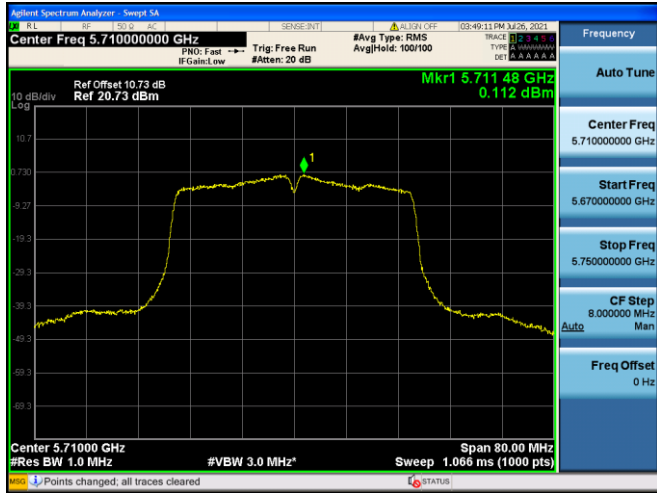


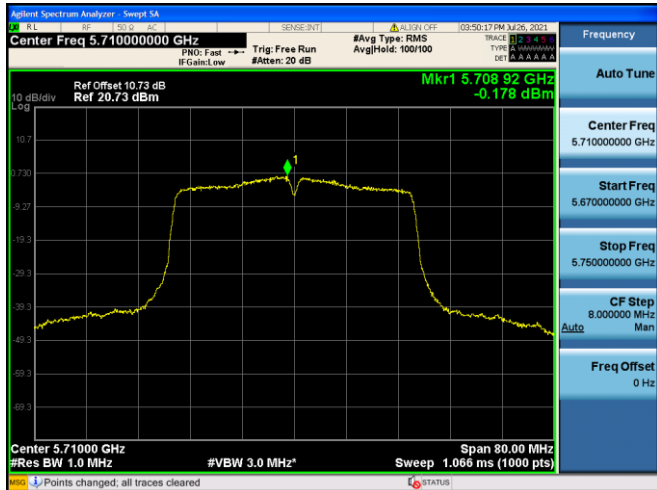
**802.11n(HT40) UNII 2C Band**



**802.11n(HT40) UNII 3 Band**



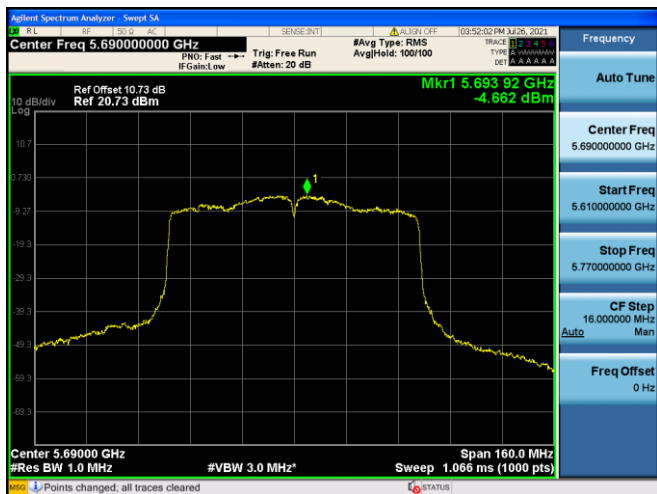
**802.11ac(VHT40) UNII 2C Band**



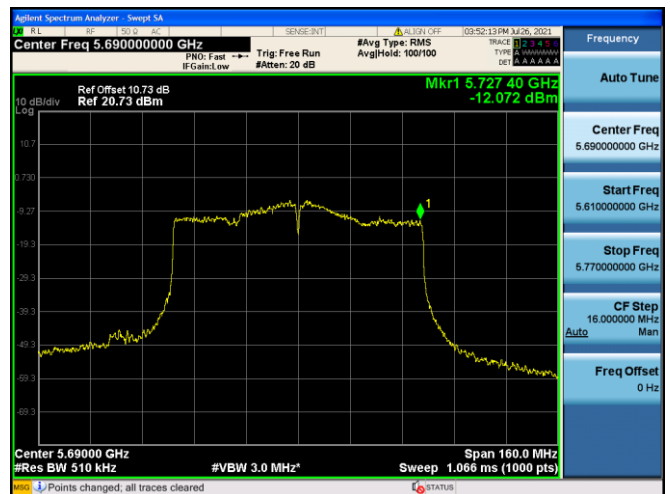
**802.11ac(VHT40) UNII 3 Band**



**802.11ac(VHT80) UNII 2C Band**



**802.11ac(VHT80) UNII 3 Band**



**10.8 RADIATED SPURIOUS EMISSIONS**

**Frequency Range : 9 kHz – 30 MHz**

Frequency	Measured Value	A.F+C.L+D.F	POL	Total	Limit	Margin
[MHz]	[dBµV/m]	[dB/m]	[H/V]	[dBµV/m]	[dBµV/m]	[dB]
No Critical peaks found						

**Note:**

1. The Measured Value of emissions are attenuated more than 20 dB below the permissible limits or the field strength is too small to be measured.
2. Distance extrapolation factor =  $40 \log(\text{specific distance} / \text{test distance})$  (dB)
3. Limit line = specific Limits (dBµV) + Distance extrapolation factor

**Frequency Range : Below 1 GHz**

Frequency	Measured Value	A.F+C.L	POL	Total	Limit	Margin
[MHz]	[dBµV/m]	[dB/m]	[H/V]	[dBµV/m]	[dBµV/m]	[dB]
No Critical peaks found						

**Note:**

1. Radiated emissions measured in frequency range from 30 MHz to 1000 MHz were made with an instrument using Quasi peak detector mode

**Frequency Range : Above 1 GHz**

Band : UNII 1  
 Operation Mode: 802.11 a  
 Transfer Rate: 6 Mbps  
 Operating Frequency 5180 MHz  
 Channel No. 36 Ch

Frequency [MHz]	Measured Value [dBμV/m]	A.F+C.L -A.G+D.F [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
10360	54.11	0.24	V	54.35	68.20	13.85	PK
15540	49.35	2.16	V	51.51	73.98	22.47	PK
15540	36.68	2.16	V	38.84	53.98	15.14	AV
10360	54.28	0.24	H	54.52	68.20	13.68	PK
15540	49.49	2.16	H	51.65	73.98	22.33	PK
15540	36.77	2.16	H	38.93	53.98	15.05	AV

Band : UNII 1  
 Operation Mode: 802.11 a  
 Transfer Rate: 6 Mbps  
 Operating Frequency 5200 MHz  
 Channel No. 40 Ch

Frequency [MHz]	Measured Value [dBμV/m]	A.F+C.L -A.G+D.F [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
10400	52.22	0.74	V	52.96	68.20	15.24	PK
15600	49.38	1.81	V	51.19	73.98	22.79	PK
15600	36.48	1.81	V	38.29	53.98	15.69	AV
10400	52.43	0.74	H	53.17	68.20	15.03	PK
15600	49.52	1.81	H	51.33	73.98	22.65	PK
15600	36.53	1.81	H	38.34	53.98	15.64	AV

Band :	UNII 1
Operation Mode:	802.11 a
Transfer Rate:	6 Mbps
Operating Frequency	5240 MHz
Channel No.	48 Ch

Frequency [MHz]	Measured Value [dBμV/m]	A.F+C.L -A.G+D.F [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
10480	52.55	-0.25	V	52.30	68.20	15.90	PK
15720	49.92	1.16	V	51.08	73.98	22.90	PK
15720	36.78	1.16	V	37.94	53.98	16.04	AV
10480	52.69	-0.25	H	52.44	68.20	15.76	PK
15720	50.10	1.16	H	51.26	73.98	22.72	PK
15720	36.92	1.16	H	38.08	53.98	15.90	AV

Band :	UNII 2A
Operation Mode:	802.11 a
Transfer Rate:	6 Mbps
Operating Frequency	5260 MHz
Channel No.	52 Ch

Frequency [MHz]	Measured Value [dBμV/m]	A.F+C.L -A.G+D.F [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
10520	52.45	-0.20	V	52.25	68.20	15.95	PK
15780	50.12	1.20	V	51.32	73.98	22.66	PK
15780	36.88	1.20	V	38.08	53.98	15.90	AV
10520	52.95	-0.20	H	52.75	68.20	15.45	PK
15780	50.34	1.20	H	51.54	73.98	22.44	PK
15780	36.99	1.20	H	38.19	53.98	15.79	AV

Band : UNII 2A  
 Operation Mode: 802.11 a  
 Transfer Rate: 6 Mbps  
 Operating Frequency 5300 MHz  
 Channel No. 60 Ch

Frequency [MHz]	Measured Value [dB $\mu$ V/m]	A.F+C.L -A.G+D.F [dB/m]	ANT. POL [H/V]	Total [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]	Measurement Type
10600	52.60	0.10	V	52.70	73.98	21.28	PK
10600	39.12	0.10	V	39.22	53.98	14.76	AV
15900	50.48	1.04	V	51.52	73.98	22.46	PK
15900	37.55	1.04	V	38.59	53.98	15.39	AV
10600	52.64	0.10	H	52.74	73.98	21.24	PK
10600	39.29	0.10	H	39.39	53.98	14.59	AV
15900	50.65	1.04	H	51.69	73.98	22.29	PK
15900	37.62	1.04	H	38.66	53.98	15.32	AV

Band : UNII 2A  
 Operation Mode: 802.11 a  
 Transfer Rate: 6 Mbps  
 Operating Frequency 5320 MHz  
 Channel No. 64 Ch

Frequency [MHz]	Measured Value [dB $\mu$ V/m]	A.F+C.L -A.G+D.F [dB/m]	ANT. POL [H/V]	Total [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]	Measurement Type
10640	52.48	0.35	V	52.83	73.98	21.15	PK
10640	38.98	0.35	V	39.33	53.98	14.65	AV
15960	50.02	1.12	V	51.14	73.98	22.84	PK
15960	37.33	1.12	V	38.45	53.98	15.53	AV
10640	52.55	0.35	H	52.90	73.98	21.08	PK
10640	39.12	0.35	H	39.47	53.98	14.51	AV
15960	50.22	1.12	H	51.34	73.98	22.64	PK
15960	37.48	1.12	H	38.60	53.98	15.38	AV

Band : UNII 2C  
 Operation Mode: 802.11 a  
 Transfer Rate: 6 Mbps  
 Operating Frequency 5500 MHz  
 Channel No. 100 Ch

Frequency [MHz]	Measured Value [dBμV/m]	A.F+C.L -A.G+D.F [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
11000	52.32	0.40	V	52.72	73.98	21.26	PK
11000	38.85	0.40	V	39.25	53.98	14.73	AV
16500	50.48	1.16	V	51.64	68.20	16.56	PK
11000	52.46	0.40	H	52.86	73.98	21.12	PK
11000	39.01	0.40	H	39.41	53.98	14.57	AV
16500	50.55	1.16	H	51.71	68.20	16.49	PK

Band : UNII 2C  
 Operation Mode: 802.11 a  
 Transfer Rate: 6 Mbps  
 Operating Frequency 5600 MHz  
 Channel No. 120 Ch

Frequency [MHz]	Measured Value [dBμV/m]	A.F+C.L -A.G+D.F [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
11200	51.82	-0.40	V	51.42	73.98	22.56	PK
11200	38.82	-0.40	V	38.42	53.98	15.56	AV
16800	50.92	0.65	V	51.57	68.20	16.63	PK
11200	51.75	-0.40	H	51.35	73.98	22.63	PK
11200	38.78	-0.40	H	38.38	53.98	15.60	AV
16800	50.91	0.65	H	51.56	68.20	16.64	PK

Band : UNII 2C  
 Operation Mode: 802.11 a  
 Transfer Rate: 6 Mbps  
 Operating Frequency 5720 MHz  
 Channel No. 144 Ch

Frequency [MHz]	Measured Value [dBμV/m]	A.F+C.L -A.G+D.F. [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
11440	52.58	0.14	V	52.72	73.98	21.26	PK
11440	39.21	0.14	V	39.35	53.98	14.63	AV
17160	51.37	1.35	V	52.72	68.20	15.48	PK
11440	52.48	0.14	H	52.62	73.98	21.36	PK
11440	39.02	0.14	H	39.16	53.98	14.82	AV
17160	51.21	1.35	H	52.56	68.20	15.64	PK

Band : UNII 3  
 Operation Mode: 802.11 a  
 Transfer Rate: 6 Mbps  
 Operating Frequency 5745MHz  
 Channel No. 149 Ch

Frequency [MHz]	Measured Value [dBμV/m]	A.F+C.L -A.G+D.F. [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
11490	51.42	-0.14	V	51.28	73.98	22.70	PK
11490	38.32	-0.14	V	38.18	53.98	15.80	AV
17235	51.05	1.61	V	52.66	68.20	15.54	PK
11490	52.03	-0.14	H	51.89	73.98	22.09	PK
11490	38.42	-0.14	H	38.28	53.98	15.70	AV
17235	51.18	1.61	H	52.79	68.20	15.41	PK

Band : UNII 3  
 Operation Mode: 802.11 a  
 Transfer Rate: 6 Mbps  
 Operating Frequency 5785 MHz  
 Channel No. 157 Ch

Frequency [MHz]	Measured Value [dBμV/m]	A.F+C.L -A.G+D.F [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
11570	52.12	0.07	V	52.19	73.98	21.79	PK
11570	38.66	0.07	V	38.73	53.98	15.25	AV
17355	51.12	1.69	V	52.81	68.20	15.39	PK
11570	52.35	0.07	H	52.42	73.98	21.56	PK
11570	38.75	0.07	H	38.82	53.98	15.16	AV
17355	51.22	1.69	H	52.91	68.20	15.29	PK

Band : UNII 3  
 Operation Mode: 802.11 a  
 Transfer Rate: 6 Mbps  
 Operating Frequency 5825 MHz  
 Channel No. 165 Ch

Frequency [MHz]	Measured Value [dBμV/m]	A.F+C.L -A.G+D.F [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
11650	51.98	-0.70	V	51.28	73.98	22.70	PK
11650	39.09	-0.70	V	38.39	53.98	15.59	AV
17475	50.45	2.65	V	53.10	68.20	15.10	PK
11650	51.85	-0.70	H	51.15	73.98	22.83	PK
11650	38.99	-0.70	H	38.29	53.98	15.69	AV
17475	50.35	2.65	H	53.00	68.20	15.20	PK

**Note:**

All Modes of operation were investigated and the worst case configuration results are reported.

[Worst case]

UNII 1, UNII 2A, UNII 2C, UNII 3 : 802.11a\_6Mbps



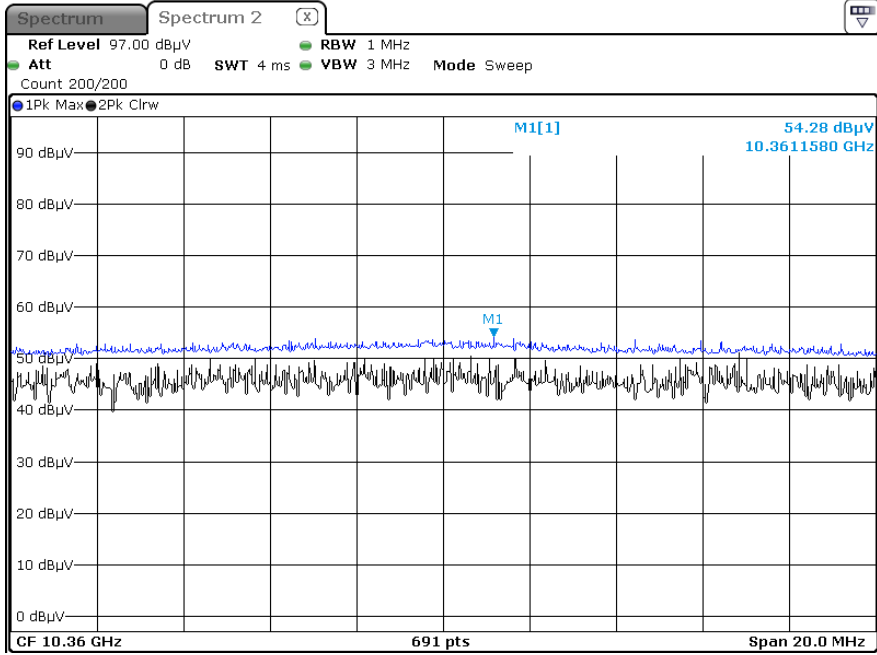
**[DBS Mode]****WLAN/BT Ant : 802.11a ch. 36 & Bluetooth Ch. 0 (GFSK)**

Frequency [MHz]	Measured Value [dB $\mu$ V/m]	A.F.+C.L. -A.G+D.F [dB/m]	ANT. POL [H/V]	Total [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]	Measurement Type
10360	53.98	0.24	V	54.22	68.20	13.98	PK
15540	49.12	2.16	V	51.28	73.98	22.70	PK
15540	36.58	2.16	V	38.74	53.98	15.24	AV
10360	54.02	0.24	H	54.26	68.20	13.94	PK
15540	49.38	2.16	H	51.54	73.98	22.44	PK
15540	36.59	2.16	H	38.75	53.98	15.23	AV

Note : Bluetooth DBS Data refer to BT Test Report.

▣ Test Plots

Peak Result (802.11a, Ch.36 2nd Harmonic, Y-H)



**Note:**

Only the worst case plots for Radiated Spurious Emissions.

### 10.9 RADIATED RESTRICTED BAND EDGE

Band : UNII 1  
 Operation Mode: 802.11 a  
 Transfer Rate: 6 Mbps  
 Operating Frequency 5180 MHz  
 Channel No. 36 Ch

Frequency [MHz]	Measured Value [dB $\mu$ V/m]	A.F+ C.L+ D.F-A.G + ATT [dB/m]	ANT. POL [H/V]	Total [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]	Measurement Type
5150	45.77	6.72	H	52.49	73.98	21.49	PK
5150	33.96	6.72	H	40.68	53.98	13.30	AV
5150	45.62	6.72	V	52.34	73.98	21.64	PK
5150	33.78	6.72	V	40.5	53.98	13.48	AV

Band : UNII 2A  
 Operation Mode: 802.11 a  
 Transfer Rate: 6 Mbps  
 Operating Frequency 5320 MHz  
 Channel No. 64 Ch

Frequency [MHz]	Measured Value [dB $\mu$ V/m]	A.F+ C.L+ D.F-A.G + ATT [dB/m]	ANT. POL [H/V]	Total [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]	Measurement Type
5350	48.93	7.24	H	56.17	73.98	17.81	PK
5350	35.62	7.24	H	42.86	53.98	11.12	AV
5350	48.82	7.24	V	56.06	73.98	17.92	PK
5350	35.55	7.24	V	42.79	53.98	11.19	AV

Band : UNII 2C  
 Operation Mode: 802.11 a  
 Transfer Rate: 6 Mbps  
 Operating Frequency 5500 MHz  
 Channel No. 100 Ch

Frequency [MHz]	Measured Value [dBμV/m]	A.F+ C.L+ D.F-A.G + ATT [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
5460	45.58	7.90	H	53.48	73.98	20.50	PK
5460	33.29	7.90	H	41.19	53.98	12.79	AV
5470	46.86	8.24	H	55.1	68.20	13.10	PK
5460	45.28	7.90	V	53.18	73.98	20.80	PK
5460	33.02	7.90	V	40.92	53.98	13.06	AV
5470	46.75	8.24	V	54.99	68.20	13.21	PK

Band : UNII 1  
 Operation Mode: 802.11 n\_HT20  
 Transfer MCS Index: 0  
 Operating Frequency 5180 MHz  
 Channel No. 36 Ch

Frequency [MHz]	Measured Value [dBμV/m]	A.F+ C.L+ D.F-A.G + ATT [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
5150	46.31	6.72	H	53.03	73.98	20.95	PK
5150	34.36	6.72	H	41.08	53.98	12.90	AV
5150	46.02	6.72	V	52.74	73.98	21.24	PK
5150	34.12	6.72	V	40.84	53.98	13.14	AV

Band : UNII 2A  
 Operation Mode: 802.11 n\_HT20  
 Transfer MCS Index: 0  
 Operating Frequency 5320 MHz  
 Channel No. 64 Ch

Frequency [MHz]	Measured Value [dBμV/m]	A.F+ C.L+ D.F-A.G + ATT [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
5350	49.21	7.24	H	56.45	73.98	17.53	PK
5350	36.43	7.24	H	43.67	53.98	10.31	AV
5350	49.05	7.24	V	56.29	73.98	17.69	PK
5350	36.33	7.24	V	43.57	53.98	10.41	AV

Band :	UNII 2C
Operation Mode:	802.11 n_HT20
Transfer MCS Index:	0
Operating Frequency	5500 MHz
Channel No.	100 Ch

Frequency [MHz]	Measured Value [dBμV/m]	A.F+ C.L+ D.F-A.G + ATT [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
5460	46.66	7.90	H	54.56	73.98	19.42	PK
5460	33.33	7.90	H	41.23	53.98	12.75	AV
5470	47.55	8.24	H	55.79	68.20	12.41	PK
5460	46.48	7.90	V	54.38	73.98	19.60	PK
5460	33.12	7.90	V	41.02	53.98	12.96	AV
5470	47.48	8.24	V	55.72	68.20	12.48	PK

Band : UNII 1  
 Operation Mode: 802.11 ac\_VHT20  
 Transfer MCS Index: 0  
 Operating Frequency 5180 MHz  
 Channel No. 36 Ch

Frequency [MHz]	Measured Value [dBμV/m]	A.F+ C.L+ D.F-A.G + ATT [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
5150	46.84	6.72	H	53.56	73.98	20.42	PK
5150	34.69	6.72	H	41.41	53.98	12.57	AV
5150	46.58	6.72	V	53.3	73.98	20.68	PK
5150	34.35	6.72	V	41.07	53.98	12.91	AV

Band : UNII 2A  
 Operation Mode: 802.11 ac\_VHT20  
 Transfer MCS Index: 0  
 Operating Frequency 5320 MHz  
 Channel No. 64 Ch

Frequency [MHz]	Measured Value [dBμV/m]	A.F+ C.L+ D.F-A.G + ATT [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
5350	48.77	7.24	H	56.01	73.98	17.97	PK
5350	36.64	7.24	H	43.88	53.98	10.10	AV
5350	48.62	7.24	V	55.86	73.98	18.12	PK
5350	36.52	7.24	V	43.76	53.98	10.22	AV

Band : UNII 2C  
 Operation Mode: 802.11 ac\_VHT20  
 Transfer MCS Index: 0  
 Operating Frequency 5500 MHz  
 Channel No. 100 Ch

Frequency [MHz]	Measured Value [dBμV/m]	A.F+ C.L+ D.F-A.G + ATT [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
5460	46.43	7.90	H	54.33	73.98	19.65	PK
5460	33.43	7.90	H	41.33	53.98	12.65	AV
5470	49.10	8.24	H	57.34	68.20	10.86	PK
5460	46.28	7.90	V	54.18	73.98	19.80	PK
5460	33.32	7.90	V	41.22	53.98	12.76	AV
5470	48.89	8.24	V	57.13	68.20	11.07	PK



Band : UNII 1  
 Operation Mode: 802.11 n\_HT40  
 Transfer MCS Index: 0  
 Operating Frequency 5190 MHz  
 Channel No. 38 Ch

Frequency [MHz]	Measured Value [dB $\mu$ V/m]	A.F+ C.L+ D.F-A.G + ATT [dB/m]	ANT. POL [H/V]	Total [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]	Measurement Type
5150	49.92	13.63	H	63.55	73.98	10.43	PK
5150	38.17	13.63	H	51.8	53.98	2.18	AV
5150	49.68	13.63	V	63.31	73.98	10.67	PK
5150	38.12	13.63	V	51.75	53.98	2.23	AV

Band : UNII 2A  
 Operation Mode: 802.11 n\_HT40  
 Transfer MCS Index: 0  
 Operating Frequency 5310 MHz  
 Channel No. 62 Ch

Frequency [MHz]	Measured Value [dB $\mu$ V/m]	A.F+ C.L+ D.F-A.G + ATT [dB/m]	ANT. POL [H/V]	Total [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]	Measurement Type
5350	49.18	14.13	H	63.31	73.98	10.67	PK
5350	36.81	14.13	H	50.94	53.98	3.04	AV
5350	49.02	14.13	V	63.15	73.98	10.83	PK
5350	36.65	14.13	V	50.78	53.98	3.20	AV

Band : UNII 2C  
 Operation Mode: 802.11 n\_HT40  
 Transfer MCS Index: 0  
 Operating Frequency 5510 MHz  
 Channel No. 102 Ch

Frequency [MHz]	Measured Value [dBμV/m]	A.F+ C.L+ D.F-A.G + ATT [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
5460	46.52	14.77	H	61.29	73.98	12.69	PK
5460	34.08	14.77	H	48.85	53.98	5.13	AV
5470	50.98	15.12	H	66.1	68.20	2.10	PK
5460	46.48	14.77	V	61.25	73.98	12.73	PK
5460	33.98	14.77	V	48.75	53.98	5.23	AV
5470	50.55	15.12	V	65.67	68.20	2.53	PK

Band : UNII 1  
 Operation Mode: 802.11 ac\_VHT40  
 Transfer MCS Index: 0  
 Operating Frequency 5190 MHz  
 Channel No. 38 Ch

Frequency [MHz]	Measured Value [dBμV/m]	A.F+ C.L+ D.F-A.G + ATT [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
5150	49.36	13.63	H	62.99	73.98	10.99	PK
5150	37.81	13.63	H	51.44	53.98	2.54	AV
5150	49.22	13.63	V	62.85	73.98	11.13	PK
5150	37.52	13.63	V	51.15	53.98	2.83	AV

Band : UNII 2A  
 Operation Mode: 802.11 ac\_VHT40  
 Transfer MCS Index: 0  
 Operating Frequency 5310 MHz  
 Channel No. 62 Ch

Frequency [MHz]	Measured Value [dBμV/m]	A.F+ C.L+ D.F-A.G + ATT [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
5350	49.17	14.13	H	63.30	73.98	10.68	PK
5350	36.55	14.13	H	50.68	53.98	3.30	AV
5350	48.95	14.13	V	63.08	73.98	10.90	PK
5350	36.48	14.13	V	50.61	53.98	3.37	AV

Band :	UNII 2C
Operation Mode:	802.11 ac_VHT40
Transfer MCS Index:	0
Operating Frequency	5510 MHz
Channel No.	102 Ch

Frequency [MHz]	Measured Value [dBμV/m]	A.F+ C.L+ D.F-A.G + ATT [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
5460	45.99	14.77	H	60.76	73.98	13.22	PK
5460	33.94	14.77	H	48.71	53.98	5.27	AV
5470	50.90	15.12	H	66.02	68.20	2.18	PK
5460	45.85	14.77	V	60.62	73.98	13.36	PK
5460	33.85	14.77	V	48.62	53.98	5.36	AV
5470	50.78	15.12	V	65.9	68.20	2.30	PK

Band :	UNII 1
Operation Mode:	802.11 ac_VHT80
Transfer MCS Index:	0
Operating Frequency	5210 MHz
Channel No.	42 Ch

Frequency [MHz]	Measured Value [dB $\mu$ V/m]	A.F+ C.L+ D.F-A.G + ATT [dB/m]	ANT. POL [H/V]	Total [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]	Measurement Type
5150	47.52	13.63	H	61.15	73.98	12.83	PK
5150	37.40	13.63	H	51.03	53.98	2.95	AV
5150	47.44	13.63	V	61.07	73.98	12.91	PK
5150	37.12	13.63	V	50.75	53.98	3.23	AV

Band :	UNII 2A
Operation Mode:	802.11 ac_VHT80
Transfer MCS Index:	0
Operating Frequency	5290 MHz
Channel No.	58 Ch

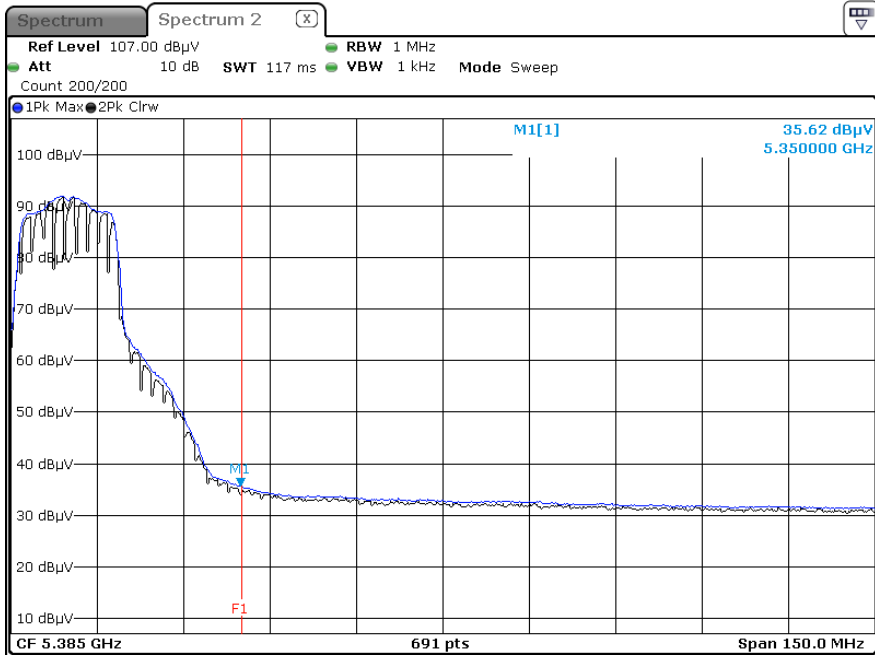
Frequency [MHz]	Measured Value [dB $\mu$ V/m]	A.F+ C.L+ D.F-A.G + ATT [dB/m]	ANT. POL [H/V]	Total [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]	Measurement Type
5350	46.77	14.13	H	60.90	73.98	13.08	PK
5350	36.01	14.13	H	50.14	53.98	3.84	AV
5350	46.58	14.13	V	60.71	73.98	13.27	PK
5350	35.98	14.13	V	50.11	53.98	3.87	AV

Band :	UNII 2C
Operation Mode:	802.11 ac_VHT80
Transfer MCS Index:	0
Operating Frequency	5530 MHz
Channel No.	106 Ch

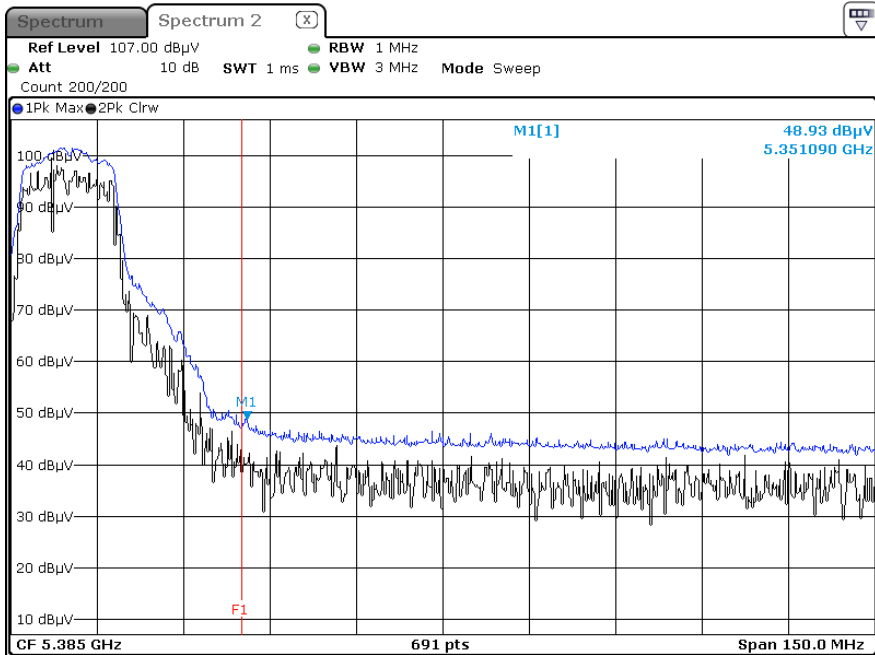
Frequency [MHz]	Measured Value [dB $\mu$ V/m]	A.F+ C.L+ D.F-A.G + ATT [dB/m]	ANT. POL [H/V]	Total [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]	Measurement Type
5460	47.13	14.77	H	61.90	73.98	12.08	PK
5460	35.62	14.77	H	50.39	53.98	3.59	AV
5470	49.84	15.12	H	64.96	68.20	3.24	PK
5460	47.02	14.77	V	61.79	73.98	12.19	PK
5460	35.55	14.77	V	50.32	53.98	3.66	AV
5470	49.79	15.12	V	64.91	68.20	3.29	PK

Test Plots(UNII 1, 2A, 2C)\_Y-H

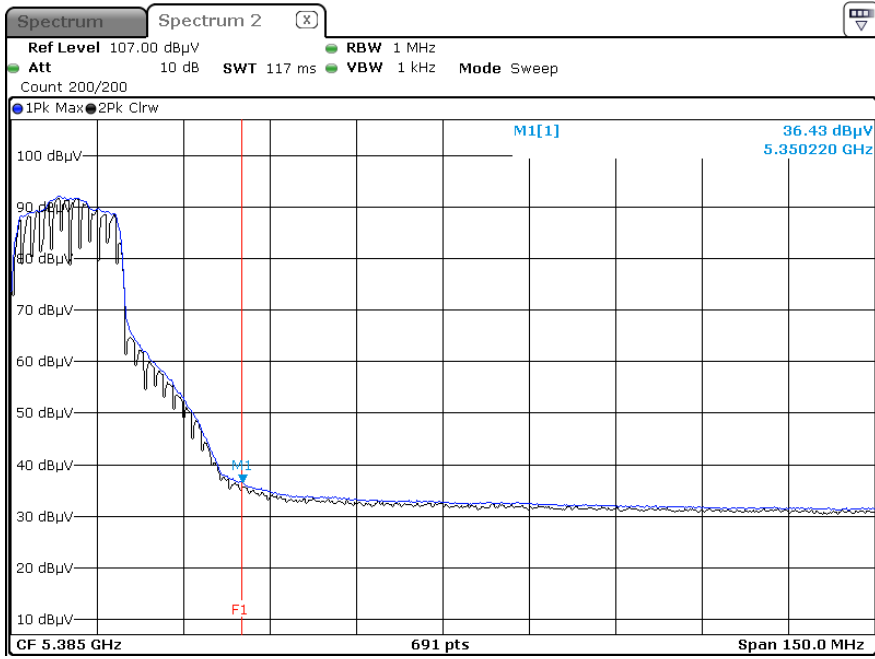
Average Result (802.11 a\_6 Mbps, Ch.64)



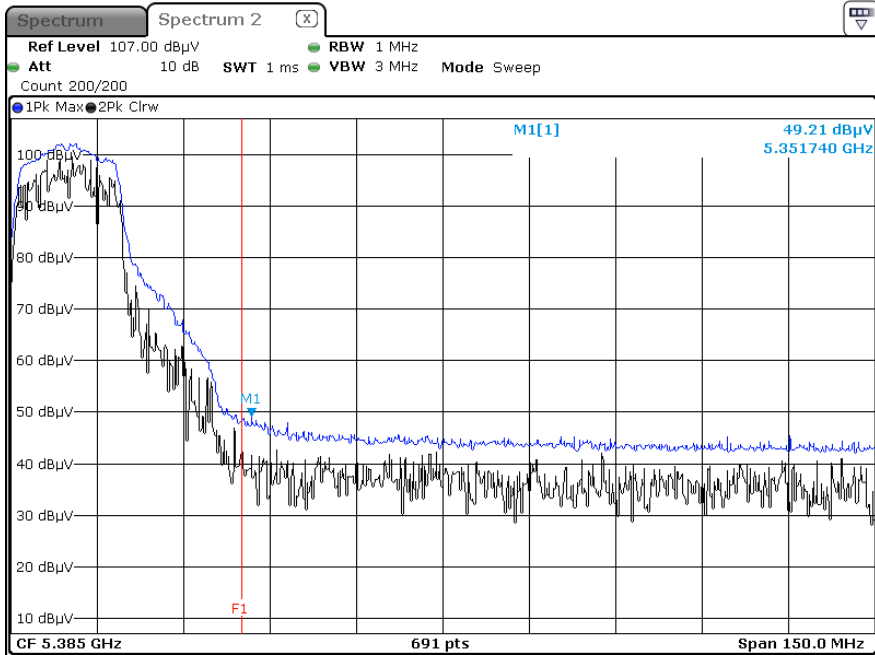
Peak Result (802.11 a\_6 Mbps, Ch.64)



Average Result (802.11 n(HT20)\_MCS0, Ch.64)

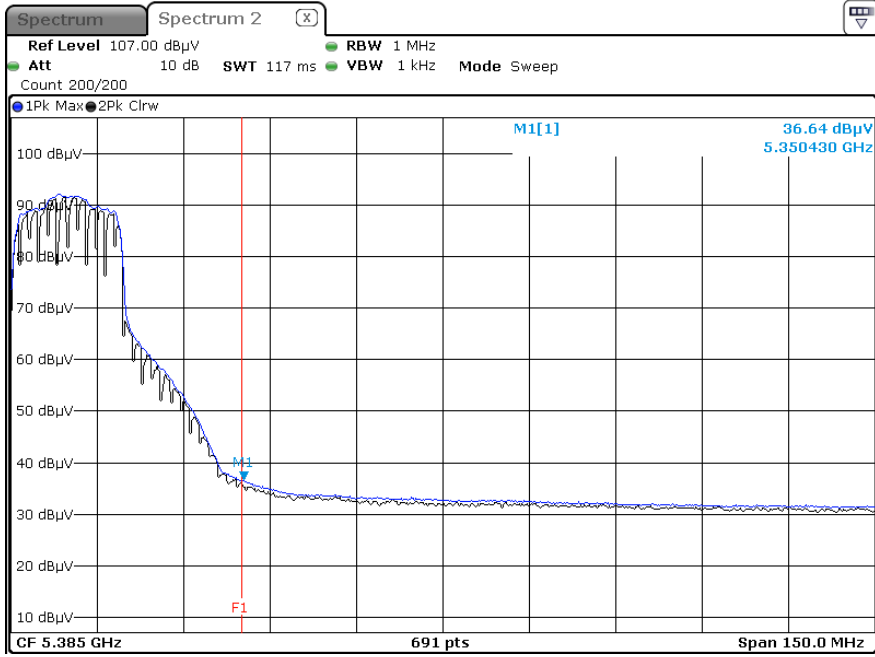


Peak Result (802.11 n(HT20)\_MCS0, Ch.64)

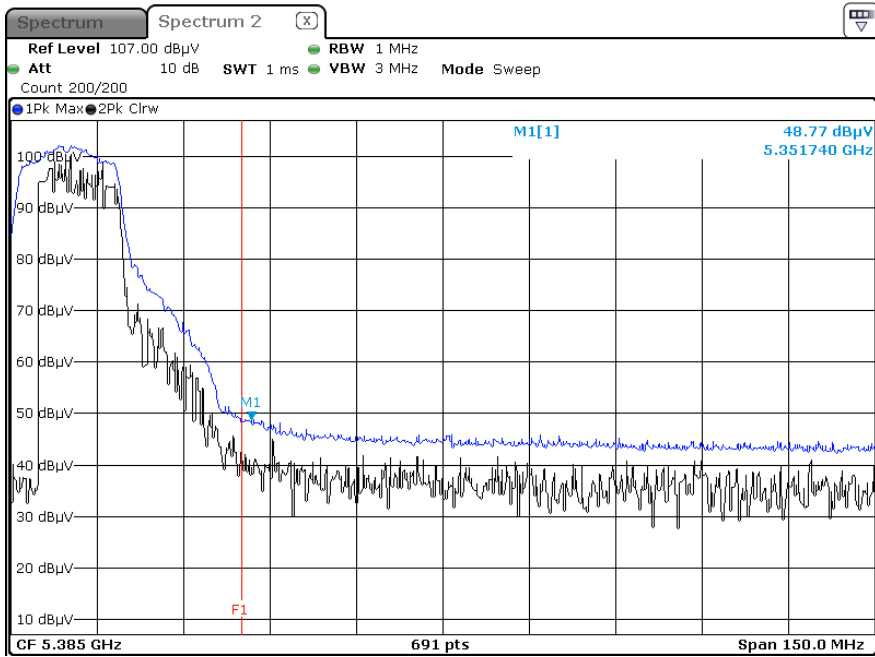




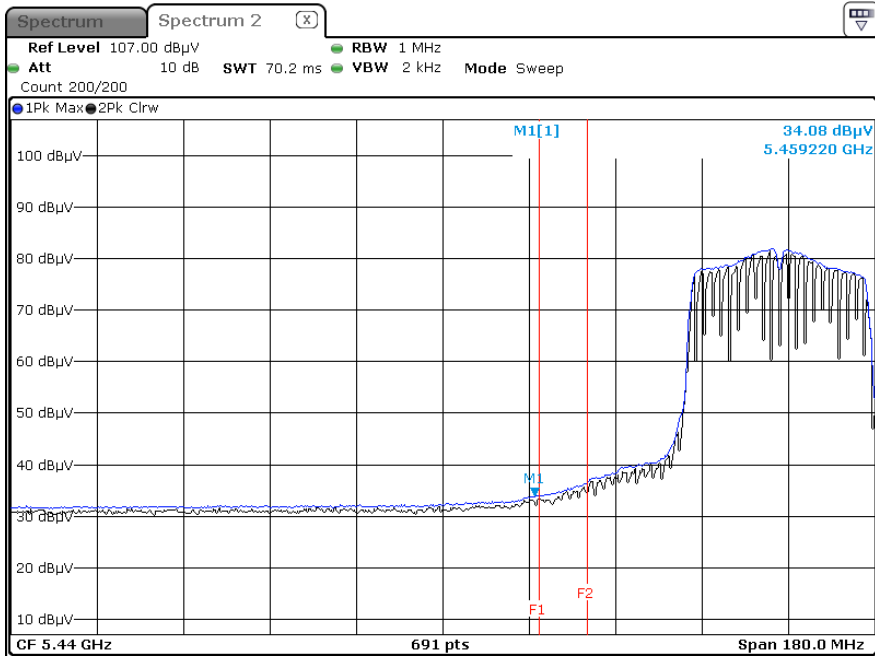
Average Result (802.11 ac(VHT20)\_MCS0, Ch.64)



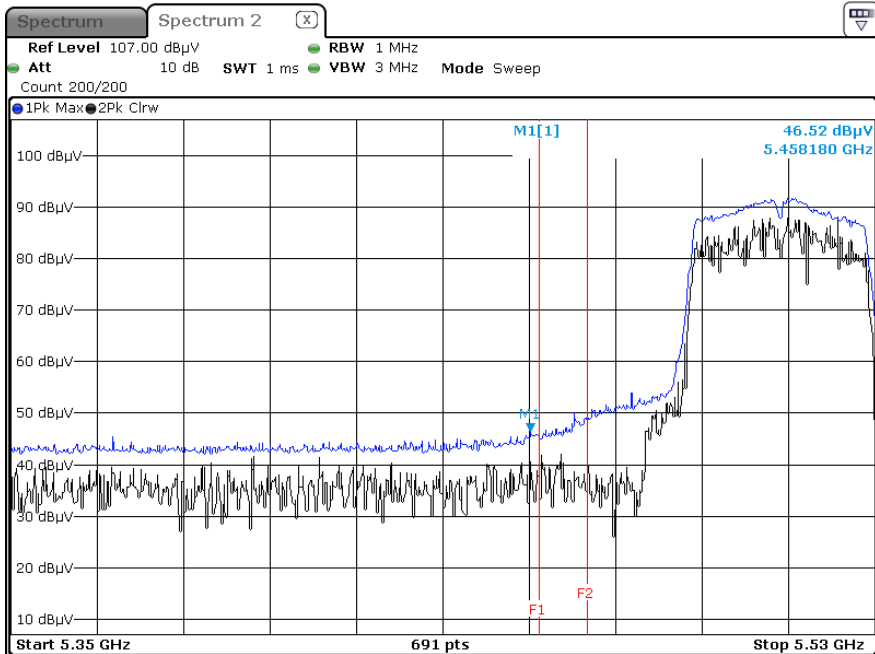
Peak Result (802.11 ac(VHT20)\_MCS0, Ch.64)



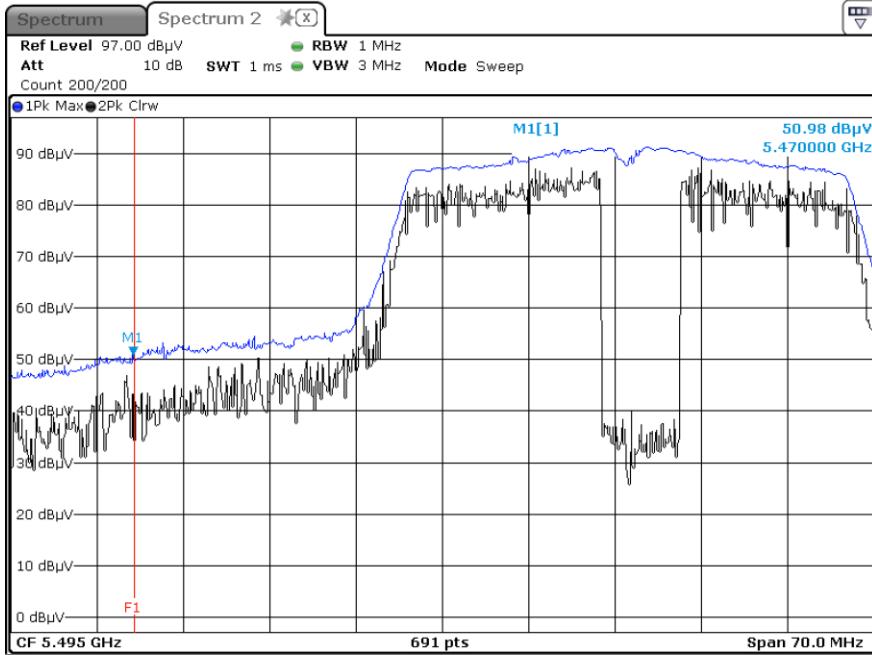
Average Result (802.11 n(HT40)\_MCS0, Ch.102)



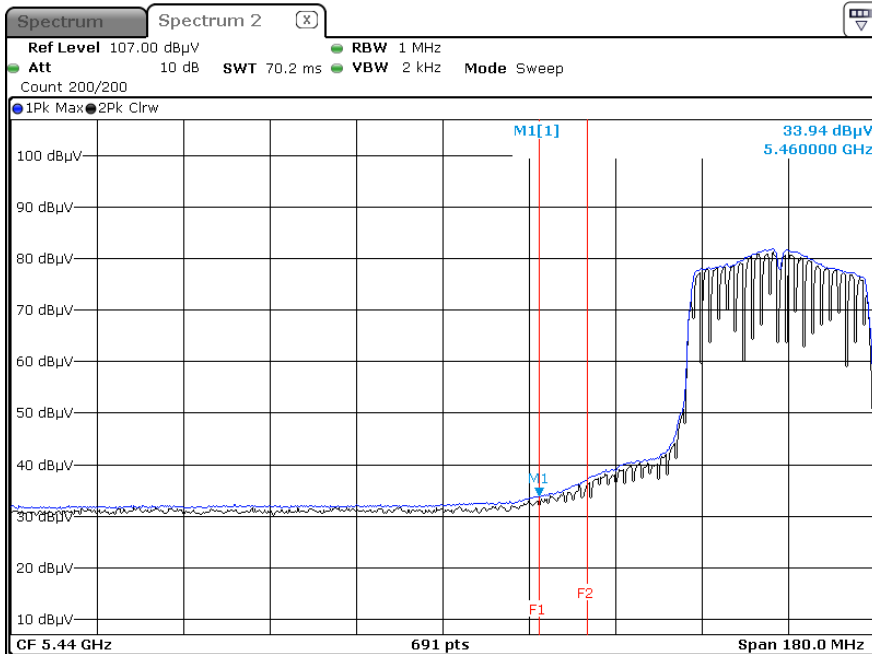
Peak Result (802.11 n(HT40)\_MCS0, Ch.102)



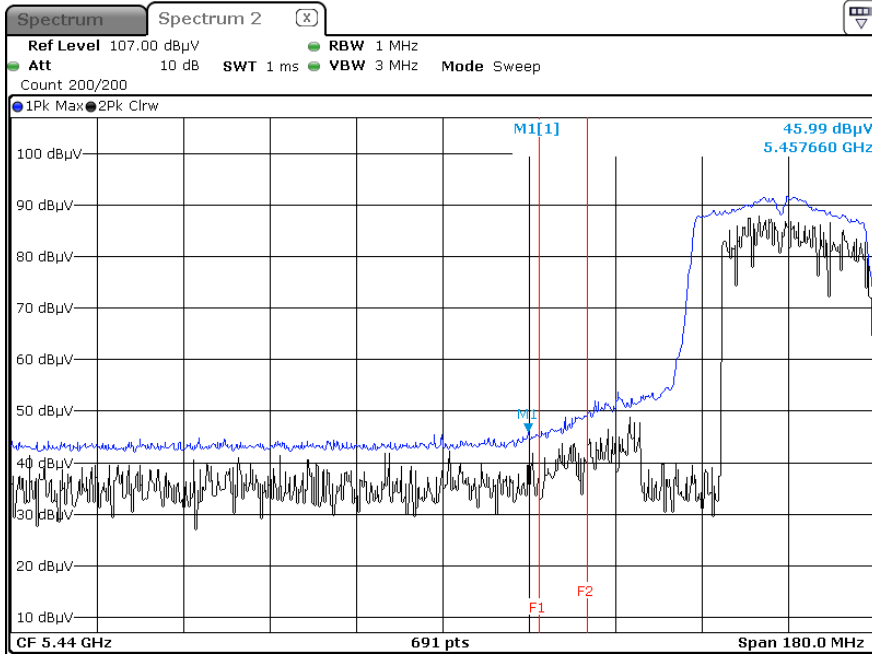
Peak Result (802.11 n(HT40)\_MCS0, Ch.102)



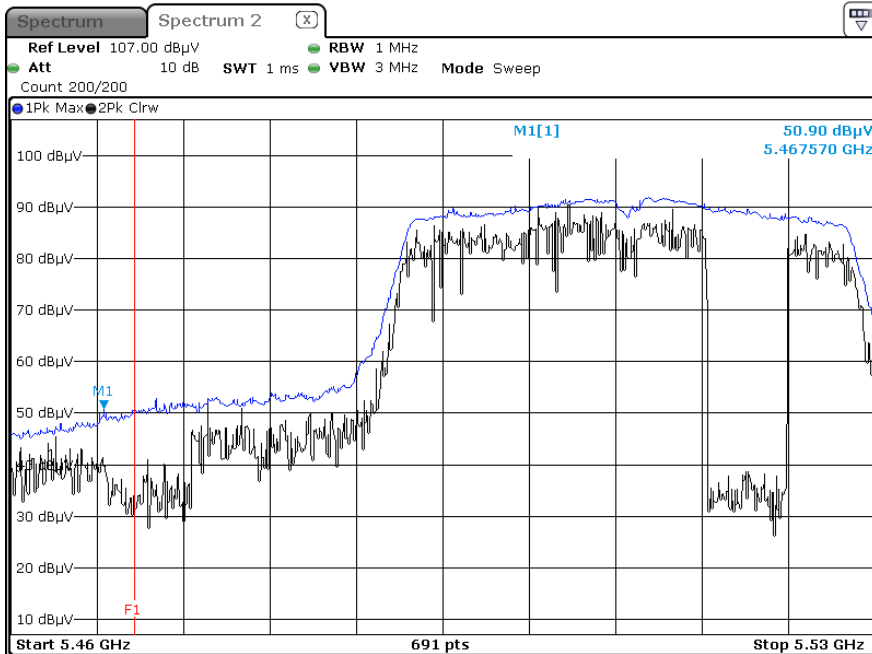
Average Result (802.11 ac(VHT40)\_MCS0, Ch.102)



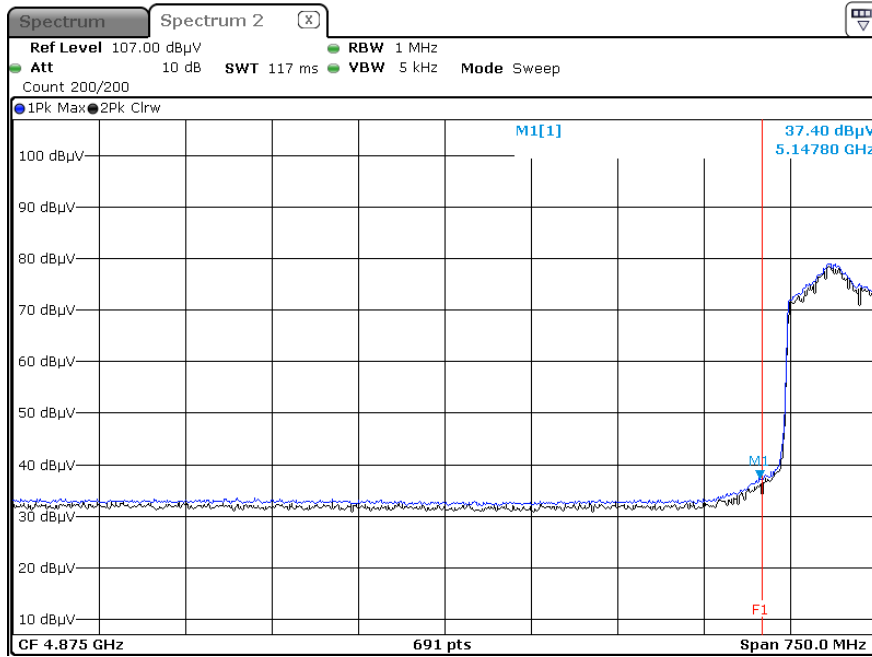
Peak Result (802.11 ac(VHT40)\_MCS0, Ch.102)



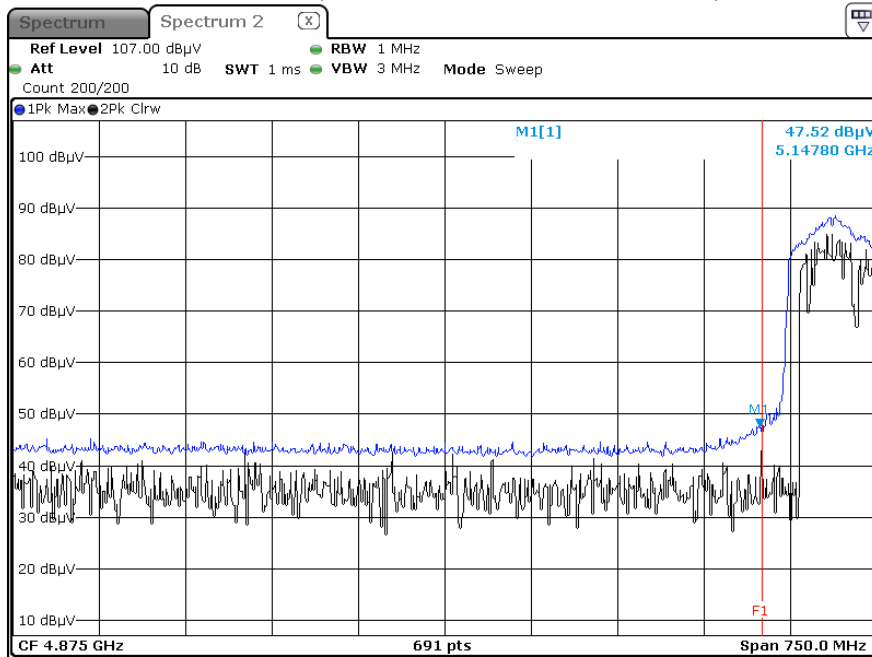
Peak Result (802.11 ac(VHT40)\_MCS0, Ch.102)



Average Result (802.11 ac\_VHT80\_MCS0, Ch.42)



Peak Result (802.11 ac\_VHT80\_MCS0, Ch.42)

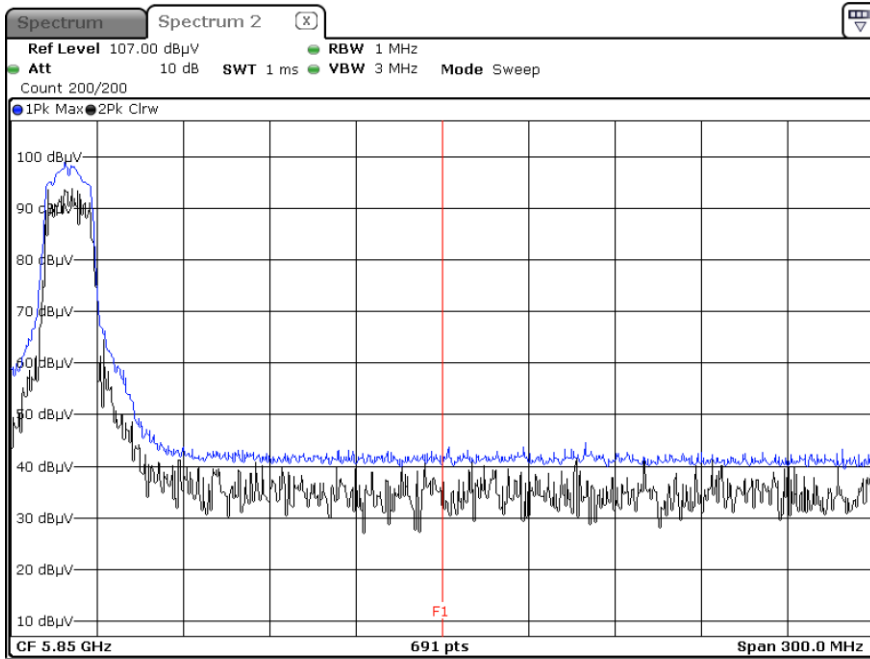


**Note:**

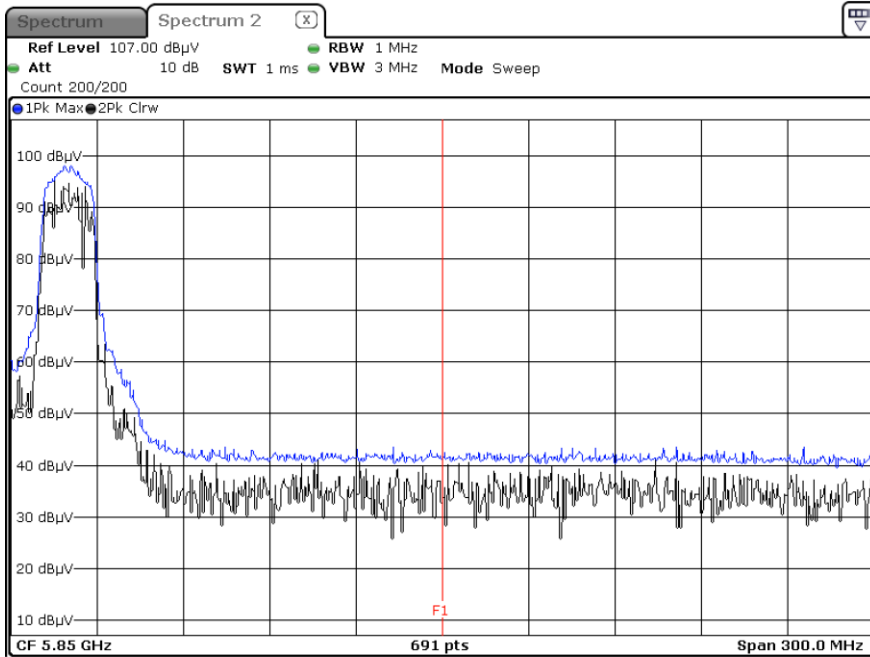
Only the worst case plots for Radiated Restricted Band Edge.

▣ Test Plots(Straddle Channel)

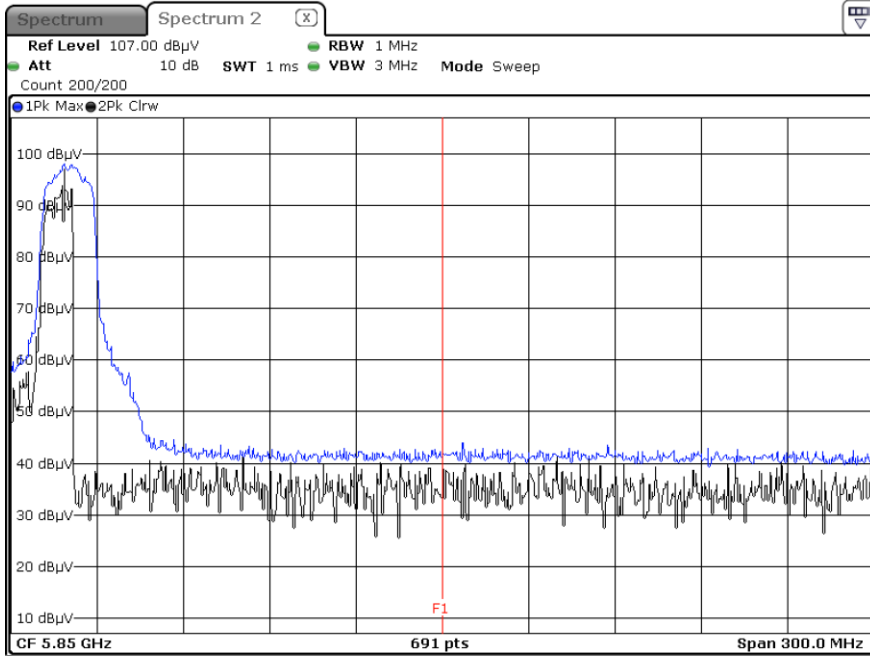
Peak Result (802.11a, Ch.144, Y-H)



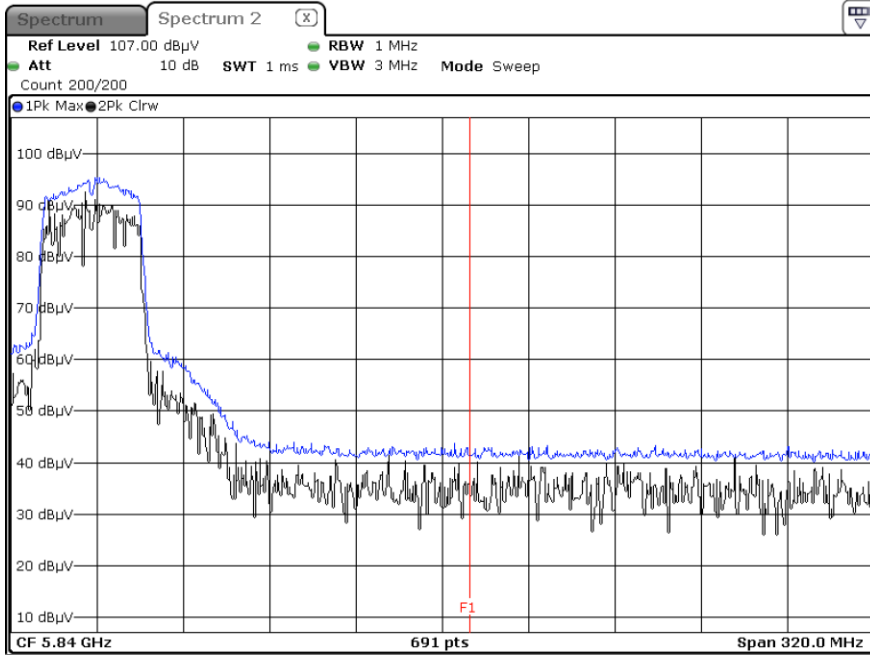
Peak Result (802.11n\_HT20, Ch.144, Y-H)



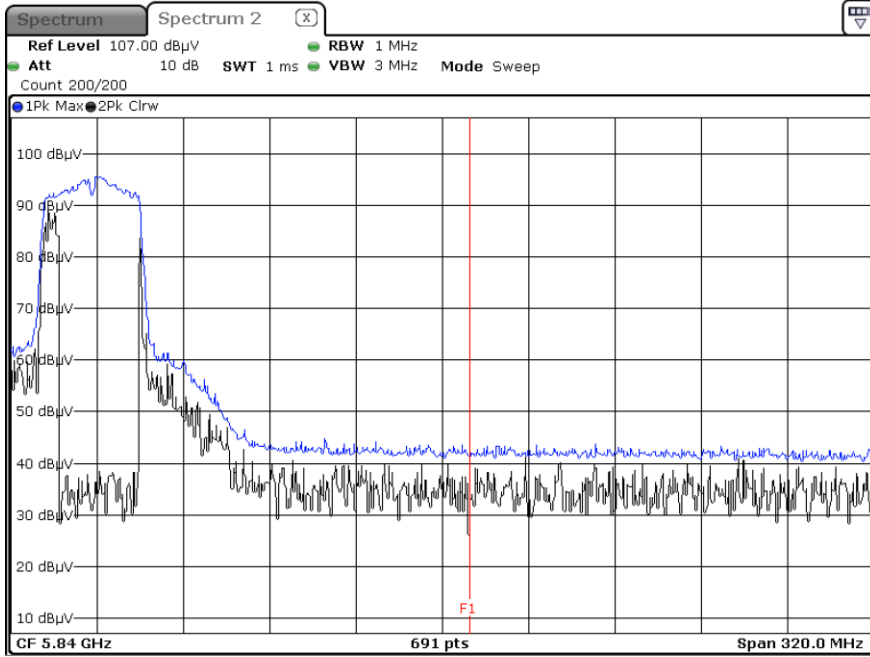
Peak Result (802.11ac\_VHT20, Ch.144, Y-H)



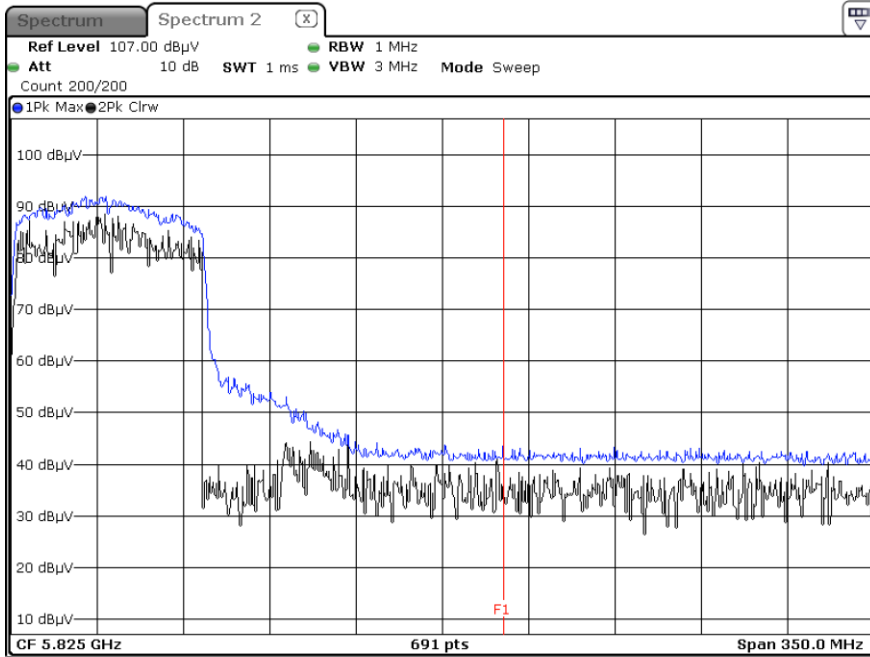
Peak Result (802.11n\_HT40, Ch.142, Y-H)



Peak Result (802.11ac\_VHT40, Ch.142, Y-H)



Peak Result (802.11ac\_VHT80, Ch.138, Y-H)



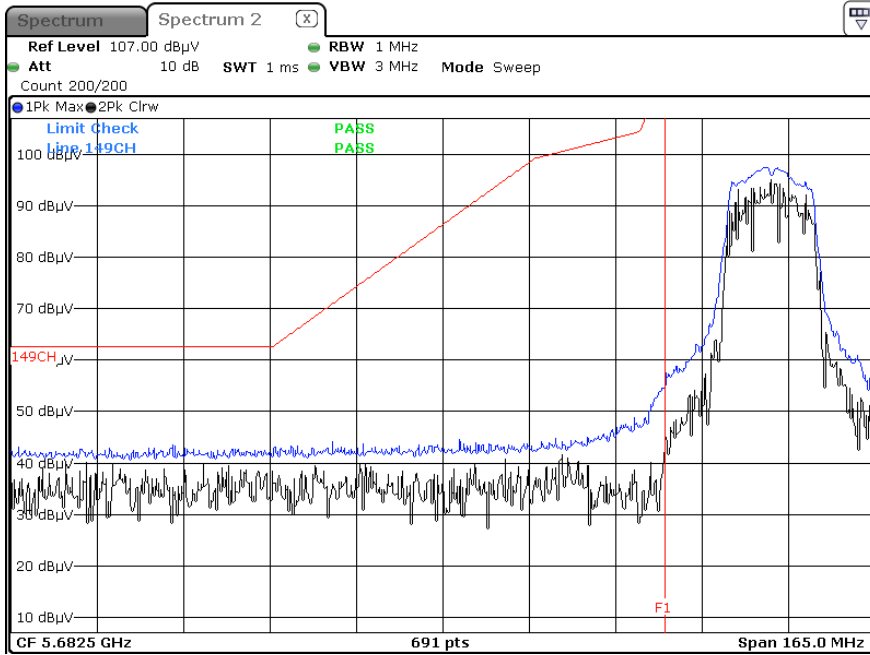
**Note :**

1. Only 最悪 case plots for Radiated Restricted Band Edge.
2. Red line : 5850 MHz
3. Ambient Noise (Because of ambient noise, We attached only the worst plot without a data table)

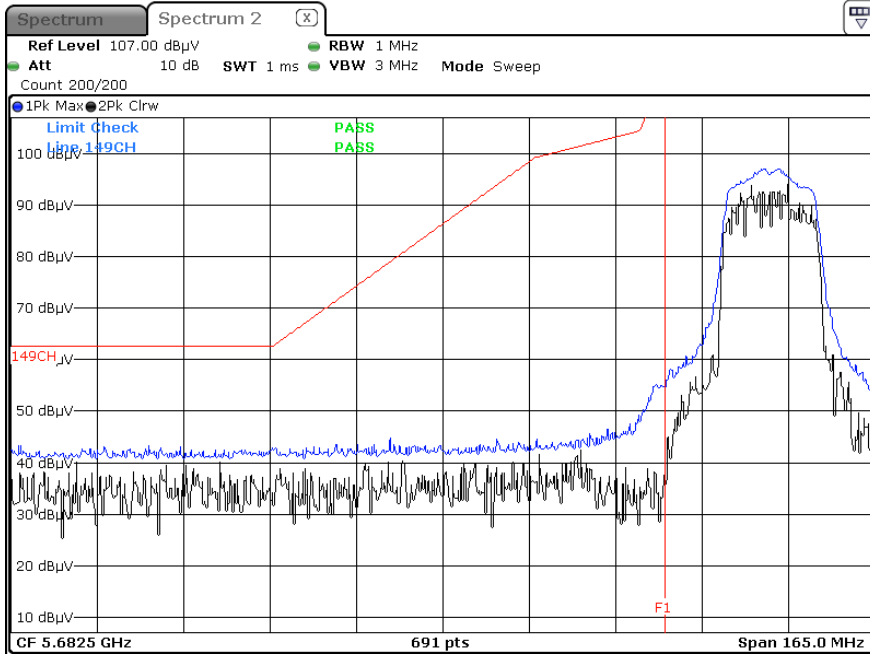


Test Plots(UNII 3)

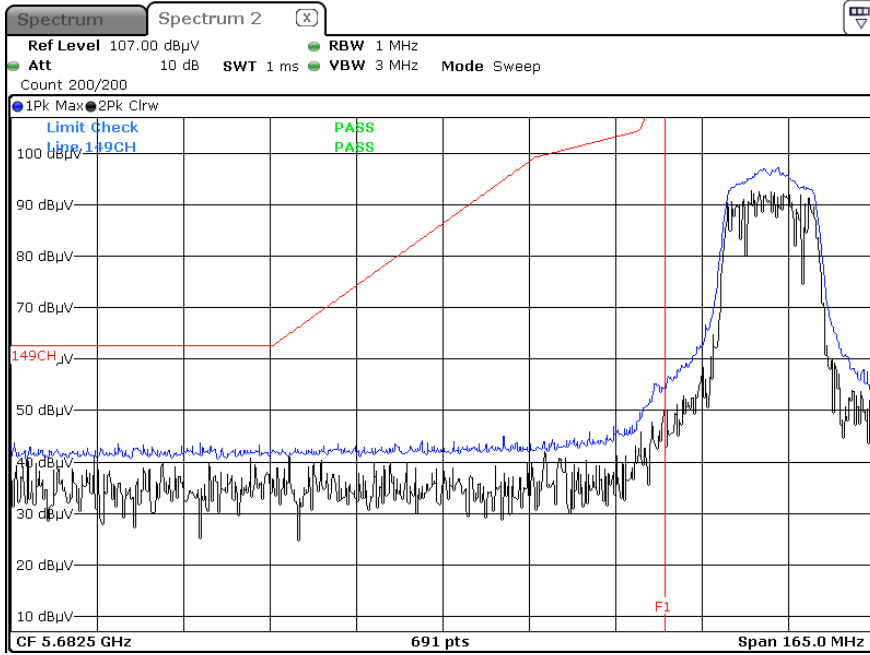
Peak Result (802.11a, Ch.142, Y-H)



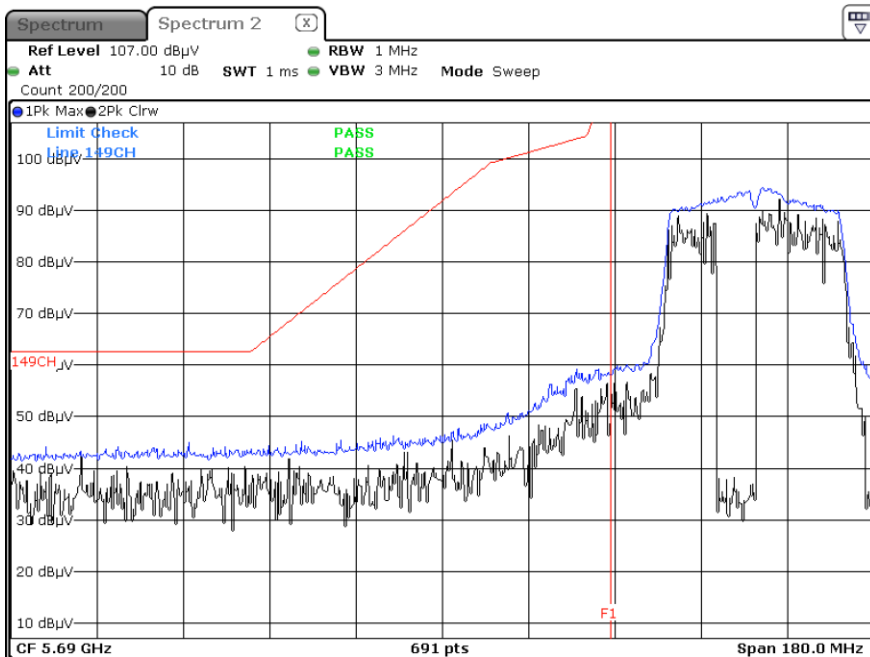
Peak Result (802.11n\_HT20, Ch.142, Y-H)



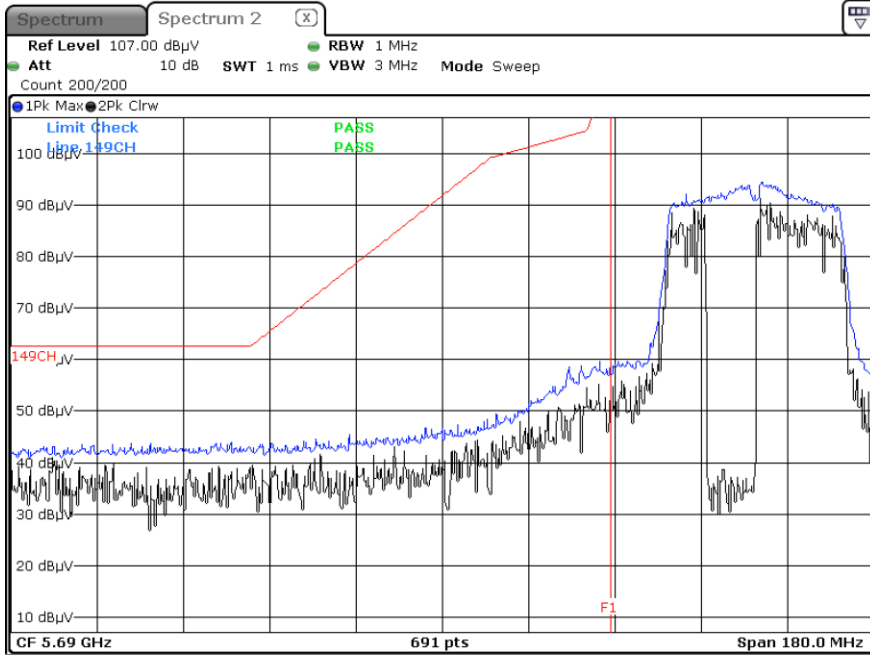
Peak Result (802.11ac\_VHT20, Ch.142, Y-H)



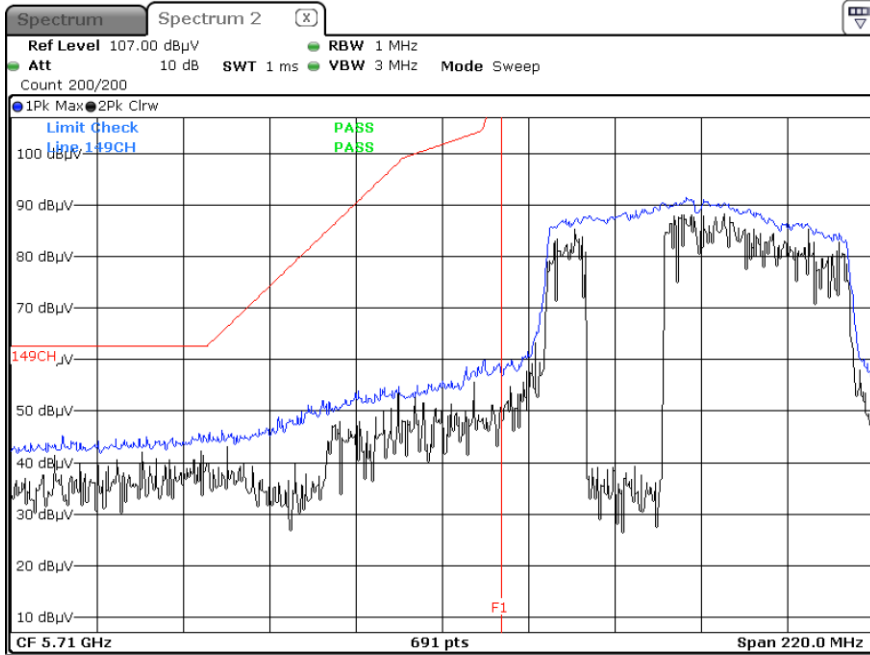
Peak Result (802.11n\_HT40, Ch.151, Y-H)



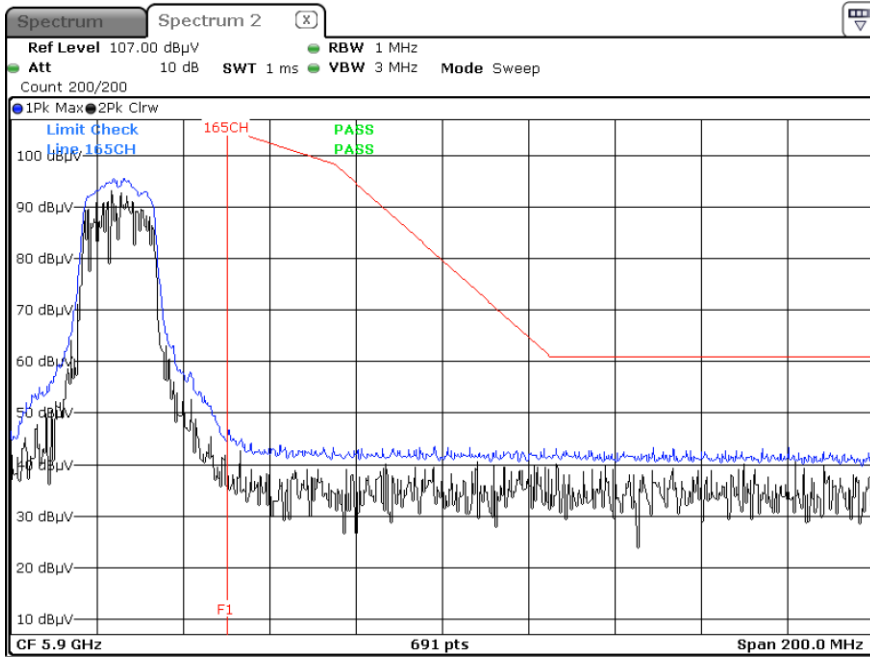
Peak Result (802.11ac\_VHT40, Ch.151, Y-H)



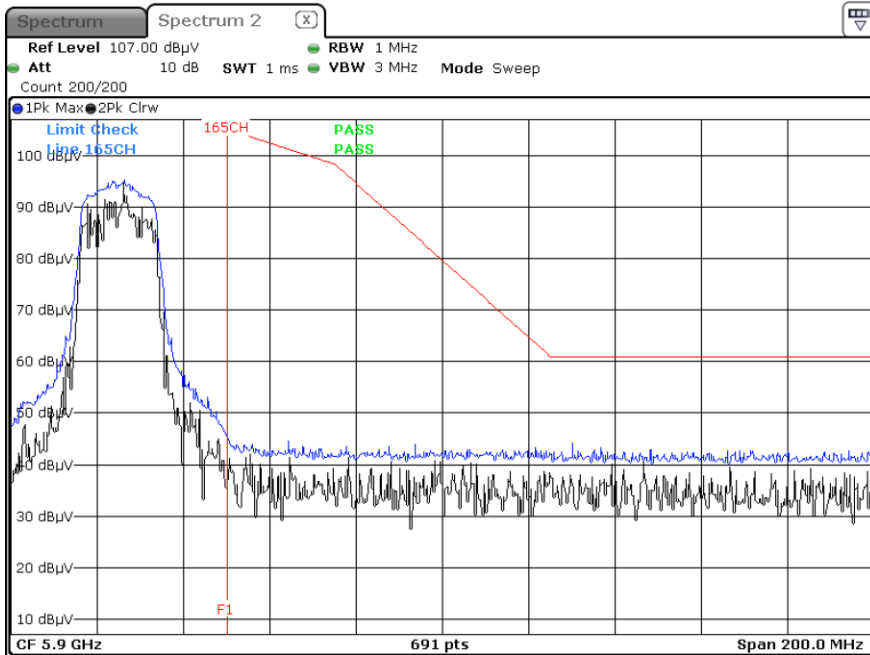
Peak Result (802.11ac\_VHT80, Ch.155, Y-H)



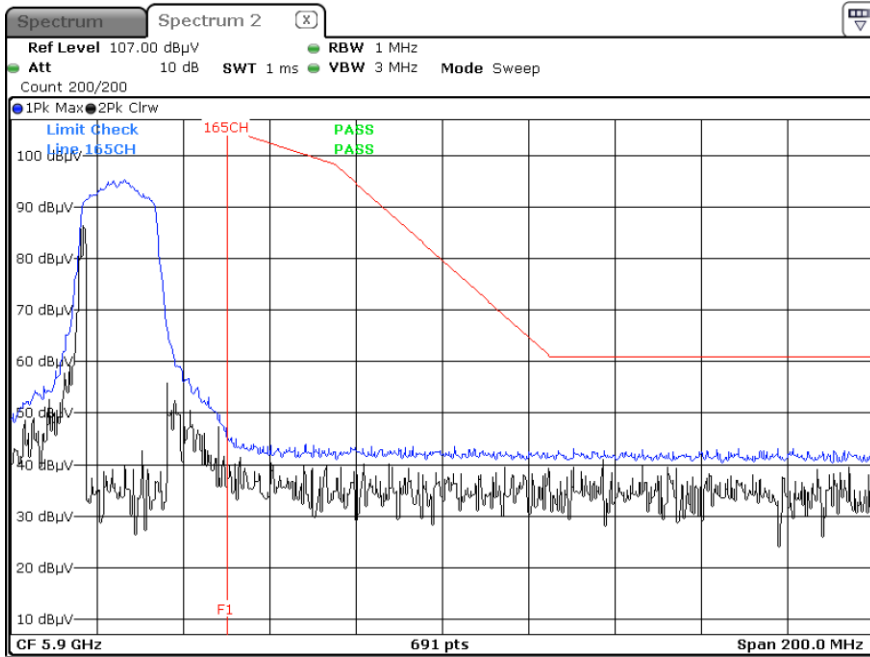
Peak Result (802.11a, Ch.165, Y-H)



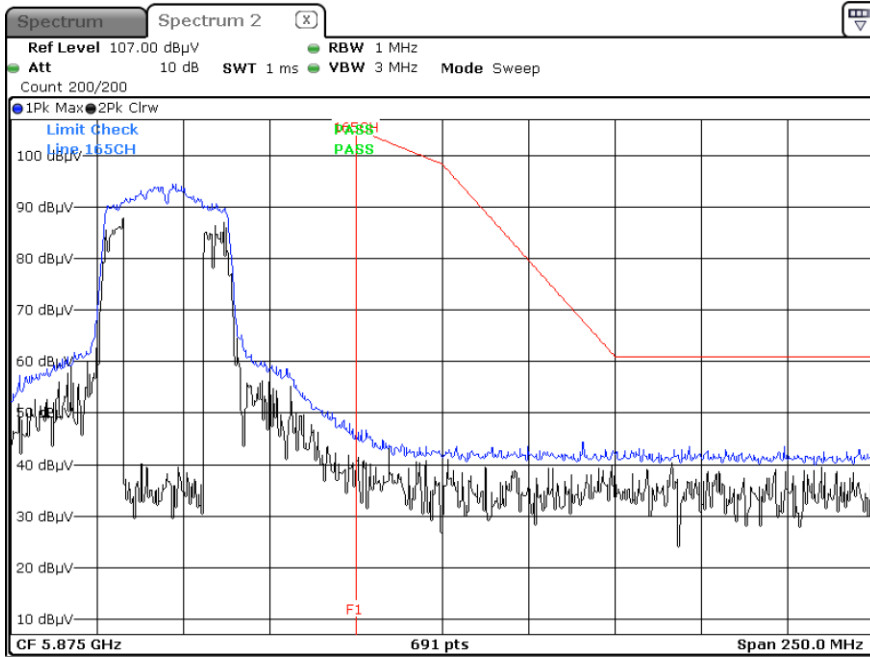
Peak Result (802.11n\_HT20, Ch.165, Y-H)



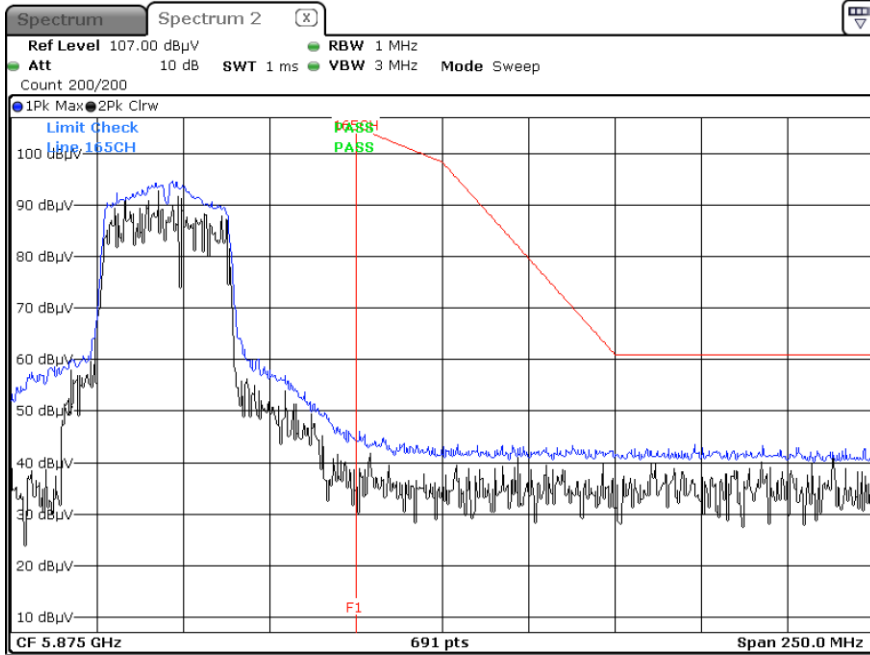
Peak Result (802.11ac\_VHT20, Ch.165, Y-H)



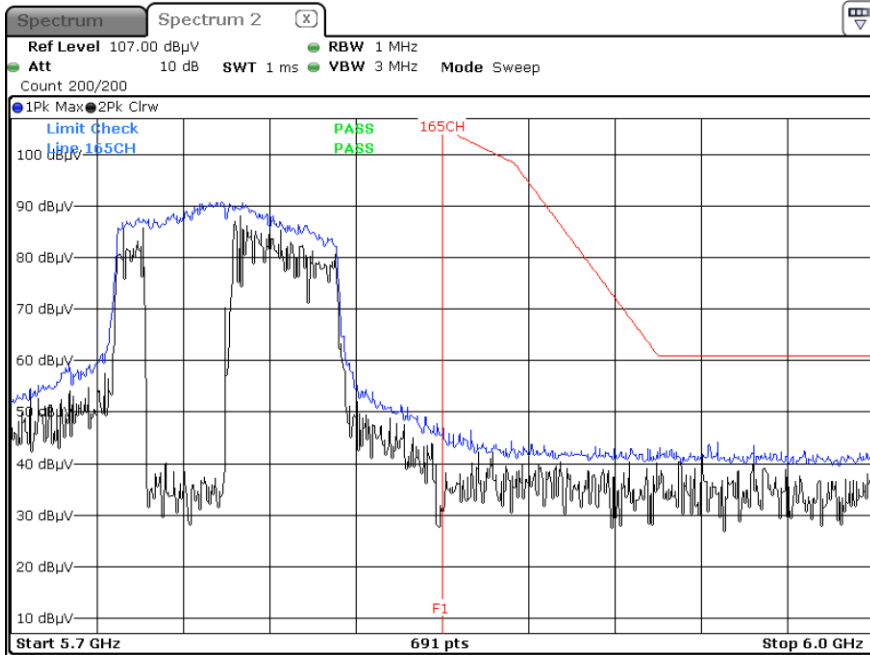
Peak Result (802.11n\_HT40, Ch.159, Y-H)



Peak Result (802.11ac\_VHT40, Ch.159, Y-H)



Peak Result (802.11ac\_VHT80, Ch.155, Y-H)



**10.10 POWERLINE CONDUCTED EMISSIONS**

**Conducted Emissions (Line 1)**

5GHz WLAN N MODE

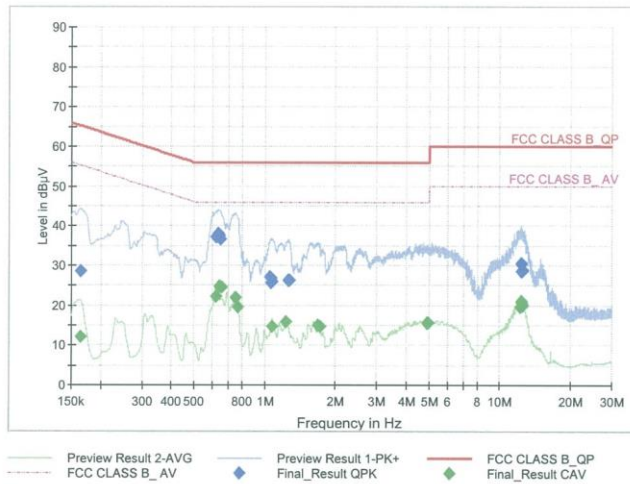
1 / 2

**Test Report**

**Common Information**

EUT : SM-M526B/DS  
 Manufacturer : SAMSUNG  
 Test Site: SHIELD ROOM  
 Operating Conditions : 5GHz WLAN L1 MODE  
 Operator Name:  
 Comment:

Full Spectrum



**Final Result QPK**

Frequency (MHz)	QuasiPeak (dBuV)	Limit (dBuV)	Margin (dB)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
0.1635	28.64	65.28	36.65	9.000	L1	OFF	9.6
0.6193	37.10	56.00	18.90	9.000	L1	OFF	9.7
0.6238	37.20	56.00	18.80	9.000	L1	OFF	9.7
0.6328	37.95	56.00	18.05	9.000	L1	OFF	9.7
0.6418	37.40	56.00	18.60	9.000	L1	OFF	9.7
0.6463	36.50	56.00	19.50	9.000	L1	OFF	9.7
1.0558	27.04	56.00	28.96	9.000	L1	OFF	9.7
1.0603	26.76	56.00	29.24	9.000	L1	OFF	9.7
1.0670	25.79	56.00	30.21	9.000	L1	OFF	9.7
1.0783	26.05	56.00	29.95	9.000	L1	OFF	9.7
1.2583	26.27	56.00	29.73	9.000	L1	OFF	9.7
1.2695	26.38	56.00	29.62	9.000	L1	OFF	9.7
12.2675	30.37	60.00	29.63	9.000	L1	OFF	10.1
12.2833	30.47	60.00	29.53	9.000	L1	OFF	10.1
12.2900	30.30	60.00	29.70	9.000	L1	OFF	10.1
12.3553	28.68	60.00	31.32	9.000	L1	OFF	10.1
12.4430	28.90	60.00	31.10	9.000	L1	OFF	10.1
12.4723	28.70	60.00	31.30	9.000	L1	OFF	10.1

2021-07-26

오전 9:40:21

5GHz WLAN N MODE

2 / 2

**Final Result CAV**

Frequency (MHz)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
0.1635	12.03	55.28	43.26	9.000	L1	OFF	9.6
0.6170	22.18	46.00	23.82	9.000	L1	OFF	9.7
0.6373	24.74	46.00	21.26	9.000	L1	OFF	9.7
0.6553	24.55	46.00	21.45	9.000	L1	OFF	9.7
0.7475	21.81	46.00	24.19	9.000	L1	OFF	9.7
0.7655	19.59	46.00	26.41	9.000	L1	OFF	9.7
1.0760	14.64	46.00	31.36	9.000	L1	OFF	9.7
1.2290	15.81	46.00	30.19	9.000	L1	OFF	9.7
1.6903	14.91	46.00	31.09	9.000	L1	OFF	9.7
1.7150	14.85	46.00	31.15	9.000	L1	OFF	9.7
4.9303	15.69	46.00	30.31	9.000	L1	OFF	9.9
4.9415	15.71	46.00	30.29	9.000	L1	OFF	9.9
12.1685	19.64	50.00	30.36	9.000	L1	OFF	10.1
12.2698	20.89	50.00	29.11	9.000	L1	OFF	10.1
12.2833	20.96	50.00	29.04	9.000	L1	OFF	10.1
12.3553	19.80	50.00	30.20	9.000	L1	OFF	10.1
12.4318	20.27	50.00	29.73	9.000	L1	OFF	10.1
12.4498	19.80	50.00	30.20	9.000	L1	OFF	10.1

2021-07-26

오전 9:40:21



**Conducted Emissions (Line 2)**

5GHz WLAN N MODE

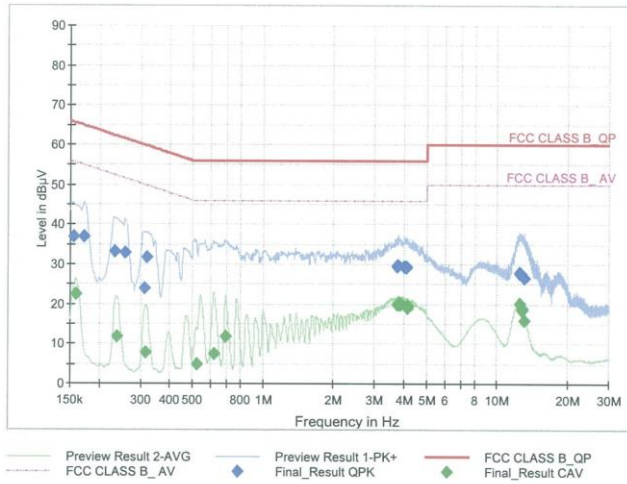
1 / 2

**Test Report**

**Common Information**

EUT : SM-M526B/DS  
 Manufacturer : SAMSUNG  
 Test Site: SHIELD ROOM  
 Operating Conditions : 5GHz WLAN N MODE  
 Operator Name:  
 Comment:

Full Spectrum



**Final Result QPK**

Frequency (MHz)	QuasiPeak (dBuV)	Limit (dBuV)	Margin (dB)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
0.1545	36.96	65.75	28.79	9.000	N	OFF	9.6
0.1725	36.92	64.84	27.92	9.000	N	OFF	9.6
0.2333	33.19	62.33	29.15	9.000	N	OFF	9.6
0.2580	33.02	61.50	28.48	9.000	N	OFF	9.6
0.3120	23.98	59.92	35.93	9.000	N	OFF	9.6
0.3188	31.84	59.74	27.90	9.000	N	OFF	9.6
3.7513	29.62	56.00	26.38	9.000	N	OFF	9.8
3.7648	29.57	56.00	26.43	9.000	N	OFF	9.8
3.7715	29.75	56.00	26.25	9.000	N	OFF	9.8
3.9943	29.35	56.00	26.65	9.000	N	OFF	9.8
4.0910	29.36	56.00	26.64	9.000	N	OFF	9.8
4.1135	29.11	56.00	26.89	9.000	N	OFF	9.8
12.4745	27.98	60.00	32.02	9.000	N	OFF	10.2
12.4880	28.00	60.00	32.00	9.000	N	OFF	10.2
12.4970	27.81	60.00	32.19	9.000	N	OFF	10.2
12.5015	27.88	60.00	32.12	9.000	N	OFF	10.2
12.5758	27.74	60.00	32.26	9.000	N	OFF	10.2
12.9875	26.42	60.00	33.58	9.000	N	OFF	10.2

2021-07-26

오전 9:32:36

5GHz WLAN N MODE

2 / 2

**Final Result\_CAV**

Frequency (MHz)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
0.1590	22.39	55.52	33.12	9.000	N	OFF	9.6
0.2378	11.78	52.17	40.39	9.000	N	OFF	9.6
0.3165	7.80	49.80	42.00	9.000	N	OFF	9.6
0.5203	4.93	46.00	41.07	9.000	N	OFF	9.6
0.6193	7.44	46.00	38.56	9.000	N	OFF	9.6
0.6913	11.73	46.00	34.27	9.000	N	OFF	9.6
3.7513	20.04	46.00	25.96	9.000	N	OFF	9.8
3.8210	20.60	46.00	25.40	9.000	N	OFF	9.8
3.8278	20.02	46.00	25.98	9.000	N	OFF	9.8
3.8593	19.98	46.00	26.02	9.000	N	OFF	9.8
4.1225	19.15	46.00	26.85	9.000	N	OFF	9.8
4.1585	19.58	46.00	26.42	9.000	N	OFF	9.8
12.4745	20.17	50.00	29.83	9.000	N	OFF	10.2
12.7400	18.72	50.00	31.28	9.000	N	OFF	10.2
12.7490	19.14	50.00	30.86	9.000	N	OFF	10.2
12.7895	18.46	50.00	31.54	9.000	N	OFF	10.2
12.8075	18.45	50.00	31.55	9.000	N	OFF	10.2
13.0190	15.79	50.00	34.21	9.000	N	OFF	10.2

2021-07-26

오전 9:32:36

## 11. LIST OF TEST EQUIPMENT

### Conducted Test

Manufacturer	Model / Equipment	Calibration Date	Calibration Interval	Serial No.
Rohde & Schwarz	ENV216 / LISN	09/04/2020	Annual	102245
Rohde & Schwarz	ESR / EMI Test Receiver	06/17/2021	Annual	101910
ESPAC	SU-642 / Temperature Chamber	03/15/2021	Annual	0093008124
Agilent	N9030A / Signal Analyzer	01/11/2021	Annual	MY49431210
Rohde & Schwarz	OSP 120 / Power Measurement Set	07/02/2021	Annual	101231
Agilent	N1911A / Power Meter	04/08/2021	Annual	MY45100523
Keysight	N1921A / Power Sensor	04/08/2021	Annual	MY57820067
Agilent	87300B / Directional Coupler	11/10/2020	Annual	3116A03621
Hewlett Packard	11667B / Power Splitter	05/20/2021	Annual	05001
Hewlett Packard	E3632A / DC Power Supply	02/16/2021	Annual	MY50360067
Hewlett Packard	8493C / Attenuator(10 dB)	06/18/2021	Annual	07560
Rohde & Schwarz	EMC32 / Software	N/A	N/A	N/A
HCT CO., LTD.	FCC WLAN&BT&BLE Conducted Test Software v3.0	N/A	N/A	N/A

### **Note:**

1. Equipment listed above that calibrated during the testing period was set for test after the calibration.
2. Equipment listed above that has a calibration due date during the testing period, the testing is completed before equipment expiration date.

**Radiated Test**

Manufacturer	Model / Equipment	Calibration Date	Calibration Interval	Serial No.
Innco system	CO3000 / Controller(Antenna mast)	N/A	N/A	CO3000-4p
Innco system	MA4640/800-XP-EP / Antenna Position Tower	N/A	N/A	N/A
Audix	EM1000 / Controller	N/A	N/A	060520
Audix	Turn Table	N/A	N/A	N/A
Rohde & Schwarz	Loop Antenna	03/19/2020	Biennial	1513-333
Schwarzbeck	VULB 9168 / Hybrid Antenna	02/22/2021	Biennial	760
Schwarzbeck	BBHA 9120D / Horn Antenna	05/19/2020	Biennial	02299
Schwarzbeck	BBHA9170 / Horn Antenna(15 GHz ~ 40 GHz)	11/29/2019	Biennial	BBHA9170541
Rohde & Schwarz	FSV40-N / Spectrum Analyzer	07/05/2021	Annual	102168
Agilent	N9030A / Signal Analyzer	01/11/2021	Annual	MY49431210
Wainwright Instruments	WRCJV12-4900-5100-5900-6100-50SS	06/24/2021	Annual	5
Wainwright Instruments	WRCJV12-4900-5100-5900-6100-50SS	06/24/2021	Annual	6
Wainwright Instruments	WRCJV2400/2483.5-2370/2520-60/12SS / Band Reject Filter	01/06/2021	Annual	2
Wainwright Instruments	WRCJV5100/5850-40/50-8EEK / Band Reject Filter	02/08/2021	Annual	1
Wainwright Instruments	WHK3.0/18G-10EF / High Pass Filter	02/03/2021	Annual	8
Wainwright Instruments	WHKX8-6090-7000-18000-40SS/ High Pass Filter	02/03/2021	Annual	25
Api tech.	18B-03 / Attenuator (3 dB)	02/03/2021	Annual	1
Agilent	8493C-10 / Attenuator(10 dB)	02/03/2021	Annual	08285
CERNEX	CBLU1183540 / Power Amplifier	02/03/2021	Annual	22964
CERNEX	CBL06185030 / Power Amplifier	02/03/2021	Annual	22965
CERNEX	CBL18265035 / Power Amplifier	12/04/2020	Annual	22966
CERNEX	CBL26405040 / Power Amplifier	03/23/2021	Annual	25956

**Note:**

1. Equipment listed above that calibrated during the testing period was set for test after the calibration.
2. Equipment listed above that has a calibration due date during the testing period, the testing is completed before equipment expiration date.
3. Especially, all antenna for measurement is calibrated in accordance with the requirements of C63.5(Version : 2017).

## 12. ANNEX A\_ TEST SETUP PHOTO

Please refer to test setup photo file no. as follows;

No.	Description
1	HCT-RF-2108-FC009-P