▣ Test Plots (26 dB Bandwidth)

802.11n(HT40) UNII Band	802.11ac(VHT40) UNII Band
	
802.11ac(VHT80) UNII Band	
	

[Ant.2]

▣ Test Plots (26 dB Bandwidth)

802.11a UNII Band	802.11n(HT20) UNII Band
	

802.11ac(VHT20) UNII Band


▣ Test Plots (26 dB Bandwidth)

802.11n(HT40) UNII Band	802.11ac(VHT40) UNII Band
	
802.11ac(VHT80) UNII Band	
	

10.7.2 6 dB Bandwidth

[Ant.1]

Mode	Band	Frequency [MHz]	Channel	Measured Frequency [MHz]	6 dB Bandwidth [MHz]	Limit [MHz]
802.11a	UNII 3	5720	144	5728.16	3.16	> 0.5
802.11n(HT20)				5727.92	2.92	> 0.5
802.11ac(VHT20)				5728.00	3.00	> 0.5

Mode	Band	Frequency [MHz]	Channel	Measured Frequency [MHz]	6 dB Bandwidth [MHz]	Limit [MHz]
802.11n(HT40)	UNII 3	5710	142	5727.60	2.60	> 0.5
802.11ac(VHT40)				5727.52	2.52	> 0.5

Mode	Band	Frequency [MHz]	Channel	Measured Frequency [MHz]	6 dB Bandwidth [MHz]	Limit [MHz]
802.11ac(VHT80)	UNII 3	5690	138	5727.60	2.60	> 0.5

Note:

6 dB Bandwidth = Measured Frequency[MHz] – 5 725MHz

[Ant.2]

Mode	Band	Frequency [MHz]	Channel	Measured Frequency [MHz]	6 dB Bandwidth [MHz]	Limit [MHz]
802.11a	UNII 3	5720	144	5727.76	2.76	> 0.5
802.11n(HT20)				5727.96	2.96	> 0.5
802.11ac(VHT20)				5728.48	3.48	> 0.5

Mode	Band	Frequency [MHz]	Channel	Measured Frequency [MHz]	6 dB Bandwidth [MHz]	Limit [MHz]
802.11n(HT40)	UNII 3	5710	142	5727.60	2.60	> 0.5
802.11ac(VHT40)				5727.60	2.60	> 0.5

Mode	Band	Frequency [MHz]	Channel	Measured Frequency [MHz]	6 dB Bandwidth [MHz]	Limit [MHz]
802.11ac(VHT80)	UNII 3	5690	138	5727.60	2.60	> 0.5

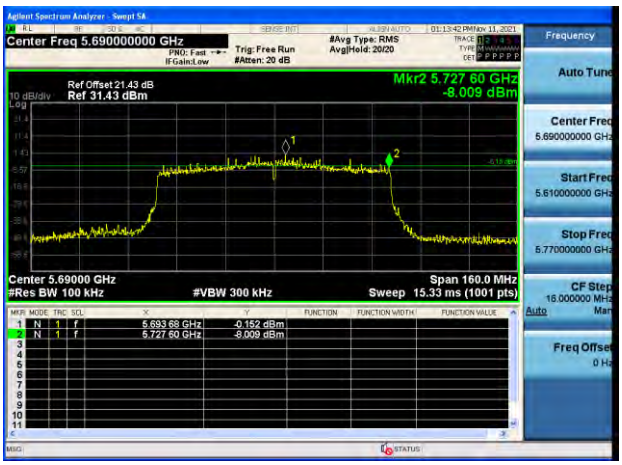
Note:

6 dB Bandwidth = Measured Frequency[MHz] – 5725MHz

[Ant.1]

▣ Test Plots(UNII 3 Band 6 dB Bandwidth)

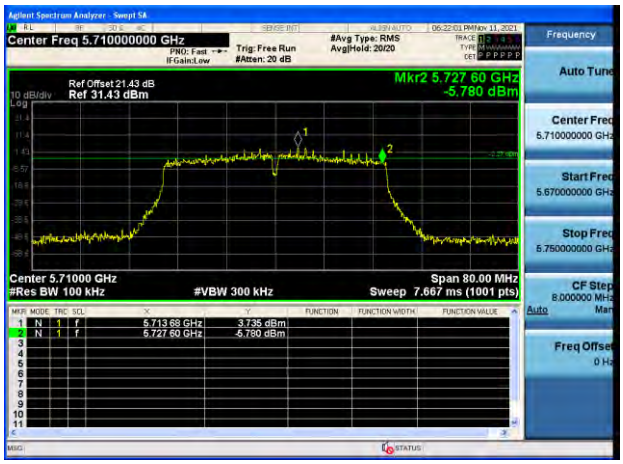
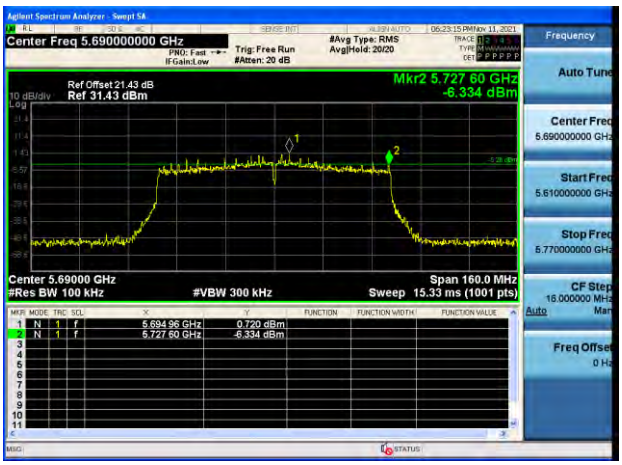
802.11a CH.144	802.11n_HT20 CH.144
	
802.11ac_VHT20 CH.144	
	

802.11n_HT40 CH.142	802.11ac_VHT40 CH.142
	
802.11ac_VHT80 CH.138	
	

[Ant.2]

▣ Test Plots(UNII 3 Band 6 dB Bandwidth)

802.11a CH.144	802.11n_HT20 CH.144
	
802.11ac_VHT20 CH.144	
	

802.11n_HT40 CH.142	802.11ac_VHT40 CH.142
	
802.11ac_VHT80 CH.138	
	

10.7.3 Output Power

[UNII 2C & 3]

[Ant.1]

Mode	Frequency [MHz]	Channel	Measured Power (dBm)	Duty Cycle Factor (dB)	Total Power (dBm)	Limit (dBm)	Worstcase Datarate
802.11a	5720 (UNII 2C Band)	144	15.82	0.284	16.11	22.50	6 Mbps
802.11n(HT20)			15.25	0.330	15.58	22.66	MCS0
802.11ac(VHT20)			15.27	0.329	15.60	22.66	MCS0
802.11a	5720 (UNII 3 Band)	144	8.03	0.284	8.31	30.00	6 Mbps
802.11n(HT20)			7.89	0.330	8.22	30.00	MCS0
802.11ac(VHT20)			7.89	0.329	8.22	30.00	MCS0

Mode	Frequency [MHz]	Channel	Measured Power (dBm)	Duty Cycle Factor (dB)	Total Power (dBm)	Limit (dBm)	Worstcase Datarate
802.11n(HT40)	5710 (UNII 2C Band)	142	15.76	0.630	16.39	23.98	MCS0
802.11ac(VHT40)			15.59	0.627	16.21	23.98	MCS0
802.11n(HT40)	5710 (UNII 3 Band)	142	3.49	0.630	4.12	30.00	MCS0
802.11ac(VHT40)			3.50	0.627	4.13	30.00	MCS0

Mode	Frequency [MHz]	Channel	Measured Power (dBm)	Duty Cycle Factor (dB)	Total Power (dBm)	Limit (dBm)	Worstcase Datarate
802.11ac(VHT80)	5690 (UNII 2C Band)	138	13.64	1.158	14.80	23.98	MCS0
	5690 (UNII 3 Band)	138	-2.07	1.158	-0.91	30.00	MCS0

[Ant.2]

Mode	Frequency [MHz]	Channel	Measured Power (dBm)	Duty Cycle Factor (dB)	Total Power (dBm)	Limit (dBm)	Worstcase Datarate
802.11a	5720 (UNII 2C Band)	144	16.00	0.284	16.29	22.52	6 Mbps
802.11n(HT20)			15.49	0.330	15.82	22.74	MCS0
802.11ac(VHT20)			15.52	0.329	15.85	22.64	MCS0
802.11a	5720 (UNII 3 Band)	144	8.24	0.284	8.52	30.00	6 Mbps
802.11n(HT20)			8.19	0.330	8.52	30.00	MCS0
802.11ac(VHT20)			8.16	0.329	8.48	30.00	MCS0

Mode	Frequency [MHz]	Channel	Measured Power (dBm)	Duty Cycle Factor (dB)	Total Power (dBm)	Limit (dBm)	Worstcase Datarate
802.11n(HT40)	5710 (UNII 2C Band)	142	15.79	0.630	16.42	15.79	MCS0
802.11ac(VHT40)			15.70	0.627	16.33	15.70	MCS0
802.11n(HT40)	5710 (UNII 3 Band)	142	3.75	0.630	4.38	3.75	MCS0
802.11ac(VHT40)			3.72	0.627	4.35	3.72	MCS0

Mode	Frequency [MHz]	Channel	Measured Power (dBm)	Duty Cycle Factor (dB)	Total Power (dBm)	Limit (dBm)	Worstcase Datarate
802.11ac(VHT80)	5690 (UNII 2C Band)	138	13.57	1.158	14.73	23.98	MCS0
	5690 (UNII 3 Band)	138	-1.95	1.158	-0.79	30.00	MCS0

[Ant.1]

▣ Test Plots_

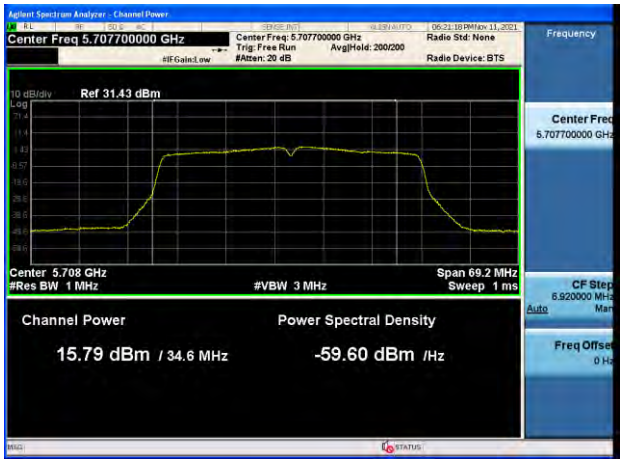
802.11a UNII 2C Band	802.11a UNII 3 Band
	
802.11n(HT20) UNII 2C Band	**802.11n(HT20) UNII 3 Band**
	
802.11ac(VHT20) UNII 2C Band	**802.11ac(VHT20) UNII 3 Band**
	

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**
	

[Ant.2]

▣ Test Plots_

802.11a UNII 2C Band	802.11a UNII 3 Band
	
802.11n(HT20) UNII 2C Band	**802.11n(HT20) UNII 3 Band**
	
802.11ac(VHT20) UNII 2C Band	**802.11ac(VHT20) UNII 3 Band**
	

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**
	

10.7.4 Power Spectral Density

[UNII 2C & 3]

[Ant.1]

Mode	Frequency [MHz]	Channel	Measured Density (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)	Limit (dBm)	Worstcase Datarate
802.11a	5720 (UNII 2C Band)	144	6.758	0.284	7.042	11dBm/ MHz	6 Mbps
802.11n(HT20)			6.386	0.330	6.716		MCS0
802.11ac(VHT20)			5.860	0.329	6.189		MCS0
802.11a	5720 (UNII 3 Band)	144	1.118	0.284	1.402	30 dB/ 500 kHz	6 Mbps
802.11n(HT20)			0.766	0.330	1.096		MCS0
802.11ac(VHT20)			0.629	0.329	0.958		MCS0

Mode	Frequency [MHz]	Channel	Measured Density (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)	Limit (dBm)	Worstcase Datarate
802.11n(HT40)	5710 (UNII 2C Band)	142	3.237	0.630	3.867	11dBm/ MHz	MCS0
802.11ac(VHT40)			3.237	0.627	3.864		MCS0
802.11n(HT40)	5710 (UNII 3 Band)	142	-3.333	0.630	-2.703	30 dBm/ 500 kHz	MCS0
802.11ac(VHT40)			-3.585	0.627	-2.958		MCS0

Mode	Frequency [MHz]	Channel	Measured Density (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)	Limit (dBm)	Worstcase Datarate
802.11ac(VHT80)	5690 (UNII 2C Band)	138	-1.706	1.158	-0.548	11dBm/ MHz	MCS0
	5690 (UNII 3 Band)	138	-9.456	1.158	-8.298	30 dBm/ 500 kHz	MCS0

[Ant.2]

Mode	Frequency [MHz]	Channel	Measured Density (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)	Limit (dBm)	Worstcase Datarate
802.11a	5720 (UNII 2C Band)	144	7.075	0.284	7.359	11dBm/ MHz	6 Mbps
802.11n(HT20)			6.555	0.330	6.885		MCS0
802.11ac(VHT20)			6.433	0.329	6.762		MCS0
802.11a	5720 (UNII 3 Band)	144	0.995	0.284	1.279	30 dBm/ 500 kHz	6 Mbps
802.11n(HT20)			1.106	0.330	1.437		MCS0
802.11ac(VHT20)			0.798	0.329	1.127		MCS0

Mode	Frequency [MHz]	Channel	Measured Density (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)	Limit (dBm)	Worstcase Datarate
802.11n(HT40)	5710 (UNII 2C Band)	142	3.603	0.630	4.232	11dBm/ MHz	MCS0
802.11ac(VHT40)			3.323	0.627	3.950		MCS0
802.11n(HT40)	5710 (UNII 3 Band)	142	-3.296	0.630	-2.667	30 dBm/ 500 kHz	MCS0
802.11ac(VHT40)			-3.283	0.627	-2.656		MCS0

Mode	Frequency [MHz]	Channel	Measured Density (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)	Limit (dBm)	Worstcase Datarate
802.11ac(VHT80)	5690 (UNII 2C Band)	138	-1.119	1.158	0.039	11dBm/ MHz	MCS0
	5690 (UNII 3 Band)	138	-9.099	1.158	-7.941	30 dBm/ 500 kHz	MCS0

[Ant.1]
▣ Test Plots

802.11a UNII 2C Band	802.11a UNII 3 Band
	
802.11n(HT20) UNII 2C Band	**802.11n(HT20) UNII 3 Band**
	
802.11ac(VHT20) UNII 2C Band	**802.11ac(VHT20) UNII 3 Band**
	

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**
	

[Ant.2]

▣ Test Plots

802.11a UNII 2C Band	802.11a UNII 3 Band
	
802.11n(HT20) UNII 2C Band	**802.11n(HT20) UNII 3 Band**
	
802.11ac(VHT20) UNII 2C Band	**802.11ac(VHT20) UNII 3 Band**
	

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 Level	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 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 = 40log (specific distance / test distance) (dB)
3. Limit line = specific Limits (dBμV) + Distance extrapolation factor
4. Radiated test is performed with hopping off.

Frequency Range : Below 1 GHz

Frequency	Measured Level	A.F+C.L	ANT. 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.
2. Radiated test is performed with hopping off.

[Ant.1&Ant.2_MIMO(CDD)]

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 Level [dBµV]	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	55.35	8.05	V	63.40	68.20	4.80	PK
15540	40.19	12.94	V	53.13	73.98	20.85	PK
15540	27.13	12.94	V	40.07	53.98	13.91	AV
10360	55.00	8.05	H	63.05	68.20	5.15	PK
15540	40.56	12.94	H	53.50	73.98	20.48	PK
15540	26.91	12.94	H	39.85	53.98	14.13	AV

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

Frequency [MHz]	Measured Level [dBµV]	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	55.74	8.21	V	63.95	68.20	4.25	PK
15600	40.85	13.31	V	54.16	73.98	19.82	PK
15600	26.63	13.31	V	39.94	53.98	14.04	AV
10400	54.42	8.21	H	62.63	68.20	5.57	PK
15600	40.32	13.31	H	53.63	73.98	20.35	PK
15600	26.62	13.31	H	39.93	53.98	14.05	AV

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

Frequency [MHz]	Measured Level [dBµV]	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	53.46	8.55	V	62.01	68.20	6.19	PK
15720	39.45	13.22	V	52.67	73.98	21.31	PK
15720	26.20	13.22	V	39.42	53.98	14.56	AV
10480	53.77	8.55	H	62.32	68.20	5.88	PK
15720	39.48	13.22	H	52.70	73.98	21.28	PK
15720	26.32	13.22	H	39.54	53.98	14.44	AV

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

Frequency [MHz]	Measured Level [dBµV]	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	52.51	8.95	V	61.46	68.20	6.74	PK
15780	40.12	13.89	V	54.01	73.98	19.97	PK
15780	27.04	13.89	V	40.93	53.98	13.05	AV
10520	50.44	8.95	H	59.39	68.20	8.81	PK
15780	41.71	13.89	H	55.60	73.98	18.38	PK
15780	27.12	13.89	H	41.01	53.98	12.97	AV

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

Frequency [MHz]	Measured Level [dBµV]	A.F+C.L -A.G+D.F [dB/m]	ANT. POL [H/V]	Total [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Measurement Type
10600	50.17	9.57	V	59.74	73.98	14.24	PK
10600	35.87	9.57	V	45.44	53.98	8.54	AV
15900	41.06	13.31	V	54.37	73.98	19.61	PK
15900	27.76	13.31	V	41.07	53.98	12.91	AV
10600	48.96	9.57	H	58.53	73.98	15.45	PK
10600	34.57	9.57	H	44.14	53.98	9.84	AV
15900	41.21	13.31	H	54.52	73.98	19.46	PK
15900	27.74	13.31	H	41.05	53.98	12.93	AV

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

Frequency [MHz]	Measured Level [dBµV]	A.F+C.L -A.G+D.F [dB/m]	ANT. POL [H/V]	Total [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Measurement Type
10640	48.91	9.71	V	58.62	73.98	15.36	PK
10640	34.73	9.71	V	44.44	53.98	9.54	AV
15960	40.94	12.93	V	53.87	73.98	20.11	PK
15960	27.47	12.93	V	40.40	53.98	13.58	AV
10640	48.13	9.71	H	57.84	73.98	16.14	PK
10640	34.36	9.71	H	44.07	53.98	9.91	AV
15960	40.57	12.93	H	53.50	73.98	20.48	PK
15960	27.46	12.93	H	40.39	53.98	13.59	AV

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

Frequency [MHz]	Measured Level [dBµV]	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	44.62	9.69	V	54.31	73.98	19.67	PK
11000	31.57	9.69	V	41.26	53.98	12.72	AV
16500	41.51	12.08	V	53.59	68.20	14.61	PK
11000	43.42	9.69	H	53.11	73.98	20.87	PK
11000	30.29	9.69	H	39.98	53.98	14.00	AV
16500	41.55	12.08	H	53.63	68.20	14.57	PK

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

Frequency [MHz]	Measured Level [dBµV]	A.F+C.L -A.G+D.F [dB/m]	ANT. POL [H/V]	Total [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Measurement Type
11160	43.50	10.22	V	53.72	73.98	20.26	PK
11160	30.55	10.22	V	40.77	53.98	13.21	AV
16740	41.04	11.40	V	52.44	73.98	21.54	PK
11160	42.99	10.22	H	53.21	73.98	20.77	PK
11160	29.22	10.22	H	39.44	53.98	14.54	AV
16740	41.35	11.40	H	52.75	73.98	21.23	PK

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

Frequency [MHz]	Measured Level [dBµV]	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	41.86	10.57	V	52.43	73.98	21.55	PK
11440	29.23	10.57	V	39.80	53.98	14.18	AV
17160	41.22	12.01	V	53.23	68.20	14.97	PK
11440	42.15	10.57	H	52.72	73.98	21.26	PK
11440	28.27	10.57	H	38.84	53.98	15.14	AV
17160	41.07	12.01	H	53.08	68.20	15.12	PK

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

Frequency [MHz]	Measured Level [dBµV]	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	42.55	10.49	V	53.04	73.98	20.94	PK
11490	29.06	10.49	V	39.55	53.98	14.43	AV
17235	41.01	12.22	V	53.23	68.20	14.97	PK
11490	41.67	10.49	H	52.16	73.98	21.82	PK
11490	28.75	10.49	H	39.24	53.98	14.74	AV
17235	41.57	12.22	H	53.79	68.20	14.41	PK

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

Frequency [MHz]	Measured Level [dBµV]	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	42.33	9.92	V	52.25	73.98	21.73	PK
11570	29.58	9.92	V	39.50	53.98	14.48	AV
17355	40.73	13.11	V	53.84	68.20	14.36	PK
11570	42.99	9.92	H	52.91	73.98	21.07	PK
11570	29.06	9.92	H	38.98	53.98	15.00	AV
17355	40.67	13.11	H	53.78	68.20	14.42	PK

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

Frequency [MHz]	Measured Level [dBµV]	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	42.67	9.60	V	52.27	73.98	21.71	PK
11650	29.65	9.60	V	39.25	53.98	14.73	AV
17475	40.51	14.27	V	54.78	68.20	13.42	PK
11650	42.30	9.60	H	51.90	73.98	22.08	PK
11650	29.00	9.60	H	38.60	53.98	15.38	AV
17475	40.43	14.27	H	54.70	68.20	13.50	PK

Band :	UNII 4
Operation Mode:	802.11 a
Transfer Rate:	6 Mbps
Operating Frequency	5845 MHz
Channel No.	169 Ch

Frequency [MHz]	Measured Level [dBµV]	A.F+C.L -A.G+D.F [dB/m]	ANT. POL [H/V]	Total [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Measurement Type
11690	41.95	9.68	V	51.63	73.98	22.35	PK
11690	28.17	9.68	V	37.85	53.98	16.13	AV
17535	40.77	14.59	V	55.36	68.20	12.84	PK
11690	40.55	9.68	H	50.23	73.98	23.75	PK
11690	28.08	9.68	H	37.76	53.98	16.22	AV
17535	40.03	14.59	H	54.62	68.20	13.58	PK

Band :	UNII 4
Operation Mode:	802.11 a
Transfer Rate:	6 Mbps
Operating Frequency	5865 MHz
Channel No.	173 Ch

Frequency [MHz]	Measured Level [dBµV]	A.F+C.L -A.G+D.F [dB/m]	ANT. POL [H/V]	Total [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Measurement Type
11730	41.99	9.63	V	51.62	73.98	22.36	PK
11730	28.30	9.63	V	37.93	53.98	16.05	AV
17595	40.70	14.80	V	55.50	68.20	12.70	PK
11730	41.29	9.63	H	50.92	73.98	23.06	PK
11730	28.09	9.63	H	37.72	53.98	16.26	AV
17595	40.05	14.80	H	54.85	68.20	13.35	PK

Band :	UNII 4
Operation Mode:	802.11 a
Transfer Rate:	6 Mbps
Operating Frequency	5885 MHz
Channel No.	177 Ch

Frequency [MHz]	Measured Level [dBµV]	A.F+C.L -A.G+D.F [dB/m]	ANT. POL [H/V]	Total [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Measurement Type
11770	41.96	9.47	V	51.43	73.98	22.55	PK
11770	28.61	9.47	V	38.08	53.98	15.90	AV
17655	40.55	15.23	V	55.78	68.20	12.42	PK
11770	41.43	9.47	H	50.90	73.98	23.08	PK
11770	28.48	9.47	H	37.95	53.98	16.03	AV
17655	39.53	15.23	H	54.76	68.20	13.44	PK

Band :	UNII 1
Operation Mode:	802.11n(HT20)
Transfer Rate:	MCS0
Operating Frequency	5180 MHz
Channel No.	36 Ch

Frequency [MHz]	Measured Level [dBµV]	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	**56.31**	**8.05**	**V**	**64.36**	**68.20**	**3.84**	**PK**
15540	40.27	12.94	V	53.21	73.98	20.77	PK
15540	26.93	12.94	V	39.87	53.98	14.11	AV
10360	55.89	8.05	H	63.94	68.20	4.26	PK
15540	40.78	12.94	H	53.72	73.98	20.26	PK
15540	26.95	12.94	H	39.89	53.98	14.09	AV

Band :	UNII 1
Operation Mode:	802.11n(HT20)
Transfer Rate:	MCS0
Operating Frequency	5200 MHz
Channel No.	40 Ch

Frequency [MHz]	Measured Level [dBµV]	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	55.56	8.21	V	63.77	68.20	4.43	PK
15600	40.41	13.31	V	53.72	73.98	20.26	PK
15600	26.54	13.31	V	39.85	53.98	14.13	AV
10400	54.43	8.21	H	62.64	68.20	5.56	PK
15600	40.13	13.31	H	53.44	73.98	20.54	PK
15600	26.60	13.31	H	39.91	53.98	14.07	AV

Band :	UNII 1
Operation Mode:	802.11n(HT20)
Transfer Rate:	MCS0
Operating Frequency	5240 MHz
Channel No.	48 Ch

Frequency [MHz]	Measured Level [dBµV]	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	54.04	8.55	V	62.59	68.20	5.61	PK
15720	39.57	13.22	V	52.79	73.98	21.19	PK
15720	26.28	13.22	V	39.50	53.98	14.48	AV
10480	54.61	8.55	H	63.16	68.20	5.04	PK
15720	40.07	13.22	H	53.29	73.98	20.69	PK
15720	26.36	13.22	H	39.58	53.98	14.40	AV

Band :	UNII 1
Operation Mode:	802.11ac(VHT20)
Transfer Rate:	MCS0
Operating Frequency	5180 MHz
Channel No.	36 Ch

Frequency [MHz]	Measured Level [dBµV]	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	53.56	8.05	V	61.61	68.20	6.59	PK
15540	40.74	12.94	V	53.68	73.98	20.30	PK
15540	27.02	12.94	V	39.96	53.98	14.02	AV
10360	54.04	8.05	H	62.09	68.20	6.11	PK
15540	40.08	12.94	H	53.02	73.98	20.96	PK
15540	26.93	12.94	H	39.87	53.98	14.11	AV

Band :	UNII 1
Operation Mode:	802.11ac(VHT20)
Transfer Rate:	MCS0
Operating Frequency	5200 MHz
Channel No.	40 Ch

Frequency [MHz]	Measured Level [dBµV]	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	53.72	8.21	V	61.93	68.20	6.27	PK
15600	40.21	13.31	V	53.52	73.98	20.46	PK
15600	26.56	13.31	V	39.87	53.98	14.11	AV
10400	53.19	8.21	H	61.40	68.20	6.80	PK
15600	40.23	13.31	H	53.54	73.98	20.44	PK
15600	26.60	13.31	H	39.91	53.98	14.07	AV

Band :	UNII 1
Operation Mode:	802.11ac(VHT20)
Transfer Rate:	MCS0
Operating Frequency	5240 MHz
Channel No.	48 Ch

Frequency [MHz]	Measured Level [dBµV]	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	52.45	8.55	V	61.00	68.20	7.20	PK
15720	39.79	13.22	V	53.01	73.98	20.97	PK
15720	26.29	13.22	V	39.51	53.98	14.47	AV
10480	53.47	8.55	H	62.02	68.20	6.18	PK
15720	39.58	13.22	H	52.80	73.98	21.18	PK
15720	26.36	13.22	H	39.58	53.98	14.40	AV

Band :	UNII 1
Operation Mode:	802.11n(HT40)
Transfer Rate:	MCS0
Operating Frequency	5190 MHz
Channel No.	38 Ch

Frequency [MHz]	Measured Level [dBμV]	A.F+C.L -A.G+D.F [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
10380	49.95	8.19	V	58.14	68.20	10.06	PK
15570	40.69	13.31	V	54.00	73.98	19.98	PK
15570	27.45	13.31	V	40.76	53.98	13.22	AV
10380	48.48	8.19	H	56.67	68.20	11.53	PK
15570	40.06	13.31	H	53.37	73.98	20.61	PK
15570	27.57	13.31	H	40.88	53.98	13.10	AV

Band :	UNII 1
Operation Mode:	802.11n(HT40)
Transfer Rate:	MCS0
Operating Frequency	5230 MHz
Channel No.	46 Ch

Frequency [MHz]	Measured Level [dBμV]	A.F+C.L -A.G+D.F [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
10460	48.78	8.47	V	57.25	68.20	10.95	PK
15690	39.24	13.28	V	52.52	73.98	21.46	PK
15690	27.14	13.28	V	40.42	53.98	13.56	AV
10460	48.61	8.47	H	57.08	68.20	11.12	PK
15690	40.29	13.28	H	53.57	73.98	20.41	PK
15690	27.17	13.28	H	40.45	53.98	13.53	AV

Band :	UNII 1
Operation Mode:	802.11ac(VHT40)
Transfer Rate:	MCS0
Operating Frequency	5190 MHz
Channel No.	38 Ch

Frequency [MHz]	Measured Level [dBµV]	A.F+C.L -A.G+D.F [dB/m]	ANT. POL [H/V]	Total [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Measurement Type
10380	50.38	8.19	V	58.57	68.20	9.63	PK
15570	40.14	13.31	V	53.45	73.98	20.53	PK
15570	27.58	13.31	V	40.89	53.98	13.09	AV
10380	49.23	8.19	H	57.42	68.20	10.78	PK
15570	40.02	13.31	H	53.33	73.98	20.65	PK
15570	27.60	13.31	H	40.91	53.98	13.07	AV

Band :	UNII 1
Operation Mode:	802.11ac(VHT40)
Transfer Rate:	MCS0
Operating Frequency	5230 MHz
Channel No.	46 Ch

Frequency [MHz]	Measured Level [dBµV]	A.F+C.L -A.G+D.F [dB/m]	ANT. POL [H/V]	Total [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Measurement Type
10460	49.89	8.47	V	58.36	68.20	9.84	PK
15690	39.66	13.28	V	52.94	73.98	21.04	PK
15690	27.29	13.28	V	40.57	53.98	13.41	AV
10460	48.40	8.47	H	56.87	68.20	11.33	PK
15690	39.66	13.28	H	52.94	73.98	21.04	PK
15690	27.28	13.28	H	40.56	53.98	13.42	AV

Band :	UNII 1
Operation Mode:	802.11ac(VHT80)
Transfer Rate:	MCS0
Operating Frequency	5210 MHz
Channel No.	42 Ch

Frequency [MHz]	Measured Level [dBµV]	A.F+C.L -A.G+D.F [dB/m]	ANT. POL [H/V]	Total [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Measurement Type
10420	46.57	8.31	V	54.88	68.20	13.32	PK
15630	39.66	13.20	V	52.86	73.98	21.12	PK
15630	27.94	13.20	V	41.14	53.98	12.84	AV
10420	45.84	8.31	H	54.15	68.20	14.05	PK
15630	39.76	13.20	H	52.96	73.98	21.02	PK
15630	27.70	13.20	H	40.90	53.98	13.08	AV

[RSDB]

2.4G 802.11b ch.6 1Mbps & 5G 802.11n ch.36 MCS0

Frequency [MHz]	Measured Level [dBμV]	A.F.+C.L. -A.G+D.F [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
6906	54.26	1.44	V	55.70	68.20	12.50	PK
10360	**47.80**	**8.05**	**V**	**55.85**	**68.20**	**12.35**	**PK**
15540	40.57	12.94	V	53.51	73.98	20.47	PK
15540	26.78	12.94	V	39.72	53.98	14.26	AV
6906	53.22	1.44	H	54.66	68.20	13.54	PK
10360	45.84	8.05	H	53.89	68.20	14.31	PK
15540	39.24	12.94	H	52.18	73.98	21.80	PK
15540	26.59	12.94	H	39.53	53.98	14.45	AV

[DBS]

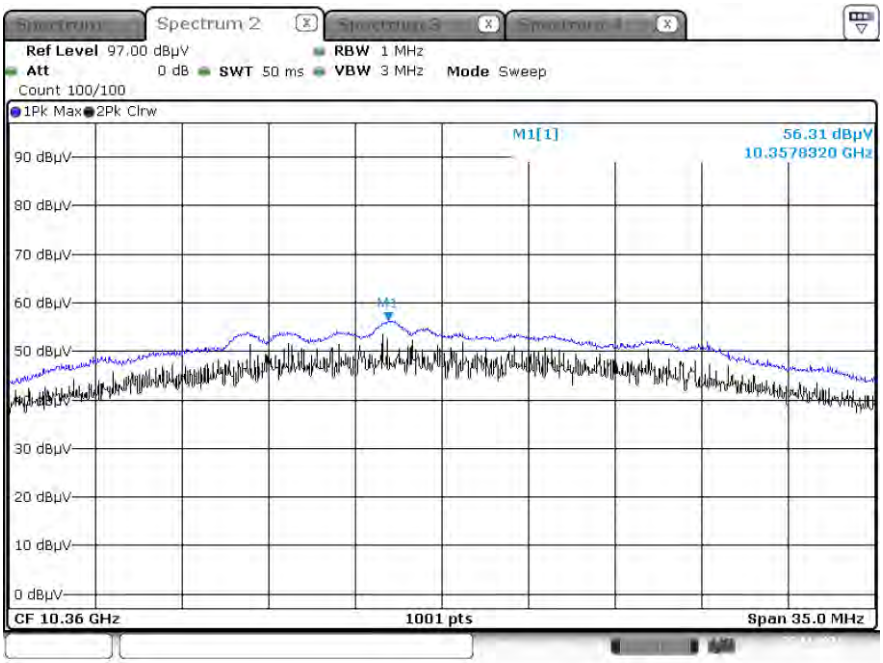
WLAN/BT Ant : 5 GHz 802.11n(HT20) ch. 36 MCS0 & Bluetooth ANT1 Ch. 39 (GFSK) 1 Mbps

Frequency [MHz]	Measured Level [dBμV]	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	**48.36**	**8.05**	**V**	**56.41**	**68.20**	**11.79**	**PK**
15540	40.03	12.94	V	52.97	73.98	21.01	PK
15540	26.78	12.94	V	39.72	53.98	14.26	AV
10360	47.92	8.05	H	55.97	68.20	12.23	PK
15540	39.29	12.94	H	52.23	73.98	21.75	PK
15540	26.59	12.94	H	39.53	53.98	14.45	AV

▣ Test Plots

[Ant.1&Ant.2_MIMO(CDD)]

Peak Result (802.11n(HT20), MCS0 Ch.36 2nd Harmonic, X-V)



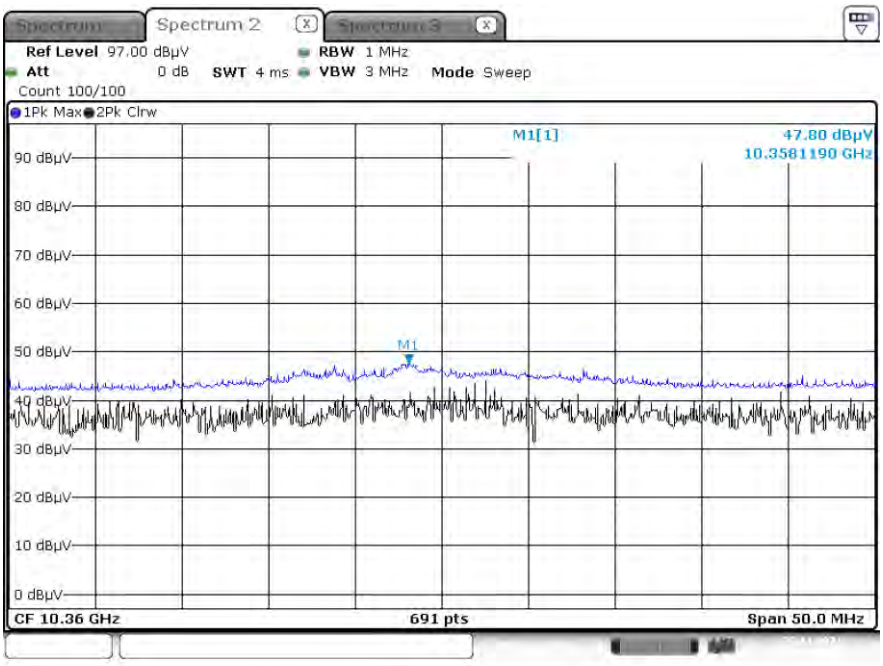
Note:

Only the worst case plots for Radiated Spurious Emissions.

▣ Test Plots (RSDB)

2.4G 802.11b ch.6 1Mbps & 5G 802.11n ch.36 MCS0

Radiated Spurious Emissions plot – Peak Result (2nd Harmonic, X-V)



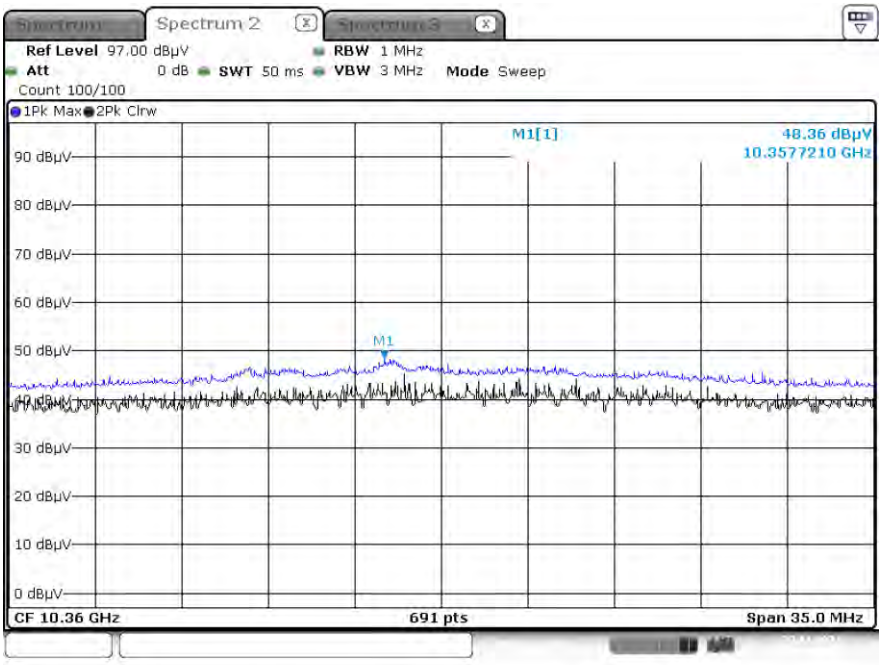
Note:

Only the worst case plots for Radiated Spurious Emissions.

▣ Test Plots (DBS)

WLAN/BT Ant : 5 GHz 802.11n(HT20) ch. 36 MCS0 & Bluetooth ANT1 Ch. 39 (GFSK) 1 Mbps

Radiated Spurious Emissions plot – Peak Result (2nd Harmonic, X-V)



Note:

Only the worst case plots for Radiated Spurious Emissions.

10.9 RADIATED RESTRICTED BAND EDGE

[Ant.1&Ant.2_MIMO(CDD)]

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

Frequency [MHz]	Measured Level dBµV	A.F+C.L-A.G+ATT+D.F [dB/m]	ANT. POL [H/V]	Total [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Measurement Type
5150	45.03	9.11	H	54.14	73.98	19.84	PK
5150	31.73	9.11	H	40.84	53.98	13.14	AV
5150	44.85	9.11	V	53.96	73.98	20.02	PK
5150	31.05	9.11	V	40.16	53.98	13.82	AV

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

Frequency [MHz]	Measured Level dBµV	A.F+C.L-A.G+ATT+D.F [dB/m]	ANT. POL [H/V]	Total [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Measurement Type
5350	47.11	8.71	H	55.82	73.98	18.16	PK
5350	33.52	8.71	H	42.23	53.98	11.75	AV
5350	46.07	8.71	V	54.78	73.98	19.20	PK
5350	32.77	8.71	V	41.48	53.98	12.50	AV

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

Frequency [MHz]	Measured Level DBµV	A.F+C.L-A.G+ATT+D.F [dB/m]	ANT. POL [H/V]	Total [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Measurement Type
5460	43.93	9.30	H	53.23	73.98	20.75	PK
5460	30.66	9.30	H	39.96	53.98	14.02	AV
5470	44.48	9.34	H	53.82	68.20	14.38	PK
5460	42.97	9.30	V	52.27	73.98	21.71	PK
5460	30.45	9.30	V	39.75	53.98	14.23	AV
5470	43.97	9.34	V	53.31	68.20	14.89	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 Level dBµV	A.F+C.L-A.G+ATT+D.F [dB/m]	ANT. POL [H/V]	Total [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Measurement Type
5150	44.51	9.11	H	53.62	73.98	20.36	PK
5150	32.76	9.11	H	41.87	53.98	12.11	AV
5150	43.69	9.11	V	52.80	73.98	21.18	PK
5150	31.59	9.11	V	40.70	53.98	13.28	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 Level dBµV	A.F+C.L-A.G+ATT+D.F [dB/m]	ANT. POL [H/V]	Total [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Measurement Type
5350	45.86	8.71	H	54.57	73.98	19.41	PK
5350	33.33	8.71	H	42.04	53.98	11.94	AV
5350	44.85	8.71	V	53.56	73.98	20.42	PK
5350	32.98	8.71	V	41.69	53.98	12.29	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 Level dBµV	A.F+C.L-A.G+ATT+D.F [dB/m]	ANT. POL [H/V]	Total [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Measurement Type
5460	42.95	9.30	H	52.25	73.98	21.73	PK
5460	30.79	9.30	H	40.09	53.98	13.89	AV
5470	43.56	9.34	H	52.90	68.20	15.30	PK
5460	41.99	9.30	V	51.29	73.98	22.69	PK
5460	30.67	9.30	V	39.97	53.98	14.01	AV
5470	43.16	9.34	V	52.50	68.20	15.70	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 Level dBµV	A.F+C.L-A.G+ATT+D.F [dB/m]	ANT. POL [H/V]	Total [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Measurement Type
5150	43.68	9.11	H	52.79	73.98	21.19	PK
5150	32.84	9.11	H	41.95	53.98	12.03	AV
5150	42.41	9.11	V	51.52	73.98	22.46	PK
5150	31.99	9.11	V	41.10	53.98	12.88	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 Level dBµV	A.F+C.L-A.G+ATT+D.F [dB/m]	ANT. POL [H/V]	Total [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Measurement Type
5350	45.14	8.71	H	53.85	73.98	20.13	PK
5350	32.85	8.71	H	41.56	53.98	12.42	AV
5350	44.76	8.71	V	53.47	73.98	20.51	PK
5350	32.66	8.71	V	41.37	53.98	12.61	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 Level dBµV	A.F+C.L-A.G+ATT+D.F [dB/m]	ANT. POL [H/V]	Total [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Measurement Type
5460	43.51	9.30	H	52.81	73.98	21.17	PK
5460	30.62	9.30	H	39.92	53.98	14.06	AV
5470	44.33	9.34	H	53.67	68.20	14.53	PK
5460	42.49	9.30	V	51.79	73.98	22.19	PK
5460	30.41	9.30	V	39.71	53.98	14.27	AV
5470	42.56	9.34	V	51.90	68.20	16.30	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 Level dBµV	A.F+C.L-A.G+ATT+D.F [dB/m]	ANT. POL [H/V]	Total [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Measurement Type
5150	52.09	9.11	H	61.20	73.98	12.78	PK
5150	**39.89**	**9.11**	**H**	**49.00**	**53.98**	**4.98**	**AV**
5150	50.91	9.11	V	60.02	73.98	13.96	PK
5150	39.27	9.11	V	48.38	53.98	5.60	AV

Band :	UNII 2A
Operation Mode:	802.11 n_HT40
Transfer MCS Index:	0
Operating Frequency	5270 MHz
Channel No.	54 Ch

Frequency [MHz]	Measured Level dBµV	A.F+C.L-A.G+ATT+D.F [dB/m]	ANT. POL [H/V]	Total [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Measurement Type
5350	43.59	8.71	H	52.30	73.98	21.68	PK
5350	31.57	8.71	H	40.28	53.98	13.70	AV
5350	42.80	8.71	V	51.51	73.98	22.47	PK
5350	31.24	8.71	V	39.95	53.98	14.03	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 Level dBμV	A.F+C.L-A.G+ATT+D.F [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
5350	51.59	8.71	H	60.30	73.98	13.68	PK
5350	37.87	8.71	H	46.58	53.98	7.40	AV
5350	50.11	8.71	V	58.82	73.98	15.16	PK
5350	36.94	8.71	V	45.65	53.98	8.33	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 Level dBμV	A.F+C.L-A.G+ATT+D.F [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
5460	45.86	9.30	H	55.16	73.98	18.82	PK
5460	33.42	9.30	H	42.72	53.98	11.26	AV
5470	50.61	9.34	H	59.95	68.20	8.25	PK
5460	45.54	9.30	V	54.84	73.98	19.14	PK
5460	32.82	9.30	V	42.12	53.98	11.86	AV
5470	49.92	9.34	V	59.26	68.20	8.94	PK

Band :	UNII 2C
Operation Mode:	802.11 n_HT40
Transfer MCS Index:	0
Operating Frequency	5550 MHz
Channel No.	110 Ch

Frequency [MHz]	Measured Level dBµV	A.F+C.L-A.G+ATT+D.F [dB/m]	ANT. POL [H/V]	Total [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Measurement Type
5460	43.71	9.30	H	53.01	73.98	20.97	PK
5460	33.28	9.30	H	42.58	53.98	11.40	AV
5470	44.14	9.34	H	53.48	68.20	14.72	PK
5460	43.39	9.30	V	52.69	73.98	21.29	PK
5460	32.59	9.30	V	41.89	53.98	12.09	AV
5470	44.02	9.34	V	53.36	68.20	14.84	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 Level dBµV	A.F+C.L-A.G+ATT+D.F [dB/m]	ANT. POL [H/V]	Total [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Measurement Type
5150	53.13	9.11	H	62.24	73.98	11.74	PK
5150	39.26	9.11	H	48.37	53.98	5.61	AV
5150	52.63	9.11	V	61.74	73.98	12.24	PK
5150	37.74	9.11	V	46.85	53.98	7.13	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 Level dBµV	A.F+C.L-A.G+ATT+D.F [dB/m]	ANT. POL [H/V]	Total [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Measurement Type
5350	53.08	8.71	H	61.79	73.98	12.19	PK
5350	38.54	8.71	H	47.25	53.98	6.73	AV
5350	51.93	8.71	V	60.64	73.98	13.34	PK
5350	38.39	8.71	V	47.10	53.98	6.88	AV

Band :	UNII 2A
Operation Mode:	802.11 ac_VHT40
Transfer MCS Index:	0
Operating Frequency	5270 MHz
Channel No.	54 Ch

Frequency [MHz]	Measured Level dBµV	A.F+C.L-A.G+ATT+D.F [dB/m]	ANT. POL [H/V]	Total [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Measurement Type
5350	44.99	8.71	H	53.70	73.98	20.28	PK
5350	31.42	8.71	H	40.13	53.98	13.85	AV
5350	43.73	8.71	V	52.44	73.98	21.54	PK
5350	30.92	8.71	V	39.63	53.98	14.35	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 Level dBµV	A.F+C.L-A.G+ATT+D.F [dB/m]	ANT. POL [H/V]	Total [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Measurement Type
5460	46.39	9.30	H	55.69	73.98	18.29	PK
5460	33.28	9.30	H	42.58	53.98	11.40	AV
5470	50.68	9.34	H	60.02	68.20	8.18	PK
5460	45.44	9.30	V	54.74	73.98	19.24	PK
5460	32.84	9.30	V	42.14	53.98	11.84	AV
5470	50.56	9.34	V	59.90	68.20	8.30	PK

Band :	UNII 2C
Operation Mode:	802.11 ac_VHT40
Transfer MCS Index:	0
Operating Frequency	5550 MHz
Channel No.	110 Ch

Frequency [MHz]	Measured Level dBµV	A.F+C.L-A.G+ATT+D.F [dB/m]	ANT. POL [H/V]	Total [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Measurement Type
5460	43.28	9.30	H	52.58	73.98	21.40	PK
5460	32.28	9.30	H	41.58	53.98	12.40	AV
5470	43.32	9.34	H	52.66	68.20	15.54	PK
5460	42.81	9.30	V	52.11	73.98	21.87	PK
5460	31.95	9.30	V	41.25	53.98	12.73	AV
5470	43.51	9.34	V	52.85	68.20	15.35	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 Level dBµV	A.F+C.L-A.G+ATT+D.F [dB/m]	ANT. POL [H/V]	Total [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Measurement Type
5150	46.22	9.11	H	55.33	73.98	18.65	PK
5150	36.91	9.11	H	46.02	53.98	7.96	AV
5150	46.09	9.11	V	55.20	73.98	18.78	PK
5150	36.54	9.11	V	45.65	53.98	8.33	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 Level dBµV	A.F+C.L-A.G+ATT+D.F [dB/m]	ANT. POL [H/V]	Total [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Measurement Type
5350	50.19	8.71	H	58.90	73.98	15.08	PK
5350	37.76	8.71	H	46.47	53.98	7.51	AV
5350	50.04	8.71	V	58.75	73.98	15.23	PK
5350	36.41	8.71	V	45.12	53.98	8.86	AV

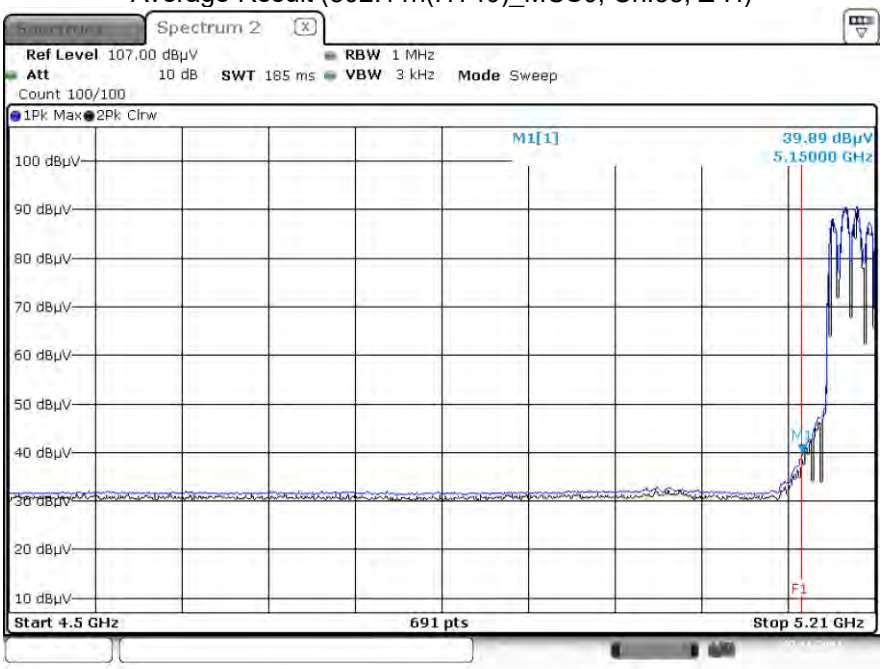
Band :	UNII 2C
Operation Mode:	802.11 ac_VHT80
Transfer MCS Index:	0
Operating Frequency	5530 MHz
Channel No.	106 Ch

Frequency [MHz]	Measured Level dBµV	A.F+C.L-A.G+ATT+D.F [dB/m]	ANT. POL [H/V]	Total [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Measurement Type
5460	49.51	9.30	H	58.81	73.98	15.17	PK
5460	37.92	9.30	H	47.22	53.98	6.76	AV
5470	**51.77**	**9.34**	**H**	**61.11**	**68.20**	**7.09**	**PK**
5460	48.59	9.30	V	57.89	73.98	16.09	PK
5460	36.55	9.30	V	45.85	53.98	8.13	AV
5470	50.47	9.34	V	59.81	68.20	8.39	PK

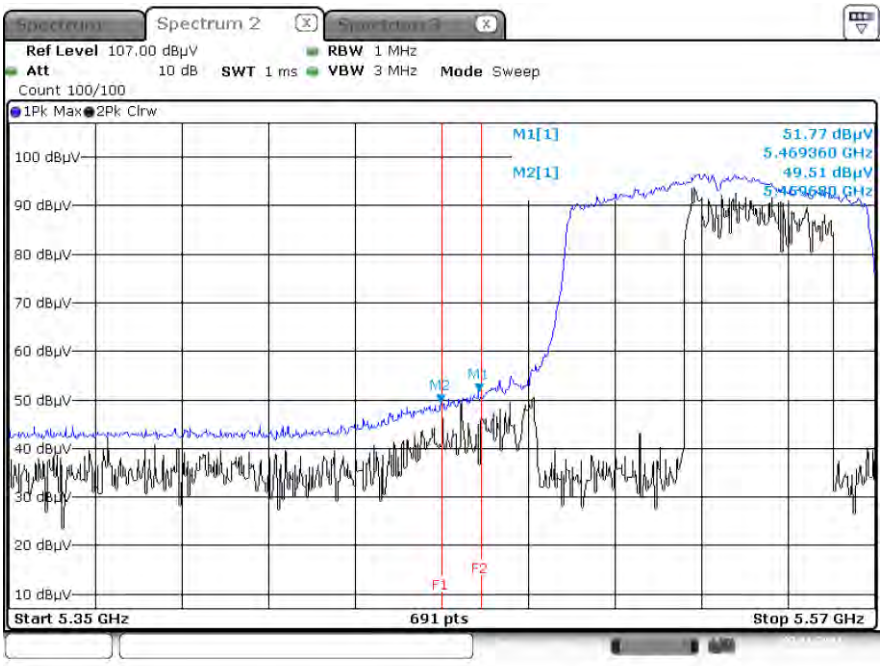
[Ant.1&Ant.2_MIMO(CDD)]

▣ Test Plots(UNII 1, 2A, 2C)

Average Result (802.11n(HT40)_MCS0, Ch.38, Z-H)



Peak Result (802.11 ac_VHT80_ MCS0, Ch.106, Z-H)

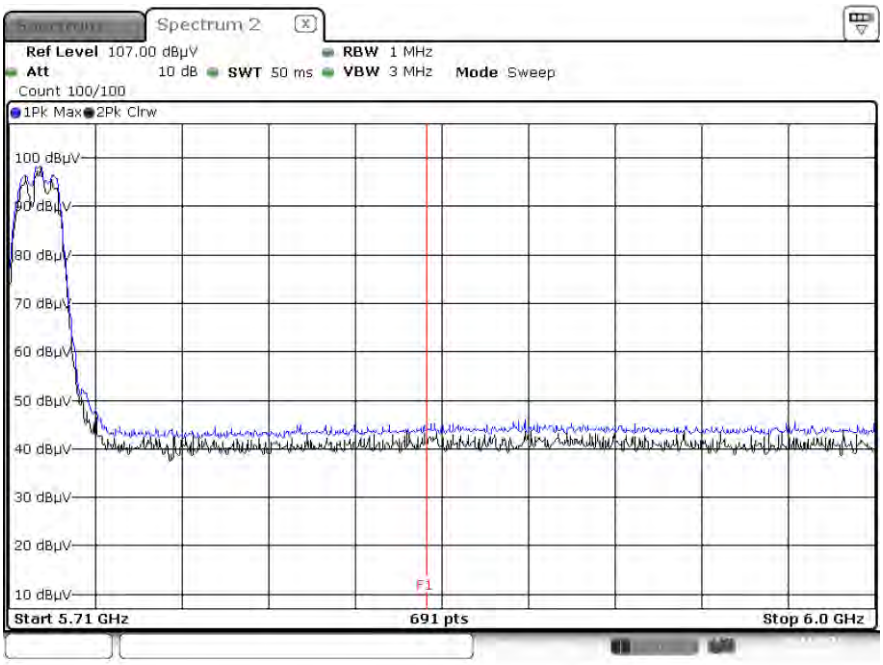


Note:

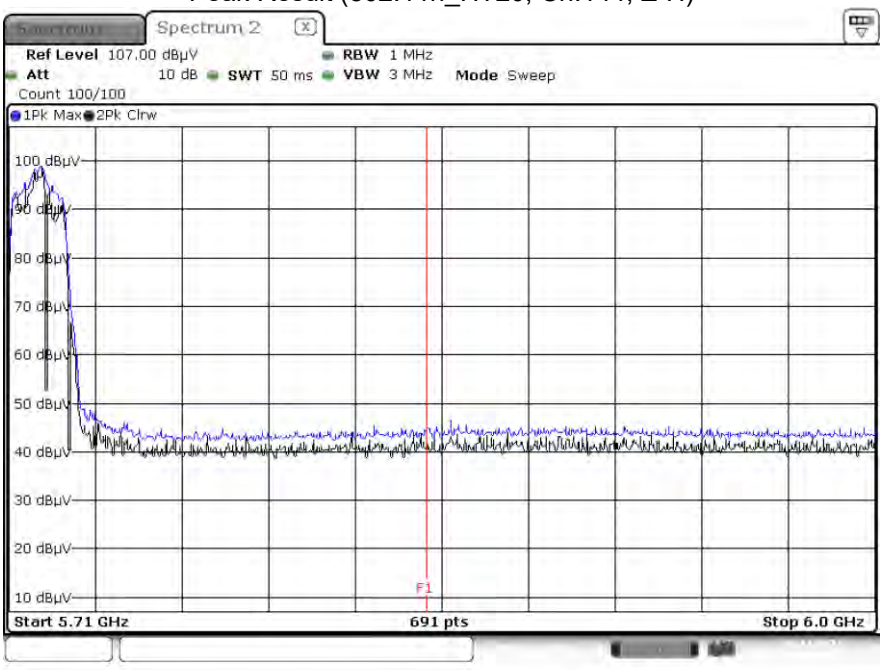
Only the worst case plots for Radiated Restricted Band Edge.

▣ Test Plots(Straddle Channel)

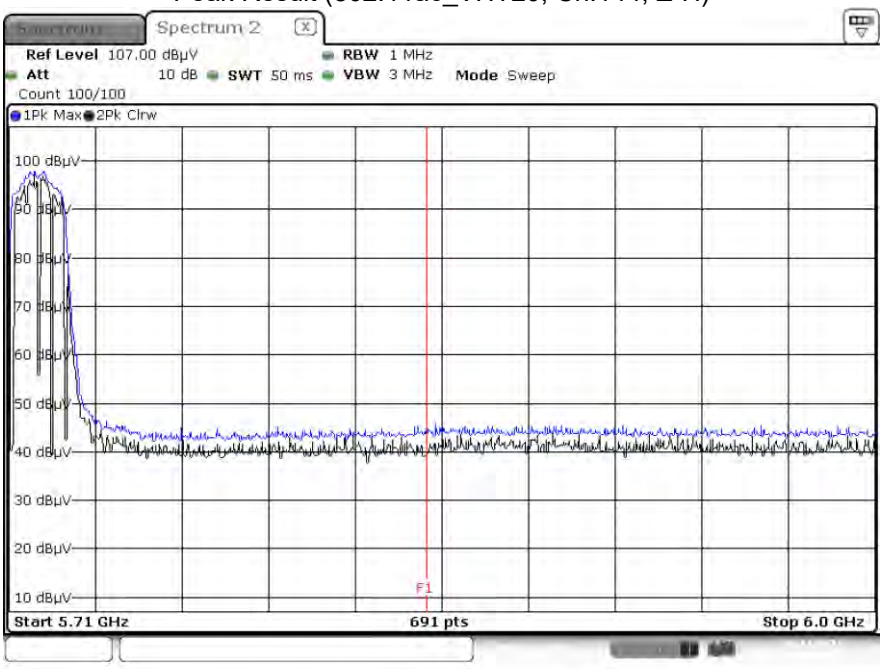
Peak Result (802.11a, Ch.144, Z-H)



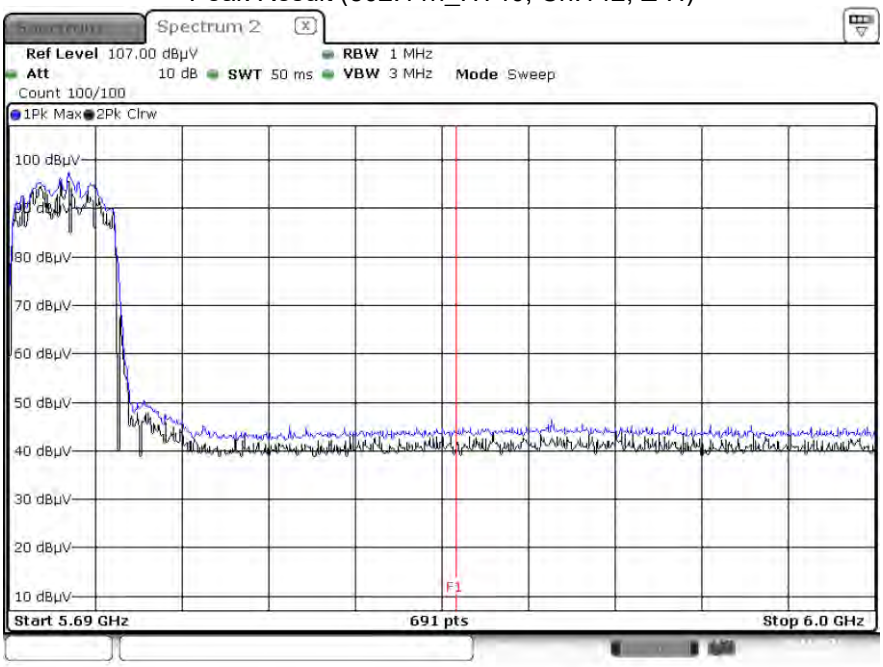
Peak Result (802.11n_HT20, Ch.144, Z-H)



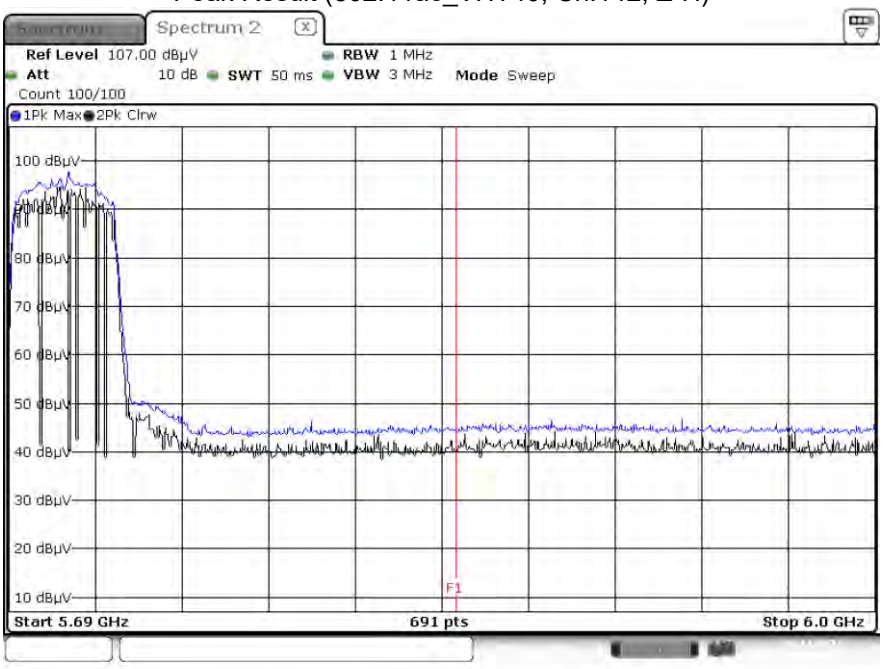
Peak Result (802.11ac_VHT20, Ch.144, Z-H)



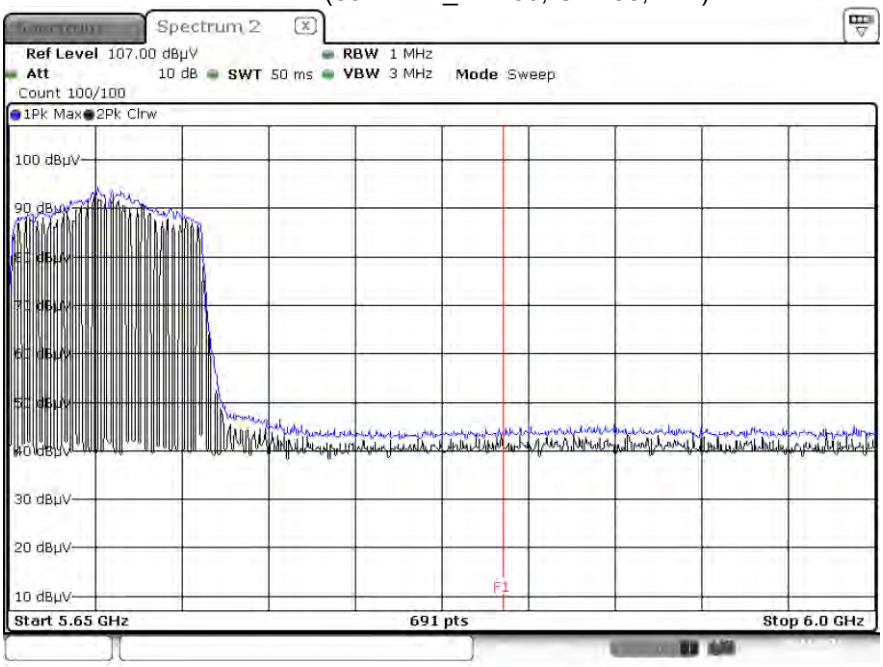
Peak Result (802.11n_HT40, Ch.142, Z-H)



Peak Result (802.11ac_VHT40, Ch.142, Z-H)



Peak Result (802.11ac_VHT80, Ch.138, Z-H)

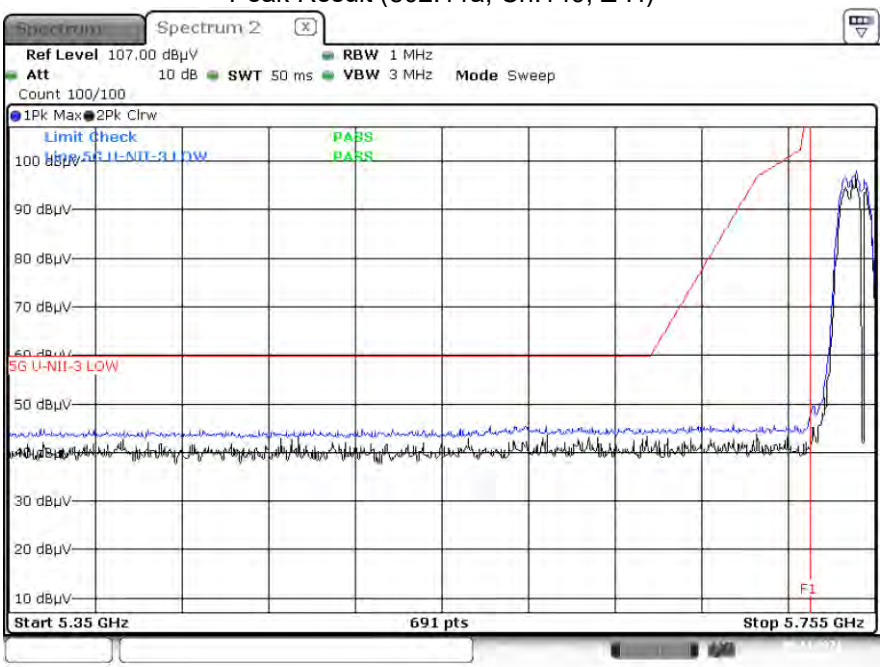


Note :

1. Only the worst 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)

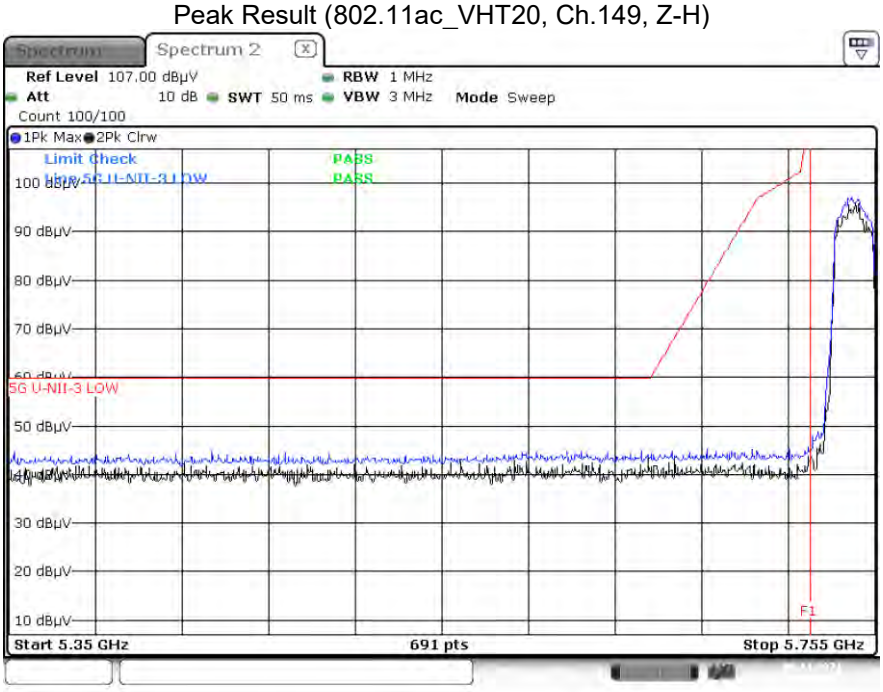
▣ Test Plots(UNII 3)

Peak Result (802.11a, Ch.149, Z-H)

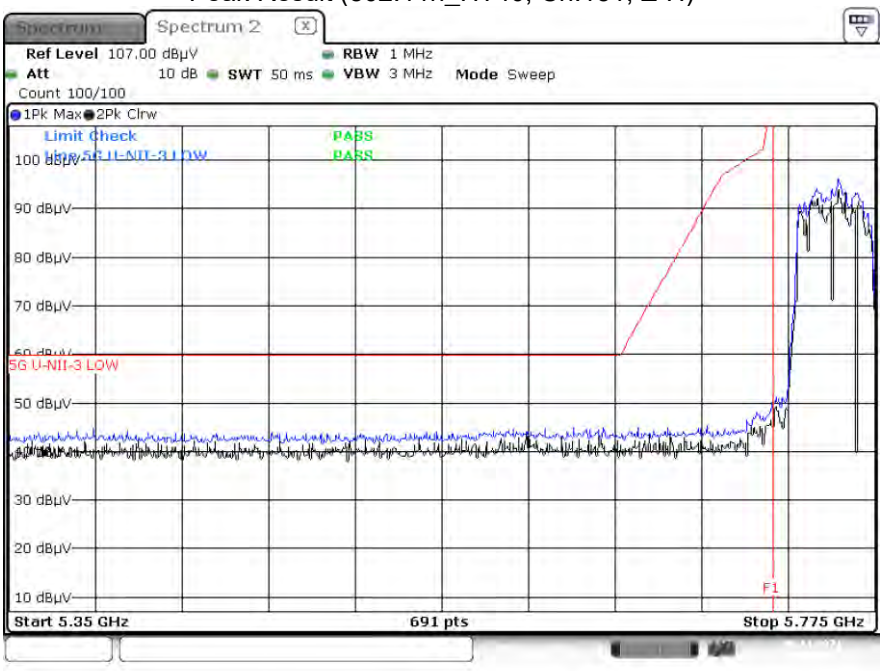


Peak Result (802.11n_HT20, Ch.149, Z-H)

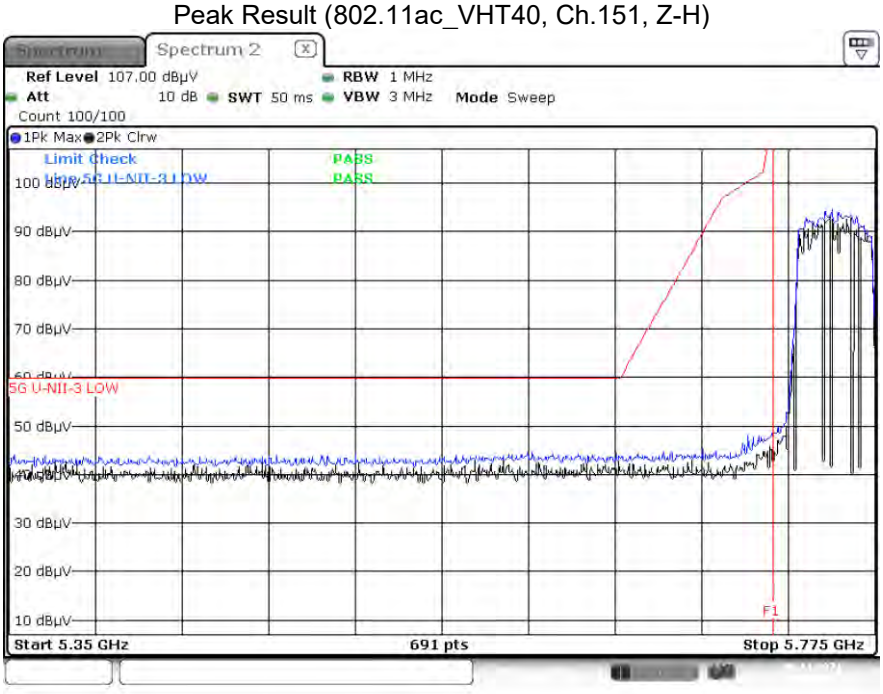
Peak Result (802.11ac_VHT20, Ch.149, Z-H)



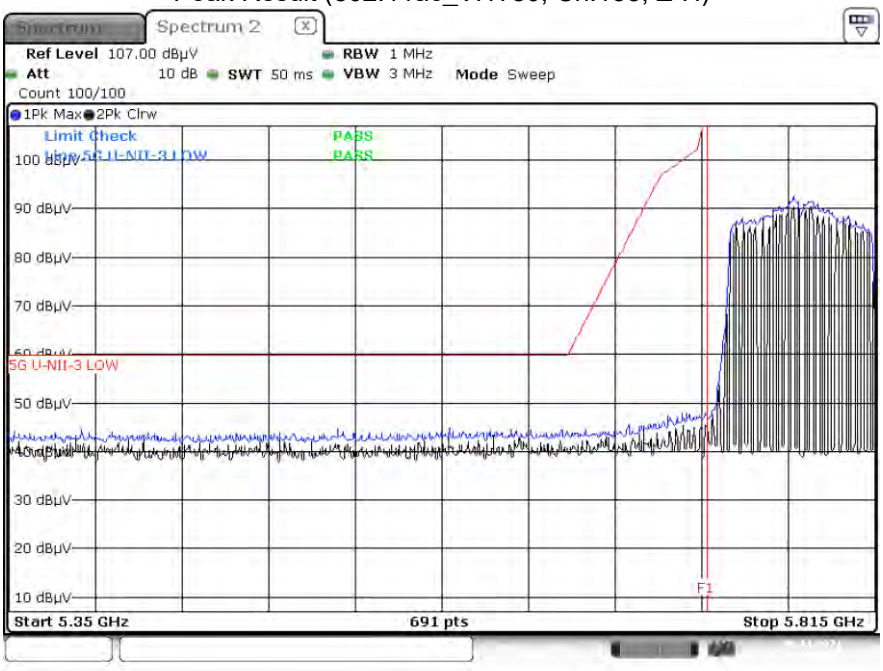
Peak Result (802.11n_HT40, Ch.151, Z-H)



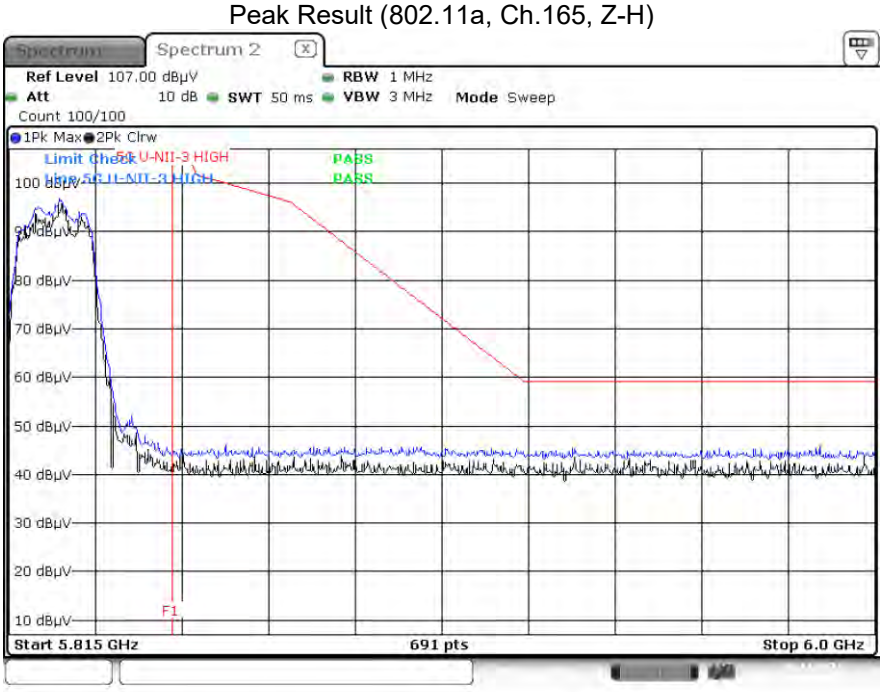
Peak Result (802.11ac_VHT40, Ch.151, Z-H)



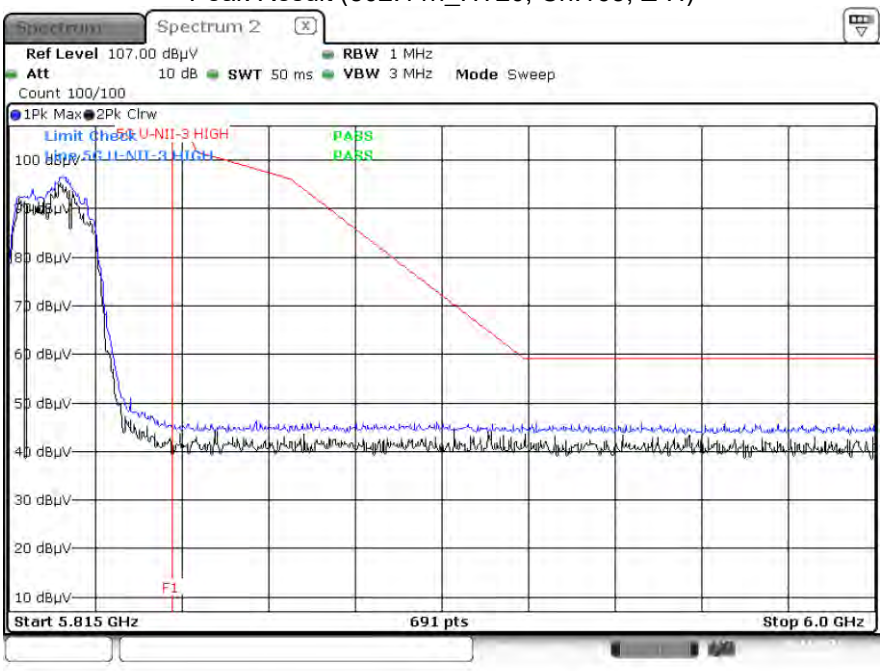
Peak Result (802.11ac_VHT80, Ch.155, Z-H)



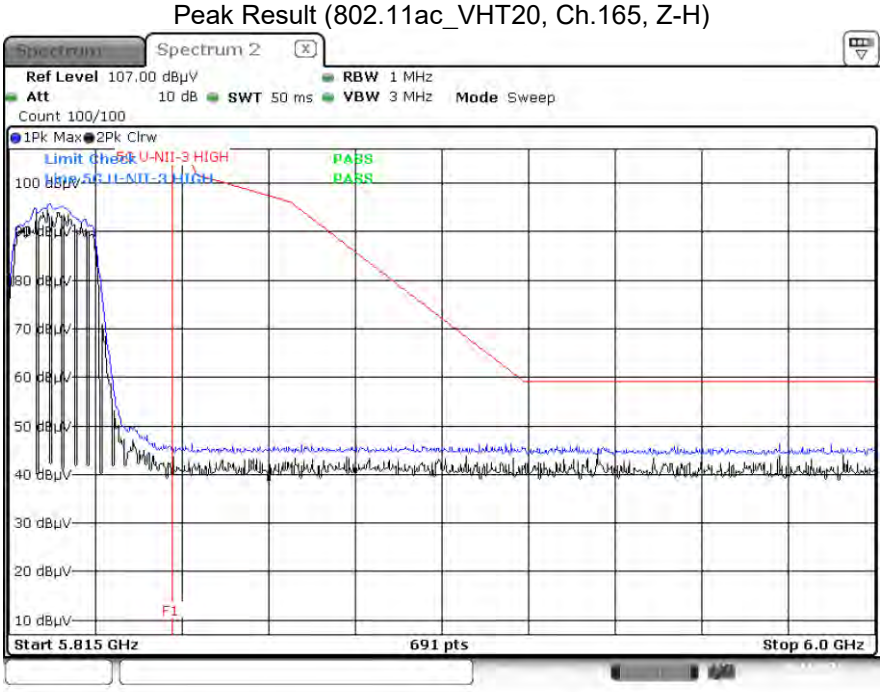
Peak Result (802.11a, Ch.165, Z-H)



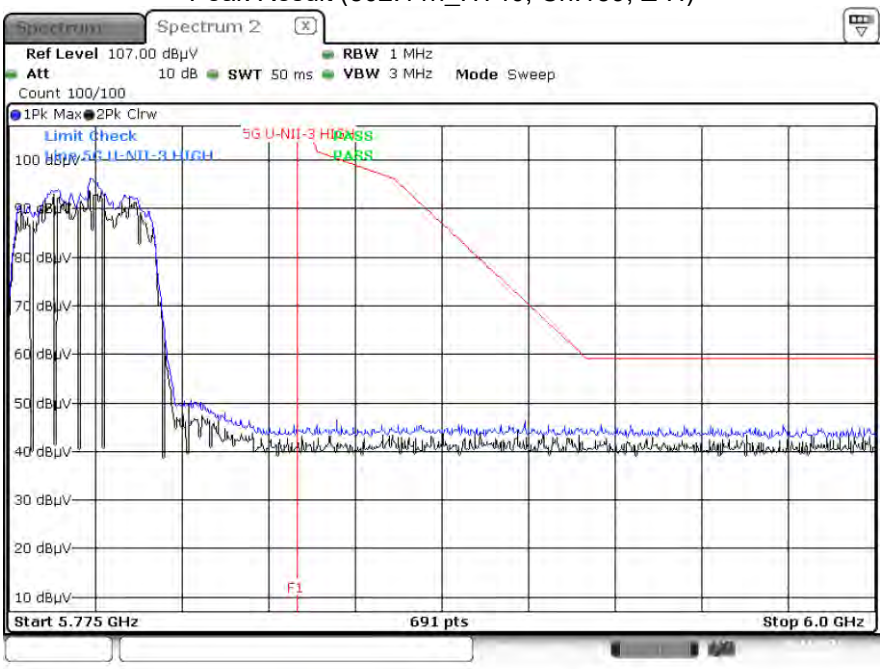
Peak Result (802.11n_HT20, Ch.165, Z-H)



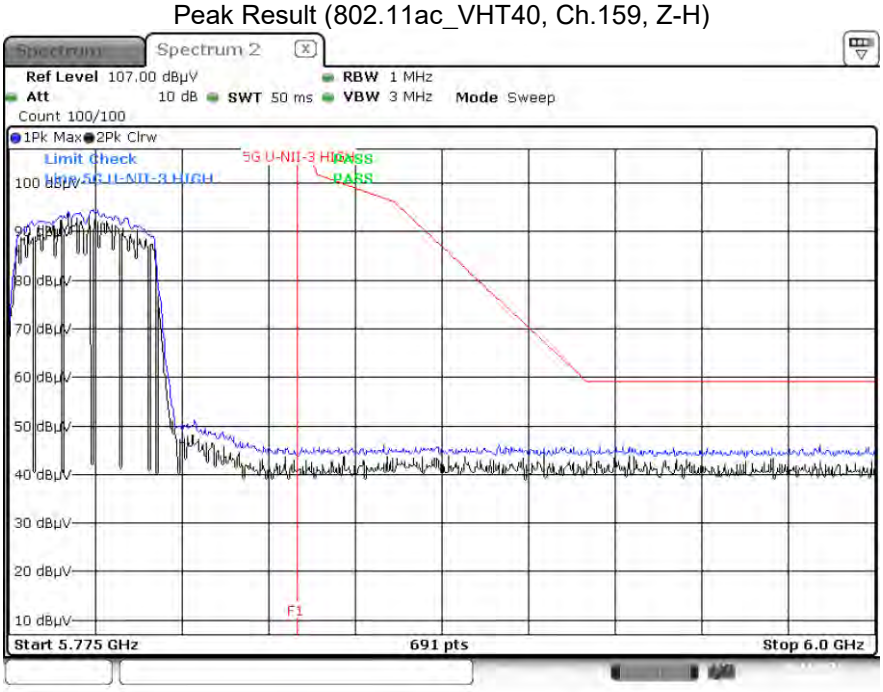
Peak Result (802.11ac_VHT20, Ch.165, Z-H)



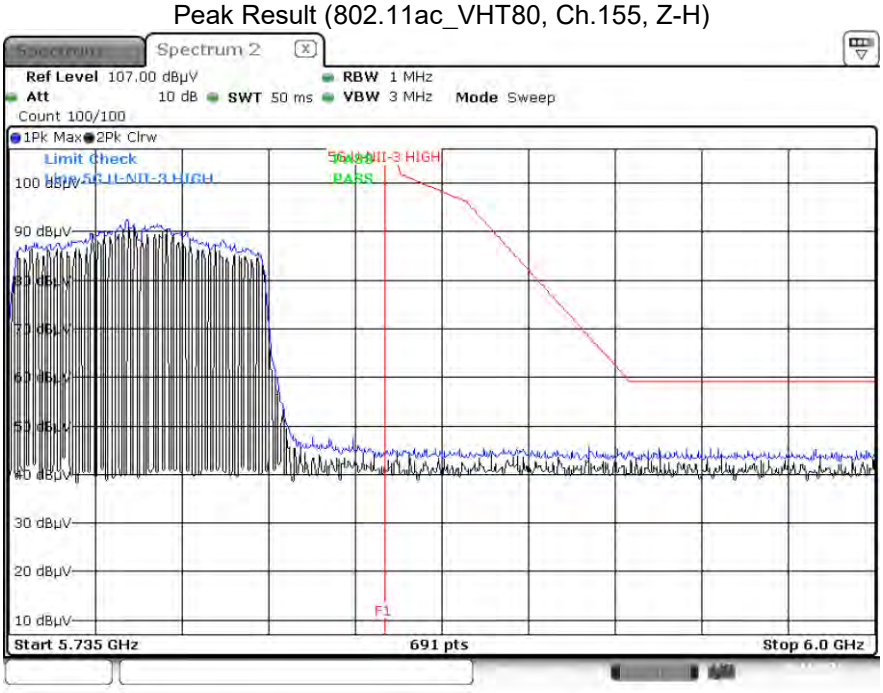
Peak Result (802.11n_HT40, Ch.159, Z-H)



Peak Result (802.11ac_VHT40, Ch.159, Z-H)



Peak Result (802.11ac_VHT80, Ch.155, Z-H)

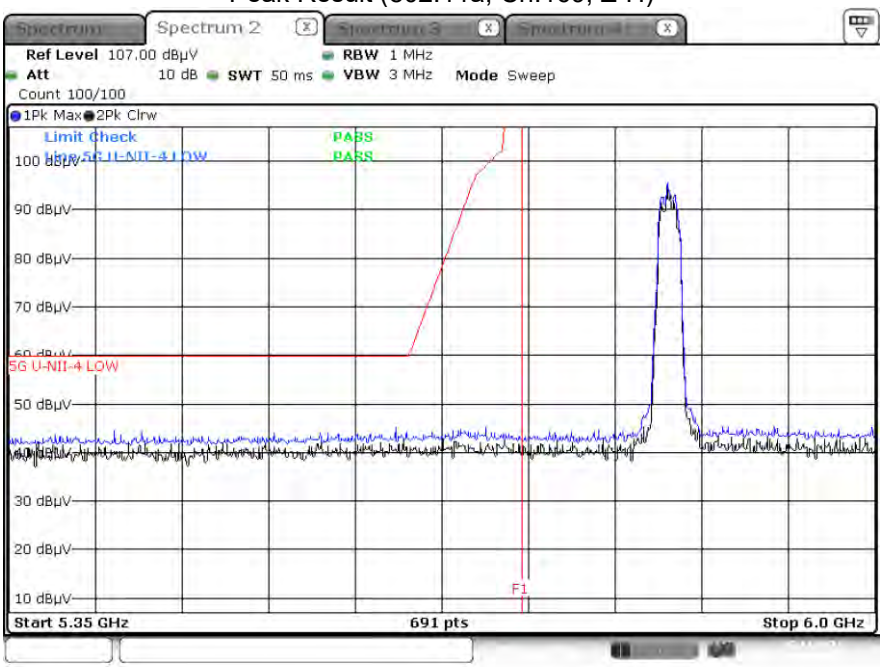


Note :

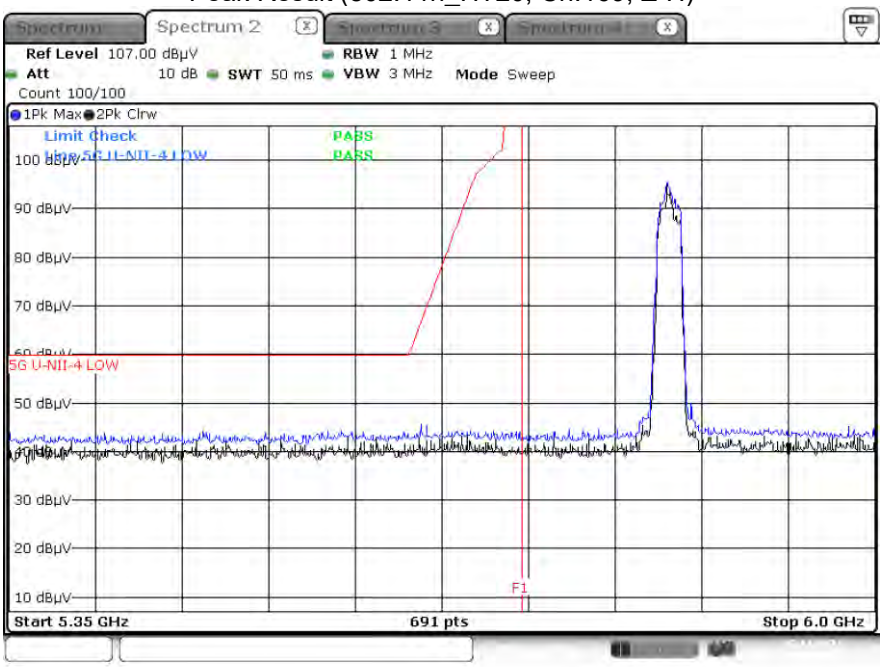
1. Only the worst case plots for U-NII-3 Out of Band e.i.r.p Emission.
2. U-NII-3 Low & High Band Edge RedLine is Final Test Limit about factor value compensation.

▣ Test Plots(UNII 4) – O.O.B.E

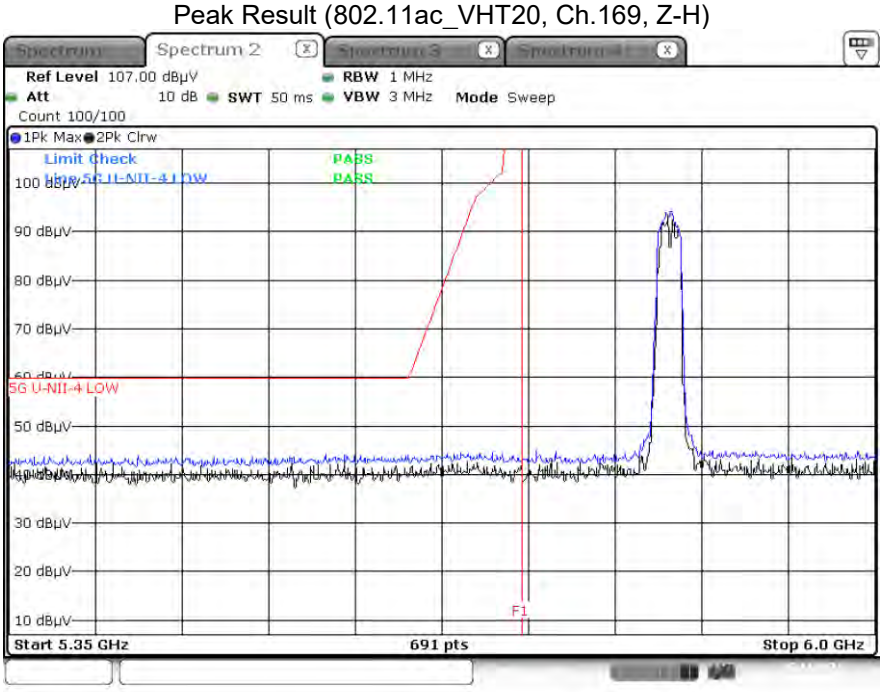
Peak Result (802.11a, Ch.169, Z-H)



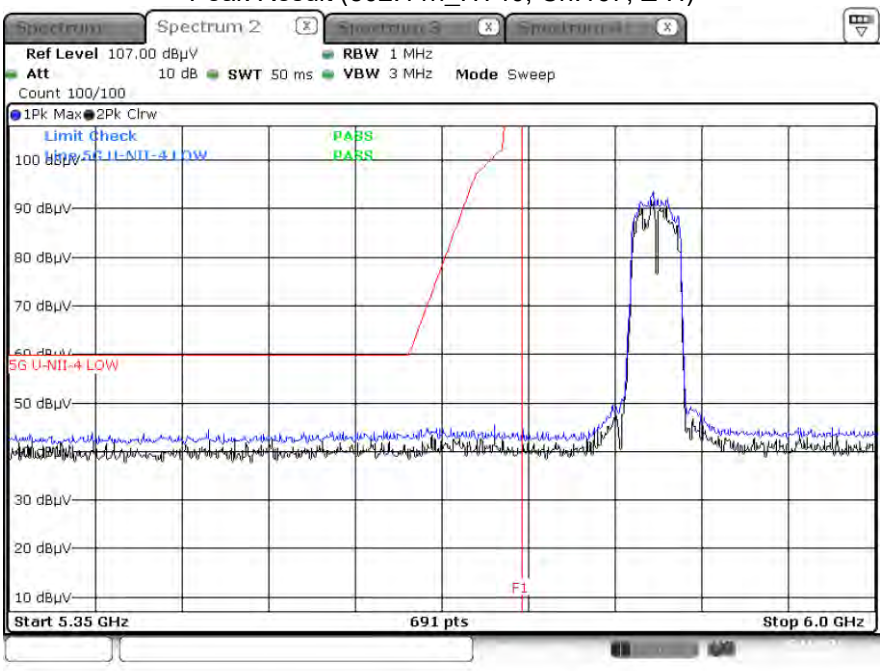
Peak Result (802.11n_HT20, Ch.169, Z-H)



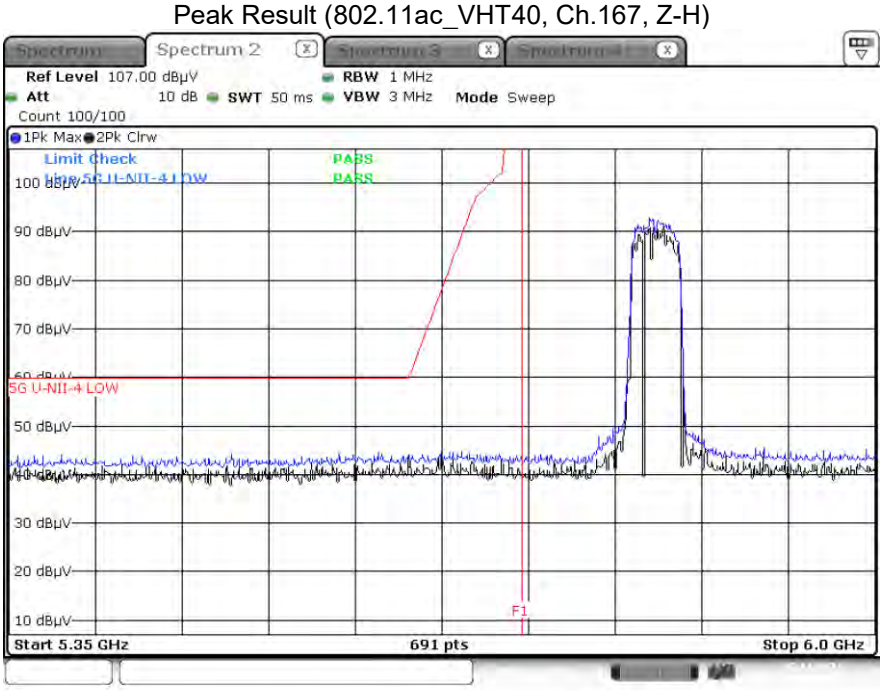
Peak Result (802.11ac_VHT20, Ch.169, Z-H)



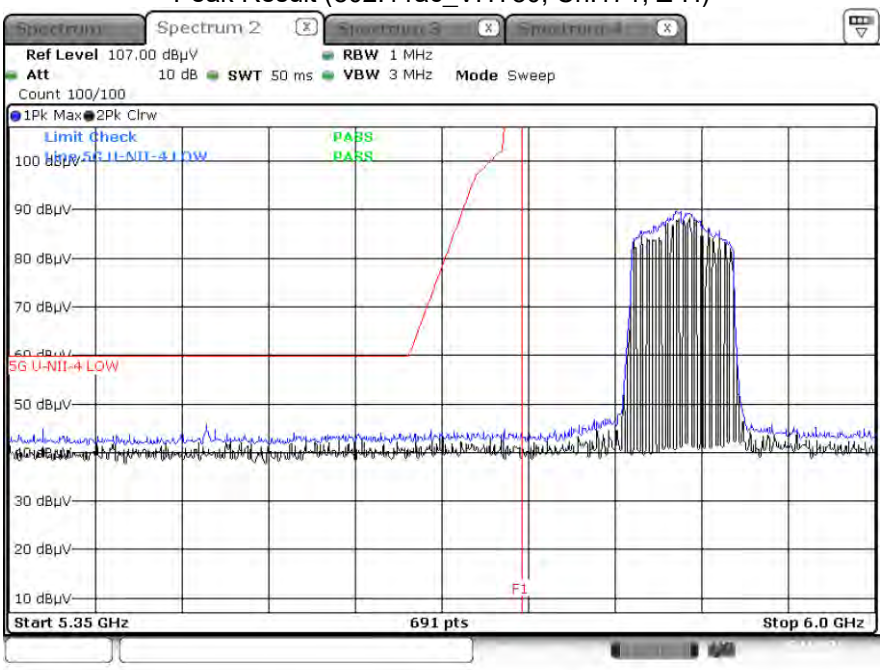
Peak Result (802.11n_HT40, Ch.167, Z-H)



Peak Result (802.11ac_VHT40, Ch.167, Z-H)



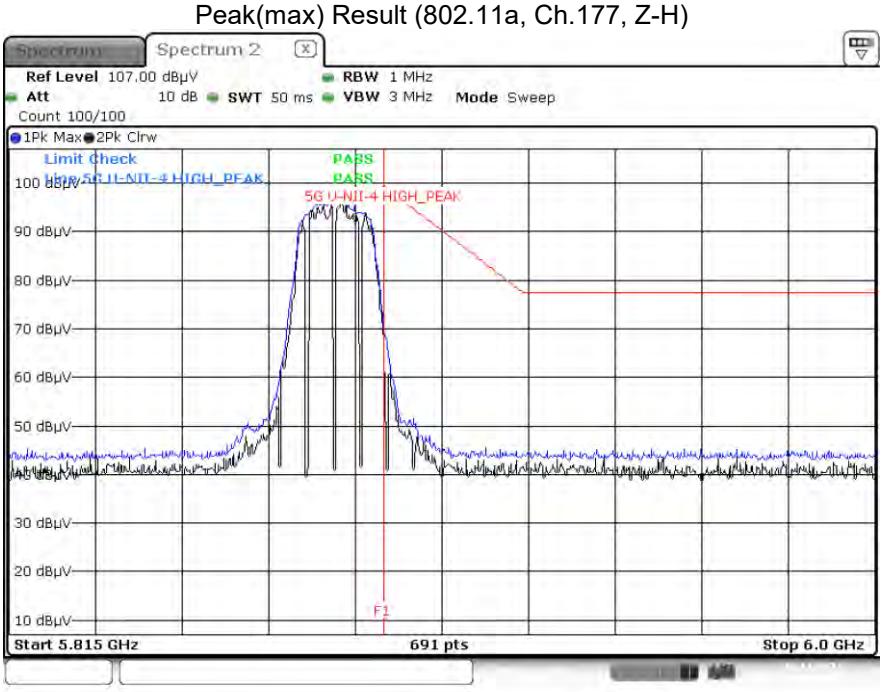
Peak Result (802.11ac_VHT80, Ch.171, Z-H)



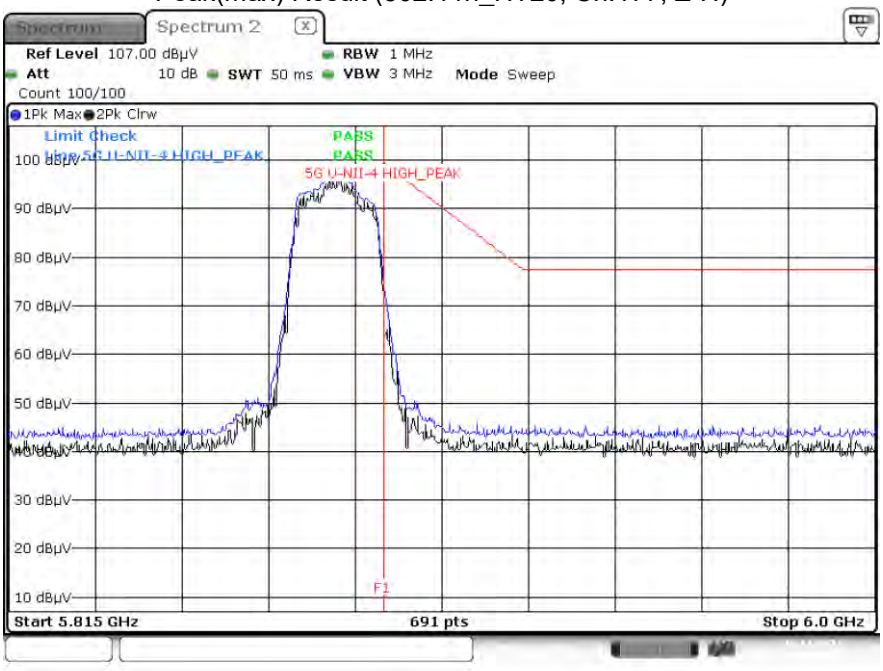
Note :

1. Only the worst case plots for U-NII-4 O.O.B.E
2. U-NII-4 Low & High O.O.B.E RedLine is Final Test Limit about factor value compensation.

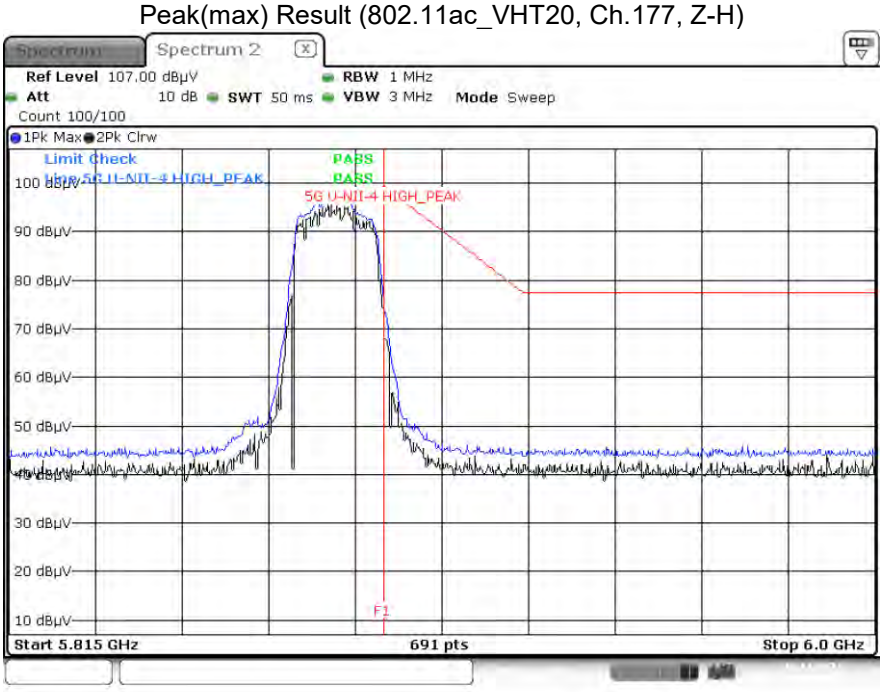
Peak(max) Result (802.11a, Ch.177, Z-H)



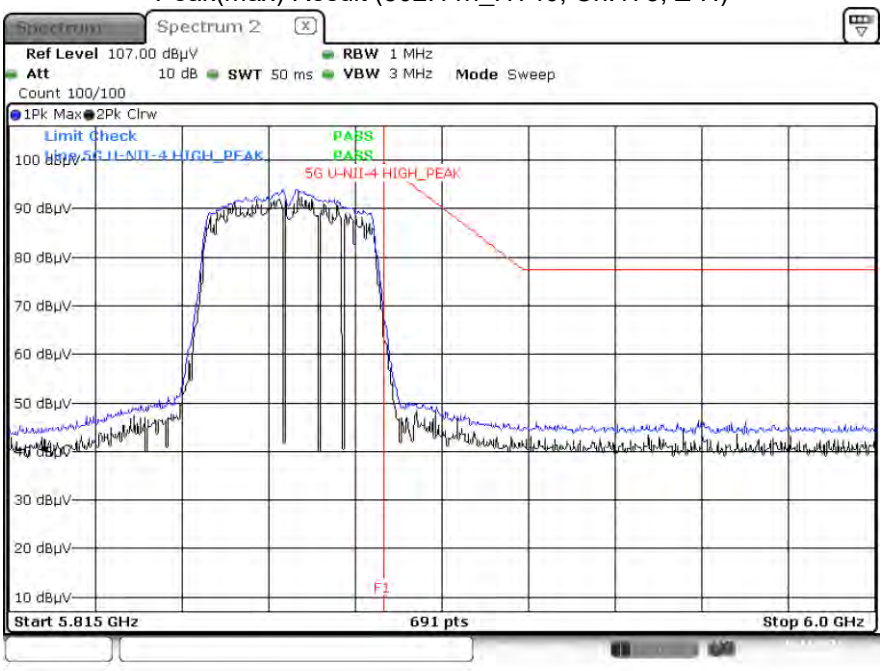
Peak(max) Result (802.11n_HT20, Ch.177, Z-H)



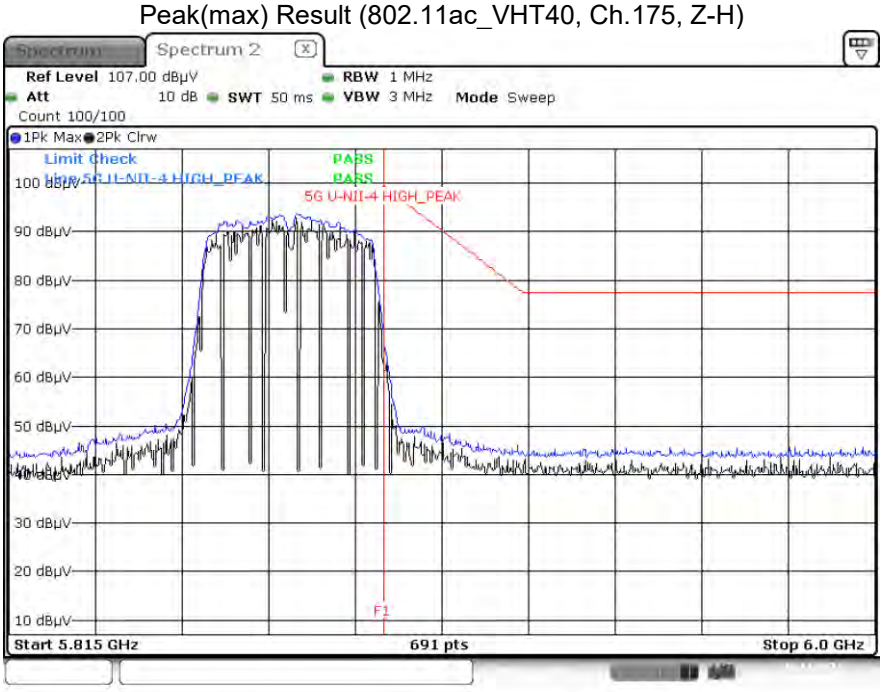
Peak(max) Result (802.11ac_VHT20, Ch.177, Z-H)



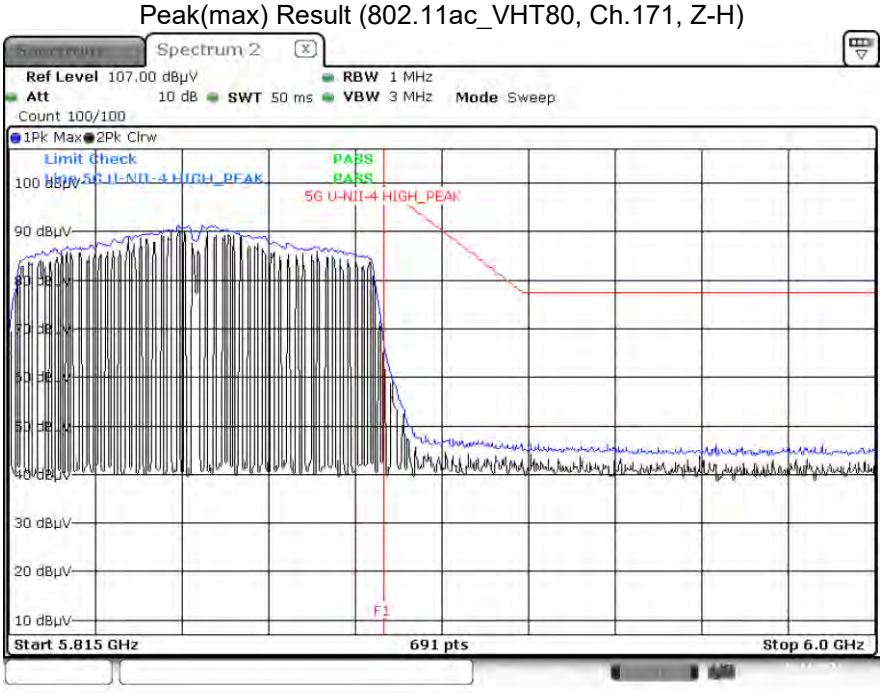
Peak(max) Result (802.11n_HT40, Ch.175, Z-H)



Peak(max) Result (802.11ac_VHT40, Ch.175, Z-H)



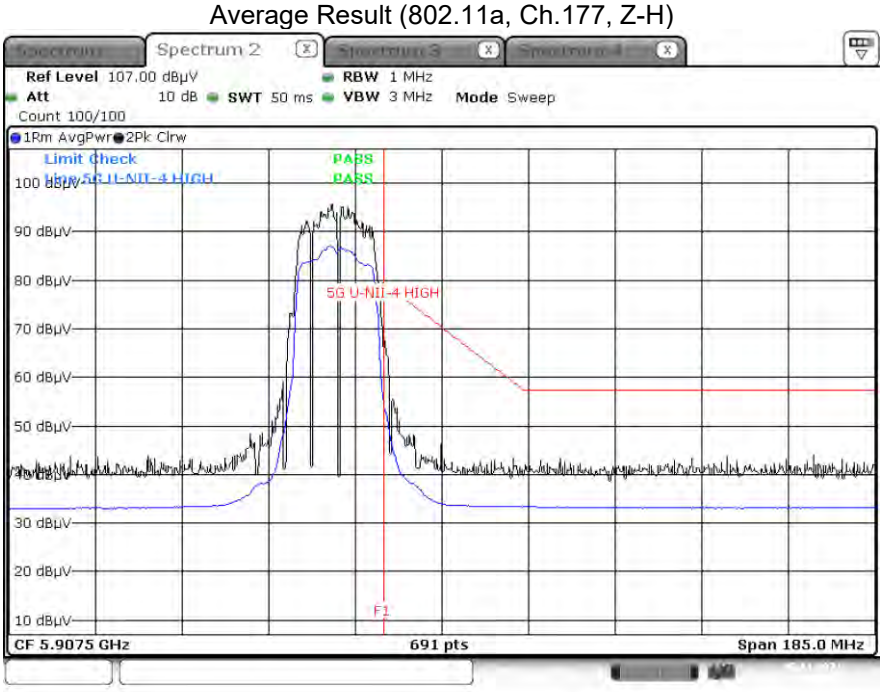
Peak(max) Result (802.11ac_VHT80, Ch.171, Z-H)



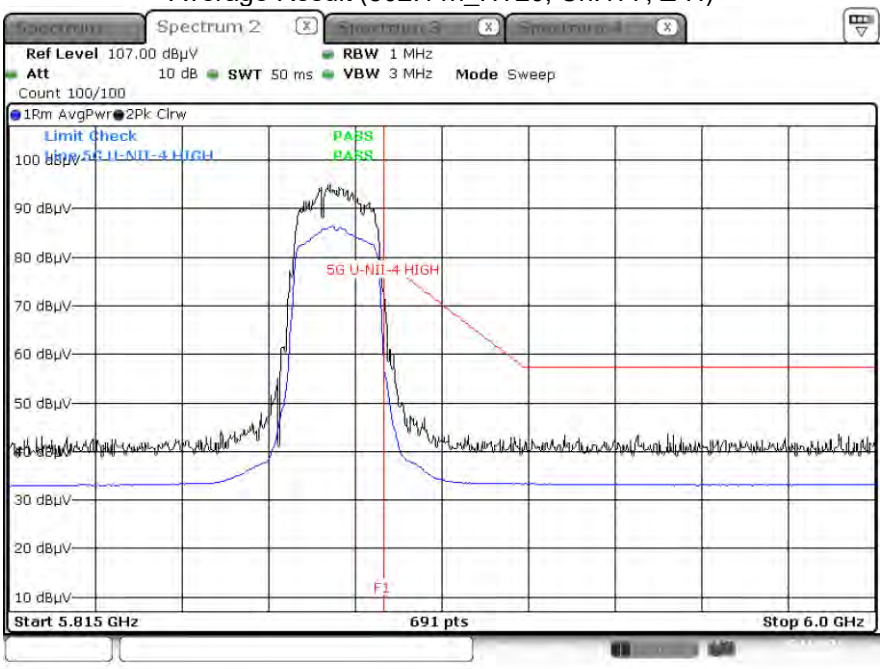
Note :

1. Only the worst case plots for U-NII-4 O.O.B.E
2. U-NII-4 Low & High O.O.B.E RedLine is Final Test Limit(Peak) about factor value compensation.

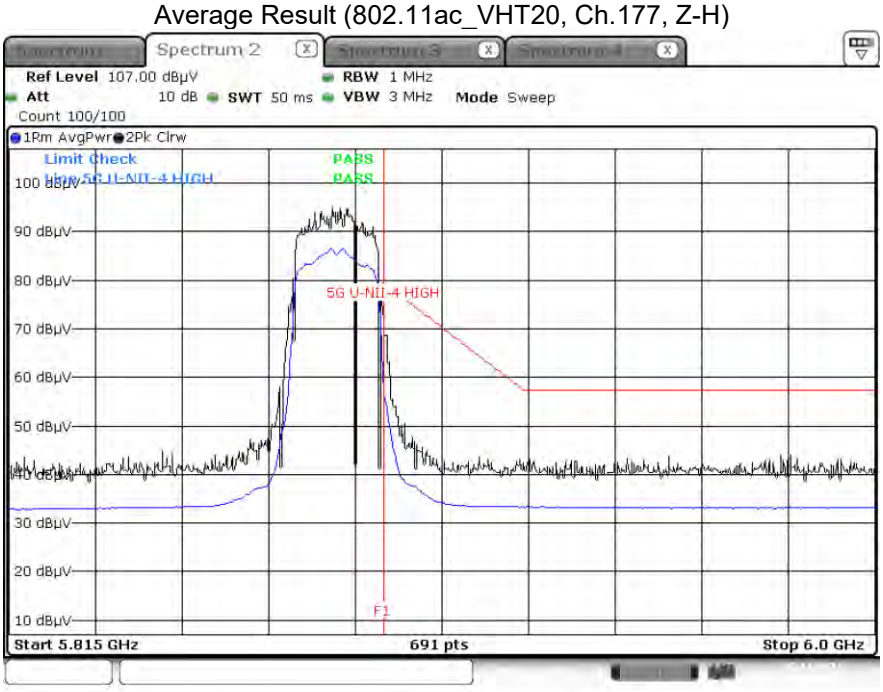
Average Result (802.11a, Ch.177, Z-H)



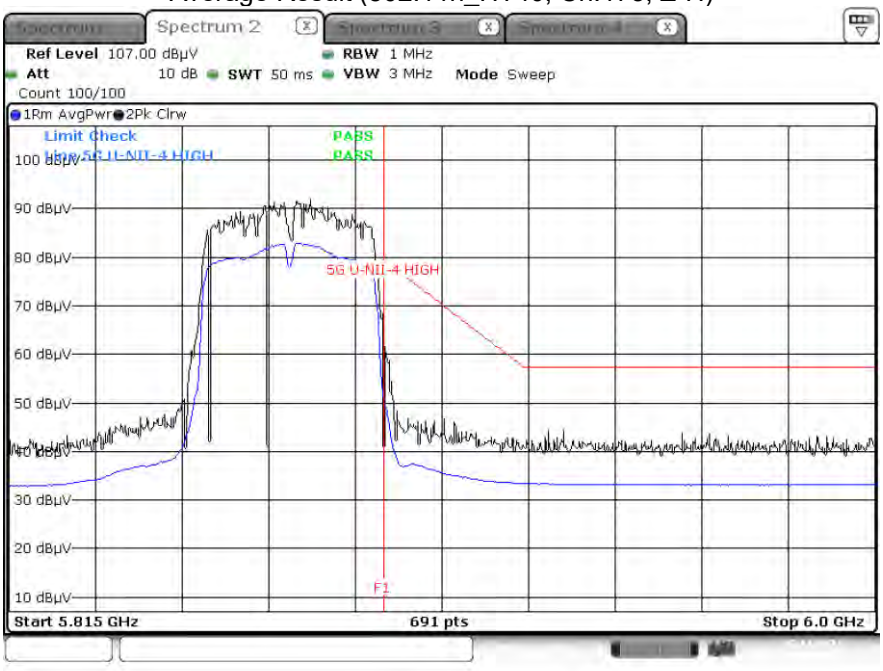
Average Result (802.11n_HT20, Ch.177, Z-H)



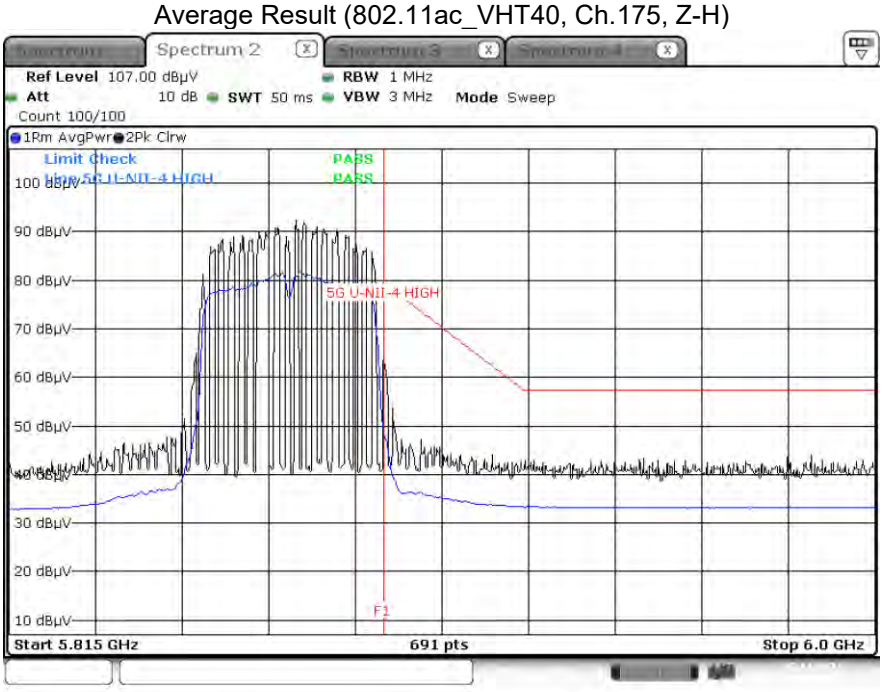
Average Result (802.11ac_VHT20, Ch.177, Z-H)



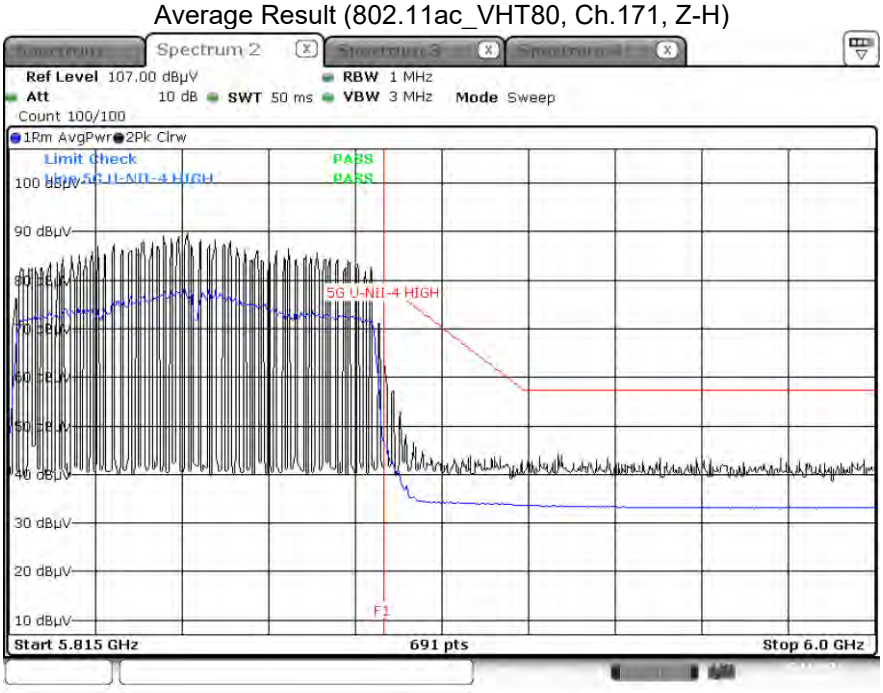
Average Result (802.11n_HT40, Ch.175, Z-H)



Average Result (802.11ac_VHT40, Ch.175, Z-H)



Average Result (802.11ac_VHT80, Ch.171, Z-H)



Note :

1. Only the worst case plots for U-NII-4 O.O.B.E
2. U-NII-4 Low & High O.O.B.E RedLine is Final Test Limit(Average) about factor value compensation.

10.10 POWERLINE CONDUCTED EMISSIONS

Conducted Emissions (Line 1)

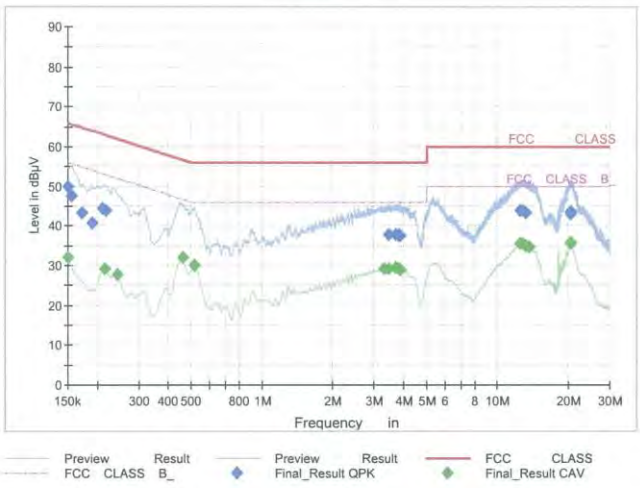
WLAN 5G MODE_L1 1 / 2

Test Report

Common Information

EUT :	SM-X706B
Manufacturer :	SAMSUNG
Test Site:	SHIELD ROOM
Operating Conditions :	WLAN 5G MODE_L1

Full Spectrum



Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
0.1500	49.85	66.00	16.15	9.000	L1	OFF	9.6
0.1545	47.62	65.75	18.13	9.000	L1	OFF	9.6
0.1725	43.31	64.84	21.53	9.000	L1	OFF	9.6
0.1905	40.73	64.02	23.29	9.000	L1	OFF	9.6
0.2108	44.46	63.18	18.71	9.000	L1	OFF	9.6
0.2175	43.98	62.91	18.93	9.000	L1	OFF	9.6
3.4453	37.76	56.00	18.24	9.000	L1	OFF	9.8
3.4588	37.80	56.00	18.20	9.000	L1	OFF	9.8
3.7130	37.65	56.00	18.35	9.000	L1	OFF	9.8
3.8255	37.63	56.00	18.37	9.000	L1	OFF	9.8
3.8323	37.66	56.00	18.34	9.000	L1	OFF	9.8
3.8525	37.53	56.00	18.47	9.000	L1	OFF	9.8
12.5308	43.84	60.00	16.16	9.000	L1	OFF	10.1
12.7580	43.91	60.00	16.09	9.000	L1	OFF	10.2
13.1720	43.25	60.00	16.75	9.000	L1	OFF	10.2
20.3788	43.63	60.00	16.37	9.000	L1	OFF	10.4
20.4215	43.09	60.00	16.91	9.000	L1	OFF	10.4
20.4643	43.68	60.00	16.32	9.000	L1	OFF	10.4

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WLAN 5G MODE_L1 2 / 2

Final_Result_CAV

Frequency (MHz)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
0.1500	32.12	56.00	23.88	9.000	L1	OFF	9.6
0.2153	29.17	53.00	23.83	9.000	L1	OFF	9.6
0.2423	27.82	52.02	24.20	9.000	L1	OFF	9.6
0.4605	32.00	46.68	14.68	9.000	L1	OFF	9.6
0.5158	29.95	46.00	16.05	9.000	L1	OFF	9.7
3.2945	29.16	46.00	16.84	9.000	L1	OFF	9.8
3.4430	29.23	46.00	16.77	9.000	L1	OFF	9.8
3.4475	29.24	46.00	16.76	9.000	L1	OFF	9.8
3.6928	29.31	46.00	16.69	9.000	L1	OFF	9.8
3.8345	29.15	46.00	16.85	9.000	L1	OFF	9.8
3.8548	28.93	46.00	17.07	9.000	L1	OFF	9.8
12.5308	35.41	50.00	14.59	9.000	L1	OFF	10.1
12.7580	35.43	50.00	14.57	9.000	L1	OFF	10.2
13.2463	34.79	50.00	15.21	9.000	L1	OFF	10.2
13.5973	34.75	50.00	15.25	9.000	L1	OFF	10.2
20.3788	35.39	50.00	14.61	9.000	L1	OFF	10.4
20.4013	35.64	50.00	14.36	9.000	L1	OFF	10.4
20.4373	35.40	50.00	14.60	9.000	L1	OFF	10.4

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Conducted Emissions (Line 2)

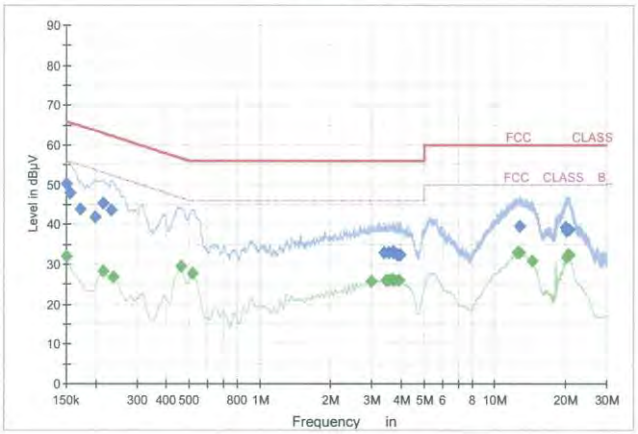
WLAN 5G MODE_N 1 / 2

Test Report

Common Information

EUT :	SM-X706B
Manufacturer :	SAMSUNG
Test Site:	SHIELD ROOM
Operating Conditions :	WLAN 5G MODE_N

Full Spectrum



Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
0.1500	50.28	66.00	15.72	9.000	N	OFF	9.6
0.1545	47.95	65.75	17.81	9.000	N	OFF	9.6
0.1725	43.74	64.84	21.09	9.000	N	OFF	9.6
0.1995	41.85	63.63	21.78	9.000	N	OFF	9.6
0.2153	45.32	63.00	17.68	9.000	N	OFF	9.6
0.2333	43.44	62.33	18.89	9.000	N	OFF	9.6
3.3800	32.83	56.00	23.17	9.000	N	OFF	9.8
3.5488	32.74	56.00	23.26	9.000	N	OFF	9.8
3.6883	32.98	56.00	23.02	9.000	N	OFF	9.8
3.6950	33.03	56.00	22.97	9.000	N	OFF	9.8
3.8638	32.42	56.00	23.58	9.000	N	OFF	9.8
3.9425	32.44	56.00	23.56	9.000	N	OFF	9.8
12.7895	39.45	60.00	20.55	9.000	N	OFF	10.2
20.1020	39.33	60.00	20.67	9.000	N	OFF	10.5
20.2010	38.48	60.00	21.52	9.000	N	OFF	10.5
20.2393	38.54	60.00	21.46	9.000	N	OFF	10.5
20.7163	38.79	60.00	21.21	9.000	N	OFF	10.5
20.7838	38.75	60.00	21.25	9.000	N	OFF	10.5

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WLAN 5G MODE_N 2 / 2

Final_Result_CAV

Frequency (MHz)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
0.1500	32.04	56.00	23.96	9.000	N	OFF	9.6
0.2153	28.27	53.00	24.73	9.000	N	OFF	9.6
0.2378	26.84	52.17	25.34	9.000	N	OFF	9.6
0.4605	29.38	46.68	17.31	9.000	N	OFF	9.6
0.5158	27.61	46.00	18.39	9.000	N	OFF	9.6
2.9953	25.53	46.00	20.47	9.000	N	OFF	9.8
3.4723	26.05	46.00	19.95	9.000	N	OFF	9.8
3.5465	26.07	46.00	19.93	9.000	N	OFF	9.8
3.6703	26.12	46.00	19.88	9.000	N	OFF	9.8
3.7648	25.99	46.00	20.01	9.000	N	OFF	9.8
3.9223	25.85	46.00	20.15	9.000	N	OFF	9.8
12.5308	32.88	50.00	17.12	9.000	N	OFF	10.2
12.6950	32.91	50.00	17.09	9.000	N	OFF	10.2
12.7130	32.87	50.00	17.13	9.000	N	OFF	10.2
14.4545	30.83	50.00	19.17	9.000	N	OFF	10.3
20.2438	31.83	50.00	18.17	9.000	N	OFF	10.5
20.5655	32.43	50.00	17.57	9.000	N	OFF	10.5
20.6443	32.27	50.00	17.73	9.000	N	OFF	10.5

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11. LIST OF TEST EQUIPMENT

Conducted Test

Equipment	Model	Manufacturer	Serial No.	Due to Calibration	Calibration Interval
LISN	ENV216	Rohde & Schwarz	102245	08/23/2022	Annual
EMI Test Receiver	ESR	Rohde & Schwarz	101910	06/17/2022	Annual
Temperature Chamber	SU-642	ESPEC	0093008124	03/15/2022	Annual
Signal Analyzer	N9030A	Agilent	MY49432108	03/09/2022	Annual
Signal Analyzer	N9030A	Agilent	US51350313	03/30/2022	Annual
Power Meter	N1911A	Agilent	MY45100523	04/08/2022	Annual
Power Sensor	N1921A	Agilent	MY57820067	04/08/2022	Annual
Power Splitter	11667B	Hewlett Packard	10545	02/09/2022	Annual
DC Power Supply	E3632A	HP	MY50360067	02/26/2022	Annual
Attenuator(10 dB)(DC-26.5 GHz)	8493C	HP	07560	06/18/2022	Annual
Attenuator(10 dB)(DC-26.5 GHz)	8493C	HP	08285	06/28/2022	Annual
Attenuator(20 dB)	18N-20dB	Rohde & Schwarz	8	03/08/2022	Annual
Software	EMC32	Rohde & Schwarz	N/A	N/A	N/A
FCC WLAN&BT&BLE Conducted Test Software v3.0	N/A	HCT CO., LTD.	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

Equipment	Model	Manufacturer	Serial No.	Due to Calibration	Calibration Interval
Controller(Antenna mast)	CO3000	Innco system	CO3000-4p	N/A	N/A
Antenna Position Tower	MA4640/800-XP-EP	Innco system	N/A	N/A	N/A
Controller	EM1000	Audix	060520	N/A	N/A
Turn Table	N/A	Audix	N/A	N/A	N/A
Amp & Filter Bank Switch Controller	FBSM-01B	TNM system	TM19050002	N/A	N/A
Loop Antenna	1513	Schwarzbeck	1513-333	03/19/2022	Biennial
Hybrid Antenna	VULB 9168	Schwarzbeck	9168-0895	09/04/2022	Biennial
Horn Antenna	BBHA 9120D	Schwarzbeck	02296	05/19/2022	Biennial
Horn Antenna(15 GHz ~ 40 GHz)	BBHA9170	Schwarzbeck	BBHA9170124	04/12/2023	Biennial
Spectrum Analyzer	FSV(10 Hz ~ 40 GHz)	Rohde & Schwarz	101055	05/14/2022	Annual
Band Reject Filter	WRCJV2400/2483.5-2370/2520-60/12SS	Wainwright Instruments	2	01/06/2022	Annual
Band Reject Filter	WRCJV12-4900-5100-5900-6100-50SS	Wainwright Instruments	5	06/24/2022	Annual
Band Reject Filter	WRCJV12-4900-5100-5900-6100-50SS	Wainwright Instruments	6	06/24/2022	Annual
Power Amplifier	CBL18265035	CERNEX	22966	12/04/2021	Annual
Power Amplifier	CBL26405040	CERNEX	25956	03/23/2022	Annual
HPF(3~18GHz) + LNA1(1~18GHz)	FMSR-05B	TNM system	F6	01/20/2022	Annual
ATT(10dB) + LNA1(1~18GHz)	FMSR -05B	TNM system	None	01/20/2022	Annual
ATT(3dB) + LNA1(1~18GHz)	FMSR -05B	TNM system	None	01/20/2022	Annual
LNA1(1~18GHz)	FMSR -05B	TNM system	25540	01/20/2022	Annual
HPF(7~18GHz) + LNA2(6~18GHz)	FMSR -05B	TNM system	28550	01/20/2022	Annual
Thru(30MHz ~ 18GHz)	FMSR -05B	TNM system	None	01/20/2022	Annual

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-2111-FC071-P