	Ant2	5700	13.07	<=24	PASS
	Ant1	5745	11.88	<=30	PASS
	Ant2	5745	12.07	<=30	PASS
	Ant1	5785	11.91	<=30	PASS
	Ant2	5785	12.64	<=30	PASS
	Ant1	5825	12.43	<=30	PASS
	Ant2	5825	12.46	<=30	PASS
11N20MIMO	Ant1	5180	13.82	<=23.65	PASS
	Ant2	5180	14.12	<=23.65	PASS
	total	5180	17.00	<=23.65	PASS
	Ant1	5200	15.83	<=23.65	PASS
	Ant2	5200	15.86	<=23.65	PASS
	total	5200	18.90	<=23.65	PASS
	Ant1	5240	16.02	<=23.65	PASS
	Ant2	5240	15.78	<=23.65	PASS
	total	5240	18.91	<=23.65	PASS
	Ant1	5260	17.34	<=23.65	PASS
	Ant2	5260	16.72	<=23.65	PASS
	total	5260	20.10	<=23.65	PASS
	Ant1	5280	17.30	<=23.65	PASS
	Ant2	5280	16.79	<=23.65	PASS
	total	5280	20.10	<=23.65	PASS
	Ant1	5320	14.65	<=23.65	PASS
	Ant2	5320	15.41	<=23.65	PASS
	total	5320	18.10	<=23.65	PASS
	Ant1	5500	12.89	<=23.65	PASS
	Ant2	5500	11.92	<=23.65	PASS
	total	5500	15.40	<=23.65	PASS
	Ant1	5580	12.03	<=23.65	PASS
	Ant2	5580	12.43	<=23.65	PASS
	total	5580	15.20	<=23.65	PASS
	Ant1	5700	13.38	<=23.65	PASS
	Ant2	5700	12.83	<=23.65	PASS
	total	5700	16.10	<=23.65	PASS
	Ant1	5745	11.86	<=29.65	PASS
	Ant2	5745	12.02	<=29.65	PASS
	total	5745	15.00	<=29.65	PASS
	Ant1	5785	11.86	<=29.65	PASS
	Ant2	5785	12.70	<=29.65	PASS
	total	5785	15.30	<=29.65	PASS
	Ant1	5825	12.56	<=29.65	PASS
	Ant2	5825	12.30	<=29.65	PASS
	total	5825	15.40	<=29.65	PASS
11N40MIMO	Ant1	5190	9.78	<=23.65	PASS
	Ant2	5190	9.85	<=23.65	PASS
	total	5190	12.80	<=23.65	PASS
	Ant1	5230	15.95	<=23.65	PASS
	Ant2	5230	15.01	<=23.65	PASS
	total	5230	18.50	<=23.65	PASS
	Ant1	5270	16.16	<=23.65	PASS
	Ant2	5270	15.35	<=23.65	PASS

	total	5270	18.80	<=23.65	PASS
	Ant1	5310	12.95	<=23.65	PASS
	Ant2	5310	11.82	<=23.65	PASS
	total	5310	15.40	<=23.65	PASS
	Ant1	5510	10.25	<=23.65	PASS
	Ant2	5510	8.96	<=23.65	PASS
	total	5510	12.70	<=23.65	PASS
	Ant1	5550	13.79	<=23.65	PASS
	Ant2	5550	13.76	<=23.65	PASS
	total	5550	16.80	<=23.65	PASS
	Ant1	5670	15.81	<=23.65	PASS
	Ant2	5670	14.93	<=23.65	PASS
	total	5670	18.40	<=23.65	PASS
	Ant1	5755	14.05	<=29.65	PASS
	Ant2	5755	14.37	<=29.65	PASS
	total	5755	17.20	<=29.65	PASS
	Ant1	5795	14.10	<=29.65	PASS
	Ant2	5795	14.57	<=29.65	PASS
	total	5795	17.40	<=29.65	PASS
11AC20MIMO	Ant1	5180	13.64	<=23.65	PASS
	Ant2	5180	13.97	<=23.65	PASS
	total	5180	16.80	<=23.65	PASS
	Ant1	5200	15.68	<=23.65	PASS
	Ant2	5200	15.63	<=23.65	PASS
	total	5200	18.70	<=23.65	PASS
	Ant1	5240	15.58	<=23.65	PASS
	Ant2	5240	15.70	<=23.65	PASS
	total	5240	18.65	<=23.65	PASS
	Ant1	5260	17.17	<=23.65	PASS
	Ant2	5260	16.55	<=23.65	PASS
	total	5260	19.90	<=23.65	PASS
	Ant1	5280	16.94	<=23.65	PASS
	Ant2	5280	16.62	<=23.65	PASS
	total	5280	19.80	<=23.65	PASS
	Ant1	5320	14.48	<=23.65	PASS
	Ant2	5320	15.29	<=23.65	PASS
	total	5320	17.90	<=23.65	PASS
	Ant1	5500	12.73	<=23.65	PASS
	Ant2	5500	11.65	<=23.65	PASS
	total	5500	15.20	<=23.65	PASS
	Ant1	5580	11.87	<=23.65	PASS
	Ant2	5580	12.32	<=23.65	PASS
	total	5580	15.10	<=23.65	PASS
	Ant1	5700	13.39	<=23.65	PASS
	Ant2	5700	12.68	<=23.65	PASS
	total	5700	16.10	<=23.65	PASS
	Ant1	5745	11.49	<=29.65	PASS
	Ant2	5745	11.75	<=29.65	PASS
	total	5745	14.60	<=29.65	PASS
	Ant1	5785	11.76	<=29.65	PASS
	Ant2	5785	12.53	<=29.65	PASS

	total	5785	15.20	<=29.65	PASS
	Ant1	5825	12.30	<=29.65	PASS
	Ant2	5825	12.02	<=29.65	PASS
	total	5825	15.20	<=29.65	PASS
11AC40MIMO	Ant1	5190	9.48	<=23.65	PASS
	Ant2	5190	9.72	<=23.65	PASS
	total	5190	12.60	<=23.65	PASS
	Ant1	5230	15.62	<=23.65	PASS
	Ant2	5230	14.85	<=23.65	PASS
	total	5230	18.30	<=23.65	PASS
	Ant1	5270	15.56	<=23.65	PASS
	Ant2	5270	15.21	<=23.65	PASS
	total	5270	18.40	<=23.65	PASS
	Ant1	5310	12.76	<=23.65	PASS
	Ant2	5310	11.82	<=23.65	PASS
	total	5310	15.30	<=23.65	PASS
	Ant1	5510	9.93	<=23.65	PASS
	Ant2	5510	8.71	<=23.65	PASS
	total	5510	12.40	<=23.65	PASS
	Ant1	5550	13.43	<=23.65	PASS
	Ant2	5550	13.54	<=23.65	PASS
	total	5550	16.50	<=23.65	PASS
	Ant1	5670	15.55	<=23.65	PASS
	Ant2	5670	14.69	<=23.65	PASS
	total	5670	18.20	<=23.65	PASS
	Ant1	5755	13.07	<=29.65	PASS
	Ant2	5755	14.24	<=29.65	PASS
	total	5755	17.10	<=29.65	PASS
	Ant1	5795	13.54	<=29.65	PASS
	Ant2	5795	14.65	<=29.65	PASS
	total	5795	17.10	<=29.65	PASS
11AC80MIMO	Ant1	5210	8.75	<=23.65	PASS
	Ant2	5210	8.78	<=23.65	PASS
	total	5210	11.80	<=23.65	PASS
	Ant1	5290	10.79	<=23.65	PASS
	Ant2	5290	10.34	<=23.65	PASS
	total	5290	13.60	<=23.65	PASS
	Ant1	5530	7.27	<=23.65	PASS
	Ant2	5530	6.40	<=23.65	PASS
	total	5530	9.90	<=23.65	PASS
	Ant1	5610	12.23	<=23.65	PASS
	Ant2	5610	12.62	<=23.65	PASS
	total	5610	15.40	<=23.65	PASS
	Ant1	5775	10.65	<=29.65	PASS
	Ant2	5775	12.21	<=29.65	PASS
	total	5775	14.50	<=29.65	PASS

6. Power Spectral Density

6.1. Block diagram of test setup

Same with 4.1

6.2. Limits

FCC Part15, Subpart E		
Test Item	Limit	Frequency Range (MHz)
Power Spectral Density	For FCC: Other than Mobile and portable: 17 dBm/MHz Mobile and portable client devices: 11 dBm/MHz	5150 - 5250
	11 dBm/MHz	5250 - 5350
	11 dBm/MHz	5470 - 5725
	30 dBm/500 kHz	5725 - 5850

6.3. Test procedure

The transmitter output was connected to a spectrum analyzer. Power density was measured by spectrum analyzer with 1 MHz RBW and 3 MHz VBW.
Connect the UUT to the spectrum analyser and use the following settings:

5150 MHz ~ 5250 MHz, 5250 MHz ~ 5350 MHz, 5470 MHz ~ 5725 MHz

Center Frequency	The centre frequency of the channel under test
Detector	RMS
RBW	1 MHz
VBW	≥3 × RBW
Span	Encompass the entire emissions bandwidth (EBW) of the signal
Trace	Max hold
Sweep time	Auto

5725 MHz - 5850 MHz

Center Frequency	The centre frequency of the channel under test
Detector	RMS
RBW	500 kHz
VBW	≥3 × RBW
Span	Encompass the entire emissions bandwidth (EBW) of the signal
Trace	Max hold
Sweep time	Auto

6.4. Test result

(5150 - 5250)

Test Mode	Ant	Test Channel	PSD [dBm/MHz]	Limit [dBm/MHz]	Verdict
11A	ANT1	5180	4.60	11	PASS
11A	ANT2	5180	3.87	11	PASS
11A	ANT1	5200	6.01	11	PASS
11A	ANT2	5200	4.91	11	PASS
11A	ANT1	5240	5.95	11	PASS
11A	ANT2	5240	4.84	11	PASS
11N20MIMO	ANT1	5180	4.87	10.65	PASS
11N20MIMO	ANT2	5180	4.10	10.65	PASS
11N20MIMO	ANT1+2	5180	7.51	10.65	PASS
11N20MIMO	ANT1	5200	5.93	10.65	PASS
11N20MIMO	ANT2	5200	5.41	10.65	PASS
11N20MIMO	ANT1+2	5200	8.69	10.65	PASS
11N20MIMO	ANT1	5240	4.91	10.65	PASS
11N20MIMO	ANT2	5240	4.93	10.65	PASS
11N20MIMO	ANT1+2	5240	7.93	10.65	PASS
11N40MIMO	ANT1	5190	-2.77	10.65	PASS
11N40MIMO	ANT2	5190	-3.35	10.65	PASS
11N40MIMO	ANT1+2	5190	-0.04	10.65	PASS
11N40MIMO	ANT1	5230	1.34	10.65	PASS
11N40MIMO	ANT2	5230	1.08	10.65	PASS
11N40MIMO	ANT1+2	5230	4.22	10.65	PASS
11AC20MIMO	ANT1	5180	4.07	10.65	PASS
11AC20MIMO	ANT2	5180	3.32	10.65	PASS
11AC20MIMO	ANT1+2	5180	6.72	10.65	PASS
11AC20MIMO	ANT1	5200	5.85	10.65	PASS
11AC20MIMO	ANT2	5200	4.90	10.65	PASS
11AC20MIMO	ANT1+2	5200	8.41	10.65	PASS
11AC20MIMO	ANT1	5240	5.52	10.65	PASS
11AC20MIMO	ANT2	5240	4.89	10.65	PASS
11AC20MIMO	ANT1+2	5240	8.23	10.65	PASS
11AC40MIMO	ANT1	5190	-2.16	10.65	PASS
11AC40MIMO	ANT2	5190	-4.15	10.65	PASS
11AC40MIMO	ANT1+2	5190	-0.03	10.65	PASS
11AC40MIMO	ANT1	5230	2.93	10.65	PASS
11AC40MIMO	ANT2	5230	2.15	10.65	PASS

11AC40MIMO	ANT1+2	5230	5.57	10.65	PASS
11AC80MIMO	ANT1	5210	-6.40	10.65	PASS
11AC80MIMO	ANT2	5210	-6.28	10.65	PASS
11AC80MIMO	ANT1+2	5210	-3.33	10.65	PASS

(5250 - 5350, 5470 - 5725)

Test Mode	Ant	Test Channel	PSD [dBm/MHz]	Limit [dBm/MHz]	Verdict
11A	ANT1	5260	6.97	11	PASS
11A	ANT2	5260	6.10	11	PASS
11A	ANT1	5280	7.00	11	PASS
11A	ANT2	5280	6.51	11	PASS
11A	ANT1	5320	4.99	11	PASS
11A	ANT2	5320	5.42	11	PASS
11A	ANT1	5500	2.09	11	PASS
11A	ANT2	5500	1.99	11	PASS
11A	ANT1	5580	2.14	11	PASS
11A	ANT2	5580	1.27	11	PASS
11A	ANT1	5700	2.39	11	PASS
11A	ANT2	5700	1.86	11	PASS
11N20MIMO	ANT1	5260	6.18	10.65	PASS
11N20MIMO	ANT2	5260	6.51	10.65	PASS
11N20MIMO	ANT1+2	5260	9.36	10.65	PASS
11N20MIMO	ANT1	5280	6.82	10.65	PASS
11N20MIMO	ANT2	5280	6.98	10.65	PASS
11N20MIMO	ANT1+2	5280	9.91	10.65	PASS
11N20MIMO	ANT1	5320	4.77	10.65	PASS
11N20MIMO	ANT2	5320	5.19	10.65	PASS
11N20MIMO	ANT1+2	5320	8.00	10.65	PASS
11N20MIMO	ANT1	5500	1.37	10.65	PASS
11N20MIMO	ANT2	5500	1.51	10.65	PASS
11N20MIMO	ANT1+2	5500	4.45	10.65	PASS
11N20MIMO	ANT1	5580	2.15	10.65	PASS
11N20MIMO	ANT2	5580	1.52	10.65	PASS
11N20MIMO	ANT1+2	5580	4.86	10.65	PASS
11N20MIMO	ANT1	5700	2.50	10.65	PASS
11N20MIMO	ANT2	5700	1.91	10.65	PASS
11N20MIMO	ANT1+2	5700	5.23	10.65	PASS

11N40MIMO	ANT1	5270	2.53	10.65	PASS
11N40MIMO	ANT2	5270	2.54	10.65	PASS
11N40MIMO	ANT1+2	5270	5.55	10.65	PASS
11N40MIMO	ANT1	5310	0.22	10.65	PASS
11N40MIMO	ANT2	5310	-1.05	10.65	PASS
11N40MIMO	ANT1+2	5310	2.64	10.65	PASS
11N40MIMO	ANT1	5510	-3.13	10.65	PASS
11N40MIMO	ANT2	5510	-4.28	10.65	PASS
11N40MIMO	ANT1+2	5510	-0.66	10.65	PASS
11N40MIMO	ANT1	5550	0.78	10.65	PASS
11N40MIMO	ANT2	5550	0.31	10.65	PASS
11N40MIMO	ANT1+2	5550	3.56	10.65	PASS
11N40MIMO	ANT1	5670	2.14	10.65	PASS
11N40MIMO	ANT2	5670	2.08	10.65	PASS
11N40MIMO	ANT1+2	5670	5.12	10.65	PASS
11AC20MIMO	ANT1	5260	6.83	10.65	PASS
11AC20MIMO	ANT2	5260	6.23	10.65	PASS
11AC20MIMO	ANT1+2	5260	9.55	10.65	PASS
11AC20MIMO	ANT1	5280	6.49	10.65	PASS
11AC20MIMO	ANT2	5280	5.97	10.65	PASS
11AC20MIMO	ANT1+2	5280	9.25	10.65	PASS
11AC20MIMO	ANT1	5320	4.82	10.65	PASS
11AC20MIMO	ANT2	5320	4.73	10.65	PASS
11AC20MIMO	ANT1+2	5320	7.79	10.65	PASS
11AC20MIMO	ANT1	5500	2.06	10.65	PASS
11AC20MIMO	ANT2	5500	0.86	10.65	PASS
11AC20MIMO	ANT1+2	5500	4.51	10.65	PASS
11AC20MIMO	ANT1	5580	2.37	10.65	PASS
11AC20MIMO	ANT2	5580	1.14	10.65	PASS
11AC20MIMO	ANT1+2	5580	4.81	10.65	PASS
11AC20MIMO	ANT1	5700	2.55	10.65	PASS
11AC20MIMO	ANT2	5700	1.61	10.65	PASS
11AC20MIMO	ANT1+2	5700	5.12	10.65	PASS
11AC40MIMO	ANT1	5270	2.03	10.65	PASS
11AC40MIMO	ANT2	5270	1.88	10.65	PASS
11AC40MIMO	ANT1+2	5270	4.97	10.65	PASS
11AC40MIMO	ANT1	5310	-0.27	10.65	PASS
11AC40MIMO	ANT2	5310	-1.15	10.65	PASS

11AC40MIMO	ANT1+2	5310	2.32	10.65	PASS
11AC40MIMO	ANT1	5510	-3.61	10.65	PASS
11AC40MIMO	ANT2	5510	-4.89	10.65	PASS
11AC40MIMO	ANT1+2	5510	-1.19	10.65	PASS
11AC40MIMO	ANT1	5550	0.79	10.65	PASS
11AC40MIMO	ANT2	5550	0.30	10.65	PASS
11AC40MIMO	ANT1+2	5550	3.56	10.65	PASS
11AC40MIMO	ANT1	5670	1.89	10.65	PASS
11AC40MIMO	ANT2	5670	1.83	10.65	PASS
11AC40MIMO	ANT1+2	5670	4.87	10.65	PASS
11AC80MIMO	ANT1	5290	-4.54	10.65	PASS
11AC80MIMO	ANT2	5290	-5.29	10.65	PASS
11AC80MIMO	ANT1+2	5290	-1.89	10.65	PASS
11AC80MIMO	ANT1	5530	-7.64	10.65	PASS
11AC80MIMO	ANT2	5530	-9.10	10.65	PASS
11AC80MIMO	ANT1+2	5530	-5.30	10.65	PASS
11AC80MIMO	ANT1	5610	-2.90	10.65	PASS
11AC80MIMO	ANT2	5610	-3.27	10.65	PASS
11AC80MIMO	ANT1+2	5610	-0.07	10.65	PASS

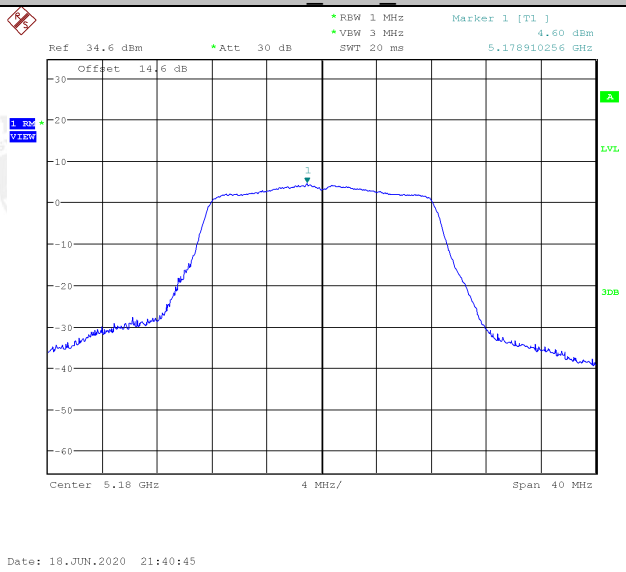
(5725 - 5850)

Test Mode	Ant	Test Channel	PSD [dBm/500kHz]	Limit [dBm/500kHz]	Verdict
11A	ANT1	5745	-0.20	30	PASS
11A	ANT2	5745	-0.98	30	PASS
11A	ANT1	5785	1.17	30	PASS
11A	ANT2	5785	0.97	30	PASS
11A	ANT1	5825	0.33	30	PASS
11A	ANT2	5825	-0.41	30	PASS
11N20MIMO	ANT1	5745	-1.12	29.65	PASS
11N20MIMO	ANT2	5745	-0.98	29.65	PASS
11N20MIMO	ANT1+2	5745	1.96	29.65	PASS
11N20MIMO	ANT1	5785	1.04	29.65	PASS
11N20MIMO	ANT2	5785	1.28	29.65	PASS
11N20MIMO	ANT1+2	5785	4.17	29.65	PASS
11N20MIMO	ANT1	5825	0.49	29.65	PASS
11N20MIMO	ANT2	5825	-0.15	29.65	PASS
11N20MIMO	ANT1+2	5825	3.19	29.65	PASS

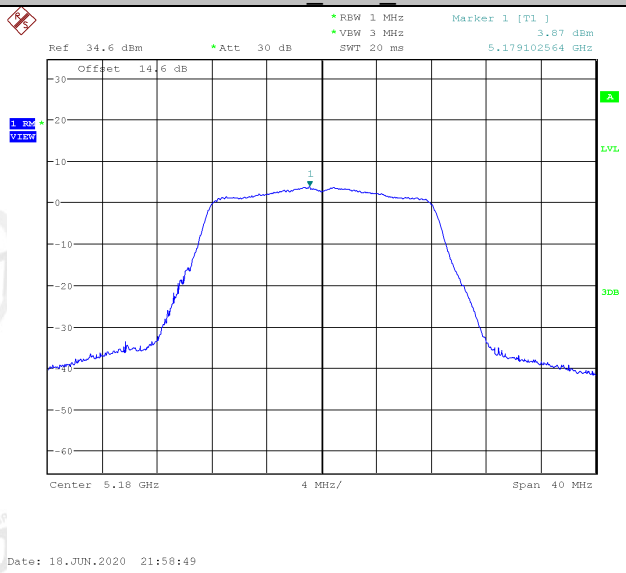
11N40MIMO	ANT1	5755	-0.31	29.65	PASS
11N40MIMO	ANT2	5755	-0.27	29.65	PASS
11N40MIMO	ANT1+2	5755	2.72	29.65	PASS
11N40MIMO	ANT1	5795	-0.21	29.65	PASS
11N40MIMO	ANT2	5795	-0.12	29.65	PASS
11N40MIMO	ANT1+2	5795	2.85	29.65	PASS
11AC20MIMO	ANT1	5745	-0.26	29.65	PASS
11AC20MIMO	ANT2	5745	-0.57	29.65	PASS
11AC20MIMO	ANT1+2	5745	2.60	29.65	PASS
11AC20MIMO	ANT1	5785	0.95	29.65	PASS
11AC20MIMO	ANT2	5785	0.91	29.65	PASS
11AC20MIMO	ANT1+2	5785	3.94	29.65	PASS
11AC20MIMO	ANT1	5825	0.11	29.65	PASS
11AC20MIMO	ANT2	5825	-0.92	29.65	PASS
11AC20MIMO	ANT1+2	5825	2.64	29.65	PASS
11AC40MIMO	ANT1	5755	-0.16	29.65	PASS
11AC40MIMO	ANT2	5755	-0.29	29.65	PASS
11AC40MIMO	ANT1+2	5755	2.87	29.65	PASS
11AC40MIMO	ANT1	5795	0.23	29.65	PASS
11AC40MIMO	ANT2	5795	7.61	29.65	PASS
11AC40MIMO	ANT1+2	5795	8.34	29.65	PASS
11AC80MIMO	ANT1	5775	-4.60	29.65	PASS
11AC80MIMO	ANT2	5775	-4.44	29.65	PASS
11AC80MIMO	ANT1+2	5775	-1.51	29.65	PASS

6.5. Original test data

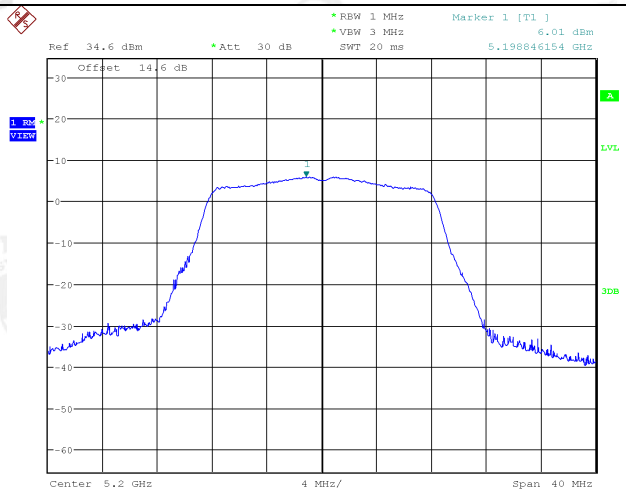
11A_Ant1_5180



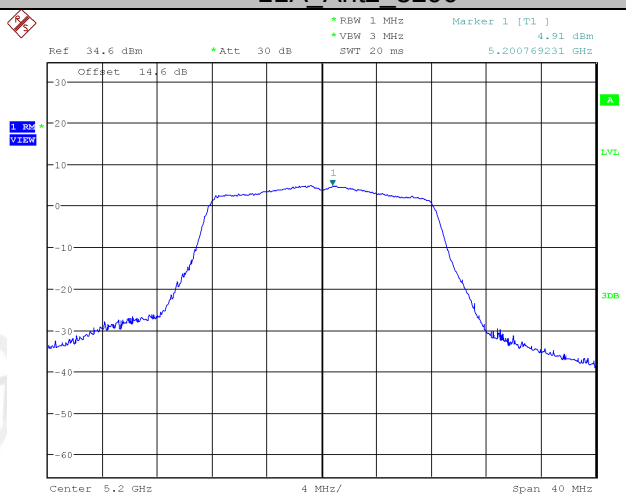
11A_Ant2_5180



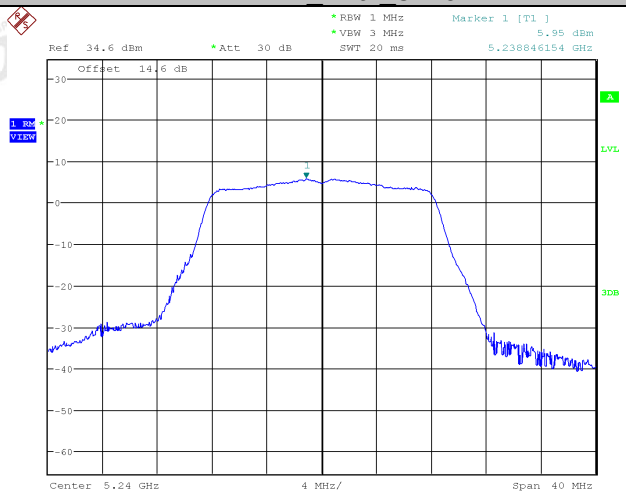
11A_Ant1_5200



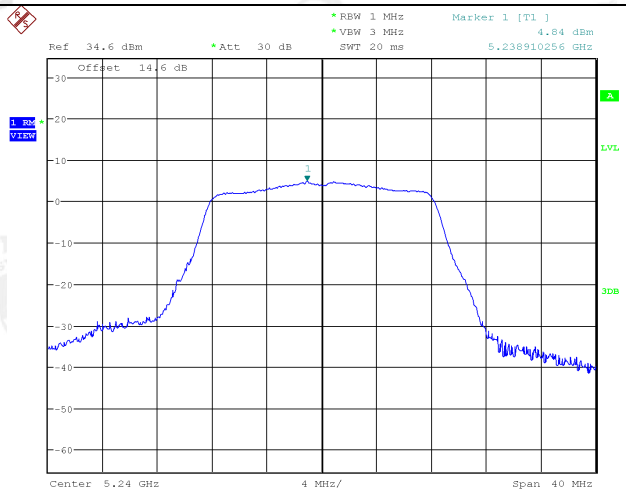
11A_Ant2_5200



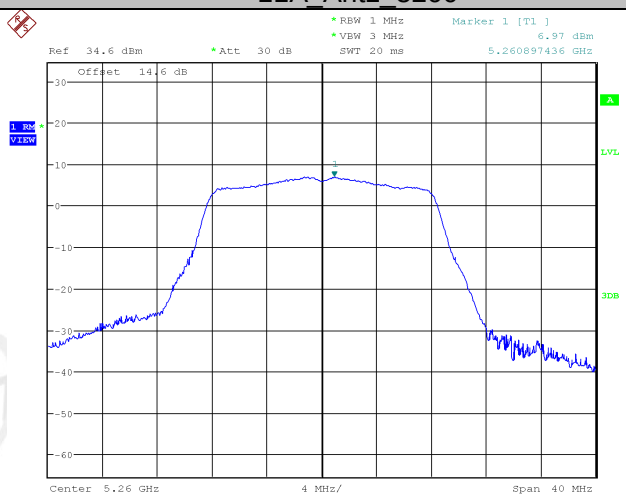
11A_Ant1_5240



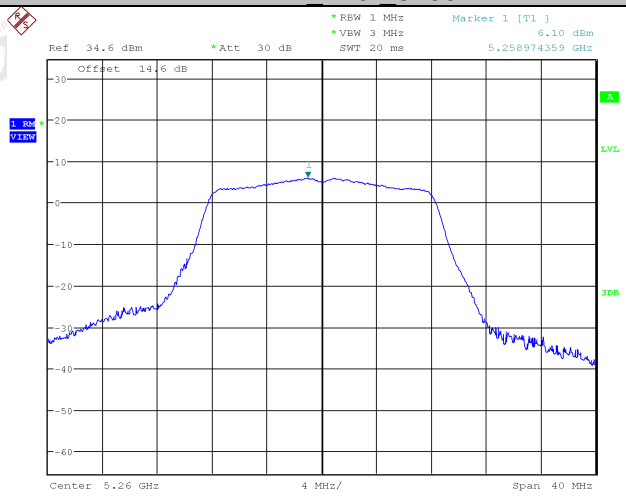
11A_Ant2_5240



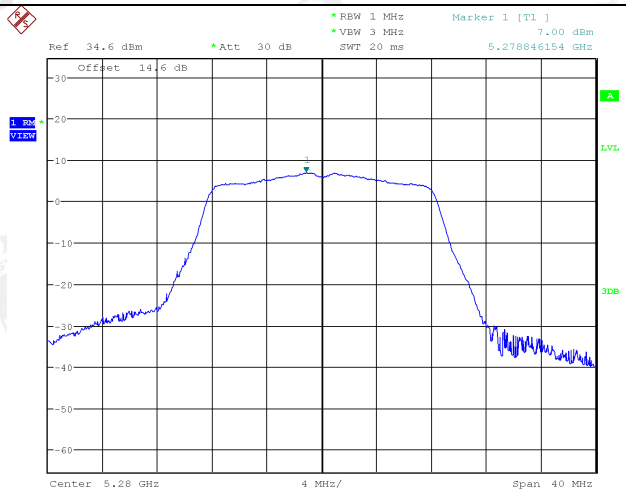
11A_Ant1_5260



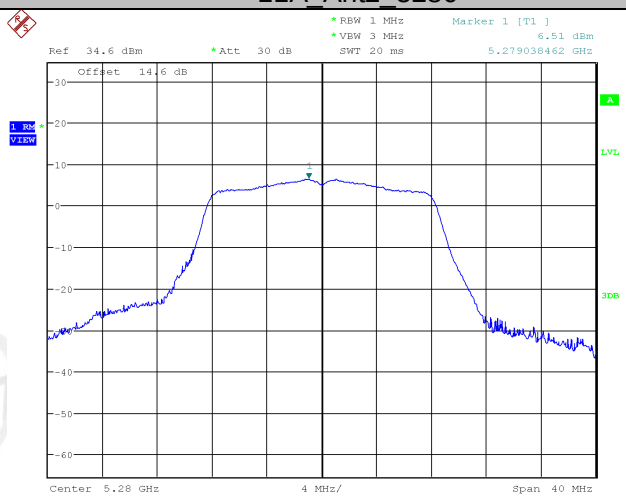
11A_Ant2_5260



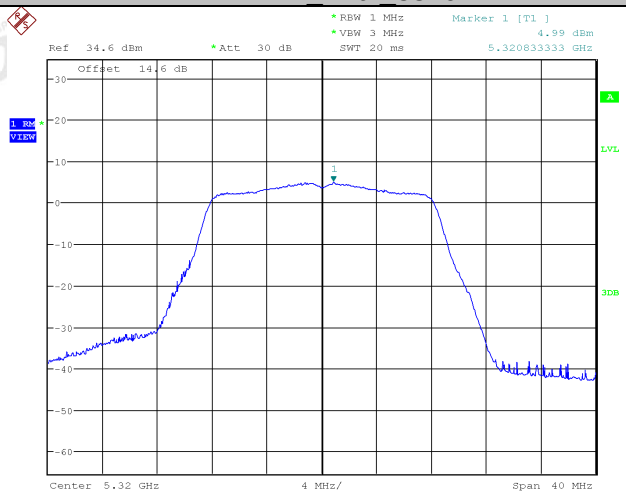
11A_Ant1_5280



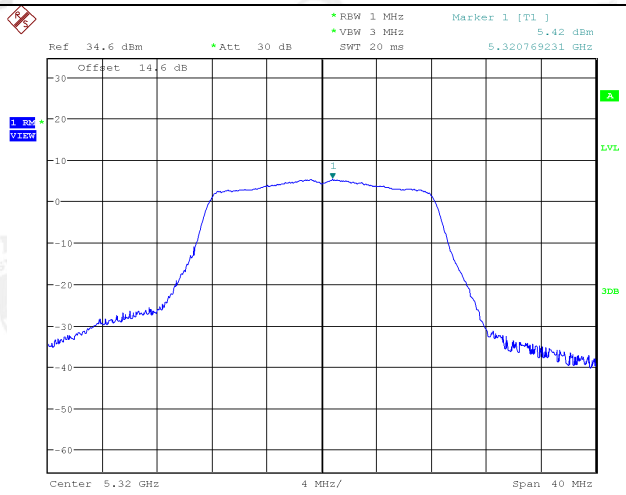
11A_Ant2_5280



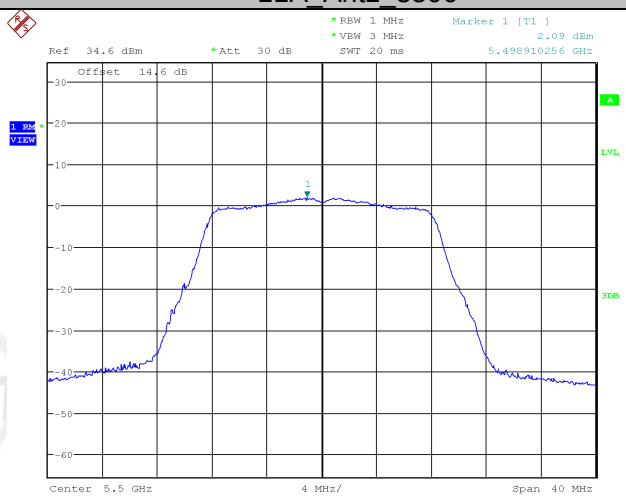
11A_Ant1_5320



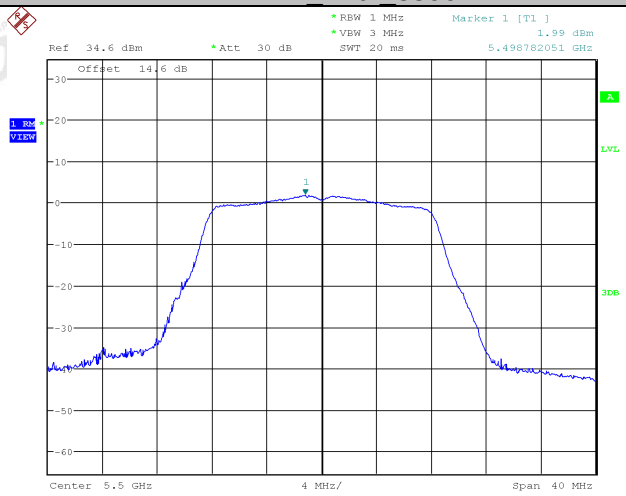
11A_Ant2_5320



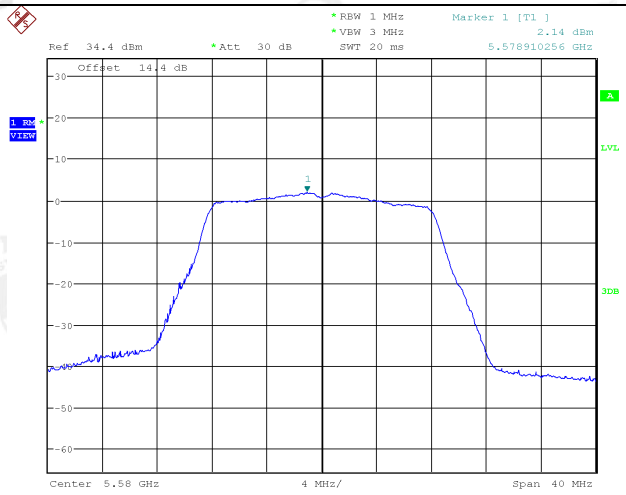
11A_Ant1_5500



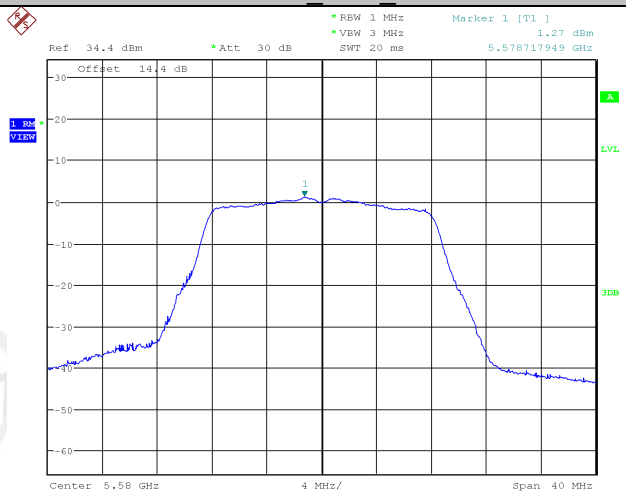
11A_Ant2_5500



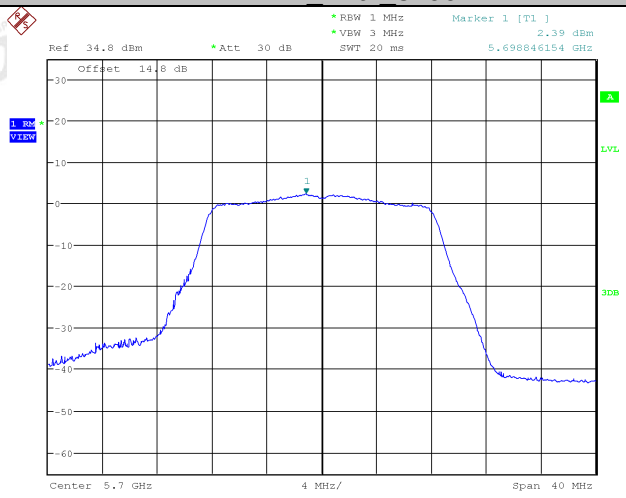
11A_Ant1_5580



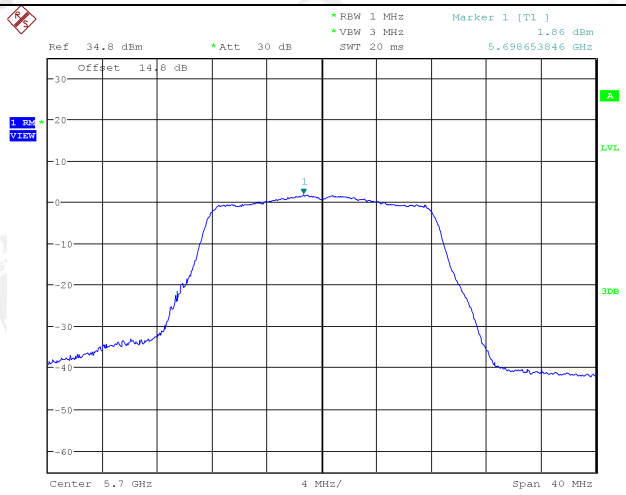
11A_Ant2_5580



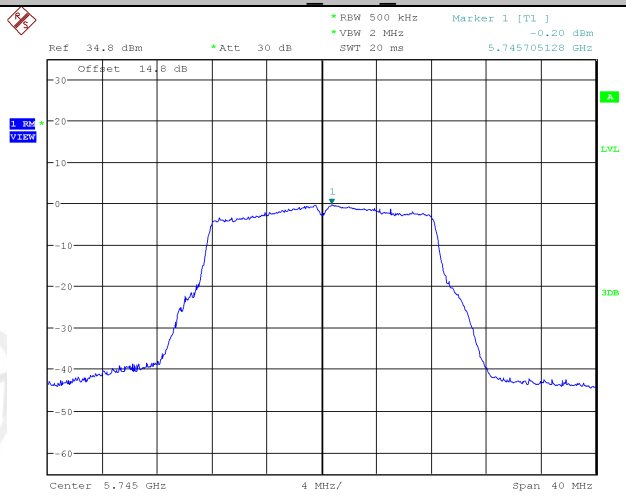
11A_Ant1_5700



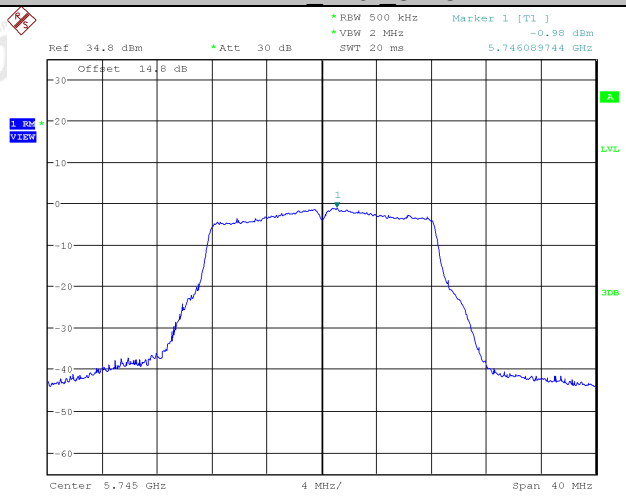
11A_Ant2_5700



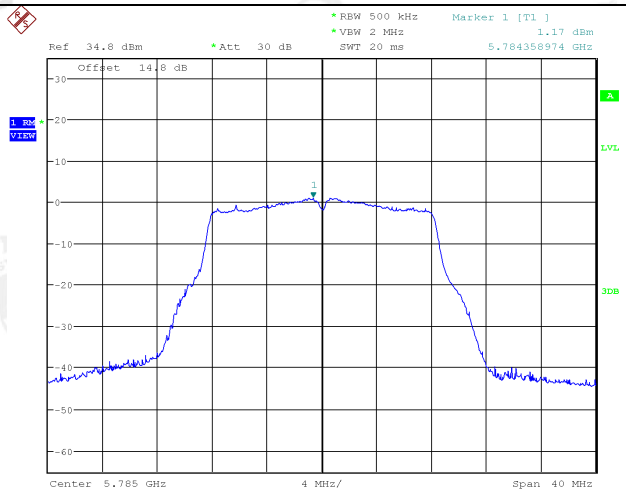
11A_Ant1_5745



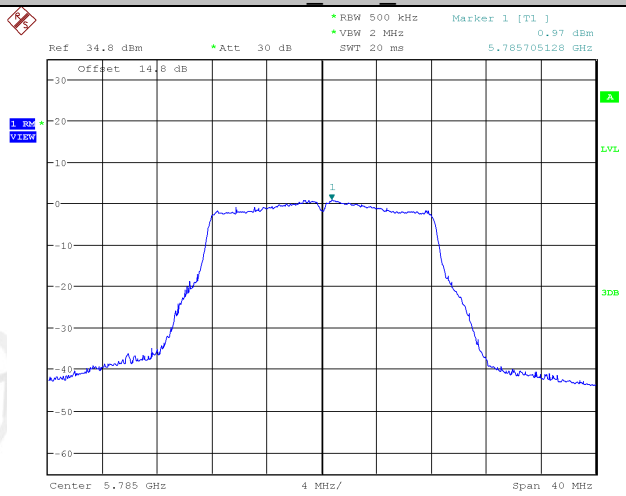
11A_Ant2_5745



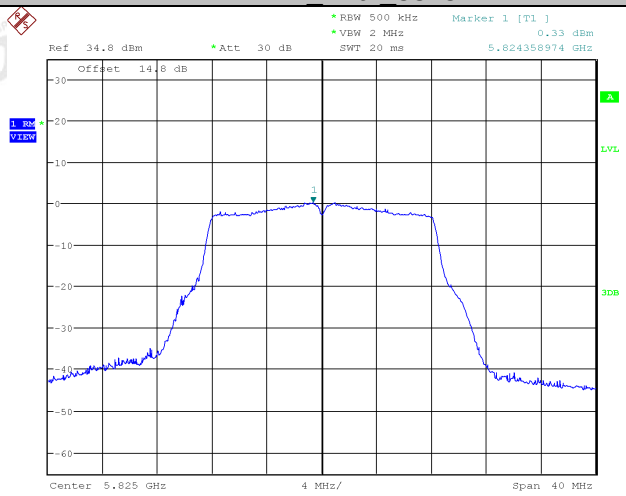
11A_Ant1_5785



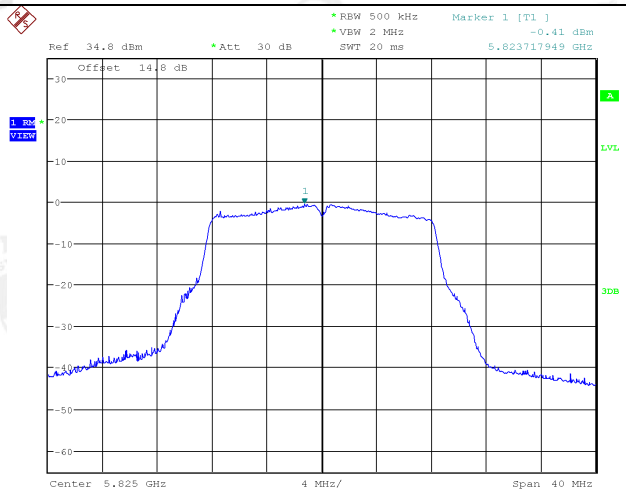
11A_Ant2_5785



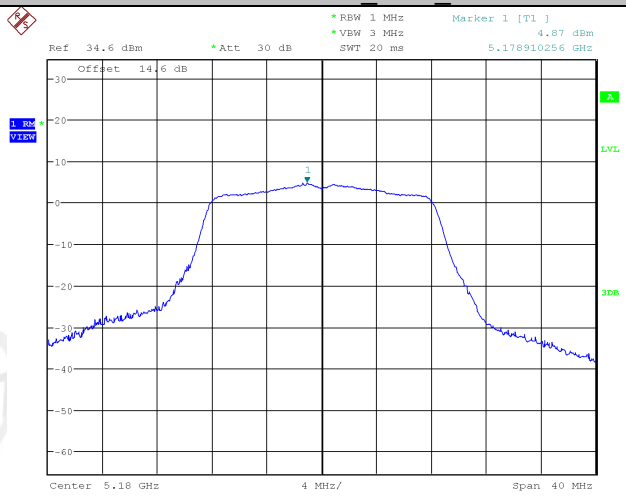
11A_Ant1_5825



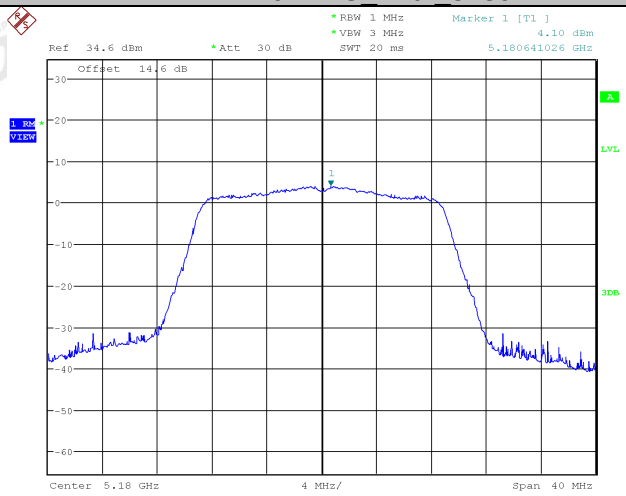
11A_Ant2_5825



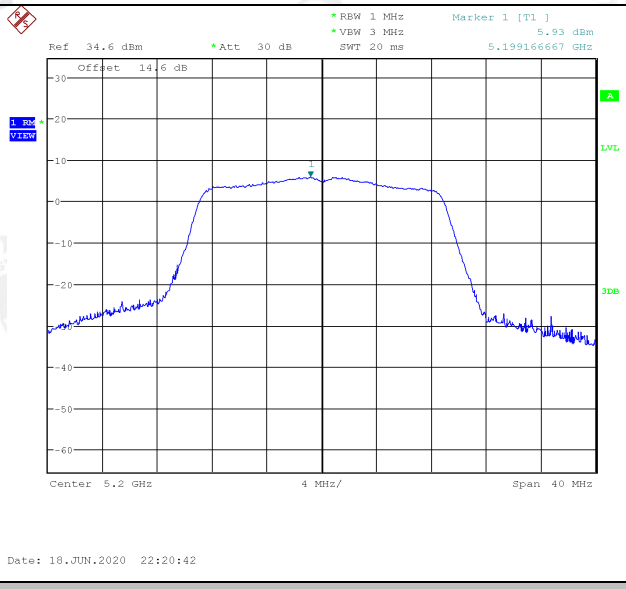
11N20MIMO_Ant1_5180



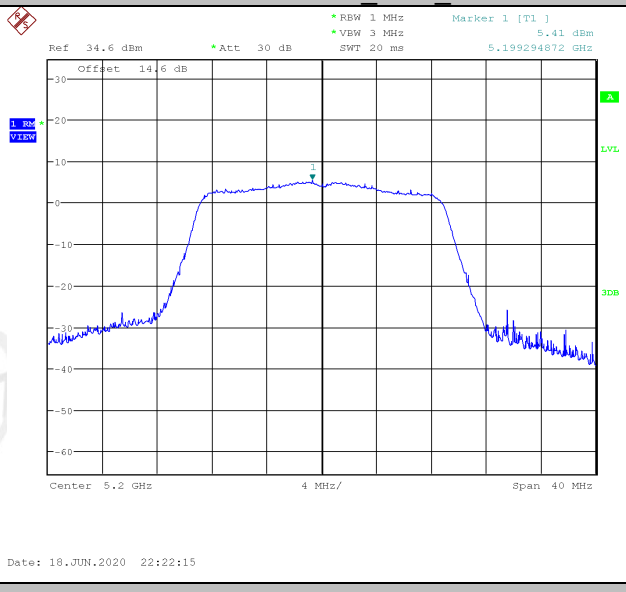
11N20MIMO_Ant2_5180



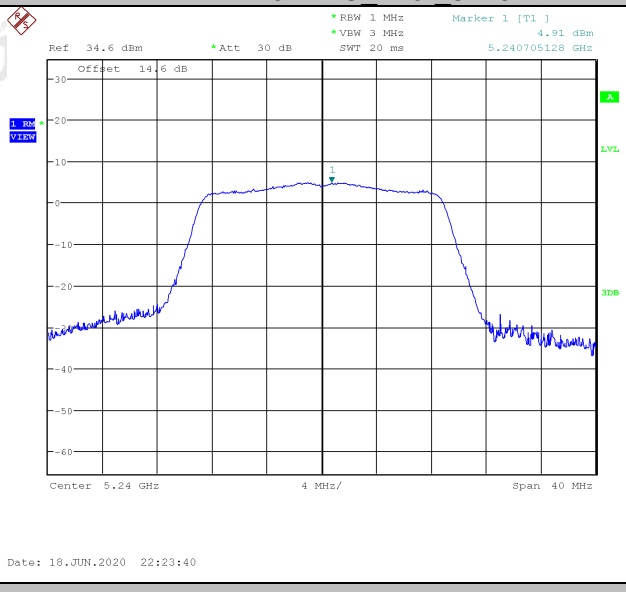
11N20MIMO_Ant1_5200



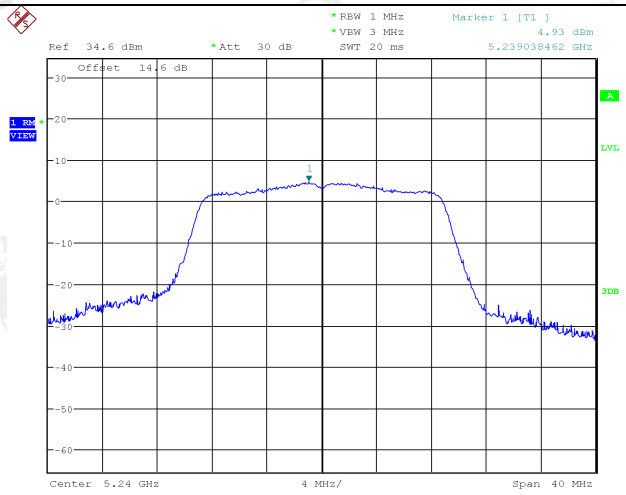
11N20MIMO_Ant2_5200



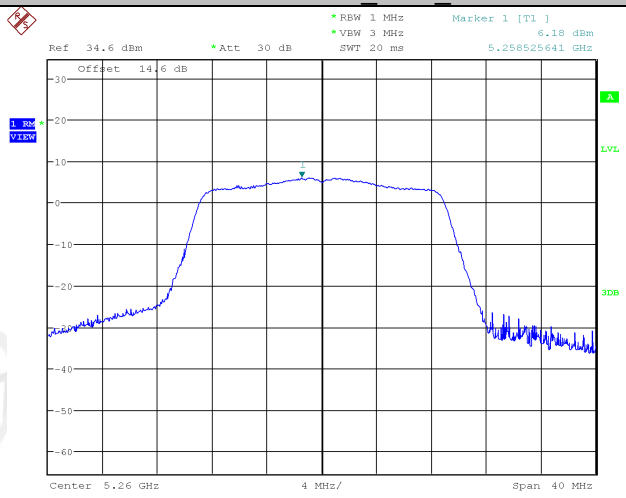
11N20MIMO_Ant1_5240



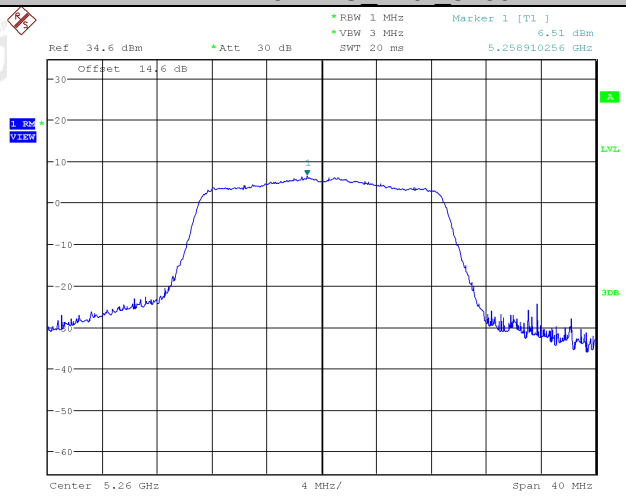
11N20MIMO_Ant2_5240



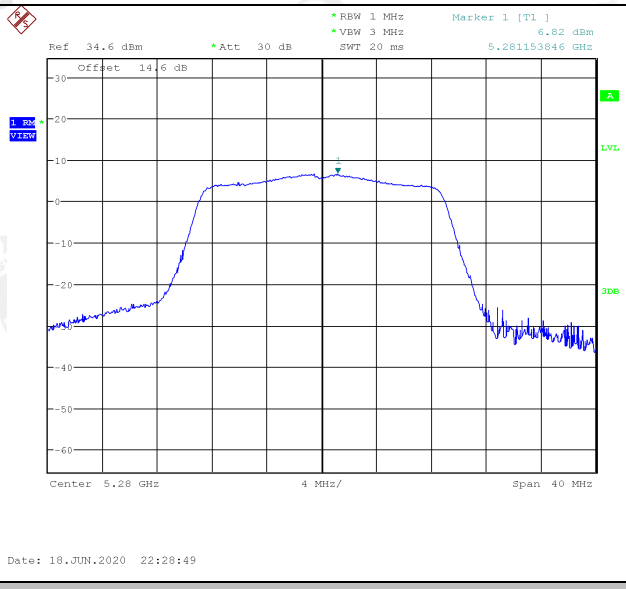
11N20MIMO_Ant1_5260



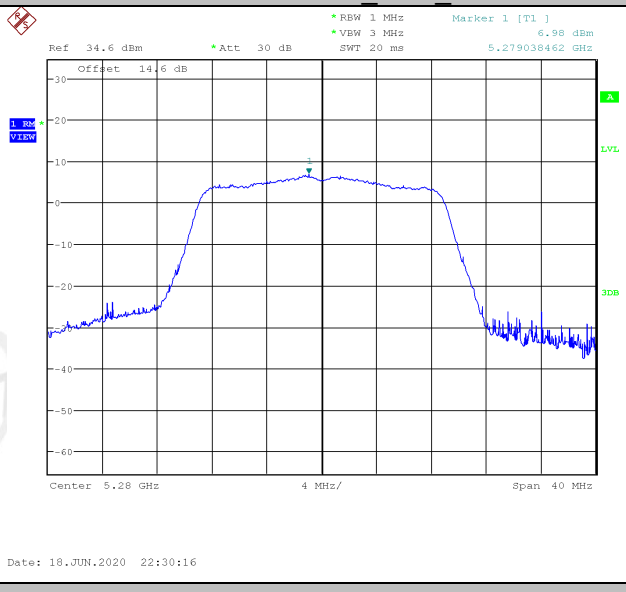
11N20MIMO_Ant2_5260



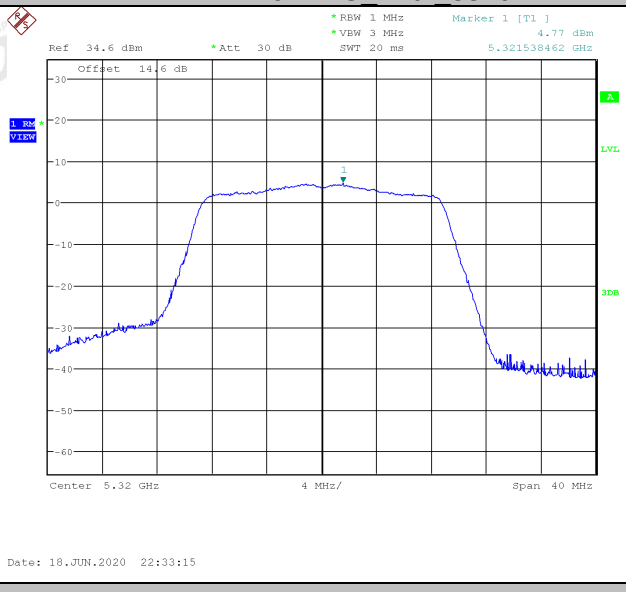
11N20MIMO_Ant1_5280



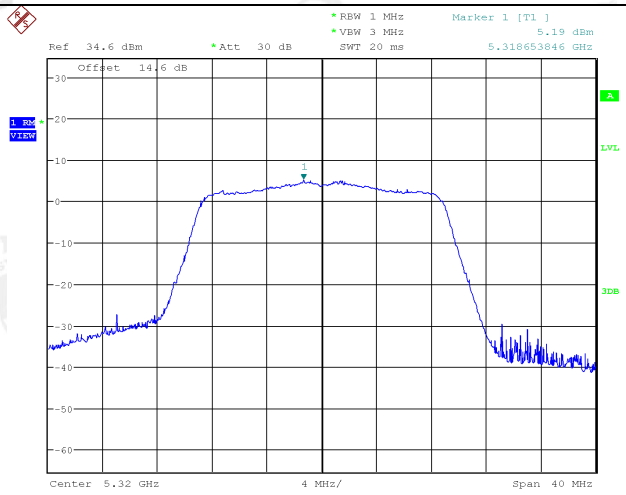
11N20MIMO_Ant2_5280



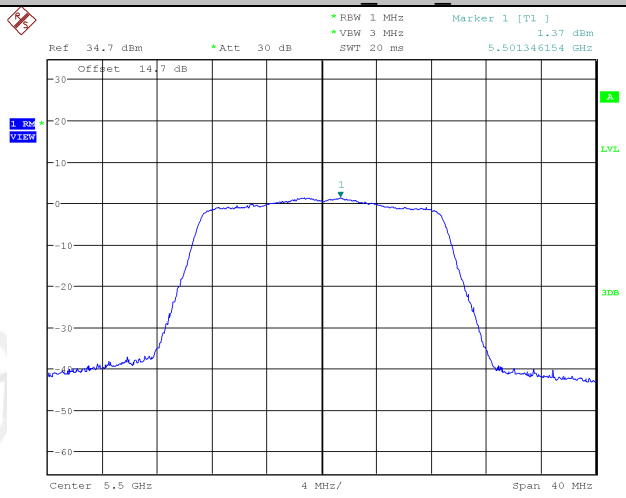
11N20MIMO_Ant1_5320



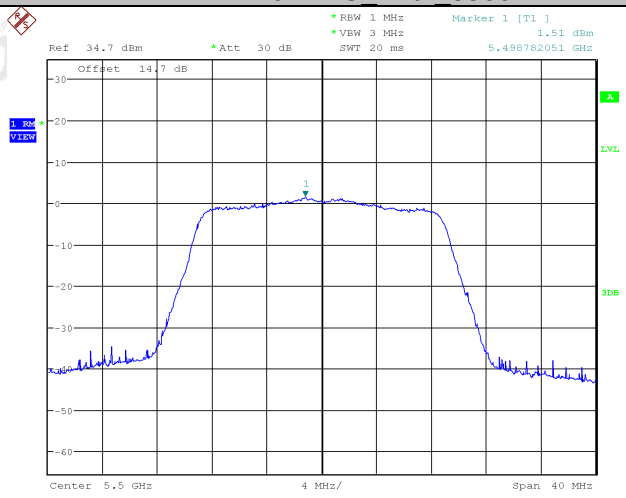
11N20MIMO_Ant2_5320



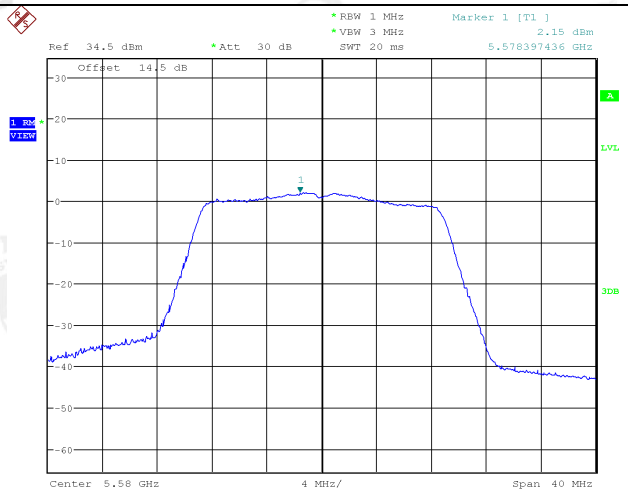
11N20MIMO_Ant1_5500



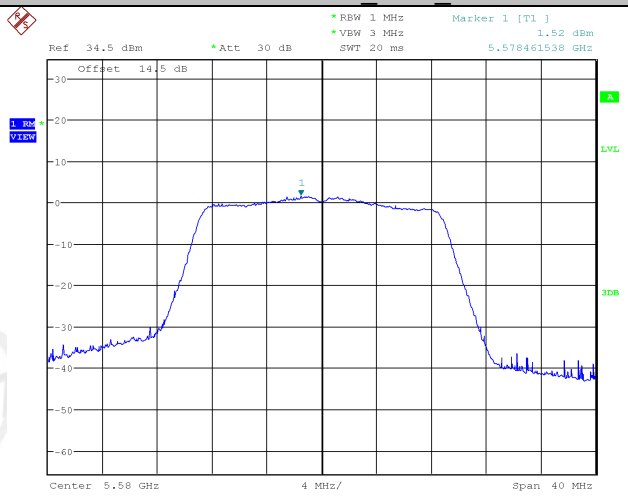
11N20MIMO_Ant2_5500



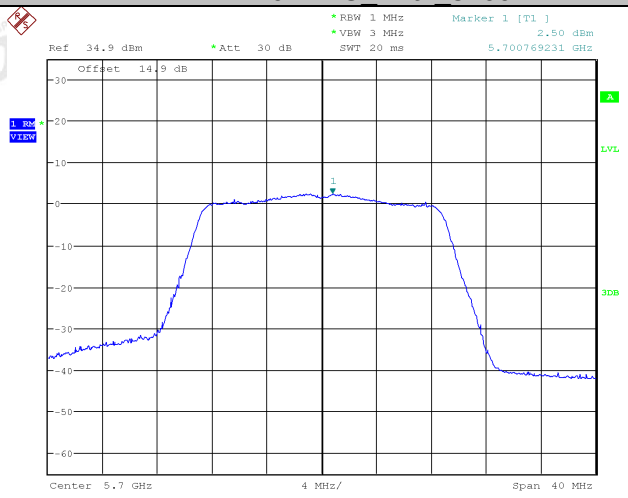
11N20MIMO_Ant1_5580



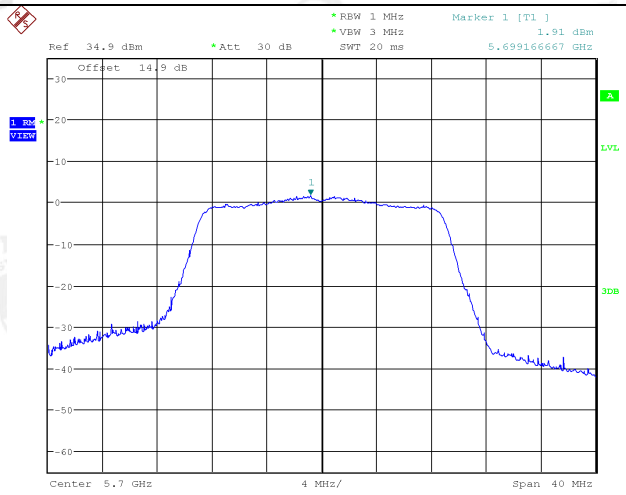
11N20MIMO_Ant2_5580



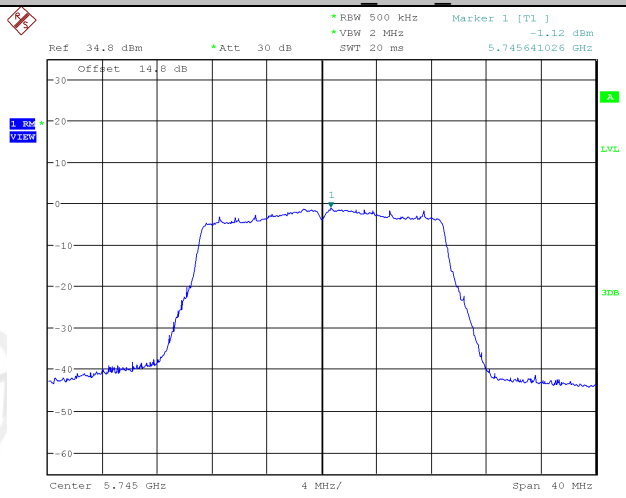
11N20MIMO_Ant1_5700



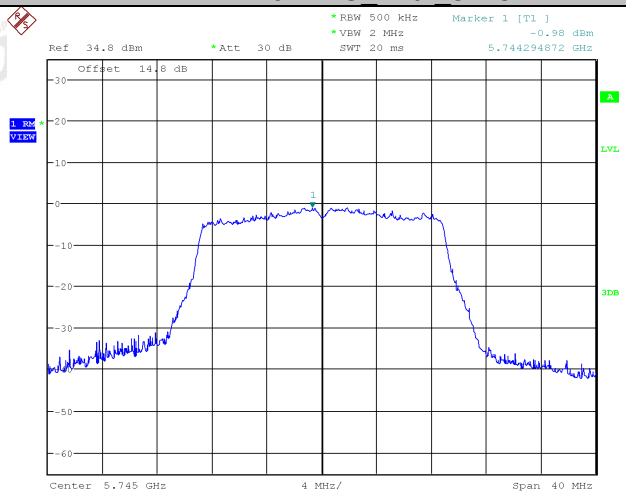
11N20MIMO_Ant2_5700



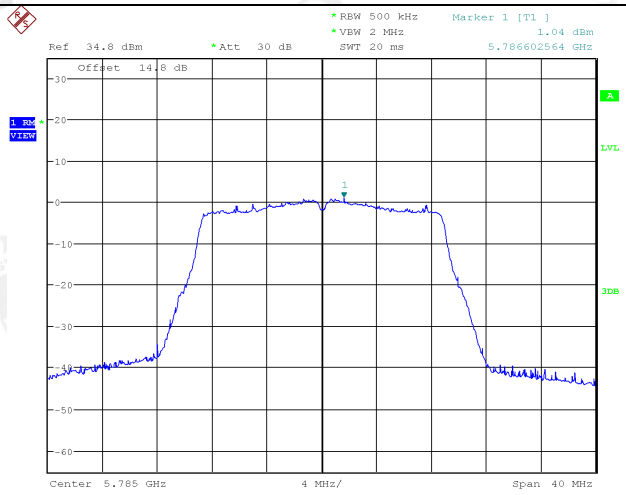
11N20MIMO_Ant1_5745



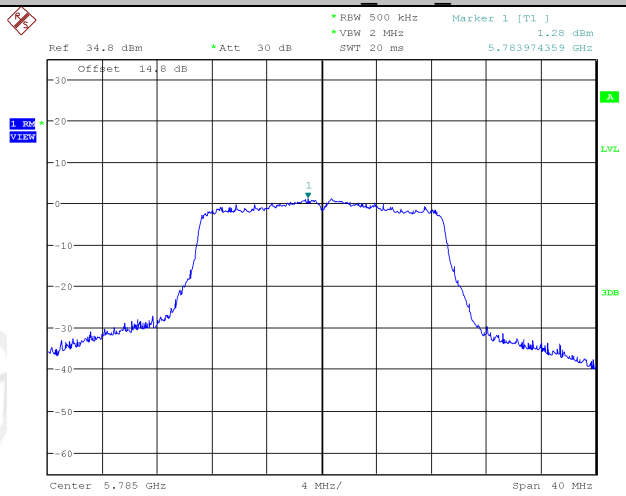
11N20MIMO_Ant2_5745



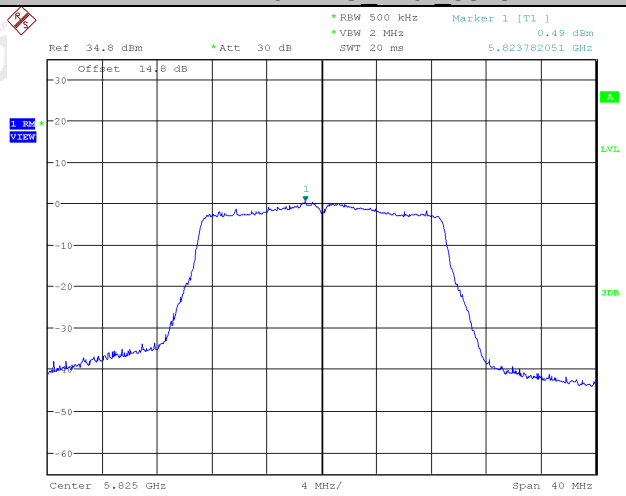
11N20MIMO_Ant1_5785



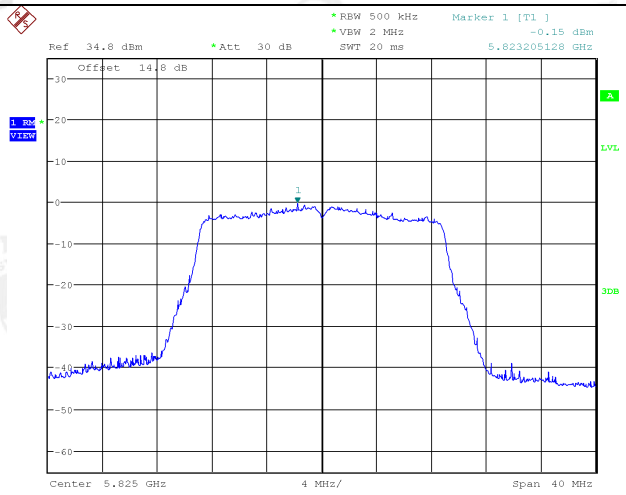
11N20MIMO_Ant2_5785



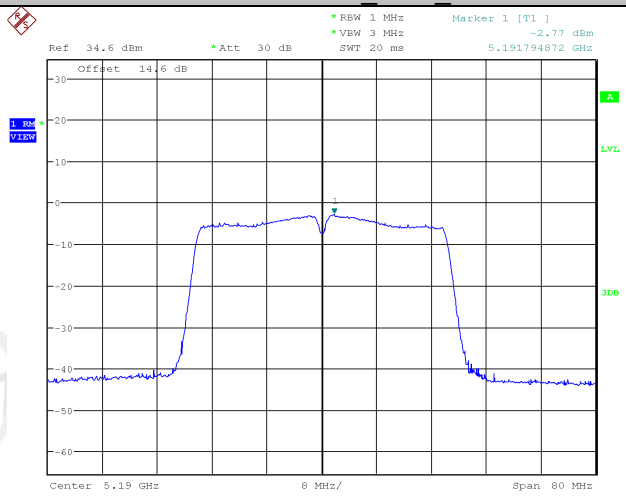
11N20MIMO_Ant1_5825



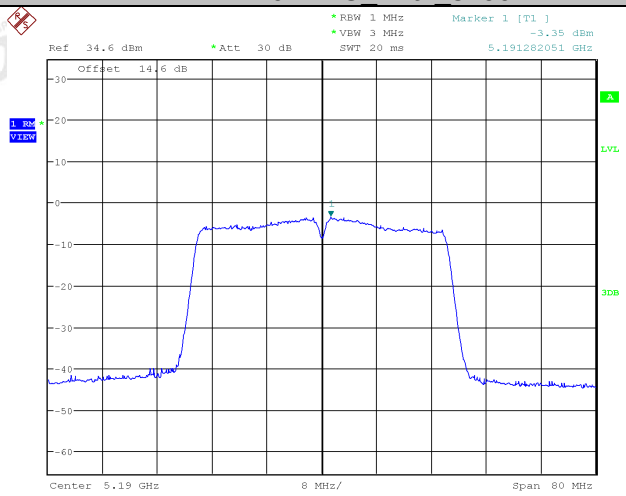
11N20MIMO_Ant2_5825



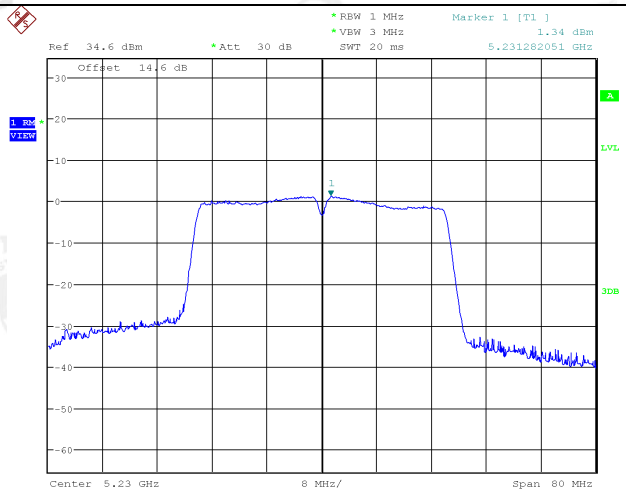
11N40MIMO_Ant1_5190



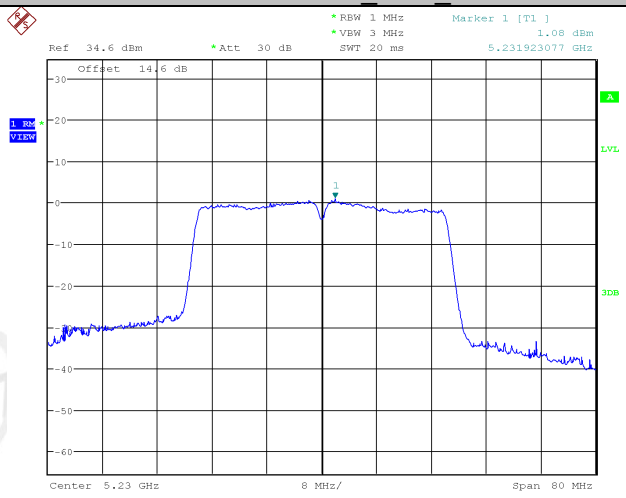
11N40MIMO_Ant2_5190



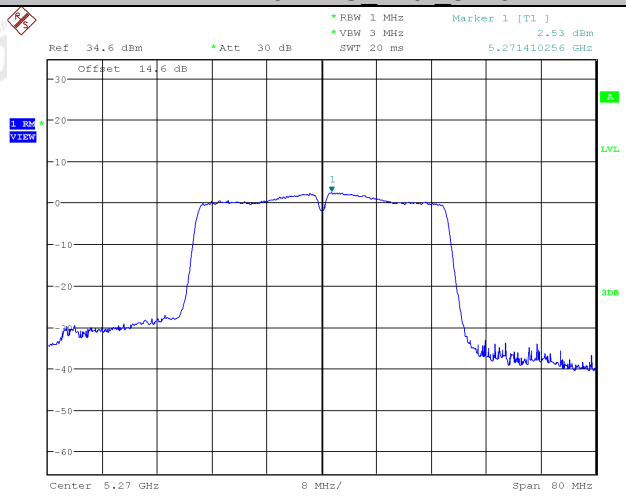
11N40MIMO_Ant1_5230



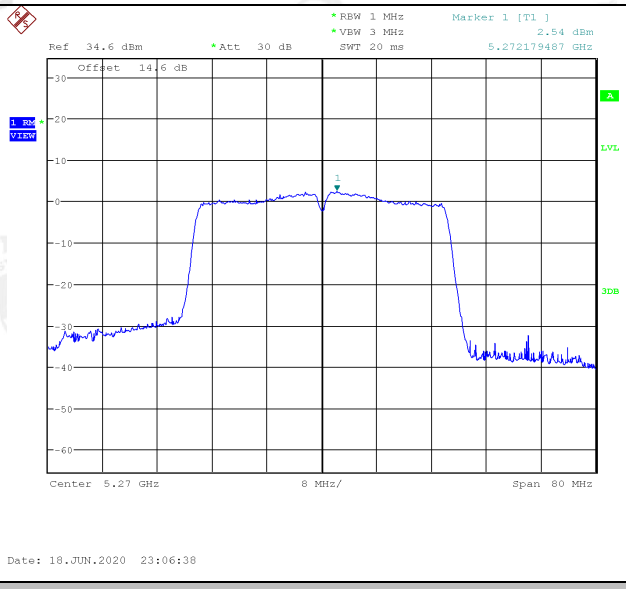
11N40MIMO_Ant2_5230



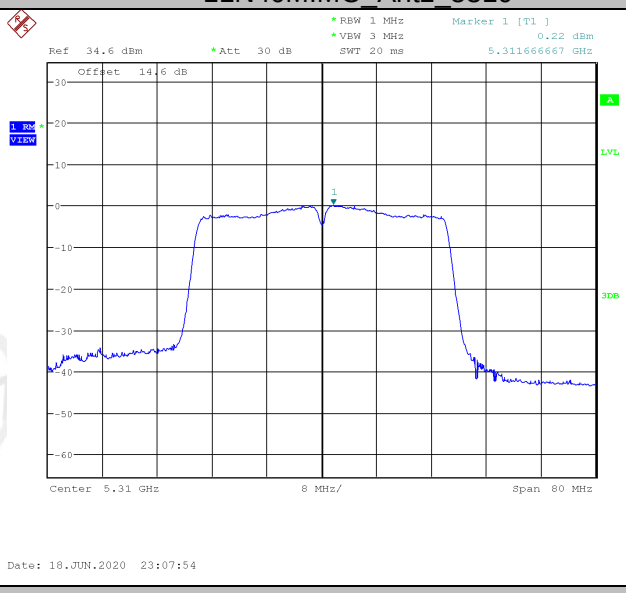
11N40MIMO_Ant1_5270



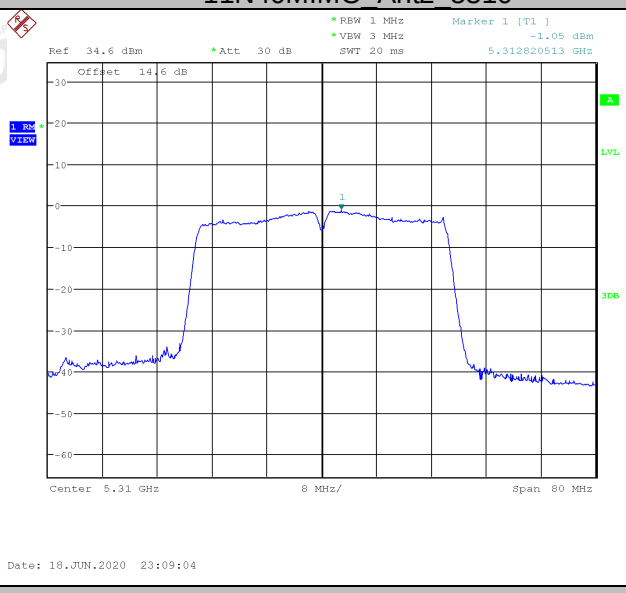
11N40MIMO_Ant2_5270



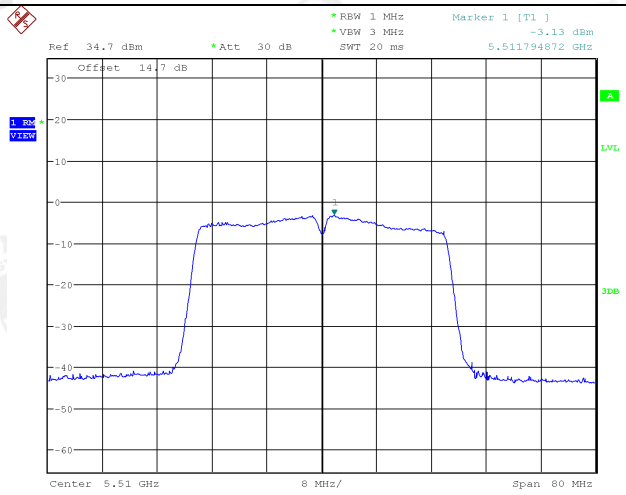
11N40MIMO_Ant1_5310



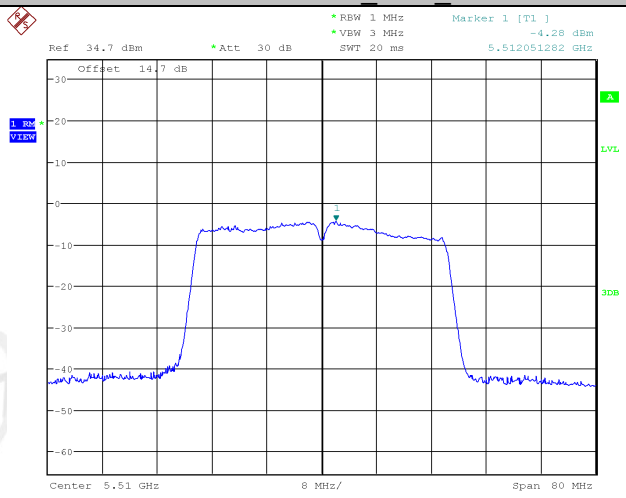
11N40MIMO_Ant2_5310



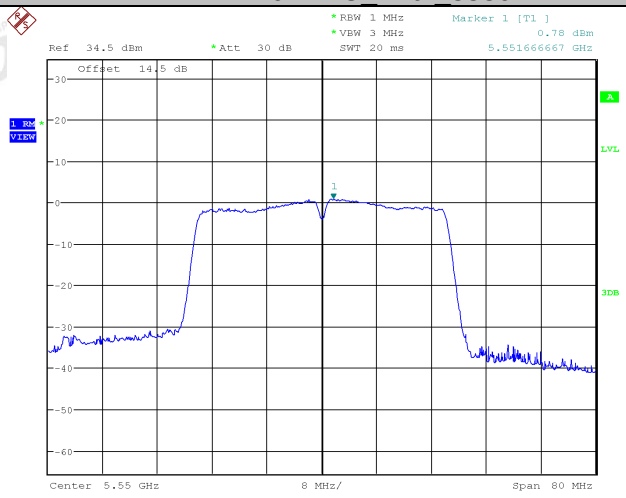
11N40MIMO_Ant1_5510



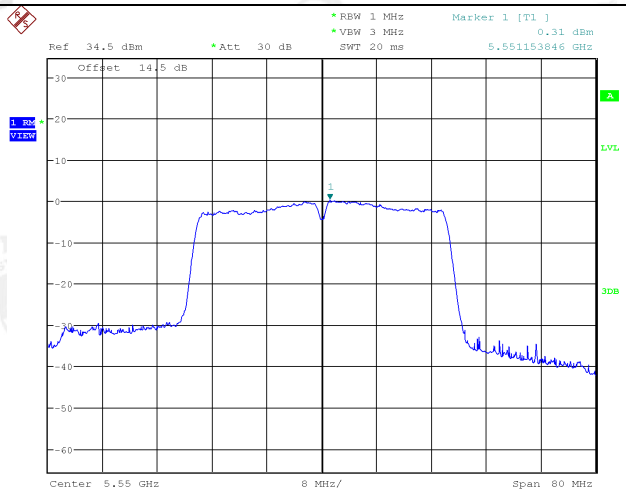
11N40MIMO_Ant2_5510



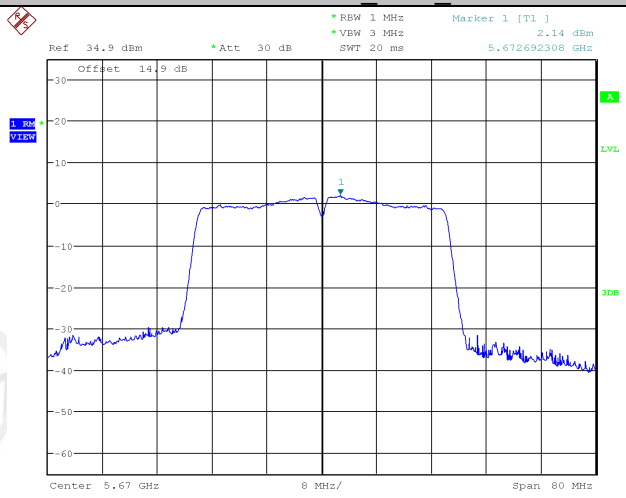
11N40MIMO_Ant1_5550



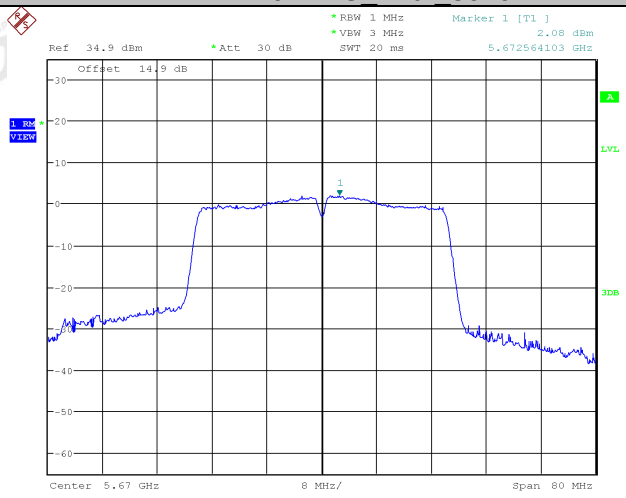
11N40MIMO_Ant2_5550



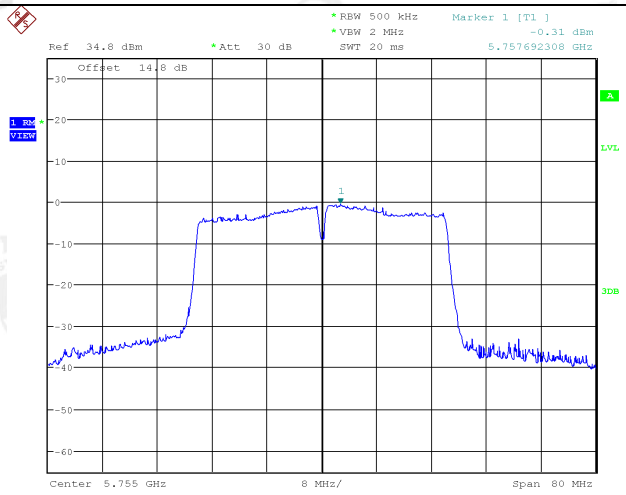
11N40MIMO_Ant1_5670



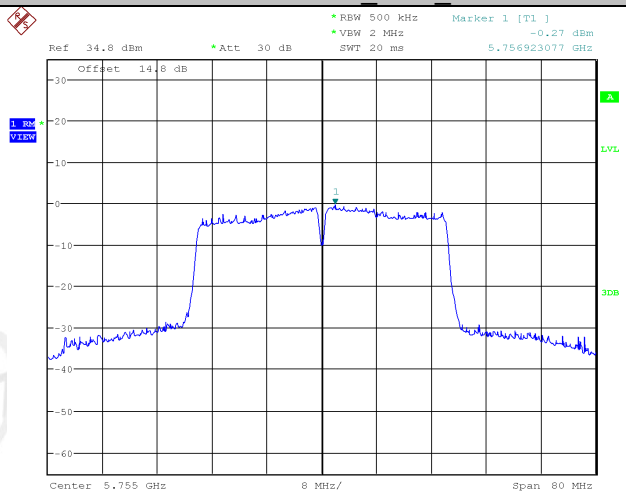
11N40MIMO_Ant2_5670



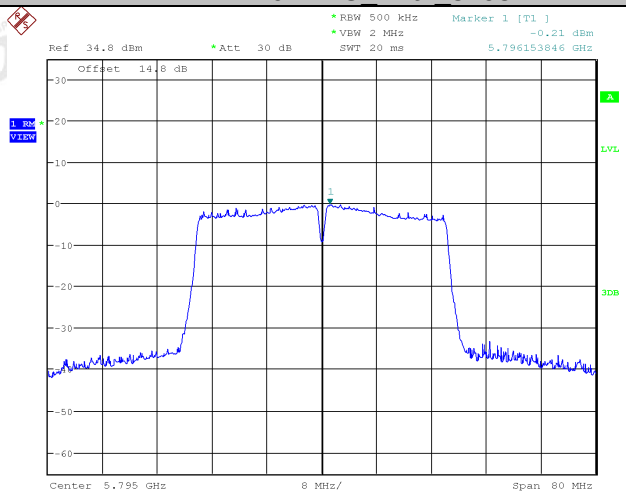
11N40MIMO_Ant1_5755



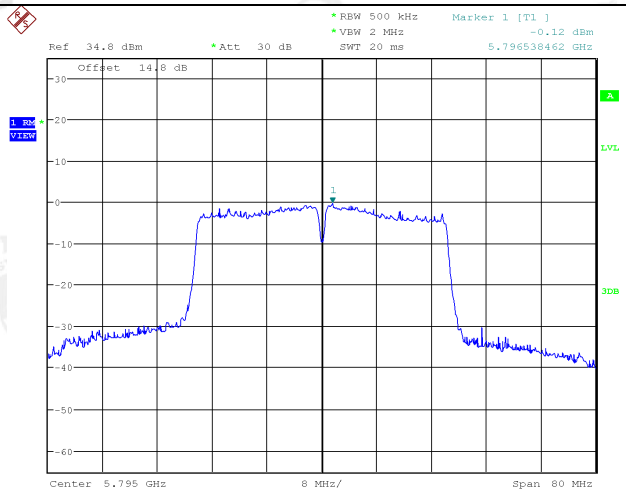
11N40MIMO_Ant2_5755



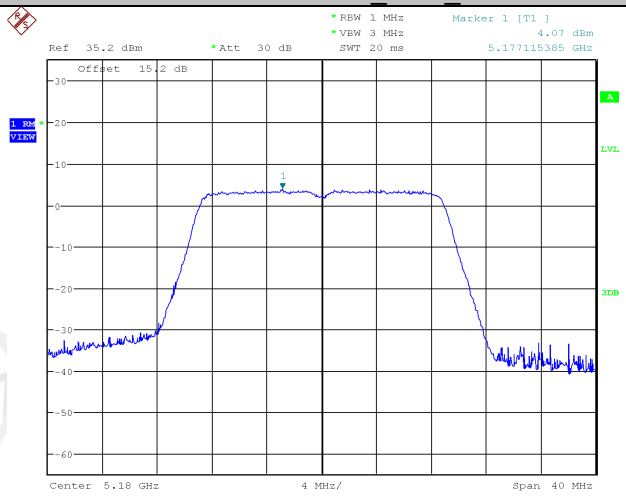
11N40MIMO_Ant1_5795



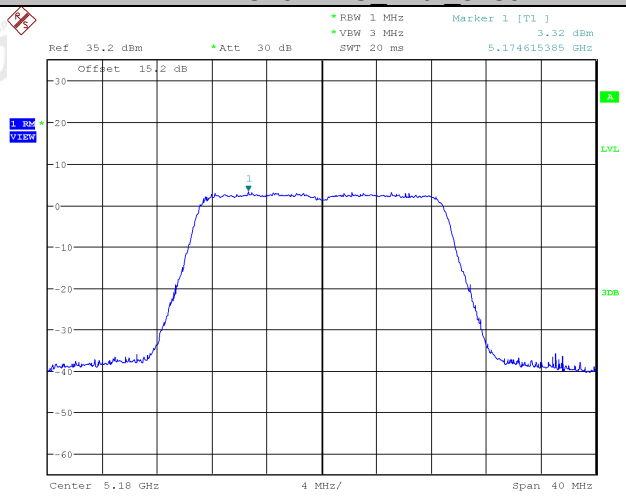
11N40MIMO_Ant2_5795



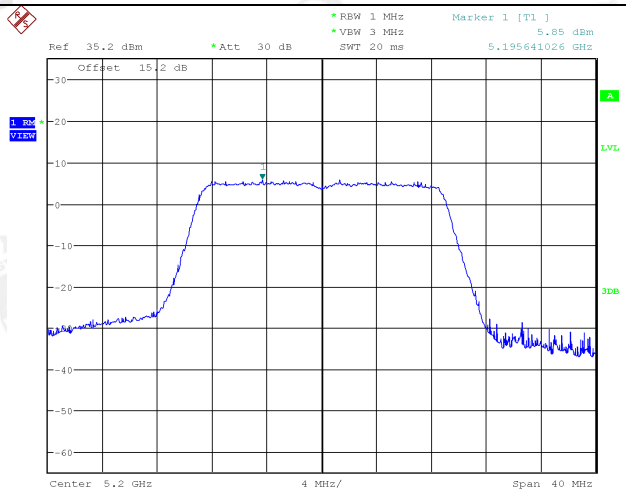
11AC20MIMO_Ant1_5180



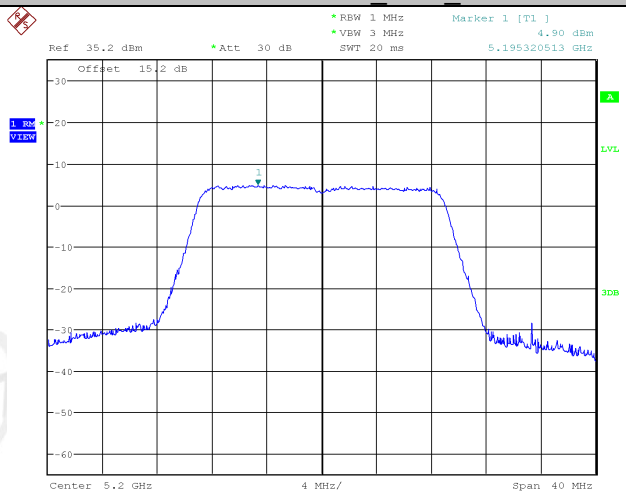
11AC20MIMO_Ant2_5180



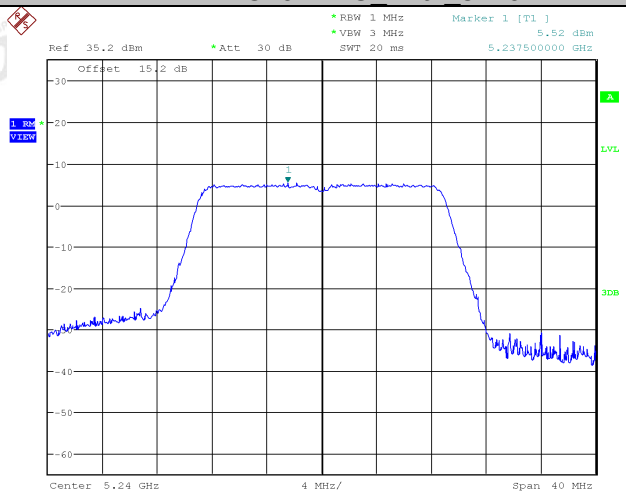
11AC20MIMO_Ant1_5200



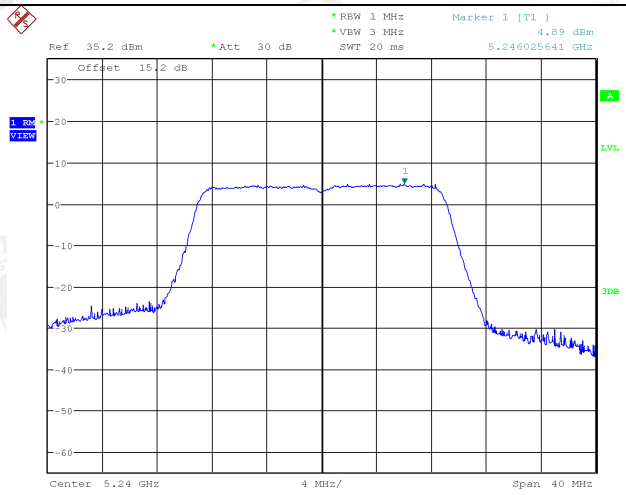
11AC20MIMO_Ant2_5200



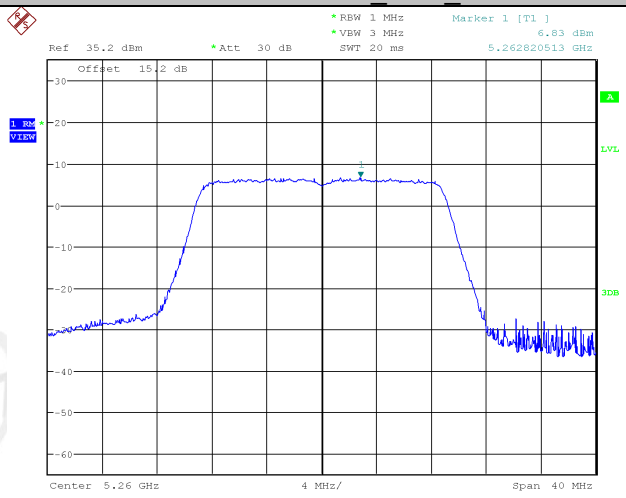
11AC20MIMO_Ant1_5240



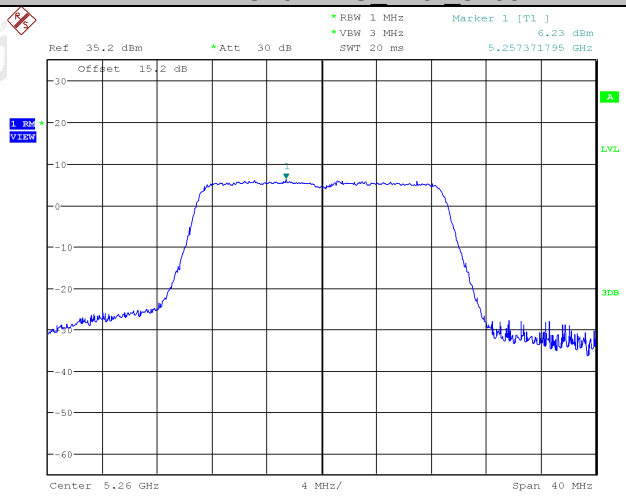
11AC20MIMO_Ant2_5240



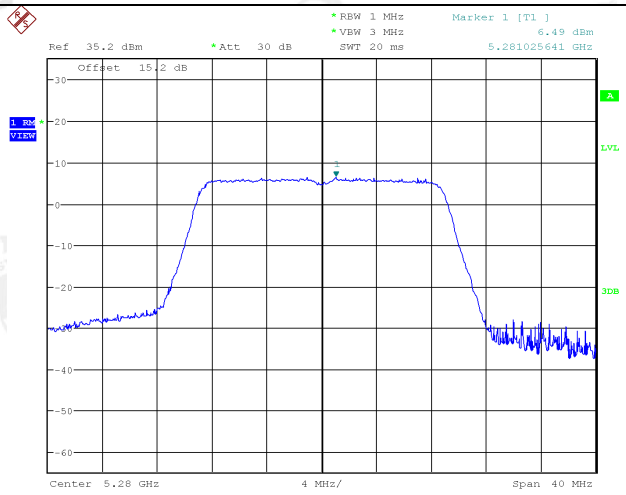
11AC20MIMO_Ant1_5260



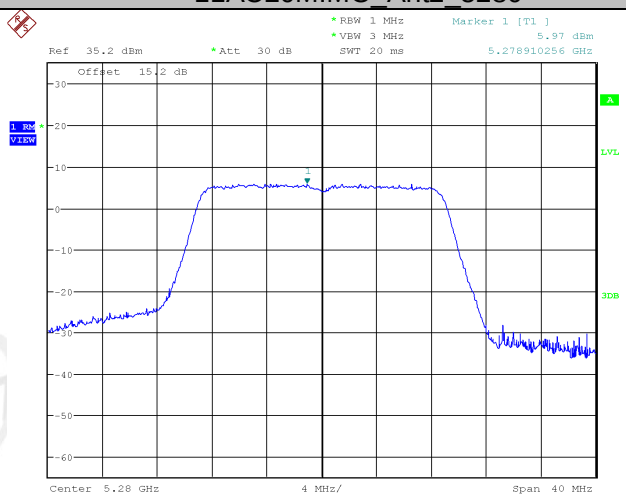
11AC20MIMO_Ant2_5260



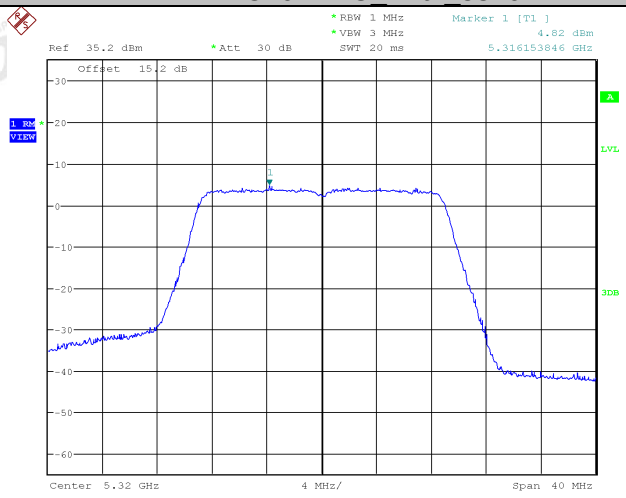
11AC20MIMO_Ant1_5280



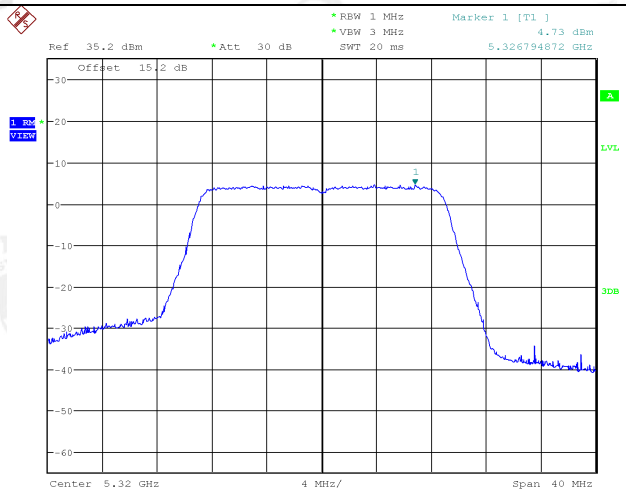
11AC20MIMO_Ant2_5280



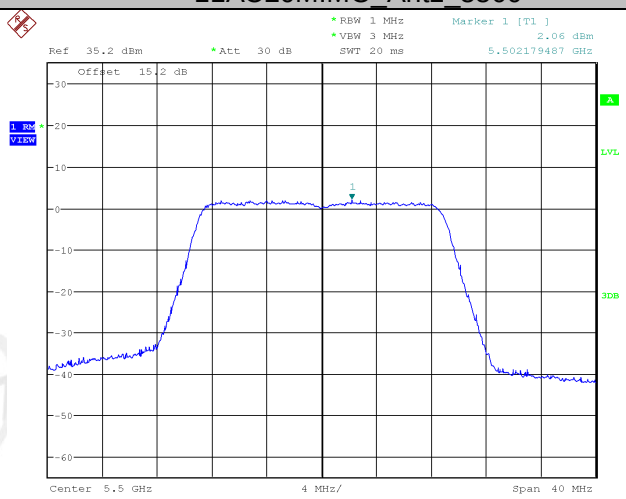
11AC20MIMO_Ant1_5320



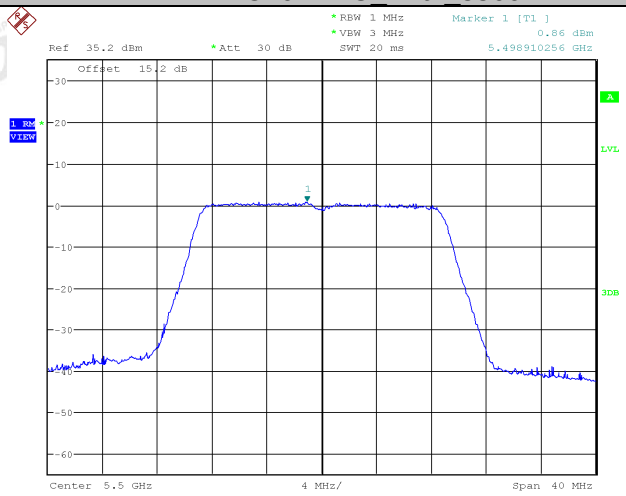
11AC20MIMO_Ant2_5320



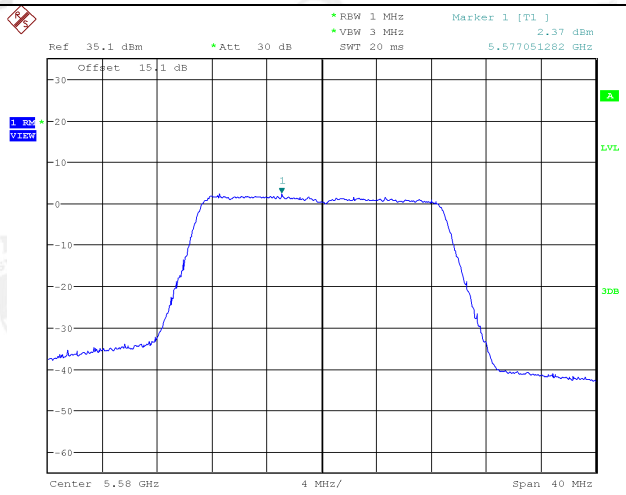
11AC20MIMO_Ant1_5500



11AC20MIMO_Ant2_5500

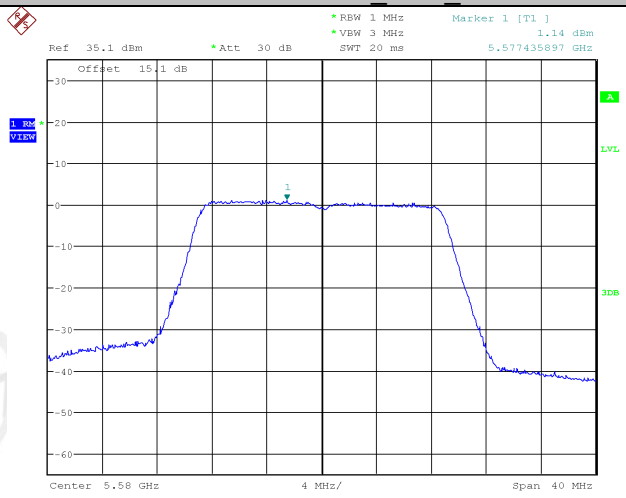


11AC20MIMO_Ant1_5580



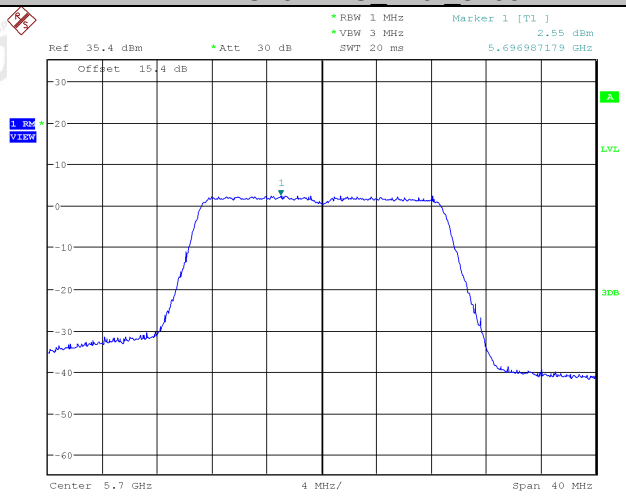
Date: 18.JUN.2020 23:44:37

11AC20MIMO_Ant2_5580



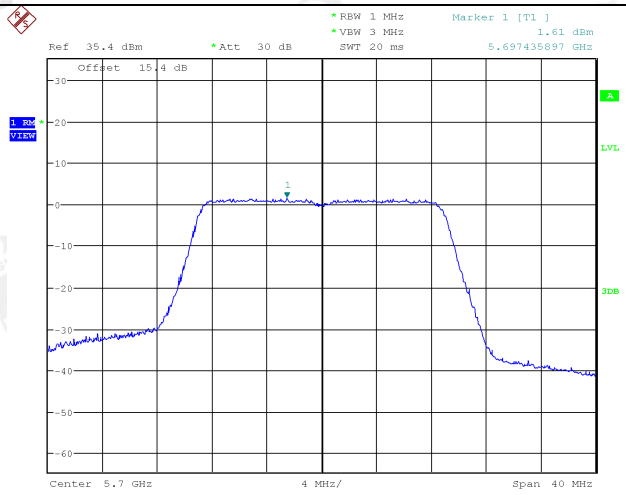
Date: 18.JUN.2020 23:45:48

11AC20MIMO_Ant1_5700

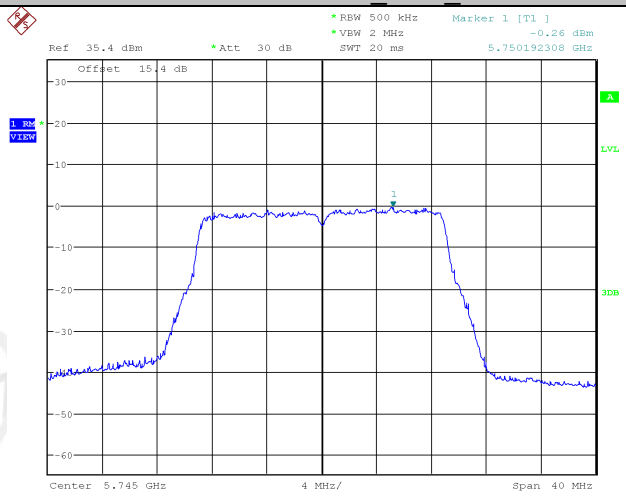


Date: 18.JUN.2020 23:47:01

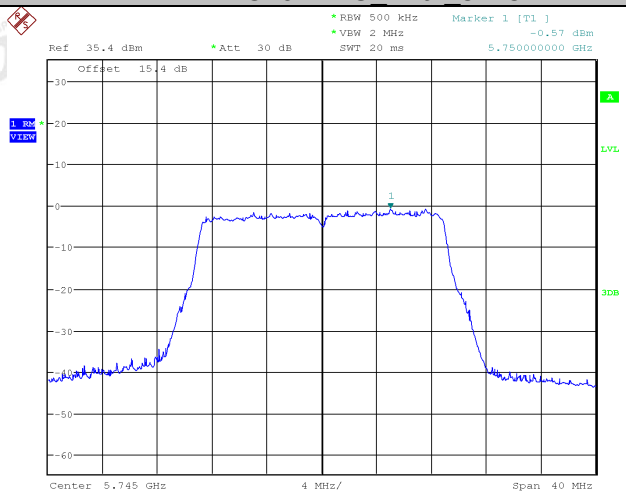
11AC20MIMO_Ant2_5700



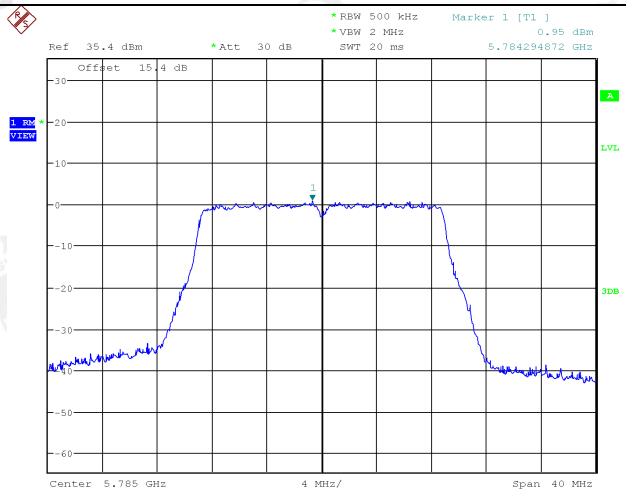
11AC20MIMO_Ant1_5745



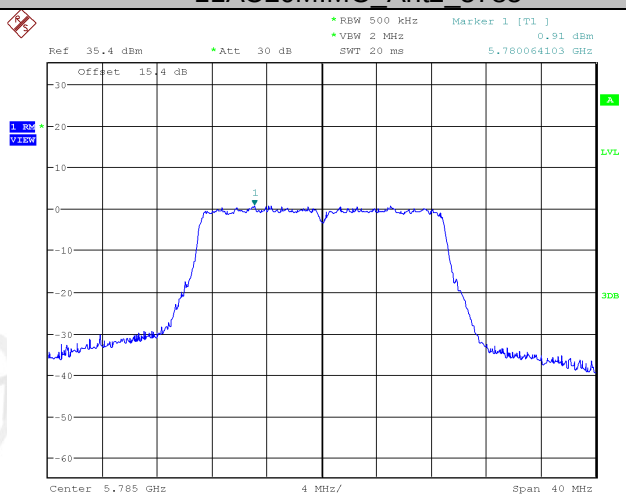
11AC20MIMO_Ant2_5745



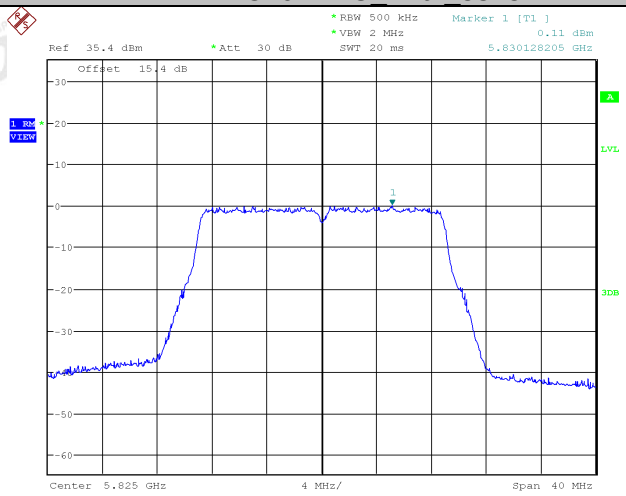
11AC20MIMO_Ant1_5785



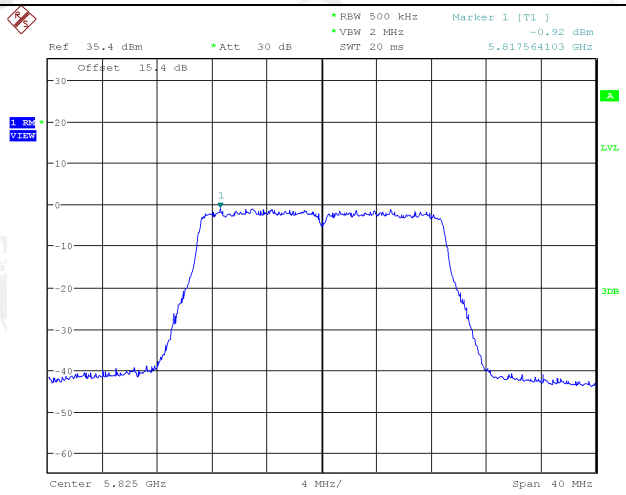
11AC20MIMO_Ant2_5785



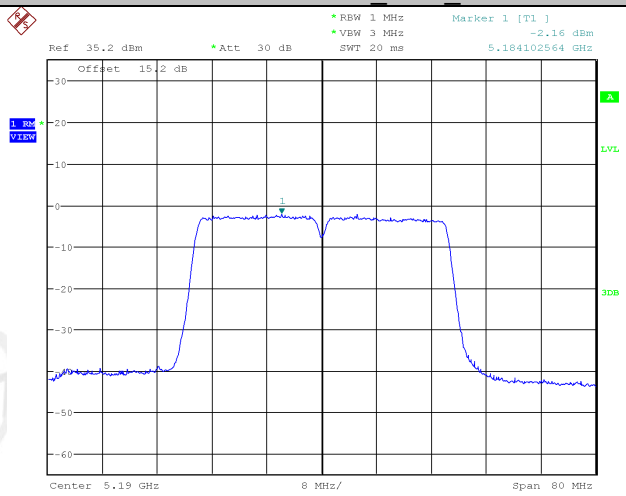
11AC20MIMO_Ant1_5825



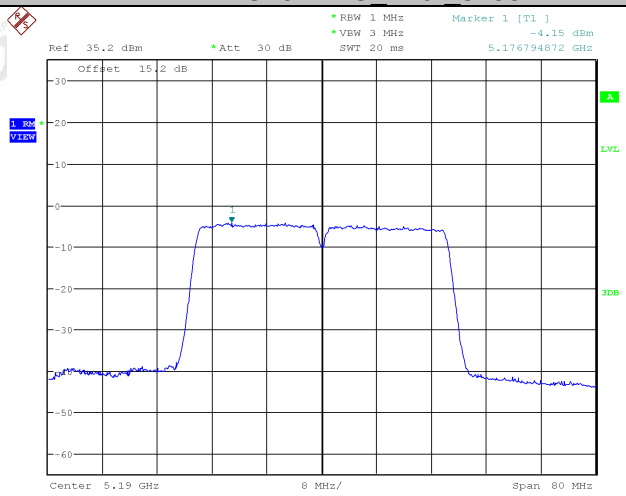
11AC20MIMO_Ant2_5825



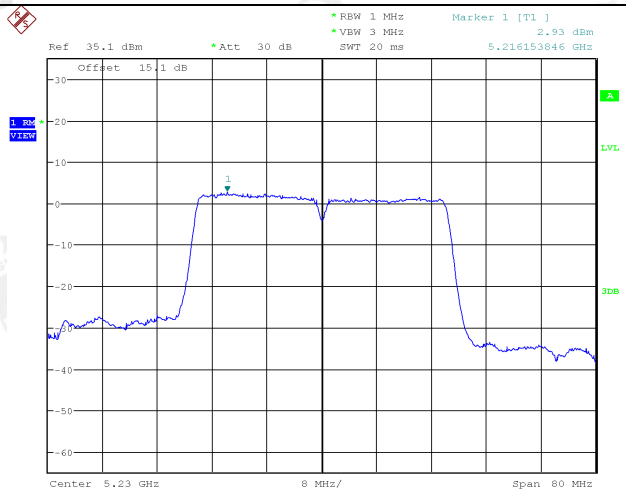
11AC40MIMO_Ant1_5190



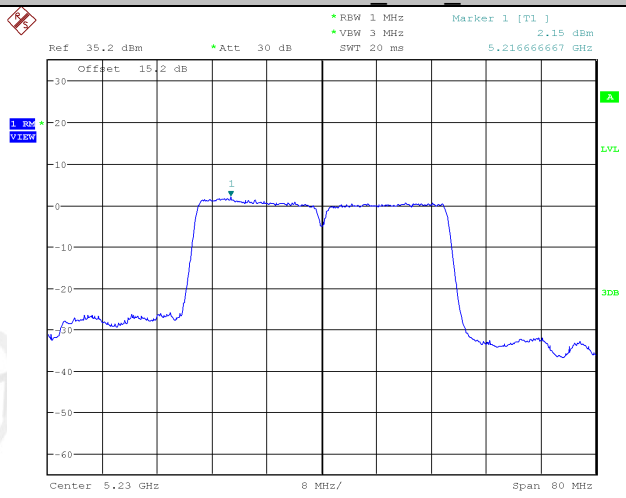
11AC40MIMO_Ant2_5190



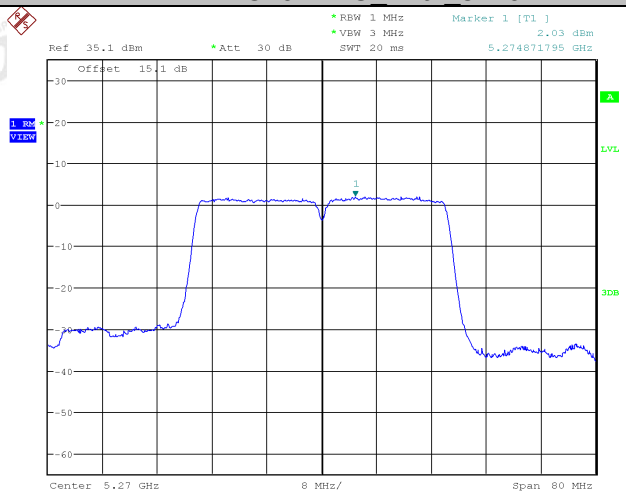
11AC40MIMO_Ant1_5230



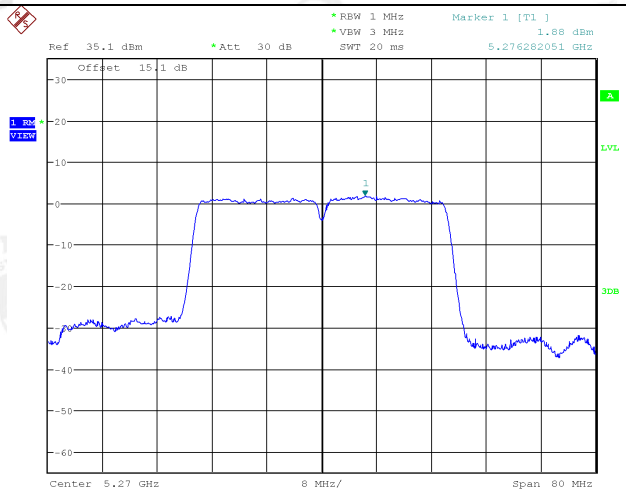
11AC40MIMO_Ant2_5230



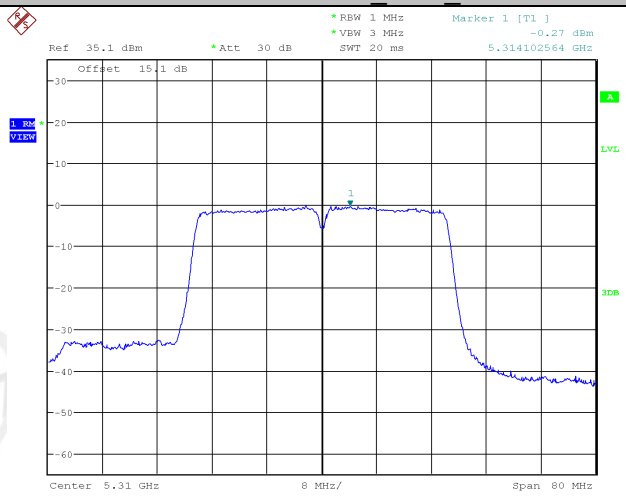
11AC40MIMO_Ant1_5270



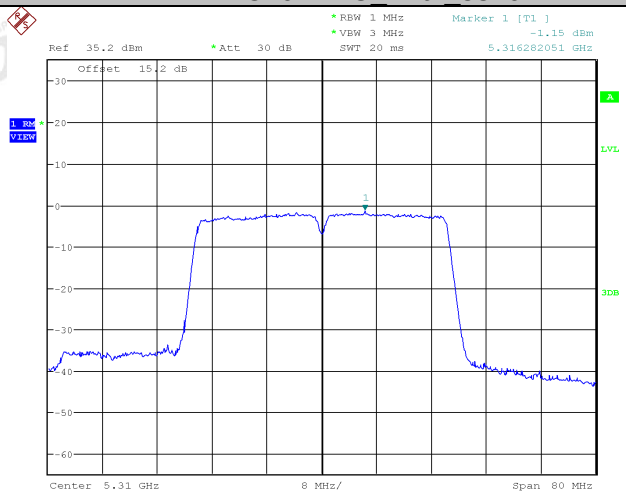
11AC40MIMO_Ant2_5270



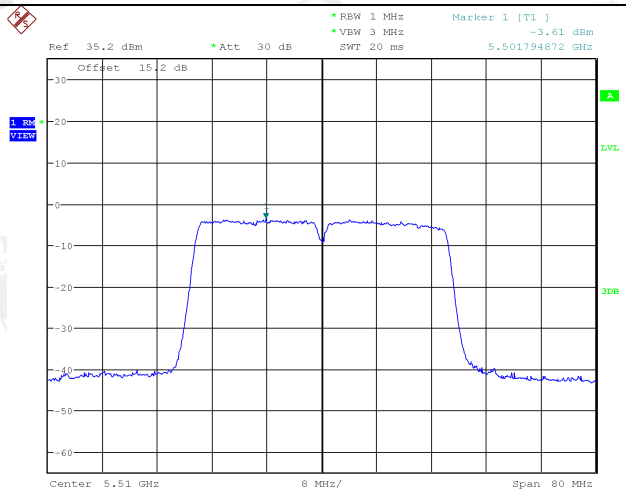
11AC40MIMO_Ant1_5310



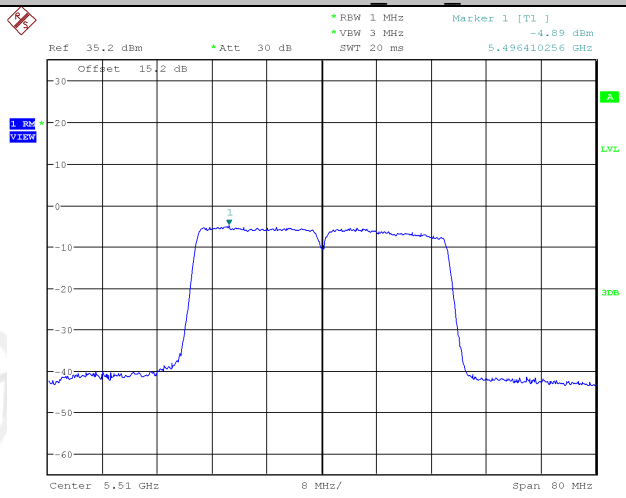
11AC40MIMO_Ant2_5310



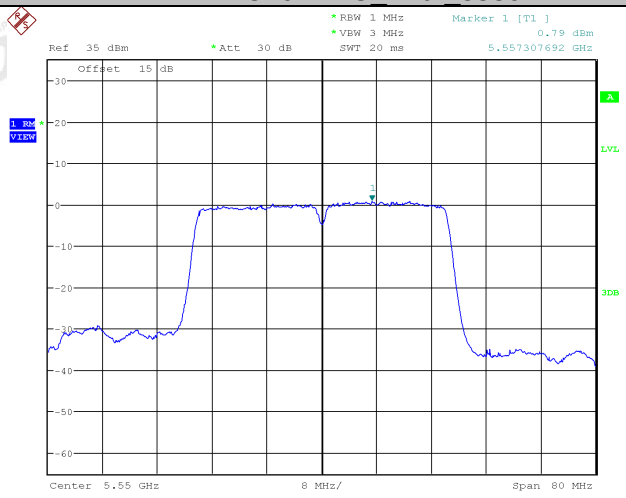
11AC40MIMO_Ant1_5510



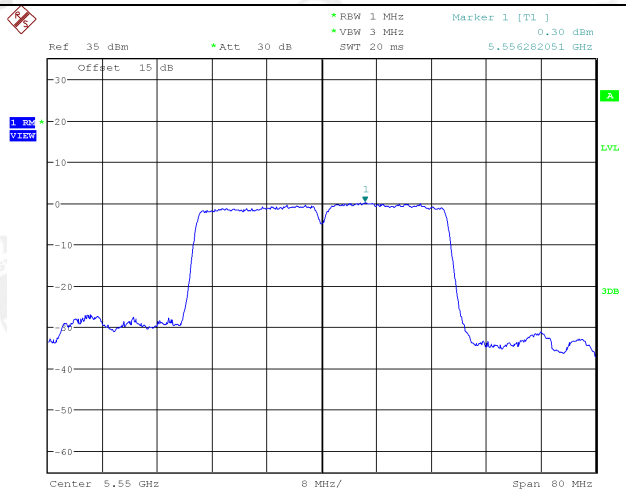
11AC40MIMO_Ant2_5510



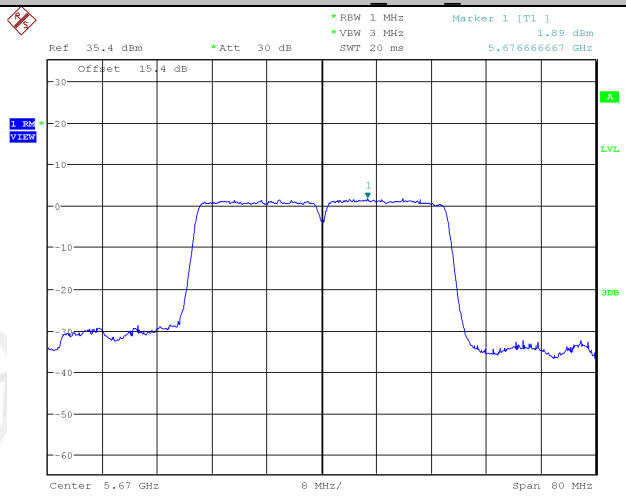
11AC40MIMO_Ant1_5550



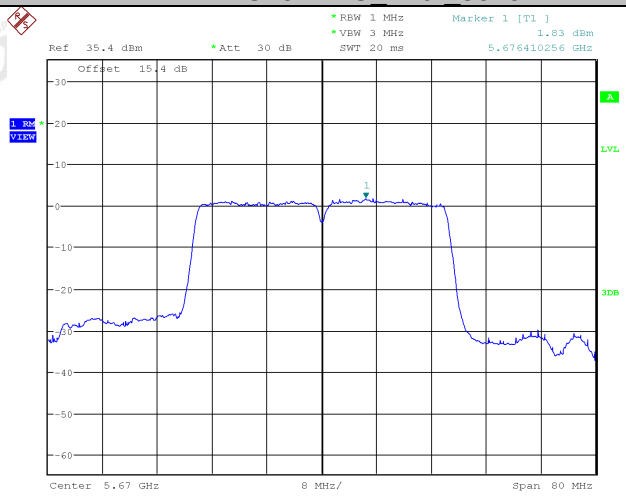
11AC40MIMO_Ant2_5550



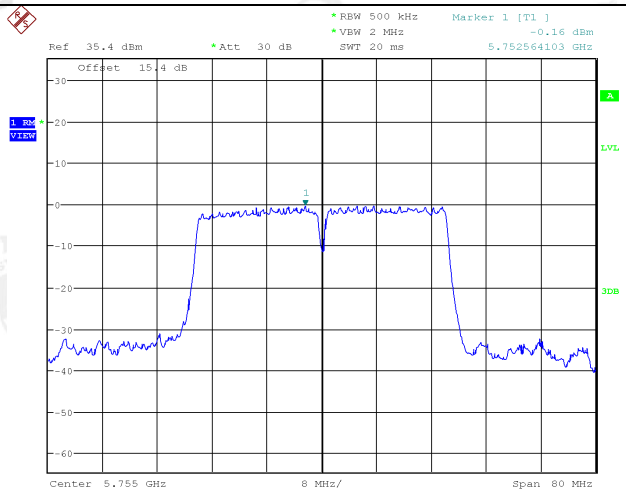
11AC40MIMO_Ant1_5670



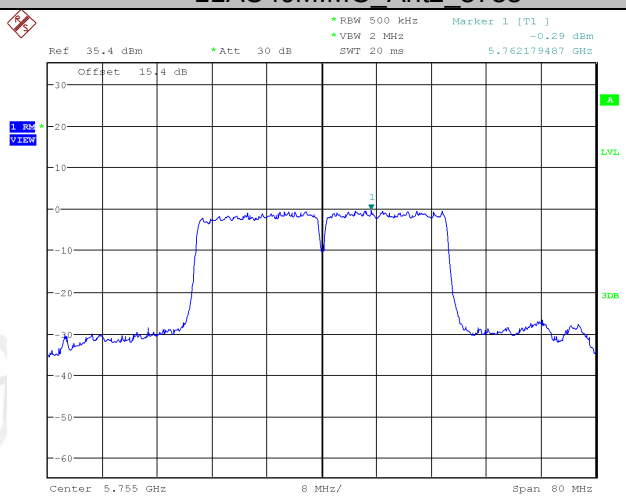
11AC40MIMO_Ant2_5670



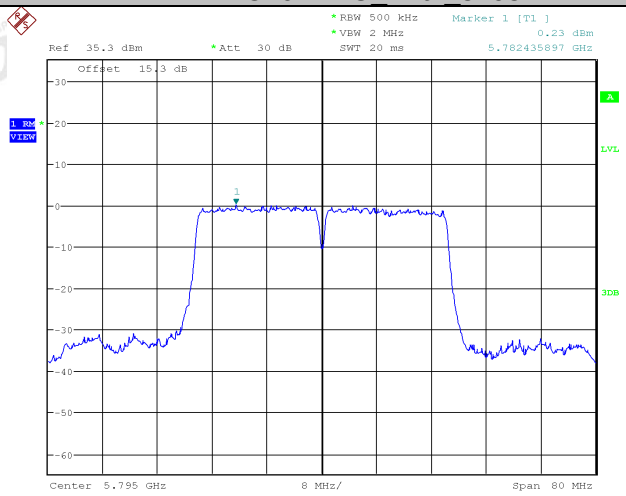
11AC40MIMO_Ant1_5755



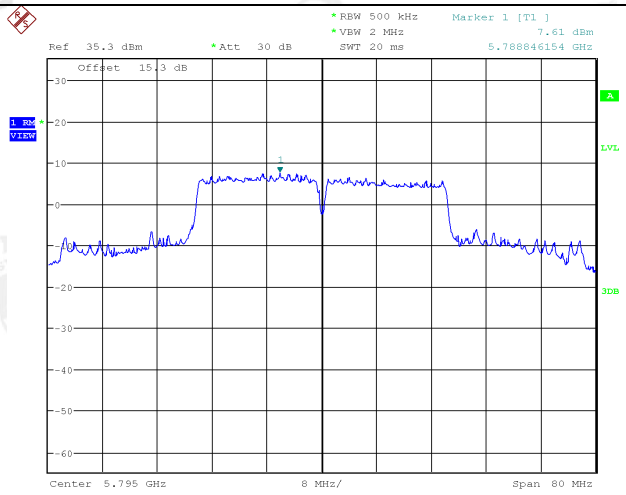
11AC40MIMO_Ant2_5755



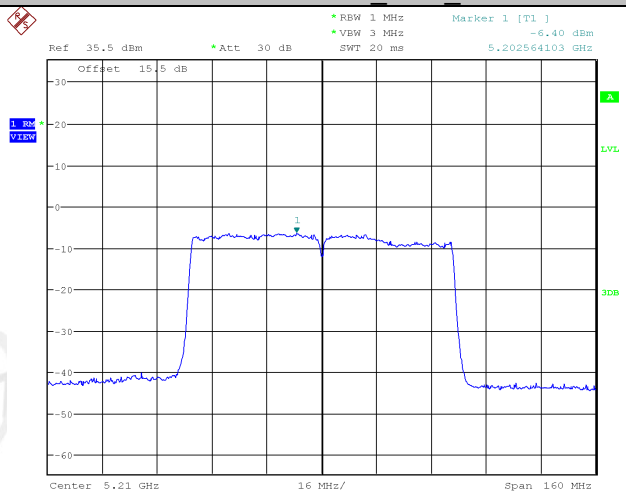
11AC40MIMO_Ant1_5795



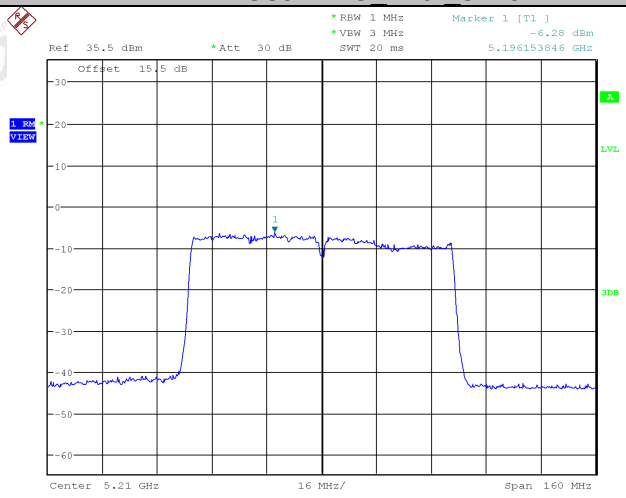
11AC40MIMO_Ant2_5795



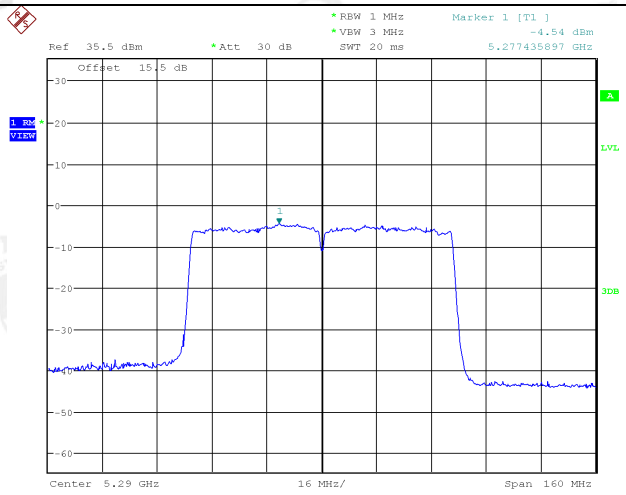
11AC80MIMO_Ant1_5210



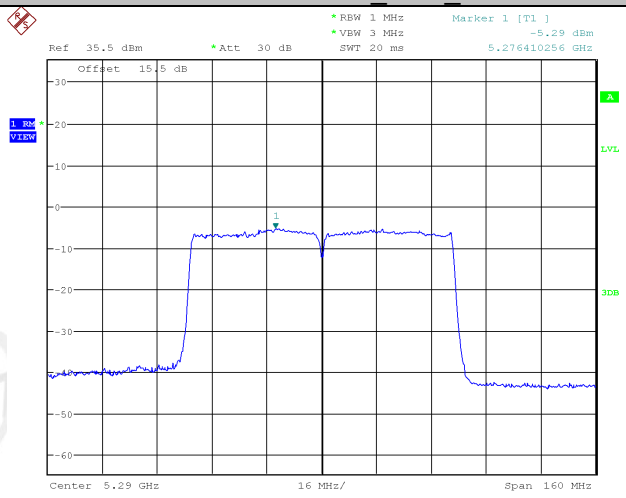
11AC80MIMO_Ant2_5210



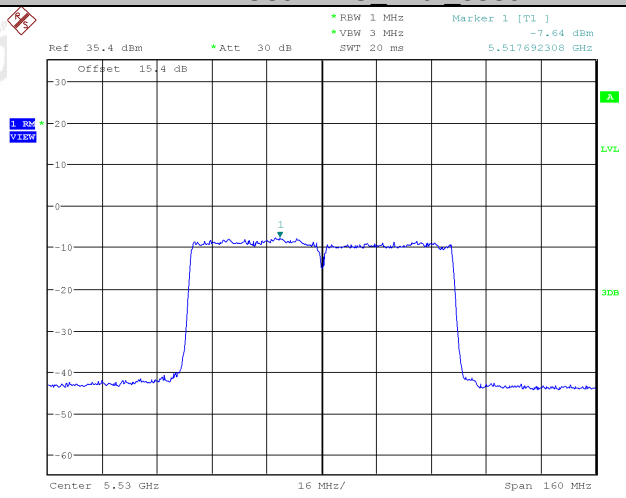
11AC80MIMO_Ant1_5290



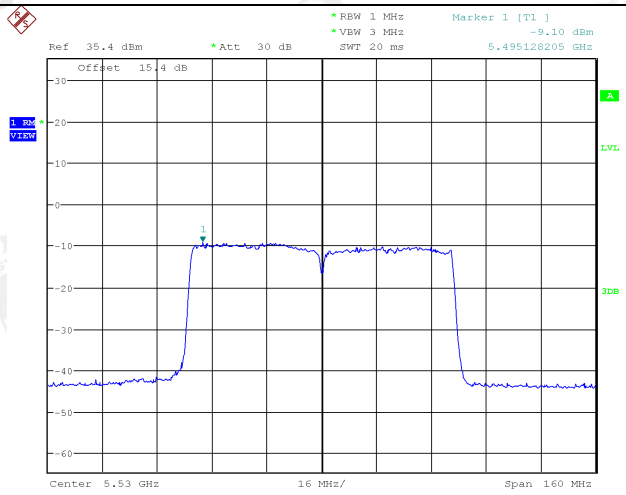
11AC80MIMO_Ant2_5290



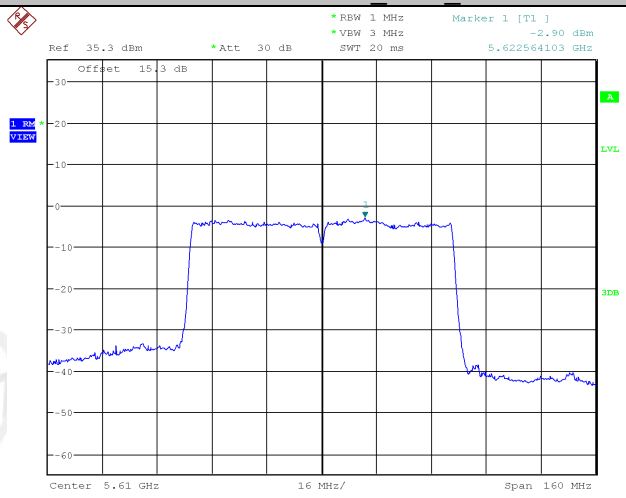
11AC80MIMO_Ant1_5530



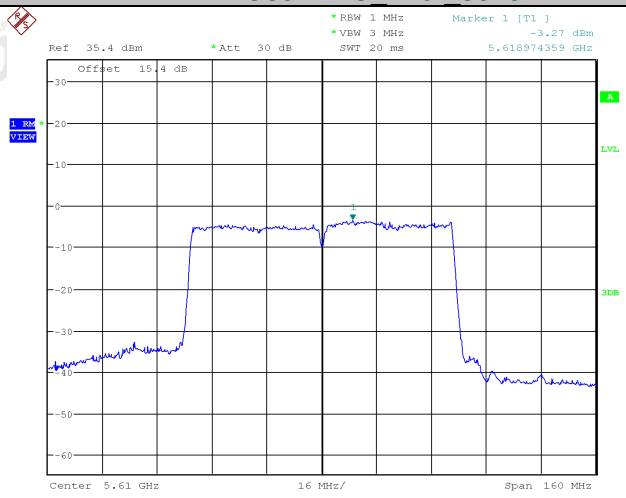
11AC80MIMO_Ant2_5530



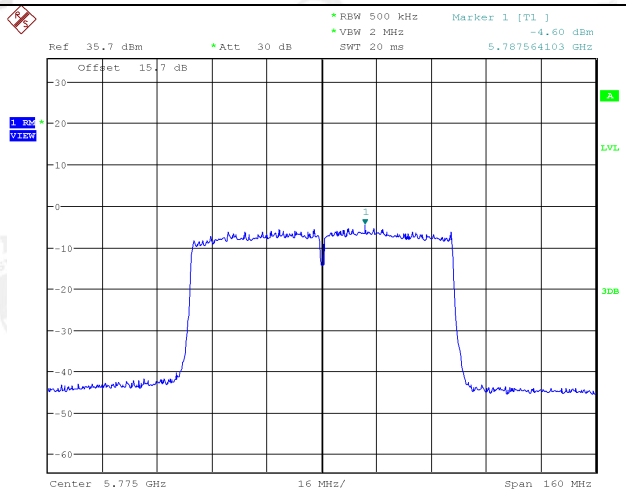
11AC80MIMO_Ant1_5610



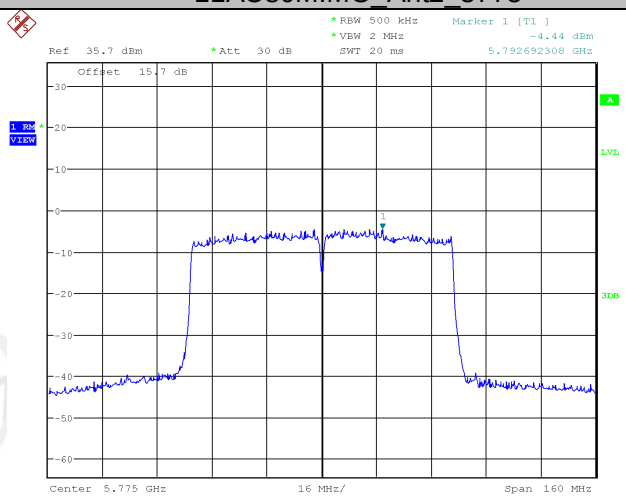
11AC80MIMO_Ant2_5610



11AC80MIMO_Ant1_5775



11AC80MIMO_Ant2_5775



7. Frequency Stability Measurement

7.1. Limit of frequency stability

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

7.2. Measuring instruments

The measuring equipment is listed in the section 4 of this test report.

7.3. Test procedures

(1) To ensure emission at the band edge is maintained within the authorized band, those values shall be measured by radiation emissions at upper and lower frequency points, and finally compensated by frequency deviation as procedures below.
(2) The EUT was operated at the maximum output power, and connected to the spectrum analyzer, which is set to maximum hold function and peak detector. The peak value of the power envelope was measured and noted. The upper and lower frequency points were respectively measured relatively 10 dB lower than the measured peak value.
(3) The frequency deviation was calculated by adding the upper frequency point and the lower frequency point divided by two. Those detailed values of frequency deviation are provided in table below.

7.4. Test setup

7.5. Test result

Voltage								
Test Mode	Antenna	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
11A	Ant1	5180	NV	NT	7000	1.351351	20	PASS
			LV	NT	8000	1.544402	20	PASS
			HV	NT	9000	1.737452	20	PASS
	Ant2	5180	NV	NT	8000	1.544402	20	PASS
			LV	NT	7000	1.351351	20	PASS
			HV	NT	7000	1.351351	20	PASS
	Ant1	5200	NV	NT	10000	1.923077	20	PASS
			LV	NT	10000	1.923077	20	PASS
			HV	NT	10000	1.923077	20	PASS
	Ant2	5200	NV	NT	6000	1.153846	20	PASS
			LV	NT	6000	1.153846	20	PASS
			HV	NT	6000	1.153846	20	PASS
	Ant1	5240	NV	NT	9000	1.717557	20	PASS
			LV	NT	9000	1.717557	20	PASS

			HV	NT	9000	1.717557	20	PASS
	Ant2	5240	NV	NT	6000	1.145038	20	PASS
			LV	NT	6000	1.145038	20	PASS
			HV	NT	6000	1.145038	20	PASS
	Ant1	5260	NV	NT	9000	1.711027	20	PASS
			LV	NT	9000	1.711027	20	PASS
			HV	NT	9000	1.711027	20	PASS
	Ant2	5260	NV	NT	6000	1.140684	20	PASS
			LV	NT	6000	1.140684	20	PASS
			HV	NT	6000	1.140684	20	PASS
	Ant1	5280	NV	NT	9000	1.704545	20	PASS
			LV	NT	9000	1.704545	20	PASS
			HV	NT	9000	1.704545	20	PASS
	Ant2	5280	NV	NT	6000	1.136364	20	PASS
			LV	NT	6000	1.136364	20	PASS
			HV	NT	6000	1.136364	20	PASS
	Ant1	5320	NV	NT	9000	1.691729	20	PASS
			LV	NT	9000	1.691729	20	PASS
			HV	NT	9000	1.691729	20	PASS
	Ant2	5320	NV	NT	7000	1.315789	20	PASS
			LV	NT	6000	1.12782	20	PASS
			HV	NT	6000	1.12782	20	PASS
	Ant1	5500	NV	NT	8000	1.454545	20	PASS
			LV	NT	8000	1.454545	20	PASS
			HV	NT	8000	1.454545	20	PASS
	Ant2	5500	NV	NT	7000	1.272727	20	PASS
			LV	NT	6000	1.090909	20	PASS
			HV	NT	6000	1.090909	20	PASS
	Ant1	5580	NV	NT	11000	1.971326	20	PASS
			LV	NT	12000	2.150538	20	PASS
			HV	NT	12000	2.150538	20	PASS
	Ant2	5580	NV	NT	6000	1.075269	20	PASS
			LV	NT	6000	1.075269	20	PASS
			HV	NT	6000	1.075269	20	PASS
	Ant1	5700	NV	NT	7000	1.22807	20	PASS
			LV	NT	11000	1.929825	20	PASS
			HV	NT	12000	2.105263	20	PASS
	Ant2	5700	NV	NT	7000	1.22807	20	PASS
			LV	NT	7000	1.22807	20	PASS
			HV	NT	6000	1.052632	20	PASS
	Ant1	5745	NV	NT	8000	1.392515	20	PASS
			LV	NT	7000	1.218451	20	PASS
			HV	NT	7000	1.218451	20	PASS
	Ant2	5745	NV	NT	7000	1.218451	20	PASS
			LV	NT	7000	1.218451	20	PASS
			HV	NT	7000	1.218451	20	PASS
	Ant1	5785	NV	NT	12000	2.07433	20	PASS
			LV	NT	11000	1.901469	20	PASS
			HV	NT	11000	1.901469	20	PASS
	Ant2	5785	NV	NT	7000	1.210026	20	PASS
			LV	NT	7000	1.210026	20	PASS

			HV	NT	7000	1.210026	20	PASS
	Ant1	5825	NV	NT	11000	1.888412	20	PASS
			LV	NT	10000	1.716738	20	PASS
			HV	NT	10000	1.716738	20	PASS
	Ant2	5825	NV	NT	7000	1.201717	20	PASS
			LV	NT	7000	1.201717	20	PASS
			HV	NT	7000	1.201717	20	PASS
11N20 MIMO	Ant1	5180	NV	NT	7000	1.351351	20	PASS
			LV	NT	8000	1.544402	20	PASS
			HV	NT	10000	1.930502	20	PASS
	Ant2	5180	NV	NT	19000	3.667954	20	PASS
			LV	NT	20000	3.861004	20	PASS
			HV	NT	20000	3.861004	20	PASS
	Ant1	5200	NV	NT	20000	3.846154	20	PASS
			LV	NT	21000	4.038462	20	PASS
			HV	NT	22000	4.230769	20	PASS
	Ant2	5200	NV	NT	25000	4.807692	20	PASS
			LV	NT	25000	4.807692	20	PASS
			HV	NT	25000	4.807692	20	PASS
	Ant1	5240	NV	NT	22000	4.198473	20	PASS
			LV	NT	23000	4.389313	20	PASS
			HV	NT	24000	4.580153	20	PASS
	Ant2	5240	NV	NT	25000	4.770992	20	PASS
			LV	NT	25000	4.770992	20	PASS
			HV	NT	25000	4.770992	20	PASS
	Ant1	5260	NV	NT	22000	4.18251	20	PASS
			LV	NT	23000	4.372624	20	PASS
			HV	NT	23000	4.372624	20	PASS
	Ant2	5260	NV	NT	24000	4.562738	20	PASS
			LV	NT	24000	4.562738	20	PASS
			HV	NT	24000	4.562738	20	PASS
	Ant1	5280	NV	NT	20000	3.787879	20	PASS
			LV	NT	22000	4.166667	20	PASS
			HV	NT	23000	4.356061	20	PASS
	Ant2	5280	NV	NT	26000	4.924242	20	PASS
			LV	NT	26000	4.924242	20	PASS
			HV	NT	26000	4.924242	20	PASS
	Ant1	5320	NV	NT	22000	4.135338	20	PASS
			LV	NT	24000	4.511278	20	PASS
			HV	NT	25000	4.699248	20	PASS
	Ant2	5320	NV	NT	28000	5.263158	20	PASS
			LV	NT	28000	5.263158	20	PASS
			HV	NT	28000	5.263158	20	PASS
	Ant1	5500	NV	NT	25000	4.545455	20	PASS
			LV	NT	29000	5.272727	20	PASS
			HV	NT	32000	5.818182	20	PASS
	Ant2	5500	NV	NT	43000	7.818182	20	PASS
			LV	NT	44000	8	20	PASS
			HV	NT	44000	8	20	PASS
	Ant1	5580	NV	NT	38000	6.810036	20	PASS
			LV	NT	38000	6.810036	20	PASS

			HV	NT	38000	6.810036	20	PASS
	Ant2	5580	NV	NT	36000	6.451613	20	PASS
			LV	NT	35000	6.272401	20	PASS
			HV	NT	35000	6.272401	20	PASS
	Ant1	5700	NV	NT	4000	0.701754	20	PASS
			LV	NT	4000	0.701754	20	PASS
			HV	NT	4000	0.701754	20	PASS
	Ant2	5700	NV	NT	7000	1.22807	20	PASS
			LV	NT	8000	1.403509	20	PASS
			HV	NT	8000	1.403509	20	PASS
	Ant1	5745	NV	NT	15000	2.610966	20	PASS
			LV	NT	16000	2.78503	20	PASS
			HV	NT	16000	2.78503	20	PASS
	Ant2	5745	NV	NT	19000	3.307224	20	PASS
			LV	NT	19000	3.307224	20	PASS
			HV	NT	19000	3.307224	20	PASS
	Ant1	5785	NV	NT	17000	2.938634	20	PASS
			LV	NT	19000	3.284356	20	PASS
			HV	NT	19000	3.284356	20	PASS
	Ant2	5785	NV	NT	21000	3.630078	20	PASS
			LV	NT	22000	3.802939	20	PASS
			HV	NT	22000	3.802939	20	PASS
	Ant1	5825	NV	NT	19000	3.261803	20	PASS
			LV	NT	21000	3.60515	20	PASS
			HV	NT	22000	3.776824	20	PASS
	Ant2	5825	NV	NT	24000	4.120172	20	PASS
			LV	NT	24000	4.120172	20	PASS
			HV	NT	24000	4.120172	20	PASS
11N40 MIMO	Ant1	5190	NV	NT	9000	1.734104	20	PASS
			LV	NT	9000	1.734104	20	PASS
			HV	NT	10000	1.926782	20	PASS
	Ant2	5190	NV	NT	11000	2.119461	20	PASS
			LV	NT	12000	2.312139	20	PASS
			HV	NT	12000	2.312139	20	PASS
	Ant1	5230	NV	NT	10000	1.912046	20	PASS
			LV	NT	10000	1.912046	20	PASS
			HV	NT	10000	1.912046	20	PASS
	Ant2	5230	NV	NT	9000	1.720841	20	PASS
			LV	NT	9000	1.720841	20	PASS
			HV	NT	9000	1.720841	20	PASS
	Ant1	5270	NV	NT	7000	1.328273	20	PASS
			LV	NT	8000	1.518027	20	PASS
			HV	NT	9000	1.70778	20	PASS
	Ant2	5270	NV	NT	10000	1.897533	20	PASS
			LV	NT	10000	1.897533	20	PASS
			HV	NT	10000	1.897533	20	PASS
	Ant1	5310	NV	NT	8000	1.506591	20	PASS
			LV	NT	9000	1.694915	20	PASS
			HV	NT	9000	1.694915	20	PASS
		5510	NV	NT	21000	3.811252	20	PASS
			LV	NT	21000	3.811252	20	PASS

			HV	NT	21000	3.811252	20	PASS
	Ant2	5510	NV	NT	21000	3.811252	20	PASS
			LV	NT	22000	3.99274	20	PASS
			HV	NT	22000	3.99274	20	PASS
	Ant1	5550	NV	NT	15000	2.702703	20	PASS
			LV	NT	17000	3.063063	20	PASS
			HV	NT	18000	3.243243	20	PASS
	Ant2	5550	NV	NT	19000	3.423423	20	PASS
			LV	NT	19000	3.423423	20	PASS
			HV	NT	19000	3.423423	20	PASS
	Ant1	5670	NV	NT	15000	2.645503	20	PASS
			LV	NT	17000	2.998236	20	PASS
			HV	NT	18000	3.174603	20	PASS
	Ant2	5670	NV	NT	21000	3.703704	20	PASS
			LV	NT	21000	3.703704	20	PASS
			HV	NT	21000	3.703704	20	PASS
	Ant1	5755	NV	NT	28000	4.865334	20	PASS
			LV	NT	28000	4.865334	20	PASS
			HV	NT	29000	5.039096	20	PASS
	Ant2	5755	NV	NT	33000	5.734144	20	PASS
			LV	NT	33000	5.734144	20	PASS
			HV	NT	34000	5.907906	20	PASS
	Ant1	5795	NV	NT	15000	2.588438	20	PASS
			LV	NT	14000	2.415876	20	PASS
			HV	NT	13000	2.243313	20	PASS
	Ant2	5795	NV	NT	9000	1.553063	20	PASS
			LV	NT	9000	1.553063	20	PASS
			HV	NT	9000	1.553063	20	PASS
11AC20 MIMO	Ant1	5180	NV	NT	8000	1.544402	20	PASS
			LV	NT	9000	1.737452	20	PASS
			HV	NT	10000	1.930502	20	PASS
	Ant2	5180	NV	NT	15000	2.895753	20	PASS
			LV	NT	15000	2.895753	20	PASS
			HV	NT	16000	3.088803	20	PASS
	Ant1	5200	NV	NT	14000	2.692308	20	PASS
			LV	NT	15000	2.884615	20	PASS
			HV	NT	15000	2.884615	20	PASS
	Ant2	5200	NV	NT	16000	3.076923	20	PASS
			LV	NT	16000	3.076923	20	PASS
			HV	NT	16000	3.076923	20	PASS
	Ant1	5240	NV	NT	14000	2.671756	20	PASS
			LV	NT	15000	2.862595	20	PASS
			HV	NT	15000	2.862595	20	PASS
	Ant2	5240	NV	NT	17000	3.244275	20	PASS
			LV	NT	17000	3.244275	20	PASS
			HV	NT	17000	3.244275	20	PASS
	Ant1	5260	NV	NT	13000	2.471483	20	PASS
			LV	NT	15000	2.851711	20	PASS
			HV	NT	16000	3.041825	20	PASS
	Ant2	5260	NV	NT	17000	3.231939	20	PASS
			LV	NT	17000	3.231939	20	PASS

			HV	NT	17000	3.231939	20	PASS
	Ant1	5280	NV	NT	14000	2.651515	20	PASS
			LV	NT	15000	2.840909	20	PASS
			HV	NT	15000	2.840909	20	PASS
	Ant2	5280	NV	NT	17000	3.219697	20	PASS
			LV	NT	17000	3.219697	20	PASS
			HV	NT	17000	3.219697	20	PASS
	Ant1	5320	NV	NT	13000	2.443609	20	PASS
			LV	NT	15000	2.819549	20	PASS
			HV	NT	16000	3.007519	20	PASS
	Ant2	5320	NV	NT	20000	3.759398	20	PASS
			LV	NT	20000	3.759398	20	PASS
			HV	NT	20000	3.759398	20	PASS
	Ant1	5500	NV	NT	17000	3.090909	20	PASS
			LV	NT	20000	3.636364	20	PASS
			HV	NT	22000	4	20	PASS
	Ant2	5500	NV	NT	31000	5.636364	20	PASS
			LV	NT	31000	5.636364	20	PASS
			HV	NT	32000	5.818182	20	PASS
	Ant1	5580	NV	NT	24000	4.301075	20	PASS
			LV	NT	26000	4.659498	20	PASS
			HV	NT	26000	4.659498	20	PASS
	Ant2	5580	NV	NT	26000	4.659498	20	PASS
			LV	NT	26000	4.659498	20	PASS
			HV	NT	26000	4.659498	20	PASS
	Ant1	5700	NV	NT	20000	3.508772	20	PASS
			LV	NT	23000	4.035088	20	PASS
			HV	NT	25000	4.385965	20	PASS
	Ant2	5700	NV	NT	32000	5.614035	20	PASS
			LV	NT	33000	5.789474	20	PASS
			HV	NT	33000	5.789474	20	PASS
	Ant1	5745	NV	NT	36000	6.266319	20	PASS
			LV	NT	36000	6.266319	20	PASS
			HV	NT	37000	6.440383	20	PASS
	Ant2	5745	NV	NT	39000	6.788512	20	PASS
			LV	NT	39000	6.788512	20	PASS
			HV	NT	40000	6.962576	20	PASS
	Ant1	5785	NV	NT	21000	3.630078	20	PASS
			LV	NT	22000	3.802939	20	PASS
			HV	NT	23000	3.975799	20	PASS
	Ant2	5785	NV	NT	28000	4.840104	20	PASS
			LV	NT	29000	5.012965	20	PASS
			HV	NT	30000	5.185825	20	PASS
	Ant1	5825	NV	NT	32000	5.493562	20	PASS
			LV	NT	33000	5.665236	20	PASS
			HV	NT	33000	5.665236	20	PASS
	Ant2	5825	NV	NT	37000	6.351931	20	PASS
			LV	NT	38000	6.523605	20	PASS
			HV	NT	38000	6.523605	20	PASS
11AC40 MIMO	Ant1	5190	NV	NT	6000	1.156069	20	PASS
			LV	NT	10000	1.926782	20	PASS

			HV	NT	12000	2.312139	20	PASS
	Ant2	5190	NV	NT	10000	1.926782	20	PASS
			LV	NT	10000	1.926782	20	PASS
			HV	NT	10000	1.926782	20	PASS
	Ant1	5230	NV	NT	12000	2.294455	20	PASS
			LV	NT	7000	1.338432	20	PASS
			HV	NT	5000	0.956023	20	PASS
	Ant2	5230	NV	NT	12000	2.294455	20	PASS
			LV	NT	12000	2.294455	20	PASS
			HV	NT	11000	2.10325	20	PASS
	Ant1	5270	NV	NT	6000	1.13852	20	PASS
			LV	NT	6000	1.13852	20	PASS
			HV	NT	6000	1.13852	20	PASS
	Ant2	5270	NV	NT	11000	2.087287	20	PASS
			LV	NT	11000	2.087287	20	PASS
			HV	NT	11000	2.087287	20	PASS
	Ant1	5310	NV	NT	14000	2.636535	20	PASS
			LV	NT	14000	2.636535	20	PASS
			HV	NT	15000	2.824859	20	PASS
	Ant2	5310	NV	NT	17000	3.201507	20	PASS
			LV	NT	17000	3.201507	20	PASS
			HV	NT	17000	3.201507	20	PASS
	Ant1	5510	NV	NT	19000	3.448276	20	PASS
			LV	NT	21000	3.811252	20	PASS
			HV	NT	23000	4.174229	20	PASS
	Ant2	5510	NV	NT	31000	5.626134	20	PASS
			LV	NT	32000	5.807623	20	PASS
			HV	NT	32000	5.807623	20	PASS
	Ant1	5550	NV	NT	34000	6.126126	20	PASS
			LV	NT	32000	5.765766	20	PASS
			HV	NT	32000	5.765766	20	PASS
	Ant2	5550	NV	NT	29000	5.225225	20	PASS
			LV	NT	29000	5.225225	20	PASS
			HV	NT	29000	5.225225	20	PASS
	Ant1	5670	NV	NT	27000	4.761905	20	PASS
			LV	NT	28000	4.938272	20	PASS
			HV	NT	29000	5.114638	20	PASS
	Ant2	5670	NV	NT	31000	5.467372	20	PASS
			LV	NT	31000	5.467372	20	PASS
			HV	NT	31000	5.467372	20	PASS
	Ant1	5755	NV	NT	31000	5.38662	20	PASS
			LV	NT	34000	5.907906	20	PASS
			HV	NT	36000	6.25543	20	PASS
	Ant2	5755	NV	NT	45000	7.819288	20	PASS
			LV	NT	45000	7.819288	20	PASS
			HV	NT	46000	7.99305	20	PASS
	Ant1	5795	NV	NT	47000	8.11044	20	PASS
			LV	NT	47000	8.11044	20	PASS
			HV	NT	47000	8.11044	20	PASS
	Ant2	5795	NV	NT	47000	8.11044	20	PASS
			LV	NT	47000	8.11044	20	PASS

			HV	NT	47000	8.11044	20	PASS
11AC80 MIMO	Ant1	5210	NV	NT	39000	7.485605	20	PASS
			LV	NT	36000	6.909789	20	PASS
			HV	NT	34000	6.525912	20	PASS
	Ant2	5210	NV	NT	28000	5.37428	20	PASS
			LV	NT	27000	5.182342	20	PASS
			HV	NT	27000	5.182342	20	PASS
	Ant1	5290	NV	NT	24000	4.536862	20	PASS
			LV	NT	25000	4.725898	20	PASS
			HV	NT	25000	4.725898	20	PASS
	Ant2	5290	NV	NT	25000	4.725898	20	PASS
			LV	NT	25000	4.725898	20	PASS
			HV	NT	25000	4.725898	20	PASS
	Ant1	5530	NV	NT	25000	4.520796	20	PASS
			LV	NT	28000	5.063291	20	PASS
			HV	NT	31000	5.605787	20	PASS
	Ant2	5530	NV	NT	38000	6.871609	20	PASS
			LV	NT	38000	6.871609	20	PASS
			HV	NT	39000	7.052441	20	PASS
	Ant1	5610	NV	NT	38000	6.773619	20	PASS
			LV	NT	37000	6.595365	20	PASS
			HV	NT	36000	6.417112	20	PASS
	Ant2	5610	NV	NT	32000	5.7041	20	PASS
			LV	NT	32000	5.7041	20	PASS
			HV	NT	31000	5.525847	20	PASS
	Ant1	5775	NV	NT	45000	7.792208	20	PASS
			LV	NT	46000	7.965368	20	PASS
			HV	NT	47000	8.138528	20	PASS
	Ant2	5775	NV	NT	50000	8.658009	20	PASS
			LV	NT	51000	8.831169	20	PASS
			HV	NT	51000	8.831169	20	PASS

Temperature								
Test Mode	Antenna	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
11A	Ant1	5180	NV	-30	10000	1.930502	20	PASS
			NV	-20	10000	1.930502	20	PASS
			NV	-10	10000	1.930502	20	PASS
			NV	0	10000	1.930502	20	PASS
			NV	10	10000	1.930502	20	PASS
			NV	20	10000	1.930502	20	PASS
			NV	30	10000	1.930502	20	PASS
			NV	40	10000	1.930502	20	PASS
			NV	50	10000	1.930502	20	PASS
	Ant2	5180	NV	-30	7000	1.351351	20	PASS
			NV	-20	6000	1.158301	20	PASS
			NV	-10	6000	1.158301	20	PASS
			NV	0	6000	1.158301	20	PASS
			NV	10	6000	1.158301	20	PASS
			NV	20	6000	1.158301	20	PASS

			NV	30	6000	1.158301	20	PASS
			NV	40	6000	1.158301	20	PASS
			NV	50	6000	1.158301	20	PASS
	Ant1	5200	NV	-30	10000	1.923077	20	PASS
			NV	-20	9000	1.730769	20	PASS
			NV	-10	9000	1.730769	20	PASS
			NV	0	9000	1.730769	20	PASS
			NV	10	9000	1.730769	20	PASS
			NV	20	9000	1.730769	20	PASS
			NV	30	9000	1.730769	20	PASS
			NV	40	9000	1.730769	20	PASS
			NV	50	9000	1.730769	20	PASS
	Ant2	5200	NV	-30	6000	1.153846	20	PASS
			NV	-20	6000	1.153846	20	PASS
			NV	-10	6000	1.153846	20	PASS
			NV	0	6000	1.153846	20	PASS
			NV	10	6000	1.153846	20	PASS
			NV	20	6000	1.153846	20	PASS
			NV	30	6000	1.153846	20	PASS
			NV	40	6000	1.153846	20	PASS
			NV	50	6000	1.153846	20	PASS
	Ant1	5240	NV	-30	9000	1.717557	20	PASS
			NV	-20	9000	1.717557	20	PASS
			NV	-10	9000	1.717557	20	PASS
			NV	0	9000	1.717557	20	PASS
			NV	10	9000	1.717557	20	PASS
			NV	20	9000	1.717557	20	PASS
			NV	30	9000	1.717557	20	PASS
			NV	40	9000	1.717557	20	PASS
			NV	50	9000	1.717557	20	PASS
	Ant2	5240	NV	-30	6000	1.145038	20	PASS
			NV	-20	6000	1.145038	20	PASS
			NV	-10	6000	1.145038	20	PASS
			NV	0	6000	1.145038	20	PASS
			NV	10	6000	1.145038	20	PASS
			NV	20	6000	1.145038	20	PASS
			NV	30	6000	1.145038	20	PASS
			NV	40	6000	1.145038	20	PASS
			NV	50	6000	1.145038	20	PASS
	Ant1	5260	NV	-30	9000	1.711027	20	PASS
			NV	-20	9000	1.711027	20	PASS
			NV	-10	9000	1.711027	20	PASS
			NV	0	9000	1.711027	20	PASS
			NV	10	9000	1.711027	20	PASS
			NV	20	9000	1.711027	20	PASS
			NV	30	9000	1.711027	20	PASS
			NV	40	9000	1.711027	20	PASS
			NV	50	9000	1.711027	20	PASS
	Ant2	5260	NV	-30	6000	1.140684	20	PASS
			NV	-20	6000	1.140684	20	PASS
			NV	-10	6000	1.140684	20	PASS

			NV	0	6000	1.140684	20	PASS
			NV	10	6000	1.140684	20	PASS
			NV	20	6000	1.140684	20	PASS
			NV	30	6000	1.140684	20	PASS
			NV	40	6000	1.140684	20	PASS
			NV	50	6000	1.140684	20	PASS
	Ant1	5280	NV	-30	9000	1.704545	20	PASS
			NV	-20	9000	1.704545	20	PASS
			NV	-10	9000	1.704545	20	PASS
			NV	0	9000	1.704545	20	PASS
			NV	10	9000	1.704545	20	PASS
			NV	20	8000	1.515152	20	PASS
			NV	30	8000	1.515152	20	PASS
			NV	40	9000	1.704545	20	PASS
			NV	50	8000	1.515152	20	PASS
	Ant2	5280	NV	-30	6000	1.136364	20	PASS
			NV	-20	6000	1.136364	20	PASS
			NV	-10	6000	1.136364	20	PASS
			NV	0	6000	1.136364	20	PASS
			NV	10	6000	1.136364	20	PASS
			NV	20	6000	1.136364	20	PASS
			NV	30	6000	1.136364	20	PASS
			NV	40	6000	1.136364	20	PASS
			NV	50	6000	1.136364	20	PASS
	Ant1	5320	NV	-30	9000	1.691729	20	PASS
			NV	-20	9000	1.691729	20	PASS
			NV	-10	9000	1.691729	20	PASS
			NV	0	9000	1.691729	20	PASS
			NV	10	9000	1.691729	20	PASS
			NV	20	9000	1.691729	20	PASS
			NV	30	8000	1.503759	20	PASS
			NV	40	9000	1.691729	20	PASS
			NV	50	9000	1.691729	20	PASS
	Ant2	5320	NV	-30	6000	1.12782	20	PASS
			NV	-20	6000	1.12782	20	PASS
			NV	-10	6000	1.12782	20	PASS
			NV	0	6000	1.12782	20	PASS
			NV	10	6000	1.12782	20	PASS
			NV	20	6000	1.12782	20	PASS
			NV	30	6000	1.12782	20	PASS
			NV	40	6000	1.12782	20	PASS
			NV	50	6000	1.12782	20	PASS
	Ant1	5500	NV	-30	8000	1.454545	20	PASS
			NV	-20	7000	1.272727	20	PASS
			NV	-10	7000	1.272727	20	PASS
			NV	0	7000	1.272727	20	PASS
			NV	10	7000	1.272727	20	PASS
			NV	20	7000	1.272727	20	PASS
			NV	30	7000	1.272727	20	PASS
			NV	40	7000	1.272727	20	PASS
			NV	50	7000	1.272727	20	PASS

	Ant2	5500	NV	-30	6000	1.090909	20	PASS
			NV	-20	6000	1.090909	20	PASS
			NV	-10	6000	1.090909	20	PASS
			NV	0	6000	1.090909	20	PASS
			NV	10	6000	1.090909	20	PASS
			NV	20	6000	1.090909	20	PASS
			NV	30	6000	1.090909	20	PASS
			NV	40	6000	1.090909	20	PASS
			NV	50	6000	1.090909	20	PASS
	Ant1	5580	NV	-30	12000	2.150538	20	PASS
			NV	-20	12000	2.150538	20	PASS
			NV	-10	11000	1.971326	20	PASS
			NV	0	11000	1.971326	20	PASS
			NV	10	11000	1.971326	20	PASS
			NV	20	10000	1.792115	20	PASS
			NV	30	10000	1.792115	20	PASS
			NV	40	10000	1.792115	20	PASS
			NV	50	10000	1.792115	20	PASS
	Ant2	5580	NV	-30	6000	1.075269	20	PASS
			NV	-20	6000	1.075269	20	PASS
			NV	-10	6000	1.075269	20	PASS
			NV	0	7000	1.25448	20	PASS
			NV	10	7000	1.25448	20	PASS
			NV	20	6000	1.075269	20	PASS
			NV	30	7000	1.25448	20	PASS
			NV	40	6000	1.075269	20	PASS
			NV	50	6000	1.075269	20	PASS
	Ant1	5700	NV	-30	13000	2.280702	20	PASS
			NV	-20	13000	2.280702	20	PASS
			NV	-10	12000	2.105263	20	PASS
			NV	0	12000	2.105263	20	PASS
			NV	10	12000	2.105263	20	PASS
			NV	20	11000	1.929825	20	PASS
			NV	30	11000	1.929825	20	PASS
			NV	40	11000	1.929825	20	PASS
			NV	50	11000	1.929825	20	PASS
	Ant2	5700	NV	-30	6000	1.052632	20	PASS
			NV	-20	6000	1.052632	20	PASS
			NV	-10	7000	1.22807	20	PASS
			NV	0	7000	1.22807	20	PASS
			NV	10	7000	1.22807	20	PASS
			NV	20	7000	1.22807	20	PASS
			NV	30	7000	1.22807	20	PASS
			NV	40	7000	1.22807	20	PASS
			NV	50	7000	1.22807	20	PASS
	Ant1	5745	NV	-30	7000	1.218451	20	PASS
			NV	-20	7000	1.218451	20	PASS
			NV	-10	7000	1.218451	20	PASS
			NV	0	7000	1.218451	20	PASS
			NV	10	7000	1.218451	20	PASS
			NV	20	7000	1.218451	20	PASS

			NV	30	7000	1.218451	20	PASS
			NV	40	7000	1.218451	20	PASS
			NV	50	7000	1.218451	20	PASS
	Ant2	5745	NV	-30	7000	1.218451	20	PASS
			NV	-20	7000	1.218451	20	PASS
			NV	-10	7000	1.218451	20	PASS
			NV	0	7000	1.218451	20	PASS
			NV	10	7000	1.218451	20	PASS
			NV	20	7000	1.218451	20	PASS
			NV	30	7000	1.218451	20	PASS
			NV	40	7000	1.218451	20	PASS
			NV	50	7000	1.218451	20	PASS
	Ant1	5785	NV	-30	10000	1.728608	20	PASS
			NV	-20	10000	1.728608	20	PASS
			NV	-10	9000	1.555748	20	PASS
			NV	0	9000	1.555748	20	PASS
			NV	10	9000	1.555748	20	PASS
			NV	20	9000	1.555748	20	PASS
			NV	30	8000	1.382887	20	PASS
			NV	40	8000	1.382887	20	PASS
			NV	50	8000	1.382887	20	PASS
	Ant2	5785	NV	-30	7000	1.210026	20	PASS
			NV	-20	7000	1.210026	20	PASS
			NV	-10	7000	1.210026	20	PASS
			NV	0	7000	1.210026	20	PASS
			NV	10	7000	1.210026	20	PASS
			NV	20	7000	1.210026	20	PASS
			NV	30	7000	1.210026	20	PASS
			NV	40	7000	1.210026	20	PASS
			NV	50	7000	1.210026	20	PASS
	Ant1	5825	NV	-30	9000	1.545064	20	PASS
			NV	-20	9000	1.545064	20	PASS
			NV	-10	9000	1.545064	20	PASS
			NV	0	8000	1.373391	20	PASS
			NV	10	8000	1.373391	20	PASS
			NV	20	8000	1.373391	20	PASS
			NV	30	8000	1.373391	20	PASS
			NV	40	8000	1.373391	20	PASS
			NV	50	8000	1.373391	20	PASS
	Ant2	5825	NV	-30	7000	1.201717	20	PASS
			NV	-20	7000	1.201717	20	PASS
			NV	-10	7000	1.201717	20	PASS
			NV	0	7000	1.201717	20	PASS
			NV	10	7000	1.201717	20	PASS
			NV	20	7000	1.201717	20	PASS
			NV	30	7000	1.201717	20	PASS
			NV	40	7000	1.201717	20	PASS
			NV	50	7000	1.201717	20	PASS
11N20 MIMO	Ant1	5180	NV	-30	11000	2.123552	20	PASS
			NV	-20	12000	2.316602	20	PASS
			NV	-10	13000	2.509653	20	PASS

			NV	0	14000	2.702703	20	PASS
			NV	10	15000	2.895753	20	PASS
			NV	20	16000	3.088803	20	PASS
			NV	30	16000	3.088803	20	PASS
			NV	40	17000	3.281853	20	PASS
			NV	50	18000	3.474903	20	PASS
	Ant2	5180	NV	-30	21000	4.054054	20	PASS
			NV	-20	21000	4.054054	20	PASS
			NV	-10	22000	4.247104	20	PASS
			NV	0	22000	4.247104	20	PASS
			NV	10	23000	4.440154	20	PASS
			NV	20	24000	4.633205	20	PASS
			NV	30	24000	4.633205	20	PASS
			NV	40	25000	4.826255	20	PASS
			NV	50	25000	4.826255	20	PASS
	Ant1	5200	NV	-30	23000	4.423077	20	PASS
			NV	-20	23000	4.423077	20	PASS
			NV	-10	24000	4.615385	20	PASS
			NV	0	24000	4.615385	20	PASS
			NV	10	24000	4.615385	20	PASS
			NV	20	24000	4.615385	20	PASS
			NV	30	25000	4.807692	20	PASS
			NV	40	25000	4.807692	20	PASS
			NV	50	25000	4.807692	20	PASS
	Ant2	5200	NV	-30	26000	5	20	PASS
			NV	-20	26000	5	20	PASS
			NV	-10	26000	5	20	PASS
			NV	0	26000	5	20	PASS
			NV	10	26000	5	20	PASS
			NV	20	26000	5	20	PASS
			NV	30	26000	5	20	PASS
			NV	40	27000	5.192308	20	PASS
			NV	50	27000	5.192308	20	PASS
	Ant1	5240	NV	-30	24000	4.580153	20	PASS
			NV	-20	24000	4.580153	20	PASS
			NV	-10	24000	4.580153	20	PASS
			NV	0	25000	4.770992	20	PASS
			NV	10	25000	4.770992	20	PASS
			NV	20	25000	4.770992	20	PASS
			NV	30	25000	4.770992	20	PASS
			NV	40	25000	4.770992	20	PASS
			NV	50	25000	4.770992	20	PASS
	Ant2	5240	NV	-30	25000	4.770992	20	PASS
			NV	-20	25000	4.770992	20	PASS
			NV	-10	25000	4.770992	20	PASS
			NV	0	25000	4.770992	20	PASS
			NV	10	25000	4.770992	20	PASS
			NV	20	25000	4.770992	20	PASS
			NV	30	25000	4.770992	20	PASS
			NV	40	25000	4.770992	20	PASS
			NV	50	25000	4.770992	20	PASS

	Ant1	5260	NV	-30	23000	4.372624	20	PASS
			NV	-20	24000	4.562738	20	PASS
			NV	-10	24000	4.562738	20	PASS
			NV	0	24000	4.562738	20	PASS
			NV	10	24000	4.562738	20	PASS
			NV	20	24000	4.562738	20	PASS
			NV	30	24000	4.562738	20	PASS
			NV	40	24000	4.562738	20	PASS
			NV	50	24000	4.562738	20	PASS
	Ant2	5260	NV	-30	24000	4.562738	20	PASS
			NV	-20	24000	4.562738	20	PASS
			NV	-10	24000	4.562738	20	PASS
			NV	0	24000	4.562738	20	PASS
			NV	10	24000	4.562738	20	PASS
			NV	20	25000	4.752852	20	PASS
			NV	30	25000	4.752852	20	PASS
			NV	40	25000	4.752852	20	PASS
			NV	50	25000	4.752852	20	PASS
	Ant1	5280	NV	-30	24000	4.545455	20	PASS
			NV	-20	24000	4.545455	20	PASS
			NV	-10	24000	4.545455	20	PASS
			NV	0	25000	4.734848	20	PASS
			NV	10	25000	4.734848	20	PASS
			NV	20	25000	4.734848	20	PASS
			NV	30	25000	4.734848	20	PASS
			NV	40	25000	4.734848	20	PASS
			NV	50	25000	4.734848	20	PASS
	Ant2	5280	NV	-30	26000	4.924242	20	PASS
			NV	-20	26000	4.924242	20	PASS
			NV	-10	26000	4.924242	20	PASS
			NV	0	26000	4.924242	20	PASS
			NV	10	26000	4.924242	20	PASS
			NV	20	26000	4.924242	20	PASS
			NV	30	26000	4.924242	20	PASS
			NV	40	26000	4.924242	20	PASS
			NV	50	26000	4.924242	20	PASS
	Ant1	5320	NV	-30	26000	4.887218	20	PASS
			NV	-20	26000	4.887218	20	PASS
			NV	-10	27000	5.075188	20	PASS
			NV	0	27000	5.075188	20	PASS
			NV	10	27000	5.075188	20	PASS
			NV	20	28000	5.263158	20	PASS
			NV	30	28000	5.263158	20	PASS
			NV	40	28000	5.263158	20	PASS
			NV	50	28000	5.263158	20	PASS
	Ant2	5320	NV	-30	29000	5.451128	20	PASS
			NV	-20	29000	5.451128	20	PASS
			NV	-10	29000	5.451128	20	PASS
			NV	0	29000	5.451128	20	PASS
			NV	10	29000	5.451128	20	PASS
			NV	20	29000	5.451128	20	PASS

			NV	30	29000	5.451128	20	PASS
			NV	40	29000	5.451128	20	PASS
			NV	50	29000	5.451128	20	PASS
	Ant1	5500	NV	-30	34000	6.181818	20	PASS
			NV	-20	36000	6.545455	20	PASS
			NV	-10	37000	6.727273	20	PASS
			NV	0	38000	6.909091	20	PASS
			NV	10	39000	7.090909	20	PASS
			NV	20	40000	7.272727	20	PASS
			NV	30	41000	7.454545	20	PASS
			NV	40	42000	7.636364	20	PASS
			NV	50	42000	7.636364	20	PASS
	Ant2	5500	NV	-30	45000	8.181818	20	PASS
			NV	-20	45000	8.181818	20	PASS
			NV	-10	45000	8.181818	20	PASS
			NV	0	46000	8.363636	20	PASS
			NV	10	46000	8.363636	20	PASS
			NV	20	46000	8.363636	20	PASS
			NV	30	47000	8.545455	20	PASS
			NV	40	47000	8.545455	20	PASS
			NV	50	47000	8.545455	20	PASS
	Ant1	5580	NV	-30	37000	6.630824	20	PASS
			NV	-20	37000	6.630824	20	PASS
			NV	-10	37000	6.630824	20	PASS
			NV	0	37000	6.630824	20	PASS
			NV	10	36000	6.451613	20	PASS
			NV	20	36000	6.451613	20	PASS
			NV	30	36000	6.451613	20	PASS
			NV	40	36000	6.451613	20	PASS
			NV	50	36000	6.451613	20	PASS
	Ant2	5580	NV	-30	35000	6.272401	20	PASS
			NV	-20	35000	6.272401	20	PASS
			NV	-10	35000	6.272401	20	PASS
			NV	0	35000	6.272401	20	PASS
			NV	10	35000	6.272401	20	PASS
			NV	20	35000	6.272401	20	PASS
			NV	30	35000	6.272401	20	PASS
			NV	40	35000	6.272401	20	PASS
			NV	50	35000	6.272401	20	PASS
	Ant1	5700	NV	-30	4000	0.701754	20	PASS
			NV	-20	4000	0.701754	20	PASS
			NV	-10	5000	0.877193	20	PASS
			NV	0	5000	0.877193	20	PASS
			NV	10	6000	1.052632	20	PASS
			NV	20	6000	1.052632	20	PASS
			NV	30	6000	1.052632	20	PASS
			NV	40	7000	1.22807	20	PASS
			NV	50	7000	1.22807	20	PASS
	Ant2	5700	NV	-30	9000	1.578947	20	PASS
			NV	-20	9000	1.578947	20	PASS
			NV	-10	9000	1.578947	20	PASS

			NV	0	10000	1.754386	20	PASS
			NV	10	10000	1.754386	20	PASS
			NV	20	10000	1.754386	20	PASS
			NV	30	11000	1.929825	20	PASS
			NV	40	11000	1.929825	20	PASS
			NV	50	11000	1.929825	20	PASS
	Ant1	5745	NV	-30	16000	2.78503	20	PASS
			NV	-20	17000	2.959095	20	PASS
			NV	-10	17000	2.959095	20	PASS
			NV	0	17000	2.959095	20	PASS
			NV	10	17000	2.959095	20	PASS
			NV	20	18000	3.133159	20	PASS
			NV	30	18000	3.133159	20	PASS
			NV	40	18000	3.133159	20	PASS
			NV	50	18000	3.133159	20	PASS
	Ant2	5745	NV	-30	19000	3.307224	20	PASS
			NV	-20	19000	3.307224	20	PASS
			NV	-10	20000	3.481288	20	PASS
			NV	0	20000	3.481288	20	PASS
			NV	10	20000	3.481288	20	PASS
			NV	20	20000	3.481288	20	PASS
			NV	30	20000	3.481288	20	PASS
			NV	40	21000	3.655352	20	PASS
			NV	50	21000	3.655352	20	PASS
	Ant1	5785	NV	-30	20000	3.457217	20	PASS
			NV	-20	20000	3.457217	20	PASS
			NV	-10	20000	3.457217	20	PASS
			NV	0	20000	3.457217	20	PASS
			NV	10	21000	3.630078	20	PASS
			NV	20	21000	3.630078	20	PASS
			NV	30	21000	3.630078	20	PASS
			NV	40	21000	3.630078	20	PASS
			NV	50	21000	3.630078	20	PASS
	Ant2	5785	NV	-30	22000	3.802939	20	PASS
			NV	-20	22000	3.802939	20	PASS
			NV	-10	22000	3.802939	20	PASS
			NV	0	22000	3.802939	20	PASS
			NV	10	22000	3.802939	20	PASS
			NV	20	22000	3.802939	20	PASS
			NV	30	22000	3.802939	20	PASS
			NV	40	22000	3.802939	20	PASS
			NV	50	22000	3.802939	20	PASS
	Ant1	5825	NV	-30	22000	3.776824	20	PASS
			NV	-20	23000	3.948498	20	PASS
			NV	-10	23000	3.948498	20	PASS
			NV	0	23000	3.948498	20	PASS
			NV	10	23000	3.948498	20	PASS
			NV	20	24000	4.120172	20	PASS
			NV	30	24000	4.120172	20	PASS
			NV	40	24000	4.120172	20	PASS
			NV	50	24000	4.120172	20	PASS

	Ant2	5825	NV	-30	25000	4.291845	20	PASS
			NV	-20	25000	4.291845	20	PASS
			NV	-10	25000	4.291845	20	PASS
			NV	0	25000	4.291845	20	PASS
			NV	10	25000	4.291845	20	PASS
			NV	20	25000	4.291845	20	PASS
			NV	30	25000	4.291845	20	PASS
			NV	40	25000	4.291845	20	PASS
			NV	50	25000	4.291845	20	PASS
11N40 MIMO	Ant1	5190	NV	-30	10000	1.926782	20	PASS
			NV	-20	10000	1.926782	20	PASS
			NV	-10	10000	1.926782	20	PASS
			NV	0	10000	1.926782	20	PASS
			NV	10	10000	1.926782	20	PASS
			NV	20	11000	2.119461	20	PASS
			NV	30	11000	2.119461	20	PASS
			NV	40	11000	2.119461	20	PASS
			NV	50	11000	2.119461	20	PASS
	Ant2	5190	NV	-30	12000	2.312139	20	PASS
			NV	-20	12000	2.312139	20	PASS
			NV	-10	12000	2.312139	20	PASS
			NV	0	12000	2.312139	20	PASS
			NV	10	12000	2.312139	20	PASS
			NV	20	12000	2.312139	20	PASS
			NV	30	12000	2.312139	20	PASS
			NV	40	12000	2.312139	20	PASS
			NV	50	12000	2.312139	20	PASS
	Ant1	5230	NV	-30	10000	1.912046	20	PASS
			NV	-20	10000	1.912046	20	PASS
			NV	-10	10000	1.912046	20	PASS
			NV	0	10000	1.912046	20	PASS
			NV	10	10000	1.912046	20	PASS
			NV	20	10000	1.912046	20	PASS
			NV	30	10000	1.912046	20	PASS
			NV	40	9000	1.720841	20	PASS
			NV	50	10000	1.912046	20	PASS
	Ant2	5230	NV	-30	10000	1.912046	20	PASS
			NV	-20	9000	1.720841	20	PASS
			NV	-10	9000	1.720841	20	PASS
			NV	0	9000	1.720841	20	PASS
			NV	10	9000	1.720841	20	PASS
			NV	20	9000	1.720841	20	PASS
			NV	30	9000	1.720841	20	PASS
			NV	40	9000	1.720841	20	PASS
			NV	50	9000	1.720841	20	PASS
	Ant1	5270	NV	-30	9000	1.70778	20	PASS
			NV	-20	9000	1.70778	20	PASS
			NV	-10	9000	1.70778	20	PASS
			NV	0	9000	1.70778	20	PASS
			NV	10	9000	1.70778	20	PASS
			NV	20	10000	1.897533	20	PASS

			NV	30	10000	1.897533	20	PASS
			NV	40	10000	1.897533	20	PASS
			NV	50	10000	1.897533	20	PASS
	Ant2	5270	NV	-30	10000	1.897533	20	PASS
			NV	-20	10000	1.897533	20	PASS
			NV	-10	10000	1.897533	20	PASS
			NV	0	10000	1.897533	20	PASS
			NV	10	10000	1.897533	20	PASS
			NV	20	10000	1.897533	20	PASS
			NV	30	10000	1.897533	20	PASS
			NV	40	10000	1.897533	20	PASS
			NV	50	10000	1.897533	20	PASS
	Ant1	5310	NV	-30	9000	1.694915	20	PASS
			NV	-20	9000	1.694915	20	PASS
			NV	-10	10000	1.883239	20	PASS
			NV	0	10000	1.883239	20	PASS
			NV	10	10000	1.883239	20	PASS
			NV	20	10000	1.883239	20	PASS
			NV	30	10000	1.883239	20	PASS
			NV	40	10000	1.883239	20	PASS
			NV	50	10000	1.883239	20	PASS
		5510	NV	-30	21000	3.811252	20	PASS
			NV	-20	21000	3.811252	20	PASS
			NV	-10	21000	3.811252	20	PASS
			NV	0	21000	3.811252	20	PASS
			NV	10	21000	3.811252	20	PASS
			NV	20	21000	3.811252	20	PASS
			NV	30	21000	3.811252	20	PASS
			NV	40	21000	3.811252	20	PASS
			NV	50	22000	3.99274	20	PASS
	Ant2	5510	NV	-30	22000	3.99274	20	PASS
			NV	-20	22000	3.99274	20	PASS
			NV	-10	22000	3.99274	20	PASS
			NV	0	22000	3.99274	20	PASS
			NV	10	22000	3.99274	20	PASS
			NV	20	22000	3.99274	20	PASS
			NV	30	22000	3.99274	20	PASS
			NV	40	22000	3.99274	20	PASS
			NV	50	22000	3.99274	20	PASS
	Ant1	5550	NV	-30	18000	3.243243	20	PASS
			NV	-20	18000	3.243243	20	PASS
			NV	-10	19000	3.423423	20	PASS
			NV	0	19000	3.423423	20	PASS
			NV	10	19000	3.423423	20	PASS
			NV	20	19000	3.423423	20	PASS
			NV	30	19000	3.423423	20	PASS
			NV	40	19000	3.423423	20	PASS
			NV	50	19000	3.423423	20	PASS
	Ant2	5550	NV	-30	19000	3.423423	20	PASS
			NV	-20	19000	3.423423	20	PASS
			NV	-10	19000	3.423423	20	PASS

			NV	0	19000	3.423423	20	PASS
			NV	10	20000	3.603604	20	PASS
			NV	20	20000	3.603604	20	PASS
			NV	30	20000	3.603604	20	PASS
			NV	40	20000	3.603604	20	PASS
			NV	50	20000	3.603604	20	PASS
	Ant1	5670	NV	-30	19000	3.35097	20	PASS
			NV	-20	19000	3.35097	20	PASS
			NV	-10	20000	3.527337	20	PASS
			NV	0	20000	3.527337	20	PASS
			NV	10	20000	3.527337	20	PASS
			NV	20	21000	3.703704	20	PASS
			NV	30	21000	3.703704	20	PASS
			NV	40	21000	3.703704	20	PASS
			NV	50	21000	3.703704	20	PASS
	Ant2	5670	NV	-30	22000	3.880071	20	PASS
			NV	-20	22000	3.880071	20	PASS
			NV	-10	22000	3.880071	20	PASS
			NV	0	22000	3.880071	20	PASS
			NV	10	22000	3.880071	20	PASS
			NV	20	22000	3.880071	20	PASS
			NV	30	22000	3.880071	20	PASS
			NV	40	22000	3.880071	20	PASS
			NV	50	22000	3.880071	20	PASS
	Ant1	5755	NV	-30	30000	5.212858	20	PASS
			NV	-20	30000	5.212858	20	PASS
			NV	-10	31000	5.38662	20	PASS
			NV	0	31000	5.38662	20	PASS
			NV	10	31000	5.38662	20	PASS
			NV	20	32000	5.560382	20	PASS
			NV	30	32000	5.560382	20	PASS
			NV	40	32000	5.560382	20	PASS
			NV	50	33000	5.734144	20	PASS
	Ant2	5755	NV	-30	34000	5.907906	20	PASS
			NV	-20	34000	5.907906	20	PASS
			NV	-10	34000	5.907906	20	PASS
			NV	0	35000	6.081668	20	PASS
			NV	10	35000	6.081668	20	PASS
			NV	20	35000	6.081668	20	PASS
			NV	30	35000	6.081668	20	PASS
			NV	40	35000	6.081668	20	PASS
			NV	50	36000	6.25543	20	PASS
	Ant1	5795	NV	-30	12000	2.070751	20	PASS
			NV	-20	11000	1.898188	20	PASS
			NV	-10	10000	1.725626	20	PASS
			NV	0	10000	1.725626	20	PASS
			NV	10	10000	1.725626	20	PASS
			NV	20	9000	1.553063	20	PASS
			NV	30	9000	1.553063	20	PASS
			NV	40	9000	1.553063	20	PASS
			NV	50	9000	1.553063	20	PASS

	Ant2	5795	NV	-30	9000	1.553063	20	PASS
			NV	-20	9000	1.553063	20	PASS
			NV	-10	9000	1.553063	20	PASS
			NV	0	9000	1.553063	20	PASS
			NV	10	9000	1.553063	20	PASS
			NV	20	9000	1.553063	20	PASS
			NV	30	9000	1.553063	20	PASS
			NV	40	9000	1.553063	20	PASS
			NV	50	9000	1.553063	20	PASS
11AC20 MIMO	Ant1	5180	NV	-30	10000	1.930502	20	PASS
			NV	-20	11000	2.123552	20	PASS
			NV	-10	12000	2.316602	20	PASS
			NV	0	12000	2.316602	20	PASS
			NV	10	13000	2.509653	20	PASS
			NV	20	13000	2.509653	20	PASS
			NV	30	14000	2.702703	20	PASS
			NV	40	14000	2.702703	20	PASS
			NV	50	15000	2.895753	20	PASS
	Ant2	5180	NV	-30	16000	3.088803	20	PASS
			NV	-20	17000	3.281853	20	PASS
			NV	-10	17000	3.281853	20	PASS
			NV	0	17000	3.281853	20	PASS
			NV	10	18000	3.474903	20	PASS
			NV	20	18000	3.474903	20	PASS
			NV	30	18000	3.474903	20	PASS
			NV	40	19000	3.667954	20	PASS
			NV	50	19000	3.667954	20	PASS
	Ant1	5200	NV	-30	15000	2.884615	20	PASS
			NV	-20	16000	3.076923	20	PASS
			NV	-10	16000	3.076923	20	PASS
			NV	0	16000	3.076923	20	PASS
			NV	10	16000	3.076923	20	PASS
			NV	20	16000	3.076923	20	PASS
			NV	30	16000	3.076923	20	PASS
			NV	40	16000	3.076923	20	PASS
			NV	50	16000	3.076923	20	PASS
	Ant2	5200	NV	-30	17000	3.269231	20	PASS
			NV	-20	17000	3.269231	20	PASS
			NV	-10	17000	3.269231	20	PASS
			NV	0	17000	3.269231	20	PASS
			NV	10	17000	3.269231	20	PASS
			NV	20	17000	3.269231	20	PASS
			NV	30	17000	3.269231	20	PASS
			NV	40	17000	3.269231	20	PASS
			NV	50	17000	3.269231	20	PASS
	Ant1	5240	NV	-30	16000	3.053435	20	PASS
			NV	-20	16000	3.053435	20	PASS
			NV	-10	16000	3.053435	20	PASS
			NV	0	16000	3.053435	20	PASS
			NV	10	16000	3.053435	20	PASS
			NV	20	16000	3.053435	20	PASS

			NV	30	16000	3.053435	20	PASS
			NV	40	17000	3.244275	20	PASS
			NV	50	17000	3.244275	20	PASS
	Ant2	5240	NV	-30	17000	3.244275	20	PASS
			NV	-20	17000	3.244275	20	PASS
			NV	-10	17000	3.244275	20	PASS
			NV	0	17000	3.244275	20	PASS
			NV	10	17000	3.244275	20	PASS
			NV	20	17000	3.244275	20	PASS
			NV	30	17000	3.244275	20	PASS
			NV	40	17000	3.244275	20	PASS
			NV	50	17000	3.244275	20	PASS
	Ant1	5260	NV	-30	16000	3.041825	20	PASS
			NV	-20	16000	3.041825	20	PASS
			NV	-10	16000	3.041825	20	PASS
			NV	0	16000	3.041825	20	PASS
			NV	10	16000	3.041825	20	PASS
			NV	20	17000	3.231939	20	PASS
			NV	30	17000	3.231939	20	PASS
			NV	40	17000	3.231939	20	PASS
			NV	50	17000	3.231939	20	PASS
	Ant2	5260	NV	-30	17000	3.231939	20	PASS
			NV	-20	17000	3.231939	20	PASS
			NV	-10	17000	3.231939	20	PASS
			NV	0	17000	3.231939	20	PASS
			NV	10	17000	3.231939	20	PASS
			NV	20	17000	3.231939	20	PASS
			NV	30	17000	3.231939	20	PASS
			NV	40	17000	3.231939	20	PASS
			NV	50	17000	3.231939	20	PASS
	Ant1	5280	NV	-30	16000	3.030303	20	PASS
			NV	-20	16000	3.030303	20	PASS
			NV	-10	16000	3.030303	20	PASS
			NV	0	16000	3.030303	20	PASS
			NV	10	16000	3.030303	20	PASS
			NV	20	17000	3.219697	20	PASS
			NV	30	17000	3.219697	20	PASS
			NV	40	17000	3.219697	20	PASS
			NV	50	17000	3.219697	20	PASS
	Ant2	5280	NV	-30	17000	3.219697	20	PASS
			NV	-20	17000	3.219697	20	PASS
			NV	-10	17000	3.219697	20	PASS
			NV	0	17000	3.219697	20	PASS
			NV	10	17000	3.219697	20	PASS
			NV	20	17000	3.219697	20	PASS
			NV	30	17000	3.219697	20	PASS
			NV	40	17000	3.219697	20	PASS
			NV	50	17000	3.219697	20	PASS
	Ant1	5320	NV	-30	17000	3.195489	20	PASS
			NV	-20	17000	3.195489	20	PASS
			NV	-10	18000	3.383459	20	PASS

			NV	0	18000	3.383459	20	PASS
			NV	10	18000	3.383459	20	PASS
			NV	20	19000	3.571429	20	PASS
			NV	30	19000	3.571429	20	PASS
			NV	40	19000	3.571429	20	PASS
			NV	50	19000	3.571429	20	PASS
	Ant2	5320	NV	-30	20000	3.759398	20	PASS
			NV	-20	20000	3.759398	20	PASS
			NV	-10	20000	3.759398	20	PASS
			NV	0	20000	3.759398	20	PASS
			NV	10	20000	3.759398	20	PASS
			NV	20	20000	3.759398	20	PASS
			NV	30	20000	3.759398	20	PASS
			NV	40	20000	3.759398	20	PASS
			NV	50	21000	3.947368	20	PASS
	Ant1	5500	NV	-30	24000	4.363636	20	PASS
			NV	-20	25000	4.545455	20	PASS
			NV	-10	26000	4.727273	20	PASS
			NV	0	27000	4.909091	20	PASS
			NV	10	28000	5.090909	20	PASS
			NV	20	28000	5.090909	20	PASS
			NV	30	29000	5.272727	20	PASS
			NV	40	30000	5.454545	20	PASS
			NV	50	30000	5.454545	20	PASS
	Ant2	5500	NV	-30	32000	5.818182	20	PASS
			NV	-20	32000	5.818182	20	PASS
			NV	-10	33000	6	20	PASS
			NV	0	33000	6	20	PASS
			NV	10	33000	6	20	PASS
			NV	20	34000	6.181818	20	PASS
			NV	30	34000	6.181818	20	PASS
			NV	40	34000	6.181818	20	PASS
			NV	50	35000	6.363636	20	PASS
	Ant1	5580	NV	-30	27000	4.83871	20	PASS
			NV	-20	27000	4.83871	20	PASS
			NV	-10	26000	4.659498	20	PASS
			NV	0	27000	4.83871	20	PASS
			NV	10	26000	4.659498	20	PASS
			NV	20	26000	4.659498	20	PASS
			NV	30	26000	4.659498	20	PASS
			NV	40	26000	4.659498	20	PASS
			NV	50	26000	4.659498	20	PASS
	Ant2	5580	NV	-30	26000	4.659498	20	PASS
			NV	-20	25000	4.480287	20	PASS
			NV	-10	25000	4.480287	20	PASS
			NV	0	25000	4.480287	20	PASS
			NV	10	25000	4.480287	20	PASS
			NV	20	25000	4.480287	20	PASS
			NV	30	25000	4.480287	20	PASS
			NV	40	25000	4.480287	20	PASS
			NV	50	25000	4.480287	20	PASS

	Ant1	5700	NV	-30	27000	4.736842	20	PASS
			NV	-20	28000	4.912281	20	PASS
			NV	-10	29000	5.087719	20	PASS
			NV	0	29000	5.087719	20	PASS
			NV	10	30000	5.263158	20	PASS
			NV	20	30000	5.263158	20	PASS
			NV	30	31000	5.438596	20	PASS
			NV	40	31000	5.438596	20	PASS
			NV	50	32000	5.614035	20	PASS
	Ant2	5700	NV	-30	33000	5.789474	20	PASS
			NV	-20	33000	5.789474	20	PASS
			NV	-10	34000	5.964912	20	PASS
			NV	0	34000	5.964912	20	PASS
			NV	10	34000	5.964912	20	PASS
			NV	20	34000	5.964912	20	PASS
			NV	30	34000	5.964912	20	PASS
			NV	40	35000	6.140351	20	PASS
			NV	50	35000	6.140351	20	PASS
	Ant1	5745	NV	-30	37000	6.440383	20	PASS
			NV	-20	37000	6.440383	20	PASS
			NV	-10	38000	6.614447	20	PASS
			NV	0	38000	6.614447	20	PASS
			NV	10	38000	6.614447	20	PASS
			NV	20	38000	6.614447	20	PASS
			NV	30	39000	6.788512	20	PASS
			NV	40	39000	6.788512	20	PASS
			NV	50	39000	6.788512	20	PASS
	Ant2	5745	NV	-30	40000	6.962576	20	PASS
			NV	-20	40000	6.962576	20	PASS
			NV	-10	40000	6.962576	20	PASS
			NV	0	40000	6.962576	20	PASS
			NV	10	40000	6.962576	20	PASS
			NV	20	40000	6.962576	20	PASS
			NV	30	40000	6.962576	20	PASS
			NV	40	41000	7.136641	20	PASS
			NV	50	41000	7.136641	20	PASS
	Ant1	5785	NV	-30	23000	3.975799	20	PASS
			NV	-20	24000	4.14866	20	PASS
			NV	-10	24000	4.14866	20	PASS
			NV	0	25000	4.321521	20	PASS
			NV	10	26000	4.494382	20	PASS
			NV	20	26000	4.494382	20	PASS
			NV	30	27000	4.667243	20	PASS
			NV	40	27000	4.667243	20	PASS
			NV	50	28000	4.840104	20	PASS
	Ant2	5785	NV	-30	30000	5.185825	20	PASS
			NV	-20	30000	5.185825	20	PASS
			NV	-10	31000	5.358686	20	PASS
			NV	0	31000	5.358686	20	PASS
			NV	10	32000	5.531547	20	PASS
			NV	20	32000	5.531547	20	PASS

			NV	30	32000	5.531547	20	PASS
			NV	40	33000	5.704408	20	PASS
			NV	50	33000	5.704408	20	PASS
	Ant1	5825	NV	-30	34000	5.83691	20	PASS
			NV	-20	35000	6.008584	20	PASS
			NV	-10	35000	6.008584	20	PASS
			NV	0	35000	6.008584	20	PASS
			NV	10	36000	6.180258	20	PASS
			NV	20	36000	6.180258	20	PASS
			NV	30	36000	6.180258	20	PASS
			NV	40	37000	6.351931	20	PASS
			NV	50	37000	6.351931	20	PASS
	Ant2	5825	NV	-30	38000	6.523605	20	PASS
			NV	-20	38000	6.523605	20	PASS
			NV	-10	38000	6.523605	20	PASS
			NV	0	38000	6.523605	20	PASS
			NV	10	39000	6.695279	20	PASS
			NV	20	39000	6.695279	20	PASS
			NV	30	39000	6.695279	20	PASS
			NV	40	39000	6.695279	20	PASS
			NV	50	39000	6.695279	20	PASS
11AC40 MIMO	Ant1	5190	NV	-30	13000	2.504817	20	PASS
			NV	-20	13000	2.504817	20	PASS
			NV	-10	12000	2.312139	20	PASS
			NV	0	12000	2.312139	20	PASS
			NV	10	12000	2.312139	20	PASS
			NV	20	11000	2.119461	20	PASS
			NV	30	11000	2.119461	20	PASS
			NV	40	10000	1.926782	20	PASS
			NV	50	10000	1.926782	20	PASS
	Ant2	5190	NV	-30	9000	1.734104	20	PASS
			NV	-20	9000	1.734104	20	PASS
			NV	-10	9000	1.734104	20	PASS
			NV	0	9000	1.734104	20	PASS
			NV	10	9000	1.734104	20	PASS
			NV	20	9000	1.734104	20	PASS
			NV	30	9000	1.734104	20	PASS
			NV	40	8000	1.541426	20	PASS
			NV	50	8000	1.541426	20	PASS
	Ant1	5230	NV	-30	6000	1.147228	20	PASS
			NV	-20	8000	1.529637	20	PASS
			NV	-10	10000	1.912046	20	PASS
			NV	0	12000	2.294455	20	PASS
			NV	10	12000	2.294455	20	PASS
			NV	20	13000	2.48566	20	PASS
			NV	30	13000	2.48566	20	PASS
			NV	40	13000	2.48566	20	PASS
			NV	50	12000	2.294455	20	PASS
	Ant2	5230	NV	-30	11000	2.10325	20	PASS
			NV	-20	11000	2.10325	20	PASS
			NV	-10	11000	2.10325	20	PASS

			NV	0	10000	1.912046	20	PASS
			NV	10	10000	1.912046	20	PASS
			NV	20	10000	1.912046	20	PASS
			NV	30	10000	1.912046	20	PASS
			NV	40	10000	1.912046	20	PASS
			NV	50	9000	1.720841	20	PASS
	Ant1	5270	NV	-30	6000	1.13852	20	PASS
			NV	-20	7000	1.328273	20	PASS
			NV	-10	7000	1.328273	20	PASS
			NV	0	8000	1.518027	20	PASS
			NV	10	8000	1.518027	20	PASS
			NV	20	9000	1.70778	20	PASS
			NV	30	9000	1.70778	20	PASS
			NV	40	10000	1.897533	20	PASS
			NV	50	10000	1.897533	20	PASS
	Ant2	5270	NV	-30	12000	2.27704	20	PASS
			NV	-20	12000	2.27704	20	PASS
			NV	-10	13000	2.466793	20	PASS
			NV	0	13000	2.466793	20	PASS
			NV	10	13000	2.466793	20	PASS
			NV	20	14000	2.656546	20	PASS
			NV	30	14000	2.656546	20	PASS
			NV	40	14000	2.656546	20	PASS
			NV	50	15000	2.8463	20	PASS
	Ant1	5310	NV	-30	15000	2.824859	20	PASS
			NV	-20	15000	2.824859	20	PASS
			NV	-10	16000	3.013183	20	PASS
			NV	0	16000	3.013183	20	PASS
			NV	10	16000	3.013183	20	PASS
			NV	20	16000	3.013183	20	PASS
			NV	30	16000	3.013183	20	PASS
			NV	40	16000	3.013183	20	PASS
			NV	50	17000	3.201507	20	PASS
	Ant2	5310	NV	-30	17000	3.201507	20	PASS
			NV	-20	17000	3.201507	20	PASS
			NV	-10	18000	3.389831	20	PASS
			NV	0	18000	3.389831	20	PASS
			NV	10	18000	3.389831	20	PASS
			NV	20	18000	3.389831	20	PASS
			NV	30	18000	3.389831	20	PASS
			NV	40	18000	3.389831	20	PASS
			NV	50	18000	3.389831	20	PASS
	Ant1	5510	NV	-30	24000	4.355717	20	PASS
			NV	-20	25000	4.537205	20	PASS
			NV	-10	26000	4.718693	20	PASS
			NV	0	27000	4.900181	20	PASS
			NV	10	28000	5.08167	20	PASS
			NV	20	29000	5.263158	20	PASS
			NV	30	29000	5.263158	20	PASS
			NV	40	30000	5.444646	20	PASS
			NV	50	30000	5.444646	20	PASS

	Ant2	5510	NV	-30	33000	5.989111	20	PASS
			NV	-20	33000	5.989111	20	PASS
			NV	-10	34000	6.170599	20	PASS
			NV	0	34000	6.170599	20	PASS
			NV	10	35000	6.352087	20	PASS
			NV	20	35000	6.352087	20	PASS
			NV	30	35000	6.352087	20	PASS
			NV	40	36000	6.533575	20	PASS
			NV	50	36000	6.533575	20	PASS
	Ant1	5550	NV	-30	31000	5.585586	20	PASS
			NV	-20	31000	5.585586	20	PASS
			NV	-10	30000	5.405405	20	PASS
			NV	0	30000	5.405405	20	PASS
			NV	10	30000	5.405405	20	PASS
			NV	20	30000	5.405405	20	PASS
			NV	30	29000	5.225225	20	PASS
			NV	40	29000	5.225225	20	PASS
			NV	50	29000	5.225225	20	PASS
	Ant2	5550	NV	-30	29000	5.225225	20	PASS
			NV	-20	29000	5.225225	20	PASS
			NV	-10	29000	5.225225	20	PASS
			NV	0	29000	5.225225	20	PASS
			NV	10	28000	5.045045	20	PASS
			NV	20	28000	5.045045	20	PASS
			NV	30	28000	5.045045	20	PASS
			NV	40	28000	5.045045	20	PASS
			NV	50	28000	5.045045	20	PASS
	Ant1	5670	NV	-30	29000	5.114638	20	PASS
			NV	-20	30000	5.291005	20	PASS
			NV	-10	30000	5.291005	20	PASS
			NV	0	30000	5.291005	20	PASS
			NV	10	30000	5.291005	20	PASS
			NV	20	30000	5.291005	20	PASS
			NV	30	31000	5.467372	20	PASS
			NV	40	31000	5.467372	20	PASS
			NV	50	31000	5.467372	20	PASS
	Ant2	5670	NV	-30	31000	5.467372	20	PASS
			NV	-20	31000	5.467372	20	PASS
			NV	-10	32000	5.643739	20	PASS
			NV	0	32000	5.643739	20	PASS
			NV	10	32000	5.643739	20	PASS
			NV	20	32000	5.643739	20	PASS
			NV	30	32000	5.643739	20	PASS
			NV	40	32000	5.643739	20	PASS
			NV	50	32000	5.643739	20	PASS
	Ant1	5755	NV	-30	38000	6.602954	20	PASS
			NV	-20	39000	6.776716	20	PASS
			NV	-10	40000	6.950478	20	PASS
			NV	0	41000	7.12424	20	PASS
			NV	10	42000	7.298002	20	PASS
			NV	20	42000	7.298002	20	PASS

			NV	30	43000	7.471764	20	PASS
			NV	40	44000	7.645526	20	PASS
			NV	50	44000	7.645526	20	PASS
	Ant2	5755	NV	-30	46000	7.99305	20	PASS
			NV	-20	47000	8.166811	20	PASS
			NV	-10	47000	8.166811	20	PASS
			NV	0	47000	8.166811	20	PASS
			NV	10	48000	8.340573	20	PASS
			NV	20	48000	8.340573	20	PASS
			NV	30	48000	8.340573	20	PASS
			NV	40	49000	8.514335	20	PASS
			NV	50	49000	8.514335	20	PASS
	Ant1	5795	NV	-30	47000	8.11044	20	PASS
			NV	-20	47000	8.11044	20	PASS
			NV	-10	47000	8.11044	20	PASS
			NV	0	47000	8.11044	20	PASS
			NV	10	47000	8.11044	20	PASS
			NV	20	47000	8.11044	20	PASS
			NV	30	47000	8.11044	20	PASS
			NV	40	47000	8.11044	20	PASS
			NV	50	47000	8.11044	20	PASS
	Ant2	5795	NV	-30	47000	8.11044	20	PASS
			NV	-20	47000	8.11044	20	PASS
			NV	-10	47000	8.11044	20	PASS
			NV	0	47000	8.11044	20	PASS
			NV	10	47000	8.11044	20	PASS
			NV	20	47000	8.11044	20	PASS
			NV	30	47000	8.11044	20	PASS
			NV	40	47000	8.11044	20	PASS
			NV	50	47000	8.11044	20	PASS
11AC80 MIMO	Ant1	5210	NV	-30	33000	6.333973	20	PASS
			NV	-20	32000	6.142035	20	PASS
			NV	-10	31000	5.950096	20	PASS
			NV	0	30000	5.758157	20	PASS
			NV	10	30000	5.758157	20	PASS
			NV	20	29000	5.566219	20	PASS
			NV	30	29000	5.566219	20	PASS
			NV	40	28000	5.37428	20	PASS
			NV	50	28000	5.37428	20	PASS
	Ant2	5210	NV	-30	27000	5.182342	20	PASS
			NV	-20	27000	5.182342	20	PASS
			NV	-10	27000	5.182342	20	PASS
			NV	0	26000	4.990403	20	PASS
			NV	10	26000	4.990403	20	PASS
			NV	20	26000	4.990403	20	PASS
			NV	30	26000	4.990403	20	PASS
			NV	40	26000	4.990403	20	PASS
			NV	50	26000	4.990403	20	PASS
	Ant1	5290	NV	-30	25000	4.725898	20	PASS
			NV	-20	25000	4.725898	20	PASS
			NV	-10	25000	4.725898	20	PASS

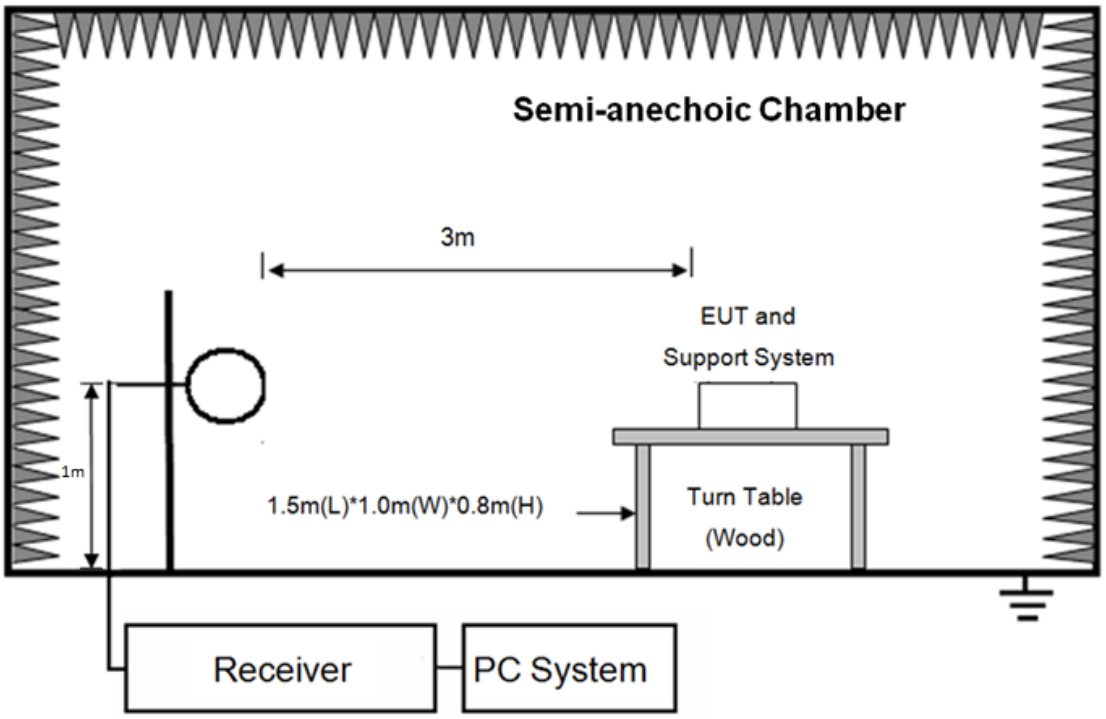
			NV	0	25000	4.725898	20	PASS
			NV	10	25000	4.725898	20	PASS
			NV	20	25000	4.725898	20	PASS
			NV	30	25000	4.725898	20	PASS
			NV	40	25000	4.725898	20	PASS
			NV	50	25000	4.725898	20	PASS
	Ant2	5290	NV	-30	25000	4.725898	20	PASS
			NV	-20	25000	4.725898	20	PASS
			NV	-10	25000	4.725898	20	PASS
			NV	0	25000	4.725898	20	PASS
			NV	10	24000	4.536862	20	PASS
			NV	20	24000	4.536862	20	PASS
			NV	30	24000	4.536862	20	PASS
			NV	40	24000	4.536862	20	PASS
			NV	50	24000	4.536862	20	PASS
	Ant1	5530	NV	-30	32000	5.786618	20	PASS
			NV	-20	33000	5.96745	20	PASS
			NV	-10	34000	6.148282	20	PASS
			NV	0	35000	6.329114	20	PASS
			NV	10	35000	6.329114	20	PASS
			NV	20	36000	6.509946	20	PASS
			NV	30	36000	6.509946	20	PASS
			NV	40	37000	6.690778	20	PASS
			NV	50	37000	6.690778	20	PASS
	Ant2	5530	NV	-30	39000	7.052441	20	PASS
			NV	-20	39000	7.052441	20	PASS
			NV	-10	40000	7.233273	20	PASS
			NV	0	40000	7.233273	20	PASS
			NV	10	40000	7.233273	20	PASS
			NV	20	40000	7.233273	20	PASS
			NV	30	41000	7.414105	20	PASS
			NV	40	41000	7.414105	20	PASS
			NV	50	41000	7.414105	20	PASS
	Ant1	5610	NV	-30	35000	6.238859	20	PASS
			NV	-20	35000	6.238859	20	PASS
			NV	-10	34000	6.060606	20	PASS
			NV	0	34000	6.060606	20	PASS
			NV	10	33000	5.882353	20	PASS
			NV	20	33000	5.882353	20	PASS
			NV	30	33000	5.882353	20	PASS
			NV	40	32000	5.7041	20	PASS
			NV	50	32000	5.7041	20	PASS
	Ant2	5610	NV	-30	31000	5.525847	20	PASS
			NV	-20	31000	5.525847	20	PASS
			NV	-10	31000	5.525847	20	PASS
			NV	0	31000	5.525847	20	PASS
			NV	10	31000	5.525847	20	PASS
			NV	20	31000	5.525847	20	PASS
			NV	30	31000	5.525847	20	PASS
			NV	40	31000	5.525847	20	PASS
			NV	50	31000	5.525847	20	PASS

	Ant1	5775	NV	-30	47000	8.138528	20	PASS
			NV	-20	48000	8.311688	20	PASS
			NV	-10	48000	8.311688	20	PASS
			NV	0	48000	8.311688	20	PASS
			NV	10	49000	8.484848	20	PASS
			NV	20	49000	8.484848	20	PASS
			NV	30	49000	8.484848	20	PASS
			NV	40	50000	8.658009	20	PASS
			NV	50	50000	8.658009	20	PASS
	Ant2	5775	NV	-30	51000	8.831169	20	PASS
			NV	-20	51000	8.831169	20	PASS
			NV	-10	52000	9.004329	20	PASS
			NV	0	52000	9.004329	20	PASS
			NV	10	52000	9.004329	20	PASS
			NV	20	52000	9.004329	20	PASS
			NV	30	52000	9.004329	20	PASS
			NV	40	53000	9.177489	20	PASS
			NV	50	53000	9.177489	20	PASS

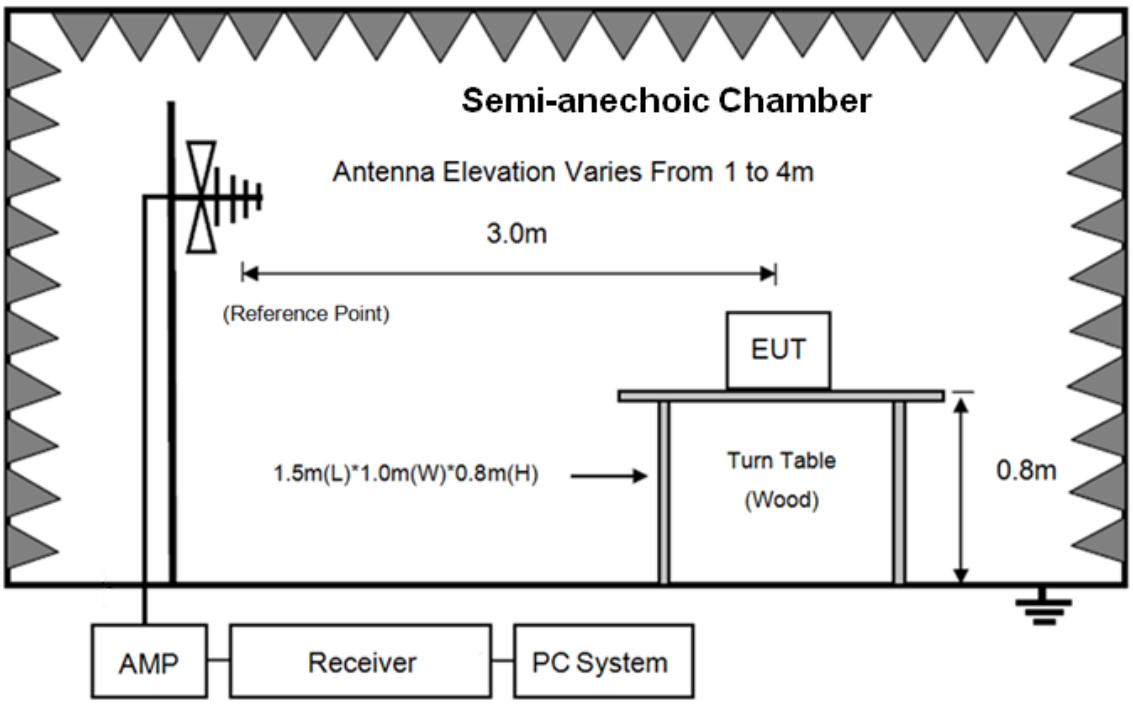
8. Spurious Emissions

8.1. Block diagram of test setup

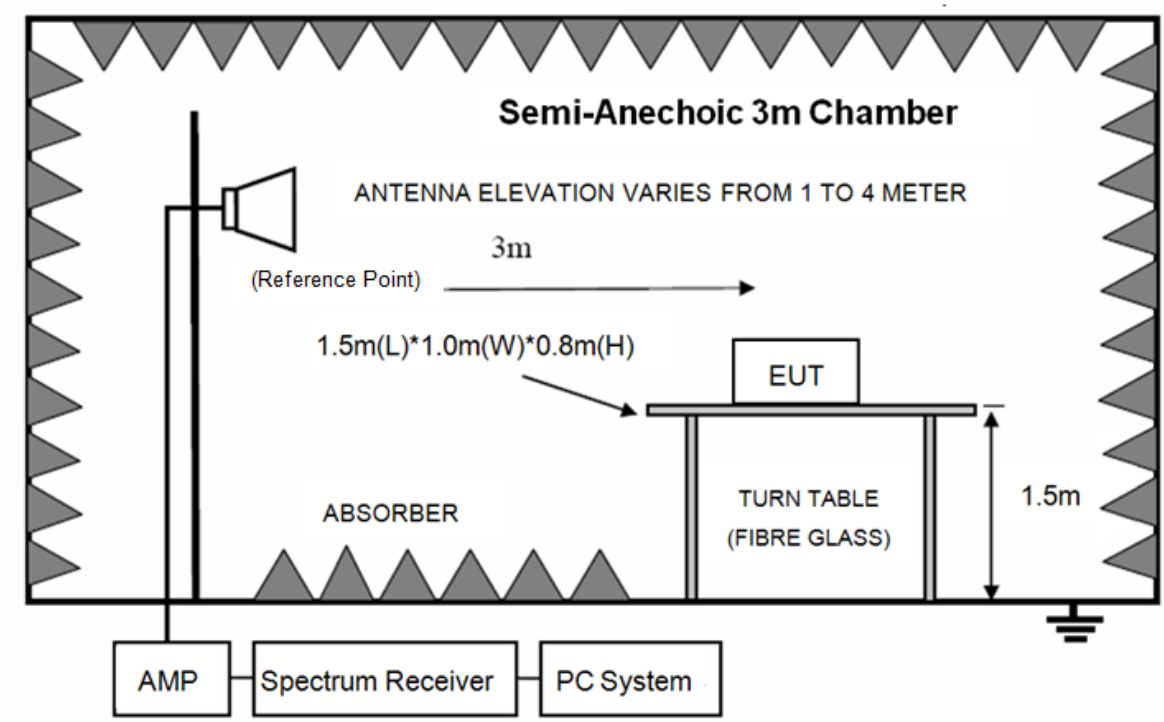
In 3 m Anechoic Chamber Test Setup Diagram for 9 kHz - 30 MHz



In 3 m Anechoic Chamber Test Setup Diagram for 30 MHz - 1 GHz



In 3 m Anechoic Chamber Test Setup Diagram for frequency above 1 GHz



Note: For harmonic emissions test an appropriate high pass filter was inserted in the input port of AMP.

8.2. Limit

8.3.1 FCC 15.205 Restricted frequency band

MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
[1]0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.1772&4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.2072&4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	([2])
13.36-13.41			

[1]Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.

[2]Above 38.6

8.3.2 FCC 15.209 Limit.

FREQUENCY MHz	DISTANCE Meters	FIELD STRENGTHS LIMIT	
		μV/m	dB(μV)/m
0.009 ~ 0.490	300	2400/F(kHz)	67.6-20log(F)
0.490 ~ 1.705	30	24000/F(kHz)	87.6-20log(F)
1.705 ~ 30.0	30	30	29.54
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
960 ~ 1000	3	500	54.0
Above 1000	3	74.0 dB(μV)/m (Peak) 54.0 dB(μV)/m (Average)	

Note: (1) The emission limits shown in the above table are based on measurements employing a CISPR QP detector except for the frequency bands 9 - 90 kHz, 110 - 490 kHz and above 1000 MHz. Radiated emissions limits in these three bands are based on measurements employing an average detector.

(2) At frequencies below 30 MHz, measurement may be performed at a distance closer than that specified, and the limit at closer measurement distance can be extrapolated by below formula:

$$Limit_{3m}(dBuV/m) = Limit_{30m}(dBuV/m) + 40Log(30m/3m)$$

8.3.3 Limit for this EUT

All the emissions appearing within 15.205 restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions shall be at least 20 dB below the fundamental emissions or comply with 15.209 limits.

8.3. Test procedure

(1) EUT height should be 0.8 m for below 1 GHz at a semi‐anechoic chamber while EUT height should be 1.5 m for above 1 GHz at full chamber or semi‐anechoic chamber ground with absorbers

(2) Setup EUT and assistant system according clause 2.3 and 8.2

(3) Test antenna was located 3 m from the EUT on an adjustable mast, and the antenna used as below table.

Test frequency range	Test antenna used	Test distance
9 kHz - 30 MHz	Active Loop antenna	3 m
30 MHz - 1 GHz	Trilog Broadband Antenna	3 m
1 GHz - 18 GHz	Double Ridged Horn Antenna (1 GHz - 18 GHz)	3 m
18 GHz - 40 GHz	Horn Antenna (18 GHz - 40 GHz)	1 m

According ANSI C63.10:2013 clause 6.4.4.2 and 6,5.3, for measurements below 30 MHz, the loop antenna was positioned with its plane vertical from the EUT and rotated about its vertical

axis for maximum response at each azimuth position around the EUT. And the loop antenna also is positioned with its plane horizontal at the specified distance from the EUT. The center of the loop is 1 m above the ground. For measurement above 30 MHz, the Trilog Broadband Antenna or Horn Antenna was located 3 m from EUT, Measurements were made with the antenna positioned in both the horizontal and vertical planes of Polarization, and the measurement antenna was varied from 1 m to 4 m. in height above the reference ground plane to obtain the maximum signal strength.

(4) Below pre-scan procedure was first performed in order to find prominent frequency spectrum radiated emissions from 9 kHz to 40 GHz:

(a) Scanning the peak frequency spectrum with the antenna specified in step (3), and the EUT was rotated 360 degree, the antenna height was varied from 1 m to 4 m (Except loop antenna, it's fixed 1 m above ground.)

(b) Change work frequency or channel of device if practicable.

(c) Change modulation type of device if practicable.

(d) Change power supply range from 85% to 115% of the rated supply voltage

(e) Rotated EUT though three orthogonal axes to determine the attitude of EUT arrangement produces highest emissions. Spectrum frequency from 9 kHz to 40 GHz (tenth harmonic of fundamental frequency) was investigated, and no any obvious emission were detected from 9 kHz to 30 MHz and 18 GHz to 40 GHz, so below final test was performed with frequency range from 30 MHz to 18 GHz.

(5) For final emissions measurements at each frequency of interest, the EUT was rotated and the antenna height was varied between 1 m and 4 m in order to maximize the emission. Measurements in both horizontal and vertical polarities were made and the data was recorded. In order to find the maximum emission, the relative positions of equipments and all of the interface cables were changed according to ANSI C63.10:2013 on Radiated Emission test.

(6) The emissions from 9 kHz to 1 GHz were measured based on CISPR QP detector except for the frequency bands 9 - 90 kHz, 110 - 490 kHz, for emissions from 9 kHz - 90 kHz, 110 kHz - 490 kHz and above 1 GHz were measured based on average detector, for emissions above 1 GHz, peak emissions also be measured and need comply with Peak limit.

(7) The emissions from 9 kHz to 1 GHz, QP or average values were measured with EMI receiver with below RBW

Frequency band	RBW
9 kHz - 150 kHz	200 Hz
150 kHz - 30 MHz	9 kHz
30 MHz - 1 GHz	120 kHz

(8) For emissions above 1 GHz, both Peak and Average level were measured with Spectrum Analyzer, and the RBW is set at 1 MHz, VBW is set at 3 MHz for Peak measure, according ANSI C63.10:2013 clause 4.1.4.2.2 procedure for average measure.

8.4. Test result

PASS. (See below detailed test result)

All the emissions except fundamental emission from 9 kHz to 40 GHz were comply with 15.209 limit.

Note1: According exploratory test, the emission levels are 20 dB below the limit detected from 9 kHz to 30 MHz and 18 GHz to 40 GHz, so the final test was performed with frequency range from 30 MHz to 18 GHz and recorded in below.

Note2: For emissions below 1 GHz, according exploratory explorer test, when change Tx mode and channel, have no distinct influence on emissions level, so for emissions below 1 GHz, the final test was only performed with EUT working in 11n HT20 ANT1+2 mode.

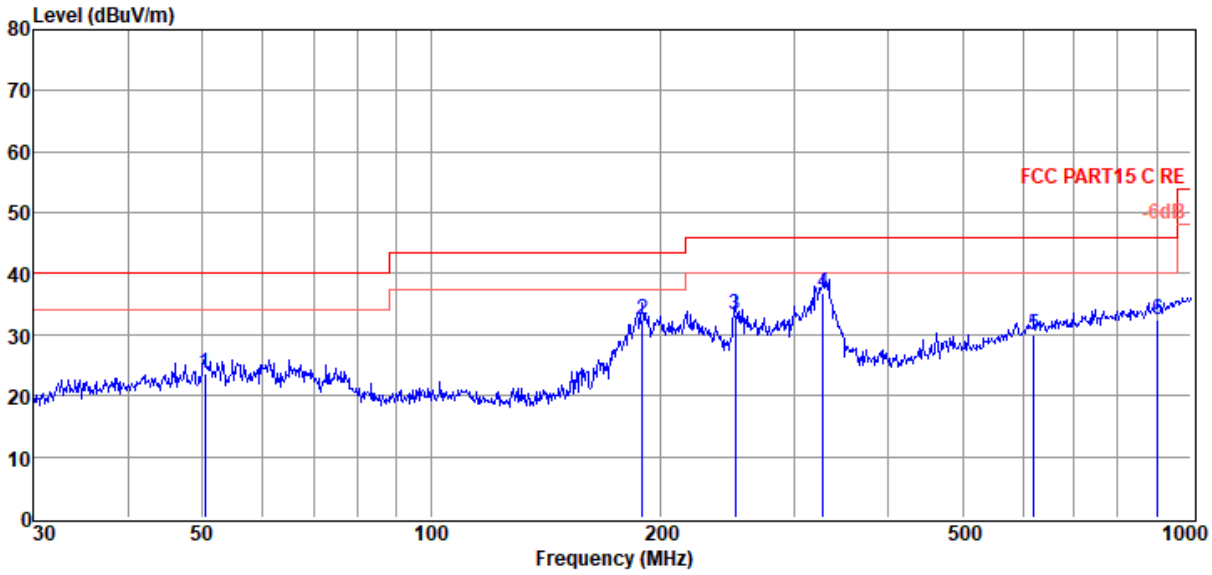
Note3: For below test data, when the limit tabular marked "/" means this frequency point is the fundamental emission and no need comply with this limit.

Radiated Emission test (below 1 GHz)

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber 1#	D:\2020 RE 1# Report data\Q20041019-1E CITATION AMP\FCC BELOW 1G.EM6	
Test Date	: 2020-07-05	**Tested By**	: Jacky
EUT	: Wireless Adaptor with built-in amplifier	**Model Number**	: CITATION AMP
Power Supply	: AC 120V/60Hz	**Test Mode**	: Tx mode
Condition	: TEMP:24.3℃, RH:55%, BP:101.4kPa	**Antenna/Distance**	: 2019 VULB 9163 1#/3m/HORIZONTAL
Memo	:		

Data: 17



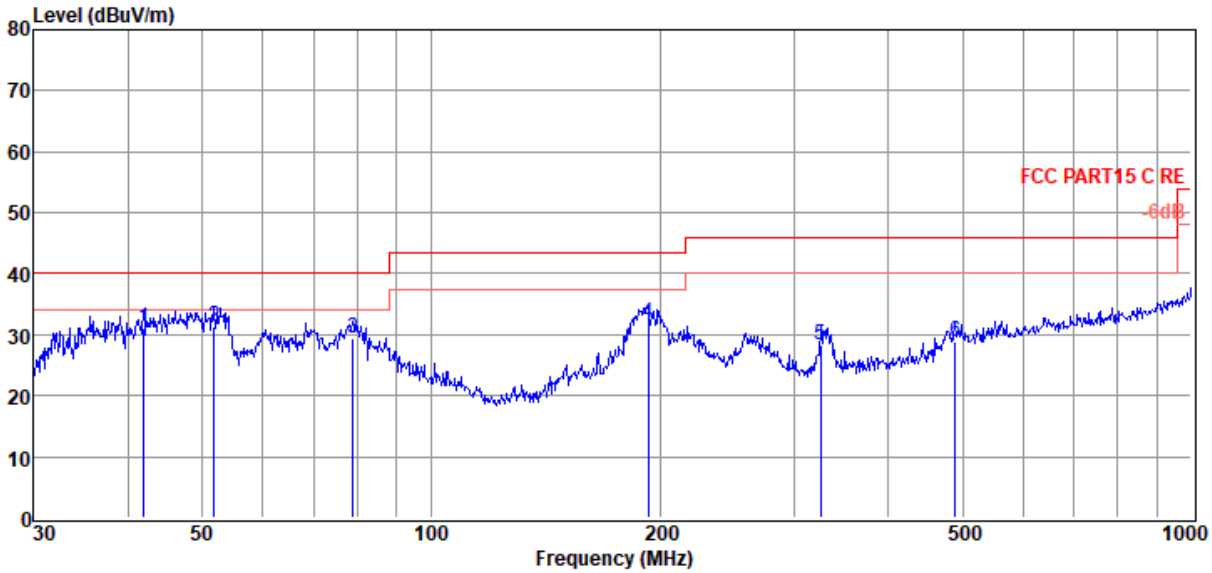
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	50.41	5.46	14.15	3.99	23.60	40.00	-16.40	QP	HORIZONTAL
2	189.74	16.26	11.07	4.98	32.31	43.50	-11.19	QP	HORIZONTAL
3	251.18	15.03	12.92	5.30	33.25	46.00	-12.75	QP	HORIZONTAL
4	327.89	16.76	14.47	5.66	36.89	46.00	-9.11	QP	HORIZONTAL
5	620.71	3.90	19.35	6.81	30.06	46.00	-15.94	QP	HORIZONTAL
6	903.31	2.93	21.83	7.70	32.46	46.00	-13.54	QP	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss.
2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.
3. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber 1#	D:\2020 RE 1# Report data\Q20041019-1E CITATION AMP\FCC BELOW 1G.EM6	
Test Date	: 2020-07-05	**Tested By**	: Jacky
EUT	: Wireless Adaptor with built-in amplifier	**Model Number**	: CITATION AMP
Power Supply	: AC 120V/60Hz	**Test Mode**	: Tx mode
Condition	: TEMP:24.3℃, RH:55%, BP:101.4kPa	**Antenna/Distance**	: 2019 VULB 9163 1#/3m/VERTICAL
Memo	:		

Data: 18



Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	41.86	13.34	13.80	3.92	31.06	40.00	-8.94	QP	VERTICAL
2	51.84	13.30	13.96	4.01	31.27	40.00	-8.73	QP	VERTICAL
3	78.97	15.89	9.15	4.24	29.28	40.00	-10.72	QP	VERTICAL
4	193.09	15.65	11.19	4.99	31.83	43.50	-11.67	QP	VERTICAL
5	325.60	8.17	14.44	5.65	28.26	46.00	-17.74	QP	VERTICAL
6	489.03	5.60	17.01	6.30	28.91	46.00	-17.09	QP	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss.
2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.
3. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.

Radiated Emission test (above 1 GHz)

Freq (MHz)	Read level (dBμV)	Antenna Factor (dB/m)	PRM Factor(dB)	Cable Loss (dB)	Result Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector type	Polarization
11a CH36									
6185.00	45.99	35.35	43.07	7.29	45.56	74.00	-28.44	Peak	HORIZONTAL
7919.00	46.80	36.55	42.81	9.23	49.77	74.00	-24.23	Peak	HORIZONTAL
9551.00	46.44	37.44	42.48	8.96	50.36	74.00	-23.64	Peak	HORIZONTAL
11081.00	46.03	38.12	42.34	9.36	51.17	74.00	-22.83	Peak	HORIZONTAL
12050.00	46.59	38.41	42.25	10.07	52.82	74.00	-21.18	Peak	HORIZONTAL
13206.00	44.41	39.23	41.06	11.22	53.80	74.00	-20.20	Peak	HORIZONTAL
5165.00	45.59	34.60	43.36	6.63	43.46	74.00	-30.54	Peak	VERTICAL
6950.00	45.73	35.87	42.95	8.65	47.30	74.00	-26.70	Peak	VERTICAL
9041.00	45.16	37.13	42.58	8.65	48.36	74.00	-25.64	Peak	VERTICAL
9755.00	46.59	37.61	42.44	9.08	50.84	74.00	-23.16	Peak	VERTICAL
11115.00	45.19	38.12	42.34	9.38	50.35	74.00	-23.65	Peak	VERTICAL
12526.00	45.99	38.52	41.74	10.73	53.50	74.00	-20.50	Peak	VERTICAL
11a CH40									
4179.00	45.98	33.44	43.72	5.54	41.24	74.00	-32.76	Peak	HORIZONTAL
5879.00	46.72	35.11	43.14	6.91	45.60	74.00	-28.40	Peak	HORIZONTAL
7715.00	46.13	36.43	42.84	9.12	48.84	74.00	-25.16	Peak	HORIZONTAL
9449.00	45.81	37.37	42.50	8.89	49.57	74.00	-24.43	Peak	HORIZONTAL
11183.00	45.56	38.14	42.34	9.43	50.79	74.00	-23.21	Peak	HORIZONTAL
12594.00	45.15	38.58	41.67	10.83	52.89	74.00	-21.11	Peak	HORIZONTAL
4230.00	45.84	33.45	43.70	5.61	41.20	74.00	-32.80	Peak	VERTICAL
7800.00	45.82	36.48	42.83	9.16	48.63	74.00	-25.37	Peak	VERTICAL
9636.00	46.61	37.51	42.47	9.01	50.66	74.00	-23.34	Peak	VERTICAL
10571.00	46.23	37.67	42.37	9.27	50.80	74.00	-23.20	Peak	VERTICAL
12305.00	46.21	38.46	41.97	10.42	53.12	74.00	-20.88	Peak	VERTICAL
12951.00	44.58	38.86	41.31	11.32	53.45	74.00	-20.55	Peak	VERTICAL
11a CH48									
6525.00	45.21	35.62	43.01	7.89	45.71	74.00	-28.29	Peak	HORIZONTAL
8531.00	45.36	37.01	42.68	8.92	48.61	74.00	-25.39	Peak	HORIZONTAL
10146.00	44.41	37.74	42.39	9.24	49.00	74.00	-25.00	Peak	HORIZONTAL
11149.00	45.45	38.13	42.34	9.40	50.64	74.00	-23.36	Peak	HORIZONTAL
12526.00	46.18	38.52	41.74	10.73	53.69	74.00	-20.31	Peak	HORIZONTAL
13206.00	43.64	39.23	41.06	11.22	53.03	74.00	-20.97	Peak	HORIZONTAL
7375.00	45.32	36.20	42.88	8.94	47.58	74.00	-26.42	Peak	VERTICAL
8939.00	45.02	37.09	42.60	8.66	48.17	74.00	-25.83	Peak	VERTICAL
9874.00	46.28	37.70	42.42	9.15	50.71	74.00	-23.29	Peak	VERTICAL
10605.00	46.61	37.71	42.37	9.27	51.22	74.00	-22.78	Peak	VERTICAL
11455.00	47.15	38.19	42.33	9.62	52.63	74.00	-21.37	Peak	VERTICAL
12645.00	45.58	38.62	41.62	10.90	53.48	74.00	-20.52	Peak	VERTICAL

Freq (MHz)	Read level (dBµV)	Antenna Factor (dB/m)	PRM Factor(dB)	Cable Loss (dB)	Result Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector type	Polarization
11a CH52									
5556.00	45.86	34.85	43.23	6.78	44.26	74.00	-29.74	Peak	HORIZONTAL
7851.00	45.95	36.51	42.82	9.19	48.83	74.00	-25.17	Peak	HORIZONTAL
9041.00	45.91	37.13	42.58	8.65	49.11	74.00	-24.89	Peak	HORIZONTAL
9585.00	46.30	37.47	42.48	8.98	50.27	74.00	-23.73	Peak	HORIZONTAL
11370.00	46.20	38.17	42.33	9.56	51.60	74.00	-22.40	Peak	HORIZONTAL
12611.00	45.84	38.59	41.66	10.85	53.62	74.00	-20.38	Peak	HORIZONTAL
4655.00	47.13	33.82	43.54	6.13	43.54	74.00	-30.46	Peak	VERTICAL
6576.00	45.08	35.65	43.00	7.99	45.72	74.00	-28.28	Peak	VERTICAL
7936.00	46.79	36.56	42.81	9.24	49.78	74.00	-24.22	Peak	VERTICAL
8616.00	45.22	37.02	42.67	8.87	48.44	74.00	-25.56	Peak	VERTICAL
10520.00	46.86	37.62	42.37	9.27	51.38	74.00	-22.62	Peak	VERTICAL
11829.00	46.55	38.33	42.31	9.88	52.45	74.00	-21.55	Peak	VERTICAL
11a CH56									
5879.00	46.72	35.11	43.14	6.91	45.60	74.00	-28.40	Peak	HORIZONTAL
7120.00	46.21	36.00	42.92	8.80	48.09	74.00	-25.91	Peak	HORIZONTAL
9449.00	46.81	37.37	42.50	8.89	50.57	74.00	-23.43	Peak	HORIZONTAL
11914.00	46.89	38.37	42.30	9.94	52.90	74.00	-21.10	Peak	HORIZONTAL
12594.00	45.15	38.58	41.67	10.83	52.89	74.00	-21.11	Peak	HORIZONTAL
13189.00	43.66	39.21	41.07	11.23	53.03	74.00	-20.97	Peak	HORIZONTAL
7154.00	44.34	36.03	42.92	8.82	46.27	74.00	-27.73	Peak	VERTICAL
9432.00	44.56	37.36	42.50	8.88	48.30	74.00	-25.70	Peak	VERTICAL
10571.00	46.23	37.67	42.37	9.27	50.80	74.00	-23.20	Peak	VERTICAL
11336.00	46.29	38.17	42.33	9.54	51.67	74.00	-22.33	Peak	VERTICAL
12305.00	46.21	38.46	41.97	10.42	53.12	74.00	-20.88	Peak	VERTICAL
13019.00	44.55	38.93	41.24	11.37	53.61	74.00	-20.39	Peak	VERTICAL
11a CH64									
7919.00	46.80	36.55	42.81	9.23	49.77	74.00	-24.23	Peak	HORIZONTAL
9551.00	47.44	37.44	42.48	8.96	51.36	74.00	-22.64	Peak	HORIZONTAL
9976.00	46.18	37.78	42.40	9.22	50.78	74.00	-23.22	Peak	HORIZONTAL
11081.00	47.03	38.12	42.34	9.36	52.17	74.00	-21.83	Peak	HORIZONTAL
12526.00	45.55	38.52	41.74	10.73	53.06	74.00	-20.94	Peak	HORIZONTAL
12951.00	44.34	38.86	41.31	11.32	53.21	74.00	-20.79	Peak	HORIZONTAL
5471.00	45.56	34.78	43.26	6.75	43.83	74.00	-30.17	Peak	VERTICAL
7375.00	47.80	36.20	42.88	8.94	50.06	74.00	-23.94	Peak	VERTICAL
9755.00	47.64	37.61	42.44	9.08	51.89	74.00	-22.11	Peak	VERTICAL
11251.00	46.01	38.15	42.34	9.48	51.30	74.00	-22.70	Peak	VERTICAL
12084.00	47.09	38.42	42.21	10.12	53.42	74.00	-20.58	Peak	VERTICAL
12424.00	46.34	38.49	41.85	10.59	53.57	74.00	-20.43	Peak	VERTICAL
Conclusion: Pass									

Freq (MHz)	Read level (dBμV)	Antenna Factor (dB/m)	PRM Factor(dB)	Cable Loss (dB)	Result Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector type	Polarization
11a CH100									
7154.00	45.34	36.03	42.92	8.82	47.27	74.00	-26.73	Peak	HORIZONTAL
9636.00	46.61	37.51	42.47	9.01	50.66	74.00	-23.34	Peak	HORIZONTAL
10571.00	47.23	37.67	42.37	9.27	51.80	74.00	-22.20	Peak	HORIZONTAL
11336.00	47.29	38.17	42.33	9.54	52.67	74.00	-21.33	Peak	HORIZONTAL
12305.00	46.21	38.46	41.97	10.42	53.12	74.00	-20.88	Peak	HORIZONTAL
13019.00	44.55	38.93	41.24	11.37	53.61	74.00	-20.39	Peak	HORIZONTAL
7919.00	46.20	36.55	42.81	9.23	49.17	74.00	-24.83	Peak	VERTICAL
9755.00	46.59	37.61	42.44	9.08	50.84	74.00	-23.16	Peak	VERTICAL
11200.00	47.03	38.14	42.34	9.44	52.27	74.00	-21.73	Peak	VERTICAL
12101.00	46.90	38.42	42.19	10.14	53.27	74.00	-20.73	Peak	VERTICAL
12866.00	45.17	38.79	41.40	11.20	53.76	74.00	-20.24	Peak	VERTICAL
13954.00	43.05	40.25	40.34	10.59	53.55	74.00	-20.45	Peak	VERTICAL
11a CH116									
7120.00	46.21	36.00	42.92	8.80	48.09	74.00	-25.91	Peak	HORIZONTAL
8616.00	45.80	37.02	42.67	8.87	49.02	74.00	-24.98	Peak	HORIZONTAL
9449.00	45.81	37.37	42.50	8.89	49.57	74.00	-24.43	Peak	HORIZONTAL
11081.00	45.56	38.12	42.34	9.36	50.70	74.00	-23.30	Peak	HORIZONTAL
12050.00	47.10	38.41	42.25	10.07	53.33	74.00	-20.67	Peak	HORIZONTAL
12951.00	44.15	38.86	41.31	11.32	53.02	74.00	-20.98	Peak	HORIZONTAL
7919.00	44.52	36.55	42.81	9.23	47.49	74.00	-26.51	Peak	VERTICAL
8480.00	45.22	36.98	42.70	8.96	48.46	74.00	-25.54	Peak	VERTICAL
9636.00	45.59	37.51	42.47	9.01	49.64	74.00	-24.36	Peak	VERTICAL
10605.00	46.61	37.71	42.37	9.27	51.22	74.00	-22.78	Peak	VERTICAL
11455.00	47.15	38.19	42.33	9.62	52.63	74.00	-21.37	Peak	VERTICAL
12254.00	46.29	38.45	42.03	10.35	53.06	74.00	-20.94	Peak	VERTICAL
11a CH140									
7936.00	46.79	36.56	42.81	9.24	49.78	74.00	-24.22	Peak	HORIZONTAL
9619.00	46.09	37.50	42.47	9.00	50.12	74.00	-23.88	Peak	HORIZONTAL
10061.00	46.46	37.78	42.40	9.23	51.07	74.00	-22.93	Peak	HORIZONTAL
11030.00	46.63	38.11	42.35	9.32	51.71	74.00	-22.29	Peak	HORIZONTAL
12050.00	46.68	38.41	42.25	10.07	52.91	74.00	-21.09	Peak	HORIZONTAL
12934.00	44.41	38.85	41.33	11.30	53.23	74.00	-20.77	Peak	HORIZONTAL
5199.00	45.52	34.62	43.35	6.64	43.43	74.00	-30.57	Peak	VERTICAL
6525.00	45.21	35.62	43.01	7.89	45.71	74.00	-28.29	Peak	VERTICAL
7800.00	44.57	36.48	42.83	9.16	47.38	74.00	-26.62	Peak	VERTICAL
9500.00	45.84	37.40	42.49	8.92	49.67	74.00	-24.33	Peak	VERTICAL
11149.00	46.45	38.13	42.34	9.40	51.64	74.00	-22.36	Peak	VERTICAL
11880.00	47.14	38.35	42.31	9.92	53.10	74.00	-20.90	Peak	VERTICAL

Freq (MHz)	Read level (dBμV)	Antenna Factor (dB/m)	PRM Factor(dB)	Cable Loss (dB)	Result Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector type	Polarization
11a CH149									
5556.00	45.86	34.85	43.23	6.78	44.26	74.00	-29.74	Peak	HORIZONTAL
7375.00	46.14	36.20	42.88	8.94	48.40	74.00	-25.60	Peak	HORIZONTAL
10554.00	46.65	37.66	42.37	9.27	51.21	74.00	-22.79	Peak	HORIZONTAL
11506.00	46.52	38.20	42.32	9.65	52.05	74.00	-21.95	Peak	HORIZONTAL
12611.00	45.84	38.59	41.66	10.85	53.62	74.00	-20.38	Peak	HORIZONTAL
13206.00	44.13	39.23	41.06	11.22	53.52	74.00	-20.48	Peak	HORIZONTAL
7256.00	46.07	36.11	42.90	8.88	48.16	74.00	-25.84	Peak	VERTICAL
8395.00	45.88	36.92	42.71	9.01	49.10	74.00	-24.90	Peak	VERTICAL
9755.00	46.59	37.61	42.44	9.08	50.84	74.00	-23.16	Peak	VERTICAL
11200.00	46.03	38.14	42.34	9.44	51.27	74.00	-22.73	Peak	VERTICAL
12101.00	46.90	38.42	42.19	10.14	53.27	74.00	-20.73	Peak	VERTICAL
12900.00	44.65	38.82	41.36	11.25	53.36	74.00	-20.64	Peak	VERTICAL
11a CH157									
8106.00	45.88	36.69	42.78	9.20	48.99	74.00	-25.01	Peak	HORIZONTAL
8939.00	46.61	37.09	42.60	8.66	49.76	74.00	-24.24	Peak	HORIZONTAL
10129.00	46.47	37.75	42.39	9.24	51.07	74.00	-22.93	Peak	HORIZONTAL
11200.00	46.83	38.14	42.34	9.44	52.07	74.00	-21.93	Peak	HORIZONTAL
12050.00	47.10	38.41	42.25	10.07	53.33	74.00	-20.67	Peak	HORIZONTAL
12781.00	44.60	38.73	41.48	11.09	52.94	74.00	-21.06	Peak	HORIZONTAL
8089.00	44.56	36.67	42.78	9.21	47.66	74.00	-26.34	Peak	VERTICAL
9024.00	44.61	37.11	42.58	8.63	47.77	74.00	-26.23	Peak	VERTICAL
10571.00	46.23	37.67	42.37	9.27	50.80	74.00	-23.20	Peak	VERTICAL
11336.00	46.29	38.17	42.33	9.54	51.67	74.00	-22.33	Peak	VERTICAL
12305.00	46.21	38.46	41.97	10.42	53.12	74.00	-20.88	Peak	VERTICAL
12951.00	44.58	38.86	41.31	11.32	53.45	74.00	-20.55	Peak	VERTICAL
11a CH165									
6984.00	44.45	35.89	42.94	8.71	46.11	74.00	-27.89	Peak	HORIZONTAL
8531.00	45.36	37.01	42.68	8.92	48.61	74.00	-25.39	Peak	HORIZONTAL
10146.00	45.41	37.74	42.39	9.24	50.00	74.00	-24.00	Peak	HORIZONTAL
10571.00	46.13	37.67	42.37	9.27	50.70	74.00	-23.30	Peak	HORIZONTAL
12016.00	47.10	38.40	42.28	10.02	53.24	74.00	-20.76	Peak	HORIZONTAL
12526.00	46.18	38.52	41.74	10.73	53.69	74.00	-20.31	Peak	HORIZONTAL
6525.00	44.82	35.62	43.01	7.89	45.32	74.00	-28.68	Peak	VERTICAL
7205.00	44.42	36.07	42.91	8.85	46.43	74.00	-27.57	Peak	VERTICAL
8089.00	44.93	36.67	42.78	9.21	48.03	74.00	-25.97	Peak	VERTICAL
9874.00	46.28	37.70	42.42	9.15	50.71	74.00	-23.29	Peak	VERTICAL
11455.00	47.15	38.19	42.33	9.62	52.63	74.00	-21.37	Peak	VERTICAL
12016.00	46.10	38.40	42.28	10.02	52.24	74.00	-21.76	Peak	VERTICAL
Conclusion: Pass									
Note: -27 dBm/MHz Limit=95.2+EIRP[dBm]=95.2-27=68.2 dBμV/m For transmitters operating in the 5150 MHz - 5250 MHz, 5250 MHz - 5350 MHz, 5470 MHz - 5725 MHz, 5725 MHz - 5850 MHz band: all emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of -27 dBm/MHz.									

Note: 1. 30 MHz ~ 40 GHz: (11a, 11n20, n40, 11ac20, 11ac40, 11ac80 mode all have been tested, only 11n HT20

ANT1+2 mode is the worst case and reported.)

2. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.

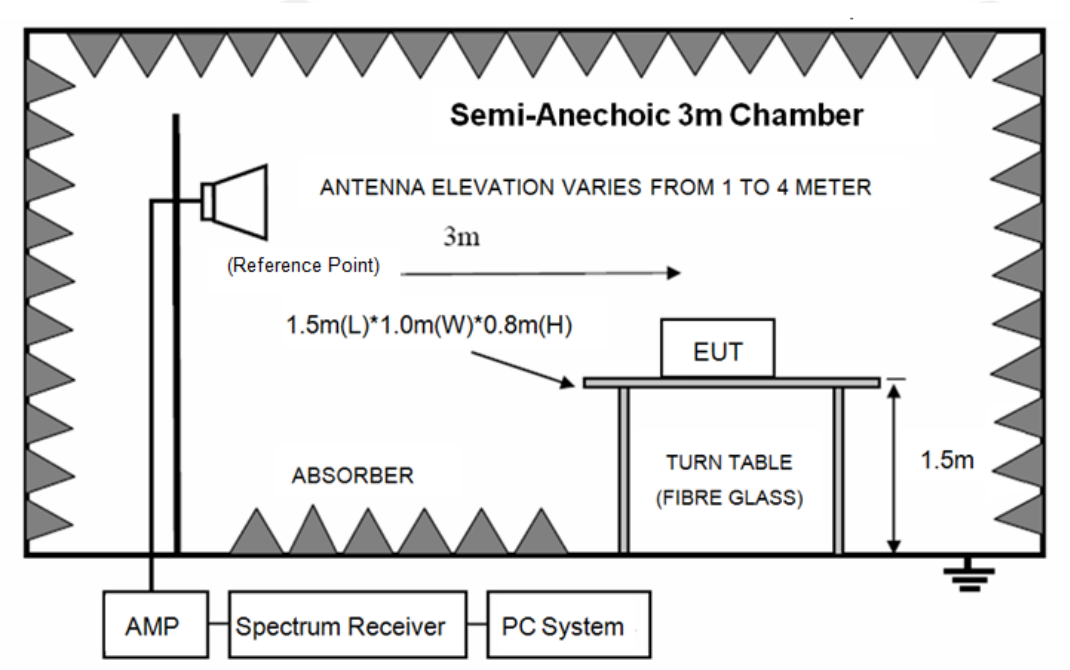
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

4. All the emissions were comply with 54 dBμV/m for Average value in 15.209, so both for the restricted bands and non-restricted bands, all the emissions were comply with the limit.

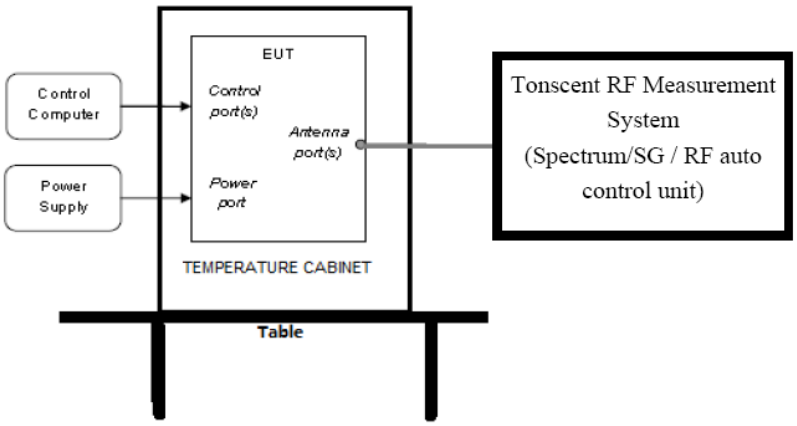
9. Band Edge Compliance

9.1. Block diagram of test setup

Radiated measurement:



Conducted measurement:



9.2. Limit

For transmitters operating in the 5.15 - 5.25 GHz and 5.725 - 5.85 GHz band: all emissions outside of the 5.15 - 5.35 GHz band shall not exceed an EIRP of -27 dBm/MHz.

-27 dBm/MHz Limit=95.2+EIRP[dBm]=95.2-27=68.2 dBμV/m

9.3. Test procedure

Same with clause 8.3 except change investigated frequency range from 5.15 - 5.25 GHz, 5250 -

5350 GHz, 5470 - 5725 GHz, 5.725 - 5.85 GHz.
Remark: All restriction band have been tested, and only the worst case is shown in report.

9.4. Test result

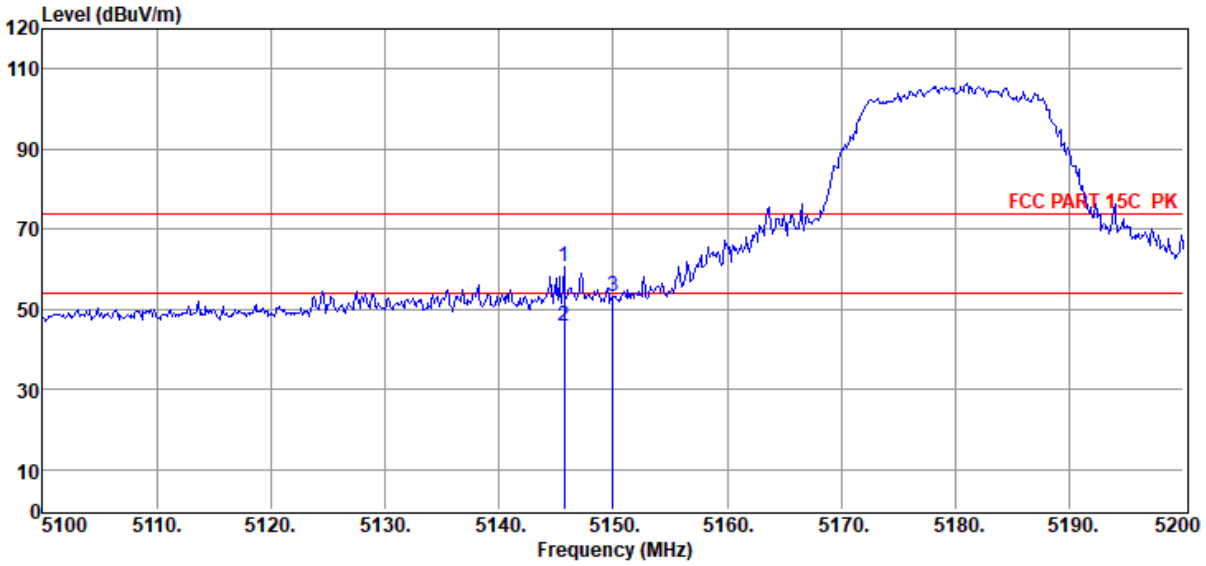
PASS. (See below detailed test result)

Note1: As specified in 15.407(b), emissions above 1000 MHz that are outside of the restricted bands are subject to a peak emission limit of -27 dBm/MHz (or -17 dBm/MHz as specified in 15.407(b)(4)). However, an out-of-band emission that complies with both the average and peak limits of 15.209 is not required to satisfy the -27 dBm/MHz or -17 dBm/MHz peak emission limit.
Note2: For 802.11a mode, Ant2 is worse case. For the other MIMO mode, Ant1+2 is the worst case. Only the worst case is shown in report.

TR-4-E-009 Radiated Emission Test Result

Test Site	:	DDT 3m Chamber 1#	D:\2020 RE 1# Report data\Q20041019-1E CITATION AMP\FCC ABOVE 1G.EM6		
Test Date	:	2020-06-13	**Tested By**	:	Jacky
EUT	:	Wireless Adaptor with built-in amplifier	**Model Number**	:	CITATION AMP
Power Supply	:	AC 120V/60Hz	**Test Mode**	:	Tx mode
Condition	:	Temp:24.3°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	:	2019 HF 907/3m/HORIZONTAL
Memo	:	11A 5180 ANT2			

Data: 137



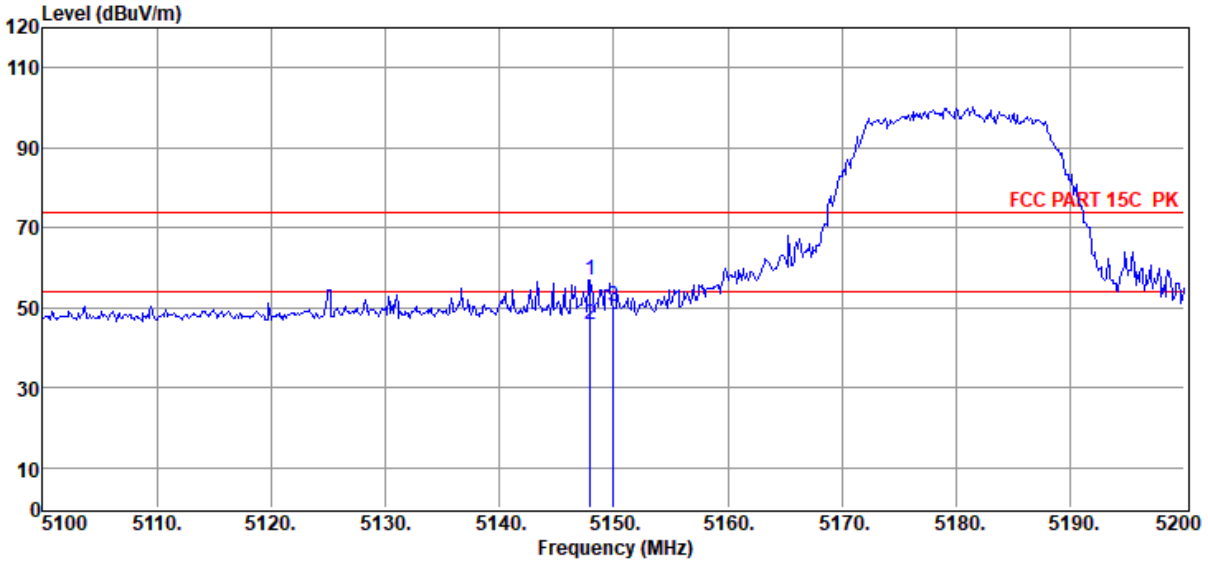
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5145.70	62.62	34.59	43.37	6.62	60.46	74.00	-13.54	Peak	HORIZONTAL
2	5145.70	48.10	34.59	43.37	6.62	45.94	54.00	-8.06	Average	HORIZONTAL
3	5150.00	55.33	34.59	43.36	6.62	53.18	74.00	-20.82	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber 1#	D:\2020 RE 1# Report data\Q20041019-1E CITATION AMP\FCC ABOVE 1G.EM6	
Test Date	: 2020-06-13	**Tested By**	: Jacky
EUT	: Wireless Adaptor with built-in amplifier	**Model Number**	: CITATION AMP
Power Supply	: AC 120V/60Hz	**Test Mode**	: Tx mode
Condition	: Temp:24.3°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	: 2019 HF 907/3m/VERTICAL
Memo	: 11A 5180 ANT2		

Data: 138



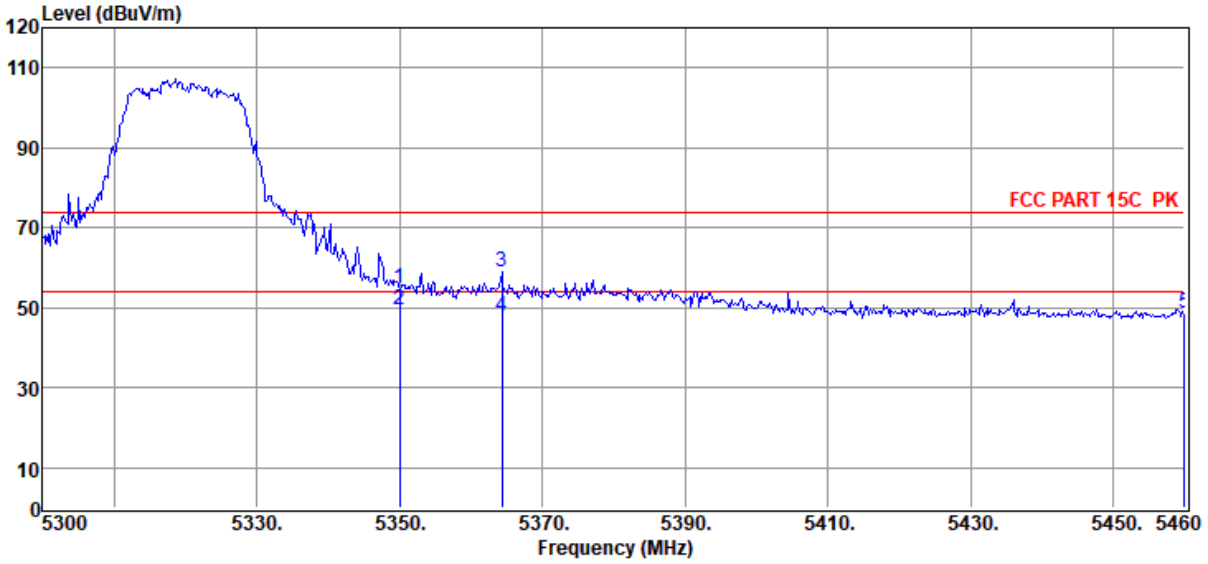
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5148.00	59.16	34.59	43.36	6.62	57.01	74.00	-16.99	Peak	VERTICAL
2	5148.00	47.88	34.59	43.36	6.62	45.73	54.00	-8.27	Average	VERTICAL
3	5150.00	52.44	34.59	43.36	6.62	50.29	74.00	-23.71	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber 1#	D:\2020 RE 1# Report data\Q20041019-1E CITATION AMP\FCC ABOVE 1G.EM6	
Test Date	: 2020-07-20	**Tested By**	: Jacky
EUT	: Wireless Adaptor with built-in amplifier	**Model Number**	: CITATION AMP
Power Supply	: AC 120V/60Hz	**Test Mode**	: Tx mode
Condition	: Temp:24.3°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	: 2019 HF 907/3m/HORIZONTAL
Memo	: 11A 5320 ANT2		

Data: 139



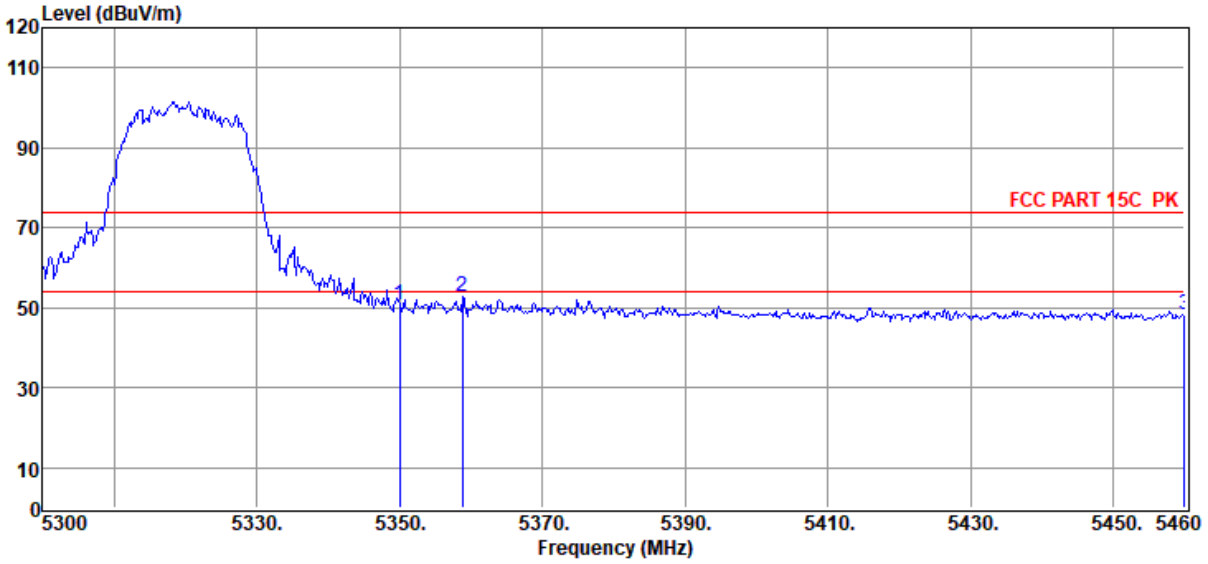
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5350.00	56.72	34.71	43.30	6.70	54.83	74.00	-19.17	Peak	HORIZONTAL
2	5350.00	51.40	34.71	43.30	6.70	49.51	54.00	-4.49	Average	HORIZONTAL
3	5364.32	60.64	34.72	43.29	6.71	58.78	74.00	-15.22	Peak	HORIZONTAL
4	5364.32	49.65	34.72	43.29	6.71	47.79	54.00	-6.21	Average	HORIZONTAL
5	5460.00	50.48	34.78	43.26	6.74	48.74	74.00	-25.26	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber 1#	D:\2020 RE 1# Report data\Q20041019-1E CITATION AMP\FCC ABOVE 1G.EM6	
Test Date	: 2020-07-20	**Tested By**	: Jacky
EUT	: Wireless Adaptor with built-in amplifier	**Model Number**	: CITATION AMP
Power Supply	: AC 120V/60Hz	**Test Mode**	: Tx mode
Condition	: Temp:24.3°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	: 2019 HF 907/3m/VERTICAL
Memo	: 11A 5320 ANT2		

Data: 140



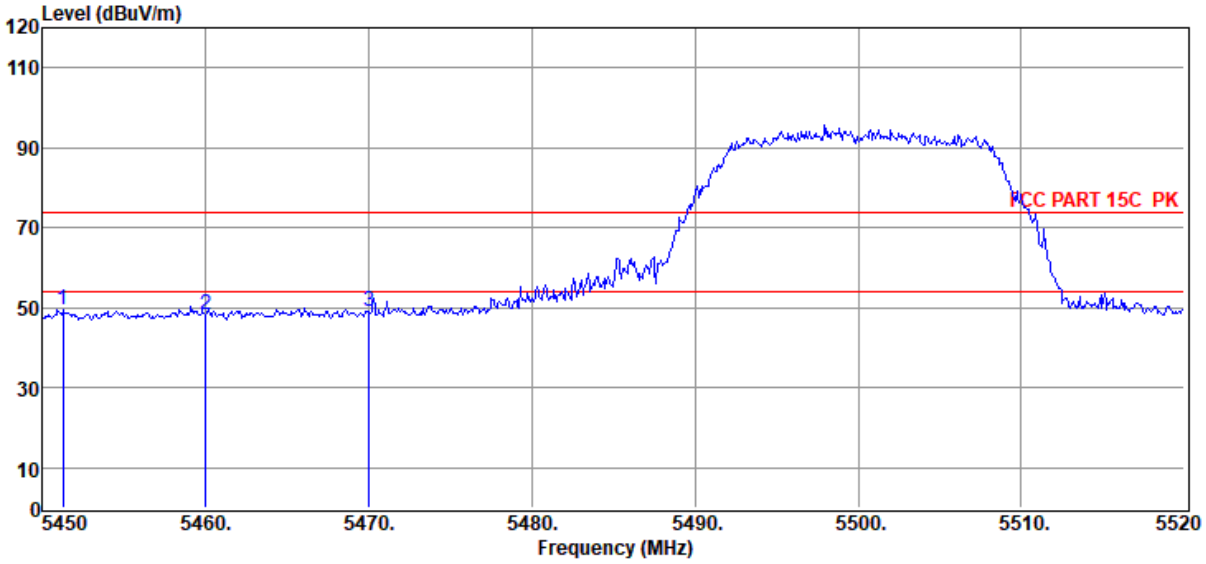
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5350.00	52.63	34.71	43.30	6.70	50.74	74.00	-23.26	Peak	VERTICAL
2	5358.88	54.74	34.72	43.30	6.70	52.86	74.00	-21.14	Peak	VERTICAL
3	5460.00	49.78	34.78	43.26	6.74	48.04	74.00	-25.96	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber 1#	D:\2020 RE 1# Report data\Q20041019-1E CITATION AMP\FCC ABOVE 1G.EM6	
Test Date	: 2020-07-20	**Tested By**	: Jacky
EUT	: Wireless Adaptor with built-in amplifier	**Model Number**	: CITATION AMP
Power Supply	: AC 120V/60Hz	**Test Mode**	: Tx mode
Condition	: Temp:24.3°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	: 2019 HF 907/3m/VERTICAL
Memo	: 11A 5500 ANT2		

Data: 141



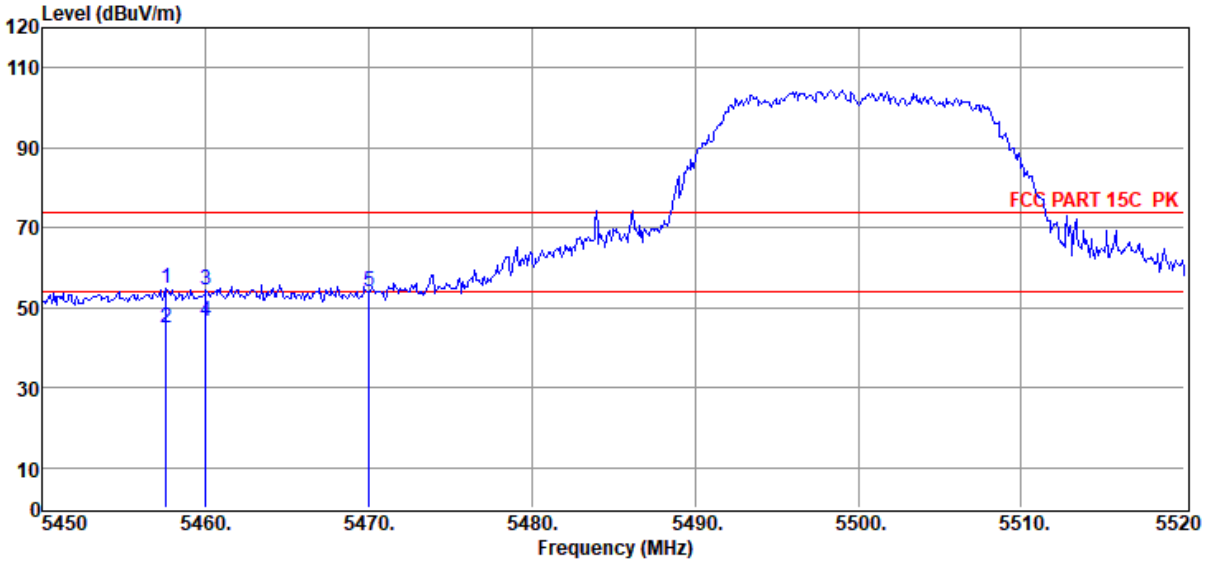
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5451.26	51.40	34.77	43.27	6.74	49.64	74.00	-24.36	Peak	VERTICAL
2	5460.00	49.86	34.78	43.26	6.74	48.12	74.00	-25.88	Peak	VERTICAL
3	5470.00	50.64	34.78	43.26	6.75	48.91	68.20	-19.29	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber 1#	D:\2020 RE 1# Report data\Q20041019-1E CITATION AMP\FCC ABOVE 1G.EM6	
Test Date	: 2020-07-20	**Tested By**	: Jacky
EUT	: Wireless Adaptor with built-in amplifier	**Model Number**	: CITATION AMP
Power Supply	: AC 120V/60Hz	**Test Mode**	: Tx mode
Condition	: Temp:24.3°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	: 2019 HF 907/3m/HORIZONTAL
Memo	: 11A 5500 ANT2		

Data: 142



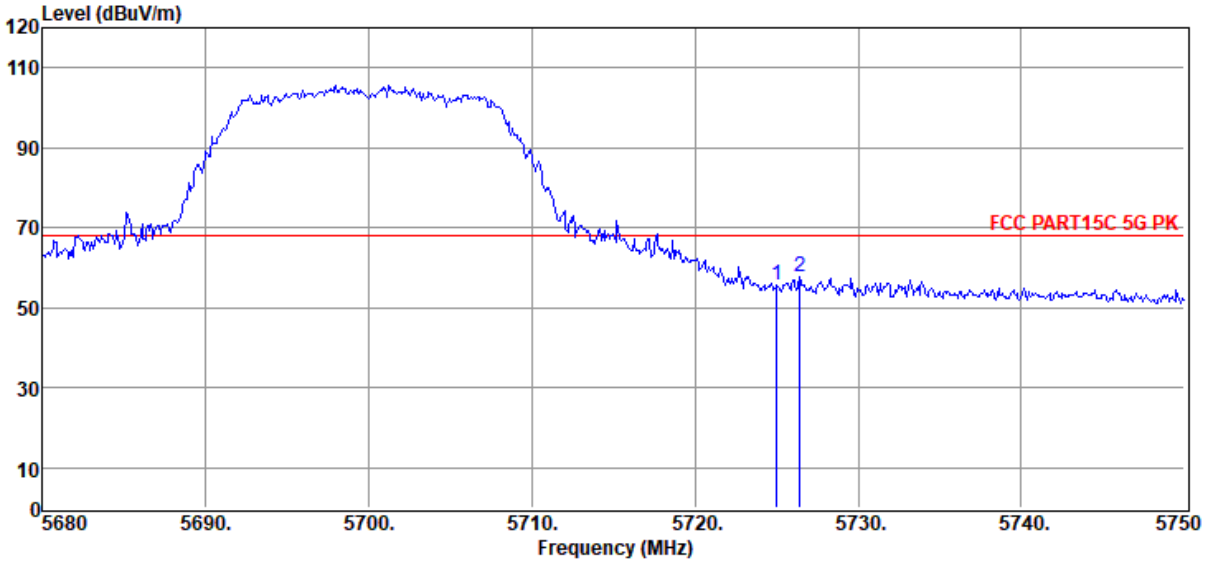
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5457.56	56.42	34.78	43.26	6.74	54.68	74.00	-19.32	Peak	HORIZONTAL
2	5457.56	46.80	34.78	43.26	6.74	45.06	54.00	-8.94	Average	HORIZONTAL
3	5460.00	56.01	34.78	43.26	6.74	54.27	74.00	-19.73	Peak	HORIZONTAL
4	5460.00	48.34	34.78	43.26	6.74	46.60	54.00	-7.40	Average	HORIZONTAL
5	5470.00	55.70	34.78	43.26	6.75	53.97	68.20	-14.23	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber 1#	D:\2020 RE 1# Report data\Q20041019-1E CITATION AMP\FCC ABOVE 1G.EM6	
Test Date	: 2020-07-20	**Tested By**	: Jacky
EUT	: Wireless Adaptor with built-in amplifier	**Model Number**	: CITATION AMP
Power Supply	: AC 120V/60Hz	**Test Mode**	: Tx mode
Condition	: Temp:24.3°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	: 2019 HF 907/3m/HORIZONTAL
Memo	: 11A 5700 ANT2		

Data: 143



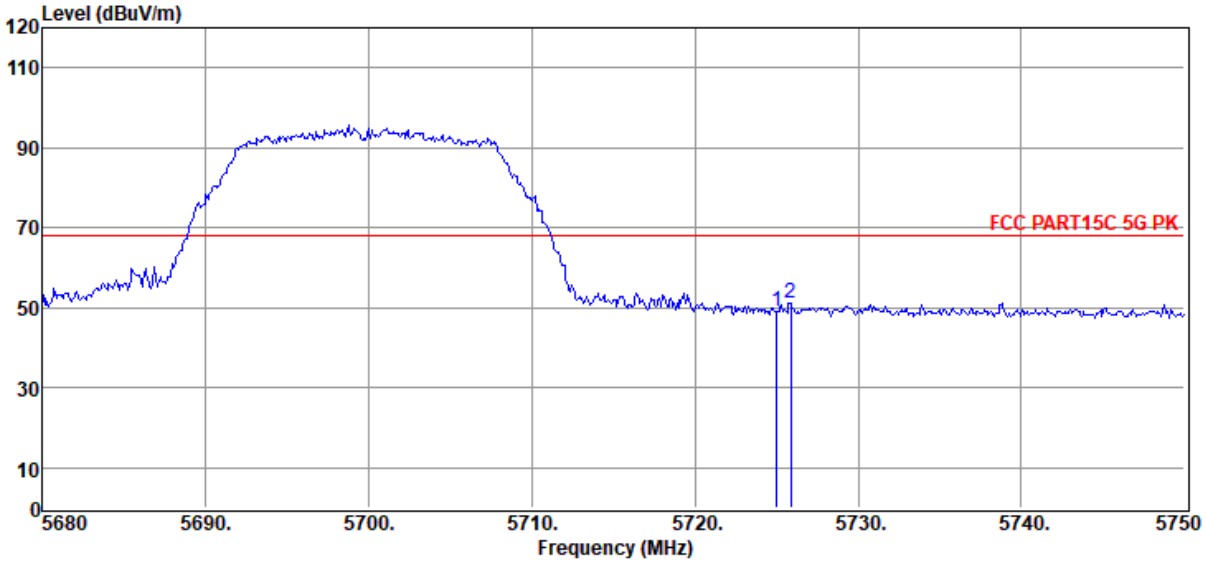
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5725.00	57.15	34.98	43.18	6.85	55.80	68.20	-12.40	Peak	HORIZONTAL
2	5726.41	59.17	34.99	43.18	6.85	57.83	68.20	-10.37	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber 1#	D:\2020 RE 1# Report data\Q20041019-1E CITATION AMP\FCC ABOVE 1G.EM6	
Test Date	: 2020-07-20	**Tested By**	: Jacky
EUT	: Wireless Adaptor with built-in amplifier	**Model Number**	: CITATION AMP
Power Supply	: AC 120V/60Hz	**Test Mode**	: Tx mode
Condition	: Temp:24.3°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	: 2019 HF 907/3m/VERTICAL
Memo	: 11A 5700 ANT2		

Data: 144



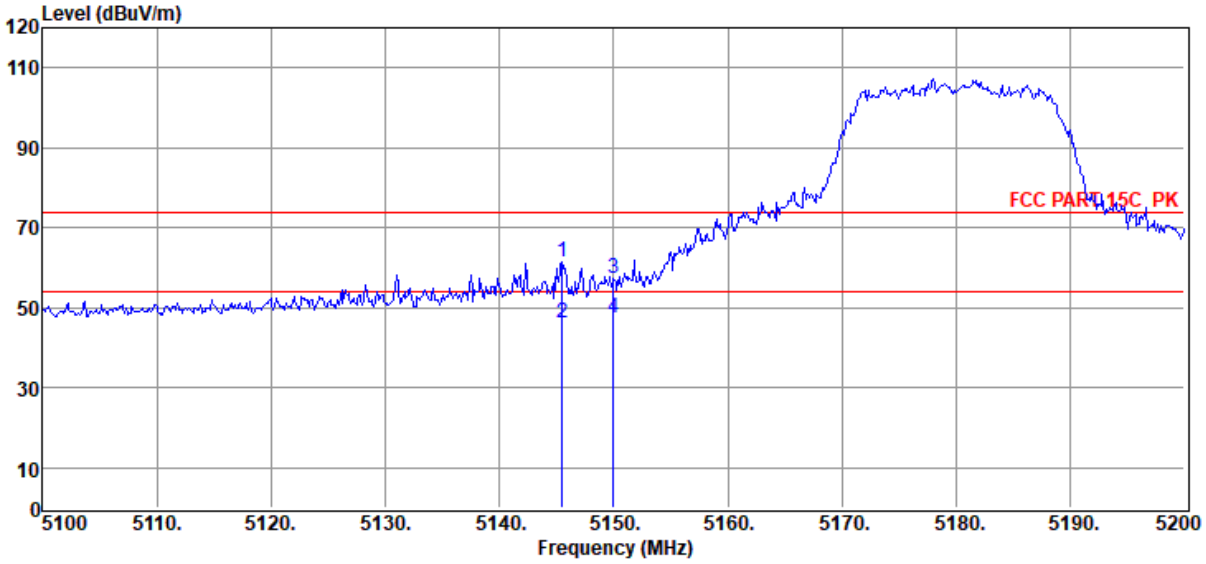
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5725.00	50.23	34.98	43.18	6.85	48.88	68.20	-19.32	Peak	VERTICAL
2	5725.85	52.54	34.99	43.18	6.85	51.20	68.20	-17.00	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	:	DDT 3m Chamber 1#	D:\2020 RE 1# Report data\Q20041019-1E CITATION AMP\FCC ABOVE 1G.EM6		
Test Date	:	2020-06-13	**Tested By**	:	Jacky
EUT	:	Wireless Adaptor with built-in amplifier	**Model Number**	:	CITATION AMP
Power Supply	:	AC 120V/60Hz	**Test Mode**	:	Tx mode
Condition	:	Temp:24.3°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	:	2019 HF 907/3m/VERTICAL
Memo	:	11N20 5180 ANT1+2			

Data: 145



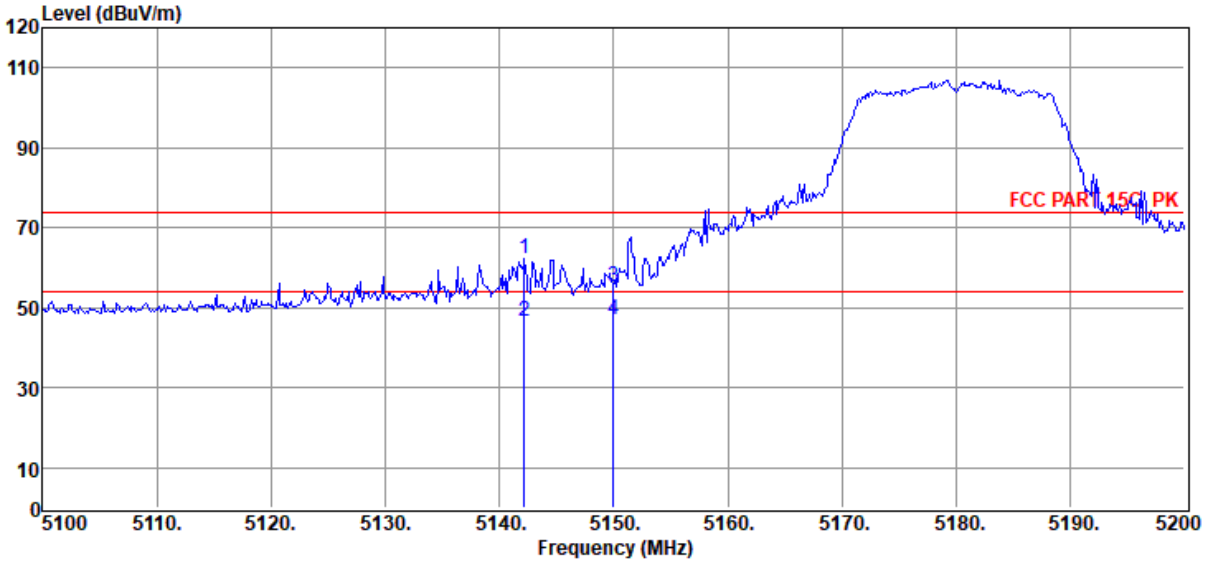
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5145.50	63.72	34.59	43.37	6.62	61.56	74.00	-12.44	Peak	VERTICAL
2	5145.50	48.30	34.59	43.37	6.62	46.14	54.00	-7.86	Average	VERTICAL
3	5150.00	59.36	34.59	43.36	6.62	57.21	74.00	-16.79	Peak	VERTICAL
4	5150.00	49.71	34.59	43.36	6.62	47.56	54.00	-6.44	Average	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	:	DDT 3m Chamber 1#	D:\2020 RE 1# Report data\Q20041019-1E CITATION AMP\FCC ABOVE 1G.EM6		
Test Date	:	2020-06-13	**Tested By**	:	Jacky
EUT	:	Wireless Adaptor with built-in amplifier	**Model Number**	:	CITATION AMP
Power Supply	:	AC 120V/60Hz	**Test Mode**	:	Tx mode
Condition	:	Temp:24.3°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	:	2019 HF 907/3m/HORIZONTAL
Memo	:	11N20 5180 ANT1+2			

Data: 146



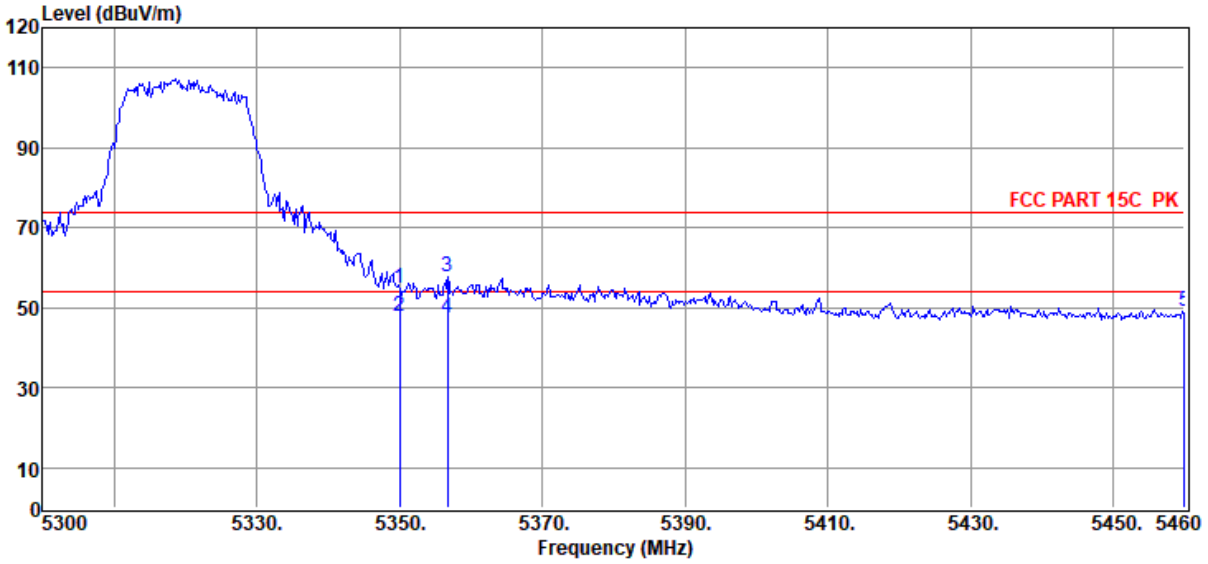
Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	5142.20	64.41	34.59	43.37	6.62	62.25	74.00	-11.75	Peak	HORIZONTAL
2	5142.20	48.66	34.59	43.37	6.62	46.50	54.00	-7.50	Average	HORIZONTAL
3	5150.00	57.48	34.59	43.36	6.62	55.33	74.00	-18.67	Peak	HORIZONTAL
4	5150.00	49.00	34.59	43.36	6.62	46.85	54.00	-7.15	Average	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber 1#	D:\2020 RE 1# Report data\Q20041019-1E CITATION AMP\FCC ABOVE 1G.EM6	
Test Date	: 2020-07-20	**Tested By**	: Jacky
EUT	: Wireless Adaptor with built-in amplifier	**Model Number**	: CITATION AMP
Power Supply	: AC 120V/60Hz	**Test Mode**	: Tx mode
Condition	: Temp:24.3°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	: 2019 HF 907/3m/HORIZONTAL
Memo	: 11N20 5320 ANT1+2		

Data: 147



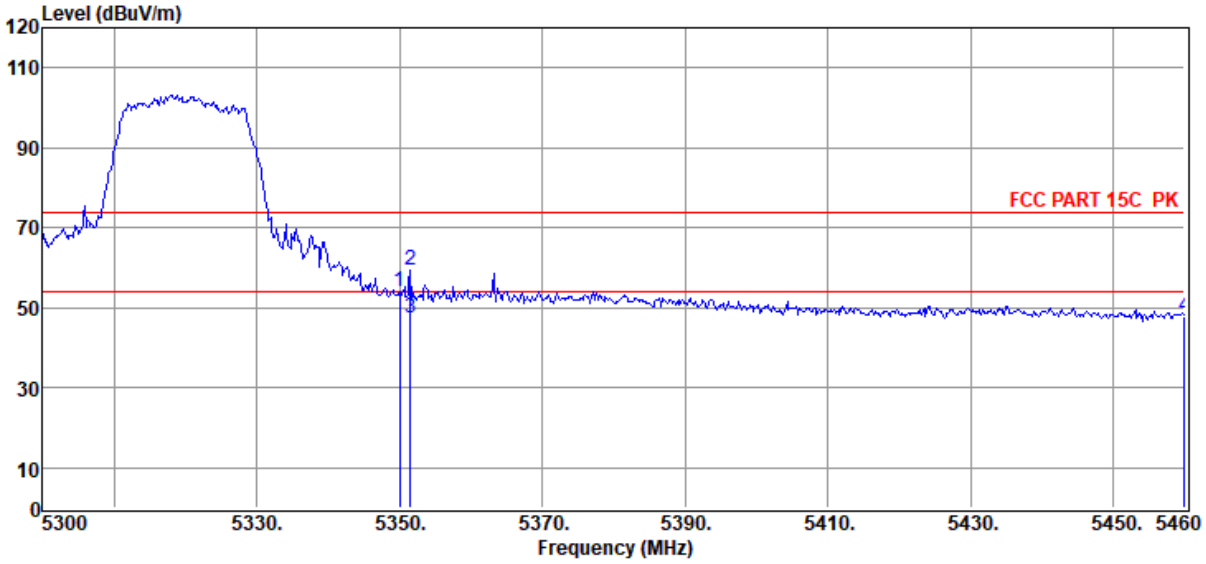
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5350.00	56.73	34.71	43.30	6.70	54.84	74.00	-19.16	Peak	HORIZONTAL
2	5350.00	49.89	34.71	43.30	6.70	48.00	54.00	-6.00	Average	HORIZONTAL
3	5356.80	59.54	34.72	43.30	6.70	57.66	74.00	-16.34	Peak	HORIZONTAL
4	5356.80	49.19	34.72	43.30	6.70	47.31	54.00	-6.69	Average	HORIZONTAL
5	5460.00	50.94	34.78	43.26	6.74	49.20	74.00	-24.80	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber 1#	D:\2020 RE 1# Report data\Q20041019-1E CITATION AMP\FCC ABOVE 1G.EM6	
Test Date	: 2020-07-20	**Tested By**	: Jacky
EUT	: Wireless Adaptor with built-in amplifier	**Model Number**	: CITATION AMP
Power Supply	: AC 120V/60Hz	**Test Mode**	: Tx mode
Condition	: Temp:24.3°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	: 2019 HF 907/3m/VERTICAL
Memo	: 11N20 5320 ANT1+2		

Data: 148



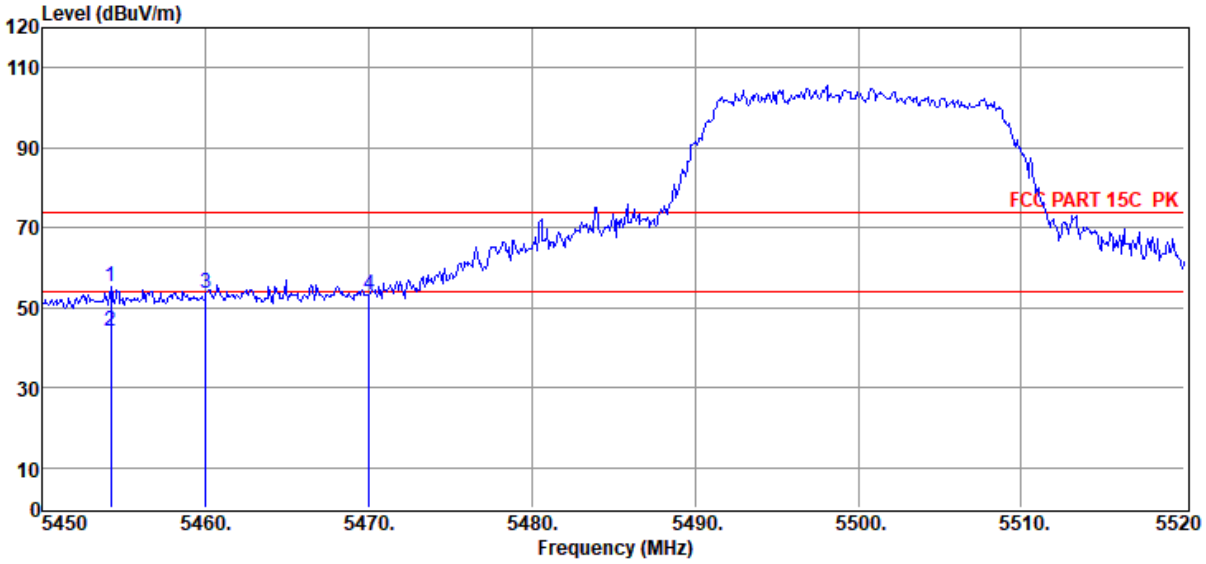
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5350.08	55.79	34.71	43.30	6.70	53.90	74.00	-20.10	Peak	VERTICAL
2	5351.52	61.09	34.71	43.30	6.70	59.20	74.00	-14.80	Peak	VERTICAL
3	5351.52	49.41	34.71	43.30	6.70	47.52	54.00	-6.48	Average	VERTICAL
4	5460.00	49.63	34.78	43.26	6.74	47.89	74.00	-26.11	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	:	DDT 3m Chamber 1#	D:\2020 RE 1# Report data\Q20041019-1E CITATION AMP\FCC ABOVE 1G.EM6		
Test Date	:	2020-07-20	**Tested By**	:	Jacky
EUT	:	Wireless Adaptor with built-in amplifier	**Model Number**	:	CITATION AMP
Power Supply	:	AC 120V/60Hz	**Test Mode**	:	Tx mode
Condition	:	Temp:24.3°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	:	2019 HF 907/3m/VERTICAL
Memo	:	11N20 5500 ANT1+2			

Data: 149



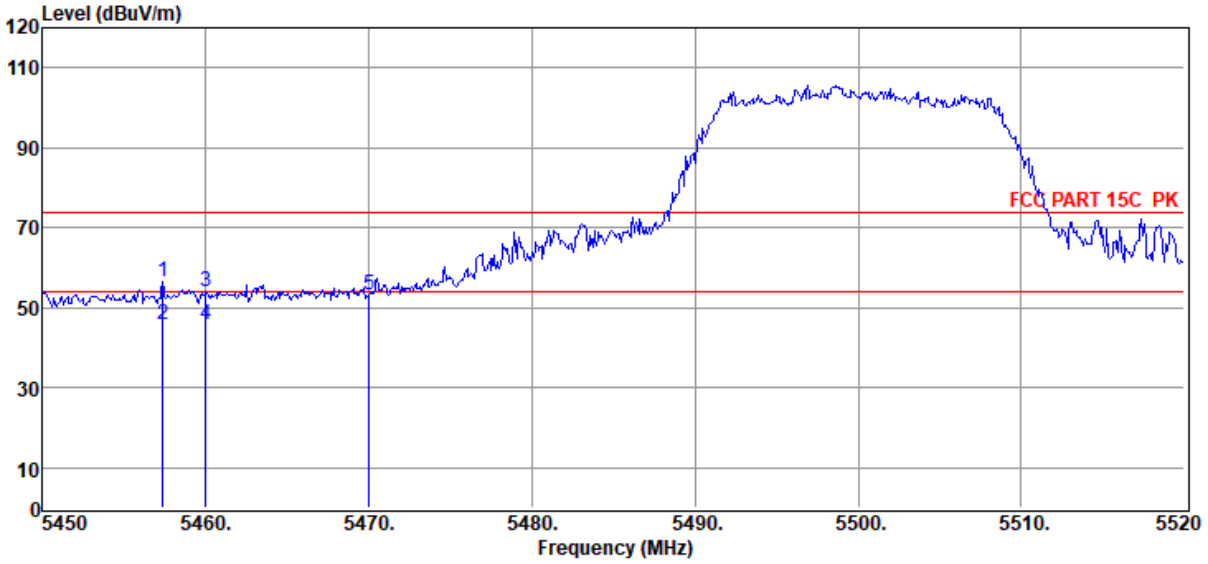
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5454.20	57.18	34.77	43.26	6.74	55.43	74.00	-18.57	Peak	VERTICAL
2	5454.20	45.88	34.77	43.26	6.74	44.13	54.00	-9.87	Average	VERTICAL
3	5460.00	55.53	34.78	43.26	6.74	53.79	74.00	-20.21	Peak	VERTICAL
4	5470.00	55.08	34.78	43.26	6.75	53.35	68.20	-14.85	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	:	DDT 3m Chamber 1#	D:\2020 RE 1# Report data\Q20041019-1E CITATION AMP\FCC ABOVE 1G.EM6		
Test Date	:	2020-07-20	**Tested By**	:	Jacky
EUT	:	Wireless Adaptor with built-in amplifier	**Model Number**	:	CITATION AMP
Power Supply	:	AC 120V/60Hz	**Test Mode**	:	Tx mode
Condition	:	Temp:24.3°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	:	2019 HF 907/3m/HORIZONTAL
Memo	:	11N20 5500 ANT1+2			

Data: 150



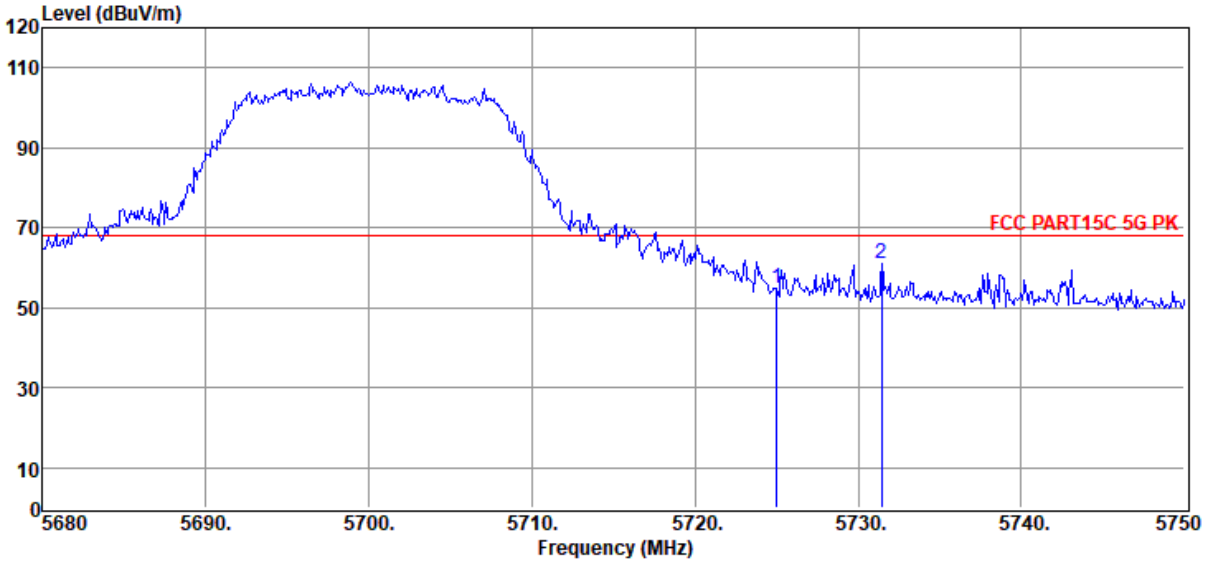
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5457.35	58.03	34.78	43.26	6.74	56.29	74.00	-17.71	Peak	HORIZONTAL
2	5457.35	47.35	34.78	43.26	6.74	45.61	54.00	-8.39	Average	HORIZONTAL
3	5460.00	55.78	34.78	43.26	6.74	54.04	74.00	-19.96	Peak	HORIZONTAL
4	5460.00	47.66	34.78	43.26	6.74	45.92	54.00	-8.08	Average	HORIZONTAL
5	5470.00	54.84	34.78	43.26	6.75	53.11	68.20	-15.09	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber 1#	D:\2020 RE 1# Report data\Q20041019-1E CITATION AMP\FCC ABOVE 1G.EM6	
Test Date	: 2020-07-20	**Tested By**	: Jacky
EUT	: Wireless Adaptor with built-in amplifier	**Model Number**	: CITATION AMP
Power Supply	: AC 120V/60Hz	**Test Mode**	: Tx mode
Condition	: Temp:24.3°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	: 2019 HF 907/3m/VERTICAL
Memo	: 11N20 5700 ANT1+2		

Data: 151



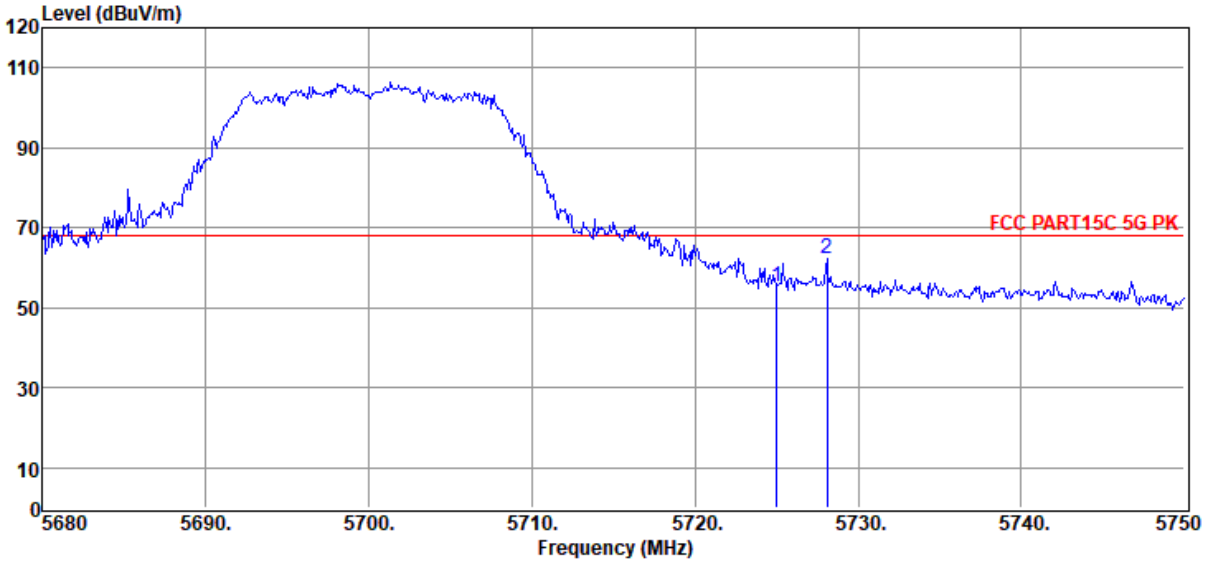
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5725.00	56.27	34.98	43.18	6.85	54.92	68.20	-13.28	Peak	VERTICAL
2	5731.45	62.23	34.99	43.18	6.85	60.89	68.20	-7.31	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	:	DDT 3m Chamber 1#	D:\2020 RE 1# Report data\Q20041019-1E CITATION AMP\FCC ABOVE 1G.EM6		
Test Date	:	2020-07-20	**Tested By**	:	Jacky
EUT	:	Wireless Adaptor with built-in amplifier	**Model Number**	:	CITATION AMP
Power Supply	:	AC 120V/60Hz	**Test Mode**	:	Tx mode
Condition	:	Temp:24.3°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	:	2019 HF 907/3m/HORIZONTAL
Memo	:	11N20 5700 ANT1+2			

Data: 152



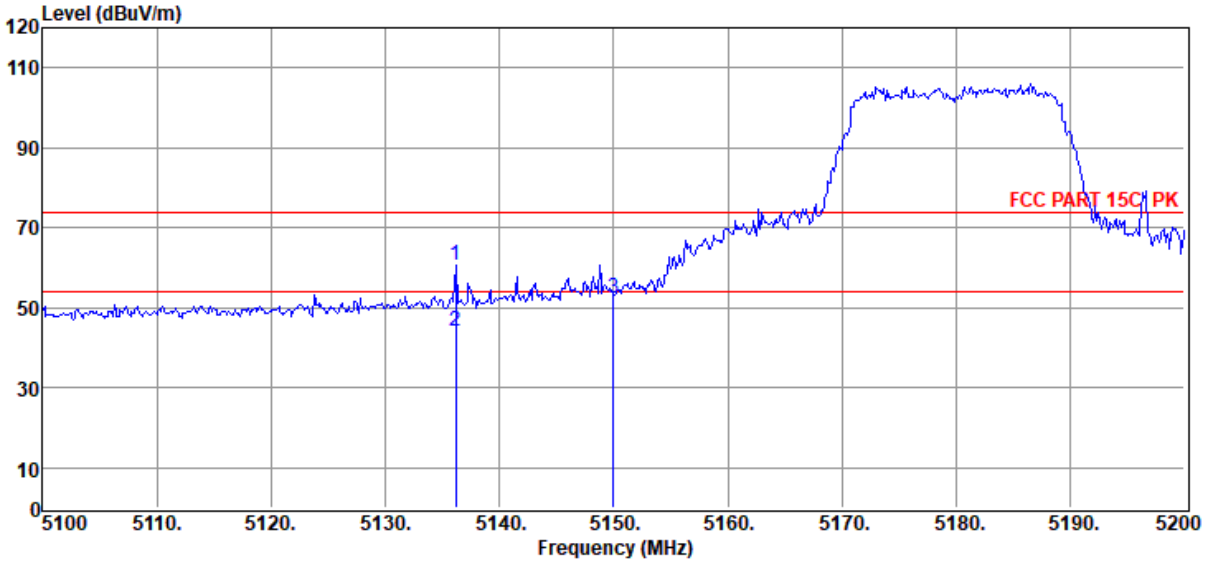
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5725.00	56.79	34.98	43.18	6.85	55.44	68.20	-12.76	Peak	HORIZONTAL
2	5728.09	63.64	34.99	43.18	6.85	62.30	68.20	-5.90	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	:	DDT 3m Chamber 1#	D:\2020 RE 1# Report data\Q20041019-1E CITATION AMP\FCC ABOVE 1G.EM6		
Test Date	:	2020-06-13	**Tested By**	:	Jacky
EUT	:	Wireless Adaptor with built-in amplifier	**Model Number**	:	CITATION AMP
Power Supply	:	AC 120V/60Hz	**Test Mode**	:	Tx mode
Condition	:	Temp:24.3°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	:	2019 HF 907/3m/HORIZONTAL
Memo	:	11AC20 5180 ANT1+2			

Data: 153



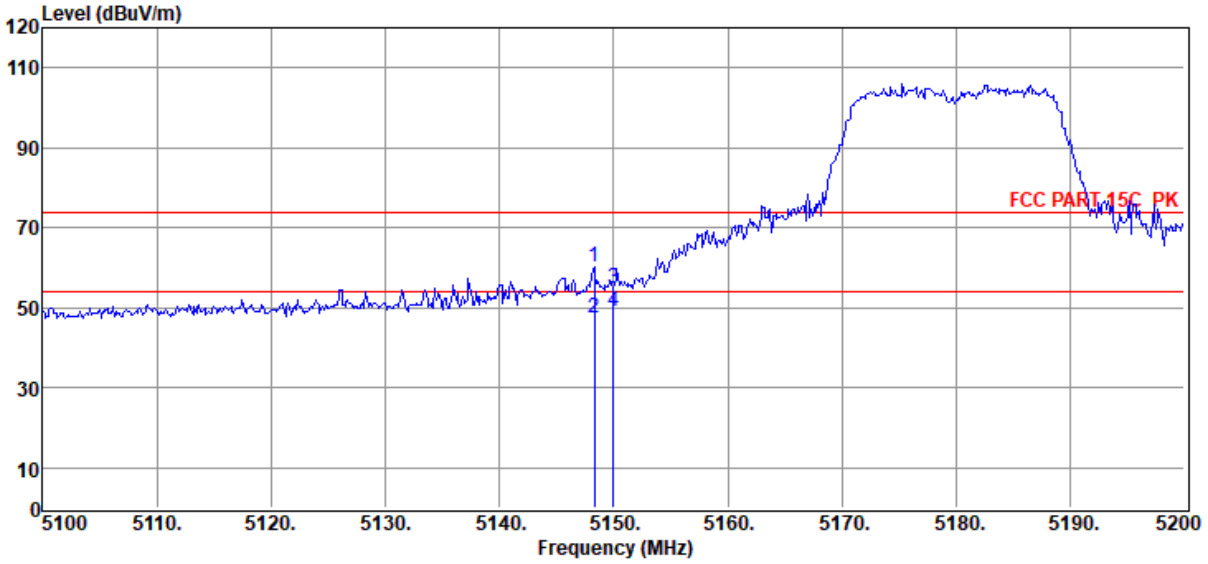
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5136.20	62.77	34.58	43.37	6.61	60.59	74.00	-13.41	Peak	HORIZONTAL
2	5136.20	46.31	34.58	43.37	6.61	44.13	54.00	-9.87	Average	HORIZONTAL
3	5150.00	54.71	34.59	43.36	6.62	52.56	74.00	-21.44	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	:	DDT 3m Chamber 1#	D:\2020 RE 1# Report data\Q20041019-1E CITATION AMP\FCC ABOVE 1G.EM6		
Test Date	:	2020-06-13	**Tested By**	:	Jacky
EUT	:	Wireless Adaptor with built-in amplifier	**Model Number**	:	CITATION AMP
Power Supply	:	AC 120V/60Hz	**Test Mode**	:	Tx mode
Condition	:	Temp:24.3°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	:	2019 HF 907/3m/VERTICAL
Memo	:	11AC20 5180 ANT1+2			

Data: 154



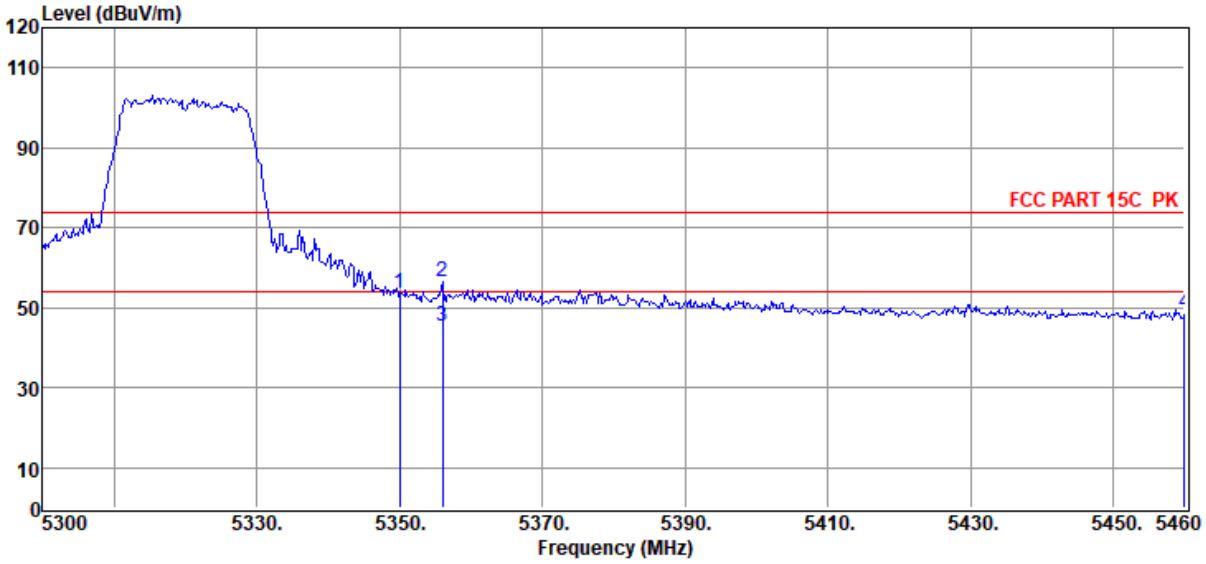
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5148.30	62.16	34.59	43.36	6.62	60.01	74.00	-13.99	Peak	VERTICAL
2	5148.30	49.68	34.59	43.36	6.62	47.53	54.00	-6.47	Average	VERTICAL
3	5150.00	56.92	34.59	43.36	6.62	54.77	74.00	-19.23	Peak	VERTICAL
4	5150.00	51.14	34.59	43.36	6.62	48.99	54.00	-5.01	Average	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber 1#	D:\2020 RE 1# Report data\Q20041019-1E CITATION AMP\FCC ABOVE 1G.EM6	
Test Date	: 2020-07-20	**Tested By**	: Jacky
EUT	: Wireless Adaptor with built-in amplifier	**Model Number**	: CITATION AMP
Power Supply	: AC 120V/60Hz	**Test Mode**	: Tx mode
Condition	: Temp:24.3°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	: 2019 HF 907/3m/VERTICAL
Memo	: 11AC20 5320 ANT1+2		

Data: 155



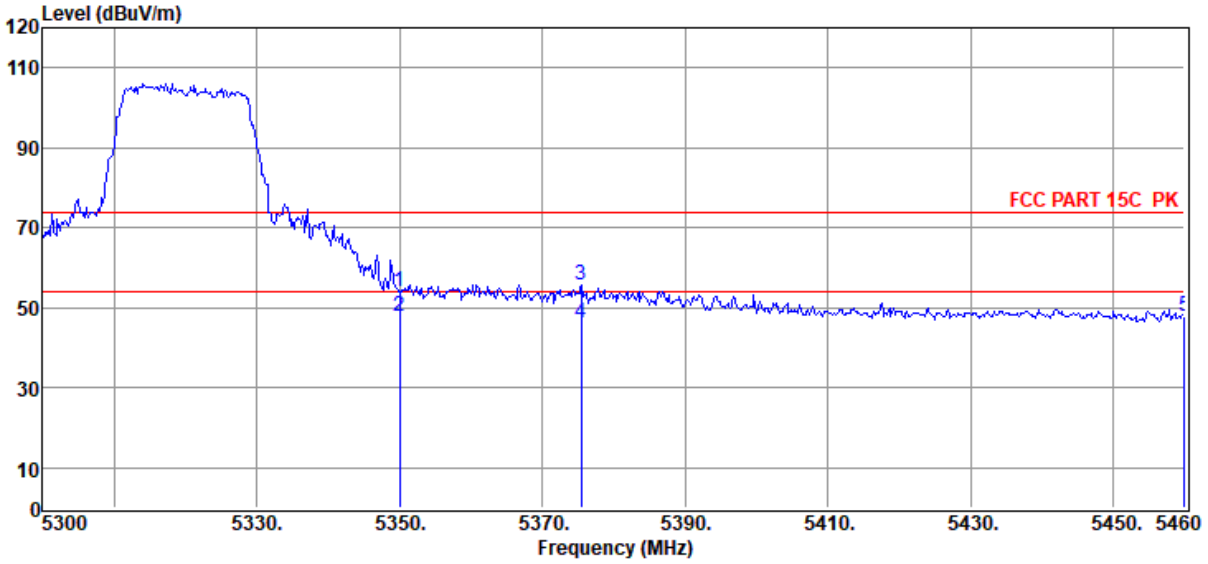
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5350.00	55.47	34.71	43.30	6.70	53.58	74.00	-20.42	Peak	VERTICAL
2	5356.00	58.24	34.72	43.30	6.70	56.36	74.00	-17.64	Peak	VERTICAL
3	5356.00	47.33	34.72	43.30	6.70	45.45	54.00	-8.55	Average	VERTICAL
4	5460.00	50.27	34.78	43.26	6.74	48.53	74.00	-25.47	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber 1#	D:\2020 RE 1# Report data\Q20041019-1E CITATION AMP\FCC ABOVE 1G.EM6	
Test Date	: 2020-07-20	**Tested By**	: Jacky
EUT	: Wireless Adaptor with built-in amplifier	**Model Number**	: CITATION AMP
Power Supply	: AC 120V/60Hz	**Test Mode**	: Tx mode
Condition	: Temp:24.3°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	: 2019 HF 907/3m/HORIZONTAL
Memo	: 11AC20 5320 ANT1+2		

Data: 156



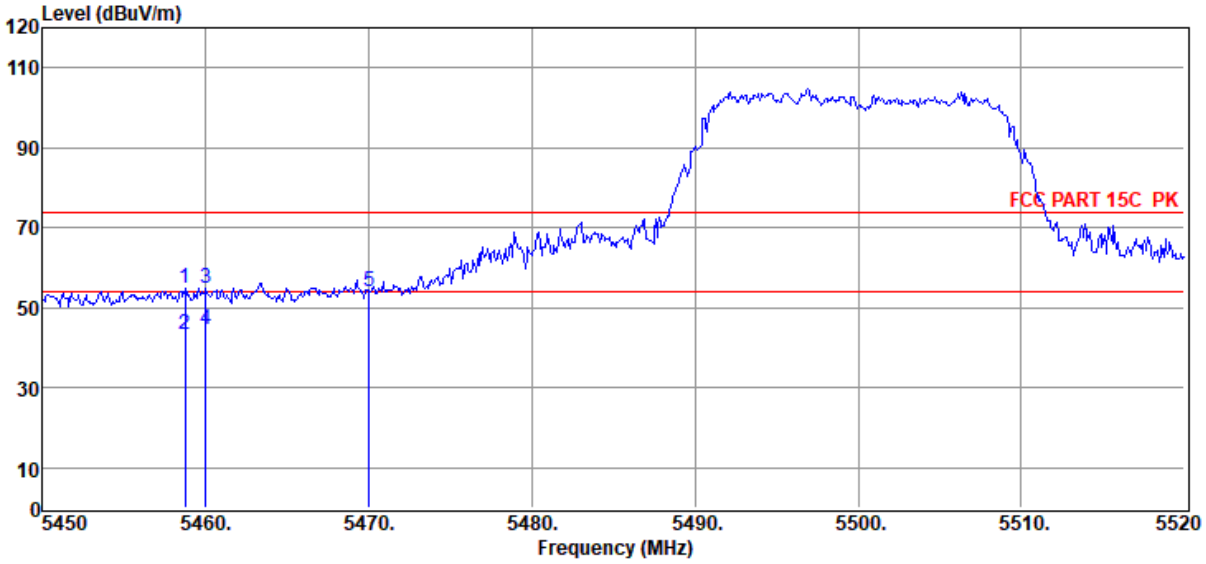
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5350.00	56.08	34.71	43.30	6.70	54.19	74.00	-19.81	Peak	HORIZONTAL
2	5350.00	49.69	34.71	43.30	6.70	47.80	54.00	-6.20	Average	HORIZONTAL
3	5375.52	57.69	34.73	43.29	6.71	55.84	74.00	-18.16	Peak	HORIZONTAL
4	5375.52	47.87	34.73	43.29	6.71	46.02	54.00	-7.98	Average	HORIZONTAL
5	5460.00	49.56	34.78	43.26	6.74	47.82	74.00	-26.18	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	:	DDT 3m Chamber 1#	D:\2020 RE 1# Report data\Q20041019-1E CITATION AMP\FCC ABOVE 1G.EM6		
Test Date	:	2020-07-20	**Tested By**	:	Jacky
EUT	:	Wireless Adaptor with built-in amplifier	**Model Number**	:	CITATION AMP
Power Supply	:	AC 120V/60Hz	**Test Mode**	:	Tx mode
Condition	:	Temp:24.3°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	:	2019 HF 907/3m/HORIZONTAL
Memo	:	11AC20 5500 ANT1+2			

Data: 157



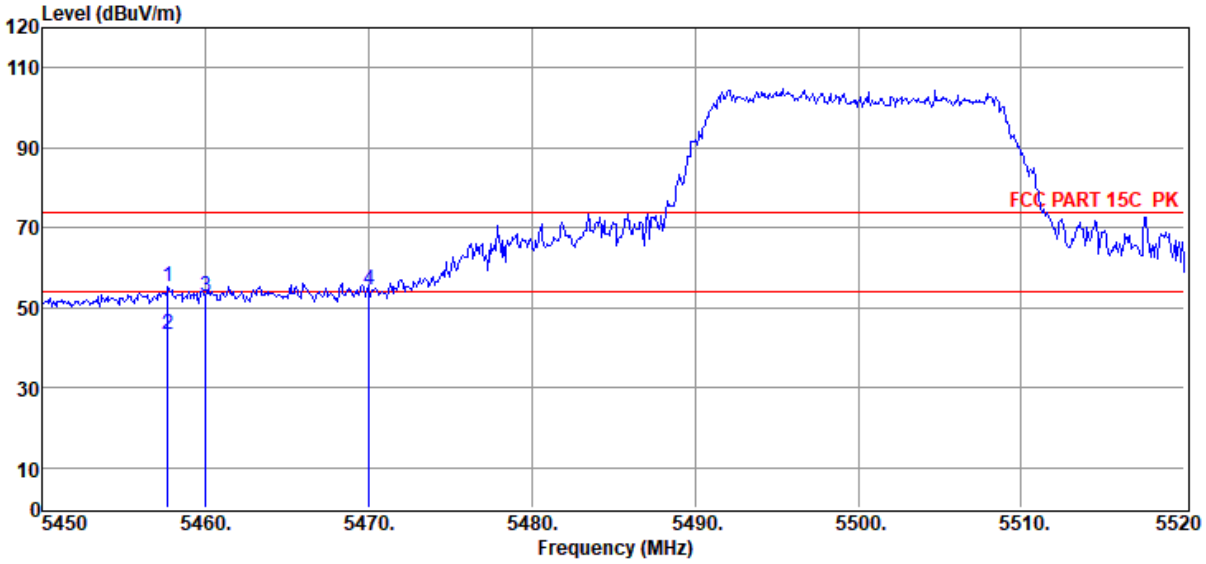
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5458.75	56.41	34.78	43.26	6.74	54.67	74.00	-19.33	Peak	HORIZONTAL
2	5458.75	45.21	34.78	43.26	6.74	43.47	54.00	-10.53	Average	HORIZONTAL
3	5460.00	56.41	34.78	43.26	6.74	54.67	74.00	-19.33	Peak	HORIZONTAL
4	5460.00	46.38	34.78	43.26	6.74	44.64	54.00	-9.36	Average	HORIZONTAL
5	5470.00	55.94	34.78	43.26	6.75	54.21	68.20	-13.99	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	:	DDT 3m Chamber 1#	D:\2020 RE 1# Report data\Q20041019-1E CITATION AMP\FCC ABOVE 1G.EM6		
Test Date	:	2020-07-20	**Tested By**	:	Jacky
EUT	:	Wireless Adaptor with built-in amplifier	**Model Number**	:	CITATION AMP
Power Supply	:	AC 120V/60Hz	**Test Mode**	:	Tx mode
Condition	:	Temp:24.3°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	:	2019 HF 907/3m/VERTICAL
Memo	:	11AC20 5500 ANT1+2			

Data: 158



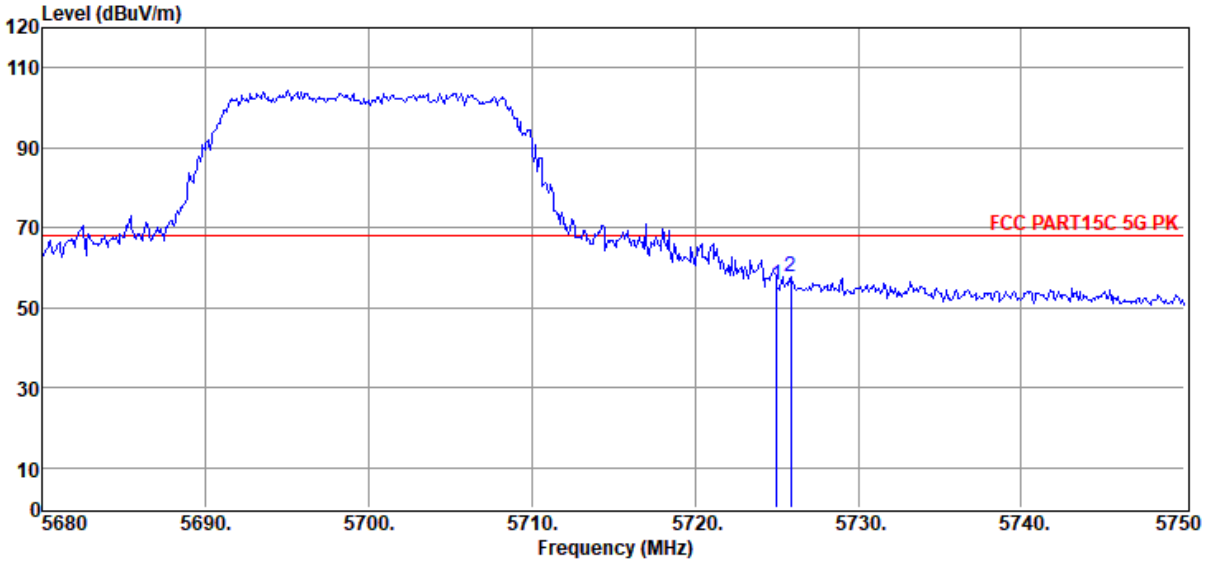
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5457.70	56.98	34.78	43.26	6.74	55.24	74.00	-18.76	Peak	VERTICAL
2	5457.70	45.10	34.78	43.26	6.74	43.36	54.00	-10.64	Average	VERTICAL
3	5460.00	54.32	34.78	43.26	6.74	52.58	74.00	-21.42	Peak	VERTICAL
4	5470.00	56.08	34.78	43.26	6.75	54.35	68.20	-13.85	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber 1#	D:\2020 RE 1# Report data\Q20041019-1E CITATION AMP\FCC ABOVE 1G.EM6	
Test Date	: 2020-07-20	**Tested By**	: Jacky
EUT	: Wireless Adaptor with built-in amplifier	**Model Number**	: CITATION AMP
Power Supply	: AC 120V/60Hz	**Test Mode**	: Tx mode
Condition	: Temp:24.3°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	: 2019 HF 907/3m/HORIZONTAL
Memo	: 11AC20 5700 ANT1+2		

Data: 159



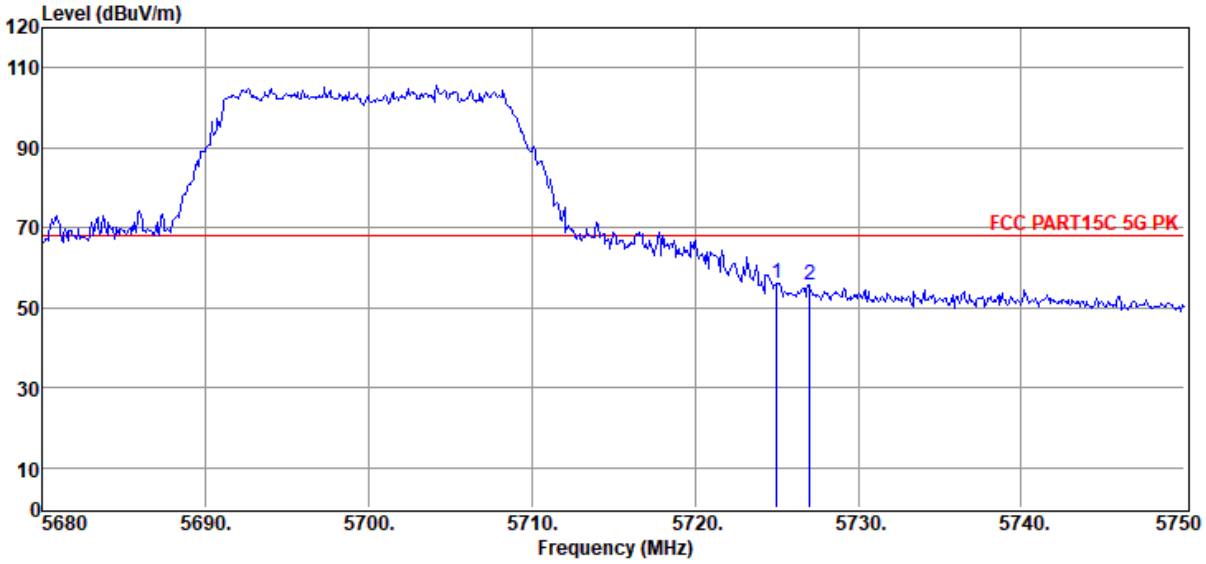
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5725.00	57.07	34.98	43.18	6.85	55.72	68.20	-12.48	Peak	HORIZONTAL
2	5725.85	59.24	34.99	43.18	6.85	57.90	68.20	-10.30	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber 1#	D:\2020 RE 1# Report data\Q20041019-1E CITATION AMP\FCC ABOVE 1G.EM6	
Test Date	: 2020-07-20	**Tested By**	: Jacky
EUT	: Wireless Adaptor with built-in amplifier	**Model Number**	: CITATION AMP
Power Supply	: AC 120V/60Hz	**Test Mode**	: Tx mode
Condition	: Temp:24.3°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	: 2019 HF 907/3m/VERTICAL
Memo	: 11AC20 5700 ANT1+2		

Data: 160



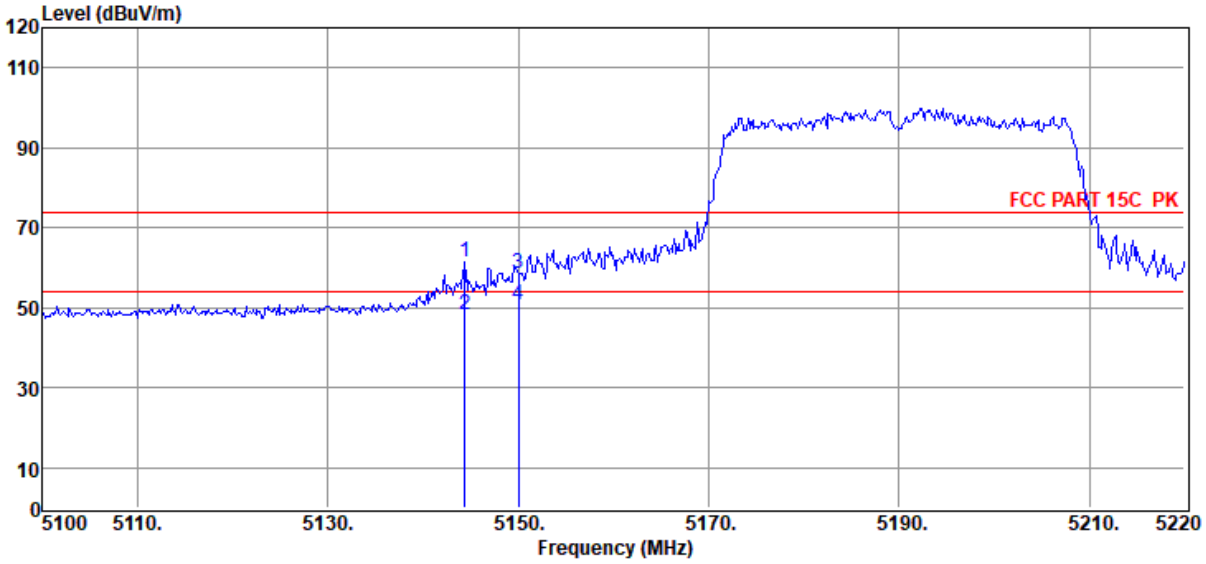
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5725.00	57.40	34.98	43.18	6.85	56.05	68.20	-12.15	Peak	VERTICAL
2	5727.04	56.95	34.99	43.18	6.85	55.61	68.20	-12.59	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	:	DDT 3m Chamber 1#	D:\2020 RE 1# Report data\Q20041019-1E CITATION AMP\FCC ABOVE 1G.EM6		
Test Date	:	2020-06-14	**Tested By**	:	Jacky
EUT	:	Wireless Adaptor with built-in amplifier	**Model Number**	:	CITATION AMP
Power Supply	:	AC 120V/60Hz	**Test Mode**	:	Tx mode
Condition	:	Temp:24.3°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	:	2019 HF 907/3m/VERTICAL
Memo	:	11N40 5190 ANT1+2			

Data: 161



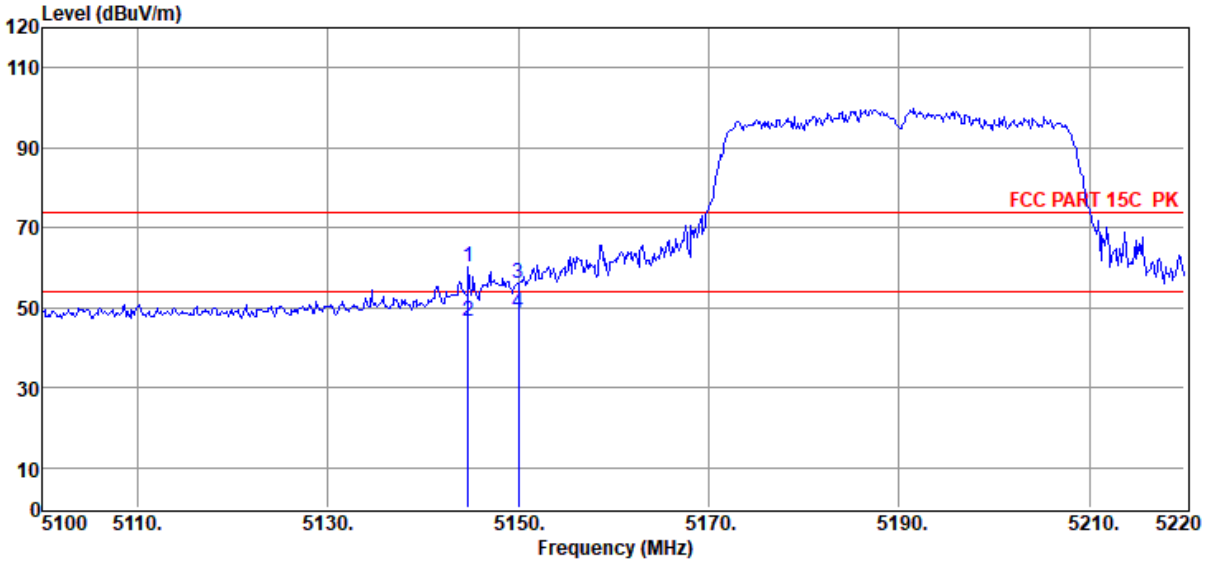
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5144.40	63.63	34.59	43.37	6.62	61.47	74.00	-12.53	Peak	VERTICAL
2	5144.40	50.47	34.59	43.37	6.62	48.31	54.00	-5.69	Average	VERTICAL
3	5150.00	60.69	34.59	43.36	6.62	58.54	74.00	-15.46	Peak	VERTICAL
4	5150.00	52.70	34.59	43.36	6.62	50.55	54.00	-3.45	Average	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber 1#	D:\2020 RE 1# Report data\Q20041019-1E CITATION AMP\FCC ABOVE 1G.EM6	
Test Date	: 2020-06-14	**Tested By**	: Jacky
EUT	: Wireless Adaptor with built-in amplifier	**Model Number**	: CITATION AMP
Power Supply	: AC 120V/60Hz	**Test Mode**	: Tx mode
Condition	: Temp:24.3°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	: 2019 HF 907/3m/HORIZONTAL
Memo	: 11N40 5190 ANT1+2		

Data: 162



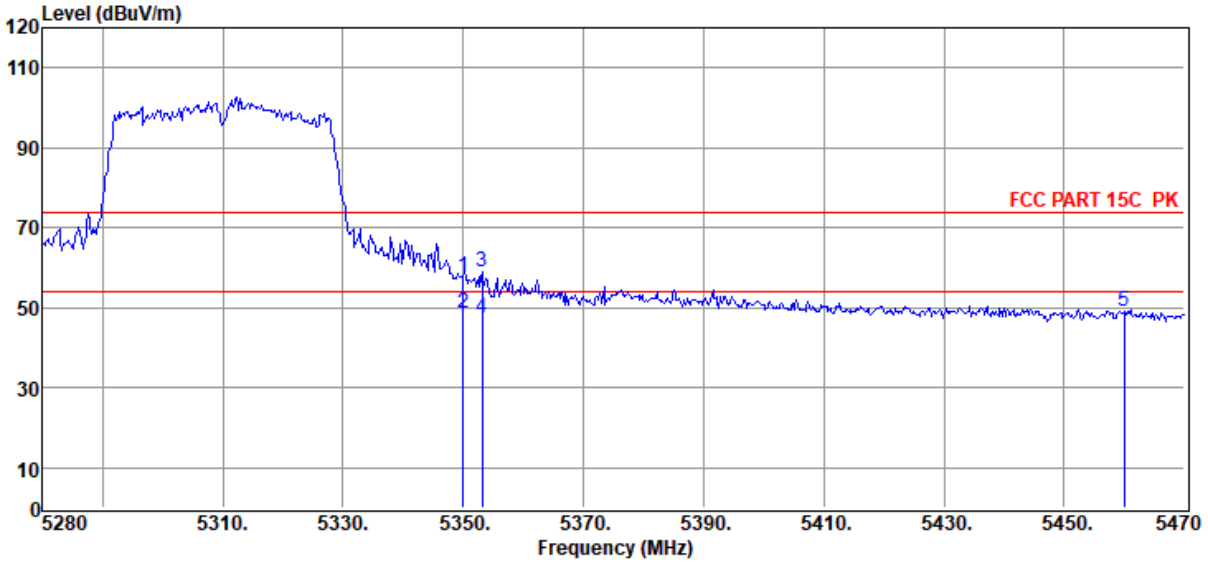
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5144.76	62.24	34.59	43.37	6.62	60.08	74.00	-13.92	Peak	HORIZONTAL
2	5144.76	48.68	34.59	43.37	6.62	46.52	54.00	-7.48	Average	HORIZONTAL
3	5150.00	58.25	34.59	43.36	6.62	56.10	74.00	-17.90	Peak	HORIZONTAL
4	5150.00	51.00	34.59	43.36	6.62	48.85	54.00	-5.15	Average	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	:	DDT 3m Chamber 1#	D:\2020 RE 1# Report data\Q20041019-1E CITATION AMP\FCC ABOVE 1G.EM6		
Test Date	:	2020-07-20	**Tested By**	:	Jacky
EUT	:	Wireless Adaptor with built-in amplifier	**Model Number**	:	CITATION AMP
Power Supply	:	AC 120V/60Hz	**Test Mode**	:	Tx mode
Condition	:	Temp:24.3°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	:	2019 HF 907/3m/HORIZONTAL
Memo	:	11N40 5310 ANT1+2			

Data: 163



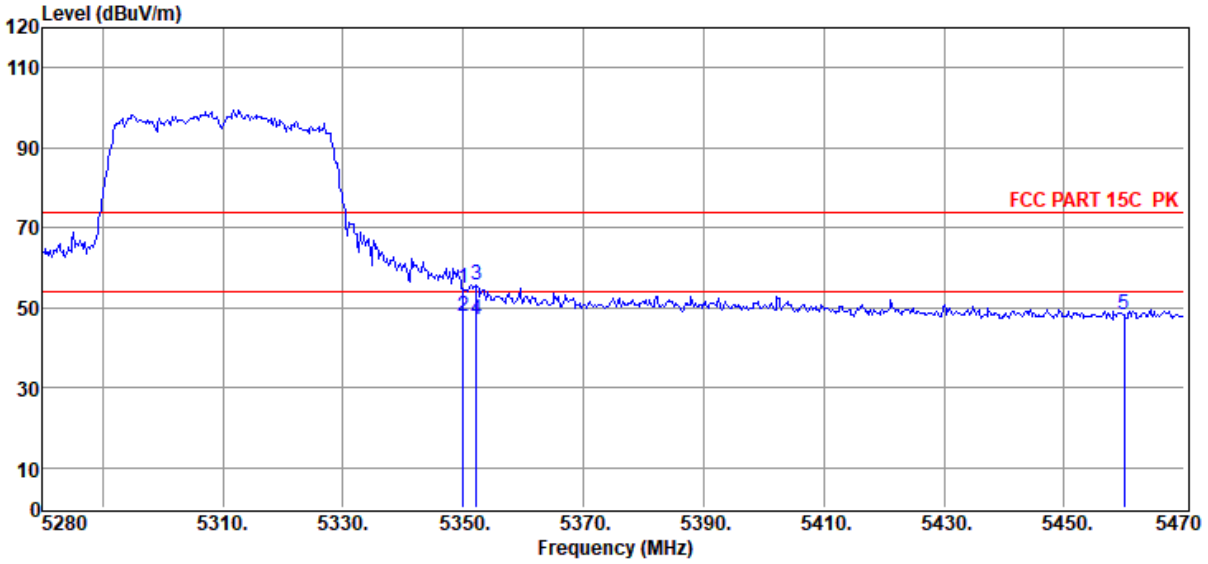
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5350.00	59.55	34.71	43.30	6.70	57.66	74.00	-16.34	Peak	HORIZONTAL
2	5350.00	50.69	34.71	43.30	6.70	48.80	54.00	-5.20	Average	HORIZONTAL
3	5353.15	60.97	34.71	43.30	6.70	59.08	74.00	-14.92	Peak	HORIZONTAL
4	5353.15	49.45	34.71	43.30	6.70	47.56	54.00	-6.44	Average	HORIZONTAL
5	5460.00	50.77	34.78	43.26	6.74	49.03	74.00	-24.97	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	:	DDT 3m Chamber 1#	D:\2020 RE 1# Report data\Q20041019-1E CITATION AMP\FCC ABOVE 1G.EM6		
Test Date	:	2020-07-20	**Tested By**	:	Jacky
EUT	:	Wireless Adaptor with built-in amplifier	**Model Number**	:	CITATION AMP
Power Supply	:	AC 120V/60Hz	**Test Mode**	:	Tx mode
Condition	:	Temp:24.3°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	:	2019 HF 907/3m/VERTICAL
Memo	:	11N40 5310 ANT1+2			

Data: 164



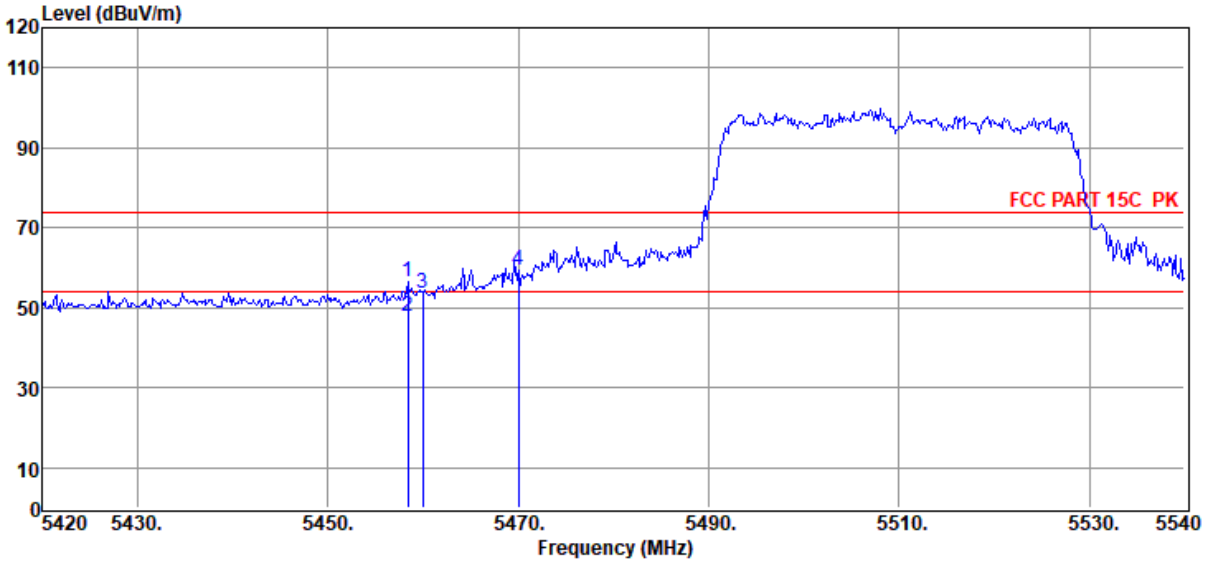
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5350.00	56.60	34.71	43.30	6.70	54.71	74.00	-19.29	Peak	VERTICAL
2	5350.00	49.59	34.71	43.30	6.70	47.70	54.00	-6.30	Average	VERTICAL
3	5352.20	57.75	34.71	43.30	6.70	55.86	74.00	-18.14	Peak	VERTICAL
4	5352.20	48.88	34.71	43.30	6.70	46.99	54.00	-7.01	Average	VERTICAL
5	5460.00	49.85	34.78	43.26	6.74	48.11	74.00	-25.89	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	:	DDT 3m Chamber 1#	D:\2020 RE 1# Report data\Q20041019-1E CITATION AMP\FCC ABOVE 1G.EM6		
Test Date	:	2020-07-20	**Tested By**	:	Jacky
EUT	:	Wireless Adaptor with built-in amplifier	**Model Number**	:	CITATION AMP
Power Supply	:	AC 120V/60Hz	**Test Mode**	:	Tx mode
Condition	:	Temp:24.3°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	:	2019 HF 907/3m/VERTICAL
Memo	:	11N40 5510 ANT1+2			

Data: 165



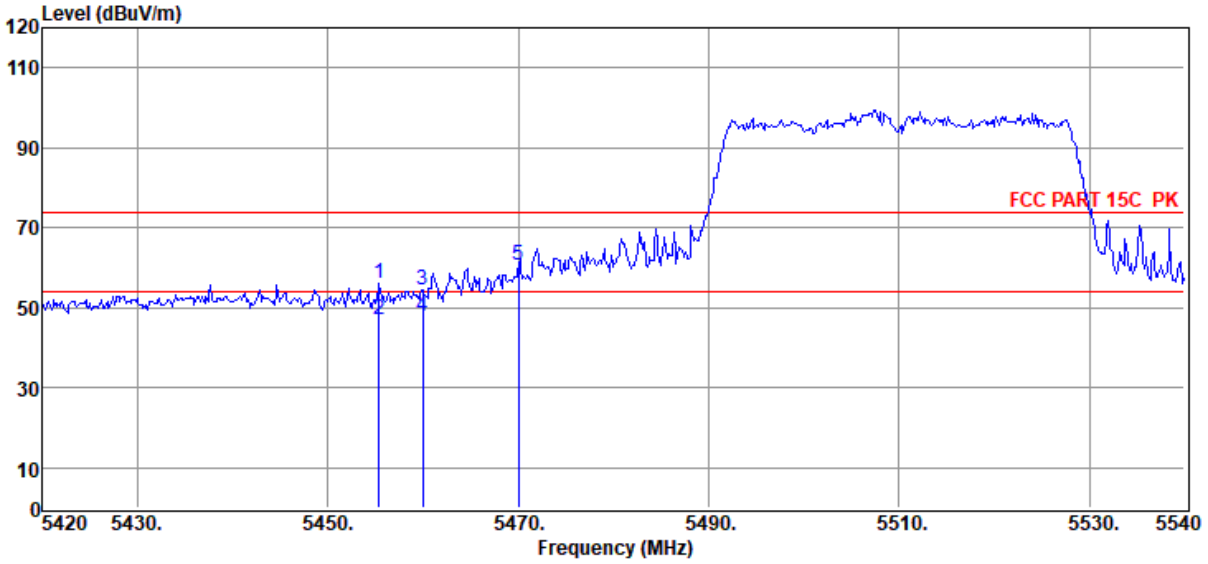
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5458.40	58.33	34.78	43.26	6.74	56.59	74.00	-17.41	Peak	VERTICAL
2	5458.40	49.38	34.78	43.26	6.74	47.64	54.00	-6.36	Average	VERTICAL
3	5460.00	55.31	34.78	43.26	6.74	53.57	74.00	-20.43	Peak	VERTICAL
4	5470.00	61.23	34.78	43.26	6.75	59.50	68.20	-8.70	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	:	DDT 3m Chamber 1#	D:\2020 RE 1# Report data\Q20041019-1E CITATION AMP\FCC ABOVE 1G.EM6		
Test Date	:	2020-07-20	**Tested By**	:	Jacky
EUT	:	Wireless Adaptor with built-in amplifier	**Model Number**	:	CITATION AMP
Power Supply	:	AC 120V/60Hz	**Test Mode**	:	Tx mode
Condition	:	Temp:24.3°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	:	2019 HF 907/3m/HORIZONTAL
Memo	:	11N40 5510 ANT1+2			

Data: 166



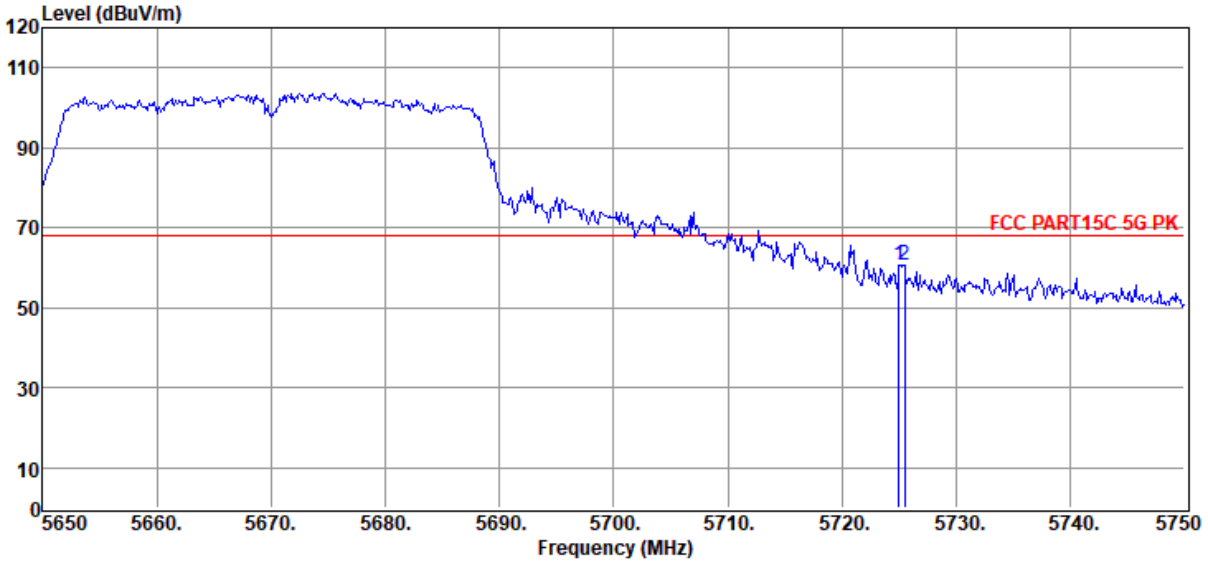
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5455.40	57.84	34.77	43.26	6.74	56.09	74.00	-17.91	Peak	HORIZONTAL
2	5455.40	48.77	34.77	43.26	6.74	47.02	54.00	-6.98	Average	HORIZONTAL
3	5460.00	56.06	34.78	43.26	6.74	54.32	74.00	-19.68	Peak	HORIZONTAL
4	5460.00	49.68	34.78	43.26	6.74	47.94	54.00	-6.06	Average	HORIZONTAL
5	5470.00	62.26	34.78	43.26	6.75	60.53	68.20	-7.67	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber 1#	D:\2020 RE 1# Report data\Q20041019-1E CITATION AMP\FCC ABOVE 1G.EM6	
Test Date	: 2020-07-20	**Tested By**	: Jacky
EUT	: Wireless Adaptor with built-in amplifier	**Model Number**	: CITATION AMP
Power Supply	: AC 120V/60Hz	**Test Mode**	: Tx mode
Condition	: Temp:24.3°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	: 2019 HF 907/3m/HORIZONTAL
Memo	: 11N40 5670 ANT1+2		

Data: 167



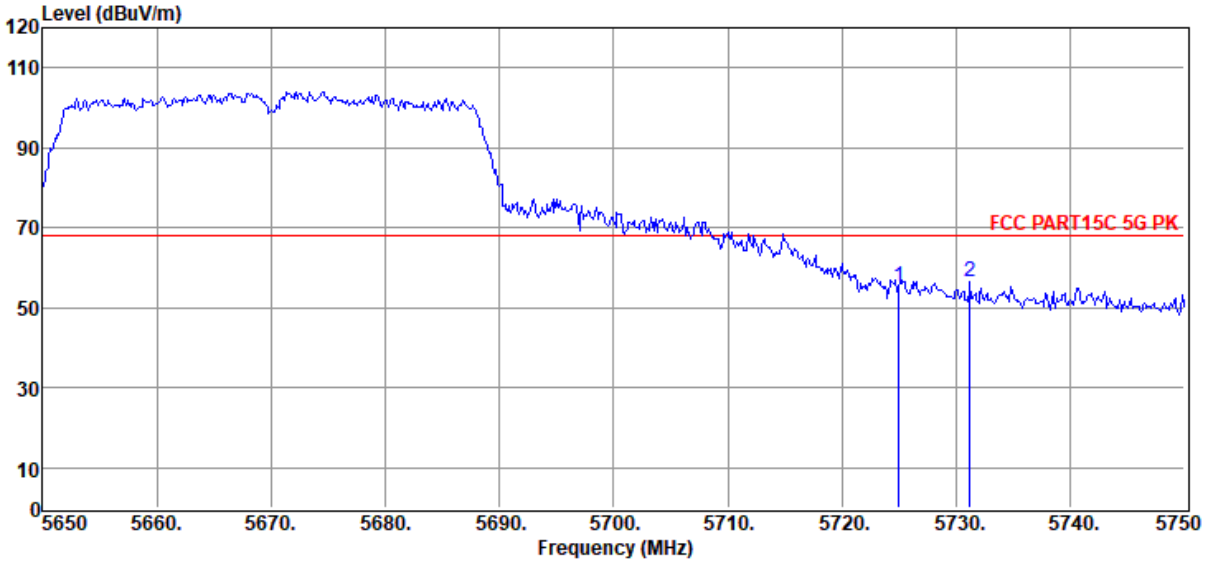
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5725.00	62.01	34.98	43.18	6.85	60.66	68.20	-7.54	Peak	HORIZONTAL
2	5725.50	62.05	34.98	43.18	6.85	60.70	68.20	-7.50	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	:	DDT 3m Chamber 1#	D:\2020 RE 1# Report data\Q20041019-1E CITATION AMP\FCC ABOVE 1G.EM6		
Test Date	:	2020-07-20	**Tested By**	:	Jacky
EUT	:	Wireless Adaptor with built-in amplifier	**Model Number**	:	CITATION AMP
Power Supply	:	AC 120V/60Hz	**Test Mode**	:	Tx mode
Condition	:	Temp:24.3°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	:	2019 HF 907/3m/VERTICAL
Memo	:	11N40 5670 ANT1+2			

Data: 168



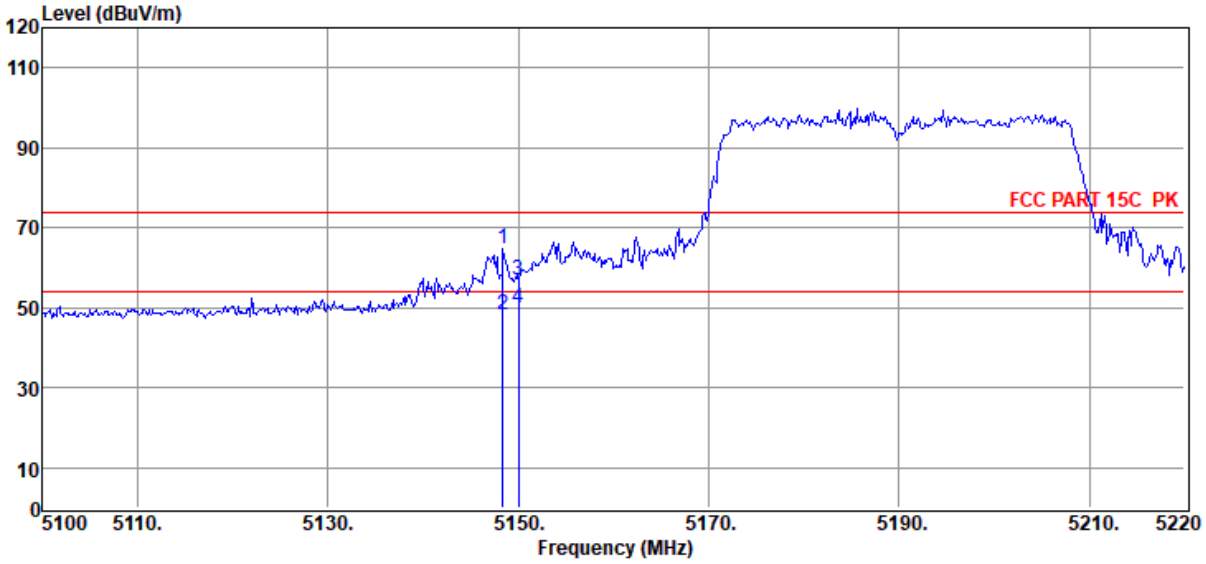
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5725.00	56.67	34.98	43.18	6.85	55.32	68.20	-12.88	Peak	VERTICAL
2	5731.20	57.74	34.99	43.18	6.85	56.40	68.20	-11.80	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	:	DDT 3m Chamber 1#	D:\2020 RE 1# Report data\Q20041019-1E CITATION AMP\FCC ABOVE 1G.EM6		
Test Date	:	2020-06-14	**Tested By**	:	Jacky
EUT	:	Wireless Adaptor with built-in amplifier	**Model Number**	:	CITATION AMP
Power Supply	:	AC 120V/60Hz	**Test Mode**	:	Tx mode
Condition	:	Temp:24.3°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	:	2019 HF 907/3m/VERTICAL
Memo	:	11AC40 5190 ANT1+2			

Data: 169



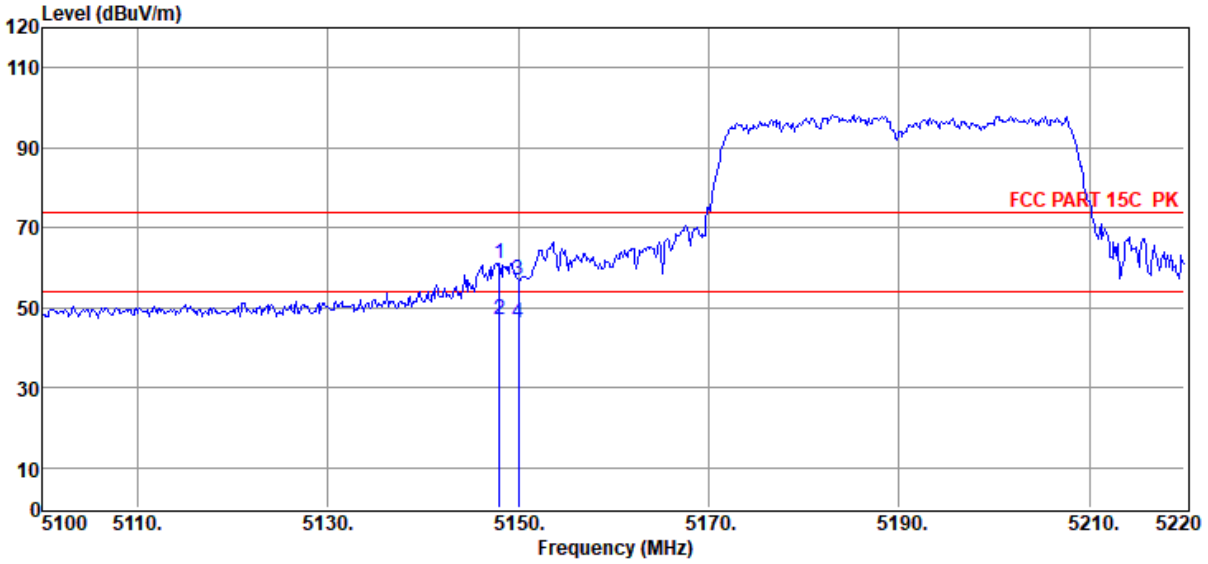
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5148.36	67.01	34.59	43.36	6.62	64.86	74.00	-9.14	Peak	VERTICAL
2	5148.36	50.60	34.59	43.36	6.62	48.45	54.00	-5.55	Average	VERTICAL
3	5150.00	58.94	34.59	43.36	6.62	56.79	74.00	-17.21	Peak	VERTICAL
4	5150.00	52.00	34.59	43.36	6.62	49.85	54.00	-4.15	Average	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	:	DDT 3m Chamber 1#	D:\2020 RE 1# Report data\Q20041019-1E CITATION AMP\FCC ABOVE 1G.EM6		
Test Date	:	2020-06-14	**Tested By**	:	Jacky
EUT	:	Wireless Adaptor with built-in amplifier	**Model Number**	:	CITATION AMP
Power Supply	:	AC 120V/60Hz	**Test Mode**	:	Tx mode
Condition	:	Temp:24.3°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	:	2019 HF 907/3m/HORIZONTAL
Memo	:	11AC40 5190 ANT1+2			

Data: 170



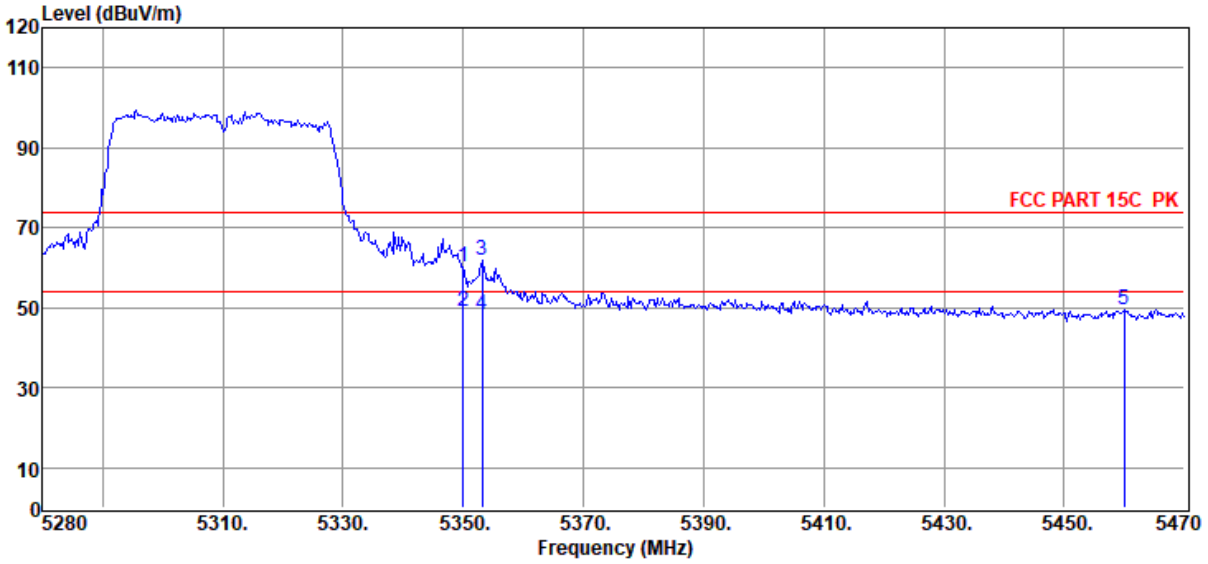
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5148.00	63.37	34.59	43.36	6.62	61.22	74.00	-12.78	Peak	HORIZONTAL
2	5148.00	49.20	34.59	43.36	6.62	47.05	54.00	-6.95	Average	HORIZONTAL
3	5150.00	59.20	34.59	43.36	6.62	57.05	74.00	-16.95	Peak	HORIZONTAL
4	5150.00	48.54	34.59	43.36	6.62	46.39	54.00	-7.61	Average	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	:	DDT 3m Chamber 1#	D:\2020 RE 1# Report data\Q20041019-1E CITATION AMP\FCC ABOVE 1G.EM6		
Test Date	:	2020-07-20	**Tested By**	:	Jacky
EUT	:	Wireless Adaptor with built-in amplifier	**Model Number**	:	CITATION AMP
Power Supply	:	AC 120V/60Hz	**Test Mode**	:	Tx mode
Condition	:	Temp:24.3°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	:	2019 HF 907/3m/VERTICAL
Memo	:	11AC40 5310 ANT1+2			

Data: 171



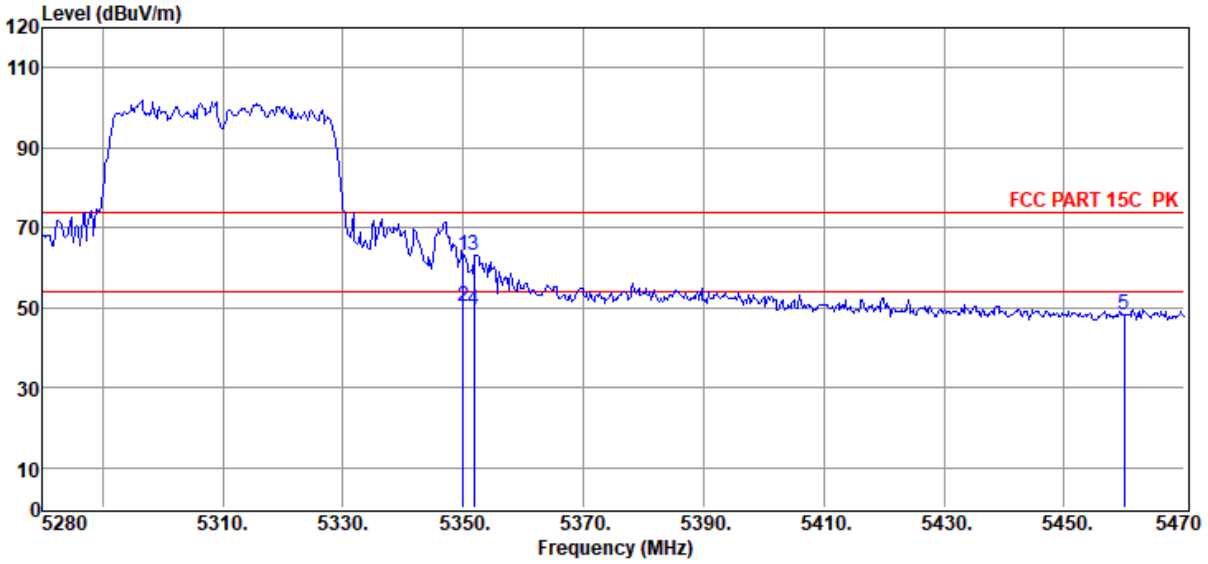
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5350.00	61.93	34.71	43.30	6.70	60.04	74.00	-13.96	Peak	VERTICAL
2	5350.00	51.11	34.71	43.30	6.70	49.22	54.00	-4.78	Average	VERTICAL
3	5353.15	63.73	34.71	43.30	6.70	61.84	74.00	-12.16	Peak	VERTICAL
4	5353.15	50.31	34.71	43.30	6.70	48.42	54.00	-5.58	Average	VERTICAL
5	5460.00	51.14	34.78	43.26	6.74	49.40	74.00	-24.60	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	:	DDT 3m Chamber 1#	D:\2020 RE 1# Report data\Q20041019-1E CITATION AMP\FCC ABOVE 1G.EM6		
Test Date	:	2020-07-20	**Tested By**	:	Jacky
EUT	:	Wireless Adaptor with built-in amplifier	**Model Number**	:	CITATION AMP
Power Supply	:	AC 120V/60Hz	**Test Mode**	:	Tx mode
Condition	:	Temp:24.3°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	:	2019 HF 907/3m/HORIZONTAL
Memo	:	11AC40 5310 ANT1+2			

Data: 172



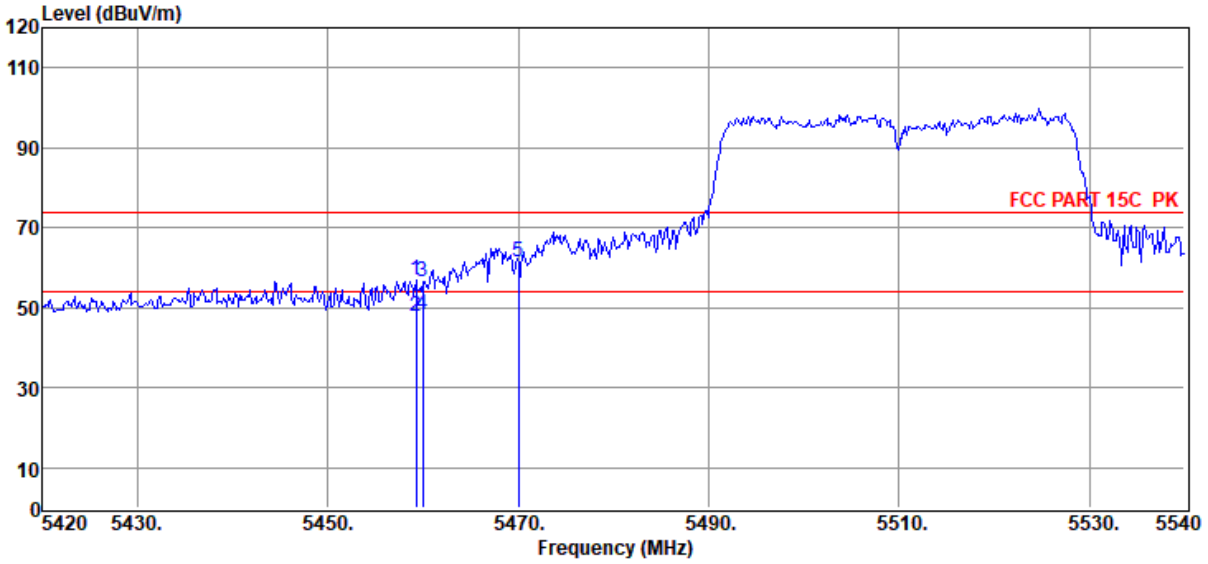
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5350.00	65.01	34.71	43.30	6.70	63.12	74.00	-10.88	Peak	HORIZONTAL
2	5350.00	52.01	34.71	43.30	6.70	50.12	54.00	-3.88	Average	HORIZONTAL
3	5351.82	65.05	34.71	43.30	6.70	63.16	74.00	-10.84	Peak	HORIZONTAL
4	5351.82	51.31	34.71	43.30	6.70	49.42	54.00	-4.58	Average	HORIZONTAL
5	5460.00	49.97	34.78	43.26	6.74	48.23	74.00	-25.77	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	:	DDT 3m Chamber 1#	D:\2020 RE 1# Report data\Q20041019-1E CITATION AMP\FCC ABOVE 1G.EM6		
Test Date	:	2020-07-20	**Tested By**	:	Jacky
EUT	:	Wireless Adaptor with built-in amplifier	**Model Number**	:	CITATION AMP
Power Supply	:	AC 120V/60Hz	**Test Mode**	:	Tx mode
Condition	:	Temp:24.3°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	:	2019 HF 907/3m/HORIZONTAL
Memo	:	11AC40 5510 ANT1+2			

Data: 173



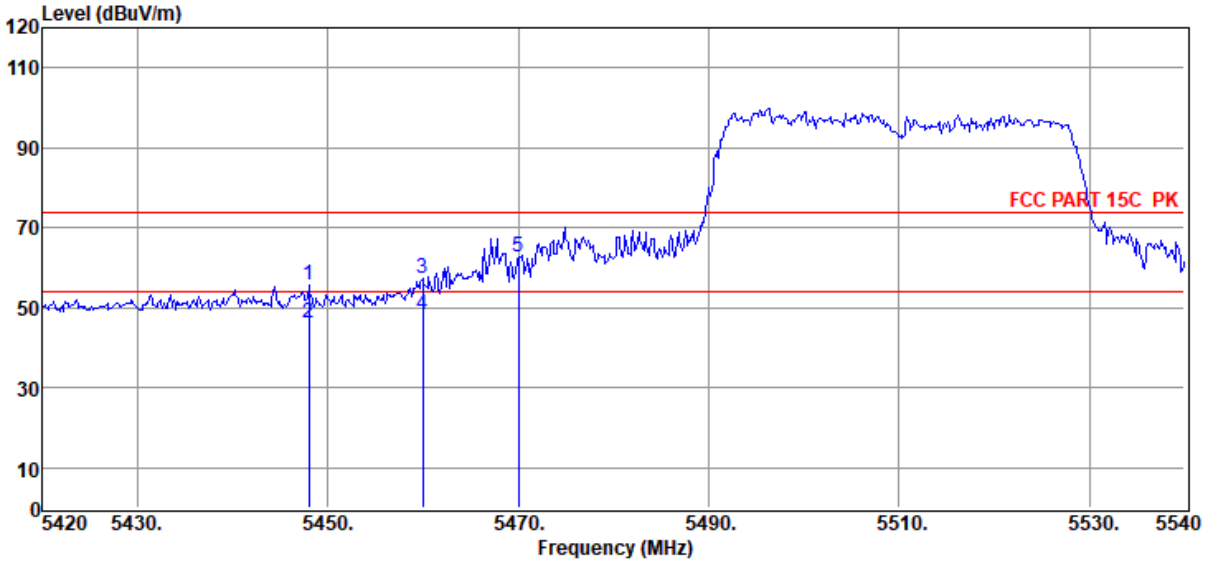
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5459.24	58.52	34.78	43.26	6.74	56.78	74.00	-17.22	Peak	HORIZONTAL
2	5459.24	49.50	34.78	43.26	6.74	47.76	54.00	-6.24	Average	HORIZONTAL
3	5460.00	58.22	34.78	43.26	6.74	56.48	74.00	-17.52	Peak	HORIZONTAL
4	5460.00	49.88	34.78	43.26	6.74	48.14	54.00	-5.86	Average	HORIZONTAL
5	5470.00	63.36	34.78	43.26	6.75	61.63	68.20	-6.57	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber 1#	D:\2020 RE 1# Report data\Q20041019-1E CITATION AMP\FCC ABOVE 1G.EM6	
Test Date	: 2020-07-20	**Tested By**	: Jacky
EUT	: Wireless Adaptor with built-in amplifier	**Model Number**	: CITATION AMP
Power Supply	: AC 120V/60Hz	**Test Mode**	: Tx mode
Condition	: Temp:24.3°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	: 2019 HF 907/3m/VERTICAL
Memo	: 11AC40 5510 ANT1+2		

Data: 174



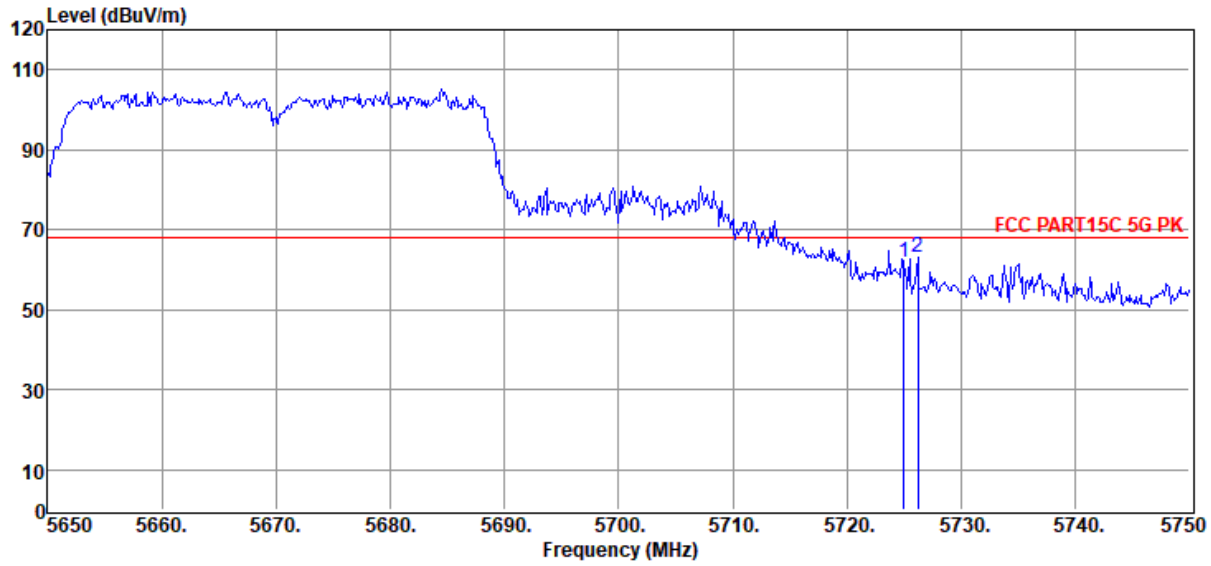
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5447.96	57.34	34.77	43.27	6.74	55.58	74.00	-18.42	Peak	VERTICAL
2	5447.96	47.90	34.77	43.27	6.74	46.14	54.00	-7.86	Average	VERTICAL
3	5460.00	59.05	34.78	43.26	6.74	57.31	74.00	-16.69	Peak	VERTICAL
4	5460.00	50.00	34.78	43.26	6.74	48.26	54.00	-5.74	Average	VERTICAL
5	5470.00	64.47	34.78	43.26	6.75	62.74	68.20	-5.46	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber 1#	D:\2020 RE 1# Report data\Q20041019-1E CITATION AMP\FCC ABOVE 1G.EM6	
Test Date	: 2020-07-20	**Tested By**	: Jacky
EUT	: Wireless Adaptor with built-in amplifier	**Model Number**	: CITATION AMP
Power Supply	: AC 120V/60Hz	**Test Mode**	: Tx mode
Condition	: Temp:24.3°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	: 2019 HF 907/3m/VERTICAL
Memo	: 11AC40 5670 ANT1+2		

Data: 175



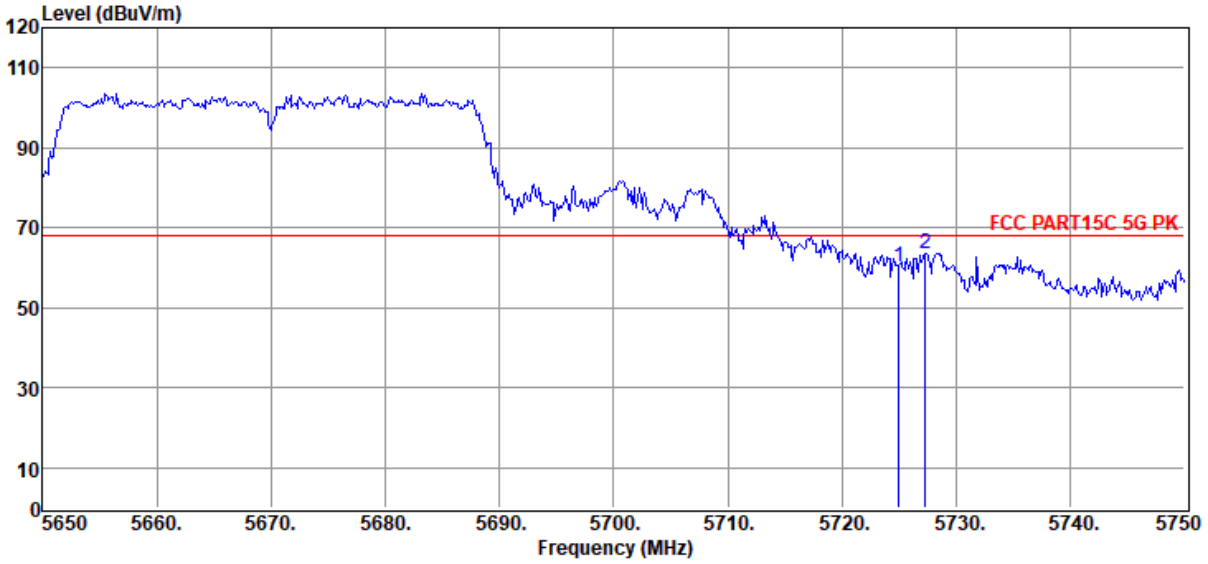
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5725.00	63.17	34.98	43.18	6.85	61.82	68.20	-6.38	Peak	VERTICAL
2	5726.20	64.60	34.99	43.18	6.85	63.26	68.20	-4.94	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	:	DDT 3m Chamber 1#	D:\2020 RE 1# Report data\Q20041019-1E CITATION AMP\FCC ABOVE 1G.EM6		
Test Date	:	2020-07-20	**Tested By**	:	Jacky
EUT	:	Wireless Adaptor with built-in amplifier	**Model Number**	:	CITATION AMP
Power Supply	:	AC 120V/60Hz	**Test Mode**	:	Tx mode
Condition	:	Temp:24.3°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	:	2019 HF 907/3m/HORIZONTAL
Memo	:	11AC40 5670 ANT1+2			

Data: 176



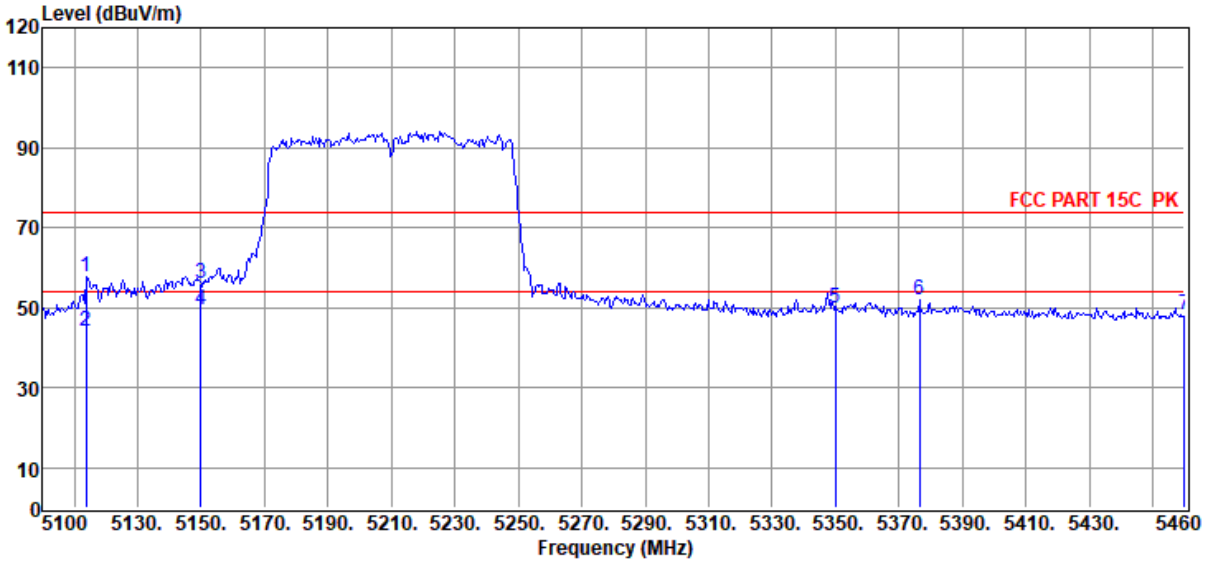
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5725.00	61.76	34.98	43.18	6.85	60.41	68.20	-7.79	Peak	HORIZONTAL
2	5727.30	64.96	34.99	43.18	6.85	63.62	68.20	-4.58	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber 1#	D:\2020 RE 1# Report data\Q20041019-1E CITATION AMP\FCC ABOVE 1G.EM6	
Test Date	: 2020-06-14	**Tested By**	: Jacky
EUT	: Wireless Adaptor with built-in amplifier	**Model Number**	: CITATION AMP
Power Supply	: AC 120V/60Hz	**Test Mode**	: Tx mode
Condition	: Temp:24.3°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	: 2019 HF 907/3m/HORIZONTAL
Memo	: 11AC80 5210 ANT1+2		

Data: 177



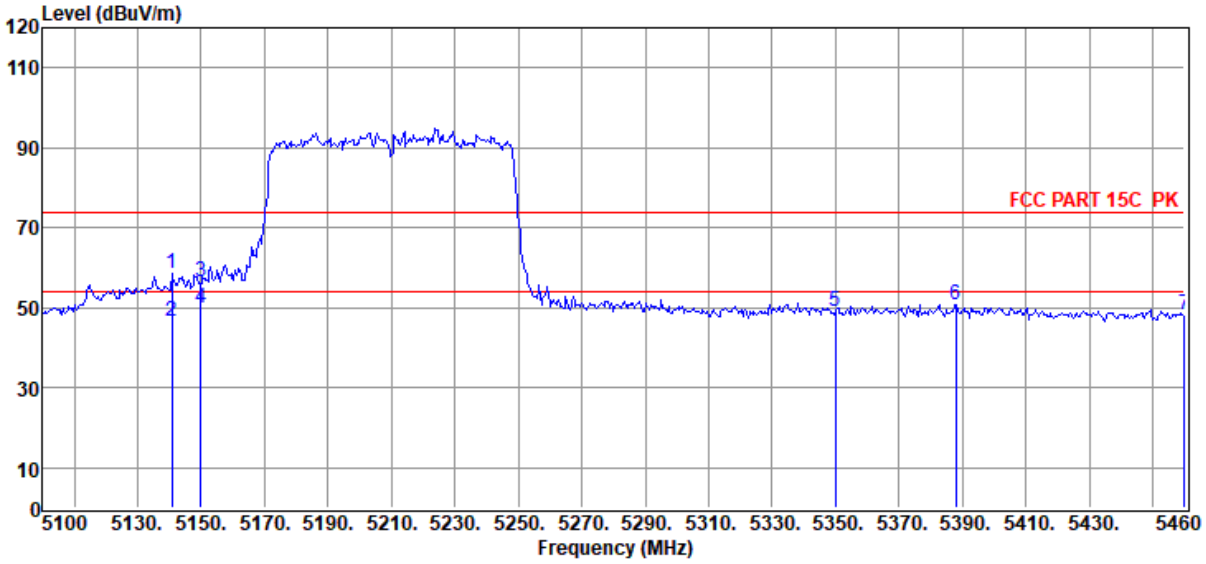
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5113.68	59.84	34.57	43.38	6.61	57.64	74.00	-16.36	Peak	HORIZONTAL
2	5113.68	46.37	34.57	43.38	6.61	44.17	54.00	-9.83	Average	HORIZONTAL
3	5150.00	58.06	34.59	43.36	6.62	55.91	74.00	-18.09	Peak	HORIZONTAL
4	5150.00	51.65	34.59	43.36	6.62	49.50	54.00	-4.50	Average	HORIZONTAL
5	5350.00	51.79	34.71	43.30	6.70	49.90	74.00	-24.10	Peak	HORIZONTAL
6	5376.48	53.62	34.73	43.29	6.71	51.77	74.00	-22.23	Peak	HORIZONTAL
7	5460.00	49.83	34.78	43.26	6.74	48.09	74.00	-25.91	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber 1#	D:\2020 RE 1# Report data\Q20041019-1E CITATION AMP\FCC ABOVE 1G.EM6	
Test Date	: 2020-06-14	**Tested By**	: Jacky
EUT	: Wireless Adaptor with built-in amplifier	**Model Number**	: CITATION AMP
Power Supply	: AC 120V/60Hz	**Test Mode**	: Tx mode
Condition	: Temp:24.3°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	: 2019 HF 907/3m/VERTICAL
Memo	: 11AC80 5210 ANT1+2		

Data: 178



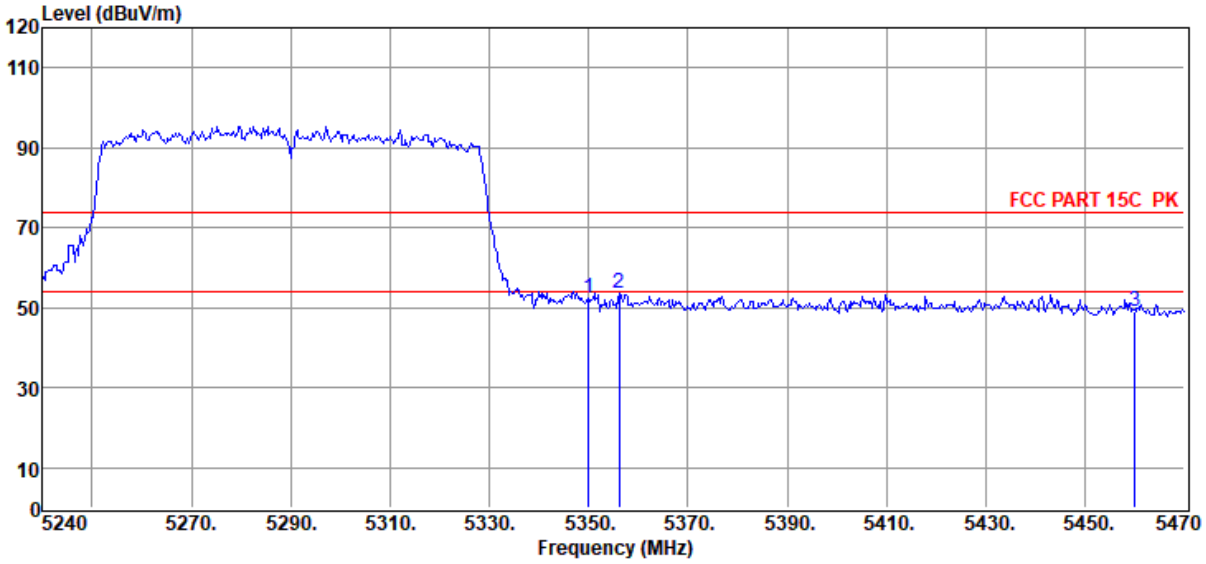
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5140.68	60.59	34.59	43.37	6.62	58.43	74.00	-15.57	Peak	VERTICAL
2	5140.68	48.86	34.59	43.37	6.62	46.70	54.00	-7.30	Average	VERTICAL
3	5150.00	58.64	34.59	43.36	6.62	56.49	74.00	-17.51	Peak	VERTICAL
4	5150.00	52.00	34.59	43.36	6.62	49.85	54.00	-4.15	Average	VERTICAL
5	5350.00	50.90	34.71	43.30	6.70	49.01	74.00	-24.99	Peak	VERTICAL
6	5388.00	52.63	34.74	43.29	6.72	50.80	74.00	-23.20	Peak	VERTICAL
7	5460.00	50.06	34.78	43.26	6.74	48.32	74.00	-25.68	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	:	DDT 3m Chamber 1#	D:\2020 RE 1# Report data\Q20041019-1E CITATION AMP\FCC ABOVE 1G.EM6		
Test Date	:	2020-07-20	**Tested By**	:	Jacky
EUT	:	Wireless Adaptor with built-in amplifier	**Model Number**	:	CITATION AMP
Power Supply	:	AC 120V/60Hz	**Test Mode**	:	Tx mode
Condition	:	Temp:24.3°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	:	2019 HF 907/3m/VERTICAL
Memo	:	11AC80 5290 ANT1+2			

Data: 179



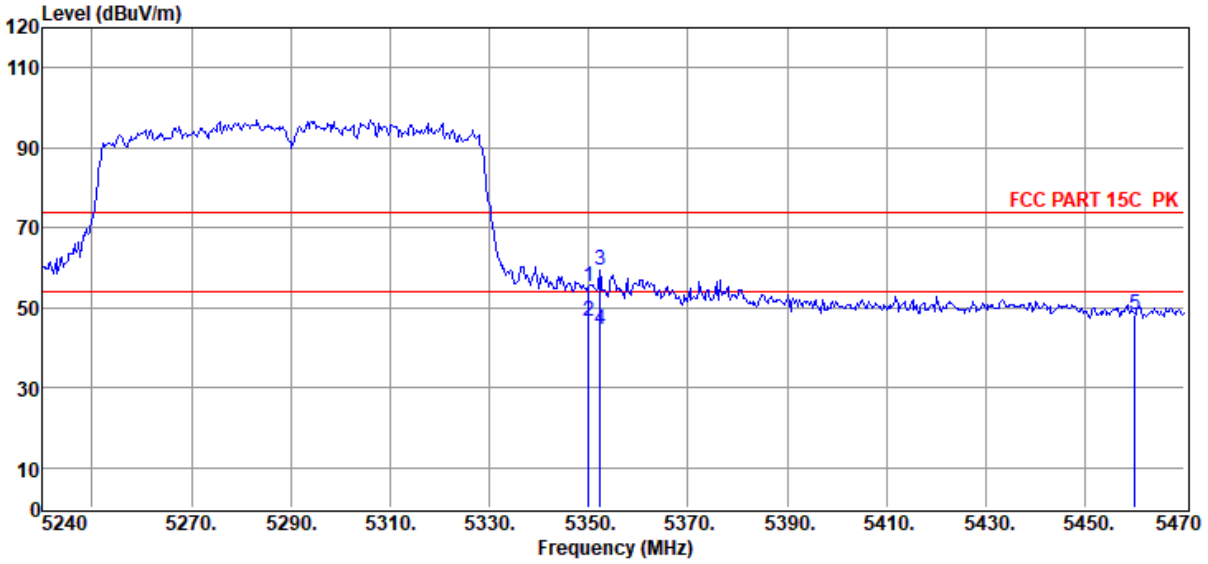
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5350.00	54.37	34.71	43.30	6.70	52.48	74.00	-21.52	Peak	VERTICAL
2	5356.15	55.49	34.72	43.30	6.70	53.61	74.00	-20.39	Peak	VERTICAL
3	5460.00	50.77	34.78	43.26	6.74	49.03	74.00	-24.97	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	:	DDT 3m Chamber 1#	D:\2020 RE 1# Report data\Q20041019-1E CITATION AMP\FCC ABOVE 1G.EM6		
Test Date	:	2020-07-20	**Tested By**	:	Jacky
EUT	:	Wireless Adaptor with built-in amplifier	**Model Number**	:	CITATION AMP
Power Supply	:	AC 120V/60Hz	**Test Mode**	:	Tx mode
Condition	:	Temp:24.3°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	:	2019 HF 907/3m/HORIZONTAL
Memo	:	11AC80 5290 ANT1+2			

Data: 180



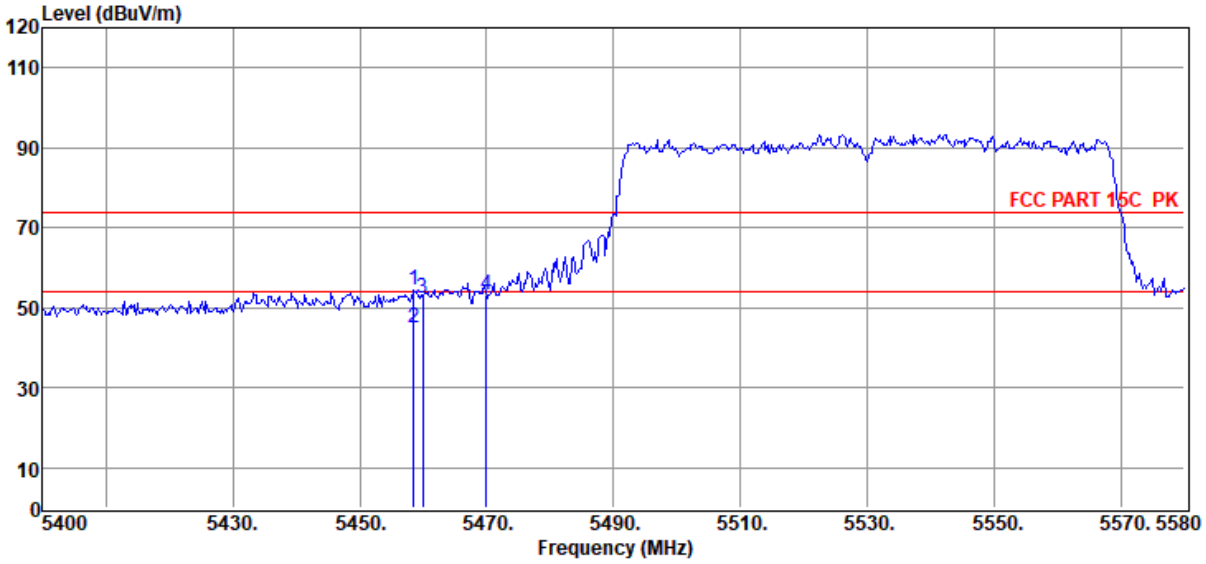
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5350.00	57.08	34.71	43.30	6.70	55.19	74.00	-18.81	Peak	HORIZONTAL
2	5350.00	48.37	34.71	43.30	6.70	46.48	54.00	-7.52	Average	HORIZONTAL
3	5352.24	61.35	34.71	43.30	6.70	59.46	74.00	-14.54	Peak	HORIZONTAL
4	5352.24	46.56	34.71	43.30	6.70	44.67	54.00	-9.33	Average	HORIZONTAL
5	5460.00	50.14	34.78	43.26	6.74	48.40	74.00	-25.60	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	:	DDT 3m Chamber 1#	D:\2020 RE 1# Report data\Q20041019-1E CITATION AMP\FCC ABOVE 1G.EM6		
Test Date	:	2020-07-20	**Tested By**	:	Jacky
EUT	:	Wireless Adaptor with built-in amplifier	**Model Number**	:	CITATION AMP
Power Supply	:	AC 120V/60Hz	**Test Mode**	:	Tx mode
Condition	:	Temp:24.3°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	:	2019 HF 907/3m/HORIZONTAL
Memo	:	11AC80 5530 ANT1+2			

Data: 181



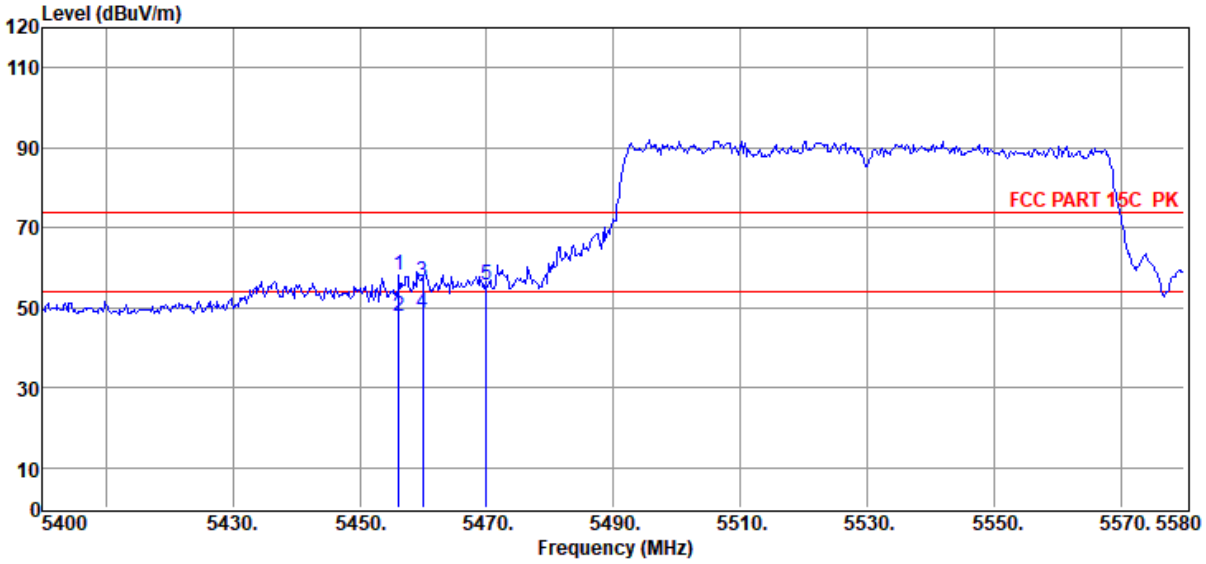
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5458.50	56.09	34.78	43.26	6.74	54.35	74.00	-19.65	Peak	HORIZONTAL
2	5458.50	46.88	34.78	43.26	6.74	45.14	54.00	-8.86	Average	HORIZONTAL
3	5460.00	54.14	34.78	43.26	6.74	52.40	74.00	-21.60	Peak	HORIZONTAL
4	5470.00	54.85	34.78	43.26	6.75	53.12	68.20	-15.08	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	:	DDT 3m Chamber 1#	D:\2020 RE 1# Report data\Q20041019-1E CITATION AMP\FCC ABOVE 1G.EM6		
Test Date	:	2020-07-20	**Tested By**	:	Jacky
EUT	:	Wireless Adaptor with built-in amplifier	**Model Number**	:	CITATION AMP
Power Supply	:	AC 120V/60Hz	**Test Mode**	:	Tx mode
Condition	:	Temp:24.3°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	:	2019 HF 907/3m/VERTICAL
Memo	:	11AC80 5530 ANT1+2			

Data: 182



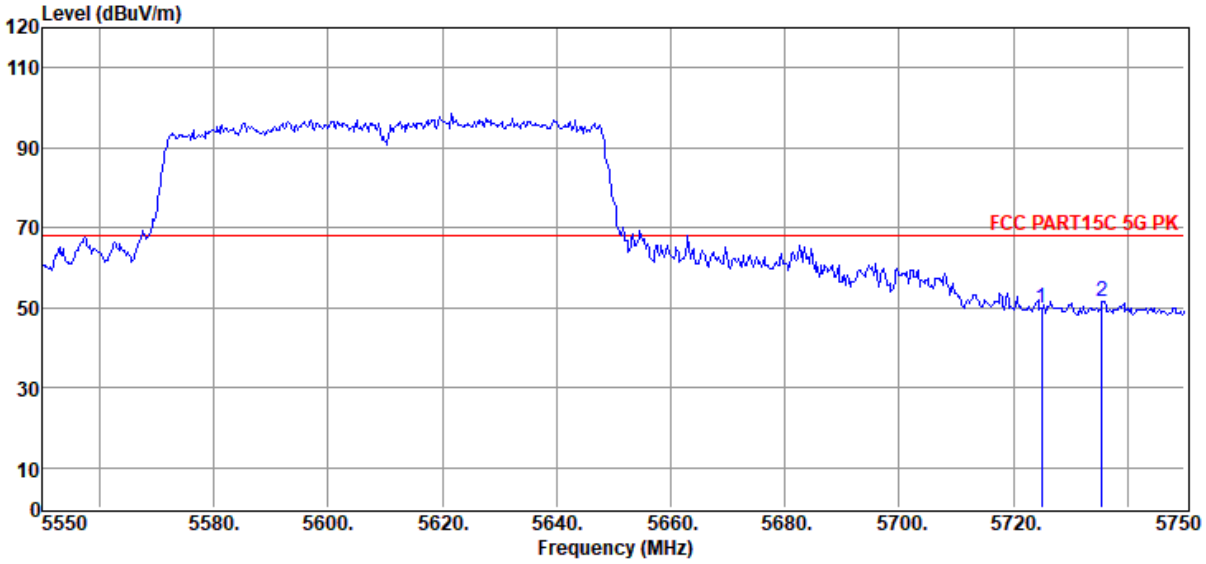
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5456.16	59.97	34.77	43.26	6.74	58.22	74.00	-15.78	Peak	VERTICAL
2	5456.16	49.65	34.77	43.26	6.74	47.90	54.00	-6.10	Average	VERTICAL
3	5460.00	58.03	34.78	43.26	6.74	56.29	74.00	-17.71	Peak	VERTICAL
4	5460.00	50.50	34.78	43.26	6.74	48.76	54.00	-5.24	Average	VERTICAL
5	5470.00	57.45	34.78	43.26	6.75	55.72	68.20	-12.48	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber 1#	D:\2020 RE 1# Report data\Q20041019-1E CITATION AMP\FCC ABOVE 1G.EM6	
Test Date	: 2020-07-20	**Tested By**	: Jacky
EUT	: Wireless Adaptor with built-in amplifier	**Model Number**	: CITATION AMP
Power Supply	: AC 120V/60Hz	**Test Mode**	: Tx mode
Condition	: Temp:24.3°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	: 2019 HF 907/3m/VERTICAL
Memo	: 11AC80 5610 ANT1+2		

Data: 183



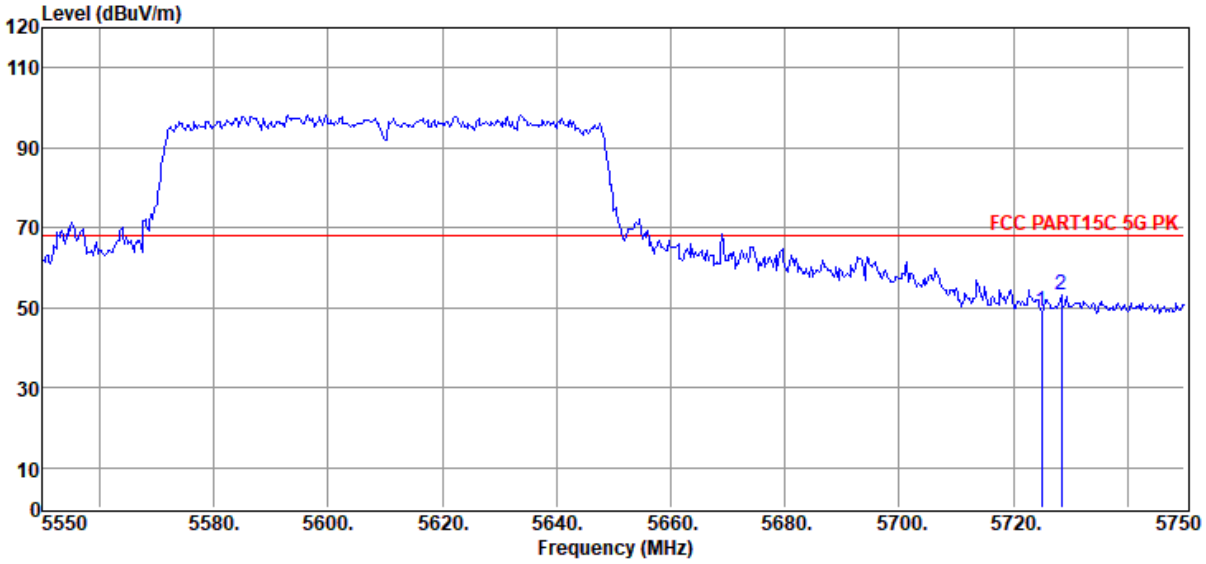
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5725.00	51.35	34.98	43.18	6.85	50.00	68.20	-18.20	Peak	VERTICAL
2	5735.60	53.01	34.99	43.18	6.85	51.67	68.20	-16.53	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	:	DDT 3m Chamber 1#	D:\2020 RE 1# Report data\Q20041019-1E CITATION AMP\FCC ABOVE 1G.EM6		
Test Date	:	2020-07-20	**Tested By**	:	Jacky
EUT	:	Wireless Adaptor with built-in amplifier	**Model Number**	:	CITATION AMP
Power Supply	:	AC 120V/60Hz	**Test Mode**	:	Tx mode
Condition	:	Temp:24.3°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	:	2019 HF 907/3m/HORIZONTAL
Memo	:	11AC80 5610 ANT1+2			

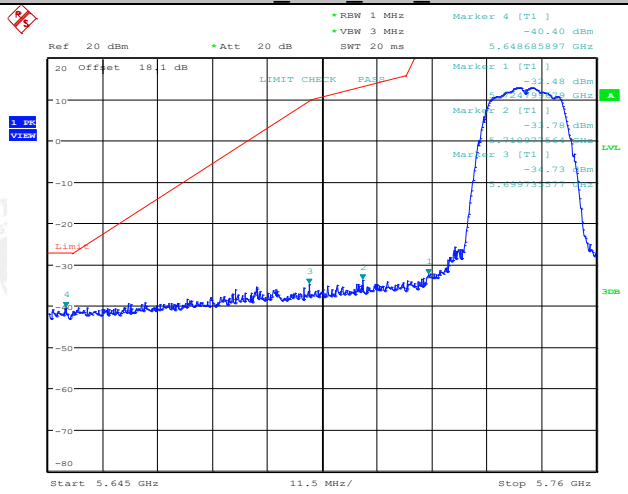
Data: 184



Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	5725.00	50.32	34.98	43.18	6.85	48.97	68.20	-19.23	Peak	HORIZONTAL
2	5728.40	54.52	34.99	43.18	6.85	53.18	68.20	-15.02	Peak	HORIZONTAL

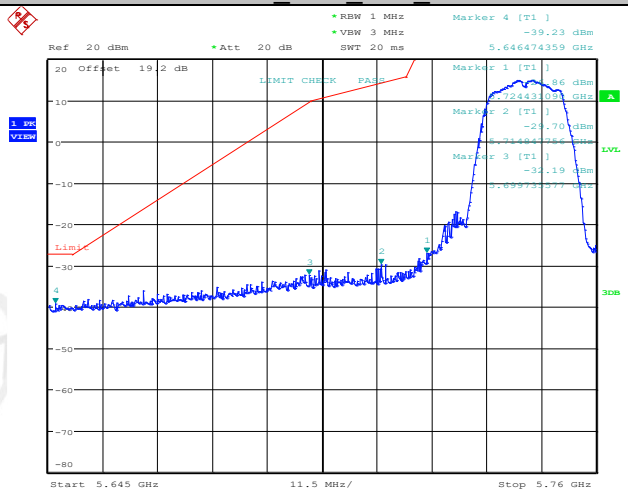
Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

11A_Ant1_Low_5745



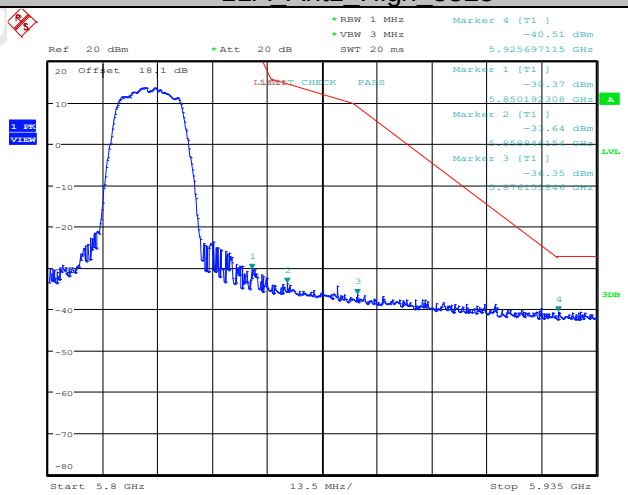
Date: 9.JUL.2020 11:15:33

11A_Ant2_Low_5745



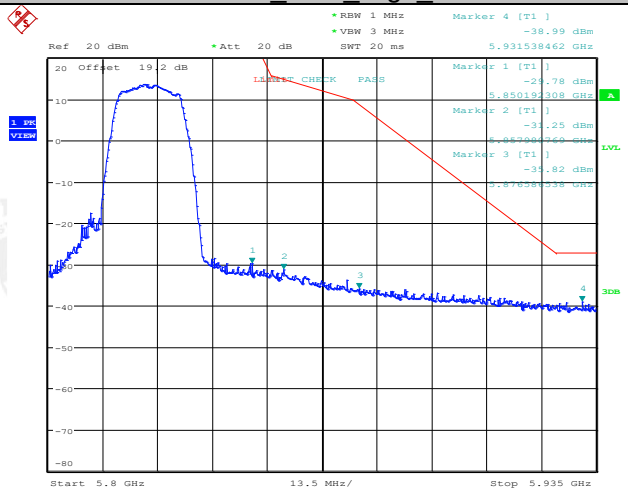
Date: 15.JUL.2020 21:29:02

11A_Ant1_High_5825



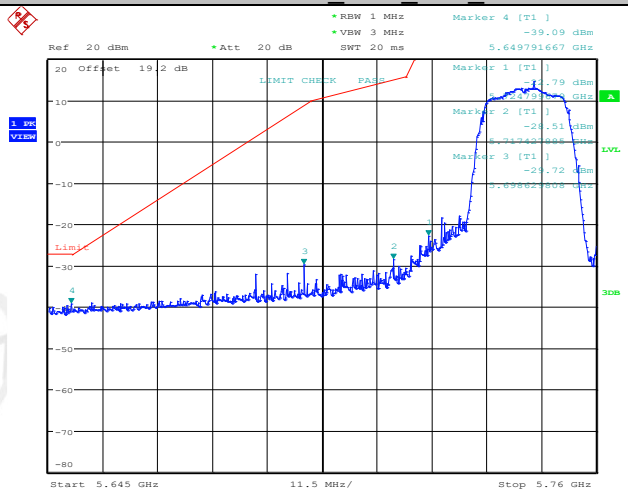
Date: 9.JUL.2020 11:16:08

11A_Ant2_High_5825



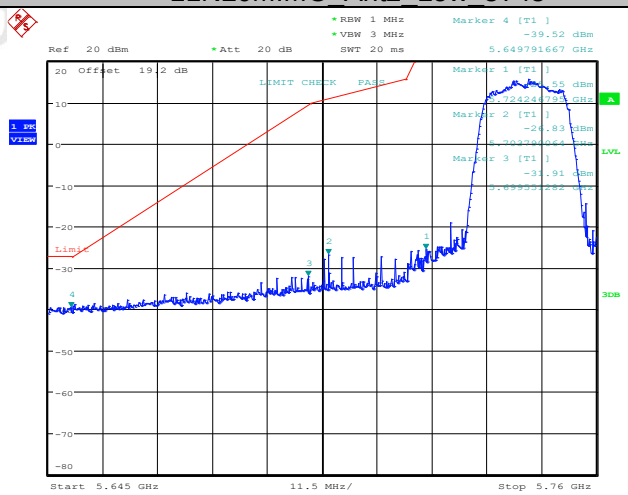
Date: 15.JUL.2020 21:29:33

11N20MIMO_Ant1_Low_5745



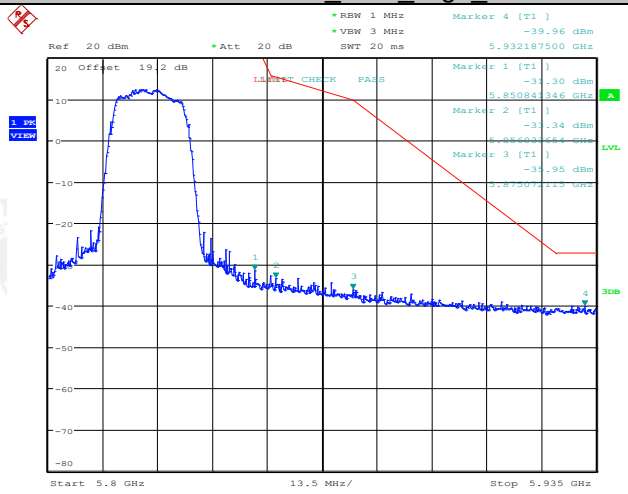
Date: 15.JUL.2020 21:59:31

11N20MIMO_Ant2_Low_5745



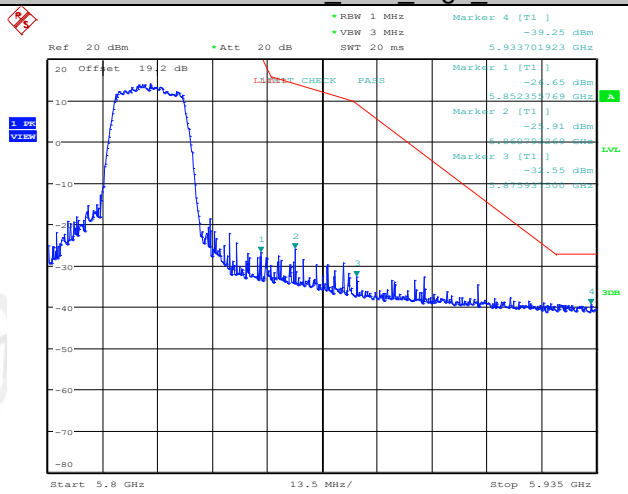
Date: 15.JUL.2020 21:59:48

11N20MIMO_Ant1_High_5825



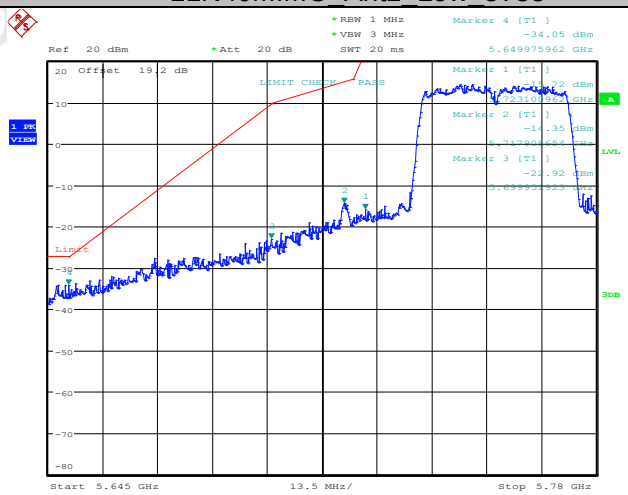
Date: 15.JUL.2020 22:00:14

11N20MIMO_Ant2_High_5825



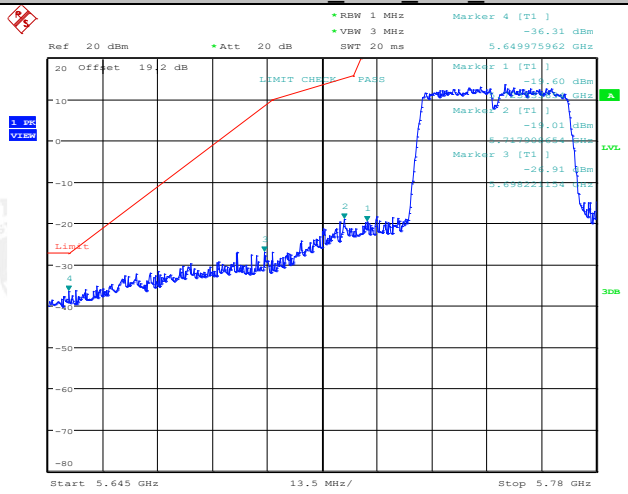
Date: 15.JUL.2020 22:00:41

11N40MIMO_Ant1_Low_5755



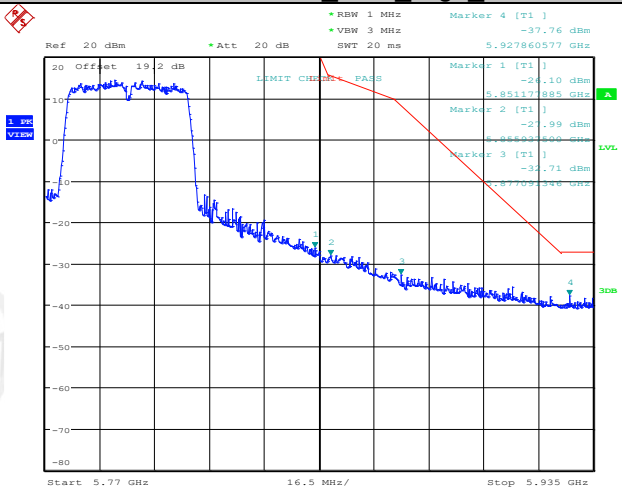
Date: 15.JUL.2020 22:26:39

11N40MIMO_Ant2_Low_5755



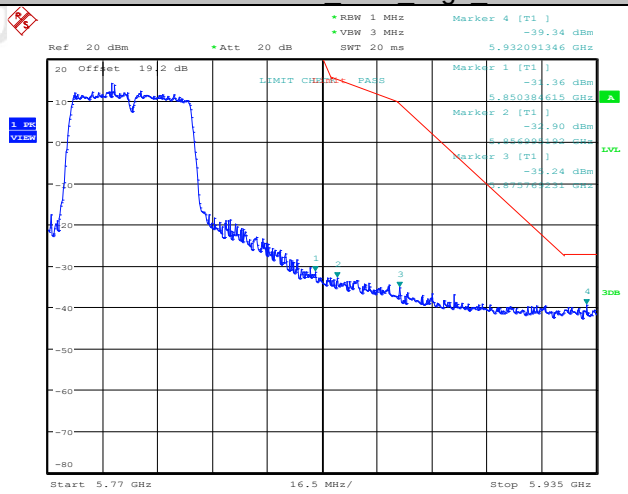
Date: 15.JUL.2020 22:27:11

11N40MIMO_Ant1_High_5795



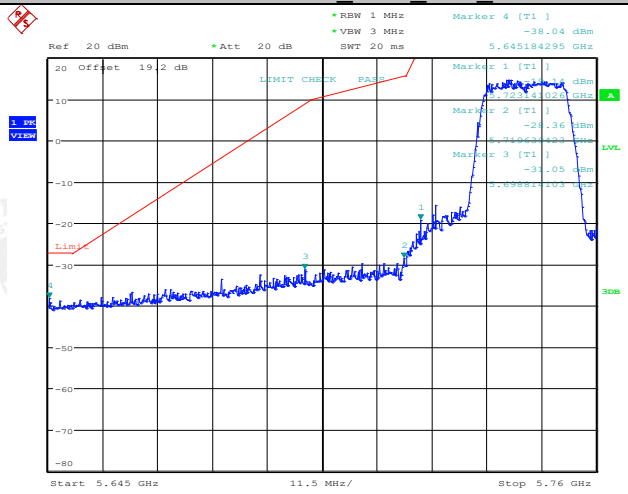
Date: 15.JUL.2020 22:27:53

11N40MIMO_Ant2_High_5795



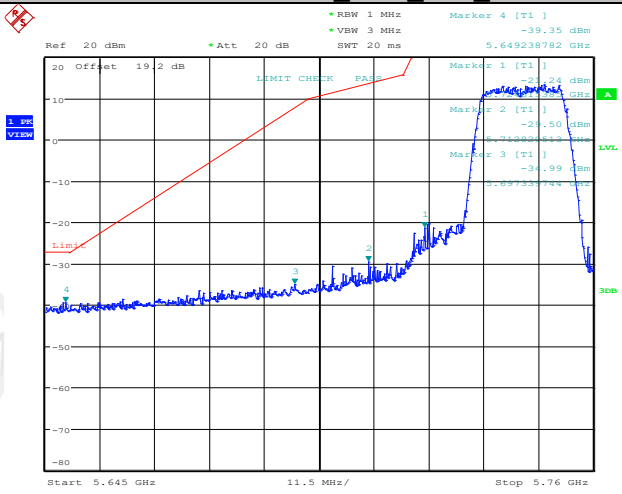
Date: 15.JUL.2020 22:28:11

11AC20MIMO_Ant1_Low_5745



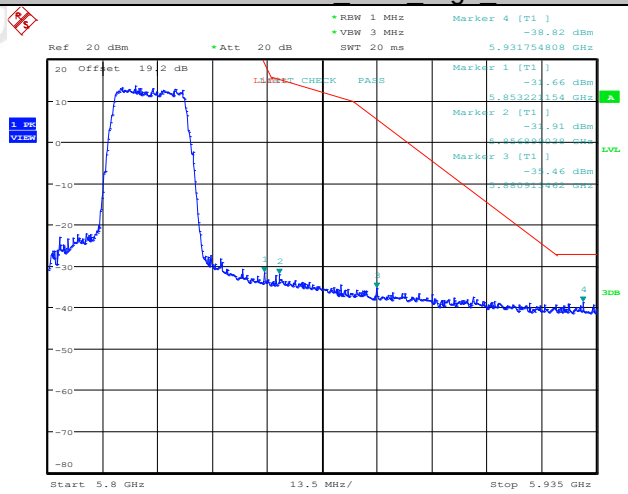
Date: 15.JUL.2020 22:35:52

11AC20MIMO_Ant2_Low_5745



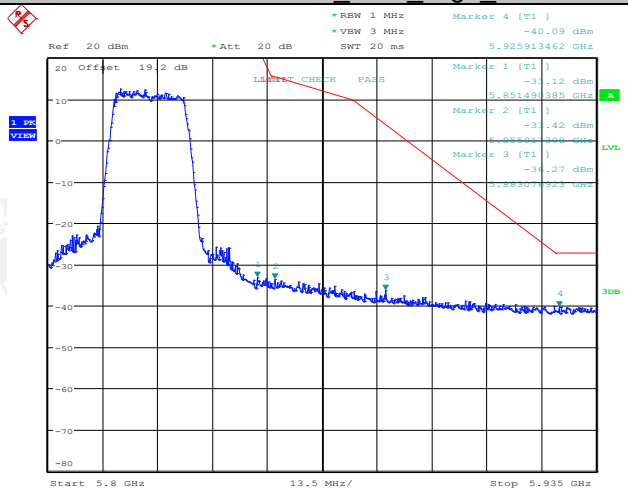
Date: 15.JUL.2020 22:36:09

11AC20MIMO_Ant1_High_5825



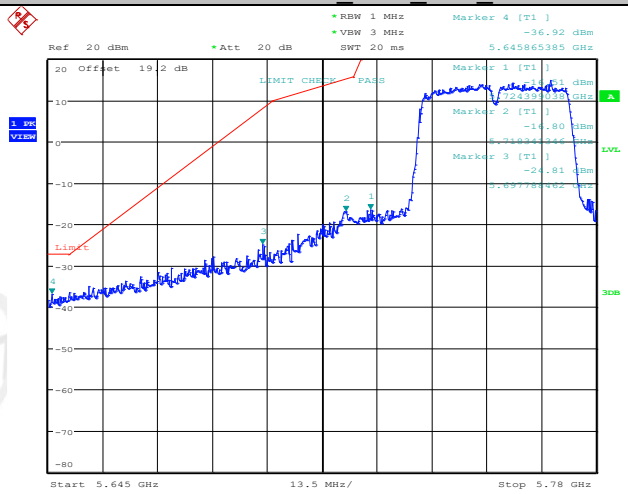
Date: 15.JUL.2020 22:36:35

11AC20MIMO_Ant2_High_5825



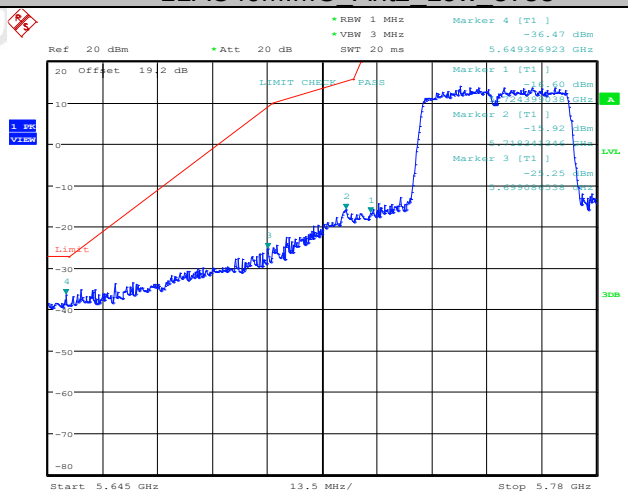
Date: 15.JUL.2020 22:36:54

11AC40MIMO_Ant1_Low_5755



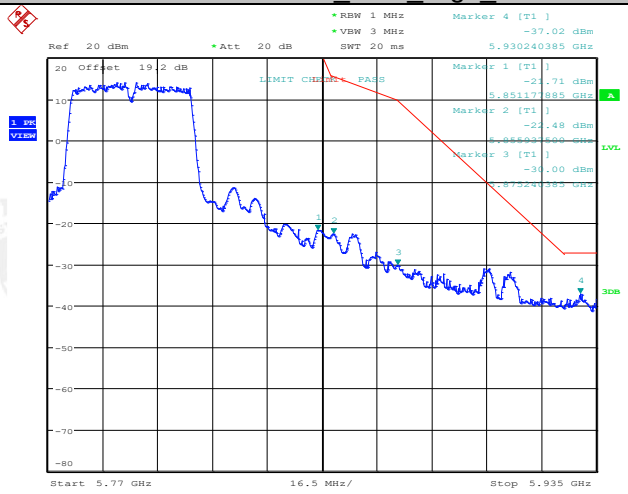
Date: 15.JUL.2020 23:12:41

11AC40MIMO_Ant2_Low_5755



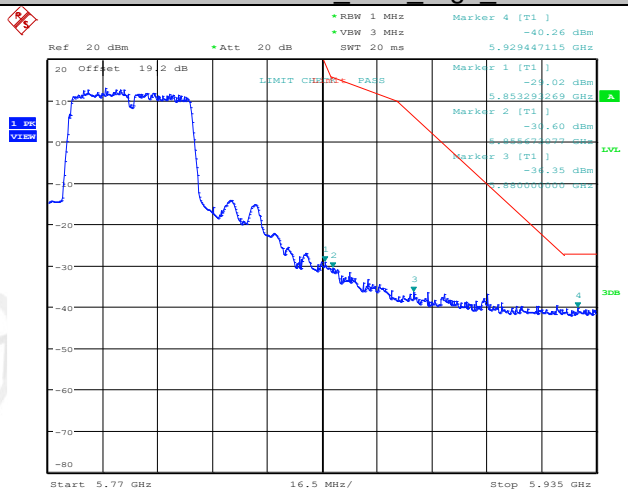
Date: 15.JUL.2020 23:13:15

11AC40MIMO_Ant1_High_5795



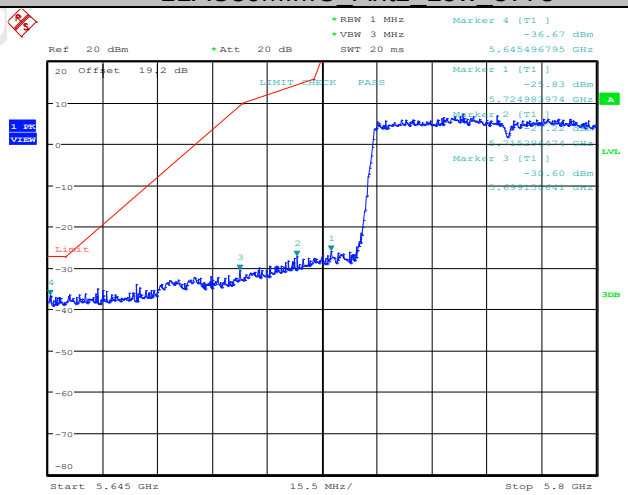
Date: 15.JUL.2020 22:50:06

11AC40MIMO_Ant2_High_5795



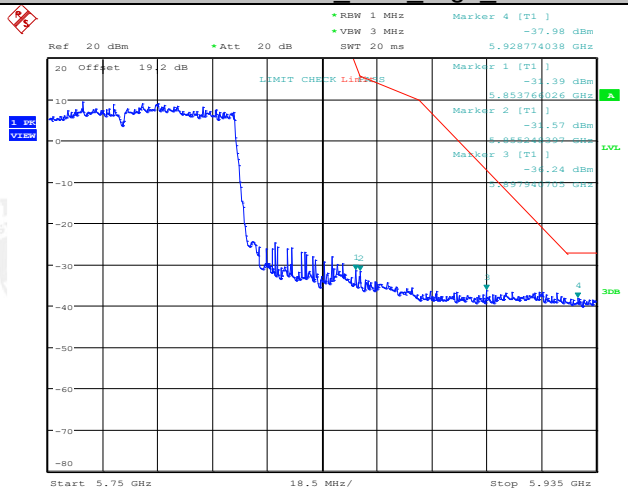
Date: 15.JUL.2020 22:50:24

11AC80MIMO_Ant1_Low_5775



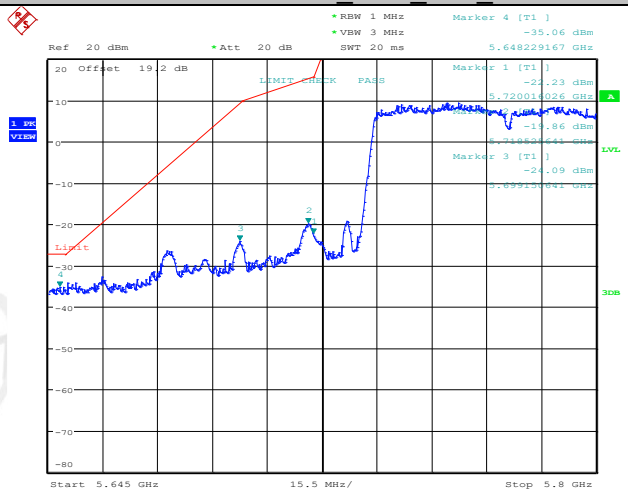
Date: 15.JUL.2020 22:54:42

11AC80MIMO_Ant1_High_5775



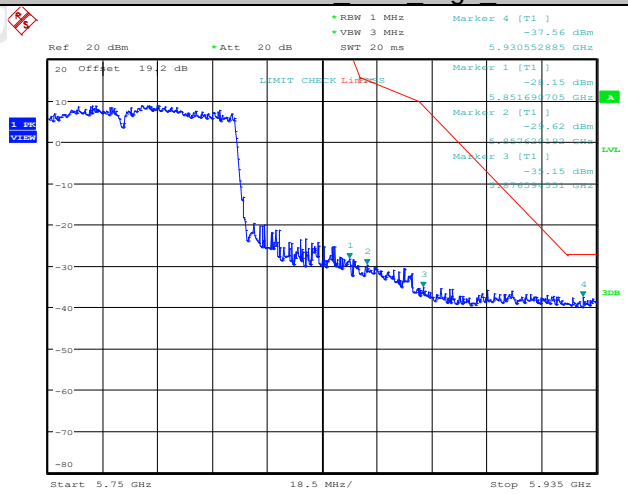
Date: 21.JUL.2020 15:54:04

11AC80MIMO_Ant2_Low_5775



Date: 15.JUL.2020 22:55:01

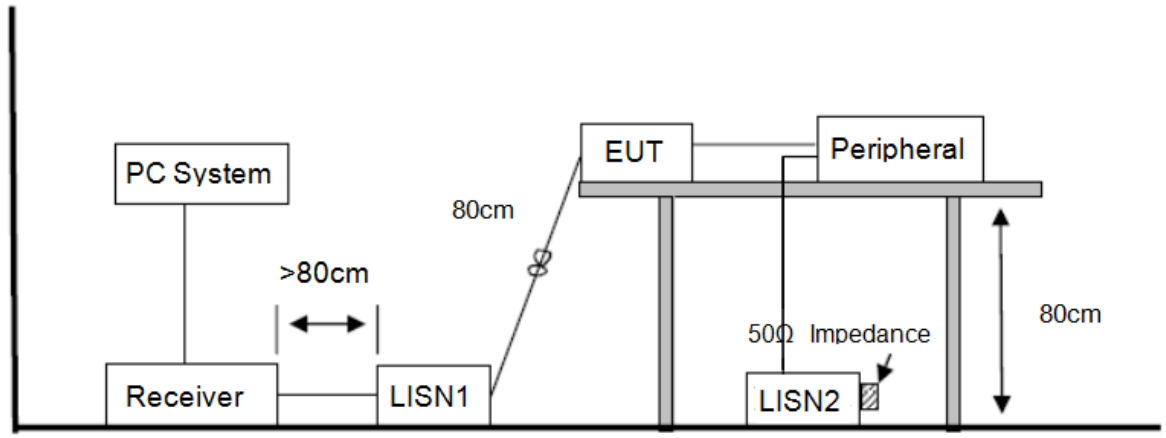
11AC80MIMO_Ant2_High_5775



Date: 21.JUL.2020 15:54:23

10. Power Line Conducted Emission

10.1. Block diagram of test setup



10.2. Power line conducted emission limits (Class B)

Frequency	Quasi-Peak Level dB(μV)	Average Level dB(μV)
150 kHz ~ 500 kHz	66 ~ 56*	56 ~ 46*
500 kHz ~ 5 MHz	56	46
5 MHz ~ 30 MHz	60	50

Note 1: * Decreasing linearly with logarithm of frequency.

Note 2: The lower limit shall apply at the transition frequencies.

10.3. Test procedure

The EUT and Support equipment, if needed, were put placed on a non-metallic table, 80cm above the ground plane.

Configuration EUT to simulate typical usage as described in clause 2.3 and test equipment as described in clause 10.2 of this report.

All I/O cables were positioned to simulate typical actual usage as per ANSI C63.4.

All support equipment power received from a second LISN.

Emissions were measured on each current carrying line of the EUT using an EMI Test Receiver connected to the LISN powering the EUT.

The Receiver scanned from 150 kHz to 30 MHz for emissions in each of the test modes.

During the above scans, the emissions were maximized by cable manipulation.

The test mode(s) described in clause 2.3 were scanned during the preliminary test.

After the preliminary scan, we found the test mode producing the highest emission level.

The EUT configuration and worse cable configuration of the above highest emission levels were recorded for reference of the final test.
EUT and support equipment were set up on the test bench as per the configuration with highest emission level in the preliminary test.

A scan was taken on both power lines, Neutral and Line, recording at least the six highest emissions.

Emission frequency and amplitude were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit.

The test data of the worst-case condition(s) was recorded.

The bandwidth of test receiver is set at 9 kHz.

10.4. Test result

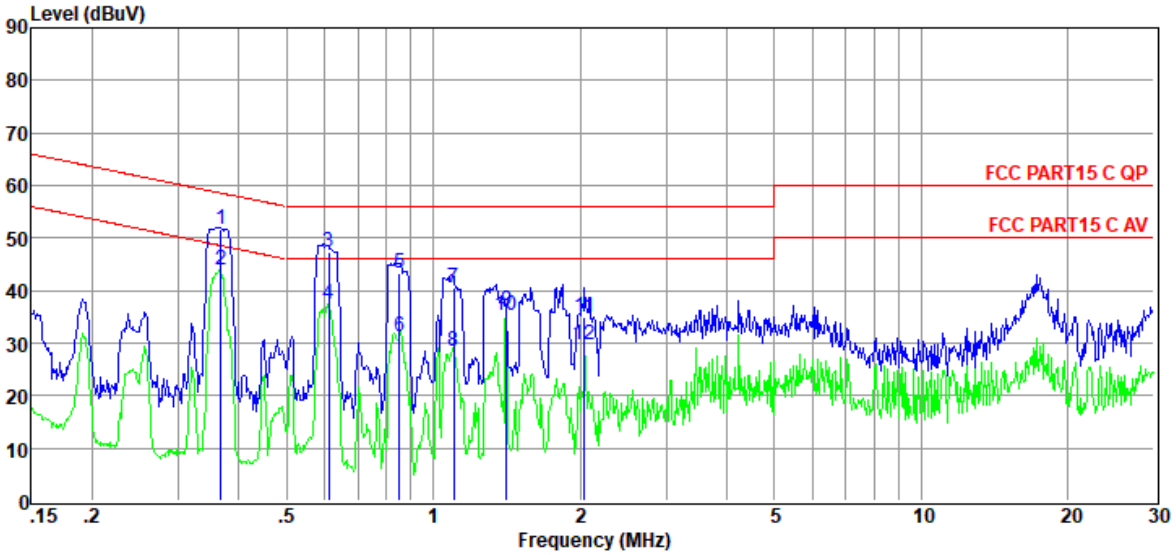
PASS. (See below detailed test result)

Note1: All emissions not reported below are too low against the prescribed limits.
Note2: "-----" means peak detection; "-----" means average detection
Note3: Pre-test AC conducted emission at both voltage AC 120V/60Hz and AC 240V/50Hz, recorded worse case.

TR-4-E-010 Conducted Emission Test Result

Test Site	: DDT 1# Shield Room	D:\2020 CE report data\Q20041019-1E\20200615 CE.EM6	
Test Date	: 2020-06-16	**Tested By**	: Chunchieh Huang
EUT	: Wireless Adaptor with built-in amplifier	**Model Number**	: CITATION AMP
Power Supply	: AC 120V/60Hz	**Test Mode**	: Tx mode
Condition	: TEMP:25℃, RH:42%, BP:101.4kPa	**LISN**	: 2019 ENV216 1#/NEUTRAL
Memo	:		

Data: 269



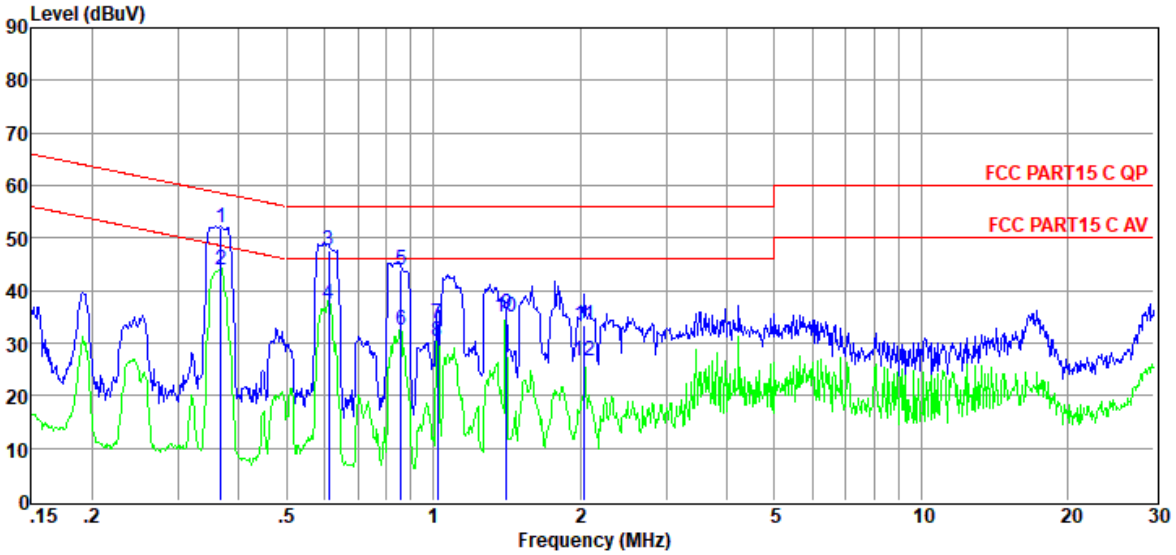
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	LISN Factor (dB)	Cable Loss (dB)	Pulse Limiter Factor (dB)	Result Level (dBµV)	Limit Line (dBµV)	Over Limit (dB)	Detector	Phase
1	0.37	32.19	9.60	0.02	9.86	51.67	58.56	-6.89	QP	NEUTRAL
2	0.37	24.36	9.60	0.02	9.86	43.84	48.56	-4.72	Average	NEUTRAL
3	0.61	27.91	9.60	0.03	9.86	47.40	56.00	-8.60	QP	NEUTRAL
4	0.61	17.91	9.60	0.03	9.86	37.40	46.00	-8.60	Average	NEUTRAL
5	0.85	23.77	9.60	0.03	9.86	43.26	56.00	-12.74	QP	NEUTRAL
6	0.85	11.86	9.60	0.03	9.86	31.35	46.00	-14.65	Average	NEUTRAL
7	1.10	21.15	9.60	0.03	9.86	40.64	56.00	-15.36	QP	NEUTRAL
8	1.10	8.85	9.60	0.03	9.86	28.34	46.00	-17.66	Average	NEUTRAL
9	1.41	16.60	9.60	0.04	9.86	36.10	56.00	-19.90	QP	NEUTRAL
10	1.41	15.63	9.60	0.04	9.86	35.13	46.00	-10.87	Average	NEUTRAL
11	2.04	15.48	9.60	0.05	9.86	34.99	56.00	-21.01	QP	NEUTRAL
12	2.04	10.27	9.60	0.05	9.86	29.78	46.00	-16.22	Average	NEUTRAL

Note: 1. Result Level = Read Level +LISN Factor + Pulse Limiter Factor + Cable loss.
2. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 200 Hz (9 kHz—150 kHz), 9 kHz (150 kHz—30 MHz).
4. Step size: 80Hz (0.009MHz-0.15MHz), 4 kHz (0.15MHz-30MHz), Scan time: auto.

TR-4-E-010 Conducted Emission Test Result

Test Site	: DDT 1# Shield Room	D:\2020 CE report data\Q20041019-1E\20200615 CE.EM6	
Test Date	: 2020-06-16	**Tested By**	: Chunchieh Huang
EUT	: Wireless Adaptor with built-in amplifier	**Model Number**	: CITATION AMP
Power Supply	: AC 120V/60Hz	**Test Mode**	: Tx mode
Condition	: TEMP:25℃, RH:42%, BP:101.4kPa	**LISN**	: 2019 ENV216 1#/LINE
Memo	:		

Data: 270



Item (Mark)	Freq. (MHz)	Read Level (dBµV)	LISN Factor (dB)	Cable Loss (dB)	Pulse Limiter Factor (dB)	Result Level (dBµV)	Limit Line (dBµV)	Over Limit (dB)	Detector	Phase
1	0.37	32.46	9.60	0.02	9.86	51.94	58.56	-6.62	QP	LINE
2	0.37	24.46	9.60	0.02	9.86	43.94	48.56	-4.62	Average	LINE
3	0.61	28.17	9.60	0.03	9.86	47.66	56.00	-8.34	QP	LINE
4	0.61	18.06	9.60	0.03	9.86	37.55	46.00	-8.45	Average	LINE
5	0.86	24.49	9.60	0.03	9.86	43.98	56.00	-12.02	QP	LINE
6	0.86	12.92	9.60	0.03	9.86	32.41	46.00	-13.59	Average	LINE
7	1.02	14.32	9.60	0.03	9.86	33.81	56.00	-22.19	QP	LINE
8	1.02	10.97	9.60	0.03	9.86	30.46	46.00	-15.54	Average	LINE
9	1.41	16.08	9.60	0.04	9.86	35.58	56.00	-20.42	QP	LINE
10	1.41	15.37	9.60	0.04	9.86	34.87	46.00	-11.13	Average	LINE
11	2.04	13.93	9.60	0.05	9.86	33.44	56.00	-22.56	QP	LINE
12	2.04	7.13	9.60	0.05	9.86	26.64	46.00	-19.36	Average	LINE

Note: 1. Result Level = Read Level +LISN Factor + Pulse Limiter Factor + Cable loss.
2. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 200 Hz (9 kHz—150 kHz), 9 kHz (150 kHz—30 MHz).
4. Step size: 80Hz (0.009MHz-0.15MHz), 4 kHz (0.15MHz-30MHz), Scan time: auto.

11. Antenna Requirements

11.1. Limit

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. And according to FCC 47 CFR Section 15.407 (a), if transmitting antennas of directional gain greater than 6 dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

11.2. Result

The antennas used for this product are Dedicated FPCB antenna and that no antenna other than that furnished by the responsible party shall be used with the device, the maximum peak gain is 6.65 dBi.

12. Dynamic Frequency Selection

12.1. Applicability of DFS requirements

Table 1: Applicability of DFS Requirements Prior to Use of a Channel

Requirement	Operational Mode		
	☐Master	☒Client Without Radar Detection	☐Client with Radar Detection
Non-Occupancy Period	Yes	Not required	Yes
DFS Detection Threshold	Yes	Not required	Yes
Channel Availability Check Time	Yes	Not required	Not required
U-NII Detection Bandwidth	Yes	Not required	Yes

Table 2: Applicability of DFS requirements during normal operation

Requirement	Operational Mode	
	☐Master Device or Client with Radar Detection	☒Client Without Radar Detection
DFS Detection Threshold	Yes	Not required
Channel Closing Transmission Time	Yes	Yes
Channel Move Time	Yes	Yes
U-NII Detection Bandwidth	Yes	Not required

Additional requirements for devices with multiple bandwidth modes	☐Master Device or Client with Radar Detection	☒Client Without Radar Detection
U-NII Detection Bandwidth and Statistical Performance Check	All BW modes must be tested	Not required
Channel Move Time and Channel Closing Transmission Time	Test using widest BW mode available	Test using the widest BW mode available for the link
All other tests	Any single BW mode	Not required
Note: Frequencies selected for statistical performance check should include several frequencies within the radar detection bandwidth and frequencies near the edge of the radar detection bandwidth. For 802.11 devices it is suggested to select frequencies in each of the bonded 20 MHz channels and the channel center frequency.		

12.2. Limit

(1) DFS Detection Thresholds

Table 3: DFS Detection Thresholds for Master Devices and Client Devices with Radar Detection

Maximum Transmit Power	Value (See Notes 1, 2, and 3)
EIRP ≥ 200 milliwatt	-64 dBm
EIRP < 200 milliwatt and power spectral density < 10 dBm/MHz	-62 dBm
EIRP < 200 milliwatt that do not meet the power spectral density requirement	-64 dBm
Note 1: This is the level at the input of the receiver assuming a 0 dBi receive antenna. Note 2: Throughout these test procedures an additional 1 dB has been added to the amplitude of the test transmission waveforms to account for variations in measurement equipment. This will ensure that the test signal is at or above the detection threshold level to trigger a DFS response. Note3: EIRP is based on the highest antenna gain. For MIMO devices refer to KDB Publication 662911 D01.	

(2) DFS Response Requirements

Table 4: DFS Response Requirement Values

Parameter	Value
Non-occupancy period	Minimum 30 minutes
Channel Availability Check Time	60 seconds
Channel Move Time	10 seconds See Note 1.
Channel Closing Transmission Time	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period. See Notes 1 and 2.
U-NII Detection Bandwidth	Minimum 100% of the U-NII 99% transmission power bandwidth. See Note 3.
Note 1: Channel Move Time and the Channel Closing Transmission Time should be performed with Radar Type 0. The measurement timing begins at the end of the Radar Type 0 burst. Note 2: The Channel Closing Transmission Time is comprised of 200 milliseconds starting at the beginning of the Channel Move Time plus any additional intermittent control signals required facilitating a Channel move (an aggregate of 60 milliseconds) during the remainder of the 10 second period. The aggregate duration of control signals will not count quiet periods in between transmissions. Note 3: During the U-NII Detection Bandwidth detection test, radar type 0 should be used. For each frequency step the minimum percentage of detection is 90 percent. Measurements are performed with no data traffic.	

12.3. Parameters of radar test waveforms

This section provides the parameters for required test waveforms, minimum percentage of successful detections, and the minimum number of trials that must be used for determining DFS conformance. Step intervals of 0.1 microsecond for Pulse Width, 1 microsecond for PRI, 1 MHz for chirp width and 1 for the number of pulses will be utilized for the random determination of specific test waveforms.

Table 5 – Short Pulse Radar Test Waveforms

Radar Type	Pulse Width (µsec)	PRI (µsec)	Number of Pulses	Minimum Percentage of Successful Detection	Minimum Number of Trials
0	1	1428	18	See Note 1	See Note 1
1	1	Test A: 15 unique PRI values randomly selected from the list of 23 PRI values in Table 5a	$\text{Roundup}\left\{\left(\frac{1}{360}\right)\cdot\left(\frac{19\cdot10^6}{\text{PRI}_{\mu\text{sec}}}\right)\right\}$	60%	30
		Test B: 15 unique PRI values randomly selected within the range of 518-3066 µsec, with a minimum increment of 1 µsec, excluding PRI values selected in Test A			
2	1-5	150-230	23-29	60%	30
3	6-10	200-500	16-18	60%	30
4	11-20	200-500	12-16	60%	30

Table 6 – Long Pulse Radar Test Waveform

Radar Type	Pulse Width (µsec)	Chirp Width (MHz)	PRI (µsec)	Number of Pulses per *Burst*	Number of *Bursts*	Minimum Percentage of Successful Detection	Minimum Number of Trials
5	50-100	5-20	1000-2000	1-3	8-20	80%	30

Table 7 – Frequency Hopping Radar Test Waveform

Radar Type	Pulse Width (µsec)	PRI (µsec)	Pulses per Hop	Hopping Rate (kHz)	Hopping Sequence Length (msec)	Minimum Percentage of Successful Detection	Minimum Number of Trials
6	1	333	9	0.333	300	70%	30

A minimum of 30 unique waveforms are required for each of the Short Pulse Radar Types 2 through 4. If more than 30 waveforms are used for Short Pulse Radar Types 2 through 4, then each additional waveform must also be unique and not repeated from the previous waveforms. If more than 30 waveforms are used for Short Pulse Radar Type 1, then each additional waveform is generated with Test B and must also be unique and not repeated from the previous waveforms in Tests A or B. Test aggregate is average of the percentage of successful detections of short pulse radar types 1-4

12.4. Calibration of radar waveform

Radar Waveform Calibration Procedure:

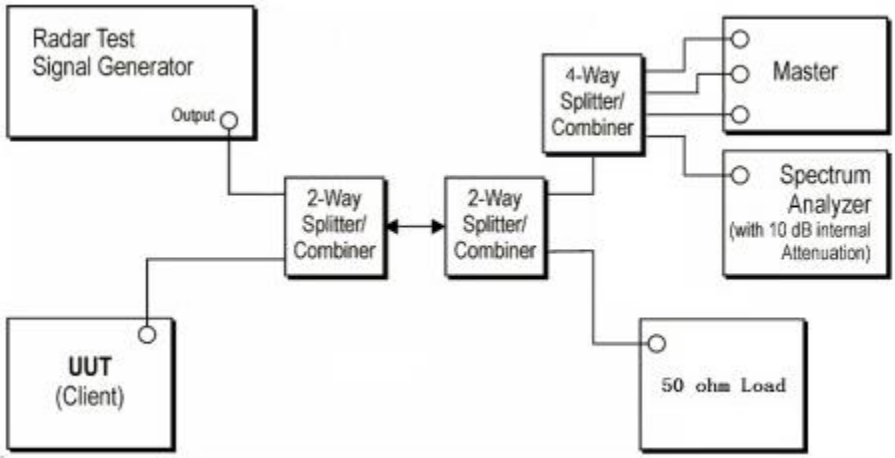
(1) A 50 ohm load is connected in place of the spectrum analyzer, and the spectrum analyzer is connected to place of the master

(2) The interference Radar Detection Threshold Level is -62 dBm + 0 dBi +1 dB = -61 dBm that had been taken into account the output power range and antenna gain.

(3) The following equipment setup was used to calibrate the conducted radar waveform. A vector signal generator was utilized to establish the test signal level for radar type 0. During this process there were no transmissions by either the master or client device. The spectrum analyzer was switched to the zero spans (time domain) at the frequency of the radar waveform generator. Peak detection was used. The spectrum analyzer resolution bandwidth (RBW) and video bandwidth (VBW) were set to 3 MHz. The spectrum analyzer had offset -1.0 dB to compensate RF cable loss 1.0 dB.

(4) The vector signal generator amplitude was set so that the power level measured at the spectrum analyzer was - -62 dBm + 0 dBi +1 dB = -61 dBm. Capture the spectrum analyzer plots on short pulse radar waveform.

Conducted Calibration Setup:

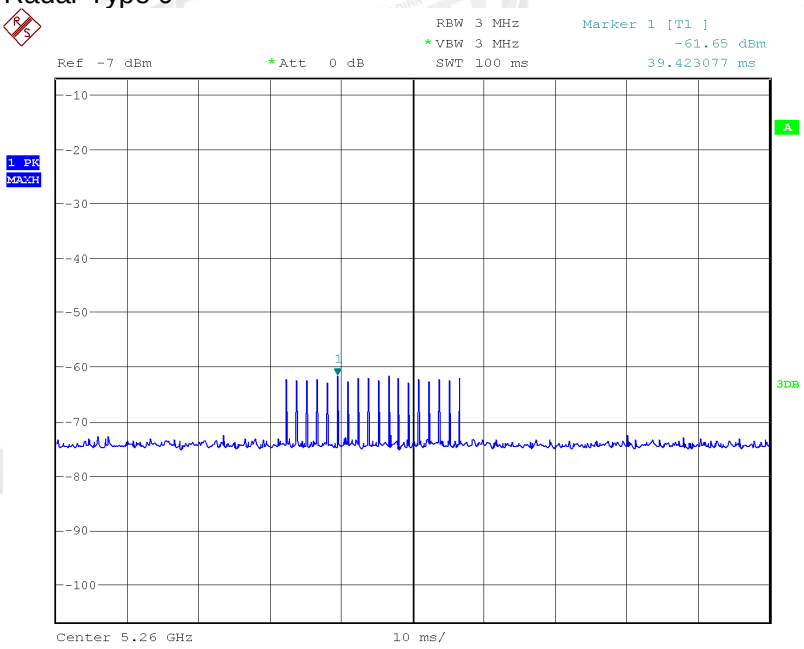


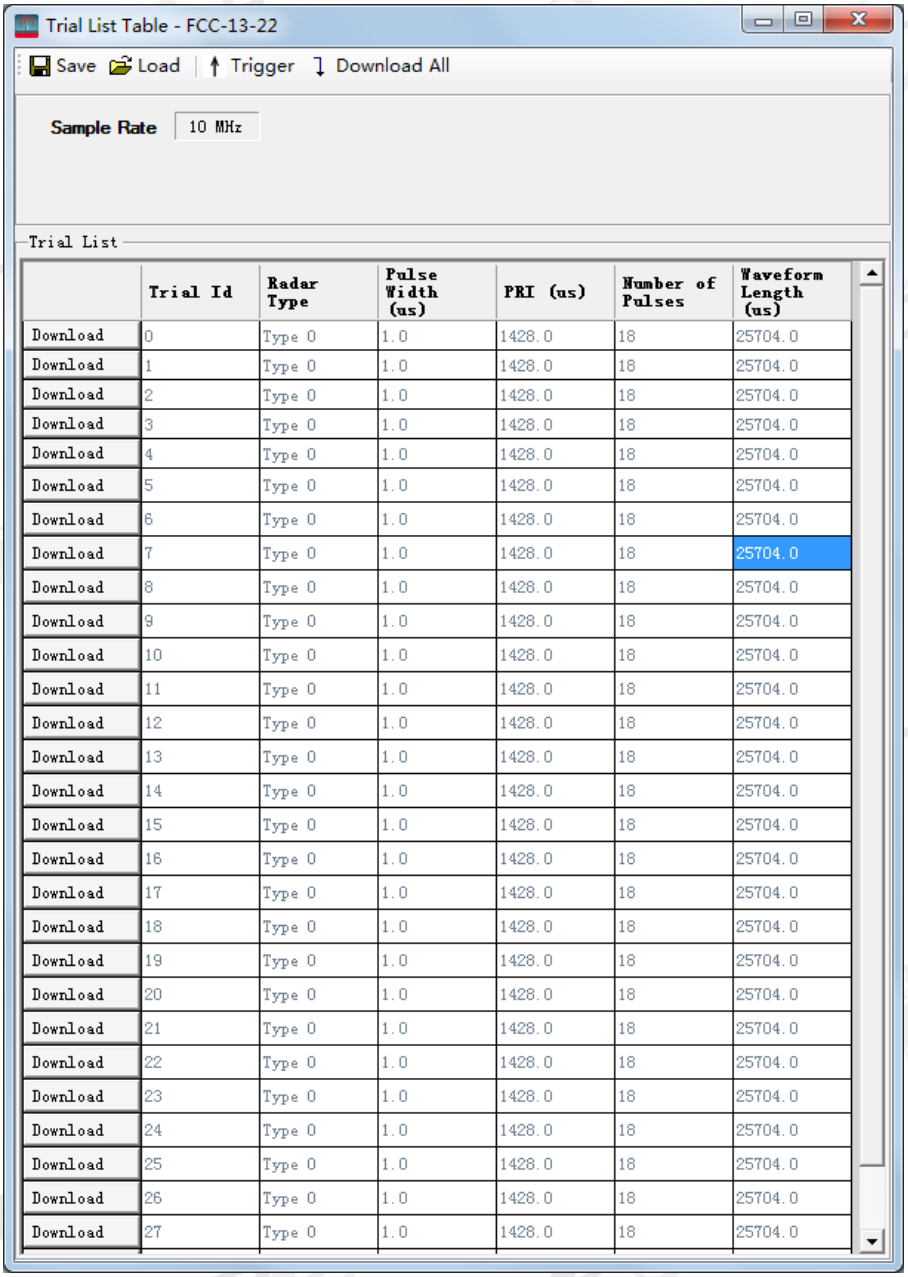
Note: 1. Use the software "Web" to set the frequency channel.

2. EUT is not support TPC and not with Radar detection.

Radar Waveform Calibration Result:

Radar Type 0





Trial List Table - FCC-13-22

Save Load Trigger Download All

Sample Rate 10 MHz

Trial List

	Trial Id	Radar Type	Pulse Width (us)	PRI (us)	Number of Pulses	Waveform Length (us)
Download	0	Type 0	1.0	1428.0	18	25704.0
Download	1	Type 0	1.0	1428.0	18	25704.0
Download	2	Type 0	1.0	1428.0	18	25704.0
Download	3	Type 0	1.0	1428.0	18	25704.0
Download	4	Type 0	1.0	1428.0	18	25704.0
Download	5	Type 0	1.0	1428.0	18	25704.0
Download	6	Type 0	1.0	1428.0	18	25704.0
Download	7	Type 0	1.0	1428.0	18	25704.0
Download	8	Type 0	1.0	1428.0	18	25704.0
Download	9	Type 0	1.0	1428.0	18	25704.0
Download	10	Type 0	1.0	1428.0	18	25704.0
Download	11	Type 0	1.0	1428.0	18	25704.0
Download	12	Type 0	1.0	1428.0	18	25704.0
Download	13	Type 0	1.0	1428.0	18	25704.0
Download	14	Type 0	1.0	1428.0	18	25704.0
Download	15	Type 0	1.0	1428.0	18	25704.0
Download	16	Type 0	1.0	1428.0	18	25704.0
Download	17	Type 0	1.0	1428.0	18	25704.0
Download	18	Type 0	1.0	1428.0	18	25704.0
Download	19	Type 0	1.0	1428.0	18	25704.0
Download	20	Type 0	1.0	1428.0	18	25704.0
Download	21	Type 0	1.0	1428.0	18	25704.0
Download	22	Type 0	1.0	1428.0	18	25704.0
Download	23	Type 0	1.0	1428.0	18	25704.0
Download	24	Type 0	1.0	1428.0	18	25704.0
Download	25	Type 0	1.0	1428.0	18	25704.0
Download	26	Type 0	1.0	1428.0	18	25704.0
Download	27	Type 0	1.0	1428.0	18	25704.0

12.5. Channel closing transmission time, channel move time and non-occupancy period

Block diagram of test setup Test Procedure:

(1) The radar pulse generator is setup to provide a pulse at frequency that the master and client are operating. A type 0 radar pulse with a 1us pulse width and a 1428 us PRI is used for the testing.

(2) The vector signal generator is adjusted to provide the radar burst (18 pulses) at the level of approximately -61 dBm at the antenna port of the master device.

(3) A trigger is provided from the pulse generator to the DFS monitoring system in order to capture the traffic and the occurrence of the radar pulse.

(4) EUT will associate with the master at channel. The file “iperf.exe” specified by the FCC is streamed from the PC 2 through the master and the client device to the PC 1 and played in full motion video using Test Software in order to properly load the network for the entire period of the test.

(5) When radar burst with a level equal to the DFS Detection Threshold +1dB is generated on the operating channel of the U-NII device. At time T0 the radar waveform generator sends a burst of pulse of the radar waveform at Detection Threshold +1dB.

(6) Observe the transmissions of the EUT at the end of the radar Burst on the Operating Channel. Measure and record the transmissions from the UUT during the observation time (Channel Move Time). One 15 seconds plot is reported for the Short Pulse Radar Type 0. The plot for the Short Pulse Radar Types start at the end of the radar burst. The Channel Move Time will be calculated based on the zoom in 600ms plot of the Short Pulse Radar Type.

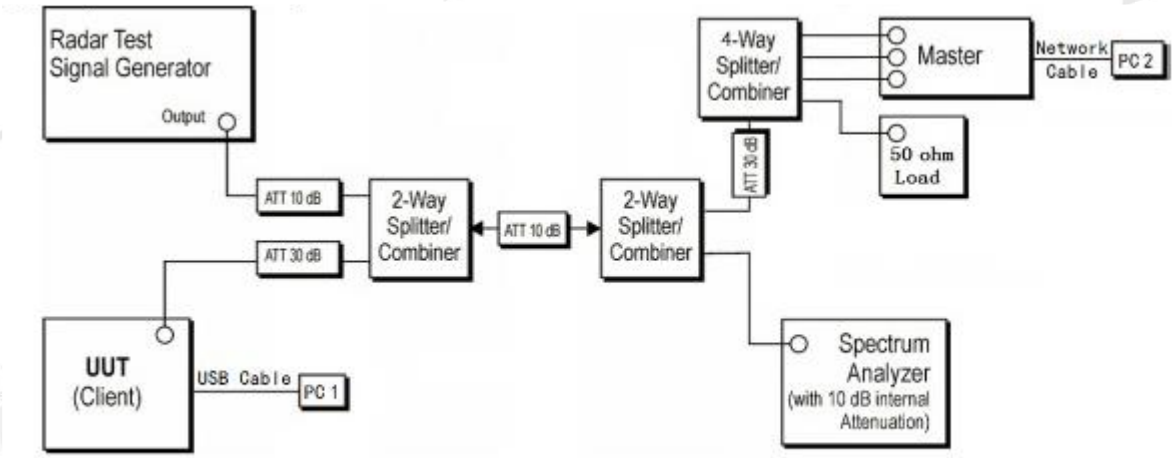
(7) Measurement of the aggregate duration of the Channel Closed Transmission Time method. With the

(8) spectrum analyzer set to zero span tuned to the center frequency of the EUT operating channel at the radar simulated frequency, peak detection, and max hold, the dwell time per bin is given by: Dwell (0.3 ms) =S (12000 ms) / B (4000); where Dwell is the dwell time per spectrum analyzer sampling bin, S is sweep time and B is the number of spectrum analyzer sampling bins. An upper bound of the aggregate duration of the intermittent control signals of Channel Closing Transmission Time is calculated by: C (ms)= N X Dwell (0.3 ms); where C is the Closing Time, N is the number of spectrum analyzer sampling bins (intermittent control signals) showing a U-NII transmission and Dwell is the dwell time per bin.

Measurement the EUT for more than 30 minutes following the channel move time to verify that no transmission or beacons occur on this channel.

12.6. Test setup

Setup for Client with injection at the Master

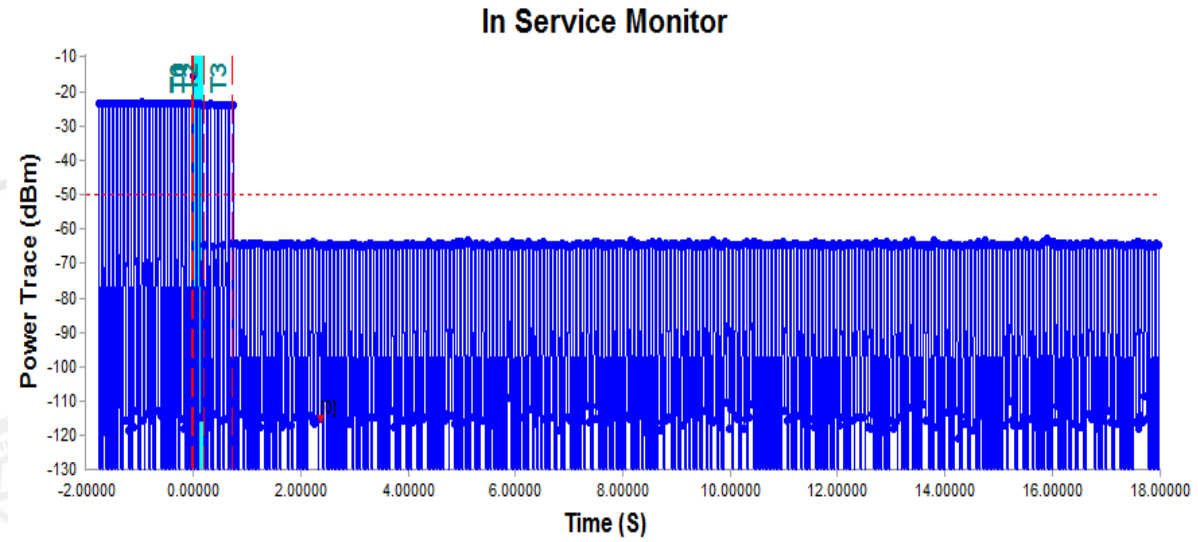


12.7. Test result

BW/Channel	Test Item	Test Result	Limit	Results
80M/5290MHz	Channel Move Time	0.759 s	＜10 s	Pass
	Channel Closing Transmission Time	0.220 s	＜0.26 s	Pass
80M/5530MHz	Channel Move Time	0.639 s	＜10 s	Pass
	Channel Closing Transmission Time	0.200 s	＜0.26 s	Pass

Test plots as follows:

Channel Move Time & Channel Closing Transmission Time



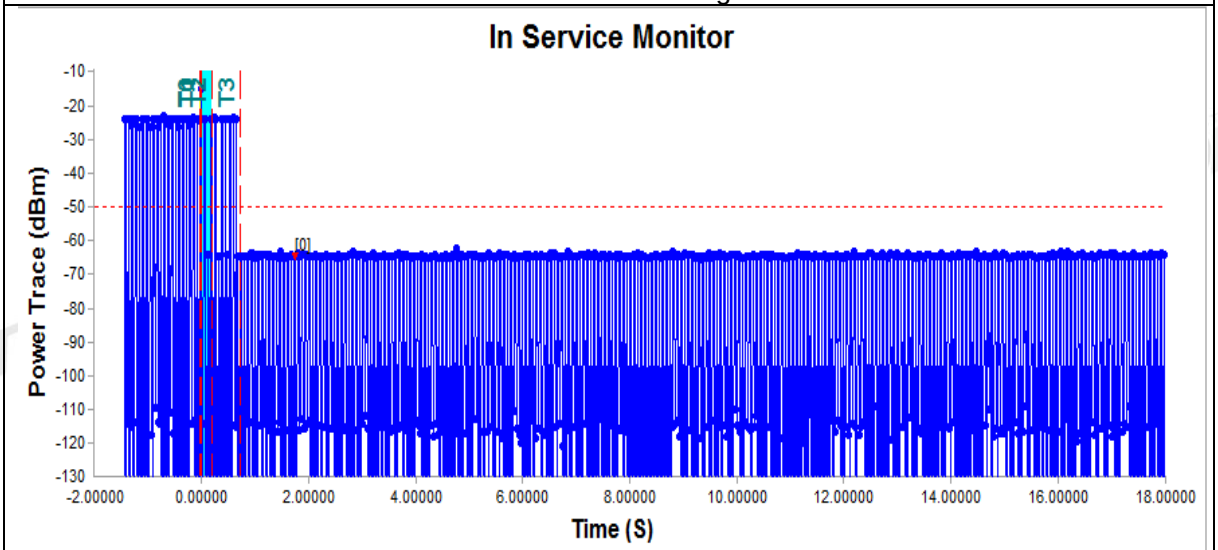
Time Index Info

T0 : 0.0000 S (Radar Injection Start)
T1 : 0.0000 S (Radar Injection Stop)
T2 : 0.1998 S (200msec Interval)
T3 : 0.7592 S (Channel Move Time)

Time Per Bin:19.98002
T2~T3 Bins Over Threshold:
= 11 Bins

Channel Move Time: 0.7592408 S
Channel Close Time: 0.2197802 S

Channel Move Time & Channel Closing Transmission Time



Time Index Info

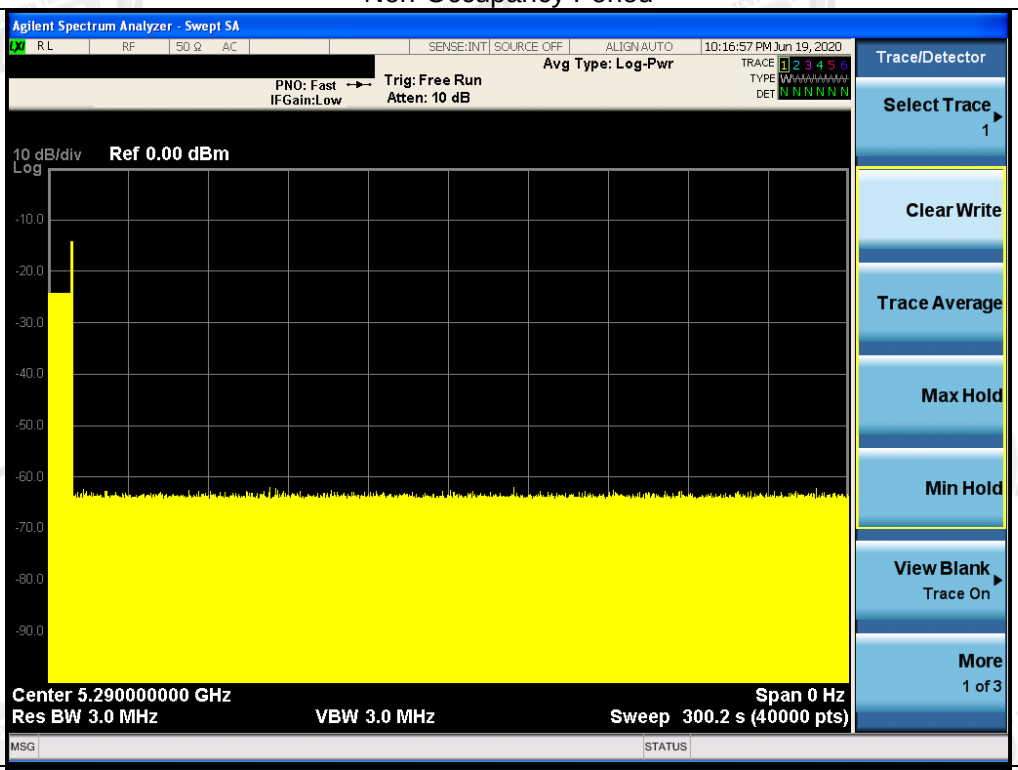
T0 : 0.0000 S (Radar Injection Start)
T1 : 0.0000 S (Radar Injection Stop)
T2 : 0.1998 S (200msec Interval)
T3 : 0.6394 S (Channel Move Time)

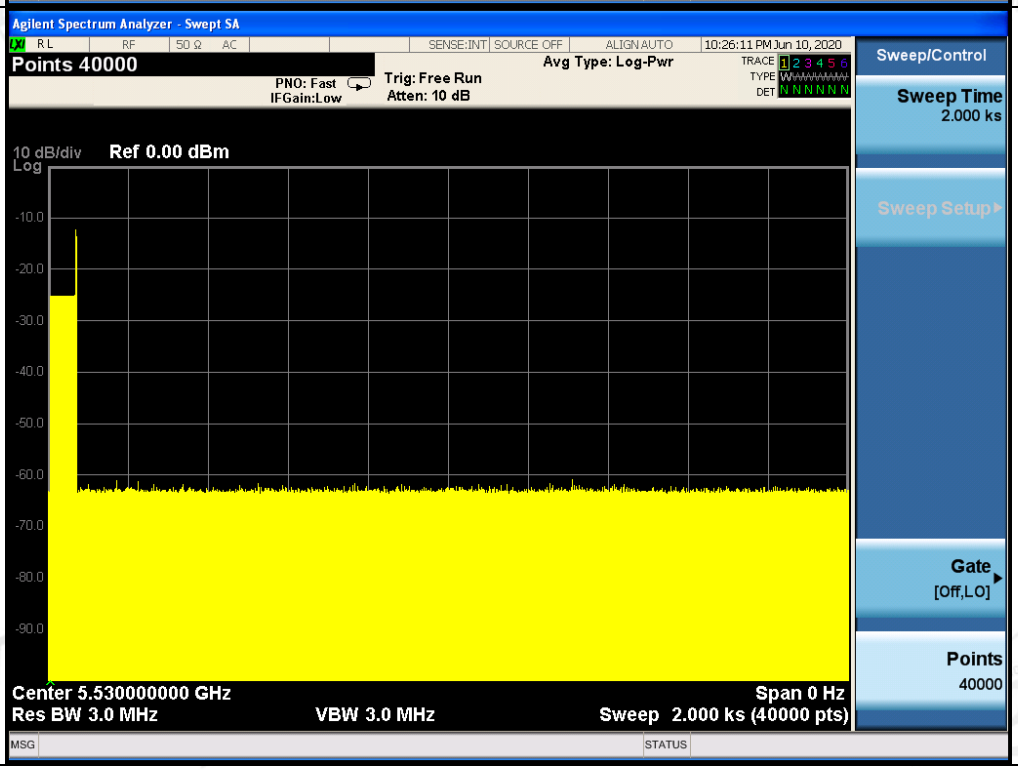
Time Per Bin:19.98002
T2~T3 Bins Over Threshold:
= 10 Bins

Channel Move Time: 0.6393606 S
Channel Close Time: 0.1998002 S

BW/Channel	Test Item	Test Result	Limit	Results
80M/5290MHz	Non-Occupancy Period	> 30 min	30 min	Pass
80M/5530MHz	Non-Occupancy Period	> 30 min	30 min	Pass

Non-Occupancy Period





END OF REPORT