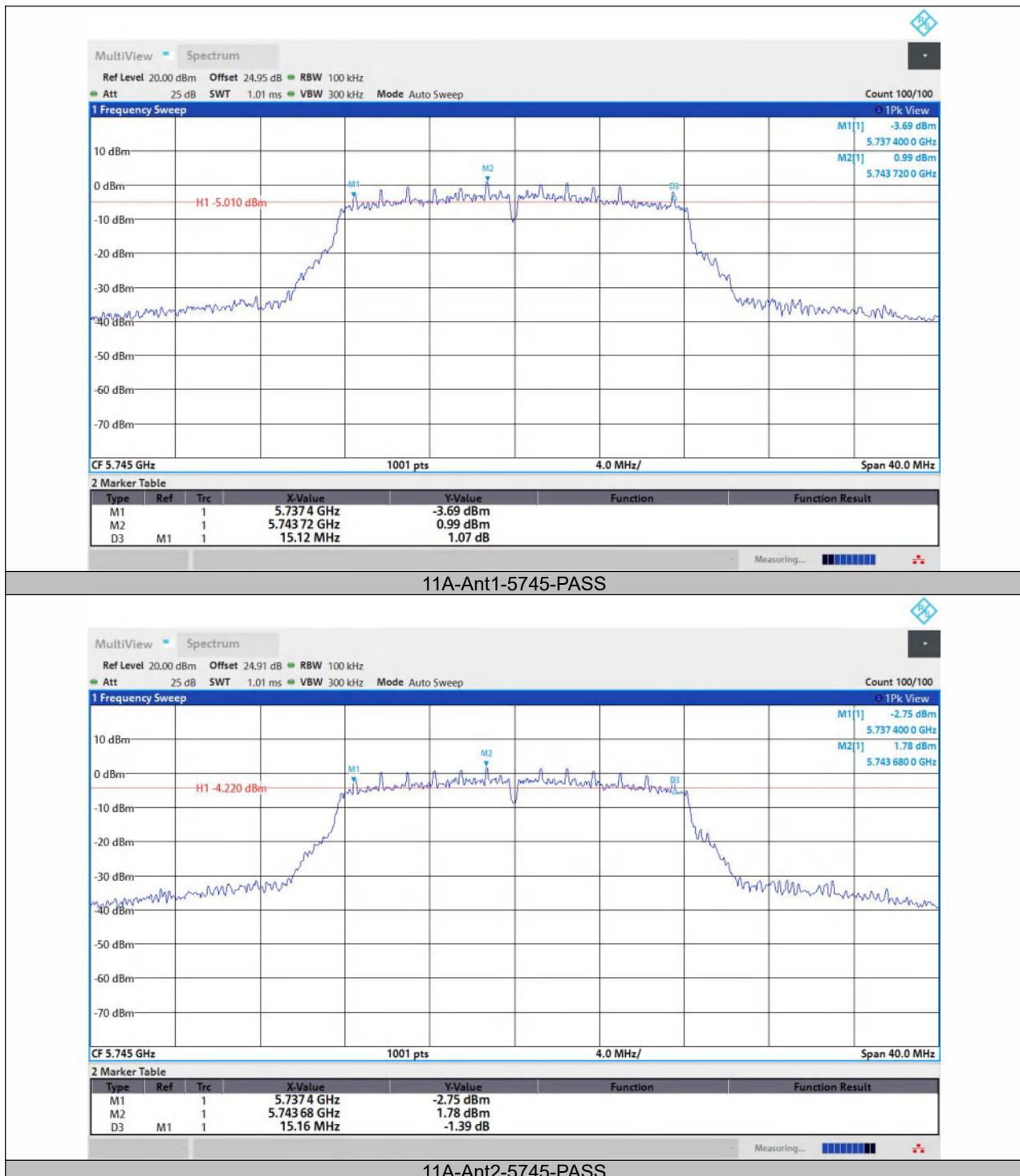


Min emission bandwidth

TestMode	Antenna	Frequency[MHz]	6db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5745	15.12	5737.40	5752.52	0.5	PASS
11A	Ant2	5745	15.16	5737.40	5752.56	0.5	PASS
11A	Ant1	5785	15.12	5777.40	5792.52	0.5	PASS
11A	Ant2	5785	15.16	5777.40	5792.56	0.5	PASS
11A	Ant1	5825	15.12	5817.40	5832.52	0.5	PASS
11A	Ant2	5825	15.12	5817.40	5832.52	0.5	PASS
11N20MIMO	Ant1	5745	15.08	5737.48	5752.56	0.5	PASS
11N20MIMO	Ant2	5745	16.32	5736.84	5753.16	0.5	PASS
11N20MIMO	Ant1	5785	15.16	5777.44	5792.60	0.5	PASS
11N20MIMO	Ant2	5785	16.32	5776.84	5793.16	0.5	PASS
11N20MIMO	Ant1	5825	15.12	5817.44	5832.56	0.5	PASS
11N20MIMO	Ant2	5825	15.72	5816.84	5832.56	0.5	PASS
11N40MIMO	Ant1	5755	35.12	5737.48	5772.60	0.5	PASS
11N40MIMO	Ant2	5755	35.12	5737.48	5772.60	0.5	PASS
11N40MIMO	Ant1	5795	35.12	5777.48	5812.60	0.5	PASS
11N40MIMO	Ant2	5795	35.12	5777.48	5812.60	0.5	PASS
11AC20MIMO	Ant1	5745	15.16	5737.44	5752.60	0.5	PASS
11AC20MIMO	Ant2	5745	16.32	5736.84	5753.16	0.5	PASS
11AC20MIMO	Ant1	5785	15.12	5777.44	5792.56	0.5	PASS
11AC20MIMO	Ant2	5785	16.32	5776.84	5793.16	0.5	PASS
11AC20MIMO	Ant1	5825	15.16	5817.44	5832.60	0.5	PASS
11AC20MIMO	Ant2	5825	16.28	5816.88	5833.16	0.5	PASS
11AC40MIMO	Ant1	5755	35.12	5737.48	5772.60	0.5	PASS
11AC40MIMO	Ant2	5755	35.12	5737.48	5772.60	0.5	PASS
11AC40MIMO	Ant1	5795	35.12	5777.48	5812.60	0.5	PASS
11AC40MIMO	Ant2	5795	35.12	5777.48	5812.60	0.5	PASS
11AC80MIMO	Ant1	5775	75.20	5737.40	5812.60	0.5	PASS
11AC80MIMO	Ant2	5775	75.20	5737.40	5812.60	0.5	PASS

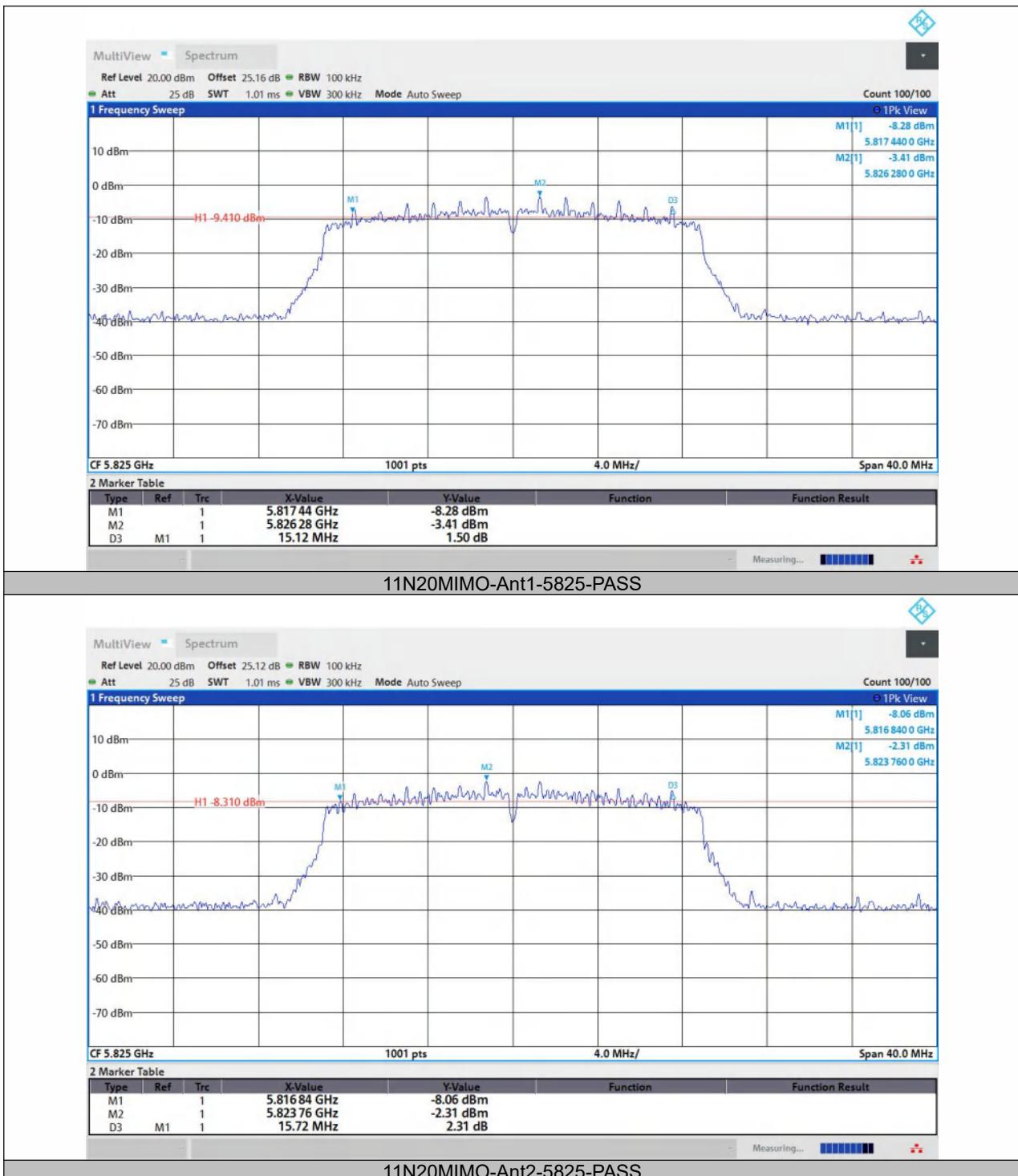




























8.2 MAXIMUM CONDUCTED OUTPUT POWER

8.2.1 Applicable Standard

According to FCC Part 15.407(a)(1) for UNII Band I
According to FCC Part 15.407(a)(2) for UNII Band II-A and UNII Band II-C
According to FCC Part 15.407(a)(3) for UNII Band III
According to 789033 D02 Section II(E)
According to RSS 247, 6.2

8.2.2 Conformance Limit

FCC Limit:

- For the band 5.15-5.25 GHz

(a)(1) (i) For an outdoor access point, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).

(a) (1) (ii) For an indoor access point, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(a) (1) (iii) For fixed point-to-point access points, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

(a) (1) (iv) For client devices, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

- For the 5.25-5.35 GHz and 5.47-5.725 GHz bands

(a) (2) The maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in megahertz. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

- For the band 5.725-5.85 GHz

(a) (3) The maximum conducted output power over the frequency band of operation shall not exceed 1 W. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations

IC Limit:

■ Frequency band 5150-5250 MHz

The maximum e.i.r.p. shall not exceed 200 mW or $10 + 10 \log_{10}B$, dBm, whichever power is less. B is the 99% emission bandwidth in megahertz.

■ Frequency band 5250-5350 MHz

The maximum conducted output power shall not exceed 250 mW or $11 + 10 \log_{10}B$, dBm, whichever is less.

The maximum e.i.r.p. shall not exceed 1.0 W or $17 + 10 \log_{10}B$, dBm, whichever is less. B is the 99% emission bandwidth in megahertz. Note that devices with a maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p. of 1 W.

■ Frequency bands 5470-5600 MHz and 5650-5725 MHz

The maximum conducted output power shall not exceed 250 mW or $11 + 10 \log_{10}B$, dBm, whichever is less.

The maximum e.i.r.p. shall not exceed 1.0 W or $17 + 10 \log_{10}B$, dBm, whichever is less. B is the 99% emission bandwidth in megahertz. Note that devices with a maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p. of 1 W.

■ Frequency band 5725-5850 MHz

The maximum conducted output power shall not exceed 1 W. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications and multiple collocated transmitters transmitting the same information.

8.2.3 Test Configuration

Test according to clause 6.1 radio frequency test setup

8.2.4 Test Procedure

The maximum average conducted output power can be measured using Method PM-G (Measurement using a gated RF average power meter):

Measurements may be performed using a wideband gated RF power meter provided that the gate parameters are adjusted such that the power is measured only when the EUT is transmitting at its maximum power control level. Since the measurement is made only during the ON time of the transmitter, no duty cycle correction factor is required.

- a. The Transmitter output (antenna port) was connected to the power meter.
- b. Turn on the EUT and power meter and then record the power value.
- c. Repeat above procedures on all channels needed to be tested.

8.2.5 Test Results

Temperature:	25 °C
Relative Humidity:	45%
ATM Pressure:	1011 mbar

Note: N/A

Test Mode	Antenna	Frequency[MHz]	Duty Cycle [%]	DC Factor [dBm]	Result [dBm]	Limit [dBm]	Gain [dBi]	EIRP [dBm]	EIRP Limit [dBm]	Verdict
11A	Ant1	5180	96.53	0.15	12.92	≤23.12	6.86	19.78	---	PASS
11A	Ant2	5180	96.53	0.15	13.43	≤23.98	3.91	17.34	---	PASS
11A	Ant1	5200	96.53	0.15	12.54	≤23.12	6.86	19.40	---	PASS
11A	Ant2	5200	96.53	0.15	13.12	≤23.98	3.91	17.03	---	PASS
11A	Ant1	5240	96.53	0.15	12.46	≤23.12	6.86	19.32	---	PASS
11A	Ant2	5240	96.53	0.15	13.09	≤23.98	3.91	17.00	---	PASS
11A	Ant1	5745	96.53	0.15	11.23	≤29.14	6.86	18.09	---	PASS
11A	Ant2	5745	96.53	0.15	12.48	≤30.00	3.91	16.39	---	PASS
11A	Ant1	5785	96.53	0.15	11.54	≤29.14	6.86	18.40	---	PASS
11A	Ant2	5785	96.53	0.15	12.88	≤30.00	3.91	16.79	---	PASS
11A	Ant1	5825	96.53	0.15	11.71	≤29.14	6.86	18.57	---	PASS
11A	Ant2	5825	96.53	0.15	13.08	≤30.00	3.91	16.99	---	PASS
11N20MIMO	Ant1	5180	96.30	0.16	8.28	≤23.12	6.86	15.14	---	PASS
11N20MIMO	Ant2	5180	96.30	0.16	8.58	≤23.98	3.91	12.49	---	PASS
11N20MIMO	total	5180	---	---	11.44	≤21.46	8.52	19.96	---	PASS
11N20MIMO	Ant1	5200	96.30	0.16	7.84	≤23.12	6.86	14.70	---	PASS
11N20MIMO	Ant2	5200	96.30	0.16	8.44	≤23.98	3.91	12.35	---	PASS
11N20MIMO	total	5200	---	---	11.16	≤21.46	8.52	19.68	---	PASS
11N20MIMO	Ant1	5240	96.30	0.16	7.89	≤23.12	6.86	14.75	---	PASS
11N20MIMO	Ant2	5240	96.30	0.16	8.41	≤23.98	3.91	12.32	---	PASS
11N20MIMO	total	5240	---	---	11.17	≤21.46	8.52	19.69	---	PASS
11N20MIMO	Ant1	5745	96.30	0.16	6.56	≤29.14	6.86	13.42	---	PASS
11N20MIMO	Ant2	5745	96.30	0.16	7.79	≤30.00	3.91	11.70	---	PASS
11N20MIMO	total	5745	---	---	10.23	≤27.48	8.52	18.75	---	PASS
11N20MIMO	Ant1	5785	96.30	0.16	6.93	≤29.14	6.86	13.79	---	PASS
11N20MIMO	Ant2	5785	96.30	0.16	8.18	≤30.00	3.91	12.09	---	PASS
11N20MIMO	total	5785	---	---	10.61	≤27.48	8.52	19.13	---	PASS
11N20MIMO	Ant1	5825	96.30	0.16	7.00	≤29.14	6.86	13.86	---	PASS
11N20MIMO	Ant2	5825	96.30	0.16	8.39	≤30.00	3.91	12.30	---	PASS
11N20MIMO	total	5825	---	---	10.76	≤27.48	8.52	19.28	---	PASS
11N40MIMO	Ant1	5190	92.86	0.32	8.26	≤23.12	6.86	15.12	---	PASS
11N40MIMO	Ant2	5190	92.75	0.33	8.47	≤23.98	3.91	12.38	---	PASS
11N40MIMO	total	5190	---	---	11.38	≤21.46	8.52	19.90	---	PASS
11N40MIMO	Ant1	5230	92.75	0.33	8.25	≤23.12	6.86	15.11	---	PASS
11N40MIMO	Ant2	5230	92.75	0.33	8.44	≤23.98	3.91	12.35	---	PASS
11N40MIMO	total	5230	---	---	11.36	≤21.46	8.52	19.88	---	PASS

O										
11N40MIMO	Ant1	5755	92.75	0.33	6.86	≤29.14	6.86	13.72	---	PASS
11N40MIMO	Ant2	5755	92.86	0.32	7.87	≤30.00	3.91	11.78	---	PASS
11N40MIMO	total	5755	---	---	10.40	≤27.48	8.52	18.92	---	PASS
11N40MIMO	Ant1	5795	92.75	0.33	7.11	≤29.14	6.86	13.97	---	PASS
11N40MIMO	Ant2	5795	92.75	0.33	8.21	≤30.00	3.91	12.12	---	PASS
11N40MIMO	total	5795	---	---	10.71	≤27.48	8.52	19.23	---	PASS
11AC20MIMO	Ant1	5180	96.32	0.16	8.36	≤23.12	6.86	15.22	---	PASS
11AC20MIMO	Ant2	5180	96.32	0.16	8.67	≤23.98	3.91	12.58	---	PASS
11AC20MIMO	total	5180	---	---	11.53	≤21.46	8.52	20.05	---	PASS
11AC20MIMO	Ant1	5200	96.32	0.16	7.88	≤23.12	6.86	14.74	---	PASS
11AC20MIMO	Ant2	5200	96.32	0.16	8.45	≤23.98	3.91	12.36	---	PASS
11AC20MIMO	total	5200	---	---	11.18	≤21.46	8.52	19.70	---	PASS
11AC20MIMO	Ant1	5240	96.32	0.16	7.94	≤23.12	6.86	14.80	---	PASS
11AC20MIMO	Ant2	5240	96.32	0.16	8.45	≤23.98	3.91	12.36	---	PASS
11AC20MIMO	total	5240	---	---	11.21	≤21.46	8.52	19.73	---	PASS
11AC20MIMO	Ant1	5745	96.32	0.16	6.80	≤29.14	6.86	13.66	---	PASS
11AC20MIMO	Ant2	5745	96.32	0.16	7.90	≤30.00	3.91	11.81	---	PASS
11AC20MIMO	total	5745	---	---	10.40	≤27.48	8.52	18.92	---	PASS
11AC20MIMO	Ant1	5785	96.32	0.16	6.98	≤29.14	6.86	13.84	---	PASS
11AC20MIMO	Ant2	5785	96.32	0.16	8.20	≤30.00	3.91	12.11	---	PASS
11AC20MIMO	total	5785	---	---	10.64	≤27.48	8.52	19.16	---	PASS
11AC20MIMO	Ant1	5825	96.32	0.16	7.01	≤29.14	6.86	13.87	---	PASS
11AC20MIMO	Ant2	5825	96.32	0.16	8.39	≤30.00	3.91	12.30	---	PASS
11AC20MIMO	total	5825	---	---	10.76	≤27.48	8.52	19.28	---	PASS
11AC40MIMO	Ant1	5190	92.86	0.32	8.31	≤23.12	6.86	15.17	---	PASS
11AC40MIMO	Ant2	5190	92.86	0.32	8.61	≤23.98	3.91	12.52	---	PASS
11AC40MIMO	total	5190	---	---	11.47	≤21.46	8.52	19.99	---	PASS
11AC40MIMO	Ant1	5230	92.86	0.32	8.27	≤23.12	6.86	15.13	---	PASS
11AC40MIMO	Ant2	5230	92.86	0.32	8.53	≤23.98	3.91	12.44	---	PASS
11AC40MIMO	total	5230	---	---	11.41	≤21.46	8.52	19.93	---	PASS
11AC40MI	Ant1	5755	92.86	0.32	6.81	≤29.14	6.86	13.67	---	PASS

MO										
11AC40MI MO	Ant2	5755	92.86	0.32	7.93	\leq 30.00	3.91	11.84	---	PASS
11AC40MI MO	total	5755	---	---	10.42	\leq 27.48	8.52	18.94	---	PASS
11AC40MI MO	Ant1	5795	92.86	0.32	7.17	\leq 29.14	6.86	14.03	---	PASS
11AC40MI MO	Ant2	5795	92.86	0.32	8.23	\leq 30.00	3.91	12.14	---	PASS
11AC40MI MO	total	5795	---	---	10.74	\leq 27.48	8.52	19.26	---	PASS
11AC80MI MO	Ant1	5210	86.49	0.63	8.15	\leq 23.12	6.86	15.01	---	PASS
11AC80MI MO	Ant2	5210	86.49	0.63	8.46	\leq 23.98	3.91	12.37	---	PASS
11AC80MI MO	total	5210	---	---	11.32	\leq 21.46	8.52	19.84	---	PASS
11AC80MI MO	Ant1	5775	86.49	0.63	7.18	\leq 29.14	6.86	14.04	---	PASS
11AC80MI MO	Ant2	5775	86.49	0.63	8.16	\leq 30.00	3.91	12.07	---	PASS
11AC80MI MO	total	5775	---	---	10.71	\leq 27.48	8.52	19.23	---	PASS

Note: The Duty Cycle Factor is compensated in the graph.

EIRP = conducted power + directional gain





