

802.11g Mode		Rate (Mbps)	Measured Power (dBm)	Duty Cycle Factor	Measured Power(dBm) + Duty Cycle Factor	Limit (dBm)	Power Level Setting
Frequency [MHz]	Channel No.						
2412	1	6	13.92	0.321	14.24	30	15
		9	13.74	0.460	14.20	30	
		12	13.70	0.612	14.31	30	
		18	13.44	0.859	14.30	30	
		24	13.15	1.120	14.27	30	
		36	12.72	1.538	14.26	30	
		48	12.28	1.918	14.20	30	
		54	12.10	2.044	14.14	30	
2437	6	6	14.22	0.321	14.54	30	14
		9	14.01	0.460	14.47	30	
		12	13.94	0.612	14.55	30	
		18	13.63	0.859	14.49	30	
		24	13.21	1.120	14.33	30	
		36	12.76	1.538	14.30	30	
		48	12.50	1.918	14.42	30	
		54	12.32	2.044	14.36	30	
2462	11	6	13.92	0.321	14.24	30	14
		9	13.82	0.460	14.28	30	
		12	13.73	0.612	14.34	30	
		18	13.46	0.859	14.32	30	
		24	13.19	1.120	14.31	30	
		36	12.69	1.538	14.23	30	
		48	12.48	1.918	14.40	30	
		54	12.27	2.044	14.31	30	
2467	12	6	11.72	0.321	12.04	30	11
		9	11.54	0.460	12.00	30	
		12	11.45	0.612	12.06	30	
		18	11.18	0.859	12.04	30	
		24	10.89	1.120	12.01	30	
		36	10.46	1.538	12.00	30	
		48	10.10	1.918	12.02	30	
		54	9.97	2.044	12.01	30	
2472	13	6	6.86	0.321	7.18	30	5
		9	6.76	0.460	7.22	30	
		12	6.49	0.612	7.10	30	
		18	6.33	0.859	7.19	30	
		24	5.97	1.120	7.09	30	
		36	5.59	1.538	7.13	30	
		48	5.24	1.918	7.16	30	
		54	5.09	2.044	7.13	30	

802.11n Mode		MCS Index	Measured Power (dBm)	Duty Cycle Factor	Measured Power(dBm) + Duty Cycle Factor	Limit (dBm)	Power Level Setting
Frequency [MHz]	Channel No.						
2412	1	0	12.82	0.332	13.15	30	14
		1	12.49	0.636	13.13	30	
		2	12.21	0.898	13.11	30	
		3	11.95	1.138	13.09	30	
		4	11.55	1.529	13.08	30	
		5	11.27	1.882	13.15	30	
		6	11.12	2.011	13.13	30	
		7	10.97	2.159	13.13	30	
2437	6	0	13.24	0.332	13.57	30	13
		1	12.84	0.636	13.48	30	
		2	12.62	0.898	13.52	30	
		3	12.43	1.138	13.57	30	
		4	12.01	1.529	13.54	30	
		5	11.64	1.882	13.52	30	
		6	11.52	2.011	13.53	30	
		7	11.41	2.159	13.57	30	
2462	11	0	12.91	0.332	13.24	30	13
		1	12.58	0.636	13.22	30	
		2	12.27	0.898	13.17	30	
		3	12.00	1.138	13.14	30	
		4	11.66	1.529	13.19	30	
		5	11.31	1.882	13.19	30	
		6	11.17	2.011	13.18	30	
		7	10.98	2.159	13.14	30	
2467	12	0	11.48	0.332	11.81	30	11
		1	11.22	0.636	11.86	30	
		2	11.01	0.898	11.91	30	
		3	10.78	1.138	11.92	30	
		4	10.32	1.529	11.85	30	
		5	9.94	1.882	11.82	30	
		6	9.76	2.011	11.77	30	
		7	9.62	2.159	11.78	30	
2472	13	0	6.77	0.332	7.10	30	5
		1	6.42	0.636	7.06	30	
		2	6.22	0.898	7.12	30	
		3	5.99	1.138	7.13	30	
		4	5.59	1.529	7.12	30	
		5	5.14	1.882	7.02	30	
		6	5.01	2.011	7.02	30	
		7	4.92	2.159	7.08	30	

9.4 POWER SPECTRAL DENSITY

Mode	Frequency (MHz)	Channel No.	Test Result			
			Measured PSD (dBm)	Duty Cycle Factor	Measured PSD(dBm) + Duty Cycle Factor	Limit (dBm)
802.11b	2412	1	0.240	0.273	0.513	8
	2437	6	-0.684	0.500	-0.184	
	2462	11	0.187	0.273	0.460	
	2467	12	-5.676	0.500	-5.176	
	2472	13	-10.499	0.090	-10.409	
802.11g	2412	1	-4.931	0.612	-4.319	
	2437	6	-5.405	0.612	-4.793	
	2462	11	-5.600	1.918	-3.682	
	2467	12	-6.423	0.612	-5.811	
	2472	13	-11.876	0.460	-11.416	
802.11n	2412	1	-6.294	0.332	-5.962	
	2437	6	-6.648	0.332	-6.316	
	2462	11	-6.242	0.332	-5.910	
	2467	12	-7.480	1.138	-6.342	
	2472	13	-12.417	1.138	-11.279	

Note :

1. Spectrum reading values are not plot data.

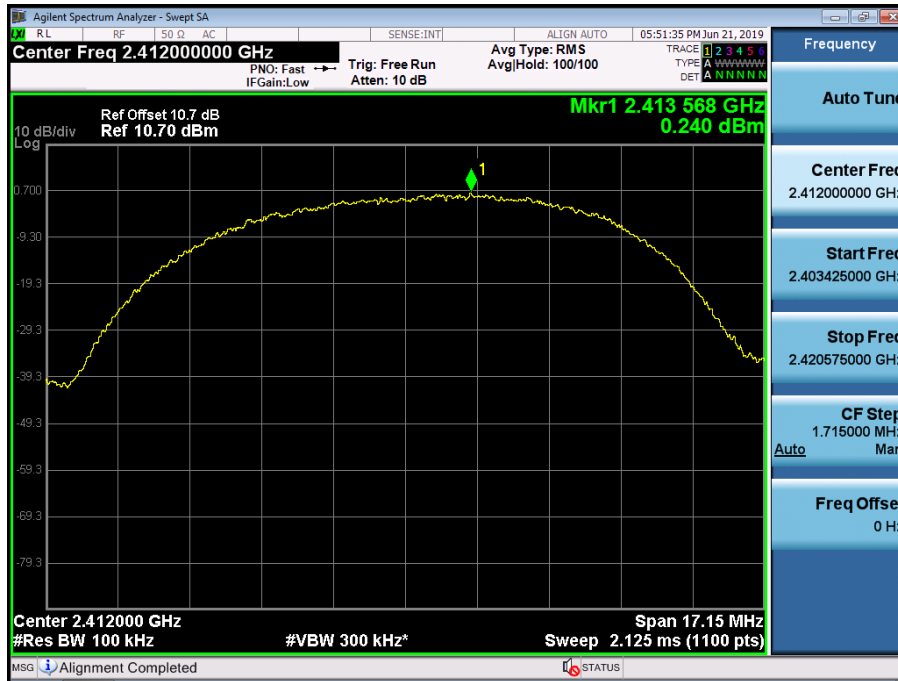
The PSD results in plot is already including the actual values of loss for the attenuator and cable combination.

2. Spectrum offset = Attenuator loss + Cable loss

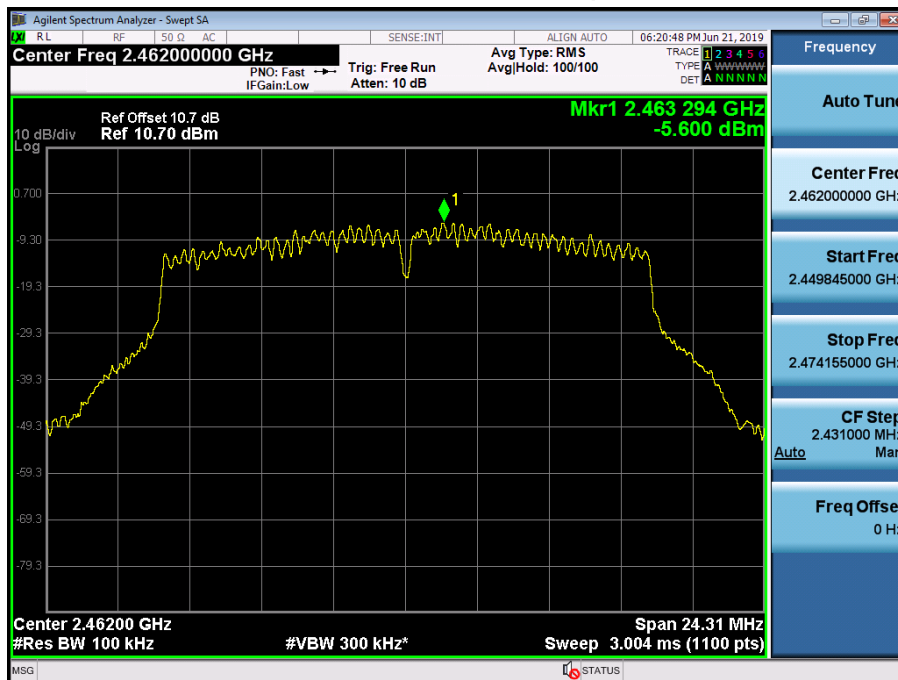
3. 10.7 dB is offset for 2.4 GHz Band.

Test Plots

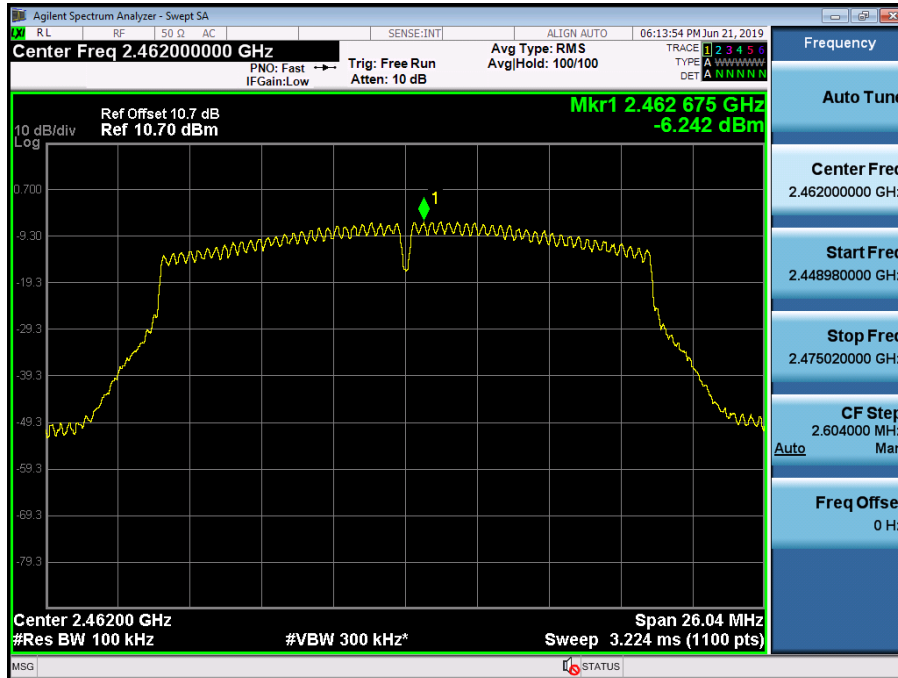
Power Spectral Density (802.11b-CH 1)



Power Spectral Density (802.11g-CH 11)



Power Spectral Density (802.11n_HT20 -CH 11)



Note :

In order to simplify the report, attached plots were only the worstcase PSD channel.

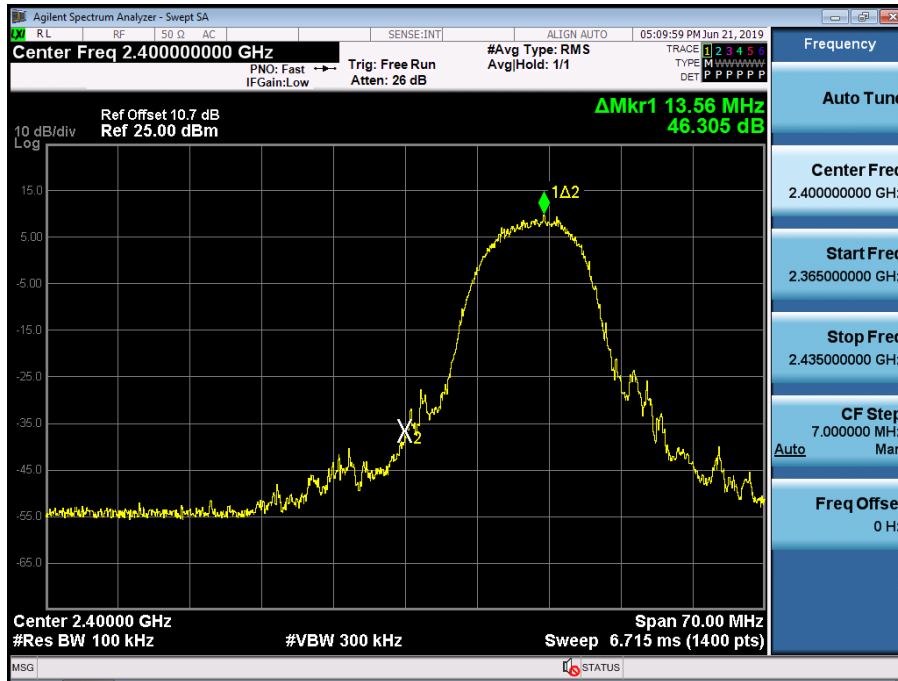
9.5 BAND EDGE/ CONDUCTED SPURIOUS EMISSIONS

Test Result : please refer to the plot below.

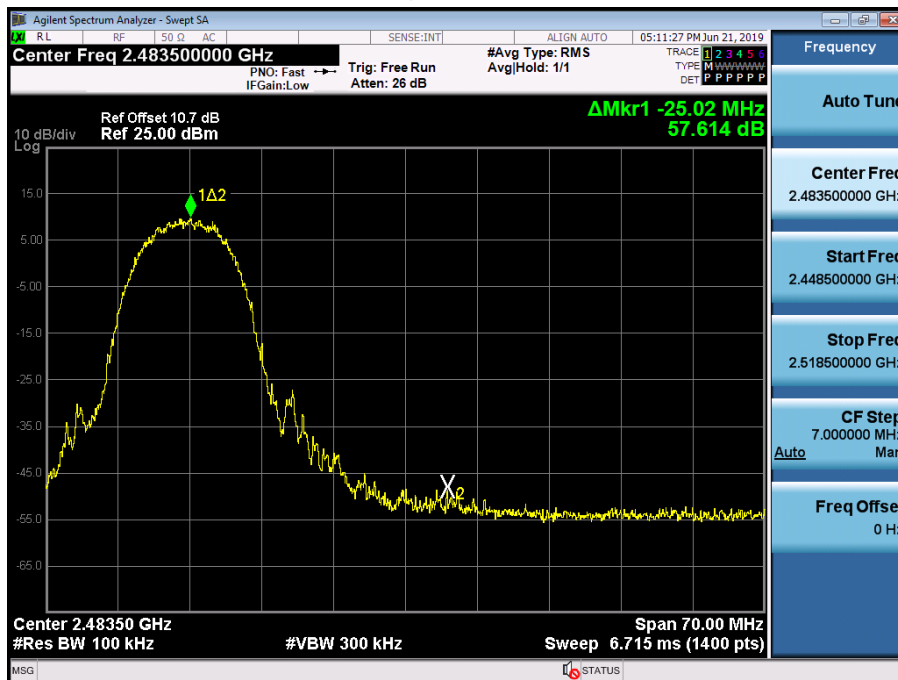
In order to simplify the report, attached plots were only the worst case channel and data rate.

Test Plots(BandEdge)

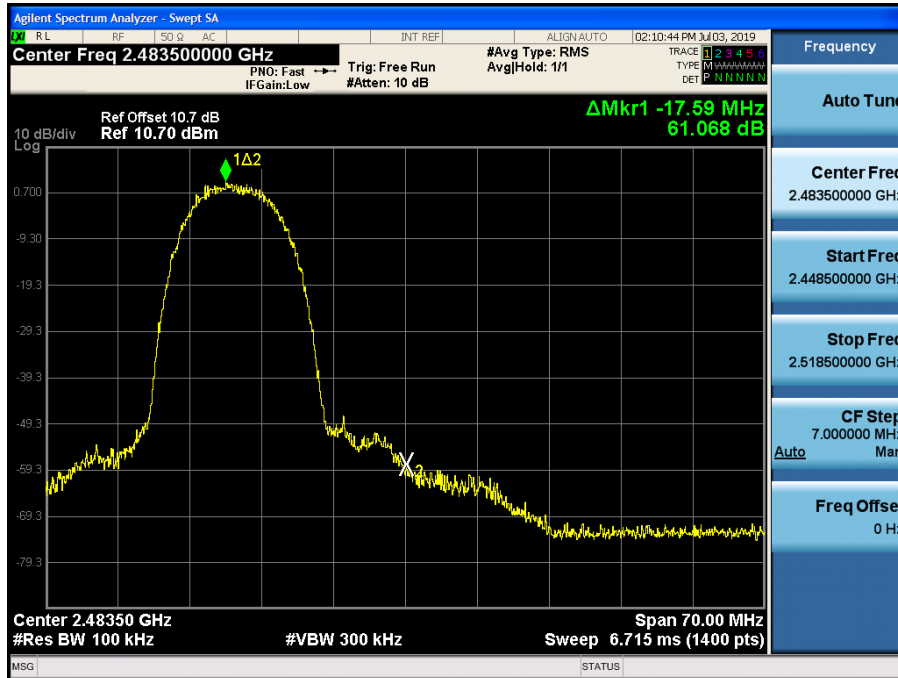
Band Edge (802.11b-CH1)



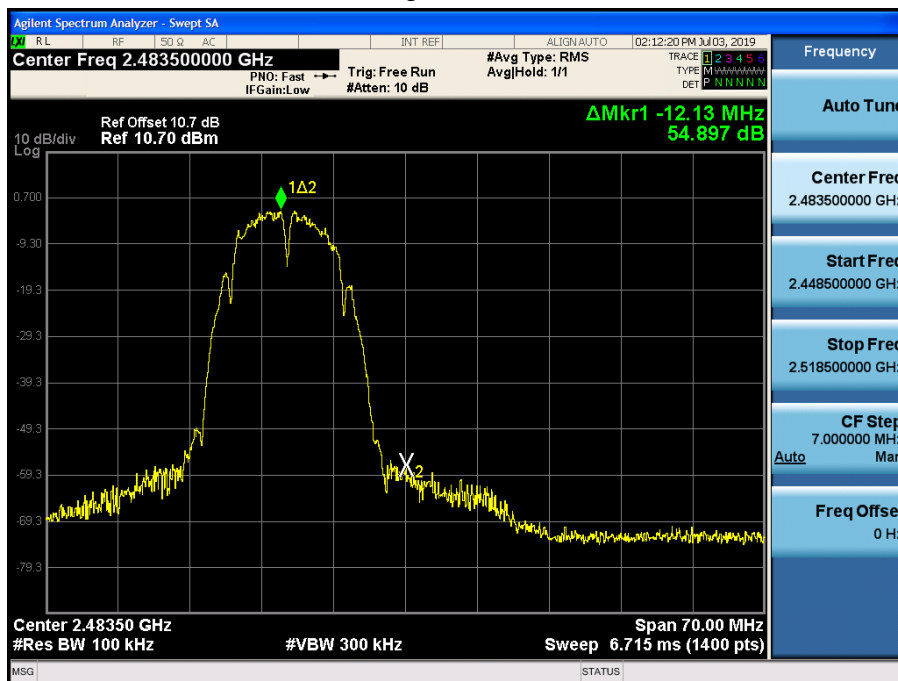
Band Edge (802.11b-CH11)



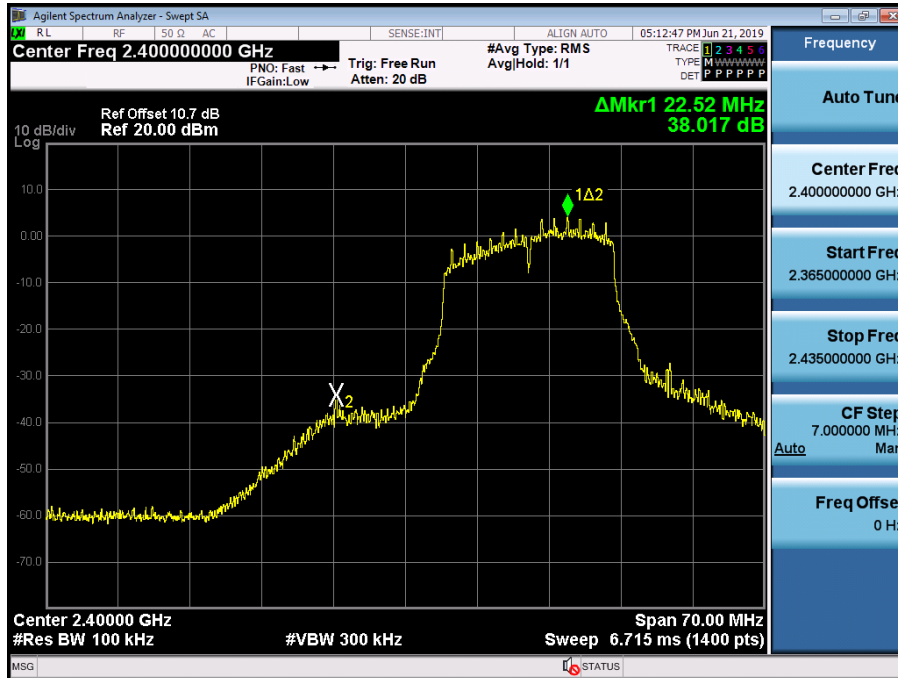
Band Edge (802.11b-CH12)



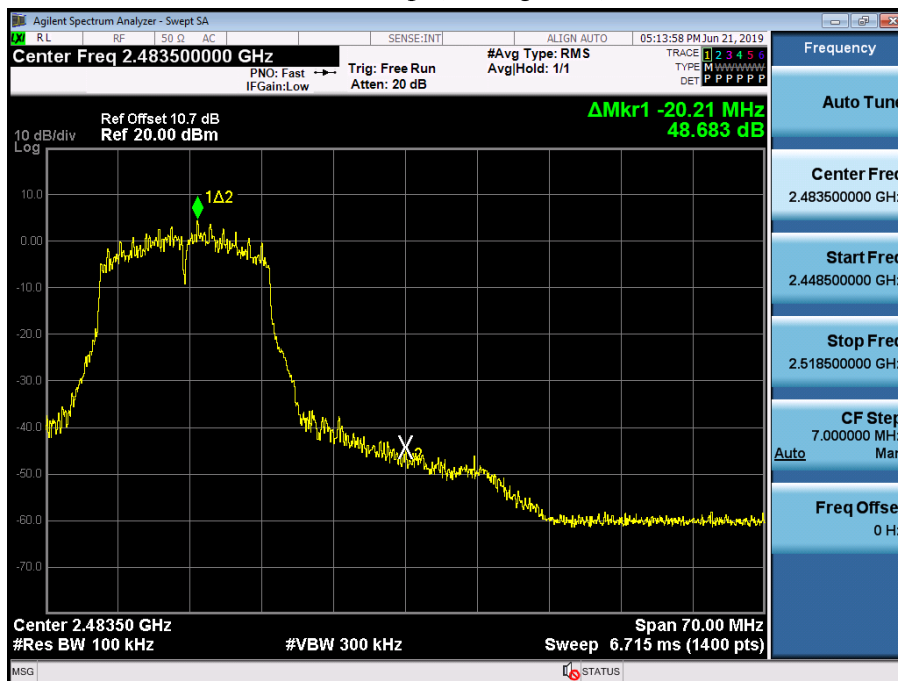
Band Edge (802.11b-CH13)



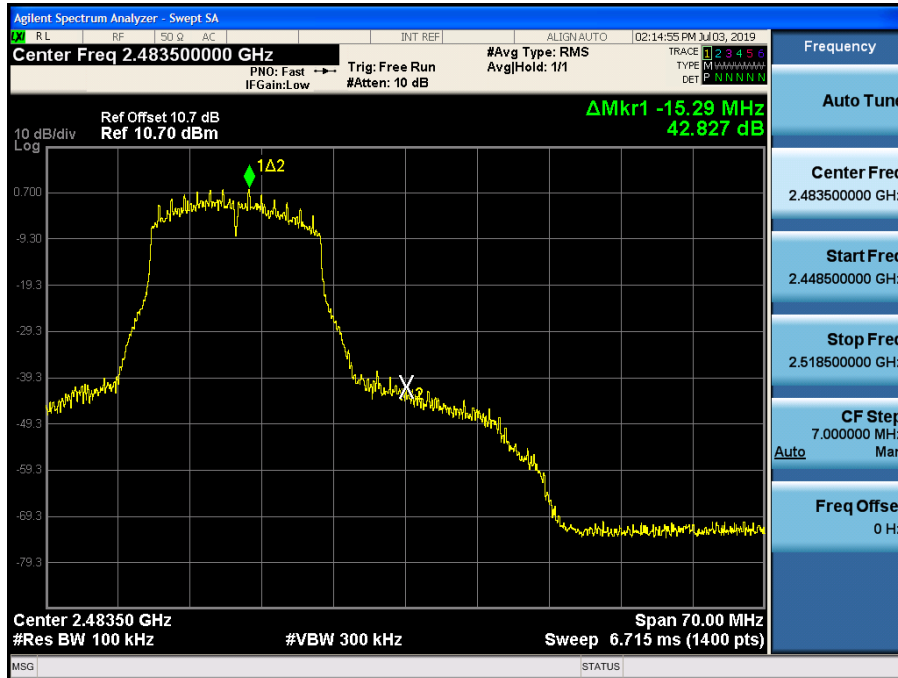
Band Edge (802.11g-CH1)



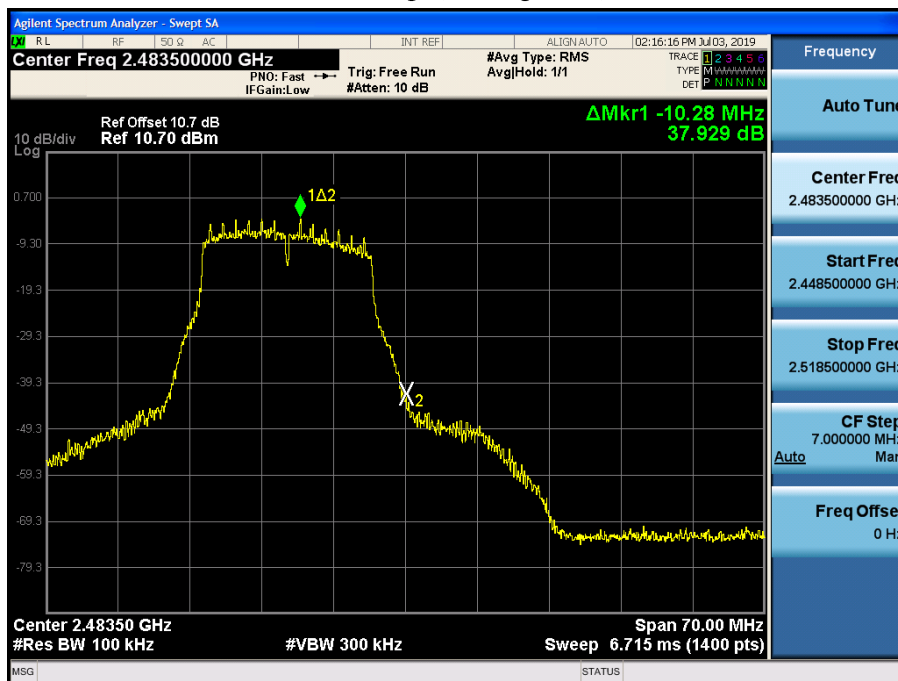
Band Edge (802.11g-CH11)



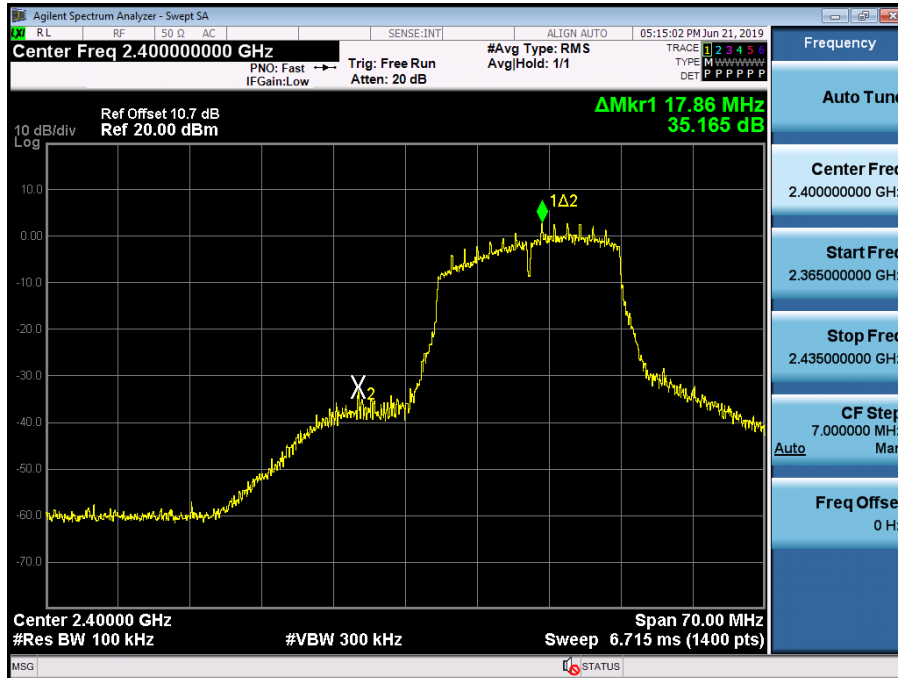
Band Edge (802.11g-CH12)



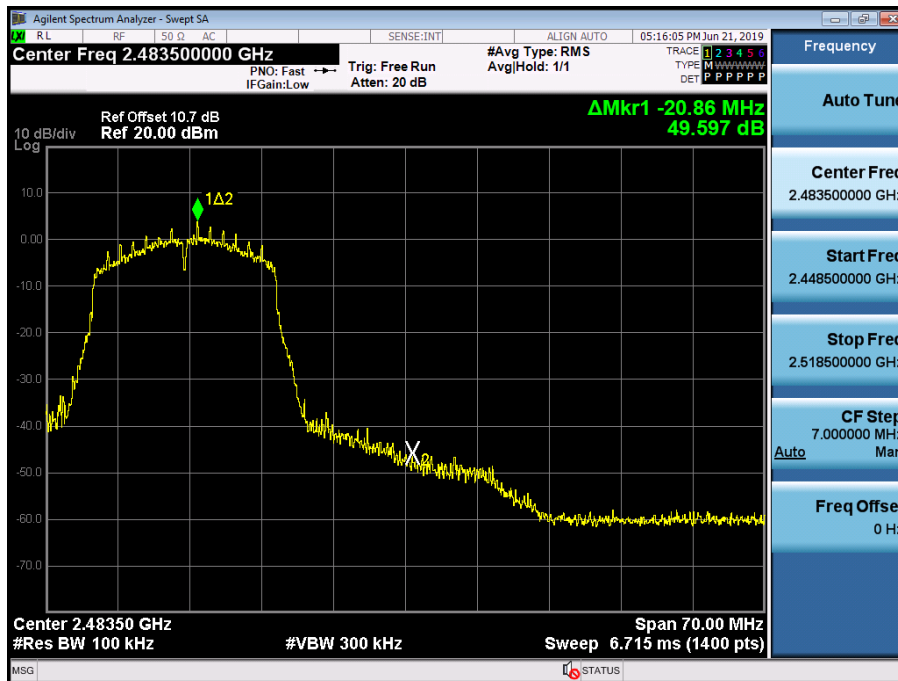
Band Edge (802.11g-CH13)



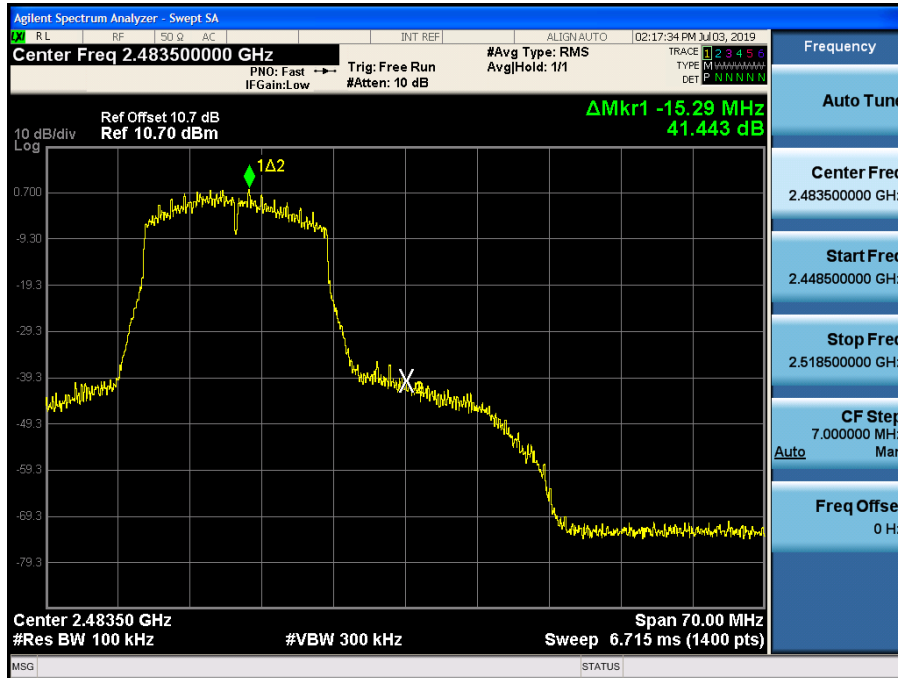
Band Edge (802.11n_HT20-CH1)



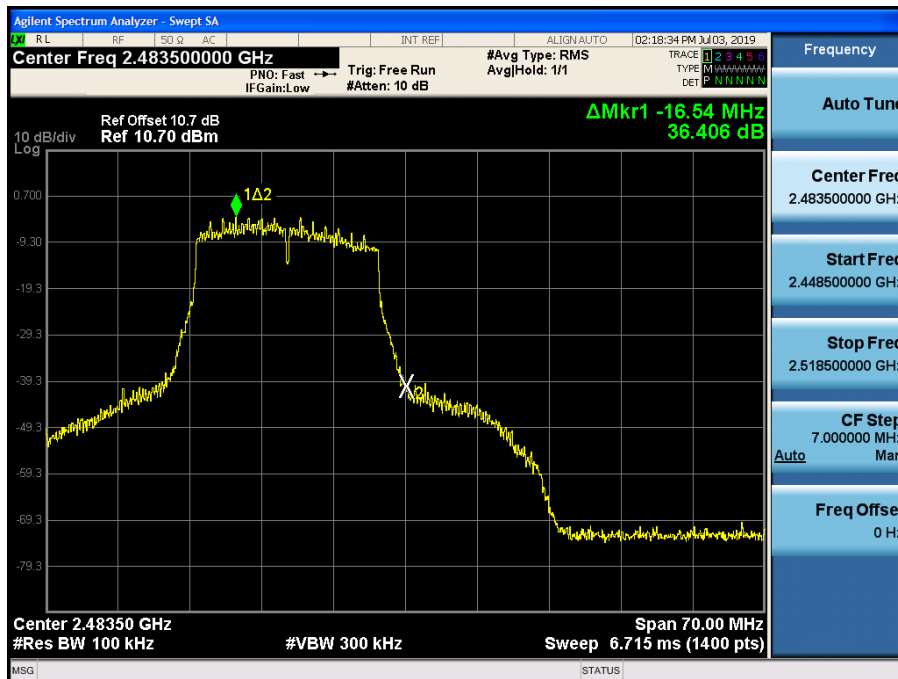
Band Edge (802.11n_HT20-CH11)



Band Edge (802.11n_HT20-CH12)



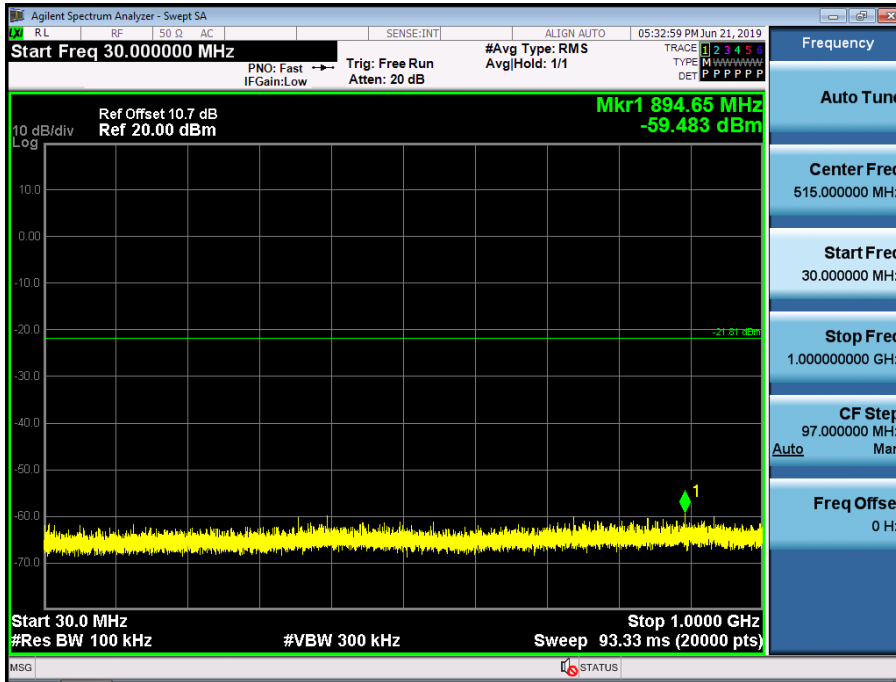
Band Edge (802.11n_HT20-CH13)



Test Plots(Conducted Spurious Emission)

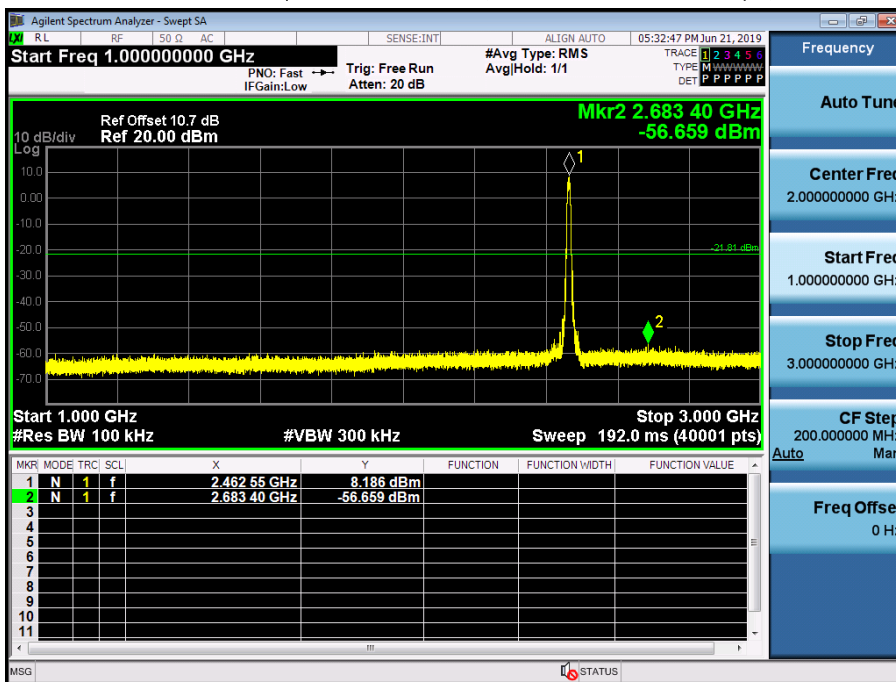
30 MHz ~ 1 GHz

Conducted Spurious Emission (802.11b_Ch.11_5.5 Mbps)



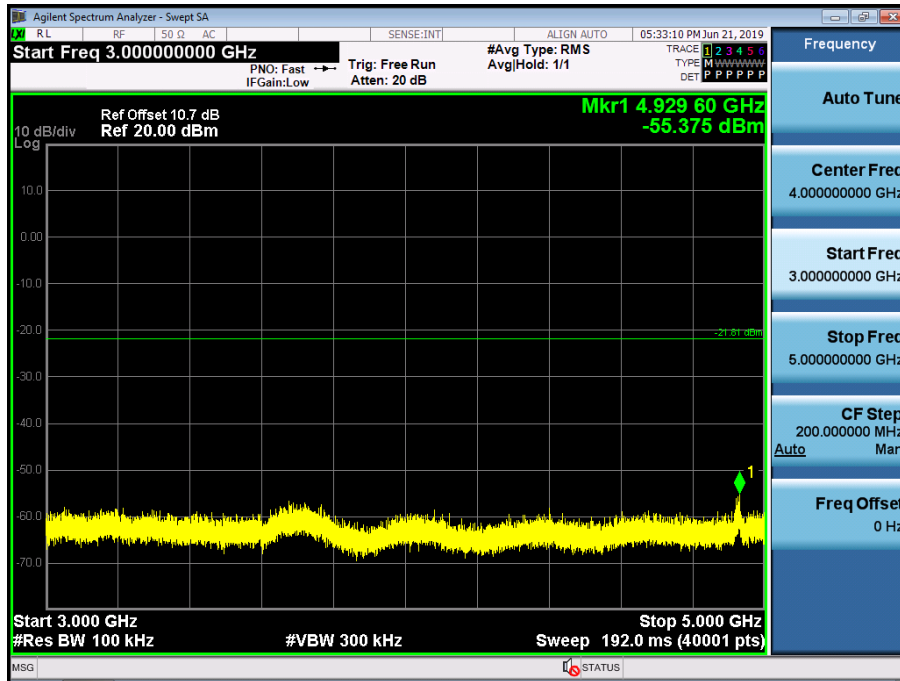
1 GHz ~ 3 GHz

Conducted Spurious Emission (802.11b_Ch.11_5.5 Mbps)



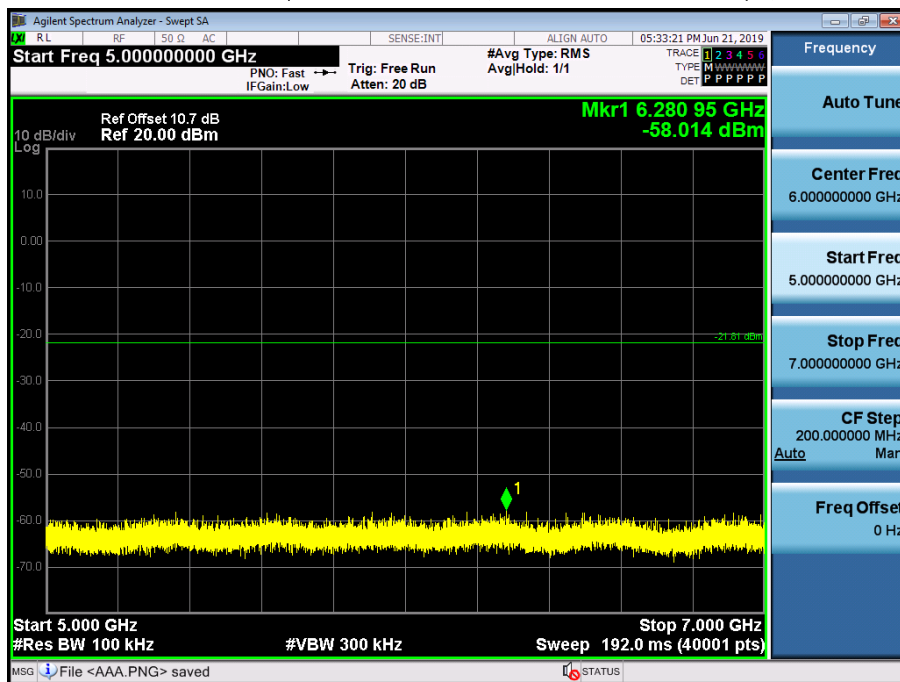
3 GHz ~ 5 GHz

Conducted Spurious Emission (802.11b_Ch.11_5.5 Mbps)



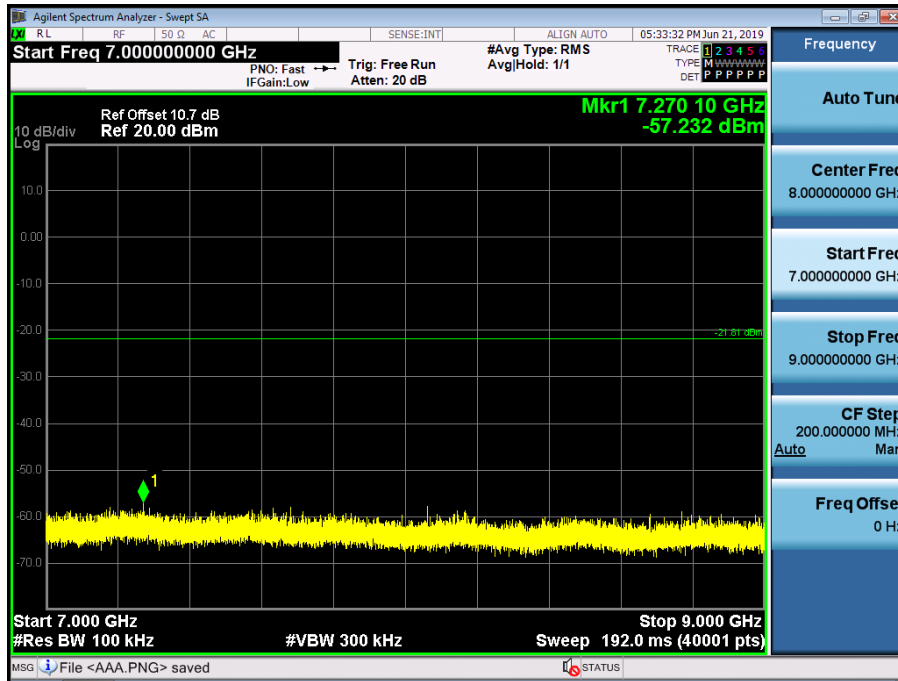
5 GHz ~ 7 GHz

Conducted Spurious Emission (802.11b_Ch.11_5.5 Mbps)



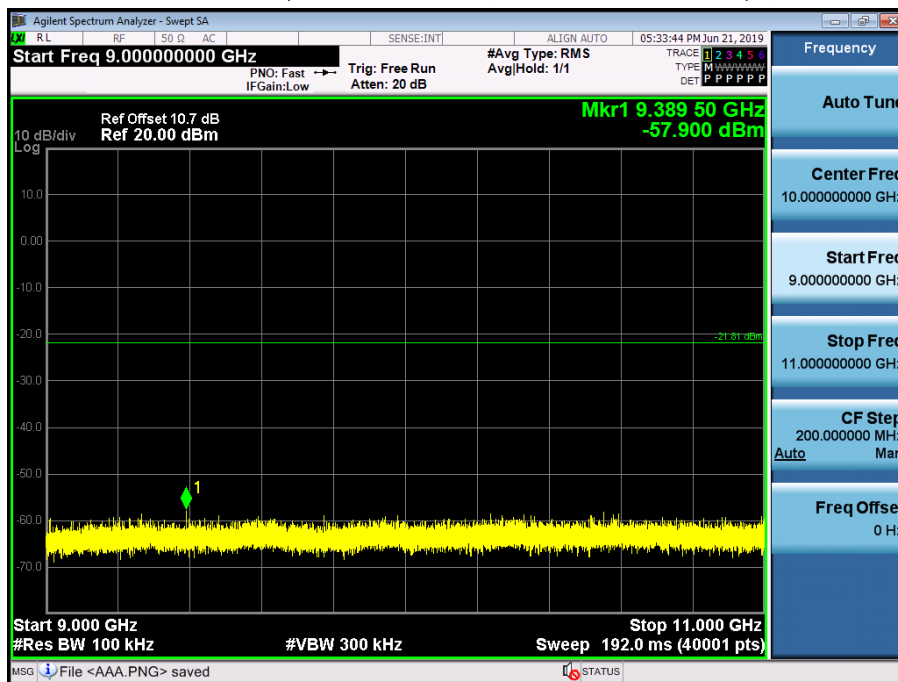
7 GHz ~ 9 GHz

Conducted Spurious Emission (802.11b_Ch.11_5.5 Mbps)



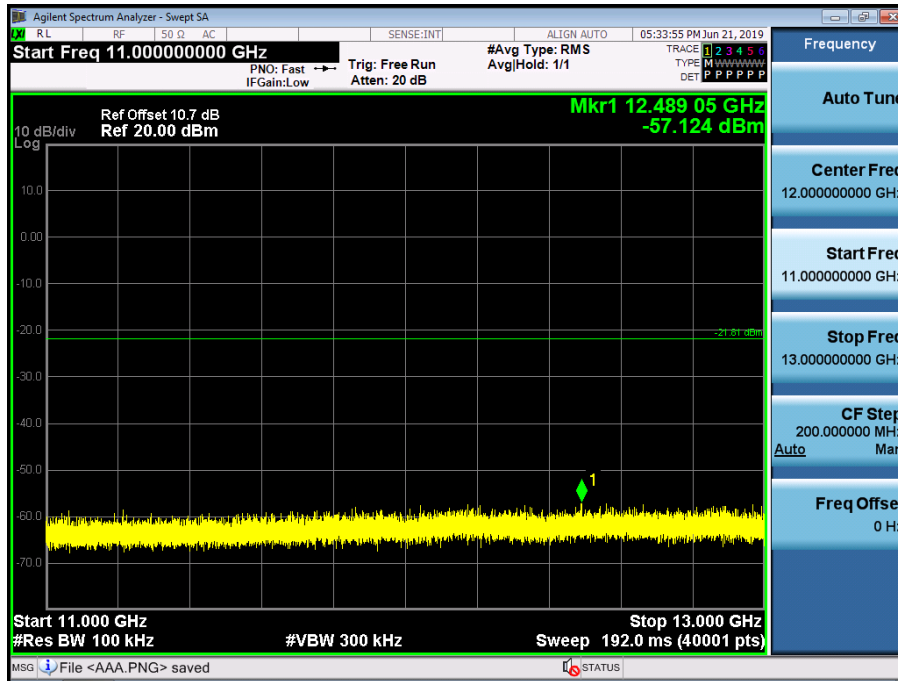
9 GHz ~ 11 GHz

Conducted Spurious Emission (802.11b_Ch.11_5.5 Mbps)



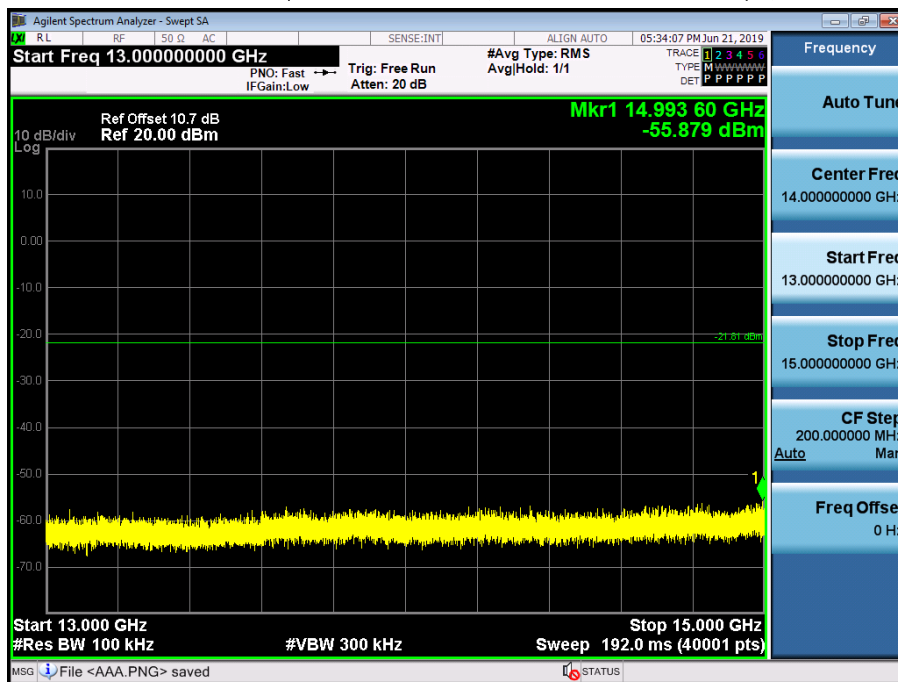
11 GHz ~ 13 GHz

Conducted Spurious Emission (802.11b_Ch.11_5.5 Mbps)



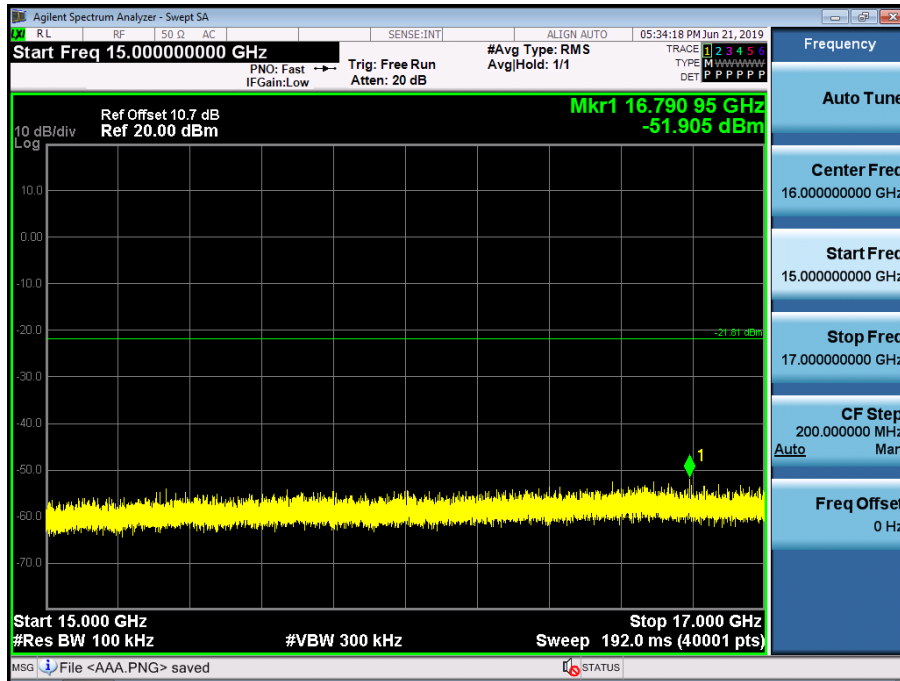
13 GHz ~ 15 GHz

Conducted Spurious Emission (802.11b_Ch.11_5.5 Mbps)



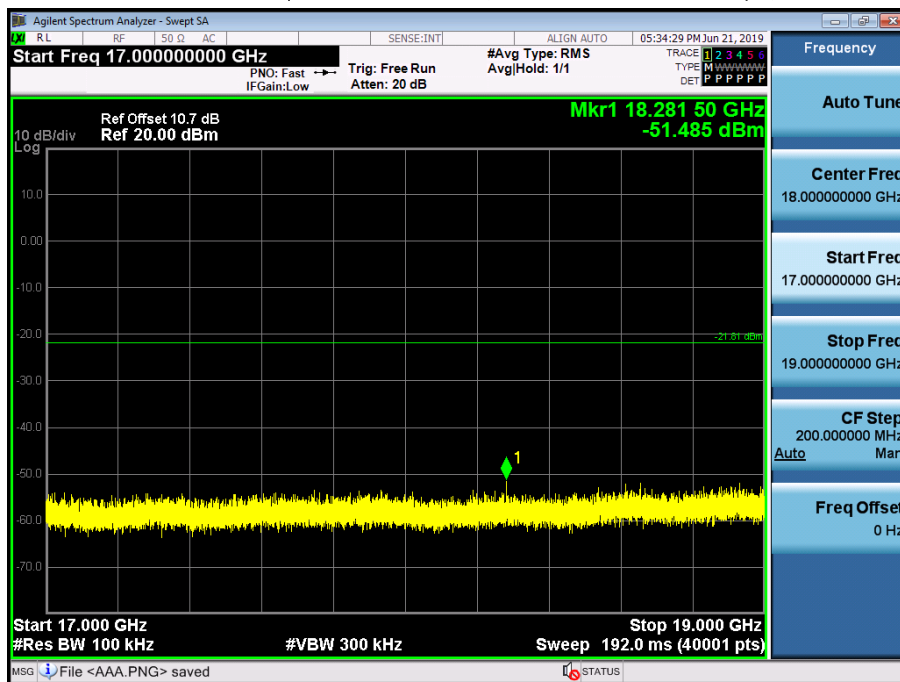
15 GHz ~ 17 GHz

Conducted Spurious Emission (802.11b_Ch.11_5.5 Mbps)



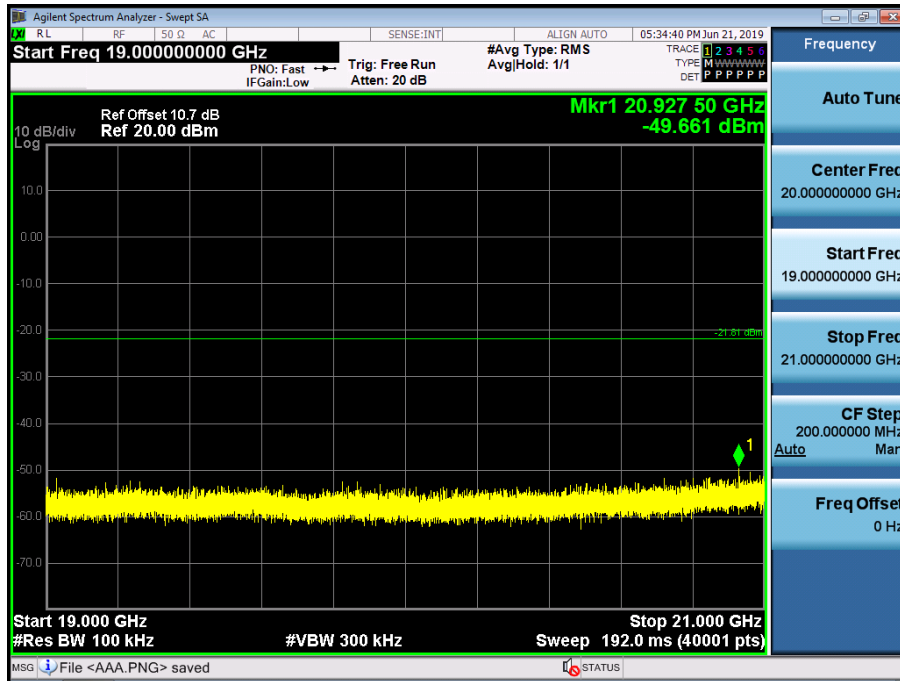
17 GHz ~ 19 GHz

Conducted Spurious Emission (802.11b_Ch.11_5.5 Mbps)



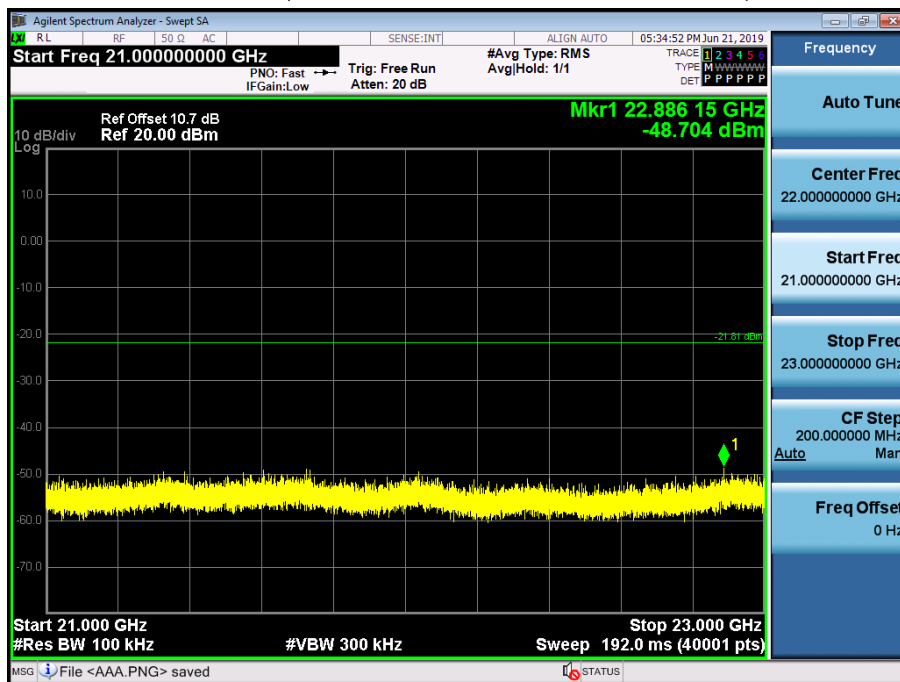
19 GHz ~ 21 GHz

Conducted Spurious Emission (802.11b_Ch.11_5.5 Mbps)



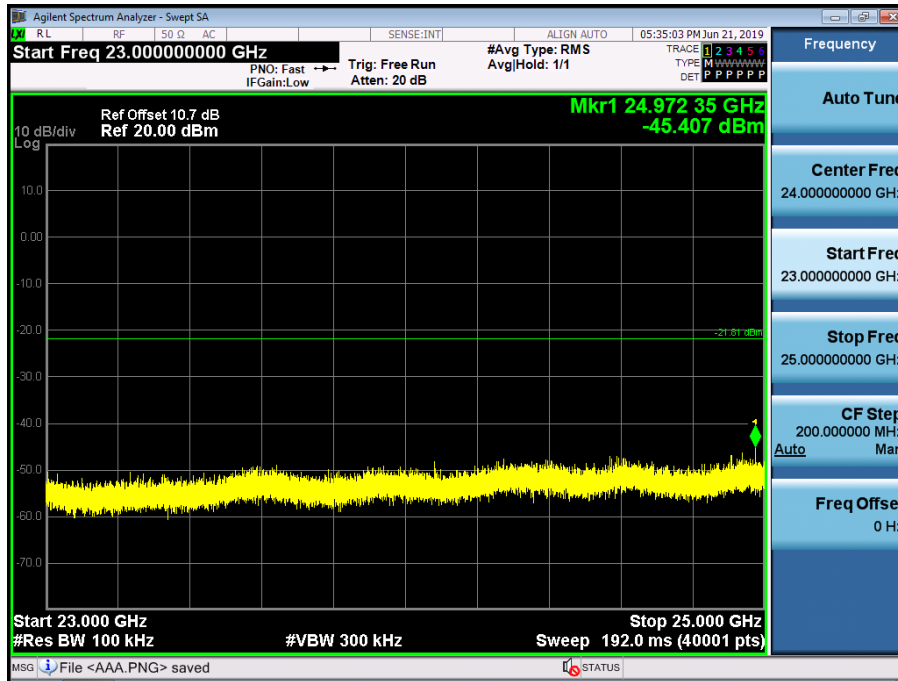
21 GHz ~ 23 GHz

Conducted Spurious Emission (802.11b_Ch.11_5.5 Mbps)



23 GHz ~ 25 GHz

Conducted Spurious Emission (802.11b_Ch.11_5.5 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 = $40 \cdot \log(\text{specific distance} / \text{test distance})$ (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.

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	49.84	0.56	V	50.40	73.98	23.59	PK
4824	38.12	0.56	V	38.68	53.98	15.31	AV
7236	47.61	9.47	V	57.08	73.98	16.90	PK
7236	35.59	9.47	V	45.06	53.98	8.92	AV
4824	50.05	0.56	H	50.61	73.98	23.38	PK
4824	38.90	0.56	H	39.46	53.98	14.53	AV
7236	47.72	9.47	H	57.19	73.98	16.79	PK
7236	35.67	9.47	H	45.14	53.98	8.84	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	48.55	0.00	0.56	V	49.11	73.98	24.88	PK
4824	36.89	0.32	0.56	V	37.77	53.98	16.21	AV
7236	47.40	0.00	9.47	V	56.87	73.98	17.11	PK
7236	35.51	0.32	9.47	V	45.30	53.98	8.68	AV
4824	48.78	0.00	0.56	H	49.34	73.98	24.65	PK
4824	36.93	0.32	0.56	H	37.81	53.98	16.17	AV
7236	47.78	0.00	9.47	H	57.25	73.98	16.73	PK
7236	35.53	0.32	9.47	H	45.32	53.98	8.66	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	48.31	0.00	0.56	V	48.87	73.98	25.12	PK
4824	36.94	0.33	0.56	V	37.83	53.98	16.15	AV
7236	47.25	0.00	9.47	V	56.72	73.98	17.26	PK
7236	35.59	0.33	9.47	V	45.39	53.98	8.59	AV
4824	48.69	0.00	0.56	H	49.25	73.98	24.74	PK
4824	36.88	0.33	0.56	H	37.77	53.98	16.21	AV
7236	47.51	0.00	9.47	H	56.98	73.98	17.00	PK
7236	35.57	0.33	9.47	H	45.37	53.98	8.61	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	49.32	0.87	V	50.19	73.98	23.80	PK
4874	39.51	0.87	V	40.38	53.98	13.61	AV
7311	48.01	9.16	V	57.17	73.98	16.81	PK
7311	36.09	9.16	V	45.25	53.98	8.73	AV
4874	49.97	0.87	H	50.84	73.98	23.15	PK
4874	39.88	0.87	H	40.75	53.98	13.24	AV
7311	48.09	9.16	H	57.25	73.98	16.73	PK
7311	36.12	9.16	H	45.28	53.98	8.70	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]	Measure ment Type
4874	48.19	0.00	0.87	V	49.06	73.98	24.93	PK
4874	36.39	0.32	0.87	V	37.58	53.98	16.40	AV
7311	48.04	0.00	9.16	V	57.20	73.98	16.78	PK
7311	35.97	0.32	9.16	V	45.45	53.98	8.53	AV
4874	48.97	0.00	0.87	H	49.84	73.98	24.15	PK
4874	36.48	0.32	0.87	H	37.67	53.98	16.31	AV
7311	48.17	0.00	9.16	H	57.33	73.98	16.65	PK
7311	36.10	0.32	9.16	H	45.58	53.98	8.40	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]	Measure ment Type
4874	47.99	0.00	0.87	V	48.86	73.98	25.13	PK
4874	36.25	0.33	0.87	V	37.45	53.98	16.53	AV
7311	48.12	0.00	9.16	V	57.28	73.98	16.70	PK
7311	36.01	0.33	9.16	V	45.50	53.98	8.48	AV
4874	48.54	0.00	0.87	H	49.41	73.98	24.58	PK
4874	36.38	0.33	0.87	H	37.58	53.98	16.40	AV
7311	48.34	0.00	9.16	H	57.50	73.98	16.48	PK
7311	35.91	0.33	9.16	H	45.40	53.98	8.58	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	47.35	0.81	V	48.16	73.98	25.83	PK
4924	36.48	0.81	V	37.29	53.98	16.70	AV
7386	47.12	9.38	V	56.50	73.98	17.48	PK
7386	34.99	9.38	V	44.37	53.98	9.61	AV
4924	47.72	0.81	H	48.53	73.98	25.46	PK
4924	36.65	0.81	H	37.46	53.98	16.53	AV
7386	47.30	9.38	H	56.68	73.98	17.30	PK
7386	35.10	9.38	H	44.48	53.98	9.50	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	48.74	0.00	0.81	V	49.55	73.98	24.44	PK
4924	35.76	0.32	0.81	V	36.89	53.98	17.09	AV
7386	46.60	0.00	9.38	V	55.98	73.98	18.00	PK
7386	34.98	0.32	9.38	V	44.68	53.98	9.30	AV
4924	48.92	0.00	0.81	H	49.73	73.98	24.26	PK
4924	35.70	0.32	0.81	H	36.83	53.98	17.15	AV
7386	47.05	0.00	9.38	H	56.43	73.98	17.55	PK
7386	35.03	0.32	9.38	H	44.73	53.98	9.25	AV

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

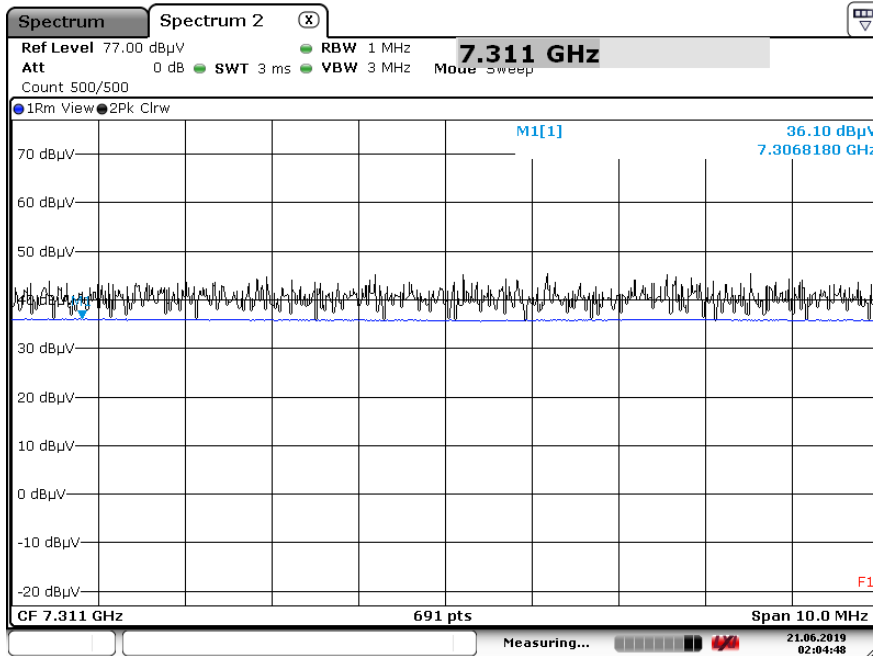
Frequency [MHz]	Reading [dBuV]	Duty Cycle Factor [dB]	A.F.+C.L.-A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
4924	48.31	0.00	0.81	V	49.12	73.98	24.87	PK
4924	35.59	0.33	0.81	V	36.73	53.98	17.25	AV
7386	46.51	0.00	9.38	V	55.89	73.98	18.09	PK
7386	34.92	0.33	9.38	V	44.63	53.98	9.35	AV
4924	47.49	0.00	0.81	H	48.30	73.98	25.69	PK
4924	35.65	0.33	0.81	H	36.79	53.98	17.19	AV
7386	47.25	0.00	9.38	H	56.63	73.98	17.35	PK
7386	35.00	0.33	9.38	H	44.71	53.98	9.27	AV

Note:

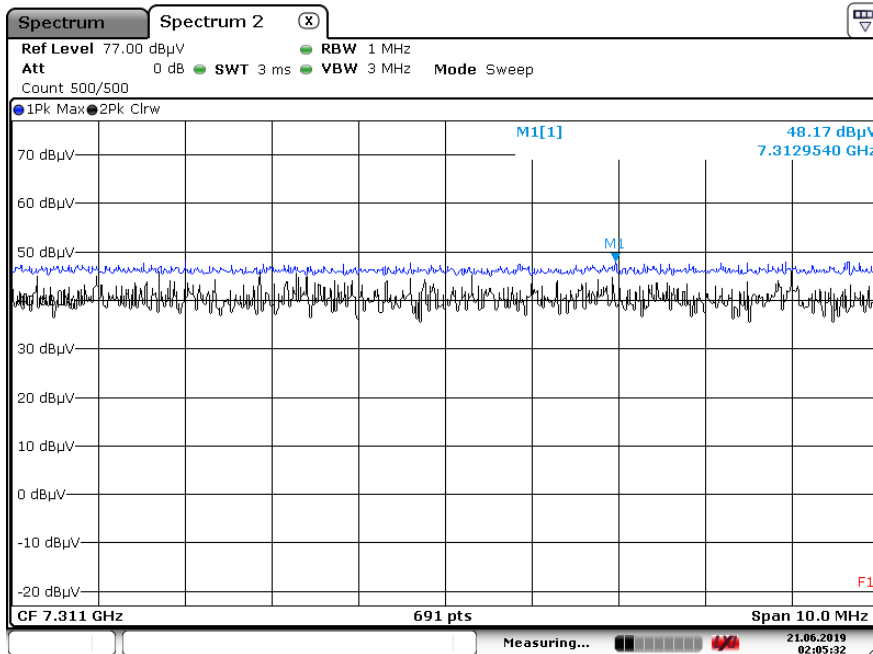
Channel 12 and 13 are less powerful than channel 11 so the test for high channel was performed at channel 11.

Test Plots (Worst case : Y-H)

Radiated Spurious Emissions plot – Average Reading (802.11g, Ch.6 3rd Harmonic)



Radiated Spurious Emissions plot – Peak Reading (802.11g, Ch.6 3rd 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.+C.L.+D.F. -A.G+ATT [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
2390.0	50.88	1.16	H	52.04	73.98	21.94	PK
2390.0	39.27	1.16	H	40.43	53.98	13.55	AV
2390.0	51.25	1.16	V	52.41	73.98	21.57	PK
2390.0	39.39	1.16	V	40.55	53.98	13.43	AV
2483.5	51.78	1.12	H	52.90	73.98	21.09	PK
2483.5	39.19	1.12	H	40.31	53.98	13.68	AV
2483.5	52.44	1.12	V	53.56	73.98	20.43	PK
2483.5	39.37	1.12	V	40.49	53.98	13.50	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
Ch12 / 2483.5	50.89	1.12	H	52.01	73.98	21.98	PK
Ch12 / 2483.5	39.15	1.12	H	40.27	53.98	13.72	AV
Ch12 / 2483.5	51.42	1.12	V	52.54	73.98	21.45	PK
Ch12 / 2483.5	39.20	1.12	V	40.32	53.98	13.67	AV
Ch13 / 2483.5	51.32	1.12	H	52.44	73.98	21.55	PK
Ch13 / 2483.5	39.58	1.12	H	40.70	53.98	13.29	AV
Ch13 / 2483.5	51.48	1.12	V	52.60	73.98	21.39	PK
Ch13 / 2483.5	39.65	1.12	V	40.77	53.98	13.22	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	54.71	0.00	1.16	H	55.87	73.98	18.11	PK
2390.0	43.51	0.32	1.16	H	44.99	53.98	8.99	AV
2390.0	57.80	0.00	1.16	V	58.96	73.98	15.02	PK
2390.0	44.35	0.32	1.16	V	45.83	53.98	8.15	AV
2483.5	54.81	0.00	1.12	H	55.93	73.98	18.06	PK
2483.5	41.15	0.32	1.12	H	42.59	53.98	11.39	AV
2483.5	58.12	0.00	1.12	V	59.24	73.98	14.75	PK
2483.5	44.01	0.32	1.12	V	45.45	53.98	8.53	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
Ch12 / 2483.5	58.58	0.00	1.12	H	59.70	73.98	14.29	PK
Ch12 / 2483.5	45.31	0.32	1.12	H	46.75	53.98	7.23	AV
Ch12 / 2483.5	58.93	0.00	1.12	V	60.05	73.98	13.94	PK
Ch12 / 2483.5	45.46	0.32	1.12	V	46.90	53.98	7.08	AV
Ch13 / 2483.5	59.12	0.00	1.12	H	60.24	73.98	13.75	PK
Ch13 / 2483.5	44.48	0.32	1.12	H	45.92	53.98	8.06	AV
Ch13 / 2483.5	59.96	0.00	1.12	V	61.08	73.98	12.91	PK
Ch13 / 2483.5	44.61	0.32	1.12	V	46.05	53.98	7.93	AV

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

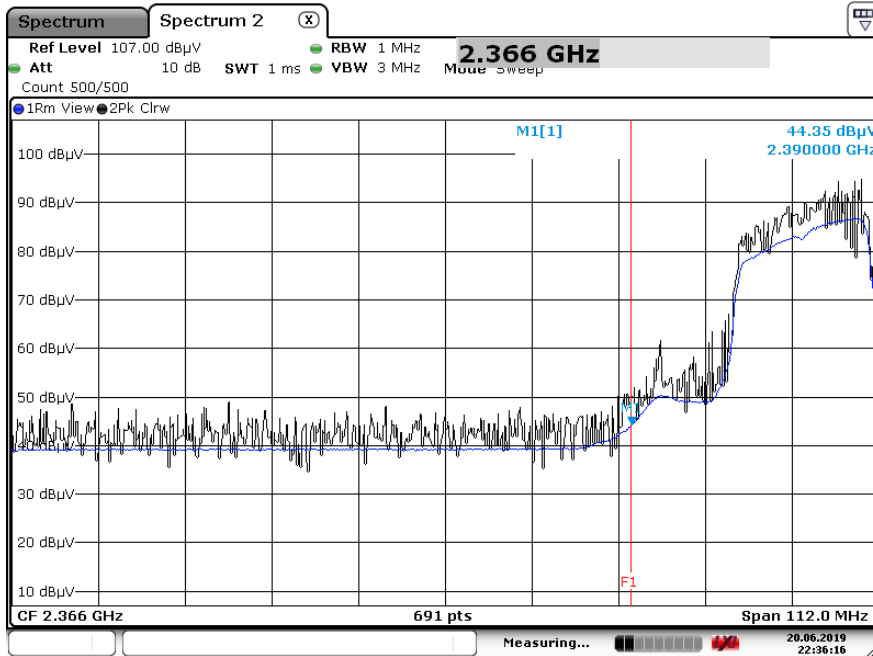
Frequency [MHz]	Reading [dBuV]	Duty Cycle Factor [dB]	A.F.+C.L.+D.F -A.G+ATT [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
2390.0	54.91	0.00	1.16	H	56.07	73.98	17.91	PK
2390.0	42.34	0.33	1.16	H	43.83	53.98	10.15	AV
2390.0	55.81	0.00	1.16	V	56.97	73.98	17.01	PK
2390.0	43.00	0.33	1.16	V	44.49	53.98	9.49	AV
2483.5	59.99	0.00	1.12	H	61.11	73.98	12.88	PK
2483.5	41.89	0.33	1.12	H	43.34	53.98	10.64	AV
2483.5	61.00	0.00	1.12	V	62.12	73.98	11.87	PK
2483.5	42.32	0.33	1.12	V	43.77	53.98	10.21	AV

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

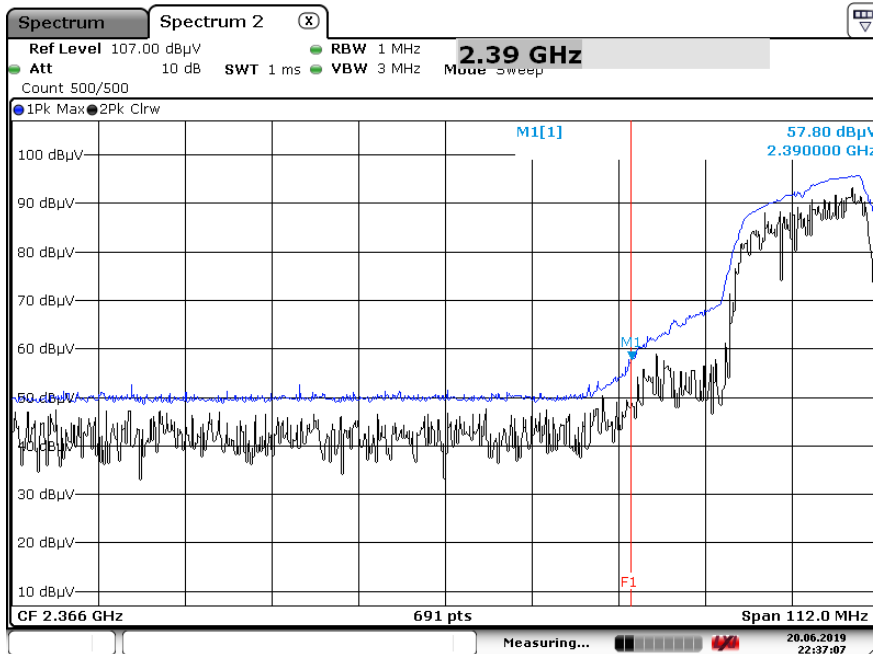
Frequency [MHz]	Reading [dBuV]	Duty Cycle Factor [dB]	A.F.+C.L.+D.F -A.G+ATT [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
Ch12 / 2483.5	59.76	0.00	1.12	H	60.88	73.98	13.11	PK
Ch12 / 2483.5	44.80	0.33	1.12	H	46.25	53.98	7.73	AV
Ch12 / 2483.5	60.23	0.00	1.12	V	61.35	73.98	12.64	PK
Ch12 / 2483.5	44.92	0.33	1.12	V	46.37	53.98	7.61	AV
Ch13 / 2483.5	61.89	0.00	1.12	H	63.01	73.98	10.98	PK
Ch13 / 2483.5	45.33	0.33	1.12	H	46.78	53.98	7.20	AV
Ch13 / 2483.5	62.16	0.00	1.12	V	63.28	73.98	10.71	PK
Ch13 / 2483.5	45.69	0.33	1.12	V	47.14	53.98	6.84	AV

Test Plots (Worst case : Y-V)

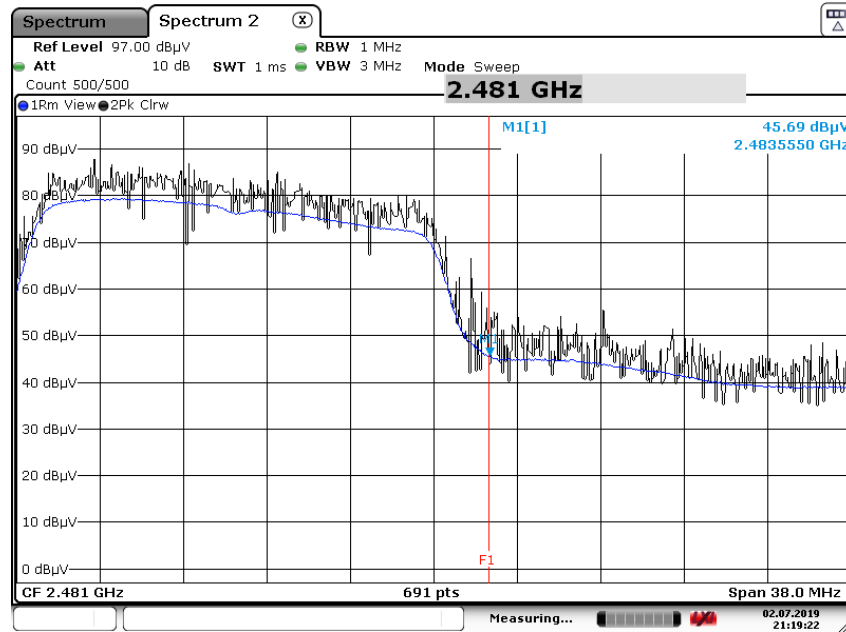
Radiated Restricted Band Edges plot – Average Reading (802.11g Ch.1)



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

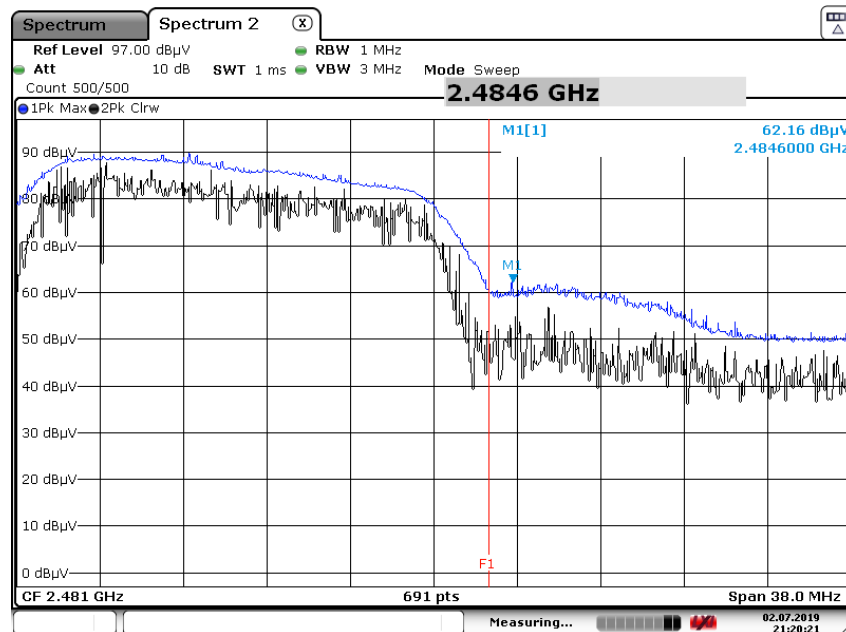


Radiated Restricted Band Edges plot – Average Reading (802.11n(HT20), Ch.13)



Date: 2.JUL.2019 21:19:22

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



Date: 2.JUL.2019 21:20:21

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)

2.4G WLAN L1

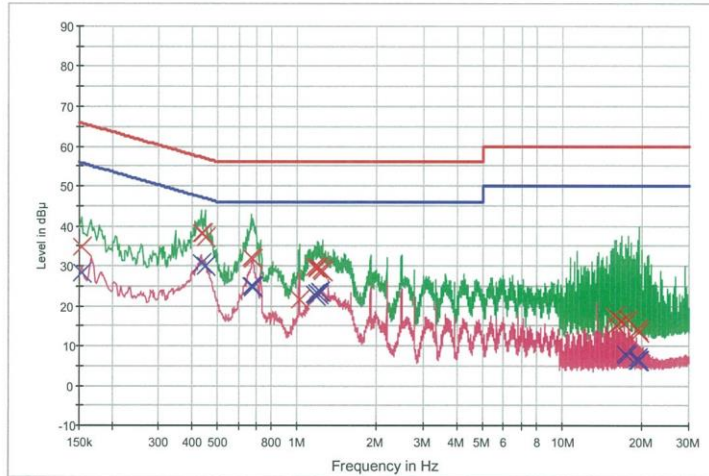
1 / 2

HCT TEST Report

Common Information

EUT: SM-R825U
 Manufacturer: SAMSUNG
 Test Site: SHIELD ROOM
 Operating Conditions: 2.4G WLAN L1

FCC CLASS B_Exten Cable



— 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	34.6	9.000	Off	L1	9.7	31.2	65.8
0.434000	38.0	9.000	Off	L1	9.7	19.1	57.2
0.442000	38.1	9.000	Off	L1	9.7	18.9	57.0
0.448000	37.2	9.000	Off	L1	9.7	19.7	56.9
0.670000	32.2	9.000	Off	L1	9.8	23.8	56.0
0.678000	31.6	9.000	Off	L1	9.8	24.4	56.0
1.018000	21.6	9.000	Off	L1	9.8	34.4	56.0
1.164000	29.8	9.000	Off	L1	9.8	26.2	56.0
1.186000	29.8	9.000	Off	L1	9.8	26.2	56.0
1.194000	29.3	9.000	Off	L1	9.8	26.7	56.0
1.236000	29.1	9.000	Off	L1	9.9	26.9	56.0
1.244000	28.8	9.000	Off	L1	9.9	27.2	56.0
15.764000	17.5	9.000	Off	L1	10.4	42.5	60.0
15.920000	15.2	9.000	Off	L1	10.4	44.8	60.0
16.650000	16.2	9.000	Off	L1	10.5	43.8	60.0
17.822000	16.4	9.000	Off	L1	10.5	43.6	60.0
19.328000	13.9	9.000	Off	L1	10.6	46.1	60.0
19.548000	13.3	9.000	Off	L1	10.6	46.7	60.0

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2.4G WLAN L1

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Final Result 2

Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.154000	28.2	9.000	Off	L1	9.7	27.6	55.8
0.434000	30.8	9.000	Off	L1	9.7	16.3	47.2
0.450000	30.0	9.000	Off	L1	9.8	16.9	46.9
0.674000	25.1	9.000	Off	L1	9.8	20.9	46.0
0.678000	25.0	9.000	Off	L1	9.8	21.0	46.0
0.682000	24.5	9.000	Off	L1	9.8	21.5	46.0
1.164000	22.9	9.000	Off	L1	9.8	23.1	46.0
1.170000	22.5	9.000	Off	L1	9.8	23.5	46.0
1.178000	22.5	9.000	Off	L1	9.8	23.5	46.0
1.186000	23.2	9.000	Off	L1	9.8	22.8	46.0
1.196000	22.9	9.000	Off	L1	9.8	23.1	46.0
1.214000	23.5	9.000	Off	L1	9.8	22.5	46.0
17.292000	7.9	9.000	Off	L1	10.5	42.1	50.0
17.380000	7.9	9.000	Off	L1	10.5	42.1	50.0
17.424000	7.7	9.000	Off	L1	10.5	42.3	50.0
19.150000	6.8	9.000	Off	L1	10.6	43.2	50.0
19.328000	6.1	9.000	Off	L1	10.6	43.9	50.0
19.350000	6.3	9.000	Off	L1	10.6	43.7	50.0

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Conducted Emissions (Line 2)

2.4G WLAN N

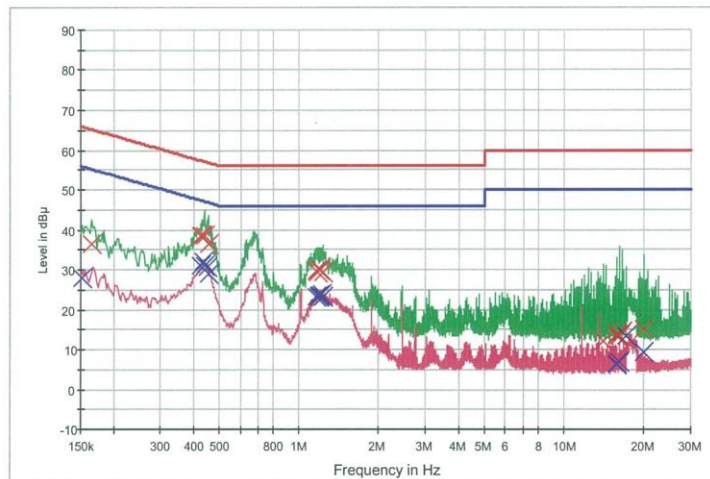
1 / 2

HCT TEST Report

Common Information

EUT: SM-R825U
 Manufacturer: SAMSUNG
 Test Site: SHIELD ROOM
 Operating Conditions: 2.4G WLAN N

FCC CLASS B_Exten Cable



— 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 (dBuV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.164000	36.4	9.000	Off	N	9.8	28.8	65.3
0.426000	38.3	9.000	Off	N	9.9	19.0	57.3
0.432000	38.6	9.000	Off	N	9.9	18.6	57.2
0.438000	38.4	9.000	Off	N	9.9	18.7	57.1
0.442000	38.4	9.000	Off	N	9.9	18.6	57.0
0.456000	36.4	9.000	Off	N	9.9	20.4	56.8
1.168000	29.6	9.000	Off	N	10.0	26.4	56.0
1.172000	29.4	9.000	Off	N	10.0	26.6	56.0
1.194000	30.1	9.000	Off	N	10.0	25.9	56.0
1.198000	29.9	9.000	Off	N	10.0	26.1	56.0
1.208000	29.9	9.000	Off	N	10.0	26.1	56.0
1.228000	29.3	9.000	Off	N	10.0	26.7	56.0
14.076000	12.1	9.000	Off	N	10.6	47.9	60.0
15.758000	13.9	9.000	Off	N	10.7	46.1	60.0
15.782000	13.4	9.000	Off	N	10.7	46.6	60.0
16.136000	13.3	9.000	Off	N	10.7	46.7	60.0
16.578000	14.5	9.000	Off	N	10.7	45.5	60.0
19.900000	15.1	9.000	Off	N	10.9	44.9	60.0

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2.4G WLAN N

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Final Result 2

Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.152000	28.1	9.000	Off	N	9.8	27.8	55.9
0.426000	30.9	9.000	Off	N	9.9	16.4	47.3
0.436000	32.0	9.000	Off	N	9.9	15.1	47.1
0.442000	31.0	9.000	Off	N	9.9	16.0	47.0
0.448000	30.8	9.000	Off	N	9.9	16.1	46.9
0.456000	29.0	9.000	Off	N	9.9	17.8	46.8
1.168000	23.1	9.000	Off	N	10.0	22.9	46.0
1.184000	23.3	9.000	Off	N	10.0	22.7	46.0
1.194000	23.6	9.000	Off	N	10.0	22.4	46.0
1.198000	23.7	9.000	Off	N	10.0	22.3	46.0
1.214000	23.9	9.000	Off	N	10.0	22.1	46.0
1.228000	23.4	9.000	Off	N	10.0	22.6	46.0
15.782000	6.4	9.000	Off	N	10.7	43.6	50.0
15.826000	6.3	9.000	Off	N	10.7	43.7	50.0
16.136000	6.8	9.000	Off	N	10.7	43.2	50.0
16.158000	7.0	9.000	Off	N	10.7	43.0	50.0
17.086000	13.2	9.000	Off	N	10.8	36.8	50.0
19.900000	9.3	9.000	Off	N	10.9	40.7	50.0

2019-06-24

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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	N9020A / Signal Analyzer	05/24/2019	Annual	MY52090906
Agilent	N9030A / Signal Analyzer	01/10/2019	Annual	MY49431210
Rohde & Schwarz	OSP 120 / Power Measurement Set	07/26/2018	Annual	101231
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

Note:

1. Equipment listed above that calibrated during the testing period was set for test after the calibration.
2. Equipment listed above that has a calibration due date during the testing period, the testing is completed before equipment expiration date.

Radiated Test

Manufacturer	Model / Equipment	Calibration Date	Calibration Interval	Serial No.
Innco system	CO3000 / Controller(Antenna mast)	N/A	N/A	CO3000-4p
Innco system	MA4640/800-XP-EP / Antenna Position Tower	N/A	N/A	N/A
Audix	EM1000 / Controller	N/A	N/A	060520
Audix	Turn Table	N/A	N/A	N/A
Rohde & Schwarz	Loop Antenna	08/23/2018	Biennial	1513-175
Schwarzbeck	VULB 9168 / Hybrid Antenna	03/22/2019	Biennial	760
Schwarzbeck	VULB 9160 / TRILOG Antenna	08/09/2018	Biennial	9160-3368
Schwarzbeck	BBHA 9120D / Horn Antenna	04/29/2019	Biennial	9120D-937
Schwarzbeck	BBHA9170 / Horn Antenna(15 GHz ~ 40 GHz)	12/04/2017	Biennial	BBHA9170541
Rohde & Schwarz	FSP(9 kHz ~ 30 GHz) / Spectrum Analyzer	09/03/2018	Annual	100688
Rohde & Schwarz	FSV40-N / Spectrum Analyzer	09/28/2018	Annual	101068-SZ
Agilent	N9020A / Signal Analyzer	05/23/2019	Annual	MY51110085
Wainwright Instruments	WHK3.0/18G-10EF / High Pass Filter	05/23/2019	Annual	8
Wainwright Instruments	WHKX7.0/18G-8SS / High Pass Filter	05/03/2019	Annual	29
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
Agilent	8493C-10 / Attenuator(10 dB)	07/15/2019	Annual	08285
CERNEX	CBLU1183540 / Power Amplifier	07/01/2019	Annual	22964
CERNEX	CBL06185030 / Power Amplifier	07/01/2019	Annual	22965
CERNEX	CBL18265035 / Power Amplifier	01/03/2019	Annual	22966
CERNEX	CBL26405040 / Power Amplifier	06/18/2019	Annual	25956

Note:

1. Equipment listed above that calibrated during the testing period was set for test after the calibration.
2. Equipment listed above that has a calibration due date during the testing period, the testing is completed before equipment expiration date.

11. ANNEX A_ TEST SETUP PHOTO

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

No.	Description
1	HCT-RF-1907-FI022-P