

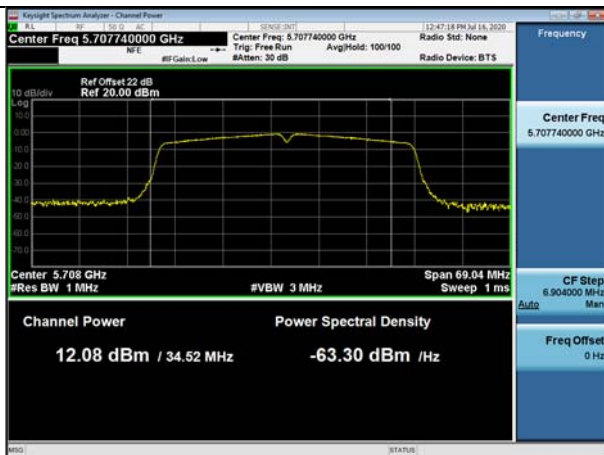
802.11n(HT40) UNII 2C Band



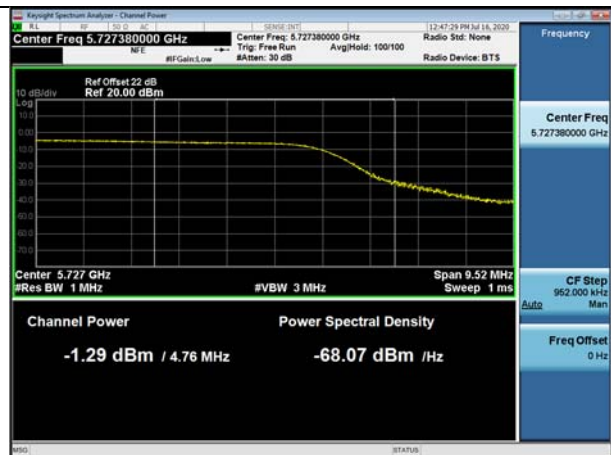
802.11n(HT40) UNII 3 Band



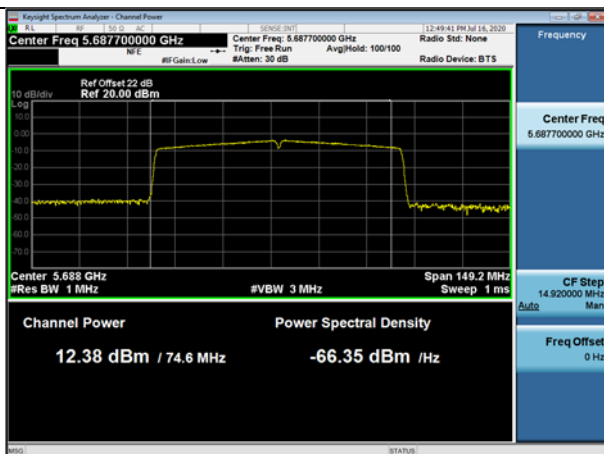
802.11ac(VHT40) UNII 2C Band



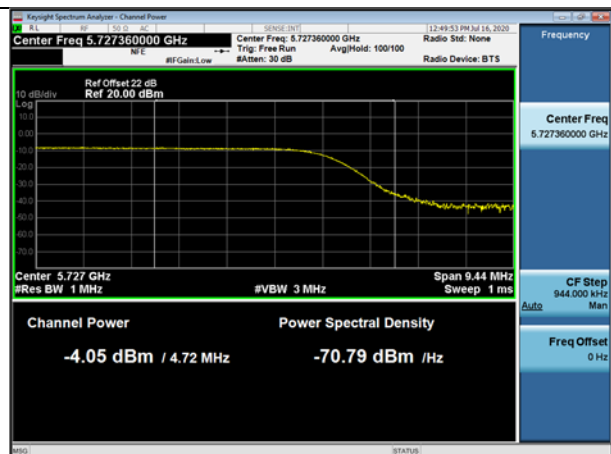
802.11ac(VHT40) UNII 3 Band



802.11ac(VHT80) UNII 2C Band



802.11ac(VHT80) UNII 3 Band



10.6.4 Power Spectral Density

[ANT1]

Mode	Frequency [MHz]	Channel	Total PSD (dBm)	Limit (dBm)
802.11a	5720 (UNII 2C Band)	144	1.334	11.00
802.11n(HT20)			1.940	11.00
802.11ac(VHT20)			1.360	11.00
802.11a	5720 (UNII 3 Band)	144	-2.853	30.00
802.11n(HT20)			-2.349	30.00
802.11ac(VHT20)			-3.083	30.00

Mode	Frequency [MHz]	Channel	Total PSD (dBm)	Limit (dBm)
802.11n(HT40)	5710 (UNII 2C Band)	142	-0.868	11.00
802.11ac(VHT40)			-0.211	11.00
802.11n(HT40)	5710 (UNII 3 Band)	142	-8.557	30.00
802.11ac(VHT40)			-7.938	30.00

Mode	Frequency [MHz]	Channel	Total PSD (dBm)	Limit (dBm)
802.11ac(VHT80)	5690 (UNII 2C Band)	138	-3.966	11.00
	5690 (UNII 3 Band)	138	-11.142	30.00

[ANT2]

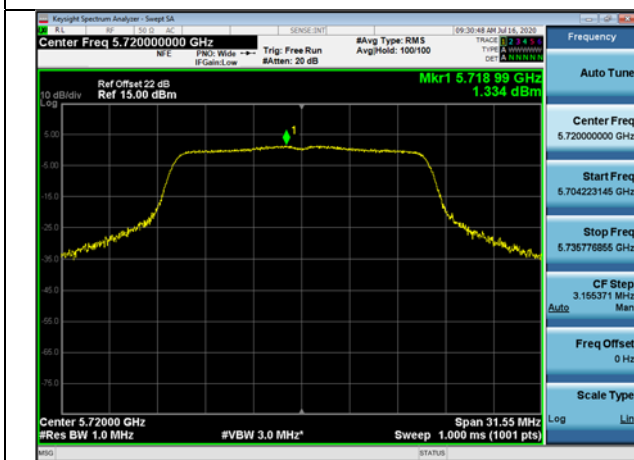
Mode	Frequency [MHz]	Channel	Total PSD (dBm)	Limit (dBm)
802.11a	5720 (UNII 2C Band)	144	1.469	11.00
802.11n(HT20)			1.761	11.00
802.11ac(VHT20)			1.367	11.00
802.11a	5720 (UNII 3 Band)	144	-3.031	30.00
802.11n(HT20)			-2.506	30.00
802.11ac(VHT20)			-3.147	30.00

Mode	Frequency [MHz]	Channel	Total PSD (dBm)	Limit (dBm)
802.11n(HT40)	5710 (UNII 2C Band)	142	-0.544	11.00
802.11ac(VHT40)			-0.378	11.00
802.11n(HT40)	5710 (UNII 3 Band)	142	-8.341	30.00
802.11ac(VHT40)			-8.017	30.00

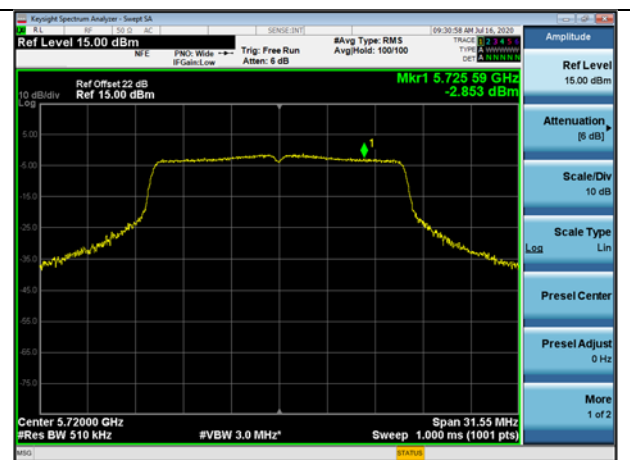
Mode	Frequency [MHz]	Channel	Total PSD (dBm)	Limit (dBm)
802.11ac(VHT80)	5690 (UNII 2C Band)	138	-3.841	11.00
	5690 (UNII 3 Band)	138	-10.773	30.00

Test Plots [ANT1]

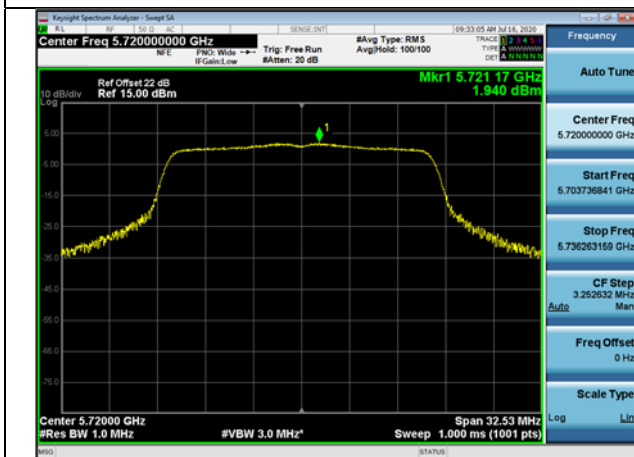
802.11a UNII 2C Band



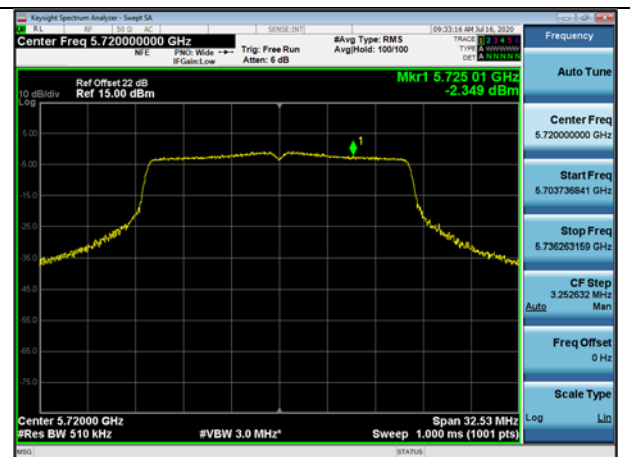
802.11a UNII 3 Band



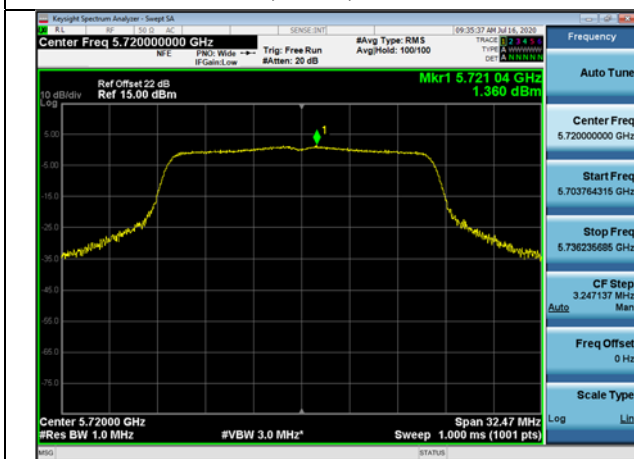
802.11n(HT20) UNII 2C Band



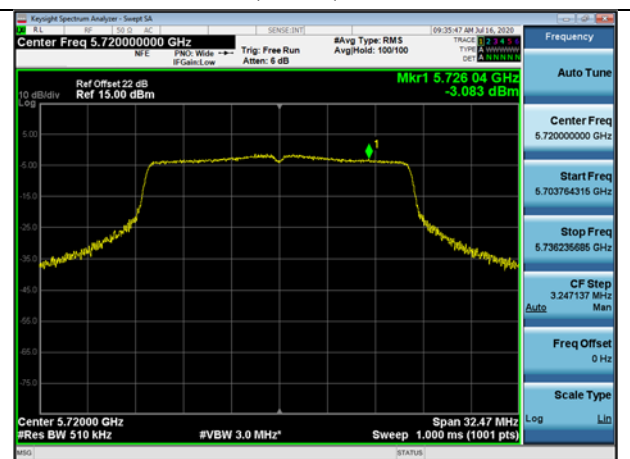
802.11n(HT20) UNII 3 Band



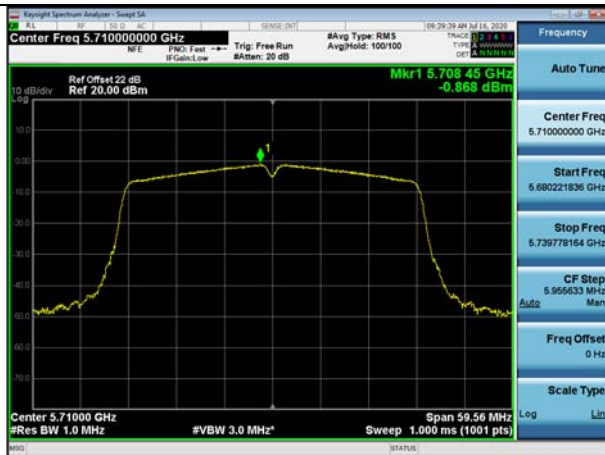
802.11ac(VHT20) UNII 2C Band



802.11ac(VHT20) UNII 3 Band



802.11n(HT40) UNII 2C Band



802.11n(HT40) UNII 3 Band



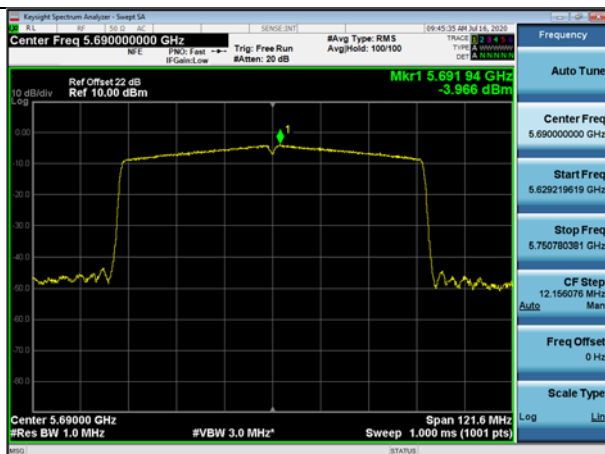
802.11ac(VHT40) UNII 2C Band



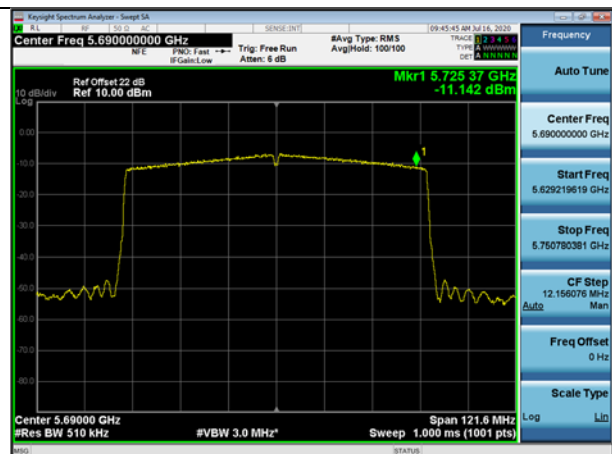
802.11ac(VHT40) UNII 3 Band



802.11ac(VHT80) UNII 2C Band

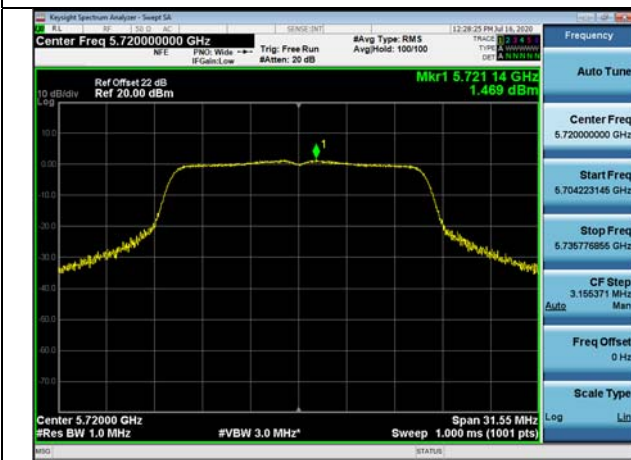


802.11ac(VHT80) UNII 3 Band



■ Test Plots_[ANT2]

802.11a UNII 2C Band



802.11a UNII 3 Band



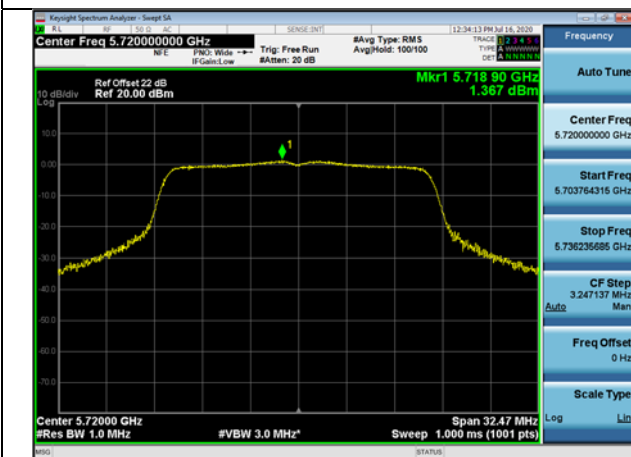
802.11n(HT20) UNII 2C Band



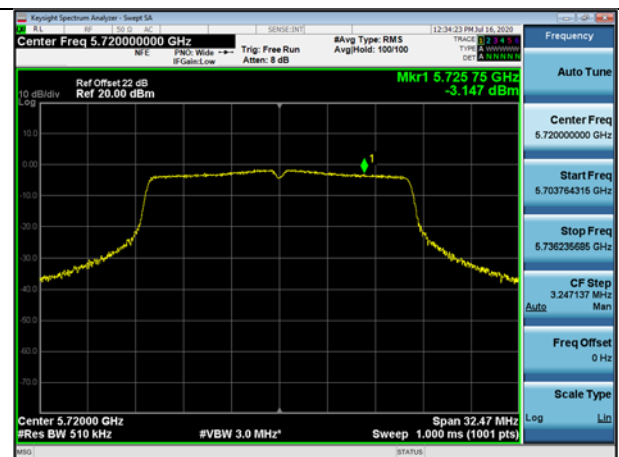
802.11n(HT20) UNII 3 Band



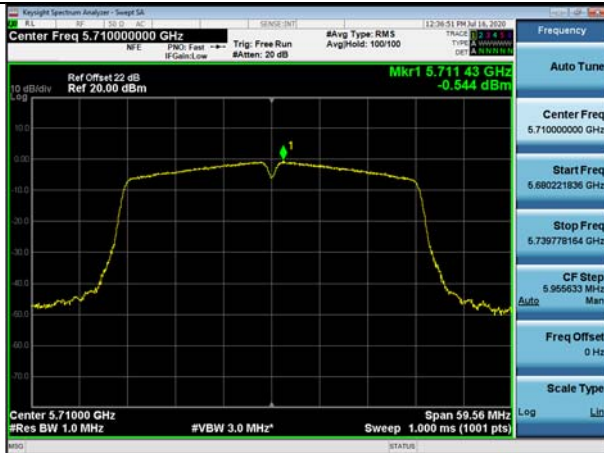
802.11ac(VHT20) UNII 2C Band



802.11ac(VHT20) UNII 3 Band



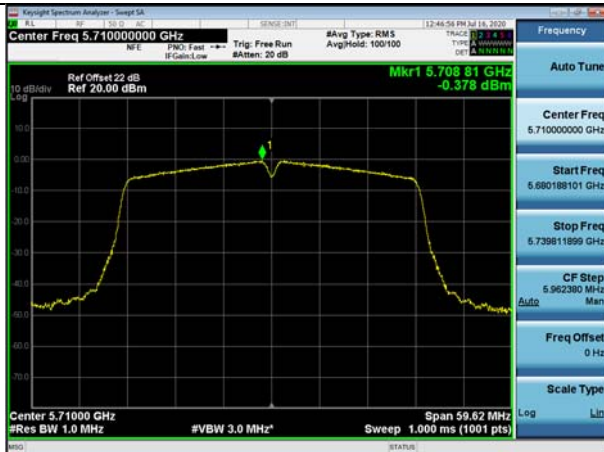
802.11n(HT40) UNII 2C Band



802.11n(HT40) UNII 3 Band



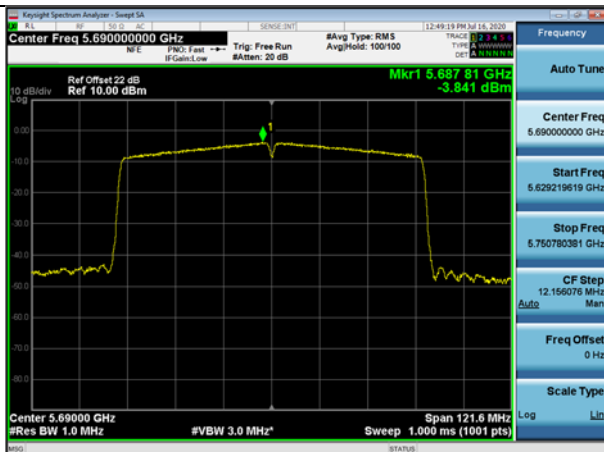
802.11ac(VHT40) UNII 2C Band



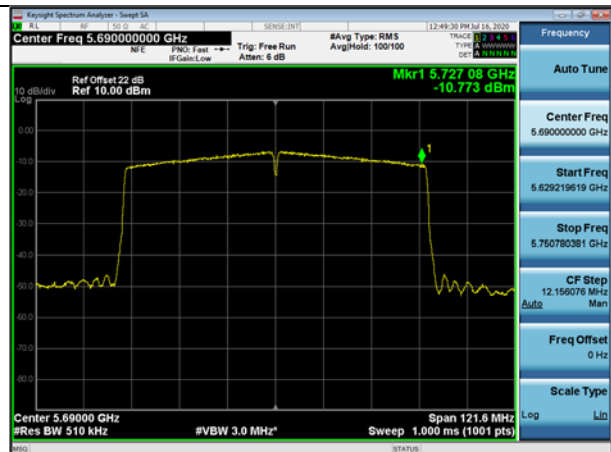
802.11ac(VHT40) UNII 3 Band



802.11ac(VHT80) UNII 2C Band



802.11ac(VHT80) UNII 3 Band



10.7 RADIATED SPURIOUS EMISSIONS

10.7.1 Basic Cable

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.



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-A.G+D.F [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
10360	56.28	5.09	V	61.37	68.20	6.83	PK
15540	47.93	6.67	V	54.60	73.98	19.38	PK
15540	32.99	6.67	V	39.66	53.98	14.32	AV
10360	57.38	5.09	H	62.47	68.20	5.73	PK
15540	47.26	6.67	H	53.93	73.98	20.05	PK
15540	32.19	6.67	H	38.86	53.98	15.12	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-A.G+D.F [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
10400	57.07	4.89	V	61.96	68.20	6.24	PK
15600	49.92	5.88	V	55.80	73.98	18.18	PK
15600	33.68	5.88	V	39.56	53.98	14.42	AV
10400	57.83	4.89	H	62.72	68.20	5.48	PK
15600	48.39	5.88	H	54.27	73.98	19.71	PK
15600	32.26	5.88	H	38.14	53.98	15.84	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-A.G+D.F [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
10480	54.34	5.35	V	59.69	68.20	8.51	PK
15720	49.24	5.19	V	54.43	73.98	19.55	PK
15720	33.27	5.19	V	38.46	53.98	15.52	AV
10480	55.22	5.35	H	60.57	68.20	7.63	PK
15720	48.33	5.19	H	53.52	73.98	20.46	PK
15720	32.49	5.19	H	37.68	53.98	16.30	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-A.G+D.F [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
10520	56.07	4.96	V	61.03	68.20	7.17	PK
15780	49.19	5.56	V	54.75	73.98	19.23	PK
15780	33.77	5.56	V	39.33	53.98	14.65	AV
10520	56.49	4.96	H	61.45	68.20	6.75	PK
15780	48.59	5.56	H	54.15	73.98	19.83	PK
15780	33.41	5.56	H	38.97	53.98	15.01	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-A.G+D.F [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
10600	55.70	5.65	V	61.35	73.98	12.63	PK
10600	40.21	5.65	V	45.86	53.98	8.12	AV
15900	50.49	6.27	V	56.76	73.98	17.22	PK
15900	33.63	6.27	V	39.90	53.98	14.08	AV
10600	56.62	5.65	H	62.27	73.98	11.71	PK
10600	41.44	5.65	H	47.09	53.98	6.89	AV
15900	49.41	6.27	H	55.68	73.98	18.30	PK
15900	33.13	6.27	H	39.40	53.98	14.58	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-A.G+D.F [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
10640	54.69	5.96	V	60.65	73.98	13.33	PK
10640	39.42	5.96	V	45.38	53.98	8.60	AV
15960	51.24	5.64	V	56.88	73.98	17.10	PK
15960	33.05	5.64	V	38.69	53.98	15.29	AV
10640	55.43	5.96	H	61.39	73.98	12.59	PK
10640	40.12	5.96	H	46.08	53.98	7.90	AV
15960	51.07	5.64	H	56.71	73.98	17.27	PK
15960	32.01	5.64	H	37.65	53.98	16.33	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-A.G+D.F [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
11000	51.45	5.30	V	56.75	73.98	17.23	PK
11000	36.72	5.30	V	42.02	53.98	11.96	AV
16500	45.60	7.79	V	53.39	68.20	14.81	PK
11000	52.20	5.30	H	57.50	73.98	16.48	PK
11000	37.29	5.30	H	42.59	53.98	11.39	AV
16500	44.28	7.79	H	52.07	68.20	16.13	PK

Band : UNII 2C
 Operation Mode: 802.11 a
 Transfer Rate: 6 Mbps
 Operating Frequency 5580 MHz
 Channel No. 116 Ch

Frequency [MHz]	Reading dBuV	A.F+C.L-A.G+D.F [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
11160	53.55	5.06	V	58.61	73.98	15.37	PK
11160	38.69	5.06	V	43.75	53.98	10.23	AV
16740	45.20	9.19	V	54.39	68.20	13.81	PK
11160	54.44	5.06	H	59.50	73.98	14.48	PK
11160	39.49	5.06	H	44.55	53.98	9.43	AV
16740	44.96	9.19	H	54.15	68.20	14.05	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-A.G+D.F [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
11440	57.69	5.65	V	63.34	73.98	10.64	PK
11440	42.75	5.65	V	48.40	53.98	5.58	AV
17160	48.45	9.75	V	58.20	68.20	10.00	PK
11440	58.20	5.65	H	63.85	73.98	10.13	PK
11440	43.25	5.65	H	48.90	53.98	5.08	AV
17160	48.19	9.75	H	57.94	68.20	10.26	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-A.G+D.F [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
11490	57.42	5.32	V	62.74	73.98	11.24	PK
11490	42.11	5.32	V	47.43	53.98	6.55	AV
17235	46.68	10.56	V	57.24	68.20	10.96	PK
11490	58.01	5.32	H	63.33	73.98	10.65	PK
11490	43.26	5.32	H	48.58	53.98	5.40	AV
17235	46.57	10.56	H	57.13	68.20	11.07	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-A.G+D.F [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
11570	51.98	6.17	V	58.15	73.98	15.83	PK
11570	38.33	6.17	V	44.50	53.98	9.48	AV
17355	46.77	11.10	V	57.87	68.20	10.33	PK
11570	57.30	6.17	H	63.47	73.98	10.51	PK
11570	43.18	6.17	H	49.35	53.98	4.63	AV
17355	47.85	11.10	H	58.95	68.20	9.25	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-A.G+D.F [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
11650	53.35	5.31	V	58.66	73.98	15.32	PK
11650	39.60	5.31	V	44.91	53.98	9.07	AV
17475	49.17	11.24	V	60.41	68.20	7.79	PK
11650	57.72	5.31	H	63.03	73.98	10.95	PK
11650	42.85	5.31	H	48.16	53.98	5.82	AV
17475	49.45	11.24	H	60.69	68.20	7.51	PK



Band : UNII 3
 Operation Mode: 802.11 n(HT20)
 Transfer MCS Index: MCS0
 Operating Frequency 5745MHz
 Channel No. 149 Ch

Frequency [MHz]	Reading dBuV	A.F+C.L-A.G+D.F [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
11490	57.45	5.32	V	62.77	73.98	11.21	PK
11490	42.63	5.32	V	47.95	53.98	6.03	AV
17235	46.87	10.56	V	57.43	68.20	10.77	PK
11490	58.33	5.32	H	63.65	73.98	10.33	PK
11490	43.68	5.32	H	49.00	53.98	4.98	AV
17235	45.96	10.56	H	56.52	68.20	11.68	PK

Band : UNII 3
 Operation Mode: 802.11 n(HT20)
 Transfer MCS Index: MCS0
 Operating Frequency 5785 MHz
 Channel No. 157 Ch

Frequency [MHz]	Reading dBuV	A.F+C.L-A.G+D.F [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
11570	50.87	6.17	V	57.04	73.98	16.94	PK
11570	38.10	6.17	V	44.27	53.98	9.71	AV
17355	47.20	11.10	V	58.30	68.20	9.90	PK
11570	57.07	6.17	H	63.24	73.98	10.74	PK
11570	42.64	6.17	H	48.81	53.98	5.17	AV
17355	47.48	11.10	H	58.58	68.20	9.62	PK



Band :
Operation Mode:
Transfer MCS Index:
Operating Frequency
Channel No.

UNII 3
802.11 n(HT20)
MCS0
5825 MHz
165 Ch

Frequency [MHz]	Reading dBuV	A.F+C.L-A.G+D.F [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
11650	52.40	5.31	V	57.71	73.98	16.27	PK
11650	39.48	5.31	V	44.79	53.98	9.19	AV
17475	47.57	11.24	V	58.81	68.20	9.39	PK
11650	56.14	5.31	H	61.45	73.98	12.53	PK
11650	42.64	5.31	H	47.95	53.98	6.03	AV
17475	47.96	11.24	H	59.20	68.20	9.00	PK



Band : UNII 3
 Operation Mode: 802.11 ac(VHT20)
 Transfer MCS Index: MCS0
 Operating Frequency 5745MHz
 Channel No. 149 Ch

Frequency [MHz]	Reading dBuV	A.F+C.L-A.G+D.F [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
11490	57.31	5.32	V	62.63	73.98	11.35	PK
11490	42.14	5.32	V	47.46	53.98	6.52	AV
17235	46.40	10.56	V	56.96	68.20	11.24	PK
11490	57.34	5.32	H	62.66	73.98	11.32	PK
11490	42.98	5.32	H	48.30	53.98	5.68	AV
17235	46.11	10.56	H	56.67	68.20	11.53	PK

Band : UNII 3
 Operation Mode: 802.11 ac(VHT20)
 Transfer MCS Index: MCS0
 Operating Frequency 5785 MHz
 Channel No. 157 Ch

Frequency [MHz]	Reading dBuV	A.F+C.L-A.G+D.F [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
11570	51.19	6.17	V	57.36	73.98	16.62	PK
11570	37.83	6.17	V	44.00	53.98	9.98	AV
17355	47.42	11.10	V	58.52	68.20	9.68	PK
11570	55.65	6.17	H	61.82	73.98	12.16	PK
11570	42.05	6.17	H	48.22	53.98	5.76	AV
17355	47.60	11.10	H	58.70	68.20	9.50	PK



Band : UNII 3
 Operation Mode: 802.11 ac(VHT20)
 Transfer MCS Index: MCS0
 Operating Frequency 5825 MHz
 Channel No. 165 Ch

Frequency [MHz]	Reading dBuV	A.F+C.L-A.G+D.F [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
11650	52.59	5.31	V	57.90	73.98	16.08	PK
11650	39.41	5.31	V	44.72	53.98	9.26	AV
17475	46.89	11.24	V	58.13	68.20	10.07	PK
11650	55.93	5.31	H	61.24	73.98	12.74	PK
11650	42.03	5.31	H	47.34	53.98	6.64	AV
17475	47.55	11.24	H	58.79	68.20	9.41	PK



Band : UNII 3
 Operation Mode: 802.11 n(HT40)
 Transfer MCS Index: MCS0
 Operating Frequency 5755 MHz
 Channel No. 151 Ch

Frequency [MHz]	Reading dBuV	A.F+C.L-A.G+D.F [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
11510	52.90	5.13	V	58.03	73.98	15.95	PK
11510	40.03	5.13	V	45.16	53.98	8.82	AV
17265	47.09	10.43	V	57.52	68.20	10.68	PK
11510	53.30	5.13	H	58.43	73.98	15.55	PK
11510	40.68	5.13	H	45.81	53.98	8.17	AV
17265	46.75	10.43	H	57.18	68.20	11.02	PK

Band : UNII 3
 Operation Mode: 802.11 n(HT40)
 Transfer MCS Index: MCS0
 Operating Frequency 5795 MHz
 Channel No. 159 Ch

Frequency [MHz]	Reading dBuV	A.F+C.L-A.G+D.F [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
11590	52.93	5.46	V	58.39	73.98	15.59	PK
11590	39.74	5.46	V	45.20	53.98	8.78	AV
17385	47.18	11.19	V	58.37	68.20	9.83	PK
11590	53.18	5.46	H	58.64	73.98	15.34	PK
11590	40.29	5.46	H	45.75	53.98	8.23	AV
17385	46.89	11.19	H	58.08	68.20	10.12	PK



Band : UNII 3
 Operation Mode: 802.11 ac(VHT40)
 Transfer MCS Index: MCS0
 Operating Frequency 5755 MHz
 Channel No. 151 Ch

Frequency [MHz]	Reading dBuV	A.F+C.L-A.G+D.F [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
11510	52.44	5.13	V	57.57	73.98	16.41	PK
11510	40.90	5.13	V	46.03	53.98	7.95	AV
17265	47.53	10.43	V	57.96	68.20	10.24	PK
11510	53.44	5.13	H	58.57	73.98	15.41	PK
11510	41.20	5.13	H	46.33	53.98	7.65	AV
17265	46.85	10.43	H	57.28	68.20	10.92	PK

Band : UNII 3
 Operation Mode: 802.11 ac(VHT40)
 Transfer MCS Index: MCS0
 Operating Frequency 5795 MHz
 Channel No. 159 Ch

Frequency [MHz]	Reading dBuV	A.F+C.L-A.G+D.F [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
11590	51.63	5.46	V	57.09	73.98	16.89	PK
11590	40.51	5.46	V	45.97	53.98	8.01	AV
17385	47.12	11.19	V	58.31	68.20	9.89	PK
11590	52.48	5.46	H	57.94	73.98	16.04	PK
11590	41.03	5.46	H	46.49	53.98	7.49	AV
17385	46.99	11.19	H	58.18	68.20	10.02	PK



Band : UNII 3
 Operation Mode: 802.11 ac(VHT80)
 Transfer MCS Index: MCS0
 Operating Frequency 5775 MHz
 Channel No. 155 Ch

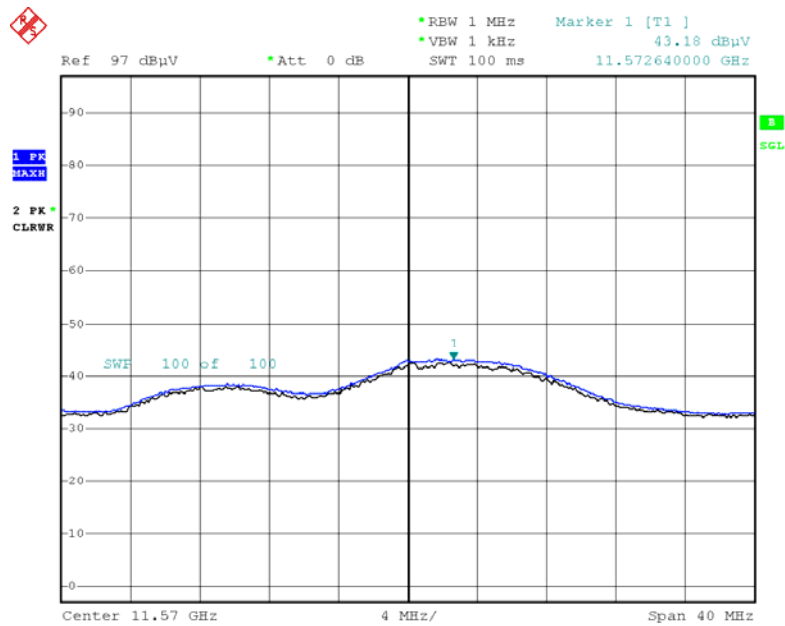
Frequency [MHz]	Reading dBuV	A.F+C.L-A.G+D.F [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
11550	50.67	5.85	V	56.52	73.98	17.46	PK
11550	39.55	5.85	V	45.40	53.98	8.58	AV
17325	45.86	11.27	V	57.13	68.20	11.07	PK
11550	51.73	5.85	H	57.58	73.98	16.40	PK
11550	40.12	5.85	H	45.97	53.98	8.01	AV
17325	45.74	11.27	H	57.01	68.20	11.19	PK

Note:

All Modes of operation were investigated and the worst case configuration results are reported.
 In order to simplify the report, We only have attached RSE result of worst channel.

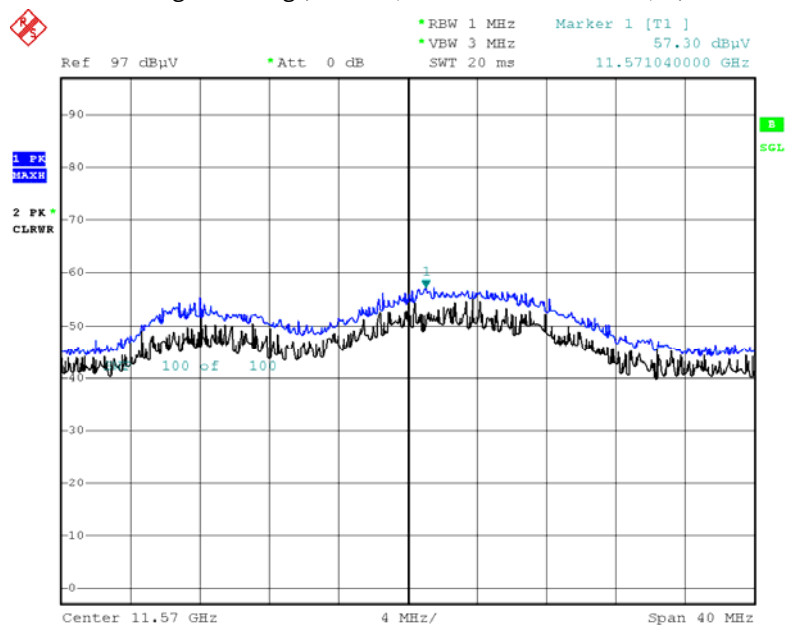
Test Plots

Peak Reading (802.11a, Ch.157 2nd Harmonic, H)



Date: 13.JUL.2020 10:26:18

Average Reading (802.11a, Ch.157 2nd Harmonic, H)



Date: 13.JUL.2020 10:26:28

Note:

Only the worst case plots for Radiated Spurious Emissions.

10.7.2 FFC Cable

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.



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

Frequency [MHz]	Reading dBuV	AN.+CL-AMP G [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
11440	56.84	5.65	V	62.49	73.98	11.49	PK
11440	40.65	5.65	V	46.30	53.98	7.68	AV
17160	48.35	9.75	V	58.10	68.20	10.10	PK
11440	57.06	5.65	H	62.71	73.98	11.27	PK
11440	41.85	5.65	H	47.50	53.98	6.48	AV
17160	47.99	9.75	H	57.74	68.20	10.46	PK

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

Frequency [MHz]	Reading dBuV	AN.+CL-AMP G [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
11490	51.43	5.32	V	56.75	73.98	17.23	PK
11490	36.79	5.32	V	42.11	53.98	11.87	AV
17235	46.79	10.56	V	57.35	68.20	10.85	PK
11490	51.21	5.32	H	56.53	73.98	17.45	PK
11490	36.84	5.32	H	42.16	53.98	11.82	AV
17235	49.72	10.56	H	60.28	68.20	7.92	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	AN.+CL-AMP G [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
11570	52.11	6.17	V	58.28	73.98	15.70	PK
11570	37.89	6.17	V	44.06	53.98	9.92	AV
17355	48.12	11.10	V	59.22	68.20	8.98	PK
11570	53.17	6.17	H	59.34	73.98	14.64	PK
11570	38.84	6.17	H	45.01	53.98	8.97	AV
17355	48.63	11.10	H	59.73	68.20	8.47	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	AN.+CL-AMP G [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
11650	51.27	5.31	V	56.58	73.98	17.40	PK
11650	37.69	5.31	V	43.00	53.98	10.98	AV
17475	49.55	11.24	V	60.79	68.20	7.41	PK
11650	52.57	5.31	H	57.88	73.98	16.10	PK
11650	38.63	5.31	H	43.94	53.98	10.04	AV
17475	49.81	11.24	H	61.05	68.20	7.15	PK



Band : UNII 2C
 Operation Mode: 802.11 n(HT20)
 Transfer Rate: 6 Mbps
 Operating Frequency 5720 MHz
 Channel No. 144 Ch

Frequency [MHz]	Reading dBuV	AN.+CL-AMP G [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
11440	53.76	5.65	V	59.41	73.98	14.57	PK
11440	39.47	5.65	V	45.12	53.98	8.86	AV
17160	46.44	9.75	V	56.19	68.20	12.01	PK
11440	54.61	5.65	H	60.26	73.98	13.72	PK
11440	40.40	5.65	H	46.05	53.98	7.93	AV
17160	45.98	9.75	H	55.73	68.20	12.47	PK

Band : UNII 3
 Operation Mode: 802.11 n(HT20)
 Transfer Rate: 6 Mbps
 Operating Frequency 5745MHz
 Channel No. 149 Ch

Frequency [MHz]	Reading dBuV	AN.+CL-AMP G [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
11490	50.21	5.32	V	55.53	73.98	18.45	PK
11490	36.55	5.32	V	41.87	53.98	12.11	AV
17235	46.03	10.56	V	56.59	68.20	11.61	PK
11490	51.06	5.32	H	56.38	73.98	17.60	PK
11490	36.74	5.32	H	42.06	53.98	11.92	AV
17235	46.97	10.56	H	57.53	68.20	10.67	PK



Band : UNII 3
 Operation Mode: 802.11 n(HT20)
 Transfer Rate: 6 Mbps
 Operating Frequency 5785 MHz
 Channel No. 157 Ch

Frequency [MHz]	Reading dBuV	AN.+CL-AMP G [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
11570	51.46	6.17	V	57.63	73.98	16.35	PK
11570	37.97	6.17	V	44.14	53.98	9.84	AV
17355	48.03	11.10	V	59.13	68.20	9.07	PK
11570	52.73	6.17	H	58.90	73.98	15.08	PK
11570	38.84	6.17	H	45.01	53.98	8.97	AV
17355	48.72	11.10	H	59.82	68.20	8.38	PK

Band : UNII 3
 Operation Mode: 802.11 n(HT20)
 Transfer Rate: 6 Mbps
 Operating Frequency 5825 MHz
 Channel No. 165 Ch

Frequency [MHz]	Reading dBuV	AN.+CL-AMP G [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
11650	51.63	5.31	V	56.94	73.98	17.04	PK
11650	38.47	5.31	V	43.78	53.98	10.20	AV
17475	47.86	11.24	V	59.10	68.20	9.10	PK
11650	52.28	5.31	H	57.59	73.98	16.39	PK
11650	39.17	5.31	H	44.48	53.98	9.50	AV
17475	48.11	11.24	H	59.35	68.20	8.85	PK



Band : UNII 2C
 Operation Mode: 802.11 ac(VHT20)
 Transfer Rate: 6 Mbps
 Operating Frequency 5720 MHz
 Channel No. 144 Ch

Frequency [MHz]	Reading dBuV	AN.+CL-AMP G [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
11440	54.31	5.65	V	59.96	73.98	14.02	PK
11440	38.99	5.65	V	44.64	53.98	9.34	AV
17160	46.72	9.75	V	56.47	68.20	11.73	PK
11440	54.61	5.65	H	60.26	73.98	13.72	PK
11440	39.92	5.65	H	45.57	53.98	8.41	AV
17160	46.04	9.75	H	55.79	68.20	12.41	PK

Band : UNII 3
 Operation Mode: 802.11 ac(VHT20)
 Transfer Rate: 6 Mbps
 Operating Frequency 5745MHz
 Channel No. 149 Ch

Frequency [MHz]	Reading dBuV	AN.+CL-AMP G [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
11490	50.13	5.32	V	55.45	73.98	18.53	PK
11490	36.60	5.32	V	41.92	53.98	12.06	AV
17235	45.67	10.56	V	56.23	68.20	11.97	PK
11490	50.34	5.32	H	55.66	73.98	18.32	PK
11490	36.50	5.32	H	41.82	53.98	12.16	AV
17235	45.53	10.56	H	56.09	68.20	12.11	PK



Band : UNII 3
 Operation Mode: 802.11 ac(VHT20)
 Transfer Rate: 6 Mbps
 Operating Frequency 5785 MHz
 Channel No. 157 Ch

Frequency [MHz]	Reading dBuV	AN.+CL-AMP G [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
11570	50.69	6.17	V	56.86	73.98	17.12	PK
11570	38.07	6.17	V	44.24	53.98	9.74	AV
17355	48.06	11.10	V	59.16	68.20	9.04	PK
11570	51.94	6.17	H	58.11	73.98	15.87	PK
11570	38.45	6.17	H	44.62	53.98	9.36	AV
17355	48.54	11.10	H	59.64	68.20	8.56	PK

Band : UNII 3
 Operation Mode: 802.11 ac(VHT20)
 Transfer Rate: 6 Mbps
 Operating Frequency 5825 MHz
 Channel No. 165 Ch

Frequency [MHz]	Reading dBuV	AN.+CL-AMP G [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
11650	51.64	5.31	V	56.95	73.98	17.03	PK
11650	37.94	5.31	V	43.25	53.98	10.73	AV
17475	47.43	11.24	V	58.67	68.20	9.53	PK
11650	52.59	5.31	H	57.90	73.98	16.08	PK
11650	38.63	5.31	H	43.94	53.98	10.04	AV
17475	47.94	11.24	H	59.18	68.20	9.02	PK



Band : UNII 2C
 Operation Mode: 802.11 n(HT40)
 Transfer MCS Index: MCS0
 Operating Frequency 5710 MHz
 Channel No. 142 Ch

Frequency [MHz]	Reading dBuV	AN.+CL-AMP G [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
11420	50.63	5.82	V	56.45	73.98	17.53	PK
11420	37.67	5.82	V	43.49	53.98	10.49	AV
17130	45.90	9.40	V	55.30	68.20	12.90	PK
11420	51.36	5.82	H	57.18	73.98	16.80	PK
11420	38.22	5.82	H	44.04	53.98	9.94	AV
17130	46.17	9.40	H	55.57	68.20	12.63	PK



Band : UNII 3
 Operation Mode: 802.11 n(HT40)
 Transfer MCS Index: MCS0
 Operating Frequency 5755 MHz
 Channel No. 151 Ch

Frequency [MHz]	Reading dBuV	AN.+CL-AMP G [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
11510	51.43	5.13	V	56.56	73.98	17.42	PK
11510	37.85	5.13	V	42.98	53.98	11.00	AV
17265	45.37	10.43	V	55.80	68.20	12.40	PK
11510	52.42	5.13	H	57.55	73.98	16.43	PK
11510	38.06	5.13	H	43.19	53.98	10.79	AV
17265	45.96	10.43	H	56.39	68.20	11.81	PK

Band : UNII 3
 Operation Mode: 802.11 n(HT40)
 Transfer MCS Index: MCS0
 Operating Frequency 5795 MHz
 Channel No. 159 Ch

Frequency [MHz]	Reading dBuV	AN.+CL-AMP G [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
11590	49.48	5.46	V	54.94	73.98	19.04	PK
11590	36.57	5.46	V	42.03	53.98	11.95	AV
17385	45.96	11.19	V	57.15	68.20	11.05	PK
11590	50.59	5.46	H	56.05	73.98	17.93	PK
11590	36.86	5.46	H	42.32	53.98	11.66	AV
17385	46.44	11.19	H	57.63	68.20	10.57	PK



Band : UNII 2C
 Operation Mode: 802.11 ac(VHT40)
 Transfer MCS Index: MCS0
 Operating Frequency 5710 MHz
 Channel No. 142 Ch

Frequency [MHz]	Reading dBuV	AN.+CL-AMP G [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
11420	51.39	5.82	V	57.21	73.98	16.77	PK
11420	38.19	5.82	V	44.01	53.98	9.97	AV
17130	45.51	9.40	V	54.91	68.20	13.29	PK
11420	52.24	5.82	H	58.06	73.98	15.92	PK
11420	38.71	5.82	H	44.53	53.98	9.45	AV
17130	46.42	9.40	H	55.82	68.20	12.38	PK



Band : UNII 3
 Operation Mode: 802.11 ac(VHT40)
 Transfer MCS Index: MCS0
 Operating Frequency 5755 MHz
 Channel No. 151 Ch

Frequency [MHz]	Reading dBuV	AN.+CL-AMP G [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
11510	50.67	5.13	V	55.80	73.98	18.18	PK
11510	38.06	5.13	V	43.19	53.98	10.79	AV
17265	44.73	10.43	V	55.16	68.20	13.04	PK
11510	51.42	5.13	H	56.55	73.98	17.43	PK
11510	38.40	5.13	H	43.53	53.98	10.45	AV
17265	45.81	10.43	H	56.24	68.20	11.96	PK

Band : UNII 3
 Operation Mode: 802.11 ac(VHT40)
 Transfer MCS Index: MCS0
 Operating Frequency 5795 MHz
 Channel No. 159 Ch

Frequency [MHz]	Reading dBuV	AN.+CL-AMP G [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
11590	48.97	5.46	V	54.43	73.98	19.55	PK
11590	36.75	5.46	V	42.21	53.98	11.77	AV
17385	46.32	11.19	V	57.51	68.20	10.69	PK
11590	49.79	5.46	H	55.25	73.98	18.73	PK
11590	37.24	5.46	H	42.70	53.98	11.28	AV
17385	46.56	11.19	H	57.75	68.20	10.45	PK



Band : UNII 2C
 Operation Mode: 802.11 ac(VHT80)
 Transfer MCS Index: MCS0
 Operating Frequency 5690 MHz
 Channel No. 138 Ch

Frequency [MHz]	Reading dBuV	AN.+CL-AMP G [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
11380	47.76	5.44	V	53.20	73.98	20.78	PK
11380	35.24	5.44	V	40.68	53.98	13.30	AV
17070	44.98	9.94	V	54.92	68.20	13.28	PK
11380	48.28	5.44	H	53.72	73.98	20.26	PK
11380	35.71	5.44	H	41.15	53.98	12.83	AV
17070	45.82	9.94	H	55.76	68.20	12.44	PK

Band : UNII 3
 Operation Mode: 802.11 ac(VHT80)
 Transfer MCS Index: MCS0
 Operating Frequency 5775 MHz
 Channel No. 155 Ch

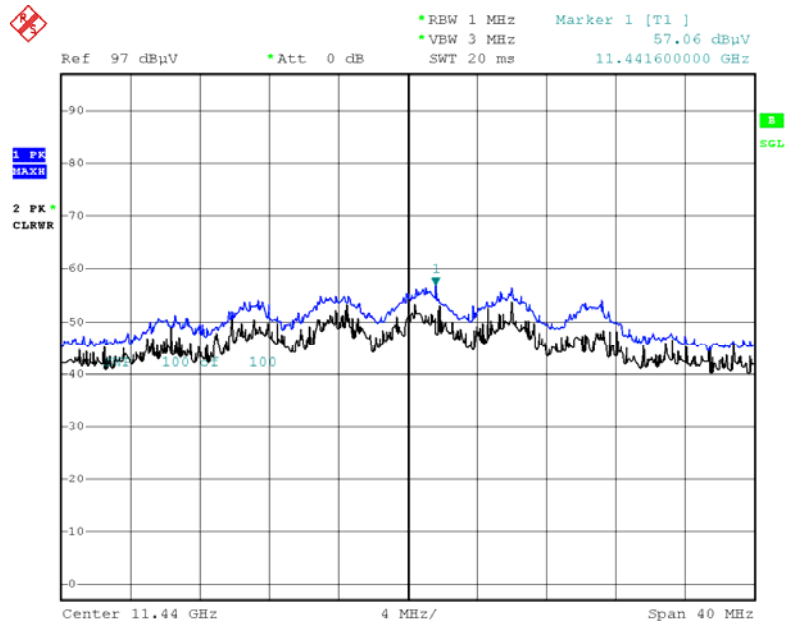
Frequency [MHz]	Reading dBuV	AN.+CL-AMP G [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
11550	47.61	5.85	V	53.46	73.98	20.52	PK
11550	34.58	5.85	V	40.43	53.98	13.55	AV
17325	46.11	11.27	V	57.38	68.20	10.82	PK
11550	48.39	5.85	H	54.24	73.98	19.74	PK
11550	36.48	5.85	H	42.33	53.98	11.65	AV
17325	46.91	11.27	H	58.18	68.20	10.02	PK

Note:

All Modes of operation were investigated and the worst case configuration results are reported.
 In order to simplify the report, We only have attached RSE result of worst channel.

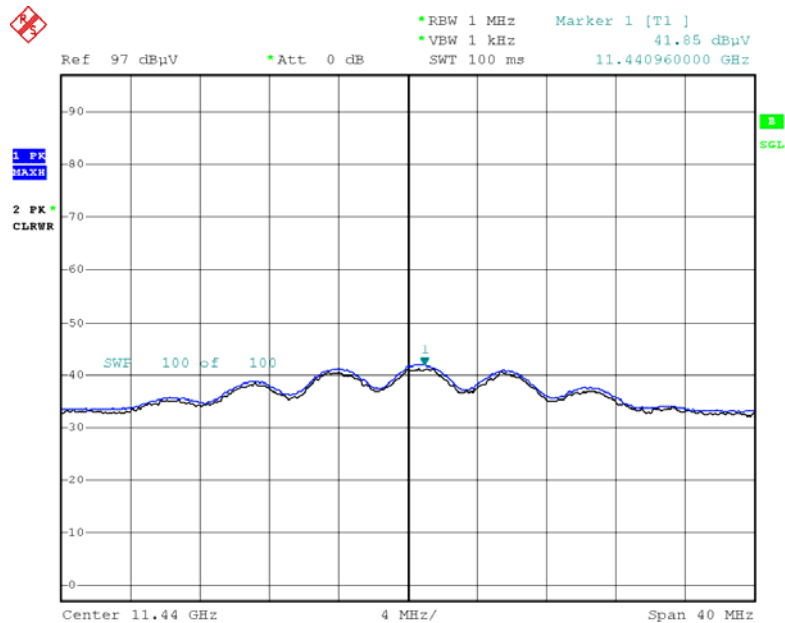
Test Plots

Peak Reading (802.11a, Ch.144 2nd Harmonic, H)



Date: 1.SEP.2020 02:40:24

Average Reading (802.11a, Ch.144 2nd Harmonic, H)



Date: 1.SEP.2020 02:40:08

Note:

Only the worst case plots for Radiated Spurious Emissions.

10.8 RADIATED RESTRICTED BAND EDGE

10.8.1 Basic Cable

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-A.G+ATT+D.F [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
5150	46.70	12.48	H	59.18	73.98	14.80	PK
5150	34.36	12.48	H	46.84	53.98	7.14	AV
5150	45.17	12.48	V	57.65	73.98	16.33	PK
5150	33.14	12.48	V	45.62	53.98	8.36	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-A.G+ATT+D.F [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
5350	44.88	12.50	H	57.38	73.98	16.60	PK
5350	32.41	12.50	H	44.91	53.98	9.07	AV
5350	44.09	12.50	V	56.59	73.98	17.39	PK
5350	31.17	12.50	V	43.67	53.98	10.31	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-A.G+ATT+D.F [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
5460	44.95	12.89	H	57.84	73.98	16.14	PK
5460	32.25	12.89	H	45.14	53.98	8.84	AV
5470	45.12	13.00	H	58.12	68.20	10.08	PK
5460	43.68	12.89	V	56.57	73.98	17.41	PK
5460	31.28	12.89	V	44.17	53.98	9.81	AV
5470	44.09	13.00	V	57.09	68.20	11.11	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	A.F+C.L-A.G+ATT+D.F [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
5150	46.90	12.48	H	59.38	73.98	14.60	PK
5150	34.58	12.48	H	47.06	53.98	6.92	AV
5150	45.36	12.48	V	57.84	73.98	16.14	PK
5150	34.10	12.48	V	46.58	53.98	7.40	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	A.F+C.L-A.G+ATT+D.F [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
5350	44.51	12.50	H	57.01	73.98	16.97	PK
5350	32.06	12.50	H	44.56	53.98	9.42	AV
5350	43.66	12.50	V	56.16	73.98	17.82	PK
5350	31.47	12.50	V	43.97	53.98	10.01	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	A.F+C.L-A.G+ATT+D.F [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
5460	44.53	12.89	H	57.42	73.98	16.56	PK
5460	31.22	12.89	H	44.11	53.98	9.87	AV
5470	44.93	13.00	H	57.93	68.20	10.27	PK
5460	43.98	12.89	V	56.87	73.98	17.11	PK
5460	31.01	12.89	V	43.90	53.98	10.08	AV
5470	44.27	13.00	V	57.27	68.20	10.93	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	A.F+C.L-A.G+ATT+D.F [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
5150	48.05	12.48	H	60.53	73.98	13.45	PK
5150	35.44	12.48	H	47.92	53.98	6.06	AV
5150	47.55	12.48	V	60.03	73.98	13.95	PK
5150	34.28	12.48	V	46.76	53.98	7.22	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	A.F+C.L-A.G+ATT+D.F [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
5350	45.17	12.50	H	57.67	73.98	16.31	PK
5350	32.36	12.50	H	44.86	53.98	9.12	AV
5350	44.69	12.50	V	57.19	73.98	16.79	PK
5350	31.28	12.50	V	43.78	53.98	10.20	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	A.F+C.L-A.G+ATT+D.F [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
5460	45.37	12.89	H	58.26	73.98	15.72	PK
5460	31.83	12.89	H	44.72	53.98	9.26	AV
5470	45.37	13.00	H	58.37	68.20	9.83	PK
5460	44.17	12.89	V	57.06	73.98	16.92	PK
5460	31.34	12.89	V	44.23	53.98	9.75	AV
5470	44.20	13.00	V	57.20	68.20	11.00	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	A.F+C.L-A.G+ATT+D.F [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
5150	47.13	12.48	H	59.61	73.98	14.37	PK
5150	35.10	12.48	H	47.58	53.98	6.40	AV
5150	46.62	12.48	V	59.10	73.98	14.88	PK
5150	34.74	12.48	V	47.22	53.98	6.76	AV

Band : UNII 1
 Operation Mode: 802.11 n_HT40
 Transfer MCS Index: 0
 Operating Frequency 5310 MHz
 Channel No. 62 Ch

Frequency [MHz]	Reading dBuV	A.F+C.L-A.G+ATT+D.F [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
5350	45.82	12.50	H	58.32	73.98	15.66	PK
5350	33.74	12.50	H	46.24	53.98	7.74	AV
5350	44.28	12.50	V	56.78	73.98	17.20	PK
5350	32.67	12.50	V	45.17	53.98	8.81	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	A.F+C.L-A.G+ATT+D.F [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
5460	44.44	12.89	H	57.33	73.98	16.65	PK
5460	32.34	12.89	H	45.23	53.98	8.75	AV
5470	45.35	13.00	H	58.35	68.20	9.85	PK
5460	43.57	12.89	V	56.46	73.98	17.52	PK
5460	31.69	12.89	V	44.58	53.98	9.40	AV
5470	44.28	13.00	V	57.28	68.20	10.92	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	A.F+C.L-A.G+ATT+D.F [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
5150	47.88	12.48	H	60.36	73.98	13.62	PK
5150	36.39	12.48	H	48.87	53.98	5.11	AV
5150	46.09	12.48	V	58.57	73.98	15.41	PK
5150	35.21	12.48	V	47.69	53.98	6.29	AV

Band : UNII 1
 Operation Mode: 802.11 ac_VHT40
 Transfer MCS Index: 0
 Operating Frequency 5310 MHz
 Channel No. 62 Ch

Frequency [MHz]	Reading dBuV	A.F+C.L-A.G+ATT+D.F [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
5350	46.09	12.50	H	58.59	73.98	15.39	PK
5350	33.99	12.50	H	46.49	53.98	7.49	AV
5350	46.00	12.50	V	58.50	73.98	15.48	PK
5350	33.17	12.50	V	45.67	53.98	8.31	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	A.F+C.L-A.G+ATT+D.F [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
5460	44.40	12.89	H	57.29	73.98	16.69	PK
5460	32.29	12.89	H	45.18	53.98	8.80	AV
5470	45.52	13.00	H	58.52	68.20	9.68	PK
5460	43.84	12.89	V	56.73	73.98	17.25	PK
5460	31.78	12.89	V	44.67	53.98	9.31	AV
5470	44.39	13.00	V	57.39	68.20	10.81	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	A.F+C.L-A.G+ATT+D.F [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
5150	47.99	12.48	H	60.47	73.98	13.51	PK
5150	38.32	12.48	H	50.80	53.98	3.18	AV
5150	47.87	12.48	V	60.35	73.98	13.63	PK
5150	38.31	12.48	V	50.79	53.98	3.19	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	A.F+C.L-A.G+ATT+D.F [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
5350	51.25	12.50	H	63.75	73.98	10.23	PK
5350	38.40	12.50	H	50.90	53.98	3.08	AV
5350	50.17	12.50	V	62.67	73.98	11.31	PK
5350	38.29	12.50	V	50.79	53.98	3.19	AV

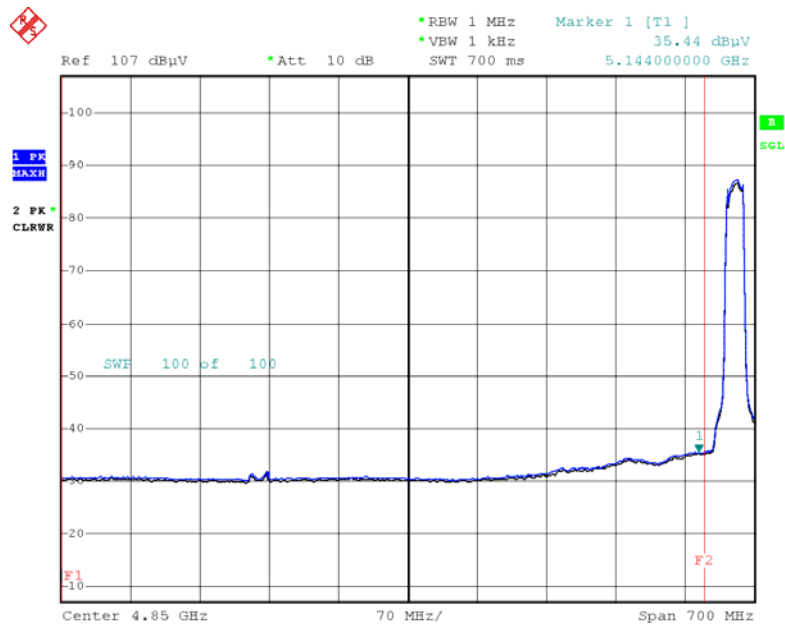


Band : UNII 2C
 Operation Mode: 802.11 ac_VHT80
 Transfer MCS Index: 0
 Operating Frequency 5530 MHz
 Channel No. 106 Ch

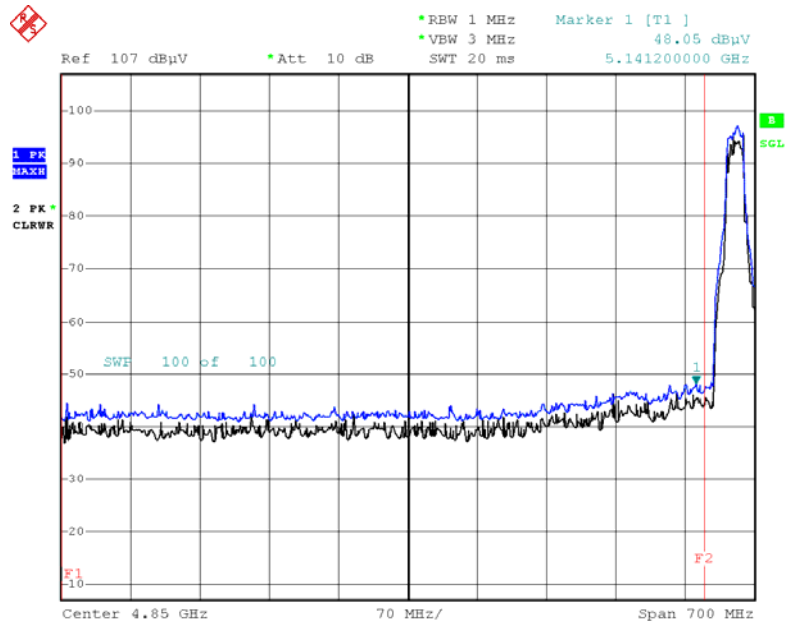
Frequency [MHz]	Reading dBuV	A.F+C.L-A.G+ATT+D.F [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
5460	47.35	12.89	H	60.24	73.98	13.74	PK
5460	35.22	12.89	H	48.11	53.98	5.87	AV
5470	47.86	13.00	H	60.86	68.20	7.34	PK
5460	46.48	12.89	V	59.37	73.98	14.61	PK
5460	35.10	12.89	V	47.99	53.98	5.99	AV
5470	46.33	13.00	V	59.33	68.20	8.87	PK

Test Plots(UNII 1, 2A, 2C)

Average Reading (802.11ac(VHT20), Ch.36, X-H)



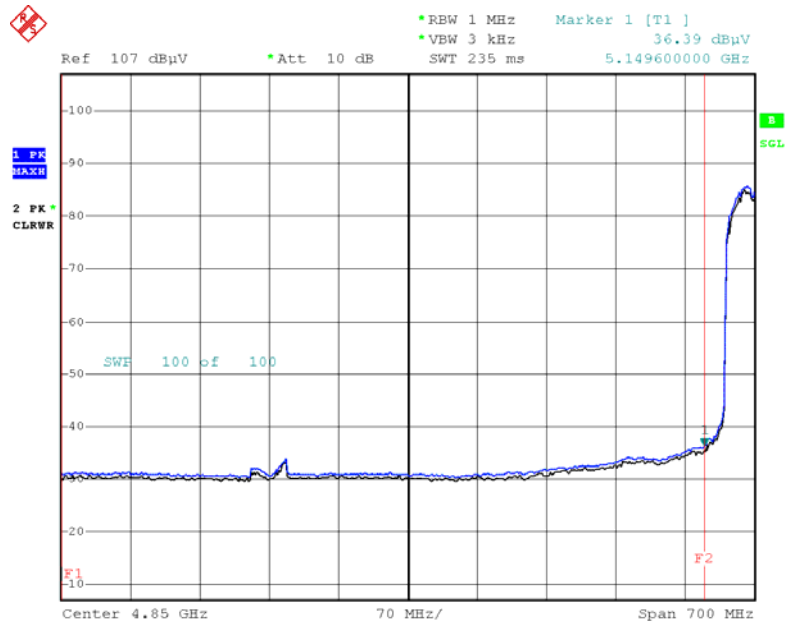
Peak Reading (802.11ac(VHT20), Ch.36, X-H)





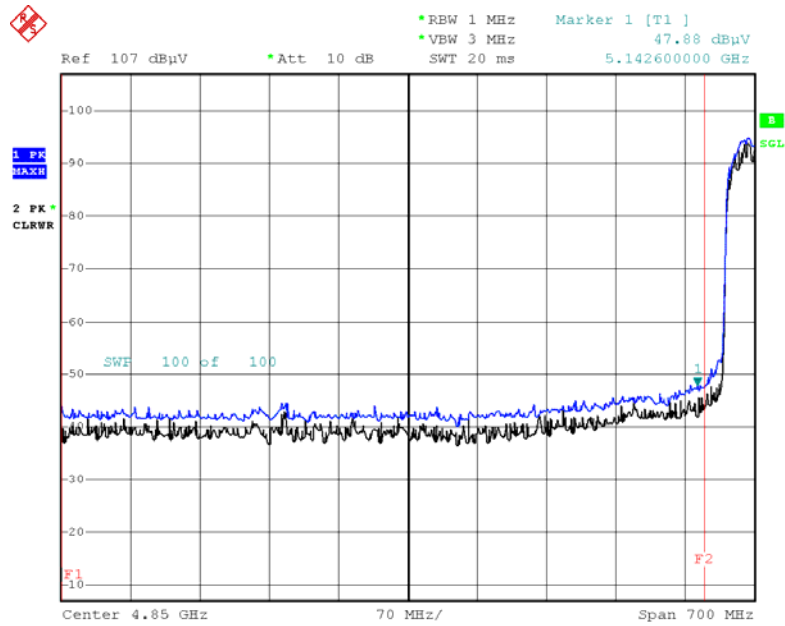
Report No. HCT-RF-2009-FI003-R1

Average Reading (802.11ac(VHT40), Ch.38, X-H)



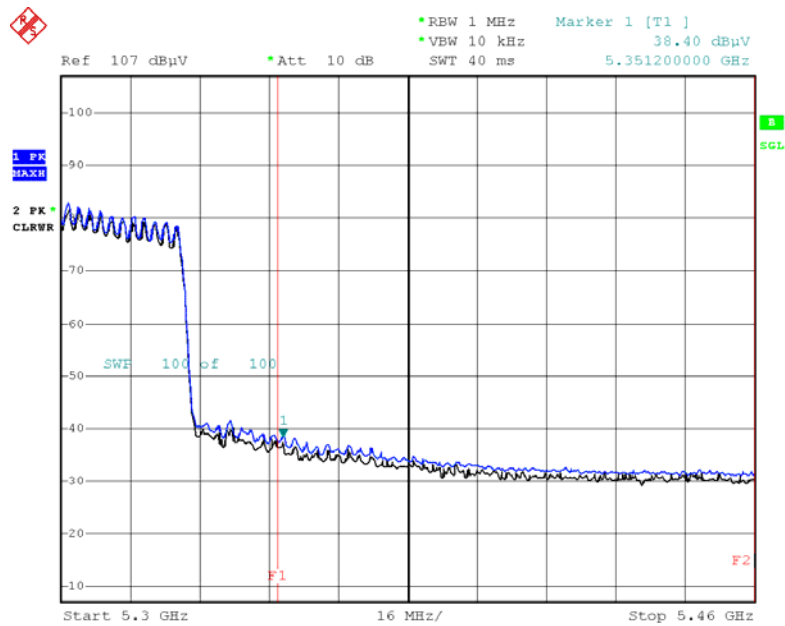
Date: 9.JUL.2020 11:21:28

Peak Reading (802.11ac(VHT40), Ch.38, X-H)



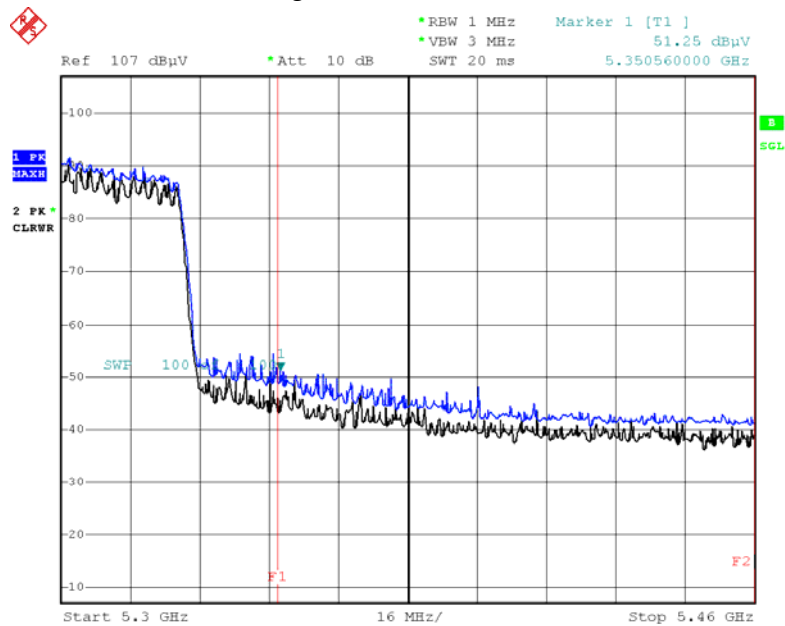
Date: 9.JUL.2020 11:21:55

Average Reading (802.11ac(VHT80), Ch.58, X-H)



Date: 9.JUL.2020 14:28:00

Peak Reading (802.11ac(VHT80), Ch.58, X-H)

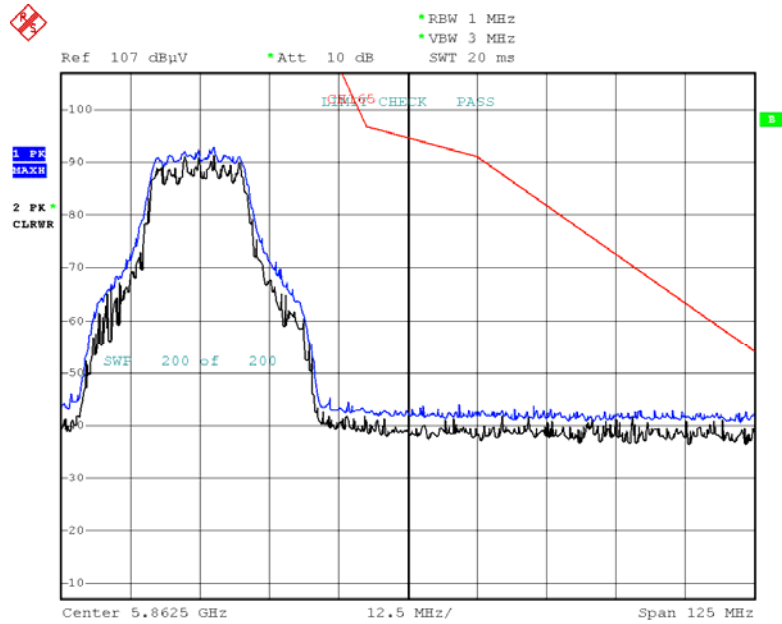


Date: 9.JUL.2020 14:28:12

Note:

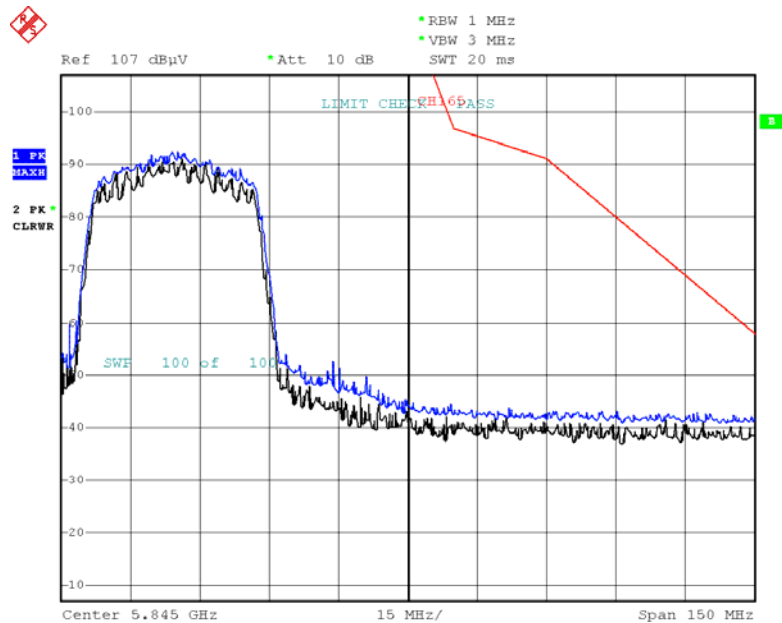
Only the worst case plots for Radiated Restricted Band Edge.

Peak Reading (802.11ac_VHT20, Ch.165)



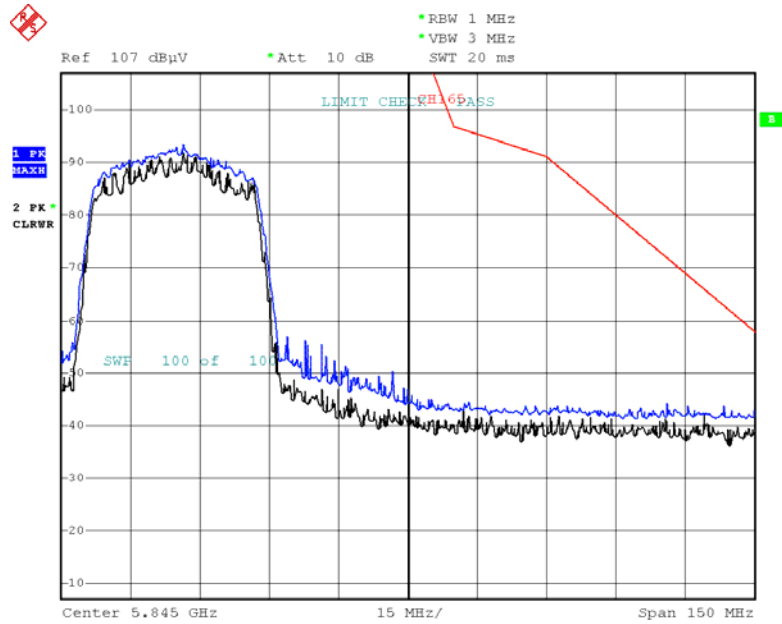
Date: 9.JUL.2020 07:29:39

Peak Reading (802.11n_HT40, Ch.159)



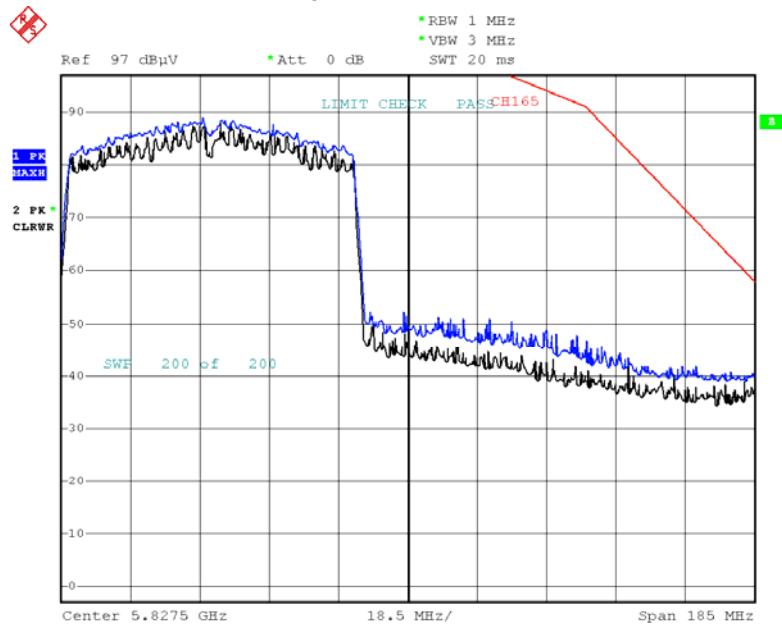
Date: 9.JUL.2020 12:03:04

Peak Reading (802.11ac_VHT40, Ch.159)



Date: 9.JUL.2020 12:04:33

Peak Reading (802.11ac_VHT80, Ch.155)



Date: 9.JUL.2020 14:03:22

10.8.2 FFC Cable Type

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	CL+AF+DF-AG [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
5150	49.54	12.48	H	62.02	73.98	11.96	PK
5150	36.46	12.48	H	48.94	53.98	5.04	AV
5150	49.01	12.48	V	61.49	73.98	12.49	PK
5150	35.75	12.48	V	48.23	53.98	5.75	AV

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	CL+AF+DF-AG [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
5150	49.19	12.48	H	61.67	73.98	12.31	PK
5150	37.55	12.48	H	50.03	53.98	3.95	AV
5150	48.55	12.48	V	61.03	73.98	12.95	PK
5150	37.03	12.48	V	49.51	53.98	4.47	AV



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	CL+AF+DF-AG [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
5150	48.90	12.48	H	61.38	73.98	12.60	PK
5150	38.35	12.48	H	50.83	53.98	3.15	AV
5150	48.16	12.48	V	60.64	73.98	13.34	PK
5150	37.72	12.48	V	50.20	53.98	3.78	AV

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

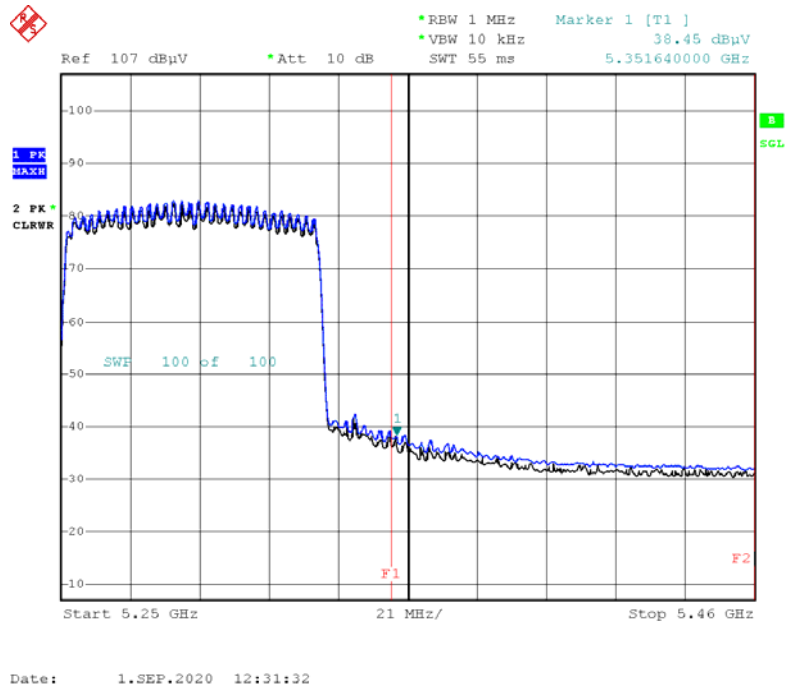
Frequency [MHz]	Reading dBuV	CL+AF+DF-AG [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Detect
5350	51.68	12.50	H	64.18	73.98	9.80	PK
5350	38.45	12.50	H	50.95	53.98	3.03	AV
5350	51.11	12.50	V	63.61	73.98	10.37	PK
5350	38.07	12.50	V	50.57	53.98	3.41	AV

Note:

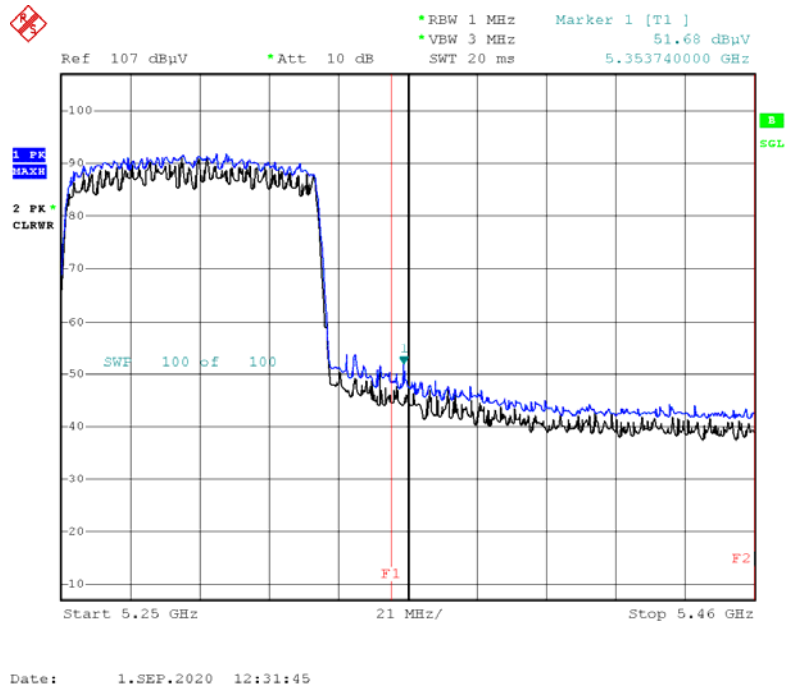
1. The worst case of the basic cable only was tested.

Test Plots

Average Reading (802.11ac(VHT80), Ch.58, X-H)



Peak Reading (802.11ac(VHT80), Ch.58, X-H)



Note:

Only the worst case plots for Radiated Restricted Band Edge.

10.9 RECEIVER SPURIOUS EMISSIONS

10.9.1 Basic Cable

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.

Frequency Range : Above 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							

10.9.2 FFC Cable

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.

Frequency Range : Above 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. The worst case of the basic cable only was tested.



10.10 POWERLINE CONDUCTED EMISSIONS

10.10.1 Basic Cable

Conducted Emissions (Line 1)

Test

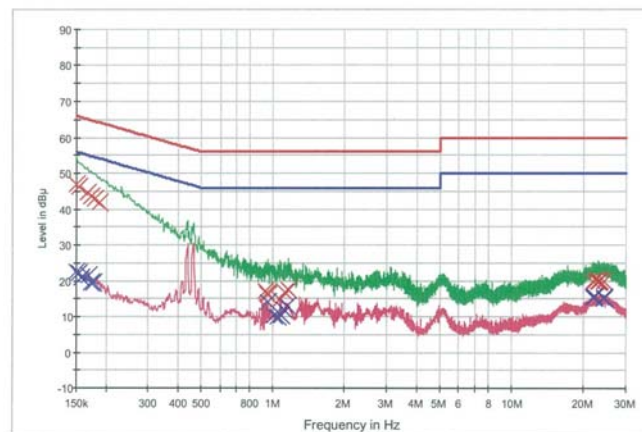
1 / 2

HCT TEST Report

Common Information

EUT: LGSBWAX12
Manufacturer: LG
Test Site: SHIELD ROOM
Operating Conditions: 5G_WLAN_N

FCC CLASS B



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

Final Result 1

Frequency (MHz)	QuasiPeak (dBuV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.150000	46.9	9.000	On	N	9.7	19.1	66.0
0.154000	46.4	9.000	On	N	9.7	19.4	65.8
0.166000	44.4	9.000	On	N	9.7	20.7	65.2
0.172000	43.6	9.000	On	N	9.7	21.3	64.9
0.178000	42.9	9.000	On	N	9.7	21.7	64.6
0.188000	41.7	9.000	On	N	9.7	22.4	64.1
0.928000	17.0	9.000	On	N	9.7	39.0	56.0
0.946000	16.3	9.000	On	N	9.7	39.7	56.0
0.954000	16.1	9.000	On	N	9.7	39.9	56.0
1.076000	14.6	9.000	On	N	9.7	41.4	56.0
1.122000	16.7	9.000	On	N	9.7	39.3	56.0
1.158000	17.5	9.000	On	N	9.7	38.5	56.0
21.956000	19.9	9.000	On	N	10.0	40.1	60.0
22.298000	20.2	9.000	On	N	10.0	39.8	60.0
22.810000	20.0	9.000	On	N	10.0	40.0	60.0
23.062000	19.7	9.000	On	N	10.0	40.3	60.0
23.240000	20.0	9.000	On	N	10.0	40.0	60.0
24.340000	19.8	9.000	On	N	10.0	40.2	60.0

2020-08-25

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Test

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Final Result 2

Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.150000	22.7	9.000	On	N	9.7	33.3	56.0
0.154000	22.4	9.000	On	N	9.7	33.4	55.8
0.158000	21.0	9.000	On	N	9.7	34.6	55.6
0.168000	21.7	9.000	On	N	9.7	33.4	55.1
0.172000	19.6	9.000	On	N	9.7	35.2	54.9
0.176000	19.5	9.000	On	N	9.7	35.2	54.7
0.948000	14.1	9.000	On	N	9.7	31.9	46.0
1.008000	10.4	9.000	On	N	9.7	35.6	46.0
1.042000	10.1	9.000	On	N	9.7	35.9	46.0
1.078000	10.3	9.000	On	N	9.7	35.7	46.0
1.112000	11.9	9.000	On	N	9.7	34.1	46.0
1.142000	12.9	9.000	On	N	9.7	33.1	46.0
21.834000	15.3	9.000	On	N	10.0	34.7	50.0
22.206000	15.6	9.000	On	N	10.0	34.4	50.0
22.224000	15.6	9.000	On	N	10.0	34.4	50.0
24.340000	15.1	9.000	On	N	10.0	34.9	50.0
24.402000	15.3	9.000	On	N	10.0	34.7	50.0
24.438000	15.4	9.000	On	N	10.0	34.6	50.0

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Conducted Emissions (Line 2)

Test

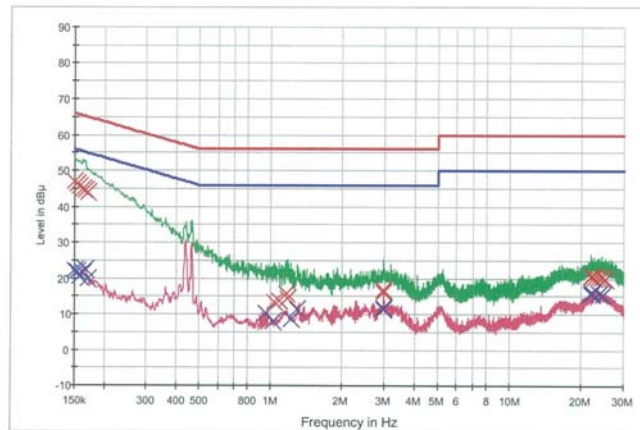
1 / 2

HCT TEST Report

Common Information

EUT: LGSBWAX12
Manufacturer: LG
Test Site: SHIELD ROOM
Operating Conditions: 5G_WLAN_L1

FCC CLASS B



— 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)
0.150000	47.0	9.000	On	L1	9.7	19.0	66.0
0.154000	46.4	9.000	On	L1	9.7	19.4	65.8
0.158000	45.7	9.000	On	L1	9.7	19.9	65.6
0.162000	45.0	9.000	On	L1	9.7	20.4	65.4
0.166000	44.5	9.000	On	L1	9.7	20.6	65.2
0.170000	43.9	9.000	On	L1	9.7	21.0	65.0
1.028000	13.3	9.000	On	L1	9.7	42.7	56.0
1.088000	13.6	9.000	On	L1	9.7	42.4	56.0
1.156000	15.7	9.000	On	L1	9.7	40.3	56.0
1.182000	14.4	9.000	On	L1	9.7	41.6	56.0
2.948000	16.8	9.000	On	L1	9.8	39.2	56.0
2.958000	16.2	9.000	On	L1	9.8	39.8	56.0
21.906000	20.4	9.000	On	L1	10.0	39.6	60.0
22.214000	20.6	9.000	On	L1	10.0	39.4	60.0
22.704000	20.2	9.000	On	L1	10.0	39.8	60.0
23.550000	20.2	9.000	On	L1	10.0	39.8	60.0
24.292000	20.0	9.000	On	L1	10.0	40.0	60.0
25.268000	19.7	9.000	On	L1	10.0	40.3	60.0

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Report No. HCT-RF-2009-FI003-R1

Test

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Final Result 2

Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.150000	22.2	9.000	On	L1	9.7	33.8	56.0
0.154000	21.9	9.000	On	L1	9.7	33.9	55.8
0.158000	20.6	9.000	On	L1	9.7	34.9	55.6
0.162000	21.7	9.000	On	L1	9.7	33.7	55.4
0.166000	22.6	9.000	On	L1	9.7	32.5	55.2
0.170000	19.8	9.000	On	L1	9.7	35.1	55.0
0.950000	10.4	9.000	On	L1	9.7	35.6	46.0
1.020000	8.0	9.000	On	L1	9.7	38.0	46.0
1.214000	8.7	9.000	On	L1	9.7	37.3	46.0
1.296000	11.2	9.000	On	L1	9.8	34.8	46.0
2.950000	11.6	9.000	On	L1	9.8	34.4	46.0
2.956000	11.3	9.000	On	L1	9.8	34.7	46.0
21.906000	15.6	9.000	On	L1	10.0	34.4	50.0
22.214000	15.9	9.000	On	L1	10.0	34.1	50.0
22.246000	16.0	9.000	On	L1	10.0	34.0	50.0
22.252000	15.9	9.000	On	L1	10.0	34.1	50.0
23.630000	15.9	9.000	On	L1	10.0	34.1	50.0
24.584000	15.3	9.000	On	L1	10.0	34.7	50.0

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10.10.2 FFC Cable

Conducted Emissions (Line 1)

Test

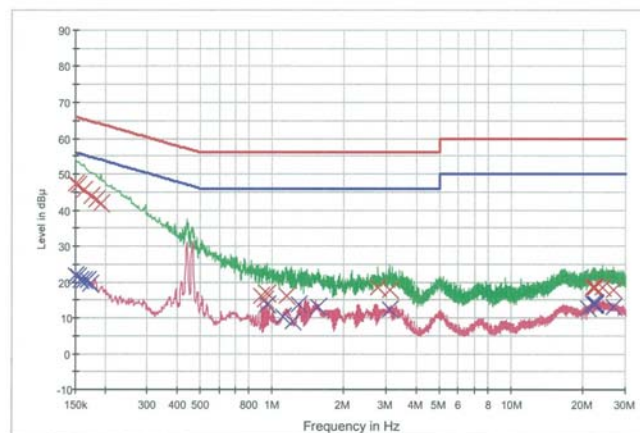
1 / 2

HCT TEST Report

Common Information

EUT: LGSBWAX12
Manufacturer: LG
Test Site: SHIELD ROOM
Operating Conditions: WLAN_5G_N

FCC CLASS B



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

Final Result 1

Frequency (MHz)	QuasiPeak (dBuV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.150000	47.4	9.000	On	N	9.7	18.6	66.0
0.154000	46.9	9.000	On	N	9.7	18.9	65.8
0.162000	45.5	9.000	On	N	9.7	19.9	65.4
0.174000	43.8	9.000	On	N	9.7	21.0	64.8
0.182000	42.8	9.000	On	N	9.7	21.6	64.4
0.192000	41.8	9.000	On	N	9.7	22.2	63.9
0.900000	16.1	9.000	On	N	9.7	39.9	56.0
0.930000	15.0	9.000	On	N	9.7	41.0	56.0
0.948000	16.7	9.000	On	N	9.7	39.3	56.0
1.142000	16.0	9.000	On	N	9.7	40.0	56.0
2.756000	18.5	9.000	On	N	9.8	37.5	56.0
3.106000	17.7	9.000	On	N	9.8	38.3	56.0
21.962000	18.5	9.000	On	N	10.1	41.5	60.0
22.090000	18.4	9.000	On	N	10.1	41.6	60.0
22.472000	18.4	9.000	On	N	10.1	41.6	60.0
23.922000	18.5	9.000	On	N	10.1	41.5	60.0
26.616000	17.7	9.000	On	N	10.1	42.3	60.0
26.652000	17.9	9.000	On	N	10.1	42.1	60.0

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Test

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Final Result 2

Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.150000	21.8	9.000	On	N	9.7	34.2	56.0
0.154000	21.6	9.000	On	N	9.7	34.2	55.8
0.158000	20.4	9.000	On	N	9.7	35.1	55.6
0.162000	20.4	9.000	On	N	9.7	35.0	55.4
0.168000	20.6	9.000	On	N	9.7	34.4	55.1
0.172000	19.5	9.000	On	N	9.7	35.3	54.9
0.948000	13.7	9.000	On	N	9.7	32.3	46.0
1.104000	10.4	9.000	On	N	9.7	35.6	46.0
1.212000	8.9	9.000	On	N	9.7	37.1	46.0
1.292000	13.9	9.000	On	N	9.7	32.1	46.0
1.554000	13.1	9.000	On	N	9.8	32.9	46.0
3.112000	12.2	9.000	On	N	9.8	33.8	46.0
20.778000	12.6	9.000	On	N	10.1	37.4	50.0
21.982000	14.0	9.000	On	N	10.1	36.0	50.0
22.090000	13.9	9.000	On	N	10.1	36.1	50.0
22.472000	14.0	9.000	On	N	10.1	36.0	50.0
22.504000	13.9	9.000	On	N	10.1	36.1	50.0
26.652000	13.2	9.000	On	N	10.1	36.8	50.0

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Conducted Emissions (Line 2)

Test

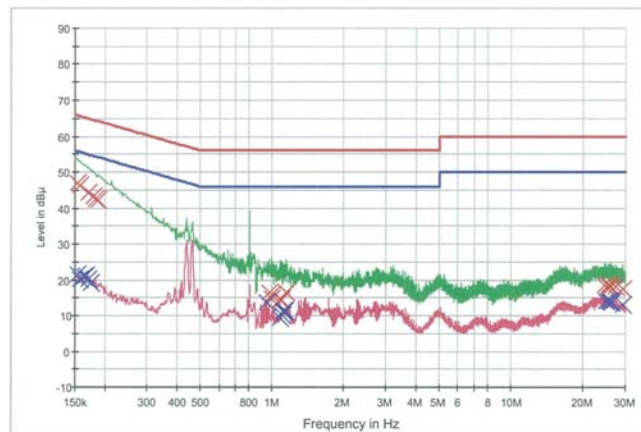
1 / 2

HCT TEST Report

Common Information

EUT: LGSBWAX12
Manufacturer: LG
Test Site: SHIELD ROOM
Operating Conditions: WLAN_5G_L1

FCC CLASS B



— FCC CLASS B_QP — 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)
0.154000	46.9	9.000	On	L1	9.8	18.9	65.8
0.158000	46.2	9.000	On	L1	9.8	19.4	65.6
0.170000	44.3	9.000	On	L1	9.8	20.7	65.0
0.178000	43.3	9.000	On	L1	9.8	21.3	64.6
0.184000	42.6	9.000	On	L1	9.8	21.7	64.3
0.188000	42.1	9.000	On	L1	9.8	22.0	64.1
0.970000	16.4	9.000	On	L1	9.8	39.6	56.0
0.996000	15.7	9.000	On	L1	9.8	40.3	56.0
1.000000	14.9	9.000	On	L1	9.8	41.1	56.0
1.086000	14.3	9.000	On	L1	9.8	41.7	56.0
1.092000	14.5	9.000	On	L1	9.8	41.5	56.0
1.146000	16.3	9.000	On	L1	9.8	39.7	56.0
24.720000	18.6	9.000	On	L1	10.1	41.4	60.0
25.478000	18.5	9.000	On	L1	10.1	41.5	60.0
25.824000	18.3	9.000	On	L1	10.1	41.7	60.0
26.106000	18.1	9.000	On	L1	10.1	41.9	60.0
27.434000	18.3	9.000	On	L1	10.1	41.8	60.0
29.204000	17.6	9.000	On	L1	10.2	42.4	60.0

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Test

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Final Result 2

Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.154000	21.7	9.000	On	L1	9.8	34.1	55.8
0.158000	20.3	9.000	On	L1	9.8	35.2	55.6
0.162000	20.7	9.000	On	L1	9.8	34.7	55.4
0.166000	21.2	9.000	On	L1	9.8	34.0	55.2
0.170000	20.3	9.000	On	L1	9.8	34.7	55.0
0.174000	19.3	9.000	On	L1	9.8	35.4	54.8
0.948000	13.6	9.000	On	L1	9.8	32.4	46.0
1.086000	9.4	9.000	On	L1	9.8	36.6	46.0
1.104000	10.2	9.000	On	L1	9.8	35.8	46.0
1.122000	11.1	9.000	On	L1	9.8	34.9	46.0
1.126000	11.5	9.000	On	L1	9.8	34.5	46.0
1.132000	11.3	9.000	On	L1	9.8	34.7	46.0
24.948000	14.1	9.000	On	L1	10.1	35.9	50.0
25.478000	13.9	9.000	On	L1	10.1	36.1	50.0
25.824000	13.9	9.000	On	L1	10.1	36.1	50.0
26.106000	13.7	9.000	On	L1	10.1	36.3	50.0
26.428000	13.7	9.000	On	L1	10.1	36.3	50.0
29.204000	12.9	9.000	On	L1	10.2	37.1	50.0

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11. LIST OF TEST EQUIPMENT

Conducted Test

Manufacturer	Model / Equipment	Calibration Date	Calibration Interval	Serial No.
Rohde & Schwarz	ENV216 / LISN	09/11/2019	Annual	102245
Rohde & Schwarz	ESCI / Test Receiver	06/05/2020	Annual	100033
ESPA	SU-642 / Temperature Chamber	03/18/2020	Annual	0093008124
Agilent	N9020A / Signal Analyzer	05/11/2020	Annual	MY51110085
Agilent	N9030A / Signal Analyzer	05/06/2020	Annual	MY53310623
Agilent	N1911A / Power Meter	04/07/2020	Annual	MY45101406
Agilent	N1921A / Power Sensor	03/23/2020	Annual	MY55220026
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
Weinschel	2-20 / Attenuator(20 dB)	10/08/2019	Annual	BR0592
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
Rohde & Schwarz	CBT / Bluetooth Tester	05/12/2020	Annual	100422

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
Emco	2090 / Controller	N/A	N/A	060520
Ets	Turn Table	N/A	N/A	N/A
Rohde & Schwarz	Loop Antenna	05/18/2020	Biennial	1513-175
Schwarzbeck	VULB 9160 / Hybrid Antenna	08/19/2020	Biennial	9160-3368
Schwarzbeck	VULB 9168 / Hybrid Antenna	08/31/2018	Biennial	9168-895
Schwarzbeck	BBHA 9120D / Horn Antenna	11/18/2019	Biennial	9120D-1191
Schwarzbeck	BBHA9170 / Horn Antenna(15 GHz ~ 40 GHz)	11/29/2019	Biennial	BBHA9170541
Rohde & Schwarz	FSP(9 kHz ~ 30 GHz) / Spectrum Analyzer	09/11/2019	Annual	836650/016
Rohde & Schwarz	FSV40-N / Spectrum Analyzer	09/26/2019	Annual	101068-SZ
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
CERNEX WEINSCHTEL	CBLU1183540B-01/Broadband Bench Top LNA 56-10 / Attenuator(10 dB)	12/24/2019	Annual	N/A
CERNEX Api tech.	CBL06185030 / Broadband Low Noise Amplifier 18B-03 / Attenuator (3 dB)	12/24/2019	Annual	N/A
Wainwright Instruments	WHKX10-2700-3000-18000-40SS / High Pass Filter	12/24/2019	Annual	N/A
Wainwright Instruments	WHKX8-6090-7000-18000-40SS / High Pass Filter	12/24/2019	Annual	N/A
T&M SYSTEM	COAXIAL ATTENUATOR / Thru	12/24/2019	Annual	N/A
CERNEX	CBL18265035 / Power Amplifier	12/26/2019	Annual	22966
CERNEX	CBL26405040 / Power Amplifier	03/23/2020	Annual	25956
TESCOM	TC-3000C / Bluetooth Tester	03/18/2020	Annual	3000C000276

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-2009-FI003-P