

9.4. 6 dB BANDWIDTH

LIMITS

FCC §15.407 (e)

RSS-247 6.2.4.1

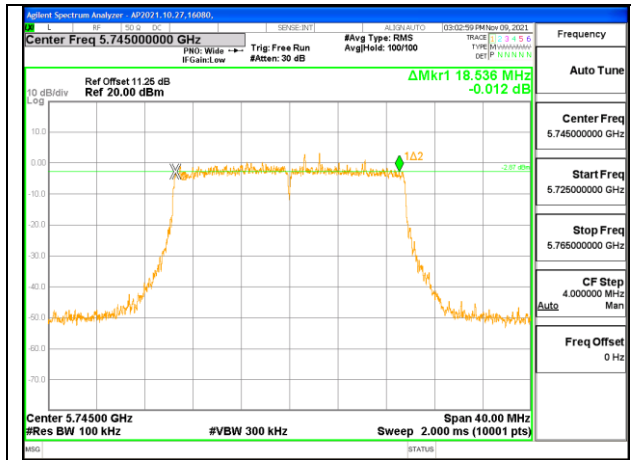
The minimum 6 dB bandwidth shall be at least 500 kHz.

RESULTS

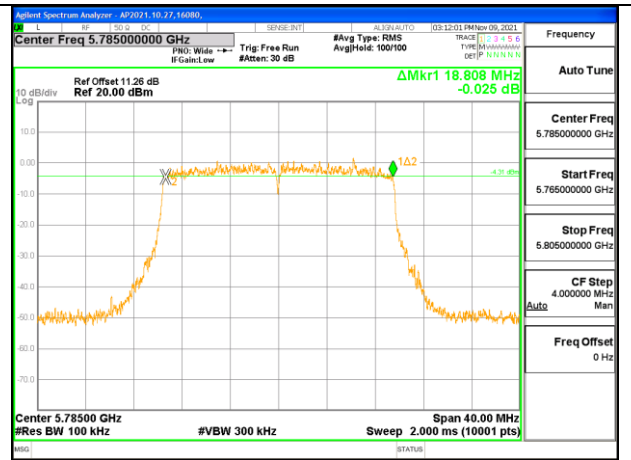
9.4.1. 802.11ax HE20 MODE 1TX IN THE 5.8GHz BAND

1TX Antenna 1 OFDM MODE: SU, Single User

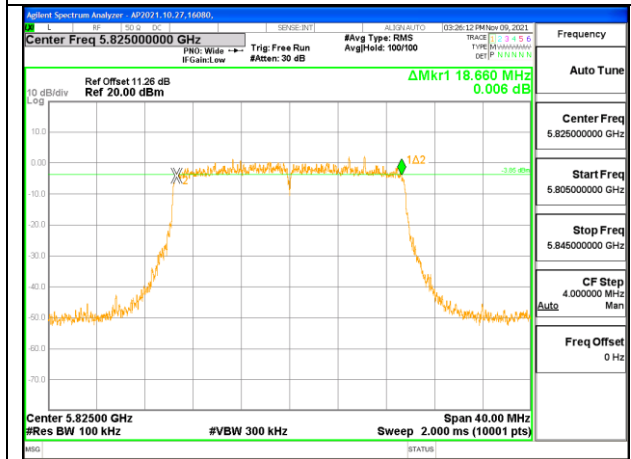
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	5745	18.536	0.5
Mid	5785	18.808	0.5
High	5825	18.660	0.5



LOW CHANNEL



MID CHANNEL

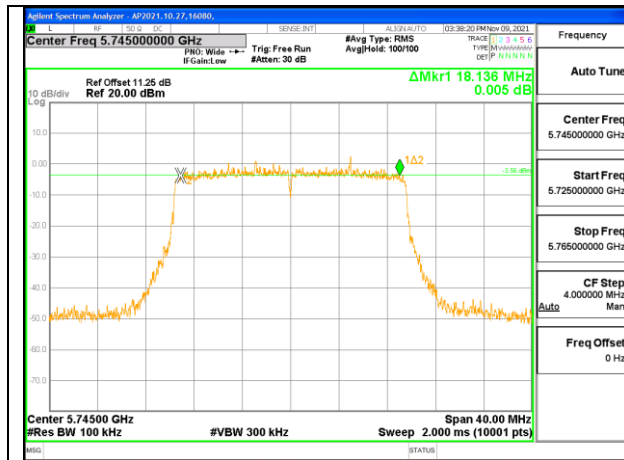


HIGH CHANNEL

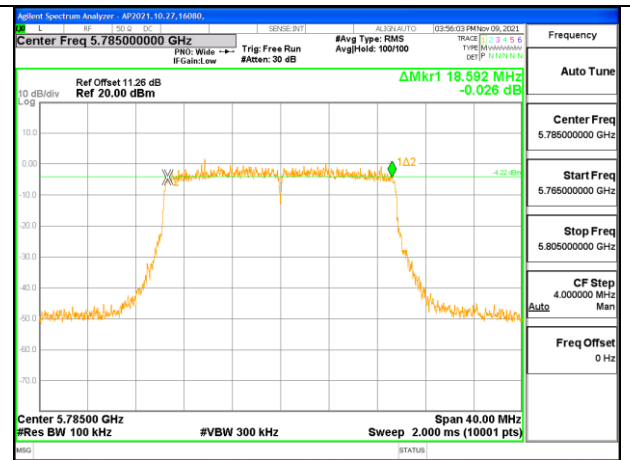
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1TX Antenna 2 OFDM MODE: SU, Single User

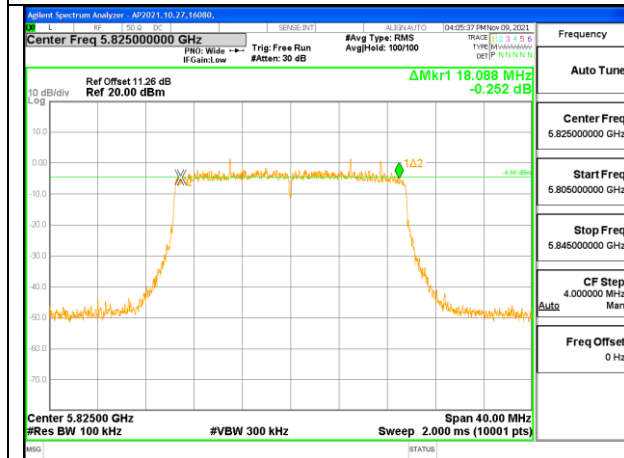
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	5745	18.136	0.5
Mid	5785	18.592	0.5
High	5825	18.088	0.5



LOW CHANNEL



MID CHANNEL



HIGH CHANNEL

INTENTIONALLY LEFT BLANK

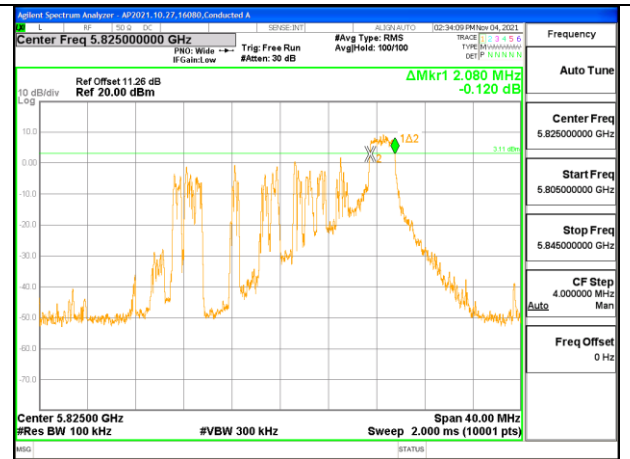
9.4.2. 802.11ax HE20 MODE 2TX IN THE 5.8GHz BAND

2TX Antenna 1 + Antenna 2 CDD OFDMA MODE: 26-Tones, RU Index 8

Channel	Frequency (MHz)	6 dB BW Chain 0 (MHz)	6 dB BW Chain 1 (MHz)	Minimum Limit (MHz)
High	5825	2.076	2.080	0.5



HIGH CHANNEL Antenna 1

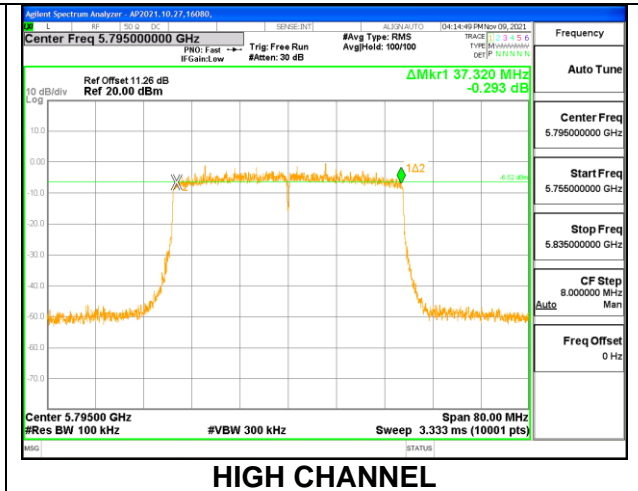
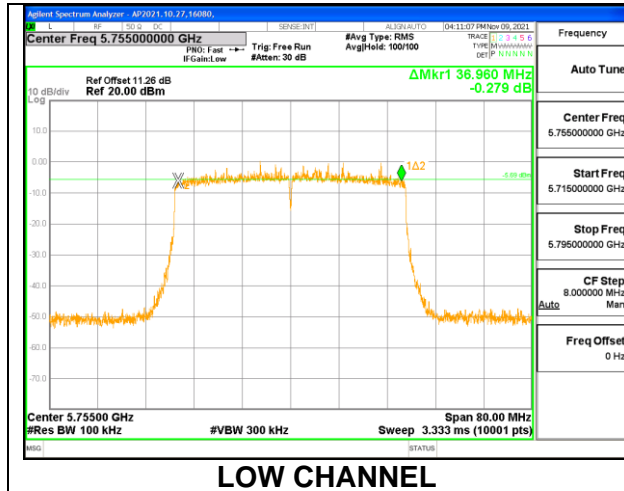


HIGH CHANNEL Antenna 2

9.4.3. 802.11ax HE40 MODE 1TX IN THE 5.8GHz BAND

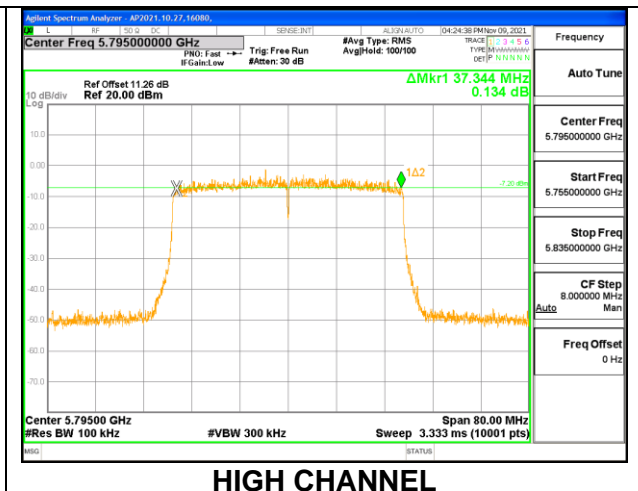
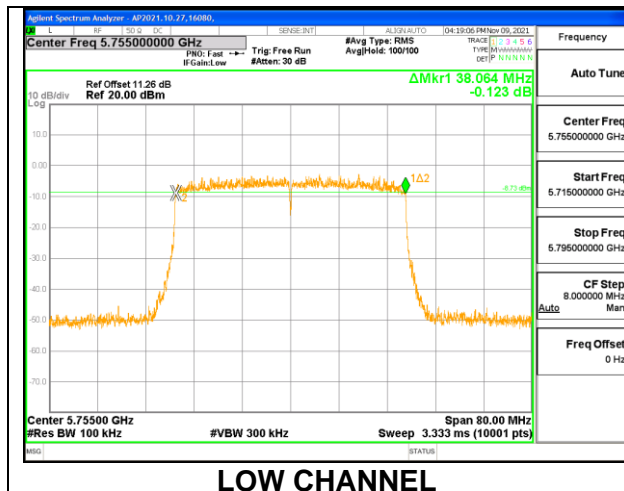
1TX Antenna 1 OFDM MODE: SU, Single User

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	5755	36.960	0.5
High	5795	37.320	0.5



1TX Antenna 2 OFDM MODE: SU, Single User

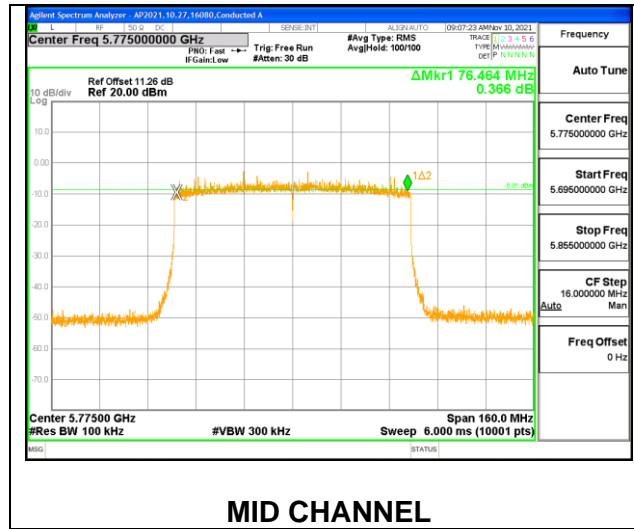
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	5755	38.064	0.5
High	5795	37.344	0.5



9.4.4. 802.11ax HE80 MODE 1TX IN THE 5.8GHz BAND

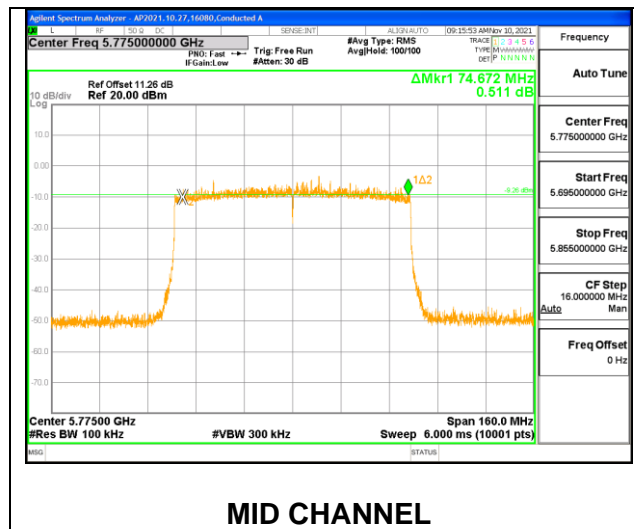
1TX Antenna 1 OFDM MODE: SU, Single User

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Mid	5775	76.464	0.5



1TX Antenna 2 OFDM MODE: SU, Single User

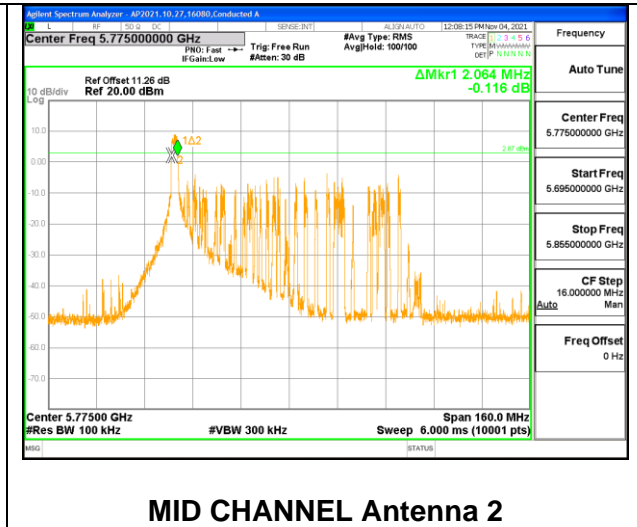
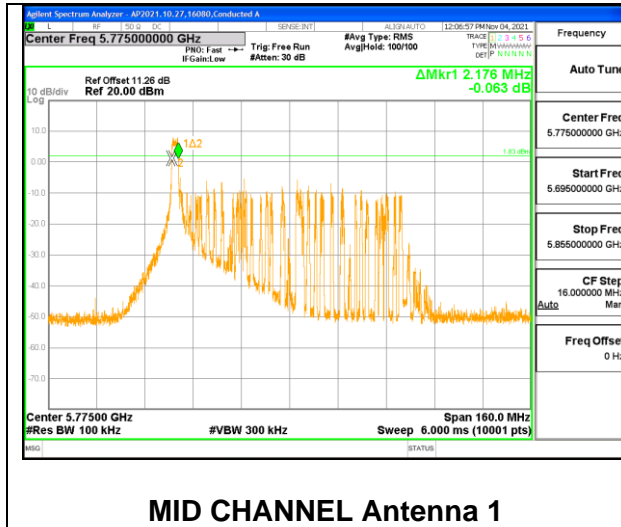
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Mid	5775	74.672	0.5



9.4.5. 802.11ax HE80 MODE 2TX IN THE 5.8GHz BAND

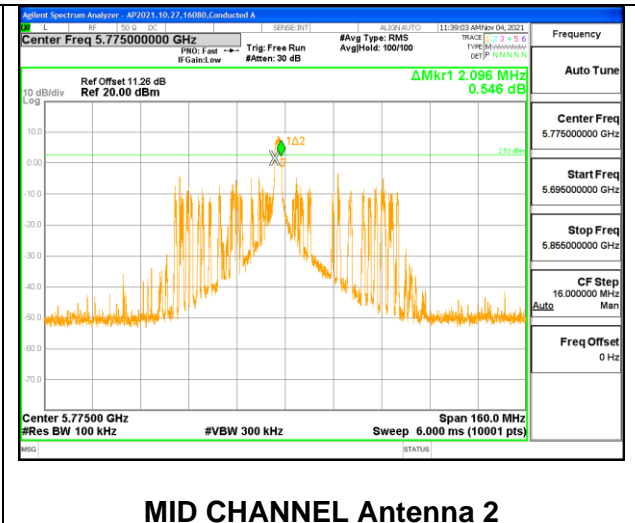
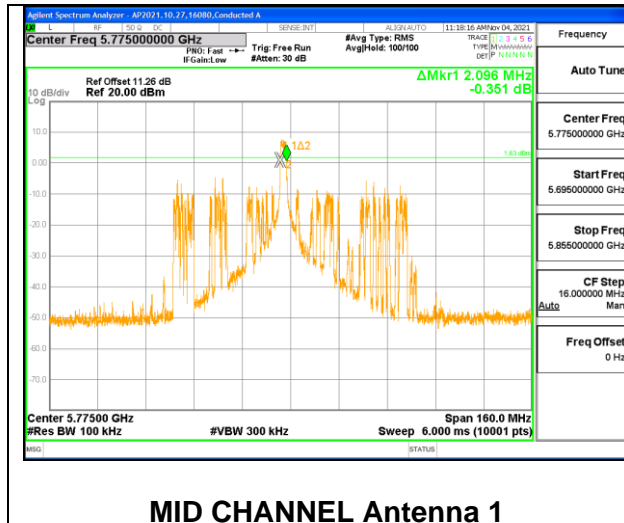
2TX Antenna 1 + Antenna 2 CDD OFDMA MODE: 26-Tones, RU Index 0

Channel	Frequency (MHz)	6 dB BW Chain 0 (MHz)	6 dB BW Chain 1 (MHz)	Minimum Limit (MHz)
Mid	5775	2.176	2.064	0.5



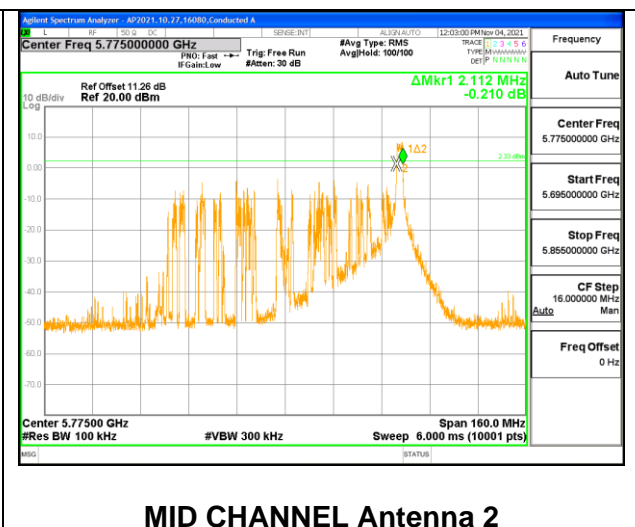
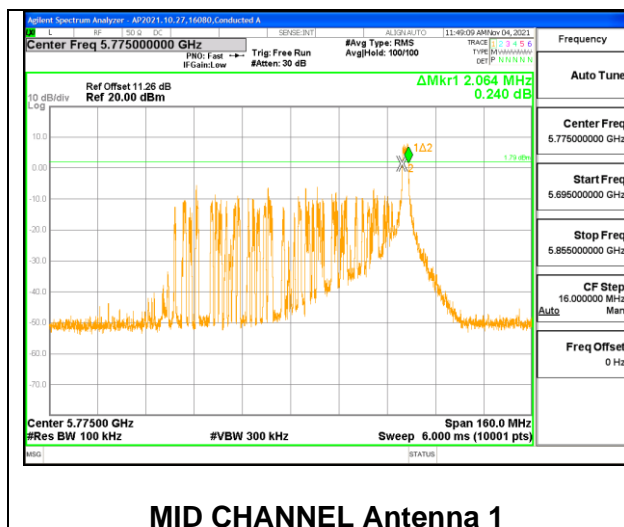
2TX Antenna 1 + Antenna 2 CDD OFDMA MODE: 26-Tones, RU Index 18

Channel	Frequency (MHz)	6 dB BW Chain 0 (MHz)	6 dB BW Chain 1 (MHz)	Minimum Limit (MHz)
Mid	5775	2.096	2.096	0.5



2TX Antenna 1 + Antenna 2 CDD OFDMA MODE: 26-Tones, RU Index 36

Channel	Frequency (MHz)	6 dB BW Chain 0 (MHz)	6 dB BW Chain 1 (MHz)	Minimum Limit (MHz)
Mid	5775	2.064	2.112	0.5



9.5. OUTPUT POWER AND PSD

LIMITS

FCC §15.407(a)

Band 5.15–5.25 GHz

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

(2)Bands 5.25-5.35 GHz and 5.47-5.725 GHz

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

(3)(i)Band 5.725-5.85 GHz

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

RSS-247

Band 5.15-5.25 GHz

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

Band 5.25-5.35 GHz

The maximum conducted output power shall not exceed 250 mW or $11 + 10 \log_{10} B$, dBm, whichever is less. The power spectral density shall not exceed 11 dBm in any 1.0 MHz band.

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

Bands 5.47-5.6 GHz and 5.65-5.725 GHz

The maximum conducted output power shall not exceed 250 mW or $11 + 10 \log_{10} B$, dBm, whichever is less. The power spectral density shall not exceed 11 dBm in any 1.0 MHz band.

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

Band 5.725-5.85 GHz

The maximum conducted output power shall not exceed 1 W. The power spectral density shall not exceed 30 dBm in any 500 kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the power spectral density 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.

TEST PROCEDURE

The measurement method used for output power is KDB 789033 D02 v02r01, Section E.3.b (Method PM-G) and for straddles channels KDB 789033 D02 v02r01, Section E.2.b (Method SA-1) was used.

The measurement method used for power spectral density is KDB 789033 D02 v02r01, Section F

The power output was measured on the EUT antenna port using SMA cable with 10dB attenuator connected to a power meter via wideband average power sensor. Gated average output power was read directly from power meter.