Appendix Test Data

Project No.:	18220WC10119803	Test Date:	2021.6.24
Test Engineer:	Tony.He	Auditor:	Edward.Pan
Temperature:	25.3℃	Relative Humidity:	56%
Pressure:	1012 hPa		

1. Duty Cycle

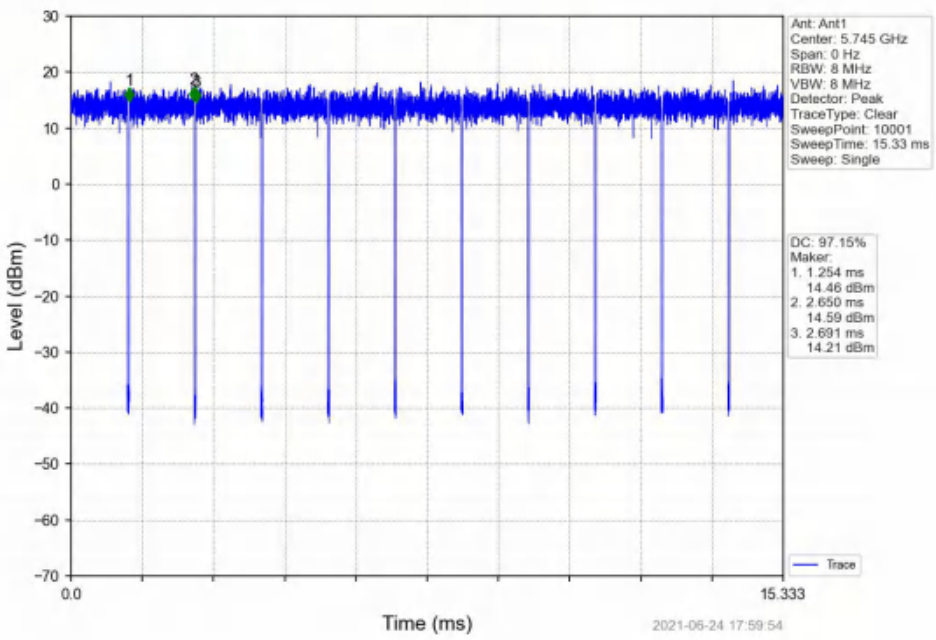
1.1 Ant1

1.1.1 Test Result

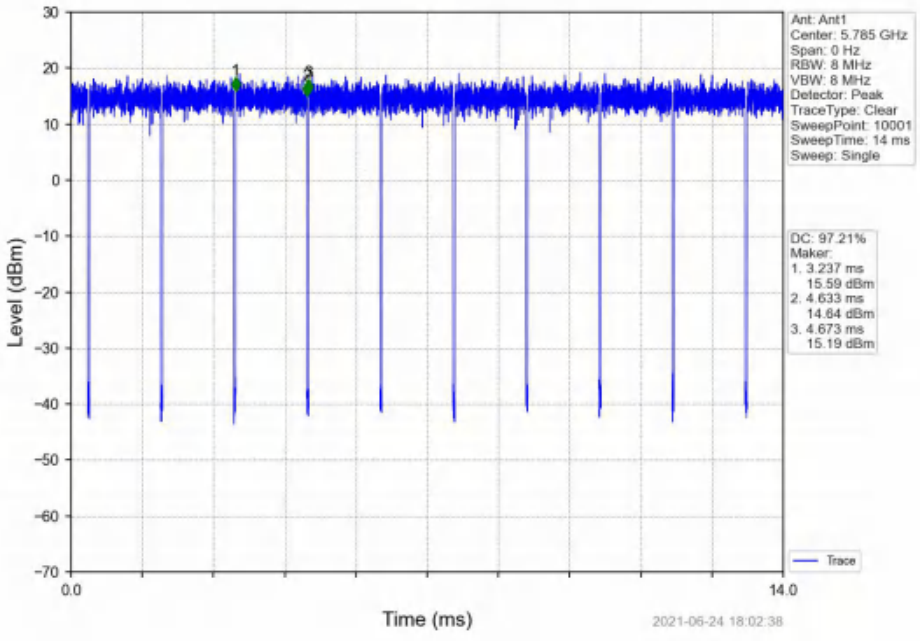
Ant1									
Mode	TX Type	Frequency (MHz)	RU	RU Pos	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
802.11a	SISO	5745	/	/	1.40	1.44	97.15	0.13	0.11
		5785	/	/	1.40	1.44	97.21	0.12	0.10
		5825	/	/	1.40	1.44	97.15	0.13	0.09
802.11n (HT20)	SISO	5745	/	/	1.31	1.35	97.03	0.13	0.10
		5785	/	/	1.31	1.35	97.03	0.13	0.10
		5825	/	/	1.31	1.35	97.03	0.13	0.10
802.11n (HT40)	SISO	5755	/	/	0.65	0.69	94.19	0.26	0.11
		5795	/	/	0.65	0.69	94.19	0.26	0.11
802.11ac (VHT20)	SISO	5745	/	/	1.31	1.36	96.98	0.13	0.10
		5785	/	/	1.31	1.35	96.97	0.13	0.10
		5825	/	/	1.32	1.36	96.98	0.13	0.10
802.11ac (VHT40)	SISO	5755	/	/	0.66	0.70	94.25	0.26	0.11
		5795	/	/	0.66	0.70	94.25	0.26	0.11
802.11ac (VHT80)	SISO	5775	/	/	0.32	0.36	89.01	0.51	0.01
Note1: Only for Report Use									

1.1.2 Test Graph

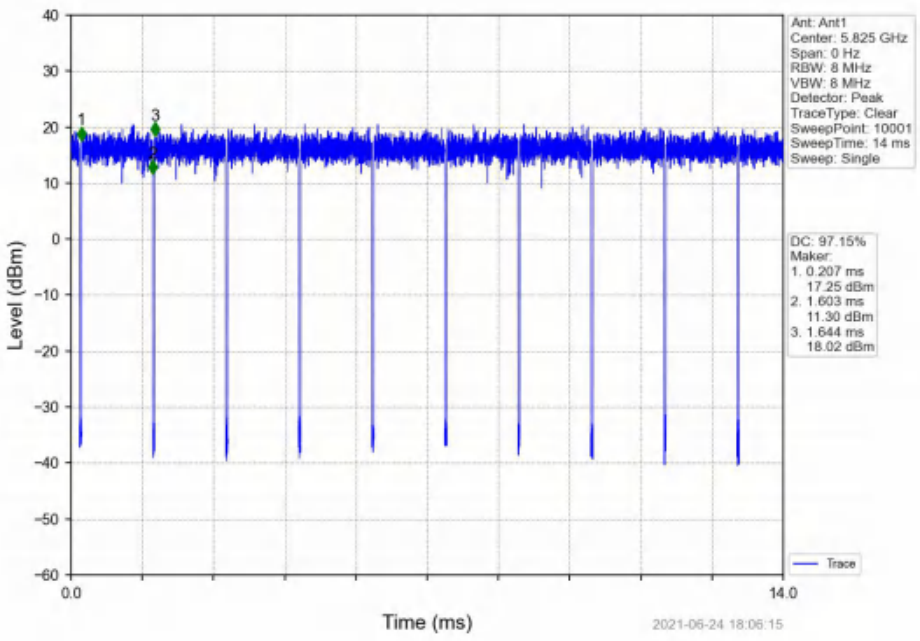
802.11a_LCH_5745MHz_Ant1_NTNV



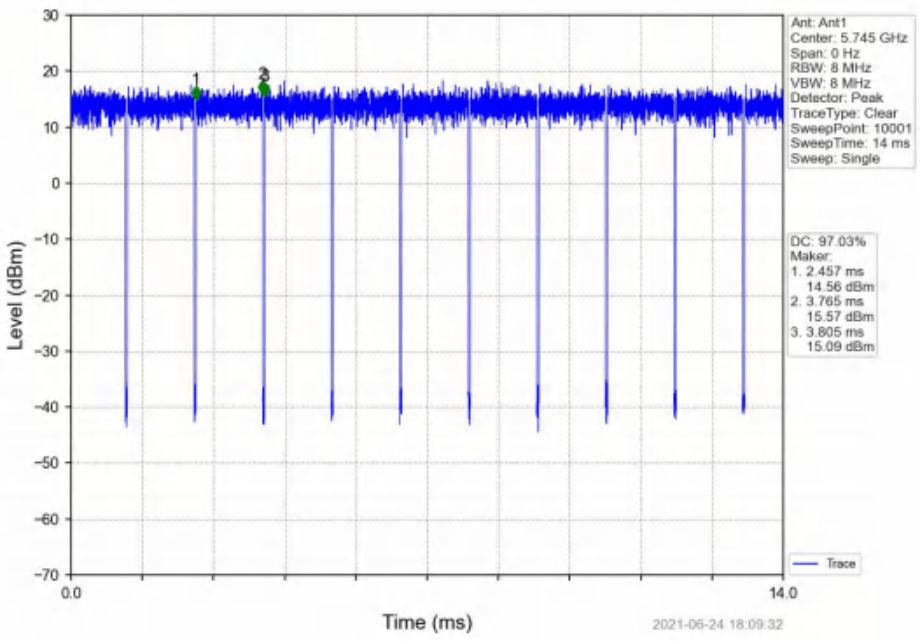
802.11a_MCH_5785MHz_Ant1_NTNV



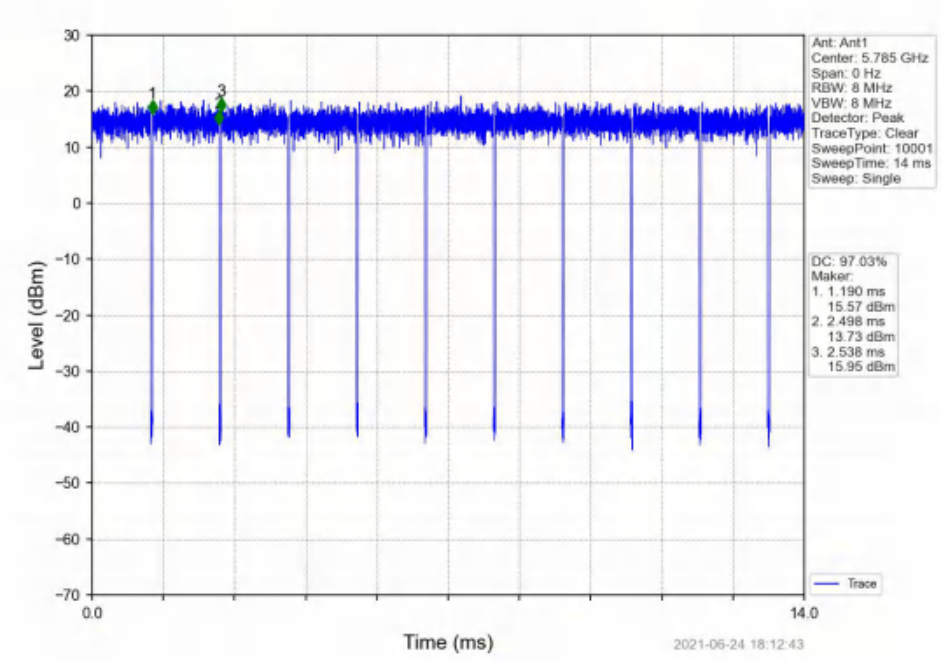
802.11a_HCH_5825MHz_Ant1_NTNV



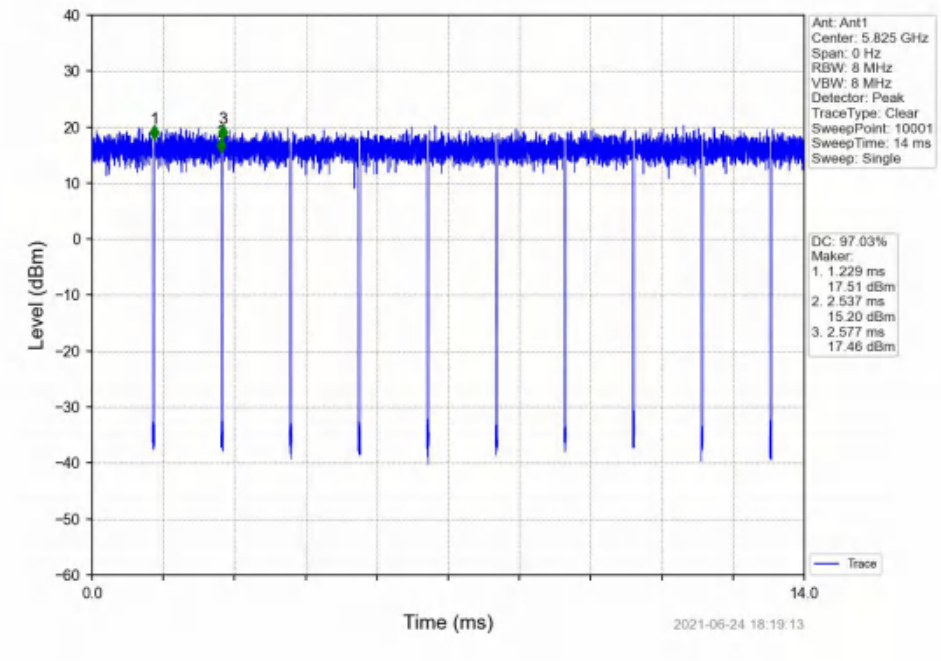
802.11n(HT20)_LCH_5745MHz_Ant1_NTNV



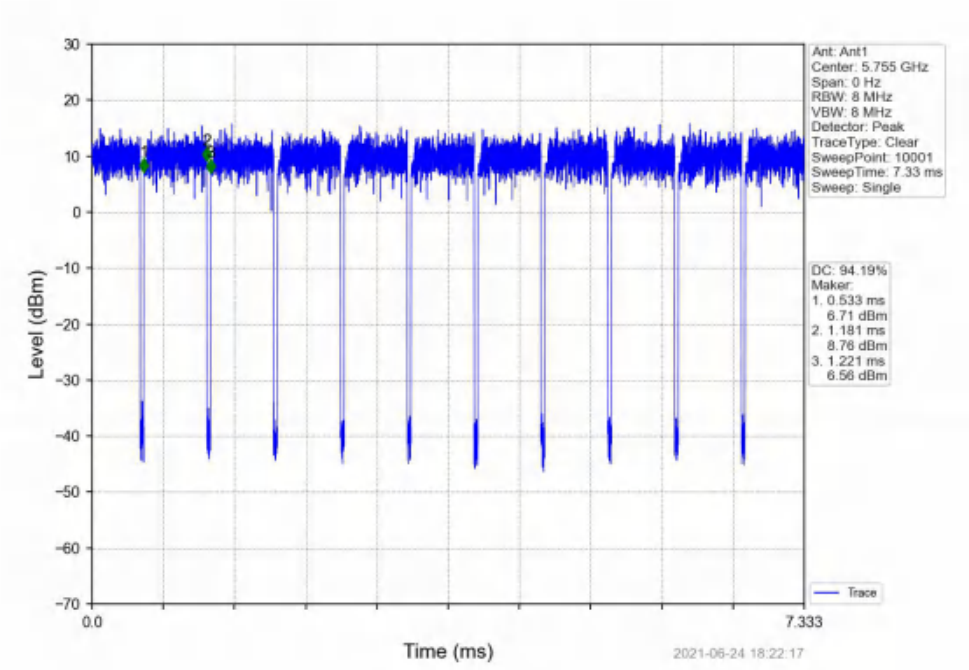
802.11n(HT20)_MCH_5785MHz_Ant1_NTNV



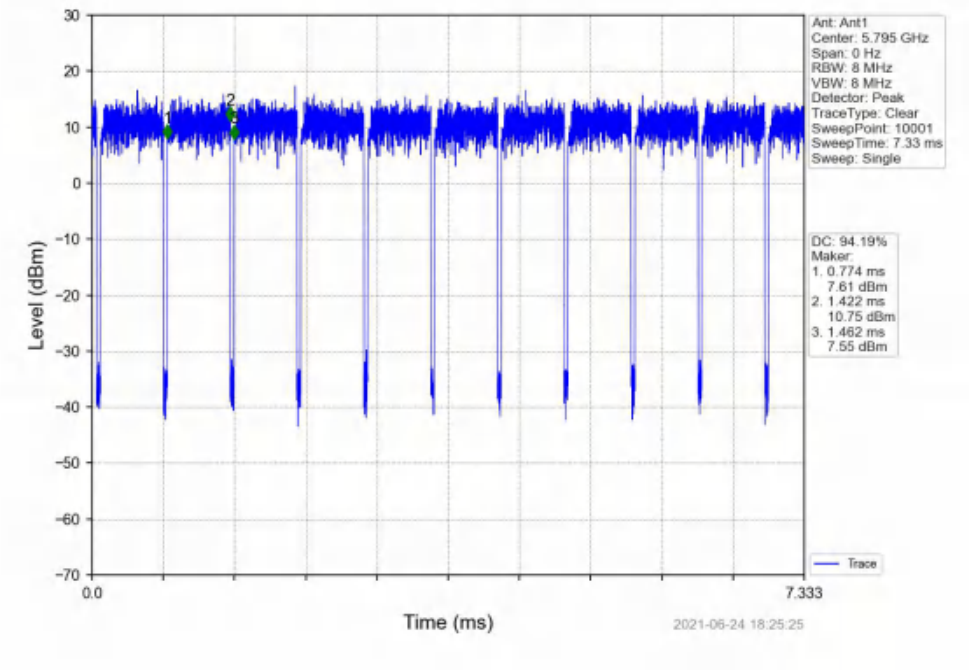
802.11n(HT20)_HCH_5825MHz_Ant1_NTNV



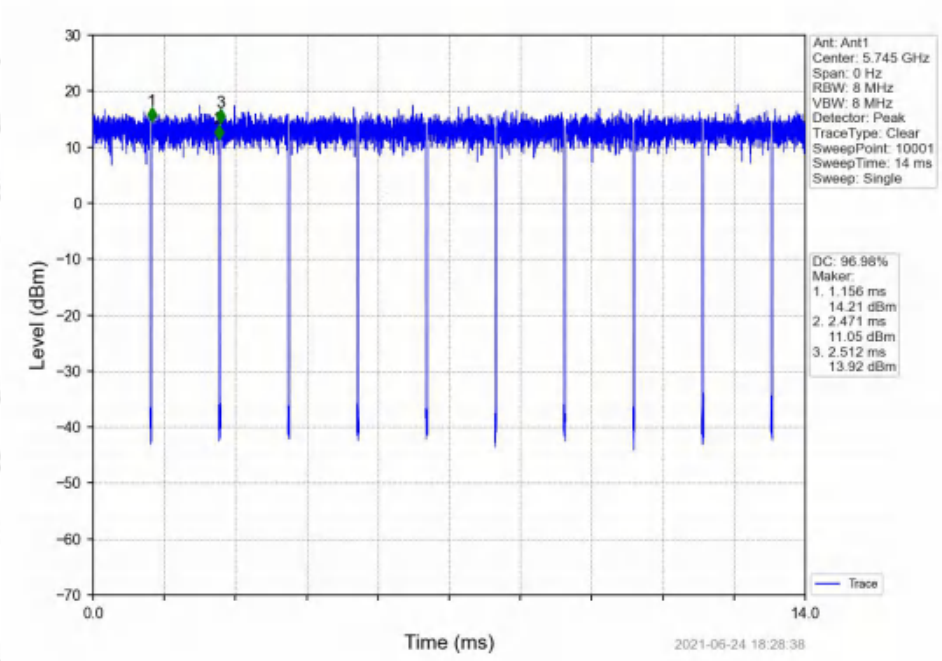
802.11n(HT40)_LCH_5755MHz_Ant1_NTNV



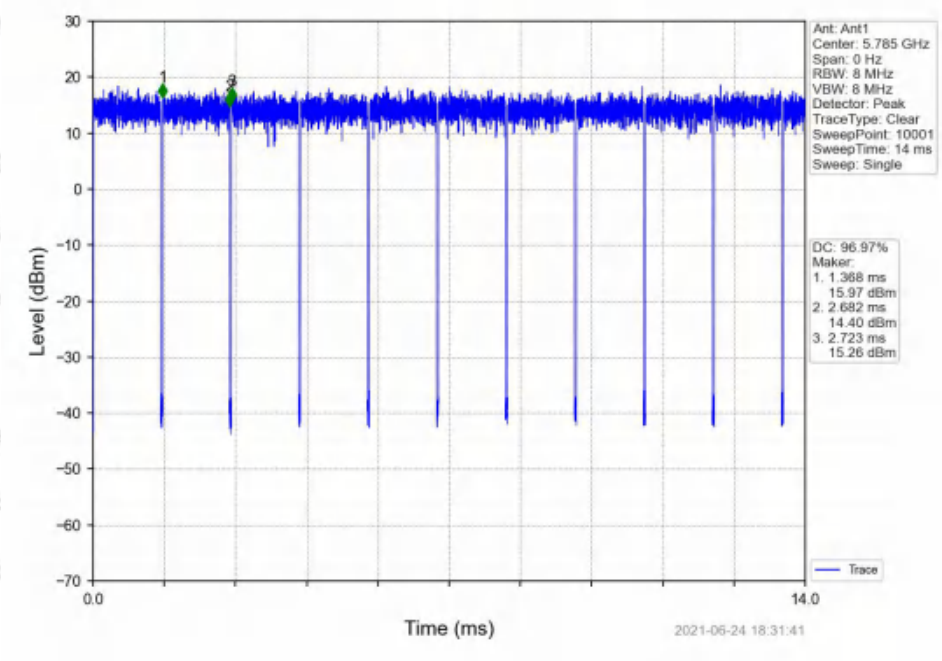
802.11n(HT40)_HCH_5795MHz_Ant1_NTNV



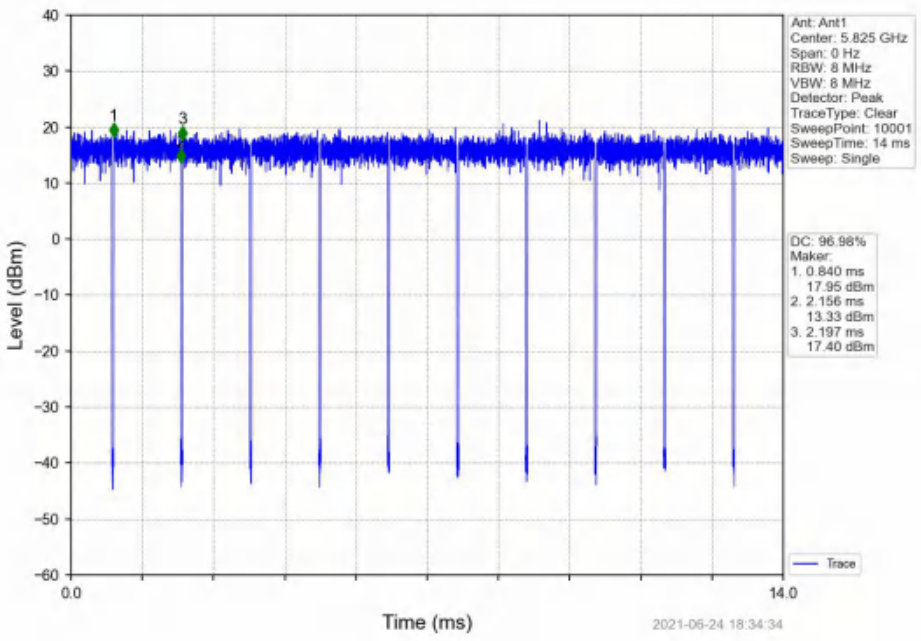
802.11ac(VHT20)_LCH_5745MHz_Ant1_NTNV



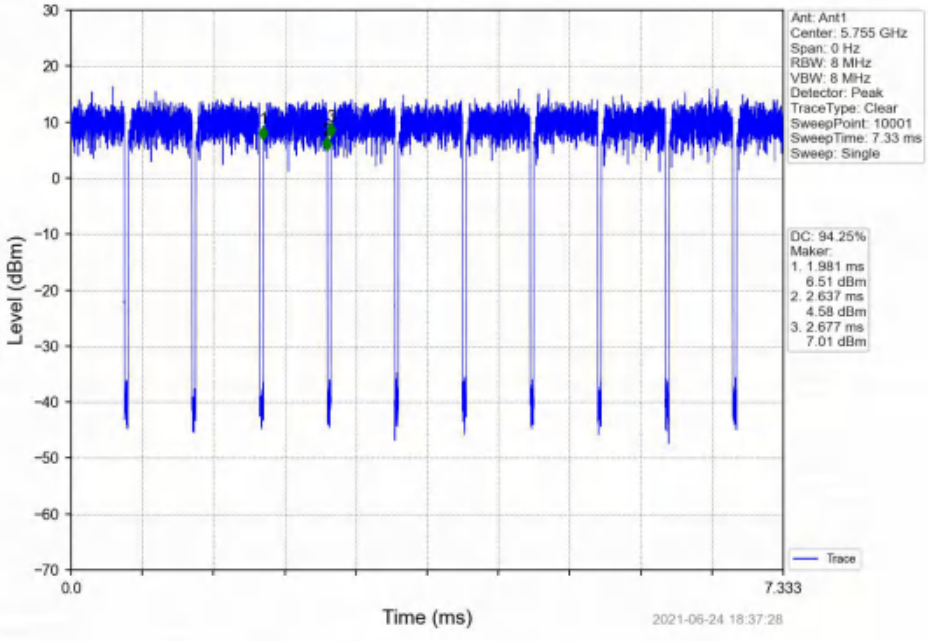
802.11ac(VHT20)_MCH_5785MHz_Ant1_NTNV



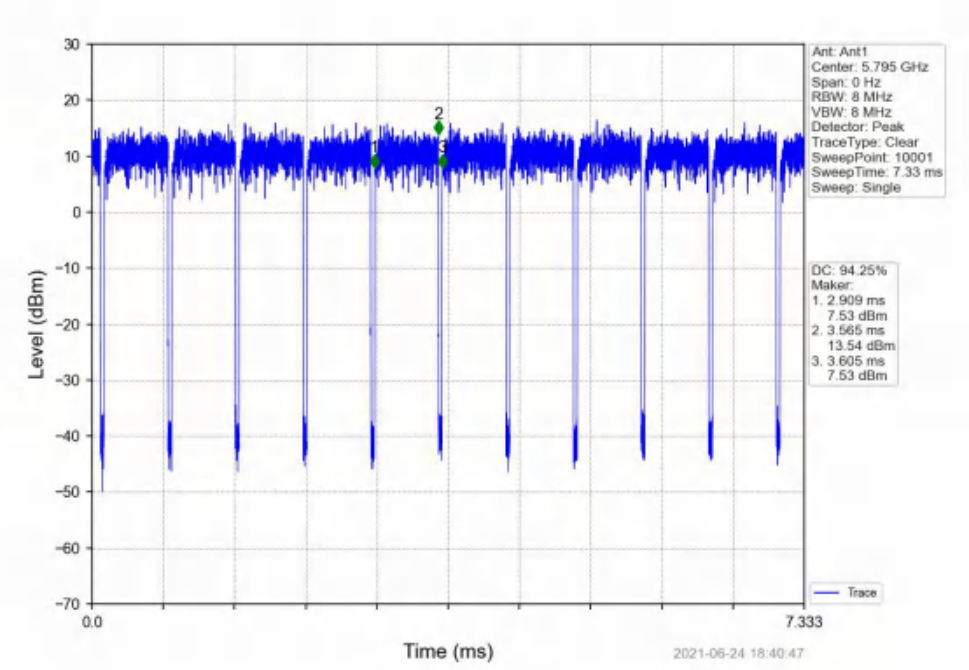
802.11ac(VHT20)_HCH_5825MHz_Ant1_NTNV



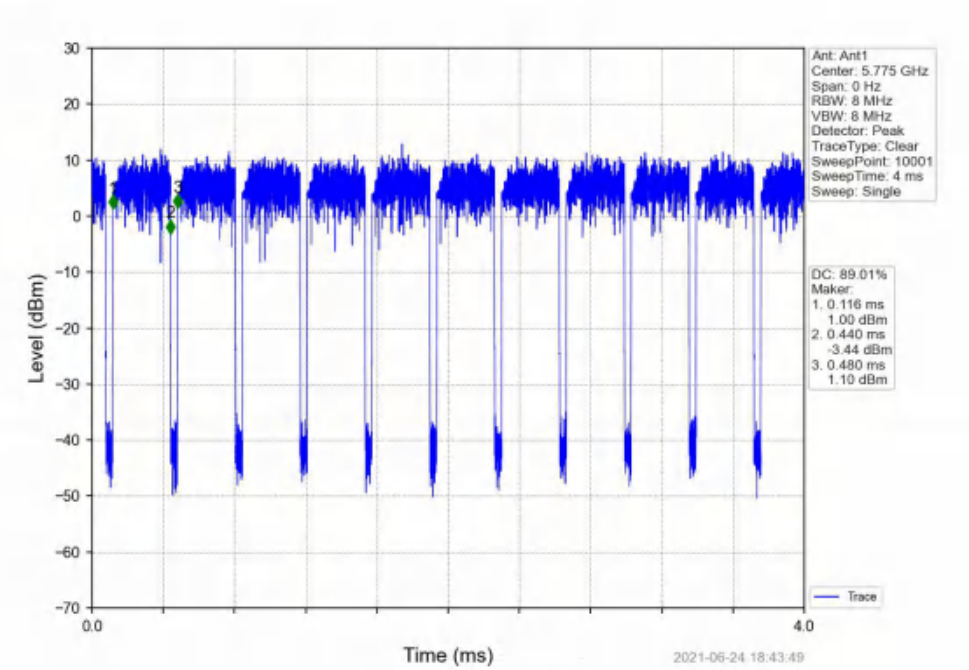
802.11ac(VHT40)_LCH_5755MHz_Ant1_NTNV



802.11ac(VHT40)_HCH_5795MHz_Ant1_NTNV



802.11ac(VHT80)_MCH_5775MHz_Ant1_NTNV



2. Bandwidth

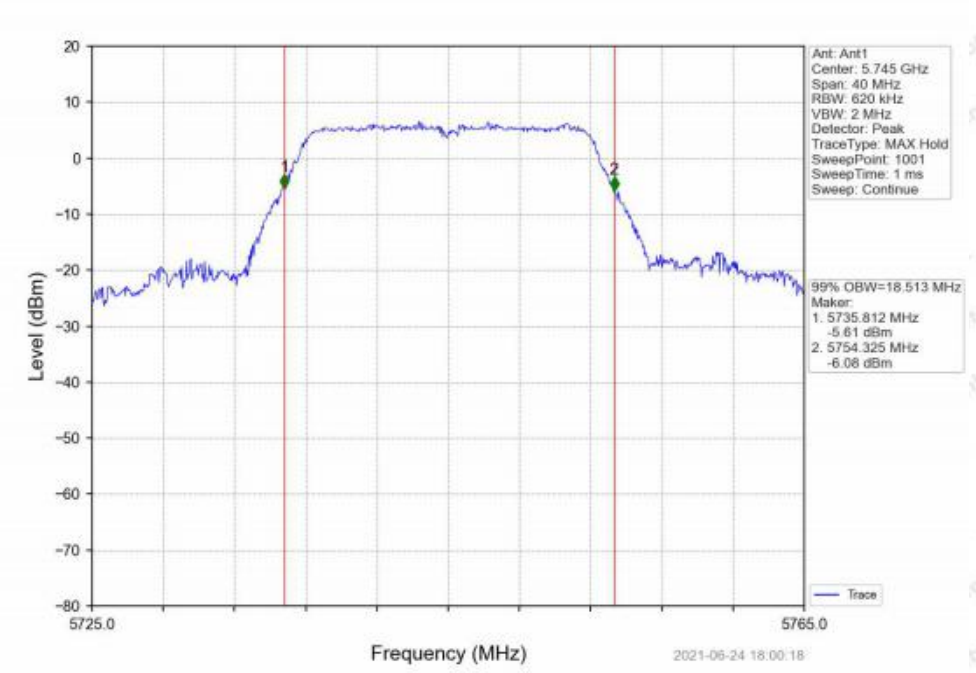
2.1 OBW

2.1.1 Test Result

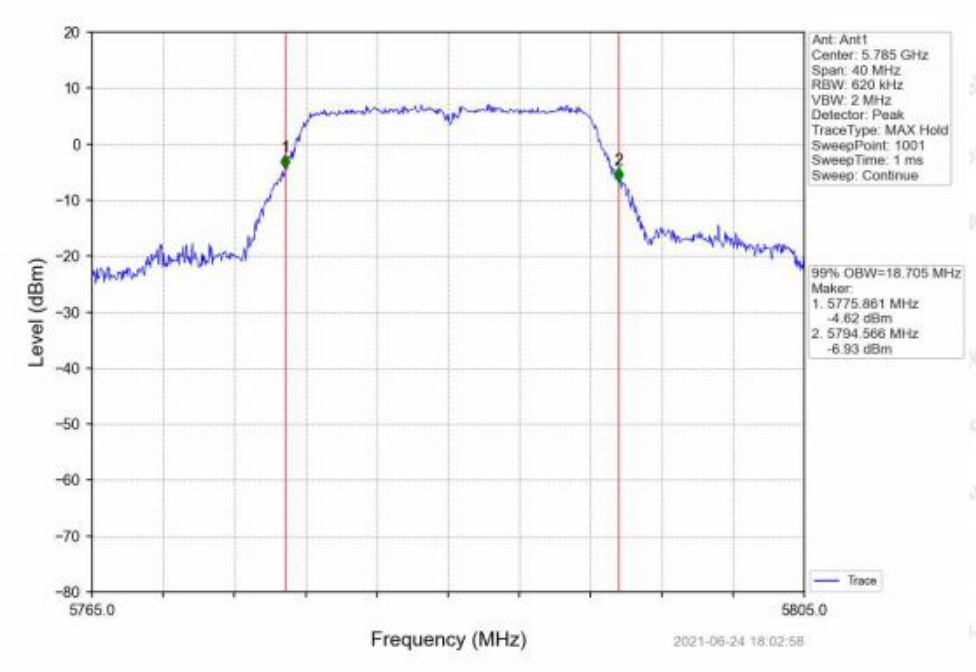
Mode	TX Type	Frequency (MHz)	RU	RU Pos	Ant	99% Occupied Bandwidth (MHz)	Limit	Verdict
802.11a	SISO	5745	/	/	1	18.51	/	Note1
		5785	/	/	1	18.70	/	Note1
		5825	/	/	1	20.00	/	Note1
802.11n (HT20)	SISO	5745	/	/	1	19.32	/	Note1
		5785	/	/	1	19.42	/	Note1
		5825	/	/	1	21.36	/	Note1
802.11n (HT40)	SISO	5755	/	/	1	37.34	/	Note1
		5795	/	/	1	37.72	/	Note1
802.11ac (VHT20)	SISO	5745	/	/	1	19.03	/	Note1
		5785	/	/	1	19.33	/	Note1
		5825	/	/	1	20.76	/	Note1
802.11ac (VHT40)	SISO	5755	/	/	1	37.29	/	Note1
		5795	/	/	1	37.71	/	Note1
802.11ac (VHT80)	SISO	5775	/	/	1	77.79	/	Note1
Note1: Only for Report Use								

2.1.2 Test Graph

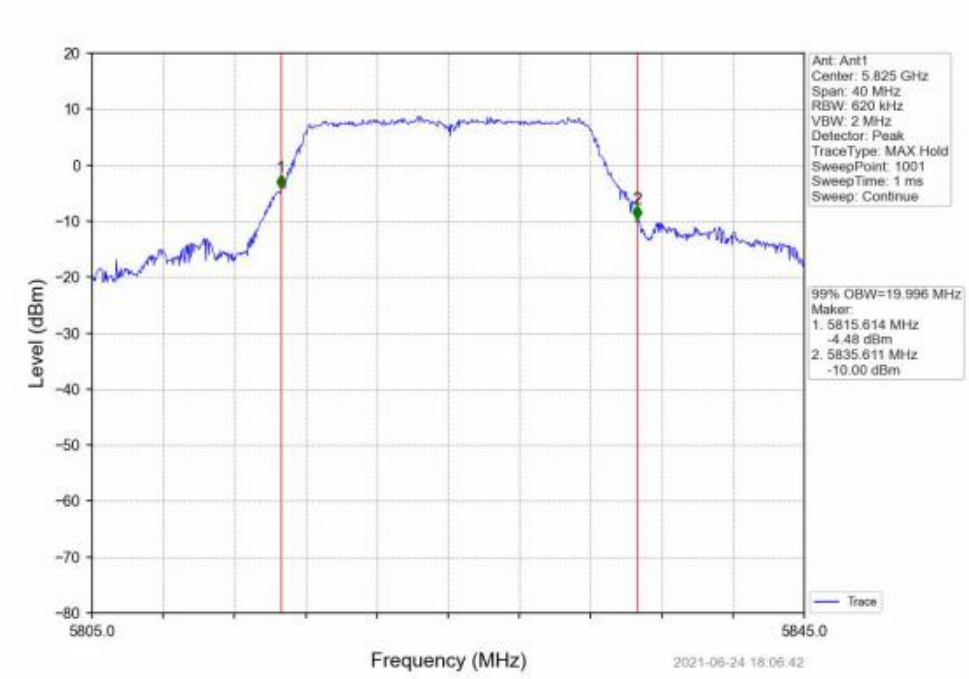
802.11a_LCH_5745MHz_Ant1_NTNV



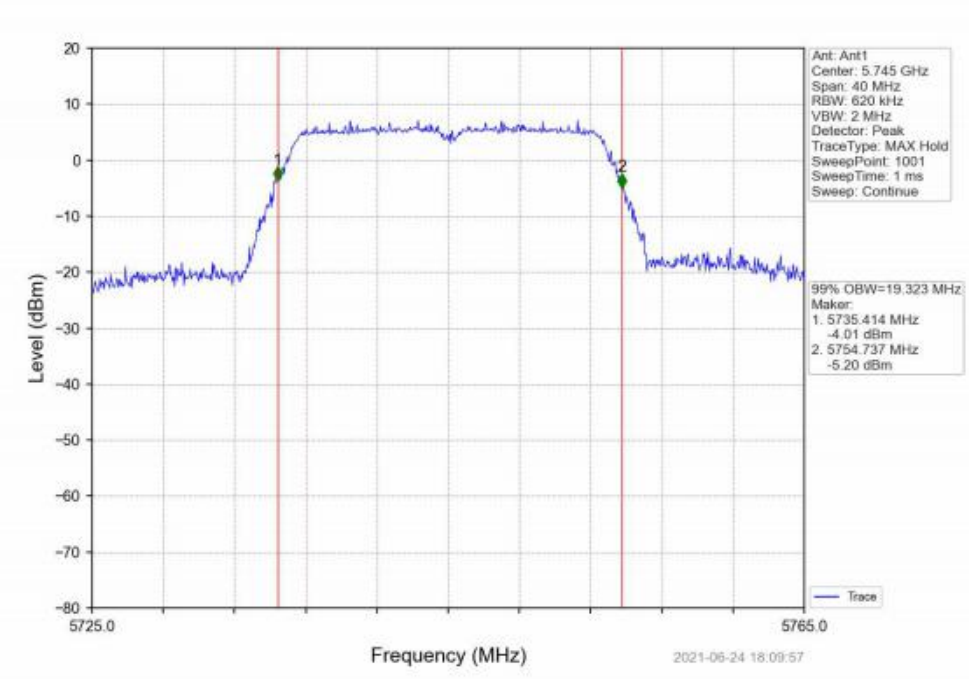
802.11a_MCH_5785MHz_Ant1_NTNV



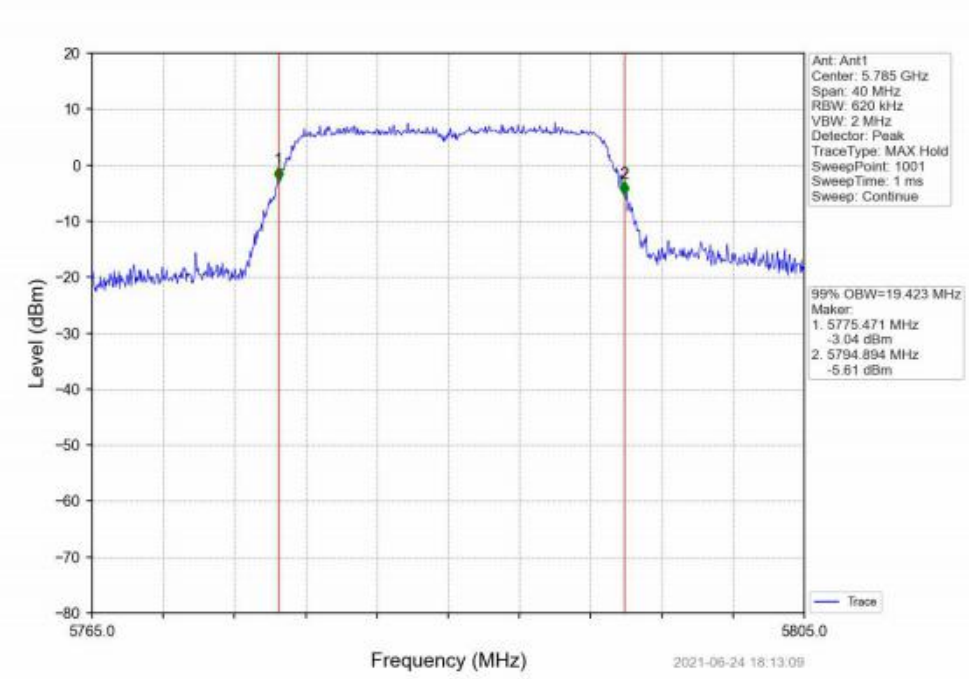
802.11a_HCH_5825MHz_Ant1_NTNV



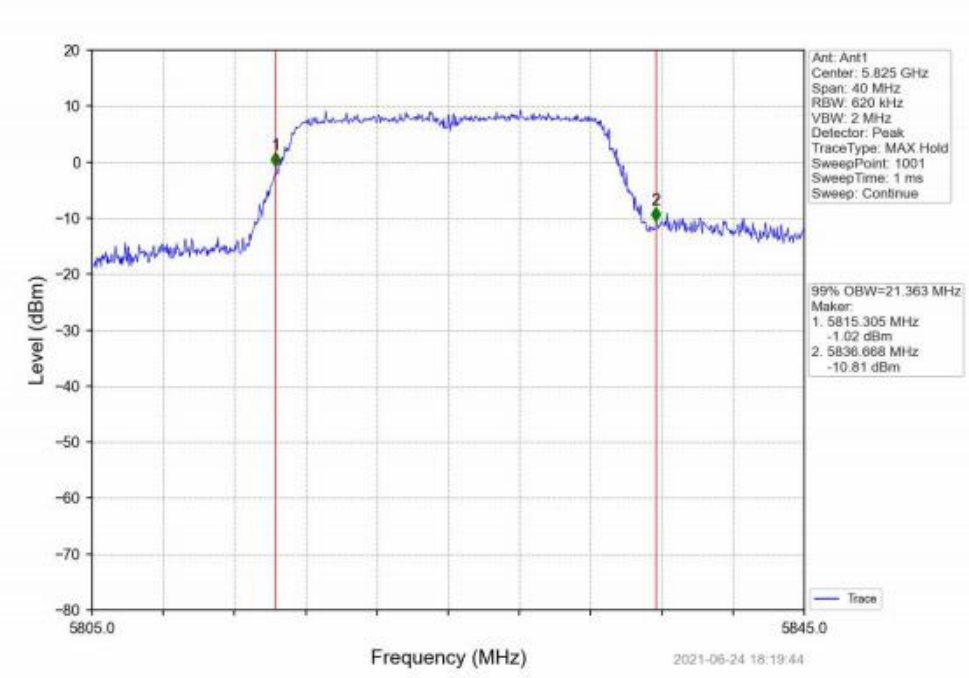
802.11n(HT20)_LCH_5745MHz_Ant1_NTNV



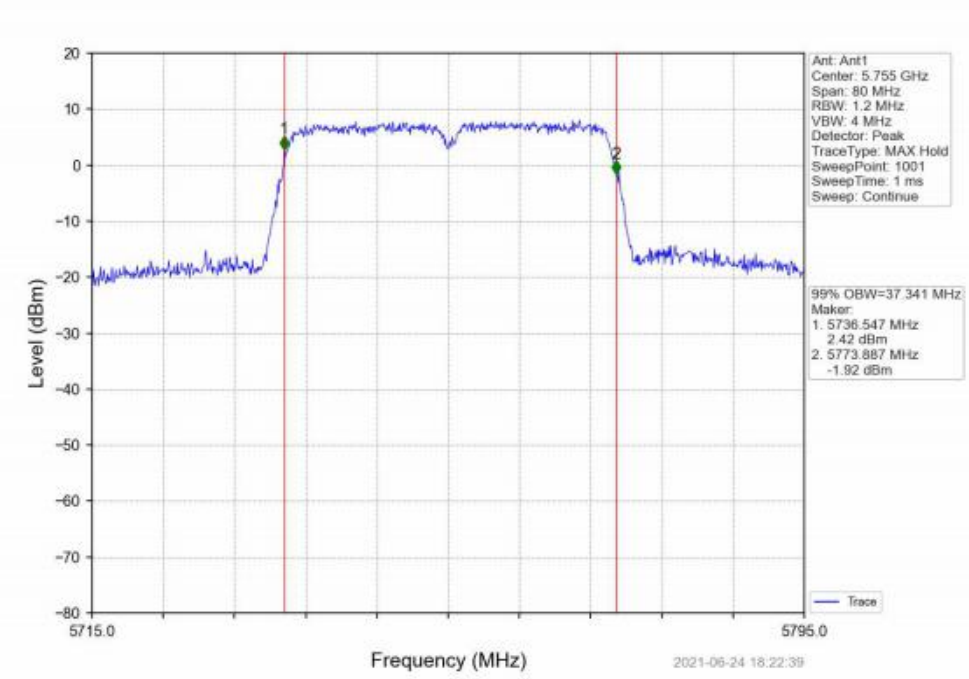
802.11n(HT20)_MCH_5785MHz_Ant1_NTNV



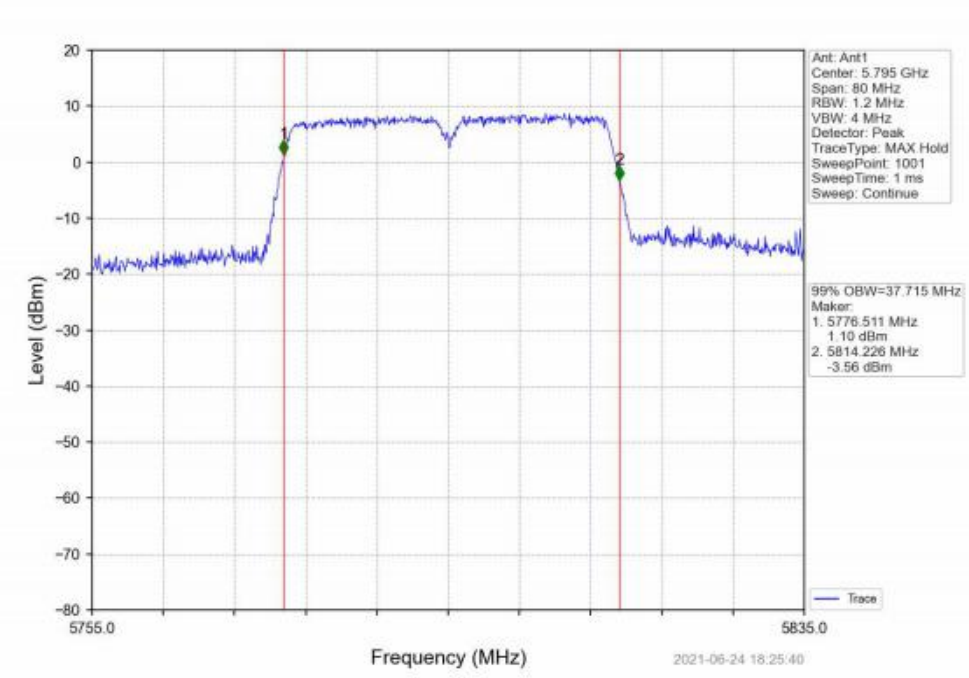
802.11n(HT20)_HCH_5825MHz_Ant1_NTNV



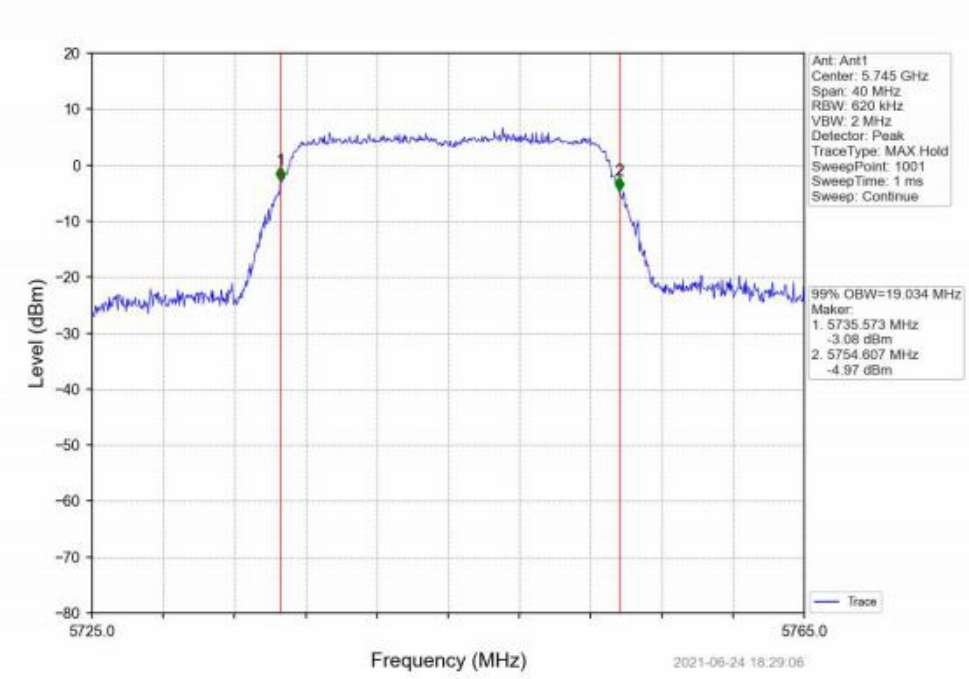
802.11n(HT40)_LCH_5755MHz_Ant1_NTNV



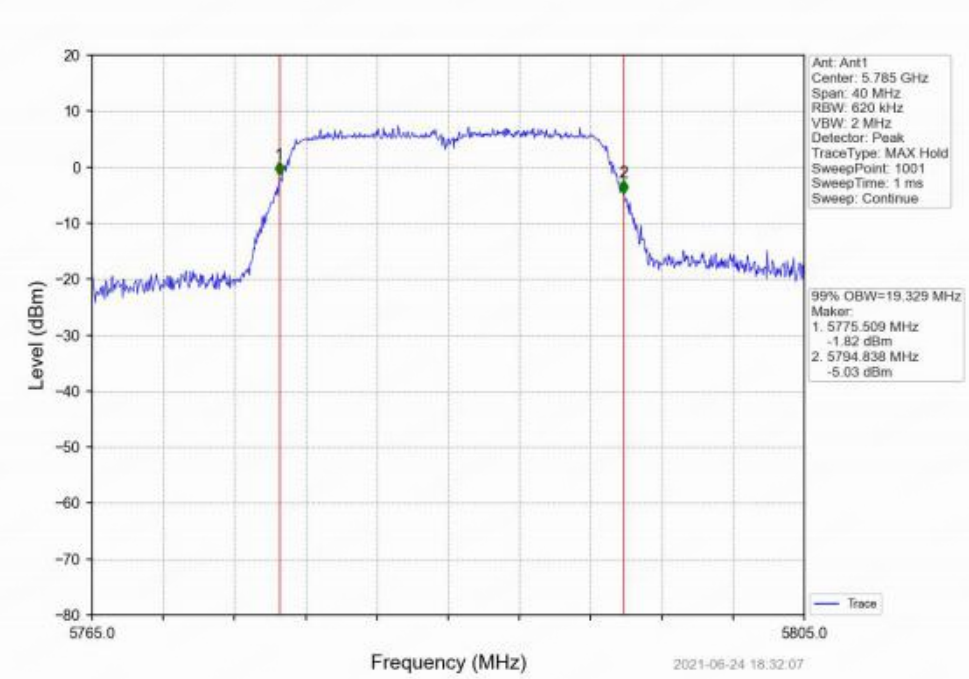
802.11n(HT40)_HCH_5795MHz_Ant1_NTNV



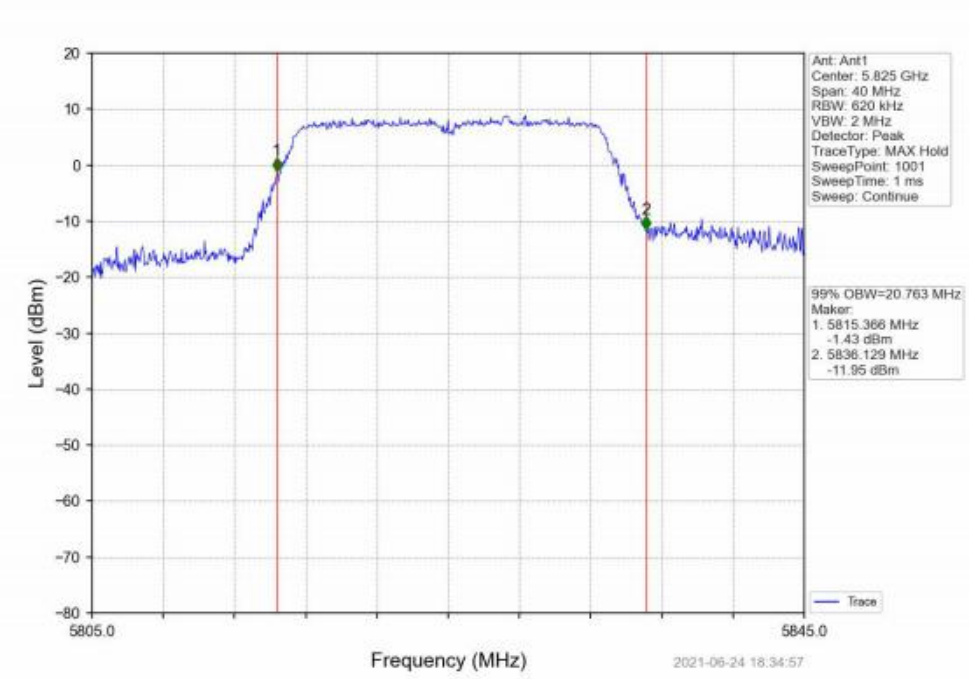
802.11ac(VHT20)_LCH_5745MHz_Ant1_NTNV



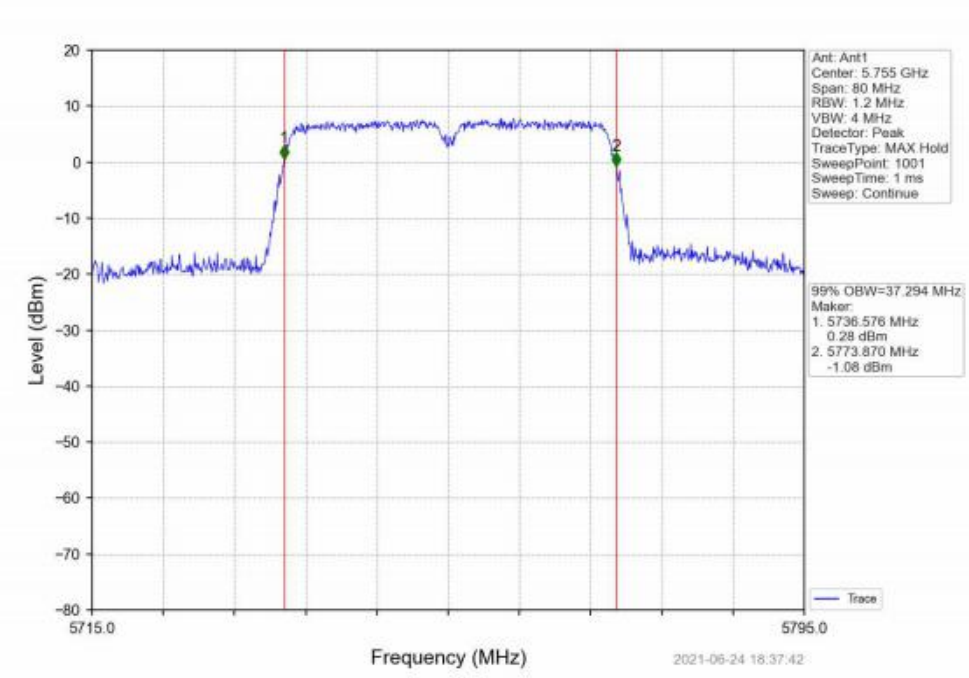
802.11ac(VHT20)_MCH_5785MHz_Ant1_NTNV



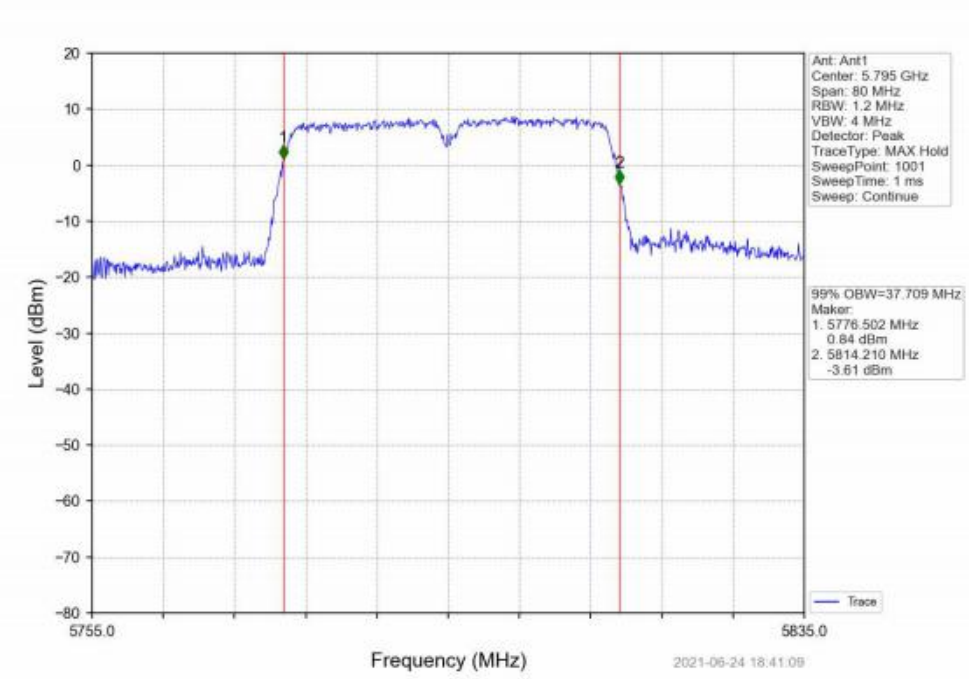
802.11ac(VHT20)_HCH_5825MHz_Ant1_NTNV



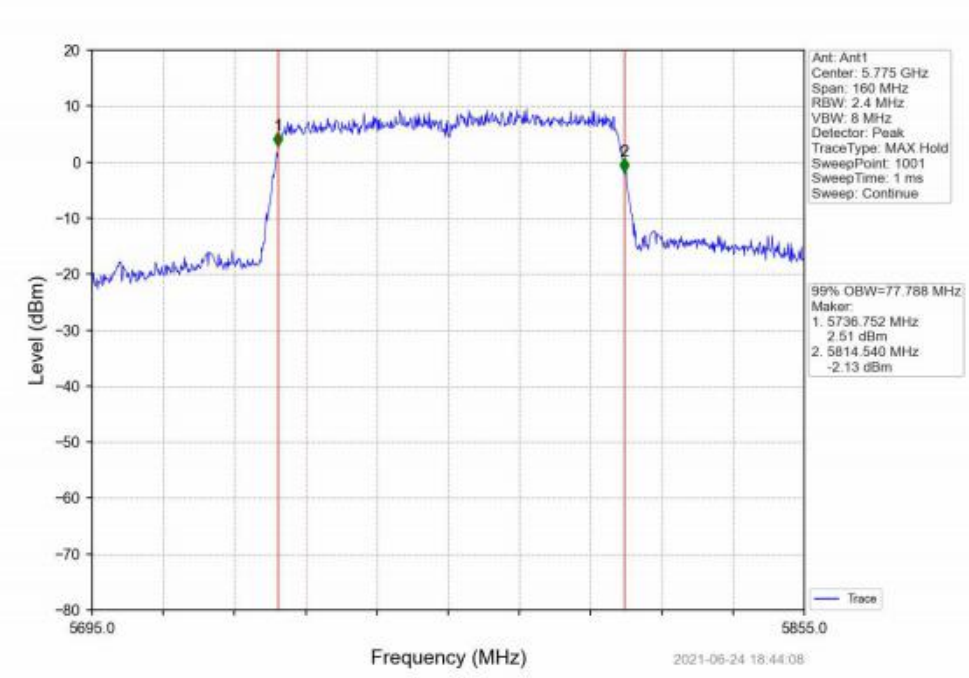
802.11ac(VHT40)_LCH_5755MHz_Ant1_NTNV



802.11ac(VHT40)_HCH_5795MHz_Ant1_NTNV



802.11ac(VHT80)_MCH_5775MHz_Ant1_NTNV



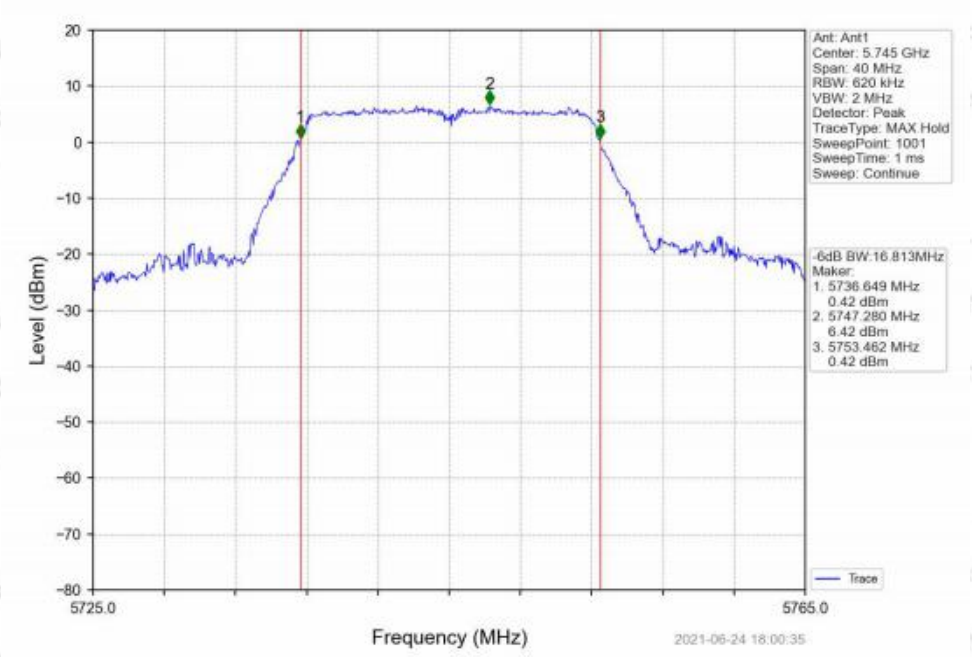
2.2 6dB BW

2.2.1 Test Result

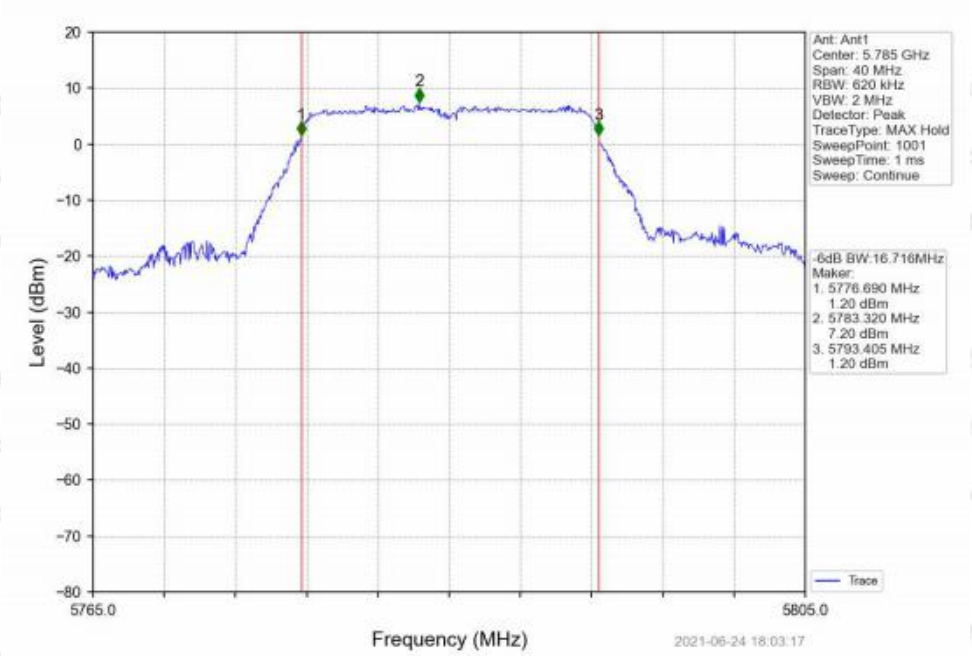
Mode	TX Type	Frequency (MHz)	RU	RU Pos	Ant	6dB Bandwidth (MHz)	Limit	Verdict
802.11a	SISO	5745	/	/	1	16.81	>=0.5	Pass
		5785	/	/	1	16.72	>=0.5	Pass
		5825	/	/	1	16.84	>=0.5	Pass
802.11n (HT20)	SISO	5745	/	/	1	18.09	>=0.5	Pass
		5785	/	/	1	18.14	>=0.5	Pass
		5825	/	/	1	17.85	>=0.5	Pass
802.11n (HT40)	SISO	5755	/	/	1	36.56	>=0.5	Pass
		5795	/	/	1	36.35	>=0.5	Pass
802.11ac (VHT20)	SISO	5745	/	/	1	17.90	>=0.5	Pass
		5785	/	/	1	18.02	>=0.5	Pass
		5825	/	/	1	17.92	>=0.5	Pass
802.11ac (VHT40)	SISO	5755	/	/	1	36.39	>=0.5	Pass
		5795	/	/	1	36.70	>=0.5	Pass
802.11ac (VHT80)	SISO	5775	/	/	1	76.53	>=0.5	Pass

2.2.2 Test Graph

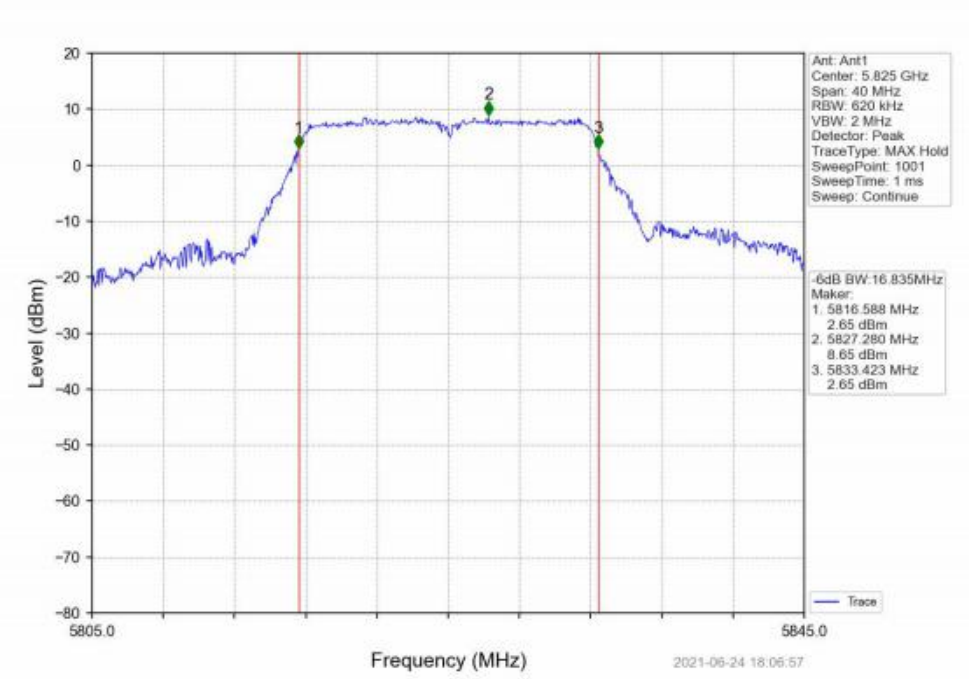
802.11a_LCH_5745MHz_Ant1_NTNV



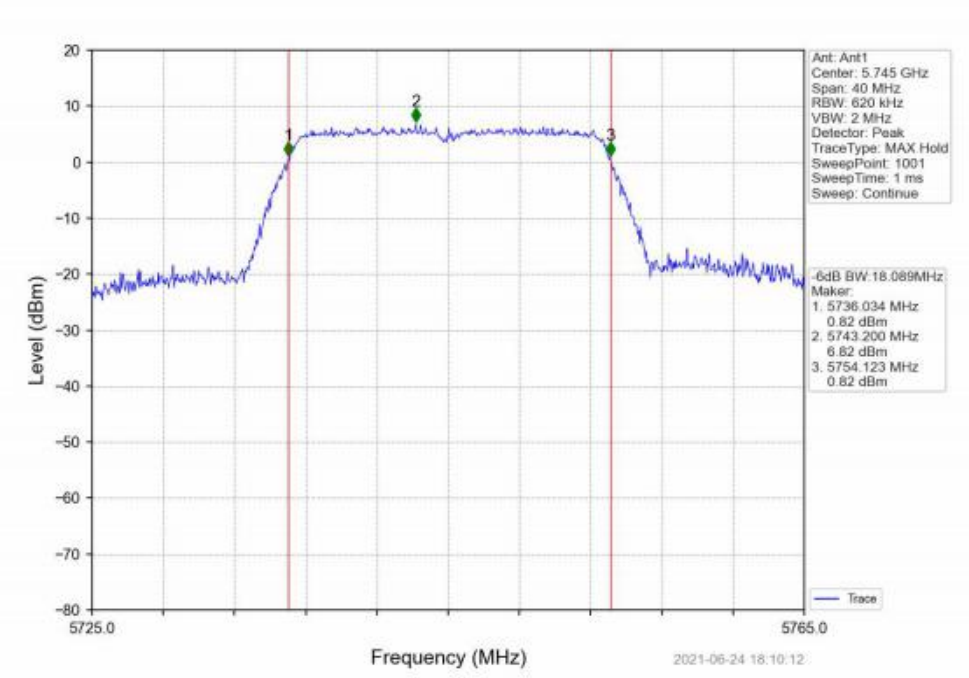
802.11a_MCH_5785MHz_Ant1_NTNV



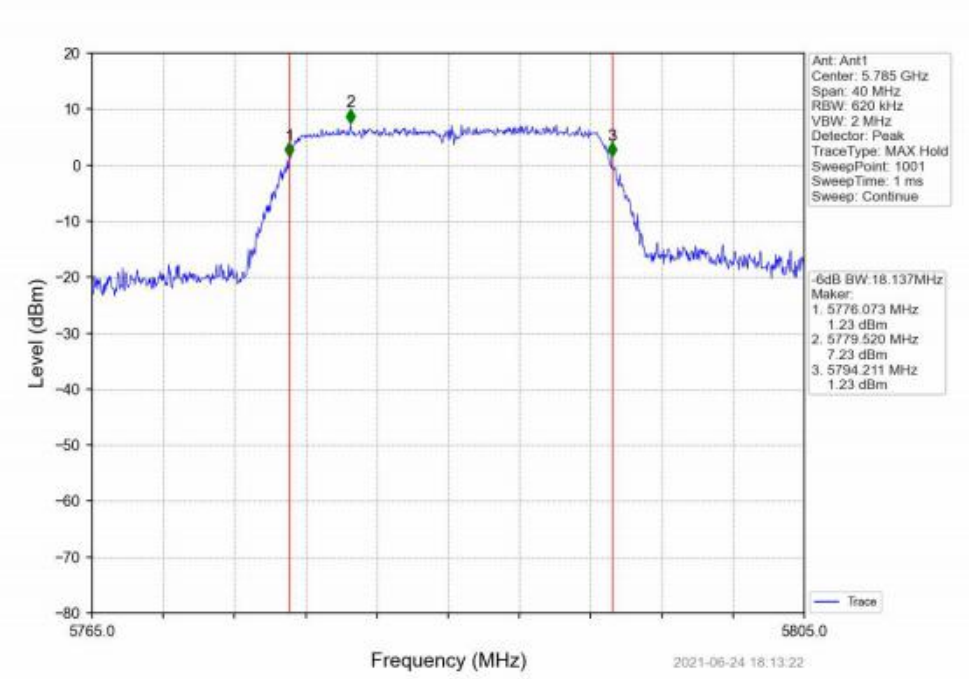
802.11a_HCH_5825MHz_Ant1_NTNV



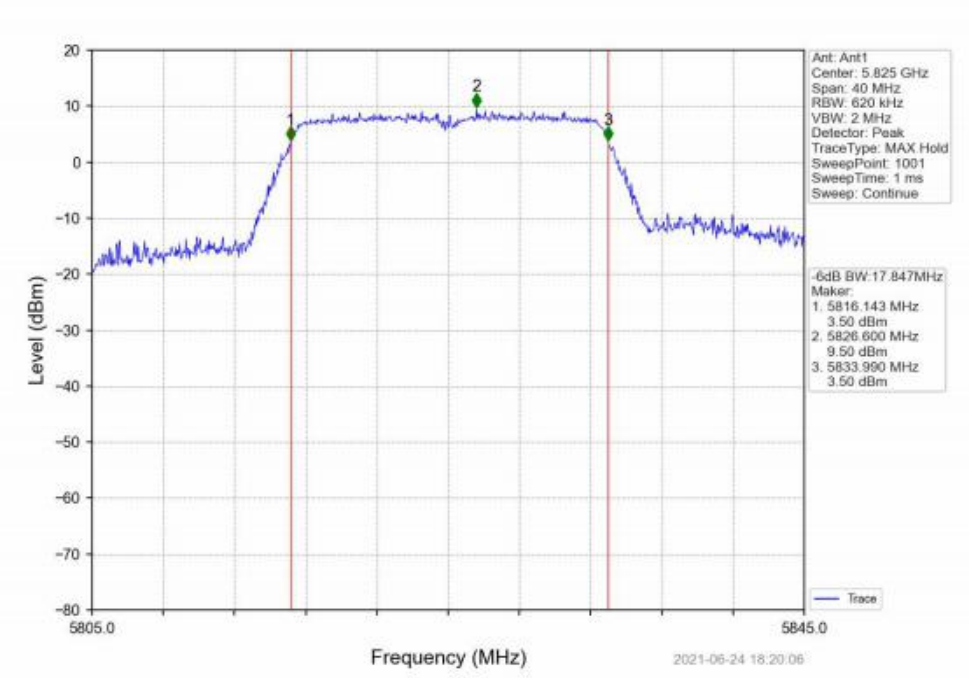
802.11n(HT20)_LCH_5745MHz_Ant1_NTNV



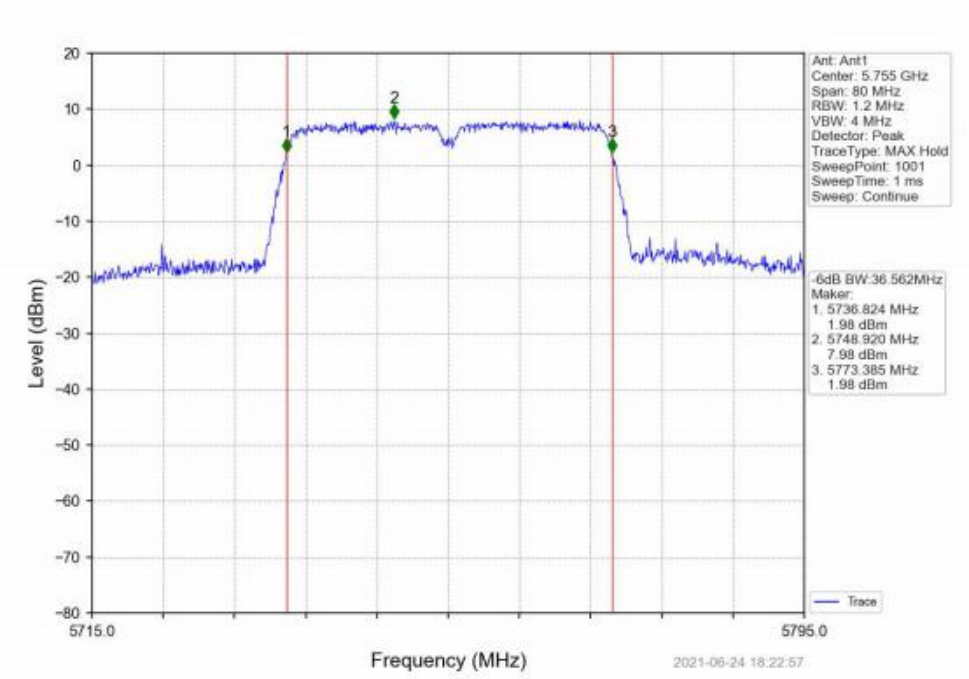
802.11n(HT20)_MCH_5785MHz_Ant1_NTNV



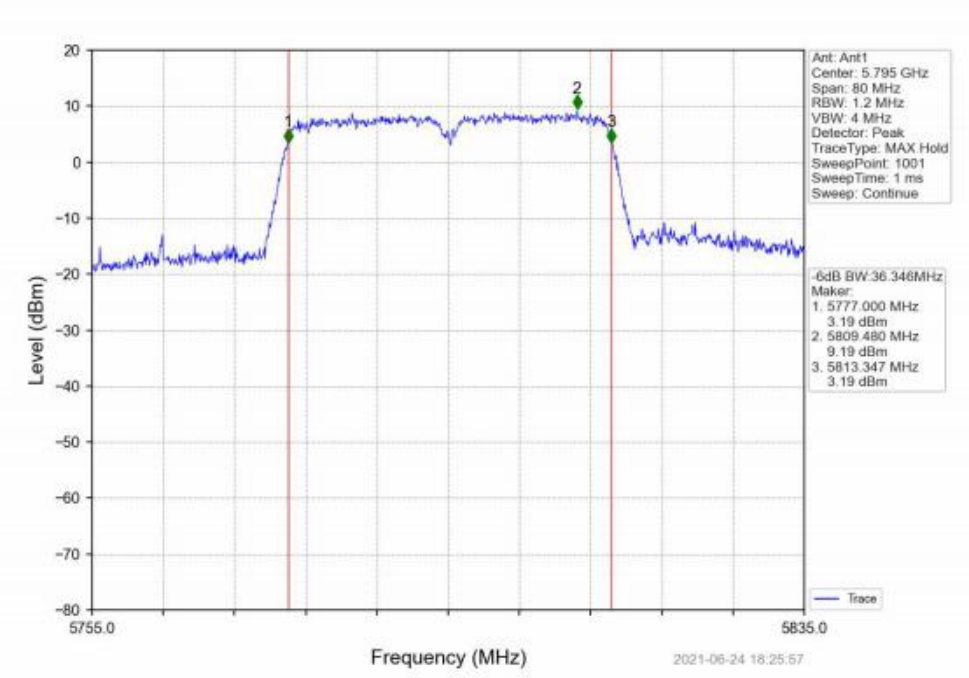
802.11n(HT20)_HCH_5825MHz_Ant1_NTNV



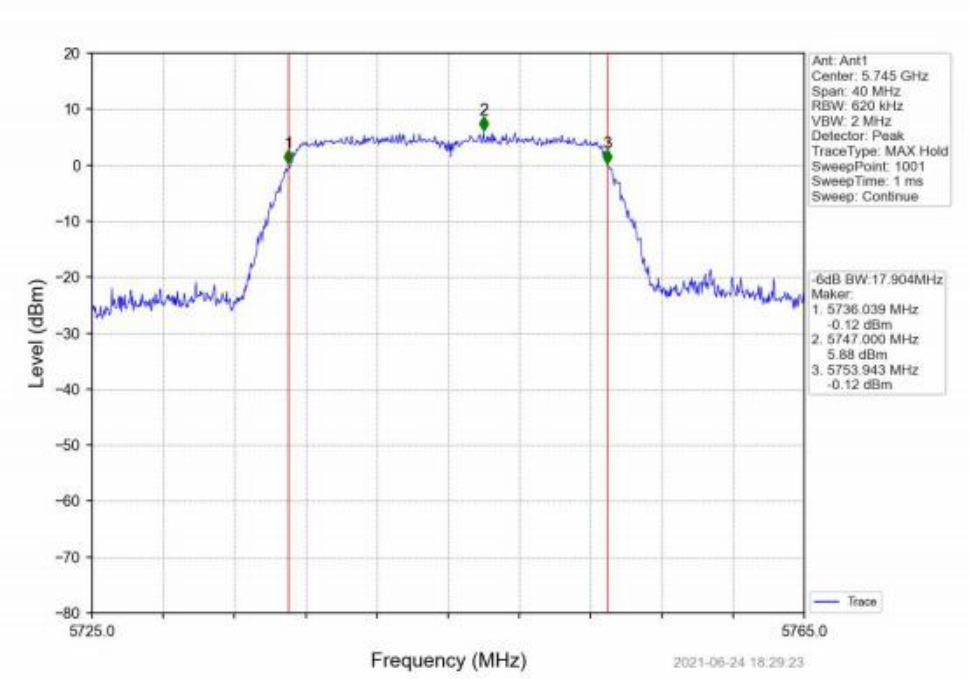
802.11n(HT40)_LCH_5755MHz_Ant1_NTNV



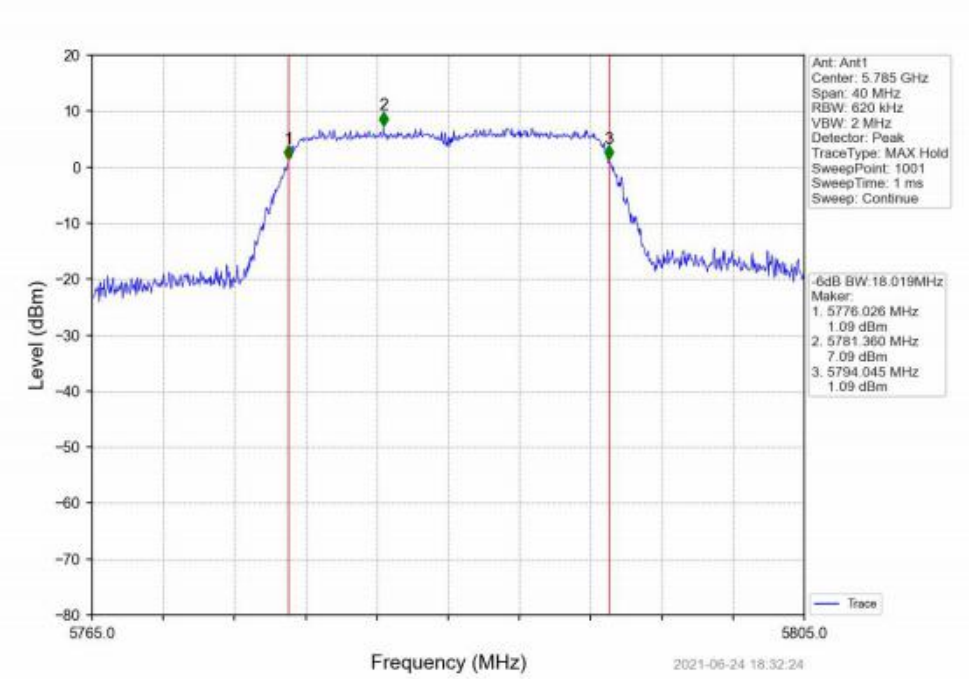
802.11n(HT40)_HCH_5795MHz_Ant1_NTNV



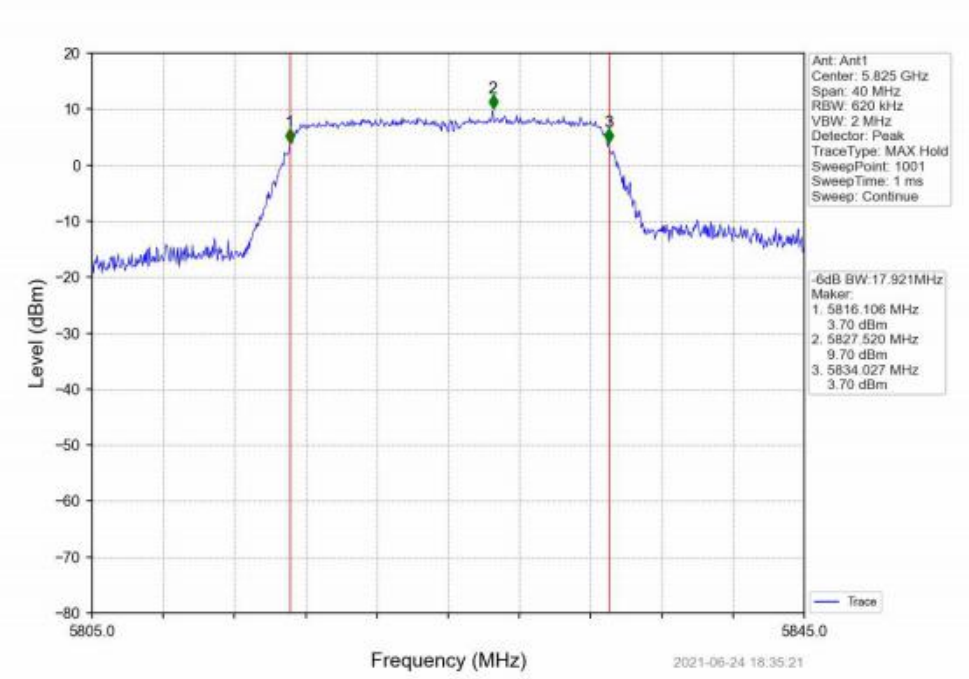
802.11ac(VHT20)_LCH_5745MHz_Ant1_NTNV



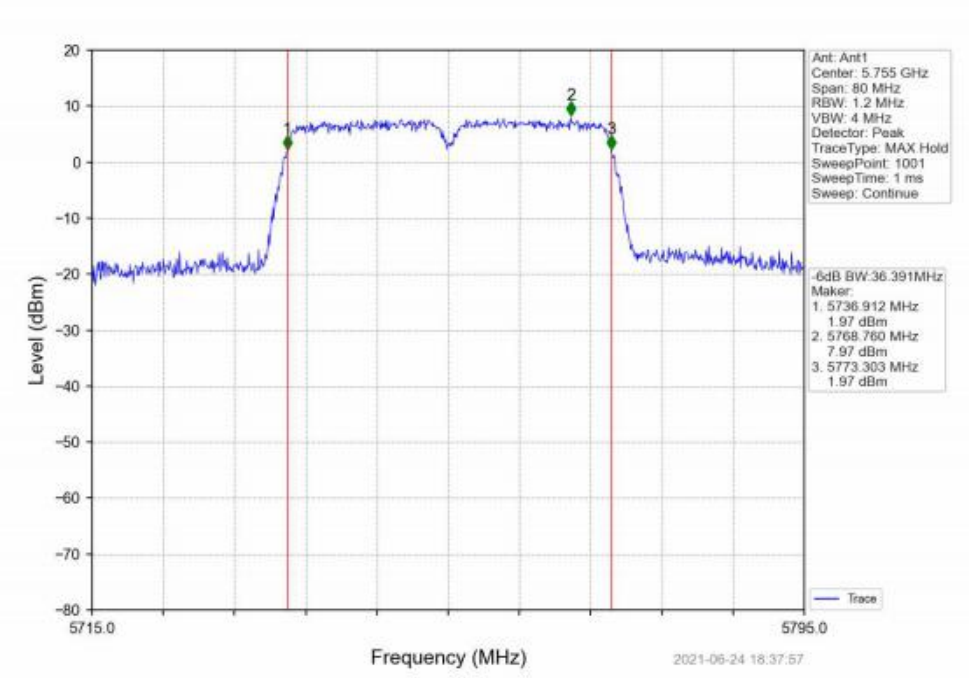
802.11ac(VHT20)_MCH_5785MHz_Ant1_NTNV



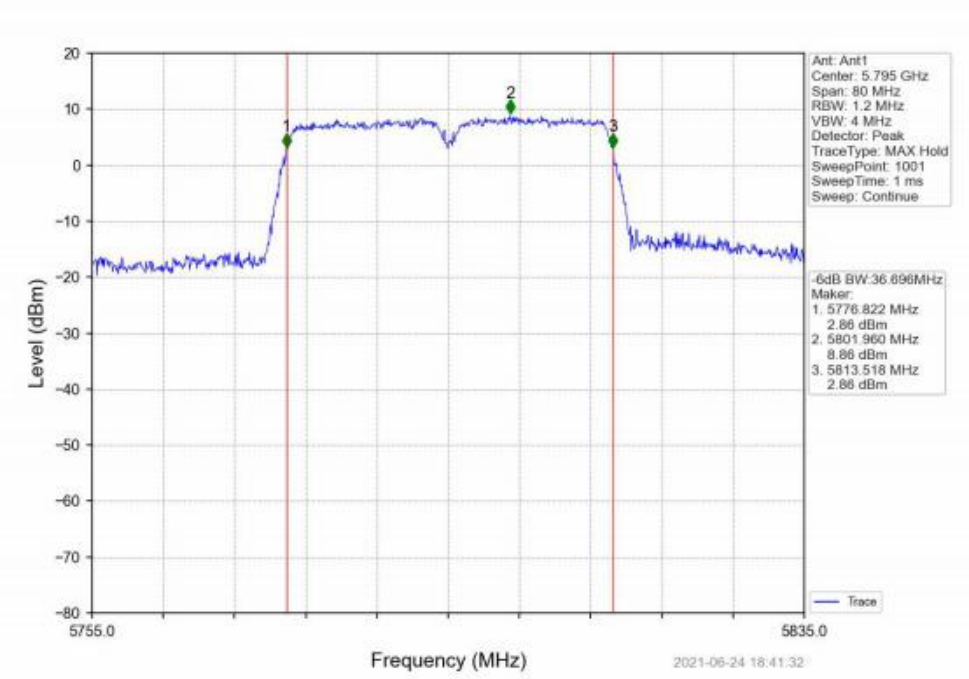
802.11ac(VHT20)_HCH_5825MHz_Ant1_NTNV



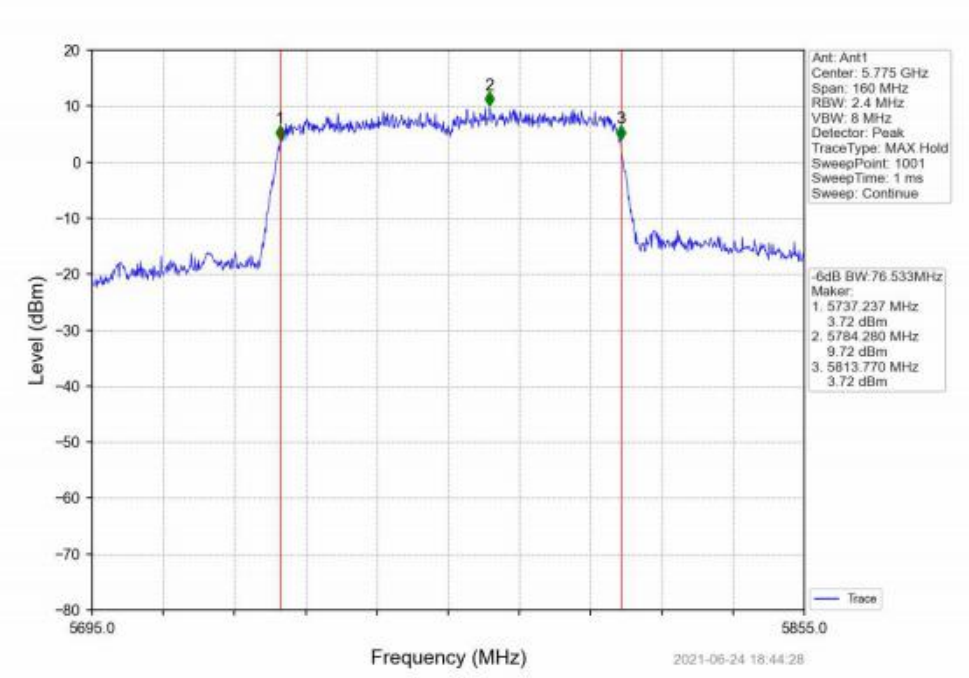
802.11ac(VHT40)_LCH_5755MHz_Ant1_NTNV



802.11ac(VHT40)_HCH_5795MHz_Ant1_NTNV



802.11ac(VHT80)_MCH_5775MHz_Ant1_NTNV



3. Maximum Conducted Output Power

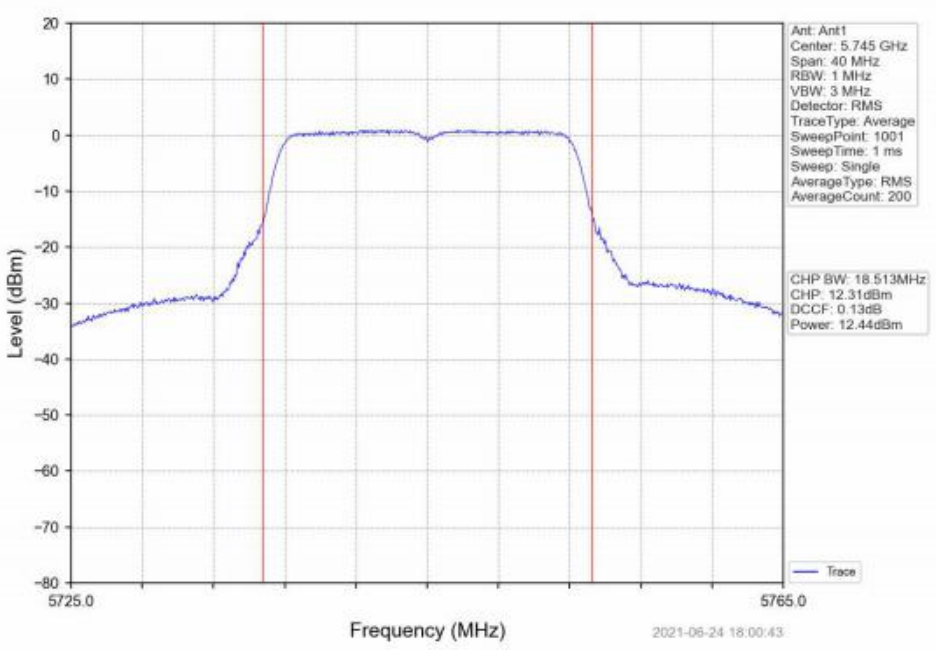
3.1 Power

3.1.1 Test Result

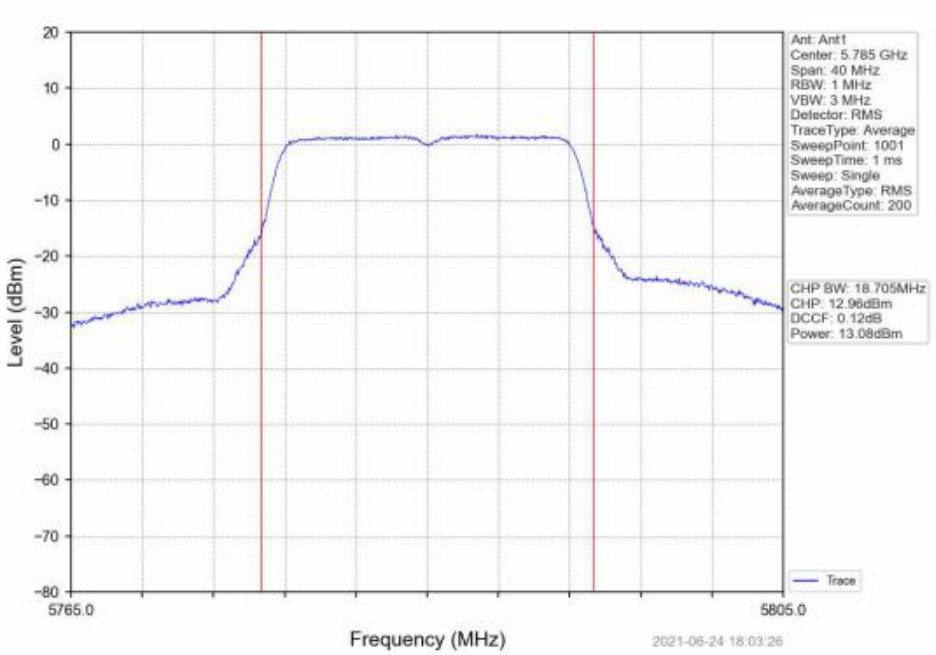
Mode	TX Type	Frequency (MHz)	RU	RU Pos	Measured Peak Output Power (dBm) Ant1	Limit (dBm)	Verdict
802.11a	SISO	5745	/	/	12.44	<=30	Pass
		5785	/	/	13.08	<=30	Pass
		5825	/	/	14.68	<=30	Pass
802.11n (HT20)	SISO	5745	/	/	12.63	<=30	Pass
		5785	/	/	13.24	<=30	Pass
		5825	/	/	14.85	<=30	Pass
802.11n (HT40)	SISO	5755	/	/	12.73	<=30	Pass
		5795	/	/	13.51	<=30	Pass
802.11ac (VHT20)	SISO	5745	/	/	11.61	<=30	Pass
		5785	/	/	12.98	<=30	Pass
		5825	/	/	14.71	<=30	Pass
802.11ac (VHT40)	SISO	5755	/	/	12.69	<=30	Pass
		5795	/	/	13.33	<=30	Pass
802.11ac (VHT80)	SISO	5775	/	/	12.60	<=30	Pass
Note1: Antenna Gain:2.6 dBi;							

3.1.2 Test Graph

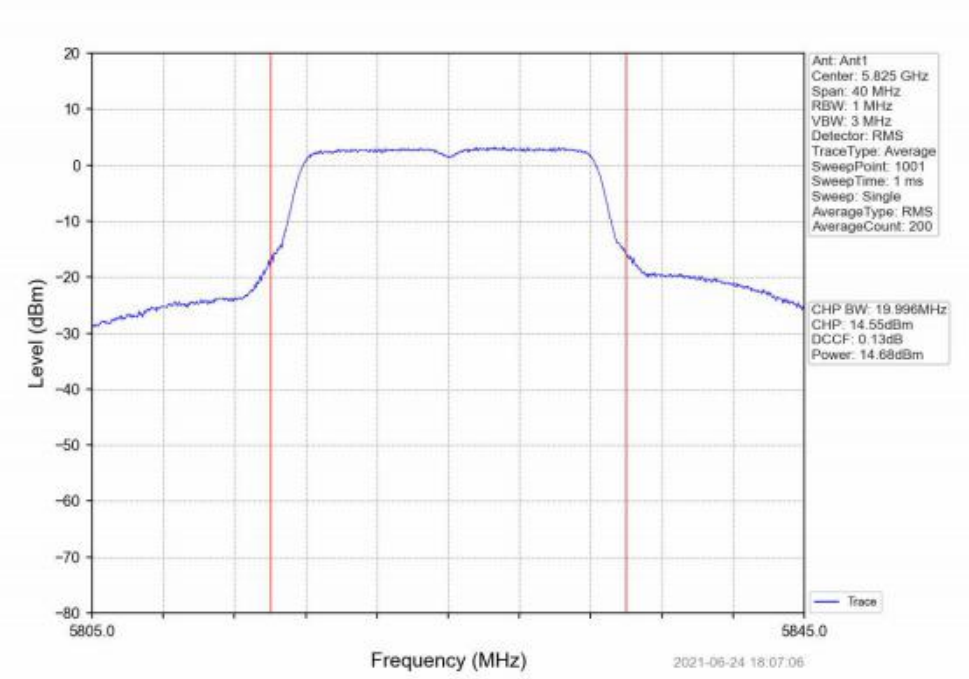
802.11a_LCH_5745MHz_Ant1_NTNV



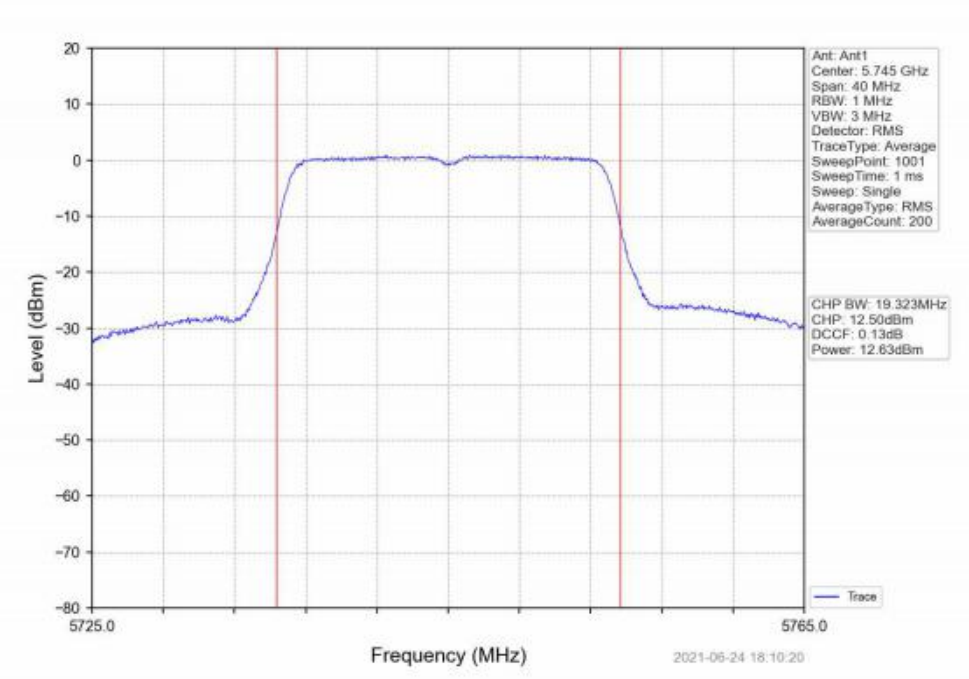
802.11a_MCH_5785MHz_Ant1_NTNV



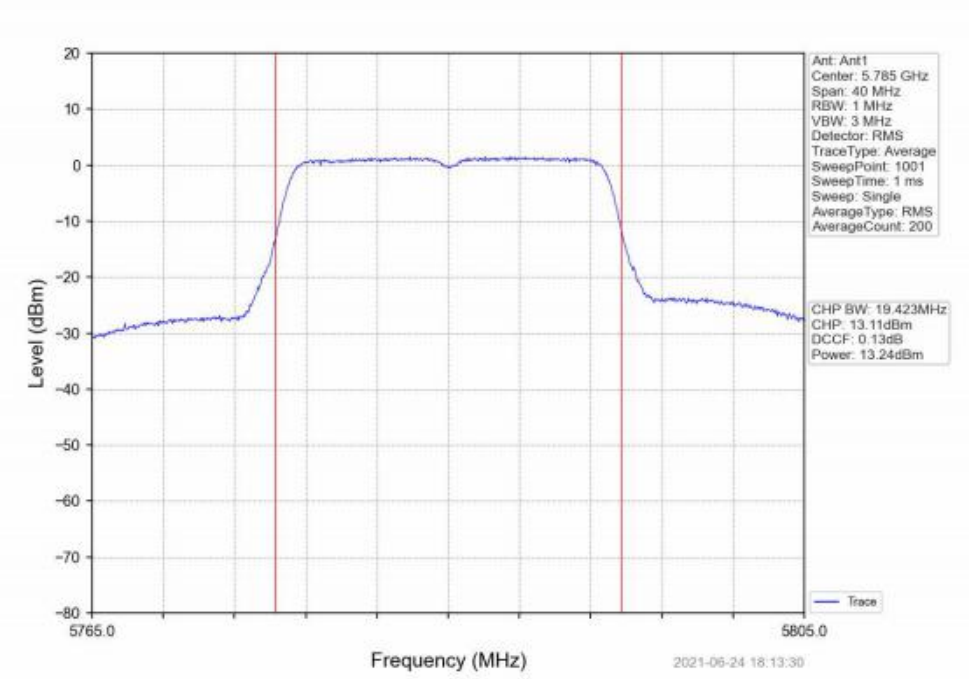
802.11a_HCH_5825MHz_Ant1_NTNV



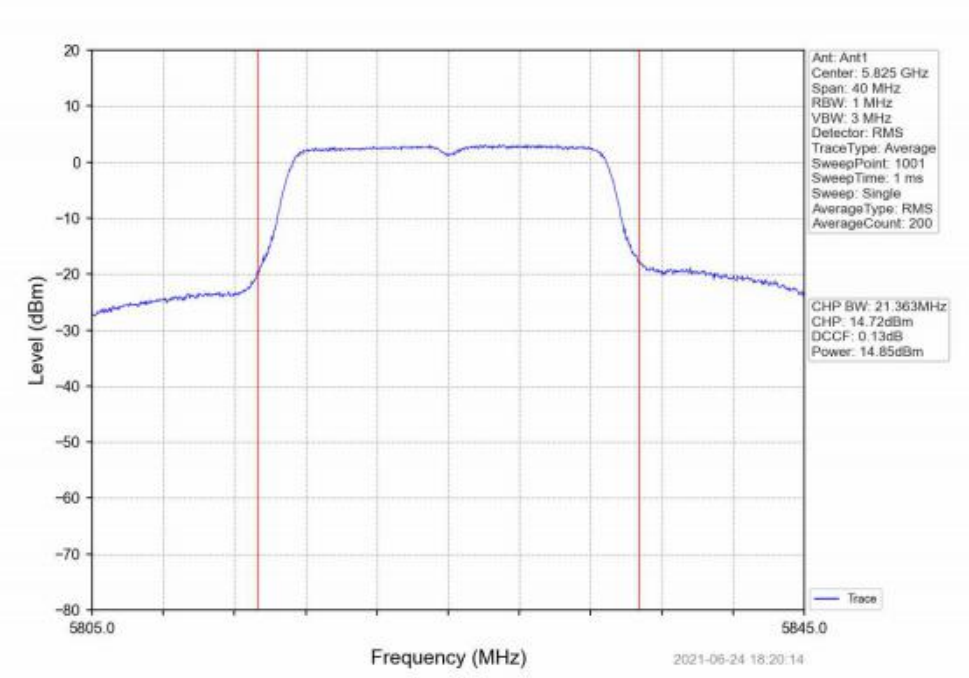
802.11n(HT20)_LCH_5745MHz_Ant1_NTNV



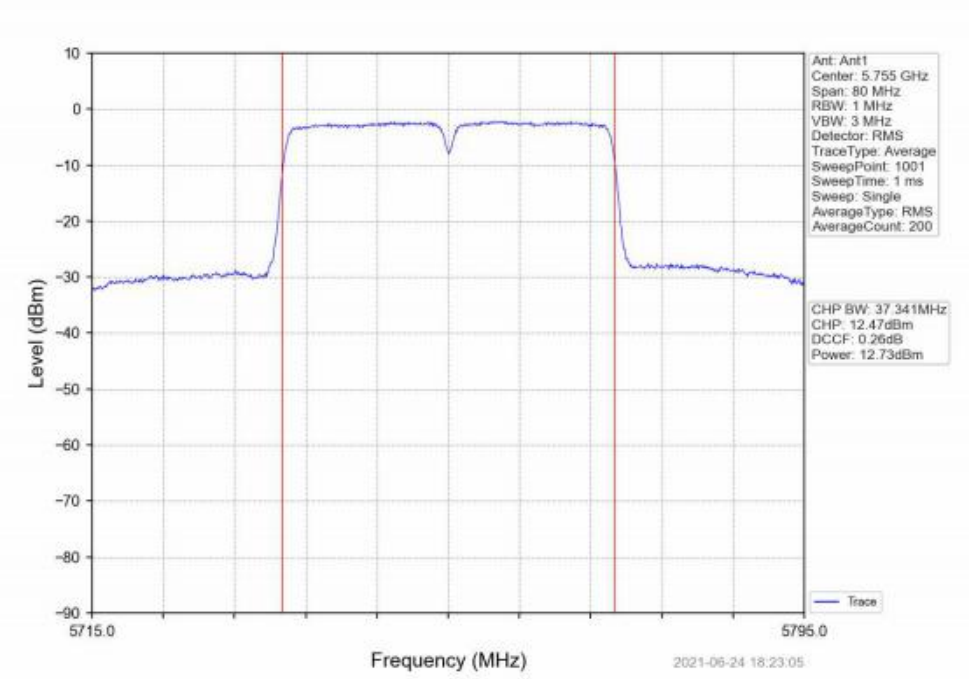
802.11n(HT20)_MCH_5785MHz_Ant1_NTNV



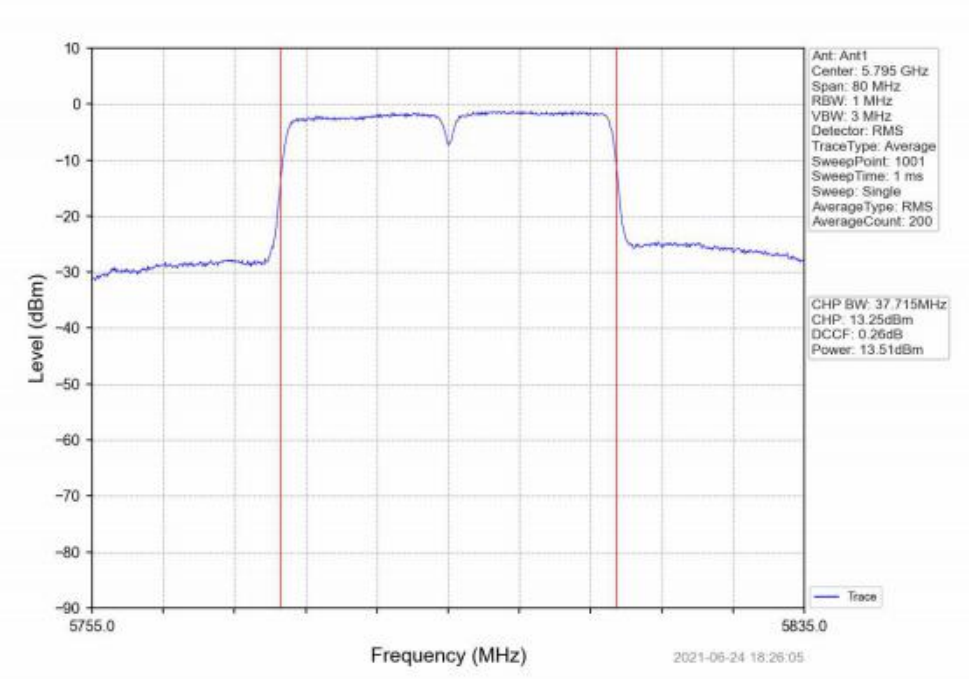
802.11n(HT20)_HCH_5825MHz_Ant1_NTNV



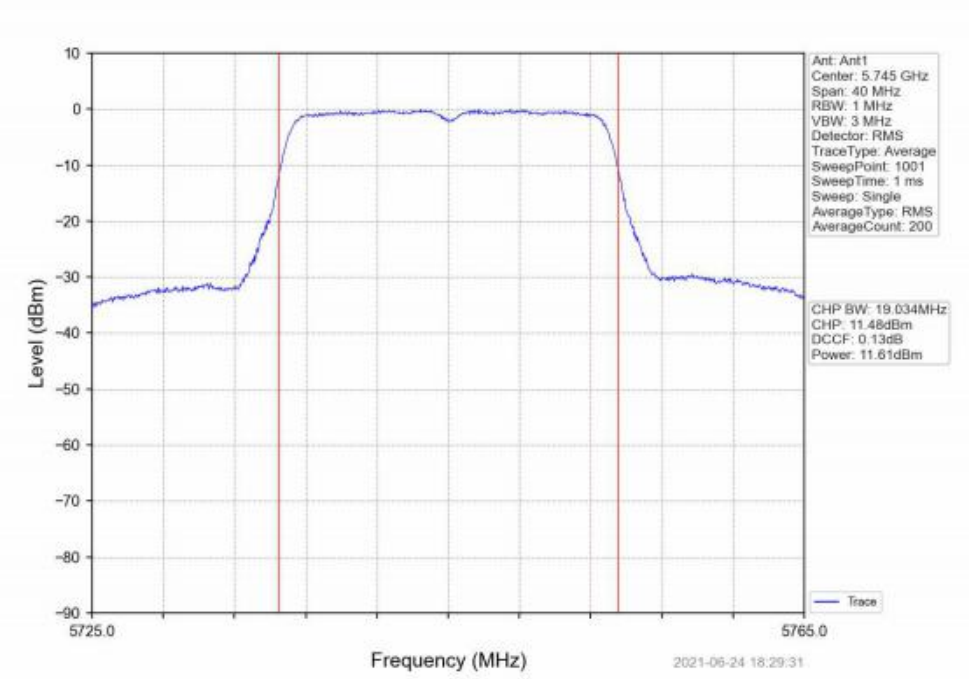
802.11n(HT40)_LCH_5755MHz_Ant1_NTNV



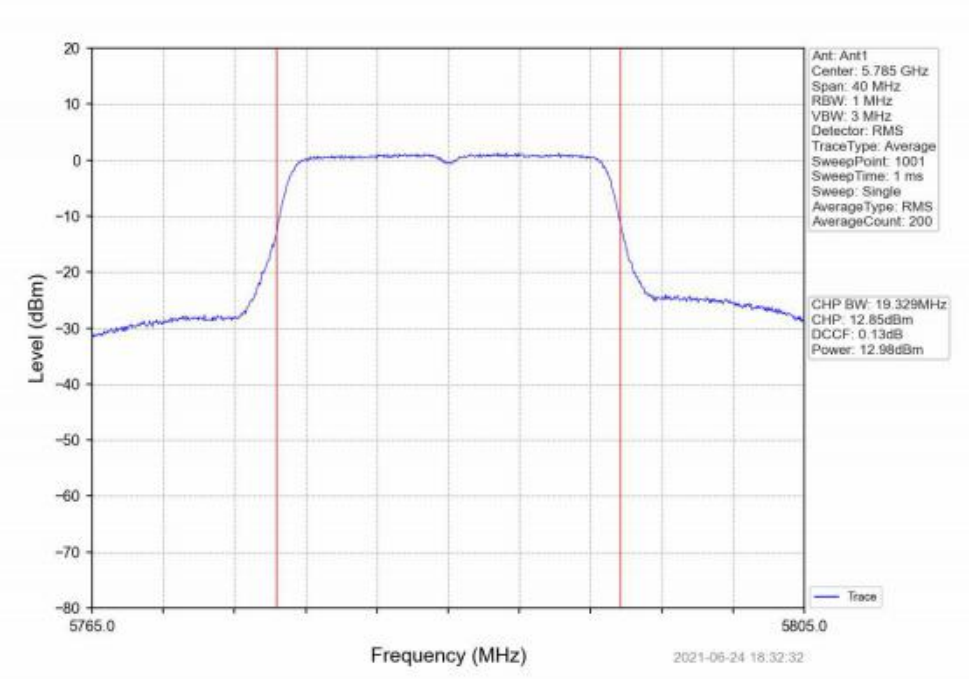
802.11n(HT40)_HCH_5795MHz_Ant1_NTNV



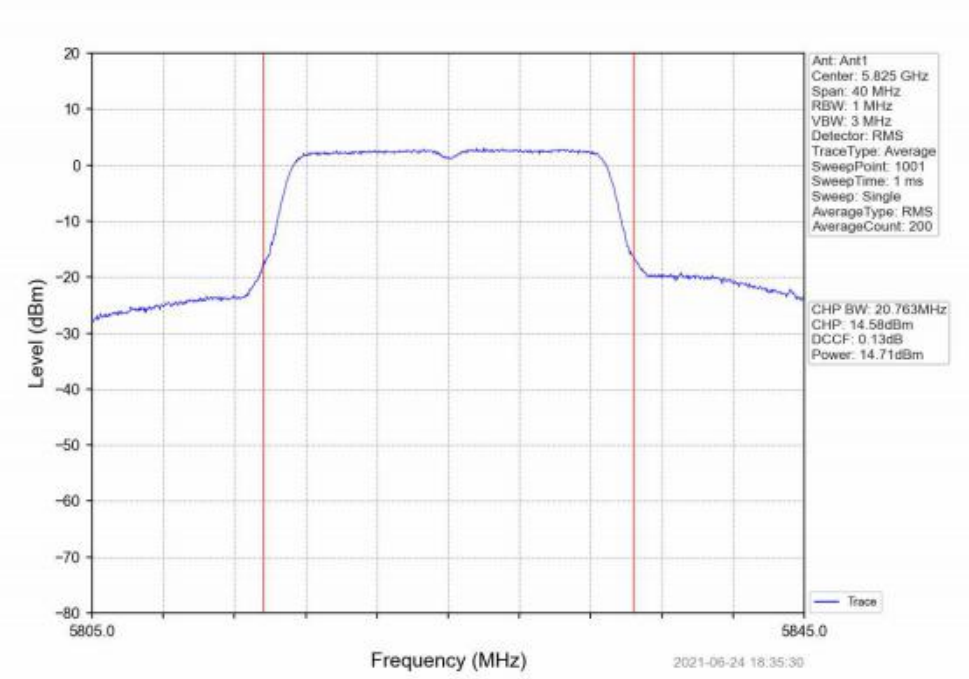
802.11ac(VHT20)_LCH_5745MHz_Ant1_NTNV



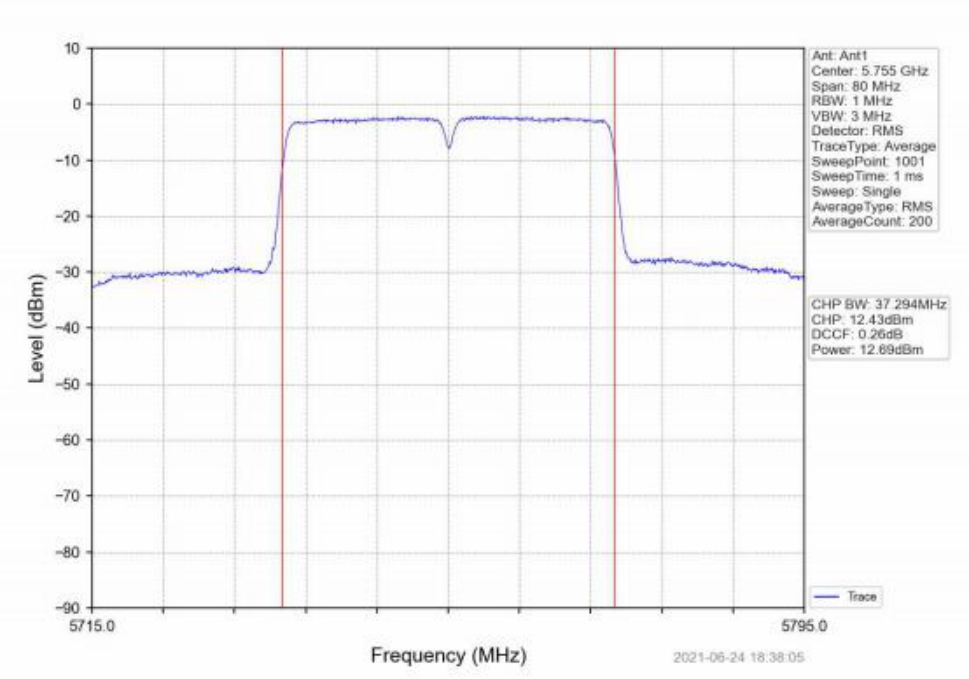
802.11ac(VHT20)_MCH_5785MHz_Ant1_NTNV



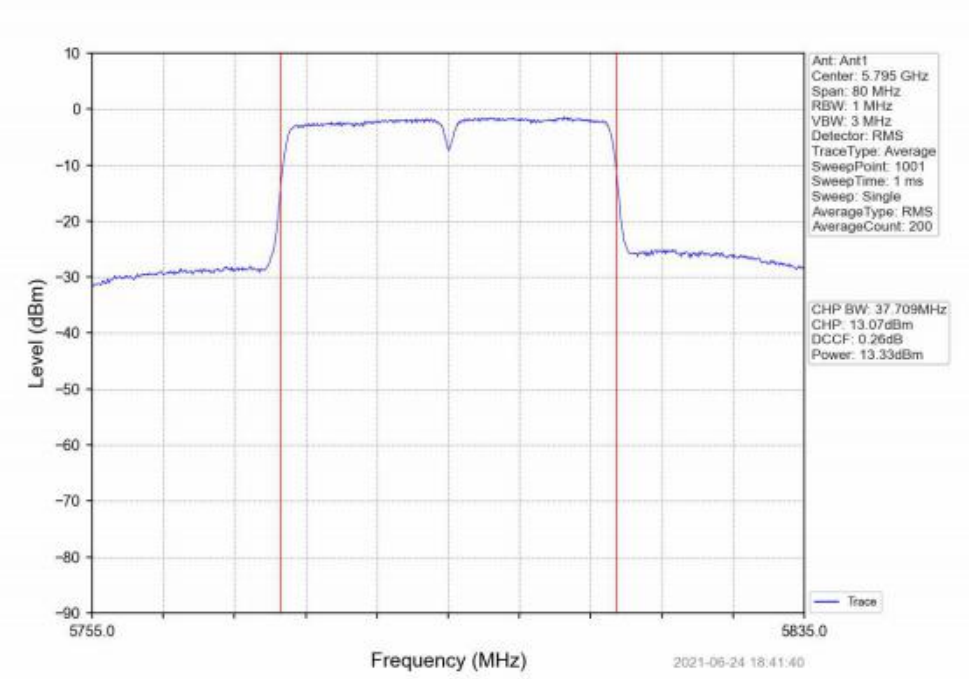
802.11ac(VHT20)_HCH_5825MHz_Ant1_NTNV



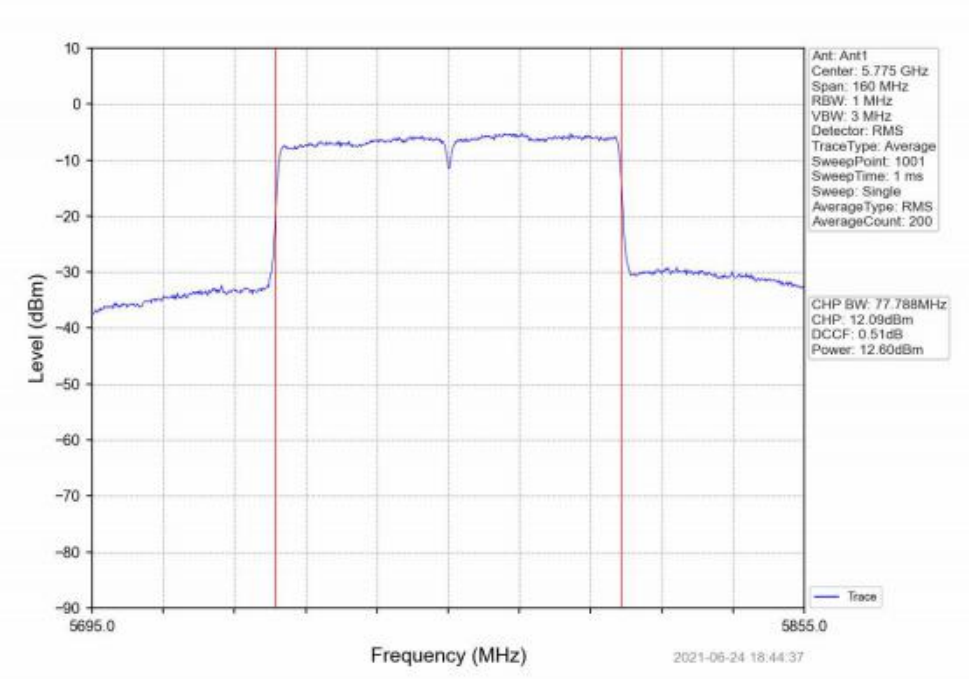
802.11ac(VHT40)_LCH_5755MHz_Ant1_NTNV



802.11ac(VHT40)_HCH_5795MHz_Ant1_NTNV



802.11ac(VHT80)_MCH_5775MHz_Ant1_NTNV



4. Maximum Power Spectral Density

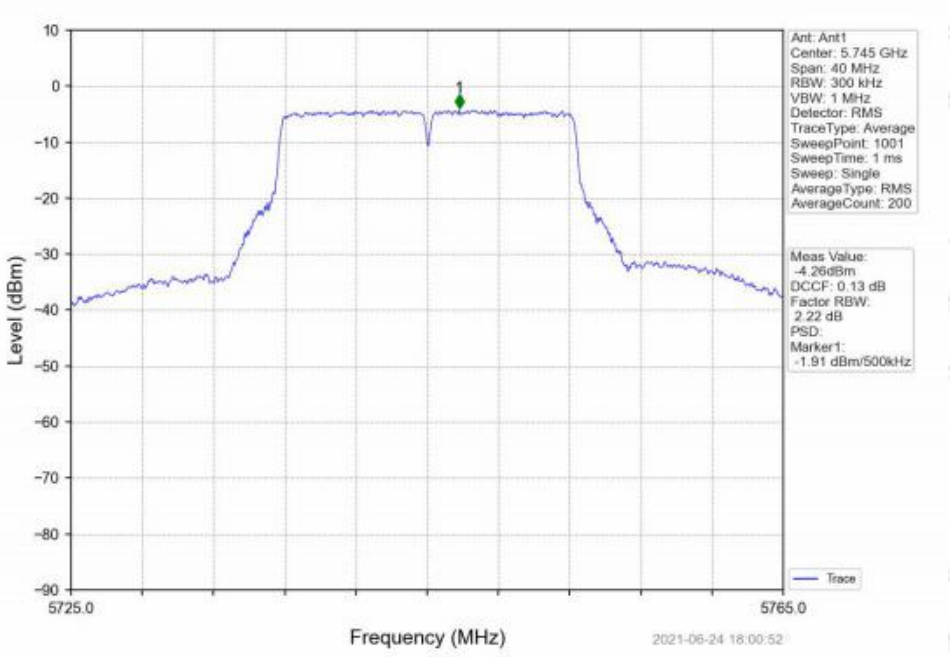
4.1 PSD-Band3

4.1.1 Test Result

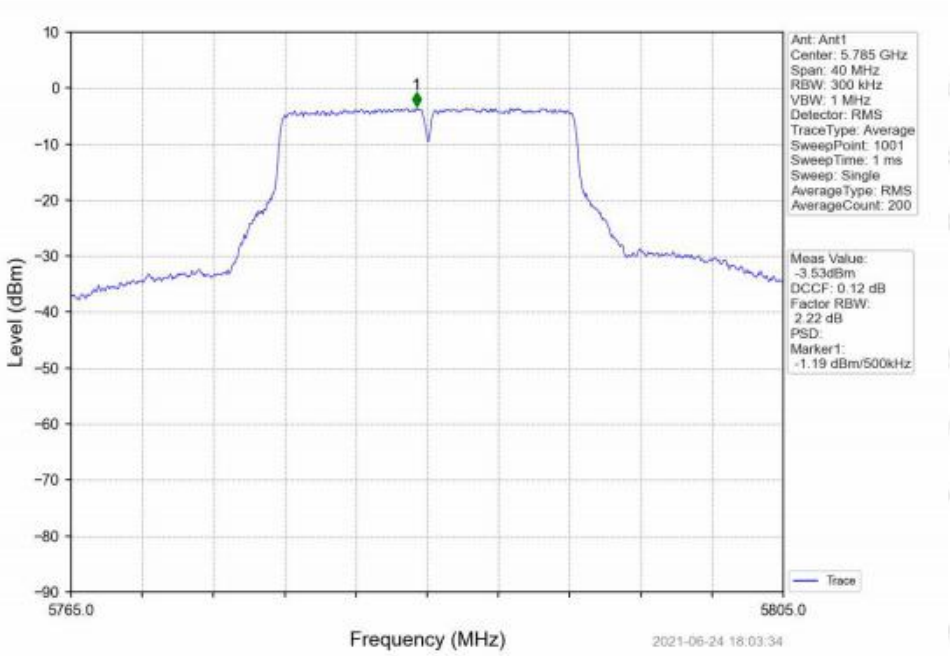
Mode	TX Type	Frequency (MHz)	RU	RU Pos	Maximum PSD (dBm/500kHz)	Limit (dBm/500kHz)	Verdict
					Ant1		
802.11a	SISO	5745	/	/	-1.91	<=30	Pass
		5785	/	/	-1.19	<=30	Pass
		5825	/	/	0.53	<=30	Pass
802.11n (HT20)	SISO	5745	/	/	-1.95	<=30	Pass
		5785	/	/	-1.29	<=30	Pass
		5825	/	/	0.47	<=30	Pass
802.11n (HT40)	SISO	5755	/	/	-4.58	<=30	Pass
		5795	/	/	-3.61	<=30	Pass
802.11ac (VHT20)	SISO	5745	/	/	-2.79	<=30	Pass
		5785	/	/	-1.59	<=30	Pass
		5825	/	/	0.44	<=30	Pass
802.11ac (VHT40)	SISO	5755	/	/	-4.67	<=30	Pass
		5795	/	/	-3.75	<=30	Pass
802.11ac (VHT80)	SISO	5775	/	/	-7.60	<=30	Pass
Note1: Antenna Gain: 2.6 dBi;							

4.1.2 Test Graph

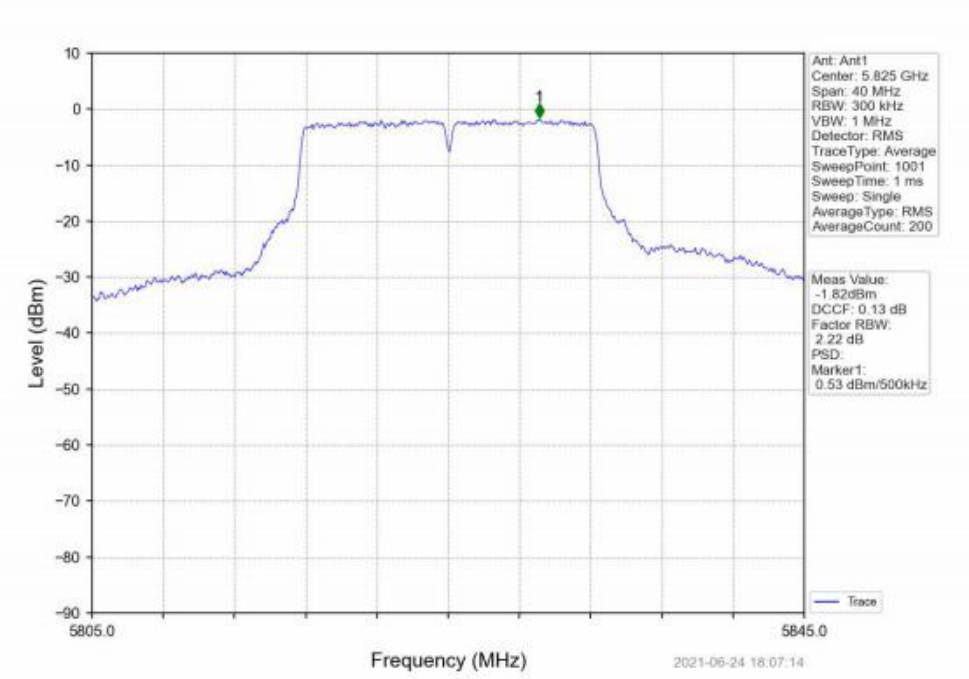
802.11a_LCH_5745MHz_Ant1_NTNV



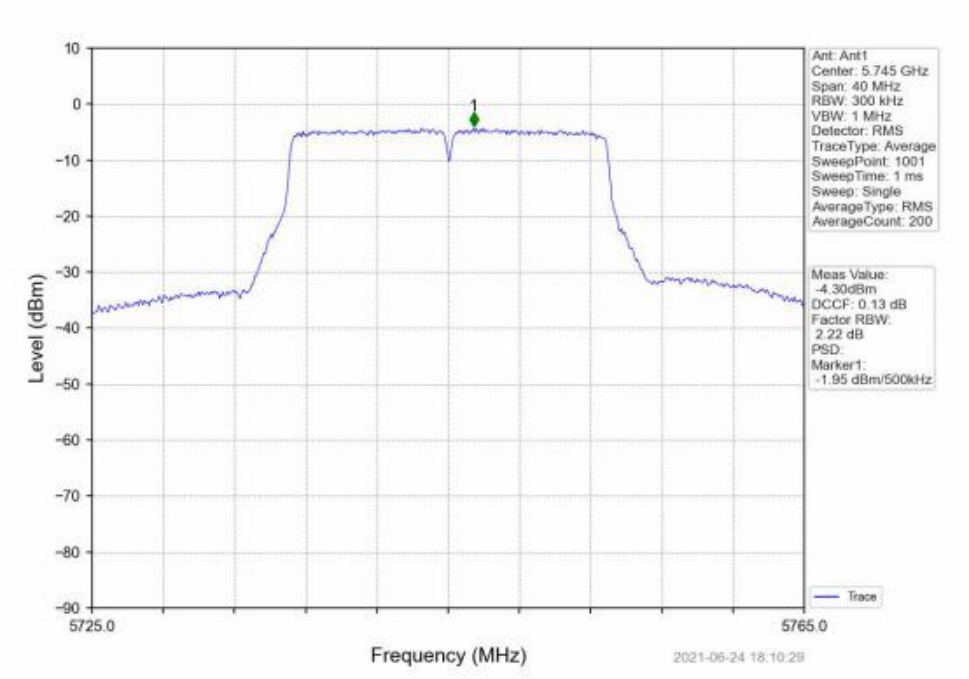
802.11a_MCH_5785MHz_Ant1_NTNV



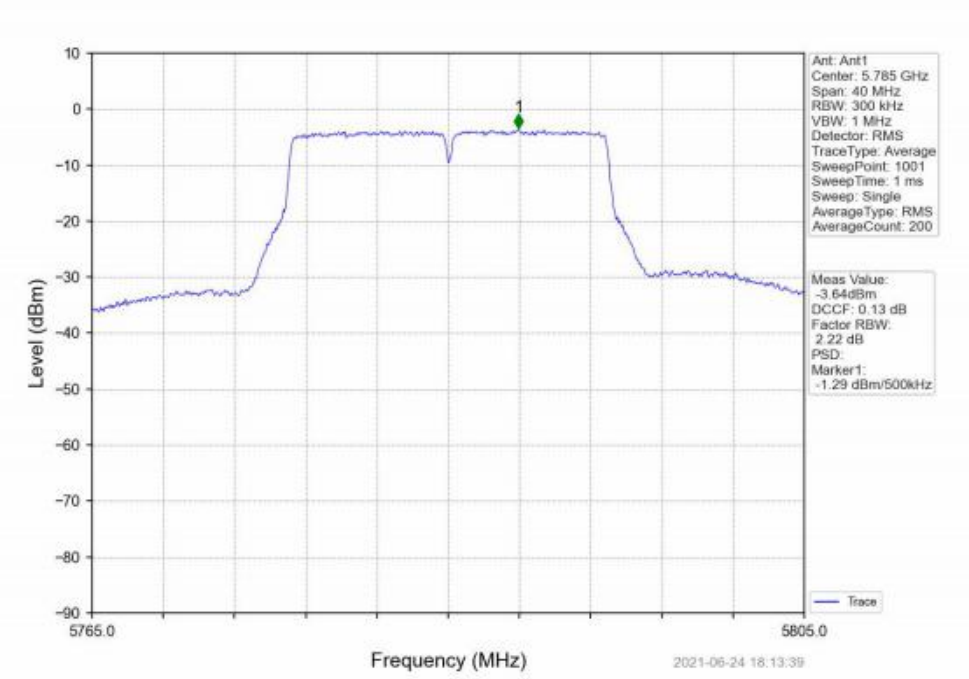
802.11a_HCH_5825MHz_Ant1_NTNV



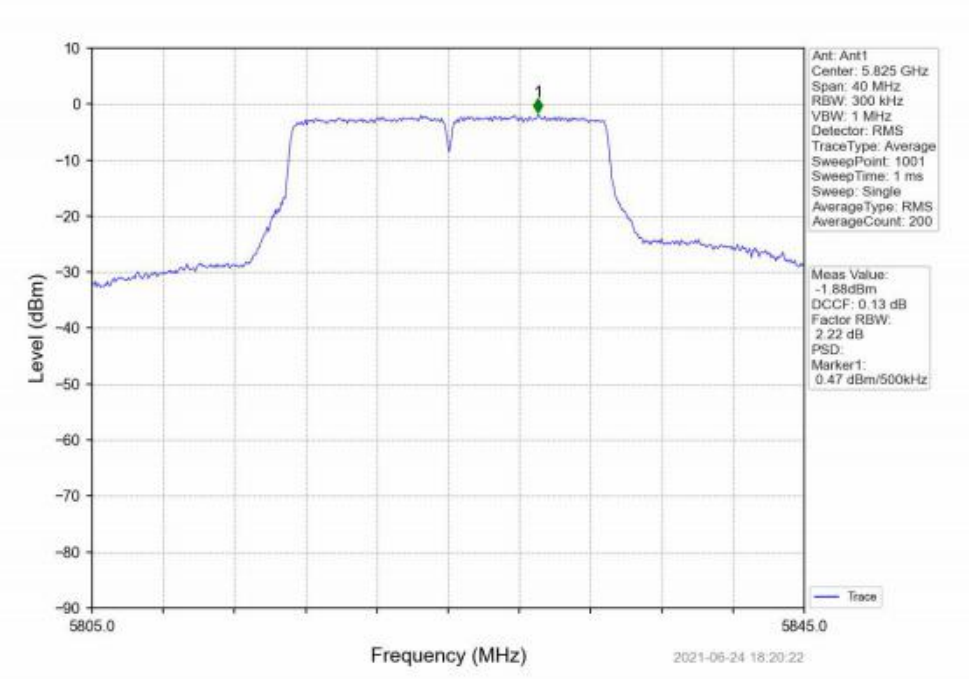
802.11n(HT20)_LCH_5745MHz_Ant1_NTNV



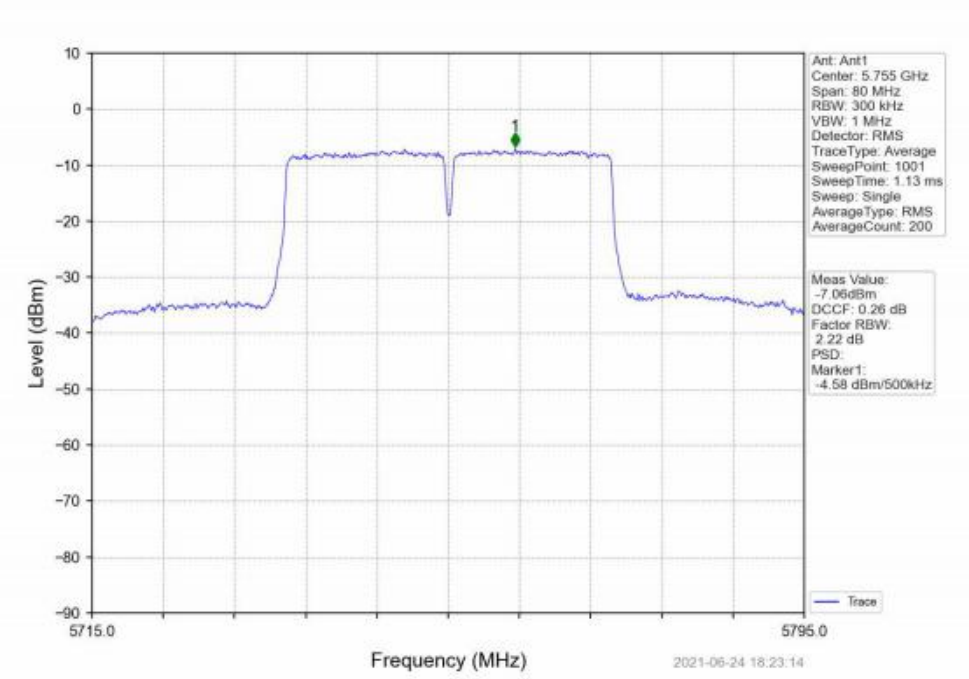
802.11n(HT20)_MCH_5785MHz_Ant1_NTNV



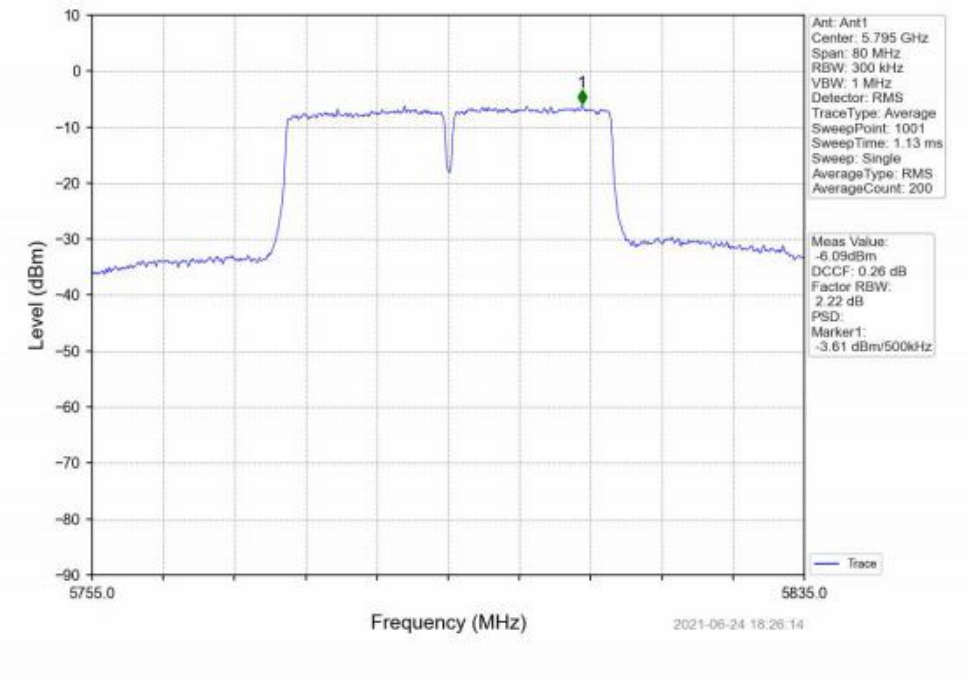
802.11n(HT20)_HCH_5825MHz_Ant1_NTNV



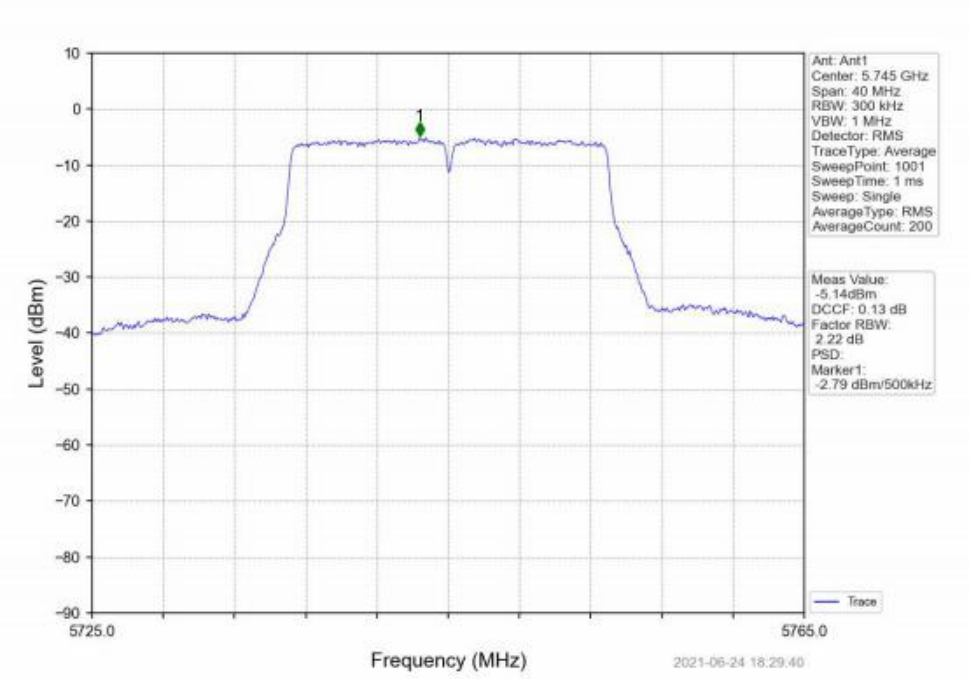
802.11n(HT40)_LCH_5755MHz_Ant1_NTNV



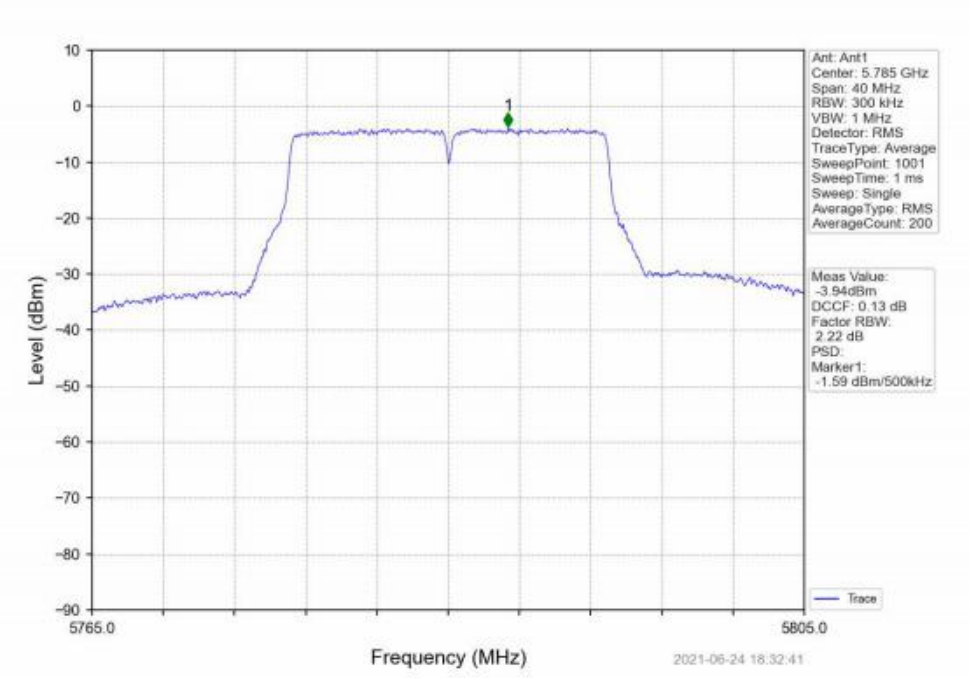
802.11n(HT40)_HCH_5795MHz_Ant1_NTNV



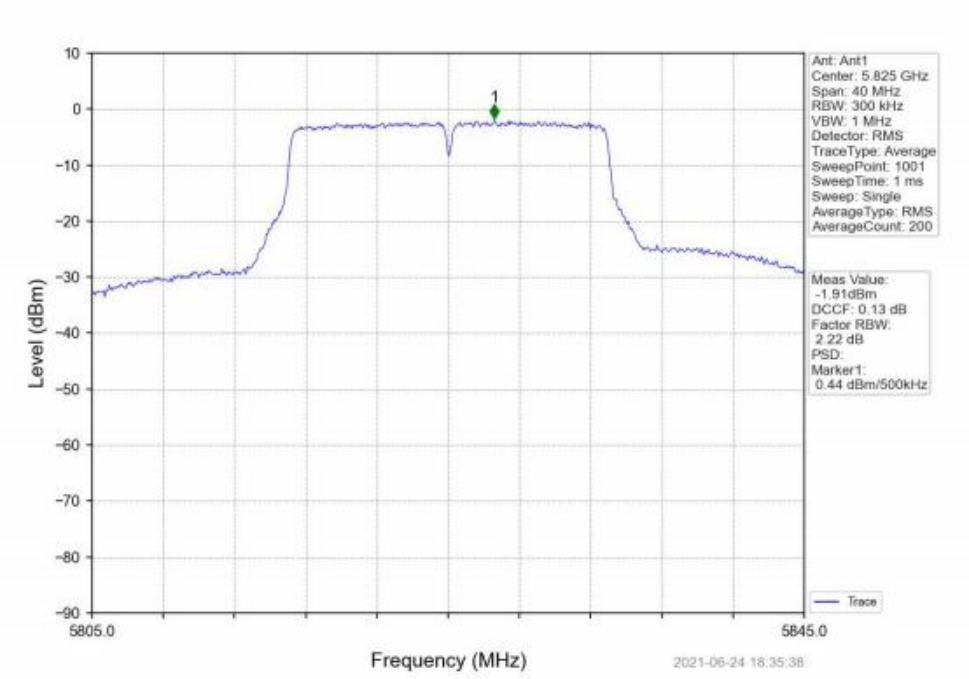
802.11ac(VHT20)_LCH_5745MHz_Ant1_NTNV



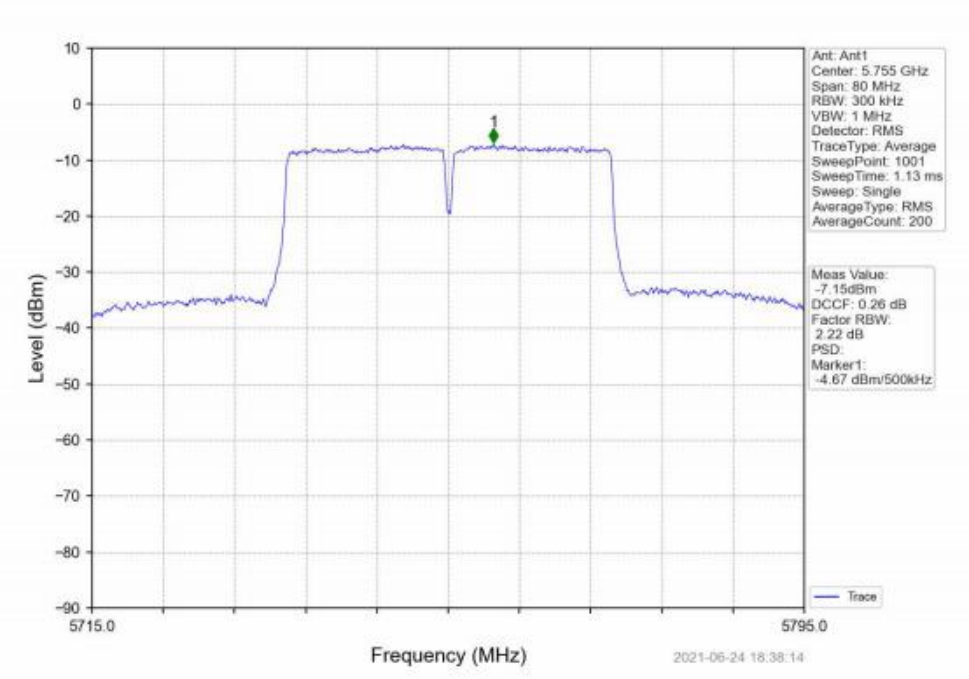
802.11ac(VHT20)_MCH_5785MHz_Ant1_NTNV



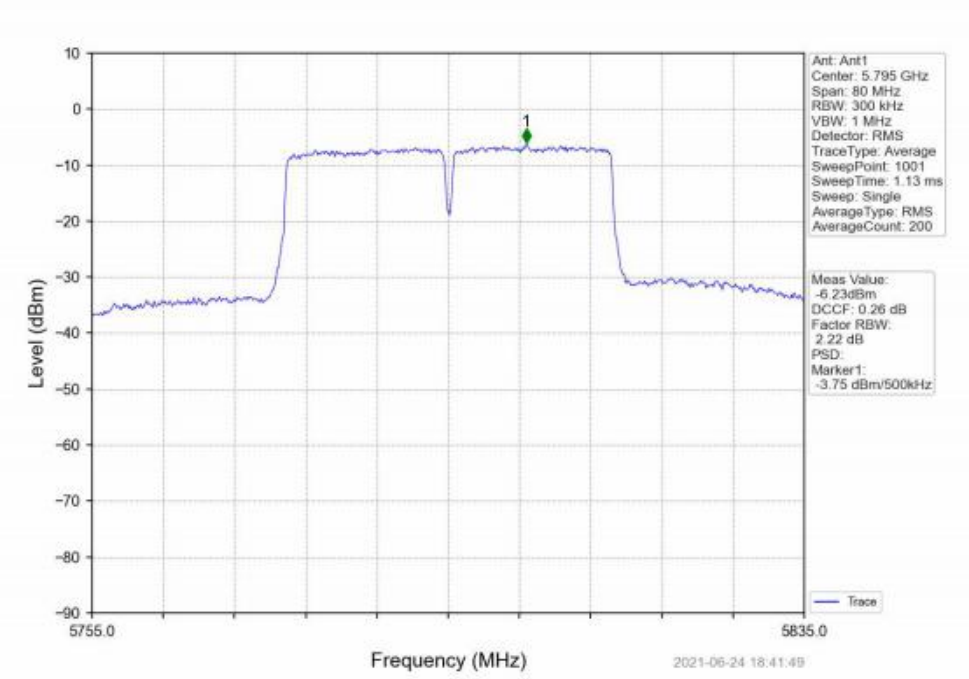
802.11ac(VHT20)_HCH_5825MHz_Ant1_NTNV



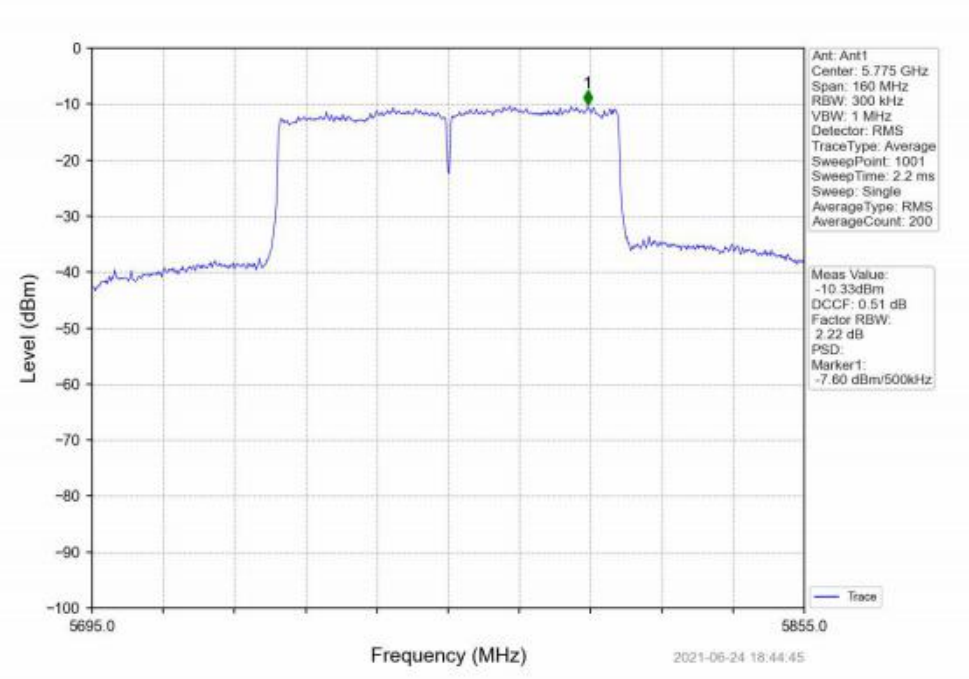
802.11ac(VHT40)_LCH_5755MHz_Ant1_NTNV



802.11ac(VHT40)_HCH_5795MHz_Ant1_NTNV



802.11ac(VHT80)_MCH_5775MHz_Ant1_NTNV



5. Frequency Stability

5.1 Ant1

5.1.1 Test Result

Ant1									
Mode	TX Type	Frequency (MHz)	RU	RU Pos	Temperature (°C)	Voltage (VAC)	Measured Frequency (MHz)	Limit	Verdict
802.11a	SISO	5745	/	/	20	102	5745.080	5725 to 5850	Pass
						120	5745.060	5725 to 5850	Pass
						138	5745.060	5725 to 5850	Pass
					-30	120	5745.060	5725 to 5850	Pass
					-20	120	5745.020	5725 to 5850	Pass
					-10	120	5745.060	5725 to 5850	Pass
					0	120	5745.060	5725 to 5850	Pass
					10	120	5745.080	5725 to 5850	Pass
					30	120	5745.020	5725 to 5850	Pass
					40	120	5745.060	5725 to 5850	Pass
					50	120	5745.100	5725 to 5850	Pass
		5785	/	/	20	102	5785.060	5725 to 5850	Pass
						120	5785.040	5725 to 5850	Pass
						138	5785.080	5725 to 5850	Pass
					-30	120	5785.080	5725 to 5850	Pass
					-20	120	5785.100	5725 to 5850	Pass
					-10	120	5785.040	5725 to 5850	Pass
					0	120	5785.040	5725 to 5850	Pass
					10	120	5785.040	5725 to 5850	Pass
					30	120	5785.040	5725 to 5850	Pass
					40	120	5785.040	5725 to 5850	Pass
					50	120	5785.060	5725 to 5850	Pass
		5825	/	/	20	102	5825.100	5725 to 5850	Pass
						120	5825.060	5725 to 5850	Pass
						138	5825.060	5725 to 5850	Pass
					-30	120	5825.020	5725 to 5850	Pass
					-20	120	5825.060	5725 to 5850	Pass
					-10	120	5825.100	5725 to 5850	Pass
					0	120	5825.040	5725 to 5850	Pass
					10	120	5825.060	5725 to 5850	Pass
					30	120	5825.060	5725 to 5850	Pass
					40	120	5825.080	5725 to 5850	Pass
					50	120	5825.040	5725 to 5850	Pass
802.11n (HT20)	SISO	5745	/	/	20	102	5745.100	5725 to 5850	Pass
						120	5745.060	5725 to 5850	Pass
						138	5745.080	5725 to 5850	Pass
					-30	120	5745.060	5725 to 5850	Pass
					-20	120	5745.000	5725 to 5850	Pass
					-10	120	5745.080	5725 to 5850	Pass
					0	120	5745.020	5725 to 5850	Pass
					10	120	5745.020	5725 to 5850	Pass
					30	120	5745.020	5725 to 5850	Pass
					40	120	5745.020	5725 to 5850	Pass
					50	120	5745.020	5725 to 5850	Pass
		5785	/	/	20	102	5785.060	5725 to 5850	Pass
						120	5785.060	5725 to 5850	Pass
						138	5785.000	5725 to 5850	Pass

					-30	120	5785.040	5725 to 5850	Pass
					-20	120	5785.080	5725 to 5850	Pass
					-10	120	5785.000	5725 to 5850	Pass
					0	120	5785.080	5725 to 5850	Pass
					10	120	5785.040	5725 to 5850	Pass
					30	120	5785.040	5725 to 5850	Pass
					40	120	5785.040	5725 to 5850	Pass
					50	120	5785.060	5725 to 5850	Pass
		5825	/	/	20	102	5825.060	5725 to 5850	Pass
						120	5825.000	5725 to 5850	Pass
						138	5825.060	5725 to 5850	Pass
					-30	120	5825.080	5725 to 5850	Pass
					-20	120	5825.060	5725 to 5850	Pass
					-10	120	5825.080	5725 to 5850	Pass
					0	120	5825.100	5725 to 5850	Pass
					10	120	5825.040	5725 to 5850	Pass
					30	120	5825.120	5725 to 5850	Pass
					40	120	5825.100	5725 to 5850	Pass
					50	120	5825.060	5725 to 5850	Pass
802.11n (HT40)	SISO	5755	/	/	20	102	5755.080	5725 to 5850	Pass
						120	5755.080	5725 to 5850	Pass
						138	5755.080	5725 to 5850	Pass
					-30	120	5755.160	5725 to 5850	Pass
					-20	120	5755.120	5725 to 5850	Pass
					-10	120	5755.120	5725 to 5850	Pass
					0	120	5755.120	5725 to 5850	Pass
					10	120	5755.080	5725 to 5850	Pass
					30	120	5755.000	5725 to 5850	Pass
					40	120	5755.080	5725 to 5850	Pass
					50	120	5755.120	5725 to 5850	Pass
		5795	/	/	20	102	5795.120	5725 to 5850	Pass
						120	5795.160	5725 to 5850	Pass
						138	5795.120	5725 to 5850	Pass
					-30	120	5795.120	5725 to 5850	Pass
					-20	120	5795.120	5725 to 5850	Pass
					-10	120	5795.160	5725 to 5850	Pass
					0	120	5795.120	5725 to 5850	Pass
					10	120	5795.160	5725 to 5850	Pass
					30	120	5795.120	5725 to 5850	Pass
					40	120	5795.120	5725 to 5850	Pass
					50	120	5795.120	5725 to 5850	Pass
802.11ac (VHT20)	SISO	5745	/	/	20	102	5745.060	5725 to 5850	Pass
						120	5745.100	5725 to 5850	Pass
						138	5745.060	5725 to 5850	Pass
					-30	120	5745.020	5725 to 5850	Pass
					-20	120	5745.020	5725 to 5850	Pass
					-10	120	5745.100	5725 to 5850	Pass
					0	120	5745.040	5725 to 5850	Pass
					10	120	5745.060	5725 to 5850	Pass
					30	120	5745.100	5725 to 5850	Pass
					40	120	5745.080	5725 to 5850	Pass
					50	120	5745.040	5725 to 5850	Pass
		5785	/	/	20	102	5785.060	5725 to 5850	Pass
						120	5785.040	5725 to 5850	Pass
						138	5785.020	5725 to 5850	Pass
					-30	120	5785.100	5725 to 5850	Pass
					-20	120	5785.080	5725 to 5850	Pass
					-10	120	5785.040	5725 to 5850	Pass
					0	120	5785.040	5725 to 5850	Pass

					10	120	5785.040	5725 to 5850	Pass
					30	120	5785.080	5725 to 5850	Pass
					40	120	5785.040	5725 to 5850	Pass
					50	120	5785.040	5725 to 5850	Pass
		5825	/	/	20	102	5825.100	5725 to 5850	Pass
						120	5825.120	5725 to 5850	Pass
						138	5825.040	5725 to 5850	Pass
					-30	120	5825.000	5725 to 5850	Pass
					-20	120	5825.160	5725 to 5850	Pass
					-10	120	5825.100	5725 to 5850	Pass
					0	120	5825.080	5725 to 5850	Pass
					10	120	5825.040	5725 to 5850	Pass
					30	120	5825.060	5725 to 5850	Pass
					40	120	5825.080	5725 to 5850	Pass
					50	120	5825.060	5725 to 5850	Pass
802.11ac (VHT40)	SISO	5755	/	/	20	102	5755.080	5725 to 5850	Pass
						120	5755.120	5725 to 5850	Pass
						138	5755.160	5725 to 5850	Pass
					-30	120	5755.120	5725 to 5850	Pass
					-20	120	5755.160	5725 to 5850	Pass
					-10	120	5755.160	5725 to 5850	Pass
					0	120	5755.080	5725 to 5850	Pass
					10	120	5755.080	5725 to 5850	Pass
					30	120	5755.160	5725 to 5850	Pass
					40	120	5755.040	5725 to 5850	Pass
					50	120	5755.080	5725 to 5850	Pass
		5795	/	/	20	102	5795.160	5725 to 5850	Pass
						120	5795.160	5725 to 5850	Pass
						138	5795.080	5725 to 5850	Pass
					-30	120	5795.080	5725 to 5850	Pass
					-20	120	5795.160	5725 to 5850	Pass
					-10	120	5795.080	5725 to 5850	Pass
					0	120	5795.120	5725 to 5850	Pass
					10	120	5795.120	5725 to 5850	Pass
					30	120	5795.080	5725 to 5850	Pass
					40	120	5795.120	5725 to 5850	Pass
					50	120	5795.200	5725 to 5850	Pass
802.11ac (VHT80)	SISO	5775	/	/	20	102	5775.150	5725 to 5850	Pass
						120	5775.150	5725 to 5850	Pass
						138	5775.150	5725 to 5850	Pass
					-30	120	5775.150	5725 to 5850	Pass
					-20	120	5775.150	5725 to 5850	Pass
					-10	120	5775.150	5725 to 5850	Pass
					0	120	5775.150	5725 to 5850	Pass
					10	120	5775.150	5725 to 5850	Pass
					30	120	5775.150	5725 to 5850	Pass
					40	120	5775.150	5725 to 5850	Pass
					50	120	5775.150	5725 to 5850	Pass

6. Band Edge

6.1 Ant1

6.1.1 Test Result

11A_Ant1_Low_5745

11A_Ant1_High_5825


11N20SISO_Ant1_Low_5745

11N20SISO_Ant1_High_5825


11N40SISO_Ant1_Low_5755

11N40SISO_Ant1_High_5795


11AC20SISO_Ant1_Low_5745

11AC20SISO_Ant1_High_5825


11AC40SISO_Ant1_Low_5755

11AC40SISO_Ant1_High_5795


11AC80SISO_Ant1_Low_5775

11AC80SISO_Ant1_High_5775


---End---