APPENDIX I.Frequency Stability

Antenna A:

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	5744.766063	-40.72	Within authorized band	PASS
		157		5785.0	5784.769963	-39.76		PASS
		165		5825.0	5824.769588	-39.56		PASS
	IEEE 802.11n_20	149		5745.0	5744.757875	-42.15		PASS
		157		5785.0	5785.249025	43.05		PASS
		165		5825.0	5824.756825	-41.75		PASS
	IEEE 802.11n_40	151		5755.0	5755.210637	36.6		PASS
		159		5795.0	5795.206236	35.59		PASS
	IEEE 802.11ac_20	149		5745.0	5744.750000	-43.52		PASS
		157		5785.0	5785.244425	42.25		PASS
		165		5825.0	5824.750000	-42.92		PASS
	IEEE 802.11ac_40	151		5755.0	5754.972456	-4.79		PASS
		159		5795.0	5794.821514	-30.8		PASS
	IEEE 802.11ac_80	155		5775.0	5775.003931	0.68		PASS

Test Graphs

NT/NV

IEEE 802.11a

NT/NV_Antenna 0
IEEE 802.11a_Channel 149_20MHz

NT/NV_Antenna 0
IEEE 802.11a_Channel 157_20MHz

Void

NT/NV_Antenna 0

IEEE 802.11a_Channel 165_20MHz

IEEE 802.11n_20

NT/NV_Antenna 0

IEEE 802.11n_Channel 149_20MHz

NT/NV_Antenna 0

IEEE 802.11n_Channel 157_20MHz

Void

NT/NV_Antenna 0

IEEE 802.11n_Channel 165_20MHz

IEEE 802.11n_40

NT/NV_Antenna 0

IEEE 802.11n_Channel 151_40MHz

NT/NV_Antenna 0

IEEE 802.11n_Channel 159_40MHz

IEEE 802.11ac_20

NT/NV_Antenna 0

IEEE 802.11ac_Channel 149_20MHz

NT/NV_Antenna 0

IEEE 802.11ac_Channel 157_20MHz

NT/NV_Antenna 0

IEEE 802.11ac_Channel 165_20MHz

Void

IEEE 802.11ac_40

NT/NV_Antenna 0 IEEE 802.11ac_Channel 151_40MHz	NT/NV_Antenna 0 IEEE 802.11ac_Channel 159_40MHz

IEEE 802.11ac_80

	Void
NT/NV_Antenna 0 IEEE 802.11ac_Channel 155_80MHz	

Antenna B:

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	5745.249250	43.39	Within authorized band	PASS
		157		5785.0	5785.244787	42.31		PASS
		165		5825.0	5824.763925	-40.53		PASS
	IEEE 802.11n_20	149		5745.0	5745.237250	41.3		PASS
		157		5785.0	5785.249112	43.06		PASS
		165		5825.0	5825.240662	41.32		PASS
	IEEE 802.11n_40	151		5755.0	5754.750713	-43.32		PASS
		159		5795.0	5795.233500	40.29		PASS
	IEEE 802.11ac_20	149		5745.0	5744.756725	-42.35		PASS
		157		5785.0	5785.250000	43.22		PASS
		165		5825.0	5825.250000	42.92		PASS
	IEEE 802.11ac_40	151		5755.0	5755.219174	38.08		PASS
		159		5795.0	5794.978793	-3.66		PASS
	IEEE 802.11ac_80	155		5775.0	5775.234237	40.56		PASS

Test Graphs

NT/NV

IEEE 802.11a

NT/NV_Antenna 0
IEEE 802.11a_Channel 149_20MHz

NT/NV_Antenna 0
IEEE 802.11a_Channel 157_20MHz

Void

NT/NV_Antenna 0

IEEE 802.11a_Channel 165_20MHz

IEEE 802.11n_20

NT/NV_Antenna 0

IEEE 802.11n_Channel 149_20MHz

NT/NV_Antenna 0

IEEE 802.11n_Channel 157_20MHz

Void

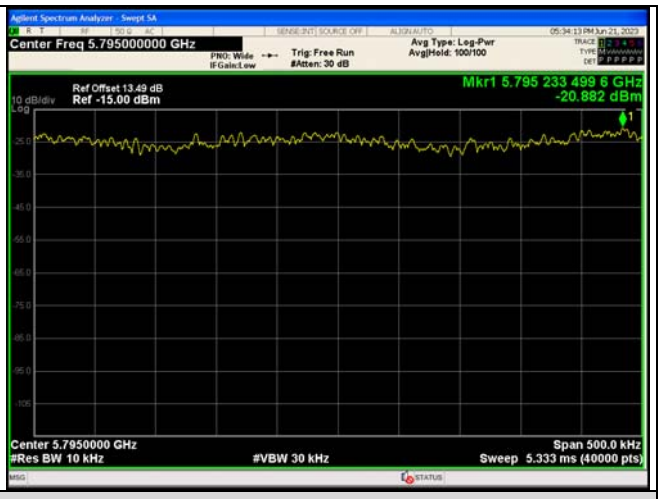
NT/NV_Antenna 0

IEEE 802.11n_Channel 165_20MHz

IEEE 802.11n_40

NT/NV_Antenna 0

IEEE 802.11n_Channel 151_40MHz



NT/NV_Antenna 0

IEEE 802.11n_Channel 159_40MHz

IEEE 802.11ac_20

NT/NV_Antenna 0

IEEE 802.11ac_Channel 149_20MHz

NT/NV_Antenna 0

IEEE 802.11ac_Channel 157_20MHz

NT/NV_Antenna 0

IEEE 802.11ac_Channel 165_20MHz

Void

IEEE 802.11ac_40

NT/NV_Antenna 0 IEEE 802.11ac_Channel 151_40MHz	NT/NV_Antenna 0 IEEE 802.11ac_Channel 159_40MHz

IEEE 802.11ac_80

	Void
NT/NV_Antenna 0 IEEE 802.11ac_Channel 155_80MHz	

Antenna A+ Antenna B:

Test Result

Condition	Mode	Ch.	Antenna	Center Frequency (MHz)	Calculated Value of Center Frequency(MHz)	Result (ppm)	Limit (ppm)	State
	IEEE 802.11n_20	149	0	5745.0	5745.238175	41.46	Within authorized band	PASS
		157		5785.0	5785.225549	38.99		PASS
		165		5825.0	5825.250000	42.92		PASS
	IEEE 802.11n_40	151		5755.0	5755.245887	42.73		PASS
		159		5795.0	5794.750450	-43.06		PASS
	IEEE 802.11ac_20	149		5745.0	5745.249075	43.36		PASS
		157		5785.0	5784.763550	-40.87		PASS
		165		5825.0	5825.210187	36.08		PASS
	IEEE 802.11ac_40	151		5755.0	5755.231575	40.24		PASS
		159		5795.0	5795.247075	42.64		PASS
	IEEE 802.11ac_80	155		5775.0	5775.211687	36.66		PASS

Test Graphs
NT/NV
IEEE 802.11n_20

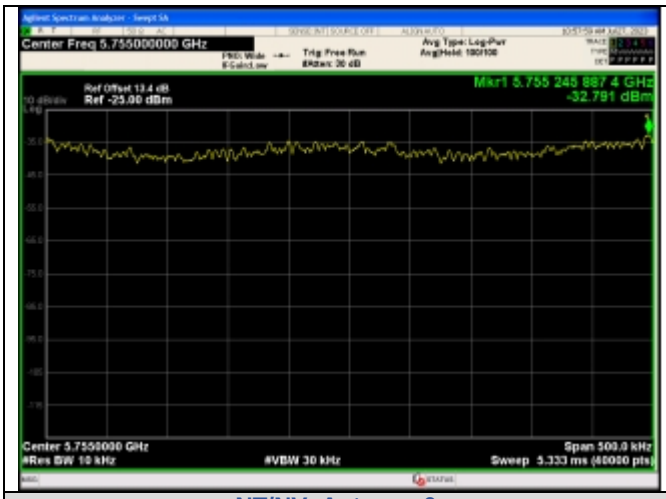
NT/NV_Antenna 0
IEEE 802.11n_Channel 149_20MHz

NT/NV_Antenna 0
IEEE 802.11n_Channel 157_20MHz

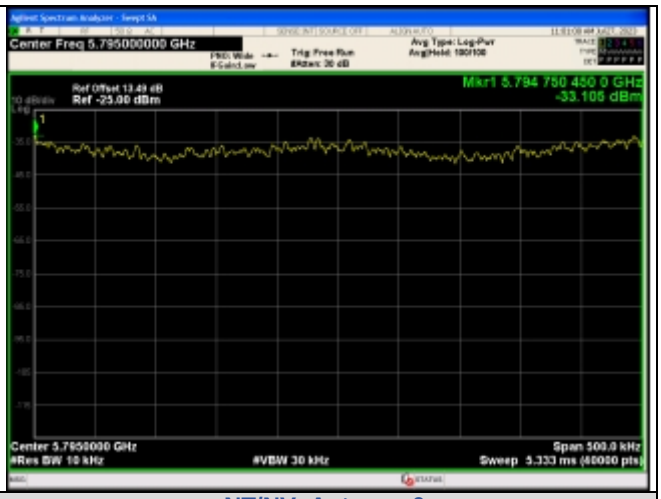
NT/NV_Antenna 0
IEEE 802.11n_Channel 165_20MHz

Void

IEEE 802.11n_40



NT/NV_Antenna 0
IEEE 802.11n_Channel 151_40MHz

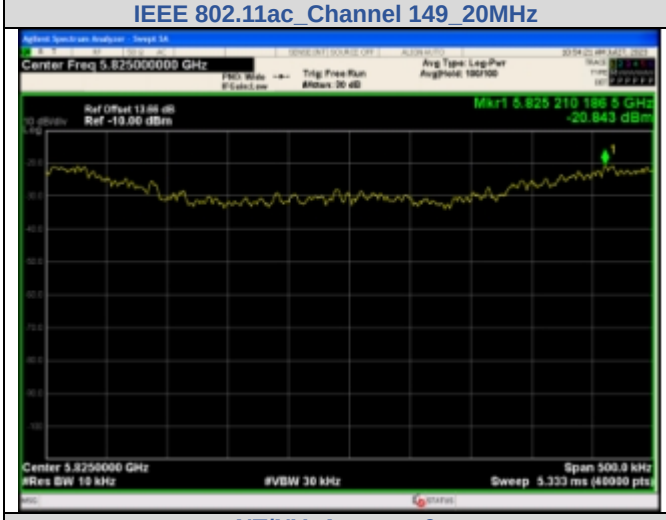


NT/NV_Antenna 0
IEEE 802.11n_Channel 159_40MHz

IEEE 802.11ac_20

NT/NV_Antenna 0
IEEE 802.11ac_Channel 149_20MHz

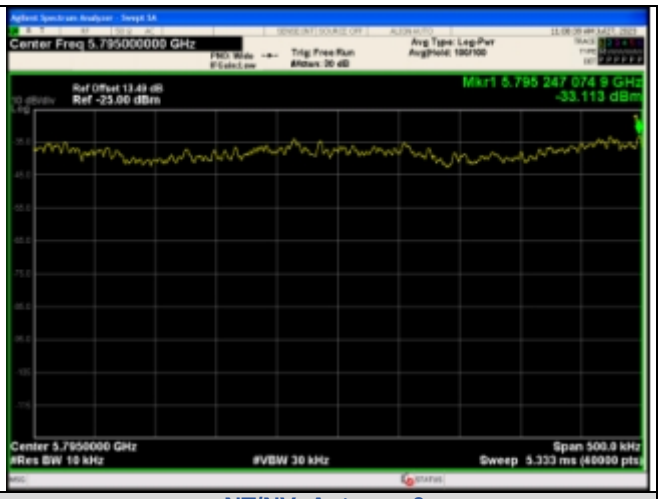
NT/NV_Antenna 0
IEEE 802.11ac_Channel 157_20MHz



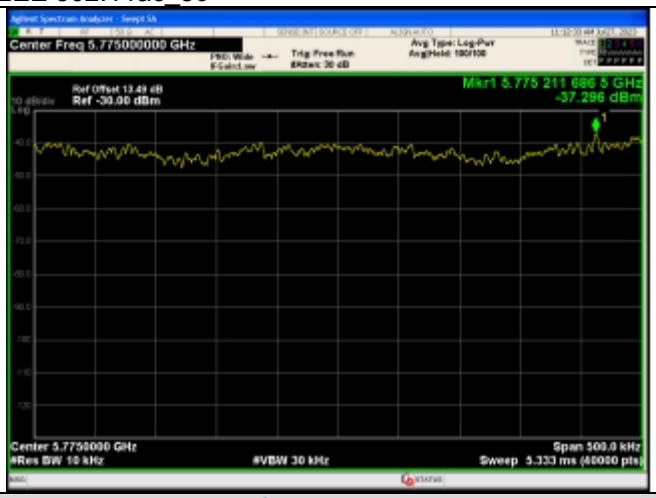
NT/NV_Antenna 0
IEEE 802.11ac_Channel 165_20MHz

Void

IEEE 802.11ac_40

	
NT/NV_Antenna 0 IEEE 802.11ac_Channel 151_40MHz	NT/NV_Antenna 0 IEEE 802.11ac_Channel 159_40MHz

IEEE 802.11ac_80

	Void
NT/NV_Antenna 0 IEEE 802.11ac_Channel 155_80MHz	

APPENDIX II.Conducted Peak Output Power

Antenna A:

Mode	Channel	Ant. 0 (dBm)	Corr'd Value Ant. 0 (dBm)	Limit (dBm)	Result
IEEE 802.11a	149	13.497	15.74	24	PASS
	157	13.218	15.47	24	PASS
	165	10.516	12.76	24	PASS
IEEE 802.11n_20	149	13.740	16.27	24	PASS
	157	10.964	13.49	24	PASS
	165	8.429	10.96	24	PASS
IEEE 802.11n_40	151	9.632	14.2	24	PASS
	159	4.986	9.56	24	PASS
IEEE 802.11ac_20	149	13.746	16.71	24	PASS
	157	13.171	16.14	24	PASS
	165	7.912	10.88	24	PASS
IEEE 802.11ac_40	151	14.154	18.62	24	PASS
	159	5.051	9.52	24	PASS
IEEE 802.11ac_80	155	3.041	9.46	24	PASS

Antenna B:

Mode	Channel	Ant. 0 (dBm)	Corr'd Value Ant. 0 (dBm)	Limit (dBm)	Result
IEEE 802.11a	149	13.831	14.76	24	PASS
	157	12.898	13.83	24	PASS
	165	12.462	13.4	24	PASS
IEEE 802.11n_20	149	11.892	12.89	24	PASS
	157	9.788	10.78	24	PASS
	165	10.331	11.32	24	PASS
IEEE 802.11n_40	151	13.324	14.84	24	PASS
	159	12.828	14.34	24	PASS
IEEE 802.11ac_20	149	13.863	14.95	24	PASS
	157	12.836	13.93	24	PASS
	165	10.292	11.38	24	PASS
IEEE 802.11ac_40	151	12.537	14.24	24	PASS
	159	11.948	13.65	24	PASS
IEEE 802.11ac_80	155	12.307	15.47	24	PASS

Antenna A+ Antenna B:

Test Result

Mode	Channel	Ant. 0 (dBm)	Corr'd Value Ant. 0 (dBm)	Limit (dBm)	Result
IEEE 802.11n_20	149	14.320	15.313	24	PASS
	157	12.341	13.334	24	PASS
	165	13.252	14.245	24	PASS
IEEE 802.11n_40	151	10.256	11.249	24	PASS
	159	13.401	14.394	24	PASS
IEEE 802.11ac_20	149	14.210	15.203	24	PASS
	157	13.688	14.681	24	PASS
	165	10.005	10.998	24	PASS
IEEE 802.11ac_40	151	12.110	13.103	24	PASS
	159	11.782	12.775	24	PASS
IEEE 802.11ac_80	155	13.022	14.015	24	PASS

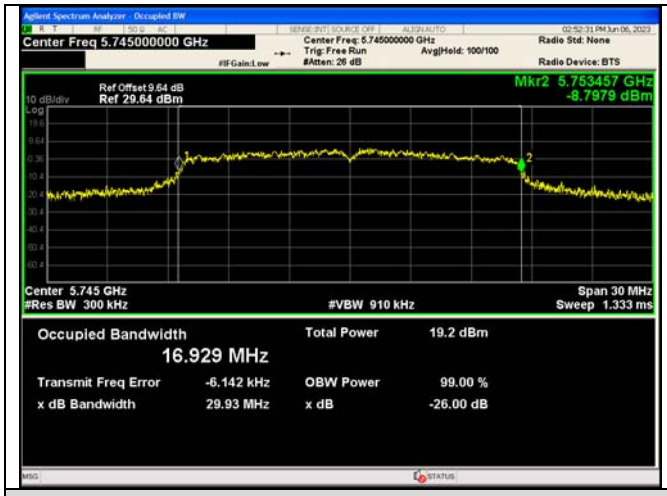
APPENDIX III.99% Bandwidth

Antenna A:

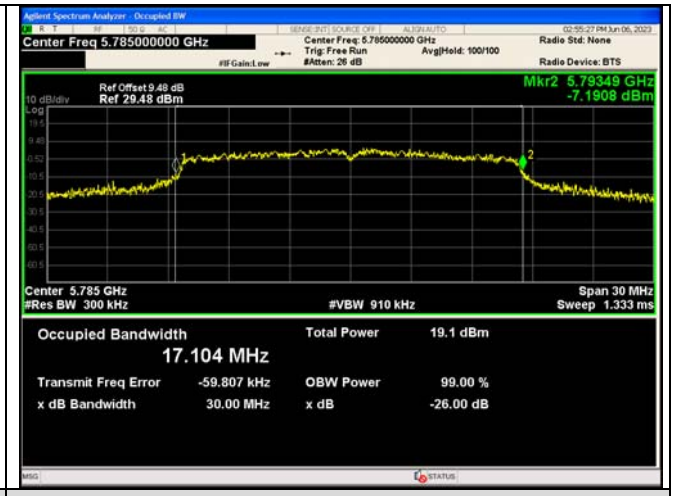
Test Result

Mode	Channel	Ant.	99% BW (MHz)
IEEE 802.11a	149	0	16.929
	157		17.104
	165		16.564
IEEE 802.11n_20	149		17.949
	157		17.941
	165		17.662
IEEE 802.11n_40	151		37.891
	159		35.870
IEEE 802.11ac_20	149		18.136
	157		17.960
	165		17.764
IEEE 802.11ac_40	151		39.708
	159		36.204
IEEE 802.11ac_80	155		75.800

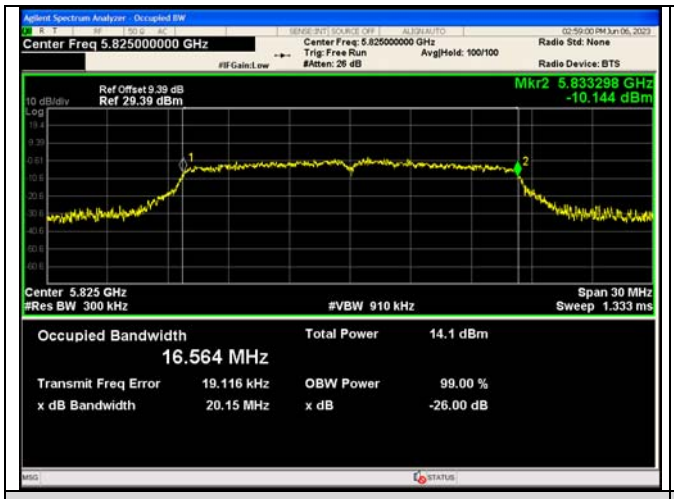
Test Graphs



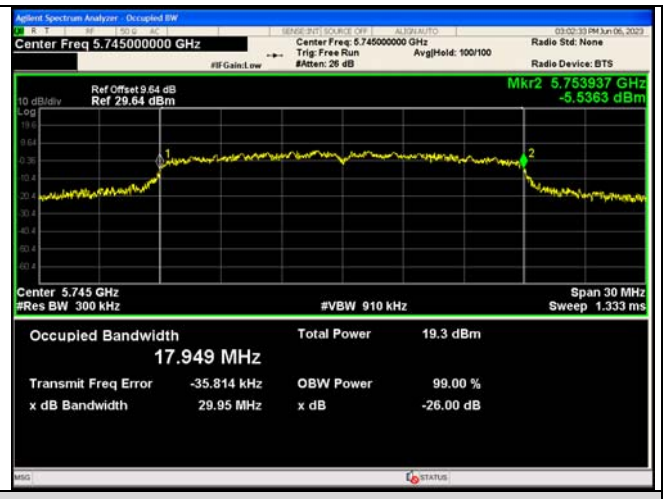
IEEE 802.11a_Channel 149_20MHz_Antenna 0



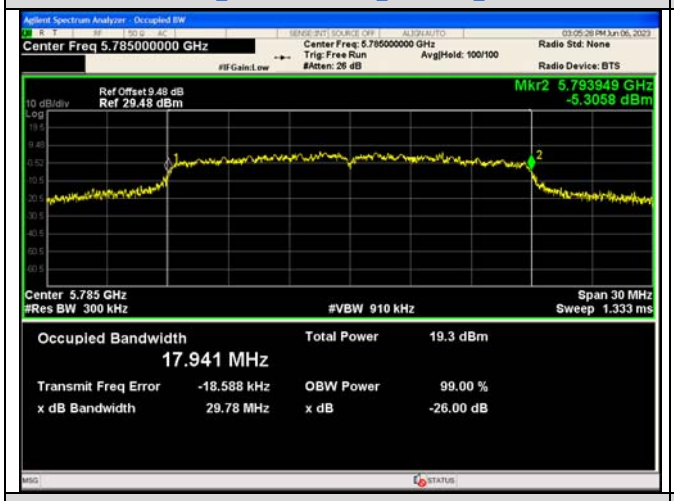
IEEE 802.11a_Channel 157_20MHz_Antenna 0



IEEE 802.11a_Channel 165_20MHz_Antenna 0



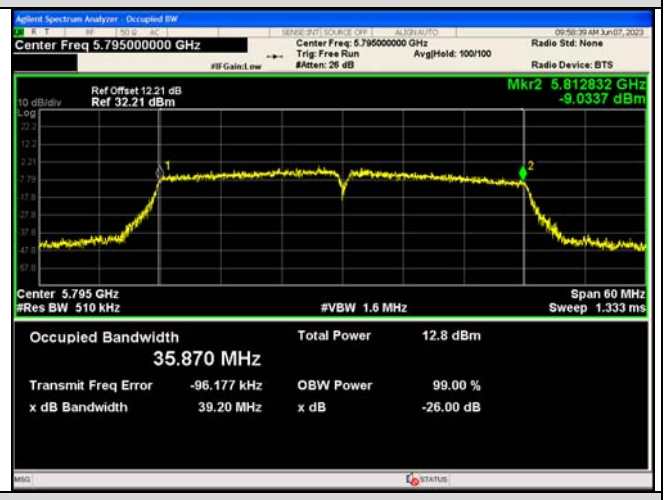
IEEE 802.11n_Channel 149_20MHz_Antenna 0



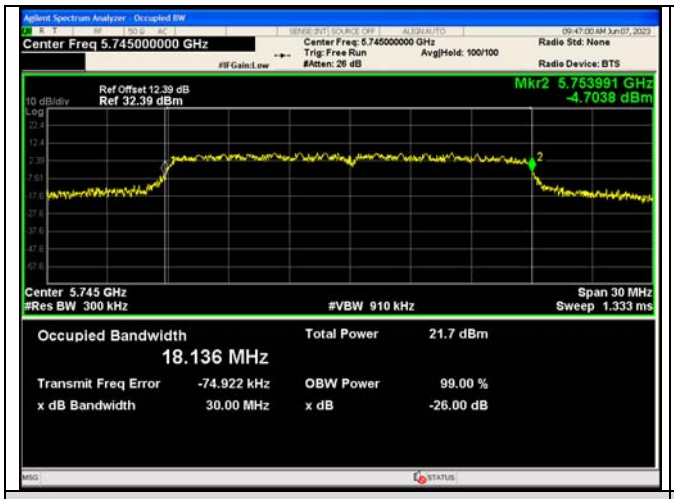
IEEE 802.11n_Channel 157_20MHz_Antenna 0

IEEE 802.11n_Channel 165_20MHz_Antenna 0

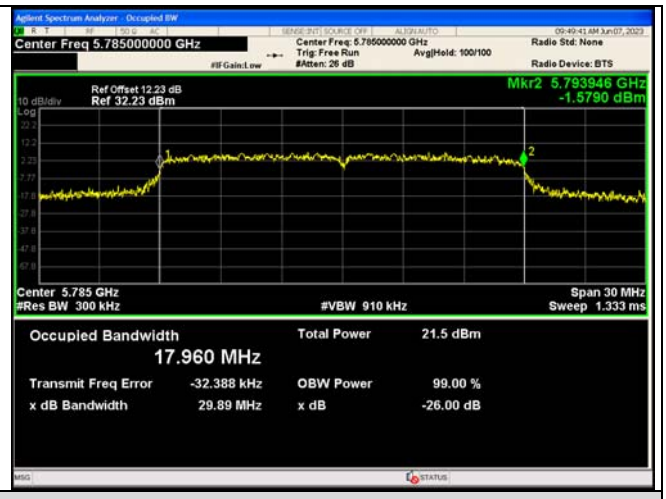
IEEE 802.11n_Channel 151_40MHz_Antenna 0



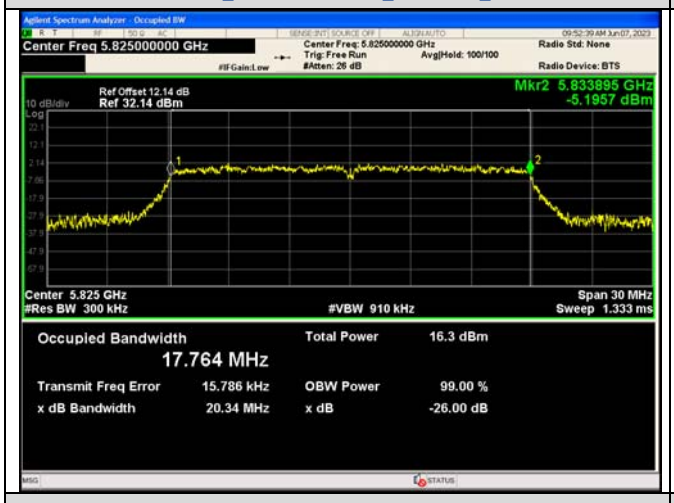
IEEE 802.11n_Channel 159_40MHz_Antenna 0



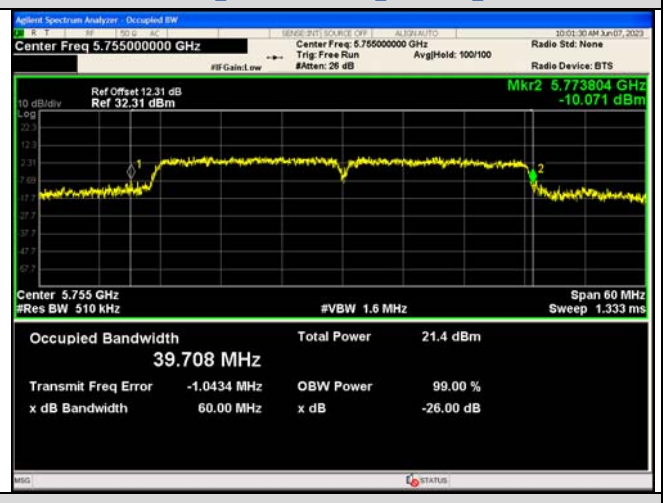
IEEE 802.11ac_Channel 149_20MHz_Antenna 0



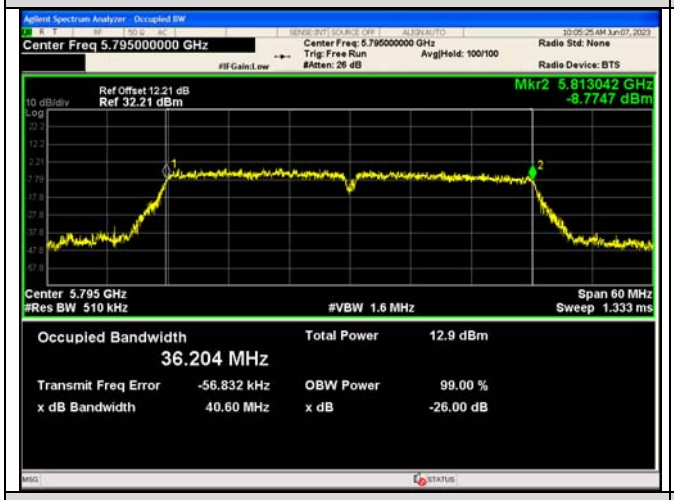
IEEE 802.11ac_Channel 157_20MHz_Antenna 0



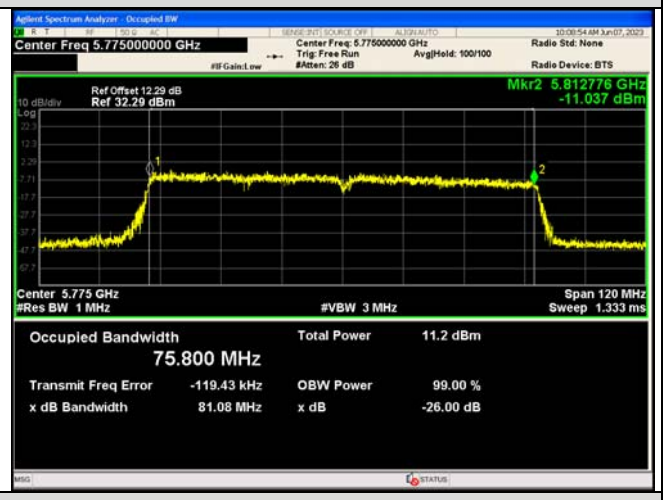
IEEE 802.11ac_Channel 165_20MHz_Antenna 0



IEEE 802.11ac_Channel 151_40MHz_Antenna 0



IEEE 802.11ac_Channel 159_40MHz_Antenna 0



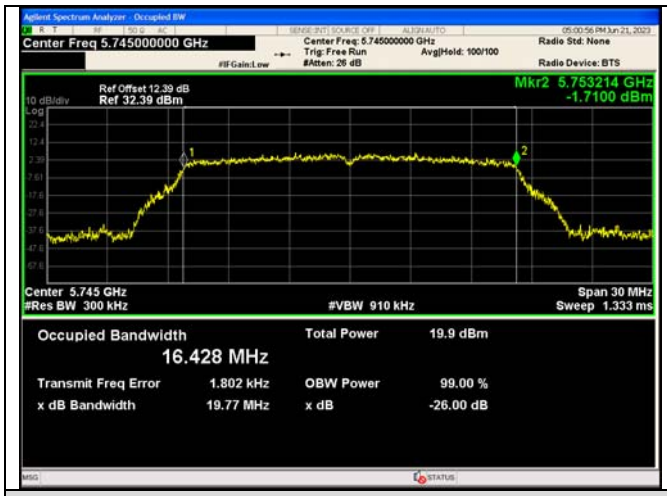
IEEE 802.11ac_Channel 155_80MHz_Antenna 0

Antenna B:

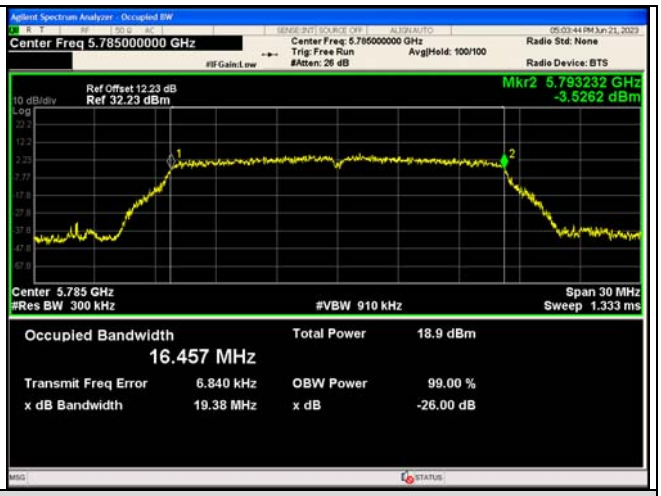
Test Result

Mode	Channel	Ant.	99% BW (MHz)
IEEE 802.11a	149	0	16.428
	157		16.457
	165		16.479
IEEE 802.11n_20	149		17.573
	157		17.592
	165		17.566
IEEE 802.11n_40	151		35.955
	159		35.992
IEEE 802.11ac_20	149		17.556
	157		17.580
	165		17.587
IEEE 802.11ac_40	151		35.968
	159		35.917
IEEE 802.11ac_80	155		75.524

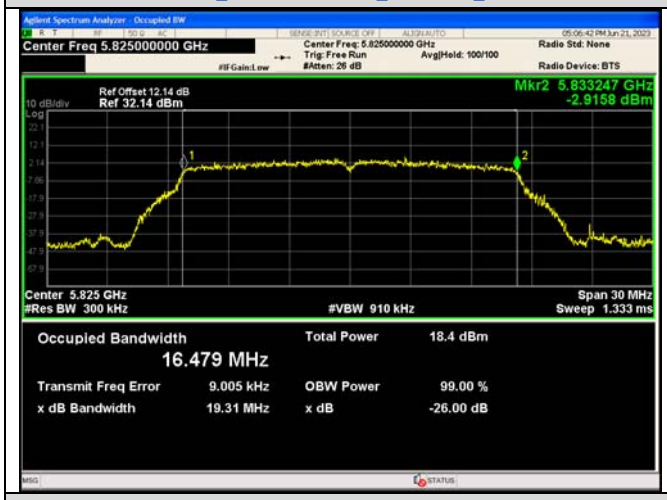
Test Graphs



IEEE 802.11a_Channel 149_20MHz_Antenna 0

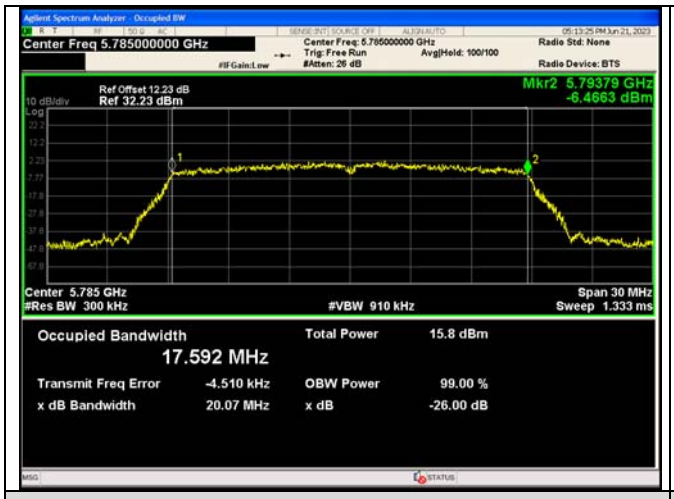


IEEE 802.11a_Channel 157_20MHz_Antenna 0

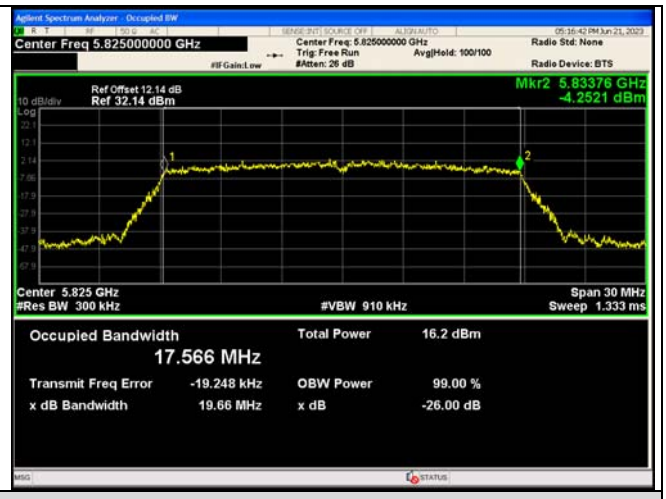


IEEE 802.11a_Channel 165_20MHz_Antenna 0

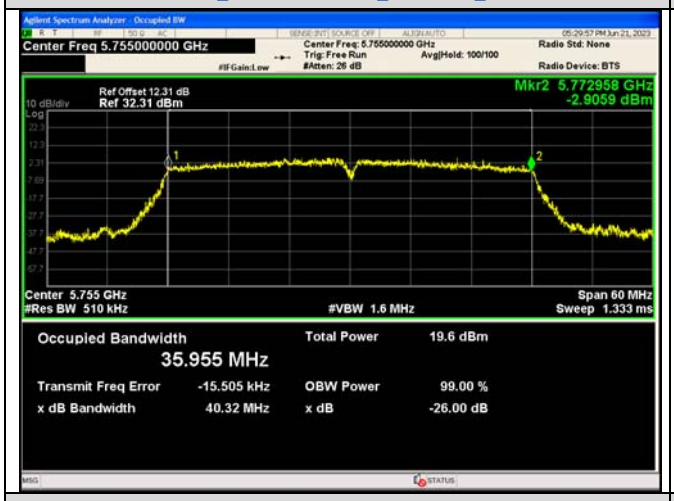
IEEE 802.11n_Channel 149_20MHz_Antenna 0



IEEE 802.11n_Channel 157_20MHz_Antenna 0



IEEE 802.11n_Channel 165_20MHz_Antenna 0

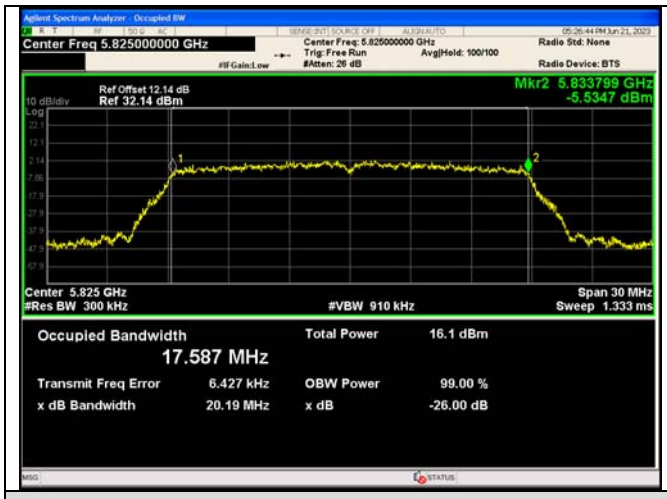


IEEE 802.11n_Channel 151_40MHz_Antenna 0

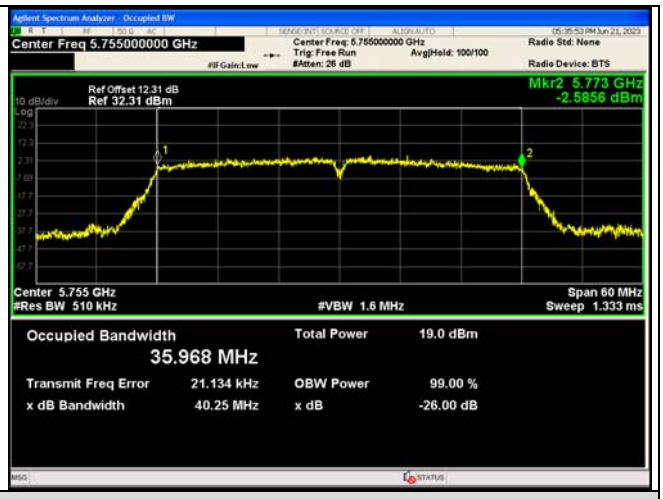
IEEE 802.11n_Channel 159_40MHz_Antenna 0

IEEE 802.11ac_Channel 149_20MHz_Antenna 0

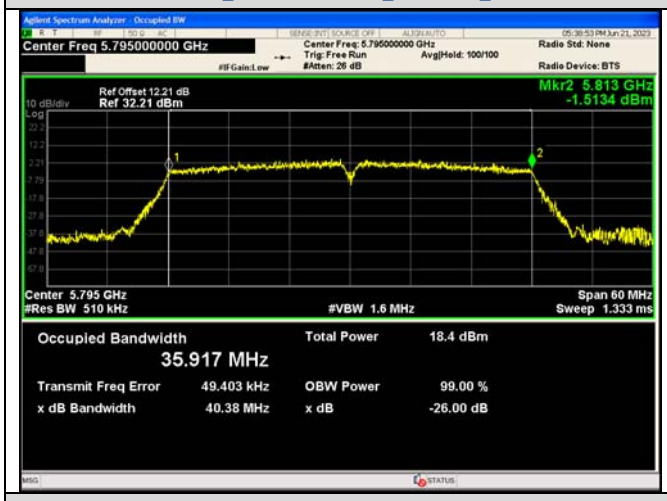
IEEE 802.11ac_Channel 157_20MHz_Antenna 0



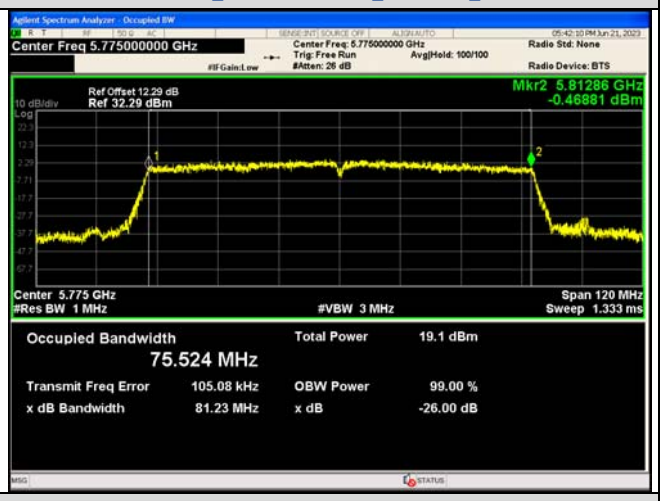
IEEE 802.11ac_Channel 165_20MHz_Antenna 0



IEEE 802.11ac_Channel 151_40MHz_Antenna 0



IEEE 802.11ac_Channel 159_40MHz_Antenna 0



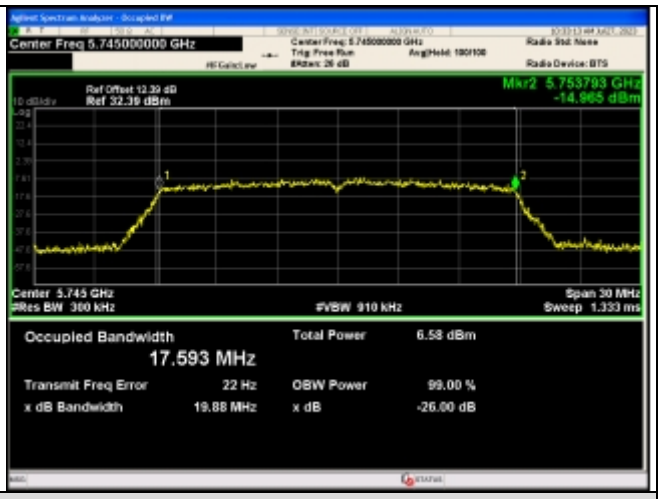
IEEE 802.11ac_Channel 155_80MHz_Antenna 0

Antenna A+ Antenna B:

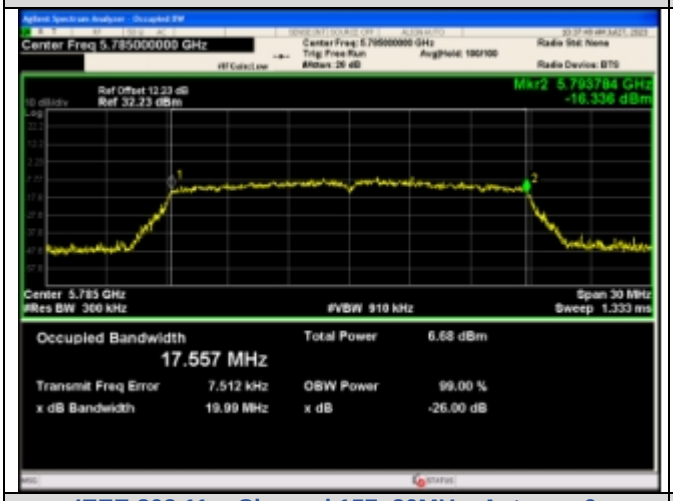
Test Result

Mode	Channel	Ant.	99% BW (MHz)
IEEE 802.11n_20	149	0	17.593
	157		17.557
	165		17.640
IEEE 802.11n_40	151		35.968
	159		35.873
IEEE 802.11ac_20	149		17.660
	157		17.596
	165		17.628
IEEE 802.11ac_40	151		36.006
	159		35.948
IEEE 802.11ac_80	155		75.371

Test Graphs

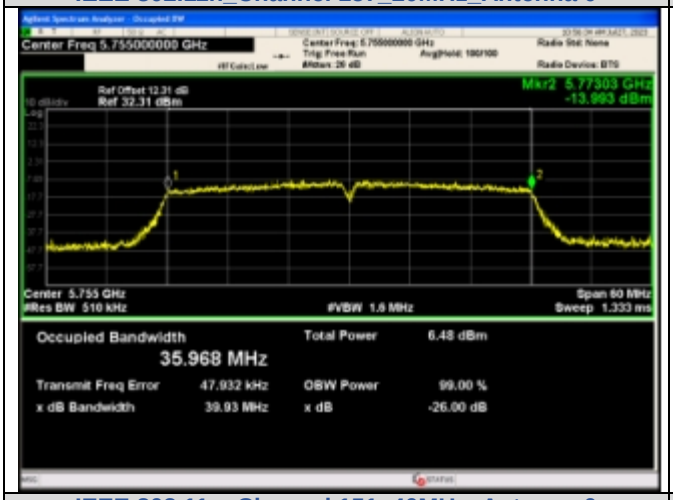


IEEE 802.11n_Channel 149_20MHz_Antenna 0

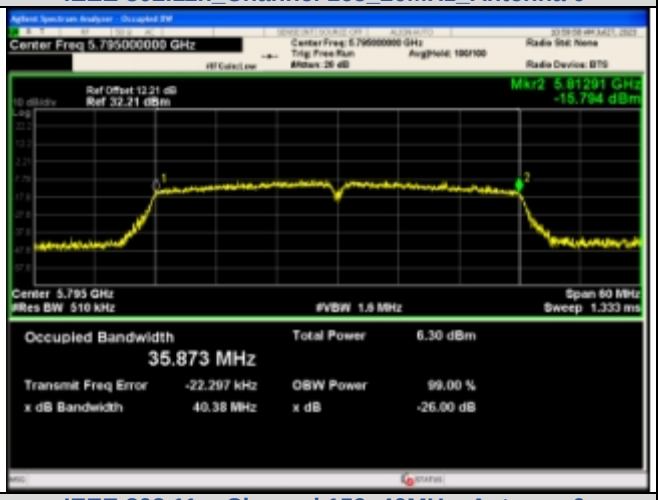


IEEE 802.11n_Channel 157_20MHz_Antenna 0

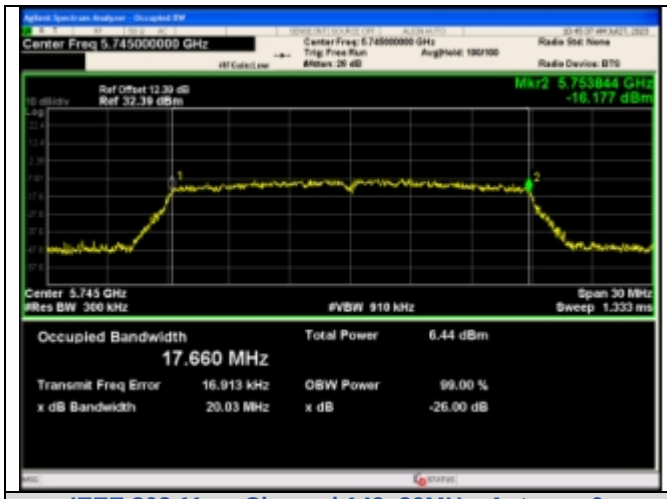
IEEE 802.11n_Channel 165_20MHz_Antenna 0



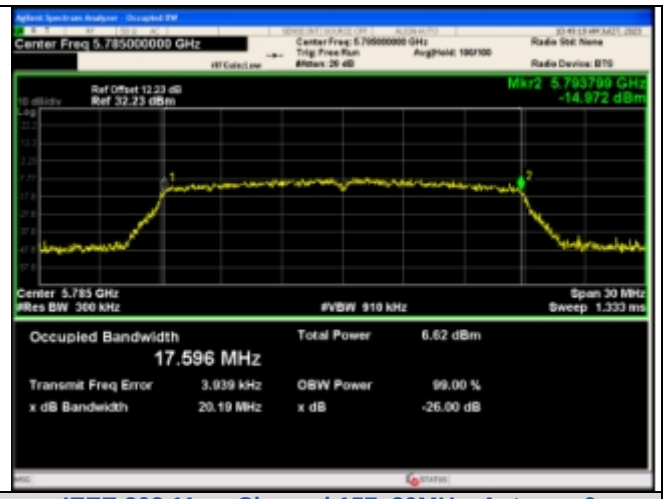
IEEE 802.11n_Channel 151_40MHz_Antenna 0



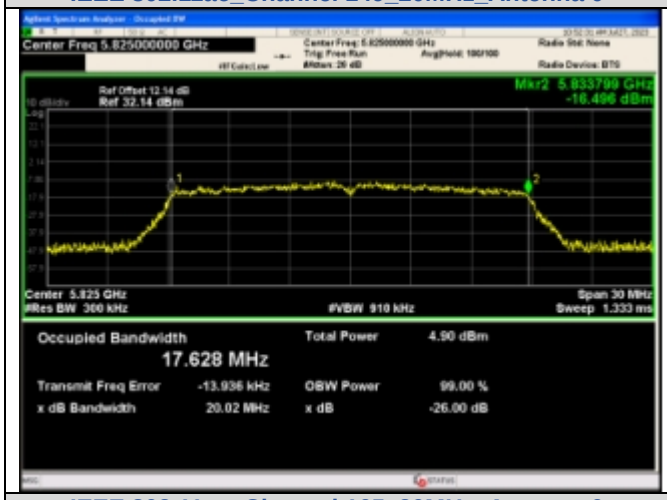
IEEE 802.11n_Channel 159_40MHz_Antenna 0



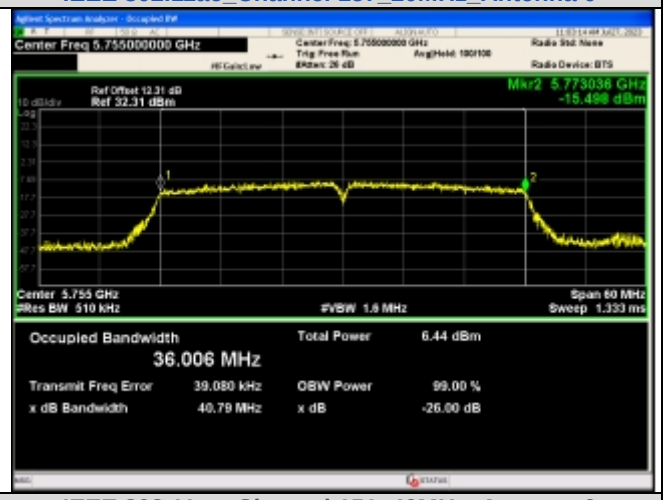
IEEE 802.11ac_Channel 149_20MHz_Antenna 0



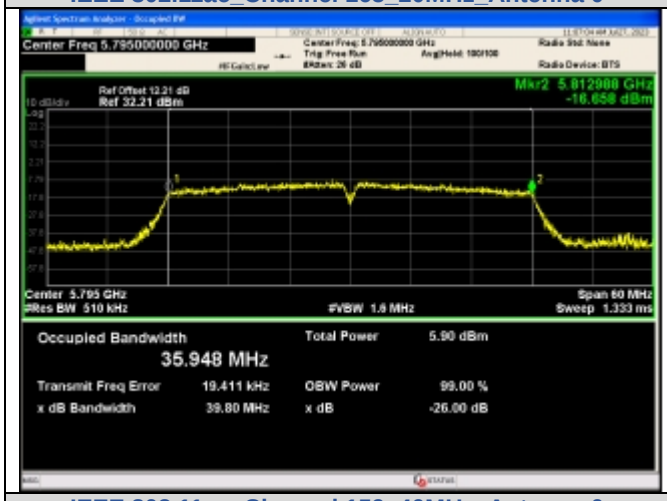
IEEE 802.11ac_Channel 157_20MHz_Antenna 0



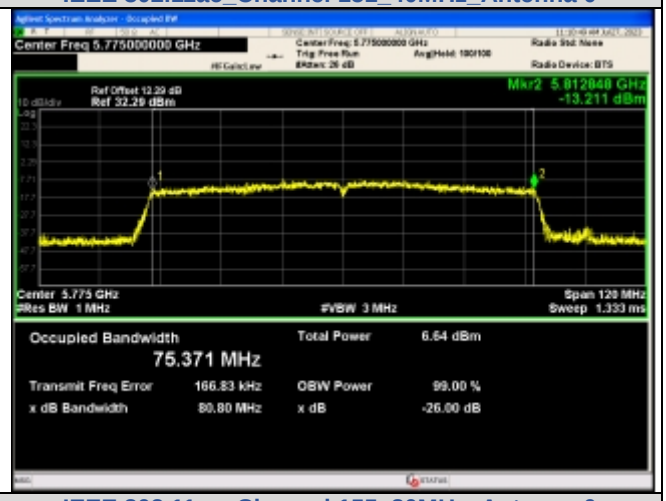
IEEE 802.11ac_Channel 165_20MHz_Antenna 0



IEEE 802.11ac_Channel 151_40MHz_Antenna 0



IEEE 802.11ac_Channel 159_40MHz_Antenna 0



IEEE 802.11ac_Channel 155_80MHz_Antenna 0

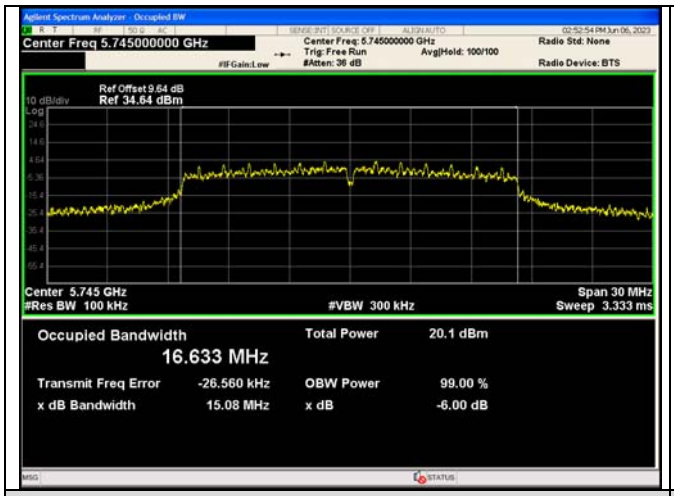
APPENDIX IV.6dB Bandwidth

Antenna A:

Test Result

Mode	Channel	Ant.	Center Frequency (MHz)	6 dB Bandwidth (MHz)	Limit (MHz)	Result
IEEE 802.11a	149	0	5745	15.08	0.5	PASS
	157		5785	15.11		PASS
	165		5825	15.11		PASS
IEEE 802.11n_20	149		5745	15.09		PASS
	157		5785	15.11		PASS
	165		5825	15.11		PASS
IEEE 802.11n_40	151		5755	33.83		PASS
	159		5795	32.59		PASS
IEEE 802.11ac_20	149		5745	17.43		PASS
	157		5785	16.16		PASS
	165		5825	17.57		PASS
IEEE 802.11ac_40	151		5755	35.66		PASS
	159		5795	35.66		PASS
IEEE 802.11ac_80	155		5775	75.71		PASS

Test Graphs



IEEE 802.11a_Channel 149_20MHz_Antenna 0

IEEE 802.11a_Channel 157_20MHz_Antenna 0