Appendix I for 5.3G 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

I.1 Carrier frequencies

Condition	Mode	Frequency (MHz)	Measured Frequency (MHz)	Deviation (ppm)	Limit (ppm)	Verdict
NVNT	a	5320	5319.98	-3.76	20	Pass
NVNT	ac20	5320	5319.99	-1.88	20	Pass
NVNT	ac40	5310	5309.96	-7.53	20	Pass
NVNT	ac80	5290	5289.96	-7.56	20	Pass
NVNT	n20	5320	5320.00	0.00	20	Pass
NVNT	n40	5310	5309.96	-7.53	20	Pass

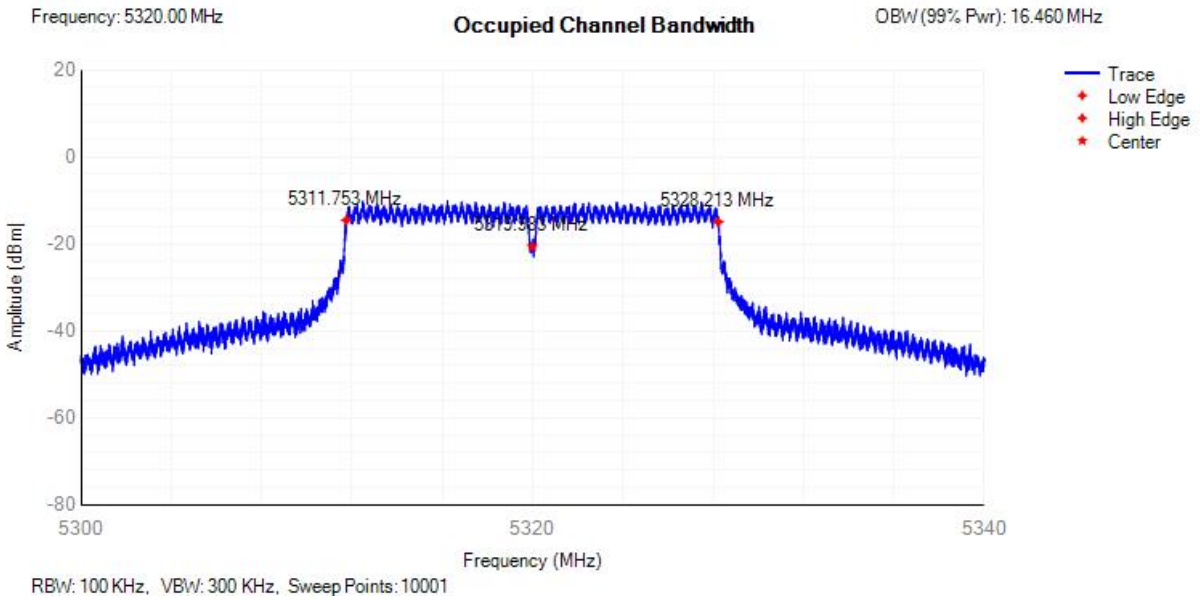
Condition	Mode	Frequency (MHz)	Measured Frequency (MHz)	Deviation (ppm)	Limit (ppm)	Verdict
NVLT	a	5320	5319.99	-1.88	20	Pass
NVLT	ac20	5320	5320.03	5.64	20	Pass
NVLT	ac40	5310	5310.01	1.88	20	Pass
NVLT	ac80	5290	5289.99	-1.89	20	Pass
NVLT	n20	5320	5320.03	5.64	20	Pass
NVLT	n40	5310	5310.02	3.77	20	Pass

Condition	Mode	Frequency (MHz)	Measured Frequency (MHz)	Deviation (ppm)	Limit (ppm)	Verdict
NVHT	a	5320	5320.02	3.76	20	Pass
NVHT	ac20	5320	5319.96	-7.52	20	Pass
NVHT	ac40	5310	5309.98	-3.77	20	Pass
NVHT	ac80	5290	5289.98	-3.78	20	Pass
NVHT	n20	5320	5320.03	5.64	20	Pass
NVHT	n40	5310	5310.02	3.77	20	Pass

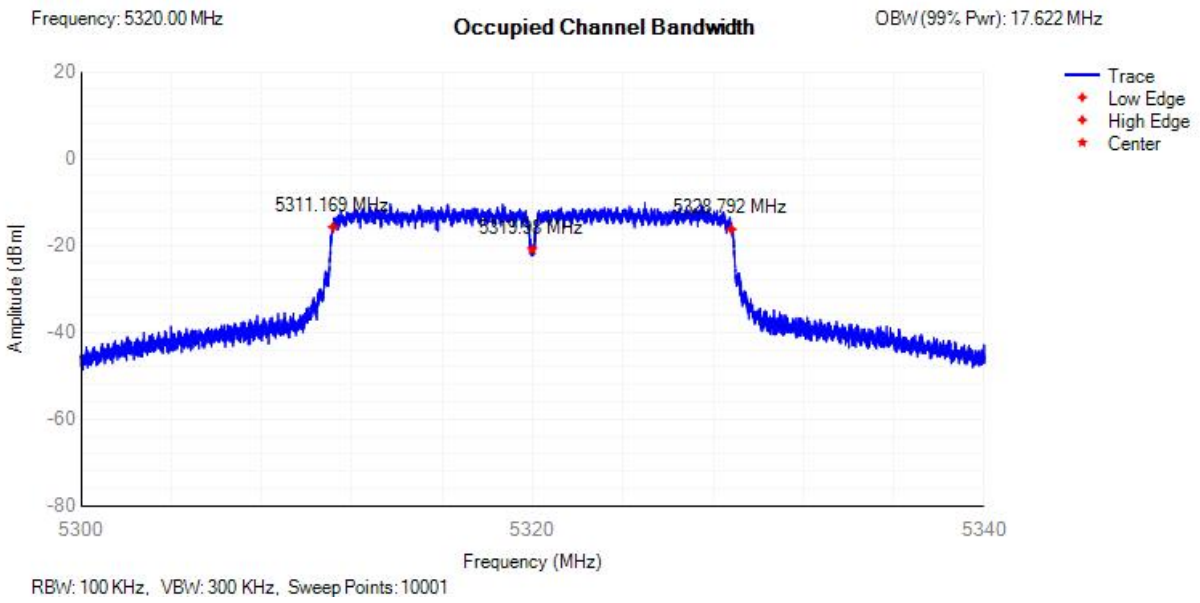
I.2 Occupied Channel Bandwidth

Condition	Mode	Frequency (MHz)	Center Frequency (MHz)	OBW (MHz)	Lower Limit (MHz)	Upper Limit(MHz)	Verdict
NVNT	a	5320	5319.983	16.46	16	20	Pass
NVNT	ac20	5320	5319.98	17.622	16	20	Pass
NVNT	ac40	5310	5309.971	36.191	32	40	Pass
NVNT	ac80	5290	5233.457	45.627	64	80	Fail
NVNT	n20	5320	5319.986	17.627	16	20	Pass
NVNT	n40	5310	5309.972	36.198	32	40	Pass

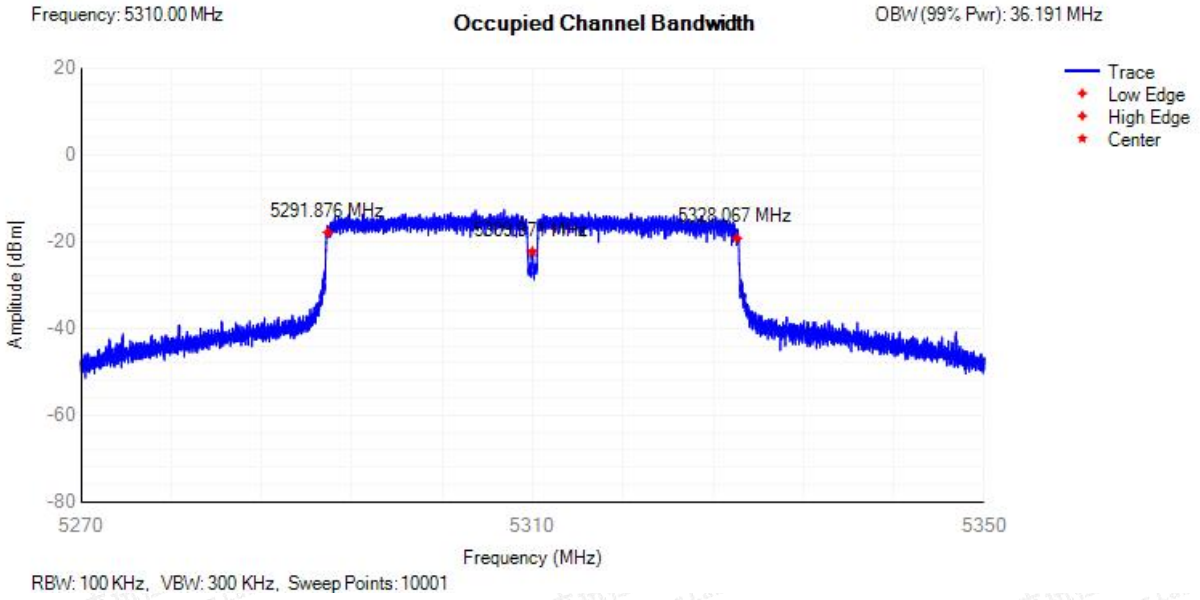
OBW NVNT a 5320MHz



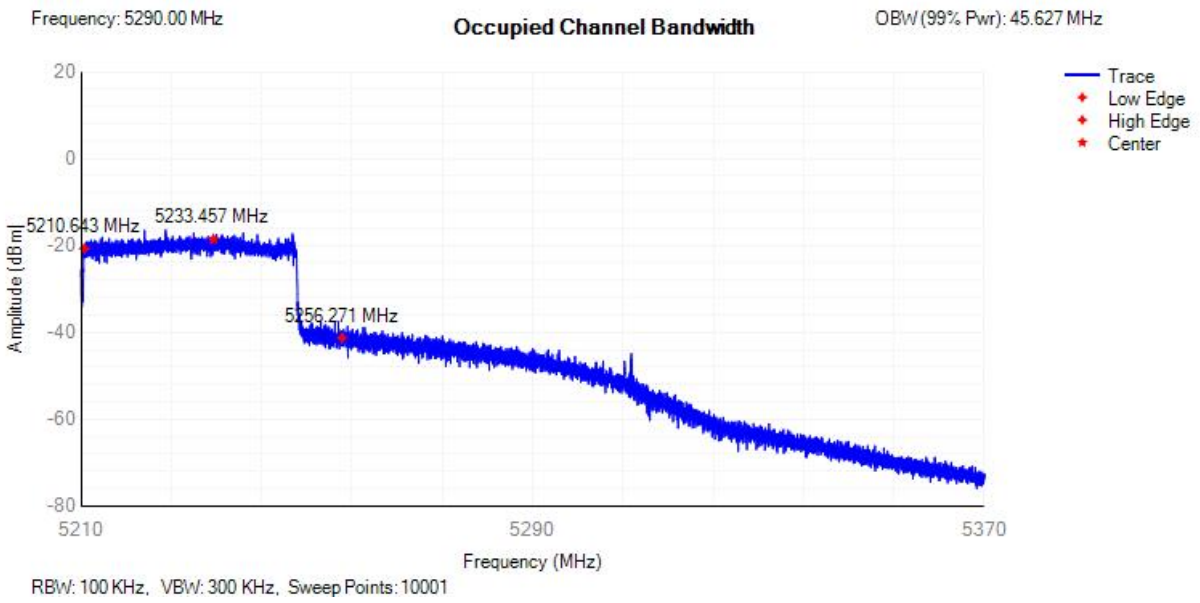
OBW NVNT ac20 5320MHz



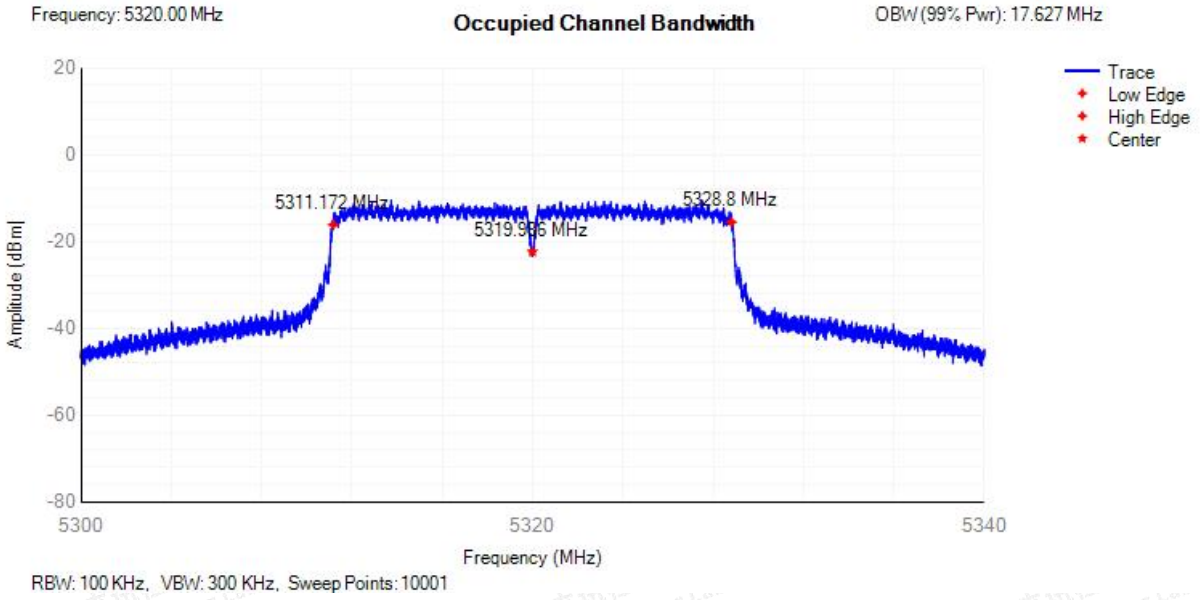
OBW NVNT ac40 5310MHz



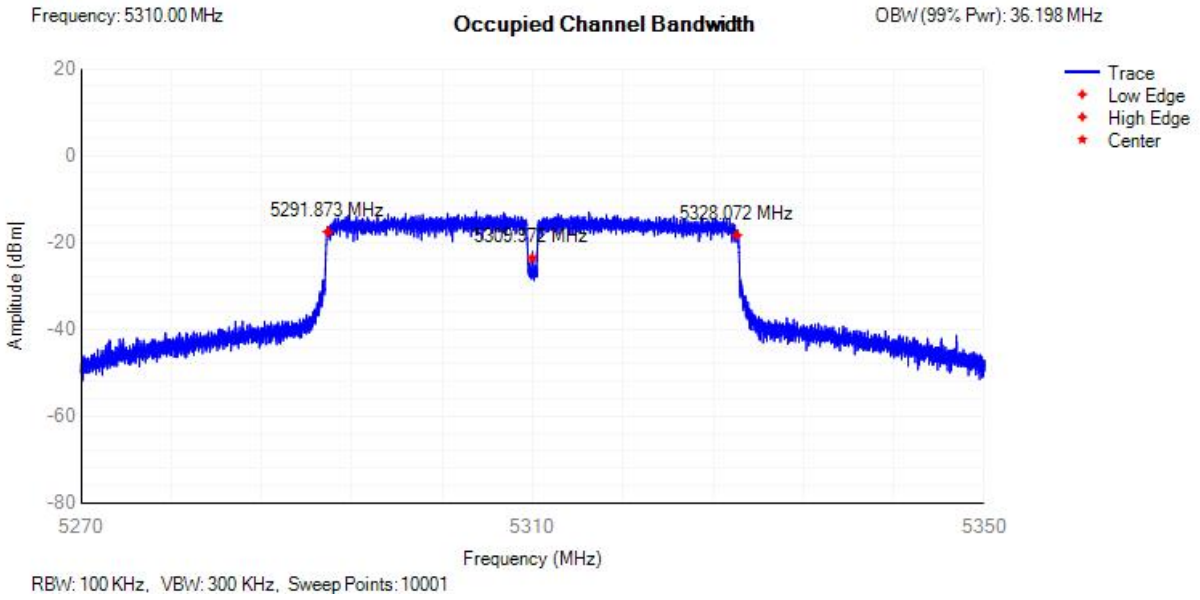
OBW NVNT ac80 5290MHz



OBW NVNT n20 5320MHz



OBW NVNT n40 5310MHz


Frequency: 5310.00 MHz
Occupied Channel Bandwidth
OBW (99% Pwr): 36.198 MHz
Trace
Low Edge
High Edge
Center
5291.873 MHz
5328.072 MHz
Amplitude [dBm]
20
0
-20
-40
-60
-80
5270
5310
5350
Frequency (MHz)
RBW: 100 KHz, VBW: 300 KHz, Sweep Points: 10001

I.3 RF Output Power

Condition	Mode	Frequency (MHz)	Max EIRP (dBm)	Limit (dBm)	Verdict
NVNT	a	5320	11.52	23	Pass
NVNT	ac20	5320	11.38	23	Pass
NVNT	ac40	5310	11.83	23	Pass
NVNT	ac80	5290	10.72	23	Pass
NVNT	n20	5320	11.3	23	Pass
NVNT	n40	5310	11.81	23	Pass

Condition	Mode	Frequency (MHz)	Max EIRP (dBm)	Limit (dBm)	Verdict
NVLT	a	5320	11.50	23	Pass
NVLT	ac20	5320	11.33	23	Pass
NVLT	ac40	5310	11.74	23	Pass
NVLT	ac80	5290	10.70	23	Pass
NVLT	n20	5320	11.26	23	Pass
NVLT	n40	5310	11.77	23	Pass

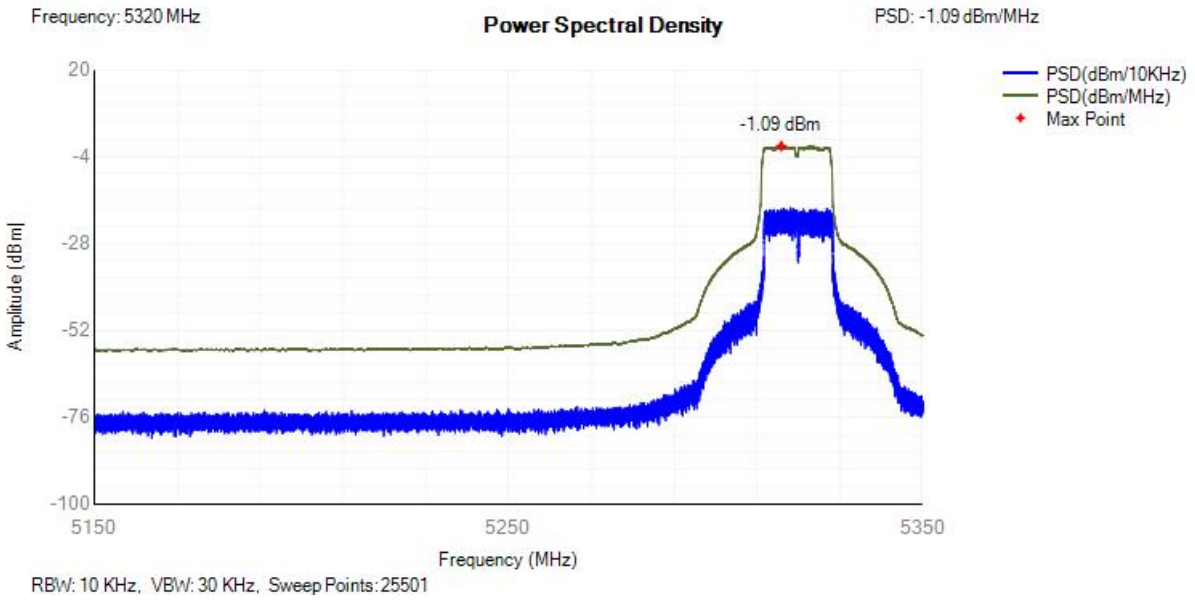
Condition	Mode	Frequency (MHz)	Max EIRP (dBm)	Limit (dBm)	Verdict
NVHT	a	5320	11.40	23	Pass
NVHT	ac20	5320	11.23	23	Pass
NVHT	ac40	5310	11.66	23	Pass
NVHT	ac80	5290	10.60	23	Pass
NVHT	n20	5320	11.18	23	Pass
NVHT	n40	5310	11.72	23	Pass

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

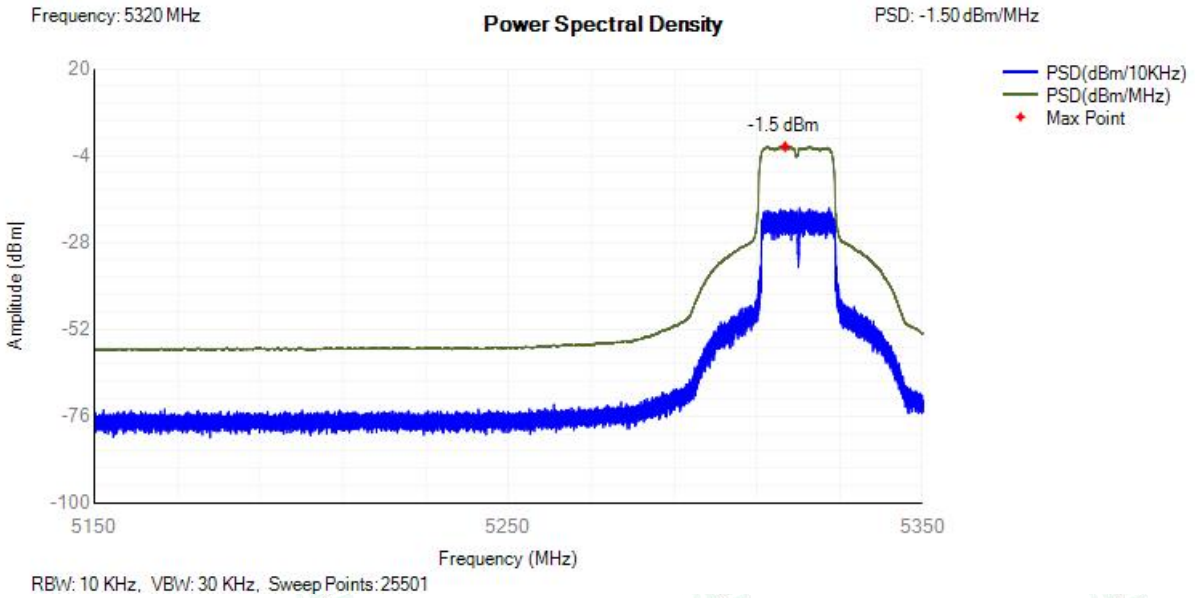
I.4 Power Spectral Density

Condition	Mode	Frequency (MHz)	Max PSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
NVNT	a	5320	-1.09	10	Pass
NVNT	ac20	5320	-1.5	10	Pass
NVNT	ac40	5310	-4.02	10	Pass
NVNT	ac80	5290	-7.83	10	Pass
NVNT	n20	5320	-1.6	10	Pass
NVNT	n40	5310	-3.93	10	Pass

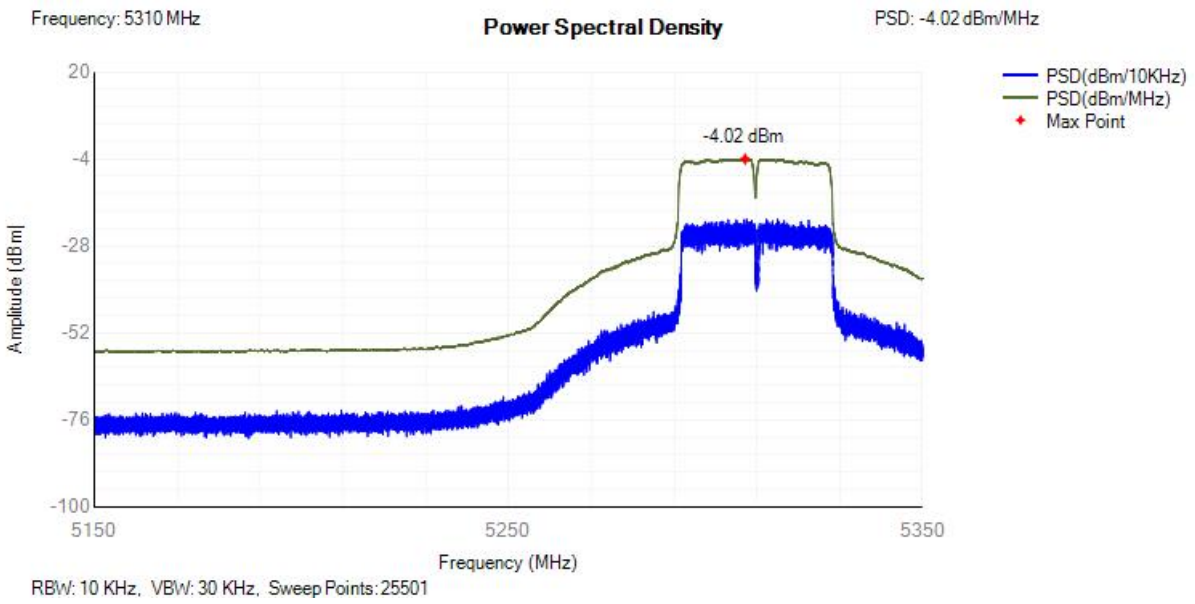
PSD NVNT a 5320MHz



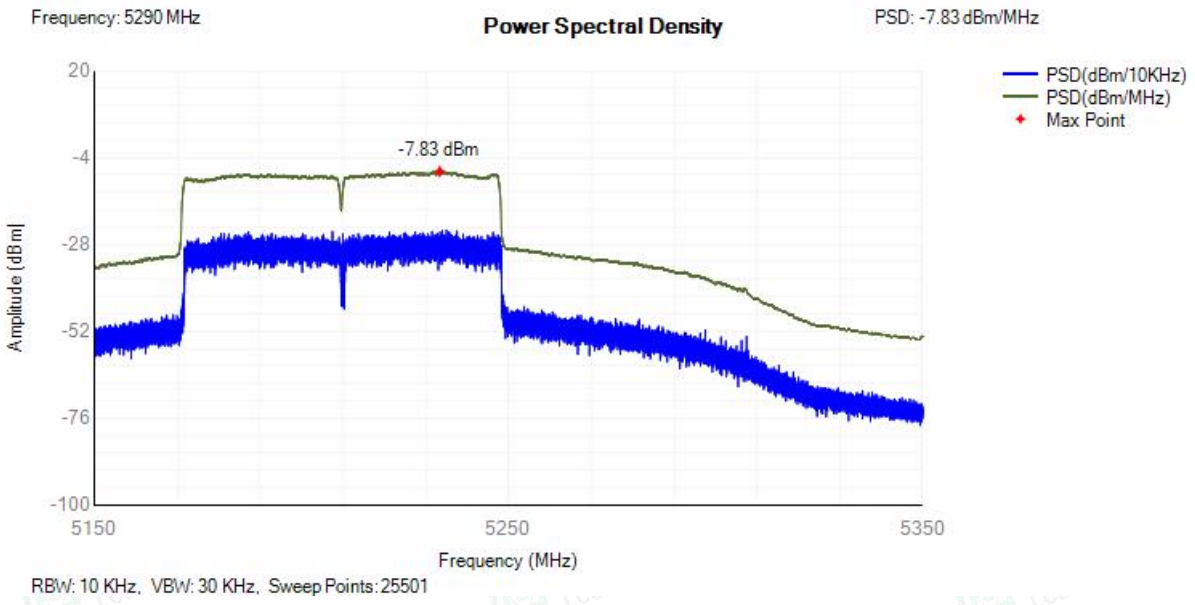
PSD NVNT ac20 5320MHz



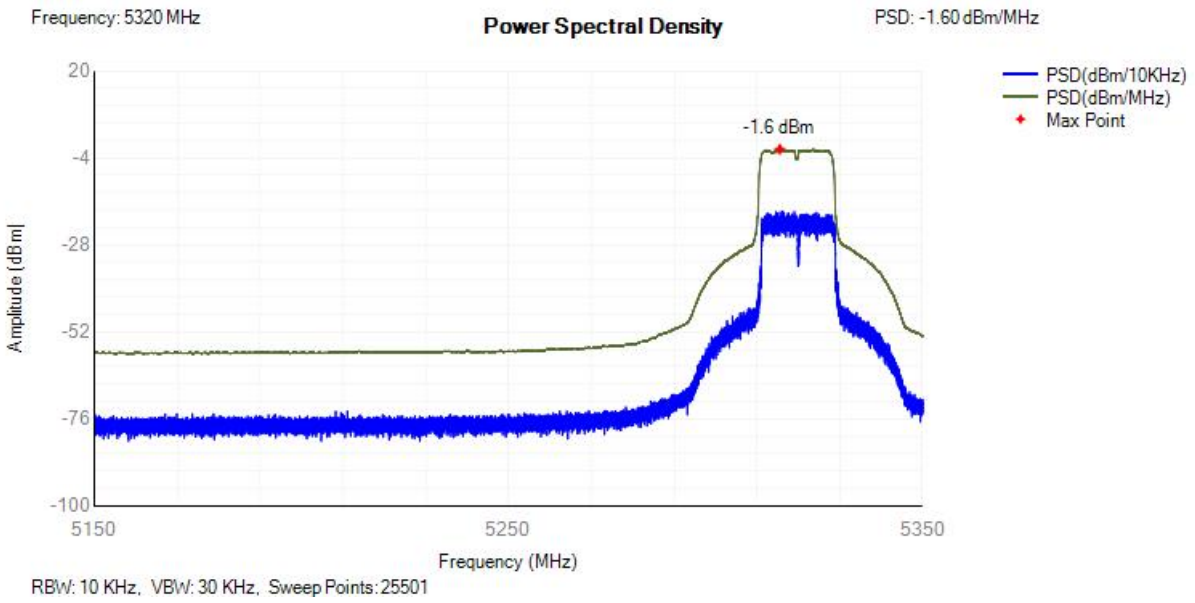
PSD NVNT ac40 5310MHz



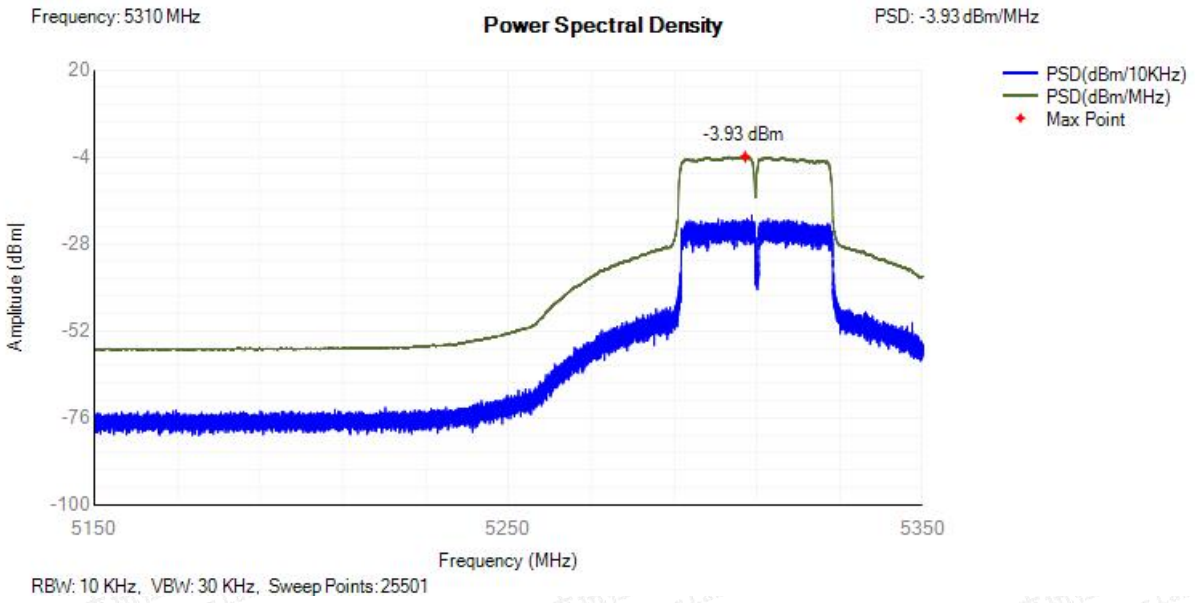
PSD NVNT ac80 5290MHz



PSD NVNT n20 5320MHz



PSD NVNT n40 5310MHz



I.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 52 (5260MHz)					
58.24	H	-83.42	-54.00	-29.42	PK
65.44	V	-72.93	-54.00	-18.93	PK
807.94	H	-75.79	-54.00	-21.79	PK
925.13	V	-74.23	-36.00	-38.23	PK
3549.16	H	-49.48	-30.00	-19.48	PK
3514.46	V	-60.45	-30.00	-30.45	PK
10520.09	H	-54.23	-30.00	-24.23	PK
10520.08	V	-50.44	-30.00	-20.44	PK

The Worst Test Result For 802.11n(20MHz)					
Frequency (MHz)	Polarization (H/V)	Measure Level (dBm)	Limit (dBm)	Margin (dB)	Detector
Channel 52 (5260MHz)					
56.38	H	-81.90	-54.00	-27.90	PK
64.58	V	-74.16	-54.00	-20.16	PK
811.70	H	-75.29	-54.00	-21.29	PK
926.80	V	-74.40	-36.00	-38.40	PK
3533.37	H	-48.48	-30.00	-18.48	PK
3547.05	V	-61.49	-30.00	-31.49	PK
10520.07	H	-52.78	-30.00	-22.78	PK
10520.08	V	-50.72	-30.00	-20.72	PK

The Worst Test Result For 802.11ac(20MHz)					
Frequency (MHz)	Polarization (H/V)	Measure Level (dBm)	Limit (dBm)	Margin (dB)	Detector
Channel 52 (5260MHz)					
60.15	H	-81.74	-54.00	-27.74	PK
66.78	V	-74.37	-54.00	-20.37	PK
810.51	H	-75.07	-54.00	-21.07	PK
923.39	V	-74.36	-36.00	-38.36	PK
3517.62	H	-48.73	-30.00	-18.73	PK
3522.61	V	-61.00	-30.00	-31.00	PK
10520.01	H	-52.71	-30.00	-22.71	PK
10520.00	V	-50.75	-30.00	-20.75	PK

The Worst Test Result For 802.11n(40MHz)					
Frequency (MHz)	Polarization (H/V)	Measure Level (dBm)	Limit (dBm)	Margin (dB)	Detector
Channel 54 (5270MHz)					
60.37	H	-83.26	-54.00	-29.26	PK
67.73	V	-73.72	-54.00	-19.72	PK
808.52	H	-76.21	-54.00	-22.21	PK
921.38	V	-74.60	-36.00	-38.60	PK
3550.08	H	-49.21	-30.00	-19.21	PK
3524.44	V	-60.04	-30.00	-30.04	PK
10540.08	H	-53.16	-30.00	-23.16	PK
10540.08	V	-49.89	-30.00	-19.89	PK

The Worst Test Result For 802.11ac(40MHz)					
Frequency (MHz)	Polarization (H/V)	Measure Level (dBm)	Limit (dBm)	Margin (dB)	Detector
Channel 54 (5270MHz)					
58.57	H	-82.42	-54.00	-28.42	PK
66.53	V	-73.05	-54.00	-19.05	PK
809.77	H	-76.05	-54.00	-22.05	PK
922.98	V	-74.03	-36.00	-38.03	PK
3557.28	H	-49.53	-30.00	-19.53	PK
3526.66	V	-60.11	-30.00	-30.11	PK
10540.04	H	-53.83	-30.00	-23.83	PK
10540.09	V	-50.61	-30.00	-20.61	PK

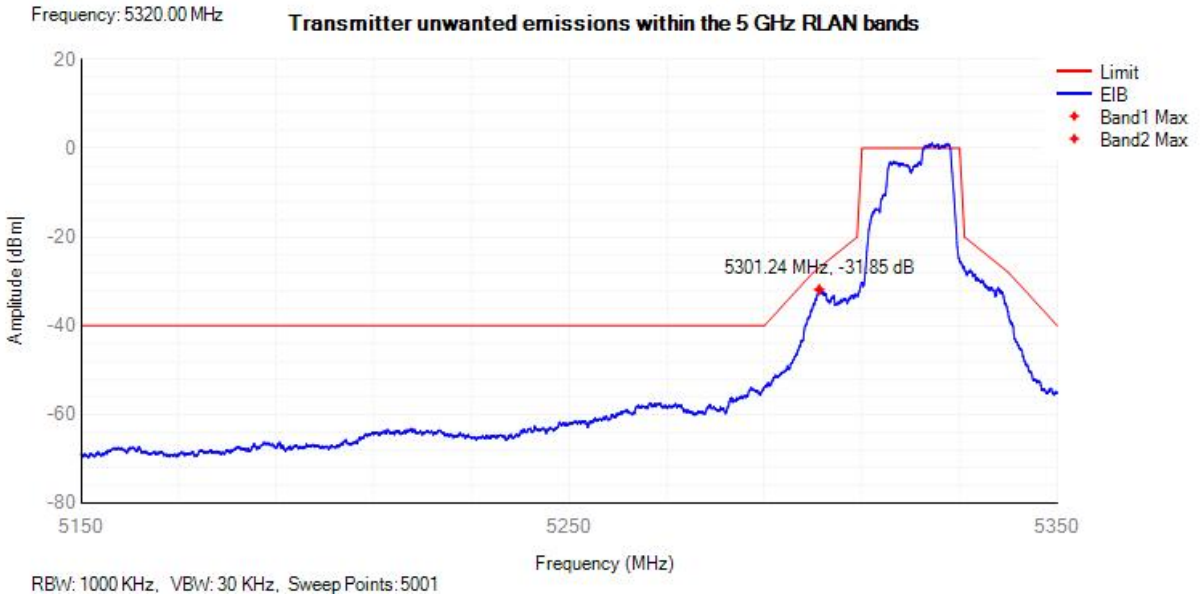
The Worst Test Result For 802.11ac(80MHz)					
Frequency (MHz)	Polarization (H/V)	Measure Level (dBm)	Limit (dBm)	Margin (dB)	Detector
Channel 58(5290MHz)					
58.35	H	-82.79	-54.00	-28.79	PK
67.80	V	-73.04	-54.00	-19.04	PK
807.35	H	-75.56	-54.00	-21.56	PK
921.48	V	-74.17	-36.00	-38.17	PK
3557.95	H	-49.37	-30.00	-19.37	PK
3537.32	V	-60.23	-30.00	-30.23	PK
10580.02	H	-53.74	-30.00	-23.74	PK
10580.10	V	-50.42	-30.00	-20.42	PK

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

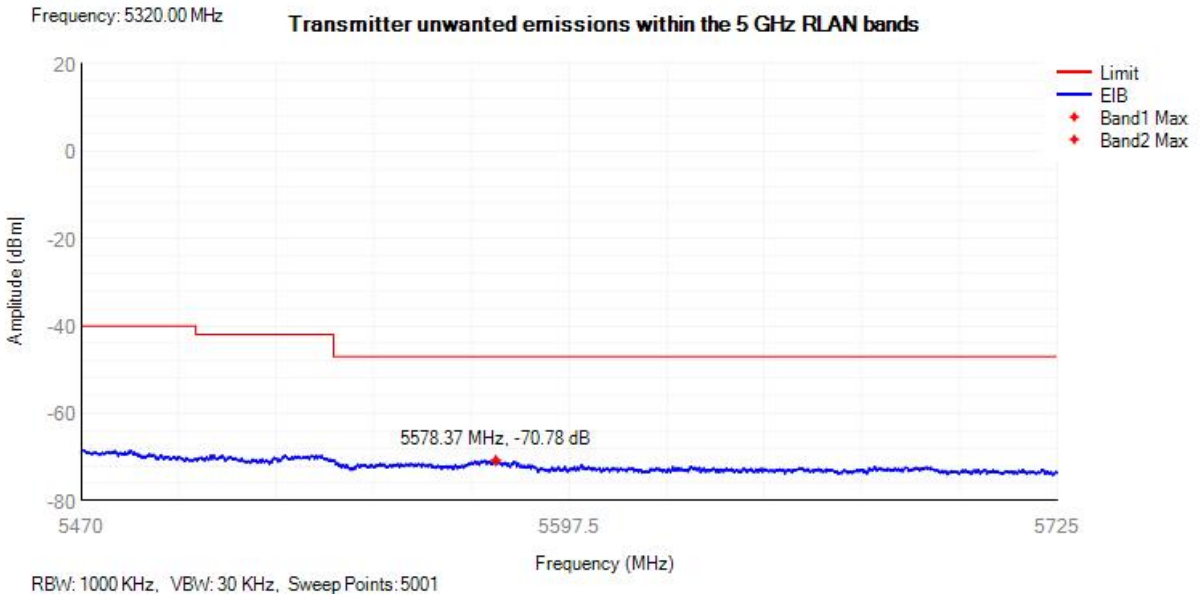
I.6 Transmitter unwanted emissions within the 5 GHz RLAN bands

Condition	Mode	Frequency (MHz)	Sub Band	Worst EIB Frequency (MHz)	Level (dB)	Limit (dB)	Verdict
NVNT	a	5320	Band1	5301.24	-31.85	-26.89	Pass
NVNT	a	5320	Band2	5578.37	-70.78	-47	Pass
NVNT	ac20	5320	Band1	5301.4	-26.88	-26.75	Pass
NVNT	ac20	5320	Band2	5536.04	-66.84	-47	Pass
NVNT	ac40	5310	Band1	5339.08	-24.26	-23.14	Pass
NVNT	ac40	5310	Band2	5477.49	-63.39	-40	Pass
NVNT	ac80	5290	Band1	5192.67	-37.53	-33.19	Pass
NVNT	ac80	5290	Band2	5471.07	-54.81	-40	Pass
NVNT	n20	5320	Band1	5337.24	-29.47	-25.54	Pass
NVNT	n20	5320	Band2	5536.19	-70.59	-47	Pass
NVNT	n40	5310	Band1	5339.92	-24.81	-23.52	Pass
NVNT	n40	5310	Band2	5473.57	-60.82	-40	Pass

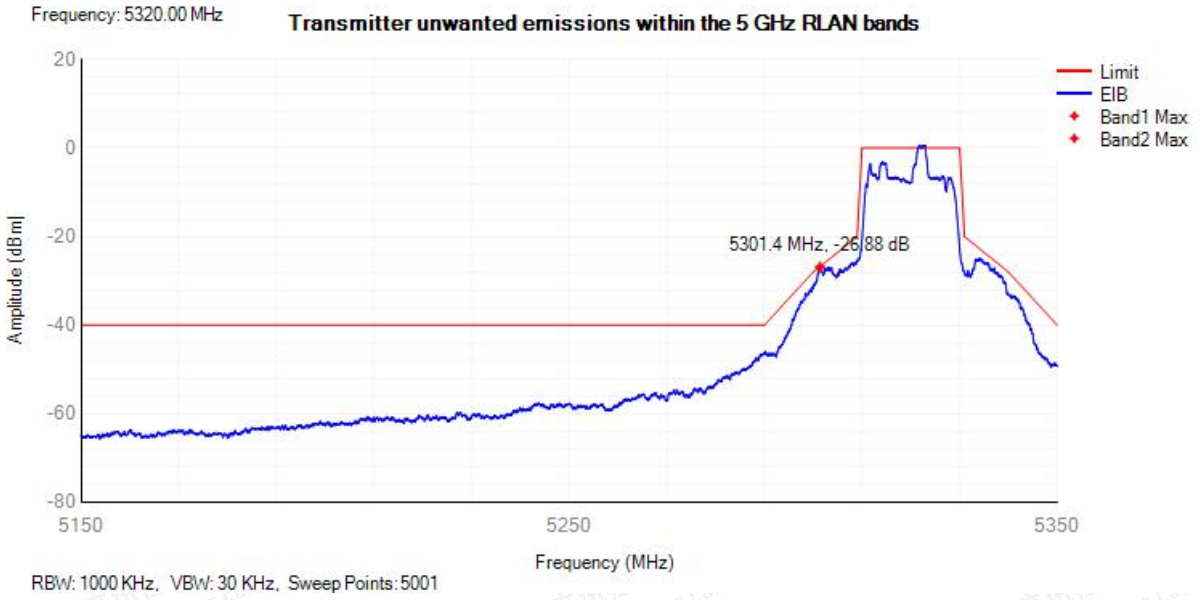
Tx. Emissions EIB NVNT a 5320MHz Sub Band1



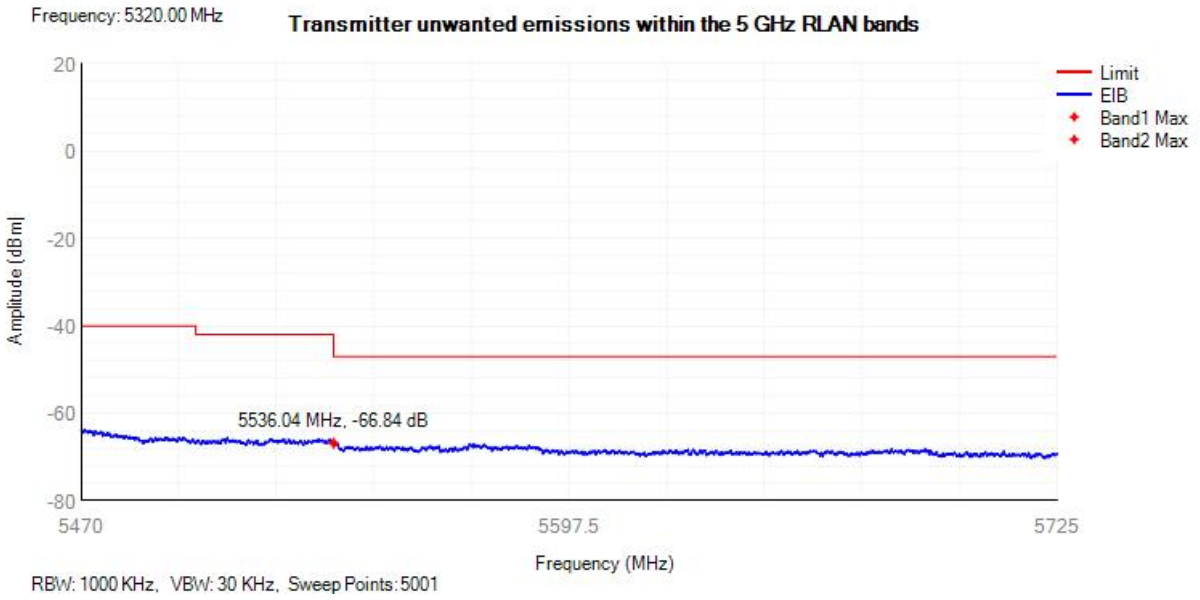
Tx. Emissions EIB NVNT a 5320MHz Sub Band2



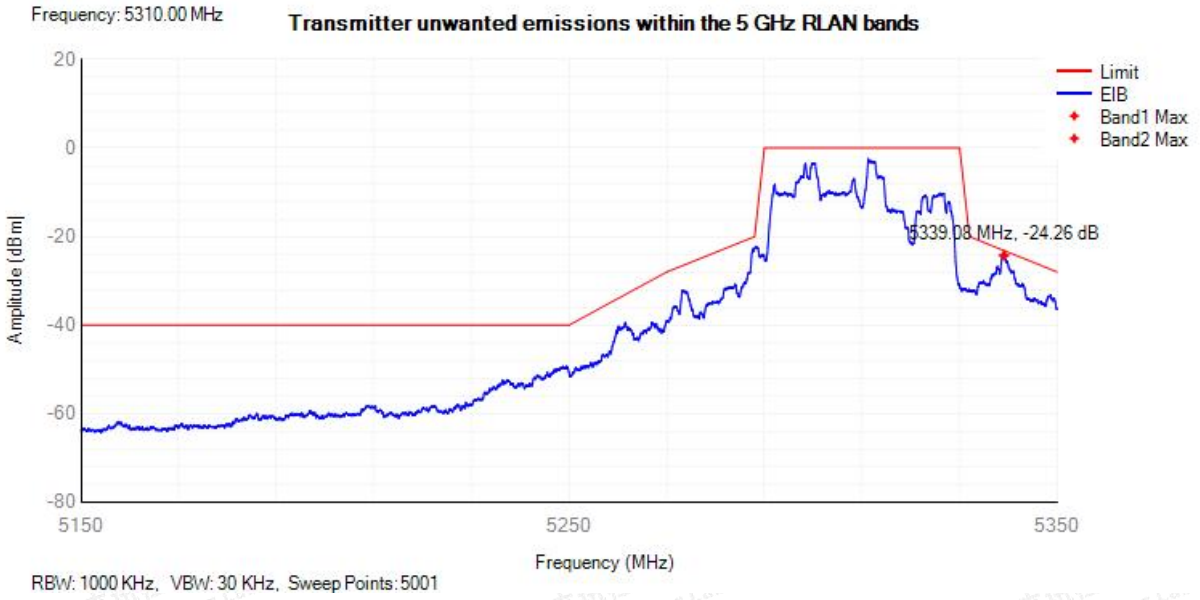
Tx. Emissions EIB NVNT ac20 5320MHz Sub Band1



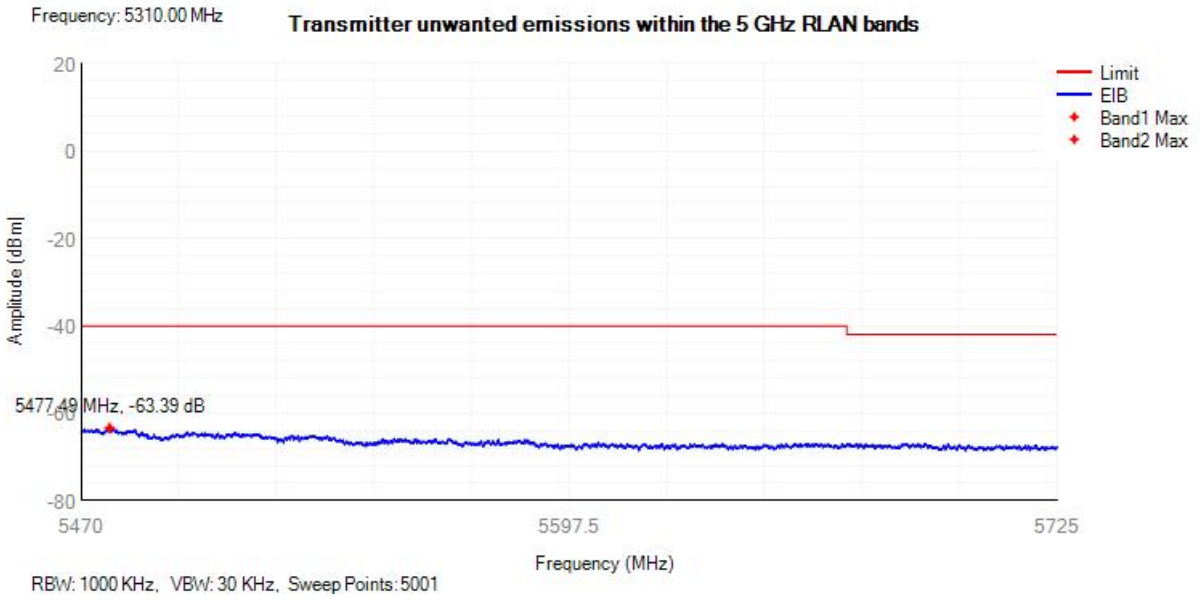
Tx. Emissions EIB NVNT ac20 5320MHz Sub Band2



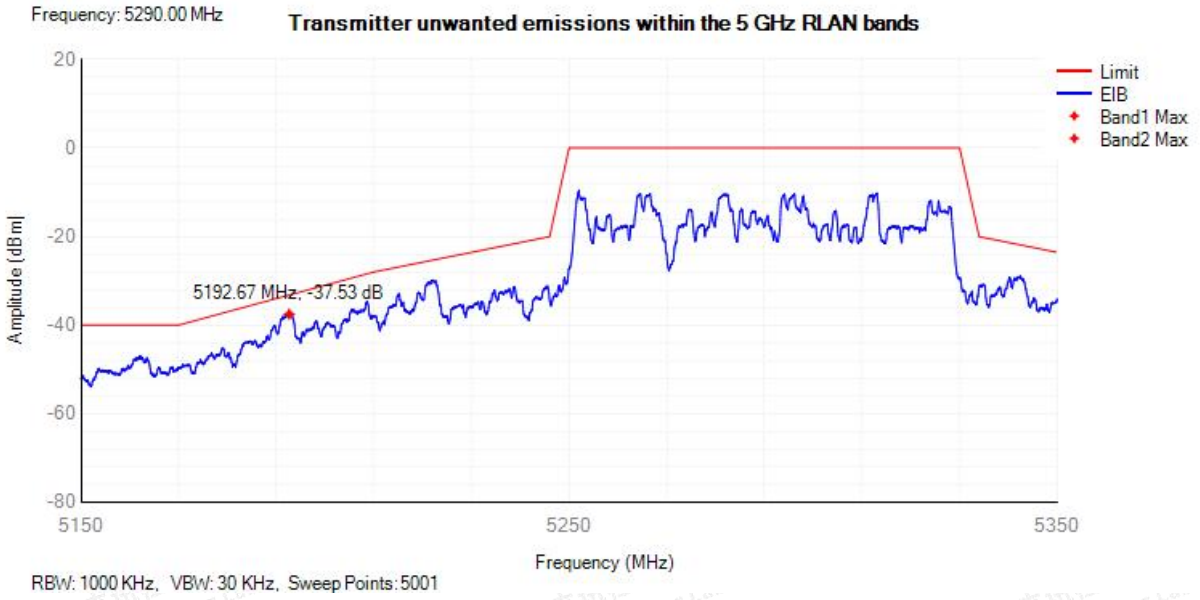
Tx. Emissions EIB NVNT ac40 5310MHz Sub Band1



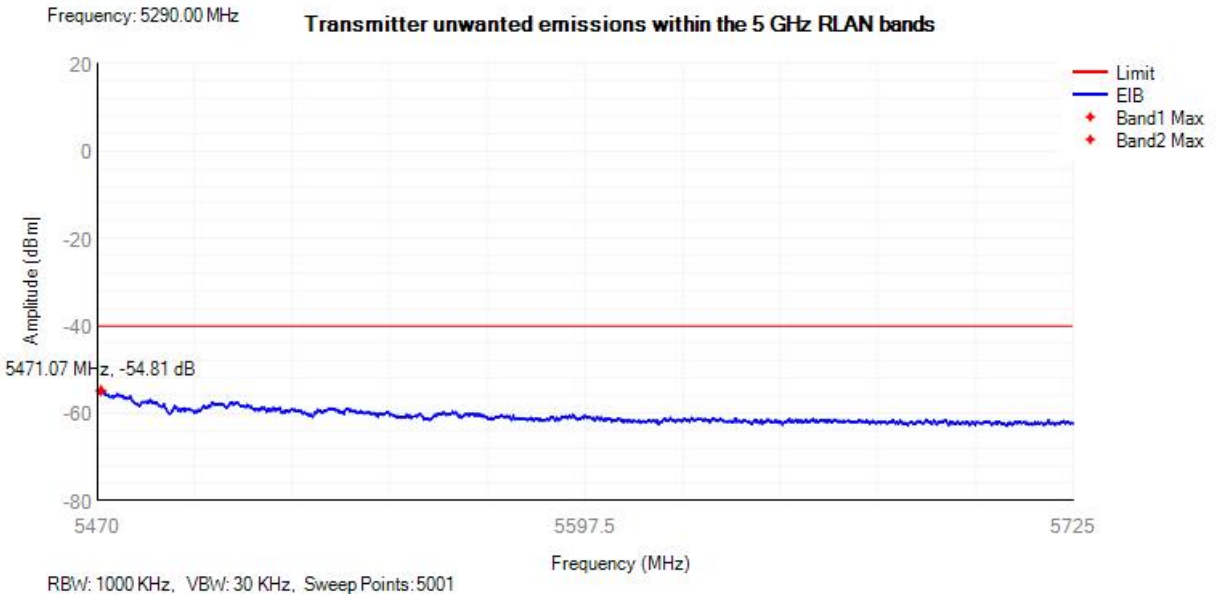
Tx. Emissions EIB NVNT ac40 5310MHz Sub Band2



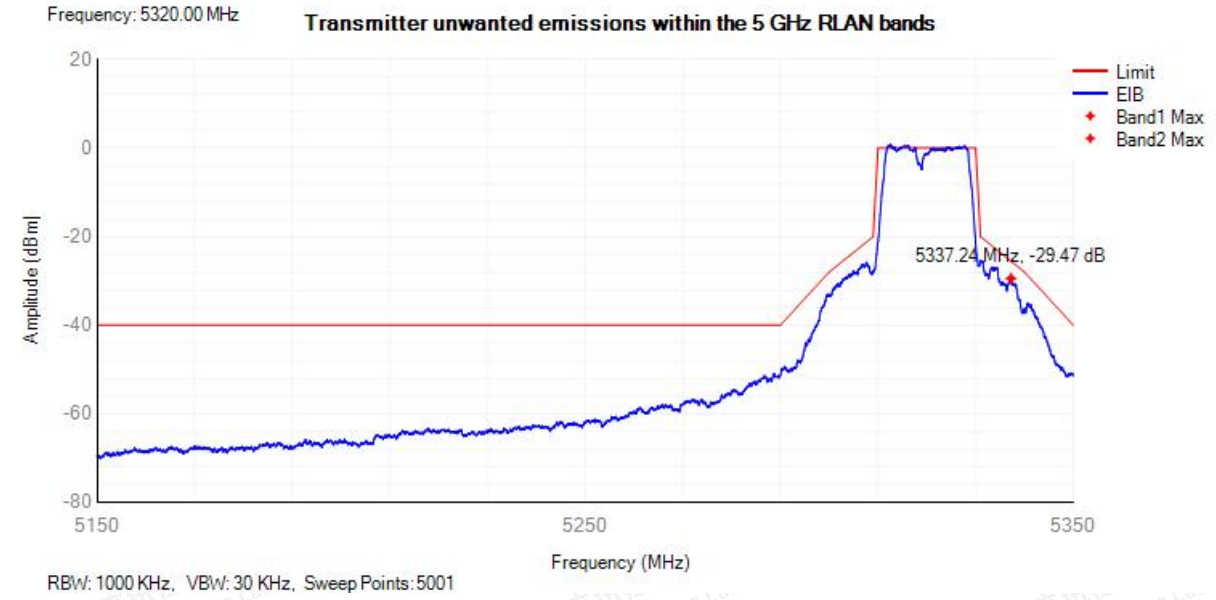
Tx. Emissions EIB NVNT ac80 5290MHz Sub Band1



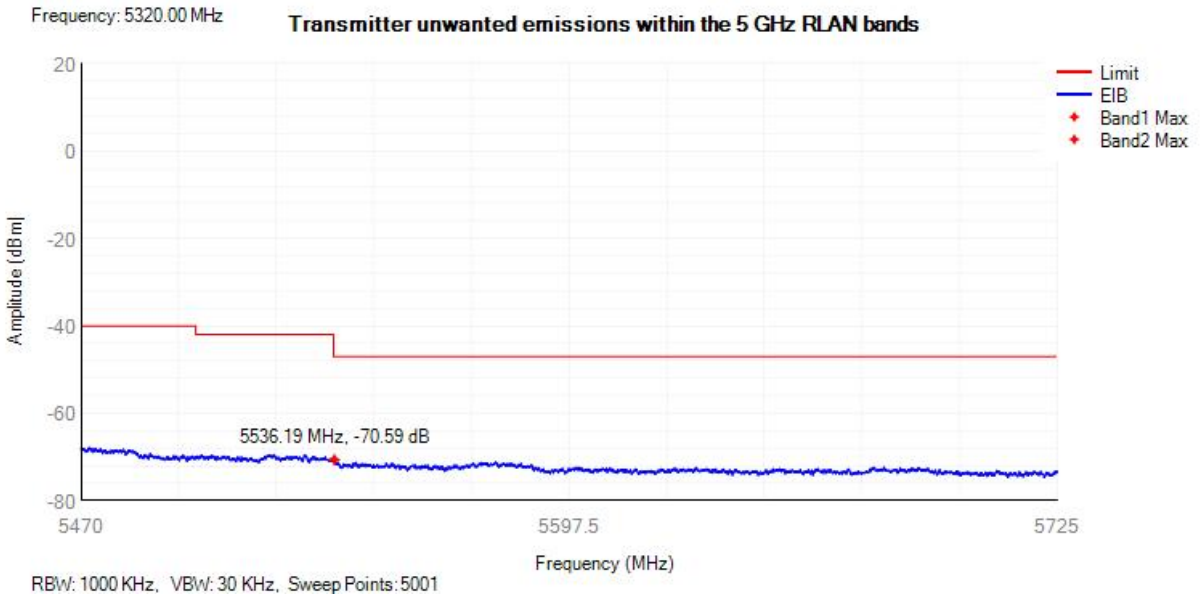
Tx. Emissions EIB NVNT ac80 5290MHz Sub Band2



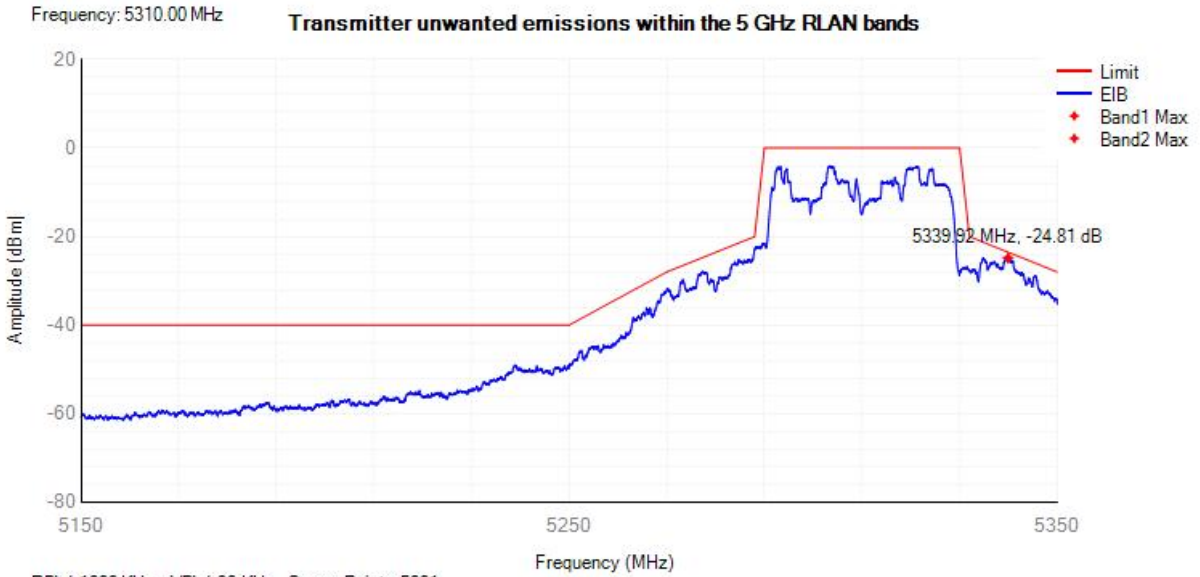
Tx. Emissions EIB NVNT n20 5320MHz Sub Band1



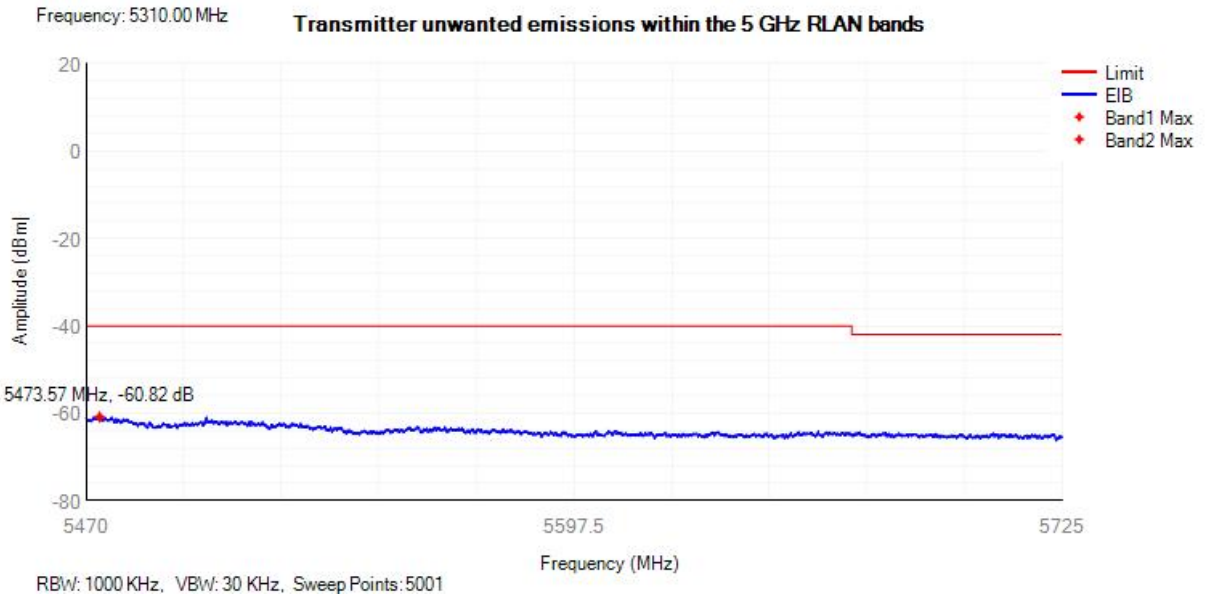
Tx. Emissions EIB NVNT n20 5320MHz Sub Band2



Tx. Emissions EIB NVNT n40 5310MHz Sub Band1



Tx. Emissions EIB NVNT n40 5310MHz Sub Band2


Frequency: 5310.00 MHz
Transmitter unwanted emissions within the 5 GHz RLAN bands
Limit
EIB
Band1 Max
Band2 Max
Amplitude [dBm]
20
0
-20
-40
-60
-80
5473.57 MHz, -60.82 dB
5470
5597.5
5725
Frequency (MHz)
RBW: 1000 KHz, VBW: 30 KHz, Sweep Points: 5001

I.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 52 (5260MHz)					
60.08	H	-81.68	-57.00	-24.68	PK
66.22	V	-74.12	-57.00	-17.12	PK
809.81	H	-74.75	-57.00	-17.75	PK
924.94	V	-74.55	-57.00	-17.55	PK
3554.16	H	-63.31	-47.00	-16.31	PK
3541.50	V	-63.11	-47.00	-16.11	PK
10520.03	H	-58.35	-47.00	-11.35	PK
10520.08	V	-59.36	-47.00	-12.36	PK

The Worst Test Result For 802.11n(20MHz)					
Frequency (MHz)	Polarization (H/V)	Measure Level (dBm)	Limit (dBm)	Margin (dB)	Detector
Channel 52 (5260MHz)					
59.99	H	-82.31	-57.00	-25.31	PK
67.15	V	-73.89	-57.00	-16.89	PK
807.93	H	-74.18	-57.00	-17.18	PK
926.05	V	-74.13	-57.00	-17.13	PK
3512.77	H	-63.44	-47.00	-16.44	PK
3535.70	V	-64.21	-47.00	-17.21	PK
10520.09	H	-59.10	-47.00	-12.10	PK
10520.09	V	-59.54	-47.00	-12.54	PK

The Worst Test Result For 802.11ac(20MHz)					
Frequency (MHz)	Polarization (H/V)	Measure Level (dBm)	Limit (dBm)	Margin (dB)	Detector
Channel 52 (5260MHz)					
60.67	H	-81.94	-57.00	-24.94	PK
66.14	V	-73.70	-57.00	-16.70	PK
810.99	H	-74.26	-57.00	-17.26	PK
923.22	V	-74.53	-57.00	-17.53	PK
3551.74	H	-63.69	-47.00	-16.69	PK
3542.17	V	-63.93	-47.00	-16.93	PK
10520.02	H	-58.70	-47.00	-11.70	PK
10520.04	V	-60.03	-47.00	-13.03	PK

The Worst Test Result For 802.11n(40MHz)					
Frequency (MHz)	Polarization (H/V)	Measure Level (dBm)	Limit (dBm)	Margin (dB)	Detector
Channel 54 (5270MHz)					
60.38	H	-82.45	-57.00	-25.45	PK
66.22	V	-73.93	-57.00	-16.93	PK
808.58	H	-74.31	-57.00	-17.31	PK
927.33	V	-74.53	-57.00	-17.53	PK
3552.27	H	-62.87	-47.00	-15.87	PK
3553.60	V	-64.10	-47.00	-17.10	PK
10540.06	H	-58.43	-47.00	-11.43	PK
10540.02	V	-59.67	-47.00	-12.67	PK

The Worst Test Result For 802.11ac(40MHz)					
Frequency (MHz)	Polarization (H/V)	Measure Level (dBm)	Limit (dBm)	Margin (dB)	Detector
Channel 54 (5270MHz)					
58.97	H	-82.31	-57.00	-25.31	PK
67.54	V	-73.66	-57.00	-16.66	PK
807.89	H	-74.20	-57.00	-17.20	PK
923.08	V	-75.05	-57.00	-18.05	PK
3552.25	H	-63.26	-47.00	-16.26	PK
3553.68	V	-64.28	-47.00	-17.28	PK
10540.06	H	-57.71	-47.00	-10.71	PK
10540.01	V	-59.63	-47.00	-12.63	PK

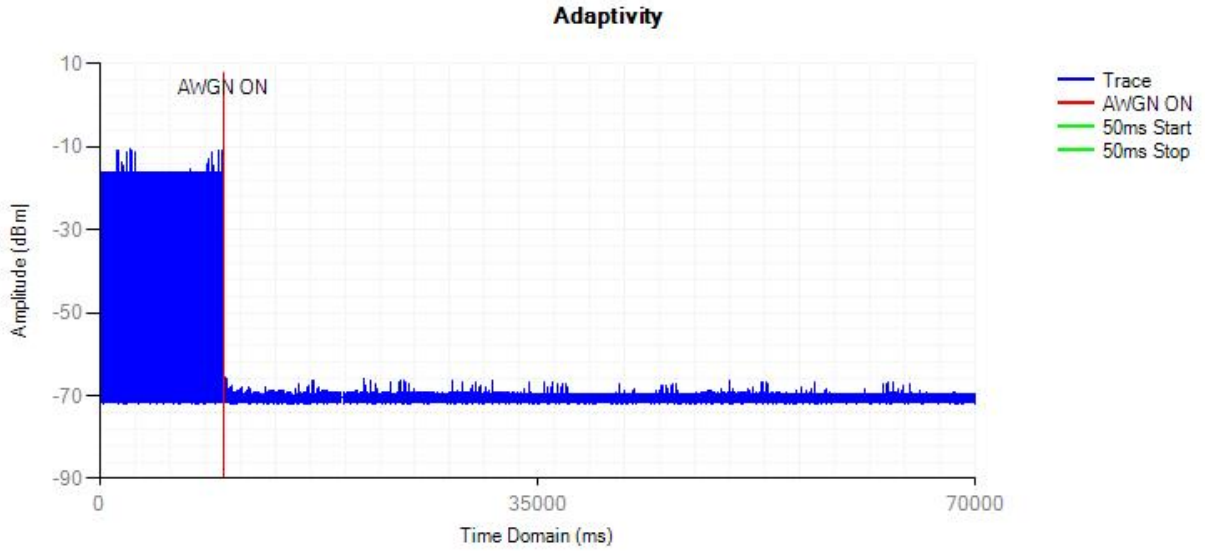
The Worst Test Result For 802.11ac(80MHz)					
Frequency (MHz)	Polarization (H/V)	Measure Level (dBm)	Limit (dBm)	Margin (dB)	Detector
Channel 58 (5290MHz)					
57.95	H	-82.25	-57.00	-25.25	PK
67.87	V	-74.77	-57.00	-17.77	PK
808.11	H	-74.00	-57.00	-17.00	PK
924.04	V	-74.27	-57.00	-17.27	PK
3538.80	H	-63.10	-47.00	-16.10	PK
3571.73	V	-64.07	-47.00	-17.07	PK
10580.09	H	-59.12	-47.00	-12.12	PK
10580.05	V	-60.24	-47.00	-13.24	PK

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

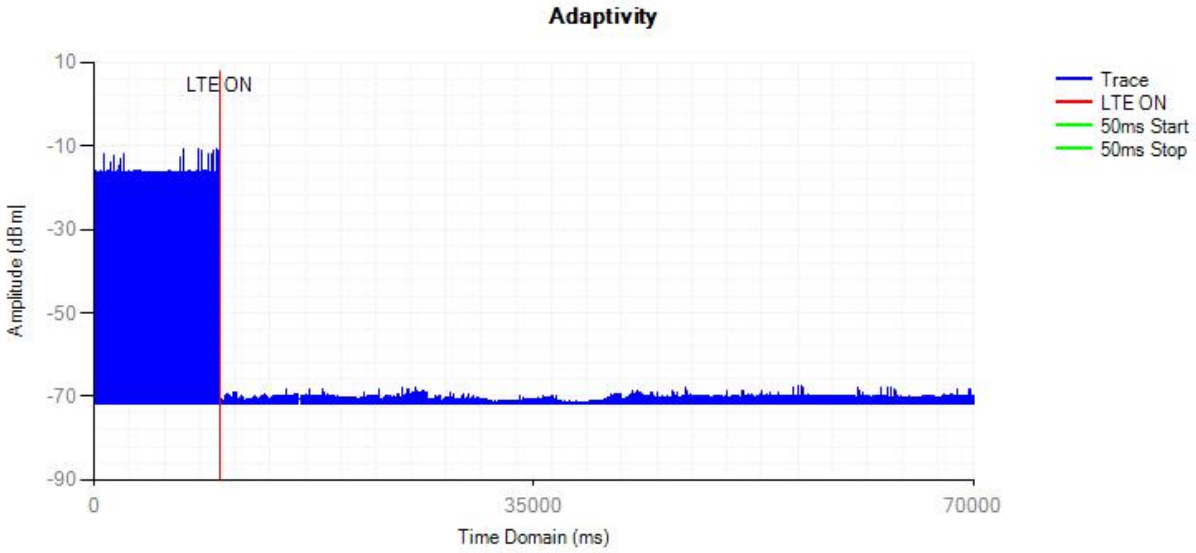
I.8 Adaptivity (Channel Access Mechanism)

Condition	Mode	Frequency (MHz)	Interfer Type	Short Control (ms)	Limit (ms)	Short Control (n)	Limit (n)	Verdict
NVNT	ac20	5260	AWGN	0.49	<=2.5	4	<=50	Pass
NVNT	ac20	5260	LTE	0.50	<=2.5	7	<=50	Pass
NVNT	ac20	5260	OFDM	0.66	<=2.5	2	<=50	Pass
NVNT	ac40	5270	AWGN	0.46	<=2.5	16	<=50	Pass
NVNT	ac40	5270	LTE	0.28	<=2.5	9	<=50	Pass
NVNT	ac40	5270	OFDM	0.49	<=2.5	12	<=50	Pass
NVNT	ac80	5290	AWGN	0.71	<=2.5	15	<=50	Pass
NVNT	ac80	5290	LTE	0.39	<=2.5	8	<=50	Pass
NVNT	ac80	5290	OFDM	0.22	<=2.5	4	<=50	Pass

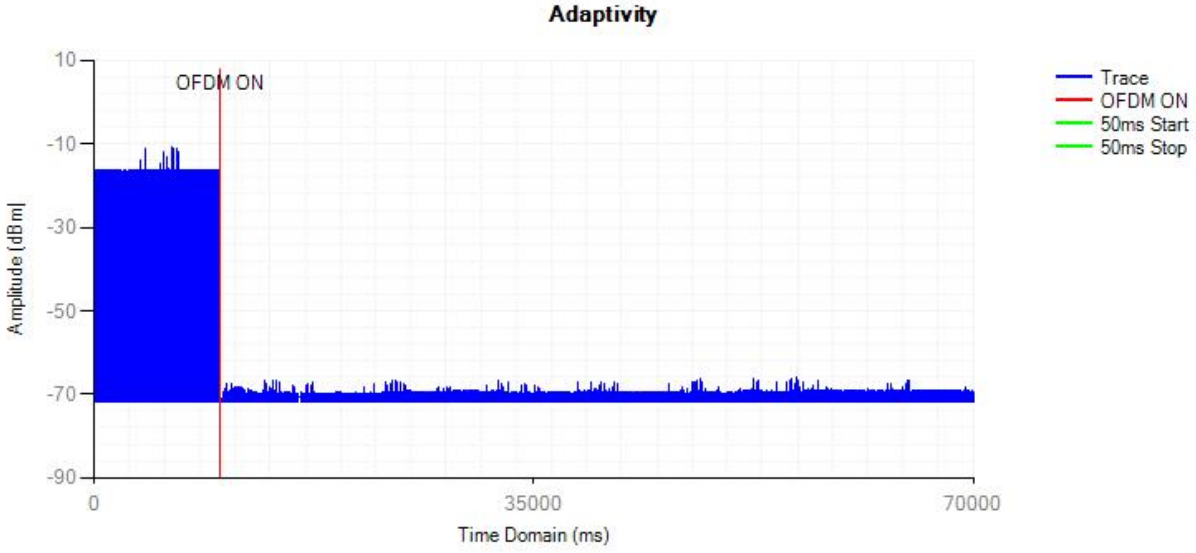
Adaptivity NVNT ac 5260MHz AWGN



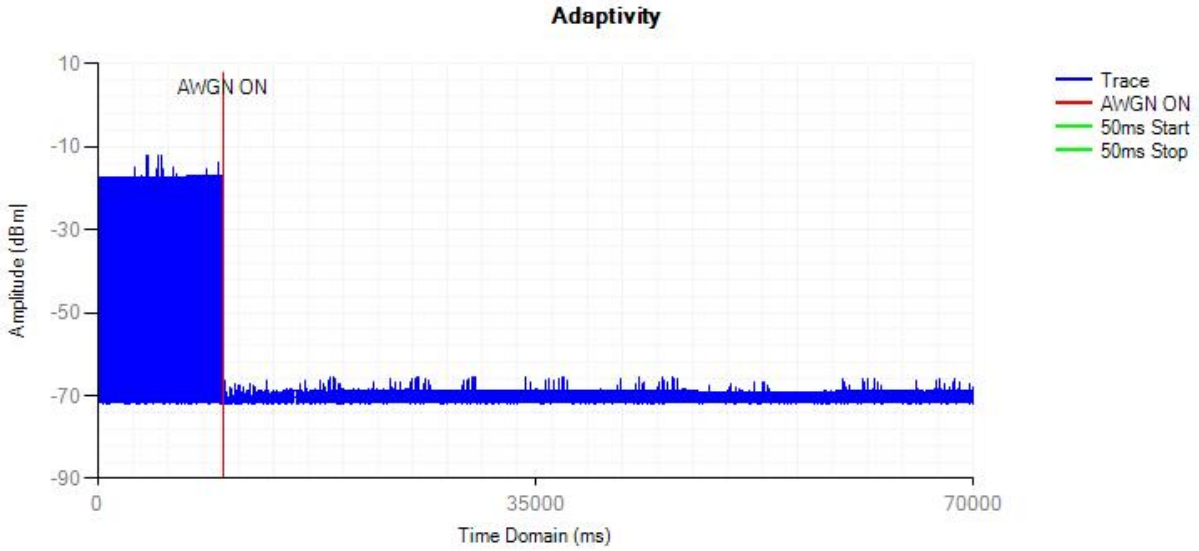
Adaptivity NVNT ac 5260MHz LTE



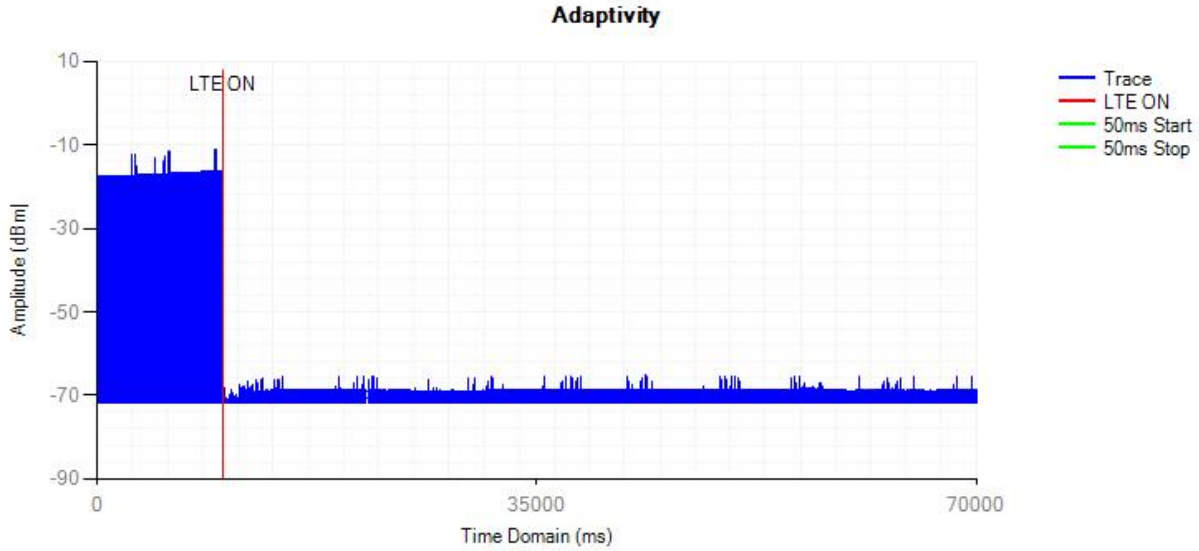
Adaptivity NVNT ac 5260MHz OFDM



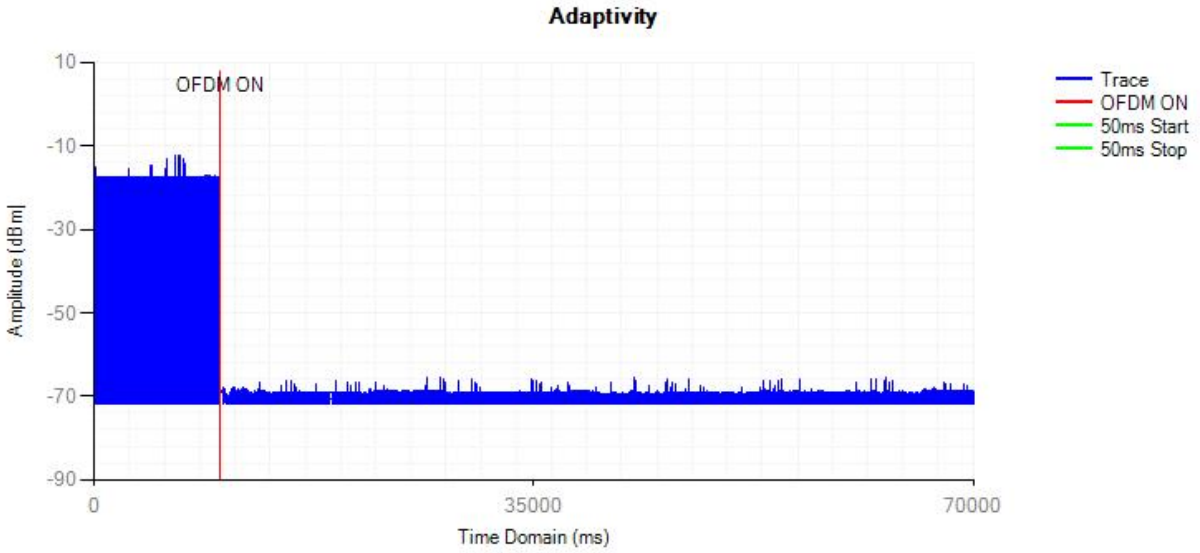
Adaptivity NVNT ac 5270MHz AWGN



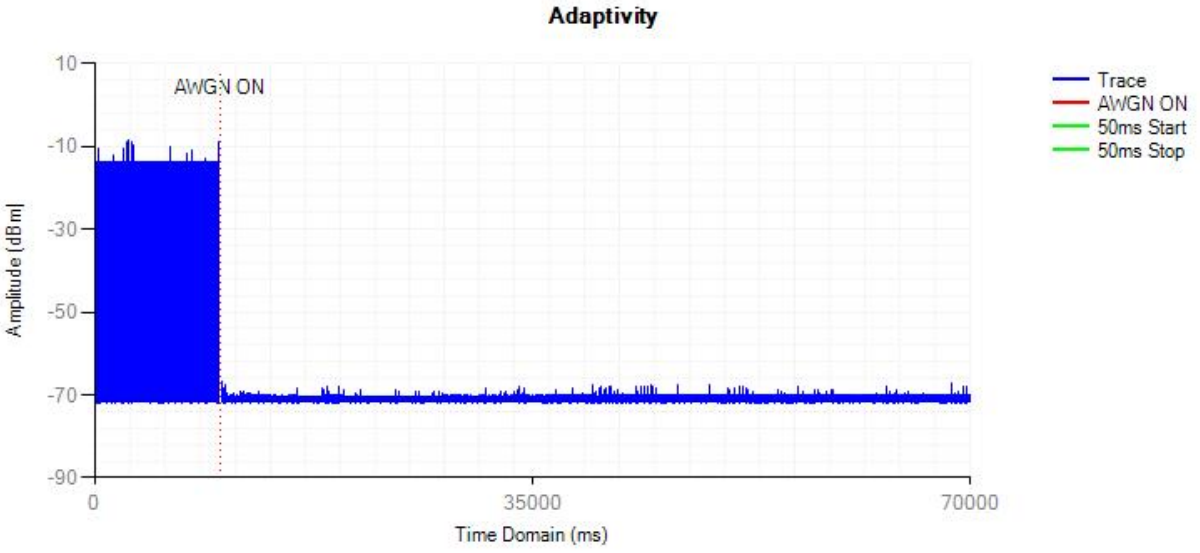
Adaptivity NVNT ac 5270MHz LTE



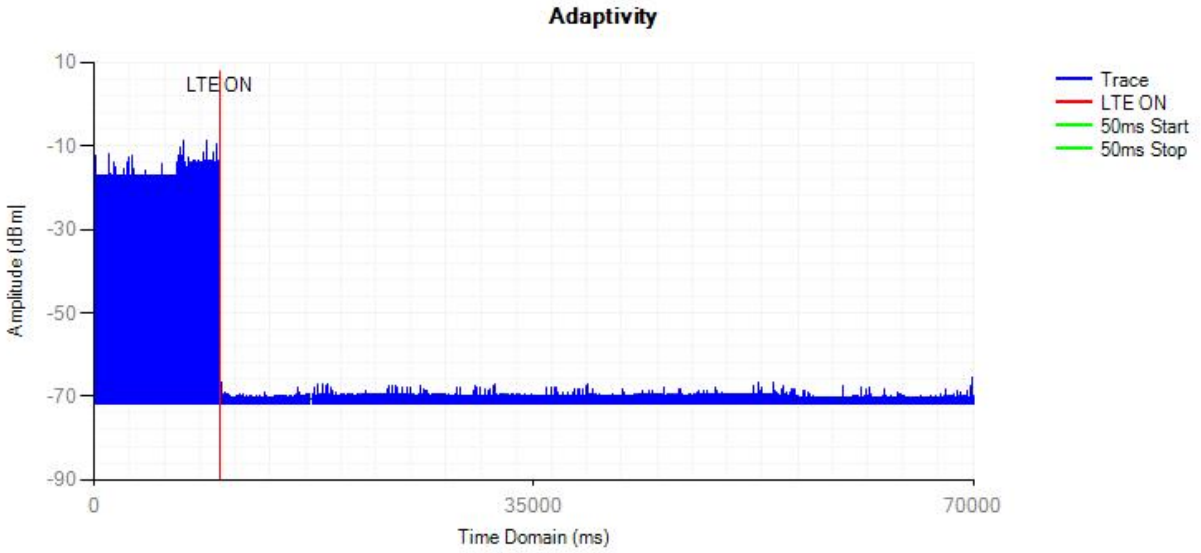
Adaptivity NVNT ac 5270MHz OFDM



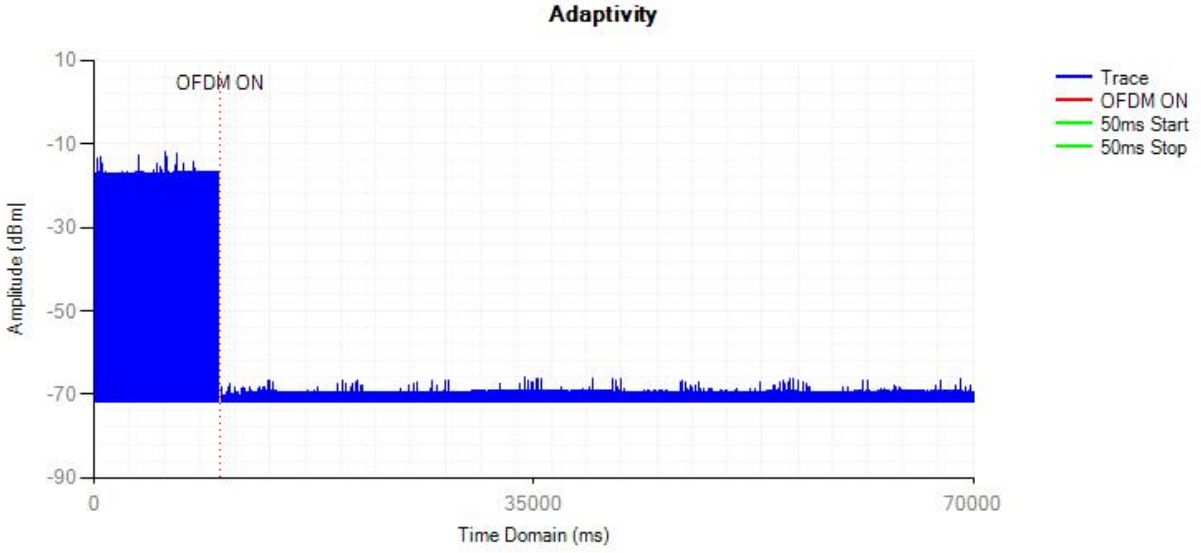
Adaptivity NVNT ac 5290MHz AWGN



Adaptivity NVNT ac 5290MHz LTE



Adaptivity NVNT ac 5290MHz OFDM



I.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	-53	≥-59	CW	2.24	10	Pass
	4900	-46	≥-53	CW	3.28	10	Pass
	5000	-48	≥-53	CW	2.29	10	Pass
	5975	-42	≥-53	CW	1.82	10	Pass

Notes：Report recorded the worst result.