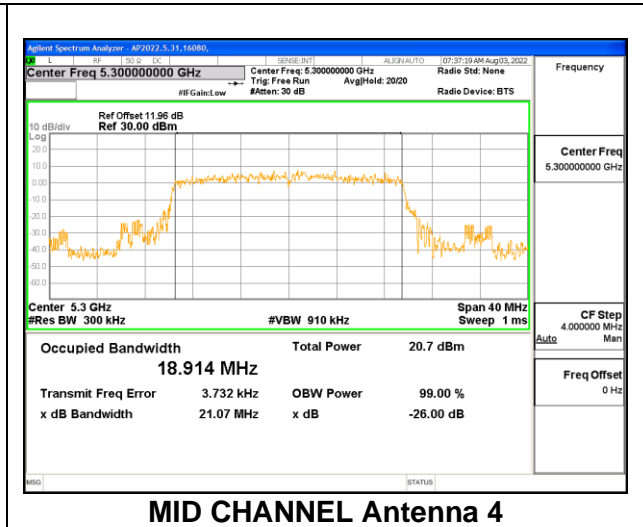
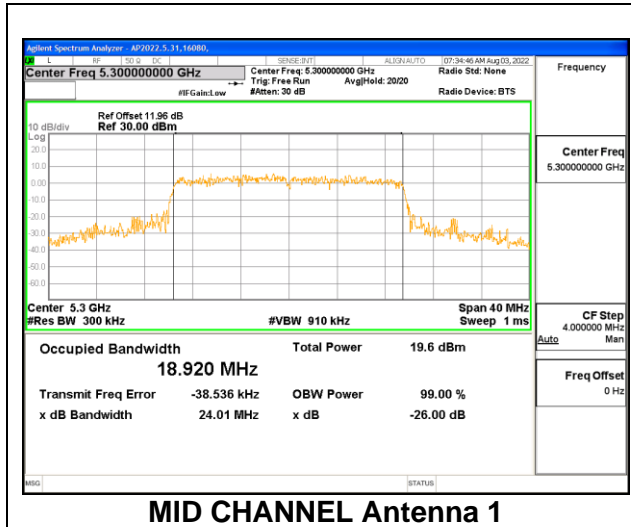
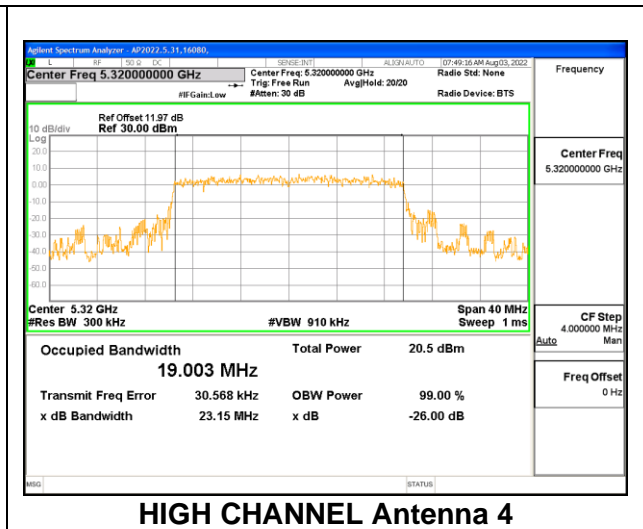
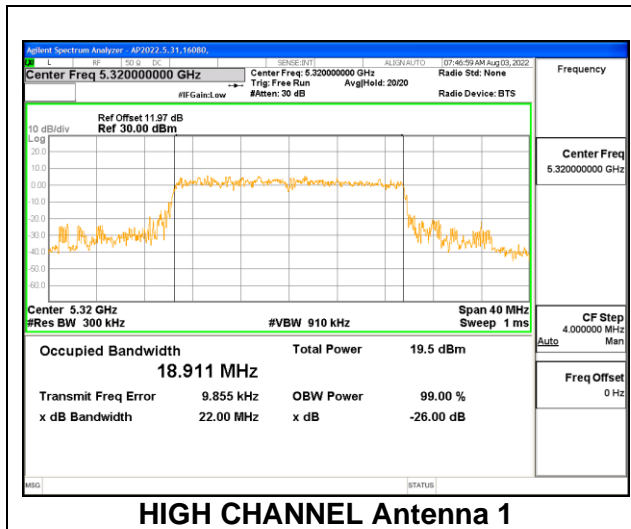


### MID CHANNEL



### HIGH CHANNEL

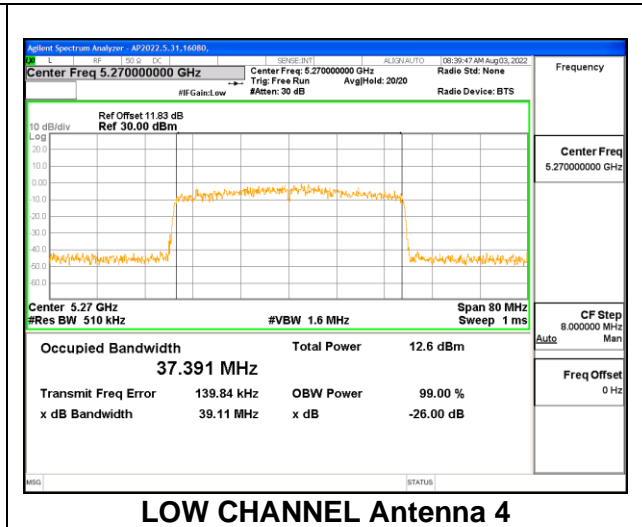
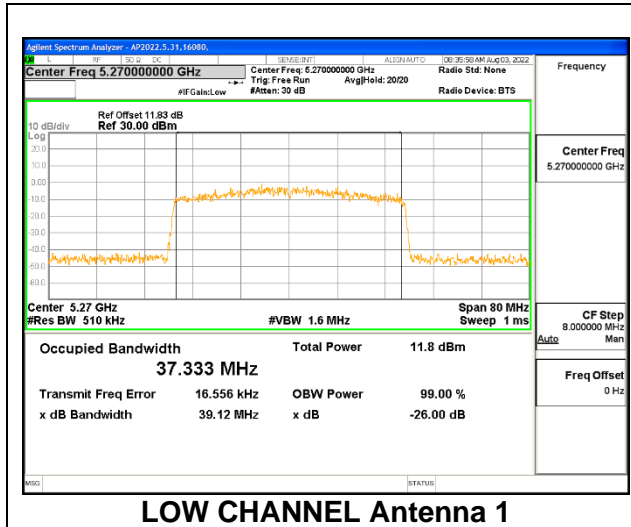


### 9.3.5. 802.11ax HE40 MODE 2TX IN THE 5.3GHz BAND

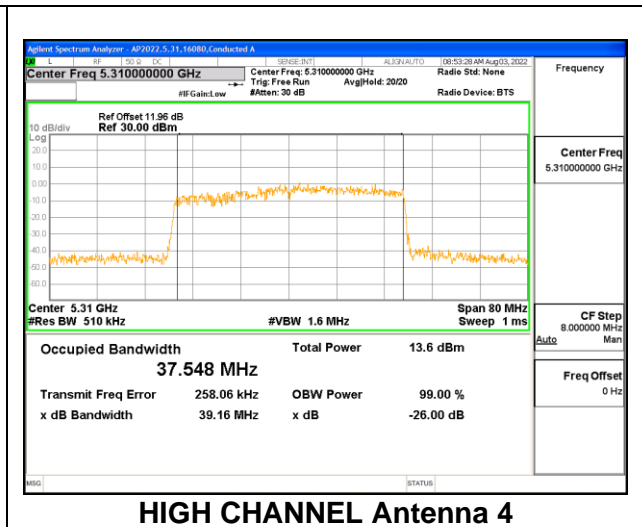
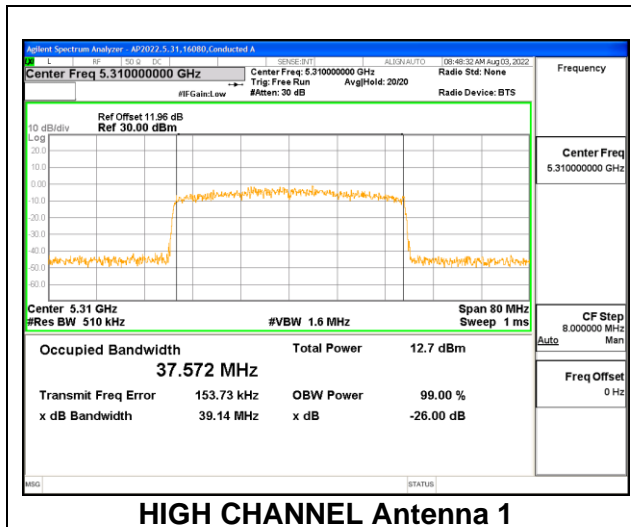
#### 2TX Antenna 1 + Antenna 4 CDD OFDMA MODE: 484-Tones, RU Index 65

Channel	Frequency (MHz)	99% Bandwidth Antenna 1 (MHz)	99% Bandwidth Antenna 4 (MHz)
Low	5270	37.333	37.391
High	5310	37.572	37.548

#### LOW CHANNEL



#### HIGH CHANNEL

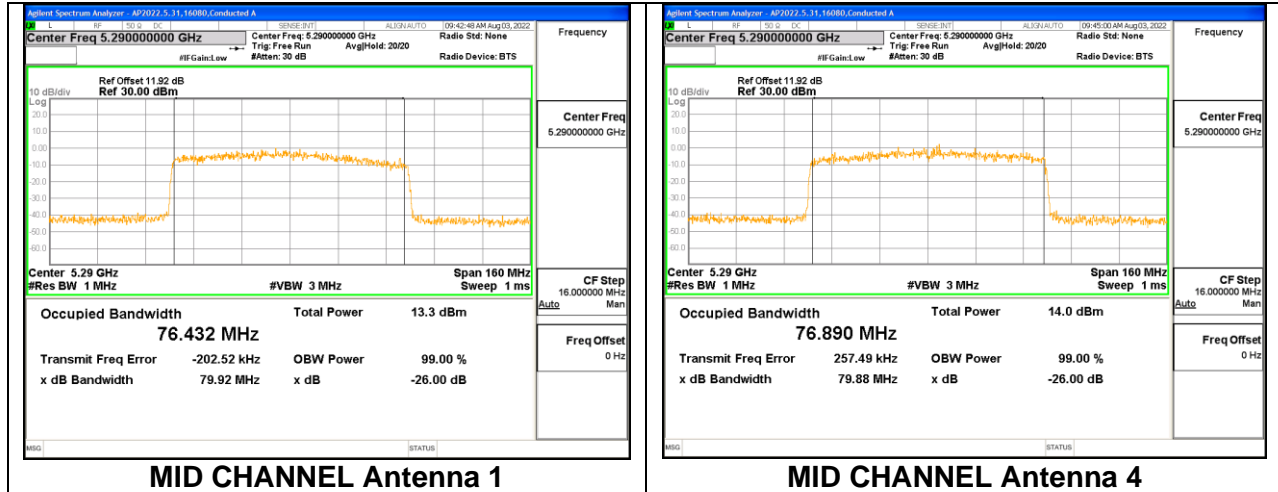


### 9.3.6. 802.11ax HE80 MODE 2TX IN THE 5.3GHz BAND

#### 2TX Antenna 1 + Antenna 4 CDD OFDMA MODE: 996-Tones, RU Index 67

Channel	Frequency (MHz)	99% Bandwidth Antenna 1 (MHz)	99% Bandwidth Antenna 4 (MHz)
Mid	5290	76.432	76.890

#### MID CHANNEL

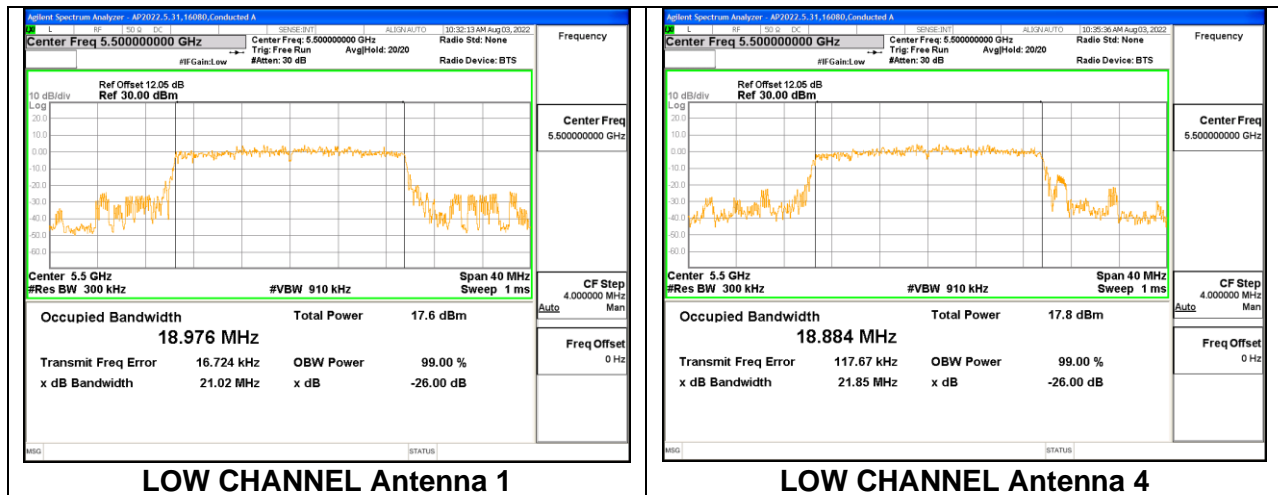


### 9.3.7. 802.11ax HE20 MODE 2TX IN THE 5.6GHz BAND

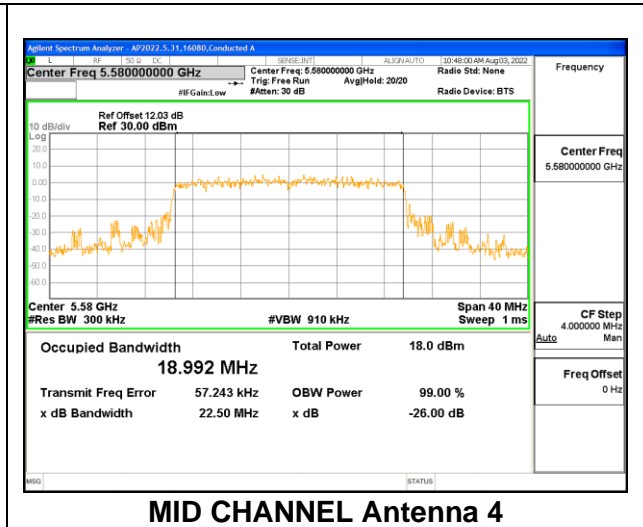
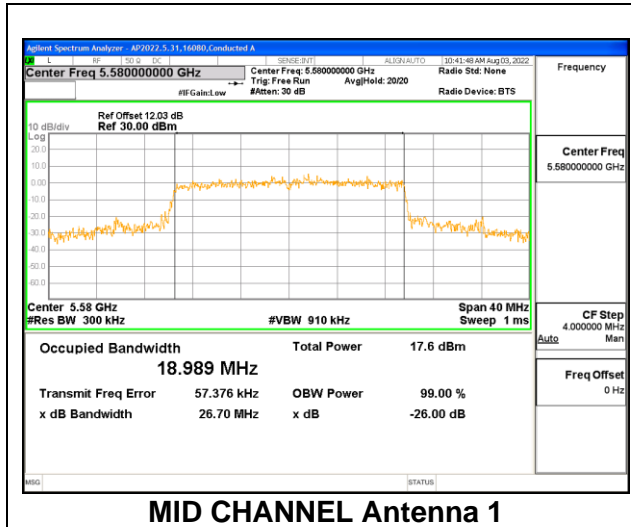
#### 2TX Antenna 1 + Antenna 4 CDD OFDMA MODE: 242-Tones, RU Index 61

Channel	Frequency (MHz)	99% Bandwidth Antenna 1 (MHz)	99% Bandwidth Antenna 4 (MHz)
Low	5500	18.976	18.884
Mid	5580	18.989	18.992
High	5700	18.916	19.011

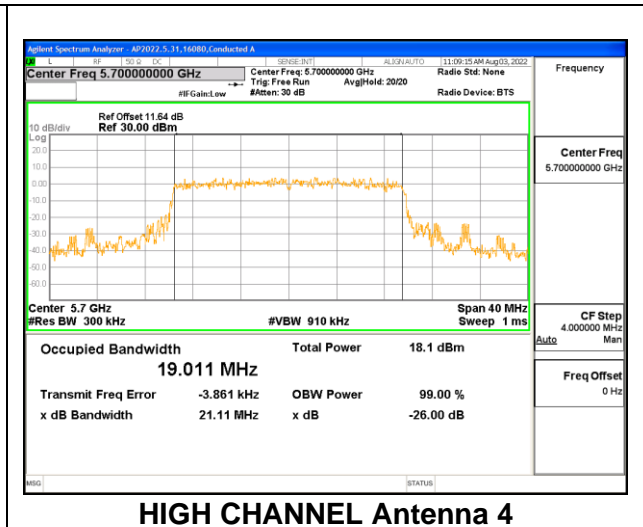
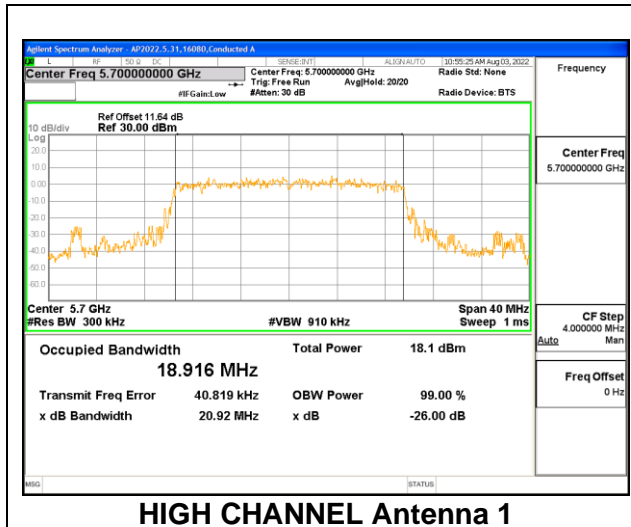
#### LOW CHANNEL



### MID CHANNEL



### HIGH CHANNEL

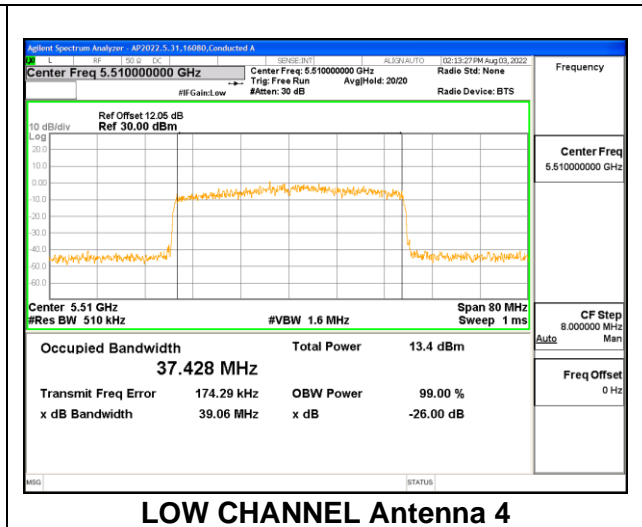
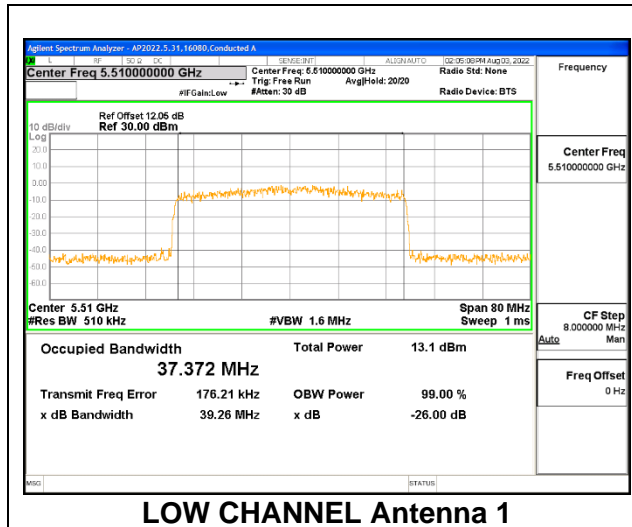


### 9.3.8. 802.11ax HE40 MODE 2TX IN THE 5.6GHz BAND

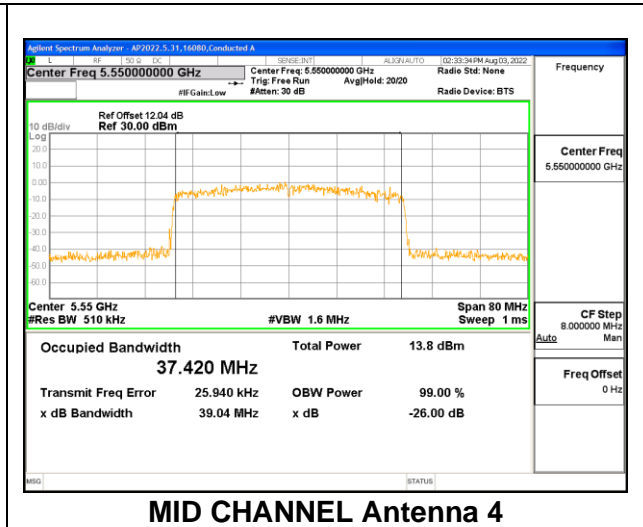
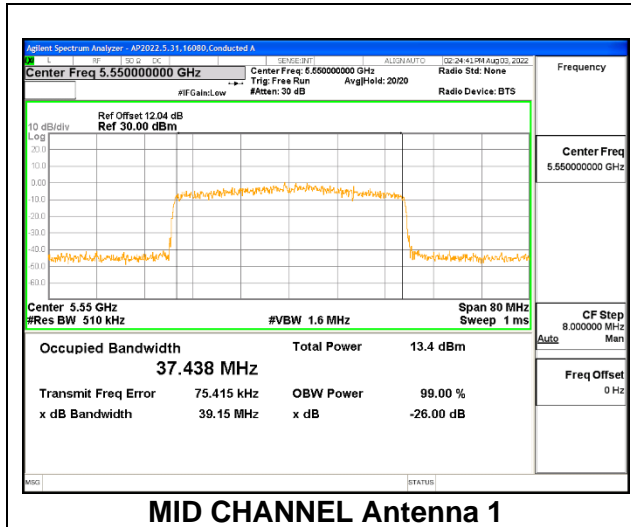
#### 2TX Antenna 1 + Antenna 4 CDD OFDMA MODE: 484-Tones, RU Index 65

Channel	Frequency (MHz)	99% Bandwidth Antenna 1 (MHz)	99% Bandwidth Antenna 4 (MHz)
Low	5510	37.372	37.428
Mid	5550	37.438	37.420
High	5670	37.351	37.444

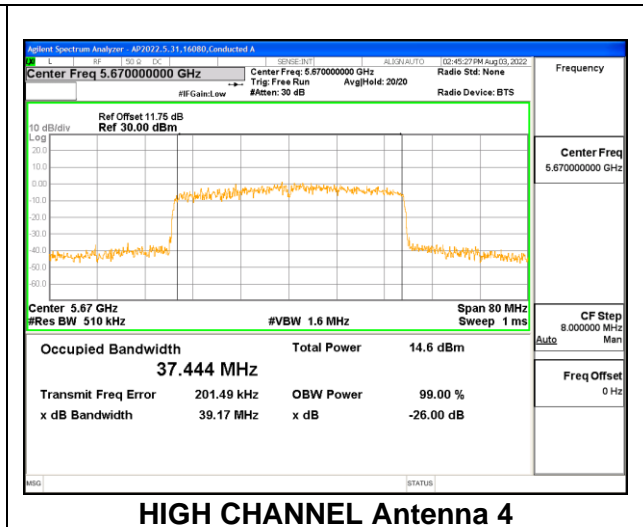
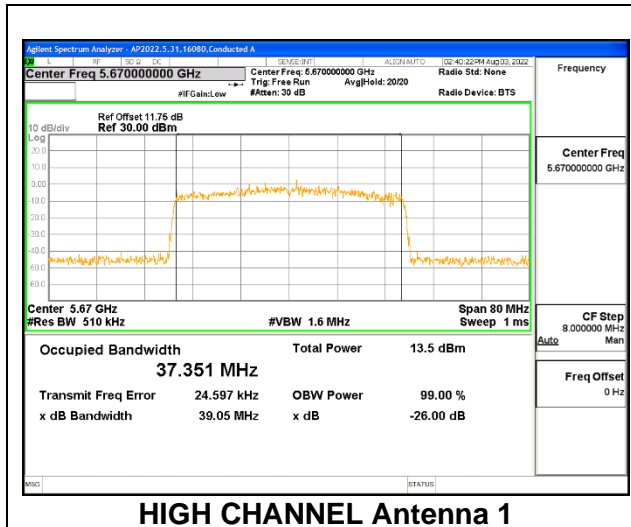
#### LOW CHANNEL



### MID CHANNEL



### HIGH CHANNEL

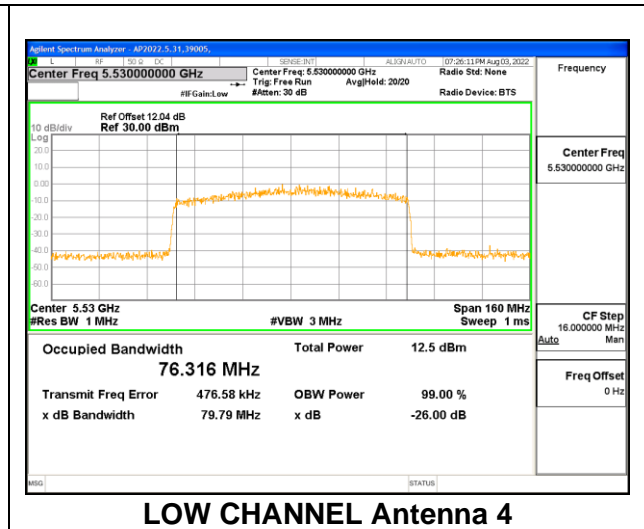
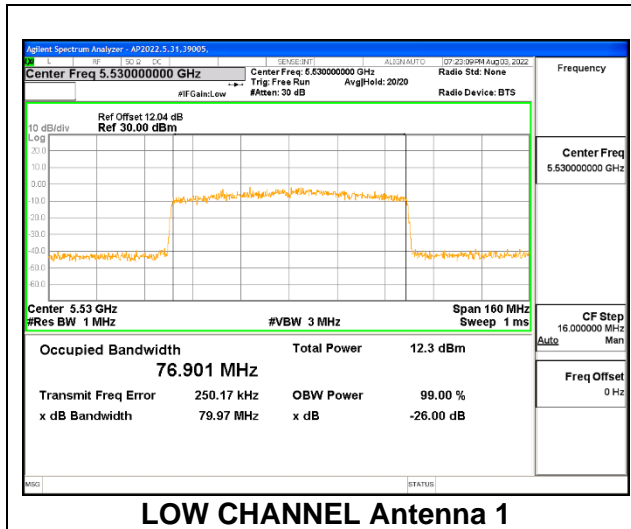


### 9.3.9. 802.11ax HE80 MODE 2TX IN THE 5.6GHz BAND

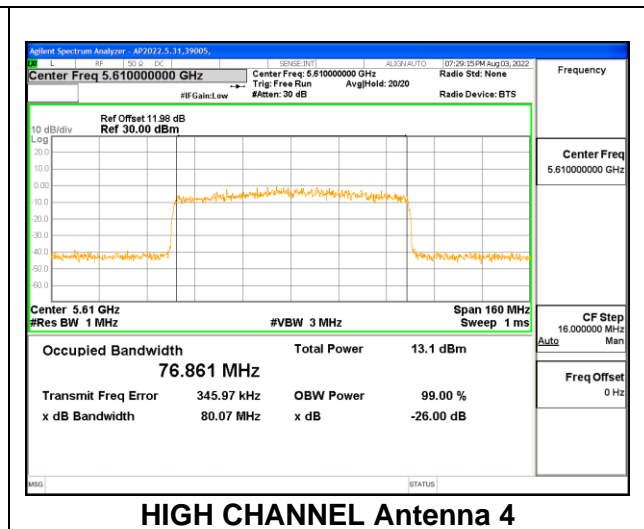
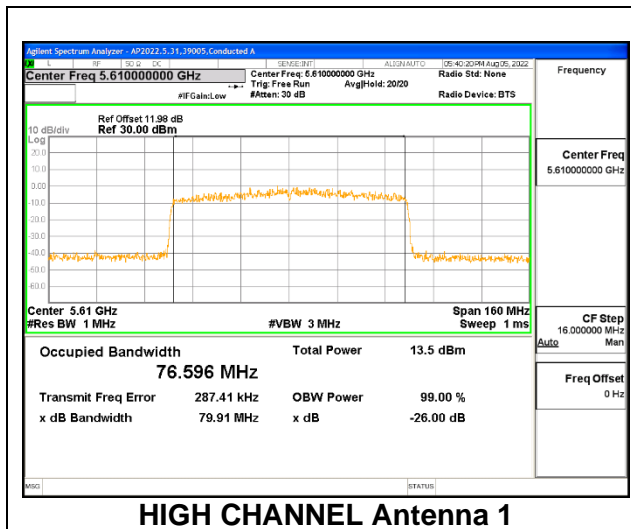
#### 2TX Antenna 1 + Antenna 4 CDD OFDMA MODE: 996-Tones, RU Index 67

Channel	Frequency (MHz)	99% Bandwidth Antenna 1 (MHz)	99% Bandwidth Antenna 4 (MHz)
Low	5530	76.901	76.316
High	5610	76.596	76.861

#### LOW CHANNEL



#### HIGH CHANNEL



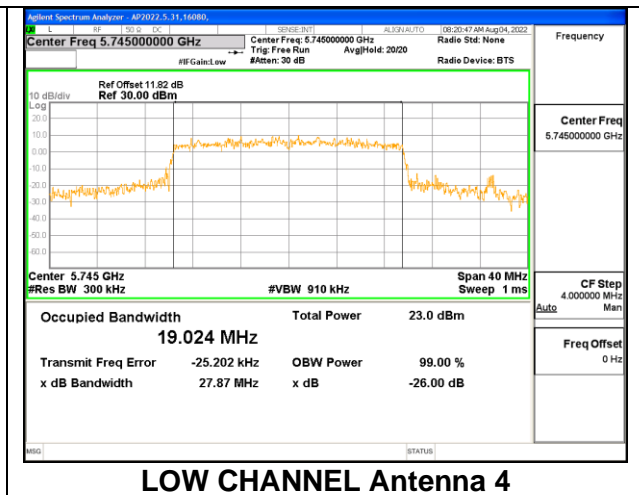
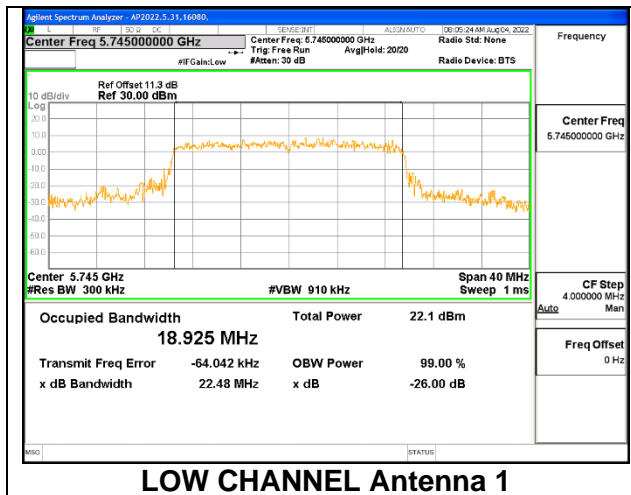


### 9.3.10. 802.11ax HE20 MODE 2TX IN THE 5.8GHz BAND

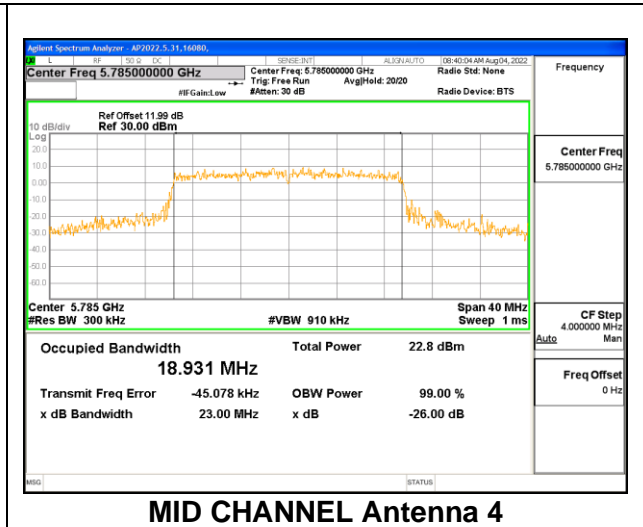
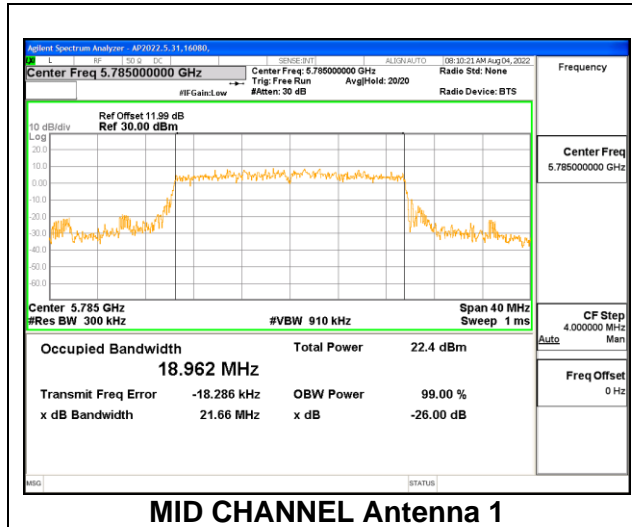
#### 2TX Antenna 1 + Antenna 4 CDD OFDMA MODE: 242-Tones, RU Index 61

Channel	Frequency (MHz)	99% Bandwidth Antenna 1 (MHz)	99% Bandwidth Antenna 4 (MHz)
Low	5745	18.925	19.024
Mid	5785	18.962	18.931
High	5825	19.031	18.980

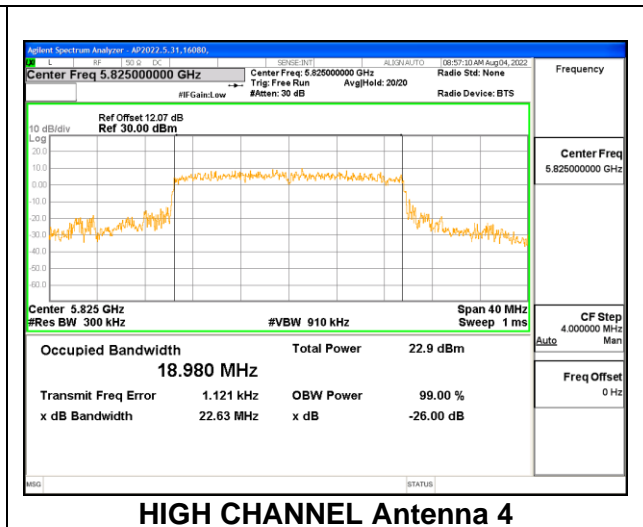
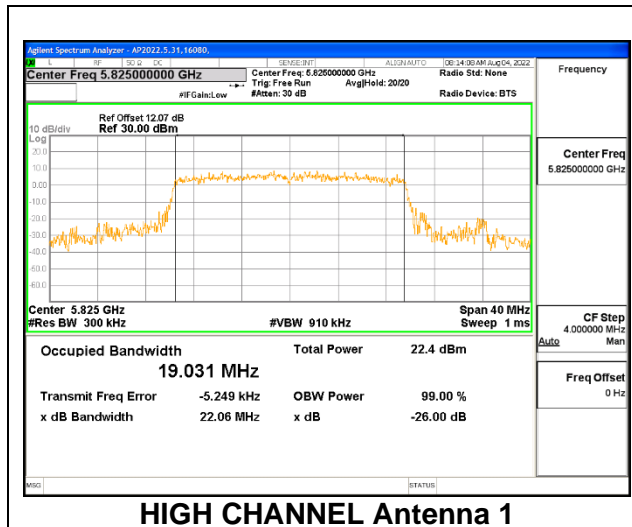
#### LOW CHANNEL



### MID CHANNEL



### HIGH CHANNEL

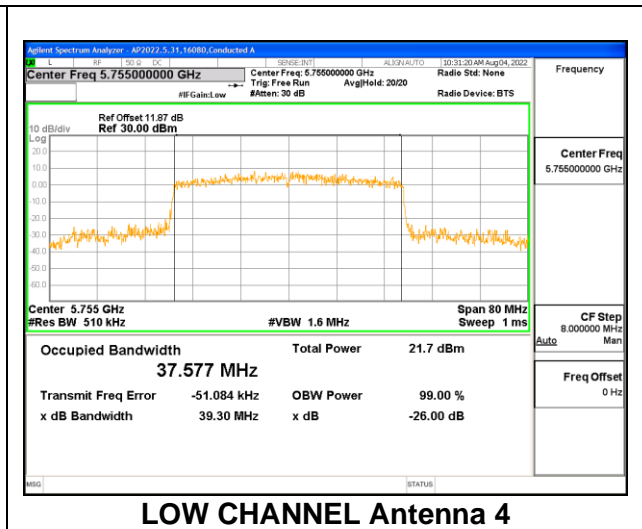
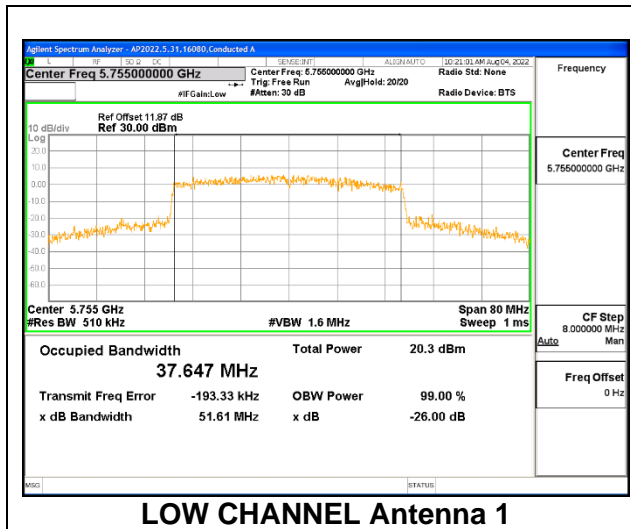


### 9.3.11. 802.11ax HE40 MODE 2TX IN THE 5.8GHz BAND

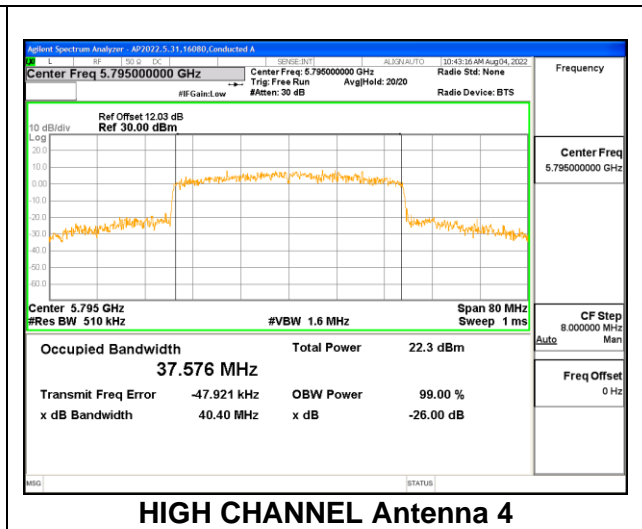
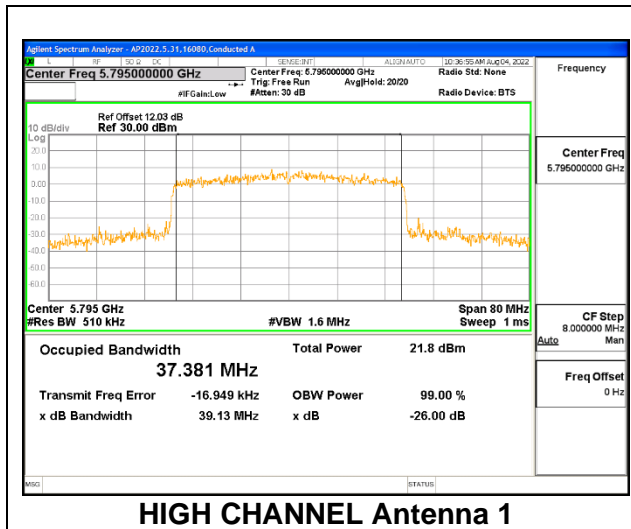
#### 2TX Antenna 1 + Antenna 4 CDD OFDMA MODE: 484-Tones, RU Index 65

Channel	Frequency (MHz)	99% Bandwidth Antenna 1 (MHz)	99% Bandwidth Antenna 4 (MHz)
Low	5755	37.647	37.577
High	5795	37.381	37.576

#### LOW CHANNEL



#### HIGH CHANNEL

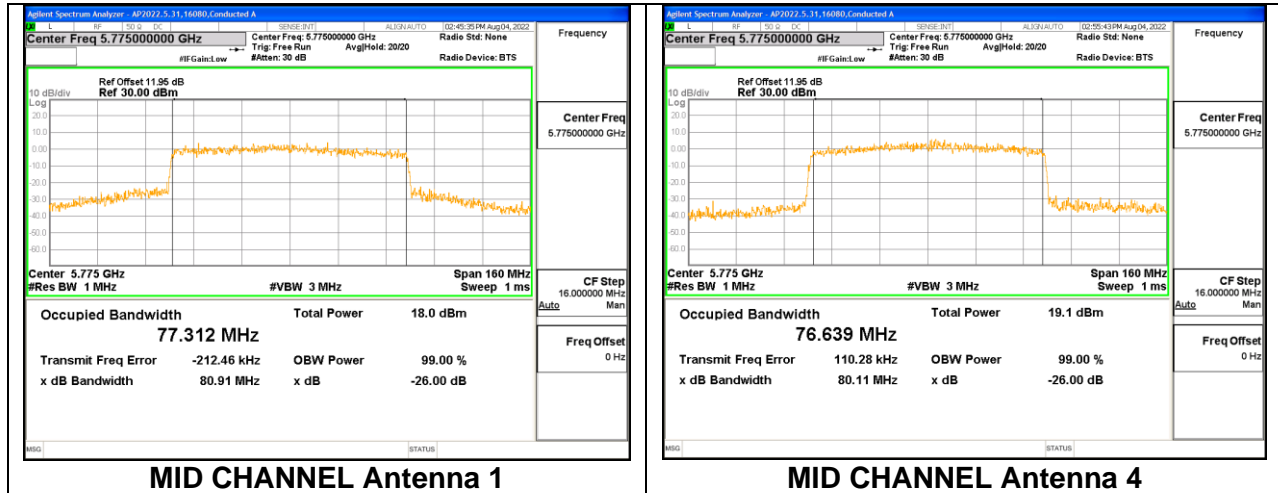


### 9.3.12. 802.11ax HE80 MODE 2TX IN THE 5.8GHz BAND

#### 2TX Antenna 1 + Antenna 4 CDD OFDMA MODE: 996-Tones, RU Index 67

Channel	Frequency (MHz)	99% Bandwidth Antenna 1 (MHz)	99% Bandwidth Antenna 4 (MHz)
Mid	5775	77.312	76.639

#### 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.

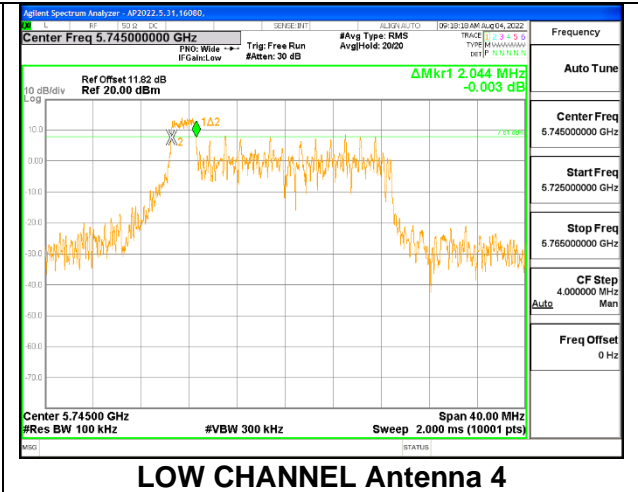
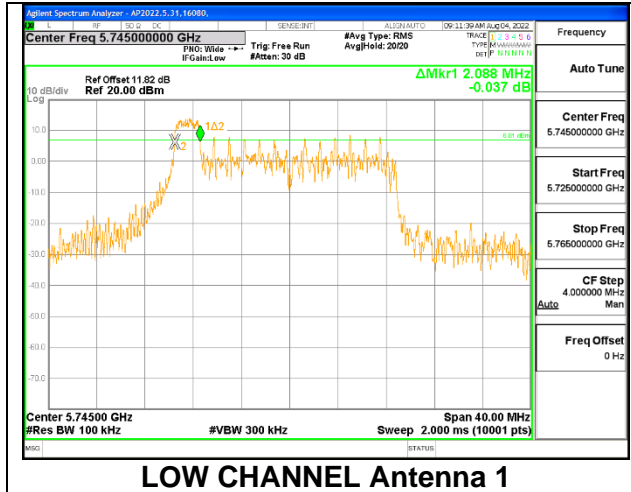
### **RESULTS**

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

#### 2TX Antenna 1 + Antenna 4 CDD OFDMA MODE: 26-Tones, RU Index 0

Channel	Frequency (MHz)	6 dB BW Antenna 1 (MHz)	6 dB BW Antenna 4 (MHz)	Minimum Limit (MHz)
Low	5745	2.088	2.028	0.5

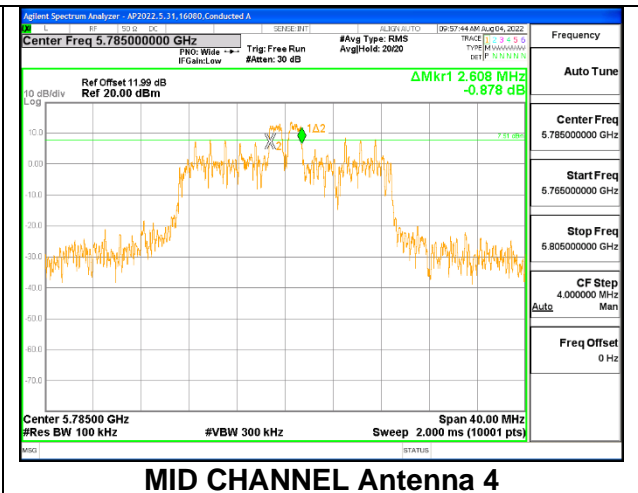
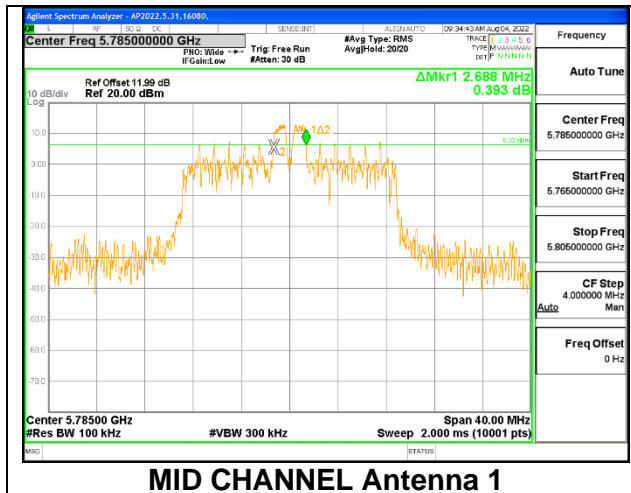
#### LOW CHANNEL



#### 2TX Antenna 1 + Antenna 4 CDD OFDMA MODE: 26-Tones, RU Index 4

Channel	Frequency (MHz)	6 dB BW Antenna 1 (MHz)	6 dB BW Antenna 4 (MHz)	Minimum Limit (MHz)
Mid	5785	2.688	2.608	0.5

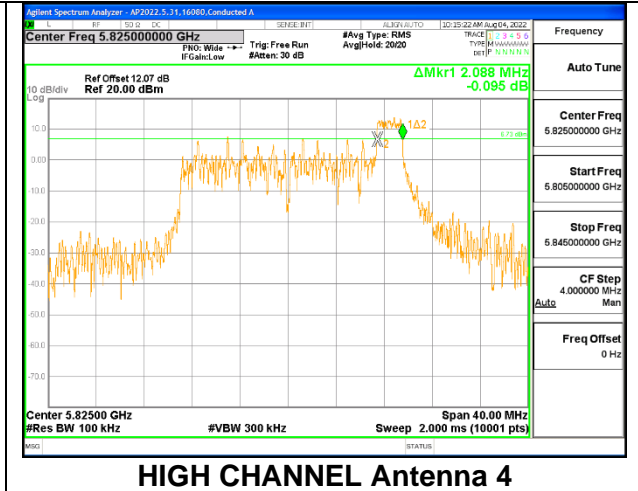
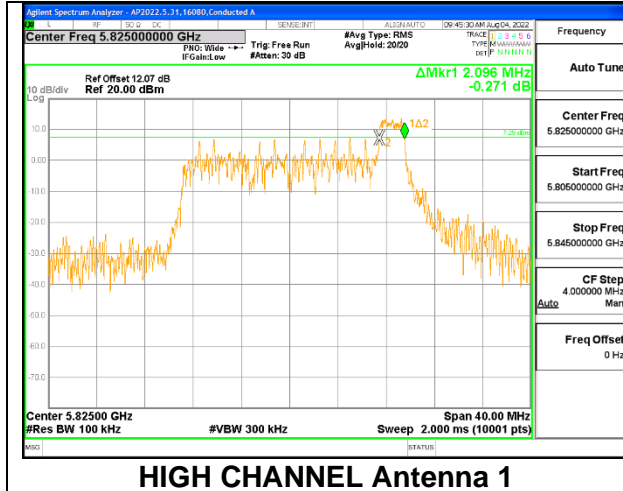
#### MID CHANNEL



**2TX Antenna 1 + Antenna 4 CDD OFDMA MODE: 26-Tones, RU Index 8**

Channel	Frequency (MHz)	6 dB BW Antenna 1 (MHz)	6 dB BW Antenna 4 (MHz)	Minimum Limit (MHz)
High	5825	2.096	2.088	0.5

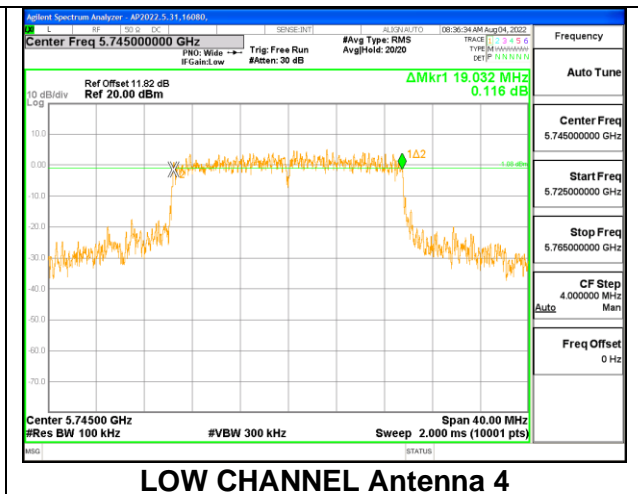
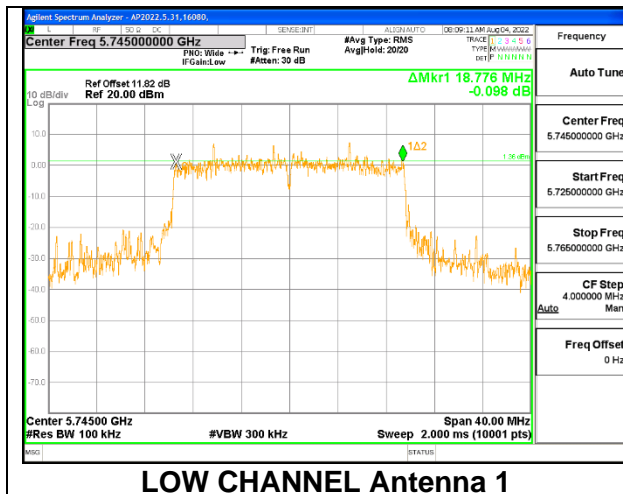
**HIGH CHANNEL**



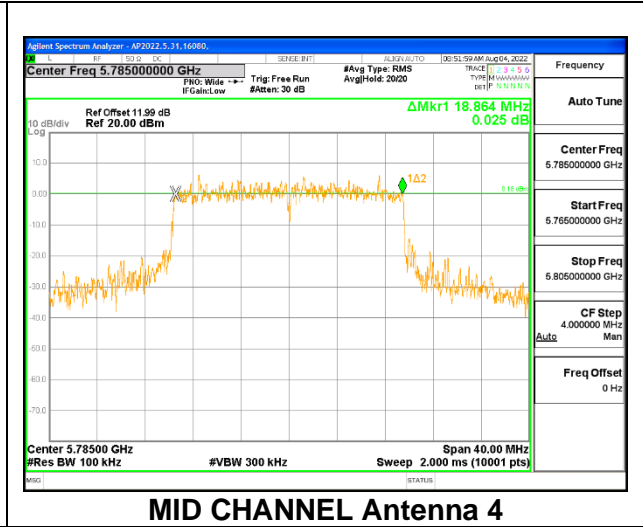
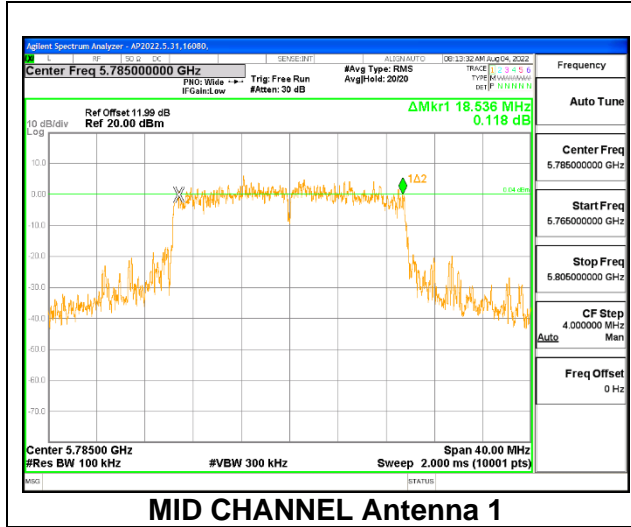
**2TX Antenna 1 + Antenna 4 CDD OFDMA MODE: 242-Tones, RU Index 61**

Channel	Frequency (MHz)	6 dB BW Antenna 1 (MHz)	6 dB BW Antenna 4 (MHz)	Minimum Limit (MHz)
Low	5745	18.776	19.032	0.5
Mid	5785	18.536	18.864	0.5
High	5825	18.924	18.336	0.5

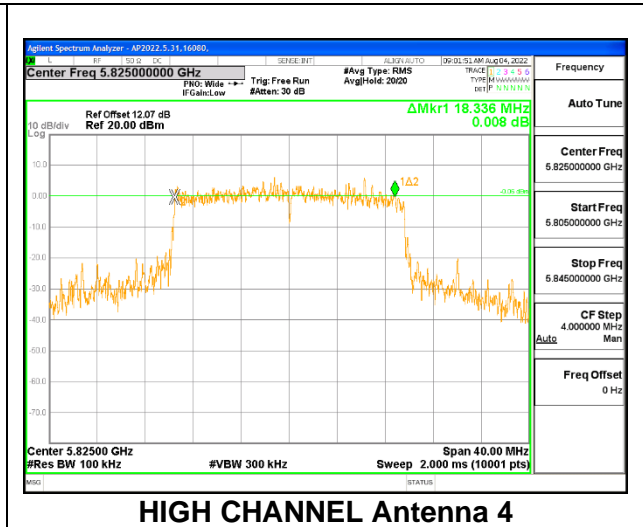
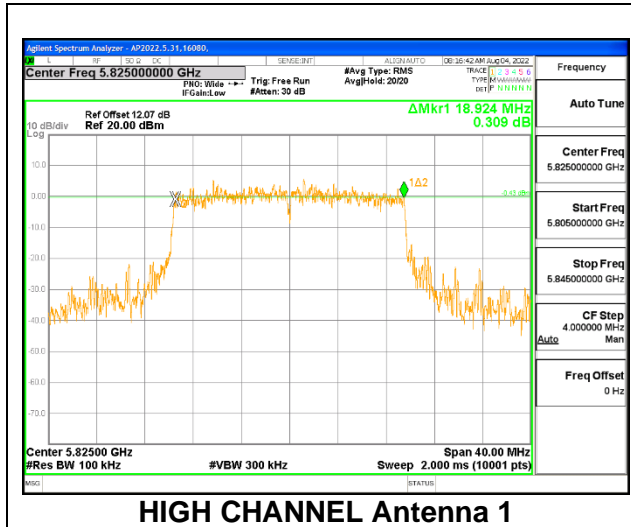
**LOW CHANNEL**



### MID CHANNEL



### HIGH CHANNEL



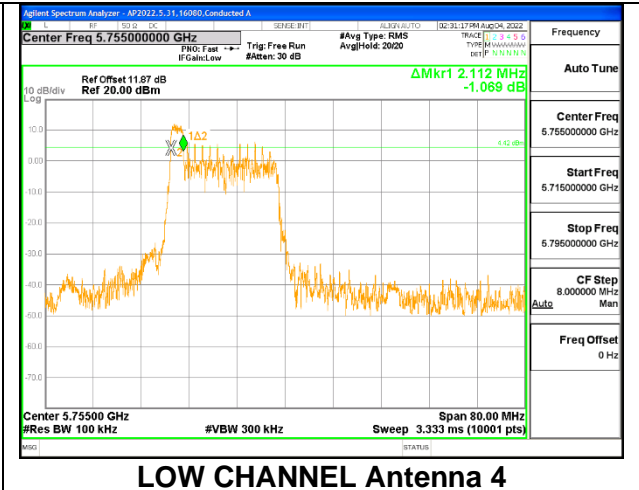
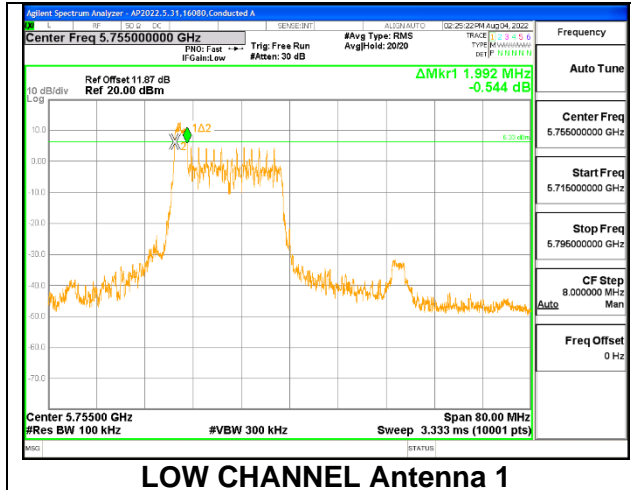


### 9.4.2. 802.11ax HE40 MODE 2TX IN THE 5.8GHz BAND

#### 2TX Antenna 1 + Antenna 4 CDD OFDMA MODE: 26-Tones, RU Index 0

Channel	Frequency (MHz)	6 dB BW Antenna 1 (MHz)	6 dB BW Antenna 4 (MHz)	Minimum Limit (MHz)
Low	5755	1.992	2.112	0.5

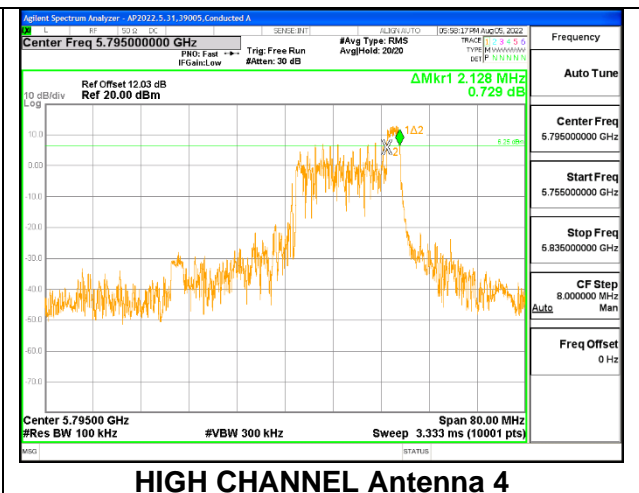
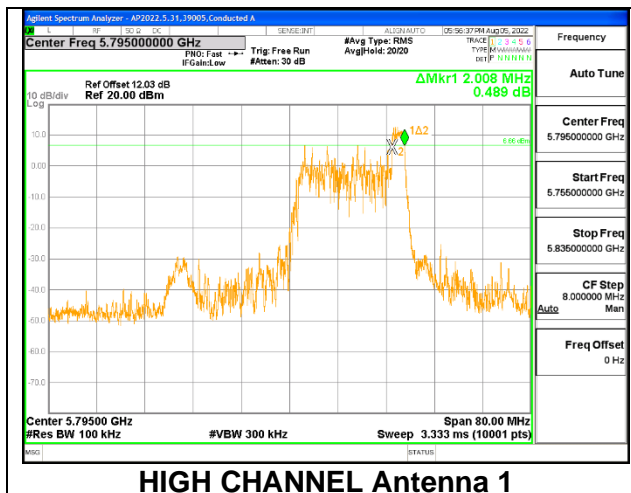
#### LOW CHANNEL



#### 2TX Antenna 1 + Antenna 4 CDD OFDMA MODE: 26-Tones, RU Index 17

Channel	Frequency (MHz)	6 dB BW Antenna 1 (MHz)	6 dB BW Antenna 4 (MHz)	Minimum Limit (MHz)
High	5795	2.008	2.128	0.5

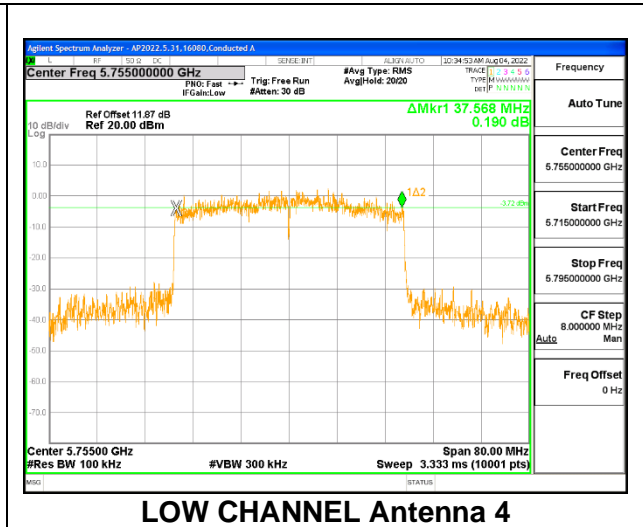
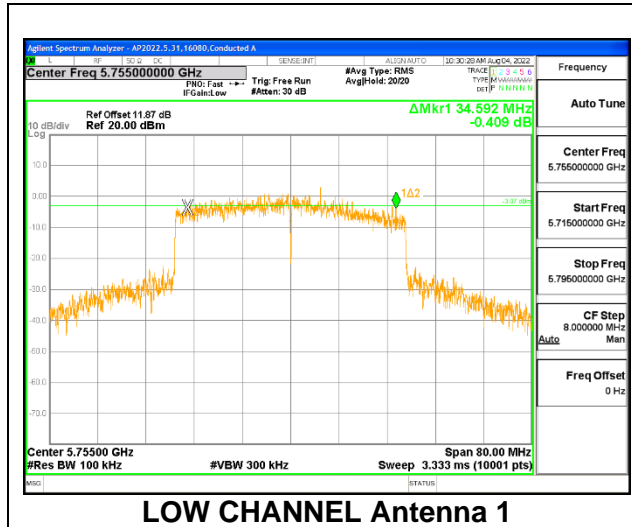
#### HIGH CHANNEL



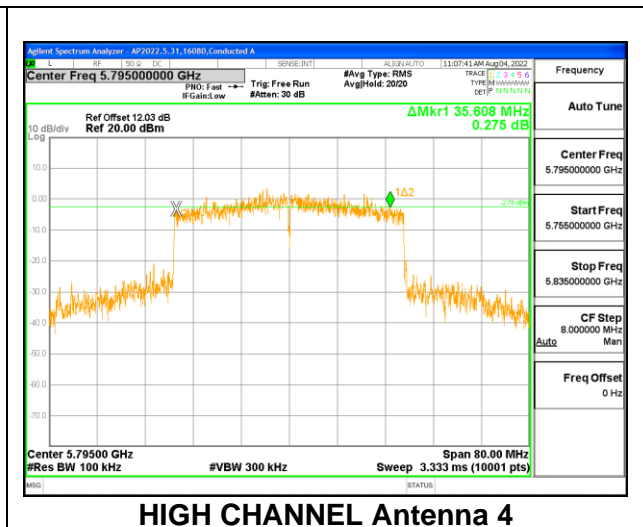
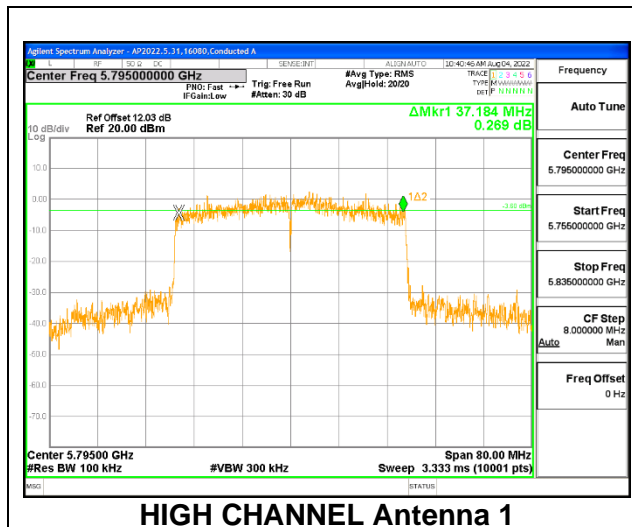
**2TX Antenna 1 + Antenna 4 CDD OFDMA MODE: 484-Tones, RU Index 65**

Channel	Frequency (MHz)	6 dB BW Antenna 1 (MHz)	6 dB BW Antenna 4 (MHz)	Minimum Limit (MHz)
Low	5755	34.592	37.568	0.5
High	5795	37.184	35.608	0.5

**LOW CHANNEL**



**HIGH CHANNEL**

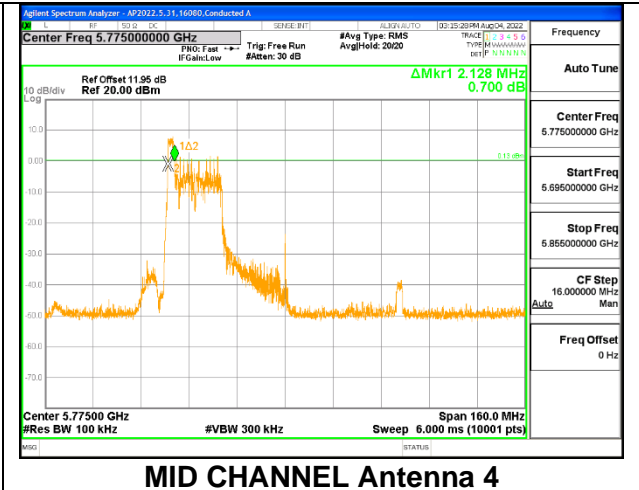
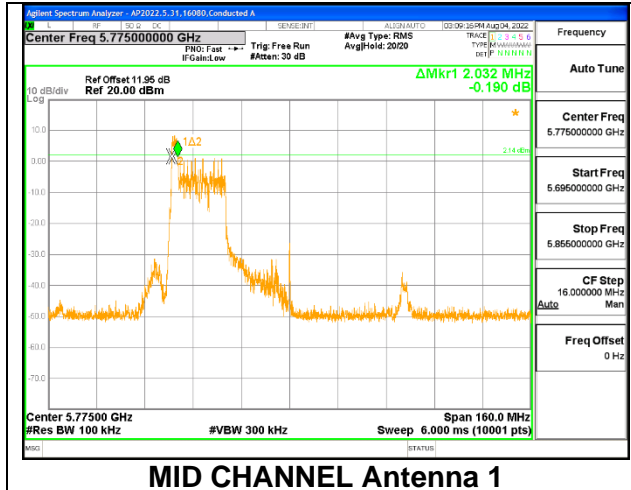


### 9.4.3. 802.11ax HE80 MODE 2TX IN THE 5.8GHZ BAND

#### 2TX Antenna 1 + Antenna 4 CDD OFDMA MODE: 26-Tones, RU Index 0

Channel	Frequency (MHz)	6 dB BW Antenna 1 (MHz)	6 dB BW Antenna 4 (MHz)	Minimum Limit (MHz)
Mid	5775	2.032	2.128	0.5

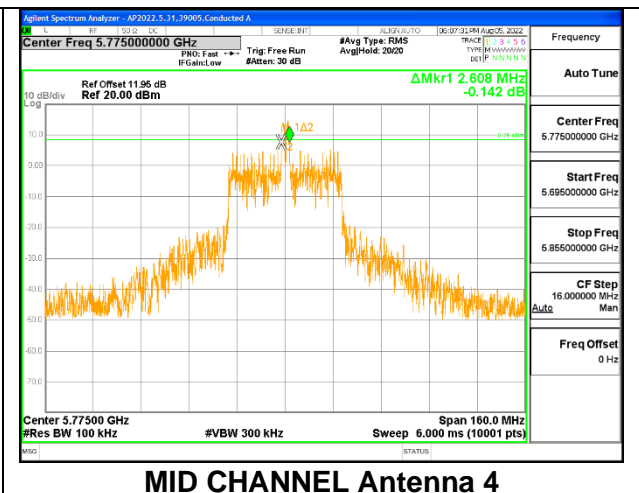
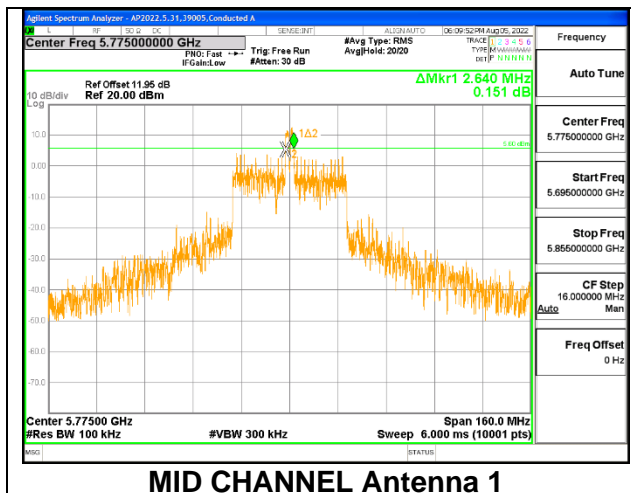
#### MID CHANNEL



#### 2TX Antenna 1 + Antenna 4 CDD OFDMA MODE: 26-Tones, RU Index 18

Channel	Frequency (MHz)	6 dB BW Antenna 1 (MHz)	6 dB BW Antenna 4 (MHz)	Minimum Limit (MHz)
Mid	5775	2.640	2.608	0.5

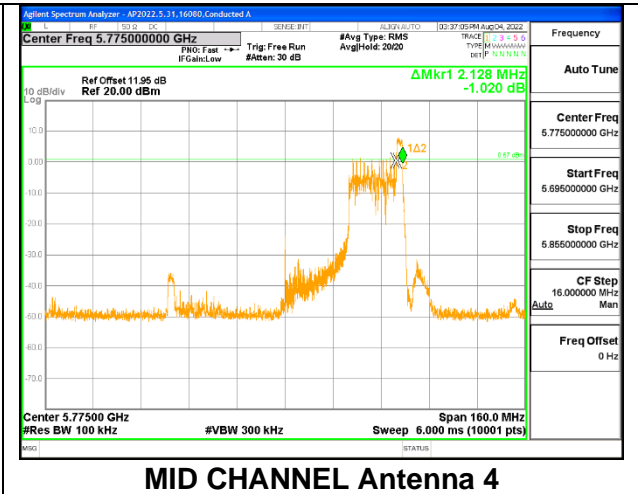
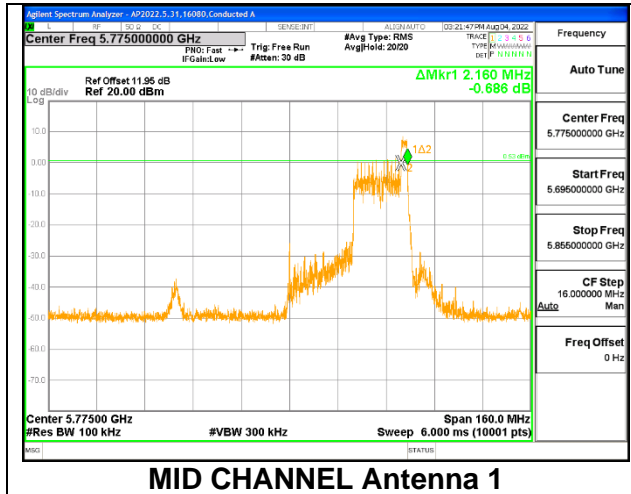
#### MID CHANNEL



**2TX Antenna 1 + Antenna 4 CDD OFDMA MODE: 26-Tones, RU Index 36**

Channel	Frequency (MHz)	6 dB BW Antenna 1 (MHz)	6 dB BW Antenna 4 (MHz)	Minimum Limit (MHz)
Mid	5775	2.160	2.128	0.5

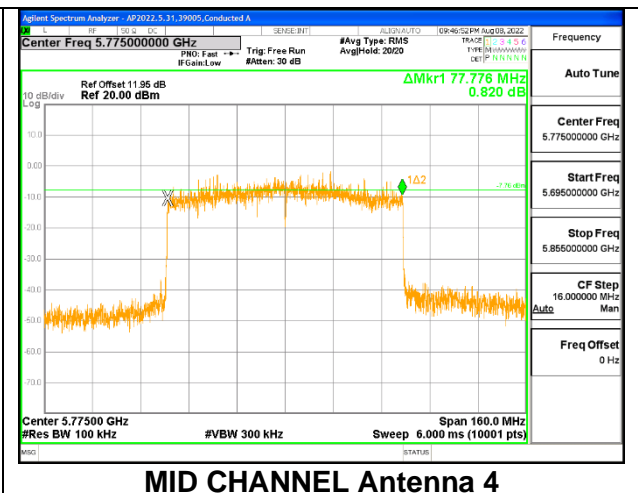
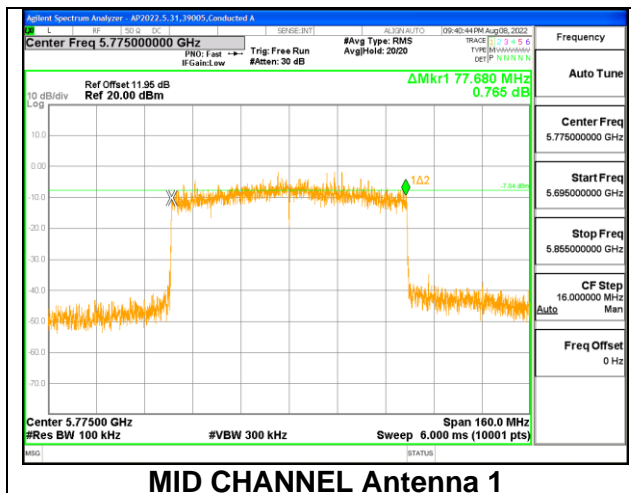
**MID CHANNEL**



**2TX Antenna 1 + Antenna 4 CDD OFDMA MODE: 996-Tones, RU Index 67**

Channel	Frequency (MHz)	6 dB BW Antenna 1 (MHz)	6 dB BW Antenna 4 (MHz)	Minimum Limit (MHz)
Mid	5775	77.680	77.776	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.

## **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 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**

For 2 TX:

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:

**Antenna 1 and Antenna 3:**

Band (GHz)	Chain 0 Antenna 1 Gain (dBi)	Chain 1 Antenna 3 Gain (dBi)	Uncorrelated Chains Directional Gain (dBi)	Correlated Chains Directional Gain (dBi)
5.2	3.2	3.2	3.20	6.21
5.3	3.6	3.2	3.40	6.41
5.6	5	4.3	4.66	7.67
5.8	5.2	4.6	4.91	7.92

**Antenna 1 and Antenna 4 (worst-case correlation directional gain in bold):**

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	3.2	4.6	3.96	6.94
<b>5.3</b>	<b>3.6</b>	<b>4.4</b>	<b>4.02</b>	<b>7.02</b>
<b>5.6</b>	<b>5</b>	<b>5.1</b>	<b>5.05</b>	<b>8.06</b>
<b>5.8</b>	<b>5.2</b>	<b>5.1</b>	<b>5.15</b>	<b>8.16</b>

**Antenna 2 and Antenna 3:**

Band (GHz)	Chain 0 Antenna 2 Gain (dBi)	Chain 1 Antenna 3 Gain (dBi)	Uncorrelated Chains Directional Gain (dBi)	Correlated Chains Directional Gain (dBi)
5.2	3.4	3.2	3.30	6.31
5.3	2.9	3.2	3.05	6.06
5.6	4.3	4.3	4.30	7.31
5.8	4.3	4.6	4.45	7.46

**Antenna 2 and Antenna 4 (worst-case correlation directional gain in bold):**

Band (GHz)	Chain 0 Antenna 2 Gain (dBi)	Chain 1 Antenna 4 Gain (dBi)	Uncorrelated Chains Directional Gain (dBi)	Correlated Chains Directional Gain (dBi)
5.2	<b>3.4</b>	<b>4.6</b>	<b>4.04</b>	<b>7.03</b>
5.3	2.9	4.4	3.71	6.69
5.6	4.3	5.1	4.72	7.72
5.8	4.3	5.1	4.72	7.72

Directional Gain value was determined using the following formula:

$$\text{Uncorrelated Directional Gain dBi} = 10 \log [(10^{(\text{Ant } 1/10)} + 10^{(\text{Ant } 2/10)})/2]$$

$$\text{Correlated Directional Gain dBi} = 10 \log [(10^{(\text{Ant } 1/20)} + 10^{(\text{Ant } 2/20)^2})/2]$$

Uncorrelated Directional Gain sample calculation:

$$4.04 \text{ dBi} = 10 \log [(10^{(3.4/10)} + 10^{(4.6/10)})/2]$$

Correlated Directional Gain sample calculation:

$$7.03 \text{ dBi} = 10 \log [(10^{(3.4/20)} + 10^{(4.6/20)^2})/2]$$



**RESULTS**

**9.5.1. 802.11ax HE20 MODE 2TX IN THE 5.2GHz BAND (FCC)**

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

<b>Test Engineer:</b>	RA39005 and ZS160880
<b>Test Date:</b>	2022-08-03

**Antenna Gain and Limits**

Channel	Frequency (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm/1MHz)
Low	5180	4.04	7.03	24.00	9.97

<b>Duty Cycle CF (dB)</b>	1.97	Included in Calculations of Corr'd PSD
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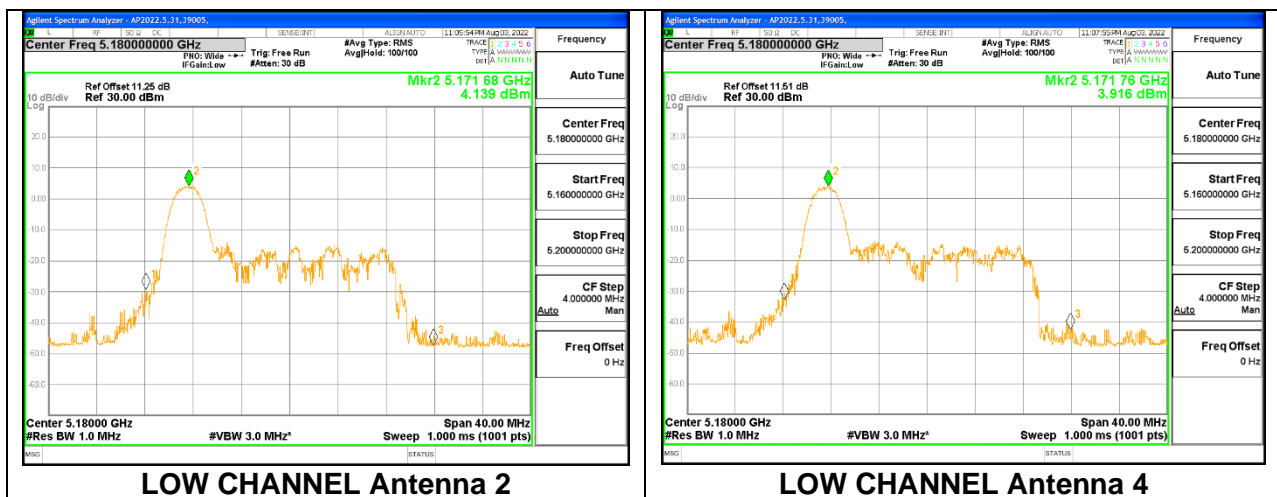
**Output Power Results**

Channel	Frequency (MHz)	Antenna 2 Meas Power (dBm)	Antenna 4 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5180	9.61	9.56	12.60	24.00	-11.40

**PSD Results**

Channel	Frequency (MHz)	Antenna 2 Meas PSD (dBm/1MHz)	Antenna 4 Meas PSD (dBm/1MHz)	Total Corr'd PSD (dBm/1MHz)	PSD Limit (dBm/1MHz)	PSD Margin (dB)
Low	5180	4.139	3.916	9.01	9.97	-0.96

**LOW CHANNEL**



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

<b>Test Engineer:</b>	RA39005 and ZS160880
<b>Test Date:</b>	2022-08-03

**Antenna Gain and Limits**

Channel	Frequency (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm/1MHz)
Mid	5200	4.04	7.03	24.00	9.97

<b>Duty Cycle CF (dB)</b>	1.97	<b>Included in Calculations of Corr'd PSD</b>
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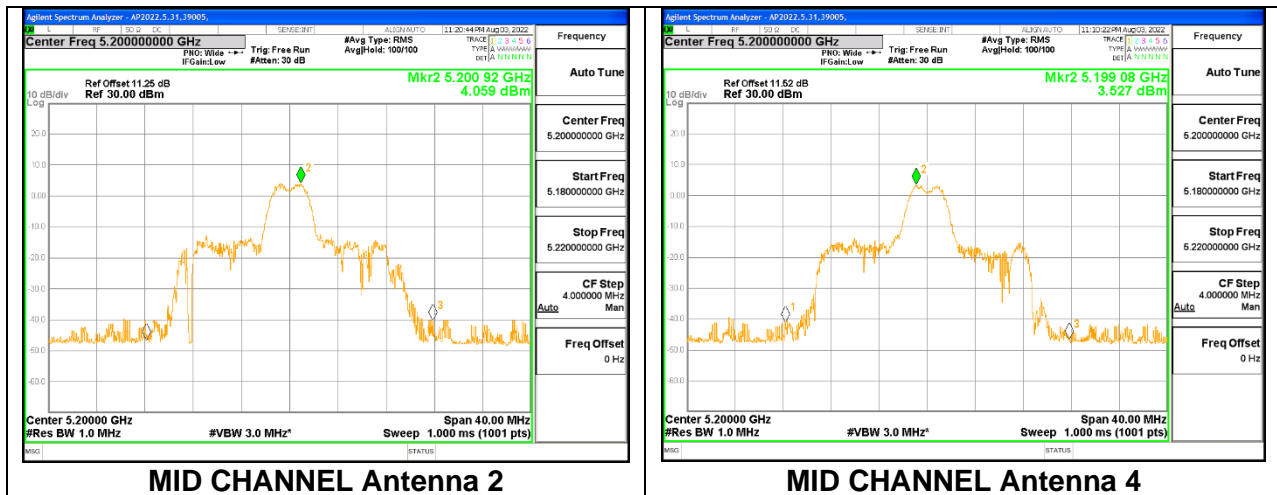
**Output Power Results**

Channel	Frequency (MHz)	Antenna 2 Meas Power (dBm)	Antenna 4 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Mid	5200	9.53	9.30	12.43	24.00	-11.57

**PSD Results**

Channel	Frequency (MHz)	Antenna 2 Meas PSD (dBm/1MHz)	Antenna 4 Meas PSD (dBm/1MHz)	Total Corr'd PSD (dBm/1MHz)	PSD Limit (dBm/1MHz)	PSD Margin (dB)
Mid	5200	4.059	3.527	8.78	9.97	-1.19

**MID CHANNEL**



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

<b>Test Engineer:</b>	RA39005 and ZS160880
<b>Test Date:</b>	2022-08-03

**Antenna Gain and Limits**

Channel	Frequency (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm/1MHz)
High	5240	4.04	7.03	24.00	9.97

<b>Duty Cycle CF (dB)</b>	1.97	Included in Calculations of Corr'd PSD
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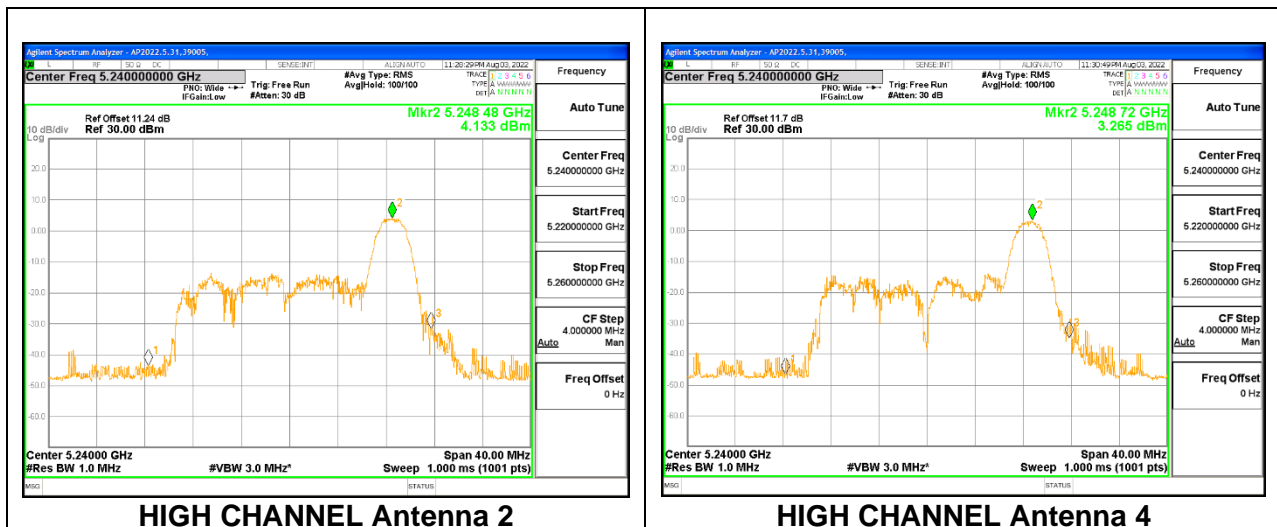
**Output Power Results**

Channel	Frequency (MHz)	Antenna 2 Meas Power (dBm)	Antenna 4 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
High	5240	9.85	8.95	12.43	24.00	-11.57

**PSD Results**

Channel	Frequency (MHz)	Antenna 2 Meas PSD (dBm/1MHz)	Antenna 4 Meas PSD (dBm/1MHz)	Total Corr'd PSD (dBm/1MHz)	PSD Limit (dBm/1MHz)	PSD Margin (dB)
High	5240	4.133	3.265	8.70	9.97	-1.27

**HIGH CHANNEL**



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

<b>Test Engineer:</b>	RA39005 and ZS160880
<b>Test Date:</b>	2022-08-03

**Antenna Gain and Limits**

Channel	Frequency (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm/1MHz)
Low	5180	4.04	7.03	24.00	9.97
Mid	5200	4.04	7.03	24.00	9.97
High	5240	4.04	7.03	24.00	9.97

<b>Duty Cycle CF (dB)</b>	2.93	<b>Included in Calculations of Corr'd PSD</b>
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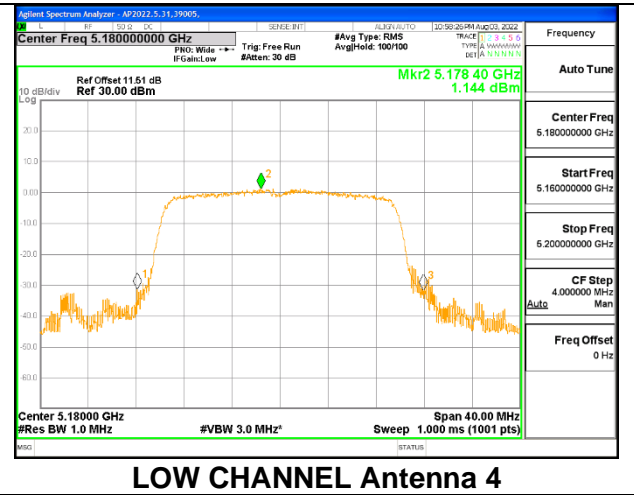
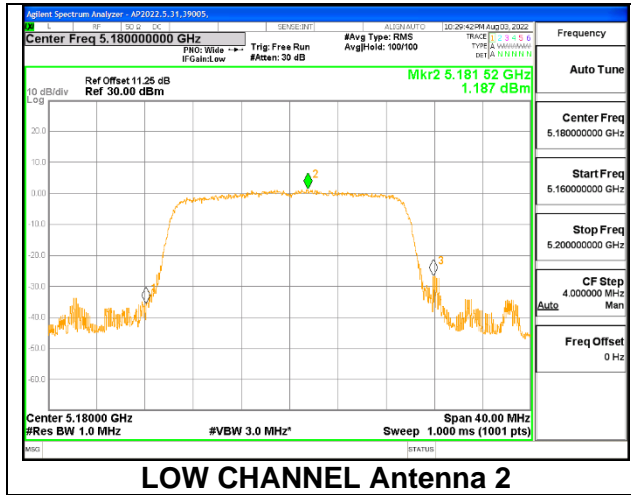
**Output Power Results**

Channel	Frequency (MHz)	Antenna 2 Meas Power (dBm)	Antenna 4 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5180	15.98	15.39	18.71	24.00	-5.29
Mid	5200	15.45	15.30	18.39	24.00	-5.61
High	5240	14.96	14.37	17.69	24.00	-6.31

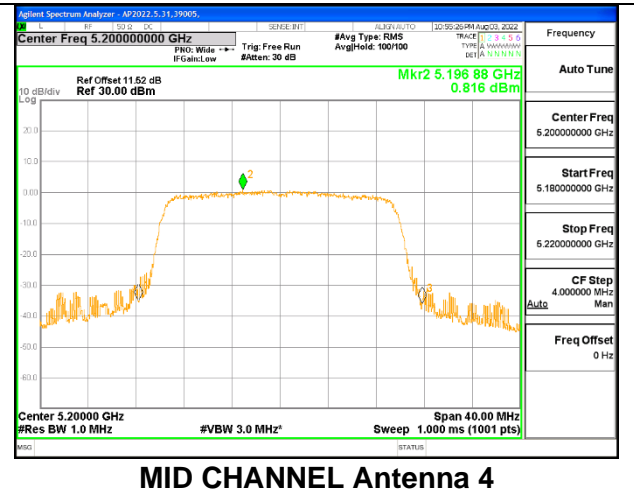
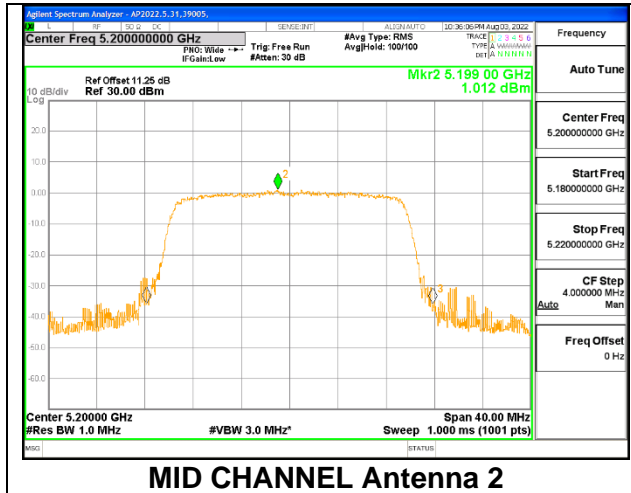
**PSD Results**

Channel	Frequency (MHz)	Antenna 2 Meas PSD (dBm/1MHz)	Antenna 4 Meas PSD (dBm/1MHz)	Total Corr'd PSD (dBm/1MHz)	PSD Limit (dBm/1MHz)	PSD Margin (dB)
Low	5180	1.187	1.144	7.11	9.97	-2.86
Mid	5200	1.012	0.816	6.86	9.97	-3.11
High	5240	0.568	0.043	6.25	9.97	-3.72

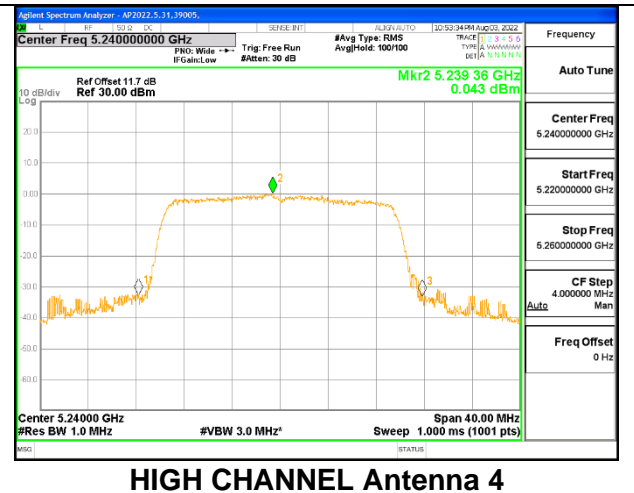
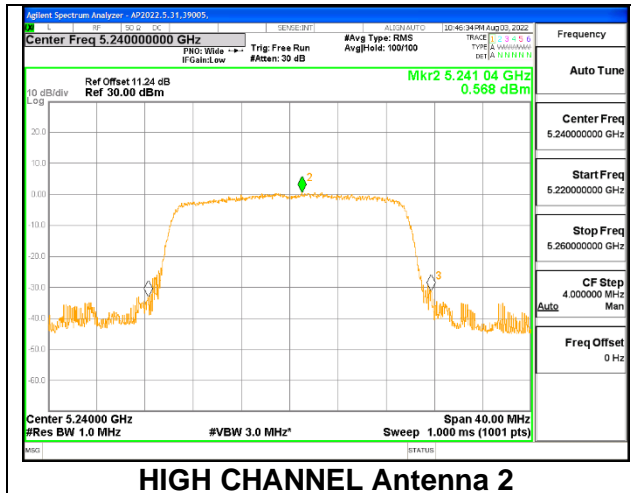
### LOW CHANNEL



### MID CHANNEL



### HIGH CHANNEL



**2TX Antenna 2 + Antenna 4 CDD MODE: SU (Single User)**

<b>Test Engineer:</b>	RA39005 and ZS160880
<b>Test Date:</b>	2022-08-03

**Antenna Gain and Limits**

Channel	Frequency (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm/1MHz)
Low	5180	4.04	7.03	24.00	9.97
Mid	5200	4.04	7.03	24.00	9.97
High	5240	4.04	7.03	24.00	9.97

**Output Power Results**

Channel	Frequency (MHz)	Antenna 2 Meas Power (dBm)	Antenna 4 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5180	15.49	15.38	18.45	24.00	-5.55
Mid	5200	15.46	15.30	18.39	24.00	-5.61
High	5240	14.91	14.57	17.75	24.00	-6.25

### 9.5.2. 802.11ax HE40 MODE 2TX IN THE 5.2GHz BAND (FCC)

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

<b>Test Engineer:</b>	RA39005 and ZS160880
<b>Test Date:</b>	2022-08-04

#### Antenna Gain and Limits

Channel	Frequency (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm/1MHz)
Low	5190	4.04	7.03	24.00	9.97

<b>Duty Cycle CF (dB)</b>	1.84	<b>Included in Calculations of Corr'd PSD</b>
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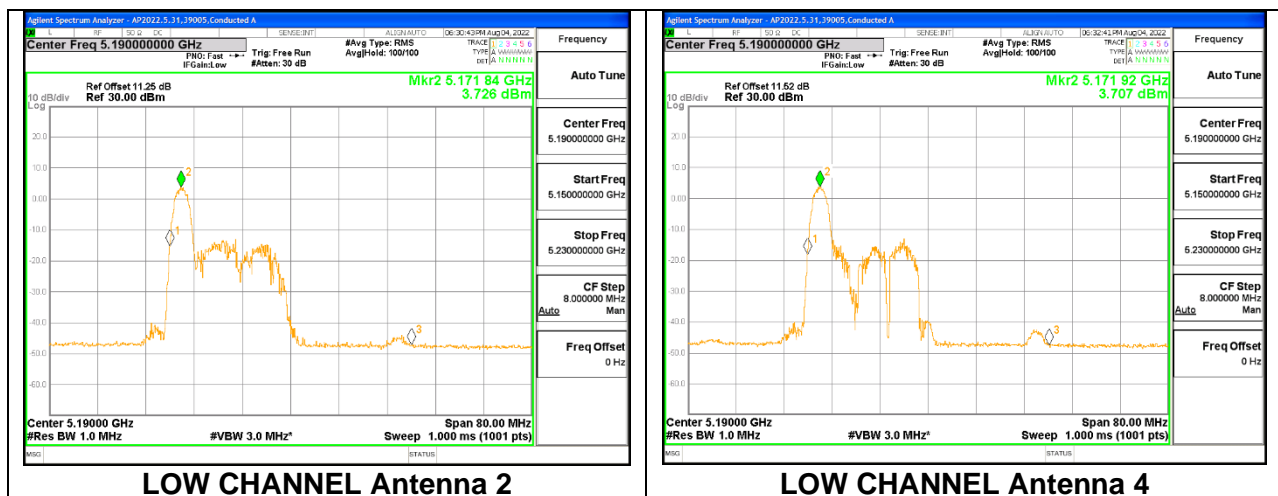
#### Output Power Results

Channel	Frequency (MHz)	Antenna 2 Meas Power (dBm)	Antenna 4 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5190	9.70	10.18	12.96	24.00	-11.04

#### PSD Results

Channel	Frequency (MHz)	Antenna 2 Meas PSD (dBm/1MHz)	Antenna 4 Meas PSD (dBm/1MHz)	Total Corr'd PSD (dBm/1MHz)	PSD Limit (dBm/1MHz)	PSD Margin (dB)
Low	5190	3.726	3.707	8.57	9.97	-1.40

### LOW CHANNEL



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

<b>Test Engineer:</b>	RA39005 and ZS160880
<b>Test Date:</b>	8/4/2022

**Antenna Gain and Limits**

Channel	Frequency (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm/1MHz)
High	5230	4.04	7.03	24.00	9.97

<b>Duty Cycle CF (dB)</b>	1.84	<b>Included in Calculations of Corr'd PSD</b>
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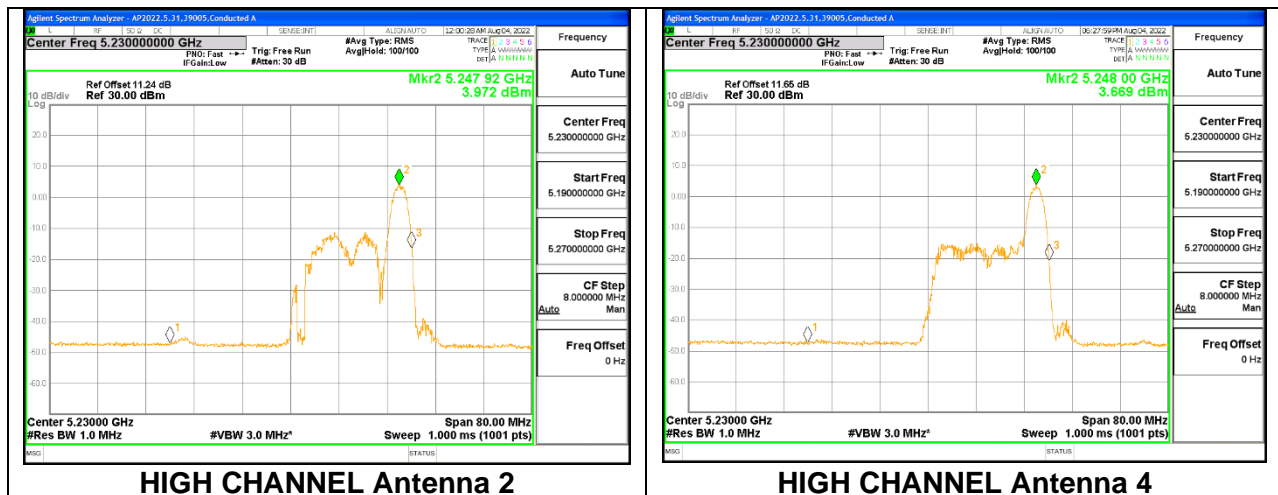
**Output Power Results**

Channel	Frequency (MHz)	Antenna 2 Meas Power (dBm)	Antenna 4 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
High	5230	10.20	9.52	12.88	24.00	-11.12

**PSD Results**

Channel	Frequency (MHz)	Antenna 2 Meas PSD (dBm/1MHz)	Antenna 4 Meas PSD (dBm/1MHz)	Total Corr'd PSD (dBm/1MHz)	PSD Limit (dBm/1MHz)	PSD Margin (dB)
High	5230	3.972	3.669	8.67	9.97	-1.30

**HIGH CHANNEL**





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

<b>Test Engineer:</b>	RA39005 and ZS160880
<b>Test Date:</b>	8/3/2022

**Antenna Gain and Limits**

Channel	Frequency (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm/ 1MHz)
Low	5190	4.04	7.03	24.00	9.97
High	5230	4.04	7.03	24.00	9.97

<b>Duty Cycle CF (dB)</b>	2.96	<b>Included in Calculations of Corr'd PSD</b>
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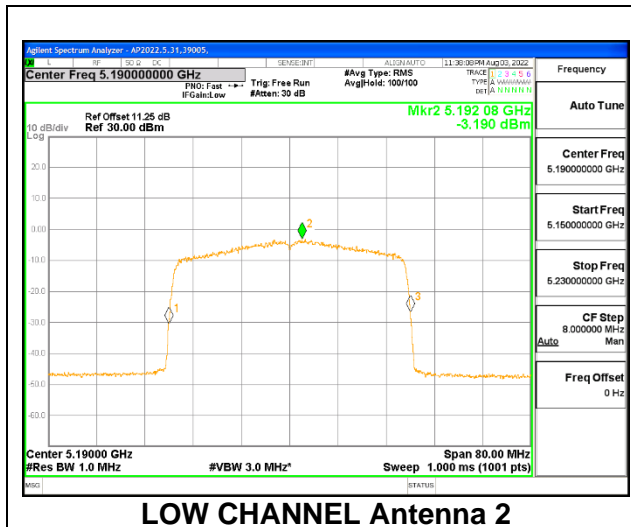
**Output Power Results**

Channel	Frequency (MHz)	Antenna 2 Meas Power (dBm)	Antenna 4 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5190	13.65	13.67	16.67	24.00	-7.33
High	5230	13.64	13.51	16.59	24.00	-7.41

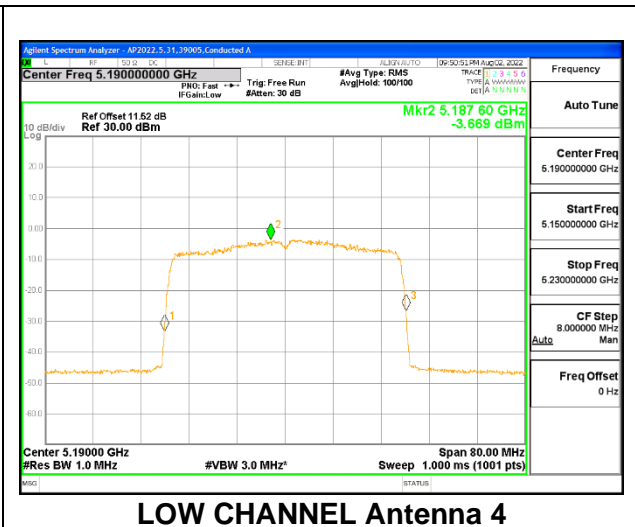
**PSD Results**

Channel	Frequency (MHz)	Antenna 2 Meas PSD (dBm/ 1MHz)	Antenna 4 Meas PSD (dBm/ 1MHz)	Total Corr'd PSD (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)	PSD Margin (dB)
Low	5190	-3.190	-3.669	2.55	9.97	-7.42
High	5230	-3.680	-3.702	2.28	9.97	-7.69

### LOW CHANNEL

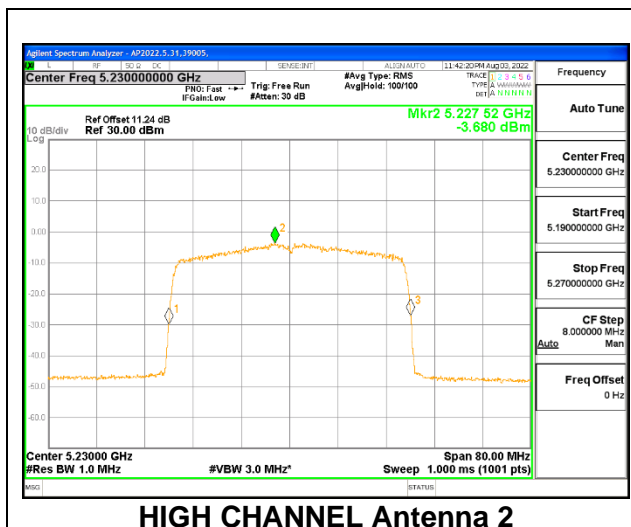


LOW CHANNEL Antenna 2

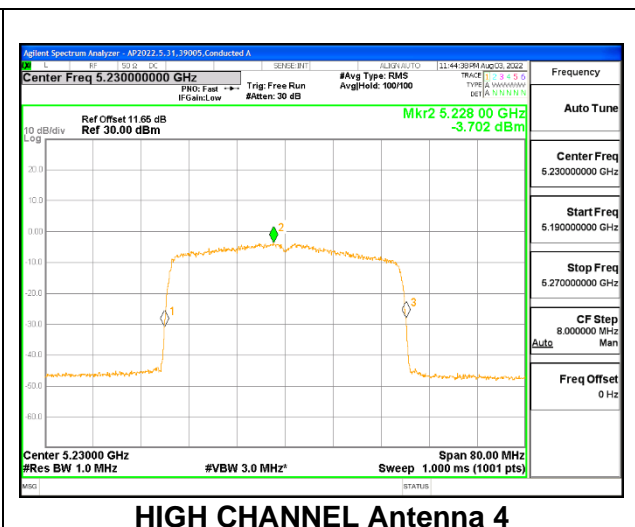


LOW CHANNEL Antenna 4

### HIGH CHANNEL



HIGH CHANNEL Antenna 2



HIGH CHANNEL Antenna 4

**2TX Antenna 2 + Antenna 4 CDD OFDMA MODE: SU, Single User**

<b>Test Engineer:</b>	RA39005 and ZS160880
<b>Test Date:</b>	8/3/2022

**Antenna Gain and Limits**

Channel	Frequency (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm/ 1MHz)
Low	5190	4.04	7.03	24.00	9.97
High	5230	4.04	7.03	24.00	9.97

**Output Power Results**

Channel	Frequency (MHz)	Antenna 2 Meas Power (dBm)	Antenna 4 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5190	13.45	13.65	16.56	24.00	-7.44
High	5230	13.72	13.51	16.63	24.00	-7.37