 14.29	240 240 e.i.r.p.Limit [dbm] 240 240 240 240 240 240 240 240 240 240	-15.29 -15.23 e.i.r.p Margin [de] -11.31 -11.03 -11.07 -11.25 -10.93 -11.05 -11.26 -11.85 -11.29 -12.29 -12.29 -12.29 -12.87 -12.87 -12.87 -12.97 -12.97 -12.97 -12.97 -12.97 -12.97 -12.97 -12.97 -12.97 -12.97 -12.97 -12.97
	8 Band 5 6 7 8 Band 7	6995 7115 Freq [MHz] 5965 6005 6105 6405 6405 6405 6405 6405 6405 6405 64	209 233 Channel  3 11 11 43 91 107 115 123 147 179 187 211 227 Channel  7 39 87 103 119 151	242T 242T  7 ones  484T 484T 484T 484T 484T 484T 484T 48	4.49 4.42  ANT1 6.99 6.99 6.99 6.99 6.68 6.61 6.75 6.34 6.82 6.85 6.91  ANT1 ANT1 8.96 8.97 8.94 8.98	4.49 4.15 4.35  65 ANT2 ANT3 6.50 6.50 6.50 6.75 6.49 6.39 6.50 6.75 6.39 6.50 6.75 6.39 6.50 6.75 6.39 6.50 6.80 6.80 8.80 8.815	7.49 7.49 7.33 7.40 MMM0 9.52 9.50 9.76 9.58 9.88 9.76 9.55 9.64 9.76 9.75 9.76 9.75 9.76 9.75 9.76 9.76 9.77 9.77 9.77 9.77 9.77 9.77	ANT1	RU Index NA ANT2 ANT2	MIMO MIMO er (dBm)		ANT2		1.38 1.38 1.38 1.38 1.38 1.38 1.38 1.39 1.317 3.17 3.17 3.19 3.19 3.19 2.51 2.51 2.51 3.8 1.38 1.38 1.38 1.38 1.38 1.38 1.38	8.86 8.71 8.77 Max e.i.r.p [dBm] 12.69 12.97 12.93 12.75 13.07 12.95 12.74 12.15 12.18 11.12 11.13 Max e.i.r.p [dBm] 14.60 14.76 14.76 14.76 14.29 14.29	240 240 e.i.r.p.Limit [dbm] 240 240 240 240 240 240 240 240 240 240	-15.29 -15.23 e.i.r.p Margin [del] -11.33 -11.03 -11.03 -11.05 -11.05 -11.05 -11.05 -11.85 -11.81 -11.82 -12.79 -12.88 -12.87 -1.19 -1.288 -12.87 -1.19 -1.287 -1.287 -1.287 -1.29 -
	8 Band 5 8 Band 5	6995 7115 Freq [MHz] 5965 6005 6105 6405 6448 6485 6485 6585 6585 7085 Freq [MHz] 5985 6586 6586 6586 6586 6586 6586 6586	209 233 Channel  3 11 11 43 91 107 115 123 147 179 187 227 Channel 7 7 1887 191 191 191 191 191 191 191 191 191 19	242T 242T 7 cnes  494T 494T 494T 494T 494T 494T 494T 49	4.49 4.42  ANT1 6.99 6.59 6.59 6.59 6.59 6.59 6.68 6.61 6.75 6.32 6.85 6.87 ANT1 ANT1 8.64 8.76 8.74 8.98 8.98 8.61	4.49 4.49 4.35 65 ANT2 6.59 6.59 6.59 6.69 6.69 6.89 6.89 6.82 6.62 6.59 6.80 8.81	7.49 7.33 7.40 MilMO 9.52 9.80 9.80 9.80 9.88 9.86 9.86 9.87 9.76 9.75 9.76 MilMO 11.19 11.14 11.17 11.78 11.78 11.78	ANT1	RU Index NA ANT2 ANT2	MIMO MIMO er (dBm)		ANT2		1.38 1.38 1.38 1.38 1.38 1.38 1.38 1.38	8.86 8.71 8.77 Max e.l.r.p [dbm] 12.69 12.97 12.93 12.93 12.93 12.75 12.75 12.75 12.19 12.11 11.21 11.13 Max e.l.r.p [dbm] 14.35 14.458 14.58 14.58 14.59 14.29	240 240 e.i.r.p.Limit [dbm] 240 240 240 240 240 240 240 240 240 240	-15.29 -15.23 e.i.r.p Margin [de] -11.31 -11.03 -11.07 -11.25 -10.93 -11.05 -11.26 -11.85 -11.29 -12.29 -12.29 -12.29 -12.87 -12.87 -12.87 -12.97 -12.97 -12.97 -12.97 -12.97 -12.97 -12.97 -12.97 -12.97 -12.97 -12.97 -12.97
	8 Band 5 6 7 8 Band 7	6995 7115 Freq [MHz] 5965 6005 6105 6405 6405 6405 6405 6405 6405 6405 64	209 233 Channel  3 11 11 43 91 107 115 123 147 179 187 211 227 Channel  7 39 87 103 119 151	242T 242T  7 ones  484T 484T 484T 484T 484T 484T 484T 48	4.49 4.42  ANT1 6.99 6.99 6.99 6.99 6.68 6.61 6.75 6.34 6.82 6.85 6.91  ANT1 ANT1 8.96 8.97 8.94 8.98	4.49 4.15 4.35  65 ANT2 ANT3 6.50 6.50 6.50 6.75 6.49 6.39 6.50 6.75 6.39 6.50 6.75 6.39 6.50 6.75 6.39 6.50 6.80 6.80 8.80 8.815	7.49 7.49 7.33 7.40 MMM0 9.52 9.50 9.76 9.58 9.88 9.76 9.55 9.64 9.76 9.75 9.76 9.75 9.76 9.75 9.76 9.76 9.77 9.77 9.77 9.77 9.77 9.77	ANT1  Average	RU Index NA ANT2  ANT2  Conducted Pow RU Index NA ANT2	MIMO er (dBm)		ANT2		1.38 1.38 1.38 1.38 1.38 1.38 1.38 1.37 1.317 3.17 3.17 3.19 3.19 3.19 3.19 3.19 3.19 3.19 3.19	8.86 8.71 8.77 Max e.i.r.p. [dBm] 12.69 12.97 12.93 12.75 13.05 12.15 12.15 12.19 12.18 11.21 11.12 11.13 Max e.i.r.p. [dBm] 14.35 14.58 14.58 14.58 14.58 14.78 14.95 13.91 14.91	240 240 e.l.r.p.Limit [dbm] 240 240 240 240 240 240 240 240 240 240	-15.29 -15.23 e.i.r.p Margin [dB] -11.13 -11.03 -11.07 -11.05 -10.93 -11.05 -11.85 -11.81 -11.82 -12.87 -12
	8 Band 5 6 7 8 Band 7	6995 7115 Freq [MHz] 5965 6005 6105 6405 6445 6485 6525 6685 7085 Freq [MHz] 6385 6685 6685 6685 6685 6685 6685 6685	209 233 Channel  3 11 11 43 91 107 115 123 147 179 187 227 Channel 7 7 1887 191 191 191 191 191 191 191 191 191 19	242T 242T 7 cnes  494T 494T 494T 494T 494T 494T 494T 49	4.49 4.42  ANT1 6.99 6.59 6.59 6.59 6.59 6.59 6.68 6.61 6.75 6.32 6.85 6.87 ANT1 ANT1 8.64 8.76 8.74 8.98 8.98 8.61	4.49 4.15 4.35  65 67 ANT2 6.59 6.59 6.69 6.69 6.69 6.62 6.59 6.62 6.87  ANT2 7.66 8.80 8.81 8.81 8.81	7.49 7.33 7.40 MilMO 9.52 9.80 9.80 9.80 9.88 9.86 9.86 9.87 9.76 9.75 9.76 MilMO 11.19 11.14 11.17 11.78 11.78 11.78	ANT1  Average	RU Index NA ANT2  Conducted Pow RU Index RU Index RU Index NA ANT2	MIMO er (dBm)		NA ANT2		1.38 1.38 1.38 1.38 1.38 1.38 1.38 1.38	8.86 8.71 8.77 Max e.t.r.p [dbm] 12.69 12.97 12.93 12.75 13.07 12.95 12.74 12.15 12.39 12.13 11.13 Max e.t.r.p [dbm] 14.35 14.69 14.59 14.25 14.25 14.25 14.25 14.27 14.27 14.27 14.27 14.28	240 240 e.i.r.p limit [dbm] 240 240 240 240 240 240 240 240 240 240	-15.29 -15.23 -15.23 -1.13 -1.13 -1.107 -1.11.25 -1.108 -1.11.85 -1.11.85 -1.11.85 -1.11.85 -1.18.81 -1.2.79 -1.2.87 -1.2.87 -1.2.87 -1.2.87 -1.2.87 -1.2.87 -1.2.87 -1.2.87 -1.2.87 -1.2.87 -1.2.87 -1.2.87 -1.2.87 -1.2.87 -1.2.87 -1.2.97
80MHz	8 Band 5 6 7 8 Band 5 6 7 8 8	6995 7115 Freq [MHz] 5965 6005 6105 6405 6448 6485 6485 6585 6585 7085 Freq [MHz] 5985 6586 6586 6586 6586 6586 6586 6586	209 233 Channel  3 11 11 43 91 107 115 123 147 179 187 227 Channel 7 7 1887 191 191 191 191 191 191 191 191 191 19	242T 242T Tones  484T 484T 484T 484T 484T 484T 484T 48	4.49 4.42  ANT1 6.99 6.59 6.59 6.59 6.59 6.59 6.68 6.61 6.75 6.32 6.52 6.53 6.32 6.32 6.33 8.74 8.44 8.46	4.49 4.15 4.35  6.57 6.50 6.50 6.50 6.50 6.60 6.75 6.99 6.98 6.62 6.78 6.76 6.78 6.80 6.80 8.05 8.04 8.05 8.05 8.05 8.05 8.05 8.06 8.05 8.06 8.05 8.06 8.06 8.06 8.06 8.06 8.06 8.06 8.06	7,49 7,49 7,33 7,40 MiMO 9,52 9,80 9,76 9,58 9,88 9,67 9,58 9,67 9,84 9,75 9,75 9,75 9,75 9,75 9,75 9,75 9,75	ANT1  Average  ANT1	RU Index NA ANT2  Conducted Pow RU Index NA ANT2  Conducted Pow RU Index NA RU Index NA RU Index NA	er (dBm)  MiMO	ANTI	NA ANT2	MIMO	1.38 1.38 1.38 1.38 1.38 1.38 1.38 1.38	8.86 8.71 8.77 Max e.l.r.p [dbm] 12.69 12.97 12.93 12.75 13.07 12.93 12.75 13.09 12.18 11.21 11.12 11.13 Max e.l.r.p [dbm] 14.60 14.58 14.58 14.76 14.76 14.76 14.76 14.76 14.76 14.76 14.76	240 240 e.l.r.p.Limit [dbm] 240 240 240 240 240 240 240 240 240 240	-15.29 -15.23 e.i.r.p Margin [dB] -11.13 -11.03 -11.07 -11.05 -10.93 -11.05 -11.85 -11.81 -11.82 -12.87 -12
BW 80MHz	8 Band 5 6 7 8 Band 5 6 7 8 8	6995 7115 Freq [MHz] 5965 6005 6165 6405 6445 6485 6685 6885 7085 Freq [MHz] 5985 6885 Freq [MHz] Freq [MHz] Freq [MHz]	209 233 Channel  3 111 43 91 99 107 179 187 221 227 Channel  7 7 7 103 87 103 119 119 119 120 Channel	242T 242T Tones  484T 484T 484T 484T 484T 484T 484T 48	4.49 4.42  ANT1 6.99 6.99 6.59 6.59 6.59 6.59 6.59 6.59	4.49 4.15 4.35  65 67  ANT2 6.50 6.50 6.50 6.50 6.60 6.75 6.39 6.60 6.75 6.39 6.30 6.30 6.30 6.30 6.30 6.30 6.30 6.30	7.49 7.33 7.40 MMM0 9.52 9.52 9.59 9.76 9.59 9.88 9.86 9.76 9.55 9.64 9.88 9.76 9.55 9.76 11.19 11.15 11.15 11.17 11.17 11.17 11.17 11.17	ANT1  Average	RU Index NA ANT2  Conducted Pow RU Index RU Index RU Index NA ANT2	MIMO er (dBm)		NA ANT2		1.38 1.38 1.38 1.38 1.38 1.38 1.38 1.38	8.86 8.71 8.77 Max e.tr.p [dbm] 12.69 12.97 12.93 12.75 13.07 12.95 12.74 12.15 12.13 11.13 Max e.tr.p [dbm] 14.35 14.60 14.50 14.50 14.50 14.25 14.27	240 240 e.i.r.p limit [dbm] 240 240 240 240 240 240 240 240 240 240	-15.29 -15.23 -15.23 -1.13 -1.13 -1.107 -1.11.25 -1.108 -1.11.85 -1.11.85 -1.11.85 -1.11.85 -1.18.81 -1.2.79 -1.2.87 -1.2.87 -1.2.87 -1.2.87 -1.2.87 -1.2.87 -1.2.87 -1.2.87 -1.2.87 -1.2.87 -1.2.87 -1.2.87 -1.2.87 -1.2.87 -1.2.87 -1.2.97 -
BW 80MHz	8 Band 5 6 7 8 Band 5 6 7 8 8	6995 7115 Freq [MHz] 5965 6005 6165 6405 6445 6485 6625 6665 7085 7085 Freq [MHz] 6486 6845 6845 7085 Freq [MHz] 6486 6845 6845 6846 6847 6845 6846 6847 6846 6848	209 233 Channel 3 111 43 91 91 107 115 122 117 221 Channel 7 99 87 103 119 125 151 188 199 105 115 189 115 151 189 115 151 189 115 151 189 115 151 189 115	242T 242T 7 cnes  484T 484T 484T 484T 484T 484T 484T 48	4.49 4.42  ANT1 ANT1 6.99 6.59 6.59 6.59 6.59 6.59 6.68 6.61 6.61 7 8.74 8.74 8.99 8.94 8.64 8.74 8.64 8.74 8.64 8.74 8.64 8.74 8.66	4.49 4.15 4.35  65 ANT2 ANT3 6.59 6.50 6.50 6.50 6.50 6.50 6.50 6.30 6.30 6.30 6.30 6.30 6.30 6.30 6.3	7,49 7,49 7,33 7,40 MiMO 9,52 9,59 9,59 9,88 9,88 9,76 9,55 9,64 9,88 9,76 9,55 9,64 11,19 11,14 11,14 11,17 11,19 11,17	ANT1  Average  ANT1	RU Index NA ANT2  Conducted Pow RU Index NA ANT2  Conducted Pow RU Index NA RU Index NA RU Index NA	er (dBm)  MiMO	ANTI	NA ANT2	MIMO	1.38 1.38 1.38 1.38 1.38 1.38 1.38 1.38	8.86 8.71 8.77 Max e.f.r.p [d6m] 12.69 12.75 13.07 12.93 12.75 13.07 12.94 12.15 12.39 12.15 12.39 12.18 11.12 11.13 11.13 Max e.f.r.p [d6m] 14.58 14.60 14.58 12.75 Max e.f.r.p [d8m] 12.78	240 240 e.i.r.p.timit [dmn] 240 240 240 240 240 240 240 240 240 240	-15.29 -15.23 e.i.r.p Margin [de] -11.31 -11.03 -11.07 -11.25 -11.05 -11.26 -11.28 -12.79 -12.88 -12.87 -12.87 -12.87 -13.87 -14.80 -15.87 -15.88 -15.87 -15.87 -15.87 -15.87 -15.88 -15.87 -15.88 -15.87 -15.87 -15.87 -15.88 -15.87 -15.88 -15
BW 80MHz	8 Band 5 6 7 8 Band 5	6995 7115 Freq [MHz] 5905 6005 6405 6405 6445 6485 6525 6565 6685 7085 Freq [MHz] 5985 6145 6486 6887 7005 Freq [MHz] 6486 6886 6887 6887 6887 6888 6888 6888	209 233 Channel  3 3 11 143 91 199 107 115 123 147 179 211 227 Channel  Channel  Channel  Channel  Channel	242T 242T 7 ones  484T 484T 484T 484T 484T 484T 484T 48	4.49 4.42  ANT1 6.99 6.99 6.99 6.99 6.99 6.99 6.99 6.9	4.49 4.49 4.35  657  657  6.59 6.50 6.79 6.69 6.69 6.69 6.69 6.69 6.69 6.88 6.62 6.88 6.62 6.62 6.64 6.65 6.68 6.68 6.68 6.68 6.68 6.68 6.68	7.49 7.49 7.33 7.40 MiMO 9.52 9.50 9.76 9.58 9.88 9.76 9.59 9.76 9.59 9.76 9.59 9.76 9.76 9.76 9.76 9.76 9.76 9.76 9.7	ANT1  Average  ANT1	RU Index NA ANT2  Conducted Pow RU Index NA ANT2  Conducted Pow RU Index NA RU Index NA RU Index NA	er (dBm)  MiMO	ANTI	NA ANT2	MIMO	1.38 1.38 1.38 1.38 1.38 1.38 1.38 1.38	8.86 8.71 8.77 Max e.i.r.p [dbm] 12.69 12.75 13.07 12.93 12.75 13.07 12.94 12.18 12.18 12.18 12.18 12.18 12.18 14.45 14.45 14.25 14.25 14.25 14.27 14.27 14.27 14.27 14.29	240 240 e.i.r.p.Limit [dbm] 240 240 240 240 240 240 240 240 240 240	-15.29 -15.23  e.i.r.p Margin [de] -11.13 -11.03 -11.03 -11.05 -11.05 -11.05 -11.05 -11.05 -11.85 -11.61 -11.82 -12.87 -1
80MHz	8 Band 5 6 7 8 Band 5 6 6 6 6	6995 7115 Freq [MHz] 5965 6005 6105 6405 6405 6445 6485 6585 7085 7085 Freq [MHz] 6485 6586 7095 5986 5986 5987 6985 5987 6985 5988 5988 5988 5988 5988 5988 5988	209 233 Channel 3 111 43 91 107 115 123 127 Channel 7 7 39 103 115 183 119 215 183 199 215 183 199 216 Channel	242T 242T 7 242T	4.49 4.42  ANT1 6.99 6.59 6.59 6.59 6.59 6.69 6.60 6.75 6.85 6.87 6.87 8.74 8.89 8.98 8.66 8.61 8.74 8.94 8.96 8.61 8.74 8.89 8.98 8.61 8.74 8.89 8.98 8.61 8.74 8.89 8.98 8.61	4.49 4.15 4.35  65 ANT2 6.59 6.59 6.60 6.60 6.60 6.60 6.60 6.60 6.75 6.39 6.30 6.30 6.30 6.30 6.30 6.30 6.30 6.30	7.49 7.49 7.33 7.40 MIMO 9.52 9.70 9.70 9.70 9.88 9.88 9.86 9.76 9.55 9.64 9.88 9.76 9.75 9.76 9.76 9.77 9.88 11.43 11.41 11.40 11.41 11.40 11.41 11.40 11.41 11.40 11.41	ANT1  Average  ANT1	RU Index NA ANT2  Conducted Pow RU Index NA ANT2  Conducted Pow RU Index NA RU Index NA RU Index NA	er (dBm)  MiMO	ANTI	NA ANT2	MIMO	1.38 1.38 1.38 1.38 1.38 1.38 1.38 1.38	8.86 8.71 8.77 Max e.t.r.p [dbm] 12.69 12.59 12.93 12.75 13.07 12.95 12.74 12.15 12.39 12.18 11.12 11.12 11.13 Max e.t.r.p [dbm] 14.58 14.76 14.58 12.75 Max e.t.r.p [dbm] 14.58 12.75	240 240 e.i.r.p timit [dbm] 240 240 240 240 240 240 240 240 240 240	-15.29 -15.23 e.i.r.p Margin [de] -11.31 -11.03 -11.07 -11.25 -11.05 -11.26 -11.86 -11.181 -11.87 -12.79 -12.87 -12.88 -12.87 -12.87 -12.87 -12.87 -12.88 -12.87 -12.88 -12.87 -12.88 -12.88 -12.88 -12.89 -12.89 -12.89 -12.89 -12.89 -12.89 -12.89 -12.89 -12.89 -12.89 -12.89 -12.89 -12.89 -12.89 -12.89 -12.89 -12.89 -13.89 -1
BW 80MHz	8 Band 5 6 7 8 Band 5 6 7 8 Band 5 6 7 7 8 Band 7 7 8 Band 7 8 Band 7	6995 7115 Freq [MHz] 5965 6005 6105 6405 6445 6485 6525 6565 7085 Freq [MHz] 6485 6585 7085 Freq [MHz] 6485 6545 6555 6565 655 6565 6565 6565	209 233 Channel 3 111 43 91 107 115 123 116 127 Channel Channel Channel 118 119 119 211 183 199 215 183 199 215 183 199 215 183 199 215 184 175 184 175 175	242T 242T 7 cnes  484T 484T 484T 484T 484T 484T 484T 48	4.49 4.42  ANT1 6.59 6.59 6.59 6.59 6.59 6.68 6.61 6.75 6.85 6.87 8.84 8.94 8.94 8.94 8.94 8.94 8.94 8.94	4.49 4.49 4.35  65  65  ANT2 6.59 6.50 6.60 6.60 6.60 6.69 6.69 6.69 6.80 6.80 6.80 6.80 6.80 6.80 6.80 6.80	7.49 7.49 7.33 7.40 MIMO 9.52 9.70 9.70 9.88 9.88 9.86 9.76 9.55 9.64 9.88 11.13 11.41 11.41 11.41 11.40 11.57	ANT1  Average  ANT1	RU Index NA ANT2  Conducted Pow RU Index NA ANT2  Conducted Pow RU Index NA RU Index NA RU Index NA	er (dBm)  MiMO	ANTI	NA ANT2	MIMO	1.38 1.38 1.38 1.38 1.38 1.38 1.38 1.38	8.86 8.71 8.77 Max e.i.r.p [dBm] 12.69 12.75 13.07 12.75 13.07 12.75 13.07 12.18 12.11 12.13 11.21 11.13 Max e.i.r.p [dBm] 14.35 14.60 14.78 14.78 12.75 13.91 12.78 12.78 14.78	240 240 e.i.r.p.Limit [dbm] 240 240 240 240 240 240 240 240 240 240	-15.29 -15.23 e.i.r.p Margin [de] -11.31 -11.03 -11.07 -11.25 -10.93 -11.05 -11.85 -11.85 -12.87 -12.88 -12.87 -12.87 -12.87 -12.87 -12.87 -12.87 -12.87 -12.87 -12.99 -12
BW 80MHz	8 Band 5 6 7 8 Band 5 6 6 6 6	6995 7115 Freq [MHz] 5965 6005 6405 6405 6485 6485 6485 6485 6585 6885 7005 Freq [MHz] 6785 6785 6785 Freq [MHz] 6785 6785 6705 6785 6785 6785 6785 6785 6785 6785 678	209 233 Channel  3 3 11 12 43 43 43 43 43 19 99 107 115 123 147 179 211 227 Channel  Channel  Channel  Channel  Channel  15 47 79 79 111 111	242T 242T 7 ones  484T 484T 484T 484T 484T 484T 484T 48	4.49 4.42  ANT1 6.99 6.59 6.59 6.59 6.59 6.59 6.69 6.61 6.75 6.34 6.82 6.85 6.91  ANT1  AN	4.49 4.15 4.35  657 A0 758 6.50 6.50 6.75 6.49 6.69 6.69 6.69 6.89 6.89 6.89 6.89 6.8	7,49 7,49 7,33 7,40 MiMO 9,52 9,50 9,76 9,58 9,88 9,76 9,59 9,86 9,76 9,76 9,76 9,76 9,76 9,76 9,76 9,7	ANT1  Average  ANT1  ANT1	RU Index NA ANT2  Conducted Pow NA ANT2  Conducted Pow NA ANT2  Conducted Pow NA ANT2  Conducted Pow NA ANT2	MIMO er (dBm) MIMO MIMO	ANTI	NA ANT2	MIMO	1.38 1.38 1.38 1.38 1.38 1.38 1.38 1.38	8.86 8.71 8.77 Max e.i.r.p [dbm] 12.69 12.97 12.93 12.75 13.07 12.95 12.13 13.07 12.95 12.13 13.07 12.11 11.12 11.13 Max e.i.r.p [dbm] 14.60 14.60 14.60 14.75 14.25 14.25 14.29 14.25 14.29 14.25 14.29 14.25 14.29 14.25 14.29 14.25 14.29 14.29 14.29 14.25 14.29	240 240 e.i.r.p.limit [dBm] 240 240 240 240 240 240 240 240 240 240	-15.29 -15.23 -15.23 -15.23 -17.24 -17.25 -17.25 -17.25 -17.25 -17.26 -17.26 -17.26 -17.26 -17.27 -17.27 -17.28 -17.29 -17.28 -17.29 -17.28 -17.29 -1
BW 80MHz	8 Band 5 6 7 8 Band 5 6 7 8 8 Band 5 8 8 8 Band 5 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	6995 7115 Freq [MHz] 5965 6005 6105 6405 6445 6485 6505 7085 7085 Freq [MHz] 6885 7085 6965 6965 6965 6965 6965 6965 6965 69	209 233 Channel 3 111 43 91 107 115 1227 Channel Channel 1187 211 227 Channel 119 151 163 179 179 179 183 199 215 183 199 215 184 175 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	242T 242T 7 cnes  484T 484T 484T 484T 484T 484T 484T 48	4.49 4.42  ANT1 6.59 6.59 6.59 6.59 6.59 6.68 6.61 6.75 6.85 6.87 8.84 8.94 8.94 8.94 8.94 8.94 8.94 8.94	4.49 4.49 4.35  65  65  ANT2 6.59 6.50 6.60 6.60 6.60 6.69 6.69 6.69 6.80 6.80 6.80 6.80 6.80 6.80 6.80 6.80	7.49 7.49 7.33 7.40 MIMO 9.52 9.70 9.70 9.88 9.88 9.86 9.76 9.55 9.64 9.88 11.13 11.41 11.41 11.41 11.40 11.57	ANT1  Average  ANT1  ANT1	RU Index NA ANT2  Conducted Pow RU Index NA ANT2  Conducted Pow RU Index NA RU Index NA RU Index NA	MIMO er (dBm) MIMO MIMO	ANTI	NA ANT2	MIMO	1.38 1.38 1.38 1.38 1.38 1.38 1.38 1.38	8.86 8.71 8.77 Max e.l.r.p [dBm] 12.69 12.75 13.07 12.93 12.75 13.07 12.93 12.75 13.07 12.94 12.11 11.13 Max e.l.r.p [dBm] 14.60 14.58 14.76 14.25 14.25 14.25 14.25 14.460 14.58 14.76 14.58 14.76 14.85 14.63	240 240 e.i.r.p.Limit [dbm] 240 240 240 240 240 240 240 240 240 240	-15.29 -15.23 e.i.r.p Margin [de] -11.131 -11.131 -11.103 -11.07 -11.25 -10.93 -11.26 -11.85 -11.29 -12.29
160MHz BW 80MHz	8 Band 5 6 7 8 Band 5 6 7 8 Band 5 6 7 7 8 Band 7 7 8 Band 7 8 Band 7	6995 7115 Freq [MHz] 5965 6005 6105 6405 6445 6485 6525 6565 7085 Freq [MHz] 6485 6585 7085 Freq [MHz] 6485 6545 6555 6565 655 6565 6565 6565	209 233 Channel 3 111 43 91 107 115 123 116 127 Channel Channel Channel 118 119 119 211 183 199 215 183 199 215 183 199 215 183 199 215 184 175 184 175 175	242T 242T 7 cnes  484T 484T 484T 484T 484T 484T 484T 48	4.49 4.42  ANT1 6.99 6.59 6.59 6.59 6.59 6.59 6.58 6.61 6.75 6.32 6.85 6.61 ANT1 8.64 8.76 8.74 8.46  ANT1 8.54 8.77 8.54 8.77 8.54 8.77	4.49 4.49 4.35  647 658 6.50 6.60 6.75 6.49 6.30 6.60 6.75 6.49 6.30 6.60 6.75 6.49 6.30 6.80 6.80 6.80 6.80 6.80 6.80 6.80 6.8	7,49 7,49 7,33 7,40 MIMO 9,52 9,50 9,76 9,58 9,88 9,76 9,58 9,88 9,76 11,19 11,19 11,13 11,14 11,14 11,14 11,14 11,14 11,14 11,14 11,15 11,17 11	ANT1  Average  ANT1  Average	RU Index NA ANT2  Conducted Pow RU Index NA ANT2  Conducted Pow RU Index NA ANT2  Conducted Pow RU Index	MIMO  er (dBm)  MIMO  MIMO  er (dBm)	ANTI	NA ANT2  NA ANT2  NA ANT2  NA ANT2	MIMO	1.38 1.38 1.38 1.38 1.38 1.38 1.38 1.38	8.86 8.71 8.77 Max e.i.r.p [dBm] 12.69 12.75 13.07 12.75 13.07 12.75 13.07 12.18 12.11 12.13 11.21 11.13 Max e.i.r.p [dBm] 14.35 14.60 14.78 14.78 12.75 13.91 12.78 12.78 14.78	240 240 e.i.r.p.Limit [dbm] 240 240 240 240 240 240 240 240 240 240	-15.29 -15.23 e.i.r.p Margin [de] -11.31 -11.03 -11.07 -11.25 -10.93 -11.05 -11.85 -11.85 -12.87 -12.88 -12.87 -12.87 -12.87 -12.87 -12.87 -12.87 -12.87 -12.87 -12.99 -12
160MHz BW 80MHz	8 Band 5 6 7 7 8 Band 5 6 6 7 7 8 Band 5 6 6 7 7 8 Band 5 6 6 7 7 8 Band 6 7 7 8 Band 6 8 Band 6 8 Band 7 8 Band 8	6995 7115 Freq [MHz] 5965 6005 6165 6405 6405 6485 6825 6865 6886 7085 7085 5985 6945 6485 6845 6845 6845 6845 6845 6845 68	209 233 Channel 3 111 43 91 91 107 115 1227 Channel 7 7 7 109 107 115 129 117 211 227 Channel 15 15 18 18 18 19 215 Channel 15 17 79 211 11 14 47 79 207 Channel	242T 242T 7 cnes  484T 484T 484T 484T 484T 484T 484T 48	4.49 4.42  ANT1 ANT1 6.99 6.59 6.59 6.59 6.59 6.59 6.68 6.61 7 8.76 8.76 8.76 8.74 8.99 8.91  ANT1 8.54 8.57 8.74 8.54 8.67 8.74 8.68 8.76 8.74 8.74 8.74 8.75 8.74 8.74 8.75 8.74 8.75 8.76 8.77 8.78 8.78 8.78 8.79 8.78 8.79 8.79	4.49 4.15 4.35  65 67  ANT2 6.50 6.50 6.50 6.50 6.60 6.75 6.49 6.60 6.75 6.30 6.80 6.80 6.80 6.80 6.80 6.80 6.80 6.8	7,49 7,49 7,33 7,40 MMM0 9,52 9,52 9,59 9,76 9,59 9,88 9,76 9,55 9,64 9,88 9,76 11,19 11,41 11,42 11,40 11,40 11,40 11,41	ANT1  Average  ANT1  Average  ANT1	RU Index NA ANT2  Conducted Pow RU Index NA ANT2  Conducted Pow RU Index NA ANT2  Conducted Pow RU Index ANT2 ANT2	er (dBm)  MIMO  MIMO  MIMO  MIMO	ANTI	NA NA ANT2	MIMO	1.38 1.38 1.38 1.38 1.38 1.38 1.38 1.38	8.86 8.71 8.77 Max e.t.r.p [dbm] 12.69 12.97 12.93 12.75 13.07 12.95 12.74 12.15 12.39 12.13 11.12 11.13 11.14 Max e.t.r.p [dbm] 14.35 14.60 14.50 14.	240 240 e.i.r.p.timit [dBm] 240 240 240 240 240 240 240 240 240 240	-15.29 -15.23 e.i.r.p Margin [de] -11.31 -11.03 -11.07 -11.25 -11.05 -11.26 -11.28 -12.79 -12.88 -12.87 -12.87 -12.87 -12.87 -12.87 -12.87 -12.87 -12.87 -12.87 -12.87 -12.87 -12.87 -12.87 -12.88 -12.87 -12.87 -12.89 -12.88 -12.87 -12.89 -13.89 -13
160MHz BW 80MHz	8 Band 5 6 7 8 Band 5 6 7 8 8 Band 5 8 8 8 Band 5 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	6995 7115 Freq [MHz] 5965 6005 6005 6005 6005 6005 6005 6005	209 233 Channel  3 111 133 91 107 115 123 147 179 201 Channel  15 47 79 215 15 15 15 15 17 17 17 17 17 17 17 17 17 17 17 17 17	242T 242T 7 cnes 494T 484T 484T 484T 484T 484T 484T 484T	4.49 4.42  ANT1 6.99 6.99 6.99 6.99 6.99 6.99 6.98 6.61 6.75 6.32 6.82 6.87 6.87 8.84 8.76 8.74 8.46 8.78 8.78 8.84 8.77 8.85 8.87 8.87 8.87 8.87 8.87 8.87	4.49 4.49 4.35  647  647  647  659 6.50 6.50 6.75 6.69 6.69 6.69 6.80 6.80 6.81  8.05	7,49 7,49 7,33 7,40 MIMO 9,52 9,50 9,76 9,58 9,88 9,76 9,58 9,88 9,76 11,19 11,19 11,13 11,14 11,14 11,14 11,14 11,14 11,14 11,14 11,15 11,17 11	ANT1  Average  ANT1  Average	RU Index NA ANT2  Conducted Pow RU Index NA ANT2  RU Index NA ANT2  Conducted Pow RU Index NA ANT2  RU Index NA ANT2  Conducted Pow RU Index NA ANT2  RU Index NA ANT2  RU Index NA ANT2	MIMO  er (dBm)  MIMO  MIMO  er (dBm)	ANTI	NA ANT2  NA ANT2  NA ANT2  NA ANT2	MIMO	1.38 1.38 1.38 1.38 1.38 1.38 1.38 1.38	8.86 8.71 8.77 Max e.t.r.p [dbm] 12.69 12.97 12.93 12.75 13.07 12.95 12.74 12.15 12.19 11.13 Max e.t.r.p [dbm] 14.35 14.60 14.50 14.50 14.50 14.25 14.27 14.27 14.28 14.29 14.20 14.	240 240 e.i.r.p.timit [dBm] 240 240 240 240 240 240 240 240 240 240	-15.29 -15.23  e.i.r. p Margin [de] -11.31 -11.03 -11.07 -11.25 -11.05 -11.26 -11.28 -11.27 -11.28 -12.29 -12.28 -12.28 -12.28 -12.29 -12.28 -12.29 -12.29 -12.29 -12.20 -
160MHz BW 80MHz	8 Band 5 6 7 7 8 Band 5 6 6 7 7 8 Band 5 6 6 7 7 8 Band 5 6 6 7 7 8 Band 6 7 7 8 Band 6 8 Band 6 8 Band 7 8 Band 8	6995 7115 Freq [MHz] 5965 6005 6165 6405 6405 6405 6405 6405 6405 6885 7085 Freq [MHz] 6885 7085 Freq [MHz] 6485 6505 6605 6605 6605 6605 6605 6605 66	209 233 Channel  3 111 43 91 91 99 107 179 187 221 227 Channel  15 15 15 Channel  15 15 179 187 179 187 211 227 Channel  15 179 Channel	242T 242T 7ones 484T 484T 484T 484T 484T 484T 484T 484	4.49 4.42  ANT1 6.99 6.99 6.99 6.99 6.99 6.99 6.99 6.9	4.49 4.49 4.35  657 AVE 658 6.50 6.50 6.75 6.60 6.75 6.69 6.659 6.69 6.87 AVE 6.88 6.88 6.88 6.88 6.88 6.88 8.81 8.81	7.49 7.49 7.33 7.40 MiMO 9.52 9.52 9.59 9.76 9.59 9.88 9.76 9.59 9.76 9.59 9.76 9.59 9.76 9.59 9.76 9.76 9.76 9.76 9.76 9.76 9.76 9.7	ANT1  Average  ANT1  ANT1  Average  ANT1  ANT1  Average  ANT1  ANT1  Average  ANT1  ANT1	RU Index NA ANT2  Conducted Pow RU Index NA ANT2  RU Index NA ANT2  SEU SEU SEU SEU SEU SEU SEU SEU SEU SE	er (dBm)  MIMO  MIMO  MIMO  MIMO  11.56  11.40  11.30	ANTI	NA ANT2  NA ANT2  NA ANT2  NA ANT2	MIMO	1.38 1.38 1.38 1.38 1.38 1.38 1.38 1.38	8.86 8.71 8.77 Max e.i.r.p [dbm] 12.69 12.75 13.07 12.93 12.75 13.07 12.95 12.13 12.13 12.13 12.13 Max e.i.r.p [dbm] 14.35 14.63 14.25 14.25 14.25 14.27 14.25 14.27 14.25 14.29 14.25 14.29 14.25 14.29 14.25 14.29 14.25 14.29 14.25 14.29 14.29 14.29 14.25 14.29 15.00 16.60 16.	240 240 e.i.r.p.limit [dbm] 240 240 240 240 240 240 240 240 240 240	-15.29 -15.23  e.i.r.p Margin [dB] -11.131 -11.03 -11.03 -11.05 -11.05 -11.05 -11.05 -11.85 -11.85 -11.81 -11.82 -12.87 -12.88 -12.87 -12.87 -12.89 -12.87 -12.89 -12.87 -12.89 -12.87 -12.89 -12.87 -12.89 -12.87 -12.89 -12.87 -12.89 -12.87 -12.89 -12.87 -12.88 -12.87 -12.88 -12.87 -12.88 -12.87 -12.88 -12.89 -12.89 -12.89 -12.89 -12.89 -12.89 -12.89 -12.89 -12.89 -13.80 -
BW 80MHz	8 Band 5 6 7 8 Band 5 6 7 8 Band 5 5 6 7 8 Band 5 5 6 7 8 Band 5 5 6 7 7 8 Band 5 5 6 7 8 Band 5	6995 7115 Freq [MHz] 5965 6005 6165 6405 6405 6405 6405 6405 6405 6885 7085 Freq [MHz] 6885 7085 Freq [MHz] 6485 6505 6605 6605 6605 6605 6605 6605 66	209 233 Channel  3 111 43 91 91 99 107 179 187 221 227 Channel  15 15 15 Channel  15 15 179 187 179 187 211 227 Channel  15 179 Channel	242T 242T 7 cnes  484T 484T 484T 484T 484T 484T 484T 48	4.49 4.42  ANT1 6.99 6.99 6.99 6.99 6.99 6.99 6.99 6.9	4.49 4.49 4.35  657 AVE 658 6.50 6.50 6.75 6.69 6.69 6.69 6.69 6.89 6.69 6.89 6.80 6.81 6.81 8.81 8.81 8.81 8.81 8.82 8.83 8.83 8.83 8.83 8.83 8.83 8.83	7,49 7,49 7,33 7,40 MIMO 9,52 9,80 9,76 9,58 9,88 9,67 9,58 9,67 9,84 9,75 9,75 9,75 9,75 9,75 9,75 9,75 9,75	ANT1  Average  ANT1  ANT1  Average  ANT1  ANT1  Average  ANT1  ANT1  Average  ANT1  ANT1	RU Index NA ANT2  Conducted Pow RU Index NA ANT2  RU Index NA ANT2  SEU SEU SEU SEU SEU SEU SEU SEU SEU SE	er (dBm)  MIMO  MIMO  MIMO  MIMO  11.56 11.40 11.33 11.46	ANTI	NA ANT2  NA ANT2  NA ANT2  NA ANT2	MIMO	1.38 1.38 1.38 1.38 1.38 1.38 1.38 1.38	8.86 8.71 8.77 Max e.l.r.p [dbm] 12.69 12.97 12.93 12.75 13.07 12.93 12.75 13.07 12.93 12.18 12.19 12.11 11.13 Max e.l.r.p [dbm] 14.460 14.58 14.75 12.75 12.75 13.91 12.75 14.460 14.58 14.460 14.58 14.75 12.75 12.75 12.75	240 240 e.i.r.p.limit [dbm] 240 240 240 240 240 240 240 240 240 240	-15.29 -15.23 e.i.r.p Margin [de] -11.03 -11.03 -11.07 -11.25 -10.03 -11.05 -11.26 -11.85 -11.29 -12.87 -12.88 -12.87 -12.87 -12.89 -12.87 -12.89 -12
160MHz BW 80MHz	8 Band 5 6 7 8 8 Band 5 5 6 6 7 8 8 Band 5 5 6 6 7 8 8 Band 6 6 7 8 8 Band 6 6 7 8 8 Band 8 B	6995 7115 Freq [MHz] 5965 6005 6005 6005 6005 6005 6005 6005	209 233 Channel 3 111 43 91 107 115 1227 Channel 7 7 39 87 103 119 1215 123 119 215 124 111 127 Channel 151 183 199 215 183 199 216 Channel 151 183 199 217 Channel Channel	242T 242T 7ones 484T 484T 484T 484T 484T 484T 484T 484	4.49 4.42  ANT1 6.99 6.59 6.59 6.59 6.59 6.69 6.61 6.75 6.82 6.65 6.85 6.81  ANT1 8.164 8.74 8.74 8.74 8.74 8.74 8.74 8.74 8.7	4.49 4.49 4.15 4.35  65 ANT2 6.50 6.50 6.50 6.60 6.75 6.49 6.30 6.30 6.30 6.30 6.30 6.30 6.30 6.30	7.49 7.49 7.33 7.40 MiMO 9.52 9.52 9.59 9.76 9.59 9.88 9.76 9.59 9.76 9.59 9.76 9.59 9.76 9.59 9.76 9.76 9.76 9.76 9.76 9.76 9.76 9.7	AVERAGE AVERAGE ANTI AVERAGE ANTI ANTI 865 851	RU Index NA ANT2  Conducted Pow RU Index	er (dBm)  MIMO  MIMO  MIMO  MIMO  11.56  11.40  11.30	ANTI	NA ANT2  NA ANT2  NA ANT2  NA ANT2	MIMO	1.38 1.38 1.38 1.38 1.38 1.38 1.38 1.38	8.86 8.71 8.77 Max e.i.r.p [dbm] 12.69 12.75 13.07 12.93 12.75 13.07 12.95 12.13 12.13 12.13 12.13 Max e.i.r.p [dbm] 14.35 14.63 14.25 14.25 14.25 14.27 14.25 14.27 14.25 14.29 14.25 14.29 14.25 14.29 14.25 14.29 14.25 14.29 14.25 14.29 14.29 14.29 14.25 14.29 15.00 16.60 16.	240 240 e.i.r.p.timit [dBm] 240 240 240 240 240 240 240 240 240 240	-15.29 -15.23  e.i.r.p Margin [dB] -11.131 -11.03 -11.03 -11.05 -11.05 -11.05 -11.05 -11.85 -11.85 -11.81 -11.82 -12.87 -12.88 -12.87 -12.87 -12.89 -12.87 -12.89 -12.87 -12.89 -12.87 -12.89 -12.87 -12.89 -12.87 -12.89 -12.87 -12.89 -12.87 -12.89 -12.87 -12.88 -12.87 -12.88 -12.87 -12.88 -12.87 -12.88 -12.89 -12.89 -12.89 -12.89 -12.89 -12.89 -12.89 -12.89 -12.89 -13.80 -

Table 7-4. MIMO BW 802.11be (UNII) Maximum Conducted Output Power – Partial and Full Tones

FCC ID: A3LNP940XMA		MEASUREMENT REPORT	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 70 of 261
1M2403190019-10.A3L	03/14/2024 - 04/25/2024	Portable Computing Device	rage 70 01 201



								Average	Conducted Pow	er (dBm)							
		F [0.01.1-1		<b>+</b>					MRU Index					Dir. Ant. Gain	Max e.i.r.p	e.i.r.p Limit [dBm]	e.i.r.p Margin [dB]
BW	Band	Freq [MHz]	] Channel	Tones		90			92					[dBi]	[dBm]		
					ANT1	ANT2	MIMO	ANT1	ANT2	MIMO	ANT1	ANT2	MIMO				
80MHz	5	6145	39	242+484T	6.71	6.05	9.40	6.83	6.07	9.48				3.17	12.64	24.0	-11.36
	6	6465	103	242+484T	6.53	5.56	9.08	6.55	5.55	9.09				3.19	12.28	24.0	-11.72
	7	6705	151	242+484T	6.61	6.03	9.34	6.59	6.05	9.34				2.51	11.85	24.0	-12.15
	8	6945	199	242+484T	6.82	6.04	9.46	6.80	6.02	9.44				1.38	10.83	24.0	-13.17
	ŭ	0340	133	24214041	0.02	0.04	3.40		Conducted Pow		-			1.00	10.00	24.0	10.17
								Average		er (asm)							
160MHz BW	Band	Freq [MHz]	Channel	Tones		MRU Index							Dir. Ant. Gain	Max e.i.r.p	e.i.r.p Limit	e.i.r.p Margin	
N						94			1095					[dBi]	[dBm]	[dBm]	[dB]
Ï					ANT1	ANT2	MIMO	ANT1	ANT2	MIMO	ANT1	ANT2	MIMO				
Σ	5	6185	47	996+484T	8.66	8.07	11.39	8.78	8.23	11.52				3.17	14.69	24.0	-9.31
9	6	6505	111	996+484T	8.98	8.40	11.71	8.99	8.32	11.68				3.19	14.90	24.0	-9.10
	7	6665	143	996+484T	8.65	8.37	11.52	8.68	8.42	11.56				2.51	14.07	24.0	-9.93
	8	6985	207	996+484T	8.63	8.36	11.51	8.94	8.52	11.75				1.38	13.12	24.0	-10.88
								Average	Conducted Pow	er (dBm)							
≥	l			_					MRU Index					Dir. Ant. Gain	Max e.i.r.p	e.i.r.p Limit	e.i.r.p Margin [dB]
320MHz BW	Band	Freq [MHz]	Channel	Tones		105			10105					[dBi]	[dBm]	[dBm]	
7					ANT1	ANT2	MIMO	ANT1	ANT2	MIMO	ANT1	ANT2	MIMO	1			
₹	5	6105	31	3x996+484T	8.75	8.52	11.65	8.71	8.52	11.63				3.17	14.81	24.0	-9.19
6	6	6425	95	3x996+484T	8.45	8.09	11.28	8.50	8.06	11.30				3.19	14.49	24.0	-9.51
2	7	6585	127	3x996+484T	8.27	8.52	11.41	8.28	8.51	11.41				2.51	13.92	24.0	-10.08
(1)	8	6905	191	3x996+484T	8.18	8.12	11.16	8.18	8.24	11.22				1.38	12.60	24.0	-11.40
	0	0903	121	3,79014041	0.10	0.12	11.10		Conducted Pow					1.30	12.00	24.0	-11.40
>								Average	MRU Index	ei (ubili)				Dir. Ant. Gain Max e.i.r.p	Mayaira	e.i.r.p Limit	e.i.r.p Margin
BW	Band	Freq [MHz]	] Channel	Tones		104 10104								[dBi]	[dBm]	[dBm]	[dB]
N					ANT1	ANT2	MIMO	ANT1	ANT2	MIMO	ANT1	ANT2	MIMO	[ubij	[ubilij	(asm)	lapi
320MHz	5	6105	31	3x996T	8.68	8.37	11.54	8.78	8.45	11.63	ANTI	ANIZ	IVIIIVO	3.17	14.80	24.0	-9.20
≥																	
50	6	6425	95	3x996T	8.39	8.04	11.23	8.41	8.03	11.23				3.19	14.43	24.0	-9.57
eo	7	6585	127	3x996T	8.24	8.48	11.37	8.17	8.38	11.29				2.51	13.88	24.0	-10.12
	8	6905	191	3x996T	8.05	8.04	11.06	8.24	8.17	11.22				1.38	12.59	24.0	-11.41
_								Average	Conducted Pow	er (dBm)							
320MHz BW	Band	Freq [MHz]	Channel	Tones					MRU Index					Dir. Ant. Gain	Max e.i.r.p	e.i.r.p Limit	e.i.r.p Margin
	Duna		0	Tones		1101			10103					[dBi]	[dBm]	[dBm]	[dB]
Ŷ					ANT1	ANT2	MIMO	ANT1	ANT2	MIMO	ANT1	ANT2	MIMO				
Σ	5	6105	31	2x996+484T	8.99	8.78	11.90	8.87	8.57	11.73				3.17	15.06	24.0	-8.94
2	6	6425	95	2x996+484T	8.47	8.12	11.31	8.57	8.26	11.43				3.19	14.62	24.0	-9.38
33	7	6585	127	2x996+484T	8.31	8.54	11.44	8.40	8.62	11.52				2.51	14.03	24.0	-9.97
	8	6905	191	2x996+484T	8.51	8.40	11.47	8.17	8.16	11.18				1.38	12.84	24.0	-11.16
								Average	Conducted Pow	er (dBm)							
	Band	Freq [MHz]	Channel	Tones					MRU Index					Dir. Ant. Gain	Max e.i.r.p	e.i.r.p Limit	e.i.r.p Margin
	Dallu	ried (MITZ)	Channel	Tones		70			71			72		[dBi]	[dBm]	[dBm]	[dB]
					ANT1	ANT2	MIMO	ANT1	ANT2	MIMO	ANT1	ANT2	MIMO				
	5	6175	45	52+26T	-2.07	-3.75	0.18	-2.03	-3.74	0.21	-2.33	-3.92	-0.04	3.17	3.38	24.0	-20.62
	6	6475	105	52+26T	-2.06	-3.09	0.47	-2.26	-3.54	0.16	-2.23	-3.48	0.20	3.19	3.66	24.0	-20.34
	7	6695	149	52+26T	-2.32	-2.71	0.50	-2.28	-2.57	0.59	-2.33	-2.92	0.40	2.51	3.10	24.0	-20.90
	8	6995	209	52+26T	-2.08	-2.57	0.69	-2.01	-2.38	0.82	-2.01	-3.08	0.50	1.38	2.19	24.0	-21.81
									Conducted Pow								
	l			_					MRU Index					Dir. Ant. Gain	Max e.i.r.p	e.i.r.p Limit	e.i.r.p Margin
	Band	Freq [MHz]	Channel	Tones		82			83					[dBi]	[dBm]	[dBm]	[dB]
					ANT1	ANT2	MIMO	ANT1	ANT2	MIMO	ANT1	ANT2	MIMO	(GDI)	[GSIII]	[GDIII]	[ub]
	5	6175	45	106+26T	0.81	-0.91	3.04	0.64	-0.92	2.94	AATT	7.412		3.17	6.21	24.0	-17.79
	6	6475	105	106+26T	0.89	-0.18	3.40	0.99	-0.92	3.49				3.17	6.68	24.0	-17.32
	7	6695	149	106+26T	0.68	0.22	3.47	0.59	-0.05	3.29				2.51	5.98	24.0	-17.32
	8	6995	209	106+26T	0.88	0.22	3.64	0.84	-0.20	3.36				1.38	5.02	24.0	-18.98

Table 7-5. MIMO BW 802.11be (UNII) Maximum Conducted Output Power - MRU

FCC ID: A3LNP940XMA		Approved by: Technical Manager	
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# MIMO Maximum Conducted Output Power Measurements - SP

	Band				Average Conducted Power (dBm)												
B W		Freq [MHz]	Channel	Tones		RU Index								Dir. Ant. Gain	Max e.i.r.p	e.i.r.p Limit	e.i.r.p Margin
	Danu	r red [wii iz]	Citatillei	Tolles		0			4			. 8		[dBi]	[dBm]	[dBm]	[dB]
	_		2		ANT1	ANT2	MIMO	ANT1	ANT2	MIMO	ANT1	ANT2	MIMO				
	5	5935 6175	45	26T 26T	2.20 8.95	1.82 7.68	5.02 11.37	2.36 8.69	2.22 7.63	5.30 11.20	1.96 8.68	1.63 7.37	4.81 11.08	3.17 3.17	8.47 14.54	30.0 30.0	-21.53 -15.46
	3	6415	93	26T	8.95	7.74	11.37	8.09 8.91	7.50	11.20	8.68	7.92	11.08	3.17	14.54	30.0	-15.54
	_	6535	117	26T	8.47	7.74	11.20	8.53	7.30	11.03	8.83	7.69	11.23	2.51	13.82	30.0	-16.18
	7	6695	149	26T	8.47	7.88 8.06	11.12	8.53	7.43 8.15	11.03	8.83	7.69 8.13	11.31	2.51	14.02	30.0	-16.18
	_	0093	149	201	0.10	0.00	11.12				0.00	0.13	11.42	2.31	14.02	30.0	-13.90
						Average Conducted Power (dBm)  RU Index								Dir. Ant. Gain	Max e.i.r.p	e.i.r.p Limit	e.i.r.p Margin
	Band	Freq [MHz]	Channel	Tones		37		1	39			40		[dBi]	[dBm]	[dBm]	[dB]
					ANT1	ANT2	MIMO	ANT1	ANT2	MIMO	ANT1	ANT2	MIMO	[dbij	[dbiii]	[dDill]	[GD]
		5935	2	52T	2.21	1.88	5.06	2.26	1.98	5.13	2.08	1.71	4.91	3.17	8.30	30.0	-21.70
	5	6175	45	52T	8.62	8.01	11.34	8.40	8.04	11.23	8.72	7.56	11.19	3.17	14.50	30.0	-15.50
		6415	93	52T	8.91	7.90	11.44	8.99	7.60	11.36	8.59	8.06	11.34	3.17	14.61	30.0	-15.39
	7	6535	117	52T	8.64	7.89	11.29	8.52	7.73	11.15	8.92	8.15	11.56	2.51	14.07	30.0	-15.93
	/	6695	149	52T	8.01	8.04	11.04	8.96	8.30	11.65	8.21	7.92	11.08	2.51	14.16	30.0	-15.84
_						-		Average	Conducted Pow	er (dBm)			-				
	l			_					RU Index	,				Dir. Ant. Gain	Max e.i.r.p	e.i.r.p Limit	e.i.r.p Margin
	Band	Freq [MHz]	Channel	Tones		53			54			NA		[dBi]	[dBm]	[dBm]	[dB]
					ANT1	ANT2	MIMO	ANT1	ANT2	MIMO	ANT1	ANT2	MIMO				
		5935	2	106T	2.11	2.12	5.13	1.86	1.85	4.87				3.17	8.29	30.0	-21.71
	5	6175	45	106T	8.66	7.26	11.03	8.84	7.66	11.30				3.17	14.47	30.0	-15.53
		6415	93	106T	8.83	7.41	11.19	8.68	7.57	11.17				3.17	14.35	30.0	-15.65
	7	6535	117	106T	8.90	7.88	11.43	8.96	7.58	11.33				2.51	13.94	30.0	-16.06
								Average	Conducted Pow	er (dBm)		•					
		F (5.01.1-1		+					RU Index					Dir. Ant. Gain	[dBii] [dBm] [dBm]	e.i.r.p Limit	e.i.r.p Margin
	Band	Freq [MHz]	Channel	Tones		61			NA			NA		[dBi]		[dBm]	[dB]
					ANT1	ANT2	MIMO	ANT1	ANT2	MIMO	ANT1	ANT2	MIMO	1			
		5935	2	242T	2.0	1.8	4.93							3.17	8.09	30.0	-21.91
	5	6175	45	242T	8.31	8.02	11.18							3.17	14.34	30.0	-15.66
		6415	93	242T	8.61	8.04	11.34							3.17	14.51	30.0	-15.49
	7	6535	117	242T	8.98	8.37	11.70							2.51	14.21	30.0	-15.79
	/	6695	149	242T	8.84	8.42	11.65							2.51	14.16	30.0	-15.84
			Freq [MHz] Channel	Tones		Average Conducted Power (dBm)							•	Dir. Ant. Gain Max e.i.r.p			e.i.r.p Margin
	l					RU Index									Max e.i.r.p e.i.r.p Limit	e.i.r.p Limit	
	Band	Freq [MHz]				65			NA			NA		[dBi]	[dBm]	[dBm]	[dB]
					ANT1	ANT2	MIMO	ANT1	ANT2	MIMO	ANT1	ANT2	MIMO				
		5965	3	484T	8.60	7.34	11.03										
	5	6005	11	484T										3.17	14.19	30.0	-15.81
	3				8.89	8.36	11.64							3.17	14.81	30.0	-15.19
		6165	43	484T	8.75	8.08	11.64 11.44							3.17 3.17	14.81 14.60	30.0 30.0	-15.19 -15.40
4		6165 6405	43 91	484T 484T			11.64							3.17	14.81	30.0	-15.19
			91 123	484T 484T	8.75 8.96 8.32	8.08	11.64 11.44 11.57 11.36							3.17 3.17	14.81 14.60	30.0 30.0	-15.19 -15.40 -15.26 -16.13
	7	6405 6565 6685	91 123 147	484T 484T 484T	8.75 8.96 8.32 8.53	8.08 8.12 8.37 8.16	11.64 11.44 11.57 11.36 11.36							3.17 3.17 3.17 2.51 2.51	14.81 14.60 14.74 13.87 13.87	30.0 30.0 30.0 30.0 30.0 30.0	-15.19 -15.40 -15.26 -16.13 -16.13
	7	6405 6565	91 123	484T 484T	8.75 8.96 8.32	8.08 8.12 8.37	11.64 11.44 11.57 11.36							3.17 3.17 3.17 2.51	14.81 14.60 14.74 13.87	30.0 30.0 30.0 30.0	-15.19 -15.40 -15.26 -16.13
	7	6405 6565 6685	91 123 147	484T 484T 484T	8.75 8.96 8.32 8.53	8.08 8.12 8.37 8.16	11.64 11.44 11.57 11.36 11.36	Average	• Conducted Pow	er (dBm)				3.17 3.17 3.17 2.51 2.51 2.51	14.81 14.60 14.74 13.87 13.87	30.0 30.0 30.0 30.0 30.0 30.0	-15.19 -15.40 -15.26 -16.13 -16.13 -16.16
		6405 6565 6685 6845	91 123 147 179	484T 484T 484T 484T	8.75 8.96 8.32 8.53	8.08 8.12 8.37 8.16 8.17	11.64 11.44 11.57 11.36 11.36	Average	RU Index	er (dBm)				3.17 3.17 3.17 2.51 2.51 2.51 Dir. Ant. Gain	14.81 14.60 14.74 13.87 13.87 13.84 Max e.i.r.p	30.0 30.0 30.0 30.0 30.0 30.0 e.i.r.p Limit	-15.19 -15.40 -15.26 -16.13 -16.13 -16.16 e.i.r.p Margin
A A A	7 Band	6405 6565 6685	91 123 147	484T 484T 484T	8.75 8.96 8.32 8.53 8.47	8.08 8.12 8.37 8.16 8.17	11.64 11.44 11.57 11.36 11.36 11.33		RU Index NA			NA		3.17 3.17 3.17 2.51 2.51 2.51	14.81 14.60 14.74 13.87 13.87	30.0 30.0 30.0 30.0 30.0 30.0	-15.19 -15.40 -15.26 -16.13 -16.13 -16.16
		6405 6565 6685 6845 Freq [MHz]	91 123 147 179 Channel	484T 484T 484T 484T Tones	8.75 8.96 8.32 8.53 8.47	8.08 8.12 8.37 8.16 8.17 67 ANT2	11.64 11.44 11.57 11.36 11.36 11.33	Average ANT1	RU Index	er (dBm)	ANT1	NA ANT2	MIMO	3.17 3.17 3.17 2.51 2.51 2.51 Dir. Ant. Gain	14.81 14.60 14.74 13.87 13.87 13.84 Max e.i.r.p [dBm]	30.0 30.0 30.0 30.0 30.0 30.0 30.0 e.i.r.p Limit [dBm]	-15.19 -15.40 -15.26 -16.13 -16.13 -16.16 e.i.r.p Margin [dB]
	Band	6405 6565 6685 6845 Freq [MHz]	91 123 147 179 Channel	484T 484T 484T 484T Tones	8.75 8.96 8.32 8.53 8.47	8.08 8.12 8.37 8.16 8.17 67 ANT2 7.66	11.64 11.44 11.57 11.36 11.36 11.33		RU Index NA		ANT1		MIMO	3.17 3.17 3.17 2.51 2.51 2.51 Dir. Ant. Gain [dBi]	14.81 14.60 14.74 13.87 13.87 13.84 Max e.i.r.p [dBm]	30.0 30.0 30.0 30.0 30.0 30.0 e.i.r.p Limit [dBm]	-15.19 -15.40 -15.26 -16.13 -16.13 -16.16 e.i.r.p Margin [dB]
		6405 6565 6685 6845 Freq [MHz]	91 123 147 179 Channel	484T 484T 484T 484T Tones	8.75 8.96 8.32 8.53 8.47 ANT1 8.64 8.76	8.08 8.12 8.37 8.16 8.17 67 ANT2 7.66 8.05	11.64 11.44 11.57 11.36 11.36 11.33 MIMO 11.19		RU Index NA		ANT1		MIMO	3.17 3.17 3.17 2.51 2.51 2.51 Dir. Ant. Gain [dBi]	14.81 14.60 14.74 13.87 13.87 13.84 Max e.i.r.p [dBm]	30.0 30.0 30.0 30.0 30.0 30.0 e.i.r.p Limit (dBm)	-15.19 -15.40 -15.26 -16.13 -16.13 -16.16 e.i.r.p Margin [dB]
PAN SUNING PAN	Band	6405 6565 6685 6845 Freq [MHz] 5985 6145 6385	91 123 147 179 <b>Channel</b> 7 39	484T 484T 484T 484T Tones 996T 996T 996T	8.75 8.96 8.32 8.53 8.47 ANT1 8.64 8.76	8.08 8.12 8.37 8.16 8.17 67 ANT2 7.66 8.05 8.04	11.64 11.44 11.57 11.36 11.36 11.33 MIMO 11.19 11.43		RU Index NA		ANT1		MIMO	3.17 3.17 2.51 2.51 2.51 Dir. Ant. Gain [dBi] 3.17 3.17	14.81 14.60 14.74 13.87 13.87 13.84 Max e.i.r.p [dBm] 14.35 14.60 14.58	30.0 30.0 30.0 30.0 30.0 30.0 e.i.r.p Limit [dBm]	-15.19 -15.40 -15.26 -16.13 -16.13 -16.16 e.i.r.p Margin [dB] -15.65 -15.40 -15.42
WE ZHING	Band	6405 6565 6685 6845 Freq [MHz]	91 123 147 179 Channel	484T 484T 484T 484T Tones	8.75 8.96 8.32 8.53 8.47 ANT1 8.64 8.76	8.08 8.12 8.37 8.16 8.17 67 ANT2 7.66 8.05	11.64 11.44 11.57 11.36 11.36 11.33 MIMO 11.19		RU Index NA		ANT1		MIMO	3.17 3.17 3.17 2.51 2.51 2.51 Dir. Ant. Gain [dBi]	14.81 14.60 14.74 13.87 13.87 13.84 Max e.i.r.p [dBm]	30.0 30.0 30.0 30.0 30.0 30.0 e.i.r.p Limit (dBm)	-15.19 -15.40 -15.26 -16.13 -16.13 -16.16 e.i.r.p Margin [dB]
ZLIMIOO	Band 5	6405 6565 6685 6845 Freq [MHz] 5985 6145 6385	91 123 147 179 <b>Channel</b> 7 39	484T 484T 484T 484T Tones 996T 996T 996T	8.75 8.96 8.32 8.53 8.47 ANT1 8.64 8.76	8.08 8.12 8.37 8.16 8.17 67 ANT2 7.66 8.05 8.04	11.64 11.44 11.57 11.36 11.36 11.33 MIMO 11.19 11.43	ANT1	RU Index NA ANT2	MIMO	ANT1		MIMO	3.17 3.17 2.51 2.51 2.51 Dir. Ant. Gain [dBi] 3.17 3.17	14.81 14.60 14.74 13.87 13.87 13.84 Max e.i.r.p [dBm] 14.35 14.60 14.58	30.0 30.0 30.0 30.0 30.0 30.0 e.i.r.p Limit [dBm]	-15.19 -15.40 -15.26 -16.13 -16.13 -16.16 e.i.r.p Margin [dB] -15.65 -15.40 -15.42
ZLIMIOO	Band 5	6405 6565 6685 6845 Freq [MHz] 5985 6145 6385 6705	91 123 147 179 Channel 7 39 87 151	484T 484T 484T 484T Tones 996T 996T 996T 996T	8.75 8.96 8.32 8.53 8.47 ANT1 8.64 8.76	8.08 8.12 8.37 8.16 8.17 67 ANT2 7.66 8.05 8.04	11.64 11.44 11.57 11.36 11.36 11.33 MIMO 11.19 11.43	ANT1	RU Index NA ANT2 ANT2 Conducted Pow	MIMO	ANT1		MIMO	3.17 3.17 3.17 2.51 2.51 2.51 Dir. Ant. Gain [dBi] 3.17 3.17 3.17 2.51	14.81 14.60 14.74 13.87 13.87 13.84  Max e.i.r.p [dBm] 14.35 14.60 14.58 14.25	30.0 30.0 30.0 30.0 30.0 30.0 30.0  e.i.r.p Limit [dbm] 30.0 30.0 30.0 30.0 30.0	-15.19 -15.40 -15.26 -16.13 -16.13 -16.16 <b>e.i.r.p Margin</b> [ <b>dg</b> ] -15.65 -15.40 -15.42 -15.75
ZHIMIO AMG	Band 5	6405 6565 6685 6845 Freq [MHz] 5985 6145 6385	91 123 147 179 <b>Channel</b> 7 39	484T 484T 484T 484T Tones 996T 996T 996T	8.75 8.96 8.32 8.53 8.47 ANT1 8.64 8.76	8.08 8.12 8.37 8.16 8.17 67 ANT2 7.66 8.05 8.04 8.47	11.64 11.44 11.57 11.36 11.36 11.33 MIMO 11.19 11.43	ANT1	RU Index NA ANT2  Conducted Pow RU Index	MIMO	ANT1	ANT2	МІМО	3.17 3.17 2.51 2.51 2.51 Dir. Ant. Gain [d8i] 3.17 3.17 3.17 3.17 3.17 3.17 3.17 3.17	14.81 14.60 14.74 13.87 13.84 Max e.i.r.p [dBm] 14.35 14.60 14.58 14.25	30.0 30.0 30.0 30.0 30.0 30.0 30.0  e.i.r.p Limit [dBm] 30.0 30.0 30.0 30.0  c.i.r.p Limit [dBm]	-15.19 -15.40 -15.26 -16.13 -16.16 -16.16 e.i.r.p Margin [dB] -15.65 -15.40 -15.42 -15.75 e.i.r.p Margin
ZHIMIO AMG	Band 5	6405 6565 6685 6845 Freq [MHz] 5985 6145 6385 6705	91 123 147 179 Channel 7 39 87 151	484T 484T 484T 484T Tones 996T 996T 996T 996T	8.75 8.96 8.32 8.53 8.47 ANT1 8.64 8.76 8.74 8.98	8.08 8.12 8.37 8.16 8.17 67 ANT2 7.66 8.05 8.04 8.47	11.64 11.44 11.57 11.36 11.36 11.33 11.31 MIMO 11.19 11.43 11.41 11.74	ANT1 Average	RU Index NA ANT2  Conducted Pow RU Index NA	MIMO er (dBm)		ANT2		3.17 3.17 3.17 2.51 2.51 2.51 Dir. Ant. Gain [dBi] 3.17 3.17 3.17 2.51	14.81 14.60 14.74 13.87 13.87 13.84  Max e.i.r.p [dBm] 14.35 14.60 14.58 14.25	30.0 30.0 30.0 30.0 30.0 30.0 30.0  e.i.r.p Limit [dbm] 30.0 30.0 30.0 30.0 30.0	-15.19 -15.40 -15.26 -16.13 -16.13 -16.16 <b>e.i.r.p Margin</b> [ <b>dg</b> ] -15.65 -15.40 -15.42 -15.75
ZHIMIO AMG	Band 5	6405 6565 6685 6845 Freq [MHz] 5985 6145 6385 6705 Freq [MHz]	91 123 147 179 Channel 7 39 87 151	484T 484T 484T 484T  Tones  996T 996T 996T 70nes	8.75 8.96 8.32 8.53 8.47 ANT1 8.64 8.76 8.74 8.98	8.08 8.12 8.37 8.16 8.17 67 ANT2 7.66 8.05 8.04 8.47	11.64 11.44 11.57 11.36 11.36 11.33 MIMO 11.19 11.43 11.41 11.74	ANT1	RU Index NA ANT2  Conducted Pow RU Index	MIMO	ANT1	ANT2	MIMO	3.17 3.17 3.17 2.51 2.51 2.51 2.51 Dir. Ant. Gain [dBi] 3.17 3.17 2.51 Dir. Ant. Gain [dBi]	14.81 14.60 14.74 13.87 13.87 13.84 Max e.i.r.p [dBm] 14.35 14.60 14.58 14.25 Max e.i.r.p [dBm]	30.0 30.0 30.0 30.0 30.0 30.0 30.0 30.0	-15.19 -15.40 -15.26 -16.13 -16.13 -16.16 -15.65 -15.40 -15.65 -15.40 -15.42 -15.75
ZHIMIO AMG	Band 5 7 Band	6405 6565 6685 6845 Freq [MHz] 5985 6145 6385 6705 Freq [MHz]	91 123 147 179 Channel 7 39 87 151 Channel	494T 484T 484T 484T Tones 996T 996T 996T 996T Tones	8.75 8.96 8.32 8.53 8.47 ANT1 8.64 8.76 8.74 8.98	8.08 8.12 8.37 8.16 8.17 67 ANT2 7.66 8.05 8.04 8.47	11.64 11.44 11.57 11.36 11.33 11.33 11.33 11.43 11.41 11.74	ANT1 Average	RU Index NA ANT2  Conducted Pow RU Index NA	MIMO er (dBm)		ANT2		3.17 3.17 3.17 2.51 2.51 2.51 2.51 Dir. Ant. Gain [dBi] 3.17 3.17 3.17 3.17 3.17 3.17 3.17 3.17	14.81 14.60 14.74 13.87 13.87 13.84 Max e.i.r.p [dBm] 14.35 14.60 14.58 14.25 Max e.i.r.p [dBm]	30.0 30.0 30.0 30.0 30.0 30.0 30.0 30.0	-15.19 -15.40 -15.26 -16.13 -16.13 -16.16 e.i.r.p Margin [dB] -15.65 -15.40 -15.42 -15.75 e.i.r.p Margin [dB]
ZLIMIOO	Band 5	6405 6565 6685 6845 Freq [MHz] 5985 6145 6385 6705 Freq [MHz]	91 123 147 179 Channel 7 39 87 151 Channel	484T 484T 484T 484T  Tones  996T 996T 996T Tones  2x996T 2x996T	8.75 8.96 8.32 8.53 8.47 ANT1 8.64 8.76 8.74 8.98	8.08 8.12 8.37 8.16 8.17 67 ANT2 7.66 8.05 8.04 8.47 8.47 8.47	11.64 11.47 11.57 11.36 11.33 11.33 MIMO 11.19 11.43 11.41 11.74	ANT1 Average	RU Index NA ANT2  Conducted Pow RU Index NA	MIMO er (dBm)		ANT2		3.17 3.17 2.51 2.51 2.51 Dir. Ant. Gain [dB] 3.17 3.17 3.17 3.17 3.17 3.17 3.17 3.17	14.81 14.60 14.74 13.87 13.87 13.84 Max e.i.r.p [dBm] 14.35 14.60 14.58 14.25 Max e.i.r.p [dBm]	30.0 30.0 30.0 30.0 30.0 30.0 30.0 30.0	15.19 -15.40 -15.26 -15.26 -16.13 -16.13 -16.16 -17.20 -15.65 -15.40 -15.42 -15.75 -15.42 -15.75
ZHIMIO AMG	Band 5 7 Band	6405 6565 6685 6845 Freq [MHz] 5985 6145 6385 6705 Freq [MHz]	91 123 147 179 Channel 7 39 87 151 Channel	484T 484T 484T 484T Tones 996T 996T 996T 996T 70nes 2x996T 2x996T 2x996T 2x996T	8.75 8.96 8.32 8.53 8.47 ANT1 8.64 8.76 8.74 8.98	8.08 8.12 8.37 8.16 8.17 67 67 7.66 8.05 8.04 8.47 68 68 68 ANT2 8.26 8.11 8.20	11.64 11.44 11.57 11.36 11.36 11.33 11.33 11.41 11.41 11.74 MIMO 11.41 11.74	ANT1 Average	RU Index NA ANT2  Conducted Pow RU Index NA	MIMO er (dBm)		ANT2		3.17 3.17 3.17 2.51 2.51 2.51 2.51  Dir. Ant. Gain [dBi] 3.17 3.17 3.17 3.17 3.17 3.17 3.17 3.17	14.81 14.60 14.74 13.87 13.87 13.84 Max e.t.r.p [dBm] 14.35 14.60 14.58 14.25 Max e.t.r.p [dBm]	30.0 30.0 30.0 30.0 30.0 30.0 30.0 30.0	115.19 -115.40 -115.26 -116.13 -16.13 -16.16 -15.65 -15.40 -15.42 -15.75 -15.42 -15.37 -15.53
ZHIMIO AMG	Band 5 7 Band	6405 6565 6685 6845 Freq [MHz] 5985 6145 6385 6705 Freq [MHz]	91 123 147 179 Channel 7 39 87 151 Channel	484T 484T 484T 484T  Tones  996T 996T 996T Tones  2x996T 2x996T	8.75 8.96 8.32 8.53 8.47 ANT1 8.64 8.76 8.74 8.98	8.08 8.12 8.37 8.16 8.17 67 ANT2 7.66 8.05 8.04 8.47 8.47 8.47	11.64 11.47 11.57 11.36 11.33 11.33 MIMO 11.19 11.43 11.41 11.74	ANT1  Average	RU Index NA ANT2  c Conducted Pow RU Index NA ANT2	MIMO er (dBm)		ANT2		3.17 3.17 2.51 2.51 2.51 Dir. Ant. Gain [dB] 3.17 3.17 3.17 3.17 3.17 3.17 3.17 3.17	14.81 14.60 14.74 13.87 13.87 13.84 Max e.i.r.p [dBm] 14.35 14.60 14.58 14.25 Max e.i.r.p [dBm]	30.0 30.0 30.0 30.0 30.0 30.0 30.0 30.0	15.19 -15.40 -15.26 -15.26 -16.13 -16.13 -16.16 -17.20 -15.65 -15.40 -15.42 -15.75 -15.42 -15.75
WE ZEINING	Band 5 7 Band	6405 6565 6685 6845 Freq [MHz] 5985 6145 6385 6705 Freq [MHz] 6025 6185 6345 6665	91 123 147 179 Channel 7 39 87 151 Channel 15 47 79	484T 484T 484T 484T Tones 996T 996T 996T 996T 70nes 2x996T 2x996T 2x996T 2x996T	8.75 8.96 8.32 8.53 8.47 ANT1 8.64 8.76 8.74 8.98	8.08 8.12 8.37 8.16 8.17 67 67 7.66 8.05 8.04 8.47 68 68 68 ANT2 8.26 8.11 8.20	11.64 11.44 11.57 11.36 11.36 11.33 11.33 11.41 11.41 11.74 MIMO 11.41 11.74	ANT1  Average	RU Index NA ANT2  Conducted Pow RU Index NA ANT2  ANT2  Conducted Pow Conducted Pow Conducted Pow Conducted Pow	MIMO er (dBm)		ANT2		3.17 3.17 3.17 2.51 2.51 2.51 Dir. Ant. Gain [del] 3.17 3.17 3.17 3.17 3.17 3.17 3.17 3.17	14.81 14.60 14.74 13.87 13.87 13.87 13.84  Max e.i.r.p [dBm] 14.35 14.60 14.58 14.25  Max e.ir.p [dBm] 14.450 14.58 14.25	30.0 30.0 30.0 30.0 30.0 30.0 30.0 30.0	-15.19 -15.40 -15.26 -16.13 -16.13 -16.13 -16.16 -1.16.16 -1.16.16 -1.15.40 -1.15.40 -1.15.42 -1.15.42 -1.15.37 -1.15.83 -1.15.88
WE ZEINING	Band 5 7 Band	6405 6565 6685 6845 Freq [MHz] 5985 6145 6385 6705 Freq [MHz]	91 123 147 179 Channel 7 39 87 151 Channel	484T 484T 484T 484T Tones 996T 996T 996T 996T 70nes 2x996T 2x996T 2x996T 2x996T	8.75 8.96 8.32 8.53 8.47 ANT1 8.64 8.76 8.74 8.98	8.08 8.12 8.37 8.16 8.17 67 ANT2 7.66 8.05 8.04 8.47 68 ANT2 8.26 8.11 8.03 8.43	11.64 11.44 11.57 11.36 11.36 11.33 11.33 11.41 11.41 11.74 MIMO 11.41 11.74	ANT1  Average	RU Index NA ANT2  Conducted Pow RU Index NA ANT2  Conducted Pow RU Index NA ANT2	MIMO er (dBm)		NA ANT2		3.17 3.17 3.17 2.51 2.51 2.51 Dir. Ant. Gain [data] 3.17 3.17 2.51 Dir. Ant. Gain [data] 3.17 3.17 2.51 Dir. Ant. Gain [data]	14.81 14.60 14.74 13.87 13.87 13.87 13.84  Max e.i.r.p [dBm] 14.35 14.60 14.58 14.25  Max e.i.r.p [dBm] 14.47 14.58 14.47 14.12  Max e.i.r.p	30.0 30.0 30.0 30.0 30.0 30.0 30.0 30.0	-15.19 -15.40 -15.26 -16.13 -16.13 -16.13 -16.16 -15.65 -15.40 -15.65 -15.40 -15.75 -15.75 -15.75 -15.88 -15.88
WE ZEINING	8 and 5 7 8 and 5 7	6405 6565 6685 6845 Freq [MHz] 5985 6145 6385 6705 Freq [MHz] 6025 6185 6345 6665	91 123 147 179 Channel 7 39 87 151 Channel 15 47 79	494T 494T 494T 494T 494T 494T Tones 996T 996T 996T 996T 700S 700S 700S 700S 700S 700S 700S 700	8.75 8.96 8.32 8.53 8.47 ANT1 8.64 8.76 8.74 8.98 ANT1 8.54 8.77 8.77 8.77 8.76	8.08 8.12 8.37 8.16 67 ANT2 7.66 8.05 8.04 8.47 68 ANT2 8.43 8.43	11.64 11.44 11.57 11.36 11.36 11.33 11.36 11.33 11.41 11.74 11.41 11.74 11.41 11.41 11.46 11.30 11.61	ANT1  Average	RU Index NA ANT2  Conducted Pow RU Index NA ANT2  Conducted Pow RU Index NA ANT2	MIMO er (dBm)  MIMO er (dBm)	ANTI	NA ANT2	МІМО	3.17 3.17 3.17 2.51 2.51 2.51 Dir. Ant. Gain [del] 3.17 3.17 3.17 3.17 3.17 3.17 3.17 3.17	14.81 14.60 14.74 13.87 13.87 13.87 13.84  Max e.i.r.p [dBm] 14.35 14.60 14.58 14.25  Max e.ir.p [dBm] 14.450 14.58 14.25	30.0 30.0 30.0 30.0 30.0 30.0 30.0 30.0	115.19 115.40 115.40 115.26 116.13 116.13 116.13 116.13 116.16 e.i.r.p Margin [dB] 115.40 115.42 115.47 e.i.r.p Margin [dB] 115.49 115.49 115.49 115.49 115.49 115.49 115.49 115.49 115.49 115.49
ZHIMIO AMG	8 and 5 7 8 and 5 7	6405 6565 6685 6845 Freq [MHz] 5985 6145 6385 6705 Freq [MHz] 6025 6185 6345 6665	91 123 147 179 Channel 7 39 87 151 Channel 15 47 79	494T 494T 494T 494T 494T 494T Tones 996T 996T 996T 996T 700S 700S 700S 700S 700S 700S 700S 700	8.75 8.96 8.32 8.53 8.47 ANT1 8.64 8.76 8.74 8.98	8.08 8.12 8.37 8.16 8.17 67 ANT2 7.66 8.05 8.04 8.47 68 ANT2 8.26 8.11 8.03 8.43	11.64 11.44 11.57 11.36 11.36 11.33 11.33 11.41 11.41 11.74 MIMO 11.41 11.74	ANT1  Average	RU Index NA ANT2  Conducted Pow RU Index NA ANT2  Conducted Pow RU Index NA ANT2	MIMO er (dBm)		NA ANT2		3.17 3.17 3.17 2.51 2.51 2.51 Dir. Ant. Gain [data] 3.17 3.17 2.51 Dir. Ant. Gain [data] 3.17 3.17 2.51 Dir. Ant. Gain [data]	14.81 14.60 14.74 13.87 13.87 13.87 13.84  Max e.i.r.p [dBm] 14.35 14.60 14.58 14.25  Max e.i.r.p [dBm] 14.47 14.58 14.47 14.12  Max e.i.r.p	30.0 30.0 30.0 30.0 30.0 30.0 30.0 30.0	-15.19 -15.40 -15.26 -16.13 -16.13 -16.13 -16.15 -15.65 -15.40 -15.42 -15.75 -15.42 -15.75 -15.42 -15.75 -15.82 -15.82 -15.83 -15.83 -15.83 -15.88 -15.84

Table 7-6. MIMO BW 802.11be (UNII) Maximum Conducted Output Power - Partial and Full Tones

	Band	Freq [MHz]	Channel	Tones	Average Conducted Power (dBm) MRU Index								Dir. Ant. Gain			e.i.r.p Margin	
														Max e.i.r.p	e.i.r.p Limit		
					90 92							[dBi]	[dBm]	[dBm]	[dB]		
					ANT1	ANT2	MIMO	ANT1	ANT2	MIMO	ANT1	ANT2	MIMO				
	5	6145	39	484+242T	8.71	8.05	11.40	8.83	8.07	11.48				3.17	14.64	30.0	-15.36
	7	6705	151	484+242T	8.61	8.03	11.34	8.59	8.05	11.34				2.51	13.85	30.0	-16.15
					Average Conducted Power (dBm)												
	Band	Freg [MHz]	Channel	Tones		MRU Index							Dir. Ant. Gain	Max e.i.r.p	e.i.r.p Limit	e.i.r.p Margin	
MS ZHIMING		1,000			94 1095								[dBi]	[dBm]	[dBm]	[dB]	
					ANT1	ANT2	MIMO	ANT1	ANT2	MIMO	ANT1	ANT2	MIMO				
	5	6185	47	996+484T	8.66	8.07	11.39	8.78	8.23	11.52				3.17	14.69	30.0	-15.31
	7	6665	143	996+484T	8.65	8.37	11.52	8.68	8.42	11.56				2.51	14.07	30.0	-15.93
			Channel		Average Conducted Power (dBm)												
	Band	Freq [MHz]		Tones	MRU Index								Dir. Ant. Gain	Max e.i.r.p	e.i.r.p Limit	e.i.r.p Margi	
Ma Ba	Danu	1104 [111112]				105			10105					[dBi]	[dBm]	[dBm]	[dB]
					ANT1	ANT2	MIMO	ANT1	ANT2	MIMO	ANT1	ANT2	MIMO				
	5	6105	31	3x996+484T	8.75	8.52	11.65	8.71	8.52	11.63				3.17	14.81	30.0	-15.19
MA Ba					Average Conducted Power (dBm)							Dir. Ant. Gain					
	Band	Freq [MHz] Channel	Channel	I Tones	MRU Index									e.i.r.p Limit	e.i.r.p Margi		
	Danu		O.L.A.IIIEI			104			10104					[dBi]	[dBm]	[dBm]	[dB]
					ANT1	ANT2	MIMO	ANT1	ANT2	MIMO	ANT1	ANT2	MIMO				
	5	6105	31	3x996T	8.68	8.37	11.54	8.78	8.45	11.63				3.17	14.80	30.0	-15.20
			Freq [MHz] Channel	Tones	Average Conducted Power (dBm)							Dir. Ant. Gain			e.i.r.p Margin		
_	Band	Eron [MHz]			MRU Index									e.i.r.p Limit			
<b>a</b>	Danu	r req [IVITIZ]				1101			10103					[dBi]	[dBm]	[dBm]	[dB]
A B					ANT1	ANT2	MIMO	ANT1	ANT2	MIMO	ANT1	ANT2	MIMO				
	5	6105	31	2x996+484T	8.99	8.78	11.90	8.87	8.57	11.73				3.17	15.06	30.0	-14.94
			Channel	Tones	Average Conducted Power (dBm)												
	Band	Freq [MHz]				MRU Index							Dir. Ant. Gain	Max e.i.r.p	e.i.r.p Limit	e.i.r.p Marg	
	Duna					70			71			72		[dBi]	[dBm]	[dBm]	[dB]
ļ					ANT1	ANT2	MIMO	ANT1	ANT2	MIMO	ANT1	ANT2	MIMO				
	5	6175	45	52+26T	8.95	8.25	11.62	8.80	7.77	11.33	8.35	8.05	11.21	3.17	14.79	30.0	-15.21
	7	6695	149	52+26T	8.56	8.26	11.42	8.96	8.55	11.77	8.85	8.50	11.69	2.51	14.28	30.0	-15.72
								Average	Conducted Pow	er (dBm)							
	Band	Freq [MHz]	Channel	Tones					MRU Index					Dir. Ant. Gain	Max e.i.r.p	e.i.r.p Limit	e.i.r.p Mar
						82			83					[dBi]	[dBm]	[dBm]	[dB]
					ANT1	ANT2	MIMO	ANT1	ANT2	MIMO	ANT1	ANT2	MIMO				
	5	6175	45	106+26T	8.77	8.06	11.44	8.35	8.02	11.20				3.17	14.61	30.0	-15.39
	7	6695	149	106+26T	8.68	8.41	11.56	8.65	8.39	11.53				2.51	14.07	30.0	-15.93

Table 7-7. MIMO BW 802.11be (UNII) Maximum Conducted Output Power - MRU

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#### **Sample MIMO Calculation:**

At 5935MHz in 802.11be (20MHz BW – 26 Tones) mode, the average conducted output power was measured to be -6.11 dBm for Antenna-1 and -5.14 dBm for Antenna-2.

$$(-6.11 \text{ dBm} + -5.14 \text{ dBm}) = (0.245 \text{ mW} + 0.306 \text{ mW}) = 0.551 \text{ mW} = -2.59 \text{ dBm}$$

#### Sample Directional Gain Calculation:

Per ANSI C63.10-2013 Section 14.4.3, the directional gain is calculated using the following formula, where GN is the gain of the nth antenna and NANT, the total number of antennas used.

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

#### Sample e.i.r.p. Calculation:

At 5935MHz in 802.11be (20MHz BW - 26 Tones) mode, the average MIMO conducted power was calculated to be -2.59 dBm with directional gain of 3.17 dBi.

$$-2.59 \text{ dBm} + 3.17 \text{ dBi} = 0.58 \text{ dBm}$$

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Test Report S/N:	Test Dates:	est Dates: EUT Type:			
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## 7.4 Maximum Power Spectral Density

#### **Test Overview and Limit**

The spectrum analyzer was connected to the antenna terminal while the EUT was operating at its maximum duty cycle, at its maximum power control level, as defined in ANSI C63.10-2013, and at the appropriate frequencies. Method SA-1, as defined in ANSI C63.10-2013, was used to measure the power spectral density.

In the 5.925-7.125 GHz bands, the maximum power spectral density must not exceed −1 dBm e.i.r.p. in any 1-megahertz band. For client devices, except for fixed client devices as defined in this subpart, operating under the control of a standard power access point in 5.925-6.425 GHz and 6.525-6.875 GHz bands, the maximum power spectral density must not exceed 17 dBm/MHz e.i.r.p.

## **Test Procedure Used**

ANSI C63.10-2013 – Section 12.3.2.2 ANSI C63.10-2013 – Section 14.3.2.2 Measure-and-Sum Technique

#### **Test Settings**

- 1. Analyzer was set to the center frequency of the UNII channel under investigation
- 2. Span was set to encompass the entire emission bandwidth of the signal
- 3. RBW = 1MHz
- 4. VBW = 3MHz
- 5. Number of sweep points  $\geq 2 \times (\text{span/RBW})$
- 6. Sweep time = auto
- 7. Detector = power averaging (RMS)
- 8. Trigger was set to free run for all modes
- 9. Trace was averaged over 100 sweeps
- 10. The peak search function of the spectrum analyzer was used to find the peak of the spectrum.

### **Test Setup**

The EUT and measurement equipment were set up as shown in the diagram below.



Figure 7-3. Test Instrument & Measurement Setup

#### **Test Notes**

ct.info@element.com.

None

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# **MIMO Power Spectral Density Measurements**

	Frequency [MHz]	Channel	802.11 MODE	Antenna-1 Power Density [dBm]	Antenna-2 Power Density [dBm]	Antenna-1 Gain [dBi]	Antenna-2 Gain [dBi]	Summed MIMO Power Density [dBm]	Duty Cycle Correction	Directional Gain [dBi]	EIRP [dBm]	Max EIRP [dBm]	Margin [dB]
	5935	2	be (20MHz)	-8.43	-7.75	0.55	-0.74	-5.07	0.00	2.94	-2.13	-1	-1.13
	6175	45	be (20MHz)	-8.46	-7.54	0.55	-0.74	-4.97	0.00	2.94	-2.03	-1	-1.03
	6415	93	be (20MHz)	-7.48	-8.13	0.55	-0.74	-4.78	0.00	2.94	-1.84	-1	-0.84
	5965	3	be (40MHz)	-8.46	-7.55	0.55	-0.74	-4.97	0.00	2.94	-2.03	-1	-1.03
	6165	43	be (40MHz)	-8.08	-7.38	0.55	-0.74	-4.70	0.00	2.94	-1.76	-1	-0.76
	6405	91	be (40MHz)	-6.39	-8.71	0.55	-0.74	-4.39	0.00	2.94	-1.45	-1	-0.45
Band 5	5985	7	be (80MHz)	-8.47	-7.20	0.55	-0.74	-4.78	0.00	2.94	-1.84	-1	-0.84
Bar	6145	39	be (80MHz)	-6.63	-8.69	0.55	-0.74	-4.53	0.00	2.94	-1.59	-1	-0.59
	6385	87	be (80MHz)	-7.67	-8.53	0.55	-0.74	-5.07	0.00	2.94	-2.13	-1	-1.13
	6025	15	be (160MHz)	-8.04	-8.12	0.55	-0.74	-5.07	0.00	2.94	-2.13	-1	-1.13
	6185	47	be (160MHz)	-7.26	-8.60	0.55	-0.74	-4.87	0.00	2.94	-1.93	-1	-0.93
	6345	79	be (160MHz)	-7.81	-8.02	0.55	-0.74	-4.91	0.00	2.94	-1.97	-1	-0.97
	6105	31	be (320MHz)	-7.34	-7.67	0.55	-0.74	-4.49	0.00	2.94	-1.55	-1	-0.55
	6265	63	be (320MHz)	-7.10	-8.76	0.55	-0.74	-4.84	0.00	2.94	-1.90	-1	-0.90
	6435	97	be (20MHz)	-7.74	-7.19	0.02	0.36	-4.44	0.00	3.20	-1.24	-1	-0.24
	6475	105	be (20MHz)	-8.08	-7.84	0.02	0.36	-4.95	0.00	3.20	-1.75	-1	-0.75
	6515	113	be (20MHz)	-7.69	-8.44	0.02	0.36	-5.04	0.00	3.20	-1.84	-1	-0.84
Band 6	6445	99	be (40MHz)	-7.91	-7.67	0.02	0.36	-4.78	0.00	3.20	-1.57	-1	-0.57
Bar	6485	107	be (40MHz)	-7.46	-7.81	0.02	0.36	-4.62	0.00	3.20	-1.42	-1	-0.42
	6525	115	be (40MHz)	-7.62	-8.08	0.02	0.36	-4.83	0.00	3.20	-1.63	-1	-0.63
	6465	103	be (80MHz)	-7.86	-7.81	0.02	0.36	-4.82	0.00	3.20	-1.62	-1	-0.62
	6505	111	be (160MHz)	-8.46	-7.97	0.02	0.36	-5.19	0.00	3.20	-1.99	-1	-0.99
Band 5/6/7	6425	95	be (320MHz)	-8.01	-8.38	0.00	0.36	-5.18	0.00	3.19	-1.99	-1	-0.99
	6695	117	be (20MHz)	-7.09	-7.74	-0.56	-0.44	-4.39	0.00	2.51	-1.88	-1	-0.88
	6695	149	be (20MHz)	-7.20	-7.05	-0.56	-0.44	-4.11	0.00	2.51	-1.60	-1	-0.60
	6875	185	be (20MHz)	-6.77	-7.81	-0.56	-0.44	-4.25	0.00	2.51	-1.74	-1	-0.74
	6565	123	be (40MHz)	-7.59	-8.44	-0.56	-0.44	-4.98	0.00	2.51	-2.47	-1	-1.47
2	6685	155	be (40MHz)	-7.51	-7.37	-0.56	-0.44	-4.43	0.00	2.51	-1.92	-1	-0.92
Band 7	6845	179	be (40MHz)	-7.45	-7.58	-0.56	-0.44	-4.50	0.00	2.51	-1.99	-1	-0.99
<u> </u>	6545	119	be (80MHz)	-7.93	-7.87	-0.56	-0.44	-4.89	0.00	2.51	-2.38	-1	-1.38
	6705	151	be (80MHz)	-7.85	-7.95	-0.56	-0.44	-4.89	0.00	2.51	-2.37	-1	-1.37
	6865	183	be (80MHz)	-8.55	-7.28	-0.56	-0.44	-4.86	0.00	2.51	-2.35	-1	-1.35
	6665	143	be (160MHz)	-9.09	-7.74	-0.56	-0.44	-5.35	0.00	2.51	-2.84	-1	-1.84
	6825	175	be (160MHz)	-7.96	-6.55	-0.56	-0.44	-4.19	0.00	2.51	-1.68	-1	-0.68
Band 6/7	6585	127	be (320MHz)	-8.05	-7.05	-0.56	-0.44	-4.51	0.00	2.51	-2.00	-1	-1.00
Band 7/8	6745	159	be (320MHz)	-8.29	-7.50	-0.56	-0.44	-4.87	0.00	2.51	-2.36	-1	-1.36
	6895	189	be (20MHz)	-6.61	-7.84	-1.65	-1.62	-4.17	0.00	1.38	-2.79	-1	-1.79
	6995	209	be (20MHz)	-6.63	-7.67	-1.65	-1.62	-4.11	0.00	1.38	-2.73	-1	-1.73
	7115	233	be (20MHz)	-7.33	-6.81	-1.65	-1.62	-4.05	0.00	1.38	-2.67	-1	-1.67
<u>∞</u>	6885	187	be (40MHz)	-7.99	-6.74	-1.65	-1.62	-4.31	0.00	1.38	-2.93	-1	-1.93
Band	6965	211	be (40MHz)	-7.60	-7.20	-1.65	-1.62	-4.39	0.00	1.38	-3.01	-1	-2.01
<b>6</b>	7085	227	be (40MHz)	-8.34	-6.29	-1.65	-1.62	-4.18	0.00	1.38	-2.81	-1	-1.81
	6945	199	be (80MHz)	-7.60	-6.83	-1.65	-1.62	-4.19	0.00	1.38	-2.81	-1	-1.81
	7025	215	be (80MHz)	-7.90	-6.94	-1.65	-1.62	-4.38	0.00	1.38	-3.01	-1	-2.01
	6985	207	be (160MHz)	-7.78	-6.48	-1.65	-1.62	-4.07	0.00	1.38	-2.69	-1	-1.69
Band 7/8	6985	191	be (320MHz)	-8.23	-7.10	-1.65	-1.62	-4.62	0.00	1.38	-3.24	-1	-2.24

Table 7-8. MIMO e.i.r.p. Conducted Power Spectral Density Measurements (26 Tones) - LPI

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	Frequency [MHz]	Channel	802.11 MODE	Antenna-1 Power Density [dBm]	Antenna-2 Power Density [dBm]	Antenna-1 Gain [dBi]	Antenna-2 Gain [dBi]	Summed MIMO Power Density [dBm]	Duty Cycle Correction	Directional Gain [dBi]	EIRP [dBm]	Max EIRP [dBm]	Margin [dB]
	5935	2	be (20MHz)	-1.95	-0.60	0.55	-0.74	1.79	0.00	2.94	4.73	17	-12.27
	6175	45	be (20MHz)	6.31	6.00	0.55	-0.74	9.17	0.00	2.94	12.11	17	-4.89
	6415	93	be (20MHz)	5.90	6.79	0.55	-0.74	9.38	0.00	2.94	12.32	17	-4.68
	5965	3	be (40MHz)	6.60	6.84	0.55	-0.74	9.73	0.00	2.94	12.67	17	-4.33
	6165	43	be (40MHz)	6.43	6.32	0.55	-0.74	9.39	0.00	2.94	12.32	17	-4.68
	6405	91	be (40MHz)	6.18	6.76	0.55	-0.74	9.49	0.00	2.94	12.43	17	-4.57
d 5	5985	7	be (80MHz)	6.23	5.92	0.55	-0.74	9.09	0.00	2.94	12.03	17	-4.97
Band	6145	39	be (80MHz)	6.04	6.19	0.55	-0.74	9.12	0.00	2.94	12.06	17	-4.94
	6385	87	be (80MHz)	6.56	6.10	0.55	-0.74	9.35	0.00	2.94	12.29	17	-4.71
	6025	15	be (160MHz)	5.48	6.79	0.55	-0.74	9.19	0.00	2.94	12.13	17	-4.87
	6185	47	be (160MHz)	6.24	5.27	0.55	-0.74	8.79	0.00	2.94	11.73	17	-5.27
	6345	79	be (160MHz)	6.23	5.85	0.55	-0.74	9.06	0.00	2.94	11.99	17	-5.01
	6105	31	be (320MHz)	6.11	6.08	0.55	-0.74	9.11	0.00	2.94	12.05	17	-4.95
	6265	63	be (320MHz)	5.87	5.50	0.55	-0.74	8.70	0.00	2.94	11.64	17	-5.36
	6695	117	be (20MHz)	5.31	6.22	-0.56	-0.44	8.80	0.00	2.51	11.31	17	-5.69
	6695	149	be (20MHz)	6.05	6.71	-0.56	-0.44	9.40	0.00	2.51	11.91	17	-5.09
	6875	185	be (20MHz)	5.18	5.97	-0.56	-0.44	8.60	0.00	2.51	11.11	17	-5.89
	6565	123	be (40MHz)	5.88	6.20	-0.56	-0.44	9.05	0.00	2.51	11.56	17	-5.44
7	6685	155	be (40MHz)	5.27	6.46	-0.56	-0.44	8.92	0.00	2.51	11.43	17	-5.57
Band	6845	179	be (40MHz)	5.30	7.55	-0.56	-0.44	9.58	0.00	2.51	12.09	17	-4.91
ĕ	6545	119	be (80MHz)	5.02	5.50	-0.56	-0.44	8.28	0.00	2.51	10.79	17	-6.21
	6705	151	be (80MHz)	5.49	6.57	-0.56	-0.44	9.07	0.00	2.51	11.58	17	-5.42
	6865	183	be (80MHz)	5.17	6.51	-0.56	-0.44	8.90	0.00	2.51	11.41	17	-5.59
	6665	143	be (160MHz)	4.64	5.93	-0.56	-0.44	8.34	0.00	2.51	10.85	17	-6.15
	6825	175	be (160MHz)	4.64	6.31	-0.56	-0.44	8.56	0.00	2.51	11.07	17	-5.93

Table 7-9. MIMO e.i.r.p. Conducted Power Spectral Density Measurements (26 Tones) - SP

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	Frequency [MHz]	Channel	802.11 MODE	Antenna-1 Power Density [dBm]	Antenna-2 Power Density [dBm]	[dBi]	Antenna-2 Gain [dBi]	Summed MIMO Power Density [dBm]	Duty Cycle Correction	Directional Gain [dBi]	EIRP [dBm]	Max EIRP [dBm]	Margin [dB]
	5935	2	be (20MHz)	-8.68	-8.57	0.55	-0.74	-5.61	0.00	2.94	-2.67	-1	-1.67
	6175	45	be (20MHz)	-8.52	-7.41	0.55	-0.74	-4.92	0.00	2.94	-1.98	-1	-0.98
	6415	93	be (20MHz)	-8.35	-7.39	0.55	-0.74	-4.83	0.00	2.94	-1.89	-1	-0.89
	5965	3	be (40MHz)	-7.85	-8.23	0.55	-0.74	-5.03	0.11	2.94	-1.98	-1	-0.98
	6165	43	be (40MHz)	-8.23	-7.33	0.55	-0.74	-4.75	0.11	2.94	-1.70	-1	-0.70
	6405	91	be (40MHz)	-8.18	-7.25	0.55	-0.74	-4.68	0.11	2.94	-1.63	-1	-0.63
	5985	7	be (80MHz)	-9.30	-8.68	0.55	-0.74	-5.97	0.12	2.94	-2.91	-1	-1.91
Band 5	6145	39	be (80MHz)	-8.59	-8.37	0.55	-0.74	-5.46	0.12	2.94	-2.40	-1	-1.40
Bar	6385	87	be (80MHz)	-8.85	-9.03	0.55	-0.74	-5.93	0.12	2.94	-2.87	-1	-1.87
	6025	15	be (160MHz)	-11.98	-10.95	0.55	-0.74	-8.42	0.12	2.94	-5.36	-1	-4.36
	6185	47	be (160MHz)	-10.70	-10.95	0.55	-0.74	-7.81	0.12	2.94	-4.75	-1	-3.75
	6345	79	be (160MHz)	-11.34	-11.47	0.55	-0.74	-8.39	0.12	2.94	-5.34	-1	-4.34
	6105	31	be (320MHz)(L)	-9.11	-9.31	0.55	-0.74	-6.20	0.09	2.94	-3.17	-1	-2.17
	6105	31	be (320MHz)(U)	-10.28	-9.61	0.55	-0.74	-6.92	0.09	2.94	-3.89	-1	-2.89
	6265	63	be (320MHz)(L)	-9.88	-9.52	0.55	-0.74	-6.69	0.09	2.94	-3.66	-1	-2.66
	6265	63	be (320MHz)(U)	-10.97	-10.93	0.55	-0.74	-7.94	0.09	2.94	-4.91	-1	-3.91
	6435	97	be (20MHz)	-7.69	-7.31	0.02	0.36	-4.48	0.00	3.20	-1.28	-1	-0.28
	6475	105	be (20MHz)	-8.06	-7.61	0.02	0.36	-4.82	0.00	3.20	-1.62	-1	-0.62
9	6515	113	be (20MHz)	-7.44	-7.67	0.02	0.36	-4.54	0.00	3.20	-1.34	-1	-0.34
ğ	6445	99	be (40MHz)	-8.64	-6.59	0.02	0.36	-4.48	0.11	3.20	-1.17	-1	-0.17
Band	6485	107	be (40MHz)	-8.56	-7.57	0.02	0.36	-5.02	0.11	3.20	-1.71	-1	-0.71
	6525	115	be (40MHz)	-7.29	-7.84	0.02	0.36	-4.55	0.11	3.20	-1.24	-1	-0.24
	6465	103	be (80MHz)	-7.74	-8.82	0.02	0.36	-5.24	0.12	3.20	-1.92	-1	-0.92
	6505	111	be (160MHz)	-11.26	-11.23	0.02	0.36	-8.24	0.12	3.20	-4.91	-1	-3.91
Band 5/6/7	6425	95	be (320MHz)(L)	-10.51	-9.41	0.02	0.36	-6.91	0.09	3.20	-3.62	-1	-2.62
	6425	95	be (320MHz)(U)	-11.01	-9.88	0.02	0.36	-7.40	0.09	3.20	-4.11	-1	-3.11
	6695	117	be (20MHz)	-7.24	-7.61	-0.56	-0.44	-4.41	0.00	2.51	-1.90	-1	-0.90
	6695	149	be (20MHz)	-6.91	-7.02	-0.56	-0.44	-3.95	0.00	2.51	-1.44	-1	-0.44
	6875	185	be (20MHz)	-7.29	-6.75	-0.56	-0.44	-4.00	0.00	2.51	-1.49	-1	-0.49
	6565	123	be (40MHz)	-8.71	-7.90	-0.56	-0.44	-5.27	0.11	2.51	-2.65	-1	-1.65
Band 7	6685	155	be (40MHz)	-7.34	-6.96	-0.56	-0.44	-4.13	0.11	2.51	-1.51	-1	-0.51
an	6845	179	be (40MHz)	-7.82	-6.75	-0.56	-0.44	-4.24	0.11	2.51	-1.62	-1	-0.62
	6545	119	be (80MHz)	-8.82	-8.68	-0.56	-0.44	-5.74	0.12	2.51	-3.11	-1	-2.11
	6705	151	be (80MHz)	-8.93	-7.52	-0.56	-0.44	-5.16	0.12	2.51	-2.53	-1	-1.53
	6865	183	be (80MHz)	-9.09	-7.89	-0.56	-0.44	-5.44	0.12	2.51	-2.81	-1	-1.81
	6665	143	be (160MHz)	-11.77	-10.90	-0.56	-0.44	-8.30	0.12	2.51	-5.67	-1	-4.67
	6825	175	be (160MHz)	-11.82	-10.65	-0.56	-0.44	-8.19	0.12	2.51	-5.56	-1	-4.56
David C/T	6585	127	be (320MHz)(L)	-11.32	-9.96	-0.56	-0.44	-7.58	0.09	2.51	-4.98	-1	-3.98
Band 6/7	6585	127	be (320MHz)(U)	-11.10	-9.35	-0.56	-0.44	-7.13	0.09	2.51	-4.53	-1	-3.53
D1 7/0	6745	159	be (320MHz)(L)	-11.67	-9.73	-0.56	-0.44	-7.58	0.09	2.51	-4.98	-1	-3.98
Band 7/8	6745	159	be (320MHz)(U)	-11.00	-9.87	-0.56	-0.44	-7.39	0.09	2.51	-4.79 -2.41	-1 -1	-3.79 -1.41
	6895	189	be (20MHz)	-6.98	-6.62	-1.65	-1.62	-3.78		1.38			
	6995 7115	209	be (20MHz)	-7.62	-6.89	-1.65	-1.62	-4.23 -4.07	0.00	1.38	-2.85	-1	-1.85
		233	be (20MHz)	-7.64	-6.58	-1.65	-1.62		0.00	1.38	-2.69	-1 -1	-1.69
Band 8	6885	187 211	be (40MHz)	-7.60 9.12	-7.11 6.66	-1.65 1.65	-1.62	-4.34 -4.32	0.11	1.38	-2.86 -2.84	-1 -1	-1.86
Ban	6965	211	be (40MHz)	-8.13 -8.42	-6.66	-1.65	-1.62 -1.62	-4.32 -4.21	0.11	1.38	-2.84	-1	-1.84 -1.73
	7085	199	be (40MHz)		-6.29 8.20	-1.65			0.11	1.38			
	6945 7025		be (80MHz)	-8.61	-8.30	-1.65	-1.62 -1.62	-5.44	0.12	1.38	-3.94	-1 -1	-2.94
	6985	215 207	be (80MHz)	-7.34 -11.07	-7.13 -10.49	-1.65 -1.65	-1.62 -1.62	-4.22 -7.76	0.12 0.12	1.38 1.38	-2.73 -6.26	-1	-1.73 -5.26
		191	be (160MHz)	-11.07	-10.49	-1.65	-1.62	-7.76	0.12	1.38	-5.87	-1	-5.26 -4.87
Band 7/8	6905 6905	191	be (320MHz)(L)	-11.11 -10.05	-9.69 -9.13	-1.65 -1.65	-1.62 -1.62	-7.33 -6.56	0.09	1.38	-5.87 -5.09	-1	-4.87 -4.09
		191 7 4 0 B	be (320MHz)(U)		-9.13		-1.62 4 - 1 Domo		0.09	1.38 /FII Ta		1 DI	-4.09

Table 7-10. MIMO e.i.r.p. Conducted Power Spectral Density Measurements (Full Tones) - LPI

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	Frequency [MHz]	Channel	802.11 MODE	Antenna-1 Power Density [dBm]	Antenna-2 Power Density [dBm]	Antenna-1 Gain [dBi]	Antenna-2 Gain [dBi]	Summed MIMO Power Density [dBm]	Duty Cycle Correction	Directional Gain [dBi]	EIRP [dBm]	Max EIRP [dBm]	Margin [dB]
	5935	2	be (20MHz)	-9.37	-8.49	0.55	-0.74	-5.90	0.00	2.94	-2.96	17	-19.96
	6175	45	be (20MHz)	-2.21	-2.44	0.55	-0.74	0.69	0.00	2.94	3.63	17	-13.37
	6415	93	be (20MHz)	-2.57	-2.01	0.55	-0.74	0.73	0.00	2.94	3.67	17	-13.33
	5965	3	be (40MHz)	-6.35	-6.26	0.55	-0.74	-3.29	0.11	2.94	-0.24	17	-17.24
	6165	43	be (40MHz)	-5.28	-4.86	0.55	-0.74	-2.05	0.11	2.94	0.99	17	-16.01
	6405	91	be (40MHz)	-5.77	-4.99	0.55	-0.74	-2.35	0.11	2.94	0.70	17	-16.30
	5985	7	be (80MHz)	-9.30	-8.68	0.55	-0.74	-5.97	0.12	2.94	-2.91	17	-19.91
d 5	6145	39	be (80MHz)	-8.59	-8.37	0.55	-0.74	-5.46	0.12	2.94	-2.40	17	-19.40
Band	6385	87	be (80MHz)	-8.85	-9.03	0.55	-0.74	-5.93	0.12	2.94	-2.87	17	-19.87
	6025	15	be (160MHz)	-11.98	-10.95	0.55	-0.74	-8.42	0.12	2.94	-5.36	17	-22.36
	6185	47	be (160MHz)	-10.70	-10.95	0.55	-0.74	-7.81	0.12	2.94	-4.75	17	-21.75
	6345	79	be (160MHz)	-11.34	-11.47	0.55	-0.74	-8.39	0.12	2.94	-5.34	17	-22.34
	6105	31	be (320MHz)(L)	-9.11	-9.31	0.55	-0.74	-6.20	0.09	2.94	-3.17	17	-20.17
	6105	31	be (320MHz)(U)	-10.28	-9.61	0.55	-0.74	-6.92	0.09	2.94	-3.89	17	-20.89
	6265	63	be (320MHz)(L)	-9.88	-9.52	0.55	-0.74	-6.69	0.09	2.94	-3.66	17	-20.66
	6265	63	be (320MHz)(U)	-10.97	-10.93	0.55	-0.74	-7.94	0.09	2.94	-4.91	17	-21.91
	6695	117	be (20MHz)	-2.61	-2.40	-0.56	-0.44	0.51	0.00	2.51	3.02	17	-13.98
	6695	149	be (20MHz)	-2.43	-1.70	-0.56	-0.44	0.96	0.00	2.51	3.47	17	-13.53
	6875	185	be (20MHz)	-2.49	-1.99	-0.56	-0.44	0.78	0.00	2.51	3.29	17	-13.71
	6565	123	be (40MHz)	-6.19	-5.66	-0.56	-0.44	-2.91	0.11	2.51	-0.28	17	-17.28
	6685	155	be (40MHz)	-6.33	-5.51	-0.56	-0.44	-2.89	0.11	2.51	-0.27	17	-17.27
Band	6845	179	be (40MHz)	-6.18	-4.83	-0.56	-0.44	-2.44	0.11	2.51	0.18	17	-16.82
ä	6545	119	be (80MHz)	-8.82	-8.68	-0.56	-0.44	-5.74	0.12	2.51	-3.11	17	-20.11
	6705	151	be (80MHz)	-8.93	-7.52	-0.56	-0.44	-5.16	0.12	2.51	-2.53	17	-19.53
	6865	183	be (80MHz)	-9.09	-7.89	-0.56	-0.44	-5.44	0.12	2.51	-2.81	17	-19.81
	6665	143	be (160MHz)	-11.77	-10.90	-0.56	-0.44	-8.30	0.12	2.51	-5.67	17	-22.67
	6825	175	be (160MHz)	-11.82	-10.65	-0.56	-0.44	-8.19	0.12	2.51	-5.56	17	-22.56

Table 7-11. MIMO e.i.r.p. Conducted Power Spectral Density Measurements (Full Tones) - SP

	Frequency [MHz]	Channel	802.11 MODE	MRU Cases	Antenna-1 Power Density [dBm]	Antenna-2 Power Density [dBm]	Antenna-1 Gain [dBi]	Antenna-2 Gain [dBi]	Summed MIMO Power Density [dBm]	Duty Cycle Correction	Directional Gain [dBi]	EIRP [dBm]	Max EIRP [dBm]	Margin [dB]
	6145	39	be (80MHz)	484+242T	-7.59	-8.22	0.55	-0.74	-4.89	0.00	2.94	-1.95	-1	-0.95
	6185	47	be (160MHz)	996+484T	-9.23	-9.54	0.55	-0.74	-6.37	0.00	2.94	-3.43	-1	-2.43
Band 5	6105	31	be (320MHz)	3x996+484T	-11.68	-11.53	0.55	-0.74	-8.60	0.17	2.94	-5.49	-1	-4.49
	6105	31	be (320MHz)	3x996T	-10.72	-10.73	0.55	-0.74	-7.72	0.15	2.94	-4.63	-1	-3.63
	6105	31	be (320MHz)	2x996+484T	-10.33	-10.46	0.55	-0.74	-7.38	0.13	2.94	-4.31	-1	-3.31
Band 6	6465	103	be (80MHz)	484+242T	-9.31	-9.54	0.02	0.36	-6.41	0.00	3.20	-3.21	-1	-2.21
вапо в	6505	111	be (160MHz)	996+484T	-9.54	-9.17	0.02	0.36	-6.34	0.00	3.20	-3.14	-1	-2.14
	6425	95	be (320MHz)	3x996+484T	-12.49	-11.92	0.02	0.36	-9.18	0.17	3.20	-5.81	-1	-4.81
Band 5/6/7	6425	95	be (320MHz)	3x996T	-11.93	-10.87	0.02	0.36	-8.36	0.15	3.20	-5.00	-1	-4.00
	6425	95	be (320MHz)	2x996+484T	-11.33	-11.05	0.02	0.36	-8.18	0.13	3.20	-4.85	-1	-3.85
Band 7	6705	151	be (80MHz)	484+242T	-8.77	-7.62	-0.56	-0.44	-5.15	0.00	2.51	-2.64	-1	-1.64
Dallu 7	6665	143	be (160MHz)	996+484T	-9.16	-8.84	-0.56	-0.44	-5.98	0.00	2.51	-3.47	-1	-2.47
	6585	127	be (320MHz)	3x996+484T	-12.88	-11.94	-0.56	-0.44	-9.37	0.17	2.51	-6.69	-1	-5.69
Band 6/7	6585	127	be (320MHz)	3x996T	-11.98	-10.74	-0.56	-0.44	-8.30	0.15	2.51	-5.64	-1	-4.64
	6585	127	be (320MHz)	2x996+484T	-10.80	-10.56	-0.56	-0.44	-7.67	0.13	2.51	-5.02	-1	-4.02
Band 8	6945	199	be (80MHz)	484+242T	-7.64	-8.46	-0.56	-0.44	-5.02	0.00	2.51	-2.51	-1	-1.51
54.14.5	6985	207	be (160MHz)	996+484T	-8.47	-8.80	-1.65	-1.62	-5.62	0.00	1.38	-4.25	-1	-3.25
	6985	191	be (320MHz)	3x996+484T	-12.61	-11.91	-1.65	-1.62	-9.23	0.17	1.38	-7.69	-1	-6.69
Band 7/8	6985	191	be (320MHz)	3x996T	-11.67	-10.82	-1.65	-1.62	-8.21	0.15	1.38	-6.69	-1	-5.69
	6985	191	be (320MHz)	2x996+484T	-10.92	-10.19	-1.65	-1.62	-7.53	0.13	1.38	-6.02	-1	-5.02

Table 7-12. MIMO e.i.r.p. Conducted Power Spectral Density Measurements (MRU) - LPI

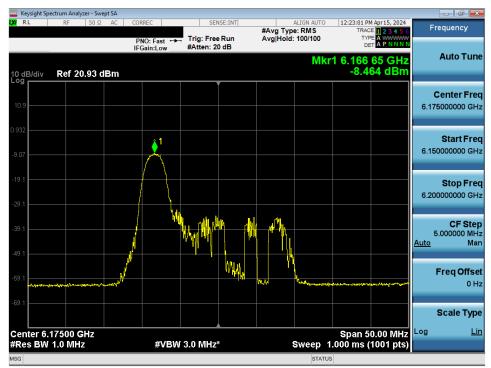
	Frequency [MHz]	Channel	802.11 MODE	MRU Cases	Antenna-1 Power Density [dBm]	Antenna-2 Power Density [dBm]	Antenna-1 Gain [dBi]	Antenna-2 Gain [dBi]	Summed MIMO Power Density [dBm]	Duty Cycle Correction	Directional Gain [dBi]	EIRP [dBm]	Max EIRP [dBm]	Margin [dB]
	6145	39	be (80MHz)	484+242T	-5.68	-6.34	0.55	-0.74	-2.98	0.00	2.94	-0.04	17	-17.04
	6185	47	be (160MHz)	996+484T	-9.23	-9.54	0.55	-0.74	-6.37	0.00	2.94	-3.43	17	-20.43
Band 5	6105	31	be (320MHz)	3x996+484T	-11.68	-11.53	0.55	-0.74	-8.60	0.17	2.94	-5.66	17	-22.66
	6105	31	be (320MHz)	3x996T	-10.72	-10.73	0.55	-0.74	-7.72	0.15	2.94	-4.78	17	-21.78
	6105	31	be (320MHz)	2x996+484T	-10.33	-10.46	0.55	-0.74	-7.38	0.13	2.94	-4.44	17	-21.44
Band 7	6705	151	be (80MHz)	484+242T	-7.35	-6.01	-0.56	-0.44	-3.62	0.00	2.51	-1.11	17	-18.11
Dallu 7	6665	143	be (160MHz)	996+484T	-9.16	-8.84	-0.56	-0.44	-5.98	0.00	2.51	-3.47	17	-20.47
	Frequency [MHz]	Channel	802.11 MODE	MRU Cases	Antenna-1 Power Density [dBm]	Antenna-2 Power Density [dBm]	Antenna-1 Gain [dBi]	Antenna-2 Gain [dBi]	Summed MIMO Power Density [dBm]	Duty Cycle Correction	Directional Gain [dBi]	EIRP [dBm]	Max EIRP [dBm]	Margin [dB]
Band 5	6175	45	be (20MHz)	52+26T	3.08	2.49	0.55	-0.74	5.80	0.00	2.94	8.74	17	-8.26
Dallu 3	6175	45	be (20MHz)	106+26T	0.87	-0.06	0.55	-0.74	3.44	0.00	2.94	6.38	17	-10.62
Band 7	6695	149	be (20MHz)	52+26T	2.50	2.75	-0.56	-0.44	5.64	0.00	2.51	8.15	17	-8.85
Dallu /	6695	149	be (20MHz)	106+26T	0.09	0.39	-0.56	-0.44	3.25	0.00	2.51	5.76	17	-11.24

Table 7-13. MIMO e.i.r.p. Conducted Power Spectral Density Measurements (MRU) - SP

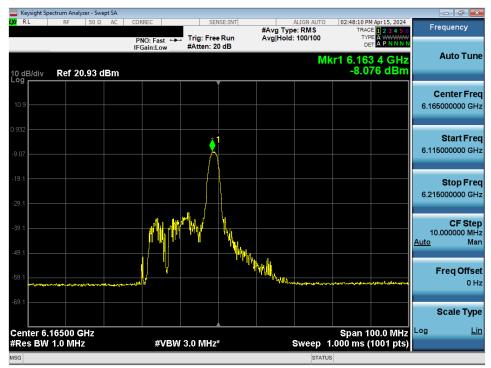
FCC ID: A3LNP940XMA		MEASUREMENT REPORT				
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## 7.4.1 MIMO Antenna-1 Power Spectral Density Measurements



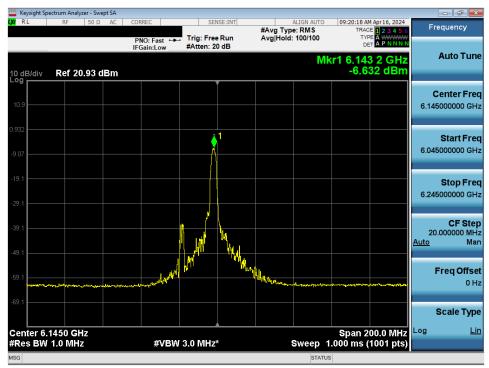
Plot 7-81. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11be (26 Tones) (UNII Band 5) - Ch. 45) - LPI



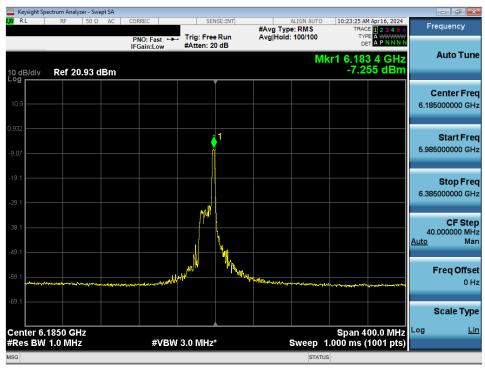
Plot 7-82. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802. 11be (26 Tones) (UNII Band 5) - Ch. 43) - LPI

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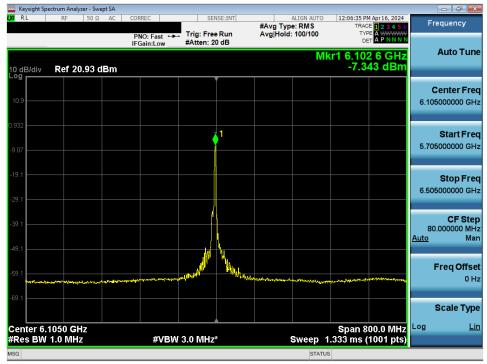
Plot 7-83. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802. 11be (26 Tones) (UNII Band 5) - Ch. 39) - LPI



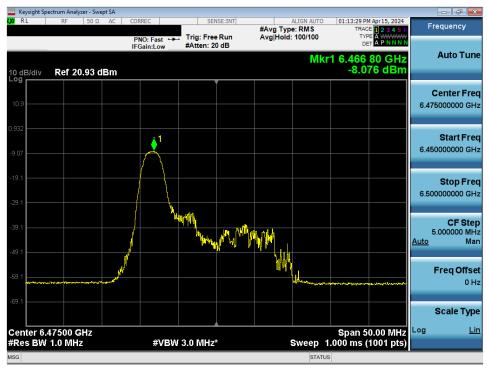
Plot 7-84. Power Spectral Density Plot MIMO ANT1 (160MHz BW 802. 11be (26 Tones) (UNII Band 5) - Ch. 47) - LPI

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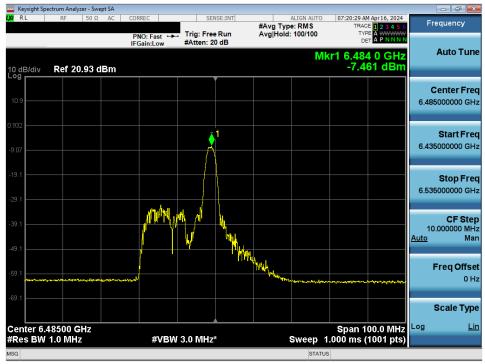
Plot 7-85. Power Spectral Density Plot MIMO ANT1 (320MHz BW 802. 11be (26 Tones) (UNII Band 5) - Ch. 31) - LPI



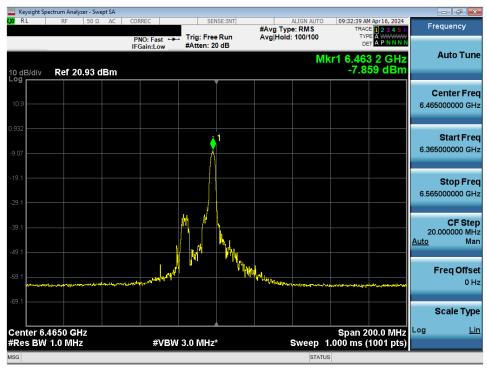
Plot 7-86. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802. 11be (26 Tones) (UNII Band 6) - Ch. 105) - LPI

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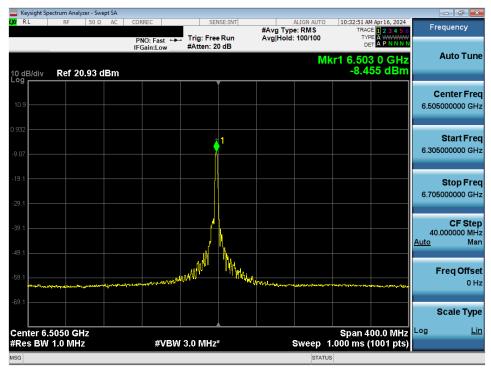
Plot 7-87. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802. 11be (26 Tones) (UNII Band 6) - Ch. 107) - LPI



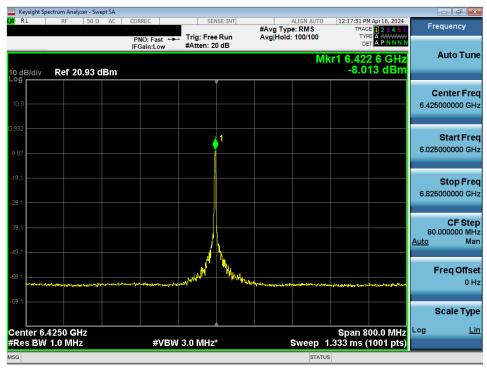
Plot 7-88. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802. 11be (26 Tones) (UNII Band 6) - Ch. 103) - LPI

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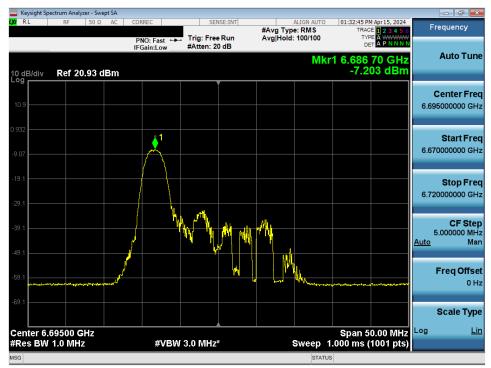
Plot 7-89. Power Spectral Density Plot MIMO ANT1 (160MHz BW 802. 11be (26 Tones) (UNII Band 6) - Ch. 111) - LPI



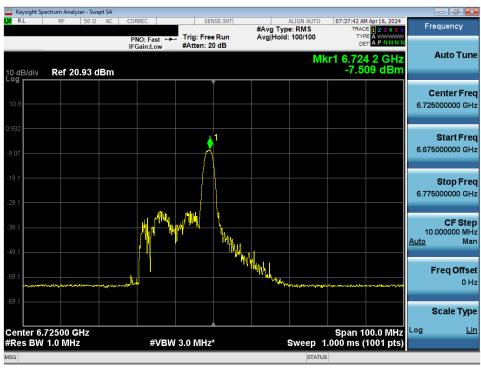
Plot 7-90. Power Spectral Density Plot MIMO ANT1 (320MHz BW 802. 11be (26 Tones) (UNII Band 6) - Ch. 95) - LPI

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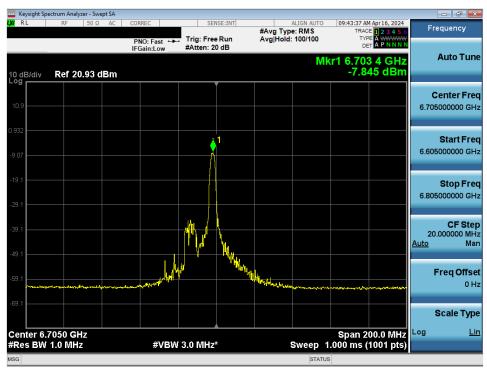
Plot 7-91. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802. 11be (26 Tones) (UNII Band 7) - Ch. 149) - LPI



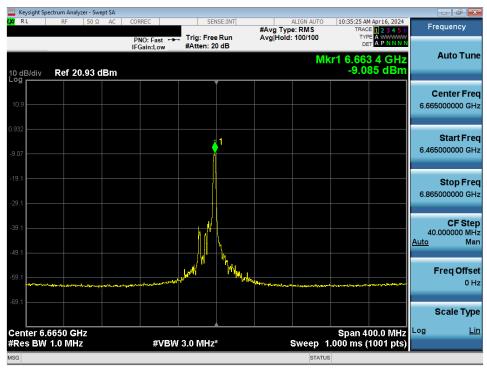
Plot 7-92. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802. 11be (26 Tones) (UNII Band 7) - Ch. 155) - LPI

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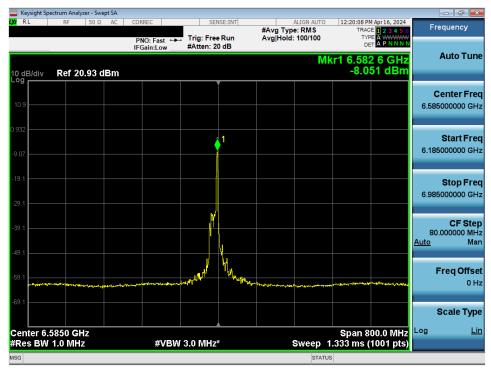
Plot 7-93. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802. 11be (26 Tones) (UNII Band 7) - Ch. 151) - LPI



Plot 7-94. Power Spectral Density Plot MIMO ANT1 (160MHz BW 802. 11be (26 Tones) (UNII Band 7) - Ch. 143) - LPI

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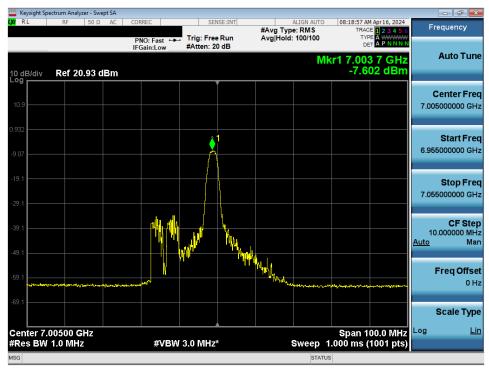
Plot 7-95. Power Spectral Density Plot MIMO ANT1 (320MHz BW 802. 11be (26 Tones) (UNII Band 7) - Ch. 127) - LPI



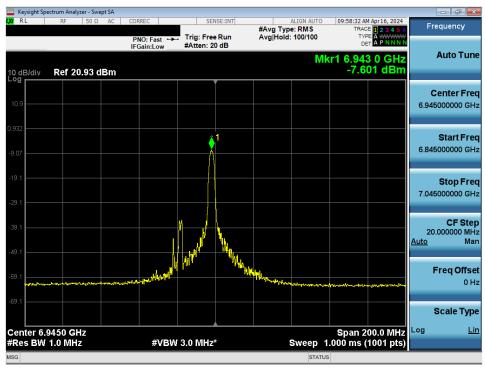
Plot 7-96. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802. 11be (26 Tones) (UNII Band 8) - Ch. 209) - LPI

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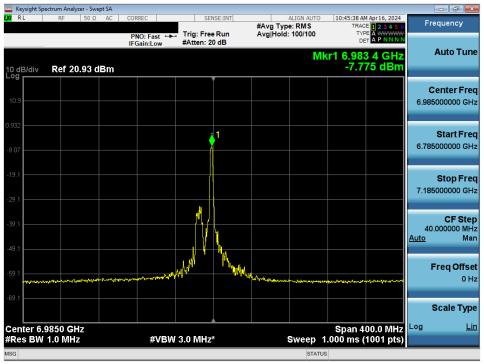
Plot 7-97. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802. 11be (26 Tones) (UNII Band 8) - Ch. 211) - LPI



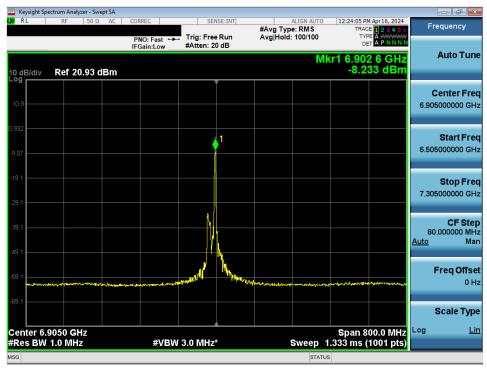
Plot 7-98. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802. 11be (26 Tones) (UNII Band 8) - Ch. 199) - LPI

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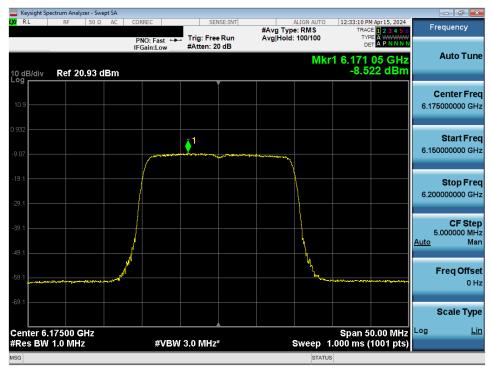
Plot 7-99. Power Spectral Density Plot MIMO ANT1 (160MHz BW 802. 11be (26 Tones) (UNII Band 8) - Ch. 207) - LPI



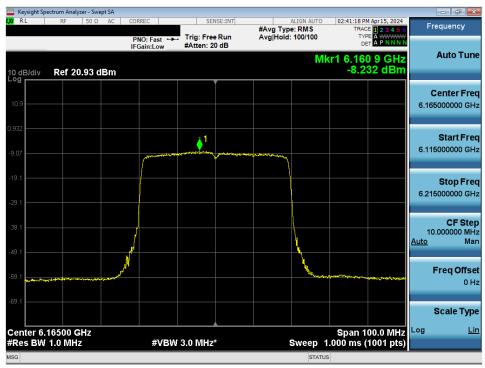
Plot 7-100. Power Spectral Density Plot MIMO ANT1 (320MHz BW 802. 11be (26 Tones) (UNII Band 8) - Ch. 191) - LPI

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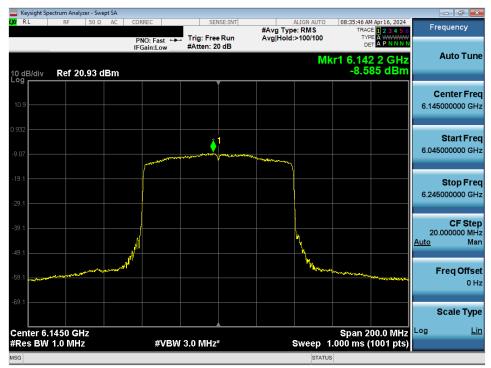
Plot 7-101. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802. 11be (Full Tone) (UNII Band 5) - Ch. 45) - LPI



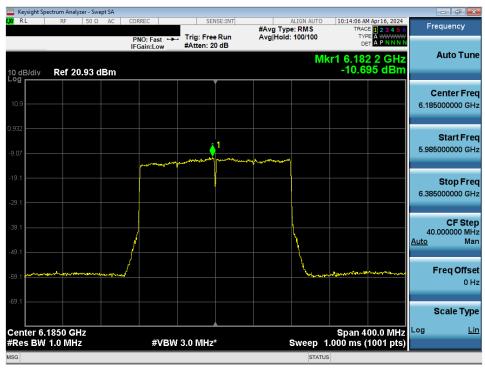
Plot 7-102. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802. 11be (Full Tone) (UNII Band 5) - Ch. 43) - LPI

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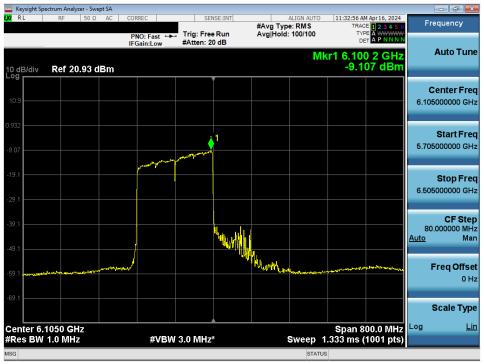
Plot 7-103. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802. 11be (Full Tone) (UNII Band 5) - Ch. 39) - LPI & SP



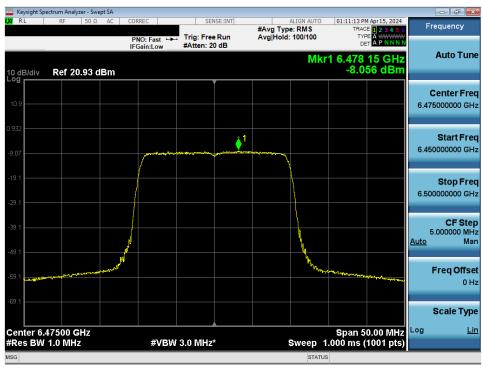
Plot 7-104. Power Spectral Density Plot MIMO ANT1 (160MHz BW 802. 11be (Full Tone) (UNII Band 5) - Ch. 47) - LPI & SP

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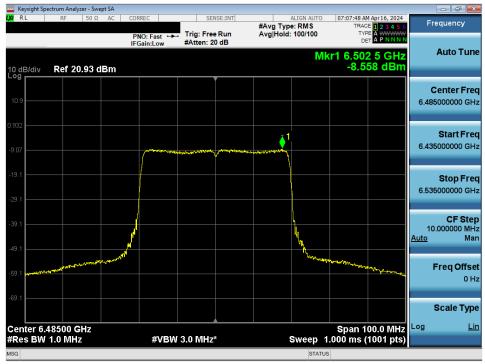
Plot 7-105. Power Spectral Density Plot MIMO ANT1 (320MHz BW 802. 11be (Full Tones) (UNII Band 5) - Ch. 31) - LPI & SP



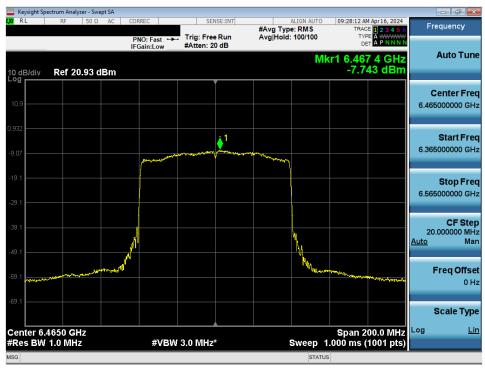
Plot 7-106. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802. 11be (Full Tone) (UNII Band 6) - Ch. 105) - LPI

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Plot 7-107. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802. 11be (Full Tone) (UNII Band 6) - Ch. 107) - LPI



Plot 7-108. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802. 11be (Full Tone) (UNII Band 6) - Ch. 103) - LPI

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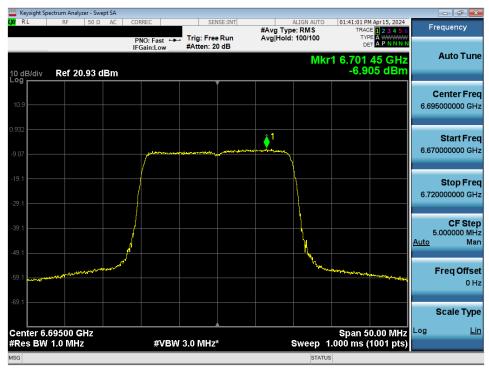
Plot 7-109. Power Spectral Density Plot MIMO ANT1 (160MHz BW 802. 11be (Full Tone) (UNII Band 6) - Ch. 111) - LPI



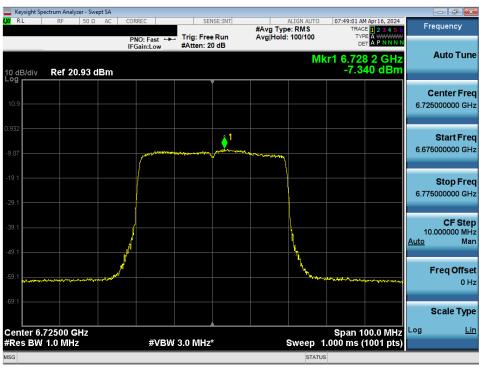
Plot 7-110. Power Spectral Density Plot MIMO ANT1 (320MHz BW 802. 11be (Full Tones) (UNII Band 6) - Ch. 95) - LPI

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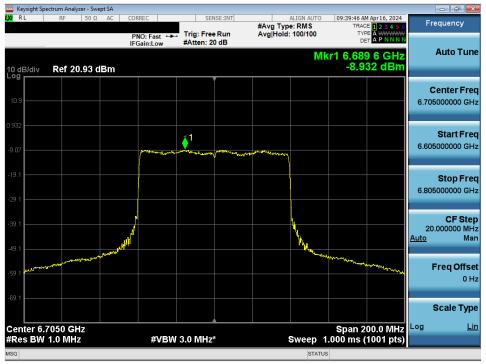
Plot 7-111. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802. 11be (Full Tone) (UNII Band 7) - Ch. 149) - LPI



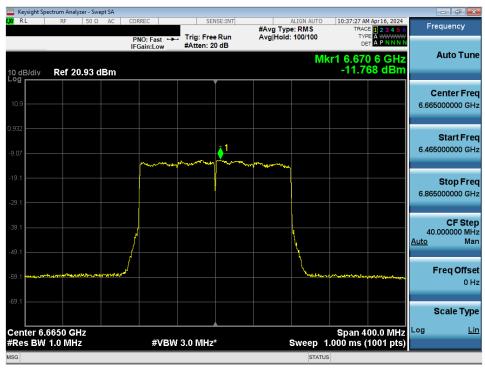
Plot 7-112. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802. 11be (Full Tone) (UNII Band 7) - Ch. 155) - LPI

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Plot 7-113. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802. 11be (Full Tone) (UNII Band 7) - Ch. 151) - LPI & SP



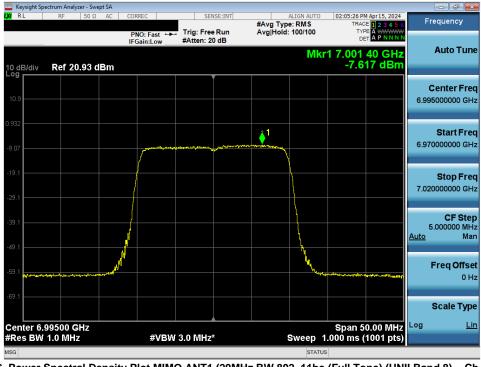
Plot 7-114. Power Spectral Density Plot MIMO ANT1 (160MHz BW 802. 11be (Full Tone) (UNII Band 7) - Ch. 143) - LPI & SP

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Plot 7-115. Power Spectral Density Plot MIMO ANT1 (320MHz BW 802. 11be (Full Tone) (UNII Band 7) - Ch. 127) - LPI



Plot 7-116. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802. 11be (Full Tone) (UNII Band 8) - Ch. 209) - LPI

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