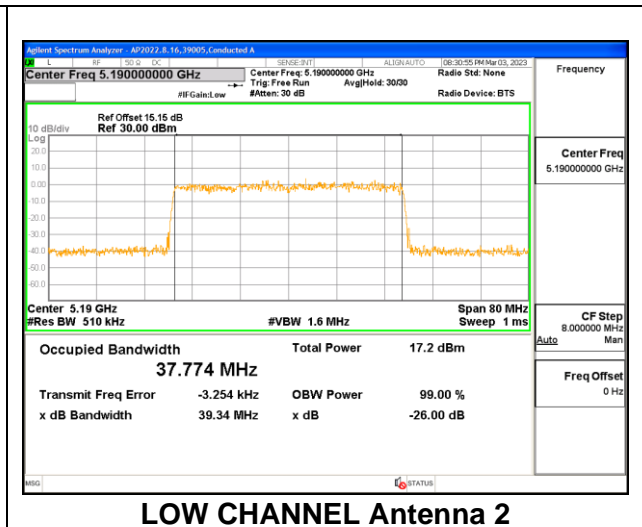
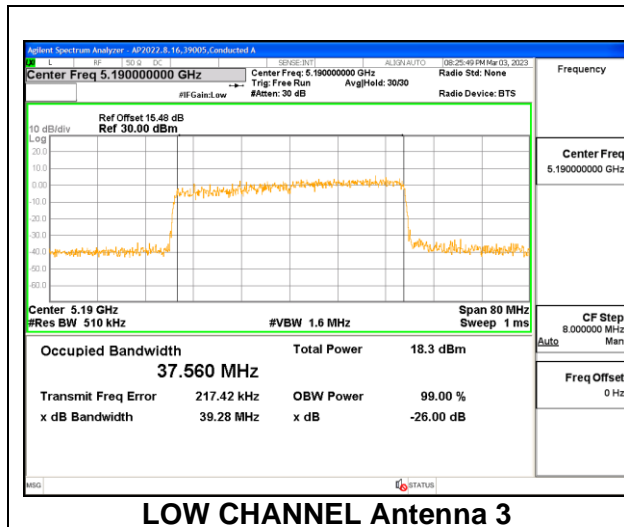


9.3.2. 802.11ax HE40 MODE 2TX IN THE 5.2GHZ BAND

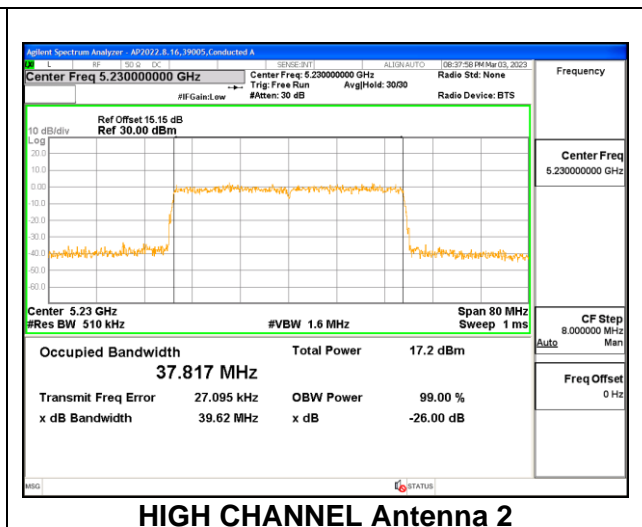
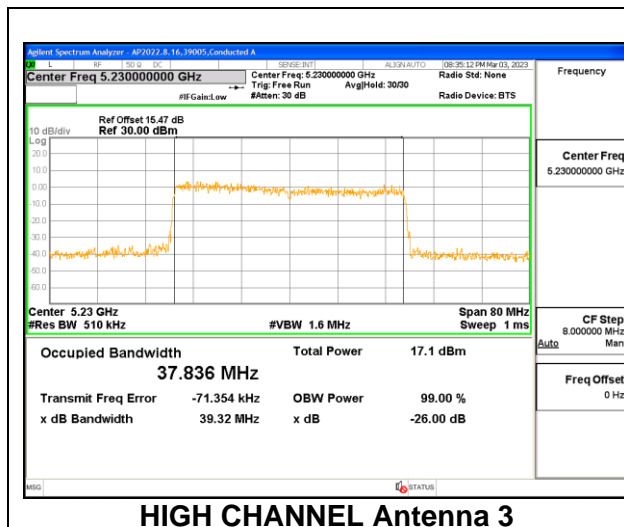
2TX Antenna 3 + Antenna 2 CDD OFDMA MODE: 484-Tones, RU Index 65

Channel	Frequency (MHz)	99% Bandwidth Antenna 3 (MHz)	99% Bandwidth Antenna 2 (MHz)
Low	5190	37.560	37.774
High	5230	37.836	37.817

LOW CHANNEL



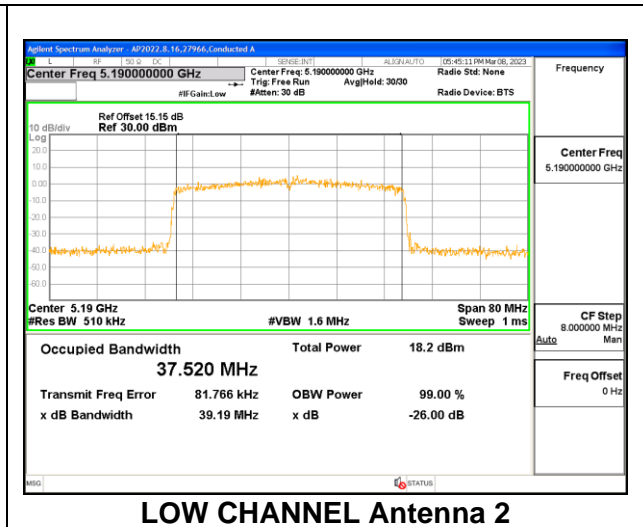
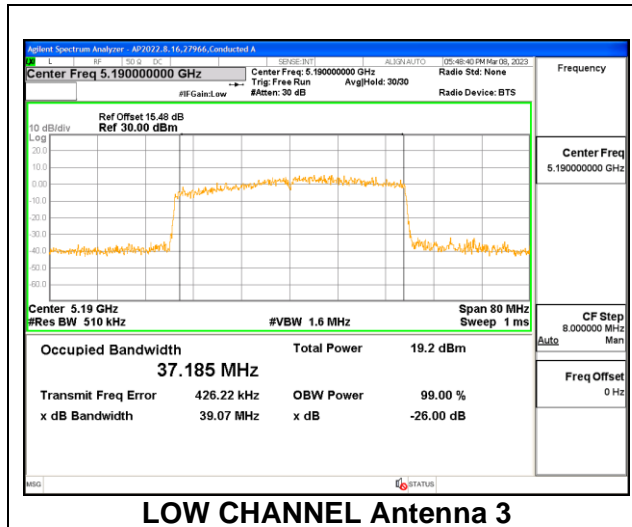
HIGH CHANNEL



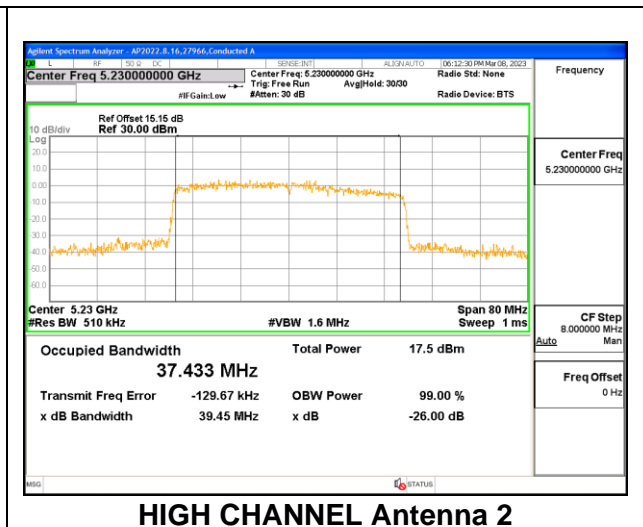
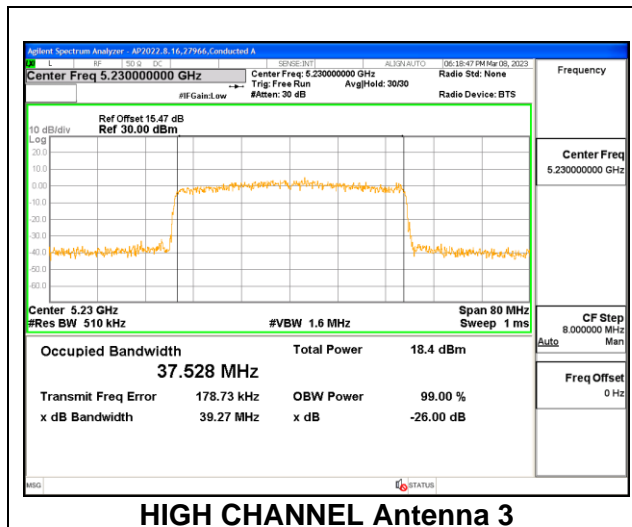
2TX Antenna 3 + Antenna 2 CDD MODE: SU (Single User)

Channel	Frequency (MHz)	99% Bandwidth Antenna 3 (MHz)	99% Bandwidth Antenna 2 (MHz)
Low	5190	37.185	37.520
High	5230	37.528	37.433

LOW CHANNEL



HIGH CHANNEL

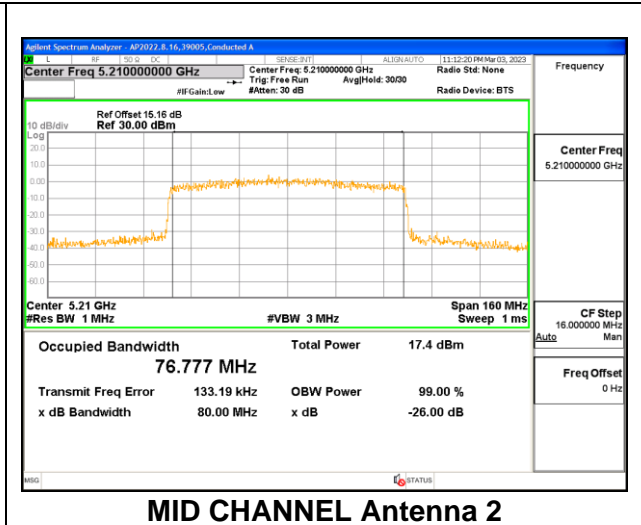
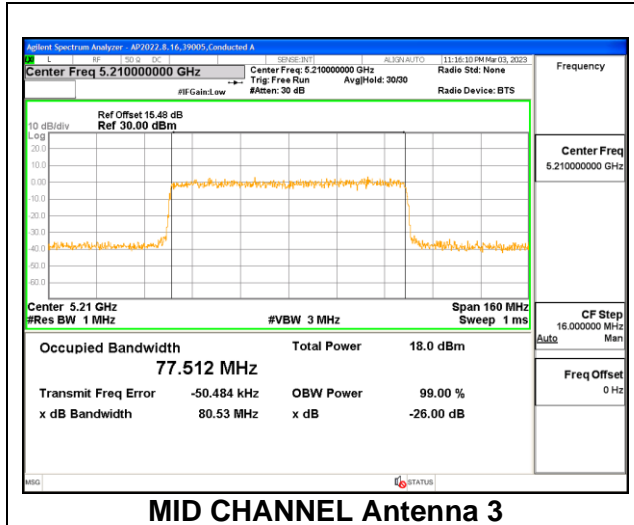


9.3.3. 802.11ax HE80 MODE 2TX IN THE 5.2GHz BAND

2TX Antenna 3 + Antenna 2 CDD OFDMA MODE: 996-Tones, RU Index 67

Channel	Frequency (MHz)	99% Bandwidth Antenna 3 (MHz)	99% Bandwidth Antenna 2 (MHz)
Mid	5210	77.512	76.777

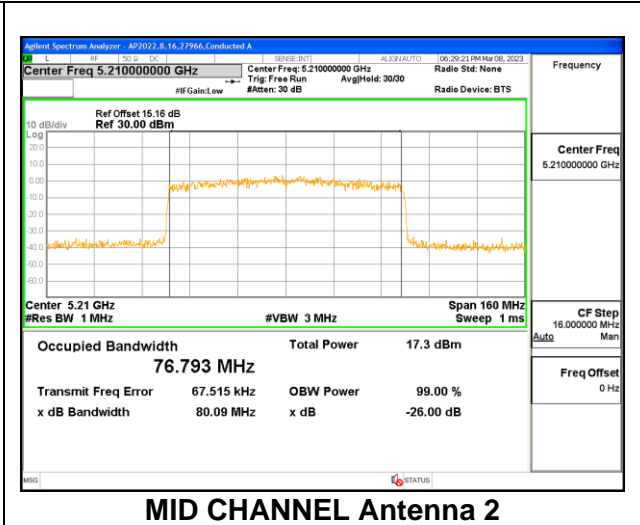
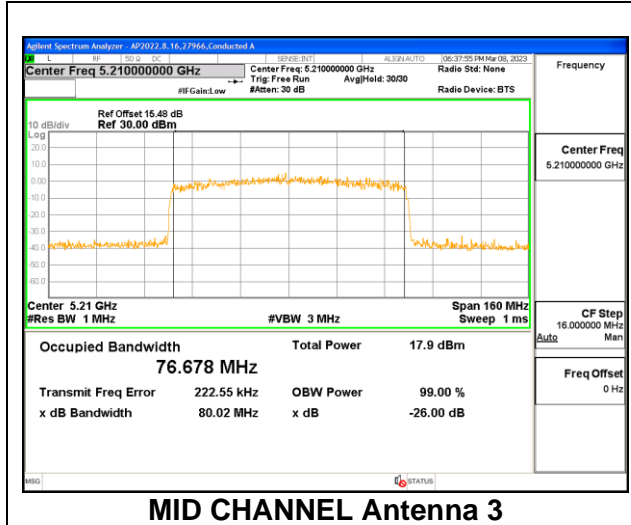
MID CHANNEL



2TX Antenna 3 + Antenna 2 CDD MODE: SU (Single User)

Channel	Frequency (MHz)	99% Bandwidth Antenna 3 (MHz)	99% Bandwidth Antenna 2 (MHz)
Mid	5210	76.678	76.793

MID CHANNEL

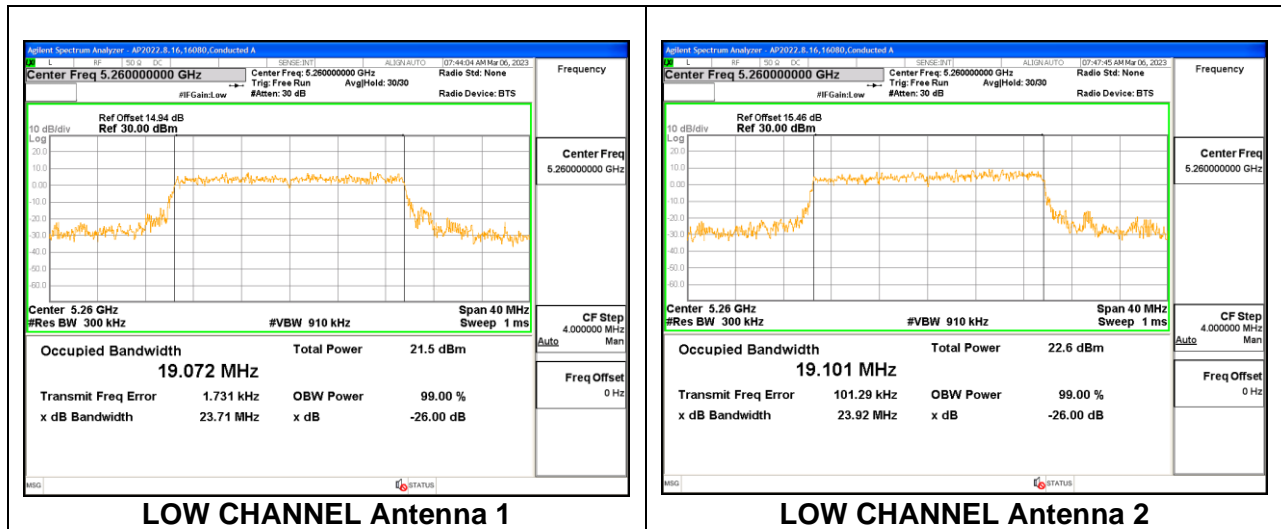


9.3.4. 802.11ax HE20 MODE 2TX IN THE 5.3GHz BAND

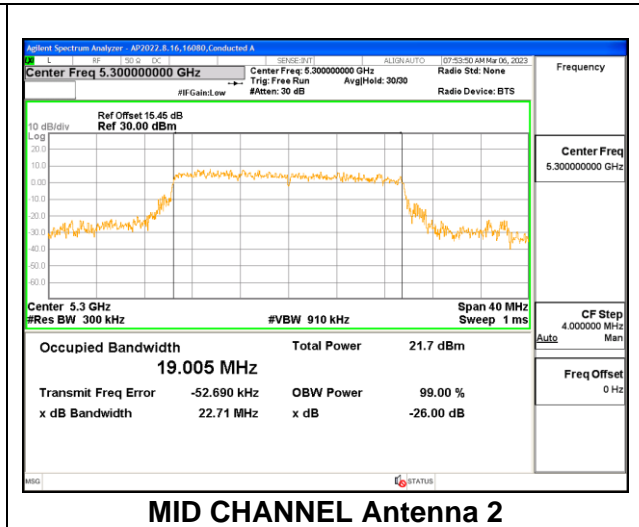
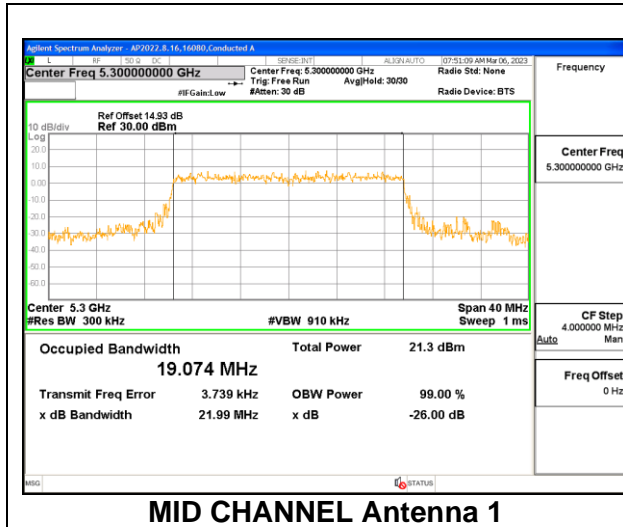
2TX Antenna 1 + Antenna 2 CDD OFDMA MODE: 242-Tones, RU Index 61

Channel	Frequency (MHz)	99% Bandwidth Antenna 1 (MHz)	99% Bandwidth Antenna 2 (MHz)
Low	5260	19.072	19.101
Mid	5300	19.074	19.005
High	5320	19.081	18.990

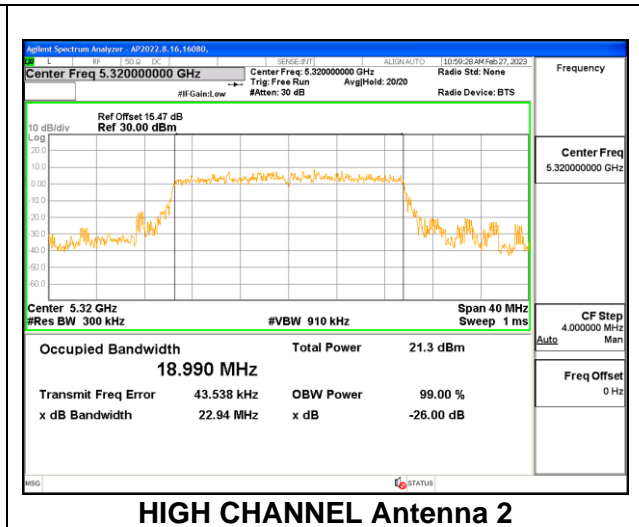
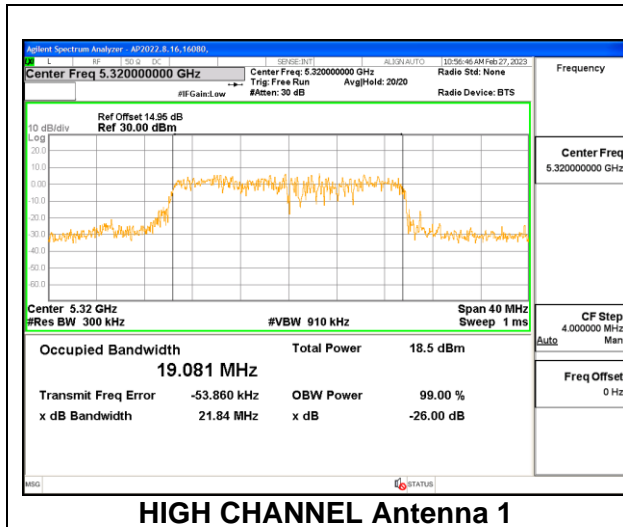
LOW CHANNEL



MID CHANNEL



HIGH CHANNEL

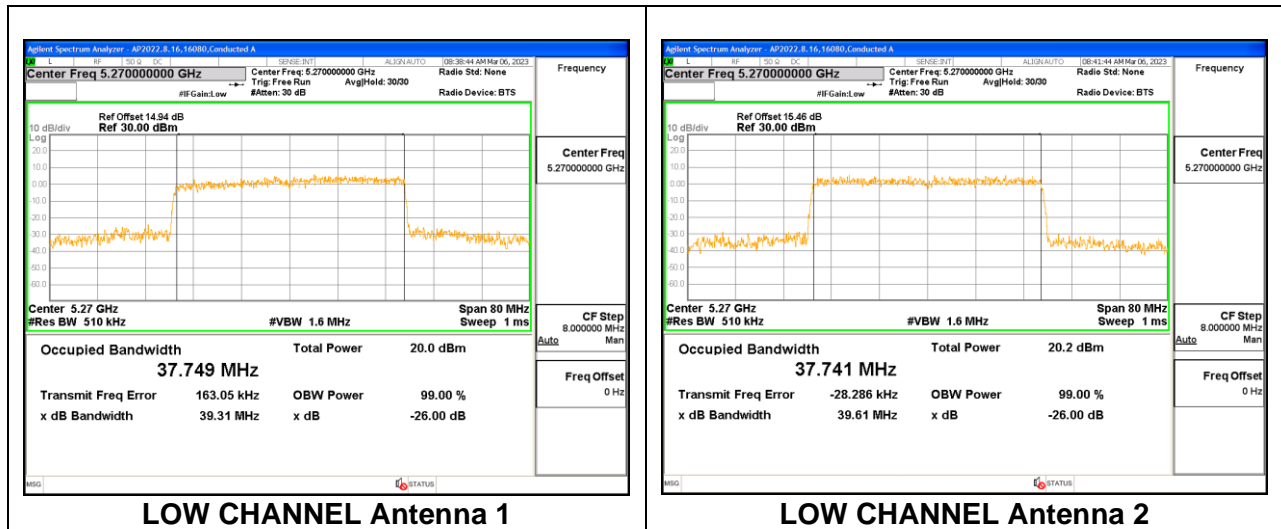


9.3.5. 802.11ax HE40 MODE 2TX IN THE 5.3GHZ BAND

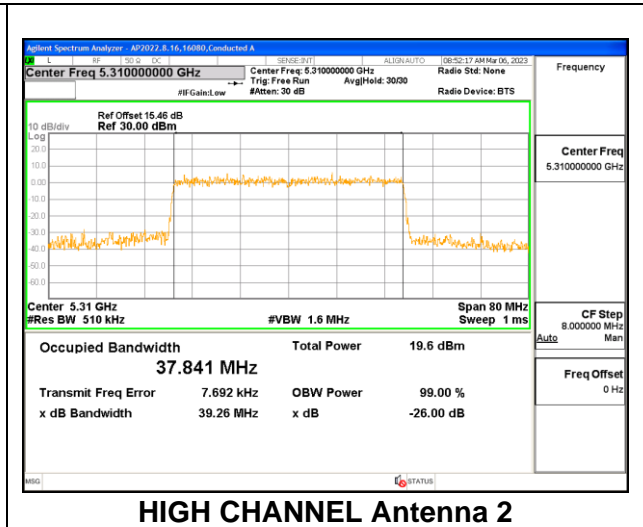
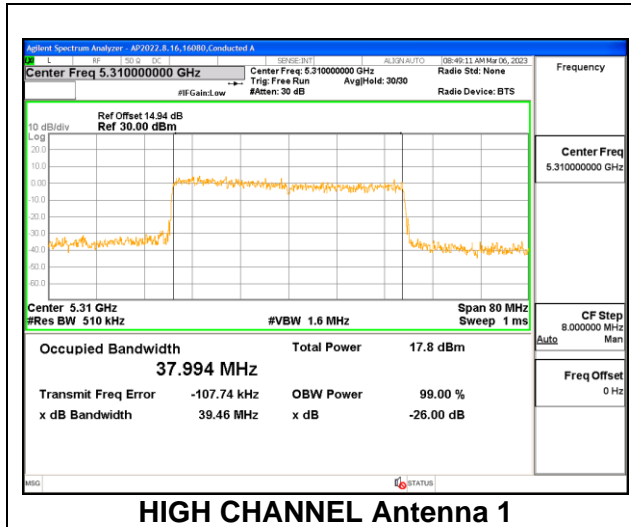
2TX Antenna 1 + Antenna 2 CDD OFDMA MODE: 484-Tones, RU Index 65

Channel	Frequency (MHz)	99% Bandwidth Antenna 1 (MHz)	99% Bandwidth Antenna 2 (MHz)
Low	5270	37.749	37.741
High	5310	37.994	37.841

LOW CHANNEL



HIGH CHANNEL

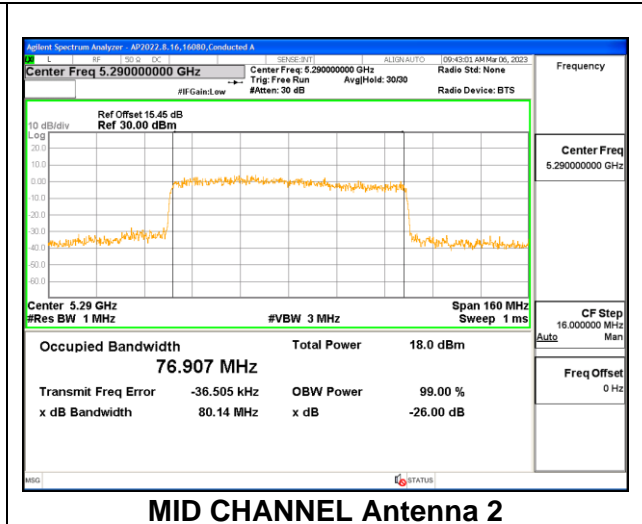
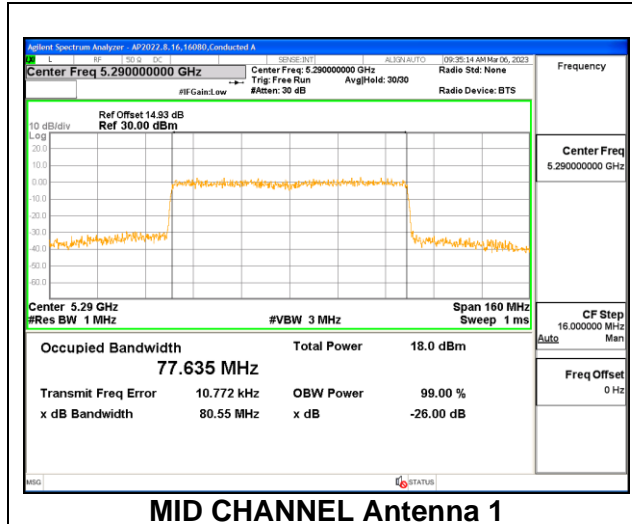


9.3.6. 802.11ax HE80 MODE 2TX IN THE 5.3GHz BAND

2TX Antenna 1 + Antenna 2 CDD OFDMA MODE: 996-Tones, RU Index 67

Channel	Frequency (MHz)	99% Bandwidth Antenna 1 (MHz)	99% Bandwidth Antenna 2 (MHz)
Mid	5290	77.635	76.907

MID CHANNEL

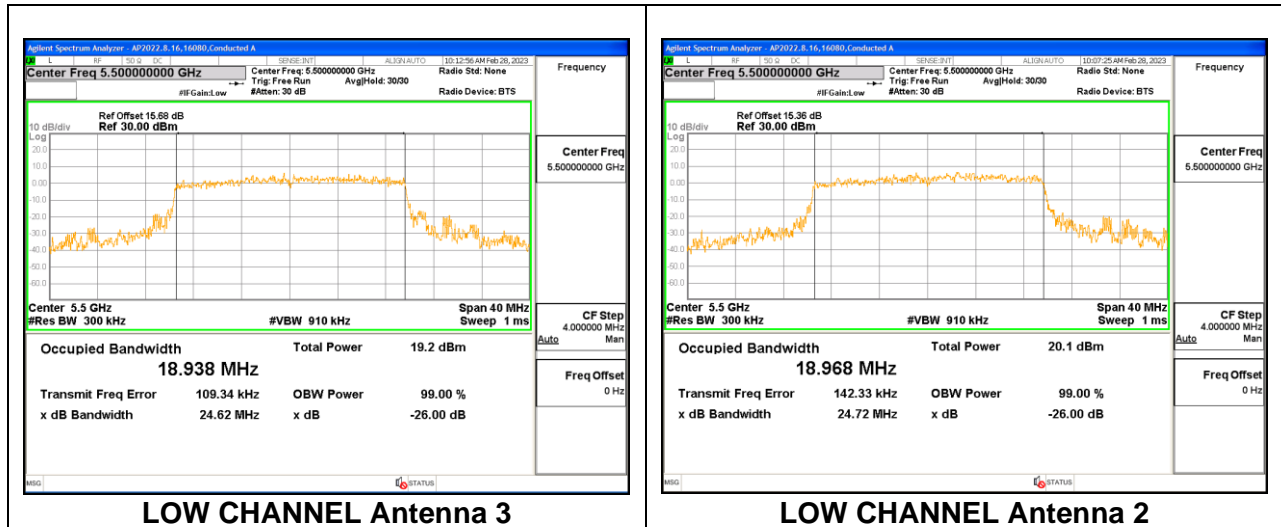


9.3.7. 802.11ax HE20 MODE 2TX IN THE 5.6GHz BAND

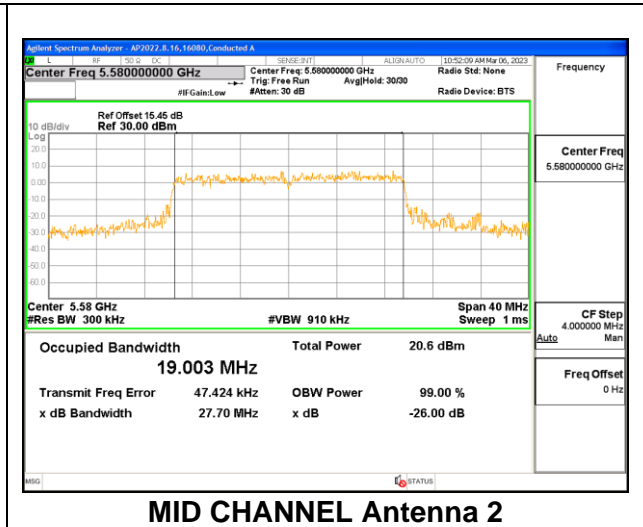
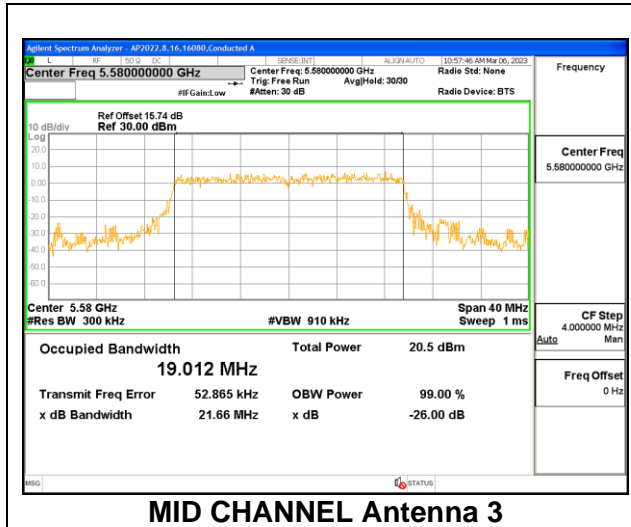
2TX Antenna 3 + Antenna 2 CDD OFDMA MODE: 242-Tones, RU Index 61

Channel	Frequency (MHz)	99% Bandwidth Antenna 3 (MHz)	99% Bandwidth Antenna 2 (MHz)
Low	5500	18.938	18.968
Mid	5580	19.012	19.003
High	5700	19.004	19.012

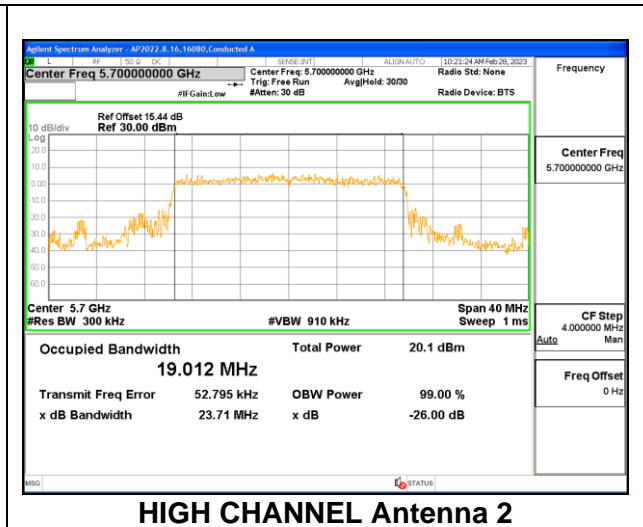
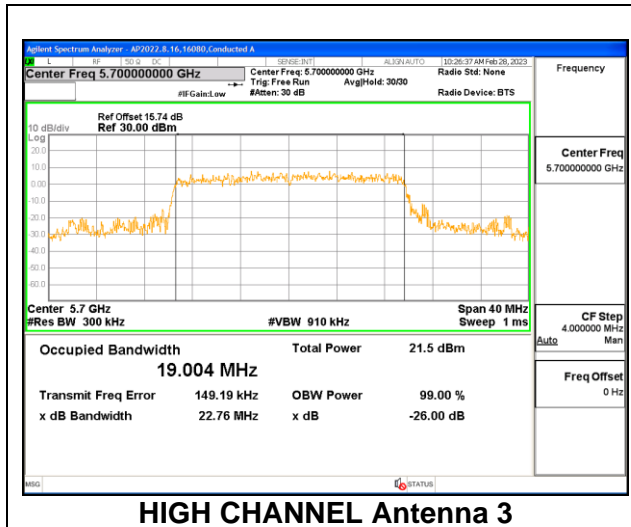
LOW CHANNEL



MID CHANNEL



HIGH CHANNEL

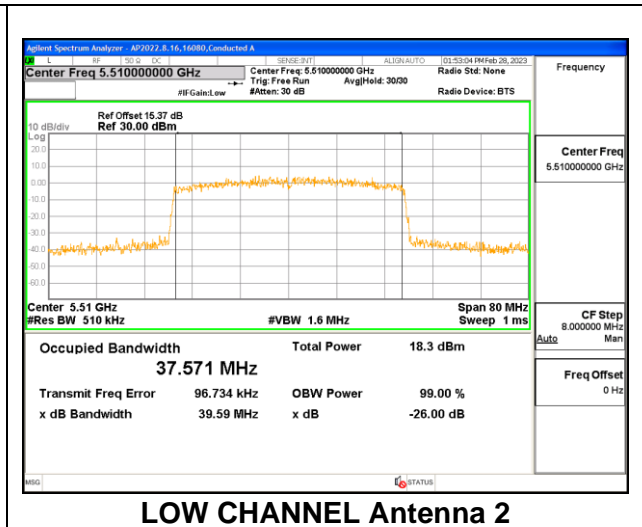
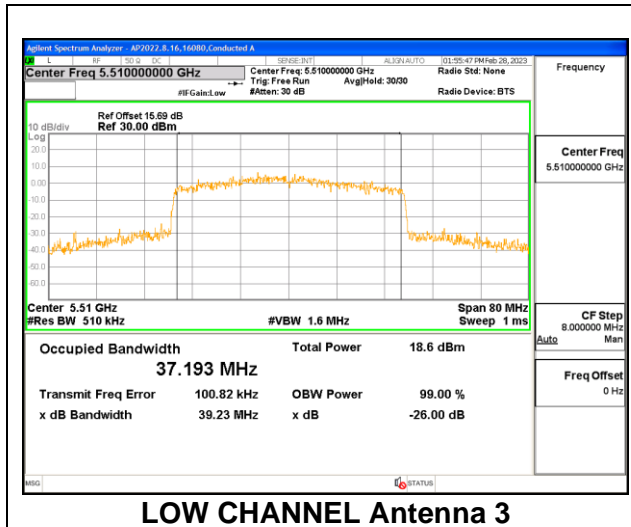


9.3.8. 802.11ax HE40 MODE 2TX IN THE 5.6GHz BAND

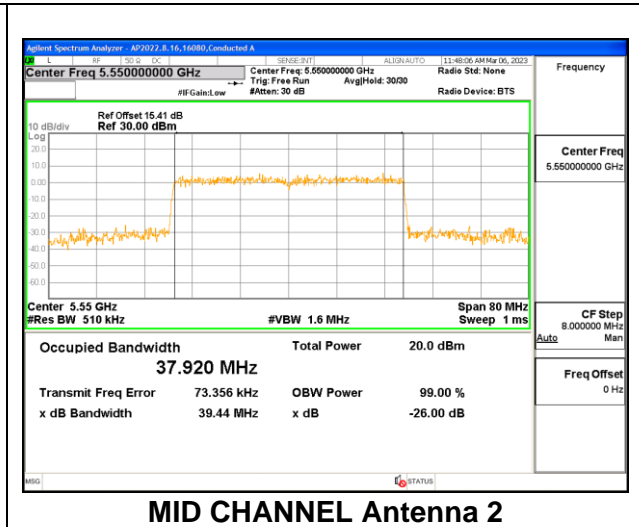
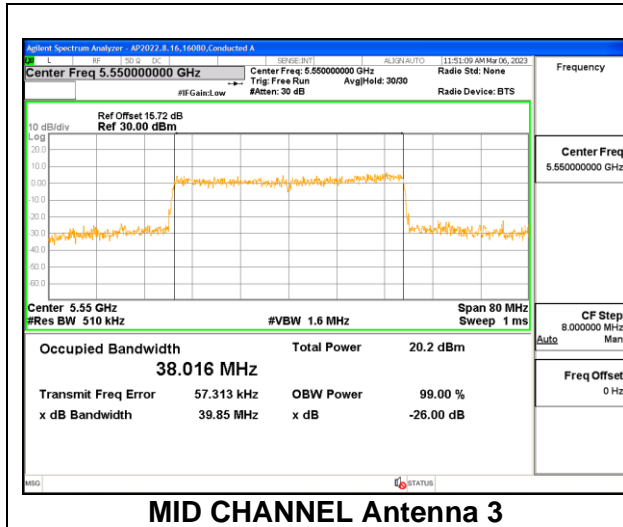
2TX Antenna 3 + Antenna 2 CDD OFDMA MODE: 484-Tones, RU Index 65

Channel	Frequency (MHz)	99% Bandwidth Antenna 3 (MHz)	99% Bandwidth Antenna 2 (MHz)
Low	5510	37.193	37.571
Mid	5550	38.016	37.920
High	5670	37.543	37.507

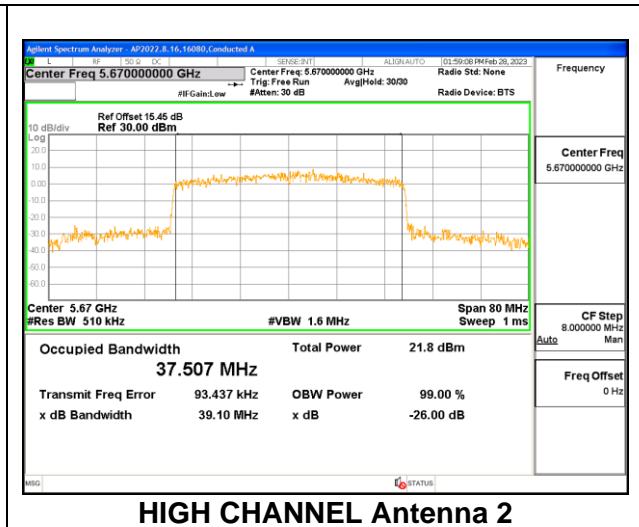
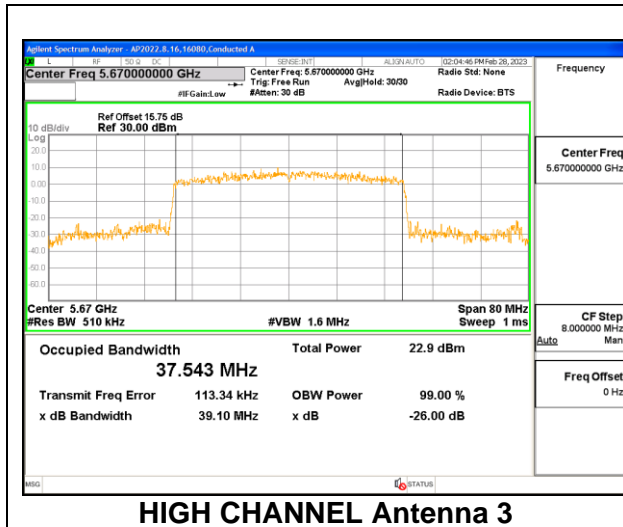
LOW CHANNEL



MID CHANNEL



HIGH CHANNEL

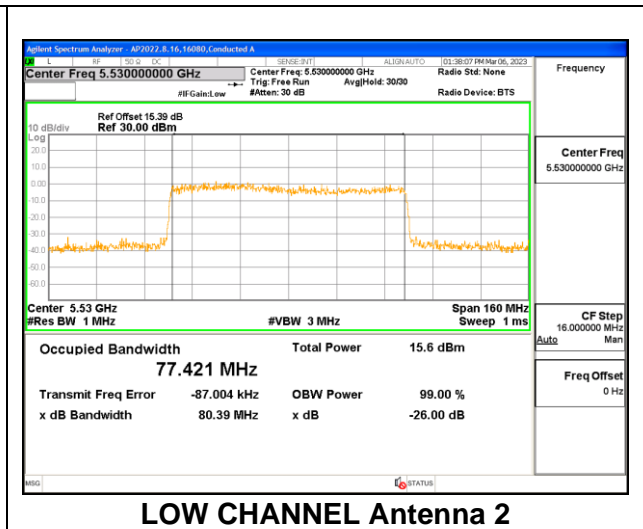
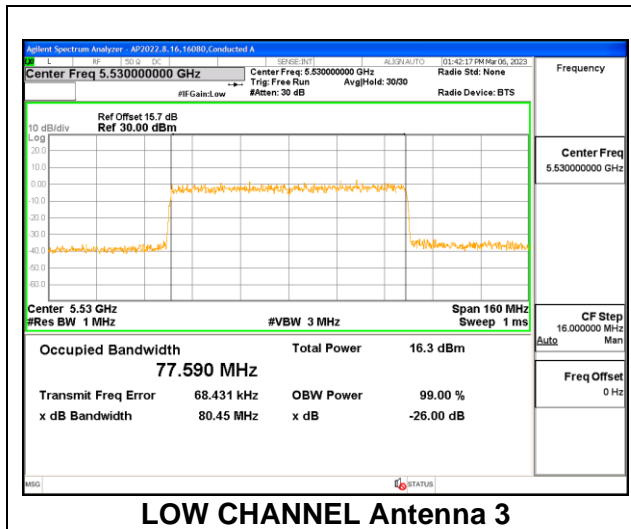


9.3.9. 802.11ax HE80 MODE 2TX IN THE 5.6GHZ BAND

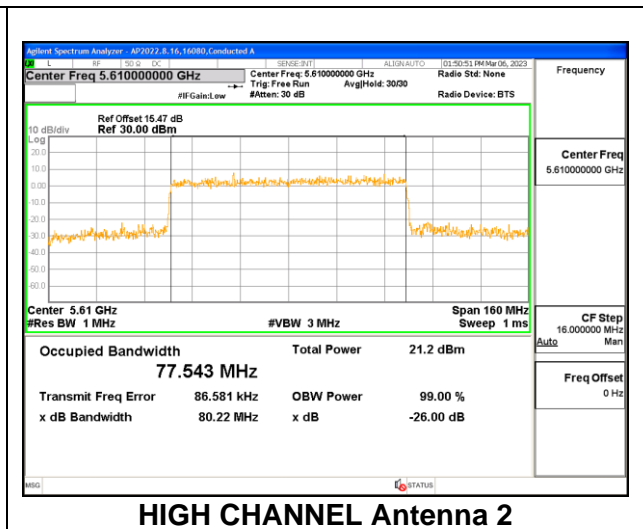
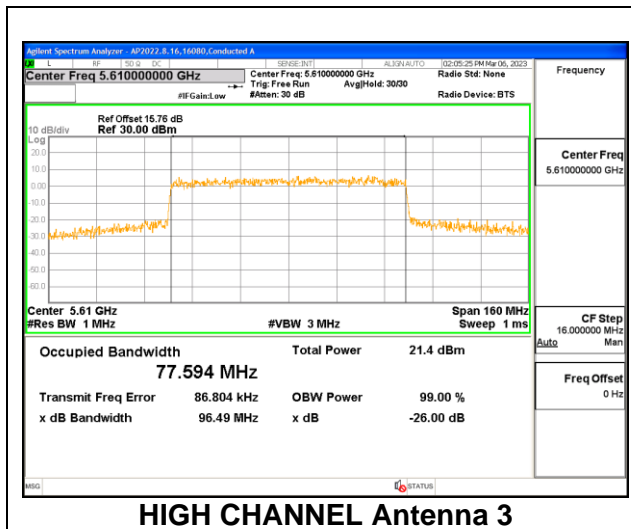
2TX Antenna 3 + Antenna 2 CDD OFDMA MODE: 996-Tones, RU Index 67

Channel	Frequency (MHz)	99% Bandwidth Antenna 3 (MHz)	99% Bandwidth Antenna 2 (MHz)
Low	5530	77.590	77.421
High	5610	77.594	77.543

LOW CHANNEL



HIGH CHANNEL

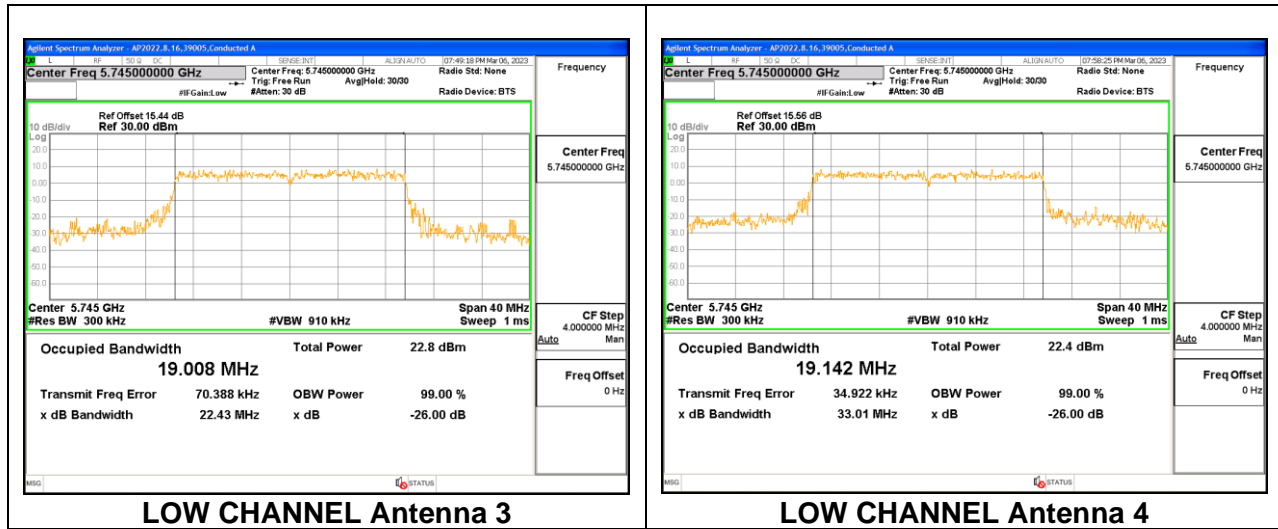


9.3.10. 802.11ax HE20 MODE 2TX IN THE 5.8GHz BAND

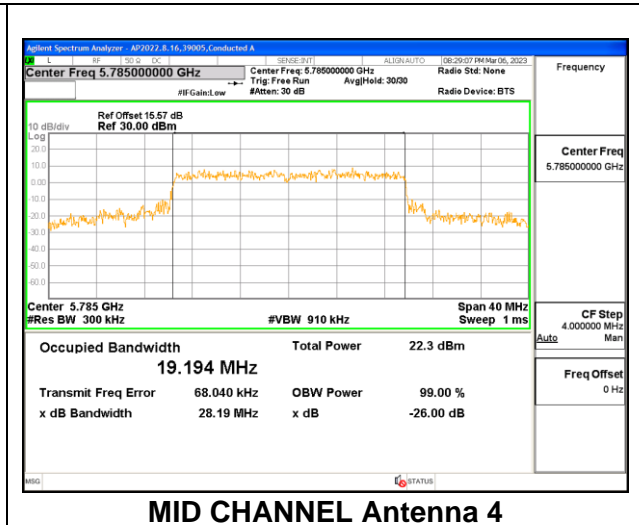
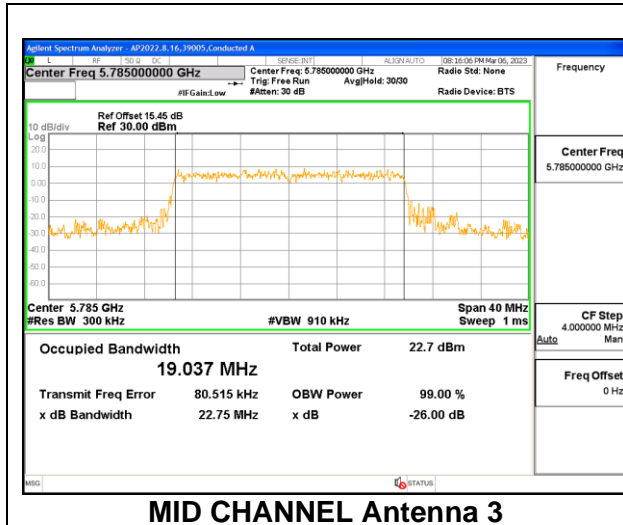
2TX Antenna 3 + Antenna 4 CDD OFDMA MODE: 242-Tones, RU Index 61

Channel	Frequency (MHz)	99% Bandwidth Antenna 3 (MHz)	99% Bandwidth Antenna 4 (MHz)
Low	5745	19.008	19.142
Mid	5785	19.037	19.194
High	5825	19.013	19.084

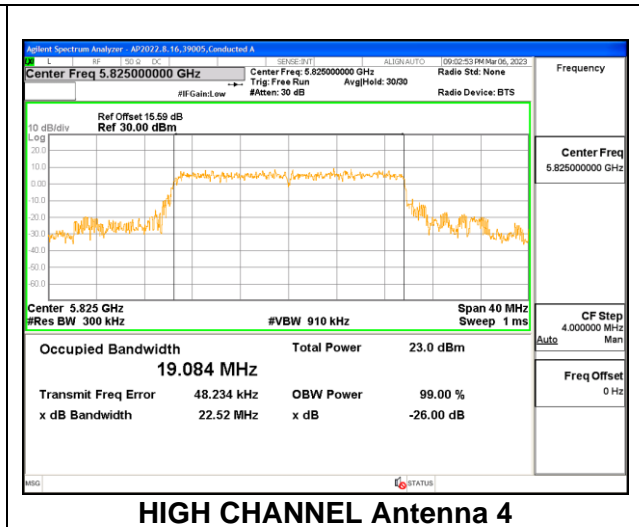
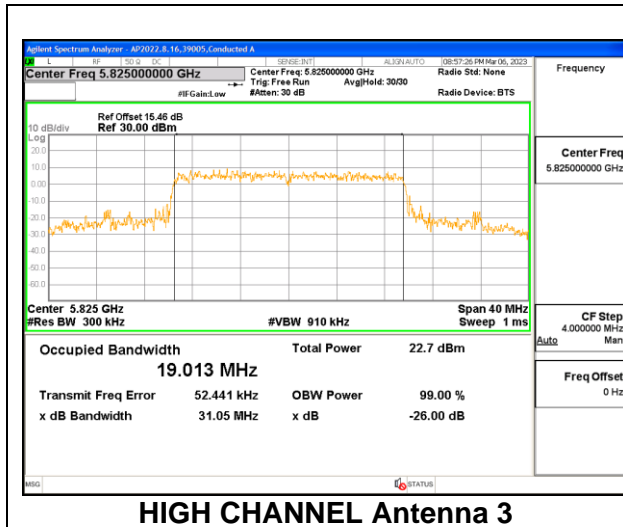
LOW CHANNEL



MID CHANNEL



HIGH CHANNEL

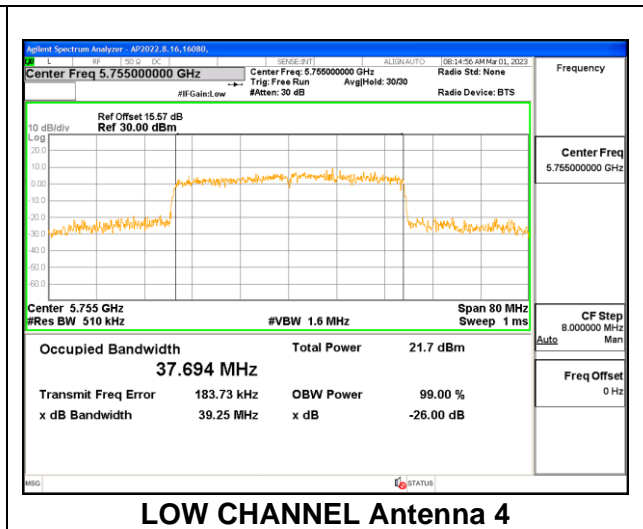
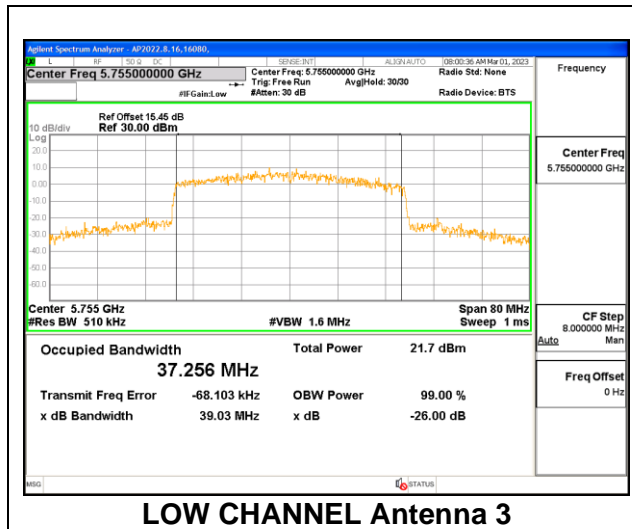


9.3.11. 802.11ax HE40 MODE 2TX IN THE 5.8GHz BAND

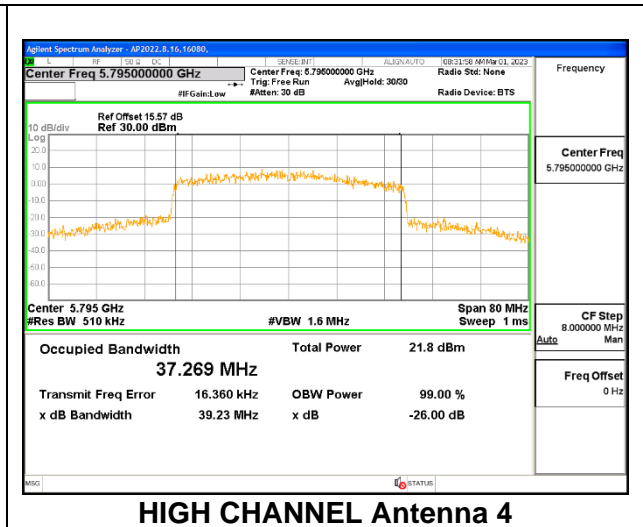
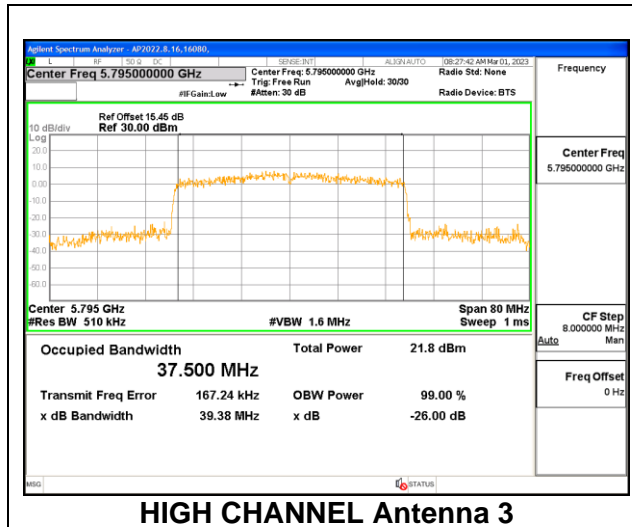
2TX Antenna 3 + Antenna 4 CDD OFDMA MODE: 484-Tones, RU Index 65

Channel	Frequency (MHz)	99% Bandwidth Antenna 3 (MHz)	99% Bandwidth Antenna 4 (MHz)
Low	5755	37.256	37.694
High	5795	37.500	37.269

LOW CHANNEL



HIGH CHANNEL

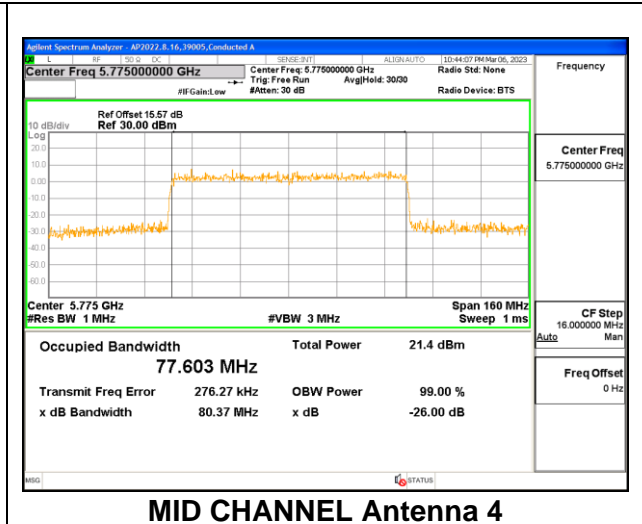
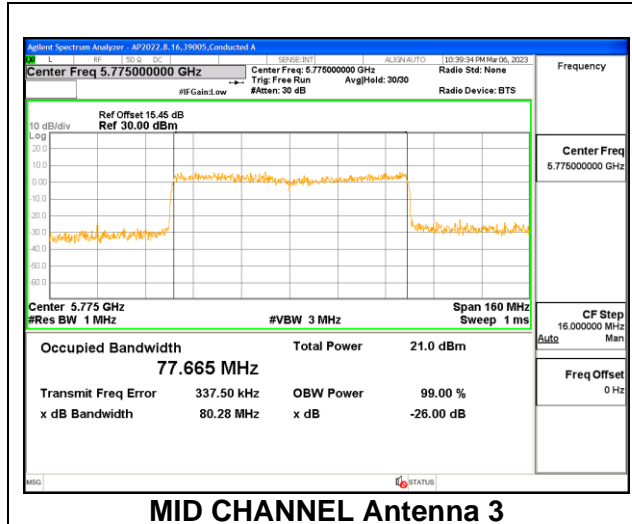


9.3.12. 802.11ax HE80 MODE 2TX IN THE 5.8GHz BAND

2TX Antenna 3 + Antenna 4 CDD OFDMA MODE: 996-Tones, RU Index 67

Channel	Frequency (MHz)	99% Bandwidth Antenna 3 (MHz)	99% Bandwidth Antenna 4 (MHz)
Mid	5775	77.665	77.603

MID CHANNEL



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.

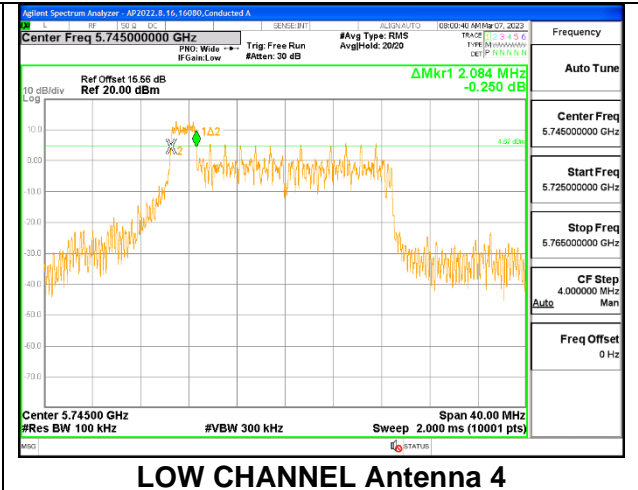
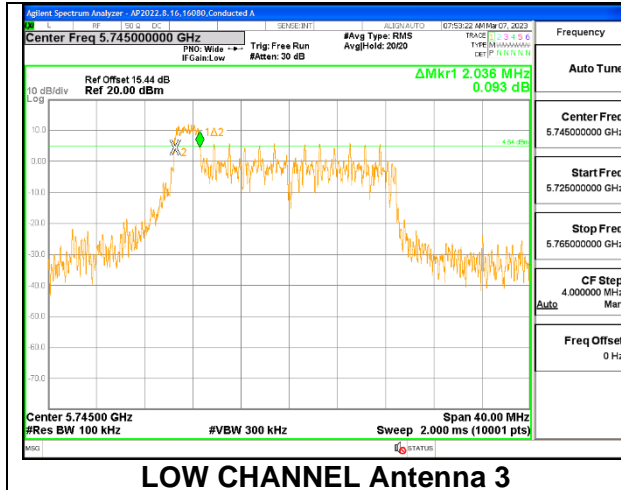
RESULTS

9.4.1. 802.11ax HE20 MODE 2TX IN THE 5.8GHz BAND

2TX Antenna 3 + Antenna 4 CDD OFDMA MODE: 26-Tones, RU Index 0

Channel	Frequency (MHz)	6 dB BW Antenna 3 (MHz)	6 dB BW Antenna 4 (MHz)	Minimum Limit (MHz)
Low	5745	2.036	2.084	0.5

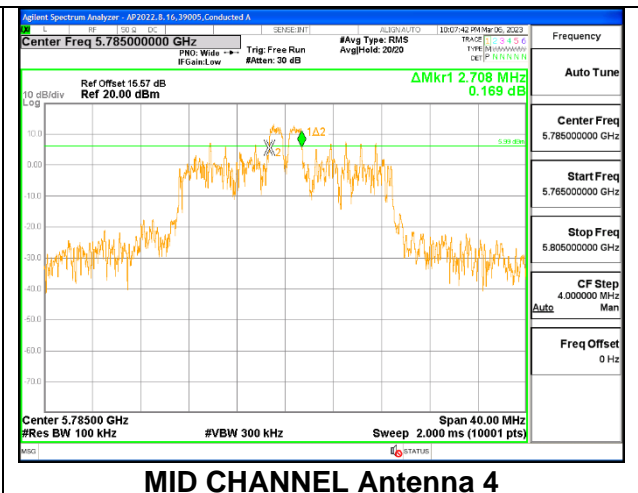
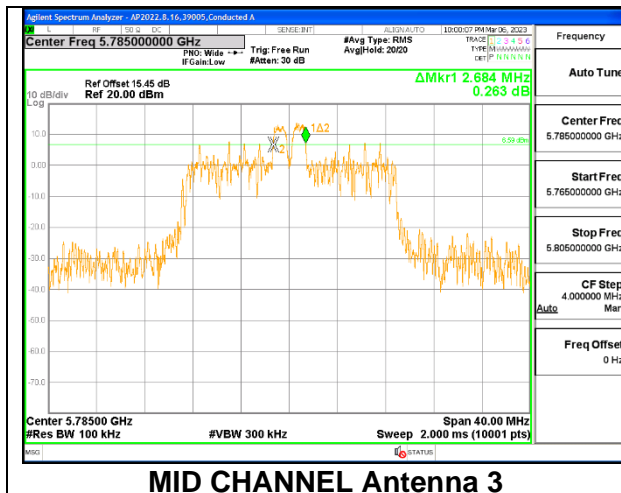
LOW CHANNEL



2TX Antenna 3 + Antenna 4 CDD OFDMA MODE: 26-Tones, RU Index 4

Channel	Frequency (MHz)	6 dB BW Antenna 3 (MHz)	6 dB BW Antenna 4 (MHz)	Minimum Limit (MHz)
Mid	5785	2.684	2.708	0.5

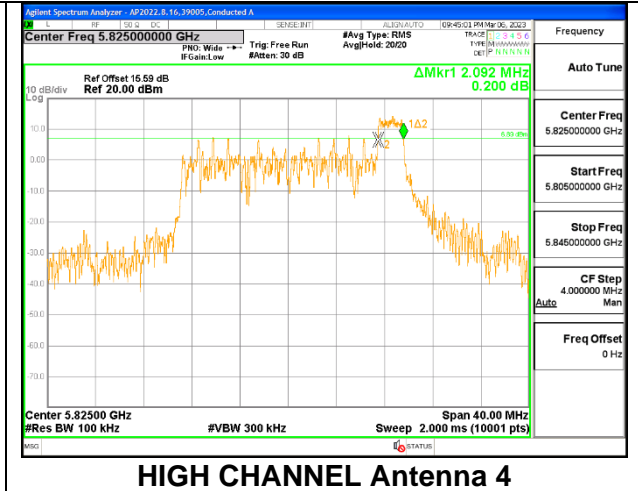
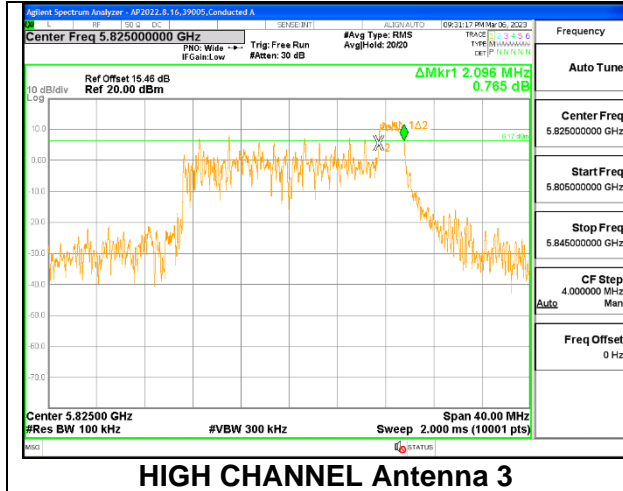
MID CHANNEL



2TX Antenna 3 + Antenna 4 CDD OFDMA MODE: 26-Tones, RU Index 8

Channel	Frequency (MHz)	6 dB BW Antenna 3 (MHz)	6 dB BW Antenna 4 (MHz)	Minimum Limit (MHz)
High	5825	2.096	2.092	0.5

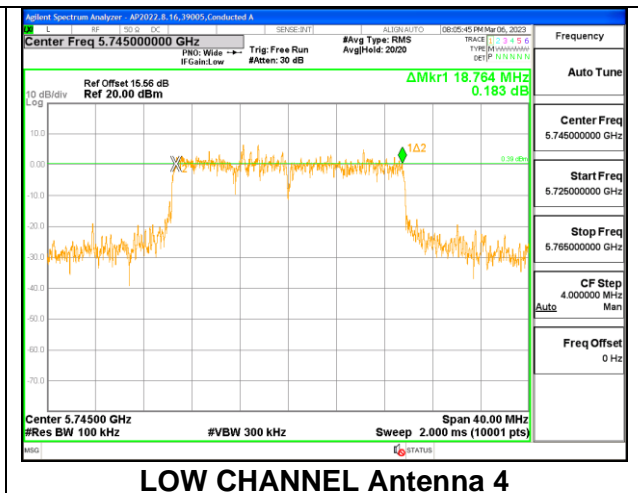
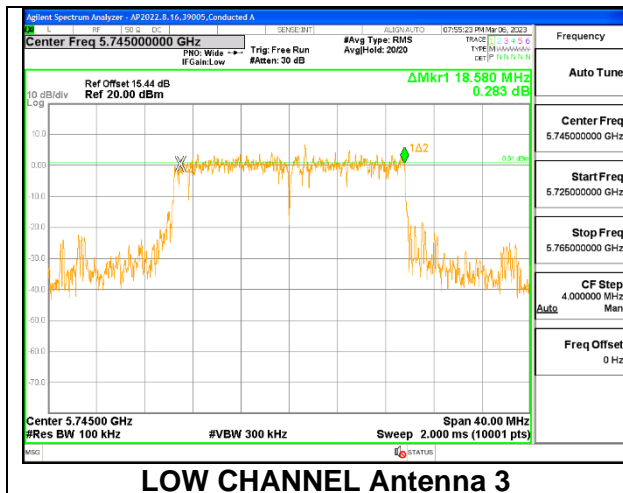
HIGH CHANNEL



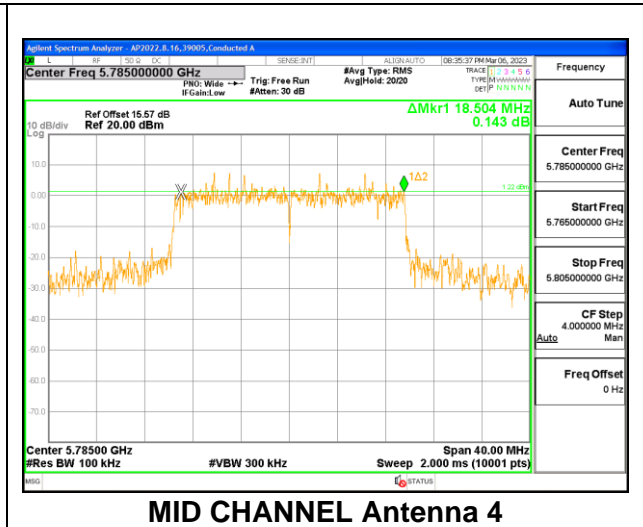
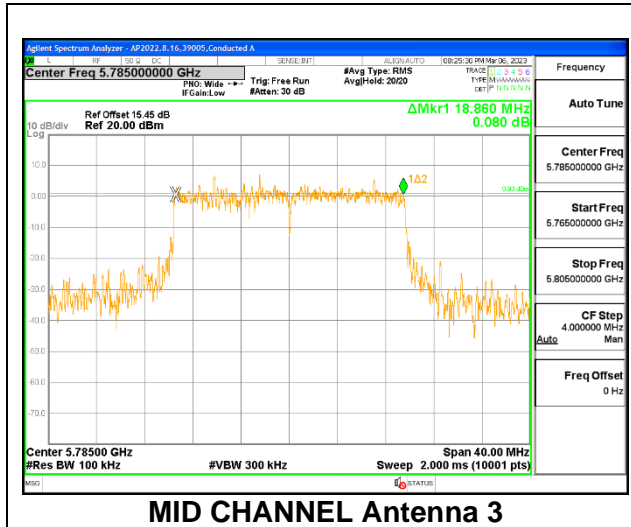
2TX Antenna 3 + Antenna 4 CDD OFDMA MODE: 242-Tones, RU Index 61

Channel	Frequency (MHz)	6 dB BW Antenna 3 (MHz)	6 dB BW Antenna 4 (MHz)	Minimum Limit (MHz)
Low	5745	18.580	18.764	0.5
Mid	5785	18.860	18.504	0.5
High	5825	18.680	18.644	0.5

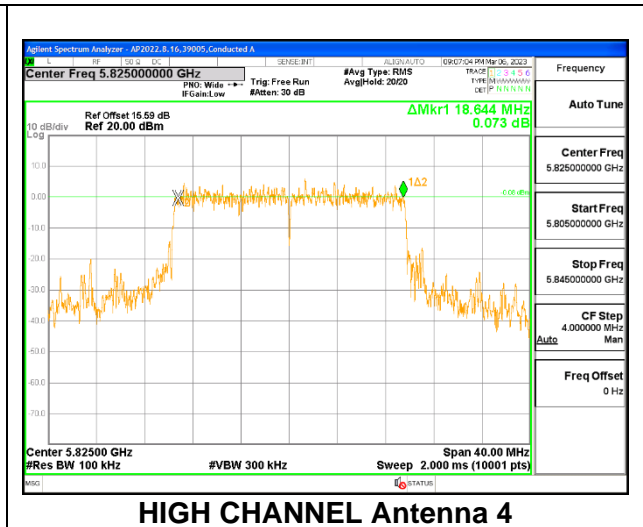
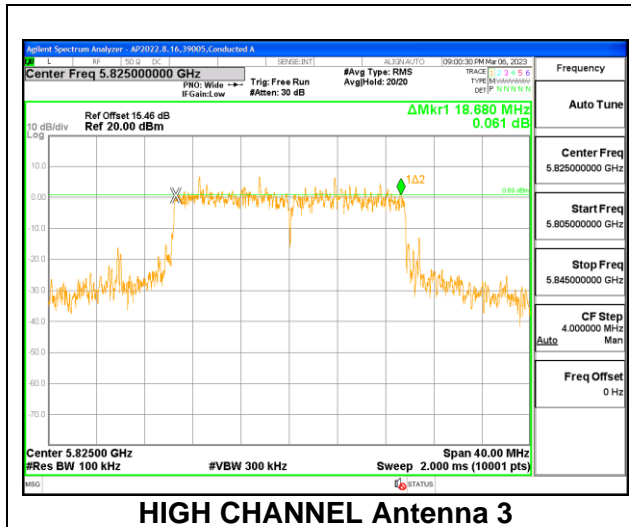
LOW CHANNEL



MID CHANNEL



HIGH CHANNEL

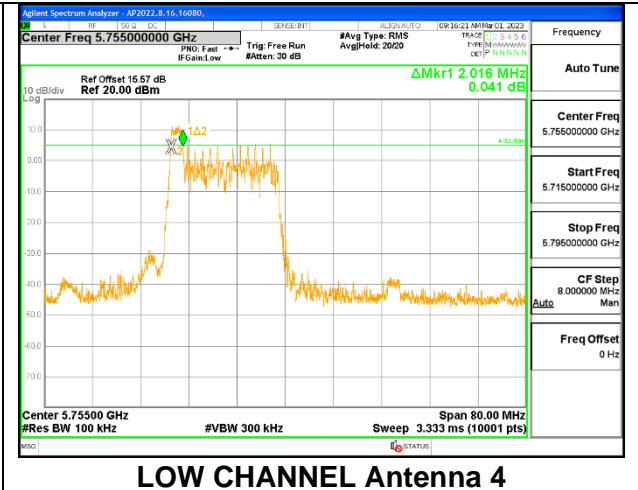
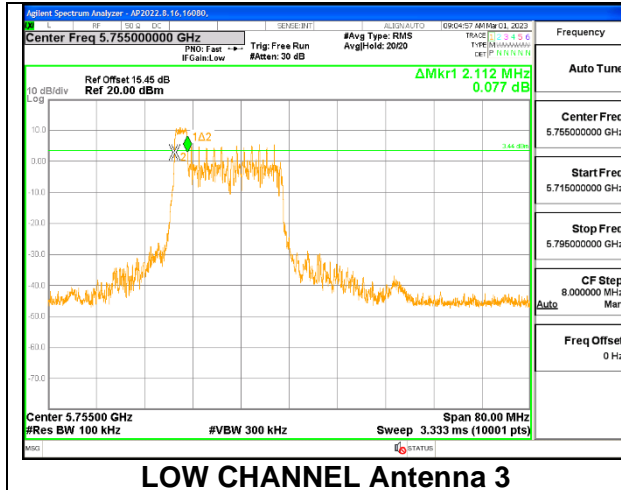


9.4.2. 802.11ax HE40 MODE 2TX IN THE 5.8GHz BAND

2TX Antenna 3 + Antenna 4 CDD OFDMA MODE: 26-Tones, RU Index 0

Channel	Frequency (MHz)	6 dB BW Antenna 3 (MHz)	6 dB BW Antenna 4 (MHz)	Minimum Limit (MHz)
Low	5755	2.112	2.016	0.5

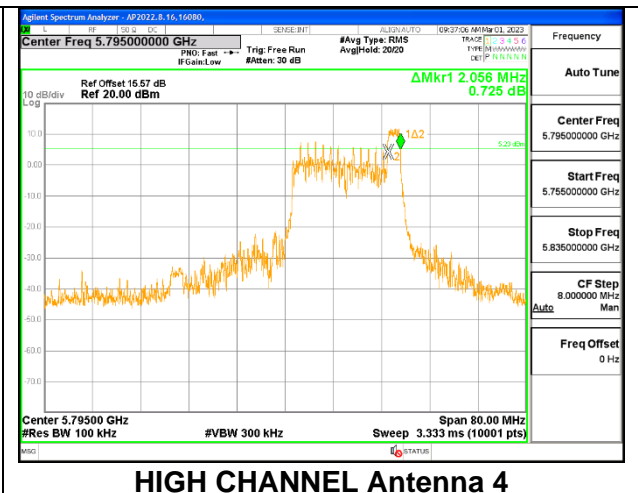
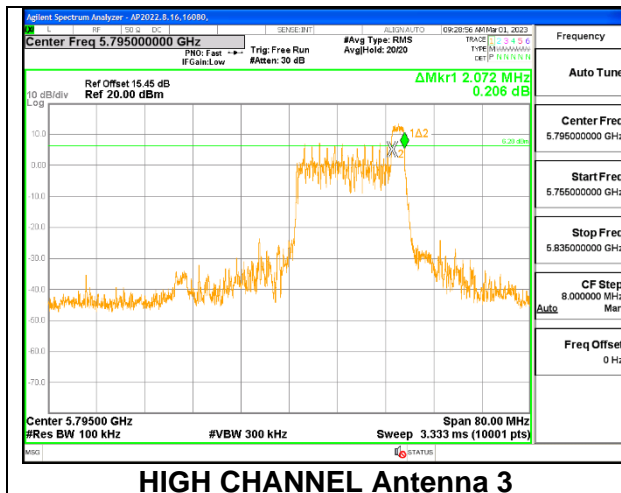
LOW CHANNEL



2TX Antenna 3 + Antenna 4 CDD OFDMA MODE: 26-Tones, RU Index 17

Channel	Frequency (MHz)	6 dB BW Antenna 3 (MHz)	6 dB BW Antenna 4 (MHz)	Minimum Limit (MHz)
High	5795	2.072	2.056	0.5

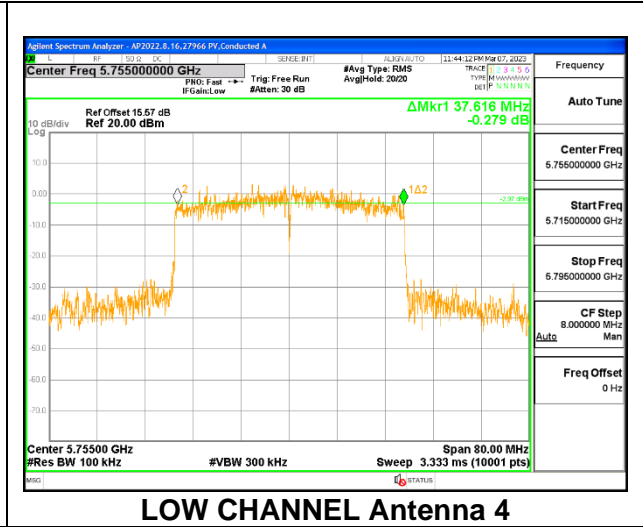
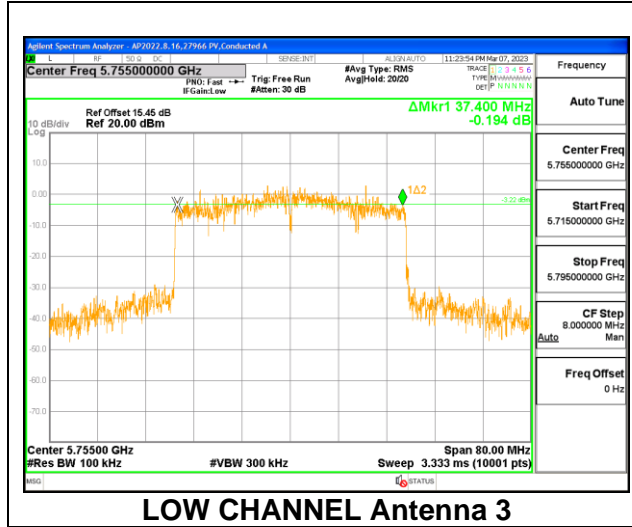
HIGH CHANNEL



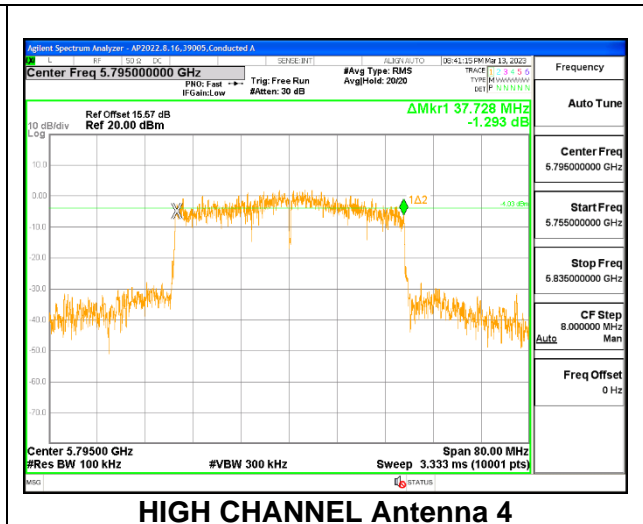
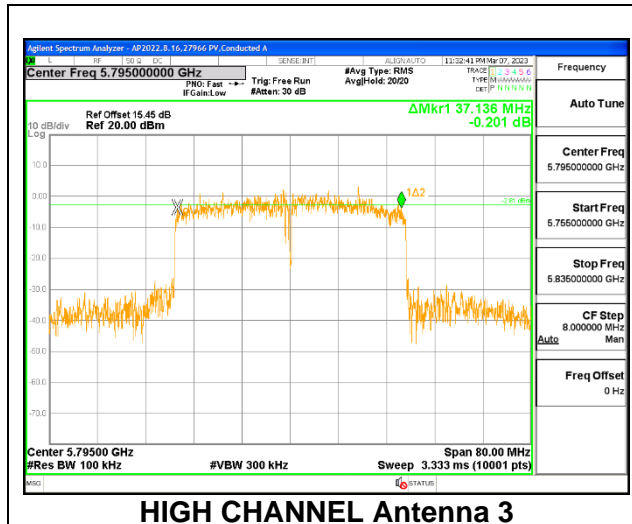
2TX Antenna 3 + Antenna 4 CDD OFDMA MODE: 484-Tones, RU Index 65

Channel	Frequency (MHz)	6 dB BW Antenna 3 (MHz)	6 dB BW Antenna 4 (MHz)	Minimum Limit (MHz)
Low	5755	37.400	37.616	0.5
High	5795	37.136	37.728	0.5

LOW CHANNEL



HIGH CHANNEL

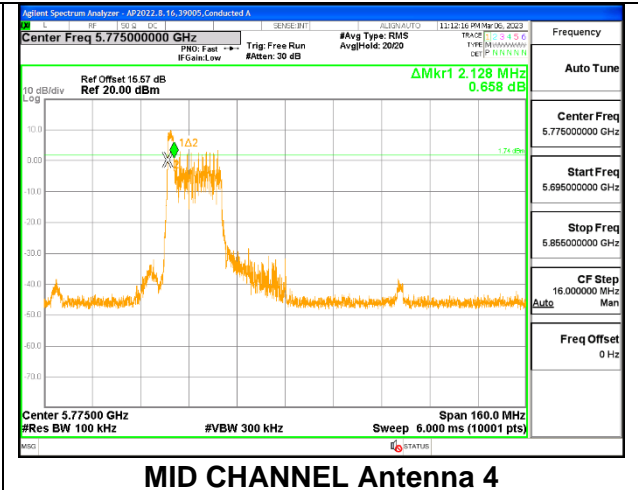
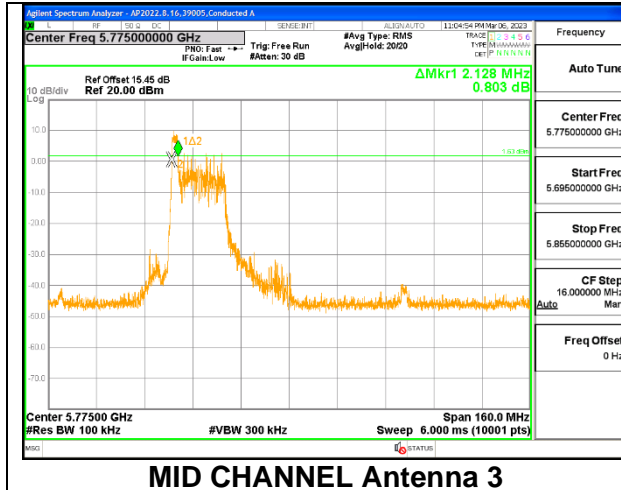


9.4.3. 802.11ax HE80 MODE 2TX IN THE 5.8GHZ BAND

2TX Antenna 3 + Antenna 4 CDD OFDMA MODE: 26-Tones, RU Index 0

Channel	Frequency (MHz)	6 dB BW Antenna 3 (MHz)	6 dB BW Antenna 4 (MHz)	Minimum Limit (MHz)
Mid	5775	2.128	2.128	0.5

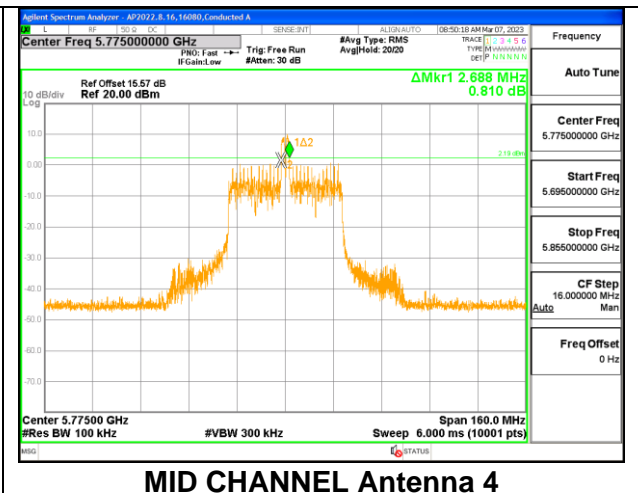
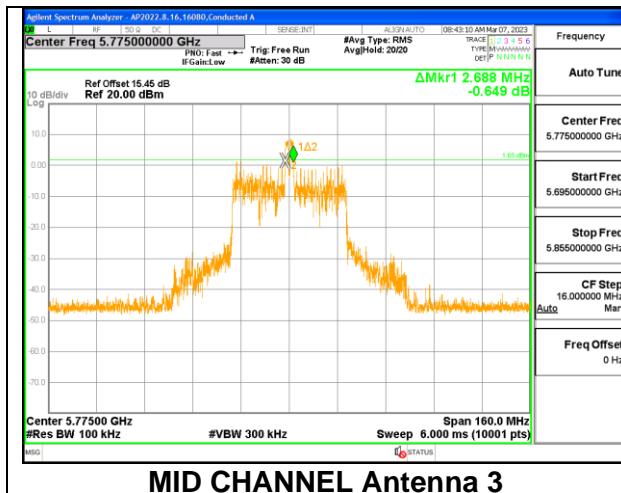
MID CHANNEL



2TX Antenna 3 + Antenna 4 CDD OFDMA MODE: 26-Tones, RU Index 18

Channel	Frequency (MHz)	6 dB BW Antenna 3 (MHz)	6 dB BW Antenna 4 (MHz)	Minimum Limit (MHz)
Mid	5775	2.688	2.688	0.5

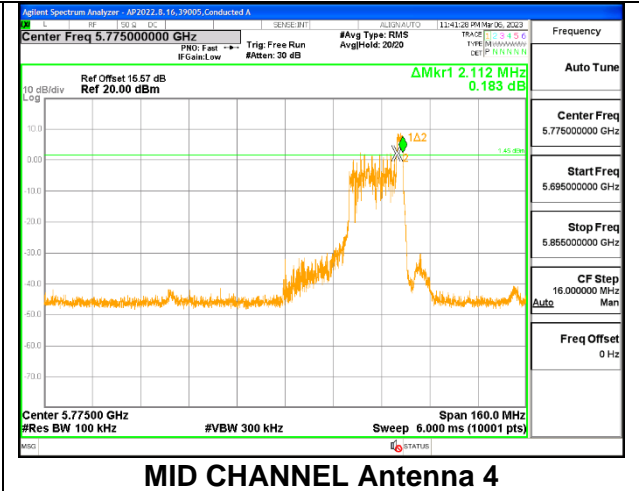
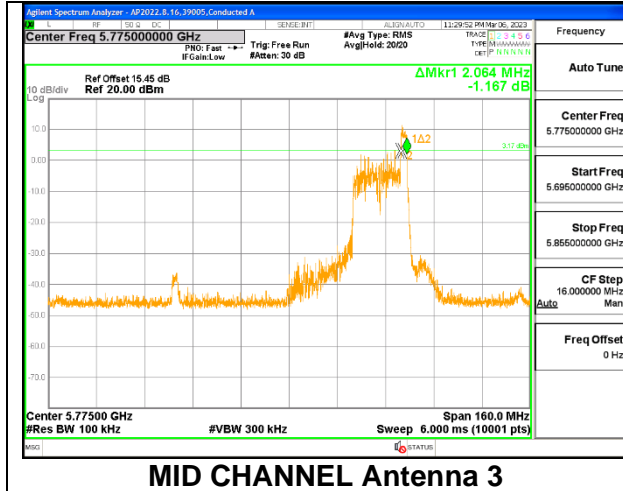
MID CHANNEL



2TX Antenna 3 + Antenna 4 CDD OFDMA MODE: 26-Tones, RU Index 36

Channel	Frequency (MHz)	6 dB BW Antenna 3 (MHz)	6 dB BW Antenna 4 (MHz)	Minimum Limit (MHz)
Mid	5775	2.064	2.112	0.5

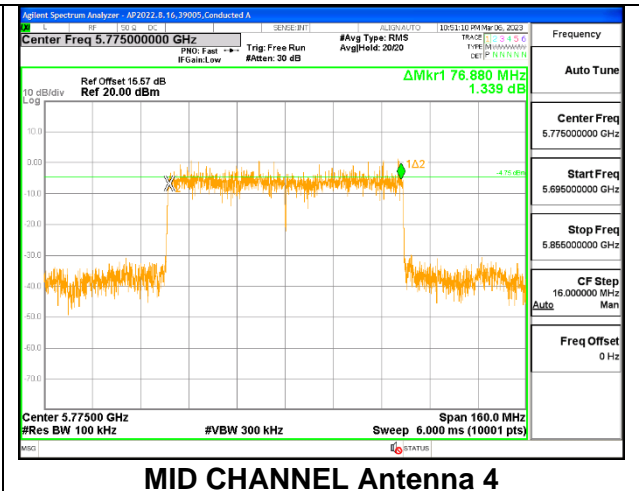
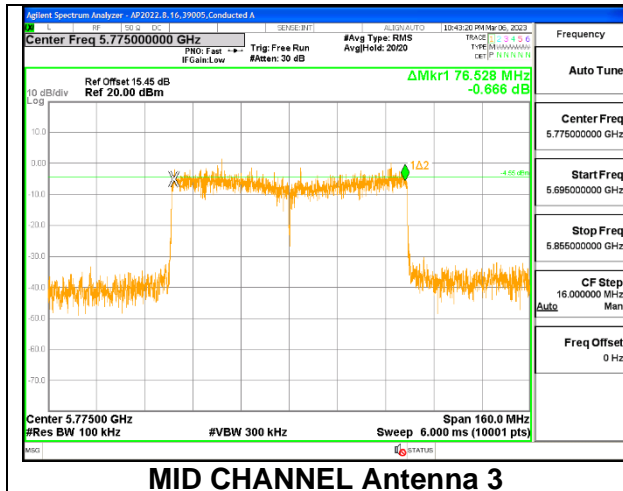
MID CHANNEL



2TX Antenna 3 + Antenna 4 CDD OFDMA MODE: 996-Tones, RU Index 67

Channel	Frequency (MHz)	6 dB BW Antenna 3 (MHz)	6 dB BW Antenna 4 (MHz)	Minimum Limit (MHz)
Mid	5775	76.528	76.880	0.5

MID CHANNEL



9.5. OUTPUT POWER AND PSD

LIMITS

FCC §15.407

Band 5.15–5.25 GHz

(iv) For mobile and portable 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.

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.

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.

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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 CHANNEL 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 CHANNEL 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.

DIRECTIONAL ANTENNA GAIN

Tx chains are uncorrelated for power and correlated for PSD due to the device supporting CDD in all MIMO modes. The directional gains are as follows:

NOTE: For 5.2GHz and 5.6GHz Bands worst case combination is Antenna 3 and antenna 2. For 5.3GHz Band worst case combination is Antenna 1 and antenna 2. For 5.8GHz Band worst case combination is Antenna 3 and antenna 4.

Antenna 1 and Antenna 2:

Band (GHz)	Chain 0 Antenna 1 Gain (dBi)	Chain 1 Antenna 2 Gain (dBi)	Uncorrelated Chains Directional Gain (dBi)	Correlated Chains Directional Gain (dBi)
5.2	2.3	2.7	2.50	5.51
5.3	2.8	3.3	3.06	6.06
5.6	2.2	3.4	2.84	5.83
5.8	2.1	2.5	2.30	5.31

Antenna 1 and Antenna 4:

Band (GHz)	Chain 0 Antenna 1 Gain (dBi)	Chain 1 Antenna 4 Gain (dBi)	Uncorrelated Chains Directional Gain (dBi)	Correlated Chains Directional Gain (dBi)
5.2	2.3	2.6	2.45	5.46
5.3	2.8	2.5	2.65	5.66
5.6	2.2	3.3	2.78	5.78
5.8	2.1	3	2.57	5.57

Antenna 3 and Antenna 2:

Band (GHz)	Chain 0 Antenna 3 Gain (dBi)	Chain 1 Antenna 2 Gain (dBi)	Uncorrelated Chains Directional Gain (dBi)	Correlated Chains Directional Gain (dBi)
5.2	2.6	2.7	2.65	5.66
5.3	2.4	3.3	2.87	5.87
5.6	2.9	3.4	3.16	6.16
5.8	2.2	2.5	2.35	5.36

Antenna 3 and Antenna 4:

Band (GHz)	Chain 0 Antenna 3 Gain (dBi)	Chain 1 Antenna 4 Gain (dBi)	Uncorrelated Chains Directional Gain (dBi)	Correlated Chains Directional Gain (dBi)
5.2	2.6	2.6	2.60	5.61
5.3	2.4	2.5	2.45	5.46
5.6	2.9	3.3	3.10	6.11
5.8	2.2	3.0	2.62	5.62