	Ant2	5580	15.28	≤22.79	PASS
	total	5580	17.87	≤22.79	PASS
	Ant1	5700	15.12	≤22.79	PASS
	Ant2	5700	16.26	≤22.79	PASS
	total	5700	18.74	≤22.79	PASS
	Ant1	5745	14.40	≤28.81	PASS
	Ant2	5745	16.76	≤28.81	PASS
	total	5745	18.75	≤28.81	PASS
	Ant1	5785	15.93	≤28.81	PASS
	Ant2	5785	16.11	≤28.81	PASS
	total	5785	19.03	≤28.81	PASS
	Ant1	5825	15.73	≤28.81	PASS
	Ant2	5825	15.95	≤28.81	PASS
	total	5825	18.85	≤28.81	PASS
11N40MIMO	Ant1	5190	15.08	≤28.81	PASS
	Ant2	5190	15.52	≤28.81	PASS
	total	5190	18.32	≤28.81	PASS
	Ant1	5230	15.19	≤28.81	PASS
	Ant2	5230	14.93	≤28.81	PASS
	total	5230	18.07	≤28.81	PASS
	Ant1	5270	15.53	≤22.79	PASS
	Ant2	5270	15.31	≤22.79	PASS
	total	5270	18.43	≤22.79	PASS
	Ant1	5310	15.75	≤22.79	PASS
	Ant2	5310	15.95	≤22.79	PASS
	total	5310	18.86	≤22.79	PASS
	Ant1	5510	15.04	≤22.79	PASS
	Ant2	5510	14.97	≤22.79	PASS
	total	5510	18.02	≤22.79	PASS
	Ant1	5550	15.47	≤22.79	PASS
	Ant2	5550	14.76	≤22.79	PASS
	total	5550	18.14	≤22.79	PASS
	Ant1	5670	14.70	≤22.79	PASS
	Ant2	5670	15.29	≤22.79	PASS
	total	5670	18.02	≤22.79	PASS
	Ant1	5755	14.25	≤28.81	PASS
	Ant2	5755	16.49	≤28.81	PASS
	total	5755	18.52	≤28.81	PASS
	Ant1	5795	15.89	≤28.81	PASS
	Ant2	5795	16.29	≤28.81	PASS
	total	5795	19.10	≤28.81	PASS
11AC20MIMO	Ant1	5180	15.02	≤28.81	PASS
	Ant2	5180	15.35	≤28.81	PASS
	total	5180	18.20	≤28.81	PASS
	Ant1	5200	13.99	≤28.81	PASS
	Ant2	5200	15.64	≤28.81	PASS
	total	5200	17.90	≤28.81	PASS
	Ant1	5240	15.17	≤28.81	PASS
	Ant2	5240	13.63	≤28.81	PASS
	total	5240	17.48	≤28.81	PASS
	Ant1	5260	15.23	≤22.79	PASS
	Ant2	5260	15.05	≤22.79	PASS
	total	5260	18.15	≤22.79	PASS
	Ant1	5280	15.81	≤22.79	PASS
	Ant2	5280	15.45	≤22.79	PASS
	total	5280	18.64	≤22.79	PASS
	Ant1	5320	15.43	≤22.79	PASS
	Ant2	5320	15.49	≤22.79	PASS
	total	5320	18.47	≤22.79	PASS
	Ant1	5500	14.80	≤22.79	PASS
	Ant2	5500	14.07	≤22.79	PASS
	total	5500	17.46	≤22.79	PASS
	Ant1	5580	14.64	≤22.79	PASS

	Ant2	5580	15.19	≤22.79	PASS
	total	5580	17.93	≤22.79	PASS
	Ant1	5700	14.92	≤22.79	PASS
	Ant2	5700	15.94	≤22.79	PASS
	total	5700	18.47	≤22.79	PASS
	Ant1	5745	13.78	≤28.81	PASS
	Ant2	5745	16.75	≤28.81	PASS
	total	5745	18.52	≤28.81	PASS
	Ant1	5785	16.19	≤28.81	PASS
	Ant2	5785	16.43	≤28.81	PASS
	total	5785	19.32	≤28.81	PASS
	Ant1	5825	15.61	≤28.81	PASS
	Ant2	5825	15.89	≤28.81	PASS
	total	5825	18.76	≤28.81	PASS
11AC40MIMO	Ant1	5190	15.24	≤28.81	PASS
	Ant2	5190	15.46	≤28.81	PASS
	total	5190	18.36	≤28.81	PASS
	Ant1	5230	14.91	≤28.81	PASS
	Ant2	5230	14.96	≤28.81	PASS
	total	5230	17.95	≤28.81	PASS
	Ant1	5270	15.81	≤22.79	PASS
	Ant2	5270	15.04	≤22.79	PASS
	total	5270	18.45	≤22.79	PASS
	Ant1	5310	15.70	≤22.79	PASS
	Ant2	5310	15.64	≤22.79	PASS
	total	5310	18.68	≤22.79	PASS
	Ant1	5510	14.58	≤22.79	PASS
	Ant2	5510	14.83	≤22.79	PASS
	total	5510	17.72	≤22.79	PASS
	Ant1	5550	15.74	≤22.79	PASS
	Ant2	5550	14.46	≤22.79	PASS
	total	5550	18.16	≤22.79	PASS
	Ant1	5670	14.93	≤22.79	PASS
	Ant2	5670	14.75	≤22.79	PASS
	total	5670	17.85	≤22.79	PASS
	Ant1	5755	14.10	≤28.81	PASS
	Ant2	5755	16.45	≤28.81	PASS
	total	5755	18.44	≤28.81	PASS
	Ant1	5795	15.70	≤28.81	PASS
	Ant2	5795	16.18	≤28.81	PASS
	total	5795	18.96	≤28.81	PASS
11AC80MIMO	Ant1	5210	15.43	≤28.81	PASS
	Ant2	5210	15.93	≤28.81	PASS
	total	5210	18.70	≤28.81	PASS
	Ant1	5290	15.13	≤22.79	PASS
	Ant2	5290	15.35	≤22.79	PASS
	total	5290	18.25	≤22.79	PASS
	Ant1	5530	14.03	≤22.79	PASS
	Ant2	5530	14.14	≤22.79	PASS
	total	5530	17.10	≤22.79	PASS
	Ant1	5610	14.67	≤22.79	PASS
	Ant2	5610	15.34	≤22.79	PASS
	total	5610	18.03	≤22.79	PASS
	Ant1	5775	15.26	≤28.81	PASS
	Ant2	5775	16.22	≤28.81	PASS
	total	5775	18.78	≤28.81	PASS
11AX20MIMO	Ant1	5180	15.33	≤28.81	PASS
	Ant2	5180	15.20	≤28.81	PASS
	total	5180	18.28	≤28.81	PASS
	Ant1	5200	14.44	≤28.81	PASS
	Ant2	5200	15.17	≤28.81	PASS
	total	5200	17.83	≤28.81	PASS
	Ant1	5240	15.15	≤28.81	PASS

	Ant2	5240	14.14	≤28.81	PASS
	total	5240	17.68	≤28.81	PASS
	Ant1	5260	15.35	≤22.79	PASS
	Ant2	5260	14.98	≤22.79	PASS
	total	5260	18.18	≤22.79	PASS
	Ant1	5280	15.79	≤22.79	PASS
	Ant2	5280	15.20	≤22.79	PASS
	total	5280	18.52	≤22.79	PASS
	Ant1	5320	15.25	≤22.79	PASS
	Ant2	5320	15.28	≤22.79	PASS
	total	5320	18.28	≤22.79	PASS
	Ant1	5500	14.38	≤22.79	PASS
	Ant2	5500	14.45	≤22.79	PASS
	total	5500	17.43	≤22.79	PASS
	Ant1	5580	14.68	≤22.79	PASS
	Ant2	5580	15.12	≤22.79	PASS
	total	5580	17.92	≤22.79	PASS
	Ant1	5700	14.94	≤22.79	PASS
	Ant2	5700	15.96	≤22.79	PASS
	total	5700	18.49	≤22.79	PASS
	Ant1	5745	14.37	≤28.81	PASS
	Ant2	5745	16.52	≤28.81	PASS
	total	5745	18.59	≤28.81	PASS
	Ant1	5785	16.08	≤28.81	PASS
	Ant2	5785	16.30	≤28.81	PASS
	total	5785	19.20	≤28.81	PASS
	Ant1	5825	15.34	≤28.81	PASS
	Ant2	5825	16.29	≤28.81	PASS
	total	5825	18.85	≤28.81	PASS
11AX40MIMO	Ant1	5190	14.65	≤28.81	PASS
	Ant2	5190	15.25	≤28.81	PASS
	total	5190	17.97	≤28.81	PASS
	Ant1	5230	16.09	≤28.81	PASS
	Ant2	5230	15.26	≤28.81	PASS
	total	5230	18.71	≤28.81	PASS
	Ant1	5270	15.28	≤22.79	PASS
	Ant2	5270	14.86	≤22.79	PASS
	total	5270	18.09	≤22.79	PASS
	Ant1	5310	14.83	≤22.79	PASS
	Ant2	5310	14.75	≤22.79	PASS
	total	5310	17.80	≤22.79	PASS
	Ant1	5510	14.42	≤22.79	PASS
	Ant2	5510	15.17	≤22.79	PASS
	total	5510	17.82	≤22.79	PASS
	Ant1	5550	16.08	≤22.79	PASS
	Ant2	5550	15.58	≤22.79	PASS
	total	5550	18.85	≤22.79	PASS
	Ant1	5670	14.22	≤22.79	PASS
	Ant2	5670	16.03	≤22.79	PASS
	total	5670	18.23	≤22.79	PASS
	Ant1	5755	14.61	≤28.81	PASS
	Ant2	5755	16.89	≤28.81	PASS
	total	5755	18.91	≤28.81	PASS
	Ant1	5795	15.84	≤28.81	PASS
	Ant2	5795	16.69	≤28.81	PASS
	total	5795	19.30	≤28.81	PASS
11AX80MIMO	Ant1	5210	14.89	≤28.81	PASS
	Ant2	5210	15.58	≤28.81	PASS
	total	5210	18.26	≤28.81	PASS
	Ant1	5290	15.02	≤22.79	PASS
	Ant2	5290	15.28	≤22.79	PASS
	total	5290	18.16	≤22.79	PASS
	Ant1	5530	15.25	≤22.79	PASS

	Ant2	5530	15.58	≤22.79	PASS
	total	5530	18.43	≤22.79	PASS
	Ant1	5610	15.67	≤22.79	PASS
	Ant2	5610	15.91	≤22.79	PASS
	total	5610	18.80	≤22.79	PASS
	Ant1	5775	16.52	≤28.81	PASS
	Ant2	5775	16.63	≤28.81	PASS
	total	5775	**19.59**	≤28.81	PASS
11AX160MIMO	Ant1	5250_UNII-1	13.19	≤28.81	PASS
	Ant2	5250_UNII-1	12.67	≤28.81	PASS
	total	5250_UNII-1	12.27	≤28.81	PASS
	Ant1	5250_UNII-2A	15.76	≤22.79	PASS
	Ant2	5250_UNII-2A	11.76	≤22.79	PASS
	total	5250_UNII-2A	15.25	≤22.79	PASS
	Ant1	5570	15.03	≤22.79	PASS
	Ant2	5570	14.37	≤22.79	PASS
	total	5570	17.72	≤22.79	PASS

Note: The duty cycle factor has included in power value.

Frequency Band	ANT 1 Antenna Gain (dBi)	ANT 2 Antenna Gain (dBi)	Correlated chains directional gain (dBi)	Power Limit (dBm)
U-NII-1	3.62	4.67	7.19	28.81
U-NII-2A	3.62	4.67	7.19	22.79
U-NII-2C	3.62	4.67	7.19	22.79
U-NII-3	3.62	4.67	7.19	28.81

Unequal antenna gains, with equal transmit powers. For antenna gains given by G_1, G_2, …, G_N dBi
If transmit signals are correlated, then Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \ldots + 10^{GN/20})^2 / N_{ANT}]$ dBi
[Note the "20"s in the denominator of each exponent and the square of the sum of terms; the object is to combine the signal levels coherently.]
Directional gain = $10\log[(10^{4.67/20} + 10^{4.67/20})^2/N_{ANT}]$ dBi=7.19

Beamforming

Test Mode	Antenna	Freq(MHz)	Result [dBm]	Limit [dBm]	Verdict
11A-CDD	Ant1	5180	12.73	≤26.31	PASS
	Ant2	5180	12.41	≤26.31	PASS
	total	5180	15.58	≤26.31	PASS
	Ant1	5200	12.56	≤26.31	PASS
	Ant2	5200	12.31	≤26.31	PASS
	total	5200	15.45	≤26.31	PASS
	Ant1	5240	12.63	≤26.31	PASS
	Ant2	5240	12.32	≤26.31	PASS
	total	5240	15.49	≤26.31	PASS
	Ant1	5260	12.48	≤20.29	PASS
	Ant2	5260	12.09	≤20.29	PASS
	total	5260	15.30	≤20.29	PASS
	Ant1	5280	12.53	≤20.29	PASS
	Ant2	5280	12.28	≤20.29	PASS
	total	5280	15.42	≤20.29	PASS
	Ant1	5320	12.45	≤20.29	PASS
	Ant2	5320	12.00	≤20.29	PASS
	total	5320	15.24	≤20.29	PASS
	Ant1	5500	12.46	≤20.29	PASS
	Ant2	5500	12.20	≤20.29	PASS
	total	5500	15.34	≤20.29	PASS
	Ant1	5580	12.53	≤20.29	PASS
	Ant2	5580	12.13	≤20.29	PASS
	total	5580	15.34	≤20.29	PASS
	Ant1	5700	12.24	≤20.29	PASS
	Ant2	5700	12.03	≤20.29	PASS
	total	5700	15.14	≤20.29	PASS
	Ant1	5745	12.36	≤26.31	PASS
	Ant2	5745	11.96	≤26.31	PASS
	total	5745	15.17	≤26.31	PASS
	Ant1	5785	12.23	≤26.31	PASS
	Ant2	5785	11.85	≤26.31	PASS
	total	5785	15.06	≤26.31	PASS
	Ant1	5825	12.43	≤26.31	PASS
	Ant2	5825	12.25	≤26.31	PASS
	total	5825	15.35	≤26.31	PASS
11N20MIMO	Ant1	5180	12.69	≤26.31	PASS
	Ant2	5180	12.31	≤26.31	PASS
	total	5180	15.51	≤26.31	PASS
	Ant1	5200	12.44	≤26.31	PASS
	Ant2	5200	12.35	≤26.31	PASS
	total	5200	15.41	≤26.31	PASS
	Ant1	5240	12.58	≤26.31	PASS
	Ant2	5240	12.18	≤26.31	PASS
	total	5240	15.39	≤26.31	PASS
	Ant1	5260	12.55	≤20.29	PASS
	Ant2	5260	12.17	≤20.29	PASS
	total	5260	15.37	≤20.29	PASS
	Ant1	5280	12.66	≤20.29	PASS
	Ant2	5280	12.43	≤20.29	PASS
	total	5280	15.56	≤20.29	PASS
	Ant1	5320	12.62	≤20.29	PASS
	Ant2	5320	12.40	≤20.29	PASS
	total	5320	15.52	≤20.29	PASS
	Ant1	5500	12.63	≤20.29	PASS
	Ant2	5500	12.44	≤20.29	PASS
	total	5500	15.55	≤20.29	PASS
	Ant1	5580	12.55	≤20.29	PASS

	Ant2	5580	12.30	≤20.29	PASS
	total	5580	15.44	≤20.29	PASS
	Ant1	5700	12.55	≤20.29	PASS
	Ant2	5700	12.35	≤20.29	PASS
	total	5700	15.46	≤20.29	PASS
	Ant1	5745	12.43	≤26.31	PASS
	Ant2	5745	12.35	≤26.31	PASS
	total	5745	15.40	≤26.31	PASS
	Ant1	5785	12.77	≤26.31	PASS
	Ant2	5785	12.44	≤26.31	PASS
	total	5785	15.62	≤26.31	PASS
	Ant1	5825	12.69	≤26.31	PASS
	Ant2	5825	12.34	≤26.31	PASS
	total	5825	15.53	≤26.31	PASS
11N40MIMO	Ant1	5190	12.42	≤26.31	PASS
	Ant2	5190	12.16	≤26.31	PASS
	total	5190	15.30	≤26.31	PASS
	Ant1	5230	12.58	≤26.31	PASS
	Ant2	5230	12.40	≤26.31	PASS
	total	5230	15.50	≤26.31	PASS
	Ant1	5270	12.67	≤20.29	PASS
	Ant2	5270	12.25	≤20.29	PASS
	total	5270	15.48	≤20.29	PASS
	Ant1	5310	12.69	≤20.29	PASS
	Ant2	5310	12.31	≤20.29	PASS
	total	5310	15.51	≤20.29	PASS
	Ant1	5510	12.44	≤20.29	PASS
	Ant2	5510	12.35	≤20.29	PASS
	total	5510	15.41	≤20.29	PASS
	Ant1	5550	12.58	≤20.29	PASS
	Ant2	5550	12.18	≤20.29	PASS
	total	5550	15.39	≤20.29	PASS
	Ant1	5670	12.55	≤20.29	PASS
	Ant2	5670	12.17	≤20.29	PASS
	total	5670	15.37	≤20.29	PASS
	Ant1	5755	12.66	≤26.31	PASS
	Ant2	5755	12.43	≤26.31	PASS
	total	5755	15.56	≤26.31	PASS
	Ant1	5795	12.62	≤26.31	PASS
	Ant2	5795	12.40	≤26.31	PASS
	total	5795	15.52	≤26.31	PASS
11AC20MIMO	Ant1	5180	12.63	≤26.31	PASS
	Ant2	5180	12.44	≤26.31	PASS
	total	5180	15.55	≤26.31	PASS
	Ant1	5200	12.55	≤26.31	PASS
	Ant2	5200	12.30	≤26.31	PASS
	total	5200	15.44	≤26.31	PASS
	Ant1	5240	12.55	≤26.31	PASS
	Ant2	5240	12.35	≤26.31	PASS
	total	5240	15.46	≤26.31	PASS
	Ant1	5260	12.65	≤20.29	PASS
	Ant2	5260	12.35	≤20.29	PASS
	total	5260	15.52	≤20.29	PASS
	Ant1	5280	12.54	≤20.29	PASS
	Ant2	5280	12.30	≤20.29	PASS
	total	5280	15.43	≤20.29	PASS
	Ant1	5320	12.49	≤20.29	PASS
	Ant2	5320	12.44	≤20.29	PASS
	total	5320	15.47	≤20.29	PASS
	Ant1	5500	12.52	≤20.29	PASS
	Ant2	5500	12.20	≤20.29	PASS
	total	5500	15.37	≤20.29	PASS
	Ant1	5580	12.71	≤20.29	PASS

	Ant2	5580	12.37	≤20.29	PASS
	total	5580	15.55	≤20.29	PASS
	Ant1	5700	12.60	≤20.29	PASS
	Ant2	5700	12.22	≤20.29	PASS
	total	5700	15.42	≤20.29	PASS
	Ant1	5745	12.69	≤26.31	PASS
	Ant2	5745	12.32	≤26.31	PASS
	total	5745	15.52	≤26.31	PASS
	Ant1	5785	13.19	≤26.31	PASS
	Ant2	5785	13.43	≤26.31	PASS
	total	5785	16.32	≤26.31	PASS
	Ant1	5825	12.75	≤26.31	PASS
	Ant2	5825	12.44	≤26.31	PASS
	total	5825	15.61	≤26.31	PASS
11AC40MIMO	Ant1	5190	12.65	≤26.31	PASS
	Ant2	5190	12.51	≤26.31	PASS
	total	5190	15.59	≤26.31	PASS
	Ant1	5230	12.72	≤26.31	PASS
	Ant2	5230	12.39	≤26.31	PASS
	total	5230	15.56	≤26.31	PASS
	Ant1	5270	12.61	≤20.29	PASS
	Ant2	5270	12.24	≤20.29	PASS
	total	5270	15.44	≤20.29	PASS
	Ant1	5310	12.70	≤20.29	PASS
	Ant2	5310	12.22	≤20.29	PASS
	total	5310	15.48	≤20.29	PASS
	Ant1	5510	12.61	≤20.29	PASS
	Ant2	5510	12.35	≤20.29	PASS
	total	5510	15.49	≤20.29	PASS
	Ant1	5550	12.55	≤20.29	PASS
	Ant2	5550	12.36	≤20.29	PASS
	total	5550	15.46	≤20.29	PASS
	Ant1	5670	12.62	≤20.29	PASS
	Ant2	5670	12.49	≤20.29	PASS
	total	5670	15.57	≤20.29	PASS
	Ant1	5755	12.77	≤26.31	PASS
	Ant2	5755	12.34	≤26.31	PASS
	total	5755	15.57	≤26.31	PASS
	Ant1	5795	12.69	≤26.31	PASS
	Ant2	5795	12.18	≤26.31	PASS
	total	5795	15.45	≤26.31	PASS
11AC80MIMO	Ant1	5210	12.58	≤26.31	PASS
	Ant2	5210	12.24	≤26.31	PASS
	total	5210	15.42	≤26.31	PASS
	Ant1	5290	12.53	≤20.29	PASS
	Ant2	5290	12.40	≤20.29	PASS
	total	5290	15.47	≤20.29	PASS
	Ant1	5530	12.63	≤20.29	PASS
	Ant2	5530	12.53	≤20.29	PASS
	total	5530	15.59	≤20.29	PASS
	Ant1	5610	12.65	≤20.29	PASS
	Ant2	5610	12.34	≤20.29	PASS
	total	5610	15.51	≤20.29	PASS
	Ant1	5775	12.75	≤26.31	PASS
	Ant2	5775	12.44	≤26.31	PASS
	total	5775	15.61	≤26.31	PASS
11AX20MIMO	Ant1	5180	12.82	≤26.31	PASS
	Ant2	5180	12.53	≤26.31	PASS
	total	5180	15.69	≤26.31	PASS
	Ant1	5200	12.49	≤26.31	PASS
	Ant2	5200	12.29	≤26.31	PASS
	total	5200	15.40	≤26.31	PASS
	Ant1	5240	12.77	≤26.31	PASS

	Ant2	5240	12.53	≤26.31	PASS
	total	5240	15.66	≤26.31	PASS
	Ant1	5260	12.79	≤20.29	PASS
	Ant2	5260	12.57	≤20.29	PASS
	total	5260	15.69	≤20.29	PASS
	Ant1	5280	12.63	≤20.29	PASS
	Ant2	5280	12.36	≤20.29	PASS
	total	5280	15.51	≤20.29	PASS
	Ant1	5320	12.58	≤20.29	PASS
	Ant2	5320	12.29	≤20.29	PASS
	total	5320	15.45	≤20.29	PASS
	Ant1	5500	12.59	≤20.29	PASS
	Ant2	5500	12.23	≤20.29	PASS
	total	5500	15.42	≤20.29	PASS
	Ant1	5580	12.63	≤20.29	PASS
	Ant2	5580	12.36	≤20.29	PASS
	total	5580	15.51	≤20.29	PASS
	Ant1	5700	12.63	≤20.29	PASS
	Ant2	5700	12.35	≤20.29	PASS
	total	5700	15.50	≤20.29	PASS
	Ant1	5745	12.58	≤26.31	PASS
	Ant2	5745	12.24	≤26.31	PASS
	total	5745	15.43	≤26.31	PASS
	Ant1	5785	12.80	≤26.31	PASS
	Ant2	5785	12.35	≤26.31	PASS
	total	5785	15.59	≤26.31	PASS
	Ant1	5825	12.55	≤26.31	PASS
	Ant2	5825	12.28	≤26.31	PASS
	total	5825	15.43	≤26.31	PASS
11AX40MIMO	Ant1	5190	12.73	≤26.31	PASS
	Ant2	5190	12.46	≤26.31	PASS
	total	5190	15.61	≤26.31	PASS
	Ant1	5230	12.87	≤26.31	PASS
	Ant2	5230	12.43	≤26.31	PASS
	total	5230	15.67	≤26.31	PASS
	Ant1	5270	12.58	≤20.29	PASS
	Ant2	5270	12.22	≤20.29	PASS
	total	5270	15.42	≤20.29	PASS
	Ant1	5310	12.84	≤20.29	PASS
	Ant2	5310	12.57	≤20.29	PASS
	total	5310	15.72	≤20.29	PASS
	Ant1	5510	12.71	≤20.29	PASS
	Ant2	5510	12.50	≤20.29	PASS
	total	5510	15.62	≤20.29	PASS
	Ant1	5550	12.49	≤20.29	PASS
	Ant2	5550	12.25	≤20.29	PASS
	total	5550	15.38	≤20.29	PASS
	Ant1	5670	12.47	≤20.29	PASS
	Ant2	5670	12.23	≤20.29	PASS
	total	5670	15.36	≤20.29	PASS
	Ant1	5755	12.48	≤26.31	PASS
	Ant2	5755	12.42	≤26.31	PASS
	total	5755	15.46	≤26.31	PASS
	Ant1	5795	12.76	≤26.31	PASS
	Ant2	5795	12.46	≤26.31	PASS
	total	5795	15.62	≤26.31	PASS
11AX80MIMO	Ant1	5210	12.76	≤26.31	PASS
	Ant2	5210	12.49	≤26.31	PASS
	total	5210	15.63	≤26.31	PASS
	Ant1	5290	12.55	≤20.29	PASS
	Ant2	5290	12.25	≤20.29	PASS
	total	5290	15.41	≤20.29	PASS
	Ant1	5530	12.54	≤20.29	PASS

	Ant2	5530	12.18	≤20.29	PASS
	total	5530	15.38	≤20.29	PASS
	Ant1	5610	12.64	≤20.29	PASS
	Ant2	5610	12.41	≤20.29	PASS
	total	5610	15.54	≤20.29	PASS
	Ant1	5775	13.52	≤26.31	PASS
	Ant2	5775	13.63	≤26.31	PASS
	total	5775	16.59	≤26.31	PASS
11AX160MIMO	Ant1	5250_UNII-1	10.13	≤26.31	PASS
	Ant2	5250_UNII-1	10.06	≤26.31	PASS
	total	5250_UNII-1	13.10	≤26.31	PASS
	Ant1	5250_UNII-2A	10.13	≤20.29	PASS
	Ant2	5250_UNII-2A	9.91	≤20.29	PASS
	total	5250_UNII-2A	13.03	≤20.29	PASS
	Ant1	5570	12.71	≤20.29	PASS
	Ant2	5570	12.31	≤20.29	PASS
	total	5570	15.53	≤20.29	PASS

For EUT

Frequency Band	ANT 1 Antenna Gain (dBi)	ANT 2 Antenna Gain (dBi)	Beamforming gain(dB)	Correlated chains directional gain (dBi)	Power Limit (dBm)
U-NII-1	3.62	4.67	2.5	9.69	26.31
U-NII-2A	3.62	4.67	2.5	9.69	20.29
U-NII-2C	3.62	4.67	2.5	9.69	20.29
U-NII-3	3.62	4.67	2.5	9.69	26.31

Unequal antenna gains, with equal transmit powers. For antenna gains given by G_1, G_2, …, G_N dBi
If transmit signals are correlated, then Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \ldots + 10^{GN/20})^2 / N_{ANT}$] dBi
[Note the "20"s in the denominator of each exponent and the square of the sum of terms; the object is to combine the signal levels coherently.]
Directional gain = 10log[$(10^{4.67/20} + 10^{4.67/20})^2/N_{ANT}$] dBi=7.19

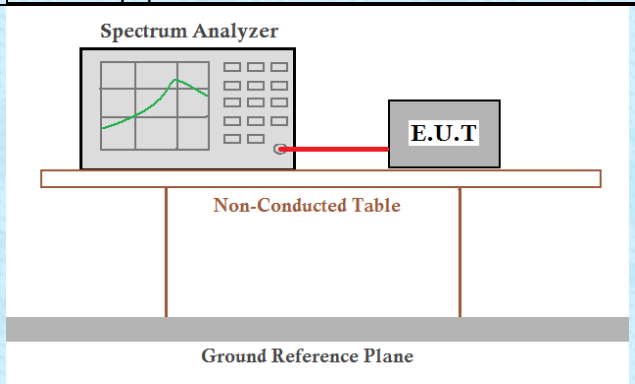
Correlated chains directional gain= Directional gain+ Beamforming gain=7.19+2.5=9.69 dBi

7.5 Power Spectral Density

Test Requirement:	FCC Part15 E Section 15.407
Test Method :	ANSI C63.10:2013 & KDB 789033 D02 v02r01 FCC KDB 662911 D01 Multiple Transmitter Output v02r01
Limit:	

Frequency band (MHz)	Limit
5150-5250	≤17dBm in 1MHz for master device
	≤11dBm in 1MHz for client device
5250-5350	≤11dBm in 1MHz
5470-5725	≤11dBm in 1MHz
5725-5850	≤30 dBm in 500 kHz
Remark: The maximum power spectral density is measured as a conducted emission by direct connection of a calibrated test instrument to the equipment under test.	

Test setup:



Test procedure:

1) Create an average power spectrum for the EUT operating mode being tested by following the instructions in section E)2) for measuring maximum conducted output power using a spectrum analyzer or EMI receiver: select the appropriate test method (SA-1, SA-2, SA-3, or alternatives to each) and apply it up to, but not including, the step labeled, “Compute power…”.
2) Use the peak search function on the instrument to find the peak of the spectrum.
3) Make the following adjustments to the peak value of the spectrum, if applicable:
   a) If Method SA-2 or SA-2 Alternative was used, add 10 log(1/x), where x is the duty cycle, to the peak of the spectrum.
   b) If Method SA-3 Alternative was used and the linear mode was used in step E)2)g)(viii), add 1 dB to the final result to compensate for the difference between linear averaging and power averaging.
4) The result is the PSD.

Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.2 for details
Test results:	Pass

Measurement Data:

Test Mode	Antenna	Freq(MHz)	Result [dBm/MHz]	Limit[dBm/MHz]	Verdict
11A-CDD	Ant1	5180	6.1	≤15.81	PASS
	Ant2	5180	7.06	≤15.81	PASS
	total	5180	9.62	≤15.81	PASS
	Ant1	5200	6.18	≤15.81	PASS
	Ant2	5200	6.67	≤15.81	PASS
	total	5200	9.44	≤15.81	PASS
	Ant1	5240	6.13	≤15.81	PASS
	Ant2	5240	4.99	≤15.81	PASS
	total	5240	8.61	≤15.81	PASS
	Ant1	5260	6.02	≤9.81	PASS
	Ant2	5260	5.35	≤9.81	PASS
	total	5260	8.71	≤9.81	PASS
	Ant1	5280	6.66	≤9.81	PASS
	Ant2	5280	5.52	≤9.81	PASS
	total	5280	9.14	≤9.81	PASS
	Ant1	5320	5.87	≤9.81	PASS
	Ant2	5320	5.53	≤9.81	PASS
	total	5320	8.71	≤9.81	PASS
	Ant1	5500	5.37	≤9.81	PASS
	Ant2	5500	5.56	≤9.81	PASS
	total	5500	5.09	≤9.81	PASS
	Ant1	5580	5.49	≤9.81	PASS
	Ant2	5580	8.30	≤9.81	PASS
	total	5580	8.48	≤9.81	PASS
	Ant1	5700	5.42	≤9.81	PASS
	Ant2	5700	7.15	≤9.81	PASS
	total	5700	9.38	≤9.81	PASS
	Ant1	5745	1.99	≤28.81	PASS
	Ant2	5745	3.72	≤28.81	PASS
	total	5745	5.95	≤28.81	PASS
	Ant1	5785	3.46	≤28.81	PASS
	Ant2	5785	3.9	≤28.81	PASS
	total	5785	6.70	≤28.81	PASS
	Ant1	5825	2.91	≤28.81	PASS
	Ant2	5825	3.76	≤28.81	PASS
	total	5825	6.37	≤28.81	PASS
11N20MIMO	Ant1	5180	5.84	≤15.81	PASS
	Ant2	5180	6.55	≤15.81	PASS
	total	5180	9.22	≤15.81	PASS
	Ant1	5200	5.1	≤15.81	PASS
	Ant2	5200	6.01	≤15.81	PASS
	total	5200	8.59	≤15.81	PASS
	Ant1	5240	5.62	≤15.81	PASS
	Ant2	5240	4.69	≤15.81	PASS
	total	5240	8.19	≤15.81	PASS
	Ant1	5260	5.86	≤9.81	PASS
	Ant2	5260	5.93	≤9.81	PASS
	total	5260	6.14	≤9.81	PASS
	Ant1	5280	9.05	≤9.81	PASS
	Ant2	5280	5.98	≤9.81	PASS
	total	5280	5.99	≤9.81	PASS
	Ant1	5320	9.00	≤9.81	PASS
	Ant2	5320	4.61	≤9.81	PASS
	total	5320	5.25	≤9.81	PASS
	Ant1	5500	7.95	≤9.81	PASS
	Ant2	5500	5.5	≤9.81	PASS
	total	5500	5.62	≤9.81	PASS
	Ant1	5580	8.68	≤9.81	PASS

	Ant2	5580	8.57	≤9.81	PASS
	total	5580	5.94	≤9.81	PASS
	Ant1	5700	6.5	≤9.81	PASS
	Ant2	5700	9.24	≤9.81	PASS
	total	5700	2.82	≤9.81	PASS
	Ant1	5745	4.3	≤28.81	PASS
	Ant2	5745	6.63	≤28.81	PASS
	total	5745	4.06	≤28.81	PASS
	Ant1	5785	4.54	≤28.81	PASS
	Ant2	5785	7.32	≤28.81	PASS
	total	5785	1.61	≤28.81	PASS
	Ant1	5825	3.93	≤28.81	PASS
	Ant2	5825	5.93	≤28.81	PASS
	total	5825	5.48	≤28.81	PASS
11N40MIMO	Ant1	5190	3.03	≤15.81	PASS
	Ant2	5190	3.12	≤15.81	PASS
	total	5190	6.09	≤15.81	PASS
	Ant1	5230	3.58	≤15.81	PASS
	Ant2	5230	2.88	≤15.81	PASS
	total	5230	6.25	≤15.81	PASS
	Ant1	5270	3.04	≤9.81	PASS
	Ant2	5270	3.02	≤9.81	PASS
	total	5270	6.04	≤9.81	PASS
	Ant1	5310	3.26	≤9.81	PASS
	Ant2	5310	3.71	≤9.81	PASS
	total	5310	6.50	≤9.81	PASS
	Ant1	5510	2.09	≤9.81	PASS
	Ant2	5510	1.85	≤9.81	PASS
	total	5510	4.98	≤9.81	PASS
	Ant1	5550	3.39	≤9.81	PASS
	Ant2	5550	2.92	≤9.81	PASS
	total	5550	6.17	≤9.81	PASS
	Ant1	5670	2.44	≤9.81	PASS
	Ant2	5670	2.91	≤9.81	PASS
	total	5670	5.69	≤9.81	PASS
	Ant1	5755	-1.12	≤28.81	PASS
	Ant2	5755	1.05	≤28.81	PASS
	total	5755	3.11	≤28.81	PASS
	Ant1	5795	0.61	≤28.81	PASS
	Ant2	5795	1.19	≤28.81	PASS
	total	5795	3.92	≤28.81	PASS
11AC20MIMO	Ant1	5180	6.3	≤15.81	PASS
	Ant2	5180	5.88	≤15.81	PASS
	total	5180	9.11	≤15.81	PASS
	Ant1	5200	5.37	≤15.81	PASS
	Ant2	5200	6.06	≤15.81	PASS
	total	5200	8.74	≤15.81	PASS
	Ant1	5240	5.14	≤15.81	PASS
	Ant2	5240	4.53	≤15.81	PASS
	total	5240	7.86	≤15.81	PASS
	Ant1	5260	6.19	≤9.81	PASS
	Ant2	5260	5.72	≤9.81	PASS
	total	5260	8.97	≤9.81	PASS
	Ant1	5280	6.15	≤9.81	PASS
	Ant2	5280	6.49	≤9.81	PASS
	total	5280	9.33	≤9.81	PASS
	Ant1	5320	6.03	≤9.81	PASS
	Ant2	5320	5.92	≤9.81	PASS
	total	5320	8.99	≤9.81	PASS
	Ant1	5500	4.93	≤9.81	PASS
	Ant2	5500	5.29	≤9.81	PASS
	total	5500	8.12	≤9.81	PASS
	Ant1	5580	5.39	≤9.81	PASS

	Ant2	5580	4.96	≤9.81	PASS
	total	5580	8.19	≤9.81	PASS
	Ant1	5700	6.29	≤9.81	PASS
	Ant2	5700	6.85	≤9.81	PASS
	total	5700	9.59	≤9.81	PASS
	Ant1	5745	2.48	≤28.81	PASS
	Ant2	5745	4.45	≤28.81	PASS
	total	5745	6.59	≤28.81	PASS
	Ant1	5785	4.5	≤28.81	PASS
	Ant2	5785	5.15	≤28.81	PASS
	total	5785	7.85	≤28.81	PASS
	Ant1	5825	3.51	≤28.81	PASS
	Ant2	5825	4.32	≤28.81	PASS
	total	5825	6.94	≤28.81	PASS
11AC40MIMO	Ant1	5190	2.25	≤15.81	PASS
	Ant2	5190	3.11	≤15.81	PASS
	total	5190	5.71	≤15.81	PASS
	Ant1	5230	2.69	≤15.81	PASS
	Ant2	5230	2.85	≤15.81	PASS
	total	5230	5.78	≤15.81	PASS
	Ant1	5270	3.6	≤9.81	PASS
	Ant2	5270	3.42	≤9.81	PASS
	total	5270	6.52	≤9.81	PASS
	Ant1	5310	3.52	≤9.81	PASS
	Ant2	5310	3.01	≤9.81	PASS
	total	5310	6.28	≤9.81	PASS
	Ant1	5510	1.69	≤9.81	PASS
	Ant2	5510	1.96	≤9.81	PASS
	total	5510	4.84	≤9.81	PASS
	Ant1	5550	3.69	≤9.81	PASS
	Ant2	5550	2.58	≤9.81	PASS
	total	5550	6.18	≤9.81	PASS
	Ant1	5670	2.41	≤9.81	PASS
	Ant2	5670	2.44	≤9.81	PASS
	total	5670	5.44	≤9.81	PASS
	Ant1	5755	-0.69	≤28.81	PASS
	Ant2	5755	1.46	≤28.81	PASS
	total	5755	3.53	≤28.81	PASS
	Ant1	5795	1.58	≤28.81	PASS
	Ant2	5795	1.41	≤28.81	PASS
	total	5795	4.51	≤28.81	PASS
11AC80MIMO	Ant1	5210	0.46	≤15.81	PASS
	Ant2	5210	1.57	≤15.81	PASS
	total	5210	4.06	≤15.81	PASS
	Ant1	5290	1.15	≤9.81	PASS
	Ant2	5290	1.46	≤9.81	PASS
	total	5290	4.32	≤9.81	PASS
	Ant1	5530	-0.47	≤9.81	PASS
	Ant2	5530	-0.5	≤9.81	PASS
	total	5530	2.53	≤9.81	PASS
	Ant1	5610	0.21	≤9.81	PASS
	Ant2	5610	0.27	≤9.81	PASS
	total	5610	3.25	≤9.81	PASS
	Ant1	5775	-2.43	≤28.81	PASS
	Ant2	5775	-1.42	≤28.81	PASS
	total	5775	1.11	≤28.81	PASS
11AX20MIMO	Ant1	5180	5.84	≤15.81	PASS
	Ant2	5180	6.05	≤15.81	PASS
	total	5180	8.96	≤15.81	PASS
	Ant1	5200	5.14	≤15.81	PASS
	Ant2	5200	6.13	≤15.81	PASS
	total	5200	8.67	≤15.81	PASS
	Ant1	5240	5	≤15.81	PASS

	Ant2	5240	5.23	≤15.81	PASS
	total	5240	8.13	≤15.81	PASS
	Ant1	5260	5.78	≤9.81	PASS
	Ant2	5260	5.89	≤9.81	PASS
	total	5260	8.85	≤9.81	PASS
	Ant1	5280	6.57	≤9.81	PASS
	Ant2	5280	6.36	≤9.81	PASS
	total	5280	9.48	≤9.81	PASS
	Ant1	5320	5.96	≤9.81	PASS
	Ant2	5320	6.23	≤9.81	PASS
	total	5320	9.11	≤9.81	PASS
	Ant1	5500	4.73	≤9.81	PASS
	Ant2	5500	4.99	≤9.81	PASS
	total	5500	7.87	≤9.81	PASS
	Ant1	5580	5.26	≤9.81	PASS
	Ant2	5580	5.34	≤9.81	PASS
	total	5580	8.31	≤9.81	PASS
	Ant1	5700	6.21	≤9.81	PASS
	Ant2	5700	6.98	≤9.81	PASS
	total	5700	9.62	≤9.81	PASS
	Ant1	5745	1.34	≤28.81	PASS
	Ant2	5745	5.26	≤28.81	PASS
	total	5745	6.74	≤28.81	PASS
	Ant1	5785	4.44	≤28.81	PASS
	Ant2	5785	2.04	≤28.81	PASS
	total	5785	6.41	≤28.81	PASS
	Ant1	5825	3.9	≤28.81	PASS
	Ant2	5825	4.51	≤28.81	PASS
	total	5825	7.23	≤28.81	PASS
11AX40MIMO	Ant1	5190	1.84	≤15.81	PASS
	Ant2	5190	2.26	≤15.81	PASS
	total	5190	5.07	≤15.81	PASS
	Ant1	5230	3.1	≤15.81	PASS
	Ant2	5230	3.4	≤15.81	PASS
	total	5230	6.26	≤15.81	PASS
	Ant1	5270	3.4	≤9.81	PASS
	Ant2	5270	2.67	≤9.81	PASS
	total	5270	6.06	≤9.81	PASS
	Ant1	5310	2.8	≤9.81	PASS
	Ant2	5310	3.32	≤9.81	PASS
	total	5310	6.08	≤9.81	PASS
	Ant1	5510	2.45	≤9.81	PASS
	Ant2	5510	1.65	≤9.81	PASS
	total	5510	5.08	≤9.81	PASS
	Ant1	5550	3.71	≤9.81	PASS
	Ant2	5550	3.4	≤9.81	PASS
	total	5550	6.57	≤9.81	PASS
	Ant1	5670	1.77	≤9.81	PASS
	Ant2	5670	4.05	≤9.81	PASS
	total	5670	6.07	≤9.81	PASS
	Ant1	5755	-0.48	≤28.81	PASS
	Ant2	5755	2.3	≤28.81	PASS
	total	5755	4.14	≤28.81	PASS
	Ant1	5795	0.66	≤28.81	PASS
	Ant2	5795	2.51	≤28.81	PASS
	total	5795	4.69	≤28.81	PASS
11AX80MIMO	Ant1	5210	0.69	≤15.81	PASS
	Ant2	5210	0.09	≤15.81	PASS
	total	5210	3.41	≤15.81	PASS
	Ant1	5290	0.64	≤9.81	PASS
	Ant2	5290	1.41	≤9.81	PASS
	total	5290	4.05	≤9.81	PASS
	Ant1	5530	0.87	≤9.81	PASS

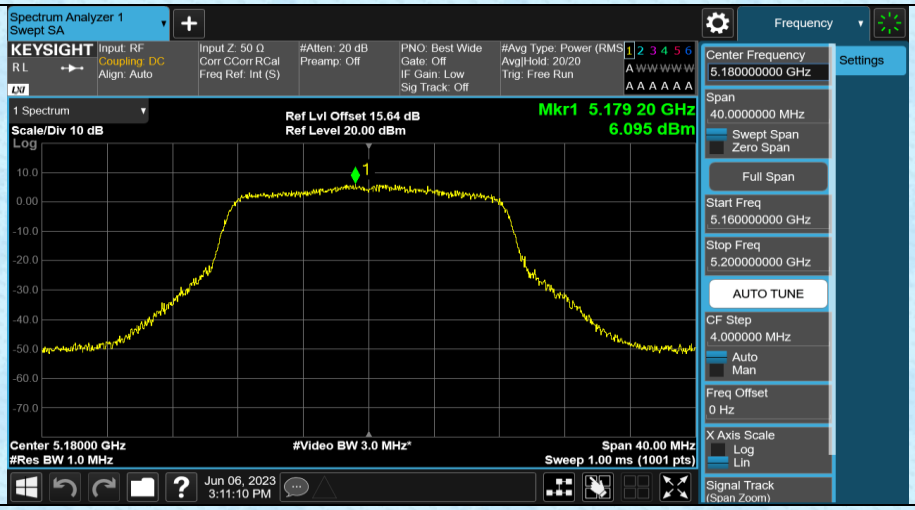
	Ant2	5530	0.61	≤9.81	PASS
	total	5530	3.75	≤9.81	PASS
	Ant1	5610	0.42	≤9.81	PASS
	Ant2	5610	0.27	≤9.81	PASS
	total	5610	3.36	≤9.81	PASS
	Ant1	5775	-1.09	≤28.81	PASS
	Ant2	5775	-0.7	≤28.81	PASS
	total	5775	2.12	≤28.81	PASS
11AX160MIMO	Ant1	5250_UNII-1	-2.13	≤9.81	PASS
	Ant2	5250_UNII-1	-2.24	≤9.81	PASS
	total	5250_UNII-1	0.83	≤9.81	PASS
	Ant1	5250_UNII-2A	-2.96	≤9.81	PASS
	Ant2	5250_UNII-2A	-2.72	≤9.81	PASS
	total	5250_UNII-2A	0.17	≤9.81	PASS
	Ant1	5570	-2.93	≤9.81	PASS
	Ant2	5570	-3.01	≤9.81	PASS
	total	5570	0.04	≤9.81	PASS

Note：

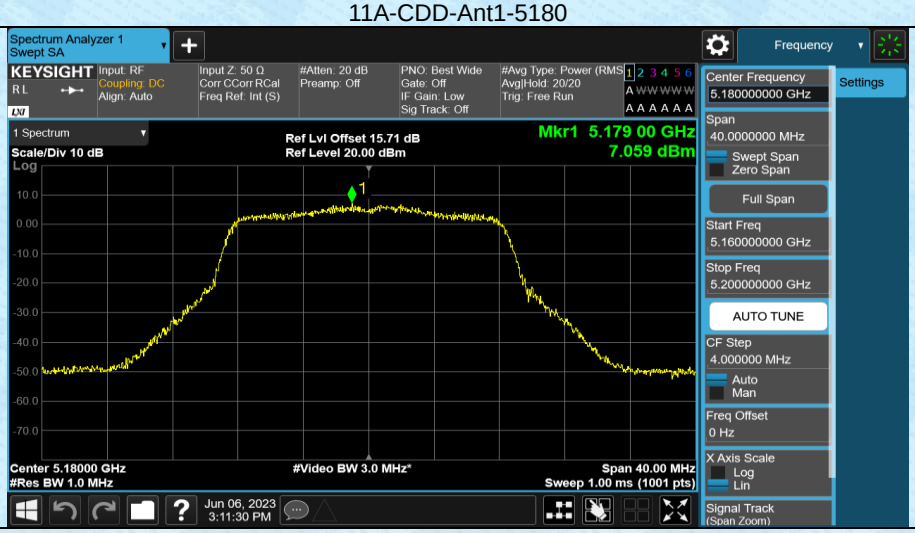
1. The Result and Limit Unit is dBm/500 kHz in the band 5.725–5.85 GHz.
2. For UNII-3, according to KDB publication 789033 D02 General UNII Test Procedures New Rules v02r01, section II.F.5., it is acceptable to set RBW at 300kHz and VBW at 1500kHz if the spectrum analyzer does not have 500 kHz RBW. Then, add 10 log (500 kHz/300 kHz) to the measured result, i.e. 2.22 dB.
3. During the test of U-NII 3 PSD, the measurement result with RBW=300kHz has been added 2.22 dB by compensating offset, offset=cable loss+duty factor+10log(500kHz/300kHz).
4. Beamforming conducted power less than no beamforming conducted power, so only no beamforming conducted power spectral density was recored.

Frequency Band	ANT 1 Antenna Gain (dBi)	ANT 2 Antenna Gain (dBi)	Correlated chains directional gain (dBi)	Power Spectral Density Limit (dBm)
U-NII-1	3.62	4.67	7.19	15.81
U-NII-2A	3.62	4.67	7.19	9.81
U-NII-2C	3.62	4.67	7.19	9.81
U-NII-3	3.62	4.67	7.19	28.81

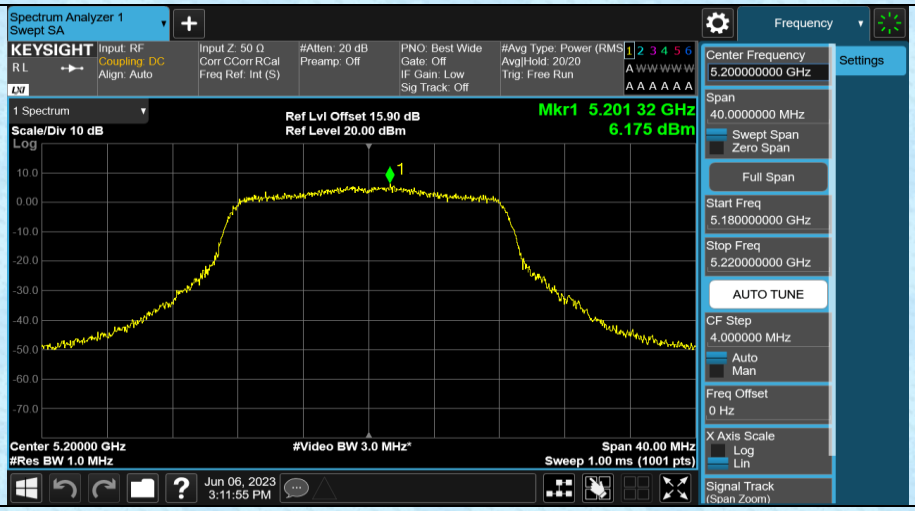
Unequal antenna gains, with equal transmit powers. For antenna gains given by G_1, G_2, …, G_N dBi
If transmit signals are correlated, then Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \ldots + 10^{GN/20})^2 / N_{ANT}$] dBi
[Note the “20”s in the denominator of each exponent and the square of the sum of terms; the object is to combine the signal levels coherently.]
Directional gain = 10log[$(10^{3.62/20} + 10^{4.67/20})^2/N_{ANT}$] dBi=7.19 dBi



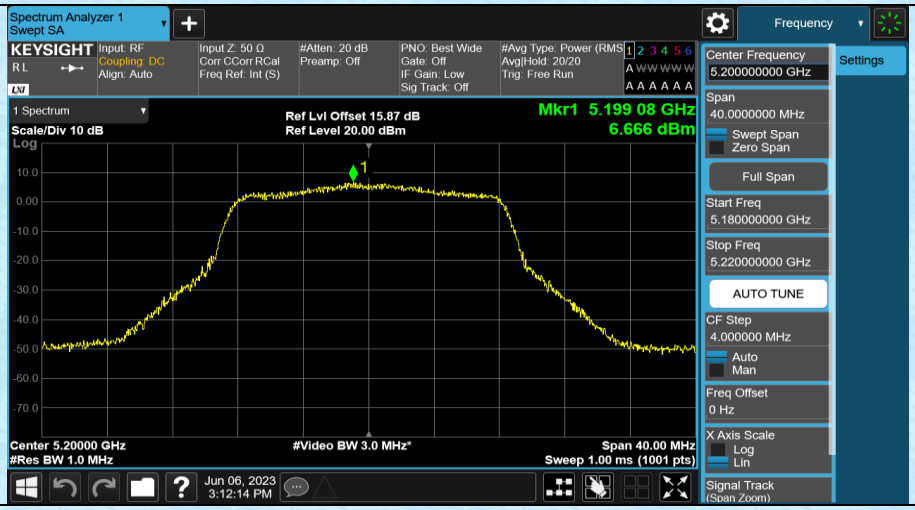
11A-CDD-Ant1-5180



11A-CDD-Ant2-5180

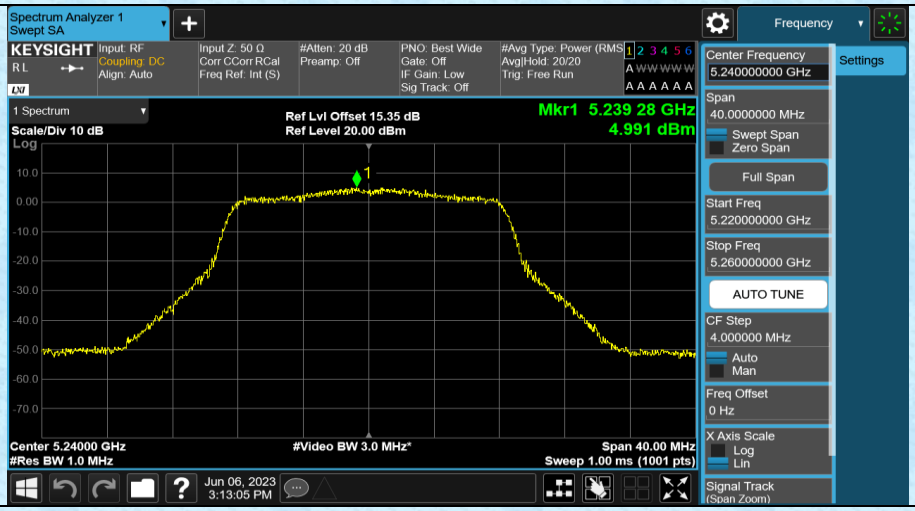


11A-CDD-Ant1-5200



11A-CDD-Ant2-5200

11A-CDD-Ant1-5240



11A-CDD-Ant2-5240