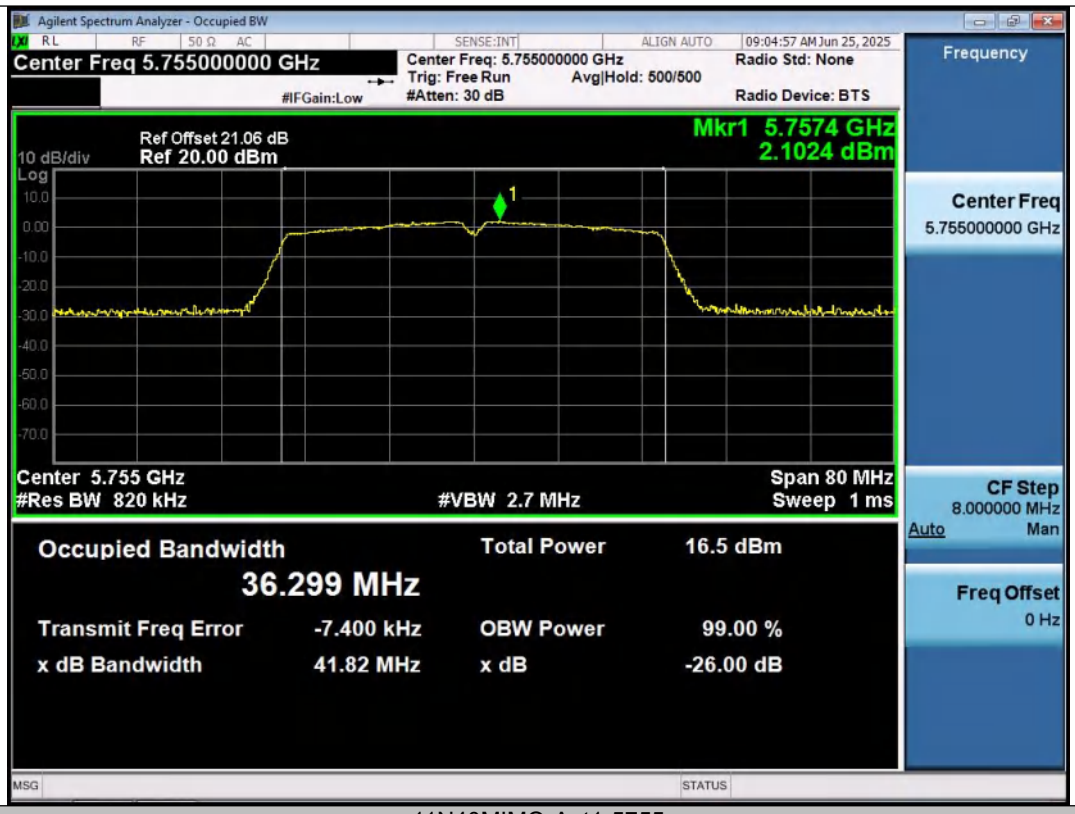
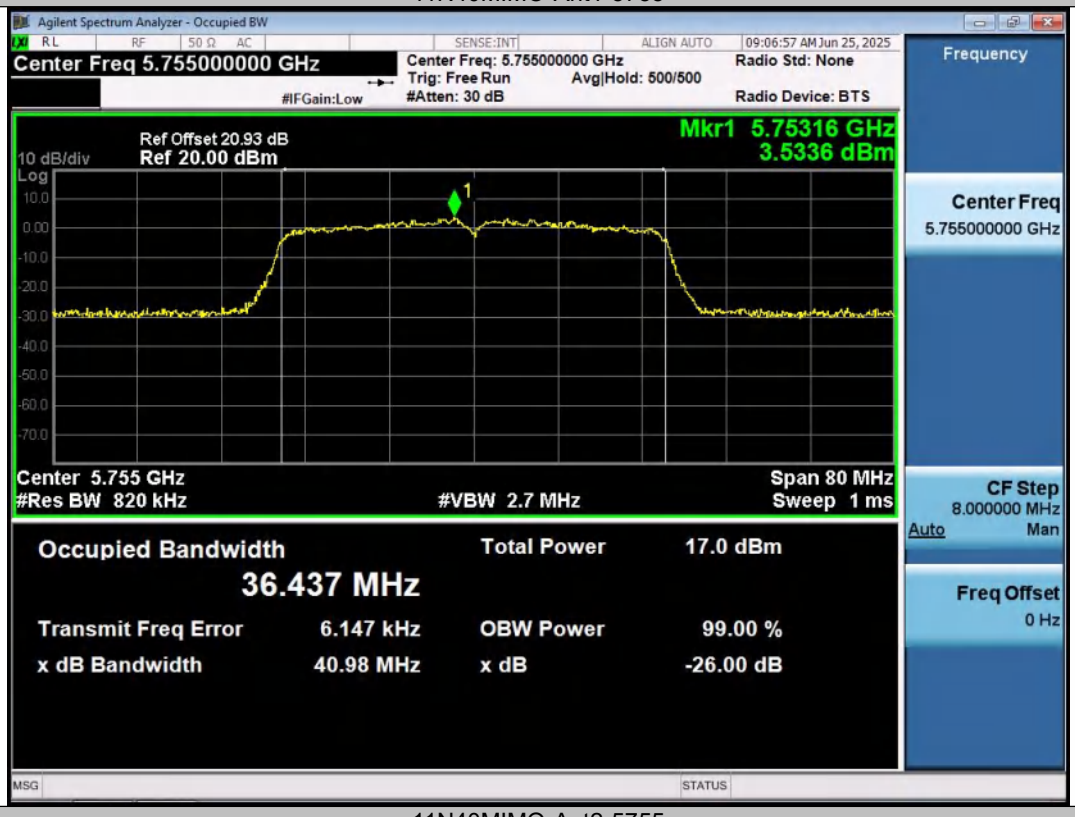
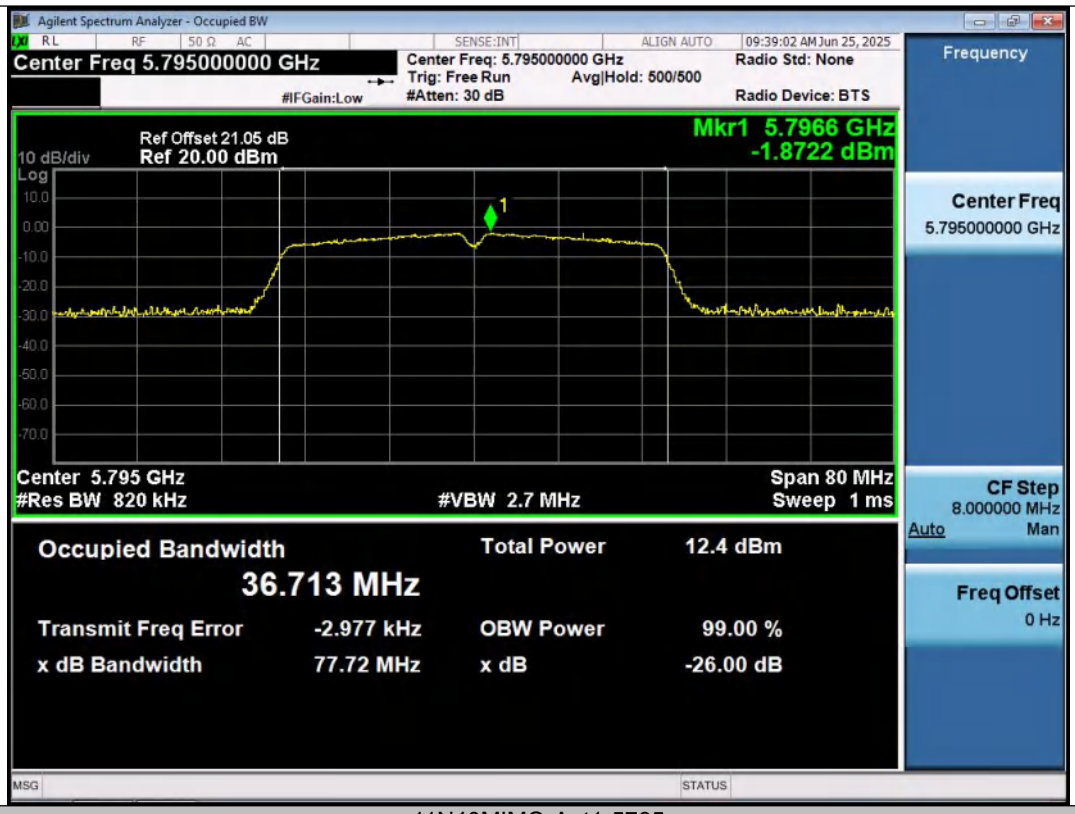


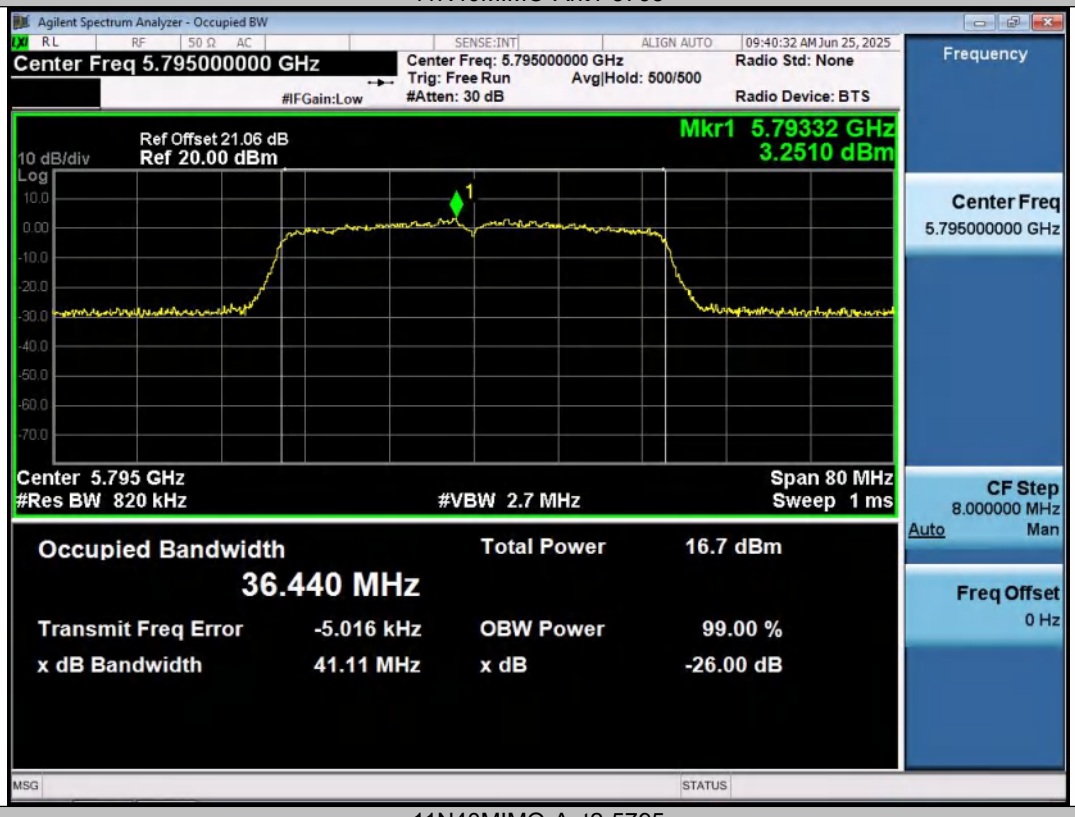
11N40MIMO-Ant1-5755



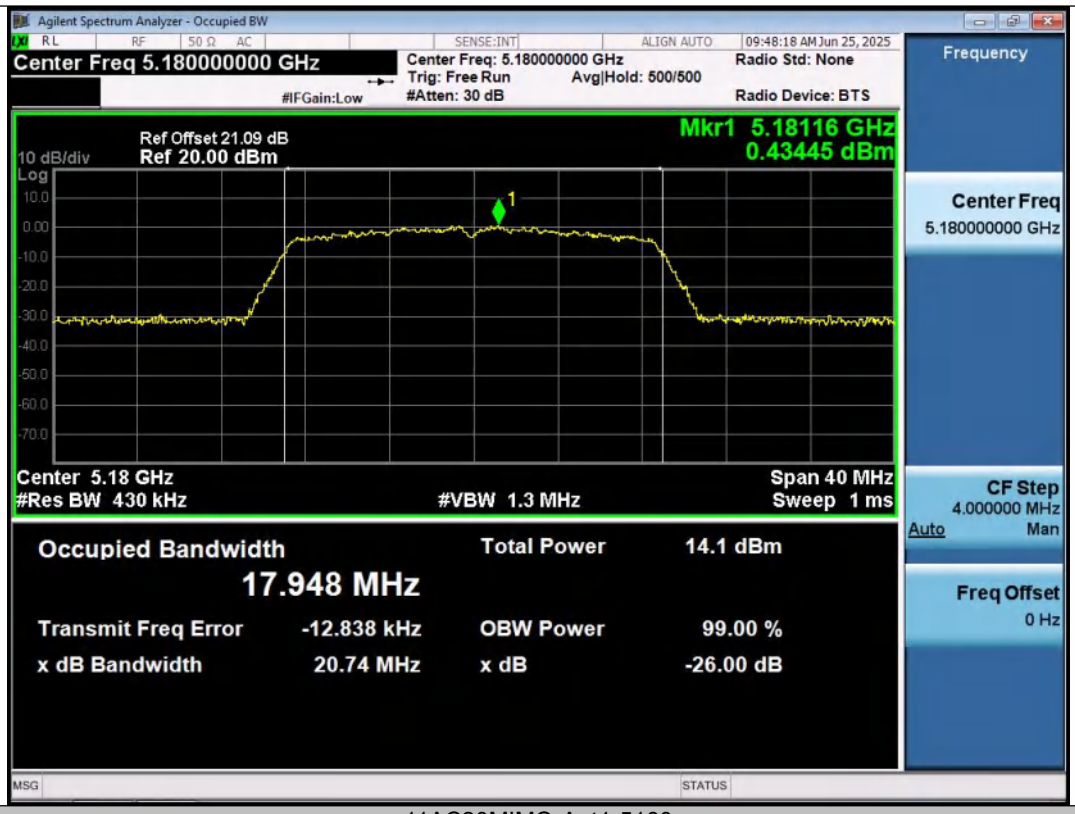
11N40MIMO-Ant2-5755



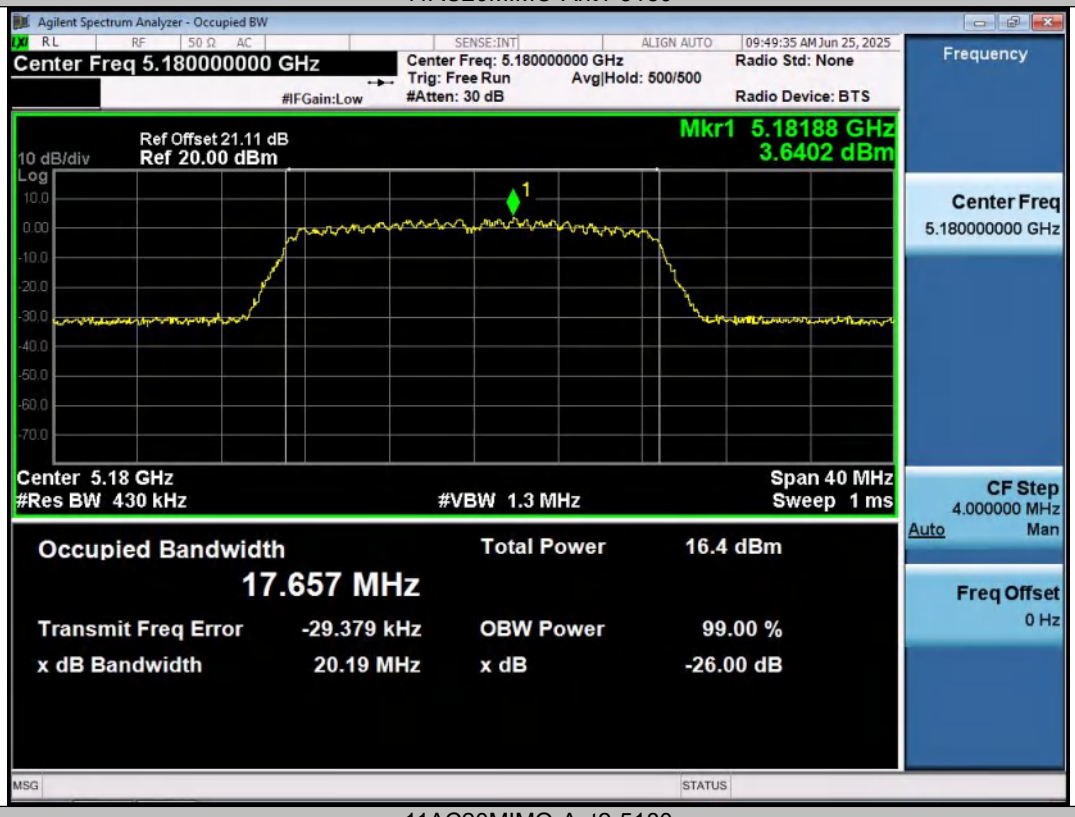
11N40MIMO-Ant1-5795



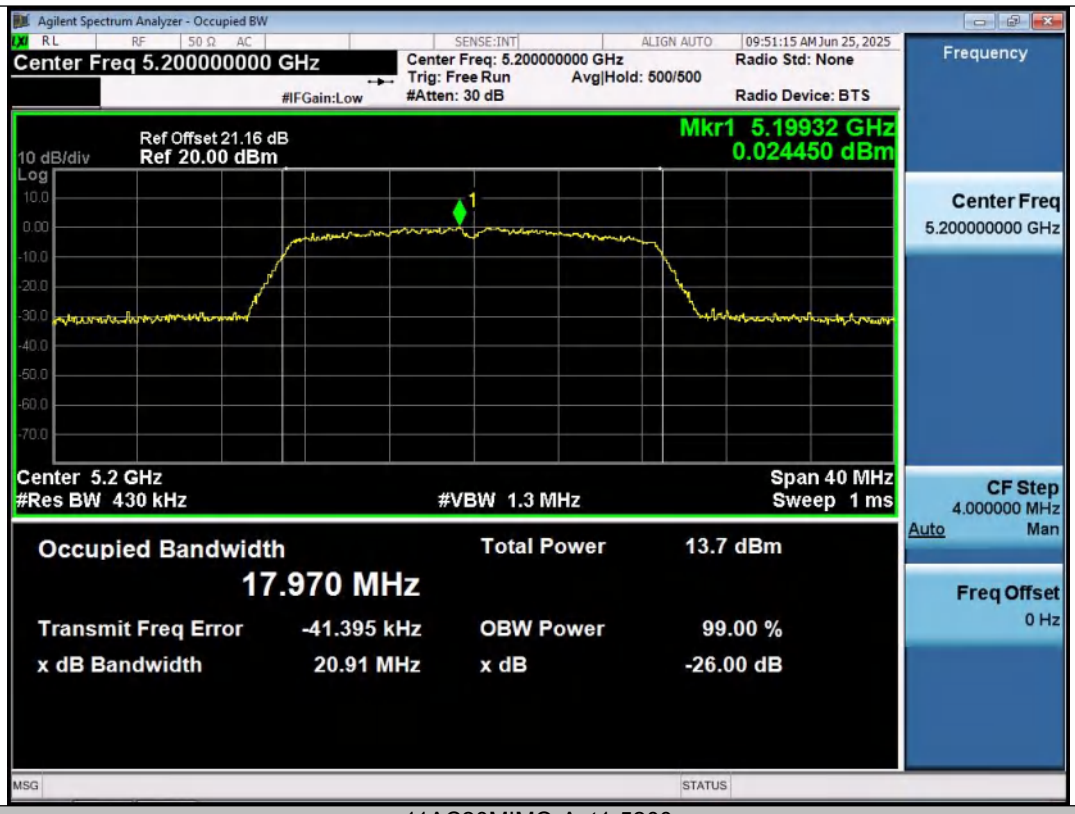
11N40MIMO-Ant2-5795



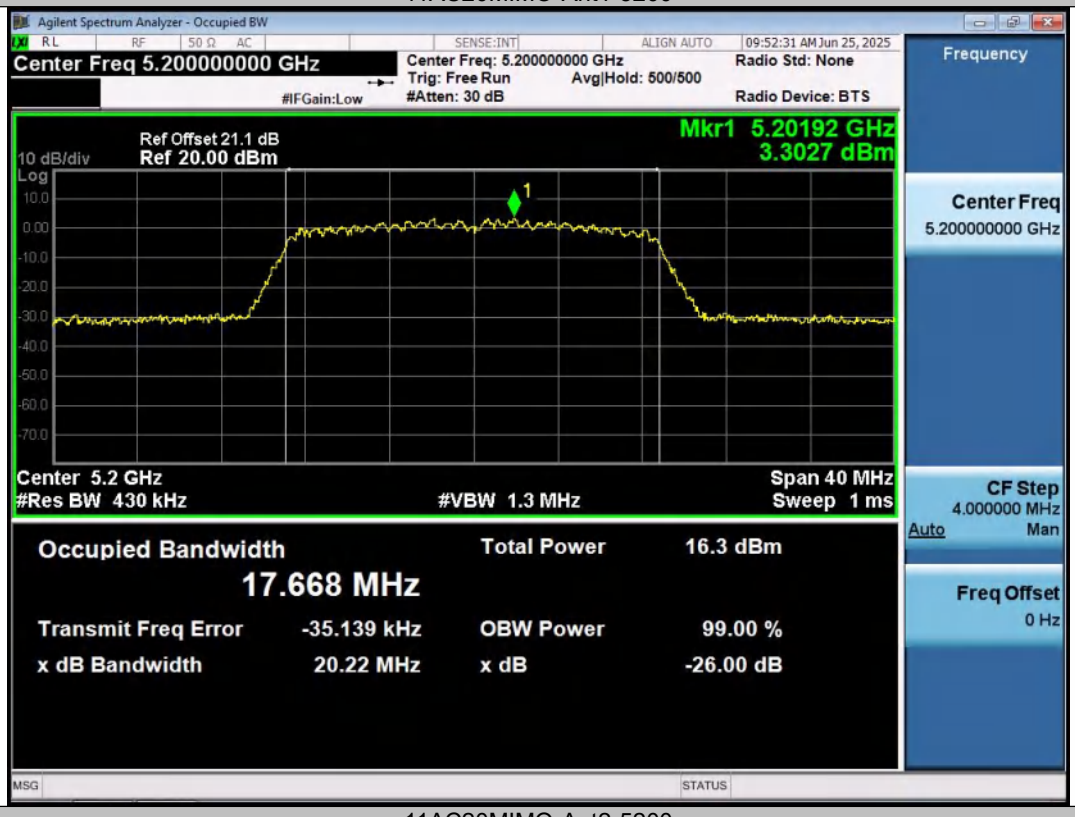
11AC20MIMO-Ant1-5180



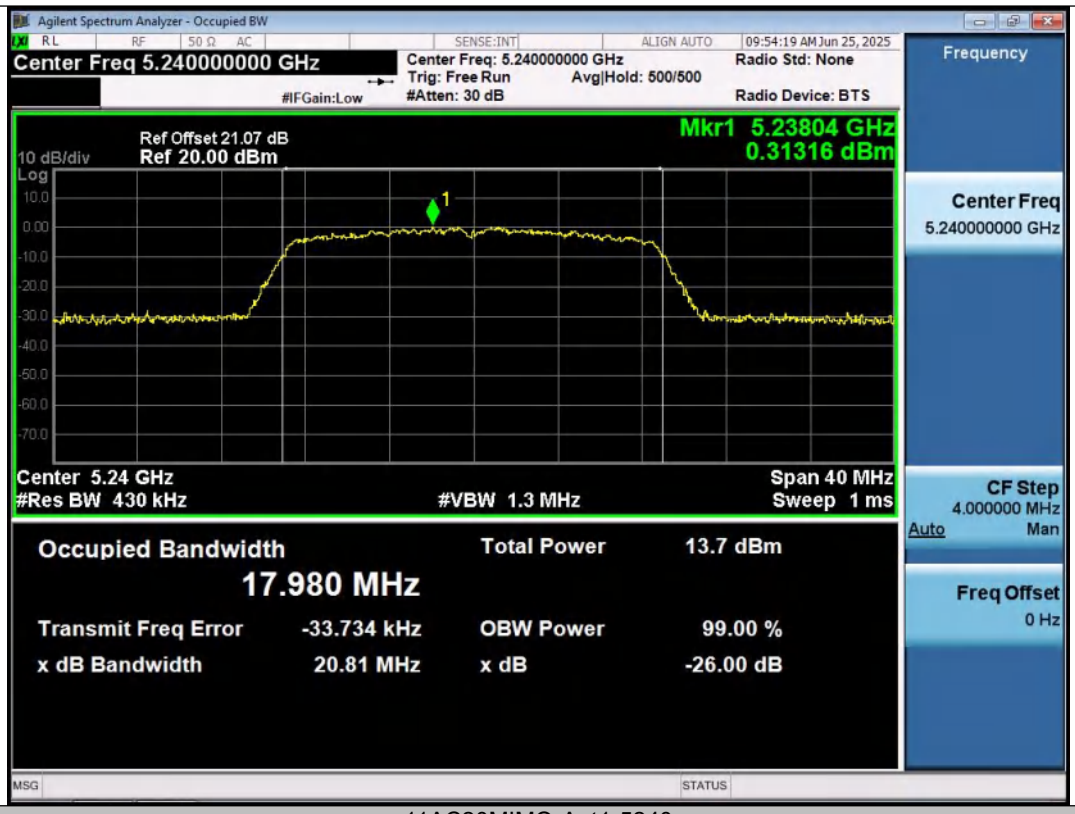
11AC20MIMO-Ant2-5180



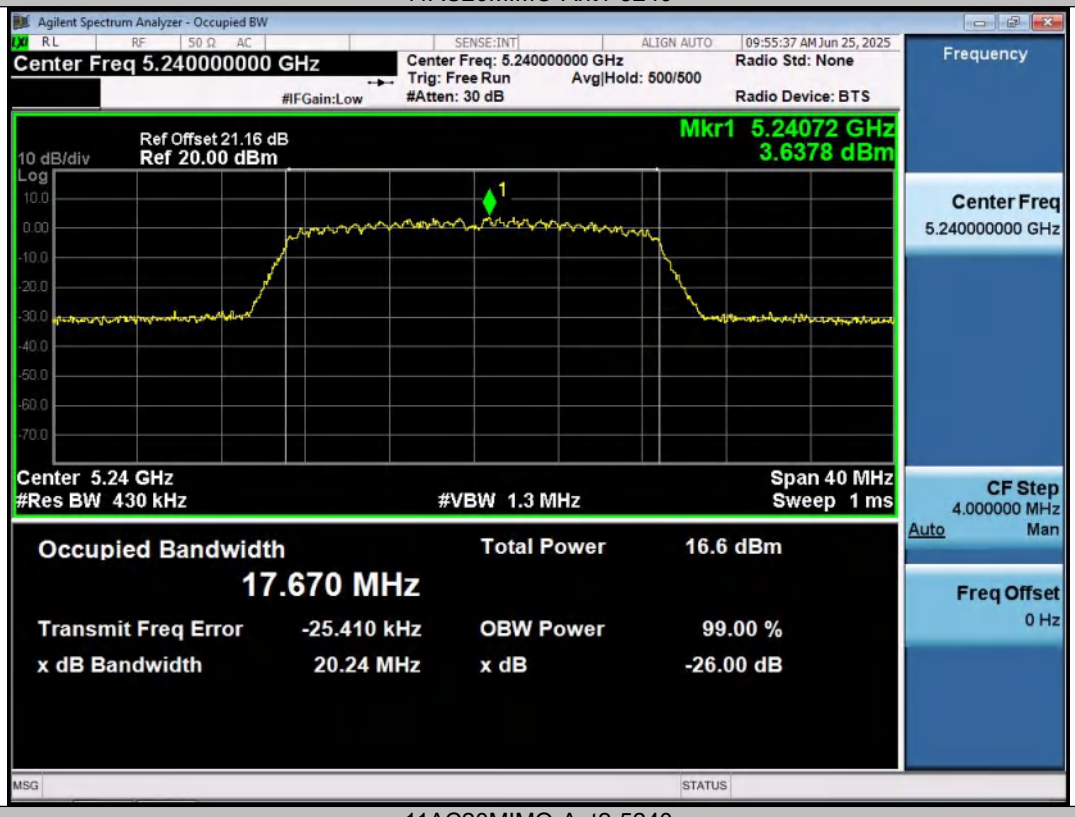
11AC20MIMO-Ant1-5200



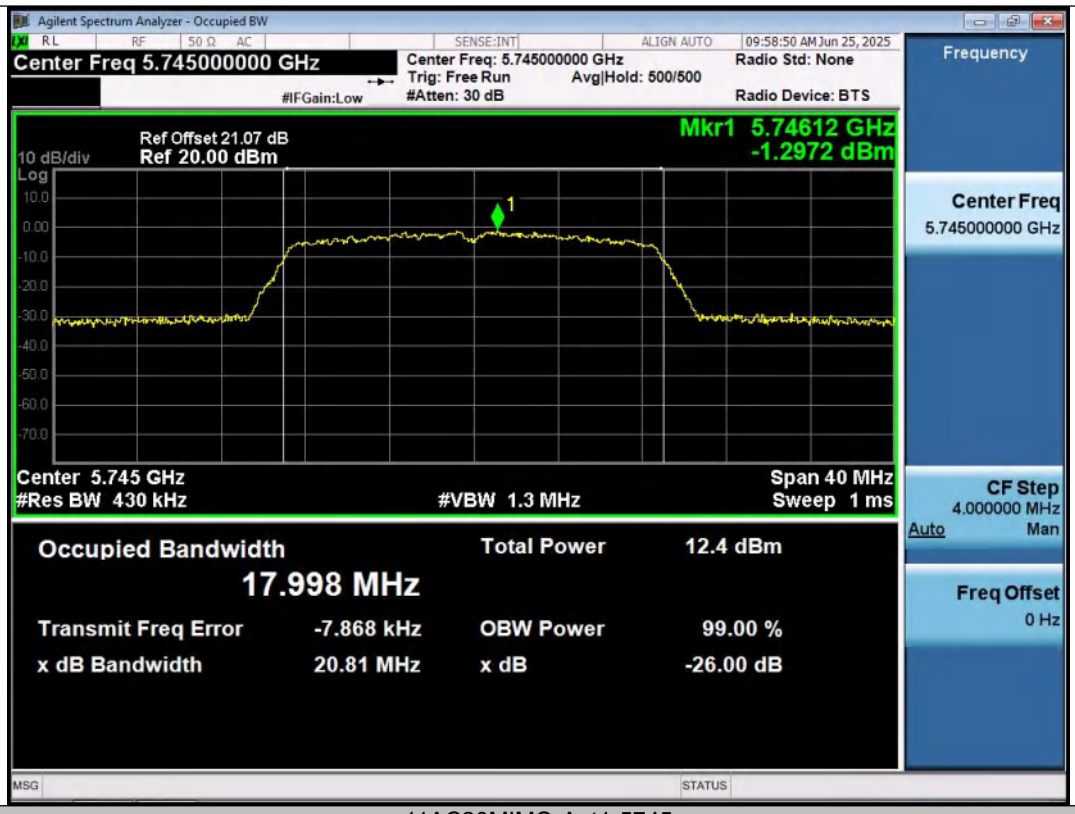
11AC20MIMO-Ant2-5200



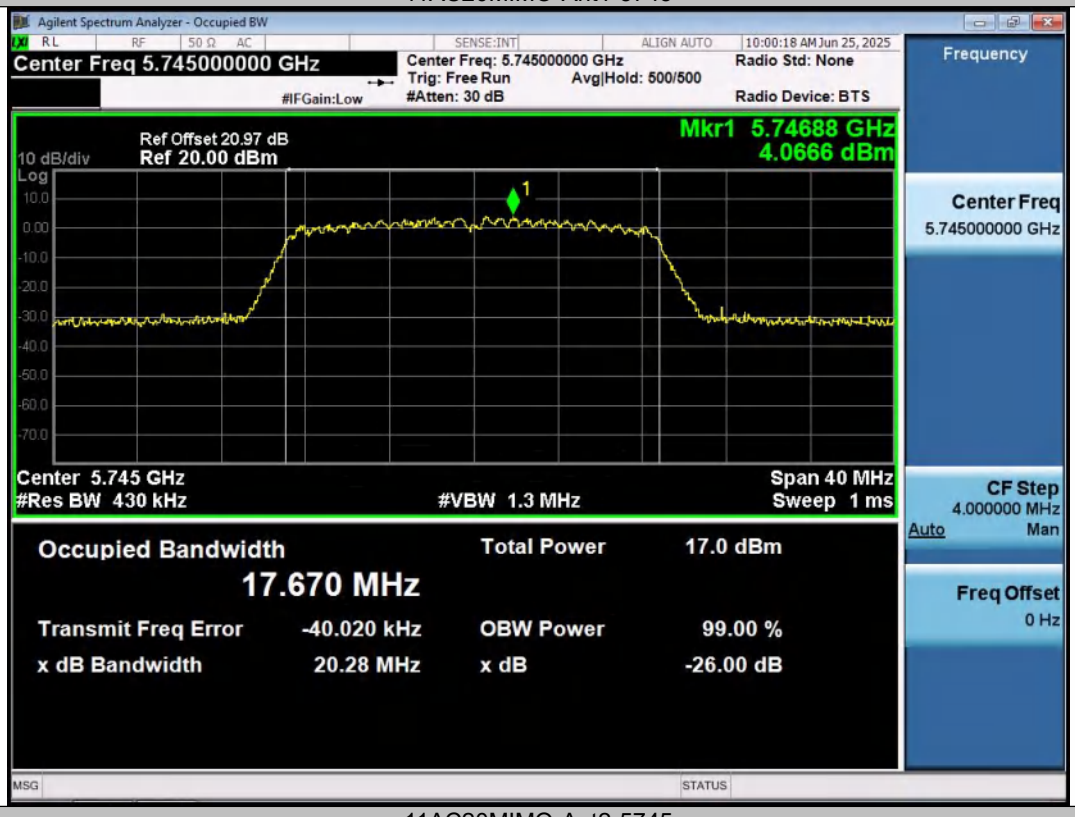
11AC20MIMO-Ant1-5240



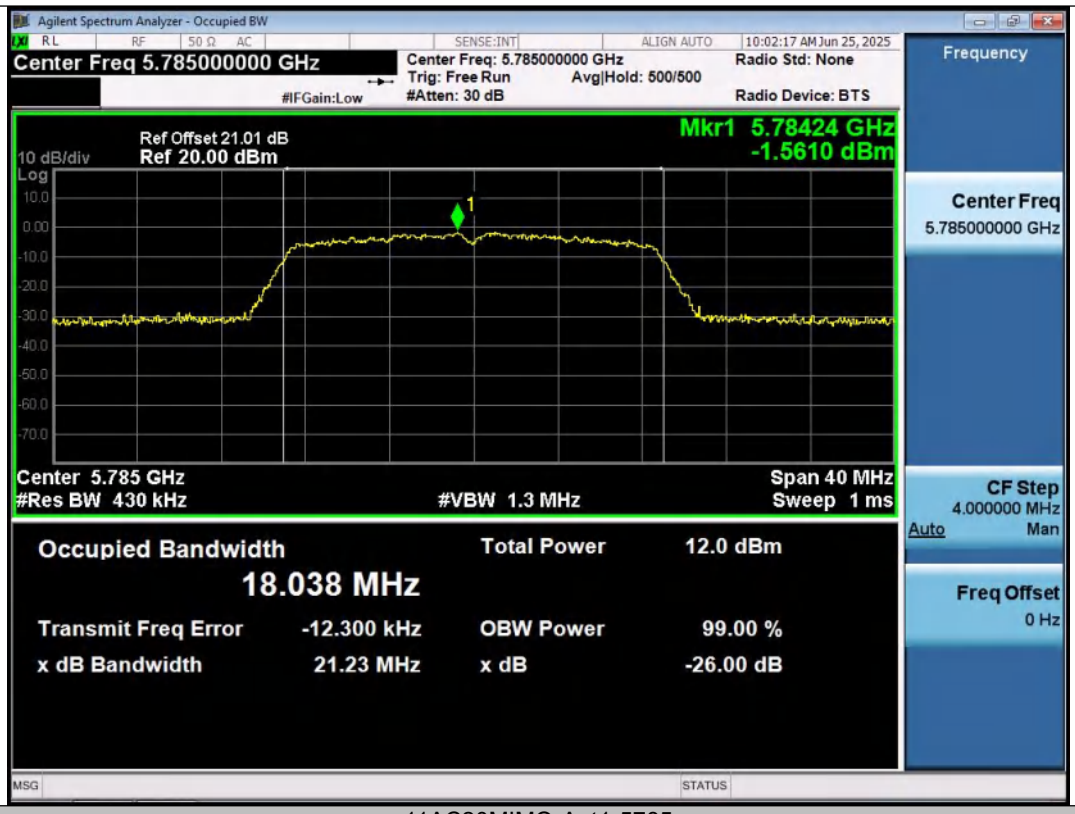
11AC20MIMO-Ant2-5240



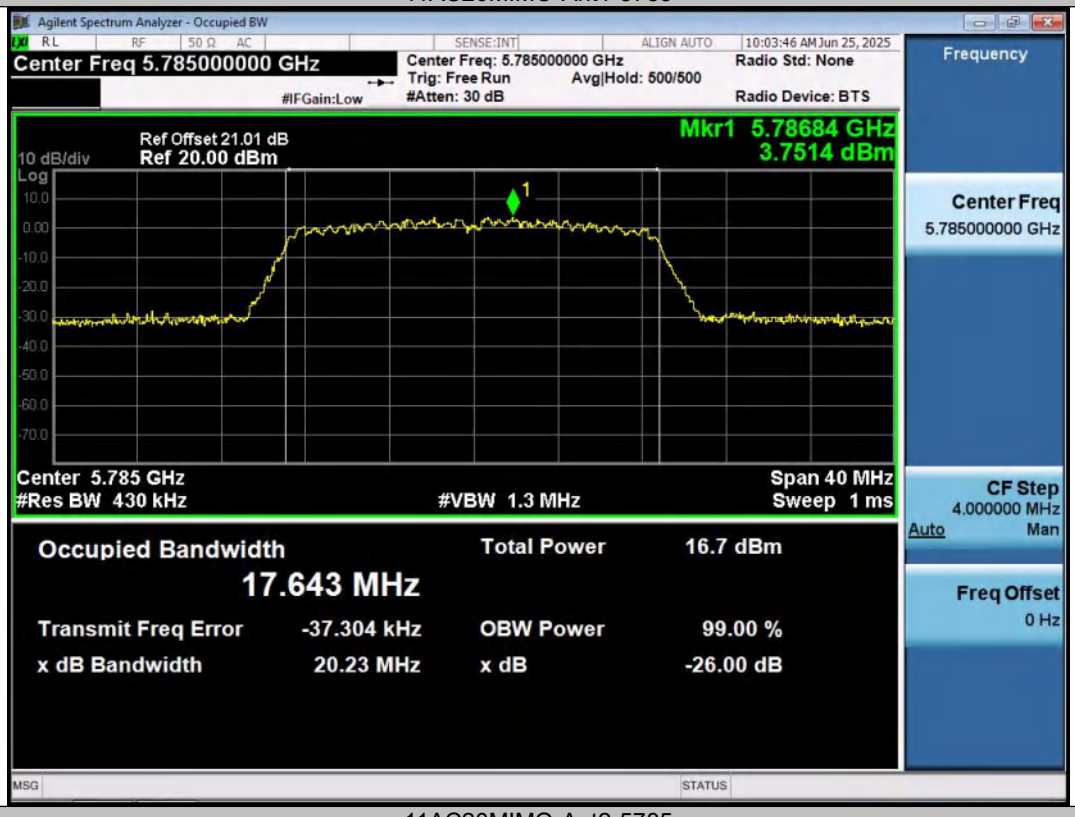
11AC20MIMO-Ant1-5745



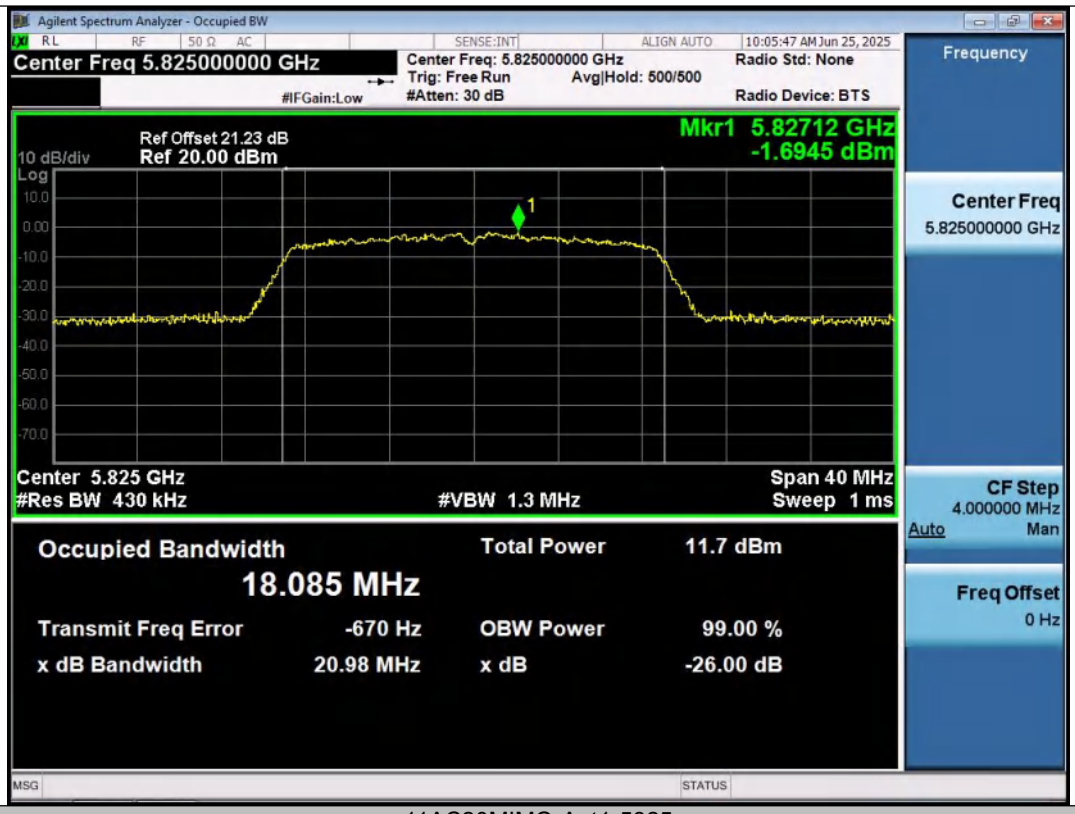
11AC20MIMO-Ant2-5745



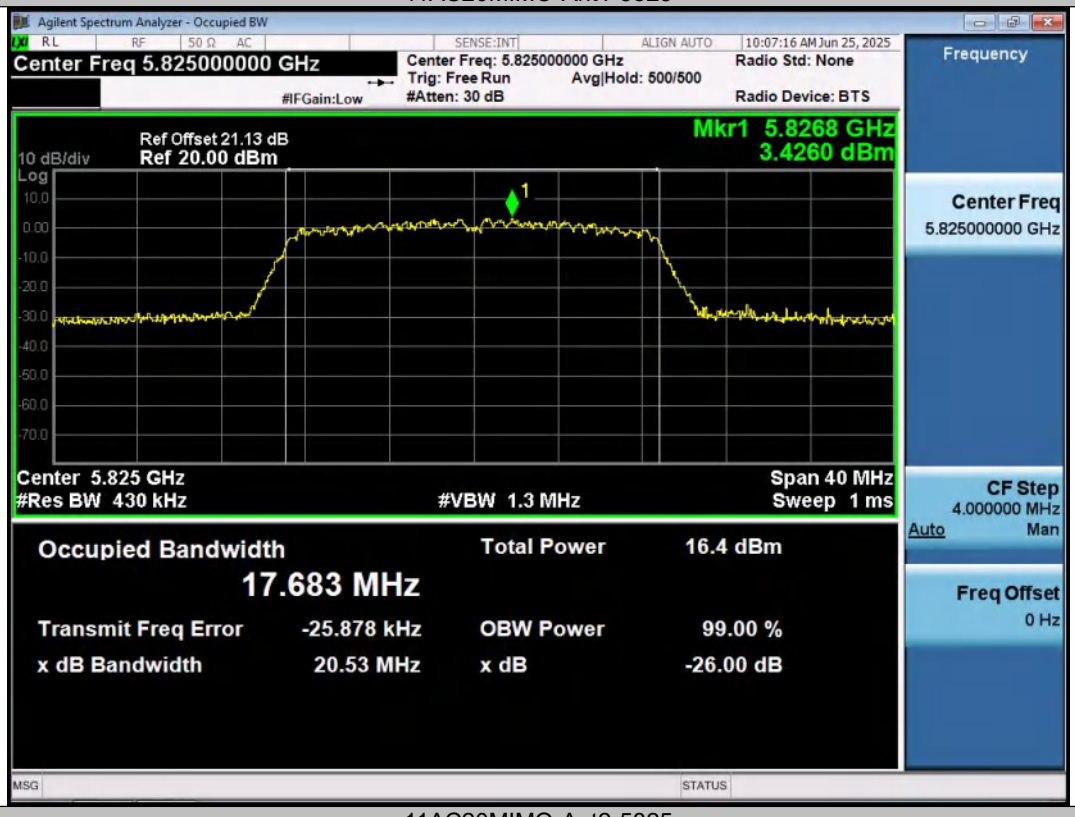
11AC20MIMO-Ant1-5785



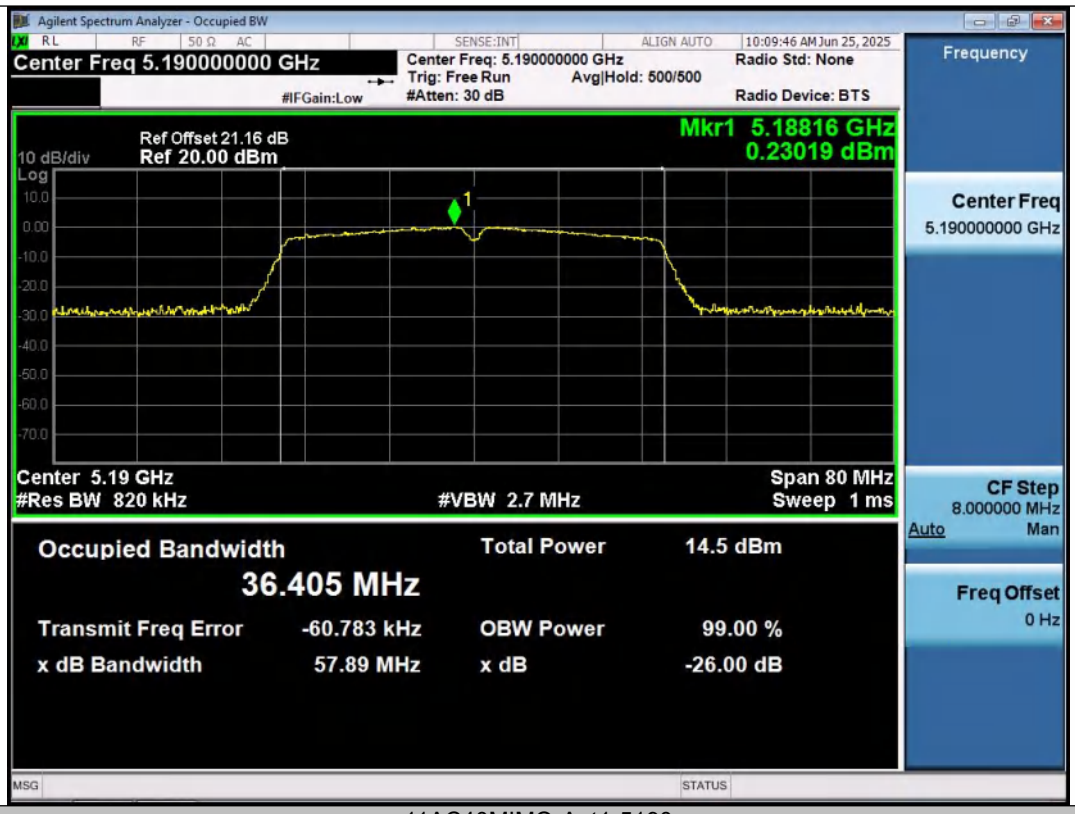
11AC20MIMO-Ant2-5785



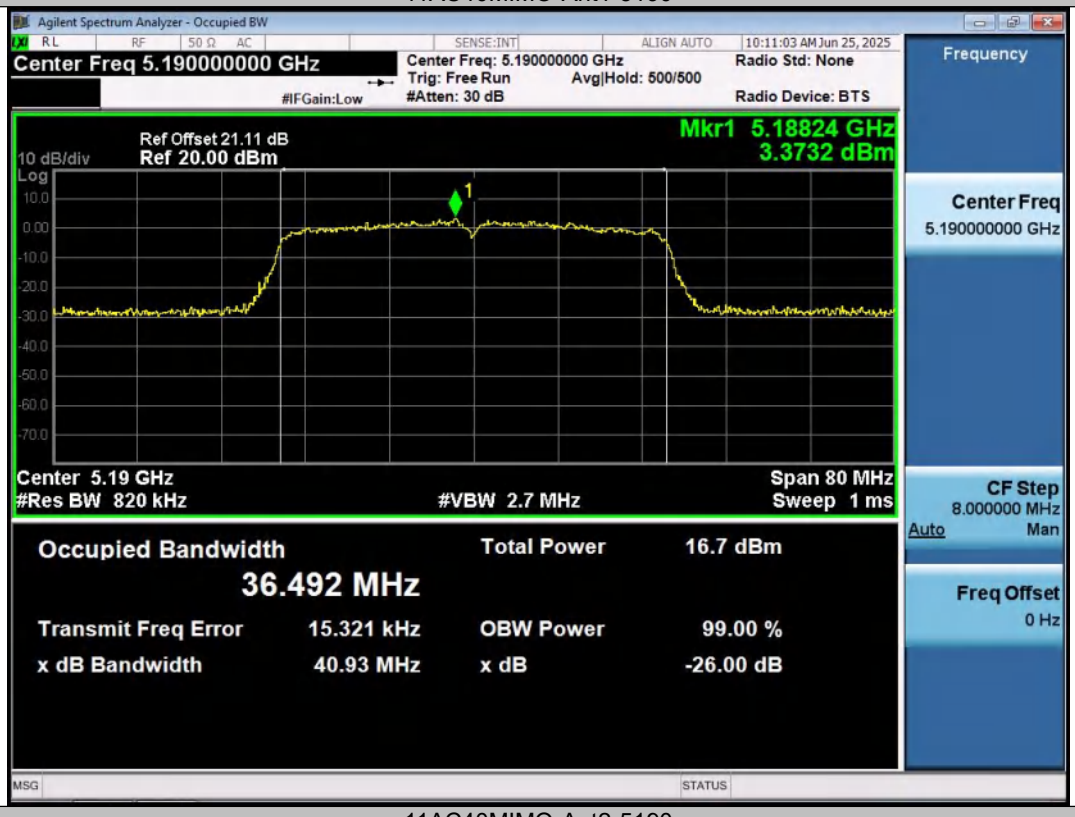
11AC20MIMO-Ant1-5825



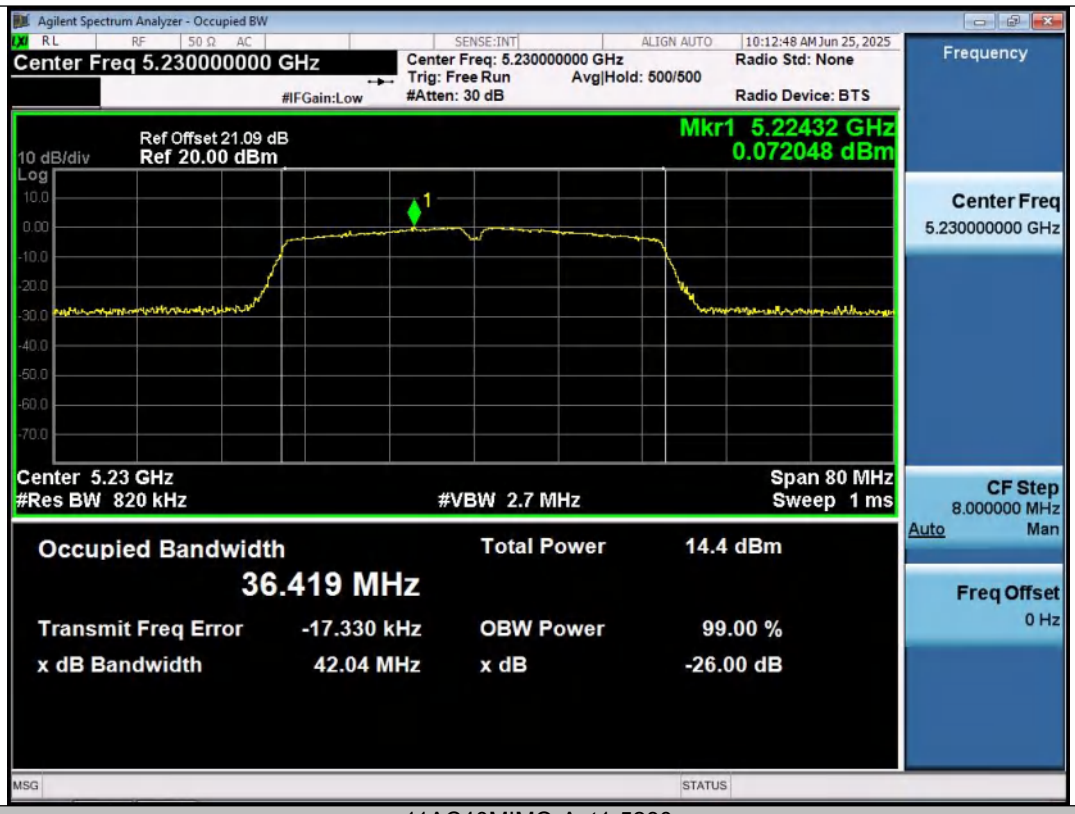
11AC20MIMO-Ant2-5825



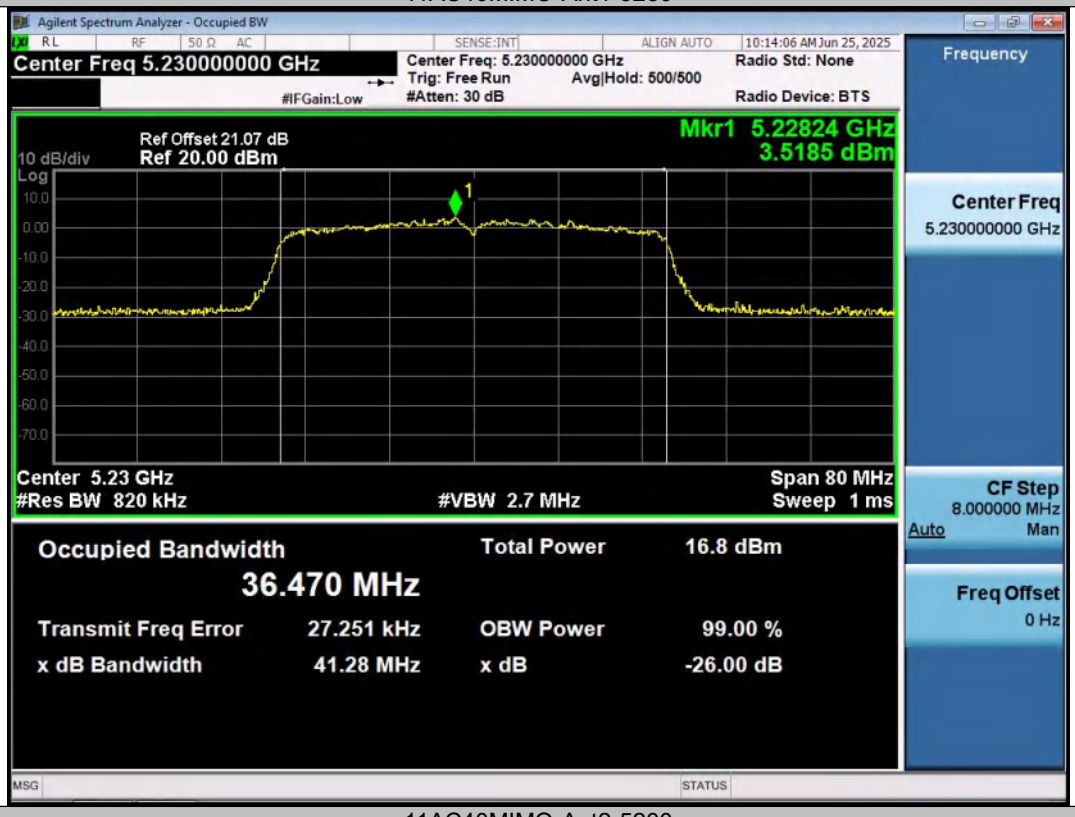
11AC40MIMO-Ant1-5190



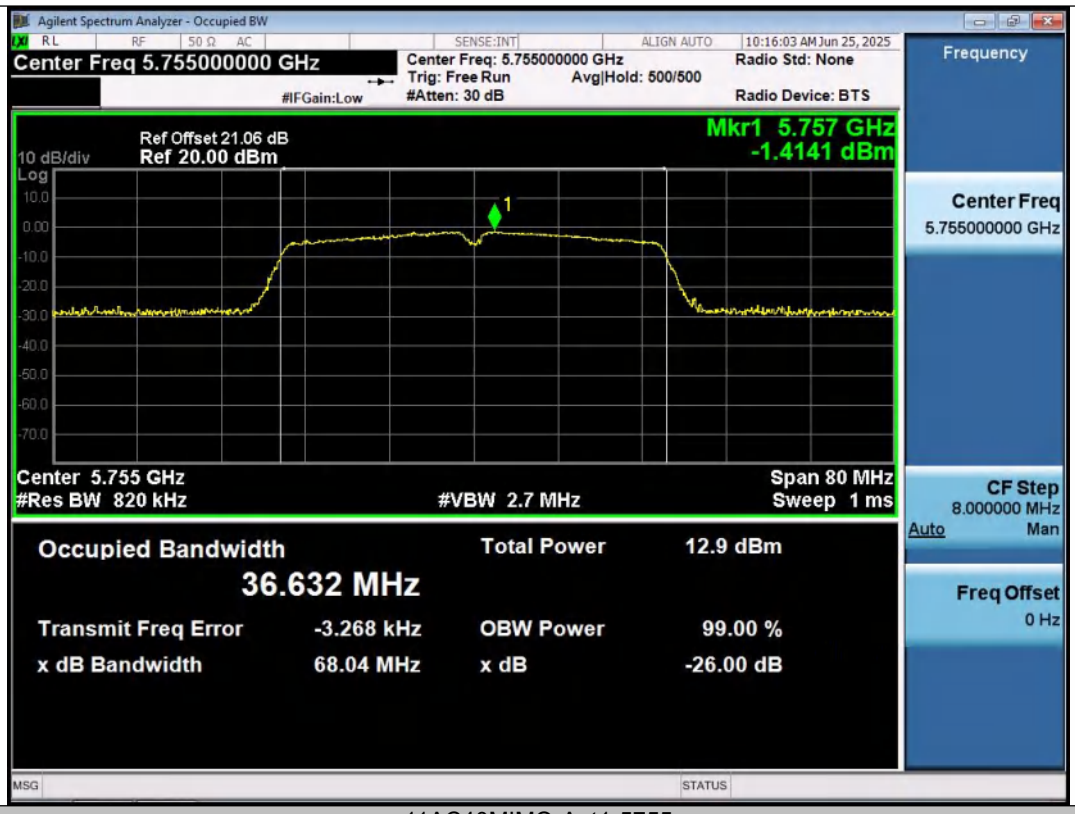
11AC40MIMO-Ant2-5190



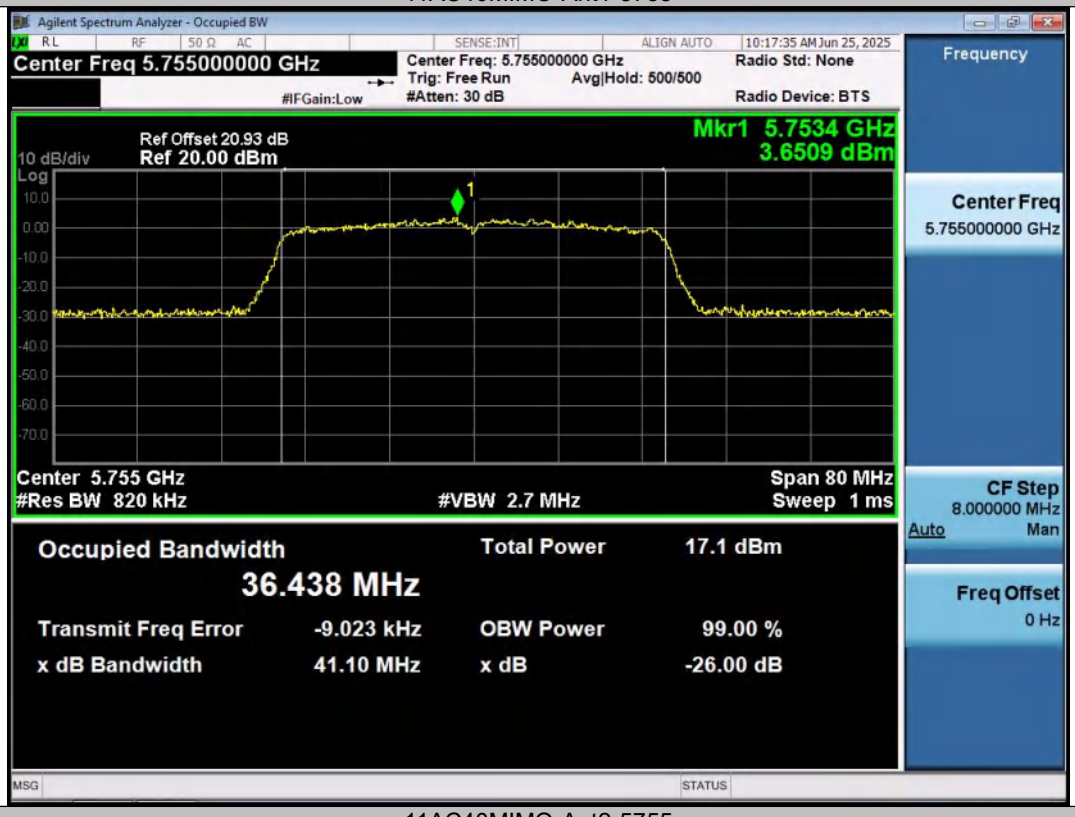
11AC40MIMO-Ant1-5230



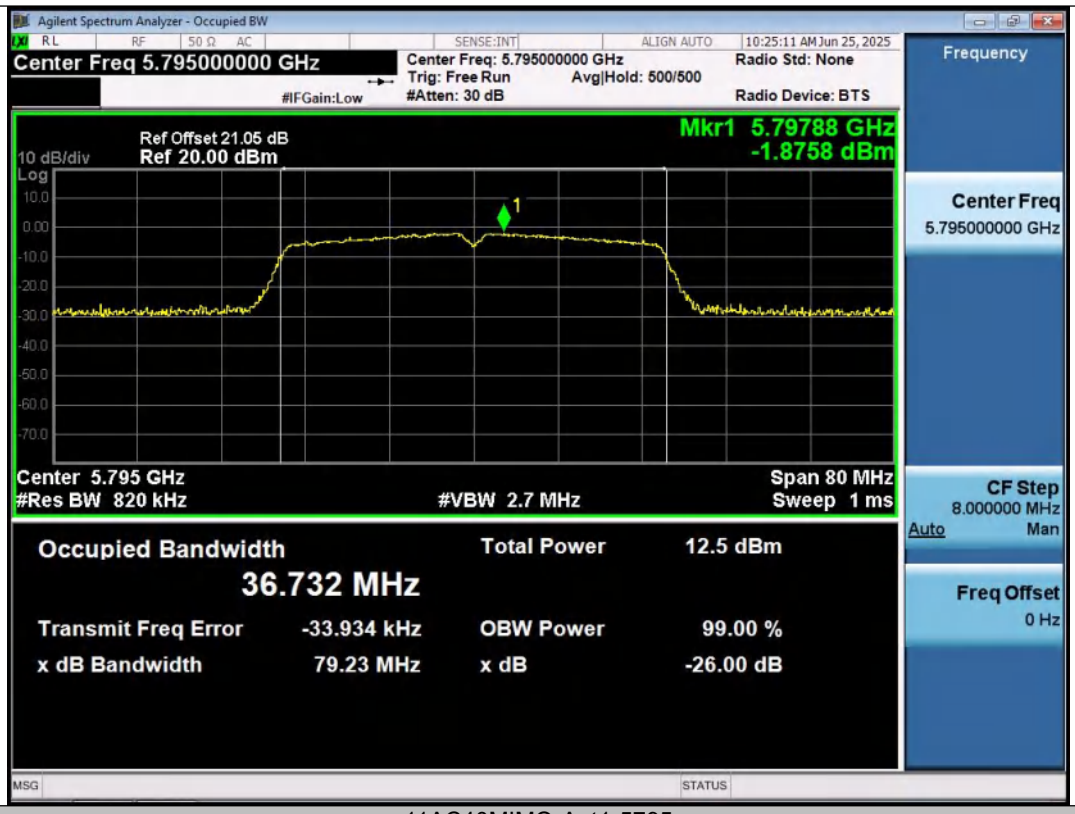
11AC40MIMO-Ant2-5230



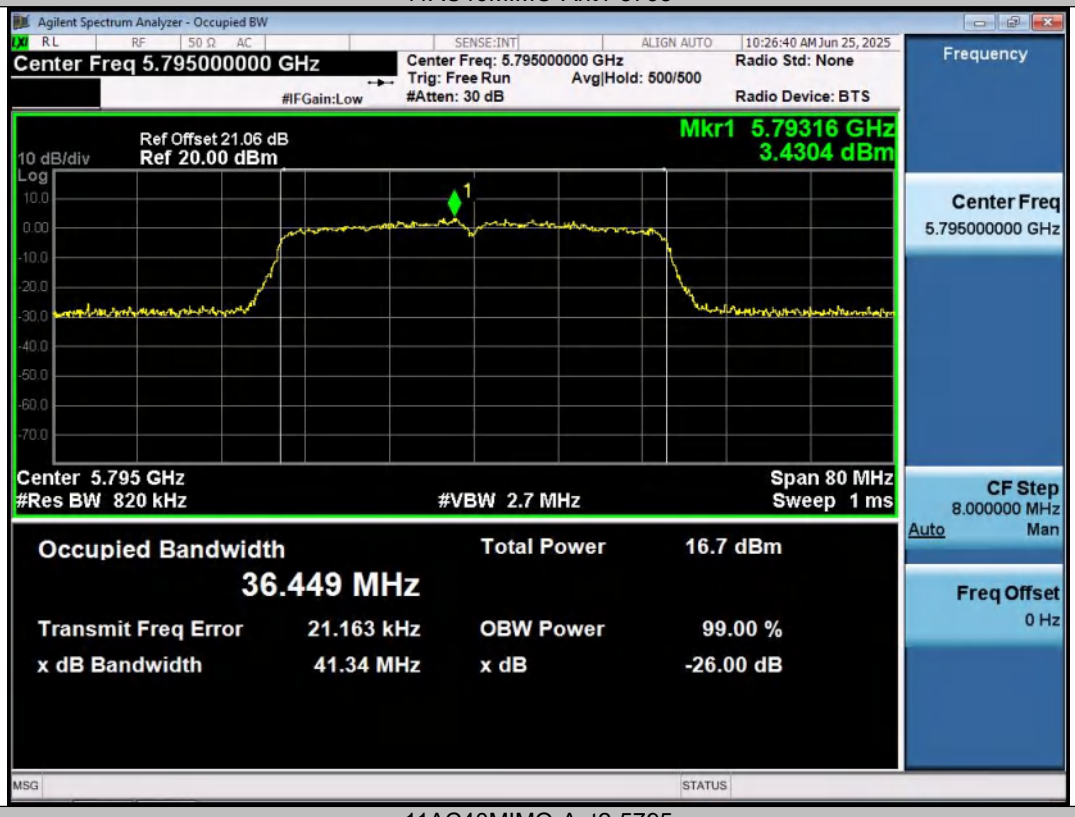
11AC40MIMO-Ant1-5755



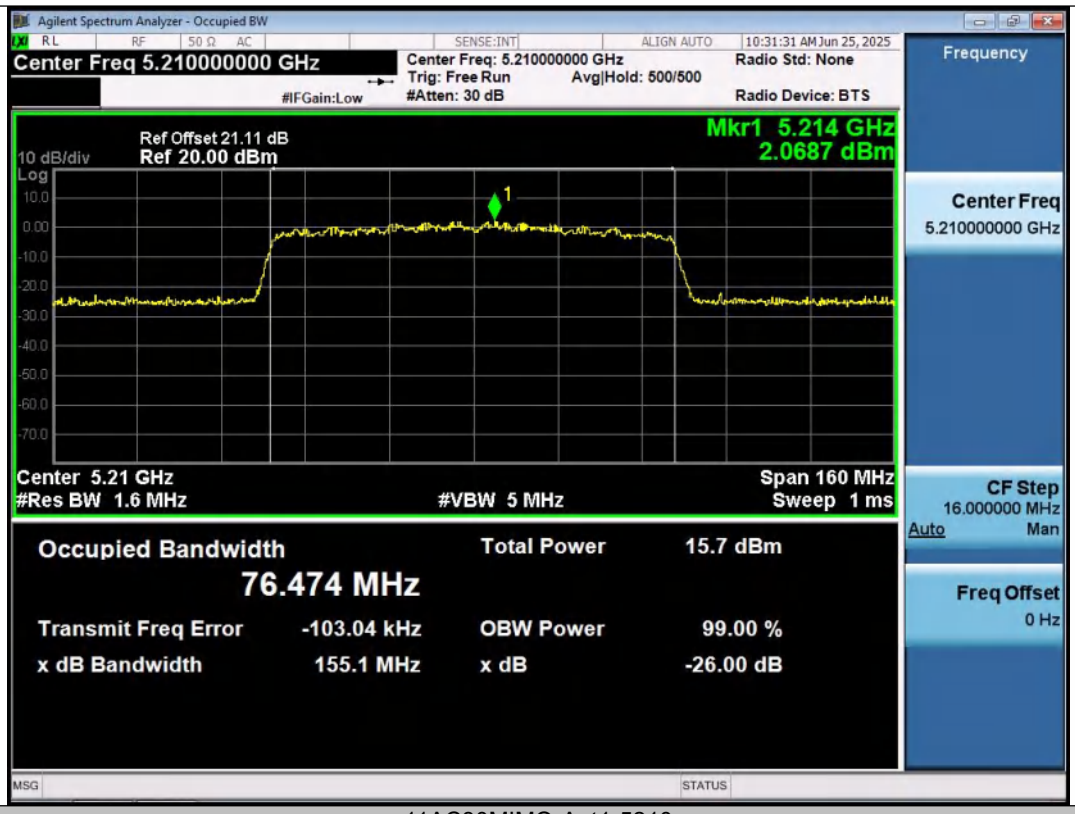
11AC40MIMO-Ant2-5755



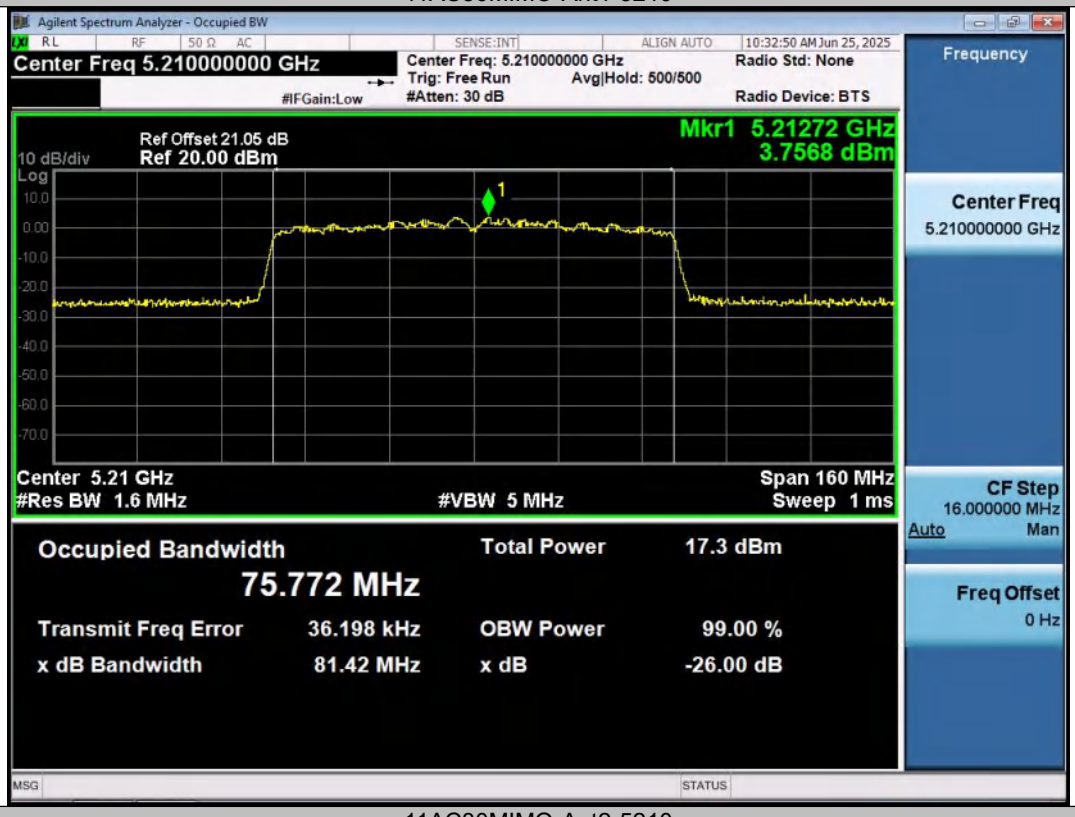
11AC40MIMO-Ant1-5795



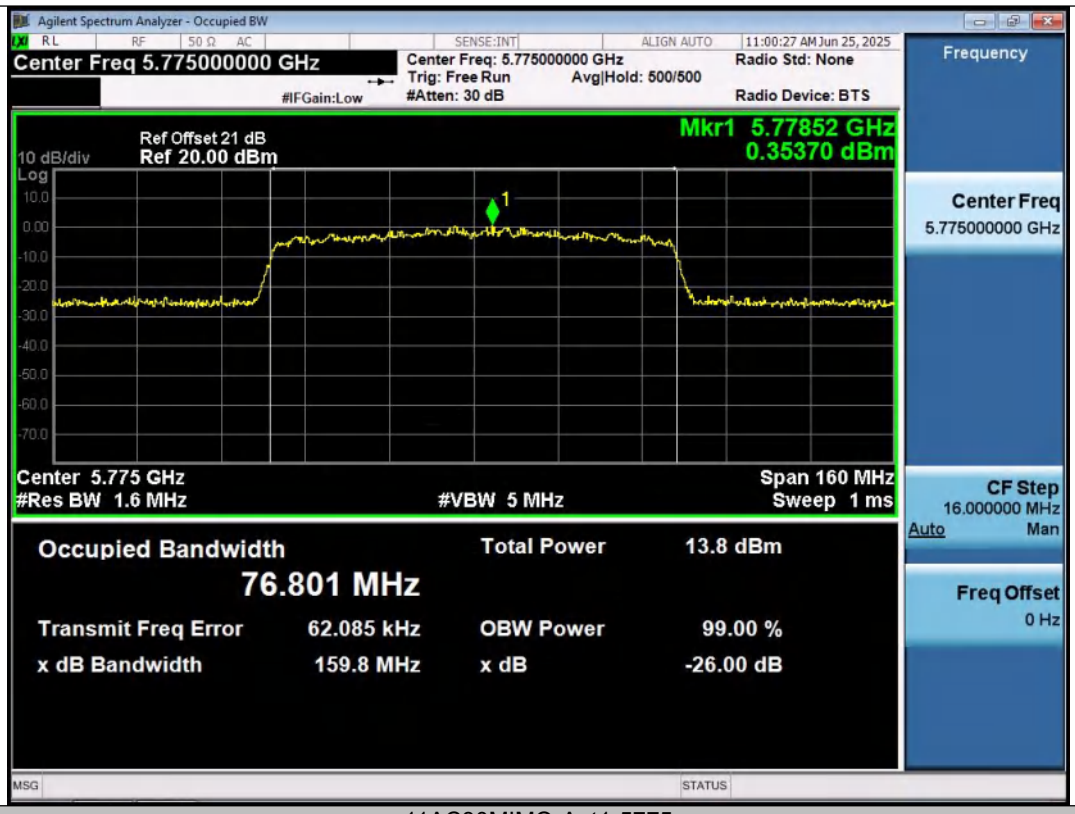
11AC40MIMO-Ant2-5795



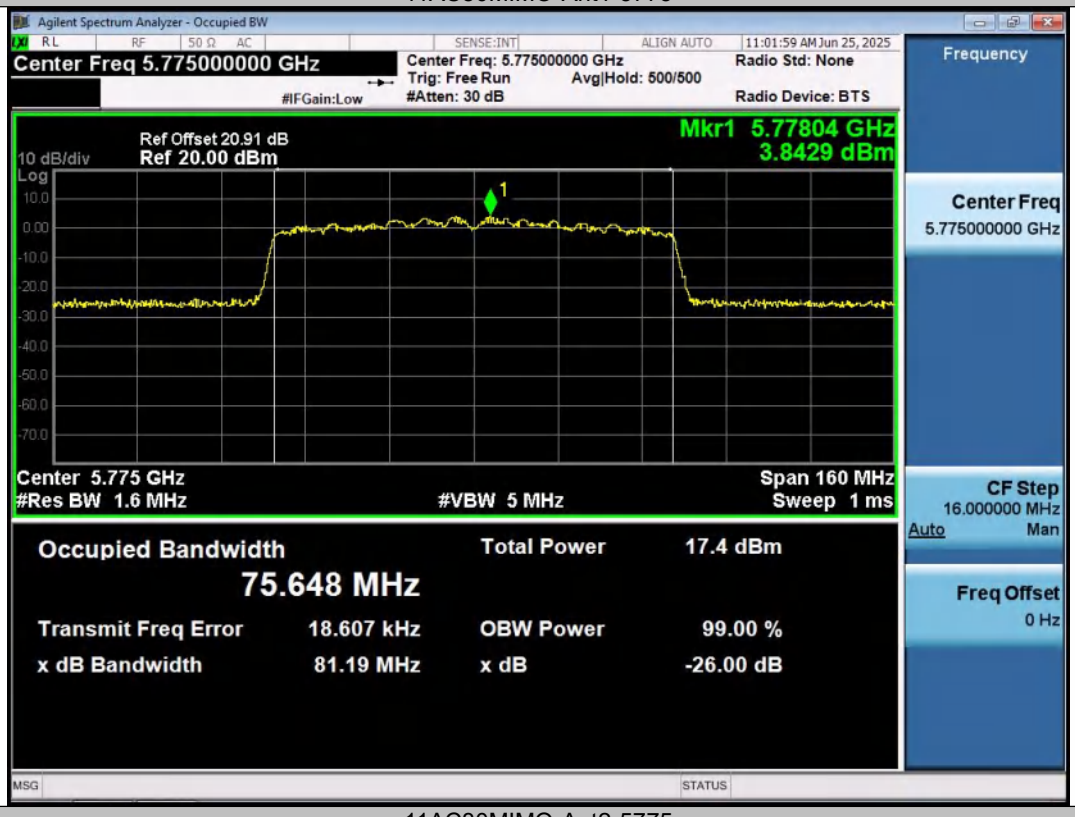
11AC80MIMO-Ant1-5210



11AC80MIMO-Ant2-5210



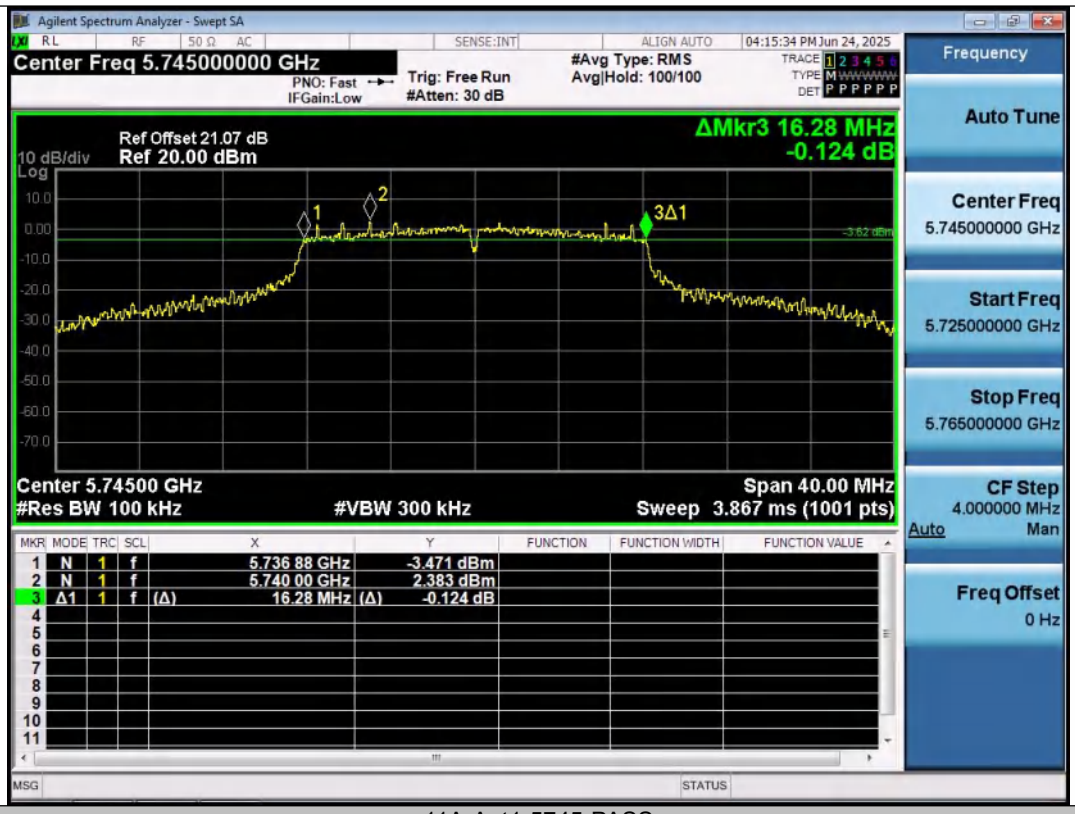
11AC80MIMO-Ant1-5775



11AC80MIMO-Ant2-5775

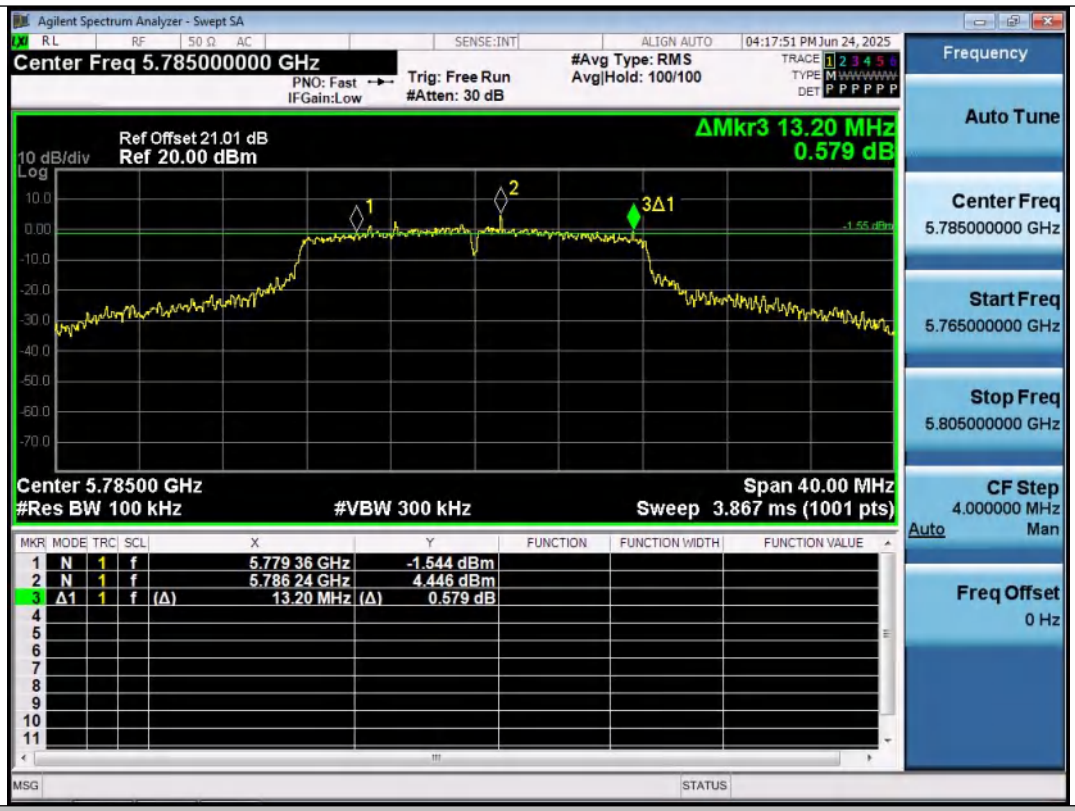
Min emission bandwidth

TestMode	Antenna	Frequency[MHz]	6db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5745	16.280	5736.880	5753.160	0.5	PASS
11A	Ant2	5745	15.080	5737.480	5752.560	0.5	PASS
11A	Ant1	5785	13.200	5779.360	5792.560	0.5	PASS
11A	Ant2	5785	16.320	5776.840	5793.160	0.5	PASS
11A	Ant1	5825	15.480	5817.080	5832.560	0.5	PASS
11A	Ant2	5825	15.640	5817.240	5832.880	0.5	PASS
11N20MIMO	Ant1	5745	15.040	5737.440	5752.480	0.5	PASS
11N20MIMO	Ant2	5745	15.040	5737.480	5752.520	0.5	PASS
11N20MIMO	Ant1	5785	16.360	5777.080	5793.440	0.5	PASS
11N20MIMO	Ant2	5785	16.520	5776.600	5793.120	0.5	PASS
11N20MIMO	Ant1	5825	14.680	5817.840	5832.520	0.5	PASS
11N20MIMO	Ant2	5825	16.560	5816.560	5833.120	0.5	PASS
11N40MIMO	Ant1	5755	35.040	5737.480	5772.520	0.5	PASS
11N40MIMO	Ant2	5755	35.040	5737.400	5772.440	0.5	PASS
11N40MIMO	Ant1	5795	35.040	5777.480	5812.520	0.5	PASS
11N40MIMO	Ant2	5795	35.120	5777.400	5812.520	0.5	PASS
11AC20MIMO	Ant1	5745	15.040	5737.440	5752.480	0.5	PASS
11AC20MIMO	Ant2	5745	15.920	5736.600	5752.520	0.5	PASS
11AC20MIMO	Ant1	5785	15.120	5777.440	5792.560	0.5	PASS
11AC20MIMO	Ant2	5785	15.680	5776.840	5792.520	0.5	PASS
11AC20MIMO	Ant1	5825	15.040	5817.520	5832.560	0.5	PASS
11AC20MIMO	Ant2	5825	15.680	5816.840	5832.520	0.5	PASS
11AC40MIMO	Ant1	5755	33.840	5737.400	5771.240	0.5	PASS
11AC40MIMO	Ant2	5755	33.760	5737.480	5771.240	0.5	PASS
11AC40MIMO	Ant1	5795	35.120	5777.400	5812.520	0.5	PASS
11AC40MIMO	Ant2	5795	33.840	5778.680	5812.520	0.5	PASS
11AC80MIMO	Ant1	5775	75.200	5737.400	5812.600	0.5	PASS
11AC80MIMO	Ant2	5775	75.200	5737.400	5812.600	0.5	PASS

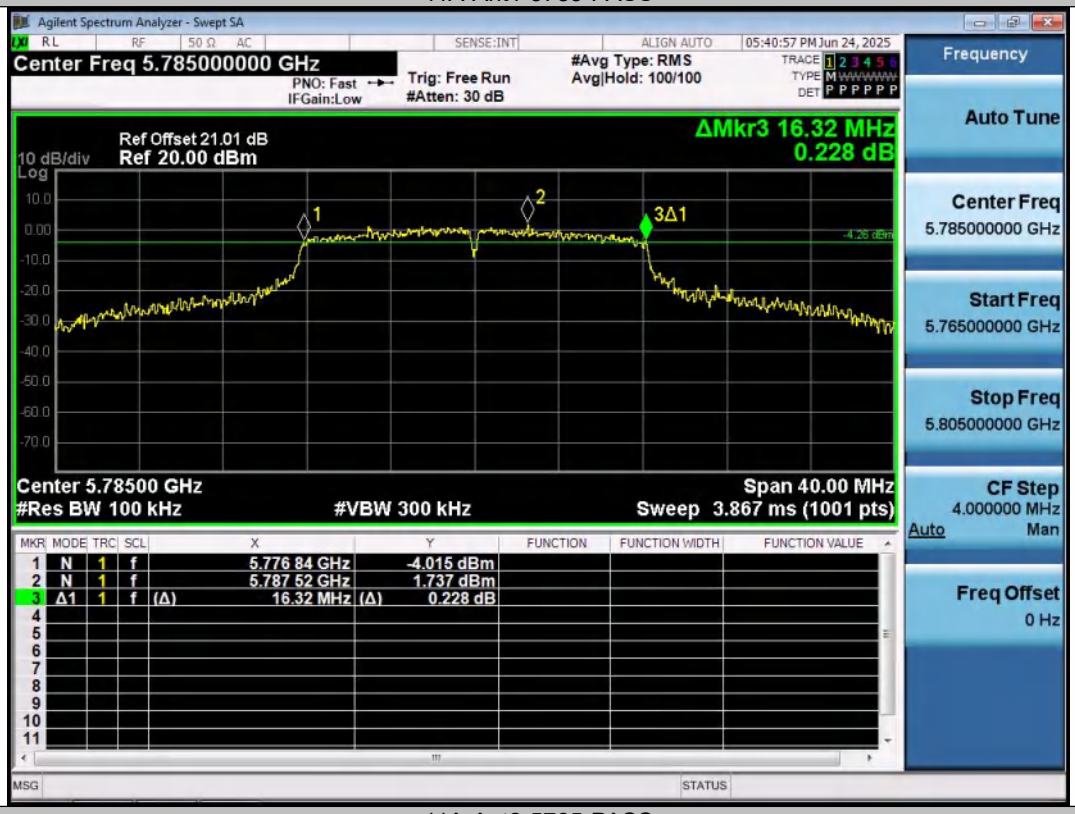


11A-Ant1-5745-PASS

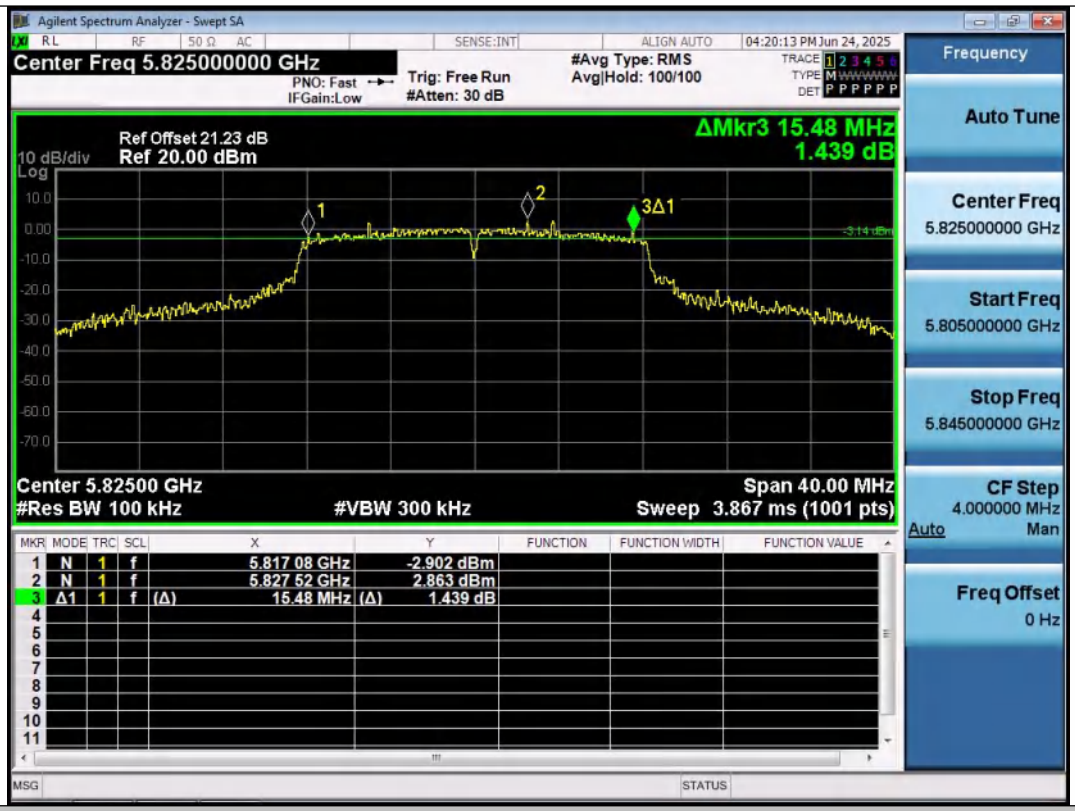
11A-Ant2-5745-PASS



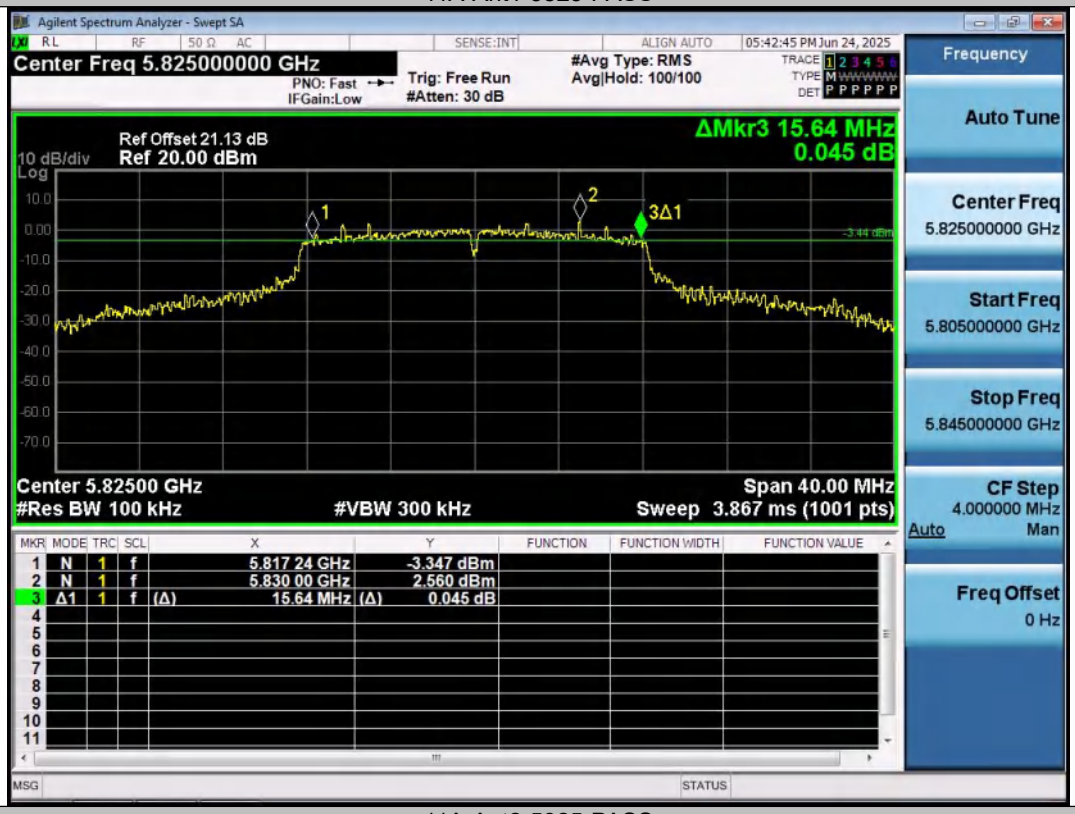
11A-Ant1-5785-PASS



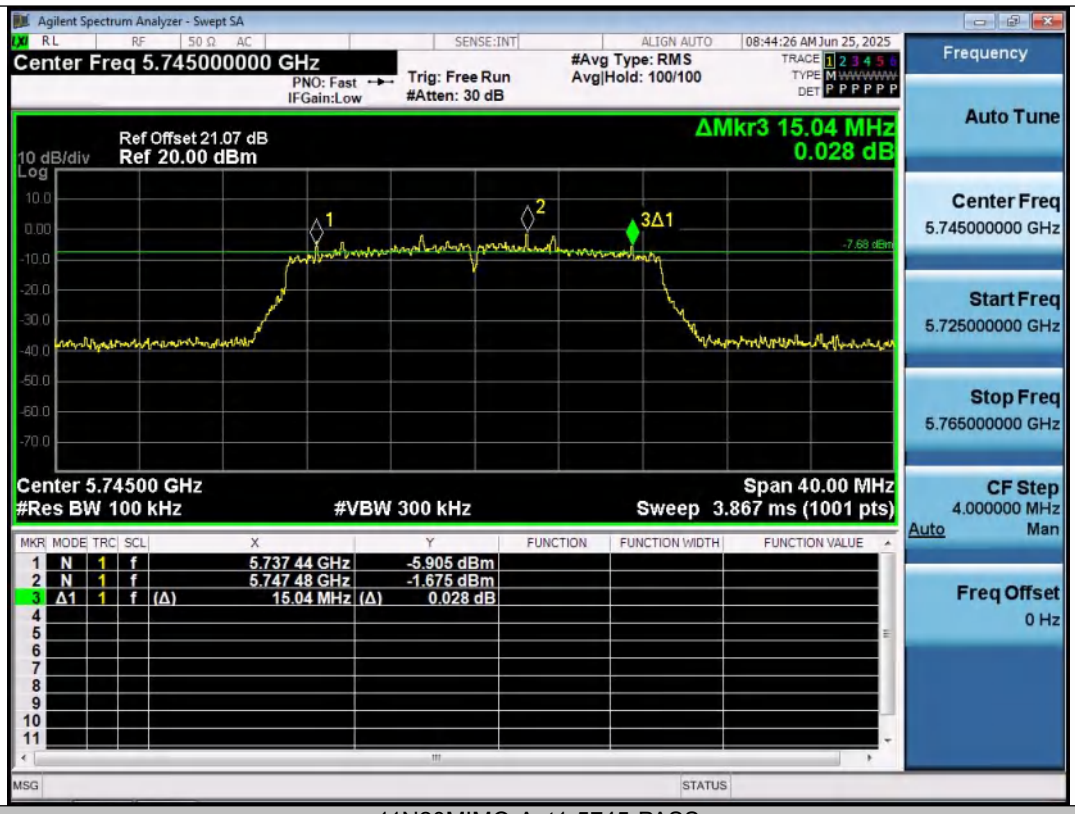
11A-Ant2-5785-PASS



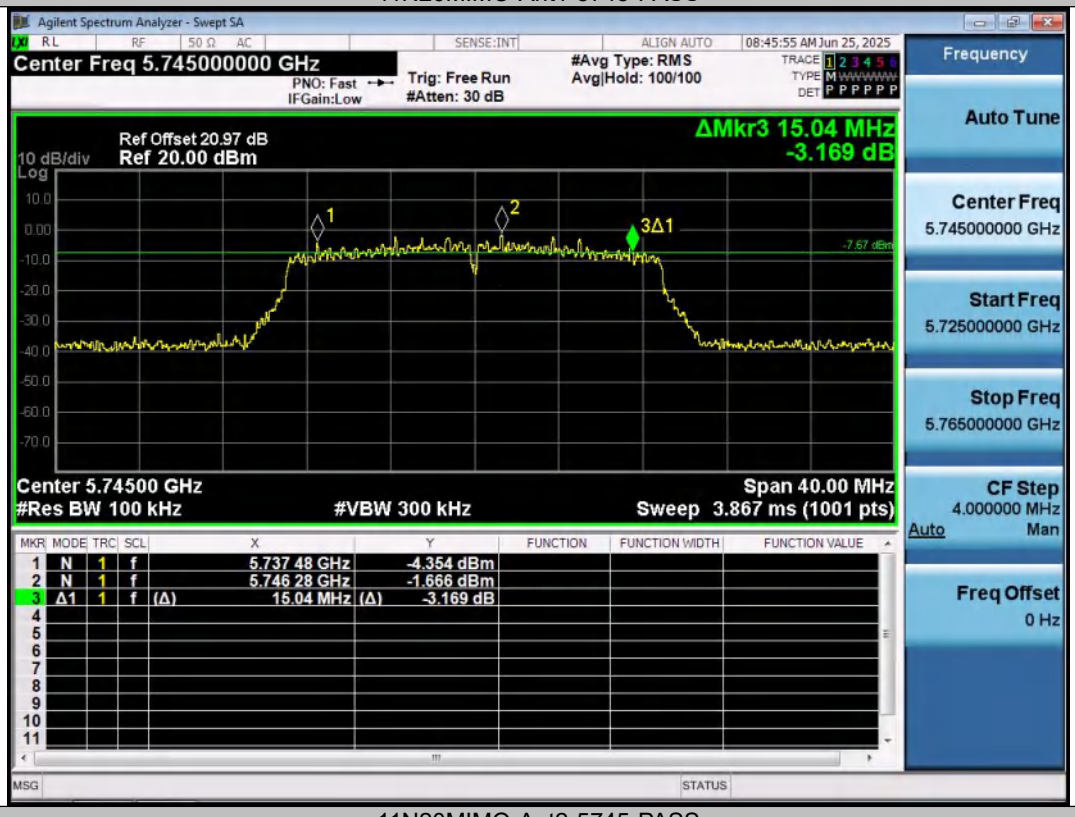
11A-Ant1-5825-PASS



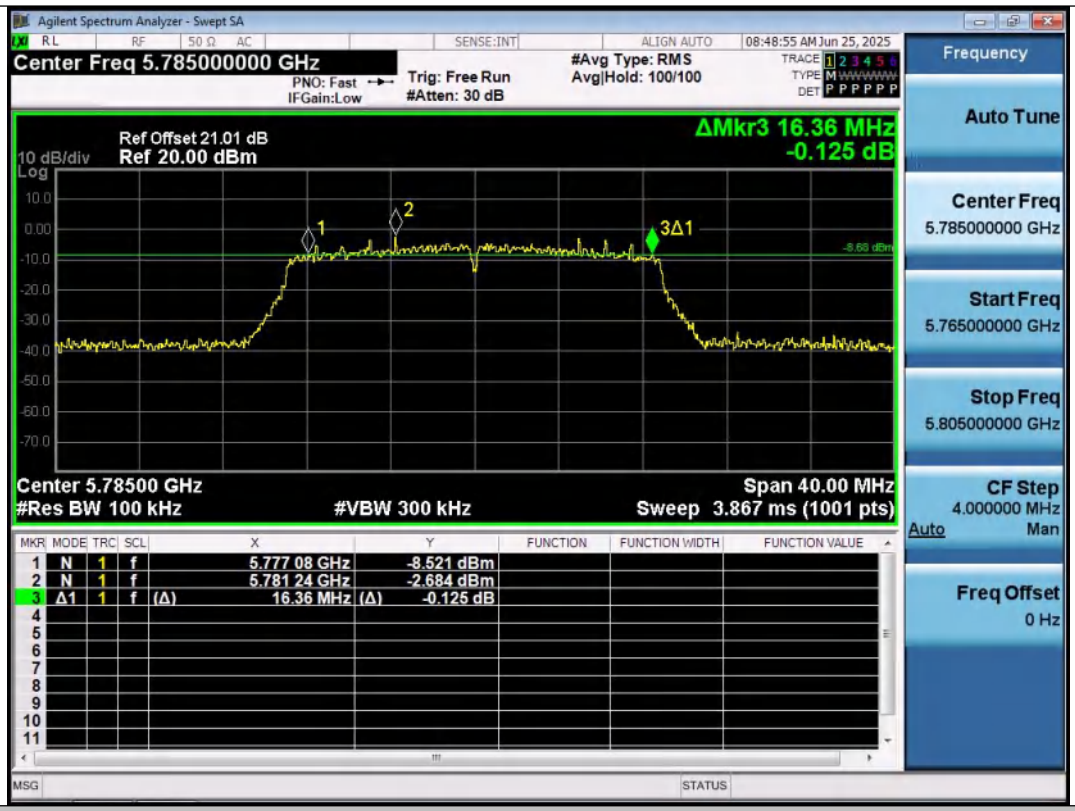
11A-Ant2-5825-PASS



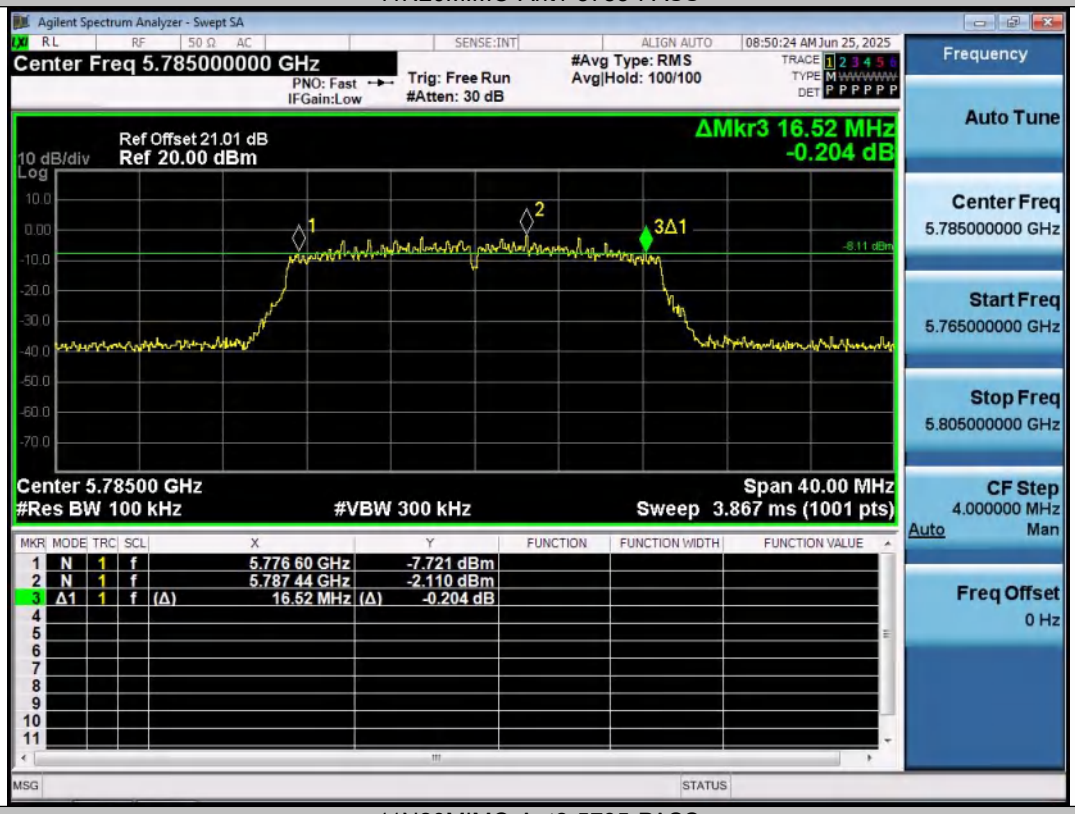
11N20MIMO-Ant1-5745-PASS



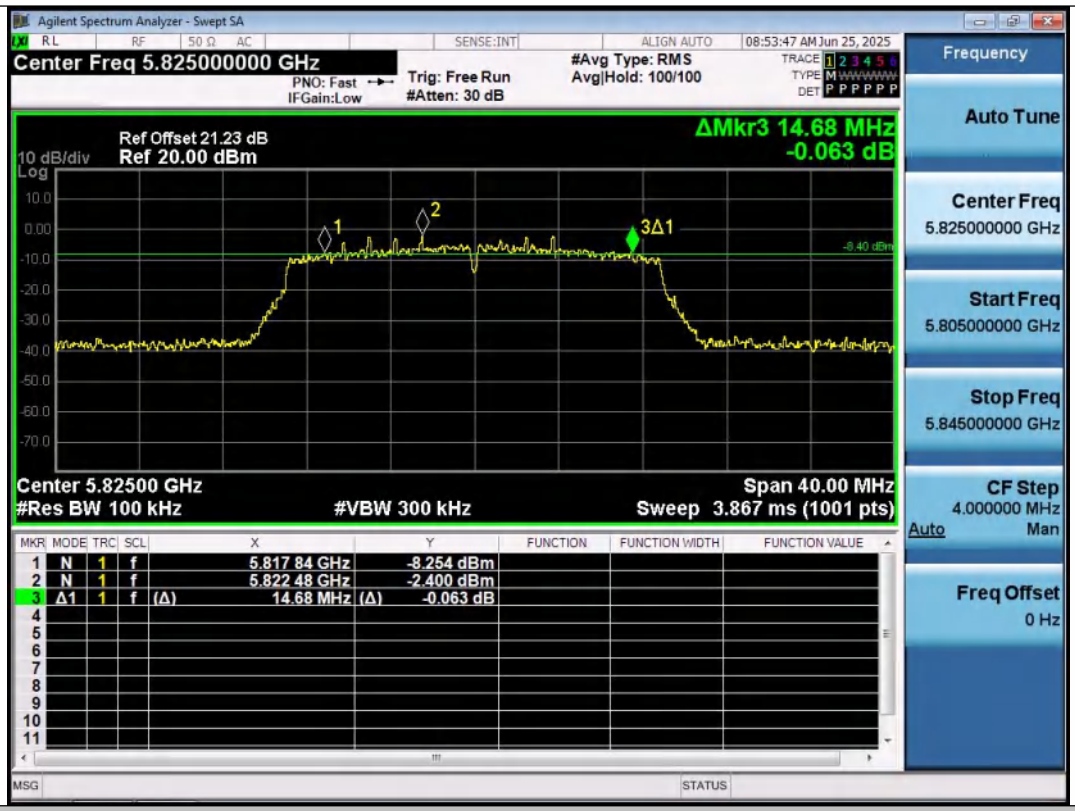
11N20MIMO-Ant2-5745-PASS



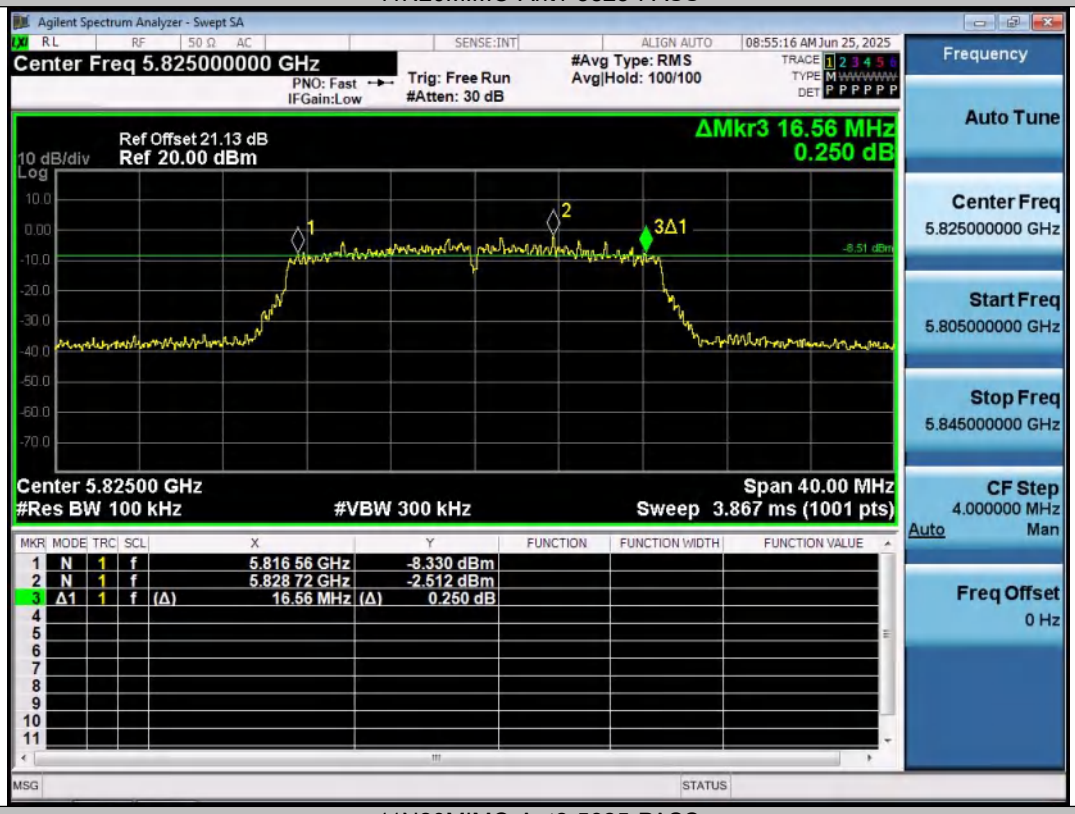
11N20MIMO-Ant1-5785-PASS



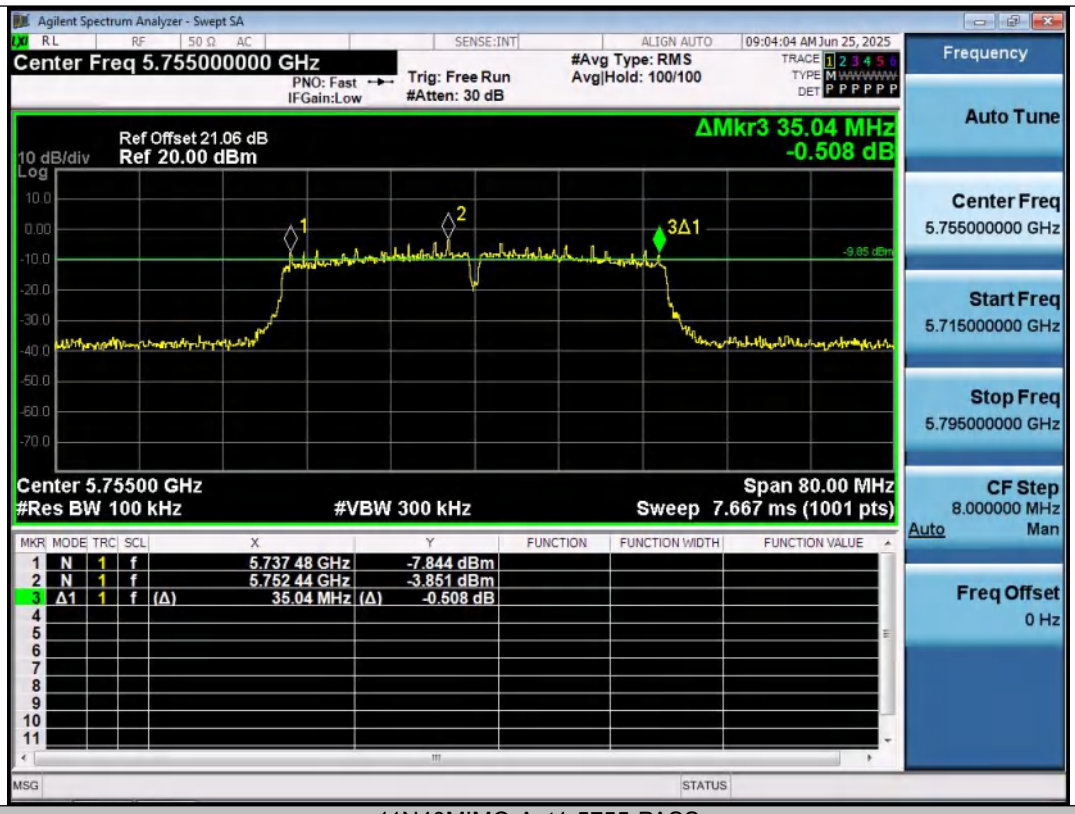
11N20MIMO-Ant2-5785-PASS



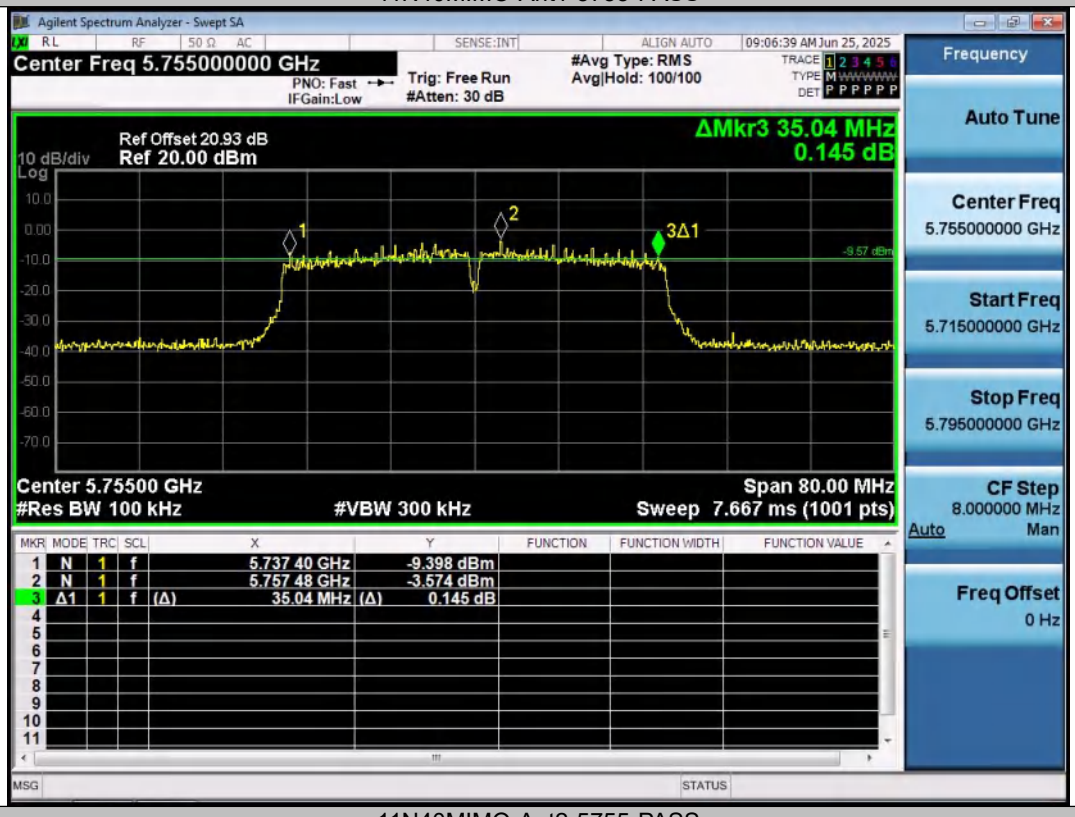
11N20MIMO-Ant1-5825-PASS



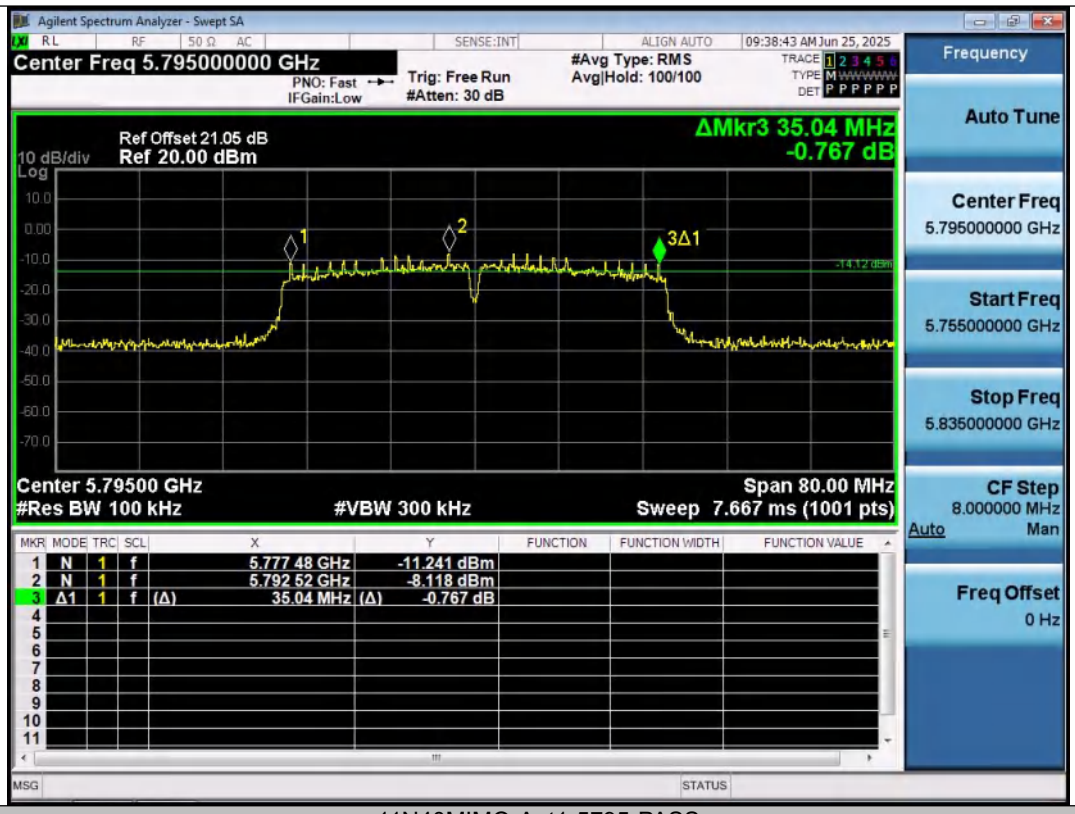
11N20MIMO-Ant2-5825-PASS



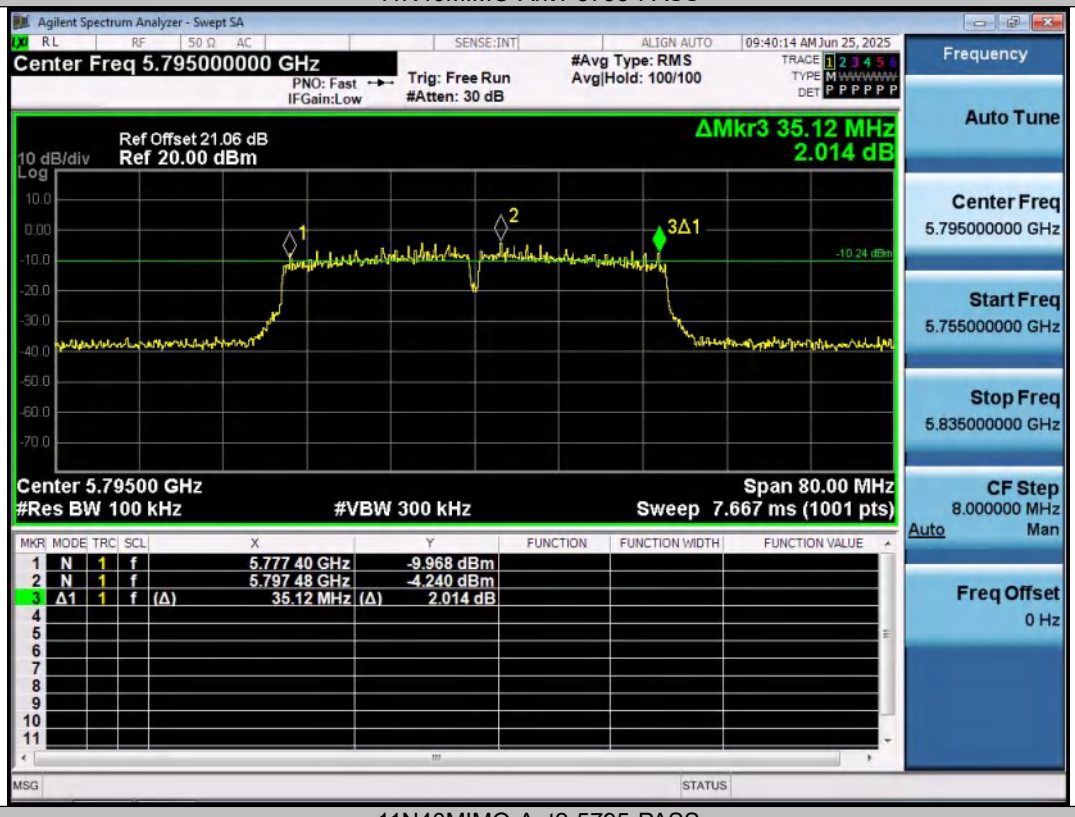
11N40MIMO-Ant1-5755-PASS



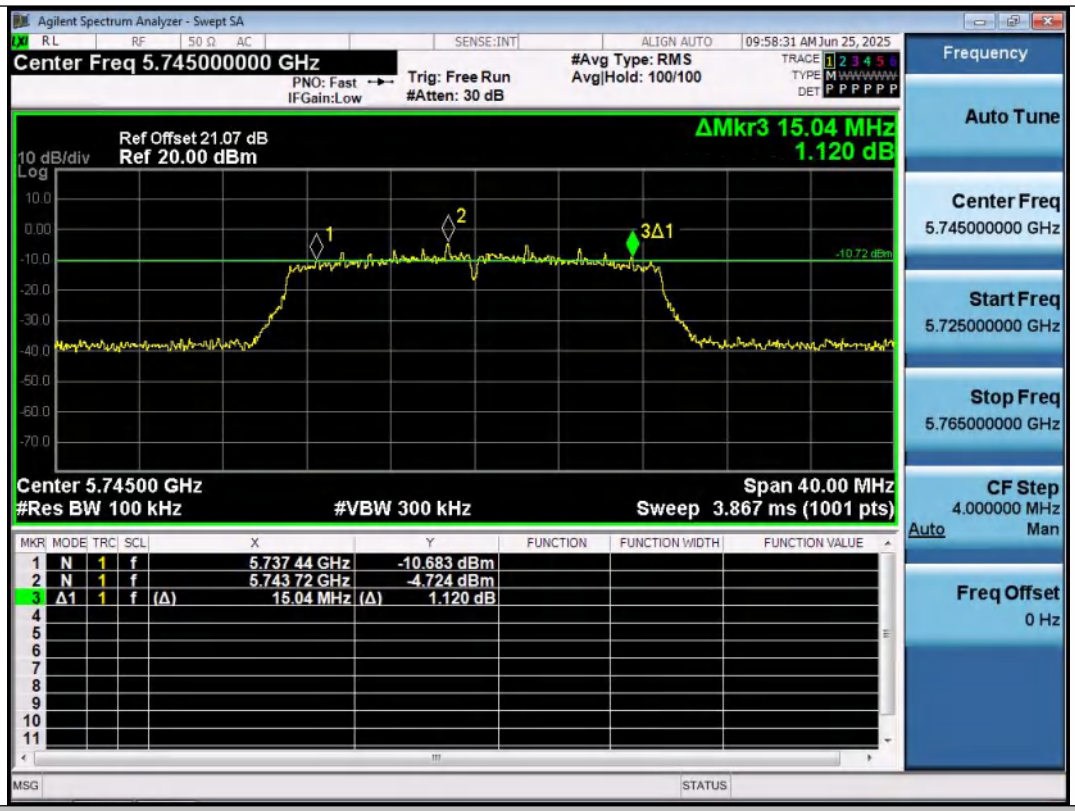
11N40MIMO-Ant2-5755-PASS



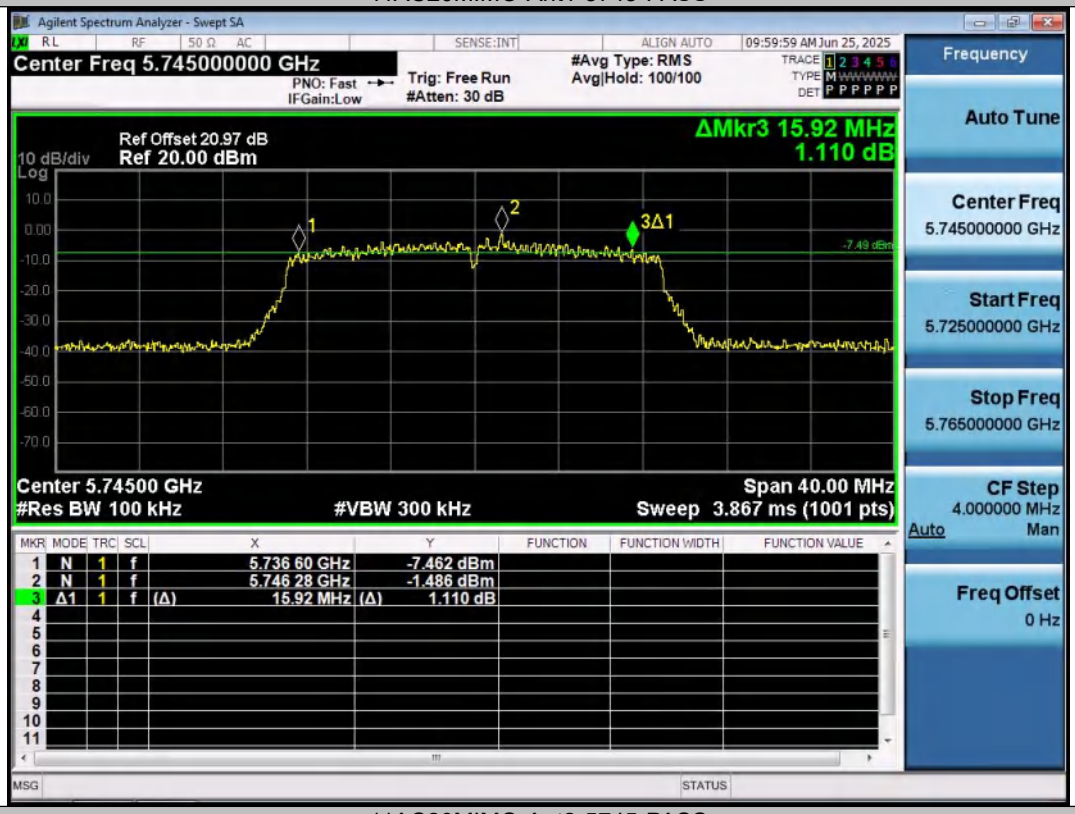
11N40MIMO-Ant1-5795-PASS



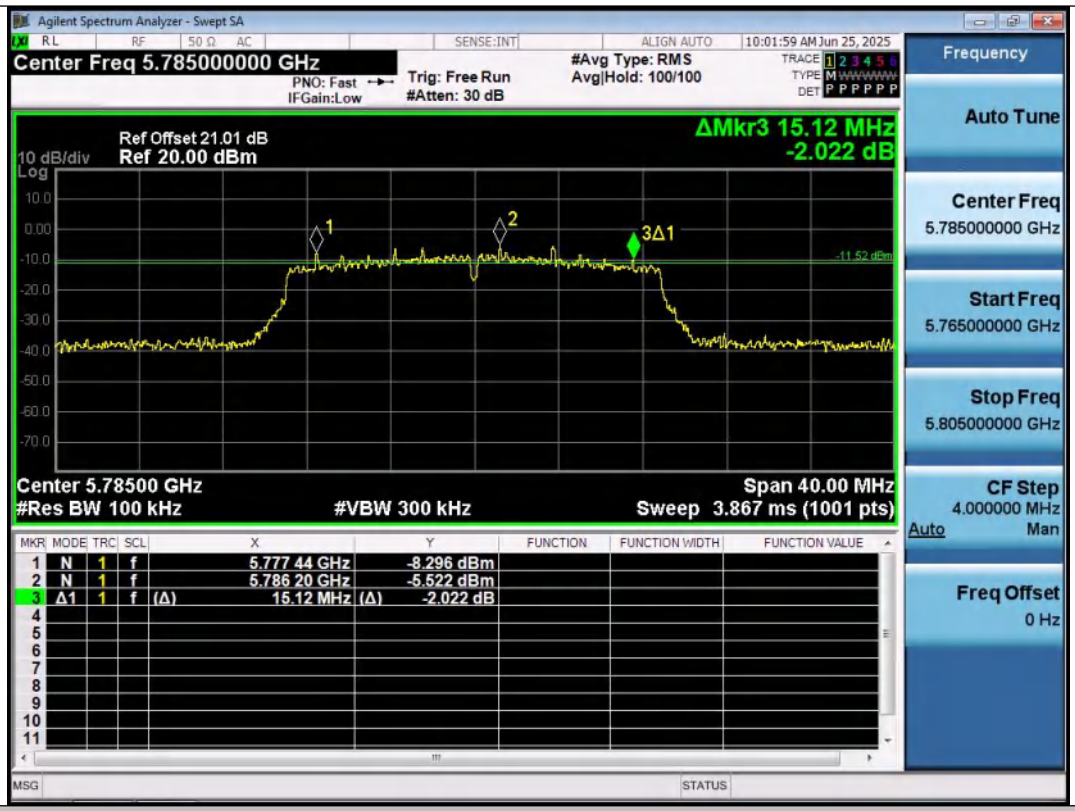
11N40MIMO-Ant2-5795-PASS



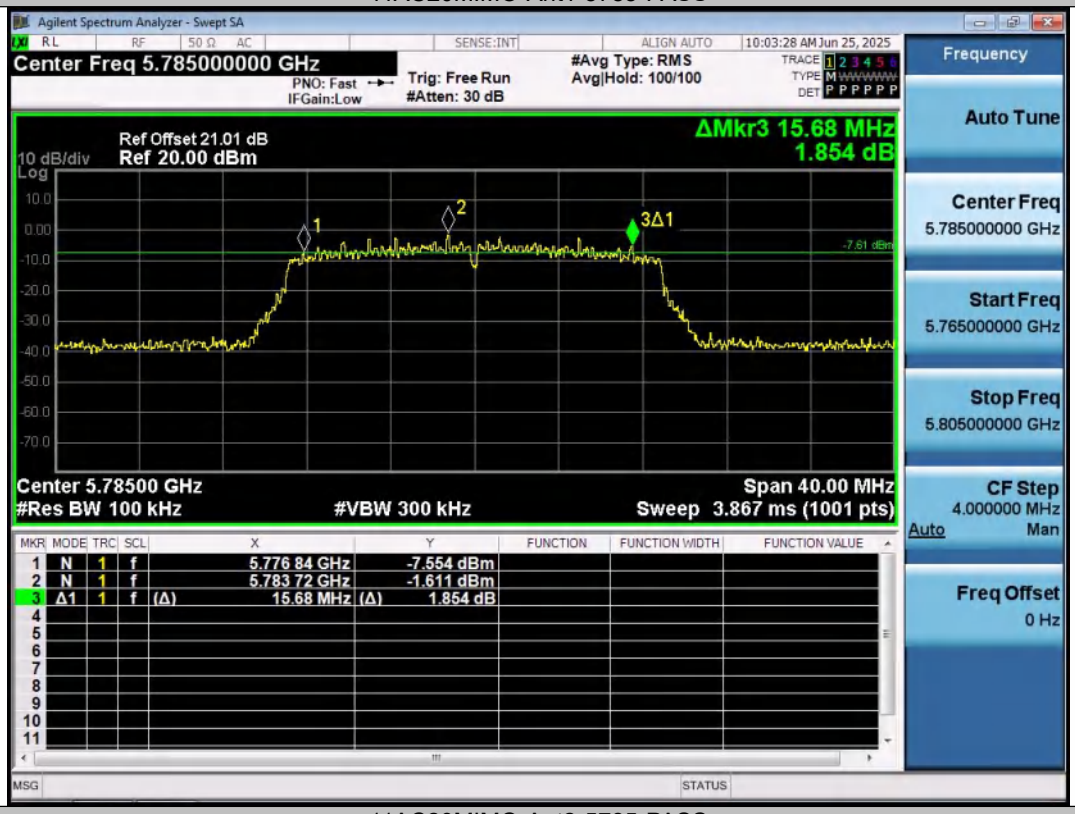
11AC20MIMO-Ant1-5745-PASS



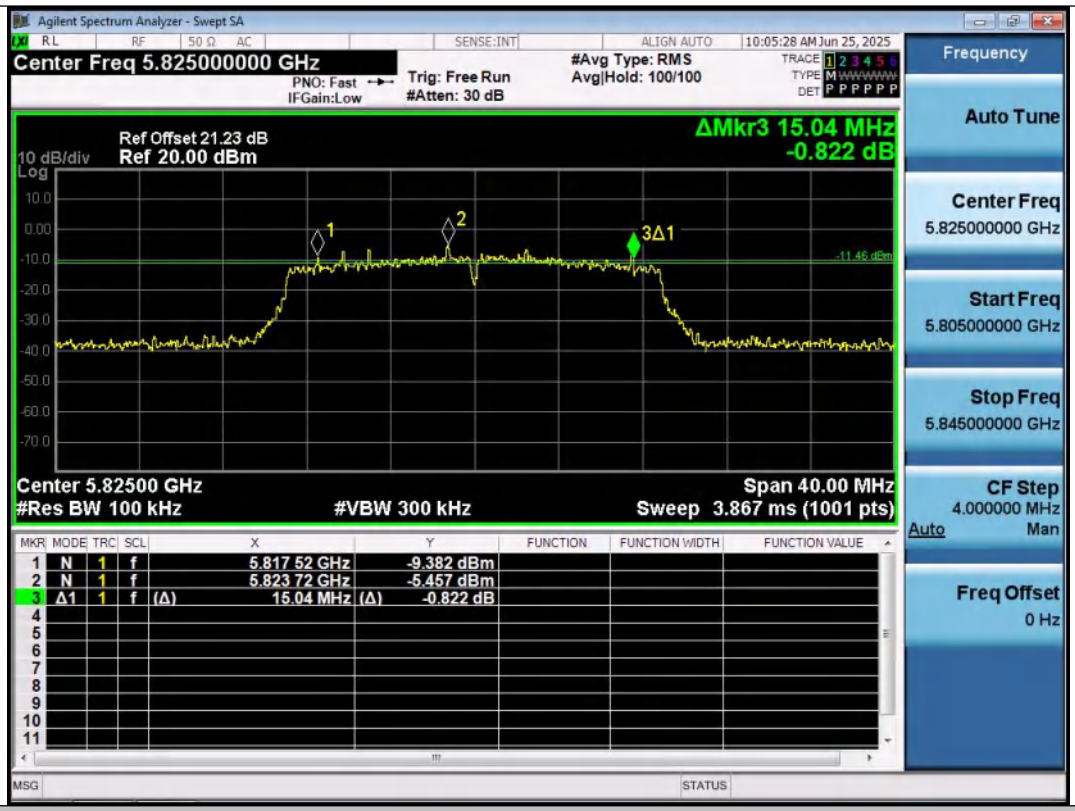
11AC20MIMO-Ant2-5745-PASS



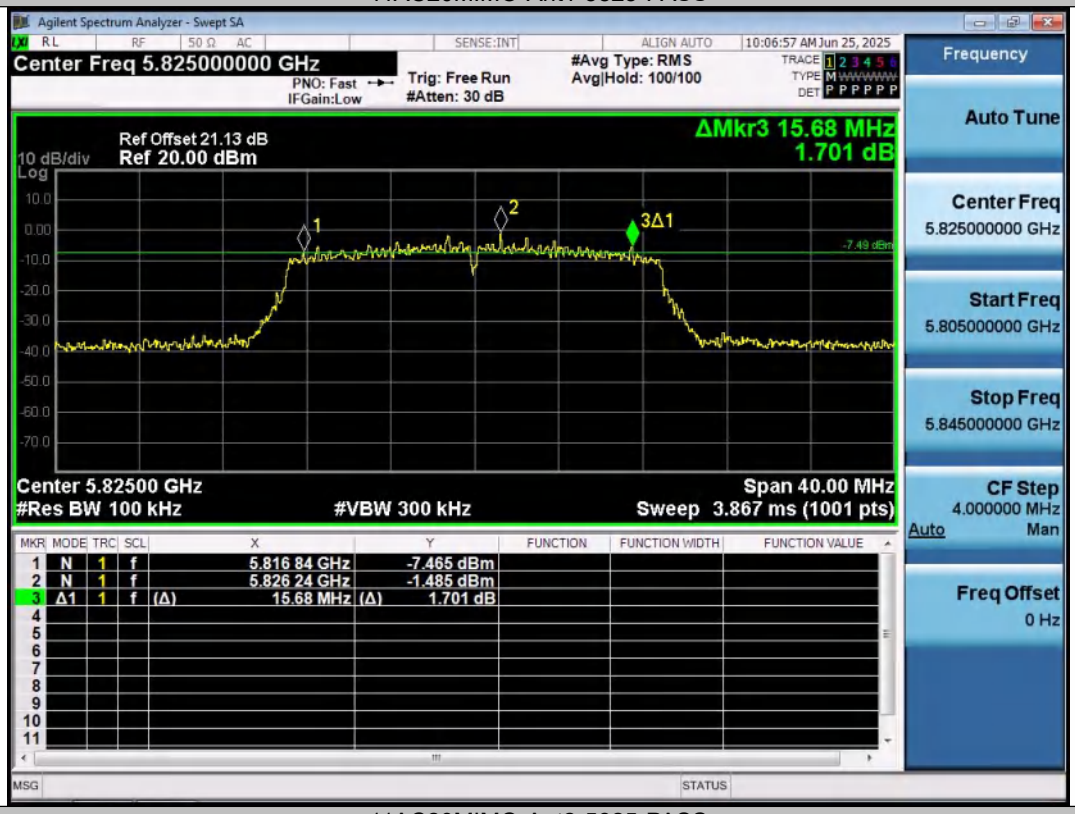
11AC20MIMO-Ant1-5785-PASS



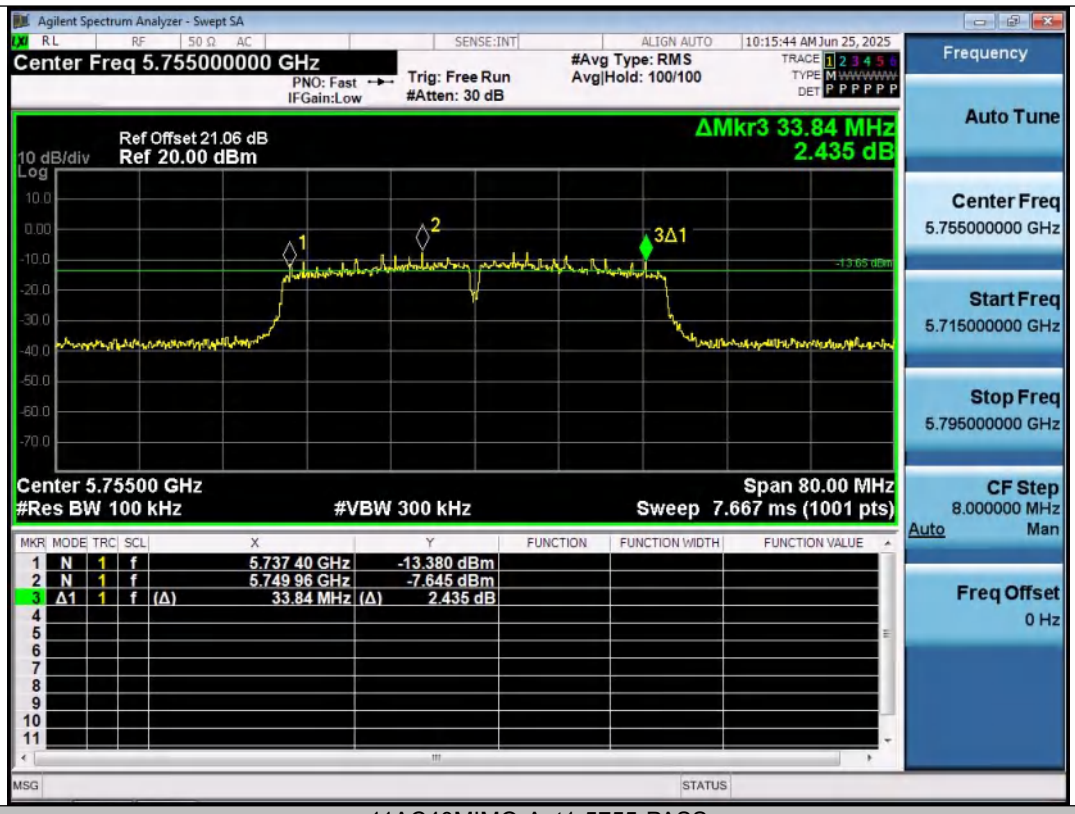
11AC20MIMO-Ant2-5785-PASS



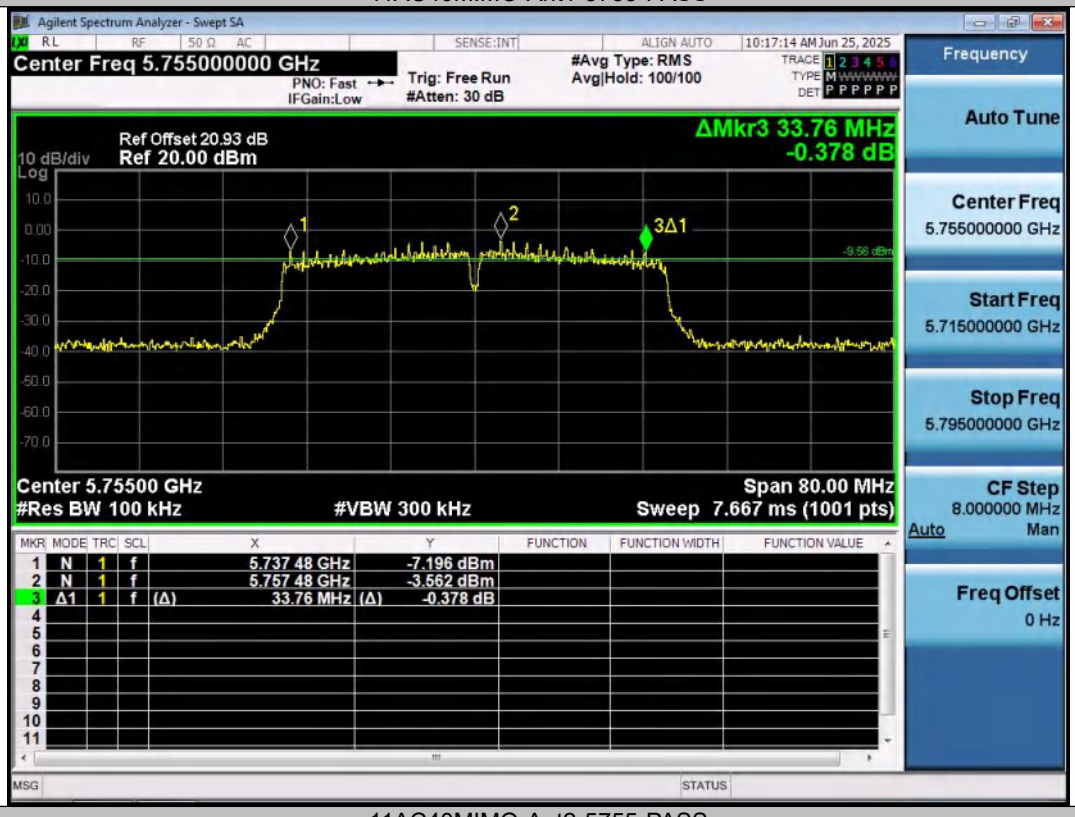
11AC20MIMO-Ant1-5825-PASS



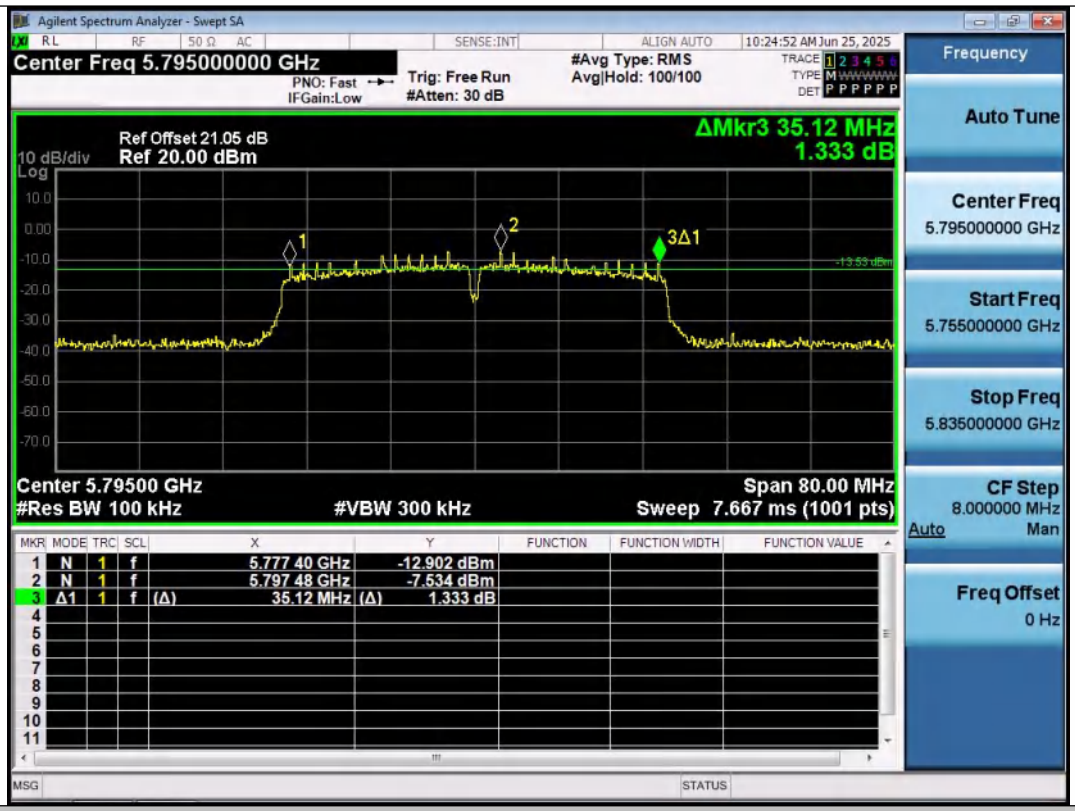
11AC20MIMO-Ant2-5825-PASS



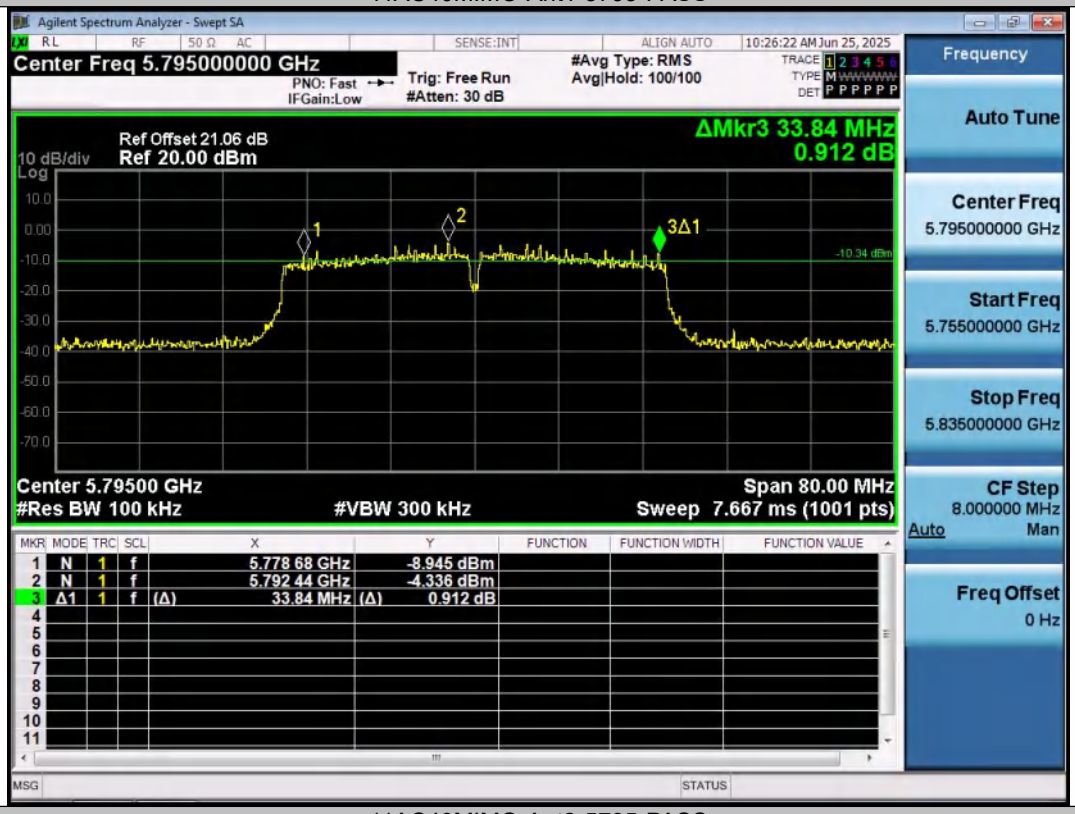
11AC40MIMO-Ant1-5755-PASS



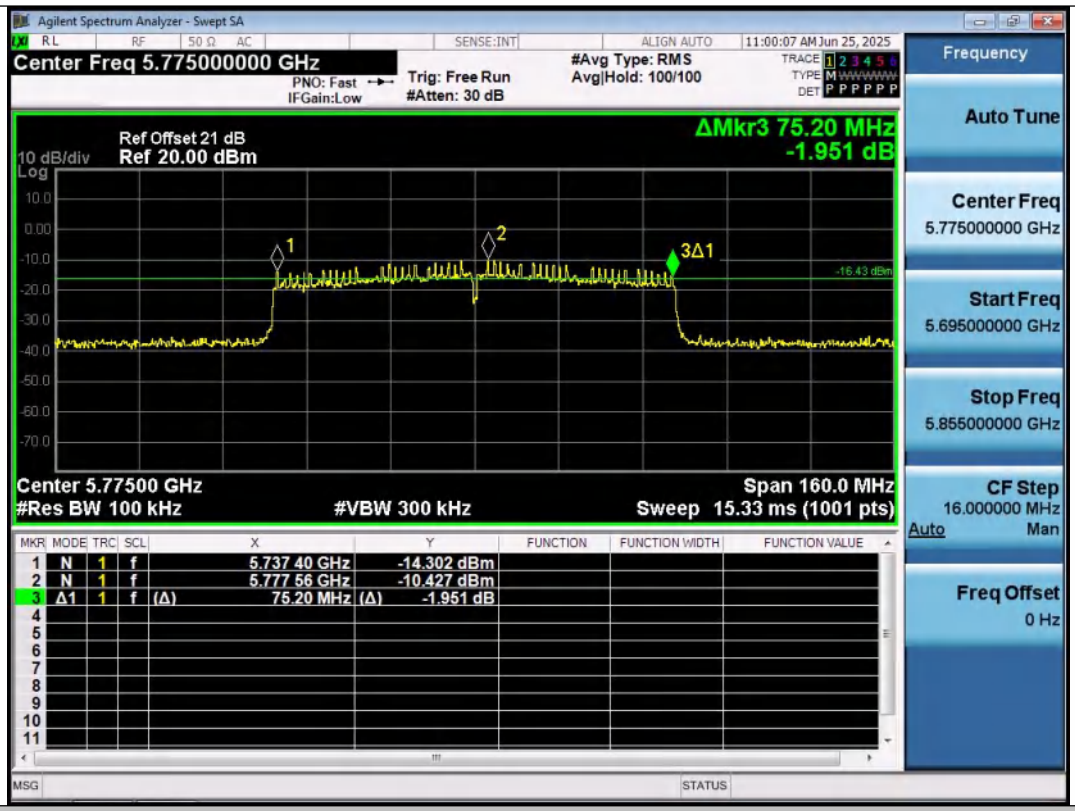
11AC40MIMO-Ant2-5755-PASS



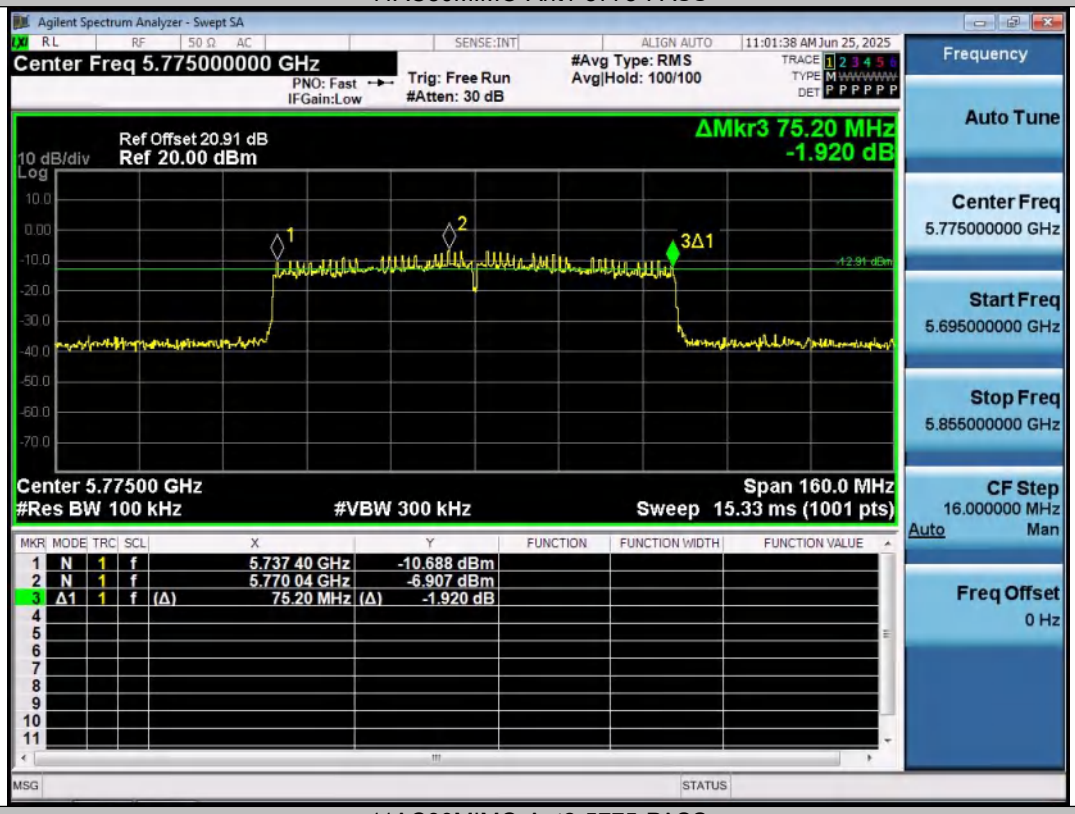
11AC40MIMO-Ant1-5795-PASS



11AC40MIMO-Ant2-5795-PASS



11AC80MIMO-Ant1-5775-PASS



11AC80MIMO-Ant2-5775-PASS

8.2 MAXIMUM CONDUCTED OUTPUT POWER

8.2.1 Applicable Standard

According to FCC Part 15.407(a)(1) for UNIIBand I
According to FCC Part 15.407(a)(2) for UNIIBand II-A and UNIIBand II-C
According to FCC Part 15.407(a)(3) for UNIIBand III
According to 789033 D02 Section II(E)
According to RSS 247, 6.2

8.2.2 Conformance Limit

FCC Limit:

■ For the band 5.15-5.25 GHz

(a)(1) (i) For an outdoor access point, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).

(a) (1) (ii) For an indoor access point, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(a) (1) (iii) For fixed point-to-point access points, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

(a) (1) (iv) For client devices, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

■ For the 5.25-5.35 GHz and 5.47-5.725 GHz bands

(a) (2)The maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

■ For the band 5.725-5.85 GHz

(a) (3)The maximum conducted output power over the frequency band of operation shall not exceed 1 W. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations

IC Limit:

■ Frequency band 5150-5250 MHz

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

■ Frequency band 5250-5350 MHz

The maximum conducted output power shall not exceed 250 mW or 11 + 10 $\log_{10}$B, dBm, whichever is less.

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

■ Frequency bands 5470-5600 MHz and 5650-5725 MHz

The maximum conducted output power shall not exceed 250 mW or 11 + 10 $\log_{10}$B, dBm, whichever is less.

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

■ Frequency band 5725-5850 MHz

The maximum conducted output power shall not exceed 1 W. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed point-to-point operations exclude the use of point-to-multipointsystems, omnidirectional applications and multiple collocated transmitters transmitting the same information.

8.2.3 Test Configuration

Test according to clause 6.1 radio frequency test setup

8.2.4 Test Procedure

The maximum average conducted output power can be measured using Method PM-G (Measurement using a gated RF average power meter):

Measurements may be performed using a wideband gated RF power meter provided that the gate parameters are adjusted such that the power is measured only when the EUT is transmitting at its maximum power control level. Since the measurement is made only during the ON time of the transmitter, no duty cycle correction factor is required.

a. The Transmitter output (antenna port) was connected to the power meter.
b. Turn on the EUT and power meter and then record the power value.
c. Repeat above procedures on all channels needed to be tested.

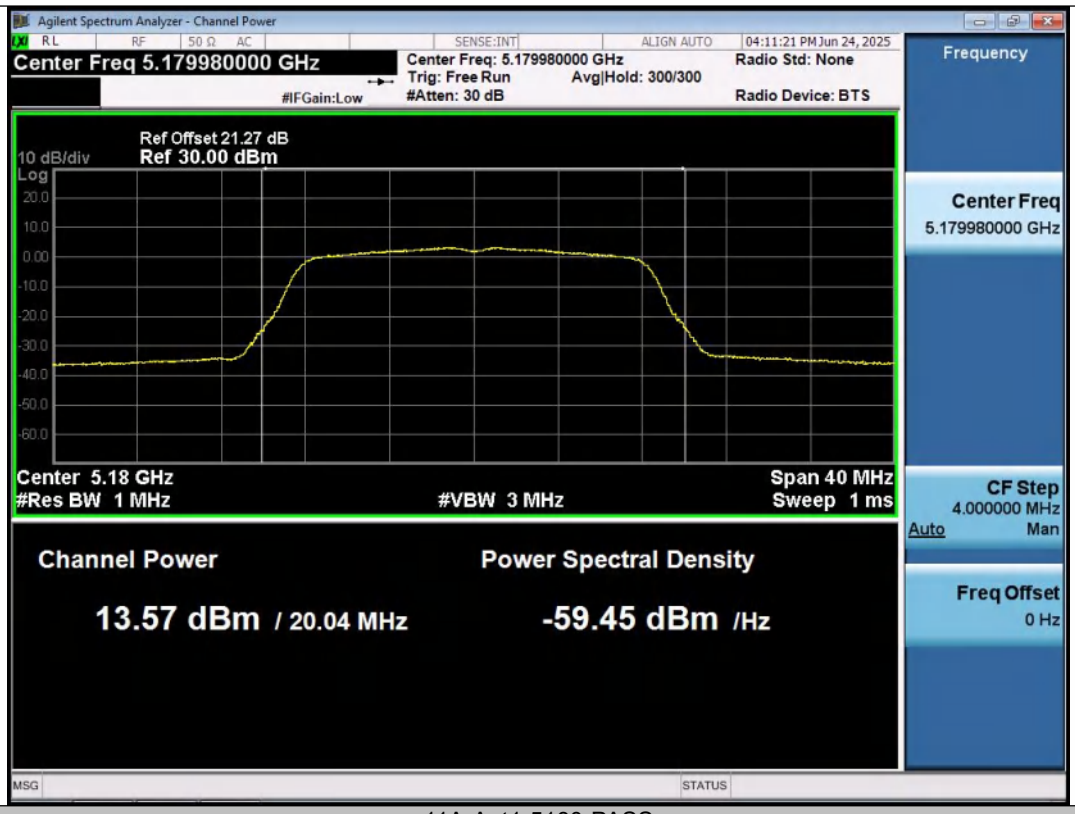
8.2.5 Test Results

Temperature:	23.4˚C
Relative Humidity:	46%
ATM Pressure:	1011 mbar

Note: N/A

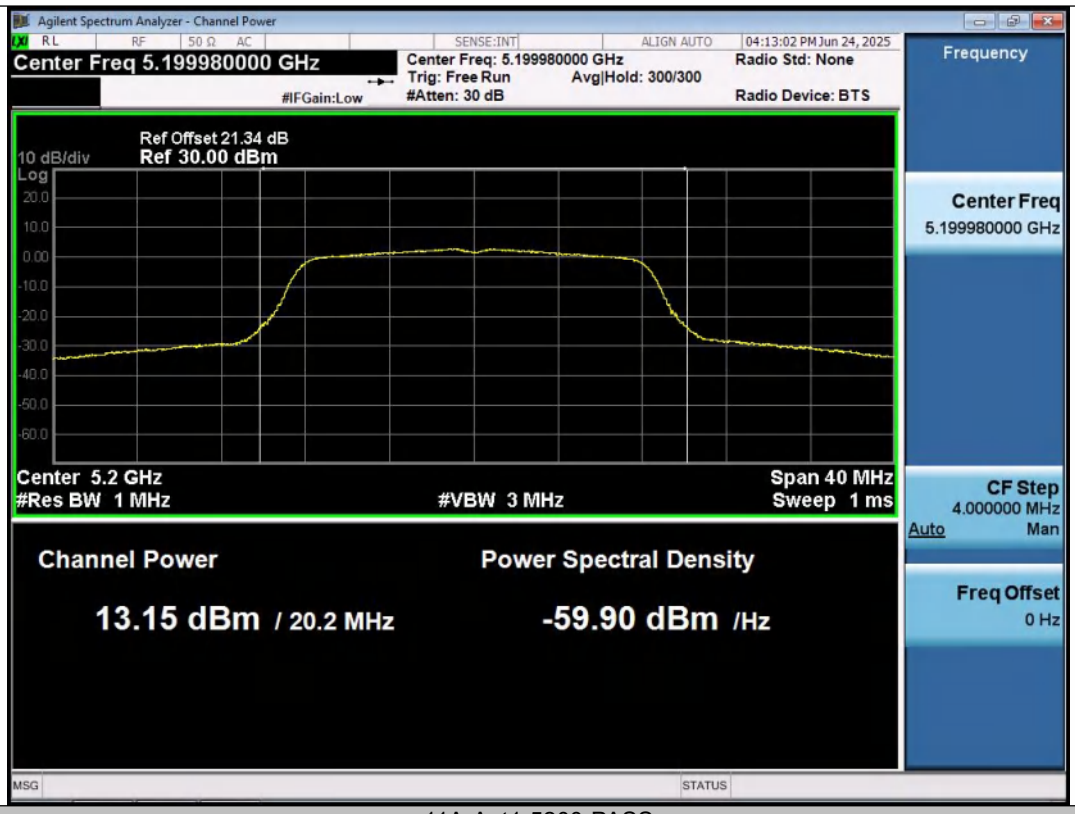
Test Mode	Antenna	Frequency [MHz]	Result [dBm]	Limit [dBm]	Gain [dBi]	EIRP [dBm]	EIRP Limit [dBm]	Verdict
11A	Ant1	5180	13.57	≤23.98	5.30	18.87	---	PASS
11A	Ant2	5180	14.56	≤23.98	4.20	18.76	---	PASS
11A	Ant1	5200	13.15	≤23.98	5.30	18.45	---	PASS
11A	Ant2	5200	14.13	≤23.98	4.20	18.33	---	PASS
11A	Ant1	5240	13.44	≤23.98	5.30	18.74	---	PASS
11A	Ant2	5240	14.54	≤23.98	4.20	18.74	---	PASS
11A	Ant1	5745	14.48	≤30.00	5.30	19.78	---	PASS
11A	Ant2	5745	14.65	≤30.00	4.20	18.85	---	PASS
11A	Ant1	5785	14.19	≤30.00	5.30	19.49	---	PASS
11A	Ant2	5785	14.29	≤30.00	4.20	18.49	---	PASS
11A	Ant1	5825	14.08	≤30.00	5.30	19.38	---	PASS
11A	Ant2	5825	14.00	≤30.00	4.20	18.20	---	PASS
11N20MIMO	Ant1	5180	8.07	≤23.98	5.30	13.37	---	PASS
11N20MIMO	Ant2	5180	8.39	≤23.98	4.20	12.59	---	PASS
11N20MIMO	total	5180	11.24	≤22.20	7.78	19.02	---	PASS
11N20MIMO	Ant1	5200	7.65	≤23.98	5.30	12.95	---	PASS
11N20MIMO	Ant2	5200	8.09	≤23.98	4.20	12.29	---	PASS
11N20MIMO	total	5200	10.89	≤22.20	7.78	18.67	---	PASS
11N20MIMO	Ant1	5240	7.95	≤23.98	5.30	13.25	---	PASS
11N20MIMO	Ant2	5240	8.51	≤23.98	4.20	12.71	---	PASS
11N20MIMO	total	5240	11.25	≤22.20	7.78	19.03	---	PASS
11N20MIMO	Ant1	5745	8.96	≤30.00	5.30	14.26	---	PASS
11N20MIMO	Ant2	5745	9.04	≤30.00	4.20	13.24	---	PASS
11N20MIMO	total	5745	12.01	≤28.22	7.78	19.79	---	PASS
11N20MIMO	Ant1	5785	8.83	≤30.00	5.30	14.13	---	PASS
11N20MIMO	Ant2	5785	8.86	≤30.00	4.20	13.06	---	PASS
11N20MIMO	total	5785	11.86	≤28.22	7.78	19.64	---	PASS
11N20MIMO	Ant1	5825	8.66	≤30.00	5.30	13.96	---	PASS
11N20MIMO	Ant2	5825	8.59	≤30.00	4.20	12.79	---	PASS
11N20MIMO	total	5825	11.64	≤28.22	7.78	19.42	---	PASS
11N40MIMO	Ant1	5190	8.05	≤23.98	5.30	13.35	---	PASS
11N40MIMO	Ant2	5190	8.49	≤23.98	4.20	12.69	---	PASS
11N40MIMO	total	5190	11.29	≤22.20	7.78	19.07	---	PASS
11N40MIMO	Ant1	5230	8.27	≤23.98	5.30	13.57	---	PASS
11N40MIMO	Ant2	5230	8.70	≤23.98	4.20	12.90	---	PASS
11N40MIMO	total	5230	11.50	≤22.20	7.78	19.28	---	PASS
11N40MIMO	Ant1	5755	9.28	≤30.00	5.30	14.58	---	PASS
11N40MIMO	Ant2	5755	9.01	≤30.00	4.20	13.21	---	PASS
11N40MIMO	total	5755	12.16	≤28.22	7.78	19.94	---	PASS
11N40MIMO	Ant1	5795	5.22	≤30.00	5.30	10.52	---	PASS
11N40MIMO	Ant2	5795	8.77	≤30.00	4.20	12.97	---	PASS
11N40MIMO	total	5795	10.36	≤28.22	7.78	18.14	---	PASS
11AC20MIMO	Ant1	5180	7.33	≤23.98	5.30	12.63	---	PASS
11AC20MIMO	Ant2	5180	8.53	≤23.98	4.20	12.73	---	PASS
11AC20MIMO	total	5180	10.98	≤22.20	7.78	18.76	---	PASS
11AC20MIMO	Ant1	5200	6.96	≤23.98	5.30	12.26	---	PASS
11AC20MIMO	Ant2	5200	8.46	≤23.98	4.20	12.66	---	PASS
11AC20MIMO	total	5200	10.78	≤22.20	7.78	18.56	---	PASS
11AC20MIMO	Ant1	5240	6.98	≤23.98	5.30	12.28	---	PASS
11AC20MIMO	Ant2	5240	8.81	≤23.98	4.20	13.01	---	PASS
11AC20MIMO	total	5240	11.00	≤22.20	7.78	18.78	---	PASS

11AC20MIMO	Ant1	5745	5.68	≤30.00	5.30	10.98	---	PASS
11AC20MIMO	Ant2	5745	9.10	≤30.00	4.20	13.30	---	PASS
11AC20MIMO	total	5745	10.73	≤28.22	7.78	18.51	---	PASS
11AC20MIMO	Ant1	5785	5.28	≤30.00	5.30	10.58	---	PASS
11AC20MIMO	Ant2	5785	8.82	≤30.00	4.20	13.02	---	PASS
11AC20MIMO	total	5785	10.41	≤28.22	7.78	18.19	---	PASS
11AC20MIMO	Ant1	5825	5.00	≤30.00	5.30	10.30	---	PASS
11AC20MIMO	Ant2	5825	8.65	≤30.00	4.20	12.85	---	PASS
11AC20MIMO	total	5825	10.21	≤28.22	7.78	17.99	---	PASS
11AC40MIMO	Ant1	5190	7.30	≤23.98	5.30	12.60	---	PASS
11AC40MIMO	Ant2	5190	8.63	≤23.98	4.20	12.83	---	PASS
11AC40MIMO	total	5190	11.03	≤22.20	7.78	18.81	---	PASS
11AC40MIMO	Ant1	5230	7.19	≤23.98	5.30	12.49	---	PASS
11AC40MIMO	Ant2	5230	8.83	≤23.98	4.20	13.03	---	PASS
11AC40MIMO	total	5230	11.10	≤22.20	7.78	18.88	---	PASS
11AC40MIMO	Ant1	5755	5.72	≤30.00	5.30	11.02	---	PASS
11AC40MIMO	Ant2	5755	9.11	≤30.00	4.20	13.31	---	PASS
11AC40MIMO	total	5755	10.75	≤28.22	7.78	18.53	---	PASS
11AC40MIMO	Ant1	5795	5.18	≤30.00	5.30	10.48	---	PASS
11AC40MIMO	Ant2	5795	8.73	≤30.00	4.20	12.93	---	PASS
11AC40MIMO	total	5795	10.32	≤28.22	7.78	18.10	---	PASS
11AC80MIMO	Ant1	5210	7.10	≤23.98	5.30	12.40	---	PASS
11AC80MIMO	Ant2	5210	8.46	≤23.98	4.20	12.66	---	PASS
11AC80MIMO	total	5210	10.84	≤22.20	7.78	18.62	---	PASS
11AC80MIMO	Ant1	5775	5.23	≤30.00	5.30	10.53	---	PASS
11AC80MIMO	Ant2	5775	8.60	≤30.00	4.20	12.80	---	PASS
11AC80MIMO	total	5775	10.24	≤28.22	7.78	18.02	---	PASS



11A-Ant1-5180-PASS

11A-Ant2-5180-PASS



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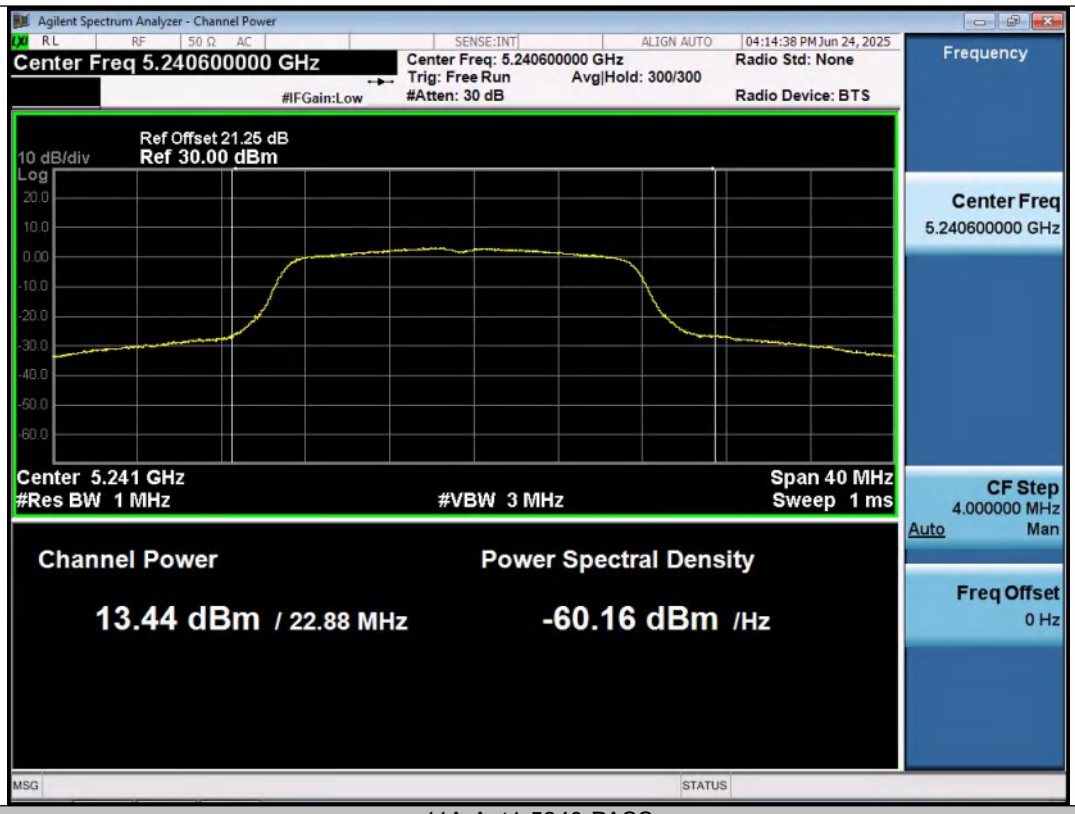
11A-Ant2-5200-PASS



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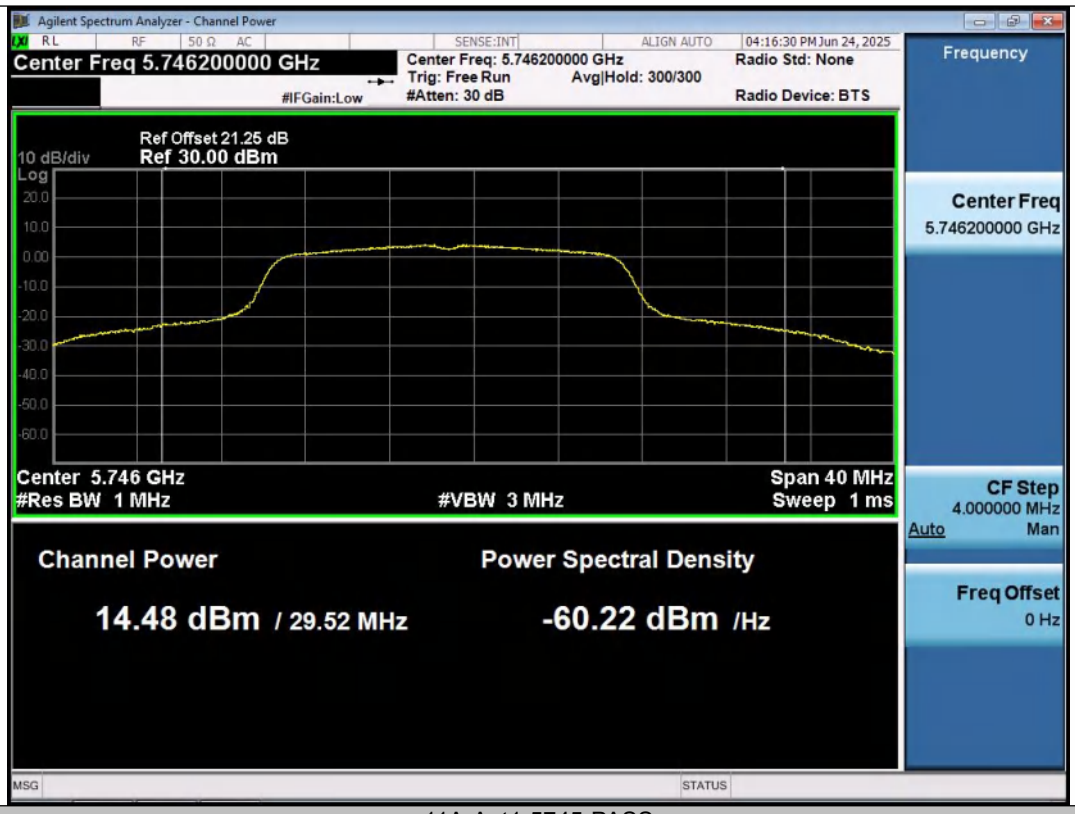
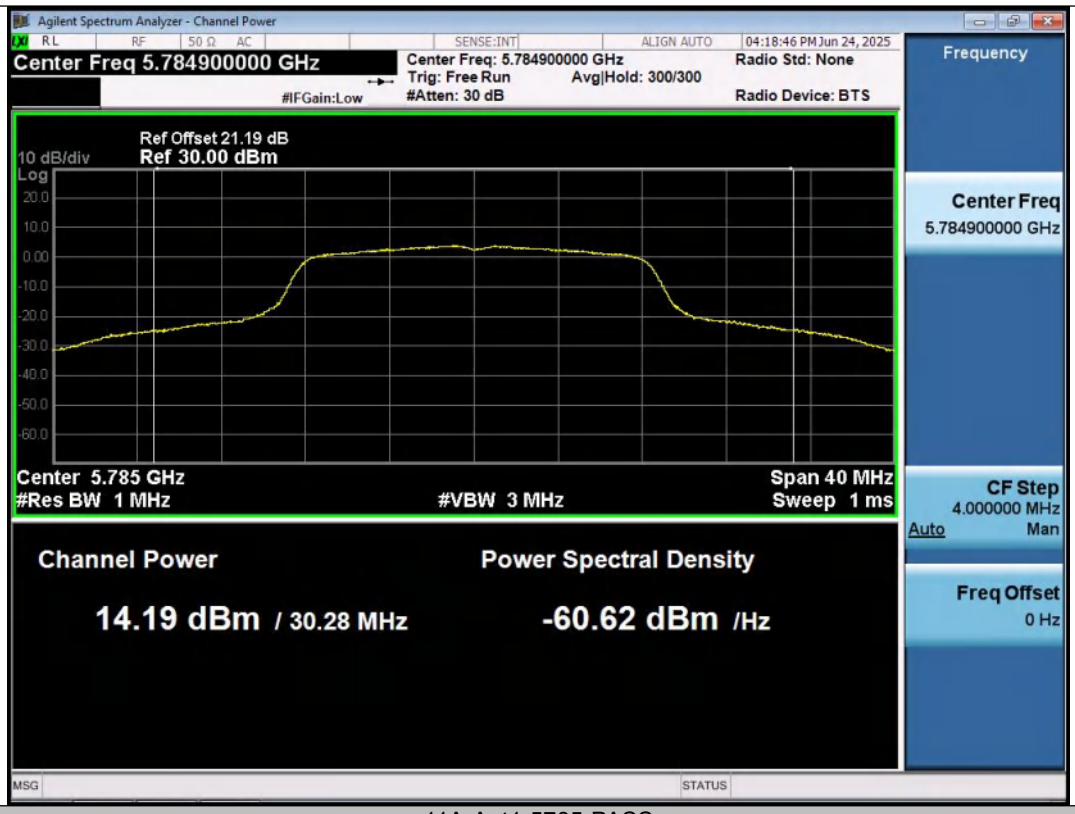
11A-Ant2-5240-PASS



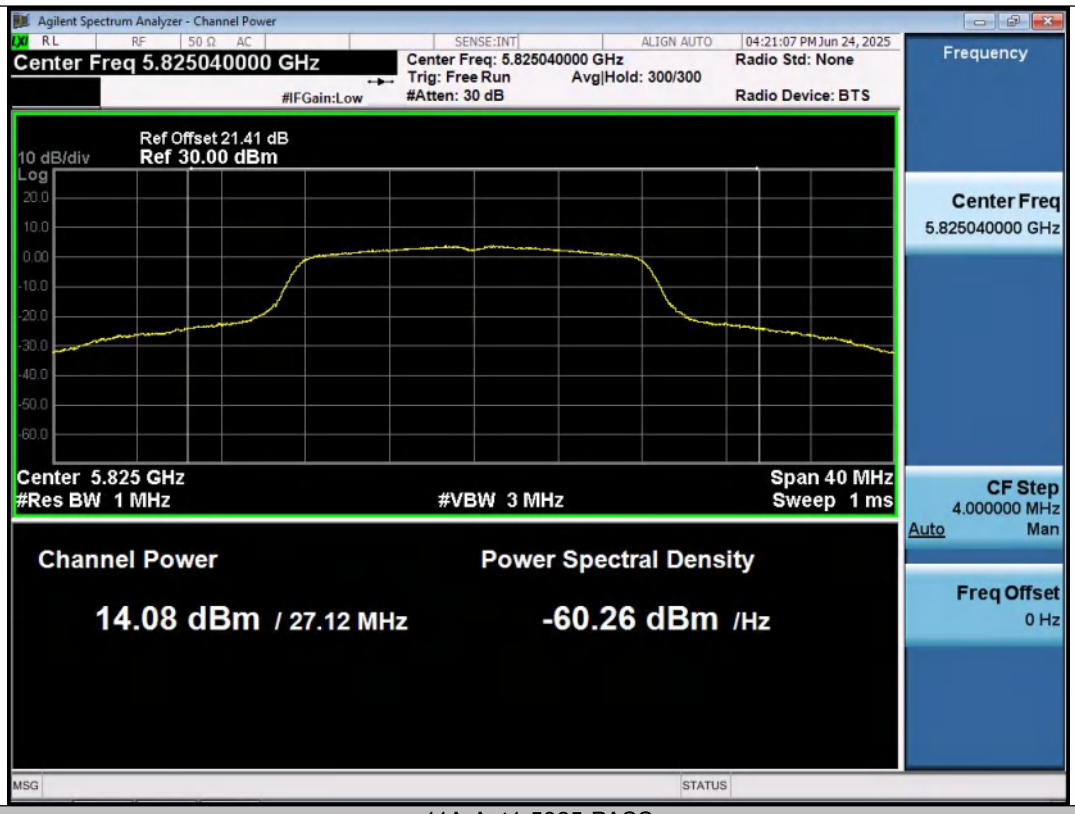
11A-Ant1-5745-PASS

11A-Ant2-5745-PASS



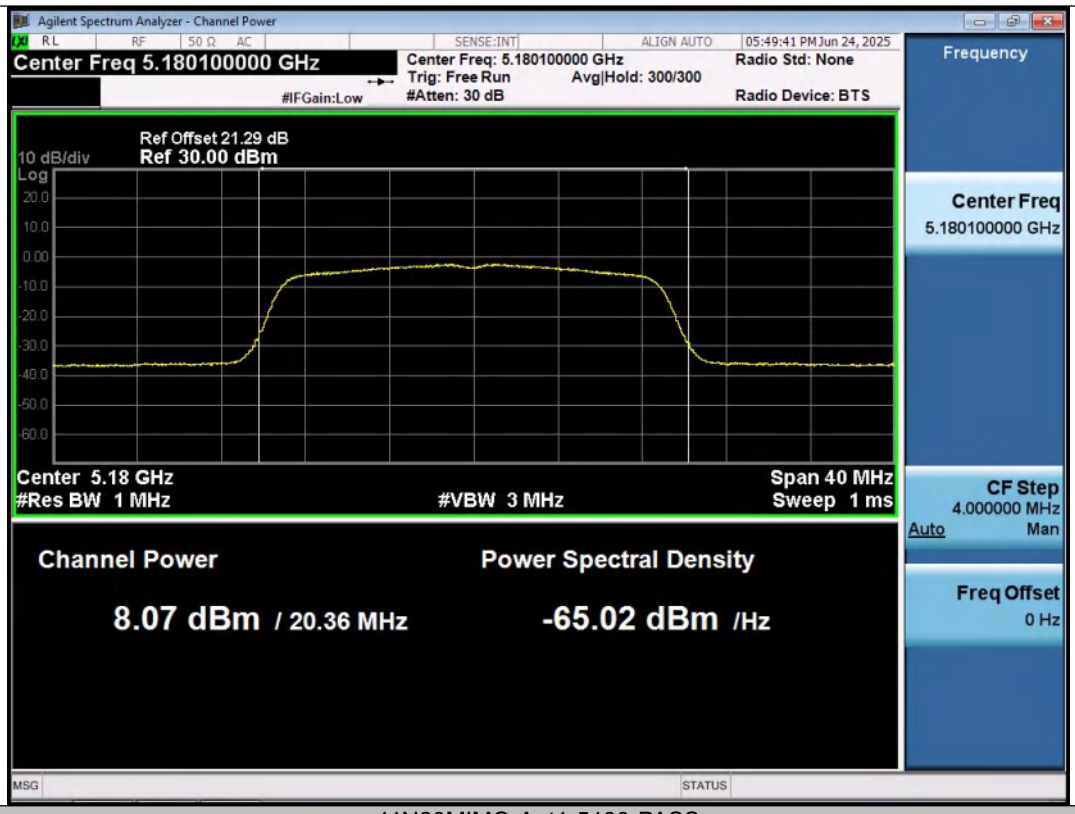
11A-Ant1-5785-PASS

11A-Ant2-5785-PASS



11A-Ant1-5825-PASS

11A-Ant2-5825-PASS



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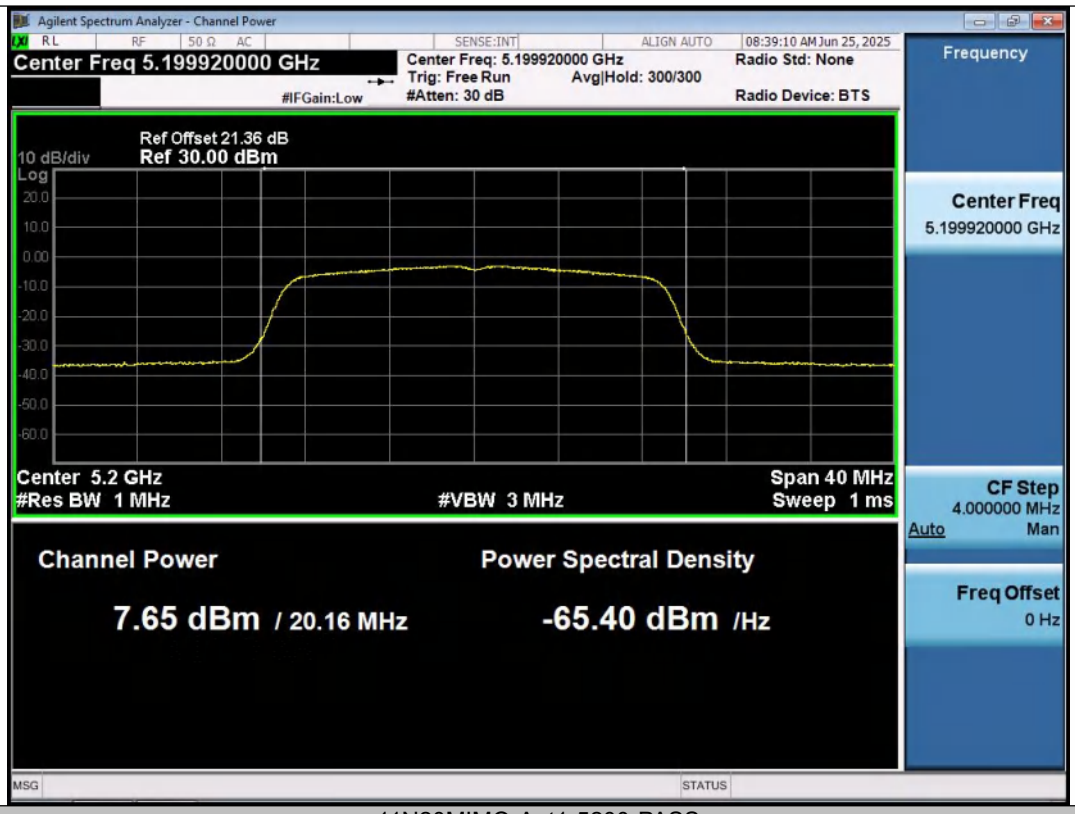
11N20MIMO-Ant2-5180-PASS



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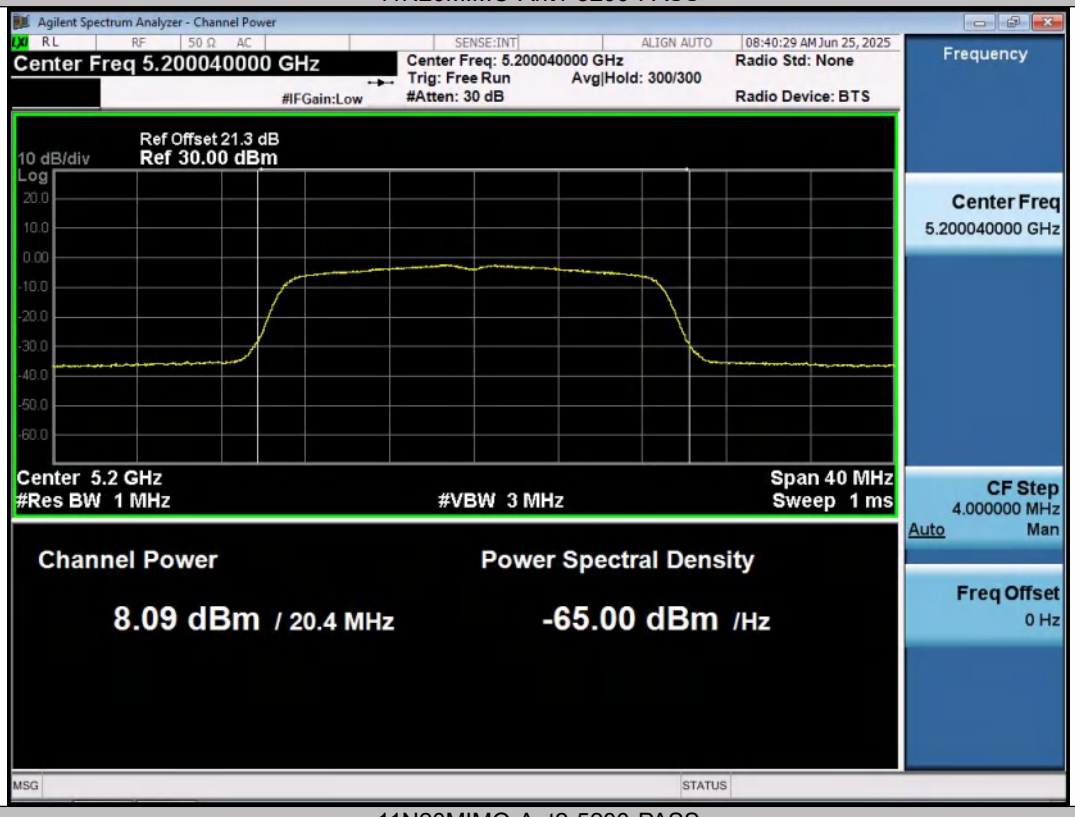
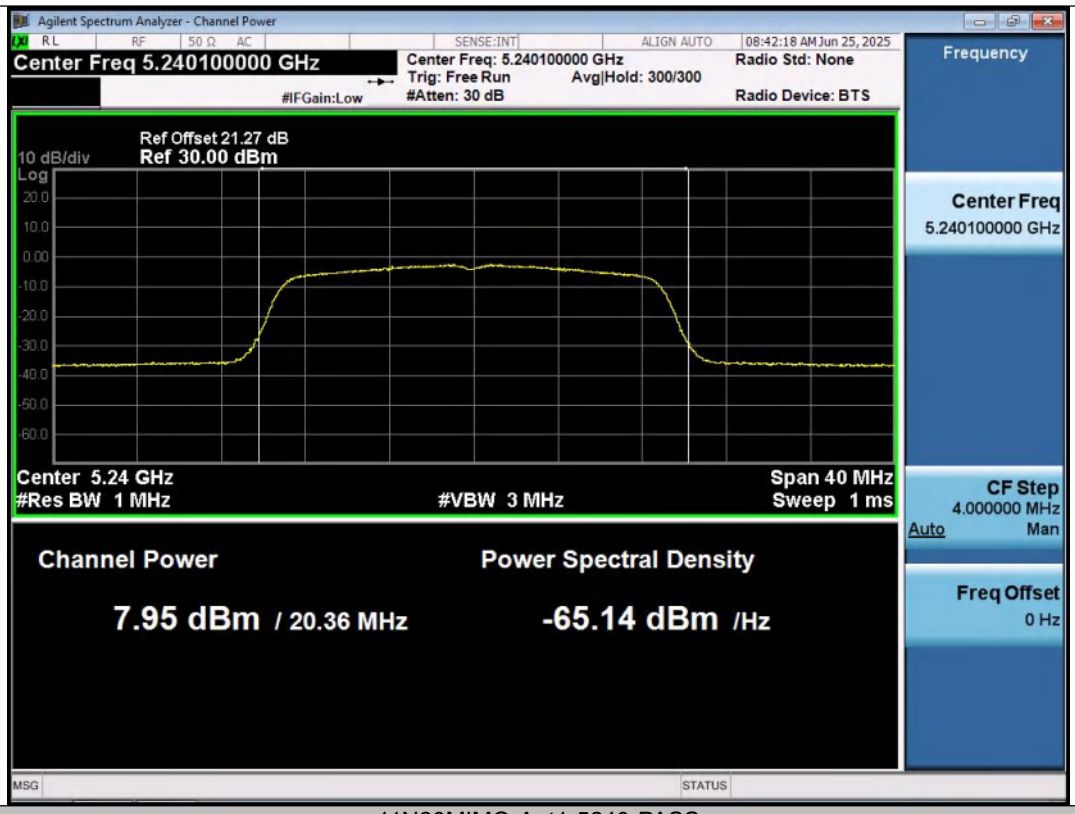


11N20MIMO-Ant2-5200-PASS



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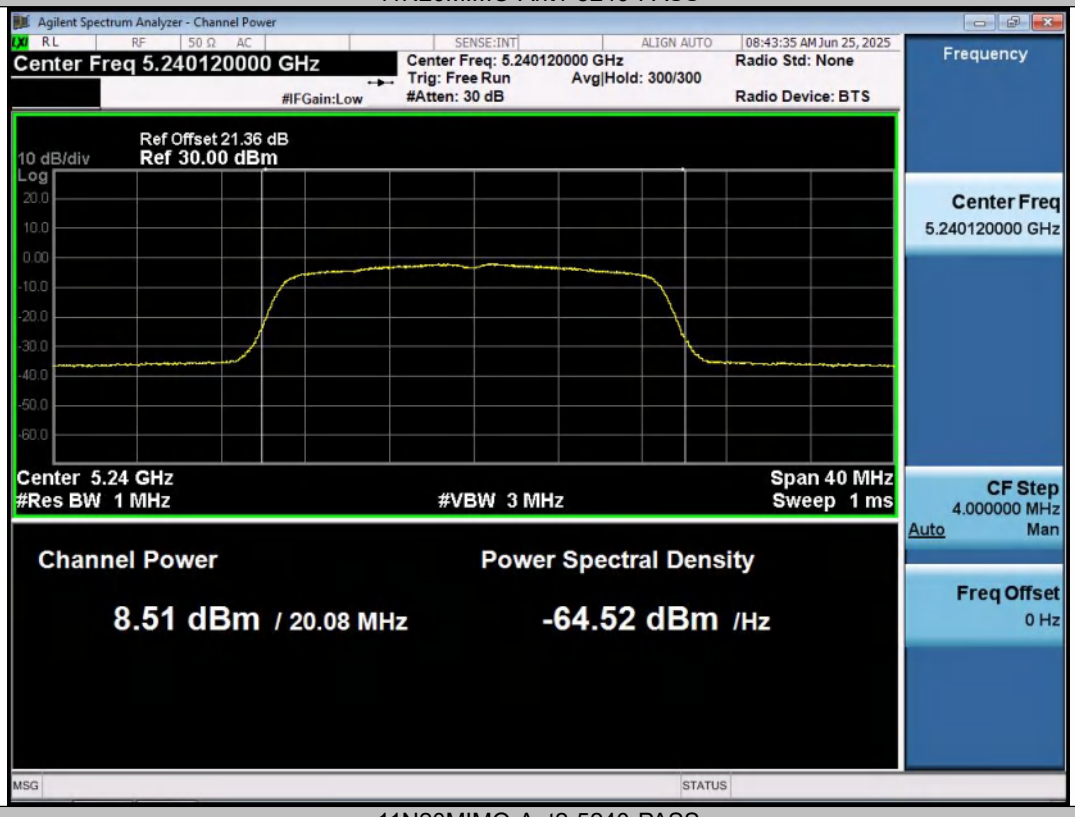
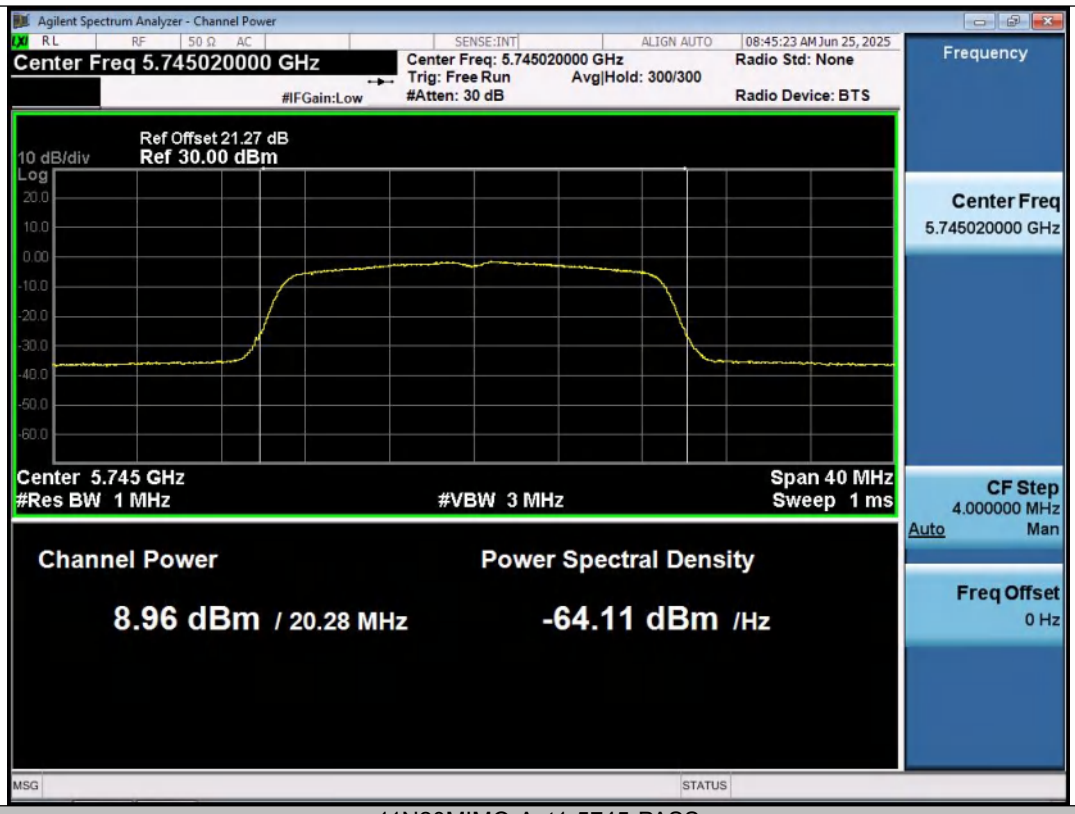


11N20MIMO-Ant2-5240-PASS



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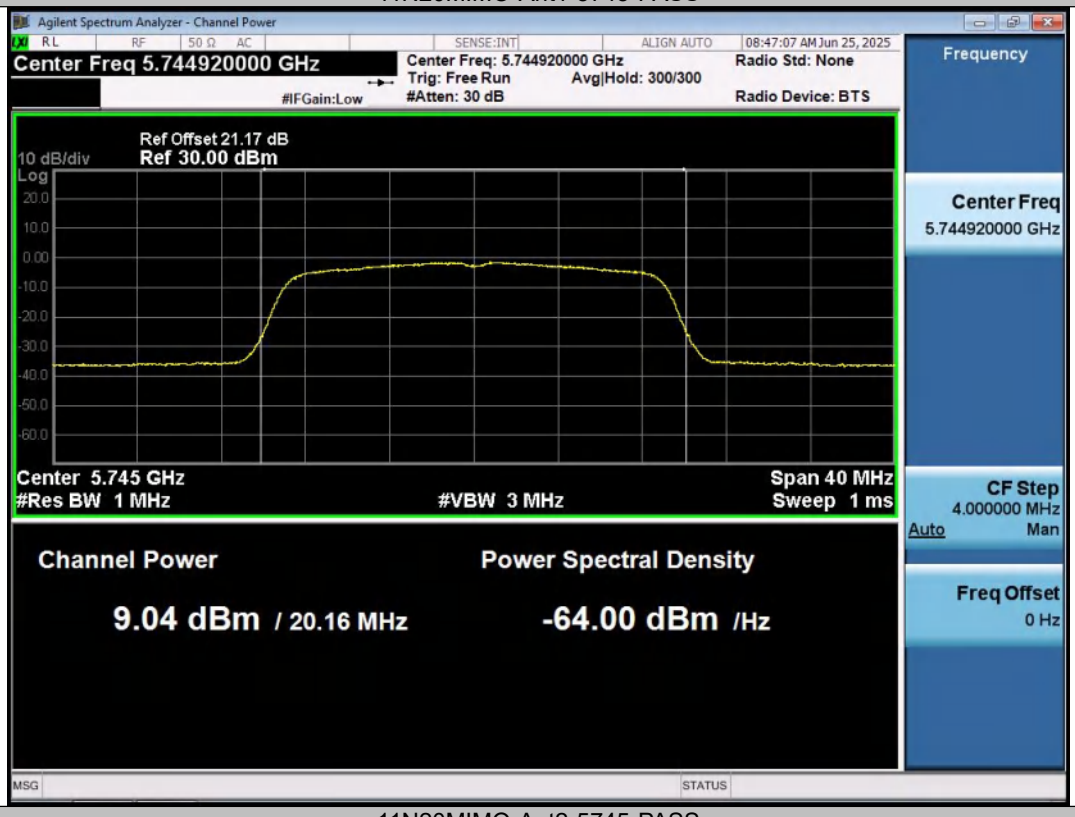
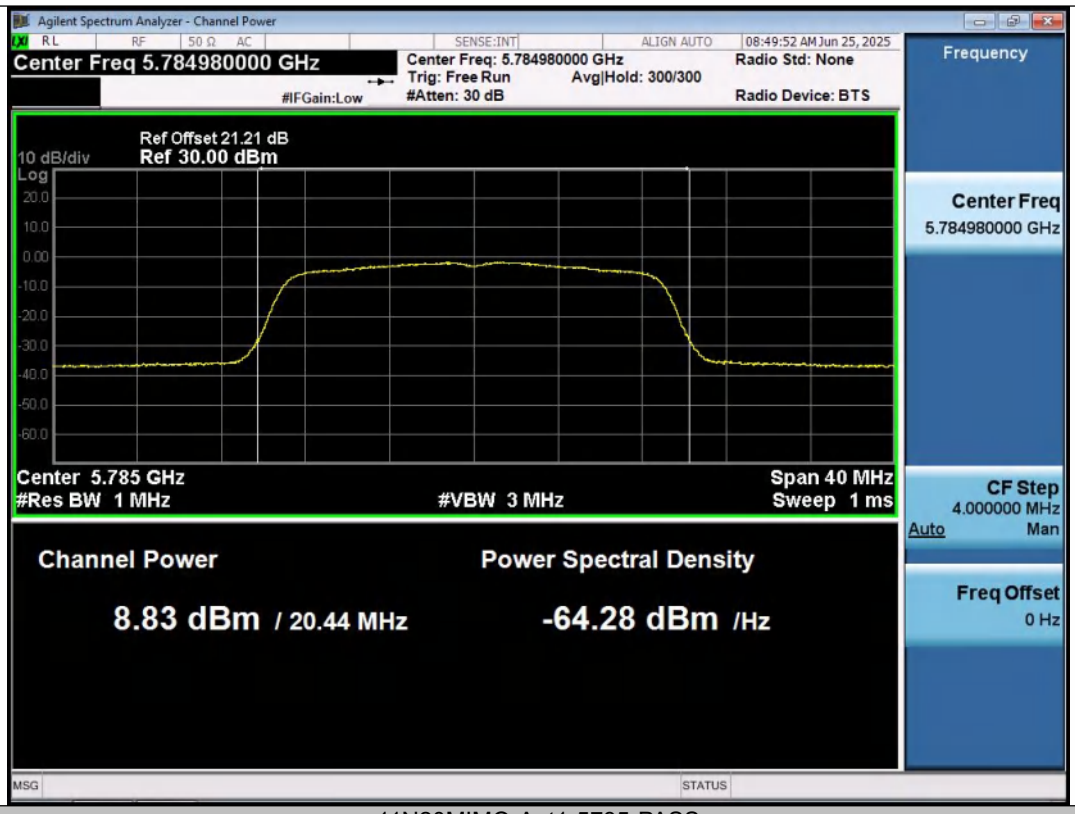
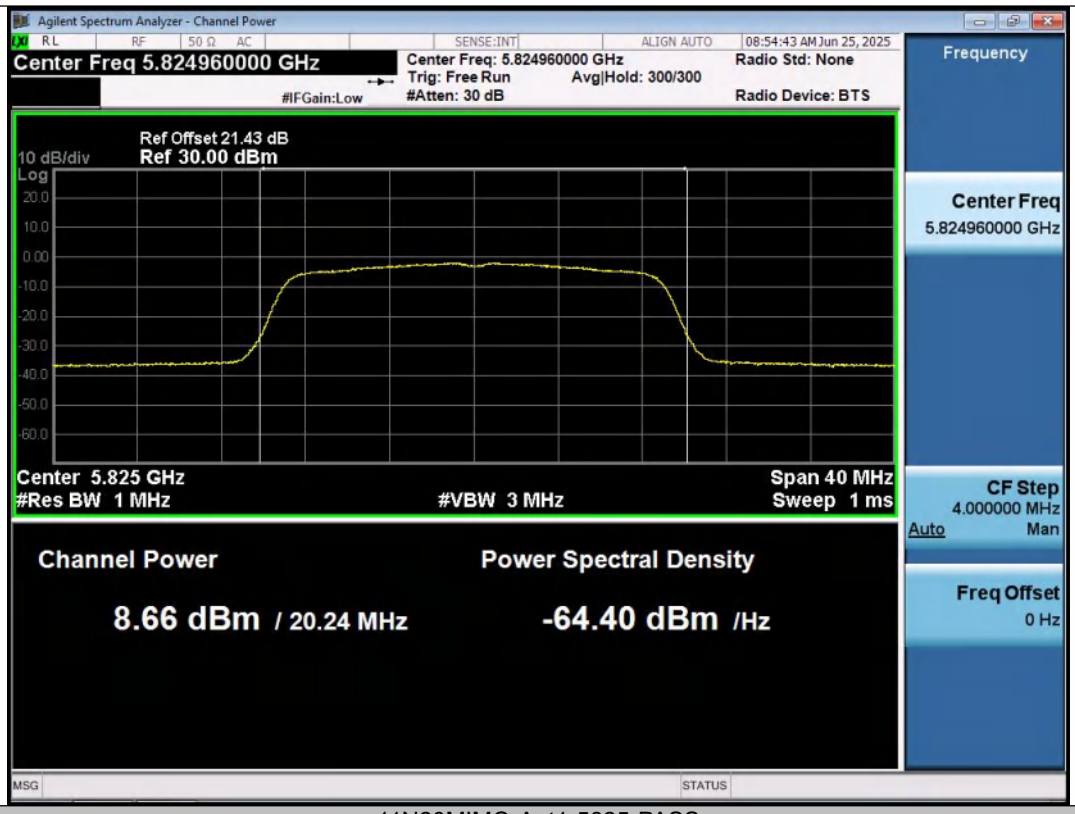


11N20MIMO-Ant2-5745-PASS

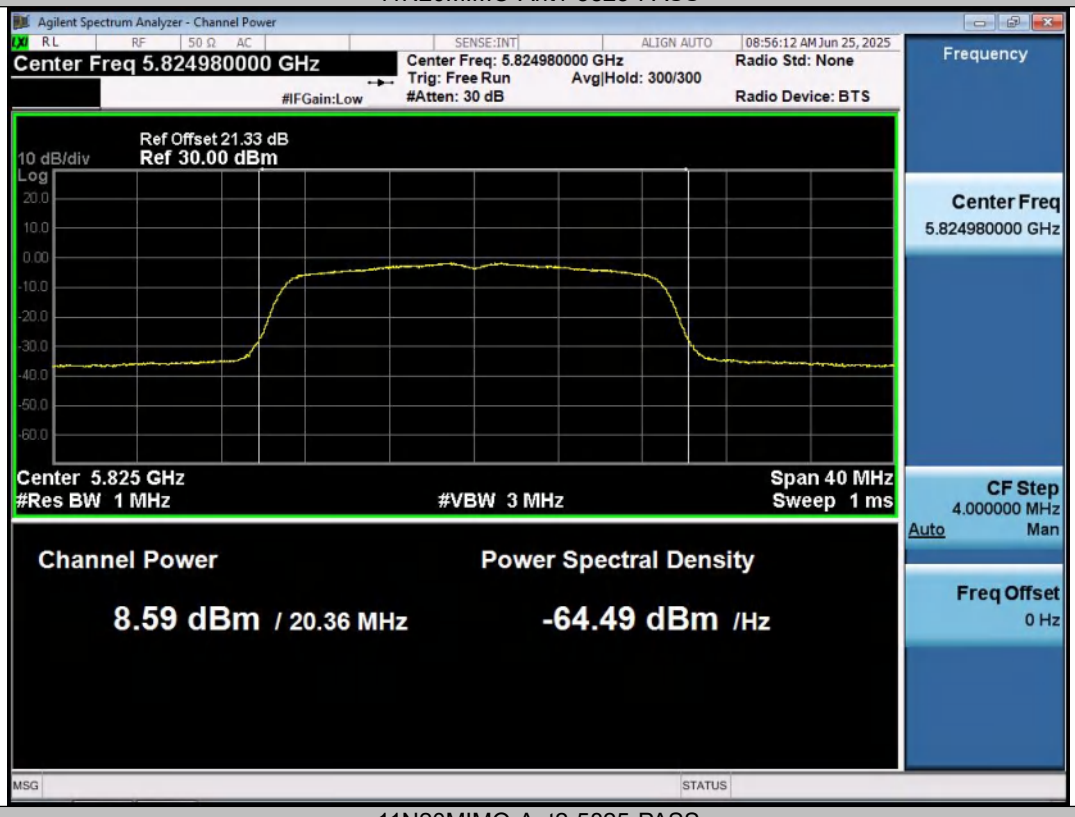


11N20MIMO-Ant1-5785-PASS

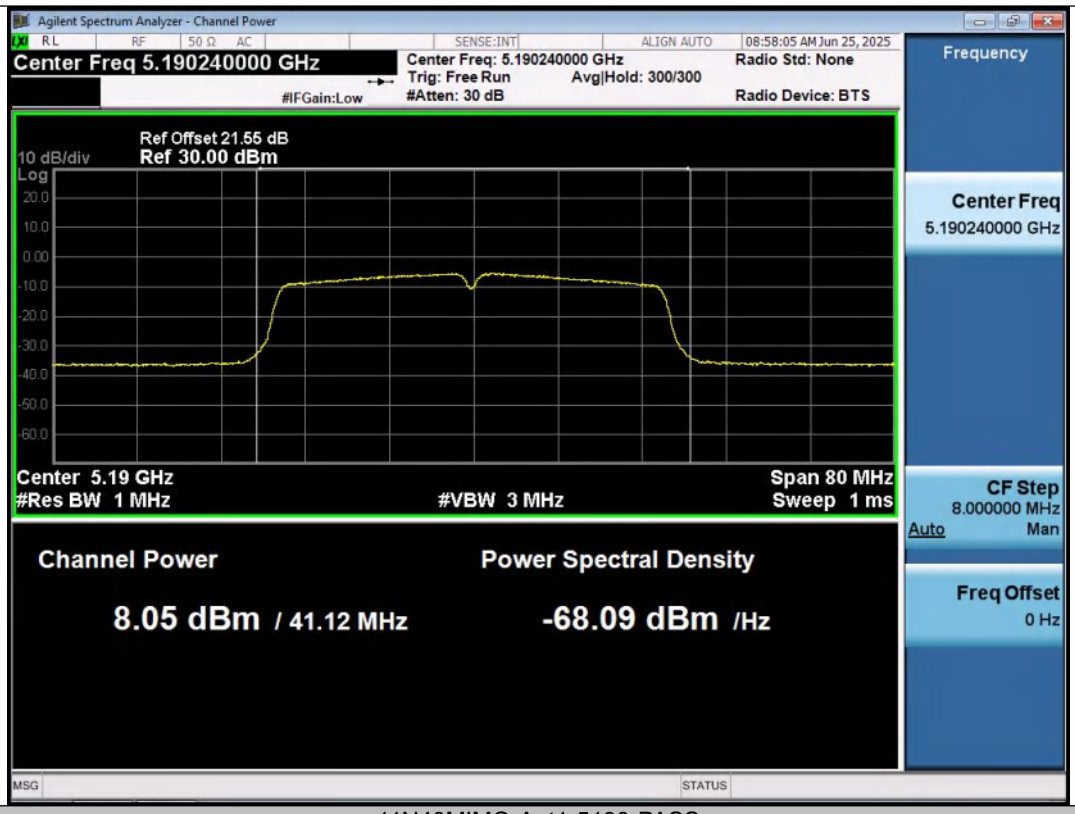
11N20MIMO-Ant2-5785-PASS



11N20MIMO-Ant1-5825-PASS

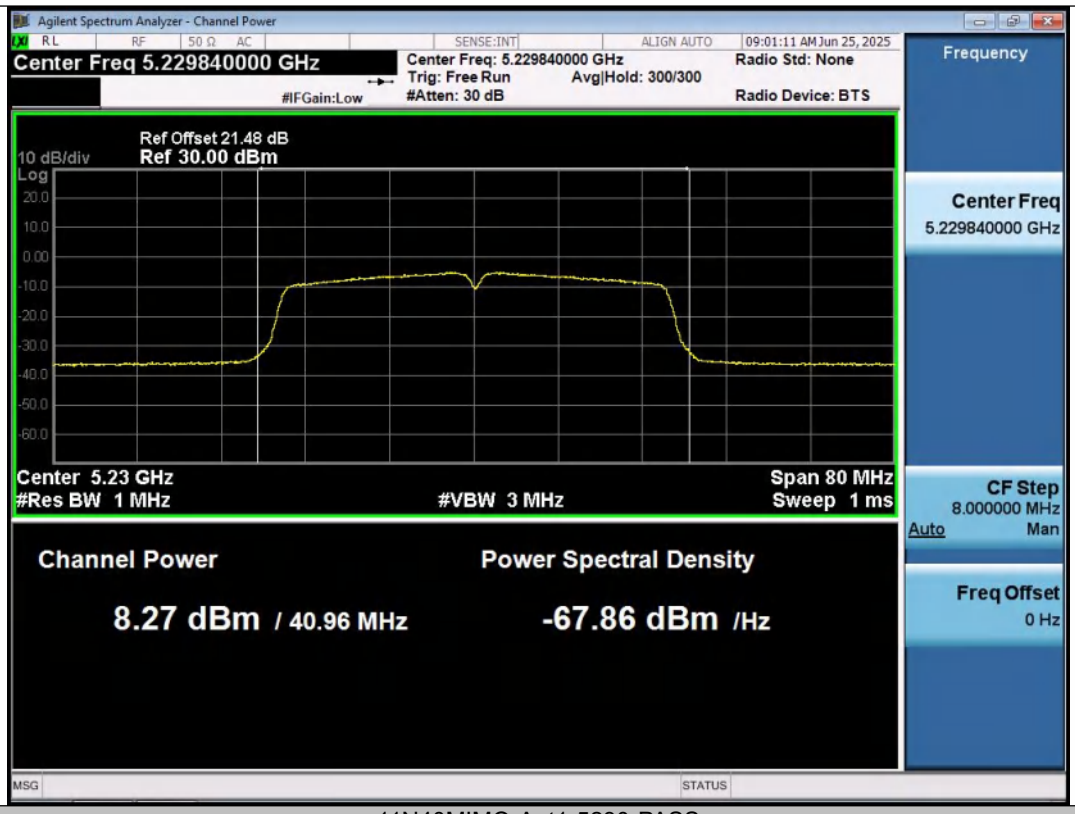


11N20MIMO-Ant2-5825-PASS



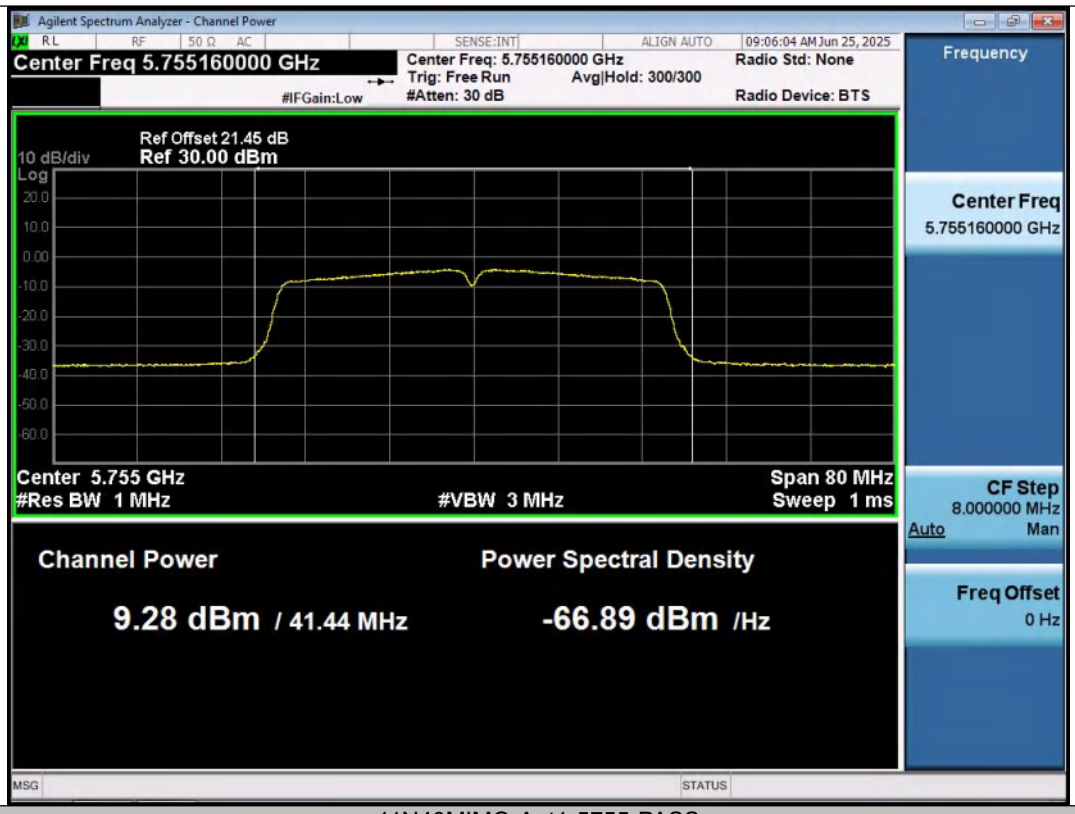
11N40MIMO-Ant1-5190-PASS

11N40MIMO-Ant2-5190-PASS



11N40MIMO-Ant1-5230-PASS

11N40MIMO-Ant2-5230-PASS



11N40MIMO-Ant1-5755-PASS

11N40MIMO-Ant2-5755-PASS