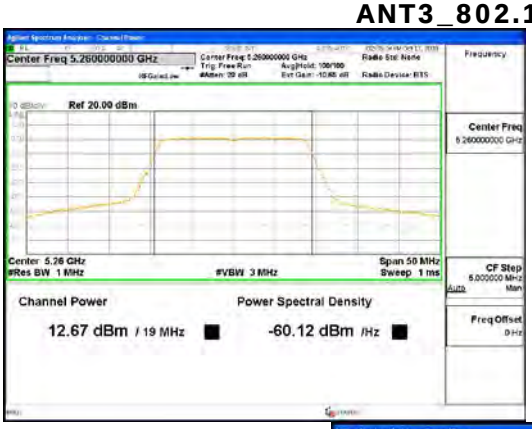
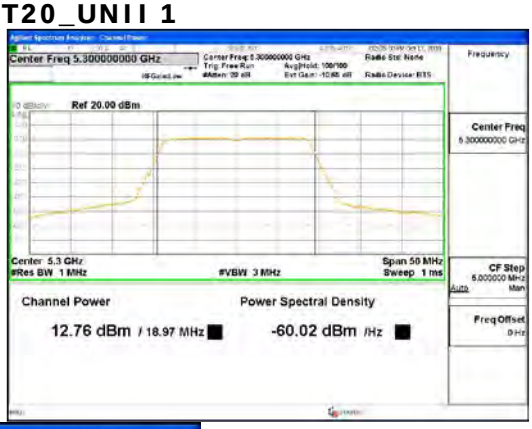
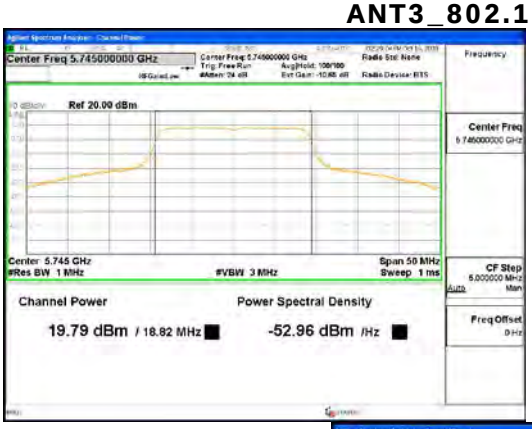
ANT3_802.11ac_VHT20_UNII 1

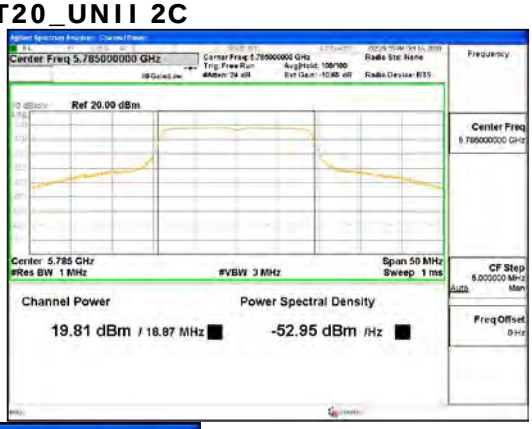


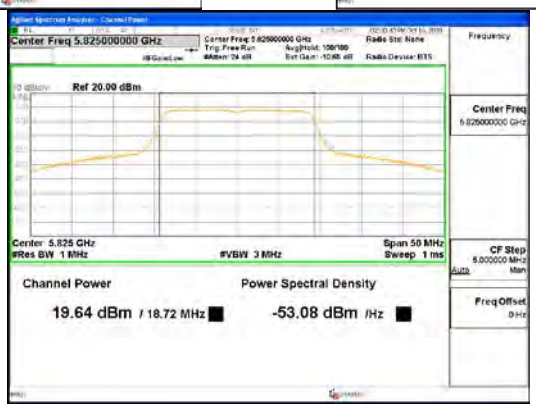


ANT3_802.11ac_VHT20_UNII 2A

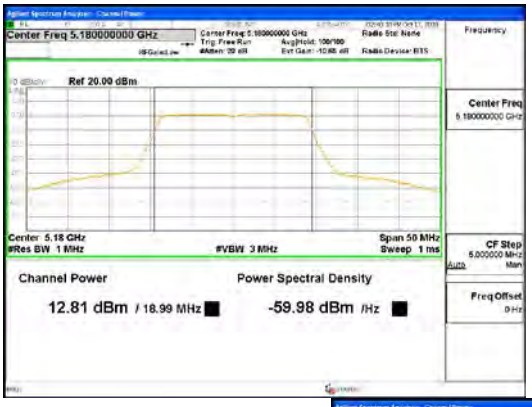
ANT3_802.11ac_VHT20_UNII 2C







ANT3_802.11ac_VHT20_UNII 3



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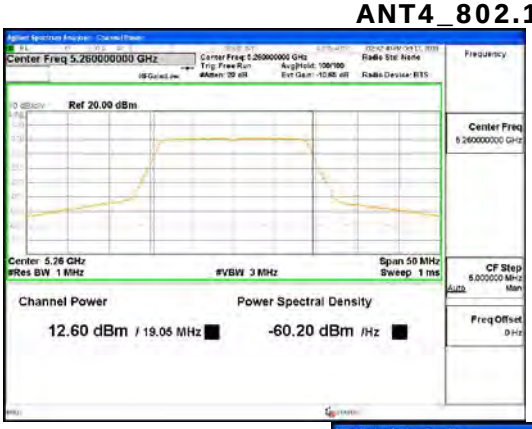
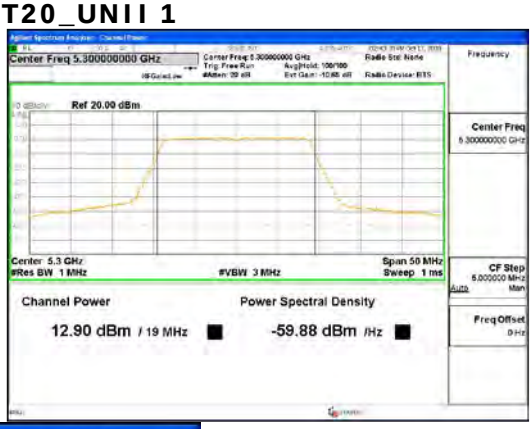
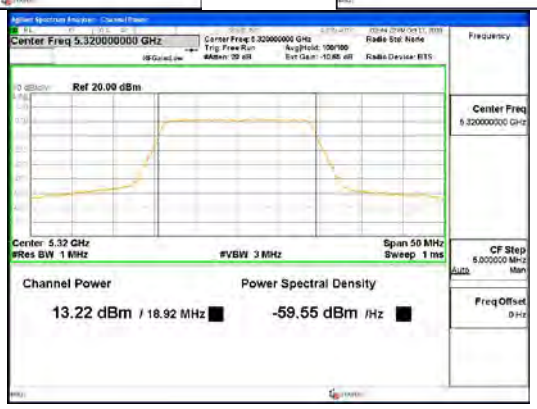
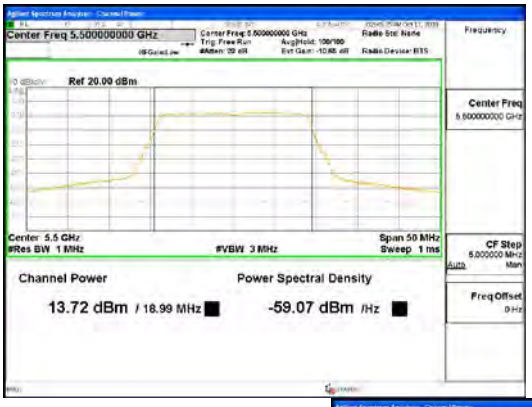






ANT4_802.11ac_VHT20_UNII 2A



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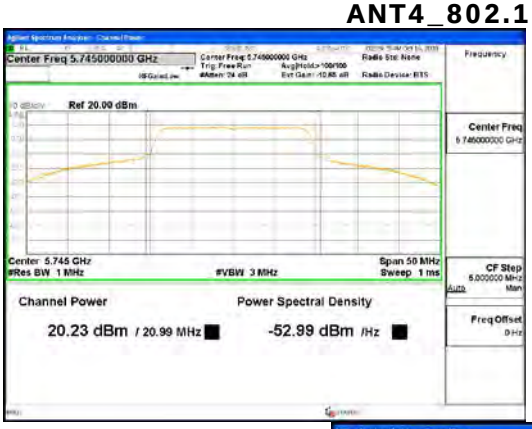
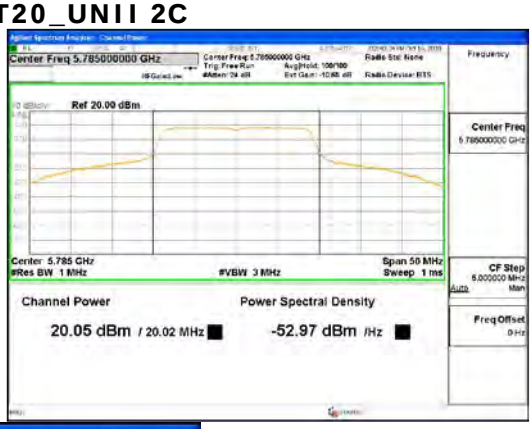
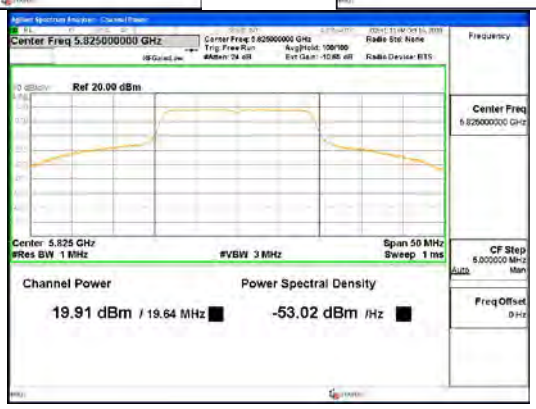
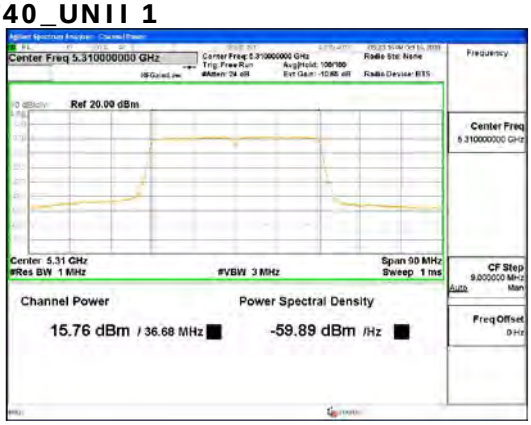




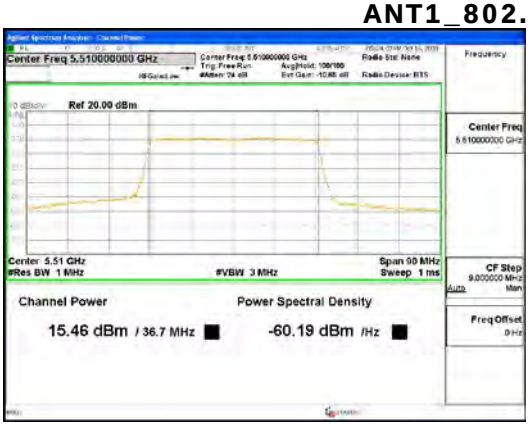


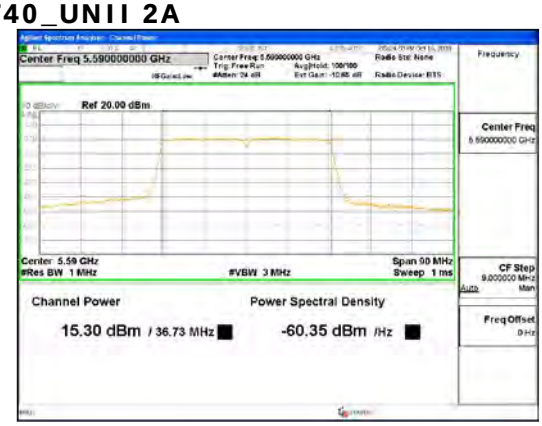
ANT4_802.11ac_VHT20_UNII 3

ANT1_802.11n_HT40_UNII 1



ANT1_802.11n_HT40_UNII 2A

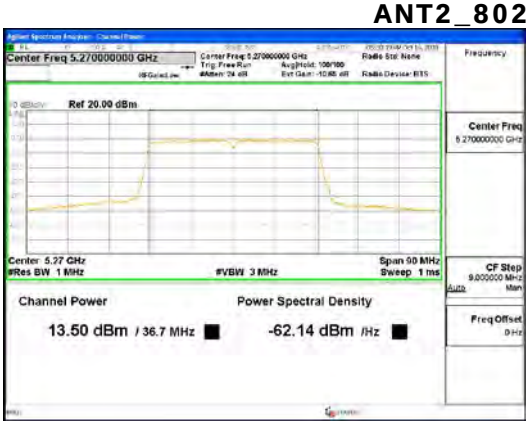


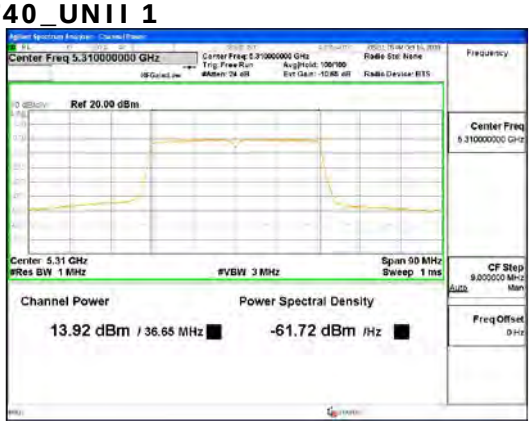


ANT1_802.11n_HT40_UNII 2C

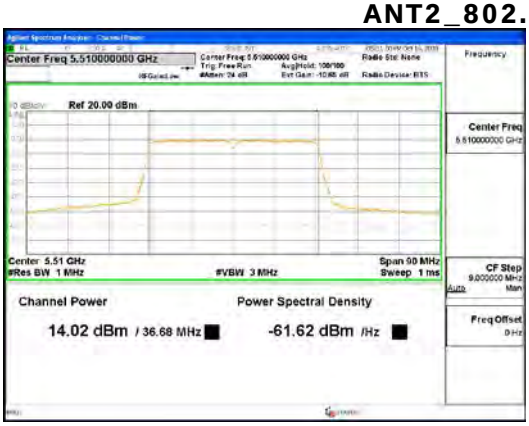
ANT1_802.11n_HT40_UNII 3

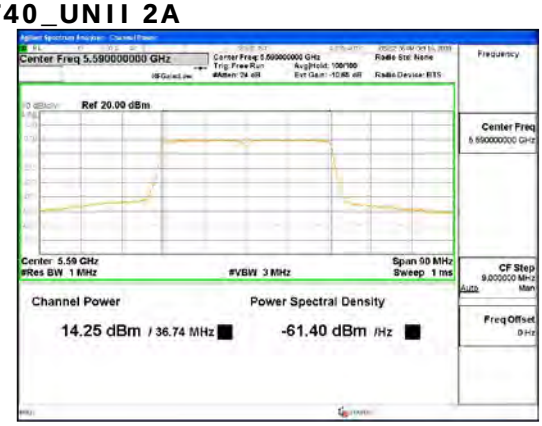
ANT2_802.11n_HT40_UNII 1





ANT2_802.11n_HT40_UNII 2A





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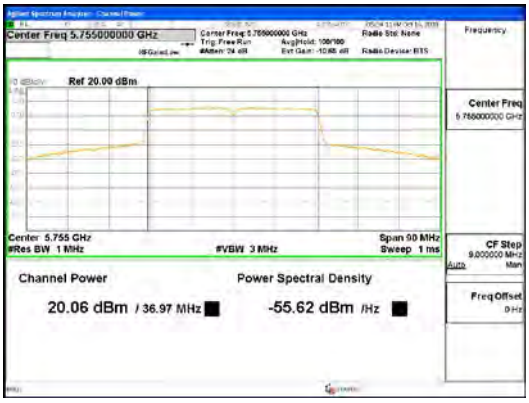
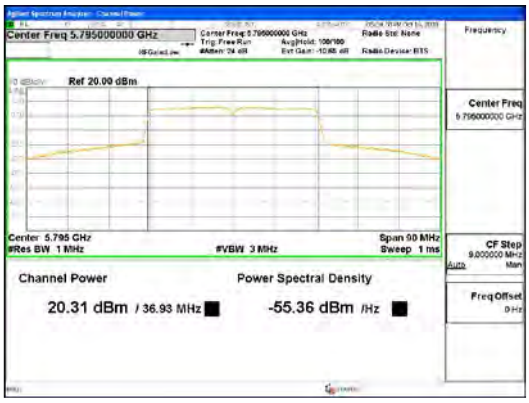
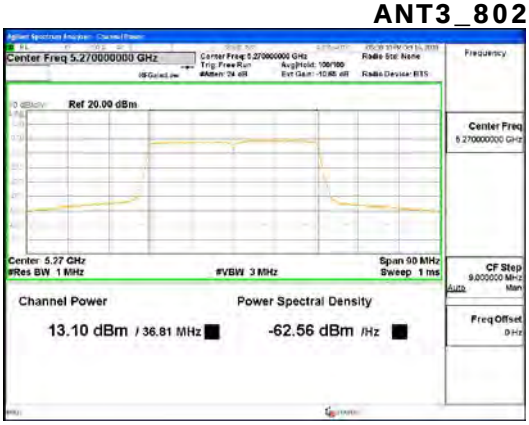
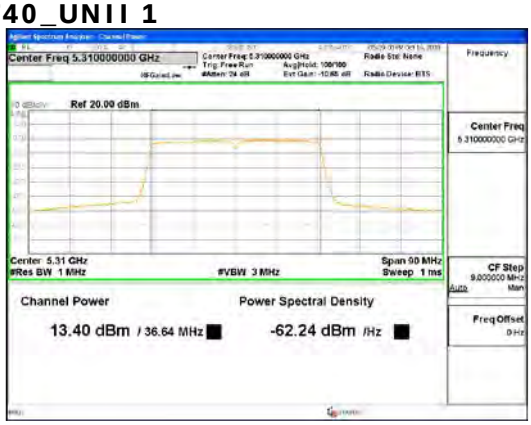




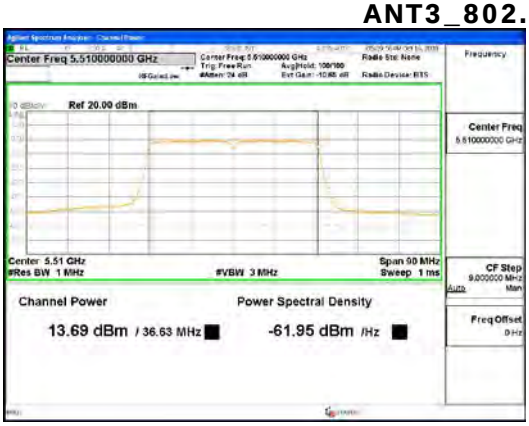
ANT2_802.11n_HT40_UNII 3

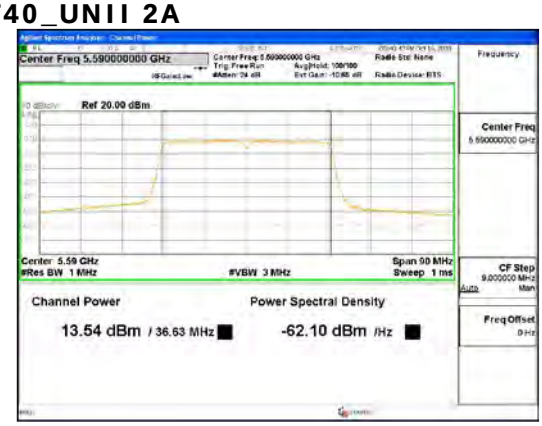
ANT3_802.11n_HT40_UNII 1



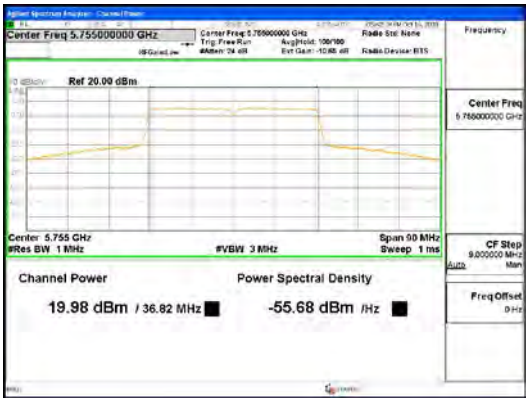


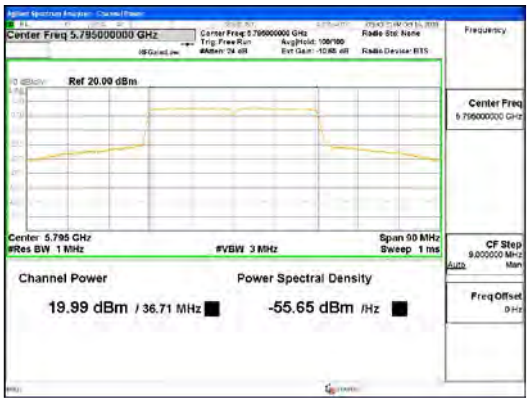
ANT3_802.11n_HT40_UNII 2A





ANT3_802.11n_HT40_UNII 2C





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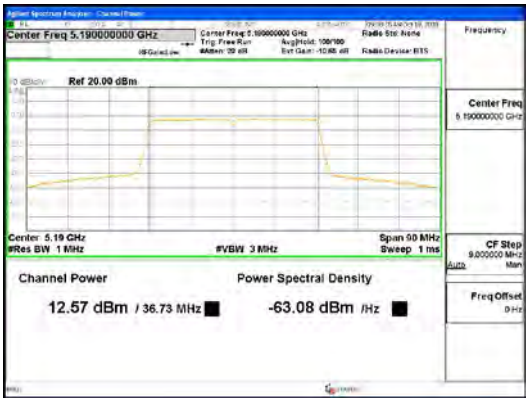

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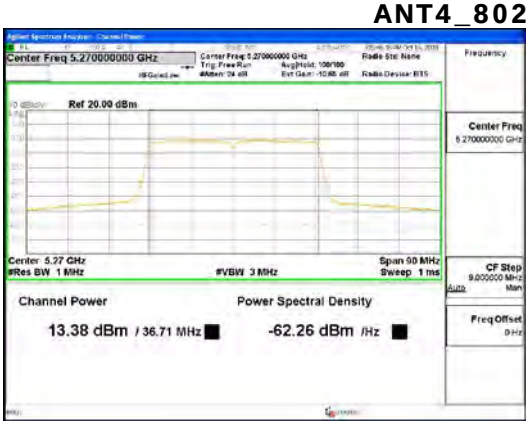
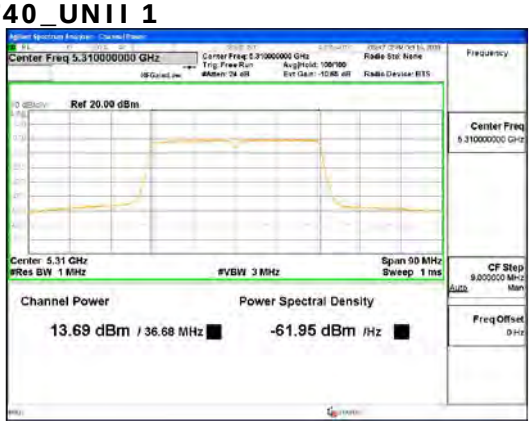
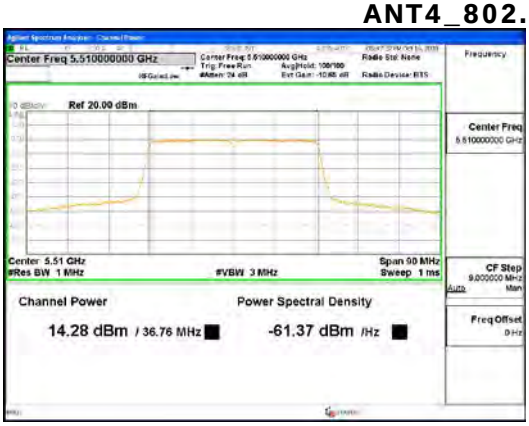
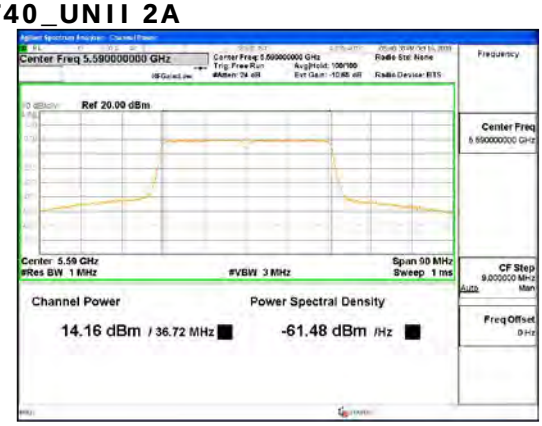


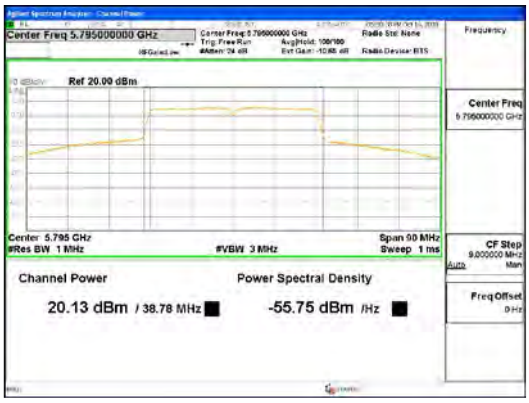


ANT4_802.11n_HT40_UNII 2A



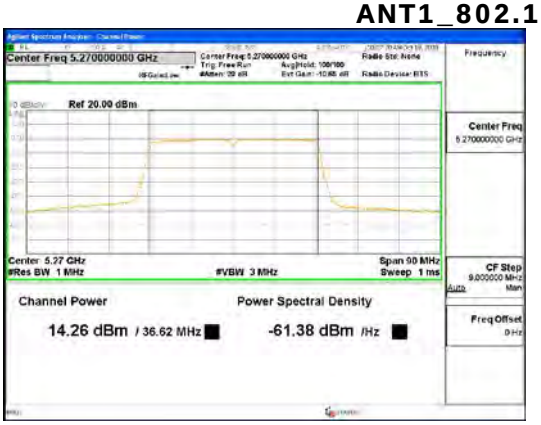


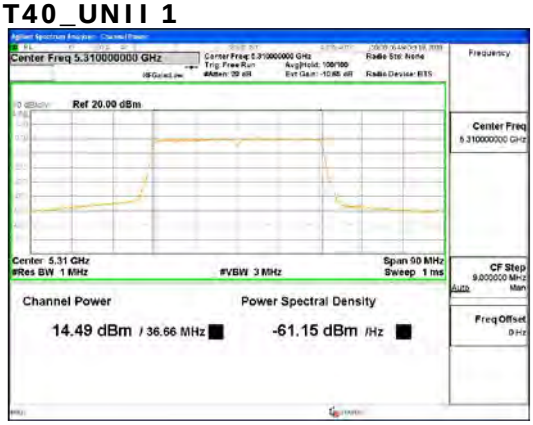
ANT4_802.11n_HT40_UNII 2C



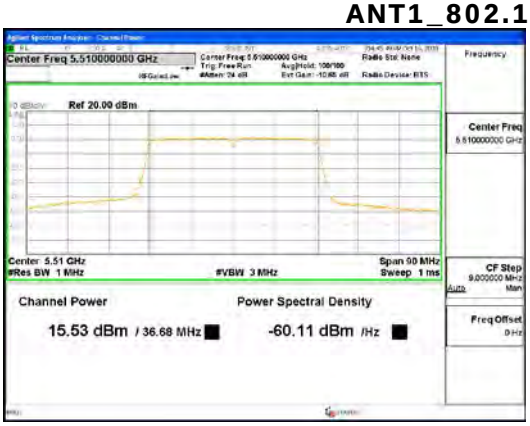
ANT4_802.11n_HT40_UNII 3

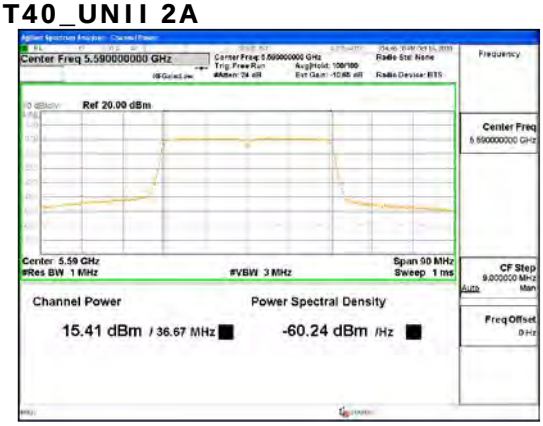
ANT1_802.11ac_VHT40_UNII 1





ANT1_802.11ac_VHT40_UNII 2A

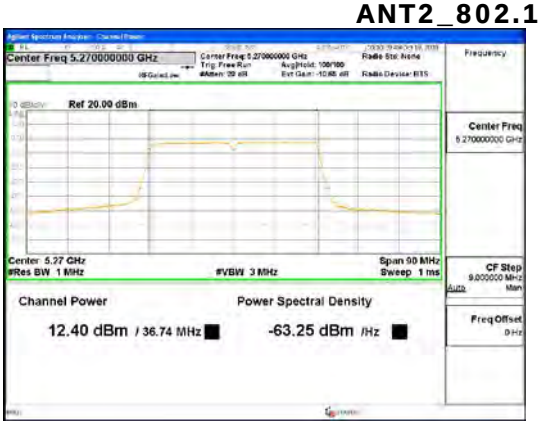


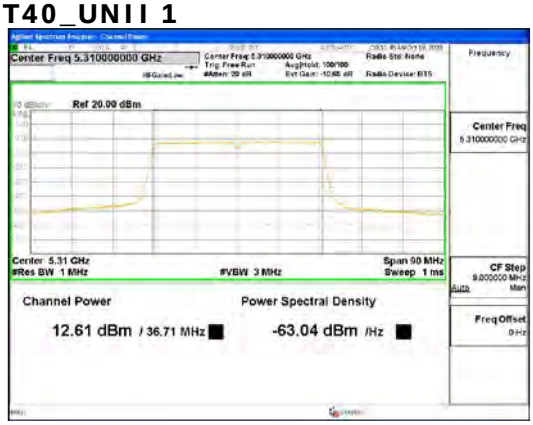


ANT1_802.11ac_VHT40_UNII 2C

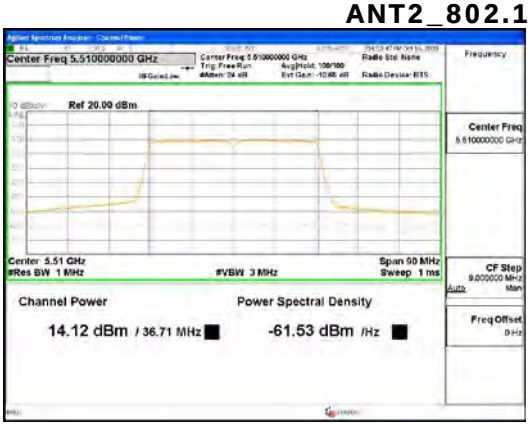
ANT1_802.11ac_VHT40_UNII 3

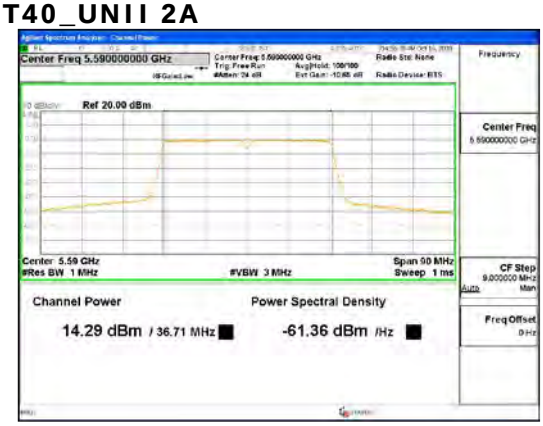
ANT2_802.11ac_VHT40_UNII 1



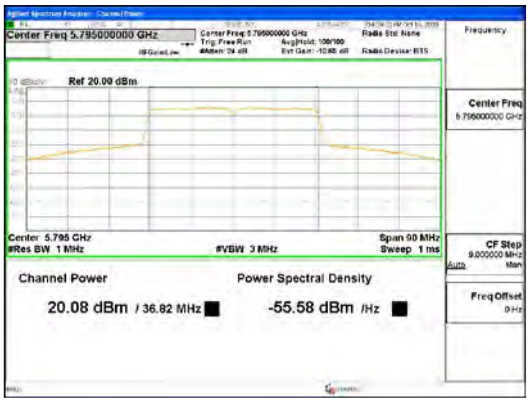


ANT2_802.11ac_VHT40_UNII 2A

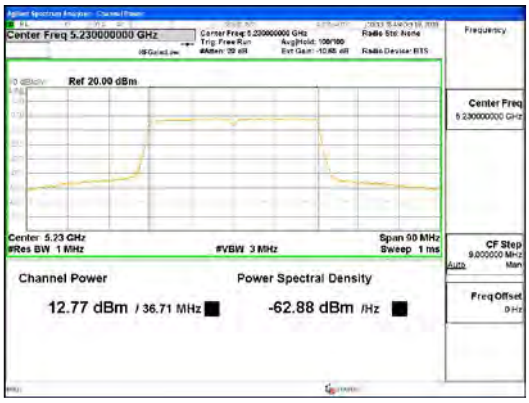




ANT2_802.11ac_VHT40_UNII 2C



ANT2_802.11ac_VHT40_UNII 3



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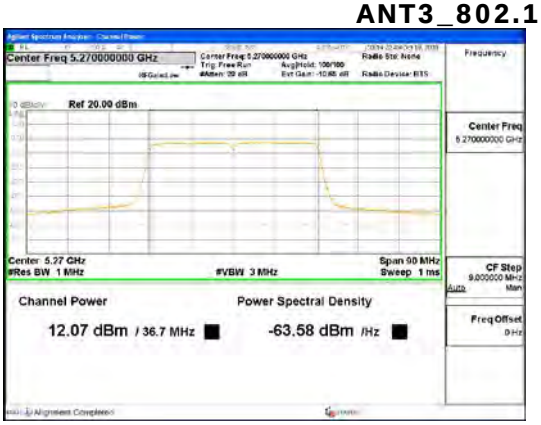
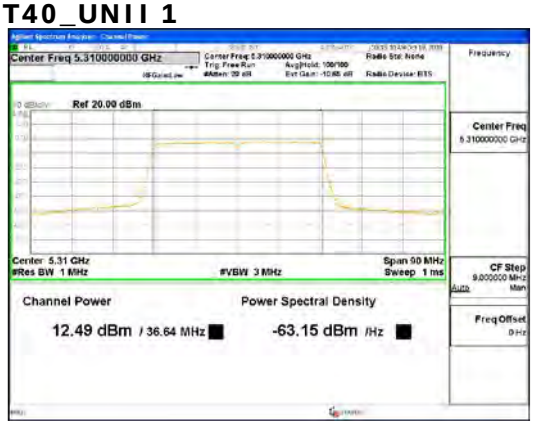
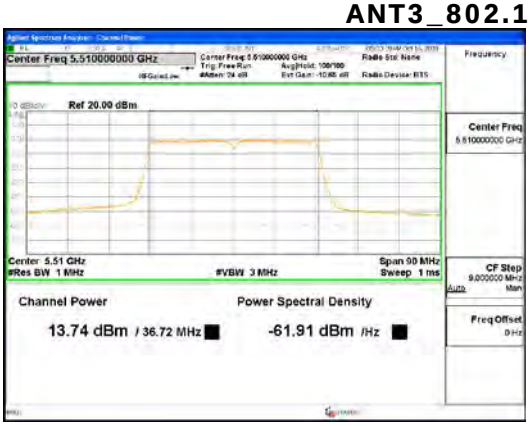
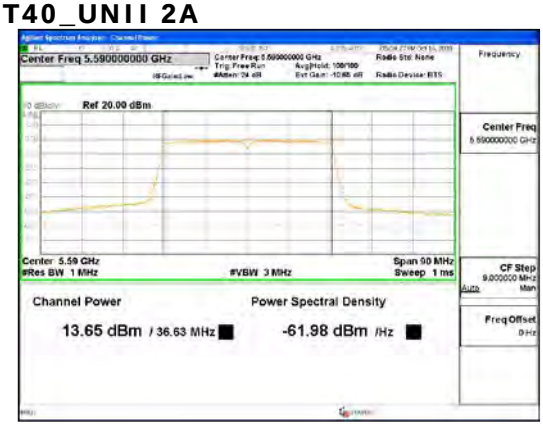


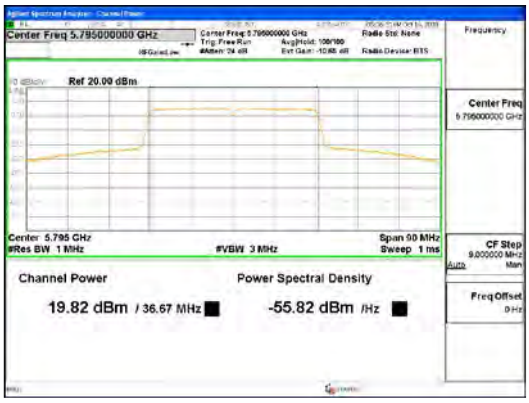


ANT3_802.11ac_VHT40_UNII 2A



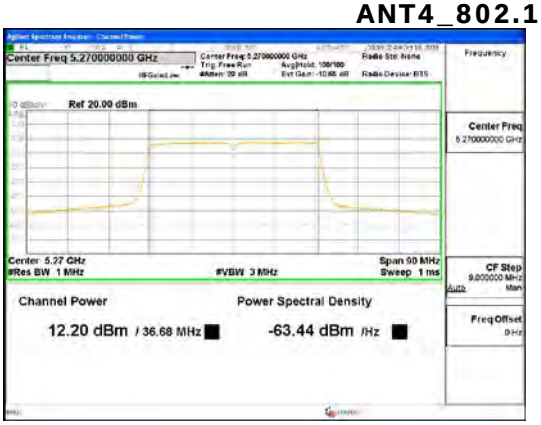


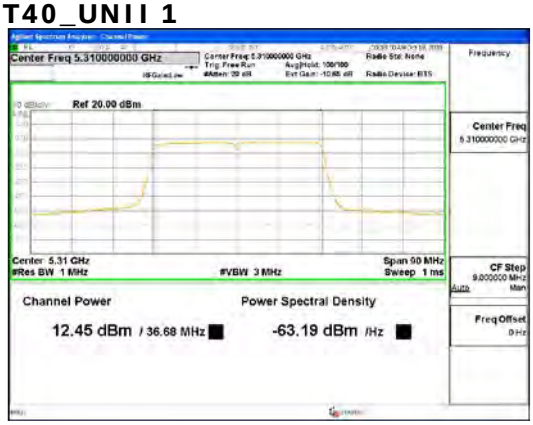
ANT3_802.11ac_VHT40_UNII 2C



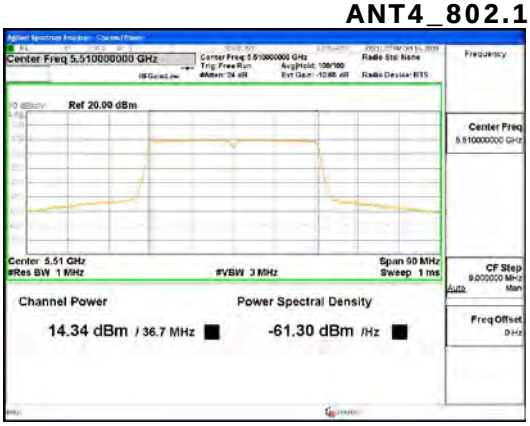
ANT3_802.11ac_VHT40_UNII 3

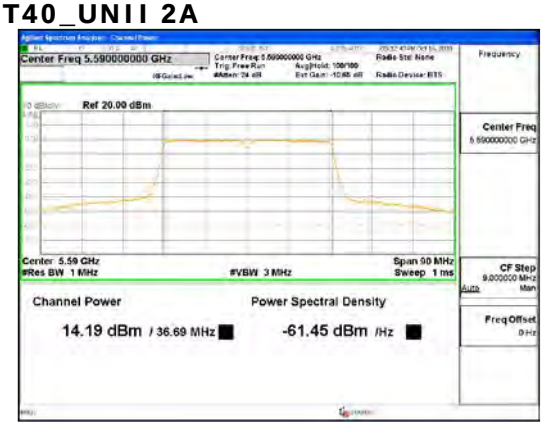
ANT4_802.11ac_VHT40_UNII 1



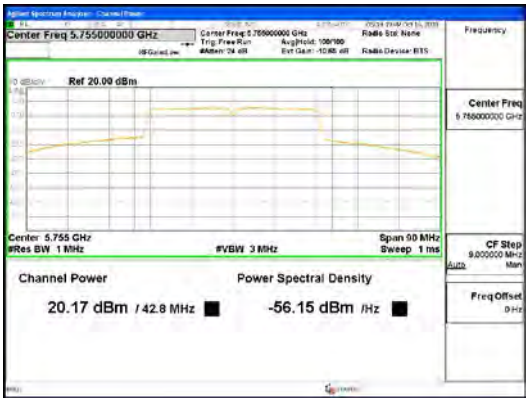


ANT4_802.11ac_VHT40_UNII 2A



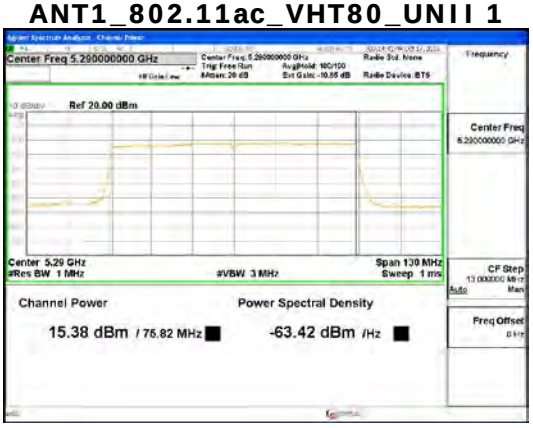


ANT4_802.11ac_VHT40_UNII 2C

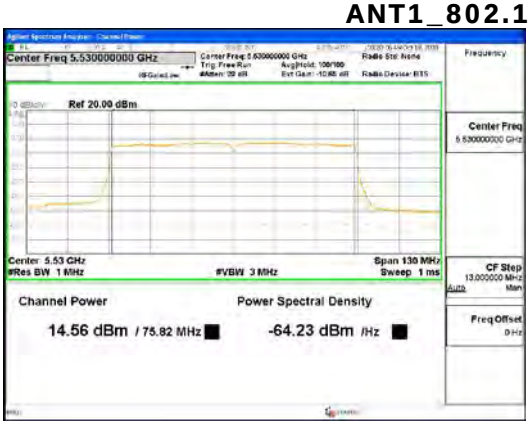


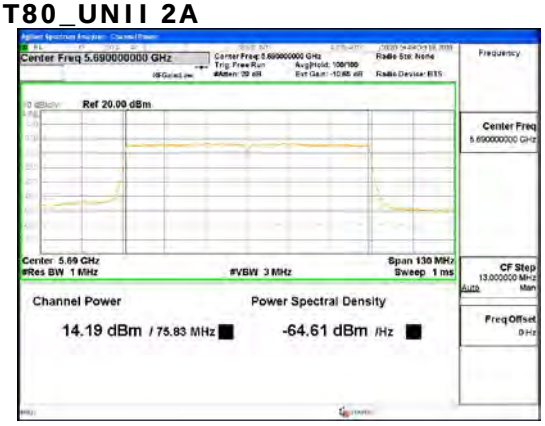
ANT4_802.11ac_VHT40_UNII 3

ANT1_802.11ac_VHT80_UNII 1



ANT1_802.11ac_VHT80_UNII 2A

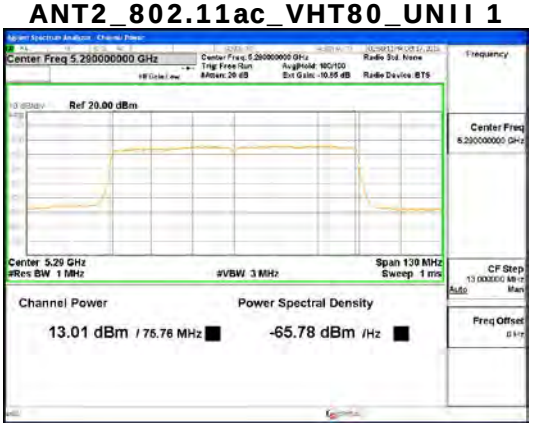




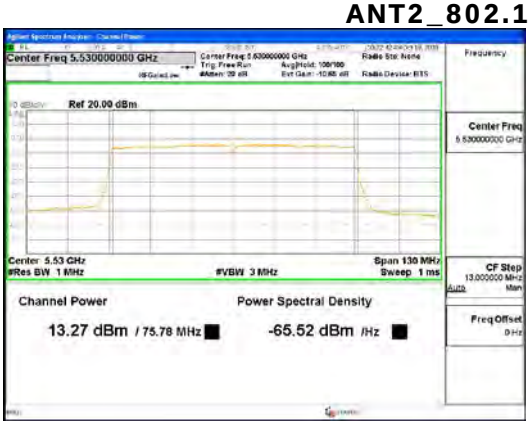
ANT1_802.11ac_VHT80_UNII 2C

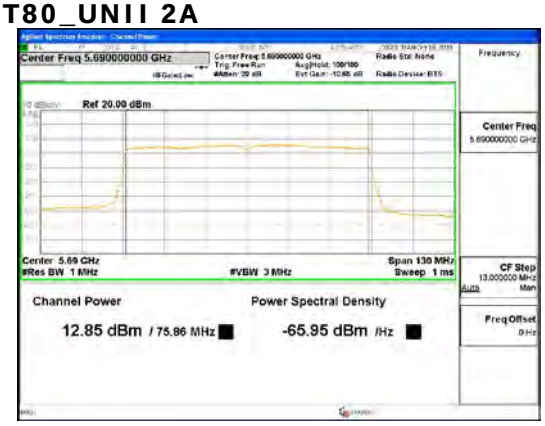
ANT1_802.11ac_VHT80_UNII 3

ANT2_802.11ac_VHT80_UNII 1



ANT2_802.11ac_VHT80_UNII 2A

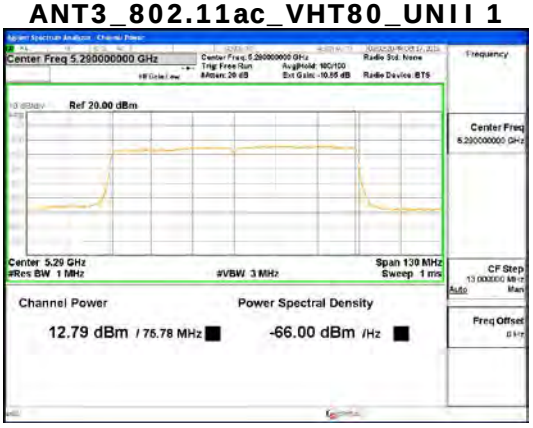




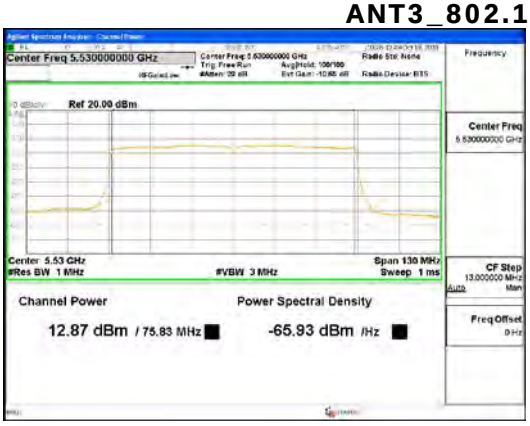
ANT2_802.11ac_VHT80_UNII 2C

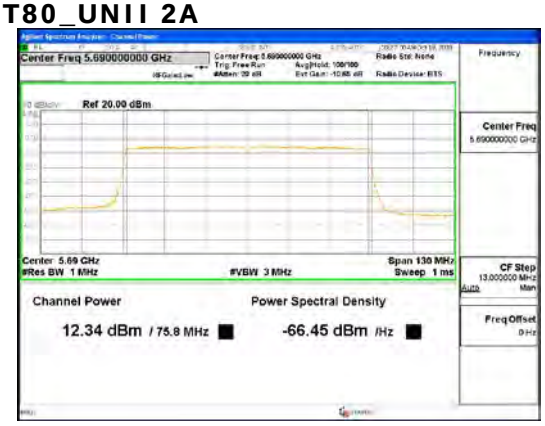
ANT2_802.11ac_VHT80_UNII 3

ANT3_802.11ac_VHT80_UNII 1



ANT3_802.11ac_VHT80_UNII 2A

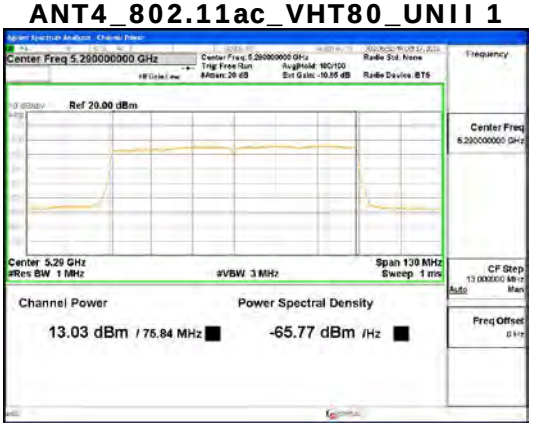




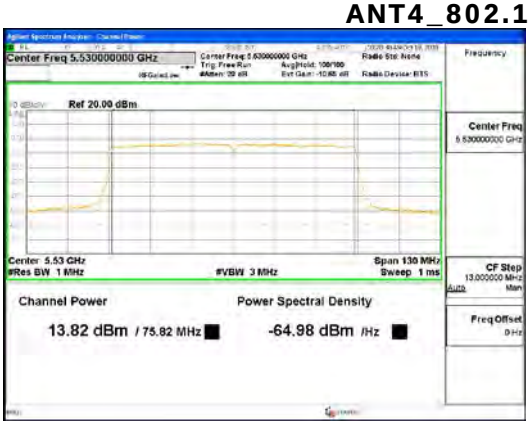
ANT3_802.11ac_VHT80_UNII 2C

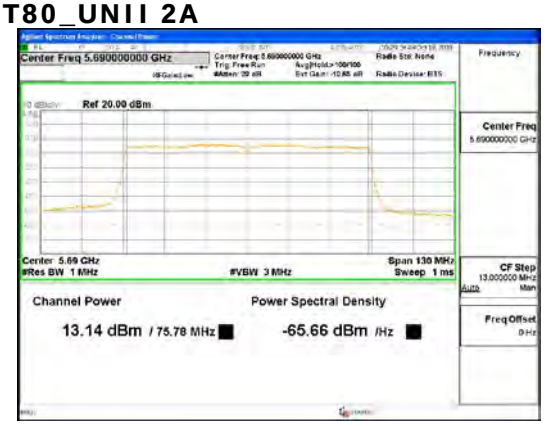
ANT3_802.11ac_VHT80_UNII 3

ANT4_802.11ac_VHT80_UNII 1



ANT4_802.11ac_VHT80_UNII 2A





ANT4_802.11ac_VHT80_UNII 2C

ANT4_802.11ac_VHT80_UNII 3

4.4 Power Spectral Density

Test Procedures

KDB 789033 – Section F (Method SA-2, Maximum Power Spectral Density)
KDB 662911 D01, D02 (Multiple Transmitter Output)

The peak power density is measured with a spectrum analyzer connected to the antenna terminal while the EUT is operating in transmission mode at the appropriate frequencies.

Test Settings :

Center frequency = the highest, middle and the lowest channels

a) RBW = 1 MHz, 500 KHz (UNII 3)

b) VBW = 3 MHz, 1.5 MHz (UNII 3)

c) Sweep time = auto

d) Detector = power averaging (rms)

e) Trace mode = Average at least 100

f) Duty cycle factor = 10log(1/x)

Test mode	Duty Cycle Factor (dB)
802.11a	0.20
802.11n_HT20	0.21
802.11n_HT40	0.43
802.11ac_VHT20	0.21
802.11ac_VHT40	0.42
802.11ac_VHT80	0.84

Limit

Operating Mode	ANT Configuration	ANT Gain (dBi)	Mode	Band	Limit (dBm)
SISO	ANT1, ANT2, ANT3, ANT4	2.00	802.11a/n/ac	UNII 1	11.00
				UNII 2A	11.00
				UNII 2C	11.00
				UNII 3	30.00
MIMO (2Tx)	ANT1 + ANT2	5.01	802.11a/n/ac	UNII 1	11.00
				UNII 2A	11.00
				UNII 2C	11.00
				UNII 3	30.00
MIMO (3Tx)	ANT1 + ANT2 + ANT3	6.77	802.11a/n/ac	UNII 1	10.23
				UNII 2A	10.23
				UNII 2C	10.23
				UNII 3	29.23
MIMO (4Tx)	ANT1 + ANT2 + ANT3 + ATN4	8.02	802.11a/n/ac	UNII 1	8.98
				UNII 2A	8.98
				UNII 2C	8.98
				UNII 3	27.98

Test Data

ANT1

Test Mode	Frequency (MHz)	Measured Power Density (dBm)	Duty cycle Factor (dB)	Result Output Power (dBm)	Limit (dBm)	Margin (dB)
802.11a	5 180	3.65	0.20	3.85	11.00	7.15
	5 200	3.46	0.20	3.66	11.00	7.34
	5 240	3.90	0.20	4.10	11.00	6.90
	5 260	3.63	0.20	3.83	11.00	7.17
	5 300	3.89	0.20	4.09	11.00	6.91
	5 320	3.83	0.20	4.03	11.00	6.97
	5 500	3.41	0.20	3.61	11.00	7.39
	5 600	3.22	0.20	3.42	11.00	7.58
	5 720	3.13	0.20	3.33	11.00	7.67
	5 745	7.03	0.20	7.23	30.00	22.77
	5 785	7.14	0.20	7.34	30.00	22.66
	5 825	7.08	0.20	7.28	30.00	22.72
802.11n _HT20	5 180	3.21	0.21	3.42	11.00	7.58
	5 200	3.33	0.21	3.54	11.00	7.46
	5 240	3.48	0.21	3.69	11.00	7.31
	5 260	3.38	0.21	3.59	11.00	7.41
	5 300	3.78	0.21	3.99	11.00	7.01
	5 320	3.84	0.21	4.05	11.00	6.95
	5 500	3.46	0.21	3.67	11.00	7.33
	5 600	3.19	0.21	3.40	11.00	7.60
	5 720	2.97	0.21	3.18	11.00	7.82
	5 745	6.98	0.21	7.19	30.00	22.81
	5 785	7.08	0.21	7.29	30.00	22.71
	5 825	6.78	0.21	6.99	30.00	23.01
802.11ac _VHT20	5 180	3.49	0.21	3.70	11.00	7.30
	5 200	3.24	0.21	3.45	11.00	7.55
	5 240	3.71	0.21	3.92	11.00	7.08
	5 260	3.17	0.21	3.38	11.00	7.62
	5 300	3.50	0.21	3.71	11.00	7.29
	5 320	3.70	0.21	3.91	11.00	7.09
	5 500	3.70	0.21	3.91	11.00	7.09
	5 600	3.25	0.21	3.46	11.00	7.54
	5 720	2.85	0.21	3.06	11.00	7.94
	5 745	6.82	0.21	7.03	30.00	22.97

	5 785	7.13	0.21	7.34	30.00	22.66
	5 825	6.80	0.21	7.01	30.00	22.99
802.11n _HT40	5 190	0.31	0.43	0.74	11.00	10.26
	5 230	0.71	0.43	1.14	11.00	9.86
	5 270	1.17	0.43	1.60	11.00	9.40
	5 310	1.43	0.43	1.86	11.00	9.14
	5 510	1.28	0.43	1.71	11.00	9.29
	5 590	0.82	0.43	1.25	11.00	9.75
	5 710	0.51	0.43	0.94	11.00	10.06
	5 755	4.30	0.43	4.73	30.00	25.27
	5 795	4.29	0.43	4.72	30.00	25.28
802.11ac _VHT40	5 190	0.38	0.42	0.80	11.00	10.20
	5 230	0.51	0.42	0.93	11.00	10.07
	5 270	-0.04	0.42	0.38	11.00	10.62
	5 310	0.15	0.42	0.57	11.00	10.43
	5 510	1.17	0.42	1.59	11.00	9.41
	5 590	1.08	0.42	1.50	11.00	9.50
	5 710	0.49	0.42	0.91	11.00	10.09
	5 755	4.69	0.42	5.11	30.00	24.89
	5 795	4.44	0.42	4.86	30.00	25.14
802.11ac _VHT80	5 210	-1.40	0.84	-0.56	11.00	11.56
	5 290	-1.62	0.84	-0.78	11.00	11.78
	5 530	-2.70	0.84	-1.86	11.00	12.86
	5 690	-3.09	0.84	-2.25	11.00	13.25
	5 775	-3.09	0.84	-2.25	30.00	32.25
Measurement uncertainty		± 1.5 dB				

ANT2

Test Mode	Frequency (MHz)	Measured Power Density (dBm)	Duty cycle Factor (dB)	Result Output Power (dBm)	Limit (dBm)	Margin (dB)
802.11a	5 180	1.47	0.20	1.67	11.00	9.33
	5 200	1.59	0.20	1.79	11.00	9.21
	5 240	1.73	0.20	1.93	11.00	9.07
	5 260	1.26	0.20	1.46	11.00	9.54
	5 300	1.68	0.20	1.88	11.00	9.12
	5 320	1.89	0.20	2.09	11.00	8.91
	5 500	1.63	0.20	1.83	11.00	9.17
	5 600	1.42	0.20	1.62	11.00	9.38
	5 720	1.71	0.20	1.91	11.00	9.09
	5 745	6.01	0.20	6.21	30.00	23.79
	5 785	6.20	0.20	6.40	30.00	23.60
	5 825	6.12	0.20	6.32	30.00	23.68
802.11n _HT20	5 180	1.36	0.21	1.57	11.00	9.43
	5 200	1.02	0.21	1.23	11.00	9.77
	5 240	1.22	0.21	1.43	11.00	9.57
	5 260	1.38	0.21	1.59	11.00	9.41
	5 300	1.51	0.21	1.72	11.00	9.28
	5 320	1.67	0.21	1.88	11.00	9.12
	5 500	1.83	0.21	2.04	11.00	8.96
	5 600	1.48	0.21	1.69	11.00	9.31
	5 720	1.81	0.21	2.02	11.00	8.98
	5 745	5.61	0.21	5.82	30.00	24.18
	5 785	5.83	0.21	6.04	30.00	23.96
	5 825	5.69	0.21	5.90	30.00	24.10
802.11ac _VHT20	5 180	1.39	0.21	1.60	11.00	9.40
	5 200	1.25	0.21	1.46	11.00	9.54
	5 240	1.41	0.21	1.62	11.00	9.38
	5 260	1.08	0.21	1.29	11.00	9.71
	5 300	1.46	0.21	1.67	11.00	9.33
	5 320	1.50	0.21	1.71	11.00	9.29
	5 500	1.85	0.21	2.06	11.00	8.94
	5 600	1.58	0.21	1.79	11.00	9.21
	5 720	1.72	0.21	1.93	11.00	9.07
	5 745	5.59	0.21	5.80	30.00	24.20
	5 785	5.82	0.21	6.03	30.00	23.97

	5 825	5.74	0.21	5.95	30.00	24.05
802.11n _HT40	5 190	-1.27	0.43	-0.84	11.00	11.84
	5 230	-1.29	0.43	-0.86	11.00	11.86
	5 270	-0.77	0.43	-0.34	11.00	11.34
	5 310	-0.48	0.43	-0.05	11.00	11.05
	5 510	-0.38	0.43	0.05	11.00	10.95
	5 590	-0.17	0.43	0.26	11.00	10.74
	5 710	-0.59	0.43	-0.16	11.00	11.16
	5 755	2.65	0.43	3.08	30.00	26.92
	5 795	3.03	0.43	3.46	30.00	26.54
802.11ac _VHT40	5 190	-1.27	0.42	-0.85	11.00	11.85
	5 230	-1.31	0.42	-0.89	11.00	11.89
	5 270	-2.04	0.42	-1.62	11.00	12.62
	5 310	-1.56	0.42	-1.14	11.00	12.14
	5 510	-0.30	0.42	0.12	11.00	10.88
	5 590	-0.16	0.42	0.26	11.00	10.74
	5 710	-0.42	0.42	0.00	11.00	11.00
	5 755	2.94	0.42	3.36	30.00	26.64
	5 795	2.82	0.42	3.24	30.00	26.76
802.11ac _VHT80	5 210	-3.78	0.84	-2.94	11.00	13.94
	5 290	-3.61	0.84	-2.77	11.00	13.77
	5 530	-4.23	0.84	-3.39	11.00	14.39
	5 690	-4.22	0.84	-3.38	11.00	14.38
	5 775	-4.20	0.84	-3.36	30.00	33.36
Measurement uncertainty		± 1.5 dB				

ANT3

Test Mode	Frequency (MHz)	Measured Power Density (dBm)	Duty cycle Factor (dB)	Result Output Power (dBm)	Limit (dBm)	Margin (dB)
802.11a	5 180	1.59	0.20	1.79	11.00	9.21
	5 200	1.11	0.20	1.31	11.00	9.69
	5 240	1.72	0.20	1.92	11.00	9.08
	5 260	1.43	0.20	1.63	11.00	9.37
	5 300	1.68	0.20	1.88	11.00	9.12
	5 320	1.79	0.20	1.99	11.00	9.01
	5 500	1.69	0.20	1.89	11.00	9.11
	5 600	1.28	0.20	1.48	11.00	9.52
	5 720	1.15	0.20	1.35	11.00	9.65
	5 745	6.09	0.20	6.29	30.00	23.71
	5 785	6.02	0.20	6.22	30.00	23.78
	5 825	5.77	0.20	5.97	30.00	24.03
802.11n _HT20	5 180	1.15	0.21	1.36	11.00	9.64
	5 200	1.00	0.21	1.21	11.00	9.79
	5 240	1.30	0.21	1.51	11.00	9.49
	5 260	0.85	0.21	1.06	11.00	9.94
	5 300	1.44	0.21	1.65	11.00	9.35
	5 320	1.64	0.21	1.85	11.00	9.15
	5 500	1.74	0.21	1.95	11.00	9.05
	5 600	1.17	0.21	1.38	11.00	9.62
	5 720	1.20	0.21	1.41	11.00	9.59
	5 745	5.65	0.21	5.86	30.00	24.14
	5 785	5.70	0.21	5.91	30.00	24.09
	5 825	5.69	0.21	5.90	30.00	24.10
802.11ac _VHT20	5 180	1.29	0.21	1.50	11.00	9.50
	5 200	0.94	0.21	1.15	11.00	9.85
	5 240	1.33	0.21	1.54	11.00	9.46
	5 260	1.28	0.21	1.49	11.00	9.51
	5 300	1.28	0.21	1.49	11.00	9.51
	5 320	1.66	0.21	1.87	11.00	9.13
	5 500	1.68	0.21	1.89	11.00	9.11
	5 600	1.34	0.21	1.55	11.00	9.45
	5 720	1.24	0.21	1.45	11.00	9.55
	5 745	5.55	0.21	5.76	30.00	24.24
	5 785	5.63	0.21	5.84	30.00	24.16

	5 825	5.50	0.21	5.71	30.00	24.29
802.11n _HT40	5 190	-1.61	0.43	-1.18	11.00	12.18
	5 230	-1.80	0.43	-1.37	11.00	12.37
	5 270	-1.11	0.43	-0.68	11.00	11.68
	5 310	-0.88	0.43	-0.45	11.00	11.45
	5 510	-0.76	0.43	-0.33	11.00	11.33
	5 590	-0.90	0.43	-0.47	11.00	11.47
	5 710	-1.06	0.43	-0.63	11.00	11.63
	5 755	2.92	0.43	3.35	30.00	26.65
	5 795	2.75	0.43	3.18	30.00	26.82
802.11ac _VHT40	5 190	-1.56	0.42	-1.14	11.00	12.14
	5 230	-1.46	0.42	-1.04	11.00	12.04
	5 270	-2.20	0.42	-1.78	11.00	12.78
	5 310	-1.66	0.42	-1.24	11.00	12.24
	5 510	-0.70	0.42	-0.28	11.00	11.28
	5 590	-0.88	0.42	-0.46	11.00	11.46
	5 710	-1.17	0.42	-0.75	11.00	11.75
	5 755	2.66	0.42	3.08	30.00	26.92
	5 795	3.27	0.42	3.69	30.00	26.31
802.11ac _VHT80	5 210	-3.94	0.84	-3.10	11.00	14.10
	5 290	-4.12	0.84	-3.28	11.00	14.28
	5 530	-4.39	0.84	-3.55	11.00	14.55
	5 690	-4.82	0.84	-3.98	11.00	14.98
	5 775	-4.75	0.84	-3.91	30.00	33.91
Measurement uncertainty		± 1.5 dB				

ANT4

Test Mode	Frequency (MHz)	Measured Power Density (dBm)	Duty cycle Factor (dB)	Result Output Power (dBm)	Limit (dBm)	Margin (dB)
802.11a	5 180	1.65	0.20	1.85	11.00	9.15
	5 200	1.62	0.20	1.82	11.00	9.18
	5 240	1.81	0.20	2.01	11.00	8.99
	5 260	1.39	0.20	1.59	11.00	9.41
	5 300	1.81	0.20	2.01	11.00	8.99
	5 320	1.78	0.20	1.98	11.00	9.02
	5 500	1.98	0.20	2.18	11.00	8.82
	5 600	2.09	0.20	2.29	11.00	8.71
	5 720	1.58	0.20	1.78	11.00	9.22
	5 745	6.12	0.20	6.32	30.00	23.68
	5 785	6.45	0.20	6.65	30.00	23.35
	5 825	6.19	0.20	6.39	30.00	23.61
802.11n _HT20	5 180	1.05	0.21	1.26	11.00	9.74
	5 200	1.10	0.21	1.31	11.00	9.69
	5 240	1.44	0.21	1.65	11.00	9.35
	5 260	1.11	0.21	1.32	11.00	9.68
	5 300	1.73	0.21	1.94	11.00	9.06
	5 320	1.58	0.21	1.79	11.00	9.21
	5 500	2.28	0.21	2.49	11.00	8.51
	5 600	1.82	0.21	2.03	11.00	8.97
	5 720	1.90	0.21	2.11	11.00	8.89
	5 745	5.90	0.21	6.11	30.00	23.89
	5 785	5.93	0.21	6.14	30.00	23.86
	5 825	5.81	0.21	6.02	30.00	23.98
802.11ac _VHT20	5 180	1.51	0.21	1.72	11.00	9.28
	5 200	1.15	0.21	1.36	11.00	9.64
	5 240	1.65	0.21	1.86	11.00	9.14
	5 260	1.32	0.21	1.53	11.00	9.47
	5 300	1.52	0.21	1.73	11.00	9.27
	5 320	1.76	0.21	1.97	11.00	9.03
	5 500	2.13	0.21	2.34	11.00	8.66
	5 600	2.55	0.21	2.76	11.00	8.24
	5 720	2.10	0.21	2.31	11.00	8.69
	5 745	5.89	0.21	6.10	30.00	23.90
	5 785	5.84	0.21	6.05	30.00	23.95

	5 825	5.57	0.21	5.78	30.00	24.22
802.11n _HT40	5 190	-1.68	0.43	-1.25	11.00	12.25
	5 230	-1.98	0.43	-1.55	11.00	12.55
	5 270	-0.83	0.43	-0.40	11.00	11.40
	5 310	-0.49	0.43	-0.06	11.00	11.06
	5 510	-0.07	0.43	0.36	11.00	10.64
	5 590	-0.31	0.43	0.12	11.00	10.88
	5 710	-0.39	0.43	0.04	11.00	10.96
	5 755	3.08	0.43	3.51	30.00	26.49
	5 795	3.05	0.43	3.48	30.00	26.52
802.11ac _VHT40	5 190	-1.51	0.42	-1.09	11.00	12.09
	5 230	-1.22	0.42	-0.80	11.00	11.80
	5 270	-2.16	0.42	-1.74	11.00	12.74
	5 310	-1.52	0.42	-1.10	11.00	12.10
	5 510	0.38	0.42	0.80	11.00	10.20
	5 590	0.00	0.42	0.42	11.00	10.58
	5 710	-0.46	0.42	-0.04	11.00	11.04
	5 755	2.99	0.42	3.41	30.00	26.59
	5 795	2.87	0.42	3.29	30.00	26.71
802.11ac _VHT80	5 210	-3.98	0.84	-3.14	11.00	14.14
	5 290	-4.20	0.84	-3.36	11.00	14.36
	5 530	-3.62	0.84	-2.78	11.00	13.78
	5 690	-4.16	0.84	-3.32	11.00	14.32
	5 775	-4.02	0.84	-3.18	30.00	33.18
Measurement uncertainty		± 1.5 dB				

ANT1 + ANT2

Test Mode	Frequency (MHz)	Measured Power Density (dBm)	Duty cycle Factor (dB)	Result Output Power (dBm)	Limit (dBm)	Margin (dB)
802.11a	5 180	5.71	0.20	5.91	11.00	5.09
	5 200	5.64	0.20	5.84	11.00	5.16
	5 240	5.96	0.20	6.16	11.00	4.84
	5 260	5.62	0.20	5.82	11.00	5.18
	5 300	5.93	0.20	6.13	11.00	4.87
	5 320	5.98	0.20	6.18	11.00	4.82
	5 500	5.62	0.20	5.82	11.00	5.18
	5 600	5.42	0.20	5.62	11.00	5.38
	5 720	5.49	0.20	5.69	11.00	5.31
	5 745	9.56	0.20	9.76	30.00	20.24
	5 785	9.71	0.20	9.91	30.00	20.09
	5 825	9.64	0.20	9.84	30.00	20.16
802.11n _HT20	5 180	5.39	0.21	5.60	11.00	5.40
	5 200	5.34	0.21	5.55	11.00	5.45
	5 240	5.51	0.21	5.72	11.00	5.28
	5 260	5.50	0.21	5.71	11.00	5.29
	5 300	5.80	0.21	6.01	11.00	4.99
	5 320	5.90	0.21	6.11	11.00	4.89
	5 500	5.73	0.21	5.94	11.00	5.06
	5 600	5.43	0.21	5.64	11.00	5.36
	5 720	5.44	0.21	5.65	11.00	5.35
	5 745	9.36	0.21	9.57	30.00	20.43
	5 785	9.51	0.21	9.72	30.00	20.28
	5 825	9.28	0.21	9.49	30.00	20.51
802.11ac _VHT20	5 180	5.58	0.21	5.79	11.00	5.21
	5 200	5.37	0.21	5.58	11.00	5.42
	5 240	5.72	0.21	5.93	11.00	5.07
	5 260	5.26	0.21	5.47	11.00	5.53
	5 300	5.61	0.21	5.82	11.00	5.18
	5 320	5.75	0.21	5.96	11.00	5.04
	5 500	5.88	0.21	6.09	11.00	4.91
	5 600	5.51	0.21	5.72	11.00	5.28
	5 720	5.33	0.21	5.54	11.00	5.46
	5 745	9.26	0.21	9.47	30.00	20.53

	5 785	9.53	0.21	9.74	30.00	20.26
	5 825	9.31	0.21	9.52	30.00	20.48
802.11n _HT40	5 190	2.60	0.43	3.03	11.00	7.97
	5 230	2.83	0.43	3.26	11.00	7.74
	5 270	3.32	0.43	3.75	11.00	7.25
	5 310	3.59	0.43	4.02	11.00	6.98
	5 510	3.54	0.43	3.97	11.00	7.03
	5 590	3.36	0.43	3.79	11.00	7.21
	5 710	3.01	0.43	3.44	11.00	7.56
	5 755	6.56	0.43	6.99	30.00	23.01
	5 795	6.72	0.43	7.15	30.00	22.85
802.11ac _VHT40	5 190	2.64	0.42	3.06	11.00	7.94
	5 230	2.70	0.42	3.12	11.00	7.88
	5 270	2.08	0.42	2.50	11.00	8.50
	5 310	2.39	0.42	2.81	11.00	8.19
	5 510	3.51	0.42	3.93	11.00	7.07
	5 590	3.51	0.42	3.93	11.00	7.07
	5 710	3.07	0.42	3.49	11.00	7.51
	5 755	6.91	0.42	7.33	30.00	22.67
	5 795	6.72	0.42	7.14	30.00	22.86
802.11ac _VHT80	5 210	0.58	0.84	1.42	11.00	9.58
	5 290	0.51	0.84	1.35	11.00	9.65
	5 530	-0.39	0.84	0.45	11.00	10.55
	5 690	-0.61	0.84	0.23	11.00	10.77
	5 775	-0.60	0.84	0.24	30.00	29.76
Measurement uncertainty		± 1.5 dB				

ANT1 + ANT2 + ANT3

Test Mode	Frequency (MHz)	Measured Power Density (dBm)	Duty cycle Factor (dB)	Result Output Power (dBm)	Limit (dBm)	Margin (dB)
802.11a	5 180	7.13	0.20	7.33	11.00	3.67
	5 200	6.95	0.20	7.15	11.00	3.85
	5 240	7.35	0.20	7.55	11.00	3.45
	5 260	7.02	0.20	7.22	11.00	3.78
	5 300	7.32	0.20	7.52	11.00	3.48
	5 320	7.38	0.20	7.58	11.00	3.42
	5 500	7.10	0.20	7.30	11.00	3.70
	5 600	6.84	0.20	7.04	11.00	3.96
	5 720	6.85	0.20	7.05	11.00	3.95
	5 745	11.17	0.20	11.37	30.00	18.63
	5 785	11.25	0.20	11.45	30.00	18.55
	5 825	11.13	0.20	11.33	30.00	18.67
802.11n _HT20	5 180	6.78	0.21	6.99	11.00	4.01
	5 200	6.70	0.21	6.91	11.00	4.09
	5 240	6.90	0.21	7.11	11.00	3.89
	5 260	6.78	0.21	6.99	11.00	4.01
	5 300	7.16	0.21	7.37	11.00	3.63
	5 320	7.28	0.21	7.49	11.00	3.51
	5 500	7.19	0.21	7.40	11.00	3.60
	5 600	6.81	0.21	7.02	11.00	3.98
	5 720	6.83	0.21	7.04	11.00	3.96
	5 745	10.90	0.21	11.11	30.00	18.89
	5 785	11.02	0.21	11.23	30.00	18.77
	5 825	10.86	0.21	11.07	30.00	18.93
802.11ac _VHT20	5 180	6.95	0.21	7.16	11.00	3.84
	5 200	6.71	0.21	6.92	11.00	4.08
	5 240	7.07	0.21	7.28	11.00	3.72
	5 260	6.72	0.21	6.93	11.00	4.07
	5 300	6.97	0.21	7.18	11.00	3.82
	5 320	7.18	0.21	7.39	11.00	3.61
	5 500	7.28	0.21	7.49	11.00	3.51
	5 600	6.91	0.21	7.12	11.00	3.88
	5 720	6.76	0.21	6.97	11.00	4.03
	5 745	10.80	0.21	11.01	30.00	18.99

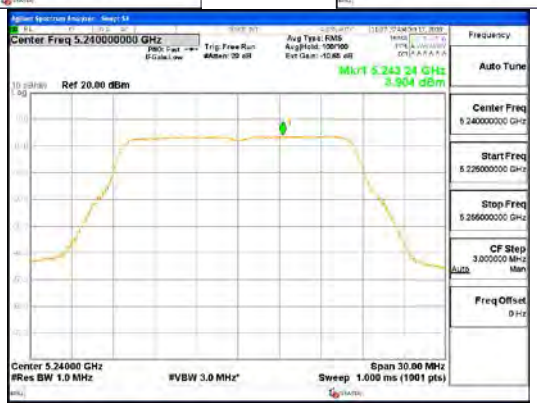
	5 785	11.02	0.21	11.23	30.00	18.77
	5 825	10.82	0.21	11.03	30.00	18.97
802.11n _HT40	5 190	4.00	0.43	4.43	11.00	6.57
	5 230	4.12	0.43	4.55	11.00	6.45
	5 270	4.66	0.43	5.09	11.00	5.91
	5 310	4.92	0.43	5.35	11.00	5.65
	5 510	4.91	0.43	5.34	11.00	5.66
	5 590	4.75	0.43	5.18	11.00	5.82
	5 710	4.44	0.43	4.87	11.00	6.13
	5 755	8.12	0.43	8.55	30.00	21.45
	5 795	8.18	0.43	8.61	30.00	21.39
802.11ac _VHT40	5 190	4.04	0.42	4.46	11.00	6.54
	5 230	4.11	0.42	4.53	11.00	6.47
	5 270	3.46	0.42	3.88	11.00	7.12
	5 310	3.83	0.42	4.25	11.00	6.75
	5 510	4.90	0.42	5.32	11.00	5.68
	5 590	4.86	0.42	5.28	11.00	5.72
	5 710	4.46	0.42	4.88	11.00	6.12
	5 755	8.30	0.42	8.72	30.00	21.28
	5 795	8.34	0.42	8.76	30.00	21.24
802.11ac _VHT80	5 210	1.89	0.84	2.73	11.00	8.27
	5 290	1.79	0.84	2.63	11.00	8.37
	5 530	1.07	0.84	1.91	11.00	9.09
	5 690	0.79	0.84	1.63	11.00	9.37
	5 775	0.81	0.84	1.65	30.00	28.35
Measurement uncertainty		± 1.5 dB				

ANT1 + ANT2 + ANT3 + ANT4

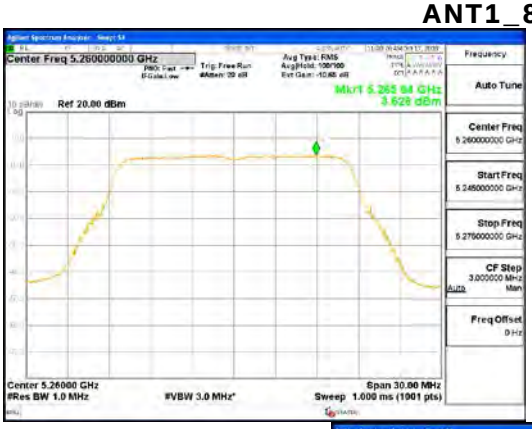
Test Mode	Frequency (MHz)	Measured Power Density (dBm)	Duty cycle Factor (dB)	Result Output Power (dBm)	Limit (dBm)	Margin (dB)
802.11a	5 180	8.21	0.20	8.41	11.00	2.59
	5 200	8.06	0.20	8.26	11.00	2.74
	5 240	8.42	0.20	8.62	11.00	2.38
	5 260	8.07	0.20	8.27	11.00	2.73
	5 300	8.40	0.20	8.60	11.00	2.40
	5 320	8.44	0.20	8.64	11.00	2.36
	5 500	8.26	0.20	8.46	11.00	2.54
	5 600	8.09	0.20	8.29	11.00	2.71
	5 720	7.98	0.20	8.18	11.00	2.82
	5 745	12.35	0.20	12.55	30.00	17.45
	5 785	12.49	0.20	12.69	30.00	17.31
	5 825	12.34	0.20	12.54	30.00	17.46
802.11n _HT20	5 180	7.81	0.21	8.02	11.00	2.98
	5 200	7.76	0.21	7.97	11.00	3.03
	5 240	7.99	0.21	8.20	11.00	2.80
	5 260	7.82	0.21	8.03	11.00	2.97
	5 300	8.25	0.21	8.46	11.00	2.54
	5 320	8.32	0.21	8.53	11.00	2.47
	5 500	8.40	0.21	8.61	11.00	2.39
	5 600	8.01	0.21	8.22	11.00	2.78
	5 720	8.04	0.21	8.25	11.00	2.75
	5 745	12.09	0.21	12.30	30.00	17.70
	5 785	12.19	0.21	12.40	30.00	17.60
	5 825	12.04	0.21	12.25	30.00	17.75
802.11ac _VHT20	5 180	8.04	0.21	8.25	11.00	2.75
	5 200	7.77	0.21	7.98	11.00	3.02
	5 240	8.16	0.21	8.37	11.00	2.63
	5 260	7.82	0.21	8.03	11.00	2.97
	5 300	8.06	0.21	8.27	11.00	2.73
	5 320	8.27	0.21	8.48	11.00	2.52
	5 500	8.44	0.21	8.65	11.00	2.35
	5 600	8.27	0.21	8.48	11.00	2.52
	5 720	8.04	0.21	8.25	11.00	2.75
	5 745	12.01	0.21	12.22	30.00	17.78

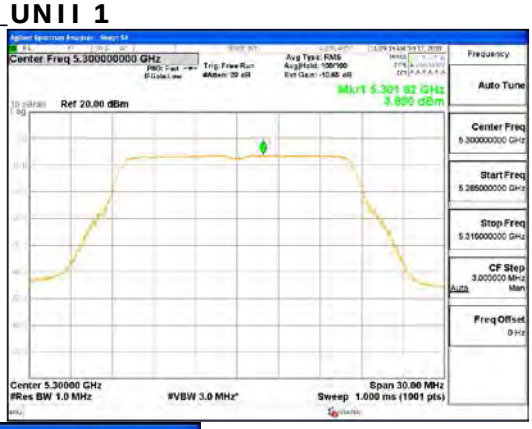
	5 785	12.17	0.21	12.38	30.00	17.62
	5 825	11.96	0.21	12.17	30.00	17.83
802.11n _HT40	5 190	5.04	0.43	5.47	11.00	5.53
	5 230	5.07	0.43	5.50	11.00	5.50
	5 270	5.74	0.43	6.17	11.00	4.83
	5 310	6.02	0.43	6.45	11.00	4.55
	5 510	6.11	0.43	6.54	11.00	4.46
	5 590	5.93	0.43	6.36	11.00	4.64
	5 710	5.68	0.43	6.11	11.00	4.89
	5 755	9.31	0.43	9.74	30.00	20.26
	5 795	9.34	0.43	9.77	30.00	20.23
802.11ac _VHT40	5 190	5.11	0.42	5.53	11.00	5.47
	5 230	5.23	0.42	5.65	11.00	5.35
	5 270	4.51	0.42	4.93	11.00	6.07
	5 310	4.94	0.42	5.36	11.00	5.64
	5 510	6.22	0.42	6.64	11.00	4.36
	5 590	6.09	0.42	6.51	11.00	4.49
	5 710	5.67	0.42	6.09	11.00	4.91
	5 755	9.42	0.42	9.84	30.00	20.16
	5 795	9.42	0.42	9.84	30.00	20.16
802.11ac _VHT80	5 210	2.89	0.84	3.73	11.00	7.27
	5 290	2.77	0.84	3.61	11.00	7.39
	5 530	2.34	0.84	3.18	11.00	7.82
	5 690	1.99	0.84	2.83	11.00	8.17
	5 775	2.05	0.84	2.89	30.00	27.11
Measurement uncertainty	± 1.5 dB					

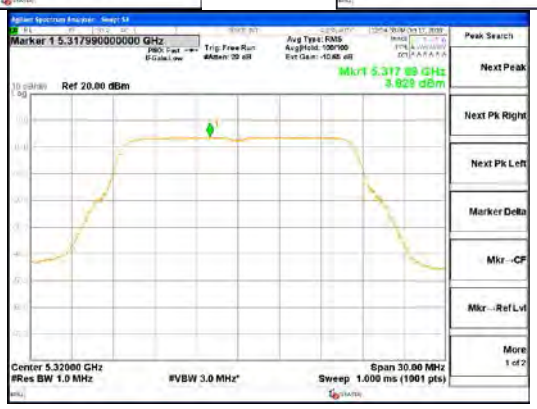
See next pages for actual measured spectrum plots.



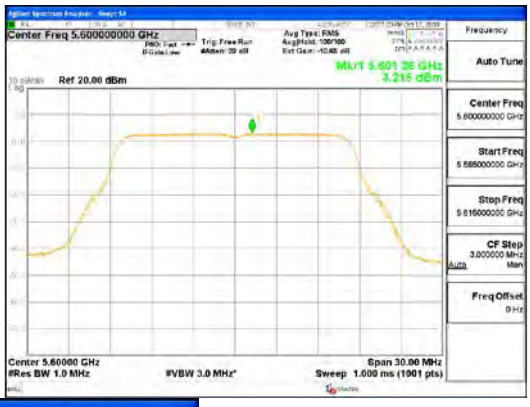
ANT1_802.11a_UNII 1

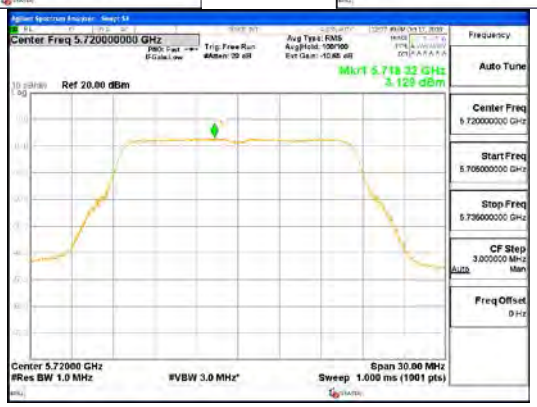




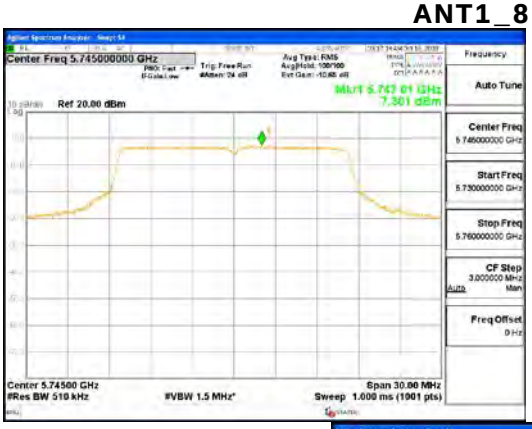


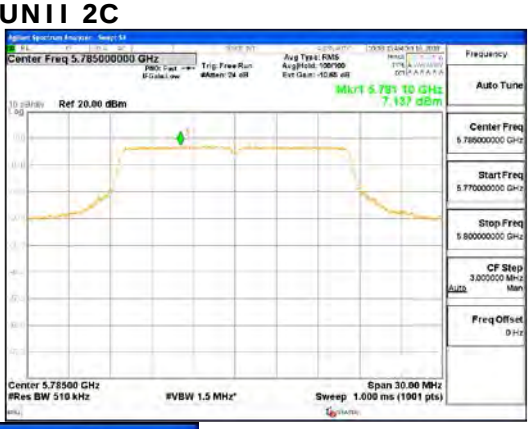
ANT1_802.11a_UNII 2A



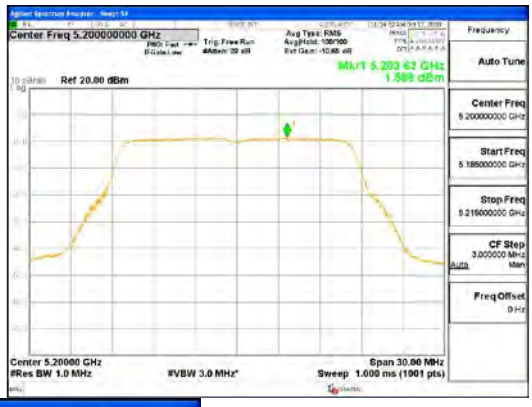


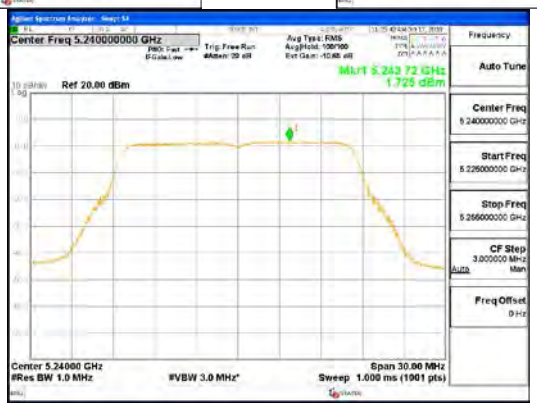
ANT1_802.11a_UNII 2C



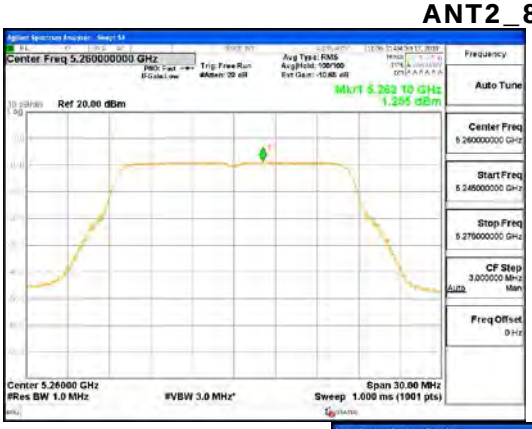


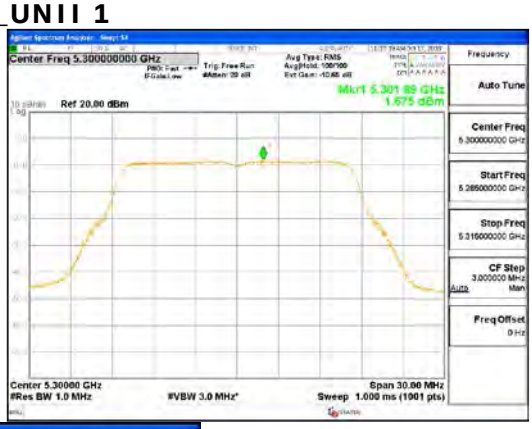
ANT1_802.11a_UNII 3

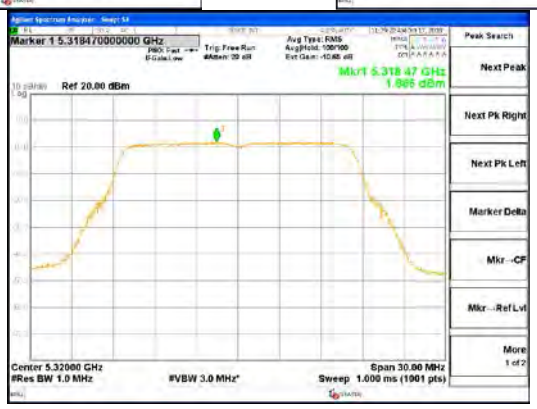




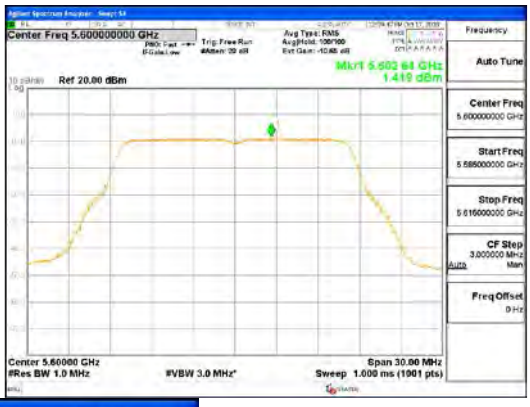
ANT2_802.11a_UNII 1

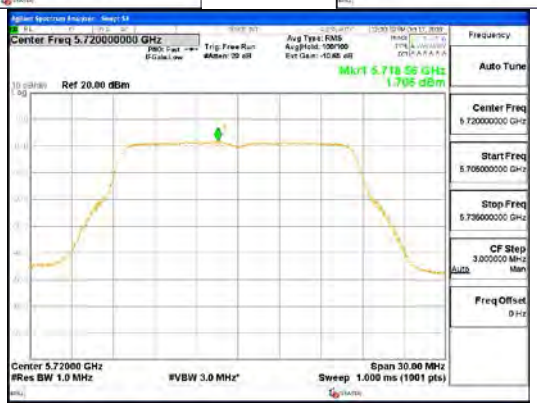




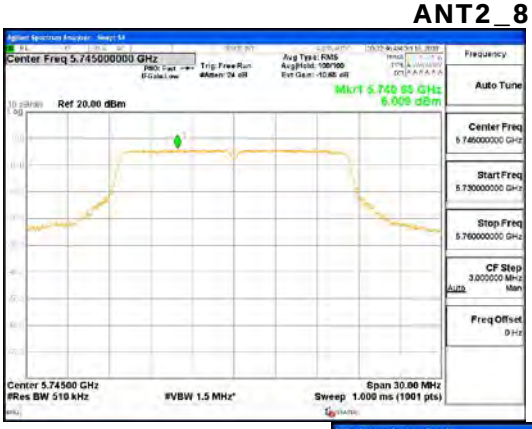


ANT2_802.11a_UNII 2A

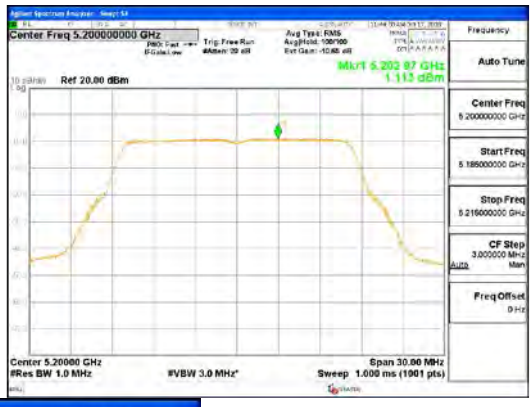




ANT2_802.11a_UNII 2C



ANT2_802.11a_UNII 3



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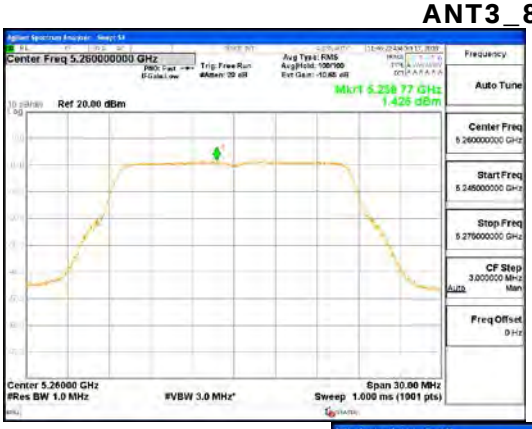

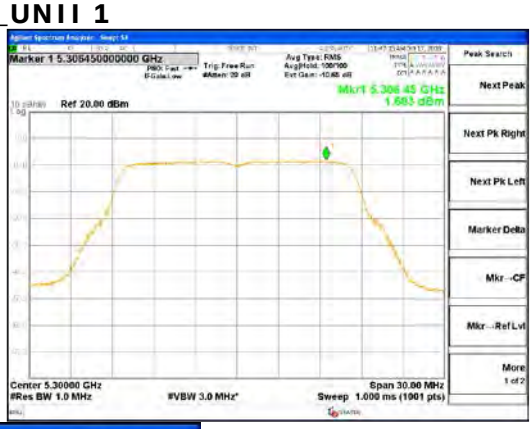

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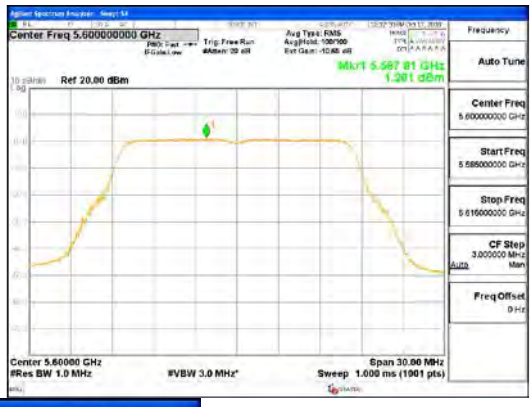

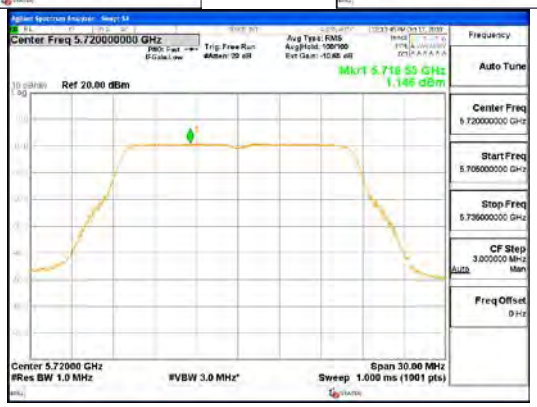

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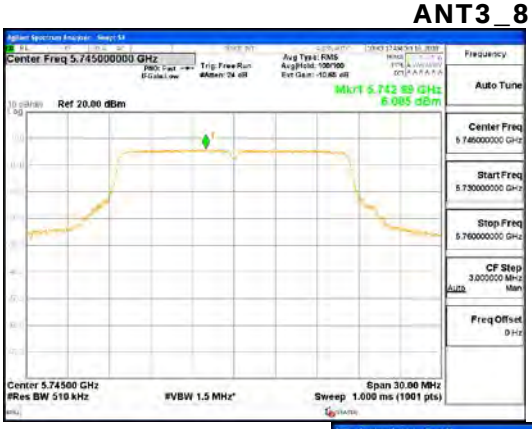

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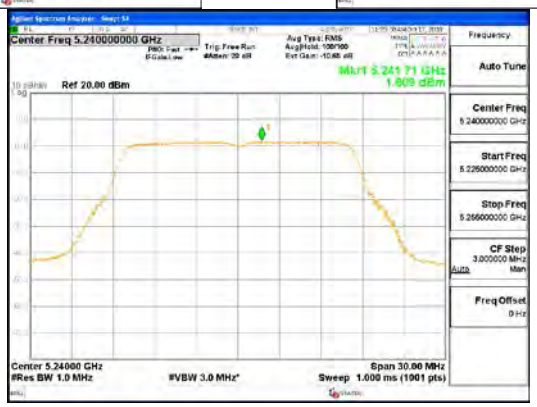

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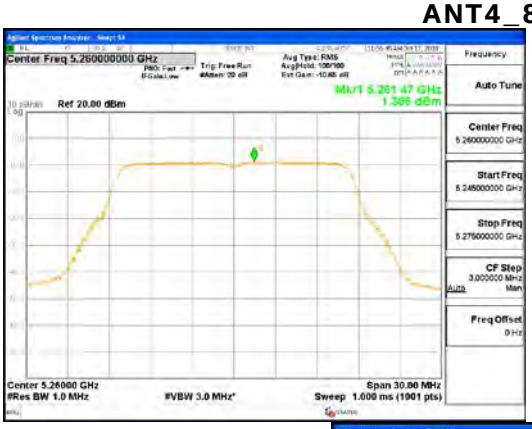

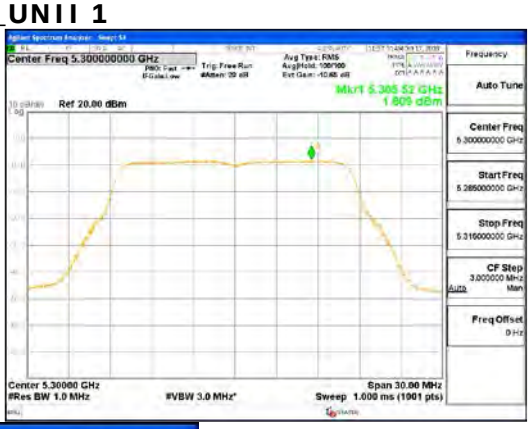

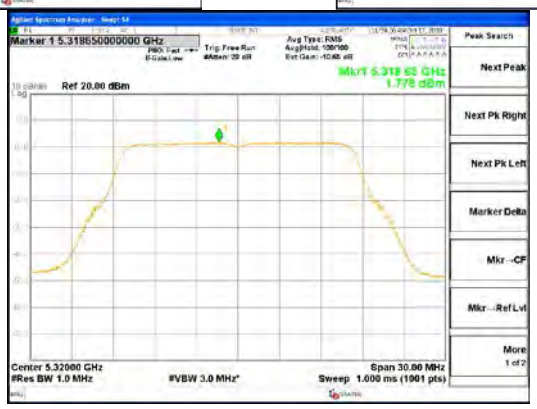

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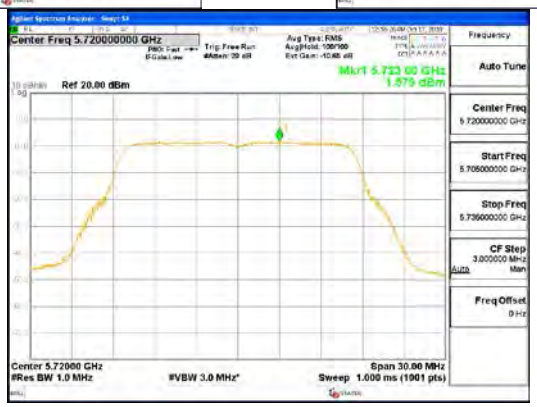

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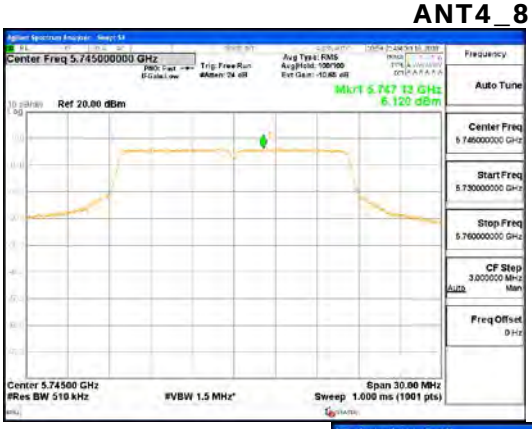
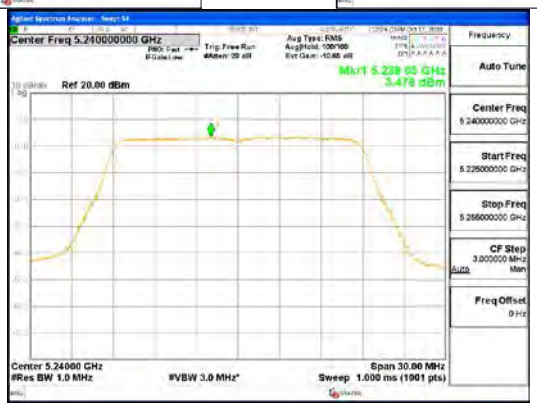
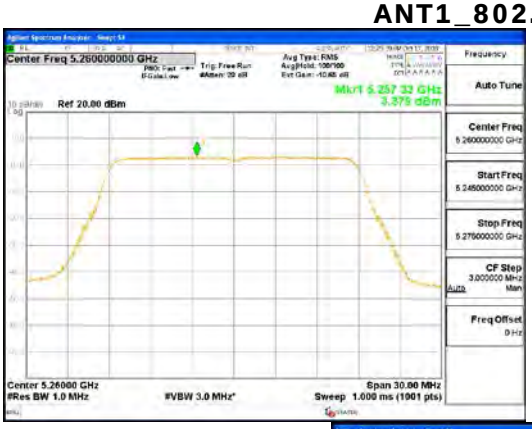
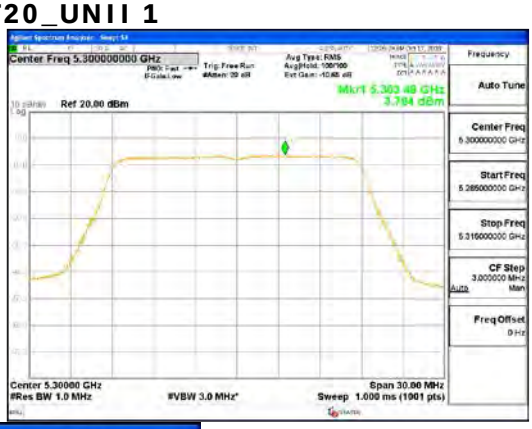


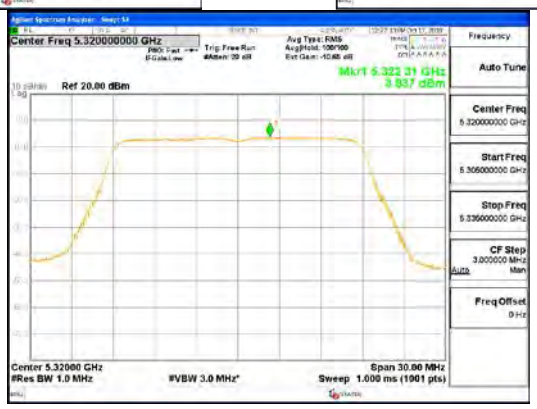
ANT4_802.11a_UNII 3



ANT1_802.11n_HT20_UNII 1







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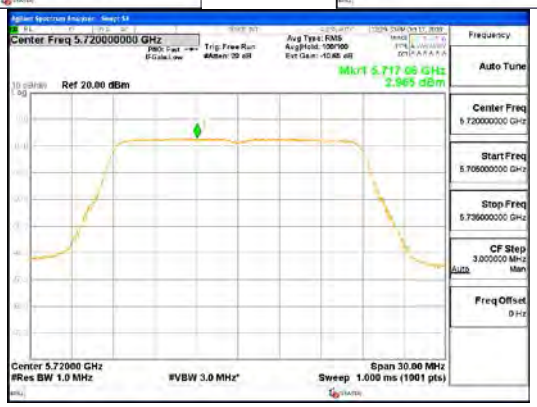

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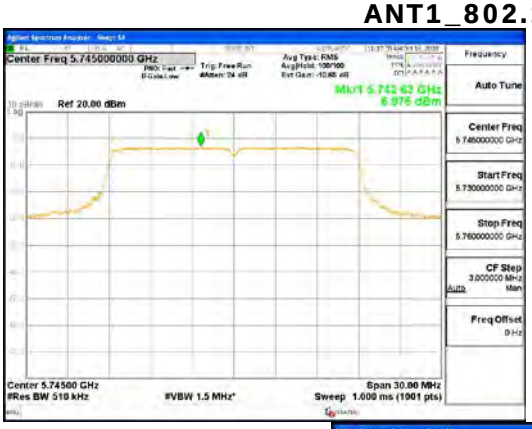

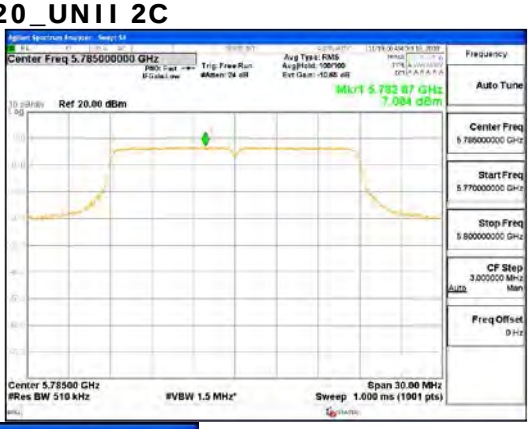

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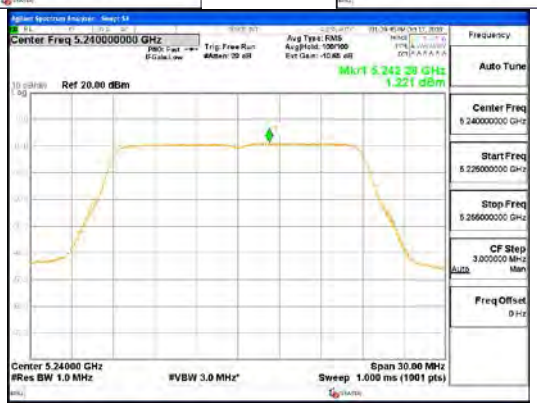

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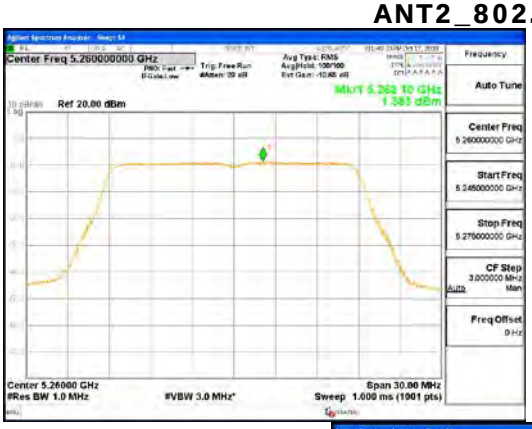

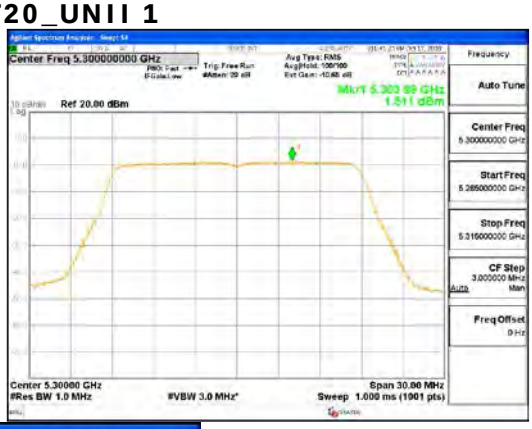

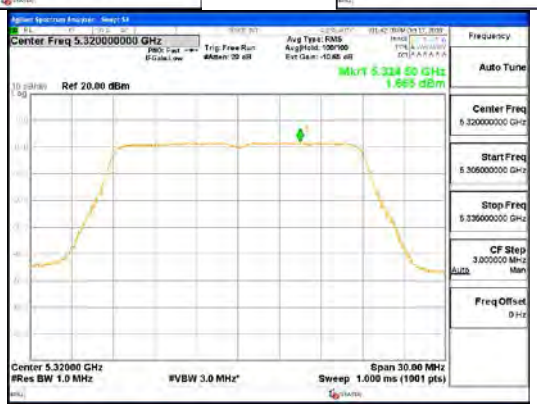

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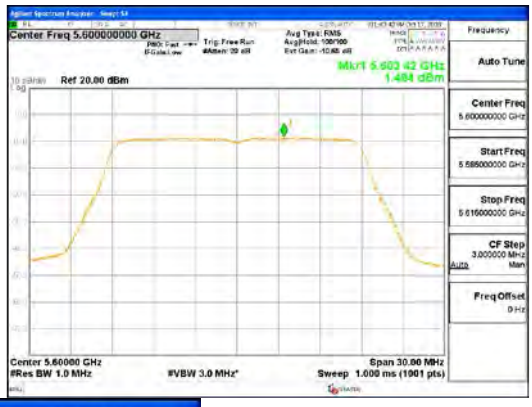

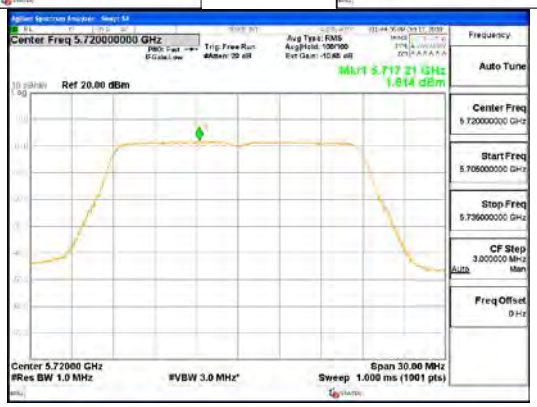

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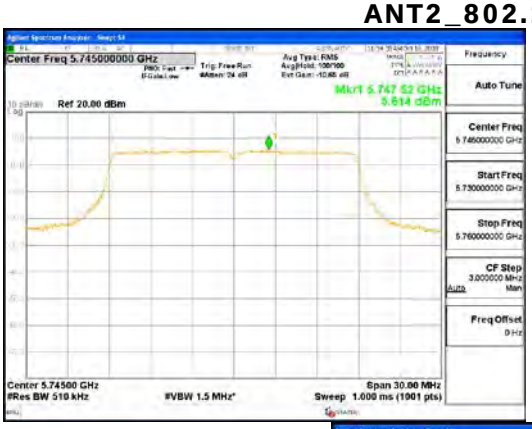

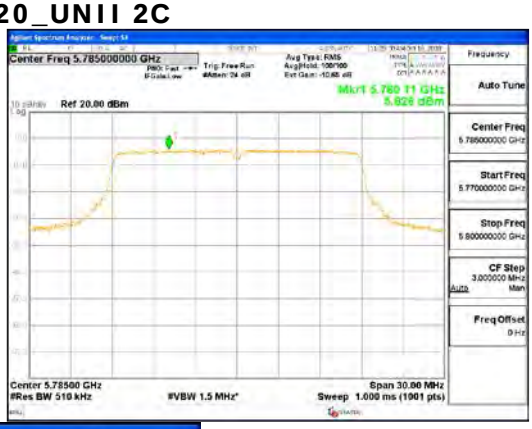

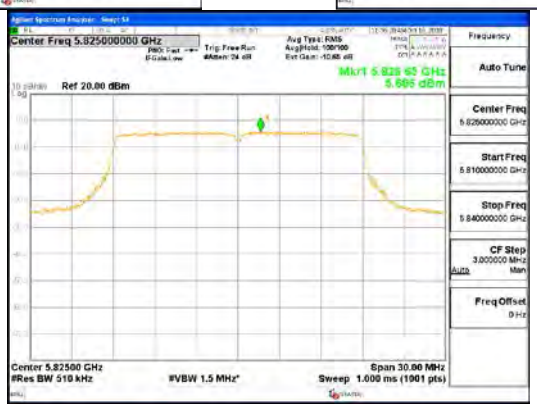

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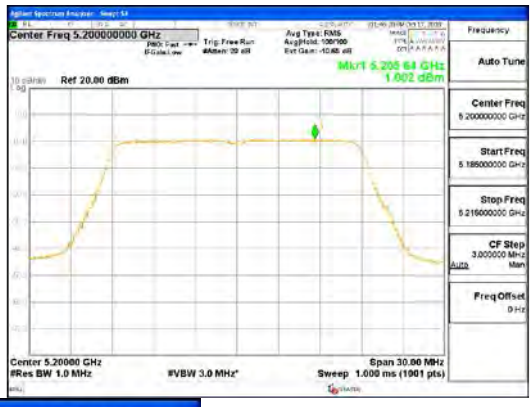

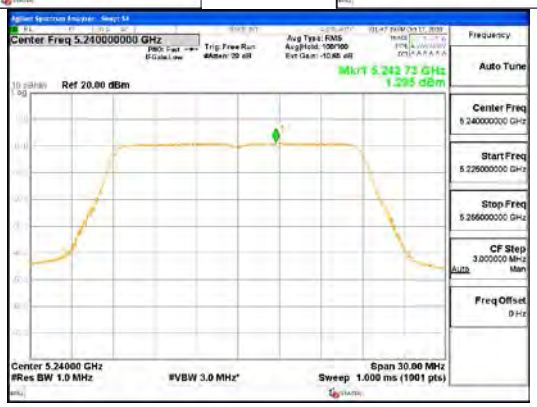

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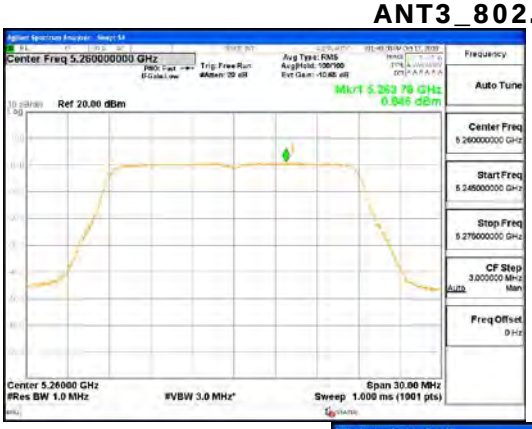

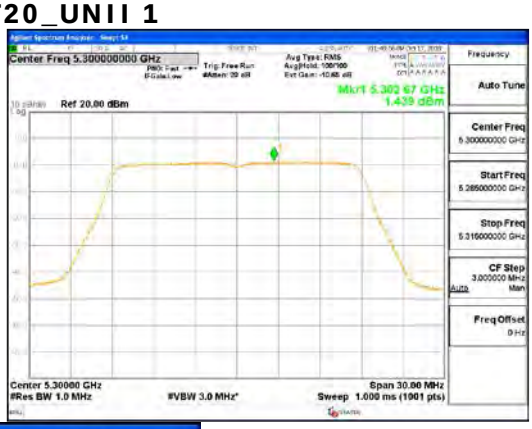

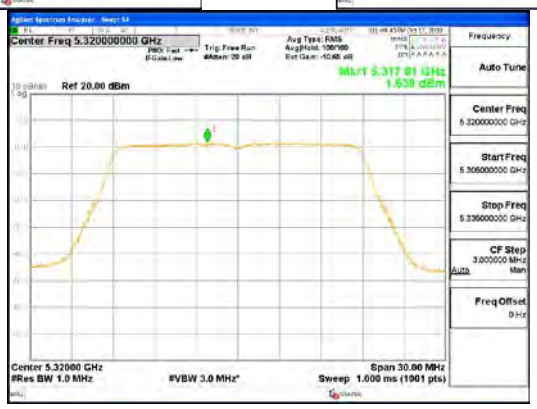

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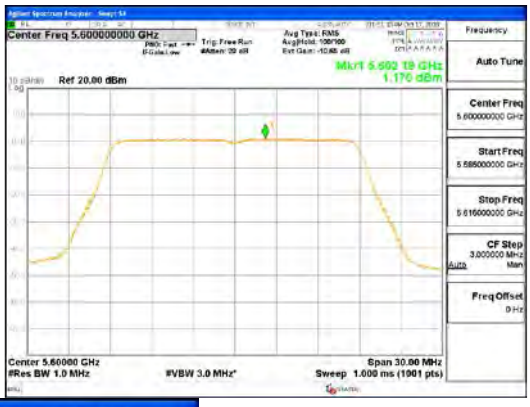

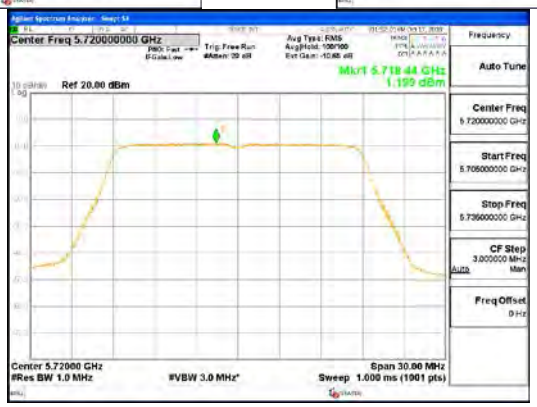

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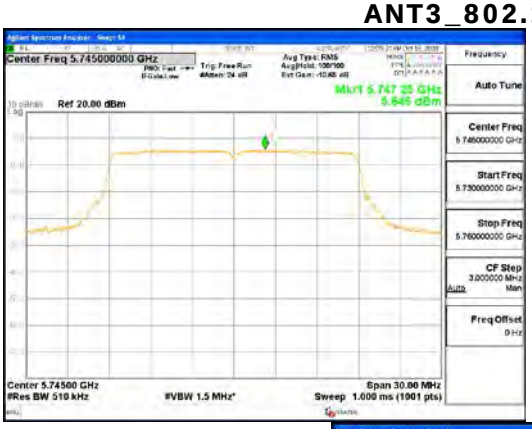

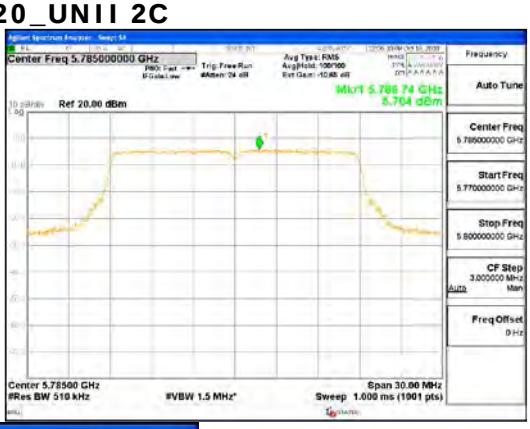

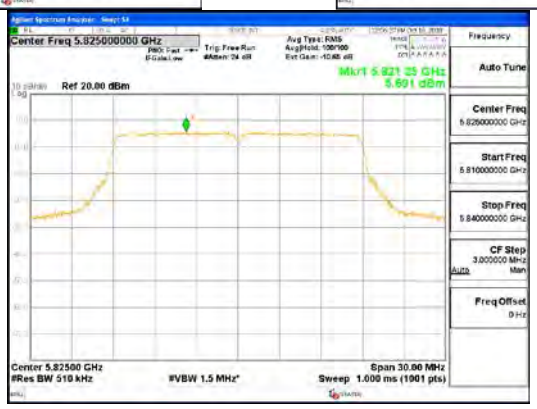

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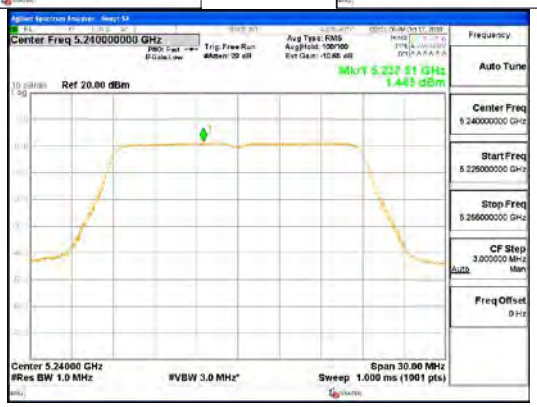

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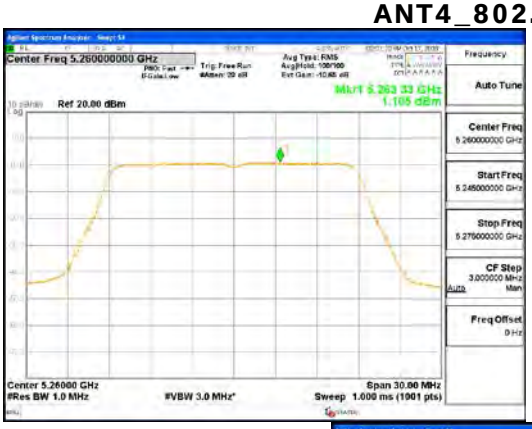
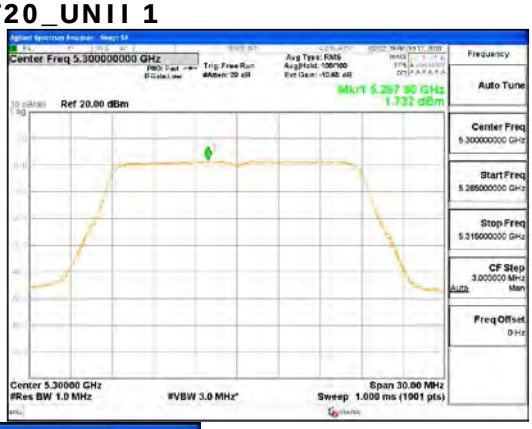
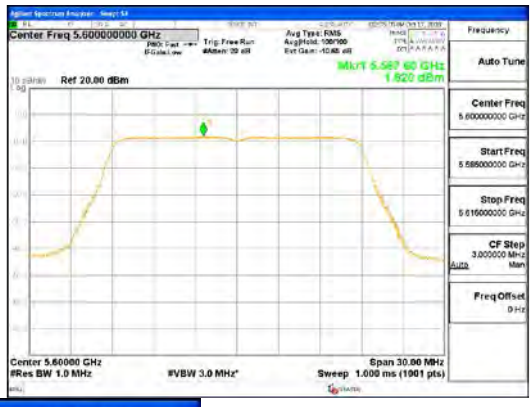
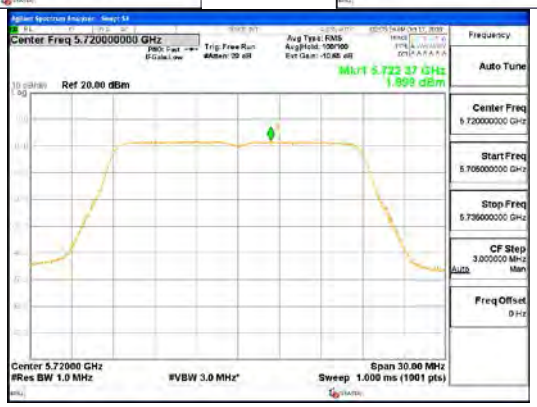




ANT4_802.11n_HT20_UNII 2A





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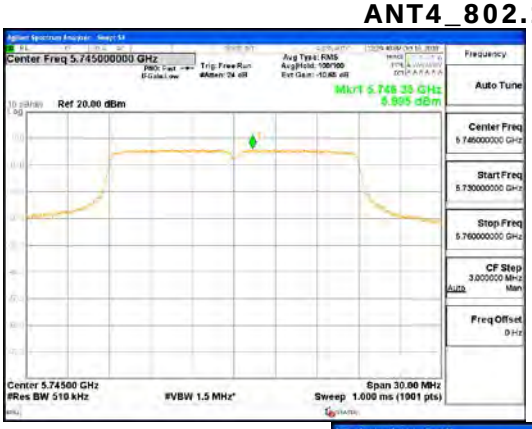
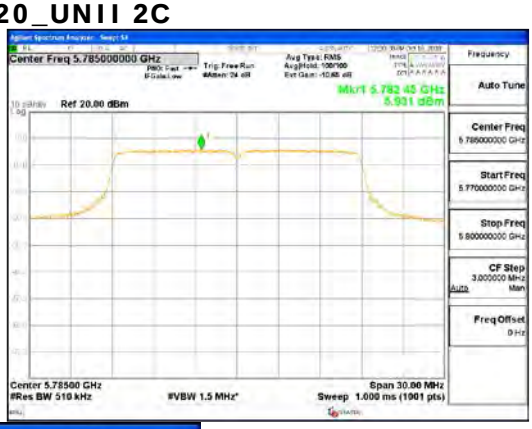
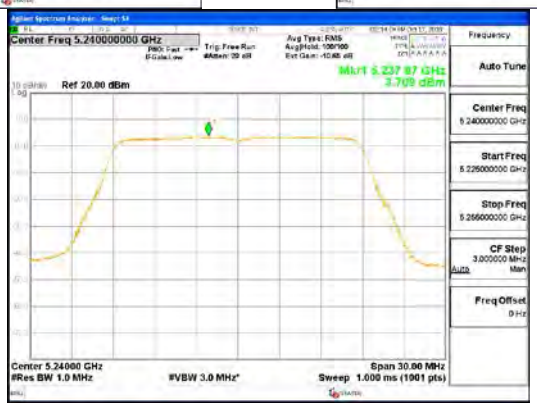
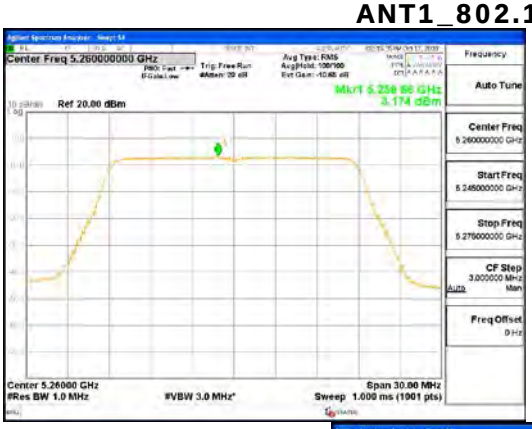


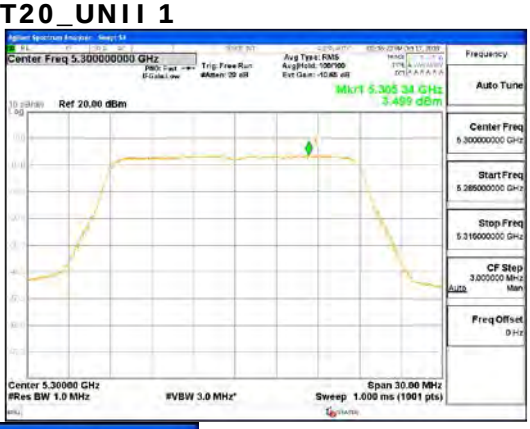


ANT4_802.11n_HT20_UNII 3

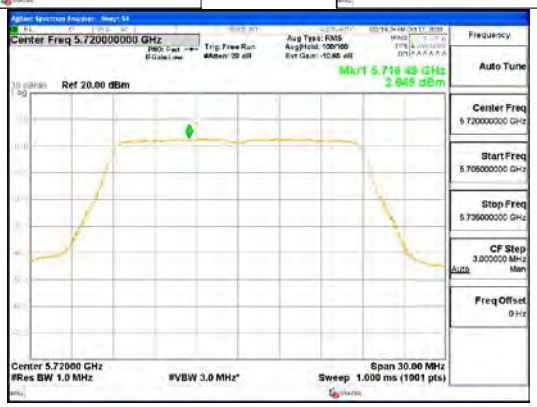


ANT1_802.11ac_VHT20_UNII 1

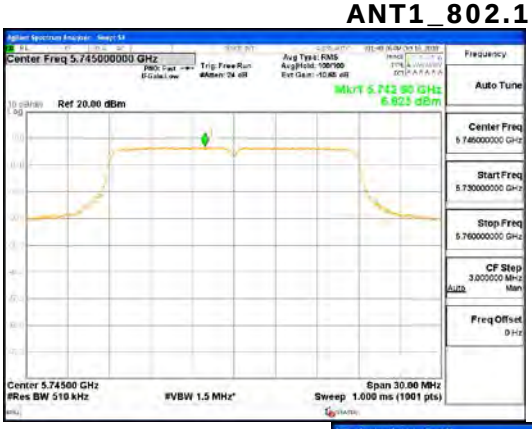


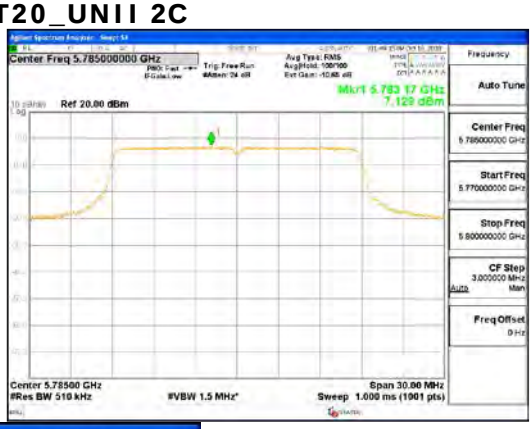


ANT1_802.11ac_VHT20_UNII 2A

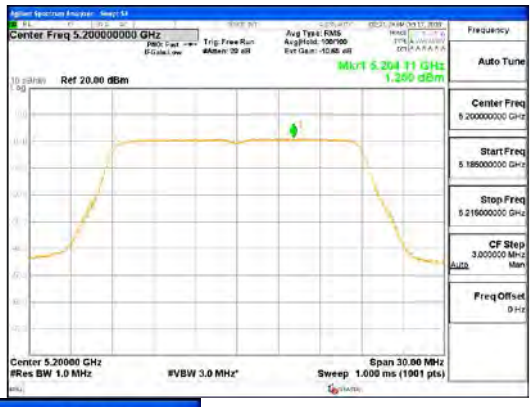


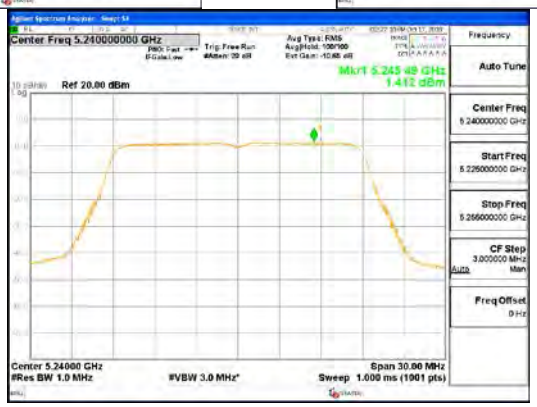
ANT1_802.11ac_VHT20_UNII 2C



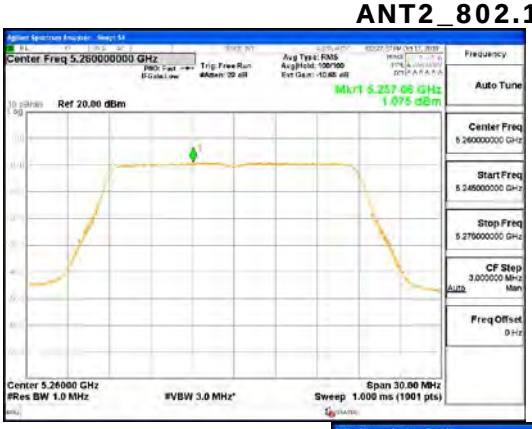


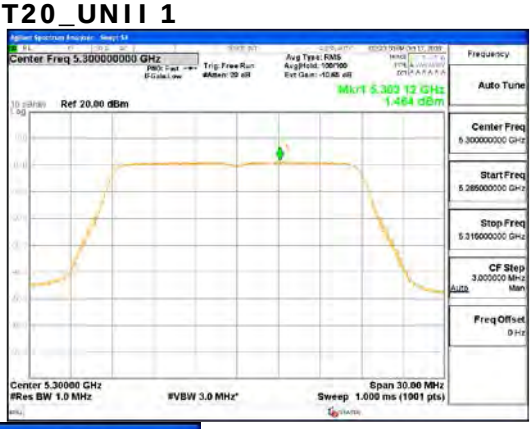
ANT1_802.11ac_VHT20_UNII 3



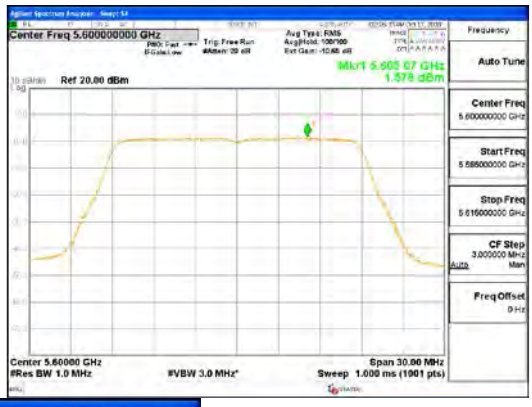


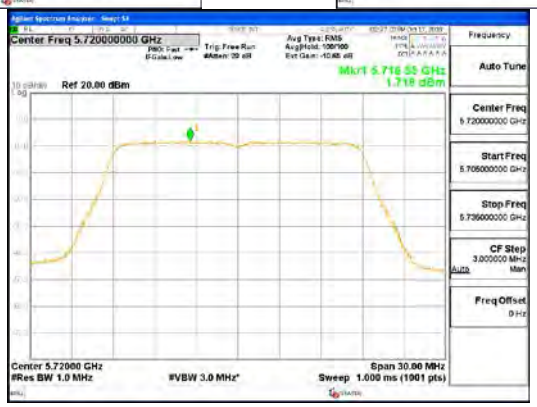
ANT2_802.11ac_VHT20_UNII 1





ANT2_802.11ac_VHT20_UNII 2A





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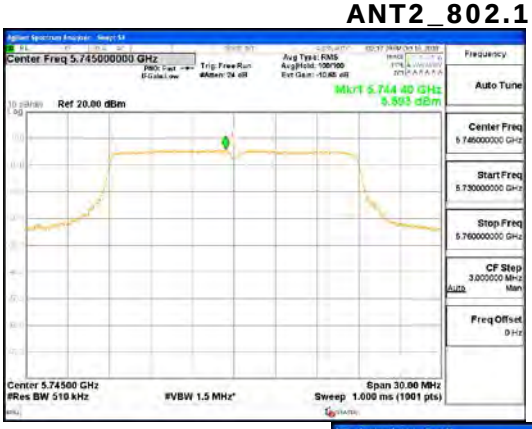

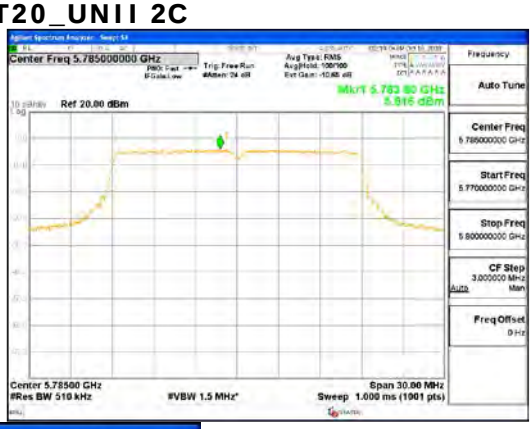

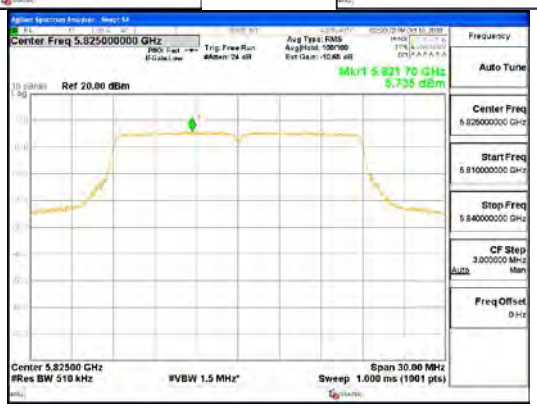

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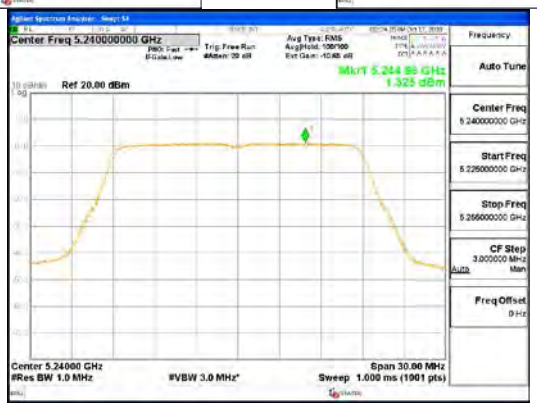

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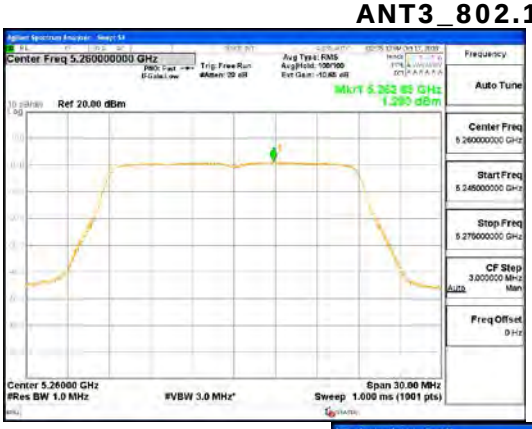
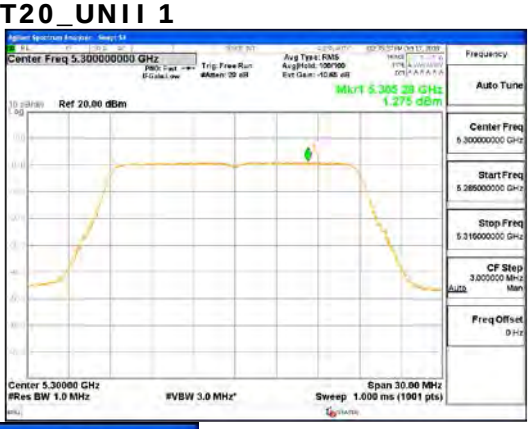
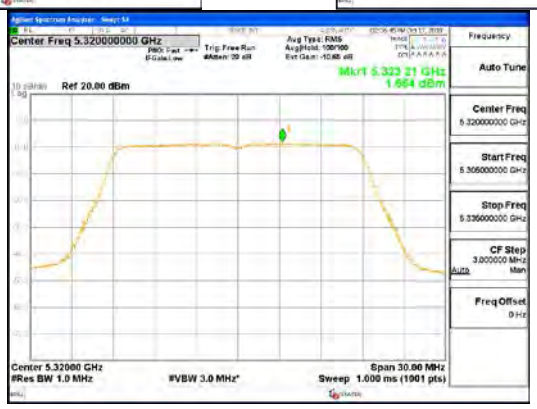
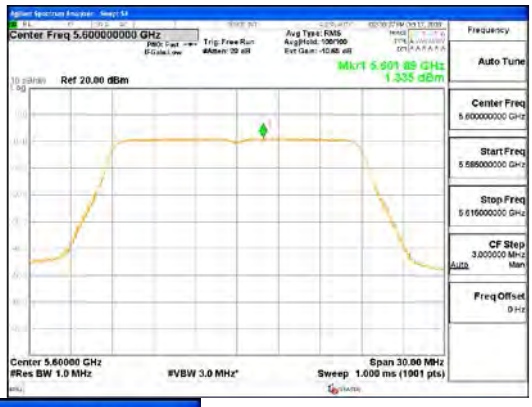
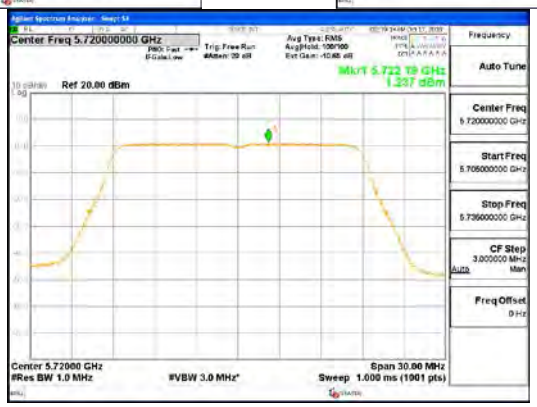




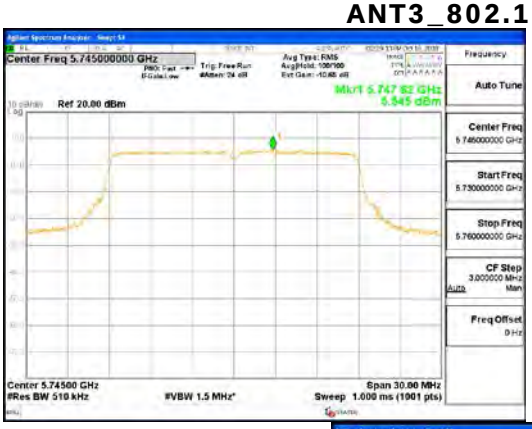


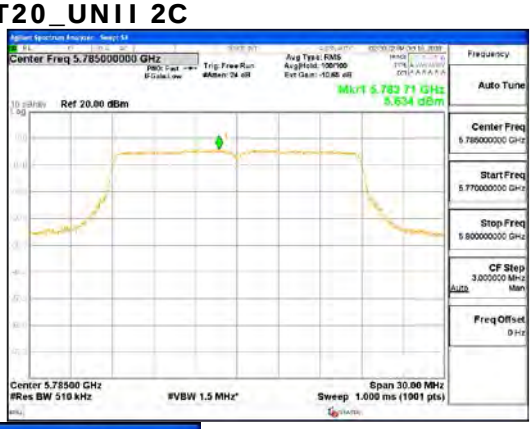
ANT3_802.11ac_VHT20_UNII 2A





ANT3_802.11ac_VHT20_UNII 2C





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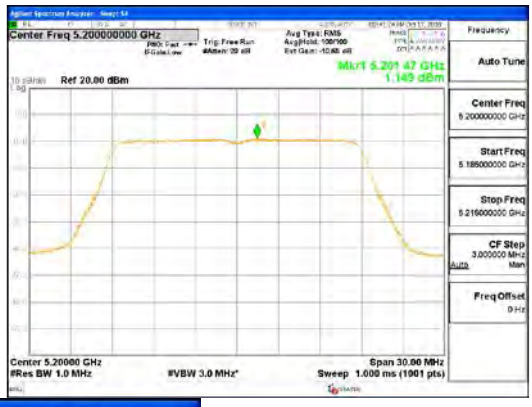

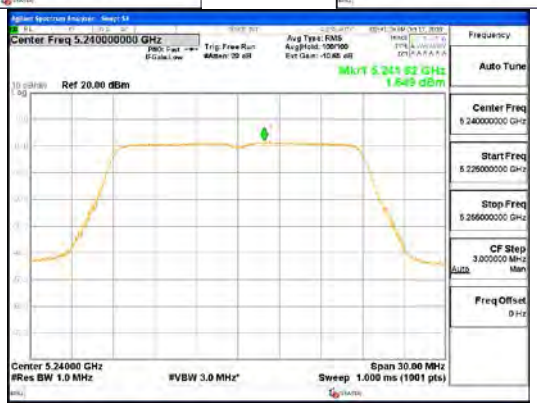

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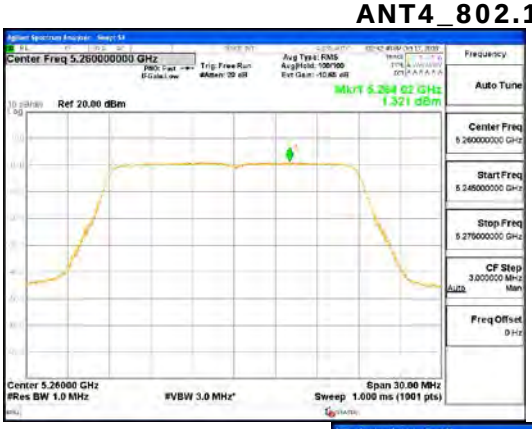
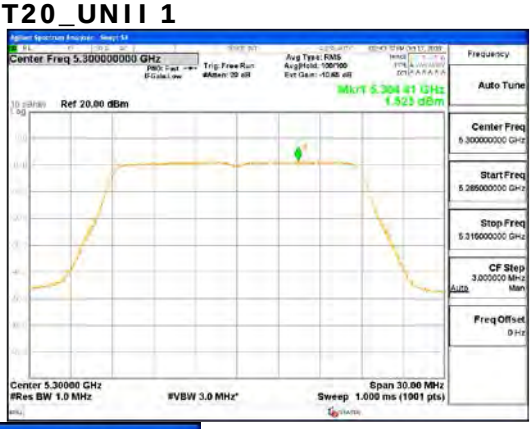
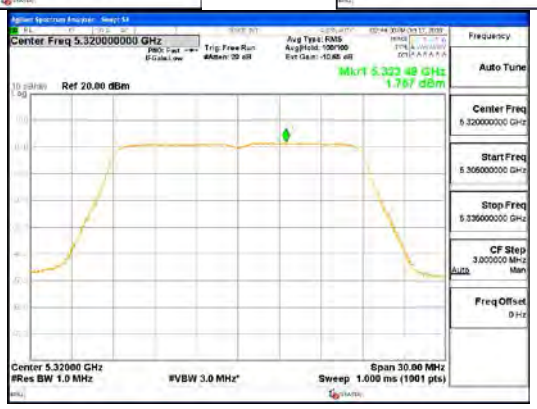
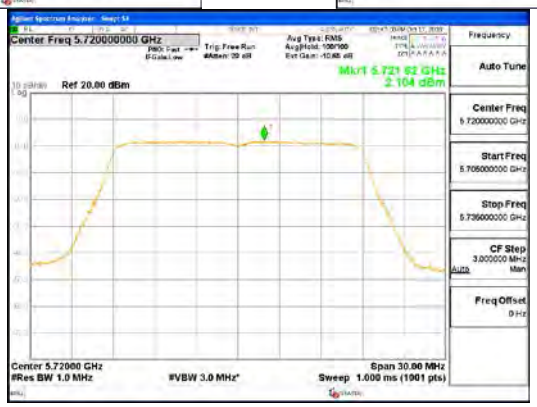






ANT4_802.11ac_VHT20_UNII 2A



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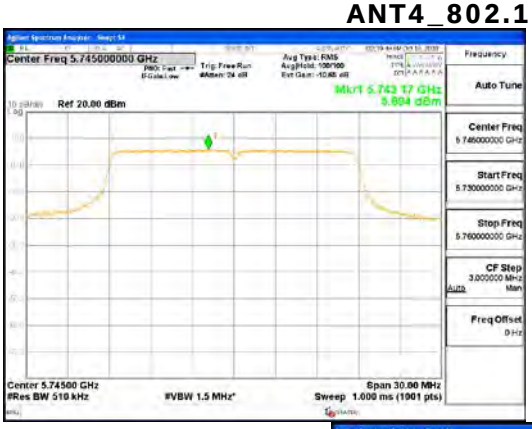
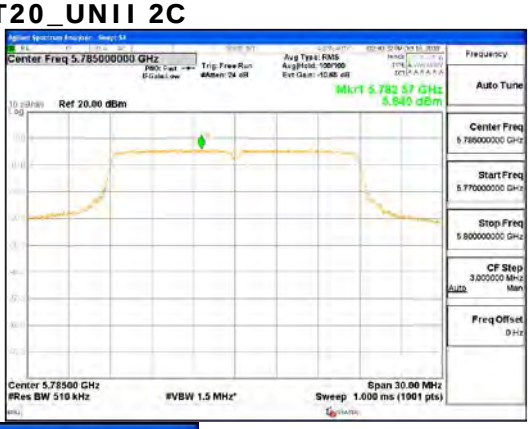
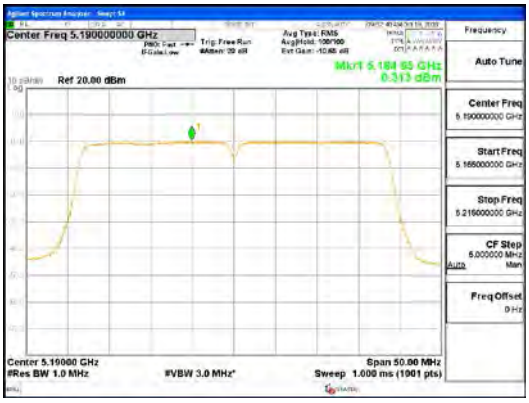
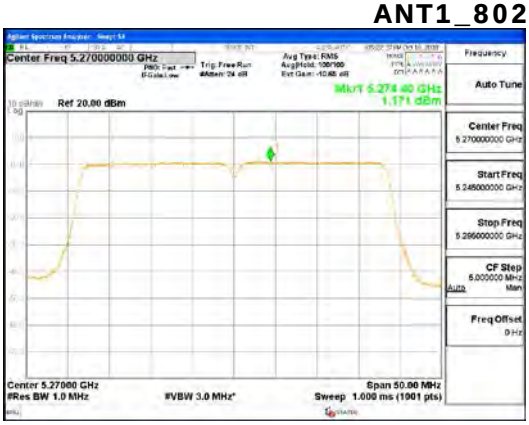


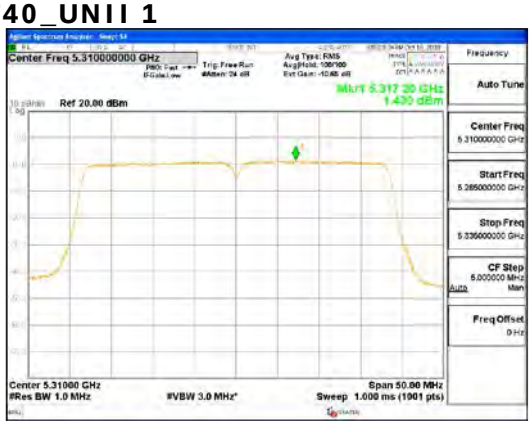


ANT4_802.11ac_VHT20_UNII 3



ANT1_802.11n_HT40_UNII 1





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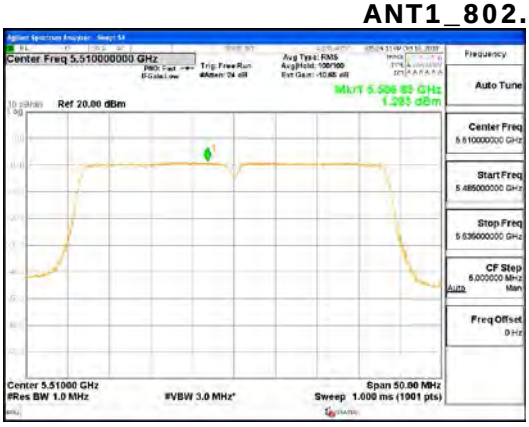
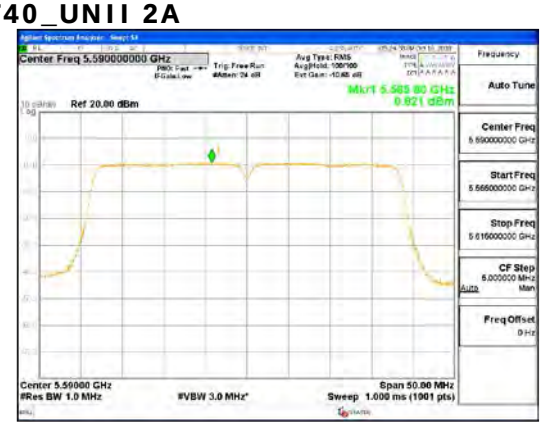
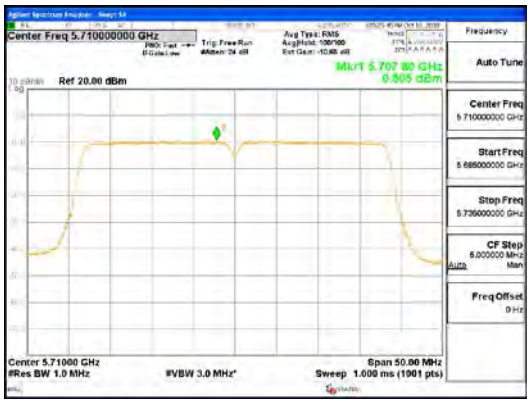
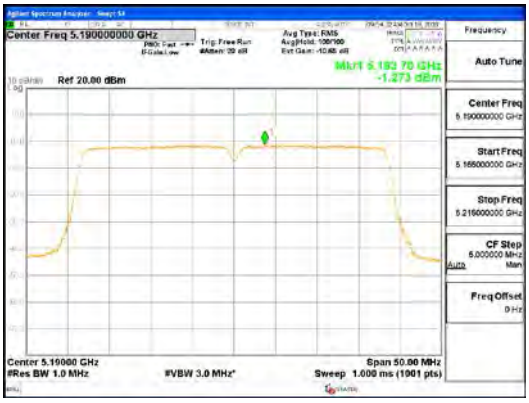


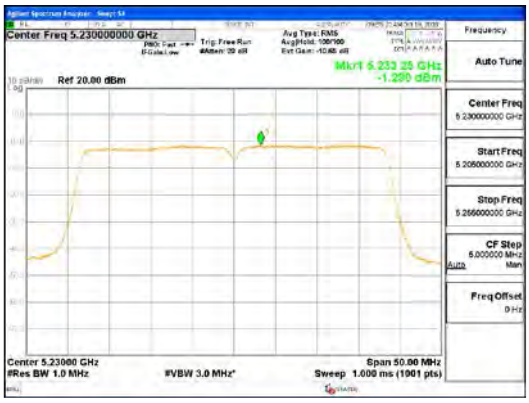




ANT1_802.11n_HT40_UNII 2C

ANT1_802.11n_HT40_UNII 3





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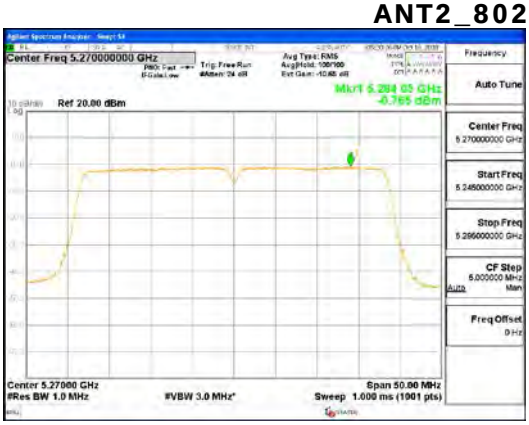
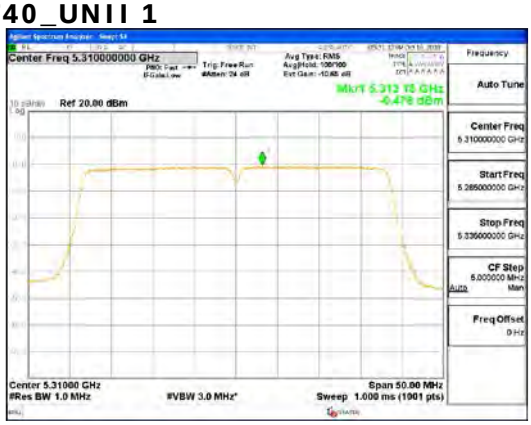
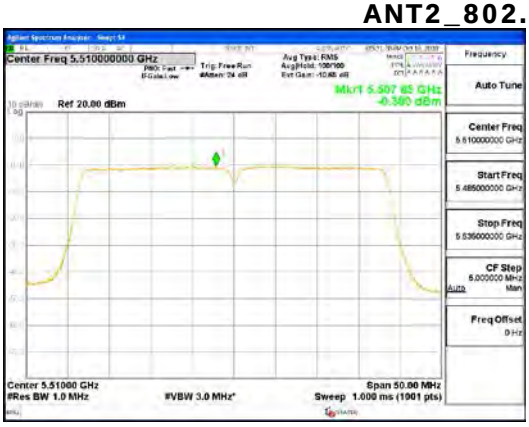
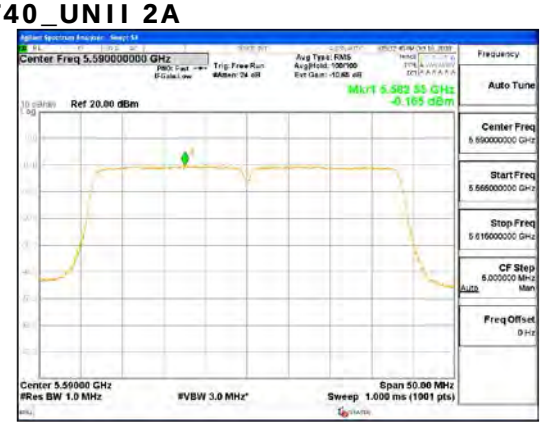
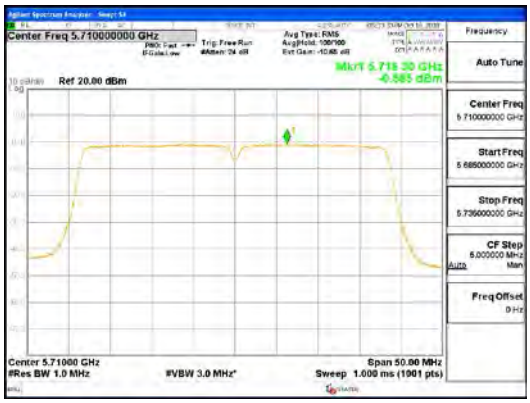




ANT2_802.11n_HT40_UNII 2A

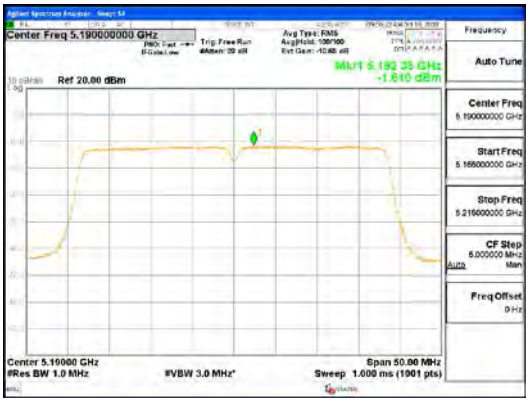






ANT2_802.11n_HT40_UNII 2C

ANT2_802.11n_HT40_UNII 3



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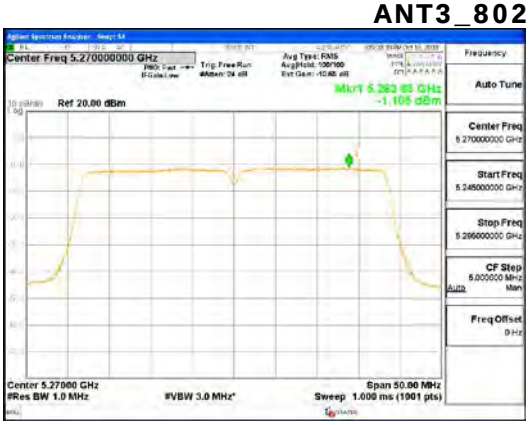
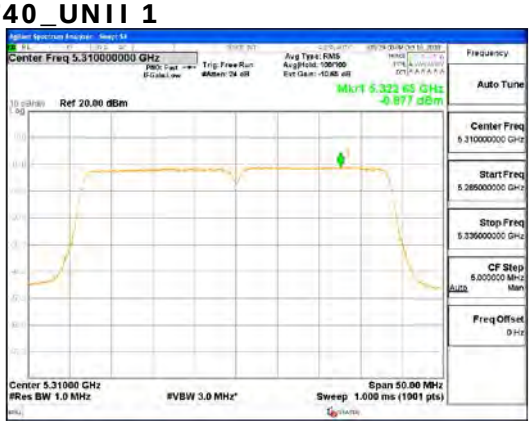
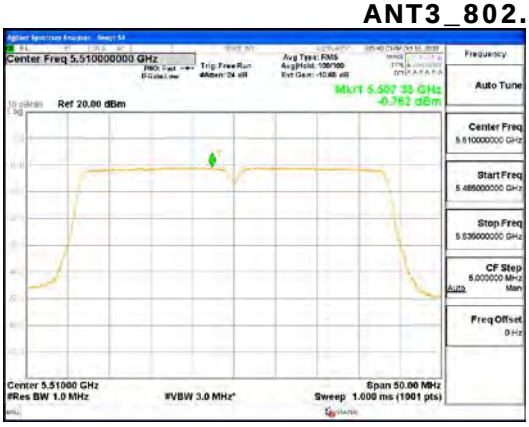
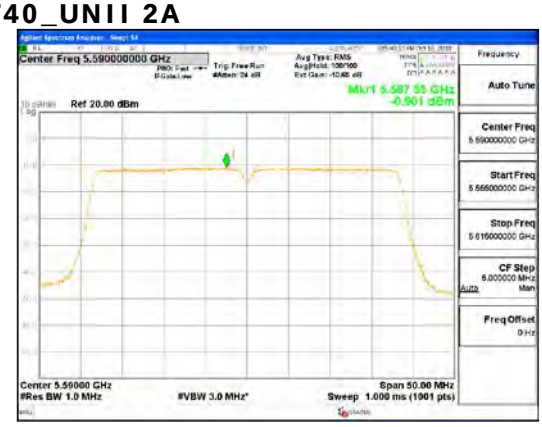
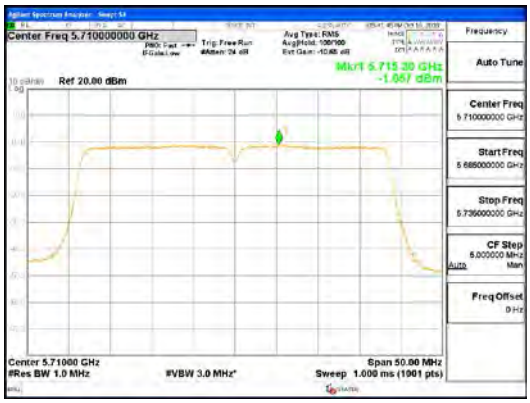




ANT3_802.11n_HT40_UNII 2A

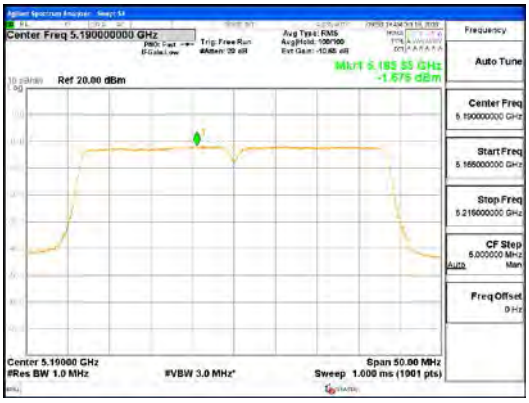


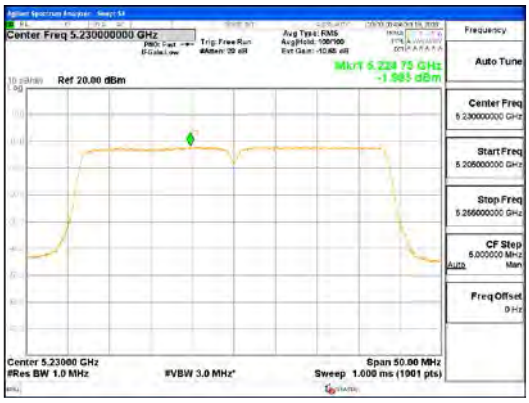




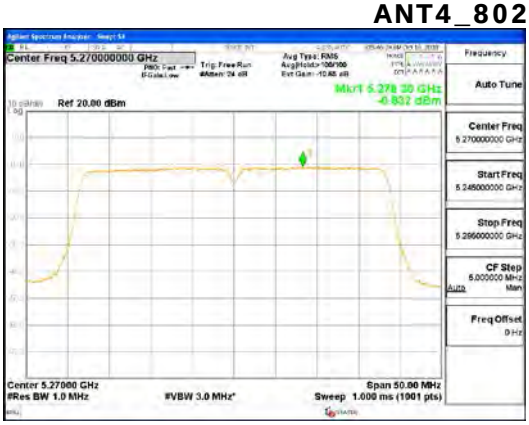
ANT3_802.11n_HT40_UNII 2C

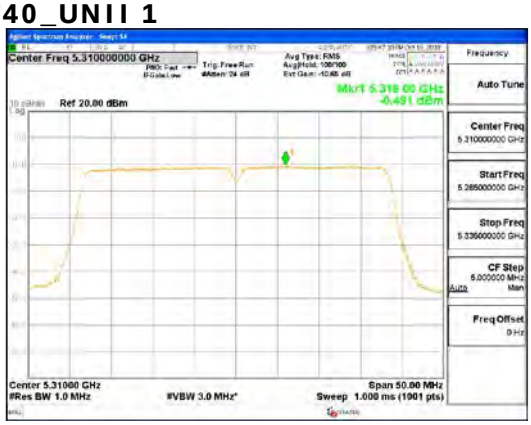
ANT3_802.11n_HT40_UNII 3



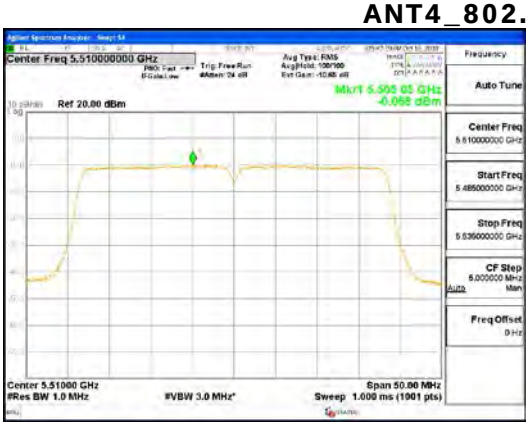


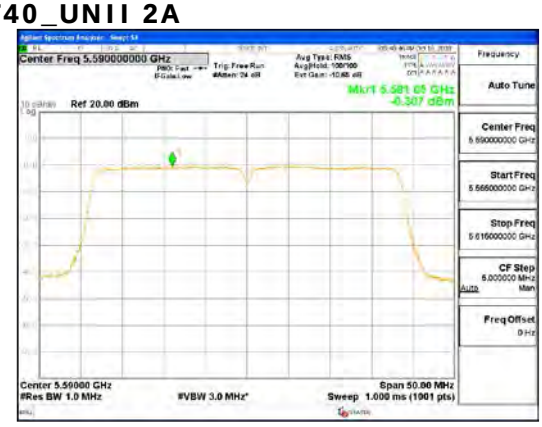
ANT4_802.11n_HT40_UNII 1

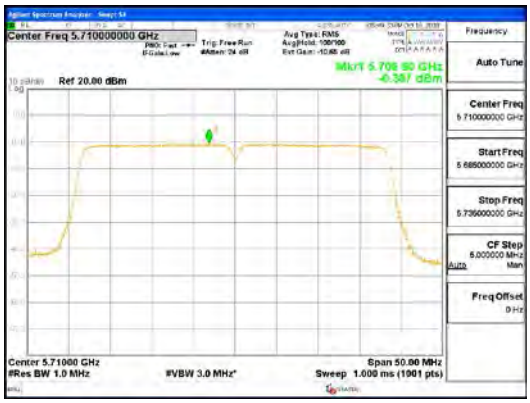




ANT4_802.11n_HT40_UNII 2A

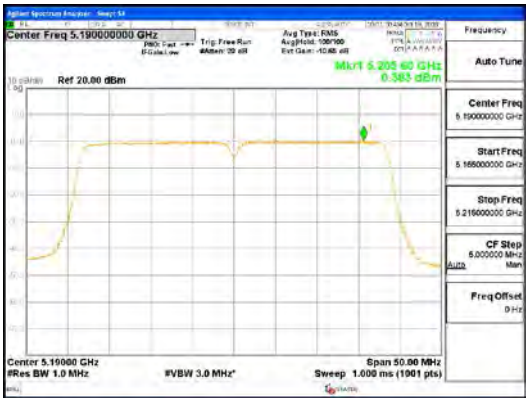




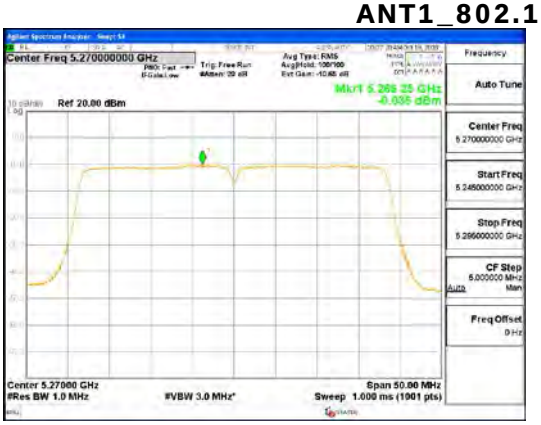


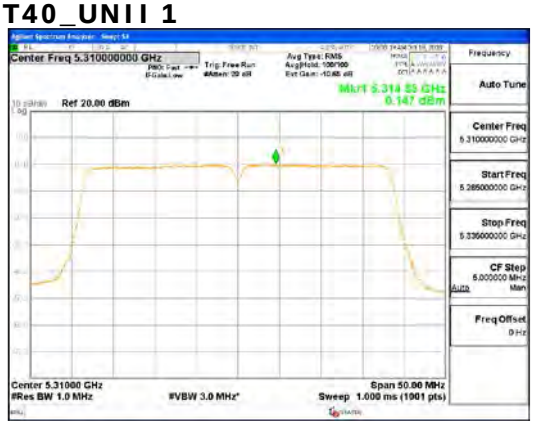
ANT4_802.11n_HT40_UNII 2C

ANT4_802.11n_HT40_UNII 3

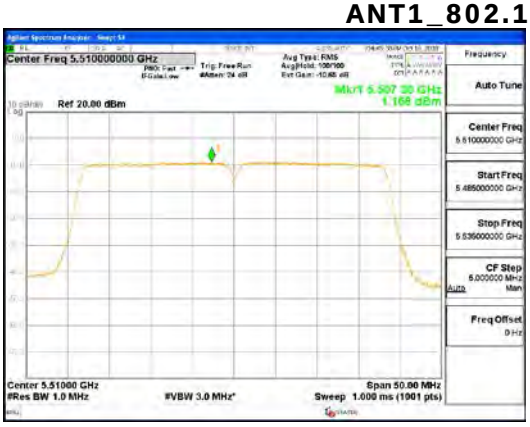


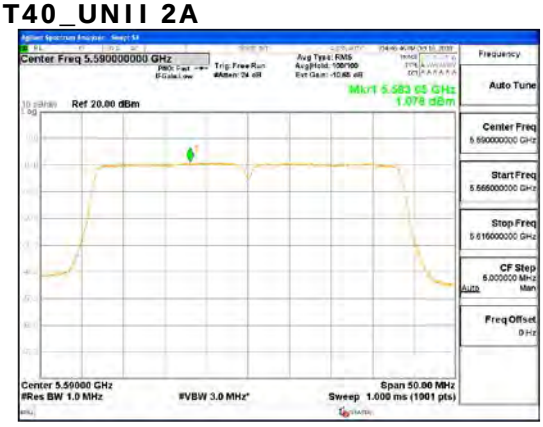
ANT1_802.11ac_VHT40_UNII 1

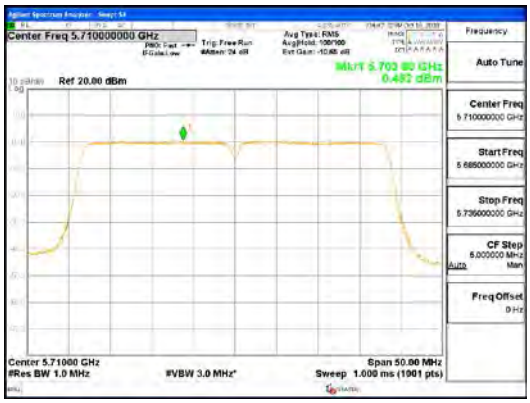




ANT1_802.11ac_VHT40_UNII 2A



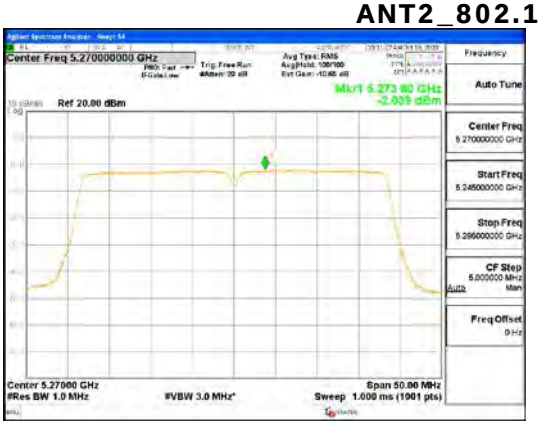


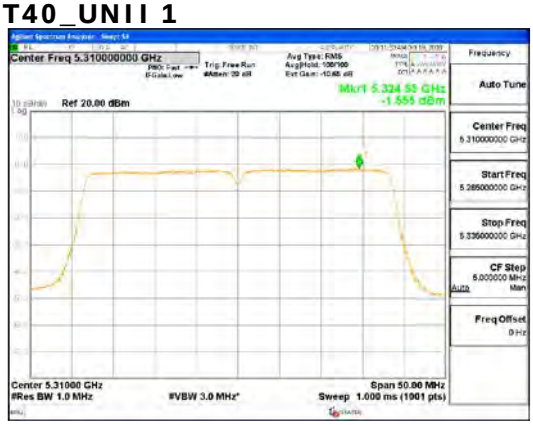


ANT1_802.11ac_VHT40_UNII 2C

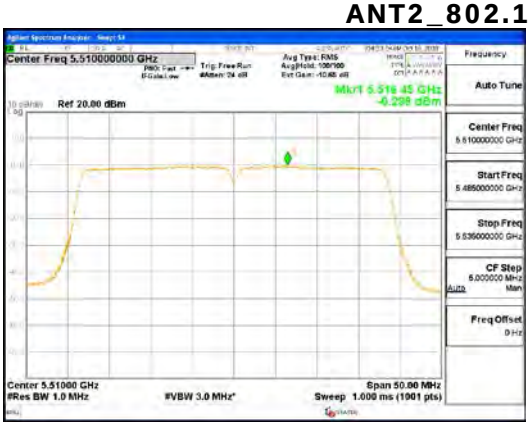
ANT1_802.11ac_VHT40_UNII 3

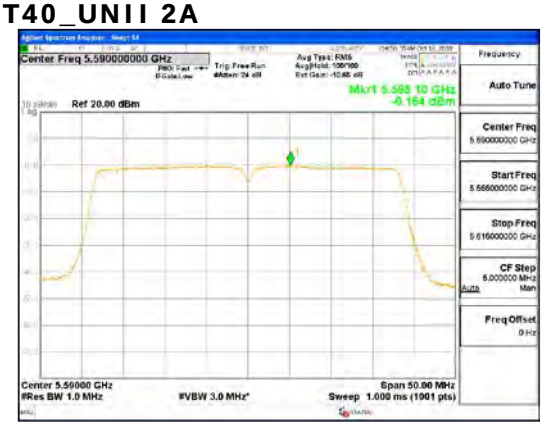
ANT2_802.11ac_VHT40_UNII 1

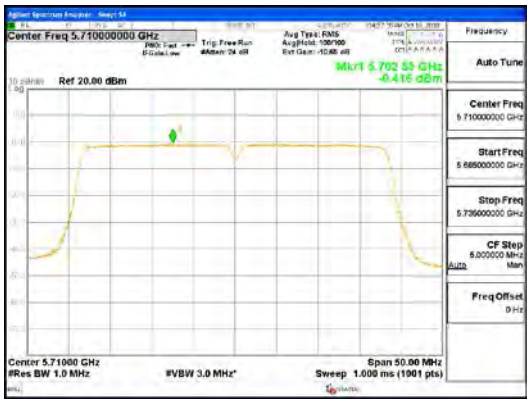




ANT2_802.11ac_VHT40_UNII 2A

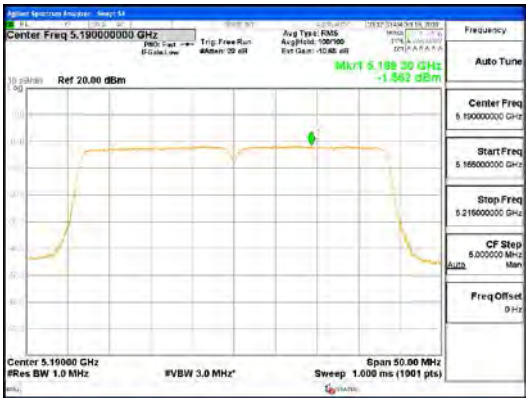




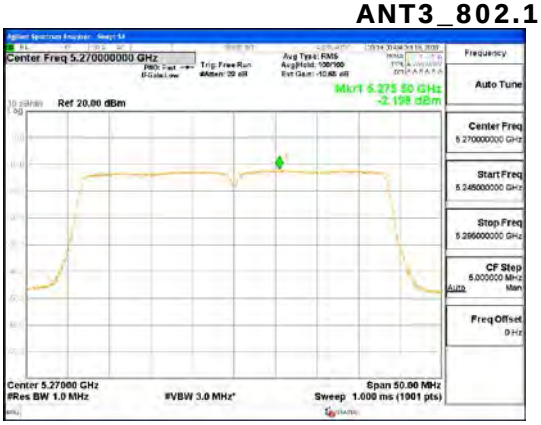


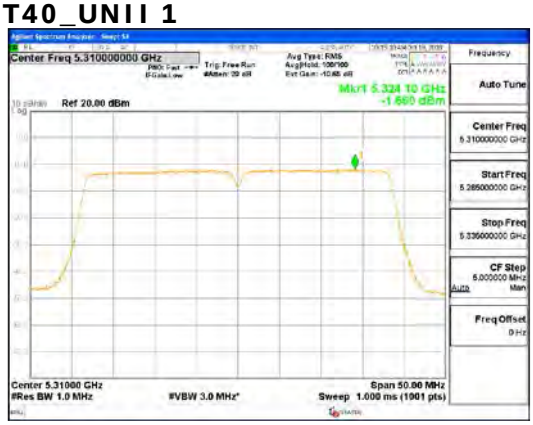
ANT2_802.11ac_VHT40_UNII 2C

ANT2_802.11ac_VHT40_UNII 3

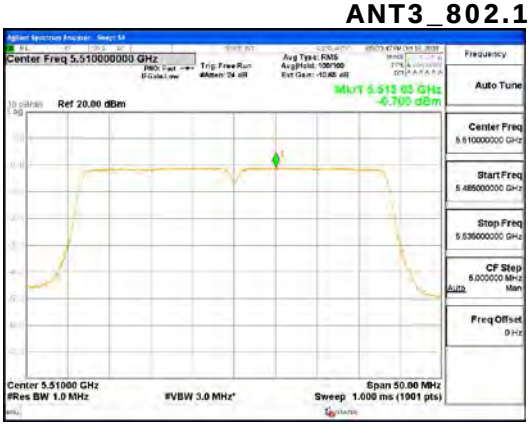


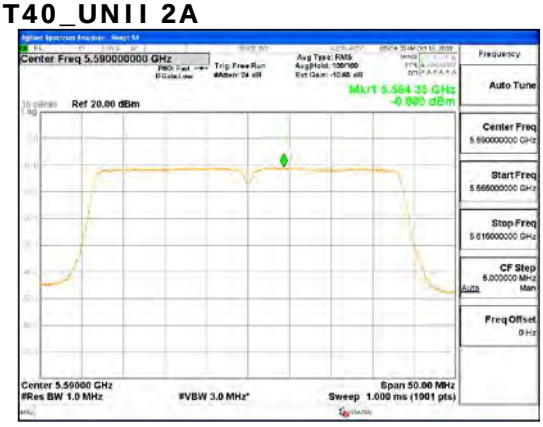
ANT3_802.11ac_VHT40_UNII 1

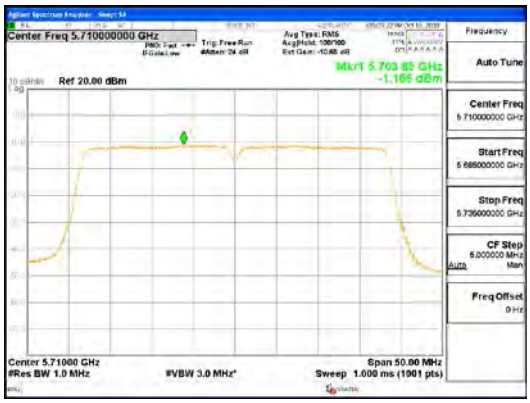




ANT3_802.11ac_VHT40_UNII 2A



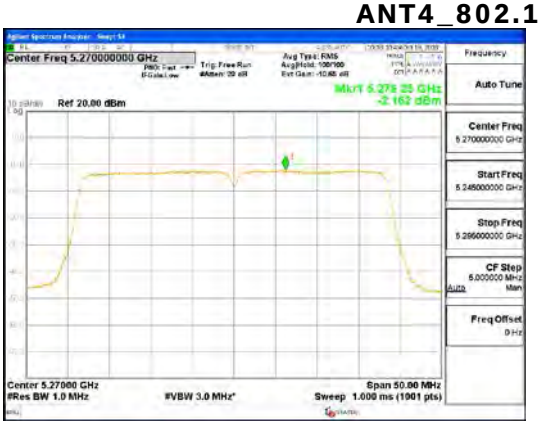


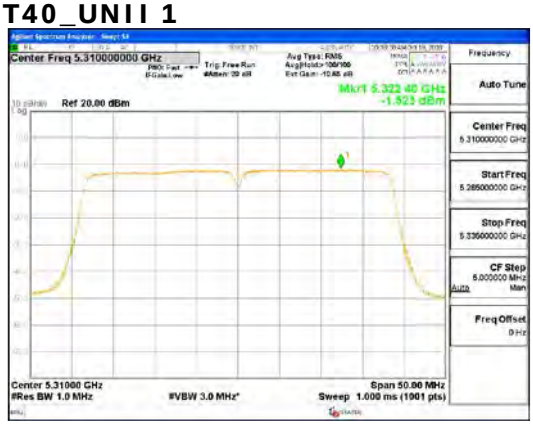


ANT3_802.11ac_VHT40_UNII 2C

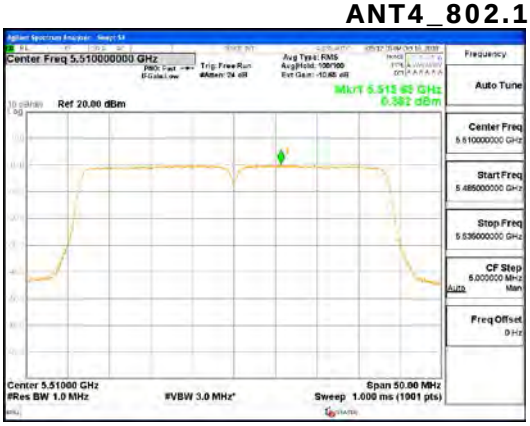
ANT3_802.11ac_VHT40_UNII 3

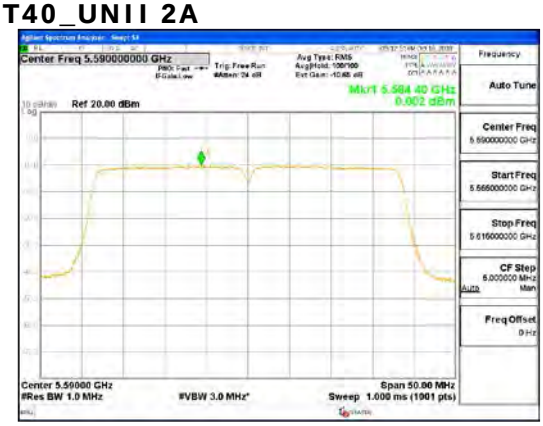
ANT4_802.11ac_VHT40_UNII 1

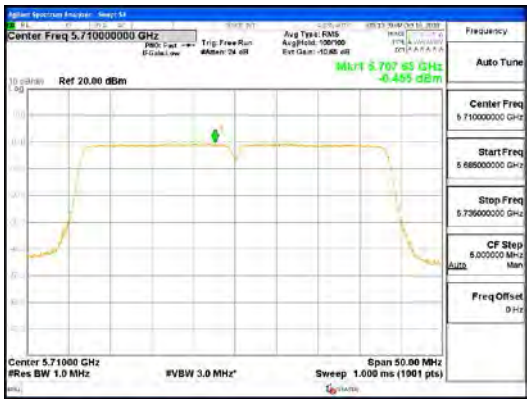




ANT4_802.11ac_VHT40_UNII 2A



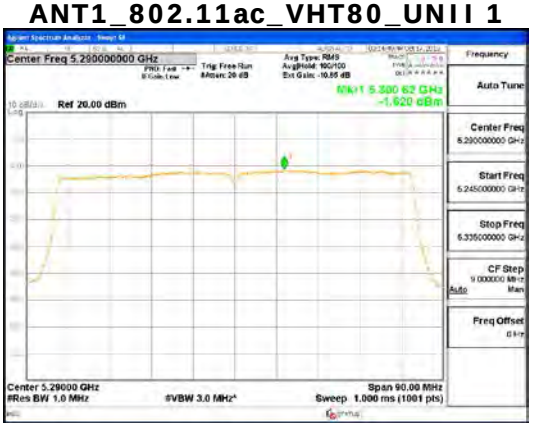




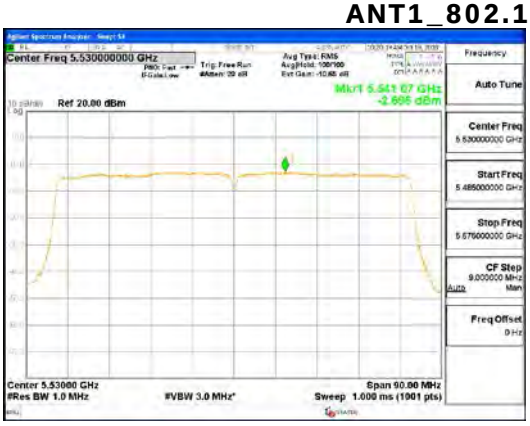
ANT4_802.11ac_VHT40_UNII 2C

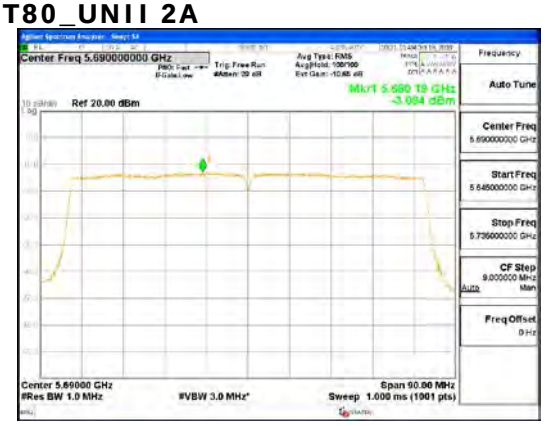
ANT4_802.11ac_VHT40_UNII 3

ANT1_802.11ac_VHT80_UNII 1



ANT1_802.11ac_VHT80_UNII 2A





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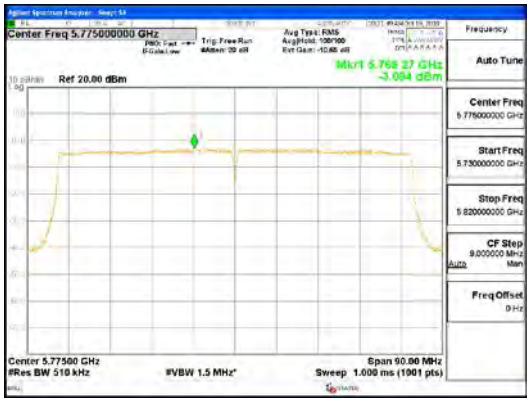
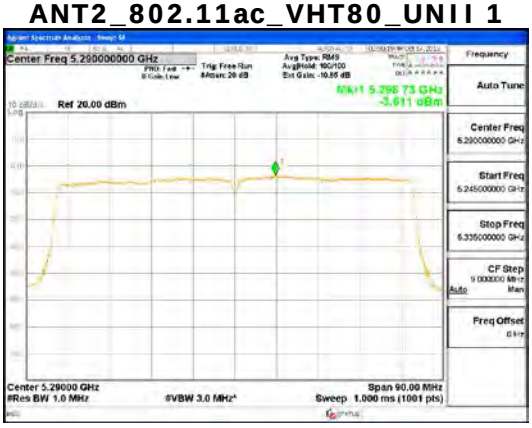


ANT1_802.11ac_VHT80_UNII 3

ANT2_802.11ac_VHT80_UNII 1



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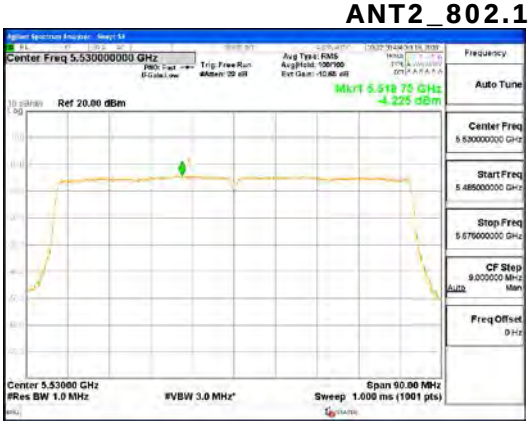

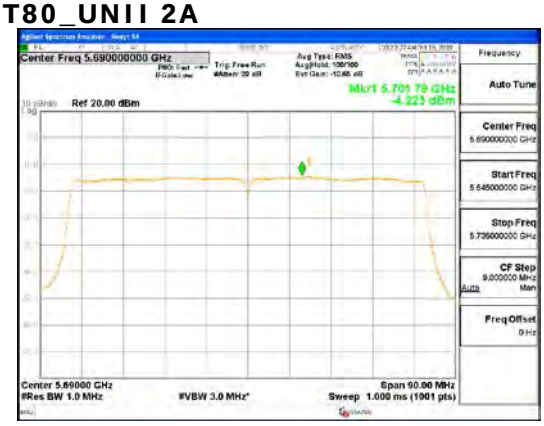

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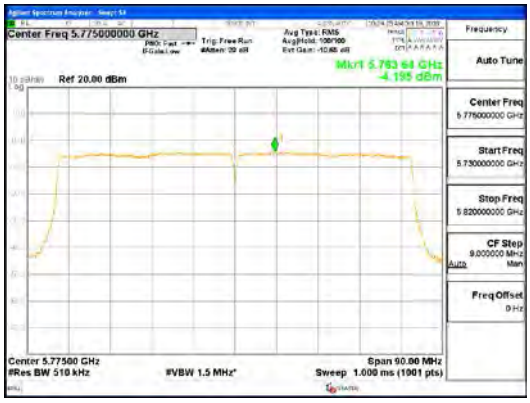

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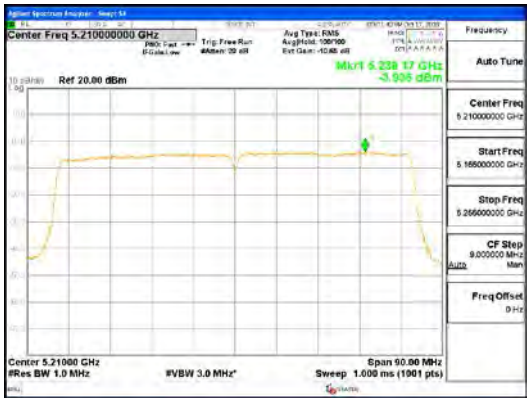
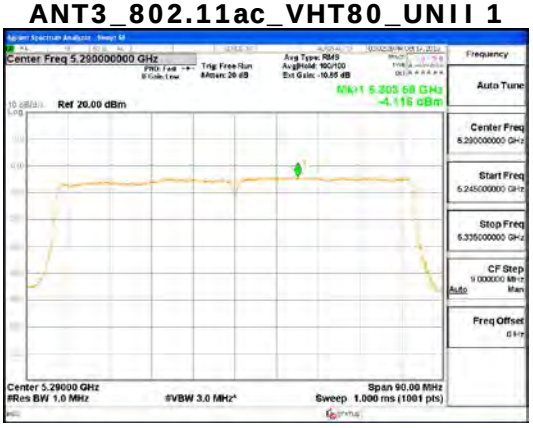
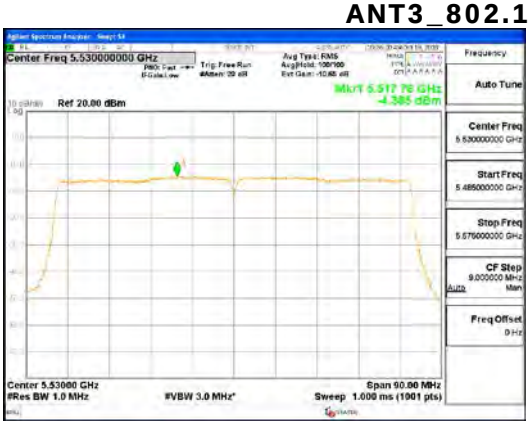
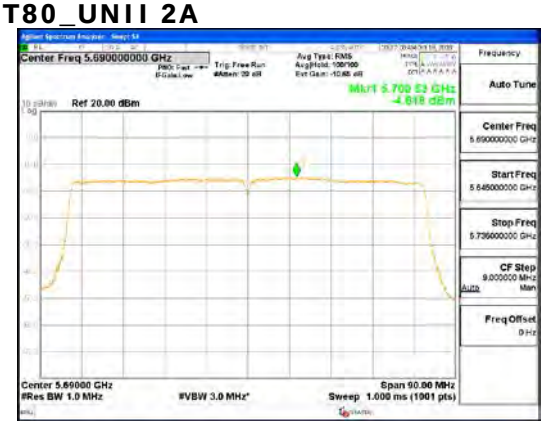


ANT3_802.11ac_VHT80_UNII 1

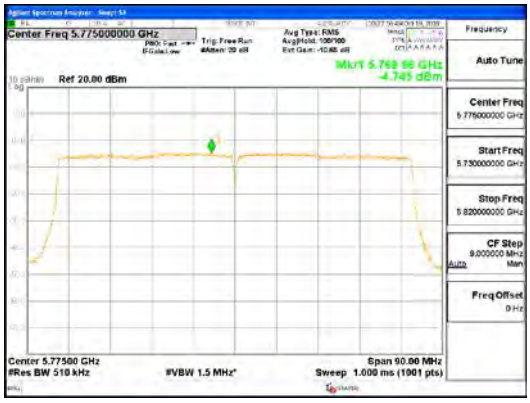


ANT3_802.11ac_VHT80_UNII 2A



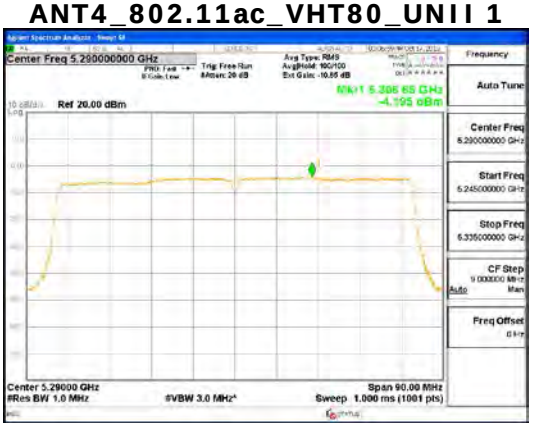


ANT3_802.11ac_VHT80_UNII 2C

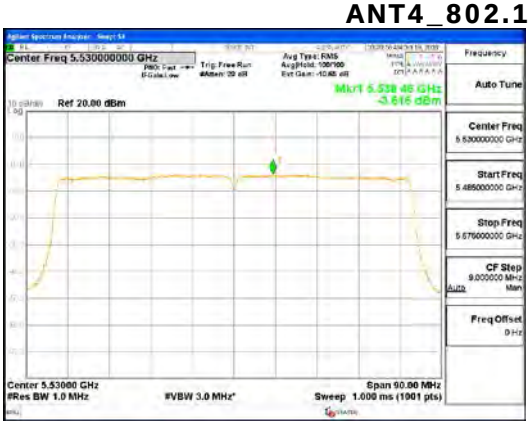


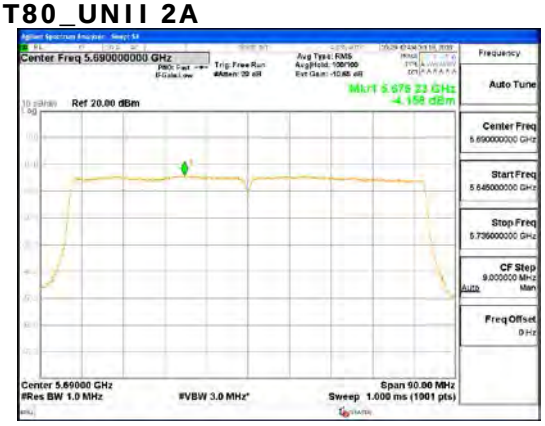
ANT3_802.11ac_VHT80_UNII 3

ANT4_802.11ac_VHT80_UNII 1



ANT4_802.11ac_VHT80_UNII 2A





ANT4_802.11ac_VHT80_UNII 2C

ANT4_802.11ac_VHT80_UNII 3

4.5 Frequency Stability

Test Procedures

KDB 789033 – Section A.3

The EUT was placed inside of an environmental chamber as the temperature in the chamber was varied between 0 ℃ and +40 ℃(Declaration by the Manufacturer). The temperature was incremented by 10 ℃ intervals and the unit was allowed to stabilize at each temperature before each measurement. The center frequency of the transmitting channel was evaluated at each temperature and the frequency deviation from the channel's center frequency was recorded.

Data for the worst case channel is shown below.

Temperature (℃)	0	10	20	30	40
Frequency	Measured Frequency Error (kHz)				
5 180 MHz	102.39	91.45	65.02	51.17	33.13
5 200 MHz	101.55	94.42	67.69	48.72	34.85
5 240 MHz	99.915	87.71	70.27	56.61	36.53
5 260 MHz	110.29	89.95	60.58	44.84	32.82
5 300 MHz	93.68	84.69	57.03	48.65	32.31
5 320 MHz	104.02	84.24	66.04	47.17	30.15
5 500 MHz	98.80	89.84	61.69	47.89	33.62
5 600 MHz	98.69	89.59	59.99	44.09	27.99
5 720 MHz	100.30	82.33	57.96	38.97	31.57
5 745 MHz	50.05	32.74	1.14	-11.45	-34.60
5 785 MHz	84.22	4.21	37.83	3.73	16.97
5 825 MHz	92.01	77.08	8.49	16.21	-14.94

Note :

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency deviation noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature range as tested.

4.6 Unwanted Emissions

Test Location

☒ 10 m SAC (test distance : ☐ 10 m, ☒ 3 m)
☒ 3 m SAC (test distance : 3 m)

Test Procedures

KDB 789033 - Section G

1) In the frequency range of 9 kHz to 30 MHz, magnetic field is measured with Loop Antenna. The Test Antenna is positioned with its plane vertical at 1m distance from the EUT. The center of the Loop Test Antenna is 1m above the ground. During the measurement the Loop Test Antenna rotates about its vertical axis for maximum response at each azimuth about the EUT.
2) In the frequency rage above 30 MHz, Bi-Log Test Antenna(30 MHz to 1 GHz) and Horn Test Antenna(above 1 GHz) are used. Test Antenna is 3m away from the EUT. Test Antenna height is carried from 1m to 4m above the ground to determine the maximum value of the field strength. The emissions levels at both horizontal and vertical polarizations should be tested.

Test Settings:

Frequency Range = 9 kHz ~ 1 GHz

a) RBW = 100 kHz for f < 1 GHz, 9 kHz for f < 30 MHz

b) VBW ≥ RBW

c) Detector = CISPR Quasi-peak

d) Sweep time = auto couple

- Peak

Frequency Range = 1 GHz ~ 40 GHz

a) RBW = 1 MHz

b) VBW ≥ 3 x RBW

c) Detector = Peak

d) Sweep time = auto

e) Trace mode = max hold

- Average (duty cycle ≥ 98%)

Frequency Range = 1 GHz ~ 40 GHz

a) RBW = 1 MHz

b) VBW ≥ 3 x RBW

c) Detector = RMS

d) Sweep time = auto

e) Averaging type = power (i.e., RMS)

f) Trace mode = average (at least 100 traces)

- Average (duty cycle < 98%)

Frequency Range = 1 GHz ~ 40 GHz

a) RBW = 1 MHz

b) VBW ≥ 3 x RBW

c) Detector = RMS

d) Sweep time = auto

e) Averaging type = power (i.e., RMS)

f) Trace mode = average (at least 100 traces)

If power averaging (RMS) mode, then the applicable correction factor is 10 log(1/x), where x is the duty cycle.

Test mode	Duty Cycle Factor (dB)
802.11a	0.20
802.11n_HT20	0.21
802.11n_HT40	0.43
802.11ac_VHT20	0.21
802.11ac_VHT40	0.42
802.11ac_VHT80	0.84

Limit

- **15.209(a)**

Frequency(MHz)	Field Strength uV/m@3m	Field Strength dBuV/m@3m	Deasurement Distance (meters)
0.009-0.490	2400/F(kHz)	-	300
0.490-1.705	24000/F(kHz)	-	30
1.705-30	30	-	30
30-88	100**	40	3
88-216	150**	43.5	3
216-960	200**	46	3
Above 960	500	54	3

** Except as provided in 15.209(g).fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72MHz, 76-88MHz, 174-216MHz, 470-806MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g.15.231 and 15.241.

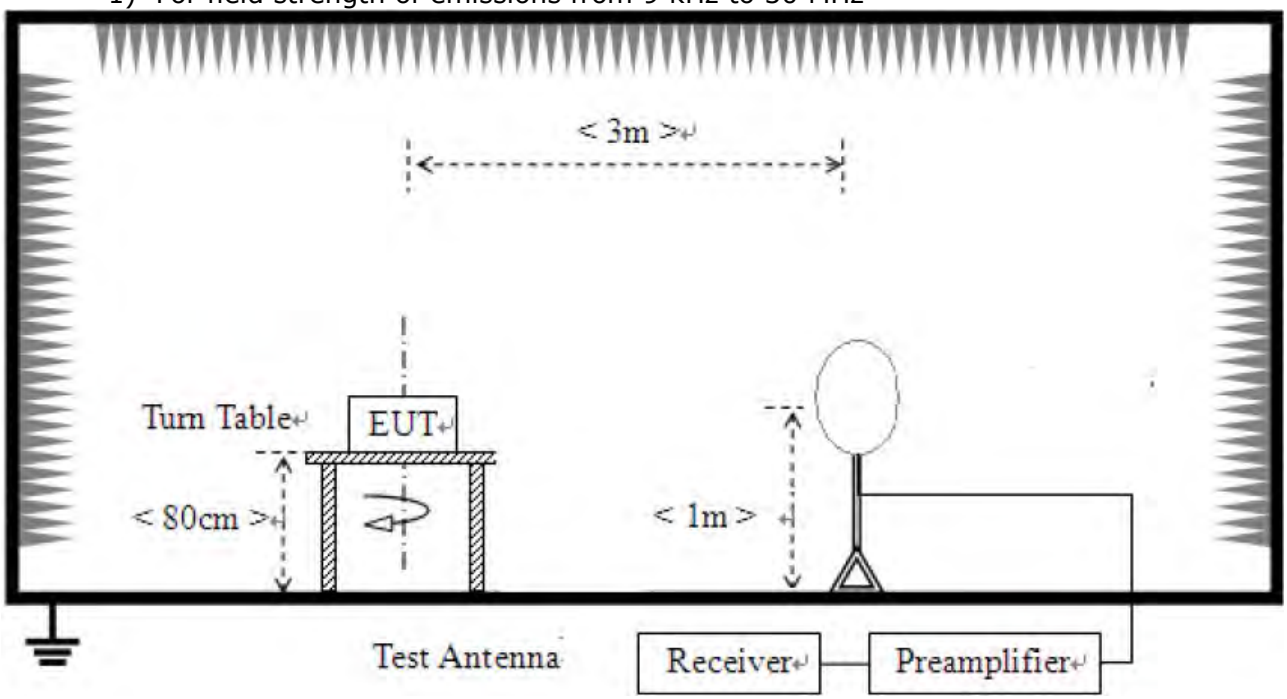
- **15.407, KDB 789033**

E.I.R.P -27 dBm/MHz

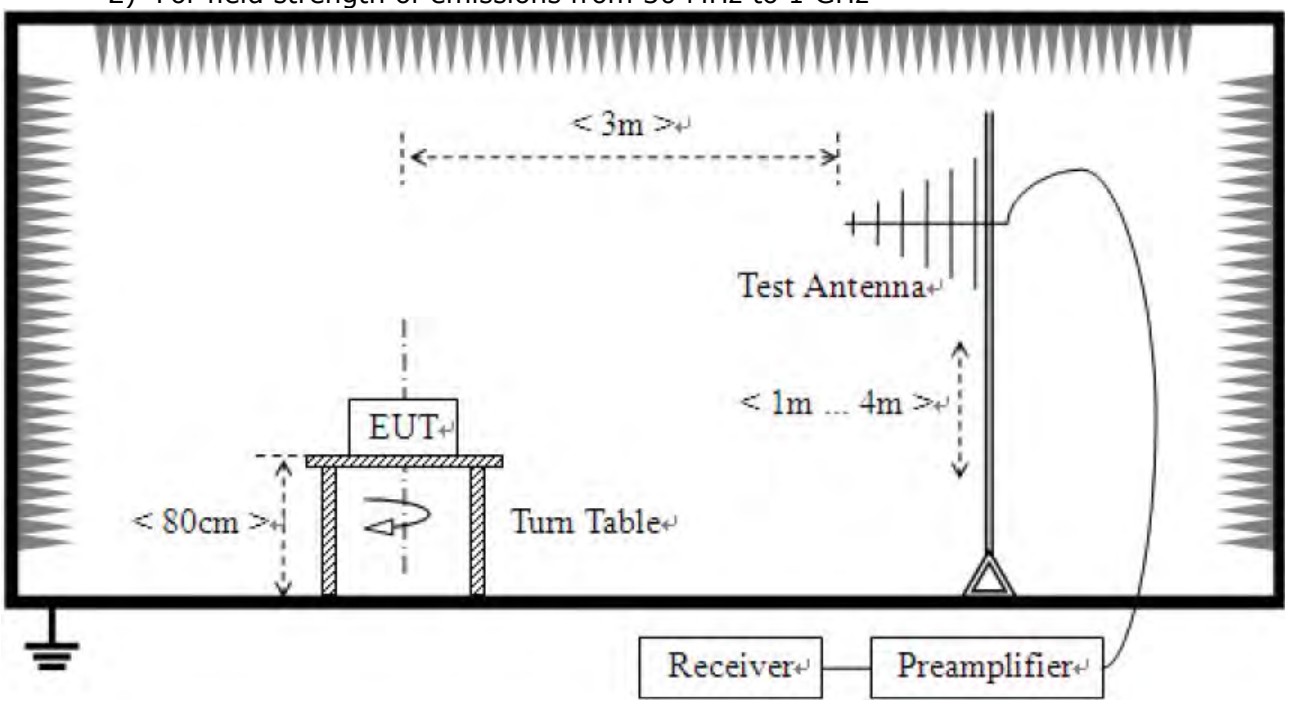
E[dBuV/m] = EIRP[dBm] + 95.2, for d = 3m

Test Setup:

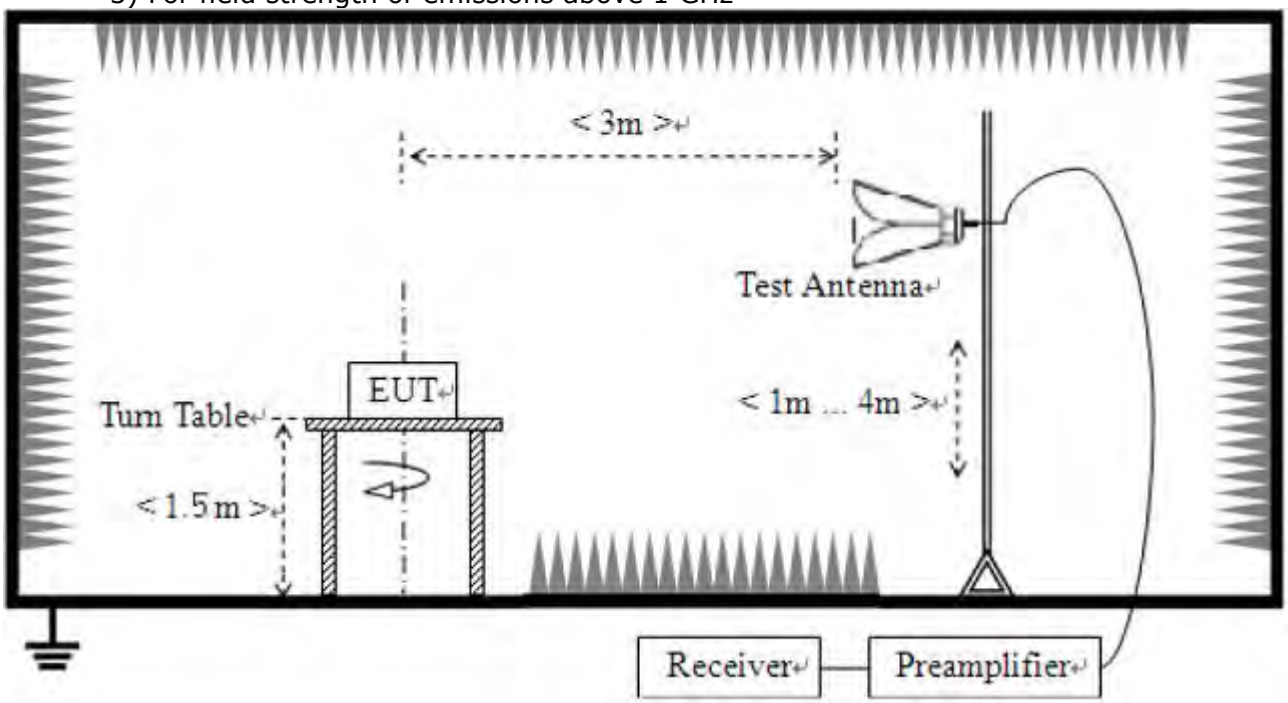
1) For field strength of emissions from 9 kHz to 30 MHz



2) For field strength of emissions from 30 MHz to 1 GHz



3) For field strength of emissions above 1 GHz



Test Mode

We have done all test mode.
The worst case antenna configuration and Test mode are determined to be as follows.

802.11a : ANT1 + ANT2 + ANT3 + ANT4 (MIMO)
802.11n : ANT1 + ANT2 + ANT3 + ANT4 (MIMO)
802.11ac : ANT1 + ANT2 + ANT3 + ANT4 (MIMO)

So the results are only attached worst cases.

Test Results

1) 9 kHz to 30 MHz

Test mode : Transmitter, 802.11a, 802.11n, 802.11ac (Worst case)

The requirements are:
☒ Complies

Frequency (MHz)	Measured Data (dBuV/m)	Margin (dB)	Remark
-	-	-	See note

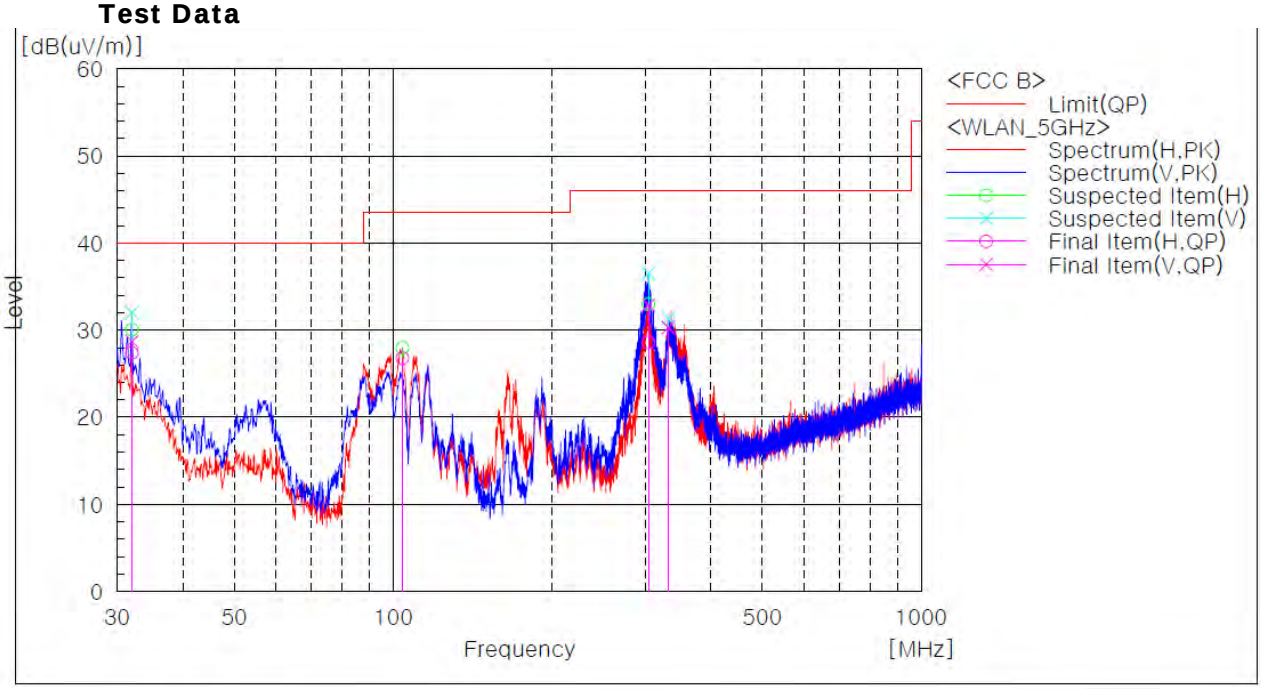
Note :
The amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.
Distance extrapolation factor = 40 log (specific distance / test distance) (dB)

2) 30 MHz to 1 GHz

Test mode : Transmitter, 802.11a(Worst Case)

The requirements are:
☒ Complies

Test Data



Final Result

No.	Frequency [MHz]	(P)	Reading QP [dB(uV)]	c.f [dB(1/m)]	Result QP [dB(uV/m)]	Limit QP [dB(uV/m)]	Margin QP [dB]	Height [cm]	Angle [deg]	Remark
1	31.960	V	43.8	-15.1	28.7	40.0	11.3	99.8	87.4	
2	31.960	H	42.5	-15.1	27.4	40.0	12.6	99.8	63.6	
3	104.030	H	41.0	-14.2	26.8	43.5	16.7	99.8	247.7	
4	304.129	V	44.8	-11.9	32.9	46.0	13.1	99.8	226.0	
5	304.238	H	40.5	-11.9	28.6	46.0	17.4	99.8	88.1	
6	331.781	V	41.8	-11.5	30.3	46.0	15.7	99.8	226.0	

Remark :
1. The EUT was tested in three orientations in order to determine that "Y axis" was the worst case.
2. Result = Reading + c.f(Correction factor)
3. Correction factor = Antenna factor + Cable loss + 6 dB attenuator - Amp Gain

3) above 1 GHz

Test mode : Transmitter, 802.11a

The requirements are:
☒ Complies

Test Data

Ch.36(5 180 MHz)

Frequency [MHz]	(P)	Limit AV [dBuV/m]	Limit PK [dBuV/m]	Result AV [dBuV/m]	Result PK [dBuV/m]	Margin AV [dB]	Margin PK [dB]
5 132.36	H	54.00	74.00	45.30	56.60	8.70	17.40
5 142.98	V	54.00	74.00	47.10	57.20	6.90	16.80

Ch.40(5 200 MHz)

Frequency [MHz]	(P)	Limit AV [dBuV/m]	Limit PK [dBuV/m]	Result AV [dBuV/m]	Result PK [dBuV/m]	Margin AV [dB]	Margin PK [dB]
The emissions above 1 GHz were 20 dB lower than the limit.							

Ch.48(5 240 MHz)

Frequency [MHz]	(P)	Limit AV [dBuV/m]	Limit PK [dBuV/m]	Result AV [dBuV/m]	Result PK [dBuV/m]	Margin AV [dB]	Margin PK [dB]
The emissions above 1 GHz were 20 dB lower than the limit.							

Ch.52(5 260 MHz)

Frequency [MHz]	(P)	Limit AV [dBuV/m]	Limit PK [dBuV/m]	Result AV [dBuV/m]	Result PK [dBuV/m]	Margin AV [dB]	Margin PK [dB]
The emissions above 1 GHz were 20 dB lower than the limit.							

Ch.60(5 300 MHz)

Frequency [MHz]	(P)	Limit AV [dBuV/m]	Limit PK [dBuV/m]	Result AV [dBuV/m]	Result PK [dBuV/m]	Margin AV [dB]	Margin PK [dB]
The emissions above 1 GHz were 20 dB lower than the limit.							

Ch.64(5 320 MHz)

Frequency [MHz]	(P)	Limit AV [dBuV/m]	Limit PK [dBuV/m]	Result AV [dBuV/m]	Result PK [dBuV/m]	Margin AV [dB]	Margin PK [dB]
5 360.74	H	54.00	74.00	47.10	57.50	6.90	16.50
5 355.61	V	54.00	74.00	48.00	59.50	6.00	14.50

Ch.100(5 500 MHz)

Frequency [MHz]	(P)	Limit AV [dBuV/m]	Limit PK [dBuV/m]	Result AV [dBuV/m]	Result PK [dBuV/m]	Margin AV [dB]	Margin PK [dB]
5 439.64	H	54.00	74.00	46.70	57.50	7.30	16.50
5 425.03	V	54.00	74.00	48.40	58.50	5.60	15.50

Ch.120(5 600 MHz)

Frequency [MHz]	(P)	Limit AV [dBuV/m]	Limit PK [dBuV/m]	Result AV [dBuV/m]	Result PK [dBuV/m]	Margin AV [dB]	Margin PK [dB]
The emissions above 1 GHz were 20 dB lower than the limit.							

Ch.144(5 720 MHz)

Frequency [MHz]	(P)	Limit AV [dBuV/m]	Limit PK [dBuV/m]	Result AV [dBuV/m]	Result PK [dBuV/m]	Margin AV [dB]	Margin PK [dB]
The emissions above 1 GHz were 20 dB lower than the limit.							

Ch.149(5 745 MHz)

Frequency [MHz]	(P)	Limit AV [dBuV/m]	Limit PK [dBuV/m]	Result AV [dBuV/m]	Result PK [dBuV/m]	Margin AV [dB]	Margin PK [dB]
5 558.95	H	-	68.20	-	58.20	-	10.00
5 642.92	V	-	68.20	-	63.00	-	5.20

Ch.157(5 785 MHz)

Frequency [MHz]	(P)	Limit AV [dBuV/m]	Limit PK [dBuV/m]	Result AV [dBuV/m]	Result PK [dBuV/m]	Margin AV [dB]	Margin PK [dB]
The emissions above 1 GHz were 20 dB lower than the limit.							

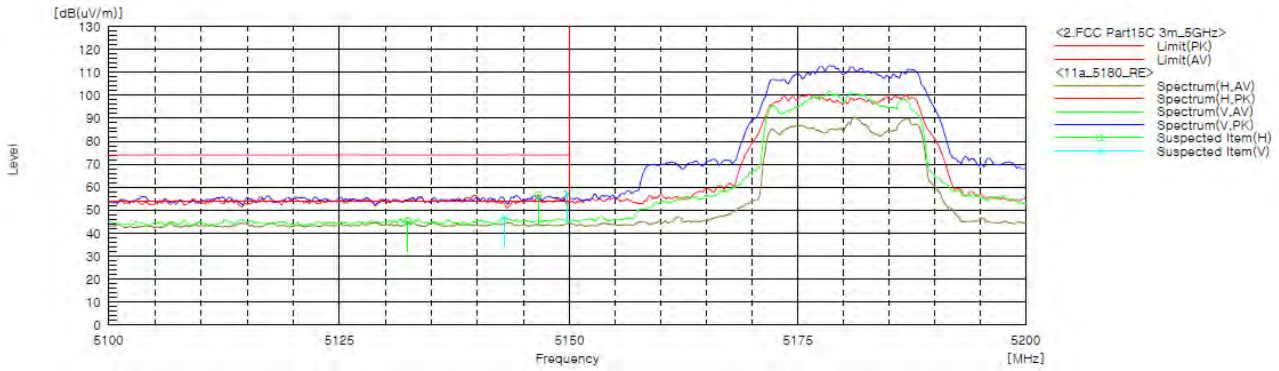
Ch.165(5 825 MHz)

Frequency [MHz]	(P)	Limit AV [dBuV/m]	Limit PK [dBuV/m]	Result AV [dBuV/m]	Result PK [dBuV/m]	Margin AV [dB]	Margin PK [dB]
5 938.20	H	-	68.20	-	60.40	-	7.80
5 933.27	V	-	68.20	-	62.30	-	5.90

Remarks

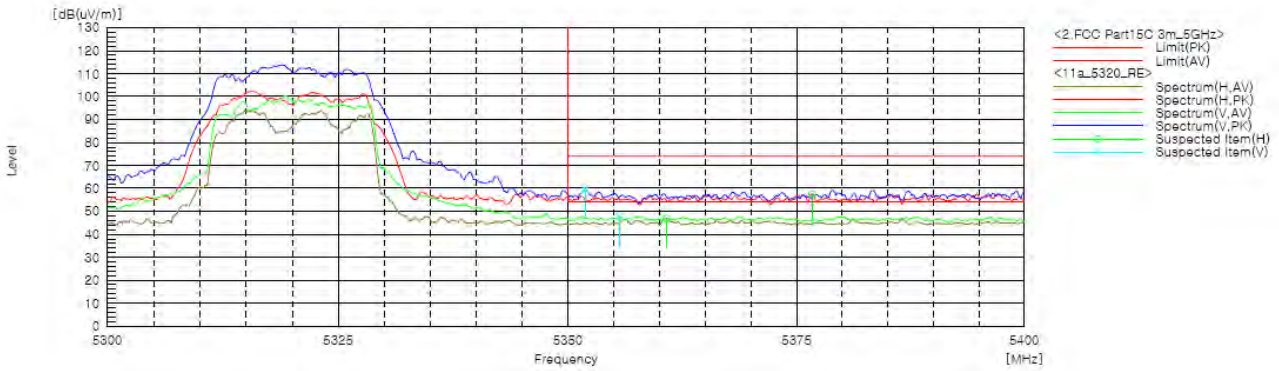
1. The EUT was tested in three orientations in order to determine that "Y axis" was the worst case.

Worst Case Mode :	802.11a
Worst Case Transfer Rate :	6 Mbps
Distance of Measurements :	3 Meters
Operating Frequency :	5 180 MHz
Channel :	36



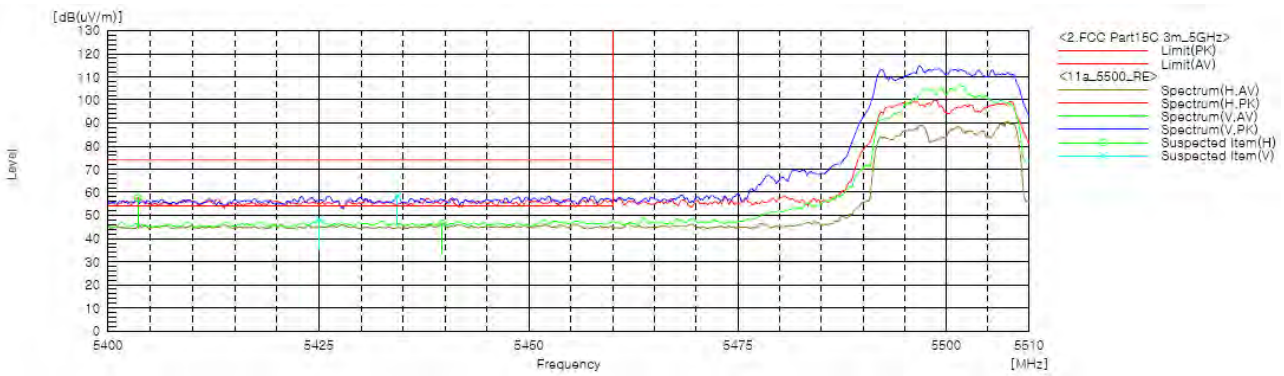
Radiated Restricted Lower Band Edge Plot

Worst Case Mode :	802.11a
Worst Case Transfer Rate :	6 Mbps
Distance of Measurements :	3 Meters
Operating Frequency :	5 320 MHz
Channel :	64



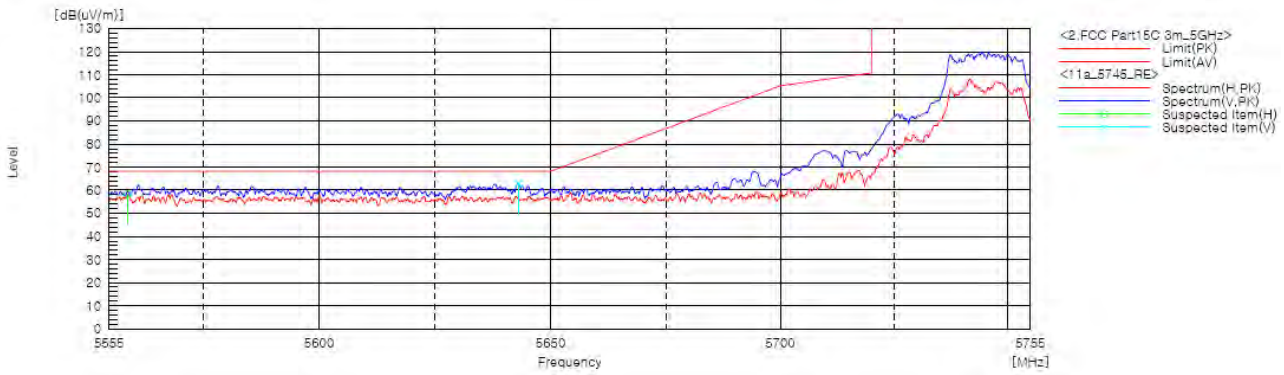
Radiated Restricted Lower Band Edge Plot

Worst Case Mode :	802.11a
Worst Case Transfer Rate :	6 Mbps
Distance of Measurements :	3 Meters
Operating Frequency :	5 500 MHz
Channel :	100



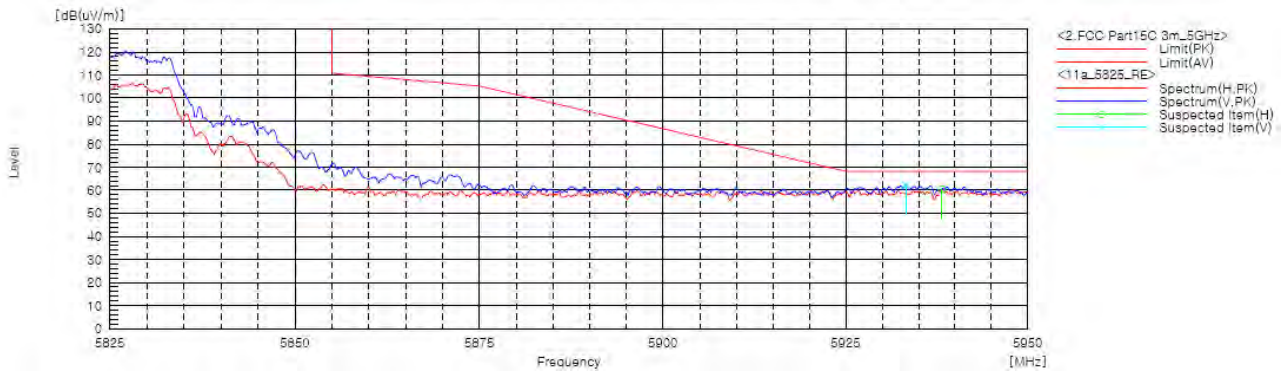
Radiated Restricted Lower Band Edge Plot

Worst Case Mode :	802.11a
Worst Case Transfer Rate :	6 Mbps
Distance of Measurements :	3 Meters
Operating Frequency :	5 745 MHz
Channel :	149



Radiated Restricted Lower Band Edge Plot

Worst Case Mode :	802.11a
Worst Case Transfer Rate :	6 Mbps
Distance of Measurements :	3 Meters
Operating Frequency :	5 825 MHz
Channel :	165



Radiated Restricted Upper Band Edge Plot

Test mode : Transmitter, 802.11n_HT20

The requirements are:
☒ Complies

Test Data

Ch.36(5 180 MHz)

Frequency [MHz]	(P)	Limit AV [dBuV/m]	Limit PK [dBuV/m]	Result AV [dBuV/m]	Result PK [dBuV/m]	Margin AV [dB]	Margin PK [dB]
3 453.35	H	54.00	74.00	34.91	41.30	19.09	32.70
3 453.35	V	54.00	74.00	39.51	43.20	14.49	30.80
5 140.73	H	54.00	74.00	44.91	56.10	9.09	17.90
5 146.49	V	54.00	74.00	46.61	57.60	7.39	16.40

Ch.40(5 200 MHz)

Frequency [MHz]	(P)	Limit AV [dBuV/m]	Limit PK [dBuV/m]	Result AV [dBuV/m]	Result PK [dBuV/m]	Margin AV [dB]	Margin PK [dB]
3 466.69	H	54.00	74.00	34.41	41.80	19.59	32.20
3 466.72	V	54.00	74.00	39.01	43.00	14.99	31.00

Ch.48(5 240 MHz)

Frequency [MHz]	(P)	Limit AV [dBuV/m]	Limit PK [dBuV/m]	Result AV [dBuV/m]	Result PK [dBuV/m]	Margin AV [dB]	Margin PK [dB]
3 493.38	H	54.00	74.00	32.41	41.30	21.59	32.70
3 493.36	V	54.00	74.00	38.71	43.20	15.29	30.80

Ch.52(5 260 MHz)

Frequency [MHz]	(P)	Limit AV [dBuV/m]	Limit PK [dBuV/m]	Result AV [dBuV/m]	Result PK [dBuV/m]	Margin AV [dB]	Margin PK [dB]
3 506.71	H	54.00	74.00	40.40	32.21	40.40	21.79
3 506.72	V	54.00	74.00	43.70	39.11	43.70	14.89

Ch.60(5 300 MHz)

Frequency [MHz]	(P)	Limit AV [dBuV/m]	Limit PK [dBuV/m]	Result AV [dBuV/m]	Result PK [dBuV/m]	Margin AV [dB]	Margin PK [dB]
3 533.40	H	54.00	74.00	32.31	40.40	21.69	33.60
3 533.39	V	54.00	74.00	38.31	43.70	15.69	30.30

Ch.64(5 320 MHz)

Frequency [MHz]	(P)	Limit AV [dBuV/m]	Limit PK [dBuV/m]	Result AV [dBuV/m]	Result PK [dBuV/m]	Margin AV [dB]	Margin PK [dB]
3 546.71	H	54.00	74.00	31.81	40.50	22.19	33.50
3 546.71	V	54.00	74.00	37.61	42.30	16.39	31.70
5 394.70	H	54.00	74.00	47.21	57.10	6.79	16.90
5 380.75	V	54.00	74.00	48.71	59.60	5.29	14.40

Ch.100(5 500 MHz)

Frequency [MHz]	(P)	Limit AV [dBuV/m]	Limit PK [dBuV/m]	Result AV [dBuV/m]	Result PK [dBuV/m]	Margin AV [dB]	Margin PK [dB]
5 441.70	H	54.00	74.00	47.01	58.00	6.99	16.00
5 441.96	V	54.00	74.00	48.31	59.30	5.69	14.70

Ch.120(5 600 MHz)

Frequency [MHz]	(P)	Limit AV [dBuV/m]	Limit PK [dBuV/m]	Result AV [dBuV/m]	Result PK [dBuV/m]	Margin AV [dB]	Margin PK [dB]
The emissions above 1 GHz were 20 dB lower than the limit.							

Ch.144(5 720 MHz)

Frequency [MHz]	(P)	Limit AV [dBuV/m]	Limit PK [dBuV/m]	Result AV [dBuV/m]	Result PK [dBuV/m]	Margin AV [dB]	Margin PK [dB]
The emissions above 1 GHz were 20 dB lower than the limit.							

Ch.149(5 745 MHz)

Frequency [MHz]	(P)	Limit AV [dBuV/m]	Limit PK [dBuV/m]	Result AV [dBuV/m]	Result PK [dBuV/m]	Margin AV [dB]	Margin PK [dB]
5 622.34	H	-	68.20	-	58.60	-	9.60
5 629.05	V	-	68.20	-	61.70	-	6.50

Ch.157(5 785 MHz)

Frequency [MHz]	(P)	Limit AV [dBuV/m]	Limit PK [dBuV/m]	Result AV [dBuV/m]	Result PK [dBuV/m]	Margin AV [dB]	Margin PK [dB]
The emissions above 1 GHz were 20 dB lower than the limit.							

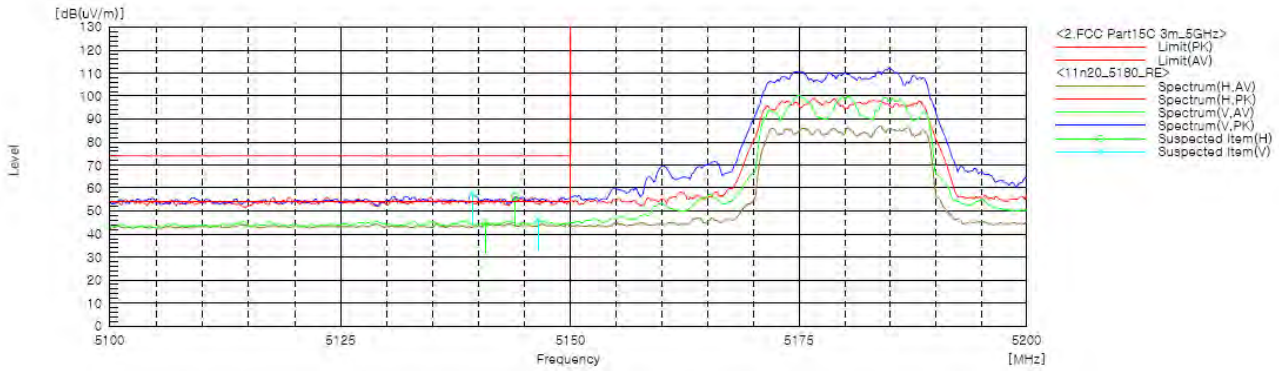
Ch.165(5 825 MHz)

Frequency [MHz]	(P)	Limit AV [dBuV/m]	Limit PK [dBuV/m]	Result AV [dBuV/m]	Result PK [dBuV/m]	Margin AV [dB]	Margin PK [dB]
5 932.80	H	-	68.20	-	60.20	-	8.00
5 928.76	V	-	68.20	-	63.20	-	5.00

Remarks

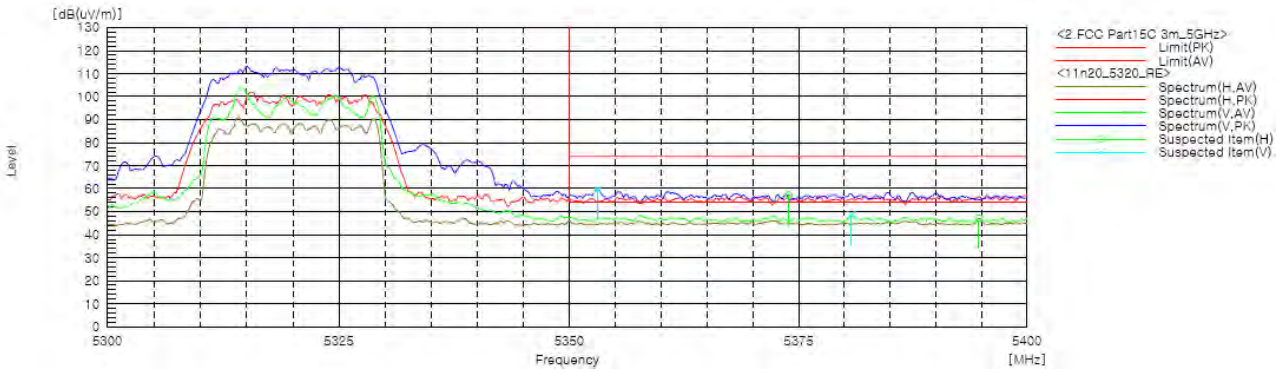
1. The EUT was tested in three orientations in order to determine that "Y axis" was the worst case.

Worst Case Mode :	802.11n_HT20
Worst Case Transfer Rate :	MCS 0
Distance of Measurements :	3 Meters
Operating Frequency :	5 180 MHz
Channel :	36



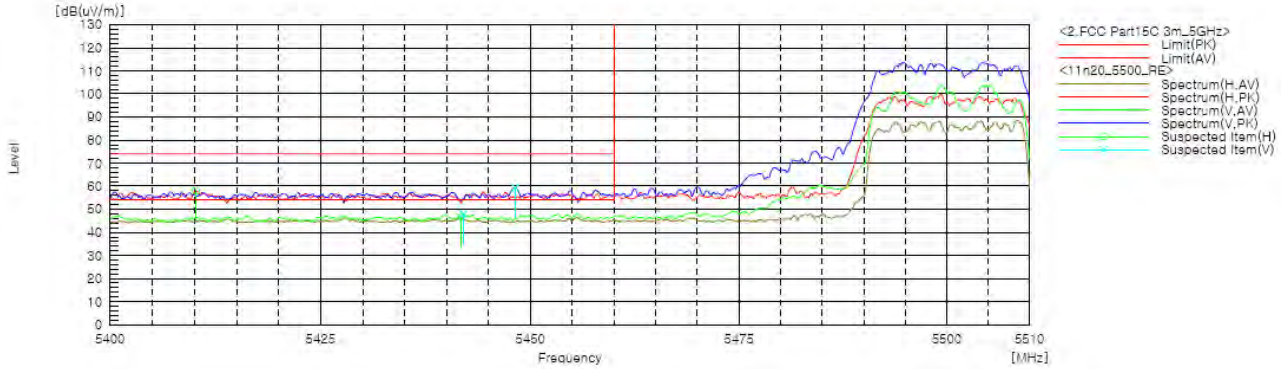
Radiated Restricted Lower Band Edge Plot

Worst Case Mode :	802.11n_HT20
Worst Case Transfer Rate :	MCS 0
Distance of Measurements :	3 Meters
Operating Frequency :	5 320 MHz
Channel :	64



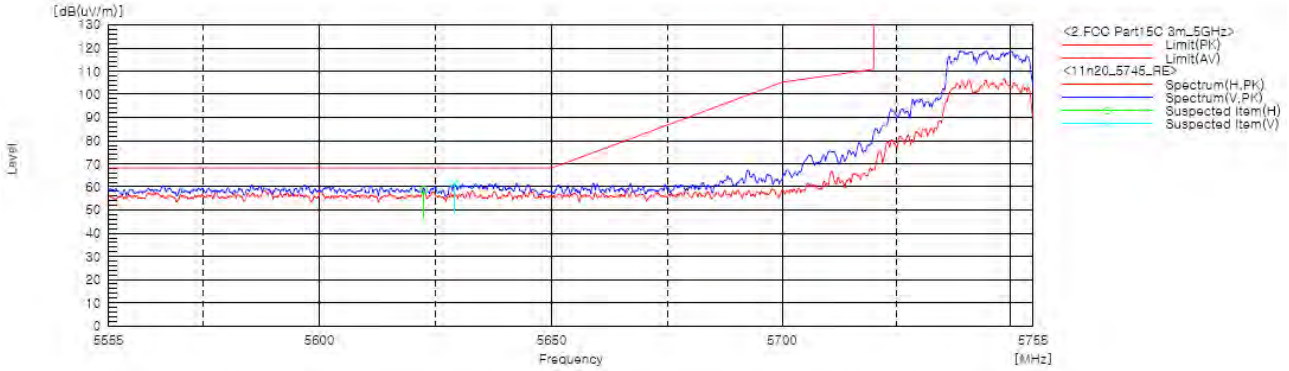
Radiated Restricted Lower Band Edge Plot

Worst Case Mode :	802.11n_HT20
Worst Case Transfer Rate :	MCS 0
Distance of Measurements :	3 Meters
Operating Frequency :	5 500 MHz
Channel :	100



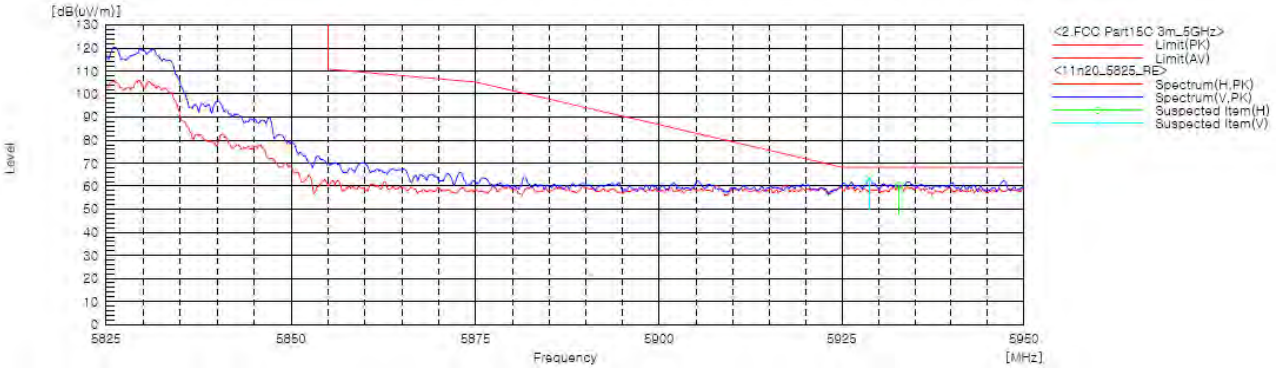
Radiated Restricted Lower Band Edge Plot

Worst Case Mode :	802.11n_HT20
Worst Case Transfer Rate :	MCS 0
Distance of Measurements :	3 Meters
Operating Frequency :	5 745 MHz
Channel :	149



Radiated Restricted Lower Band Edge Plot

Worst Case Mode :	802.11n_HT20
Worst Case Transfer Rate :	MCS 0
Distance of Measurements :	3 Meters
Operating Frequency :	5 825 MHz
Channel :	165



Radiated Restricted Upper Band Edge Plot

Test mode : Transmitter, 802.11ac_VHT20

The requirements are:
☒ Complies

Test Data

Ch.36(5 180 MHz)

Frequency [MHz]	(P)	Limit AV [dBuV/m]	Limit PK [dBuV/m]	Result AV [dBuV/m]	Result PK [dBuV/m]	Margin AV [dB]	Margin PK [dB]
3 453.68	H	54.00	74.00	33.81	41.00	20.19	33.00
3 453.68	V	54.00	74.00	38.91	42.70	15.09	31.30
5 143.75	H	54.00	74.00	45.21	56.00	8.79	18.00
5 149.82	V	54.00	74.00	46.01	57.00	7.99	17.00

Ch.40(5 200 MHz)

Frequency [MHz]	(P)	Limit AV [dBuV/m]	Limit PK [dBuV/m]	Result AV [dBuV/m]	Result PK [dBuV/m]	Margin AV [dB]	Margin PK [dB]
3 467.03	H	54.00	74.00	32.71	42.20	21.29	31.80
3 467.03	V	54.00	74.00	48.31	43.20	5.69	30.80

Ch.48(5 240 MHz)

Frequency [MHz]	(P)	Limit AV [dBuV/m]	Limit PK [dBuV/m]	Result AV [dBuV/m]	Result PK [dBuV/m]	Margin AV [dB]	Margin PK [dB]
3 493.74	H	54.00	74.00	33.11	40.90	20.89	33.10
3 493.74	V	54.00	74.00	39.11	42.90	14.89	31.10

Ch.52(5 260 MHz)

Frequency [MHz]	(P)	Limit AV [dBuV/m]	Limit PK [dBuV/m]	Result AV [dBuV/m]	Result PK [dBuV/m]	Margin AV [dB]	Margin PK [dB]
3 507.10	H	54.00	74.00	33.71	41.10	20.29	32.90
3 507.10	V	54.00	74.00	39.31	43.80	14.69	30.20

Ch.60(5 300 MHz)

Frequency [MHz]	(P)	Limit AV [dBuV/m]	Limit PK [dBuV/m]	Result AV [dBuV/m]	Result PK [dBuV/m]	Margin AV [dB]	Margin PK [dB]
3 533.81	H	54.00	74.00	31.61	40.20	22.39	33.80
3 531.90	V	54.00	74.00	38.91	43.60	15.09	30.40

Ch.64(5 320 MHz)

Frequency [MHz]	(P)	Limit AV [dBuV/m]	Limit PK [dBuV/m]	Result AV [dBuV/m]	Result PK [dBuV/m]	Margin AV [dB]	Margin PK [dB]
3 570.06	H	54.00	74.00	32.31	42.30	21.69	31.70
3 547.17	V	54.00	74.00	37.41	43.60	16.59	30.40
5 372.21	H	54.00	74.00	46.81	57.40	7.19	16.60
5 362.06	V	54.00	74.00	48.31	59.10	5.69	14.90

Ch.100(5 500 MHz)

Frequency [MHz]	(P)	Limit AV [dBuV/m]	Limit PK [dBuV/m]	Result AV [dBuV/m]	Result PK [dBuV/m]	Margin AV [dB]	Margin PK [dB]
5 428.12	H	54.00	74.00	46.91	57.60	7.09	16.40
5 439.22	V	54.00	74.00	48.41	58.50	5.59	15.50

Ch.120(5 600 MHz)

Frequency [MHz]	(P)	Limit AV [dBuV/m]	Limit PK [dBuV/m]	Result AV [dBuV/m]	Result PK [dBuV/m]	Margin AV [dB]	Margin PK [dB]
The emissions above 1 GHz were 20 dB lower than the limit.							

Ch.144(5 720 MHz)

Frequency [MHz]	(P)	Limit AV [dBuV/m]	Limit PK [dBuV/m]	Result AV [dBuV/m]	Result PK [dBuV/m]	Margin AV [dB]	Margin PK [dB]
The emissions above 1 GHz were 20 dB lower than the limit.							

Ch.149(5 745 MHz)

Frequency [MHz]	(P)	Limit AV [dBuV/m]	Limit PK [dBuV/m]	Result AV [dBuV/m]	Result PK [dBuV/m]	Margin AV [dB]	Margin PK [dB]
5 585.37	H	-	68.20	-	58.90	-	9.30
5 636.01	V	-	68.20	-	64.50	-	3.70

Ch.157(5 785 MHz)

Frequency [MHz]	(P)	Limit AV [dBuV/m]	Limit PK [dBuV/m]	Result AV [dBuV/m]	Result PK [dBuV/m]	Margin AV [dB]	Margin PK [dB]
The emissions above 1 GHz were 20 dB lower than the limit.							

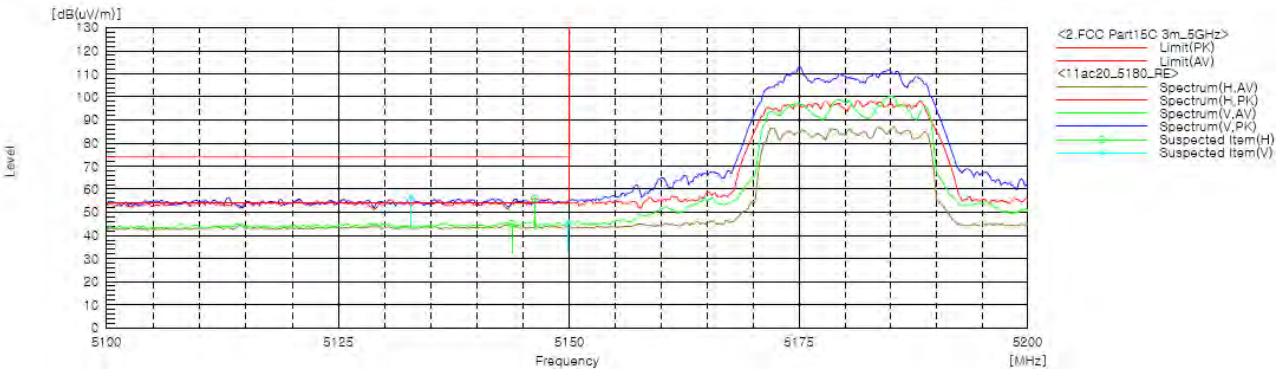
Ch.165(5 825 MHz)

Frequency [MHz]	(P)	Limit AV [dBuV/m]	Limit PK [dBuV/m]	Result AV [dBuV/m]	Result PK [dBuV/m]	Margin AV [dB]	Margin PK [dB]
5 944.35	H	-	68.20	-	60.90	-	7.30
5 938.92	V	-	68.20	-	64.10	-	4.10

Remarks

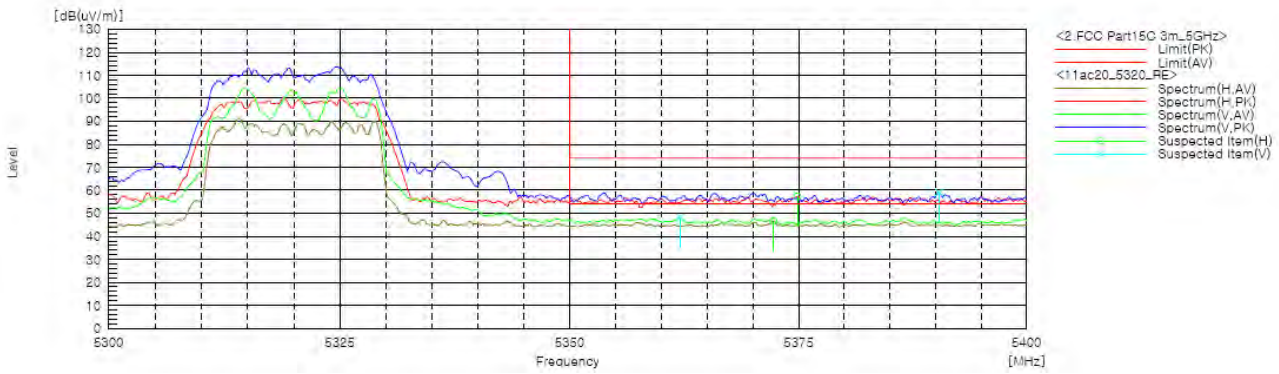
1. The EUT was tested in three orientations in order to determine that "Y axis" was the worst case.

Worst Case Mode :	802.11ac_VHT20
Worst Case Transfer Rate :	MNSS 0
Distance of Measurements :	3 Meters
Operating Frequency :	5 180 MHz
Channel :	36



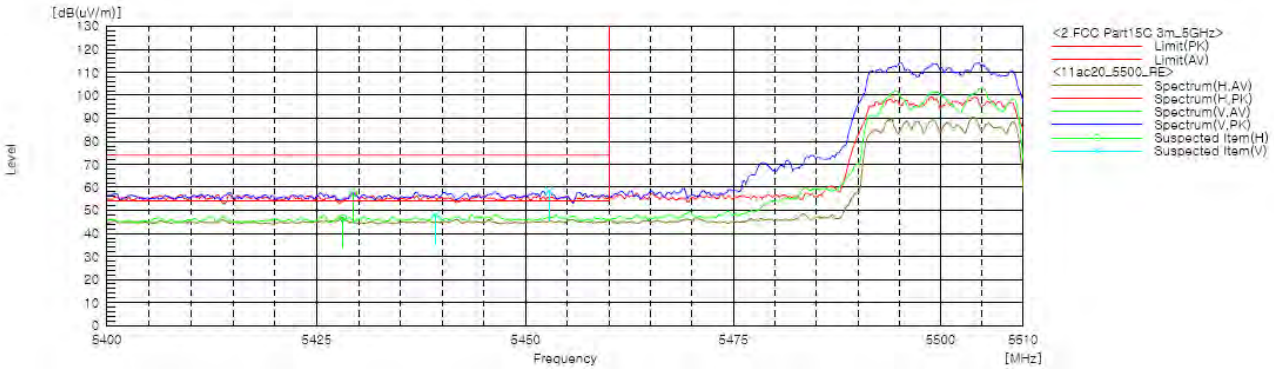
Radiated Restricted Lower Band Edge Plot

Worst Case Mode :	802.11ac_VHT20
Worst Case Transfer Rate :	MNSS 0
Distance of Measurements :	3 Meters
Operating Frequency :	5 320 MHz
Channel :	64



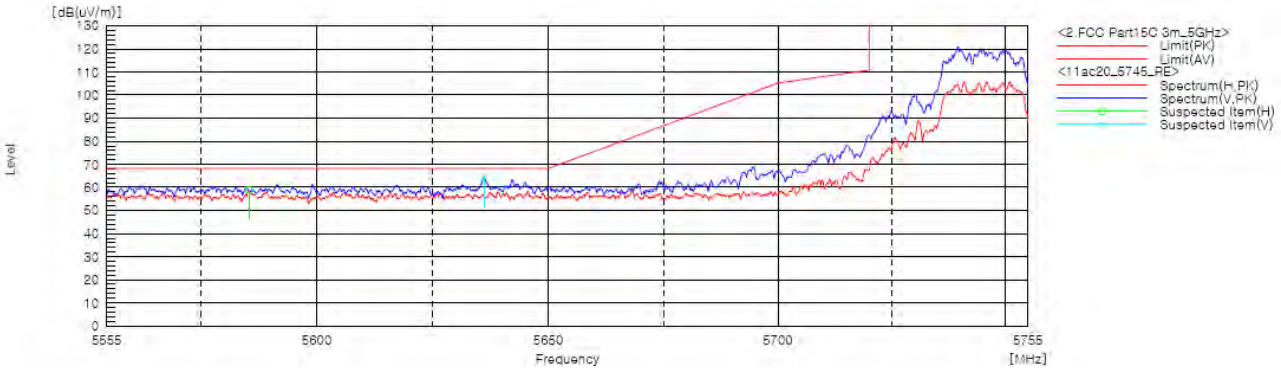
Radiated Restricted Lower Band Edge Plot

Worst Case Mode :	802.11ac_VHT20
Worst Case Transfer Rate :	MNSS 0
Distance of Measurements :	3 Meters
Operating Frequency :	5 500 MHz
Channel :	100



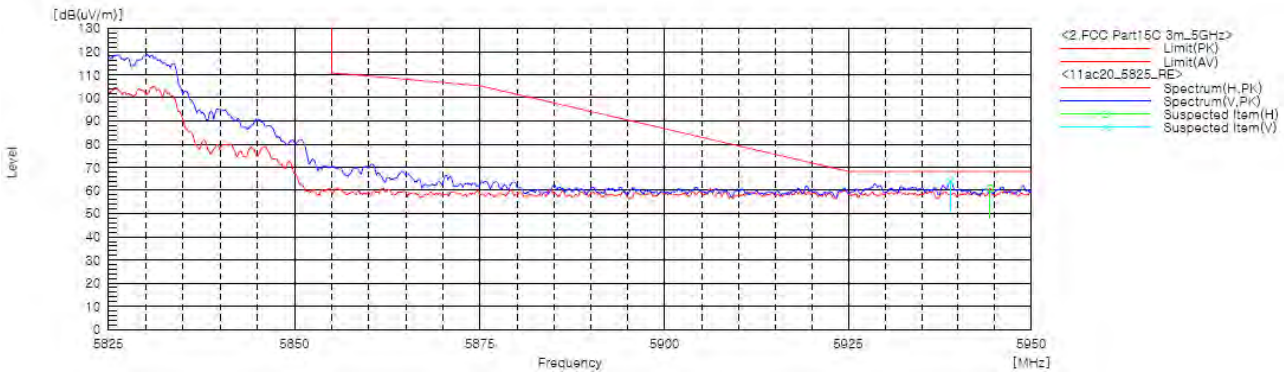
Radiated Restricted Lower Band Edge Plot

Worst Case Mode :	802.11ac_VHT20
Worst Case Transfer Rate :	MNSS 0
Distance of Measurements :	3 Meters
Operating Frequency :	5 745 MHz
Channel :	149



Radiated Restricted Lower Band Edge Plot

Worst Case Mode :	802.11ac_VHT20
Worst Case Transfer Rate :	MNSS 0
Distance of Measurements :	3 Meters
Operating Frequency :	5 825 MHz
Channel :	165



Radiated Restricted Upper Band Edge Plot

Test mode : Transmitter, 802.11n_HT40

The requirements are:
☒ Complies

Test Data

Ch.38(5 190 MHz)

Frequency [MHz]	(P)	Limit AV [dBuV/m]	Limit PK [dBuV/m]	Result AV [dBuV/m]	Result PK [dBuV/m]	Margin AV [dB]	Margin PK [dB]
3 460.06	H	54.00	74.00	34.93	40.80	19.07	33.20
3 460.04	V	54.00	74.00	37.73	42.60	16.27	31.40
5 148.99	H	54.00	74.00	39.13	51.60	14.87	22.40
5 149.98	V	54.00	74.00	50.23	62.70	3.77	11.30

Ch.46(5 230 MHz)

Frequency [MHz]	(P)	Limit AV [dBuV/m]	Limit PK [dBuV/m]	Result AV [dBuV/m]	Result PK [dBuV/m]	Margin AV [dB]	Margin PK [dB]
3 486.63	H	54.00	74.00	32.93	40.60	21.07	33.40
3 486.74	V	54.00	74.00	37.23	42.80	16.77	31.20

Ch.54(5 270 MHz)

Frequency [MHz]	(P)	Limit AV [dBuV/m]	Limit PK [dBuV/m]	Result AV [dBuV/m]	Result PK [dBuV/m]	Margin AV [dB]	Margin PK [dB]
3 513.32	H	54.00	74.00	32.23	41.20	21.77	32.80
3 513.41	V	54.00	74.00	37.63	42.50	16.37	31.50

Ch.62(5 310 MHz)

Frequency [MHz]	(P)	Limit AV [dBuV/m]	Limit PK [dBuV/m]	Result AV [dBuV/m]	Result PK [dBuV/m]	Margin AV [dB]	Margin PK [dB]
3 540.03	H	54.00	74.00	32.43	41.60	21.57	32.40
3 540.08	V	54.00	74.00	38.33	43.40	15.67	30.60
5 357.68	H	54.00	74.00	40.33	52.00	13.67	22.00
5 350.00	V	54.00	74.00	51.23	67.80	2.77	6.20

Ch.102(5 510 MHz)

Frequency [MHz]	(P)	Limit AV [dBuV/m]	Limit PK [dBuV/m]	Result AV [dBuV/m]	Result PK [dBuV/m]	Margin AV [dB]	Margin PK [dB]
5 454.01	H	54.00	74.00	39.03	50.10	14.97	23.90
5 459.66	V	54.00	74.00	48.63	61.50	5.37	12.50

Ch.118(5 590 MHz)

Frequency [MHz]	(P)	Limit AV [dBuV/m]	Limit PK [dBuV/m]	Result AV [dBuV/m]	Result PK [dBuV/m]	Margin AV [dB]	Margin PK [dB]
The emissions above 1 GHz were 20 dB lower than the limit.							

Ch.142(5 710 MHz)

Frequency [MHz]	(P)	Limit AV [dBuV/m]	Limit PK [dBuV/m]	Result AV [dBuV/m]	Result PK [dBuV/m]	Margin AV [dB]	Margin PK [dB]
The emissions above 1 GHz were 20 dB lower than the limit.							

Ch.151(5 755 MHz)

Frequency [MHz]	(P)	Limit AV [dBuV/m]	Limit PK [dBuV/m]	Result AV [dBuV/m]	Result PK [dBuV/m]	Margin AV [dB]	Margin PK [dB]
5 595.54	H	-	68.20	-	58.80	-	9.40
5 636.57	V	-	68.20	-	61.80	-	6.40

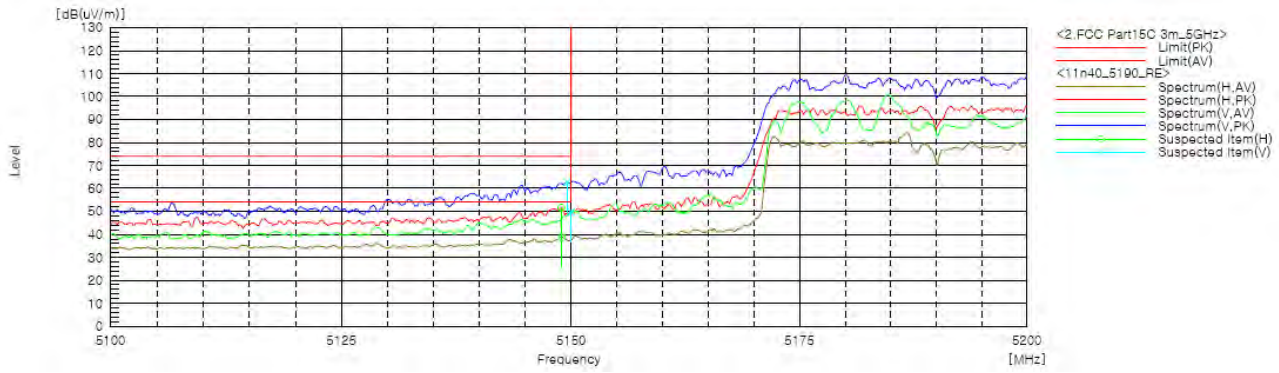
Ch.159(5 795 MHz)

Frequency [MHz]	(P)	Limit AV [dBuV/m]	Limit PK [dBuV/m]	Result AV [dBuV/m]	Result PK [dBuV/m]	Margin AV [dB]	Margin PK [dB]
5 935.34	H	-	68.20	-	61.20	-	7.00
5 931.17	V	-	68.20	-	62.20	-	6.00

Remarks

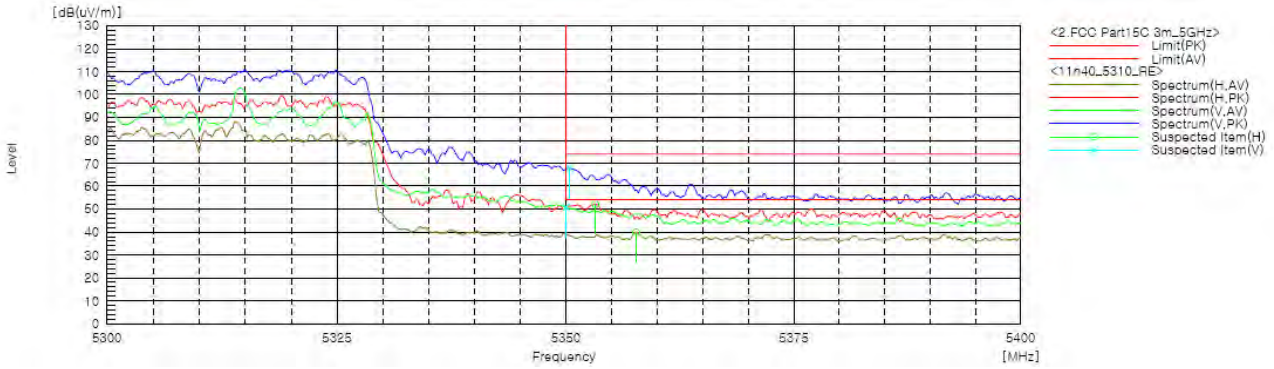
1. The EUT was tested in three orientations in order to determine that "Y axis" was the worst case.

Worst Case Mode :	802.11n_HT40
Worst Case Transfer Rate :	MCS 0
Distance of Measurements :	3 Meters
Operating Frequency :	5 190 MHz
Channel :	38



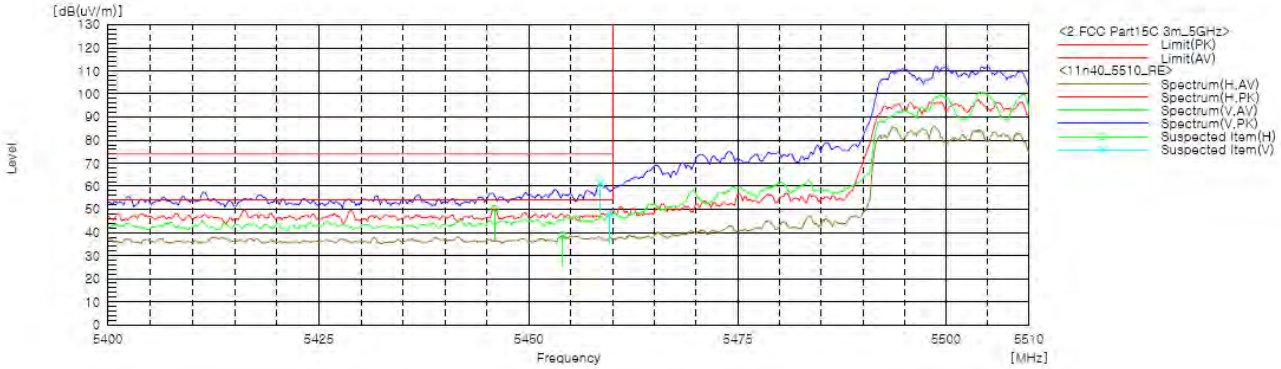
Radiated Restricted Lower Band Edge Plot

Worst Case Mode :	802.11n_HT40
Worst Case Transfer Rate :	MCS 0
Distance of Measurements :	3 Meters
Operating Frequency :	5 310 MHz
Channel :	62



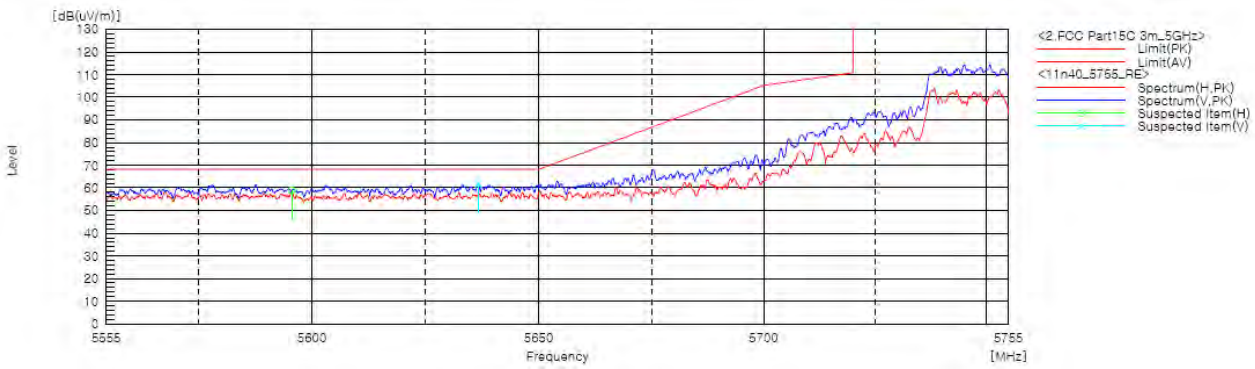
Radiated Restricted Lower Band Edge Plot

Worst Case Mode :	802.11n_HT40
Worst Case Transfer Rate :	MCS 0
Distance of Measurements :	3 Meters
Operating Frequency :	5 510 MHz
Channel :	102



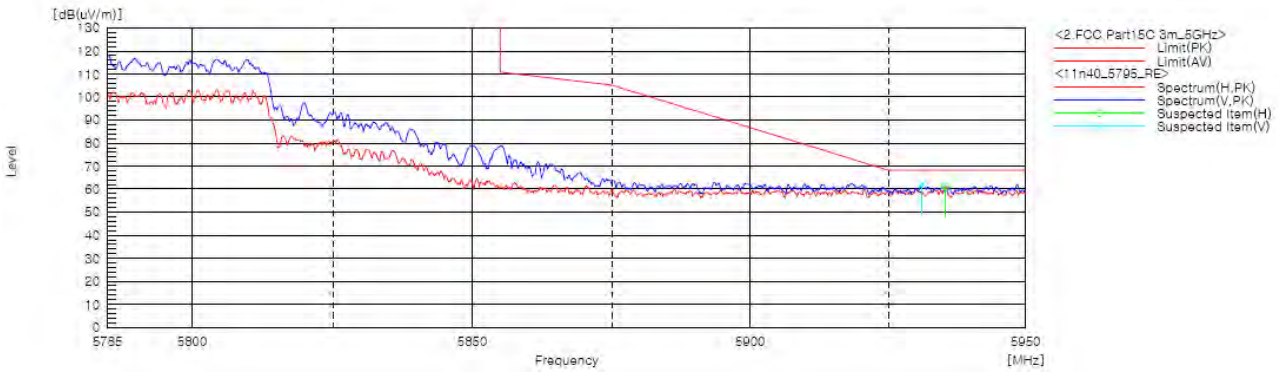
Radiated Restricted Lower Band Edge Plot

Worst Case Mode :	802.11n_HT40
Worst Case Transfer Rate :	MCS 0
Distance of Measurements :	3 Meters
Operating Frequency :	5 755 MHz
Channel :	151



Radiated Restricted Lower Band Edge Plot

Worst Case Mode :	802.11n_HT40
Worst Case Transfer Rate :	MCS 0
Distance of Measurements :	3 Meters
Operating Frequency :	5 795 MHz
Channel :	159



Radiated Restricted Upper Band Edge Plot

Test mode : Transmitter, 802.11ac_VHT40

The requirements are:
☒ Complies

Test Data

Ch.38(5 190 MHz)

Frequency [MHz]	(P)	Limit AV [dBuV/m]	Limit PK [dBuV/m]	Result AV [dBuV/m]	Result PK [dBuV/m]	Margin AV [dB]	Margin PK [dB]
3 460.06	H	54.00	74.00	36.02	37.90	17.98	36.10
3 460.07	V	54.00	74.00	38.72	42.20	15.28	31.80
5 149.16	H	54.00	74.00	38.52	51.10	15.48	22.90
5 149.52	V	54.00	74.00	51.52	63.90	2.48	10.10

Ch.46(5 230 MHz)

Frequency [MHz]	(P)	Limit AV [dBuV/m]	Limit PK [dBuV/m]	Result AV [dBuV/m]	Result PK [dBuV/m]	Margin AV [dB]	Margin PK [dB]
3 486.11	H	54.00	74.00	34.22	41.20	19.78	32.80
3 486.11	V	54.00	74.00	39.22	43.50	14.78	30.50

Ch.54(5 270 MHz)

Frequency [MHz]	(P)	Limit AV [dBuV/m]	Limit PK [dBuV/m]	Result AV [dBuV/m]	Result PK [dBuV/m]	Margin AV [dB]	Margin PK [dB]
3 512.82	H	54.00	74.00	34.42	42.30	19.58	31.70
3 512.82	V	54.00	74.00	38.52	42.40	15.48	31.60

Ch.62(5 310 MHz)

Frequency [MHz]	(P)	Limit AV [dBuV/m]	Limit PK [dBuV/m]	Result AV [dBuV/m]	Result PK [dBuV/m]	Margin AV [dB]	Margin PK [dB]
3 539.53	H	54.00	74.00	34.02	42.20	19.98	31.80
3 539.53	V	54.00	74.00	38.02	41.40	15.98	32.60
5 354.27	H	54.00	74.00	39.32	50.10	14.68	23.90
5 350.00	V	54.00	74.00	50.62	65.40	3.38	8.60

Ch.102(5 510 MHz)

Frequency [MHz]	(P)	Limit AV [dBuV/m]	Limit PK [dBuV/m]	Result AV [dBuV/m]	Result PK [dBuV/m]	Margin AV [dB]	Margin PK [dB]
4 591.72	V	54.00	74.00	37.92	44.40	16.08	29.60
5 455.59	H	54.00	74.00	38.92	50.30	15.08	23.70
5 459.52	V	54.00	74.00	48.32	61.40	5.68	12.60

Ch.118(5 590 MHz)

Frequency [MHz]	(P)	Limit AV [dBuV/m]	Limit PK [dBuV/m]	Result AV [dBuV/m]	Result PK [dBuV/m]	Margin AV [dB]	Margin PK [dB]
The emissions above 1 GHz were 20 dB lower than the limit.							

Ch.142(5 710 MHz)

Frequency [MHz]	(P)	Limit AV [dBuV/m]	Limit PK [dBuV/m]	Result AV [dBuV/m]	Result PK [dBuV/m]	Margin AV [dB]	Margin PK [dB]
The emissions above 1 GHz were 20 dB lower than the limit.							

Ch.151(5 755 MHz)

Frequency [MHz]	(P)	Limit AV [dBuV/m]	Limit PK [dBuV/m]	Result AV [dBuV/m]	Result PK [dBuV/m]	Margin AV [dB]	Margin PK [dB]
5 594.48	H	-	68.20	-	59.20	-	9.00
5 640.41	V	-	68.20	-	64.70	-	3.50

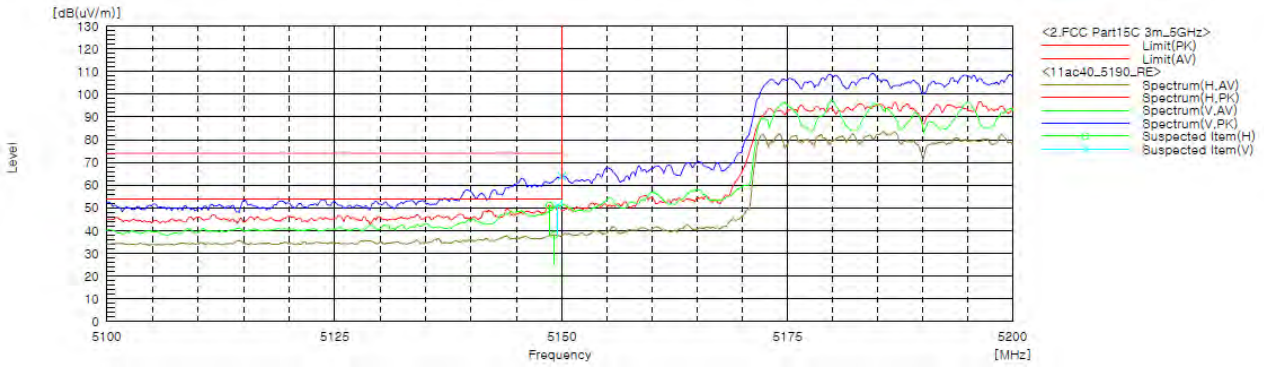
Ch.159(5 795 MHz)

Frequency [MHz]	(P)	Limit AV [dBuV/m]	Limit PK [dBuV/m]	Result AV [dBuV/m]	Result PK [dBuV/m]	Margin AV [dB]	Margin PK [dB]
5 940.11	H	-	68.20	-	59.80	-	8.40
5 944.21	V	-	68.20	-	61.90	-	6.30

Remarks

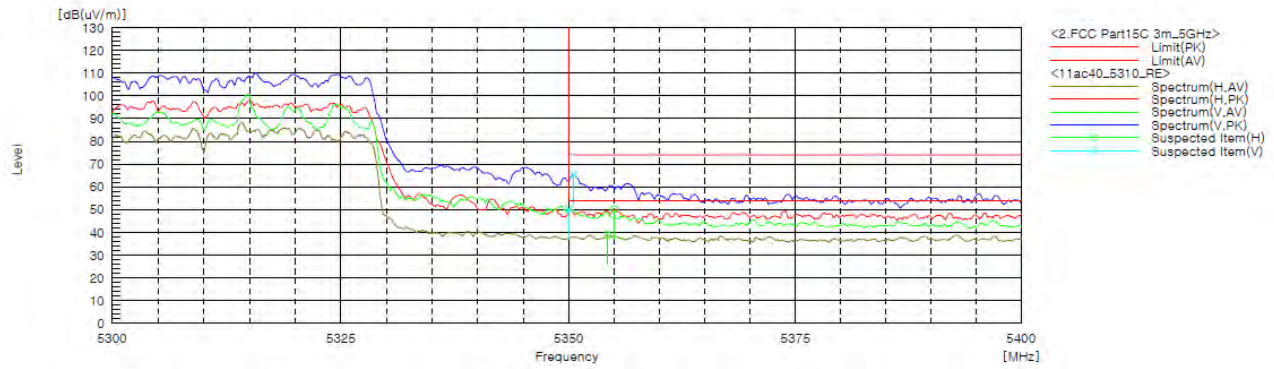
1. The EUT was tested in three orientations in order to determine that "Y axis" was the worst case.

Worst Case Mode :	802.11ac_VHT40
Worst Case Transfer Rate :	MNSS 0
Distance of Measurements :	3 Meters
Operating Frequency :	5 190 MHz
Channel :	38



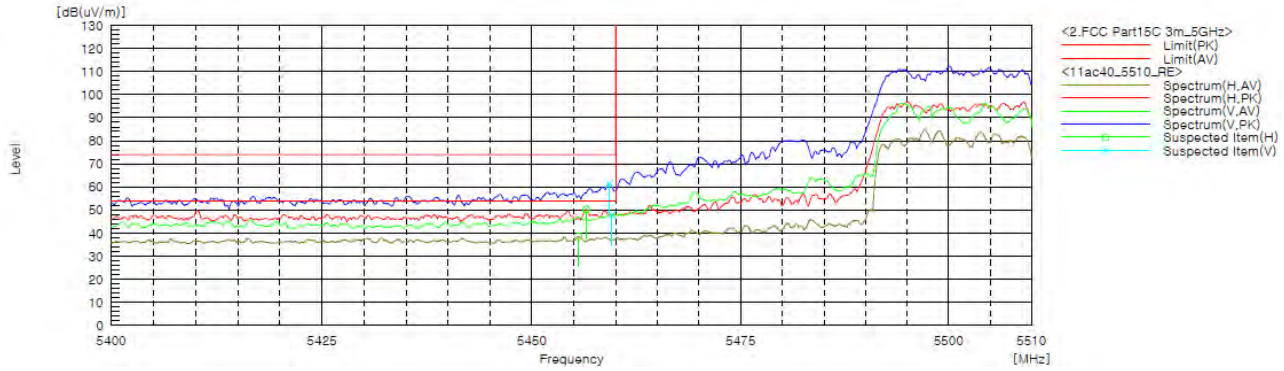
Radiated Restricted Lower Band Edge Plot

Worst Case Mode :	802.11ac_VHT40
Worst Case Transfer Rate :	MNSS 0
Distance of Measurements :	3 Meters
Operating Frequency :	5 310 MHz
Channel :	62



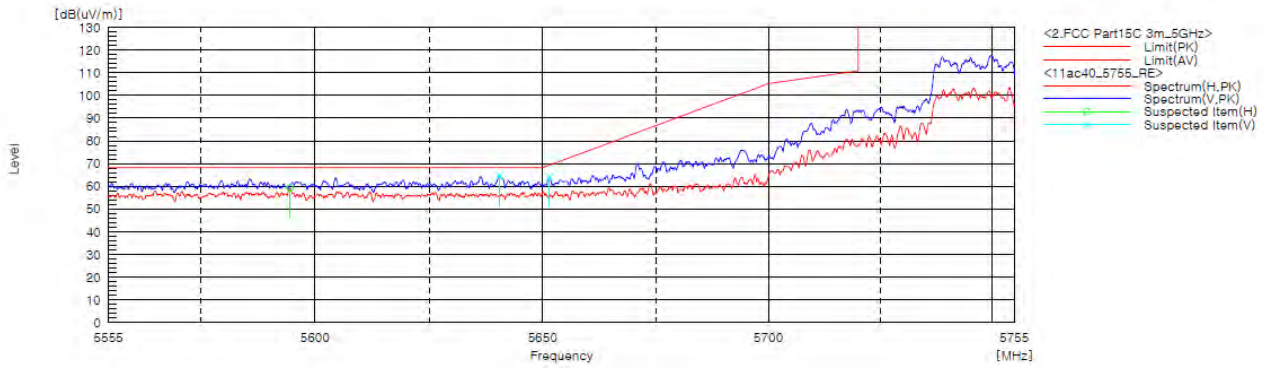
Radiated Restricted Lower Band Edge Plot

Worst Case Mode :	802.11ac_VHT40
Worst Case Transfer Rate :	MNSS 0
Distance of Measurements :	3 Meters
Operating Frequency :	5 510 MHz
Channel :	102



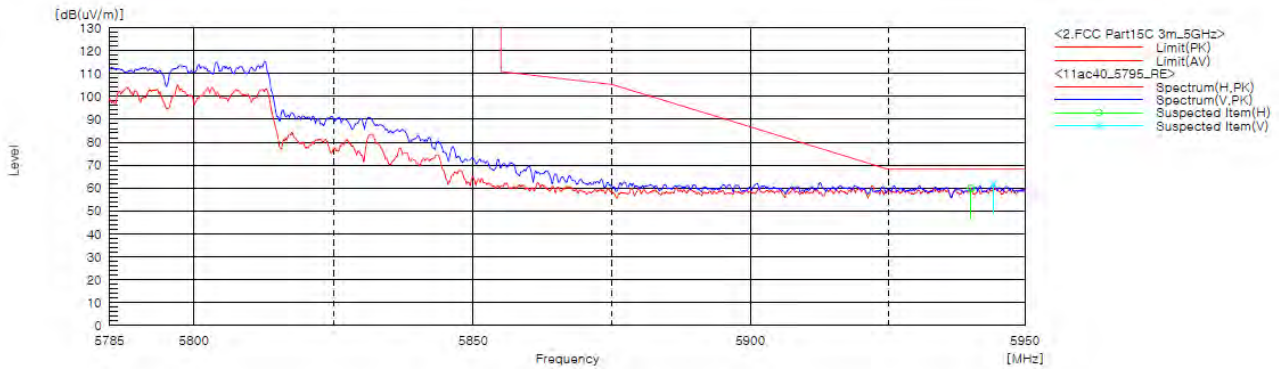
Radiated Restricted Lower Band Edge Plot

Worst Case Mode :	802.11ac_VHT40
Worst Case Transfer Rate :	MNSS 0
Distance of Measurements :	3 Meters
Operating Frequency :	5 755 MHz
Channel :	151



Radiated Restricted Lower Band Edge Plot

Worst Case Mode :	802.11ac_VHT40
Worst Case Transfer Rate :	MNSS 0
Distance of Measurements :	3 Meters
Operating Frequency :	5 795 MHz
Channel :	159



Radiated Restricted Upper Band Edge Plot

Test mode : Transmitter, 802.11ac_VHT80

The requirements are:
☒ Complies

Test Data

Ch.42(5 210 MHz)

Frequency [MHz]	(P)	Limit AV [dBuV/m]	Limit PK [dBuV/m]	Result AV [dBuV/m]	Result PK [dBuV/m]	Margin AV [dB]	Margin PK [dB]
3 473.43	H	54.00	74.00	35.34	41.40	18.66	32.60
3 473.38	V	54.00	74.00	39.14	44.40	14.86	29.60
5 143.39	H	54.00	74.00	41.34	56.70	12.66	17.30
5 149.13	V	54.00	74.00	50.04	69.00	3.96	5.00

Ch.58(5 290 MHz)

Frequency [MHz]	(P)	Limit AV [dBuV/m]	Limit PK [dBuV/m]	Result AV [dBuV/m]	Result PK [dBuV/m]	Margin AV [dB]	Margin PK [dB]
3 526.68	H	54.00	74.00	33.64	40.80	20.36	33.20
3 526.71	V	54.00	74.00	39.84	44.20	14.16	29.80
5 356.10	H	54.00	74.00	40.84	52.20	13.16	21.80
5 357.78	V	54.00	74.00	50.14	72.70	3.86	1.30

Ch.106(5 530 MHz)

Frequency [MHz]	(P)	Limit AV [dBuV/m]	Limit PK [dBuV/m]	Result AV [dBuV/m]	Result PK [dBuV/m]	Margin AV [dB]	Margin PK [dB]
5 458.98	H	54.00	74.00	41.14	55.00	12.86	19.00
5 459.21	V	54.00	74.00	51.94	70.60	2.06	3.40

Ch.138(5 690 MHz)

Frequency [MHz]	(P)	Limit AV [dBuV/m]	Limit PK [dBuV/m]	Result AV [dBuV/m]	Result PK [dBuV/m]	Margin AV [dB]	Margin PK [dB]
The emissions above 1 GHz were 20 dB lower than the limit.							

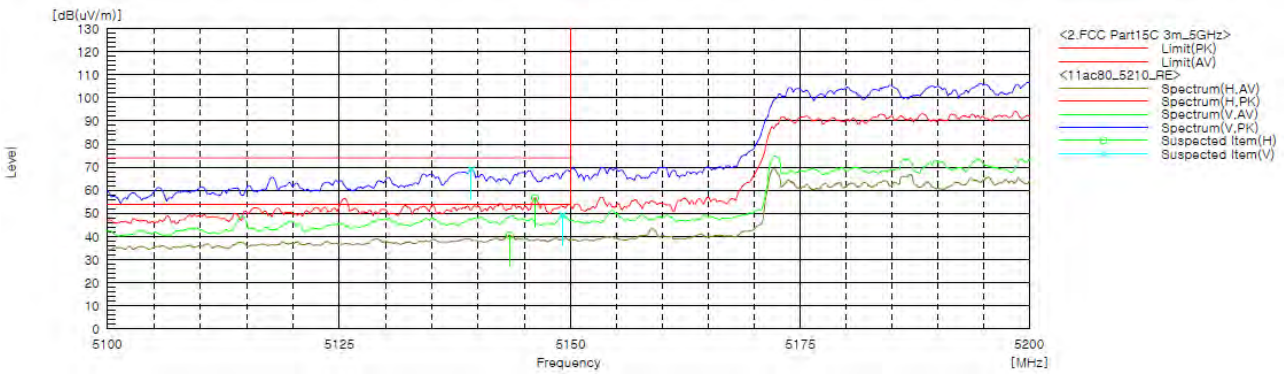
Ch.155(5 775 MHz)

Frequency [MHz]	(P)	Limit AV [dBuV/m]	Limit PK [dBuV/m]	Result AV [dBuV/m]	Result PK [dBuV/m]	Margin AV [dB]	Margin PK [dB]
5 611.21	H	-	68.20	-	60.30	-	7.90
5 645.19	V	-	68.20	-	64.40	-	3.80
5 948.41	H	-	68.20	-	54.80	-	13.40
5 932.02	V	-	68.20	-	59.70	-	8.50

Remarks

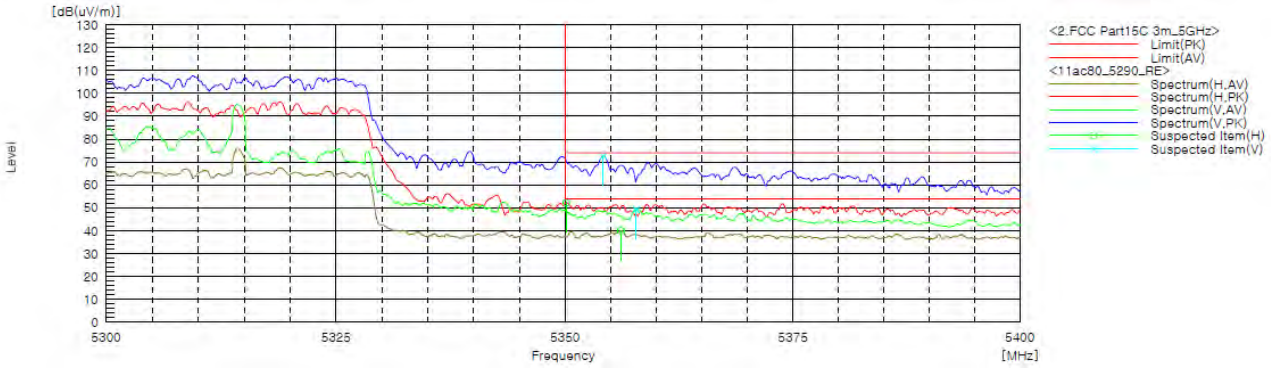
1. The EUT was tested in three orientations in order to determine that "Y axis" was the worst case.

Worst Case Mode :	802.11ac_VHT80
Worst Case Transfer Rate :	MNSS 0
Distance of Measurements :	3 Meters
Operating Frequency :	5 210 MHz
Channel :	42



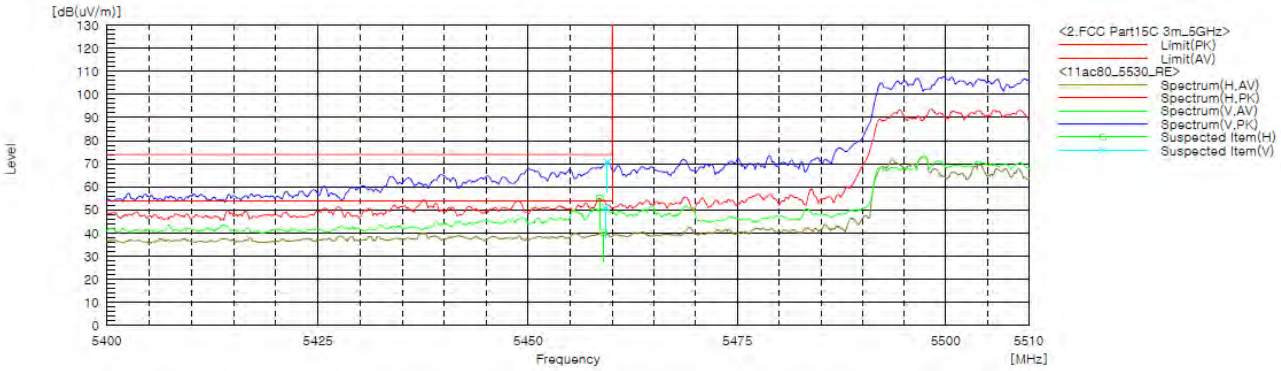
Radiated Restricted Lower Band Edge Plot

Worst Case Mode :	802.11ac_VHT80
Worst Case Transfer Rate :	MNSS 0
Distance of Measurements :	3 Meters
Operating Frequency :	5 290 MHz
Channel :	58



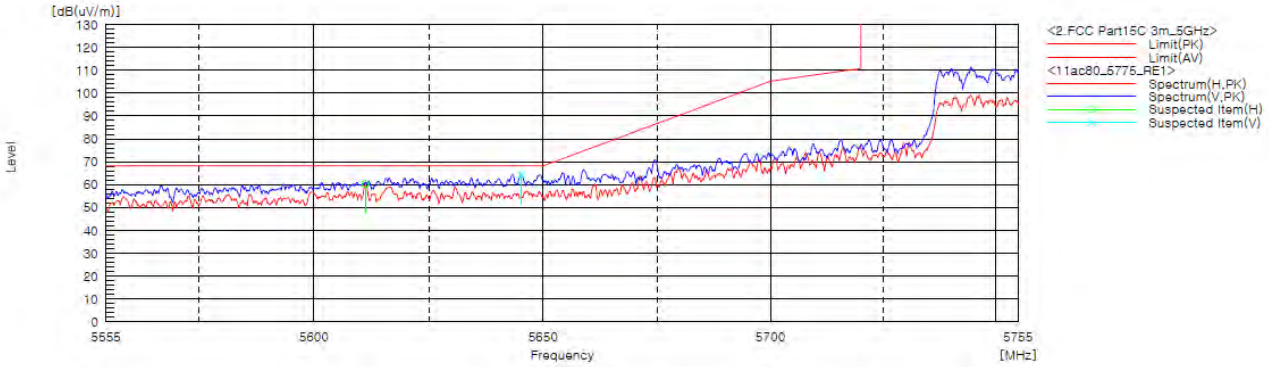
Radiated Restricted Lower Band Edge Plot

Worst Case Mode :	802.11ac_VHT80
Worst Case Transfer Rate :	MNSS 0
Distance of Measurements :	3 Meters
Operating Frequency :	5 530 MHz
Channel :	106



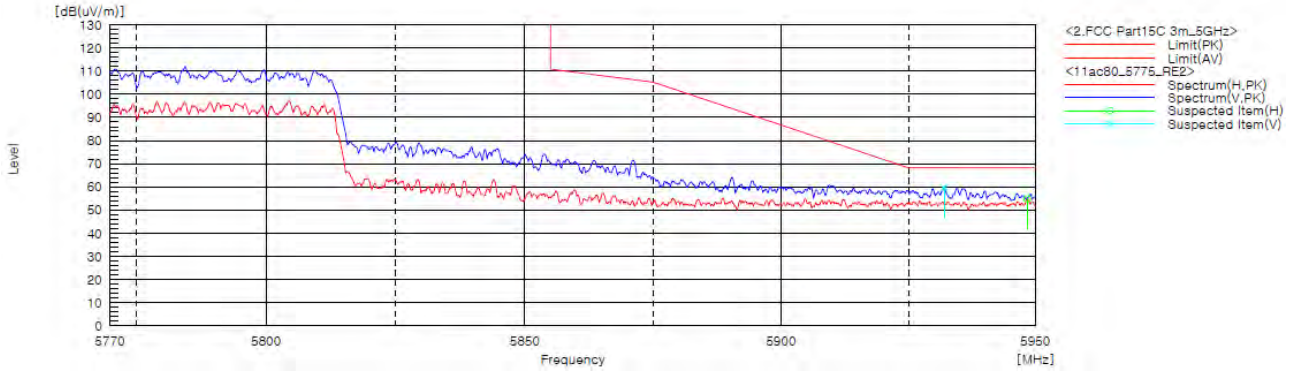
Radiated Restricted Lower Band Edge Plot

Worst Case Mode :	802.11ac_VHT80
Worst Case Transfer Rate :	MNSS 0
Distance of Measurements :	3 Meters
Operating Frequency :	5 775 MHz
Channel :	155



Radiated Restricted Lower Band Edge Plot

Worst Case Mode :	802.11ac_VHT80
Worst Case Transfer Rate :	MNSS 0
Distance of Measurements :	3 Meters
Operating Frequency :	5 775 MHz
Channel :	155



Radiated Restricted Upper Band Edge Plot

4.7 AC Conducted Emissions

Test Location
Shielded Room

Frequency Range of Measurement
150 kHz to 30 MHz

Instrument Settings
IF Band Width: 9 kHz

Test Procedures

The EUT was placed on a non-metallic table 0.8m above the metallic, grounded floor and 0.4m from the reference ground plane wall. The distance to other metallic surfaces was at least 0.8m.
Amplitude measurements were performed with a quasi-peak detector and an average detector.

Limit

- **15.207(a)**

Frequency (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average
0.15 ~ 0.5	66 to 56*	56 to 46*
0.5 ~ 5	56	46
5 ~ 30	60	50

* Decreases with the logarithm of the frequency.

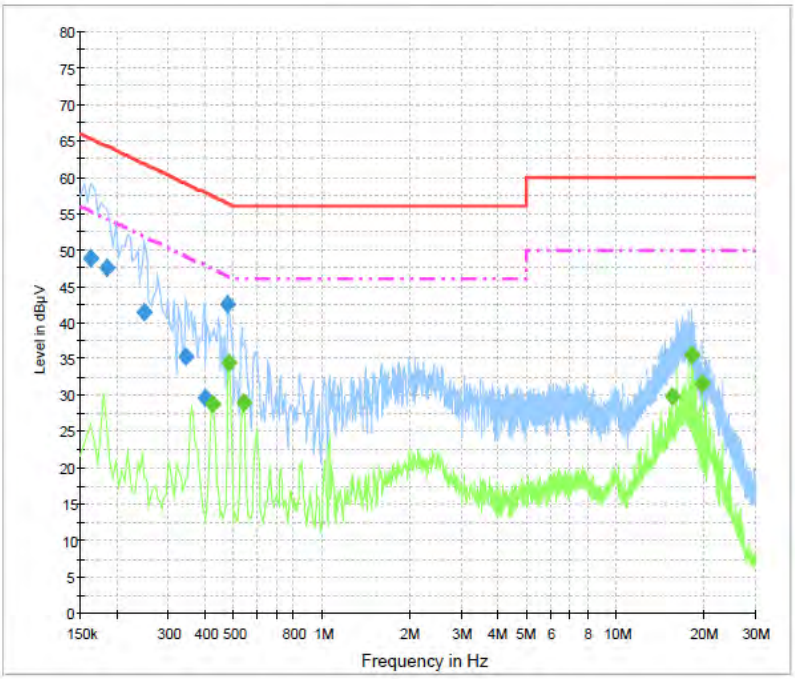
Test Results
The requirements are:

☒ Complies

Test Data

[LINE]

Class B_L1



Final Result 1

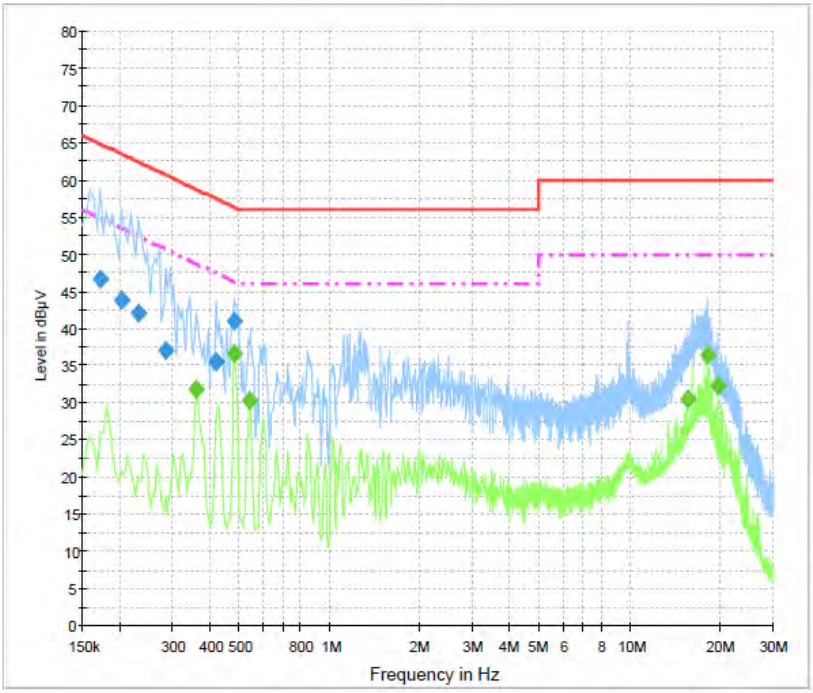
Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.163500	48.9	1000.0	9.000	On	L1	9.8	16.4	65.3
0.186000	47.6	1000.0	9.000	On	L1	9.9	16.6	64.2
0.249000	41.5	1000.0	9.000	On	L1	9.7	20.3	61.8
0.343500	35.3	1000.0	9.000	On	L1	9.9	23.8	59.1
0.397500	29.7	1000.0	9.000	On	L1	9.9	28.2	57.9
0.478500	42.5	1000.0	9.000	On	L1	9.9	13.9	56.4

Final Result 2

Frequency (MHz)	CAverage (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.424500	28.8	1000.0	9.000	On	L1	9.9	18.6	47.4
0.483000	34.5	1000.0	9.000	On	L1	9.9	11.8	46.3
0.541500	29.0	1000.0	9.000	On	L1	9.9	17.0	46.0
15.616500	29.8	1000.0	9.000	On	L1	10.0	20.2	50.0
18.244500	35.4	1000.0	9.000	On	L1	10.0	14.6	50.0
19.707000	31.6	1000.0	9.000	On	L1	10.0	18.4	50.0

[NEUTRAL]

Class B_N



Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.172500	46.7	1000.0	9.000	On	N	9.8	18.1	64.8
0.204000	43.7	1000.0	9.000	On	N	9.9	19.7	63.4
0.231000	42.0	1000.0	9.000	On	N	9.7	20.4	62.4
0.285000	37.1	1000.0	9.000	On	N	9.7	23.6	60.7
0.420000	35.4	1000.0	9.000	On	N	9.9	22.0	57.4
0.483000	40.9	1000.0	9.000	On	N	9.9	15.4	56.3

Final Result 2

Frequency (MHz)	CAverage (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.361500	31.9	1000.0	9.000	On	N	9.9	16.8	48.7
0.483000	36.6	1000.0	9.000	On	N	9.9	9.6	46.3
0.541500	30.2	1000.0	9.000	On	N	9.9	15.8	46.0
15.616500	30.5	1000.0	9.000	On	N	10.0	19.5	50.0
18.244500	36.4	1000.0	9.000	On	N	10.0	13.6	50.0
19.707000	32.3	1000.0	9.000	On	N	10.0	17.7	50.0

APPENDIX A – Test Equipment Used For Tests

	Name of Equipment	Manufacturer	Model No.	Serial No.	Cal Date	Due Date
1	Signal Analyzer	Agilent	N9020A	MY48011598	2018-10-25	2019-10-25
2	Signal Generator	Rohde & Schwarz	SMB100A	175528	2018-10-24	2019-10-24
3	EMI Test Receiver	Rohde & Schwarz	ESCI3	100032	2018-01-31	2019-01-31
4	Bilog Antenna	Schaffner	CBL6111C	2551	2018-05-10	2020-05-10
5	Active Loop Antenna	SCHWARZBECK	FMZB 1513	1513-125	2018-05-02	2020-05-02
6	6dB Attenuator	R&S	DNF	272.4110.50-2	2018-10-25	2019-10-25
7	AMPLIFIER	SONOMA	310	291721	2018-02-02	2019-02-02
8	EMI Test Receiver	Rohde & Schwarz	ESU40	100336	2018-02-01	2019-02-01
9	Preamplifier	Agilent	8449B	3008A02011	2017-11-30	2018-11-30
10	Horn Antenna	ETS-Lindgren	3116	00062504	2017-12-04	2019-12-04
11	Horn Antenna	ETS-Lindgren	3117	00154525	2017-09-14	2019-09-14
12	LISN	Rohde & Schwarz	ENV216	101760	2018-01-31	2019-01-31
13	Singnal Canditioning Unit	R&S	SCU-40	10023	2018-10-24	2019-10-24
14	Band Reject Filter	Micro Tronics	BRM50716	G184	2018-01-26	2019-01-26
15	Temp&Humi Chamber	ESPEC CORP.	SH-242	93008423	2018-09-18	2019-09-18