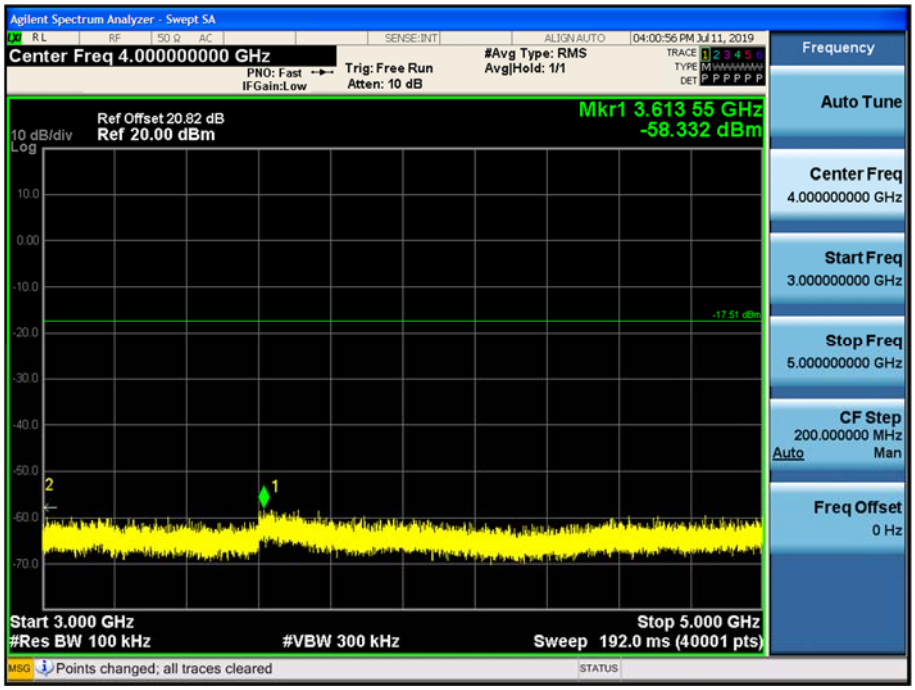
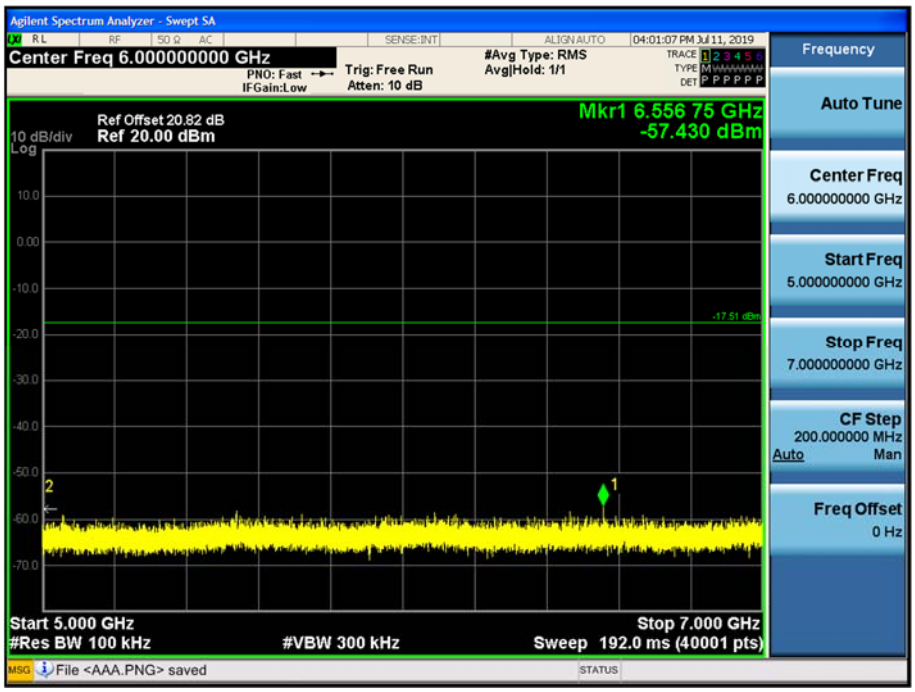
3 GHz ~ 5 GHz

Conducted Spurious Emission (802.11g_Ch.11_36 Mbps)



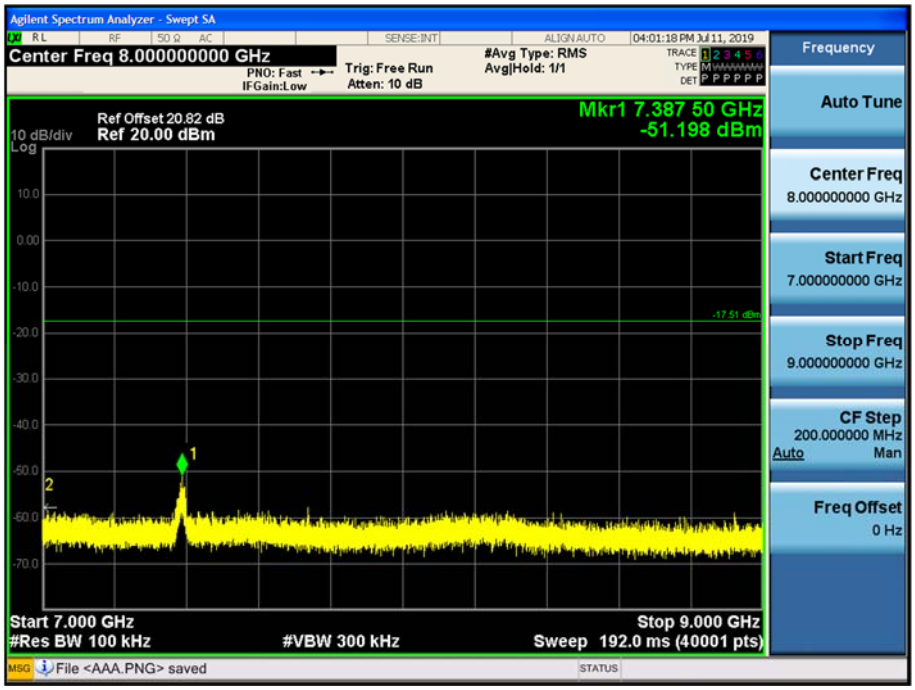
5 GHz ~ 7 GHz

Conducted Spurious Emission (802.11g_Ch.11_36 Mbps)



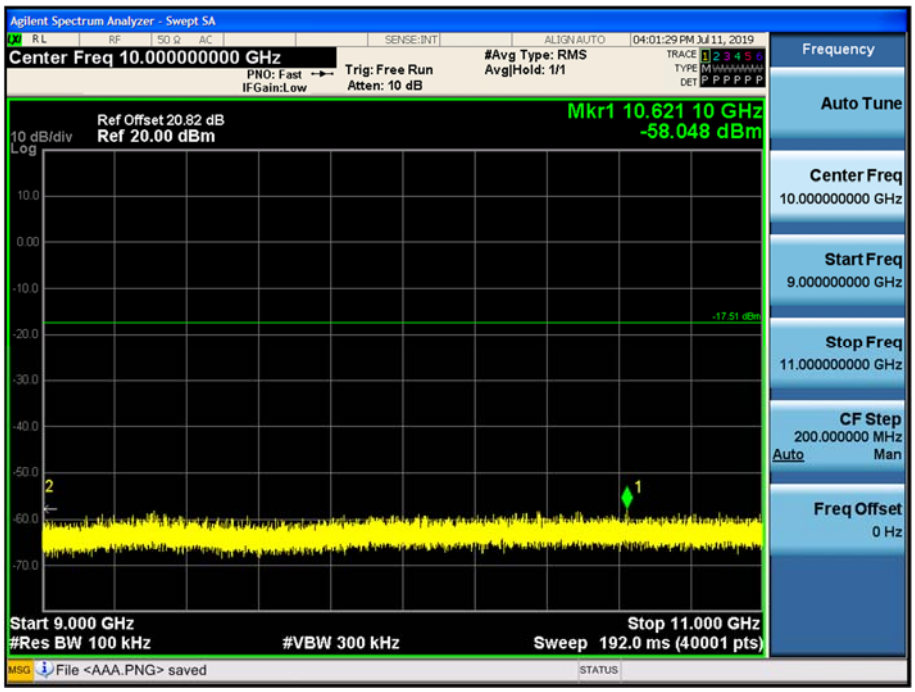
7 GHz ~ 9 GHz

Conducted Spurious Emission (802.11g_Ch.11_36 Mbps)



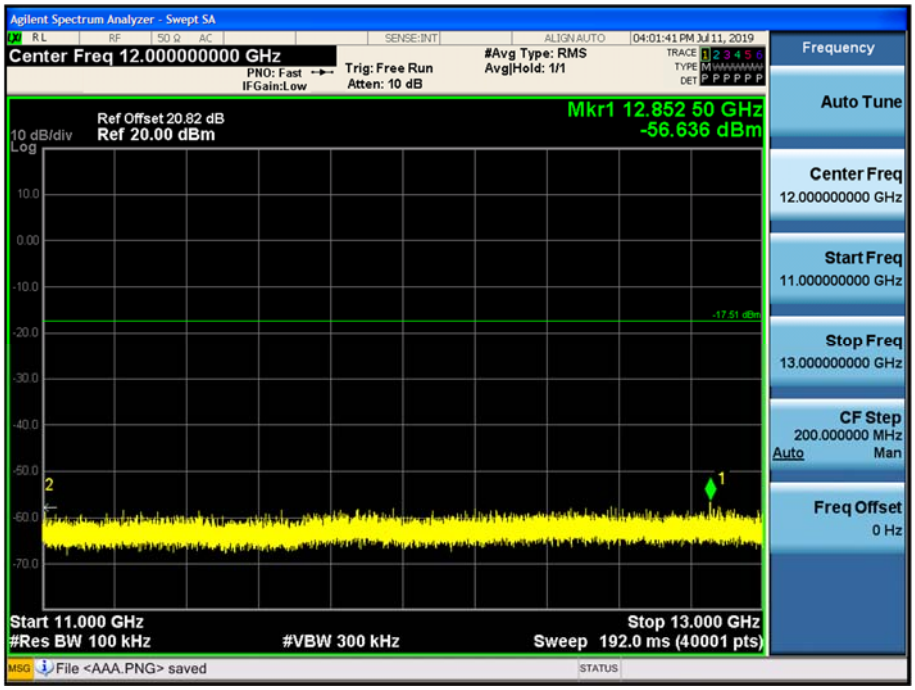
9 GHz ~ 11 GHz

Conducted Spurious Emission (802.11g_Ch.11_36 Mbps)



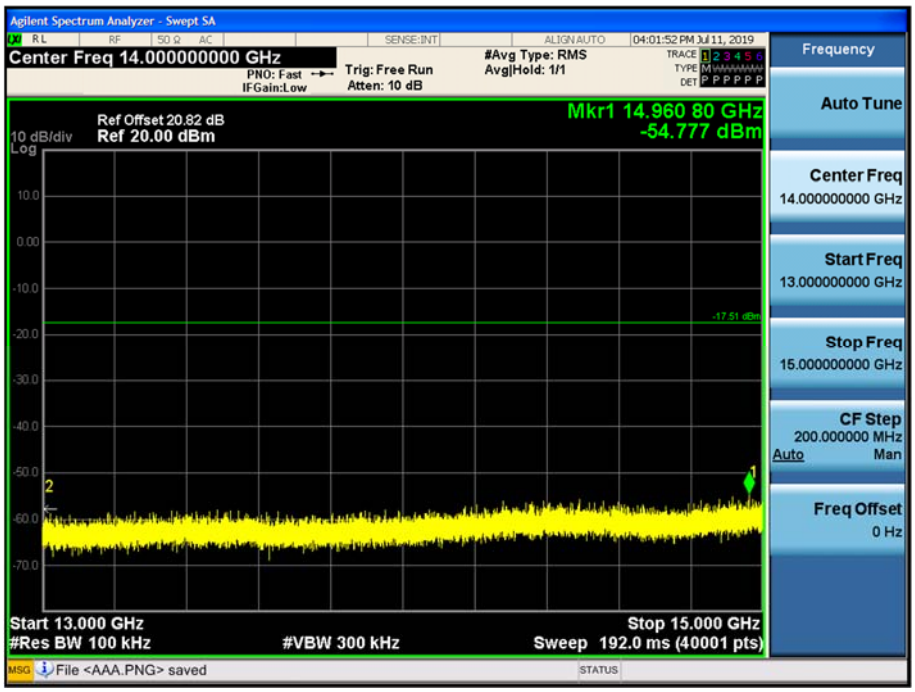
11 GHz ~ 13 GHz

Conducted Spurious Emission (802.11g_Ch.11_36 Mbps)



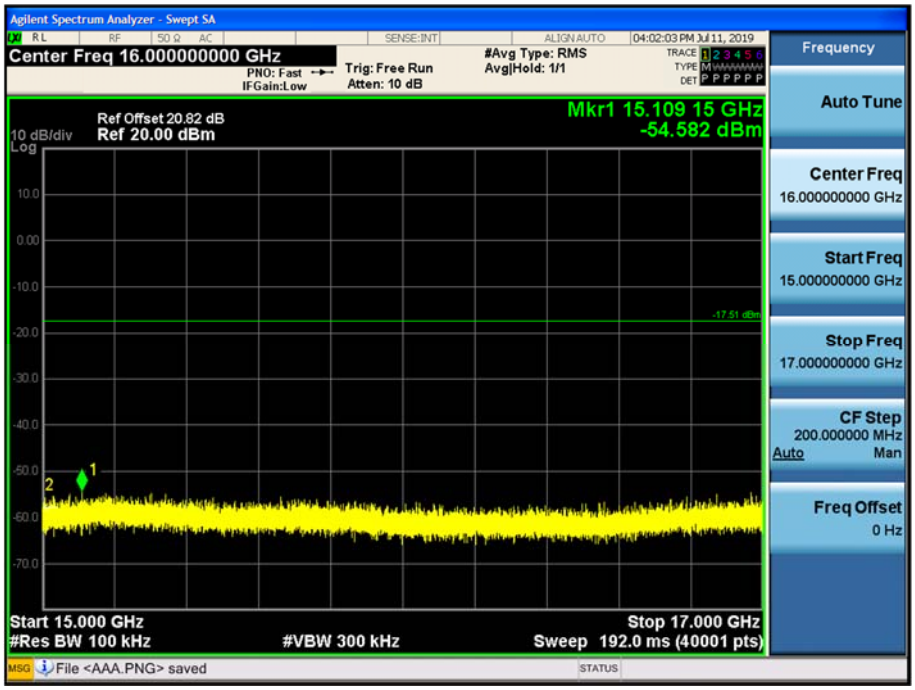
13 GHz ~ 15 GHz

Conducted Spurious Emission (802.11g_Ch.11_36 Mbps)



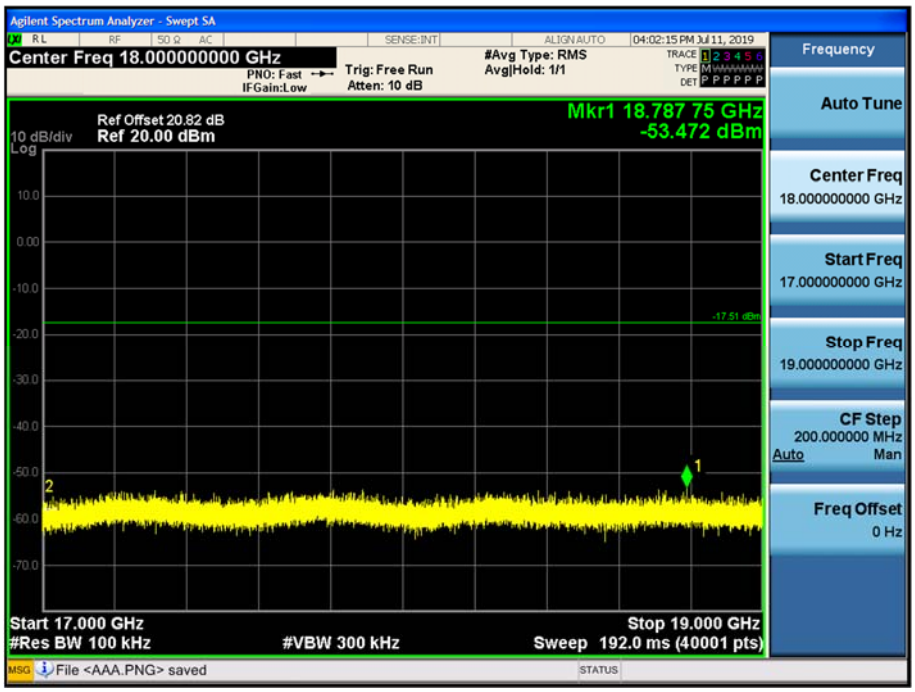
15 GHz ~ 17 GHz

Conducted Spurious Emission (802.11g_Ch.11_36 Mbps)



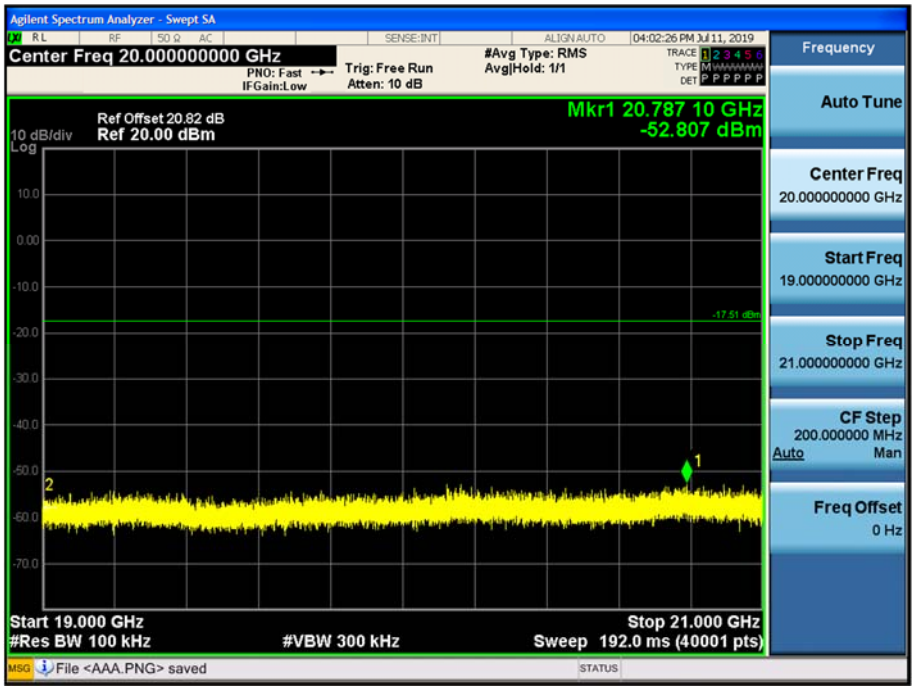
17 GHz ~ 19 GHz

Conducted Spurious Emission (802.11g_Ch.11_36 Mbps)



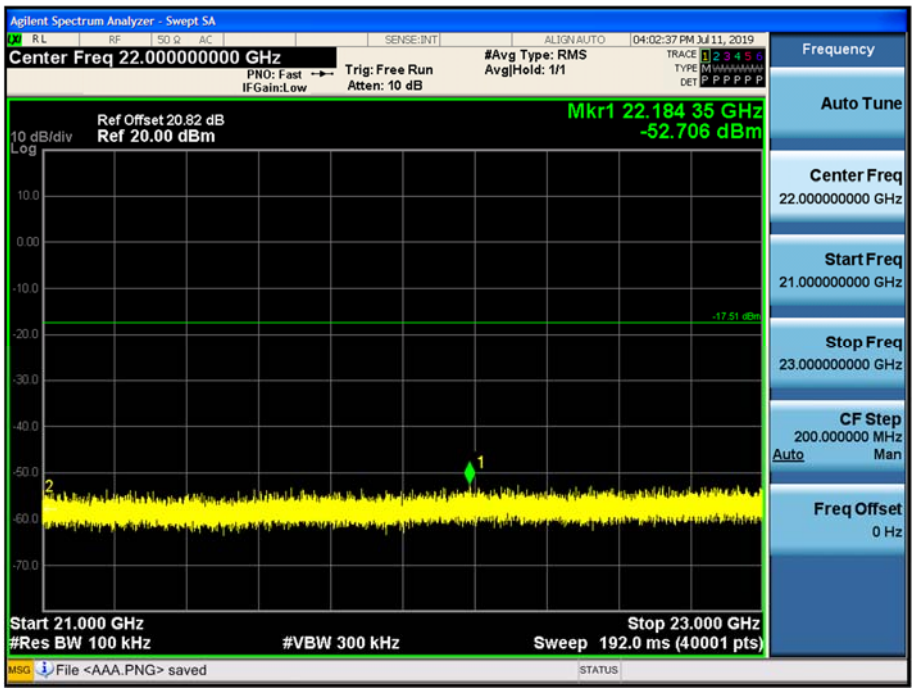
19 GHz ~ 21 GHz

Conducted Spurious Emission (802.11g_Ch.11_36 Mbps)



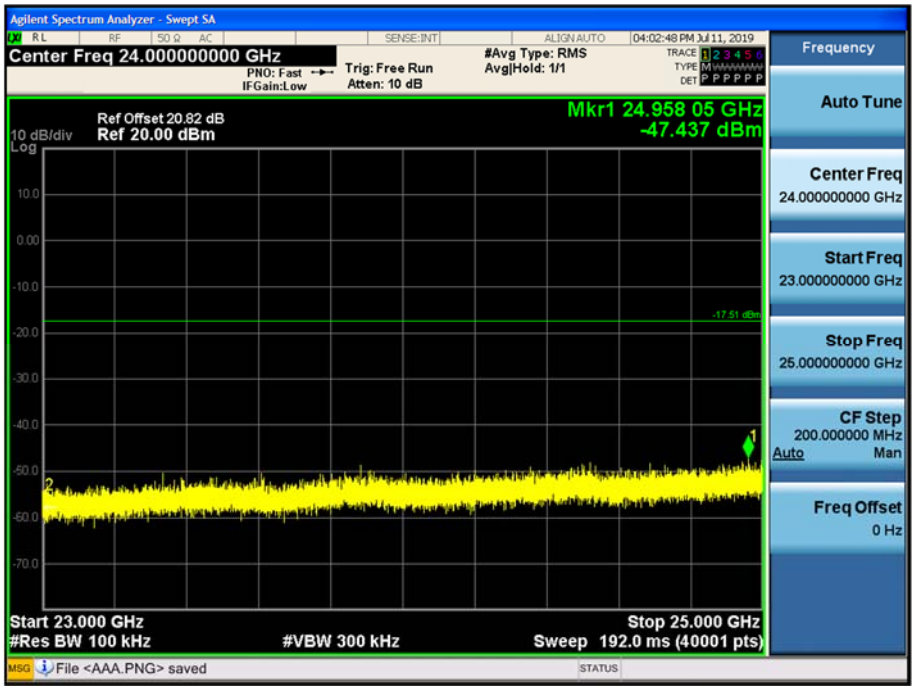
21 GHz ~ 23 GHz

Conducted Spurious Emission (802.11g_Ch.11_36 Mbps)



23 GHz ~ 25 GHz

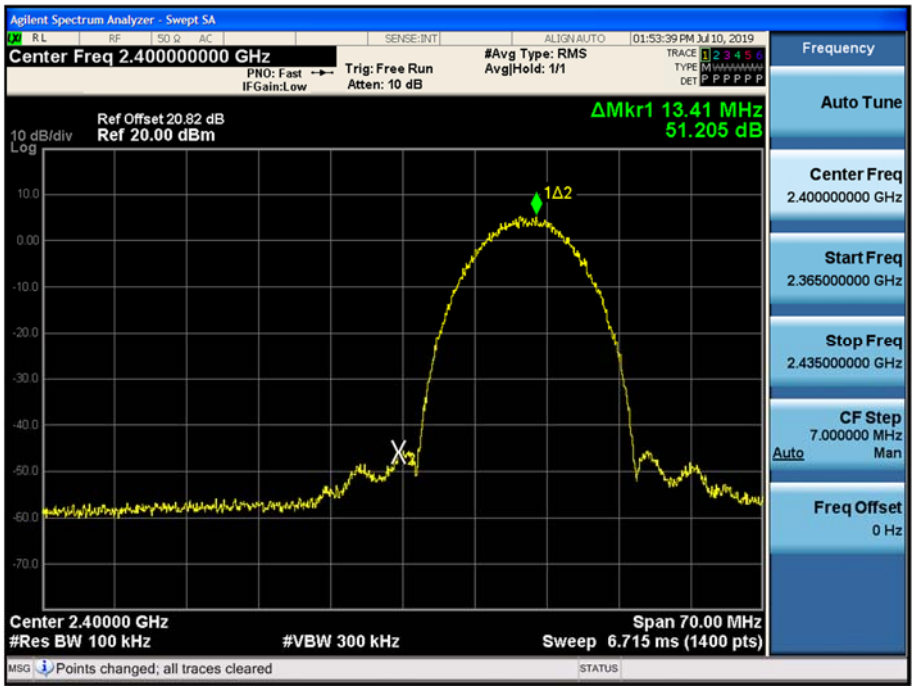
Conducted Spurious Emission (802.11g_Ch.11_36 Mbps)



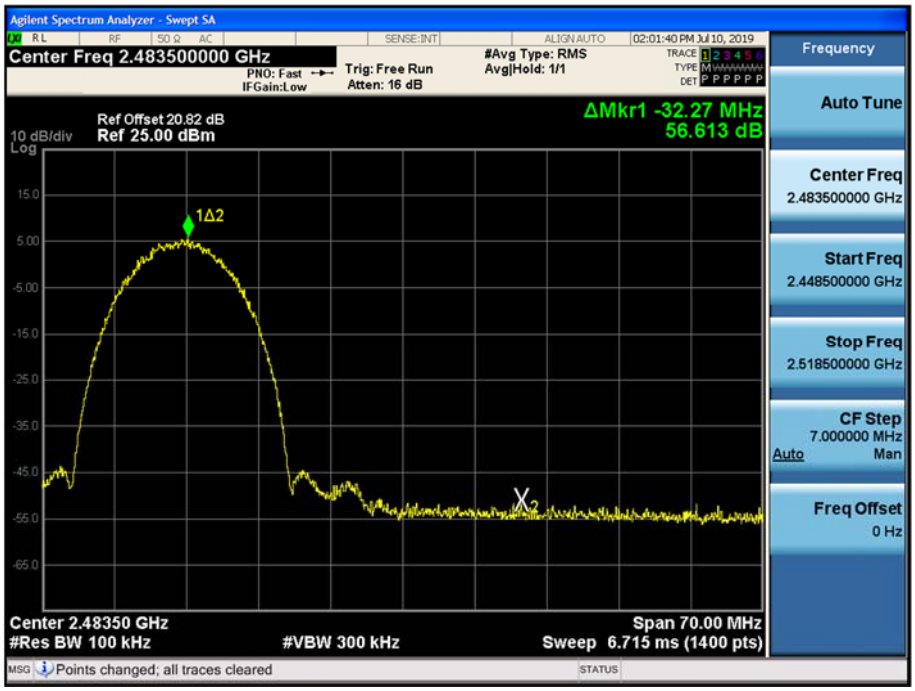
[ANT2]

▣ Test Plots(BandEdge)

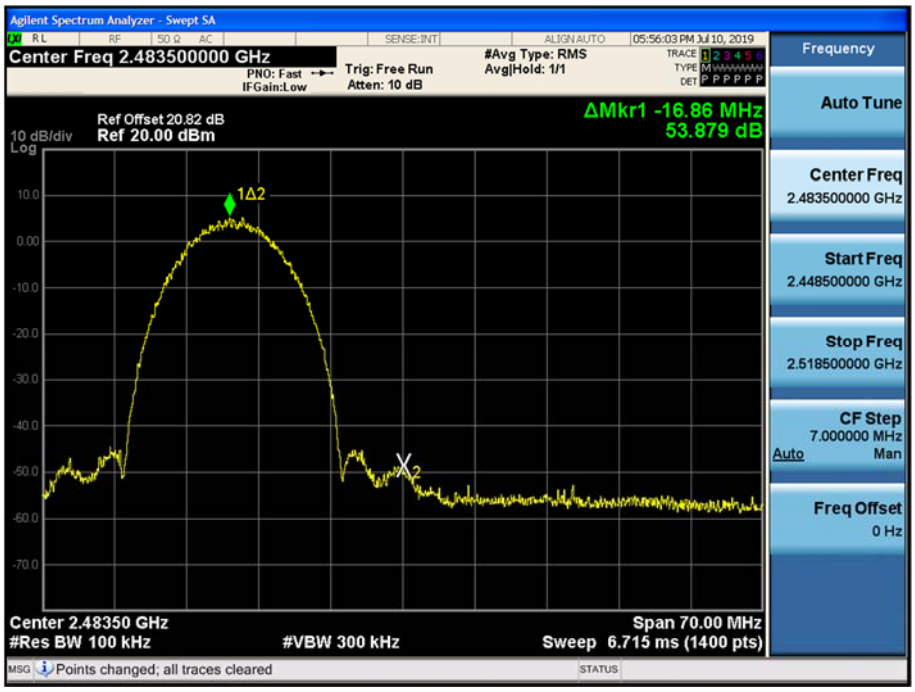
Band Edge (802.11b-CH1)



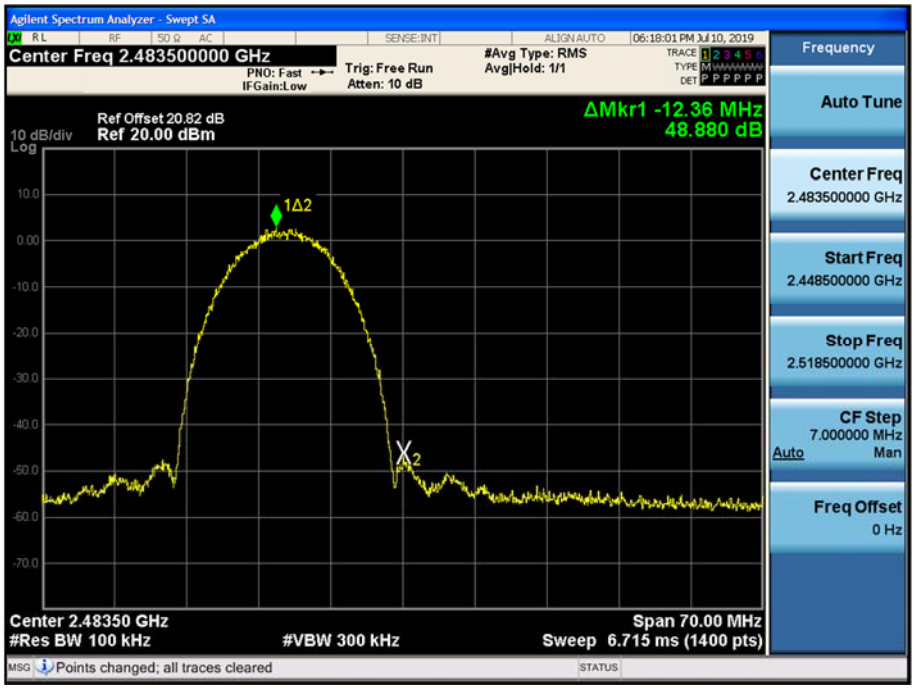
Band Edge (802.11b-CH11)



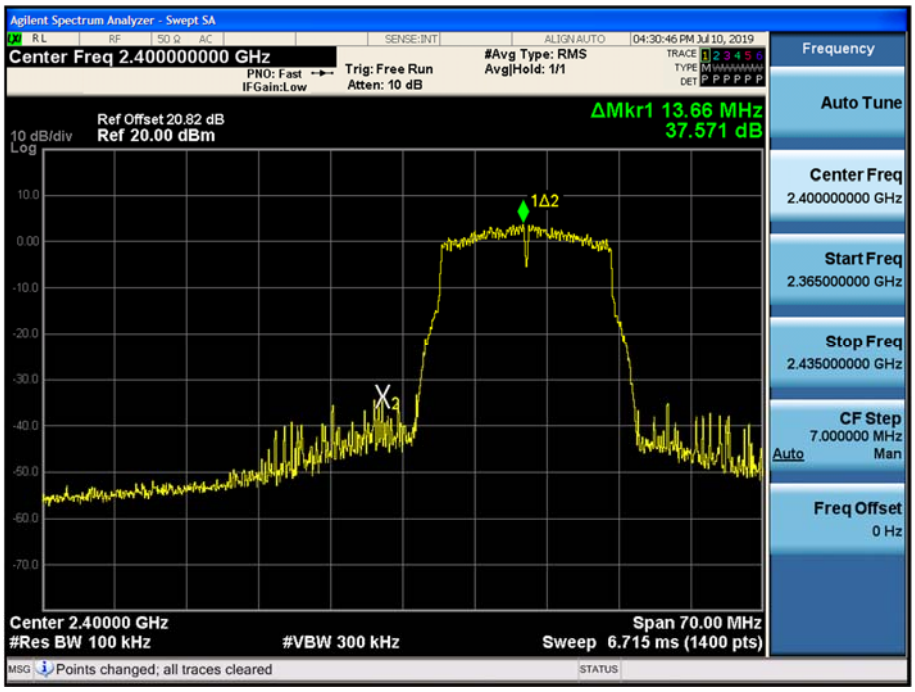
Band Edge (802.11b-CH12)



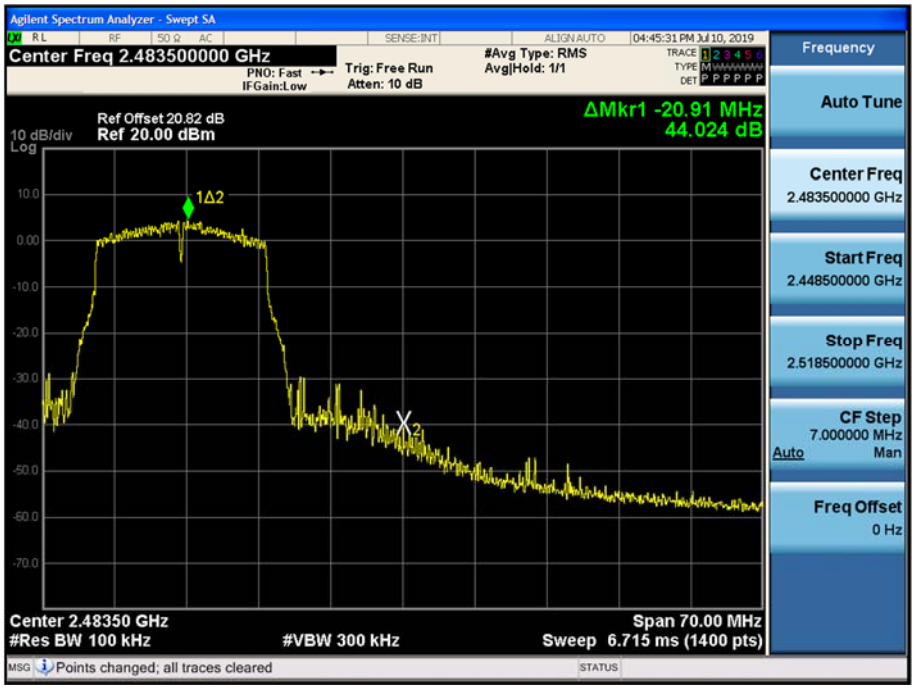
Band Edge (802.11b-CH13)



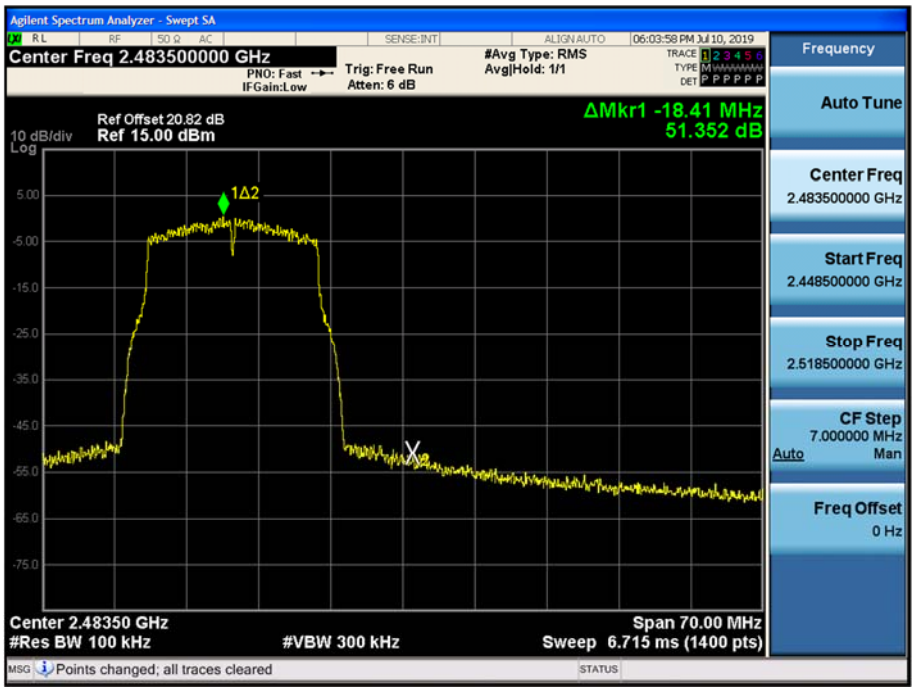
Band Edge (802.11g-CH1)



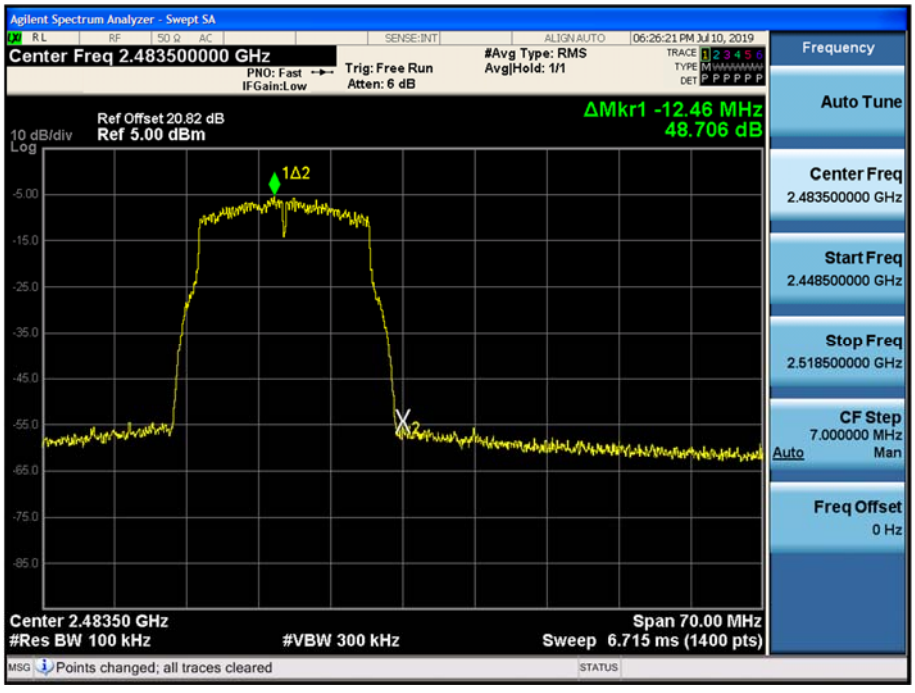
Band Edge (802.11g-CH11)



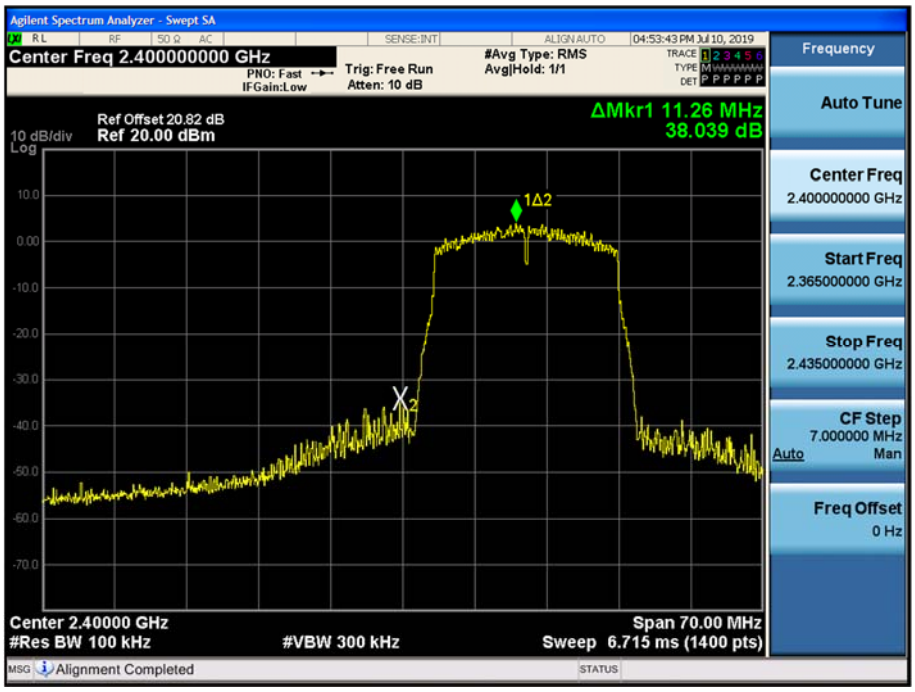
Band Edge (802.11g-CH12)



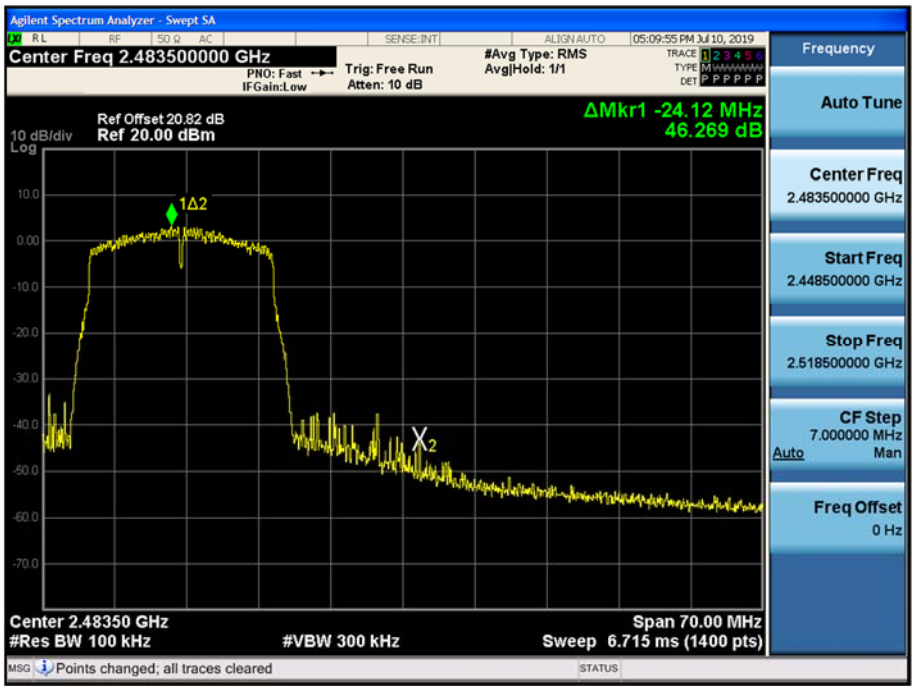
Band Edge (802.11g-CH13)



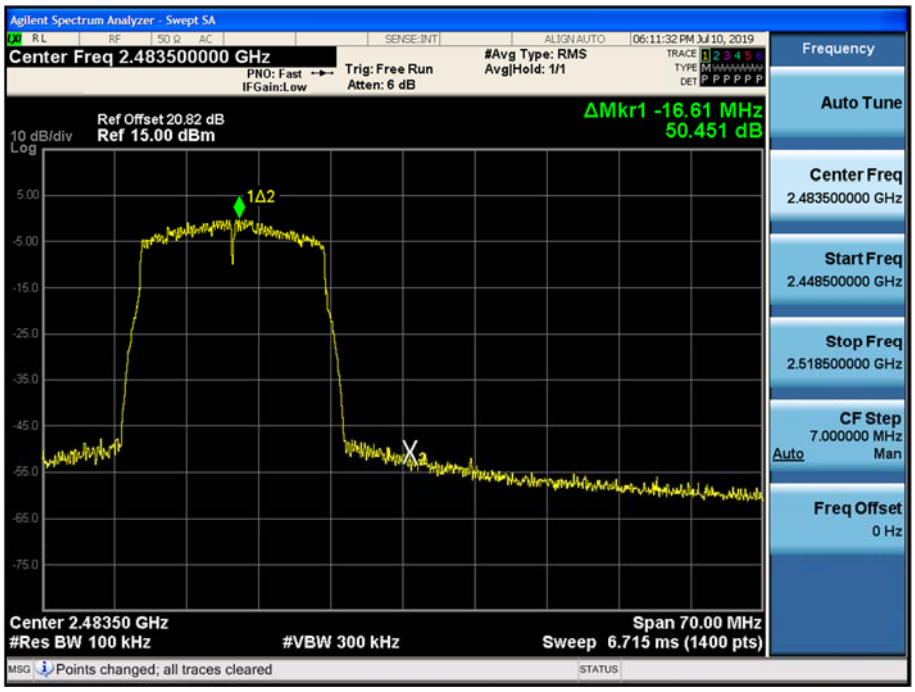
Band Edge (802.11n_HT20 -CH1)



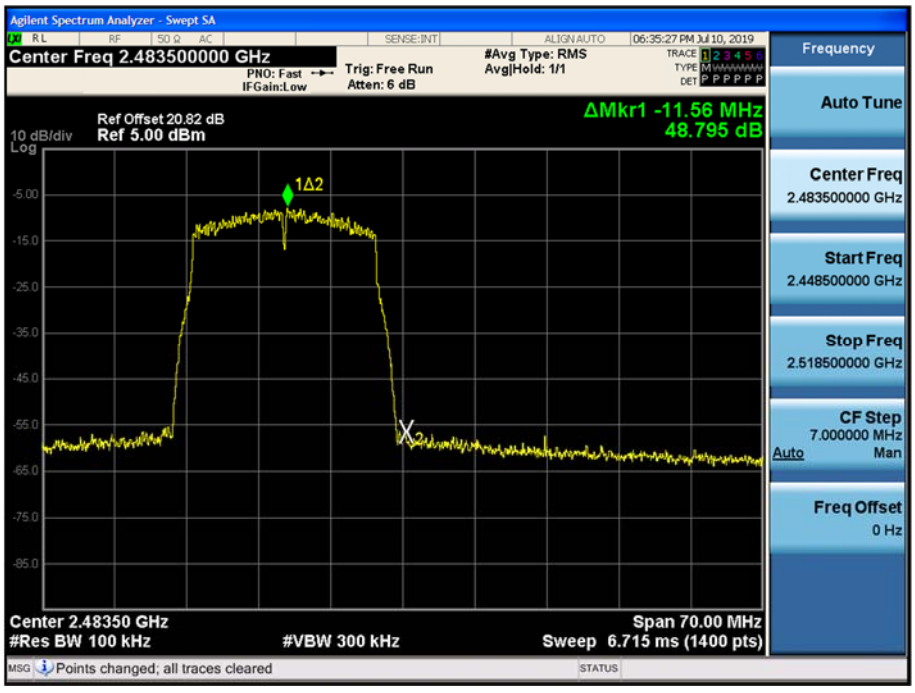
Band Edge (802.11n_HT20 -CH11)



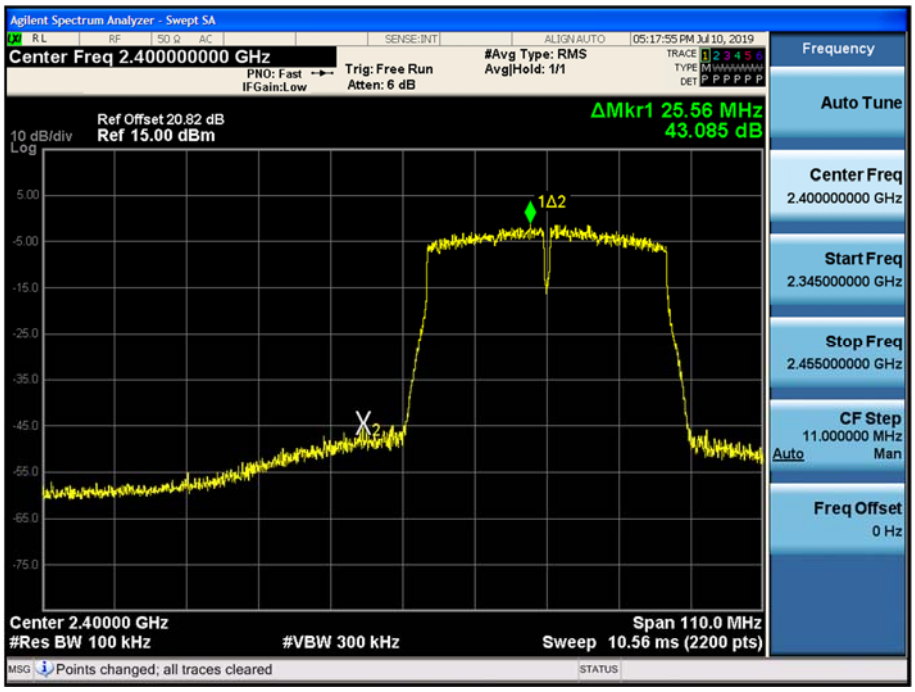
Band Edge (802.11n_HT20 -CH12)



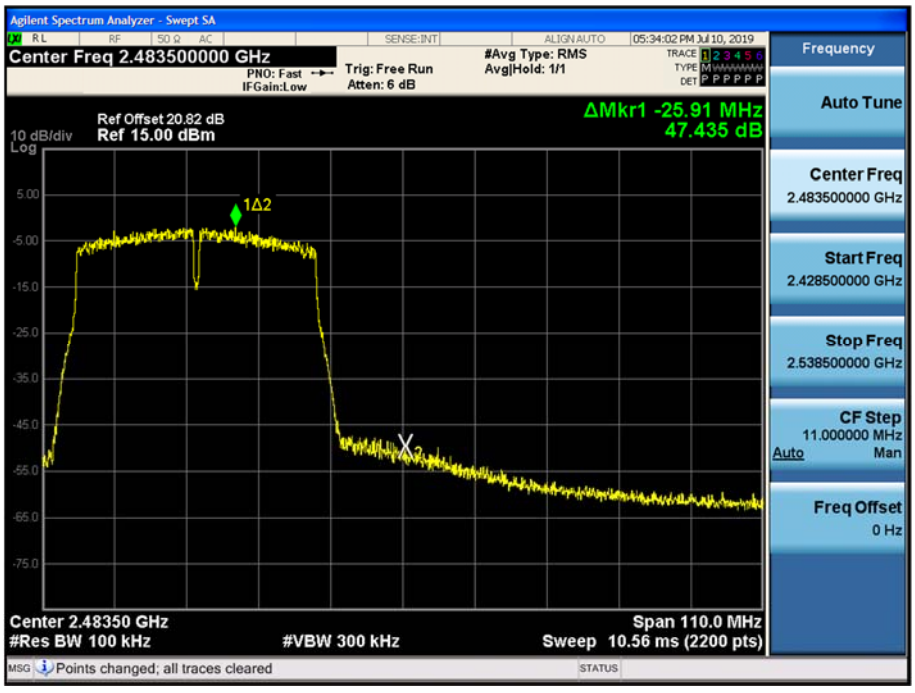
Band Edge (802.11n_HT20 -CH13)



Band Edge (802.11n_HT40 -CH3)



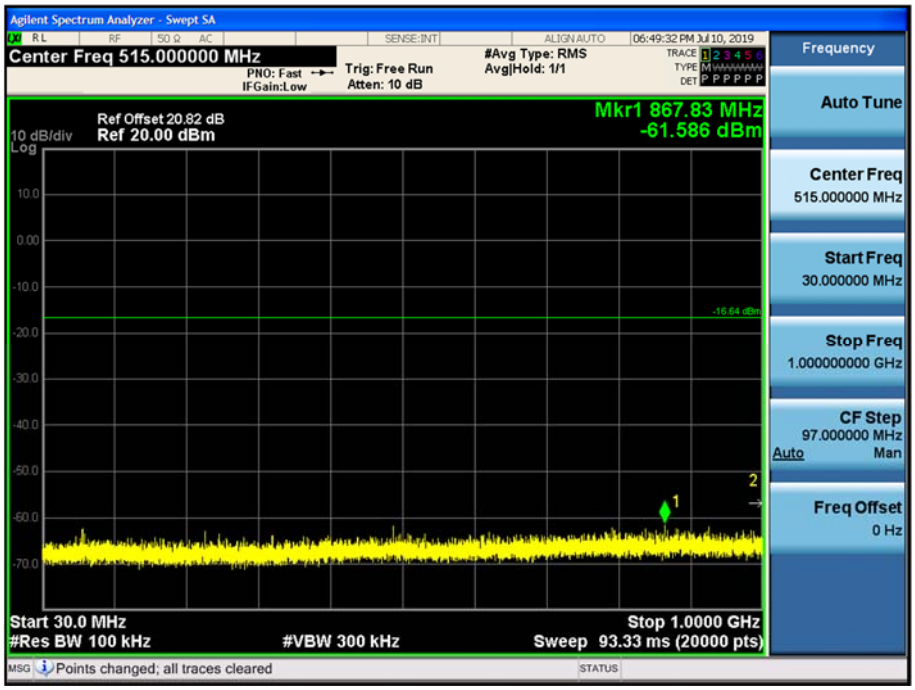
Band Edge (802.11n_HT40 –CH9)



▣ Test Plots(Conducted Spurious Emission)

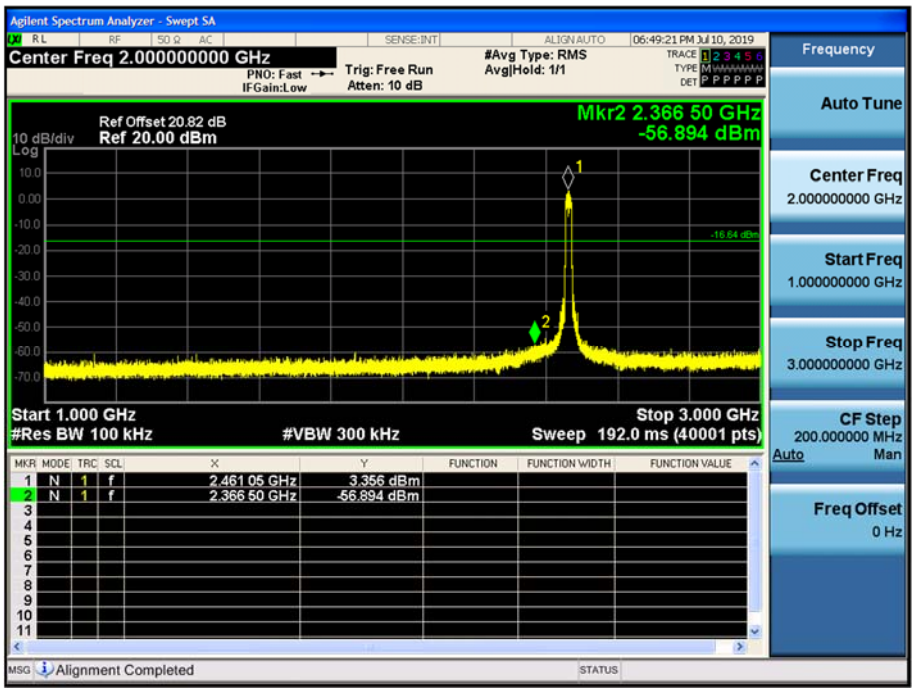
30 MHz ~ 1 GHz

Conducted Spurious Emission (802.11g_Ch.11_36 Mbps)



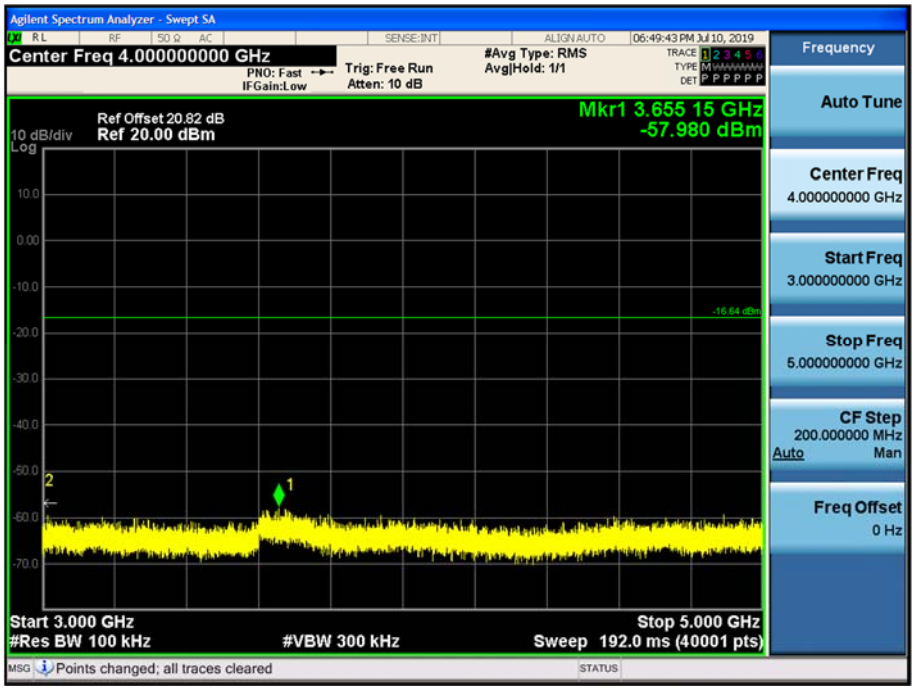
1 GHz ~ 3 GHz

Conducted Spurious Emission (802.11g_Ch.11_36 Mbps)



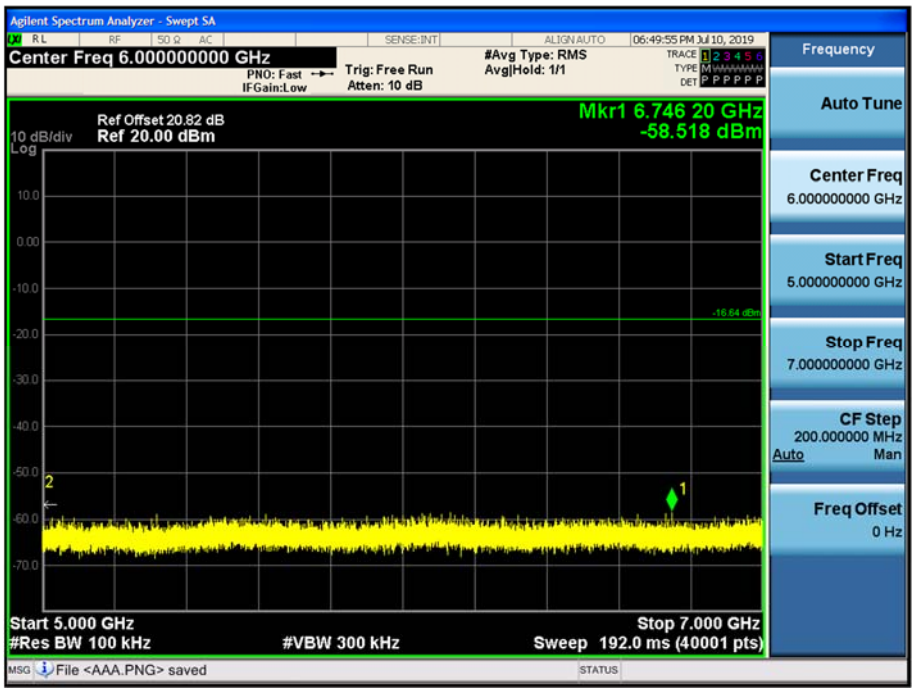
3 GHz ~ 5 GHz

Conducted Spurious Emission (802.11g_Ch.11_36 Mbps)



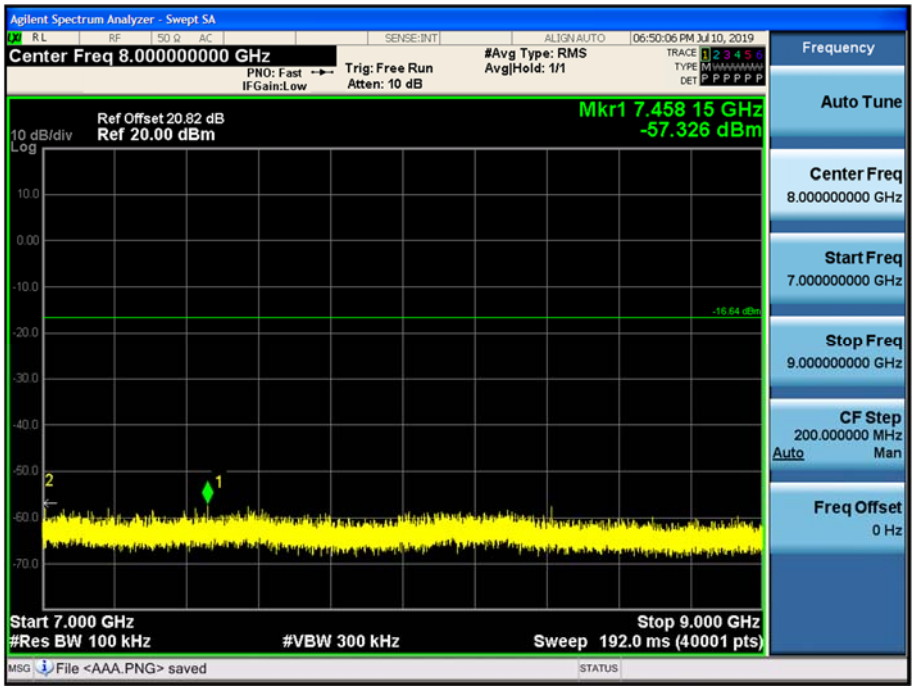
5 GHz ~ 7 GHz

Conducted Spurious Emission (802.11g_Ch.11_36 Mbps)



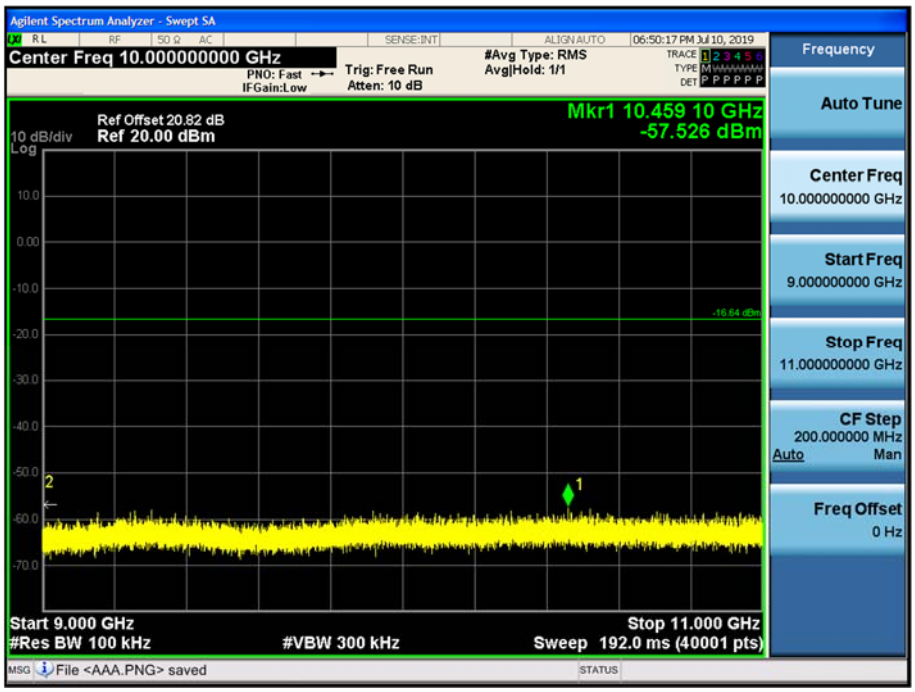
7 GHz ~ 9 GHz

Conducted Spurious Emission (802.11g_Ch.11_36 Mbps)



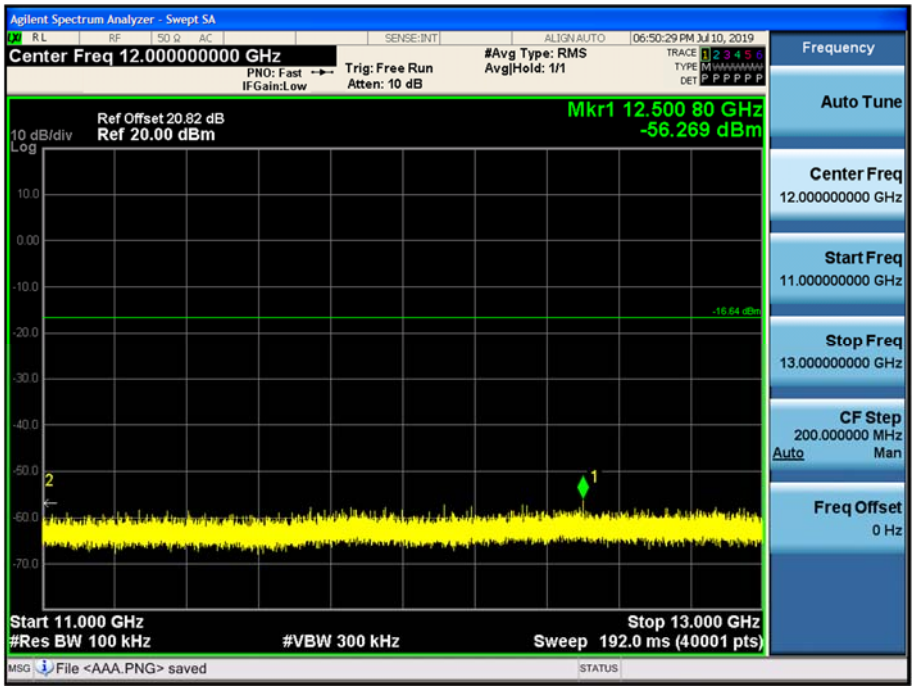
9 GHz ~ 11 GHz

Conducted Spurious Emission (802.11g_Ch.11_36 Mbps)



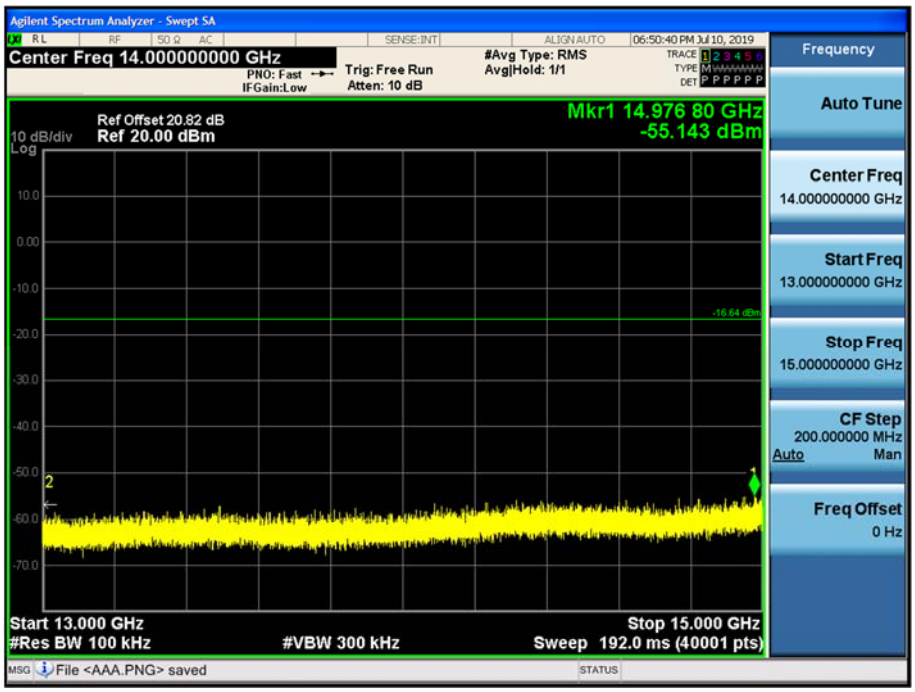
11 GHz ~ 13 GHz

Conducted Spurious Emission (802.11g_Ch.11_36 Mbps)



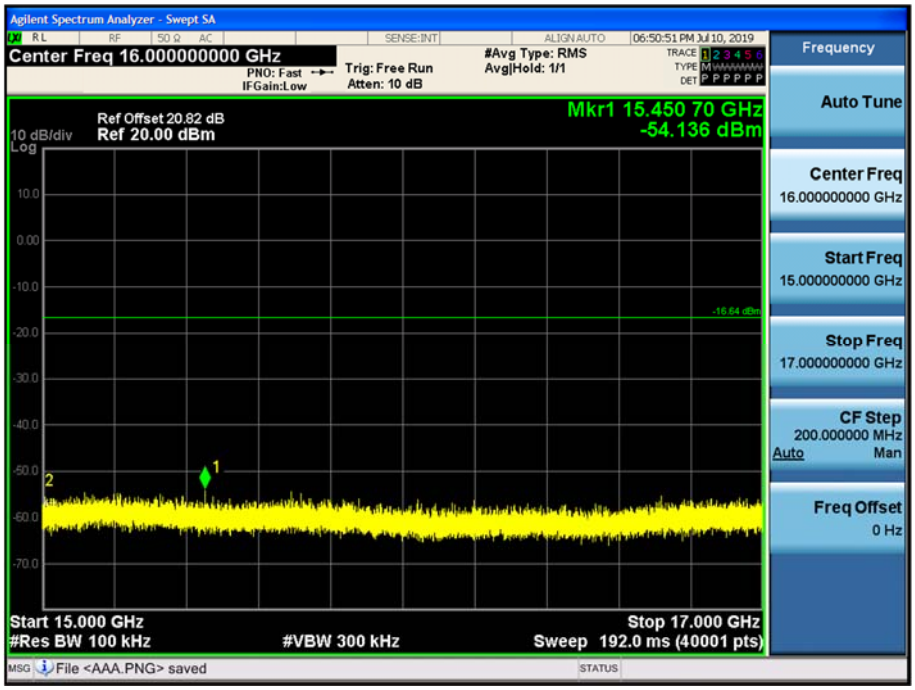
13 GHz ~ 15 GHz

Conducted Spurious Emission (802.11g_Ch.11_36 Mbps)



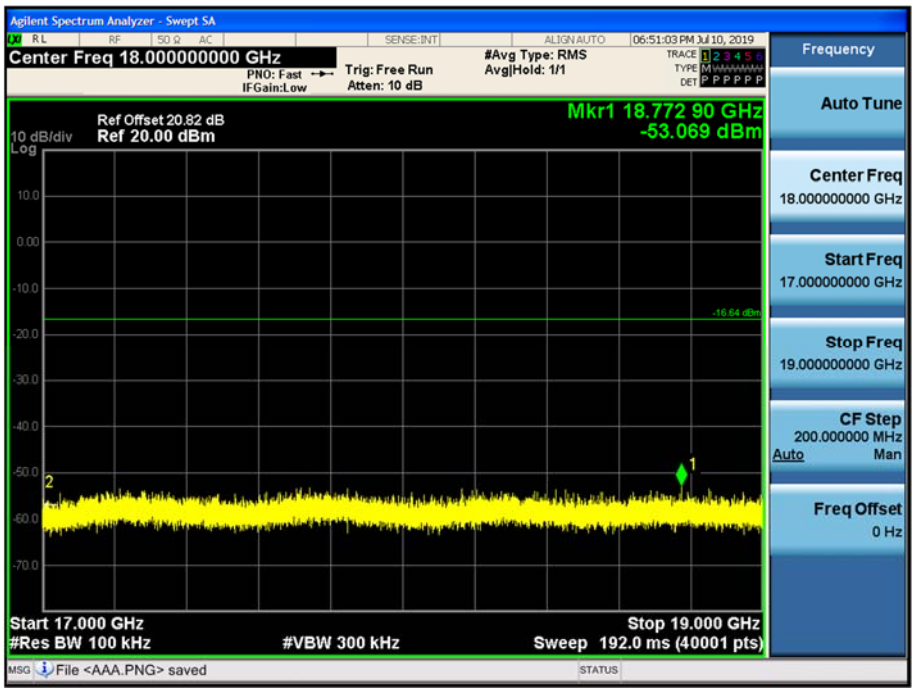
15 GHz ~ 17 GHz

Conducted Spurious Emission (802.11g_Ch.11_36 Mbps)



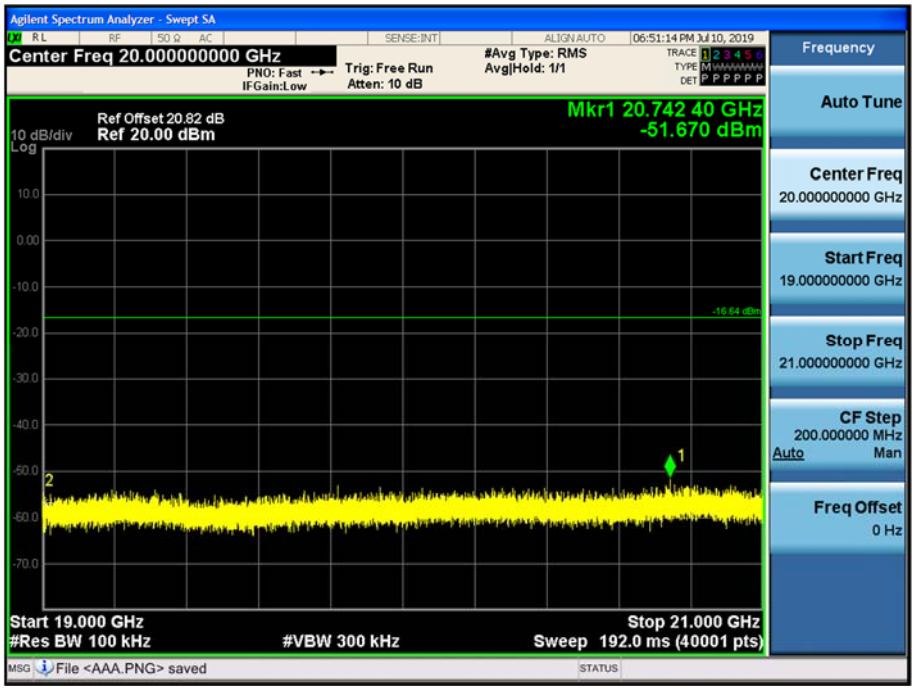
17 GHz ~ 19 GHz

Conducted Spurious Emission (802.11g_Ch.11_36 Mbps)



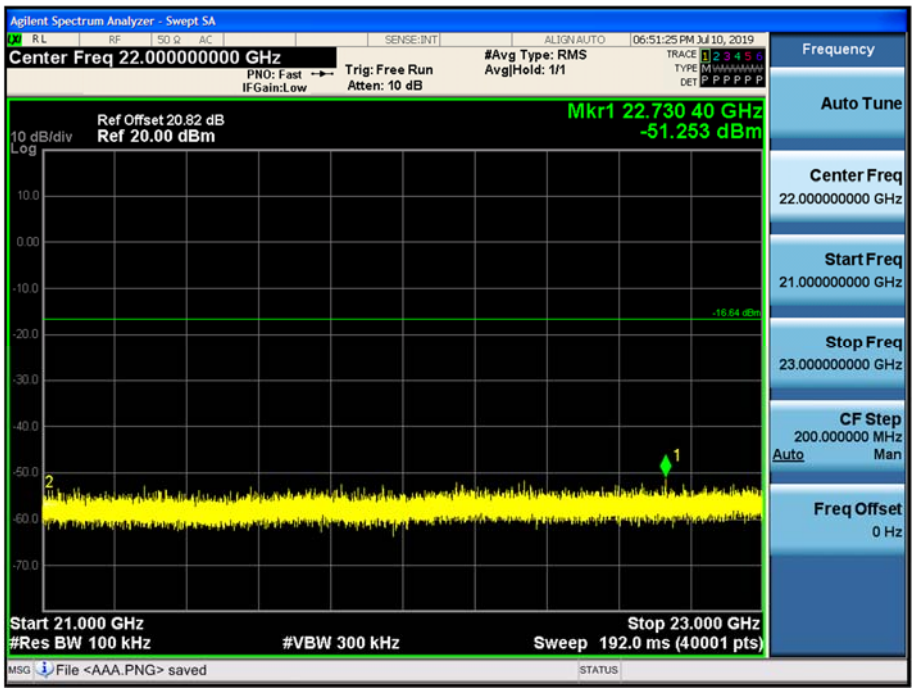
19 GHz ~ 21 GHz

Conducted Spurious Emission (802.11g_Ch.11_36 Mbps)



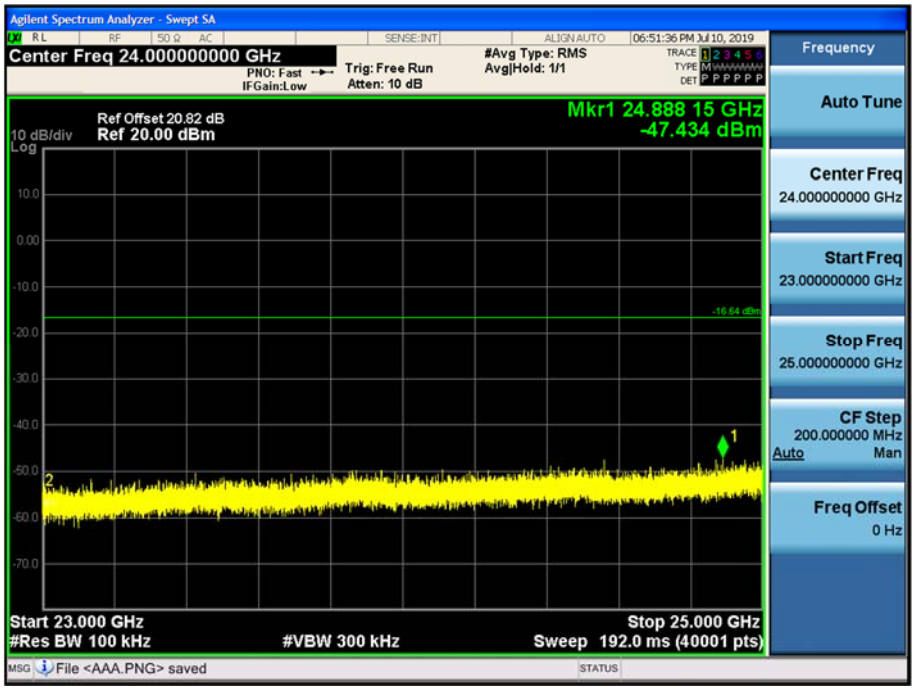
21 GHz ~ 23 GHz

Conducted Spurious Emission (802.11g_Ch.11_36 Mbps)



23 GHz ~ 25 GHz

Conducted Spurious Emission (802.11g_Ch.11_36 Mbps)



9.5 RADIATED SPURIOUS EMISSIONS

Frequency Range : 9 kHz – 30MHz

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

Note:

1. The reading of emissions are attenuated more than 20 dB below the permissible limits or the field strength is too small to be measured.
2. Distance extrapolation factor = 40*log (specific distance / test distance) (dB)
3. Limit line = specific Limits (dBuV) + Distance extrapolation factor
4. Radiated test is performed with hopping off.

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]	A.F.+C.L.-A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
4824	51.98	2.74	V	54.72	73.98	19.26	PK
4824	47.61	2.74	V	50.35	53.98	3.63	AV
7236	45.20	8.72	V	53.92	73.98	20.06	PK
7236	35.93	8.72	V	44.65	53.98	9.33	AV
4824	52.24	2.74	H	54.98	73.98	19.00	PK
4824	47.85	2.74	H	50.59	53.98	3.39	AV
7236	45.07	8.72	H	53.79	73.98	20.19	PK
7236	35.71	8.72	H	44.43	53.98	9.55	AV

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

Frequency [MHz]	Reading [dBuV]	Duty Cycle Factor [dB]	A.F.+C.L.-A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
4824	58.17	0.00	2.74	V	60.91	73.98	13.07	PK
4824	44.90	0.00	2.74	V	47.64	53.98	6.34	AV
7236	58.14	0.00	8.72	V	66.86	73.98	7.12	PK
7236	41.94	0.00	8.72	V	50.66	53.98	3.32	AV
4824	58.40	0.00	2.74	H	61.14	73.98	12.84	PK
4824	45.40	0.00	2.74	H	48.14	53.98	5.84	AV
7236	57.22	0.00	8.72	H	65.94	73.98	8.04	PK
7236	40.90	0.00	8.72	H	49.62	53.98	4.36	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]	A.F.+C.L.-A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
4824	55.39	0.00	2.74	V	58.13	73.98	15.85	PK
4824	42.53	0.00	2.74	V	45.27	53.98	8.71	AV
7236	56.92	0.00	8.72	V	65.64	73.98	8.34	PK
7236	40.85	0.00	8.72	V	49.57	53.98	4.41	AV
4824	56.14	0.00	2.74	H	58.88	73.98	15.10	PK
4824	42.93	0.00	2.74	H	45.67	53.98	8.31	AV
7236	56.41	0.00	8.72	H	65.13	73.98	8.85	PK
7236	40.64	0.00	8.72	H	49.36	53.98	4.62	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]	A.F.+C.L.-A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
4844	50.99	0.00	3.20	V	54.19	73.98	19.79	PK
4844	37.35	0.00	3.20	V	40.55	53.98	13.43	AV
7266	47.98	0.00	8.64	V	56.62	73.98	17.36	PK
7266	33.48	0.00	8.64	V	42.12	53.98	11.86	AV
4844	51.21	0.00	3.20	H	54.41	73.98	19.57	PK
4844	37.79	0.00	3.20	H	40.99	53.98	12.99	AV
7266	47.67	0.00	8.64	H	56.31	73.98	17.67	PK
7266	33.16	0.00	8.64	H	41.80	53.98	12.18	AV

Operation Mode:	802.11b
Transfer Rate:	1 Mbps
Operating Frequency	2437
Channel No.	06 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]	Measurement Type
4874	51.46	2.78	V	54.24	73.98	19.74	PK
4874	47.35	2.78	V	50.13	53.98	3.85	AV
7311	43.17	9.01	V	52.18	73.98	21.80	PK
7311	32.90	9.01	V	41.91	53.98	12.07	AV
4874	52.02	2.78	H	54.80	73.98	19.18	PK
4874	47.73	2.78	H	50.51	53.98	3.47	AV
7311	42.66	9.01	H	51.67	73.98	22.31	PK
7311	32.66	9.01	H	41.67	53.98	12.31	AV

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

Frequency [MHz]	Reading [dBuV]	Duty Cycle Factor [dB]	A.F.+C.L.-A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
4874	55.31	0.00	2.78	V	58.09	73.98	15.89	PK
4874	44.16	0.00	2.78	V	46.94	53.98	7.04	AV
7311	55.47	0.00	9.01	V	64.48	73.98	9.50	PK
7311	39.40	0.00	9.01	V	48.41	53.98	5.57	AV
4874	55.80	0.00	2.78	H	58.58	73.98	15.40	PK
4874	44.40	0.00	2.78	H	47.18	53.98	6.80	AV
7311	55.11	0.00	9.01	H	64.12	73.98	9.86	PK
7311	39.04	0.00	9.01	H	48.05	53.98	5.93	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]	A.F.+C.L.-A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
4874	54.19	0.00	2.78	V	56.97	73.98	17.01	PK
4874	41.38	0.00	2.78	V	44.16	53.98	9.82	AV
7311	54.63	0.00	9.01	V	63.64	73.98	10.34	PK
7311	37.25	0.00	9.01	V	46.26	53.98	7.72	AV
4874	54.83	0.00	2.78	H	57.61	73.98	16.37	PK
4874	41.65	0.00	2.78	H	44.43	53.98	9.55	AV
7311	54.15	0.00	9.01	H	63.16	73.98	10.82	PK
7311	36.77	0.00	9.01	H	45.78	53.98	8.20	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]	A.F.+C.L.-A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
4874	46.85	0.00	2.78	V	49.63	73.98	24.35	PK
4874	35.16	0.00	2.78	V	37.94	53.98	16.04	AV
7311	45.48	0.00	9.01	V	54.49	73.98	19.49	PK
7311	32.19	0.00	9.01	V	41.20	53.98	12.78	AV
4874	47.24	0.00	2.78	H	50.02	73.98	23.96	PK
4874	35.90	0.00	2.78	H	38.68	53.98	15.30	AV
7311	45.18	0.00	9.01	H	54.19	73.98	19.79	PK
7311	31.99	0.00	9.01	H	41.00	53.98	12.98	AV

Operation Mode:	802.11b
Transfer Rate:	1 Mbps
Operating Frequency	2462
Channel No.	11 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]	Measurement Type
4924	51.85	2.43	V	54.28	73.98	19.70	PK
4924	46.11	2.43	V	48.54	53.98	5.44	AV
7386	42.09	9.44	V	51.53	73.98	22.45	PK
7386	32.50	9.44	V	41.94	53.98	12.04	AV
4924	52.06	2.43	H	54.49	73.98	19.49	PK
4924	46.33	2.43	H	48.76	53.98	5.22	AV
7386	41.96	9.44	H	51.40	73.98	22.58	PK
7386	32.41	9.44	H	41.85	53.98	12.13	AV

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

Frequency [MHz]	Reading [dBuV]	Duty Cycle Factor [dB]	A.F.+C.L.-A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
4924	57.36	0.00	2.43	V	59.79	73.98	14.19	PK
4924	45.14	0.00	2.43	V	47.57	53.98	6.41	AV
7386	55.40	0.00	9.44	V	64.84	73.98	9.14	PK
7386	38.60	0.00	9.44	V	48.04	53.98	5.94	AV
4924	57.74	0.00	2.43	H	60.17	73.98	13.81	PK
4924	46.01	0.00	2.43	H	48.44	53.98	5.54	AV
7386	55.06	0.00	9.44	H	64.50	73.98	9.48	PK
7386	38.17	0.00	9.44	H	47.61	53.98	6.37	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]	A.F.+C.L.-A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
4924	55.00	0.00	2.43	V	57.43	73.98	16.55	PK
4924	42.17	0.00	2.43	V	44.60	53.98	9.38	AV
7386	52.14	0.00	9.44	V	61.58	73.98	12.40	PK
7386	35.29	0.00	9.44	V	44.73	53.98	9.25	AV
4924	55.44	0.00	2.43	H	57.87	73.98	16.11	PK
4924	42.93	0.00	2.43	H	45.36	53.98	8.62	AV
7386	51.47	0.00	9.44	H	60.91	73.98	13.07	PK
7386	34.96	0.00	9.44	H	44.40	53.98	9.58	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]	A.F.+C.L.-A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
4904	50.05	0.00	2.56	V	52.61	73.98	21.37	PK
4904	37.17	0.00	2.56	V	39.73	53.98	14.25	AV
7356	43.89	0.00	9.69	V	53.58	73.98	20.40	PK
7356	31.55	0.00	9.69	V	41.24	53.98	12.74	AV
4904	50.64	0.00	2.56	H	53.20	73.98	20.78	PK
4904	37.75	0.00	2.56	H	40.31	53.98	13.67	AV
7356	43.25	0.00	9.69	H	52.94	73.98	21.04	PK
7356	31.05	0.00	9.69	H	40.74	53.98	13.24	AV

Operation Mode:	802.11b
Transfer Rate:	1 Mbps
Operating Frequency	2467
Channel No.	12 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]	Measurement Type
4924	52.17	2.43	V	54.60	73.98	19.38	PK
4924	47.55	2.43	V	49.98	53.98	4.00	AV
7386	43.31	9.44	V	52.75	73.98	21.23	PK
7386	31.89	9.44	V	41.33	53.98	12.65	AV
4924	52.55	2.43	H	54.98	73.98	19.00	PK
4924	47.93	2.43	H	50.36	53.98	3.62	AV
7386	43.02	9.44	H	52.46	73.98	21.52	PK
7386	31.24	9.44	H	40.68	53.98	13.30	AV

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

Frequency [MHz]	Reading [dBuV]	Duty Cycle Factor [dB]	A.F.+C.L.-A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
4924	53.16	0.00	2.43	V	55.59	73.98	18.39	PK
4924	39.54	0.00	2.43	V	41.97	53.98	12.01	AV
7386	49.36	0.00	9.44	V	58.80	73.98	15.18	PK
7386	31.53	0.00	9.44	V	40.97	53.98	13.01	AV
4924	53.59	0.00	2.43	H	56.02	73.98	17.96	PK
4924	39.89	0.00	2.43	H	42.32	53.98	11.66	AV
7386	49.04	0.00	9.44	H	58.48	73.98	15.50	PK
7386	31.21	0.00	9.44	H	40.65	53.98	13.33	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]	A.F.+C.L.-A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
4924	51.55	0.00	2.43	V	53.98	73.98	20.00	PK
4924	37.71	0.00	2.43	V	40.14	53.98	13.84	AV
7386	49.44	0.00	9.44	V	58.88	73.98	15.10	PK
7386	30.82	0.00	9.44	V	40.26	53.98	13.72	AV
4924	51.86	0.00	2.43	H	54.29	73.98	19.69	PK
4924	38.12	0.00	2.43	H	40.55	53.98	13.43	AV
7386	49.17	0.00	9.44	H	58.61	73.98	15.37	PK
7386	30.55	0.00	9.44	H	39.99	53.98	13.99	AV

Operation Mode:	802.11b
Transfer Rate:	1 Mbps
Operating Frequency	2472
Channel No.	13 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]	Measurement Type
4924	49.94	2.43	V	52.37	73.98	21.61	PK
4924	45.12	2.43	V	47.55	53.98	6.43	AV
7386	41.92	9.44	V	51.36	73.98	22.62	PK
7386	30.57	9.44	V	40.01	53.98	13.97	AV
4924	50.17	2.43	H	52.60	73.98	21.38	PK
4924	45.52	2.43	H	47.95	53.98	6.03	AV
7386	41.55	9.44	H	50.99	73.98	22.99	PK
7386	30.17	9.44	H	39.61	53.98	14.37	AV

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

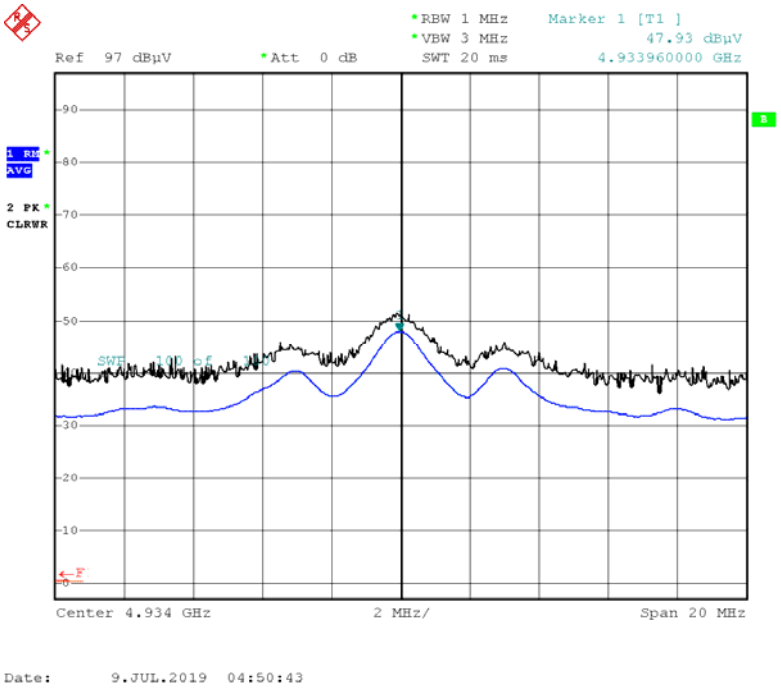
Frequency [MHz]	Reading [dBuV]	Duty Cycle Factor [dB]	A.F.+C.L.-A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
4924	42.51	0.00	2.43	V	44.94	73.98	29.04	PK
4924	31.17	0.00	2.43	V	33.60	53.98	20.38	AV
7386	42.30	0.00	9.44	V	51.74	73.98	22.24	PK
7386	29.93	0.00	9.44	V	39.37	53.98	14.61	AV
4924	42.86	0.00	2.43	H	45.29	73.98	28.69	PK
4924	31.63	0.00	2.43	H	34.06	53.98	19.92	AV
7386	42.11	0.00	9.44	H	51.55	73.98	22.43	PK
7386	29.58	0.00	9.44	H	39.02	53.98	14.96	AV

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

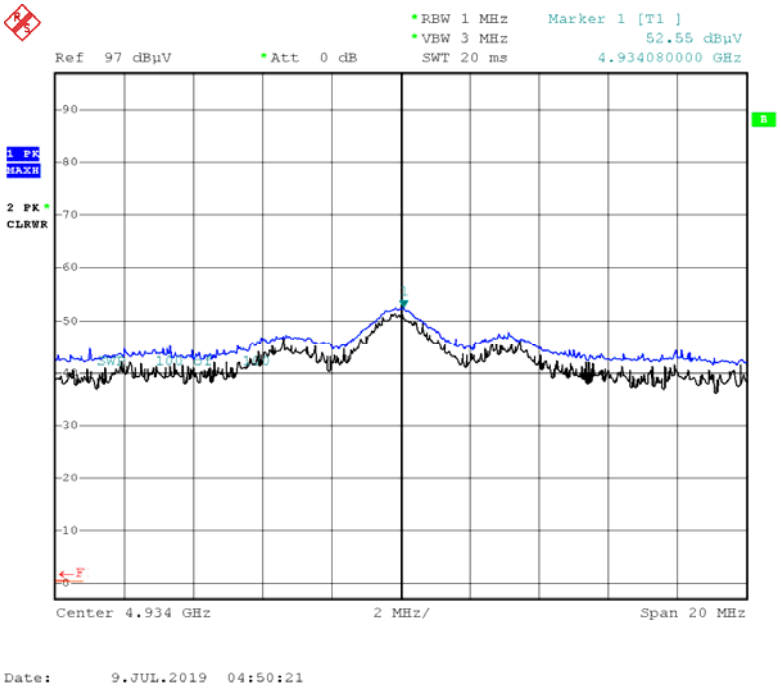
Frequency [MHz]	Reading [dBuV]	Duty Cycle Factor [dB]	A.F.+C.L.-A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
4924	42.55	0.00	2.43	V	44.98	73.98	29.00	PK
4924	31.04	0.00	2.43	V	33.47	53.98	20.51	AV
7386	41.83	0.00	9.44	V	51.27	73.98	22.71	PK
7386	29.81	0.00	9.44	V	39.25	53.98	14.73	AV
4924	42.92	0.00	2.43	H	45.35	73.98	28.63	PK
4924	31.35	0.00	2.43	H	33.78	53.98	20.20	AV
7386	41.54	0.00	9.44	H	50.98	73.98	23.00	PK
7386	29.71	0.00	9.44	H	39.15	53.98	14.83	AV

▣ Test Plots (Worst case : Y-V)

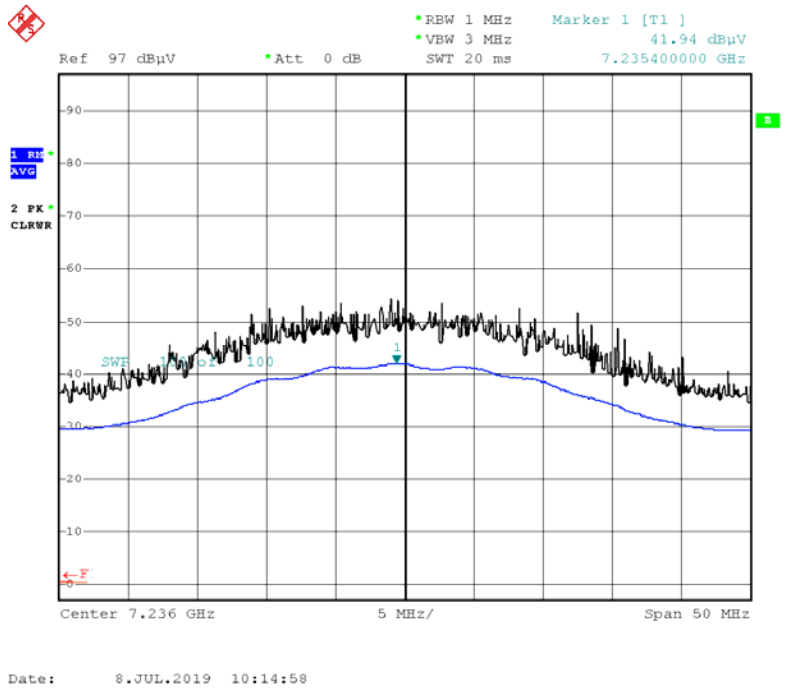
Radiated Spurious Emissions plot – Average Reading (802.11b, Ch.12 2nd Harmonic)



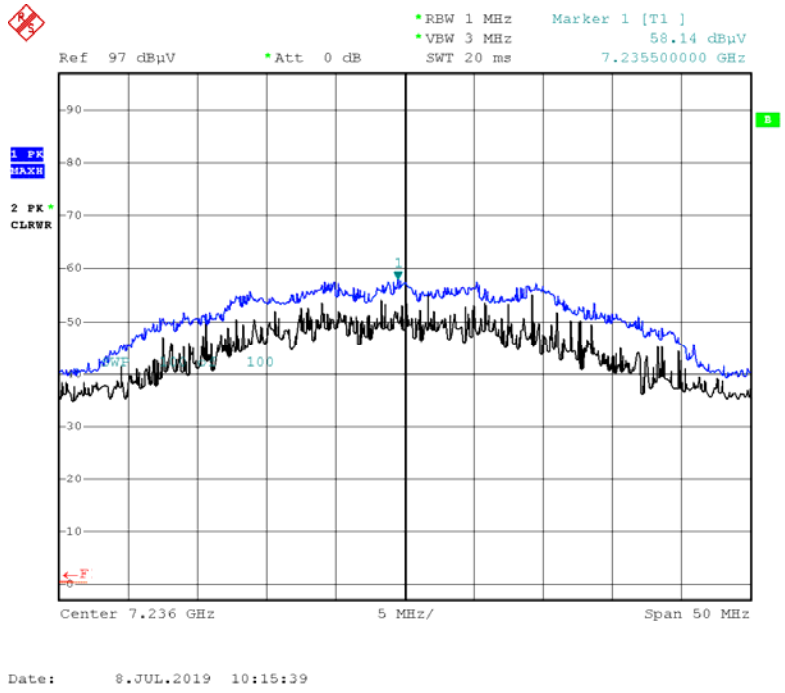
Radiated Spurious Emissions plot – Peak Reading (802.11b, Ch.12 2nd Harmonic)



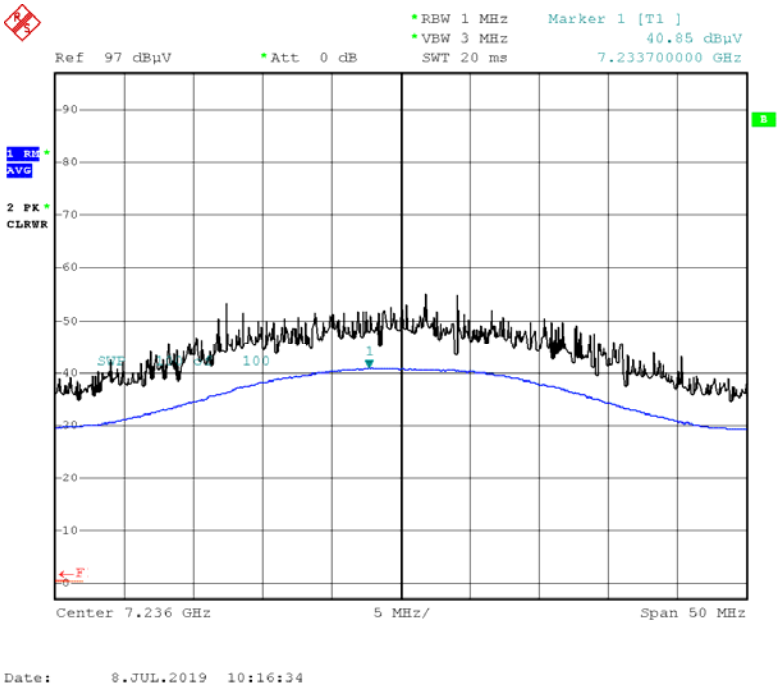
Radiated Spurious Emissions plot – Average Reading (802.11g, Ch.1 3rd Harmonic)



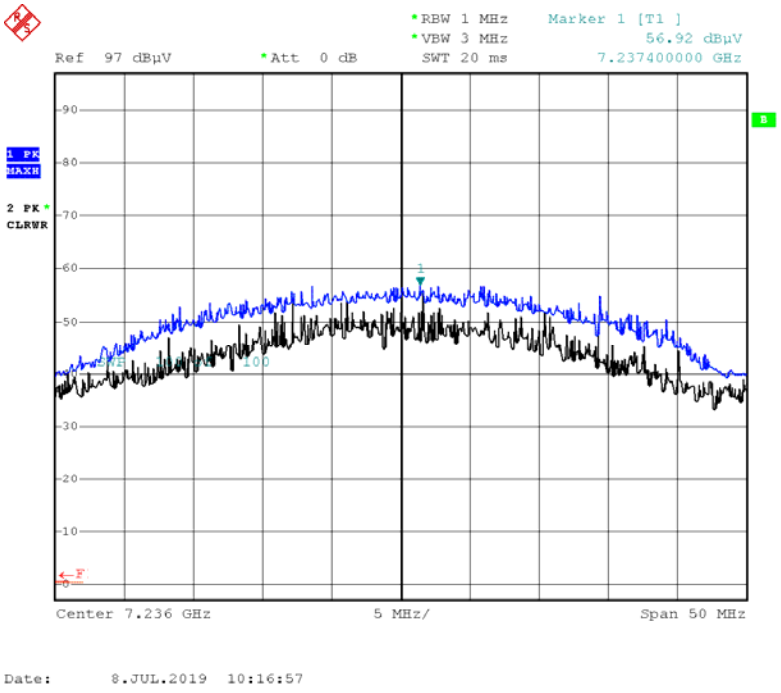
Radiated Spurious Emissions plot – Peak Reading (802.11g, Ch.1 3rd Harmonic)



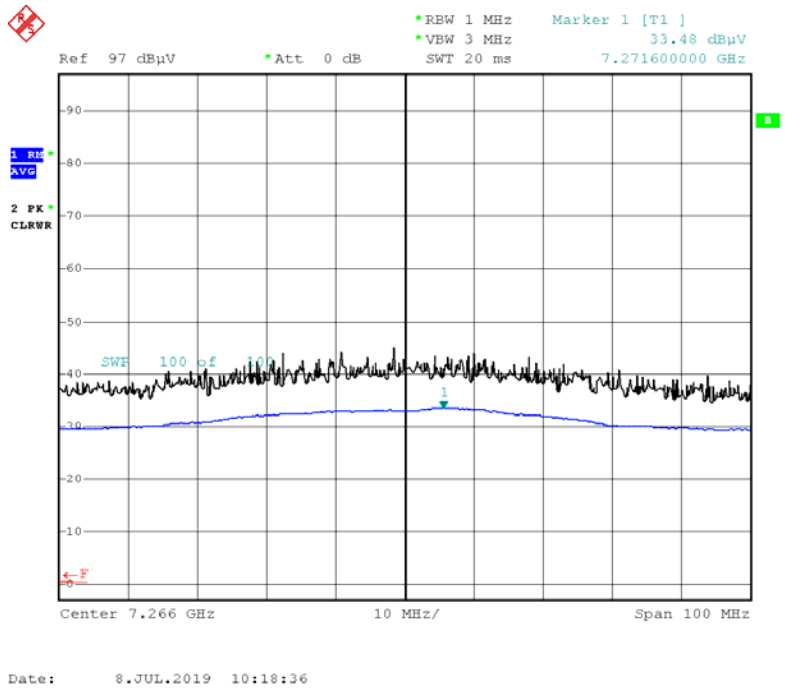
Radiated Spurious Emissions plot – Average Reading (802.11n (HT20), Ch.1 3rd Harmonic)



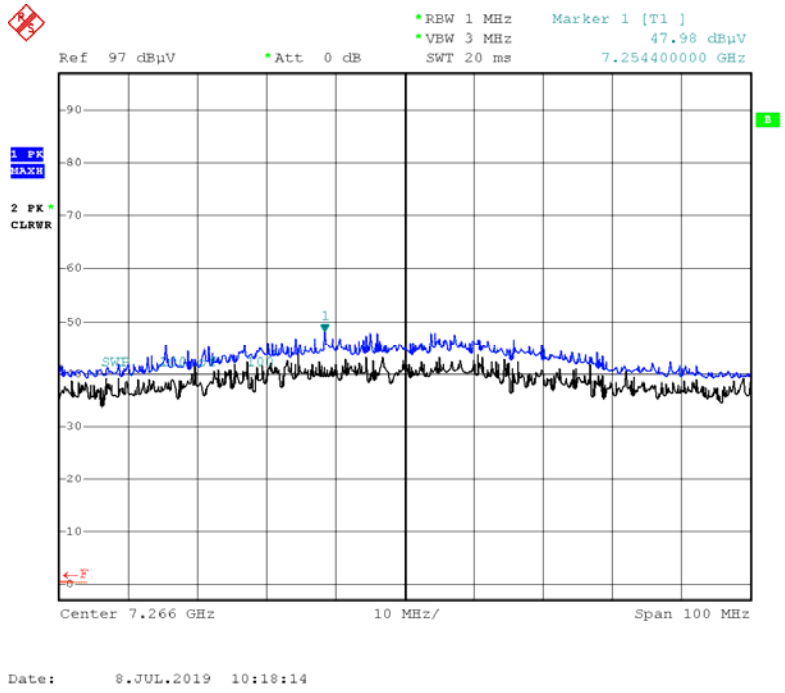
Radiated Spurious Emissions plot – Peak Reading (802.11n (HT20), Ch.1 3rd Harmonic)



Radiated Spurious Emissions plot – Average Reading (802.11n (HT40), Ch.3 3rd Harmonic)



Radiated Spurious Emissions plot – Peak Reading (802.11n (HT40), Ch.3 3rd Harmonic)



Note:

Plot of worst case are only reported.

9.6 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.+C.L.+D.F. -A.G+ATT [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
2390.0	58.05	0.22	H	58.27	73.98	15.71	PK
2390.0	46.47	0.22	H	46.69	53.98	7.29	AV
2390.0	57.39	0.22	V	57.61	73.98	16.37	PK
2390.0	46.11	0.22	V	46.33	53.98	7.65	AV
2483.5	58.16	0.65	H	58.81	73.98	15.17	PK
2483.5	45.99	0.65	H	46.64	53.98	7.34	AV
2483.5	58.68	0.65	V	59.33	73.98	14.65	PK
2483.5	46.17	0.65	V	46.82	53.98	7.16	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.+C.L.+D.F. -A.G+ATT [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
12 ch / 2483.5	58.14	0.65	H	58.79	73.98	15.19	PK
12 ch / 2483.5	47.11	0.65	H	47.76	53.98	6.22	AV
12 ch / 2483.5	58.57	0.65	V	59.22	73.98	14.76	PK
12 ch / 2483.5	47.59	0.65	V	48.24	53.98	5.74	AV
13 ch / 2483.5	60.07	0.65	H	60.72	73.98	13.26	PK
13 ch / 2483.5	50.24	0.65	H	50.89	53.98	3.09	AV
13 ch / 2483.5	60.47	0.65	V	61.12	73.98	12.86	PK
13 ch / 2483.5	50.61	0.65	V	51.26	53.98	2.72	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.+C.L.+D.F -A.G+ATT. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
2390.0	64.34	0.00	0.22	H	64.56	73.98	9.42	PK
2390.0	50.23	0.00	0.22	H	50.45	53.98	3.53	AV
2390.0	64.17	0.00	0.22	V	64.39	73.98	9.59	PK
2390.0	50.11	0.00	0.22	V	50.33	53.98	3.65	AV
2483.5	66.94	0.00	0.65	H	67.59	73.98	6.39	PK
2483.5	49.55	0.00	0.65	H	50.20	53.98	3.78	AV
2483.5	67.24	0.00	0.65	V	67.89	73.98	6.09	PK
2483.5	49.71	0.00	0.65	V	50.36	53.98	3.62	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.+C.L.+D.F -A.G+ATT. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
12 ch / 2483.5	66.18	0.00	0.65	H	66.83	73.98	7.15	PK
12 ch / 2483.5	49.57	0.00	0.65	H	50.22	53.98	3.76	AV
12 ch / 2483.5	66.58	0.00	0.65	V	67.23	73.98	6.75	PK
12 ch / 2483.5	49.84	0.00	0.65	V	50.49	53.98	3.49	AV
13 ch / 2483.5	63.11	0.00	0.65	H	63.76	73.98	10.22	PK
13 ch / 2483.5	49.88	0.00	0.65	H	50.53	53.98	3.45	AV
13 ch / 2483.5	63.78	0.00	0.65	V	64.43	73.98	9.55	PK
13 ch / 2483.5	50.03	0.00	0.65	V	50.68	53.98	3.30	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.+C.L.+D.F -A.G+ATT [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
2390.0	67.22	0.00	0.22	H	67.44	73.98	6.54	PK
2390.0	50.72	0.00	0.22	H	50.94	53.98	3.04	AV
2390.0	66.97	0.00	0.22	V	67.19	73.98	6.79	PK
2390.0	50.53	0.00	0.22	V	50.75	53.98	3.23	AV
2483.5	67.21	0.00	0.65	H	67.86	73.98	6.12	PK
2483.5	49.58	0.00	0.65	H	50.23	53.98	3.75	AV
2483.5	67.76	0.00	0.65	V	68.41	73.98	5.57	PK
2483.5	50.10	0.00	0.65	V	50.75	53.98	3.23	AV

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

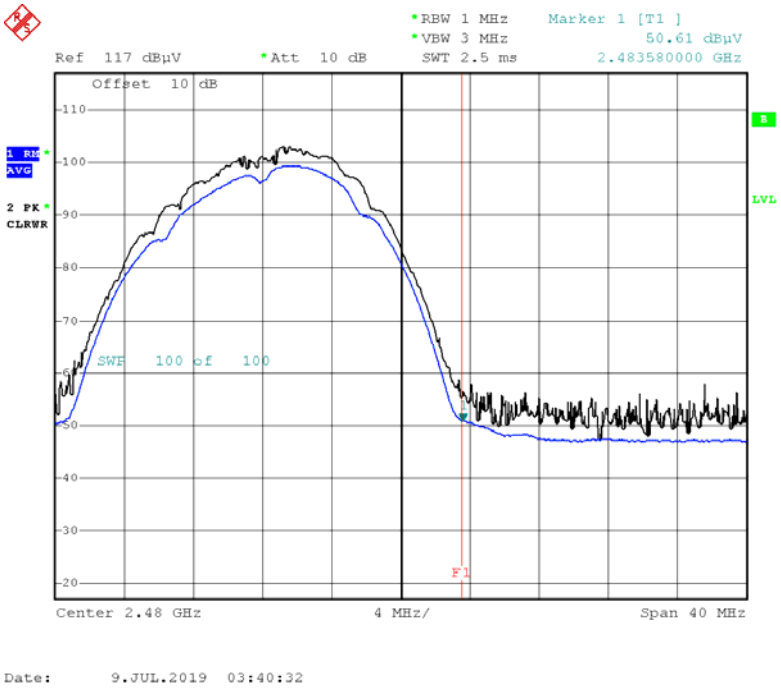
Frequency [MHz]	Reading [dBuV]	Duty Cycle Factor [dB]	A.F.+C.L.+D.F -A.G+ATT [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
12 ch / 2483.5	67.23	0.00	0.65	H	67.88	73.98	6.10	PK
12 ch / 2483.5	49.98	0.00	0.65	H	50.63	53.98	3.35	AV
12 ch / 2483.5	67.75	0.00	0.65	V	68.40	73.98	5.58	PK
12 ch / 2483.5	50.30	0.00	0.65	V	50.95	53.98	3.03	AV
13 ch / 2483.5	61.01	0.00	0.65	H	61.66	73.98	12.32	PK
13 ch / 2483.5	49.55	0.00	0.65	H	50.20	53.98	3.78	AV
13 ch / 2483.5	61.35	0.00	0.65	V	62.00	73.98	11.98	PK
13 ch / 2483.5	50.06	0.00	0.65	V	50.71	53.98	3.27	AV

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

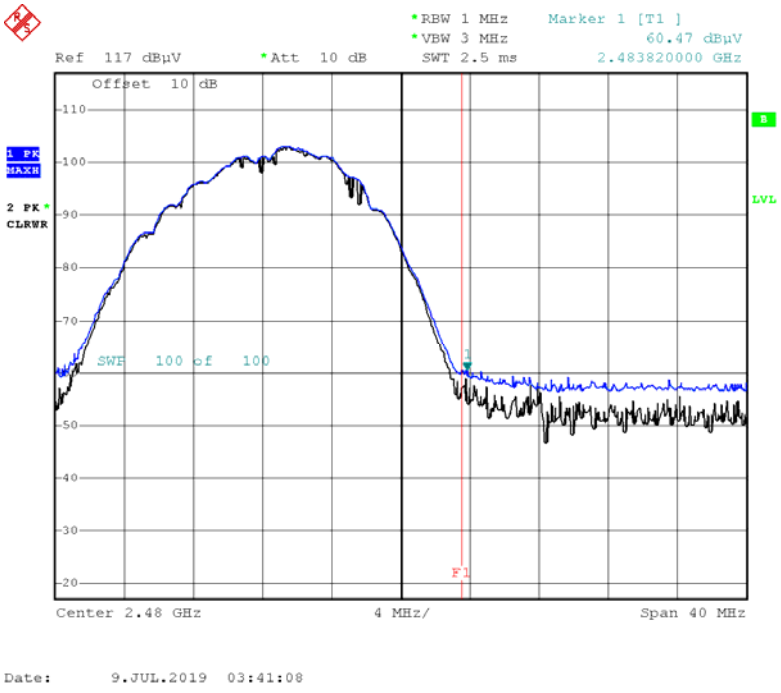
Frequency [MHz]	Reading [dBuV]	Duty Cycle Factor [dB]	A.F.+C.L.+D.F -A.G+ATT [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
2390.0	64.74	0.00	0.22	H	64.96	73.98	9.02	PK
2390.0	50.73	0.00	0.22	H	50.95	53.98	3.03	AV
2390.0	64.38	0.00	0.22	V	64.60	73.98	9.38	PK
2390.0	50.16	0.00	0.22	V	50.38	53.98	3.60	AV
2483.5	65.26	0.00	0.65	H	65.91	73.98	8.07	PK
2483.5	49.98	0.00	0.65	H	50.63	53.98	3.35	AV
2483.5	65.70	0.00	0.65	V	66.35	73.98	7.63	PK
2483.5	50.20	0.00	0.65	V	50.85	53.98	3.13	AV

▣ Test Plots

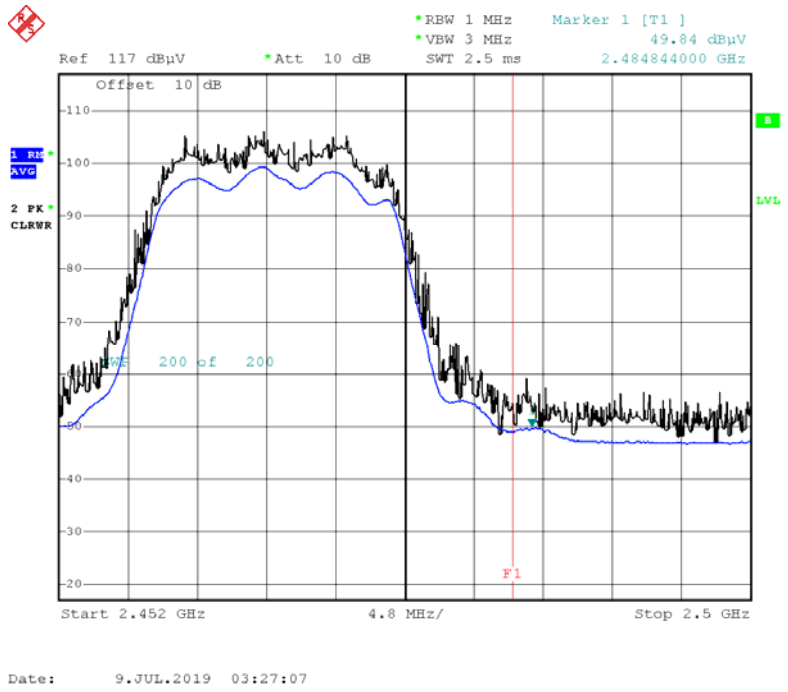
Radiated Restricted Band Edges plot – Average Reading (802.11b Ch.13)



Radiated Restricted Band Edges plot – Peak Reading (802.11b Ch.13)

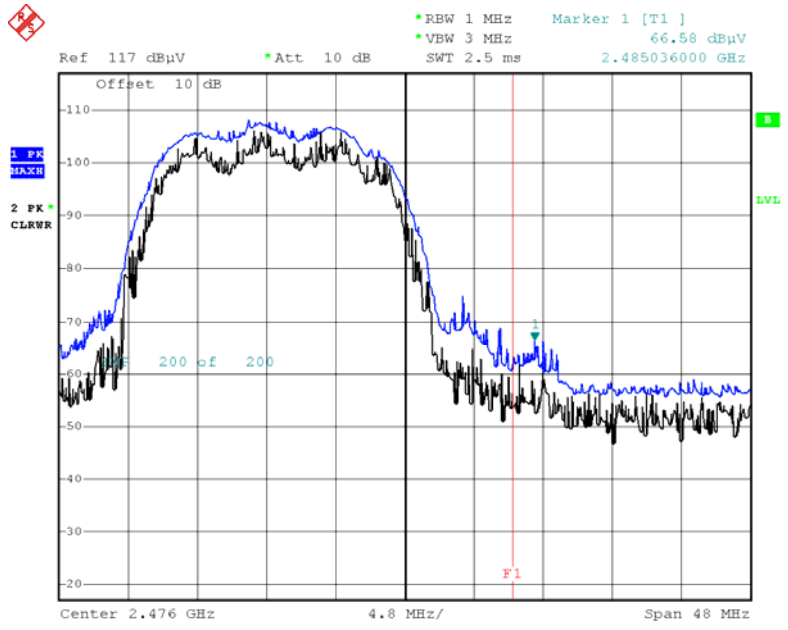


Radiated Restricted Band Edges plot – Average Reading (802.11g Ch.12)



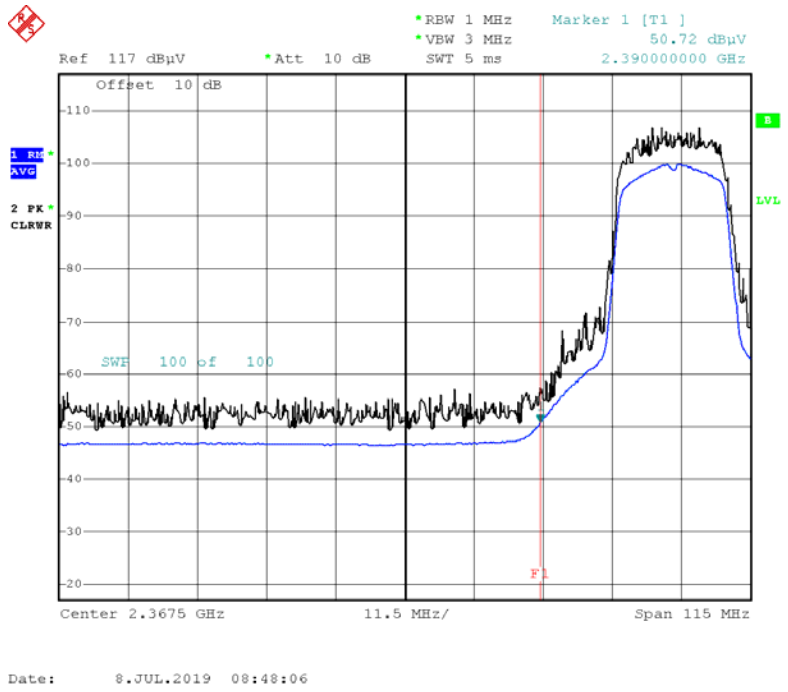
Date: 9.JUL.2019 03:27:07

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

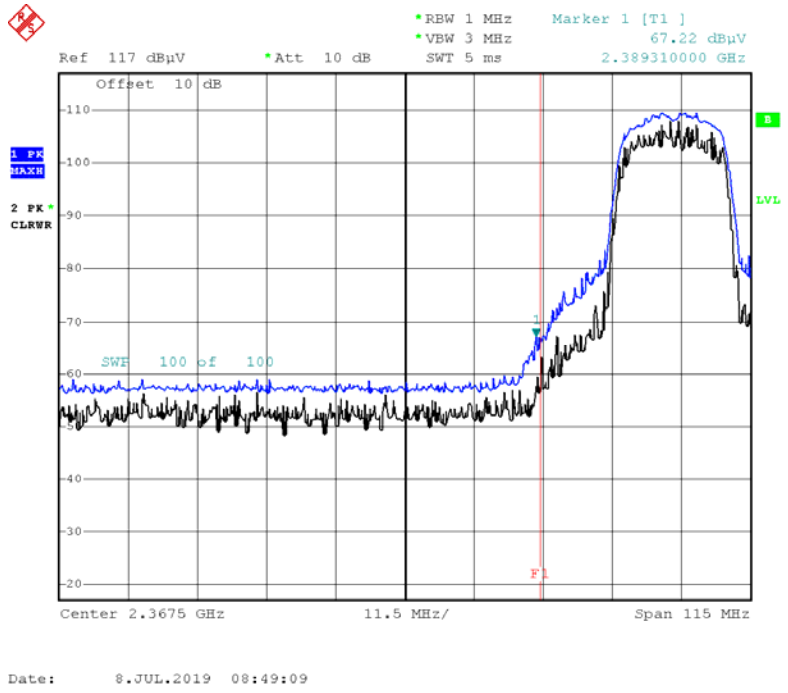


Date: 9.JUL.2019 03:27:40

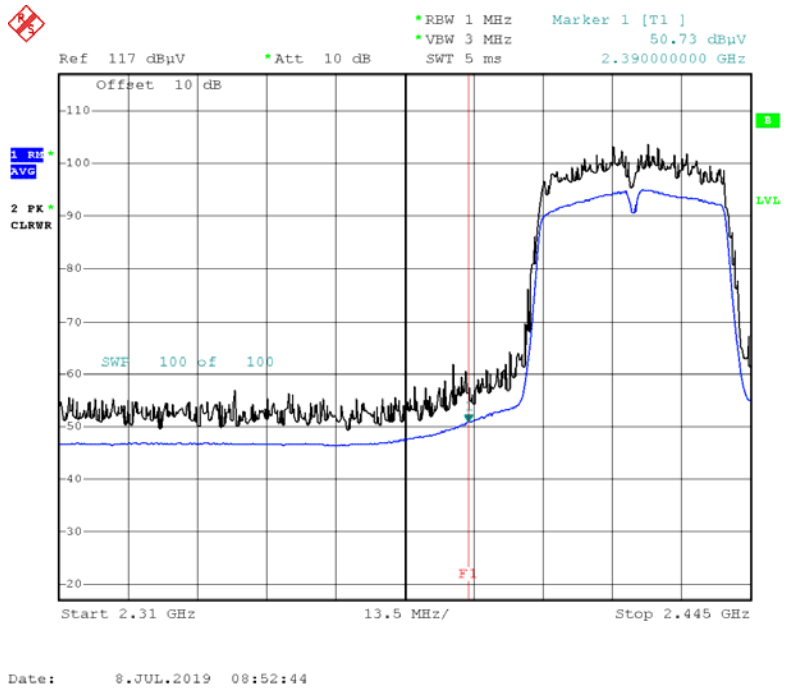
Radiated Restricted Band Edges plot – Average Reading (802.11n(HT20), Ch.1)



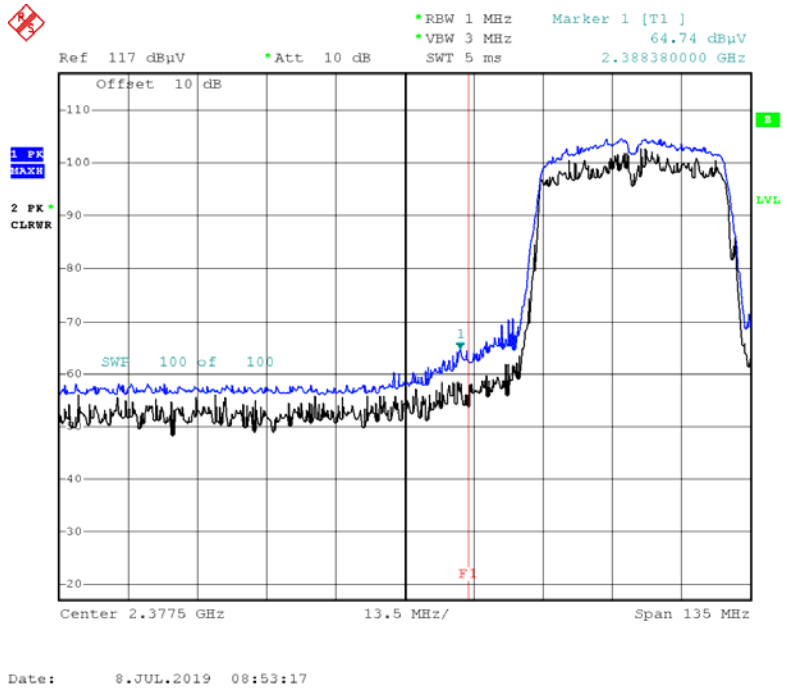
Radiated Restricted Band Edges plot – Peak Reading (802.11n(HT20), Ch.1)



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.

9.7 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

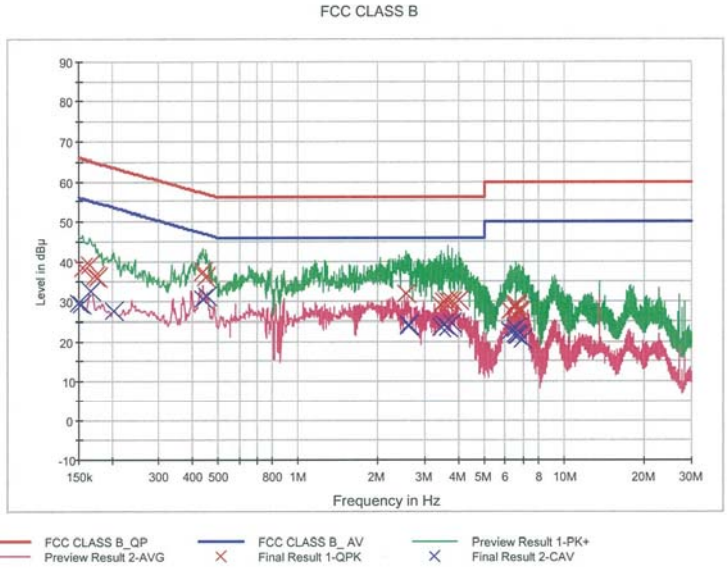
Conducted Emissions (Line 1)

Test 1 / 2

HCT TEST Report

Common Information

EUT:	LGSBWAC94
Manufacturer:	LG Electronics, Inc.
Test Site:	SHIELD ROOM
Operating Conditions:	WiFi 2.4G_L1



Final Result 1

Frequency (MHz)	QuasiPeak (dBuV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.156000	38.5	9.000	Off	L1	9.6	27.2	65.7
0.164000	39.1	9.000	Off	L1	9.6	26.2	65.3
0.172000	36.6	9.000	Off	L1	9.6	28.3	64.9
0.176000	36.3	9.000	Off	L1	9.6	28.4	64.7
0.438000	37.4	9.000	Off	L1	9.7	19.7	57.1
0.450000	36.2	9.000	Off	L1	9.7	20.7	56.9
2.542000	32.0	9.000	Off	L1	9.8	24.0	56.0
3.460000	28.8	9.000	Off	L1	9.8	27.2	56.0
3.538000	29.9	9.000	Off	L1	9.8	26.1	56.0
3.646000	29.9	9.000	Off	L1	9.8	26.1	56.0
3.786000	30.1	9.000	Off	L1	9.8	25.9	56.0
4.018000	30.4	9.000	Off	L1	9.8	25.6	56.0
6.256000	27.6	9.000	Off	L1	9.9	32.4	60.0
6.572000	28.6	9.000	Off	L1	9.9	31.4	60.0
6.576000	29.2	9.000	Off	L1	9.9	30.8	60.0
6.614000	28.8	9.000	Off	L1	9.9	31.2	60.0
6.678000	27.7	9.000	Off	L1	9.9	32.3	60.0
6.806000	27.2	9.000	Off	L1	9.9	32.8	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)
0.150000	29.8	9.000	Off	L1	9.6	26.2	56.0
0.154000	29.4	9.000	Off	L1	9.6	26.4	55.8
0.166000	32.8	9.000	Off	L1	9.6	22.3	55.2
0.204000	27.5	9.000	Off	L1	9.7	25.9	53.4
0.438000	30.7	9.000	Off	L1	9.7	16.4	47.1
0.456000	31.3	9.000	Off	L1	9.7	15.4	46.8
2.614000	24.1	9.000	Off	L1	9.8	21.9	46.0
2.618000	23.9	9.000	Off	L1	9.8	22.1	46.0
3.460000	23.7	9.000	Off	L1	9.8	22.3	46.0
3.538000	24.1	9.000	Off	L1	9.8	21.9	46.0
3.646000	23.5	9.000	Off	L1	9.8	22.5	46.0
3.786000	24.5	9.000	Off	L1	9.8	21.5	46.0
6.256000	22.7	9.000	Off	L1	9.9	27.3	50.0
6.570000	21.8	9.000	Off	L1	9.9	28.2	50.0
6.576000	23.3	9.000	Off	L1	9.9	26.7	50.0
6.614000	21.4	9.000	Off	L1	9.9	28.6	50.0
6.678000	21.7	9.000	Off	L1	9.9	28.3	50.0
6.920000	20.5	9.000	Off	L1	9.9	29.5	50.0

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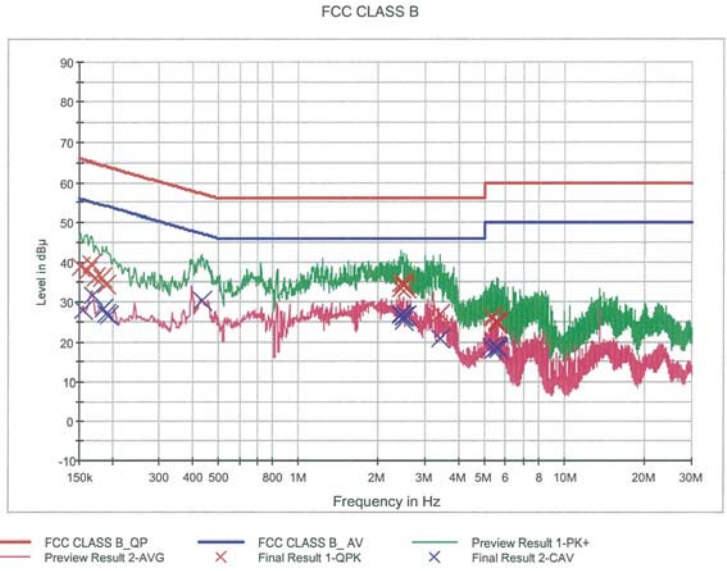
Conducted Emissions (Line 2)

HCT TEST Report

Common Information

EUT:	LGSBWAC94
Manufacturer:	LG Electronics, Inc.
Test Site:	SHIELD ROOM
Operating Conditions:	WiFi 2.4G_N



Final Result 1

Frequency (MHz)	QuasiPeak (dBuV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.152000	39.0	9.000	Off	N	9.6	26.9	65.9
0.160000	37.9	9.000	Off	N	9.6	27.6	65.5
0.166000	39.7	9.000	Off	N	9.6	25.5	65.2
0.172000	36.1	9.000	Off	N	9.6	28.8	64.9
0.184000	36.2	9.000	Off	N	9.6	28.1	64.3
0.190000	34.4	9.000	Off	N	9.6	29.6	64.0
2.432000	33.6	9.000	Off	N	9.7	22.4	56.0
2.436000	34.9	9.000	Off	N	9.7	21.1	56.0
2.474000	34.6	9.000	Off	N	9.7	21.4	56.0
2.478000	34.4	9.000	Off	N	9.7	21.6	56.0
2.532000	33.5	9.000	Off	N	9.7	22.5	56.0
3.418000	27.0	9.000	Off	N	9.8	29.0	56.0
5.336000	26.3	9.000	Off	N	9.8	33.7	60.0
5.352000	25.9	9.000	Off	N	9.8	34.1	60.0
5.542000	24.5	9.000	Off	N	9.9	35.5	60.0
5.546000	25.0	9.000	Off	N	9.9	35.0	60.0
5.564000	25.3	9.000	Off	N	9.9	34.7	60.0
5.642000	24.7	9.000	Off	N	9.9	35.3	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)
0.156000	27.9	9.000	Off	N	9.6	27.8	55.7
0.168000	31.7	9.000	Off	N	9.6	23.3	55.1
0.186000	28.3	9.000	Off	N	9.6	25.9	54.2
0.190000	27.0	9.000	Off	N	9.6	27.0	54.0
0.194000	26.7	9.000	Off	N	9.6	27.2	53.9
0.434000	30.3	9.000	Off	N	9.6	16.9	47.2
2.430000	26.9	9.000	Off	N	9.7	19.1	46.0
2.436000	26.5	9.000	Off	N	9.7	19.5	46.0
2.474000	25.4	9.000	Off	N	9.7	20.6	46.0
2.478000	26.3	9.000	Off	N	9.7	19.7	46.0
2.532000	26.7	9.000	Off	N	9.7	19.3	46.0
3.418000	20.8	9.000	Off	N	9.8	25.2	46.0
5.338000	18.8	9.000	Off	N	9.8	31.2	50.0
5.352000	17.8	9.000	Off	N	9.8	32.2	50.0
5.542000	18.4	9.000	Off	N	9.9	31.6	50.0
5.546000	18.9	9.000	Off	N	9.9	31.1	50.0
5.598000	18.6	9.000	Off	N	9.9	31.4	50.0
5.642000	18.0	9.000	Off	N	9.9	32.0	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	12/12/2018	Annual	102245
Rohde & Schwarz	ESCI / Test Receiver	06/18/2019	Annual	100033
ESPAC	SU-642 /Temperature Chamber	03/12/2019	Annual	0093008124
Agilent	N9020A / Signal Analyzer	05/23/2019	Annual	MY51110085
Agilent	N9030A / Signal Analyzer	01/10/2019	Annual	MY49431210
Agilent	N1911A / Power Meter	04/10/2019	Annual	MY45100523
Agilent	N1921A / Power Sensor	04/10/2019	Annual	MY52260025
Agilent	87300B / Directional Coupler	11/20/2018	Annual	3116A03621
Hewlett Packard	11667B / Power Splitter	05/24/2019	Annual	05001
Hewlett Packard	E3632A / DC Power Supply	06/18/2019	Annual	KR75303960
Agilent	8493C / Attenuator(10 dB)	07/02/2019	Annual	07560
Rohde & Schwarz	EMC32 / Software	N/A	N/A	N/A
HCT CO., LTD.	FCC WLAN&BT&BLE Conducted Test Software v3.0	N/A	N/A	N/A
Rohde & Schwarz	CBT / Bluetooth Tester	05/16/2019	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	08/23/2018	Biennial	1513-175
Schwarzbeck	VULB 9160 / Hybrid Antenna	08/09/2018	Biennial	3368
Schwarzbeck	BBHA 9120D / Horn Antenna	11/21/2017	Biennial	9120D-1191
Schwarzbeck	BBHA9170 / Horn Antenna(15 GHz ~ 40 GHz)	12/04/2017	Biennial	BBHA9170541
Rohde & Schwarz	FSP(9 kHz ~ 30 GHz) / Spectrum Analyzer	09/19/2018	Annual	836650/016
Rohde & Schwarz	FSV40-N / Spectrum Analyzer	09/19/2018	Annual	101068-SZ
Wainwright Instruments	WHKX10-2700-3000-18000-40SS / High Pass Filter	01/03/2019	Annual	4
Wainwright Instruments	WHKX8-6090-7000-18000-40SS / High Pass Filter	01/03/2019	Annual	5
Wainwright Instruments	WRCJV2400/2483.5-2370/2520-60/12SS / Band Reject Filter	06/19/2019	Annual	2
Wainwright Instruments	WRCJV5100/5850-40/50-8EEK / Band Reject Filter	01/03/2019	Annual	2
Api tech.	18B-03 / Attenuator (3 dB)	06/04/2019	Annual	1
WEINSCHEL	56-10 / Attenuator(10 dB)	10/10/2018	Annual	72316
CERNEX	CBLU1183540B-01/Broadband Bench Top LNA	01/03/2019	Annual	28549
CERNEX	CBL06185030 / Broadband Low Noise Amplifier	01/03/2019	Annual	24615
CERNEX	CBL18265035 / Power Amplifier	01/03/2019	Annual	22966
CERNEX	CBL26405040 / Power Amplifier	06/18/2019	Annual	25956
TESCOM	TC-3000C / Bluetooth Tester	03/26/2019	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.

11. ANNEX A_ TEST SETUP PHOTO

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

No.	Description
1	HCT-RF-1908-FI007-P