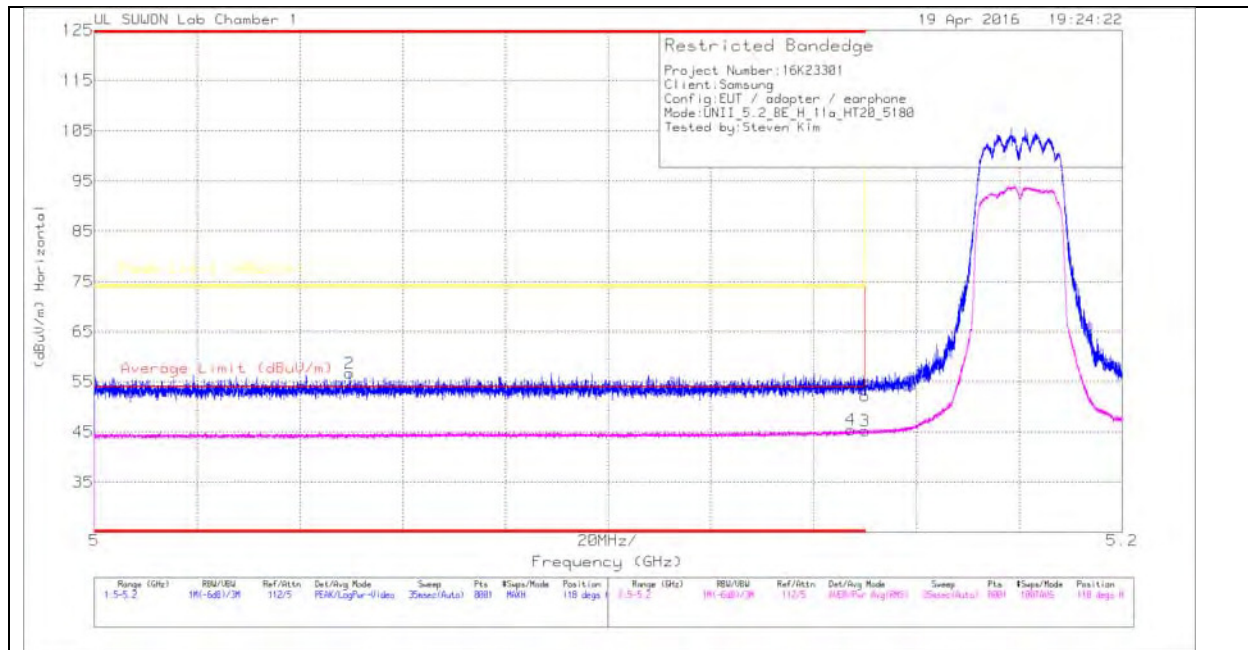


11.1. 5.2 GHz

11.1.1. TX Above 1GHz 802.11a 2TX CDD MODE IN THE 5.2GHz BAND

RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Trace Markers

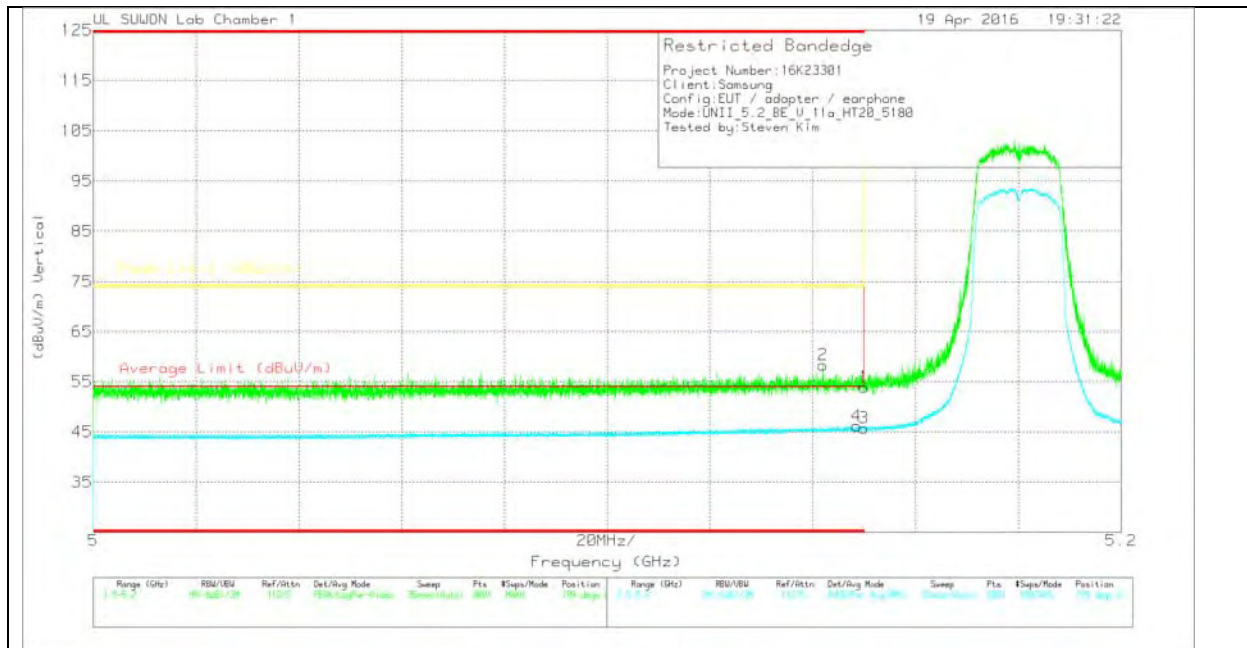
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(001687 17)_150619	Path_2	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	42.13	PK	34.2	-24.1	0	52.23	-	-	74	-21.77	118	328	H
2	* 5.05	46.86	PK	34.1	-24.3	0	56.66	-	-	74	-17.34	118	328	H
3	* 5.15	34.81	RMS	34.2	-24.1	.31	45.22	54	-8.78	-	-	118	328	H
4	* 5.147	35.01	RMS	34.2	-24.1	.31	45.42	54	-8.58	-	-	118	328	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(001687 17)_150619	Path_2	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	43.84	Pk		34.2	-24.1	0	53.94	-	74	-20.06	199	100	V
2	* 5.142	48.23	Pk		34.2	-24.1	0	58.33	-	74	-15.67	199	100	V
3	* 5.15	35.38	RMS		34.2	-24.1	.31	45.79	54	-8.21	-	199	100	V
4	* 5.149	35.77	RMS		34.2	-24.1	.31	46.18	54	-7.82	-	199	100	V

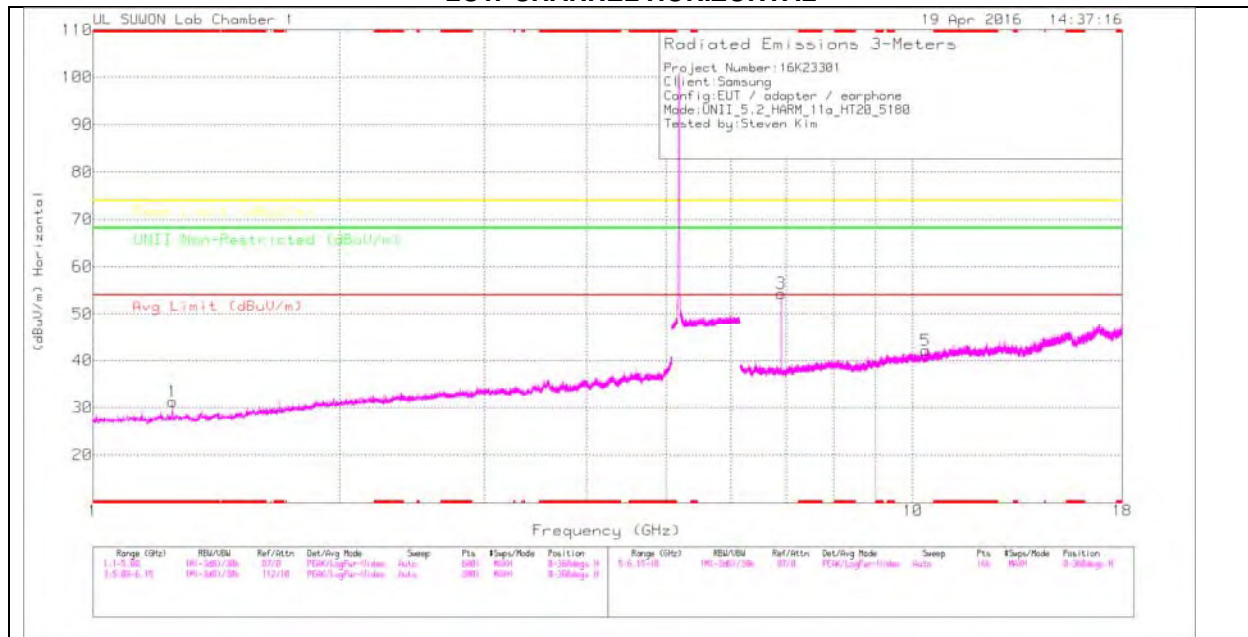
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

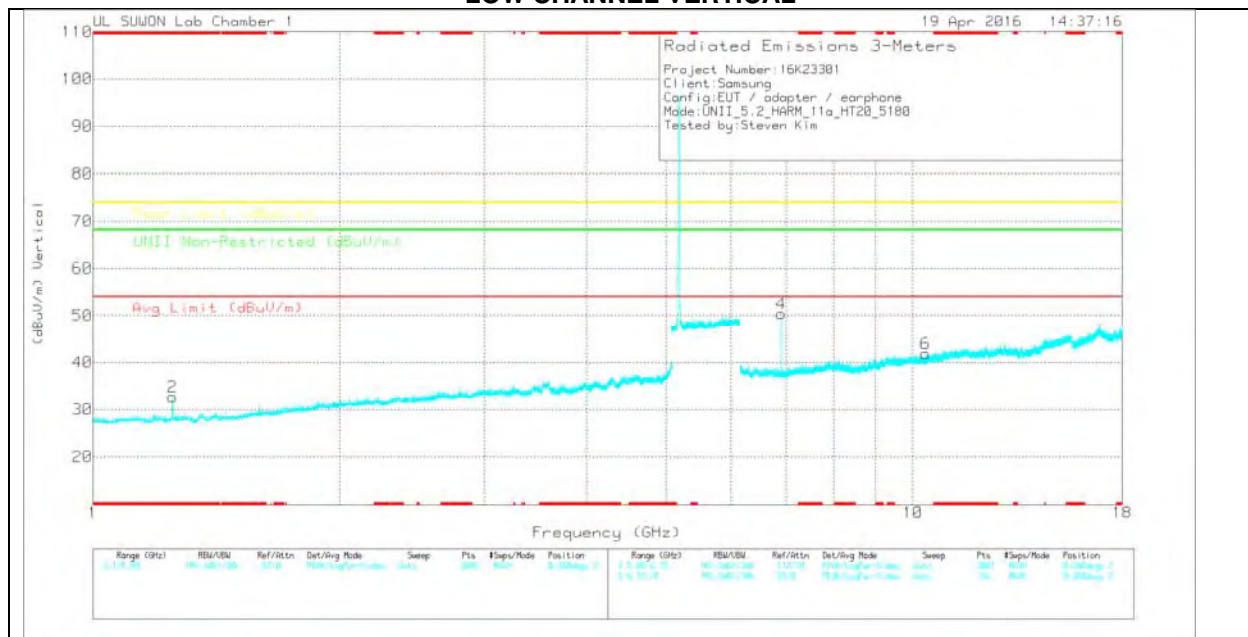
RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



LOW CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(00168717)_150619	Path_4	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.25	43.17	PK	28.3	-40.2	0	31.27	-	-	74	-42.73	-	-	0-360	200	H
2	* 1.25	44.65	PK	28.3	-40.2	0	32.75	-	-	74	-41.25	-	-	0-360	200	V
3	6.906	49.56	PK	35.6	-30.8	0	54.36	-	-	-	-	68.2	-13.84	0-360	200	H
5	10.358	31.74	PK	37.8	-27.4	0	42.14	-	-	-	-	68.2	-26.06	0-360	200	H
4	6.906	45.59	PK	35.6	-30.8	0	50.39	-	-	-	-	68.2	-17.81	0-360	100	V
6	10.36	31.36	PK	37.8	-27.3	0	41.86	-	-	-	-	68.2	-26.34	0-360	200	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak Detector

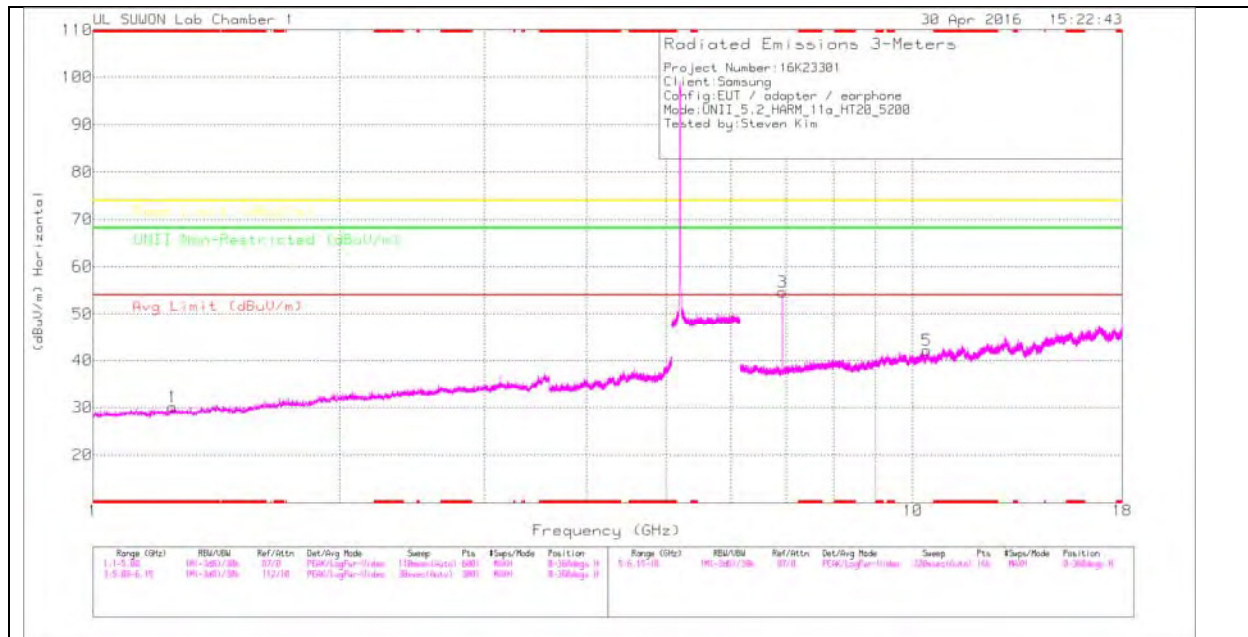
Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	3117(00168717)_150619	Path_4	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 1.25	52.9	PK-U	28.3	-40.2	0	41	-	-	74	-33	-	-	239	387	H
* 1.25	42.91	ADR	28.3	-40.2	.31	31.32	54	-22.68	-	-	-	-	239	387	H
* 1.25	52.02	PK-U	28.3	-40.2	0	40.12	-	-	74	-33.88	-	-	95	382	V
* 1.25	42.46	ADR	28.3	-40.2	.31	30.87	54	-23.13	-	-	-	-	95	382	V
6.907	53.7	PK-U	35.6	-30.8	0	58.5	-	-	-	-	68.2	-9.7	112	135	H
6.907	50.16	PK-U	35.6	-30.8	0	54.96	-	-	-	-	68.2	-13.24	148	125	V

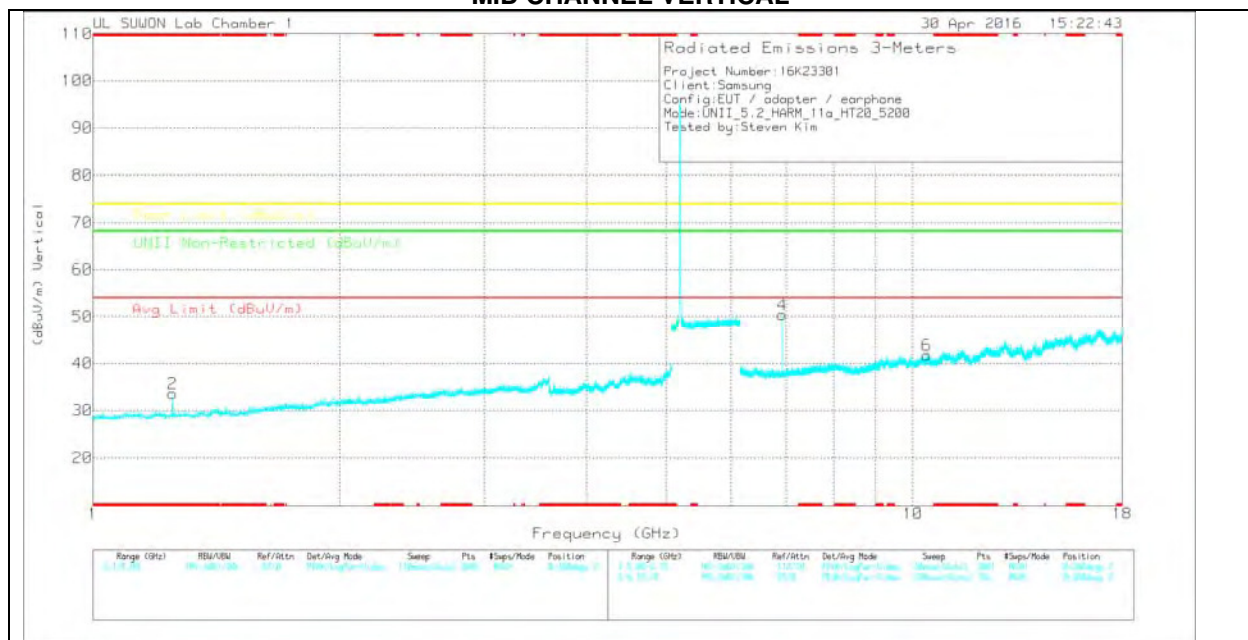
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK-U - U-NII: Maximum Peak

MID CHANNEL HORIZONTAL



MID CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(0016 8717)_150 619	Path_4	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.25	41.99	PK	28.3	-40.2	0	30.09	-	-	74	-43.91	-	-	0-360	200	H
2	* 1.25	45.56	PK	28.3	-40.2	0	33.66	-	-	74	-40.34	-	-	0-360	200	V
3	6.933	49.74	PK	35.7	-30.7	0	54.74	-	-	-	-	68.2	-13.46	0-360	100	H
5	10.4	31.01	PK	37.8	-26.7	0	42.11	-	-	-	-	68.2	-26.09	0-360	200	H
4	6.933	45.47	PK	35.7	-30.7	0	50.47	-	-	-	-	68.2	-17.73	0-360	200	V
6	10.4	30.7	PK	37.8	-26.7	0	41.8	-	-	-	-	68.2	-26.4	0-360	100	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak Detector

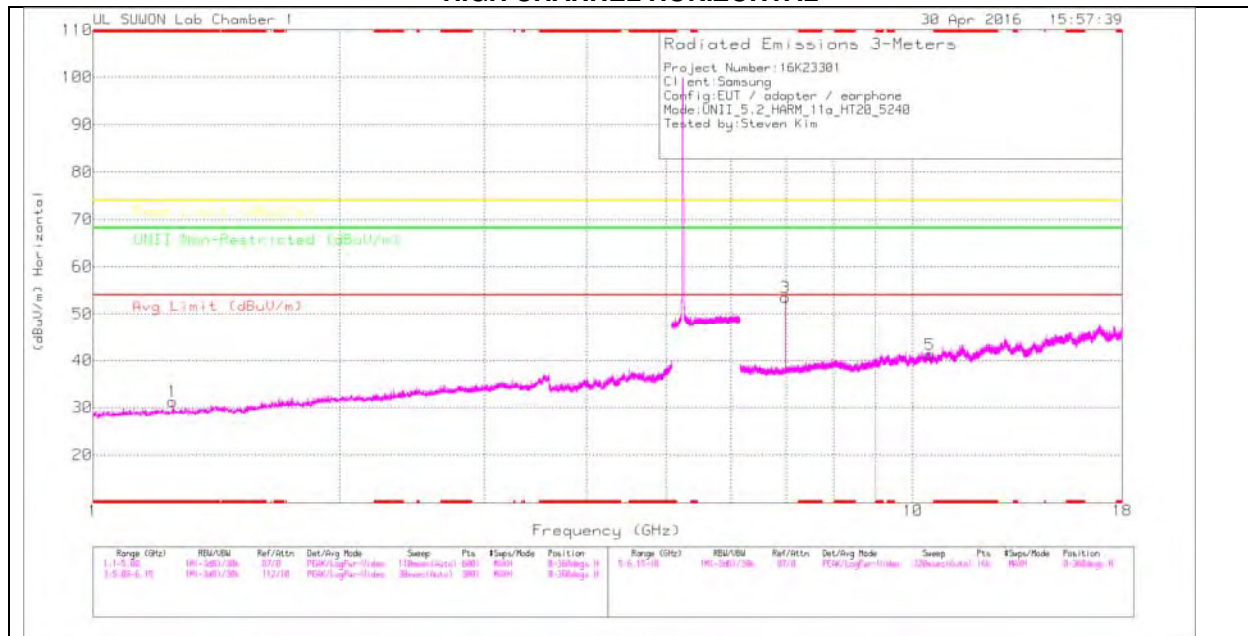
Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	3117(001687 17)_150619	Path_5	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
6.933	53.57	PK-U	35.7	-30.7	0	58.57	-	-	-	-	68.2	-9.63	120	368	H
6.933	50.87	PK-U	35.7	-30.7	0	55.87	-	-	-	-	68.2	-12.33	161	237	V

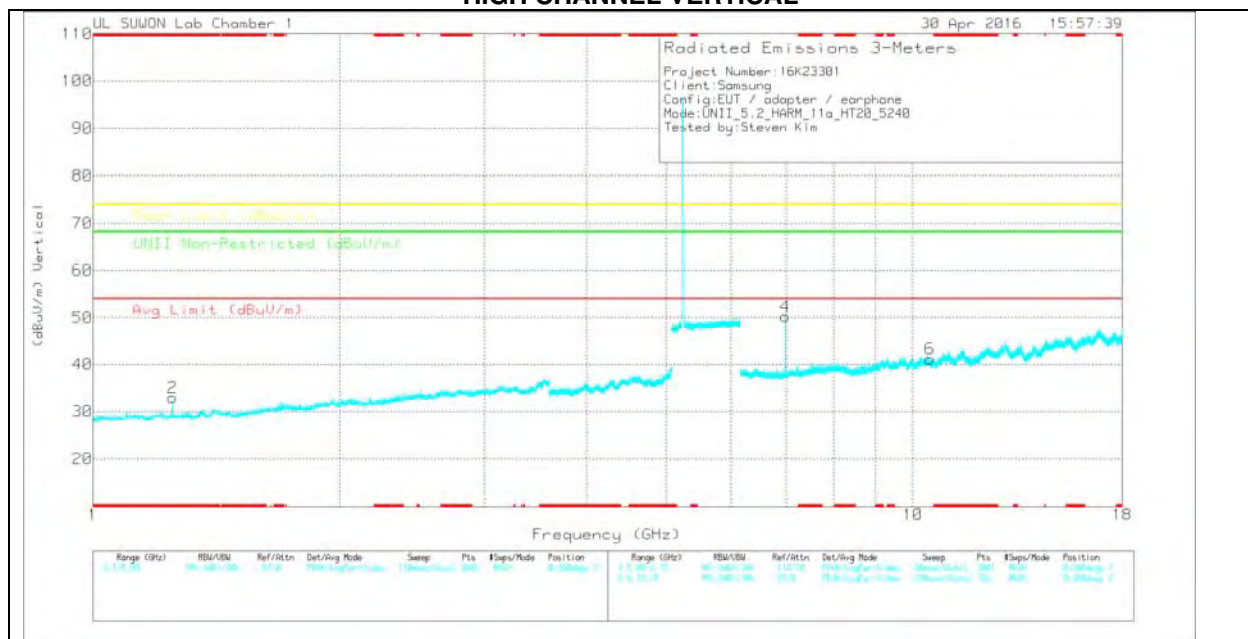
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK-U - U-NII: Maximum Peak

HIGH CHANNEL HORIZONTAL



HIGH CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

HIGH CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(0016 8717)_150 619	Path_4	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.25	43.14	PK	28.3	-40.2	0	31.24	-	-	74	-42.76	-	-	0-360	200	H
2	* 1.25	44.88	PK	28.3	-40.2	0	32.98	-	-	74	-41.02	-	-	0-360	200	V
3	6.986	48.42	PK	35.7	-30.6	0	53.52	-	-	-	-	68.2	-14.68	0-360	100	H
5	10.479	31.08	PK	37.8	-27.7	0	41.18	-	-	-	-	68.2	-27.02	0-360	100	H
4	6.986	45.2	PK	35.7	-30.6	0	50.3	-	-	-	-	68.2	-17.9	0-360	100	V
6	10.48	31.07	PK	37.8	-27.7	0	41.17	-	-	-	-	68.2	-27.03	0-360	100	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak Detector

Radiated Emissions

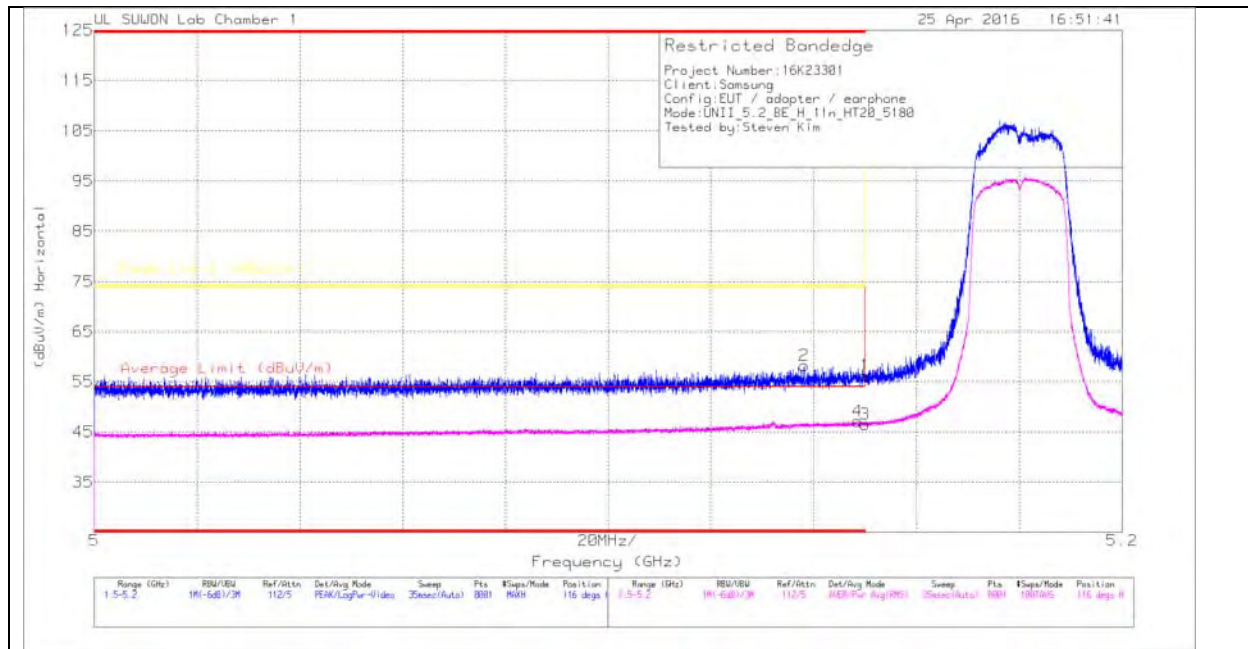
Frequency (GHz)	Meter Reading (dBuV)	Det	3117(001687 17)_150619	Path_5	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
6.987	52.44	PK-U	35.7	-30.6	0	57.54	-	-	-	-	68.2	-10.66	120	131	H
6.987	49.73	PK-U	35.7	-30.6	0	54.83	-	-	-	-	68.2	-13.37	161	233	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK-U - U-NII: Maximum Peak

11.1.2. TX Above 1GHz 802.11n HT20 2TX CDD MODE IN THE 5.2GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Trace Markers

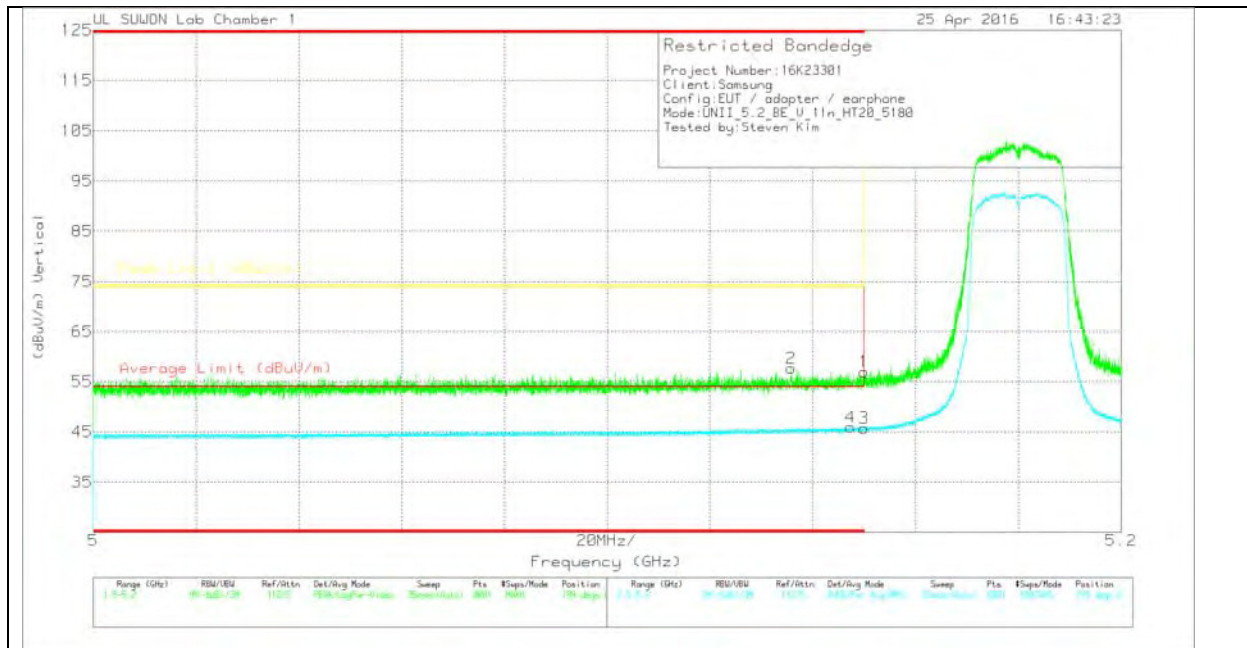
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(001687 17_150619	Path_2	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	46.16	Pk		-24.1	0	56.26	-	-	74	-17.74	116	153	H
2	* 5.138	48.12	Pk		-24.1	0	58.22	-	-	74	-15.78	116	153	H
3	* 5.15	36.14	RMS		-24.1	.31	46.55	54	-7.45	-	-	116	153	H
4	* 5.149	36.75	RMS		-24.1	.31	47.16	54	-6.84	-	-	116	153	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(001687 17_150619)	Path_2	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	46.88	PK	34.2	-24.1	0	56.98	-	-	74	-17.02	199	111	V
2	* 5.136	47.57	PK	34.2	-24.1	0	57.67	-	-	74	-16.33	199	111	V
3	* 5.15	35.36	RMS	34.2	-24.1	.31	45.77	54	-8.23	-	-	199	111	V
4	* 5.147	35.58	RMS	34.2	-24.1	.31	45.99	54	-8.01	-	-	199	111	V

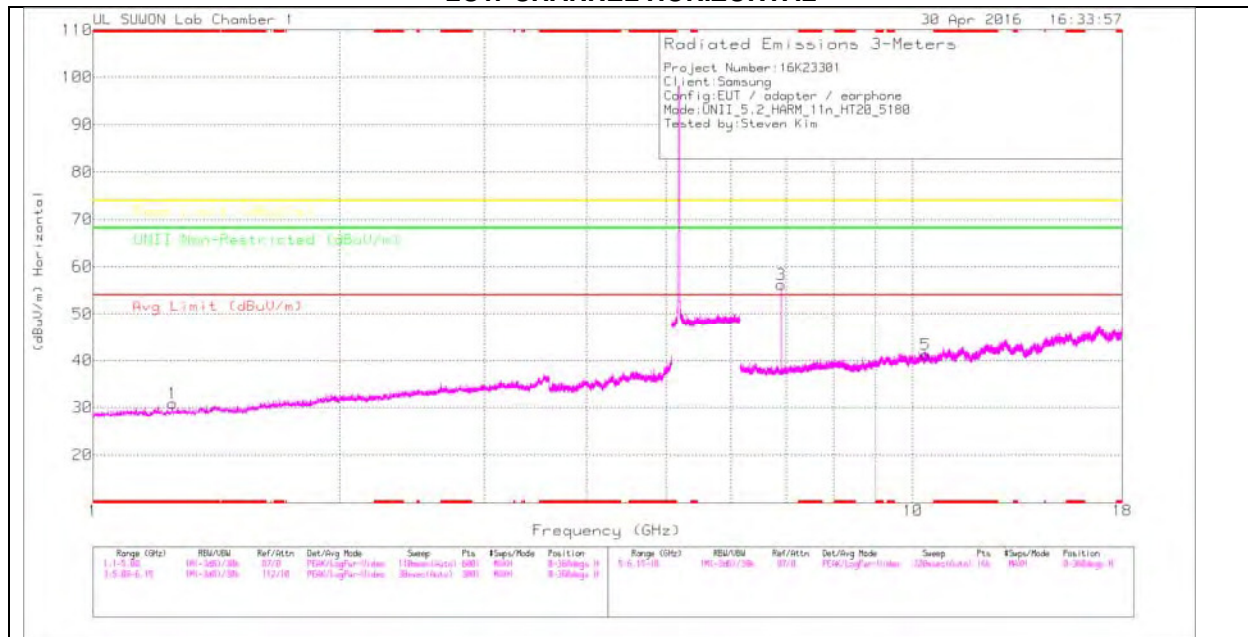
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

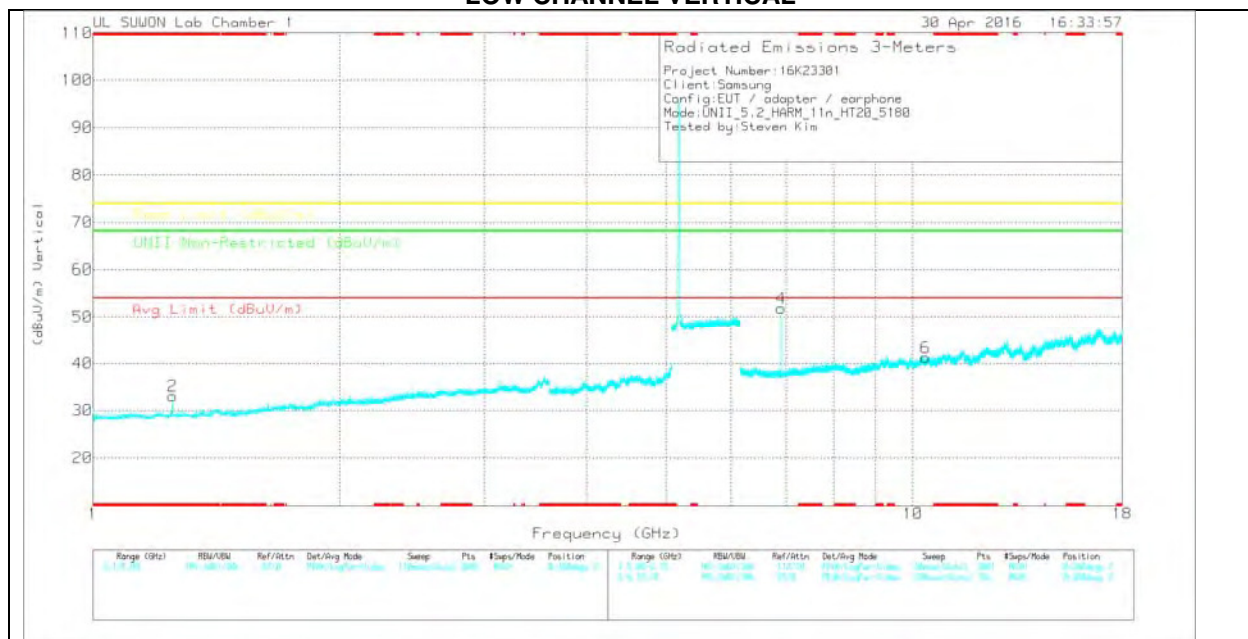
RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



LOW CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(0016 8717)_150 619	Path_4	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.25	42.74	PK	28.3	-40.2	0	30.84	-	-	74	-43.16	-	-	0-360	200	H
2	* 1.25	45.01	PK	28.3	-40.2	0	33.11	-	-	74	-40.89	-	-	0-360	200	V
3	6.906	51.38	PK	35.6	-30.8	0	56.18	-	-	-	-	68.2	-12.02	0-360	100	H
5	10.359	30.79	PK	37.8	-27.4	0	41.19	-	-	-	-	68.2	-27.01	0-360	200	H
4	6.906	47.06	PK	35.6	-30.8	0	51.86	-	-	-	-	68.2	-16.34	0-360	200	V
6	10.359	30.88	PK	37.8	-27.4	0	41.28	-	-	-	-	68.2	-26.92	0-360	100	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak Detector

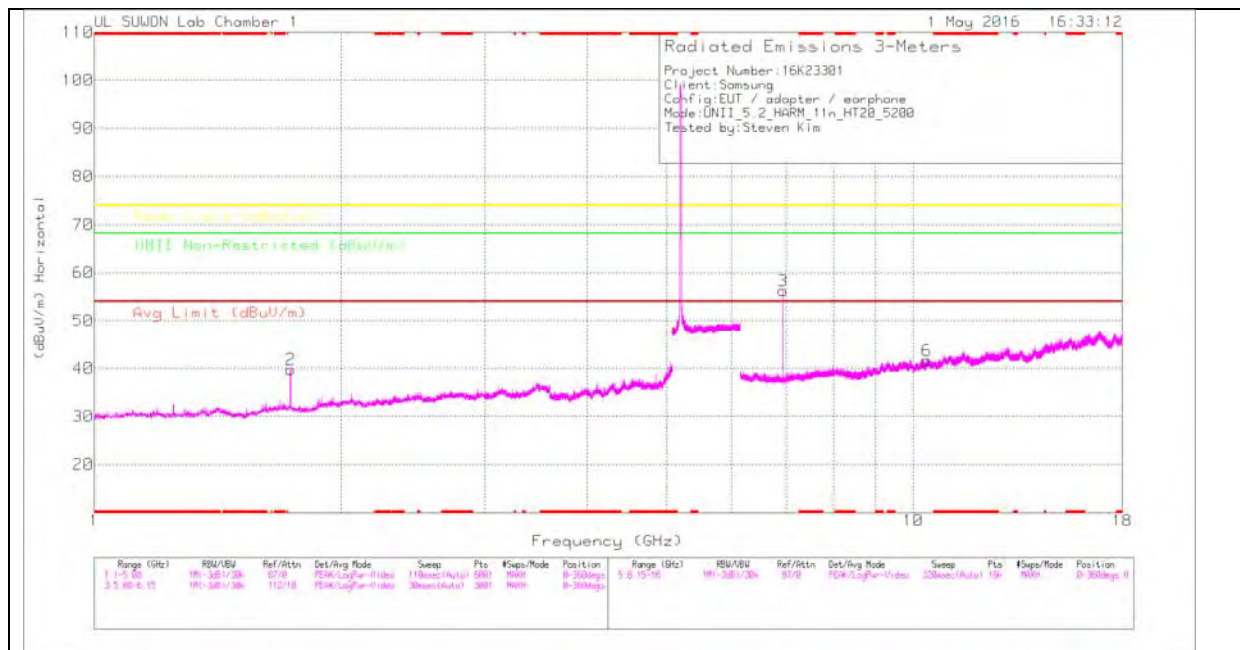
Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	3117(001687 17)_150619	Path_5	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
6.907	54.25	PK-U	35.6	-30.8	0	59.05	-	-	-	-	68.2	-9.15	120	369	H
6.907	51.33	PK-U	35.6	-30.8	0	56.13	-	-	-	-	68.2	-12.07	190	314	V

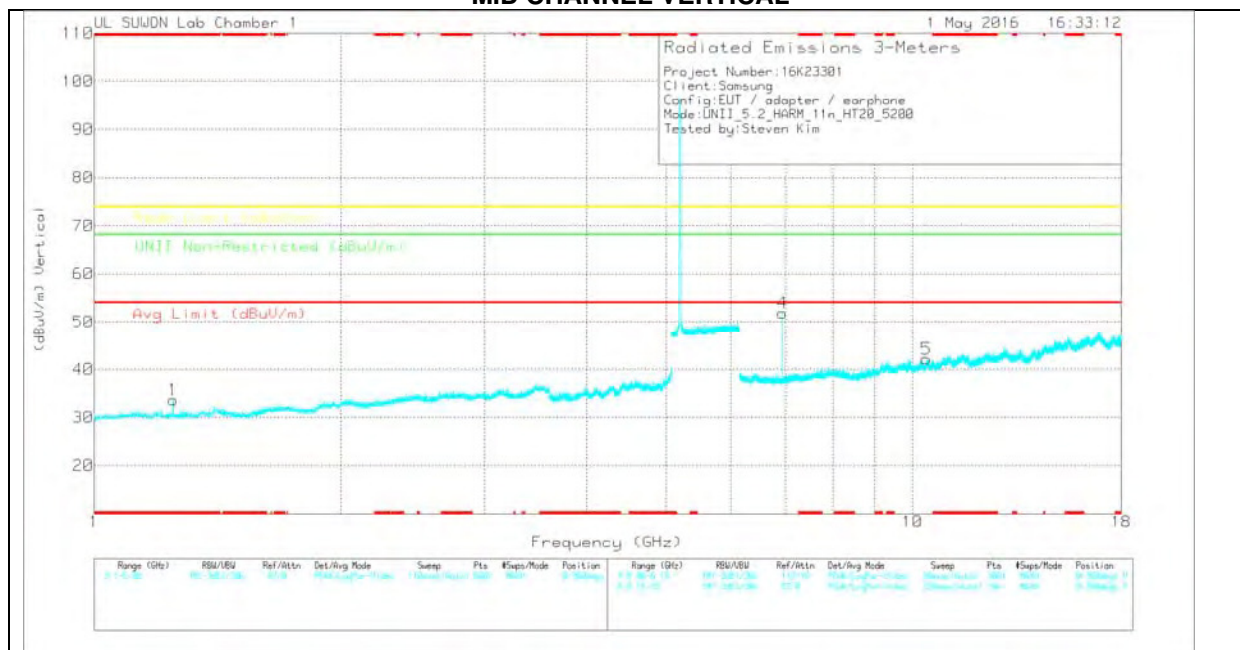
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK-U - U-NII: Maximum Peak

MID CHANNEL HORIZONTAL



MID CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(00168717)_150619	Path_4	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	1.737	49.24	Pk	29.8	-39.3	0	39.74	-	-	-	-	68.2	-28.46	0-360	100	H
1	* 1.25	45.55	Pk	28.3	-40.2	0	33.65	-	-	74	-40.35	-	-	0-360	200	V
3	6.933	51.24	Pk	35.7	-30.7	0	56.24	-	-	-	-	68.2	-11.96	0-360	100	H
6	10.396	30.62	Pk	37.8	-26.8	0	41.62	-	-	-	-	68.2	-26.58	0-360	200	H
4	6.933	46.87	Pk	35.7	-30.7	0	51.87	-	-	-	-	68.2	-16.33	0-360	100	V
5	10.4	31.08	Pk	37.8	-26.7	0	42.18	-	-	-	-	68.2	-26.02	0-360	200	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk – Peak detector

Radiated Emissions

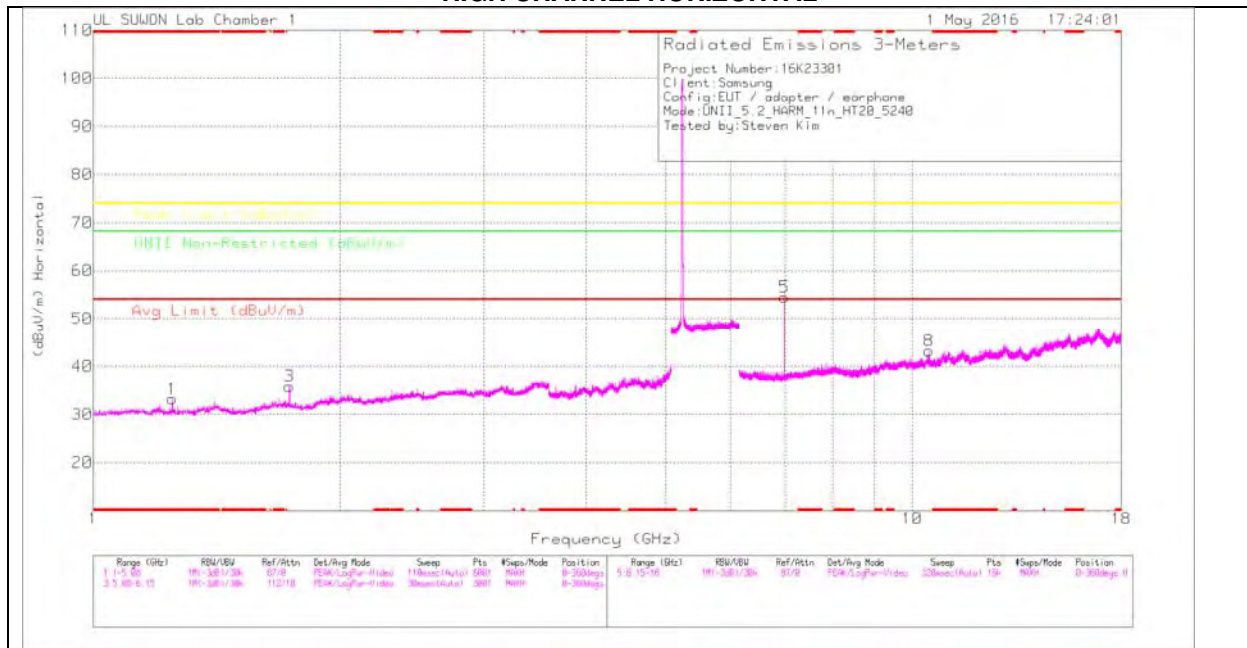
Frequency (GHz)	Meter Reading (dBuV)	Det	3117(00168717)_150619	Path_4	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1.736	54.7	PK-U	29.8	-39.3	0	45.2	-	-	-	-	68.2	-23	332	382	H
* 1.25	53.97	PK-U	28.3	-40.2	0	42.07	-	-	74	-31.93	-	-	138	361	V
* 1.25	44.46	ADR	28.3	-40.2	.31	32.87	54	-21.13	-	-	-	-	138	361	V
6.933	50.72	PK-U	35.7	-30.7	0	55.72	-	-	-	-	68.2	-12.48	198	174	V
6.933	53.14	PK-U	35.7	-30.7	0	58.14	-	-	-	-	68.2	-10.06	116	139	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

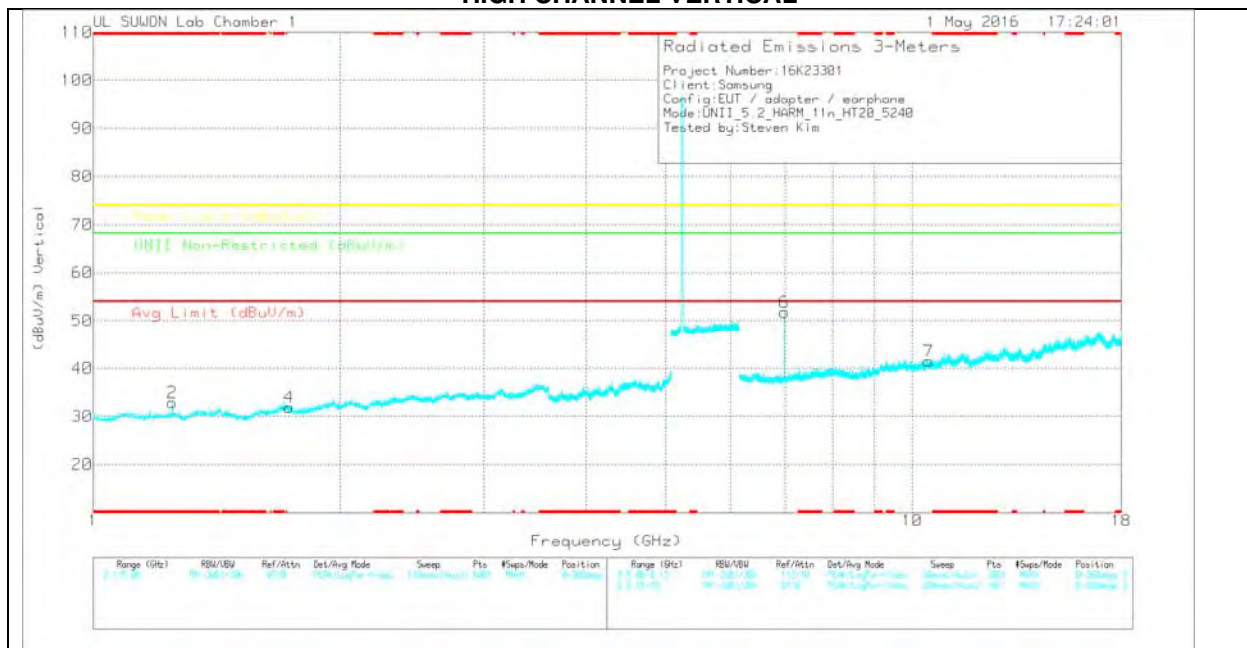
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

HIGH CHANNEL HORIZONTAL



HIGH CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

HIGH CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(0016 8717)_150 619	Path_4	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.25	45.14	Pk	28.3	-40.2	0	33.24	-	-	74	-40.76	-	-	0-360	200	H
3	1.736	45.34	Pk	29.8	-39.3	0	35.84	-	-	-	-	68.2	-32.36	0-360	100	H
2	* 1.25	44.77	Pk	28.3	-40.2	0	32.87	-	-	74	-41.13	-	-	0-360	200	V
4	1.735	41.38	Pk	29.8	-39.3	0	31.88	-	-	-	-	68.2	-36.32	0-360	100	V
5	6.986	49.43	Pk	35.7	-30.6	0	54.53	-	-	-	-	68.2	-13.67	0-360	100	H
8	10.479	33.15	Pk	37.8	-27.7	0	43.25	-	-	-	-	68.2	-24.95	0-360	200	H
6	6.986	46.67	Pk	35.7	-30.6	0	51.77	-	-	-	-	68.2	-16.43	0-360	100	V
7	10.475	31.31	Pk	37.8	-27.6	0	41.51	-	-	-	-	68.2	-26.69	0-360	100	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk- Peak detector

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	3117(001687 17)_150619	Path_4	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 1.25	54.25	PK-U	28.3	-40.2	0	42.35	-	-	74	-31.65	-	-	202	388	H
* 1.25	44.33	ADR	28.3	-40.2	.31	32.74	54	-21.26	-	-	-	-	202	388	H
1.727	52.8	PK-U	29.7	-39.3	0	43.2	-	-	-	-	68.2	-25	86	140	H
* 1.25	53.92	PK-U	28.3	-40.2	0	42.02	-	-	74	-31.98	-	-	186	356	V
* 1.25	44.39	ADR	28.3	-40.2	.31	32.8	54	-21.2	-	-	-	-	186	356	V
6.987	51.83	PK-U	35.7	-30.6	0	56.93	-	-	-	-	68.2	-11.27	111	134	H
10.475	42.61	PK-U	37.8	-27.7	0	52.71	-	-	-	-	68.2	-15.49	246	181	H
6.987	50.49	PK-U	35.7	-30.6	0	55.59	-	-	-	-	68.2	-12.61	159	317	V

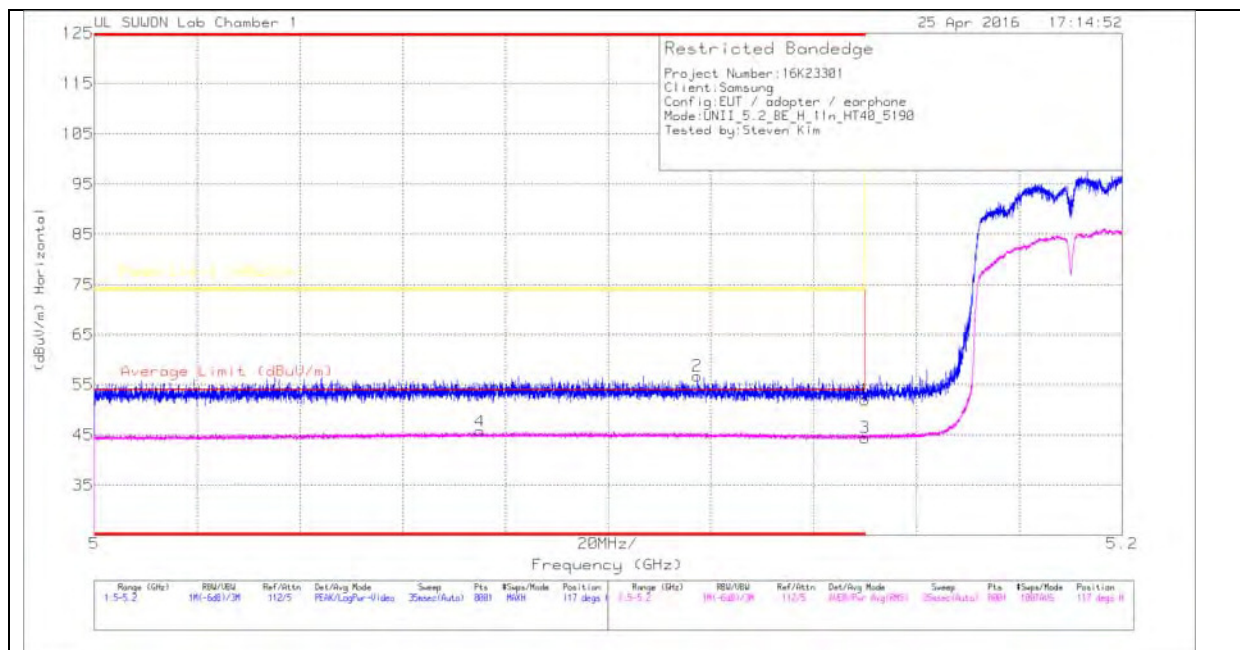
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

11.1.3. TX Above 1GHz 802.11n HT40 2TX CDD MODE IN THE 5.2GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Trace Markers

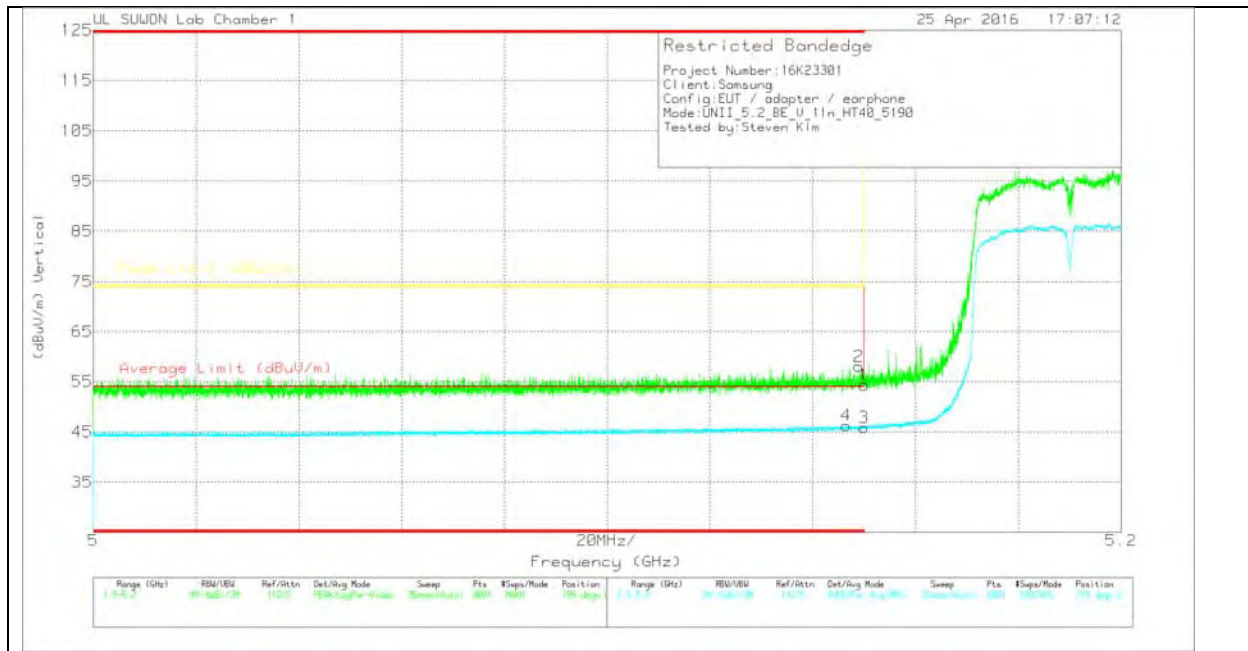
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(001687 17_150619)	Path_2	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	41.91	Pk	34.2	-24.1	0	52.01	-	-	74	-21.99	117	323	H
2	* 5.117	46.63	Pk	34.2	-24.1	0	56.73	-	-	74	-17.27	117	323	H
3	* 5.15	33.76	RMS	34.2	-24.1	.59	44.45	54	-9.55	-	-	117	323	H
4	* 5.075	35.14	RMS	34.2	-24.2	.59	45.73	54	-8.27	-	-	117	323	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(001687 17_150619)	Path_2	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	44.24	PK	34.2	-24.1	0	54.34	-	-	74	-19.66	199	104	V
2	* 5.149	47.93	PK	34.2	-24.1	0	58.03	-	-	74	-15.97	199	104	V
3	* 5.15	35.21	RMS	34.2	-24.1	.59	45.9	54	-8.1	-	-	199	104	V
4	* 5.146	35.59	RMS	34.2	-24.1	.59	46.28	54	-7.72	-	-	199	104	V

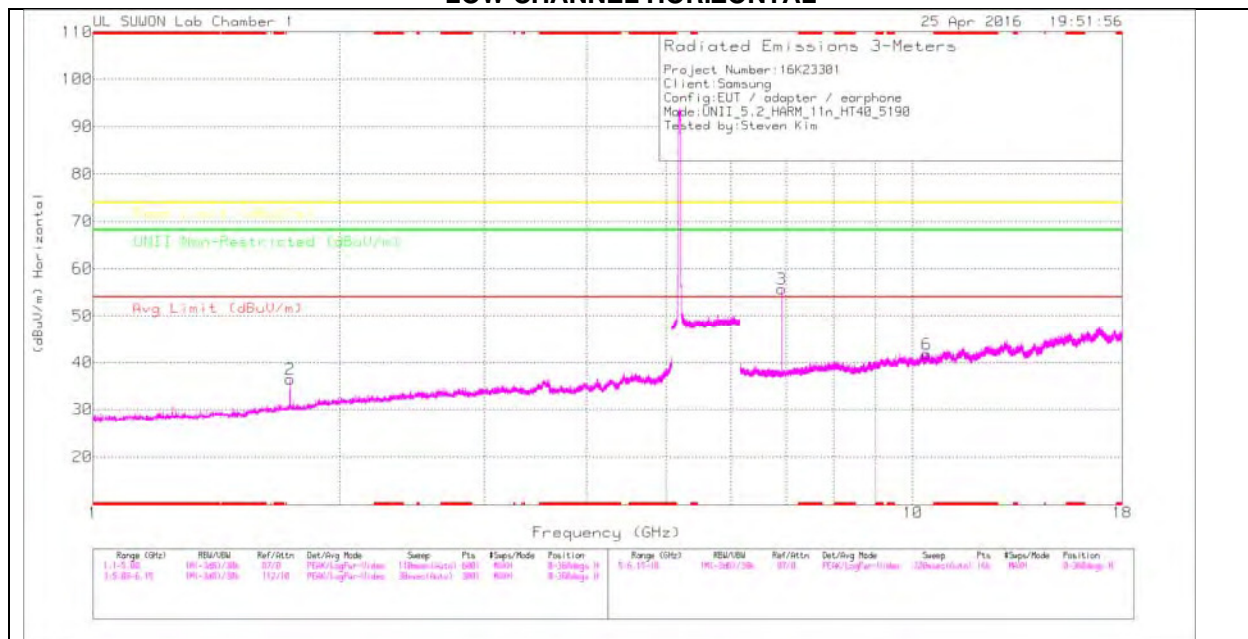
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

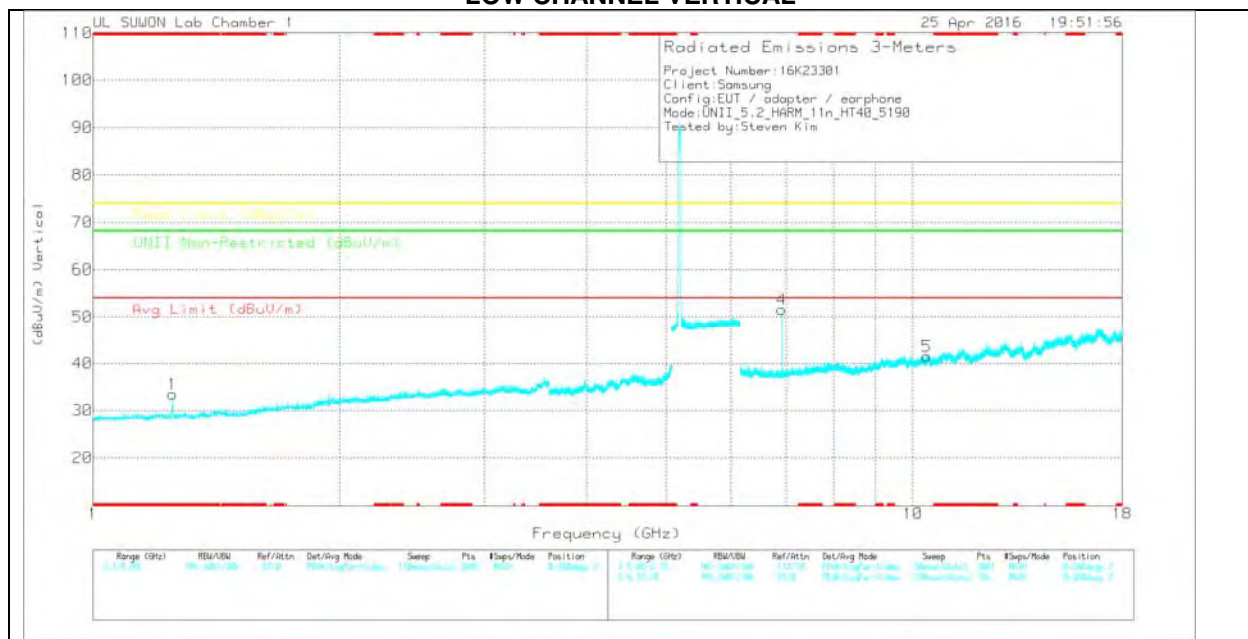
RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



LOW CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117/0016 8717_150 619	Path_4	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	1.738	45.96	Pk	29.8	-39.3	0	36.46	-	-	-	-	68.2	-31.74	0-360	100	H
1	* 1.25	45.4	Pk	28.3	-40.2	0	33.5	-	-	74	-40.5	-	-	0-360	200	V
3	6.919	50.69	Pk	35.7	-30.7	0	55.69	-	-	-	-	68.2	-12.51	0-360	100	H
6	10.397	30.7	Pk	37.8	-26.8	0	41.7	-	-	-	-	68.2	-26.5	0-360	100	H
4	6.919	46.61	Pk	35.7	-30.7	0	51.61	-	-	-	-	68.2	-16.59	0-360	100	V
5	10.394	30.54	Pk	37.8	-26.8	0	41.54	-	-	-	-	68.2	-26.66	0-360	200	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk – Peak detector

Radiated Emissions

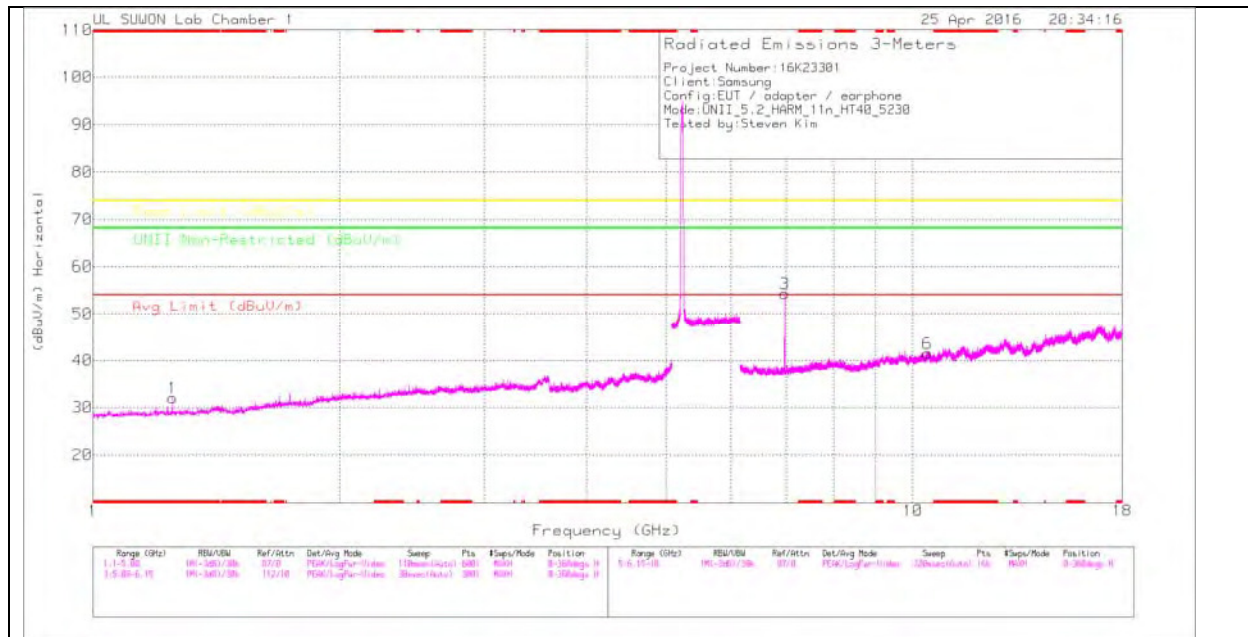
Frequency (GHz)	Meter Reading (dBuV)	Det	3117/001687 17_150619	Path_4	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1.731	51.42	PK-U	29.8	-39.3	0	41.92	-	-	-	-	68.2	-26.28	121	173	H
* 1.25	52.7	PK-U	28.3	-40.2	0	40.8	-	-	74	-33.2	-	-	212	314	V
* 1.25	43.04	ADR	28.3	-40.2	.59	31.73	54	-22.27	-	-	-	-	212	314	V
6.92	51.63	PK-U	35.7	-30.7	0	56.63	-	-	-	-	68.2	-11.57	190	307	V
6.92	54.25	PK-U	35.7	-30.7	0	59.25	-	-	-	-	68.2	-8.95	115	128	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

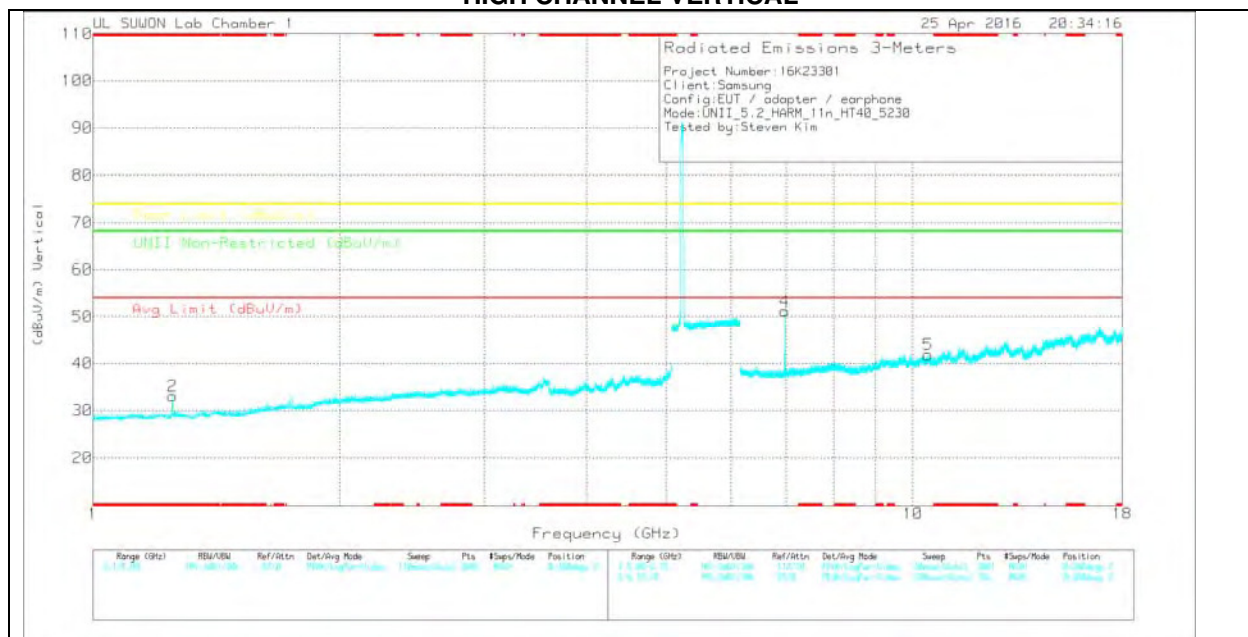
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

HIGH CHANNEL HORIZONTAL



HIGH CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

HIGH CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117/0016 8717_150 619	Path_4	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.25	43.94	Pk	28.3	-40.2	0	32.04	-	-	74	-41.96	-	-	0-360	200	H
2	* 1.25	44.98	Pk	28.3	-40.2	0	33.08	-	-	74	-40.92	-	-	0-360	200	V
3	6.973	49.1	Pk	35.7	-30.5	0	54.3	-	-	-	-	68.2	-13.9	0-360	100	H
6	10.418	30.34	Pk	37.8	-26.7	0	41.44	-	-	-	-	68.2	-26.76	0-360	200	H
4	6.973	45.98	Pk	35.7	-30.5	0	51.18	-	-	-	-	68.2	-17.02	0-360	100	V
5	10.432	30.92	Pk	37.8	-26.9	0	41.82	-	-	-	-	68.2	-26.38	0-360	100	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk – Peak detector

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	3117/001687 17_150619	Path_4	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 1.25	52.33	PK-U	28.3	-40.2	0	40.43	-	-	74	-33.57	-	-	271	358	H
* 1.25	42.35	ADR	28.3	-40.2	.59	31.04	54	-22.96	-	-	-	-	271	358	H
* 1.25	52.04	PK-U	28.3	-40.2	0	40.14	-	-	74	-33.86	-	-	254	240	V
* 1.25	42.31	ADR	28.3	-40.2	.59	30.41	54	-23.00	-	-	-	-	254	240	V
6.982	43.35	PK-U	35.7	-30.6	0	48.45	-	-	-	-	68.2	-19.75	127	343	V
6.974	43.32	PK-U	35.7	-30.5	0	48.52	-	-	-	-	68.2	-19.68	116	257	H

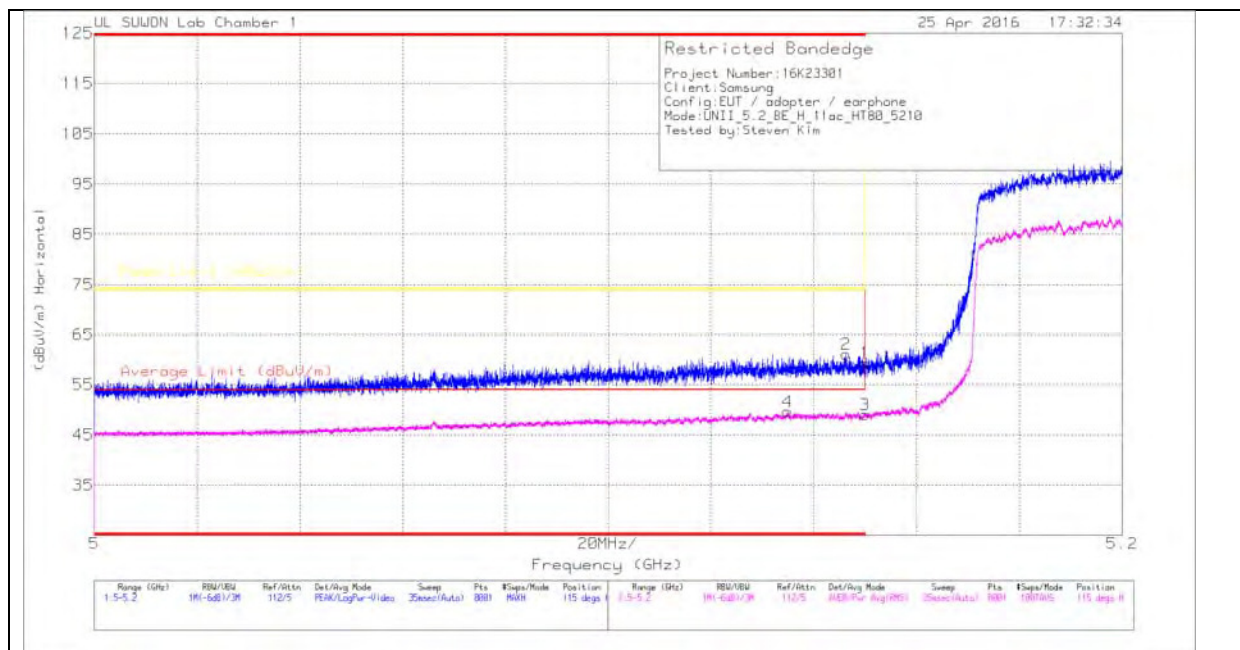
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

11.1.4. TX ABOVE 1GHz 802.11ac HT80 2TX CDD MODE IN THE 5.2GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Trace Markers

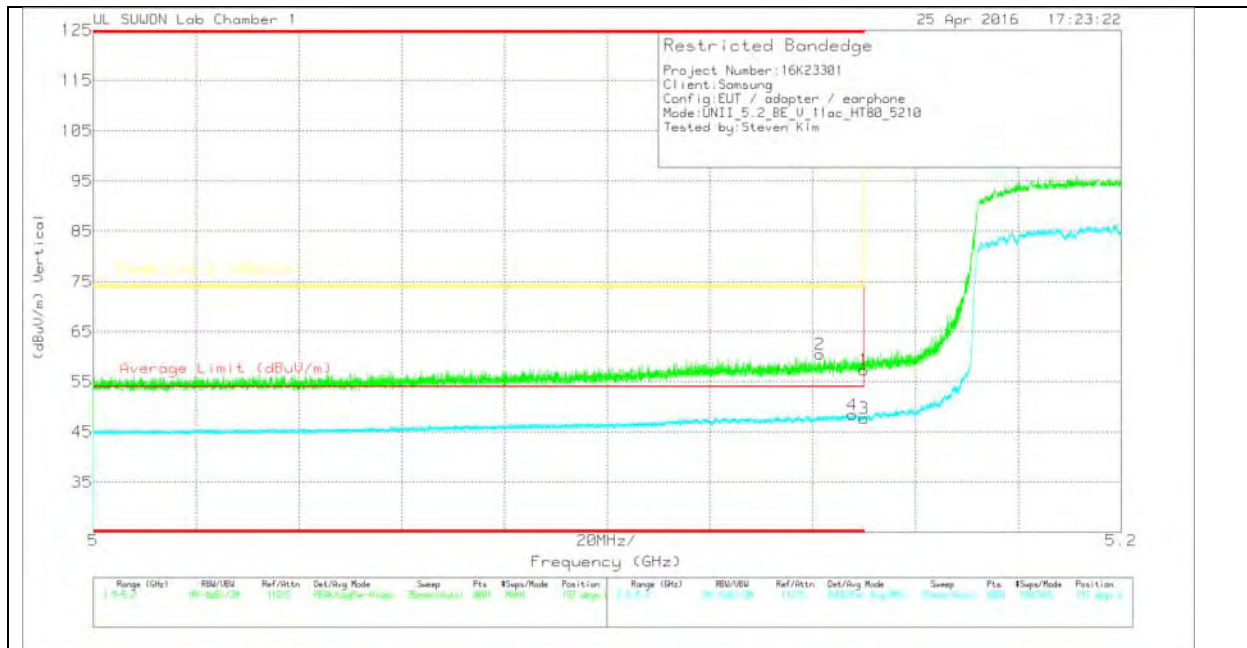
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(001687 17_150619)	Path_2	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	49.19	Pk	34.2	-24.1	0	59.29	-	-	74	-14.71	115	152	H
2	* 5.146	50.95	Pk	34.2	-24.1	0	61.05	-	-	74	-12.95	115	152	H
3	* 5.15	37.78	RMS	34.2	-24.1	1.12	49	54	-5	-	-	115	152	H
4	* 5.135	38.42	RMS	34.2	-24.1	1.12	49.64	54	-4.36	-	-	115	152	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(001687 17)_150619	Path_2	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	47.24	Pk	34.2	-24.1	0	57.34	-	-	74	-16.66	197	101	V
2	* 5.141	50.35	Pk	34.2	-24.1	0	60.45	-	-	74	-13.55	197	101	V
3	* 5.15	36.49	RMS	34.2	-24.1	1.12	47.71	54	-6.29	-	-	197	101	V
4	* 5.148	37.17	RMS	34.2	-24.1	1.12	48.39	54	-5.61	-	-	197	101	V

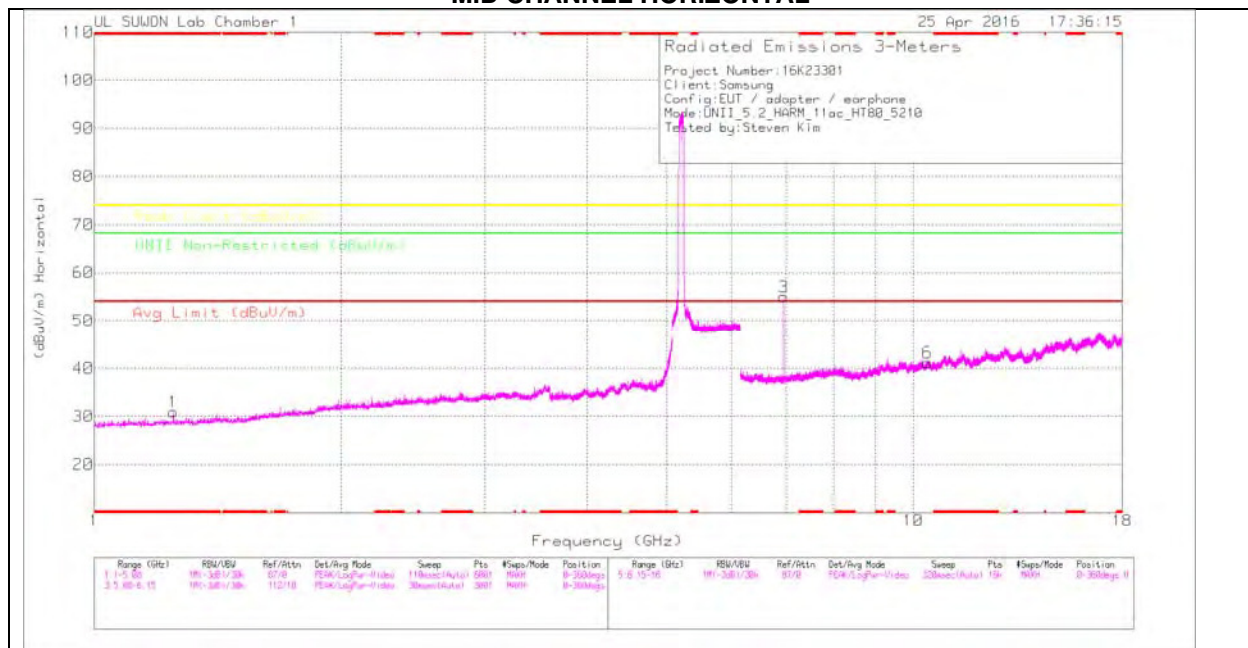
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

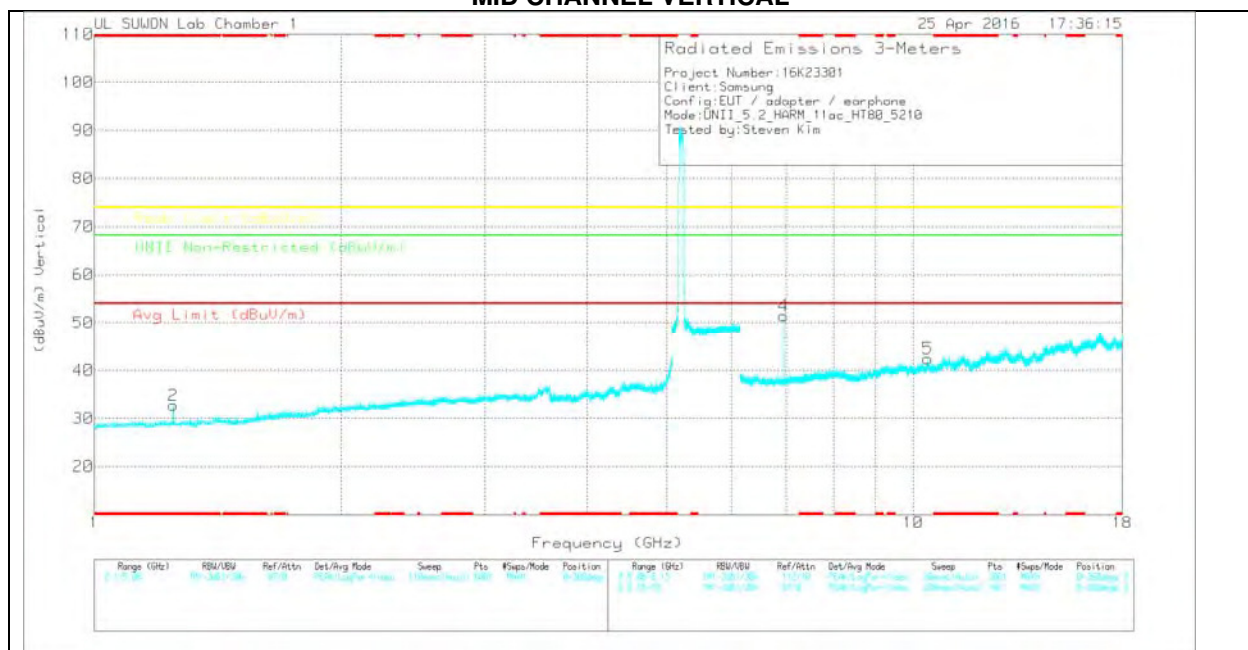
RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

MID CHANNEL HORIZONTAL



MID CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117/0016 8717_150 619	Path_4	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.25	42.81	Pk	28.3	-40.2	0	30.91	-	-	74	-43.09	-	-	0-360	200	H
2	* 1.25	44.63	Pk	28.3	-40.2	0	32.73	-	-	74	-41.27	-	-	0-360	200	V
3	6.946	49.87	Pk	35.7	-30.6	0	54.97	-	-	-	-	68.2	-13.23	0-360	100	H
6	10.413	30.06	Pk	37.8	-26.7	0	41.16	-	-	-	-	68.2	-27.04	0-360	100	H
4	6.946	46.35	Pk	35.7	-30.6	0	51.45	-	-	-	-	68.2	-16.75	0-360	100	V
5	10.421	31.35	Pk	37.8	-26.7	0	42.45	-	-	-	-	68.2	-25.75	0-360	200	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk – Peak detector

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	3117/001687 17_150619	Path_5	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
6.947	53.83	PK-U	35.7	-30.6	0	58.93	-	-	-	-	68.2	-9.27	112	134	H
6.947	50.34	PK-U	35.7	-30.6	0	55.44	-	-	-	-	68.2	-12.76	152	127	V

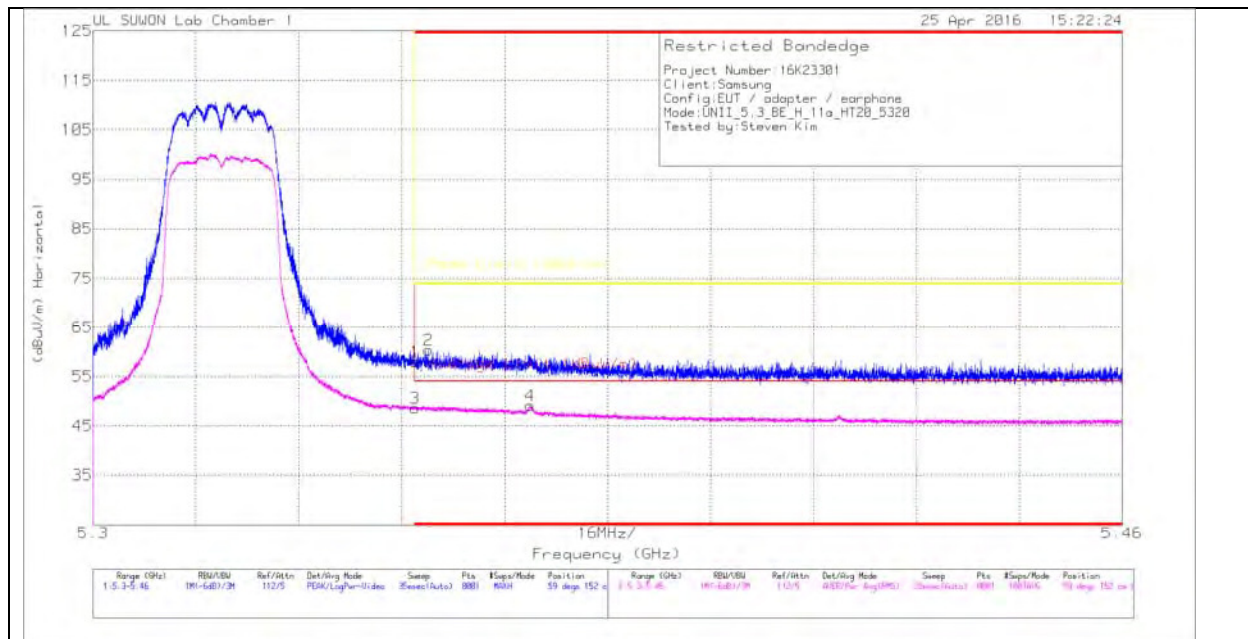
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK-U - U-NII: Maximum Peak

11.2. 5.3 GHz

11.2.1. TX ABOVE 1 GHz 802.11a 2TX CDD MODE IN THE 5.3 GHz BAND AUTHORIZED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Trace Markers

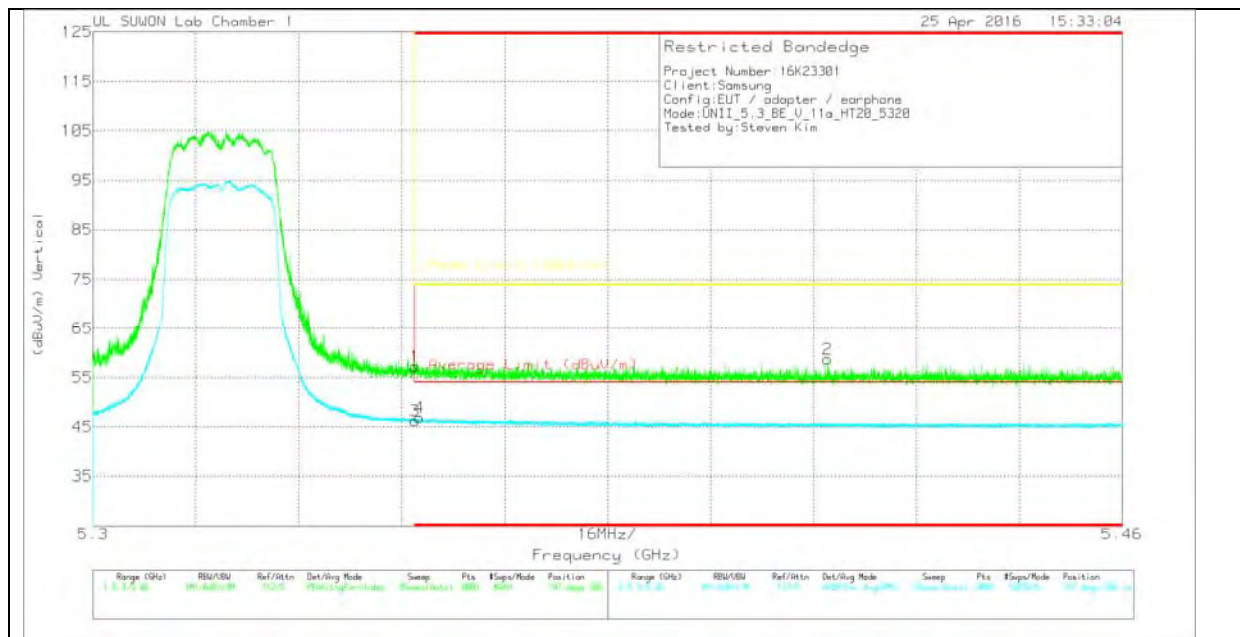
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(001687 17)_150619	Path_2	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35	46.78	Pk	34.5	-23.3	0	57.98	-	-	74	-16.02	59	152	H
2	* 5.352	49.09	Pk	34.5	-23.3	0	60.29	-	-	74	-13.71	59	152	H
3	* 5.35	37.04	RMS	34.5	-23.3	.31	48.55	54	-5.45	-	-	59	152	H
4	* 5.368	37.57	RMS	34.5	-23.3	.31	49.08	54	-4.92	-	-	59	152	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(001687 17_150619)	Path_2	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35	46	Pk	34.5	-23.3	0	57.2	-	-	74	-16.8	197	286	V
2	* 5.414	47.45	Pk	34.6	-23.3	0	58.75	-	-	74	-15.25	197	286	V
3	* 5.35	34.74	RMS	34.5	-23.3	.31	46.25	54	-7.75	-	-	197	286	V
4	* 5.351	35.33	RMS	34.5	-23.3	.31	46.84	54	-7.16	-	-	197	286	V

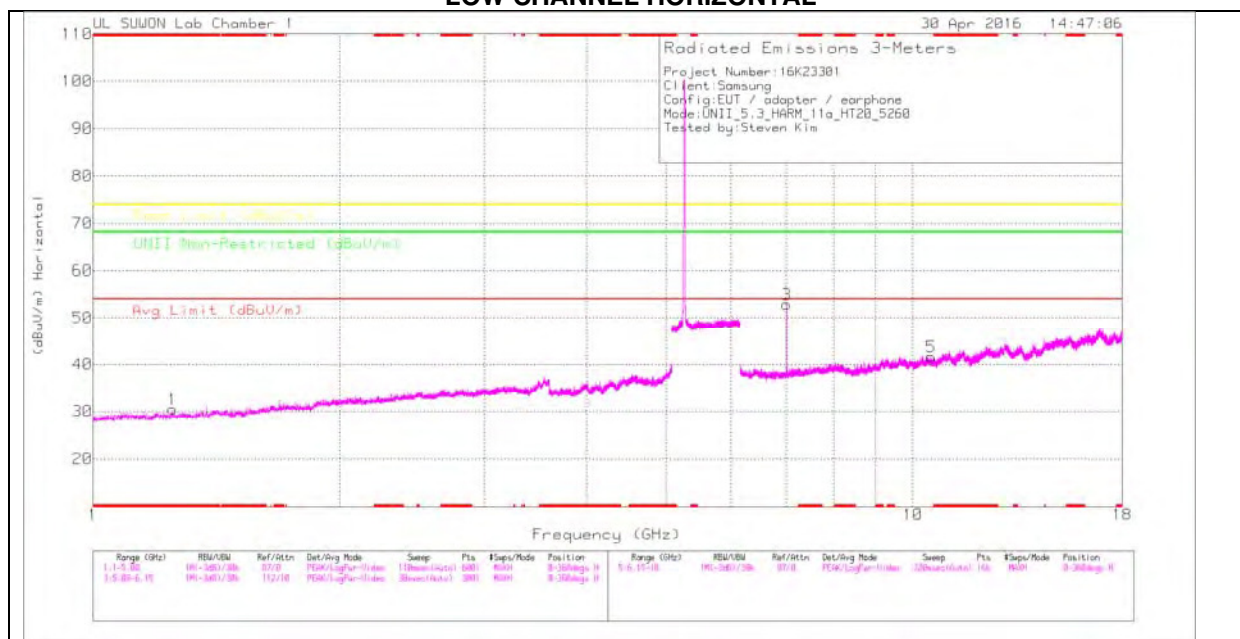
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

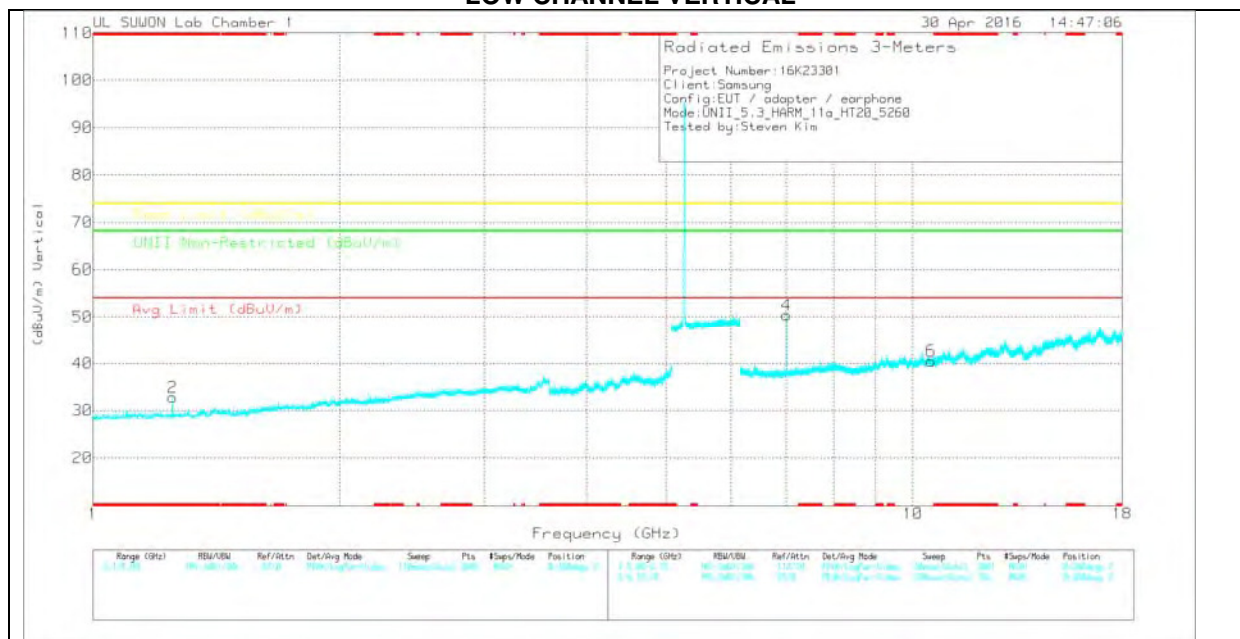
RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



LOW CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117/0016 8717_150 619	Path_4	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.25	42.36	PK	28.3	-40.2	0	30.46	-	-	74	-43.54	-	-	0-360	200	H
2	* 1.25	44.7	PK	28.3	-40.2	0	32.8	-	-	74	-41.2	-	-	0-360	200	V
3	7.013	47.76	PK	35.7	-30.6	0	52.86	-	-	-	-	68.2	-15.34	0-360	100	H
5	10.52	30.92	PK	37.9	-27.2	0	41.62	-	-	-	-	68.2	-26.58	0-360	200	H
4	7.013	45.31	PK	35.7	-30.6	0	50.41	-	-	-	-	68.2	-17.79	0-360	100	V
6	10.519	29.92	PK	37.9	-27.3	0	40.52	-	-	-	-	68.2	-27.68	0-360	100	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak Detector

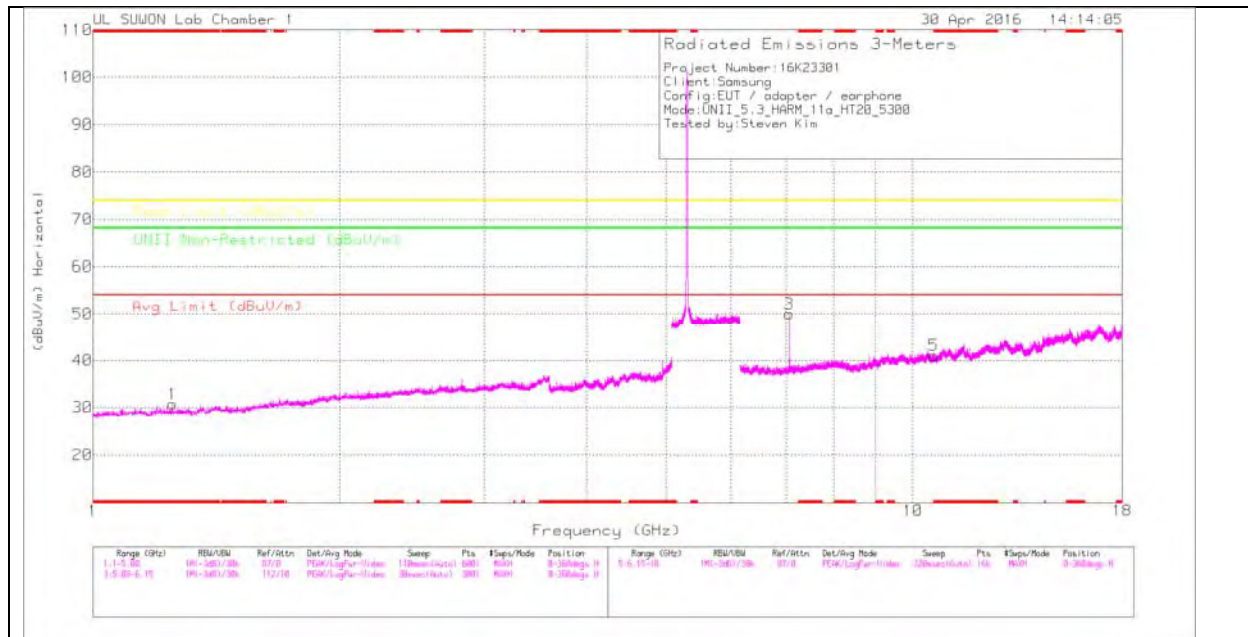
Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	3117/001687 17_150619	Path_5	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
7.013	50.7	PK-U	35.7	-30.6	0	55.8	-	-	-	-	68.2	-12.4	122	357	H
7.013	50.25	PK-U	35.7	-30.6	0	55.35	-	-	-	-	68.2	-12.85	154	180	V

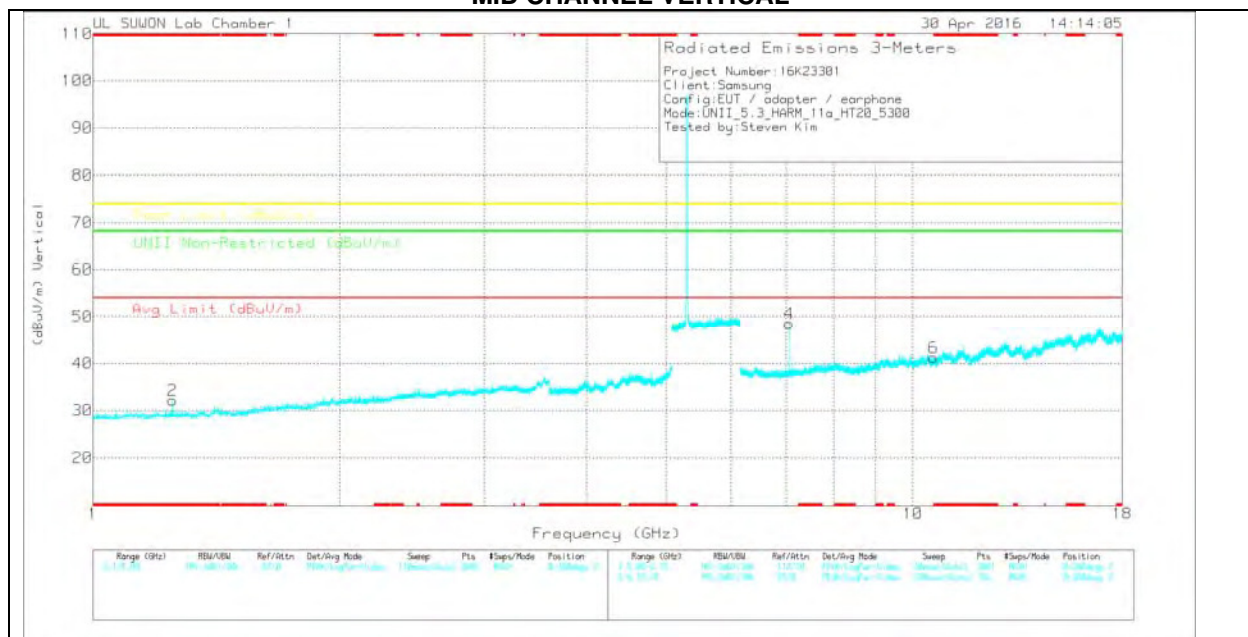
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK-U - U-NII: Maximum Peak

MID CHANNEL HORIZONTAL



MID CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(0016 8717)_150 619	Path_4	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.25	42.66	PK	28.3	-40.2	0	30.76	-	-	74	-43.24	-	-	0-360	200	H
2	* 1.25	44.06	PK	28.3	-40.2	0	32.16	-	-	74	-41.84	-	-	0-360	200	V
3	7.066	44.86	PK	35.7	-30.5	0	50.06	-	-	-	-	68.2	-18.14	0-360	200	H
5	* 10.603	30.14	PK	37.9	-27	0	41.04	-	-	74	-32.96	-	-	0-360	200	H
4	7.066	43.34	PK	35.7	-30.5	0	48.54	-	-	-	-	68.2	-19.66	0-360	200	V
6	* 10.6	30.35	PK	37.9	-27	0	41.25	-	-	74	-32.75	-	-	0-360	200	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak Detector

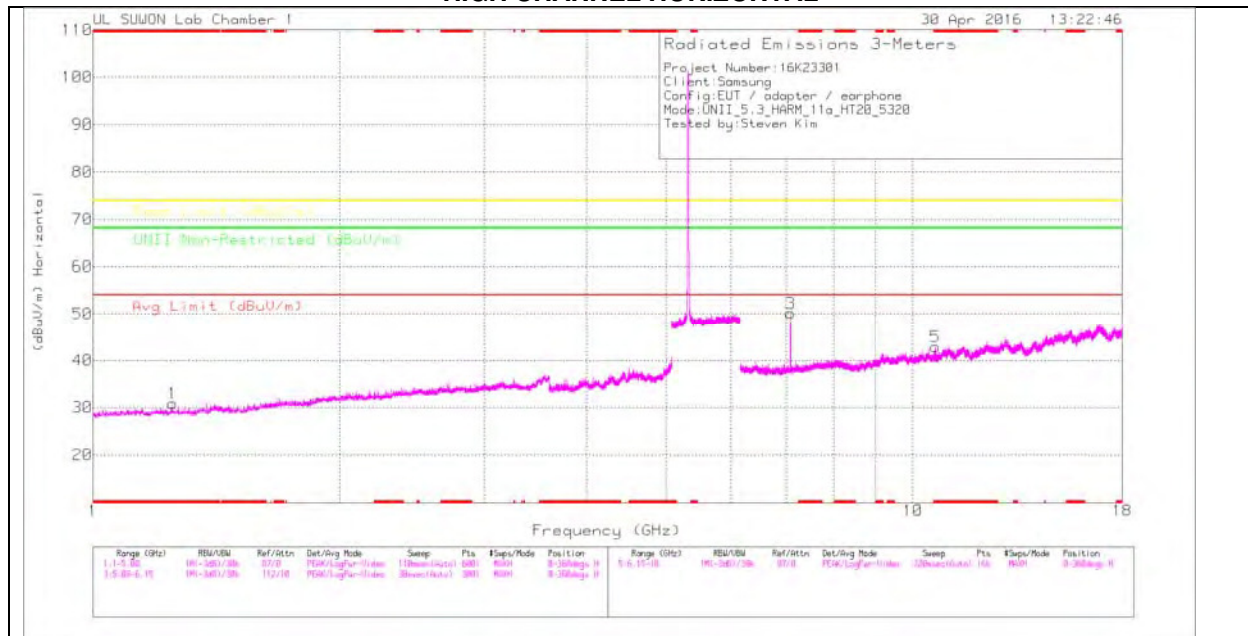
Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	3117(001687 17)_150619	Path_5	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
7.066	49.95	PK-U	35.7	-30.5	0	55.15	-	-	-	-	68.2	-13.05	176	113	H
7.067	49.16	PK-U	35.7	-30.5	0	54.36	-	-	-	-	68.2	-13.84	154	228	V

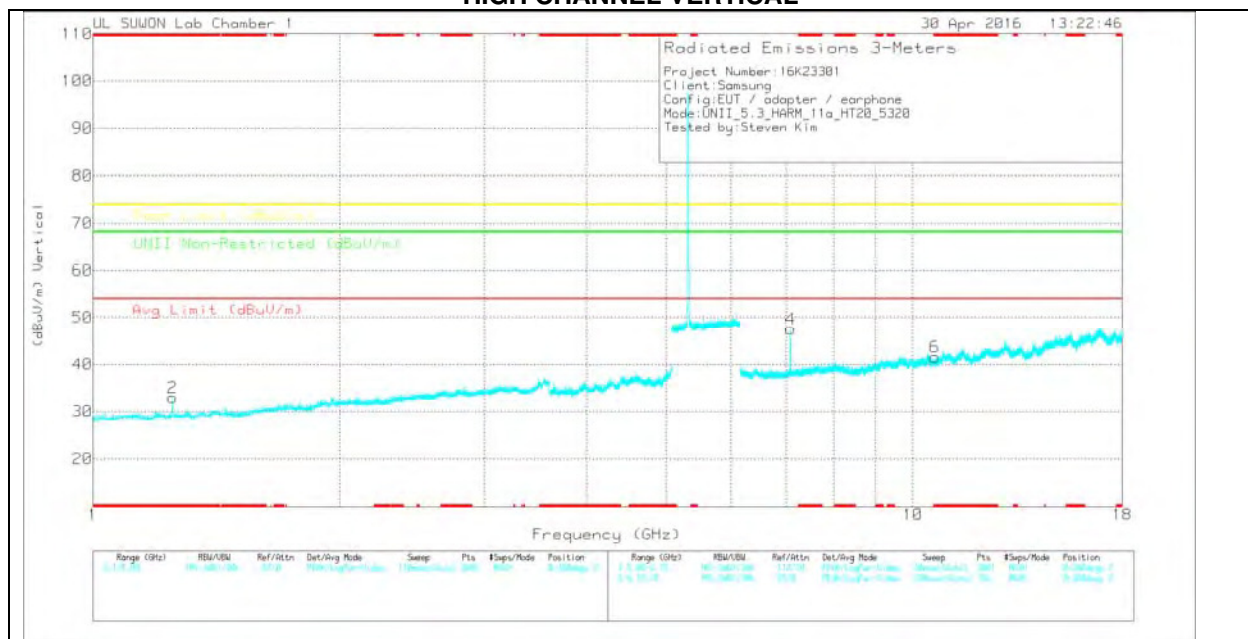
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK-U - U-NII: Maximum Peak

HIGH CHANNEL HORIZONTAL



HIGH CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

HIGH CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117/0016 8717_150 619	Path_4	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.25	42.84	PK	28.3	-40.2	0	30.94	-	-	74	-43.06	-	-	0-360	200	H
2	* 1.25	44.85	PK	28.3	-40.2	0	32.95	-	-	74	-41.05	-	-	0-360	200	V
3	7.093	44.99	PK	35.7	-30.5	0	50.19	-	-	-	-	68.2	-18.01	0-360	100	H
5	* 10.643	32.59	PK	38	-27.7	0	42.89	-	-	74	-31.11	-	-	0-360	100	H
4	7.093	42.37	PK	35.7	-30.5	0	47.57	-	-	-	-	68.2	-20.63	0-360	100	V
6	* 10.64	31.26	PK	37.9	-27.6	0	41.56	-	-	74	-32.44	-	-	0-360	100	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak Detector

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	3117/001687 17_150619	Path_5	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
7.093	50.09	PK-U	35.7	-30.5	0	55.29	-	-	-	-	68.2	-12.91	173	110	H
7.093	48.76	PK-U	35.7	-30.5	0	53.96	-	-	-	-	68.2	-14.24	156	214	V

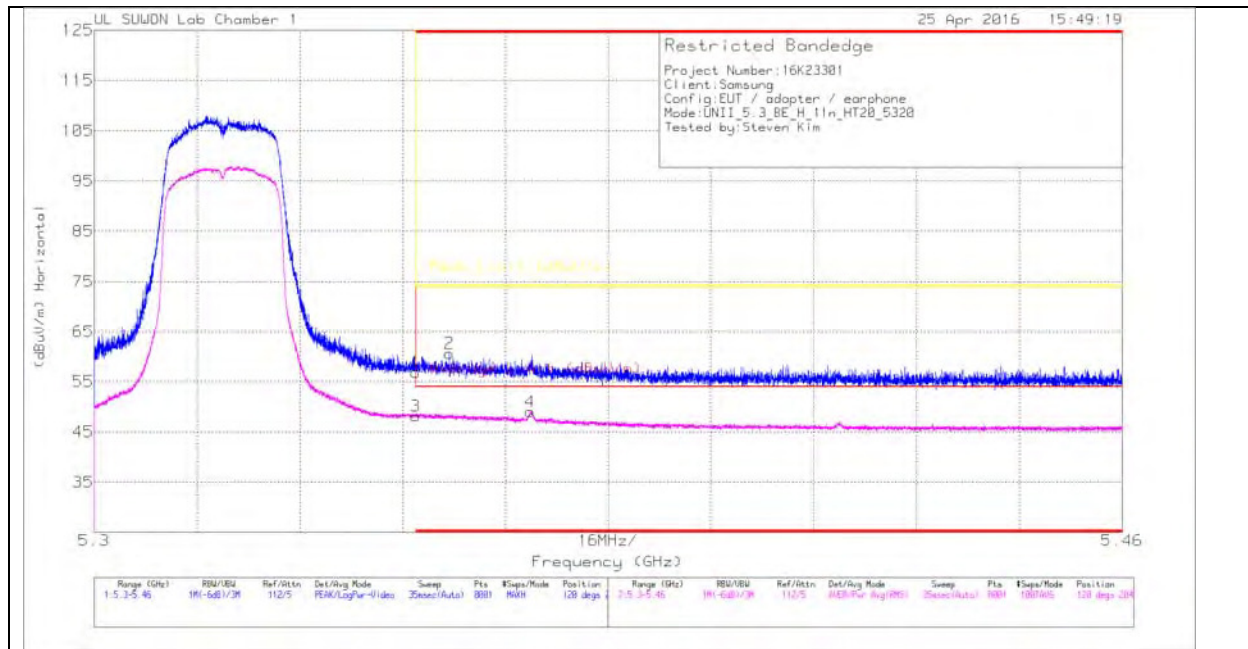
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK-U - U-NII: Maximum Peak

11.2.2. TX ABOVE 1GHz 802.11n HT20 2TX CDD MODE IN THE 5.3GHz BAND

AUTHORIZED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Trace Markers

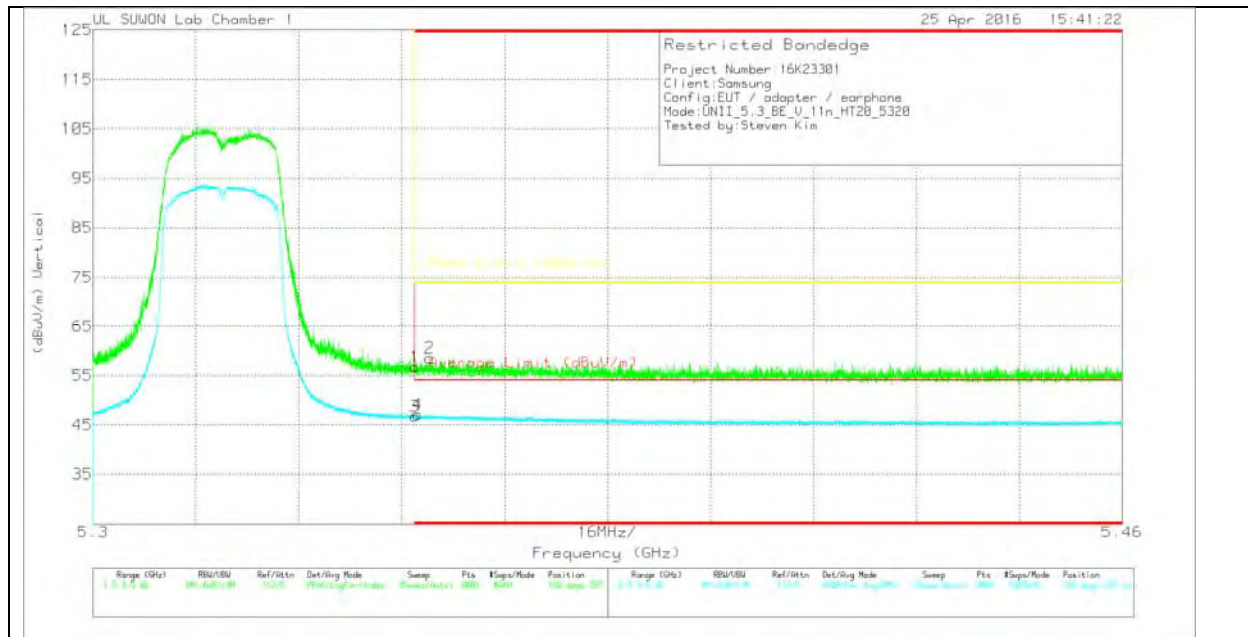
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(001687 17)_150619	Path_2	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35	45.68	Pk	34.5	-23.3	0	56.88	-	-	74	-17.12	120	204	H
2	* 5.355	49.42	Pk	34.5	-23.3	0	60.62	-	-	74	-13.38	120	204	H
3	* 5.35	36.66	RMS	34.5	-23.3	.31	48.17	54	-5.83	-	-	120	204	H
4	* 5.368	37.51	RMS	34.5	-23.3	.31	49.02	54	-4.98	-	-	120	204	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(001687 17_150619)	Path_2	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35	45.55	Pk	34.5	-23.3	0	56.75	-	-	74	-17.25	169	297	V
2	* 5.352	47.35	Pk	34.5	-23.3	0	58.55	-	-	74	-15.45	169	297	V
3	* 5.35	35.28	RMS	34.5	-23.3	.31	46.79	54	-7.21	-	-	169	297	V
4	* 5.35	35.6	RMS	34.5	-23.3	.31	47.11	54	-6.89	-	-	169	297	V

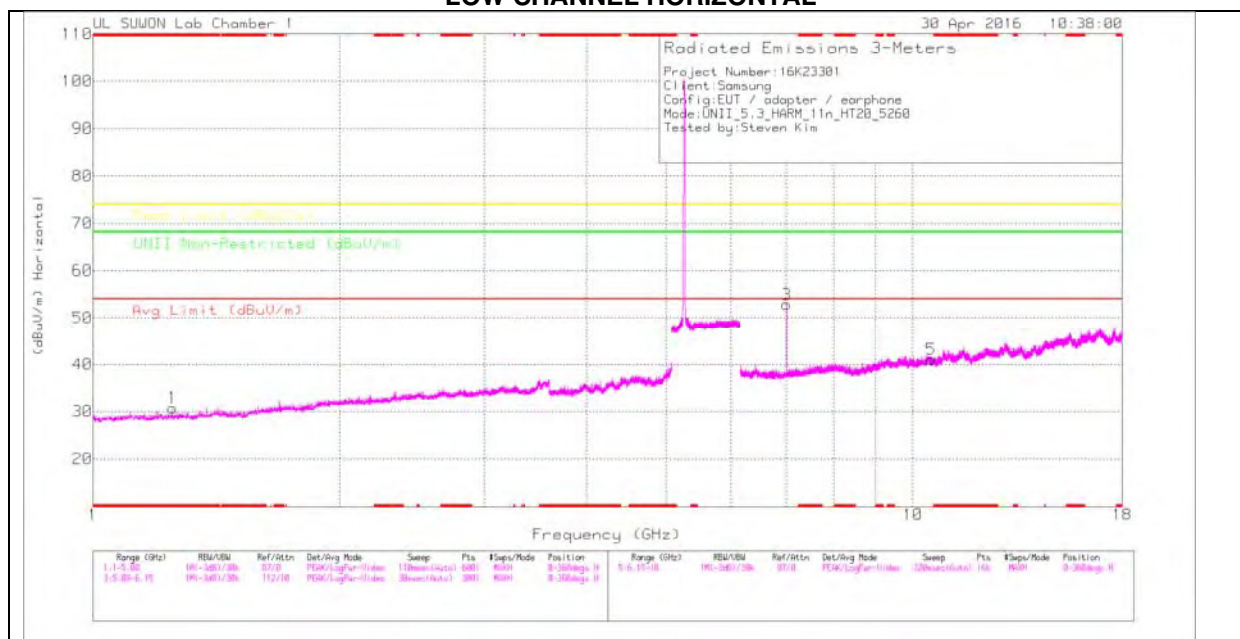
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

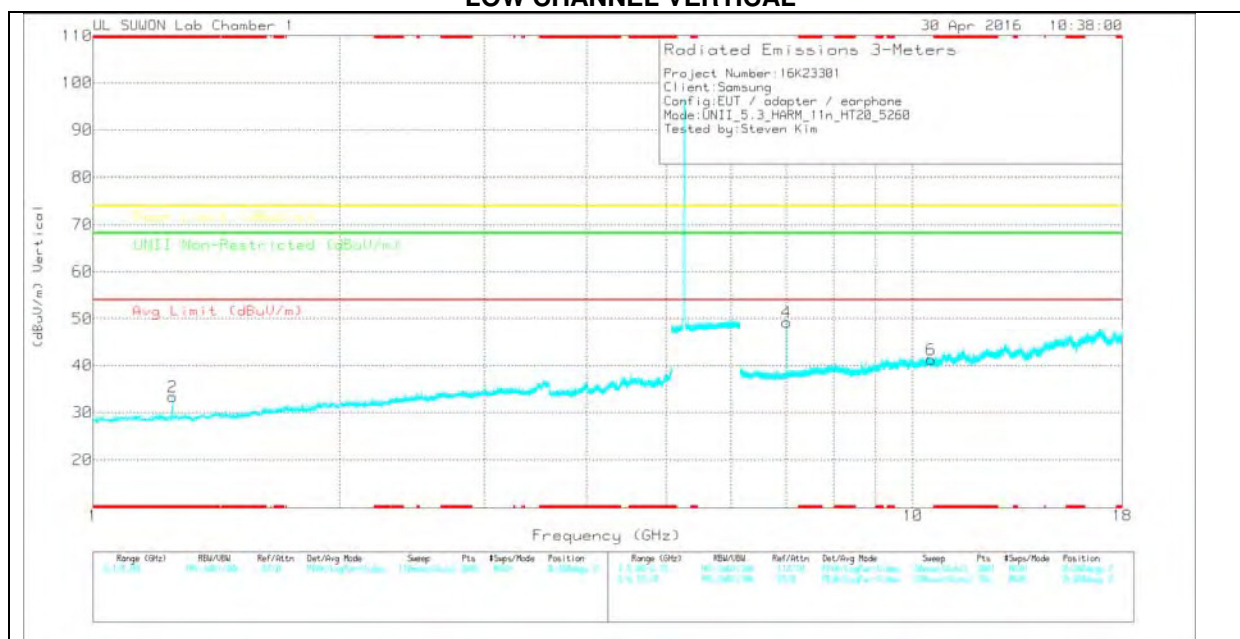
RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



LOW CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(0016 8717)_150 619	Path_4	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.25	42.72	PK	28.3	-40.2	0	30.82	-	-	74	-43.18	-	-	0-360	200	H
2	* 1.25	45.19	PK	28.3	-40.2	0	33.29	-	-	74	-40.71	-	-	0-360	200	V
3	7.013	47.74	PK	35.7	-30.6	0	52.84	-	-	-	-	68.2	-15.36	0-360	100	H
5	10.522	30.36	PK	37.9	-27.2	0	41.06	-	-	-	-	68.2	-27.14	0-360	100	H
4	7.013	44.2	PK	35.7	-30.6	0	49.3	-	-	-	-	68.2	-18.9	0-360	100	V
6	10.525	30.4	PK	37.9	-27.1	0	41.2	-	-	-	-	68.2	-27	0-360	200	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak Detector

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	3117(001687 17)_150619	Path_5	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
7.013	52.16	PK-U	35.7	-30.6	0	57.26	-	-	-	-	68.2	-10.94	122	359	H
7.013	49.8	PK-U	35.7	-30.6	0	54.9	-	-	-	-	68.2	-13.3	154	179	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK-U - U-NII: Maximum Peak

UL SUWON Lab Chamber 1

30 Apr 2016 09:57:11

Radiated Emissions 3-Meters

Project Number: 16K23381
 Client: Samsung
 Config: EUT / adapter / earphone
 Mode: UNII 5.3_HARM_11n_HT20_5300
 Tested by: Steven Kim

74
 67
 54
 47
 40
 33
 26
 19
 12
 5

UNIT Non-Restricted (dBu/m)

Avg Limit (dBu/m)

1

0.9

4.5

Frequency (GHz)

Range (GHz)	RBW/ABW	Ref/Alttn	Det/Avg Mode	Sweep	Fls	Steps/Mode	Position	Range (GHz)	RBW/ABW	Ref/Alttn	Det/Avg Mode	Sweep	Fls	Steps/Mode	Position
1.1-5.85	100-300/300	57/0	PEAK(Log)/Filter	110sec/100Hz	5000	6000	8-300Steps II	5.6-15.10	100-300/300	57/0	PEAK(Log)/Filter	120sec/100Hz	150	6000	0-300Steps II
5.85-6.15	100-300/300	112/10	PEAK(Log)/Filter	30sec/100Hz	2000	6000	8-300Steps II								

UL SUWON Lab Chamber 1

30 Apr 2016 09:57:11

Radiated Emissions 3-Meters

Project Number: 16K23381
Client: Samsung
Config: EUT / adapter / earphone
Mode: UNII_5.3_HARM_11n_HT20_5300
Tested by: Steven Kim

dBuV/m Vertical

UNII Non-Restricted (dBuV/m)

Avg Limit (dBuV/m)

Frequency (GHz)

Range (GHz)	RBW/ABW	Ref/Alt	Det/Avg Mode	Sweep	Pts	Steps/Mode	Position	Range (GHz)	RBW/ABW	Ref/Alt	Det/Avg Mode	Sweep	Pts	Steps/Mode	Position
0.1-1.0	100 kHz/100 kHz	50 dB	Peak/Average	1000 Sweeps	200	100	3.00m	1.0-1.0	100 kHz/100 kHz	50 dB	Peak/Average	1000 Sweeps	200	100	3.00m

Page 134 of 253

MID CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	31170016 87171_150 619	Path_4	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.25	42.82	PK	28.3	-40.2	0	30.92	-	-	74	-43.08	-	-	0-360	200	H
2	* 1.25	44.59	PK	28.3	-40.2	0	32.69	-	-	74	-41.31	-	-	0-360	200	V
3	7.066	44.87	PK	35.7	-30.5	0	50.07	-	-	-	-	68.2	-18.13	0-360	200	H
5	* 10.6	31.06	PK	37.9	-27	0	41.96	-	-	74	-32.04	-	-	0-360	200	H
4	7.066	44.45	PK	35.7	-30.5	0	49.65	-	-	-	-	68.2	-18.55	0-360	200	V
6	10.599	30	PK	37.9	-27	0	40.9	-	-	-	-	68.2	-27.3	0-360	100	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak Detector

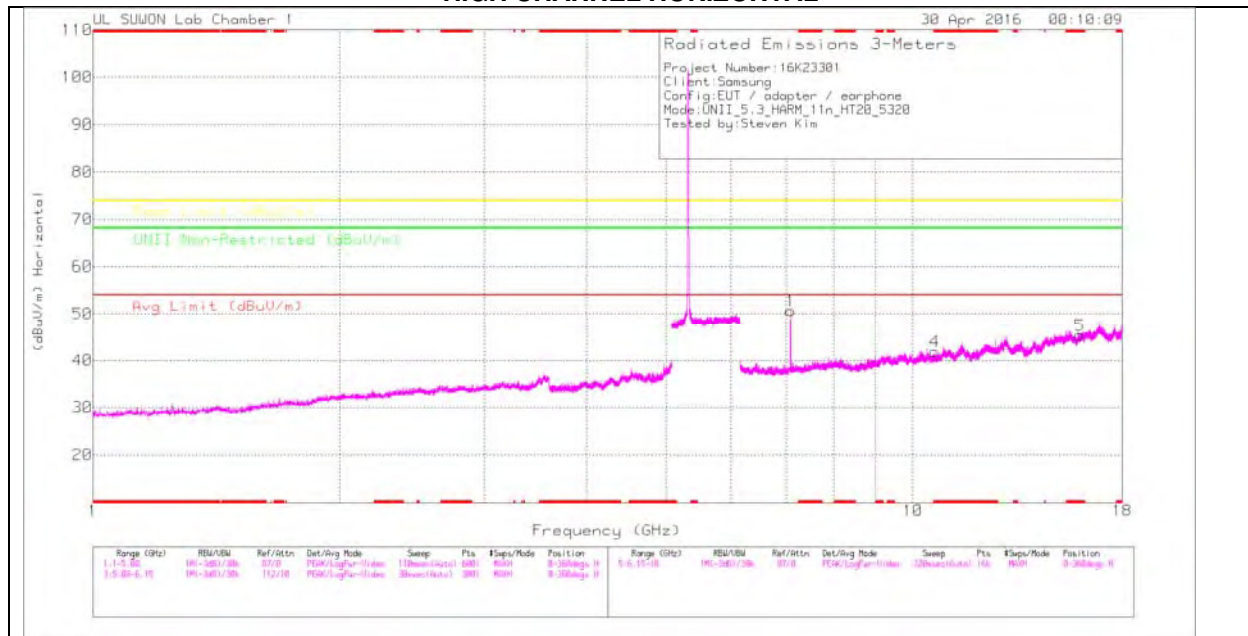
Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	3117001687 171_150619	Path_5	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
7.067	50.42	PK-U	35.7	-30.5	0	55.62	-	-	-	-	68.2	-12.58	173	109	H
7.067	48.93	PK-U	35.7	-30.5	0	54.13	-	-	-	-	68.2	-14.07	154	172	V

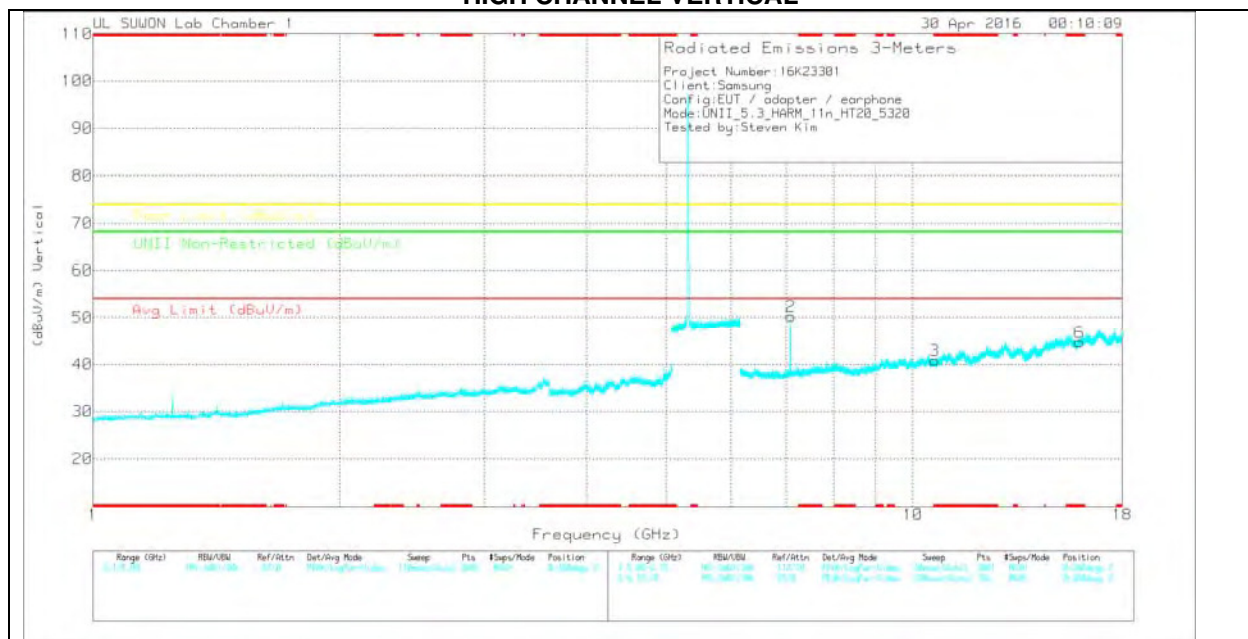
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK-U - U-NII: Maximum Peak

HIGH CHANNEL HORIZONTAL



HIGH CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

HIGH CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(00168717)_150619	Path_5	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	7.093	45.48	PK	35.7	-30.5	0	50.68	-	-	-	-	68.2	-17.52	0-360	100	H
4	* 10.64	31.53	PK	37.9	-27.6	0	41.83	-	-	74	-32.17	-	-	0-360	200	H
5	* 15.972	24.75	PK	40.6	-20	0	45.35	-	-	74	-28.65	-	-	0-360	100	H
2	7.093	45.05	PK	35.7	-30.5	0	50.25	-	-	-	-	68.2	-17.95	0-360	100	V
3	* 10.64	30.57	PK	37.9	-27.6	0	40.87	-	-	74	-33.13	-	-	0-360	200	V
6	* 15.968	24.07	PK	40.6	-19.9	0	44.77	-	-	74	-29.23	-	-	0-360	200	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak Detector

Radiated Emissions

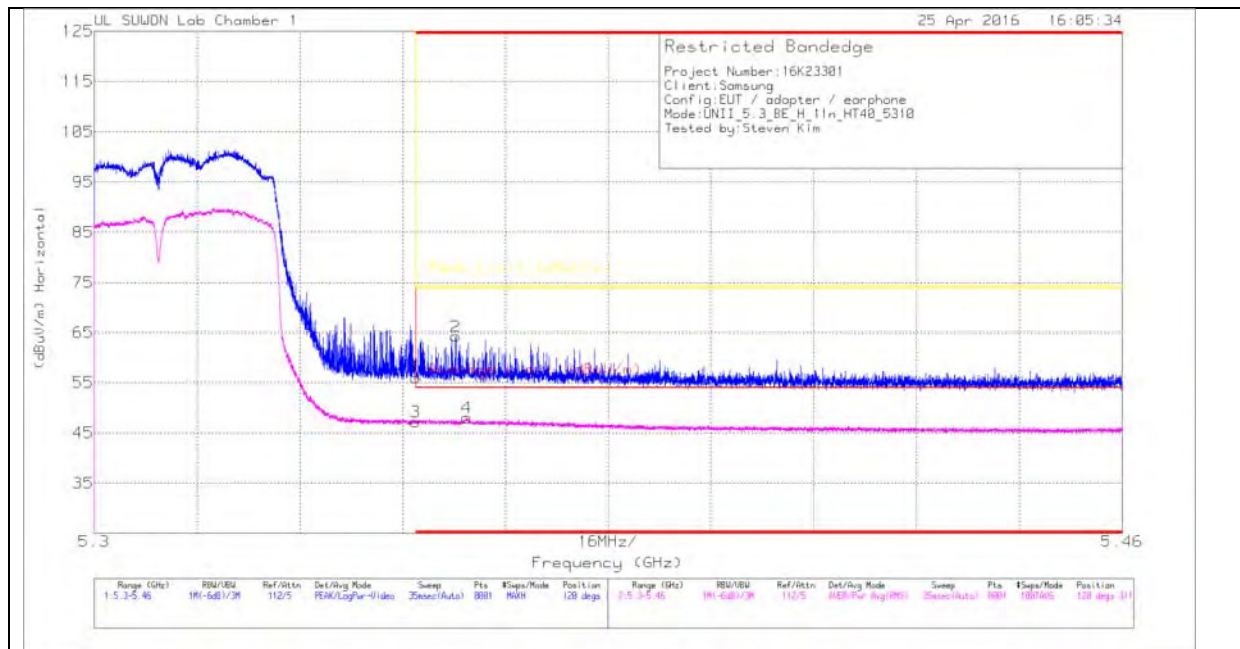
Frequency (GHz)	Meter Reading (dBuV)	Det	3117(00168717)_150619	Path_5	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
7.093	50.08	PK-U	35.7	-30.5	0	55.28	-	-	-	-	68.2	-12.92	116	130	H
7.093	49.85	PK-U	35.7	-30.5	0	55.05	-	-	-	-	68.2	-13.15	148	102	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK-U - U-NII: Maximum Peak

11.2.3. TX ABOVE 1GHz 802.11n HT40 2TX CDD MODE IN THE 5.3GHz BAND AUTHORIZED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Trace Markers

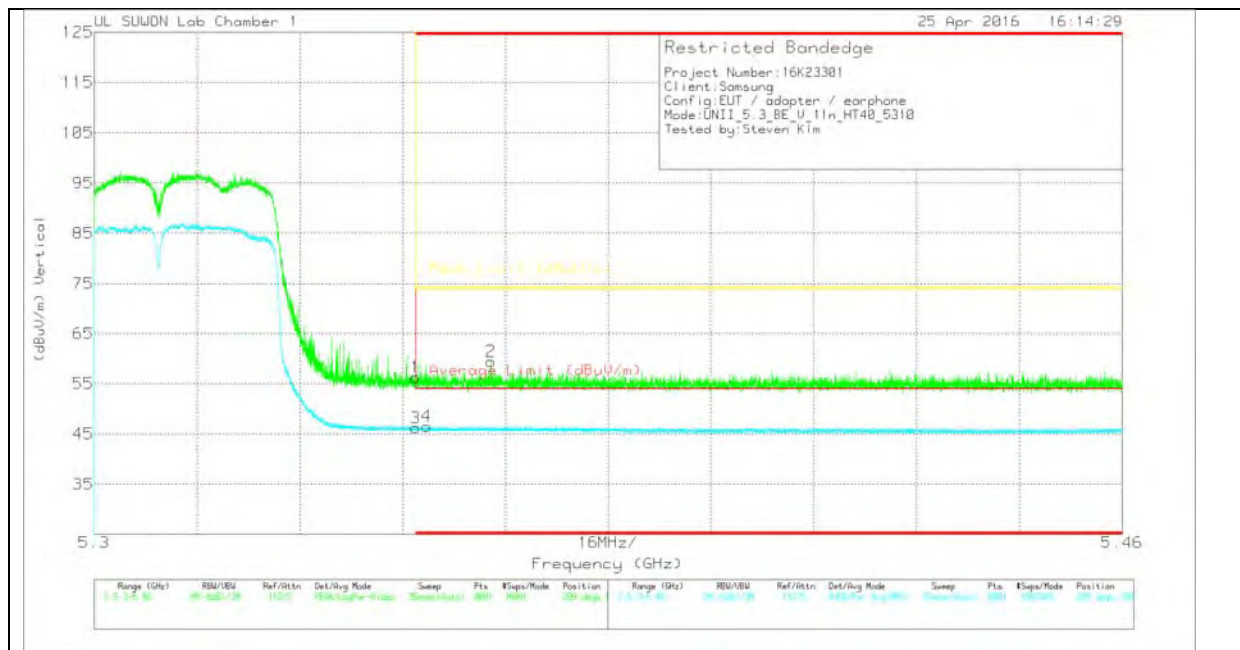
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(001687 17_150619)	Path_2	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35	44.82	PK	34.5	-23.3	0	56.02	-	-	74	-17.98	120	311	H
2	* 5.356	53.01	PK	34.5	-23.3	0	64.21	-	-	74	-9.79	120	311	H
3	* 5.35	35.38	RMS	34.5	-23.3	.59	47.17	54	-6.83	-	-	120	311	H
4	* 5.358	36.22	RMS	34.5	-23.3	.59	48.01	54	-5.99	-	-	120	311	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(001687 17)_150619	Path_2	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35	45.07	PK	34.5	-23.3	0	56.27	-	-	74	-17.73	209	100	V
2	* 5.362	48.2	PK	34.5	-23.3	0	59.4	-	-	74	-14.6	209	100	V
3	* 5.35	34.43	RMS	34.5	-23.3	.59	46.22	54	-7.78	-	-	209	100	V
4	* 5.352	34.73	RMS	34.5	-23.3	.59	46.52	54	-7.48	-	-	209	100	V

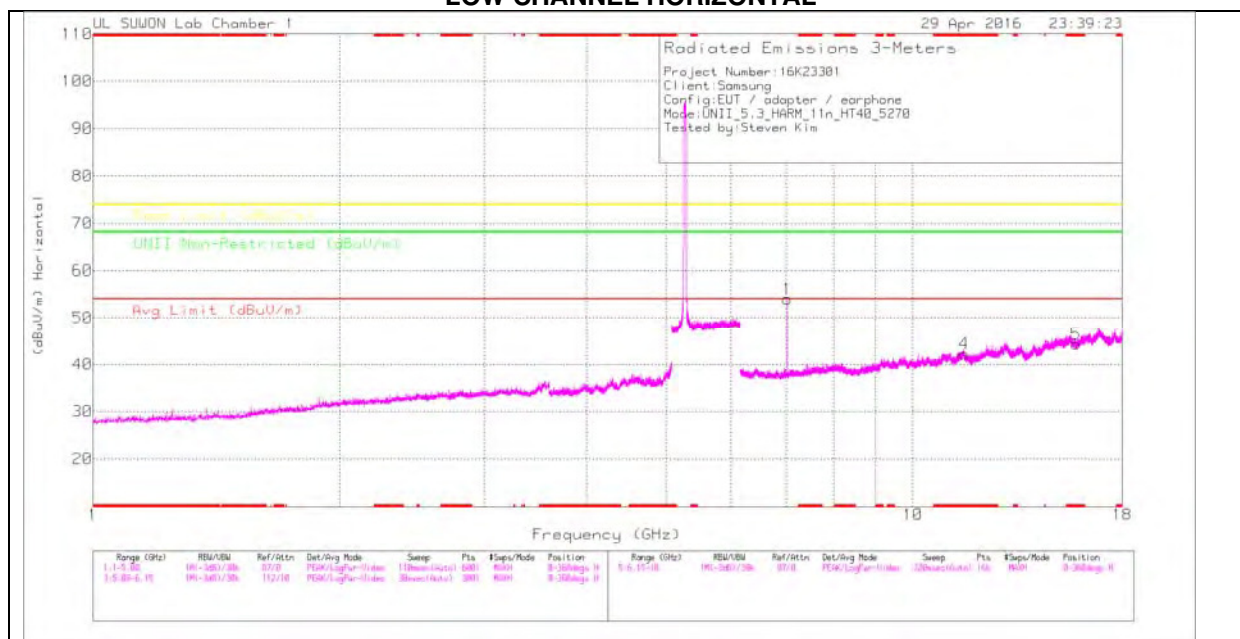
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

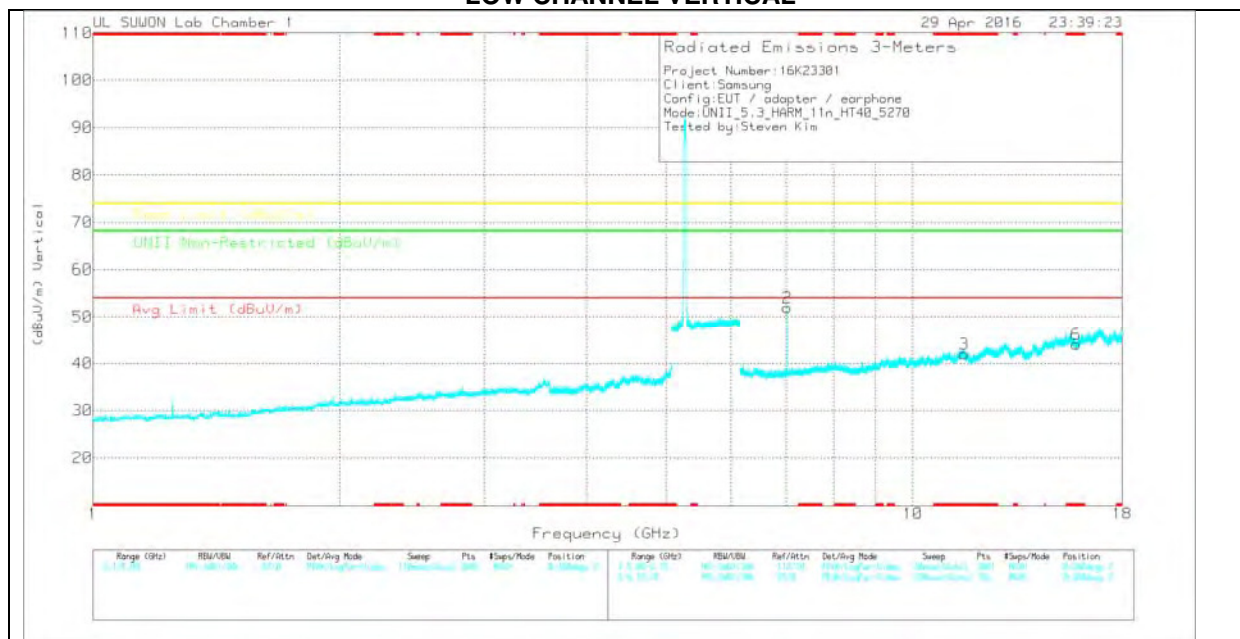
RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



LOW CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(0016 8717)_150 619	Path_5	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	7.026	48.89	PK	35.7	-30.6	0	53.99	-	-	-	-	68.2	-14.21	0-360	100	H
4	* 11.546	30.53	PK	38.6	-26.8	0	42.33	-	-	74	-31.67	-	-	0-360	100	H
5	* 15.813	22.44	PK	40.5	-18.6	0	44.34	-	-	74	-29.66	-	-	0-360	100	H
2	7.026	46.92	PK	35.7	-30.6	0	52.02	-	-	-	-	68.2	-16.18	0-360	100	V
3	* 11.54	30.22	PK	38.6	-26.8	0	42.02	-	-	74	-31.98	-	-	0-360	200	V
6	* 15.814	22.2	PK	40.5	-18.6	0	44.1	-	-	74	-29.9	-	-	0-360	200	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak Detector

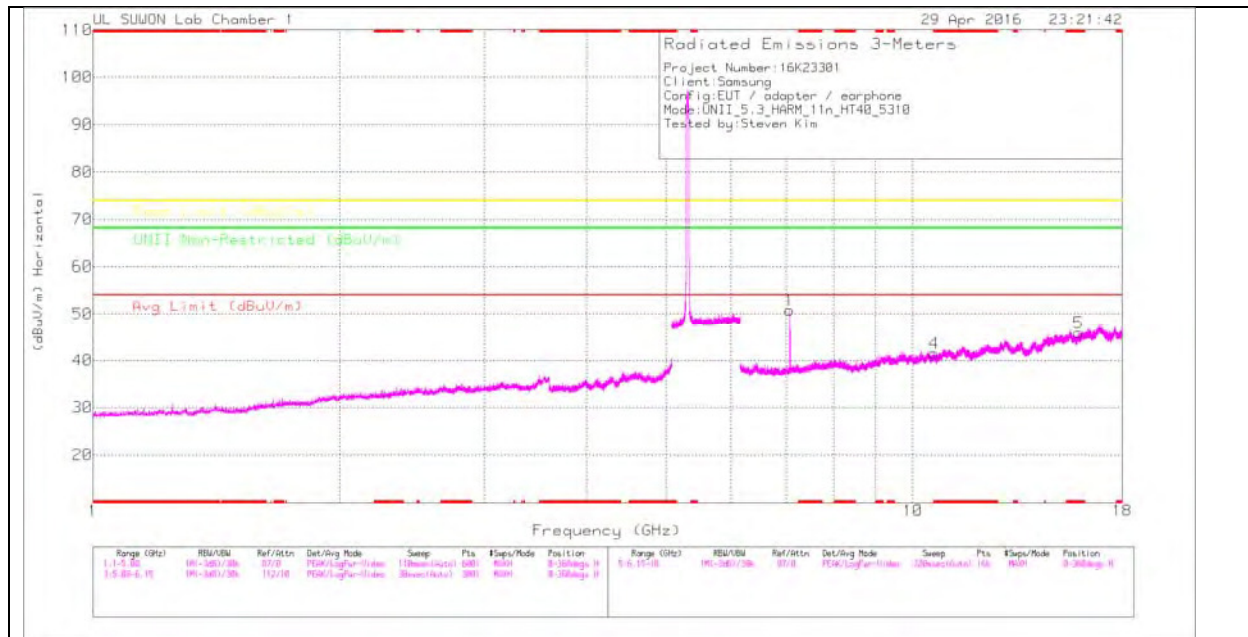
Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	3117(001687 17)_150619	Path_5	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
7.027	52.84	PK-U	35.7	-30.6	0	57.94	-	-	-	-	68.2	-10.26	117	133	H
7.027	50.97	PK-U	35.7	-30.6	0	56.07	-	-	-	-	68.2	-12.13	150	127	V

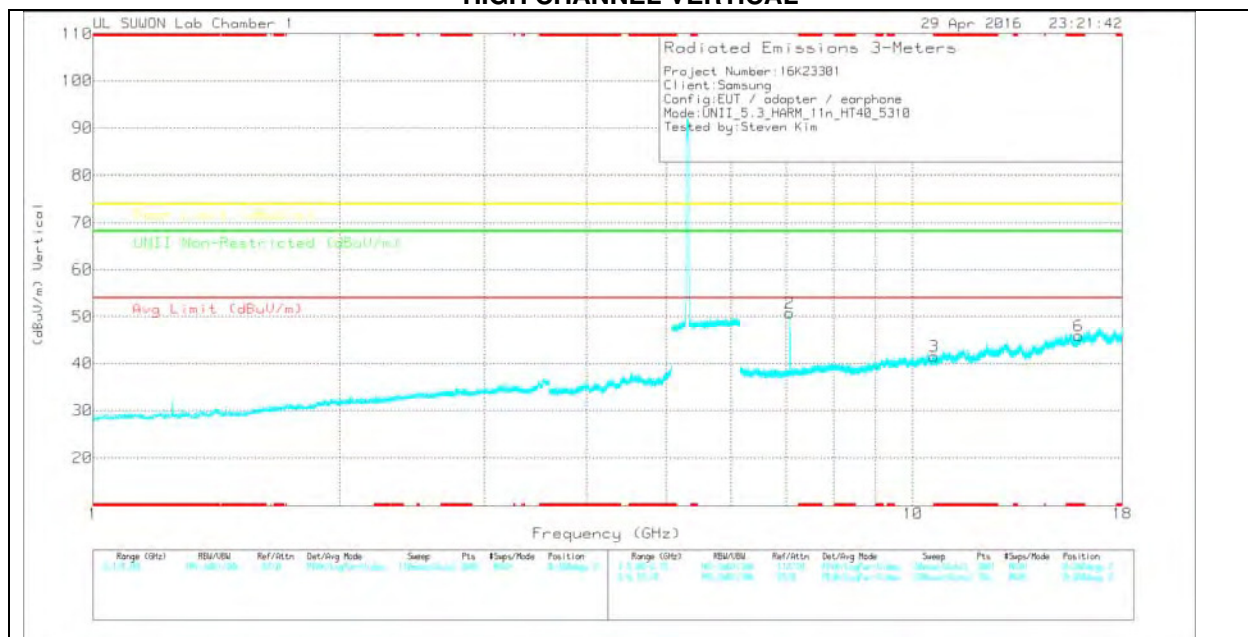
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK-U - U-NII: Maximum Peak

HIGH CHANNEL HORIZONTAL



HIGH CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

HIGH CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(0016 8717)_150 619	Path_5	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	7.079	45.64	PK	35.7	-30.5	0	50.84	-	-	-	-	68.2	-17.36	0-360	100	H
4	* 10.62	30.74	PK	37.9	-27.1	0	41.54	-	-	74	-32.46	-	-	0-360	200	H
5	* 15.932	24.75	PK	40.6	-19.4	0	45.95	-	-	74	-28.05	-	-	0-360	100	H
2	7.079	45.66	PK	35.7	-30.5	0	50.86	-	-	-	-	68.2	-17.34	0-360	100	V
3	* 10.62	30.68	PK	37.9	-27.1	0	41.48	-	-	74	-32.52	-	-	0-360	100	V
6	* 15.933	24.63	PK	40.6	-19.4	0	45.83	-	-	74	-28.17	-	-	0-360	100	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak Detector

Radiated Emissions

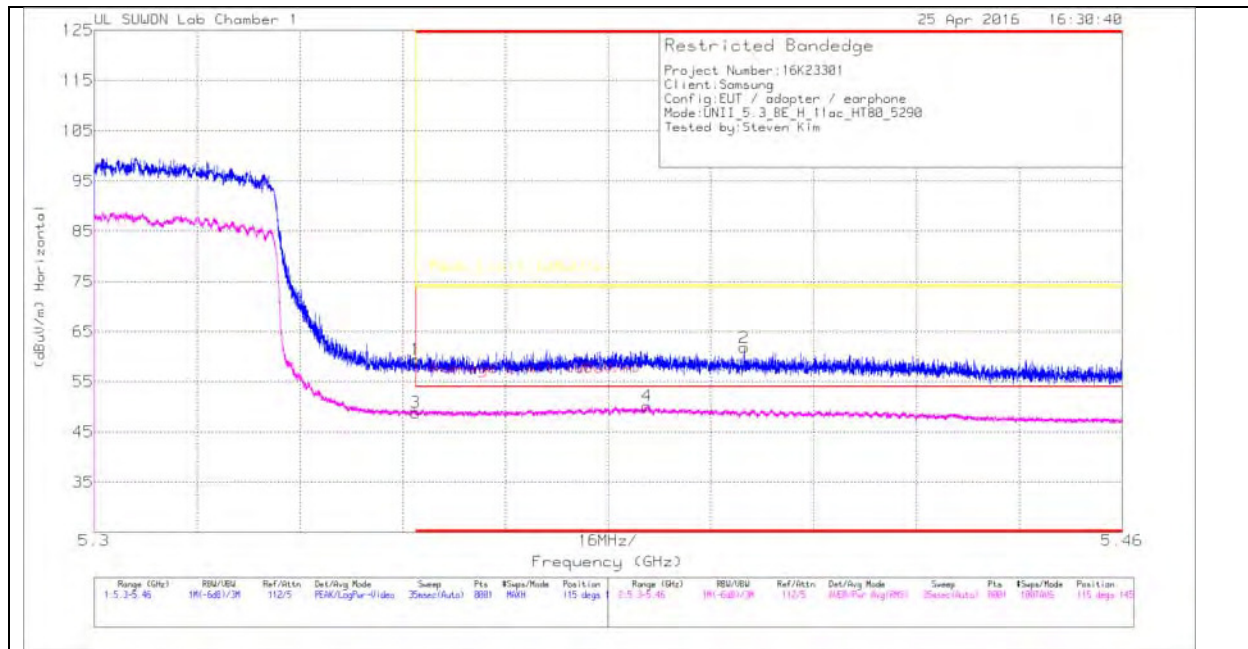
Frequency (GHz)	Meter Reading (dBuV)	Det	3117(001687 17)_150619	Path_5	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
7.08	50.51	PK-U	35.7	-30.5	0	55.71	-	-	-	-	68.2	-12.49	121	353	H
7.08	49.88	PK-U	35.7	-30.5	0	55.08	-	-	-	-	68.2	-13.12	150	111	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK-U - U-NII: Maximum Peak

11.2.4. TX ABOVE 1GHz 802.11ac HT80 2TX CDD MODE IN THE 5.3GHz BAND RESTRICTED BANDEDGE (High CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Trace Markers

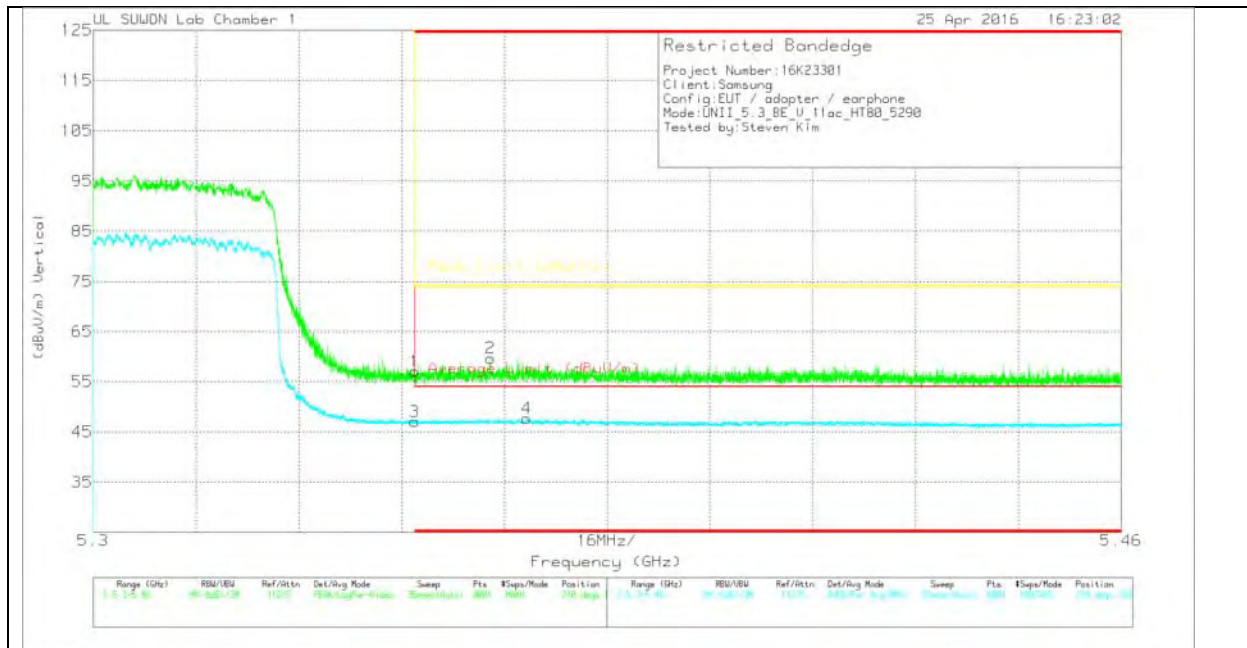
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(001687 17_150619)	Path_2	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35	48.21	Pk	34.5	-23.3	0	59.41	-	-	74	-14.59	115	145	H
2	* 5.401	50.49	Pk	34.6	-23.3	0	61.79	-	-	74	-12.21	115	145	H
3	* 5.35	36.54	RMS	34.5	-23.3	1.12	48.86	54	-5.14	-	-	115	145	H
4	* 5.386	37.85	RMS	34.5	-23.3	1.12	50.17	54	-3.83	-	-	115	145	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(001687 17)_150619	Path_2	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35	45.86	Pk	34.5	-23.3	0	57.06	-	-	74	-16.94	210	102	V
2	* 5.362	48.47	Pk	34.5	-23.3	0	59.67	-	-	74	-14.33	210	102	V
3	* 5.35	34.76	RMS	34.5	-23.3	1.12	47.08	54	-6.92	-	-	210	102	V
4	* 5.368	35.39	RMS	34.5	-23.3	1.12	47.71	54	-6.29	-	-	210	102	V

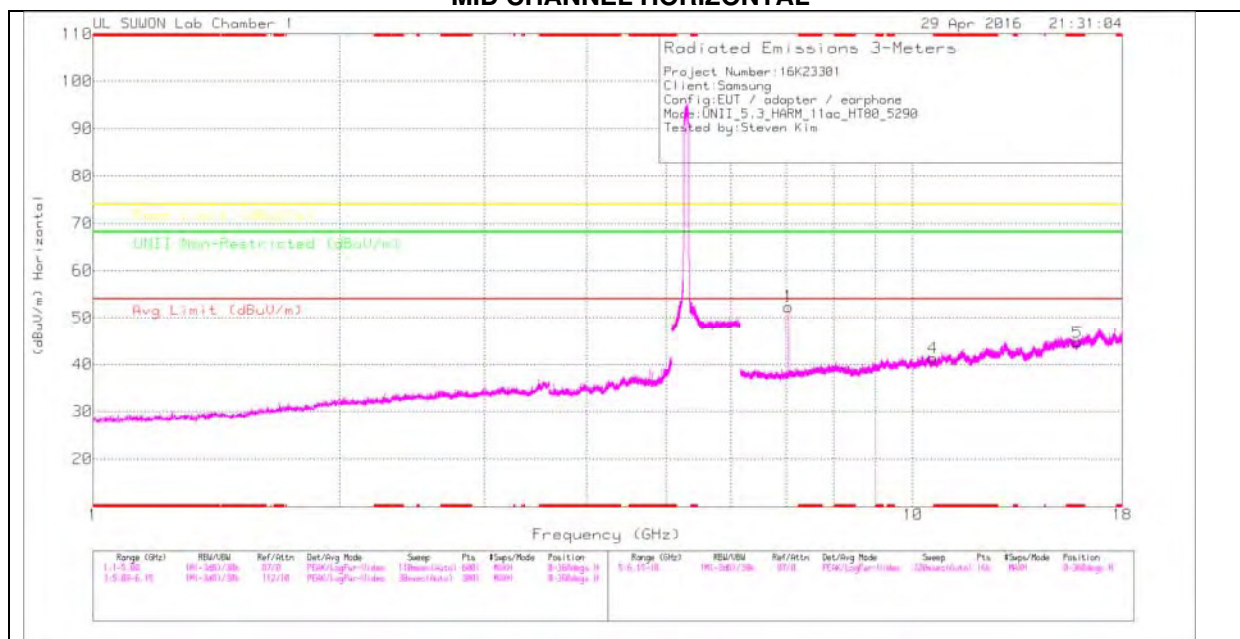
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

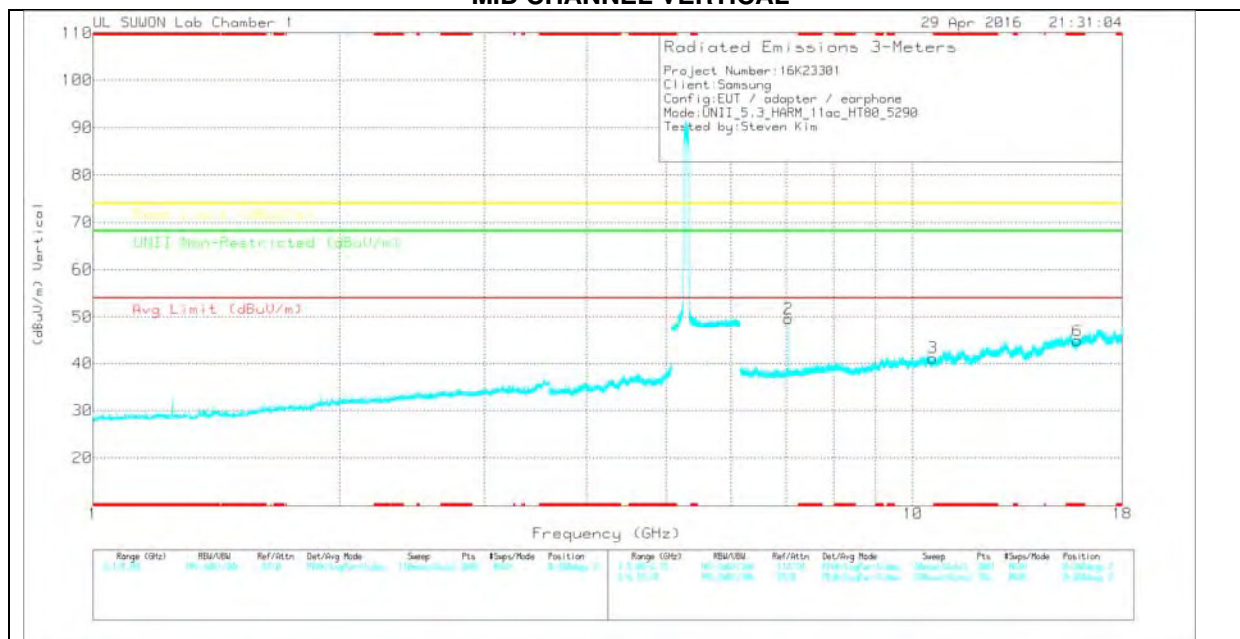
RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

MID CHANNEL HORIZONTAL



MID CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(00168717)_150619	Path_5	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	7.053	47.22	PK	35.7	-30.5	0	52.42	-	-	-	-	68.2	-15.78	0-360	100	H
4	10.58	30.28	PK	37.9	-26.8	0	41.38	-	-	-	-	68.2	-26.82	0-360	100	H
5	* 15.87	23.92	PK	40.5	-19.7	0	44.72	-	-	74	-29.28	-	-	0-360	200	H
2	7.053	44.44	PK	35.7	-30.5	0	49.64	-	-	-	-	68.2	-18.56	0-360	100	V
3	10.579	30.07	PK	37.9	-26.8	0	41.17	-	-	-	-	68.2	-27.03	0-360	200	V
6	* 15.861	24.08	PK	40.5	-19.7	0	44.88	-	-	74	-29.12	-	-	0-360	100	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak Detector

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	3117(00168717)_150619	Path_5	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
7.053	51.03	PK-U	35.7	-30.5	0	56.23	-	-	-	-	68.2	-11.97	118	130	H
7.053	50.01	PK-U	35.7	-30.5	0	55.21	-	-	-	-	68.2	-12.99	153	139	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

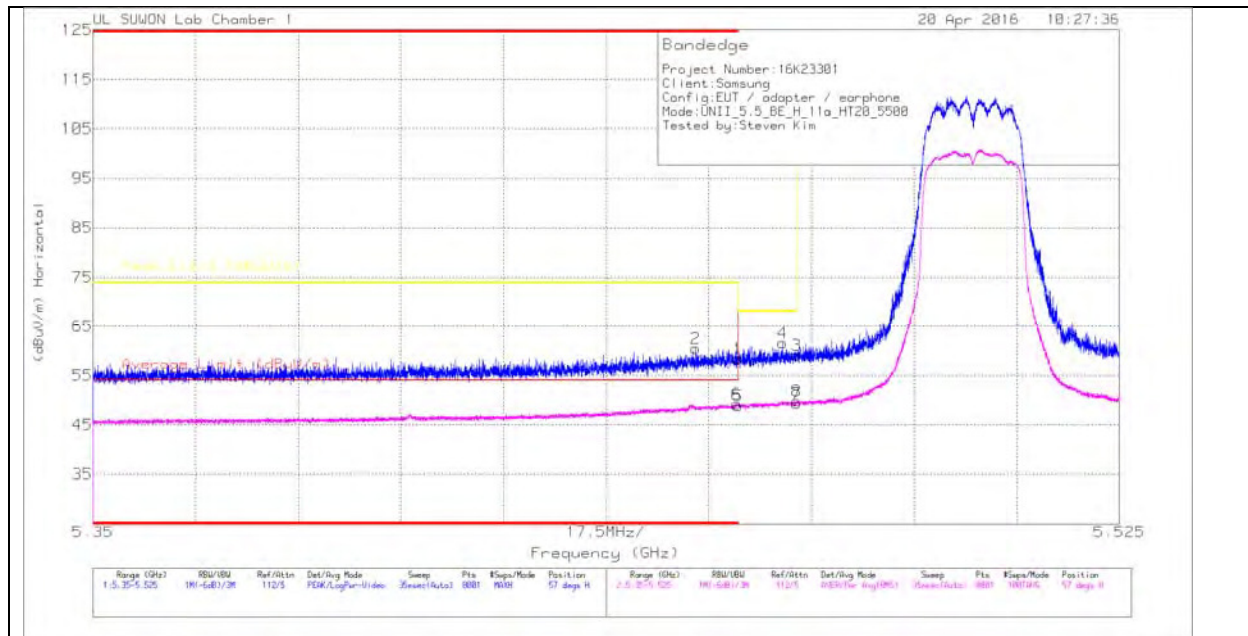
PK-U - U-NII: Maximum Peak

11.3. 5.5-5.6 GHz

11.3.1. TX ABOVE 1 GHz 802.11a 2TX CDD MODE IN THE 5.5 GHz BAND

RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Trace Markers

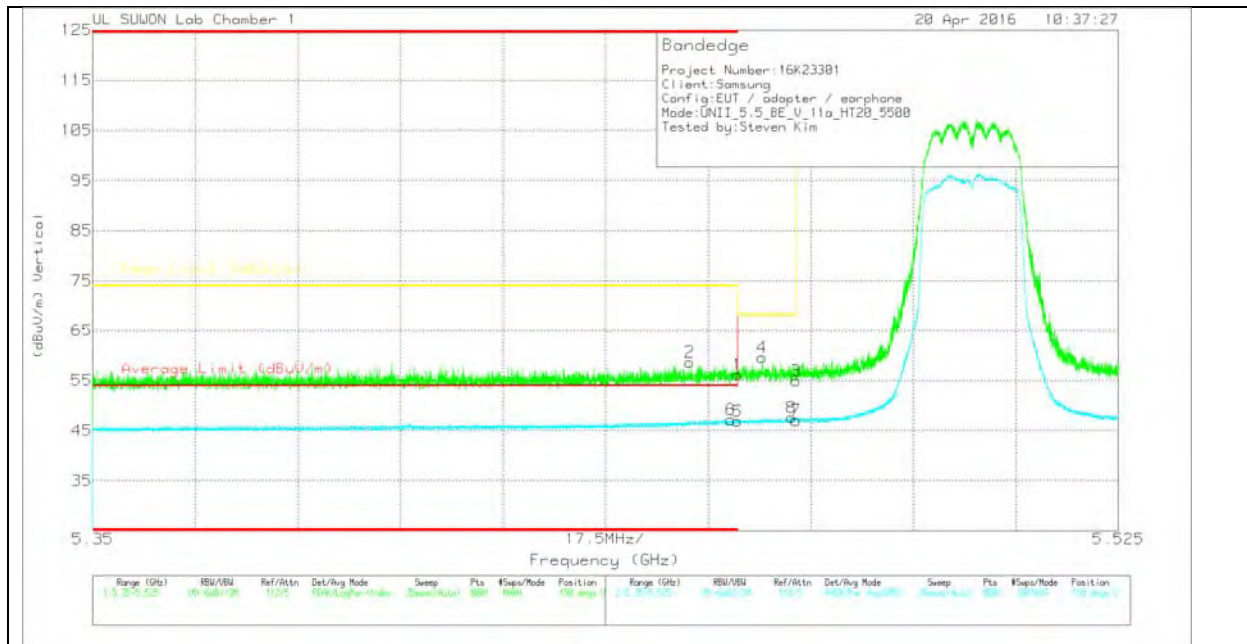
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(001687 17_150619)	Path_2	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.46	46.98	PK	34.6	-23.2	0	58.38	-	-	74	-15.62	57	101	H
2	* 5.453	49.09	PK	34.6	-23.2	0	60.49	-	-	74	-13.51	57	101	H
3	5.47	47.66	PK	34.6	-23.1	0	59.16	-	-	68.2	-9.04	57	101	H
4	5.468	50.13	PK	34.6	-23.1	0	61.63	-	-	68.2	-6.57	57	101	H
5	* 5.46	37.09	RMS	34.6	-23.2	.31	48.8	54	-5.2	-	-	57	101	H
6	* 5.46	37.45	RMS	34.6	-23.2	.31	49.16	54	-4.84	-	-	57	101	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(001687 17)_150619	Path_2	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.46	44.74	Pk	34.6	-23.2	0	56.14	-	-	74	-17.86	158	157	V
2	* 5.452	47.23	Pk	34.6	-23.2	0	58.63	-	-	74	-15.37	158	157	V
3	5.47	43.4	Pk	34.6	-23.1	0	54.9	-	-	68.2	-13.3	158	157	V
4	5.464	48.08	Pk	34.6	-23.1	0	59.58	-	-	68.2	-8.62	158	157	V
5	* 5.46	35.12	RMS	34.6	-23.2	.31	46.83	54	-7.17	-	-	158	157	V
6	* 5.459	35.48	RMS	34.6	-23.2	.31	47.19	54	-6.81	-	-	158	157	V

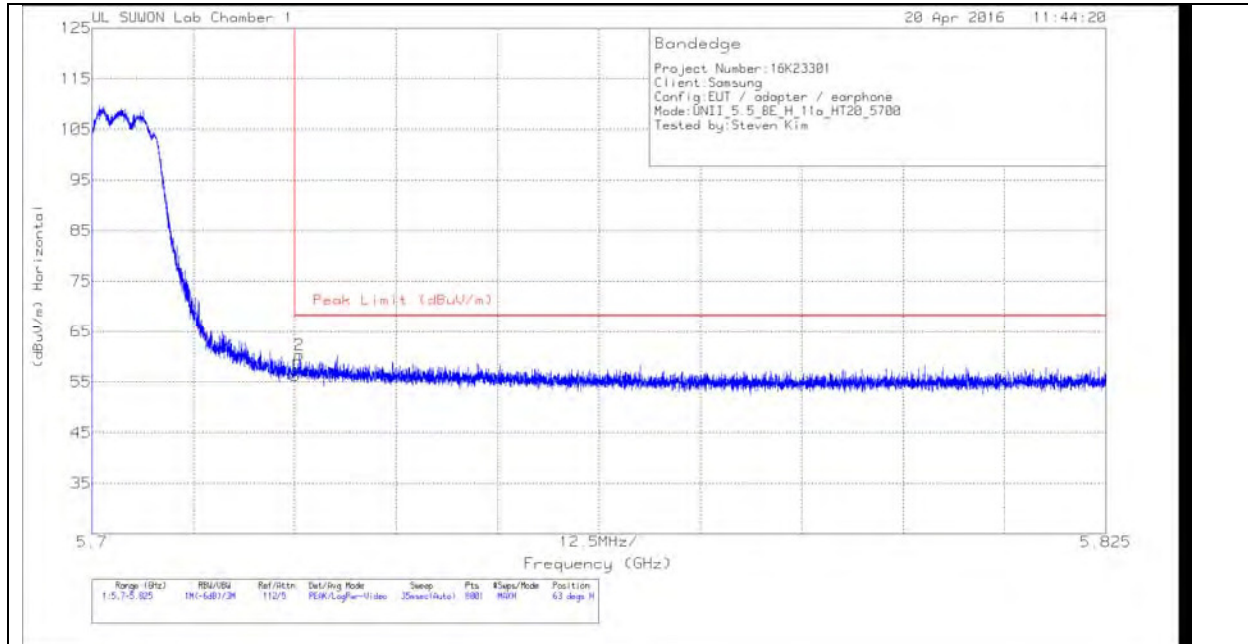
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection

AUTHORIZED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

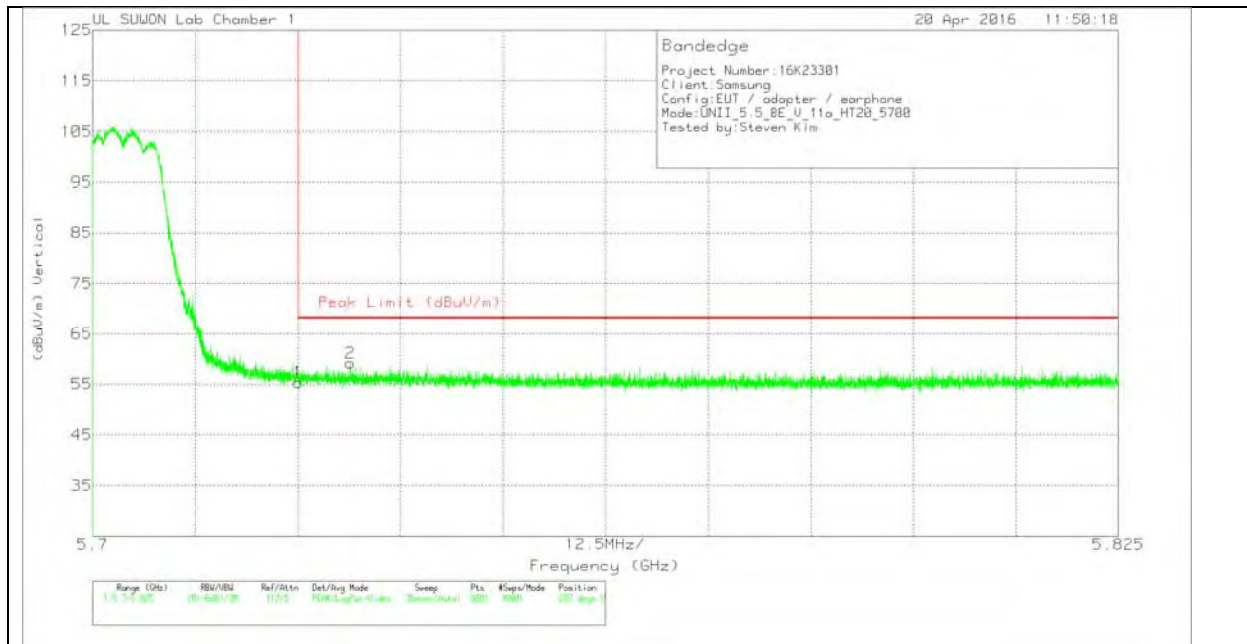
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(0016 8717)_150 619	Path_2	DC Corr (dB)	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.725	44.31	Pk	34.8	-22.8	0	56.31	68.2	-11.89	63	100	H
2	5.726	48.39	Pk	34.8	-22.8	0	60.39	68.2	-7.81	63	100	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Trace Markers

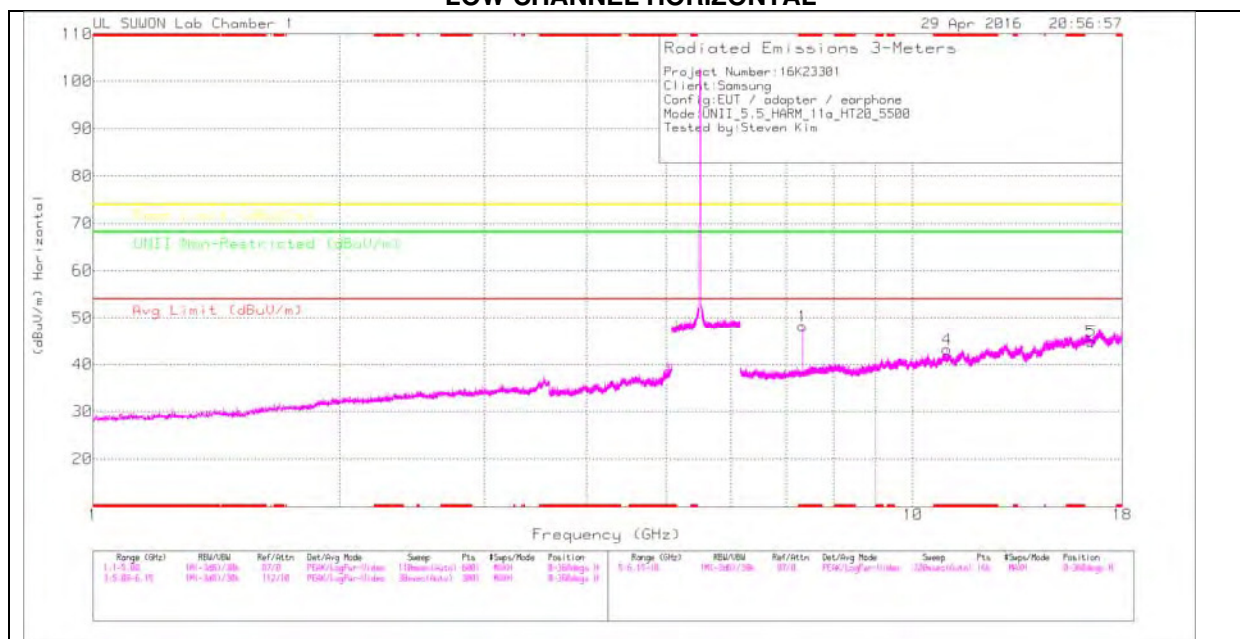
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(0016 8717)_150 619	Path_2	DC Corr (dB)	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.725	43.37	Pk	34.8	-22.8	0	55.37	68.2	-12.83	207	101	V
2	5.731	47.17	Pk	34.8	-22.8	0	59.17	68.2	-9.03	207	101	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

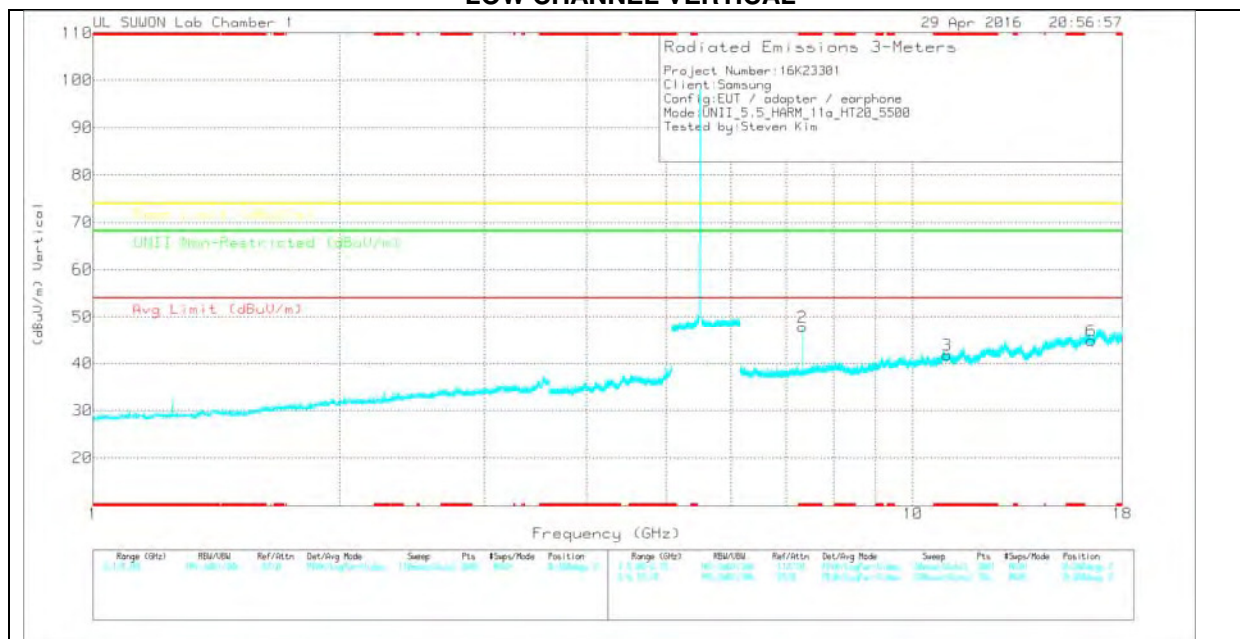
Pk - Peak detector

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



LOW CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(0016 8717)_150 619	Path_5	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 7.333	42.87	PK	35.8	-30.5	0	48.17	-	-	74	-25.83	-	-	0-360	100	H
4	* 10.999	32.37	PK	38.2	-27.4	0	43.17	-	-	74	-30.83	-	-	0-360	200	H
5	16.498	26.02	PK	41.1	-22.2	0	44.92	-	-	-	-	68.2	-23.28	0-360	200	H
2	* 7.333	42.52	PK	35.8	-30.5	0	47.82	-	-	74	-26.18	-	-	0-360	200	V
3	* 10.999	30.97	PK	38.2	-27.4	0	41.77	-	-	74	-32.23	-	-	0-360	100	V
6	16.498	25.97	PK	41.1	-22.2	0	44.87	-	-	-	-	68.2	-23.33	0-360	100	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak Detector

Radiated Emissions

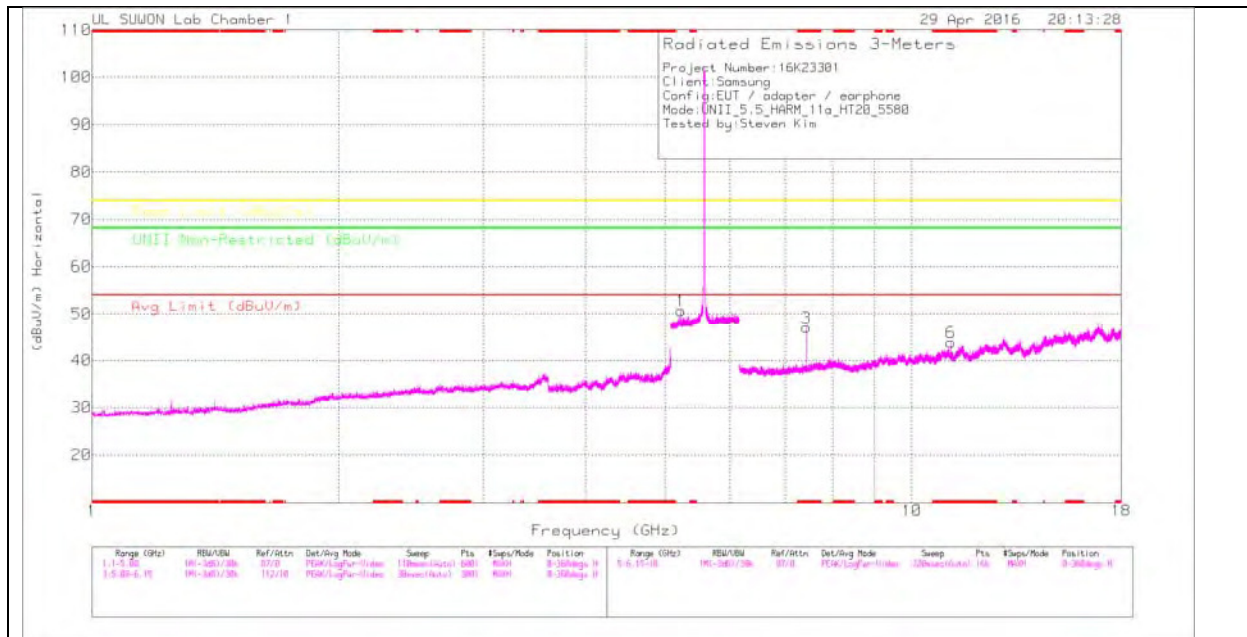
Frequency (GHz)	Meter Reading (dBuV)	Det	3117(001687 17)_150619	Path_5	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 7.333	49.21	PK-U	35.8	-30.5	0	54.51	-	-	74	-19.49	-	-	173	108	H
* 7.333	43.95	ADR	35.8	-30.5	.31	49.56	54	-4.44	-	-	-	-	173	108	H
* 7.333	47.89	PK-U	35.8	-30.5	0	53.19	-	-	74	-20.81	-	-	154	189	V
* 7.333	40.32	ADR	35.8	-30.5	.31	45.93	54	-8.07	-	-	-	-	154	189	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

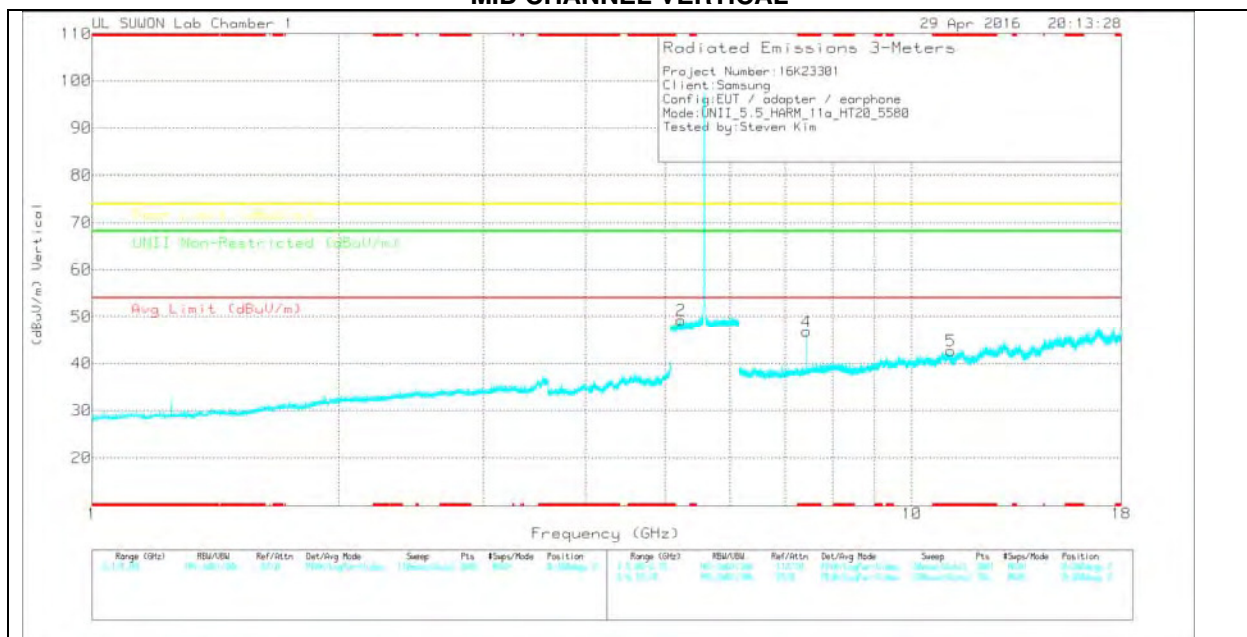
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

MID CHANNEL HORIZONTAL



MID CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(0016 8717)_150 619	Path_2	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.228	40.03	PK	34.3	-23.7	0	50.63	-	-	-	-	68.2	-17.57	0-360	100	H
2	5.228	38.7	PK	34.3	-23.7	0	49.3	-	-	-	-	68.2	-18.9	0-360	200	V
3	* 7.439	41.9	PK	35.8	-30.6	0	47.1	-	-	74	-26.9	-	-	0-360	100	H
6	* 11.159	32.61	PK	38.3	-27.1	0	43.81	-	-	74	-30.19	-	-	0-360	200	H
4	* 7.439	41.54	PK	35.8	-30.6	0	46.74	-	-	74	-27.26	-	-	0-360	200	V
5	* 11.16	31.46	PK	38.3	-27.1	0	42.66	-	-	74	-31.34	-	-	0-360	200	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak Detector

Radiated Emissions

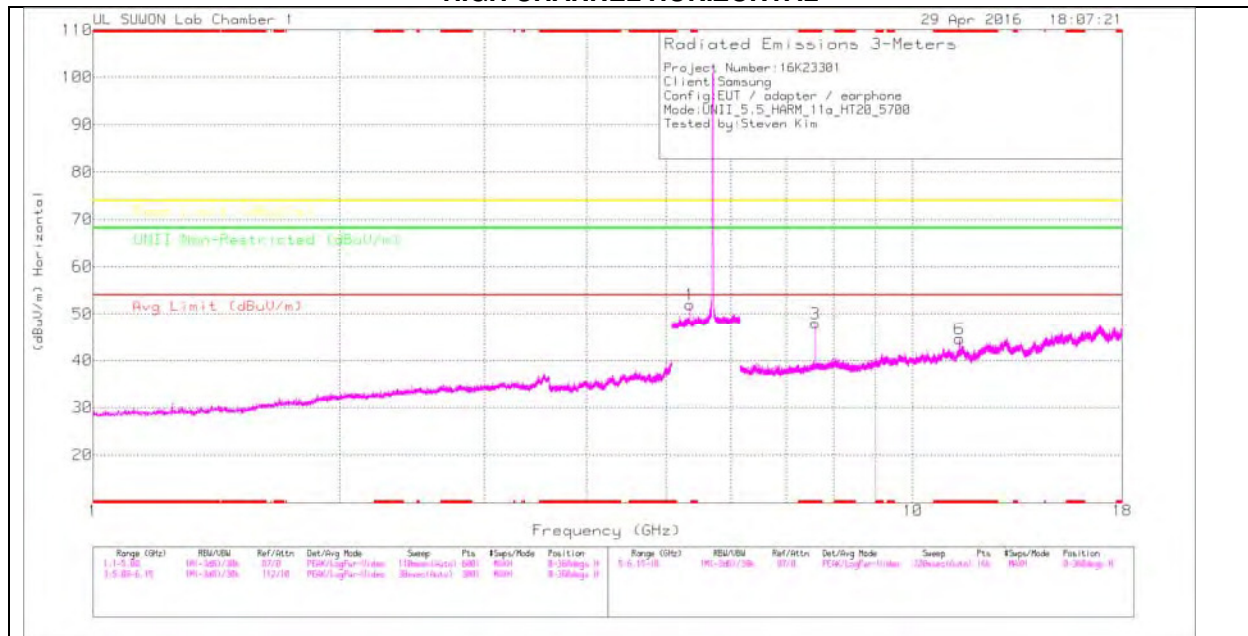
Frequency (GHz)	Meter Reading (dBuV)	Det	3117(0016871 7)_150619	Path_2	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
5.228	50.37	PK-U	34.3	-23.7	0	60.97	-	-	-	-	68.2	-7.23	116	100	H
5.228	49.02	PK-U	34.3	-23.7	0	59.62	-	-	-	-	68.2	-8.58	209	321	V
* 7.44	40.39	ADR	35.8	-30.5	.31	46.00	54	-8.00	-	-	-	-	169	224	V
* 7.44	42.64	ADR	35.8	-30.5	.31	48.25	54	-5.75	-	-	-	-	173	105	H
* 7.44	47.9	PK-U	35.8	-30.5	0	53.2	-	-	74	-20.8	-	-	169	224	V
* 7.44	48.3	PK-U	35.8	-30.5	0	53.6	-	-	74	-20.4	-	-	173	105	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

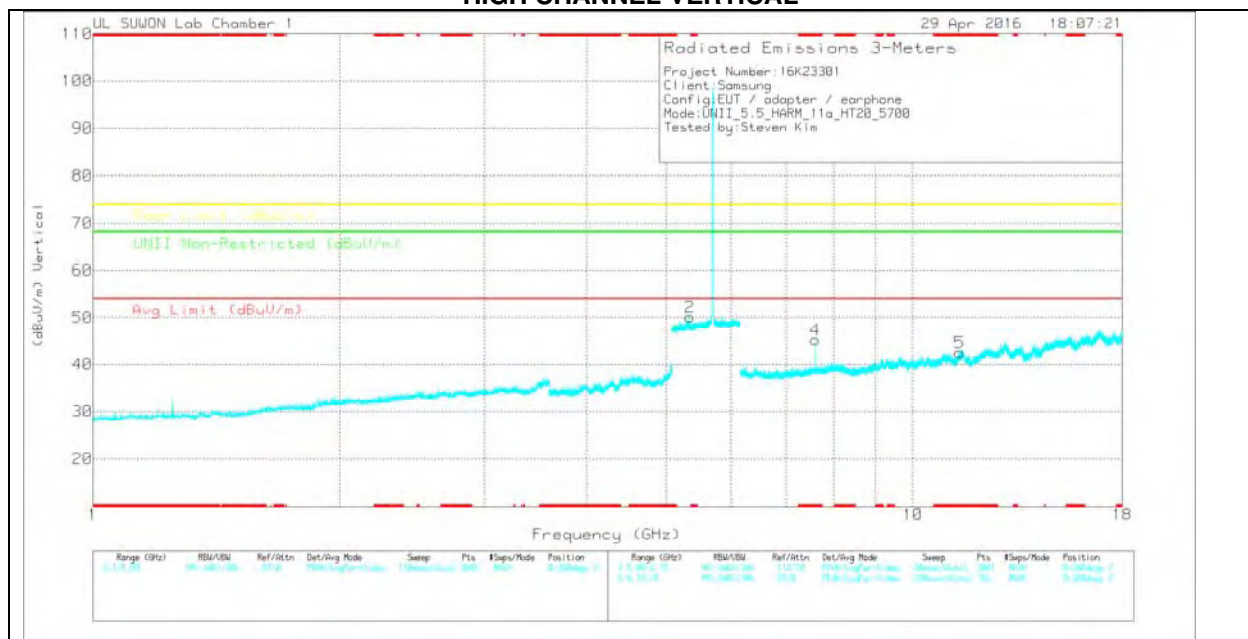
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

HIGH CHANNEL HORIZONTAL



HIGH CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

HIGH CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(0016 8717)_150 619	Path_2	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.348	40.8	PK	34.5	-23.3	0	52	-	-	-	-	68.2	-16.2	0-360	100	H
2	5.348	38.92	PK	34.5	-23.3	0	50.12	-	-	-	-	68.2	-18.08	0-360	100	V
3	* 7.6	42.3	PK	35.9	-30.3	0	47.9	-	-	74	-26.1	-	-	0-360	100	H
6	* 11.4	33.4	PK	38.5	-27.3	0	44.6	-	-	74	-29.4	-	-	0-360	200	H
4	* 7.599	39.67	PK	35.9	-30.3	0	45.27	-	-	74	-28.73	-	-	0-360	200	V
5	* 11.4	31.29	PK	38.5	-27.3	0	42.49	-	-	74	-31.51	-	-	0-360	100	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak Detector

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	3117(001687 17)_150619	Path_2	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 5.35	48.11	PK-U	34.5	-23.3	0	59.31	-	-	74	-14.69	-	-	120	139	H
* 5.35	35.29	ADR	34.5	-23.3	.31	46.8	54	-7.2	-	-	-	-	120	139	H
* 5.35	48.95	PK-U	34.5	-23.3	0	60.15	-	-	74	-13.85	-	-	333	151	V
* 5.35	35.21	ADR	34.5	-23.3	.31	46.72	54	-7.28	-	-	-	-	333	151	V
* 7.6	37.59	ADR	35.9	-30.3	.31	43.5	54	-10.5	-	-	-	-	205	104	V
* 7.6	39.61	ADR	35.9	-30.3	.31	45.52	54	-8.48	-	-	-	-	179	101	H
* 11.4	33.53	ADR	38.5	-27.3	.31	45.04	54	-8.96	-	-	-	-	44	101	H
* 11.4	32.03	ADR	38.5	-27.3	.31	43.54	54	-10.46	-	-	-	-	224	300	V
* 7.6	46.41	PK-U	35.9	-30.3	0	52.01	-	-	74	-21.99	-	-	205	104	V
* 7.6	47.34	PK-U	35.9	-30.3	0	52.94	-	-	74	-21.06	-	-	179	101	H
* 11.4	42.67	PK-U	38.5	-27.3	0	53.87	-	-	74	-20.13	-	-	44	101	H
* 11.4	42.41	PK-U	38.5	-27.3	0	53.61	-	-	74	-20.39	-	-	224	300	V

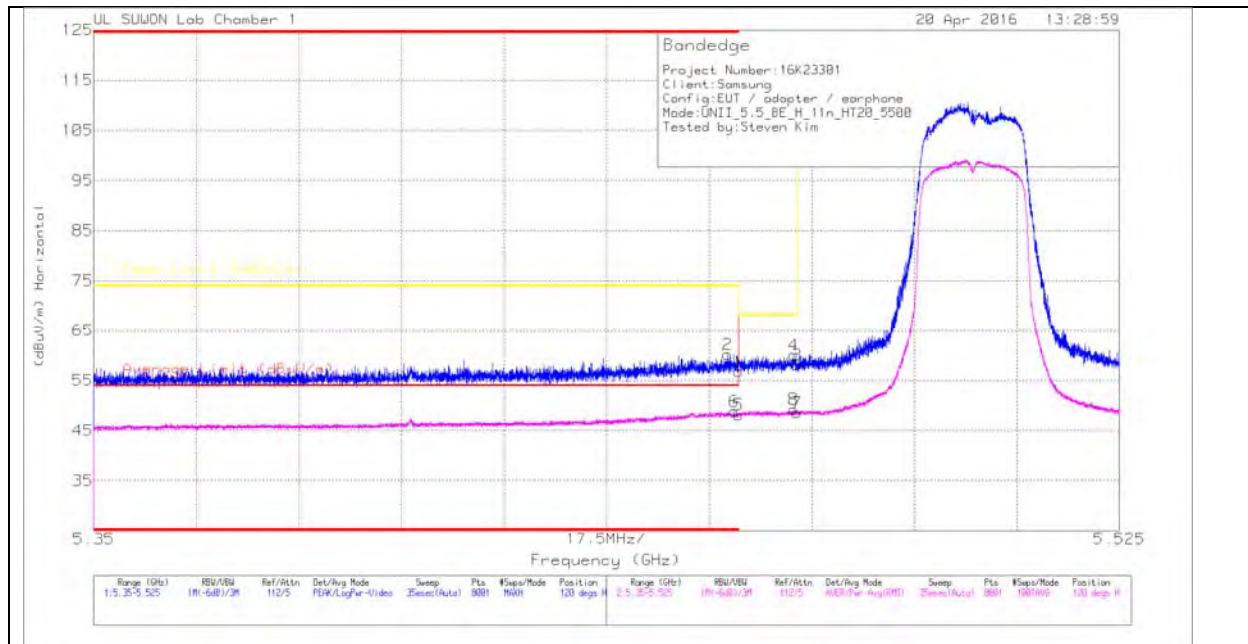
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

11.3.2. TX ABOVE 1GHz 802.11n HT20 2TX CDD MODE IN THE 5.5GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Trace Markers

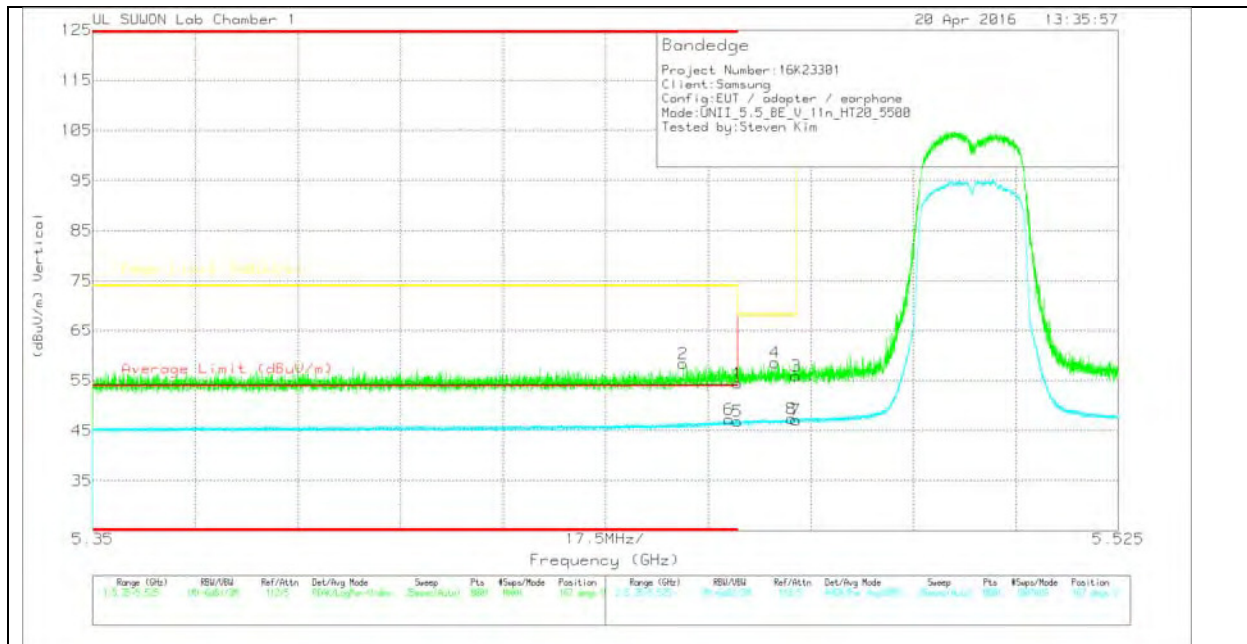
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(001687 17_150619)	Path_2	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.46	45.37	Pk	34.6	-23.2	0	56.77	-	-	74	-17.23	120	149	H
2	* 5.458	48.77	Pk	34.6	-23.2	0	60.17	-	-	74	-13.83	120	149	H
3	5.47	46.58	Pk	34.6	-23.1	0	58.08	-	-	68.2	-10.12	120	149	H
4	5.469	48.52	Pk	34.6	-23.1	0	60.02	-	-	68.2	-8.18	120	149	H
5	* 5.46	36.42	RMS	34.6	-23.2	.31	48.13	54	-5.87	-	-	120	149	H
6	* 5.459	37.13	RMS	34.6	-23.2	.31	48.84	54	-5.16	-	-	120	149	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(001687 17)_150619	Path_2	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.46	43.03	PK	34.6	-23.2	0	54.43	-	-	74	-19.57	167	259	V
2	* 5.451	46.98	PK	34.6	-23.2	0	58.38	-	-	74	-15.62	167	259	V
3	5.47	44.42	PK	34.6	-23.1	0	55.92	-	-	68.2	-12.28	167	259	V
4	5.466	47.06	PK	34.6	-23.1	0	58.56	-	-	68.2	-9.64	167	259	V
5	* 5.46	35.14	RMS	34.6	-23.2	.31	46.85	54	-7.15	-	-	167	259	V
6	* 5.459	35.49	RMS	34.6	-23.2	.31	47.2	54	-6.8	-	-	167	259	V

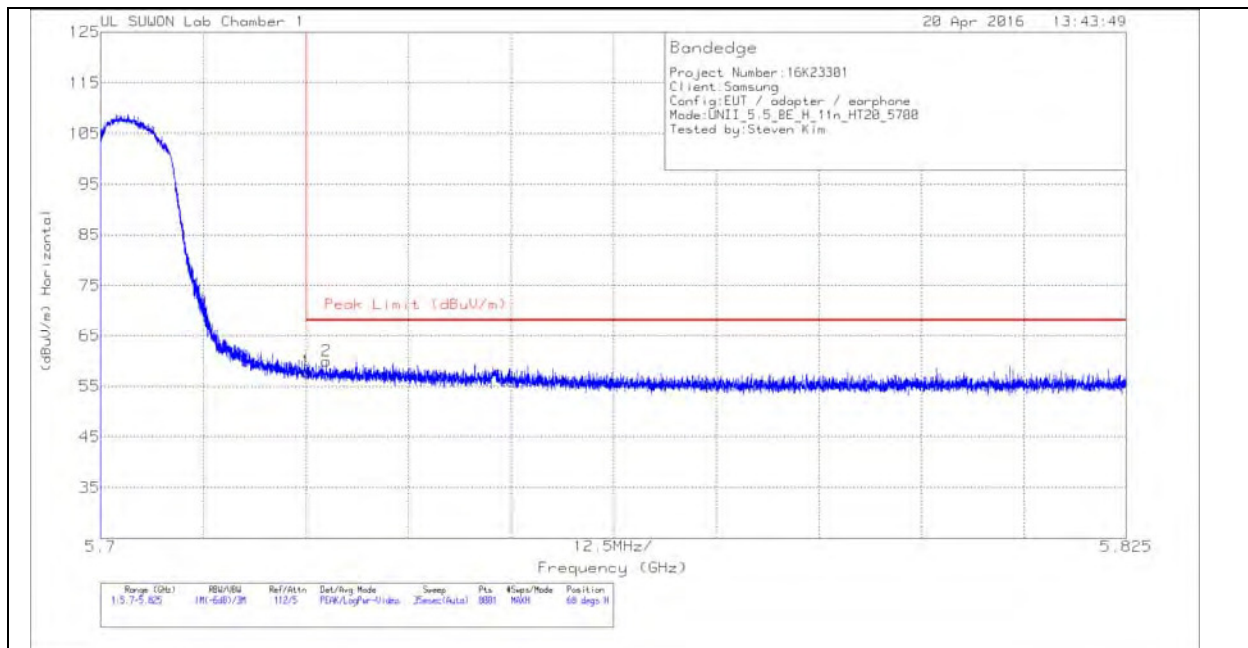
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection

AUTHORIZED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

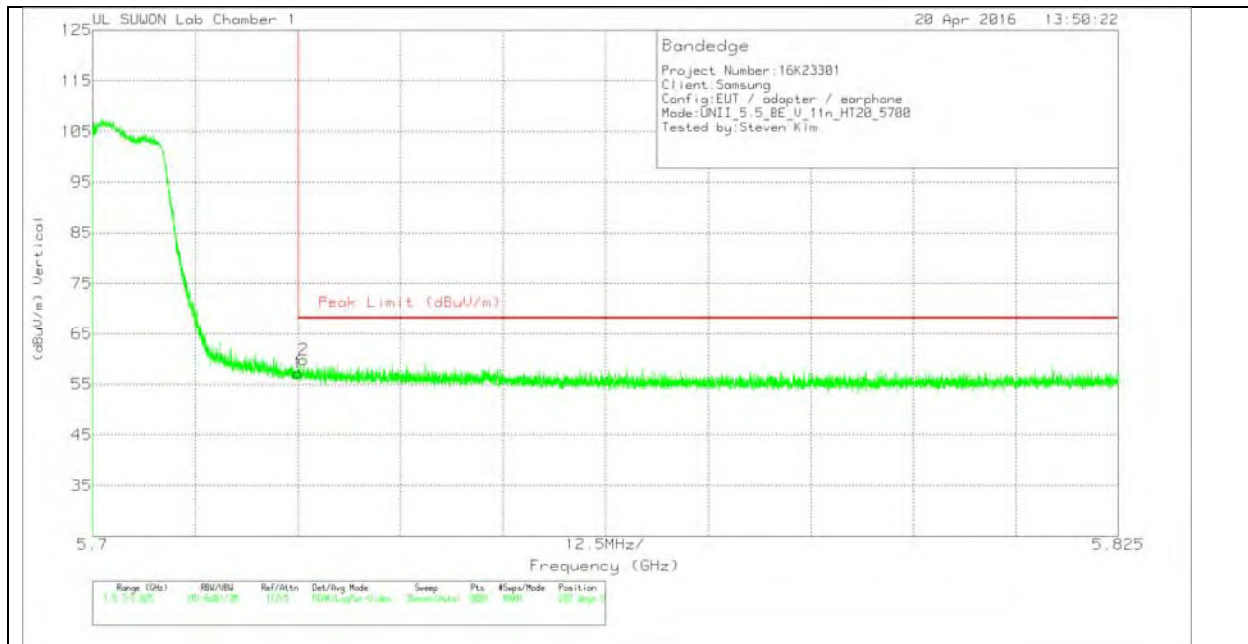
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(0016 8717)_150 619	Path_2	DC Corr (dB)	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.725	45.93	Pk	34.8	-22.8	0	57.93	68.2	-10.27	68	141	H
2	5.728	47.98	Pk	34.8	-22.8	0	59.98	68.2	-8.22	68	141	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Trace Markers

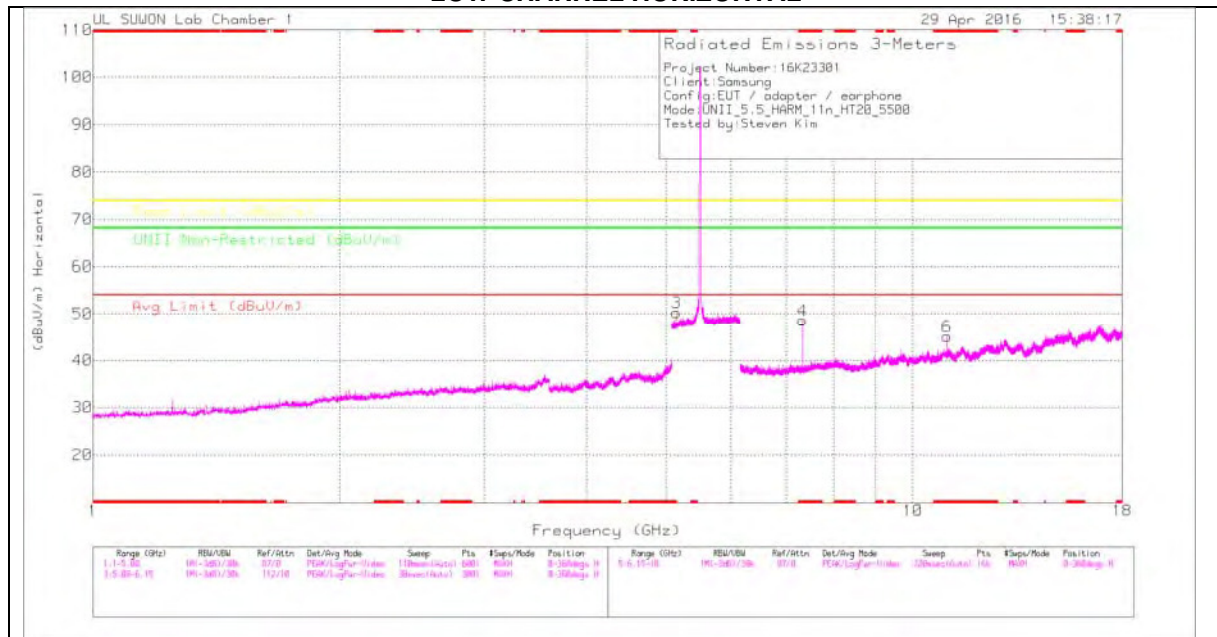
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(0016 8717)_150 619	Path_2	DC Corr (dB)	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.725	45.2	Pk	34.8	-22.8	0	57.2	68.2	-11	207	101	V
2	5.726	47.84	Pk	34.8	-22.8	0	59.84	68.2	-8.36	207	101	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

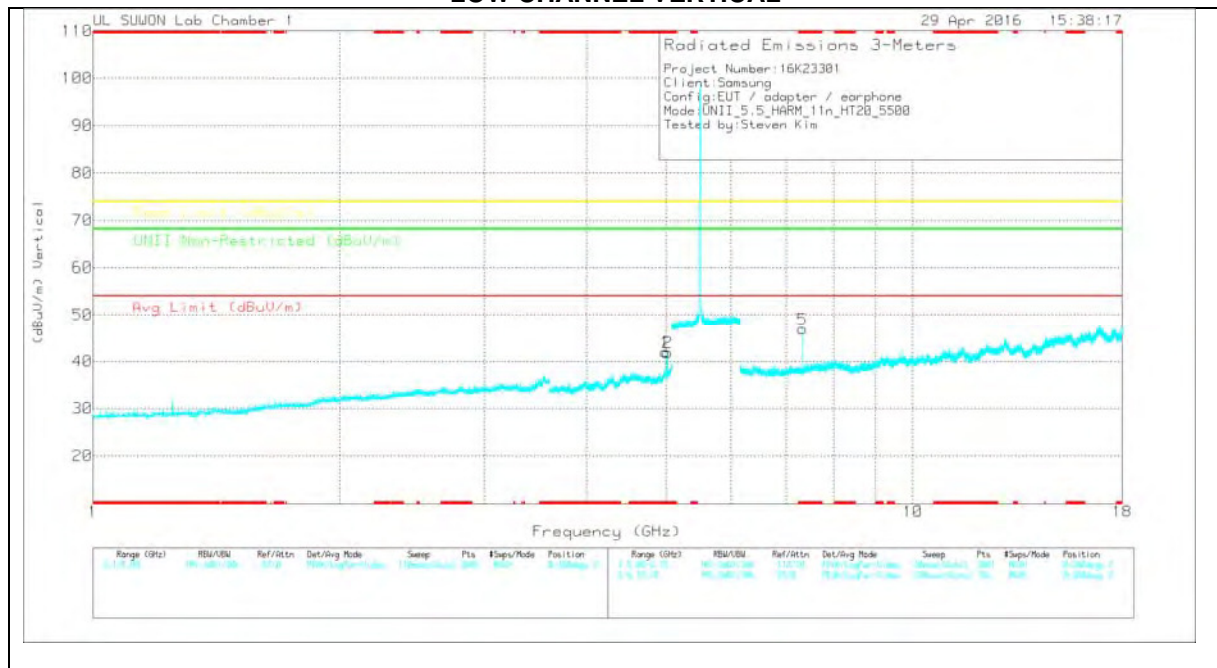
Pk - Peak detector

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



LOW CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(0016 8717)_150 619	Path_4	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.988	40.25	PK	34.1	-32.3	0	42.05	-	-	74	-31.95	-	-	0-360	100	V
2	* 5.02	40.03	PK	34.1	-32.2	0	41.93	-	-	74	-32.07	-	-	0-360	100	V
3	* 5.148	40.22	PK	34.2	-24.1	0	50.32	-	-	74	-23.68	-	-	0-360	200	H
4	* 7.333	43.29	PK	35.8	-30.5	0	48.59	-	-	74	-25.41	-	-	0-360	100	H
6	* 11	34.28	PK	38.2	-27.4	0	45.08	-	-	74	-28.92	-	-	0-360	200	H
5	* 7.333	41.63	PK	35.8	-30.5	0	46.93	-	-	74	-27.07	-	-	0-360	200	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak Detector

Radiated Emissions

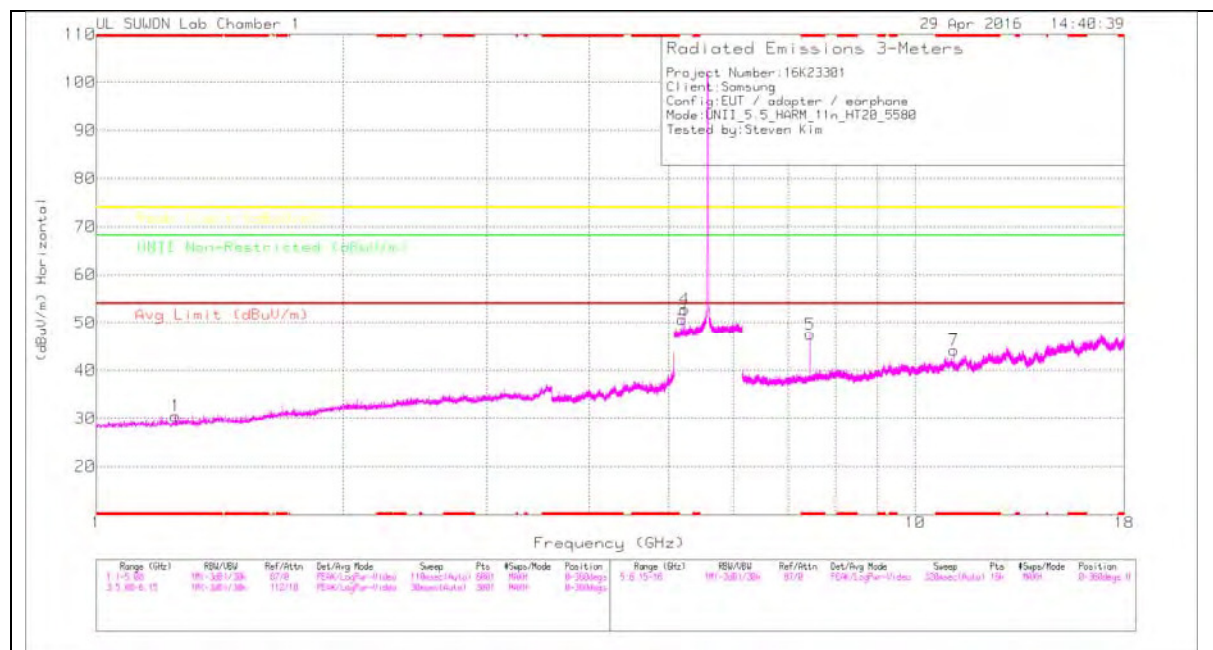
Frequency (GHz)	Meter Reading (dBuV)	Det	3117(001687 17)_150619	Path_4	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 5.02	46.75	PK-U	34.1	-32.2	0	48.65	-	-	74	-25.35	-	-	235	275	V
* 5.02	33.85	ADR	34.1	-32.2	.31	36.06	54	-17.94	-	-	-	-	235	275	V
* 4.988	48.35	PK-U	34.1	-32.3	0	50.15	-	-	74	-23.85	-	-	222	345	V
* 4.988	33.81	ADR	34.1	-32.3	.31	35.92	54	-18.08	-	-	-	-	222	345	V
* 5.148	37.9	ADR	34.2	-24.1	.31	48.31	54	-5.69	-	-	-	-	115	101	H
* 5.148	49.46	PK-U	34.2	-24.1	0	59.56	-	-	74	-14.44	-	-	115	101	H
* 7.333	42.6	ADR	35.8	-30.5	.31	48.21	54	-5.79	-	-	-	-	175	107	H
* 7.333	40.54	ADR	35.8	-30.5	0	45.84	54	-8.16	-	-	-	-	154	189	V
* 11	30.94	ADR	38.2	-27.4	.31	42.05	54	-11.95	-	-	-	-	103	261	H
* 7.333	49.69	PK-U	35.8	-30.5	0	54.99	-	-	74	-19.01	-	-	175	107	H
* 7.333	48.63	PK-U	35.8	-30.5	0	53.93	-	-	74	-20.07	-	-	154	189	V
* 11	41.75	PK-U	38.2	-27.4	0	52.55	-	-	74	-21.45	-	-	103	261	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

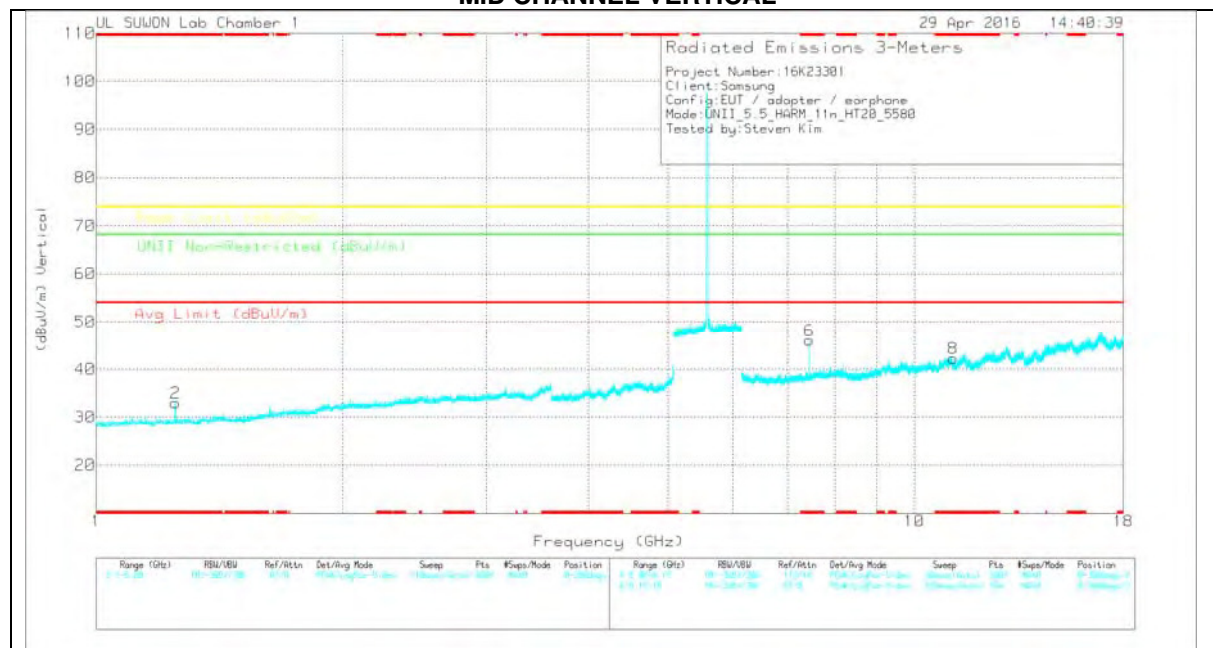
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

MID CHANNEL HORIZONTAL



MID CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(0016 8717)_150 619	Path_4	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.25	42.4	PK	28.3	-40.2	0	30.5	-	-	74	-43.5	-	-	0-360	200	H
2	* 1.25	44.89	PK	28.3	-40.2	0	32.99	-	-	74	-41.01	-	-	0-360	200	V
3	5.196	40.17	PK	34.3	-23.8	0	50.67	-	-	-	-	68.2	-17.53	0-360	100	H
4	5.228	42.18	PK	34.3	-23.7	0	52.78	-	-	-	-	68.2	-15.42	0-360	100	H
5	* 7.44	42.27	PK	35.8	-30.5	0	47.57	-	-	74	-26.43	-	-	0-360	100	H
7	* 11.16	33	PK	38.3	-27.1	0	44.2	-	-	74	-29.8	-	-	0-360	100	H
6	* 7.439	40.88	PK	35.8	-30.6	0	46.08	-	-	74	-27.92	-	-	0-360	200	V
8	* 11.16	31.08	PK	38.3	-27.1	0	42.28	-	-	74	-31.72	-	-	0-360	200	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak Detector

Radiated Emissions

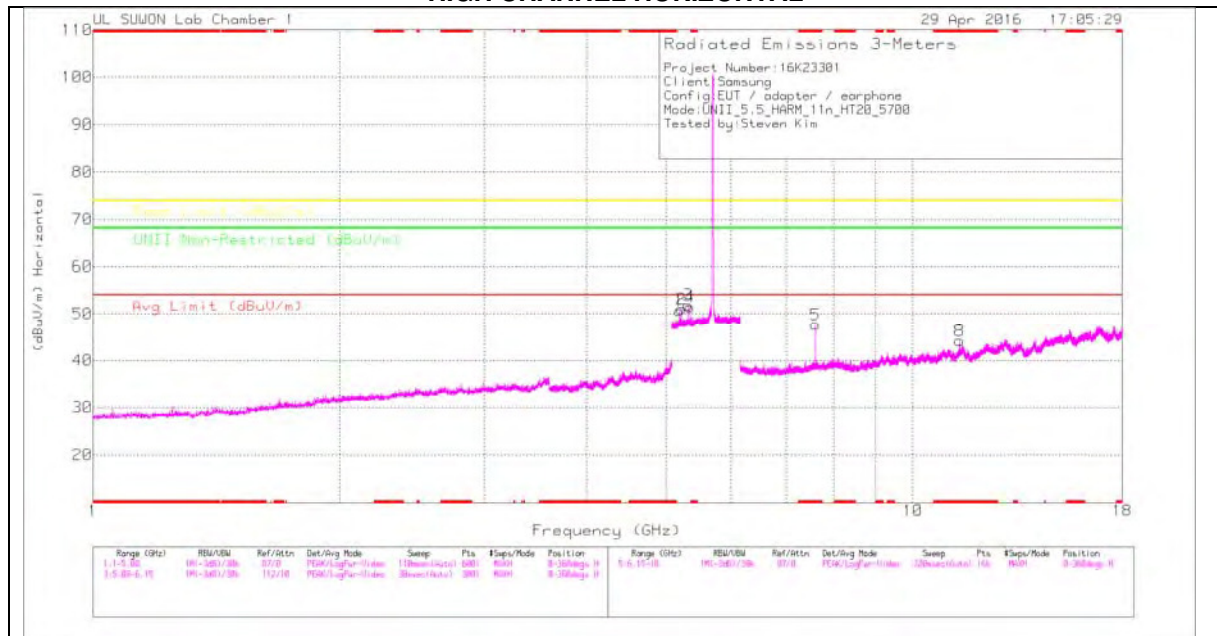
Frequency (GHz)	Meter Reading (dBuV)	Det	3117(0016871 7)_150619	Path_2	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
5.228	49.61	PK-U	34.3	-23.7	0	60.21	-	-	-	-	68.2	-7.99	55	160	H
5.196	48.66	PK-U	34.3	-23.8	0	59.16	-	-	-	-	68.2	-9.04	55	160	H
* 7.44	41.66	ADR	35.8	-30.5	.31	47.27	54	-6.73	-	-	-	-	173	100	H
* 7.44	39.68	ADR	35.8	-30.5	.31	45.29	54	-8.71	-	-	-	-	152	174	V
* 11.16	32.01	ADR	38.3	-27.1	.31	43.52	54	-10.48	-	-	-	-	197	137	V
* 11.16	32.52	ADR	38.3	-27.1	.31	44.03	54	-9.97	-	-	-	-	46	100	H
* 7.44	48.66	PK-U	35.8	-30.5	0	53.96	-	-	74	-20.04	-	-	173	100	H
* 7.44	47.06	PK-U	35.8	-30.5	0	52.36	-	-	74	-21.64	-	-	152	174	V
* 11.16	42.46	PK-U	38.3	-27.1	0	53.66	-	-	74	-20.34	-	-	197	137	V
* 11.16	42.87	PK-U	38.3	-27.1	0	54.07	-	-	74	-19.93	-	-	46	100	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

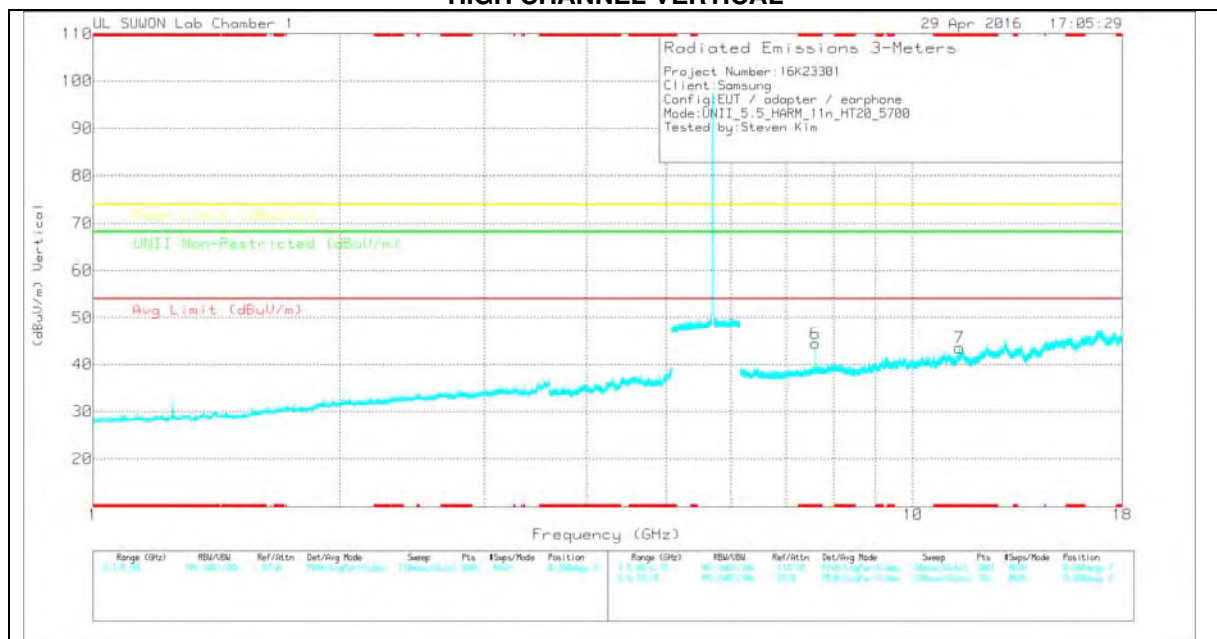
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

HIGH CHANNEL HORIZONTAL



HIGH CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

HIGH CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(0016 8717)_150 619	Path_2	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.188	40.26	PK	34.3	-23.9	0	50.66	-	-	-	-	68.2	-17.54	0-360	100	H
2	5.22	40.51	PK	34.3	-23.7	0	51.11	-	-	-	-	68.2	-17.09	0-360	100	H
3	5.316	40.8	PK	34.5	-23.4	0	51.9	-	-	-	-	68.2	-16.3	0-360	100	H
4	5.348	40.31	PK	34.5	-23.3	0	51.51	-	-	-	-	68.2	-16.69	0-360	200	H
5	* 7.6	42.08	PK	35.9	-30.3	0	47.68	-	-	74	-26.32	-	-	0-360	100	H
8	* 11.4	33.04	PK	38.5	-27.3	0	44.24	-	-	74	-29.76	-	-	0-360	200	H
6	* 7.599	38.89	PK	35.9	-30.3	0	44.49	-	-	74	-29.51	-	-	0-360	100	V
7	* 11.4	32.3	PK	38.5	-27.3	0	43.5	-	-	74	-30.5	-	-	0-360	200	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak Detector

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	3117(001687 17)_150619	Path_2	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
5.188	49.47	PK-U	34.3	-23.9	0	59.87	-	-	-	-	68.2	-8.33	114	331	H
5.22	48.41	PK-U	34.3	-23.7	0	59.01	-	-	-	-	68.2	-9.19	67	162	H
5.325	48.43	PK-U	34.5	-23.3	0	59.63	-	-	-	-	68.2	-8.57	103	154	H
* 5.35	48.06	PK-U	34.5	-23.3	0	59.26	-	-	74	-14.74	-	-	49	208	H
* 5.35	35.71	ADR	34.5	-23.3	.31	47.22	54	-6.78	-	-	-	-	49	208	H
* 7.6	41.72	ADR	35.9	-30.3	.31	47.63	54	-6.37	-	-	-	-	175	102	H
* 7.6	37.27	ADR	35.9	-30.3	.31	43.18	54	-10.82	-	-	-	-	205	145	V
* 11.4	30.25	ADR	38.5	-27.3	.31	41.76	54	-12.24	-	-	-	-	38	280	V
* 11.4	33.64	ADR	38.5	-27.3	.31	45.15	54	-8.85	-	-	-	-	42	132	H
* 7.6	47.69	PK-U	35.9	-30.3	0	53.29	-	-	74	-20.71	-	-	175	102	H
* 7.6	46	PK-U	35.9	-30.3	0	51.6	-	-	74	-22.4	-	-	205	145	V
* 11.4	42.02	PK-U	38.5	-27.3	0	53.22	-	-	74	-20.78	-	-	38	280	V
* 11.4	43.5	PK-U	38.5	-27.3	0	54.7	-	-	74	-19.3	-	-	42	132	H

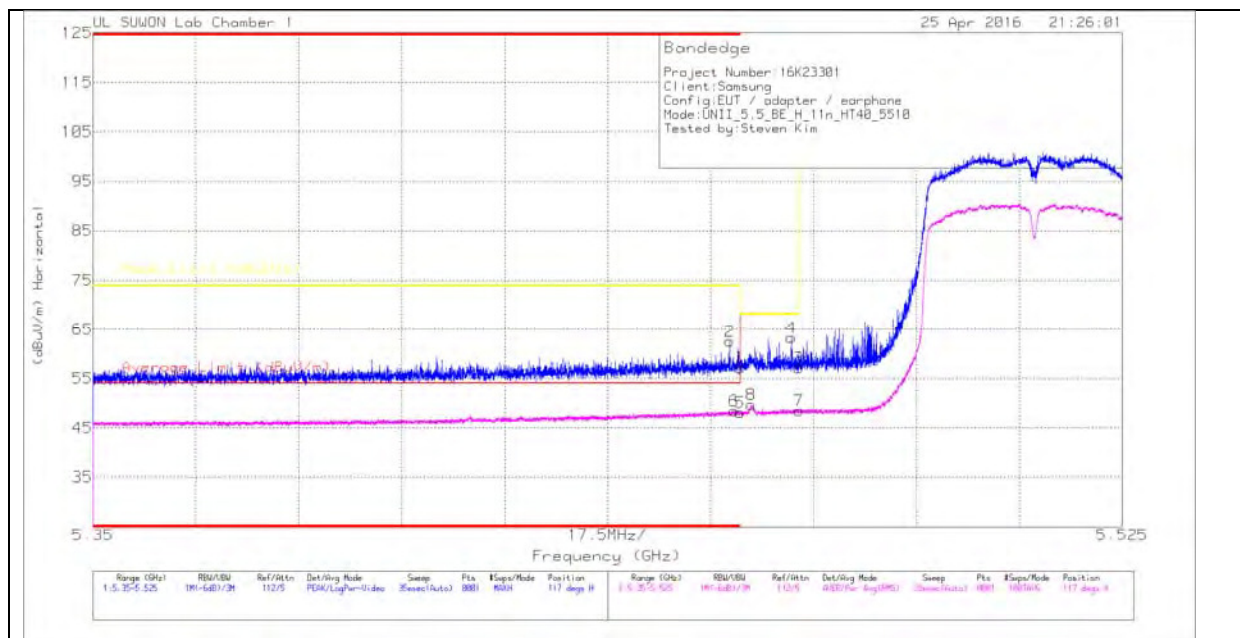
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

11.3.3. TX ABOVE 1GHz 802.11n HT40 2TX CDD MODE IN THE 5.5GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Trace Markers

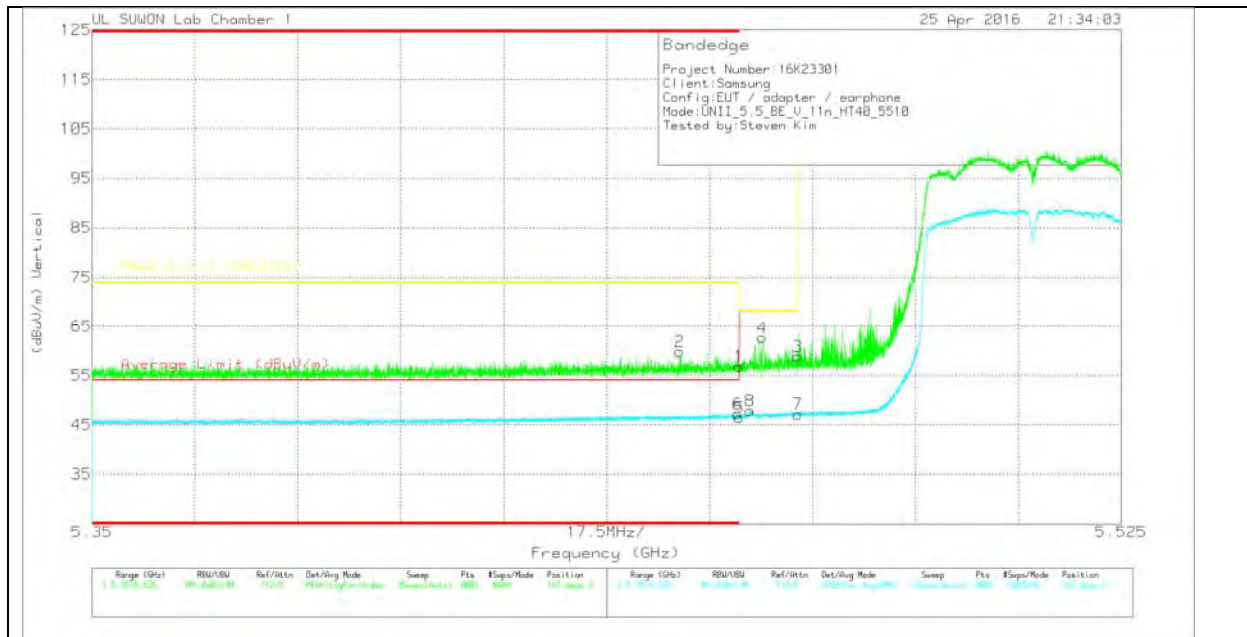
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(001687 17)_150619	Path_2	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.46	45.79	Pk	34.6	-23.2	0	57.19	-	-	74	-16.81	117	192	H
2	* 5.458	51.21	Pk	34.6	-23.2	0	62.61	-	-	74	-11.39	117	192	H
3	5.47	45.62	Pk	34.6	-23.1	0	57.12	-	-	68.2	-11.08	117	192	H
4	5.469	51.86	Pk	34.6	-23.1	0	63.36	-	-	68.2	-4.84	117	192	H
5	* 5.46	36.16	RMS	34.6	-23.2	.59	48.15	54	-5.85	-	-	117	192	H
6	* 5.459	36.49	RMS	34.6	-23.2	.59	48.48	54	-5.52	-	-	117	192	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(001687 17_150619)	Path_2	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.46	45.42	Pk	34.6	-23.2	0	56.82	-	-	74	-17.18	167	102	V
2	* 5.45	48.4	Pk	34.6	-23.2	0	59.8	-	-	74	-14.2	167	102	V
3	5.47	47.34	Pk	34.6	-23.1	0	58.84	-	-	68.2	-9.36	167	102	V
4	5.464	51.16	Pk	34.6	-23.1	0	62.66	-	-	68.2	-5.54	167	102	V
5	* 5.46	34.52	RMS	34.6	-23.2	.59	46.51	54	-7.49	-	-	167	102	V
6	* 5.46	35.2	RMS	34.6	-23.2	.59	47.19	54	-6.81	-	-	167	102	V

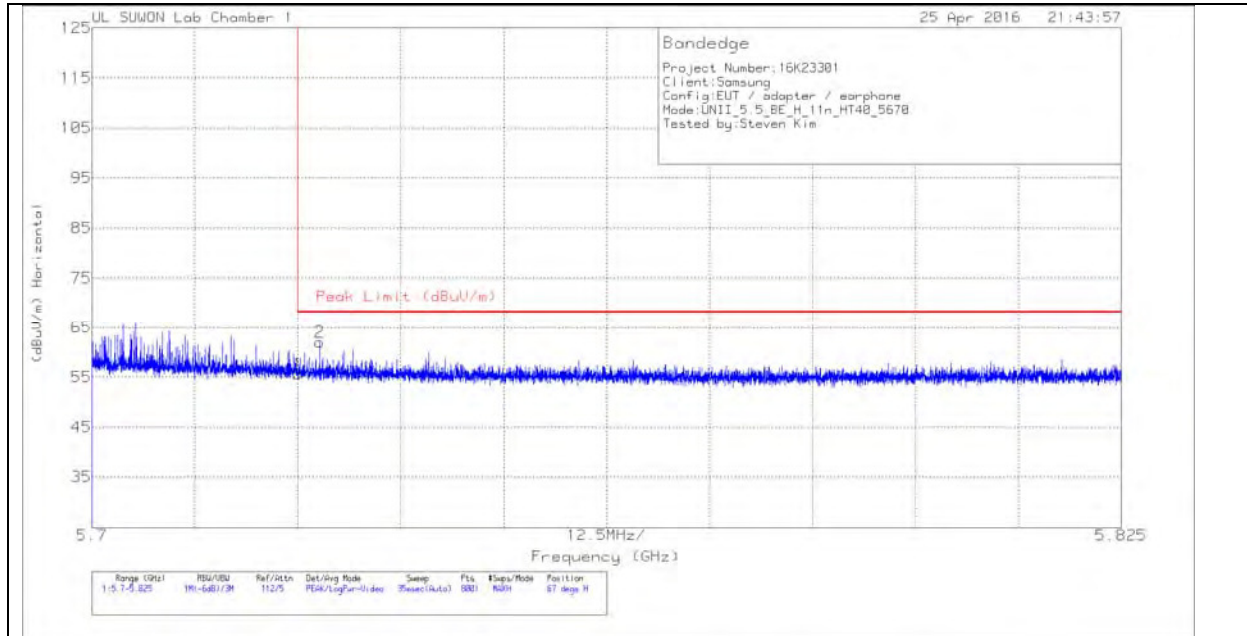
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection

AUTHORIZED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



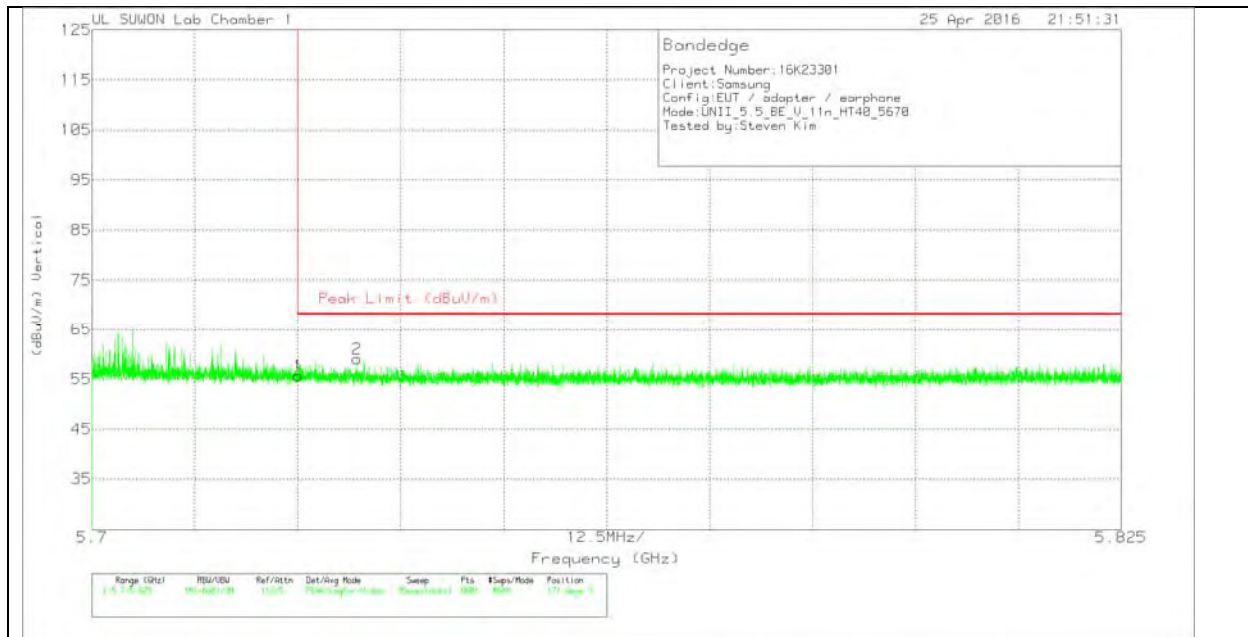
HORIZONTAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(0016 8717)_150 619	Path_2	DC Corr (dB)	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.725	43.7	Pk	34.8	-22.8	0	55.7	68.2	-12.5	67	150	H
2	5.728	50.08	Pk	34.8	-22.8	0	62.08	68.2	-6.12	67	150	H

Pk - Peak detector

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

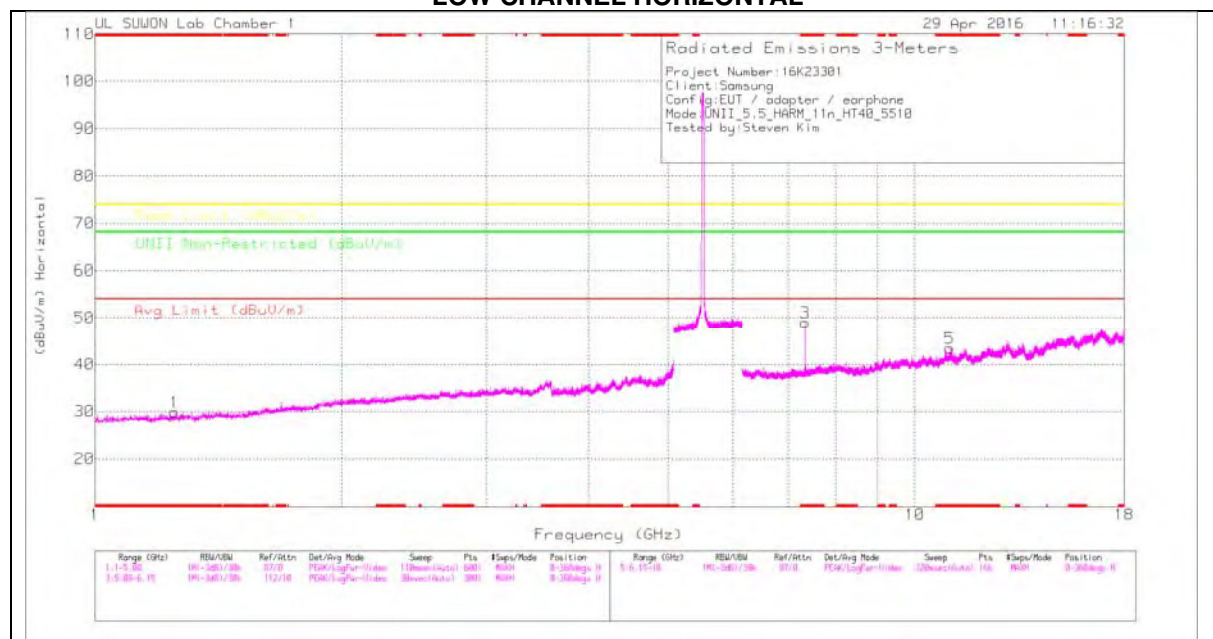
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(0016 8717)_150 619	Path_2	DC Corr (dB)	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.725	43.62	Pk	34.8	-22.8	0	55.62	68.2	-12.58	171	167	V
2	5.732	47.07	Pk	34.8	-22.8	0	59.07	68.2	-9.13	171	167	V

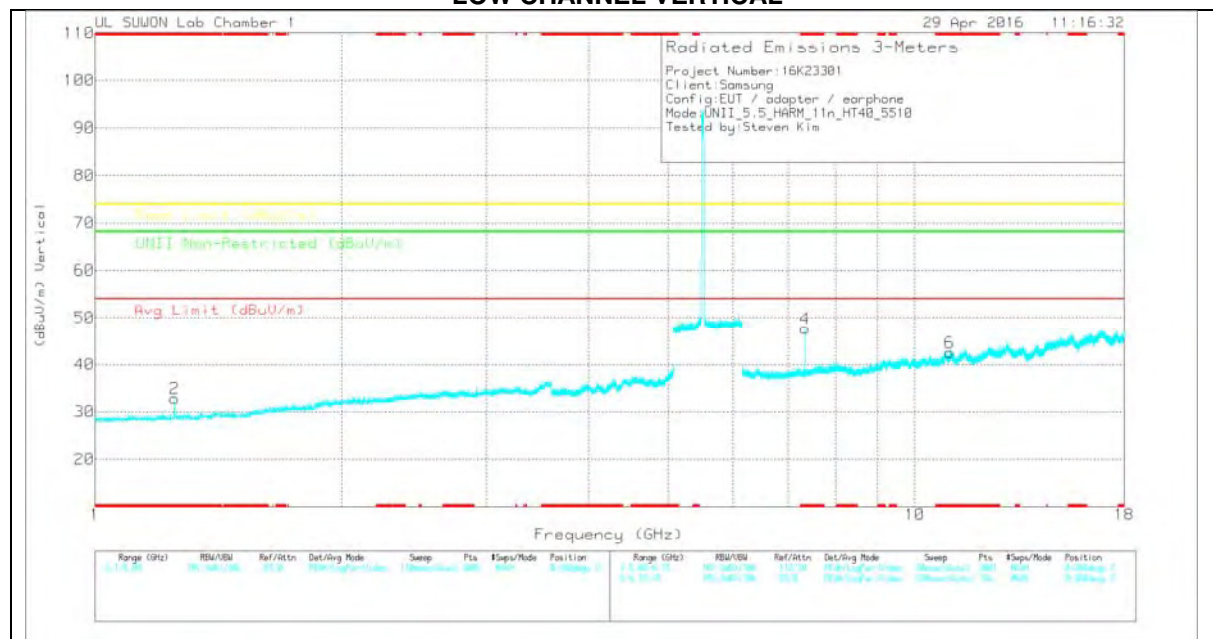
Pk - Peak detector

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



LOW CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117/0016 8717_150 619	Path_4	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.25	41.78	PK	28.3	-40.2	0	29.88	-	-	74	-44.12	-	-	0-360	200	H
2	* 1.25	44.68	PK	28.3	-40.2	0	32.78	-	-	74	-41.22	-	-	0-360	200	V
3	* 7.346	43.75	PK	35.8	-30.5	0	49.05	-	-	74	-24.95	-	-	0-360	100	H
5	* 11.02	32.49	PK	38.2	-27.2	0	43.49	-	-	74	-30.51	-	-	0-360	200	H
4	* 7.347	42.35	PK	35.8	-30.5	0	47.65	-	-	74	-26.35	-	-	0-360	200	V
6	* 11.02	31.54	PK	38.2	-27.2	0	42.54	-	-	74	-31.46	-	-	0-360	100	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak Detector

Radiated Emissions

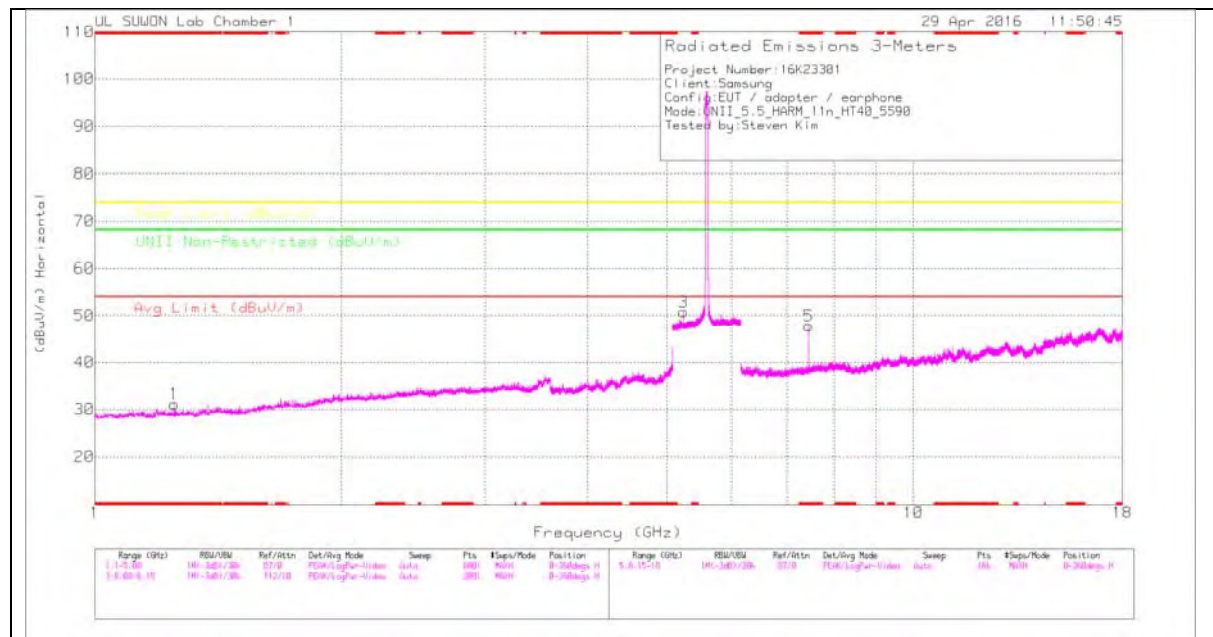
Frequency (GHz)	Meter Reading (dBuV)	Det	3117/001687 17_150619	Path_5	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 7.347	49.23	PK-U	35.8	-30.5	0	54.53	-	-	74	-19.47	-	-	173	106	H
* 7.347	45.11	ADR	35.8	-30.5	.59	51.0	54	-3.0	-	-	-	-	173	106	H
* 7.346	47.5	PK-U	35.8	-30.5	0	52.8	-	-	74	-21.2	-	-	154	200	V
* 7.347	42.6	ADR	35.8	-30.5	.59	48.49	54	-5.51	-	-	-	-	154	200	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

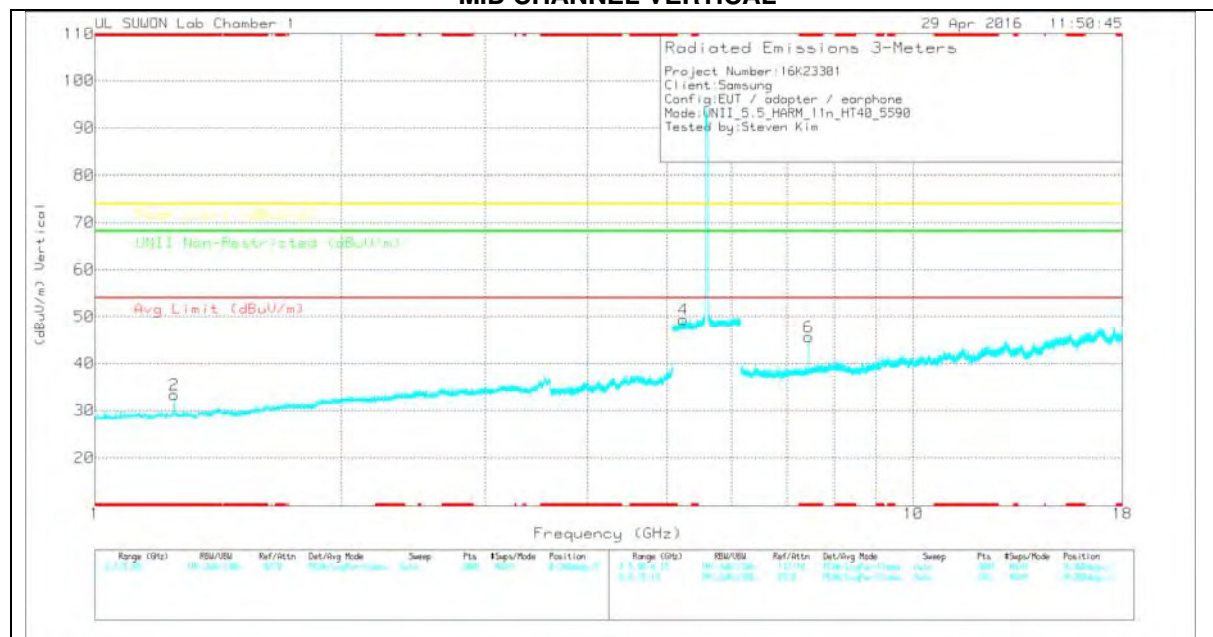
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

MID CHANNEL HORIZONTAL



MID CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(0016 8717)_150 619	Path_4	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.25	43.11	Avg	28.3	-40.2	0	31.21	-	-	74	-42.79	-	-	0-360	200	H
2	* 1.25	45.24	Avg	28.3	-40.2	0	33.34	-	-	74	-40.66	-	-	0-360	200	V
3	5.238	40.06	Avg	34.4	-23.7	0	50.76	-	-	-	-	68.2	-17.44	0-360	200	H
4	5.238	38.73	Avg	34.4	-23.7	0	49.43	-	-	-	-	68.2	-18.77	0-360	200	V
5	* 7.453	42.55	Avg	35.8	-30.5	0	47.85	-	-	74	-26.15	-	-	0-360	100	H
6	* 7.453	40.35	Avg	35.8	-30.5	0	45.65	-	-	74	-28.35	-	-	0-360	200	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Avg - Video bandwidth < Resolution bandwidth

Radiated Emissions

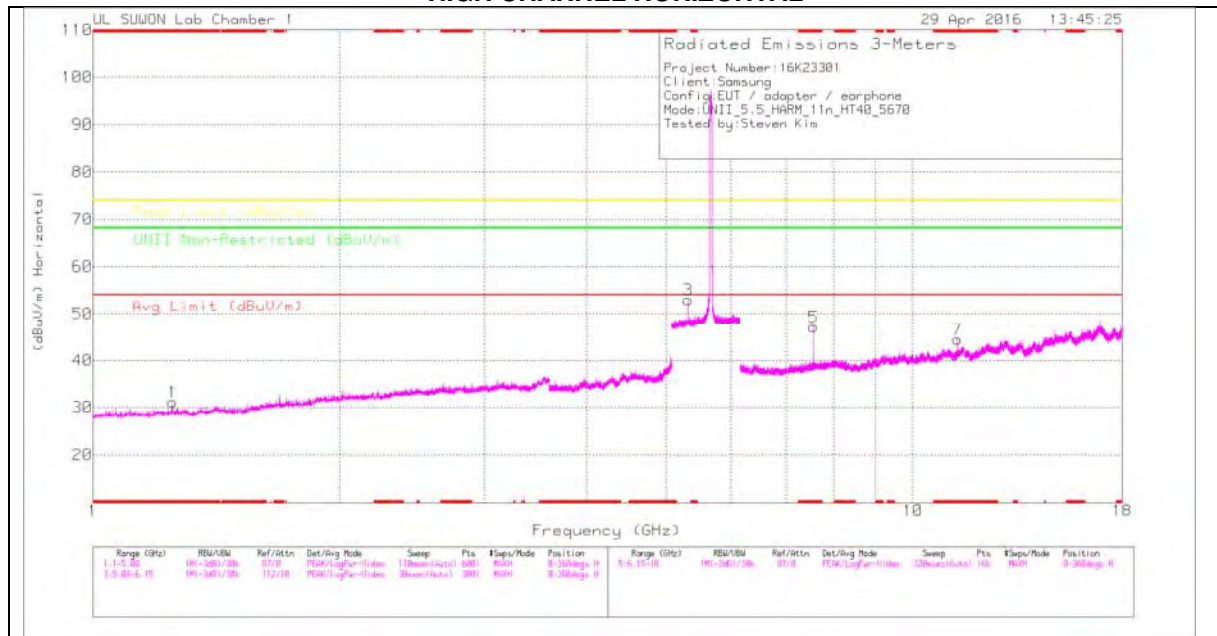
Frequency (GHz)	Meter Reading (dBuV)	Det	3117(0016871 7)_150619	Path_2	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
5.238	49.47	PK-U	34.4	-23.7	0	60.17	-	-	-	-	68.2	-8.03	114	202	H
5.238	48.33	PK-U	34.4	-23.7	0	59.03	-	-	-	-	68.2	-9.17	358	379	V
* 7.453	37.7	ADR	35.8	-30.5	.59	43.59	54	-10.41	-	-	-	-	154	208	V
* 7.453	43.35	ADR	35.8	-30.5	.59	49.24	54	-4.76	-	-	-	-	173	102	H
* 7.453	46.71	PK-U	35.8	-30.5	0	52.01	-	-	74	-21.99	-	-	154	208	V
* 7.453	48.3	PK-U	35.8	-30.5	0	53.6	-	-	74	-20.4	-	-	173	102	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

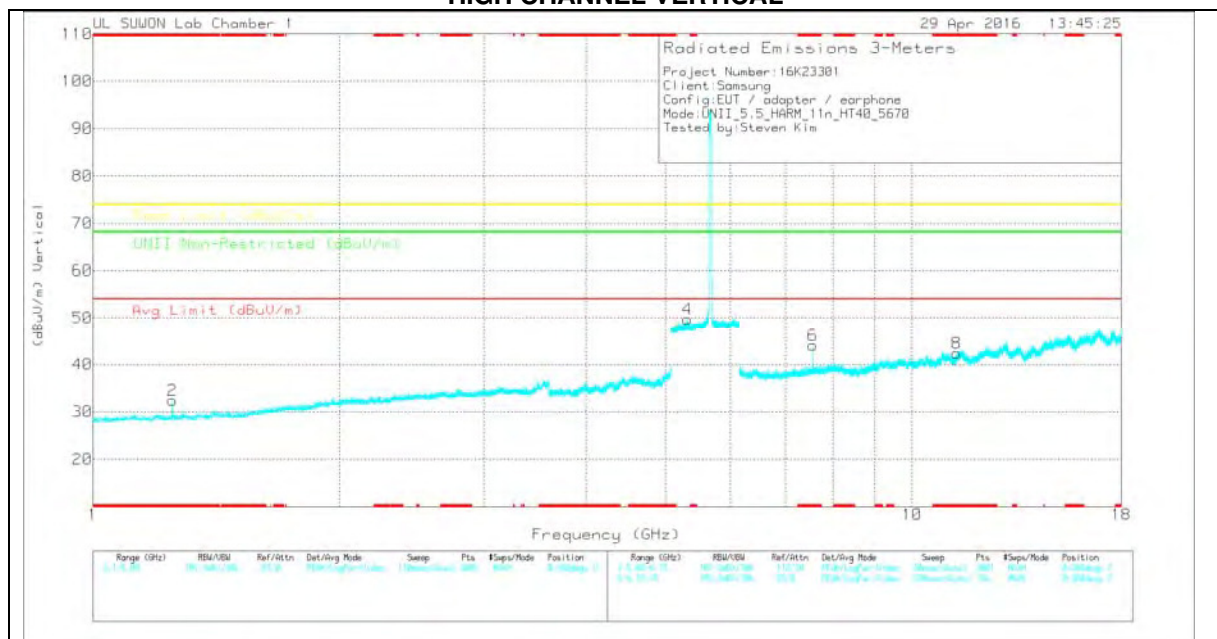
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

HIGH CHANNEL HORIZONTAL



HIGH CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

HIGH CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(0016 8717)_150 619	Path_4	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.25	43.06	PK	28.3	-40.2	0	31.16	-	-	74	-42.84	-	-	0-360	200	H
2	* 1.25	44.3	PK	28.3	-40.2	0	32.4	-	-	74	-41.6	-	-	0-360	200	V
3	5.318	41.76	PK	34.5	-23.3	0	52.96	-	-	-	-	68.2	-15.24	0-360	100	H
4	5.318	38.58	PK	34.5	-23.3	0	49.78	-	-	-	-	68.2	-18.42	0-360	100	V
5	* 7.559	41.34	PK	35.9	-30	0	47.24	-	-	74	-26.76	-	-	0-360	100	H
7	* 11.34	32.81	PK	38.5	-26.8	0	44.51	-	-	74	-29.49	-	-	0-360	100	H
6	* 7.559	38.18	PK	35.9	-30	0	44.08	-	-	74	-29.92	-	-	0-360	200	V
8	* 11.34	30.67	PK	38.5	-26.8	0	42.37	-	-	74	-31.63	-	-	0-360	100	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak Detector

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	3117(0016871 7)_150619	Path_2	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
5.318	49.35	PK-U	34.5	-23.3	0	60.55	-	-	-	-	68.2	-7.65	52	141	H
5.316	47.86	PK-U	34.5	-23.4	0	58.96	-	-	-	-	68.2	-9.24	2	126	V
* 11.34	34.12	ADR	38.5	-26.8	.59	46.41	54	-7.59	-	-	-	-	40	156	H
* 11.34	30	ADR	38.5	-26.8	.59	42.29	54	-11.71	-	-	-	-	38	162	V
* 7.56	38.74	ADR	35.9	-30	.59	45.23	54	-8.77	-	-	-	-	163	244	V
* 7.56	40.99	ADR	35.9	-30	.59	47.48	54	-6.52	-	-	-	-	176	110	H
* 11.34	42.12	PK-U	38.5	-26.8	0	53.82	-	-	74	-20.18	-	-	40	156	H
* 11.34	41.06	PK-U	38.5	-26.8	0	52.76	-	-	74	-21.24	-	-	38	162	V
* 7.56	45.68	PK-U	35.9	-30	0	51.58	-	-	74	-22.42	-	-	163	244	V
* 7.56	47.6	PK-U	35.9	-30	0	53.5	-	-	74	-20.5	-	-	176	110	H

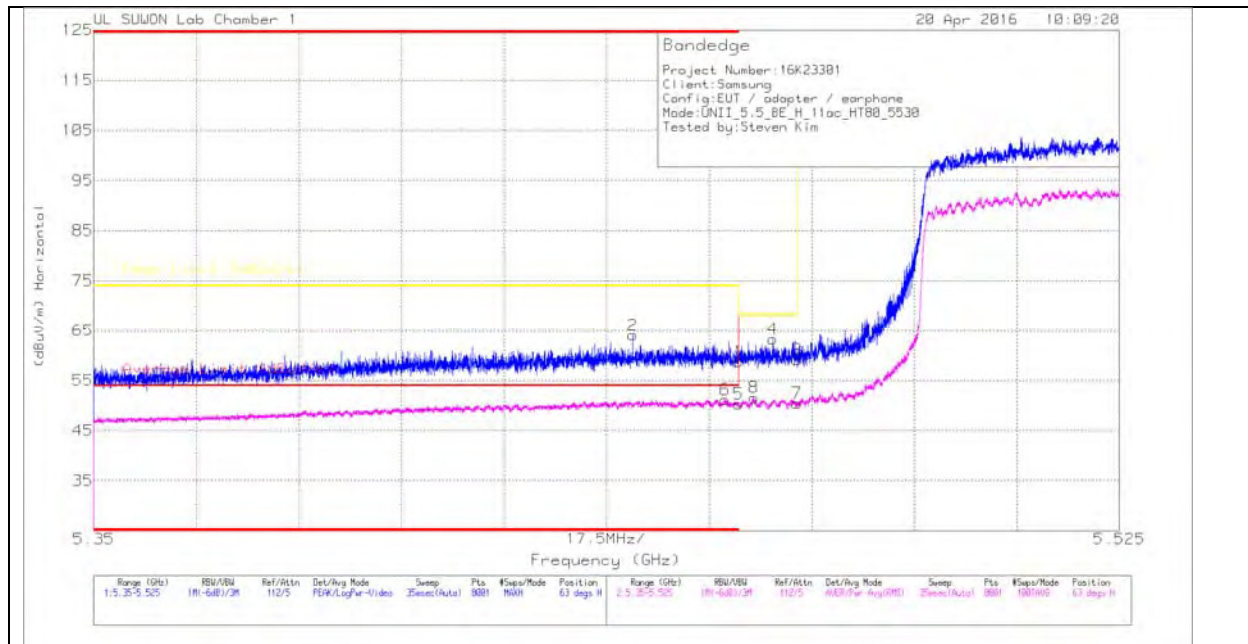
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

11.3.4. TX ABOVE 1GHz 802.11ac HT80 2TX CDD MODE IN THE 5.5GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Trace Markers

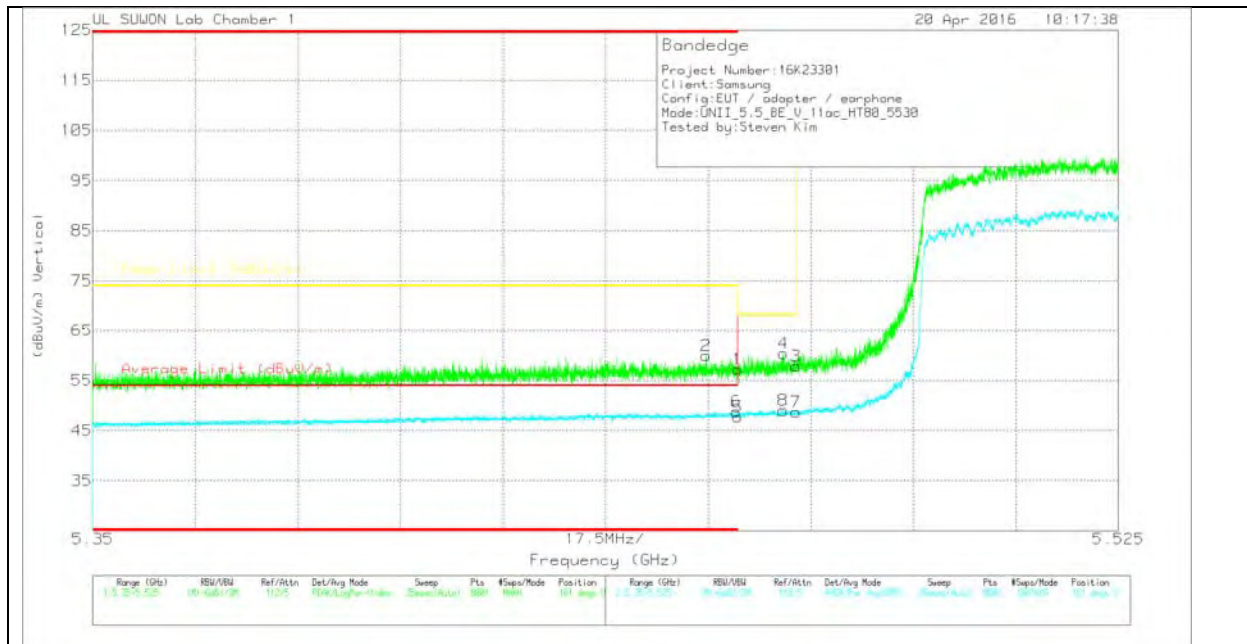
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(001687 17_150619)	Path_2	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.46	47.29	Pk	34.6	-23.2	0	58.69	-	-	74	-15.31	63	102	H
2	* 5.442	52.68	Pk	34.6	-23.2	0	64.08	-	-	74	-9.92	63	102	H
3	5.47	47.62	Pk	34.6	-23.1	0	59.12	-	-	68.2	-9.08	63	102	H
4	5.466	51.79	Pk	34.6	-23.1	0	63.29	-	-	68.2	-4.91	63	102	H
5	* 5.46	37.8	RMS	34.6	-23.2	1.12	50.32	54	-3.68	-	-	63	102	H
6	* 5.458	38.67	RMS	34.6	-23.2	1.12	51.19	54	-2.81	-	-	63	102	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(001687 17)_150619	Path_2	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.46	45.87	Pk	34.6	-23.2	0	57.27	-	-	74	-16.73	161	114	V
2	* 5.455	48.51	Pk	34.6	-23.2	0	59.91	-	-	74	-14.09	161	114	V
3	5.47	46.37	Pk	34.6	-23.1	0	57.87	-	-	68.2	-10.33	161	114	V
4	5.468	48.89	Pk	34.6	-23.1	0	60.39	-	-	68.2	-7.81	161	114	V
5	* 5.46	35.24	RMS	34.6	-23.2	1.12	47.76	54	-6.24	-	-	161	114	V
6	* 5.46	36.25	RMS	34.6	-23.2	1.12	48.77	54	-5.23	-	-	161	114	V

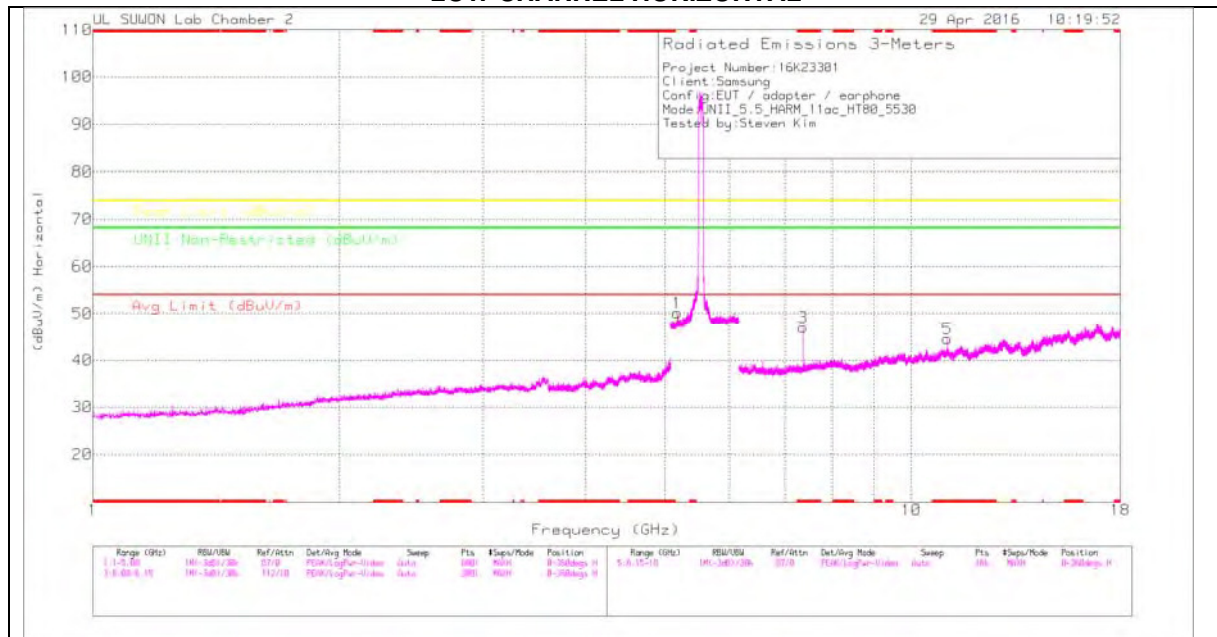
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

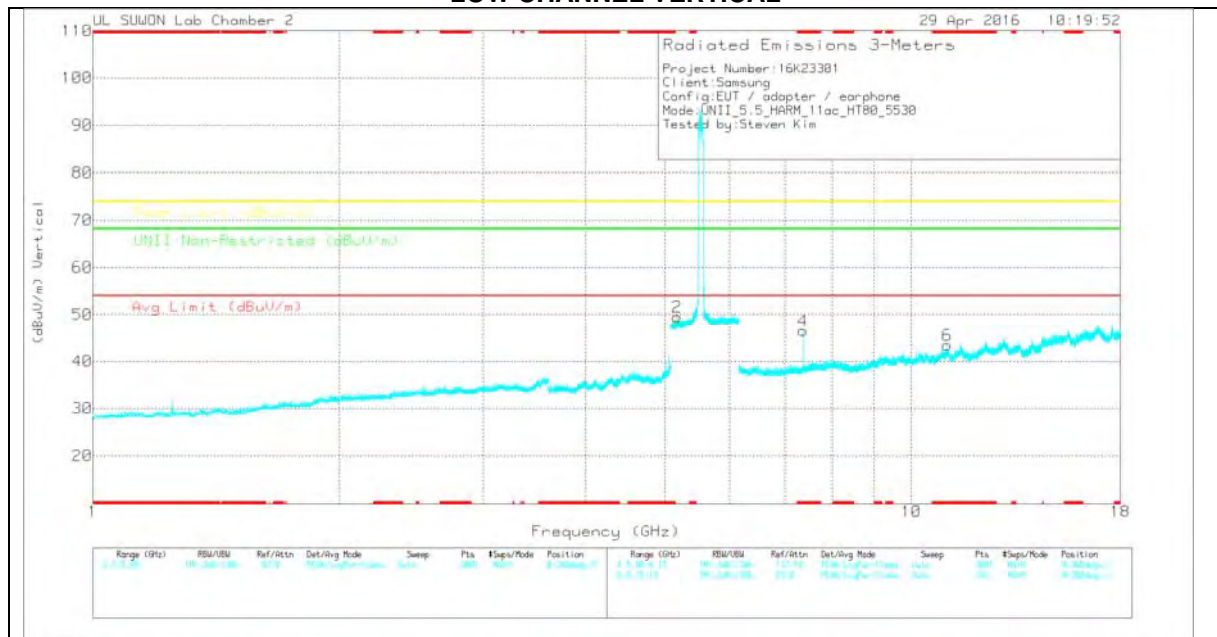
RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



LOW CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117/0016 8717_150 619	Path_2	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.178	39.8	PK	34.3	-23.9	0	50.2	-	-	-	-	68.2	-18	0-360	200	H
2	5.178	39.09	PK	34.3	-23.9	0	49.49	-	-	-	-	68.2	-18.71	0-360	200	V
3	* 7.373	41.7	PK	35.8	-30.4	0	47.1	-	-	74	-26.9	-	-	0-360	100	H
5	* 11.06	33.55	PK	38.2	-27.1	0	44.65	-	-	74	-29.35	-	-	0-360	100	H
4	* 7.373	41.18	PK	35.8	-30.4	0	46.58	-	-	74	-27.42	-	-	0-360	200	V
6	* 11.06	32.36	PK	38.2	-27.1	0	43.46	-	-	74	-30.54	-	-	0-360	200	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak Detector

Radiated Emissions

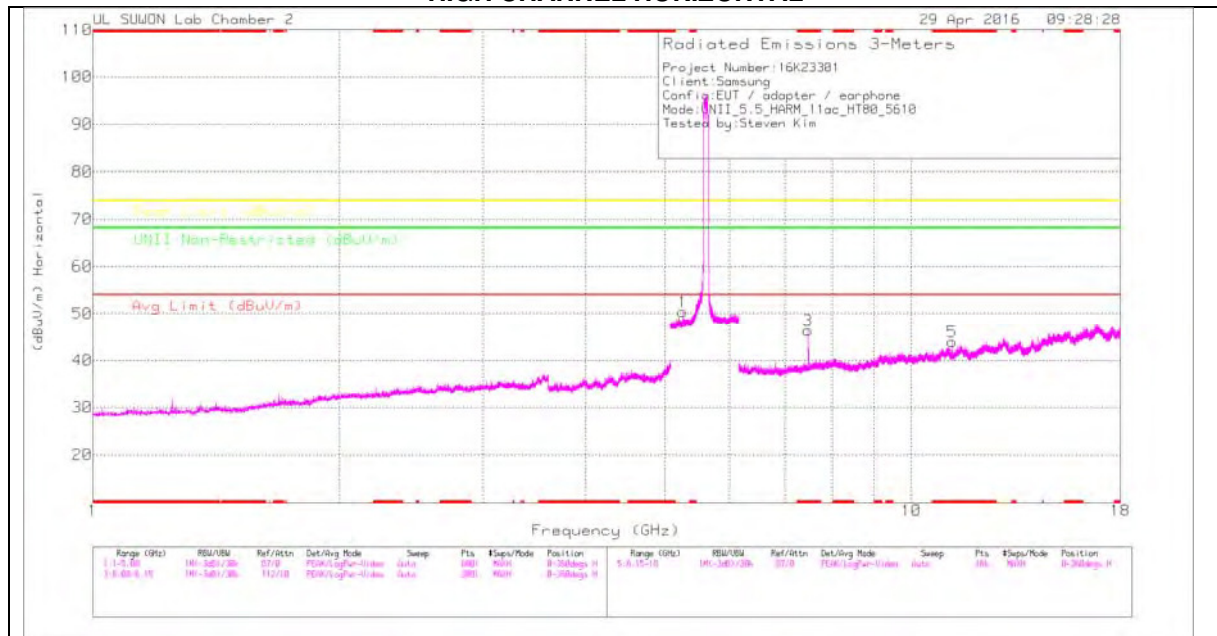
Frequency (GHz)	Meter Reading (dBuV)	Det	3117/0016871 7_150619	Path_2	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
5.178	49.35	PK-U	34.3	-23.9	0	59.75	-	-	-	-	68.2	-8.45	124	206	H
5.178	48.25	PK-U	34.3	-23.9	0	58.65	-	-	-	-	68.2	-9.55	205	382	V
* 7.373	40.72	ADR	35.8	-30.4	1.12	47.24	54	-6.76	-	-	-	-	156	199	V
* 7.373	41.22	ADR	35.8	-30.4	1.12	47.74	54	-6.26	-	-	-	-	173	105	H
* 11.06	29.21	ADR	38.2	-27.1	1.12	41.43	54	-12.57	-	-	-	-	276	308	H
* 11.06	31.79	ADR	38.2	-27.1	1.12	44.01	54	-9.99	-	-	-	-	195	365	V
* 7.373	47.68	PK-U	35.8	-30.4	0	53.08	-	-	74	-20.92	-	-	156	199	V
* 7.373	48.41	PK-U	35.8	-30.4	0	53.81	-	-	74	-20.19	-	-	173	105	H
* 11.059	41.46	PK-U	38.2	-27.1	0	52.56	-	-	74	-21.44	-	-	276	308	H
* 11.06	42.27	PK-U	38.2	-27.1	0	53.37	-	-	74	-20.63	-	-	195	365	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

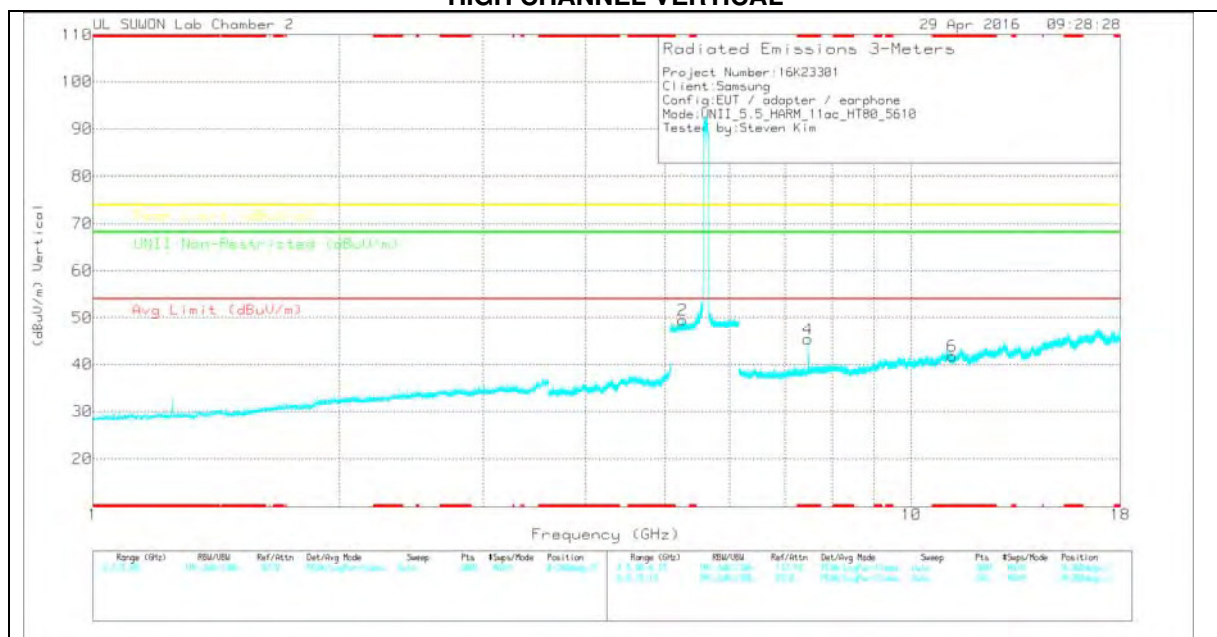
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

HIGH CHANNEL HORIZONTAL



HIGH CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

HIGH CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(00168717)_150619	Path_2	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.258	39.67	PK	34.4	-23.6	0	50.47	-	-	-	-	68.2	-17.73	0-360	200	H
2	5.258	38.73	PK	34.4	-23.6	0	49.53	-	-	-	-	68.2	-18.67	0-360	100	V
3	* 7.479	41.03	PK	35.8	-30.4	0	46.43	-	-	74	-27.57	-	-	0-360	100	H
5	* 11.22	33.13	PK	38.4	-27.6	0	43.93	-	-	74	-30.07	-	-	0-360	100	H
4	* 7.479	40.02	PK	35.8	-30.4	0	45.42	-	-	74	-28.58	-	-	0-360	200	V
6	* 11.22	30.91	PK	38.4	-27.6	0	41.71	-	-	74	-32.29	-	-	0-360	200	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak Detector

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	3117(00168717)_150619	Path_2	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
5.258	48.62	PK-U	34.4	-23.6	0	59.42	-	-	-	-	68.2	-8.78	108	204	H
5.258	48.42	PK-U	34.4	-23.6	0	59.22	-	-	-	-	68.2	-8.98	197	376	V
* 11.22	33.08	ADR	38.4	-27.6	1.12	45	54	-9	-	-	-	-	166	107	H
* 11.06	31.79	ADR	38.2	-27.1	1.12	44.01	54	-9.99	-	-	-	-	195	365	V
* 7.48	37.33	ADR	35.8	-30.3	1.12	43.95	54	-10.05	-	-	-	-	159	210	V
* 7.48	36.15	ADR	35.8	-30.3	1.12	42.77	54	-11.23	-	-	-	-	171	101	H
* 11.22	43.72	PK-U	38.4	-27.6	0	54.52	-	-	74	-19.48	-	-	166	107	H
* 11.06	42.27	PK-U	38.2	-27.1	0	53.37	-	-	74	-20.63	-	-	195	365	V
* 7.48	47.23	PK-U	35.8	-30.3	0	52.73	-	-	74	-21.27	-	-	159	210	V
* 7.48	47.68	PK-U	35.8	-30.3	0	53.18	-	-	74	-20.82	-	-	171	101	H

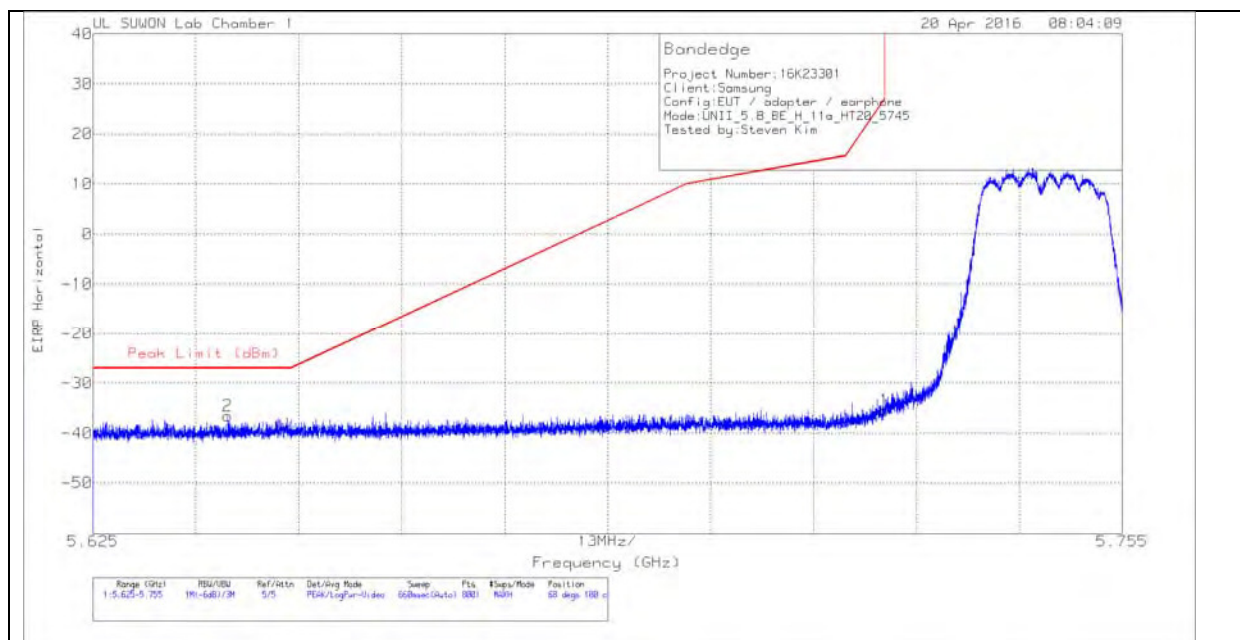
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

11.4. 5.8 GHz

11.4.1. TX ABOVE 1GHz 802.11a 2TX CDD MODE IN THE 5.8GHz BAND HARMONICS AND SPURIOUS EMISSIONS HORIZONTAL PEAK PLOT



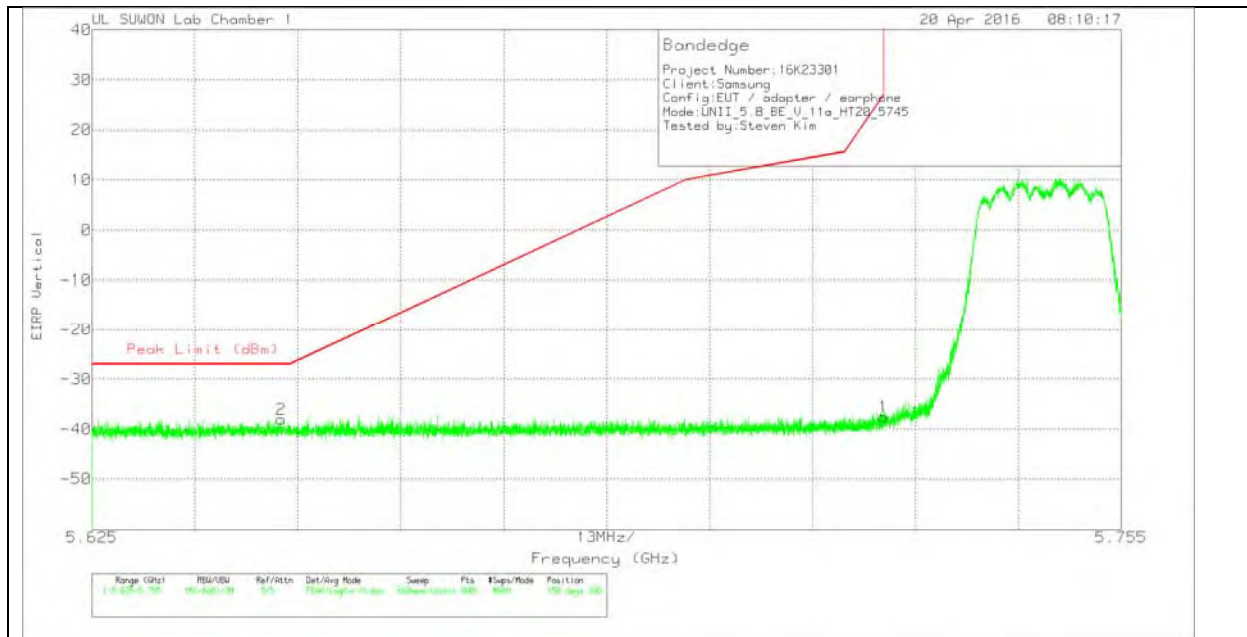
HORIZONTAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	3117[0016 8717]_150 619	Path_2	Conversion Factor (dB)	DC Corr (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.725	-59.2	Pk	34.8	-22.8	11.8	0	-35.4	26.97	-62.37	68	100	H
2	5.642	-60.1	Pk	34.8	-23	11.8	0	-36.5	-27	-9.5	68	100	H

Pk - Peak detector

VERTICAL PEAK PLOT



VERTICAL DATA

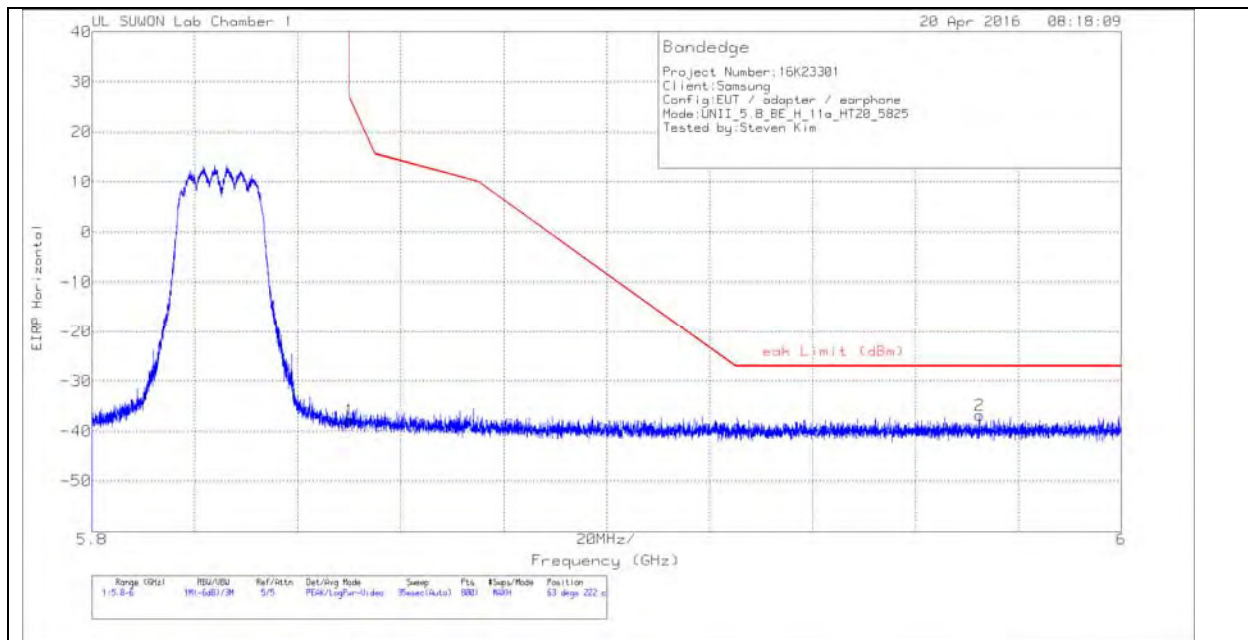
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	3117(0016 8717)_150 619	Path_2	Conversion Factor (dB)	DC Corr (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.725	-61.31	Pk	34.8	-22.8	11.8	0	-37.51	26.97	-64.48	150	298	V
2	5.649	-61.62	Pk	34.8	-23	11.8	0	-38.02	-27	-11.02	150	298	V

Pk - Peak detector

AUTHORIZED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK PLOT



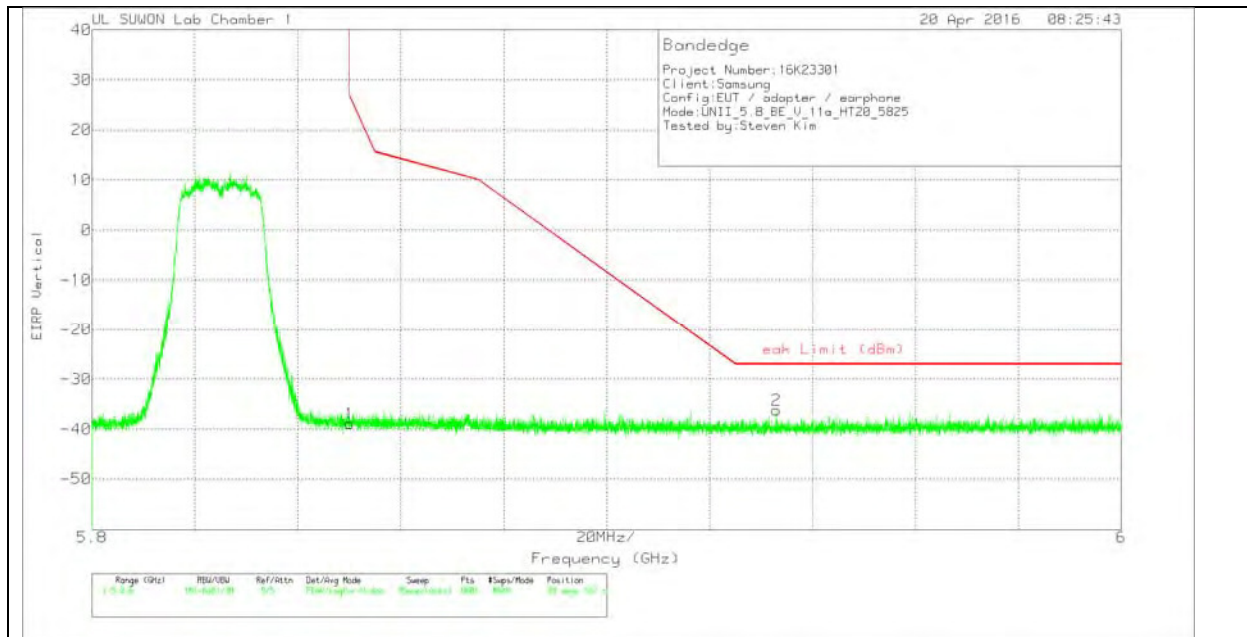
HORIZONTAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	3117(0016 8717)_150 619	Path_2	Conversion Factor (dB)	DC Corr (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.85	-62.29	Pk	34.9	-22.2	11.8	0	-37.79	26.94	-64.73	63	222	H
2	5.972	-61.18	Pk	34.9	-22.3	11.8	0	-36.78	-27	-9.78	63	222	H

Pk - Peak detector

VERTICAL PEAK PLOT



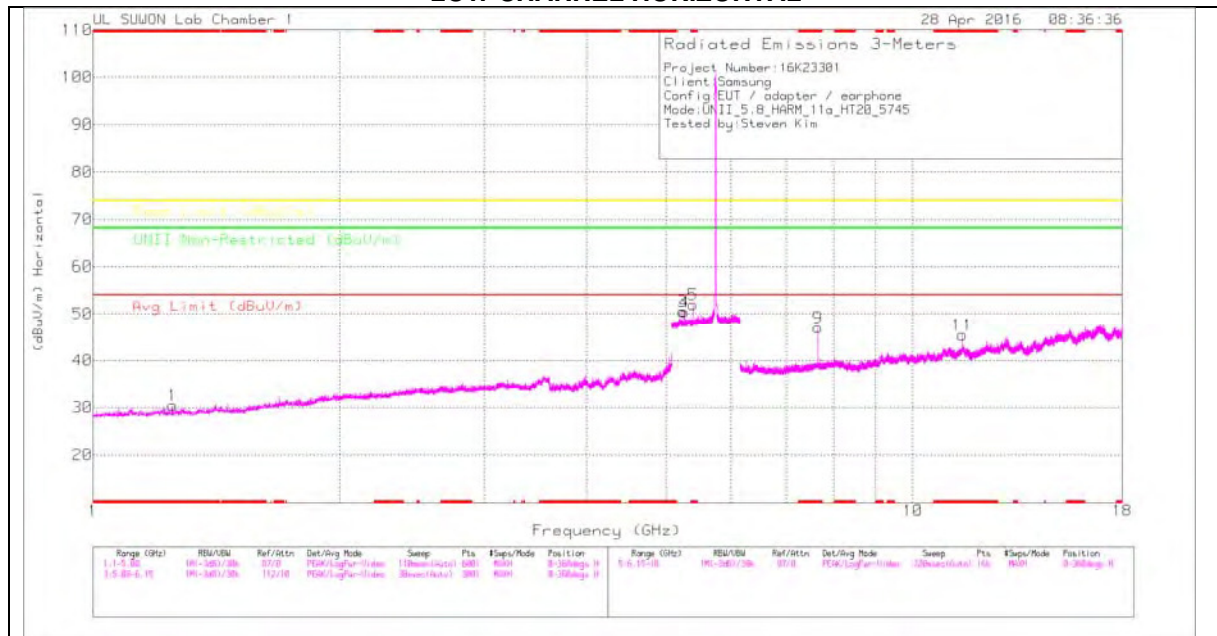
VERTICAL DATA

Trace Markers

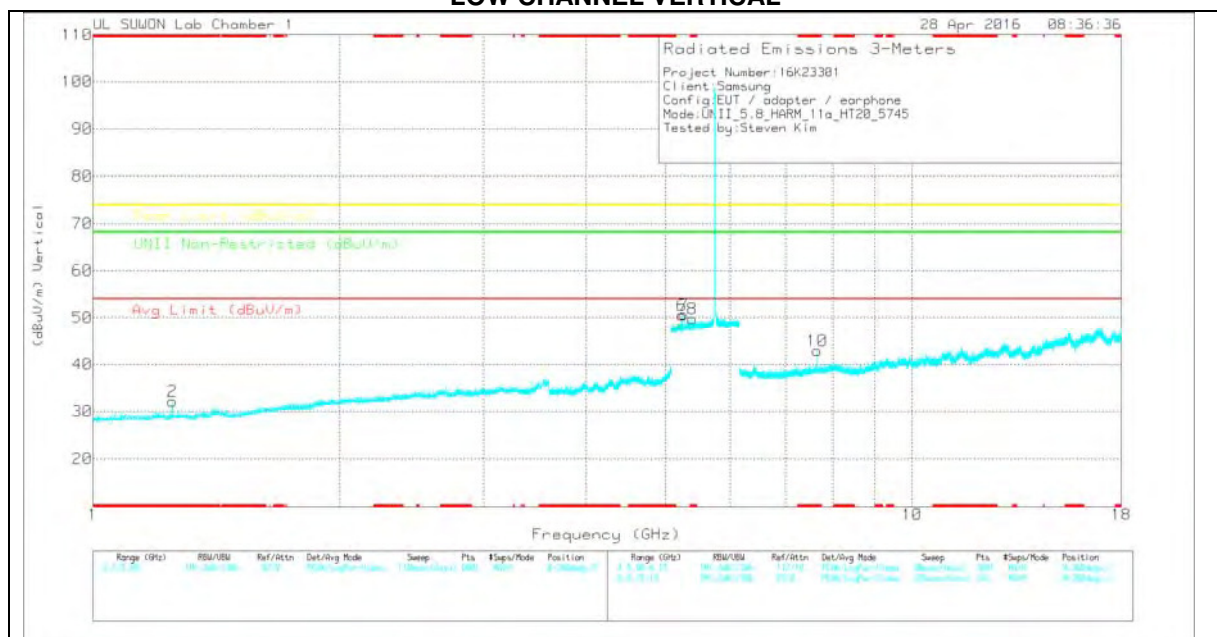
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	3117(0016 8717)_150 619	Path_2	Conversion Factor (dB)	DC Corr (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.85	-63.39	Pk	34.9	-22.2	11.8	0	-38.89	26.94	-65.83	38	127	V
2	5.933	-60.44	Pk	34.9	-22.4	11.8	0	-36.14	-27	-9.14	38	127	V

Pk - Peak detector

LOW CHANNEL HORIZONTAL



LOW CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(0016 8717)_150 619	Path_4	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.25	42.43	PK	28.3	-40.2	0	30.53	-	-	74	-43.47	-	-	0-360	200	H
2	* 1.25	44.11	PK	28.3	-40.2	0	32.21	-	-	74	-41.79	-	-	0-360	200	V
3	5.233	39.99	PK	34.3	-23.7	0	50.59	-	-	-	-	68.2	-17.61	0-360	100	H
4	5.265	39.67	PK	34.4	-23.6	0	50.47	-	-	-	-	68.2	-17.73	0-360	100	H
5	* 5.393	40.8	PK	34.5	-23.3	0	52	-	-	74	-22	-	-	0-360	200	H
6	5.233	39.93	PK	34.3	-23.7	0	50.53	-	-	-	-	68.2	-17.67	0-360	100	V
7	5.265	39.93	PK	34.4	-23.6	0	50.73	-	-	-	-	68.2	-17.47	0-360	100	V
8	* 5.393	38.56	PK	34.5	-23.3	0	49.76	-	-	74	-24.24	-	-	0-360	200	V
9	* 7.66	41.33	PK	36	-30.3	0	47.03	-	-	74	-26.97	-	-	0-360	100	H
11	* 11.49	33.84	PK	38.6	-27	0	45.44	-	-	74	-28.56	-	-	0-360	100	H
10	* 7.659	37.19	PK	36	-30.3	0	42.89	-	-	74	-31.11	-	-	0-360	100	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak Detector

Radiated Emissions

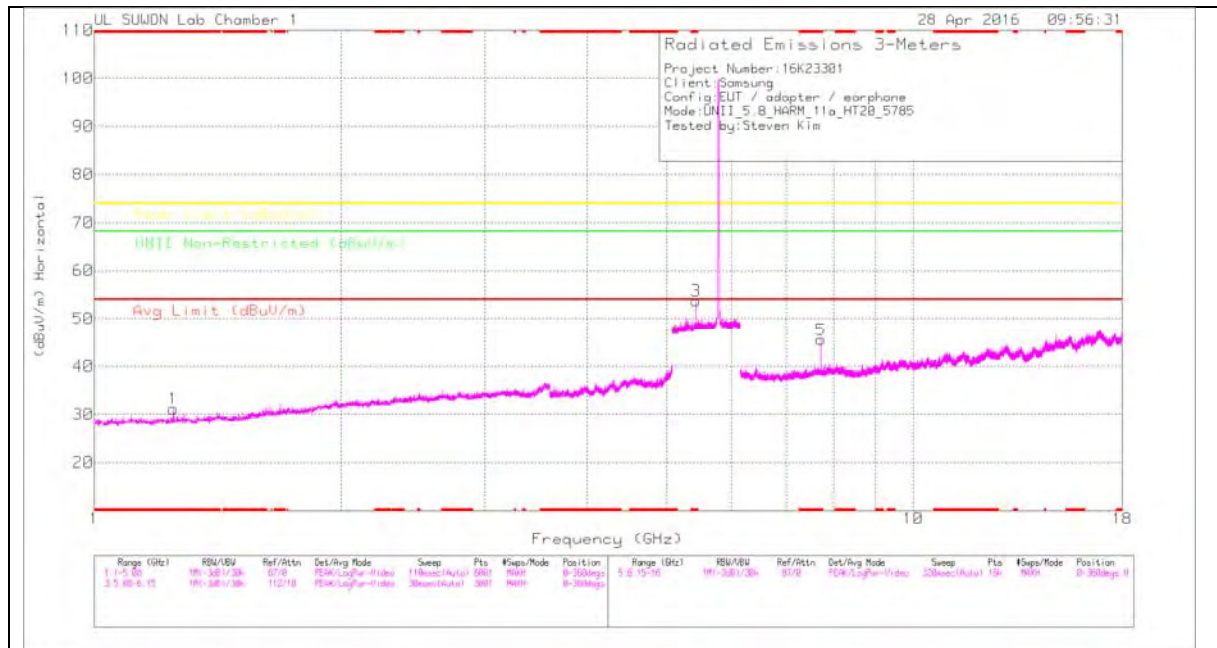
Frequency (GHz)	Meter Reading (dBuV)	Det	3117(001687 17)_150619	Path_2	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
5.233	50.77	PK-U	34.3	-23.7	0	61.37	-	-	-	-	68.2	-6.83	59	169	H
5.266	49.92	PK-U	34.4	-23.6	0	60.72	-	-	-	-	68.2	-7.48	59	169	H
* 5.391	49.2	PK-U	34.5	-23.3	0	60.4	-	-	74	-13.6	-	-	59	169	H
* 5.393	36.63	ADR	34.5	-23.3	.31	48.14	54	-5.86	-	-	-	-	59	169	H
5.233	50.07	PK-U	34.3	-23.7	0	60.67	-	-	-	-	68.2	-7.53	171	325	V
5.266	48.61	PK-U	34.4	-23.6	0	59.41	-	-	-	-	68.2	-8.79	171	325	V
* 5.393	48.29	PK-U	34.5	-23.3	0	59.49	-	-	74	-14.51	-	-	171	325	V
* 5.393	36.94	ADR	34.5	-23.3	.31	48.45	54	-5.55	-	-	-	-	171	325	V
* 7.66	37.53	ADR	36	-30.3	.31	43.54	54	-10.46	-	-	-	-	200	110	V
* 7.66	40.29	ADR	36	-30.3	.31	46.3	54	-7.7	-	-	-	-	179	107	H
* 11.49	31.5	ADR	38.6	-27	.31	43.41	54	-10.59	-	-	-	-	34	193	H
* 7.66	47.3	PK-U	36	-30.3	0	53	-	-	74	-21	-	-	200	110	V
* 7.66	47.23	PK-U	36	-30.3	0	52.93	-	-	74	-21.07	-	-	179	107	H
* 11.49	42.65	PK-U	38.6	-27	0	54.25	-	-	74	-19.75	-	-	34	193	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

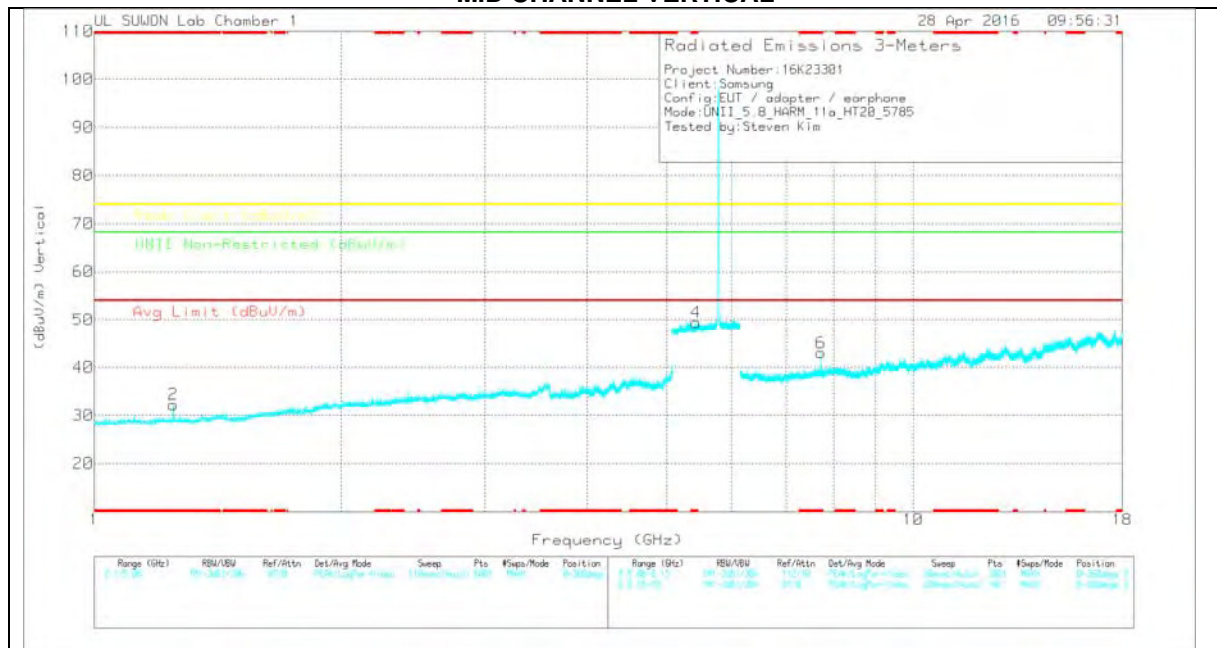
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

MID CHANNEL HORIZONTAL



MID CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117/0016 8717_150 619	Path_4	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.25	43.06	PK	28.3	-40.2	0	31.16	-	-	74	-42.84	-	-	0-360	200	H
2	* 1.25	44.18	PK	28.3	-40.2	0	32.28	-	-	74	-41.72	-	-	0-360	200	V
3	* 5.433	42.34	PK	34.6	-23.2	0	53.74	-	-	74	-20.26	-	-	0-360	100	H
4	* 5.433	38.07	PK	34.6	-23.2	0	49.47	-	-	74	-24.53	-	-	0-360	100	V
5	* 7.713	39.75	PK	36.1	-30.3	0	45.55	-	-	74	-28.45	-	-	0-360	100	H
6	* 7.713	37.24	PK	36.1	-30.3	0	43.04	-	-	74	-30.96	-	-	0-360	100	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak Detector

Radiated Emissions

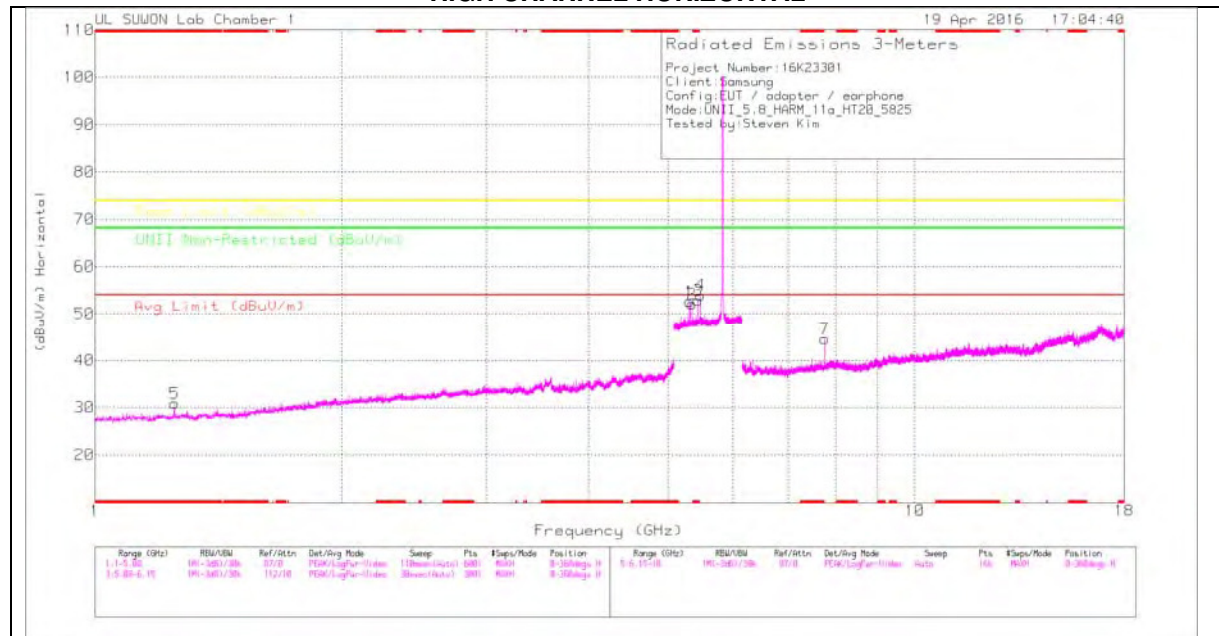
Frequency (GHz)	Meter Reading (dBuV)	Det	3117/001687 17_150619	Path_2	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 5.433	50.45	PK-U	34.6	-23.2	0	61.85	-	-	74	-12.15	-	-	61	207	H
* 5.433	38.69	ADR	34.6	-23.2	.31	50.4	54	-3.6	-	-	-	-	61	207	H
* 7.713	38.8	ADR	36.1	-30.3	.31	44.91	54	-9.09	-	-	-	-	164	313	H
* 7.713	37.47	ADR	36.1	-30.3	.31	43.58	54	-10.42	-	-	-	-	200	104	V
* 7.713	46.6	PK-U	36.1	-30.3	0	52.4	-	-	74	-21.6	-	-	164	313	H
* 7.713	45.72	PK-U	36.1	-30.3	0	51.52	-	-	74	-22.48	-	-	200	104	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

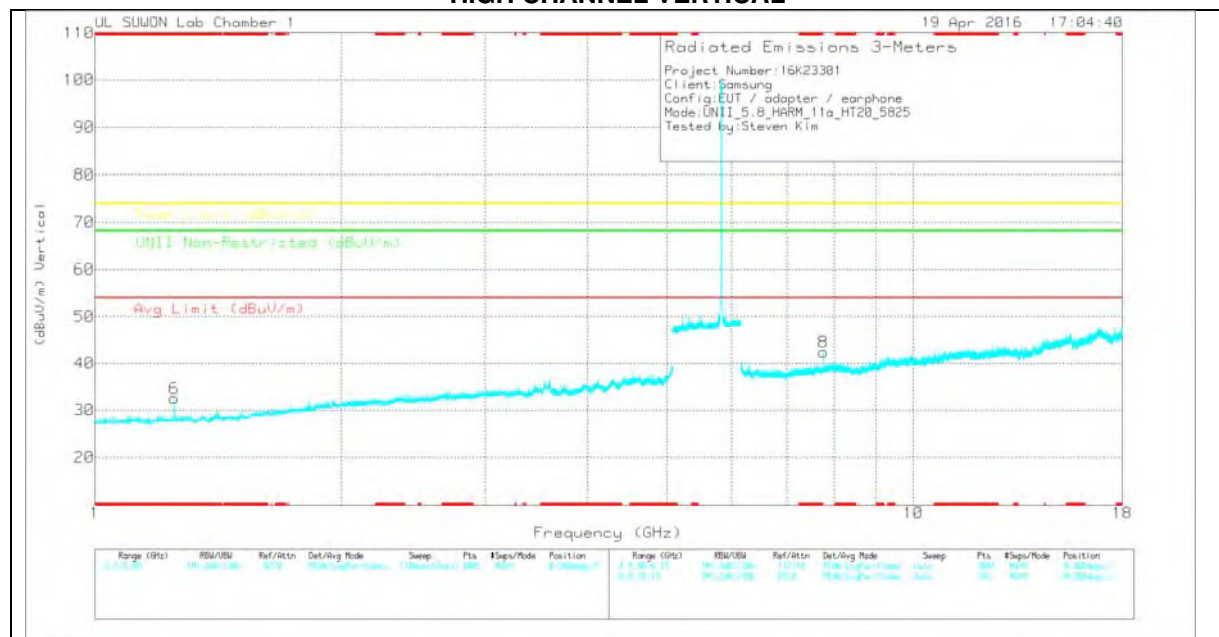
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

HIGH CHANNEL HORIZONTAL



HIGH CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

HIGH CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(0016 8717)_150 619	Path_2	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.313	41.61	PK	34.4	-23.4	0	52.61	-	-	-	-	68.2	-15.59	0-360	100	H
2	5.345	40.92	PK	34.5	-23.3	0	52.12	-	-	-	-	68.2	-16.08	0-360	100	H
3	* 5.441	41.51	PK	34.6	-23.2	0	52.91	-	-	74	-21.09	-	-	0-360	100	H
4	5.473	42.47	PK	34.6	-23.1	0	53.97	-	-	-	-	68.2	-14.23	0-360	100	H
5	* 1.25	42.83	PK	28.3	-40.2	0	30.93	-	-	74	-43.07	-	-	0-360	200	H
6	* 1.25	44.43	PK	28.3	-40.2	0	32.53	-	-	74	-41.47	-	-	0-360	200	V
7	7.767	38.76	PK	36.2	-30.3	0	44.66	-	-	-	-	68.2	-23.54	0-360	100	H
8	7.766	36.54	PK	36.2	-30.3	0	42.44	-	-	-	-	68.2	-25.76	0-360	100	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak Detector

Radiated Emissions

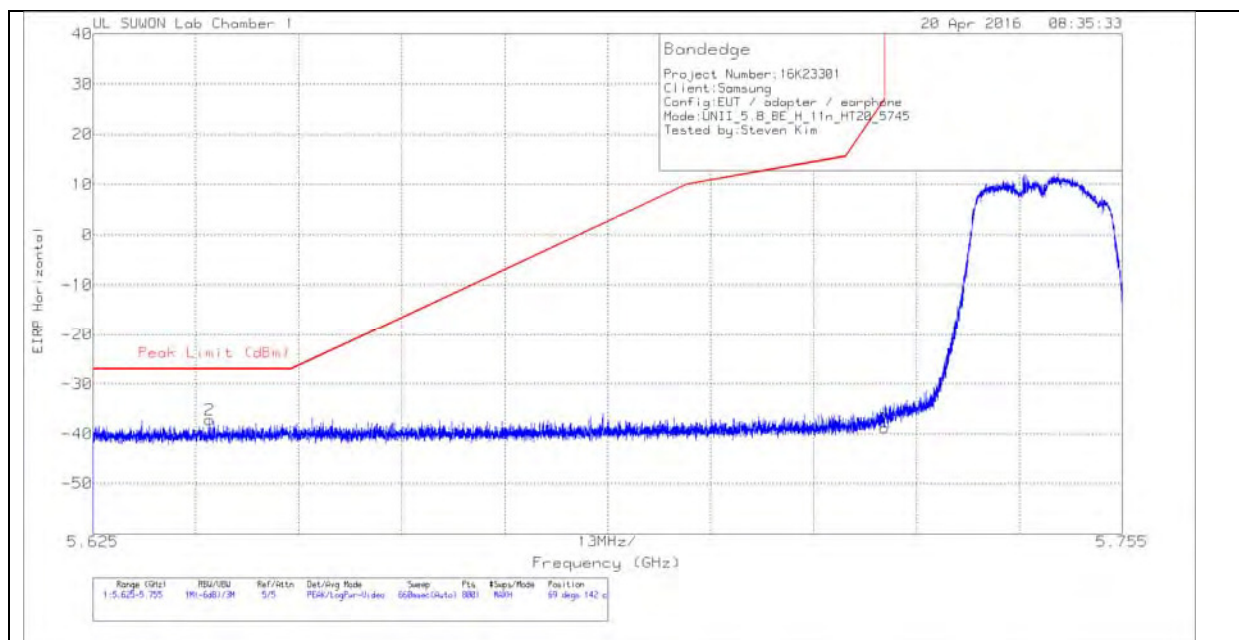
Frequency (GHz)	Meter Reading (dBuV)	Det	3117(001687 17)_150619	Path_2	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
5.473	51.81	PK-U	34.6	-23.1	0	63.31	-	-	-	-	68.2	-4.89	112	107	H
5.313	49.62	PK-U	34.4	-23.4	0	60.62	-	-	-	-	68.2	-7.58	112	107	H
* 5.441	49.69	PK-U	34.6	-23.2	0	61.09	-	-	74	-12.91	-	-	112	107	H
* 5.441	36.4	ADR	34.6	-23.2	.31	48.11	54	-5.89	-	-	-	-	112	107	H
5.345	49.52	PK-U	34.5	-23.3	0	60.72	-	-	-	-	68.2	-7.48	112	107	H
7.767	46.69	PK-U	36.2	-30.3	0	52.59	-	-	-	-	68.2	-15.61	168	107	H
7.767	46.64	PK-U	36.2	-30.3	0	52.54	-	-	-	-	68.2	-15.66	198	110	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

11.4.2. TX ABOVE 1GHz 802.11n HT20 2TX CDD MODE IN THE 5.8GHz BAND HARMONICS AND SPURIOUS EMISSIONS HORIZONTAL PEAK PLOT



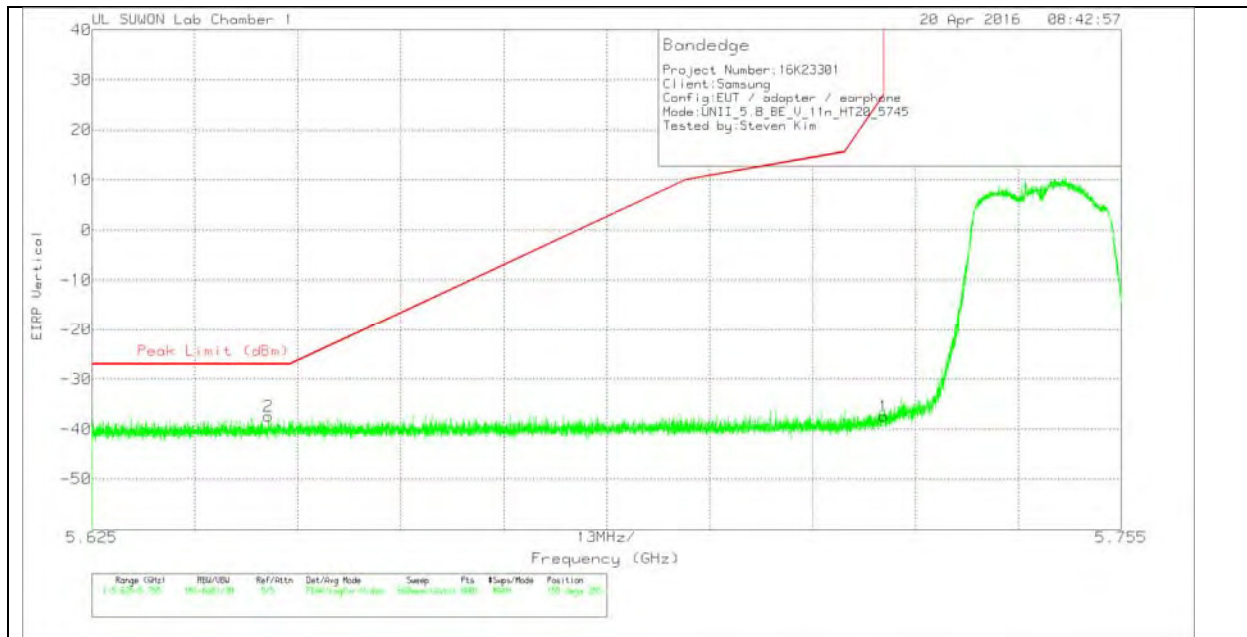
HORIZONTAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	3117(0016 8717)_150 619	Path_2	Conversion Factor (dB)	DC Corr (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.725	-62.54	Pk	34.8	-22.8	11.8	0	-38.74	26.97	-65.71	69	142	H
2	5.64	-60.81	Pk	34.8	-23	11.8	0	-37.21	-27	-10.21	69	142	H

Pk - Peak detector

VERTICAL PEAK PLOT



VERTICAL DATA

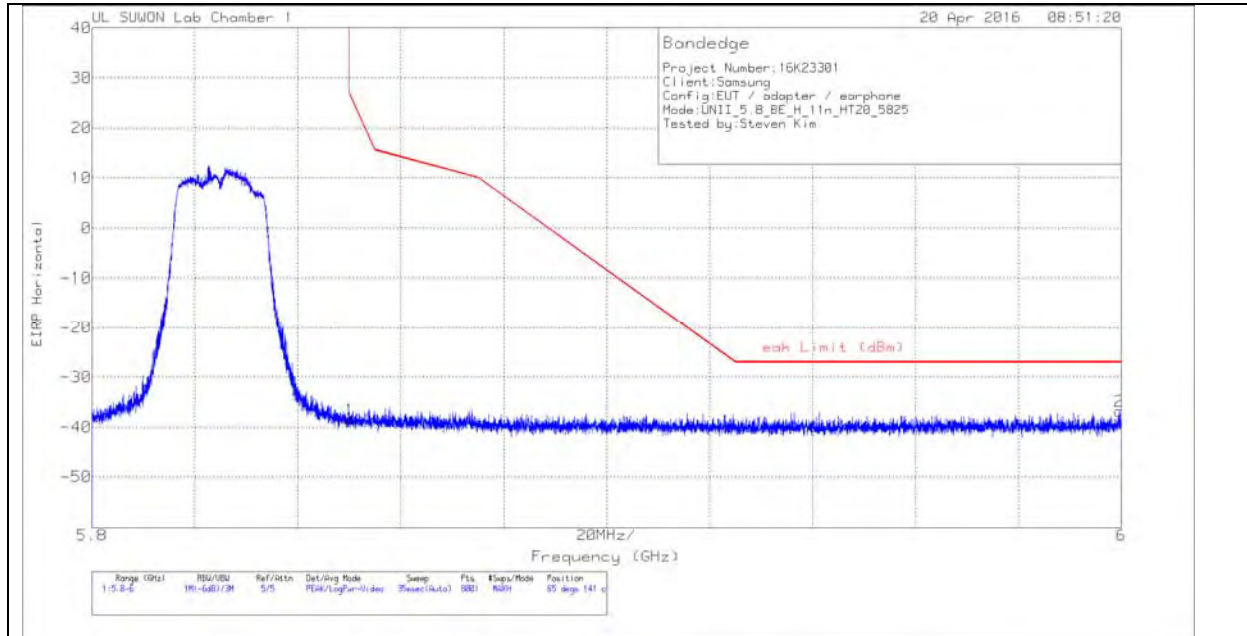
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	3117(0016 8717)_150 619	Path_2	Conversion Factor (dB)	DC Corr (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.725	-61.24	Pk	34.8	-22.8	11.8	0	-37.44	26.97	-64.41	155	255	V
2	5.647	-61	Pk	34.8	-23	11.8	0	-37.4	-27	-10.4	155	255	V

Pk - Peak detector

AUTHORIZED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



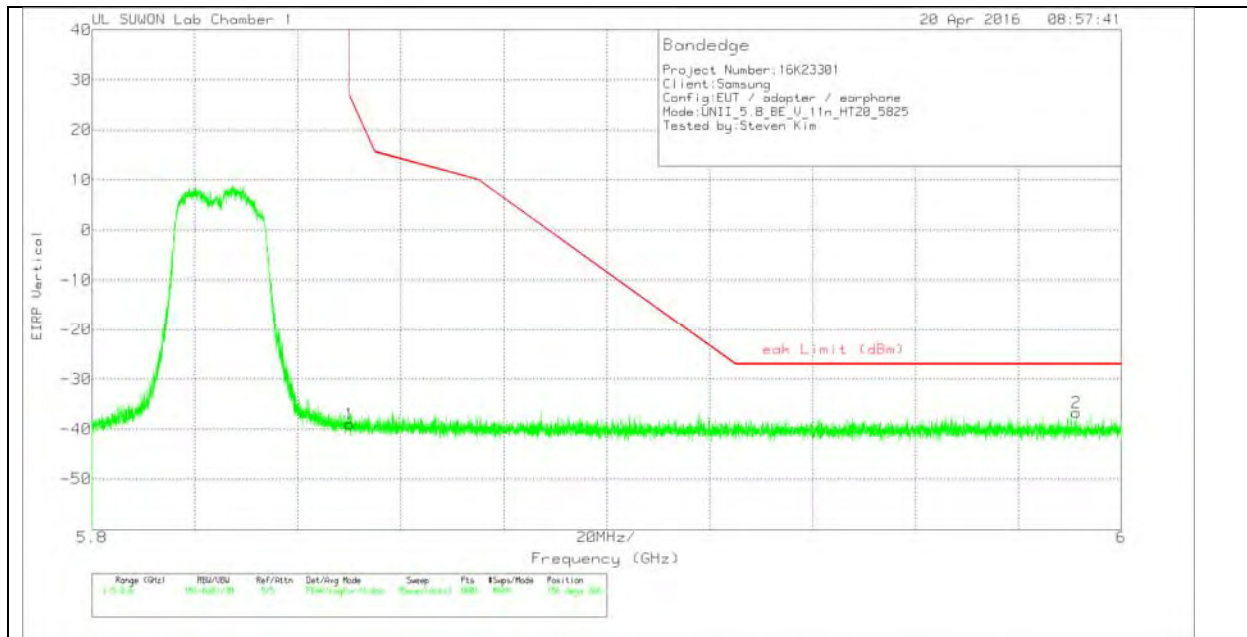
HORIZONTAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	3117(0016 8717)_150 619	Path_2	Conversion Factor (dB)	DC Corr (dB)	Corrected Reading EIRP	peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.85	-63	Pk	34.9	-22.2	11.8	0	-38.5	26.94	-65.44	65	141	H
2	6	-61.34	Pk	34.9	-22.2	11.8	0	-36.84	-27	-9.84	65	141	H

Pk - Peak detector

VERTICAL PEAK PLOT



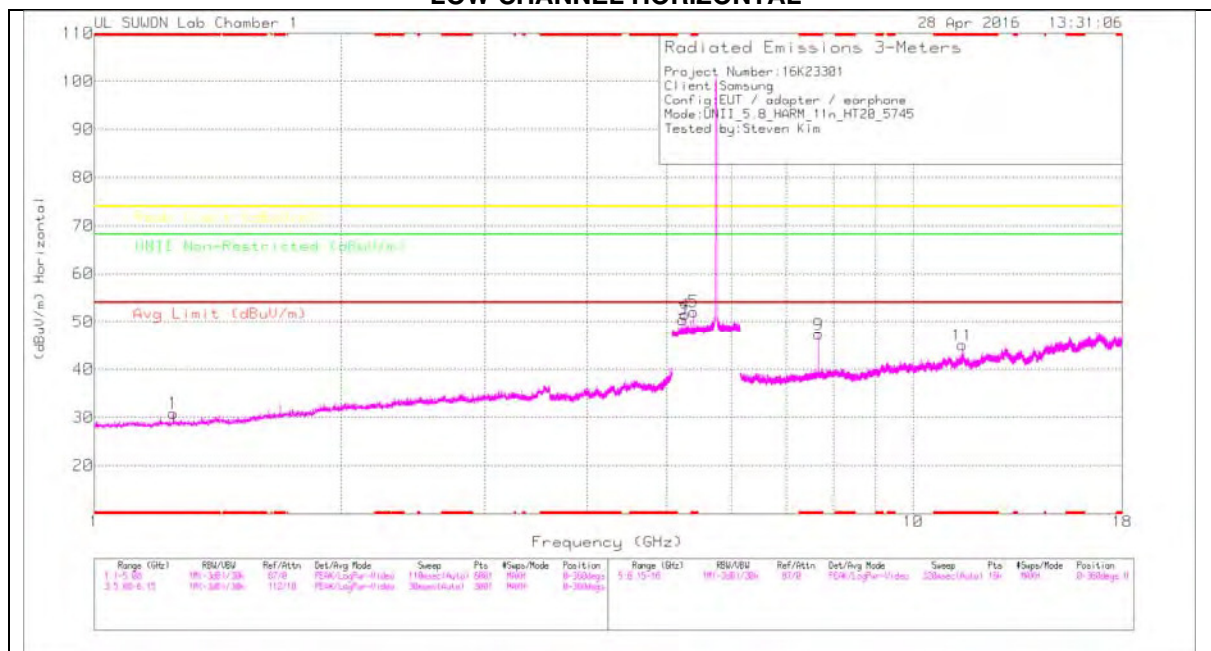
VERTICAL DATA

Trace Markers

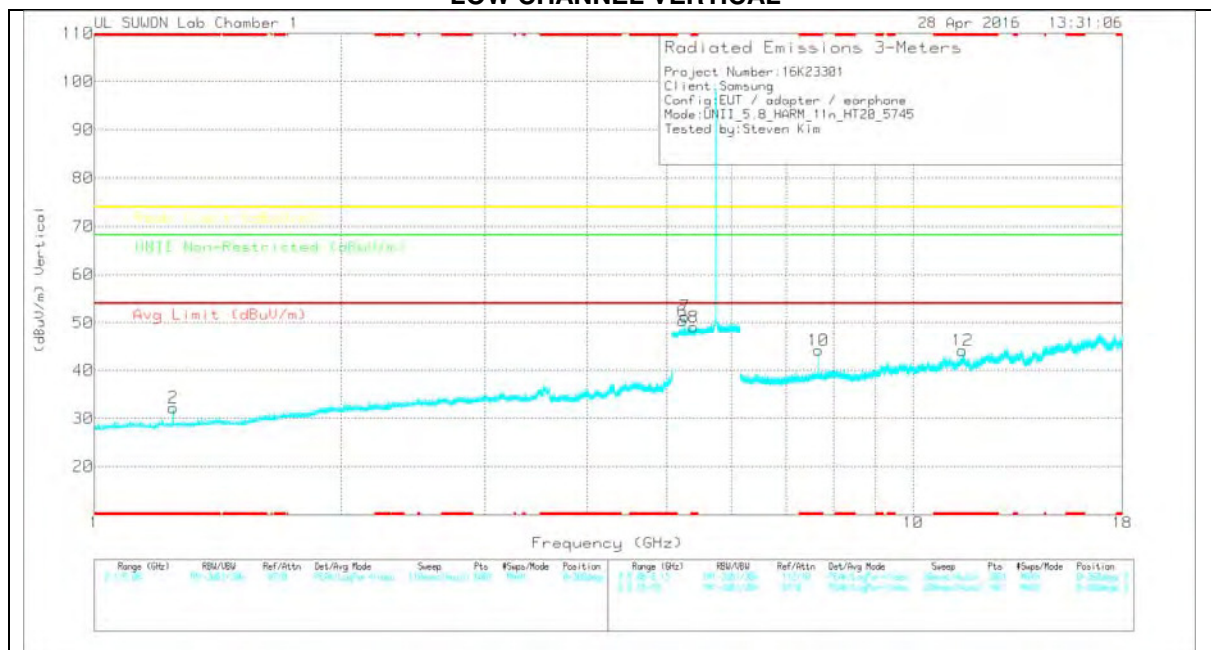
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	3117(0016 8717)_150 619	Path_2	Conversion Factor (dB)	DC Corr (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.85	-63.53	Pk	34.9	-22.2	11.8	0	-39.03	26.94	-65.97	156	266	V
2	5.991	-61.14	Pk	34.9	-22.2	11.8	0	-36.64	-27	-9.64	156	266	V

Pk - Peak detector

LOW CHANNEL HORIZONTAL



LOW CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(0016 8717)_150 619	Path_4	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.25	42.74	PK	28.3	-40.2	0	30.84	-	-	74	-43.16	-	-	0-360	200	H
2	* 1.25	44.15	PK	28.3	-40.2	0	32.25	-	-	74	-41.75	-	-	0-360	200	V
3	5.233	39.87	PK	34.3	-23.7	0	50.47	-	-	-	-	68.2	-17.73	0-360	100	H
4	5.264	40.73	PK	34.4	-23.6	0	51.53	-	-	-	-	68.2	-16.67	0-360	100	H
5	* 5.393	40.92	PK	34.5	-23.3	0	52.12	-	-	74	-21.88	-	-	0-360	100	H
6	5.233	39.78	PK	34.3	-23.7	0	50.38	-	-	-	-	68.2	-17.82	0-360	100	V
7	5.265	40.57	PK	34.4	-23.6	0	51.37	-	-	-	-	68.2	-16.83	0-360	100	V
8	* 5.393	37.93	PK	34.5	-23.3	0	49.13	-	-	74	-24.87	-	-	0-360	200	V
9	* 7.659	41.67	PK	36	-30.3	0	47.37	-	-	74	-26.63	-	-	0-360	100	H
11	* 11.49	33.47	PK	38.6	-27	0	45.07	-	-	74	-28.93	-	-	0-360	100	H
10	* 7.659	38.48	PK	36	-30.3	0	44.18	-	-	74	-29.82	-	-	0-360	200	V
12	* 11.49	32.52	PK	38.6	-27	0	44.12	-	-	74	-29.88	-	-	0-360	100	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak Detector

Radiated Emissions

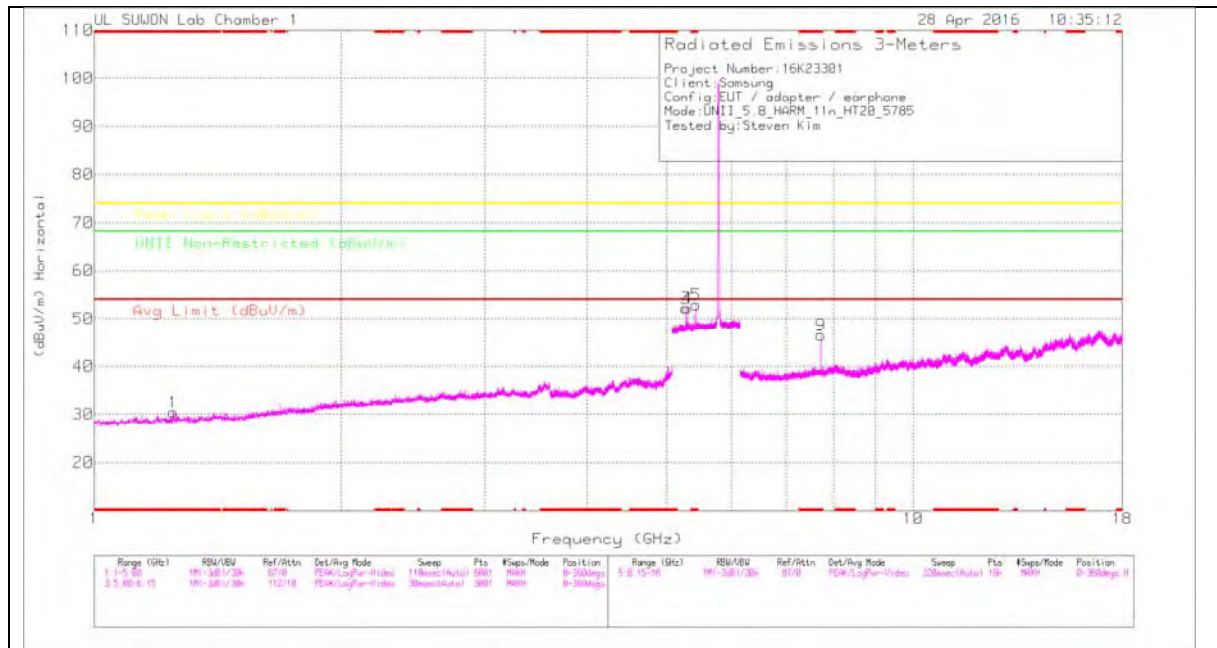
Frequency (GHz)	Meter Reading (dBuV)	Det	3117(001687 17)_150619	Path_2	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 5.393	49.34	PK-U	34.5	-23.3	0	60.54	-	-	74	-13.46	-	-	13	100	H
* 5.393	37.82	ADR	34.5	-23.3	.31	49.33	54	-4.67	-	-	-	-	13	100	H
5.233	48.68	PK-U	34.3	-23.7	0	59.28	-	-	-	-	68.2	-8.92	13	100	H
5.265	48.22	PK-U	34.4	-23.6	0	59.02	-	-	-	-	68.2	-9.18	13	100	H
* 5.393	48.24	PK-U	34.5	-23.3	0	59.44	-	-	74	-14.56	-	-	200	128	V
* 5.393	35.9	ADR	34.5	-23.3	.31	47.41	54	-6.59	-	-	-	-	200	128	V
5.233	49	PK-U	34.3	-23.7	0	59.6	-	-	-	-	68.2	-8.6	200	128	V
5.265	49.24	PK-U	34.4	-23.6	0	60.04	-	-	-	-	68.2	-8.16	200	128	V
* 11.49	32.04	ADR	38.6	-27	.31	43.95	54	-10.05	-	-	-	-	36	222	H
* 11.49	30.22	ADR	38.6	-27	.31	42.13	54	-11.87	-	-	-	-	186	358	V
* 7.66	37.41	ADR	36	-30.3	.31	43.42	54	-10.58	-	-	-	-	201	104	V
* 7.66	41.12	ADR	36	-30.3	.31	47.13	54	-6.87	-	-	-	-	172	106	H
* 11.49	42.43	PK-U	38.6	-27	0	54.03	-	-	74	-19.97	-	-	36	222	H
* 11.49	42.19	PK-U	38.6	-27	0	53.79	-	-	74	-20.21	-	-	186	358	V
* 7.66	46.12	PK-U	36	-30.3	0	51.82	-	-	74	-22.18	-	-	201	104	V
* 7.66	47.78	PK-U	36	-30.3	0	53.48	-	-	74	-20.52	-	-	172	106	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

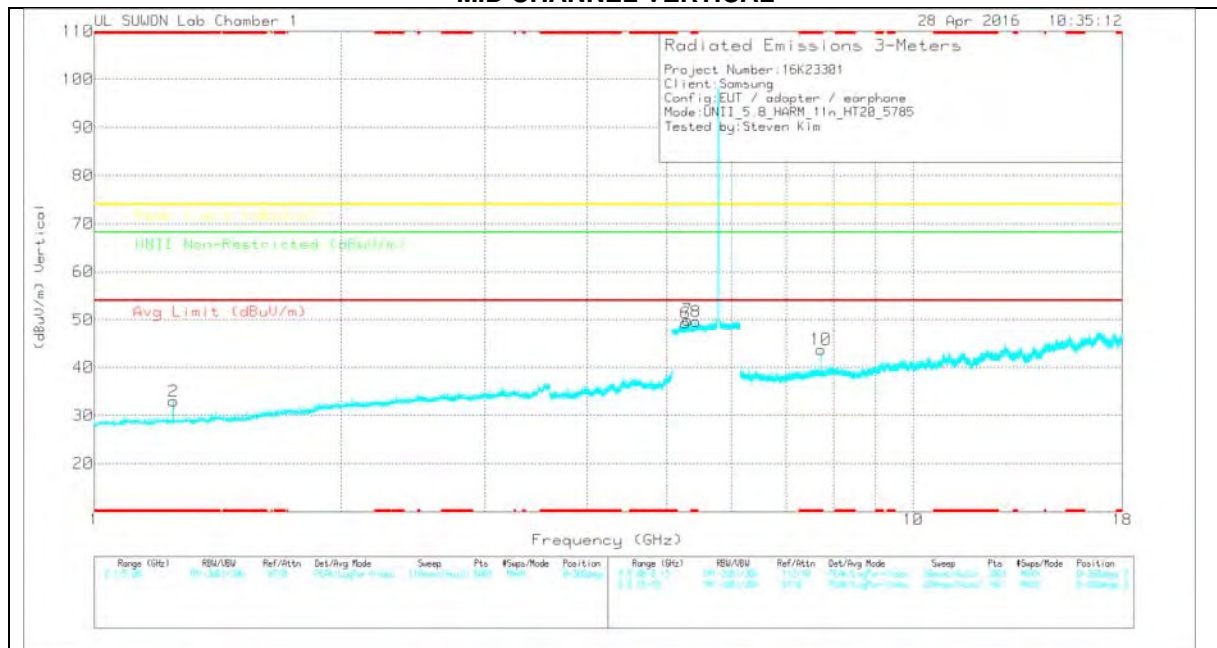
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

MID CHANNEL HORIZONTAL



MID CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(0016 8717)_150 619	Path_4	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.25	42.3	PK	28.3	-40.2	0	30.4	-	-	74	-43.6	-	-	0-360	200	H
2	* 1.25	44.89	PK	28.3	-40.2	0	32.99	-	-	74	-41.01	-	-	0-360	200	V
3	5.273	41.44	PK	34.4	-23.6	0	52.24	-	-	-	-	68.2	-15.96	0-360	100	H
4	5.305	41.23	PK	34.4	-23.4	0	52.23	-	-	-	-	68.2	-15.97	0-360	100	H
5	* 5.433	41.52	PK	34.6	-23.2	0	52.92	-	-	74	-21.08	-	-	0-360	100	H
6	5.273	38.58	PK	34.4	-23.6	0	49.38	-	-	-	-	68.2	-18.82	0-360	100	V
7	5.305	38.97	PK	34.4	-23.4	0	49.97	-	-	-	-	68.2	-18.23	0-360	100	V
8	* 5.433	38.23	PK	34.6	-23.2	0	49.63	-	-	74	-24.37	-	-	0-360	200	V
9	* 7.713	40.74	PK	36.1	-30.3	0	46.54	-	-	74	-27.46	-	-	0-360	100	H
10	* 7.713	37.92	PK	36.1	-30.3	0	43.72	-	-	74	-30.28	-	-	0-360	200	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak Detector

Radiated Emissions

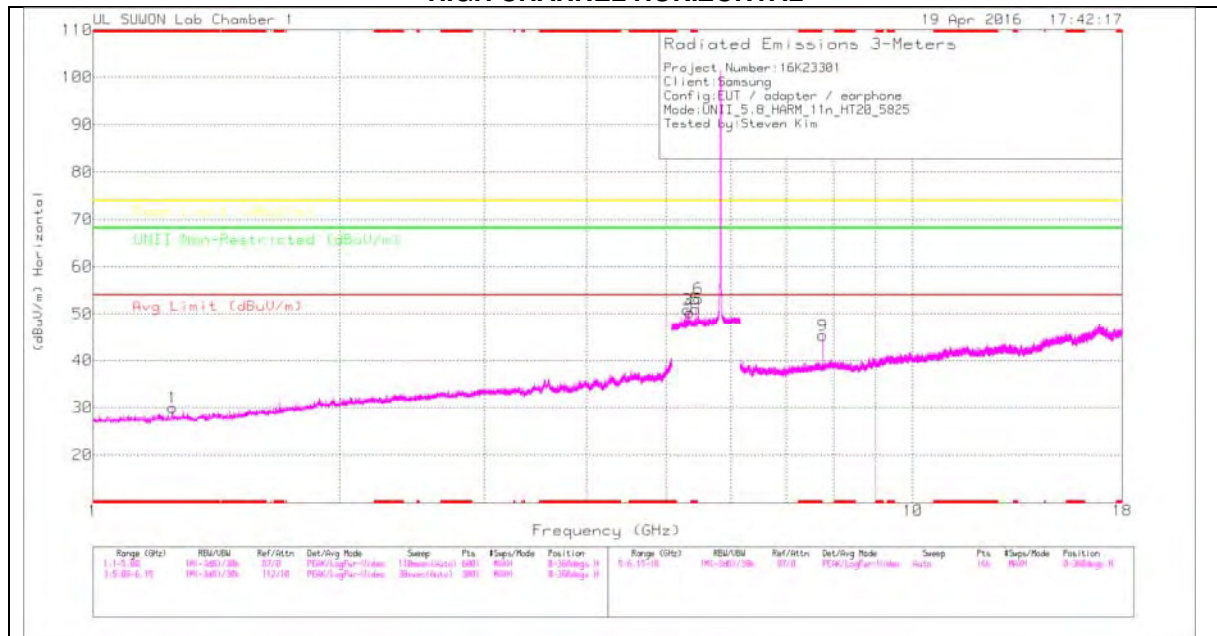
Frequency (GHz)	Meter Reading (dBuV)	Det	3117(001687 17)_150619	Path_2	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 5.433	50.69	PK-U	34.6	-23.2	0	62.09	-	-	74	-11.91	-	-	113	101	H
* 5.433	38.01	ADR	34.6	-23.2	.31	49.72	54	-4.28	-	-	-	-	113	101	H
5.273	50.47	PK-U	34.4	-23.6	0	61.27	-	-	-	-	68.2	-6.93	113	101	H
5.305	49.46	PK-U	34.4	-23.4	0	60.46	-	-	-	-	68.2	-7.74	113	101	H
* 5.433	48.45	PK-U	34.6	-23.2	0	59.85	-	-	74	-14.15	-	-	201	195	V
* 5.433	34.89	ADR	34.6	-23.2	.31	46.6	54	-7.4	-	-	-	-	201	195	V
5.273	49.43	PK-U	34.4	-23.6	0	60.23	-	-	-	-	68.2	-7.97	201	195	V
5.305	48.3	PK-U	34.4	-23.4	0	59.3	-	-	-	-	68.2	-8.9	201	195	V
* 7.713	36.96	ADR	36.1	-30.3	.31	43.07	54	-10.93	-	-	-	-	201	104	V
* 7.713	40.85	ADR	36.1	-30.3	.31	46.96	54	-7.04	-	-	-	-	170	100	H
* 7.713	46.01	PK-U	36.1	-30.3	0	51.81	-	-	74	-22.19	-	-	201	104	V
* 7.714	47.57	PK-U	36.1	-30.3	0	53.37	-	-	74	-20.63	-	-	170	100	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

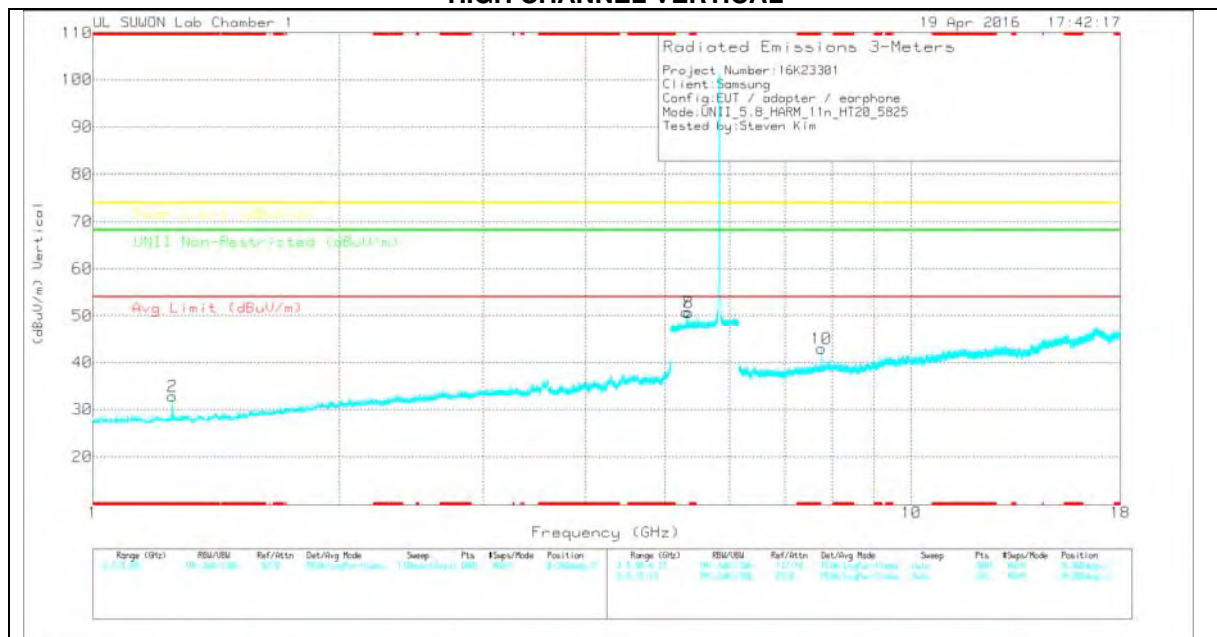
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

HIGH CHANNEL HORIZONTAL



HIGH CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

HIGH CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117(0016 8717)_150 619	Path_4	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.25	41.87	PK	28.3	-40.2	0	29.97	-	-	74	-44.03	-	-	0-360	200	H
2	* 1.25	44.78	PK	28.3	-40.2	0	32.88	-	-	74	-41.12	-	-	0-360	200	V
3	5.313	39.9	PK	34.4	-23.4	0	50.9	-	-	-	-	68.2	-17.3	0-360	100	H
4	5.345	39.15	PK	34.5	-23.3	0	50.35	-	-	-	-	68.2	-17.85	0-360	100	H
5	* 5.441	39.63	PK	34.6	-23.2	0	51.03	-	-	74	-22.97	-	-	0-360	100	H
6	5.473	41.81	PK	34.6	-23.1	0	53.31	-	-	-	-	68.2	-14.89	0-360	100	H
7	5.313	39.78	PK	34.4	-23.4	0	50.78	-	-	-	-	68.2	-17.42	0-360	100	V
8	5.345	39.43	PK	34.5	-23.3	0	50.63	-	-	-	-	68.2	-17.57	0-360	100	V
9	7.767	39.41	PK	36.2	-30.3	0	45.31	-	-	-	-	68.2	-22.89	0-360	100	H
10	7.766	37.04	PK	36.2	-30.3	0	42.94	-	-	-	-	68.2	-25.26	0-360	100	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak Detector

Radiated Emissions

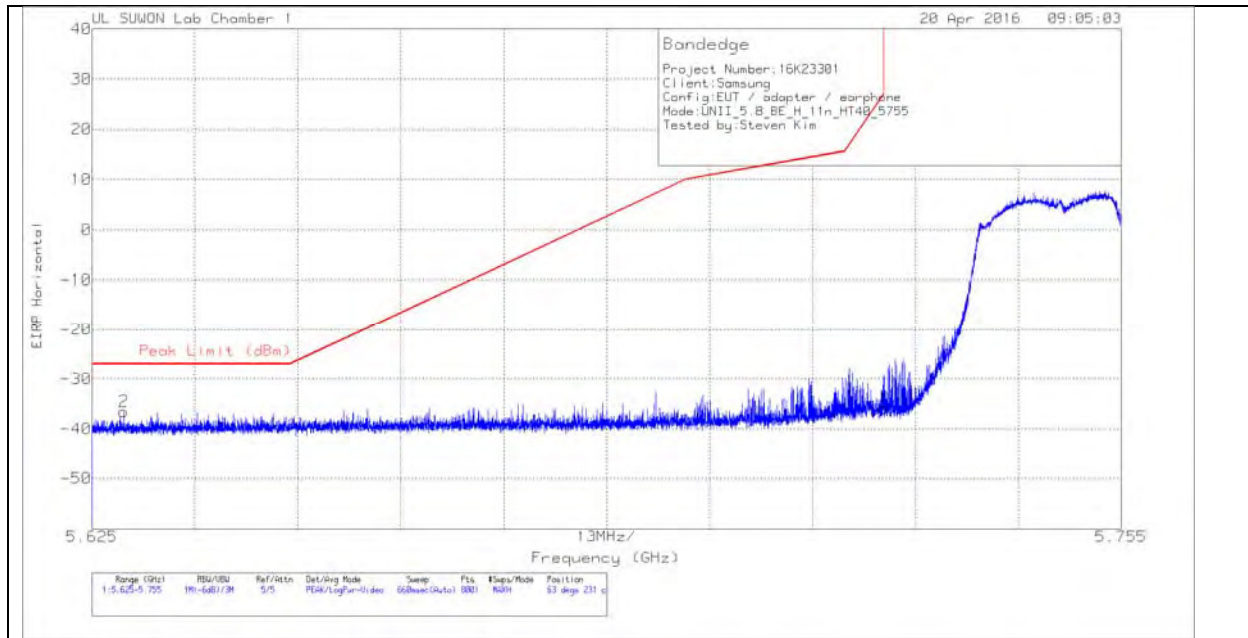
Frequency (GHz)	Meter Reading (dBuV)	Det	3117(001687 17)_150619	Path_2	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
5.473	51.87	PK-U	34.6	-23.1	0	63.37	-	-	-	-	68.2	-4.83	61	102	H
5.313	50.82	PK-U	34.4	-23.4	0	61.82	-	-	-	-	68.2	-6.38	61	102	H
5.346	50.94	PK-U	34.5	-23.3	0	62.14	-	-	-	-	68.2	-6.06	61	102	H
* 5.441	51.49	PK-U	34.6	-23.2	0	62.89	-	-	74	-11.11	-	-	61	102	H
* 5.441	34.61	ADR	34.6	-23.2	.31	46.32	54	-7.68	-	-	-	-	61	102	H
5.314	48.12	PK-U	34.4	-23.4	0	59.12	-	-	-	-	68.2	-9.08	315	322	V
5.348	47.55	PK-U	34.5	-23.3	0	58.75	-	-	-	-	68.2	-9.45	185	329	V
5.348	35.55	ADR	34.5	-23.3	.31	47.06	54	-6.94	-	-	-	-	185	329	V
7.767	46.24	PK-U	36.2	-30.3	0	52.14	-	-	-	-	68.2	-16.06	198	110	V
7.767	46.25	PK-U	36.2	-30.3	0	52.15	-	-	-	-	68.2	-16.05	162	265	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

11.4.3. TX ABOVE 1GHz 802.11n HT40 2TX CDD MODE IN THE 5.8GHz BAND HARMONICS AND SPURIOUS EMISSIONS HORIZONTAL PEAK PLOT



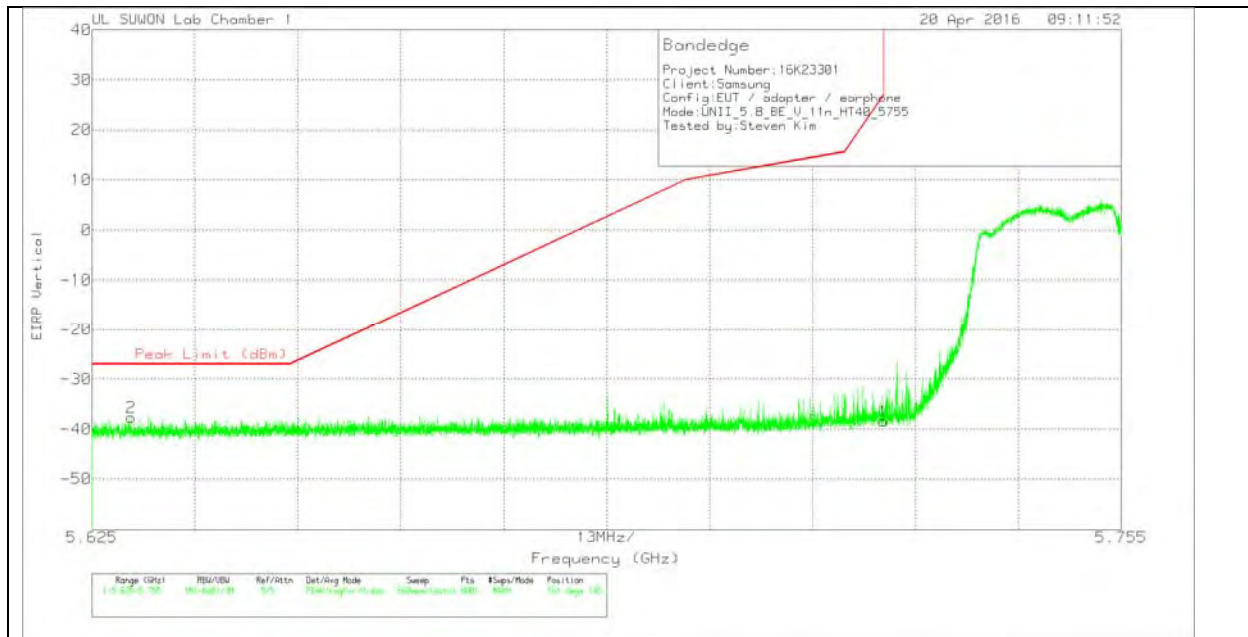
HORIZONTAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	3117(0016 8717)_150 619	Path_2	Conversion Factor (dB)	DC Corr (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.725	-59.8	Pk	34.8	-22.8	11.8	0	-36	26.97	-62.97	63	231	H
2	5.629	-59.9	Pk	34.7	-23.1	11.8	0	-36.5	-27	-9.5	63	231	H

Pk - Peak detector

VERTICAL PEAK PLOT



VERTICAL DATA

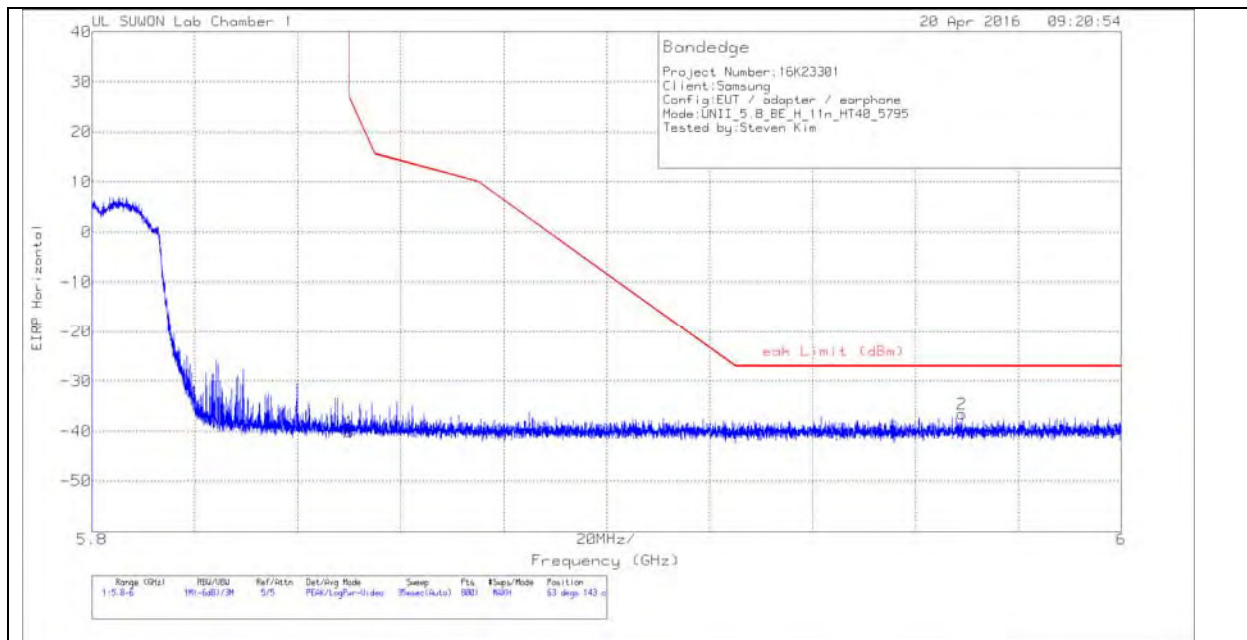
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	3117(0016 8717)_150 619	Path_2	Conversion Factor (dB)	DC Corr (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.725	-62.24	Pk	34.8	-22.8	11.8	0	-38.44	26.97	-65.41	161	145	V
2	5.63	-61.06	Pk	34.7	-23.1	11.8	0	-37.66	-27	-10.66	161	145	V

Pk - Peak detector

AUTHORIZED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK PLOT



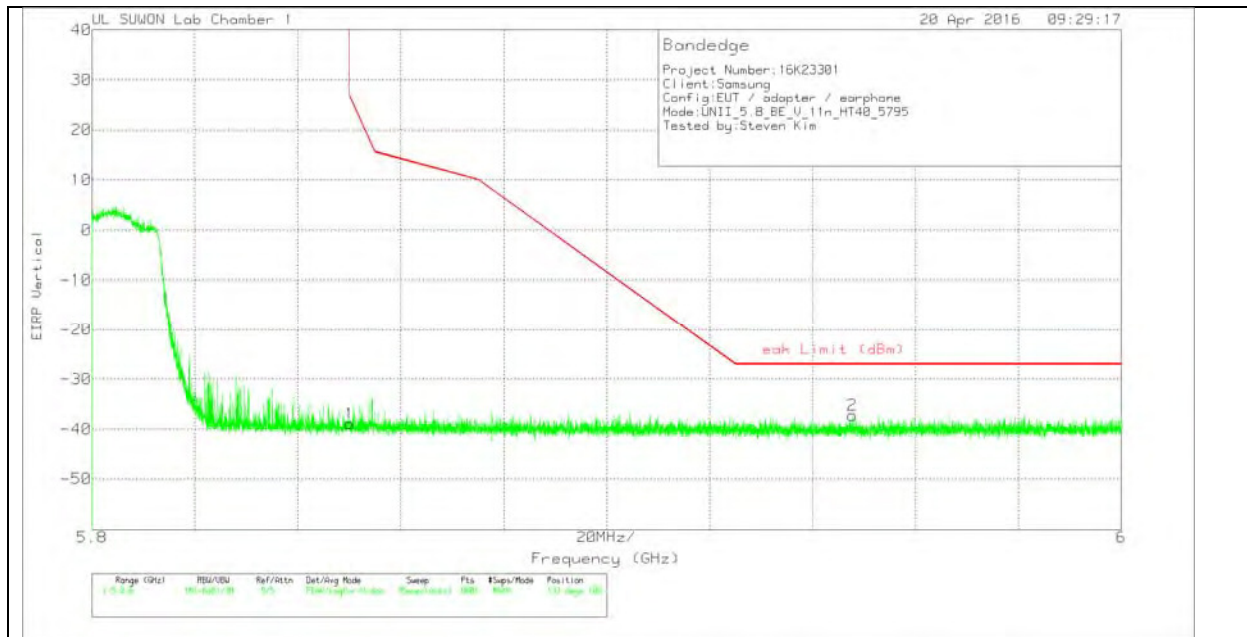
HORIZONTAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	3117(0016 8717)_150 619	Path_2	Conversion Factor (dB)	DC Corr (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.85	-64.56	Pk	34.9	-22.2	11.8	0	-40.06	26.94	-67	63	143	H
2	5.969	-60.98	Pk	34.9	-22.3	11.8	0	-36.58	-27	-9.58	63	143	H

Pk - Peak detector

VERTICAL PEAK PLOT



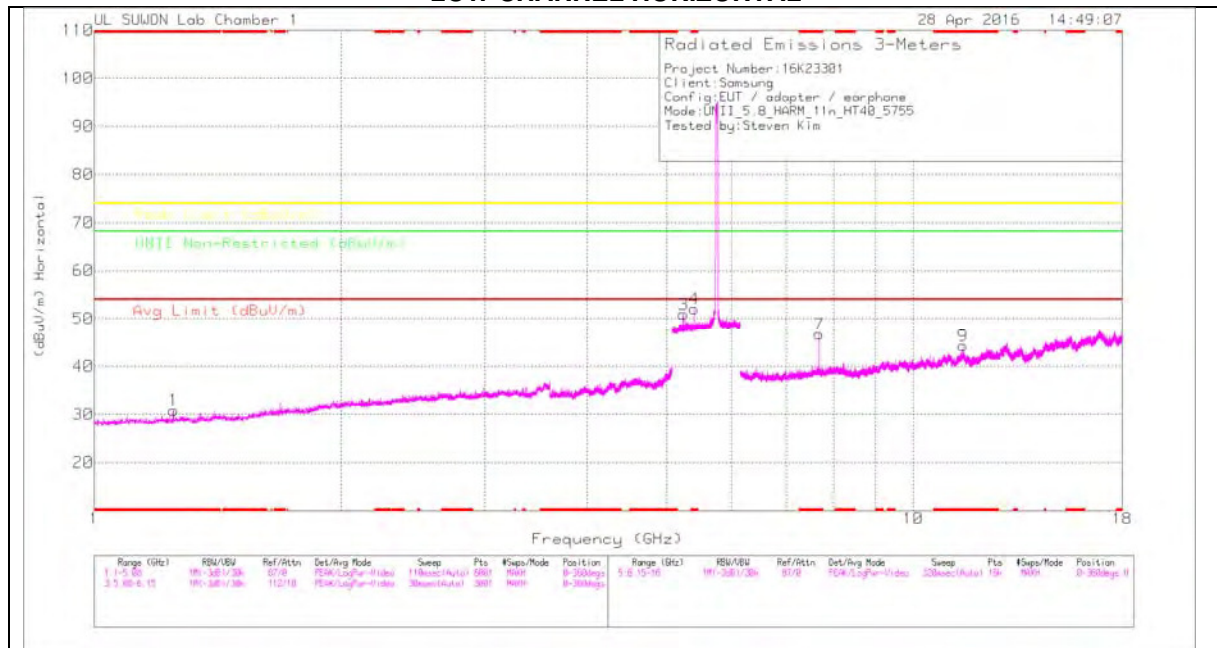
VERTICAL DATA

Trace Markers

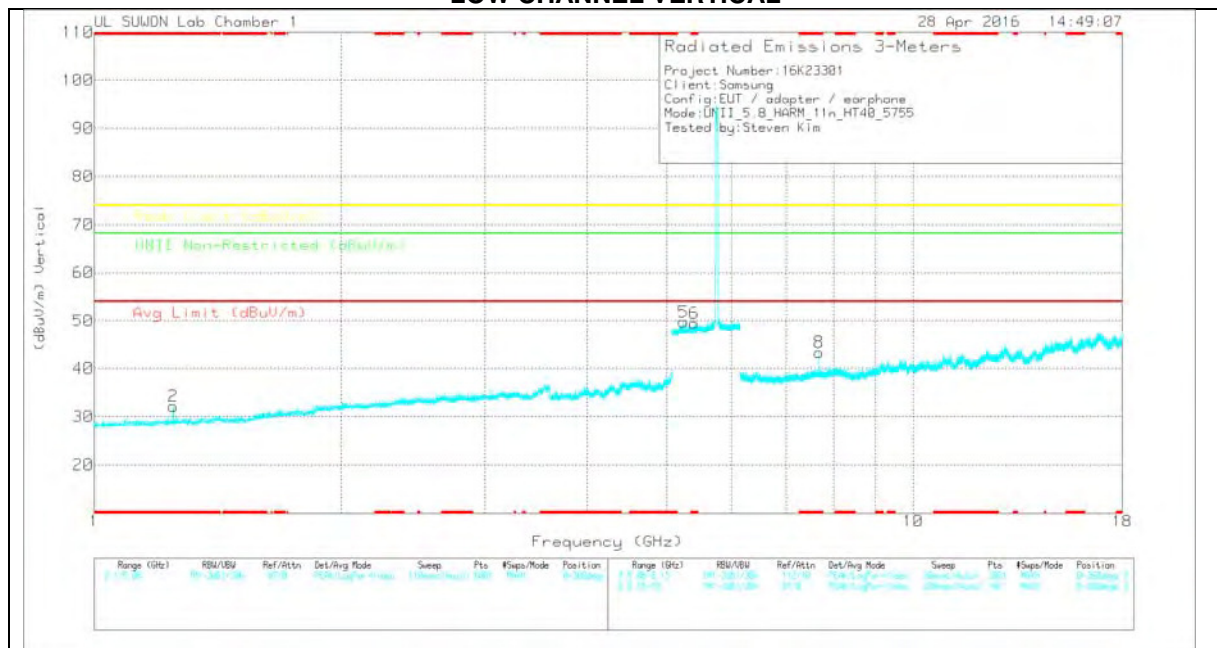
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	3117(0016 8717)_150 619	Path_2	Conversion Factor (dB)	DC Corr (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.85	-63.43	Pk	34.9	-22.2	11.8	0	-38.93	26.94	-65.87	133	109	V
2	5.948	-61.53	Pk	34.9	-22.4	11.8	0	-37.23	-27	-10.23	133	109	V

Pk - Peak detector

LOW CHANNEL HORIZONTAL



LOW CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117/0016 8717_150 619	Path_4	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.25	42.76	PK	28.3	-40.2	0	30.86	-	-	74	-43.14	-	-	0-360	200	H
2	* 1.25	44.06	PK	28.3	-40.2	0	32.16	-	-	74	-41.84	-	-	0-360	200	V
3	5.243	40.19	PK	34.4	-23.7	0	50.89	-	-	-	-	68.2	-17.31	0-360	100	H
4	* 5.403	40.77	PK	34.6	-23.3	0	52.07	-	-	74	-21.93	-	-	0-360	200	H
5	5.243	39.08	PK	34.4	-23.7	0	49.78	-	-	-	-	68.2	-18.42	0-360	100	V
6	* 5.403	38.19	PK	34.6	-23.3	0	49.49	-	-	74	-24.51	-	-	0-360	200	V
7	* 7.673	41.03	PK	36	-30.3	0	46.73	-	-	74	-27.27	-	-	0-360	100	H
9	* 11.51	32.51	PK	38.6	-26.8	0	44.31	-	-	74	-29.69	-	-	0-360	200	H
8	* 7.673	37.62	PK	36	-30.3	0	43.32	-	-	74	-30.68	-	-	0-360	100	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak Detector

Radiated Emissions

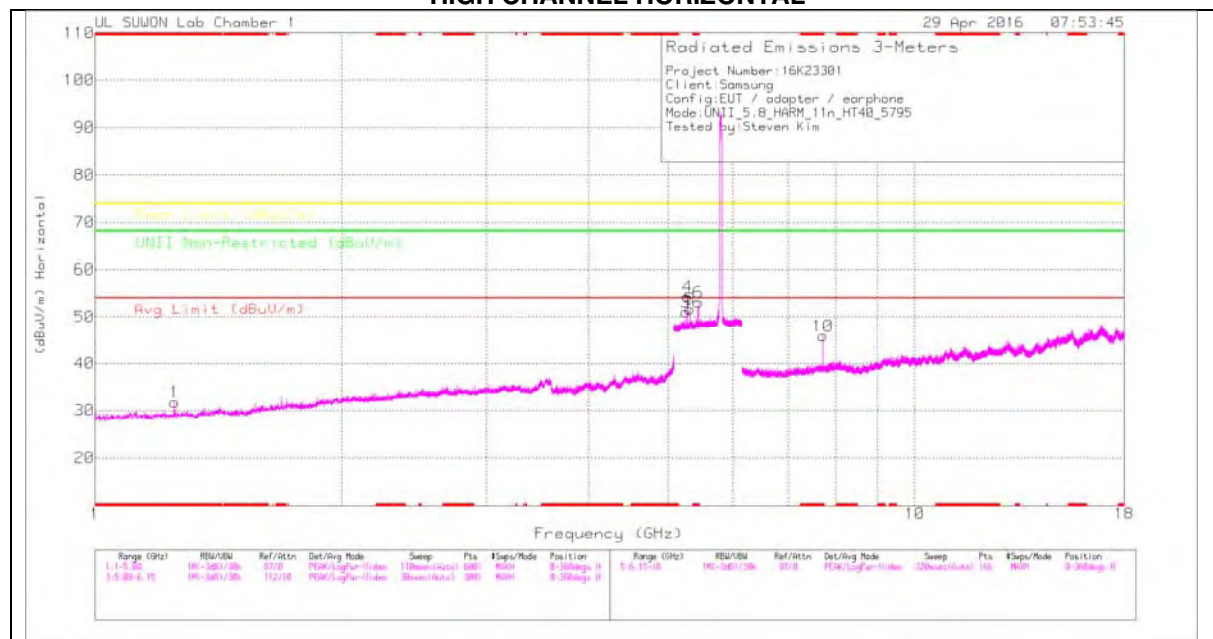
Frequency (GHz)	Meter Reading (dBuV)	Det	3117/001687 17_150619	Path_2	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 5.403	49.76	PK-U	34.6	-23.3	0	61.06	-	-	74	-12.94	-	-	54	151	H
* 5.403	38.29	ADR	34.6	-23.3	.59	50.18	54	-3.82	-	-	-	-	54	151	H
5.243	48.89	PK-U	34.4	-23.7	0	59.59	-	-	-	-	68.2	-8.61	54	149	H
* 5.403	48.9	PK-U	34.6	-23.3	0	60.2	-	-	74	-13.8	-	-	309	120	V
* 5.403	37.18	ADR	34.6	-23.3	.59	49.07	54	-4.93	-	-	-	-	309	120	V
5.244	48.38	PK-U	34.4	-23.7	0	59.08	-	-	-	-	68.2	-9.12	309	120	V
* 11.51	31.62	ADR	38.6	-26.8	.59	44.01	54	-9.99	-	-	-	-	13	131	H
* 7.673	37.55	ADR	36	-30.3	.59	43.84	54	-10.16	-	-	-	-	203	121	V
* 7.673	40.27	ADR	36	-30.3	.59	46.56	54	-7.44	-	-	-	-	174	104	H
* 11.51	41.79	PK-U	38.6	-26.8	0	53.59	-	-	74	-20.41	-	-	13	131	H
* 7.673	46.15	PK-U	36	-30.3	0	51.85	-	-	74	-22.15	-	-	203	121	V
* 7.673	47.3	PK-U	36	-30.3	0	53	-	-	74	-21	-	-	174	104	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

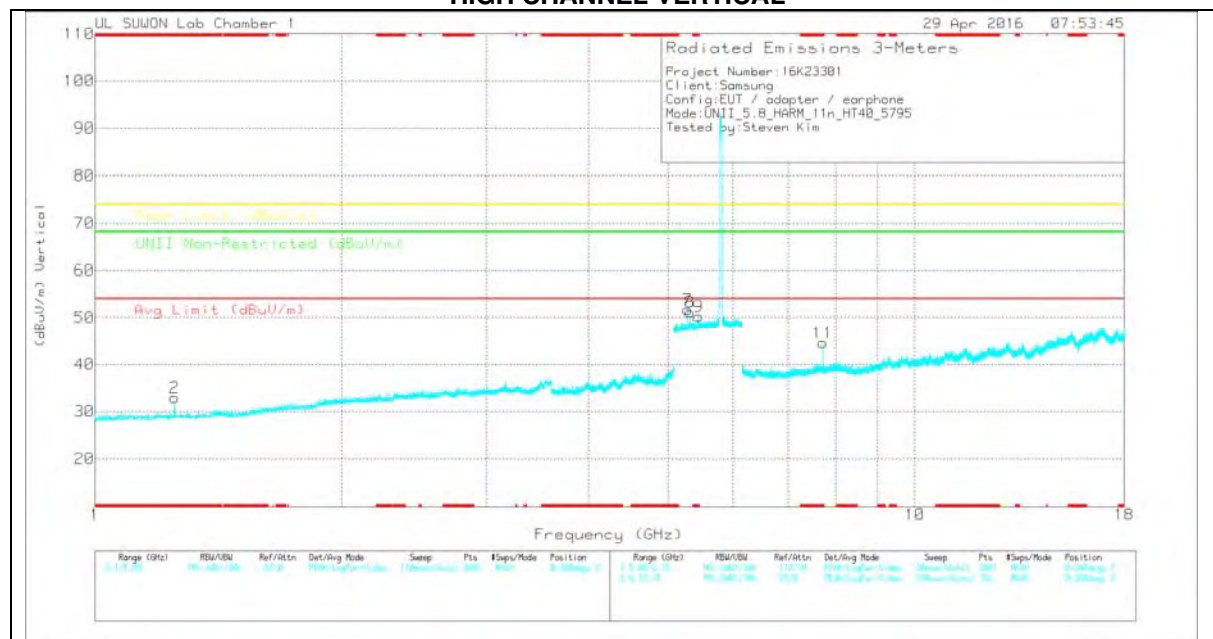
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

HIGH CHANNEL HORIZONTAL



HIGH CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

HIGH CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117/0016 8717_150 619	Path_4	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.25	43.67	Avg	28.3	-40.2	0	31.77	-	-	74	-42.23	-	-	0-360	200	H
2	* 1.25	44.89	Avg	28.3	-40.2	0	32.99	-	-	74	-41.01	-	-	0-360	200	V
3	5.251	40.35	Avg	34.4	-23.7	0	51.05	-	-	-	-	68.2	-17.15	0-360	100	H
4	5.283	43.37	Avg	34.4	-23.5	0	54.27	-	-	-	-	68.2	-13.93	0-360	100	H
5	5.315	40.61	Avg	34.5	-23.4	0	51.71	-	-	-	-	68.2	-16.49	0-360	100	H
6	* 5.443	41.69	Avg	34.6	-23.2	0	53.09	-	-	74	-20.91	-	-	0-360	100	H
7	5.283	40.76	Avg	34.4	-23.5	0	51.66	-	-	-	-	68.2	-16.54	0-360	200	V
8	5.315	40.05	Avg	34.5	-23.4	0	51.15	-	-	-	-	68.2	-17.05	0-360	200	V
9	* 5.443	38.85	Avg	34.6	-23.2	0	50.25	-	-	74	-23.75	-	-	0-360	200	V
10	* 7.727	40.09	Avg	36.1	-30.3	0	45.89	-	-	74	-28.11	-	-	0-360	100	H
11	* 7.727	38.8	Avg	36.1	-30.3	0	44.6	-	-	74	-29.4	-	-	0-360	200	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Avg - Video bandwidth < Resolution bandwidth

Radiated Emissions

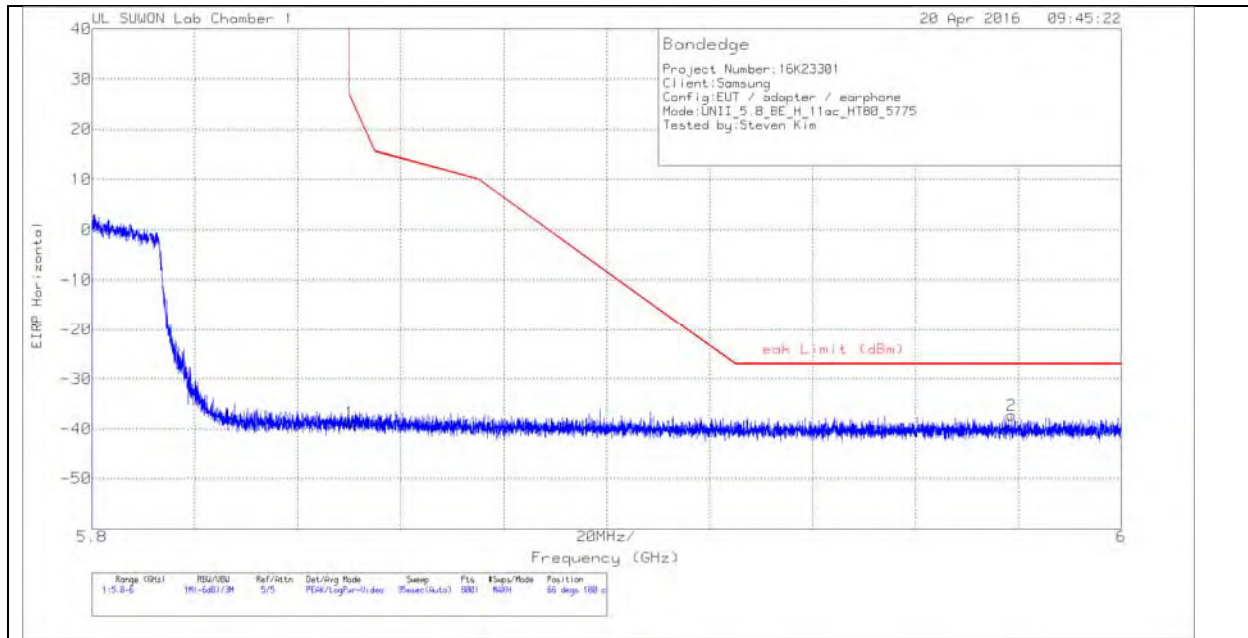
Frequency (GHz)	Meter Reading (dBuV)	Det	3117/001687 17_150619	Path_2	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 5.443	49.68	PK-U	34.6	-23.2	0	61.08	-	-	74	-12.92	-	-	118	142	H
* 5.443	38.03	ADR	34.6	-23.2	.59	50.02	54	-3.98	-	-	-	-	118	142	H
5.315	47.83	PK-U	34.5	-23.4	0	58.93	-	-	-	-	68.2	-9.27	118	142	H
5.281	47.59	PK-U	34.4	-23.5	0	58.49	-	-	-	-	68.2	-9.71	118	142	H
5.249	47.75	PK-U	34.4	-23.7	0	58.45	-	-	-	-	68.2	-9.75	118	142	H
* 5.442	48.01	PK-U	34.6	-23.2	0	59.41	-	-	74	-14.59	-	-	326	262	V
* 5.443	35.58	ADR	34.6	-23.2	.59	47.57	54	-6.43	-	-	-	-	326	262	V
5.315	47.86	PK-U	34.4	-23.4	0	58.86	-	-	-	-	68.2	-9.34	326	262	V
5.281	47.88	PK-U	34.4	-23.5	0	58.78	-	-	-	-	68.2	-9.42	326	262	V
* 7.727	36.85	ADR	36.1	-30.3	.59	43.24	54	-10.76	-	-	-	-	168	310	V
* 7.727	39.19	ADR	36.1	-30.3	.59	45.58	54	-8.42	-	-	-	-	169	112	H
* 7.727	45.87	PK-U	36.1	-30.3	0	51.67	-	-	74	-22.33	-	-	168	310	V
* 7.726	47.2	PK-U	36.1	-30.3	0	53	-	-	74	-21	-	-	169	112	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

11.4.4. TX ABOVE 1GHz 802.11ac HT80 2TX CDD MODE IN THE 5.8GHz BAND HARMONICS AND SPURIOUS EMISSIONS HORIZONTAL PEAK PLOT



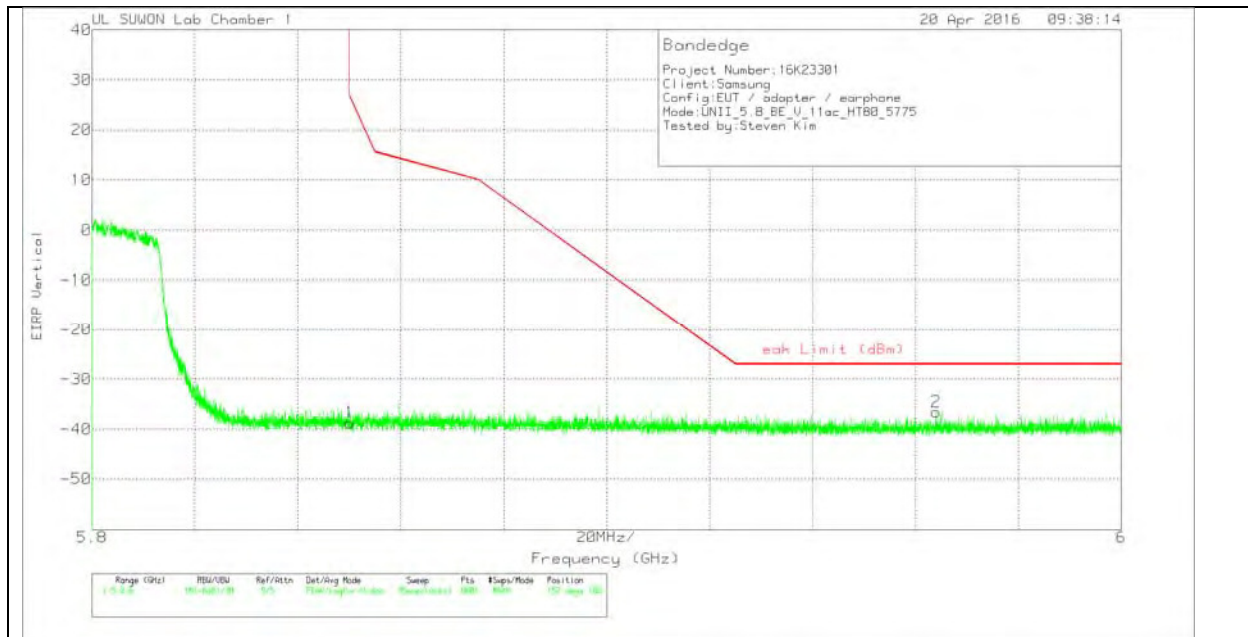
HORIZONTAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	3117(0016 8717)_150 619	Path_2	Conversion Factor (dB)	DC Corr (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.85	-63.29	Pk	34.9	-22.2	11.8	0	-38.79	26.94	-65.73	66	100	H
2	5.979	-61.68	Pk	34.9	-22.3	11.8	0	-37.28	-27	-10.28	66	100	H

Pk - Peak detector

VERTICAL PEAK PLOT



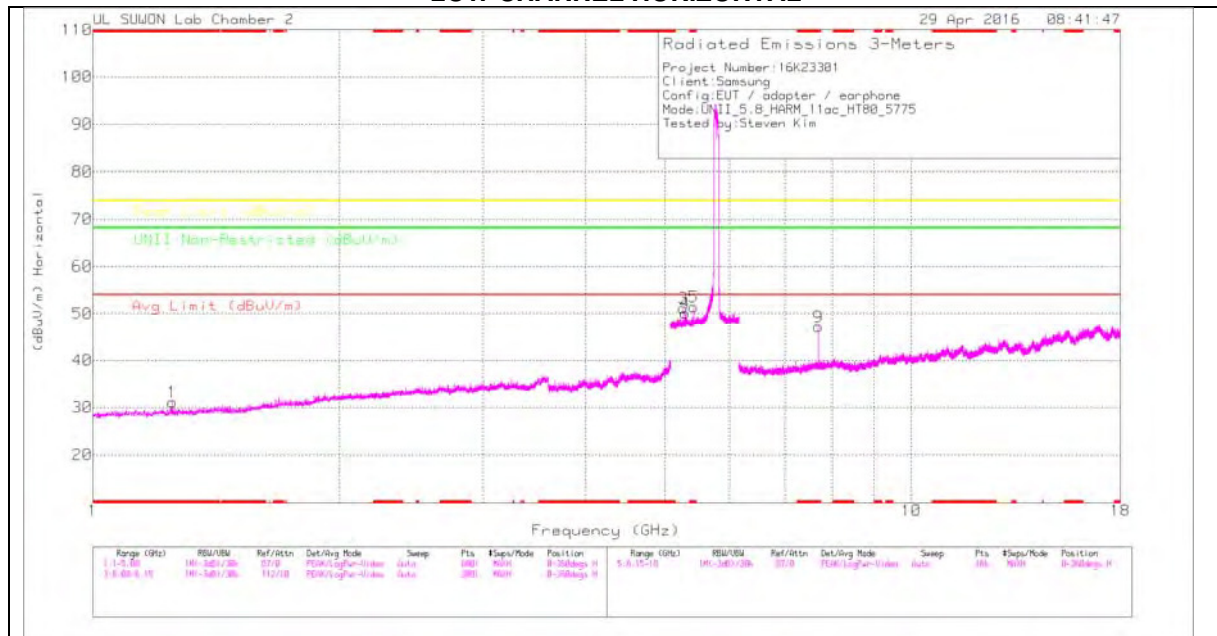
VERTICAL DATA

Trace Markers

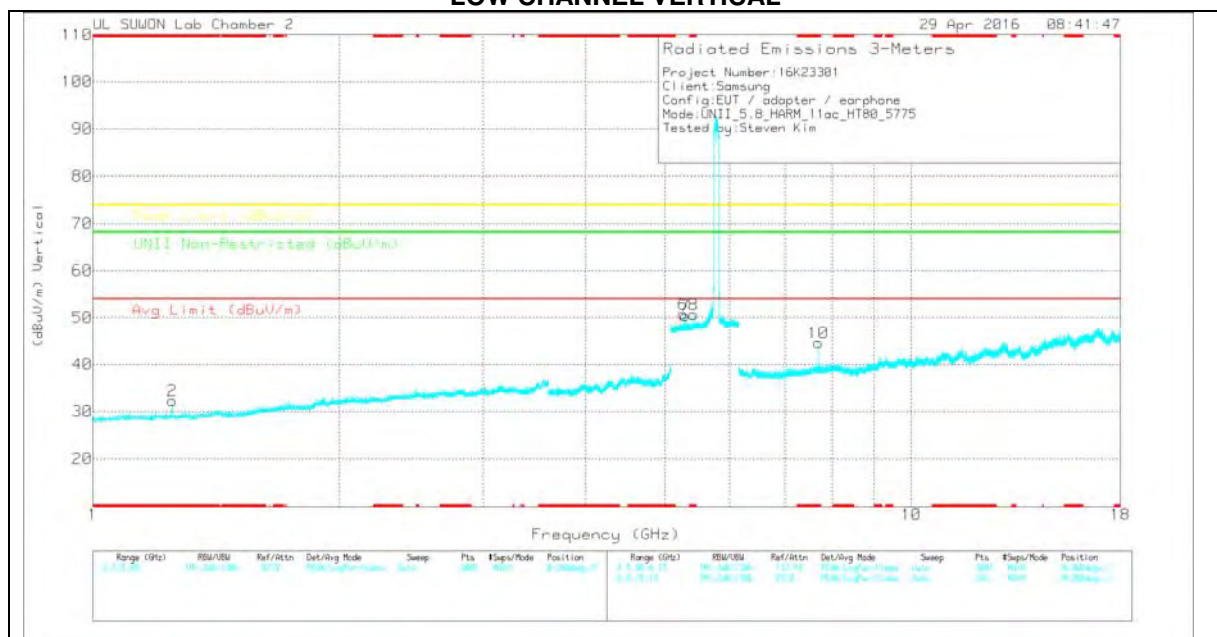
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	3117(0016 8717)_150 619	Path_2	Conversion Factor (dB)	DC Corr (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.85	-63.2	Pk	34.9	-22.2	11.8	0	-38.7	26.94	-65.64	152	188	V
2	5.964	-60.8	Pk	34.9	-22.4	11.8	0	-36.5	-27	-9.5	152	188	V

Pk - Peak detector

LOW CHANNEL HORIZONTAL



LOW CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117/0016 8717_150 619	Path_4	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.25	43.08	PK	28.3	-40.2	0	31.18	-	-	74	-42.82	-	-	0-360	200	H
2	* 1.25	44.25	PK	28.3	-40.2	0	32.35	-	-	74	-41.65	-	-	0-360	200	V
3	5.263	40.44	PK	34.4	-23.6	0	51.24	-	-	-	-	68.2	-16.96	0-360	100	H
4	5.295	39.21	PK	34.4	-23.5	0	50.11	-	-	-	-	68.2	-18.09	0-360	100	H
5	* 5.423	40.06	PK	34.6	-23.2	0	51.46	-	-	74	-22.54	-	-	0-360	200	H
6	5.263	40	PK	34.4	-23.6	0	50.8	-	-	-	-	68.2	-17.4	0-360	200	V
7	5.295	39.55	PK	34.4	-23.5	0	50.45	-	-	-	-	68.2	-17.75	0-360	100	V
8	* 5.423	39.22	PK	34.6	-23.2	0	50.62	-	-	74	-23.38	-	-	0-360	200	V
9	* 7.699	41.43	PK	36.1	-30.3	0	47.23	-	-	74	-26.77	-	-	0-360	100	H
10	* 7.699	38.76	PK	36.1	-30.3	0	44.56	-	-	74	-29.44	-	-	0-360	200	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK – Peak Detector

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	3117/0016871 7_150619	Path_2	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 5.423	50.21	PK-U	34.6	-23.2	0	61.61	-	-	74	-12.39	-	-	118	100	H
* 5.423	36.87	ADR	34.6	-23.2	1.12	49.39	54	-4.61	-	-	-	-	118	100	H
5.263	49.95	PK-U	34.4	-23.6	0	60.75	-	-	-	-	68.2	-7.45	118	100	H
5.295	49.42	PK-U	34.4	-23.5	0	60.32	-	-	-	-	68.2	-7.88	118	100	H
* 5.423	48.08	PK-U	34.6	-23.2	0	59.48	-	-	74	-14.52	-	-	163	263	V
* 5.423	35.2	ADR	34.6	-23.2	1.12	47.72	54	-6.28	-	-	-	-	163	263	V
5.263	47.96	PK-U	34.4	-23.6	0	58.76	-	-	-	-	68.2	-9.44	163	263	V
5.294	47.67	PK-U	34.4	-23.5	0	58.57	-	-	-	-	68.2	-9.63	163	263	V
* 7.7	34.41	ADR	36.1	-30.3	1.12	41.33	54	-12.67	-	-	-	-	159	238	V
* 7.7	36.57	ADR	36.1	-30.3	1.12	43.49	54	-10.51	-	-	-	-	173	106	H
* 7.7	45.59	PK-U	36.1	-30.3	0	51.39	-	-	74	-22.61	-	-	159	238	V
* 7.7	47.99	PK-U	36.1	-30.3	0	53.79	-	-	74	-20.21	-	-	173	106	H

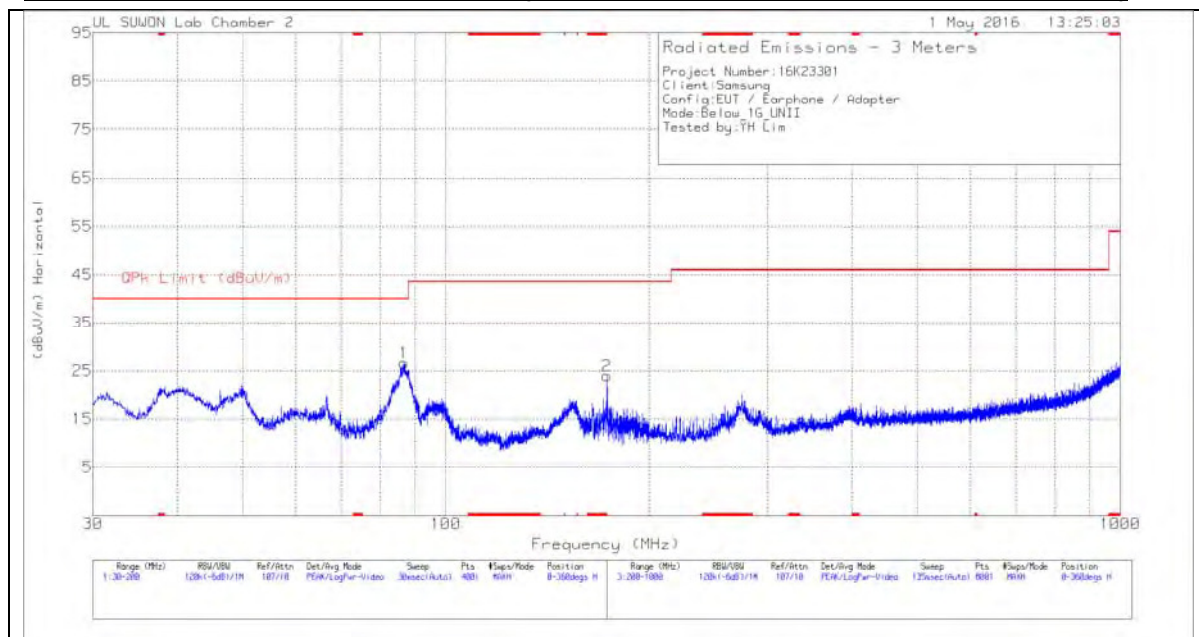
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK-U - U-NII: Maximum Peak

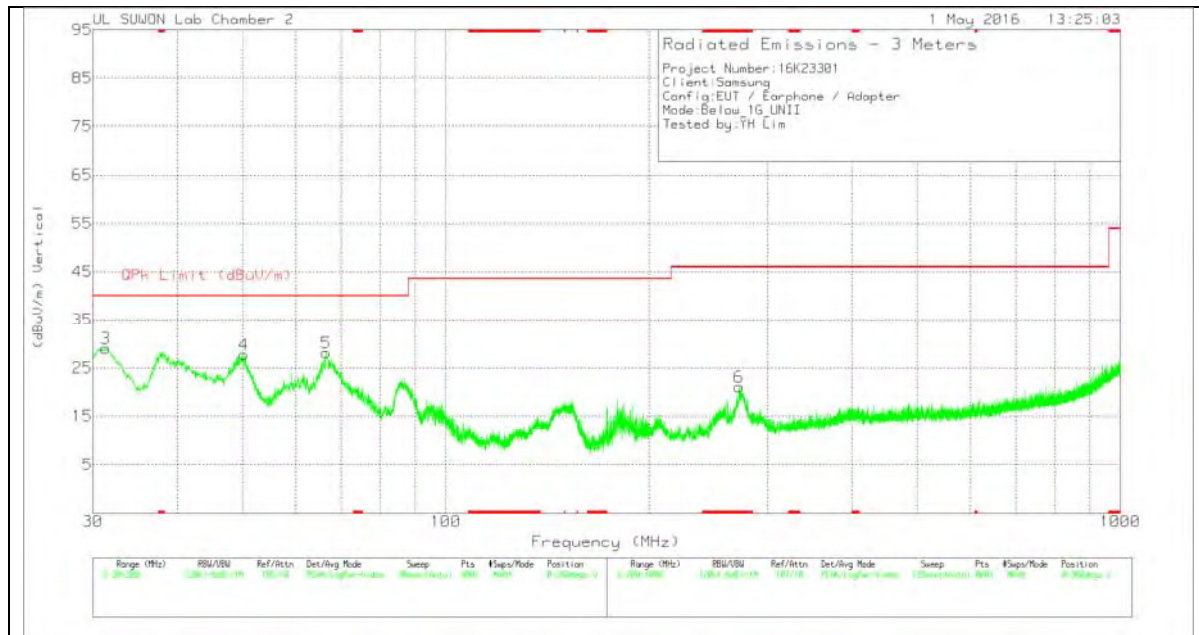
ADR - U-NII AD primary method, RMS average

12. WORST-CASE BELOW 1 GHz (in the 5.3 GHz Band)

SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, HORIZONTAL)



SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, VERTICAL)



Below 1G Data

Trace Markers

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	VULB9163-749	Below_1G	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	86.78	48.39	Pk	8.8	-30.6	26.59	40	-13.41	0-360	200	H
2	173.4375	45.17	Pk	9.2	-30.4	23.97	43.52	-19.55	0-360	200	H
3	31.36	49.49	Pk	10.4	-30.8	29.09	40	-10.91	0-360	100	V
4	50.1875	44.39	Pk	14.1	-30.7	27.79	40	-12.21	0-360	100	V
5	66.5925	48.19	Pk	10.7	-30.7	28.19	40	-11.81	0-360	100	V
6	* 272.2	38.24	Pk	12.9	-30.1	21.04	46.02	-24.98	0-360	200	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

13. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

FCC §15.207 (a)

Frequency of Emission (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56 [*]	56 to 46 [*]
0.5-5	56	46
5-30	60	50

^{*} Decreases with the logarithm of the frequency.

TEST PROCEDURE

The EUT is placed on a non-conducting table 40 cm from the vertical ground plane and 80 cm above the horizontal ground plane. The EUT is configured in accordance with ANSI C63.10.

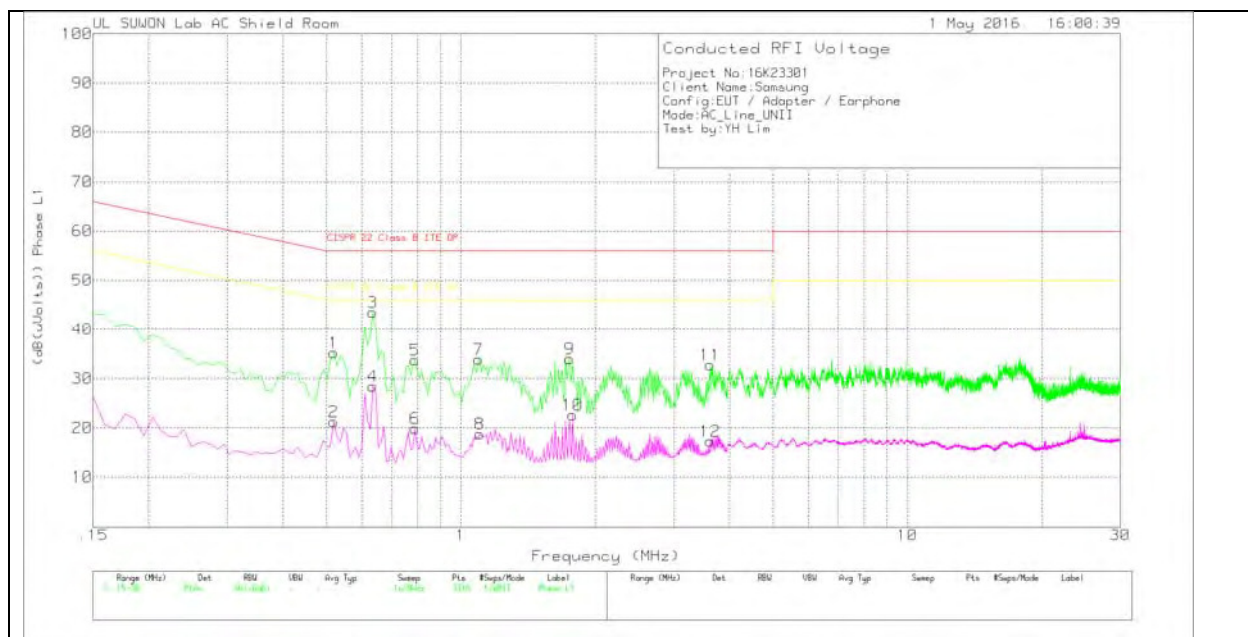
The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

Line conducted data is recorded for both NEUTRAL and HOT lines.

RESULTS

6 WORST EMISSIONS

LINE 1 PLOT



LINE 1 RESULTS

Trace Markers

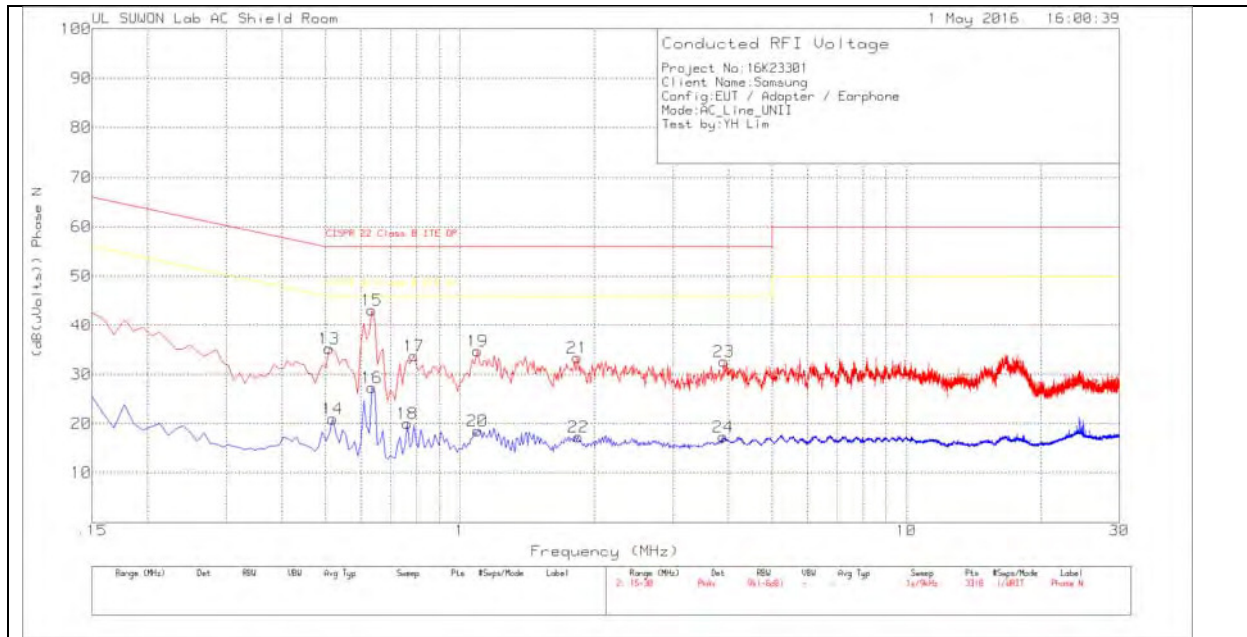
Phase L1 .15 - 30MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	101837_w ith ex- cord_L1	CE Shield Room	Corrected Reading (dB(uVolts)	CISPR 22 Class B ITE QP	Margin (dB)	CISPR 22 Class B ITE AV	Margin (dB)
1	.519	25.04	Pk	10.2	0	35.24	56	-20.76	-	-
2	.519	10.99	Av	10.2	0	21.19	-	-	46	-24.81
3	.636	33.39	Pk	10.1	0	43.49	56	-12.51	-	-
4	.636	18.37	Av	10.1	0	28.47	-	-	46	-17.53
5	.789	23.69	Pk	10	0	33.69	56	-22.31	-	-
6	.789	9.94	Av	10	0	19.94	-	-	46	-26.06
7	1.095	23.96	Pk	9.9	0	33.86	56	-22.14	-	-
8	1.104	8.92	Av	9.9	0	18.82	-	-	46	-27.18
9	1.752	24.08	Pk	9.8	.1	33.98	56	-22.02	-	-
10	1.779	12.65	Av	9.8	.1	22.55	-	-	46	-23.45
11	3.615	22.86	Pk	9.8	.1	32.76	56	-23.24	-	-
12	3.615	7.43	Av	9.8	.1	17.33	-	-	46	-28.67

Pk - Peak detector

Av - Average detection

LINE 2 PLOT



LINE 2 RESULTS

Trace Markers

Phase N .15 - 30MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	101837_w ith ex- cord_N	CE Shield Room	Corrected Reading (dB(uVolts)	CISPR 22 Class B ITE QP	Margin (dB)	CISPR 22 Class B ITE AV	Margin (dB)
13	.51	25.12	Pk	10.1	0	35.22	56	-20.78	-	-
14	.519	10.84	Av	10.1	0	20.94	-	-	46	-25.06
15	.636	33	Pk	10.1	0	43.1	56	-12.9	-	-
16	.636	17.21	Av	10.1	0	27.31	-	-	46	-18.69
17	.789	23.7	Pk	10	0	33.7	56	-22.3	-	-
18	.762	9.96	Av	10	0	19.96	-	-	46	-26.04
19	1.095	24.83	Pk	9.9	0	34.73	56	-21.27	-	-
20	1.095	8.68	Av	9.9	0	18.58	-	-	46	-27.42
21	1.833	23.42	Pk	9.8	.1	33.32	56	-22.68	-	-
22	1.842	7.41	Av	9.8	.1	17.31	-	-	46	-28.69
23	3.903	22.7	Pk	9.8	.1	32.6	56	-23.4	-	-
24	3.894	7.42	Av	9.8	.1	17.32	-	-	46	-28.68

Pk - Peak detector

Av - Average detection

14. DYNAMIC FREQUENCY SELECTION

14.1. OVERVIEW

14.1.1. LIMITS

FCC

§15.407 (h), FCC KDB 905462 D02 "COMPLIANCE MEASUREMENT PROCEDURES FOR UNLICENSED-NATIONAL INFORMATION INFRASTRUCTURE DEVICES OPERATING IN THE 5250-5350 MHz AND 5470-5725 MHz BANDS INCORPORATING DYNAMIC FREQUENCY SELECTION" and KDB 905462 D03 "U-NII CLIENT DEVICES WITHOUT RADAR DETECTION CAPABILITY".

Table 1: Applicability of DFS requirements prior to use of a channel

Requirement	Operational Mode		
	Master	Client (without radar detection)	Client (with radar detection)
Non-Occupancy Period	Yes	Not required	Yes
DFS Detection Threshold	Yes	Not required	Yes
Channel Availability Check Time	Yes	Not required	Not required
U-NII Detection Bandwidth	Yes	Not required	Yes

Table 2: Applicability of DFS requirements during normal operation

Requirement	Operational Mode		
	Master	Client (without DFS)	Client (with DFS)
DFS Detection Threshold	Yes	Not required	Yes
Channel Closing Transmission Time	Yes	Yes	Yes
Channel Move Time	Yes	Yes	Yes
U-NII Detection Bandwidth	Yes	Not required	Yes

Additional requirements for devices with multiple bandwidth modes	Master Device or Client with Radar DFS	Client (without DFS)
U-NII Detection Bandwidth and Statistical Performance Check	All BW modes must be tested	Not required
Channel Move Time and Channel Closing Transmission Time	Test using widest BW mode available	Test using the widest BW mode available for the link
All other tests	Any single BW mode	Not required

Note: Frequencies selected for statistical performance check (Section 7.8.4) should include several frequencies within the radar detection bandwidth and frequencies near the edge of the radar detection bandwidth. For 802.11 devices it is suggested to select frequencies in all 20 MHz channel blocks and a null frequency between the bonded 20 MHz channel blocks.

Table 3: Interference Threshold values, Master or Client incorporating In-Service Monitoring

Maximum Transmit Power	Value (see notes)
E.I.R.P. $\geq$ 200 mill watt	-64 dBm
E.I.R.P. < 200 mill watt and power spectral density < 10 dBm/MHz	-62 dBm
E.I.R.P. < 200 mill watt that do not meet power spectral density requirement	-64 dBm
Note 1: This is the level at the input of the receiver assuming a 0 dBi receive antenna Note 2: Throughout these test procedures an additional 1 dB has been added to the amplitude of the test transmission waveforms to account for variations in measurement equipment. This will ensure that the test signal is at or above the detection threshold level to trigger a DFS response. Note 3: E.I.R.P. is based on the highest antenna gain. For MIMO devices refer to KDB publication 662911 D01.	

Table 4: DFS Response requirement values

Parameter	Value
<i>Non-occupancy period</i>	30 minutes
<i>Channel Availability Check Time</i>	60 seconds
<i>Channel Move Time</i>	10 seconds (See Note 1)
<i>Channel Closing Transmission Time</i>	200 milliseconds + approx. 60 milliseconds over remaining 10 second period. (See Notes 1 and 2)
<i>U-NII Detection Bandwidth</i>	Minimum 100% of the U- NII 99% transmission power bandwidth. (See Note 3)
Note 1: <i>Channel Move Time</i> and the <i>Channel Closing Transmission Time</i> should be performed with Radar Type 0. The measurement timing begins at the end of the Radar Type 0 burst. Note 2: The <i>Channel Closing Transmission Time</i> is comprised of 200 milliseconds starting at the beginning of the <i>Channel Move Time</i> plus any additional intermittent control signals required to facilitate a <i>Channel</i> move (an aggregate of 60 milliseconds) during the remainder of the 10 second period. The aggregate duration of control signals will not count quiet periods in between transmissions. Note 3: During the <i>U-NII Detection Bandwidth</i> detection test, radar type 0 should be used. For each frequency step the minimum percentage of detection is 90 percent. Measurements are performed with no data traffic.	

Table 5 – Short Pulse Radar Test Waveforms

Radar Type	Pulse Width (usec)	PRI (usec)	Pulses	Minimum Percentage of Successful Detection	Minimum Trials
0	1	1428	18	See Note 1	See Note 1
1	1	Test A: 15 unique PRI values randomly selected from the list of 23 PRI values in table 5a	Roundup: $\{(1/360) \times (19 \times 10^6 \text{ PRI}_{\text{usec}})\}$	60%	30
		Test B: 15 unique PRI values randomly selected within the range of 518-3066 usec. With a minimum increment of 1 usec, excluding PRI values selected in Test A			
2	1-5	150-230	23-29	60%	30
3	6-10	200-500	16-18	60%	30
4	11-20	200-500	12-16	60%	30
Aggregate (Radar Types 1-4)				80%	120
Note 1: Short Pulse Radar Type 0 should be used for the <i>Detection Bandwidth</i> test, <i>Channel Move Time</i> , and <i>Channel Closing Time</i> tests.					

Table 6 – Long Pulse Radar Test Signal

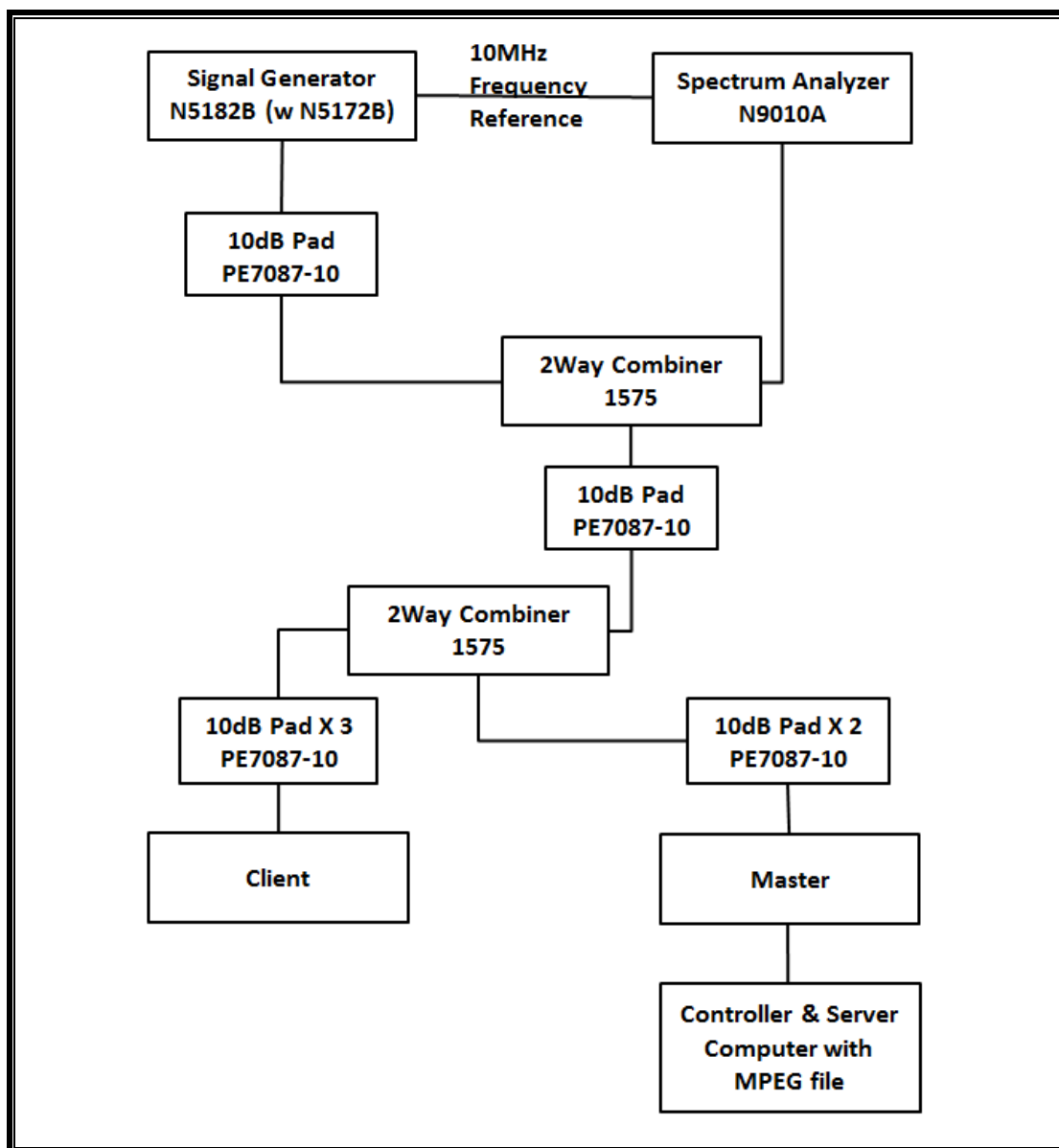
Radar Waveform Type	Pulse Width (μsec)	Chirp Width (MHz)	PRI (μsec)	Pulses per Burst	Number of Bursts	Minimum Percentage of Successful Detection	Minimum Trials
5	50-100	5-20	1000-2000	1-3	8-20	80%	30

Table 7 – Frequency Hopping Radar Test Signal

Radar Waveform Type	Pulse Width (μsec)	PRI (μsec)	Pulses per Hop	Hopping Rate (kHz)	Hopping Sequence Length (msec)	Minimum Percentage of Successful Detection	Minimum Trials
6	1	333	9	0.333	300	70%	30

14.1.1. TEST AND MEASUREMENT SYSTEM

CONDUCTED METHOD SYSTEM BLOCK DIAGRAM



SYSTEM OVERVIEW

The short pulse and long pulse signal generating system utilizes the Keysite Signal Studio for Pulse Building as N5172B. The Vector Signal Generator has been validated by the NTIA. The hopping signal generating system utilizes the CCS simulated hopping method and system, which has been validated by the DoD, FCC and NTIA. The software selects waveform parameters from within the bounds of the signal type on a random basis using uniform distribution.

The short pulse types 1, 2, 3 and 4, and the long pulse type 5 parameters are randomized at run-time.

The hopping type 6 pulse parameters are fixed while the hopping sequence is based on the August 2005 NTIA Hopping Frequency List. The initial starting point randomized at run-time and each subsequent starting point is incremented by 475. Each frequency in the 100-length segment is compared to the boundaries of the EUT Detection Bandwidth and the software creates a hopping burst pattern in accordance with Section 7.4.1.3 Method #2 Simulated Frequency Hopping Radar Waveform Generating Subsystem of KDB 905462 D02. The frequency of the signal generator is incremented in 1 MHz steps from F_L to F_H for each successive trial. This incremental sequence is repeated as required to generate a minimum of 30 total trials and to maintain a uniform frequency distribution over the entire Detection Bandwidth.

The signal monitoring equipment consists of a spectrum analyzer. The aggregate ON time is calculated by multiplying the number of bins above a threshold during a particular observation period by the dwell time per bin, with the analyzer set to peak detection and max hold.

SYSTEM CALIBRATION

A 50-ohm load is connected in place of the spectrum analyzer, and the spectrum analyzer is connected to a horn antenna via a coaxial cable, with the reference level offset set to (horn antenna gain – coaxial cable loss). The signal generator is set to CW mode. The amplitude of the signal generator is adjusted to yield a level of –64 dBm as measured on the spectrum analyzer.

Without changing any of the instrument settings, the spectrum analyzer is reconnected to the Common port of the Spectrum Analyzer Combiner/Divider. The Reference Level Offset of the spectrum analyzer is adjusted so that the displayed amplitude of the signal is –64 dBm.

The spectrum analyzer displays the level of the signal generator as received at the antenna ports of the Master Device. The interference detection threshold may be varied from the calibrated value of –64 dBm and the spectrum analyzer will still indicate the level as received by the Master Device.

ADJUSTMENT OF DISPLAYED TRAFFIC LEVEL

A link is established between the Master and Slave and the distance between the units is adjusted as needed to provide a suitable received level at the Master and Slave devices. The video test file is streamed to generate WLAN traffic. The monitoring antenna is adjusted so that the WLAN traffic level, as displayed on the spectrum analyzer, is at lower amplitude than the radar detection threshold.

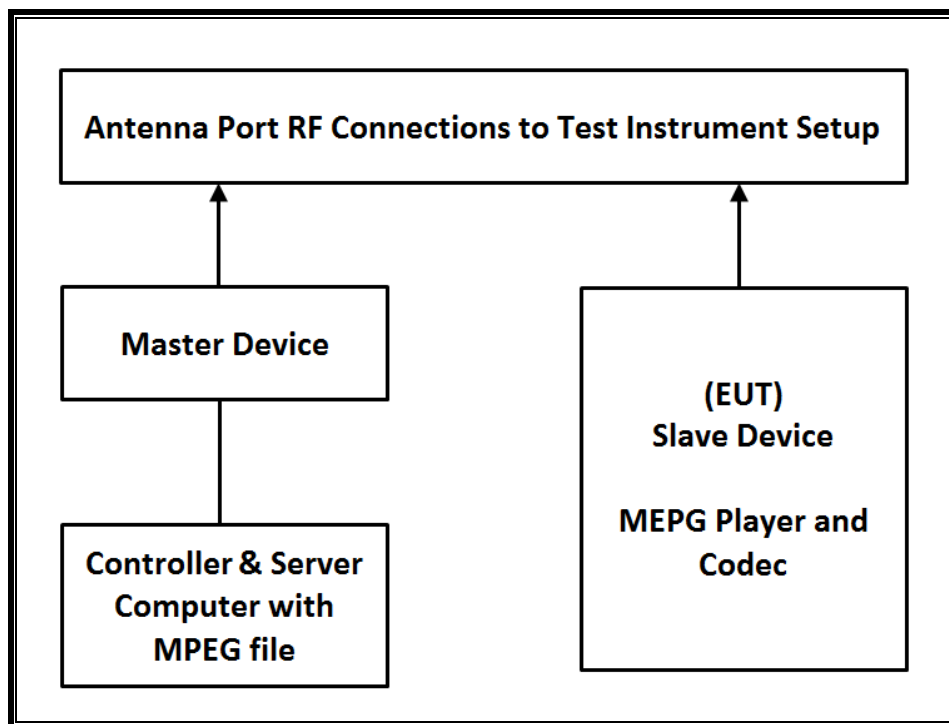
TEST AND MEASUREMENT EQUIPMENT

The following test and measurement equipment was utilized for the DFS tests documented in this report:

TEST EQUIPMENT LIST				
Description	Manufacturer	Model	S/N	Cal Due
Spectrum Analyzer, 7 GHz	Agilent / HP	N9010A	MY54200580	08-19-16
Vector Signal Generator, 6GHz	Agilent / HP	N5182B	MY53051241	08-19-16

14.1.2. SETUP OF EUT

CONDUCTED METHOD EUT TEST SETUP



SUPPORT EQUIPMENT

The following support equipment was utilized for the DFS tests documented in this report:

PERIPHERAL SUPPORT EQUIPMENT LIST				
Description	Manufacturer	Model	Serial Number	FCC ID
Wireless Access Point	Cisco	AIR-CAP3702E-A-K9	FTX182276QX	LDK102087
Notebook PC (Controller/Server)	HP	HP EliteDesk 800 G1 TWR	CZC4125J25	DoC

14.1.3. DESCRIPTION OF EUT

The EUT operates over the 5250-5350 MHz and 5470-5725 MHz ranges.

The EUT is a Slave Device without Radar Detection.

The highest power level within these bands is 15.16 dBm in the 5250-5350 MHz band and 15.14 dBm in the 5470-5725 MHz band.

The antenna assembly utilized two antenna with the EUT one is -3.07 dBi, and the other is -3.15 dBi.

The rated output power of the Master unit is > 23dBm (EIRP). Therefore the required interference threshold level is -64 dBm. After correction for procedural adjustments, the required conducted threshold at the antenna port is $-64 + 1 = -63$ dBm.

The calibrated radiated DFS Detection Threshold level is set to -64 dBm. The tested level is lower than the required level hence it provides a margin to the limit.

The EUT uses one transmitter/receiver chain connected to an antenna to perform radiated tests.

WLAN traffic that meets or exceeds the minimum required loading was generated by transferring a data stream from the controller/server PC to the EUT using iPerf version 2.0.5 software package.

TPC is not required since the maximum EIRP is less than 500 mW (27 dBm).

The EUT utilizes the 802.11ac architecture. Three nominal channel bandwidths are implemented: 20 MHz, 40 MHz and 80 MHz.

The software installed in the access point is 12.4(25d)JA1.

UNIFORM CHANNEL SPREADING

This requirement is not applicable to Slave radio devices.

OVERVIEW OF MASTER DEVICE WITH RESPECT TO §15.407 (h) REQUIREMENTS

The Master Device is a Cisco Access Point, FCC ID: LDK102087. The minimum antenna gain for the Master Device is 6 dBi.

The rated output power of the Master unit is > 23dBm (EIRP). Therefore the required interference threshold level is -64 dBm. After correction for procedural adjustments, the required radiated threshold at the antenna port is $-64 + 1 = -63$ dBm.

The calibrated radiated DFS Detection Threshold level is set to -64 dBm. The tested level is lower than the required level hence it provides a margin to the limit.

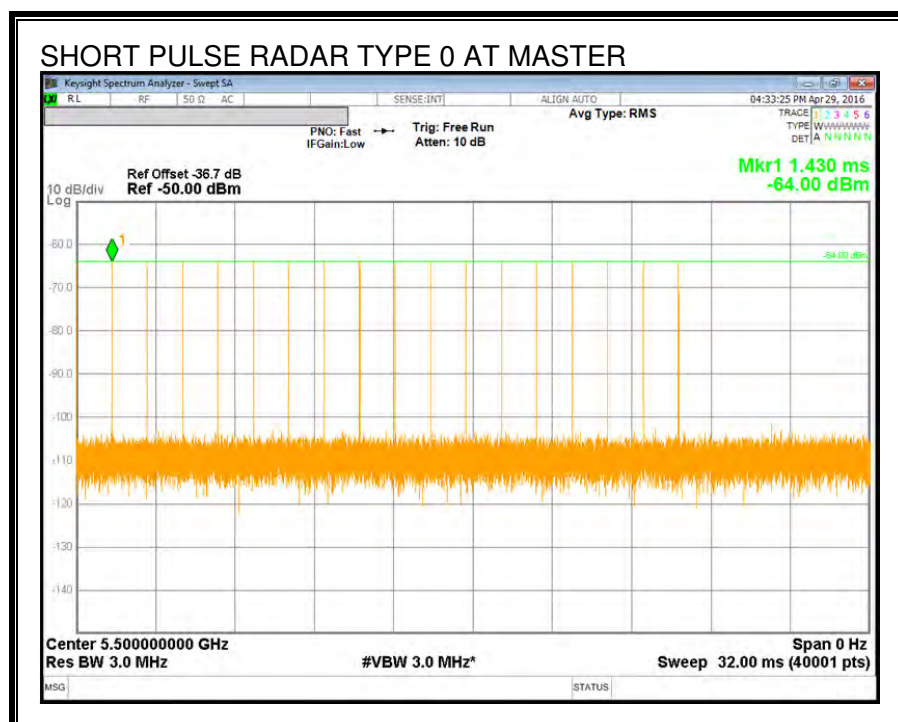
14.2. RESULTS FOR 20 MHz BANDWIDTH

14.2.1. TEST CHANNEL

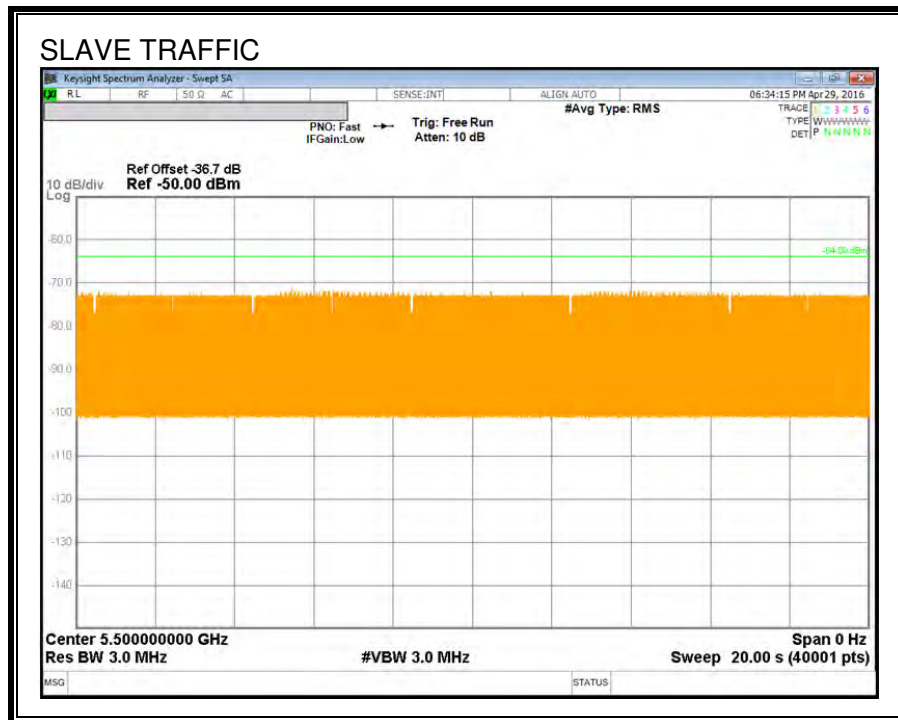
All tests were performed at a channel center frequency of 5500 MHz.

14.2.2. RADAR WAVEFORM AND TRAFFIC

RADAR WAVEFORM



TRAFFIC



14.2.3. OVERLAPPING CHANNEL TESTS

RESULTS

These tests are not applicable.

14.2.4. MOVE AND CLOSING TIME

REPORTING NOTES

The reference marker is set at the end of last radar pulse.

The delta marker is set at the end of the last WLAN transmission following the radar pulse. This delta is the channel move time.

The aggregate channel closing transmission time is calculated as follows:

Aggregate Transmission Time =
(Number of analyzer bins showing transmission) * (dwell time per bin)

The observation period over which the aggregate time is calculated begins at (Reference Marker + 200 msec) and ends no earlier than (Reference Marker + 10 sec).

RESULTS

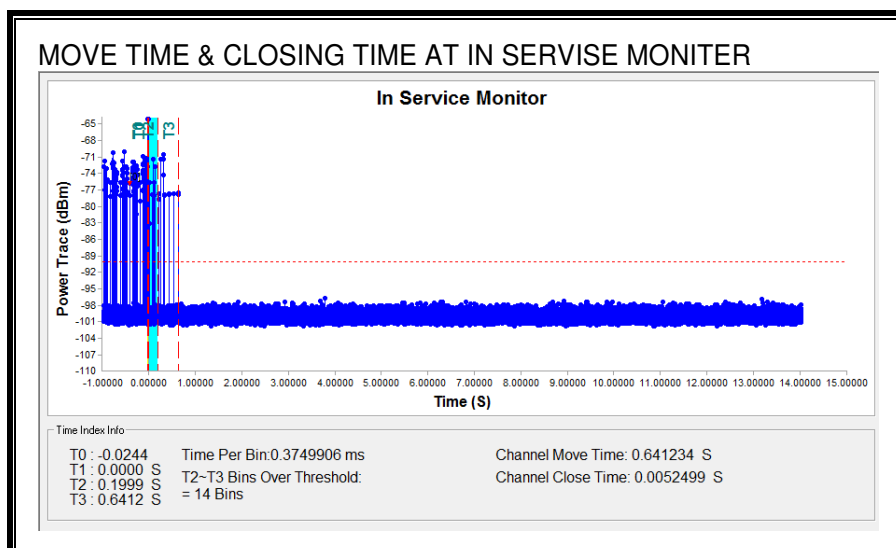
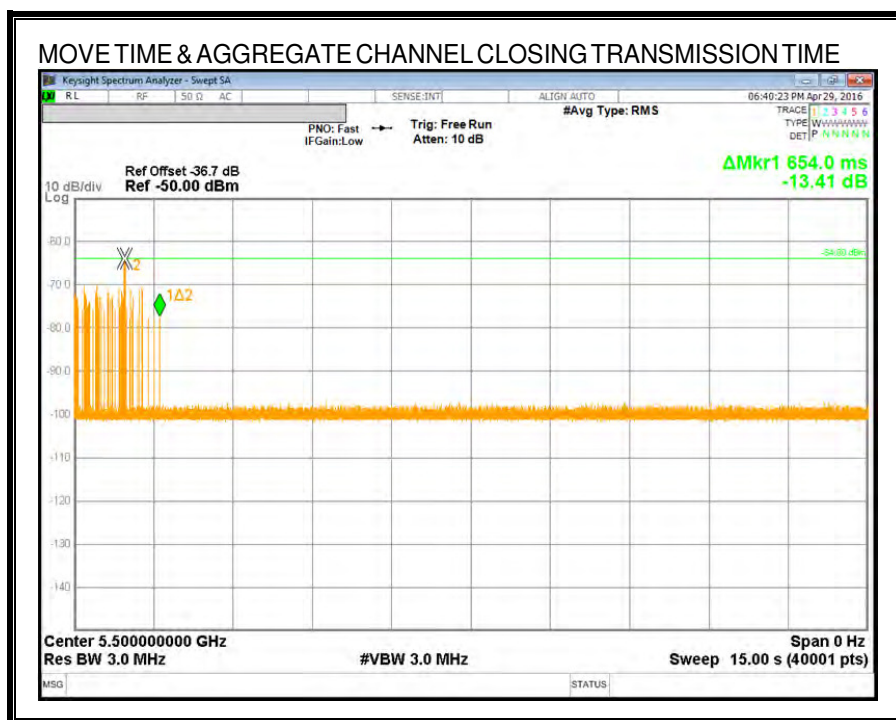
Channel Move Time (sec)	Limit (sec)
0.641	10

Aggregate Channel Closing Transmission Time (msec)	Limit (msec)
5.250	60

MOVE TIME & CHANNEL CLOSING TIME

AGGREGATE CHANNEL CLOSING TRANSMISSION TIME

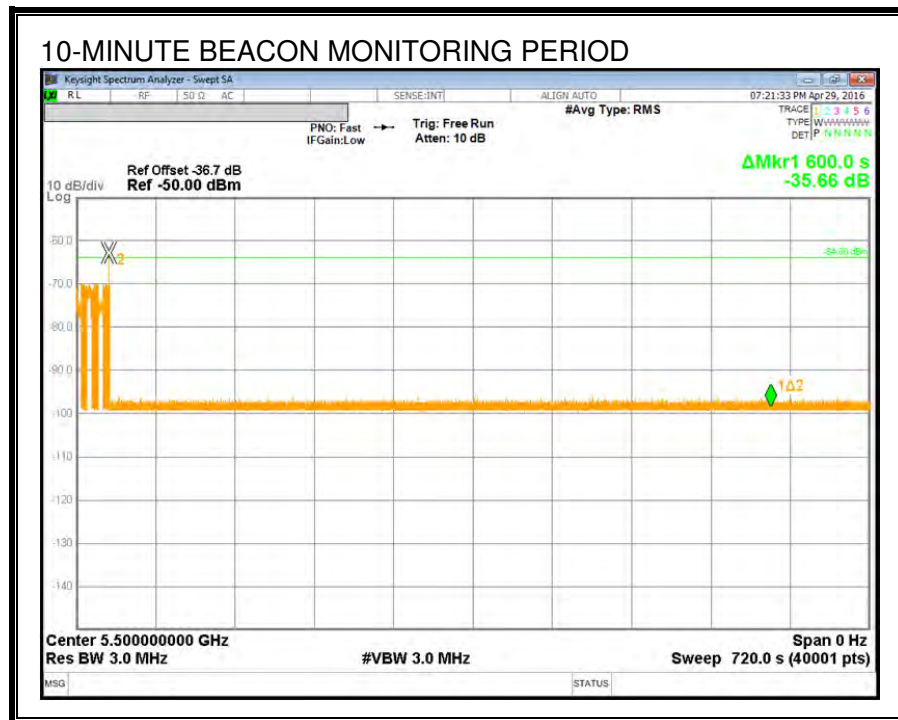
No transmissions are observed during the aggregate monitoring period.



NON-OCCUPANCY PERIOD

RESULTS

No EUT transmissions were observed on the test channel during the 10-minute observation time.



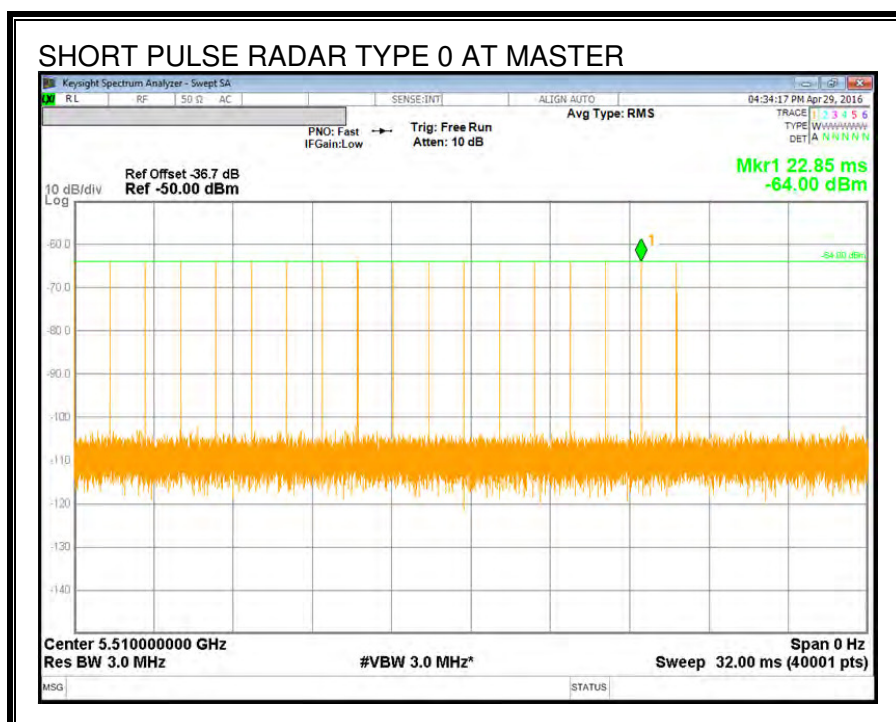
14.3. RESULTS FOR 40 MHz BANDWIDTH

14.3.1. TEST CHANNEL

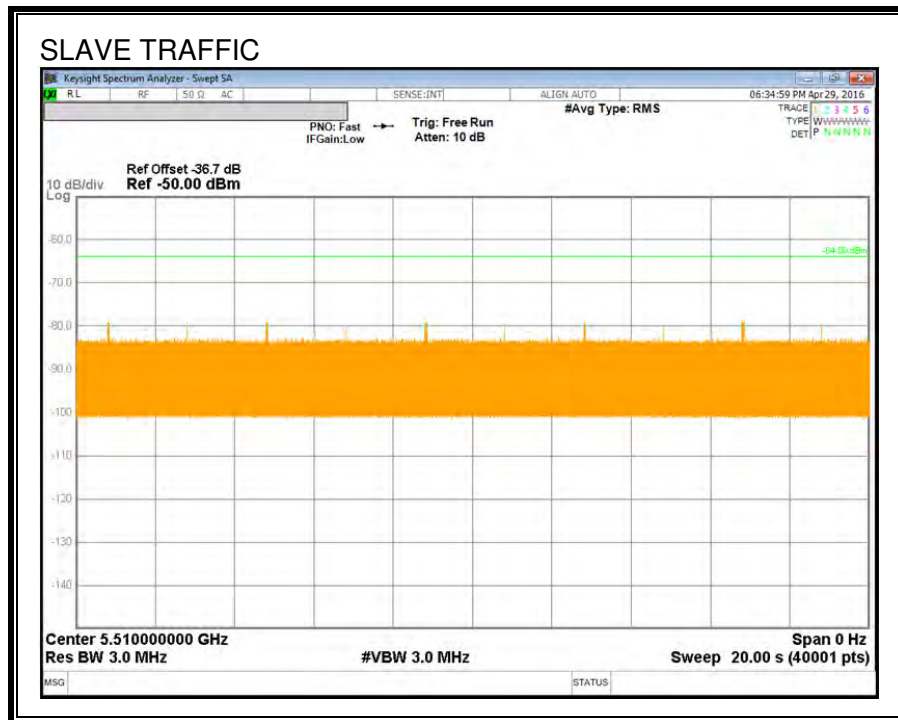
All tests were performed at a channel center frequency of 5510 MHz.

14.3.2. RADAR WAVEFORM AND TRAFFIC

RADAR WAVEFORM



TRAFFIC



14.3.3. OVERLAPPING CHANNEL TESTS

RESULTS

These tests are not applicable.

14.3.4. MOVE AND CLOSING TIME

REPORTING NOTES

The reference marker is set at the end of last radar pulse.

The delta marker is set at the end of the last WLAN transmission following the radar pulse. This delta is the channel move time.

The aggregate channel closing transmission time is calculated as follows:

Aggregate Transmission Time =
(Number of analyzer bins showing transmission) * (dwell time per bin)

The observation period over which the aggregate time is calculated begins at (Reference Marker + 200 msec) and ends no earlier than (Reference Marker + 10 sec).

RESULTS

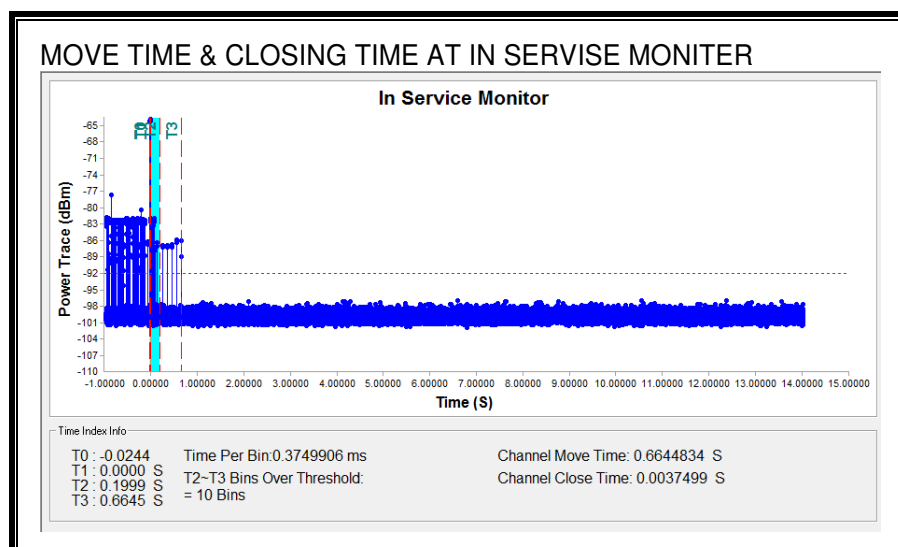
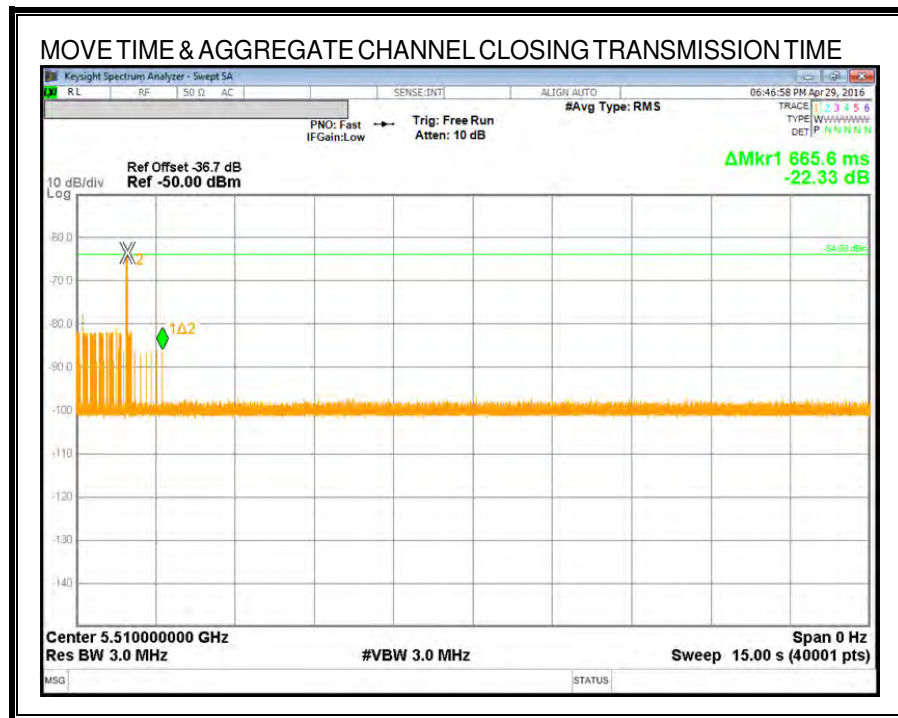
Channel Move Time (sec)	Limit (sec)
0.664	10

Aggregate Channel Closing Transmission Time (msec)	Limit (msec)
3.750	60

MOVE TIME & CHANNEL CLOSING TIME

AGGREGATE CHANNEL CLOSING TRANSMISSION TIME

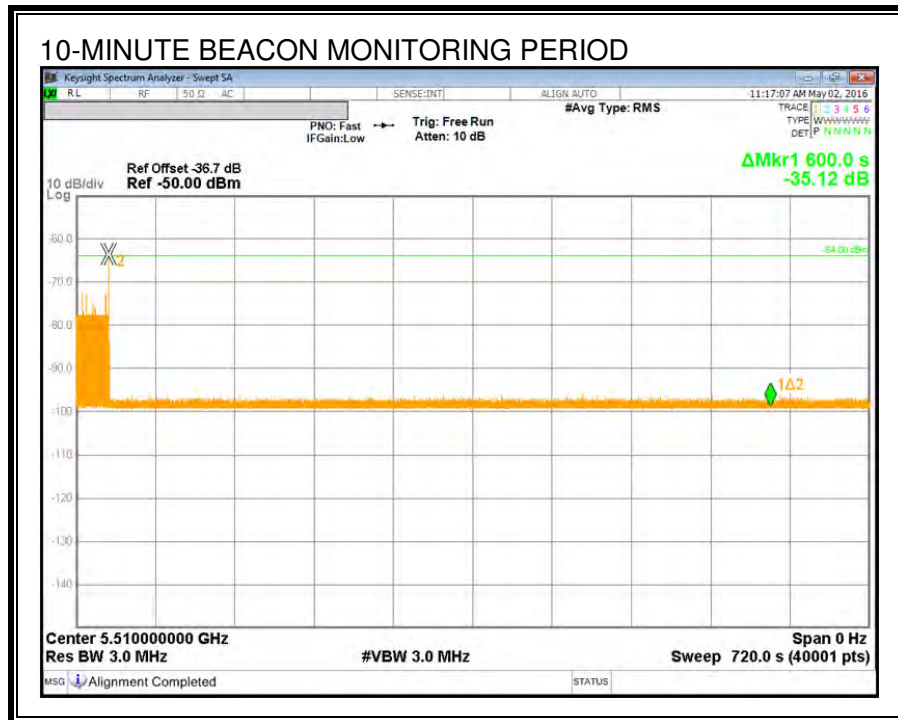
No transmissions are observed during the aggregate monitoring period.



NON-OCCUPANCY PERIOD

RESULTS

No EUT transmissions were observed on the test channel during the 10-minute observation time.



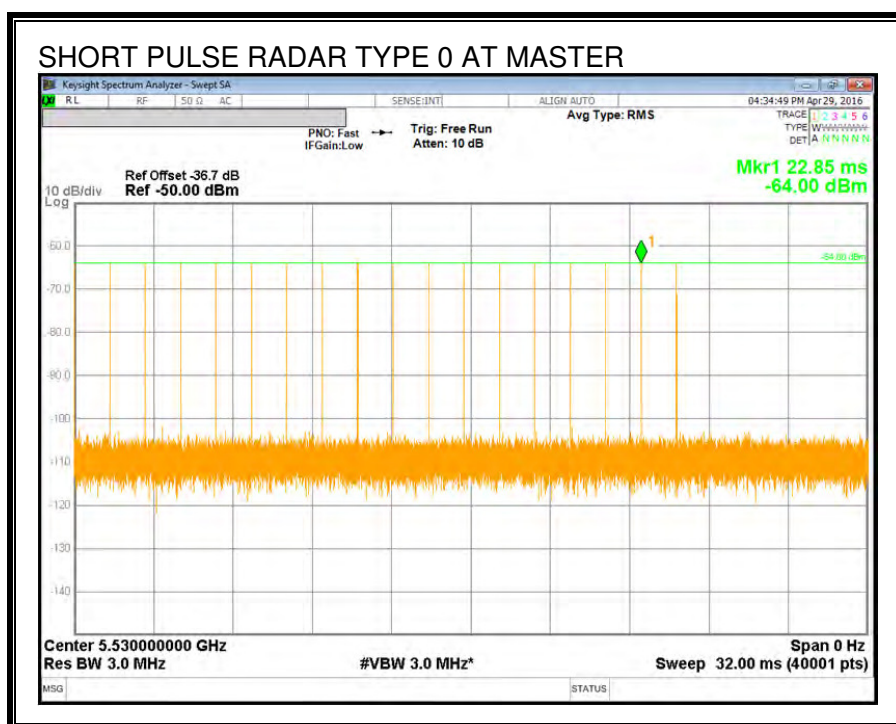
14.4. RESULTS FOR 80 MHz BANDWIDTH

14.4.1. TEST CHANNEL

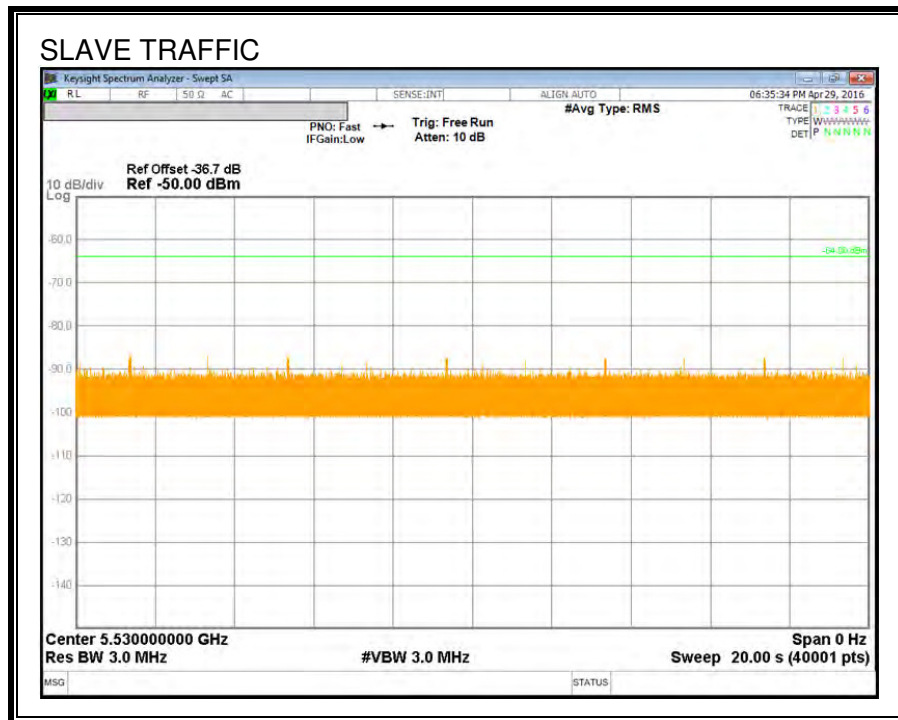
All tests were performed at a channel center frequency of 5530 MHz.

14.4.2. RADAR WAVEFORM AND TRAFFIC

RADAR WAVEFORM



TRAFFIC



14.4.3. OVERLAPPING CHANNEL TESTS

RESULTS

These tests are not applicable.

14.4.4. MOVE AND CLOSING TIME

REPORTING NOTES

The reference marker is set at the end of last radar pulse.

The delta marker is set at the end of the last WLAN transmission following the radar pulse. This delta is the channel move time.

The aggregate channel closing transmission time is calculated as follows:

Aggregate Transmission Time =
(Number of analyzer bins showing transmission) * (dwell time per bin)

The observation period over which the aggregate time is calculated begins at (Reference Marker + 200 msec) and ends no earlier than (Reference Marker + 10 sec).

RESULTS

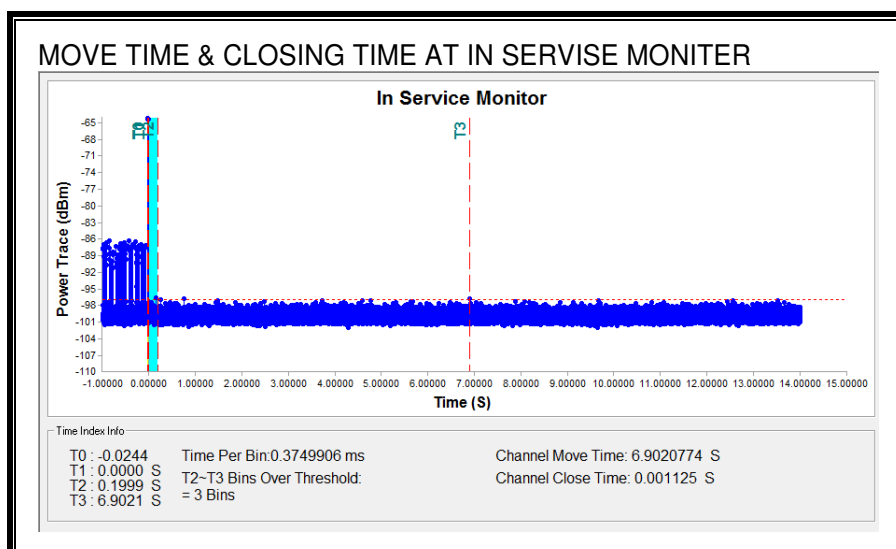
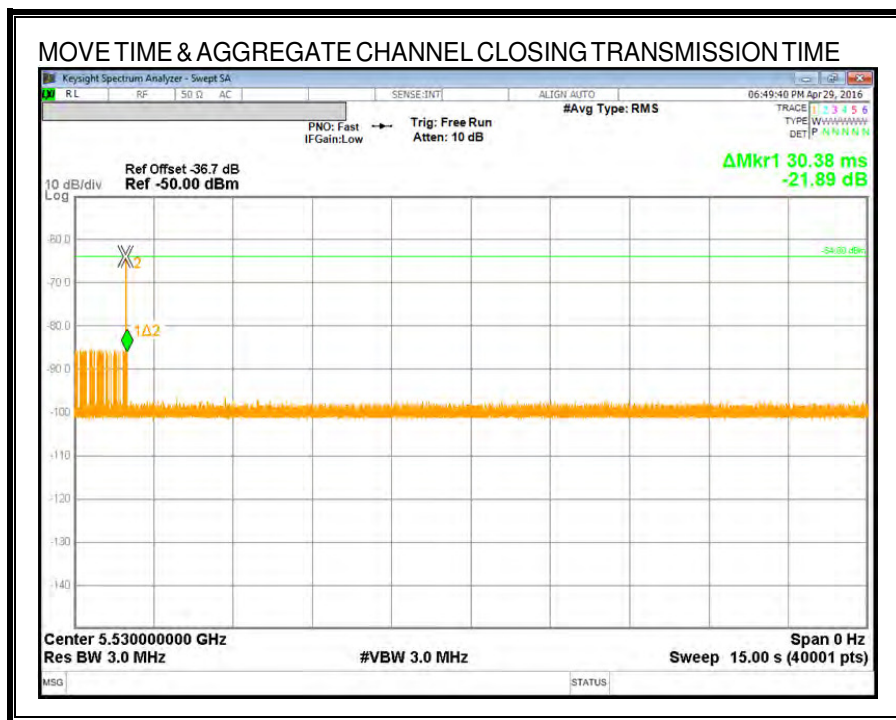
Channel Move Time (sec)	Limit (sec)
6.902	10

Aggregate Channel Closing Transmission Time (msec)	Limit (msec)
1.125	60

MOVE TIME & CHANNEL CLOSING TIME

AGGREGATE CHANNEL CLOSING TRANSMISSION TIME

No transmissions are observed during the aggregate monitoring period.



NON-OCCUPANCY PERIOD

RESULTS

No EUT transmissions were observed on the test channel during the 10-minute observation time.

