Appendix J for 5.5G WIFI RF Test Data

Product Name: Media Player

Test Model: Stix3800

Environmental Conditions

Temperature:	23.3° C
Relative Humidity:	53.6%
ATM Pressure:	100.0 kPa
Test Engineer:	Jay Luo
Supervised by:	Nick Peng

J.1 Carrier frequencies

Condition	Mode	Frequency (MHz)	Measured Frequency (MHz)	Deviation (ppm)	Limit (ppm)	Verdict
NVNT	a	5700	5700.01	1.75	20	Pass
NVNT	ac20	5700	5700.03	5.26	20	Pass
NVNT	ac40	5670	5669.99	-1.76	20	Pass
NVNT	ac80	5610	5610.01	1.78	20	Pass
NVNT	n20	5700	5700.03	5.26	20	Pass
NVNT	n40	5670	5670.04	7.05	20	Pass

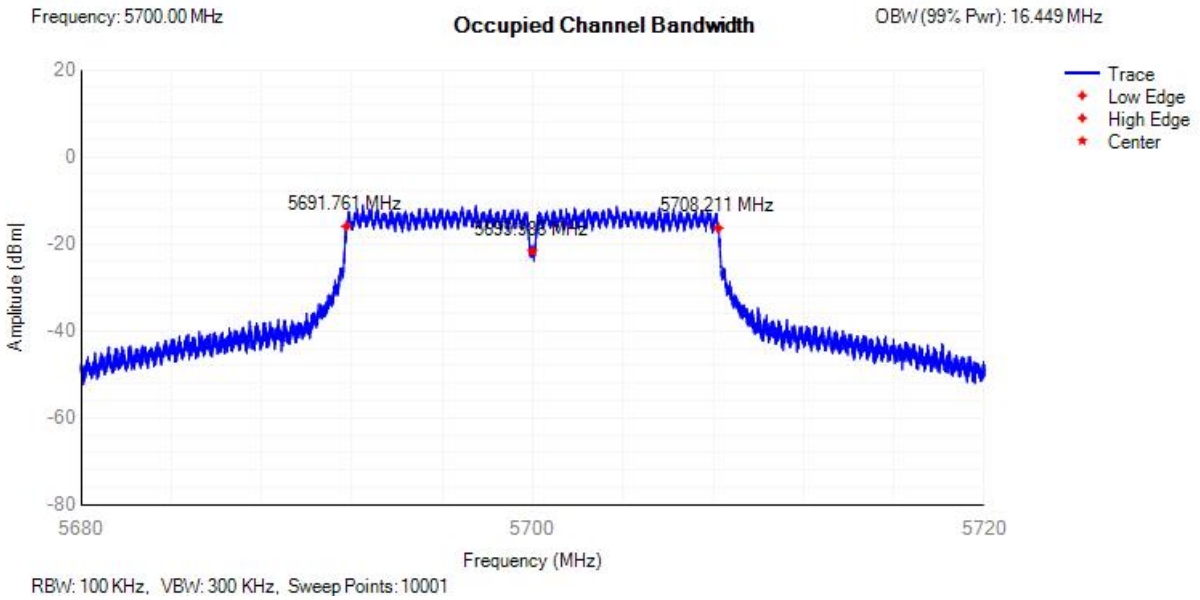
Condition	Mode	Frequency (MHz)	Measured Frequency (MHz)	Deviation (ppm)	Limit (ppm)	Verdict
NVLT	a	5700	5699.99	-1.75	20	Pass
NVLT	ac20	5700	5699.96	-7.02	20	Pass
NVLT	ac40	5670	5669.96	-7.05	20	Pass
NVLT	ac80	5610	5609.99	-1.78	20	Pass
NVLT	n20	5700	5700.02	3.51	20	Pass
NVLT	n40	5670	5670.03	5.29	20	Pass

Condition	Mode	Frequency (MHz)	Measured Frequency (MHz)	Deviation (ppm)	Limit (ppm)	Verdict
NVHT	a	5700	5700.04	7.02	20	Pass
NVHT	ac20	5700	5699.97	-5.26	20	Pass
NVHT	ac40	5670	5669.97	-5.29	20	Pass
NVHT	ac80	5610	5609.96	-7.13	20	Pass
NVHT	n20	5700	5700.04	7.02	20	Pass
NVHT	n40	5670	5670.02	3.53	20	Pass

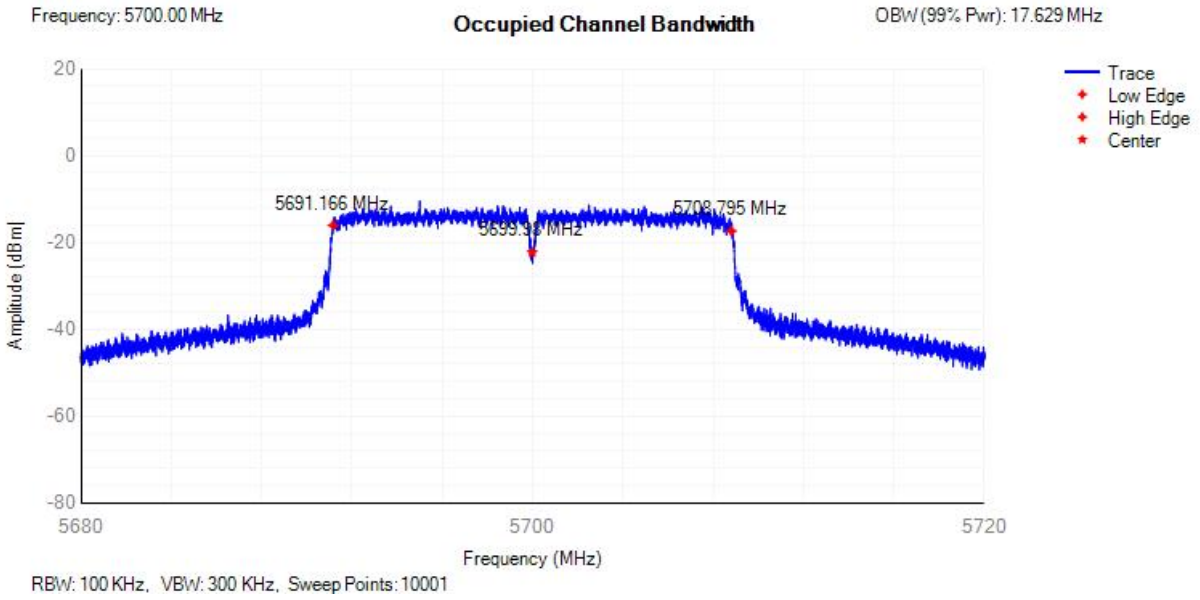
J.2 Occupied Channel Bandwidth

Condition	Mode	Frequency (MHz)	Center Frequency (MHz)	OBW (MHz)	Lower Limit (MHz)	Upper Limit(MHz)	Verdict
NVNT	a	5700	5699.986	16.449	16	20	Pass
NVNT	ac20	5700	5699.98	17.629	16	20	Pass
NVNT	ac40	5670	5669.955	36.216	32	40	Pass
NVNT	ac80	5610	5609.886	75.771	64	80	Pass
NVNT	n20	5700	5699.979	17.633	16	20	Pass
NVNT	n40	5670	5669.953	36.184	32	40	Pass

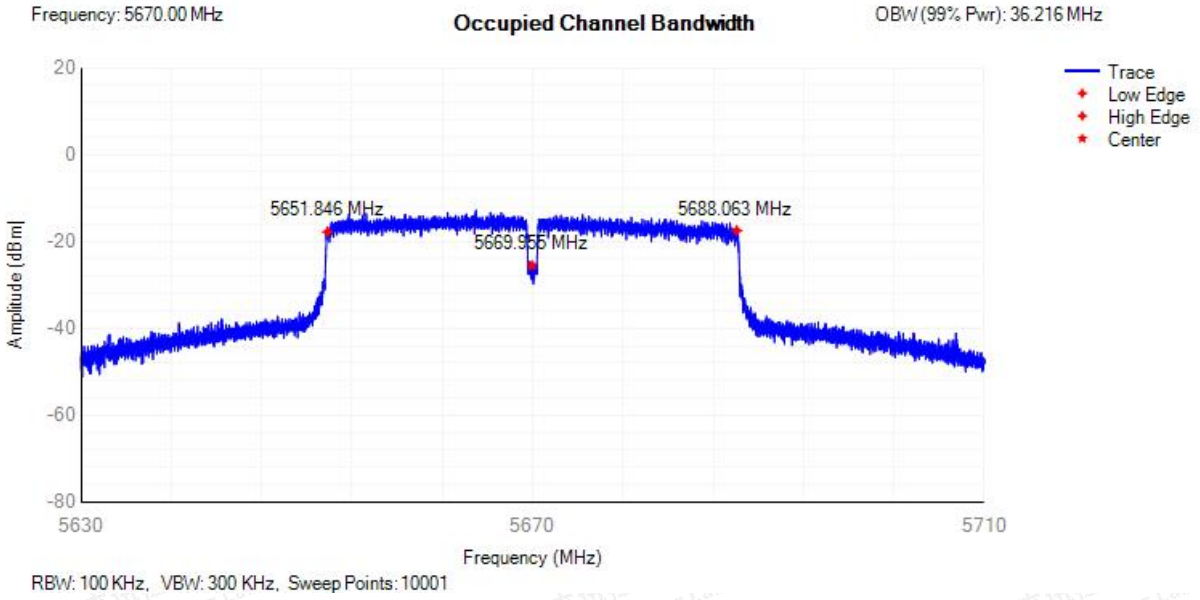
OBW NVNT a 5700MHz



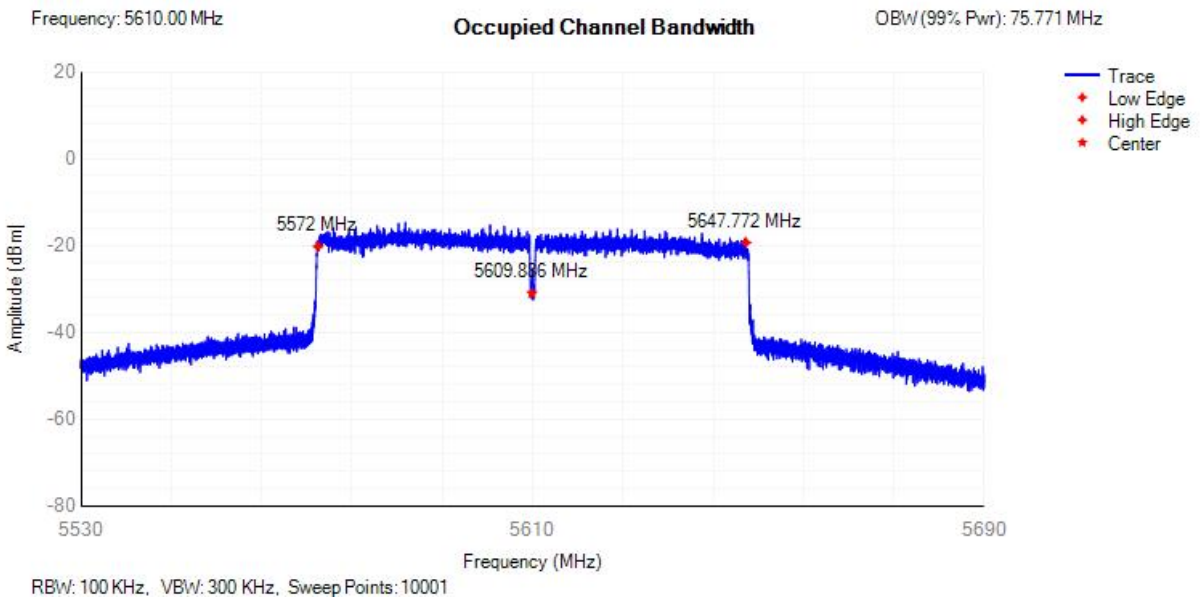
OBW NVNT ac20 5700MHz



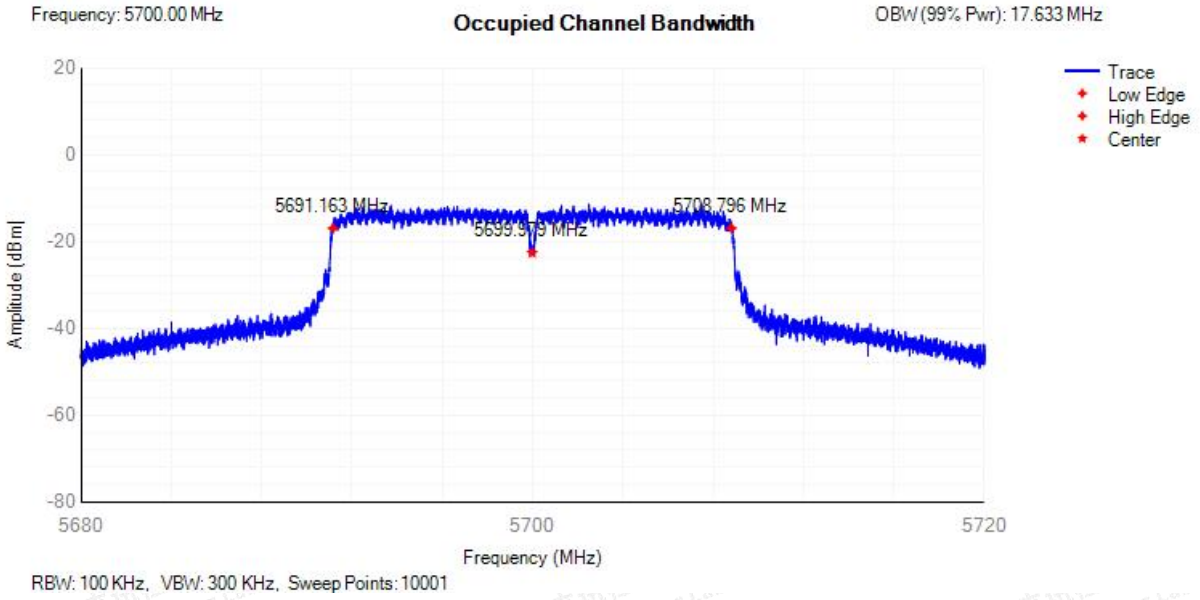
OBW NVNT ac40 5670MHz



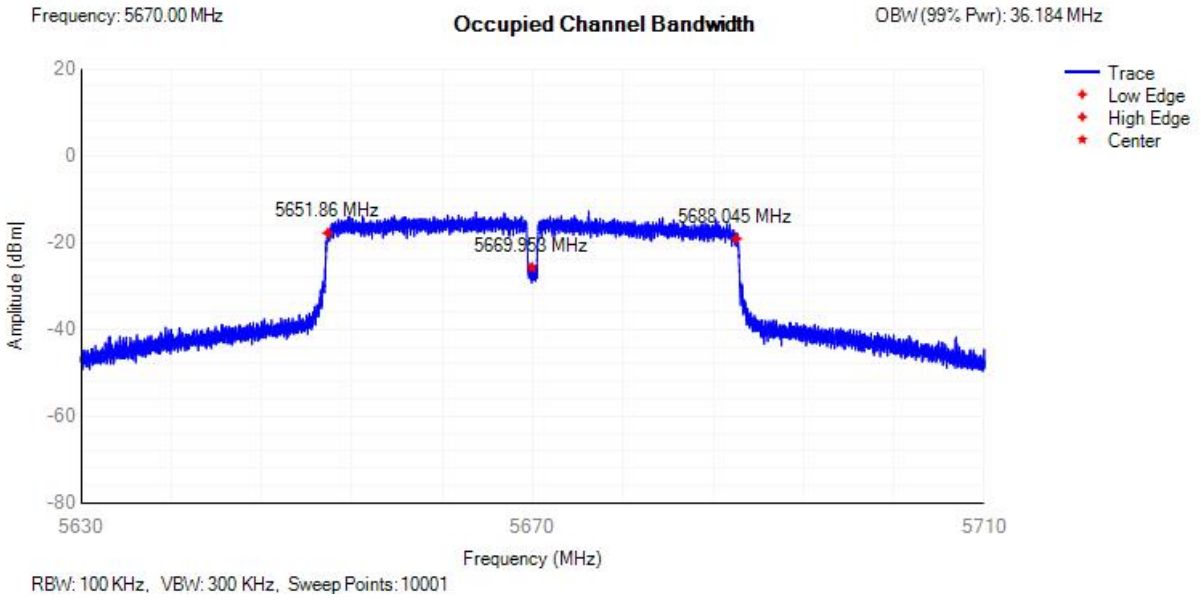
OBW NVNT ac80 5610MHz



OBW NVNT n20 5700MHz



OBW NVNT n40 5670MHz


Frequency: 5670.00 MHz
Occupied Channel Bandwidth
OBW (99% Pwr): 36.184 MHz
Trace
Low Edge
High Edge
Center
5651.86 MHz
5669.953 MHz
5688.045 MHz
Amplitude [dBm]
20
0
-20
-40
-60
-80
5630
5670
5710
Frequency (MHz)
RBW: 100 KHz, VBW: 300 KHz, Sweep Points: 10001

J.3 RF Output Power

Condition	Mode	Frequency (MHz)	Max EIRP (dBm)	Limit (dBm)	Verdict
NVNT	a	5700	10.39	23	Pass
NVNT	ac20	5700	10.57	23	Pass
NVNT	ac40	5670	11.35	23	Pass
NVNT	ac80	5610	12.04	23	Pass
NVNT	n20	5700	10.6	23	Pass
NVNT	n40	5670	11.3	23	Pass

Condition	Mode	Frequency (MHz)	Max EIRP (dBm)	Limit (dBm)	Verdict
NVLT	a	5700	10.34	23	Pass
NVLT	ac20	5700	10.54	23	Pass
NVLT	ac40	5670	11.33	23	Pass
NVLT	ac80	5610	12.00	23	Pass
NVLT	n20	5700	10.54	23	Pass
NVLT	n40	5670	11.21	23	Pass

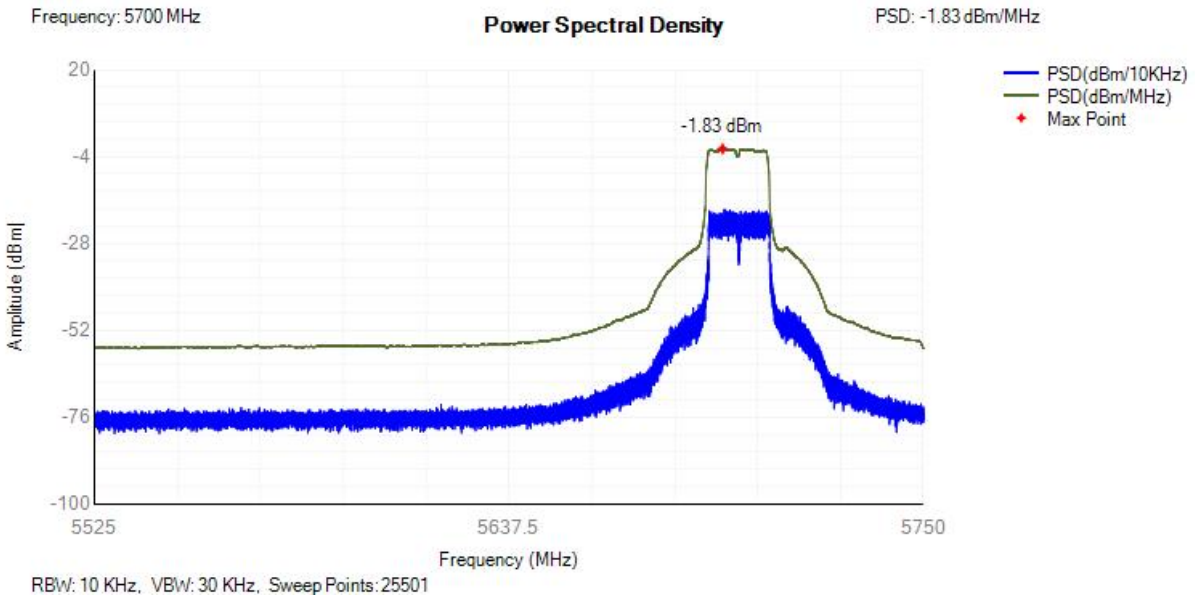
Condition	Mode	Frequency (MHz)	Max EIRP (dBm)	Limit (dBm)	Verdict
NVHT	a	5700	10.28	23	Pass
NVHT	ac20	5700	10.47	23	Pass
NVHT	ac40	5670	11.32	23	Pass
NVHT	ac80	5610	11.96	23	Pass
NVHT	n20	5700	10.52	23	Pass
NVHT	n40	5670	11.17	23	Pass

***Note: 20 bursts had been captured for power measurement.

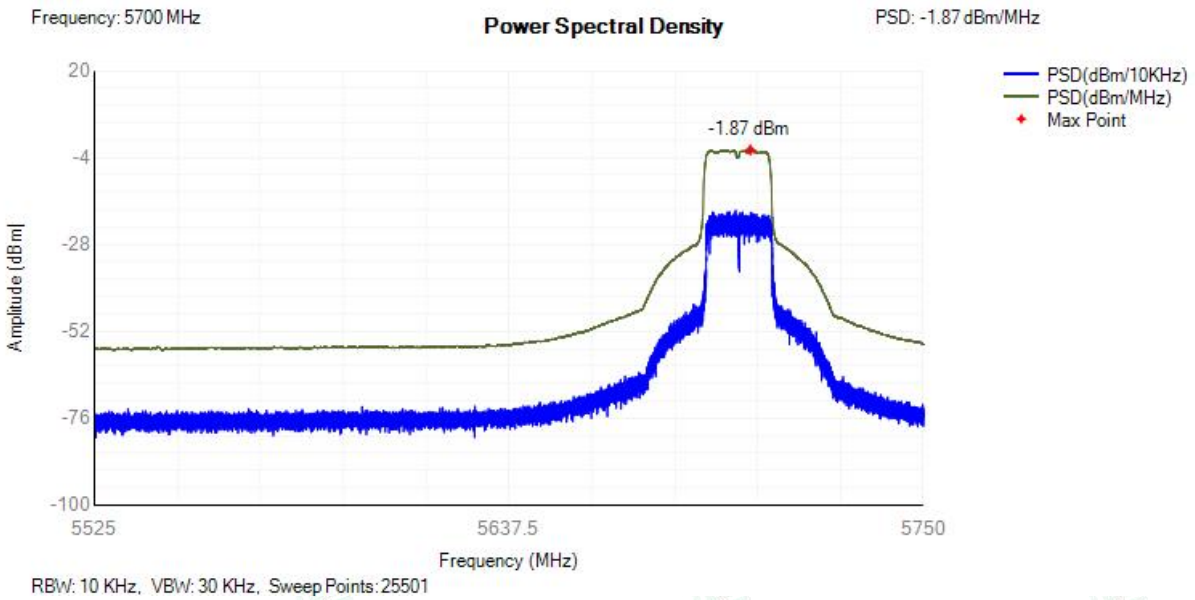
J.4 Power Spectral Density

Condition	Mode	Frequency (MHz)	Max PSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
NVNT	a	5700	-1.83	10	Pass
NVNT	ac20	5700	-1.87	10	Pass
NVNT	ac40	5670	-3.72	10	Pass
NVNT	ac80	5610	-5.96	10	Pass
NVNT	n20	5700	-1.78	10	Pass
NVNT	n40	5670	-3.72	10	Pass

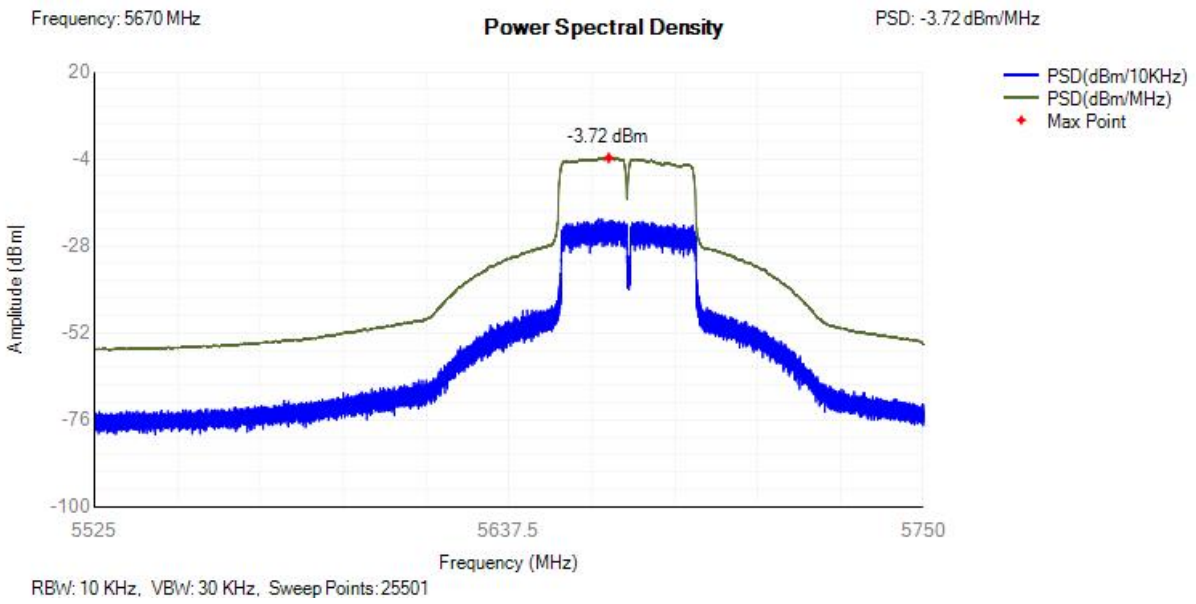
PSD NVNT a 5700MHz



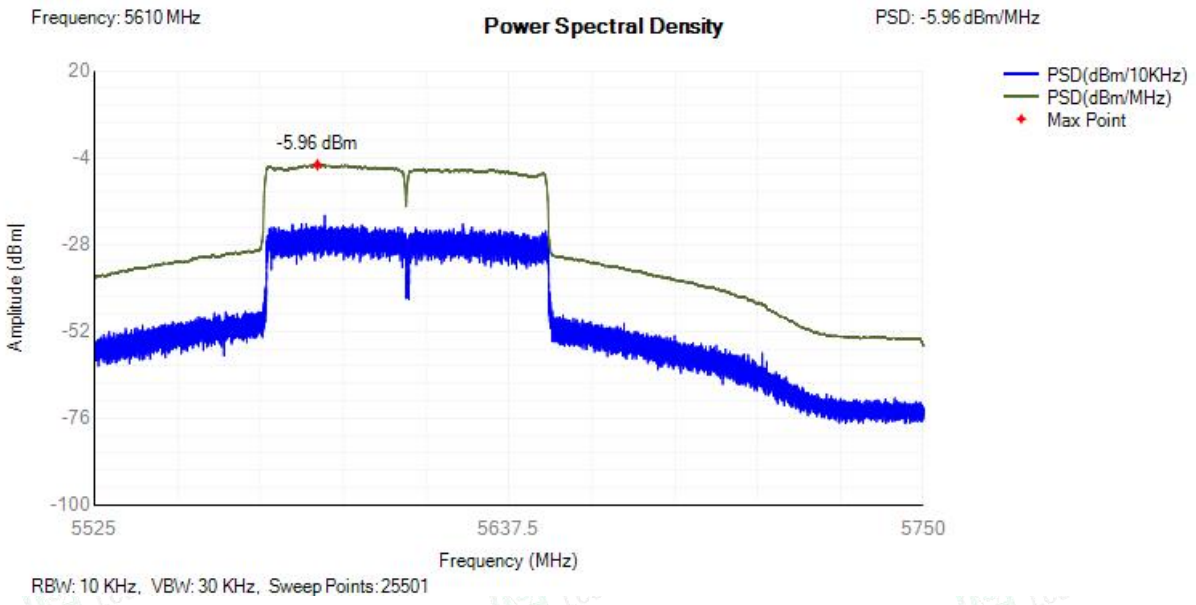
PSD NVNT ac20 5700MHz



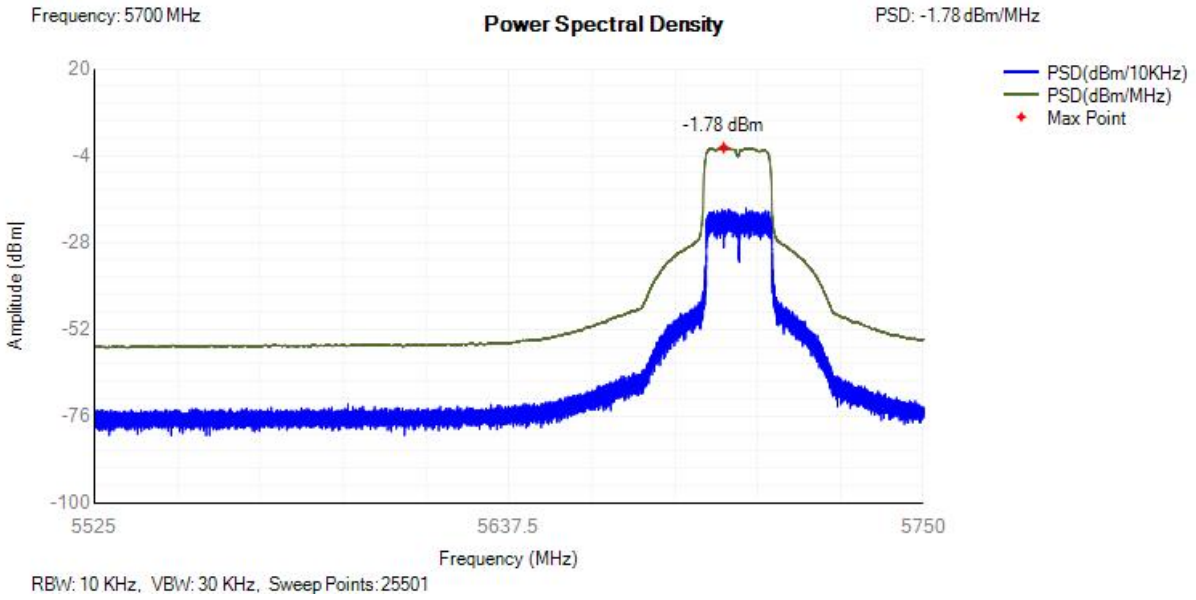
PSD NVNT ac40 5670MHz



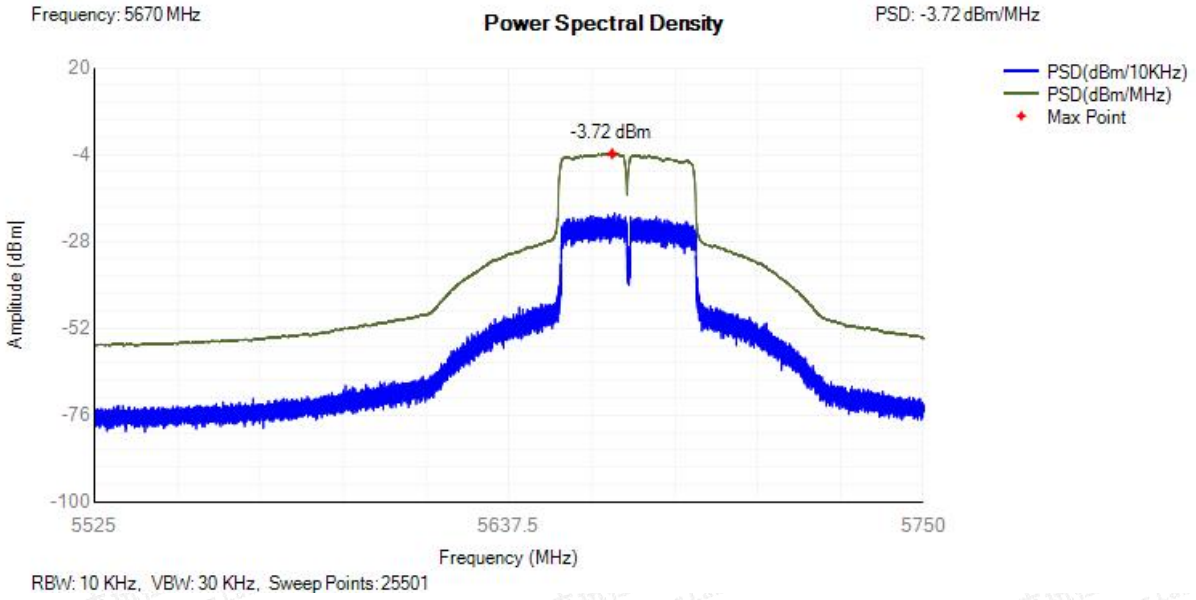
PSD NVNT ac80 5610MHz



PSD NVNT n20 5700MHz



PSD NVNT n40 5670MHz



J.5 Transmitter unwanted emissions outside the 5 GHz RLAN bands

The Worst Test Result For 802.11a					
Frequency (MHz)	Polarization (H/V)	Measure Level (dBm)	Limit (dBm)	Margin (dB)	Detector
Channel 100 (5500MHz)					
57.35	H	-82.82	-54.00	-28.82	PK
64.82	V	-73.98	-54.00	-19.98	PK
808.19	H	-76.27	-54.00	-22.27	PK
925.30	V	-74.11	-36.00	-38.11	PK
3705.63	H	-49.92	-30.00	-19.92	PK
3530.31	V	-60.59	-30.00	-30.59	PK
11000.09	H	-52.96	-30.00	-22.96	PK
11000.07	V	-50.81	-30.00	-20.81	PK

The Worst Test Result For 802.11n(20MHz)					
Frequency (MHz)	Polarization (H/V)	Measure Level (dBm)	Limit (dBm)	Margin (dB)	Detector
Channel 100 (5500MHz)					
58.70	H	-81.38	-54.00	-27.38	PK
65.36	V	-74.82	-54.00	-20.82	PK
809.19	H	-76.25	-54.00	-22.25	PK
923.92	V	-74.67	-36.00	-38.67	PK
3698.78	H	-49.05	-30.00	-19.05	PK
3689.85	V	-60.96	-30.00	-30.96	PK
11000.08	H	-52.54	-30.00	-22.54	PK
11000.06	V	-51.03	-30.00	-21.03	PK

The Worst Test Result For 802.11ac(20MHz)					
Frequency (MHz)	Polarization (H/V)	Measure Level (dBm)	Limit (dBm)	Margin (dB)	Detector
Channel 100 (5500MHz)					
57.95	H	-81.12	-54.00	-27.12	PK
64.94	V	-74.61	-54.00	-20.61	PK
811.36	H	-75.79	-54.00	-21.79	PK
927.40	V	-75.01	-36.00	-39.01	PK
3668.12	H	-49.69	-30.00	-19.69	PK
3673.85	V	-61.58	-30.00	-31.58	PK
11000.00	H	-52.41	-30.00	-22.41	PK
11000.01	V	-50.77	-30.00	-20.77	PK

The Worst Test Result For 802.11n(40MHz)					
Frequency (MHz)	Polarization (H/V)	Measure Level (dBm)	Limit (dBm)	Margin (dB)	Detector
Channel 102 (5510MHz)					
60.66	H	-82.94	-54.00	-28.94	PK
65.06	V	-73.43	-54.00	-19.43	PK
807.24	H	-75.58	-54.00	-21.58	PK
926.06	V	-74.73	-36.00	-38.73	PK
3707.52	H	-49.25	-30.00	-19.25	PK
3720.74	V	-60.54	-30.00	-30.54	PK
11020.04	H	-53.74	-30.00	-23.74	PK
11020.06	V	-50.03	-30.00	-20.03	PK

The Worst Test Result For 802.11ac(40MHz)					
Frequency (MHz)	Polarization (H/V)	Measure Level (dBm)	Limit (dBm)	Margin (dB)	Detector
Channel 102 (5510MHz)					
59.56	H	-83.56	-54.00	-29.56	PK
67.66	V	-73.91	-54.00	-19.91	PK
807.74	H	-76.10	-54.00	-22.10	PK
922.97	V	-74.11	-36.00	-38.11	PK
3703.05	H	-49.60	-30.00	-19.60	PK
3691.40	V	-60.45	-30.00	-30.45	PK
11020.06	H	-53.66	-30.00	-23.66	PK
11020.10	V	-49.92	-30.00	-19.92	PK

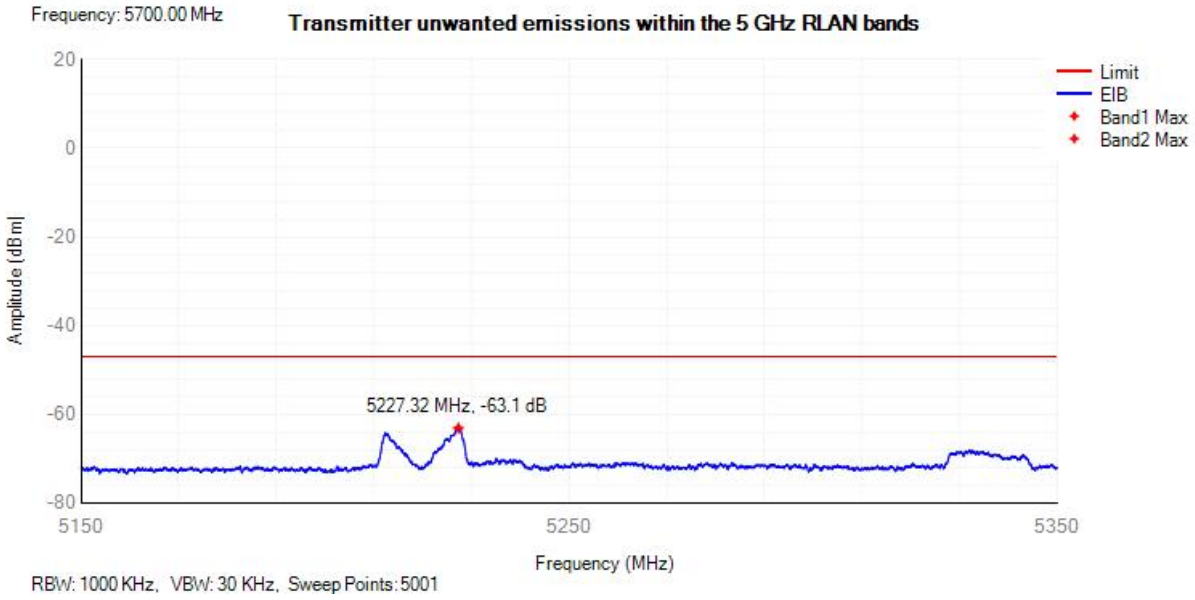
The Worst Test Result For 802.11ac(80MHz)					
Frequency (MHz)	Polarization (H/V)	Measure Level (dBm)	Limit (dBm)	Margin (dB)	Detector
Channel 122(5610MHz)					
60.60	H	-83.05	-54.00	-29.05	PK
65.85	V	-73.20	-54.00	-19.20	PK
807.36	H	-75.45	-54.00	-21.45	PK
923.18	V	-74.74	-36.00	-38.74	PK
3715.90	H	-49.49	-30.00	-19.49	PK
3691.66	V	-59.96	-30.00	-29.96	PK
11060.10	H	-54.51	-30.00	-24.51	PK
11060.08	V	-50.73	-30.00	-20.73	PK

Note: All test modes were tested, but we only recorded the worst case in this report. (Low Channel)

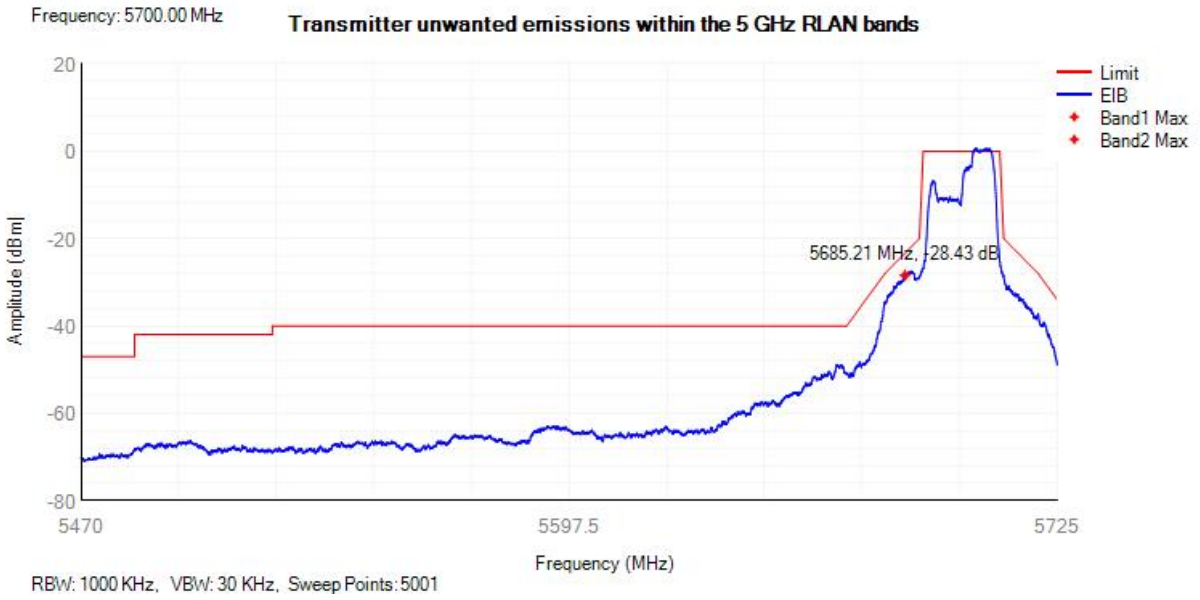
J.6 Transmitter unwanted emissions within the 5 GHz RLAN bands

Condition	Mode	Frequency (MHz)	Sub Band	Worst EIB Frequency (MHz)	Level (dB)	Limit (dB)	Verdict
NVNT	a	5700	Band1	5227.32	-63.1	-47	Pass
NVNT	a	5700	Band2	5685.21	-28.43	-23.36	Pass
NVNT	ac20	5700	Band1	5228.16	-62.57	-47	Pass
NVNT	ac20	5700	Band2	5684.2	-30.72	-24.26	Pass
NVNT	ac40	5670	Band1	5206.43	-58.79	-47	Pass
NVNT	ac40	5670	Band2	5637.94	-29.97	-24.46	Pass
NVNT	ac80	5610	Band1	5336.28	-54.87	-40	Pass
NVNT	ac80	5610	Band2	5537.37	-26.45	-26.36	Pass
NVNT	n20	5700	Band1	5228.32	-62.45	-47	Pass
NVNT	n20	5700	Band2	5667.47	-45.64	-40	Pass
NVNT	n40	5670	Band1	5206.28	-56.37	-47	Pass
NVNT	n40	5670	Band2	5639.93	-28.52	-23.58	Pass

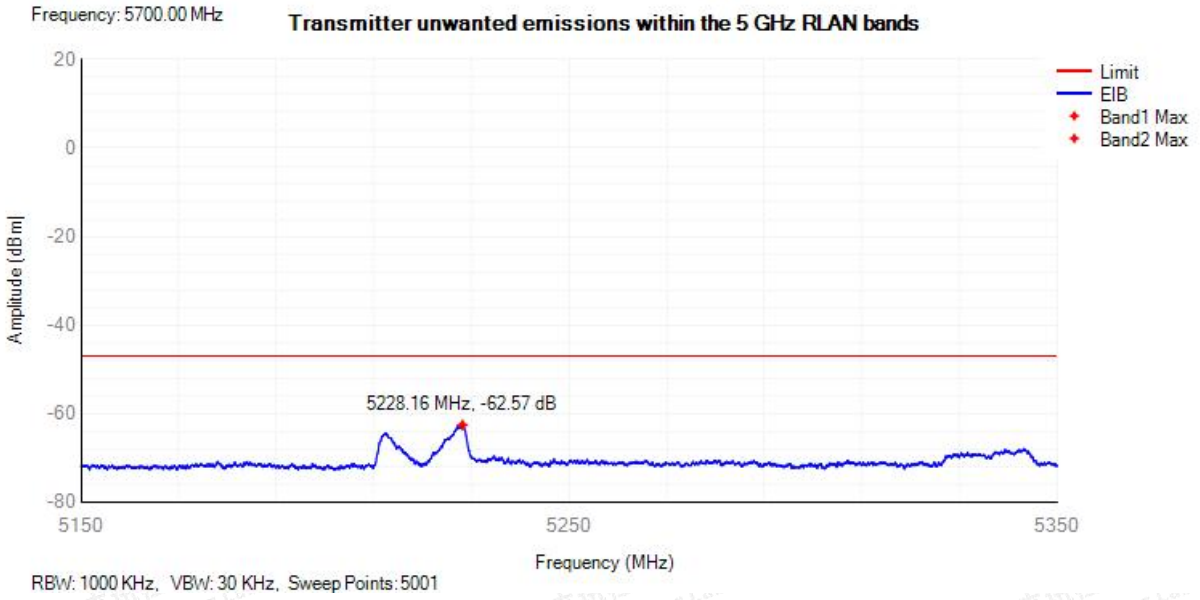
Tx. Emissions EIB NVNT a 5700MHz Sub Band1



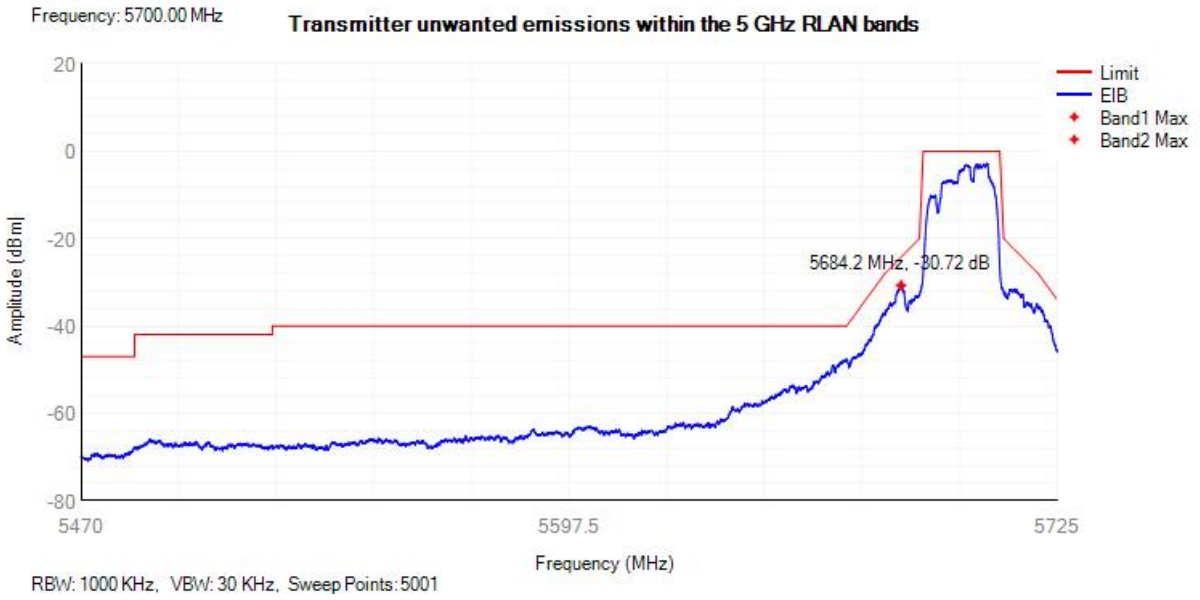
Tx. Emissions EIB NVNT a 5700MHz Sub Band2



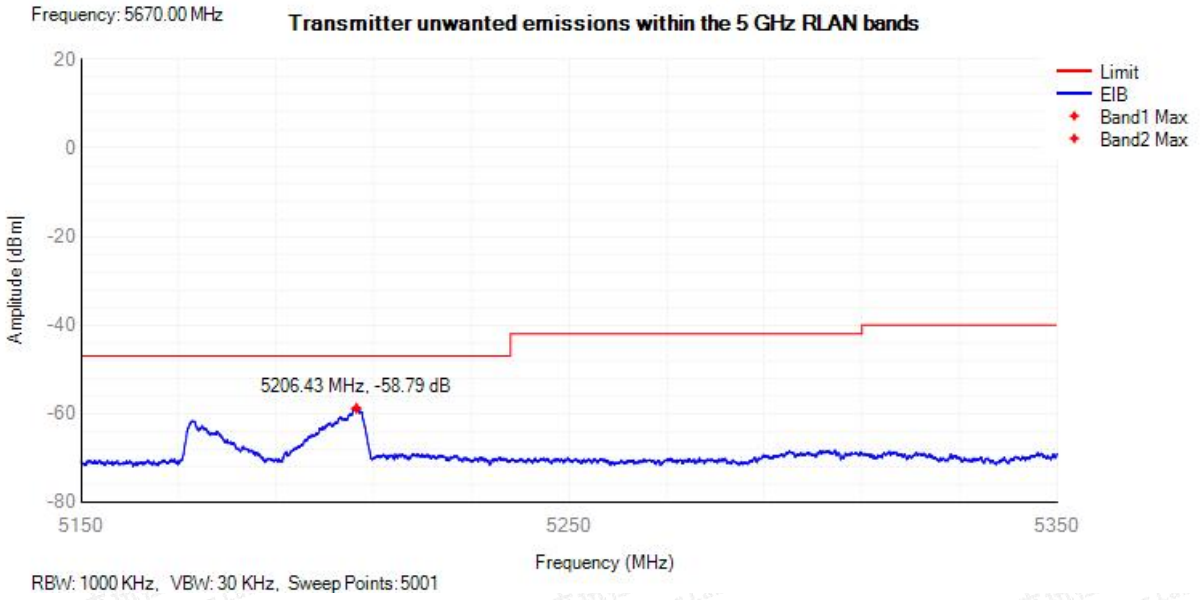
Tx. Emissions EIB NVNT ac20 5700MHz Sub Band1



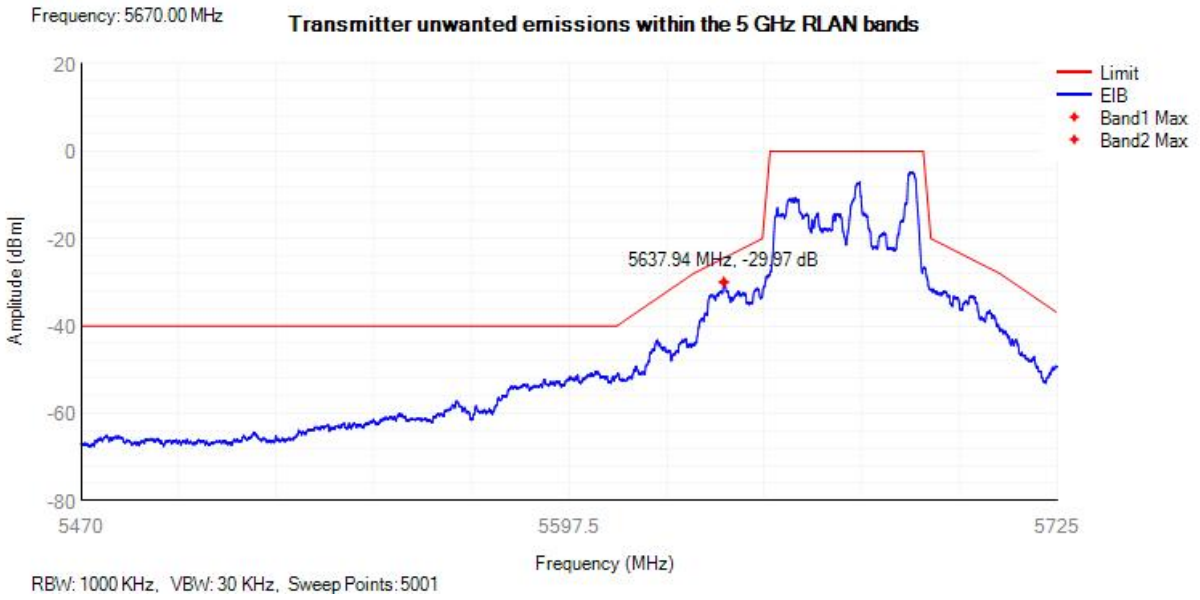
Tx. Emissions EIB NVNT ac20 5700MHz Sub Band2



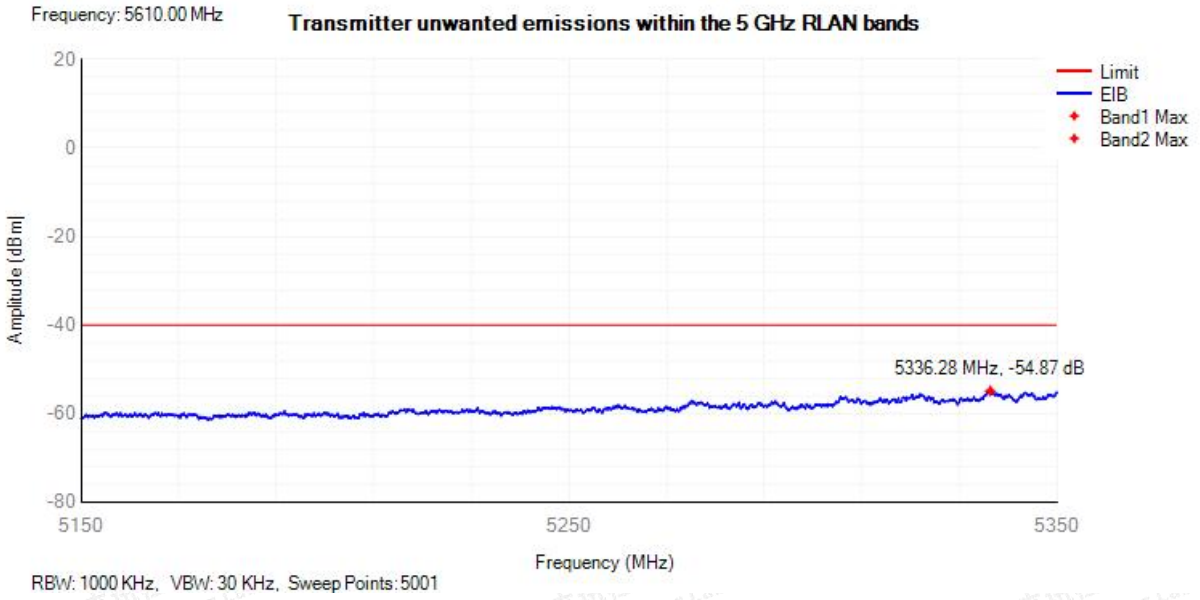
Tx. Emissions EIB NVNT ac40 5670MHz Sub Band1



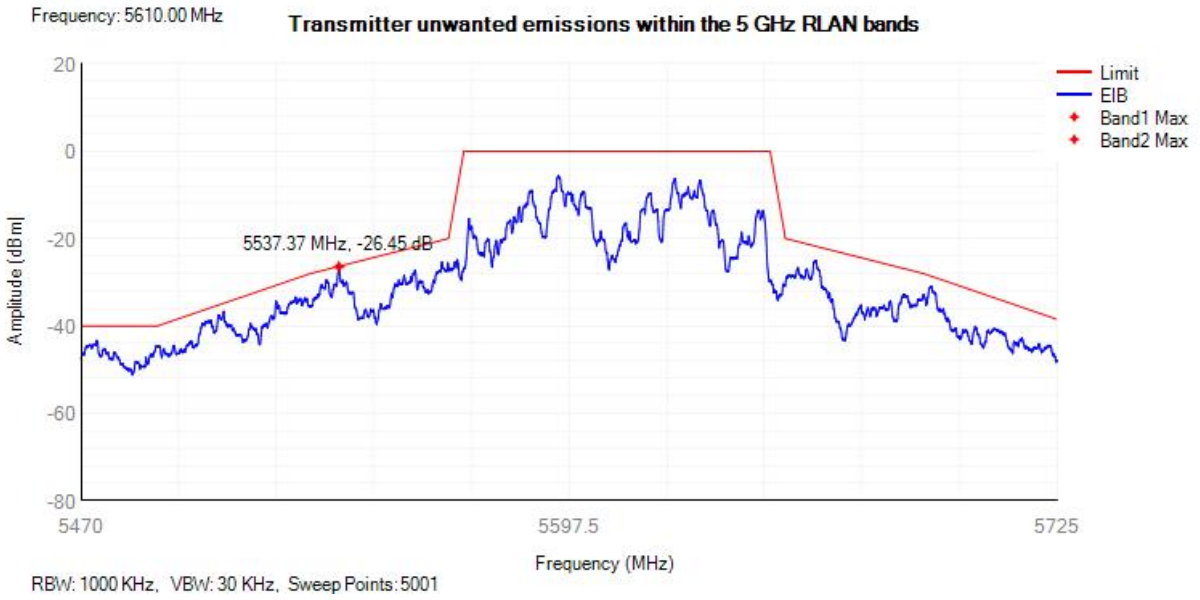
Tx. Emissions EIB NVNT ac40 5670MHz Sub Band2



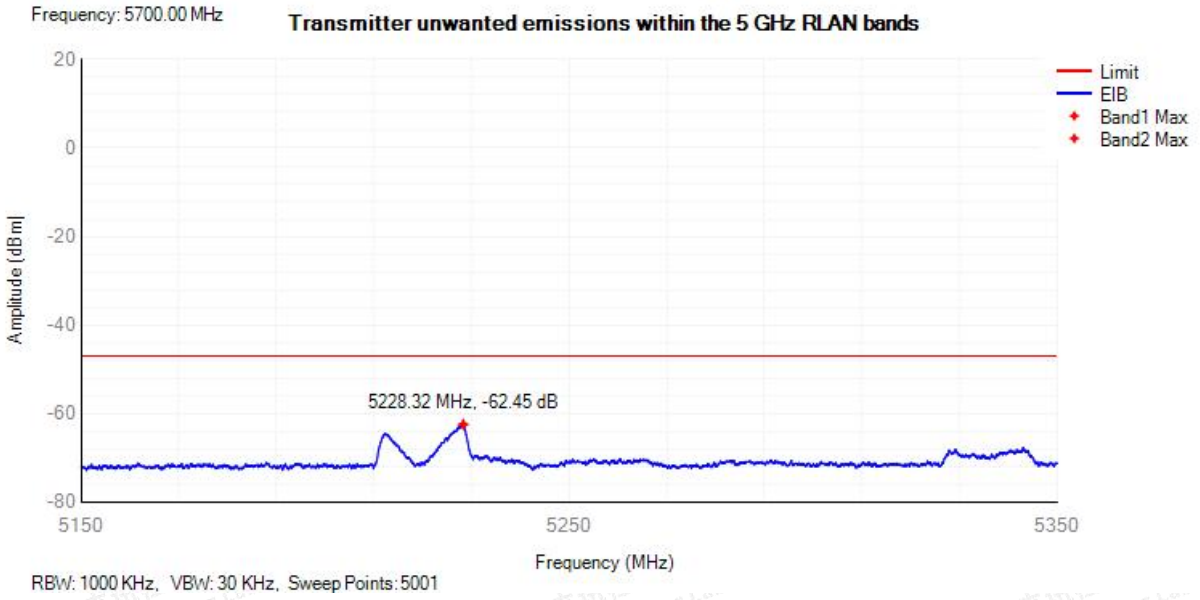
Tx. Emissions EIB NVNT ac80 5610MHz Sub Band1



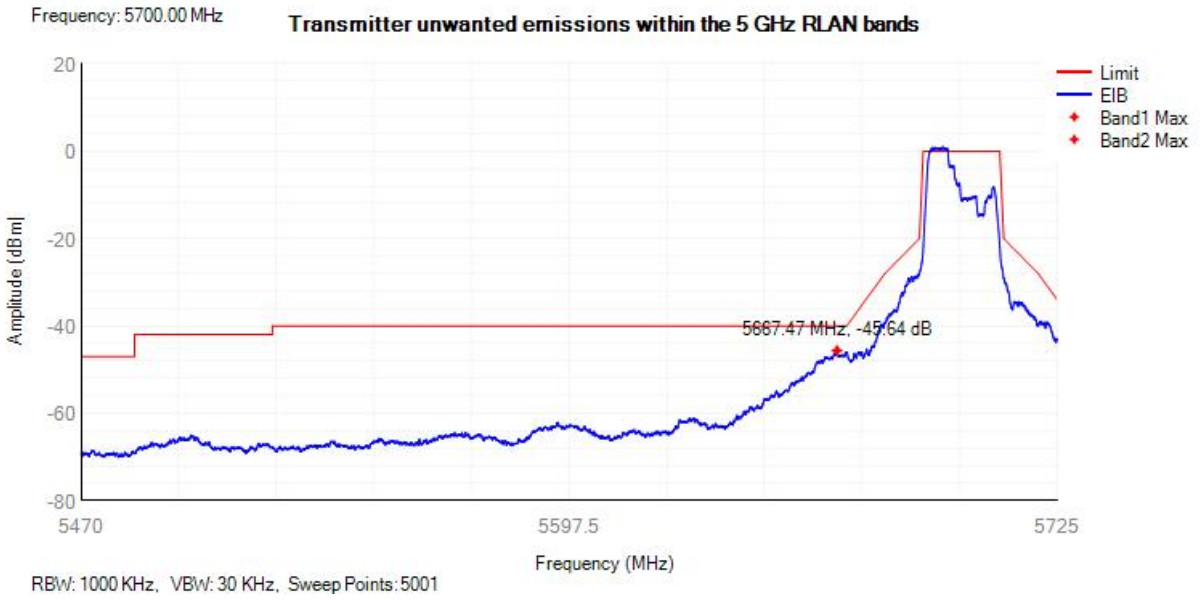
Tx. Emissions EIB NVNT ac80 5610MHz Sub Band2



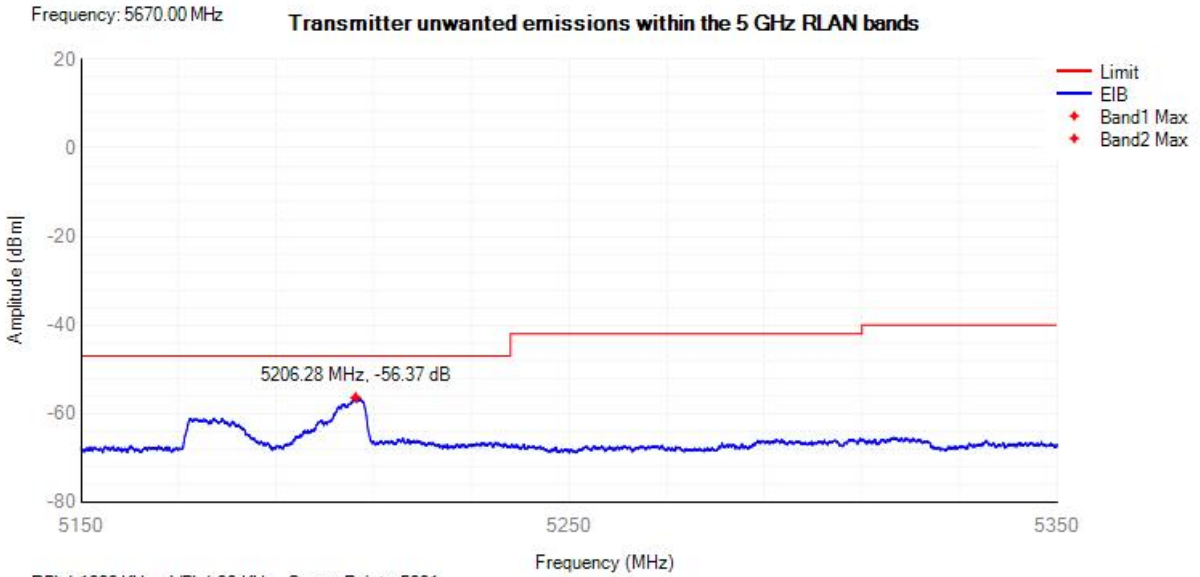
Tx. Emissions EIB NVNT n20 5700MHz Sub Band1



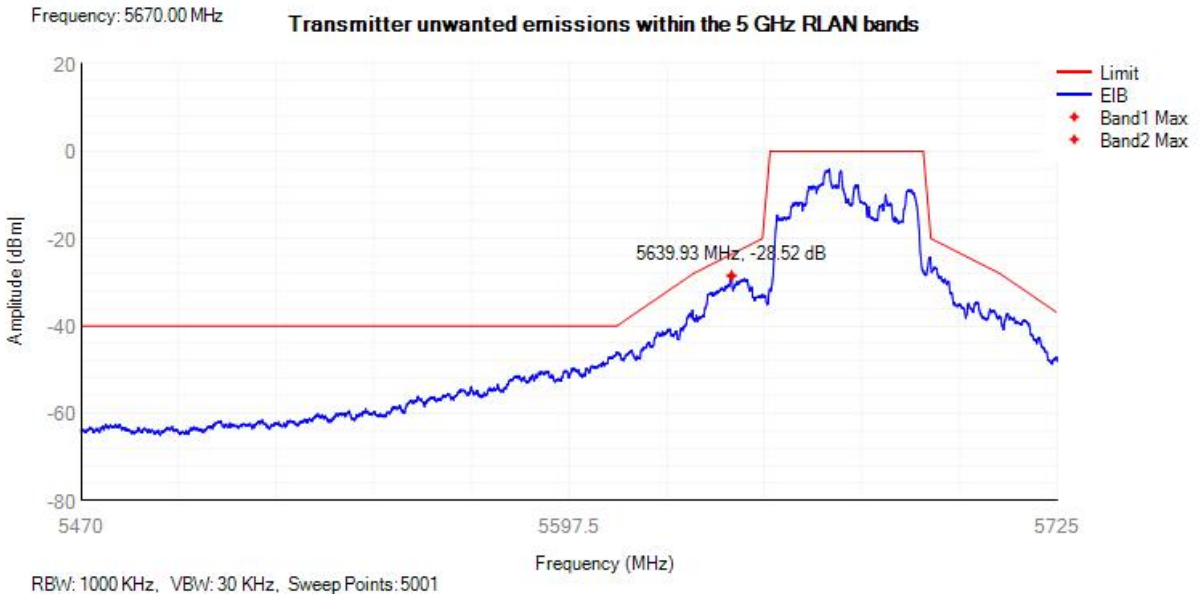
Tx. Emissions EIB NVNT n20 5700MHz Sub Band2



Tx. Emissions EIB NVNT n40 5670MHz Sub Band1



Tx. Emissions EIB NVNT n40 5670MHz Sub Band2


Frequency: 5670.00 MHz
Transmitter unwanted emissions within the 5 GHz RLAN bands
Limit
EIB
Band1 Max
Band2 Max
5639.93 MHz, -28.52 dB
Amplitude [dBm]
20
0
-20
-40
-60
-80
5470
5597.5
5725
Frequency (MHz)
RBW: 1000 KHz, VBW: 30 KHz, Sweep Points: 5001

J.7 Receiver spurious emissions

The Worst Test Result For 802.11a					
Frequency (MHz)	Polarization (H/V)	Measure Level (dBm)	Limit (dBm)	Margin (dB)	Detector
Channel 100 (5500MHz)					
55.88	H	-81.85	-57.00	-24.85	PK
67.02	V	-74.44	-57.00	-17.44	PK
811.87	H	-75.27	-57.00	-18.27	PK
925.28	V	-74.52	-57.00	-17.52	PK
3702.07	H	-63.59	-47.00	-16.59	PK
3533.44	V	-64.27	-47.00	-17.27	PK
11000.03	H	-58.59	-47.00	-11.59	PK
11000.04	V	-60.15	-47.00	-13.15	PK

The Worst Test Result For 802.11n(20MHz)					
Frequency (MHz)	Polarization (H/V)	Measure Level (dBm)	Limit (dBm)	Margin (dB)	Detector
Channel 100 (5500MHz)					
57.43	H	-83.03	-57.00	-26.03	PK
64.07	V	-73.83	-57.00	-16.83	PK
809.65	H	-73.87	-57.00	-16.87	PK
924.10	V	-75.26	-57.00	-18.26	PK
3674.76	H	-62.92	-47.00	-15.92	PK
3710.15	V	-64.94	-47.00	-17.94	PK
11000.05	H	-57.96	-47.00	-10.96	PK
11000.08	V	-60.27	-47.00	-13.27	PK

The Worst Test Result For 802.11ac(20MHz)					
Frequency (MHz)	Polarization (H/V)	Measure Level (dBm)	Limit (dBm)	Margin (dB)	Detector
Channel 100 (5500MHz)					
61.01	H	-82.82	-57.00	-25.82	PK
64.04	V	-74.19	-57.00	-17.19	PK
808.71	H	-74.27	-57.00	-17.27	PK
924.28	V	-75.16	-57.00	-18.16	PK
3711.21	H	-62.74	-47.00	-15.74	PK
3707.82	V	-64.04	-47.00	-17.04	PK
11000.05	H	-58.73	-47.00	-11.73	PK
11000.05	V	-60.35	-47.00	-13.35	PK

The Worst Test Result For 802.11n(40MHz)					
Frequency (MHz)	Polarization (H/V)	Measure Level (dBm)	Limit (dBm)	Margin (dB)	Detector
Channel 102 (5510MHz)					
57.56	H	-82.38	-57.00	-25.38	PK
66.57	V	-74.00	-57.00	-17.00	PK
811.31	H	-74.53	-57.00	-17.53	PK
922.14	V	-73.63	-57.00	-16.63	PK
3717.39	H	-63.22	-47.00	-16.22	PK
3722.83	V	-63.74	-47.00	-16.74	PK
11020.05	H	-58.73	-47.00	-11.73	PK
11020.08	V	-59.72	-47.00	-12.72	PK

The Worst Test Result For 802.11ac(40MHz)					
Frequency (MHz)	Polarization (H/V)	Measure Level (dBm)	Limit (dBm)	Margin (dB)	Detector
Channel 102 (5510MHz)					
58.14	H	-82.80	-57.00	-25.80	PK
64.87	V	-73.81	-57.00	-16.81	PK
812.14	H	-74.87	-57.00	-17.87	PK
925.12	V	-74.34	-57.00	-17.34	PK
3687.89	H	-63.18	-47.00	-16.18	PK
3673.79	V	-63.59	-47.00	-16.59	PK
11020.03	H	-59.02	-47.00	-12.02	PK
11020.08	V	-60.09	-47.00	-13.09	PK

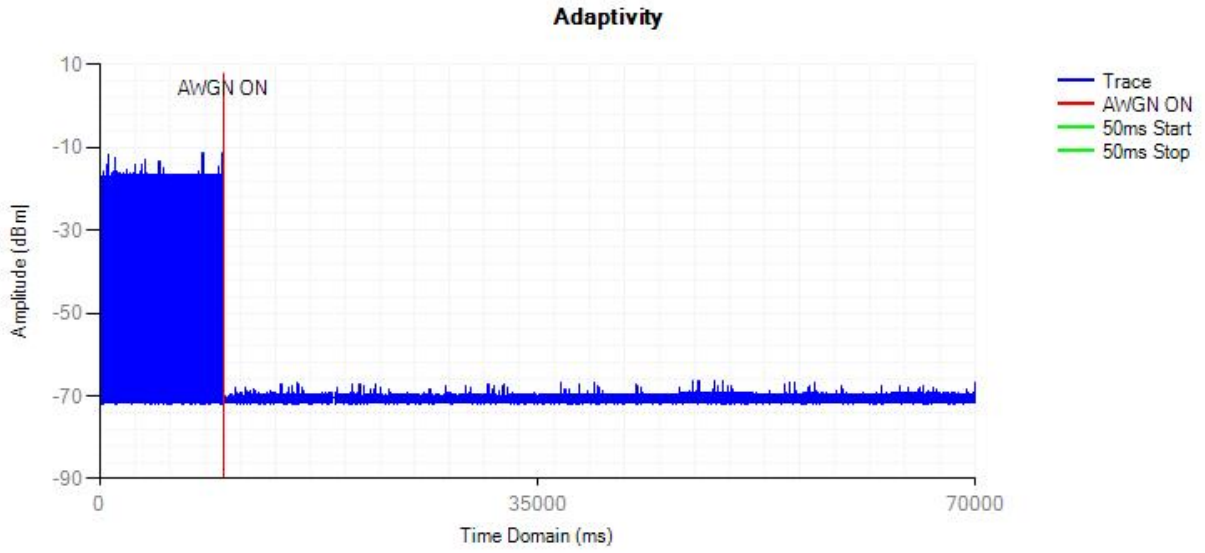
The Worst Test Result For 802.11ac(80MHz)					
Frequency (MHz)	Polarization (H/V)	Measure Level (dBm)	Limit (dBm)	Margin (dB)	Detector
Channel 122 (5610MHz)					
58.92	H	-82.70	-57.00	-25.70	PK
65.69	V	-73.37	-57.00	-16.37	PK
812.31	H	-74.17	-57.00	-17.17	PK
922.11	V	-74.65	-57.00	-17.65	PK
3724.53	H	-62.79	-47.00	-15.79	PK
3694.83	V	-63.61	-47.00	-16.61	PK
11060.07	H	-58.40	-47.00	-11.40	PK
11060.05	V	-60.36	-47.00	-13.36	PK

Note: All test modes were tested, but we only recorded the worst case in this report. (Low Channel)

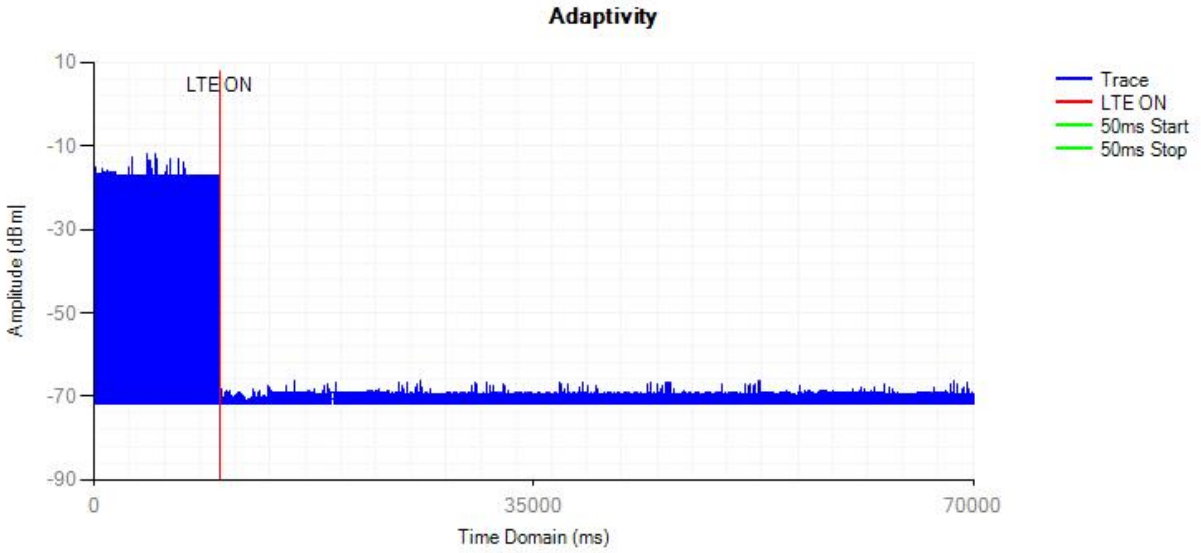
J.8 Adaptivity (Channel Access Mechanism)

Condition	Mode	Frequency (MHz)	Interfer Type	Short Control (ms)	Limit (ms)	Short Control (n)	Limit (n)	Verdict
NVNT	ac20	5500	AWGN	0.64	<=2.5	19	<=50	Pass
NVNT	ac20	5500	LTE	0.76	<=2.5	2	<=50	Pass
NVNT	ac20	5500	OFDM	0.24	<=2.5	5	<=50	Pass
NVNT	ac40	5510	AWGN	0.81	<=2.5	8	<=50	Pass
NVNT	ac40	5510	LTE	0.29	<=2.5	3	<=50	Pass
NVNT	ac40	5510	OFDM	0.87	<=2.5	14	<=50	Pass
NVNT	ac80	5530	AWGN	0.47	<=2.5	6	<=50	Pass
NVNT	ac80	5530	LTE	0.45	<=2.5	9	<=50	Pass
NVNT	ac80	5530	OFDM	0.54	<=2.5	5	<=50	Pass

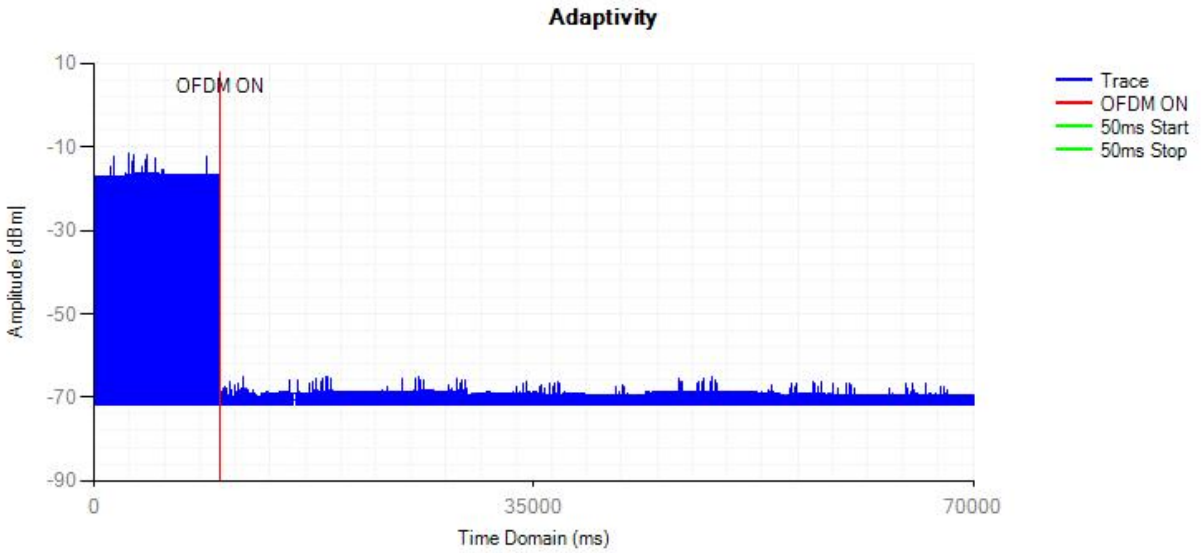
Adaptivity NVNT ac 5500MHz AWGN



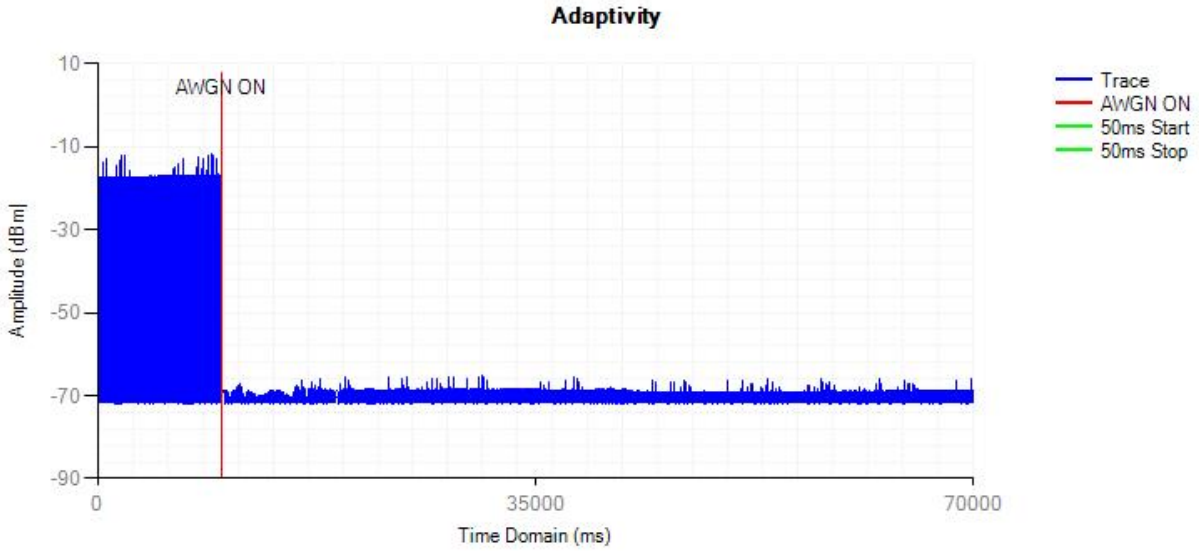
Adaptivity NVNT ac 5500MHz LTE



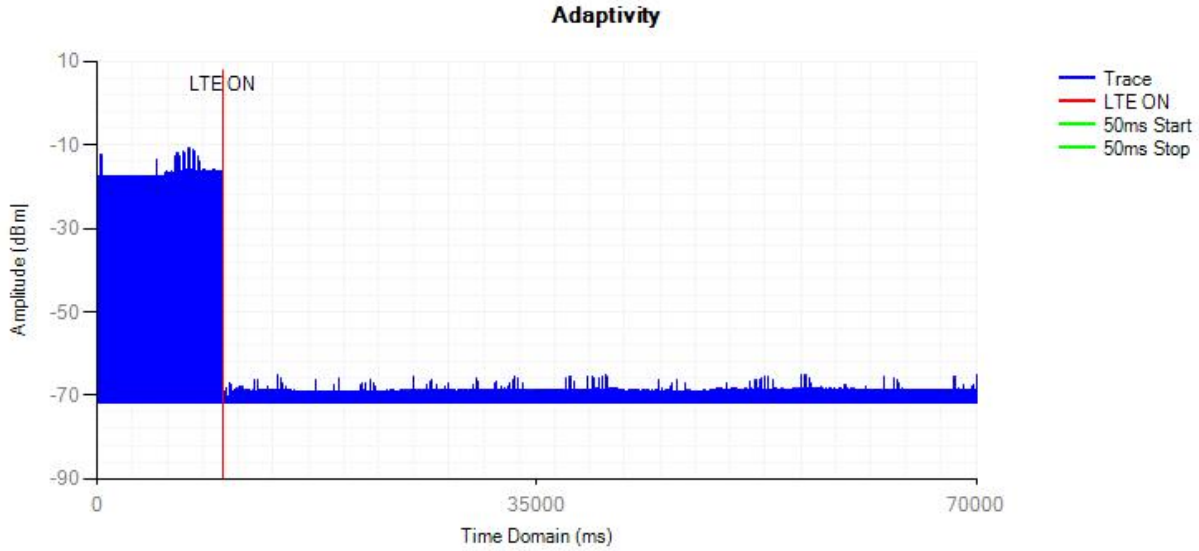
Adaptivity NVNT ac 5500MHz OFDM



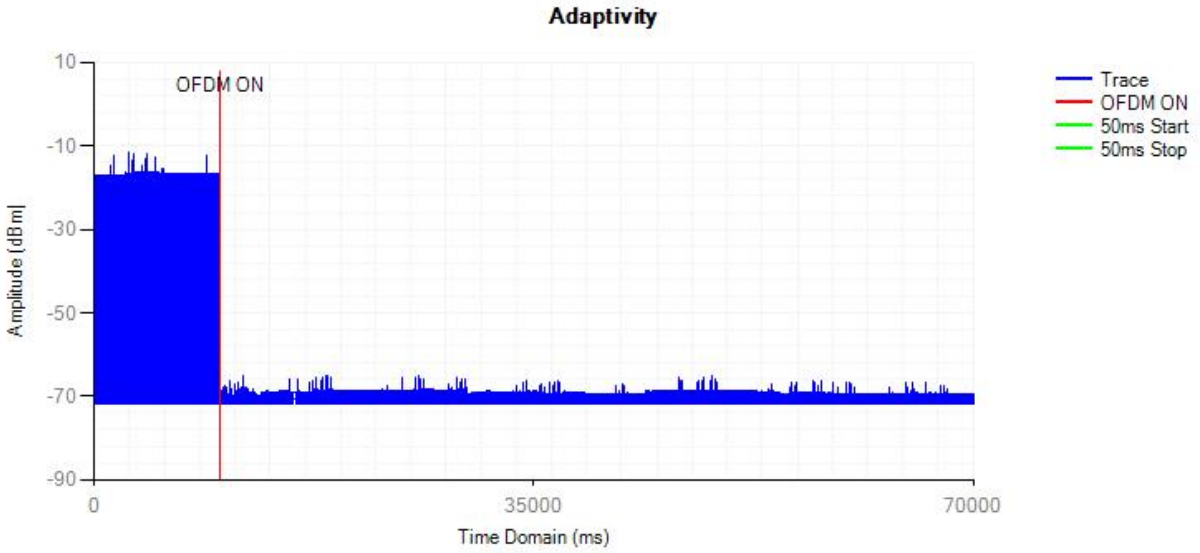
Adaptivity NVNT ac 5510MHz AWGN



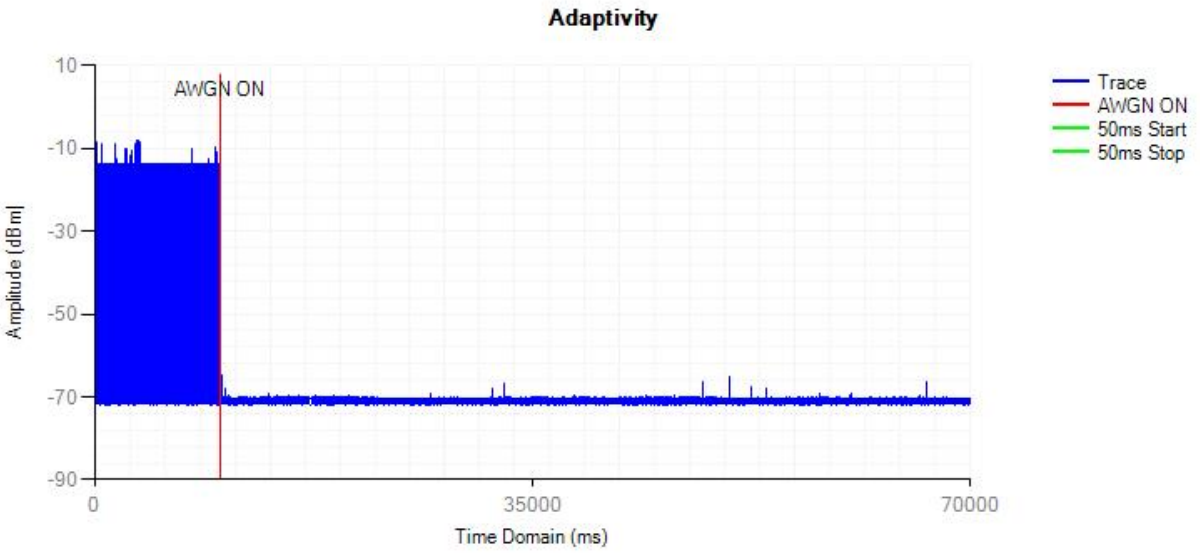
Adaptivity NVNT ac 5510MHz LTE



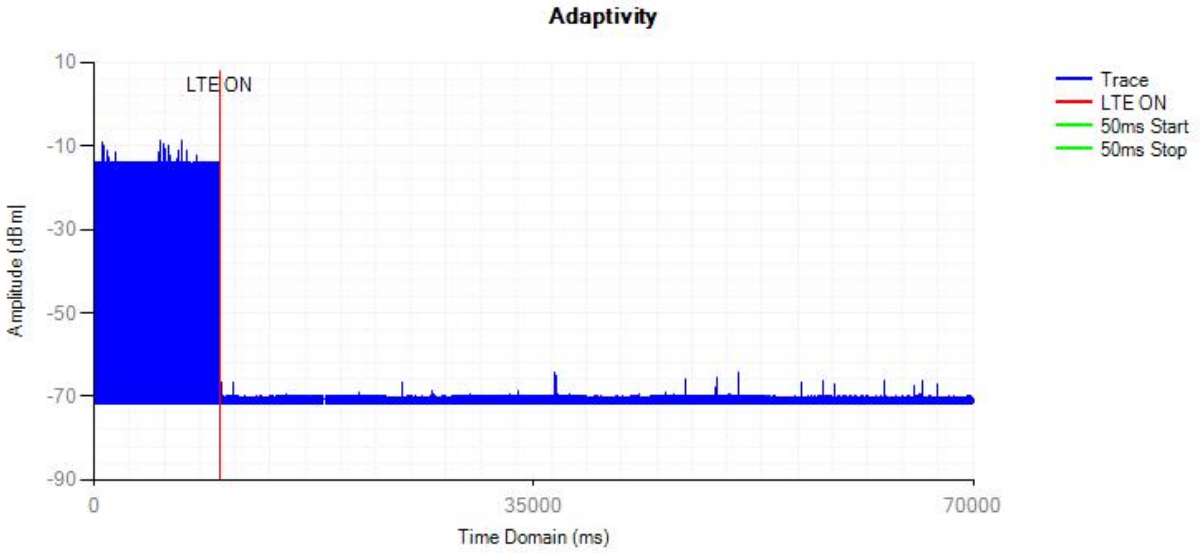
Adaptivity NVNT ac 5510MHz OFDM



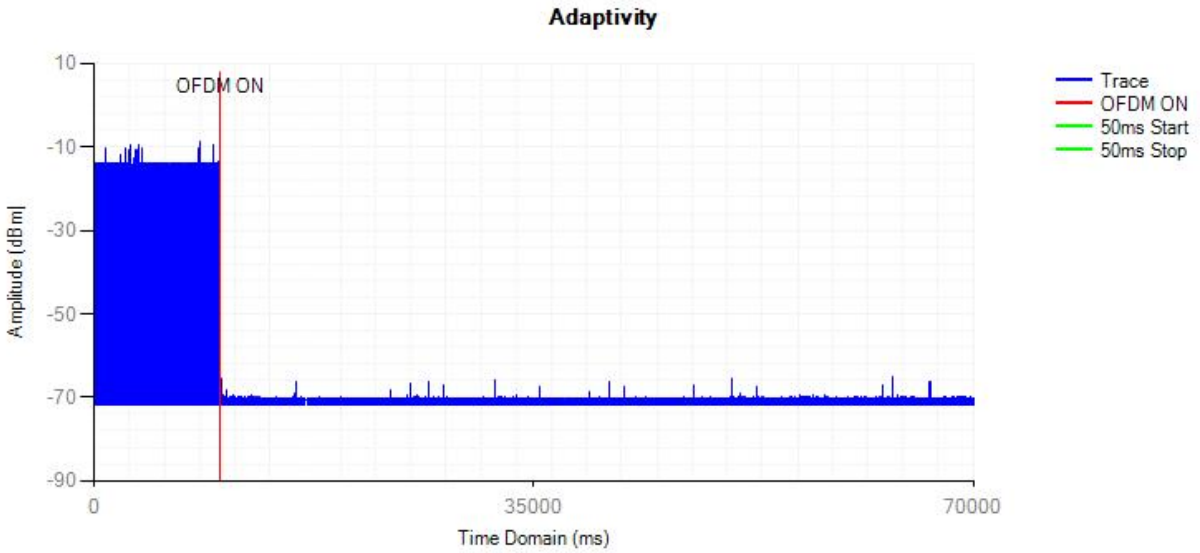
Adaptivity NVNT ac 5530MHz AWGN



Adaptivity NVNT ac 5530MHz LTE



Adaptivity NVNT ac 5530MHz OFDM



J.9 Receiver Blocking

Wanted signal mean power from companion device (dBm)	Blocking signal frequency (MHz)	Blocking signal power (dBm)		Type of blocking signal	PER(%)		Test Result
		Test Value	Limit		Test Value	Limit	
Pmin + 6 dB	5100	-52	≥-59	CW	2.45	10	Pass
	4900	-46	≥-53	CW	3.21	10	Pass
	5000	-47	≥-53	CW	1.56	10	Pass
	5975	-44	≥-53	CW	2.12	10	Pass