

Appendix A for SHEM180400307901

1. 26dB Emission Bandwidth Measurement

Test Mode	Test Channel	EBW[MHz]		Limit[MHz]	Verdict
		Ant1	Ant2		
11A	5745	27.15	22.75	---	PASS
11A	5785	22.07	21.36	---	PASS
11A	5825	21.13	20.95	---	PASS
11N20	5745	22.30	21.85	---	PASS
11N20	5785	21.77	21.72	---	PASS
11N20	5825	21.41	21.53	---	PASS
11N40	5755	51.83	50.72	---	PASS
11N40	5795	43.88	43.56	---	PASS
11AC20	5745	22.60	22.22	---	PASS
11AC20	5785	21.42	21.35	---	PASS
11AC20	5825	21.39	21.34	---	PASS
11AC40	5755	68.46	50.03	---	PASS
11AC40	5795	51.51	43.28	---	PASS
11AC80	5775	96.68	85.64	---	PASS

Emission Bandwidth Measurement_11A_5745_Ant1



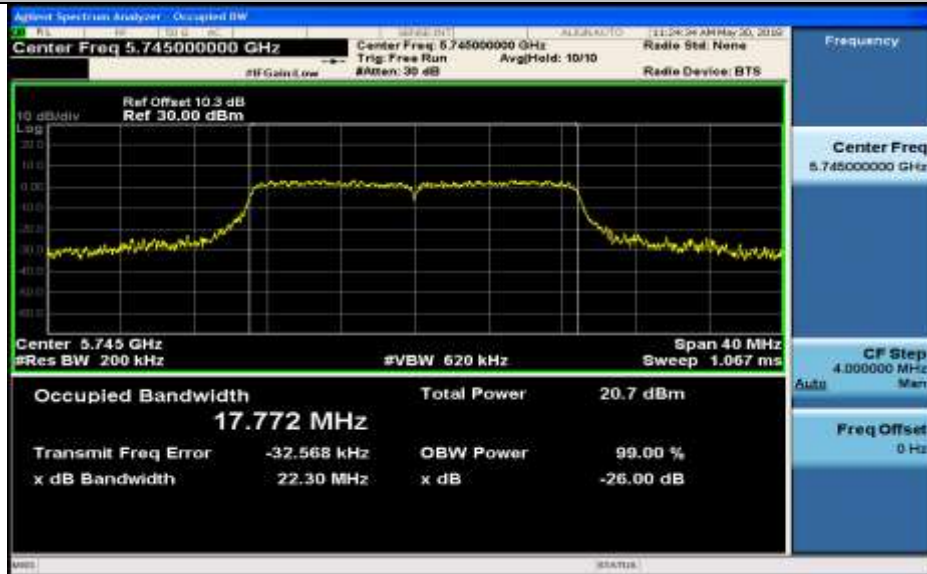
Emission Bandwidth Measurement_11A_5785_Ant1



Emission Bandwidth Measurement_11A_5825_Ant1



Emission Bandwidth Measurement_11N20_5745_Ant1



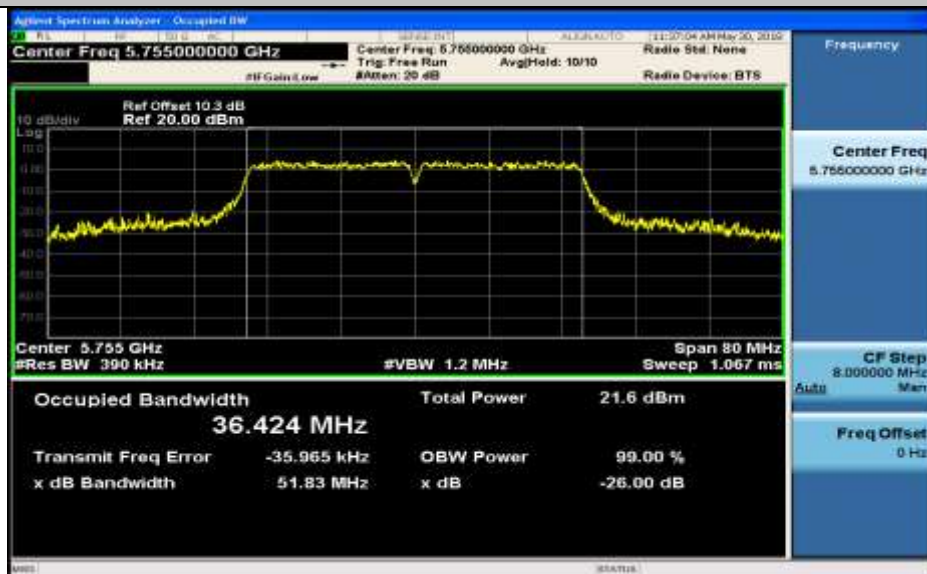
Emission Bandwidth Measurement_11N20_5785_Ant1



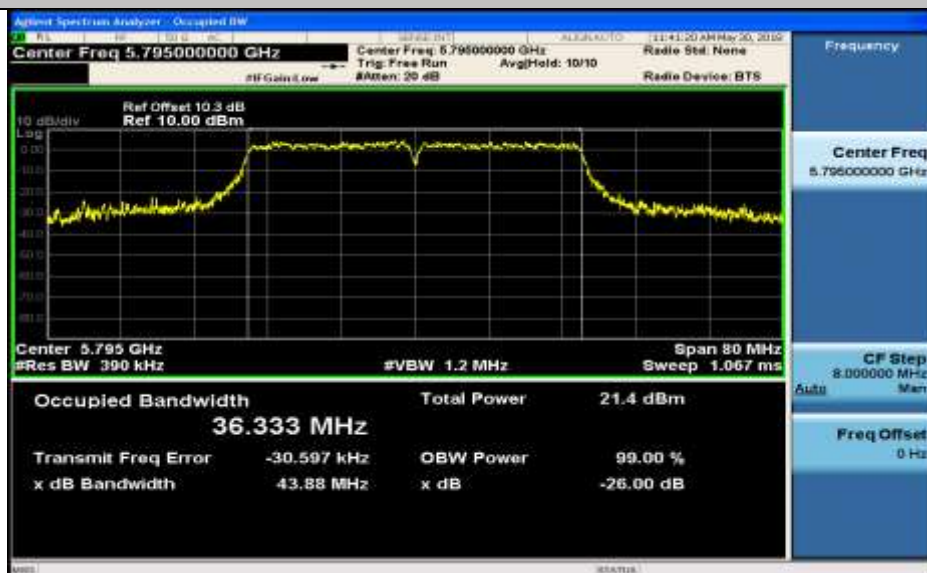
Emission Bandwidth Measurement_11N20_5825_Ant1



Emission Bandwidth Measurement_11N40_5755_Ant1



Emission Bandwidth Measurement_11N40_5795_Ant1



Emission Bandwidth Measurement_11AC20_5745_Ant1



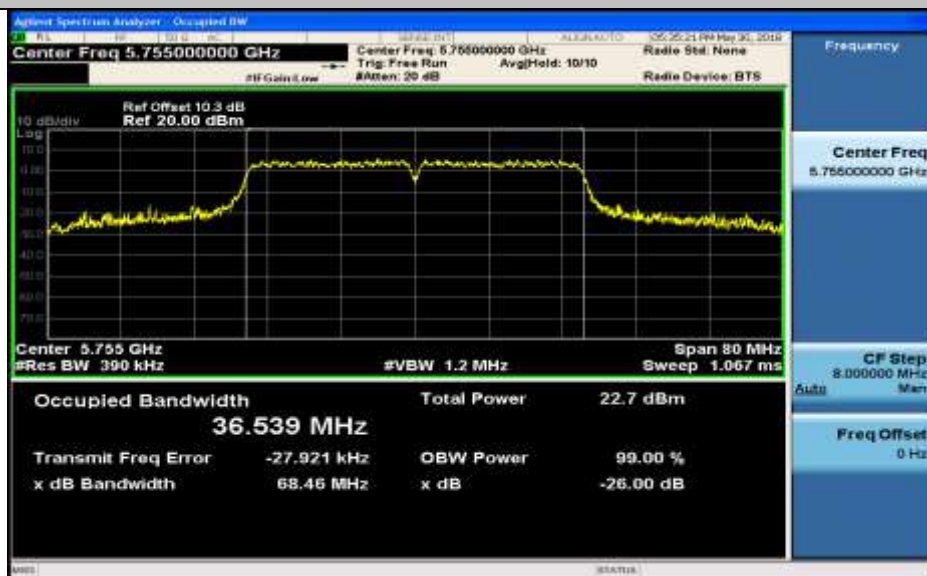
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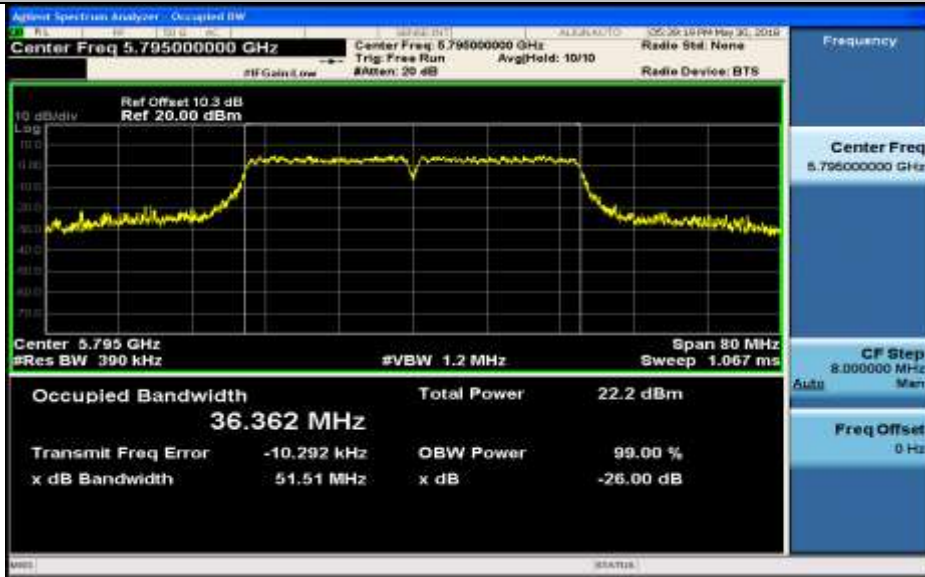
Emission Bandwidth Measurement_11AC20_5825_Ant1



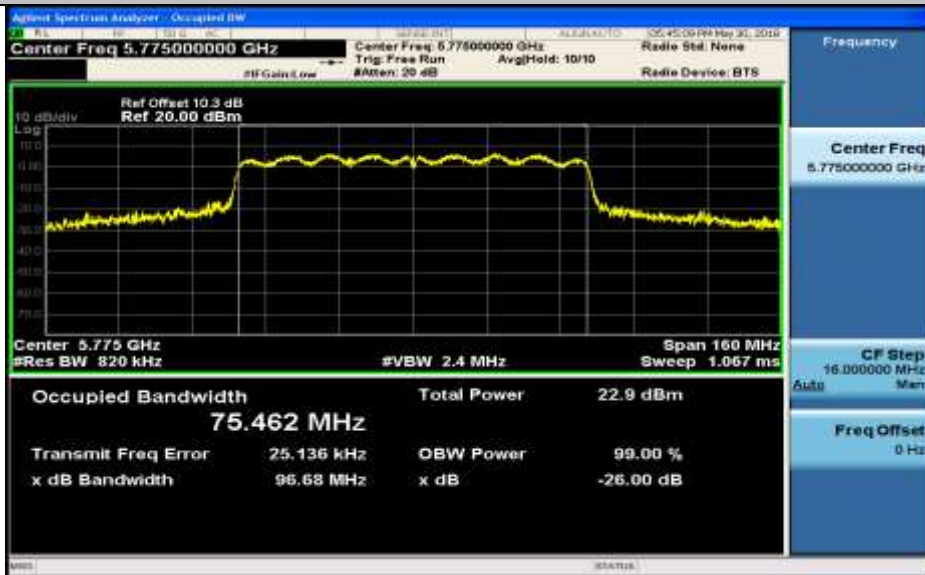
Emission Bandwidth Measurement_11AC40_5755_Ant1



Emission Bandwidth Measurement_11AC40_5795_Ant1



Emission Bandwidth Measurement_11AC80_5775_Ant1



Emission Bandwidth Measurement_11A_5745_Ant2



Emission Bandwidth Measurement_11A_5785_Ant2



Emission Bandwidth Measurement_11A_5825_Ant2



Emission Bandwidth Measurement_11N20_5745_Ant2



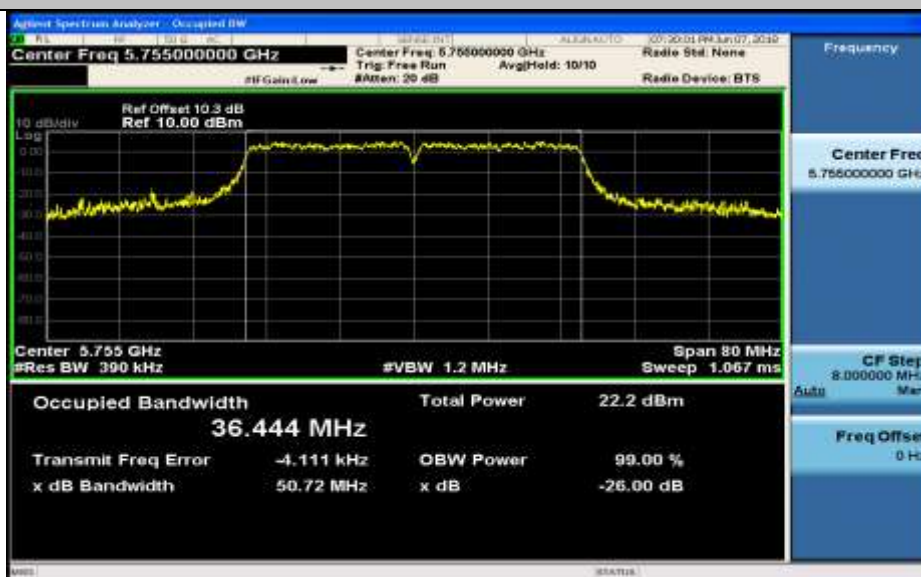
Emission Bandwidth Measurement_11N20_5785_Ant2



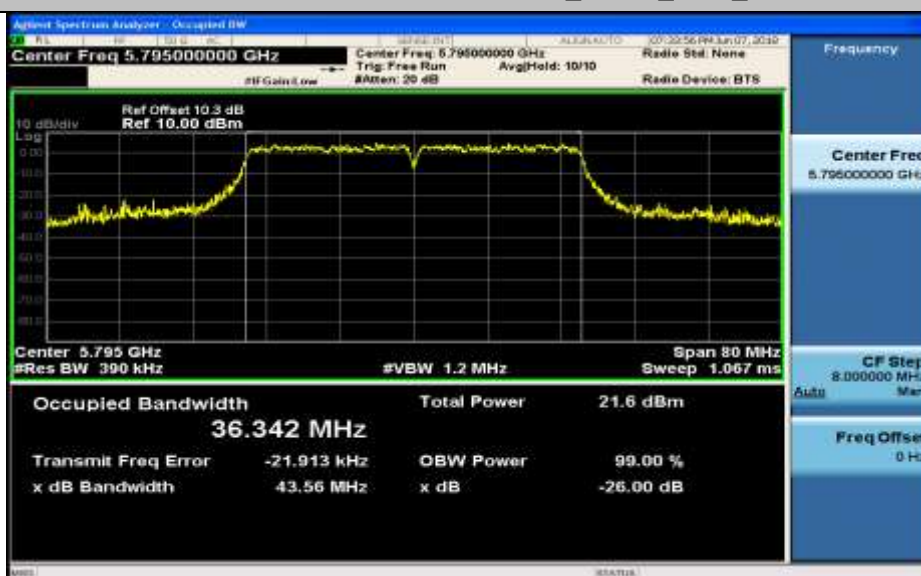
Emission Bandwidth Measurement_11N20_5825_Ant2



Emission Bandwidth Measurement_11N40_5755_Ant2



Emission Bandwidth Measurement_11N40_5795_Ant2



Emission Bandwidth Measurement_11AC20_5745_Ant2



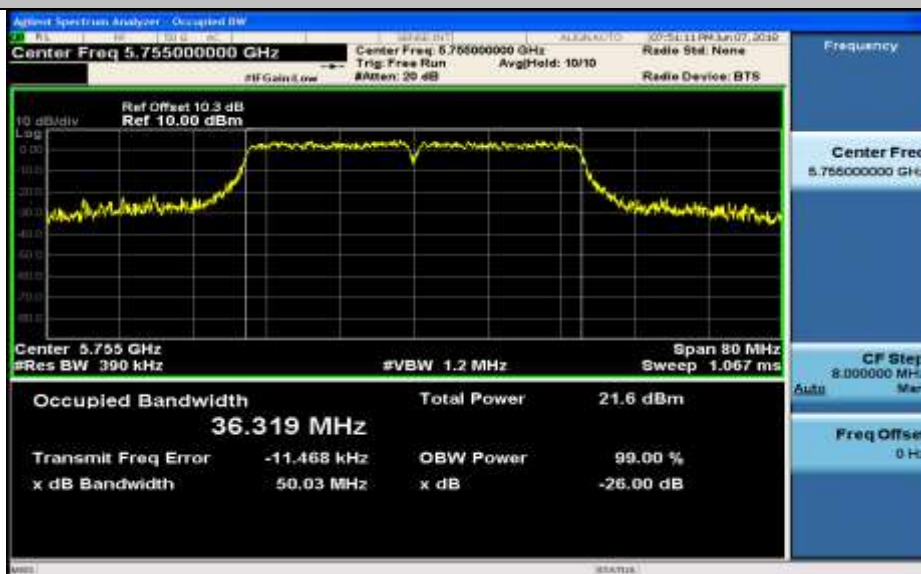
Emission Bandwidth Measurement_11AC20_5785_Ant2



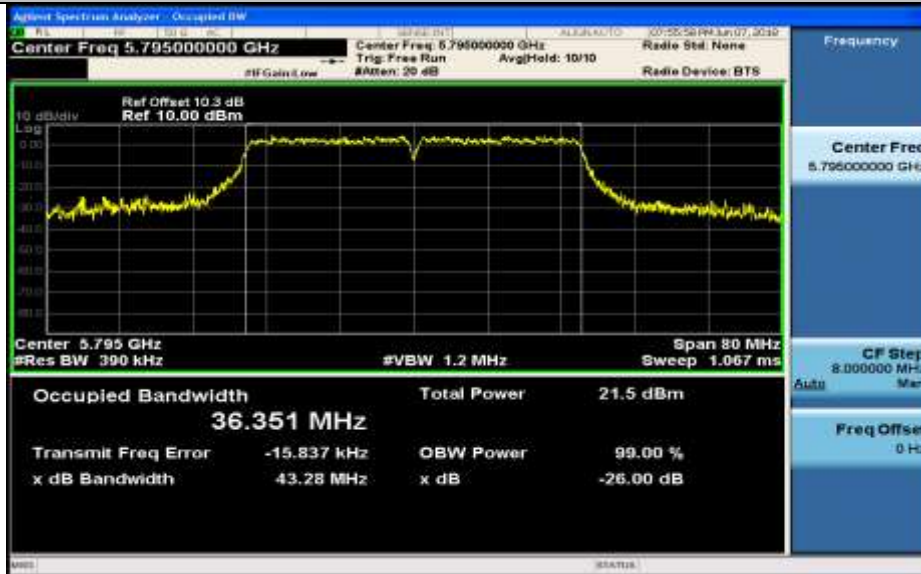
Emission Bandwidth Measurement_11AC20_5825_Ant2



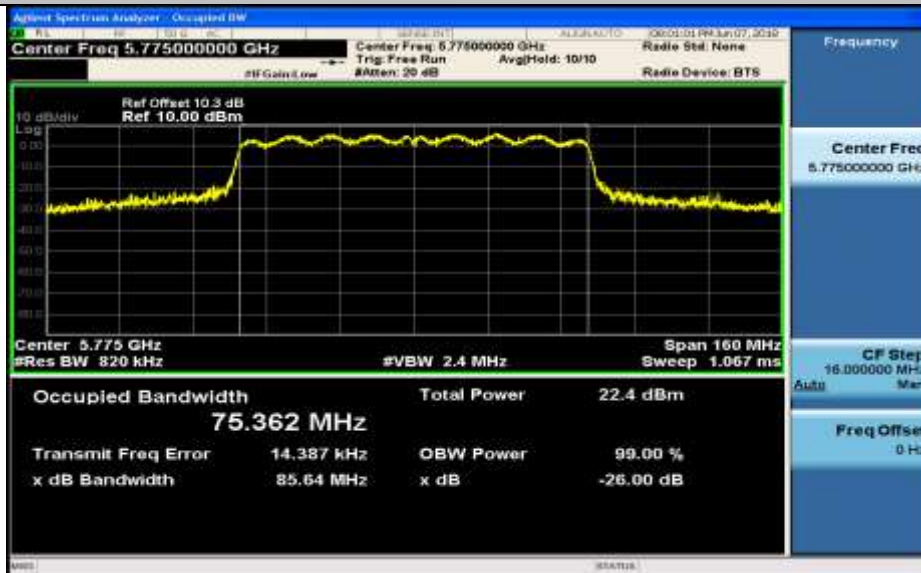
Emission Bandwidth Measurement_11AC40_5755_Ant2



Emission Bandwidth Measurement_11AC40_5795_Ant2



Emission Bandwidth Measurement_11AC80_5775_Ant2



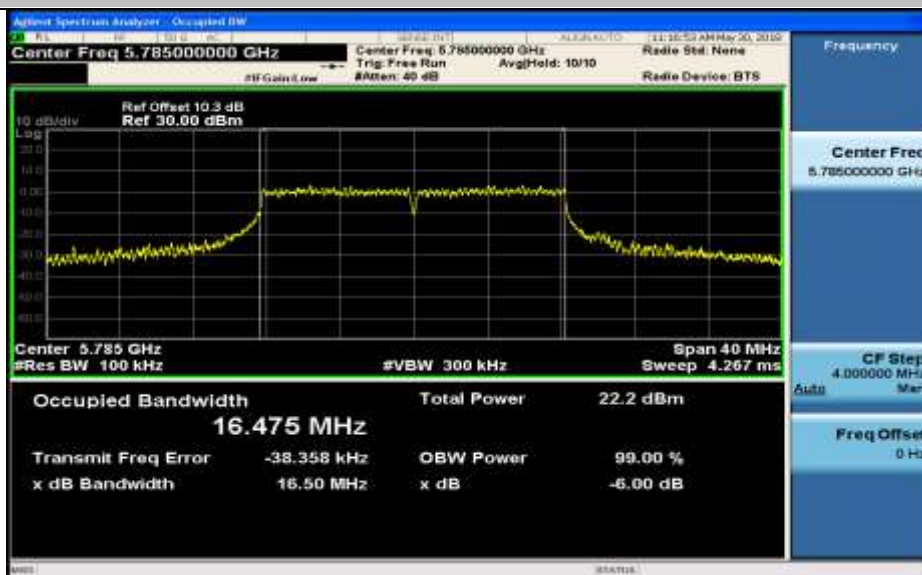
2.Minimum (6dB) Emission Bandwidth Measurement

Test Mode	Test Channel	EBW[MHz]		Limit[KHz]	Verdict
		Ant1	Ant2		
11A	5745	16.50	16.50	500	PASS
11A	5785	16.50	16.48	500	PASS
11A	5825	16.50	16.50	500	PASS
11N20	5745	17.71	17.76	500	PASS
11N20	5785	17.72	17.74	500	PASS
11N20	5825	17.71	17.76	500	PASS
11N40	5755	36.48	36.44	500	PASS
11N40	5795	36.45	36.47	500	PASS
11AC20	5745	17.73	17.68	500	PASS
11AC20	5785	17.74	17.71	500	PASS
11AC20	5825	17.77	17.67	500	PASS
11AC40	5755	36.47	36.46	500	PASS
11AC40	5795	36.46	36.42	500	PASS
11AC80	5775	75.83	75.79	500	PASS

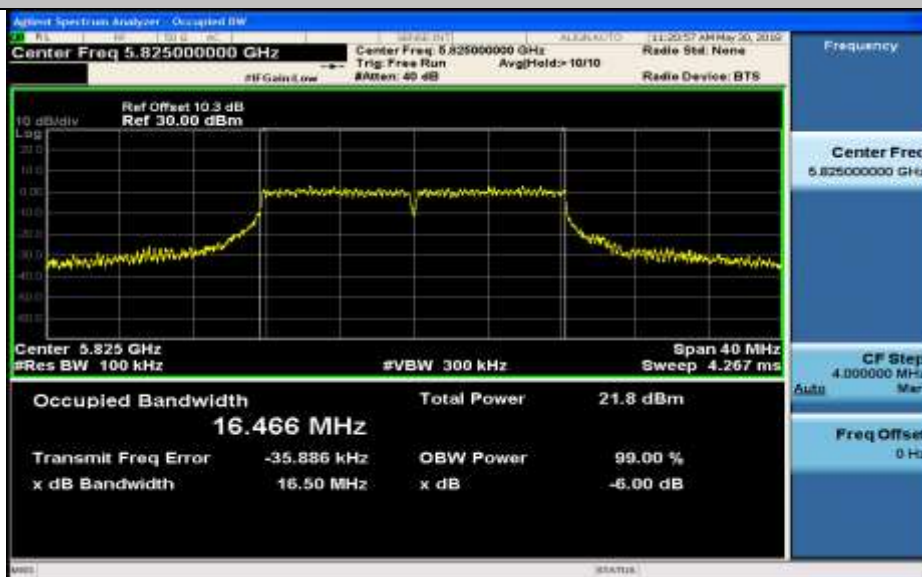
Minimum Emission Bandwidth Measurement_11A_5745_Ant1



Minimum Emission Bandwidth Measurement_11A_5785_Ant1



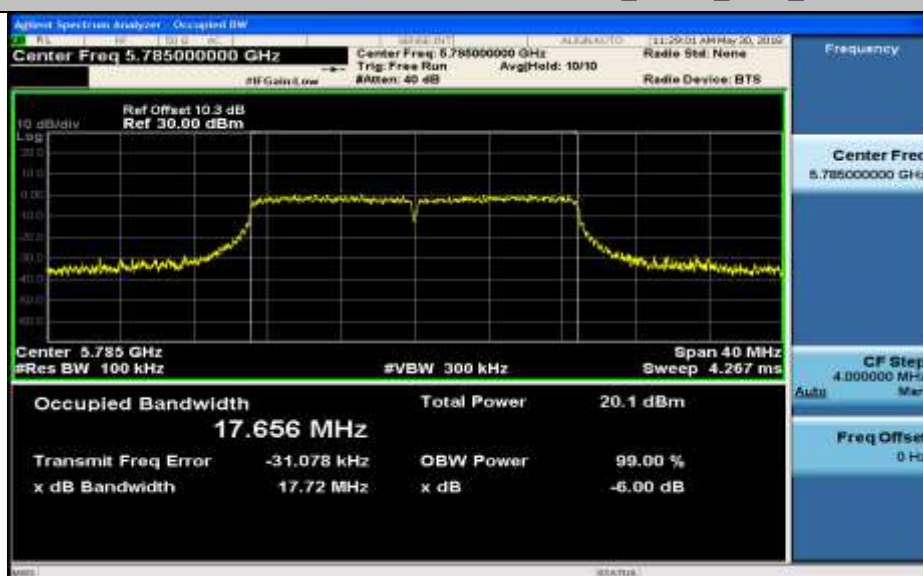
Minimum Emission Bandwidth Measurement_11A_5825_Ant1



Minimum Emission Bandwidth Measurement_11N20_5745_Ant1



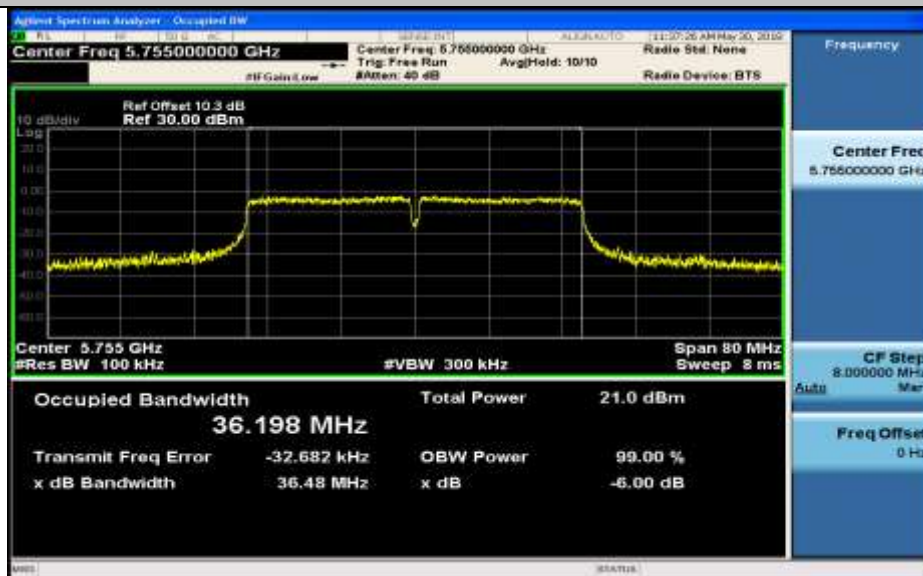
Minimum Emission Bandwidth Measurement_11N20_5785_Ant1



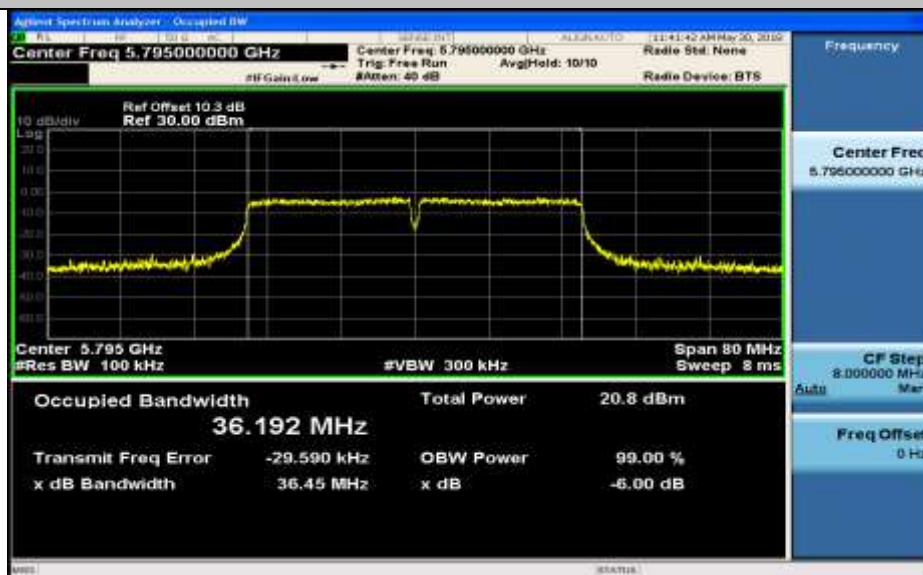
Minimum Emission Bandwidth Measurement_11N20_5825_Ant1



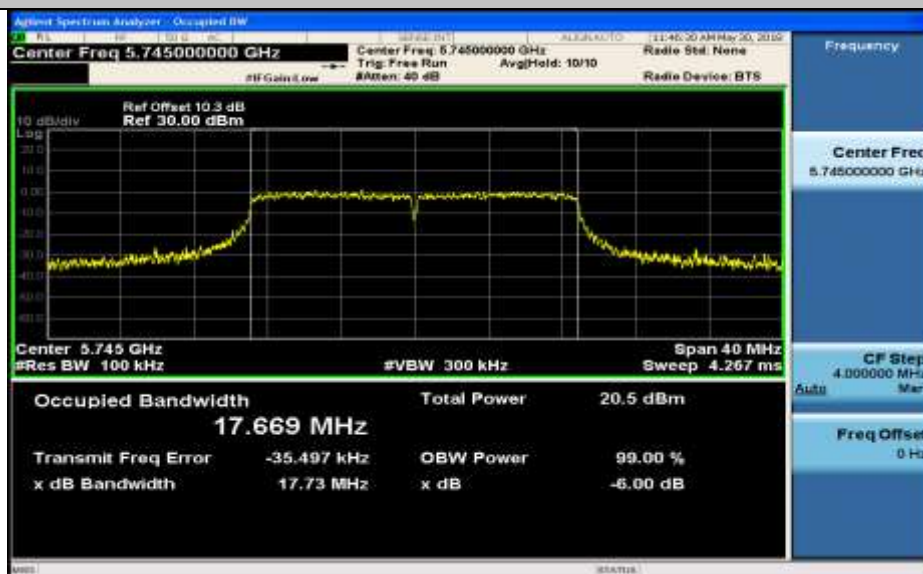
Minimum Emission Bandwidth Measurement_11N40_5755_Ant1



Minimum Emission Bandwidth Measurement_11N40_5795_Ant1



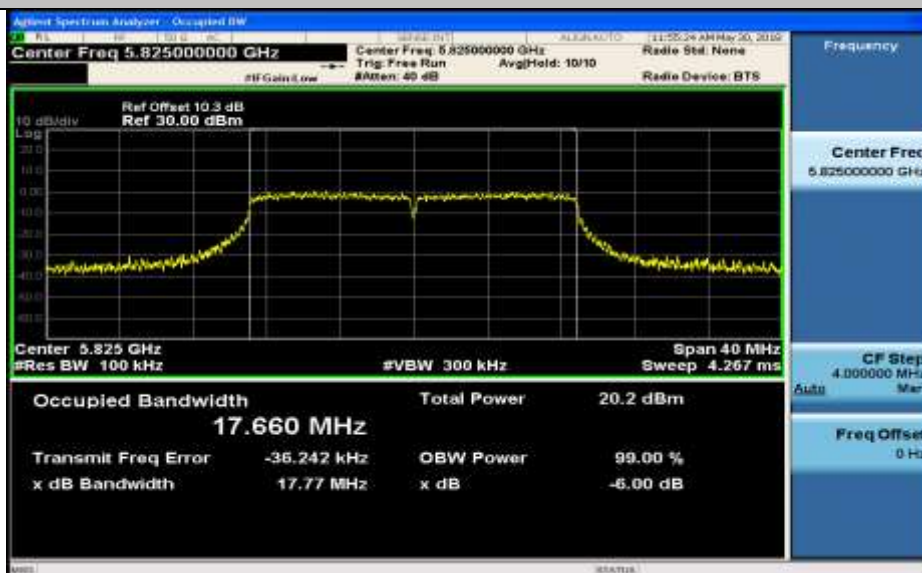
Minimum Emission Bandwidth Measurement_11AC20_5745_Ant1



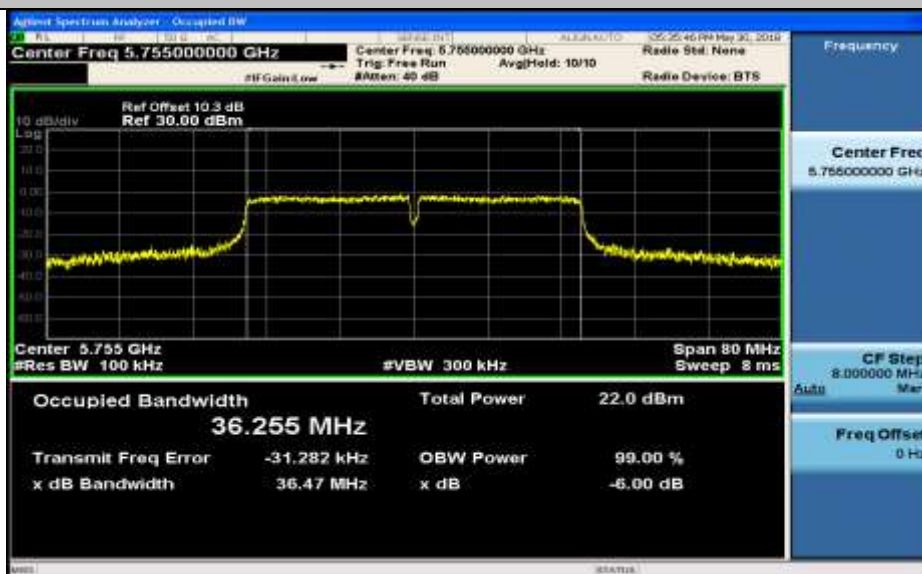
Minimum Emission Bandwidth Measurement_11AC20_5785_Ant1



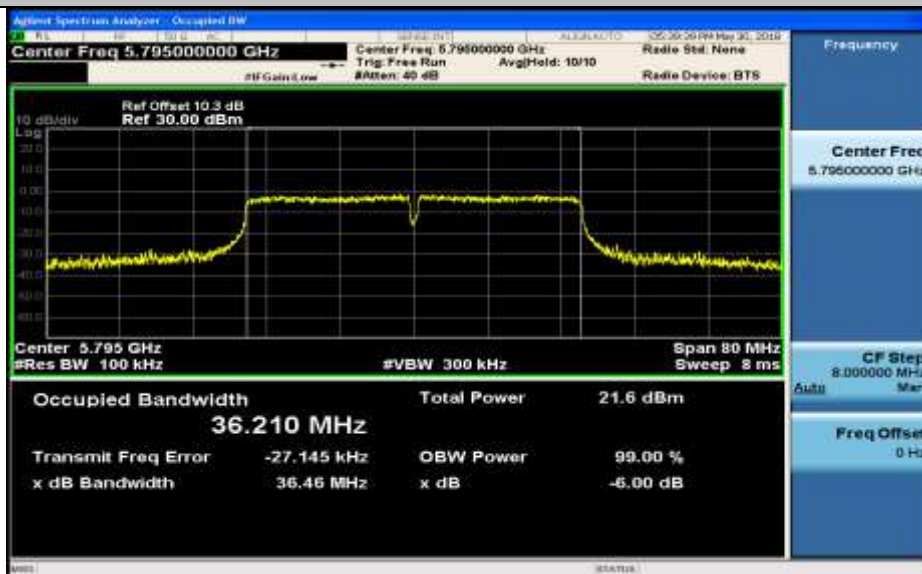
Minimum Emission Bandwidth Measurement_11AC20_5825_Ant1



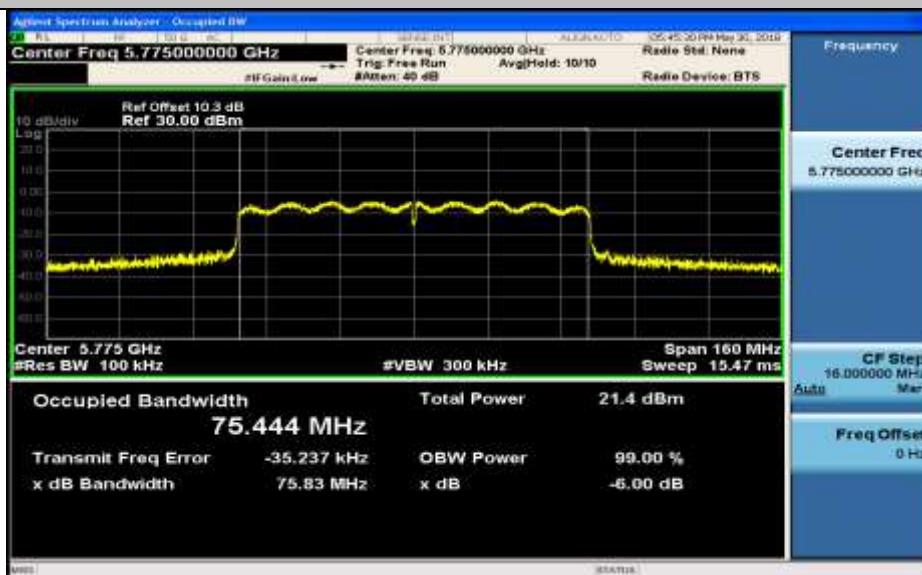
Minimum Emission Bandwidth Measurement_11AC40_5755_Ant1



Minimum Emission Bandwidth Measurement_11AC40_5795_Ant1



Minimum Emission Bandwidth Measurement_11AC80_5775_Ant1



Minimum Emission Bandwidth Measurement_11A_5745_Ant2



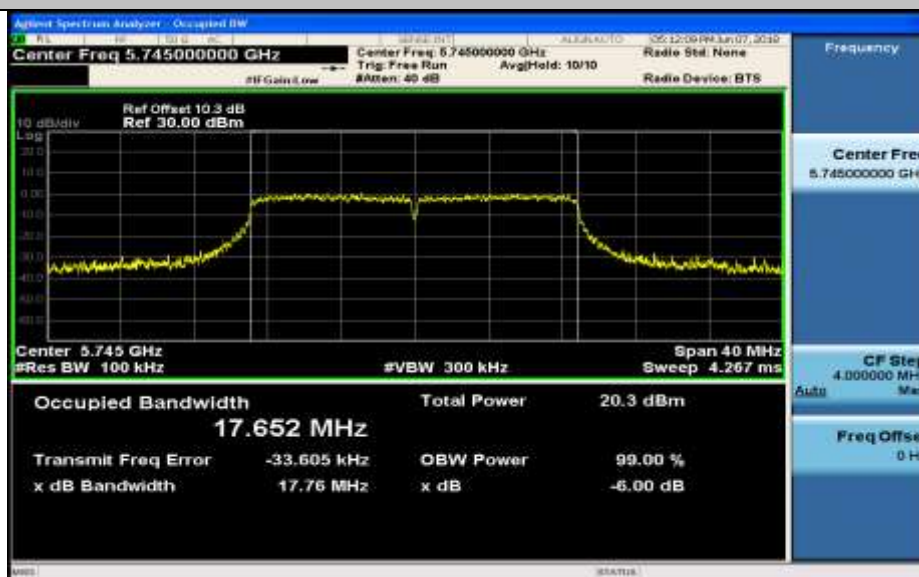
Minimum Emission Bandwidth Measurement_11A_5785_Ant2



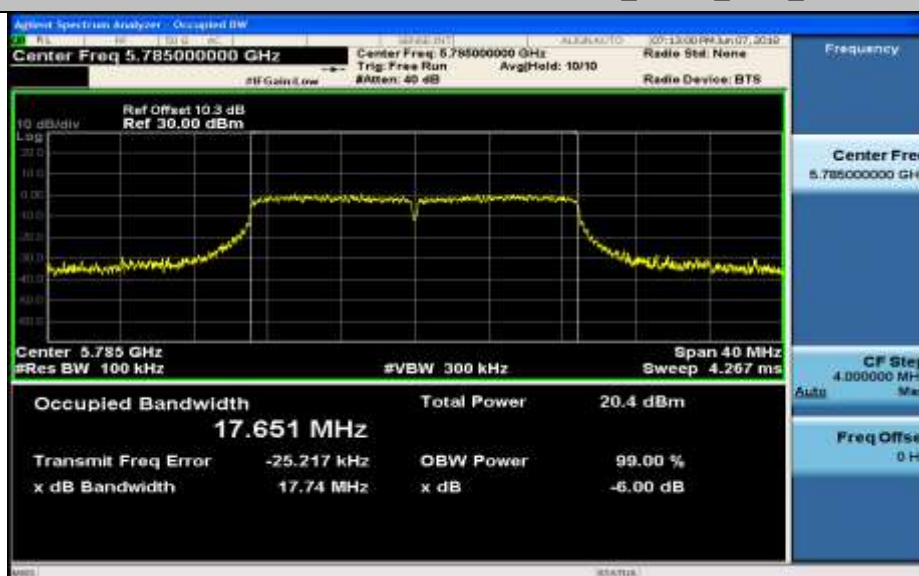
Minimum Emission Bandwidth Measurement_11A_5825_Ant2



Minimum Emission Bandwidth Measurement_11N20_5745_Ant2



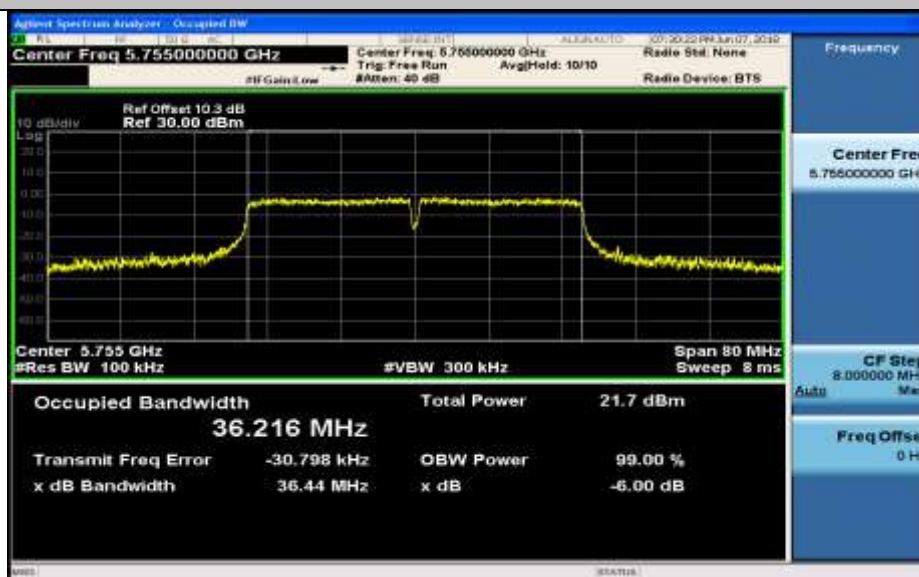
Minimum Emission Bandwidth Measurement_11N20_5785_Ant2



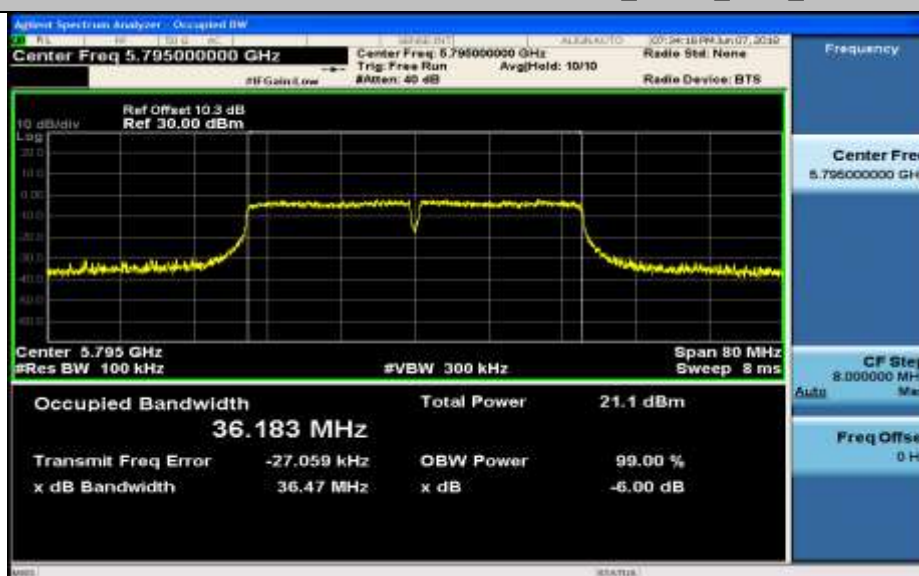
Minimum Emission Bandwidth Measurement_11N20_5825_Ant2



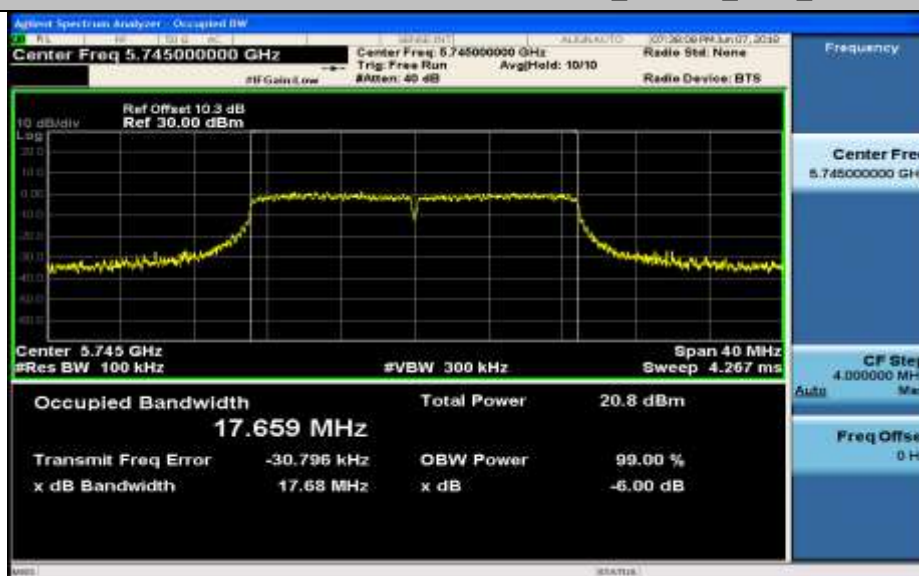
Minimum Emission Bandwidth Measurement_11N40_5755_Ant2



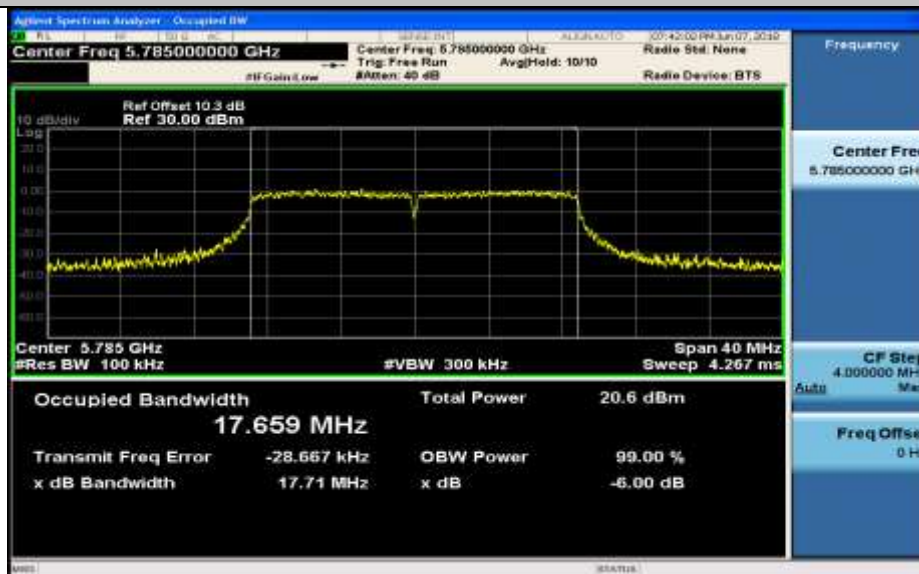
Minimum Emission Bandwidth Measurement_11N40_5795_Ant2



Minimum Emission Bandwidth Measurement_11AC20_5745_Ant2



Minimum Emission Bandwidth Measurement_11AC20_5785_Ant2



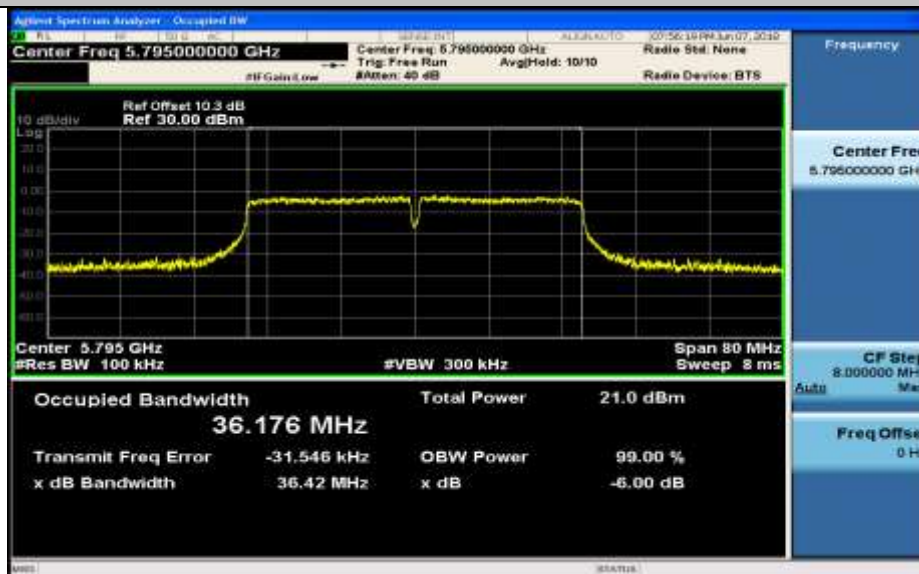
Minimum Emission Bandwidth Measurement_11AC20_5825_Ant2



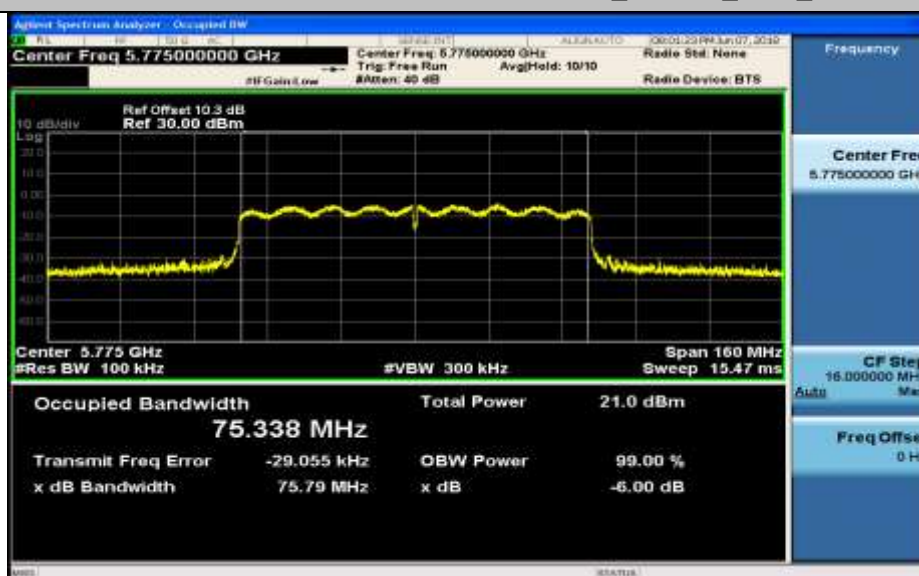
Minimum Emission Bandwidth Measurement_11AC40_5755_Ant2



Minimum Emission Bandwidth Measurement_11AC40_5795_Ant2



Minimum Emission Bandwidth Measurement_11AC80_5775_Ant2



3. 99% Occupied Bandwidth Measurement

Test Mode	Test Channel	OBW[MHz]		Limit[MHz]	Verdict
		Ant1	Ant2		
11A	5745	16.93	16.84	---	PASS
11A	5785	16.82	16.76	---	PASS
11A	5825	16.75	16.72	---	PASS
11N20	5745	17.89	17.87	---	PASS
11N20	5785	17.89	17.87	---	PASS
11N20	5825	17.86	17.84	---	PASS
11N40	5755	36.93	37.09	---	PASS
11N40	5795	36.93	36.85	---	PASS
11AC20	5745	17.91	17.89	---	PASS
11AC20	5785	17.90	17.91	---	PASS
11AC20	5825	17.89	17.89	---	PASS
11AC40	5755	37.25	36.95	---	PASS
11AC40	5795	37.03	36.78	---	PASS
11AC80	5775	75.56	75.43	---	PASS

Occupied Bandwidth Measurement_11A_5745_Ant1



Occupied Bandwidth Measurement_11A_5785_Ant1



Occupied Bandwidth Measurement_11A_5825_Ant1



Occupied Bandwidth Measurement_11N20_5745_Ant1



Occupied Bandwidth Measurement_11N20_5785_Ant1



Occupied Bandwidth Measurement_11N20_5825_Ant1



Occupied Bandwidth Measurement_11N40_5755_Ant1



Occupied Bandwidth Measurement_11N40_5795_Ant1



Occupied Bandwidth Measurement_11AC20_5745_Ant1



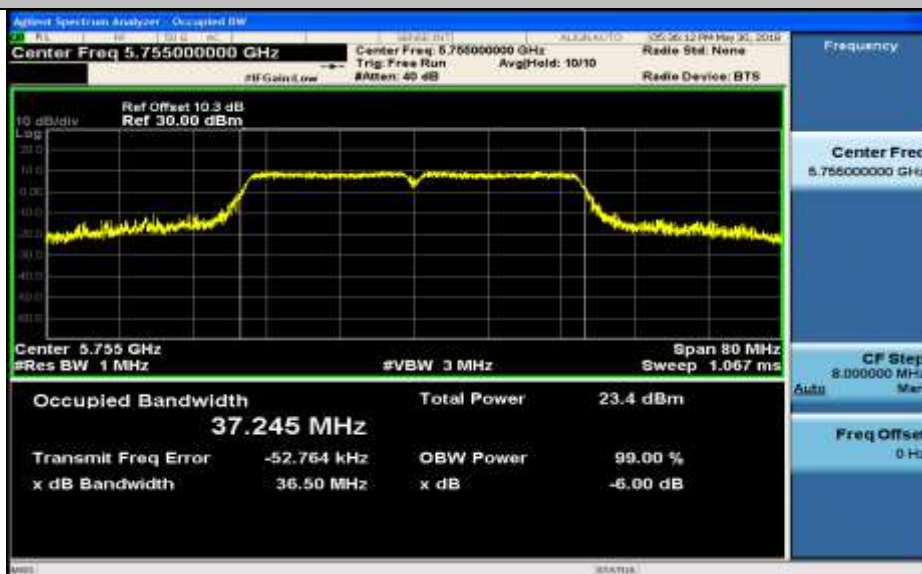
Occupied Bandwidth Measurement_11AC20_5785_Ant1



Occupied Bandwidth Measurement_11AC20_5825_Ant1



Occupied Bandwidth Measurement_11AC40_5755_Ant1



Occupied Bandwidth Measurement_11AC40_5795_Ant1



Occupied Bandwidth Measurement_11AC80_5775_Ant1



Occupied Bandwidth Measurement_11A_5745_Ant2



Occupied Bandwidth Measurement_11A_5785_Ant2



Occupied Bandwidth Measurement_11A_5825_Ant2



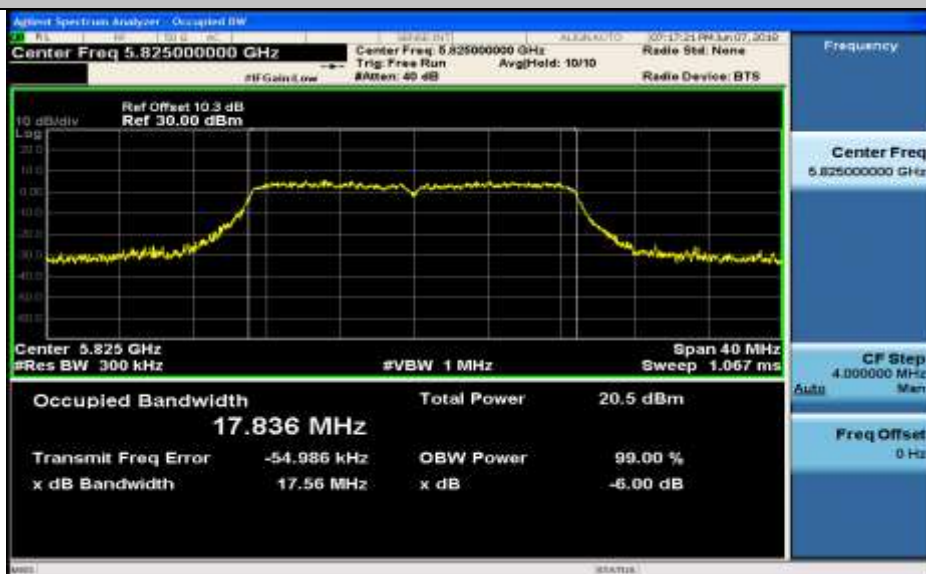
Occupied Bandwidth Measurement_11N20_5745_Ant2



Occupied Bandwidth Measurement_11N20_5785_Ant2



Occupied Bandwidth Measurement_11N20_5825_Ant2



Occupied Bandwidth Measurement_11N40_5755_Ant2



Occupied Bandwidth Measurement_11N40_5795_Ant2



Occupied Bandwidth Measurement_11AC20_5745_Ant2



Occupied Bandwidth Measurement_11AC20_5785_Ant2



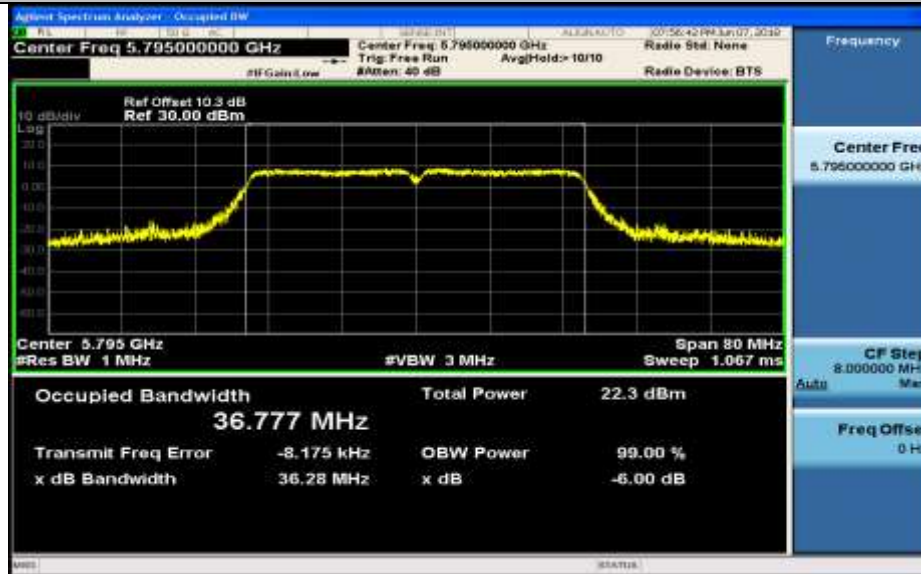
Occupied Bandwidth Measurement_11AC20_5825_Ant2



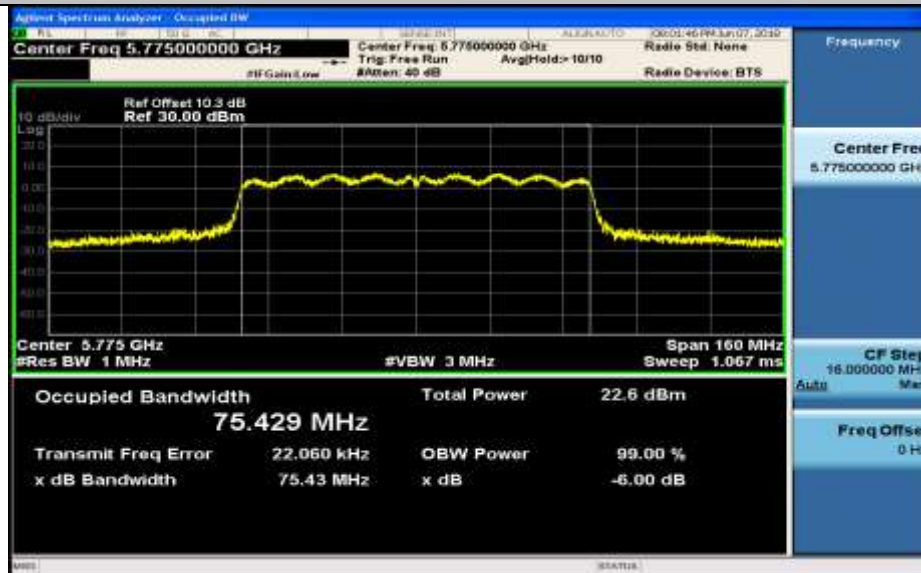
Occupied Bandwidth Measurement_11AC40_5755_Ant2



Occupied Bandwidth Measurement_11AC40_5795_Ant2



Occupied Bandwidth Measurement_11AC80_5775_Ant2



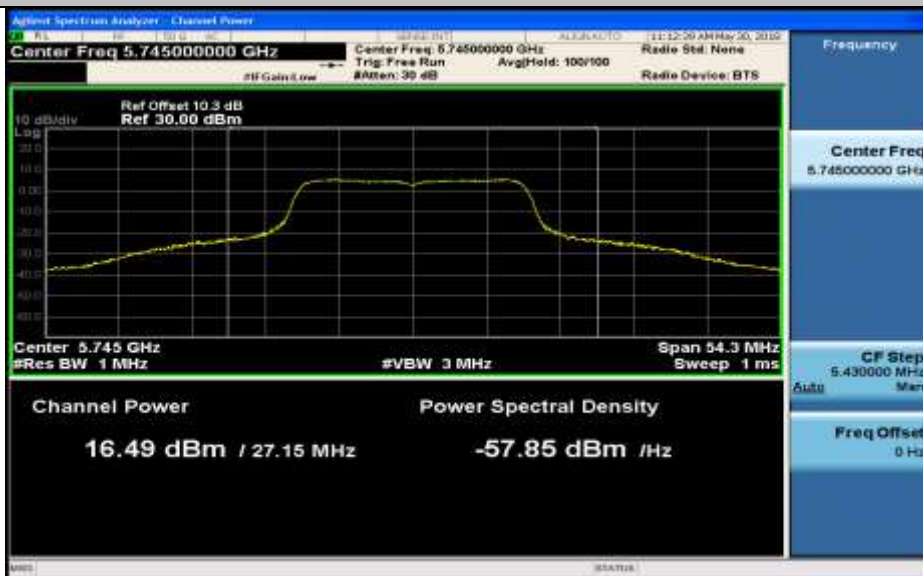
4.Maximum Conduct Output Power

Test Mode	Test Channel	Level [dBm]		10log(1/x) Factor [dB]		Power [dBm]		Limit [dBm]	Verdict
		Ant1	Ant2	Ant1	Ant2	Ant1	Ant2		
11A	5745	16.49	16.12	0.00	0.00	16.49	16.12	30.00	PASS
11A	5785	15.83	15.76	0.00	0.00	15.83	15.76	30.00	PASS
11A	5825	15.63	15.42	0.00	0.00	15.63	15.42	30.00	PASS
11N20	5745	14.96	14.75	0.00	0.00	14.96	14.75	30.00	PASS
11N20	5785	14.66	14.97	0.00	0.00	14.66	14.97	30.00	PASS
11N20	5825	14.55	14.59	0.00	0.00	14.55	14.59	30.00	PASS
11N40	5755	15.93	16.2	0.00	0.00	15.93	16.20	30.00	PASS
11N40	5795	15.57	15.76	0.00	0.00	15.57	15.76	30.00	PASS
11AC20	5745	15.02	15.29	0.00	0.00	15.02	15.29	30.00	PASS
11AC20	5785	14.81	15.07	0.00	0.00	14.81	15.07	30.00	PASS
11AC20	5825	14.64	14.94	0.00	0.00	14.64	14.94	30.00	PASS
11AC40	5755	16.88	15.77	0.00	0.00	16.88	15.77	30.00	PASS
11AC40	5795	16.44	15.62	0.00	0.00	16.44	15.62	30.00	PASS
11AC80	5775	16.53	15.87	0.00	0.00	16.53	15.87	30.00	PASS

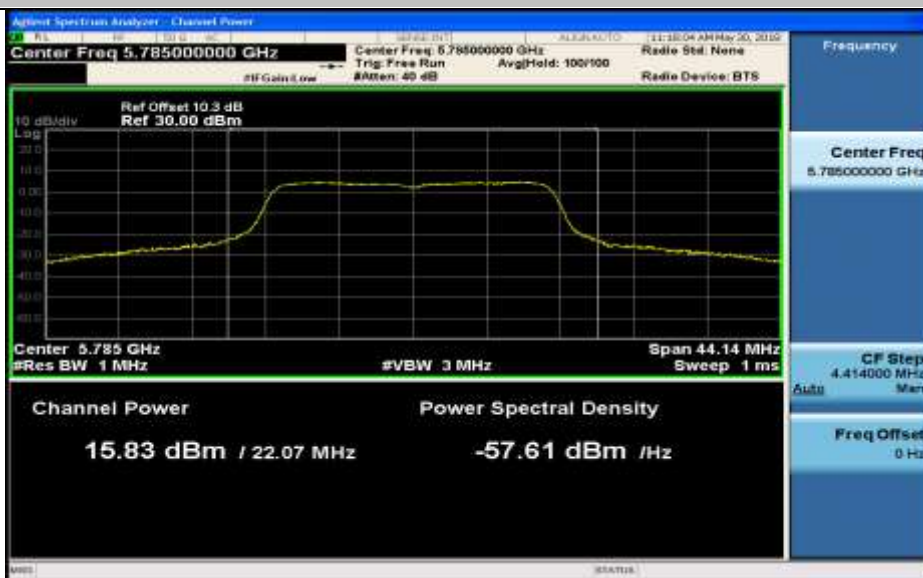
Remark:

1) Output Average Power = Reading Power + Duty Cycle Correction Factor

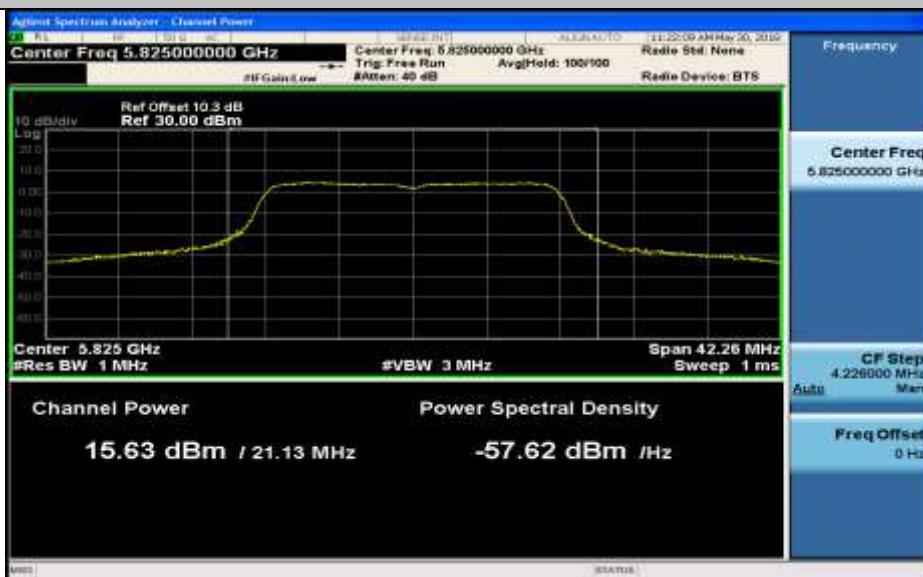
Maximum Conduct Output Power_11A_5745_Ant1



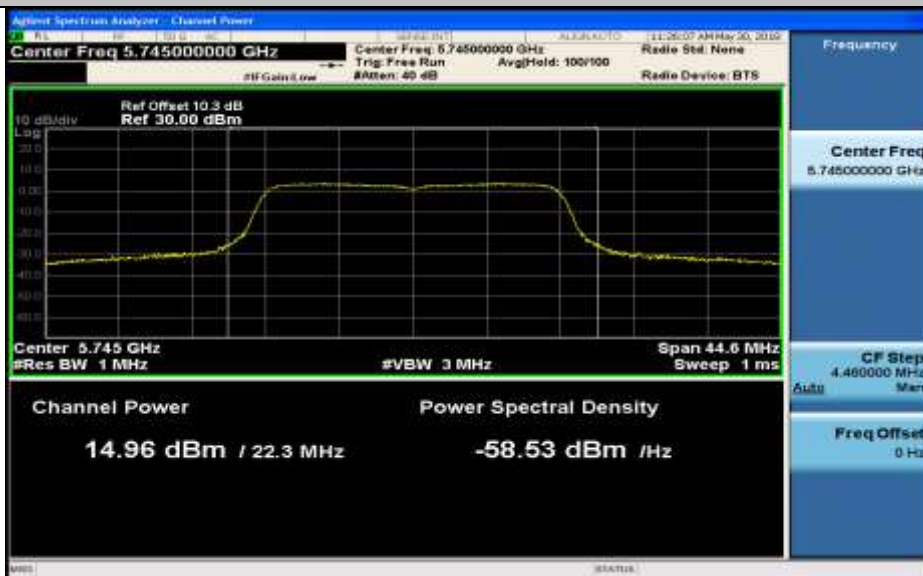
Maximum Conduct Output Power_11A_5785_Ant1



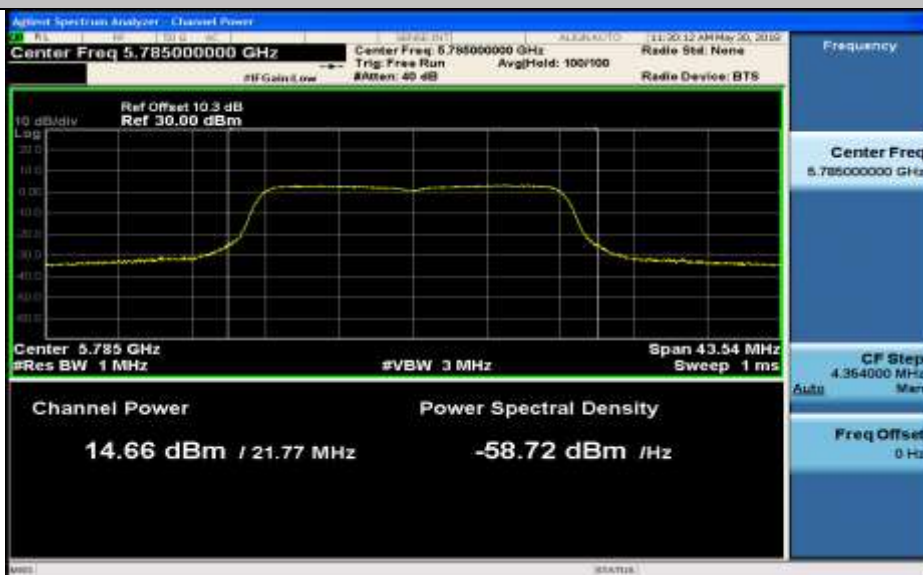
Maximum Conduct Output Power_11A_5825_Ant1



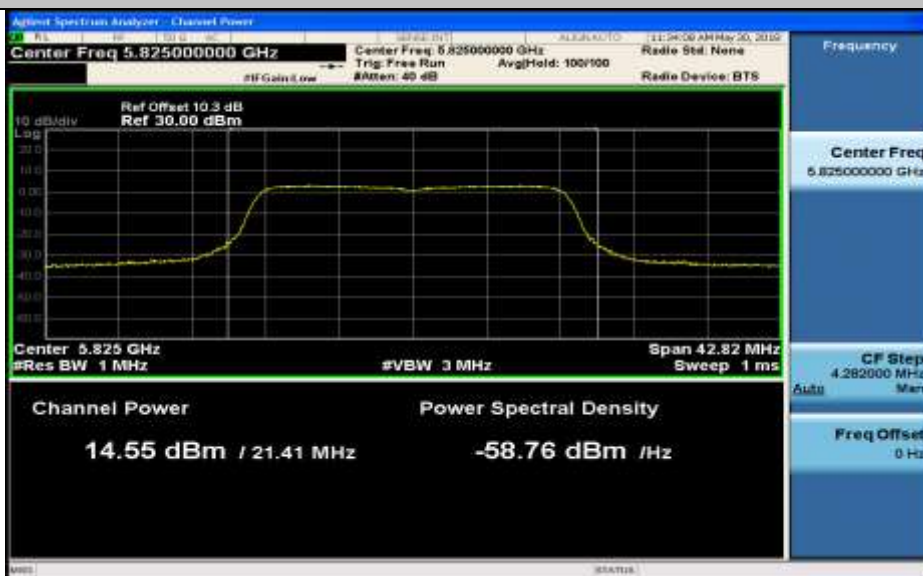
Maximum Conduct Output Power_11N20_5745_Ant1



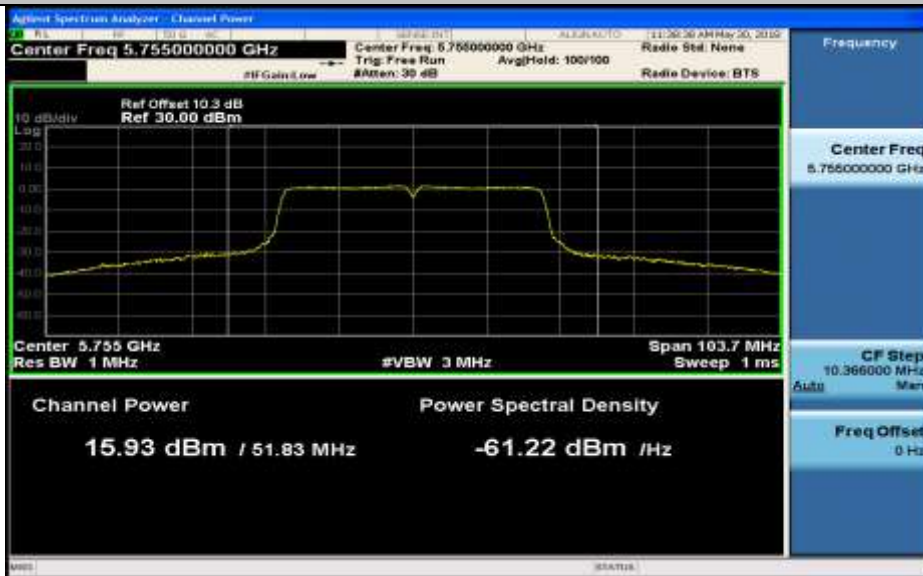
Maximum Conduct Output Power_11N20_5785_Ant1



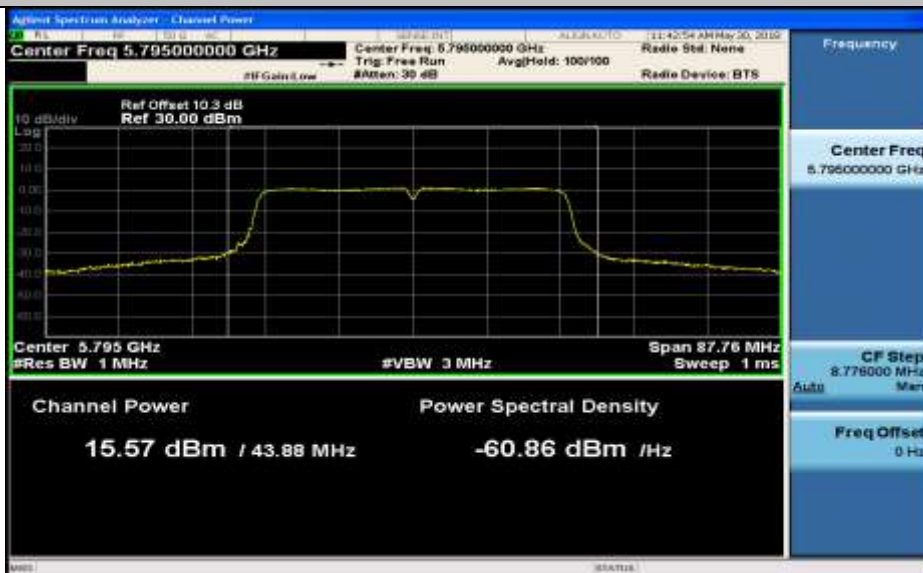
Maximum Conduct Output Power_11N20_5825_Ant1



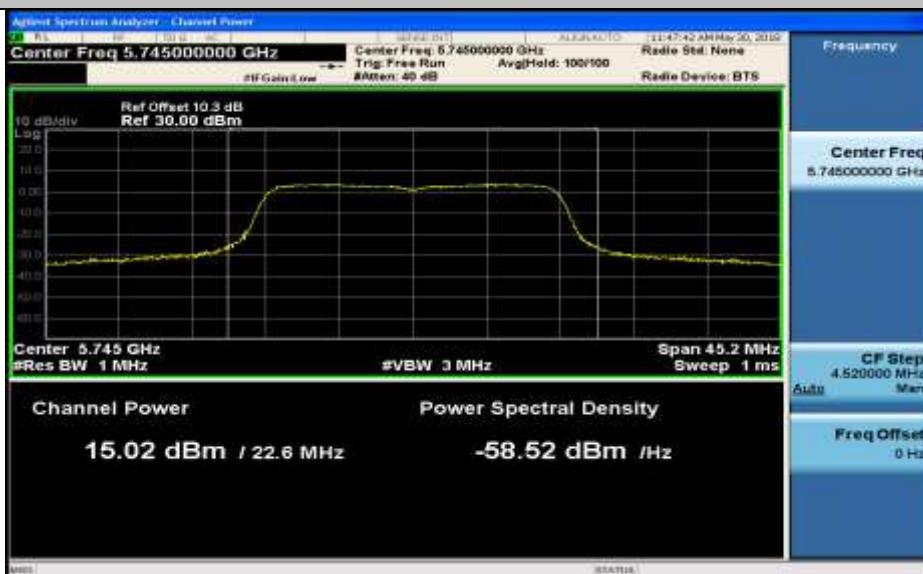
Maximum Conduct Output Power_11N40_5755_Ant1



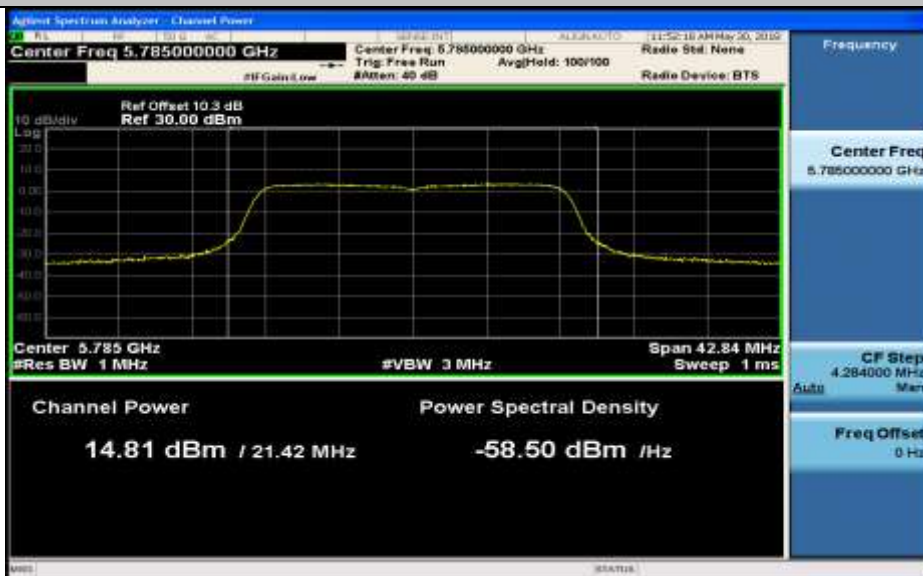
Maximum Conduct Output Power_11N40_5795_Ant1



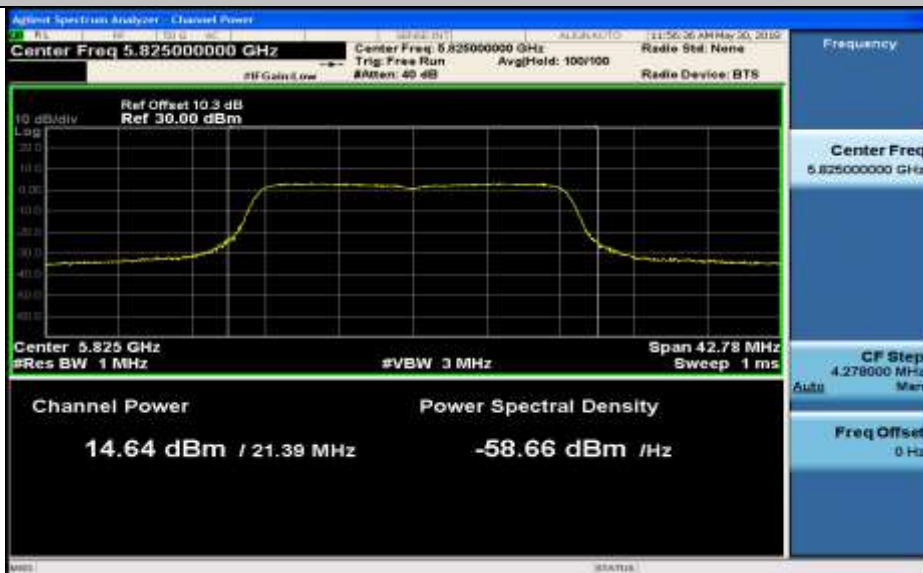
Maximum Conduct Output Power_11AC20_5745_Ant1



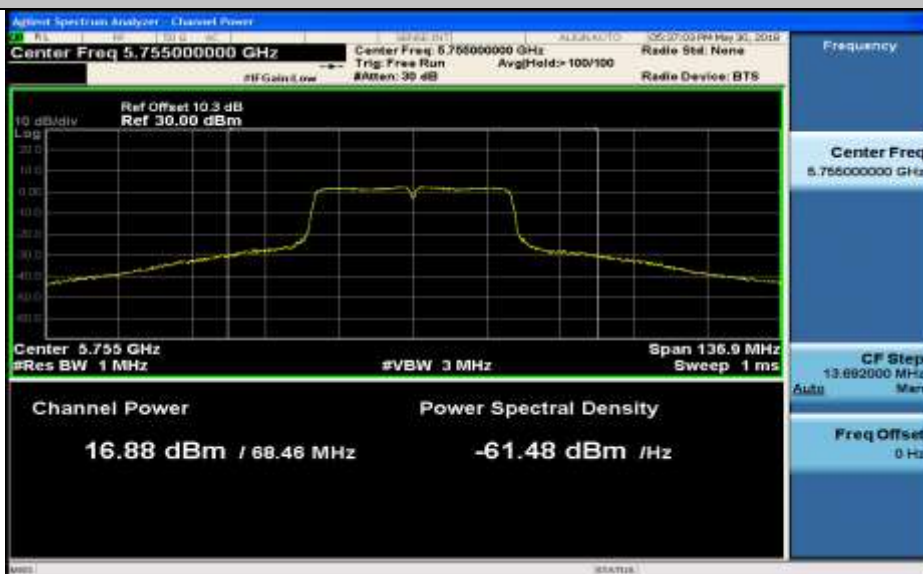
Maximum Conduct Output Power_11AC20_5785_Ant1



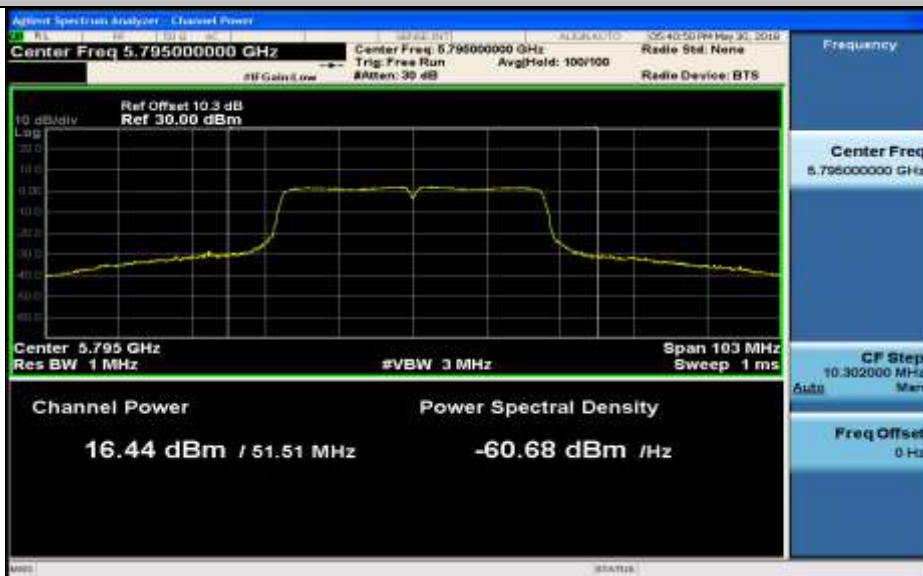
Maximum Conduct Output Power_11AC20_5825_Ant1



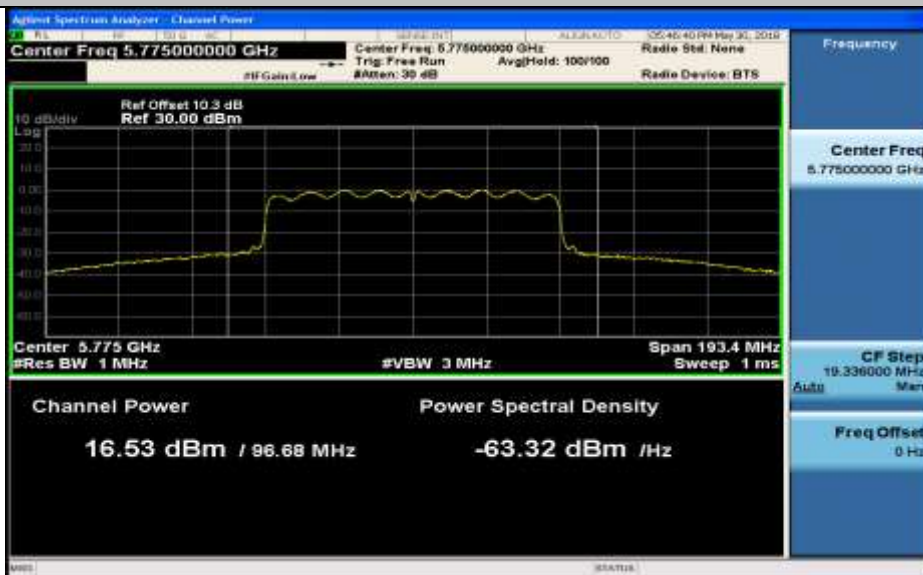
Maximum Conduct Output Power_11AC40_5755_Ant1



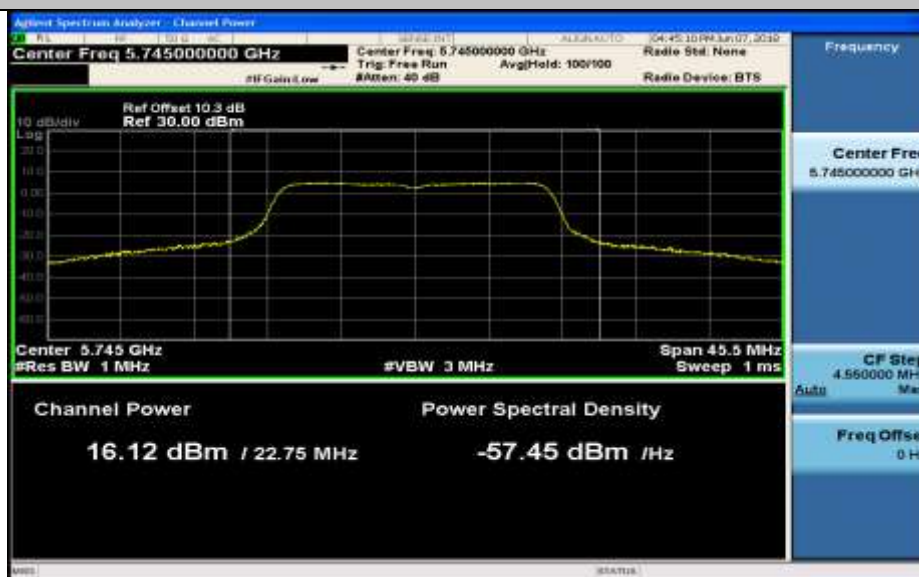
Maximum Conduct Output Power_11AC40_5795_Ant1



Maximum Conduct Output Power_11AC80_5775_Ant1



Maximum Conduct Output Power_11A_5745_Ant2



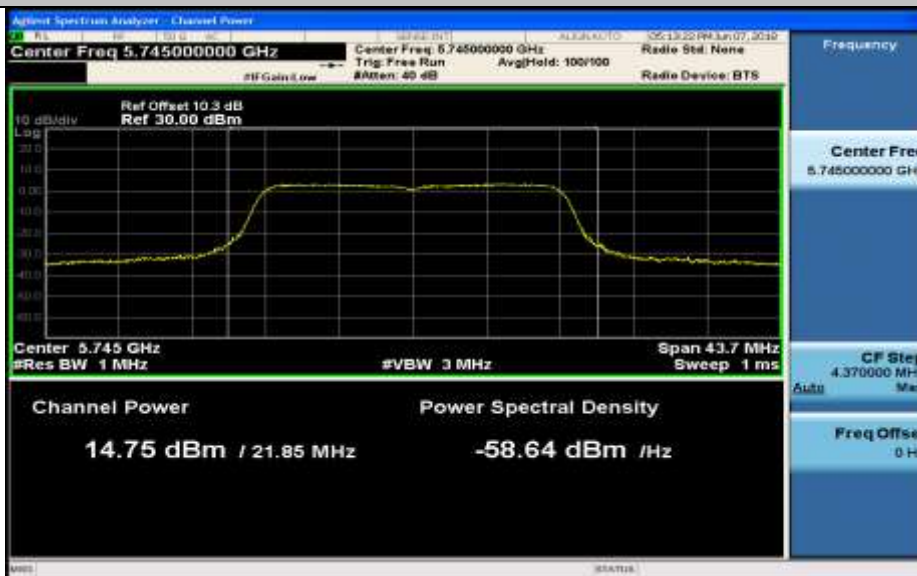
Maximum Conduct Output Power_11A_5785_Ant2



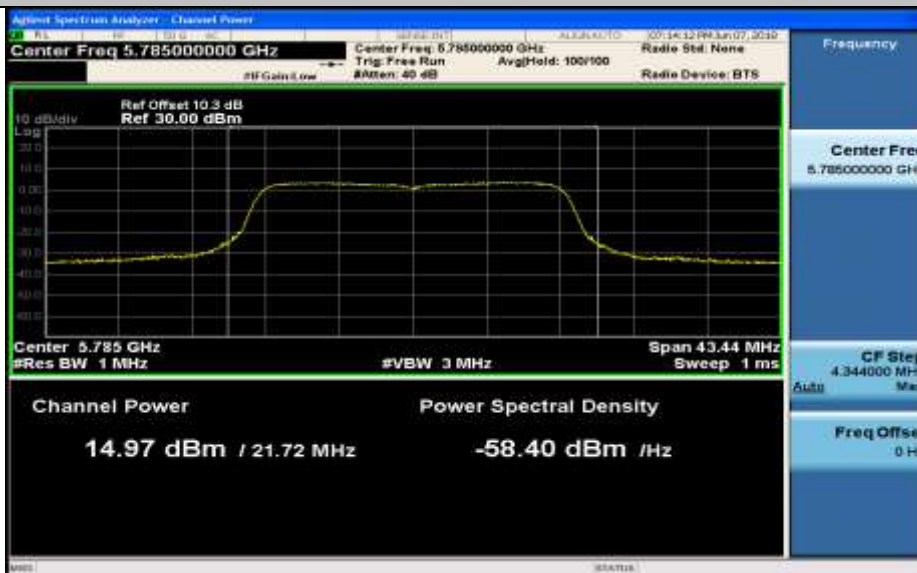
Maximum Conduct Output Power_11A_5825_Ant2



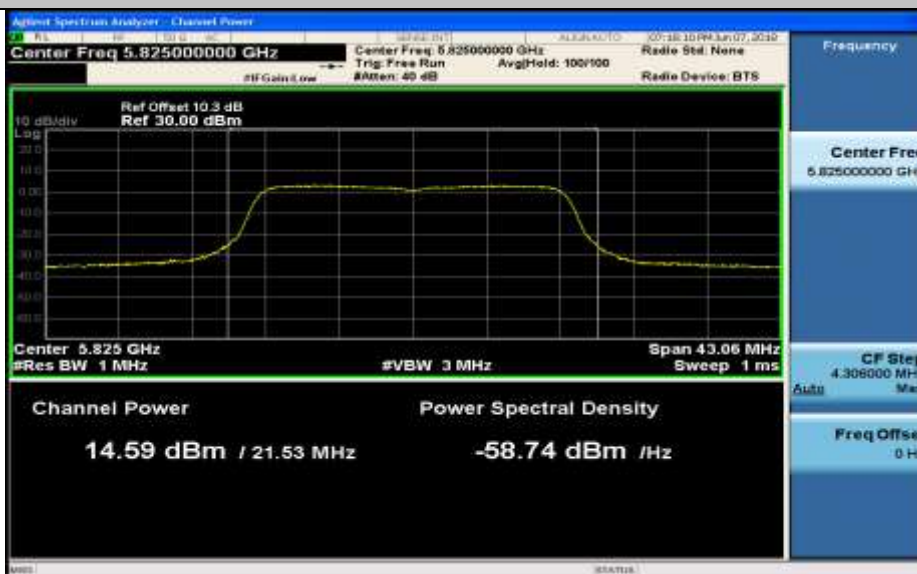
Maximum Conduct Output Power_11N20_5745_Ant2



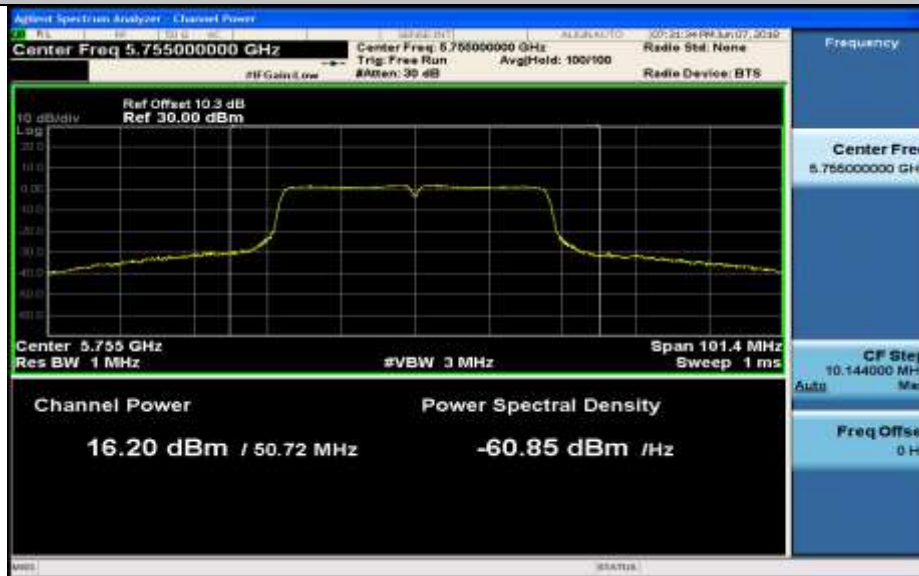
Maximum Conduct Output Power_11N20_5785_Ant2



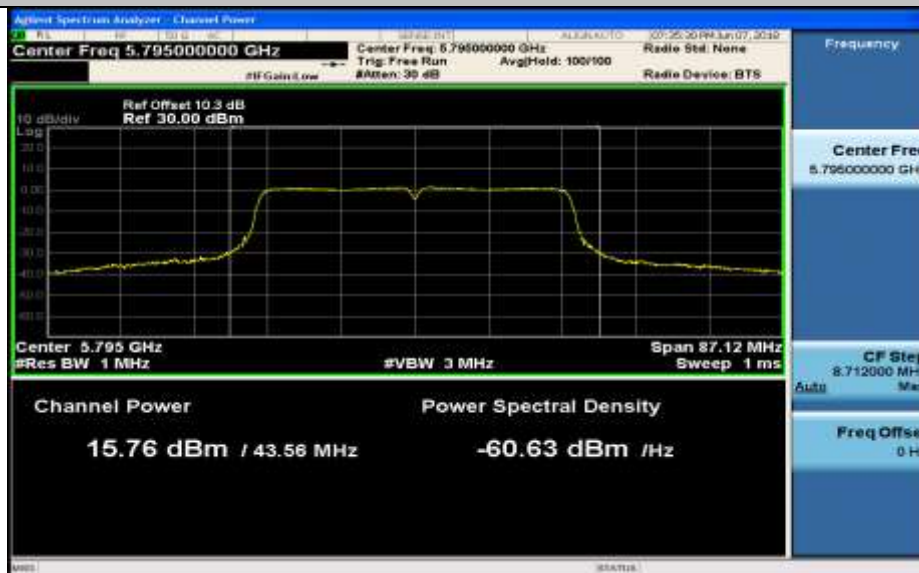
Maximum Conduct Output Power_11N20_5825_Ant2



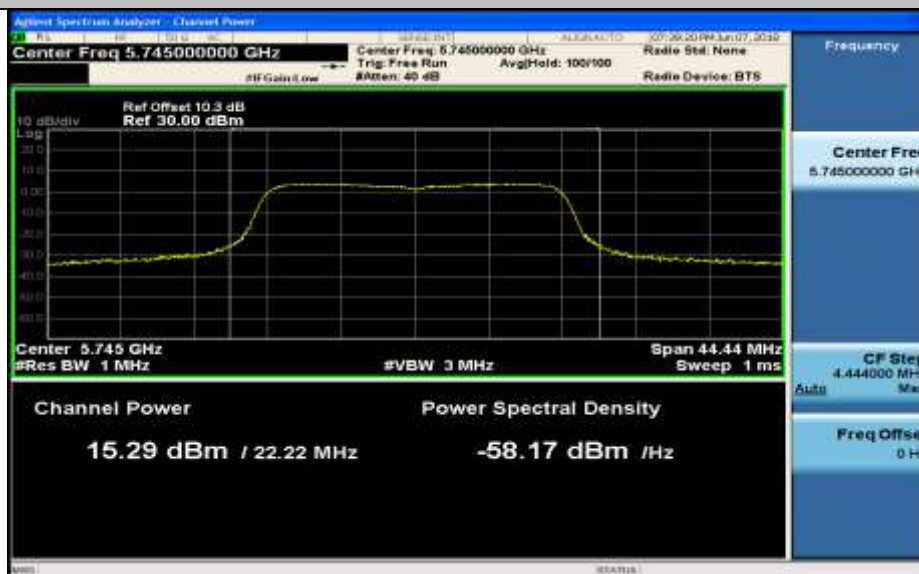
Maximum Conduct Output Power_11N40_5755_Ant2



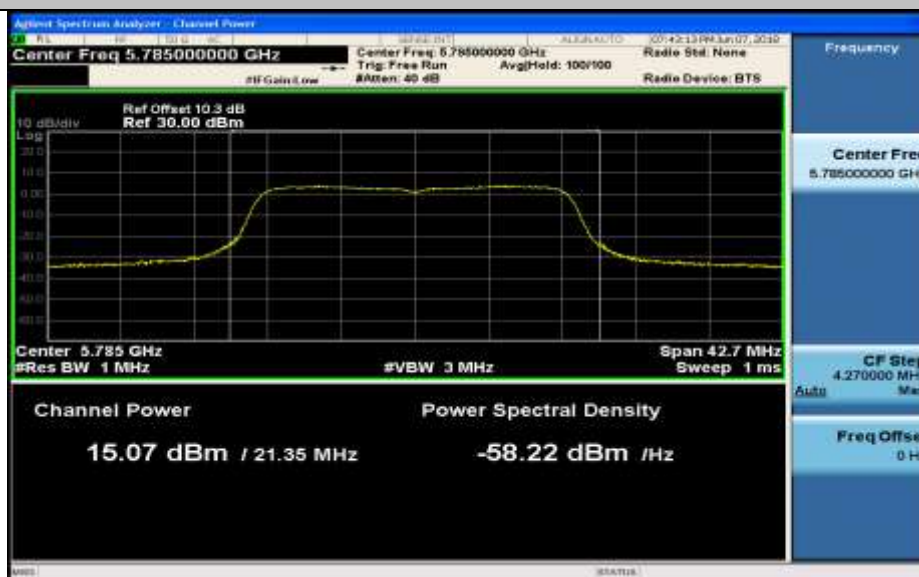
Maximum Conduct Output Power_11N40_5795_Ant2



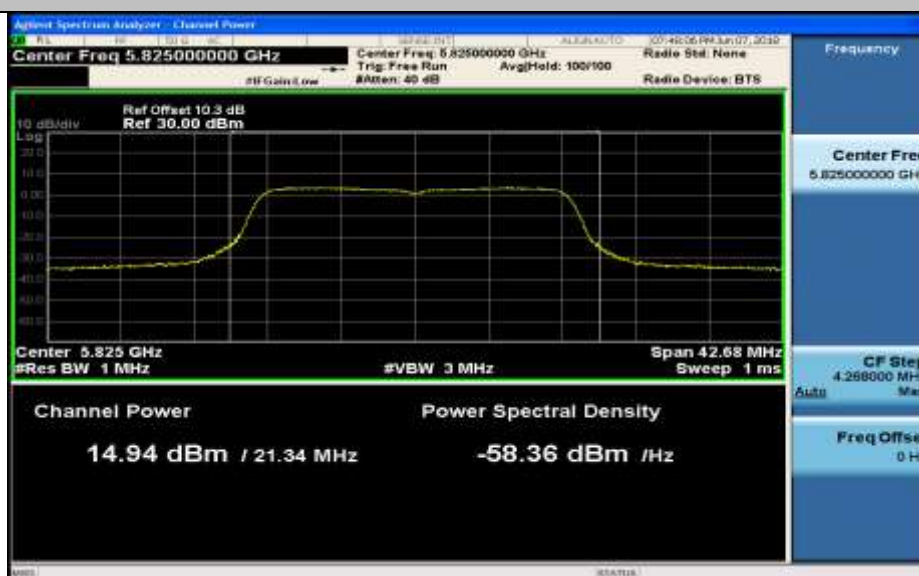
Maximum Conduct Output Power_11AC20_5745_Ant2



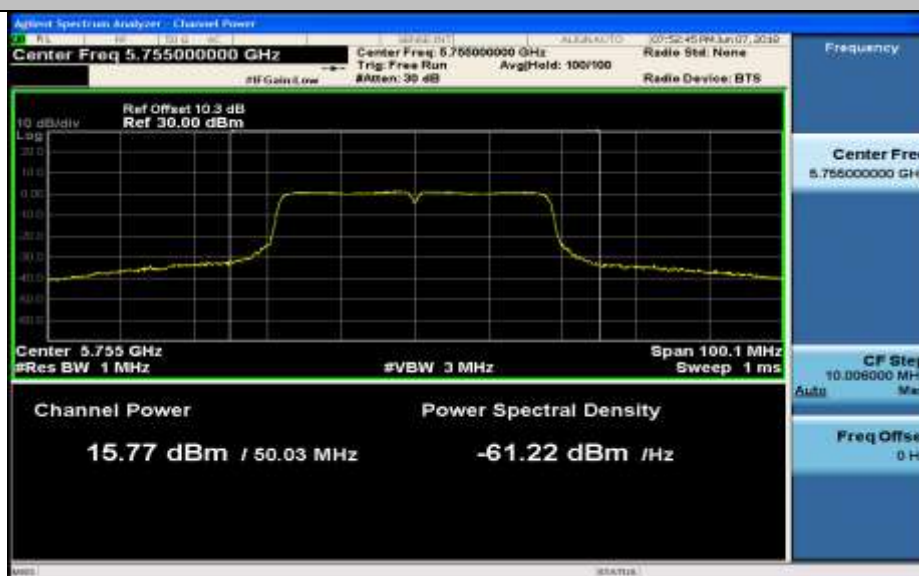
Maximum Conduct Output Power_11AC20_5785_Ant2



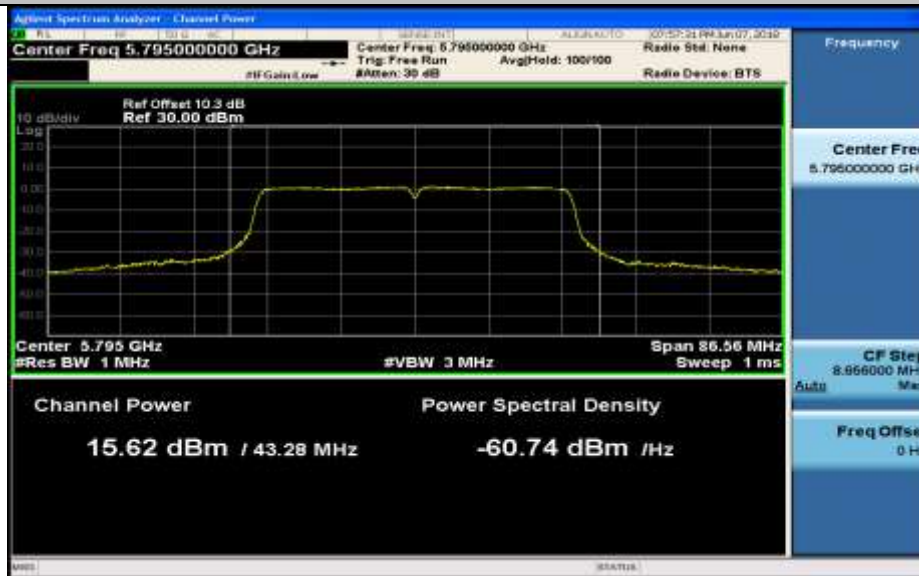
Maximum Conduct Output Power_11AC20_5825_Ant2



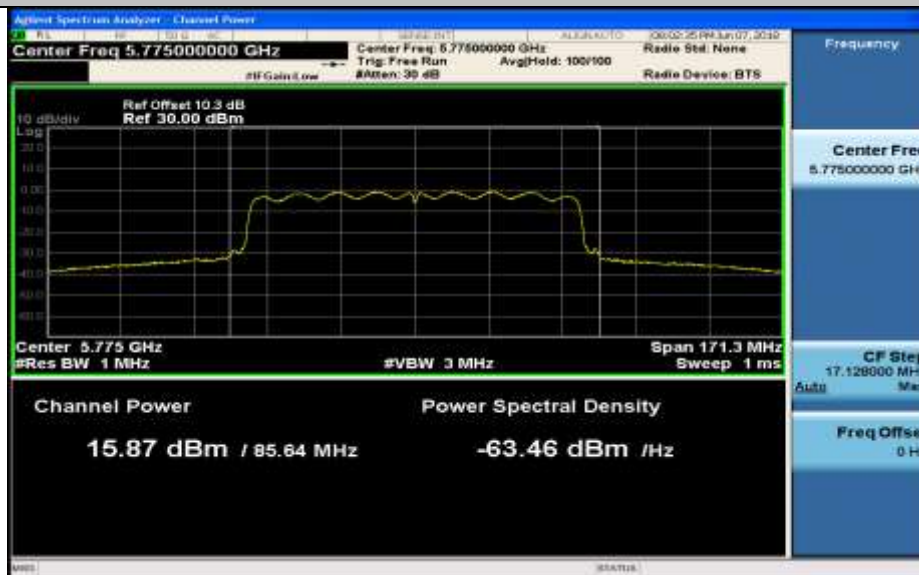
Maximum Conduct Output Power_11AC40_5755_Ant2



Maximum Conduct Output Power_11AC40_5795_Ant2



Maximum Conduct Output Power_11AC80_5775_Ant2



5.Maximum Power Spectral Density

Test Mode	Test Channel	Level [dBm/500kHz]		10log(1/x) Factor[dB]		10log(500kHz/RBW) Factor [dB]		PSD [dBm/500kHz]		Limit [dBm/500kHz]	Verdict
		Ant1	Ant2	Ant1	Ant2	Ant1	Ant2	Ant1	Ant2		
11A	5745	2.11	2.15	0.00	0.00	-0.09	-0.09	2.02	2.06	17.00	PASS
11A	5785	1.96	2.20	0.00	0.00	-0.09	-0.09	1.87	2.11	17.00	PASS
11A	5825	1.72	1.64	0.00	0.00	-0.09	-0.09	1.63	1.55	17.00	PASS
11N20	5745	0.86	0.84	0.00	0.00	-0.09	-0.09	0.78	0.76	17.00	PASS
11N20	5785	0.58	0.97	0.00	0.00	-0.09	-0.09	0.49	0.89	17.00	PASS
11N20	5825	0.60	0.57	0.00	0.00	-0.09	-0.09	0.51	0.48	17.00	PASS
11N40	5755	-1.17	-0.95	0.00	0.00	-0.09	-0.09	-1.26	-1.03	17.00	PASS
11N40	5795	-1.33	-1.43	0.00	0.00	-0.09	-0.09	-1.42	-1.51	17.00	PASS
11AC20	5745	1.32	1.19	0.00	0.00	-0.09	-0.09	1.24	1.11	17.00	PASS
11AC20	5785	0.96	1.15	0.00	0.00	-0.09	-0.09	0.87	1.06	17.00	PASS
11AC20	5825	0.97	0.89	0.00	0.00	-0.09	-0.09	0.89	0.81	17.00	PASS
11AC40	5755	-1.22	-1.45	0.00	0.00	-0.09	-0.09	-1.30	-1.54	17.00	PASS
11AC40	5795	-1.50	-1.38	0.00	0.00	-0.09	-0.09	-1.58	-1.46	17.00	PASS
11AC80	5775	-3.14	-3.33	0.00	0.00	-0.09	-0.09	-3.23	-3.41	17.00	PASS

Maximum Power Spectral Density_TNVN_11A_5745_Ant1



Maximum Power Spectral Density_TNVN_11A_5785_Ant1



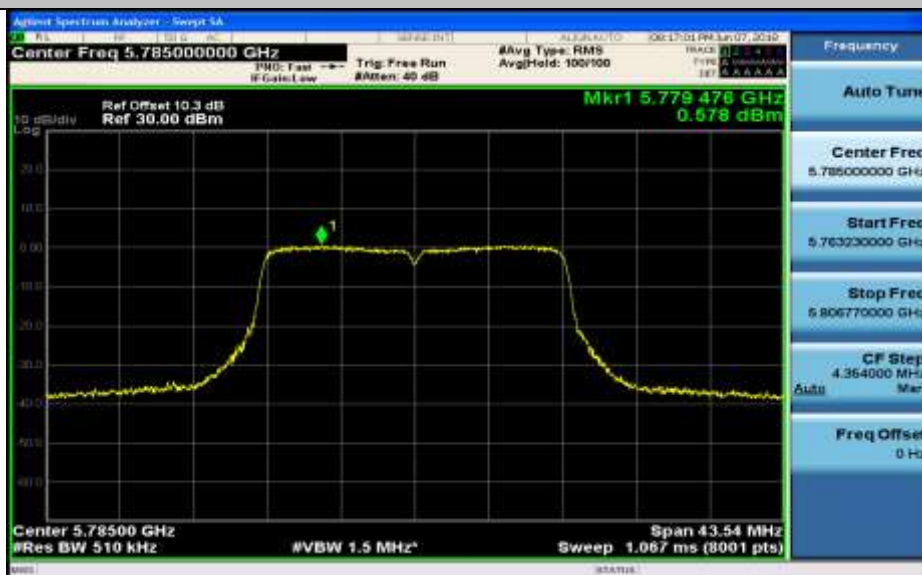
Maximum Power Spectral Density_TNVN_11A_5825_Ant1



Maximum Power Spectral Density_TNVN_11N20_5745_Ant1



Maximum Power Spectral Density_TNVN_11N20_5785_Ant1



Maximum Power Spectral Density_TNVN_11N20_5825_Ant1



Maximum Power Spectral Density_TNVN_11N40_5755_Ant1



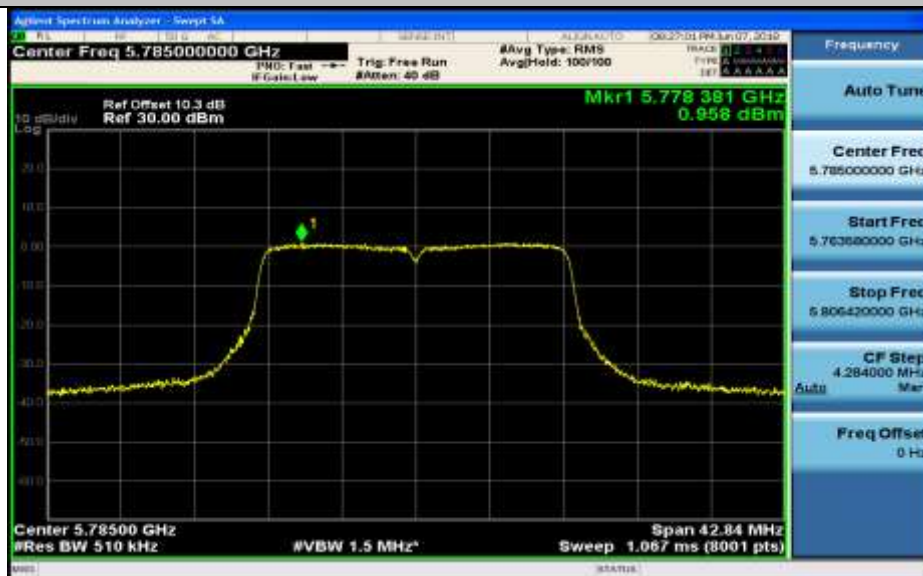
Maximum Power Spectral Density_TNVN_11N40_5795_Ant1



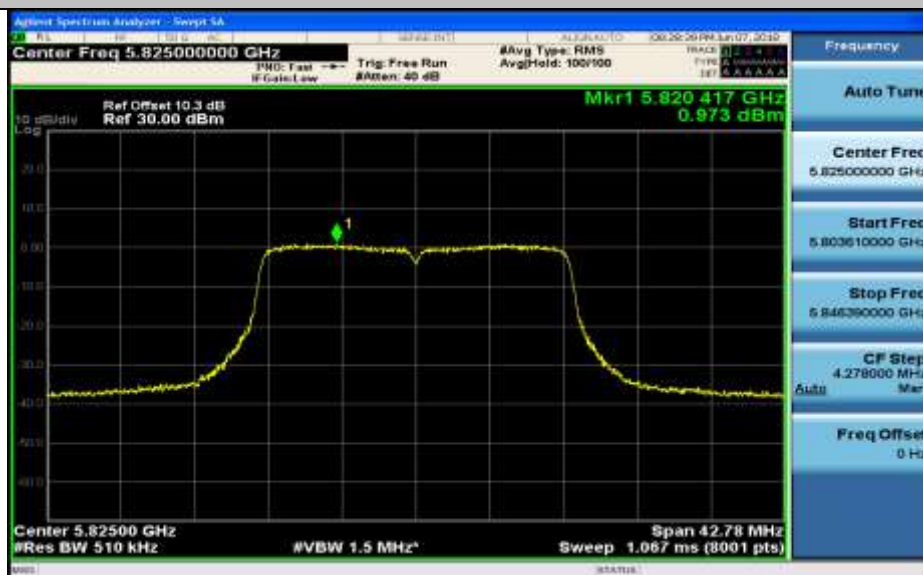
Maximum Power Spectral Density_TNVN_11AC20_5745_Ant1



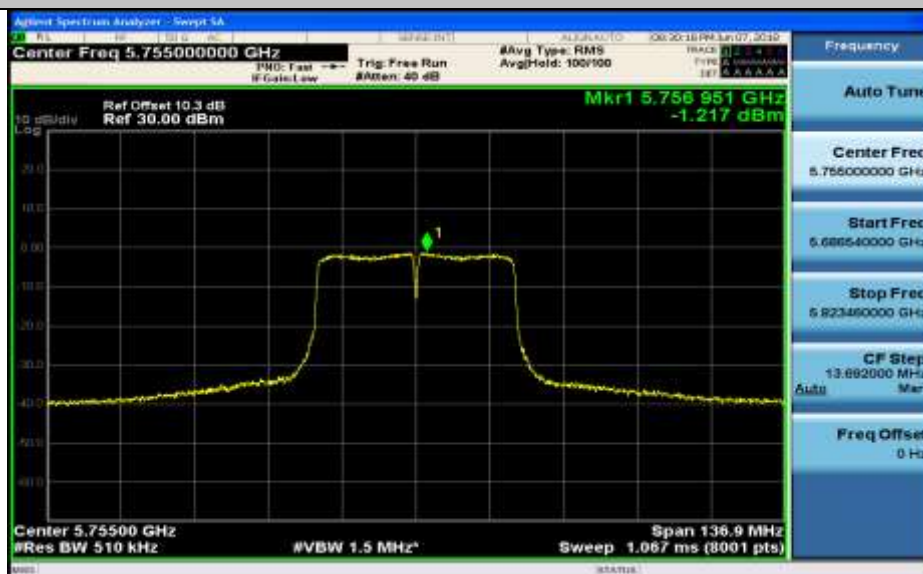
Maximum Power Spectral Density_TNVN_11AC20_5785_Ant1



Maximum Power Spectral Density_TNVN_11AC20_5825_Ant1



Maximum Power Spectral Density_TNVN_11AC40_5755_Ant1



Maximum Power Spectral Density_TNVN_11AC40_5795_Ant1



Maximum Power Spectral Density_TNVN_11AC80_5775_Ant1



Maximum Power Spectral Density_TNVN_11A_5745_Ant2



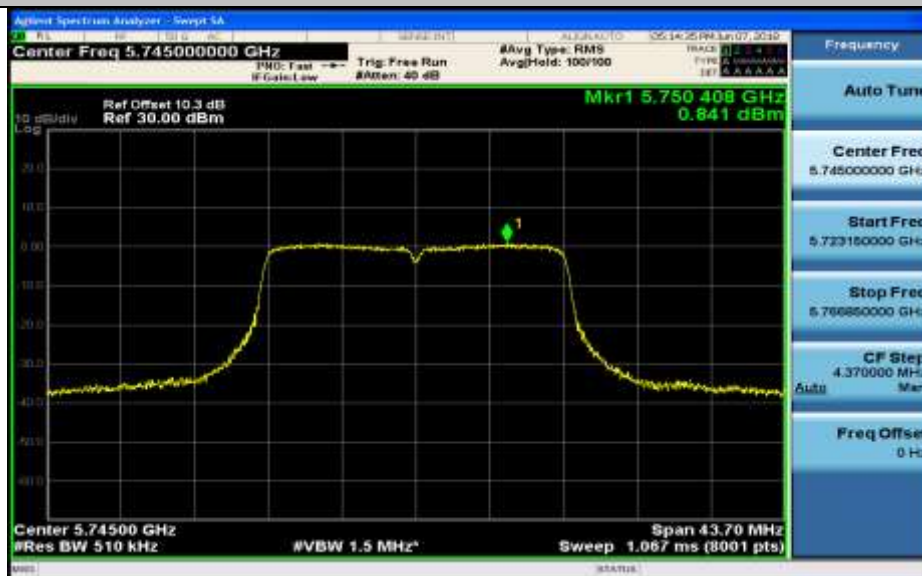
Maximum Power Spectral Density_TNVN_11A_5785_Ant2



Maximum Power Spectral Density_TNVN_11A_5825_Ant2



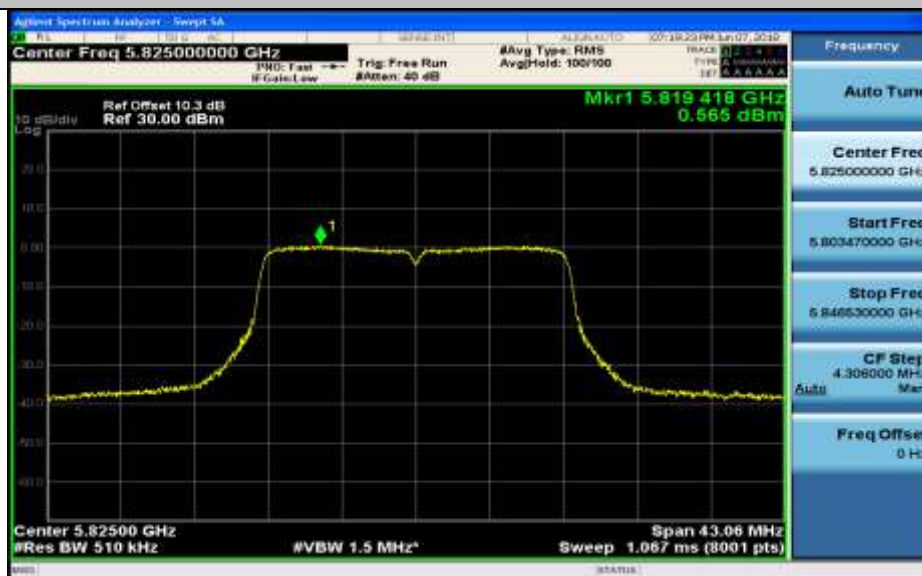
Maximum Power Spectral Density_TNVN_11N20_5745_Ant2



Maximum Power Spectral Density_TNVN_11N20_5785_Ant2



Maximum Power Spectral Density_TNVN_11N20_5825_Ant2



Maximum Power Spectral Density_TNVN_11N40_5755_Ant2



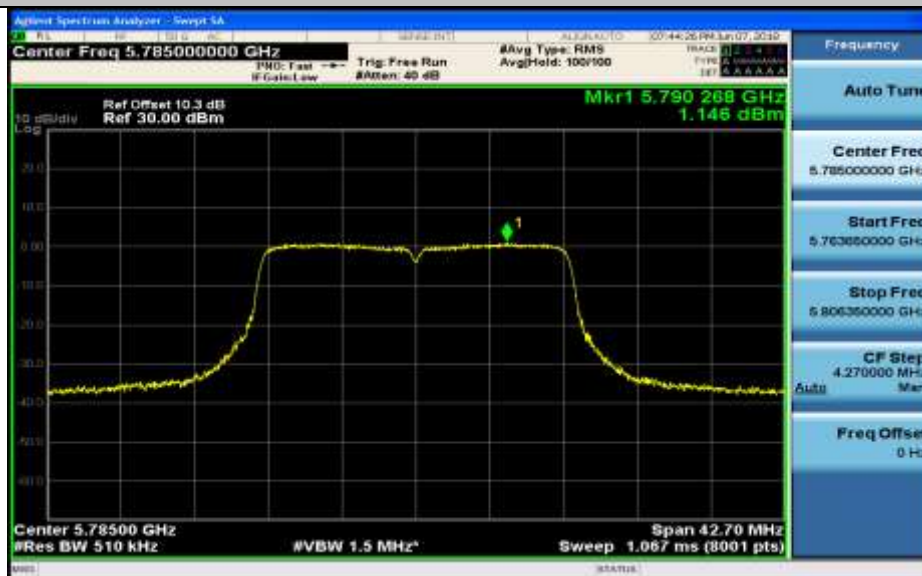
Maximum Power Spectral Density_TNVN_11N40_5795_Ant2



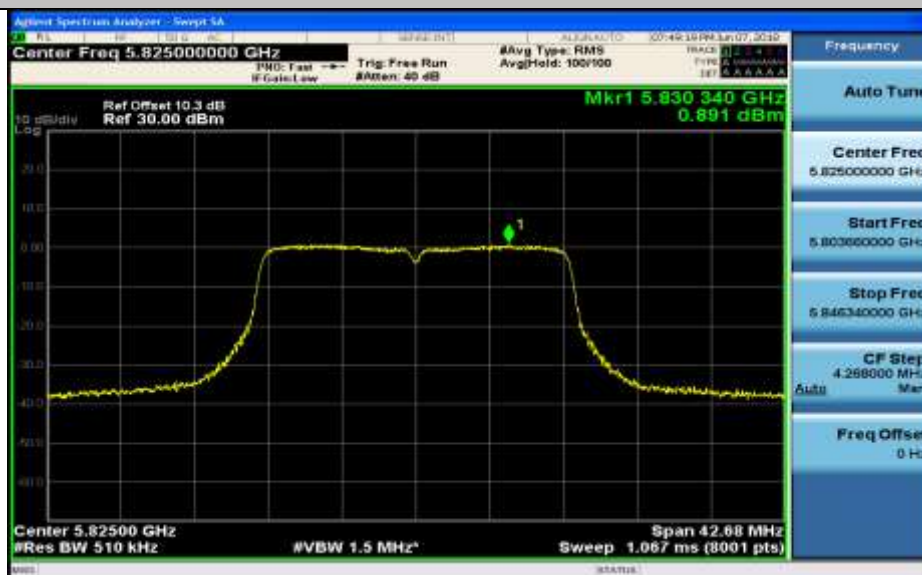
Maximum Power Spectral Density_TNVN_11AC20_5745_Ant2



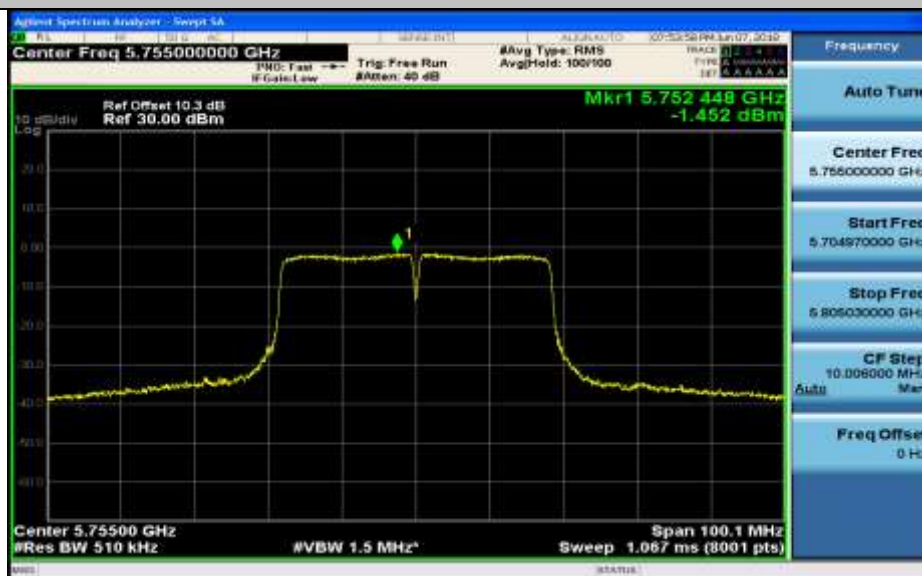
Maximum Power Spectral Density_TNVN_11AC20_5785_Ant2



Maximum Power Spectral Density_TNVN_11AC20_5825_Ant2



Maximum Power Spectral Density_TNVN_11AC40_5755_Ant2



Maximum Power Spectral Density_TNVN_11AC40_5795_Ant2



Maximum Power Spectral Density_TNVN_11AC80_5775_Ant2



6. Frequency Stability

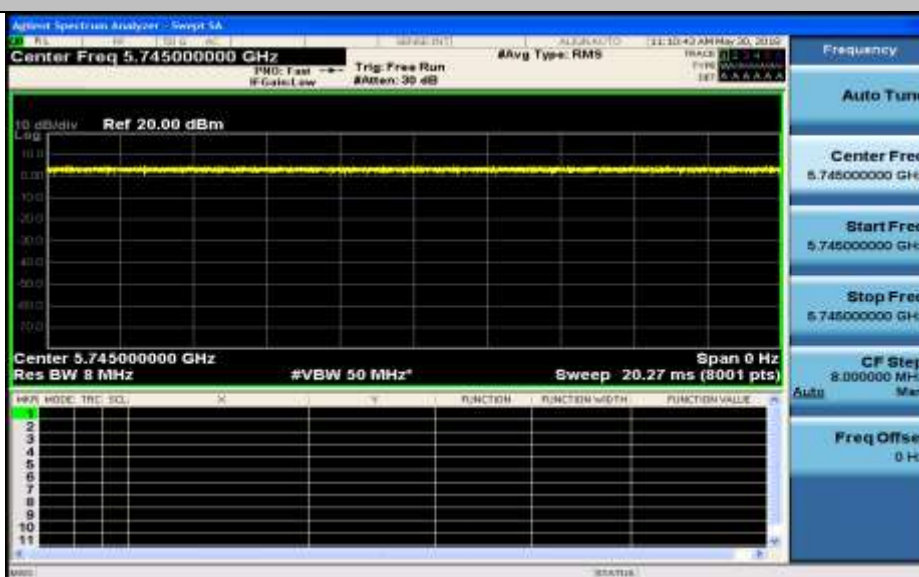
Band	Test Conditions		Operation Frequency (MHz)	Test Frequency (MHz)		Freq. Dev. (MHz)		Limit (GHz)	Result
	Volt (V DC)	Temp (°C)		ANT1	ANT2	ANT1	ANT2		
Band U-NII 3	Normal(24)	Extreme(-20)	5745	5745.0348	5745.0284	0.0348	0.0284	5.725-5.85	Pass
		Extreme(-10)		5745.0346	5745.0290	0.0346	0.0290		Pass
		Extreme(0)		5745.0243	5745.0145	0.0243	0.0145		Pass
		Extreme(+10)		5745.0377	5745.0260	0.0377	0.0260		Pass
		Extreme(+20)		5745.0406	5745.0393	0.0406	0.0393		Pass
		Extreme(+30)		5745.0300	5745.0414	0.0300	0.0414		Pass
		Extreme(+40)		5745.0287	5745.0208	0.0287	0.0208		Pass
		Extreme(+55)		5745.0437	5745.0313	0.0437	0.0313		Pass
	Extreme(9)	Norma(+20)	5825	5745.0187	5745.0297	0.0187	0.0297		Pass
	Extreme(32)			5745.0406	5745.0152	0.0406	0.0152		Pass
	Normal(24)	Extreme(-20)		5825.0434	5825.0193	0.0434	0.0193		Pass
		Extreme(-10)		5825.0268	5825.0381	0.0268	0.0381		Pass
		Extreme(0)		5825.0415	5825.0329	0.0415	0.0329		Pass
		Extreme(+10)		5825.0171	5825.0465	0.0171	0.0465		Pass
		Extreme(+20)		5825.0443	5825.0269	0.0443	0.0269		Pass
		Extreme(+30)		5825.0499	5825.0321	0.0499	0.0321		Pass
		Extreme(+40)		5825.0222	5825.0389	0.0222	0.0389		Pass
		Extreme(+55)		5825.0356	5825.0174	0.0356	0.0174		Pass
	Extreme(9)	Norma(20)		5825.0345	5825.0338	0.0345	0.0338		Pass
	Extreme(32)			5825.0387	5825.0424	0.0387	0.0424		Pass

Remark: Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency deviation noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

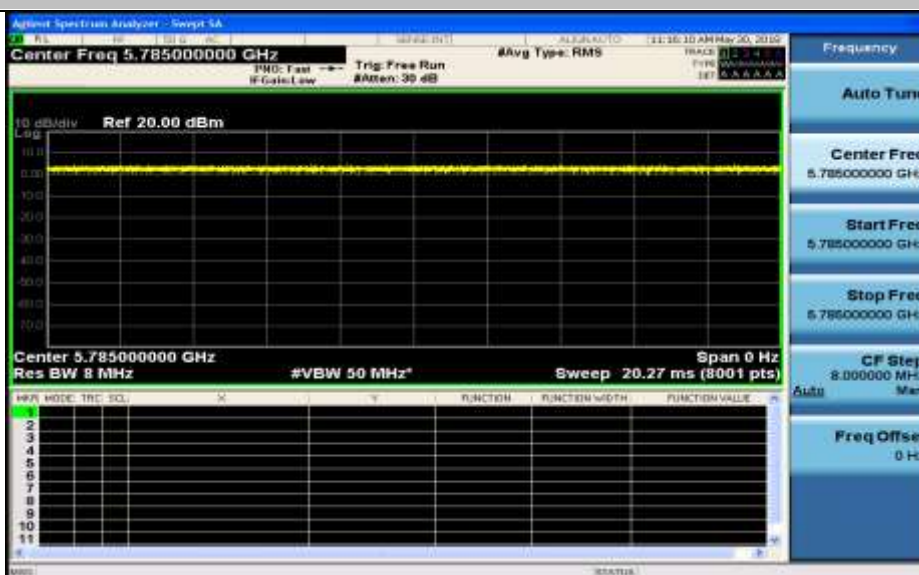
7.Duty Cycle

Test Mode	Test Channel	Duty Cycle[%]		10log(1/x) Factor[dB]	
		Ant1	Ant2	Ant1	Ant2
11A	5745	100.00	100.00	0.00	0.00
11A	5785	100.00	100.00	0.00	0.00
11A	5825	100.00	100.00	0.00	0.00
11N20	5745	100.00	100.00	0.00	0.00
11N20	5785	100.00	100.00	0.00	0.00
11N20	5825	100.00	100.00	0.00	0.00
11N40	5755	100.00	100.00	0.00	0.00
11N40	5795	100.00	100.00	0.00	0.00
11AC20	5745	100.00	100.00	0.00	0.00
11AC20	5785	100.00	100.00	0.00	0.00
11AC20	5825	100.00	100.00	0.00	0.00
11AC40	5755	100.00	100.00	0.00	0.00
11AC40	5795	100.00	100.00	0.00	0.00
11AC80	5775	100.00	100.00	0.00	0.00
11A	5745	100.00	100.00	0.00	0.00
11A	5745	100.00	100.00	0.00	0.00

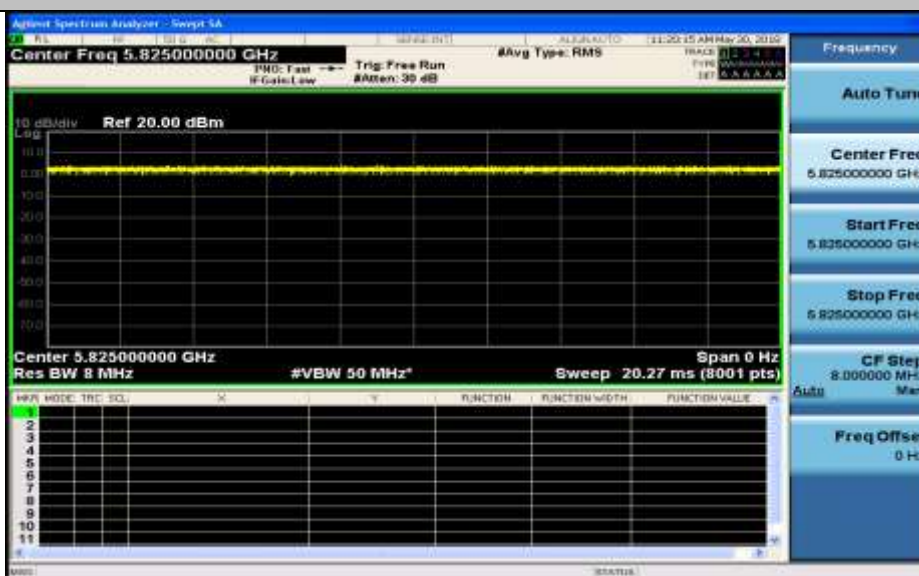
Duty Cycle_11A_5745_Ant1



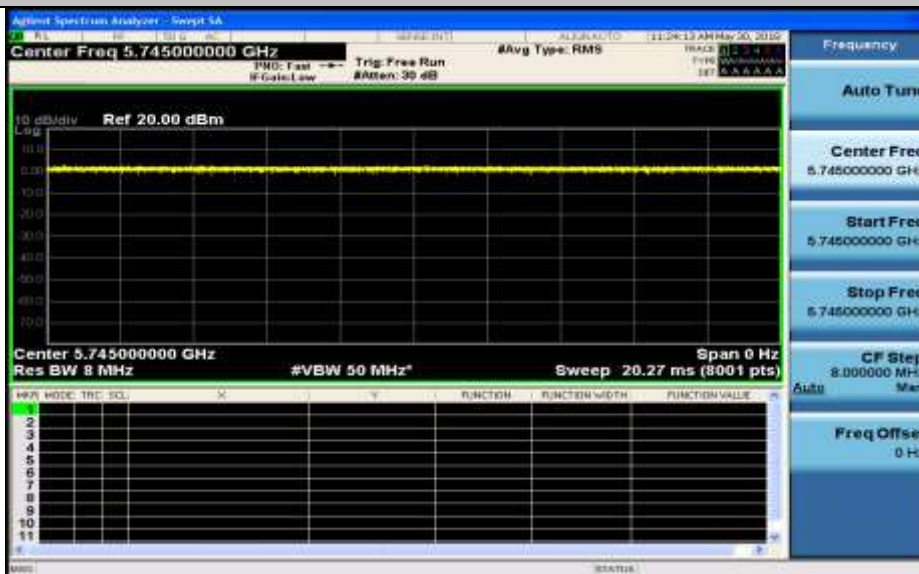
Duty Cycle_11A_5785_Ant1



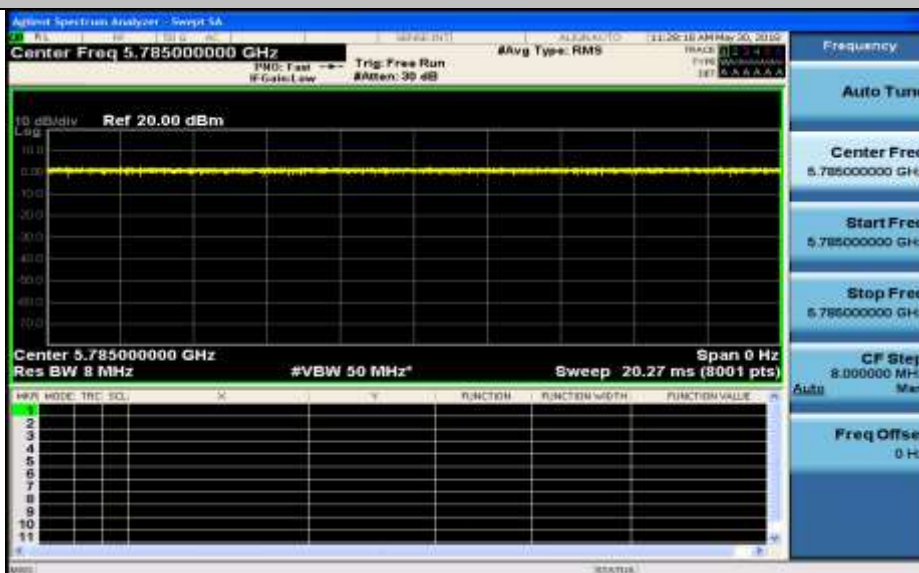
Duty Cycle_11A_5825_Ant1



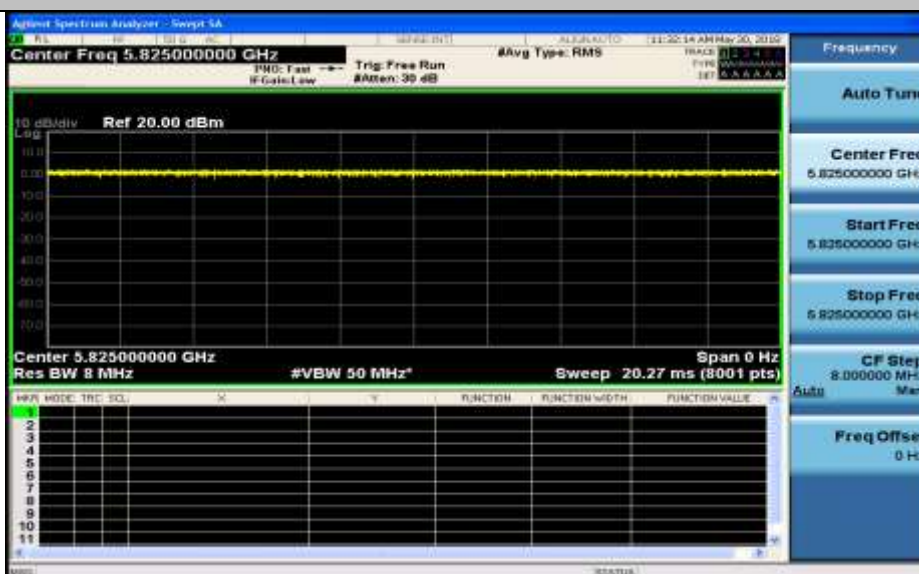
Duty Cycle_11N20_5745_Ant1



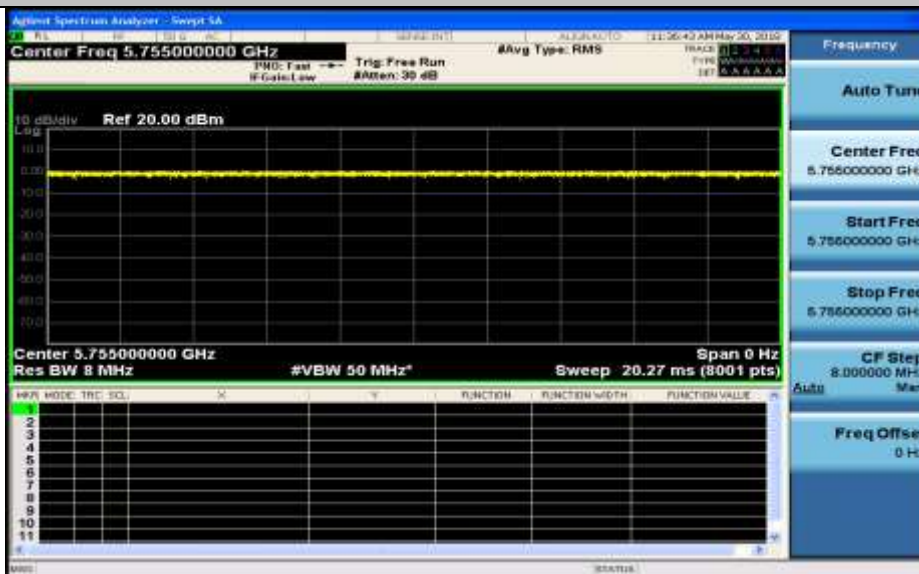
Duty Cycle_11N20_5785_Ant1



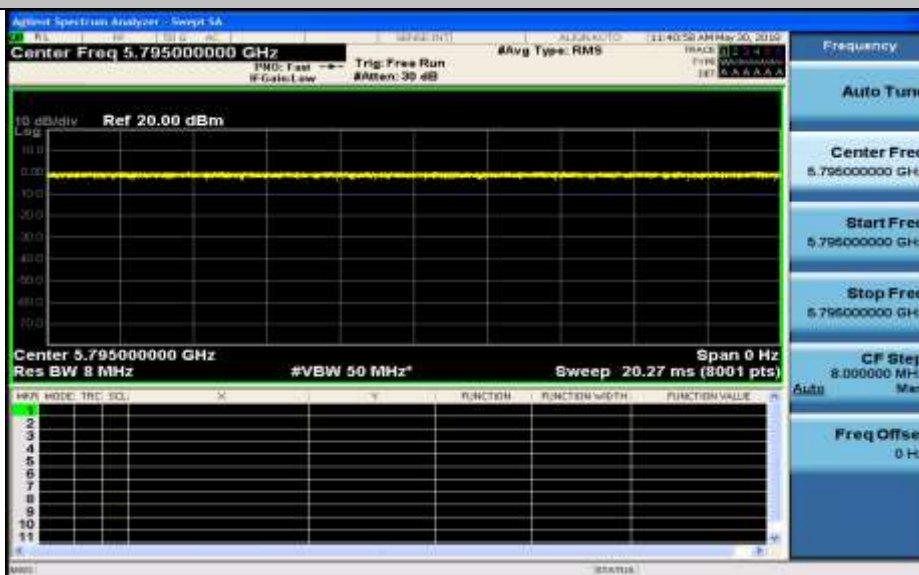
Duty Cycle_11N20_5825_Ant1



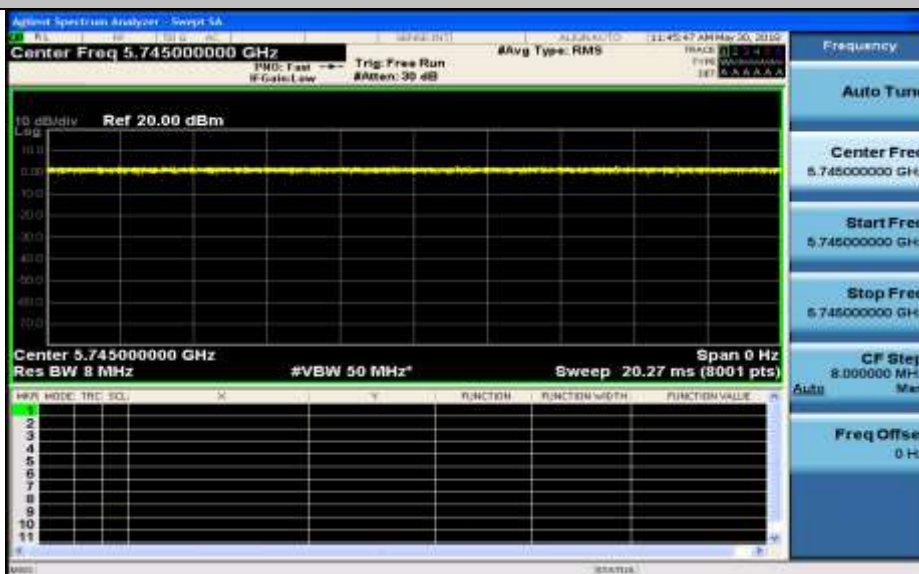
Duty Cycle_11N40_5755_Ant1



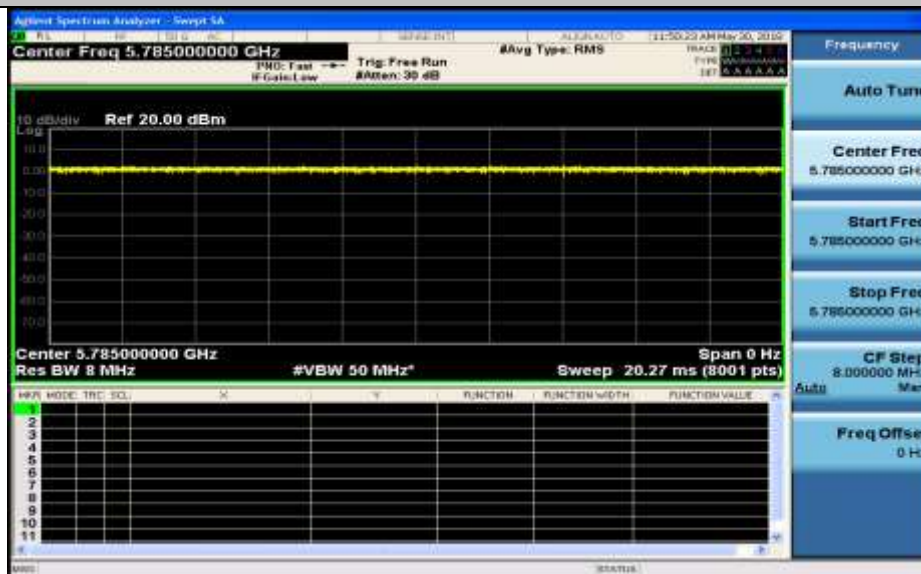
Duty Cycle_11N40_5795_Ant1



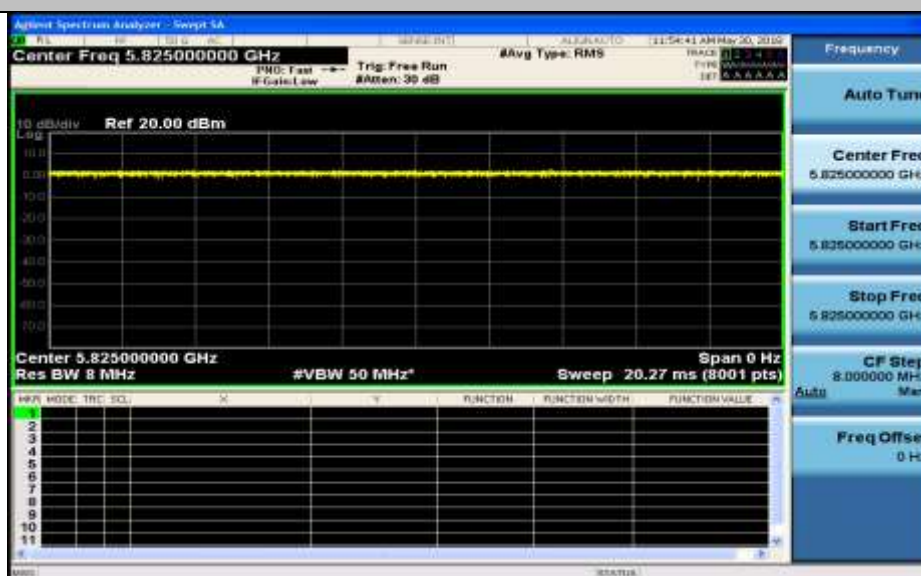
Duty Cycle_11AC20_5745_Ant1



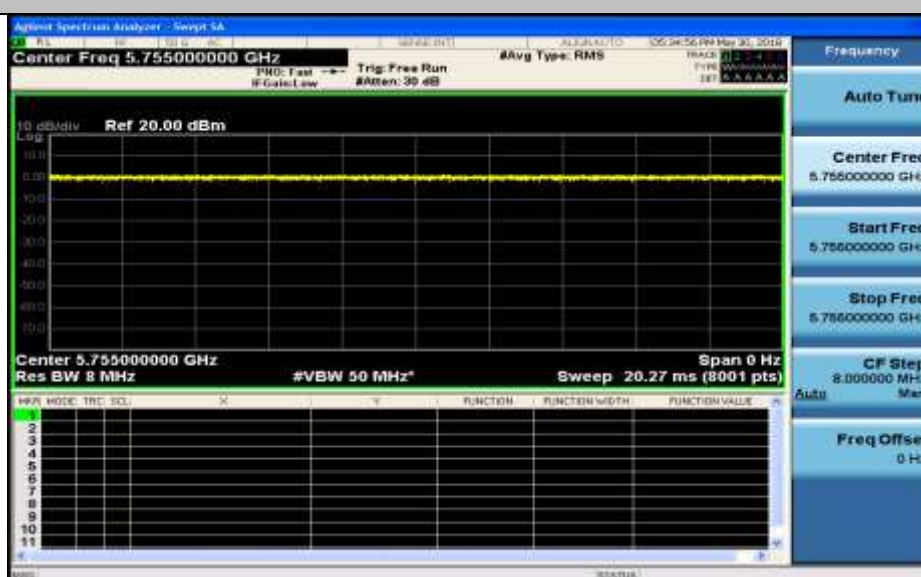
Duty Cycle_11AC20_5785_Ant1



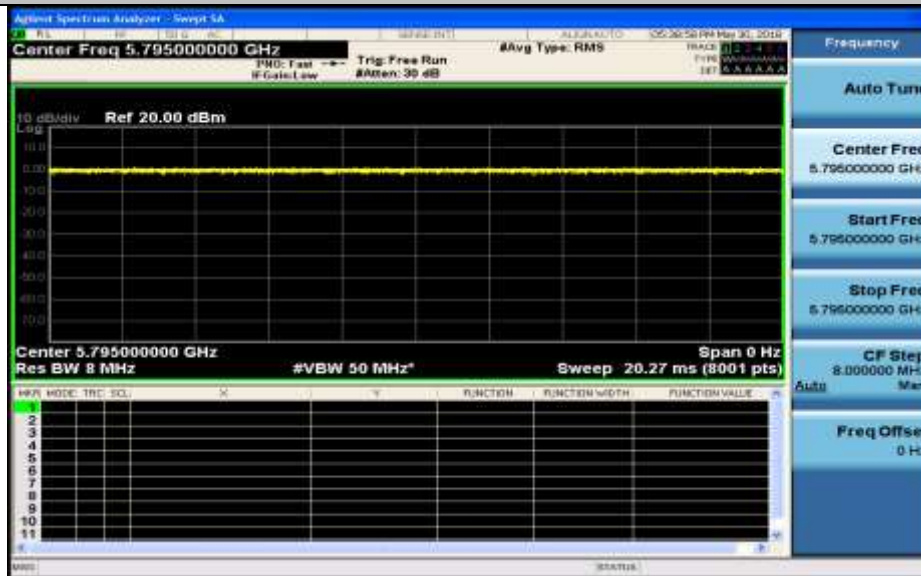
Duty Cycle_11AC20_5825_Ant1



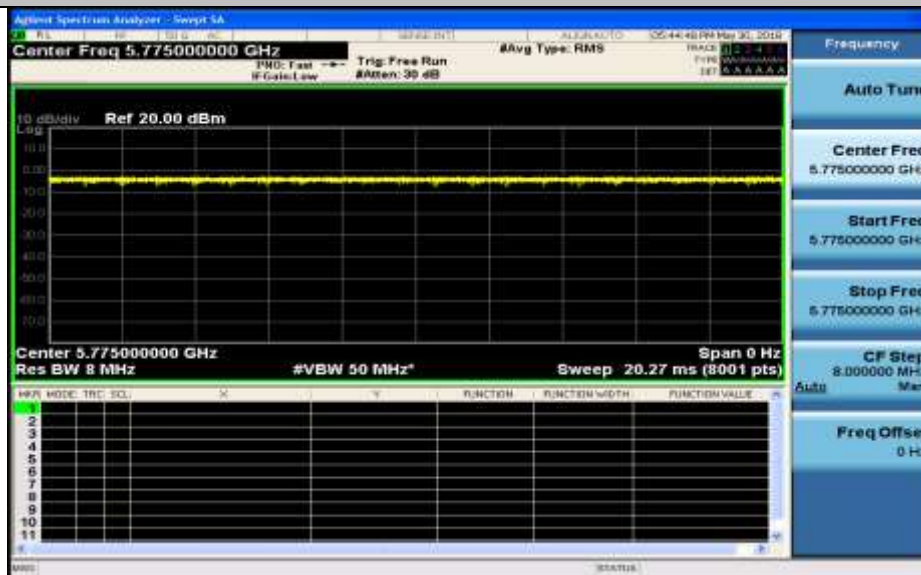
Duty Cycle_11AC40_5755_Ant1



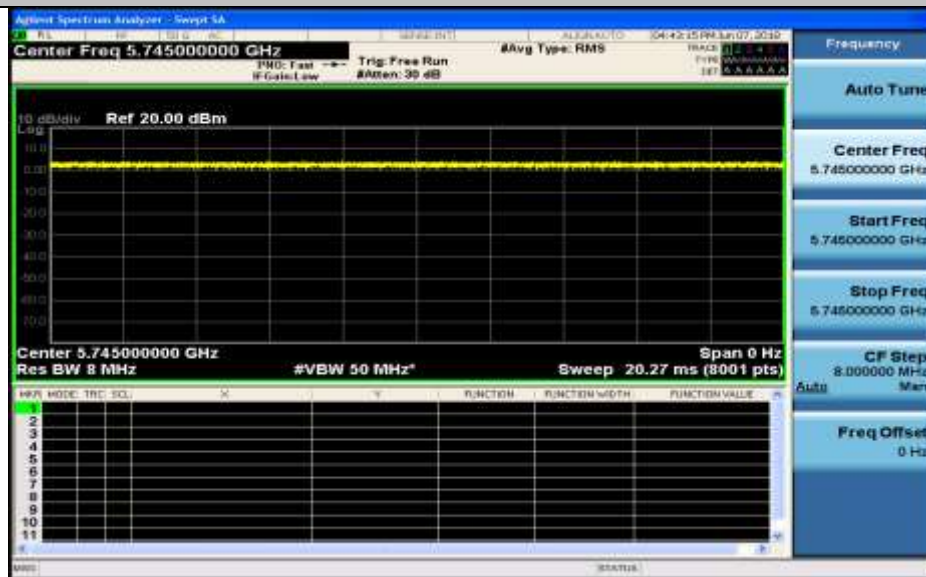
Duty Cycle_11AC40_5795_Ant1



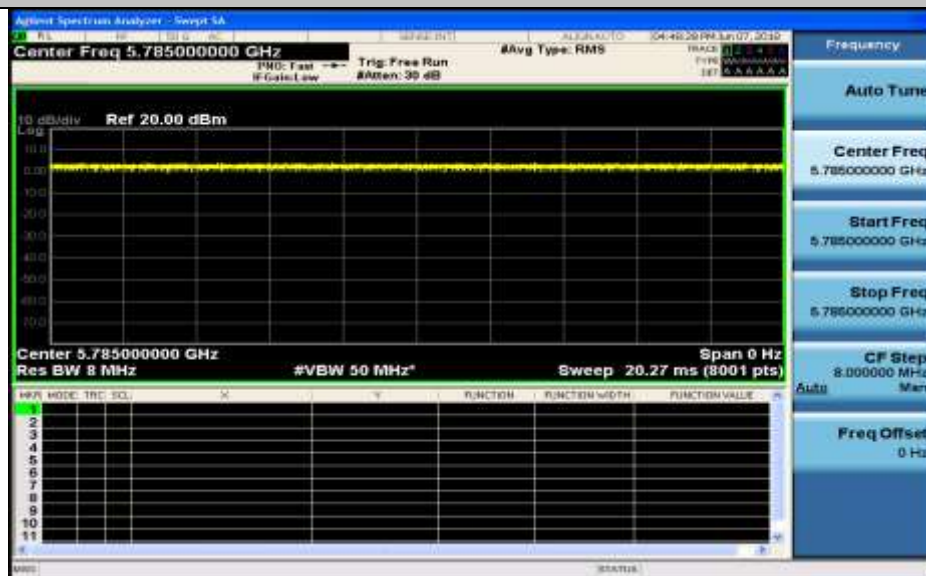
Duty Cycle_11AC80_5775_Ant1



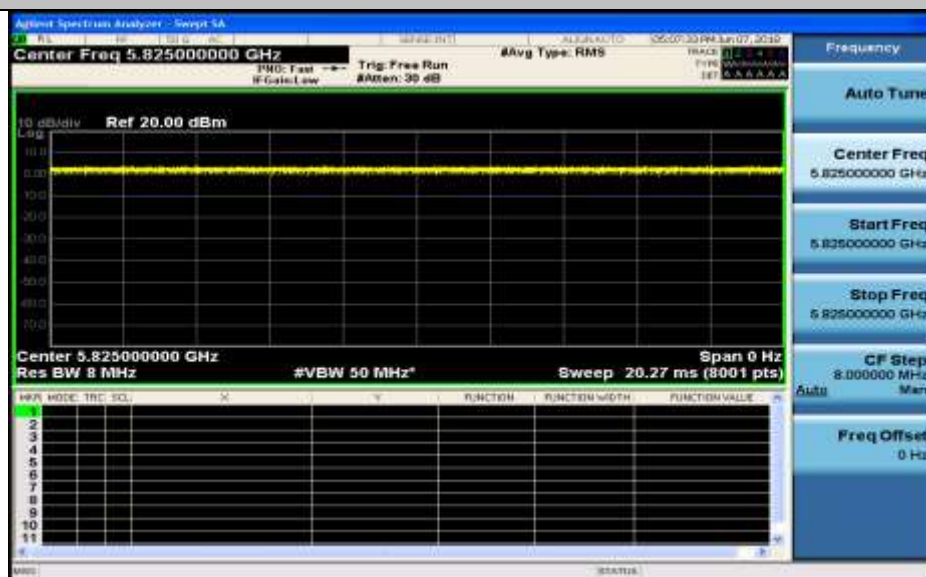
Duty Cycle_11A_5745_Ant2



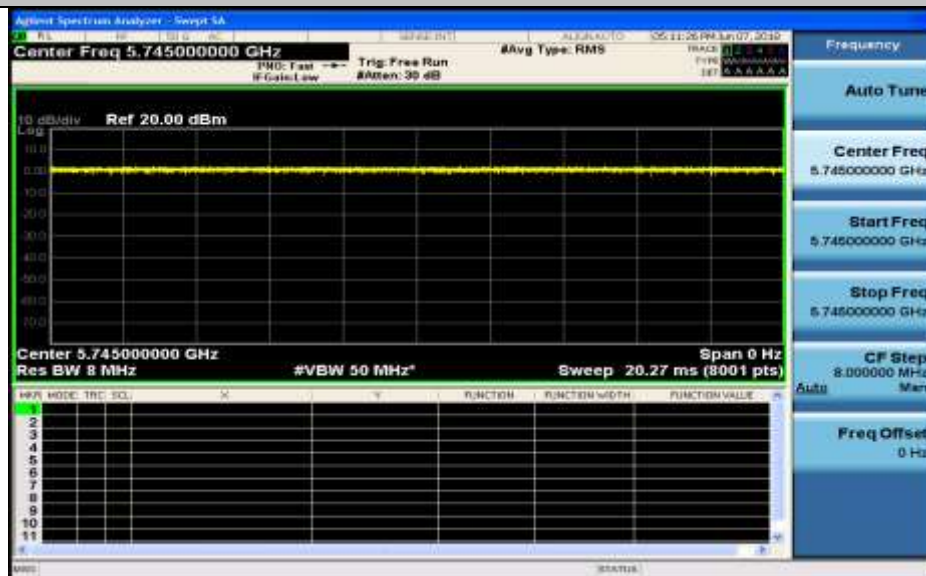
Duty Cycle_11A_5785_Ant2



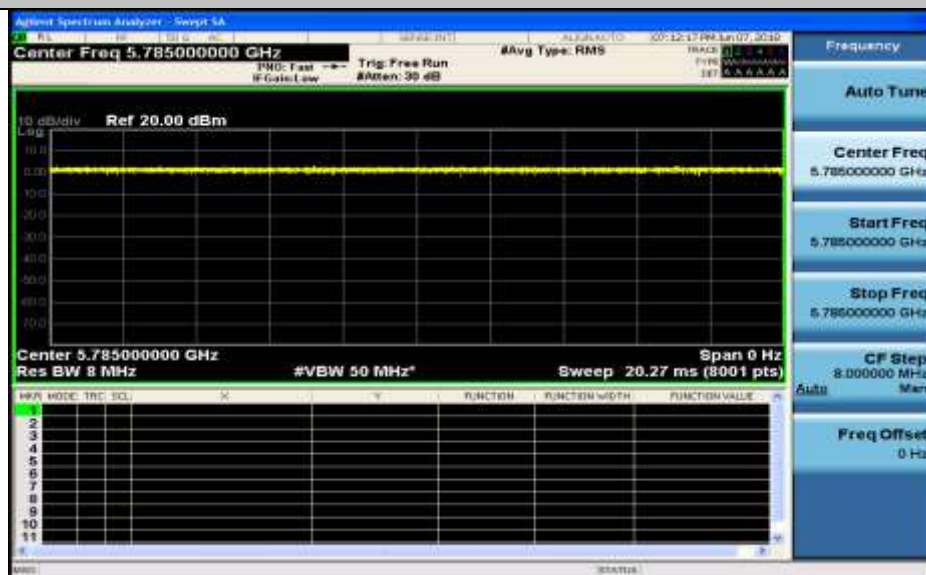
Duty Cycle_11A_5825_Ant2



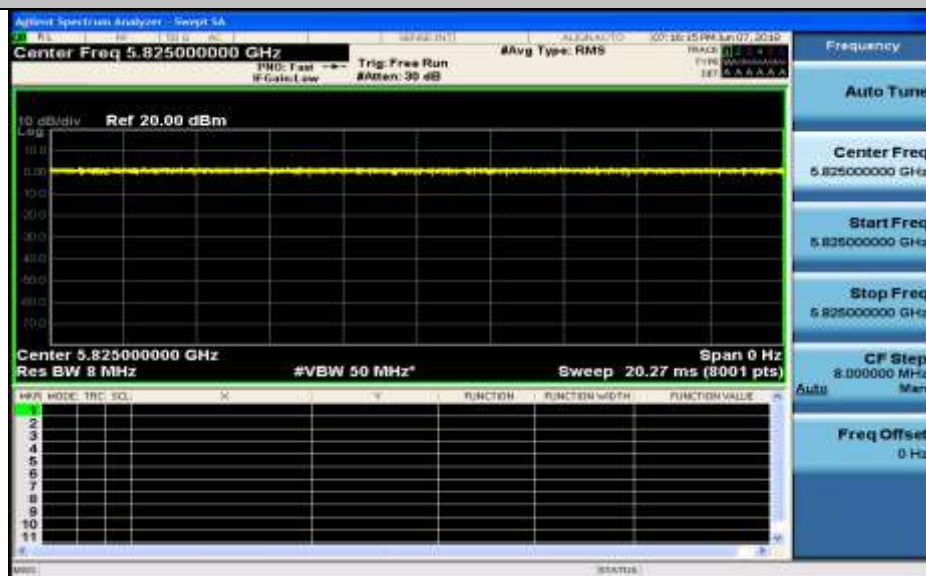
Duty Cycle_11N20_5745_Ant2



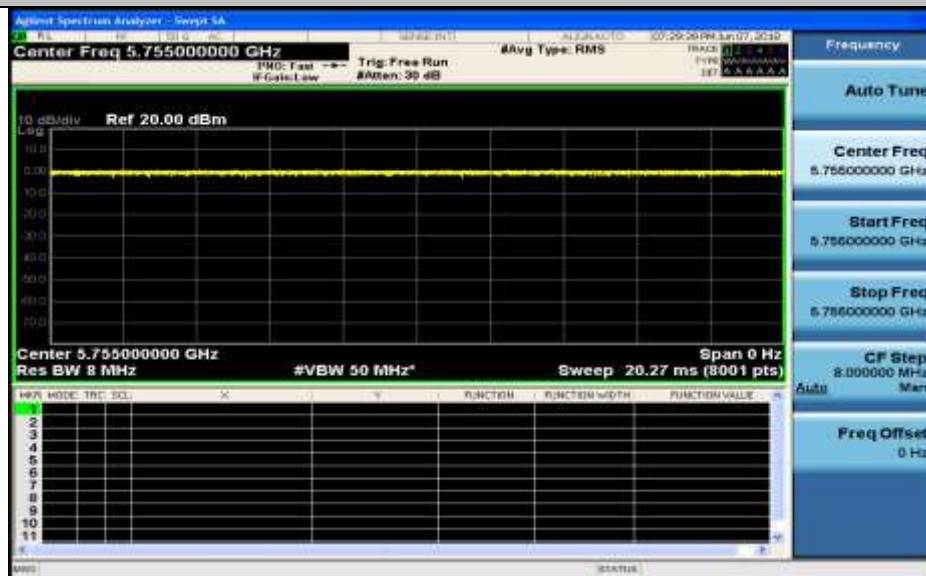
Duty Cycle_11N20_5785_Ant2



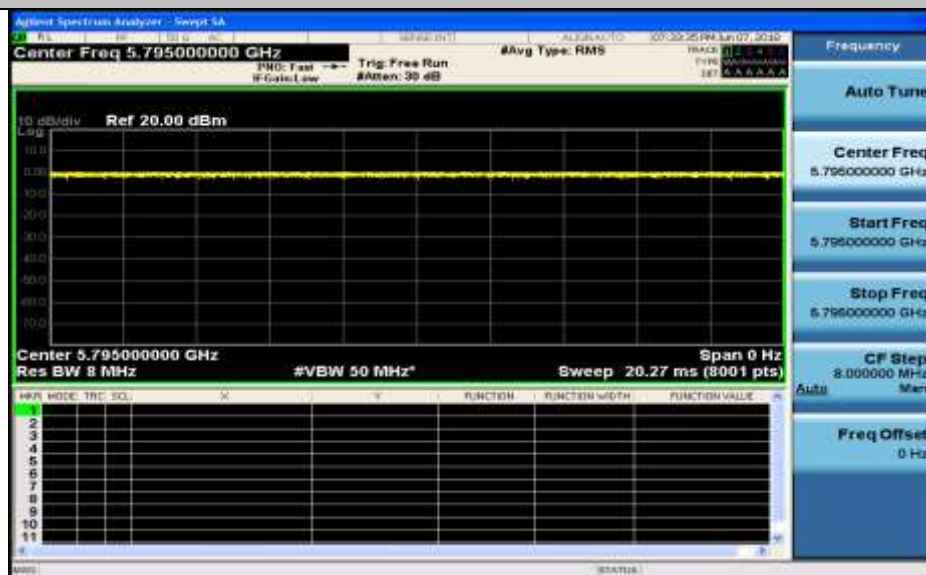
Duty Cycle_11N20_5825_Ant2



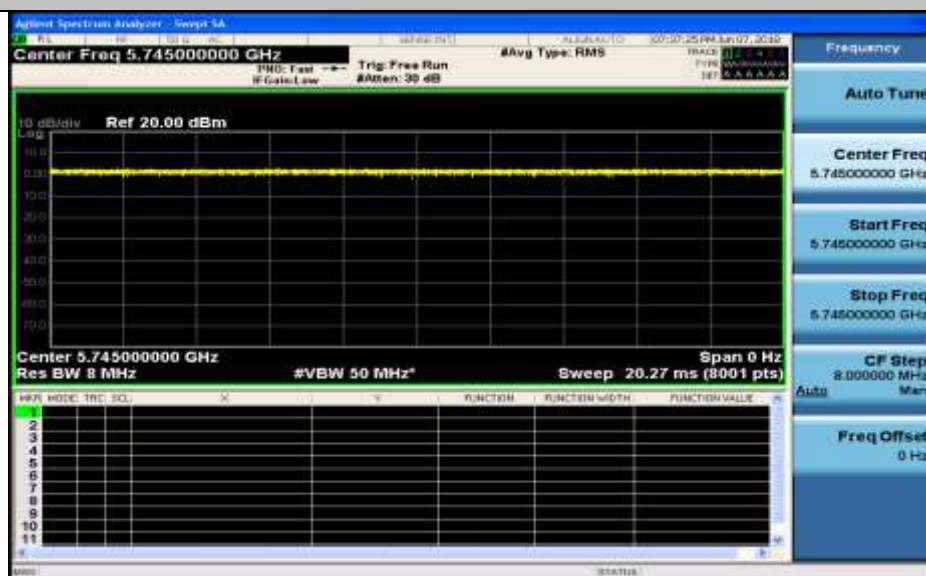
Duty Cycle_11N40_5755_Ant2



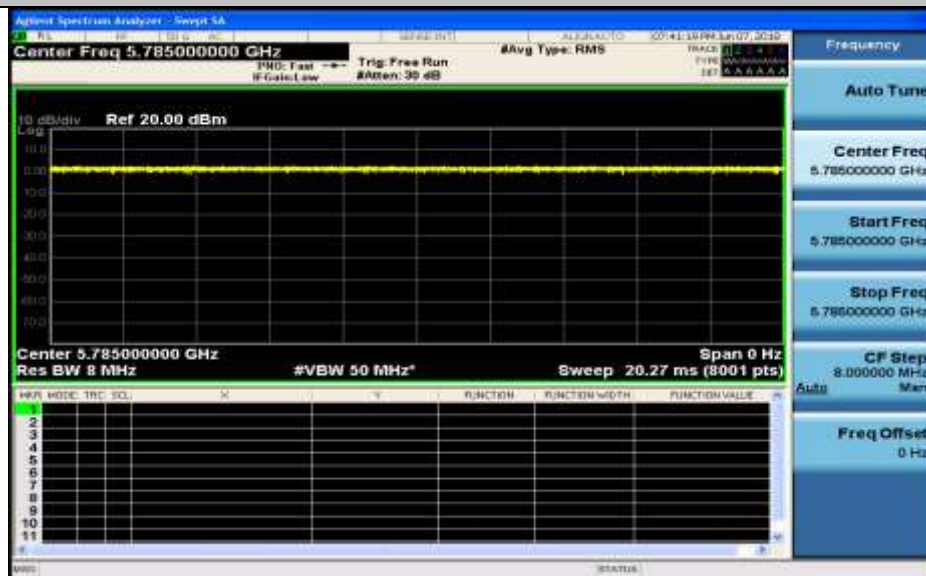
Duty Cycle_11N40_5795_Ant2



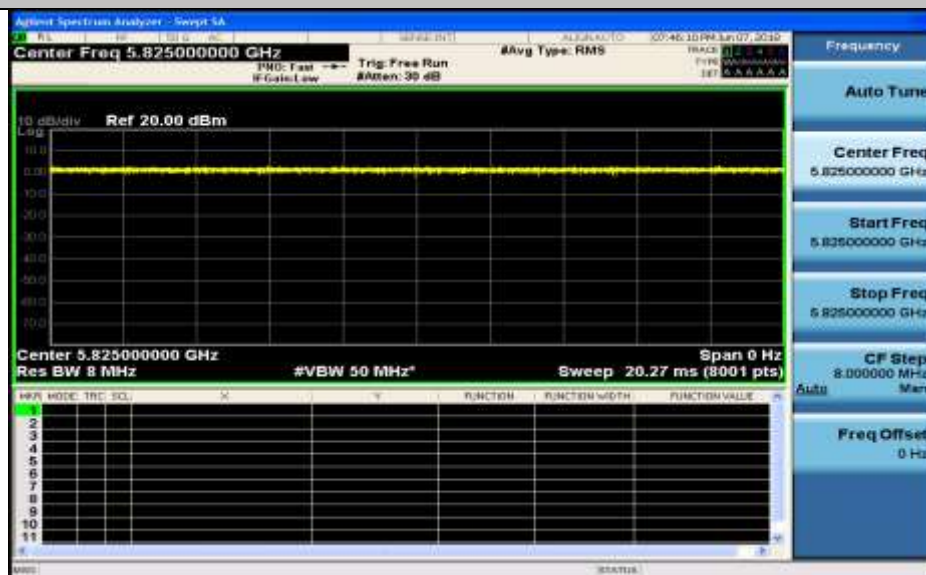
Duty Cycle_11AC20_5745_Ant2



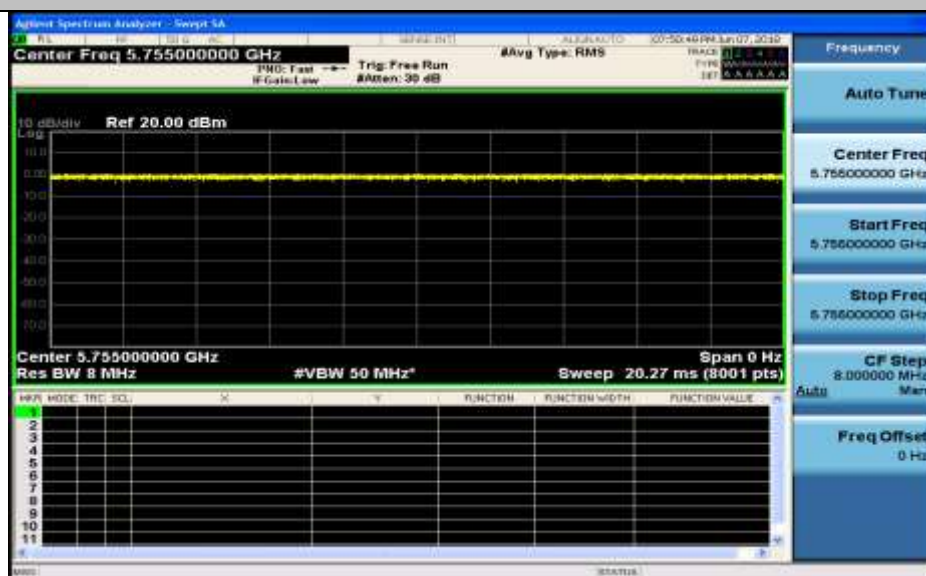
Duty Cycle_11AC20_5785_Ant2



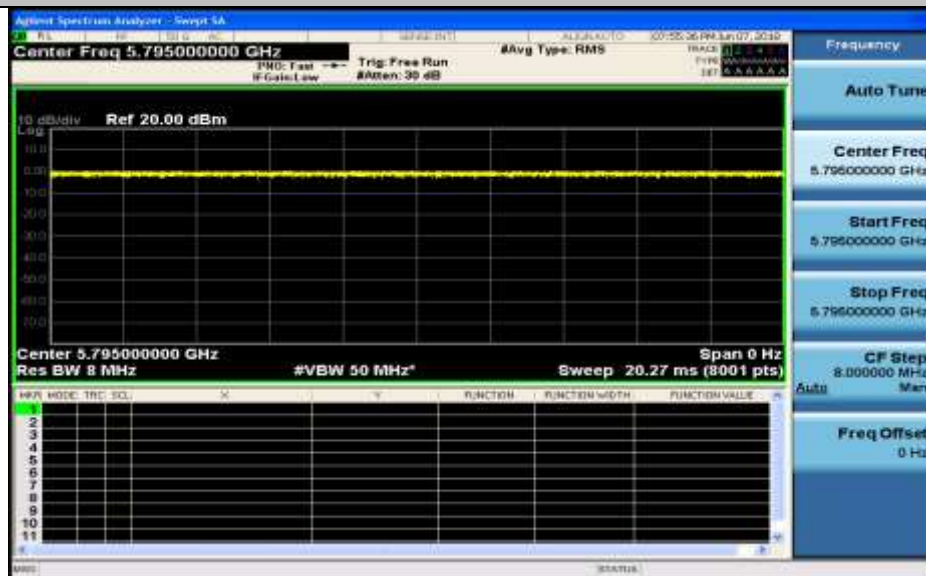
Duty Cycle_11AC20_5825_Ant2



Duty Cycle_11AC40_5755_Ant2



Duty Cycle_11AC40_5795_Ant2



Duty Cycle_11AC80_5775_Ant2

