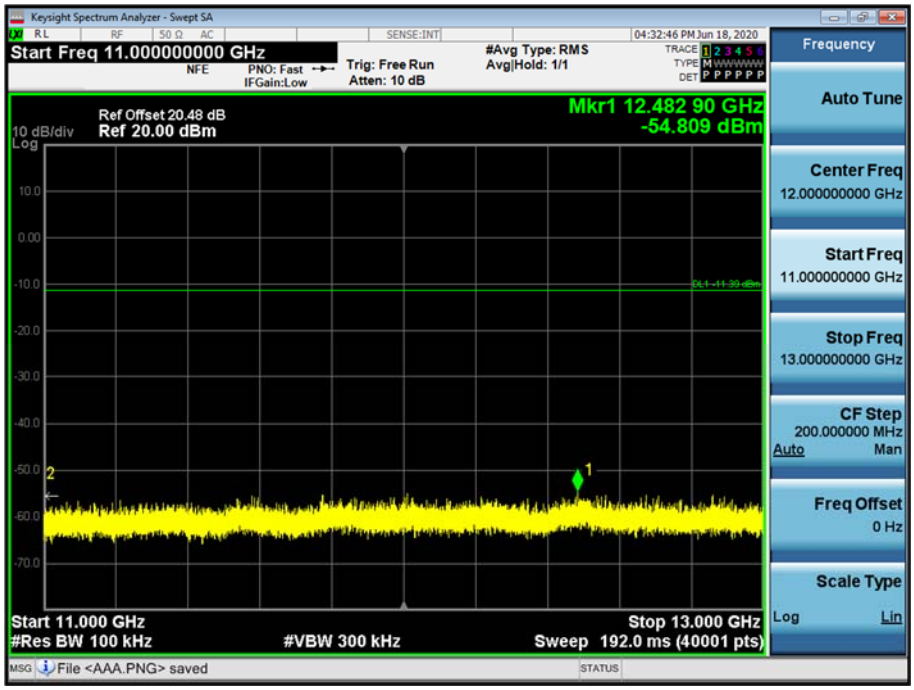
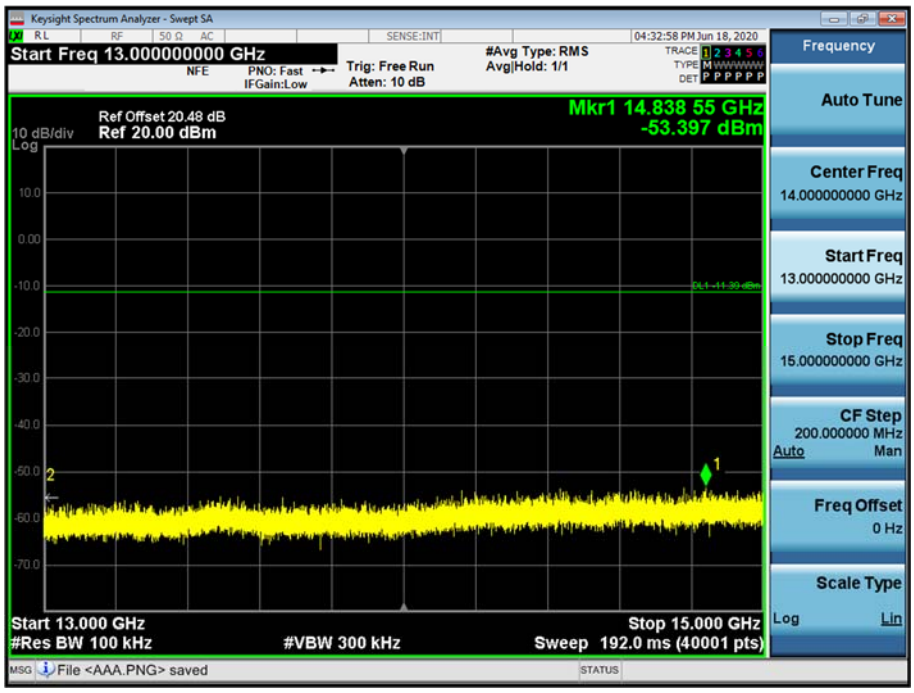
11 GHz ~ 13 GHz

Conducted Spurious Emission (802.11b_Ch.1_11 Mbps)



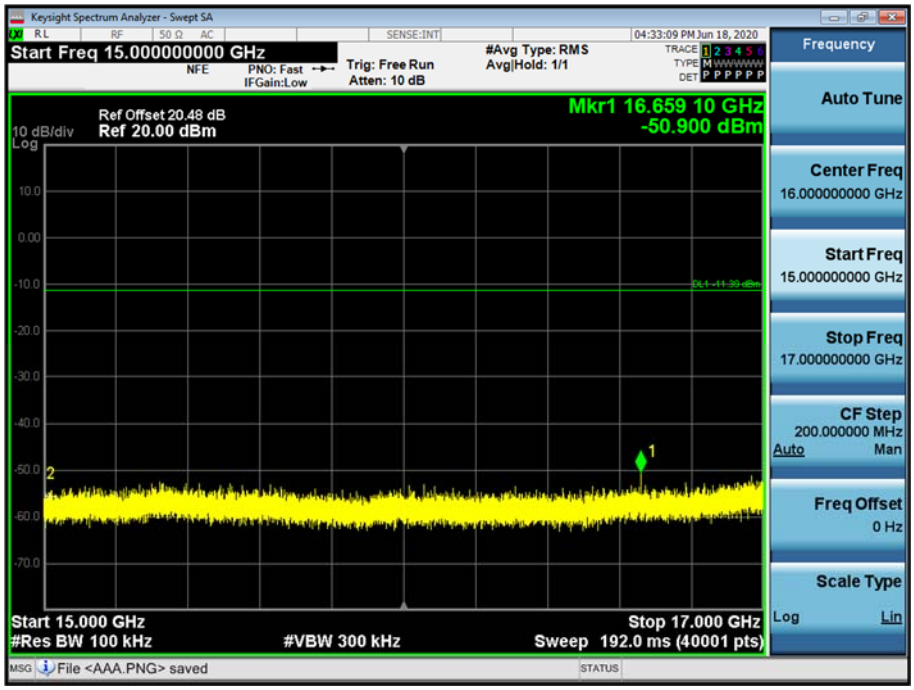
13 GHz ~ 15 GHz

Conducted Spurious Emission (802.11b_Ch.1_11 Mbps)



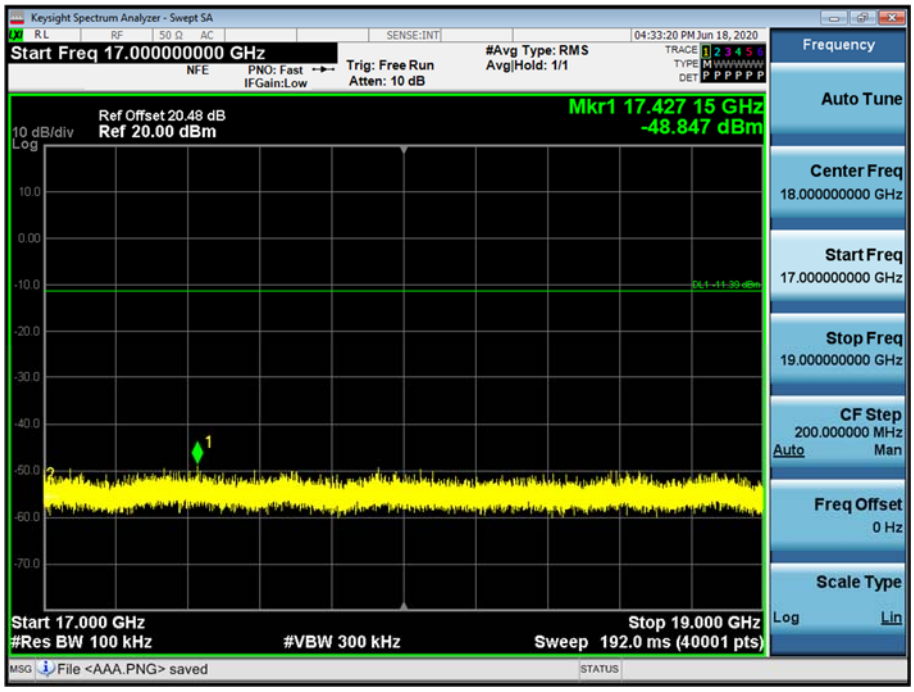
15 GHz ~ 17 GHz

Conducted Spurious Emission (802.11b_Ch.1_11 Mbps)



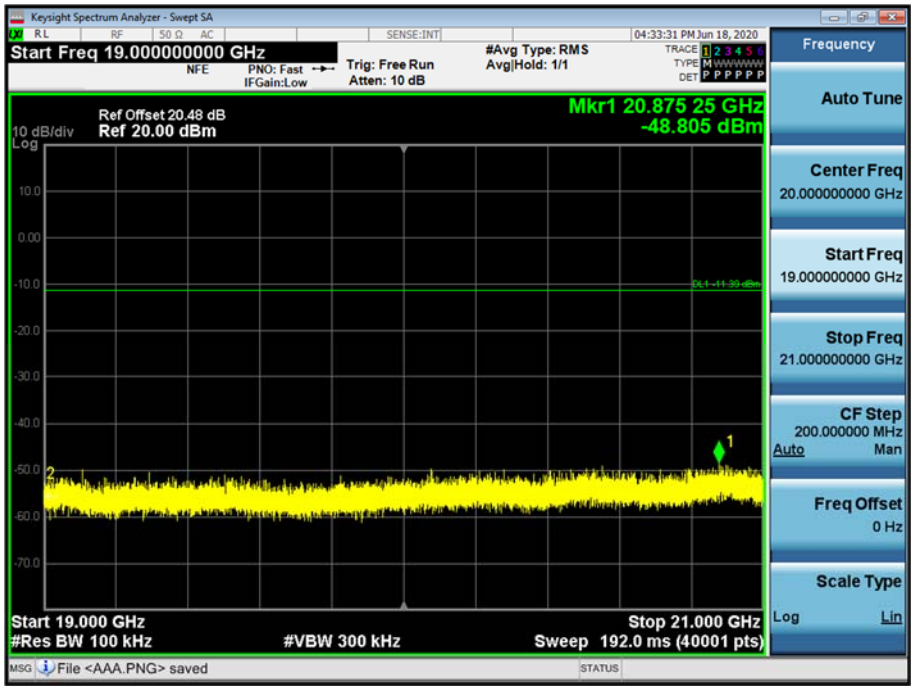
17 GHz ~ 19 GHz

Conducted Spurious Emission (802.11b_Ch.1_11 Mbps)



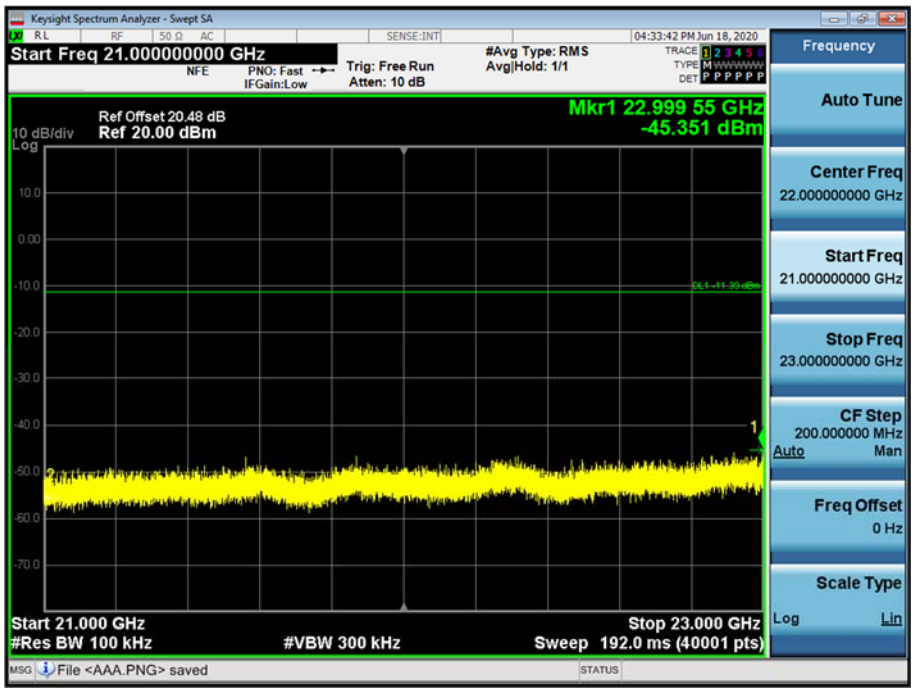
19 GHz ~ 21 GHz

Conducted Spurious Emission (802.11b_Ch.1_11 Mbps)



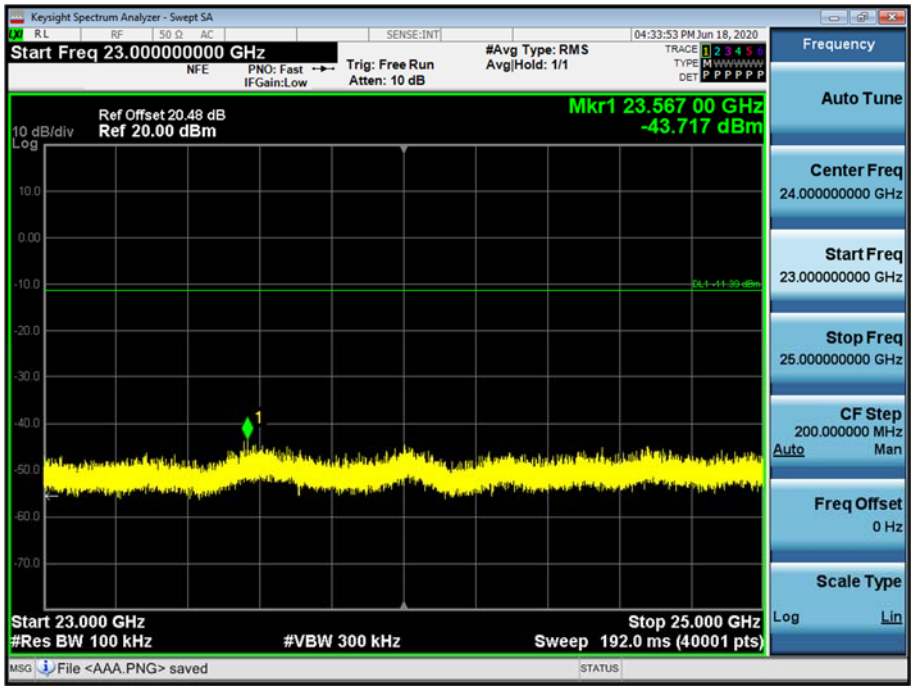
21 GHz ~ 23 GHz

Conducted Spurious Emission (802.11b_Ch.1_11 Mbps)



23 GHz ~ 25 GHz

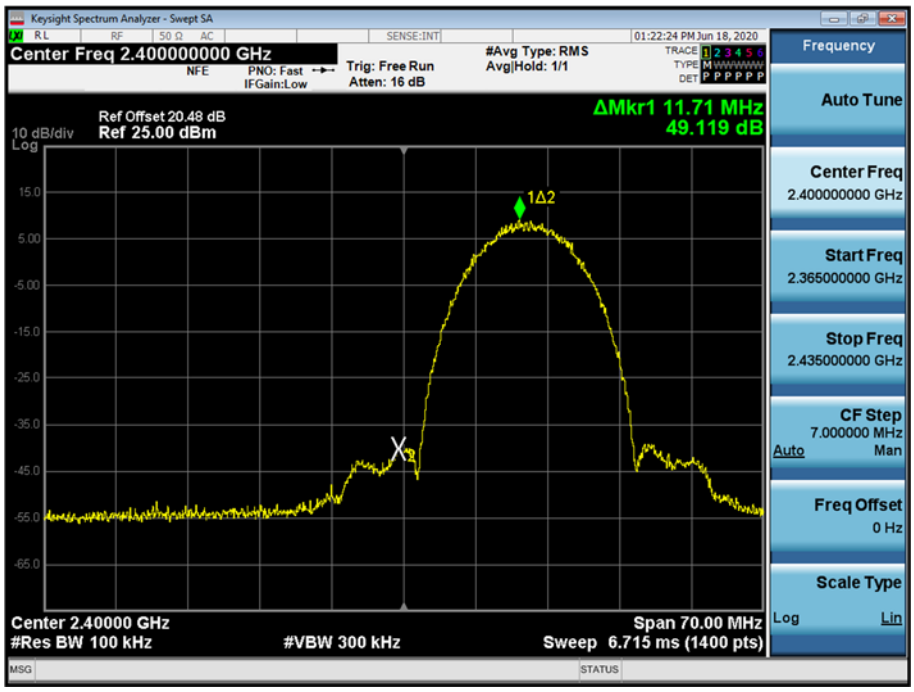
Conducted Spurious Emission (802.11b_Ch.1_11 Mbps)



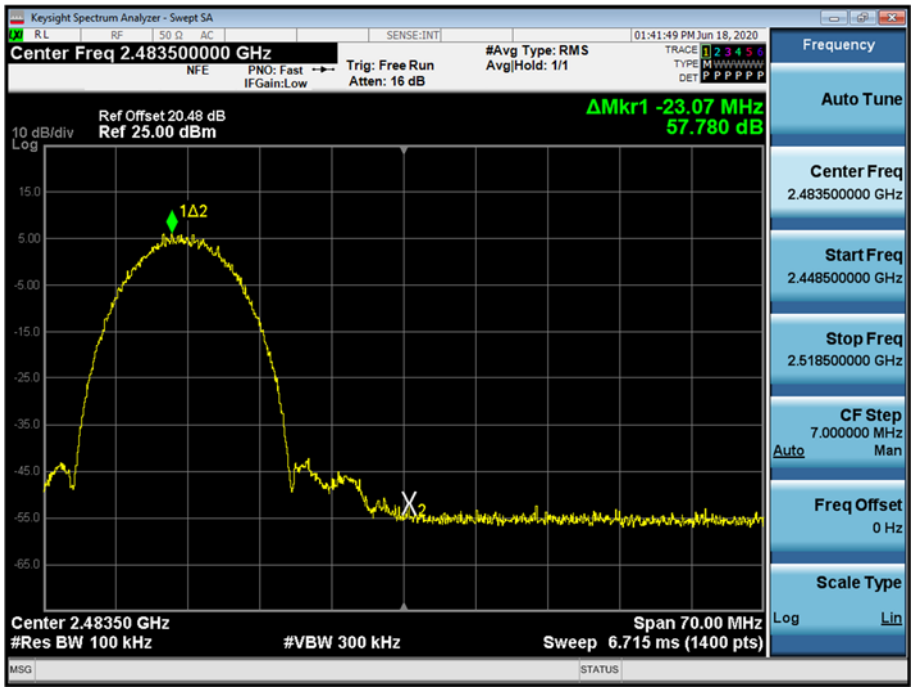
[ANT2]

▣ Test Plots(BandEdge)

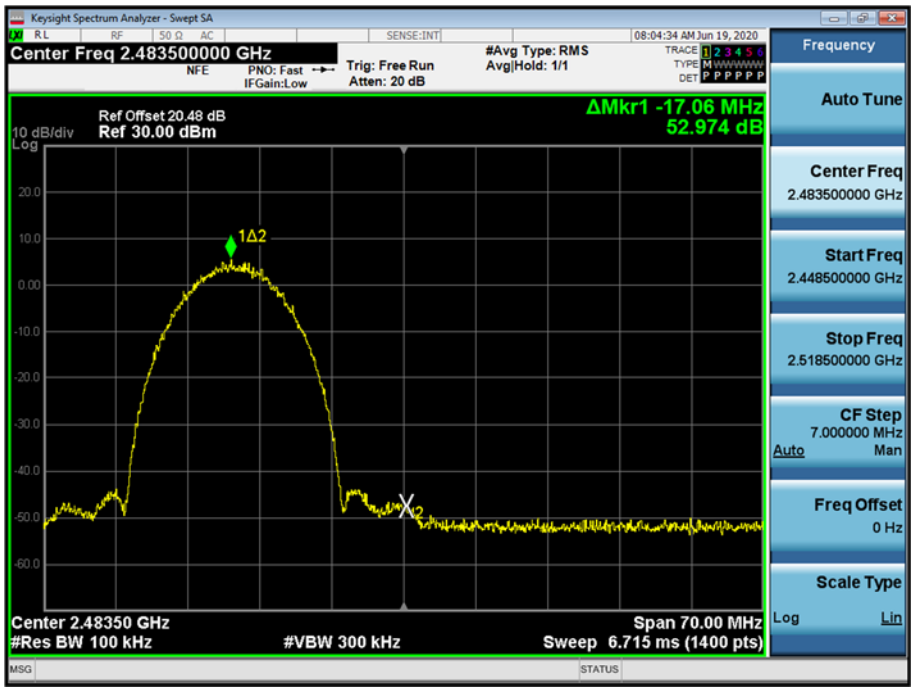
Band Edge (802.11b-CH1)



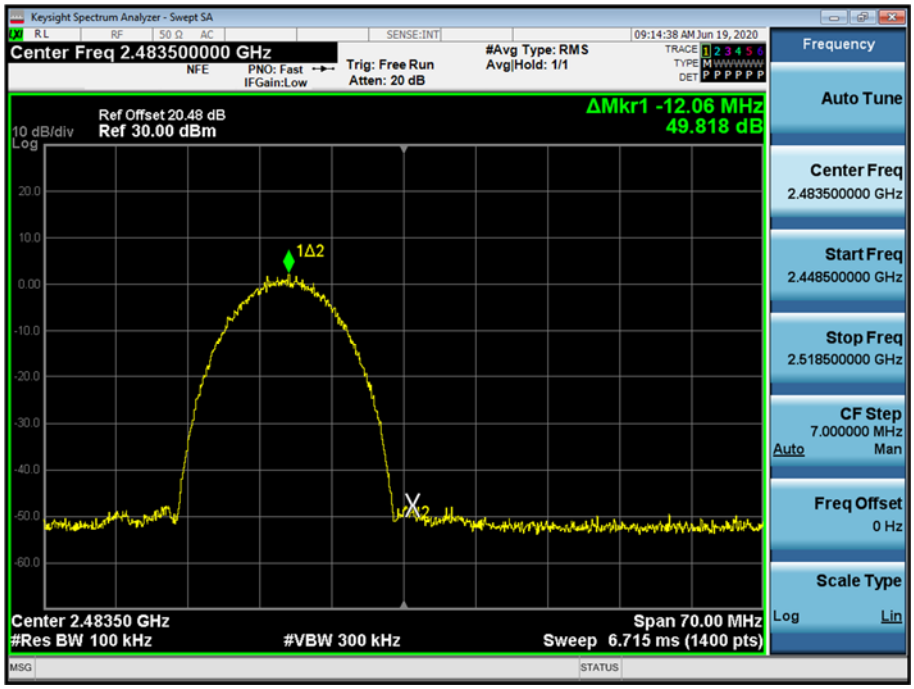
Band Edge (802.11b-CH11)



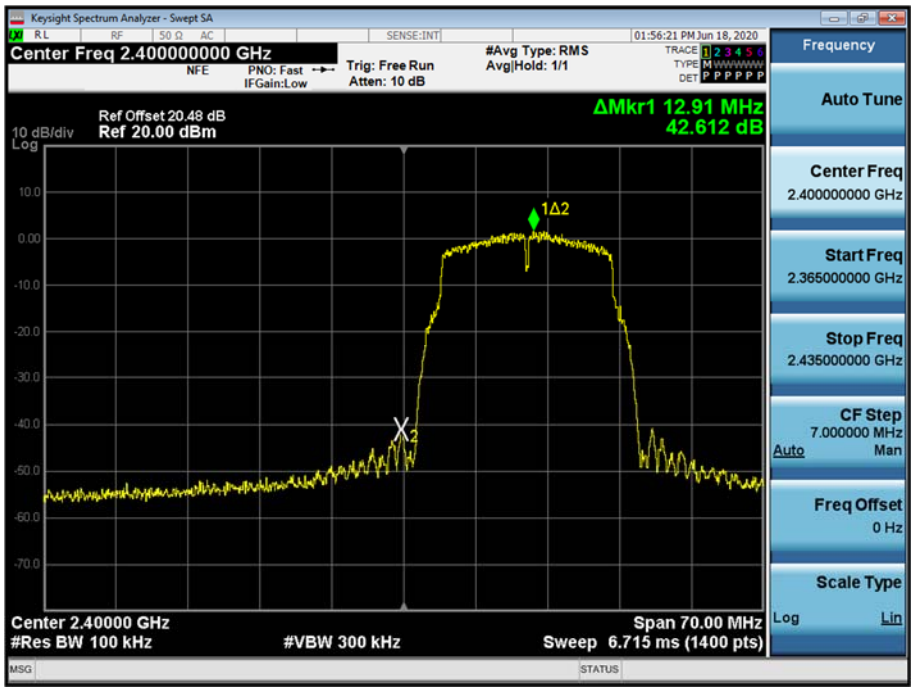
Band Edge (802.11b-CH12)



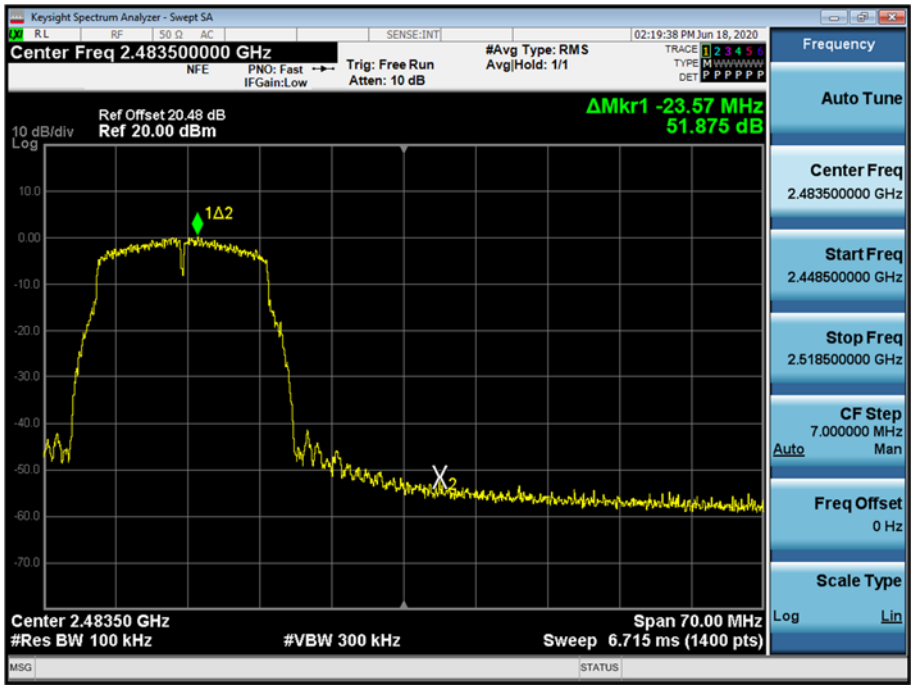
Band Edge (802.11b-CH13)



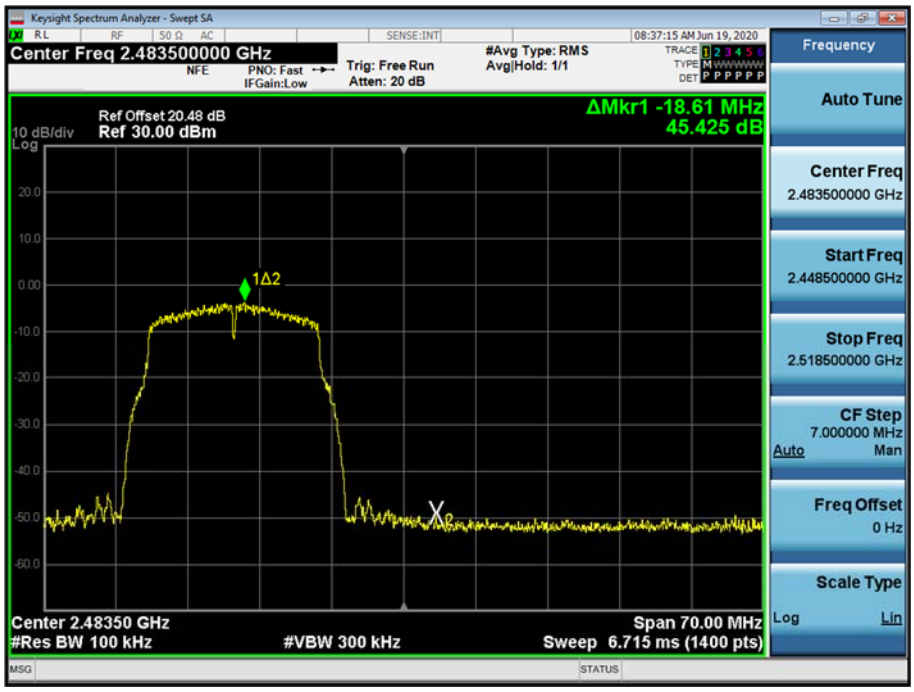
Band Edge (802.11g-CH1)



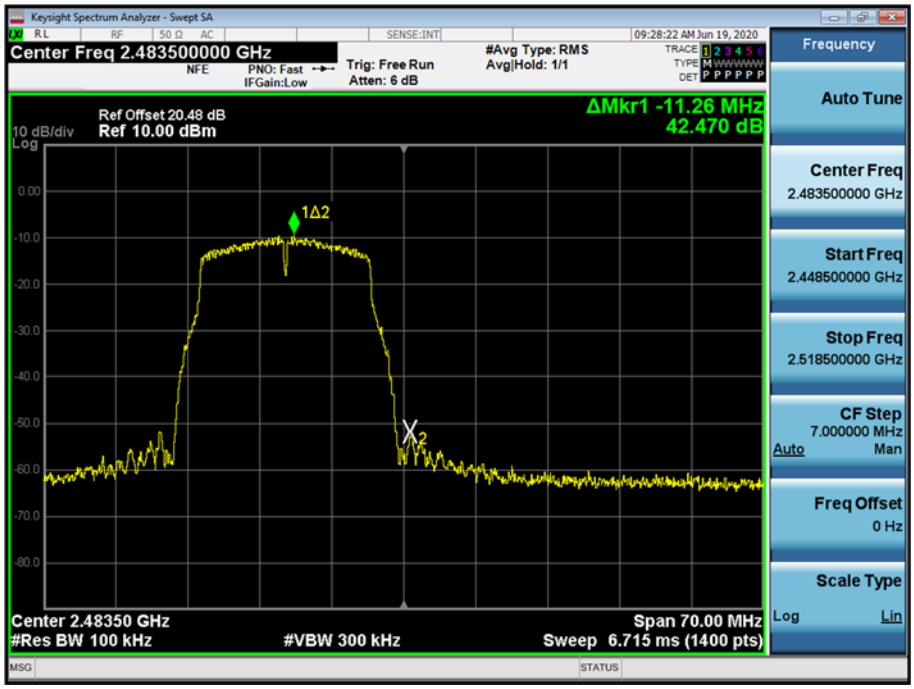
Band Edge (802.11g-CH11)



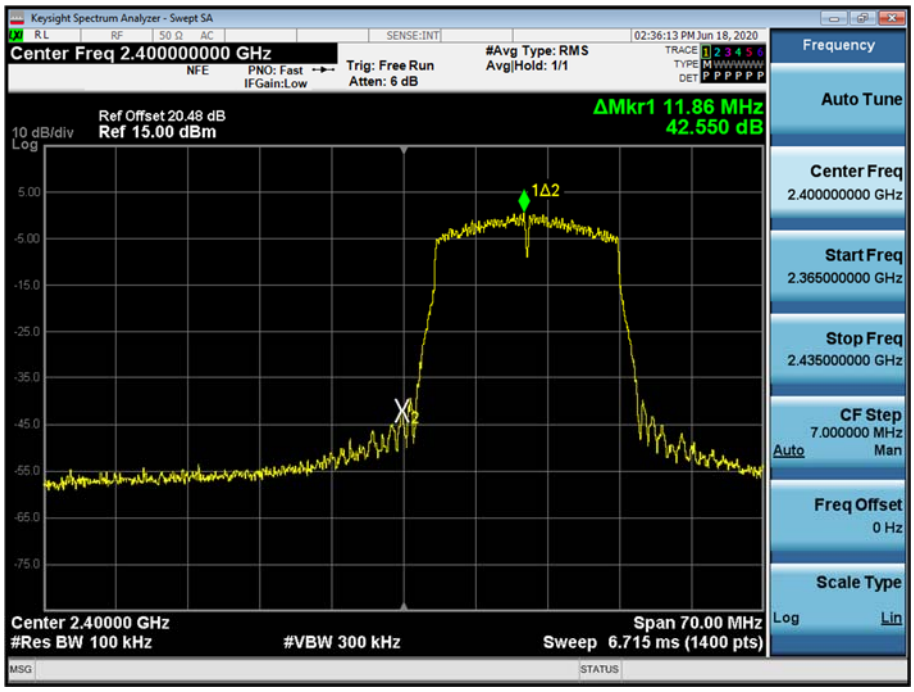
Band Edge (802.11g-CH12)



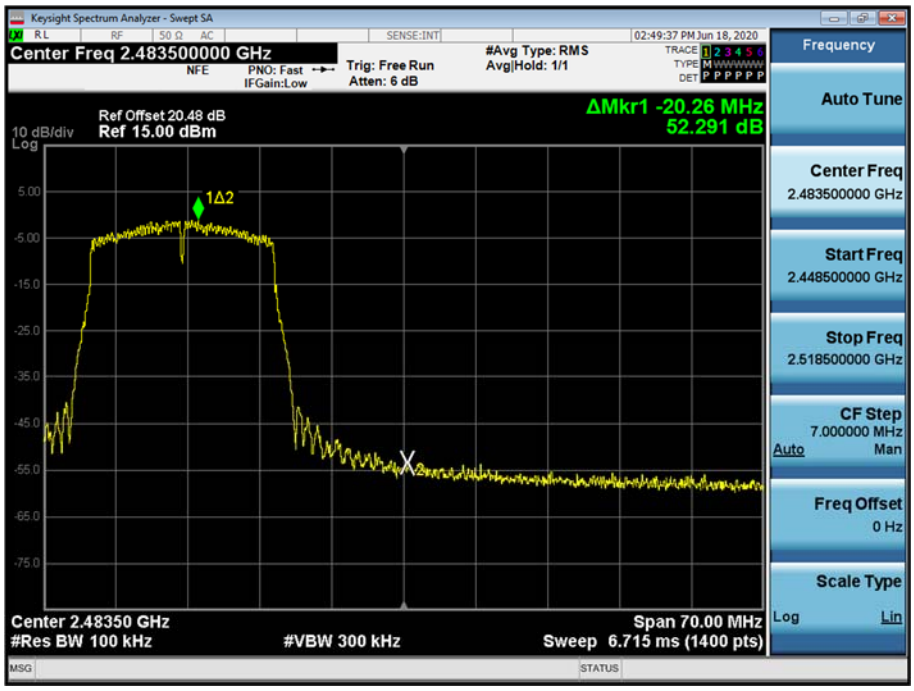
Band Edge (802.11g-CH13)



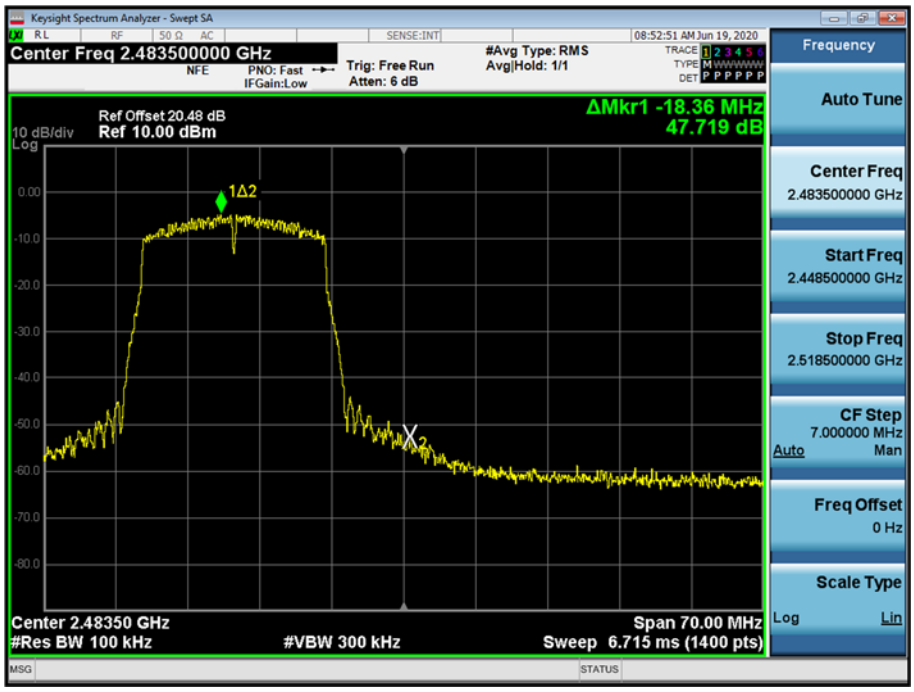
Band Edge (802.11n_HT20 -CH1)



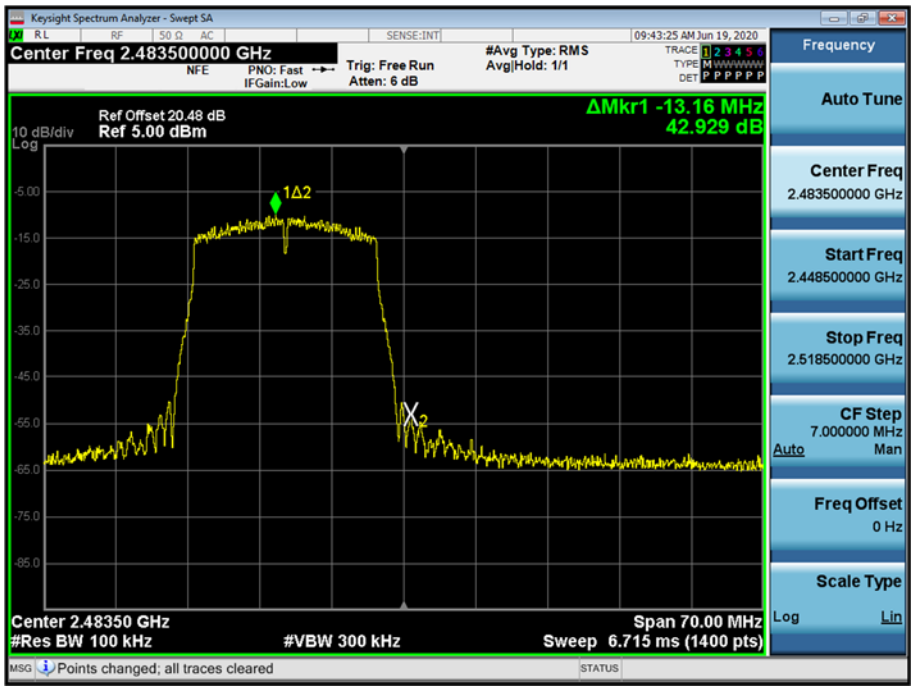
Band Edge (802.11n_HT20 -CH11)



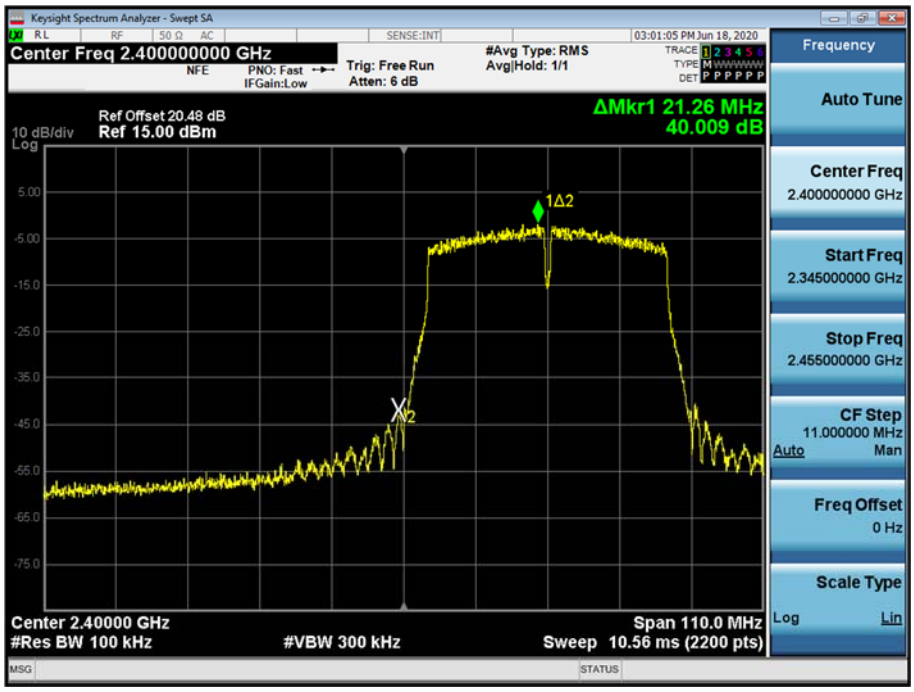
Band Edge (802.11n_HT20 -CH12)



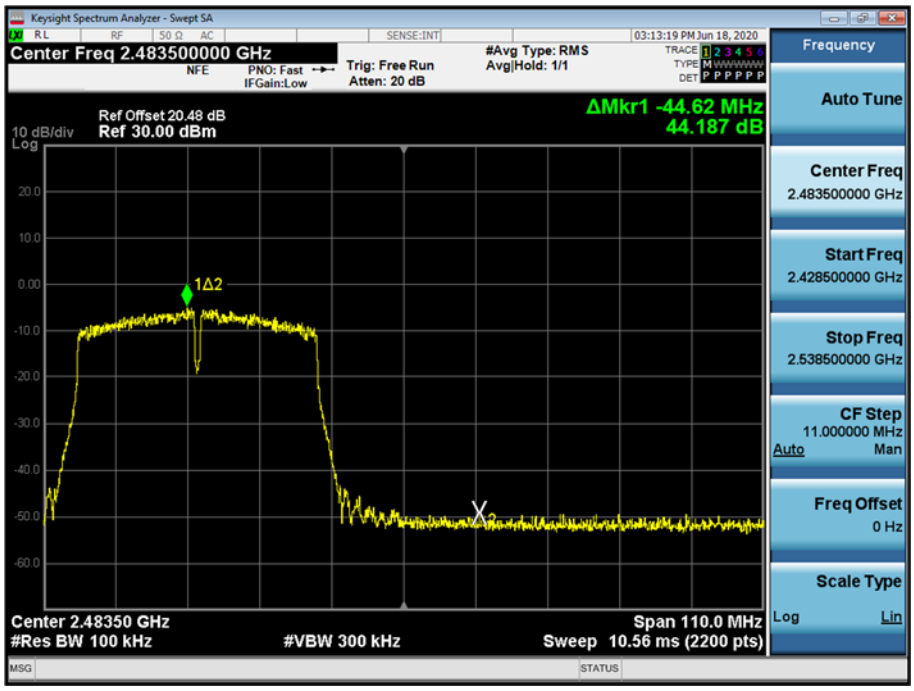
Band Edge (802.11n_HT20 -CH13)



Band Edge (802.11n_HT40 -CH3)



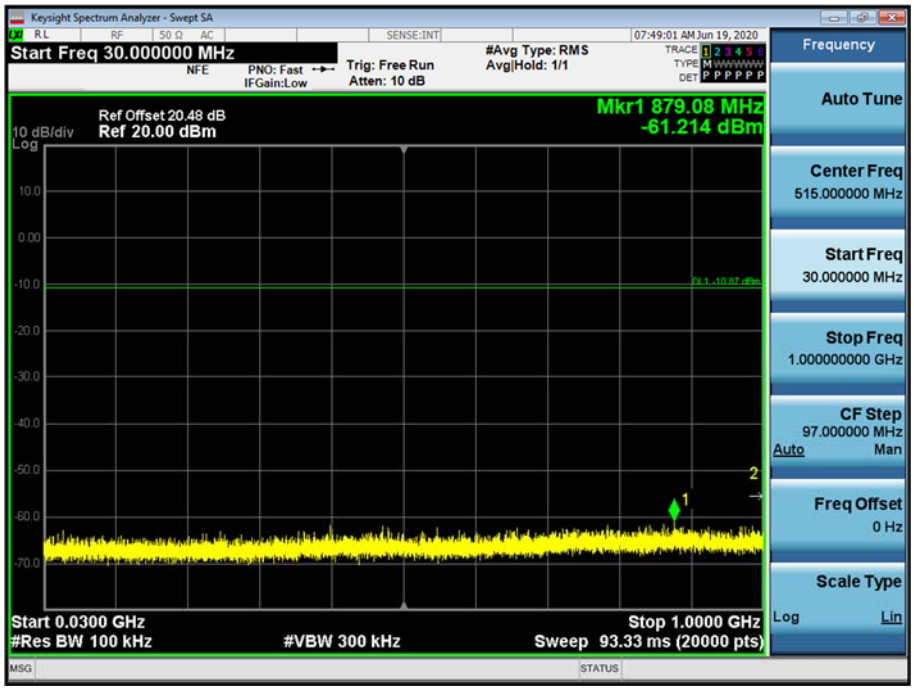
Band Edge (802.11n_HT40 –CH9)



▣ Test Plots(Conducted Spurious Emission)

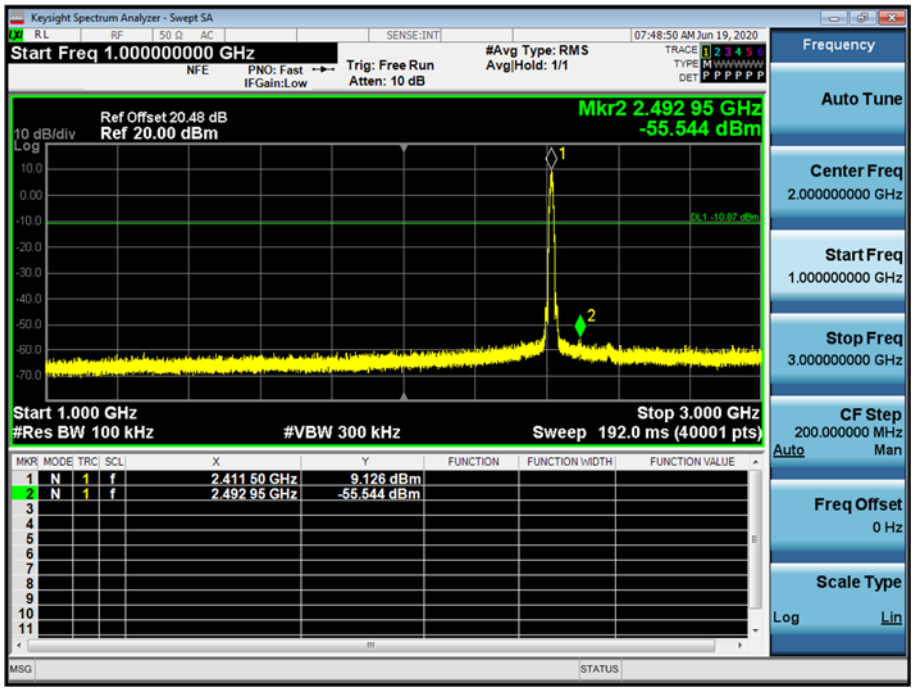
30 MHz ~ 1 GHz

Conducted Spurious Emission (802.11b_Ch.1_11 Mbps)



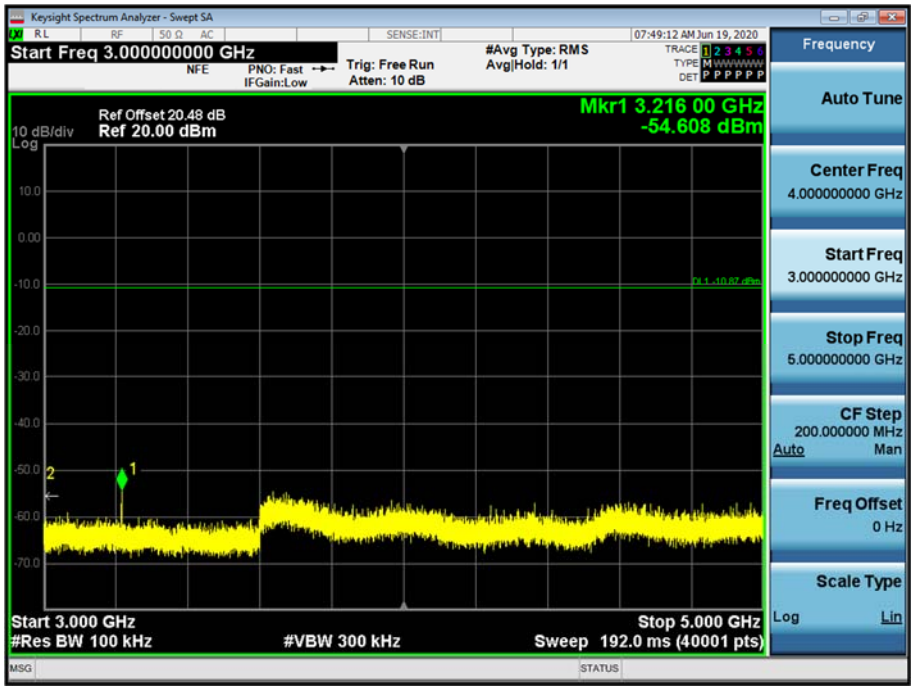
1 GHz ~ 3 GHz

Conducted Spurious Emission (802.11b_Ch.1_11 Mbps)



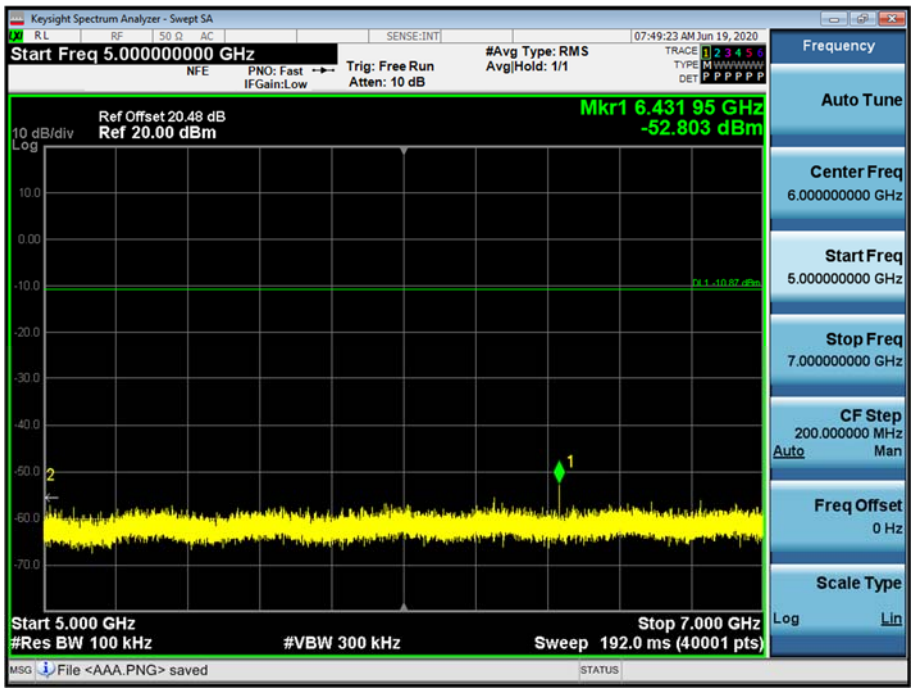
3 GHz ~ 5 GHz

Conducted Spurious Emission (802.11b_Ch.1_11 Mbps)



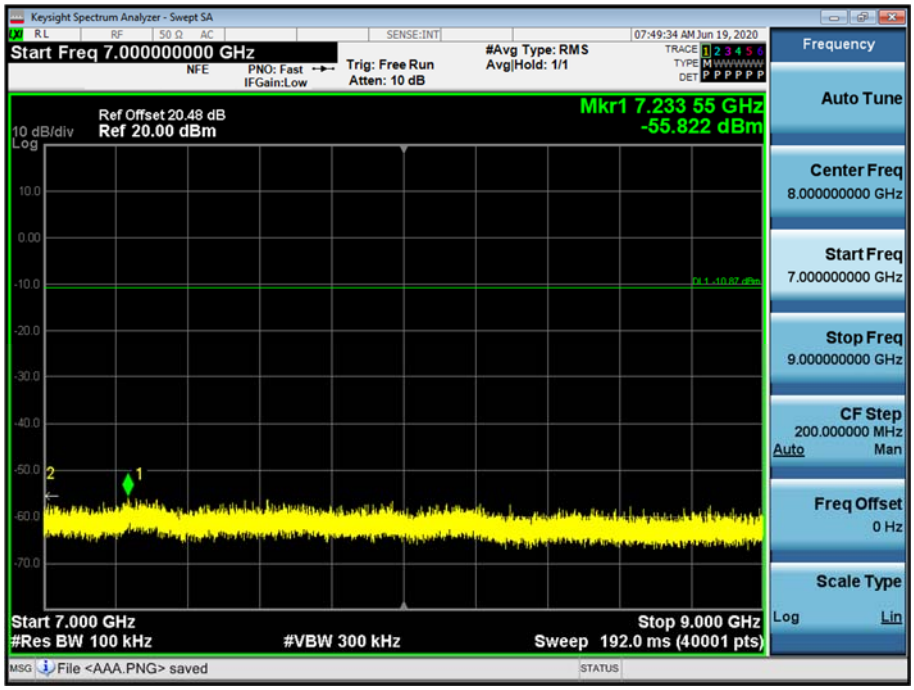
5 GHz ~ 7 GHz

Conducted Spurious Emission (802.11b_Ch.1_11 Mbps)



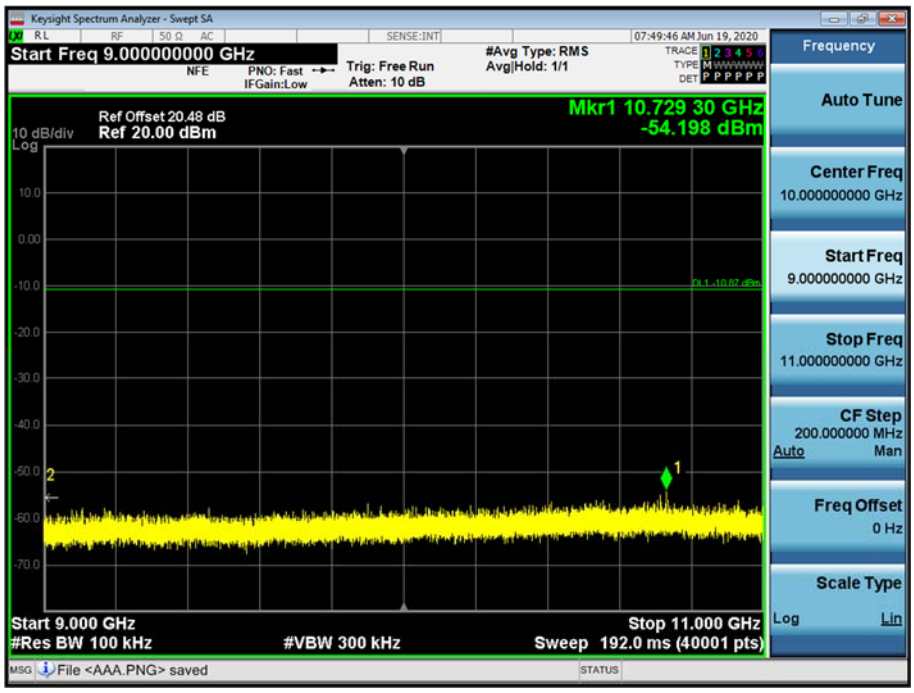
7 GHz ~ 9 GHz

Conducted Spurious Emission (802.11b_Ch.1_11 Mbps)



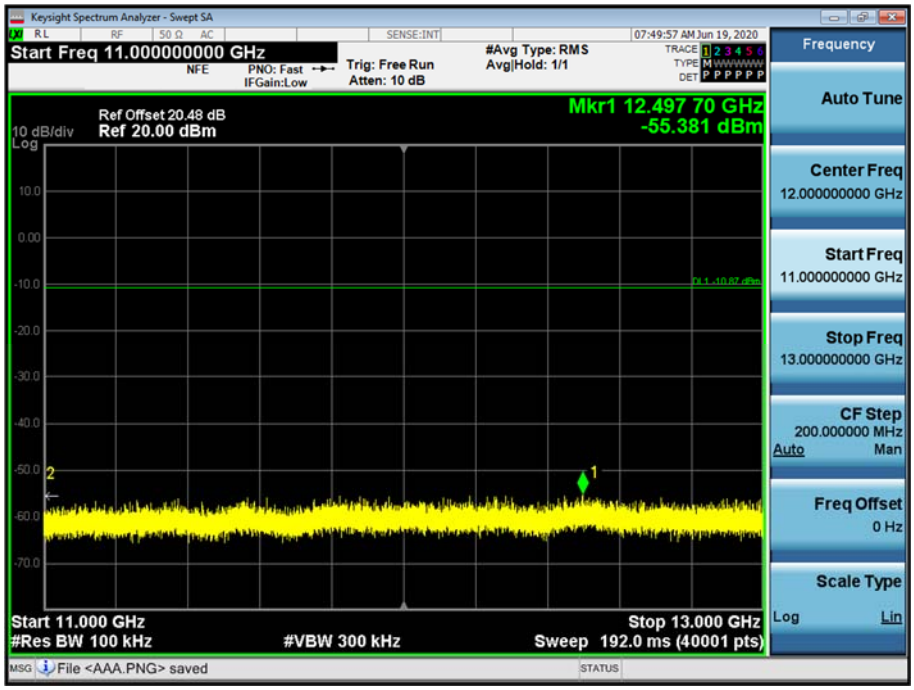
9 GHz ~ 11 GHz

Conducted Spurious Emission (802.11b_Ch.1_11 Mbps)



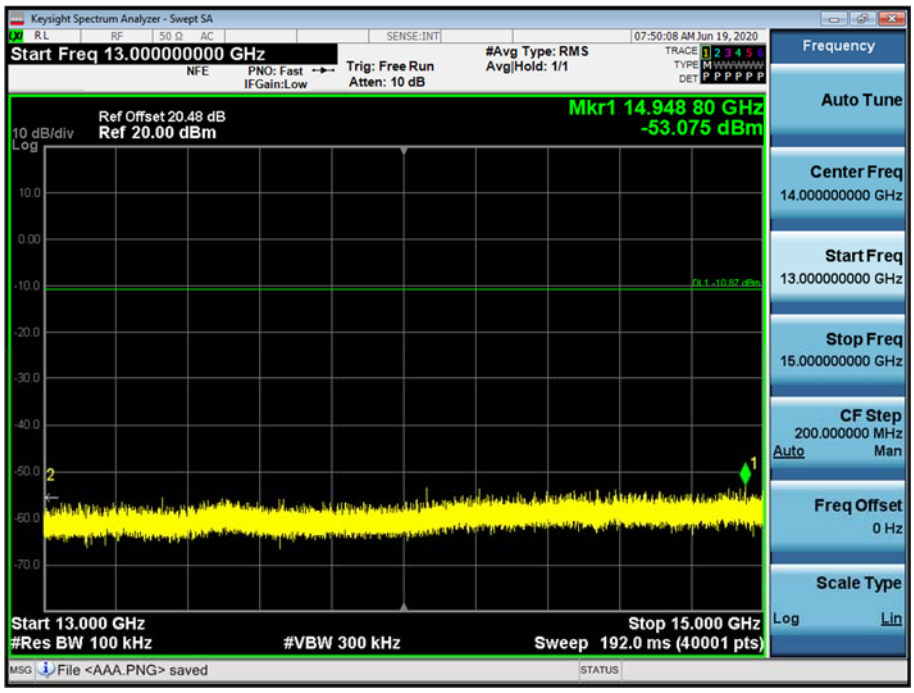
11 GHz ~ 13 GHz

Conducted Spurious Emission (802.11b_Ch.1_11 Mbps)



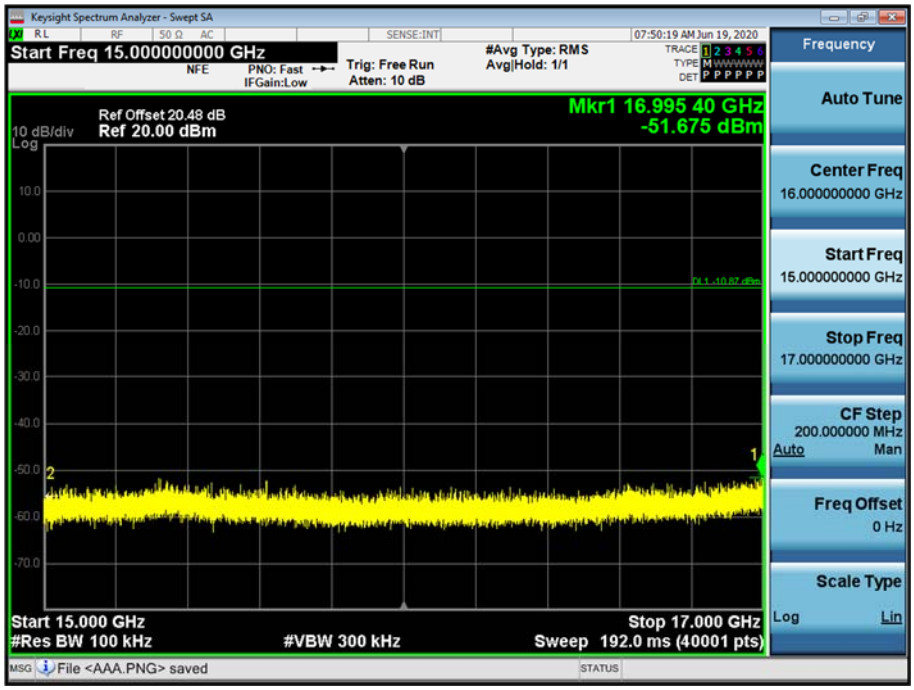
13 GHz ~ 15 GHz

Conducted Spurious Emission (802.11b_Ch.1_11 Mbps)



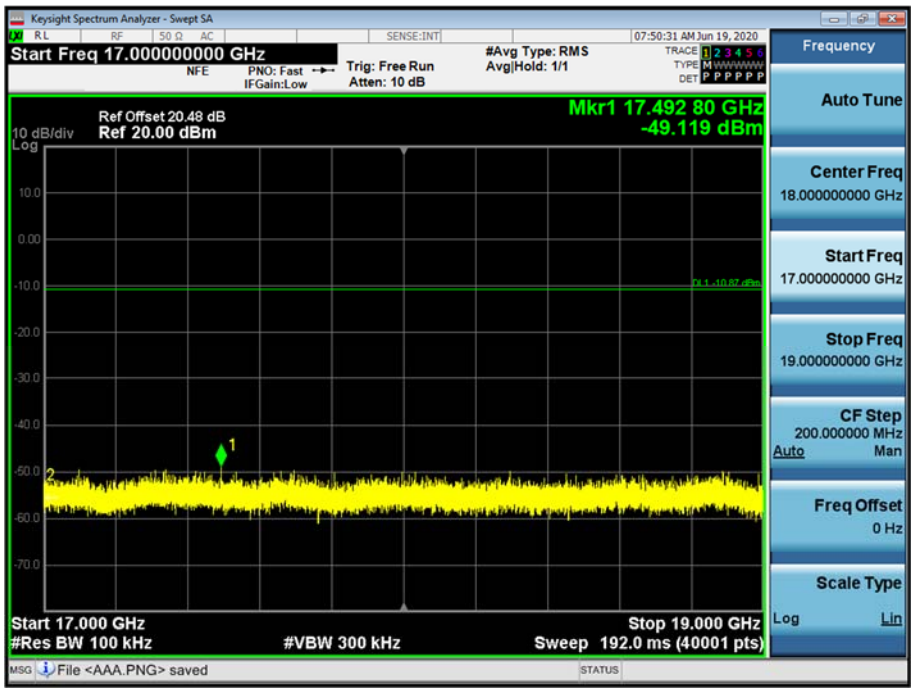
15 GHz ~ 17 GHz

Conducted Spurious Emission (802.11b_Ch.1_11 Mbps)



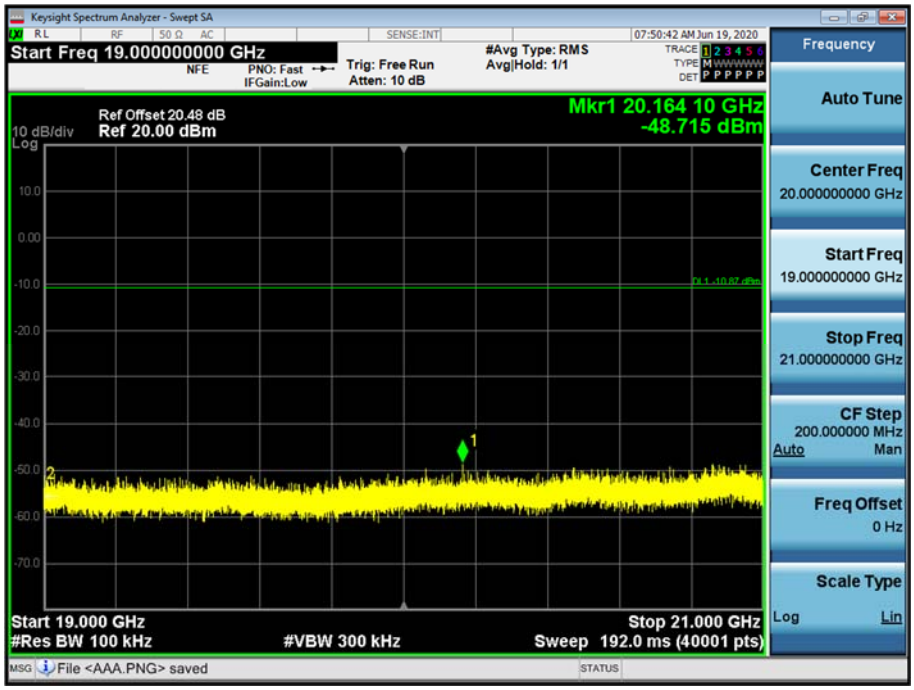
17 GHz ~ 19 GHz

Conducted Spurious Emission (802.11b_Ch.1_11 Mbps)



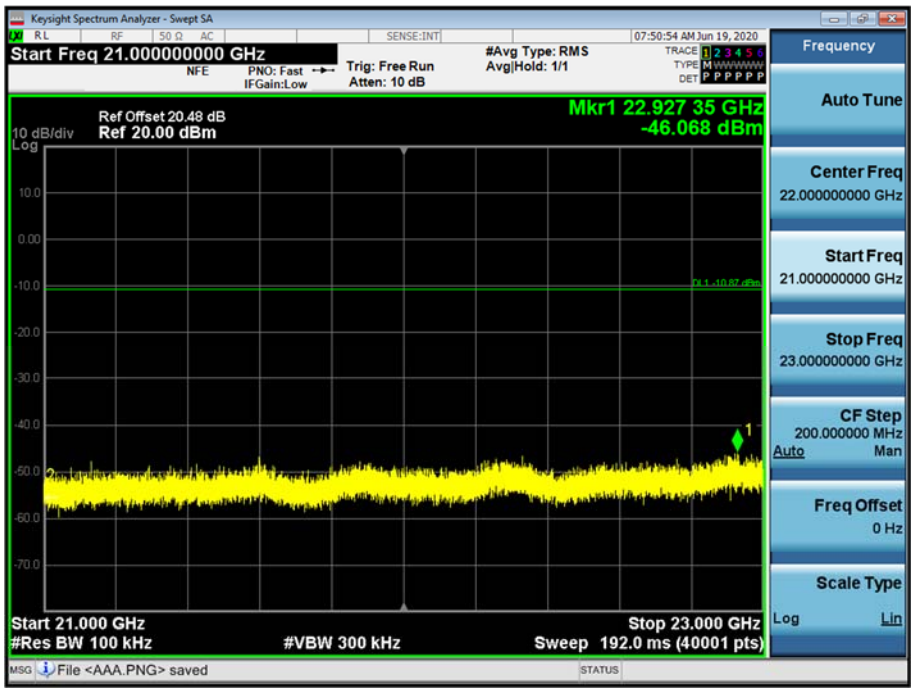
19 GHz ~ 21 GHz

Conducted Spurious Emission (802.11b_Ch.1_11 Mbps)



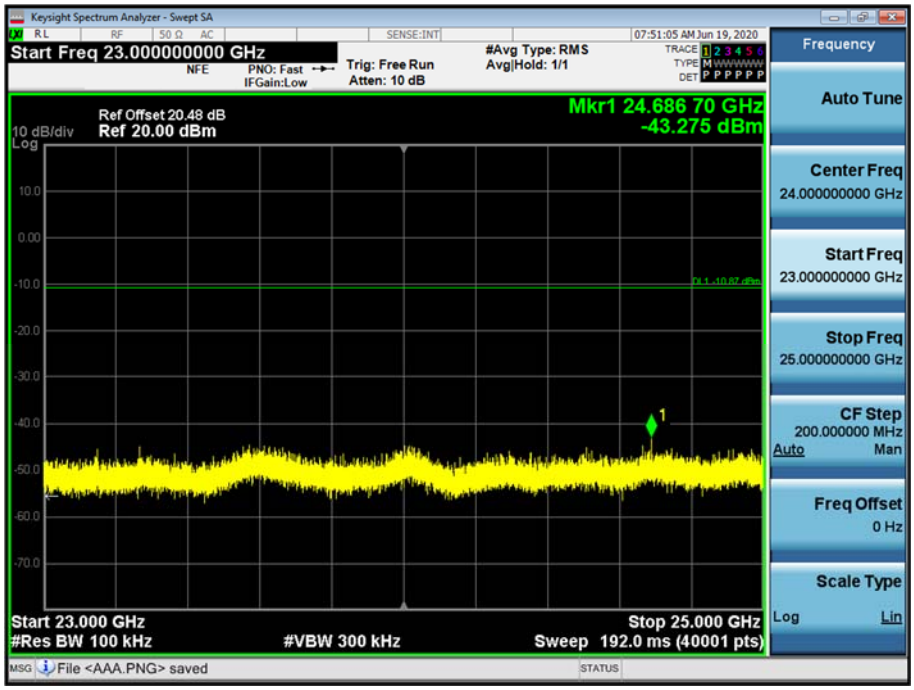
21 GHz ~ 23 GHz

Conducted Spurious Emission (802.11b_Ch.1_11 Mbps)



23 GHz ~ 25 GHz

Conducted Spurious Emission (802.11b_Ch.1_11 Mbps)



9.6 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 = 40log (specific distance / 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.

[Olny MIMO]

Frequency Range : Above 1 GHz

Operation Mode:	802.11b
Transfer Rate:	1 Mbps
Operating Frequency	2412
Channel No.	01 Ch

Frequency [MHz]	Reading [dBuV]	AN.+CL-AMP G [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
4824	49.88	3.34	V	53.22	73.98	20.76	PK
4824	43.25	3.34	V	46.59	53.98	7.39	AV
7236	43.94	8.92	V	52.86	73.98	21.12	PK
7236	35.88	8.92	V	44.80	53.98	9.18	AV
4824	50.71	3.34	H	54.05	73.98	19.93	PK
4824	47.36	3.34	H	50.70	53.98	3.28	AV
7236	44.73	8.92	H	53.65	73.98	20.33	PK
7236	36.12	8.92	H	45.04	53.98	8.94	AV

Operation Mode:	802.11g
Transfer Rate:	6 Mbps
Operating Frequency	2412
Channel No.	01 Ch

Frequency [MHz]	Reading [dBuV]	Duty Cycle Factor [dB]	AN.+CL-AMP G [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
4824	52.44	0.00	3.34	V	55.78	73.98	18.20	PK
4824	39.14	0.00	3.34	V	42.48	53.98	11.50	AV
7236	41.78	0.00	8.92	V	50.70	73.98	23.28	PK
7236	29.71	0.00	8.92	V	38.63	53.98	15.35	AV
4824	53.00	0.00	3.34	H	56.34	73.98	17.64	PK
4824	40.00	0.00	3.34	H	43.34	53.98	10.64	AV
7236	42.07	0.00	8.92	H	50.99	73.98	22.99	PK
7236	29.97	0.00	8.92	H	38.89	53.98	15.09	AV

Operation Mode:	802.11n (HT20)
Transfer MCS Index:	0
Operating Frequency	2412
Channel No.	01 Ch

Frequency [MHz]	Reading [dBuV]	Duty Cycle Factor [dB]	AN.+CL-AMP G [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
4824	49.32	0.00	3.34	V	52.66	73.98	21.32	PK
4824	36.71	0.00	3.34	V	40.05	53.98	13.93	AV
7236	40.86	0.00	8.92	V	49.78	73.98	24.20	PK
7236	29.30	0.00	8.92	V	38.22	53.98	15.76	AV
4824	50.23	0.00	3.34	H	53.57	73.98	20.41	PK
4824	37.02	0.00	3.34	H	40.36	53.98	13.62	AV
7236	41.45	0.00	8.92	H	50.37	73.98	23.61	PK
7236	29.32	0.00	8.92	H	38.24	53.98	15.74	AV

Operation Mode:	802.11n (HT40)
Transfer MCS Index:	0
Operating Frequency	2422
Channel No.	03 Ch

Frequency [MHz]	Reading [dBuV]	Duty Cycle Factor [dB]	AN.+CL-AMP G [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
4844	44.77	0.00	3.76	V	48.53	73.98	25.45	PK
4844	33.02	0.00	3.76	V	36.78	53.98	17.20	AV
7266	41.45	0.00	9.22	V	50.67	73.98	23.31	PK
7266	29.73	0.00	9.22	V	38.95	53.98	15.03	AV
4844	43.47	0.00	3.76	H	47.23	73.98	26.75	PK
4844	32.11	0.00	3.76	H	35.87	53.98	18.11	AV
7266	40.98	0.00	9.22	H	50.20	73.98	23.78	PK
7266	29.47	0.00	9.22	H	38.69	53.98	15.29	AV

Operation Mode:	802.11b
Transfer Rate:	1 Mbps
Operating Frequency	2437
Channel No.	06 Ch

Frequency [MHz]	Reading [dBuV]	AN.+CL-AMP G [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
4874	49.47	3.36	V	52.83	73.98	21.15	PK
4874	45.62	3.36	V	48.98	53.98	5.00	AV
7311	43.53	9.68	V	53.21	73.98	20.77	PK
7311	34.53	9.68	V	44.21	53.98	9.77	AV
4874	48.93	3.36	H	52.29	73.98	21.69	PK
4874	44.87	3.36	H	48.23	53.98	5.75	AV
7311	42.66	9.68	H	52.34	73.98	21.64	PK
7311	34.51	9.68	H	44.19	53.98	9.79	AV

Operation Mode:	802.11g
Transfer Rate:	6 Mbps
Operating Frequency	2437
Channel No.	06 Ch

Frequency [MHz]	Reading [dBuV]	Duty Cycle Factor [dB]	AN.+CL-AMP G [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
4874	48.22	0.00	3.36	V	51.58	73.98	22.40	PK
4874	32.25	0.00	3.36	V	35.61	53.98	18.37	AV
7311	43.43	0.00	9.68	V	53.11	73.98	20.87	PK
7311	30.89	0.00	9.68	V	40.57	53.98	13.41	AV
4874	47.37	0.00	3.36	H	50.73	73.98	23.25	PK
4874	32.04	0.00	3.36	H	35.40	53.98	18.58	AV
7311	43.07	0.00	9.68	H	52.75	73.98	21.23	PK
7311	30.55	0.00	9.68	H	40.23	53.98	13.75	AV

Operation Mode: 802.11n (HT20)

Transfer MCS Index: 0

Operating Frequency 2437

Channel No. 06 Ch

Frequency [MHz]	Reading [dBuV]	Duty Cycle Factor [dB]	AN.+CL-AMP G [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
4874	45.77	0.00	3.36	V	49.13	73.98	24.85	PK
4874	33.18	0.00	3.36	V	36.54	53.98	17.44	AV
7311	41.42	0.00	9.68	V	51.10	73.98	22.88	PK
7311	29.59	0.00	9.68	V	39.27	53.98	14.71	AV
4874	44.17	0.00	3.36	H	47.53	73.98	26.45	PK
4874	32.89	0.00	3.36	H	36.25	53.98	17.73	AV
7311	40.98	0.00	9.68	H	50.66	73.98	23.32	PK
7311	29.51	0.00	9.68	H	39.19	53.98	14.79	AV

Operation Mode: 802.11n (HT40)

Transfer MCS Index: 0

Operating Frequency 2437

Channel No. 06 Ch

Frequency [MHz]	Reading [dBuV]	Duty Cycle Factor [dB]	AN.+CL-AMP G [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
4874	43.93	0.00	3.36	V	47.29	73.98	26.69	PK
4874	32.21	0.00	3.36	V	35.57	53.98	18.41	AV
7311	41.52	0.00	9.68	V	51.20	73.98	22.78	PK
7311	29.26	0.00	9.68	V	38.94	53.98	15.04	AV
4874	42.29	0.00	3.36	H	45.65	73.98	28.33	PK
4874	31.65	0.00	3.36	H	35.01	53.98	18.97	AV
7311	40.64	0.00	9.68	H	50.32	73.98	23.66	PK
7311	29.14	0.00	9.68	H	38.82	53.98	15.16	AV

Operation Mode:	802.11b
Transfer Rate:	1 Mbps
Operating Frequency	2462
Channel No.	11 Ch

Frequency [MHz]	Reading [dBuV]	AN.+CL-AMP G [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
4924	46.94	3.03	V	49.97	73.98	24.01	PK
4924	41.08	3.03	V	44.11	53.98	9.87	AV
7386	42.64	10.44	V	53.08	73.98	20.90	PK
7386	32.11	10.44	V	42.55	53.98	11.43	AV
4924	47.05	3.03	H	50.08	73.98	23.90	PK
4924	41.50	3.03	H	44.53	53.98	9.45	AV
7386	43.12	10.44	H	53.56	73.98	20.42	PK
7386	32.89	10.44	H	43.33	53.98	10.65	AV

Operation Mode:	802.11g
Transfer Rate:	6 Mbps
Operating Frequency	2462
Channel No.	11 Ch

Frequency [MHz]	Reading [dBuV]	Duty Cycle Factor [dB]	AN.+CL-AMP G [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
4924	45.93	0.00	3.03	V	48.96	73.98	25.02	PK
4924	33.69	0.00	3.03	V	36.72	53.98	17.26	AV
7386	43.55	0.00	10.44	V	53.99	73.98	19.99	PK
7386	29.66	0.00	10.44	V	40.10	53.98	13.88	AV
4924	46.45	0.00	3.03	H	49.48	73.98	24.50	PK
4924	34.08	0.00	3.03	H	37.11	53.98	16.87	AV
7386	43.57	0.00	10.44	H	54.01	73.98	19.97	PK
7386	30.52	0.00	10.44	H	40.96	53.98	13.02	AV

Operation Mode:	802.11n (HT20)
Transfer MCS Index:	0
Operating Frequency	2462
Channel No.	11 Ch

Frequency [MHz]	Reading [dBuV]	Duty Cycle Factor [dB]	AN.+CL-AMP G [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
4924	44.82	0.00	3.03	V	47.85	73.98	26.13	PK
4924	31.22	0.00	3.03	V	34.25	53.98	19.73	AV
7386	41.14	0.00	10.44	V	51.58	73.98	22.40	PK
7386	29.28	0.00	10.44	V	39.72	53.98	14.26	AV
4924	45.23	0.00	3.03	H	48.26	73.98	25.72	PK
4924	32.86	0.00	3.03	H	35.89	53.98	18.09	AV
7386	41.65	0.00	10.44	H	52.09	73.98	21.89	PK
7386	29.52	0.00	10.44	H	39.96	53.98	14.02	AV

Operation Mode:	802.11n (HT40)
Transfer MCS Index:	0
Operating Frequency	2452
Channel No.	9 Ch

Frequency [MHz]	Reading [dBuV]	Duty Cycle Factor [dB]	AN.+CL-AMP G [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
4904	43.10	0.00	3.13	V	46.23	73.98	27.75	PK
4904	31.19	0.00	3.13	V	34.32	53.98	19.66	AV
7356	40.95	0.00	10.52	V	51.47	73.98	22.51	PK
7356	29.11	0.00	10.52	V	39.63	53.98	14.35	AV
4904	44.65	0.00	3.13	H	47.78	73.98	26.20	PK
4904	33.13	0.00	3.13	H	36.26	53.98	17.72	AV
7356	41.05	0.00	10.52	H	51.57	73.98	22.41	PK
7356	28.98	0.00	10.52	H	39.50	53.98	14.48	AV

Operation Mode:	802.11b
Transfer Rate:	1 Mbps
Operating Frequency	2467
Channel No.	12 Ch

Frequency [MHz]	Reading [dBuV]	AN.+CL-AMP G [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
4934	46.33	3.03	V	49.36	73.98	24.62	PK
4934	42.17	3.03	V	45.20	53.98	8.78	AV
7401	41.17	10.66	V	51.83	73.98	22.15	PK
7401	30.11	10.66	V	40.77	53.98	13.21	AV
4934	47.81	3.03	H	50.84	73.98	23.14	PK
4934	42.28	3.03	H	45.31	53.98	8.67	AV
7401	41.71	10.66	H	52.37	73.98	21.61	PK
7401	30.31	10.66	H	40.97	53.98	13.01	AV

Operation Mode:	802.11g
Transfer Rate:	6 Mbps
Operating Frequency	2467
Channel No.	12 Ch

Frequency [MHz]	Reading [dBuV]	Duty Cycle Factor [dB]	AN.+CL-AMP G [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
4934	44.27	0.00	3.03	V	47.30	73.98	26.68	PK
4934	32.09	0.00	3.03	V	35.12	53.98	18.86	AV
7401	40.17	0.00	10.66	V	50.83	73.98	23.15	PK
7401	28.69	0.00	10.66	V	39.35	53.98	14.63	AV
4934	44.49	0.00	3.03	H	47.52	73.98	26.46	PK
4934	32.17	0.00	3.03	H	35.20	53.98	18.78	AV
7401	40.79	0.00	10.66	H	51.45	73.98	22.53	PK
7401	28.71	0.00	10.66	H	39.37	53.98	14.61	AV

Operation Mode:	802.11n (HT20)
Transfer MCS Index:	0
Operating Frequency	2467
Channel No.	12 Ch

Frequency [MHz]	Reading [dBuV]	Duty Cycle Factor [dB]	AN.+CL-AMP G [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
4934	44.01	0.00	3.03	V	47.04	73.98	26.94	PK
4934	31.07	0.00	3.03	V	34.10	53.98	19.88	AV
7401	40.37	0.00	10.66	V	51.03	73.98	22.95	PK
7401	28.66	0.00	10.66	V	39.32	53.98	14.66	AV
4934	44.09	0.00	3.03	H	47.12	73.98	26.86	PK
4934	31.28	0.00	3.03	H	34.31	53.98	19.67	AV
7401	40.76	0.00	10.66	H	51.42	73.98	22.56	PK
7401	28.68	0.00	10.66	H	39.34	53.98	14.64	AV

Operation Mode:	802.11b
Transfer Rate:	1 Mbps
Operating Frequency	2472
Channel No.	13 Ch

Frequency [MHz]	Reading [dBuV]	AN.+CL-AMP G [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
4944	47.69	2.65	V	50.34	73.98	23.64	PK
4944	42.89	2.65	V	45.54	53.98	8.44	AV
7416	40.58	10.73	V	51.31	73.98	22.67	PK
7416	29.22	10.73	V	39.95	53.98	14.03	AV
4944	48.20	2.65	H	50.85	73.98	23.13	PK
4944	43.54	2.65	H	46.19	53.98	7.79	AV
7416	40.69	10.73	H	51.42	73.98	22.56	PK
7416	29.26	10.73	H	39.99	53.98	13.99	AV

Operation Mode:	802.11g
Transfer Rate:	6 Mbps
Operating Frequency	2472
Channel No.	13 Ch

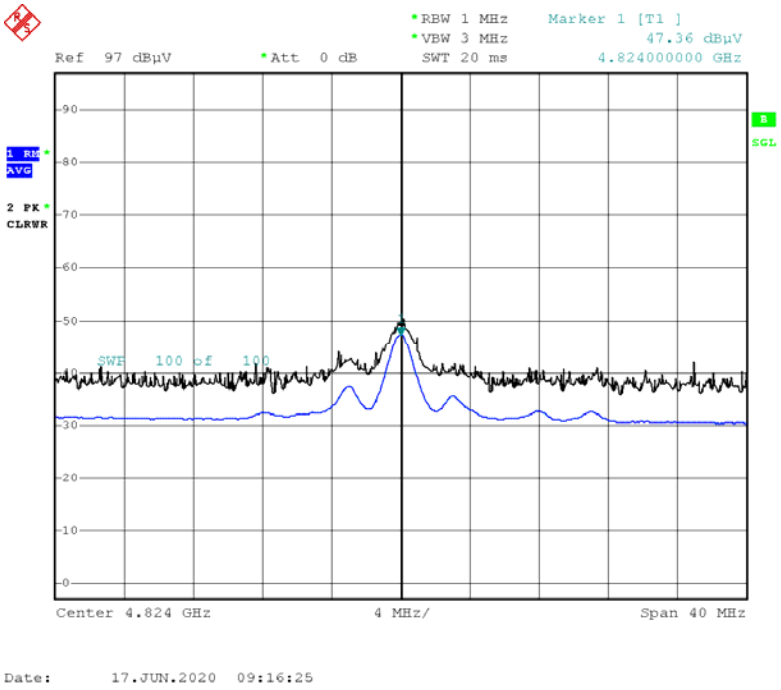
Frequency [MHz]	Reading [dBuV]	Duty Cycle Factor [dB]	AN.+CL-AMP G [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
4944	43.36	0.00	2.65	V	46.01	73.98	27.97	PK
4944	31.10	0.00	2.65	V	33.75	53.98	20.23	AV
7416	40.78	0.00	10.73	V	51.51	73.98	22.47	PK
7416	28.44	0.00	10.73	V	39.17	53.98	14.81	AV
4944	44.64	0.00	2.65	H	47.29	73.98	26.69	PK
4944	31.81	0.00	2.65	H	34.46	53.98	19.52	AV
7416	41.13	0.00	10.73	H	51.86	73.98	22.12	PK
7416	28.72	0.00	10.73	H	39.45	53.98	14.53	AV

Operation Mode:	802.11n (HT20)
Transfer MCS Index:	0
Operating Frequency	2472
Channel No.	13 Ch

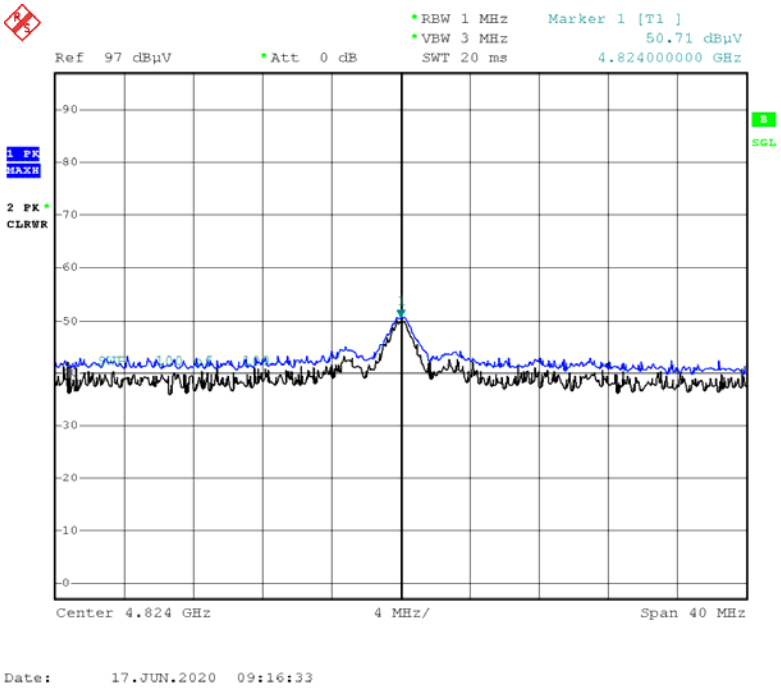
Frequency [MHz]	Reading [dBuV]	Duty Cycle Factor [dB]	AN.+CL-AMP G [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
4924	43.11	0.00	2.65	V	45.76	73.98	28.22	PK
4924	31.20	0.00	2.65	V	33.85	53.98	20.13	AV
7386	40.29	0.00	10.73	V	51.02	73.98	22.96	PK
7386	28.70	0.00	10.73	V	39.43	53.98	14.55	AV
4924	43.17	0.00	2.65	H	45.82	73.98	28.16	PK
4924	31.22	0.00	2.65	H	33.87	53.98	20.11	AV
7386	40.63	0.00	10.73	H	51.36	73.98	22.62	PK
7386	28.71	0.00	10.73	H	39.44	53.98	14.54	AV

▣ Test Plots (Worst case : Z-H)

Radiated Spurious Emissions plot – Average Reading (802.11b, Ch.1 2nd Harmonic)



Radiated Spurious Emissions plot – Peak Reading (802.11b, Ch.1 2nd Harmonic)



Note:

Plot of worst case are only reported.

9.7 RADIATED RESTRICTED BAND EDGES

Operation Mode:	802.11b
Transfer Rate:	1 Mbps
Operating Frequency	2412 MHz, 2462 MHz
Channel No.	01 Ch, 11 Ch

Frequency [MHz]	Reading [dBuV]	※ A.F.+CL [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
2390.0	52.79	0.72	H	53.51	73.98	20.47	PK
2390.0	41.44	0.72	H	42.16	53.98	11.82	AV
2390.0	51.66	0.72	V	52.38	73.98	21.60	PK
2390.0	41.25	0.72	V	41.97	53.98	12.01	AV
2483.5	50.01	1.43	H	51.44	73.98	22.54	PK
2483.5	39.44	1.43	H	40.87	53.98	13.11	AV
2483.5	49.77	1.43	V	51.20	73.98	22.78	PK
2483.5	39.12	1.43	V	40.55	53.98	13.43	AV

Operation Mode:	802.11b
Transfer Rate:	1 Mbps
Operating Frequency	2467 MHz, 2472 MHz
Channel No.	12 Ch, 13 Ch

Frequency [MHz]	Reading [dBuV]	※ A.F.+CL [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
12 ch / 2483.5	54.77	1.43	H	56.20	73.98	17.78	PK
12 ch / 2483.5	48.16	1.43	H	49.59	53.98	4.39	AV
12 ch / 2483.5	53.68	1.43	V	55.11	73.98	18.87	PK
12 ch / 2483.5	45.59	1.43	V	47.02	53.98	6.96	AV
13 ch / 2483.5	54.24	1.43	H	55.67	73.98	18.31	PK
13 ch / 2483.5	46.39	1.43	H	47.82	53.98	6.16	AV
13 ch / 2483.5	53.47	1.43	V	54.90	73.98	19.08	PK
13 ch / 2483.5	45.65	1.43	V	47.08	53.98	6.90	AV

Operation Mode:	802.11g
Transfer Rate:	6 Mbps
Operating Frequency	2412 MHz, 2462 MHz
Channel No.	01 Ch, 11 Ch

Frequency [MHz]	Reading [dBuV]	Duty Cycle Factor [dB]	※ A.F.+CL [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
2390.0	57.67	0.00	0.72	H	58.39	73.98	15.59	PK
2390.0	46.76	0.00	0.72	H	47.48	53.98	6.50	AV
2390.0	56.33	0.00	0.72	V	57.05	73.98	16.93	PK
2390.0	46.08	0.00	0.72	V	46.80	53.98	7.18	AV
2483.5	56.84	0.00	1.43	H	58.27	73.98	15.71	PK
2483.5	44.73	0.00	1.43	H	46.16	53.98	7.82	AV
2483.5	55.17	0.00	1.43	V	56.60	73.98	17.38	PK
2483.5	44.24	0.00	1.43	V	45.67	53.98	8.31	AV

Operation Mode:	802.11g
Transfer Rate:	6 Mbps
Operating Frequency	2467 MHz, 2472 MHz
Channel No.	12 Ch, 13 Ch

Frequency [MHz]	Reading [dBuV]	Duty Cycle Factor [dB]	※ A.F.+CL [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
12 ch / 2483.5	59.23	0.00	1.43	H	60.66	73.98	13.32	PK
12 ch / 2483.5	45.78	0.00	1.43	H	47.21	53.98	6.77	AV
12 ch / 2483.5	58.66	0.00	1.43	V	60.09	73.98	13.89	PK
12 ch / 2483.5	44.25	0.00	1.43	V	45.68	53.98	8.30	AV
13 ch / 2483.5	59.19	0.00	1.43	H	60.62	73.98	13.36	PK
13 ch / 2483.5	44.76	0.00	1.43	H	46.19	53.98	7.79	AV
13 ch / 2483.5	58.78	0.00	1.43	V	60.21	73.98	13.77	PK
13 ch / 2483.5	44.68	0.00	1.43	V	46.11	53.98	7.87	AV

Operation Mode:	802.11n (HT20)
Transfer Rate:	0
Operating Frequency	2412 MHz, 2462 MHz
Channel No.	01 Ch, 11 Ch

Frequency [MHz]	Reading [dBuV]	Duty Cycle Factor [dB]	※ A.F.+CL [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
2390.0	56.53	0.00	0.72	H	57.25	73.98	16.73	PK
2390.0	45.52	0.00	0.72	H	46.24	53.98	7.74	AV
2390.0	54.99	0.00	0.72	V	55.71	73.98	18.27	PK
2390.0	42.69	0.00	0.72	V	43.41	53.98	10.57	AV
2483.5	54.07	0.00	1.43	H	55.50	73.98	18.48	PK
2483.5	42.83	0.00	1.43	H	44.26	53.98	9.72	AV
2483.5	52.17	0.00	1.43	V	53.60	73.98	20.38	PK
2483.5	41.68	0.00	1.43	V	43.11	53.98	10.87	AV

Operation Mode:	802.11n (HT20)
Transfer Rate:	0
Operating Frequency	2467 MHz, 2472 MHz
Channel No.	12 Ch, 13 Ch

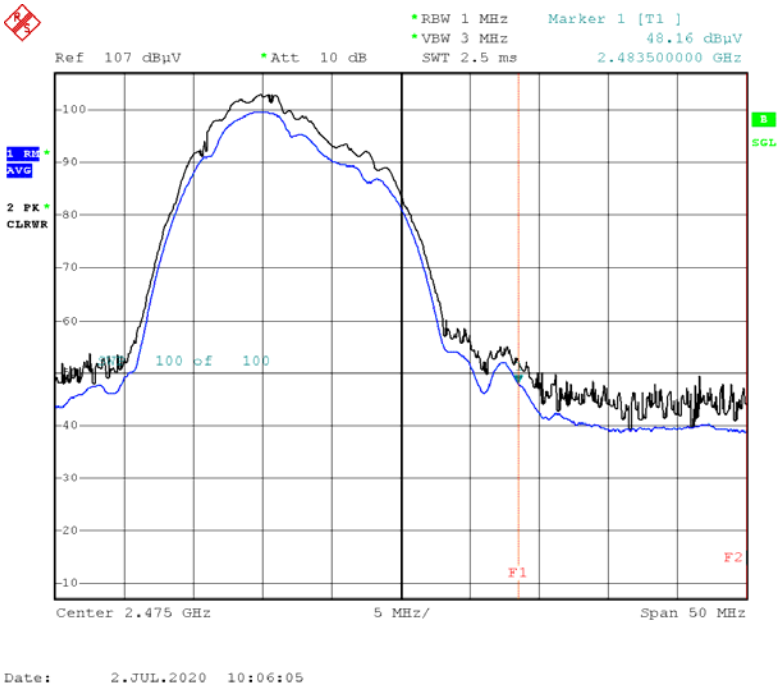
Frequency [MHz]	Reading [dBuV]	Duty Cycle Factor [dB]	※ A.F.+CL [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
12 ch / 2483.5	55.72	0.00	1.43	H	57.15	73.98	16.83	PK
12 ch / 2483.5	42.36	0.00	1.43	H	43.79	53.98	10.19	AV
12 ch / 2483.5	54.65	0.00	1.43	V	56.08	73.98	17.90	PK
12 ch / 2483.5	41.98	0.00	1.43	V	43.41	53.98	10.57	AV
13 ch / 2483.5	60.50	0.00	1.43	H	61.93	73.98	12.05	PK
13 ch / 2483.5	47.31	0.00	1.43	H	48.74	53.98	5.24	AV
13 ch / 2483.5	58.93	0.00	1.43	V	60.36	73.98	13.62	PK
13 ch / 2483.5	46.99	0.00	1.43	V	48.42	53.98	5.56	AV

Operation Mode:	802.11n (HT40)
Transfer Rate:	0
Operating Frequency	2422 MHz, 2452 MHz
Channel No.	03 Ch, 09 Ch

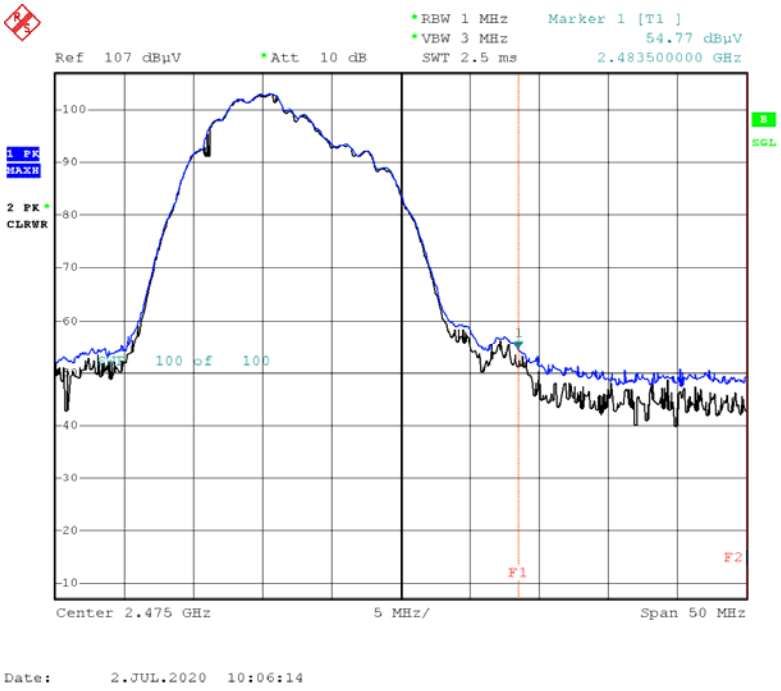
Frequency [MHz]	Reading [dBuV]	Duty Cycle Factor [dB]	※ A.F.+CL [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
2390.0	62.44	0.00	0.72	H	63.16	73.98	10.82	PK
2390.0	49.99	0.00	0.72	H	50.71	53.98	3.27	AV
2390.0	60.05	0.00	0.72	V	60.77	73.98	13.21	PK
2390.0	48.83	0.00	0.72	V	49.55	53.98	4.43	AV
2483.5	55.23	0.00	1.43	H	56.66	73.98	17.32	PK
2483.5	43.30	0.00	1.43	H	44.73	53.98	9.25	AV
2483.5	54.25	0.00	1.43	V	55.68	73.98	18.30	PK
2483.5	42.90	0.00	1.43	V	44.33	53.98	9.65	AV

▣ Test Plots

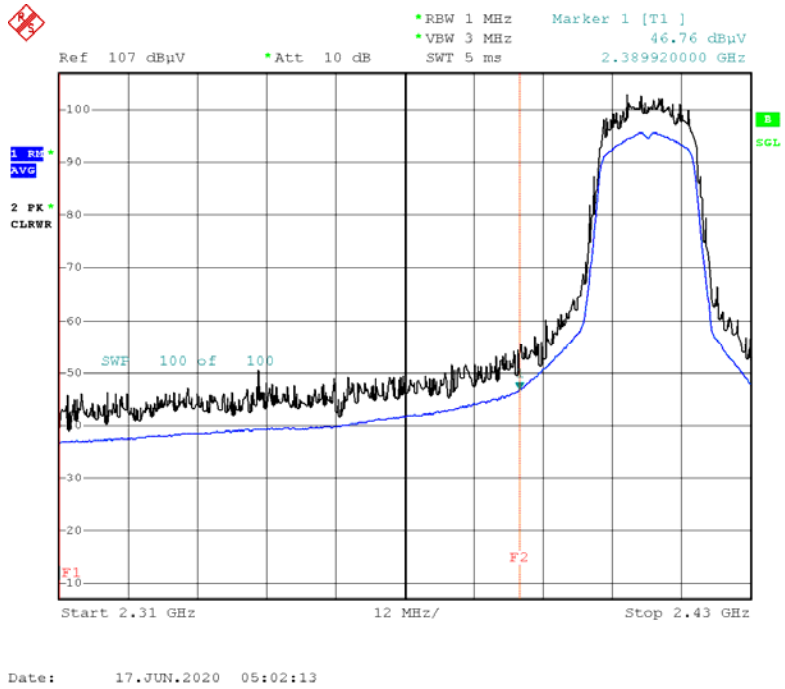
Radiated Restricted Band Edges plot – Average Reading (802.11b Ch.12)



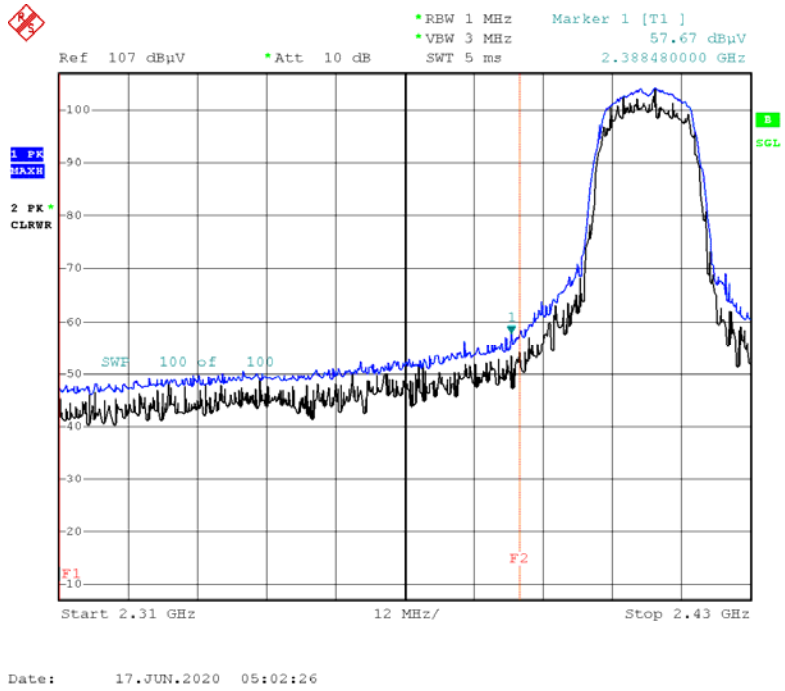
Radiated Restricted Band Edges plot – Peak Reading (802.11b Ch.12)



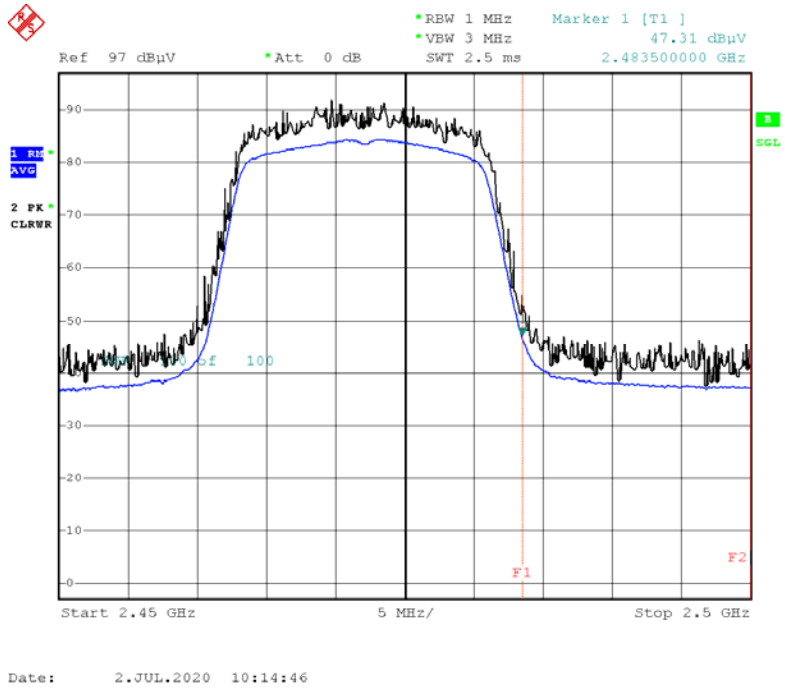
Radiated Restricted Band Edges plot – Average Reading (802.11g Ch.1)



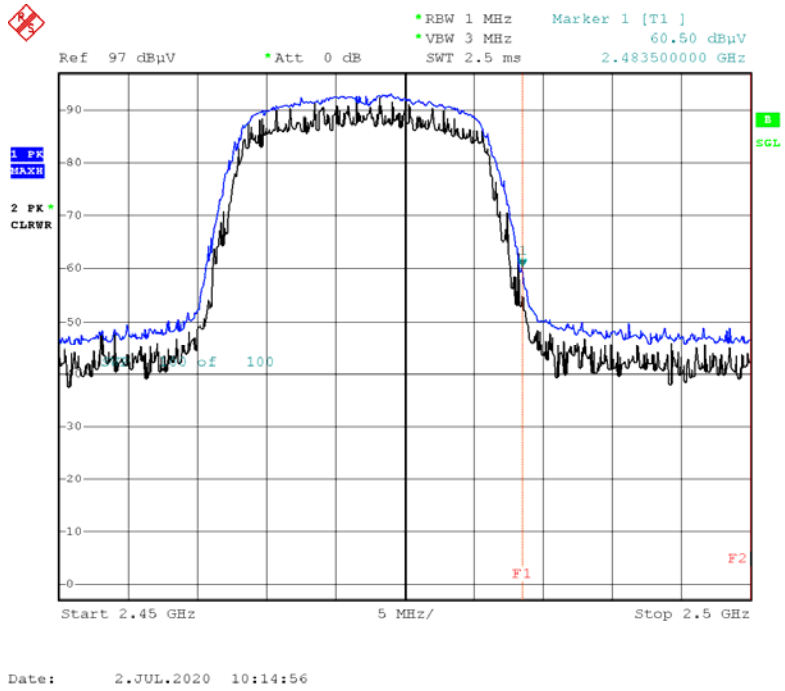
Radiated Restricted Band Edges plot – Peak Reading (802.11g Ch.1)



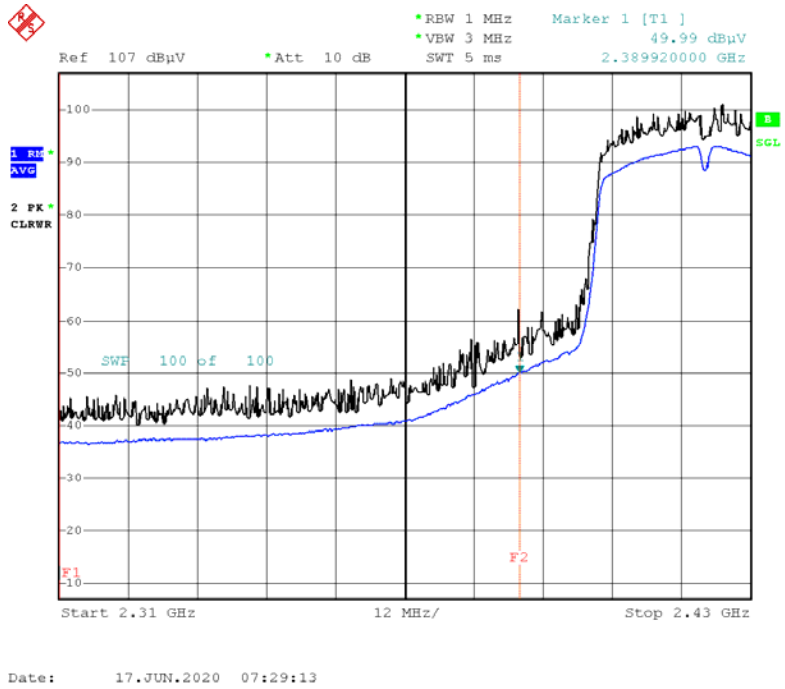
Radiated Restricted Band Edges plot – Average Reading (802.11n(HT20), Ch.13)



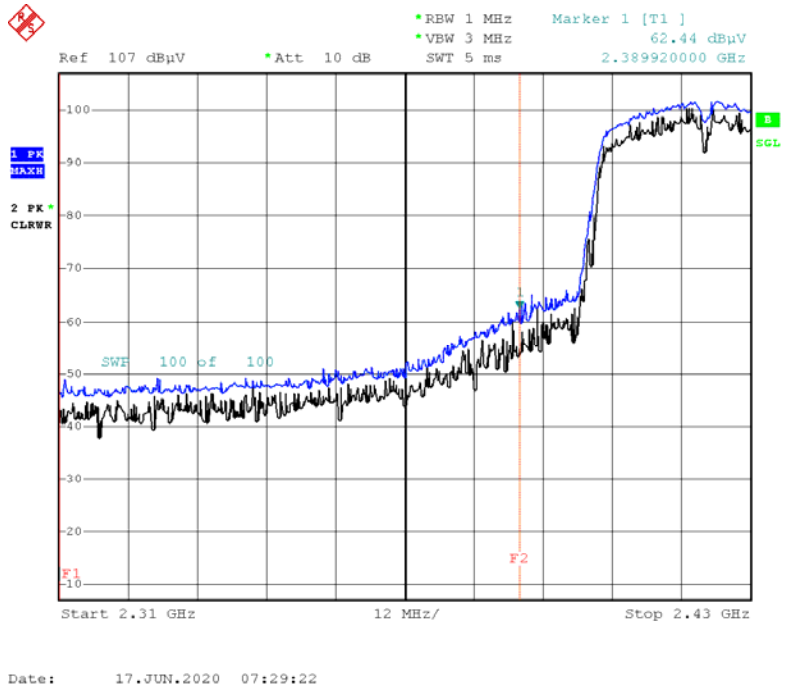
Radiated Restricted Band Edges plot – Peak Reading (802.11n(HT20), Ch.13)



Radiated Restricted Band Edges plot – Average Reading (802.11n(HT40), Ch.3)



Radiated Restricted Band Edges plot – Peak Reading (802.11n(HT40), Ch.3)



Note:

Plot of worst case are only reported.

9.8 RECEIVER SPURIOUS EMISSIONS

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							

9.9 POWERLINE CONDUCTED EMISSIONS

Conducted Emissions (Line 1)

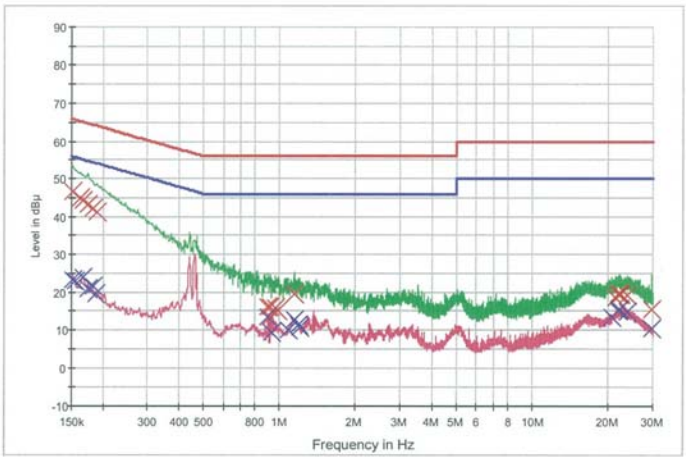
Test 1 / 2

HCT TEST Report

Common Information

EUT:	LGSBWAC03
Manufacturer:	LG
Test Site:	SHIELD ROOM
Operating Conditions:	2.4G_WLAN_N

FCC CLASS B



Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.152000	46.5	9.000	On	N	9.7	19.4	65.9
0.162000	44.8	9.000	On	N	9.7	20.6	65.4
0.166000	44.1	9.000	On	N	9.7	21.0	65.2
0.174000	43.2	9.000	On	N	9.7	21.6	64.8
0.182000	42.1	9.000	On	N	9.7	22.3	64.4
0.190000	41.3	9.000	On	N	9.7	22.7	64.0
0.900000	16.1	9.000	On	N	9.7	39.9	56.0
0.914000	13.3	9.000	On	N	9.7	42.7	56.0
0.924000	16.0	9.000	On	N	9.7	40.0	56.0
0.962000	15.7	9.000	On	N	9.7	40.3	56.0
0.982000	15.0	9.000	On	N	9.7	41.0	56.0
1.142000	19.6	9.000	On	N	9.7	36.4	56.0
21.412000	18.6	9.000	On	N	10.0	41.4	60.0
21.946000	19.4	9.000	On	N	10.0	40.6	60.0
22.218000	19.5	9.000	On	N	10.0	40.5	60.0
22.336000	19.4	9.000	On	N	10.0	40.6	60.0
23.852000	19.1	9.000	On	N	10.0	40.9	60.0
29.564000	15.4	9.000	On	N	10.0	44.6	60.0

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Test 2 / 2

Final Result 2

Frequency (MHz)	CAverage (dBµV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.152000	23.3	9.000	On	N	9.7	32.6	55.9
0.156000	22.7	9.000	On	N	9.7	32.9	55.7
0.166000	24.0	9.000	On	N	9.7	31.1	55.2
0.174000	20.8	9.000	On	N	9.7	33.9	54.8
0.182000	21.6	9.000	On	N	9.7	32.8	54.4
0.188000	19.6	9.000	On	N	9.7	34.5	54.1
0.902000	13.5	9.000	On	N	9.7	32.5	46.0
0.932000	9.3	9.000	On	N	9.7	36.7	46.0
1.084000	9.9	9.000	On	N	9.7	36.1	46.0
1.142000	12.6	9.000	On	N	9.7	33.4	46.0
1.190000	11.4	9.000	On	N	9.7	34.6	46.0
1.200000	10.6	9.000	On	N	9.7	35.4	46.0
20.706000	13.6	9.000	On	N	10.0	36.4	50.0
21.864000	15.2	9.000	On	N	10.0	34.8	50.0
21.946000	15.1	9.000	On	N	10.0	34.9	50.0
22.074000	15.3	9.000	On	N	10.0	34.7	50.0
23.852000	14.8	9.000	On	N	10.0	35.2	50.0
29.566000	10.3	9.000	On	N	10.0	39.7	50.0

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Conducted Emissions (Line 2)

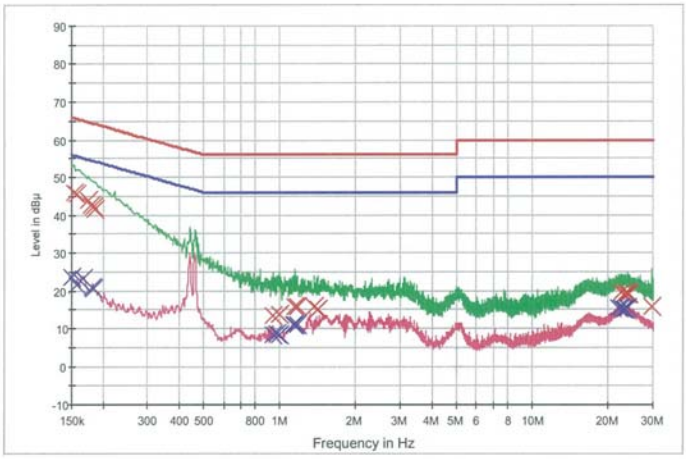
Test 1 / 2

HCT TEST Report

Common Information

EUT:	LGSBWAC03
Manufacturer:	LG
Test Site:	SHIELD ROOM
Operating Conditions:	2.4G_WLAN_L1

FCC CLASS B



Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.154000	46.0	9.000	On	L1	9.7	19.7	65.8
0.158000	45.4	9.000	On	L1	9.7	20.1	65.6
0.174000	44.0	9.000	On	L1	9.7	20.7	64.8
0.178000	42.6	9.000	On	L1	9.7	22.0	64.6
0.182000	42.1	9.000	On	L1	9.7	22.3	64.4
0.186000	41.6	9.000	On	L1	9.7	22.6	64.2
0.938000	13.6	9.000	On	L1	9.7	42.4	56.0
0.998000	13.7	9.000	On	L1	9.7	42.3	56.0
1.154000	15.8	9.000	On	L1	9.7	40.2	56.0
1.174000	15.7	9.000	On	L1	9.7	40.3	56.0
1.366000	15.8	9.000	On	L1	9.8	40.2	56.0
1.412000	15.2	9.000	On	L1	9.8	40.8	56.0
22.270000	19.5	9.000	On	L1	10.0	40.5	60.0
23.224000	19.3	9.000	On	L1	10.0	40.7	60.0
23.642000	19.2	9.000	On	L1	10.0	40.8	60.0
23.712000	19.4	9.000	On	L1	10.0	40.6	60.0
24.078000	19.1	9.000	On	L1	10.0	40.9	60.0
29.734000	15.9	9.000	On	L1	10.0	44.1	60.0

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Test 2 / 2

Final Result 2

Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.150000	23.6	9.000	On	L1	9.7	32.4	56.0
0.158000	21.4	9.000	On	L1	9.7	34.1	55.6
0.162000	22.5	9.000	On	L1	9.7	32.8	55.4
0.166000	23.3	9.000	On	L1	9.7	31.8	55.2
0.180000	20.8	9.000	On	L1	9.7	33.6	54.5
0.184000	20.6	9.000	On	L1	9.7	33.7	54.3
0.938000	8.3	9.000	On	L1	9.7	37.7	46.0
0.970000	8.7	9.000	On	L1	9.7	37.3	46.0
0.998000	8.2	9.000	On	L1	9.7	37.8	46.0
1.136000	11.1	9.000	On	L1	9.7	34.9	46.0
1.154000	11.2	9.000	On	L1	9.7	34.8	46.0
1.174000	11.0	9.000	On	L1	9.7	35.0	46.0
21.996000	15.5	9.000	On	L1	10.0	34.5	50.0
22.270000	15.4	9.000	On	L1	10.0	34.6	50.0
22.336000	15.4	9.000	On	L1	10.0	34.6	50.0
22.960000	15.2	9.000	On	L1	10.0	34.8	50.0
23.224000	15.2	9.000	On	L1	10.0	34.8	50.0
23.712000	15.3	9.000	On	L1	10.0	34.7	50.0

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10. 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
ESPAC	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	08/09/2018	Biennial	3368
Schwarzbeck	VULB 9168 / Hybrid Antenna	08/31/2018	Biennial	00895
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 WEINSCHEL	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).

11. ANNEX A_ TEST SETUP PHOTO

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

No.	Description
1	HCT-RF-2007-FI001-P