

[ANT.2]

Mode	Band	Frequency [MHz]	Channel	Measured Frequency [MHz]	26dB Bandwidth [MHz]
802.11a	UNII 2C	5720	144	5709.24	15.76
802.11n(HT20)				5706.96	18.04
802.11ac(VHT20)				5709.28	15.72
802.11a	UNII 3	5720	144	5732.12	7.12
802.11n(HT20)				5732.32	7.32
802.11ac(VHT20)				5730.88	5.88

Mode	Band	Frequency [MHz]	Channel	Measured Frequency [MHz]	26dB Bandwidth [MHz]
802.11n(HT40)	UNII 2C	5710	142	5675.04	49.96
802.11ac(VHT40)				5689.92	35.08
802.11n(HT40)	UNII 3	5710	142	5746.16	21.16
802.11ac(VHT40)				5729.92	4.92

Mode	Band	Frequency [MHz]	Channel	Measured Frequency [MHz]	26dB Bandwidth [MHz]
802.11ac(VHT80)	UNII 2C	5690	138	5649.20	75.80
	UNII 3	5690	138	5730.64	5.64

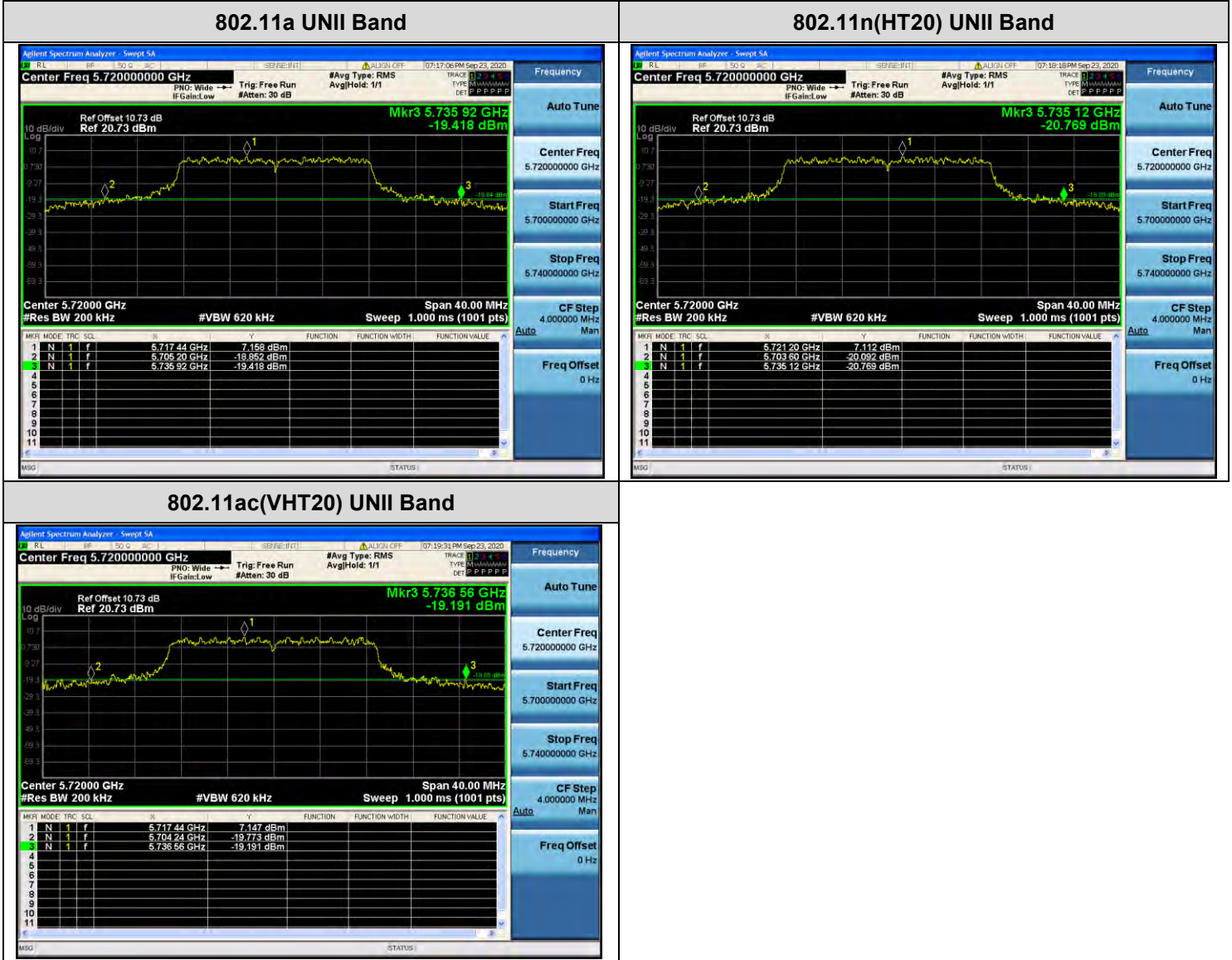
Note:

[UNII 2C] 26dB Bandwidth = 5 725 MHz - Measured Frequency[MHz]

[UNII 3C] 26dB Bandwidth = Measured Frequency[MHz] – 5 725 MHz

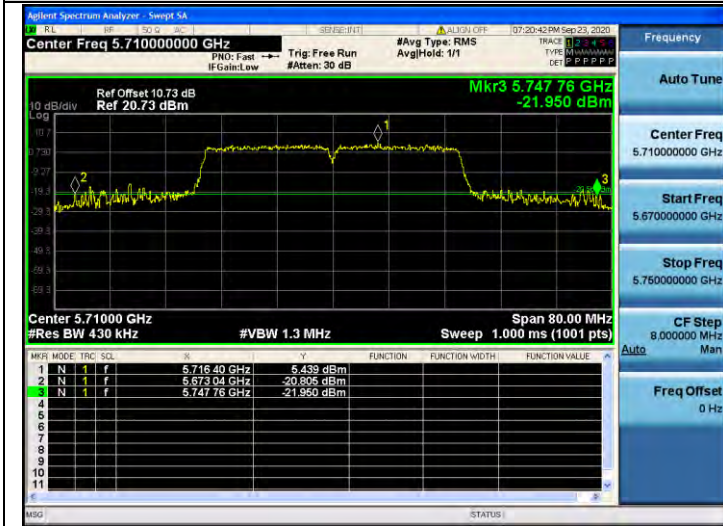
[ANT.1]

☐ Test Plots (26dB Bandwidth)



☐ Test Plots (26dB Bandwidth)

802.11n(HT40) UNII Band



802.11ac(VHT40) UNII Band



802.11ac(VHT80) UNII Band



[ANT.2]

☐ Test Plots (26dB Bandwidth)

802.11a UNII Band



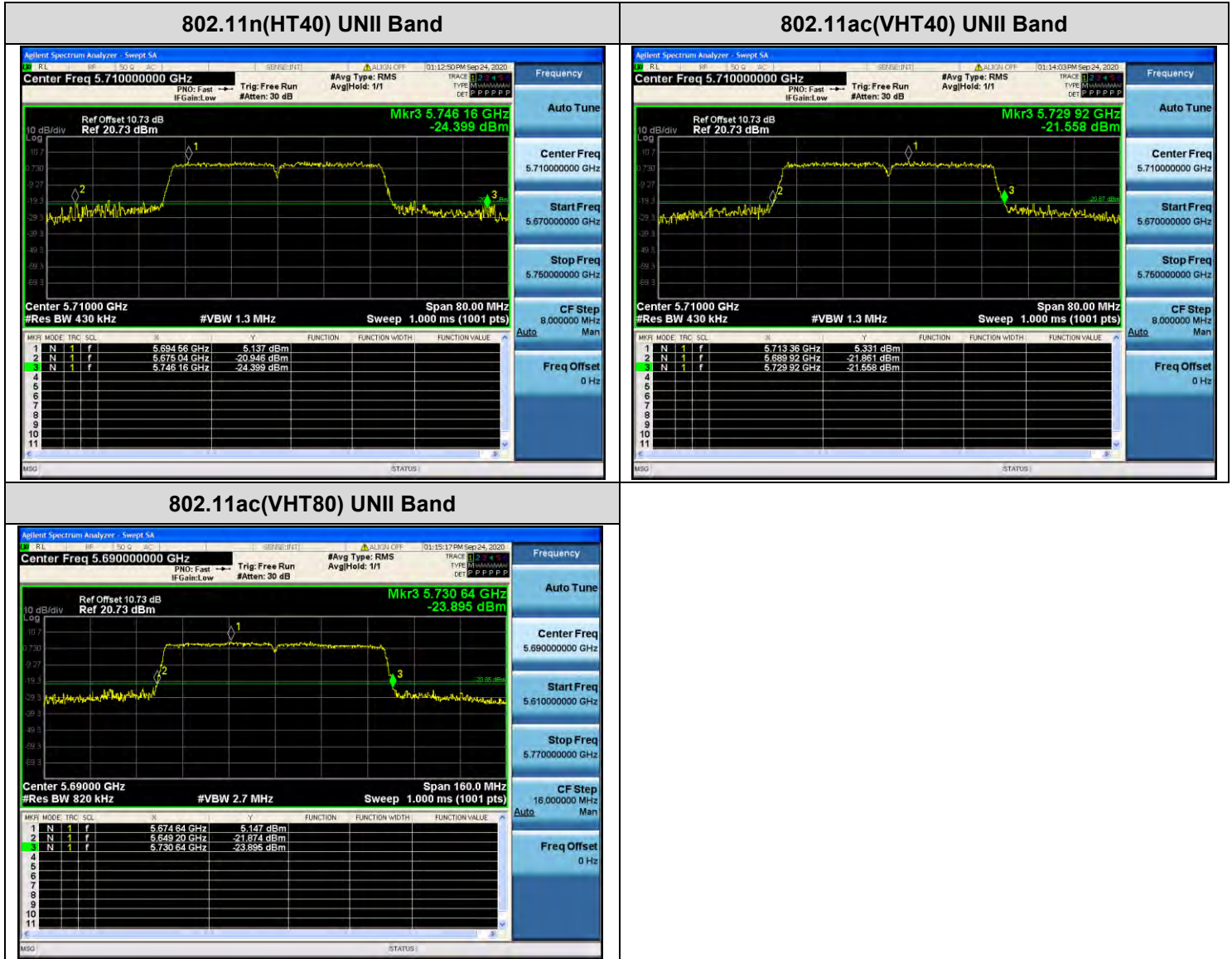
802.11n(HT20) UNII Band



802.11ac(VHT20) UNII Band



☐ Test Plots (26dB Bandwidth)



10.7.2 6dB Bandwidth

[ANT.1]

Mode	Band	Frequency [MHz]	Channel	Measured Frequency [MHz]	6dB Bandwidth [MHz]	Limit [MHz]
802.11a	UNII 3	5720	144	5728.16	3.16	> 0.5
802.11n(HT20)				5728.72	3.72	> 0.5
802.11ac(VHT20)				5728.72	3.72	> 0.5

Mode	Band	Frequency [MHz]	Channel	Measured Frequency [MHz]	6dB Bandwidth [MHz]	Limit [MHz]
802.11n(HT40)	UNII 3	5710	142	5728.16	3.16	> 0.5
802.11ac(VHT40)				5727.92	2.92	> 0.5

Mode	Band	Frequency [MHz]	Channel	Measured Frequency [MHz]	6dB Bandwidth [MHz]	Limit [MHz]
802.11ac(VHT80)	UNII 3	5690	138	5727.92	2.92	> 0.5

Note:

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

[ANT.2]

Mode	Band	Frequency [MHz]	Channel	Measured Frequency [MHz]	6dB Bandwidth [MHz]	Limit [MHz]
802.11a	UNII 3	5720	144	5728.16	3.16	> 0.5
802.11n(HT20)				5728.48	3.48	> 0.5
802.11ac(VHT20)				5728.76	3.76	> 0.5

Mode	Band	Frequency [MHz]	Channel	Measured Frequency [MHz]	6dB Bandwidth [MHz]	Limit [MHz]
802.11n(HT40)	UNII 3	5710	142	5727.76	2.76	> 0.5
802.11ac(VHT40)				5727.92	2.92	> 0.5

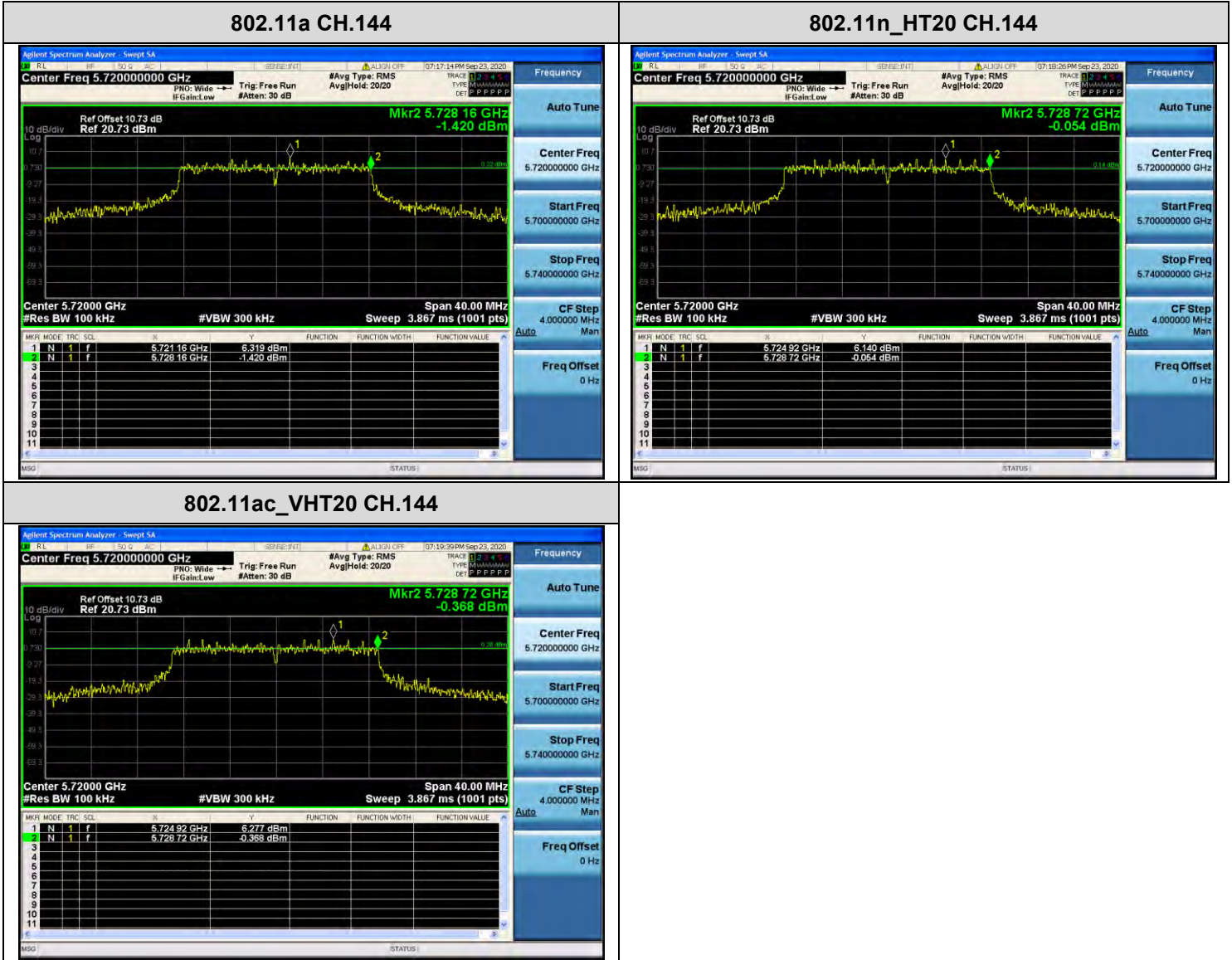
Mode	Band	Frequency [MHz]	Channel	Measured Frequency [MHz]	6dB Bandwidth [MHz]	Limit [MHz]
802.11ac(VHT80)	UNII 3	5690	138	5727.60	2.60	> 0.5

Note:

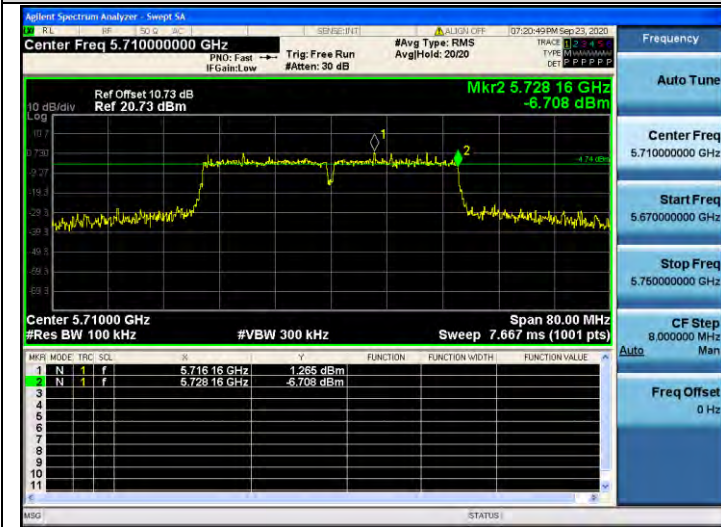
6dB Bandwidth = Measured Frequency[MHz] – 5725MHz

[ANT.1]

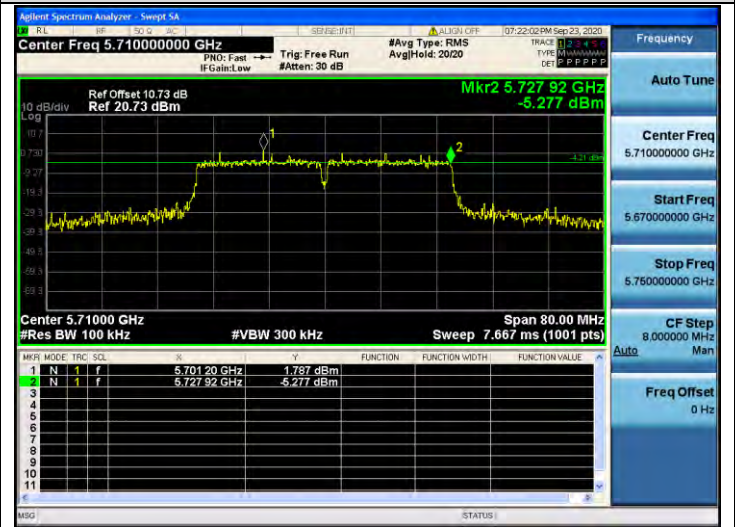
☐ Test Plots(UNII 3 Band 6dB Bandwidth)



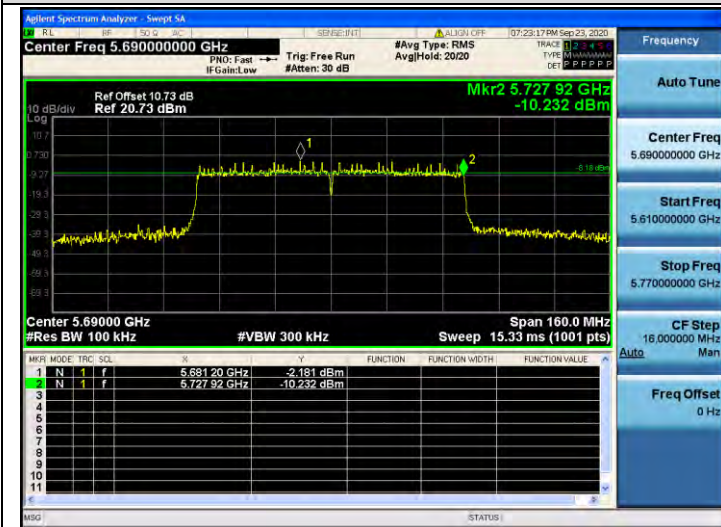
802.11n_HT40 CH.142



802.11ac_VHT40 CH.142



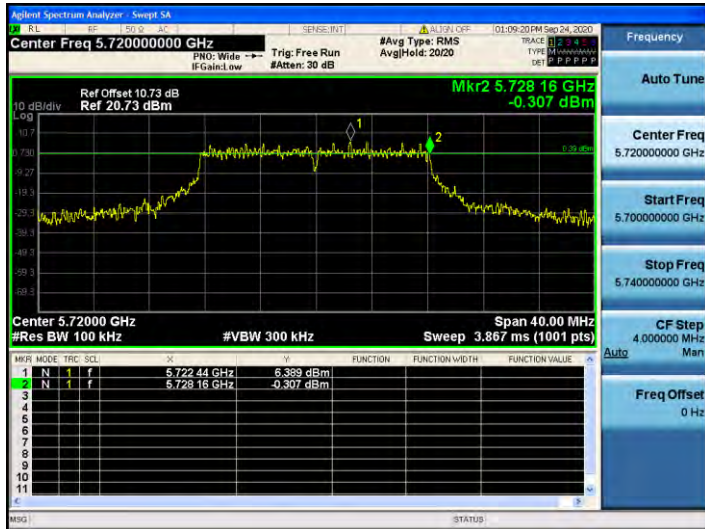
802.11ac_VHT80 CH.138



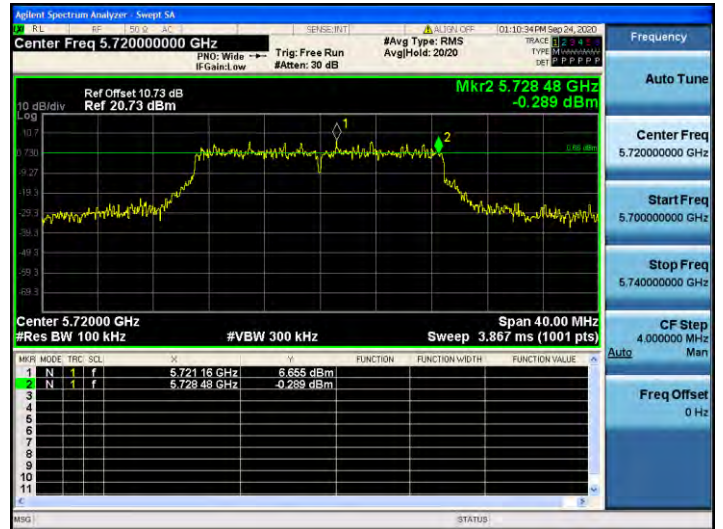
[ANT.2]

☐ Test Plots(UNII 3 Band 6dB Bandwidth)

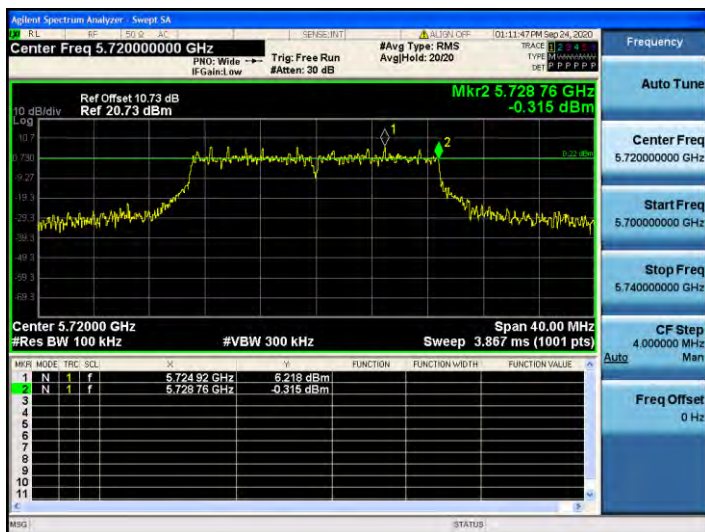
802.11a CH.144



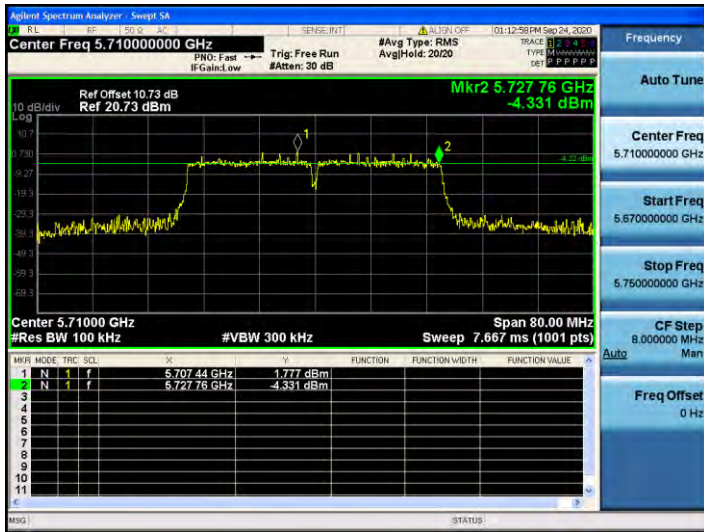
802.11n_HT20 CH.144



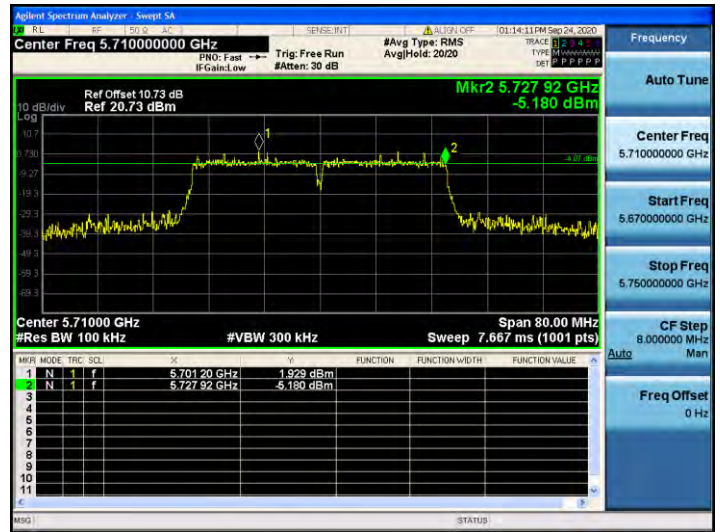
802.11ac_VHT20 CH.144



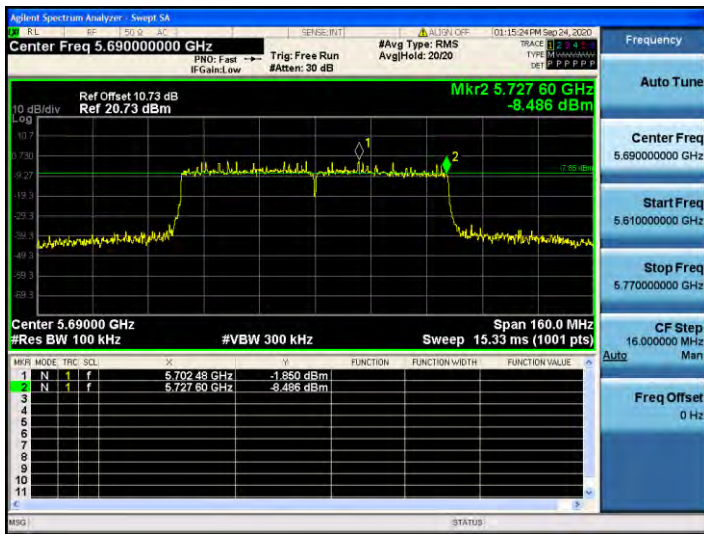
802.11n_HT40 CH.142



802.11ac_VHT40 CH.142



802.11ac_VHT80 CH.138



10.7.3 Output Power

[ANT.1]

Mode	Frequency [MHz]	Channel	Measured Power (dBm)	Duty Cycle Factor (dB)	Total Power (dBm)	Limit (dBm)
802.11a	5720 (UNII 2C Band)	144	14.53	1.836	16.37	23.97
802.11n(HT20)			14.43	1.919	16.35	23.98
802.11ac(VHT20)			14.00	2.278	16.28	23.98
802.11a	5720 (UNII 3 Band)	144	8.27	1.836	10.10	30.00
802.11n(HT20)			8.69	1.919	10.61	30.00
802.11ac(VHT20)			8.26	2.278	10.53	30.00

Mode	Frequency [MHz]	Channel	Measured Power (dBm)	Duty Cycle Factor (dB)	Total Power (dBm)	Limit (dBm)
802.11n(HT40)	5710 (UNII 2C Band)	142	14.81	0.617	15.42	23.98
802.11ac(VHT40)			14.91	0.584	15.50	23.98
802.11n(HT40)	5710 (UNII 3 Band)	142	4.25	0.617	4.87	30.00
802.11ac(VHT40)			4.36	0.584	4.94	30.00

Mode	Frequency [MHz]	Channel	Measured Power (dBm)	Duty Cycle Factor (dB)	Total Power (dBm)	Limit (dBm)
802.11ac(VHT80)	5690 (UNII 2C Band)	138	13.42	1.165	14.59	23.98
	5690 (UNII 3 Band)	138	-1.13	1.165	0.03	30.00

[ANT.2]

Mode	Frequency [MHz]	Channel	Measured Power (dBm)	Duty Cycle Factor (dB)	Total Power (dBm)	Limit (dBm)
802.11a	5720 (UNII 2C Band)	144	14.78	1.836	16.62	22.98
802.11n(HT20)			14.67	1.919	16.59	23.56
802.11ac(VHT20)			14.35	2.278	16.63	22.96
802.11a	5720 (UNII 3 Band)	144	8.67	1.836	10.51	30.00
802.11n(HT20)			8.84	1.919	10.76	30.00
802.11ac(VHT20)			8.57	2.278	10.85	30.00

Mode	Frequency [MHz]	Channel	Measured Power (dBm)	Duty Cycle Factor (dB)	Total Power (dBm)	Limit (dBm)
802.11n(HT40)	5710 (UNII 2C Band)	142	14.90	0.617	15.51	23.98
802.11ac(VHT40)			14.97	0.584	15.56	23.98
802.11n(HT40)	5710 (UNII 3 Band)	142	4.26	0.617	4.87	30.00
802.11ac(VHT40)			4.21	0.584	4.80	30.00

Mode	Frequency [MHz]	Channel	Measured Power (dBm)	Duty Cycle Factor (dB)	Total Power (dBm)	Limit (dBm)
802.11ac(VHT80)	5690 (UNII 2C Band)	138	14.20	1.165	15.36	23.98
	5690 (UNII 3 Band)	138	-1.05	1.165	0.11	30.00

[ANT.1]

Test Plots

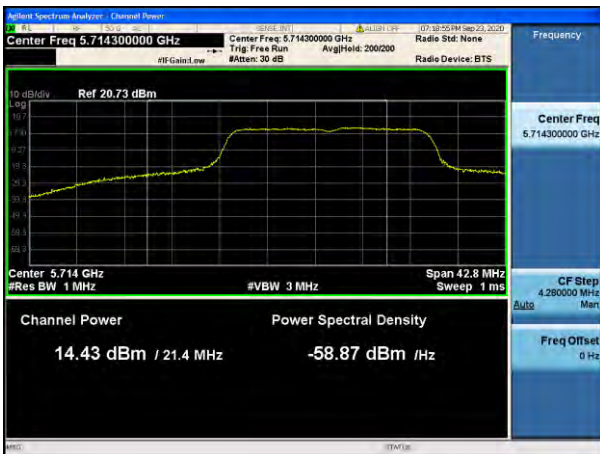
802.11a UNII 2C Band



802.11a UNII 3 Band



802.11n(HT20) UNII 2C Band



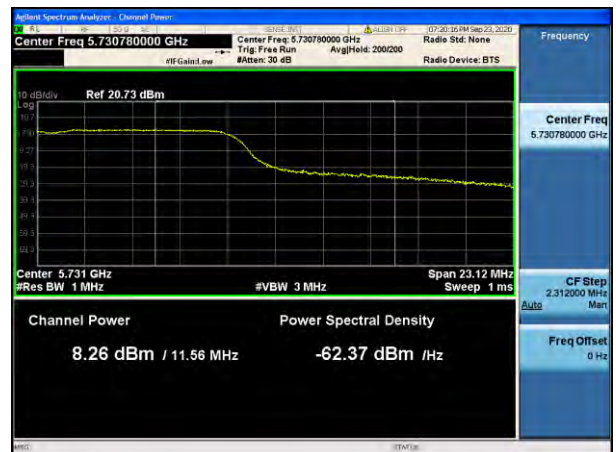
802.11n(HT20) UNII 3 Band



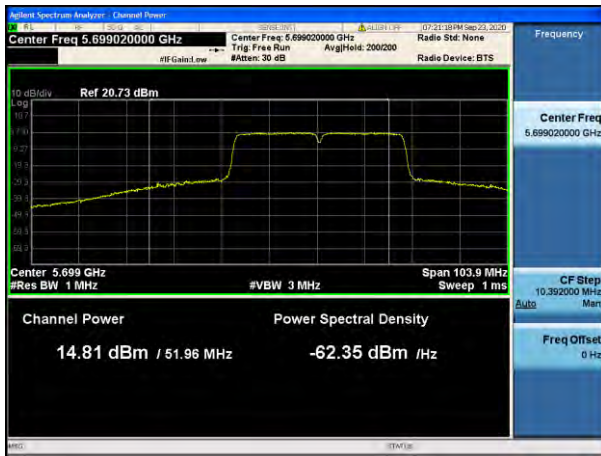
802.11ac(VHT20) UNII 2C Band



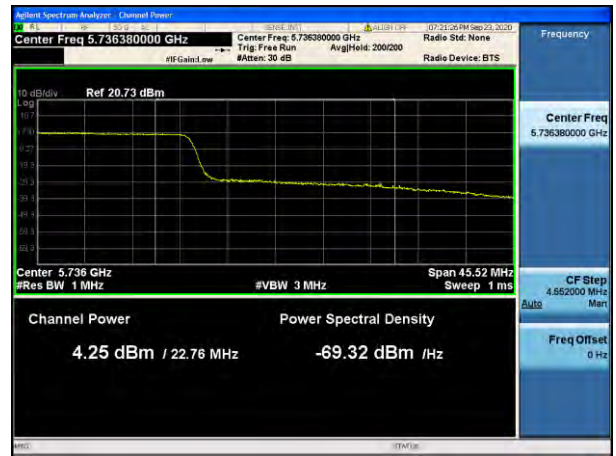
802.11ac(VHT20) UNII 3 Band



802.11n(HT40) UNII 2C Band



802.11n(HT40) UNII 3 Band



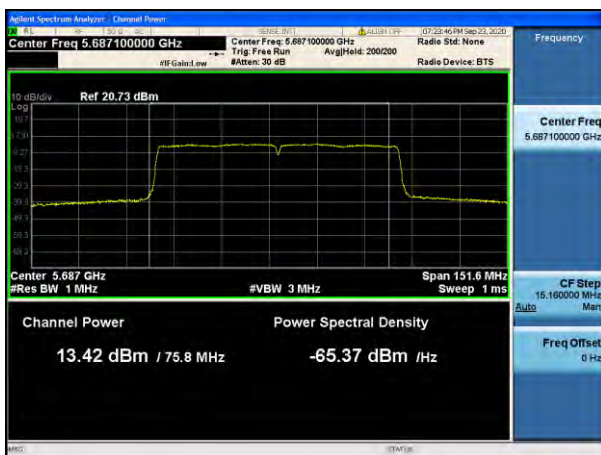
802.11ac(VHT40) UNII 2C Band



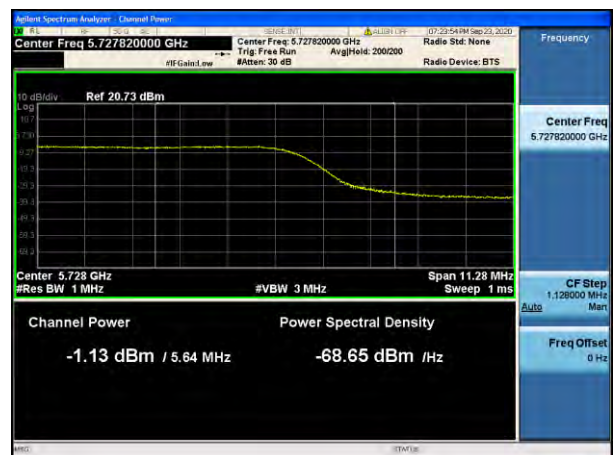
802.11ac(VHT40) UNII 3 Band



802.11ac(VHT80) UNII 2C Band

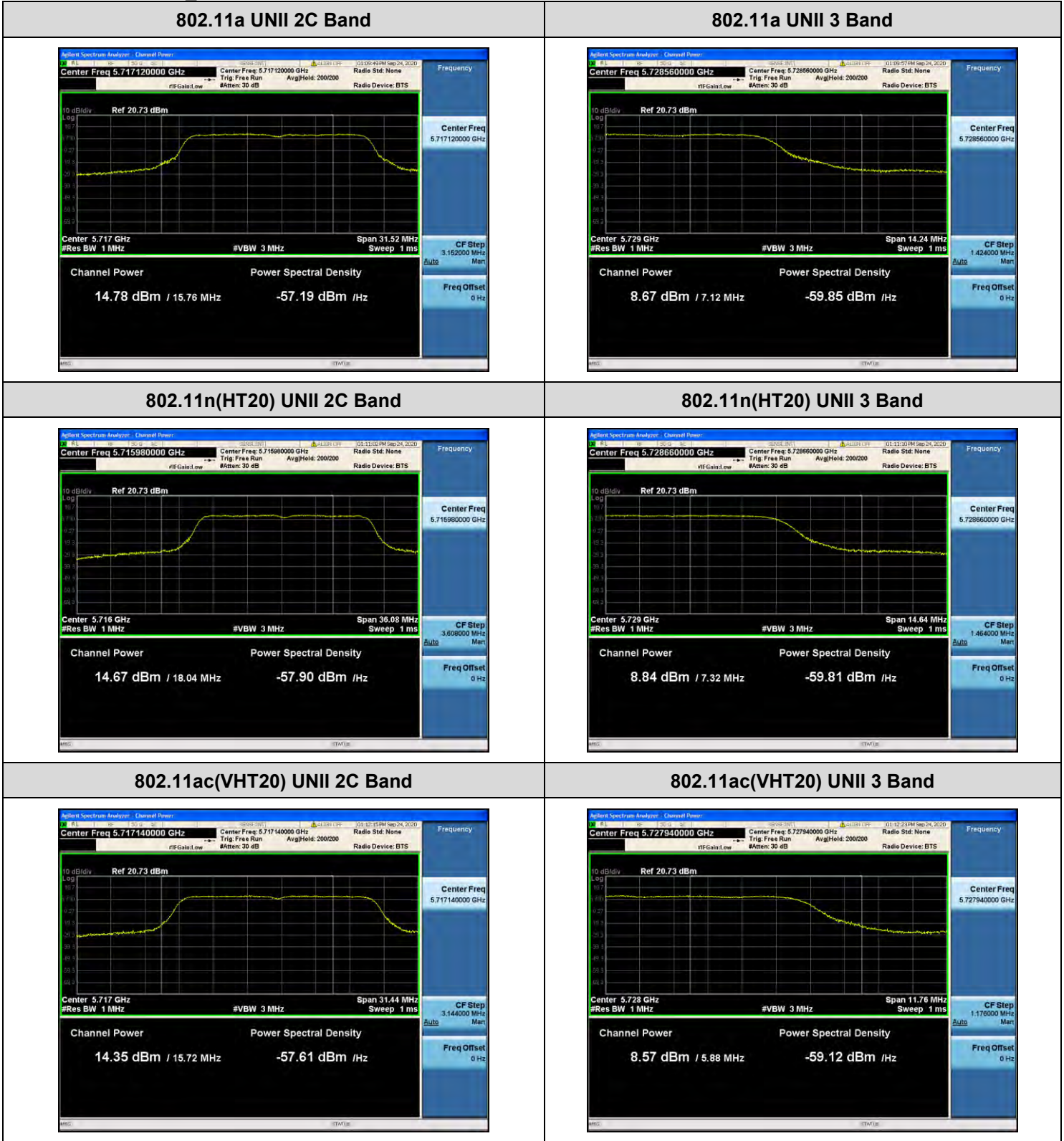


802.11ac(VHT80) UNII 3 Band



[ANT.2]

☑ Test Plots



802.11n(HT40) UNII 2C Band



802.11n(HT40) UNII 3 Band



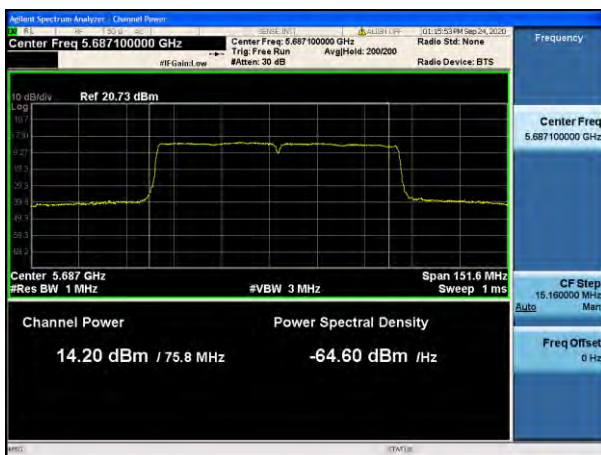
802.11ac(VHT40) UNII 2C Band



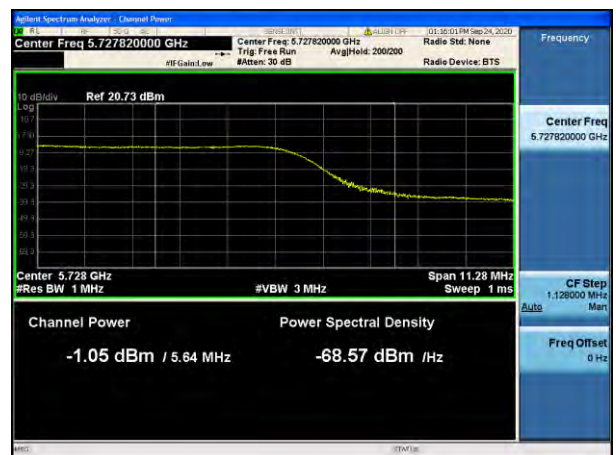
802.11ac(VHT40) UNII 3 Band



802.11ac(VHT80) UNII 2C Band



802.11ac(VHT80) UNII 3 Band



10.7.4 Power Spectral Density

[ANT.1]

Mode	Frequency [MHz]	Channel	Measured Density (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)	Limit (dBm)
802.11a	5720 (UNII 2C Band)	144	4.842	1.836	6.678	11dBm/ MHz
802.11n(HT20)			4.464	1.919	6.383	
802.11ac(VHT20)			3.980	2.278	6.258	
802.11a	5720 (UNII 3 Band)	144	1.576	1.836	3.413	30 dBm/ 500kHz
802.11n(HT20)			1.383	1.919	3.302	
802.11ac(VHT20)			1.251	2.278	3.529	

Mode	Frequency [MHz]	Channel	Measured Density (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)	Limit (dBm)
802.11n(HT40)	5710 (UNII 2C Band)	142	0.873	0.617	1.490	11dBm/ MHz
802.11ac(VHT40)			0.960	0.584	1.544	
802.11n(HT40)	5710 (UNII 3 Band)	142	-2.895	0.617	-2.278	30 dBm/ 500kHz
802.11ac(VHT40)			-2.979	0.584	-2.395	

Mode	Frequency [MHz]	Channel	Measured Density (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)	Limit (dBm)
802.11ac(VHT80)	5690 (UNII 2C Band)	138	-3.658	1.165	-2.493	11dBm/ MHz
	5690 (UNII 3 Band)	138	-7.996	1.165	-6.831	30 dBm/ 500kHz

[ANT.2]

Mode	Frequency [MHz]	Channel	Measured Density (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)	Limit (dBm)
802.11a	5720 (UNII 2C Band)	144	4.806	1.836	6.643	11dBm/ MHz
802.11n(HT20)			5.023	1.919	6.942	
802.11ac(VHT20)			4.567	2.278	6.845	
802.11a	5720 (UNII 3 Band)	144	1.736	1.836	3.572	30 dBm/ 500kHz
802.11n(HT20)			1.997	1.919	3.916	
802.11ac(VHT20)			0.865	2.278	3.143	

Mode	Frequency [MHz]	Channel	Measured Density (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)	Limit (dBm)
802.11n(HT40)	5710 (UNII 2C Band)	142	1.102	0.617	1.720	11dBm/ MHz
802.11ac(VHT40)			1.306	0.584	1.890	
802.11n(HT40)	5710 (UNII 3 Band)	142	-3.135	0.617	-2.518	30 dBm/ 500kHz
802.11ac(VHT40)			-2.382	0.584	-1.798	

Mode	Frequency [MHz]	Channel	Measured Density (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)	Limit (dBm)
802.11ac(VHT80)	5690 (UNII 2C Band)	138	-2.566	1.165	-1.401	11dBm/ MHz
	5690 (UNII 3 Band)	138	-7.713	1.165	-6.547	30 dBm/ 500kHz

[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



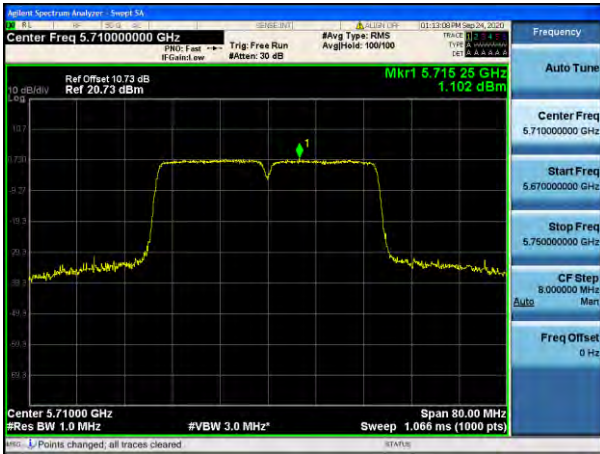
802.11ac(VHT20) UNII 2C Band



802.11ac(VHT20) UNII 3 Band



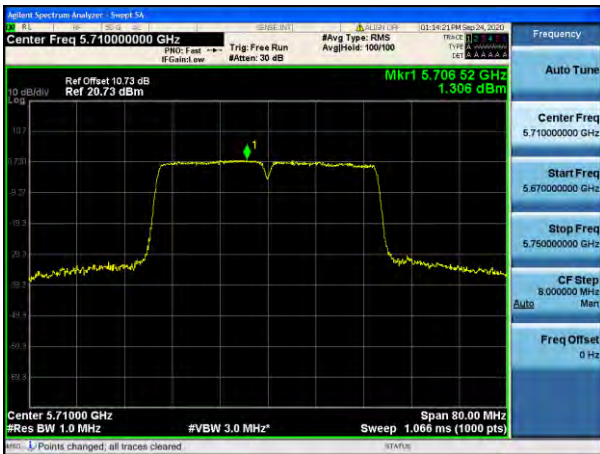
802.11n(HT40) UNII 2C Band



802.11n(HT40) UNII 3 Band



802.11ac(VHT40) UNII 2C Band



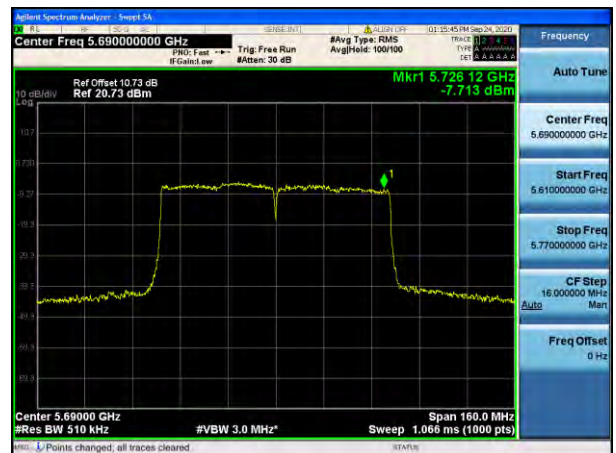
802.11ac(VHT40) UNII 3 Band



802.11ac(VHT80) UNII 2C Band



802.11ac(VHT80) UNII 3 Band



10.8 RADIATED SPURIOUS EMISSIONS

Frequency Range : 9 kHz – 30MHz

Frequency	Reading	Ant. factor	Cable loss	Ant. POL	Total	Limit	Margin
MHz	dBuV/m	dBm/m	dBm	(H/V)	dBuV/m	dBuV/m	dB
No Critical peaks found							

Note:

1. The reading 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 (dBuV) + Distance extrapolation factor

Frequency Range : Below 1 GHz

Frequency	Reading	Ant. factor	Cable loss	Ant. POL	Total	Limit	Margin
MHz	dBuV/m	dBm/m	dBm	(H/V)	dBuV/m	dBuV/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

[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]	Reading [dBuV]	A.F.+C.L.		ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
		-A.G [dB]						
10360	55.06	0.49		V	55.55	68.20	12.65	PK
15540	49.76	2.62		V	52.38	73.98	21.60	PK
15540	37.17	2.62		V	39.79	53.98	14.19	AV
10360	55.94	0.49		H	56.43	68.20	11.77	PK
15540	49.81	2.62		H	52.43	73.98	21.55	PK
15540	37.20	2.62		H	39.82	53.98	14.16	AV

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

Frequency [MHz]	Reading [dBuV]	A.F.+C.L.		ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
		-A.G [dB]						
10400	52.53	1.38		V	53.91	68.20	14.29	PK
15600	50.11	1.50		V	51.61	73.98	22.37	PK
15600	36.83	1.50		V	38.33	53.98	15.65	AV
10400	54.16	1.38		H	55.54	68.20	12.66	PK
15600	48.98	1.50		H	50.48	73.98	23.50	PK
15600	36.71	1.50		H	38.21	53.98	15.77	AV

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

Frequency [MHz]	Reading [dBuV]	A.F.+C.L.	ANT.	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
		-A.G [dB]	POL [H/V]				
10480	53.42	-0.33	V	53.09	68.20	15.11	PK
15720	50.19	0.56	V	50.75	73.98	23.23	PK
15720	37.30	0.56	V	37.86	53.98	16.12	AV
10480	53.88	-0.33	H	53.55	68.20	14.65	PK
15720	49.31	0.56	H	49.87	73.98	24.11	PK
15720	37.17	0.56	H	37.73	53.98	16.25	AV

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

Frequency [MHz]	Reading [dBuV]	A.F.+C.L.	ANT.	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
		-A.G [dB]	POL [H/V]				
10520	54.91	-0.06	V	54.85	68.20	13.35	PK
15780	50.66	0.96	V	51.62	73.98	22.36	PK
15780	37.67	0.96	V	38.63	53.98	15.35	AV
10520	54.99	-0.06	H	54.93	68.20	13.27	PK
15780	50.72	0.96	H	51.68	73.98	22.30	PK
15780	37.69	0.96	H	38.65	53.98	15.33	AV

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

Frequency [MHz]	Reading [dBuV]	A.F.+C.L.	ANT.	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
		-A.G [dB]	POL [H/V]				
10600	55.01	-0.18	V	54.83	73.98	19.15	PK
10600	42.42	-0.18	V	42.24	53.98	11.74	AV
15900	51.47	-0.13	V	51.34	73.98	22.64	PK
15900	38.11	-0.13	V	37.98	53.98	16.00	AV
10600	54.33	-0.18	H	54.15	73.98	19.83	PK
10600	41.87	-0.18	H	41.69	53.98	12.29	AV
15900	51.35	-0.13	H	51.22	73.98	22.76	PK
15900	38.06	-0.13	H	37.93	53.98	16.05	AV

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

Frequency [MHz]	Reading [dBuV]	A.F.+C.L.	ANT.	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
		-A.G [dB]	POL [H/V]				
10640	55.06	-0.04	V	55.02	73.98	18.96	PK
10640	43.09	-0.04	V	43.05	53.98	10.93	AV
15960	51.25	-0.36	V	50.89	73.98	23.09	PK
15960	37.91	-0.36	V	37.55	53.98	16.43	AV
10640	54.88	-0.04	H	54.84	73.98	19.14	PK
10640	42.41	-0.04	H	42.37	53.98	11.61	AV
15960	51.18	-0.36	H	50.82	73.98	23.16	PK
15960	37.95	-0.36	H	37.59	53.98	16.39	AV

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

Frequency [MHz]	Reading [dBuV]	A.F.+C.L.	ANT.	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
		-A.G [dB]	POL [H/V]				
11000	53.56	1.75	V	55.31	73.98	18.67	PK
11000	41.12	1.75	V	42.87	53.98	11.11	AV
16500	50.88	1.06	V	51.94	68.20	16.26	PK
11000	52.95	1.75	H	54.70	73.98	19.28	PK
11000	40.52	1.75	H	42.27	53.98	11.71	AV
16500	50.72	1.06	H	51.78	68.20	16.42	PK

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

Frequency [MHz]	Reading [dBuV]	A.F.+C.L.	ANT.	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
		-A.G [dB]	POL [H/V]				
11200	54.28	0.26	V	54.54	73.98	19.44	PK
11200	40.24	0.26	V	40.50	53.98	13.48	AV
16800	50.83	3.41	V	54.24	68.20	13.96	PK
11200	53.54	0.26	H	53.80	73.98	20.18	PK
11200	39.64	0.26	H	39.90	53.98	14.08	AV
16800	50.72	3.41	H	54.13	68.20	14.07	PK

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

Frequency [MHz]	Reading [dBuV]	A.F.+C.L.	ANT.	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
		-A.G [dB]	POL [H/V]				
11440	56.82	0.74	V	57.56	73.98	16.42	PK
11440	42.42	0.74	V	43.16	53.98	10.82	AV
17160	50.91	5.47	V	56.38	68.20	11.82	PK
11440	54.77	0.74	H	55.51	73.98	18.47	PK
11440	41.05	0.74	H	41.79	53.98	12.19	AV
17160	50.82	5.47	H	56.29	68.20	11.91	PK

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

Frequency [MHz]	Reading [dBuV]	A.F.+C.L.	ANT.	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
		-A.G [dB]	POL [H/V]				
11490	55.88	0.57	V	56.45	73.98	17.53	PK
11490	42.06	0.57	V	42.63	53.98	11.35	AV
17235	49.95	5.22	V	55.17	68.20	13.03	PK
11490	54.68	0.57	H	55.25	73.98	18.73	PK
11490	41.75	0.57	H	42.32	53.98	11.66	AV
17235	49.12	5.22	H	54.34	68.20	13.86	PK

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

Frequency [MHz]	Reading [dBuV]	A.F.+C.L.	ANT.	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
		-A.G [dB]	POL [H/V]				
11570	56.06	0.73	V	56.79	73.98	17.19	PK
11570	41.58	0.73	V	42.31	53.98	11.67	AV
17355	51.11	6.04	V	57.15	68.20	11.05	PK
11570	54.69	0.73	H	55.42	73.98	18.56	PK
11570	40.77	0.73	H	41.50	53.98	12.48	AV
17355	50.99	6.04	H	57.03	68.20	11.17	PK

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

Frequency [MHz]	Reading [dBuV]	A.F.+C.L.	ANT.	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
		-A.G [dB]	POL [H/V]				
11650	55.40	-0.65	V	54.75	73.98	19.23	PK
11650	41.76	-0.65	V	41.11	53.98	12.87	AV
17475	50.34	7.62	V	57.96	68.20	10.24	PK
11650	55.43	-0.65	H	54.78	73.98	19.20	PK
11650	41.77	-0.65	H	41.12	53.98	12.86	AV
17475	49.07	7.62	H	56.69	68.20	11.51	PK

Note:

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

[Worst case]

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

[DBS Mode] – Tese case 1

Frequency [MHz]	Reading [dBuV]	A.F.+C.L. -A.G [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
11650	52.34	-0.65	V	51.69	73.98	22.29	PK
11650	40.16	-0.65	V	39.51	53.98	14.47	AV
17475	49.44	7.62	V	57.06	68.20	11.14	PK
11650	51.75	-0.65	H	51.10	73.98	22.88	PK
11650	38.97	-0.65	H	38.32	53.98	15.66	AV
17475	49.72	7.62	H	57.34	68.20	10.86	PK

[DBS Mode] – Tese case 2

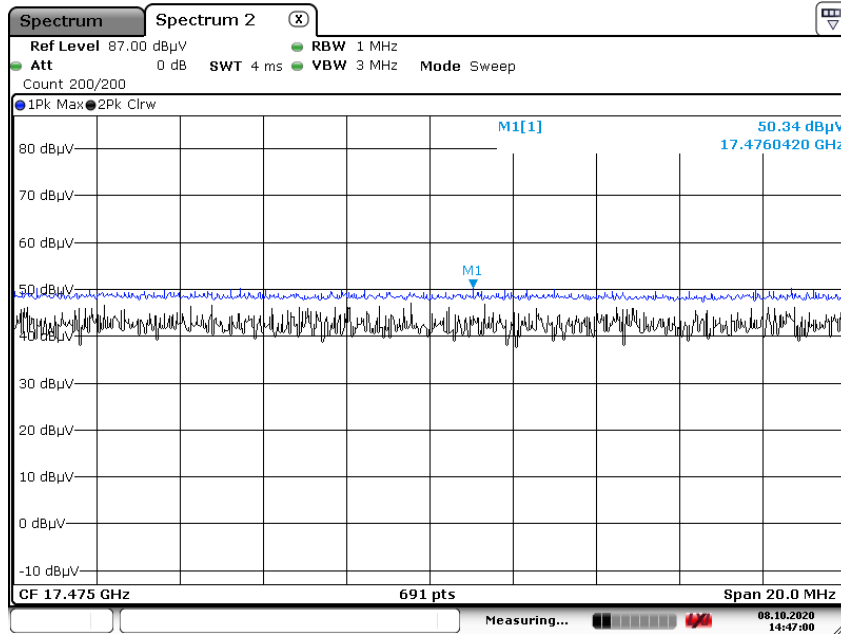
Frequency [MHz]	Reading [dBuV]	A.F.+C.L. -A.G [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
11650	51.94	-0.65	V	51.29	73.98	22.69	PK
11650	39.44	-0.65	V	38.79	53.98	15.19	AV
17475	49.77	7.62	V	57.39	68.20	10.81	PK
11650	51.74	-0.65	H	51.09	73.98	22.89	PK
11650	39.30	-0.65	H	38.65	53.98	15.33	AV
17475	49.32	7.62	H	56.94	68.20	11.26	PK

[Non-DBS Mode] – Tese case 3

Frequency [MHz]	Reading [dBuV]	A.F.+C.L. -A.G [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
11650	55.91	-0.65	V	55.26	73.98	18.72	PK
11650	42.40	-0.65	V	41.75	53.98	12.23	AV
17475	50.37	7.62	V	57.99	68.20	10.21	PK
11650	54.56	-0.65	H	53.91	73.98	20.07	PK
11650	40.66	-0.65	H	40.01	53.98	13.97	AV
17475	49.91	7.62	H	57.53	68.20	10.67	PK

▣ Test Plots [Ant.1&Ant.2_MIMO(CDD)]

Peak Reading (802.11a, Ch.165 3rd Harmonic, X-V)



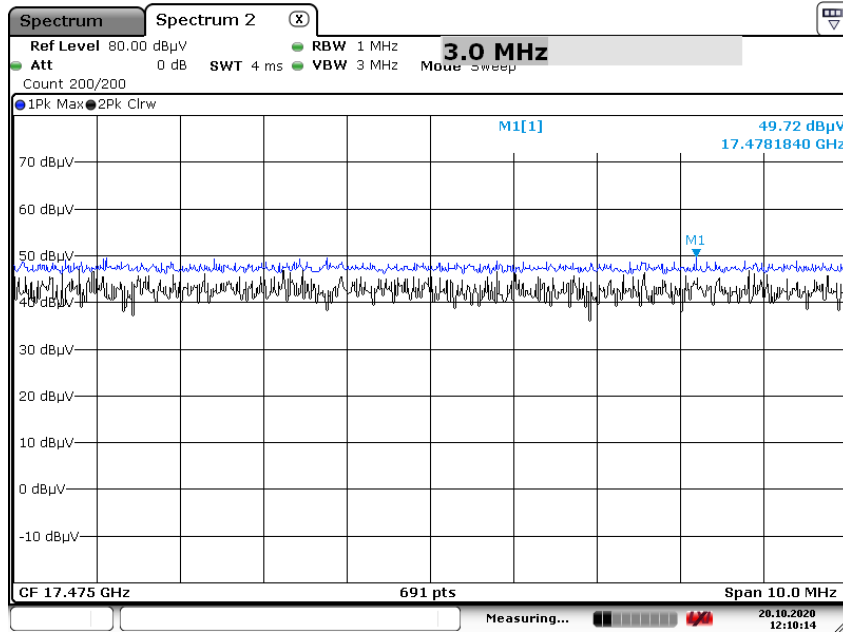
Date: 8.OCT.2020 14:47:00

Note:

Only the worst case plots for Radiated Spurious Emissions.

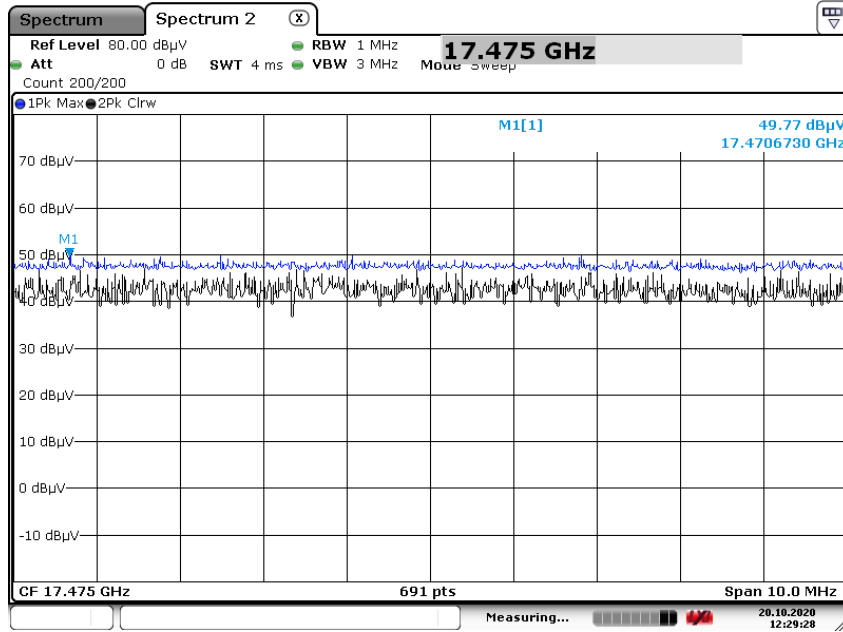
■ Test Plots (DBS)

Radiated Spurious Emissions plot – Peak Reading (Test case 1_ 3rd Harmonic, X-H)



Date: 20.OCT.2020 12:10:14

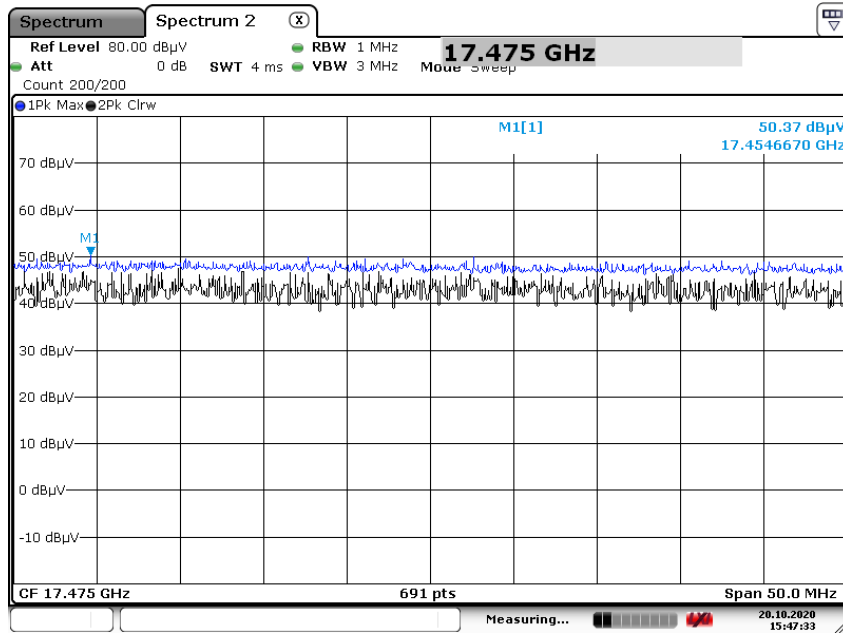
Radiated Spurious Emissions plot – Peak Reading (Test case 2_ 3rd Harmonic, X-V)



Date: 20.OCT.2020 12:29:28

■ **Test Plots (Non-DBS)**

Radiated Spurious Emissions plot – Peak Reading (Test case 3_ 3rd Harmonic, Y-V)



Date: 20.OCT.2020 15:47:33

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]	Reading dBuV	C.L+A.F+ D.F-A.G + ATT [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
5150	58.24	5.75	H	63.99	73.98	9.99	PK
5150	43.46	5.75	H	49.21	53.98	4.77	AV
5150	52.71	5.75	V	58.46	73.98	15.52	PK
5150	39.50	5.75	V	45.25	53.98	8.73	AV

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

Frequency [MHz]	Reading dBuV	C.L+A.F+ D.F-A.G + ATT [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
5350	63.11	5.52	H	68.63	73.98	5.35	PK
5350	40.86	5.52	H	46.38	53.98	7.60	AV
5350	62.85	5.52	V	68.37	73.98	5.61	PK
5350	40.70	5.52	V	46.22	53.98	7.76	AV

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

Frequency [MHz]	Reading DBuV	C.L+A.F+ D.F-A.G + ATT [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
5460	52.34	7.05	H	59.39	73.98	14.59	PK
5460	37.22	7.05	H	44.27	53.98	9.71	AV
5470	57.73	6.59	H	64.32	68.20	3.88	PK
5460	50.32	7.05	V	57.37	73.98	16.61	PK
5460	37.10	7.05	V	44.15	53.98	9.83	AV
5470	57.09	6.59	V	63.68	68.20	4.52	PK

Band : UNII 1
 Operation Mode: 802.11 n_HT20
 Transfer MCS Index: 0
 Operating Frequency 5180 MHz
 Channel No. 36 Ch

Frequency [MHz]	Reading dBuV	C.L+A.F+ D.F-A.G + ATT [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
5150	60.88	5.75	H	66.63	73.98	7.35	PK
5150	43.74	5.75	H	49.49	53.98	4.49	AV
5150	60.18	5.75	V	65.93	73.98	8.05	PK
5150	43.38	5.75	V	49.13	53.98	4.85	AV

Band : UNII 2A
 Operation Mode: 802.11 n_HT20
 Transfer MCS Index: 0
 Operating Frequency 5320 MHz
 Channel No. 64 Ch

Frequency [MHz]	Reading dBuV	C.L+A.F+ D.F-A.G + ATT [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
5350	62.08	5.52	H	67.60	73.98	6.38	PK
5350	41.87	5.52	H	47.39	53.98	6.59	AV
5350	61.66	5.52	V	67.18	73.98	6.80	PK
5350	41.63	5.52	V	47.15	53.98	6.83	AV

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

Frequency [MHz]	Reading DBuV	C.L+A.F+ D.F-A.G + ATT [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
5460	50.54	7.05	H	57.59	73.98	16.39	PK
5460	36.22	7.05	H	43.27	53.98	10.71	AV
5470	58.47	6.59	H	65.06	68.20	3.14	PK
5460	49.78	7.05	V	56.83	73.98	17.15	PK
5460	36.08	7.05	V	43.13	53.98	10.85	AV
5470	57.11	6.59	V	63.7	68.20	4.50	PK

Band : UNII 1
 Operation Mode: 802.11 ac_VHT20
 Transfer MCS Index: 0
 Operating Frequency 5180 MHz
 Channel No. 36 Ch

Frequency [MHz]	Reading dBuV	C.L+A.F+ D.F-A.G + ATT [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
5150	58.45	5.75	H	64.20	73.98	9.78	PK
5150	43.11	5.75	H	48.86	53.98	5.12	AV
5150	57.77	5.75	V	63.52	73.98	10.46	PK
5150	42.75	5.75	V	48.50	53.98	5.48	AV

Band : UNII 2A
 Operation Mode: 802.11 ac_VHT20
 Transfer MCS Index: 0
 Operating Frequency 5320 MHz
 Channel No. 64 Ch

Frequency [MHz]	Reading dBuV	C.L+A.F+ D.F-A.G + ATT [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
5350	63.26	5.52	H	68.78	73.98	5.20	PK
5350	41.41	5.52	H	46.93	53.98	7.05	AV
5350	62.61	5.52	V	68.13	73.98	5.85	PK
5350	40.95	5.52	V	46.47	53.98	7.51	AV

Band :	UNII 2C
Operation Mode:	802.11 ac_VHT20
Transfer MCS Index:	0
Operating Frequency	5500 MHz
Channel No.	100 Ch

Frequency [MHz]	Reading DBuV	C.L+A.F+ D.F-A.G + ATT [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
5460	49.42	7.05	H	56.47	73.98	17.51	PK
5460	35.02	7.05	H	42.07	53.98	11.91	AV
5470	56.62	6.59	H	63.21	68.20	4.99	PK
5460	48.44	7.05	V	55.49	73.98	18.49	PK
5460	34.59	7.05	V	41.64	53.98	12.34	AV
5470	54.91	6.59	V	61.5	68.20	6.70	PK

Band : UNII 1
 Operation Mode: 802.11 n_HT40
 Transfer MCS Index: 0
 Operating Frequency 5190 MHz
 Channel No. 38 Ch

Frequency [MHz]	Reading dBuV	C.L+A.F+ D.F-A.G + ATT [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
5150	51.71	12.72	H	64.43	73.98	9.55	PK
5150	38.54	12.72	H	51.26	53.98	2.72	AV
5150	50.85	12.72	V	63.57	73.98	10.41	PK
5150	38.01	12.72	V	50.73	53.98	3.25	AV

Band : UNII 2A
 Operation Mode: 802.11 n_HT40
 Transfer MCS Index: 0
 Operating Frequency 5310 MHz
 Channel No. 62 Ch

Frequency [MHz]	Reading dBuV	C.L+A.F+ D.F-A.G + ATT [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
5350	57.83	12.38	H	70.21	73.98	3.77	PK
5350	37.97	12.38	H	50.35	53.98	3.63	AV
5350	56.99	12.38	V	69.37	73.98	4.61	PK
5350	37.35	12.38	V	49.73	53.98	4.25	AV

Band :	UNII 2C
Operation Mode:	802.11 n_HT40
Transfer MCS Index:	0
Operating Frequency	5510 MHz
Channel No.	102 Ch

Frequency [MHz]	Reading DBuV	C.L+A.F+ D.F-A.G + ATT [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
5460	45.92	13.91	H	59.83	73.98	14.15	PK
5460	32.94	13.91	H	46.85	53.98	7.13	AV
5470	51.22	13.46	H	64.68	68.20	3.52	PK
5460	45.81	13.91	V	59.72	73.98	14.26	PK
5460	32.00	13.91	V	45.91	53.98	8.07	AV
5470	50.39	13.46	V	63.85	68.20	4.35	PK

Band : UNII 1
 Operation Mode: 802.11 ac_VHT40
 Transfer MCS Index: 0
 Operating Frequency 5190 MHz
 Channel No. 38 Ch

Frequency [MHz]	Reading dBuV	C.L+A.F+ D.F-A.G + ATT [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
5150	51.43	12.72	H	64.15	73.98	9.83	PK
5150	36.89	12.72	H	49.61	53.98	4.37	AV
5150	50.55	12.72	V	63.27	73.98	10.71	PK
5150	36.78	12.72	V	49.5	53.98	4.48	AV

Band : UNII 2A
 Operation Mode: 802.11 ac_VHT40
 Transfer MCS Index: 0
 Operating Frequency 5310 MHz
 Channel No. 62 Ch

Frequency [MHz]	Reading dBuV	C.L+A.F+ D.F-A.G + ATT [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
5350	55.71	12.38	H	68.09	73.98	5.89	PK
5350	37.40	12.38	H	49.78	53.98	4.20	AV
5350	53.69	12.38	V	66.07	73.98	7.91	PK
5350	36.94	12.38	V	49.32	53.98	4.66	AV

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

Frequency [MHz]	Reading DBuV	C.L+A.F+ D.F-A.G + ATT [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
5460	45.24	13.91	H	59.15	73.98	14.83	PK
5460	33.74	13.91	H	47.65	53.98	6.33	AV
5470	50.46	13.46	H	63.92	68.20	4.28	PK
5460	44.89	13.91	V	58.8	73.98	15.18	PK
5460	33.51	13.91	V	47.42	53.98	6.56	AV
5470	48.54	13.46	V	62	68.20	6.20	PK

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

Frequency [MHz]	Reading dBuV	C.L+A.F+ D.F-A.G + ATT [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
5150	51.10	12.72	H	63.82	73.98	10.16	PK
5150	39.10	12.72	H	51.82	53.98	2.16	AV
5150	50.22	12.72	V	62.94	73.98	11.04	PK
5150	38.65	12.72	V	51.37	53.98	2.61	AV

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

Frequency [MHz]	Reading dBuV	C.L+A.F+ D.F-A.G + ATT [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
5350	52.96	12.38	H	65.34	73.98	8.64	PK
5350	38.29	12.38	H	50.67	53.98	3.31	AV
5350	48.14	12.38	V	60.52	73.98	13.46	PK
5350	36.43	12.38	V	48.81	53.98	5.17	AV

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

Frequency [MHz]	Reading DBuV	C.L+A.F+ D.F-A.G + ATT [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
5460	48.52	13.91	H	62.43	73.98	11.55	PK
5460	35.91	13.91	H	49.82	53.98	4.16	AV
5470	51.85	13.46	H	65.31	68.20	2.89	PK
5460	45.74	13.91	V	59.65	73.98	14.33	PK
5460	35.51	13.91	V	49.42	53.98	4.56	AV
5470	48.83	13.46	V	62.29	68.20	5.91	PK

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

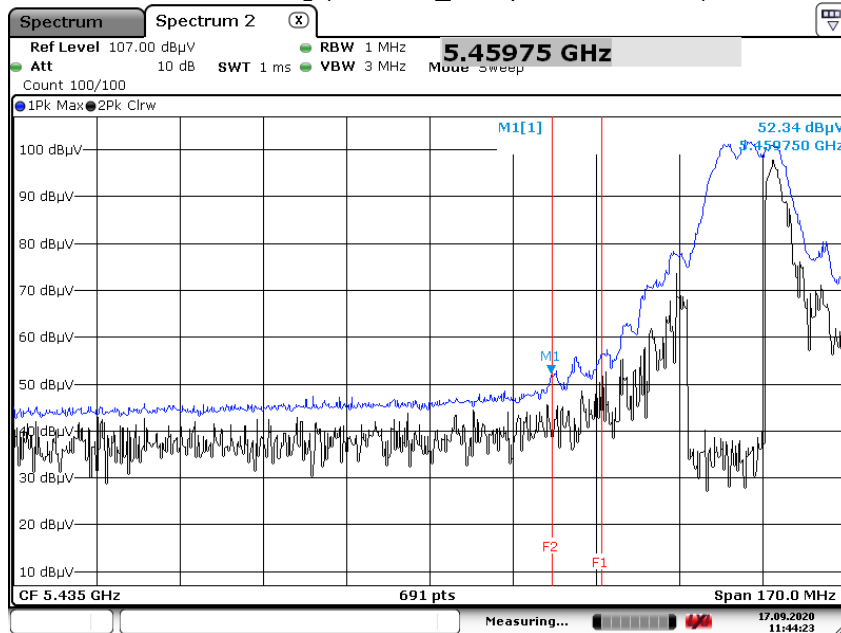
▣ Test Plots(UNII 1, 2A, 2C)

Average Reading (802.11 a_6 Mbps, Ch.100, Y-H)



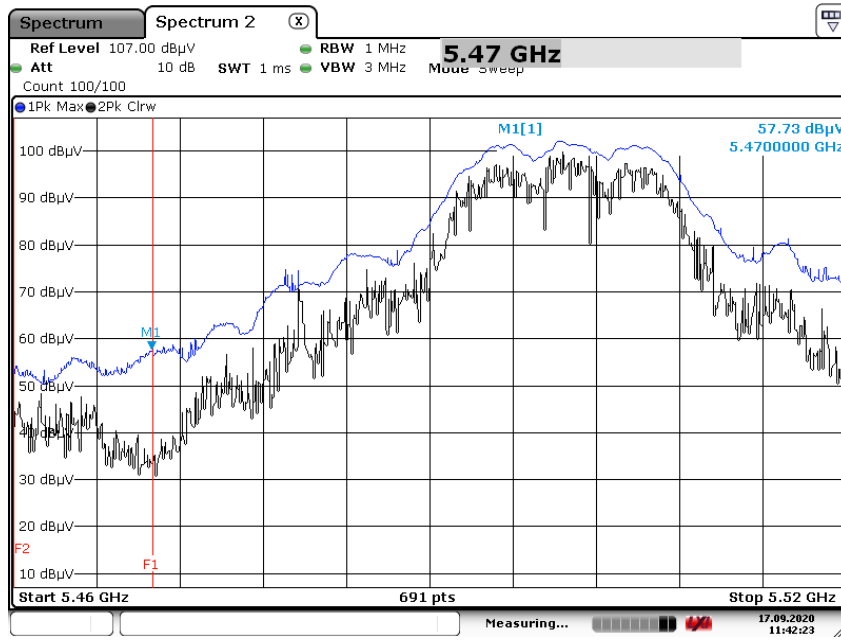
Date: 17.SEP.2020 11:43:45

Peak Reading (802.11 a_6 Mbps, Ch.100, Y-H)



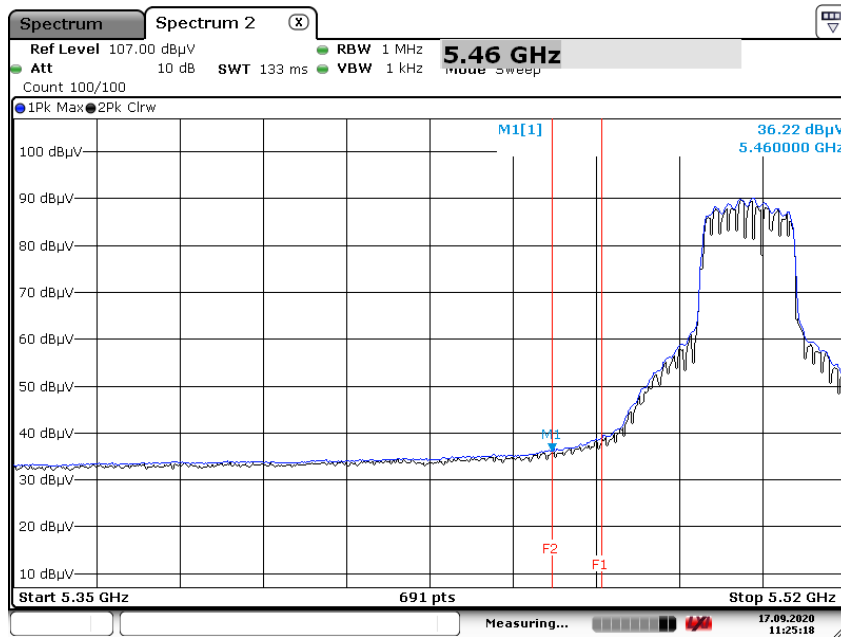
Date: 17.SEP.2020 11:44:23

Peak Reading (802.11 a_6 Mbps, Ch.100, Y-H)



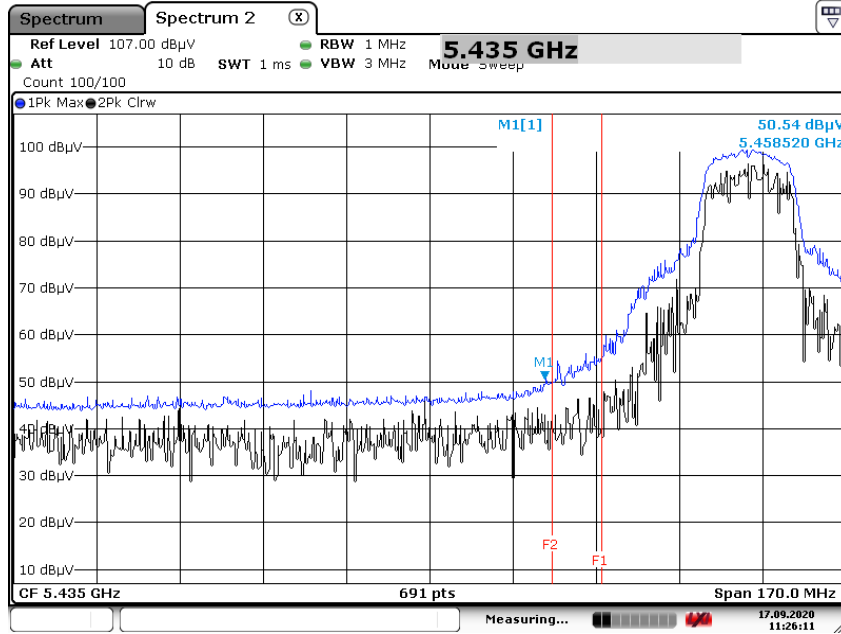
Date: 17. SEP. 2020 11:42:23

Average Reading (802.11 n(HT20)_MCS0, Ch.100, X-H)



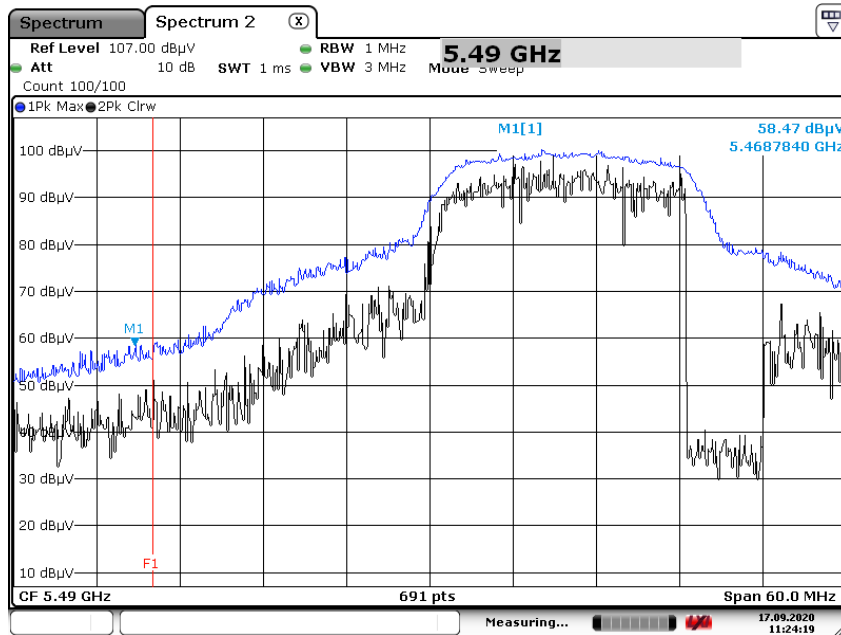
Date: 17. SEP. 2020 11:25:18

Peak Reading (802.11 n(HT20)_MCS0, Ch.100, X-H)



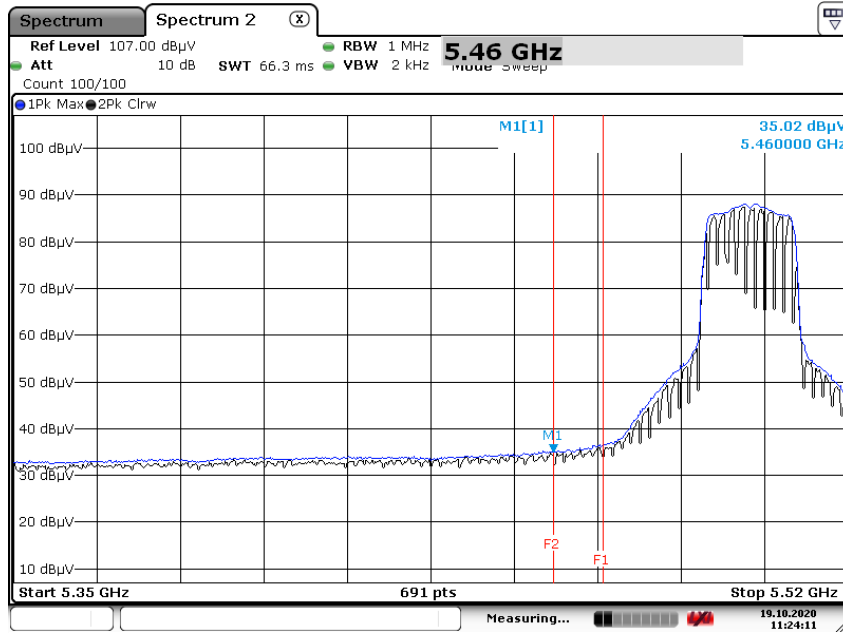
Date: 17. SEP. 2020 11:26:11

Peak Reading (802.11 n(HT20)_MCS0, Ch.100, X-H)



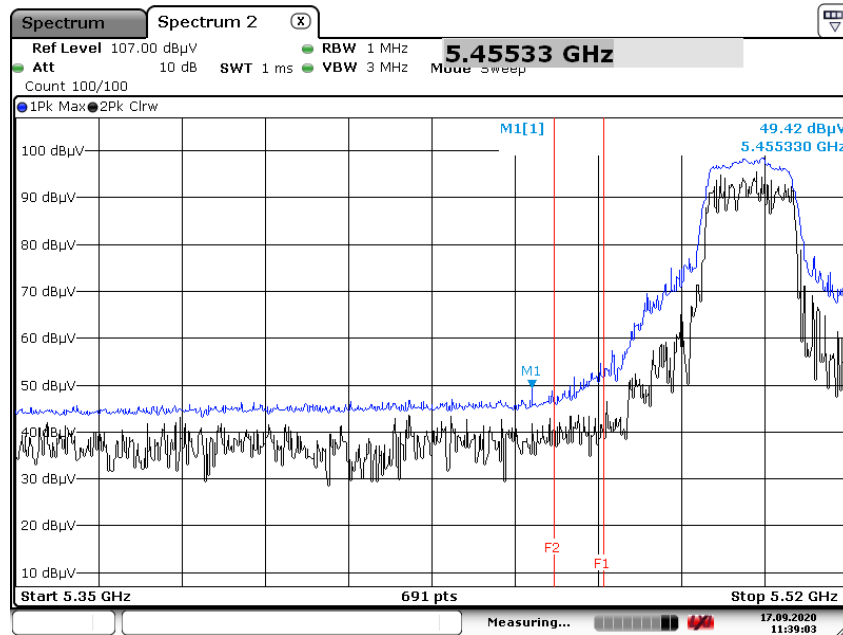
Date: 17. SEP. 2020 11:24:19

Average Reading (802.11 ac(VHT20)_MCS0, Ch.100, X-H)



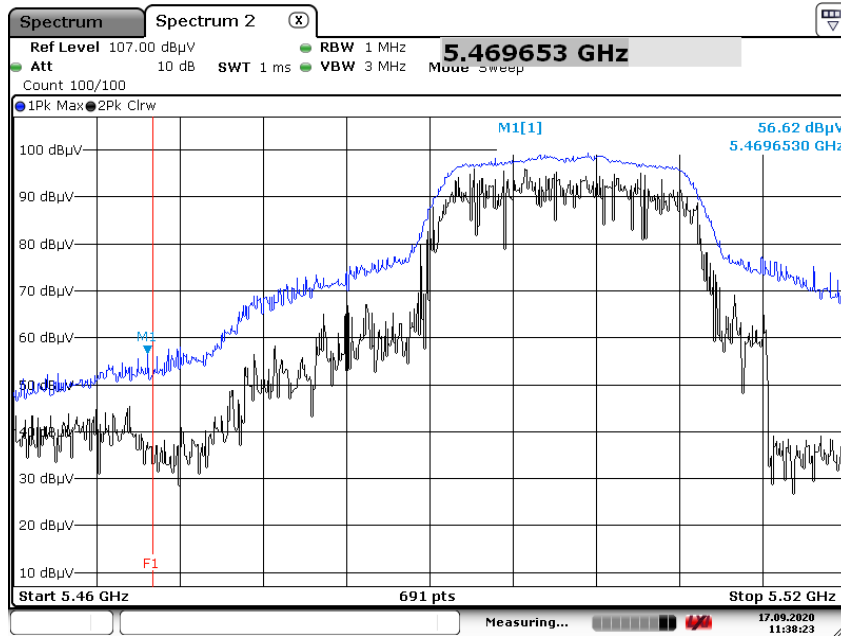
Date: 19.OCT.2020 11:24:11

Peak Reading (802.11 ac(VHT20)_MCS0, Ch.100, X-H)



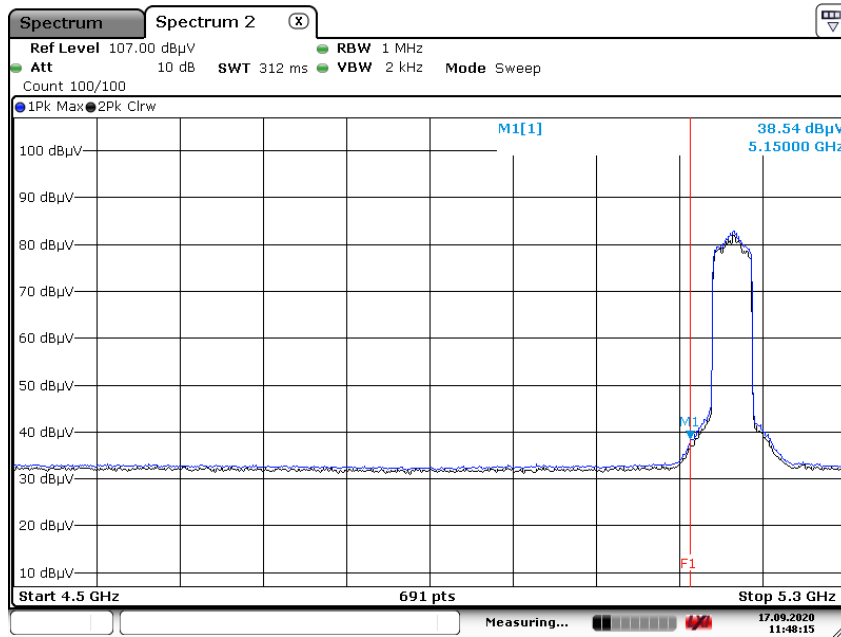
Date: 17.SEP.2020 11:39:03

Peak Reading (802.11 ac(VHT20)_MCS0, Ch.100, X-H)



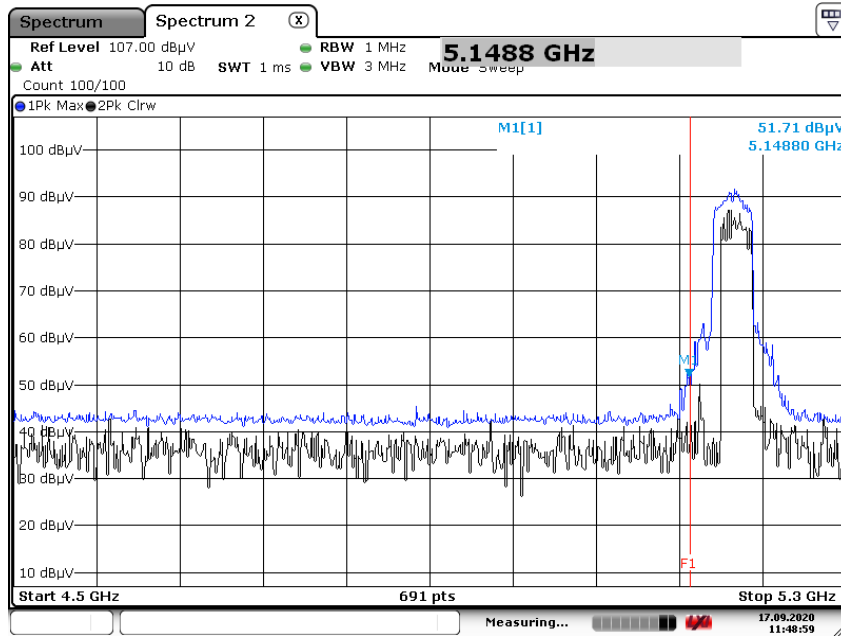
Date: 17.SEP.2020 11:38:23

Average Reading (802.11 n(HT40)_MCS0, Ch.38, X-H)



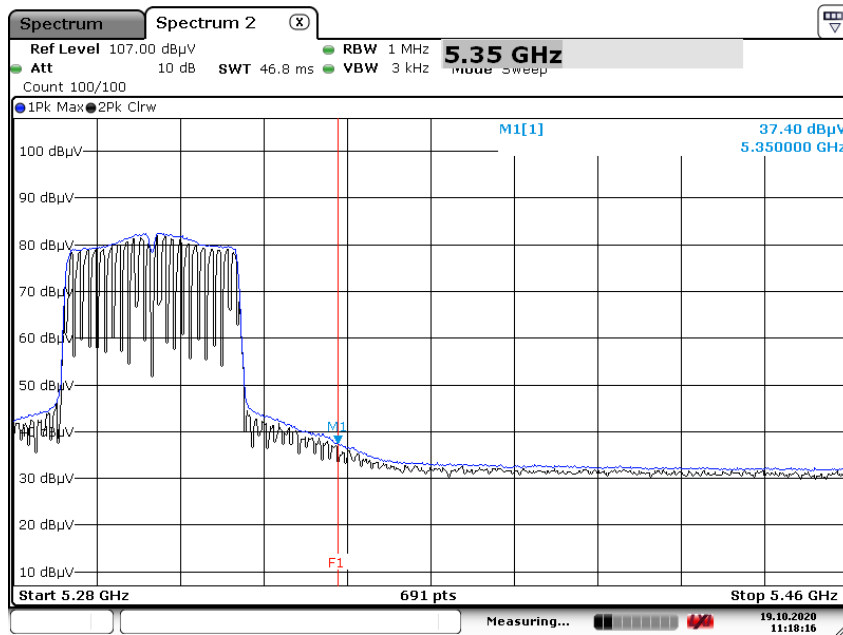
Date: 17.SEP.2020 11:48:14

Peak Reading (802.11 n(HT40)_MCS0, Ch.38, X-H)



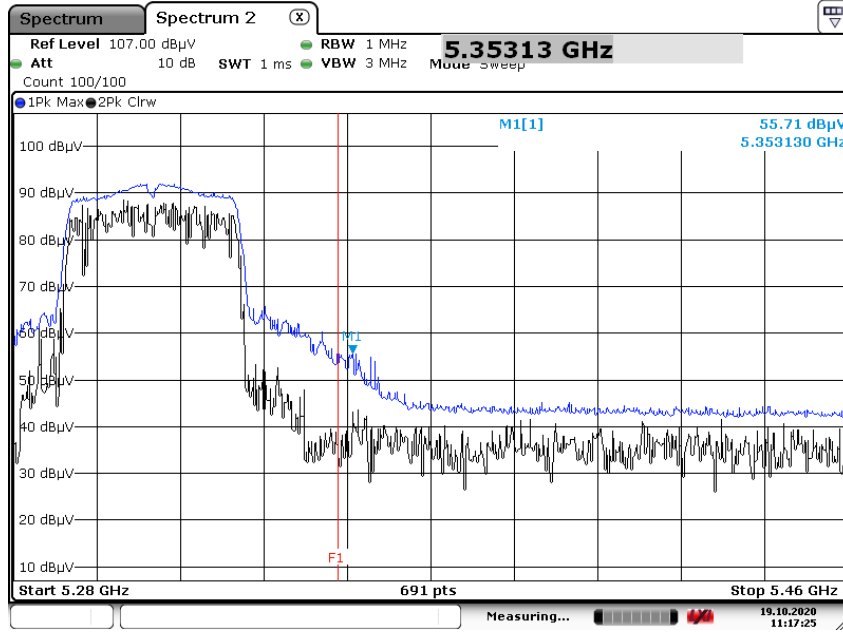
Date: 17.SEP.2020 11:48:58

Average Reading (802.11 ac(VHT40)_MCS0, Ch.62, X-H)



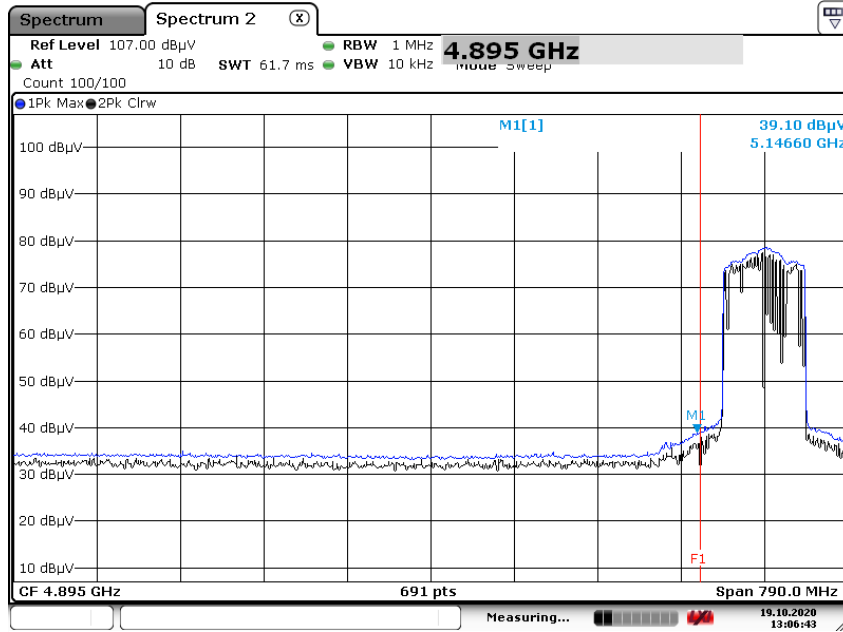
Date: 19.OCT.2020 11:18:16

Peak Reading (802.11 ac(VHT40)_MCS0, Ch.62, X-H)



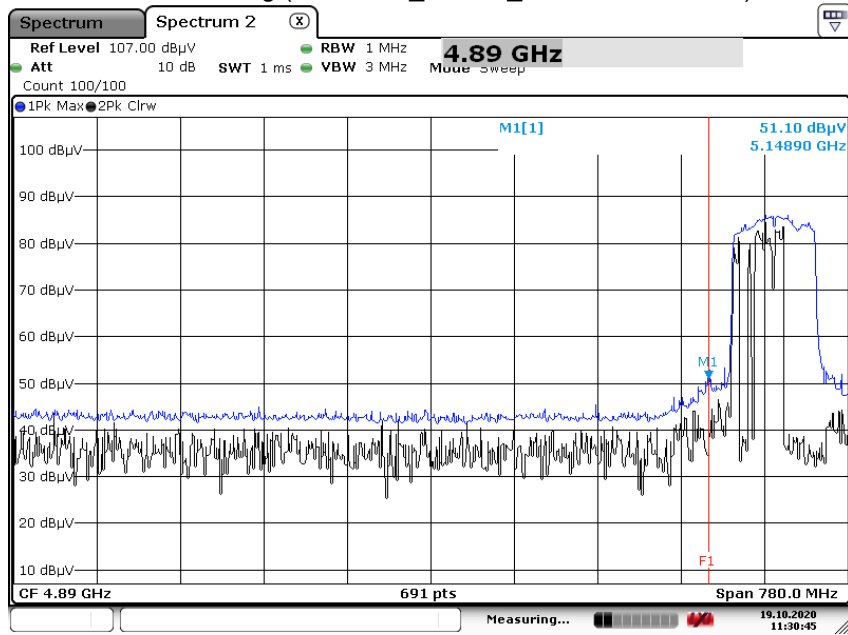
Date: 19.OCT.2020 11:17:25

Average Reading (802.11 ac_VHT80_MCS0, Ch.42, X-H)



Date: 19.OCT.2020 13:06:43

Peak Reading (802.11 ac_VHT80_MCS0, Ch.42, X-H)



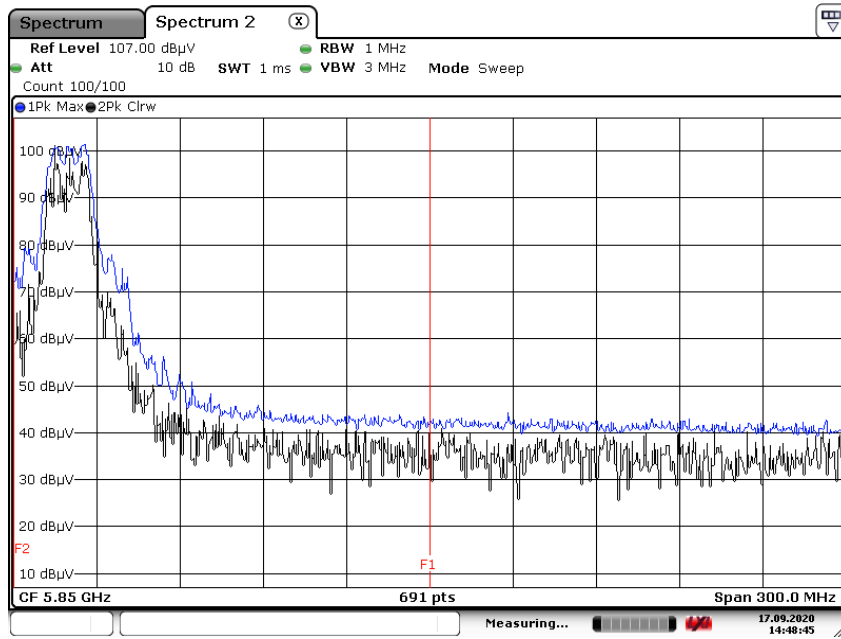
Date: 19.OCT.2020 11:30:45

Note:

Only the worst case plots for Radiated Restricted Band Edge.

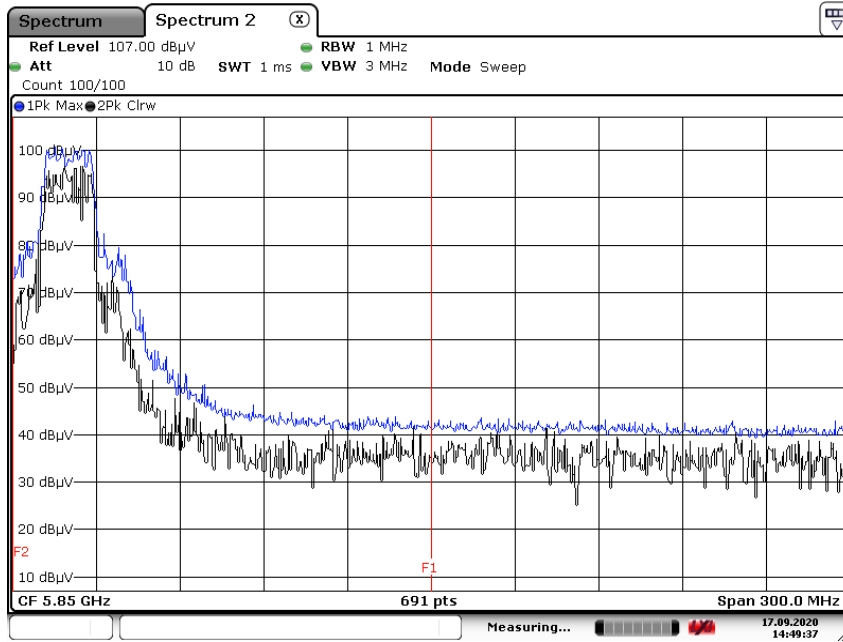
▣ Test Plots(Straddle Channel)

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



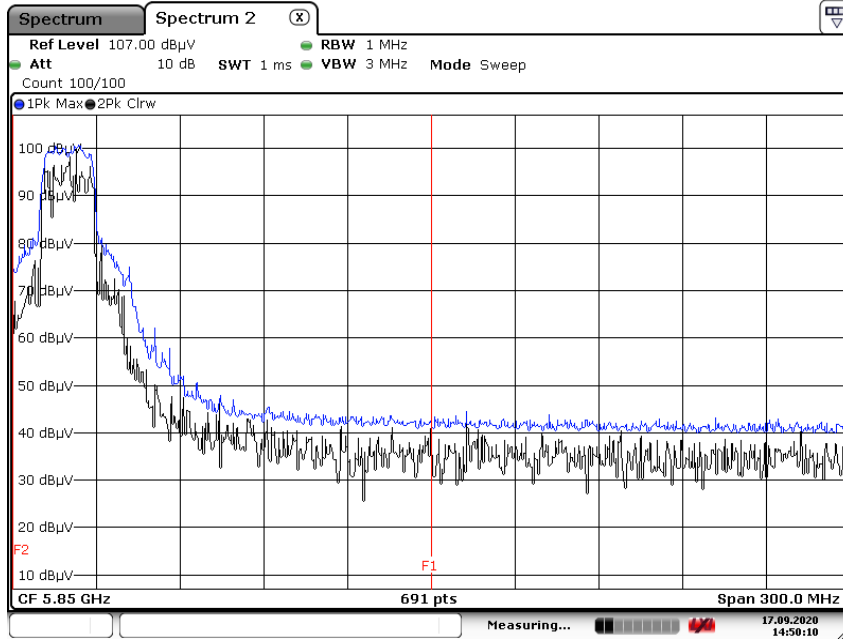
Date: 17.SEP.2020 14:48:45

Peak Reading (802.11n_HT20, Ch.144, Y-H)



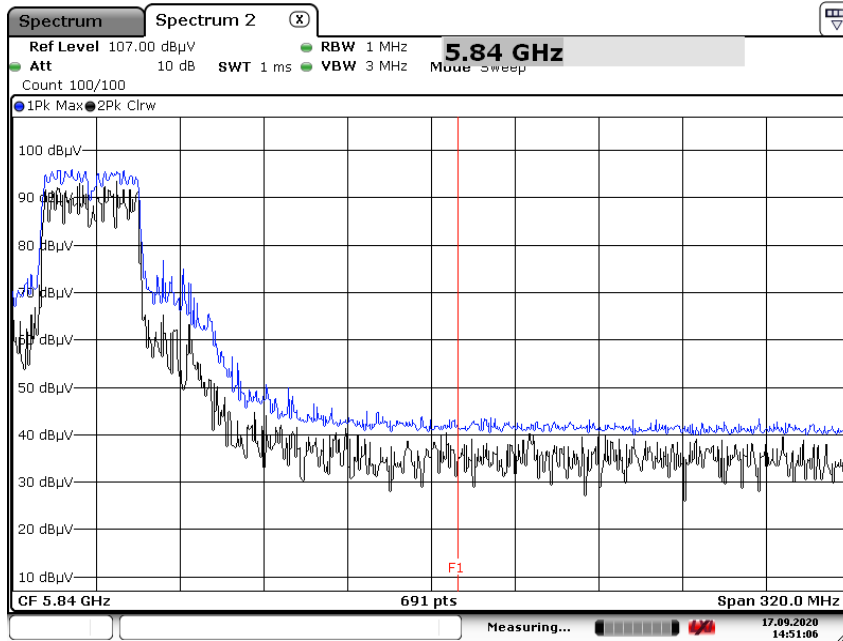
Date: 17.SEP.2020 14:49:37

Peak Reading (802.11ac_VHT20, Ch.144, Y-H)



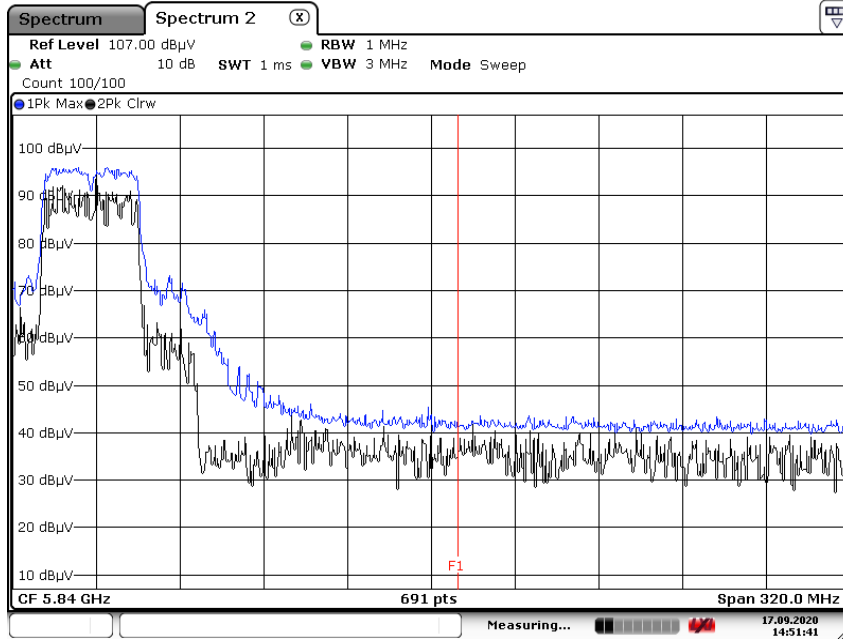
Date: 17.SEP.2020 14:50:10

Peak Reading (802.11n_HT40, Ch.142, Y-H)



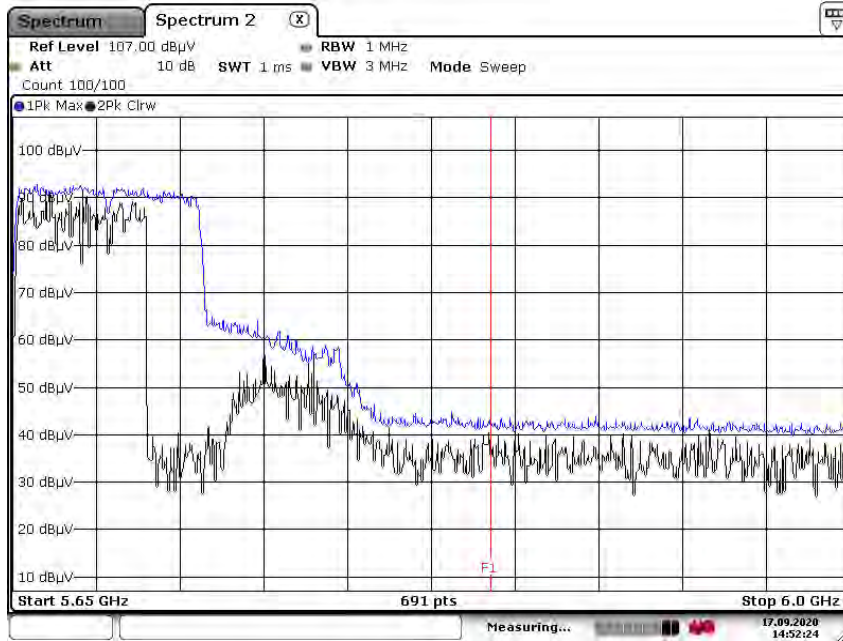
Date: 17.SEP.2020 14:51:06

Peak Reading (802.11ac_VHT40, Ch.142, Y-H)



Date: 17.SEP.2020 14:51:41

Peak Reading (802.11ac_VHT80, Ch.138, Y-H)



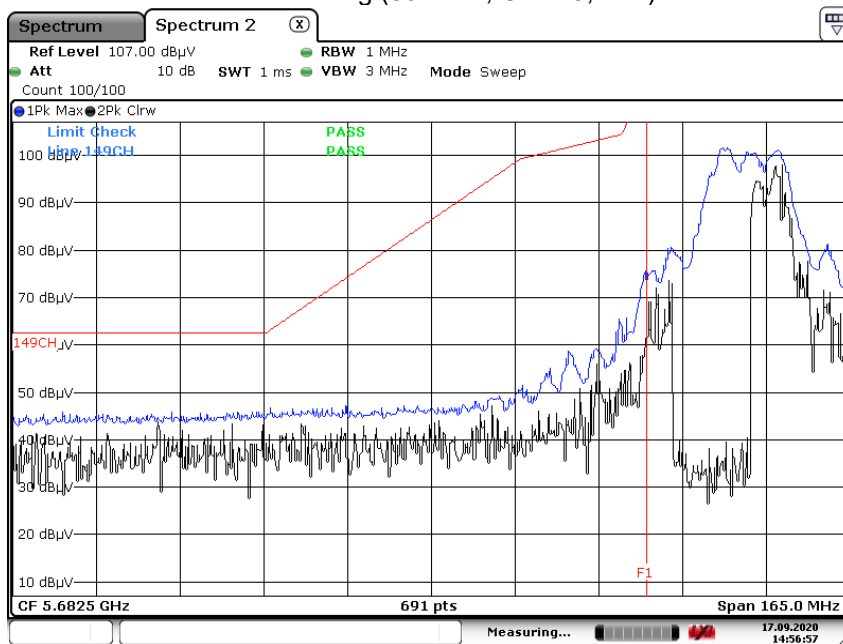
Date: 17.SEP.2020 14:52:24

Note :

1. Only the worst case plots for Radiated Restricted Band Edge.
2. Red line : 5 850 MHz
3. Ambient Noise (Because of ambient noise, We attached only the worst plot without a data table)

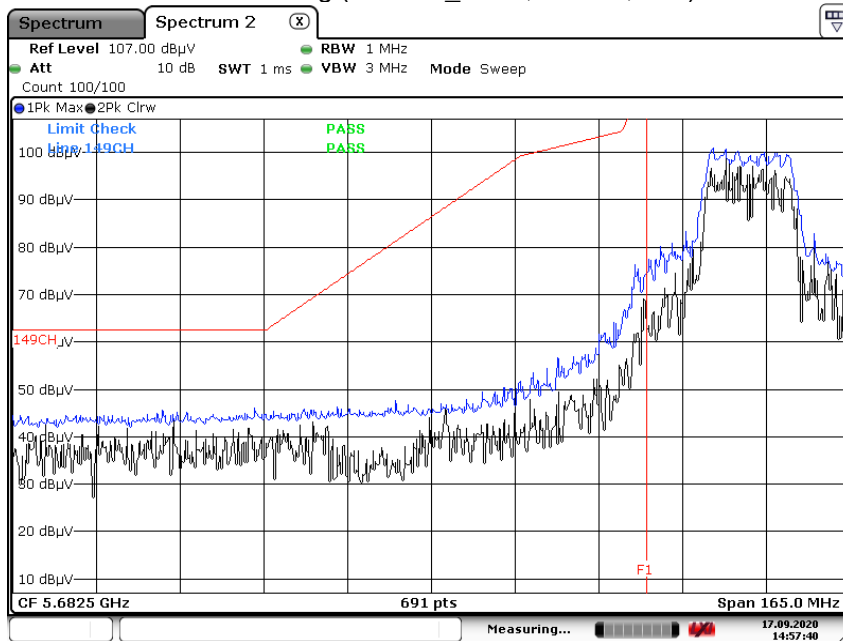
Test Plots(UNII 3)

Peak Reading (802.11a, Ch.149, Y-H)



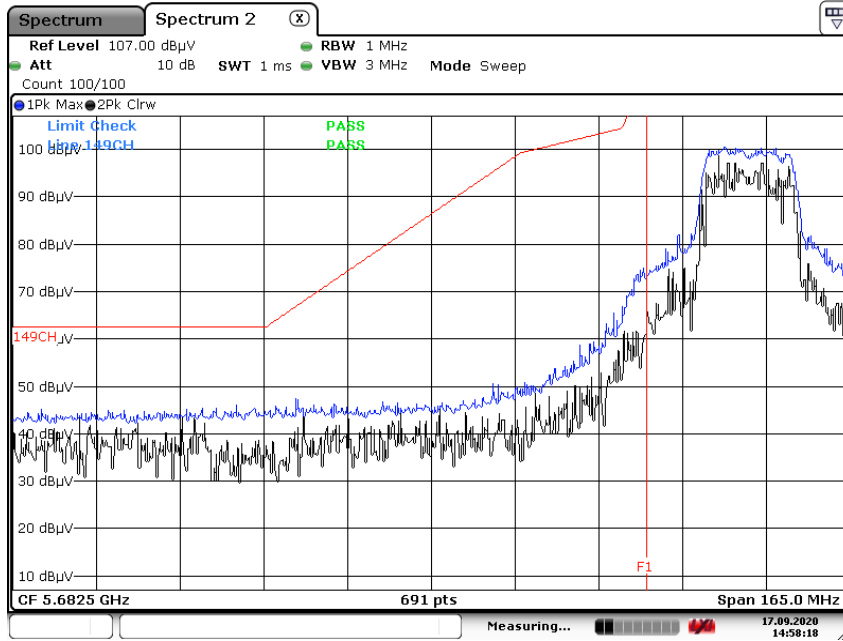
Date: 17.SEP.2020 14:56:58

Peak Reading (802.11n_HT20, Ch.149, Y-H)



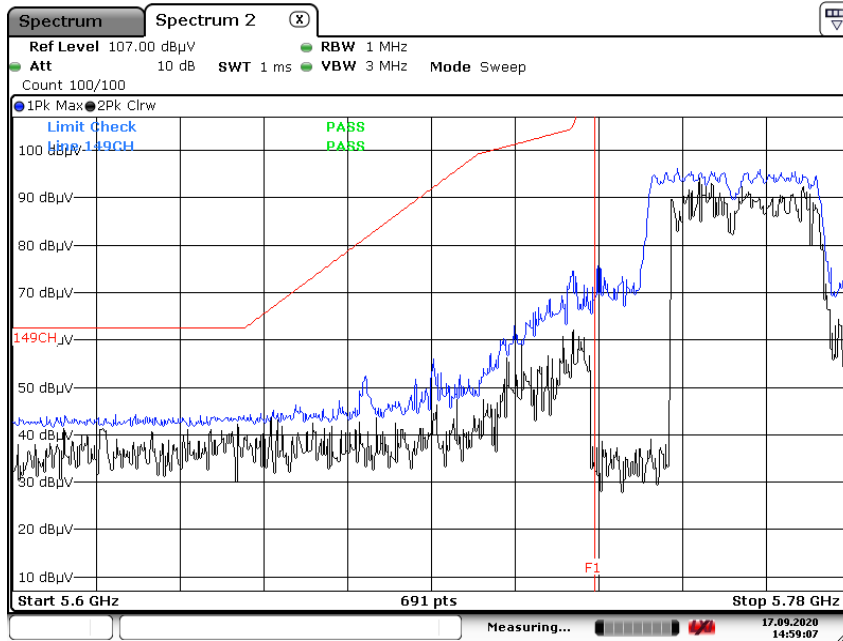
Date: 17.SEP.2020 14:57:40

Peak Reading (802.11ac_VHT20, Ch.149, Y-H)



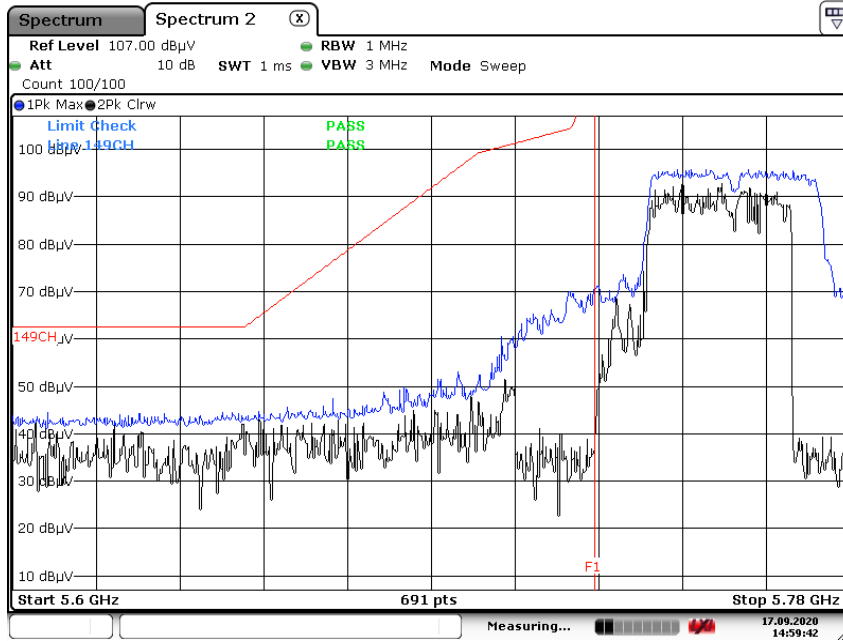
Date: 17.SEP.2020 14:58:18

Peak Reading (802.11n_HT40, Ch.151, Y-H)



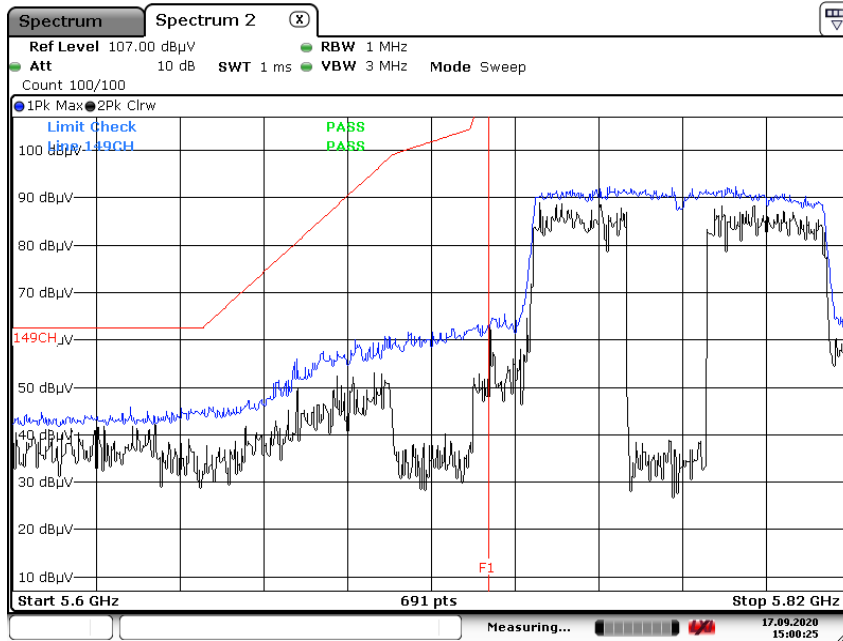
Date: 17.SEP.2020 14:59:08

Peak Reading (802.11ac_VHT40, Ch.151, Y-H)



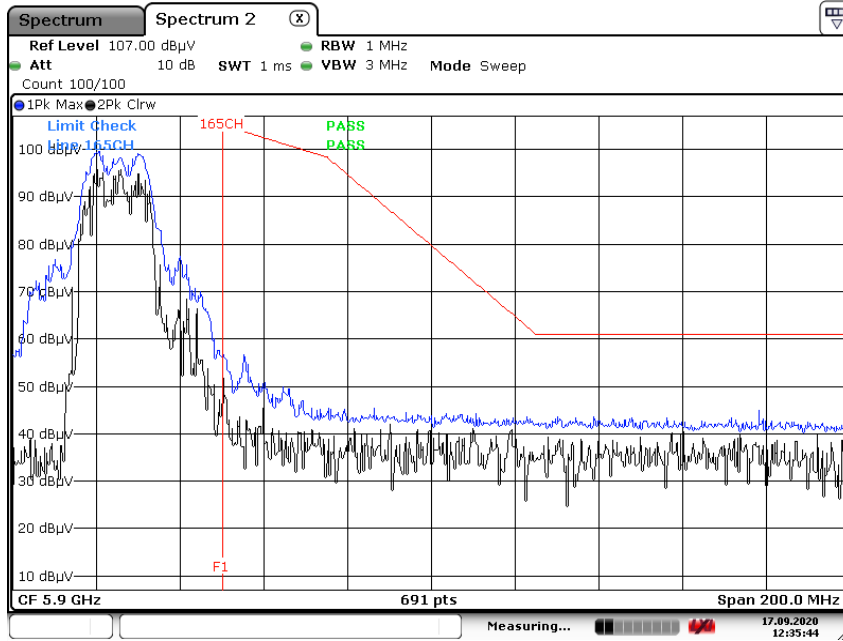
Date: 17.SEP.2020 14:59:42

Peak Reading (802.11ac_VHT80, Ch.155, Y-H)



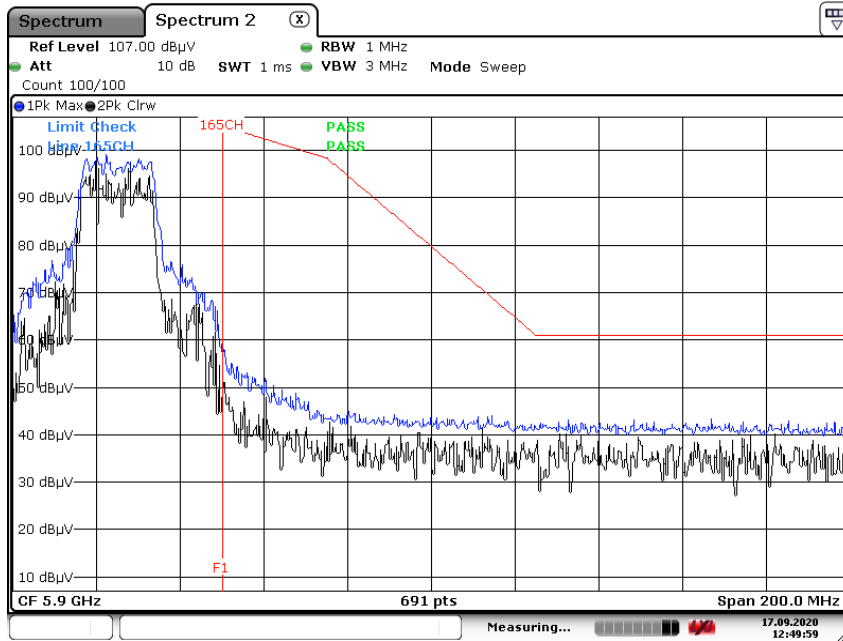
Date: 17.SEP.2020 15:00:26

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



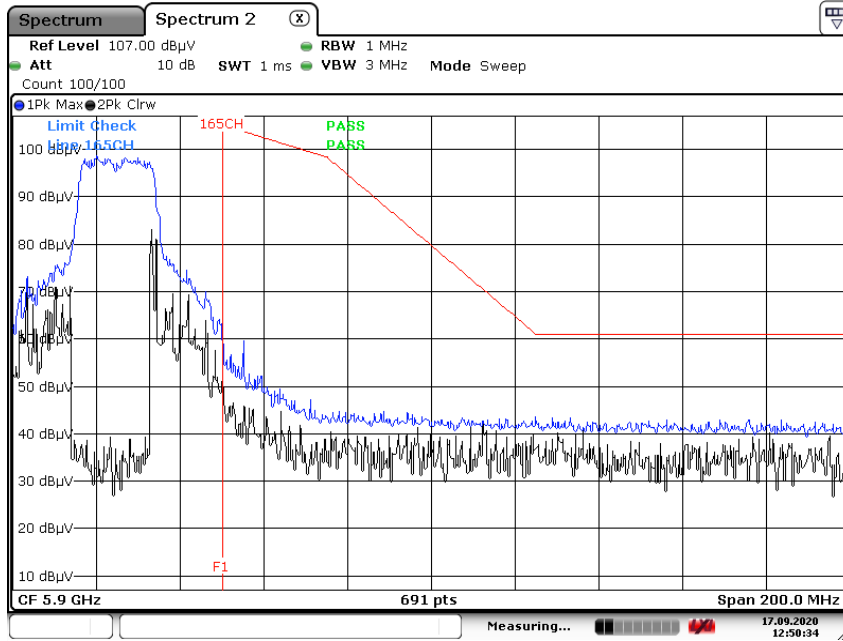
Date: 17.SEP.2020 12:35:44

Peak Reading (802.11n_HT20, Ch.165, Y-H)



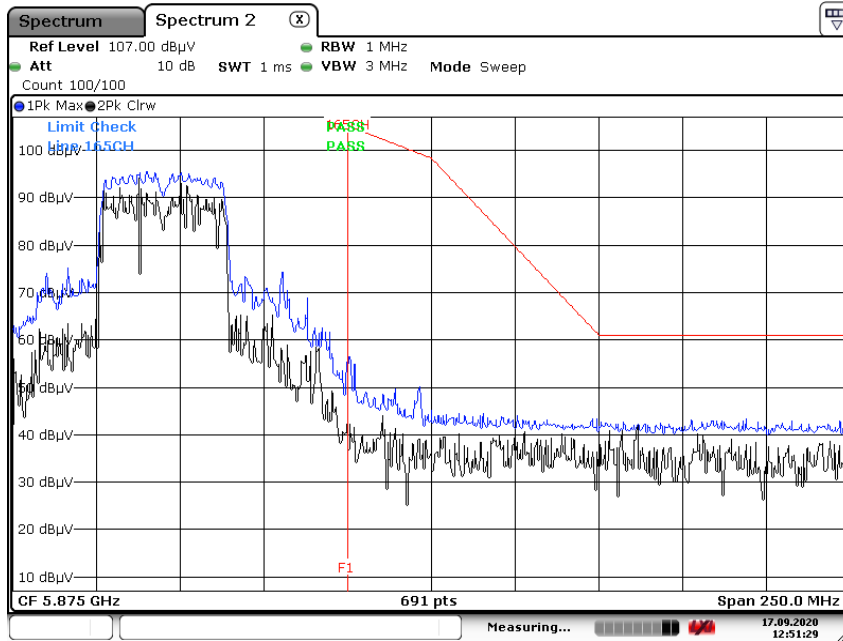
Date: 17.SEP.2020 12:49:59

Peak Reading (802.11ac_VHT20, Ch.165, Y-H)



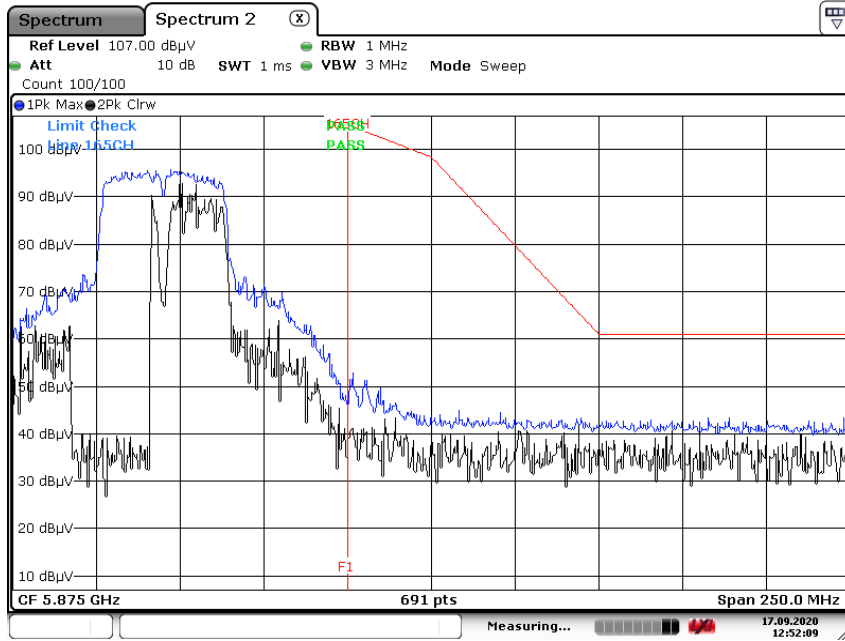
Date: 17.SEP.2020 12:50:34

Peak Reading (802.11n_HT40, Ch.159, Y-H)



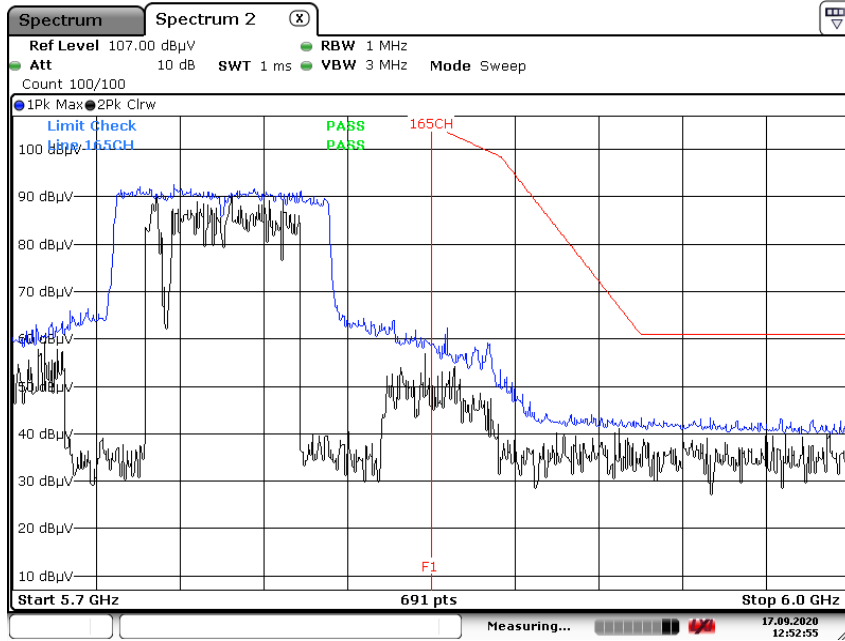
Date: 17.SEP.2020 12:51:29

Peak Reading (802.11ac_VHT40, Ch.159, Y-H)



Date: 17.SEP.2020 12:52:09

Peak Reading (802.11ac_VHT80, Ch.155, Y-H)



Date: 17.SEP.2020 12:52:54

10.10 POWERLINE CONDUCTED EMISSIONS

Conducted Emissions (Line 1)

Test

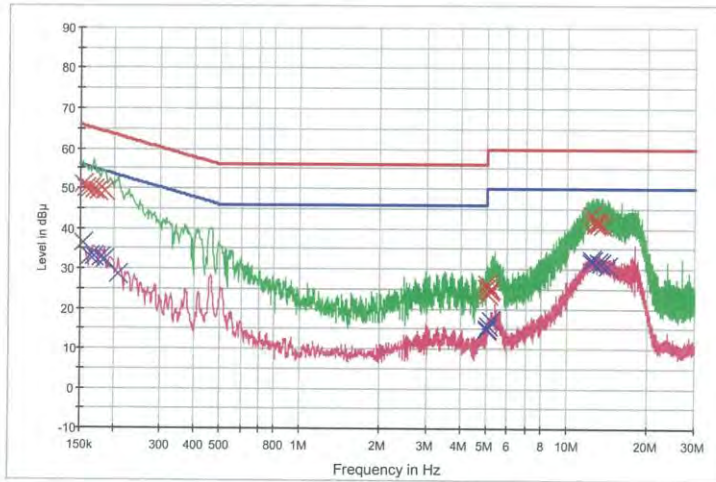
1 / 2

HCT TEST Report

Common Information

EUT: SM-G991U
 Manufacturer: SAMSUNG
 Test Site: SHIELD ROOM
 Operating Conditions: 5GHz WLAN MODE L1

FCC CLASS B_Exten Cable



— FCC CLASS B_QP — FCC CLASS B_AV — Preview Result 1-PK+
 — Preview Result 2-AVG × Final Result 1-QPK × Final Result 2-CAV

Final Result 1

Frequency (MHz)	QuasiPeak (dBuV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.154000	51.2	9.000	Off	L1	9.8	14.6	65.8
0.158000	50.0	9.000	Off	L1	9.8	15.6	65.6
0.162000	49.9	9.000	Off	L1	9.8	15.5	65.4
0.168000	49.8	9.000	Off	L1	9.8	15.2	65.1
0.174000	49.3	9.000	Off	L1	9.8	15.5	64.8
0.186000	49.2	9.000	Off	L1	9.8	15.0	64.2
4.992000	26.3	9.000	Off	L1	10.0	29.7	56.0
5.040000	25.2	9.000	Off	L1	10.0	34.8	60.0
5.046000	23.5	9.000	Off	L1	10.0	36.5	60.0
5.160000	24.6	9.000	Off	L1	10.0	35.4	60.0
5.170000	25.0	9.000	Off	L1	10.0	35.0	60.0
5.174000	25.0	9.000	Off	L1	10.0	35.0	60.0
12.376000	43.5	9.000	Off	L1	10.3	16.5	60.0
12.428000	41.8	9.000	Off	L1	10.3	18.2	60.0
12.730000	41.1	9.000	Off	L1	10.3	18.9	60.0
12.956000	41.8	9.000	Off	L1	10.3	18.2	60.0
13.146000	41.2	9.000	Off	L1	10.3	18.8	60.0
13.590000	40.8	9.000	Off	L1	10.3	19.2	60.0

2020-09-30

오전 10:59:49

Test

2 / 2

Final Result 2

Frequency (MHz)	CAverage (dBμV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.154000	36.4	9.000	Off	L1	9.8	19.4	55.8
0.162000	33.1	9.000	Off	L1	9.8	22.3	55.4
0.168000	32.9	9.000	Off	L1	9.8	22.2	55.1
0.178000	32.6	9.000	Off	L1	9.8	21.9	54.6
0.186000	32.3	9.000	Off	L1	9.8	22.0	54.2
0.208000	28.7	9.000	Off	L1	9.8	24.6	53.3
4.992000	15.1	9.000	Off	L1	10.0	30.9	46.0
5.032000	14.7	9.000	Off	L1	10.0	35.3	50.0
5.042000	15.6	9.000	Off	L1	10.0	34.4	50.0
5.090000	15.7	9.000	Off	L1	10.0	34.3	50.0
5.170000	17.2	9.000	Off	L1	10.0	32.8	50.0
5.174000	17.1	9.000	Off	L1	10.0	32.9	50.0
12.350000	31.6	9.000	Off	L1	10.3	18.4	50.0
12.376000	32.4	9.000	Off	L1	10.3	17.6	50.0
12.450000	32.0	9.000	Off	L1	10.3	18.0	50.0
13.146000	31.8	9.000	Off	L1	10.3	18.2	50.0
13.412000	31.5	9.000	Off	L1	10.3	18.5	50.0
14.126000	30.6	9.000	Off	L1	10.3	19.4	50.0

2020-09-30

오전 10:59:49

Conducted Emissions (Line 2)

Test

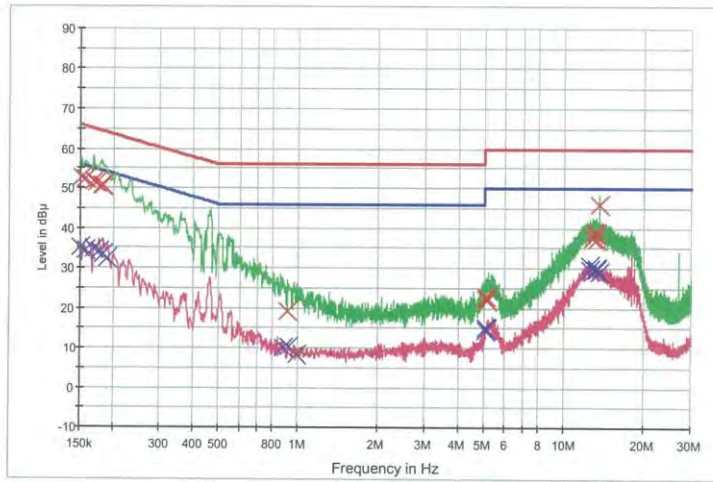
1 / 2

HCT TEST Report

Common Information

EUT: SM-G991U
 Manufacturer: SAMSUNG
 Test Site: SHIELD ROOM
 Operating Conditions: 5GHz WLAN MODE N

FCC CLASS B_Exten Cable



— FCC CLASS B_OP — FCC CLASS B_AV — Preview Result 1-PK+
 — Preview Result 2-AVG X Final Result 1-QPK X Final Result 2-CAV

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.152000	52.6	9.000	Off	N	9.8	13.3	65.9
0.158000	52.3	9.000	Off	N	9.8	13.2	65.6
0.168000	51.7	9.000	Off	N	9.8	13.3	65.1
0.172000	51.2	9.000	Off	N	9.8	13.6	64.9
0.180000	50.8	9.000	Off	N	9.8	13.6	64.5
0.184000	50.8	9.000	Off	N	9.8	13.5	64.3
0.910000	19.2	9.000	Off	N	9.8	36.8	56.0
5.046000	22.9	9.000	Off	N	10.0	37.1	60.0
5.050000	22.1	9.000	Off	N	10.0	37.9	60.0
5.092000	22.1	9.000	Off	N	10.0	37.9	60.0
5.108000	22.0	9.000	Off	N	10.0	38.0	60.0
5.148000	22.0	9.000	Off	N	10.0	38.0	60.0
12.744000	37.4	9.000	Off	N	10.4	22.6	60.0
12.752000	37.5	9.000	Off	N	10.4	22.5	60.0
12.894000	38.8	9.000	Off	N	10.4	21.2	60.0
13.246000	37.0	9.000	Off	N	10.4	23.0	60.0
13.294000	39.0	9.000	Off	N	10.4	21.0	60.0
13.562000	45.8	9.000	Off	N	10.4	14.2	60.0

2020-09-30

오전 10:51:17

Test

2 / 2

Final Result 2

Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.150000	35.2	9.000	Off	N	9.8	20.8	56.0
0.158000	34.3	9.000	Off	N	9.8	21.2	55.6
0.168000	34.6	9.000	Off	N	9.8	20.5	55.1
0.176000	34.2	9.000	Off	N	9.8	20.5	54.7
0.184000	33.5	9.000	Off	N	9.8	20.8	54.3
0.190000	32.4	9.000	Off	N	9.8	21.7	54.0
0.880000	10.0	9.000	Off	N	9.8	36.0	46.0
0.920000	10.2	9.000	Off	N	9.8	35.8	46.0
0.988000	8.3	9.000	Off	N	9.8	37.7	46.0
5.046000	14.3	9.000	Off	N	10.0	35.7	50.0
5.094000	15.1	9.000	Off	N	10.0	34.9	50.0
5.122000	14.8	9.000	Off	N	10.0	35.2	50.0
12.454000	29.8	9.000	Off	N	10.4	20.2	50.0
12.458000	30.6	9.000	Off	N	10.4	19.4	50.0
13.096000	29.5	9.000	Off	N	10.4	20.5	50.0
13.298000	29.7	9.000	Off	N	10.4	20.3	50.0
13.302000	30.1	9.000	Off	N	10.4	19.9	50.0
13.562000	29.1	9.000	Off	N	10.4	20.9	50.0

2020-09-30

오전 10:51:17

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	ESCI / Test Receiver	06/10/2020	Annual	100584
ESPAC	SU-642 / Temperature Chamber	03/18/2020	Annual	0093008124
Agilent	N9030A / Signal Analyzer	01/13/2020	Annual	MY49431210
Rohde & Schwarz	OSP 120 / Power Measurement Set	07/02/2020	Annual	101231
Agilent	N1911A / Power Meter	04/07/2020	Annual	MY45100523
Keysight	N1921A / Power Sensor	06/08/2020	Annual	MY57820067
Agilent	87300B / Directional Coupler	11/11/2019	Annual	3116A03621
Hewlett Packard	11667B / Power Splitter	05/25/2020	Annual	05001
Hewlett Packard	E3632A / DC Power Supply	06/12/2020	Annual	KR75303960
Agilent	8493C / Attenuator(10 dB)	06/26/2020	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	05/18/2020	Biennial	1513-175
Schwarzbeck	VULB 9168 / Hybrid Antenna	03/22/2019	Biennial	760
Schwarzbeck	BBHA 9120D / Horn Antenna	04/29/2019	Biennial	9120D-937
Schwarzbeck	BBHA9170 / Horn Antenna(15 GHz ~ 40 GHz)	11/29/2019	Biennial	BBHA9170541
Rohde & Schwarz	FSV40-N / Spectrum Analyzer	07/28/2020	Annual	102168
Agilent	N9030A / Signal Analyzer	01/13/2020	Annual	MY49431210
Wainwright Instruments	WRCJV2400/2483.5-2370/2520-60/12SS / Band Reject Filter	01/21/2020	Annual	2
Wainwright Instruments	WRCJV5100/5850-40/50-8EEK / Band Reject Filter	02/10/2020	Annual	1
Wainwright Instruments	WHK3.0/18G-10EF / High Pass Filter	03/02/2020	Annual	8
Wainwright Instruments	WHKX8-6090-7000-18000-40SS/ High Pass Filter	03/02/2020	Annual	25
Api tech.	18B-03 / Attenuator (3 dB)	03/02/2020	Annual	1
Agilent	8493C-10 / Attenuator(10 dB)	03/02/2020	Annual	08285
CERNEX	CBLU1183540 / Power Amplifier	03/02/2020	Annual	22964
CERNEX	CBL06185030 / Power Amplifier	03/02/2020	Annual	22965
CERNEX	CBL18265035 / Power Amplifier	12/26/2019	Annual	22966
CERNEX	CBL26405040 / Power Amplifier	03/23/2020	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-2010-FC012-P