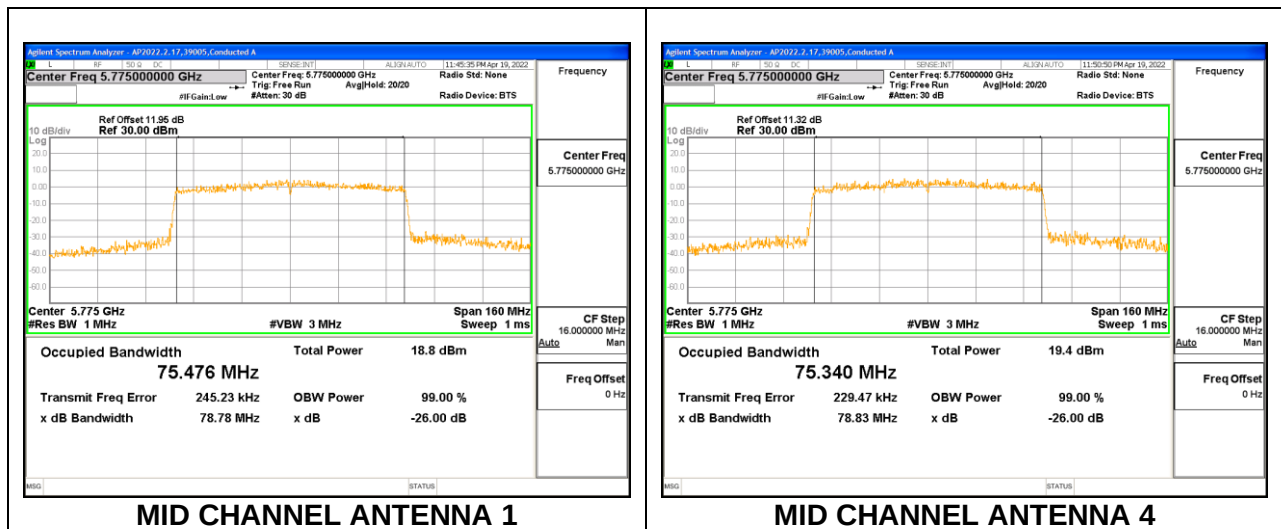


9.3.16. 802.11ac VHT80 MODE IN THE 5.8 GHz BAND

2TX Antenna 1 + Antenna 4 CDD MODE

Channel	Frequency (MHz)	99% Bandwidth Antenna 1 (MHz)	99% Bandwidth Antenna 4 (MHz)
Mid	5775	75.476	75.340

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.

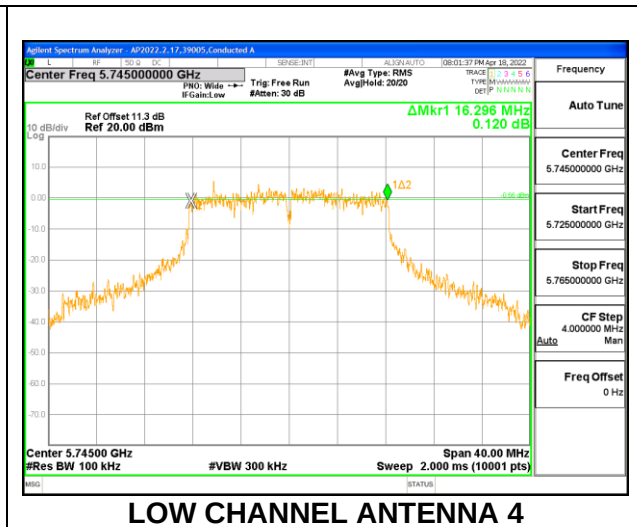
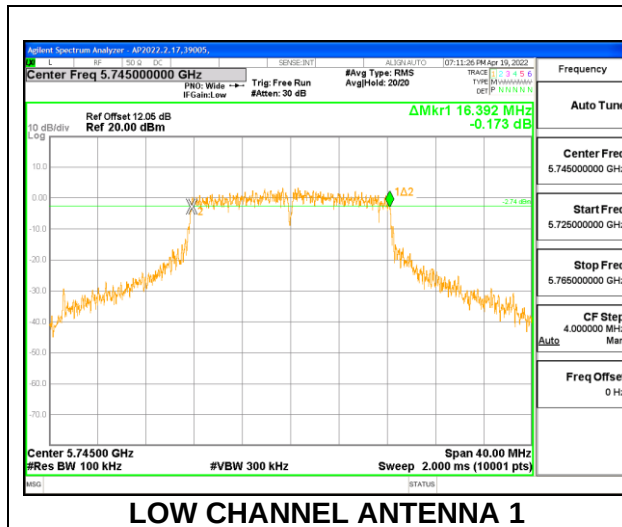
RESULTS

9.4.1. 802.11a MODE IN THE 5.8 GHz BAND

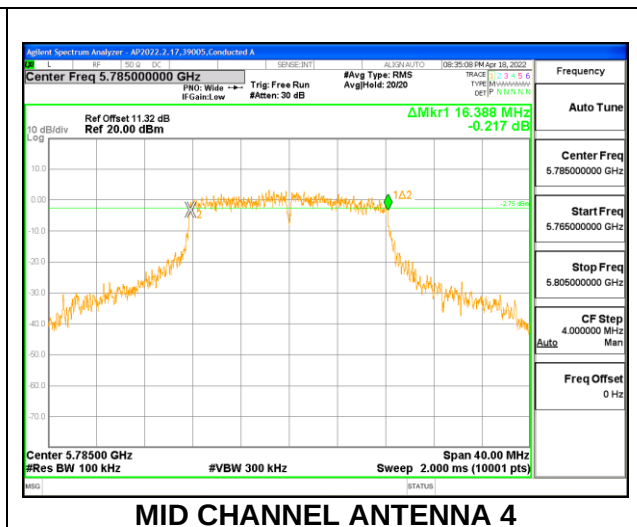
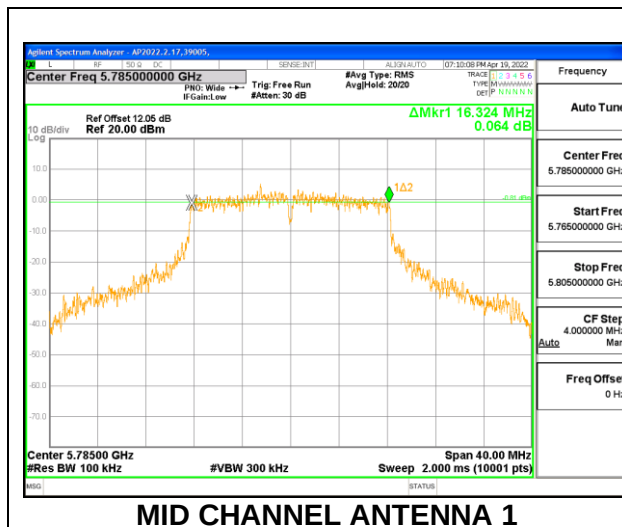
2TX Antenna 1 + Antenna 4 CDD MODE

Channel	Frequency (MHz)	6 dB BW Antenna 1 (MHz)	6 dB BW Antenna 4 (MHz)	Minimum Limit (MHz)
Low	5745	16.392	16.296	0.5
Mid	5785	16.324	16.388	0.5
High	5825	16.332	16.348	0.5

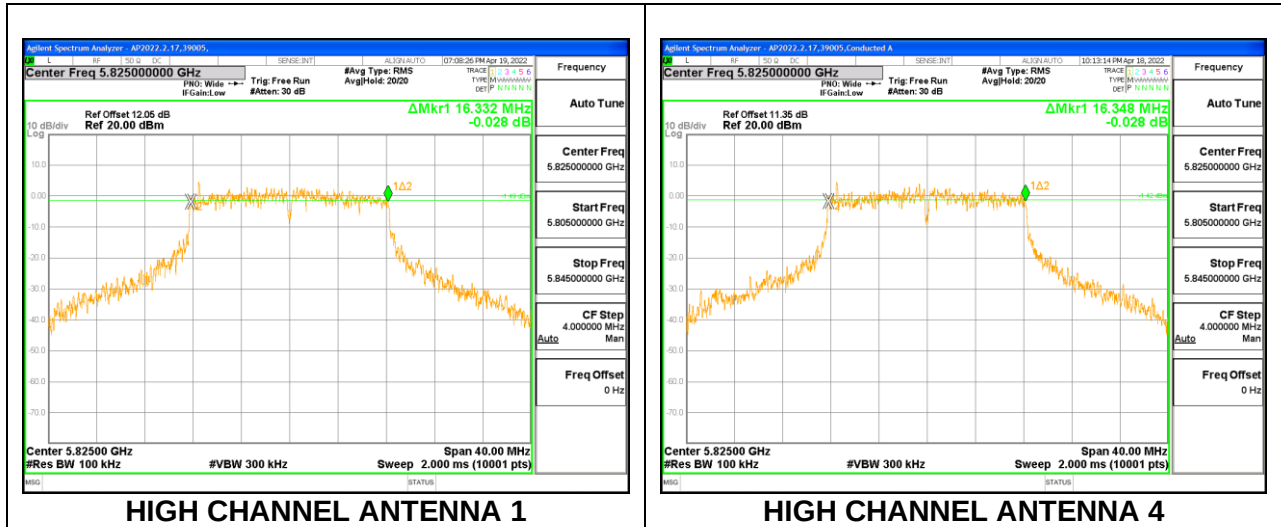
LOW CHANNEL



MID CHANNEL



HIGH CHANNEL

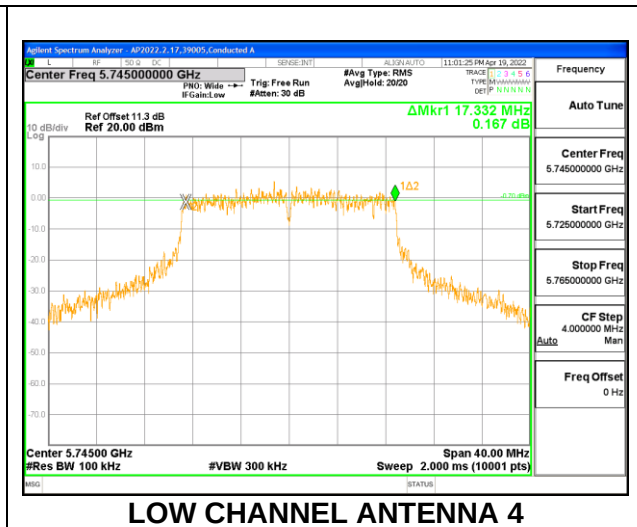
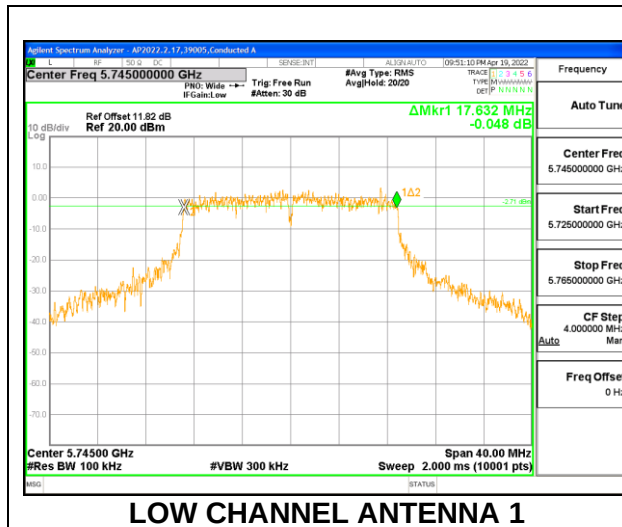


9.4.2. 802.11n HT20 MODE IN THE 5.8 GHz BAND

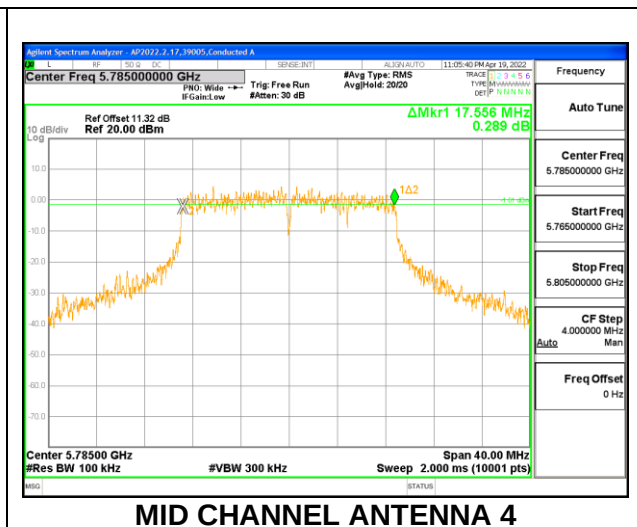
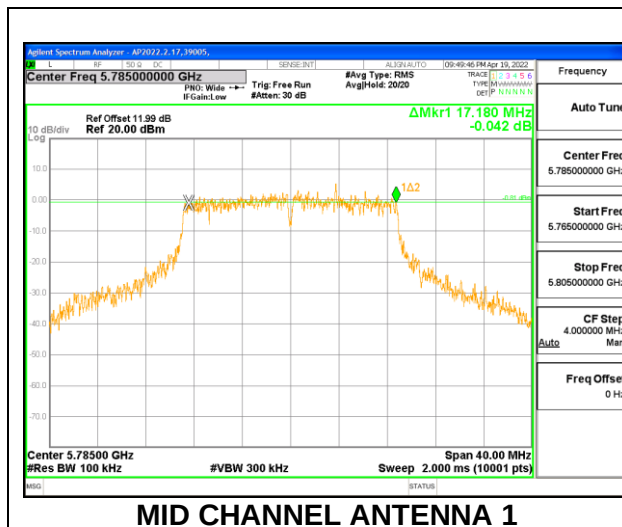
2TX Antenna 1 + Antenna 4 CDD MODE

Channel	Frequency (MHz)	6 dB BW Antenna 1 (MHz)	6 dB BW Antenna 4 (MHz)	Minimum Limit (MHz)
Low	5745	17.632	17.332	0.5
Mid	5785	17.180	17.556	0.5
High	5825	17.600	17.176	0.5

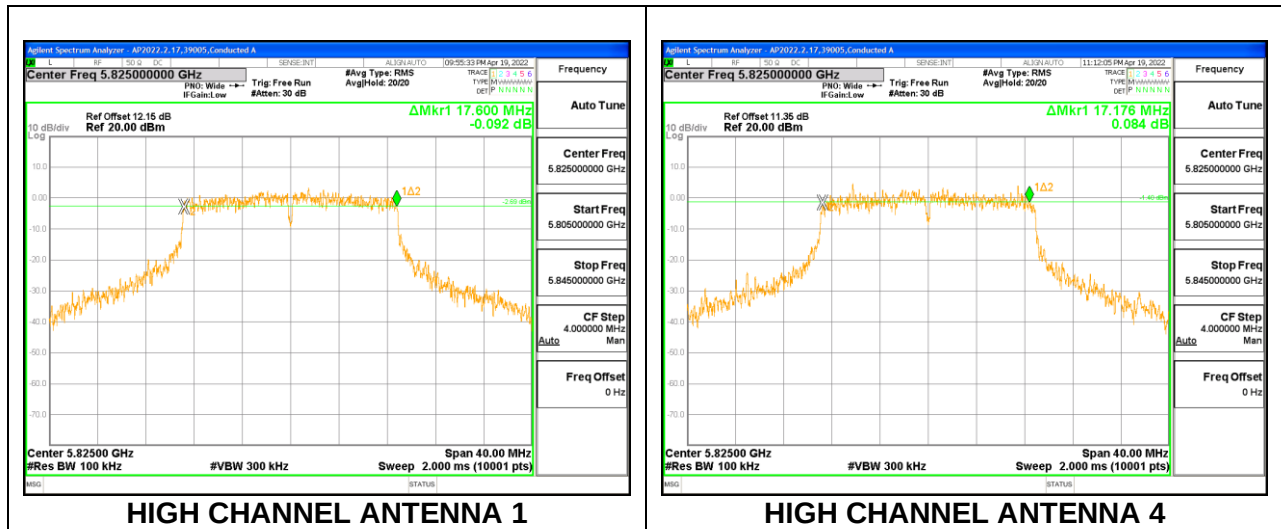
LOW CHANNEL



MID CHANNEL



HIGH CHANNEL

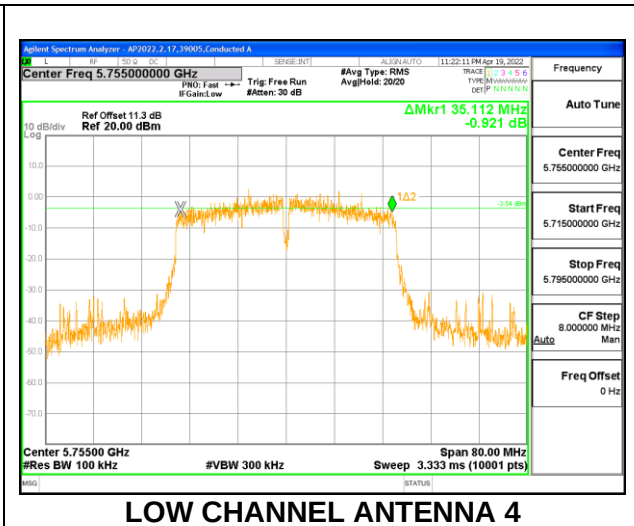
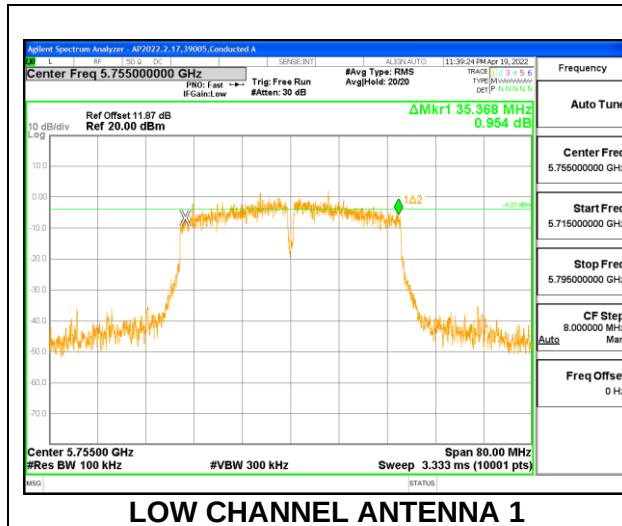


9.4.3. 802.11n HT40 MODE IN THE 5.8 GHz BAND

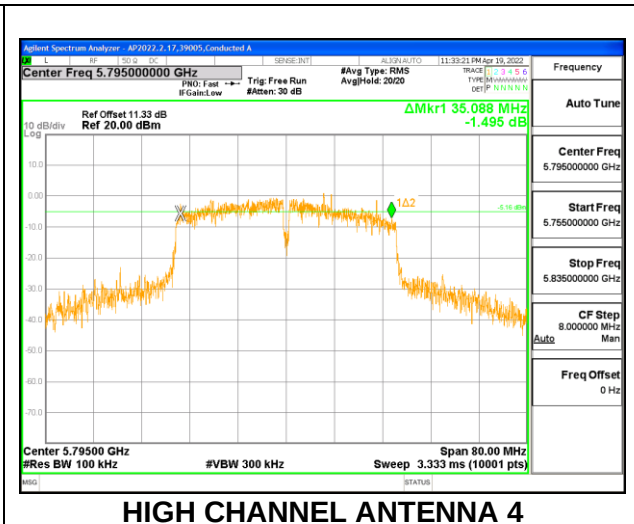
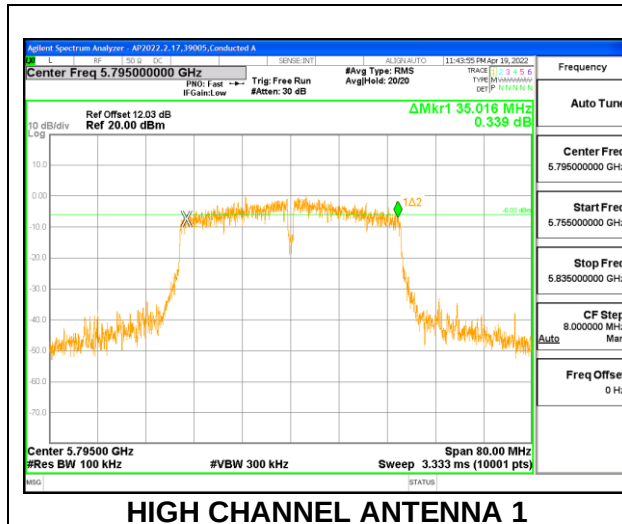
2TX Antenna 1 + Antenna 4 CDD MODE

Channel	Frequency (MHz)	6 dB BW Antenna 1 (MHz)	6 dB BW Antenna 4 (MHz)	Minimum Limit (MHz)
Low	5755	35.368	35.112	0.5
High	5795	35.016	35.088	0.5

LOW CHANNEL



HIGH CHANNEL

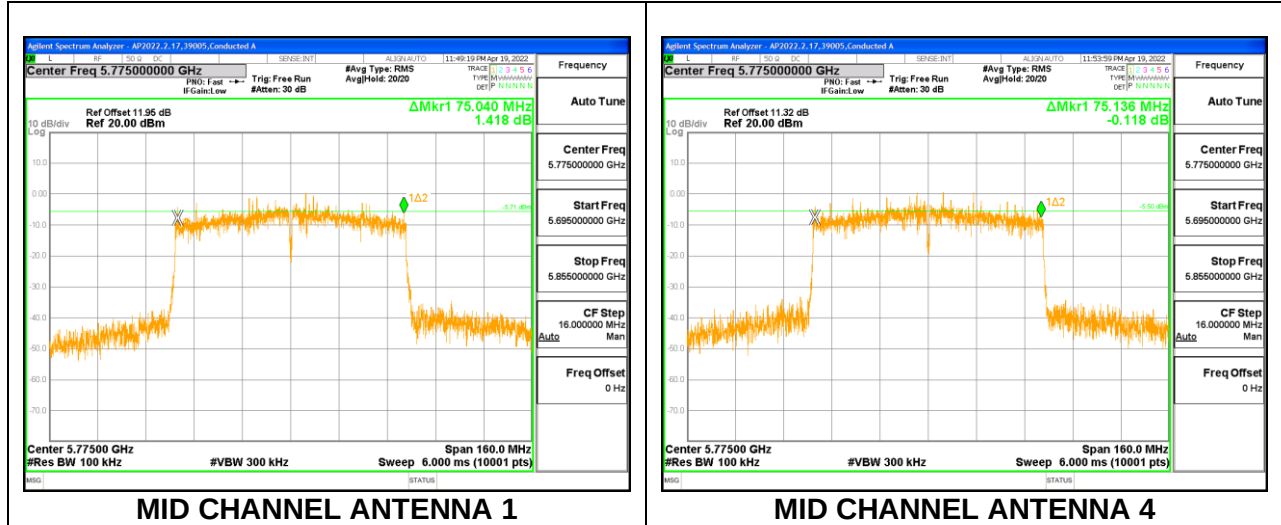


9.4.4. 802.11ac VHT80 MODE IN THE 5.8 GHz BAND

2TX Antenna 1 + Antenna 4 CDD MODE

Channel	Frequency (MHz)	6 dB BW Antenna 1 (MHz)	6 dB BW Antenna 4 (MHz)	Minimum Limit (MHz)
Mid	5775	75.040	75.136	0.5

MID CHANNEL



9.5. OUTPUT POWER AND PSD

LIMITS

FCC §15.407

Band 5.15–5.25 GHz

(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.

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 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).

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

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	4.1	4.8	4.46	7.47
5.3	3.5	4.7	4.14	7.13
5.6	4.4	5.1	4.76	7.77
5.8	4.8	4.4	4.60	7.61

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	4.1	4.9	4.52	7.52
5.3	3.5	5.6	4.68	7.62
5.6	4.4	6.2	5.39	8.36
5.8	4.8	5.7	5.27	8.27

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	4.3	4.8	4.56	7.56
5.3	4.9	4.7	4.80	7.81
5.6	4.7	5.1	4.90	7.91
5.8	4.6	4.4	4.50	7.51

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	4.3	4.9	4.61	7.62
5.3	4.9	5.6	5.26	8.27
5.6	4.7	6.2	5.51	8.49
5.8	4.6	5.7	5.18	8.18

Directional Gain value was determined using the following formula:

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

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

Uncorrelated Directional Gain sample calculation:

4.61dBi = $10 \log [(10^{(4.3/10)} + 10^{(4.9/10)})/2]$

Correlated Directional Gain sample calculation:

7.62 dBi = $10 \log [(10^{(4.3/20)} + 10^{(4.9/20)^2})/2]$

RESULTS

9.5.1. 802.11a MODE IN THE 5.2 GHz BAND

2TX Antenna 2 + Antenna 4 CDD MODE (FCC)

Test Engineer:	RA39005
Test Date:	4/14/2022

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	5180	4.61	7.62	24.00	9.38
Mid	5200	4.61	7.62	24.00	9.38
High	5240	4.61	7.62	24.00	9.38

Duty Cycle CF (dB)	1.04	Included in Calculations of Corr'd PSD
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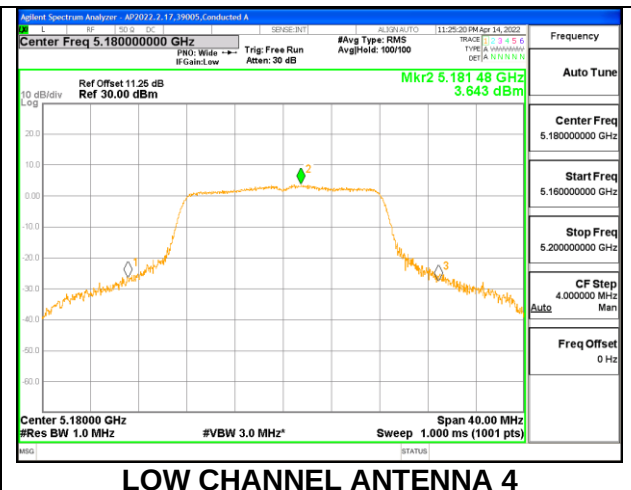
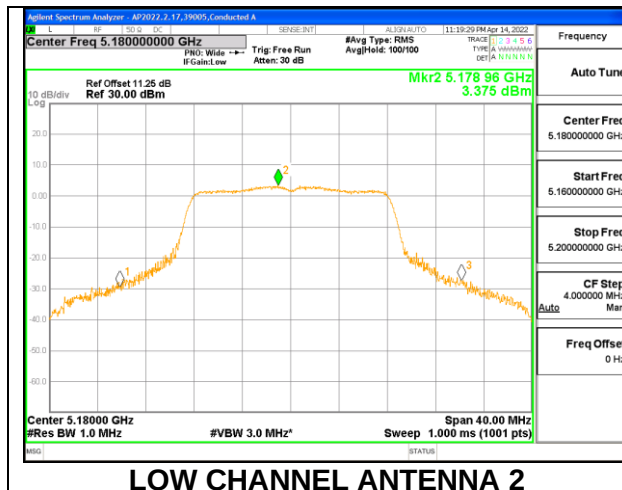
Output Power Results

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	15.50	15.84	18.68	24.00	-5.32
Mid	5200	15.52	15.85	18.70	24.00	-5.30
High	5240	15.50	15.54	18.53	24.00	-5.47

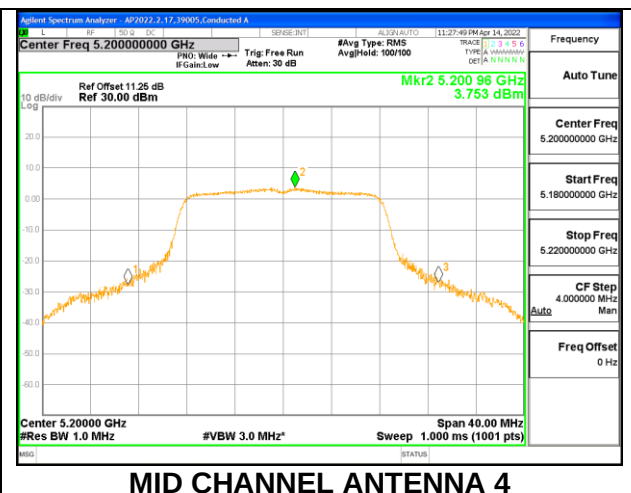
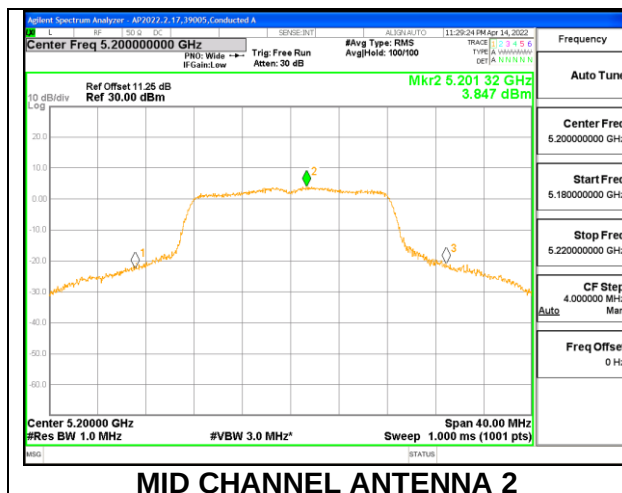
PSD Results

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	3.375	3.643	7.56	9.38	-1.82
Mid	5200	3.847	3.753	7.85	9.38	-1.53
High	5240	3.245	2.921	7.14	9.38	-2.24

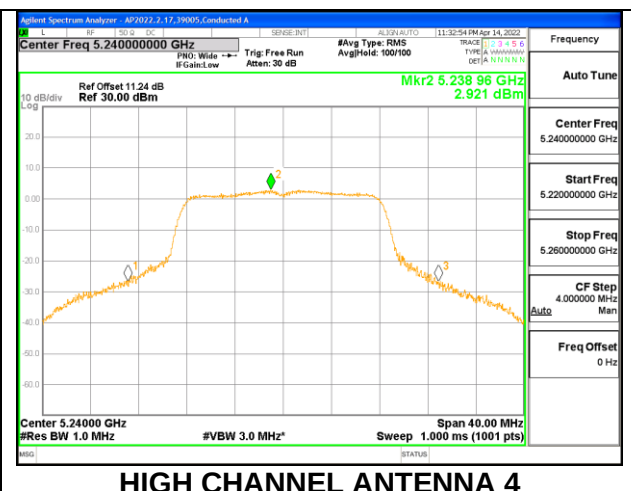
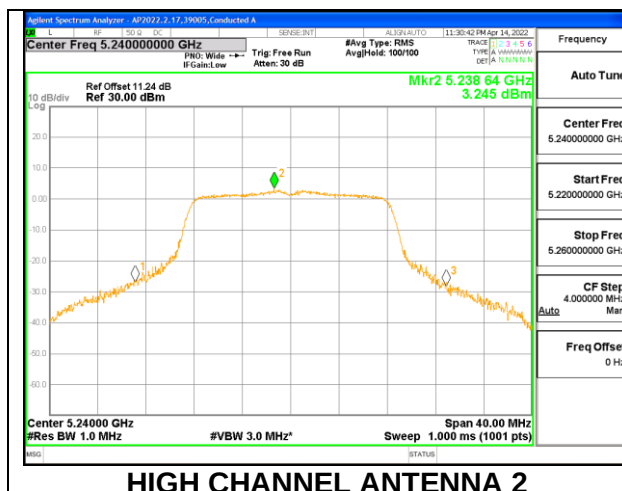
LOW CHANNEL



MID CHANNEL



HIGH CHANNEL



(IC)

Test Engineer:	CW20756
Test Date:	4/15/2022

(Note: IC PSD was tested by radiated method)

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 99% BW (MHz)
Low	5180	16.825
Mid	5200	16.975
High	5240	16.759

Limits

Channel	Frequency (MHz)	ISED EIRP Power Limit (dBm)	ISED EIRP PSD Limit (dBm/ 1MHz)
Low	5180	22.26	10.00
Mid	5200	22.30	10.00
High	5240	22.24	10.00

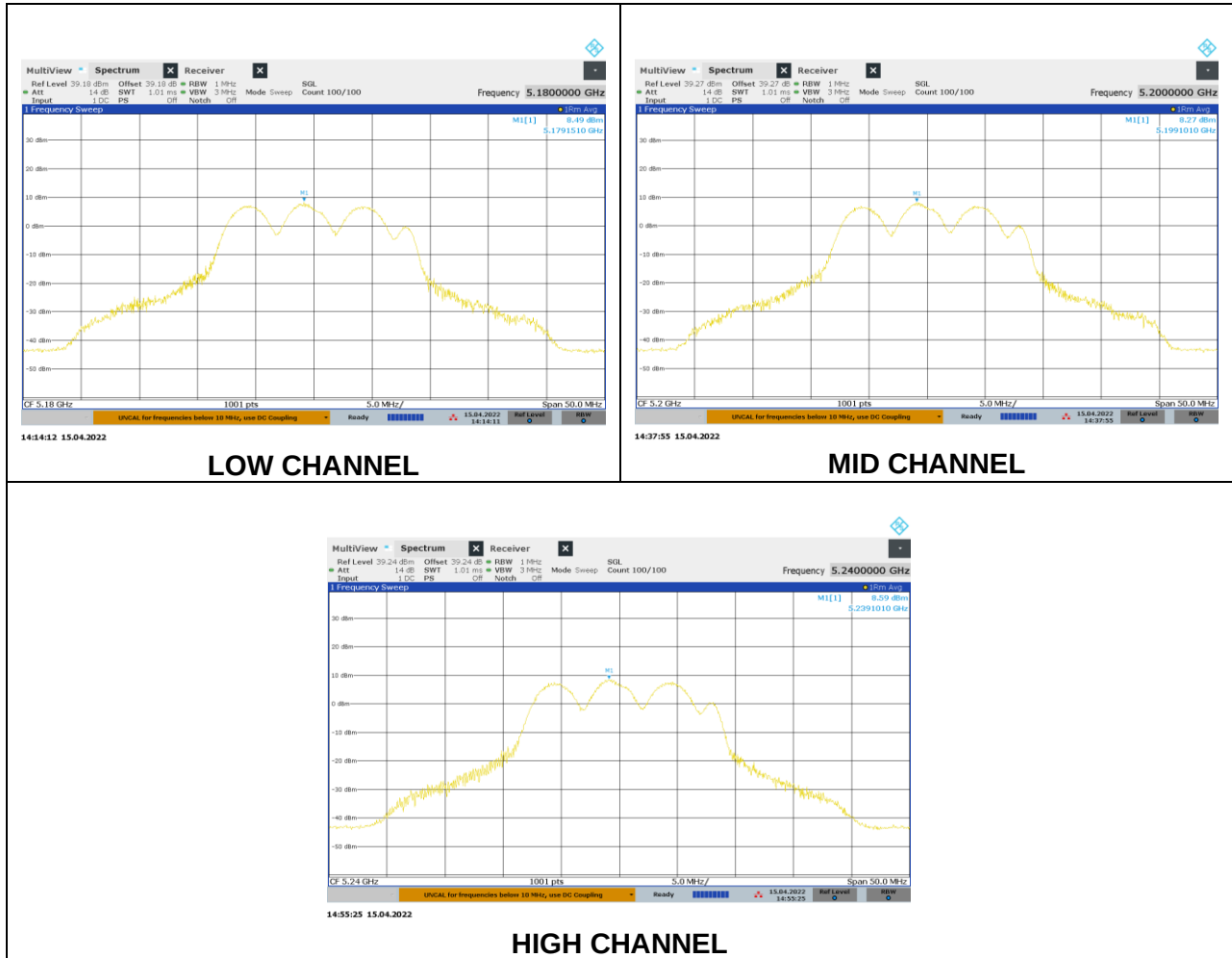
Duty Cycle CF (dB)	1.04	Included in Calculations of Corr'd PSD
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Output Power Results

Channel	Frequency (MHz)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5180	17.76	22.26	-4.50
Mid	5200	17.16	22.30	-5.14
High	5240	17.50	22.24	-4.74

PSD Results

Channel	Frequency (MHz)	Total Corr'd PSD (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)	PSD Margin (dB)
Low	5180	9.53	10.00	-0.47
Mid	5200	9.31	10.00	-0.69
High	5240	9.63	10.00	-0.37



9.5.2. 802.11n HT20 MODE IN THE 5.2 GHz BAND

2TX Antenna 2 + Antenna 4 CDD MODE (FCC)

Test Engineer:	RA39005
Test Date:	4/14/2022

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	5180	4.61	7.62	24.00	9.38
Mid	5200	4.61	7.62	24.00	9.38
High	5240	4.61	7.62	24.00	9.38

Duty Cycle CF (dB)	1.11	Included in Calculations of Corr'd PSD
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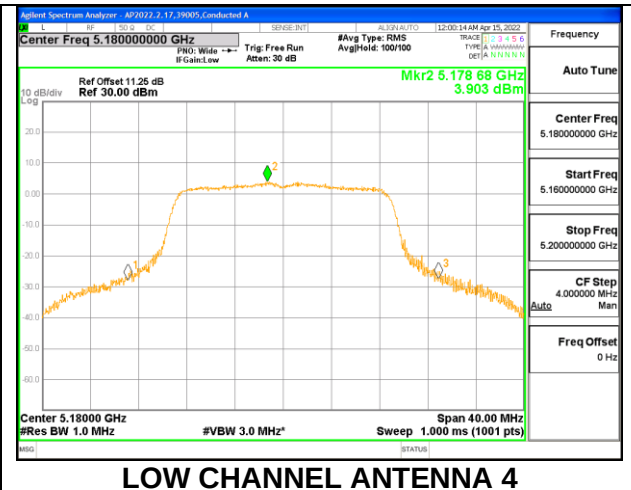
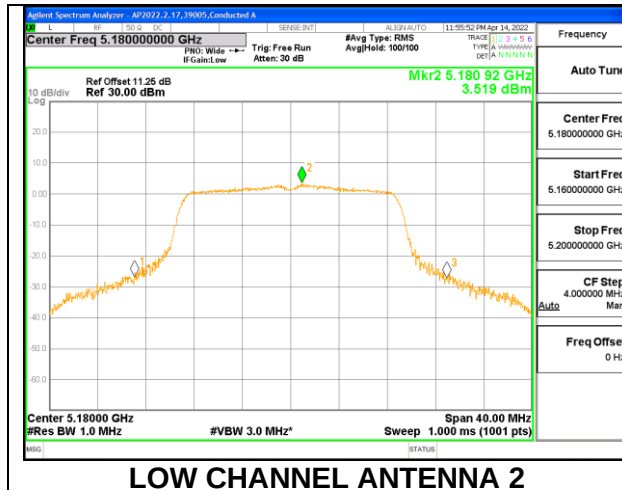
Output Power Results

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	16.20	16.81	19.53	24.00	-4.47
Mid	5200	16.20	16.27	19.25	24.00	-4.75
High	5240	16.32	16.52	19.43	24.00	-4.57

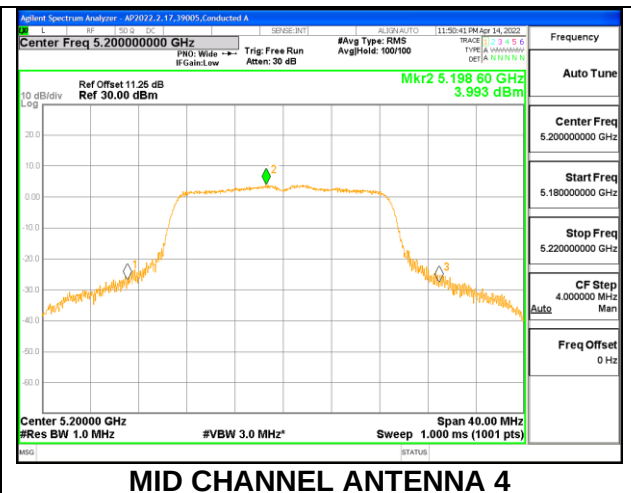
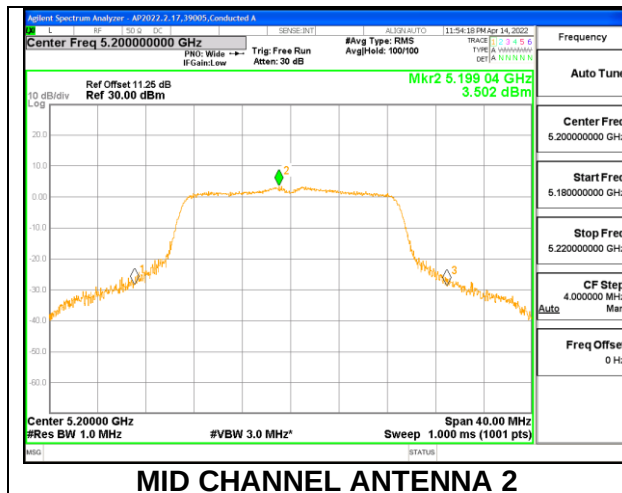
PSD Results

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)
Low	5180	3.519	3.903	7.84	9.38	-1.54
Mid	5200	3.502	3.993	7.87	9.38	-1.51
High	5240	3.888	3.864	8.00	9.38	-1.38

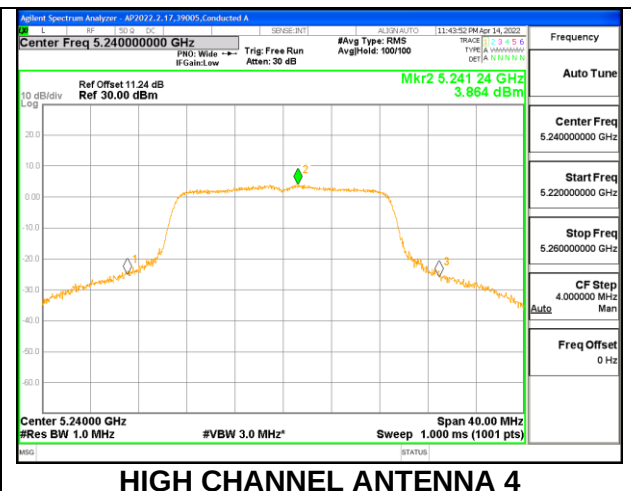
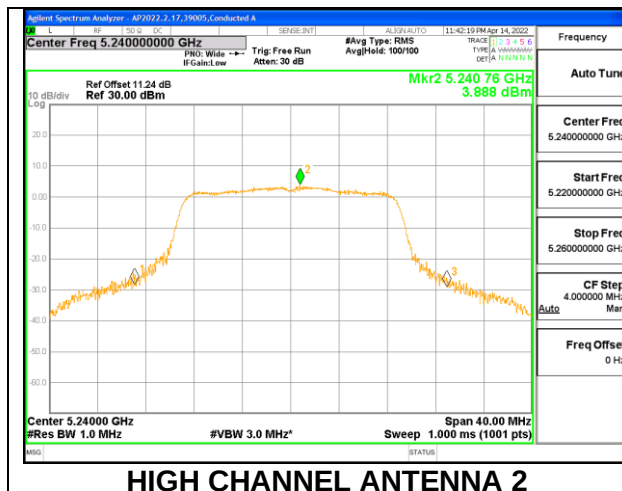
LOW CHANNEL



MID CHANNEL



HIGH CHANNEL



(IC)

Test Engineer:	CW20756
Test Date:	4/15/2022

(Note: IC PSD was tested by radiated method)

Channel	Frequency (MHz)	Min 99% BW (MHz)
Low	5180	17.755
Mid	5200	17.828
High	5240	17.783

Limits

Channel	Frequency (MHz)	ISED EIRP Power Limit (dBm)	ISED EIRP PSD Limit (dBm/ 1MHz)
Low	5180	22.49	10.00
Mid	5200	22.51	10.00
High	5240	22.50	10.00

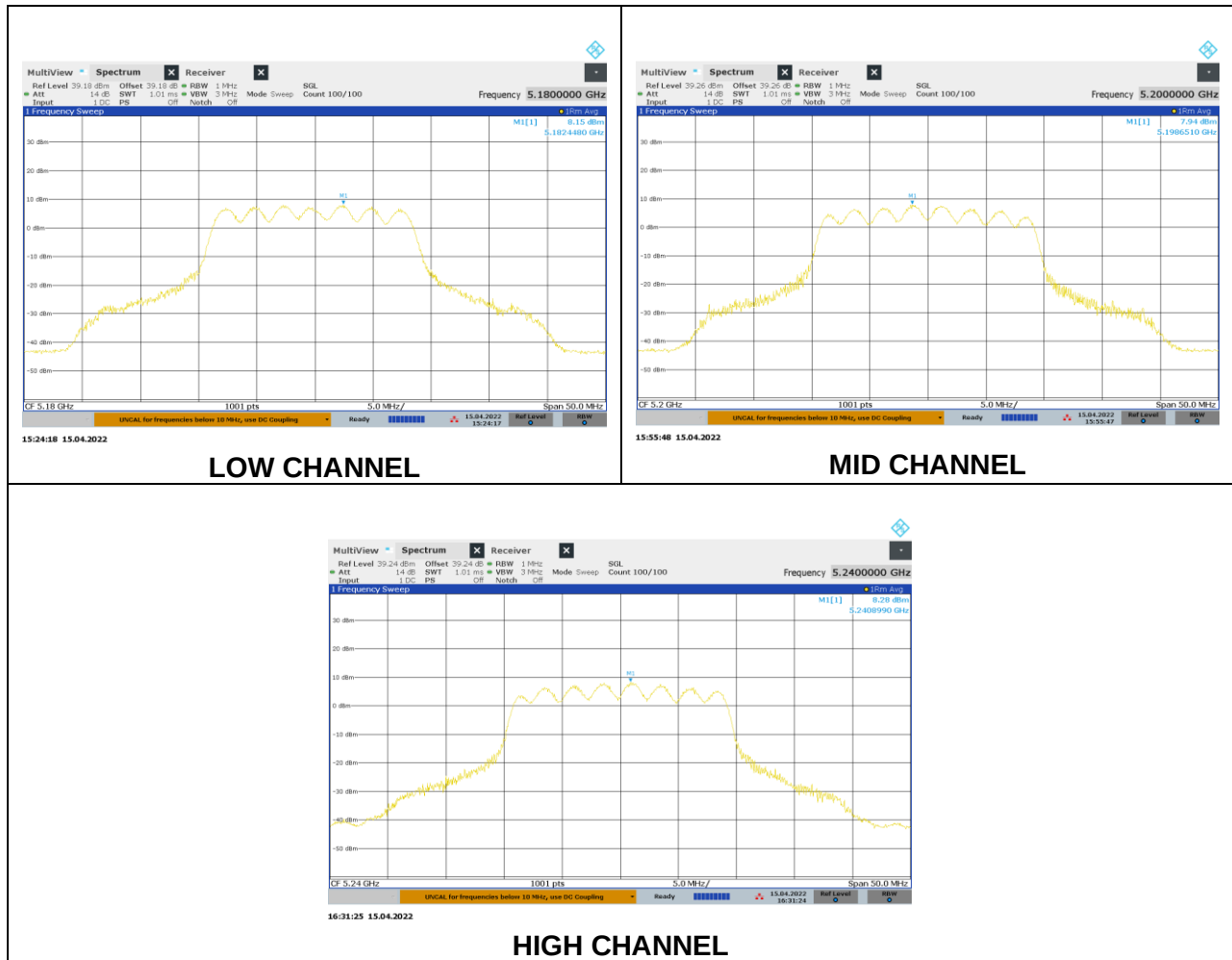
Duty Cycle CF (dB)	1.11	Included in Calculations of Corr'd PSD
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Output Power Results

Channel	Frequency (MHz)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5180	18.36	22.49	-4.14
Mid	5200	17.47	22.51	-5.04
High	5240	17.91	22.50	-4.59

PSD Results

Channel	Frequency (MHz)	Total Corr'd PSD (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)	PSD Margin (dB)
Low	5180	9.26	10.00	-0.74
Mid	5200	9.05	10.00	-0.95
High	5240	9.39	10.00	-0.61



9.5.3. 802.11n HT40 MODE IN THE 5.2 GHz BAND

2TX Antenna 2 + Antenna 4 CDD MODE (FCC)

Test Engineer:	RA39005
Test Date:	4/15/2022

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	4.61	7.62	24.00	9.38
High	5230	4.61	7.62	24.00	9.38

Duty Cycle CF (dB)	2.04	Included in Calculations of Corr'd PSD
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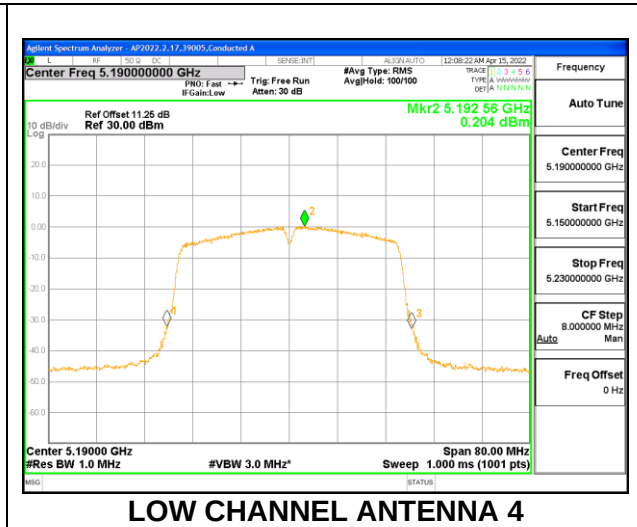
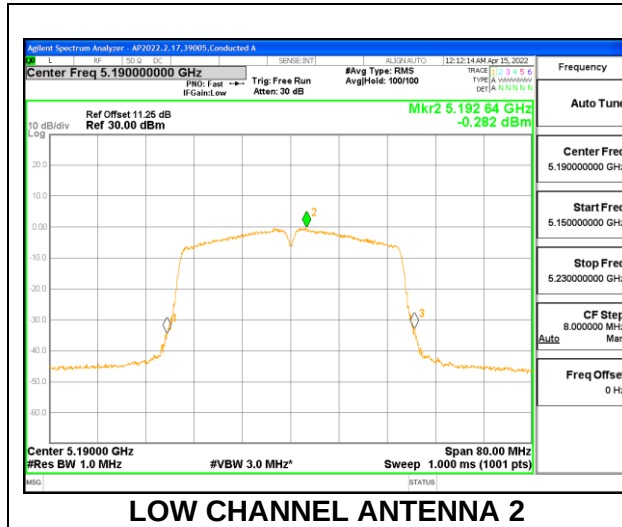
Output Power Results

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	5190	15.55	16.13	18.86	24.00	-5.14
High	5230	15.45	15.55	18.51	24.00	-5.49

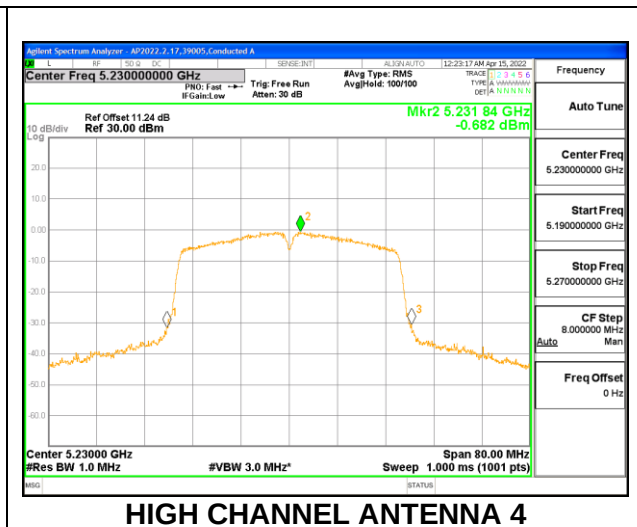
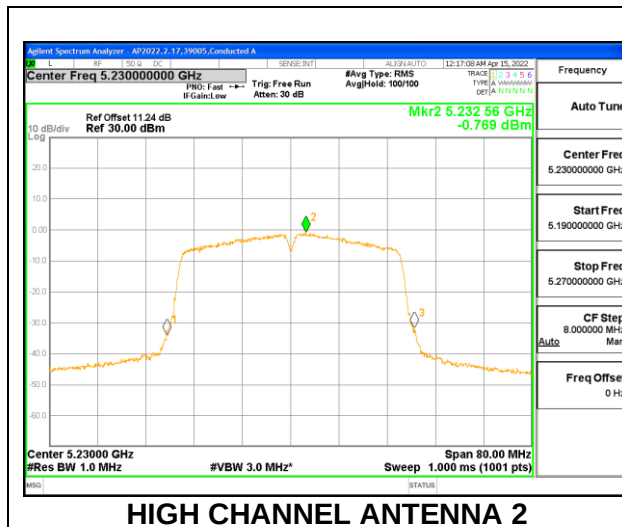
PSD Results

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	-0.282	0.204	5.02	9.38	-4.36
High	5230	-0.769	-0.682	4.33	9.38	-5.05

LOW CHANNEL



HIGH CHANNEL



(IC)

Test Engineer:	CW20756
Test Date:	4/15/2022

(Note: IC PSD was tested by radiated method)

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 99% BW (MHz)
Low	5190	35.819
High	5230	35.828

Limits

Channel	Frequency (MHz)	ISED EIRP Power Limit (dBm)	ISED EIRP PSD Limit (dBm/ 1MHz)
Low	5190	23.00	10.00
High	5230	23.00	10.00

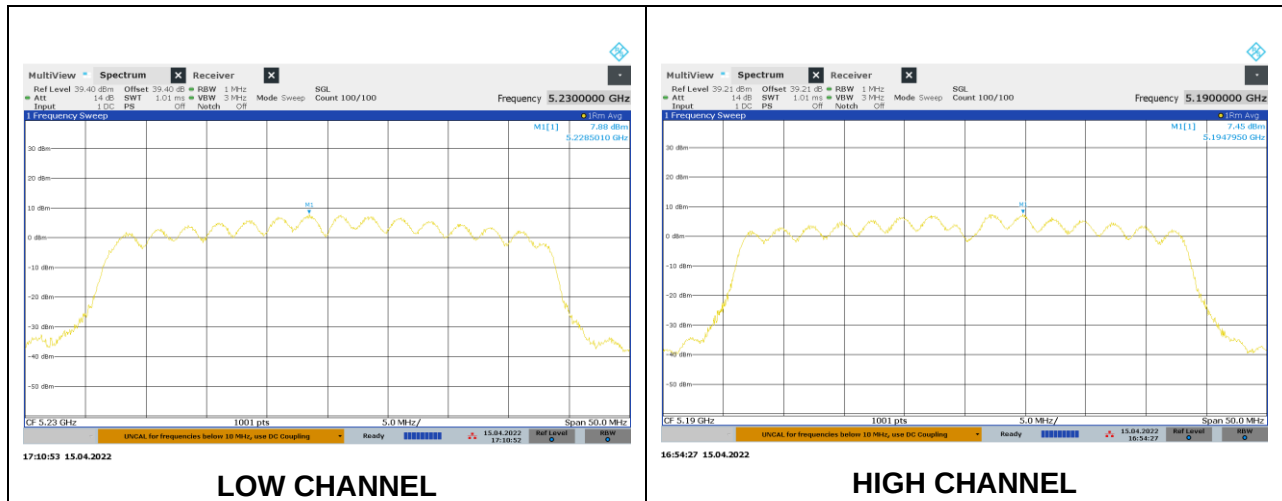
Duty Cycle CF (dB)	2.04	Included in Calculations of Corr'd PSD
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Output Power Results

Channel	Frequency (MHz)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5190	19.62	23.00	-3.38
High	5230	19.88	23.00	-3.12

PSD Results

Channel	Frequency (MHz)	Total Corr'd PSD (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)	PSD Margin (dB)
Low	5190	9.92	10.00	-0.08
High	5230	9.49	10.00	-0.51



(IC)

Test Engineer:	CW20756
Test Date:	4/15/2022

(Note: IC PSD was tested by radiated method)

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 99% BW (MHz)
Mid	5210	75.186

Limits

Channel	Frequency (MHz)	ISED EIRP Power Limit (dBm)	ISED EIRP PSD Limit (dBm/ 1MHz)
Mid	5210	23.00	10.00

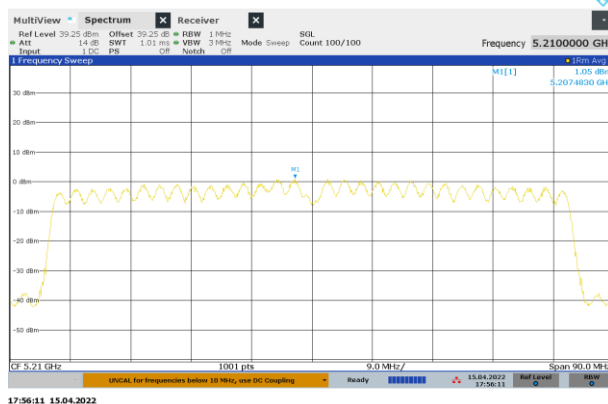
Duty Cycle CF (dB)	3.36	Included in Calculations of Corr'd PSD
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Output Power Results

Channel	Frequency (MHz)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Mid	5210	18.80	23.00	-4.20

PSD Results

Channel	Frequency (MHz)	Total Corr'd PSD (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)	PSD Margin (dB)
Mid	5210	4.41	10.00	-5.59



MID CHANNEL

9.5.5. 802.11a MODE IN THE 5.3 GHz BAND

2TX Antenna 2 + Antenna 4 CDD MODE (FCC+IC)

Test Engineer:	RA39005
Test Date:	4/15/2022

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSP (dBi)
Low	5260	25.24	16.783	5.26	8.27
Mid	5300	25.48	16.757	5.26	8.27
High	5320	25.64	16.919	5.26	8.27

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Power Limit (dBm)	FCC PPSP Limit (dBm)	IC PPSP Limit (dBm)	PPSP Limit (dBm)
Low	5260	24.00	23.25	29.25	23.25	8.73	11.00	8.73
Mid	5300	24.00	23.24	29.24	23.24	8.73	11.00	8.73
High	5320	24.00	23.28	29.28	23.28	8.73	11.00	8.73

Duty Cycle CF (dB)	1.04	Included in Calculations of Corr'd PPSP
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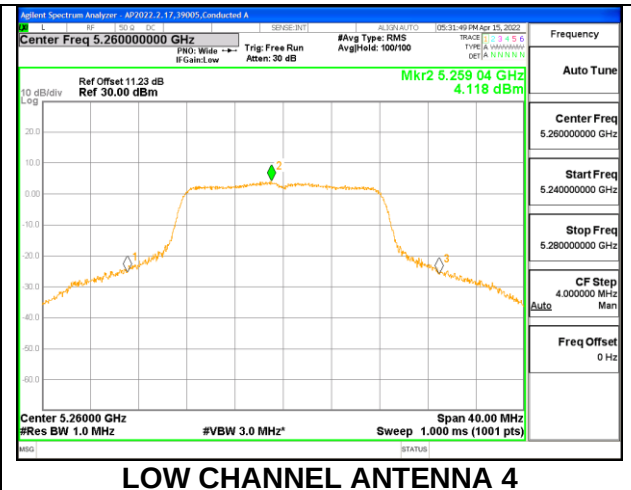
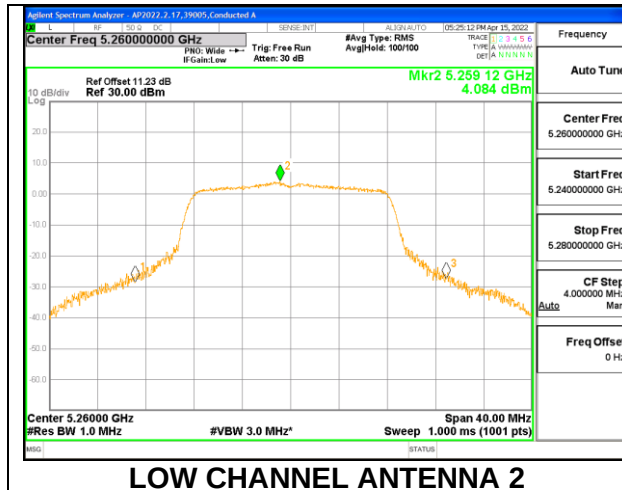
Output Power Results

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	5260	16.17	16.35	19.27	23.25	-3.98
Mid	5300	16.08	16.36	19.23	23.24	-4.01
High	5320	16.20	16.42	19.32	23.28	-3.96

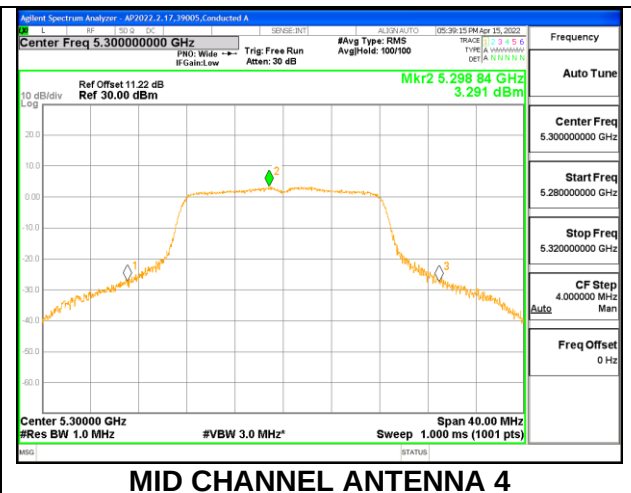
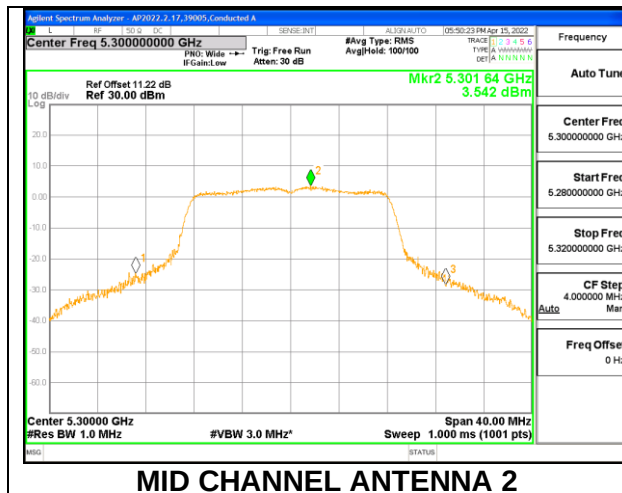
PPSP Results

Channel	Frequency (MHz)	Antenna 2 Meas PPSP (dBm/ 1MHz)	Antenna 4 Meas PPSP (dBm/ 1MHz)	Total Corr'd PPSP (dBm/ 1MHz)	PPSP Limit (dBm/ 1MHz)	PPSP Margin (dB)
Low	5260	4.084	4.118	8.15	8.73	-0.58
Mid	5300	3.542	3.291	7.47	8.73	-1.26
High	5320	3.025	2.857	6.99	8.73	-1.74

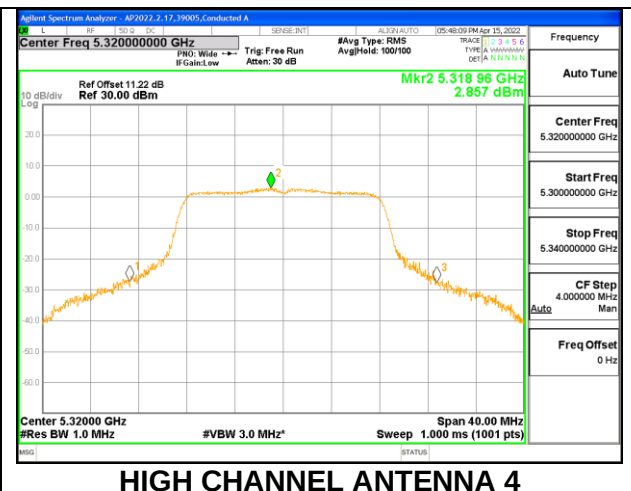
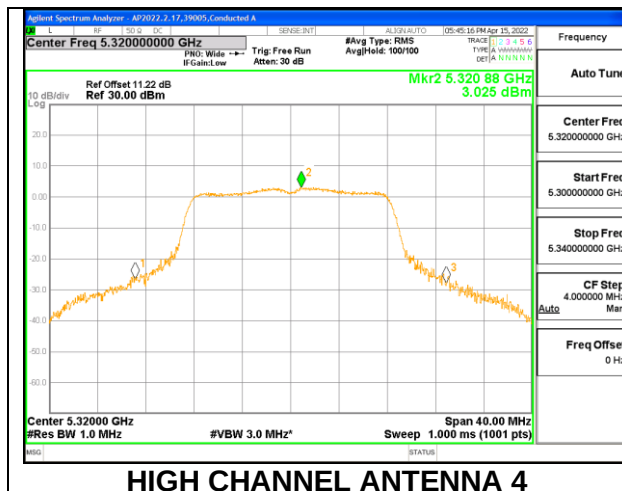
LOW CHANNEL



MID CHANNEL



HIGH CHANNEL



9.5.6. 802.11n HT20 MODE IN THE 5.3 GHz BAND

2TX Antenna 2 + Antenna 4 CDD MODE (FCC+IC)

Test Engineer:	RA39005
Test Date:	4/15/2022

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
Low	5260	24.88	17.752	5.26	8.27
Mid	5300	24.64	17.803	5.26	8.27
High	5320	24.72	17.754	5.26	8.27

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC PSD Limit (dBm)	PPSD Limit (dBm)
Low	5260	24.00	23.49	29.49	23.49	8.73	11.00	8.73
Mid	5300	24.00	23.50	29.50	23.50	8.73	11.00	8.73
High	5320	24.00	23.49	29.49	23.49	8.73	11.00	8.73

Duty Cycle CF (dB)	1.11	Included in Calculations of Corr'd PPSP
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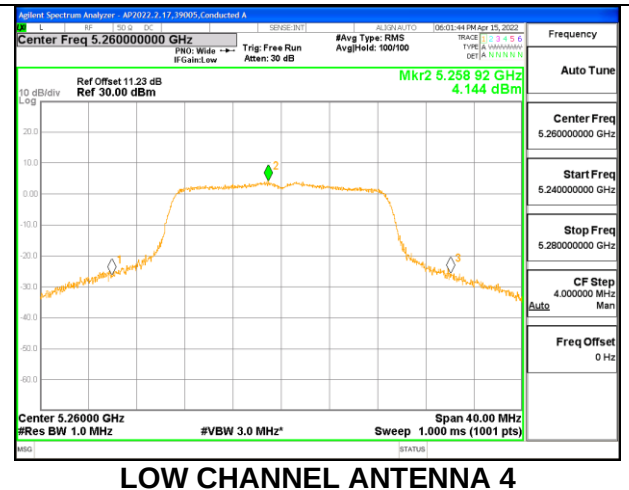
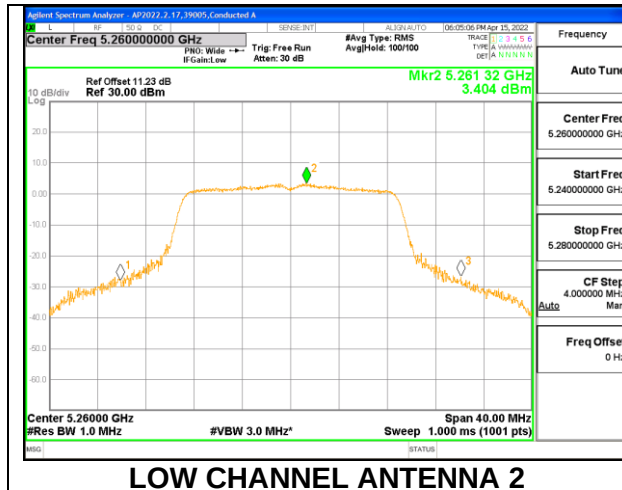
Output Power Results

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	5260	16.06	16.45	19.27	23.49	-4.22
Mid	5300	16.06	16.46	19.27	23.50	-4.23
High	5320	16.12	16.44	19.29	23.49	-4.20

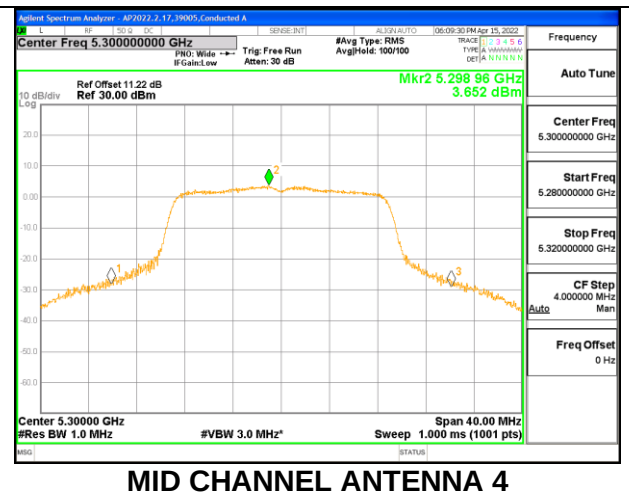
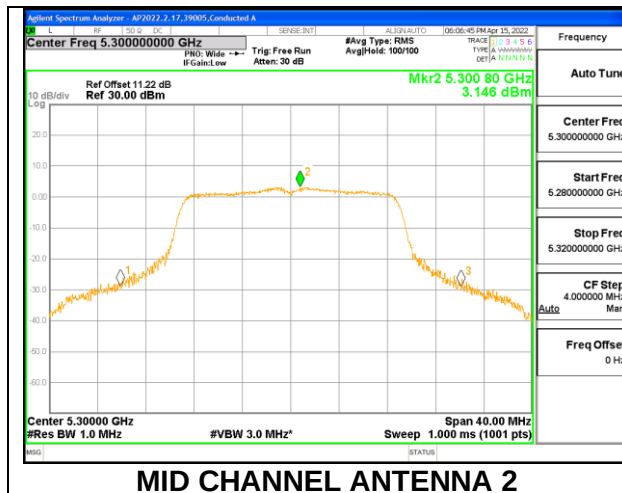
PPSD Results

Channel	Frequency (MHz)	Antenna 2 Meas PPSD (dBm/ 1MHz)	Antenna 4 Meas PPSD (dBm/ 1MHz)	Total Corr'd PPSD (dBm/ 1MHz)	PPSD Limit (dBm/ 1MHz)	PPSD Margin (dB)
Low	5260	3.404	4.144	7.91	8.73	-0.82
Mid	5300	3.146	3.652	7.53	8.73	-1.20
High	5320	3.308	3.629	7.59	8.73	-1.14

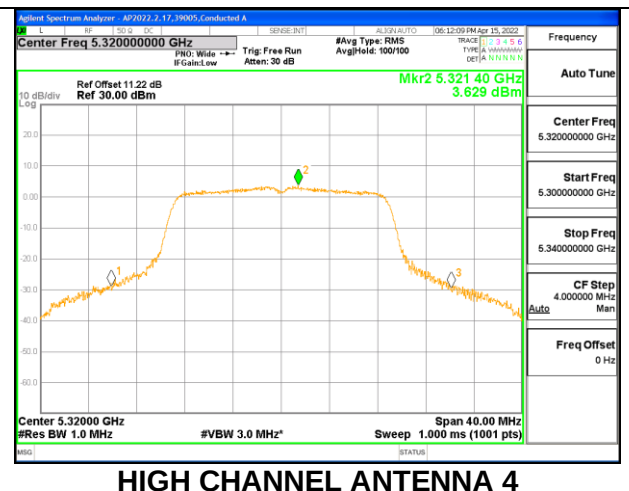
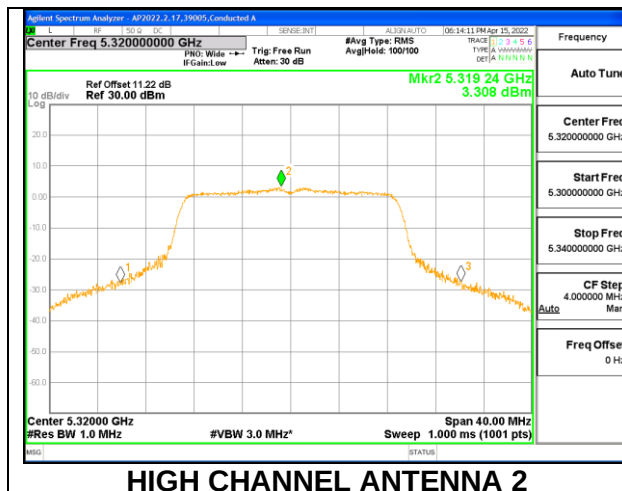
LOW CHANNEL



MID CHANNEL



HIGH CHANNEL



9.5.7. 802.11n HT40 MODE IN THE 5.3 GHz BAND

2TX Antenna 2 + Antenna 4 CDD MODE (FCC+IC)

Test Engineer:	RA39005
Test Date:	4/15/2022

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
Low	5270	40.72	35.900	5.26	8.27
High	5310	40.80	35.813	5.26	8.27

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC PSD Limit (dBm)	PPSD Limit (dBm)
Low	5270	24.00	24.00	30.00	24.00	8.73	11.00	8.73
High	5310	24.00	24.00	30.00	24.00	8.73	11.00	8.73

Duty Cycle CF (dB)	2.04	Included in Calculations of Corr'd PPSD
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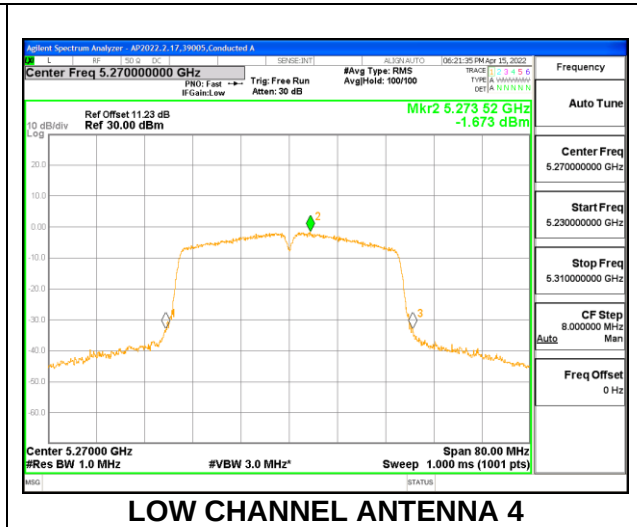
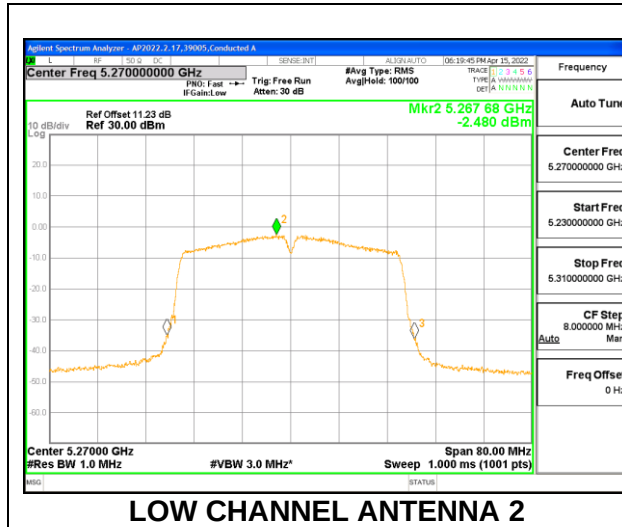
Output Power Results

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	5270	13.67	14.51	17.12	24.00	-6.88
High	5310	14.20	14.94	17.60	24.00	-6.40

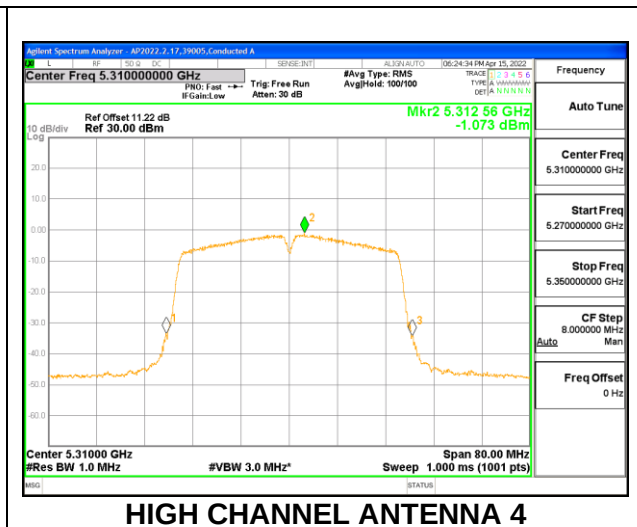
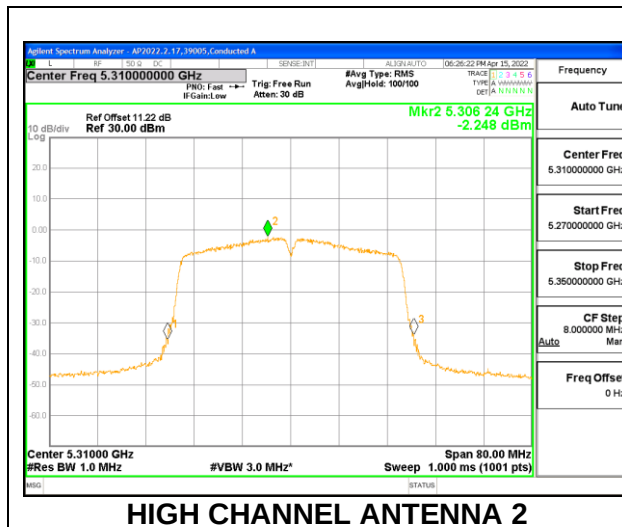
PPSD Results

Channel	Frequency (MHz)	Antenna 2 Meas PPSD (dBm/ 1MHz)	Antenna 4 Meas PPSD (dBm/ 1MHz)	Total Corr'd PPSD (dBm/ 1MHz)	PPSD Limit (dBm/ 1MHz)	PPSD Margin (dB)
Low	5270	-2.480	-1.673	2.99	8.73	-5.74
High	5310	-2.248	-1.073	3.43	8.73	-5.30

LOW CHANNEL



HIGH CHANNEL



9.5.8. 802.11ac VHT80 MODE IN THE 5.3 GHz BAND

2TX Antenna 2 + Antenna 4 CDD MODE (FCC+IC)

Test Engineer:	RA39005
Test Date:	4/15/2022

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PPSD (dBi)
Mid	5290	80.32	75.176	5.26	8.27

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC PSD Limit (dBm)	PPSD Limit (dBm)
Mid	5290	24.00	24.00	30.00	24.00	8.73	11.00	8.73

Duty Cycle CF (dB)	3.36	Included in Calculations of Corr'd PPSP
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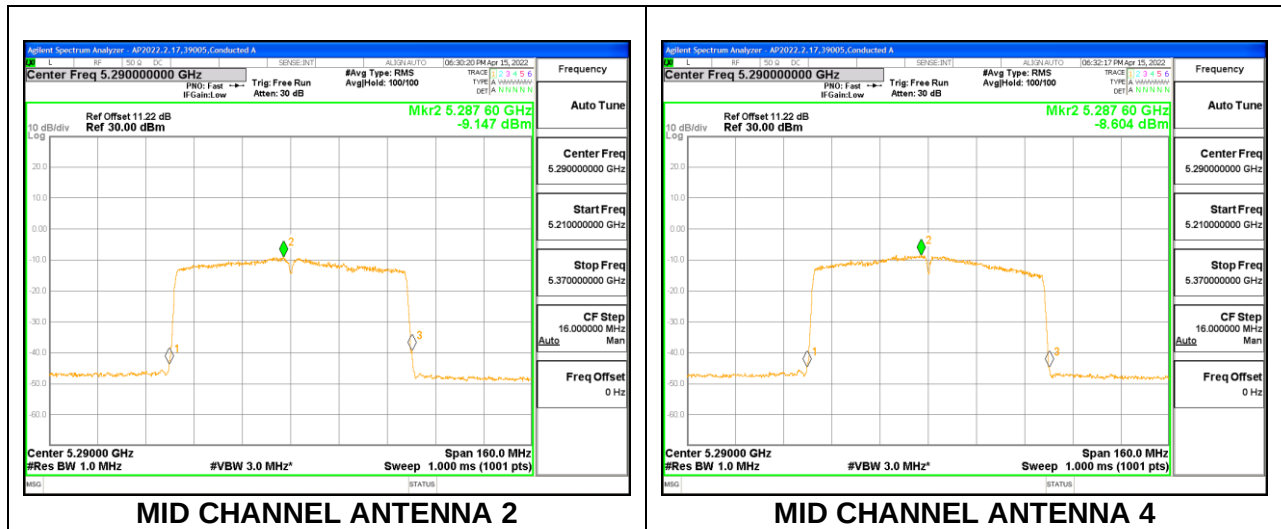
Output Power Results

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	5290	11.56	11.70	14.64	24.00	-9.36

PPSD Results

Channel	Frequency (MHz)	Antenna 2 Meas PPSD (dBm/ 1MHz)	Antenna 4 Meas PPSD (dBm/ 1MHz)	Total Corr'd PPSD (dBm/ 1MHz)	PPSD Limit (dBm/ 1MHz)	PPSD Margin (dB)
Mid	5290	-9.147	-8.604	-2.50	8.73	-11.23

MID CHANNEL



9.5.9. 802.11a MODE IN THE 5.6 GHz BAND

2TX Antenna 2 + Antenna 4 CDD MODE (FCC+IC)

Test Engineer:	RA39005
Test Date:	4/18/2022

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)
Low	5500	25.48	16.755	5.51	8.49
Mid	5580	25.56	16.699	5.51	8.49
High	5700	25.12	16.799	5.51	8.49

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	ISED Power Limit (dBm)	ISED EIRP Limit (dBm)	Power Limit (dBm)	FCC PSD Limit (dBm/1MHz)	ISED PSD Limit (dBm/1MHz)
Low	5500	24.00	23.24	29.24	23.24	8.51	11.00
Mid	5580	24.00	23.23	29.23	23.23	8.51	11.00
High	5700	24.00	23.25	29.25	23.25	8.51	11.00

Duty Cycle CF (dB)	1.04	Included in Calculations of Corr'd PSD
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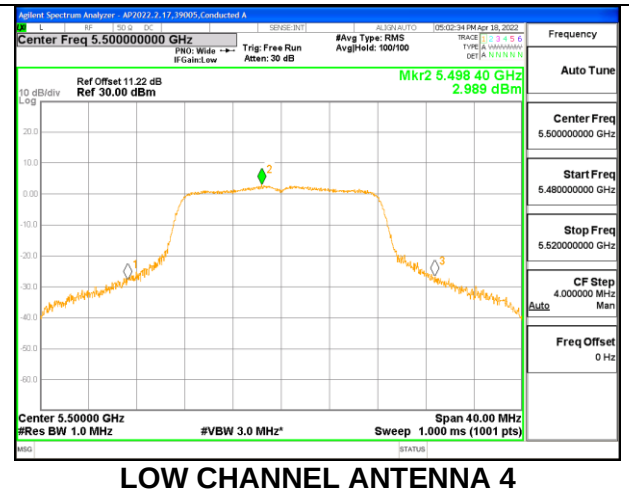
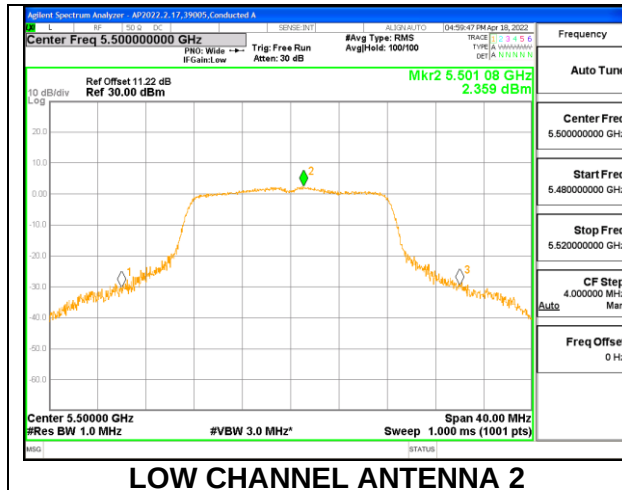
Output Power Results

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	5500	15.45	16.02	18.75	23.24	-4.49
Mid	5580	15.68	15.88	18.79	23.23	-4.44
High	5700	15.82	16.01	18.93	23.25	-4.33

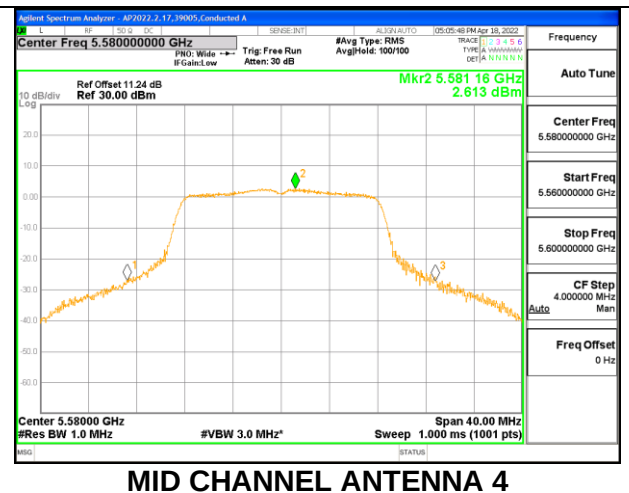
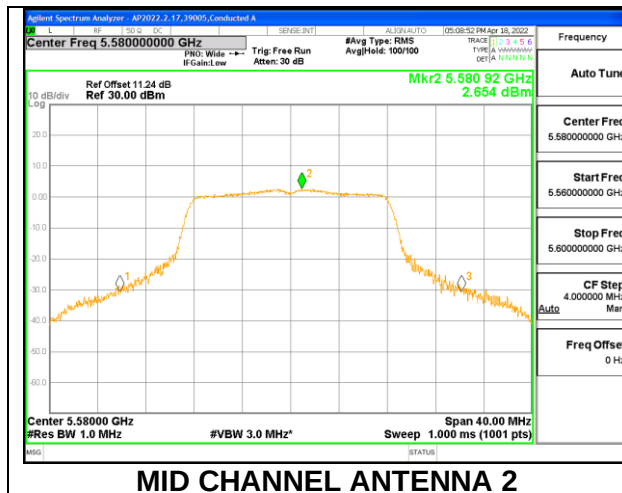
PSD Results

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	5500	2.359	2.989	6.736	8.51	-1.77
Mid	5580	2.654	2.613	6.684	8.51	-1.83
High	5700	3.417	3.825	7.676	8.51	-0.83

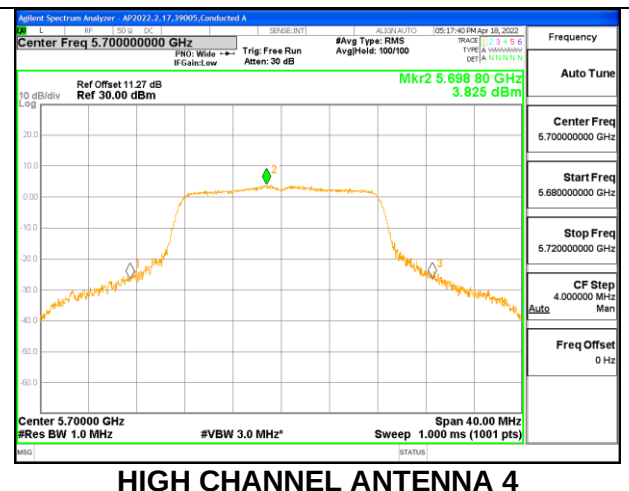
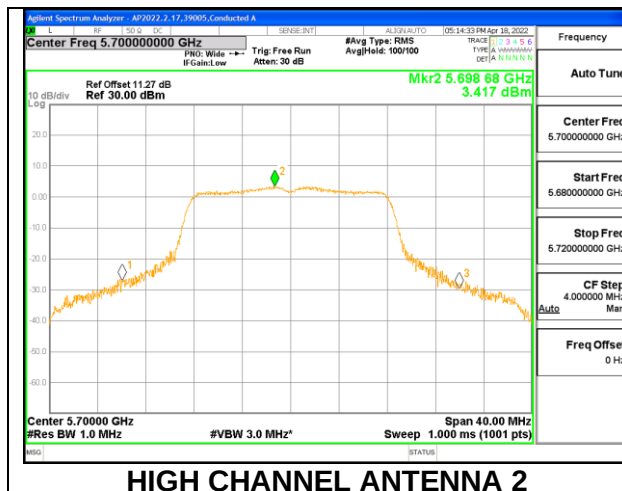
LOW CHANNEL



MID CHANNEL



HIGH CHANNEL



9.5.10. 802.11n HT20 MODE IN THE 5.6 GHz BAND

2TX Antenna 2 + Antenna 4 CDD MODE (FCC+IC)

Test Engineer:	RA39005
Test Date:	4/18/2022

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)
Low	5500	25.16	17.866	5.51	8.49
Mid	5580	25.12	17.768	5.51	8.49
High	5700	14.80	17.779	5.51	8.49

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	ISED Power Limit (dBm)	ISED EIRP Limit (dBm)	Power Limit (dBm)	FCC PSD Limit (dBm/ 1MHz)	ISED PSD Limit (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)
Low	5500	24.00	23.52	29.52	23.52	8.51	11.00	8.51
Mid	5580	24.00	23.50	29.50	23.50	8.51	11.00	8.51
High	5700	22.70	23.50	29.50	22.70	8.51	11.00	8.51

Duty Cycle CF (dB)	1.11	Included in Calculations of Corr'd PSD
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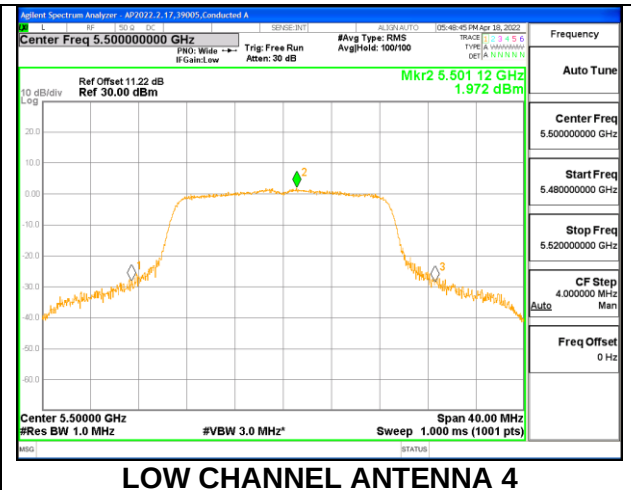
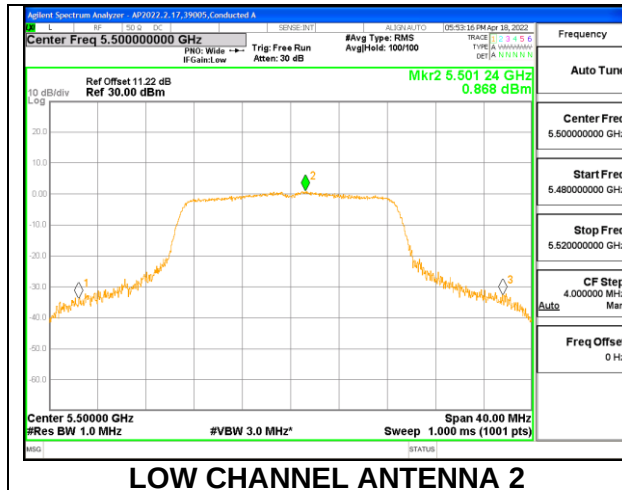
Output Power Results

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	5500	14.25	15.01	17.66	23.52	-5.86
Mid	5580	15.50	15.92	18.73	23.50	-4.77
High	5700	15.68	16.14	18.93	22.70	-3.78

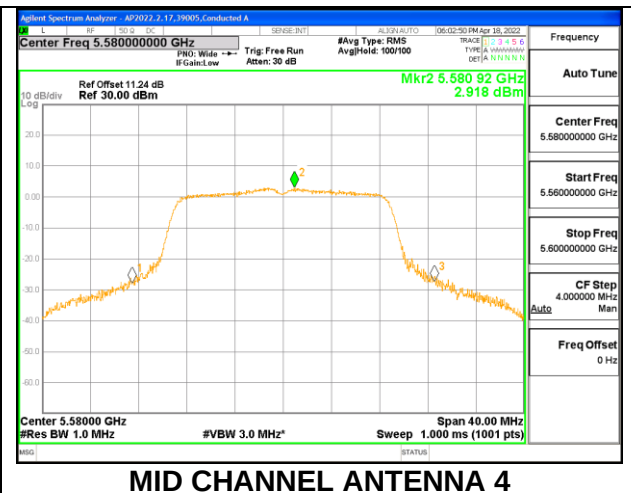
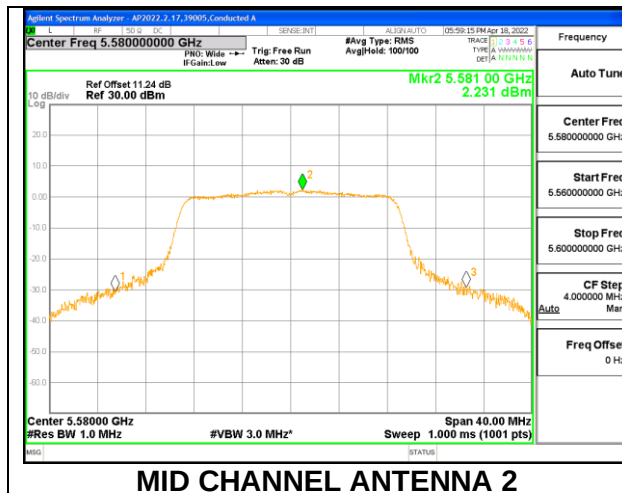
PSD Results

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	5500	0.868	1.972	5.575	8.51	-2.93
Mid	5580	2.231	2.918	6.708	8.51	-1.80
High	5700	3.653	3.732	7.813	8.51	-0.70

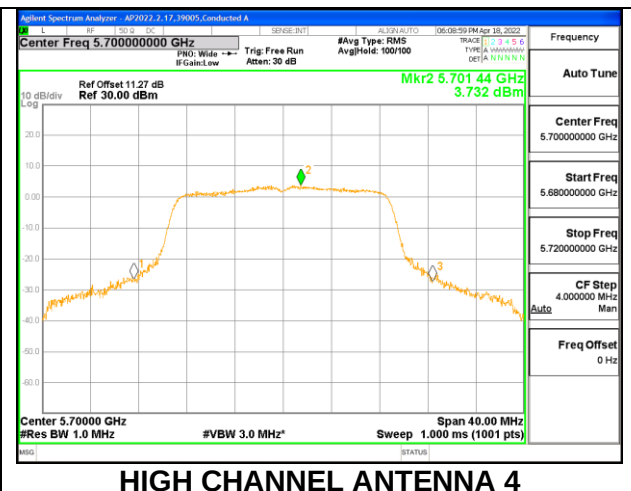
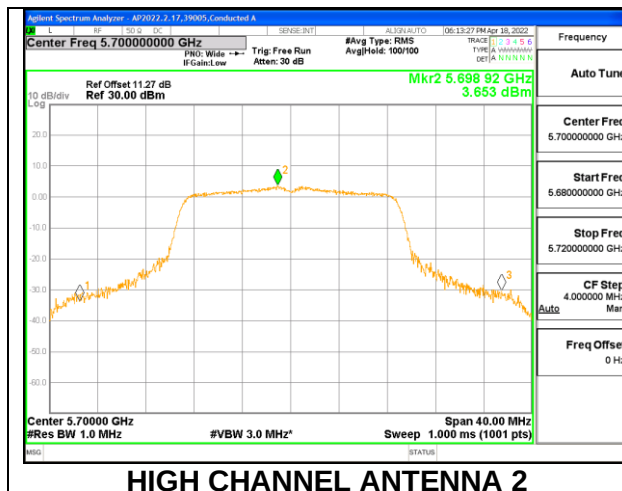
LOW CHANNEL



MID CHANNEL



HIGH CHANNEL



9.5.11. 802.11n HT40 MODE IN THE 5.6 GHz BAND

2TX Antenna 2 + Antenna 4 CDD MODE (FCC+IC)

Test Engineer:	RA39005
Test Date:	4/18/2022

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)
Low	5510	40.4800	35.7000	5.51	8.49
Mid	5550	40.6400	35.7790	5.51	8.49
High	5670	40.4800	35.7450	5.51	8.49

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	ISED Power Limit (dBm)	ISED EIRP Limit (dBm)	Power Limit (dBm)	FCC PSD Limit (dBm/ 1MHz)	ISED PSD Limit (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)
Low	5510	24.00	24.00	30.00	24.00	8.51	11.00	8.51
Mid	5550	24.00	24.00	30.00	24.00	8.51	11.00	8.51
High	5670	24.00	24.00	30.00	24.00	8.51	11.00	8.51

Duty Cycle CF (dB)	2.04	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	5510	13.01	14.00	16.54	24.00	-7.46
Mid	5550	14.82	16.28	18.62	24.00	-5.38
High	5670	15.45	15.57	18.52	24.00	-5.48

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	5510	-4.157	-3.436	1.27	8.51	-7.24
Mid	5550	-1.882	-0.584	3.87	8.51	-4.64
High	5670	-1.022	0.013	4.58	8.51	-3.93