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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

	5745		14.77	≤ 28.23	7.77	22.54	---	PASS
	5785		14.92	≤ 28.23	7.77	22.69	---	PASS
	5825		15.64	≤ 28.23	7.77	23.41	---	PASS
11N40MIMO	5190		14.79	≤ 22.23	7.77	22.56	---	PASS
	5230		14.47	≤ 22.23	7.77	22.24	---	PASS
	5270		14.67	≤ 22.23	7.77	22.44	≤ 25.22	PASS
	5310		15.76	≤ 22.23	7.77	23.53	≤ 25.22	PASS
	5510		16.04	≤ 22.23	7.77	23.81	≤ 25.22	PASS
	5550		15.76	≤ 22.23	7.77	23.53	≤ 25.22	PASS
	5670		15.39	≤ 22.23	7.77	23.16	≤ 25.22	PASS
	5755		14.70	≤ 28.23	7.77	22.47	---	PASS
	5795		15.28	≤ 28.23	7.77	23.05	---	PASS
	5180		14.82	≤ 22.23	7.77	22.59	---	PASS
	5220		14.29	≤ 22.23	7.77	22.06	---	PASS
	5240		14.52	≤ 22.23	7.77	22.29	---	PASS
	5260		14.67	≤ 22.23	7.77	22.44	≤ 25.22	PASS
	5300		15.72	≤ 22.23	7.77	23.49	≤ 25.22	PASS
11AC20MIMO	5320		15.75	≤ 22.23	7.77	23.52	≤ 25.22	PASS
	5500		15.97	≤ 22.23	7.77	23.74	≤ 25.22	PASS
	5580		15.84	≤ 22.23	7.77	23.61	≤ 25.22	PASS
	5700		15.08	≤ 22.23	7.77	22.85	≤ 25.22	PASS
	5745		14.88	≤ 28.23	7.77	22.65	---	PASS
	5785		15.14	≤ 28.23	7.77	22.91	---	PASS
	5825		15.57	≤ 28.23	7.77	23.34	---	PASS
	5190		14.83	≤ 22.23	7.77	22.60	---	PASS
	5230		14.46	≤ 22.23	7.77	22.23	---	PASS
	5270		14.62	≤ 22.23	7.77	22.39	≤ 25.22	PASS
	5310		15.75	≤ 22.23	7.77	23.52	≤ 25.22	PASS
	5510		16.02	≤ 22.23	7.77	23.79	≤ 25.22	PASS
	5550		15.88	≤ 22.23	7.77	23.65	≤ 25.22	PASS
	5670		15.40	≤ 22.23	7.77	23.17	≤ 25.22	PASS
11AC40MIMO	5755		14.82	≤ 28.23	7.77	22.59	---	PASS
	5795		14.92	≤ 28.23	7.77	22.69	---	PASS
	5210		14.60	≤ 22.23	7.77	22.37	---	PASS
	5290		15.39	≤ 22.23	7.77	23.16	≤ 25.22	PASS
	5530		16.16	≤ 22.23	7.77	23.93	≤ 25.22	PASS
	5610		15.50	≤ 22.23	7.77	23.27	≤ 25.22	PASS
	5775		14.61	≤ 28.23	7.77	22.38	---	PASS
	5180		14.91	≤ 22.23	7.77	22.68	---	PASS
	5220		14.43	≤ 22.23	7.77	22.20	---	PASS
	5240		14.64	≤ 22.23	7.77	22.41	---	PASS
	5260		14.74	≤ 22.23	7.77	22.51	≤ 25.22	PASS
	5300		15.94	≤ 22.23	7.77	23.71	≤ 25.22	PASS
	5320		15.95	≤ 22.23	7.77	23.72	≤ 25.22	PASS
	5500		16.19	≤ 22.23	7.77	23.96	≤ 25.22	PASS
11AX20MIMO	5580		16.03	≤ 22.23	7.77	23.80	≤ 25.22	PASS
	5700		15.32	≤ 22.23	7.77	23.09	≤ 25.22	PASS
	5745		14.84	≤ 28.23	7.77	22.61	---	PASS
	5785		15.26	≤ 28.23	7.77	23.03	---	PASS
	5825		15.66	≤ 28.23	7.77	23.43	---	PASS
	5190		15.01	≤ 22.23	7.77	22.78	---	PASS
	5230		14.67	≤ 22.23	7.77	22.44	---	PASS
	5270		14.82	≤ 22.23	7.77	22.59	≤ 25.22	PASS
	5310		15.97	≤ 22.23	7.77	23.74	≤ 25.22	PASS
	5510		16.28	≤ 22.23	7.77	24.05	≤ 25.22	PASS
	5550		16.12	≤ 22.23	7.77	23.89	≤ 25.22	PASS
	5670		15.64	≤ 22.23	7.77	23.41	≤ 25.22	PASS
	5755		15.02	≤ 28.23	7.77	22.79	---	PASS
	5795		15.39	≤ 28.23	7.77	23.16	---	PASS
11AX40MIMO	5210		14.96	≤ 22.23	7.77	22.73	---	PASS
	5290		15.70	≤ 22.23	7.77	23.47	≤ 25.22	PASS

	5530		16.40	≤22.23	7.77	24.17	≤25.22	PASS
	5610		15.85	≤22.23	7.77	23.62	≤25.22	PASS
	5775		15.04	≤28.23	7.77	22.81	---	PASS



