ANT1

Frequency Stability

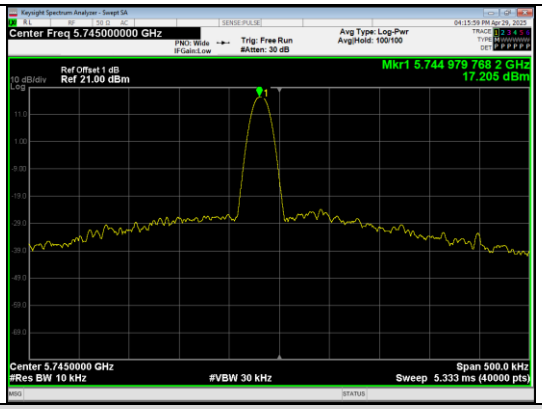
Test Result

Condition	Mode	Ch.	Antenna	Center Frequency (MHz)	Calculated Value of Center Frequency(MHz)	Result (ppm)	Limit (ppm)	State
NT/NV	IEEE 802.11a	149	0	5745.0	5744.979768	-3.52	Within authorized band	PASS
		157		5785.0	5784.985218	-2.56		PASS
		165		5825.0	5824.984418	-2.67		PASS
	IEEE 802.11n_20	149		5745.0	5744.998081	-0.33		PASS
		157		5785.0	5784.991419	-1.48		PASS
		165		5825.0	5824.982493	-3.01		PASS
	IEEE 802.11n_40	151		5755.0	5754.985431	-2.53		PASS
		159		5795.0	5794.987531	-2.15		PASS
	IEEE 802.11ac_20	149		5745.0	5744.982656	-3.02		PASS
		157		5785.0	5784.980418	-3.38		PASS
		165		5825.0	5824.983881	-2.77		PASS
	IEEE 802.11ac_40	151		5755.0	5754.982043	-3.12		PASS
		159		5795.0	5794.983893	-2.78		PASS
	IEEE 802.11ac_80	155		5775.0	5774.982181	-3.09		PASS

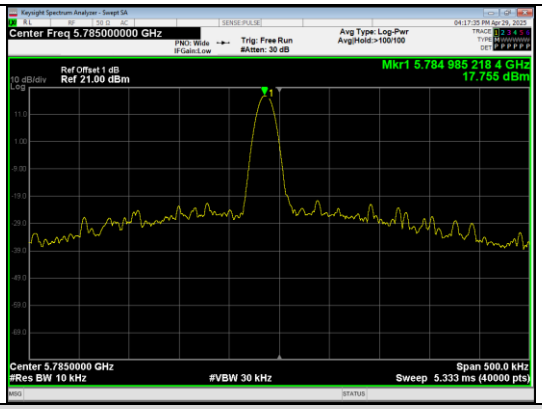
Test Graphs

NT/NV

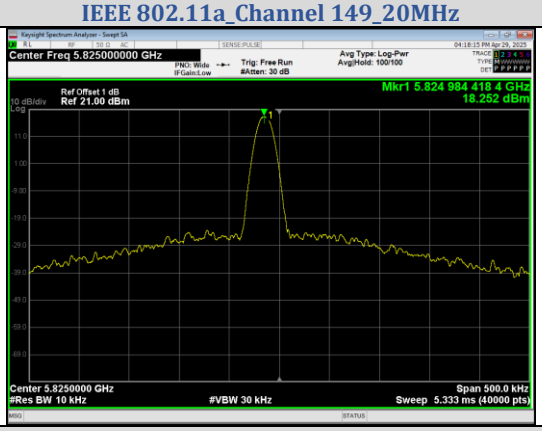
IEEE 802.11a



NT/NV_Antenna 1
IEEE 802.11a_Channel 149_20MHz

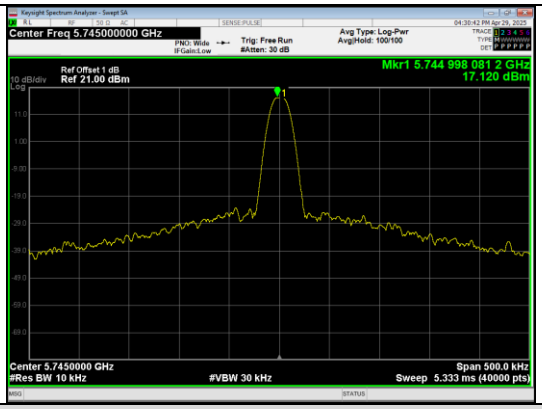


NT/NV_Antenna 1
IEEE 802.11a_Channel 157_20MHz

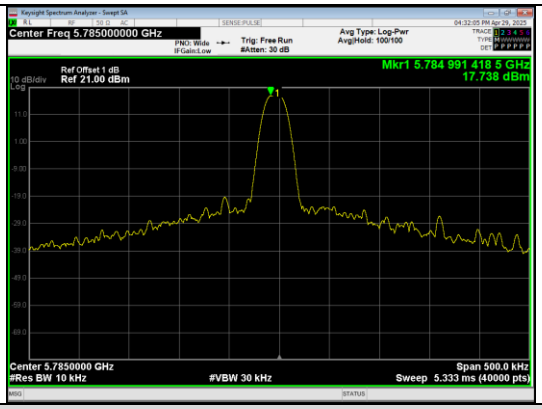


NT/NV_Antenna 1
IEEE 802.11a_Channel 165_20MHz

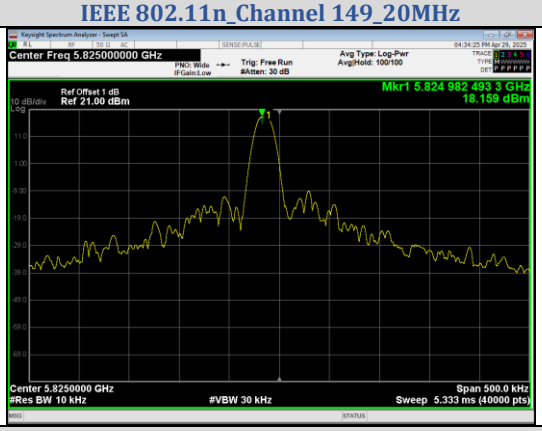
IEEE 802.11n_20



NT/NV_Antenna 1
IEEE 802.11n_Channel 149_20MHz

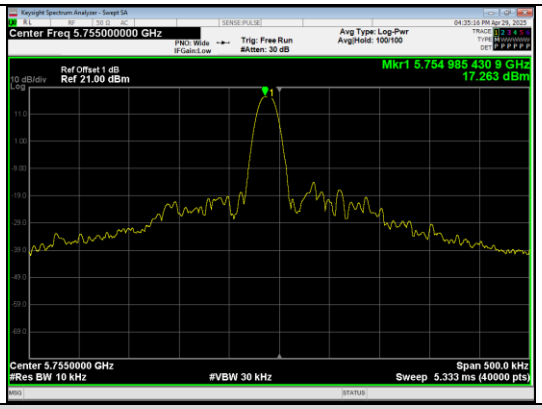


NT/NV_Antenna 1
IEEE 802.11n_Channel 157_20MHz

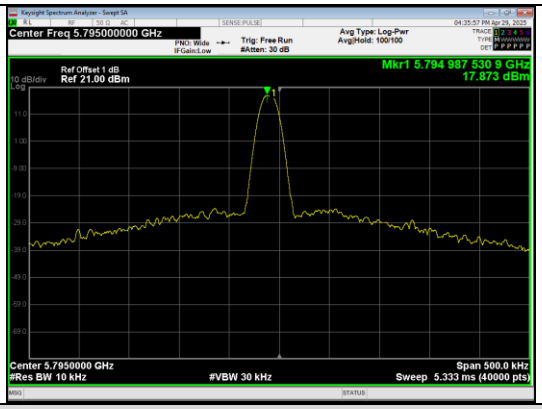


NT/NV_Antenna 1
IEEE 802.11n_Channel 165_20MHz

IEEE 802.11n_40

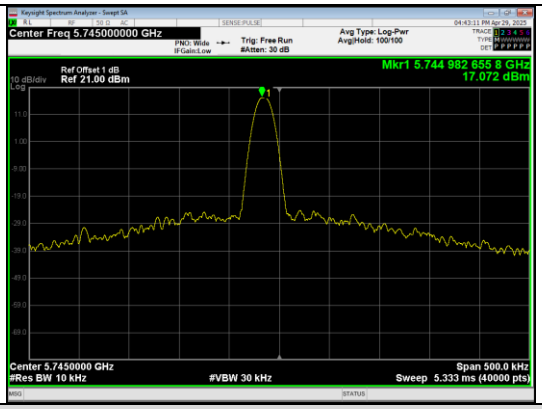


NT/NV_Antenna 1
IEEE 802.11n_Channel 151_40MHz

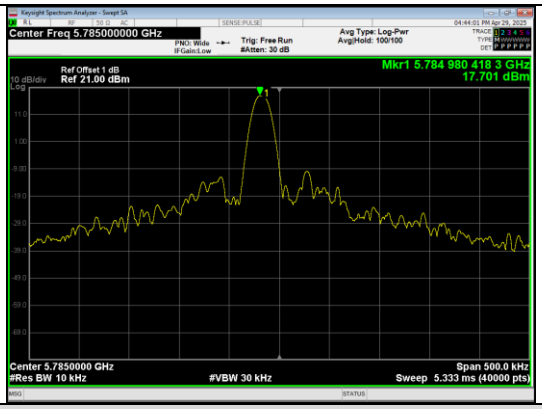


NT/NV_Antenna 1
IEEE 802.11n_Channel 159_40MHz

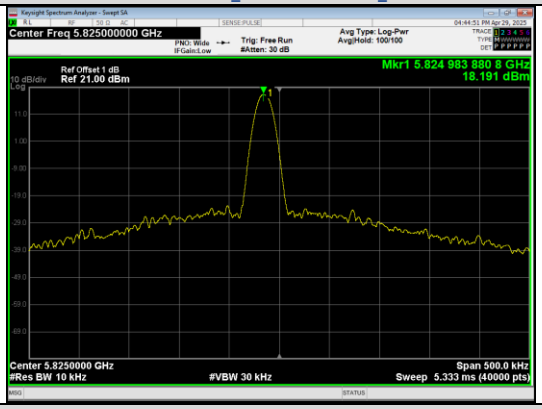
IEEE 802.11ac_20



NT/NV_Antenna 1
IEEE 802.11ac_Channel 149_20MHz

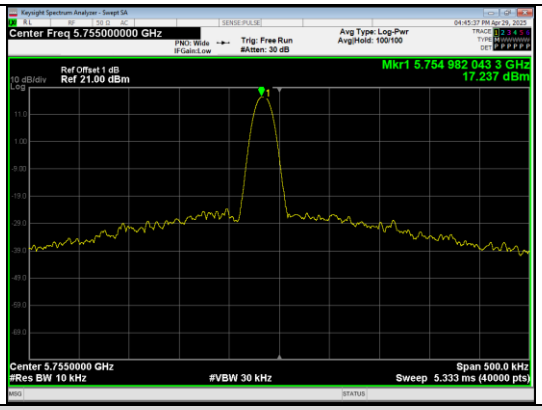


NT/NV_Antenna 1
IEEE 802.11ac_Channel 157_20MHz

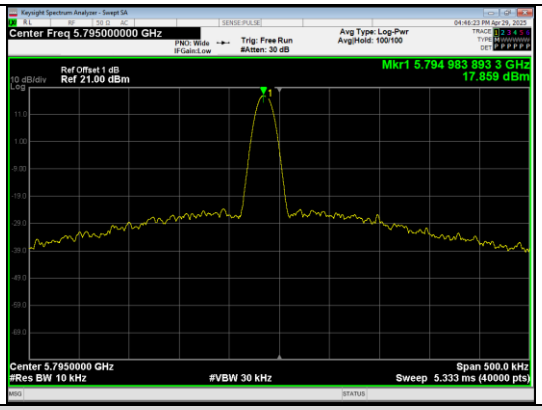


NT/NV_Antenna 1
IEEE 802.11ac_Channel 165_20MHz

IEEE 802.11ac_40

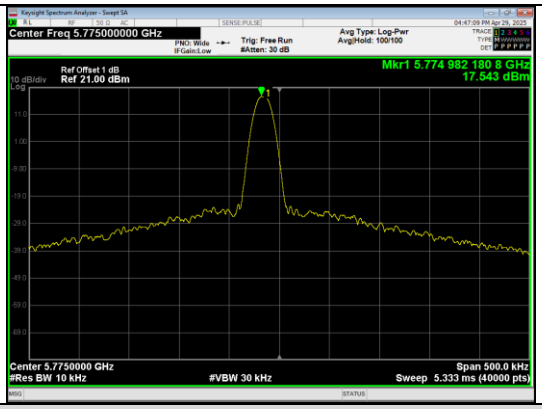


NT/NV_Antenna 1
IEEE 802.11ac_Channel 151_40MHz



NT/NV_Antenna 1
IEEE 802.11ac_Channel 159_40MHz

IEEE 802.11ac_80



NT/NV_Antenna 1
IEEE 802.11ac_Channel 155_80MHz

ANT2

Frequency Stability

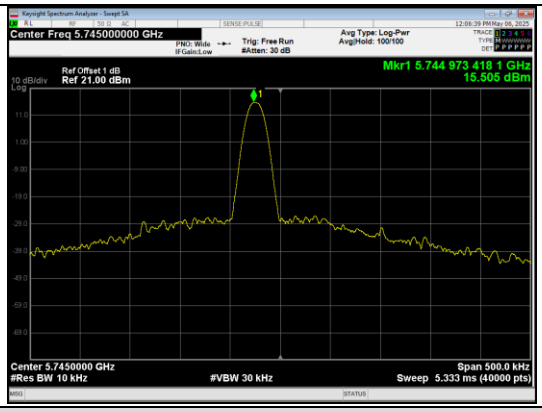
Test Result

Condition	Mode	Ch.	Antenna	Center Frequency (MHz)	Calculated Value of Center Frequency(MHz)	Result (ppm)	Limit (ppm)	State
NT/NV	IEEE 802.11a	149	0	5745.0	5744.973418	-4.63	Within authorized band	PASS
		157		5785.0	5784.976406	-4.08		PASS
		165		5825.0	5824.978868	-3.63		PASS
	IEEE 802.11n_20	149		5745.0	5744.988431	-2.01		PASS
		157		5785.0	5784.990369	-1.66		PASS
		165		5825.0	5824.994931	-0.87		PASS
	IEEE 802.11n_40	151		5755.0	5754.997894	-0.37		PASS
		159		5795.0	5795.007856	1.36		PASS
	IEEE 802.11ac_20	149		5745.0	5745.004456	0.78		PASS
		157		5785.0	5785.009931	1.72		PASS
		165		5825.0	5825.011044	1.9		PASS
	IEEE 802.11ac_40	151		5755.0	5755.014107	2.45		PASS
		159		5795.0	5795.010832	1.87		PASS
	IEEE 802.11ac_80	155		5775.0	5775.009431	1.63		PASS

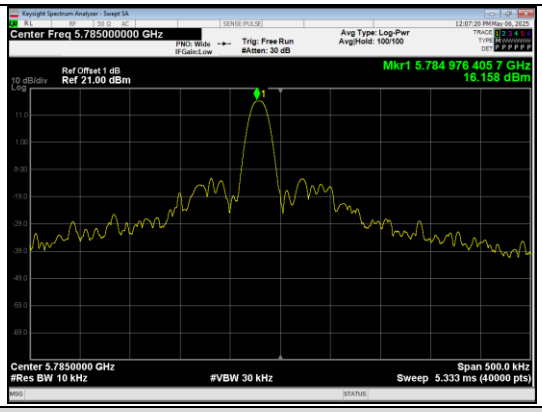
Test Graphs

NT/NV

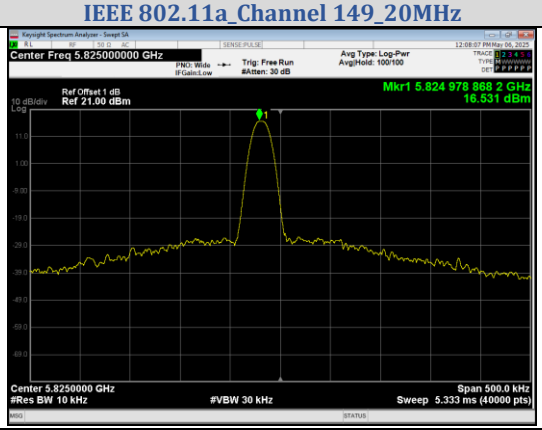
IEEE 802.11a



NT/NV_Antenna 2
IEEE 802.11a_Channel 149_20MHz

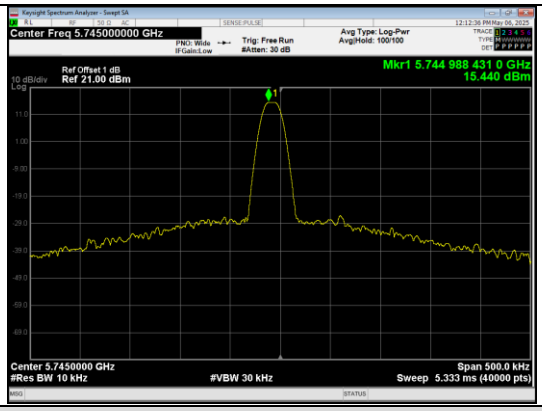


NT/NV_Antenna 2
IEEE 802.11a_Channel 157_20MHz

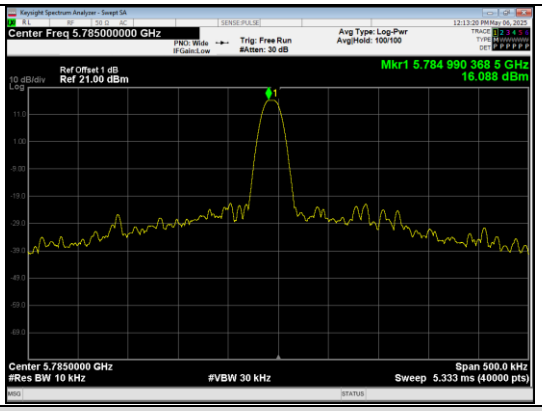


NT/NV_Antenna 2
IEEE 802.11a_Channel 165_20MHz

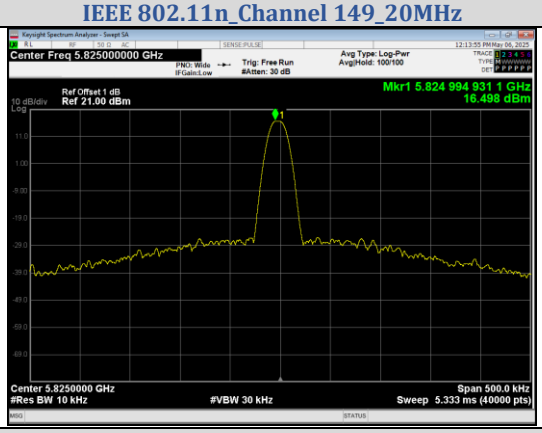
IEEE 802.11n_20



NT/NV_Antenna 2
IEEE 802.11n_Channel 149_20MHz

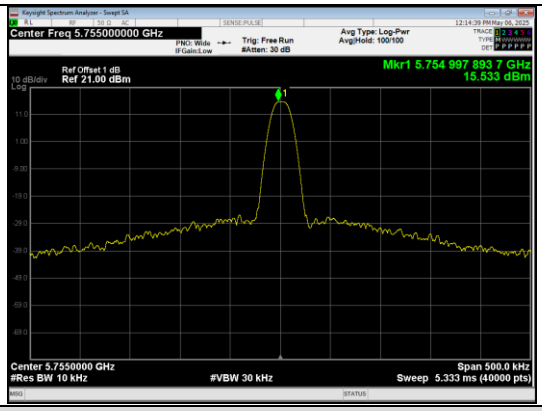


NT/NV_Antenna 2
IEEE 802.11n_Channel 157_20MHz

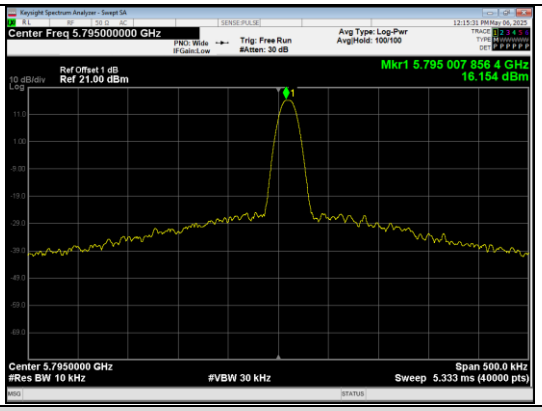


NT/NV_Antenna 2
IEEE 802.11n_Channel 165_20MHz

IEEE 802.11n_40

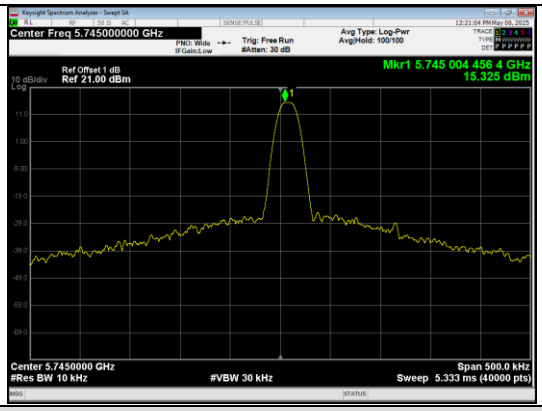


NT/NV_Antenna 2
IEEE 802.11n_Channel 151_40MHz

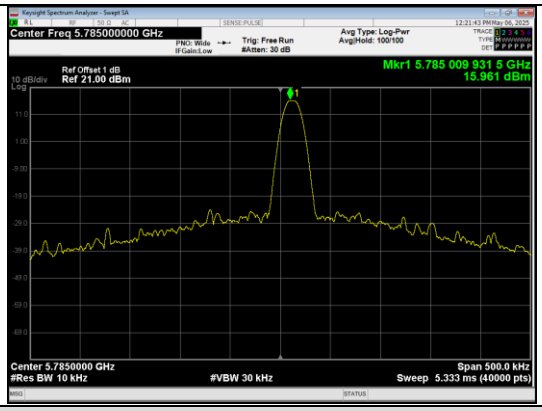


NT/NV_Antenna 2
IEEE 802.11n_Channel 159_40MHz

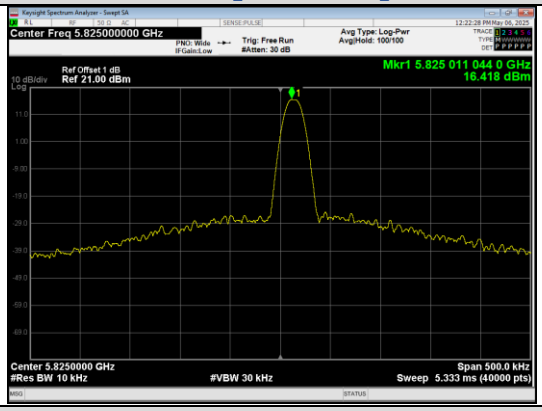
IEEE 802.11ac_20



NT/NV_Antenna 2
IEEE 802.11ac_Channel 149_20MHz

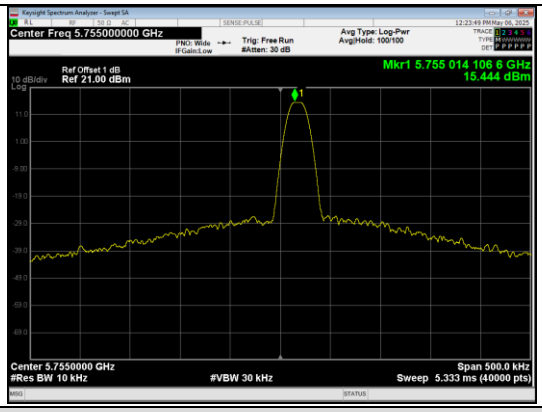


NT/NV_Antenna 2
IEEE 802.11ac_Channel 157_20MHz

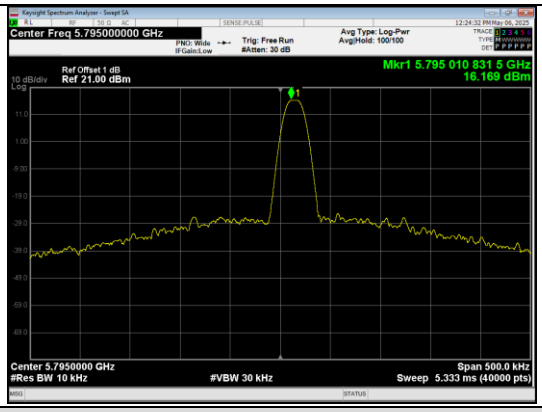


NT/NV_Antenna 2
IEEE 802.11ac_Channel 165_20MHz

IEEE 802.11ac_40

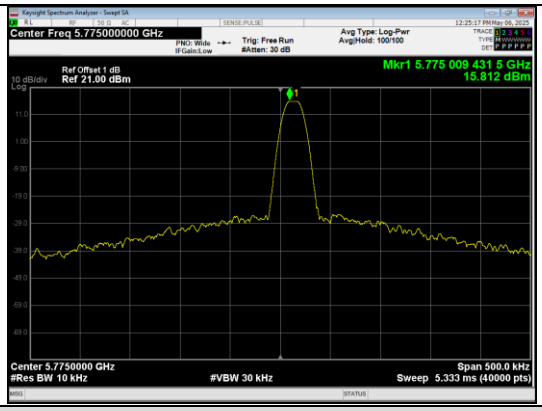


NT/NV_Antenna 2
IEEE 802.11ac_Channel 151_40MHz



NT/NV_Antenna 2
IEEE 802.11ac_Channel 159_40MHz

IEEE 802.11ac_80



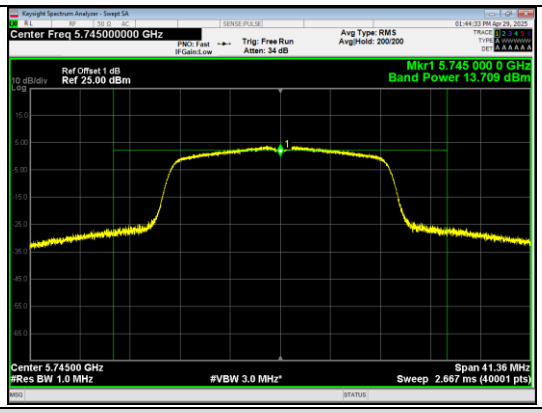
NT/NV_Antenna 2
IEEE 802.11ac_Channel 155_80MHz

ANT1

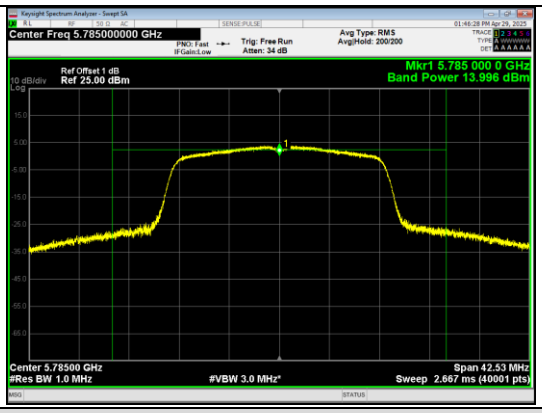
Conducted Output Power

Conducted output power

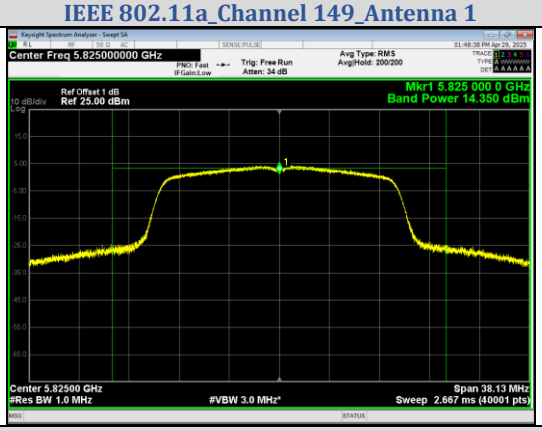
Mode	Channel	Ant. 1 (dBm)	Corr'd Value Ant. 1 (dBm)	Limit (dBm)	Result
IEEE 802.11a	149	13.709	13.85	≤30	PASS
	157	13.996	14.13	≤30	PASS
	165	14.350	14.49	≤30	PASS
IEEE 802.11n_20	149	13.552	13.69	≤30	PASS
	157	14.061	14.2	≤30	PASS
	165	14.189	14.33	≤30	PASS
IEEE 802.11n_40	151	13.517	13.8	≤30	PASS
	159	13.882	14.16	≤30	PASS
IEEE 802.11ac_20	149	13.716	13.85	≤30	PASS
	157	14.133	14.27	≤30	PASS
	165	14.319	14.45	≤30	PASS
IEEE 802.11ac_40	151	13.590	13.86	≤30	PASS
	159	13.927	14.2	≤30	PASS
IEEE 802.11ac_80	155	13.639	14.18	≤30	PASS



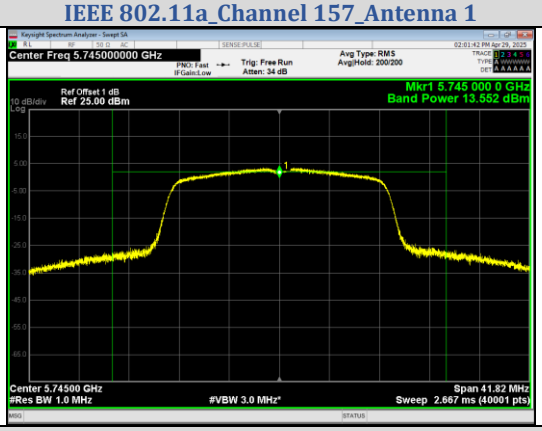
Conducted AVG output power
IEEE 802.11a_Channel 149_Antenna 1



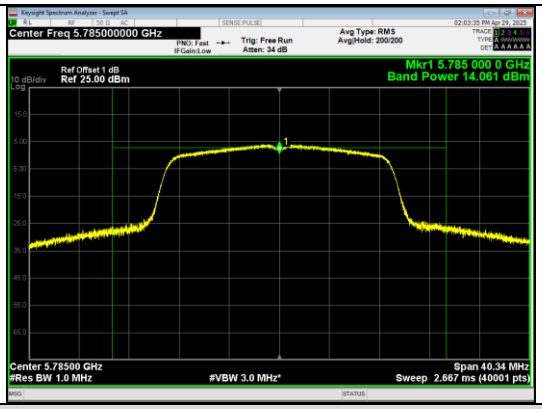
Conducted AVG output power
IEEE 802.11a_Channel 157_Antenna 1



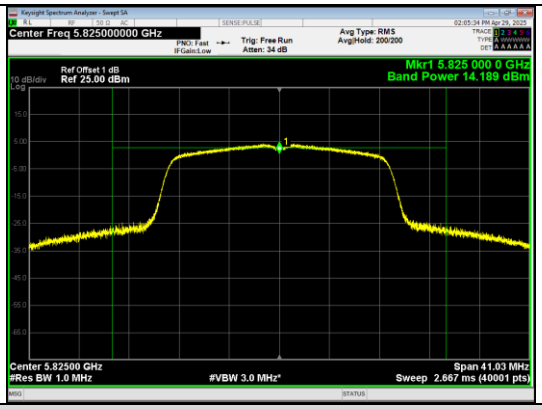
Conducted AVG output power
IEEE 802.11a_Channel 165_Antenna 1



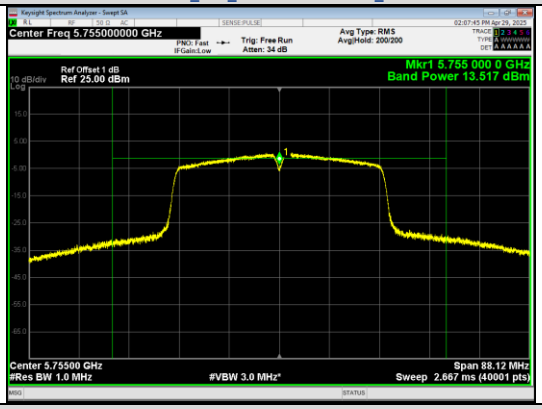
Conducted AVG output power
IEEE 802.11n_20_Channel 149_Antenna 1



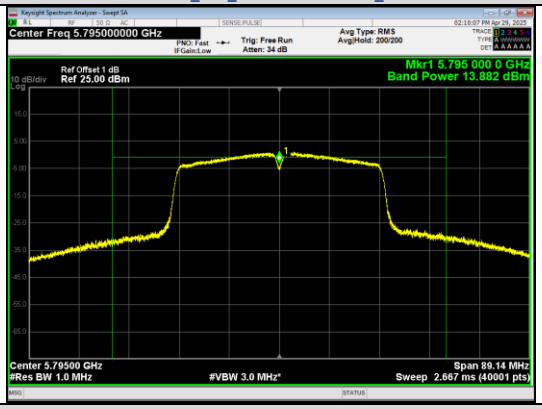
Conducted AVG output power
IEEE 802.11n_20_Channel 157_Antenna 1



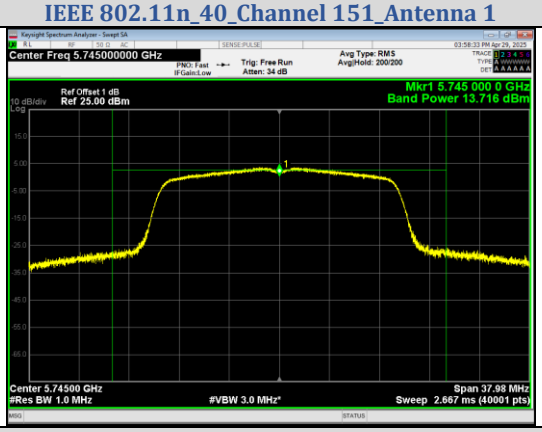
Conducted AVG output power
IEEE 802.11n_20_Channel 165_Antenna 1



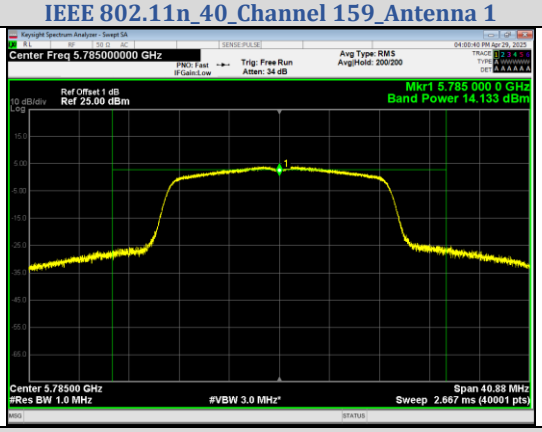
Conducted AVG output power
IEEE 802.11n_40_Channel 151_Antenna 1



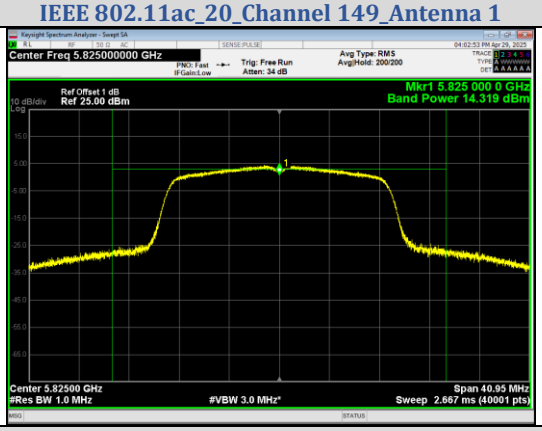
Conducted AVG output power
IEEE 802.11n_40_Channel 159_Antenna 1



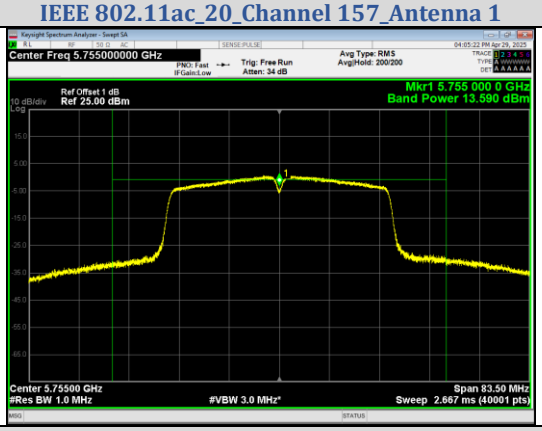
Conducted AVG output power
IEEE 802.11ac_20_Channel 149_Antenna 1



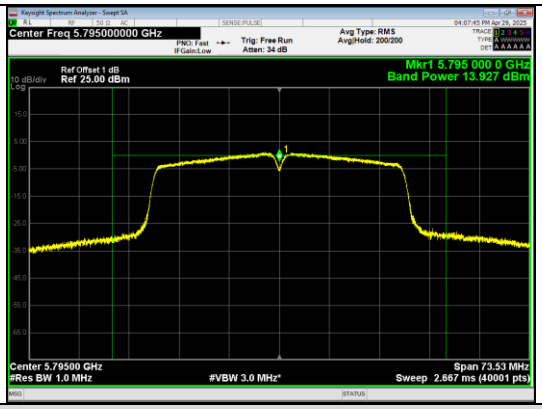
Conducted AVG output power
IEEE 802.11ac_20_Channel 157_Antenna 1



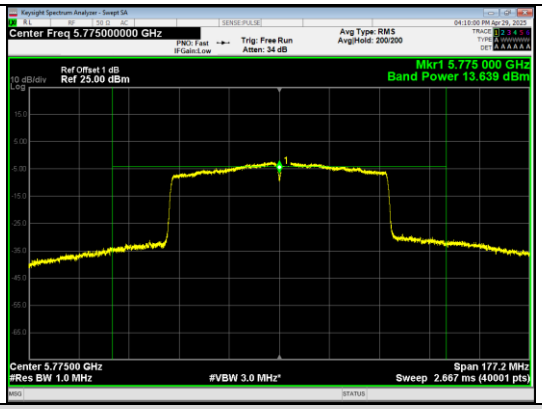
Conducted AVG output power
IEEE 802.11ac_20_Channel 165_Antenna 1



Conducted AVG output power
IEEE 802.11ac_40_Channel 151_Antenna 1



Conducted AVG output power
IEEE 802.11ac_40_Channel 159_Antenna 1



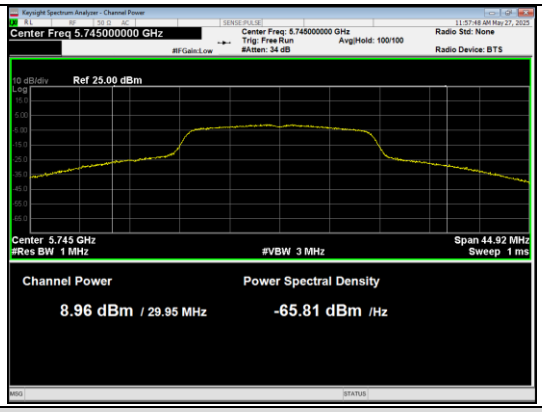
Conducted AVG output power
IEEE 802.11ac_80_Channel 155_Antenna 1

ANT2

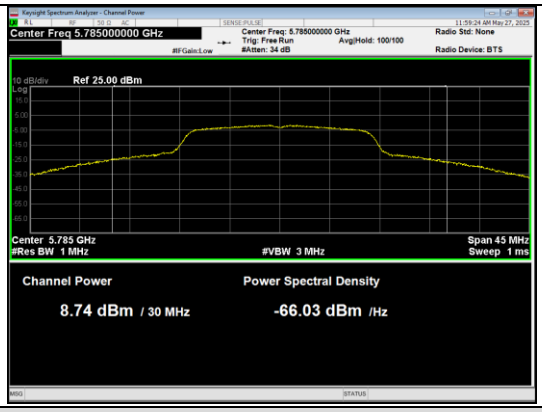
Conducted Output Power

Conducted output power

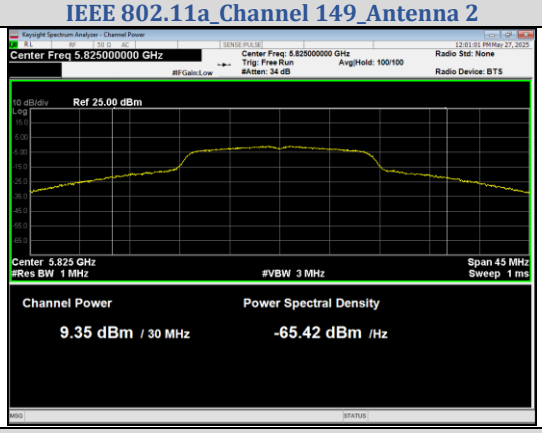
Mode	Channel	Ant. 2 (dBm)	Corr'd Value Ant. 2 (dBm)	Limit (dBm)	Result
IEEE 802.11a	149	8.96	8.96	≤30	PASS
	157	8.74	8.74	≤30	PASS
	165	9.35	9.35	≤30	PASS
IEEE 802.11n_20	149	8.95	8.95	≤30	PASS
	157	8.02	8.02	≤30	PASS
	165	9.20	9.2	≤30	PASS
IEEE 802.11n_40	151	8.31	8.31	≤30	PASS
	159	7.35	7.35	≤30	PASS
IEEE 802.11ac_20	149	8.88	8.88	≤30	PASS
	157	8.15	8.15	≤30	PASS
	165	8.65	8.65	≤30	PASS
IEEE 802.11ac_40	151	8.65	8.65	≤30	PASS
	159	7.41	7.41	≤30	PASS
IEEE 802.11ac_80	155	7.06	7.06	≤30	PASS



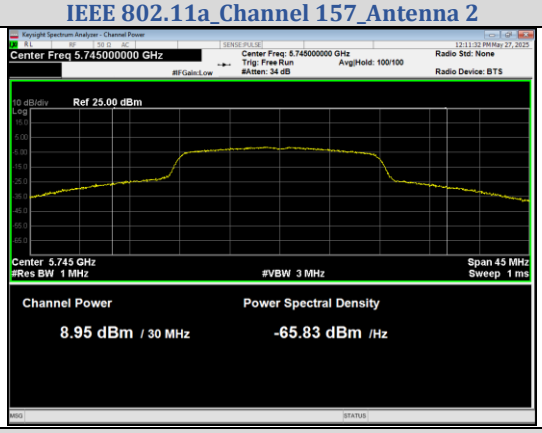
Conducted AVG output power
IEEE 802.11a_Channel 149_Antenna 2



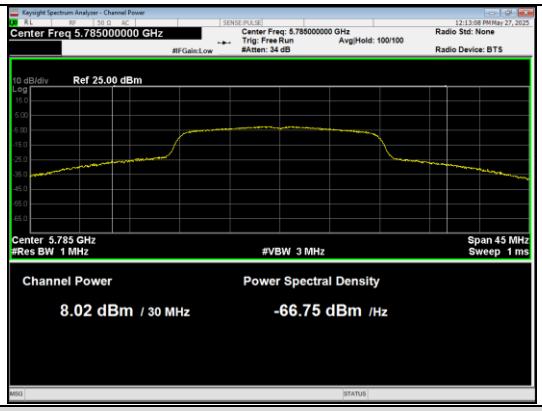
Conducted AVG output power
IEEE 802.11a_Channel 157_Antenna 2



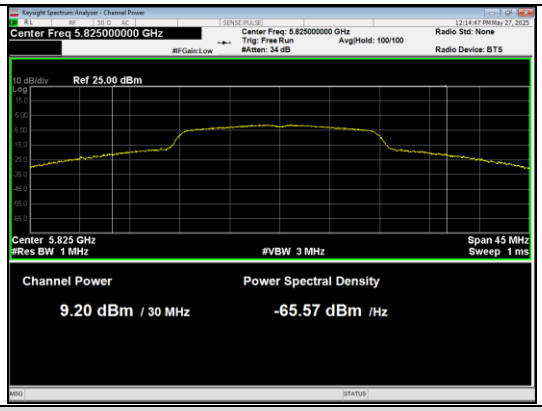
Conducted AVG output power
IEEE 802.11a_Channel 165_Antenna 2



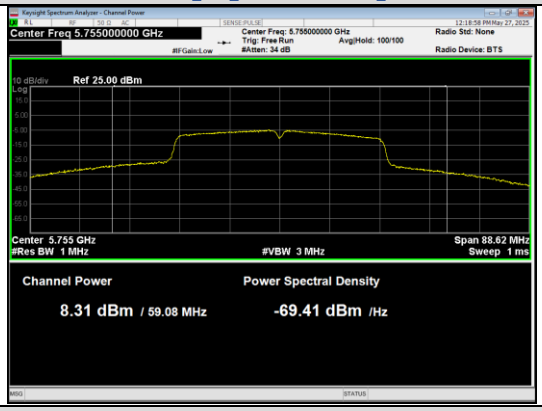
Conducted AVG output power
IEEE 802.11n_20_Channel 149_Antenna 2



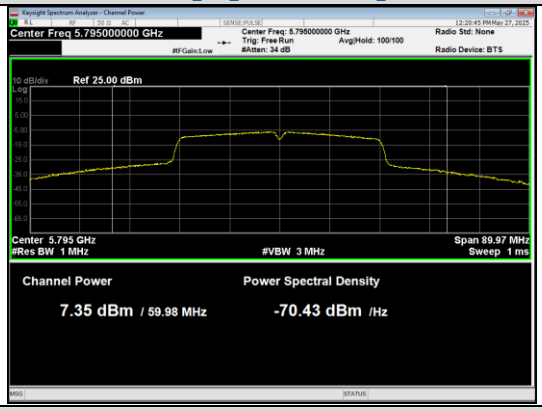
Conducted AVG output power
IEEE 802.11n_20_Channel 157_Antenna 2



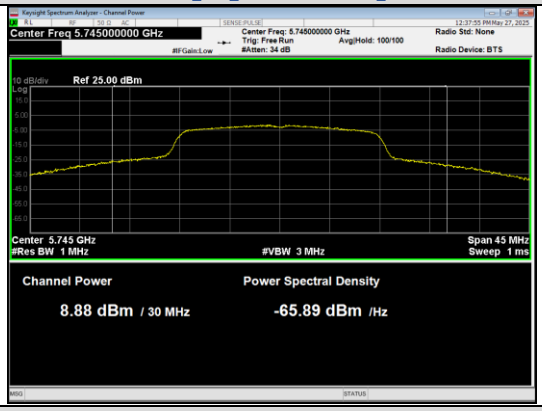
Conducted AVG output power
IEEE 802.11n_20_Channel 165_Antenna 2



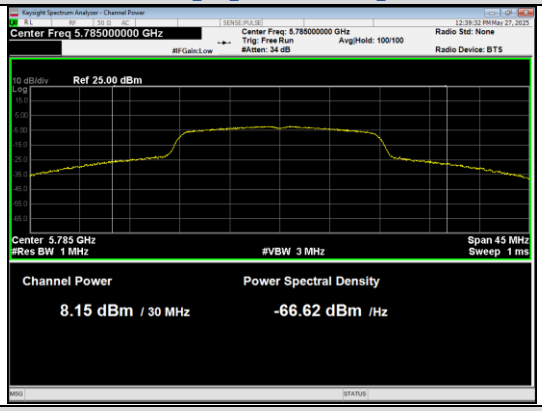
Conducted AVG output power
IEEE 802.11n_40_Channel 151_Antenna 2



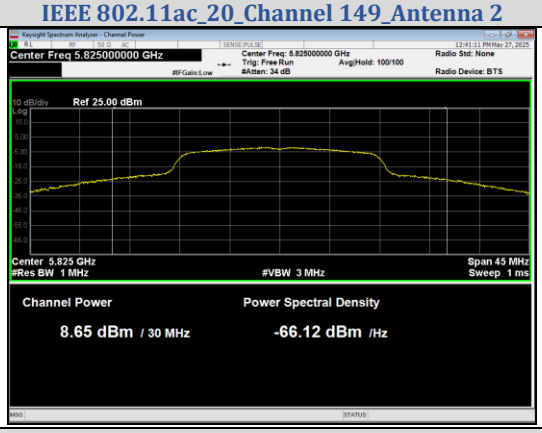
Conducted AVG output power
IEEE 802.11n_40_Channel 159_Antenna 2



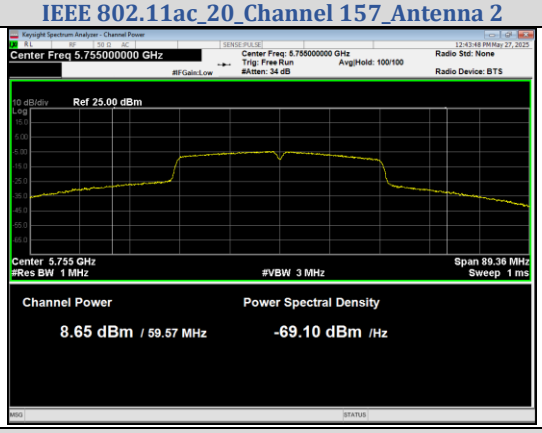
Conducted AVG output power
IEEE 802.11ac_20_Channel 149_Antenna 2



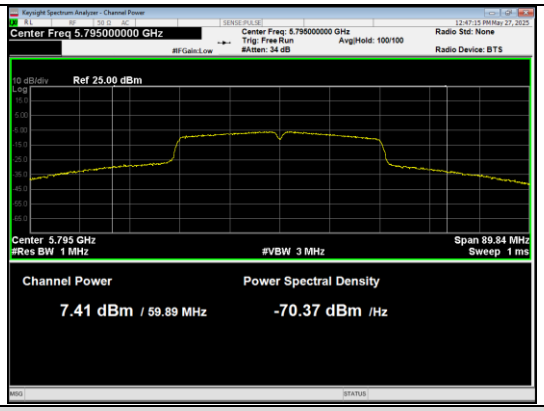
Conducted AVG output power
IEEE 802.11ac_20_Channel 157_Antenna 2



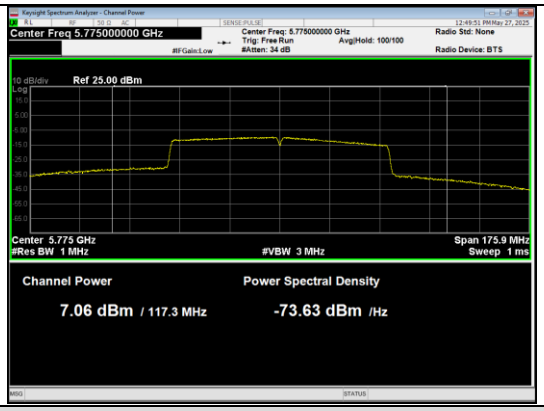
Conducted AVG output power
IEEE 802.11ac_20_Channel 165_Antenna 2



Conducted AVG output power
IEEE 802.11ac_40_Channel 151_Antenna 2



Conducted AVG output power
IEEE 802.11ac_40_Channel 159_Antenna 2



Conducted AVG output power
IEEE 802.11ac_80_Channel 155_Antenna 2

MIMO

Mode	Channel	Corr'd Value Ant. 1 (dBm)	Corr'd Value Ant. 2 (dBm)	MIMO (dBm)	Limit (dBm)	Result
IEEE 802.11a	149	13.85	8.96	15.07	≤30	PASS
	157	14.13	8.74	15.23	≤30	PASS
	165	14.49	9.35	15.65	≤30	PASS
IEEE 802.11n_20	149	13.69	8.95	14.95	≤30	PASS
	157	14.2	8.02	15.14	≤30	PASS
	165	14.33	9.2	15.49	≤30	PASS
IEEE 802.11n_40	151	13.8	8.31	14.88	≤30	PASS
	159	14.16	7.35	14.98	≤30	PASS
IEEE 802.11ac_20	149	13.85	8.88	15.05	≤30	PASS
	157	14.27	8.15	15.22	≤30	PASS
	165	14.45	8.65	15.46	≤30	PASS
IEEE 802.11ac_40	151	13.86	8.65	15.00	≤30	PASS
	159	14.2	7.41	15.03	≤30	PASS
IEEE 802.11ac_80	155	14.18	7.06	14.95	≤30	PASS

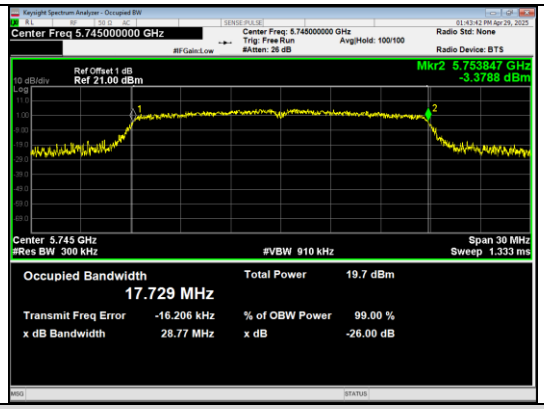
ANT1

99% Bandwidth

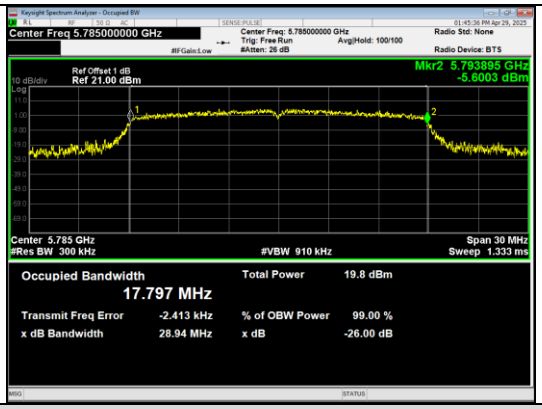
Test Result

Mode	Channel	Center Frequency (MHz)	99% BW (MHz)
IEEE 802.11a	149	5745	17.729
	157	5785	17.797
	165	5825	17.746
IEEE 802.11n_20	149	5745	17.705
	157	5785	17.741
	165	5825	17.737
IEEE 802.11n_40	151	5755	36.097
	159	5795	36.134
IEEE 802.11ac_20	149	5745	17.729
	157	5785	17.779
	165	5825	17.716
IEEE 802.11ac_40	151	5755	36.144
	159	5795	36.096
IEEE 802.11ac_80	155	5775	75.490

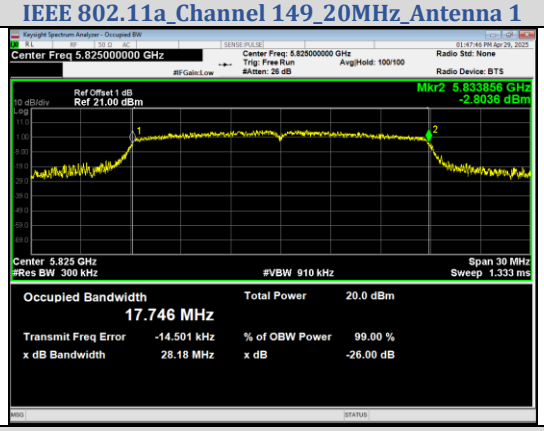
Test Graphs



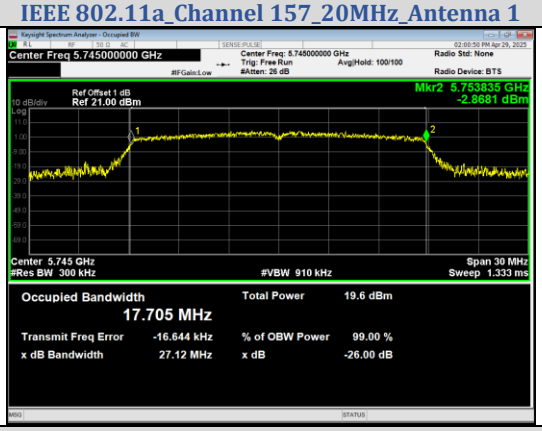
IEEE 802.11a_Channel 149_20MHz_Antenna 1



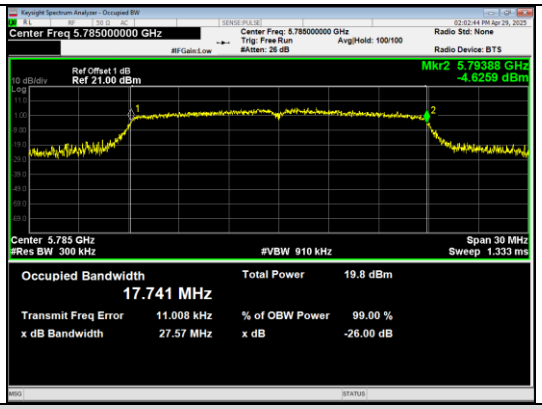
IEEE 802.11a_Channel 157_20MHz_Antenna 1



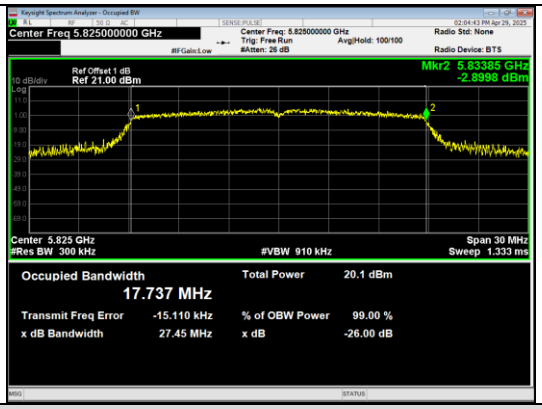
IEEE 802.11a_Channel 165_20MHz_Antenna 1



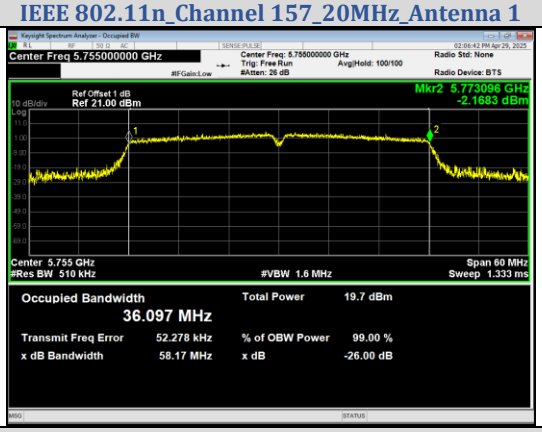
IEEE 802.11n_Channel 149_20MHz_Antenna 1



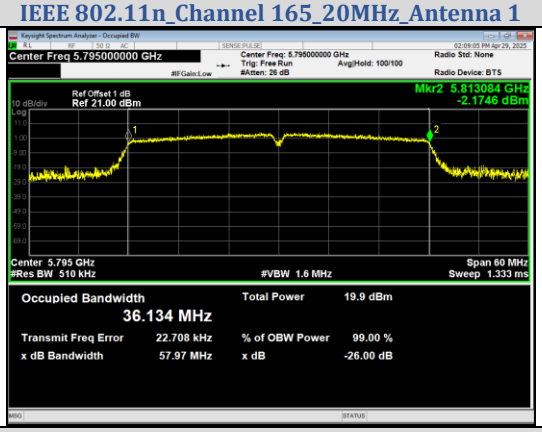
IEEE 802.11n_Channel 157_20MHz_Antenna 1



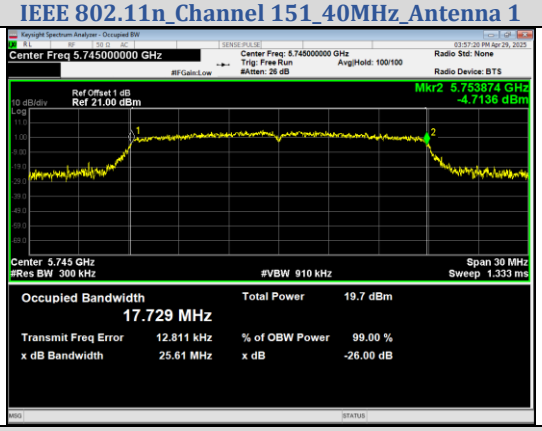
IEEE 802.11n_Channel 165_20MHz_Antenna 1



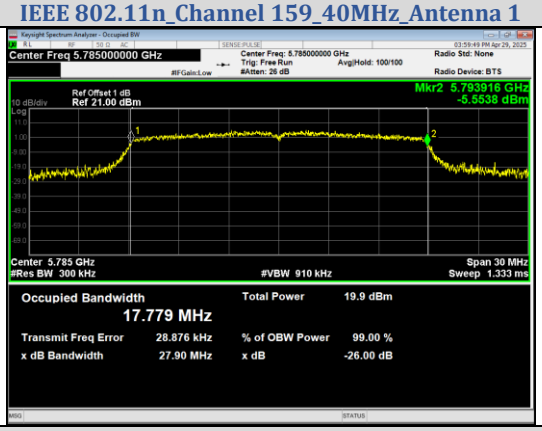
IEEE 802.11n_Channel 151_40MHz_Antenna 1



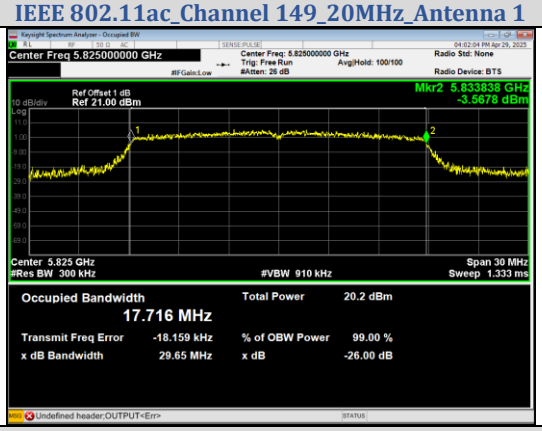
IEEE 802.11n_Channel 159_40MHz_Antenna 1



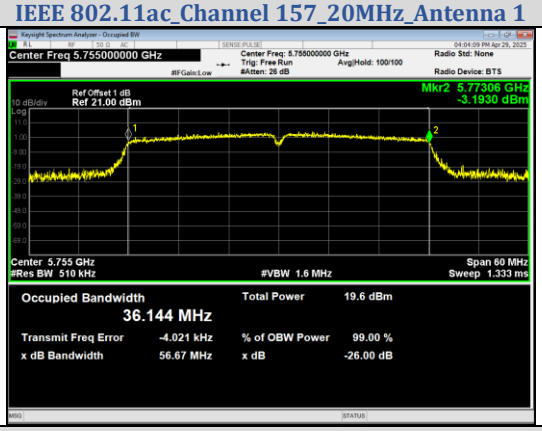
IEEE 802.11ac_Channel 149_20MHz_Antenna 1



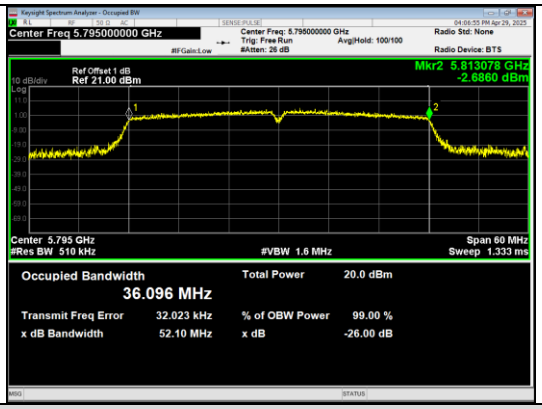
IEEE 802.11ac_Channel 157_20MHz_Antenna 1



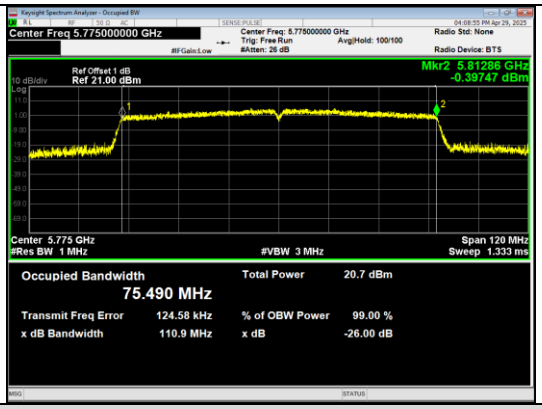
IEEE 802.11ac_Channel 165_20MHz_Antenna 1



IEEE 802.11ac_Channel 151_40MHz_Antenna 1



IEEE 802.11ac_Channel 159_40MHz_Antenna 1



IEEE 802.11ac_Channel 155_80MHz_Antenna 1

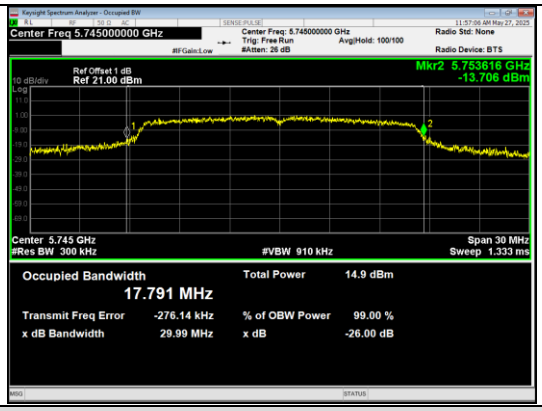
ANT1

99% Bandwidth

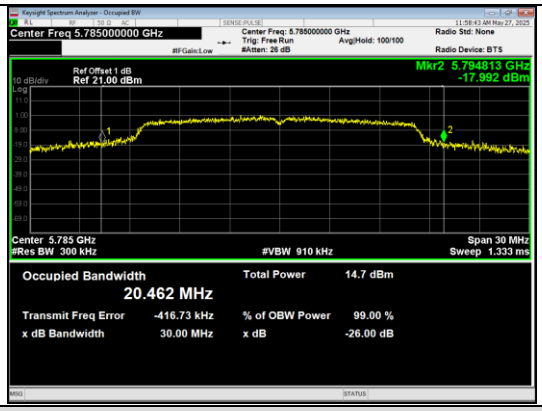
Test Result

Mode	Channel	Ant.	Center Frequency (MHz)	99% BW (MHz)
IEEE 802.11a	149	0	5745	17.791
	157		5785	20.462
	165		5825	23.774
IEEE 802.11n_20	149		5745	18.460
	157		5785	19.224
	165		5825	24.251
IEEE 802.11n_40	151		5755	36.833
	159		5795	36.903
IEEE 802.11ac_20	149		5745	18.342
	157		5785	19.499
	165		5825	22.685
IEEE 802.11ac_40	151		5755	37.465
	159		5795	36.989
IEEE 802.11ac_80	155		5775	76.647

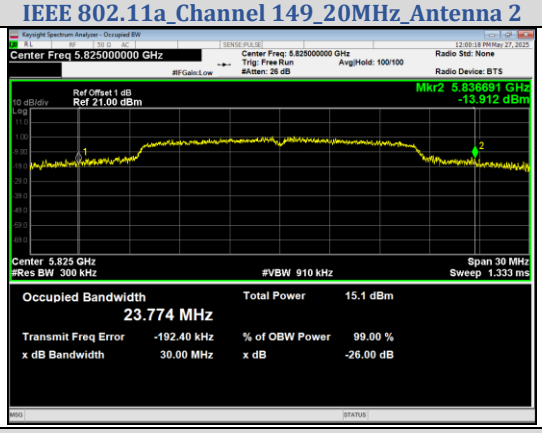
Test Graphs



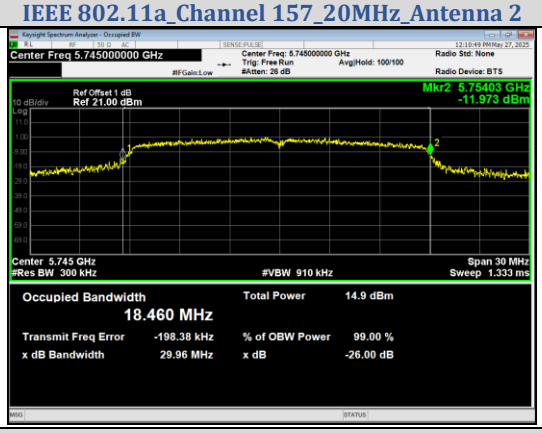
IEEE 802.11a_Channel 149_20MHz_Antenna 2



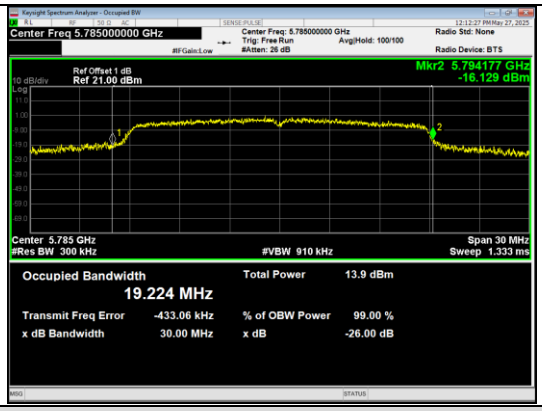
IEEE 802.11a_Channel 157_20MHz_Antenna 2



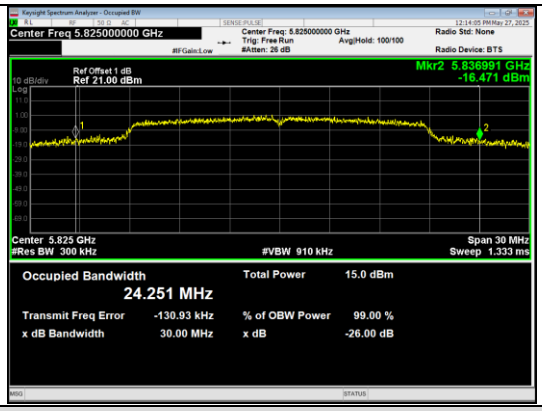
IEEE 802.11a_Channel 165_20MHz_Antenna 2



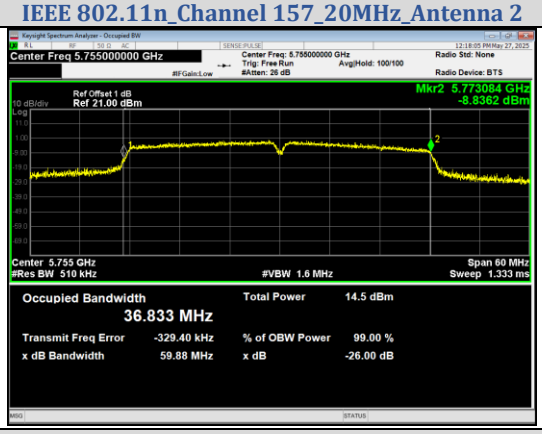
IEEE 802.11n_Channel 149_20MHz_Antenna 2



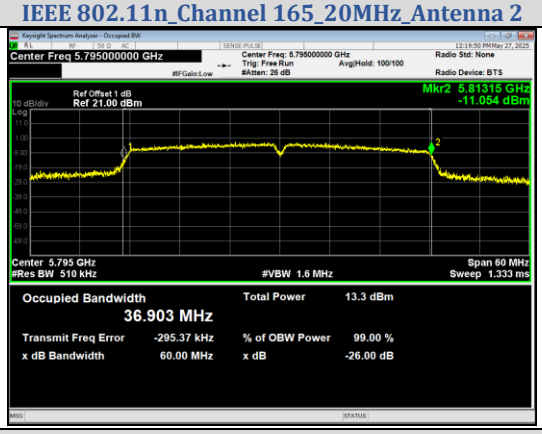
IEEE 802.11n_Channel 157_20MHz_Antenna 2



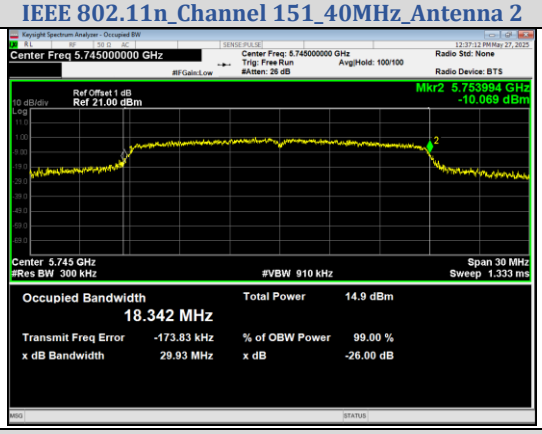
IEEE 802.11n_Channel 165_20MHz_Antenna 2



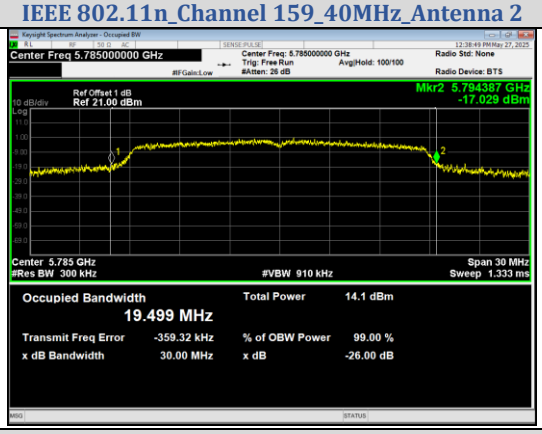
IEEE 802.11n_Channel 151_40MHz_Antenna 2



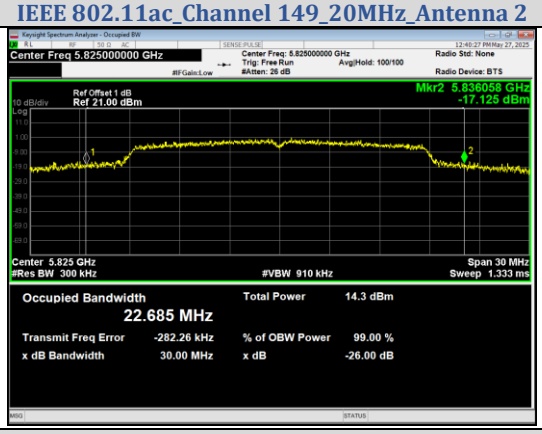
IEEE 802.11n_Channel 159_40MHz_Antenna 2



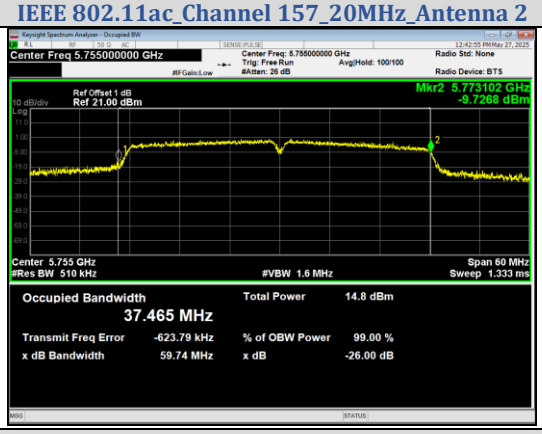
IEEE 802.11ac_Channel 149_20MHz_Antenna 2



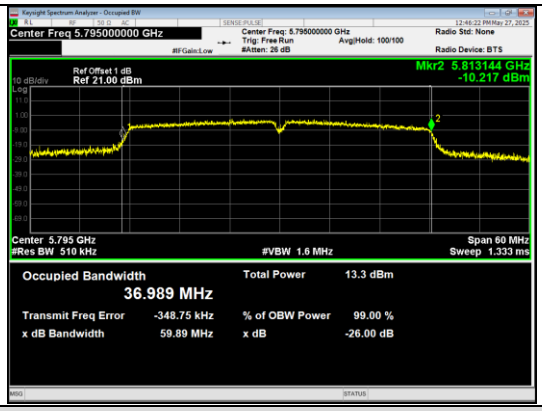
IEEE 802.11ac_Channel 157_20MHz_Antenna 2



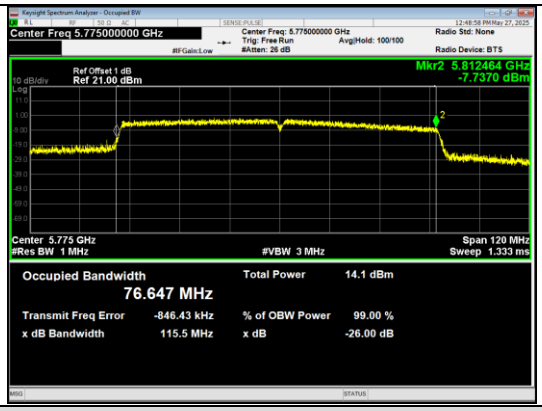
IEEE 802.11ac_Channel 165_20MHz_Antenna 2



IEEE 802.11ac_Channel 151_40MHz_Antenna 2



IEEE 802.11ac_Channel 159_40MHz_Antenna 2



IEEE 802.11ac_Channel 155_80MHz_Antenna 2

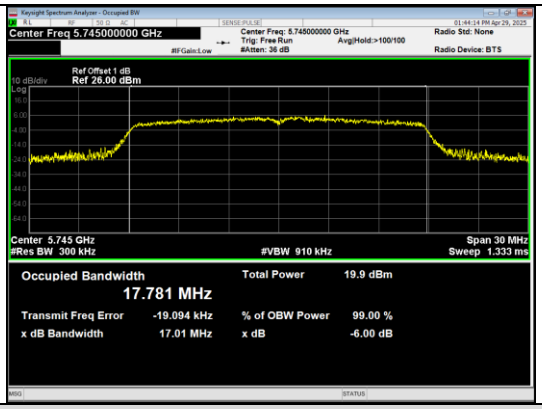
ANT1

6dB Bandwidth

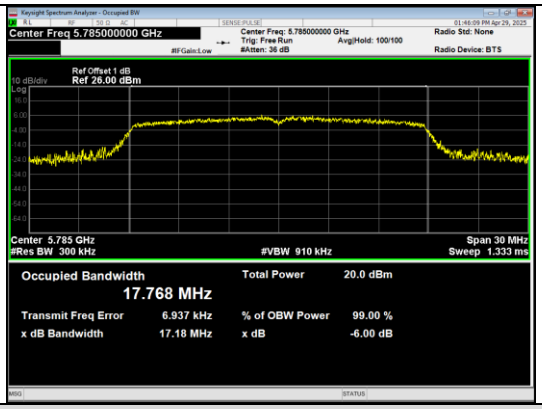
Test Result

Mode	Channel	Center Frequency (MHz)	6 dB Bandwidth (MHz)	Limit (MHz)	Result
IEEE 802.11a	149	5745	17.01	≥0.5	PASS
	157	5785	17.18		PASS
	165	5825	17.23		PASS
IEEE 802.11n_20	149	5745	17.27		PASS
	157	5785	17.15		PASS
	165	5825	17.04		PASS
IEEE 802.11n_40	151	5755	35.45		PASS
	159	5795	35.83		PASS
IEEE 802.11ac_20	149	5745	17.28		PASS
	157	5785	17.39		PASS
	165	5825	17.40		PASS
IEEE 802.11ac_40	151	5755	35.27		PASS
	159	5795	35.17		PASS
IEEE 802.11ac_80	155	5775	75.42		PASS

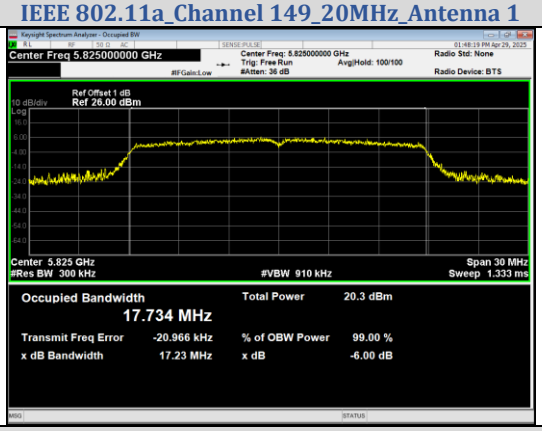
Test Graphs



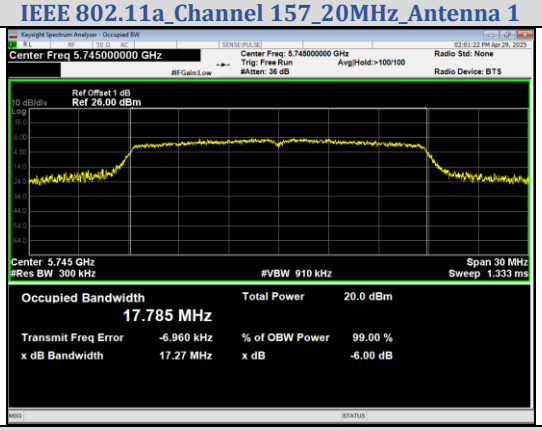
IEEE 802.11a_Channel 149_20MHz_Antenna 1



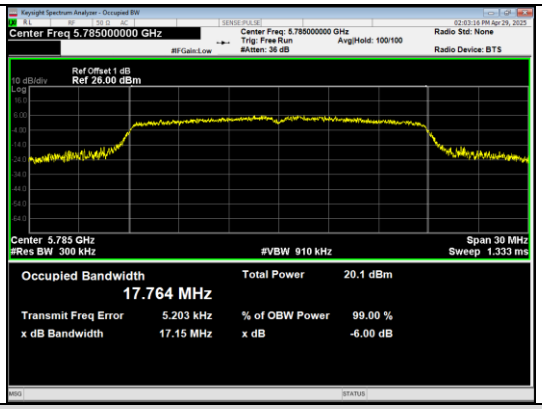
IEEE 802.11a_Channel 157_20MHz_Antenna 1



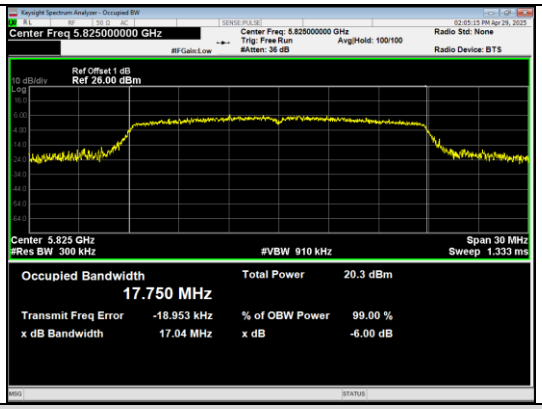
IEEE 802.11a_Channel 165_20MHz_Antenna 1



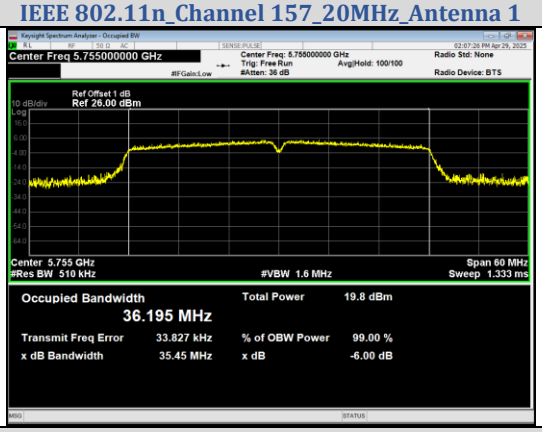
IEEE 802.11n_Channel 149_20MHz_Antenna 1



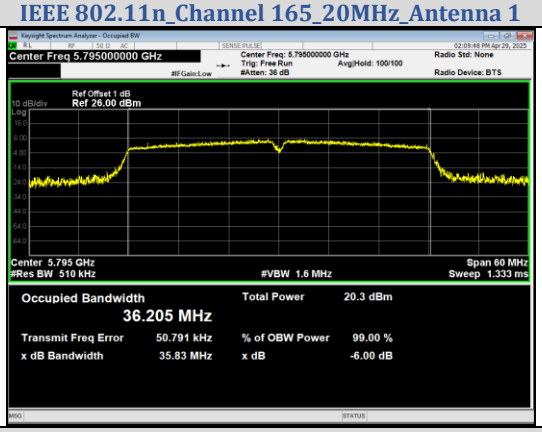
IEEE 802.11n_Channel 157_20MHz_Antenna 1



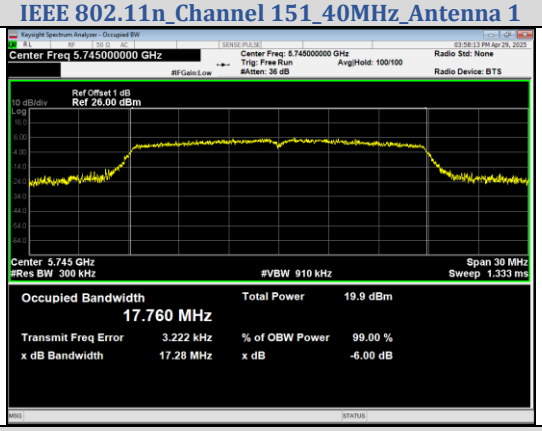
IEEE 802.11n_Channel 165_20MHz_Antenna 1



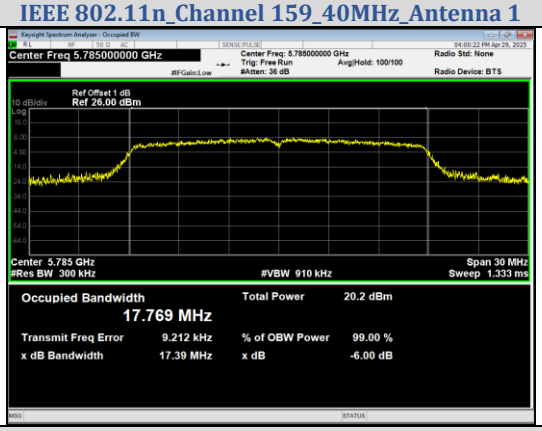
IEEE 802.11n_Channel 151_40MHz_Antenna 1



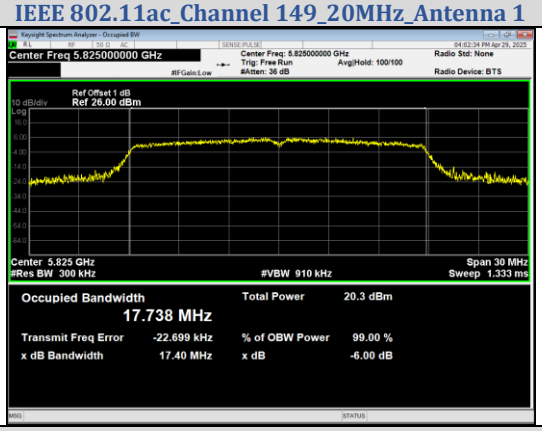
IEEE 802.11n_Channel 159_40MHz_Antenna 1



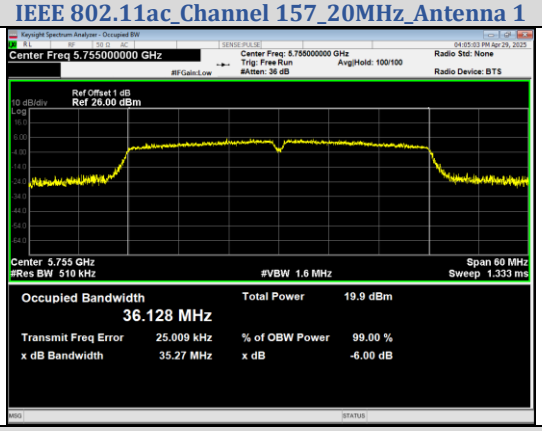
IEEE 802.11ac_Channel 149_20MHz_Antenna 1



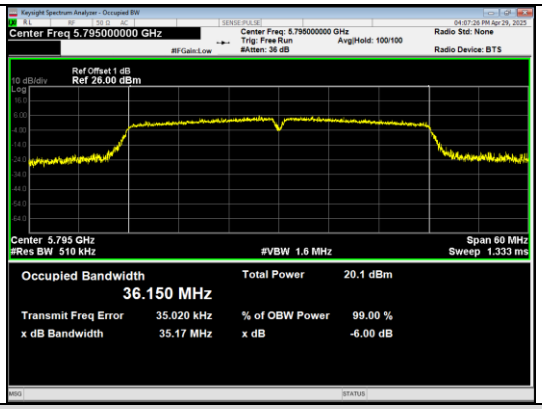
IEEE 802.11ac_Channel 157_20MHz_Antenna 1



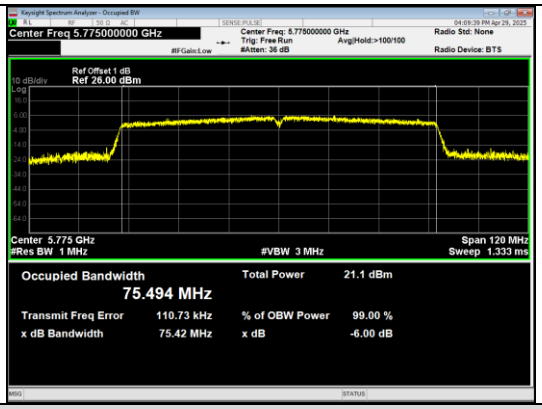
IEEE 802.11ac_Channel 165_20MHz_Antenna 1



IEEE 802.11ac_Channel 151_40MHz_Antenna 1



IEEE 802.11ac_Channel 159_40MHz_Antenna 1



IEEE 802.11ac_Channel 155_80MHz_Antenna 1

ANT2

6dB Bandwidth

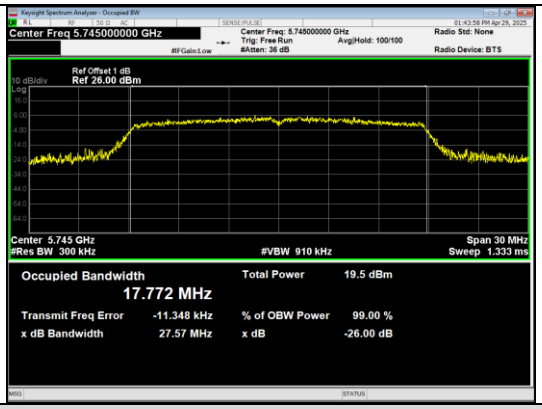
ANT1

26dB Bandwidth

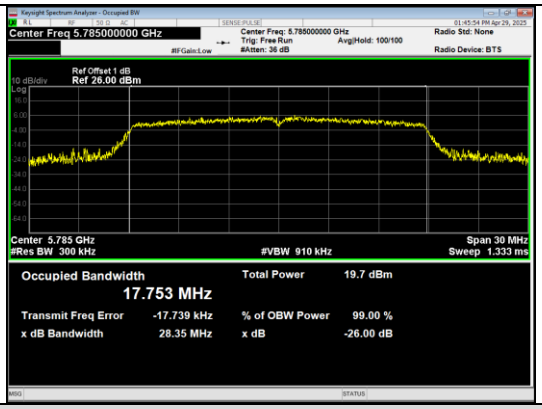
Test Result

Mode	Channel	Center Frequency (MHz)	26 dB Bandwidth (MHz)	RBW/EBW
IEEE 802.11a	149	5745	27.57	1.09
	157	5785	28.35	1.06
	165	5825	25.42	1.18
IEEE 802.11n_20	149	5745	27.88	1.08
	157	5785	26.89	1.12
	165	5825	27.35	1.1
IEEE 802.11n_40	151	5755	58.75	1.03
	159	5795	59.43	1.0
IEEE 802.11ac_20	149	5745	25.32	1.08
	157	5785	27.25	1.1
	165	5825	27.30	1.1
IEEE 802.11ac_40	151	5755	55.67	1.09
	159	5795	49.02	1.04
IEEE 802.11ac_80	155	5775	118.16	1.0

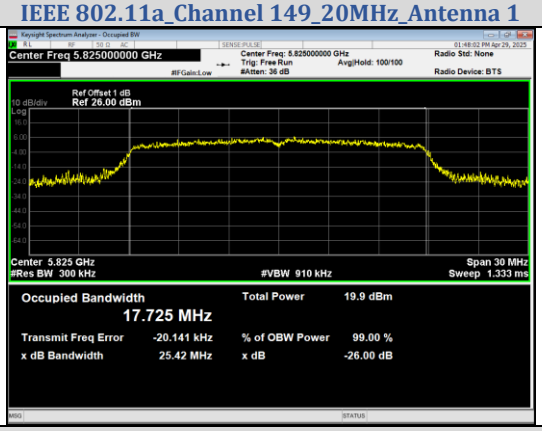
Test Graphs



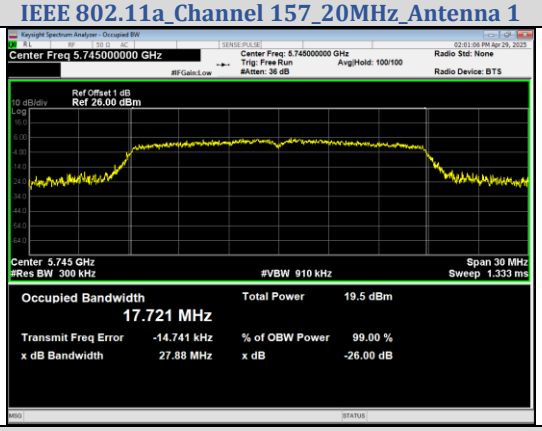
IEEE 802.11a_Channel 149_20MHz_Antenna 1



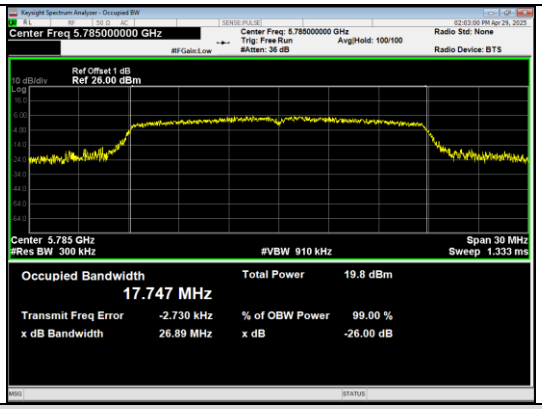
IEEE 802.11a_Channel 157_20MHz_Antenna 1



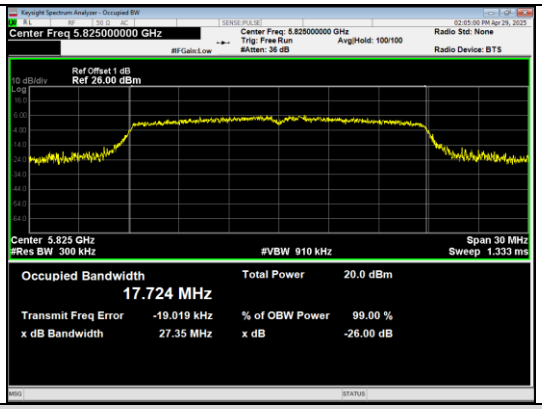
IEEE 802.11a_Channel 165_20MHz_Antenna 1



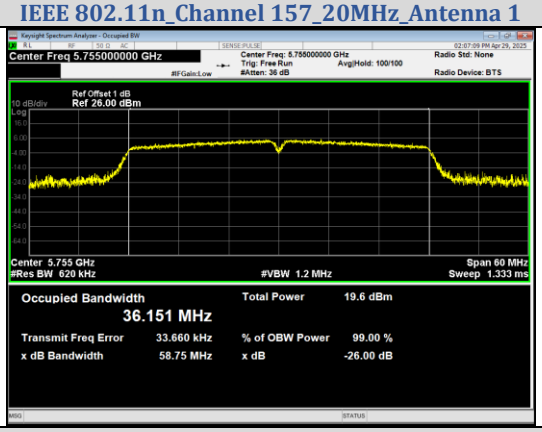
IEEE 802.11n_Channel 149_20MHz_Antenna 1



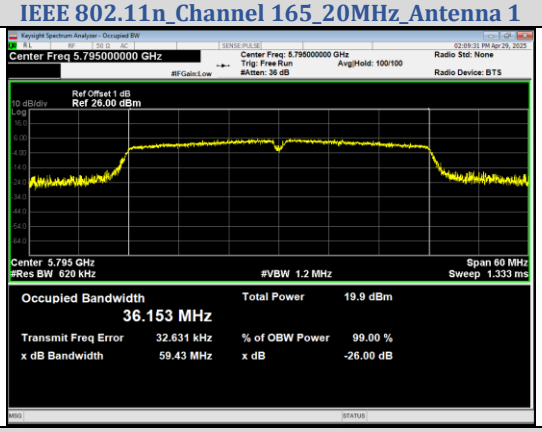
IEEE 802.11n_Channel 157_20MHz_Antenna 1



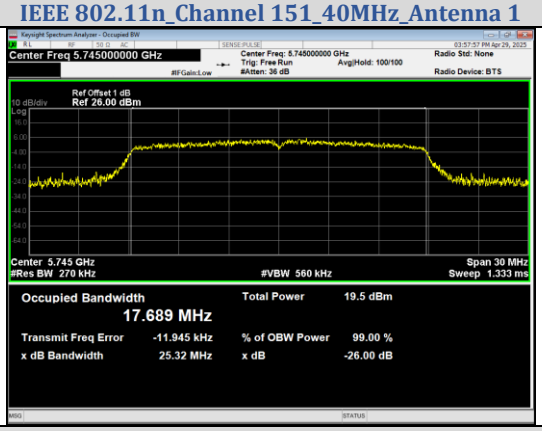
IEEE 802.11n_Channel 165_20MHz_Antenna 1



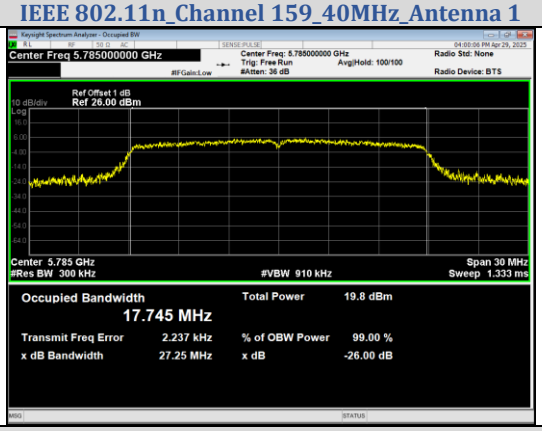
IEEE 802.11n_Channel 151_40MHz_Antenna 1



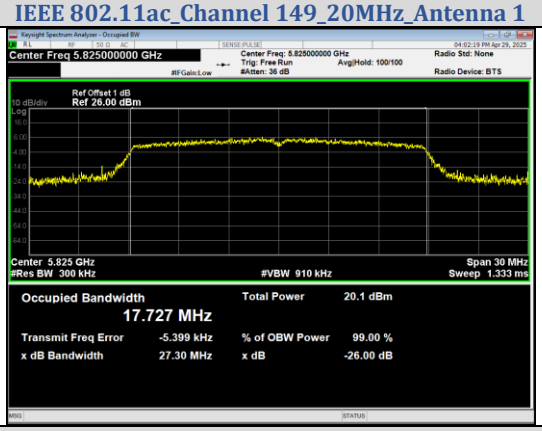
IEEE 802.11n_Channel 159_40MHz_Antenna 1



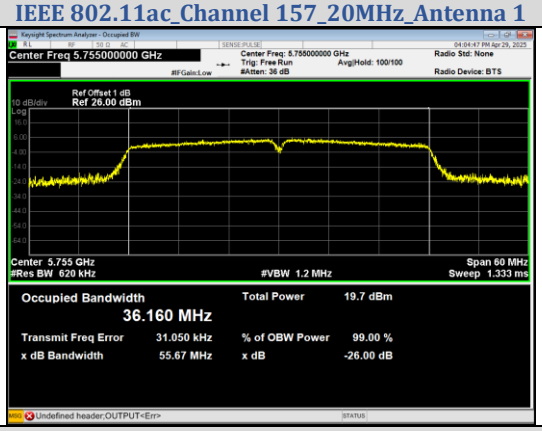
IEEE 802.11ac_Channel 149_20MHz_Antenna 1



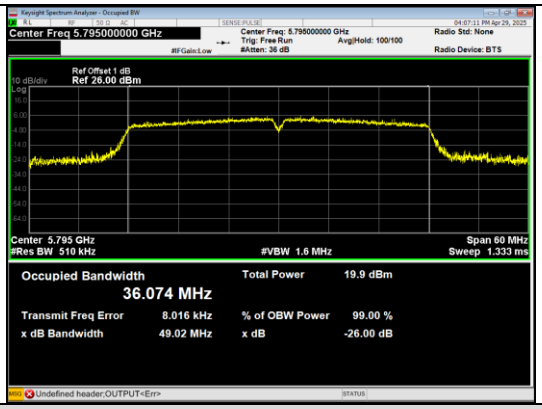
IEEE 802.11ac_Channel 157_20MHz_Antenna 1



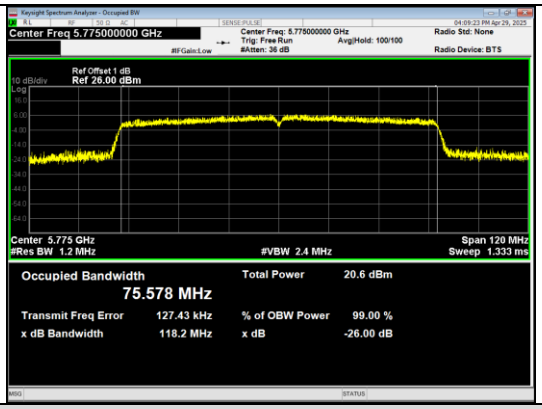
IEEE 802.11ac_Channel 165_20MHz_Antenna 1



IEEE 802.11ac_Channel 151_40MHz_Antenna 1



IEEE 802.11ac_Channel 159_40MHz_Antenna 1



IEEE 802.11ac_Channel 155_80MHz_Antenna 1

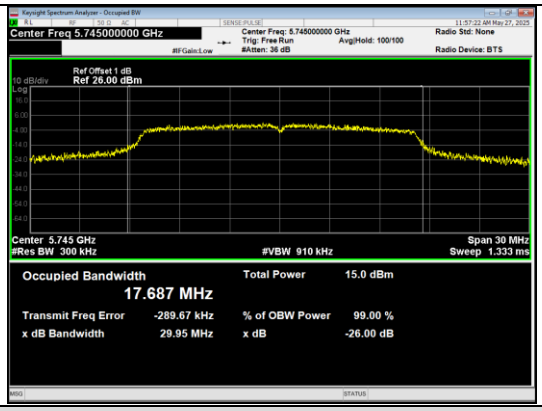
ANT2

26dB Bandwidth

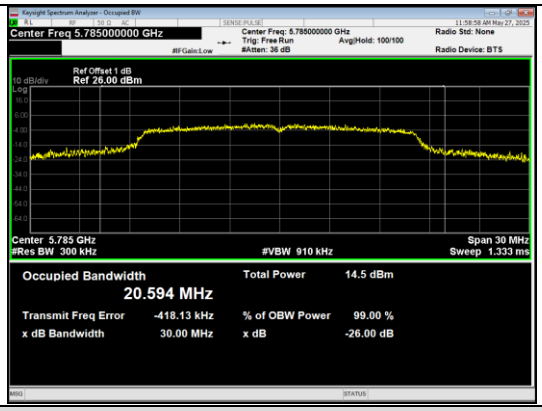
Test Result

Mode	Channel	Center Frequency (MHz)	26 dB Bandwidth (MHz)	RBW/EBW
IEEE 802.11a	149	5745	29.95	1.0
	157	5785	30.00	1.0
	165	5825	30.00	1.0
IEEE 802.11n_20	149	5745	30.00	1.0
	157	5785	30.00	1.0
	165	5825	30.00	1.0
IEEE 802.11n_40	151	5755	59.08	1.05
	159	5795	59.98	1.03
IEEE 802.11ac_20	149	5745	30.00	1.0
	157	5785	30.00	1.0
	165	5825	30.00	1.0
IEEE 802.11ac_40	151	5755	59.57	1.03
	159	5795	59.89	1.03
IEEE 802.11ac_80	155	5775	117.27	1.01

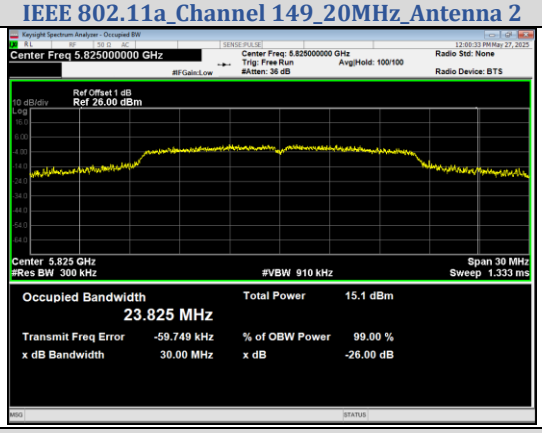
Test Graphs



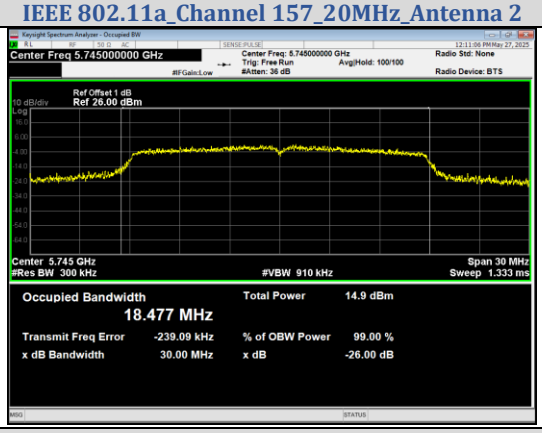
IEEE 802.11a_Channel 149_20MHz_Antenna 2



IEEE 802.11a_Channel 157_20MHz_Antenna 2



IEEE 802.11a_Channel 165_20MHz_Antenna 2



IEEE 802.11n_Channel 149_20MHz_Antenna 2