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Annex for 5G Wi-Fi BAND3

Test Report No.: CTL2412319012-WF03

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1. Duty Cycle

1.1 Test Result

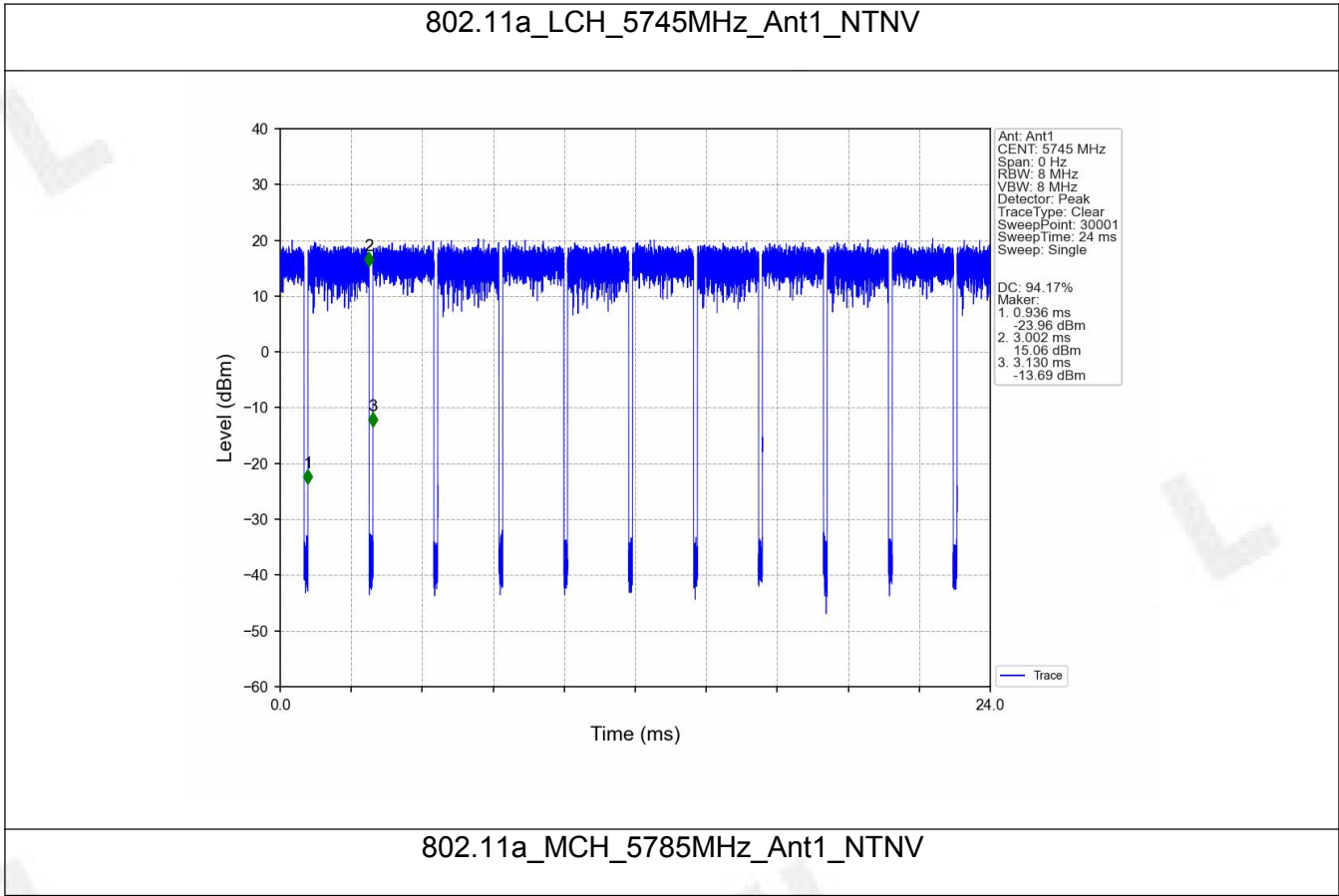
1.1.1 Ant1

Ant1							
Mode	TX Type	Frequency (MHz)	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
802.11a	SISO	5745	2.066	2.194	94.17	0.26	0.04
		5785	2.064	2.194	94.07	0.27	0.00
		5825	2.064	2.194	94.07	0.27	0.03
802.11n (HT20)	SISO	5745	1.921	2.050	93.71	0.28	0.04
		5785	1.920	2.050	93.66	0.28	0.04
		5825	1.922	2.050	93.76	0.28	0.04
802.11n (HT40)	SISO	5755	0.944	1.074	87.90	0.56	0.03
		5795	0.944	1.074	87.90	0.56	0.03

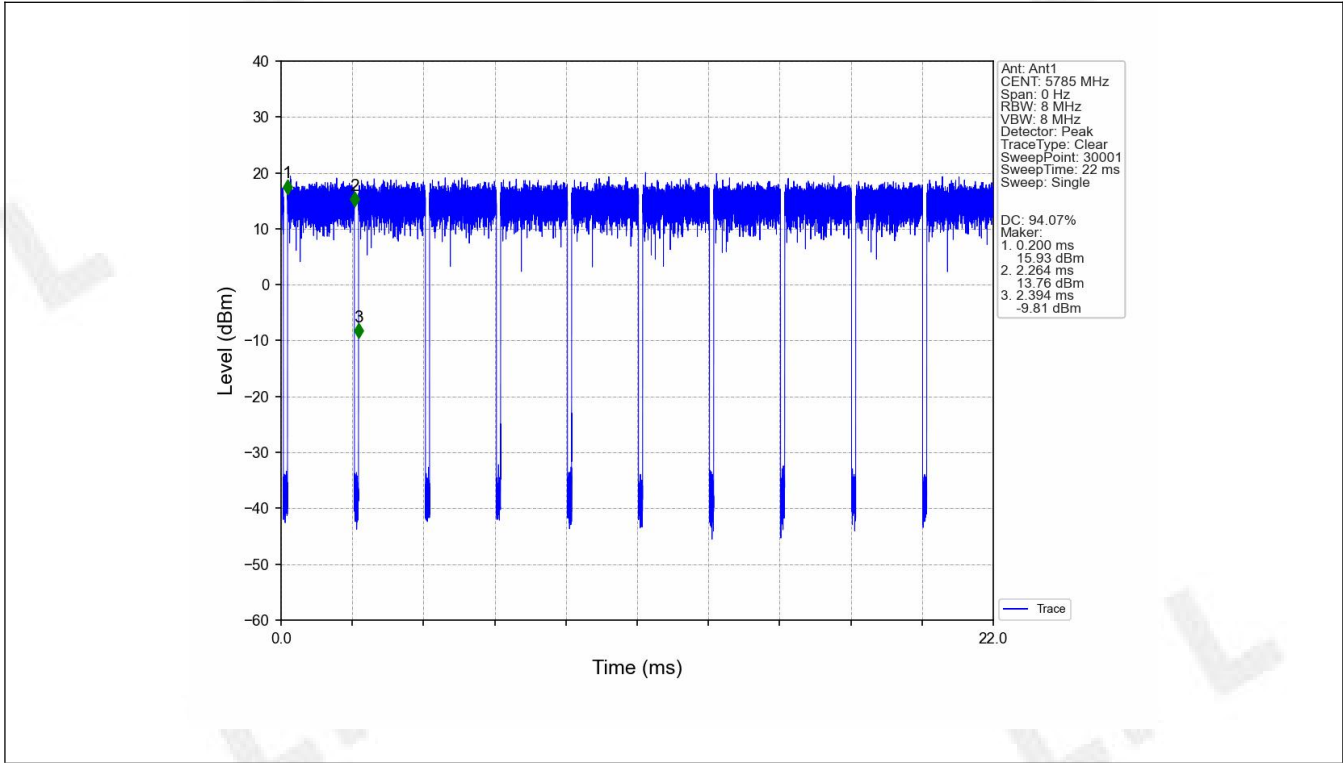
FCCID: SMQIT50

1.2 Test Graph

1.2.1 Ant1

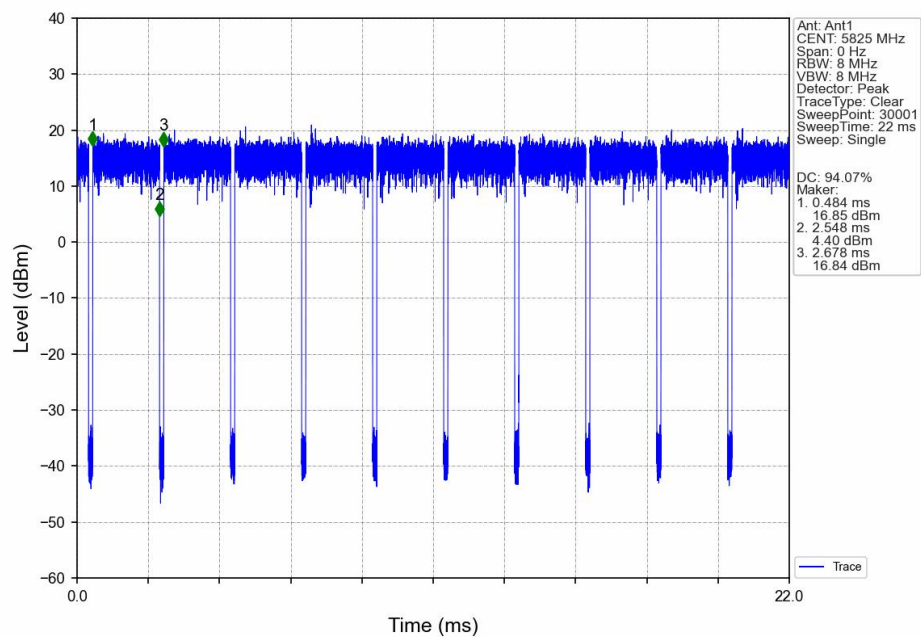


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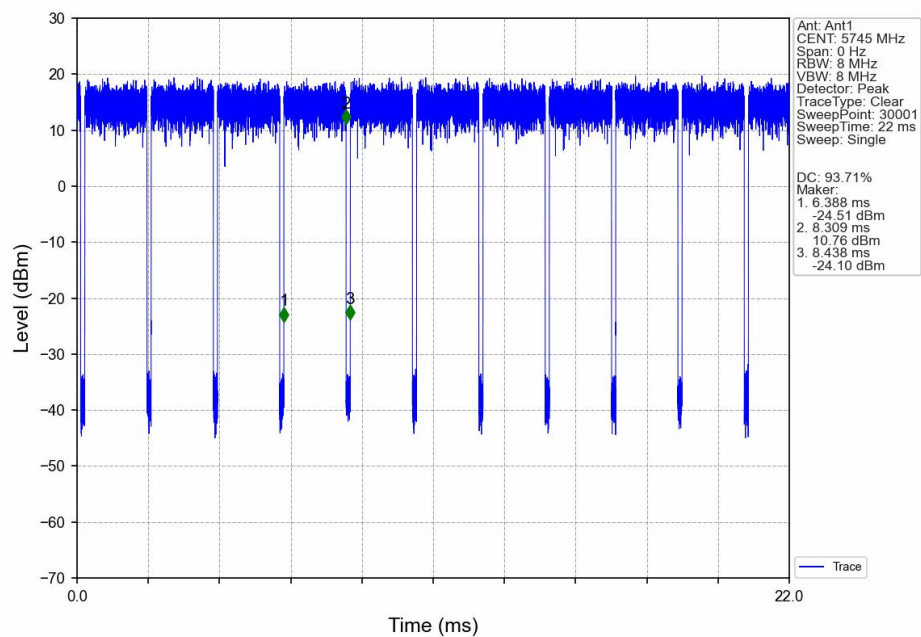


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802.11a_HCH_5825MHz_Ant1_NTNV

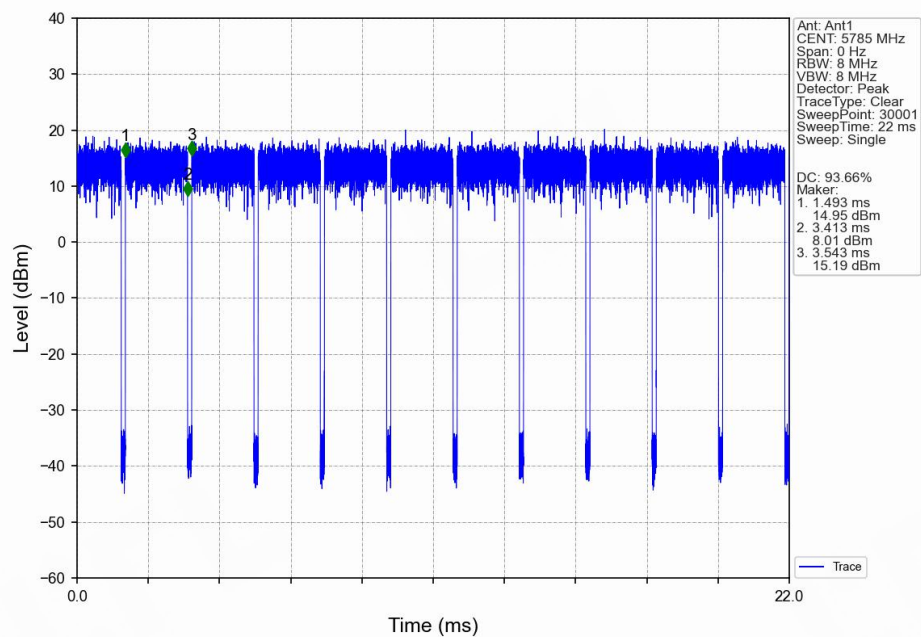


802.11n(HT20)_LCH_5745MHz_Ant1_NTNV

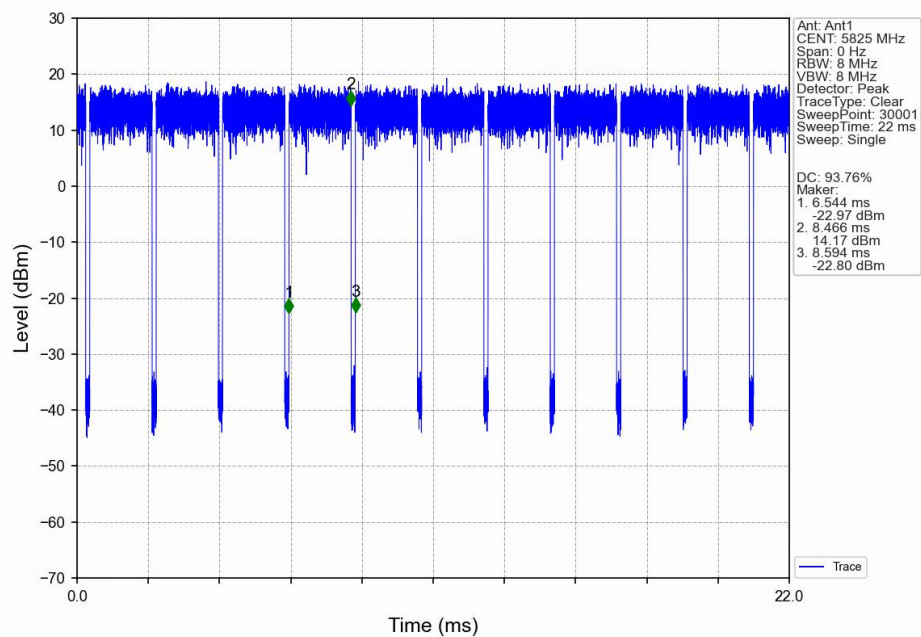


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802.11n(HT20)_MCH_5785MHz_Ant1_NTNV

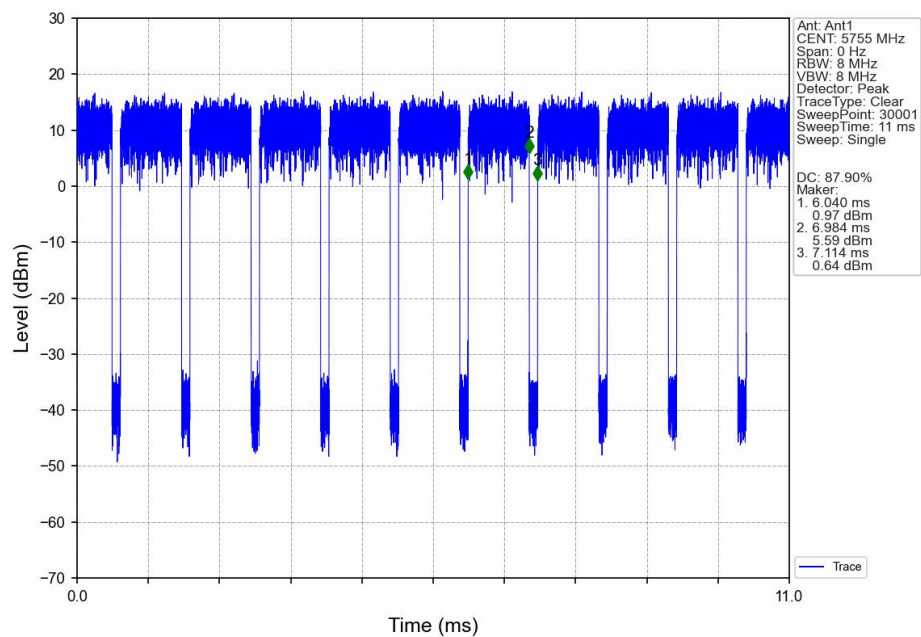


802.11n(HT20)_HCH_5825MHz_Ant1_NTNV

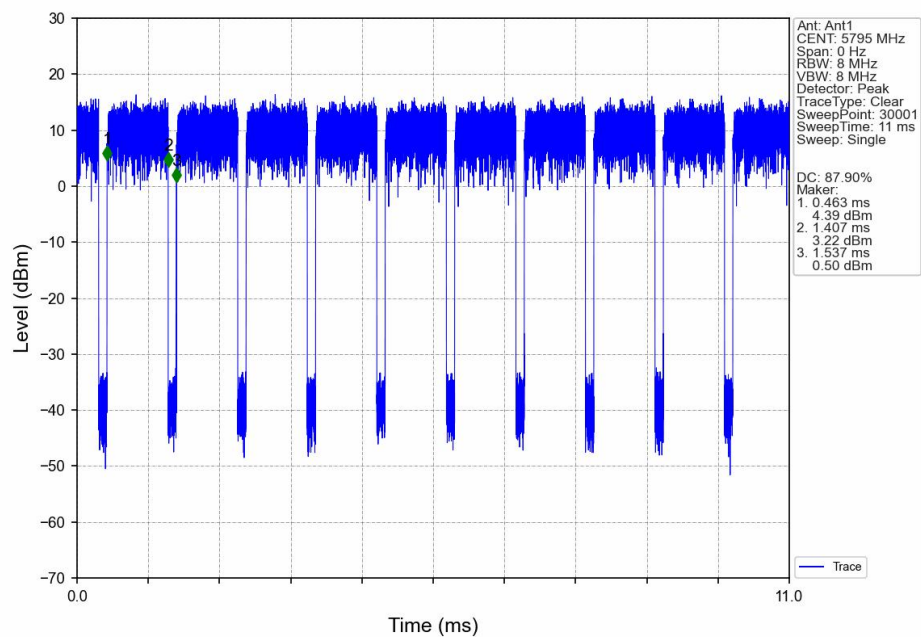


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802.11n(HT40)_LCH_5755MHz_Ant1_NTNV



802.11n(HT40)_HCH_5795MHz_Ant1_NTNV



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2. Bandwidth**2.1 Test Result****2.1.1 OBW**

Mode	TX Type	Frequency (MHz)	ANT	99% Occupied Bandwidth (MHz)		Verdict
				Result	Limit	
802.11a	SISO	5745	1	25.037	/	Pass
		5785	1	22.282	/	Pass
		5825	1	22.259	/	Pass
802.11n (HT20)	SISO	5745	1	21.055	/	Pass
		5785	1	20.010	/	Pass
		5825	1	19.462	/	Pass
802.11n (HT40)	SISO	5755	1	37.553	/	Pass
		5795	1	36.809	/	Pass

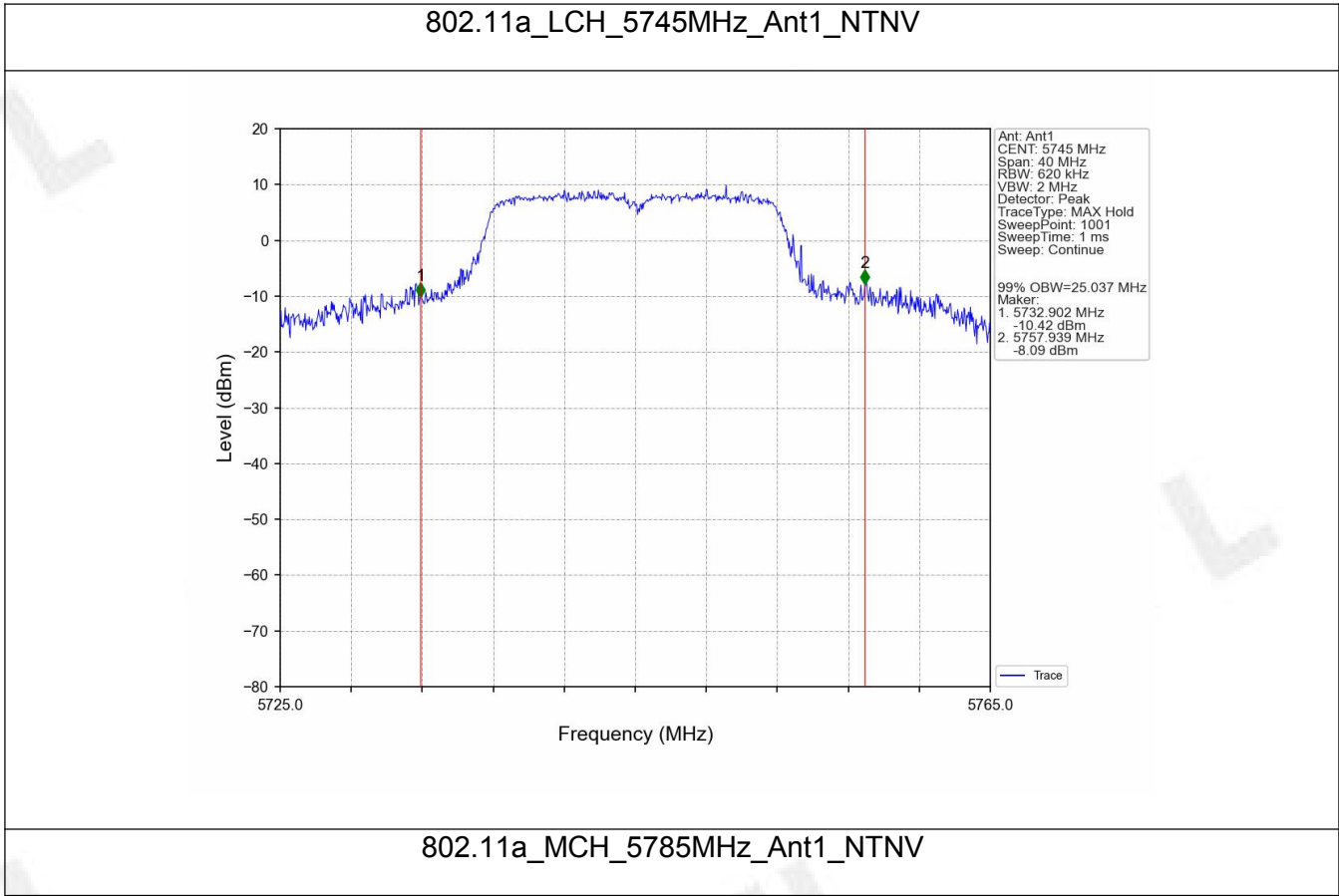
2.1.2 6dB BW

Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
802.11a	SISO	5745	1	16.349	≥ 0.5	Pass
		5785	1	16.358	≥ 0.5	Pass
		5825	1	16.318	≥ 0.5	Pass
802.11n (HT20)	SISO	5745	1	17.284	≥ 0.5	Pass
		5785	1	17.593	≥ 0.5	Pass
		5825	1	17.133	≥ 0.5	Pass
802.11n (HT40)	SISO	5755	1	35.070	≥ 0.5	Pass
		5795	1	35.076	≥ 0.5	Pass

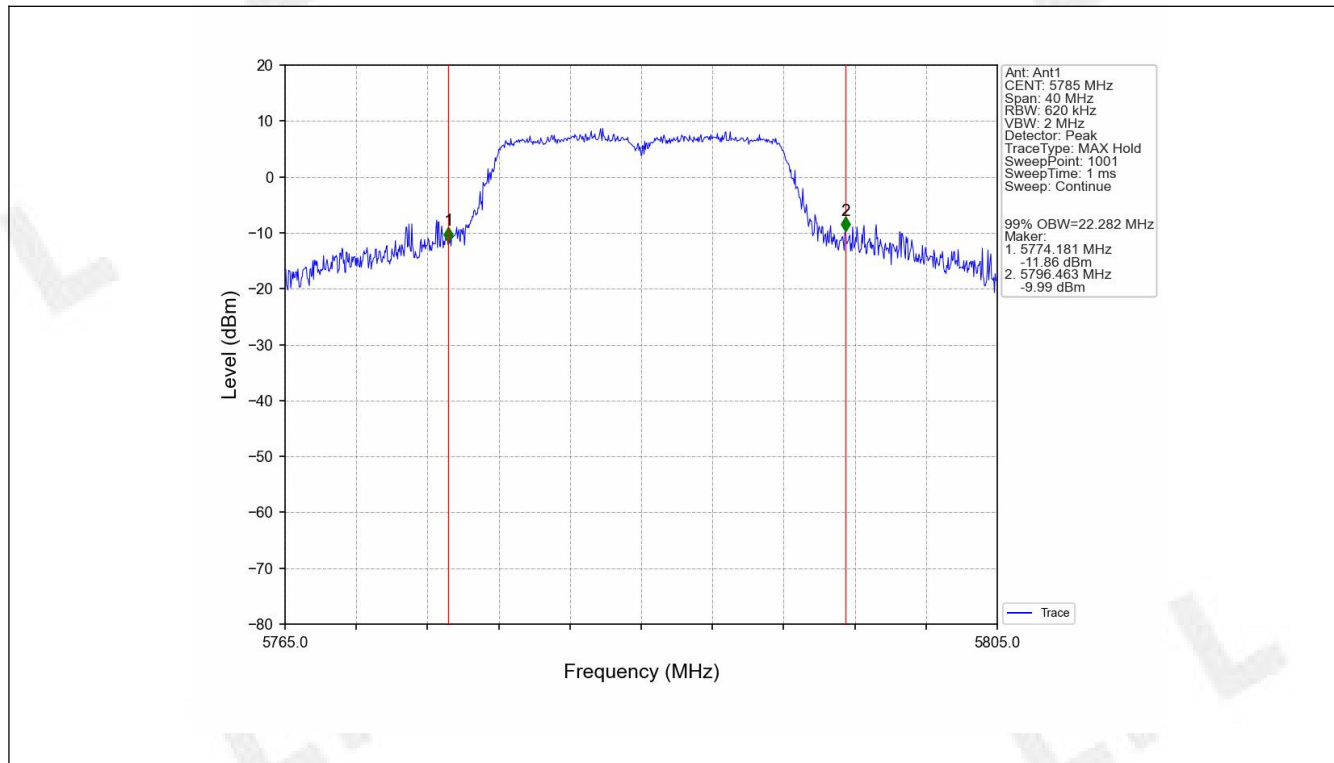
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2.2 Test Graph

2.2.1 OBW

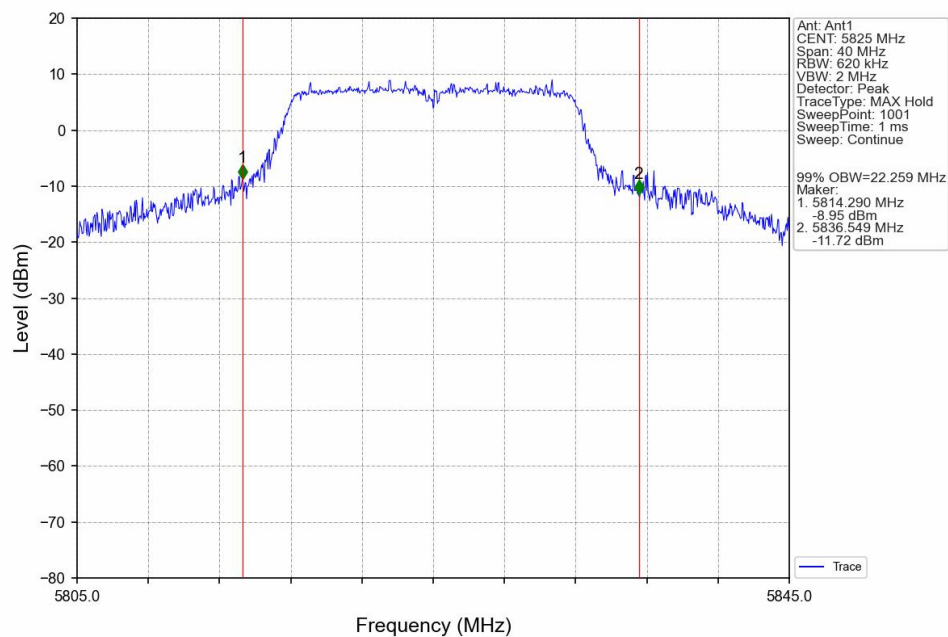


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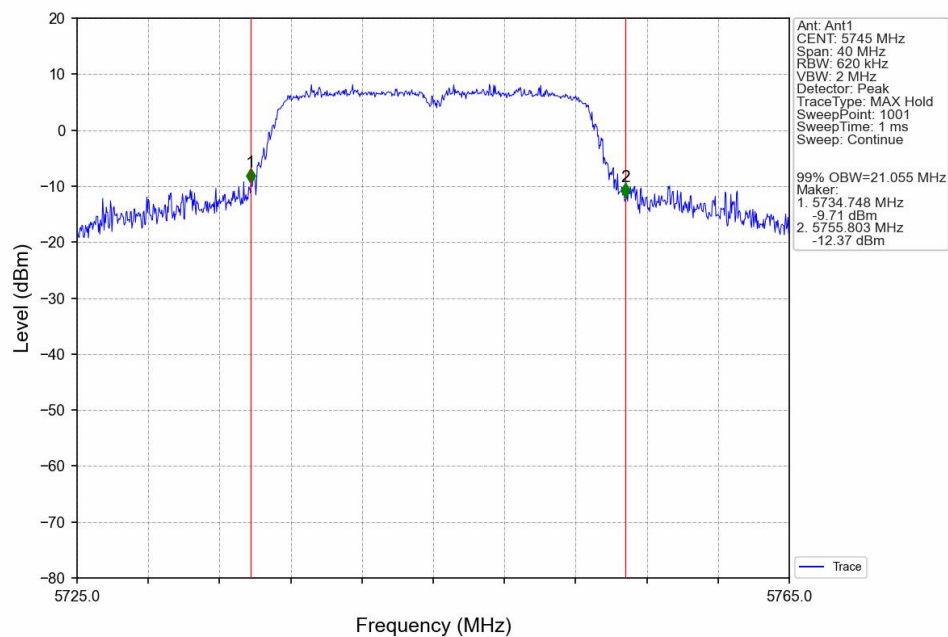


FCCID: SMQIT50

802.11a_HCH_5825MHz_Ant1_NTNV

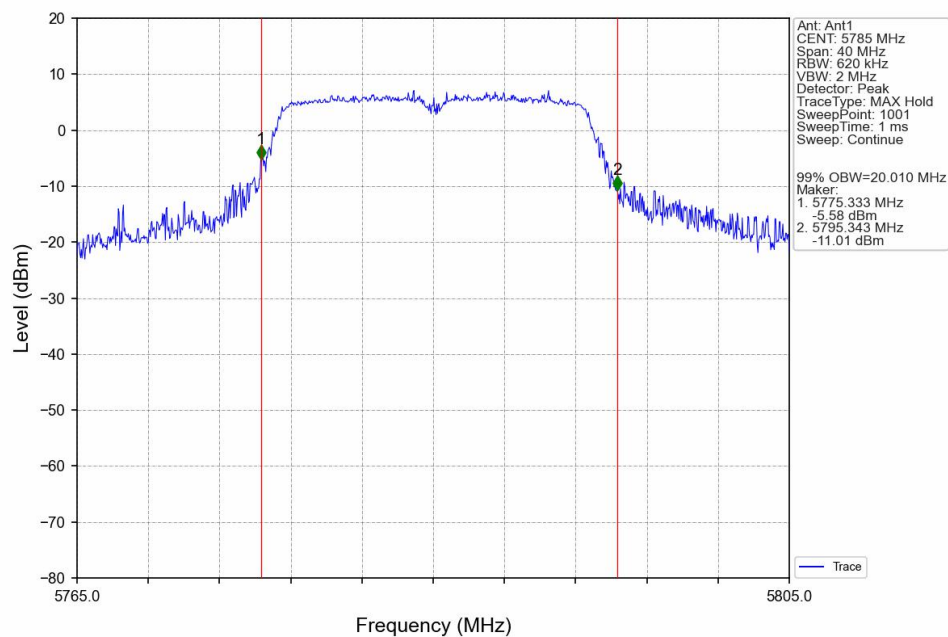


802.11n(HT20)_LCH_5745MHz_Ant1_NTNV

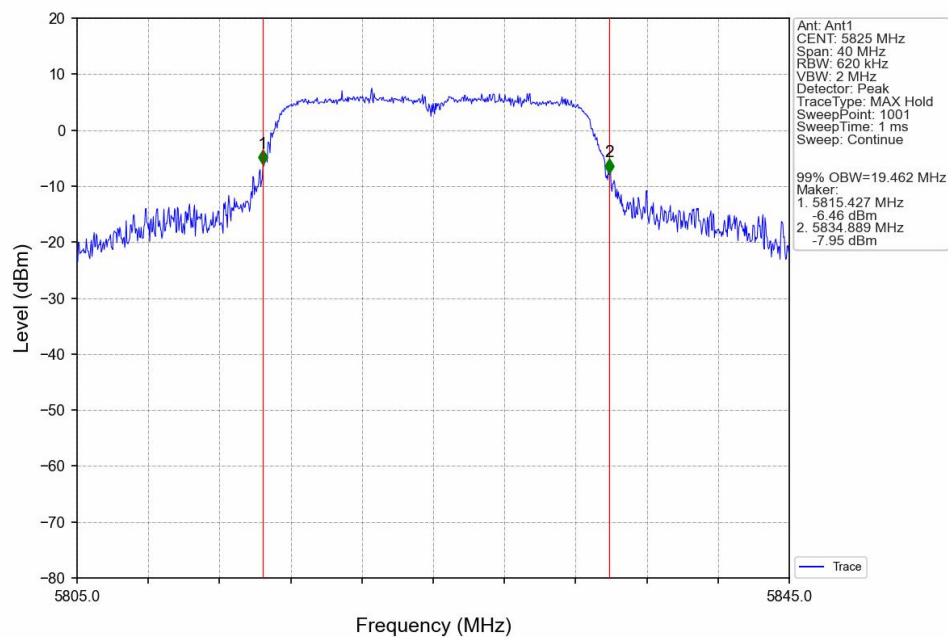


FCCID: SMQIT50

802.11n(HT20)_MCH_5785MHz_Ant1_NTNV

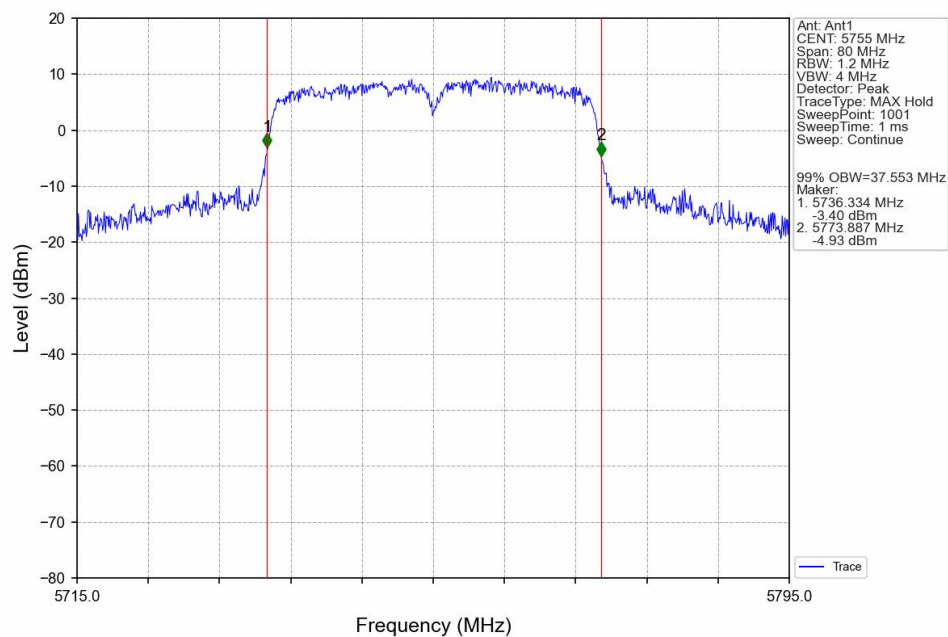


802.11n(HT20)_HCH_5825MHz_Ant1_NTNV

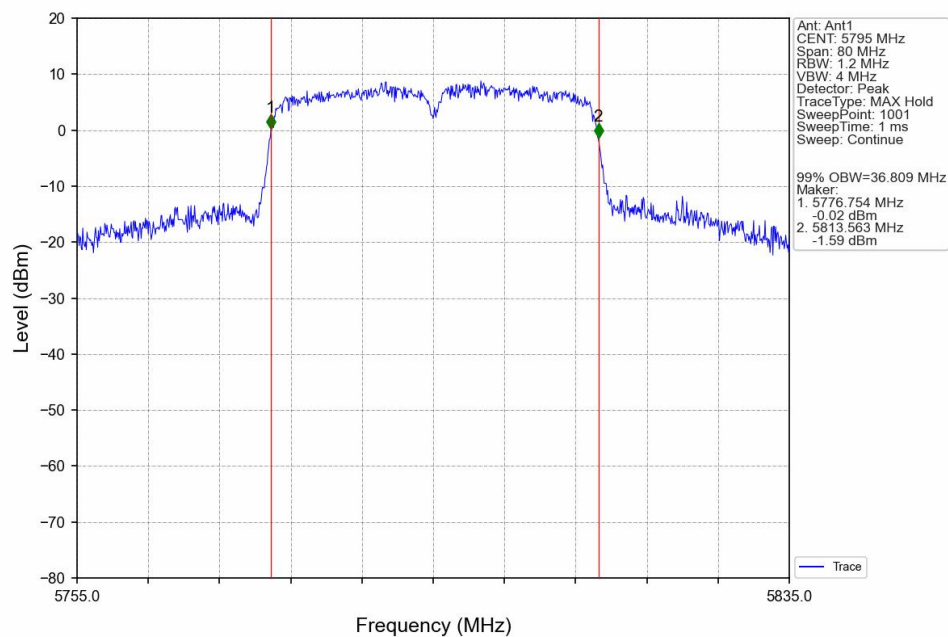


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802.11n(HT40)_LCH_5755MHz_Ant1_NTNV

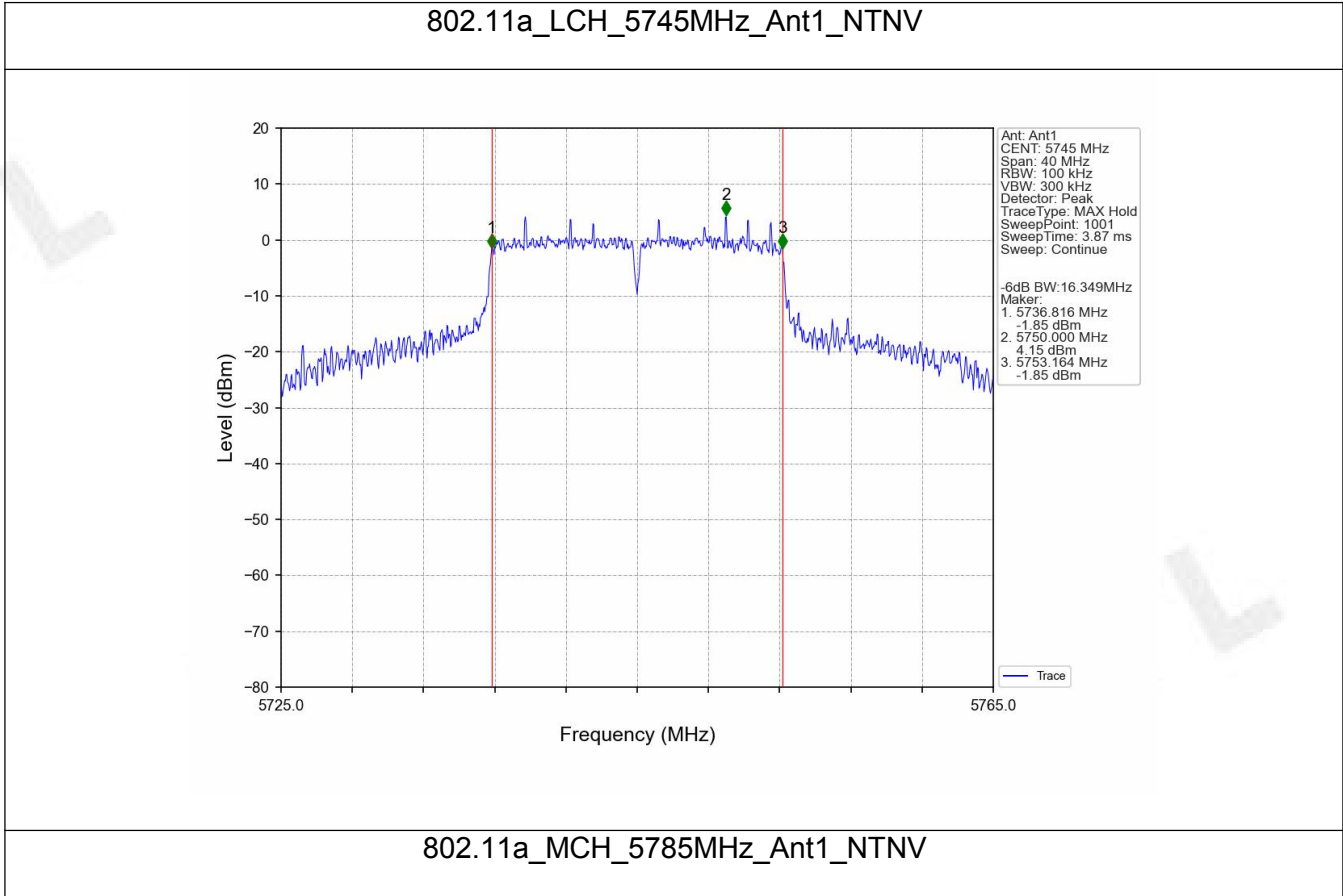


802.11n(HT40)_HCH_5795MHz_Ant1_NTNV

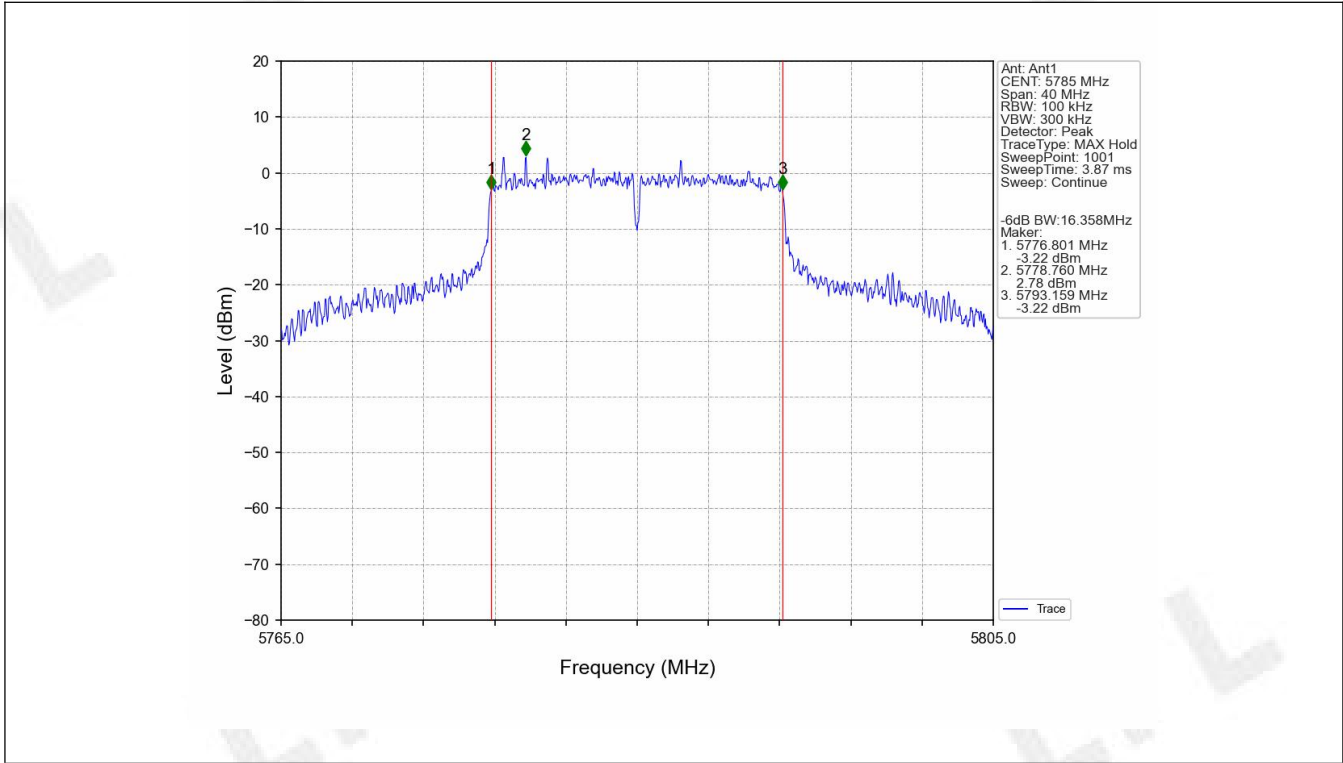


FCCID: SMQIT50

2.2.2 6dB BW

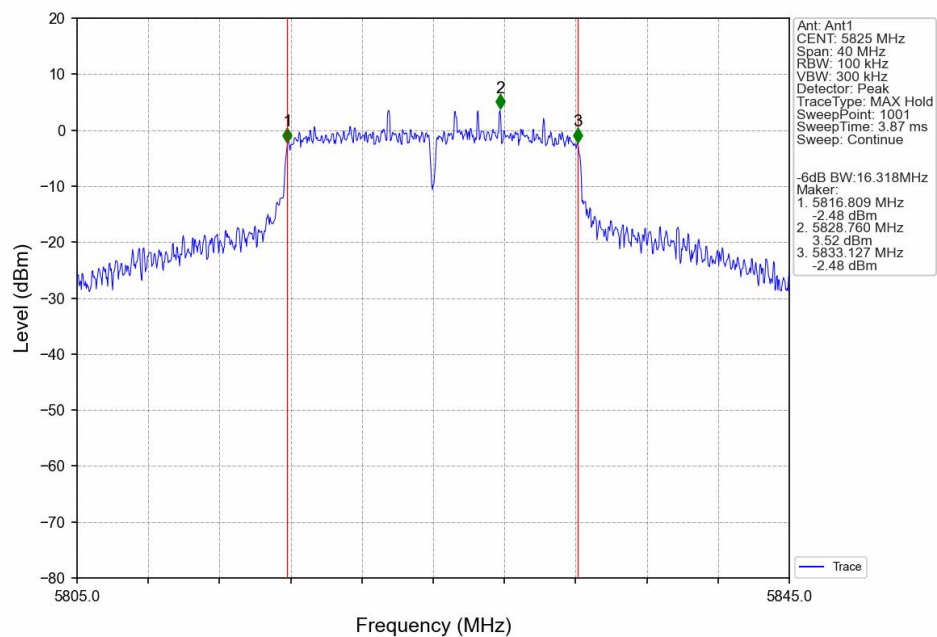


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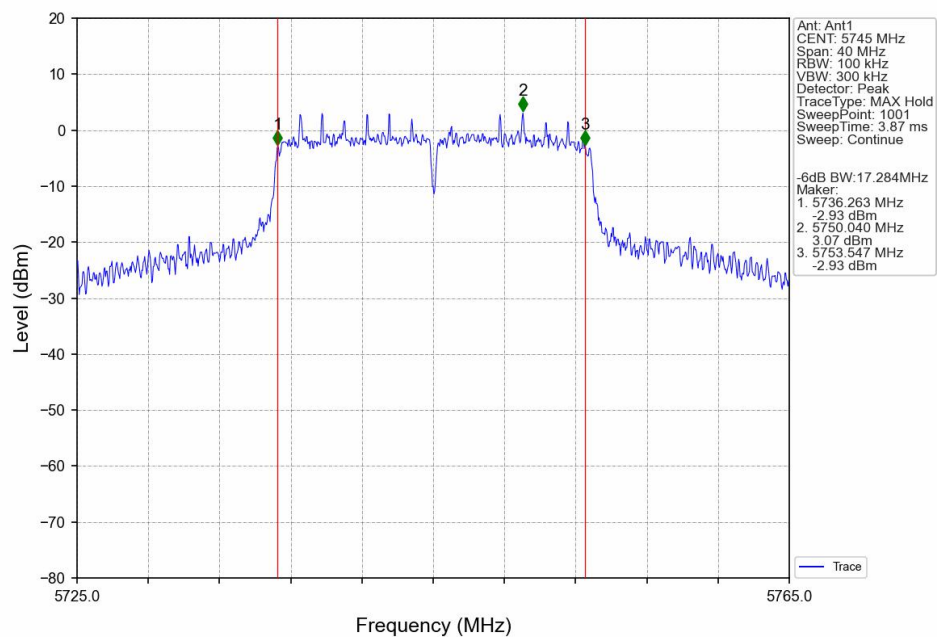


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802.11a_HCH_5825MHz_Ant1_NTNV

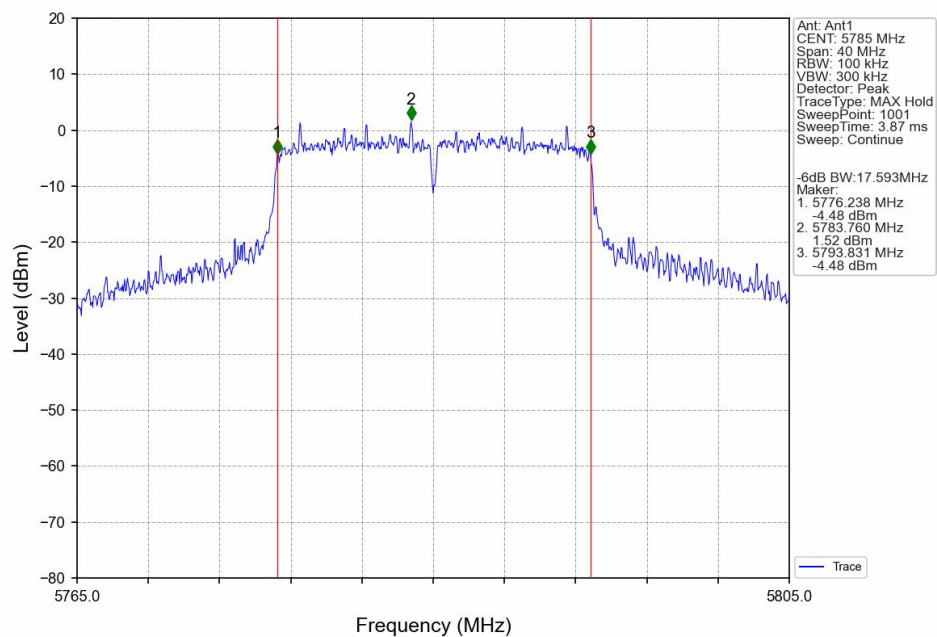


802.11n(HT20)_LCH_5745MHz_Ant1_NTNV

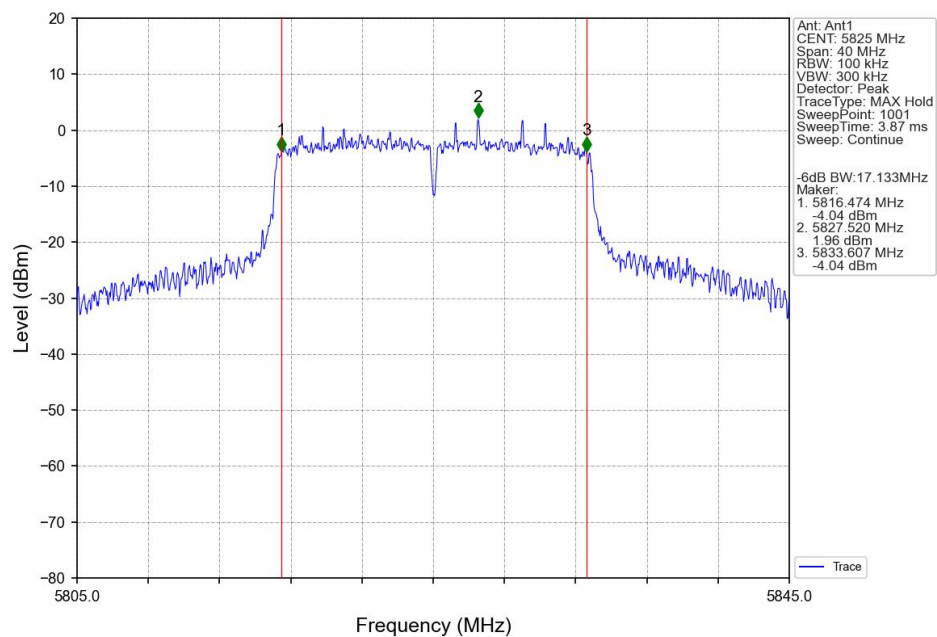


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802.11n(HT20)_MCH_5785MHz_Ant1_NTNV

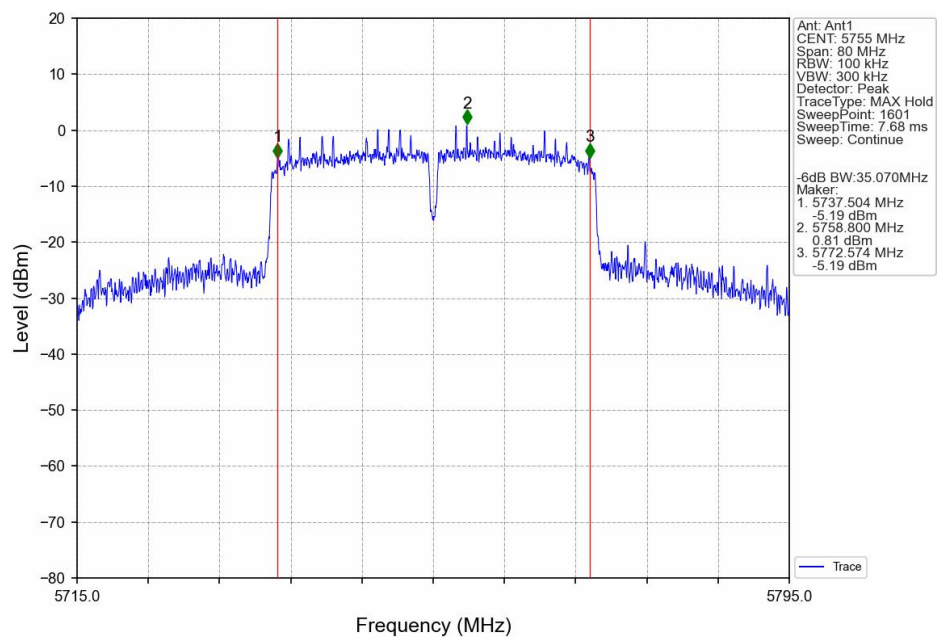


802.11n(HT20)_HCH_5825MHz_Ant1_NTNV

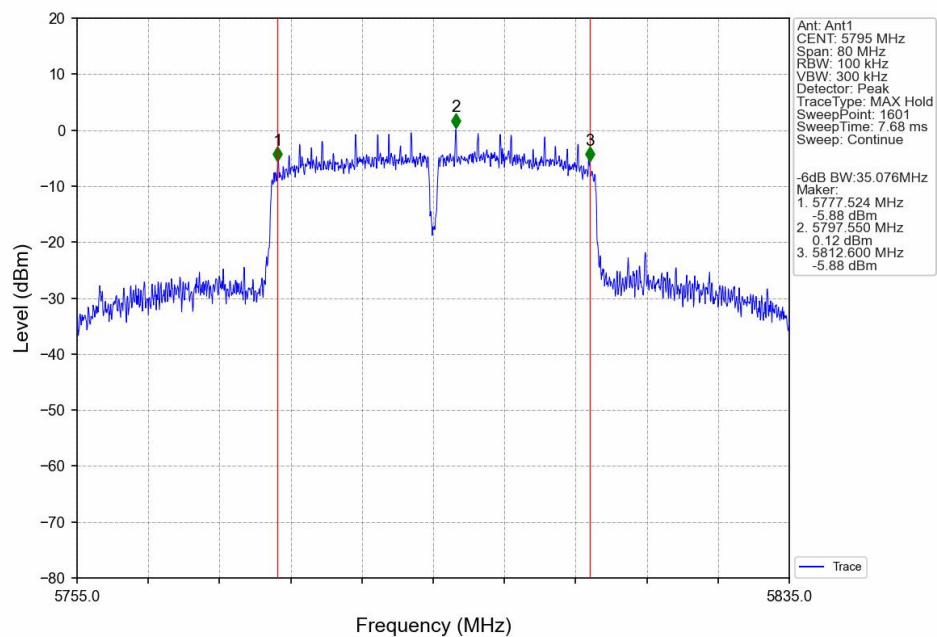


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802.11n(HT40)_LCH_5755MHz_Ant1_NTNV



802.11n(HT40)_HCH_5795MHz_Ant1_NTNV



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3. Maximum Conducted Output Power**3.1 Test Result****3.1.1 Power**

Mode	TX Type	Frequency (MHz)	Maximum Average Conducted Output Power (dBm)			Verdict
			Duty Cycle Correction Factor (dB)	ANT1	Limit	
802.11a	SISO	5745	0.26	15.06	<=30	Pass
		5785	0.27	14.19	<=30	Pass
		5825	0.27	14.39	<=30	Pass
802.11n (HT20)	SISO	5745	0.28	14.15	<=30	Pass
		5785	0.28	13.20	<=30	Pass
		5825	0.28	12.98	<=30	Pass
802.11n (HT40)	SISO	5755	0.56	14.11	<=30	Pass
		5795	0.56	13.24	<=30	Pass
Note1: Antenna Gain: Ant1: 3.65dBi;						
Note 2: Maximum Average Conducted Output Power=DCCF+Maker;						

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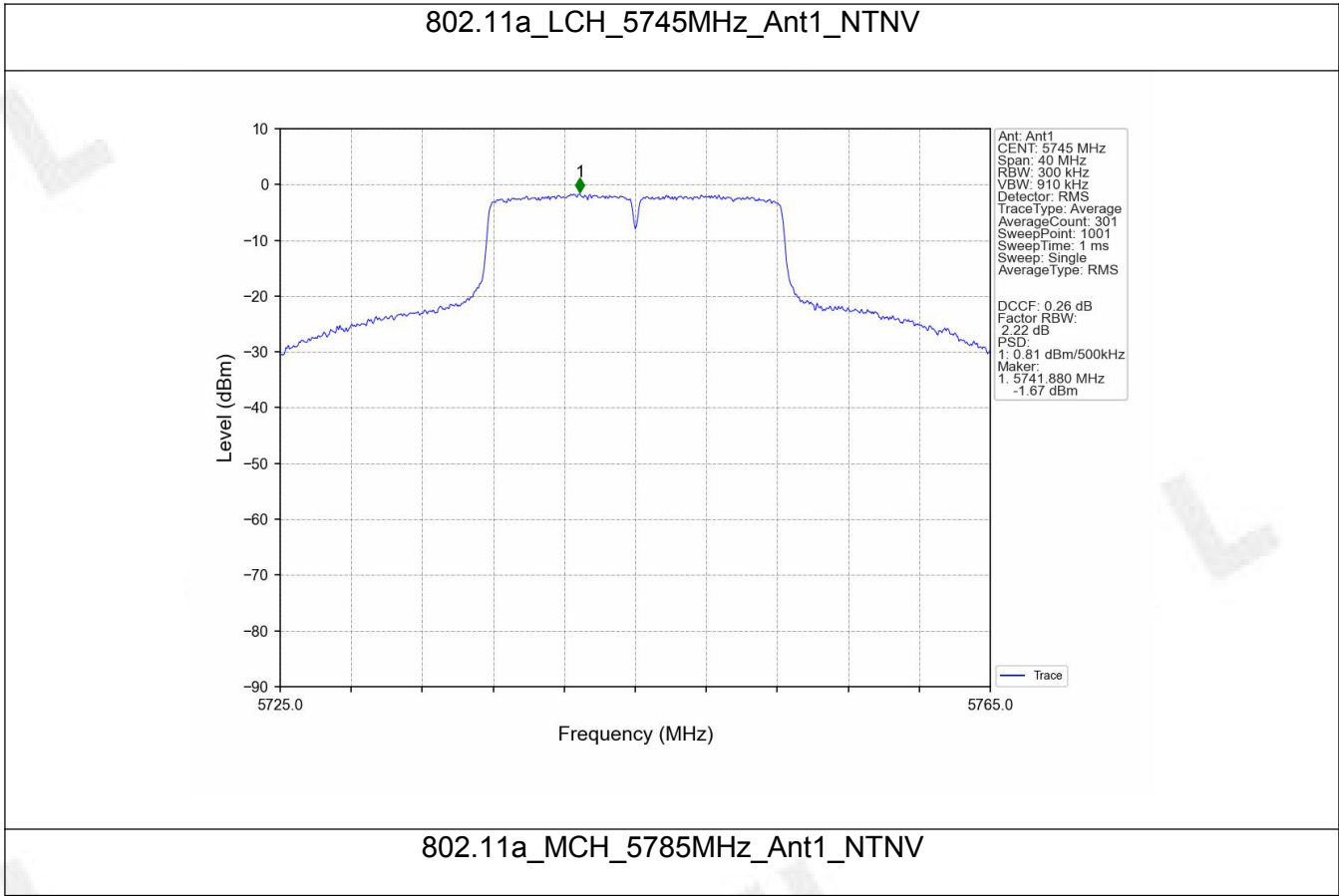
4. Maximum Power Spectral Density**4.1 Test Result****4.1.1 PSD-Band3**

Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm/500kHz)		Verdict
			ANT1	Limit	
802.11a	SISO	5745	0.81	<=30	Pass
		5785	-0.16	<=30	Pass
		5825	0.17	<=30	Pass
802.11n (HT20)	SISO	5745	-0.30	<=30	Pass
		5785	-1.21	<=30	Pass
		5825	-1.46	<=30	Pass
802.11n (HT40)	SISO	5755	-2.93	<=30	Pass
		5795	-3.72	<=30	Pass
Note1: Antenna Gain: Ant1: 3.65dBi;					

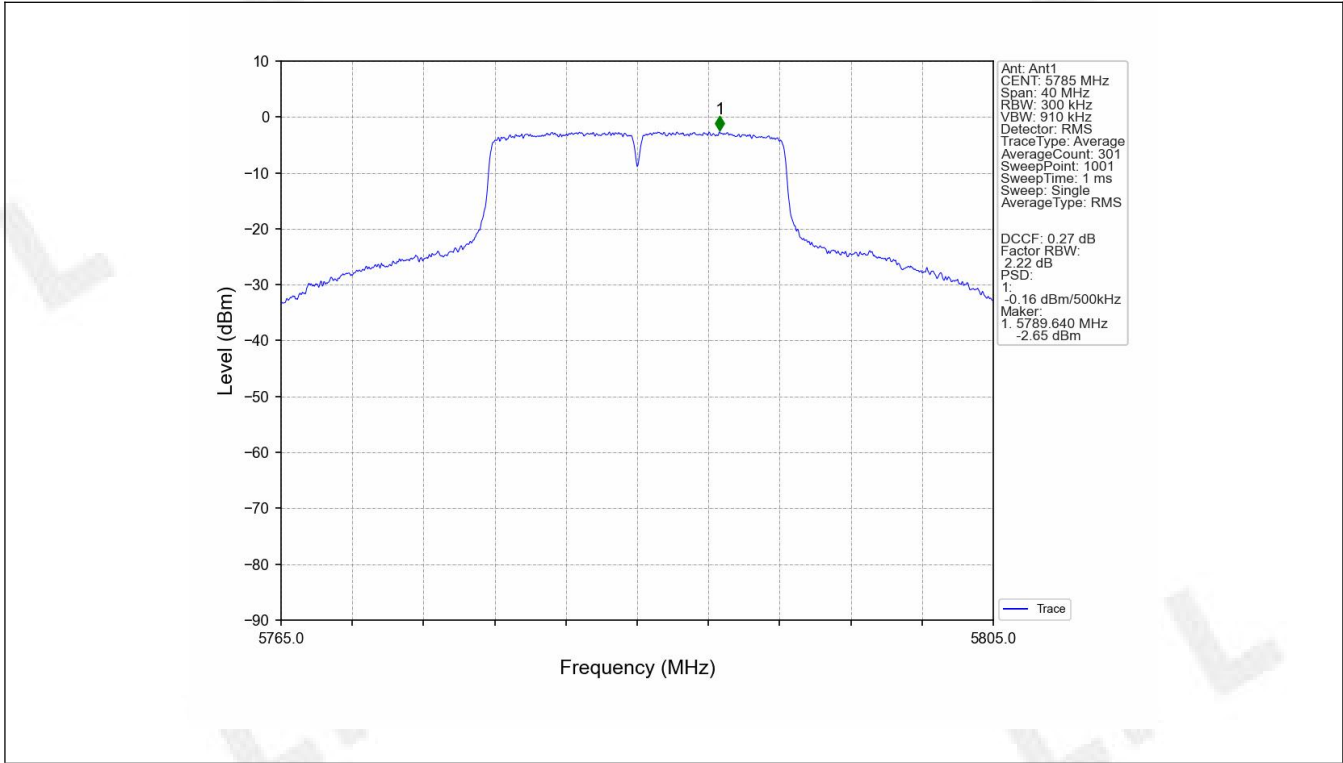
FCCID: SMQIT50

4.2 Test Graph

4.2.1 PSD-Band3

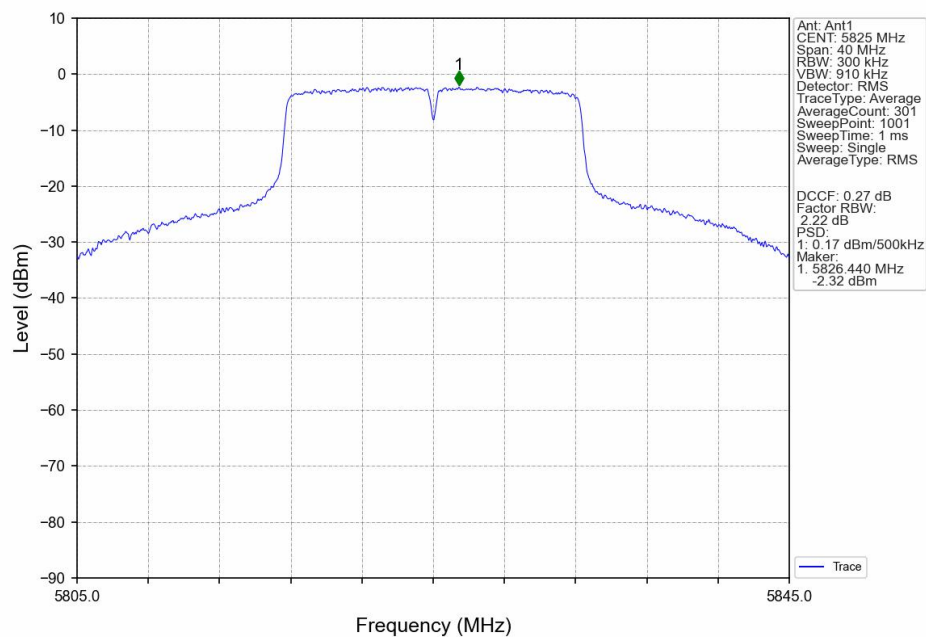


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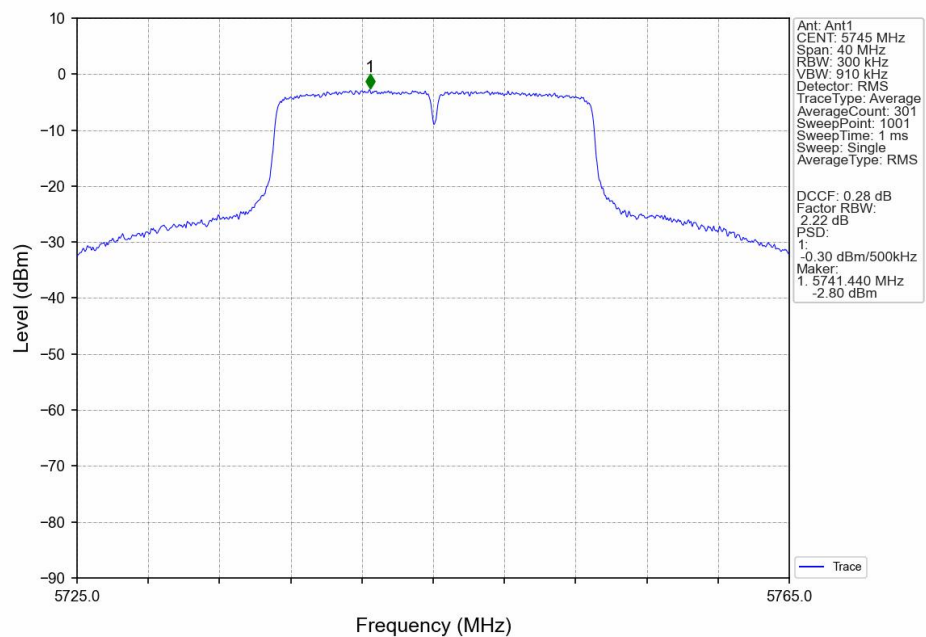


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802.11a_HCH_5825MHz_Ant1_NTNV

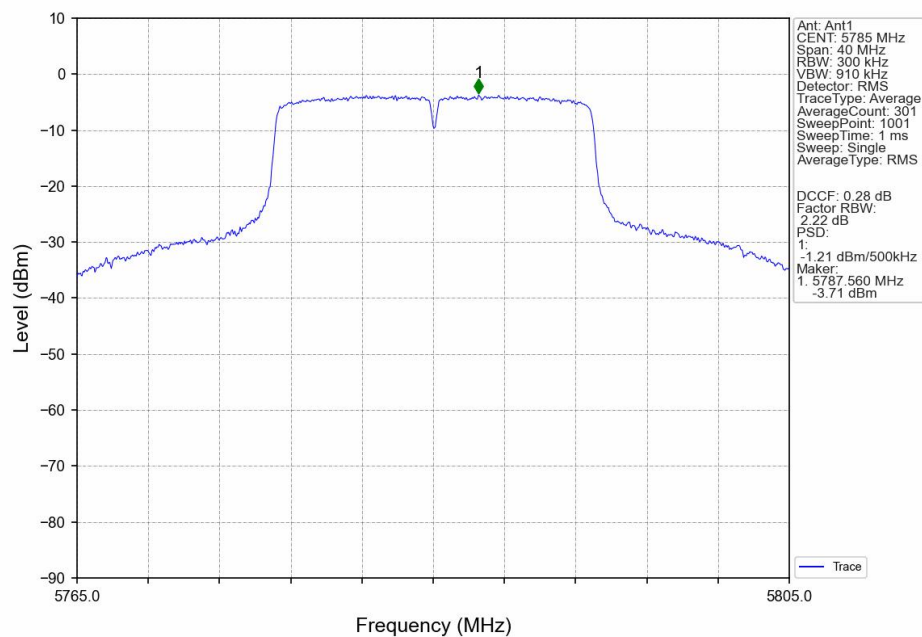


802.11n(HT20)_LCH_5745MHz_Ant1_NTNV

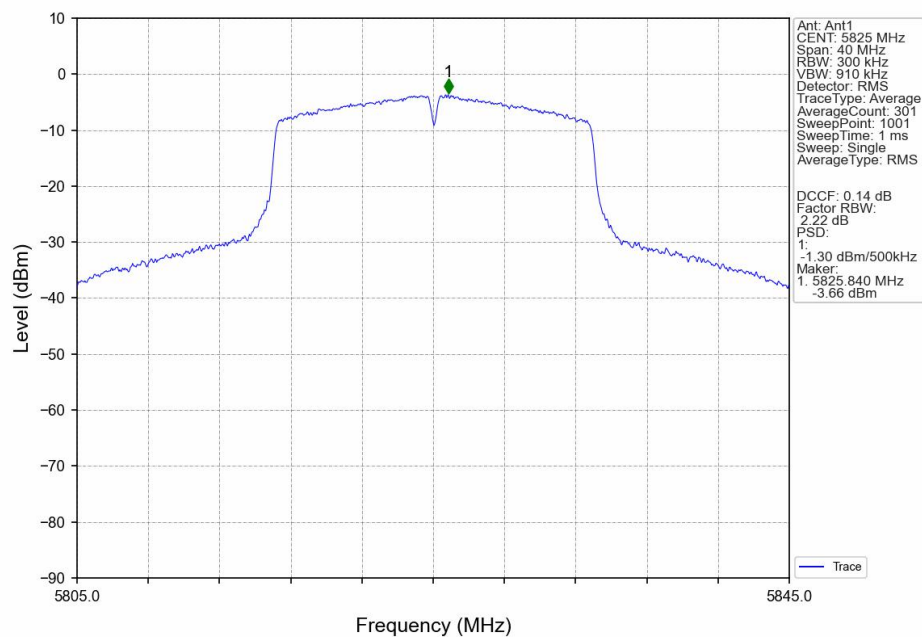


FCCID: SMQIT50

802.11n(HT20)_MCH_5785MHz_Ant1_NTNV

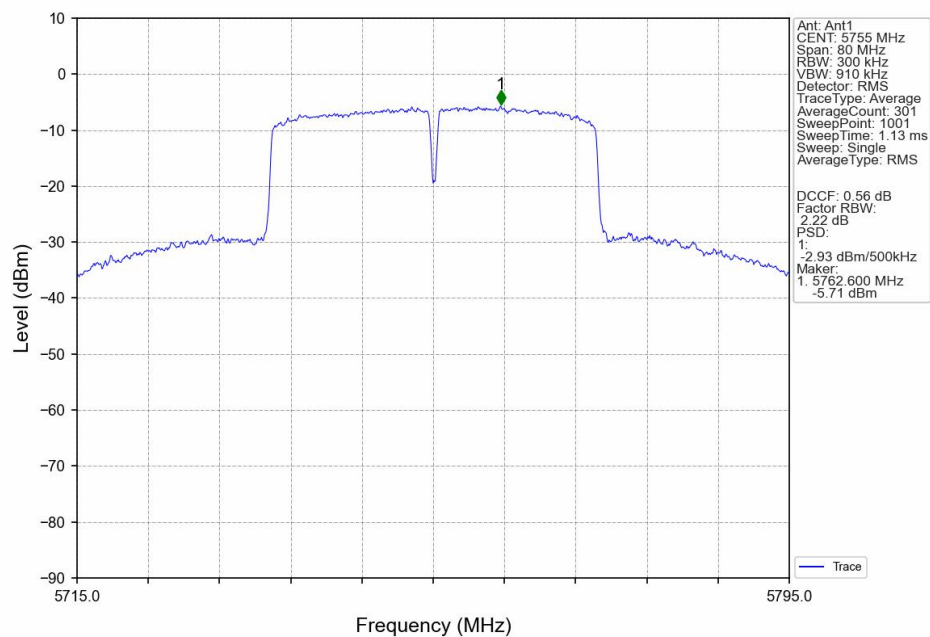


802.11n(HT20)_HCH_5825MHz_Ant1_NTNV

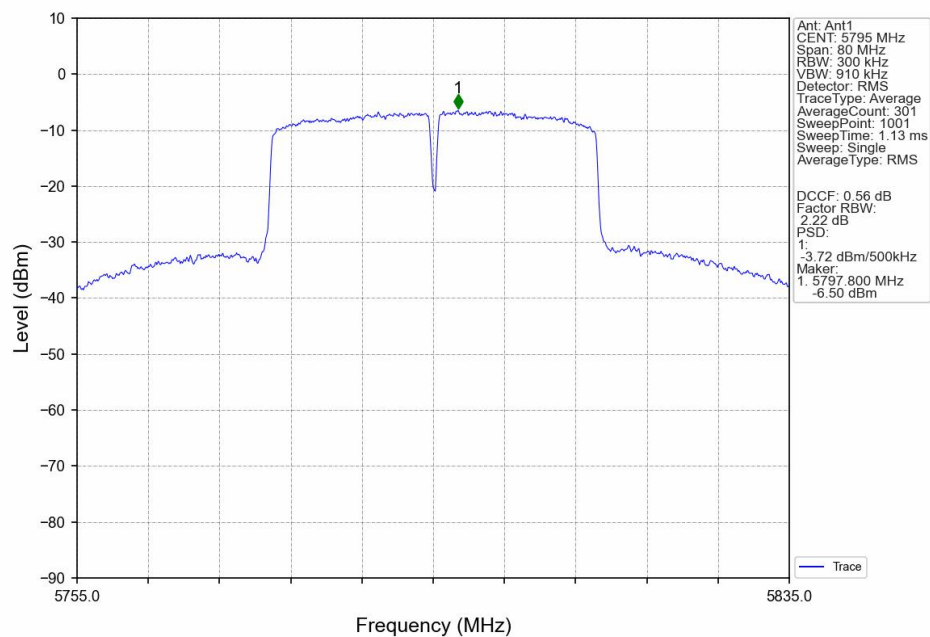


FCCID: SMQIT50

802.11n(HT40)_LCH_5755MHz_Ant1_NTNV



802.11n(HT40)_HCH_5795MHz_Ant1_NTNV



FCCID: SMQIT50

5. Frequency Stability**5.1 Test Result****5.1.1 Ant1**

Ant1							
Mode	TX Type	Frequency (MHz)	Temperature (°C)	Voltage (VAC)	Measured Frequency (MHz)	Limit (MHz)	Verdict
Carrier Wave	SISO	5745	20	3.42	5745.016	5725 to 5850	Pass
				3.8	5745.013	5725 to 5850	Pass
				4.18	5745.012	5725 to 5850	Pass
			-30	3.8	5745.010	5725 to 5850	Pass
			-20	3.8	5745.009	5725 to 5850	Pass
			-10	3.8	5745.009	5725 to 5850	Pass
			0	3.8	5745.008	5725 to 5850	Pass
			10	3.8	5745.008	5725 to 5850	Pass
			30	3.8	5745.008	5725 to 5850	Pass
			40	3.8	5745.007	5725 to 5850	Pass
			50	3.8	5745.007	5725 to 5850	Pass
		5785	20	3.42	5785.008	5725 to 5850	Pass
				3.8	5785.007	5725 to 5850	Pass
				4.18	5785.007	5725 to 5850	Pass
			-30	3.8	5785.007	5725 to 5850	Pass
			-20	3.8	5785.007	5725 to 5850	Pass
			-10	3.8	5785.007	5725 to 5850	Pass
			0	3.8	5785.007	5725 to 5850	Pass
			10	3.8	5785.007	5725 to 5850	Pass

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			30	3.8	5785.007	5725 to 5850	Pass
			40	3.8	5785.007	5725 to 5850	Pass
			50	3.8	5785.007	5725 to 5850	Pass
		5825	20	3.42	5825.007	5725 to 5850	Pass
				3.8	5825.007	5725 to 5850	Pass
				4.18	5825.007	5725 to 5850	Pass
			-30	3.8	5825.007	5725 to 5850	Pass
			-20	3.8	5825.007	5725 to 5850	Pass
			-10	3.8	5825.007	5725 to 5850	Pass
			0	3.8	5825.007	5725 to 5850	Pass
			10	3.8	5825.007	5725 to 5850	Pass
			30	3.8	5825.007	5725 to 5850	Pass
			40	3.8	5825.007	5725 to 5850	Pass
			50	3.8	5825.007	5725 to 5850	Pass
		5755	20	3.42	5755.007	5725 to 5850	Pass
				3.8	5755.007	5725 to 5850	Pass
				4.18	5755.007	5725 to 5850	Pass
			-30	3.8	5755.007	5725 to 5850	Pass
			-20	3.8	5755.007	5725 to 5850	Pass
			-10	3.8	5755.007	5725 to 5850	Pass
			0	3.8	5755.007	5725 to 5850	Pass
			10	3.8	5755.007	5725 to 5850	Pass
			30	3.8	5755.007	5725 to 5850	Pass
			40	3.8	5755.007	5725 to 5850	Pass
			50	3.8	5755.007	5725 to 5850	Pass

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		5795	20	3.42	5795.007	5725 to 5850	Pass
				3.8	5795.007	5725 to 5850	Pass
				4.18	5795.007	5725 to 5850	Pass
			-30	3.8	5795.007	5725 to 5850	Pass
			-20	3.8	5795.007	5725 to 5850	Pass
			-10	3.8	5795.007	5725 to 5850	Pass
			0	3.8	5795.007	5725 to 5850	Pass
			10	3.8	5795.007	5725 to 5850	Pass
			30	3.8	5795.007	5725 to 5850	Pass
			40	3.8	5795.007	5725 to 5850	Pass
			50	3.8	5795.007	5725 to 5850	Pass