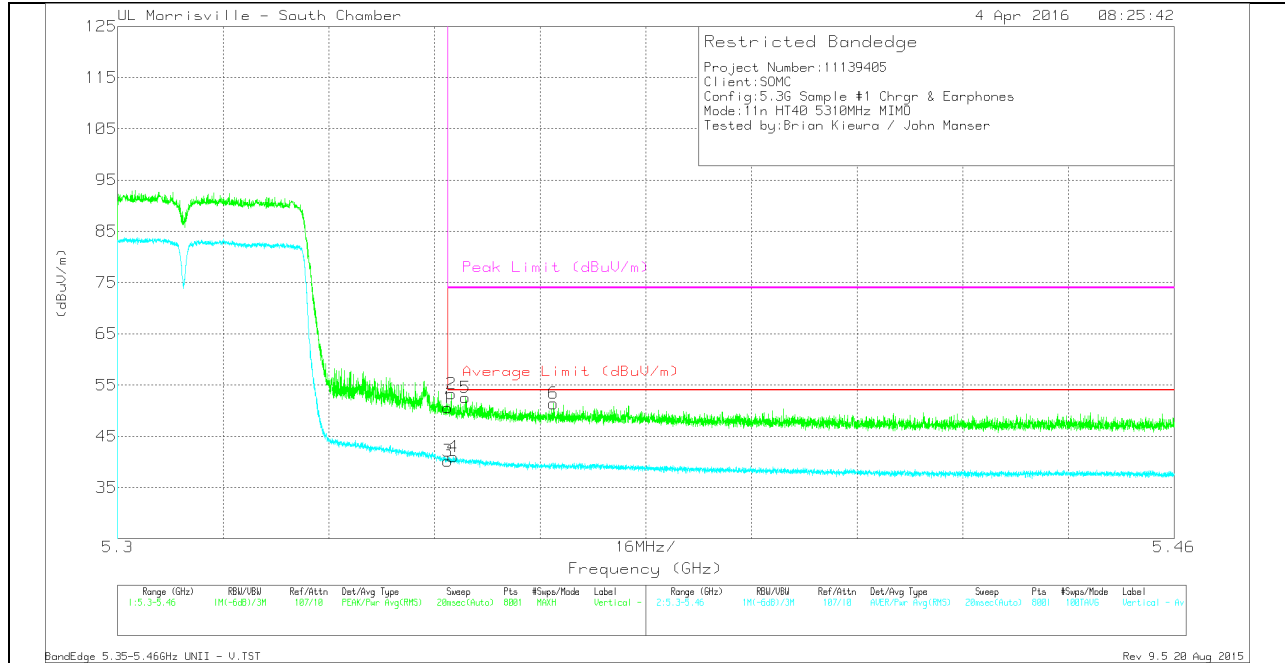


**VERTICAL PEAK AND AVERAGE PLOT**



**VERTICAL DATA**

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0069 (dB/m)	Amp/Cb/Fltr/Pad (dB)	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	39.66	Pk	34.4	-23.5	0	50.56	-	-	74	-23.44	48	262	V
2	* 5.351	42.32	Pk	34.4	-23.4	0	53.32	-	-	74	-20.68	48	262	V
5	* 5.353	41.55	Pk	34.4	-23.4	0	52.55	-	-	74	-21.45	48	262	V
6	* 5.366	40.5	Pk	34.4	-23.5	0	51.4	-	-	74	-22.6	48	262	V
3	* 5.35	29.16	RMS	34.4	-23.5	.12	40.18	54	-13.82	-	-	48	262	V
4	* 5.351	29.86	RMS	34.4	-23.4	.12	40.98	54	-13.02	-	-	48	262	V

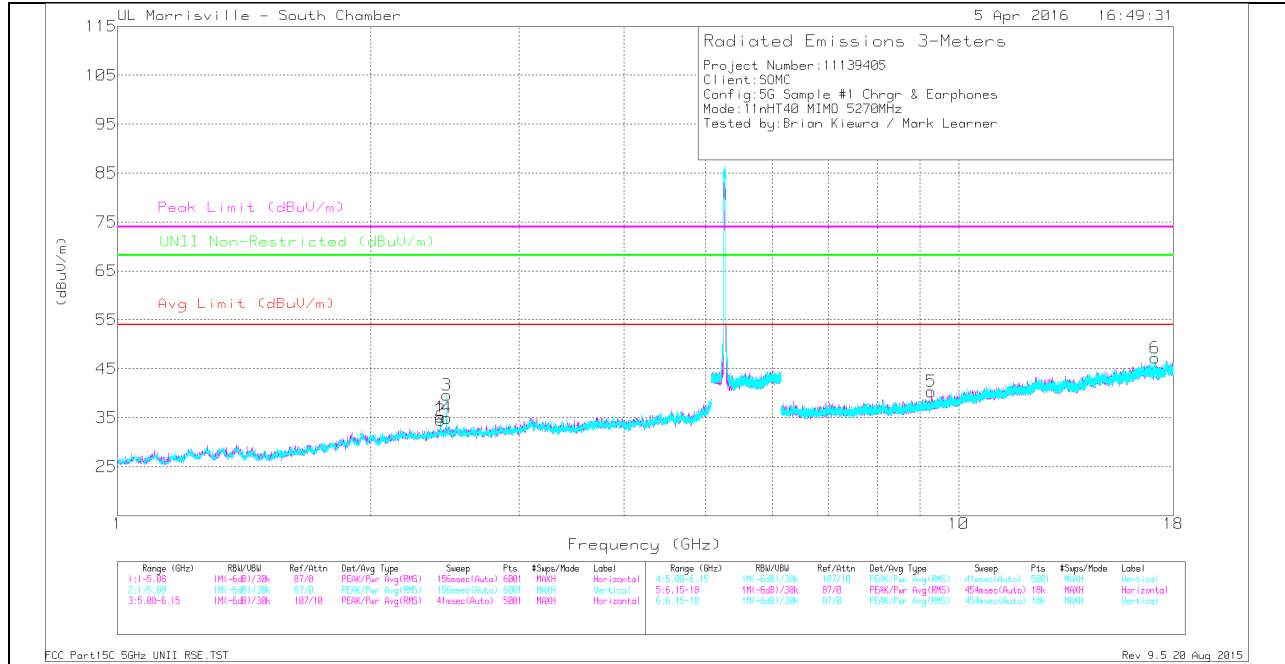
\* - indicates range frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

### HARMONICS AND SPURIOUS EMISSIONS

#### LOW CHANNEL



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

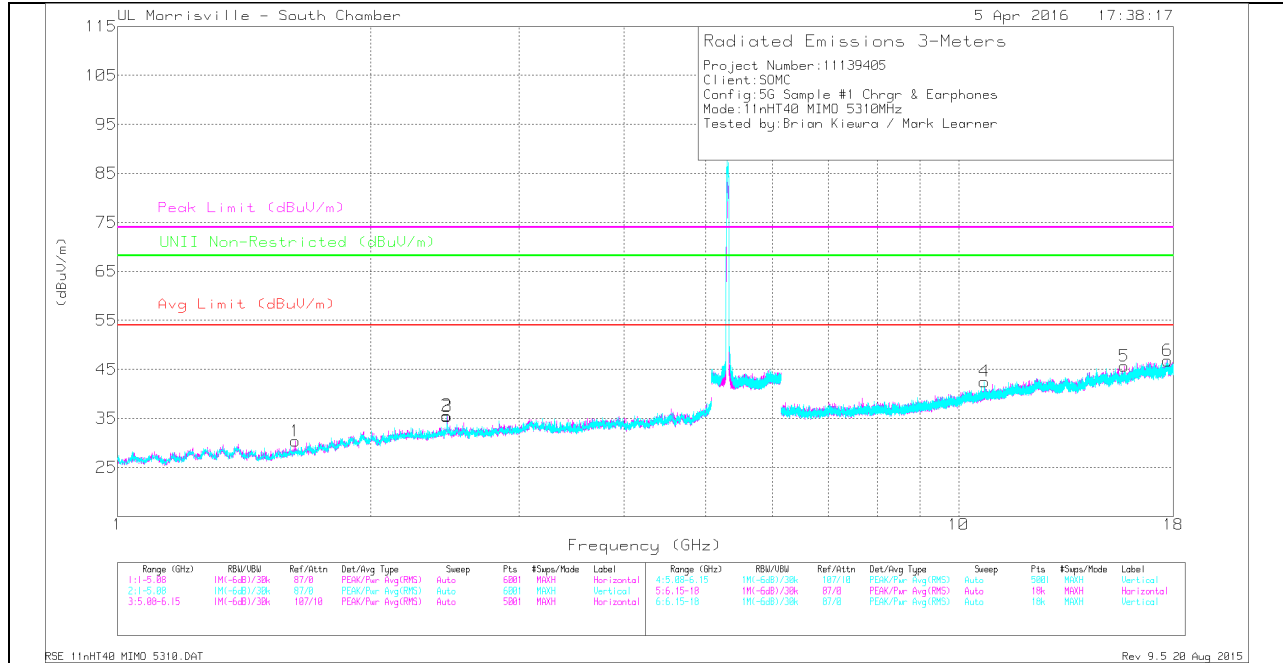
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF ATT069 (dB/m)	Amp/Chn/Freq/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Altitude (Degs)	Height (cm)	Polarity
1	2.42	41.9	PK-U	32.3	-34.7	0	39.5	-	-	-	-	68.2	-28.7	349	182	V
2	2.421	42.18	PK-U	32.3	-34.7	0	39.78	-	-	-	-	68.2	-28.42	258	298	H
4	2.464	42.68	PK-U	32.3	-34.6	0	40.38	-	-	-	-	68.2	-27.82	127	161	H
3	2.465	45.33	PK-U	32.4	-34.6	0	43.13	-	-	-	-	68.2	-25.07	47	281	V
5	9.282	35.34	PK-U	36.4	-27.6	0	44.14	-	-	-	-	68.2	-24.06	117	216	H
6	17.132	34.93	PK-U	41.3	-24.6	0	51.63	-	-	-	-	68.2	-16.57	18	358	V

\* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

**HIGH CHANNEL**



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	AF AT0069 (dB/m)	Amp/CS/Flt/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.625	41.9	PK-U	28.5	-34.9	0	35.5	-	-	74	-38.5	-	-	312	313	H
	* 1.623	30.45	ADR	28.5	-34.9	.12	24.17	54	-29.83	-	-	-	-	312	313	H
5	* 15.734	34.31	PK-U	40.3	-24.2	0	50.41	-	-	74	-23.59	-	-	127	166	H
	* 15.735	23.02	ADR	40.3	-24.2	.12	39.24	54	-14.76	-	-	-	-	127	166	H
4	* 10.729	35.24	PK-U	37.9	-25.7	0	47.44	-	-	74	-26.56	-	-	176	208	V
	* 10.73	23.34	ADR	37.9	-25.7	.12	35.66	54	-18.34	-	-	-	-	176	208	V
6	* 17.707	34.86	PK-U	41.2	-23	0	53.06	-	-	74	-20.94	-	-	194	175	V
	* 17.707	23.19	ADR	41.2	-23	.12	41.51	54	-12.49	-	-	-	-	194	175	V
2	2.464	45.7	PK-U	32.3	-34.6	0	43.4	-	-	-	-	68.2	-24.8	99	157	V
3	2.465	44.09	PK-U	32.3	-34.6	0	41.79	-	-	-	-	68.2	-26.41	147	126	H

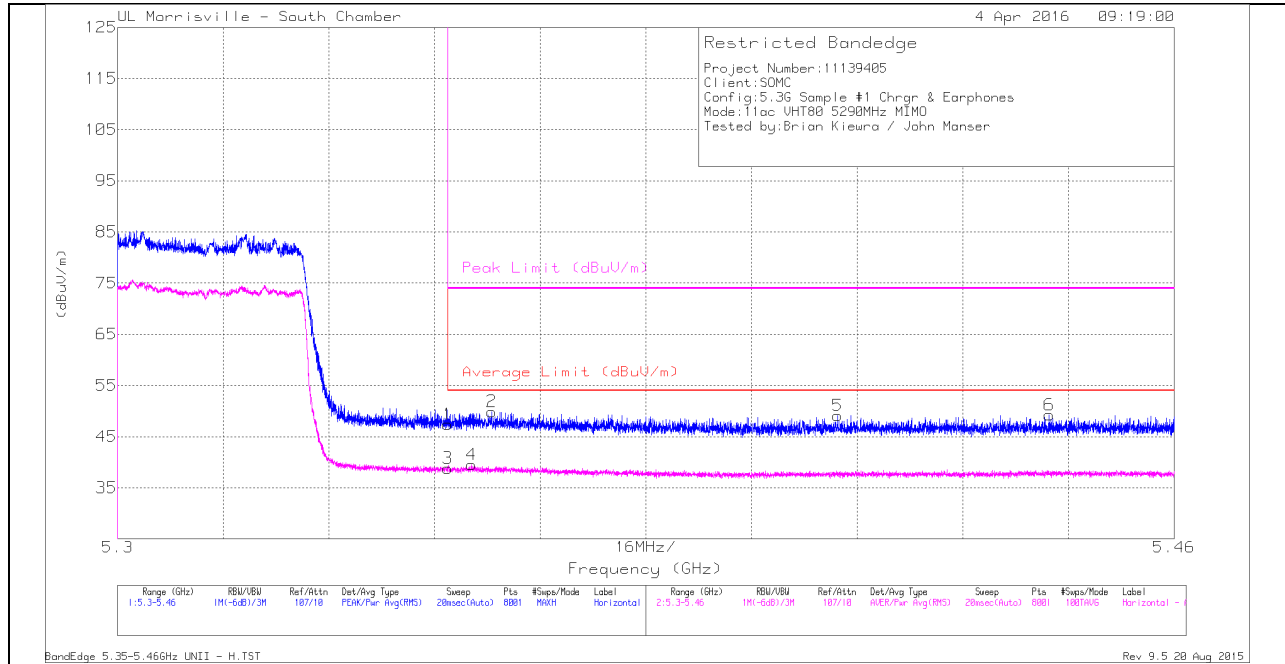
\* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

### 9.2.4. TX ABOVE 1 GHz 802.11ac VHT80 MODE IN THE 5.3 GHz BAND AUTHORIZED BANDEDGE (HIGH CHANNEL)

#### HORIZONTAL PEAK AND AVERAGE PLOT



#### HORIZONTAL DATA

##### Trace Markers

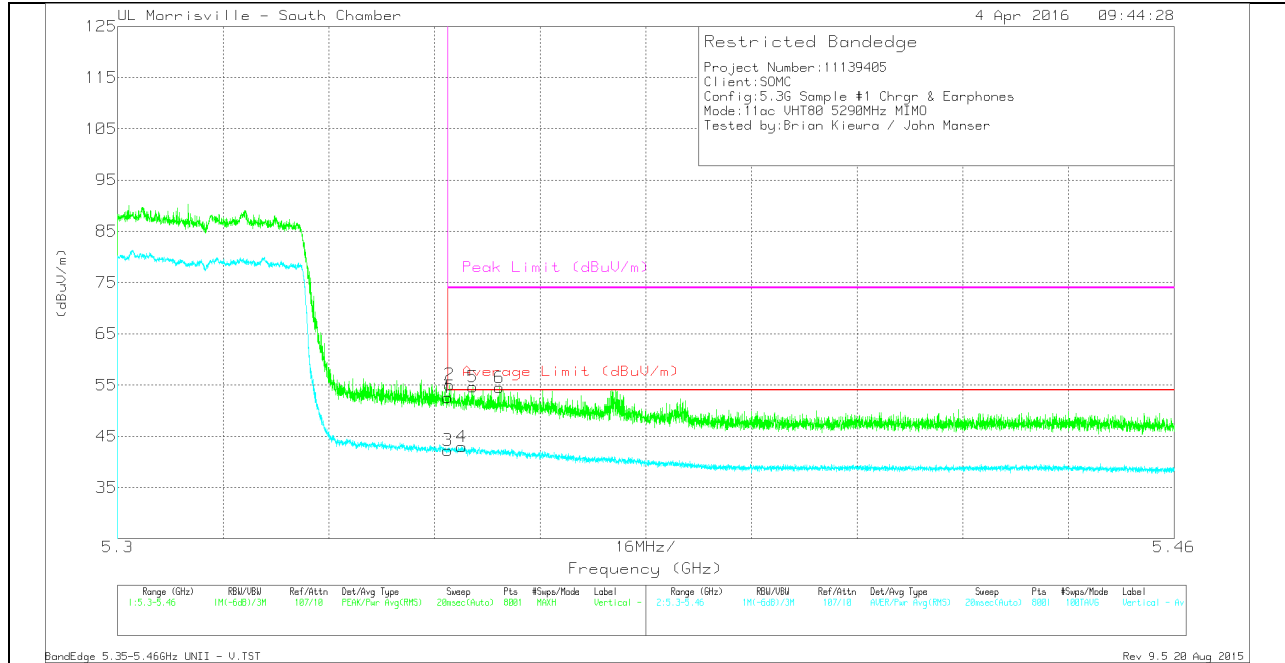
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0069 (dB/m)	Amp/Cb/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35	36.46	Pk	34.4	-23.5	0	47.36	-	-	74	-26.64	281	105	H
2	* 5.357	38.9	Pk	34.4	-23.4	0	49.9	-	-	74	-24.1	281	105	H
5	* 5.409	38.33	Pk	34.5	-23.7	0	49.13	-	-	74	-24.87	281	105	H
6	* 5.441	38.45	Pk	34.6	-23.8	0	49.25	-	-	74	-24.75	281	105	H
3	* 5.35	27.69	RMS	34.4	-23.5	.24	38.83	54	-15.17	-	-	281	105	H
4	* 5.354	28.25	RMS	34.4	-23.4	.24	39.49	54	-14.51	-	-	281	105	H

\* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

**VERTICAL PEAK AND AVERAGE PLOT**



**VERTICAL DATA**

**Trace Markers**

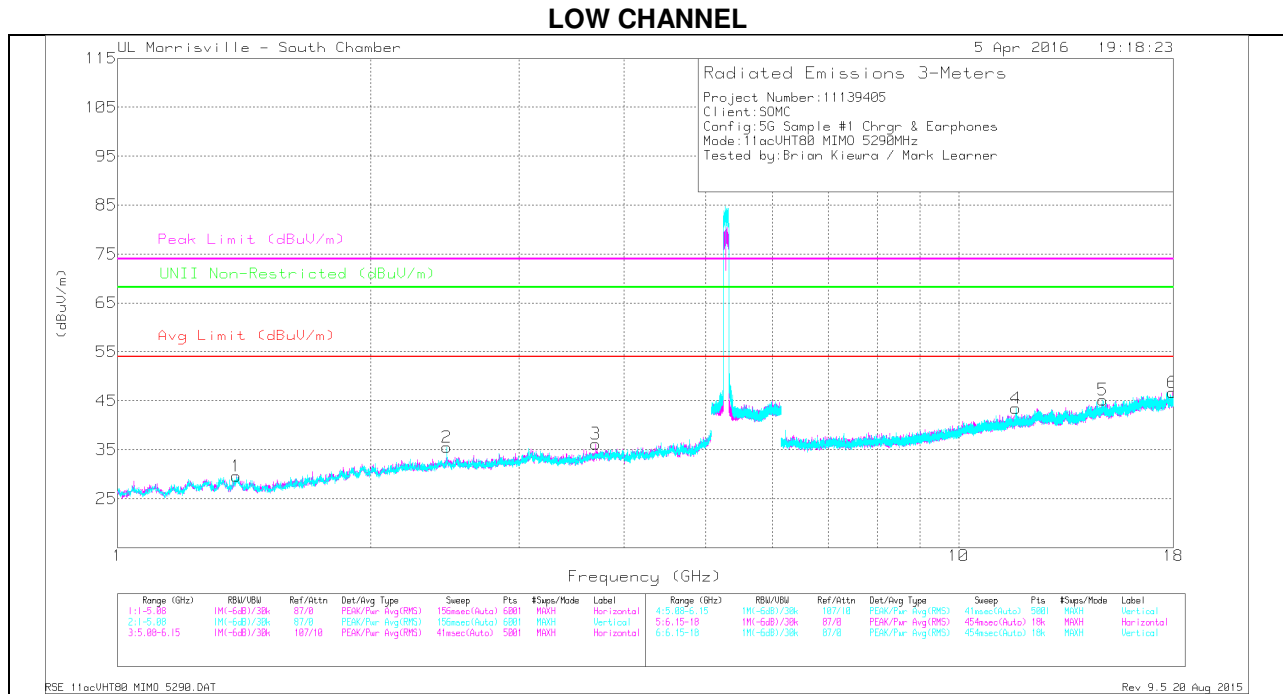
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF ATO69 (dB/m)	Amp/Cb/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35	41.69	Pk	34.4	-23.5	0	52.59	-	-	74	-21.41	62	236	V
2	* 5.35	44.16	Pk	34.4	-23.5	0	55.06	-	-	74	-18.94	62	236	V
5	* 5.354	43.65	Pk	34.4	-23.4	0	54.65	-	-	74	-19.35	62	236	V
6	* 5.358	43.53	Pk	34.4	-23.4	0	54.53	-	-	74	-19.47	62	236	V
3	* 5.35	31.13	RMS	34.4	-23.5	.24	42.27	54	-11.73	-	-	62	236	V
4	* 5.352	31.71	RMS	34.4	-23.4	.24	42.95	54	-11.05	-	-	62	236	V

\* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

### HARMONICS AND SPURIOUS EMISSIONS



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	AFAT0009 (dB/m)	Ampl/CS/FR/Psd (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Altitude (Degs)	Height (cm)	Polarity
3	* 3.704	40.28	PK-U	33.4	-33.1	0	40.58	-	-	74	-33.42	-	-	147	112	H
	* 3.705	29.09	ADR	33.4	-33.1	.24	29.63	54	-24.37	-	-	-	-	147	112	H
1	* 1.382	42.4	PK-U	28.8	-35.2	0	36	-	-	74	-38	-	-	277	211	V
	* 1.384	30.6	ADR	28.8	-35.2	.24	24.43	54	-29.56	-	-	-	-	277	211	V
6	* 17.953	35.06	PK-U	41.3	-23.8	0	52.56	-	-	74	-21.44	-	-	154	275	H
	* 17.952	23.31	ADR	41.3	-23.8	.24	41.03	54	-12.95	-	-	-	-	154	275	H
4	* 11.696	34.39	PK-U	38.6	-25.3	0	47.69	-	-	74	-26.31	-	-	185	142	V
	* 11.696	23.01	ADR	38.6	-25.3	.24	36.53	54	-17.45	-	-	-	-	185	142	V
2	2.463	48.76	PK-U	32.3	-34.6	0	46.46	-	-	-	-	68.2	-21.74	88	201	V
5	14.839	35.58	PK-U	39.8	-24.6	0	50.78	-	-	-	-	68.2	-17.42	30	331	V

\* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

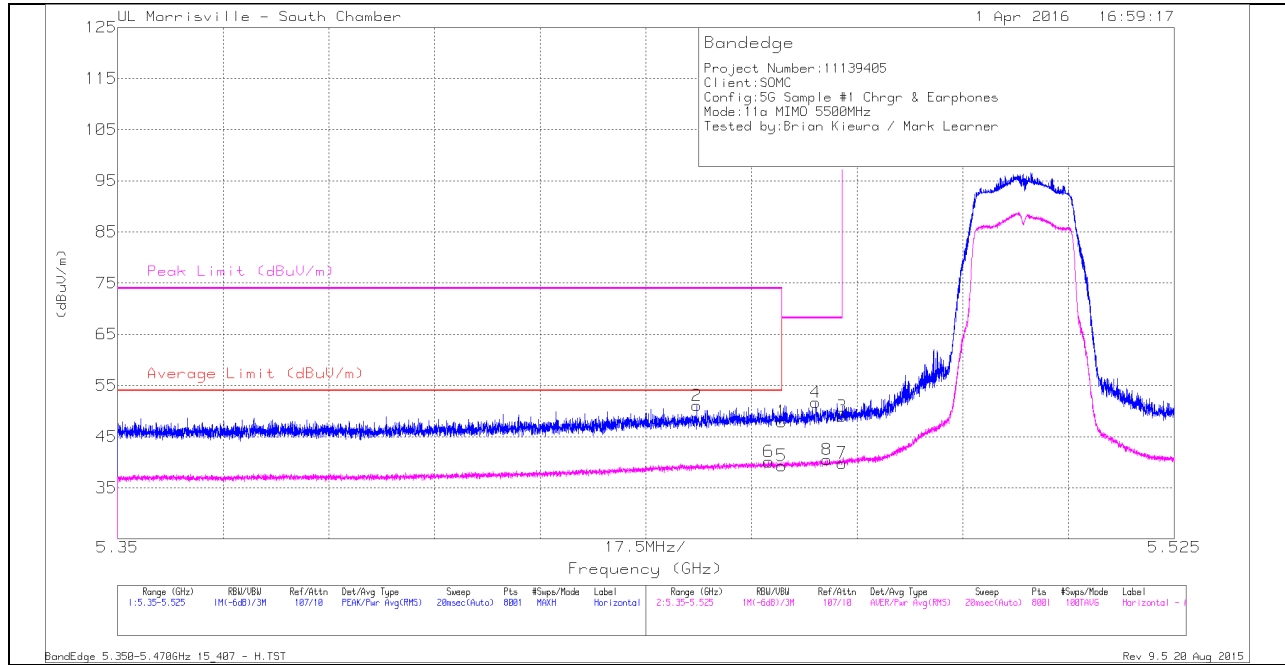
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

### 9.3. 5.5-5.6 GHz

#### 9.3.1. TX ABOVE 1 GHz 802.11a MODE IN THE 5.5 GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)

##### HORIZONTAL PEAK AND AVERAGE PLOT



### HORIZONTAL DATA

#### Trace Markers

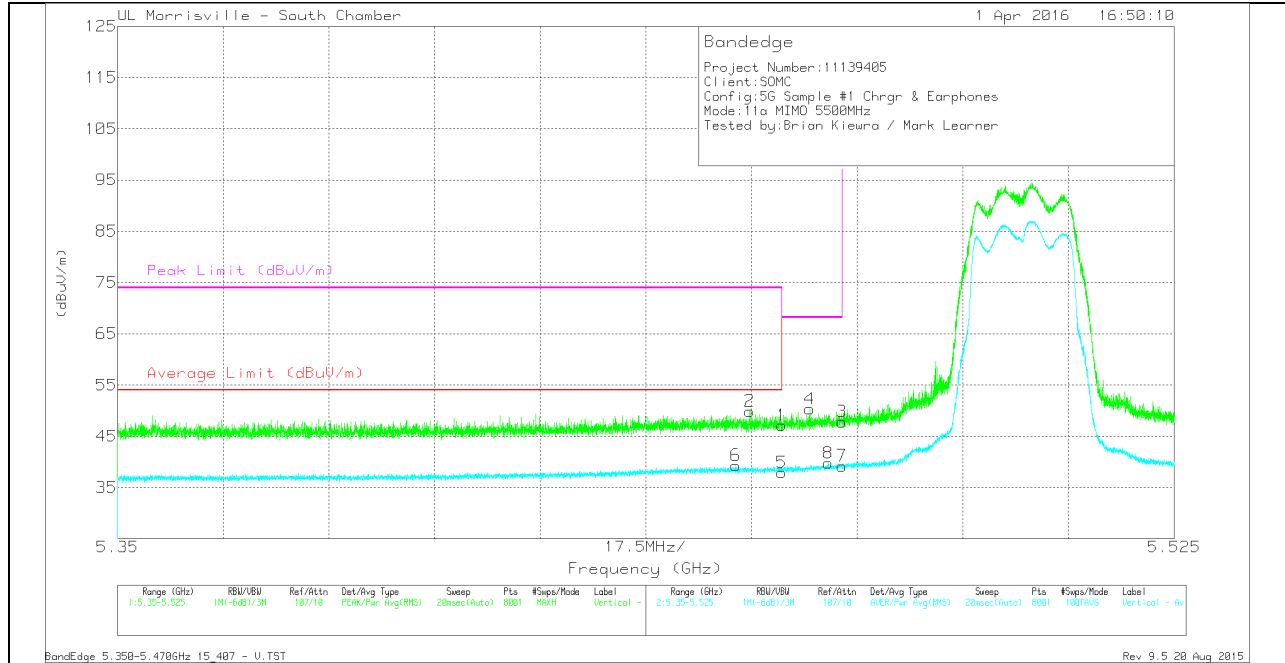
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF ATO069 (dB/m)	Amp/Cb/Filtz/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.46	37.25	Pk	34.6	-23.9	0	47.95	-	-	74	-26.05	104	108	H
2	* 5.446	40.3	Pk	34.6	-23.8	0	51.1	-	-	74	-22.9	104	108	H
5	* 5.46	28.62	RMS	34.6	-23.9	0	39.32	54	-14.68	-	-	104	108	H
6	* 5.458	29.39	RMS	34.6	-23.9	0	40.09	54	-13.91	-	-	104	108	H
4	5.466	40.98	Pk	34.6	-23.9	0	51.68	-	-	68.2	-16.52	104	108	H
8	5.467	29.81	RMS	34.6	-23.9	0	40.51	-	-	-	-	104	108	H
3	5.47	38.26	Pk	34.6	-23.9	0	48.96	-	-	68.2	-19.24	104	108	H
7	5.47	29.13	RMS	34.6	-23.9	0	39.83	-	-	-	-	104	108	H

\* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

**VERTICAL PEAK AND AVERAGE PLOT**



**VERTICAL DATA**

**Trace Markers**

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0069 (dB/m)	Amp/Cb/Ftr/Pad (dB)	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	36.43	Pk	34.6	-23.9	0	47.13	-	-	74	-26.87	93	110	V
2	* 5.455	39.2	Pk	34.6	-23.9	0	49.9	-	-	74	-24.1	93	110	V
5	* 5.46	27.25	RMS	34.6	-23.9	0	37.95	54	-16.05	-	-	93	110	V
6	* 5.452	28.52	RMS	34.6	-23.8	0	39.32	54	-14.68	-	-	93	110	V
4	5.465	39.64	Pk	34.6	-23.9	0	50.34	-	-	68.2	-17.86	93	110	V
8	5.468	29.04	RMS	34.6	-23.9	0	39.74	-	-	-	-	93	110	V
3	5.47	37.13	Pk	34.6	-23.9	0	47.83	-	-	68.2	-20.37	93	110	V
7	5.47	28.49	RMS	34.6	-23.9	0	39.19	-	-	-	-	93	110	V

\* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

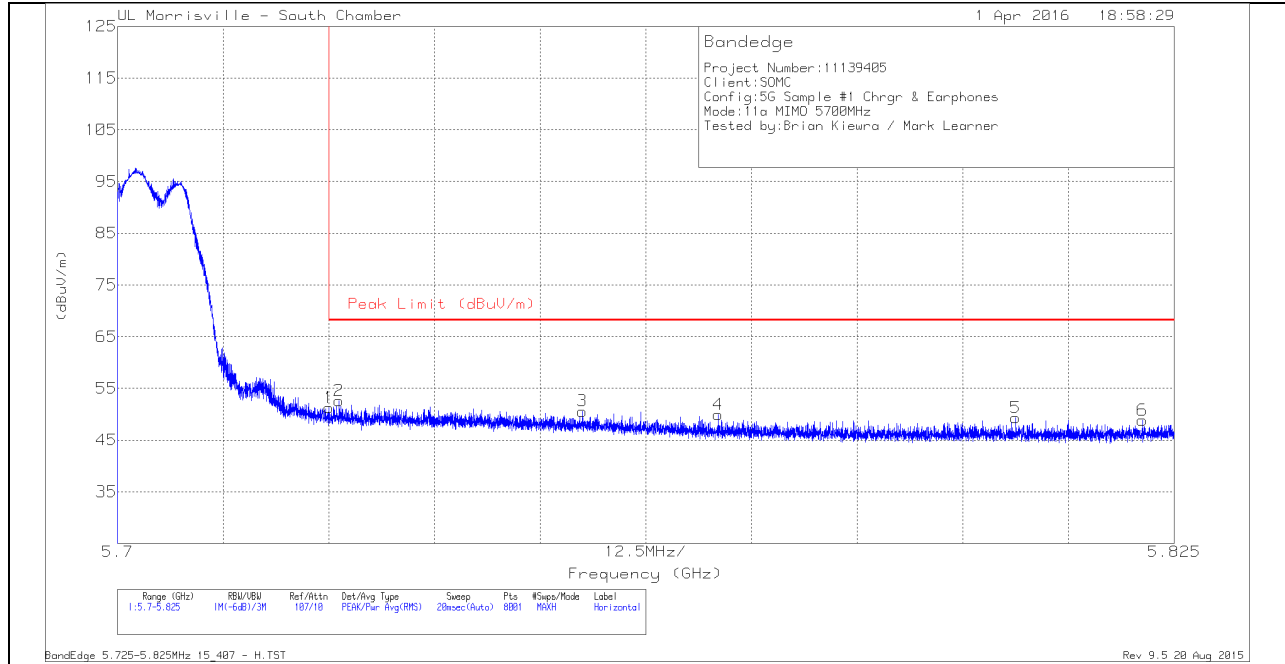
Pk - Peak detector

RMS - RMS detection



**AUTHORIZED BANDEDGE (HIGH CHANNEL)**

**HORIZONTAL PEAK AND AVERAGE PLOT**



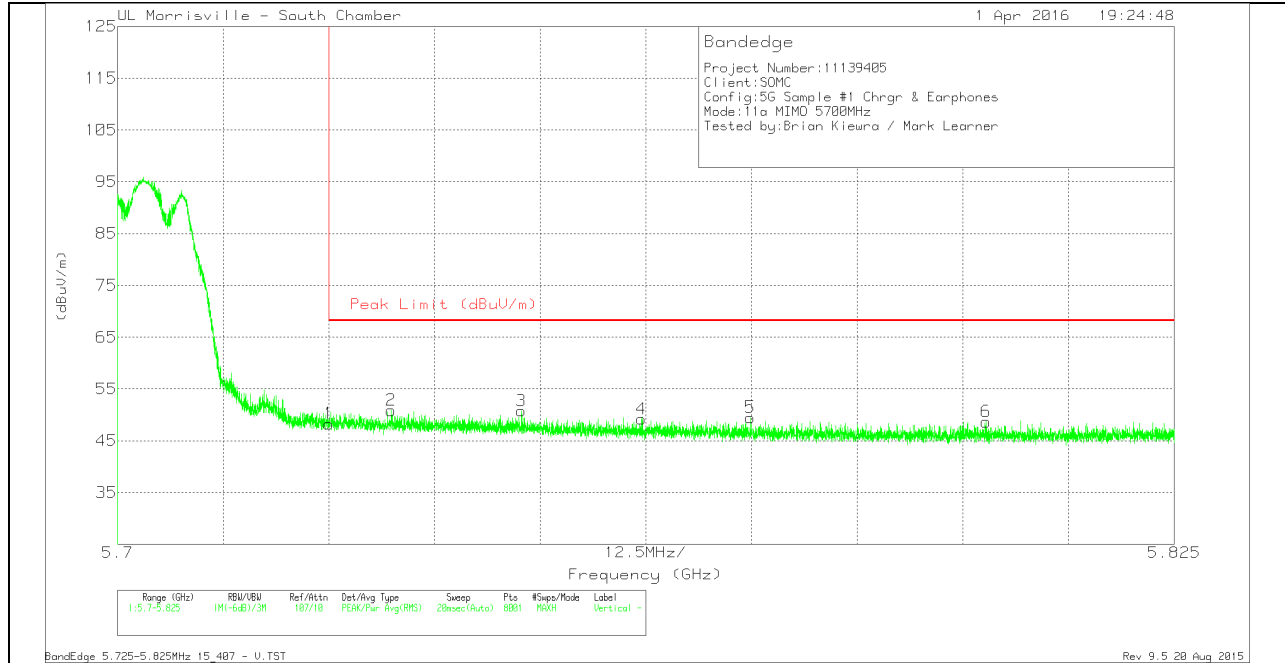
**HORIZONTAL DATA**

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0069 (dB/m)	Amp/Cbl/Filtr/Parad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.725	40.49	Pk	34.7	-23.9	0	51.29	68.2	-16.91	67	104	H
2	5.726	41.81	Pk	34.7	-23.9	0	52.61	68.2	-15.59	67	104	H
3	5.755	39.6	Pk	34.7	-23.7	0	50.6	68.2	-17.6	67	104	H
4	5.771	38.84	Pk	34.6	-23.5	0	49.94	68.2	-18.26	67	104	H
5	5.806	38.35	Pk	34.6	-23.6	0	49.35	68.2	-18.85	67	104	H
6	5.821	37.82	Pk	34.6	-23.6	0	48.82	68.2	-19.38	67	104	H

Pk - Peak detector

**VERTICAL PEAK AND AVERAGE PLOT**



**VERTICAL DATA**

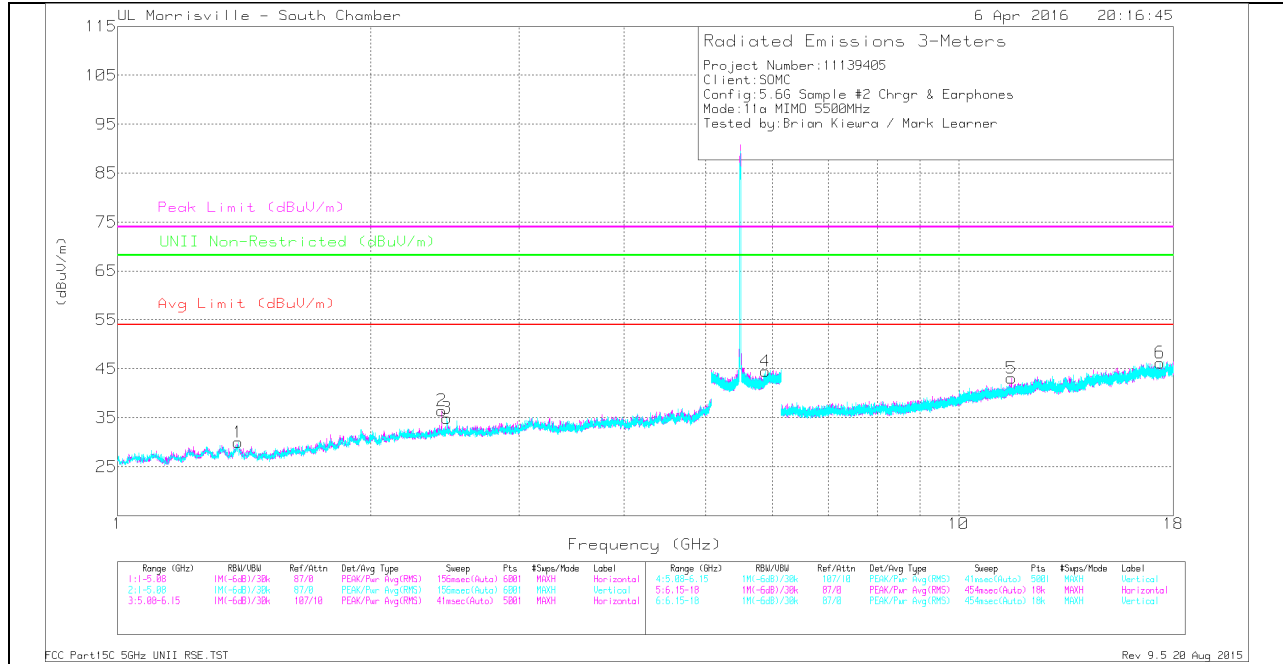
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0069 (dB/m)	Amp/Cbl/Filtr/Parad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.725	37.49	Pk	34.7	-23.9	0	48.29	68.2	-19.91	87	269	V
2	5.732	39.96	Pk	34.7	-23.8	0	50.86	68.2	-17.34	87	269	V
3	5.748	39.76	Pk	34.7	-23.7	0	50.76	68.2	-17.44	87	269	V
4	5.762	38.17	Pk	34.6	-23.6	0	49.17	68.2	-19.03	87	269	V
5	5.775	38.39	Pk	34.6	-23.5	0	49.49	68.2	-18.71	87	269	V
6	5.803	37.57	Pk	34.6	-23.5	0	48.67	68.2	-19.53	87	269	V

Pk - Peak detector

## HARMONICS AND SPURIOUS EMISSIONS

### LOW CHANNEL



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

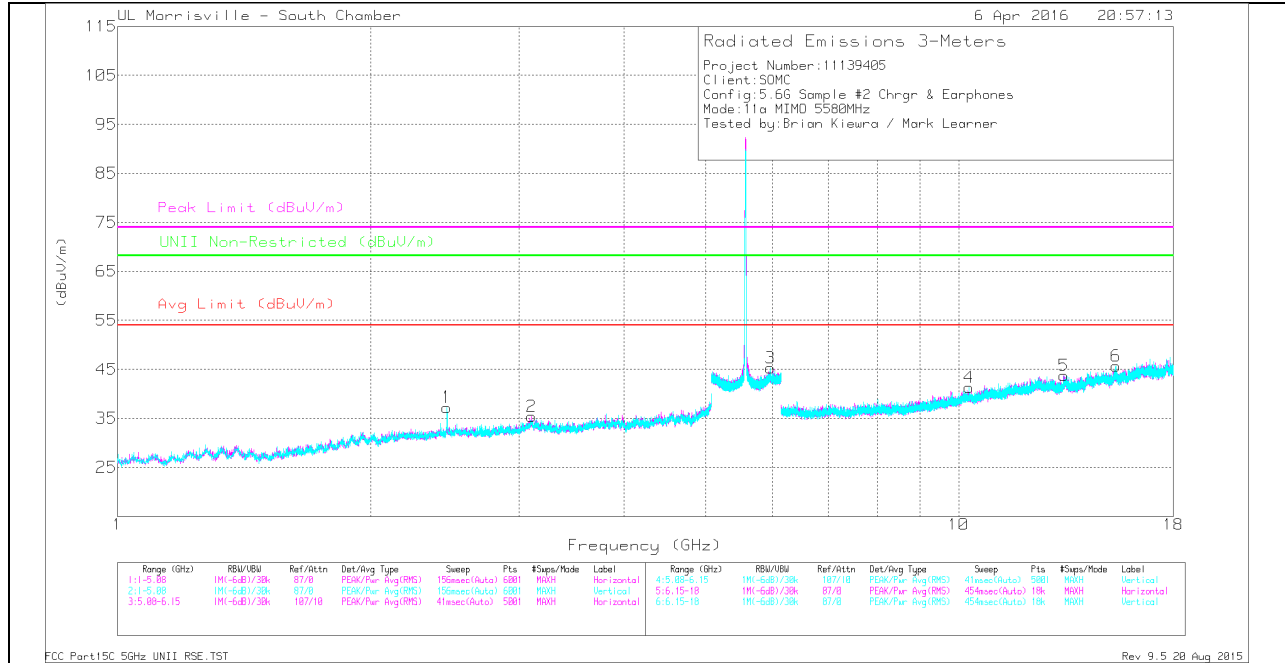
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF AT0669 (dB/m)	Amp/CS/Fit/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Altitude (Degs)	Height (cm)	Polarity
1	* 1.391	42.96	PK-U	28.8	-35.2	0	36.56	-	-	74	-37.44	-	-	191	198	V
	* 1.39	30.5	ADR	28.8	-35.2	0	24.1	54	-29.9	-	-	-	-	191	198	V
5	* 11.555	34.79	PK-U	38.4	-25.4	0	47.79	-	-	74	-26.21	-	-	172	104	H
	* 11.556	23.1	ADR	38.4	-25.4	0	36.1	54	-17.9	-	-	-	-	172	104	H
2	2.429	41.85	PK-U	32.3	-34.7	0	39.45	-	-	-	-	68.2	-28.75	143	198	H
3	2.464	44.99	PK-U	32.3	-34.6	0	42.69	-	-	-	-	68.2	-25.51	44	326	V
4	5.893	38.02	PK-U	34.9	-23.5	0	49.42	-	-	-	-	68.2	-18.78	275	201	V
6	17.369	35.74	PK-U	41.2	-24.9	0	52.04	-	-	-	-	68.2	-16.16	105	104	V

\* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

MID CHANNEL



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

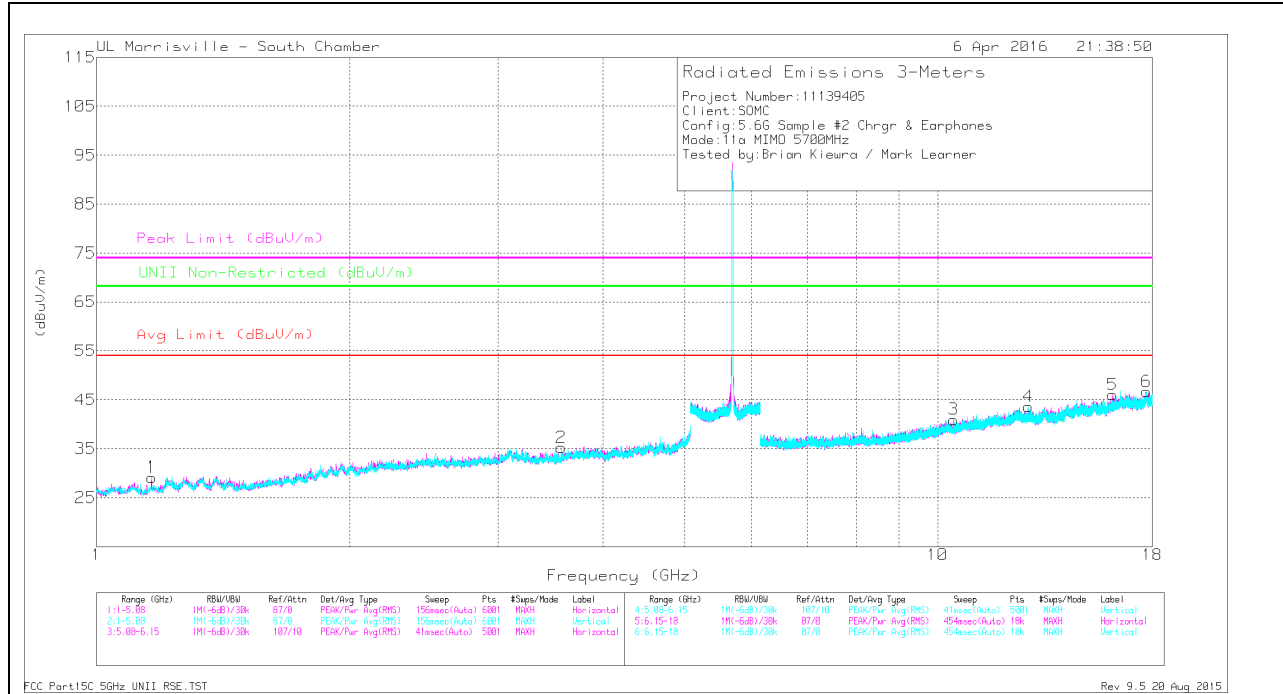
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AFAT0069 (dB/m)	Amp/Cal/Fix/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Altitude (Degs)	Height (cm)	Polarity
5	* 13.334	35.71	PK-U	39.1	-25.5	0	49.31	-	-	74	-24.69	-	-	136	199	H
	* 13.333	24.03	ADR	39.1	-25.5	0	37.63	54	-16.37	-	-	-	-	136	199	H
6	* 15.382	35.02	PK-U	40	-24	0	51.02	-	-	74	-22.98	-	-	339	199	V
	* 15.383	23.32	ADR	40	-23.9	0	39.42	54	-14.58	-	-	-	-	339	199	V
1	2.463	47.69	PK-U	32.3	-34.6	0	45.39	-	-	-	-	68.2	-22.81	104	208	V
2	3.108	41.44	PK-U	33.9	-33.9	0	41.44	-	-	-	-	68.2	-26.76	119	101	H
3	5.973	38.89	PK-U	35	-23	0	50.89	-	-	-	-	68.2	-17.31	198	104	V
4	10.287	34.92	PK-U	37.4	-25.9	0	46.42	-	-	-	-	68.2	-21.78	44	199	V

\* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

**HIGH CHANNEL**



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	AF AT009 (dB/m)	Amp/Cou/Trz/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Altitude (Degs)	Height (cm)	Polarity
1	* 1.161	42.49	PK-U	27.6	-35.8	0	34.29	-	-	74	-39.71	-	-	148	102	H
	* 1.161	30.72	ADR	27.6	-35.8	0	22.52	54	-31.48	-	-	-	-	148	102	H
2	* 3.567	41.8	PK-U	32.9	-33.6	0	41.1	-	-	74	-32.9	-	-	320	102	V
	* 3.567	29	ADR	32.9	-33.6	0	28.3	54	-25.7	-	-	-	-	320	102	V
5	* 16.143	35.81	PK-U	40.7	-25.7	0	50.81	-	-	74	-23.19	-	-	66	102	H
	* 16.143	24.71	ADR	40.7	-25.7	0	39.71	54	-14.29	-	-	-	-	66	102	H
6	* 17.721	33.63	PK-U	41.2	-23	0	51.83	-	-	74	-22.17	-	-	291	102	V
	* 17.721	22.98	ADR	41.2	-23	0	41.18	54	-12.82	-	-	-	-	291	102	V
3	10.451	35.09	PK-U	37.5	-26.3	0	46.29	-	-	-	-	68.2	-21.91	145	102	H
4	12.83	36.33	PK-U	39.2	-26	0	49.53	-	-	-	-	68.2	-18.67	28	102	V

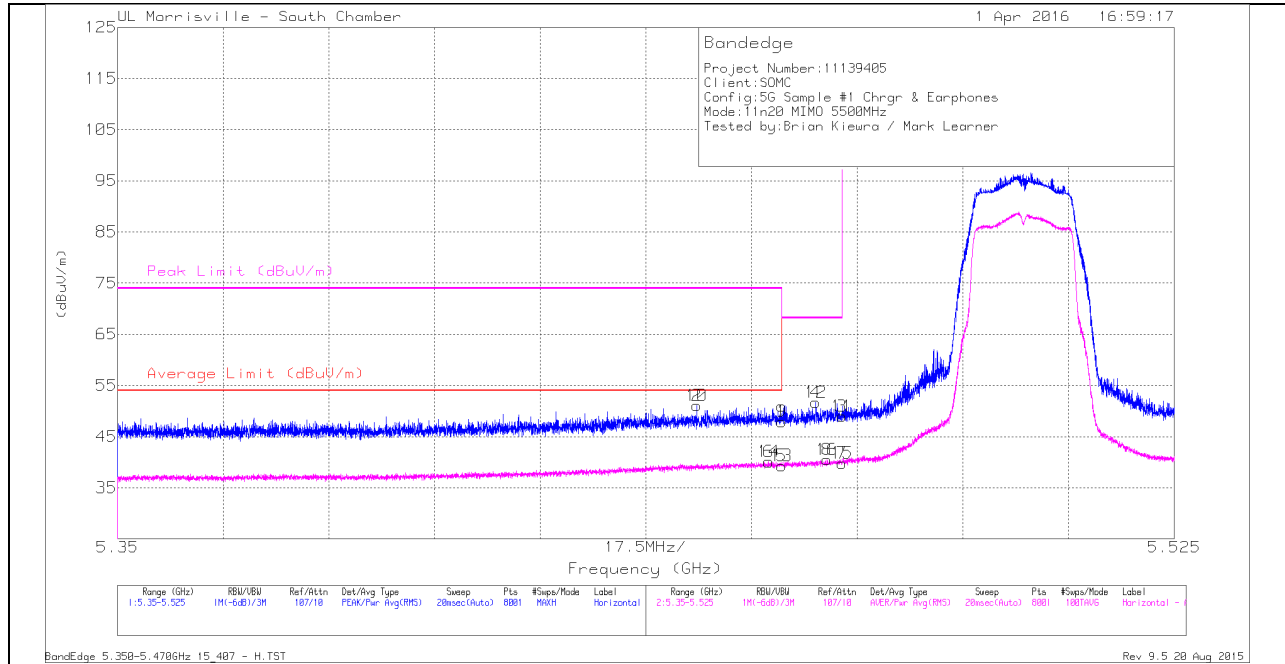
\* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

### 9.3.2. TX ABOVE 1 GHz 802.11n HT20 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	AF A10069 (dB/m)	Amp/Cb/Fltr/Pad (dB)	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	37.25	Pk	34.6	-23.9	0	47.95	-	-	74	-26.05	104	108	H
2	* 5.446	40.3	Pk	34.6	-23.8	0	51.1	-	-	74	-22.9	104	108	H
9	* 5.46	37.25	Pk	34.6	-23.9	0	47.95	-	-	74	-26.05	104	108	H
10	* 5.446	40.3	Pk	34.6	-23.8	0	51.1	-	-	74	-22.9	104	108	H
5	* 5.46	28.62	RMS	34.6	-23.9	0	39.32	54	-14.68	-	-	104	108	H
6	* 5.458	29.39	RMS	34.6	-23.9	0	40.09	54	-13.91	-	-	104	108	H
13	* 5.46	28.62	RMS	34.6	-23.9	0	39.32	54	-14.68	-	-	104	108	H
14	* 5.458	29.39	RMS	34.6	-23.9	0	40.09	54	-13.91	-	-	104	108	H
4	5.466	40.98	Pk	34.6	-23.9	0	51.68	-	-	68.2	-16.52	104	108	H
12	5.466	40.98	Pk	34.6	-23.9	0	51.68	-	-	68.2	-16.52	104	108	H
8	5.467	29.81	RMS	34.6	-23.9	0	40.51	-	-	-	-	104	108	H
16	5.467	29.81	RMS	34.6	-23.9	0	40.51	-	-	-	-	104	108	H
3	5.47	38.26	Pk	34.6	-23.9	0	48.96	-	-	68.2	-19.24	104	108	H
11	5.47	38.26	Pk	34.6	-23.9	0	48.96	-	-	68.2	-19.24	104	108	H
7	5.47	29.13	RMS	34.6	-23.9	0	39.83	-	-	-	-	104	108	H
15	5.47	29.13	RMS	34.6	-23.9	0	39.83	-	-	-	-	104	108	H

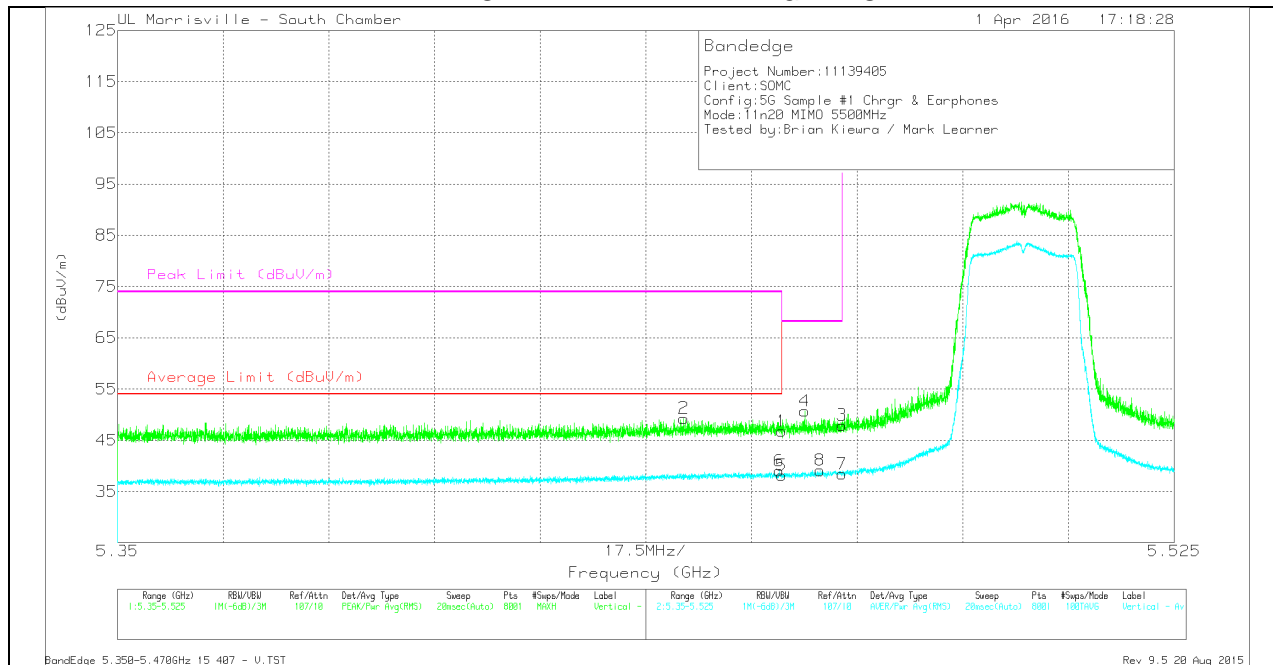
\* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection



**VERTICAL PEAK AND AVERAGE PLOT**



**VERTICAL DATA**

**Trace Markers**

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0069 (dB/m)	Amp/Cb/Fltr/Pad (dB)	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	36.07	Pk	34.6	-23.9	0	46.77	-	-	74	-27.23	96	130	V
2	* 5.444	38.49	Pk	34.6	-23.8	0	49.29	-	-	74	-24.71	96	130	V
5	* 5.46	27.47	RMS	34.6	-23.9	0	38.17	54	-15.83	-	-	96	130	V
6	* 5.46	28.31	RMS	34.6	-23.9	0	39.01	54	-14.99	-	-	96	130	V
4	5.464	40.02	Pk	34.6	-23.9	0	50.72	-	-	68.2	-17.48	96	130	V
8	5.466	28.41	RMS	34.6	-23.9	0	39.11	-	-	-	-	96	130	V
3	5.47	37.24	Pk	34.6	-23.9	0	47.94	-	-	68.2	-20.26	96	130	V
7	5.47	27.72	RMS	34.6	-23.9	0	38.42	-	-	-	-	96	130	V

\* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

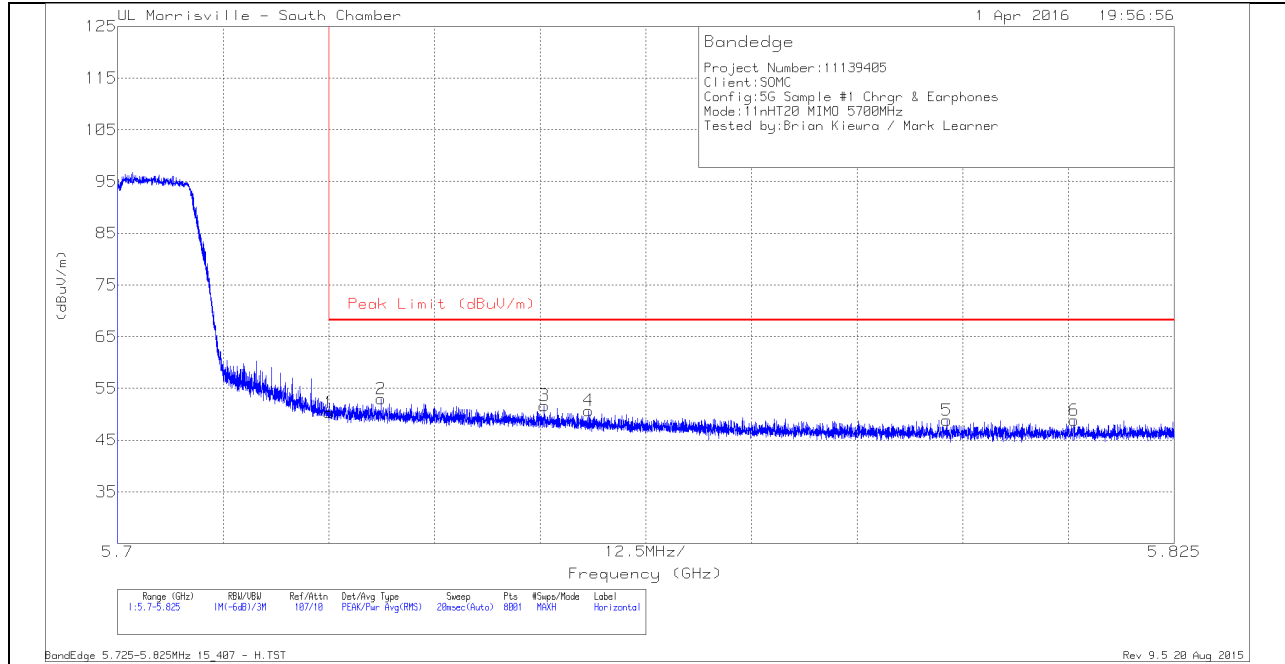
Pk - Peak detector

RMS - RMS detection



## AUTHORIZED BANDEDGE (HIGH CHANNEL)

### HORIZONTAL PEAK AND AVERAGE PLOT



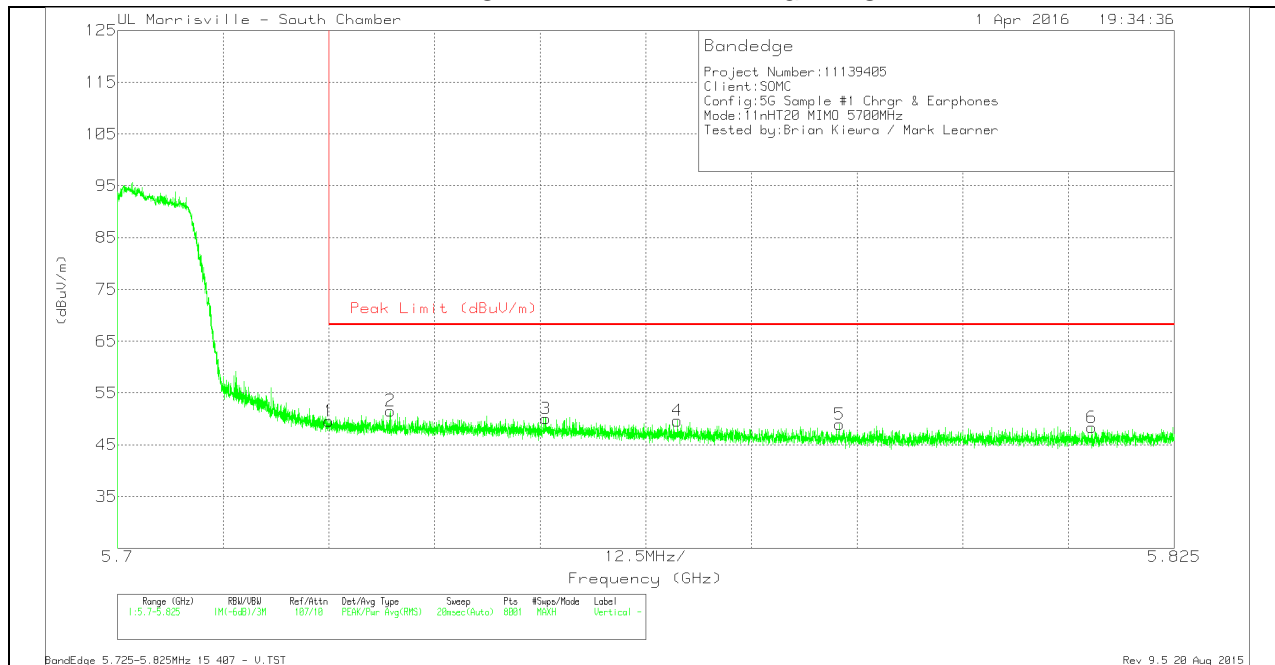
### HORIZONTAL DATA

#### Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0069 (dB/m)	Amp/Cb1/Filtr/PA d (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.725	39.46	Pk	34.7	-23.9	0	50.26	68.2	-17.94	140	287	H
2	5.731	42.04	Pk	34.7	-23.8	0	52.94	68.2	-15.26	140	287	H
3	5.75	40.69	Pk	34.7	-23.7	0	51.69	68.2	-16.51	140	287	H
4	5.756	39.72	Pk	34.7	-23.7	0	50.72	68.2	-17.48	140	287	H
5	5.798	37.82	Pk	34.6	-23.6	0	48.82	68.2	-19.38	140	287	H
6	5.813	37.96	Pk	34.6	-23.7	0	48.86	68.2	-19.34	140	287	H

Pk - Peak detector

**VERTICAL PEAK AND AVERAGE PLOT**



**VERTICAL DATA**

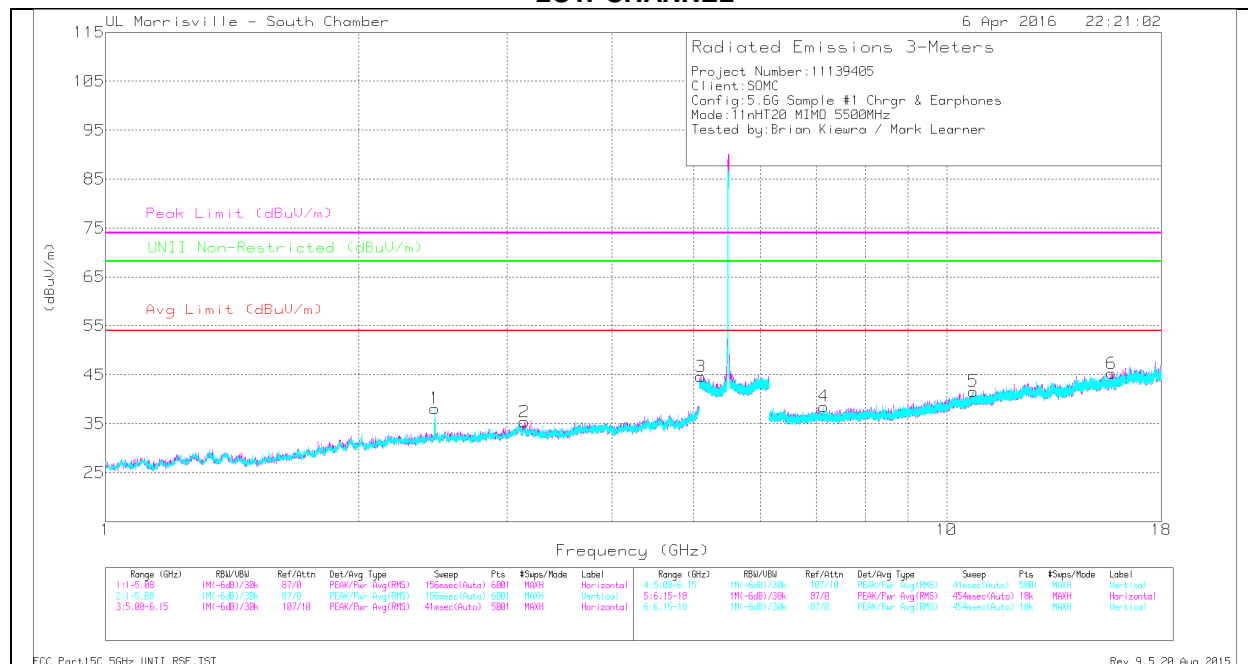
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0069 (dB/m)	Amp/Cbl/Filtr/Parad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.725	38.75	Pk	34.7	-23.9	0	49.55	68.2	-18.65	81	263	V
2	5.732	40.66	Pk	34.7	-23.8	0	51.56	68.2	-16.64	81	263	V
3	5.751	39.03	Pk	34.7	-23.7	0	50.03	68.2	-18.17	81	263	V
4	5.766	38.64	Pk	34.6	-23.6	0	49.64	68.2	-18.56	81	263	V
5	5.785	37.96	Pk	34.6	-23.6	0	48.96	68.2	-19.24	81	263	V
6	5.815	37.37	Pk	34.6	-23.6	0	48.37	68.2	-19.83	81	263	V

Pk - Peak detector

### HARMONICS AND SPURIOUS EMISSIONS

#### LOW CHANNEL



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

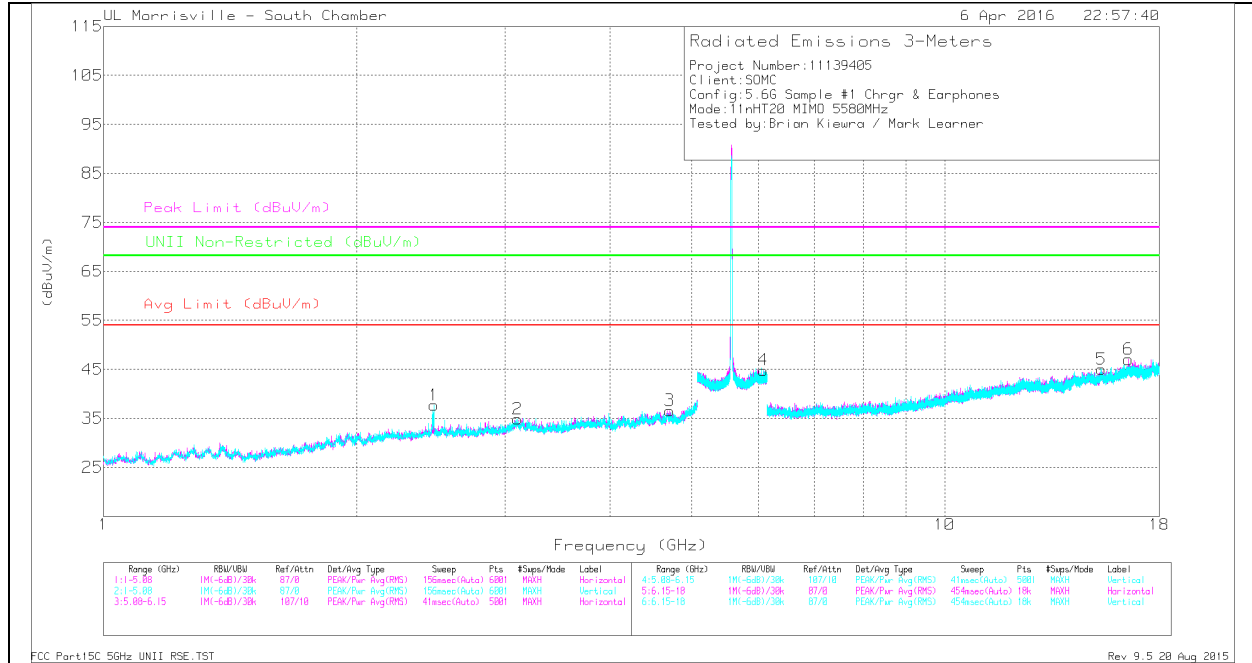
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT009 (dB/m)	Amp/CS/Fix/Psd (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Altitude (Degs)	Height (cm)	Polarity
3	* 5.102	39.08	PK-U	34.1	-22.8	0	50.38	-	-	74	-23.62	-	-	130	200	H
	* 5.104	27.27	ADR	34.1	-22.8	0	38.57	54	-15.43	-	-	-	-	130	200	H
6	* 15.702	34.34	PK-U	40.3	-24.5	0	50.14	-	-	74	-23.86	-	-	131	200	H
	* 15.703	22.96	ADR	40.3	-24.5	0	38.76	54	-15.24	-	-	-	-	131	200	H
5	* 10.764	35.05	PK-U	37.9	-25.6	0	47.35	-	-	74	-26.65	-	-	343	104	V
	* 10.762	23.22	ADR	37.9	-25.7	0	35.42	54	-18.58	-	-	-	-	343	104	V
1	2.463	49.68	PK-U	32.3	-34.6	0	47.38	-	-	-	-	68.2	-20.82	86	204	V
2	3.145	41.43	PK-U	33.6	-34.1	0	40.93	-	-	-	-	68.2	-27.27	67	198	H
4	7.141	37.45	PK-U	35.5	-29.2	0	43.75	-	-	-	-	68.2	-24.45	157	200	V

\* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

MID CHANNEL



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

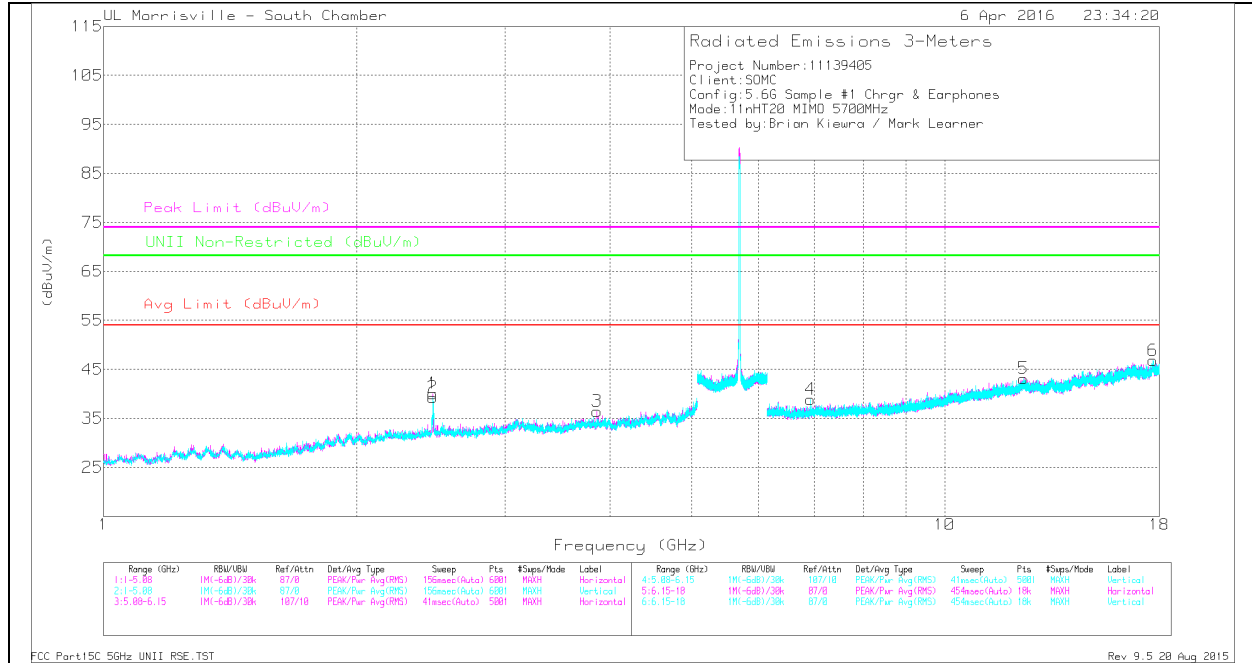
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0069 (dB/m)	Amp/CS/Flt/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Altitude (Degs)	Height (cm)	Polarity
3	* 4.71	40.72	PK-U	34.1	-31.8	0	43.02	-	-	74	-30.98	-	-	207	199	H
	* 4.709	27.96	ADR	34.1	-31.8	0	30.26	54	-23.74	-	-	-	-	207	199	H
5	* 15.366	34.19	PK-U	40	-24.2	0	49.99	-	-	74	-24.01	-	-	122	103	V
	* 15.366	23.31	ADR	40	-24.2	0	39.11	54	-14.89	-	-	-	-	122	103	V
1	2.469	45	PK-U	32.4	-34.6	0	42.8	-	-	-	-	68.2	-25.4	154	335	V
2	3.103	41.26	PK-U	33.9	-34	0	41.16	-	-	-	-	68.2	-27.04	216	201	V
4	6.084	38.09	PK-U	35.3	-23.3	0	50.09	-	-	-	-	68.2	-18.11	41	201	V
6	16.531	34.63	PK-U	41.3	-24.2	0	51.73	-	-	-	-	68.2	-16.47	246	103	H

\* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

**HIGH CHANNEL**



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	AFAT009 (dB/m)	Amp/Cal/Fix/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Altitude (Deg)	Height (cm)	Polarity
3	* 3.863	40.82	PK-U	33.4	-33.3	0	40.92	-	-	74	-33.08	-	-	158	103	H
	* 3.863	29.06	ADR	33.4	-33.3	0	29.16	54	-24.84	-	-	-	-	158	103	H
5	* 12.416	34.92	PK-U	39	-24.9	0	49.02	-	-	74	-24.98	-	-	121	104	V
	* 12.413	23.19	ADR	39	-24.9	0	37.29	54	-16.71	-	-	-	-	121	104	V
1	2.463	46	PK-U	32.3	-34.6	0	43.7	-	-	-	-	68.2	-24.5	44	309	H
2	2.464	46.02	PK-U	32.3	-34.6	0	43.72	-	-	-	-	68.2	-24.48	263	341	V
4	6.929	36.73	PK-U	35.5	-29	0	43.23	-	-	-	-	68.2	-24.97	252	104	V
6	17.696	34	PK-U	41.2	-23	0	52.2	-	-	-	-	68.2	-16	357	104	V

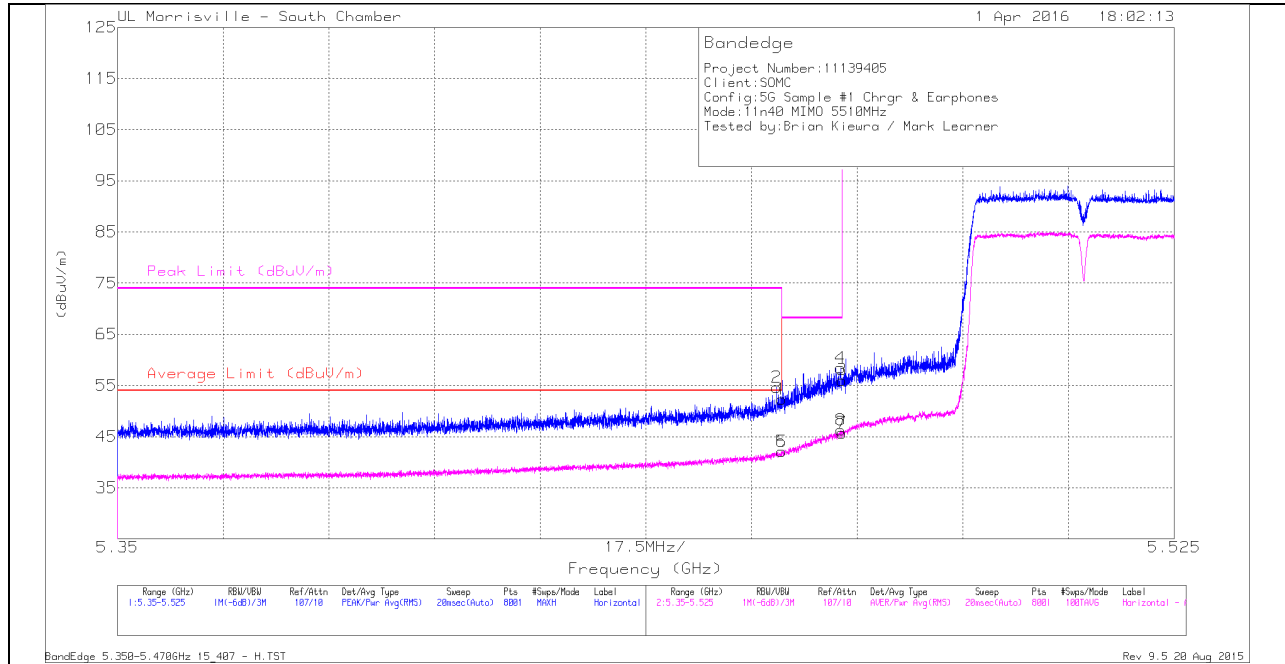
\* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

### 9.3.3. TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.5 GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)

#### HORIZONTAL PEAK AND AVERAGE PLOT



#### HORIZONTAL DATA

##### Trace Markers

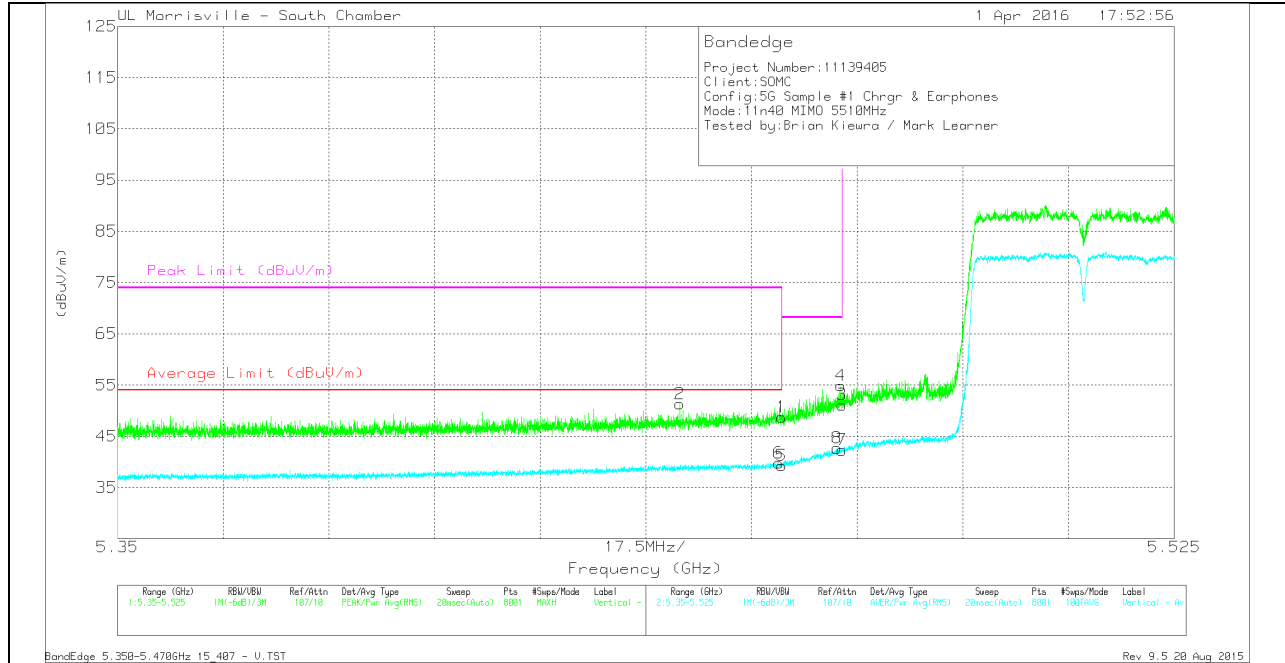
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF A10069 (dB/m)	Amp/Cb/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.46	41.61	Pk	34.6	-23.9	0	52.31	-	-	74	-21.69	96	115	H
2	* 5.459	43.92	Pk	34.6	-23.9	0	54.62	-	-	74	-19.38	96	115	H
5	* 5.46	31.26	RMS	34.6	-23.9	.12	42.08	54	-11.92	-	-	96	115	H
6	* 5.46	31.31	RMS	34.6	-23.9	.12	42.13	54	-11.87	-	-	96	115	H
3	5.47	45.36	Pk	34.6	-23.9	0	56.06	-	-	68.2	-12.14	96	115	H
4	5.47	47.74	Pk	34.6	-23.9	0	58.44	-	-	68.2	-9.76	96	115	H
7	5.47	34.93	RMS	34.6	-23.9	.12	45.75	-	-	-	-	96	115	H
8	5.47	35.43	RMS	34.6	-23.9	.12	46.25	-	-	-	-	96	115	H

\* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

**VERTICAL PEAK AND AVERAGE PLOT**



**VERTICAL DATA**

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0069 (dB/m)	Amp/Cb/Filtz/Pad (dB)	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	38.02	Pk	34.6	-23.9	0	48.72	-	-	74	-25.28	330	102	V
2	* 5.443	40.54	Pk	34.6	-23.8	0	51.34	-	-	74	-22.66	330	102	V
5	* 5.46	28.47	RMS	34.6	-23.9	.12	39.29	54	-14.71	-	-	330	102	V
6	* 5.459	28.97	RMS	34.6	-23.9	.12	39.79	54	-14.21	-	-	330	102	V
8	5.469	31.86	RMS	34.6	-23.9	.12	42.68	-	-	-	-	330	102	V
3	5.47	40.44	Pk	34.6	-23.9	0	51.14	-	-	68.2	-17.06	330	102	V
4	5.47	44.21	Pk	34.6	-23.9	0	54.91	-	-	68.2	-13.29	330	102	V
7	5.47	31.48	RMS	34.6	-23.9	.12	42.3	-	-	-	-	330	102	V

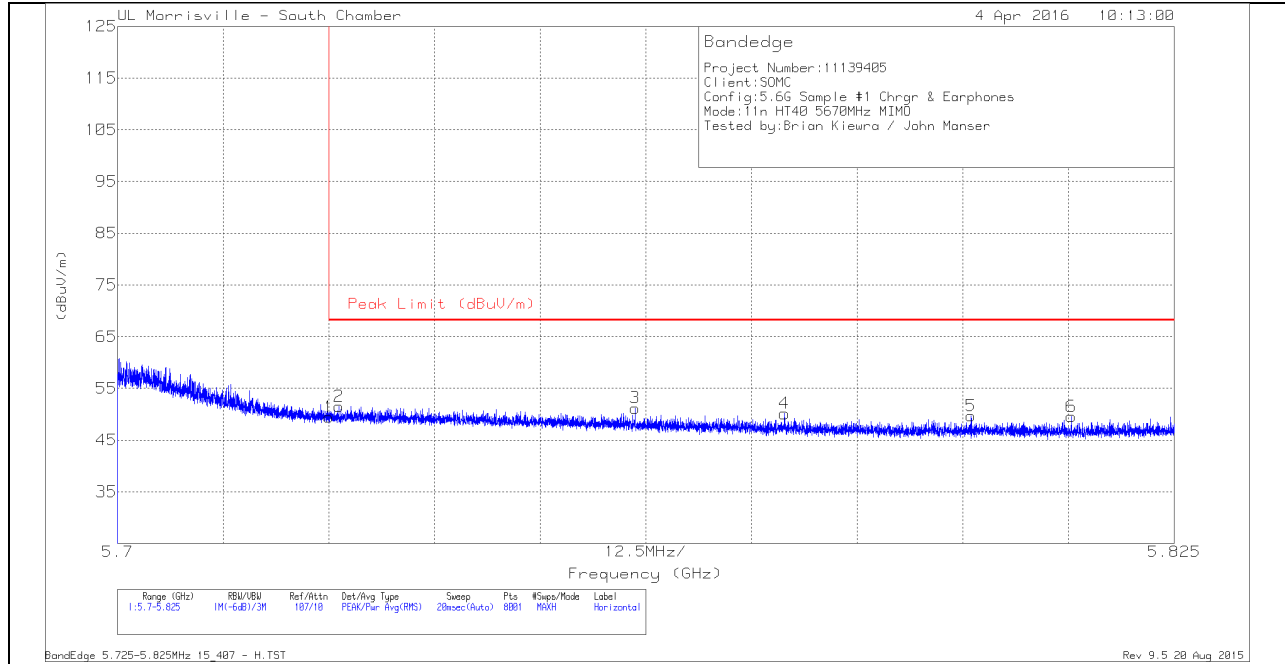
\* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

**AUTHORIZED BANDEDGE (HIGH CHANNEL)**

**HORIZONTAL PEAK AND AVERAGE PLOT**



**HORIZONTAL DATA**

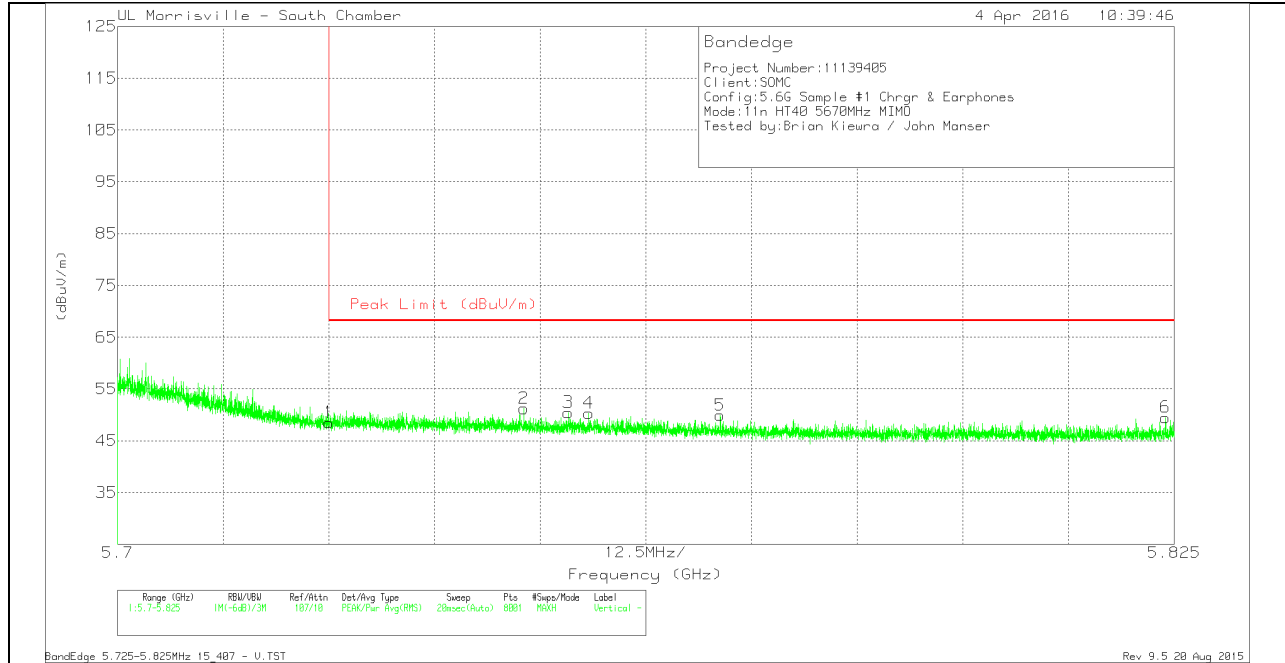
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0069 (dB/m)	Amp/Cbl/Filtr/Parad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.725	38.62	Pk	34.7	-23.9	0	49.42	68.2	-18.78	139	323	H
2	5.726	40.69	Pk	34.7	-23.9	0	51.49	68.2	-16.71	139	323	H
3	5.761	40.21	Pk	34.6	-23.6	0	51.21	68.2	-16.99	139	323	H
4	5.779	39.13	Pk	34.6	-23.6	0	50.13	68.2	-18.07	139	323	H
5	5.801	38.68	Pk	34.6	-23.6	0	49.68	68.2	-18.52	139	323	H
6	5.813	38.69	Pk	34.6	-23.7	0	49.59	68.2	-18.61	139	323	H

Pk - Peak detector



**VERTICAL PEAK AND AVERAGE PLOT**



**VERTICAL DATA**

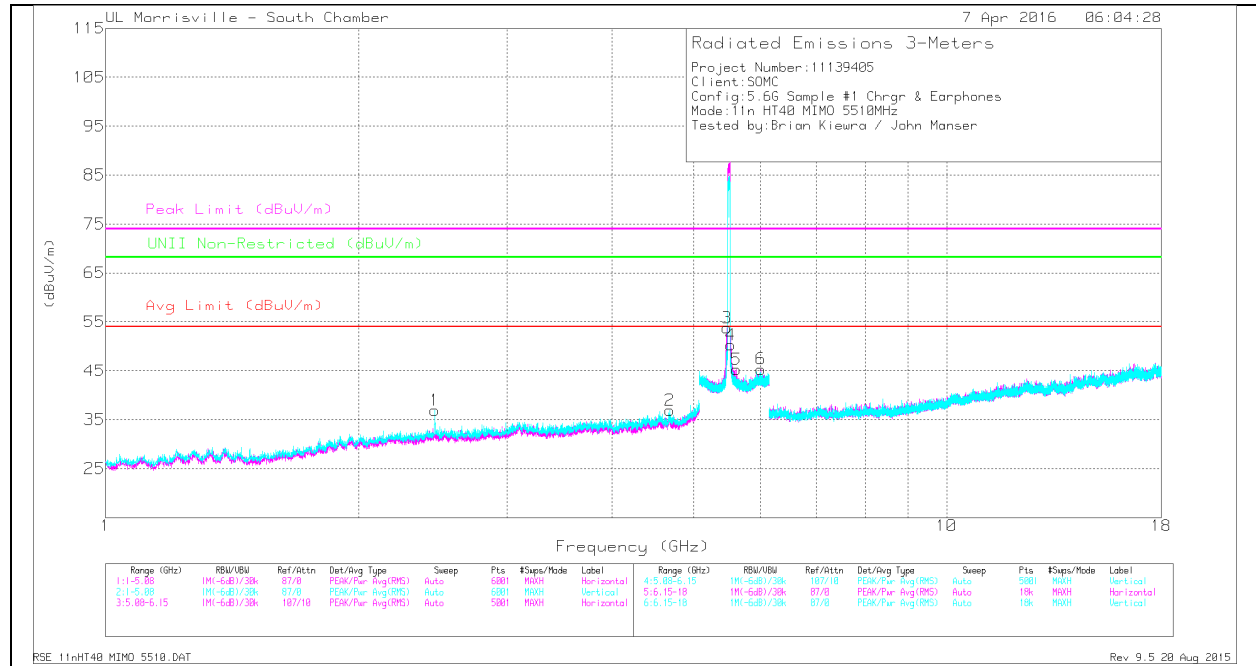
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0069 (dB/m)	Amp/Cbl/Filtr/Parad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.725	37.72	Pk	34.7	-23.9	0	48.52	68.2	-19.68	4	307	V
2	5.748	40.23	Pk	34.7	-23.7	0	51.23	68.2	-16.97	4	307	V
3	5.753	39.47	Pk	34.7	-23.7	0	50.47	68.2	-17.73	4	307	V
4	5.756	39.35	Pk	34.7	-23.7	0	50.35	68.2	-17.85	4	307	V
5	5.771	38.84	Pk	34.6	-23.5	0	49.94	68.2	-18.26	4	307	V
6	5.824	38.41	Pk	34.6	-23.5	0	49.51	68.2	-18.69	4	307	V

Pk - Peak detector

## HARMONICS AND SPURIOUS EMISSIONS

### LOW CHANNEL



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

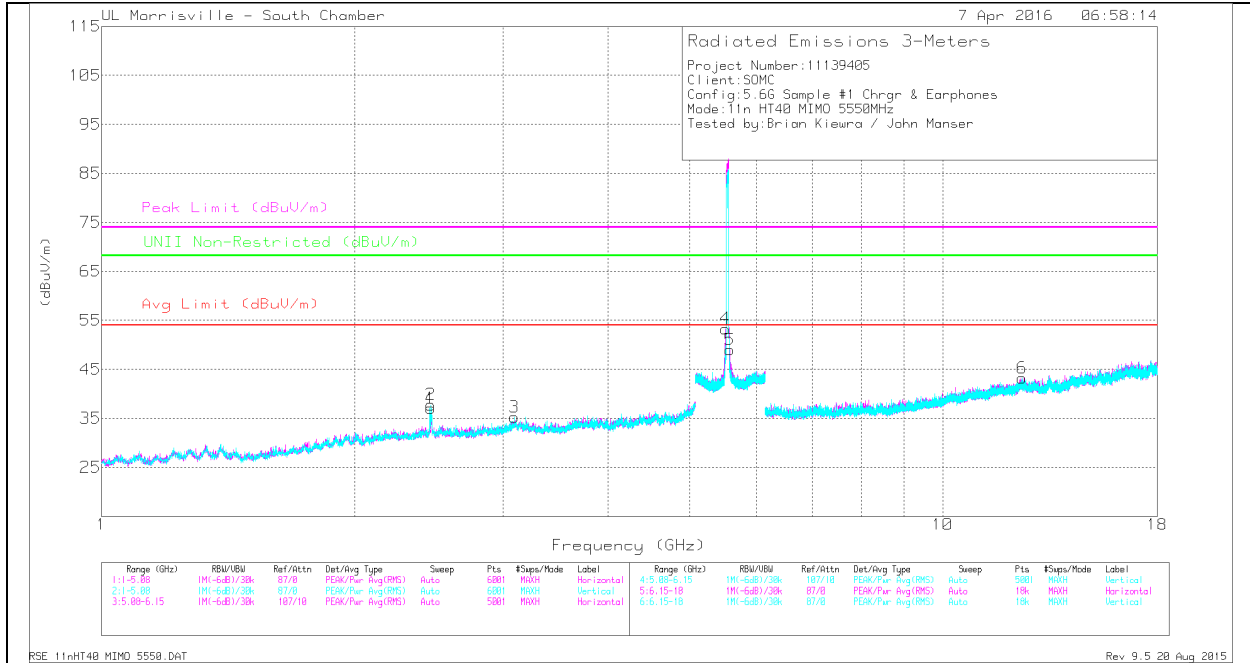
### LOW CHANNEL DATA

#### TRACE MARKERS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF ATTEN (dB/m)	Amp/Ch/Freq/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Altitude (Deg)	Height (cm)	Polarity
2	*4.683	41.2	PK-U	34.1	-31.4	0	43.9	-	-	74	-30.1	-	-	66	266	V
	*4.684	28.24	ADR	34.1	-31.4	.12	31.06	54	-22.94	-	-	-	-	66	266	V
1	2.464	48	PK-U	32.3	-34.6	0	45.7	-	-	-	-	68.2	-22.5	317	388	V
3	5.483	51.75	PK-U	34.6	-23.9	0	62.45	-	-	-	-	68.2	-5.75	146	314	H
4	5.541	48.34	PK-U	34.6	-23.8	0	59.14	-	-	-	-	68.2	-9.06	148	355	H
5	5.627	39.39	PK-U	34.7	-23.7	0	50.39	-	-	-	-	68.2	-17.81	73	277	H
6	6.015	38.57	PK-U	35.1	-23.1	0	50.57	-	-	-	-	68.2	-17.63	130	340	H

PK-U - U-NII: Maximum Peak

MID CHANNEL



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

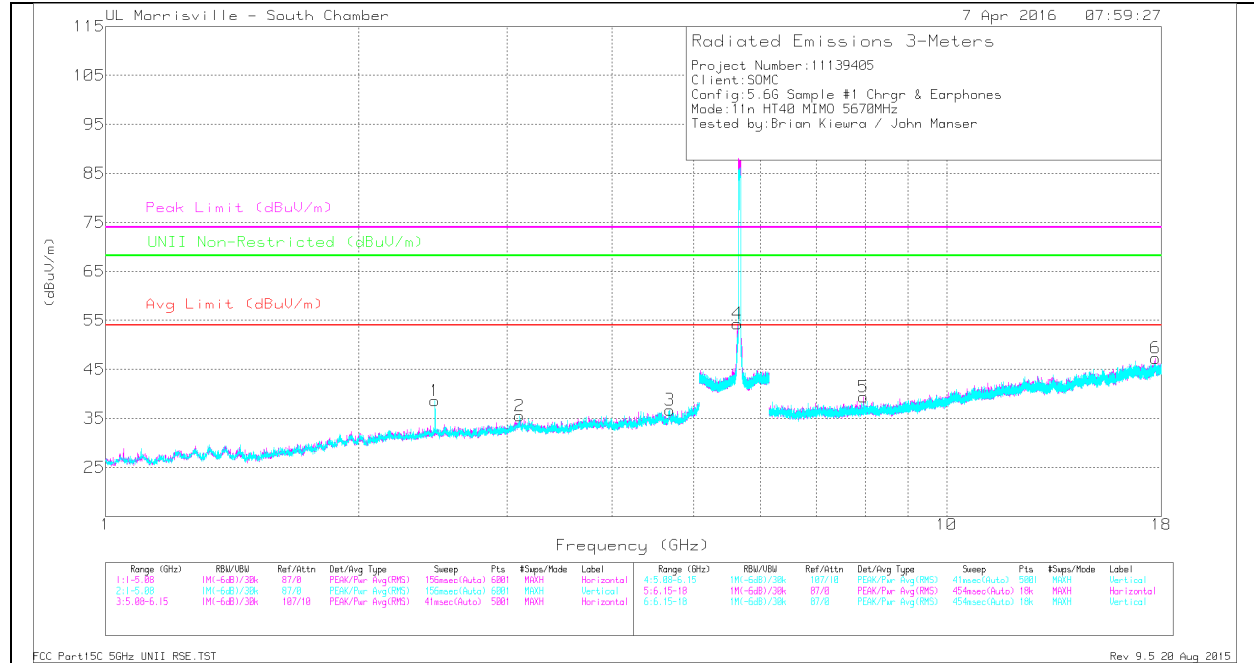
MID CHANNEL DATA

TRACE MARKERS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF ATTEN (dB/m)	Amp/CS/Fri/Psd (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Altitude (Degs)	Height (cm)	Polarity
6	*12.432	34.44	PK-U	39	-24.9	0	48.54	-	-	74	-25.46	-	-	156	324	V
	*12.433	23.25	ADR	39	-24.9	.12	37.47	54	-16.53	-	-	-	-	156	324	V
1	2.463	48.12	PK-U	32.3	-34.6	0	45.82	-	-	-	-	68.2	-22.38	132	209	V
2	2.465	45.33	PK-U	32.4	-34.6	0	43.13	-	-	-	-	68.2	-25.07	16	379	H
3	3.097	41.43	PK-U	33.9	-33.9	0	41.43	-	-	-	-	68.2	-26.77	147	116	V
4	5.523	51.15	PK-U	34.6	-23.7	0	62.05	-	-	-	-	68.2	-6.15	147	325	H
5	5.586	45.28	PK-U	34.6	-23.8	0	56.08	-	-	-	-	68.2	-12.12	112	111	H

PK-U - U-NII: Maximum Peak

**HIGH CHANNEL**



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	AF AT009 (dB/m)	Amp/CG/Hz/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Altitude (Deg)	Height (cm)	Polarity
3	* 4.684	39.68	PK-U	34.1	-31.4	0	42.38	-	-	74	-31.62	-	-	103	143	V
	* 4.685	28.36	ADR	34.1	-31.5	.12	31.08	54	-22.92	-	-	-	-	103	143	V
6	* 17.733	33.53	PK-U	41.2	-22.8	0	51.93	-	-	74	-22.07	-	-	184	268	H
	* 17.73	22.49	ADR	41.2	-22.9	.12	40.91	54	-13.09	-	-	-	-	184	268	H
1	2.464	49.15	PK-U	32.3	-34.6	0	46.85	-	-	-	-	68.2	-21.35	260	327	V
2	3.11	41.87	PK-U	33.9	-33.9	0	41.87	-	-	-	-	68.2	-26.33	38	206	V
4	5.64	50.28	PK-U	34.7	-23.8	0	61.18	-	-	-	-	68.2	-7.02	112	272	H
5	7.962	35.96	PK-U	35.8	-28.5	0	43.26	-	-	-	-	68.2	-24.94	332	221	H

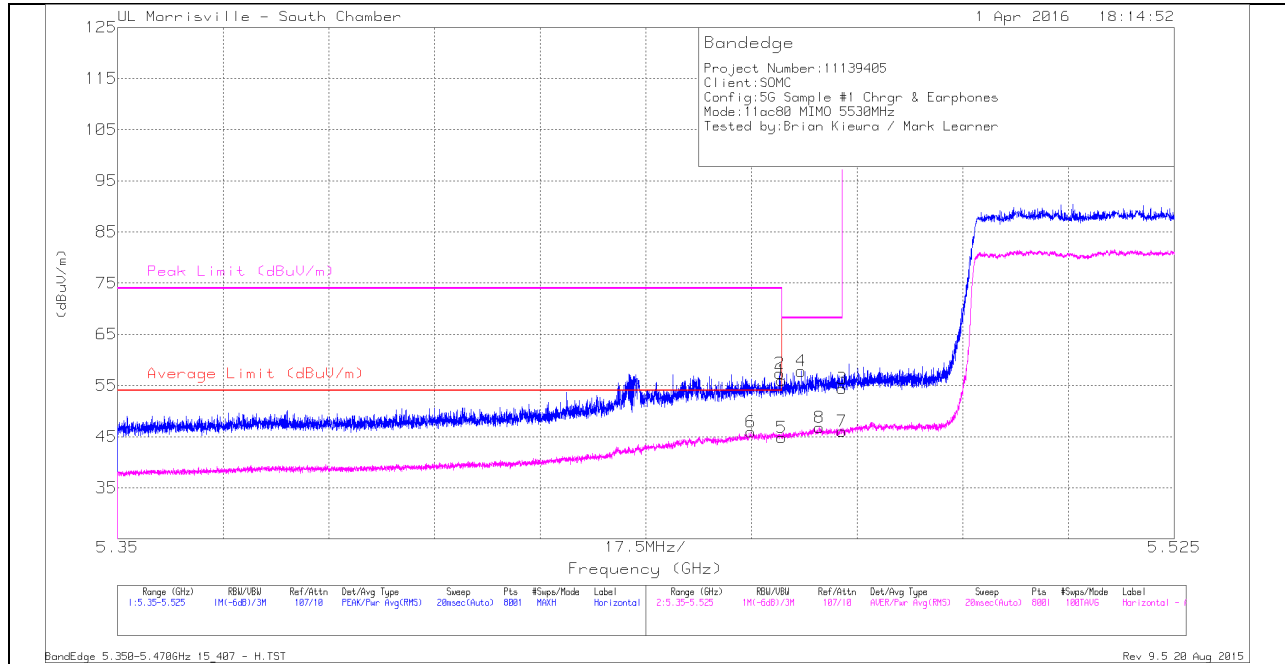
\* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

**9.3.4. TX ABOVE 1 GHz 802.11ac VHT80 MODE IN THE 5.5 GHz BAND  
 RESTRICTED BANDEDGE (LOW CHANNEL)**

**HORIZONTAL PEAK AND AVERAGE PLOT**



**HORIZONTAL DATA**

Trace Markers

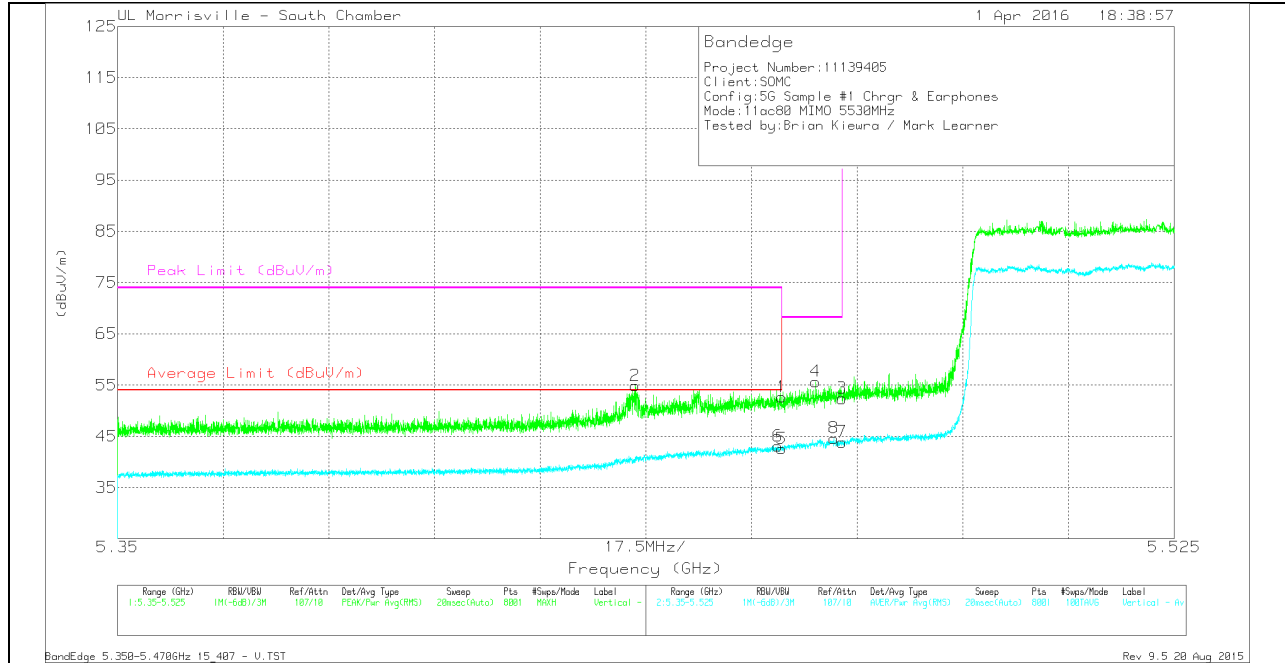
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF A10069 (dB/m)	Amp/Cb/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.46	45.3	Pk	34.6	-23.9	0	56	-	-	74	-18	100	137	H
2	* 5.46	46.61	Pk	34.6	-23.9	0	57.31	-	-	74	-16.69	100	137	H
5	* 5.46	33.89	RMS	34.6	-23.9	.24	44.83	54	-9.17	-	-	100	137	H
6	* 5.455	34.94	RMS	34.6	-23.9	.24	45.88	54	-8.12	-	-	100	137	H
4	5.463	47.19	Pk	34.6	-24	0	57.79	-	-	68.2	-10.41	100	137	H
8	5.466	35.83	RMS	34.6	-23.9	.24	46.77	-	-	-	-	100	137	H
3	5.47	43.66	Pk	34.6	-23.9	0	54.36	-	-	68.2	-13.84	100	137	H
7	5.47	35.12	RMS	34.6	-23.9	.24	46.06	-	-	-	-	100	137	H

\* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

**VERTICAL PEAK AND AVERAGE PLOT**



**VERTICAL DATA**

**Trace Markers**

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0069 (dB/m)	Amp/Cb/Fltr/Pad (dB)	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	41.98	Pk	34.6	-23.9	0	52.68	-	-	74	-21.32	94	111	V
2	* 5.436	44.05	Pk	34.6	-23.8	0	54.85	-	-	74	-19.15	94	111	V
5	* 5.46	31.67	RMS	34.6	-23.9	.24	42.61	54	-11.39	-	-	94	111	V
6	* 5.459	32.16	RMS	34.6	-23.9	.24	43.1	54	-10.9	-	-	94	111	V
4	5.466	44.99	Pk	34.6	-23.9	0	55.69	-	-	68.2	-12.51	94	111	V
8	5.469	33.69	RMS	34.6	-23.9	.24	44.63	-	-	-	-	94	111	V
3	5.47	41.68	Pk	34.6	-23.9	0	52.38	-	-	68.2	-15.82	94	111	V
7	5.47	32.92	RMS	34.6	-23.9	.24	43.86	-	-	-	-	94	111	V

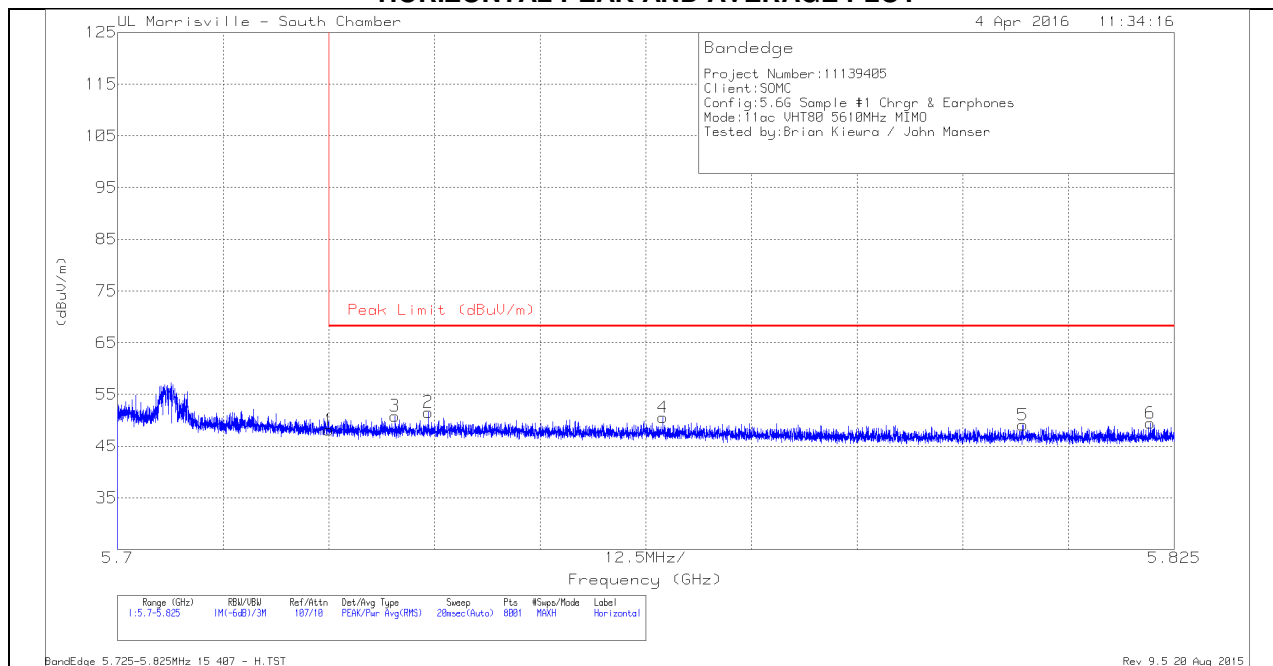
\* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

### AUTHORIZED BANDEGE (HIGH CHANNEL)

#### HORIZONTAL PEAK AND AVERAGE PLOT



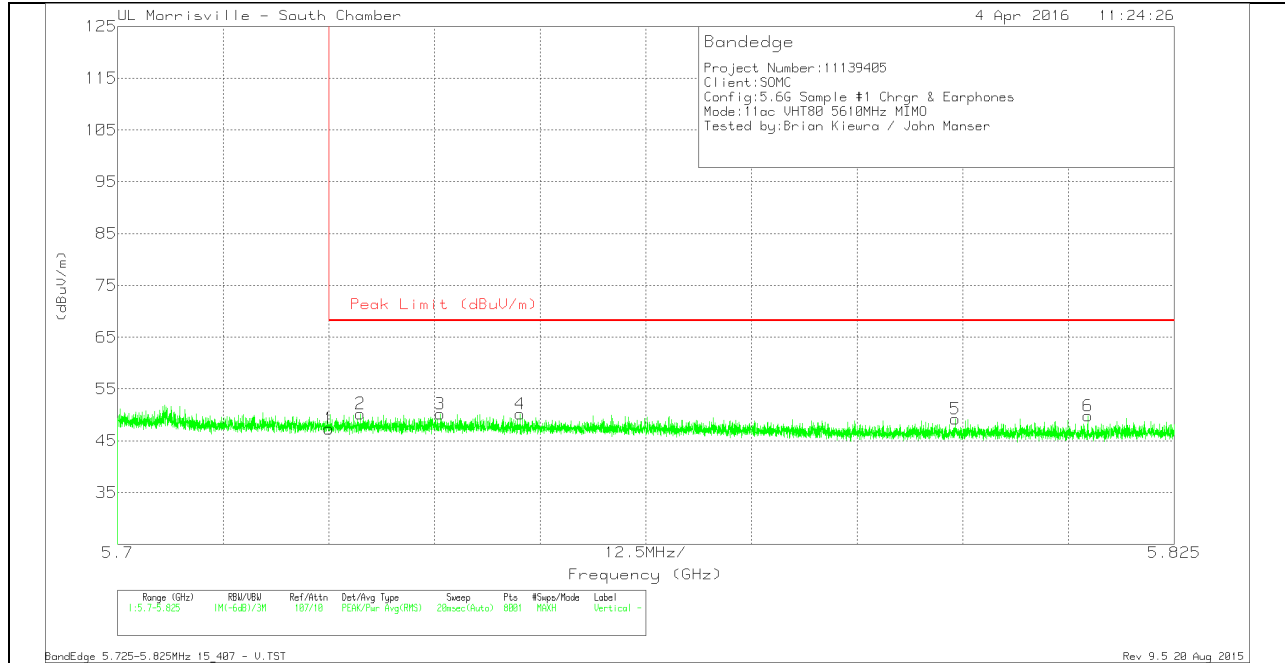
#### HORIZONTAL DATA

##### Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0069 (dB/m)	Amp/Cb/Filtr/Parad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.725	37.31	Pk	34.7	-23.9	0	48.11	68.2	-20.09	141	340	H
3	5.733	39.83	Pk	34.7	-23.7	0	50.83	68.2	-17.37	141	340	H
2	5.737	40.47	Pk	34.7	-23.6	0	51.57	68.2	-16.63	141	340	H
4	5.765	39.55	Pk	34.6	-23.6	0	50.55	68.2	-17.65	141	340	H
5	5.807	38.1	Pk	34.6	-23.6	0	49.1	68.2	-19.1	141	340	H
6	5.822	38.34	Pk	34.6	-23.5	0	49.44	68.2	-18.76	141	340	H

Pk - Peak detector

**VERTICAL PEAK AND AVERAGE PLOT**



**VERTICAL DATA**

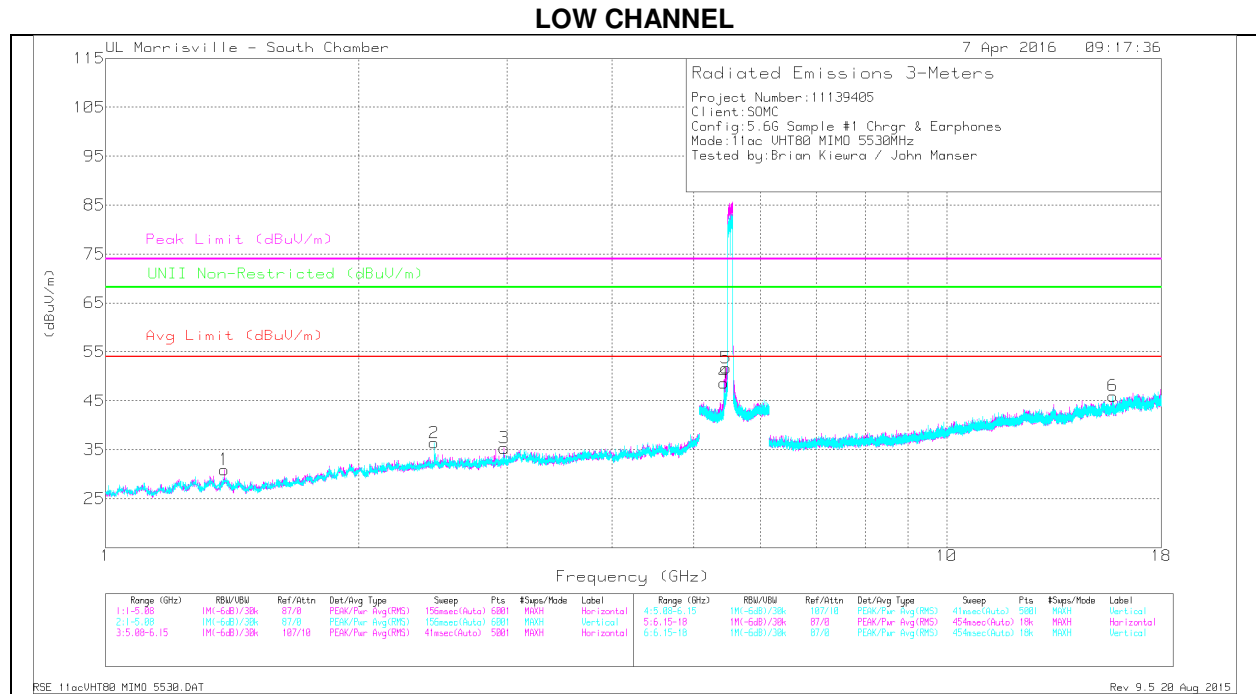
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0069 (dB/m)	Amp/Cbl/Filtr/Parad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.725	36.54	Pk	34.7	-23.9	0	47.34	68.2	-20.86	7	292	V
2	5.729	39.41	Pk	34.7	-23.9	0	50.21	68.2	-17.99	7	292	V
3	5.738	39.04	Pk	34.7	-23.6	0	50.14	68.2	-18.06	7	292	V
4	5.748	39.16	Pk	34.7	-23.7	0	50.16	68.2	-18.04	7	292	V
5	5.799	38.21	Pk	34.6	-23.6	0	49.21	68.2	-18.99	7	292	V
6	5.815	38.89	Pk	34.6	-23.7	0	49.79	68.2	-18.41	7	292	V

Pk - Peak detector



### HARMONICS AND SPURIOUS EMISSIONS



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

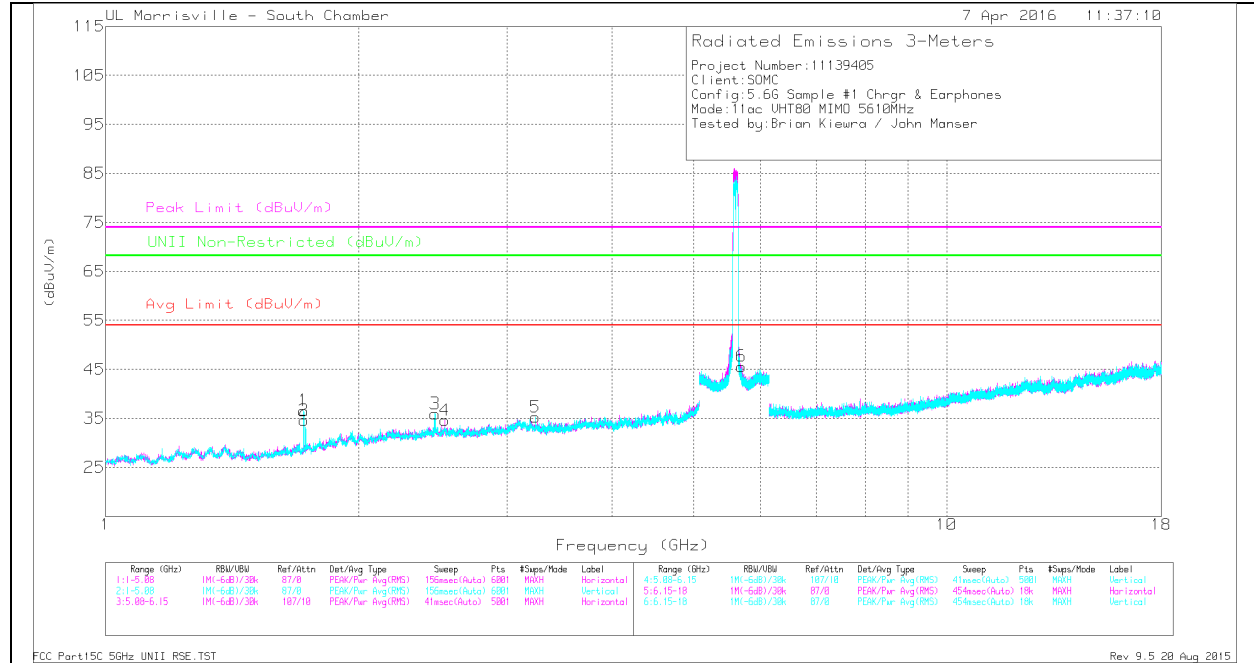
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0069 (dB/m)	Amp/CS/Fix/Psd (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Altitude (Degs)	Height (cm)	Polarity
1	* 1.383	42.72	PK-U	28.8	-35.2	0	36.32	-	-	74	-37.68	-	-	62	113	H
	* 1.384	30.6	ADR	28.8	-35.2	.24	24.44	54	-29.56	-	-	-	-	62	113	H
4	* 5.437	38.12	PK-U	34.6	-23.8	0	48.92	-	-	74	-25.08	-	-	19	347	V
	* 5.44	26.72	ADR	34.6	-23.8	.24	37.76	54	-16.24	-	-	-	-	19	347	V
6	* 15.763	34.43	PK-U	40.3	-24.5	0	50.23	-	-	74	-23.77	-	-	338	196	V
	* 15.765	22.99	ADR	40.3	-24.4	.24	39.13	54	-14.87	-	-	-	-	338	196	V
2	2.458	44.89	PK-U	32.3	-34.6	0	42.59	-	-	-	-	68.2	-25.61	92	254	V
3	2.979	41.17	PK-U	32.7	-34.2	0	39.67	-	-	-	-	68.2	-28.53	110	378	H
5	5.467	48.72	PK-U	34.6	-23.9	0	59.42	-	-	-	-	68.2	-8.78	159	254	H

\* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

**HIGH CHANNEL**



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	AF AT0069 (dB/m)	Amp/Chl/Freq/Psd (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Altitude (Deg)	Height (cm)	Polarity
1	*1.721	41.88	PK-U	29.3	-35.1	0	36.08	-	-	74	-37.92	-	-	352	213	V
	*1.722	29.85	ADR	29.3	-35.1	-24	24.29	54	-29.71	-	-	-	-	352	213	V
2	*1.719	42.08	PK-U	29.2	-35.1	0	36.18	-	-	74	-37.82	-	-	245	230	H
	*1.721	29.79	ADR	29.3	-35.1	-24	24.23	54	-29.77	-	-	-	-	245	230	H
3	2.463	44.99	PK-U	32.3	-34.6	0	42.69	-	-	-	-	68.2	-25.51	181	121	V
4	2.53	42.08	PK-U	32.5	-34.4	0	40.18	-	-	-	-	68.2	-28.02	336	194	H
5	3.245	40.83	PK-U	33.2	-34.2	0	39.83	-	-	-	-	68.2	-28.37	43	131	V
6	5.705	39.8	PK-U	34.7	-23.8	0	50.7	-	-	-	-	68.2	-17.5	271	135	V

\* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

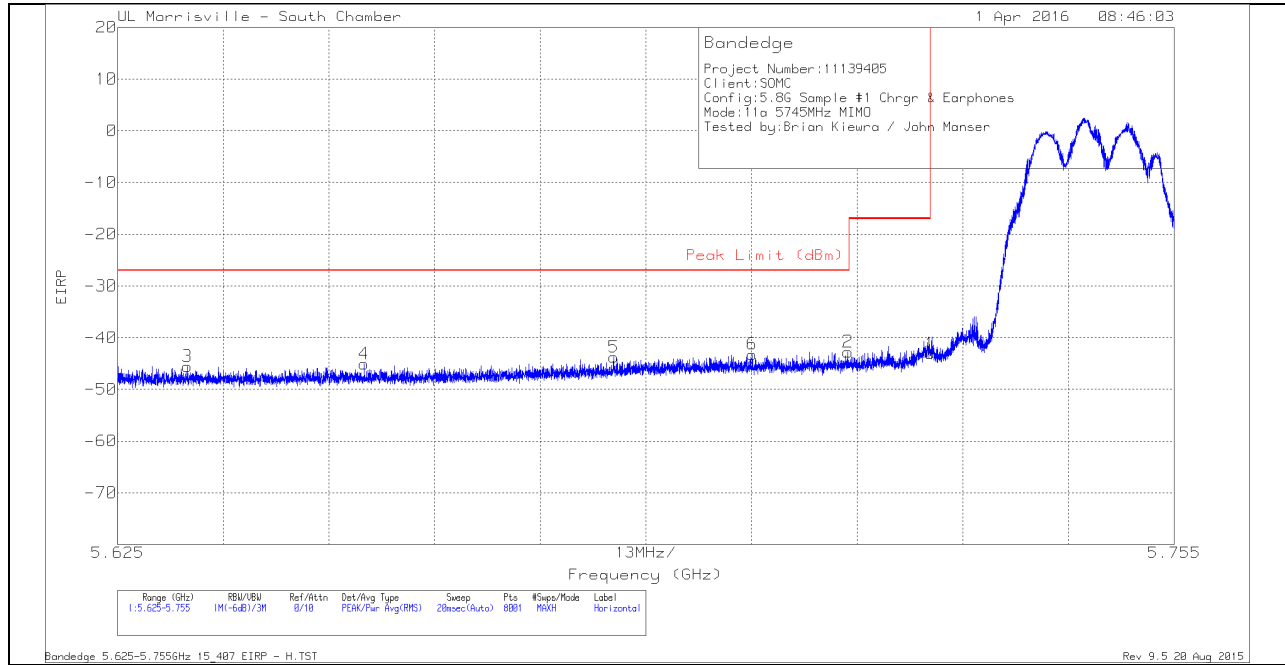
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

### 9.4. 5.8 GHz

#### 9.4.1. TX ABOVE 1 GHz 802.11a MODE IN THE 5.8 GHz BAND AUTHORIZED BANDEDGE (LOW CHANNEL)

**HORIZONTAL PEAK AND AVERAGE PLOT**



### HORIZONTAL DATA

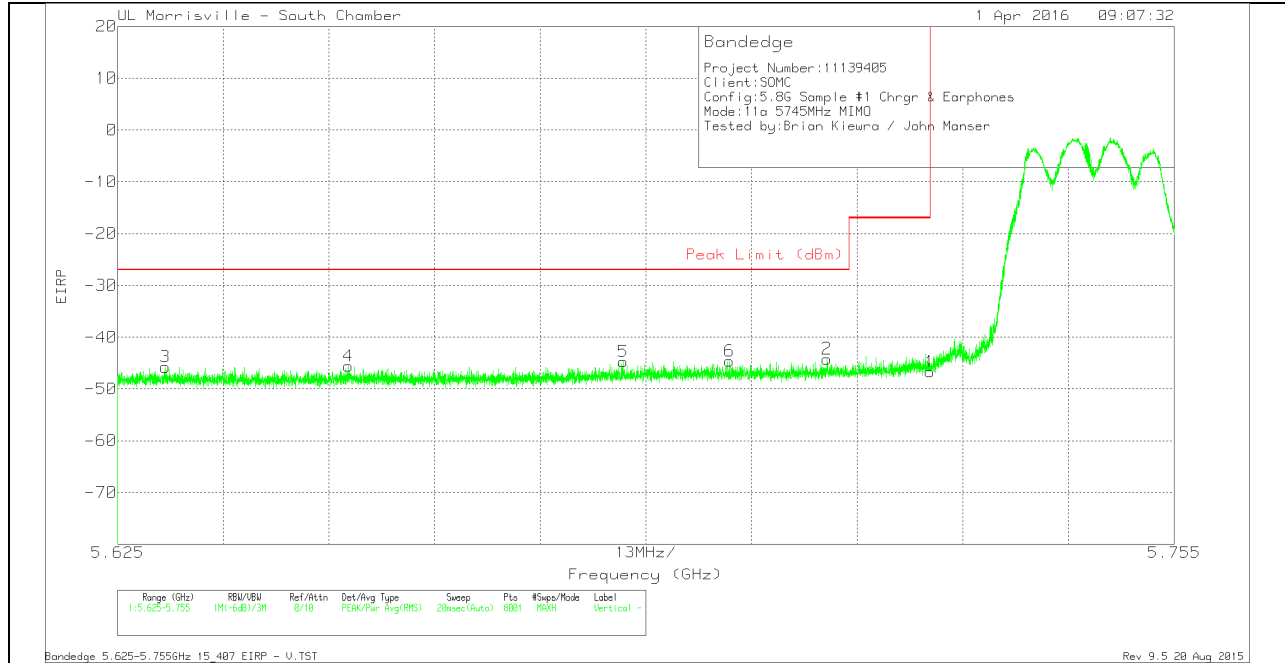
#### Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF AT0069 (dB/m)	Amp/Cb/Fltr/P ad (dB)	Conversion Factor (dB)	DC Corr (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
3	5.634	-68.35	Pk	34.7	-23.7	11.8	0	-45.55	-27	-18.55	6	110	H
4	5.655	-67.96	Pk	34.7	-23.6	11.8	0	-45.06	-27	-18.06	6	110	H
5	5.686	-66.56	Pk	34.7	-23.7	11.8	0	-43.76	-27	-16.76	6	110	H
6	5.703	-65.91	Pk	34.7	-23.8	11.8	0	-43.21	-27	-16.21	6	110	H
2	5.715	-65.43	Pk	34.7	-23.8	11.8	0	-42.73	-27	-15.73	6	110	H
1	5.725	-65.63	Pk	34.7	-23.9	11.8	0	-43.03	-17	-26.03	6	110	H

Pk - Peak detector

RMS - RMS detection

**VERTICAL PEAK AND AVERAGE PLOT**



**VERTICAL DATA**

Trace Markers

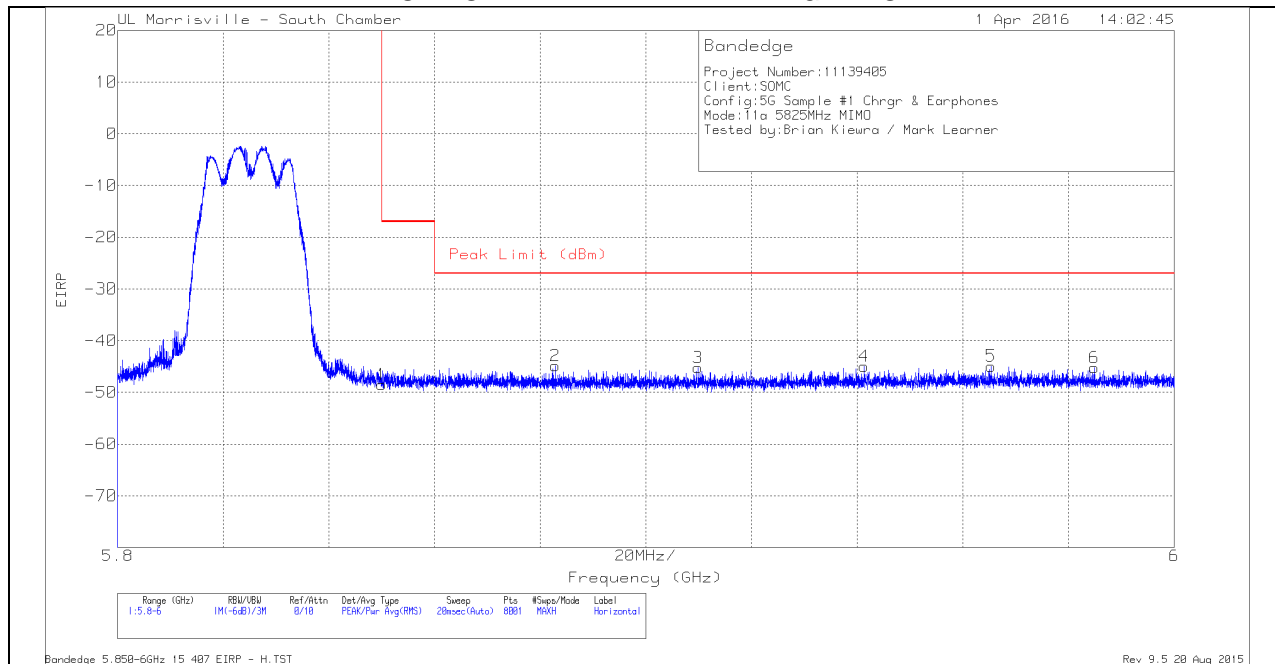
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF AT0069 (dB/m)	Amp/Cb/Ftr/P ad (dB)	Conversion Factor (dB)	DC Corr (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
3	5.631	-68.55	Pk	34.7	-23.7	11.8	0	-45.75	-27	-18.75	211	147	V
4	5.653	-68.49	Pk	34.7	-23.6	11.8	0	-45.59	-27	-18.59	211	147	V
5	5.687	-67.54	Pk	34.7	-23.7	11.8	0	-44.74	-27	-17.74	211	147	V
6	5.7	-67.38	Pk	34.7	-23.7	11.8	0	-44.58	-27	-17.58	211	147	V
2	5.712	-66.9	Pk	34.7	-23.8	11.8	0	-44.2	-27	-17.2	211	147	V
1	5.725	-69.26	Pk	34.7	-23.9	11.8	0	-46.66	-17	-29.66	211	147	V

Pk - Peak detector

RMS - RMS detection

### AUTHORIZED BANDEDGE (HIGH CHANNEL)

#### HORIZONTAL PEAK AND AVERAGE PLOT



#### HORIZONTAL DATA

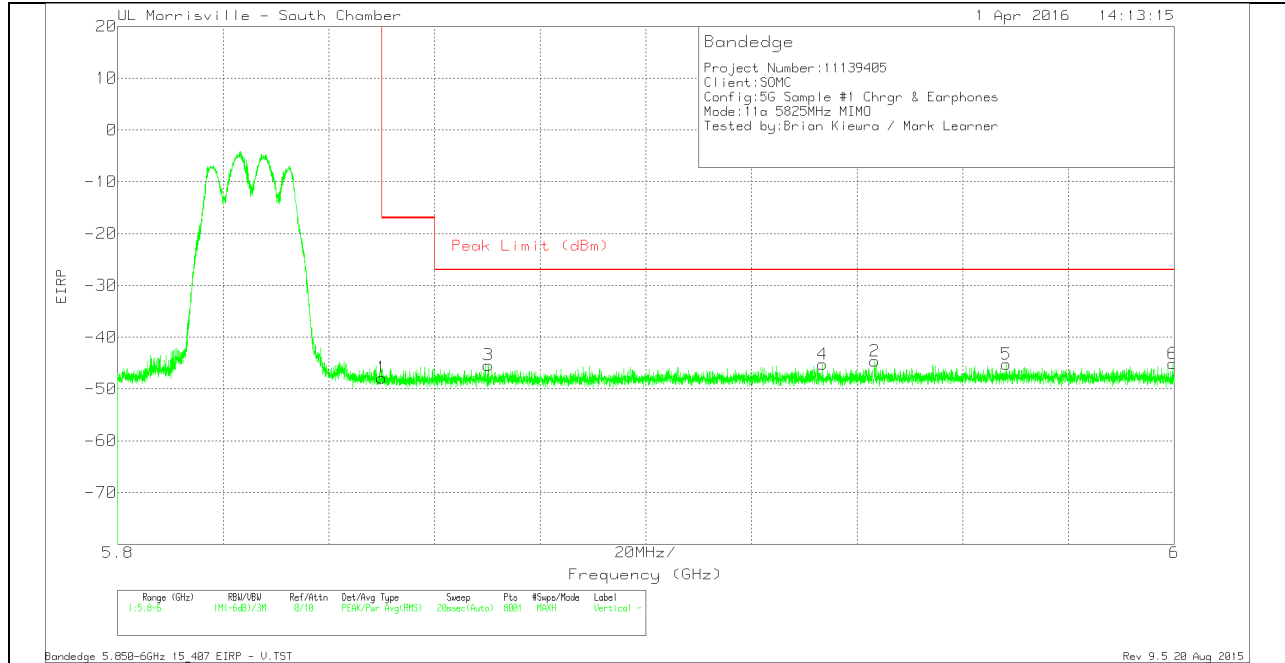
##### Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF AT0069 (dB/m)	Amp/Cb/Ftr/P ad (dB)	Conversion Factor (dB)	DC Corr (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.85	-71.47	Pk	34.7	-23.5	11.8	0	-48.47	-17	-31.47	17	134	H
2	5.883	-67.98	Pk	34.8	-23.5	11.8	0	-44.88	-27	-17.88	17	134	H
3	5.91	-68.49	Pk	34.9	-23.4	11.8	0	-45.19	-27	-18.19	17	134	H
4	5.941	-68.58	Pk	35	-23.2	11.8	0	-44.98	-27	-17.98	17	134	H
5	5.965	-68.73	Pk	35.1	-23.1	11.8	0	-44.93	-27	-17.93	17	134	H
6	5.985	-68.95	Pk	35	-23.1	11.8	0	-45.25	-27	-18.25	17	134	H

Pk - Peak detector

RMS - RMS detection

**VERTICAL PEAK AND AVERAGE PLOT**



**VERTICAL DATA**

**Trace Markers**

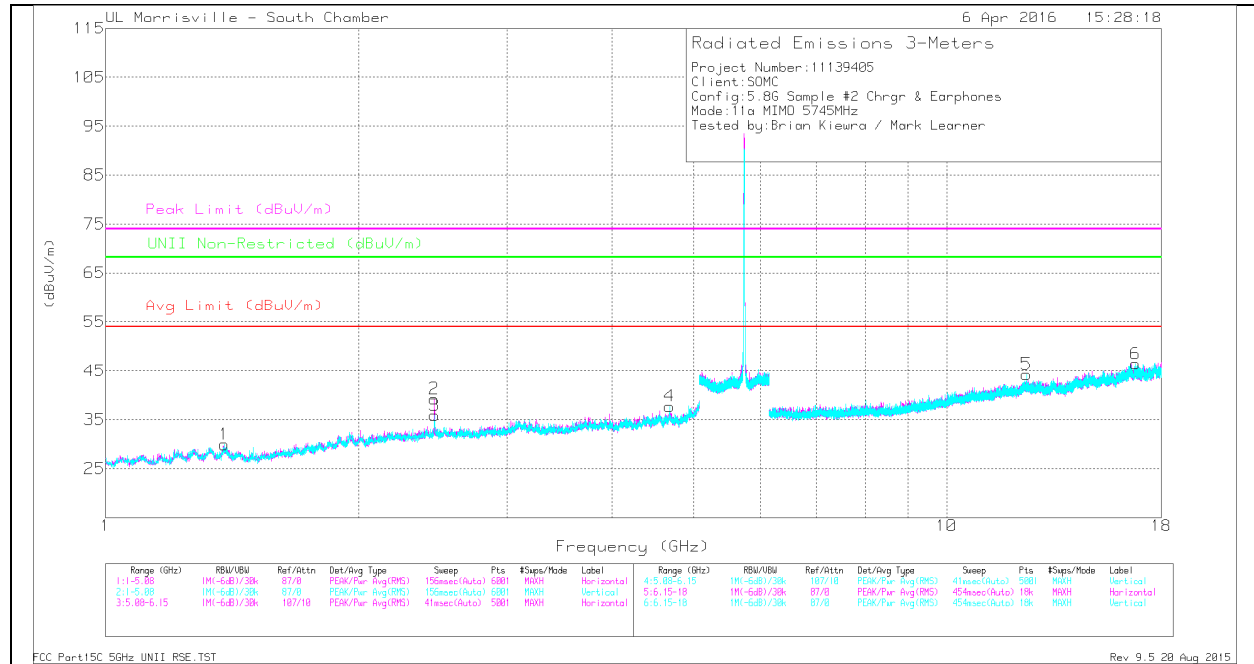
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF AT0069 (dB/m)	Amp/Cb/Ftr/P ad (dB)	Conversion Factor (dB)	DC Corr (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.85	-70.83	Pk	34.7	-23.5	11.8	0	-47.83	-17	-30.83	193	124	V
3	5.87	-68.6	Pk	34.8	-23.4	11.8	0	-45.4	-27	-18.4	193	124	V
4	5.933	-68.82	Pk	35	-23.2	11.8	0	-45.22	-27	-18.22	193	124	V
2	5.943	-68.2	Pk	35	-23.2	11.8	0	-44.6	-27	-17.6	193	124	V
5	5.968	-69.13	Pk	35.1	-23	11.8	0	-45.23	-27	-18.23	193	124	V
6	6	-68.82	Pk	35	-23.1	11.8	0	-45.12	-27	-18.12	193	124	V

Pk - Peak detector

RMS - RMS detection

## HARMONICS AND SPURIOUS EMISSIONS

### LOW CHANNEL



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

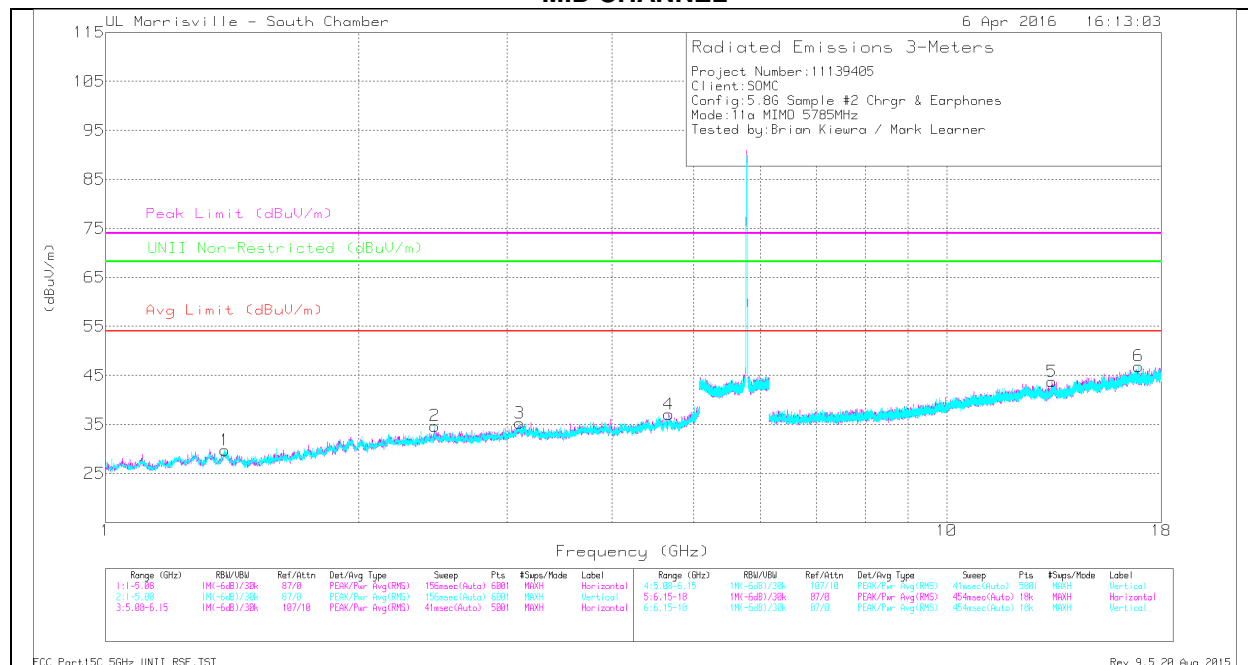
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF A10065 (dB/m)	Ampl/Chn/Ftr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Altitude (Degs)	Height (cm)	Polarity
1	* 1.385	42.69	PK-U	28.8	-35.2	36.29	-	-	74	-37.71	-	-	140	250	V
	* 1.385	30.62	ADR	28.8	-35.2	24.22	54	29.78	-	-	-	-	140	250	V
4	* 4.682	40.12	PK-U	34.1	-31.4	42.82	-	-	74	-31.18	-	-	327	215	V
	* 4.683	28.48	ADR	34.1	-31.4	31.18	54	22.82	-	-	-	-	327	215	V
5	* 12.441	34.86	PK-U	39	-24.9	48.96	-	-	74	-25.04	-	-	340	108	V
	* 12.443	23.12	ADR	39.1	-24.8	37.42	54	16.58	-	-	-	-	340	108	V
2	2.461	43.12	PK-U	32.3	-34.6	40.82	-	-	-	-	68.2	-27.38	157	309	H
3	2.461	44.55	PK-U	32.3	-34.6	42.25	-	-	-	-	68.2	-25.95	77	304	V
6	16.778	36.65	PK-U	41.6	-25.6	52.65	-	-	-	-	68.2	-15.55	59	186	V

\* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

**MID CHANNEL**



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	AF AT0069 (dB/m)	Amp/CS/Flt/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	* 4.676	40.13	PK-U	34.1	-31.3	0	42.93	54	-22.94	74	-31.07	-	-	296	374	H
	* 4.674	28.26	ADR	34.1	-31.3	0	31.06	54	-22.94	-	-	-	-	296	374	H
1	* 1.386	42.58	PK-U	28.8	-35.2	0	36.18	-	-	74	-37.82	-	-	334	374	V
	* 1.385	30.61	ADR	28.8	-35.2	0	24.21	54	-29.79	-	-	-	-	334	374	V
5	* 13.34	35.56	PK-U	39.1	-25.6	0	49.06	-	-	74	-24.94	-	-	140	345	H
	* 13.339	24.06	ADR	39.1	-25.5	0	37.66	54	-16.34	-	-	-	-	140	345	H
2	2.464	47.12	PK-U	32.3	-34.6	0	44.82	-	-	-	-	68.2	-23.38	327	140	V
3	3.108	41.97	PK-U	33.9	-33.9	0	41.97	-	-	-	-	68.2	-26.23	66	302	V
6	16.908	36.04	PK-U	41.6	-25.4	0	52.24	-	-	-	-	68.2	-15.96	213	131	V

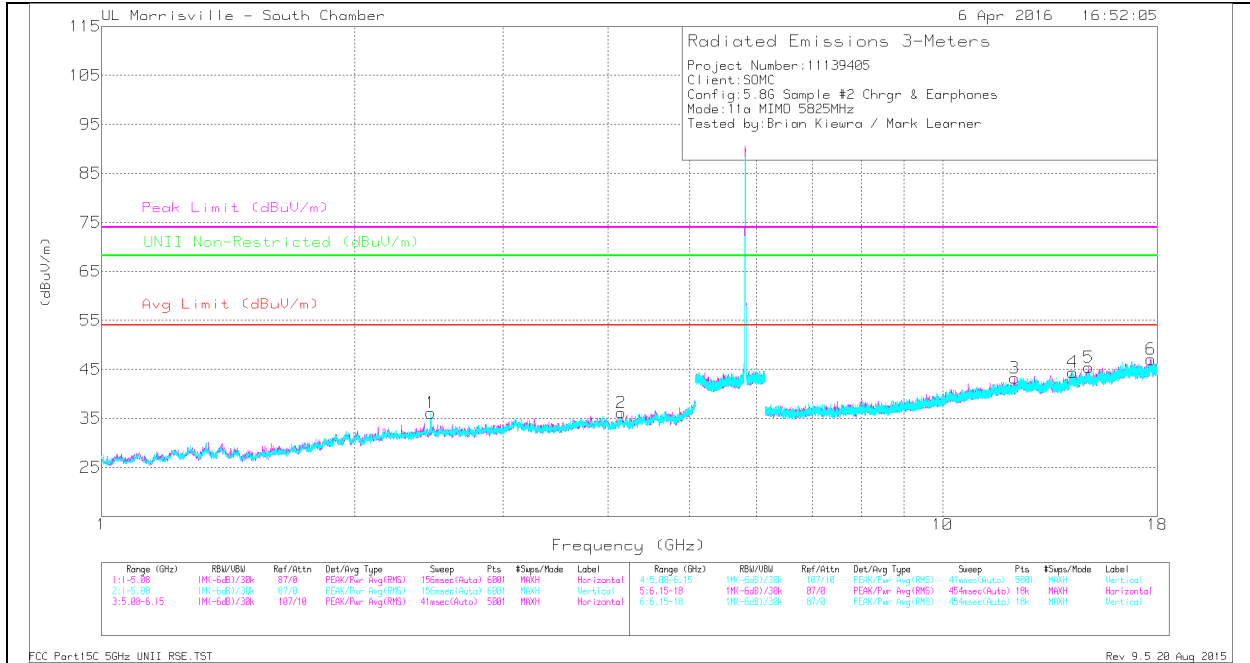
\* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average



**HIGH CHANNEL**



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	AFAT009 (dB/m)	Amp/Cal/Fix/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Altitude (Degs)	Height (cm)	Polarity
2	* 4.147	40.18	PK-U	33.4	-32.2	0	41.38	-	-	74	-32.62	-	-	214	101	H
	* 4.147	28.63	ADR	33.4	-32.2	0	29.83	54	-24.17	-	-	-	-	214		
3	* 12.177	35.12	PK-U	39	-25.9	0	48.22	-	-	74	-25.78	-	-	145	199	H
	* 12.181	23.54	ADR	39	-25.8	0	36.74	54	-17.26	-	-	-	-	145		
1	2.465	47.42	PK-U	32.4	-34.6	0	45.22	-	-	-	-	68.2	-22.98	340	200	V
4	14.277	34.03	PK-U	39.3	-24.1	0	49.23	-	-	-	-	68.2	-18.97	275	199	V
5	14.911	35.43	PK-U	39.9	-24.9	0	50.43	-	-	-	-	68.2	-17.77	306	101	H
6	17.691	34.57	PK-U	41.2	-23	0	52.77	-	-	-	-	68.2	-15.43	322	101	H

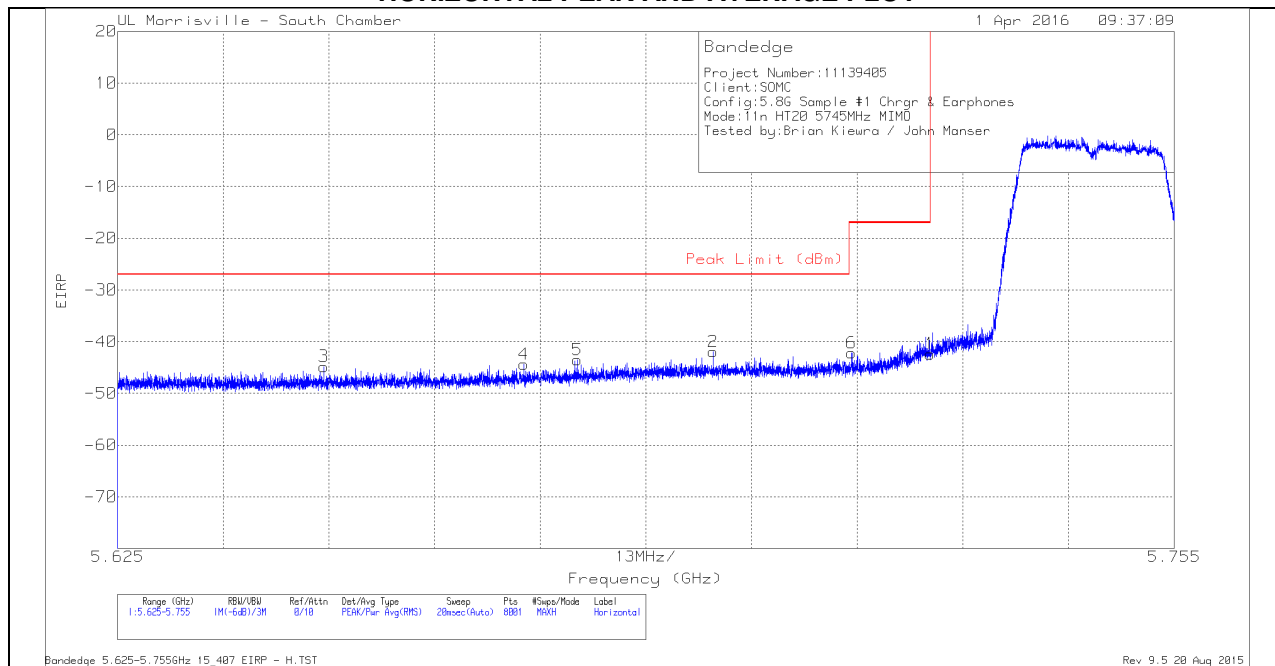
\* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

### 9.4.2. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.8 GHz BAND AUTHORIZED BANDEDGE (LOW CHANNEL)

#### HORIZONTAL PEAK AND AVERAGE PLOT



#### HORIZONTAL DATA

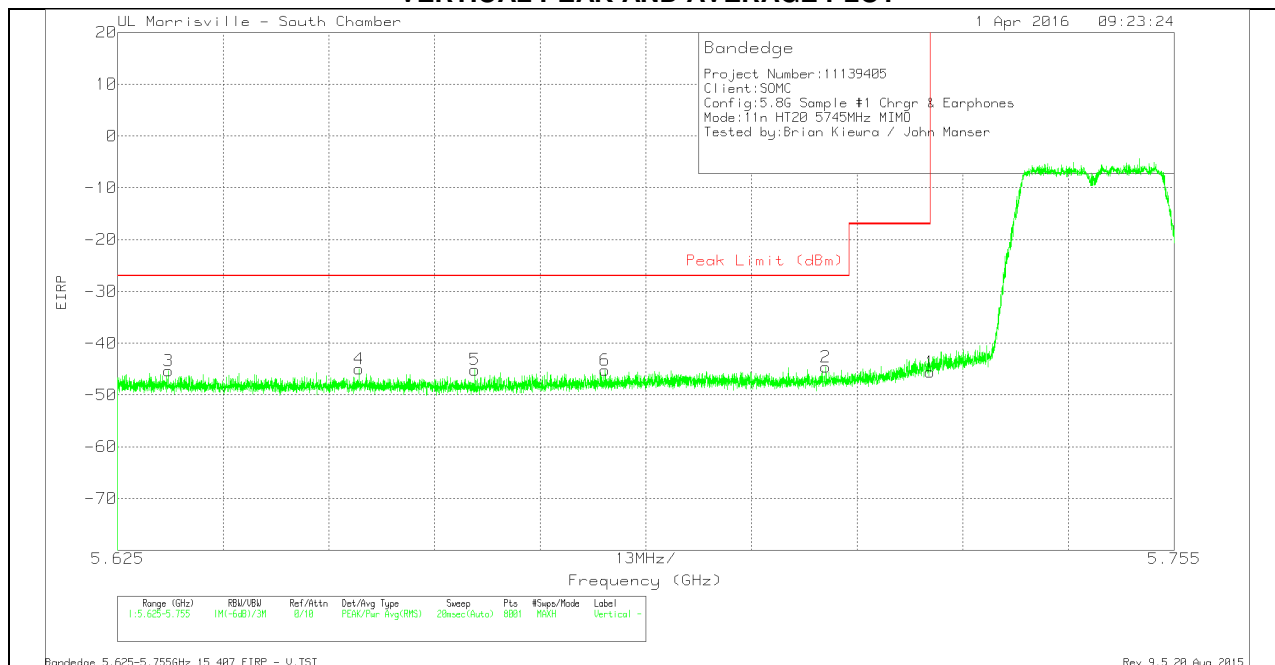
##### Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF AT0069 (dB/m)	Amp/Cb/Fitr/P ad (dB)	Conversion Factor (dB)	DC Corr (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
3	5.65	-67.6	Pk	34.7	-23.7	11.8	0	-44.8	-27	-17.8	20	149	H
4	5.675	-66.99	Pk	34.7	-23.9	11.8	0	-44.39	-27	-17.39	20	149	H
5	5.682	-66.22	Pk	34.7	-23.8	11.8	0	-43.52	-27	-16.52	20	149	H
2	5.698	-64.75	Pk	34.7	-23.7	11.8	0	-41.95	-27	-14.95	20	149	H
6	5.715	-64.88	Pk	34.7	-23.8	11.8	0	-42.18	-17	-25.18	20	149	H
1	5.725	-64.96	Pk	34.7	-23.9	11.8	0	-42.36	-17	-25.36	20	149	H

Pk - Peak detector

RMS - RMS detection

**VERTICAL PEAK AND AVERAGE PLOT**



**VERTICAL DATA**

Trace Markers

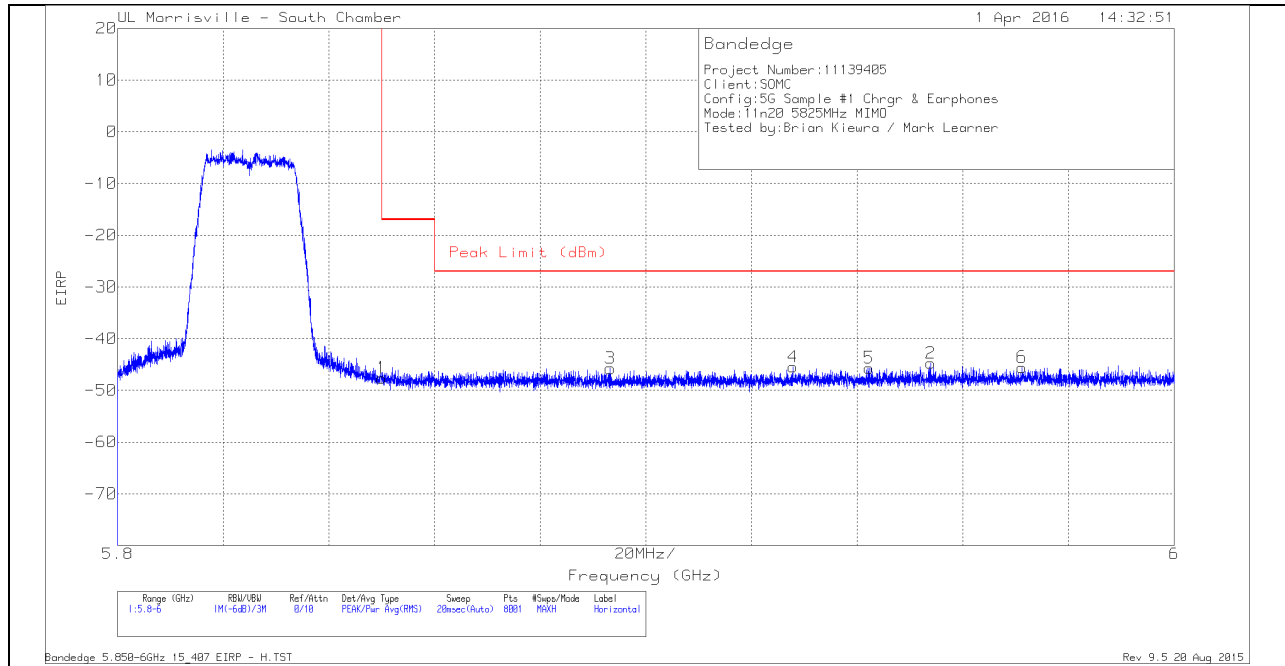
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF AT0069 (dB/m)	Amp/Cb/Ftr/P ad (dB)	Conversion Factor (dB)	DC Corr (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
3	5.631	-68.11	Pk	34.7	-23.7	11.8	0	-45.31	-27	-18.31	266	162	V
4	5.655	-67.87	Pk	34.7	-23.6	11.8	0	-44.97	-27	-17.97	266	162	V
5	5.669	-67.74	Pk	34.7	-23.9	11.8	0	-45.14	-27	-18.14	266	162	V
6	5.685	-68.05	Pk	34.7	-23.7	11.8	0	-45.25	-27	-18.25	266	162	V
2	5.712	-67.28	Pk	34.7	-23.8	11.8	0	-44.58	-27	-17.58	266	162	V
1	5.725	-68.18	Pk	34.7	-23.9	11.8	0	-45.58	-17	-28.58	266	162	V

Pk - Peak detector

RMS - RMS detection

### AUTHORIZED BANDEDGE (HIGH CHANNEL)

#### HORIZONTAL PEAK AND AVERAGE PLOT



#### HORIZONTAL DATA

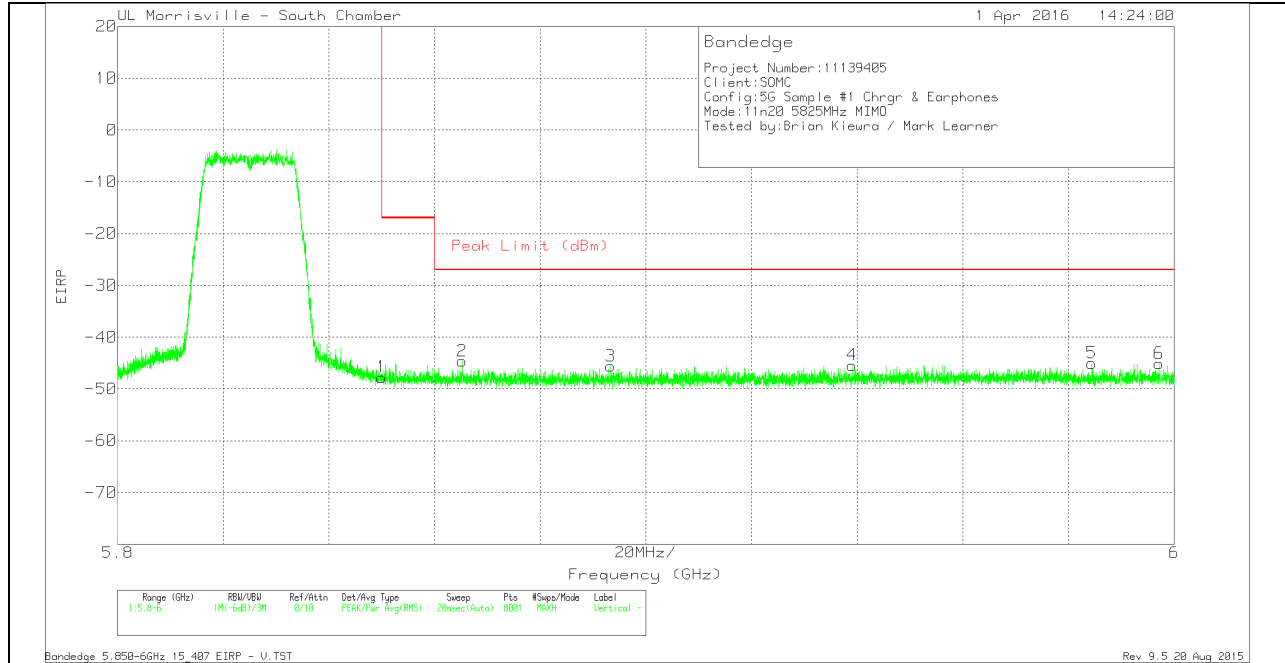
##### Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF AT0069 (dB/m)	Amp/Cb/Ftr/P ad (dB)	Conversion Factor (dB)	DC Corr (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.85	-70.6	Pk	34.7	-23.5	11.8	0	-47.6	-17	-30.6	348	333	H
3	5.893	-68.95	Pk	34.9	-23.5	11.8	0	-45.75	-27	-18.75	348	333	H
4	5.928	-69	Pk	35	-23.3	11.8	0	-45.5	-27	-18.5	348	333	H
5	5.942	-69.27	Pk	35	-23.2	11.8	0	-45.67	-27	-18.67	348	333	H
2	5.954	-68.52	Pk	35.1	-23.1	11.8	0	-44.72	-27	-17.72	348	333	H
6	5.971	-69.43	Pk	35.1	-23	11.8	0	-45.53	-27	-18.53	348	333	H

Pk - Peak detector

RMS - RMS detection

**VERTICAL PEAK AND AVERAGE PLOT**



**VERTICAL DATA**

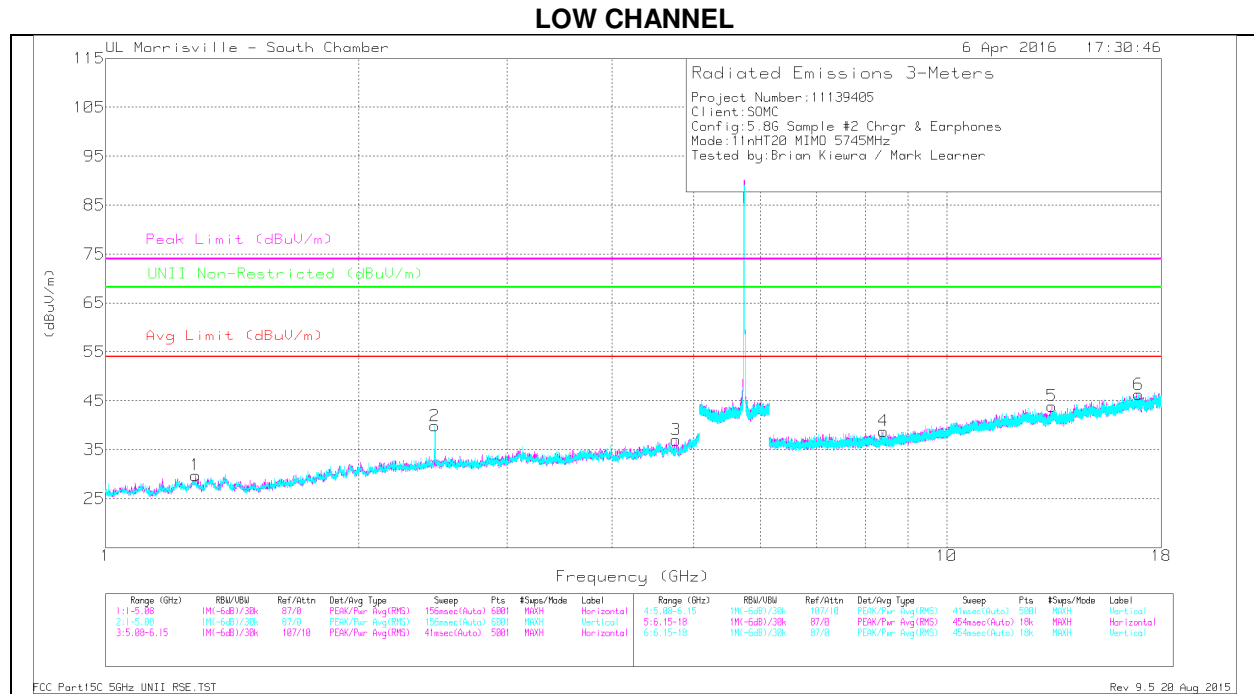
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF AT0069 (dB/m)	Amp/Cb/Fltr/P ad (dB)	Conversion Factor (dB)	DC Corr (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.85	-70.71	Pk	34.7	-23.5	11.8	0	-47.71	-17	-30.71	353	110	V
2	5.865	-67.78	Pk	34.8	-23.4	11.8	0	-44.58	-27	-17.58	353	110	V
3	5.893	-68.78	Pk	34.9	-23.5	11.8	0	-45.58	-27	-18.58	353	110	V
4	5.939	-69	Pk	35	-23.2	11.8	0	-45.4	-27	-18.4	353	110	V
5	5.984	-68.63	Pk	35	-23.2	11.8	0	-45.03	-27	-18.03	353	110	V
6	5.997	-68.76	Pk	35	-23.1	11.8	0	-45.06	-27	-18.06	353	110	V

Pk - Peak detector

RMS - RMS detection

## HARMONICS AND SPURIOUS EMISSIONS



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

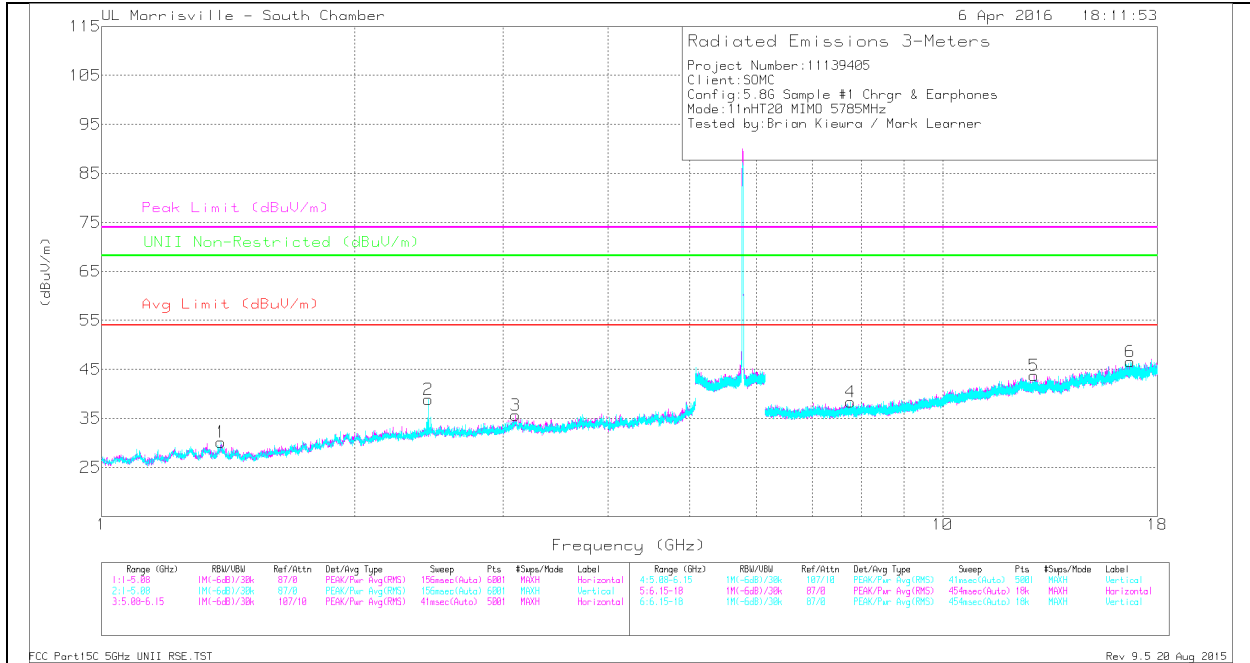
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT009 (dB/m)	Ampl/CS/Fix/Psd (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Altitude (Degs)	Height (cm)	Polarity
1	* 1.278	42.79	PK-U	28.8	-35.6	0	35.99	-	-	74	-38.01	-	-	325	101	H
	* 1.278	30.69	ADR	28.8	-35.6	0	23.89	54	-30.11	-	-	-	-	325	101	H
3	* 4.771	39.21	PK-U	34	-31.8	0	41.41	-	-	74	-32.59	-	-	251	199	H
	* 4.767	28.17	ADR	34	-31.8	0	30.37	54	-23.63	-	-	-	-	251	199	H
5	* 13.348	35.52	PK-U	39.1	-25.7	0	48.92	-	-	74	-25.08	-	-	233	202	H
	* 13.348	23.92	ADR	39.1	-25.7	0	37.32	54	-16.68	-	-	-	-	233	202	H
4	* 8.414	36.33	PK-U	35.7	-28.2	0	43.83	-	-	74	-30.17	-	-	190	103	V
	* 8.416	25.01	ADR	35.7	-28.2	0	32.51	54	-21.49	-	-	-	-	190	103	V
2	2.464	47.13	PK-U	32.3	-34.6	0	44.83	-	-	-	-	68.2	-23.37	133	380	V
6	16.908	36.18	PK-U	41.6	-25.4	0	52.38	-	-	-	-	68.2	-15.82	33	103	V

\* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

**MID CHANNEL**



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*

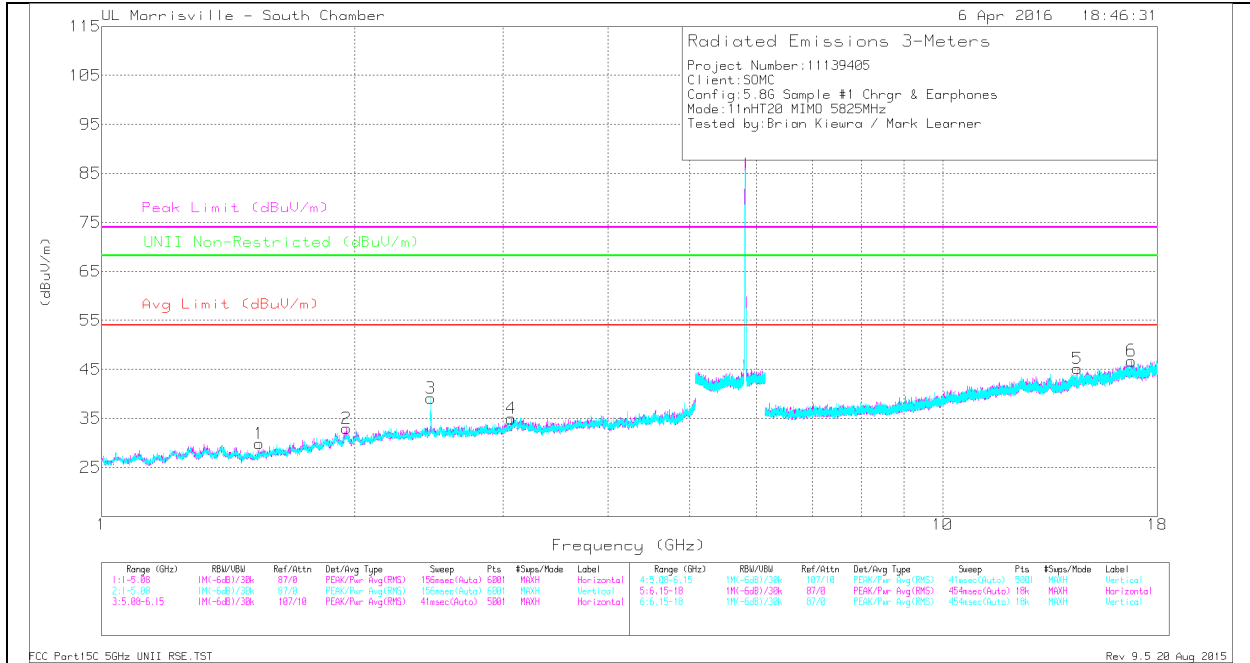
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF ATT069 (dB/m)	Amp/Ch/Flt/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.386	43.19	PK-U	28.8	-35.2	0	36.79	-	-	74	-37.21	-	-	90	102	V
2	* 1.386	30.66	ADR	28.8	-35.2	0	24.26	54	-29.74	-	-	-	-	90	102	V
3	2.446	41.21	PK-U	32.3	-34.7	0	38.81	-	-	-	-	68.2	-29.39	74	293	V
4	3.105	41.98	PK-U	33.9	-33.9	0	41.98	-	-	-	-	68.2	-26.22	97	198	H
5	7.77	37.27	PK-U	35.8	-28.8	0	44.27	-	-	-	-	68.2	-23.93	324	104	V
6	12.845	35.29	PK-U	39.3	-25.8	0	48.79	-	-	-	-	68.2	-19.41	159	201	H
6	16.723	36.19	PK-U	41.6	-25.9	0	51.89	-	-	-	-	68.2	-16.31	190	104	V

\* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

**HIGH CHANNEL**



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	AF AT0069 (dB/m)	Amp/Chl/Freq/Psd (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Altitude (Deg)	Height (cm)	Polarity
1	*1.538	42.26	PK-U	28.1	-35.5	0	34.86	-	-	74	-39.14	-	-	295	102	V
	*1.538	30.45	ADR	28.1	-35.5	0	23.05	54	-30.95	-	-	-	-	295	102	V
2	1.957	42.12	PK-U	31.2	-34.6	0	38.72	-	-	-	-	68.2	-29.48	280	198	H
3	2.462	47.43	PK-U	32.3	-34.6	0	45.13	-	-	-	-	68.2	-23.07	209	336	V
4	3.068	41.59	PK-U	33.4	-34	0	40.99	-	-	-	-	68.2	-27.21	118	102	H
5	14.456	35.99	PK-U	39.6	-25.8	0	49.79	-	-	-	-	68.2	-18.41	98	104	V
6	16.778	35.9	PK-U	41.6	-25.6	0	51.9	-	-	-	-	68.2	-16.3	14	104	H

\* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

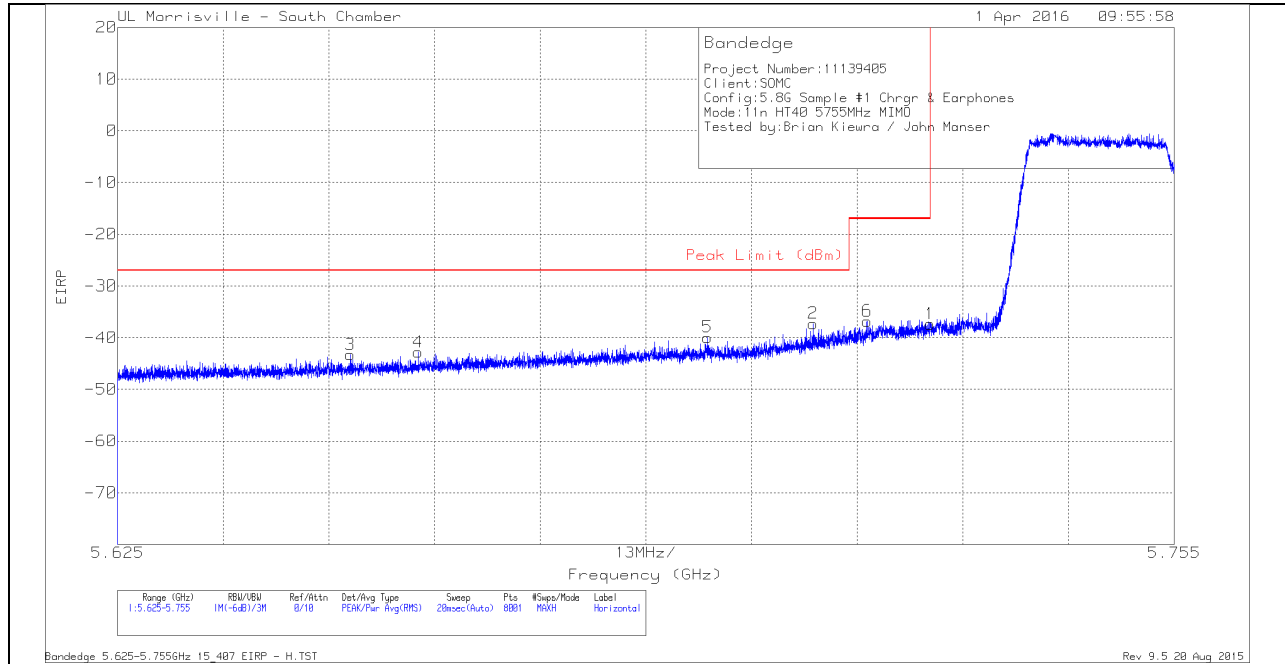
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average



### 9.4.3. TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.8 GHz BAND AUTHORIZED BANDEDGE (LOW CHANNEL)

#### HORIZONTAL PEAK AND AVERAGE PLOT



#### HORIZONTAL DATA

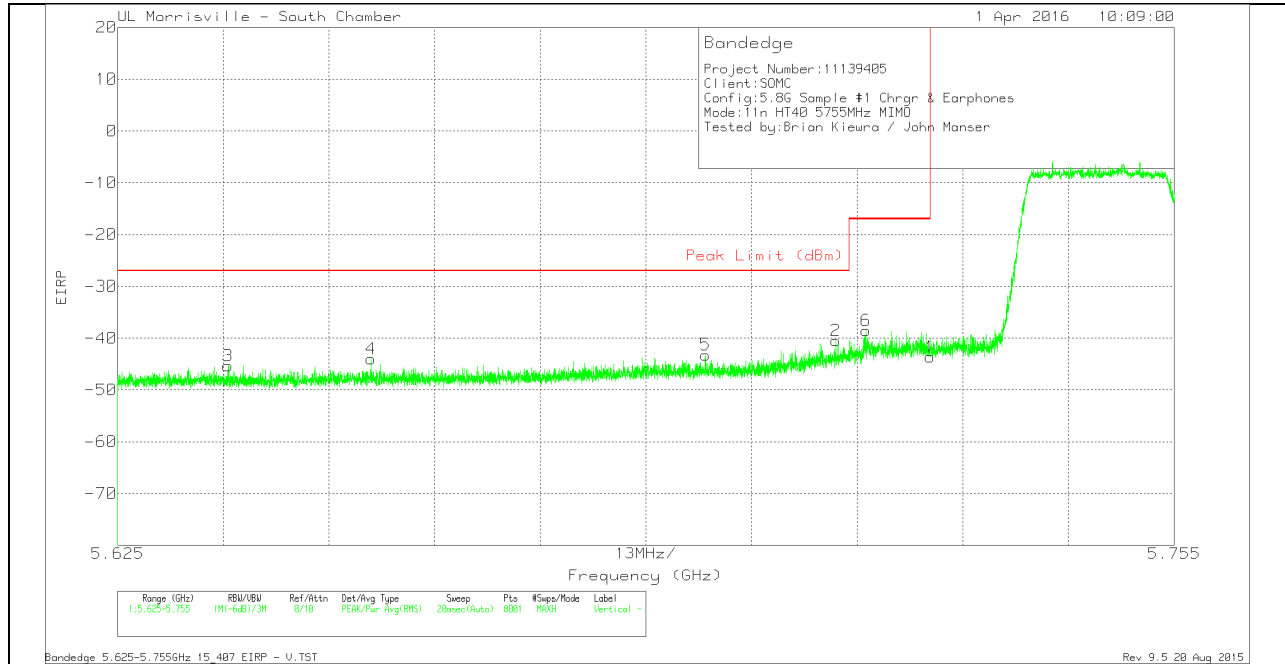
##### Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF AT0069 (dB/m)	Amp/Cb/Fitr/P ad (dB)	Conversion Factor (dB)	DC Corr (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
3	5.654	-66.18	Pk	34.7	-23.6	11.8	0	-43.28	-27	-16.28	16	127	H
4	5.662	-65.49	Pk	34.7	-23.8	11.8	0	-42.79	-27	-15.79	16	127	H
5	5.698	-62.73	Pk	34.7	-23.7	11.8	0	-39.93	-27	-12.93	16	127	H
2	5.711	-59.95	Pk	34.7	-23.8	11.8	0	-37.25	-27	-10.25	16	127	H
6	5.717	-59.48	Pk	34.7	-23.8	11.8	0	-36.78	-17	-19.78	16	127	H
1	5.725	-59.97	Pk	34.7	-23.9	11.8	0	-37.37	-17	-20.37	16	127	H

Pk - Peak detector

RMS - RMS detection

**VERTICAL PEAK AND AVERAGE PLOT**



**VERTICAL DATA**

Trace Markers

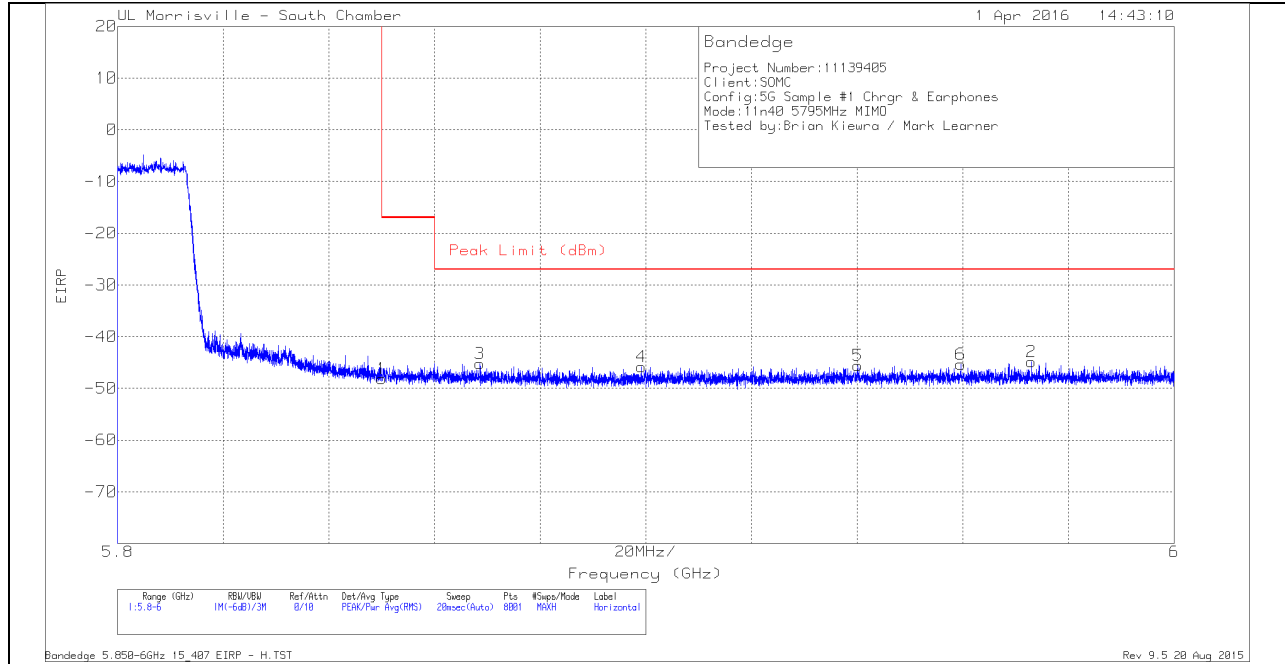
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF AT0069 (dB/m)	Amp/Cb/Filtz/P ad (dB)	Conversion Factor (dB)	DC Corr (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
3	5.639	-68.02	Pk	34.7	-23.8	11.8	0	-45.32	-27	-18.32	260	140	V
4	5.656	-66.93	Pk	34.7	-23.6	11.8	0	-44.03	-27	-17.03	260	140	V
5	5.697	-66.02	Pk	34.7	-23.7	11.8	0	-43.22	-27	-16.22	260	140	V
2	5.713	-63.19	Pk	34.7	-23.8	11.8	0	-40.49	-27	-13.49	260	140	V
6	5.717	-61.27	Pk	34.7	-23.8	11.8	0	-38.57	-17	-21.57	260	140	V
1	5.725	-66.26	Pk	34.7	-23.9	11.8	0	-43.66	-17	-26.66	260	140	V

Pk - Peak detector

RMS - RMS detection

### AUTHORIZED BANDEDGE (HIGH CHANNEL)

#### HORIZONTAL PEAK AND AVERAGE PLOT



#### HORIZONTAL DATA

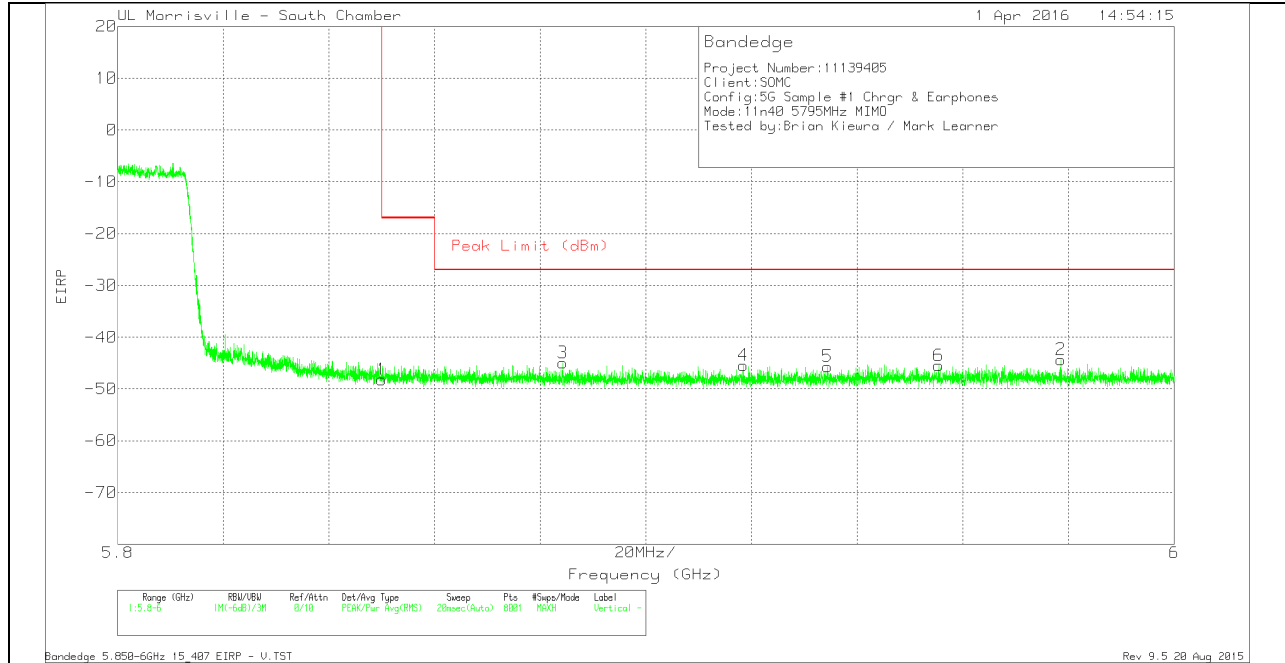
##### Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF AT0069 (dB/m)	Amp/Cb/Ftr/P ad (dB)	Conversion Factor (dB)	DC Corr (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.85	-71.15	Pk	34.7	-23.5	11.8	0	-48.15	-17	-31.15	1	385	H
3	5.869	-68.4	Pk	34.8	-23.4	11.8	0	-45.2	-27	-18.2	1	385	H
4	5.899	-69.16	Pk	34.9	-23.4	11.8	0	-45.86	-27	-18.86	1	385	H
5	5.94	-69.18	Pk	35	-23.2	11.8	0	-45.58	-27	-18.58	1	385	H
6	5.96	-69.15	Pk	35.1	-23.1	11.8	0	-45.35	-27	-18.35	1	385	H
2	5.973	-68.64	Pk	35	-23	11.8	0	-44.84	-27	-17.84	1	385	H

Pk - Peak detector

RMS - RMS detection

**VERTICAL PEAK AND AVERAGE PLOT**



**VERTICAL DATA**

Trace Markers

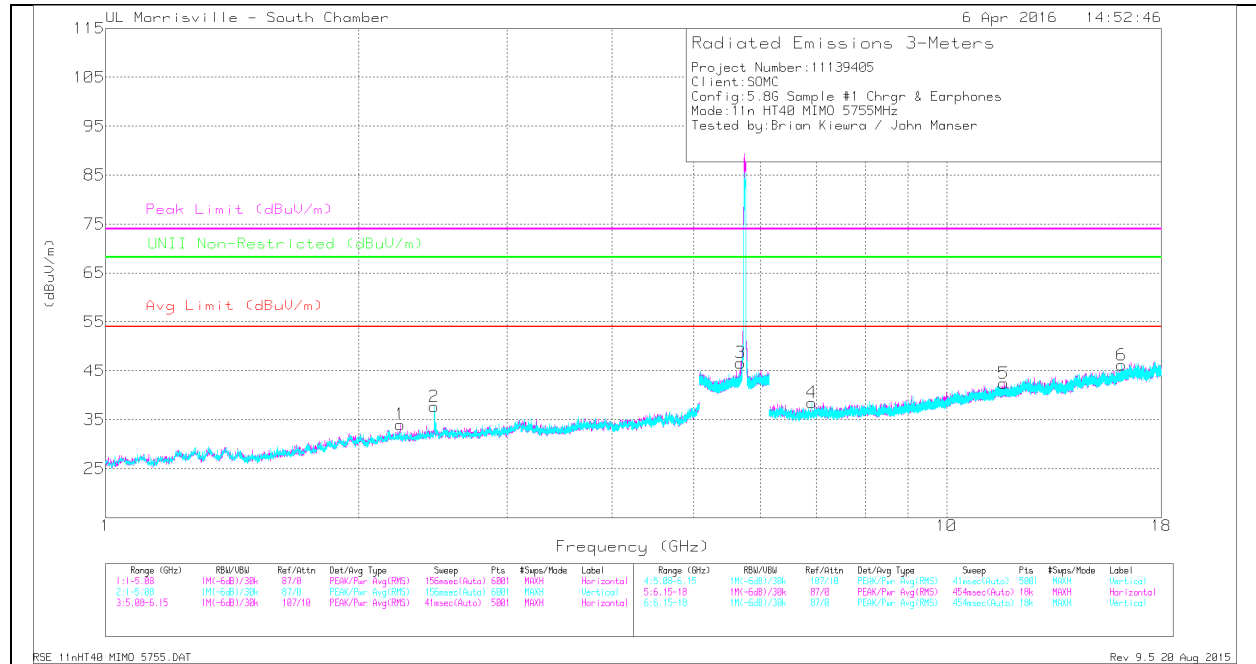
Marker	Frequency (GHz)	Meter Reading (dbm)	Det	AF AT0069 (dB/m)	Amp/Cb/Fltr/P ad (dB)	Conversion Factor (dB)	DC Corr (dB)	Corrected Reading EIRP	Peak Limit (dbm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.85	-71.18	Pk	34.7	-23.5	11.8	0	-48.18	-17	-31.18	333	100	V
3	5.884	-68.04	Pk	34.8	-23.5	11.8	0	-44.94	-27	-17.94	333	100	V
4	5.918	-68.83	Pk	35	-23.4	11.8	0	-45.43	-27	-18.43	333	100	V
5	5.934	-69.27	Pk	35	-23.2	11.8	0	-45.67	-27	-18.67	333	100	V
6	5.955	-69.28	Pk	35.1	-23.1	11.8	0	-45.48	-27	-18.48	333	100	V
2	5.979	-68.02	Pk	35	-23.1	11.8	0	-44.32	-27	-17.32	333	100	V

Pk - Peak detector

RMS - RMS detection

### HARMONICS AND SPURIOUS EMISSIONS

#### LOW CHANNEL



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

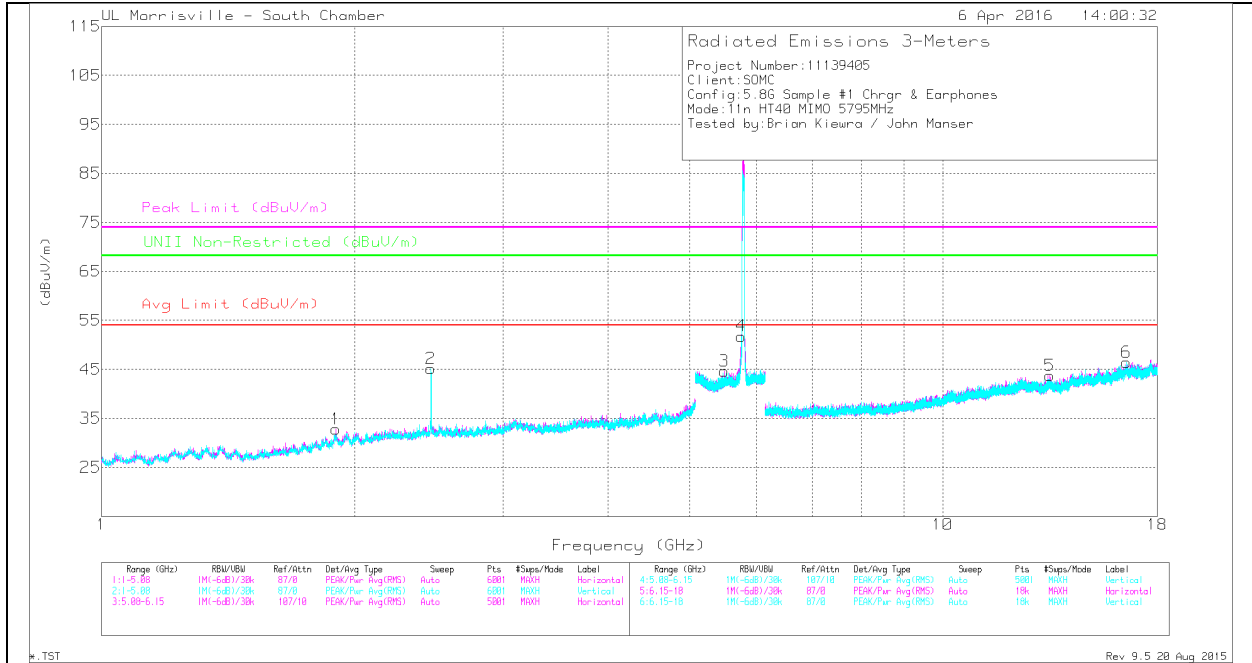
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT009 (dB/m)	Amp/CS/Flt/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Aug Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Altitude (Degs)	Height (cm)	Polarity
1	* 2.239	41.69	PK-U	31.8	-34.6	0	38.89	-	-	74	-35.11	-	-	321	389	H
	* 2.24	29.9	ADR	31.8	-34.6	.12	27.22	54	-26.78	-	-	-	-	321	389	H
5	* 11.694	35.68	PK-U	38.6	-25.3	0	48.98	-	-	74	-25.02	-	-	66	198	H
	* 11.696	23.17	ADR	38.6	-25.3	.12	36.59	54	-17.41	-	-	-	-	66	198	H
6	* 16.135	36.42	PK-U	40.7	-25.9	0	51.22	-	-	74	-22.78	-	-	330	103	V
	* 16.136	24.87	ADR	40.7	-25.8	.12	39.89	54	-14.11	-	-	-	-	330	103	V
2	2.462	45.42	PK-U	32.3	-34.6	0	43.12	-	-	-	-	68.2	-25.08	226	385	V
3	5.686	43.11	PK-U	34.7	-23.7	0	54.11	-	-	-	-	68.2	-14.09	17	120	H
4	6.914	37.18	PK-U	35.5	-29.1	0	43.58	-	-	-	-	68.2	-24.62	351	103	V

\* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

**HIGH CHANNEL**



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	AF AT0069 (dB/m)	Amp/Chl/Fix/Psd (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Altitude (Degs)	Height (cm)	Polarity
1	1.9	42.19	PK-U	30.7	-34.7	0	38.19	-	-	-	-	68.2	-30.01	124	239	H
2	2.463	48.69	PK-U	32.3	-34.6	0	46.39	-	-	-	-	68.2	-21.81	81	118	V
3	5.498	39.48	PK-U	34.6	-23.9	0	50.18	-	-	-	-	68.2	-18.02	325	128	H
4	5.757	46.18	PK-U	34.6	-23.7	0	57.08	-	-	-	-	68.2	-11.12	350	135	V
5	13.4	34.87	PK-U	39	-24.9	0	48.97	-	-	-	-	68.2	-19.23	333	372	H
6	16.54	35.09	PK-U	41.3	-24.1	0	52.29	-	-	-	-	68.2	-15.91	137	278	V

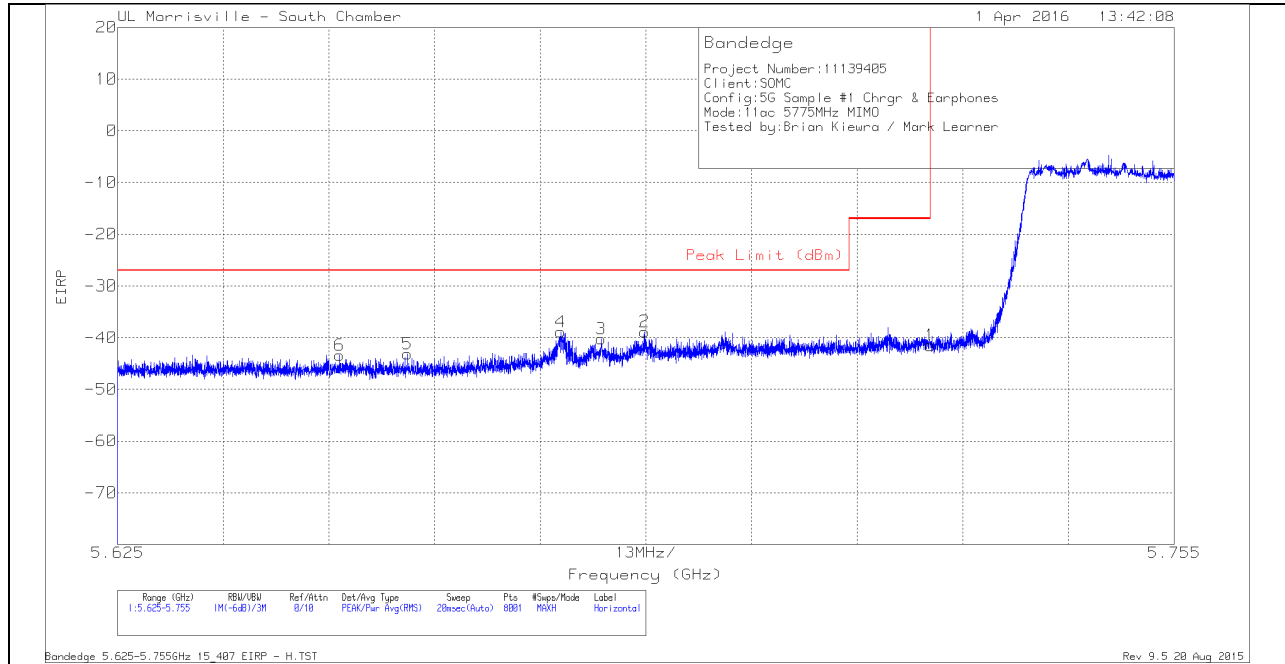
\* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

### 9.4.4. TX ABOVE 1 GHz 802.11ac VHT80 MODE IN THE 5.8 GHz BAND AUTHORIZED BANDEDGE (LOW CHANNEL)

#### HORIZONTAL PEAK AND AVERAGE PLOT



#### HORIZONTAL DATA

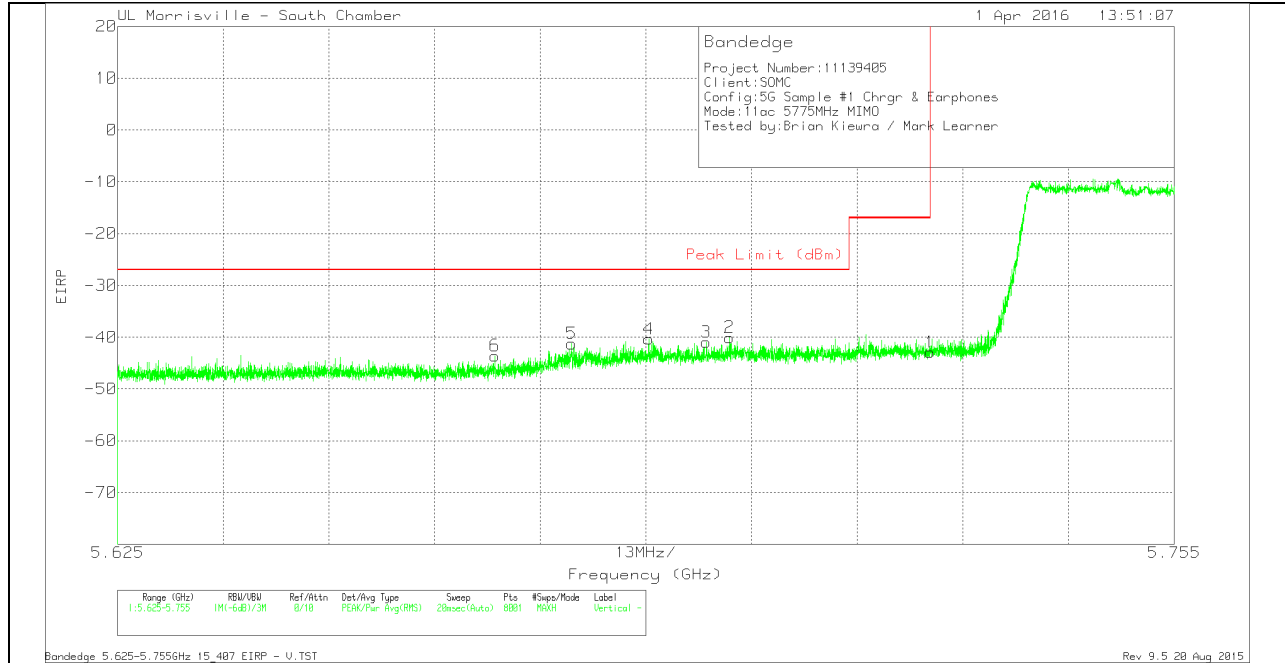
##### Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF AT0069 (dB/m)	Amp/Cb/Ftr/P ad (dB)	Conversion Factor (dB)	DC Corr (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
6	5.652	-66.28	Pk	34.7	-23.6	11.8	0	-43.38	-27	-16.38	12	128	H
5	5.661	-65.83	Pk	34.7	-23.8	11.8	0	-43.13	-27	-16.13	12	128	H
4	5.68	-61.58	Pk	34.7	-23.8	11.8	0	-38.88	-27	-11.88	12	128	H
3	5.684	-63.02	Pk	34.7	-23.7	11.8	0	-40.22	-27	-13.22	12	128	H
2	5.69	-61.64	Pk	34.7	-23.7	11.8	0	-38.84	-27	-11.84	12	128	H
1	5.725	-64.1	Pk	34.7	-23.9	11.8	0	-41.5	-17	-24.5	12	128	H

Pk - Peak detector

RMS - RMS detection

**VERTICAL PEAK AND AVERAGE PLOT**



**VERTICAL DATA**

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF AT0069 (dB/m)	Amp/Cb/Fltr/P ad (dB)	Conversion Factor (dB)	DC Corr (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
6	5.671	-66.19	Pk	34.7	-23.9	11.8	0	-43.59	-27	-16.59	278	145	V
5	5.681	-63.95	Pk	34.7	-23.8	11.8	0	-41.25	-27	-14.25	278	145	V
4	5.69	-63.17	Pk	34.7	-23.7	11.8	0	-40.37	-27	-13.37	278	145	V
3	5.697	-63.75	Pk	34.7	-23.7	11.8	0	-40.95	-27	-13.95	278	145	V
2	5.7	-62.86	Pk	34.7	-23.7	11.8	0	-40.06	-27	-13.06	278	145	V
1	5.725	-65.51	Pk	34.7	-23.9	11.8	0	-42.91	-17	-25.91	278	145	V

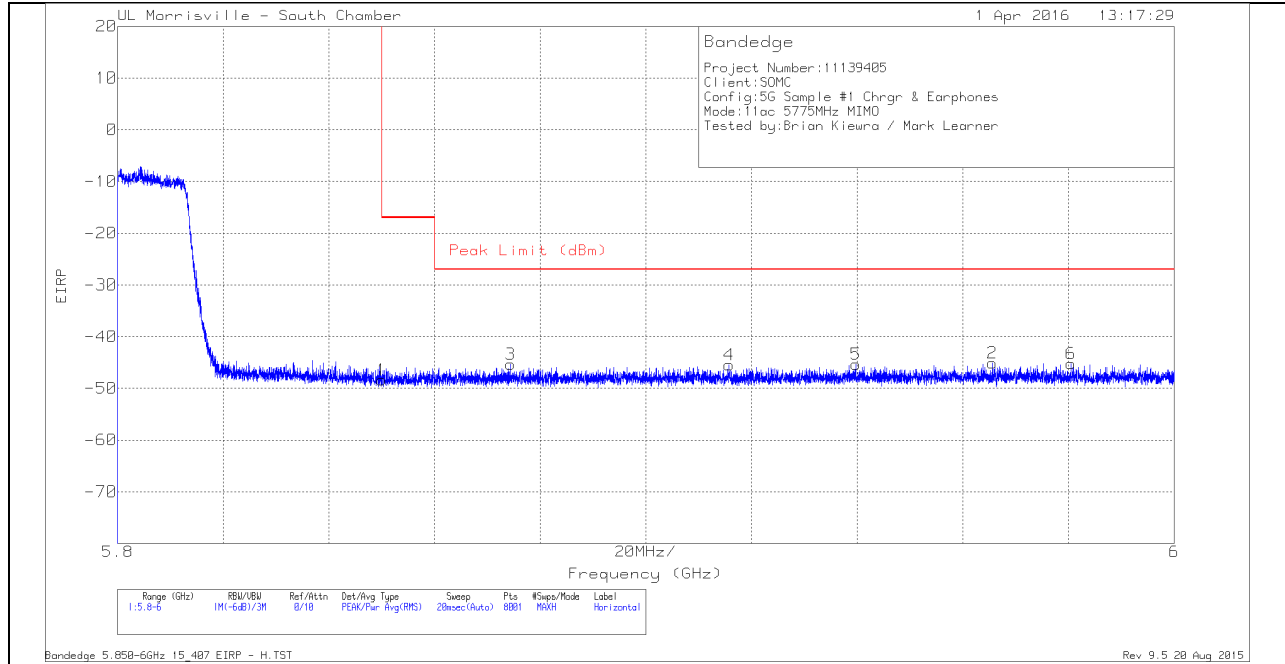
Pk - Peak detector

RMS - RMS detection



**AUTHORIZED BANDEDGE (HIGH CHANNEL)**

**HORIZONTAL PEAK AND AVERAGE PLOT**



**HORIZONTAL DATA**

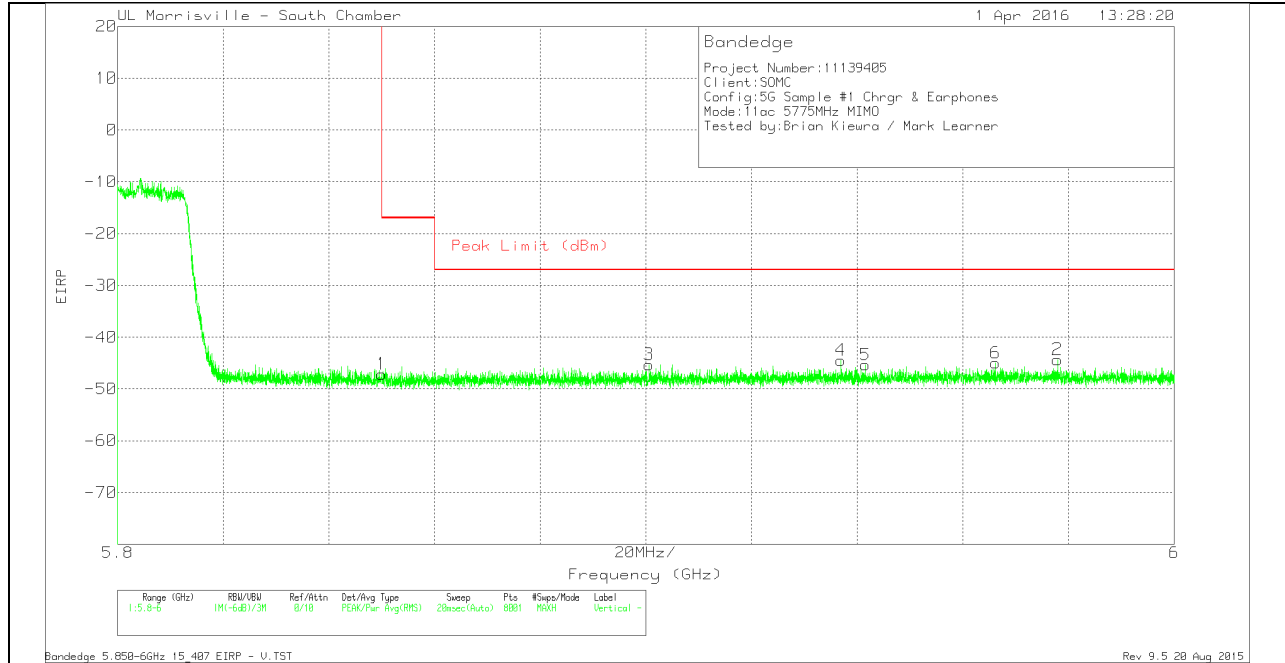
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF AT0069 (dB/m)	Amp/Cb/Fltr/P ad (dB)	Conversion Factor (dB)	DC Corr (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.85	-71.41	Pk	34.7	-23.5	11.8	0	-48.41	-17	-31.41	355	216	H
3	5.874	-68.53	Pk	34.8	-23.4	11.8	0	-45.33	-27	-18.33	355	216	H
4	5.916	-68.84	Pk	35	-23.4	11.8	0	-45.44	-27	-18.44	355	216	H
5	5.94	-68.96	Pk	35	-23.2	11.8	0	-45.36	-27	-18.36	355	216	H
2	5.966	-68.91	Pk	35.1	-23.1	11.8	0	-45.11	-27	-18.11	355	216	H
6	5.98	-68.94	Pk	35	-23.1	11.8	0	-45.24	-27	-18.24	355	216	H

Pk - Peak detector

RMS - RMS detection

**VERTICAL PEAK AND AVERAGE PLOT**



**VERTICAL DATA**

Trace Markers

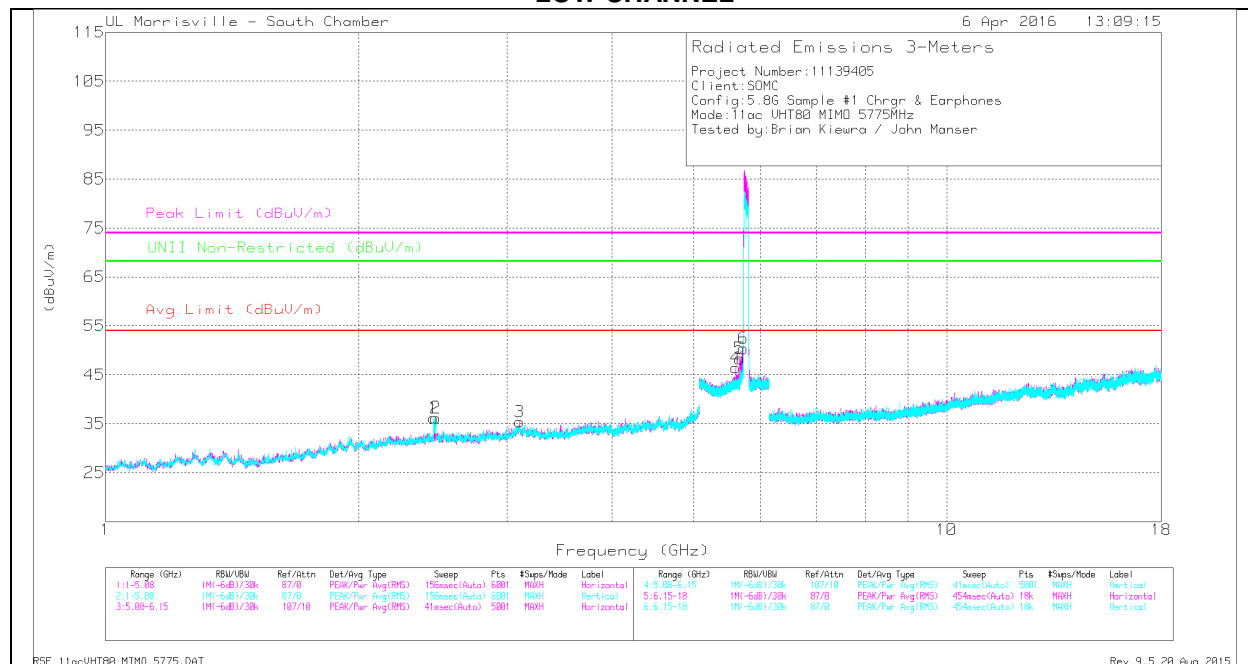
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF AT0069 (dB/m)	Amp/Cb/Ftr/P ad (dB)	Conversion Factor (dB)	DC Corr (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.85	-70.12	Pk	34.7	-23.5	11.8	0	-47.12	-17	-30.12	145	195	V
3	5.901	-68.59	Pk	34.9	-23.4	11.8	0	-45.29	-27	-18.29	145	195	V
4	5.937	-68.04	Pk	35	-23.2	11.8	0	-44.44	-27	-17.44	145	195	V
5	5.942	-68.98	Pk	35	-23.2	11.8	0	-45.38	-27	-18.38	145	195	V
6	5.966	-68.79	Pk	35.1	-23.1	11.8	0	-44.99	-27	-17.99	145	195	V
2	5.978	-68.01	Pk	35	-23.1	11.8	0	-44.31	-27	-17.31	145	195	V

Pk - Peak detector

RMS - RMS detection

### HARMONICS AND SPURIOUS EMISSIONS

#### LOW CHANNEL



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	AFA10069 (dB/m)	Amp/Ch/Flt/Psd (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Altitude (Degs)	Height (cm)	Polarity
1	2.454	45.17	PK-U	32.3	-34.6	0	42.87	-	-	-	-	68.2	-25.33	269	290	V
2	2.47	45.63	PK-U	32.4	-34.6	0	43.43	-	-	-	-	68.2	-24.77	47	176	V
3	3.105	41.31	PK-U	33.9	-33.9	0	41.31	-	-	-	-	68.2	-26.89	235	263	H
4	5.616	38.53	PK-U	34.7	-23.7	0	49.53	-	-	-	-	68.2	-18.67	72	300	H
5	5.679	38.63	PK-U	34.7	-23.8	0	49.53	-	-	-	-	68.2	-18.67	33	143	H
6	5.73	38.42	PK-U	34.7	-23.8	0	49.32	-	-	-	-	68.2	-18.88	191	129	H

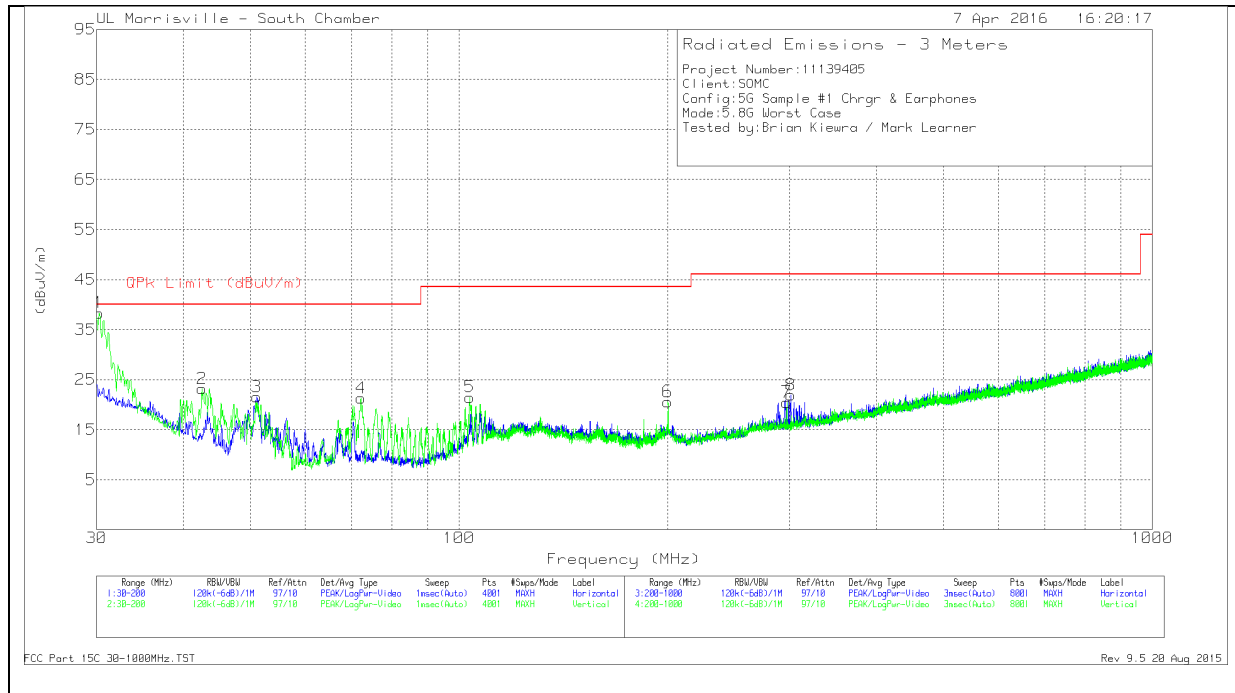
\* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

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

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



### Trace Markers

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF AT0074 (dB/m)	Port 0 Factors	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	30.0023	36.34	Qp	26.2	-31.8	30.74	40	-9.26	304	103	V
2	42.58	38.29	Pk	16.5	-31.6	23.19	40	-16.81	0-360	102	V
3	51.08	40.74	Pk	12.4	-31.6	21.54	40	-18.46	0-360	399	H
4	72.2025	40.09	Pk	12.4	-31.2	21.29	40	-18.71	0-360	102	V
5	103.5888	36.9	Pk	15.5	-30.9	21.5	43.52	-22.02	0-360	102	V
6	200.1	33.4	Pk	17.5	-30.3	20.6	43.52	-22.92	0-360	102	V
7	297	32.28	Pk	17.9	-29.7	20.48	46.02	-25.54	0-360	102	V
8	301	33.57	Pk	18	-29.6	21.97	46.02	-24.05	0-360	102	H

\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

Qp - Quasi-Peak detector

## 11. AC POWER LINE CONDUCTED EMISSIONS

### LIMITS

FCC §15.207 (a)

RSS-Gen 7.2.2

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

ANSI C63.10-2013, Section 6.2.

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 C63.10-2013

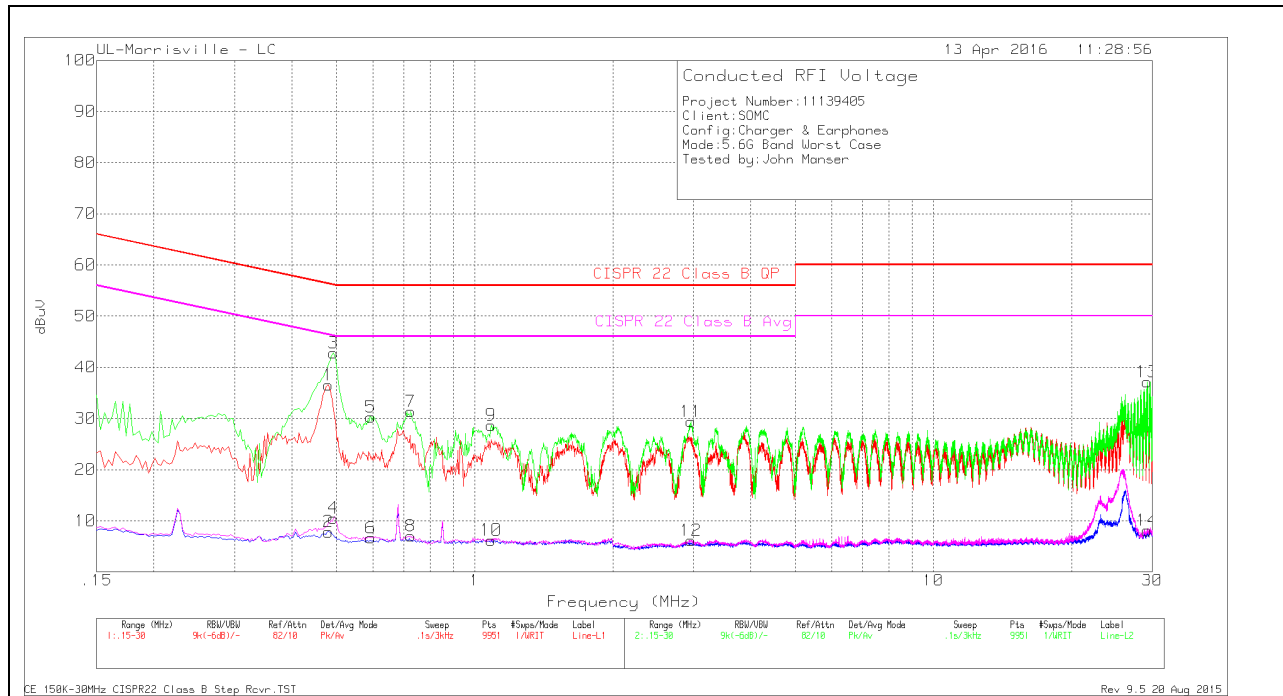
The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

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

### RESULTS

**6 WORST EMISSIONS**

**PLOT**



**LINE 1 RESULTS**

Trace Markers

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN VCF [dB]	Cbl/Limiter (dB)	Corrected Reading dBuV	CISPR 22 Class B QP	Margin (dB)	CISPR 22 Class B Avg	Margin (dB)
Range 1 (Line 1)										
1	.48	26.46	Pk	.1	10	36.56	56.34	-19.78	-	-
2	.48	-2.26	Av	.1	10	7.84	-	-	46.34	-38.5
Range 2 (Line 2)										
3	.492	32.71	Pk	.1	10	42.81	56.13	-13.32	-	-
4	.492	.42	Av	.1	10	10.52	-	-	46.13	-35.61
5	.594	20.25	Pk	0	10	30.25	56	-25.75	-	-
6	.594	-3.35	Av	0	10	6.65	-	-	46	-39.35
7	.726	21.34	Pk	0	10	31.34	56	-24.66	-	-
8	.726	-2.98	Av	0	10	7.02	-	-	46	-38.98
9	1.086	18.7	Pk	0	10	28.7	56	-27.3	-	-
10	1.086	-3.78	Av	0	10	6.22	-	-	46	-39.78
11	2.961	19.28	Pk	0	10.1	29.38	56	-26.62	-	-
12	2.961	-3.91	Av	0	10.1	6.19	-	-	46	-39.81
13	29.208	26.17	Pk	.3	10.7	37.17	60	-22.83	-	-
14	29.208	-2.91	Av	.3	10.7	8.09	-	-	50	-41.91

Pk - Peak detector

Av - Average detection

## 12. DYNAMIC FREQUENCY SELECTION

### 12.1. OVERVIEW

#### 12.1.1. LIMITS

#### INDUSTRY CANADA

IC RSS-247 is closely harmonized with FCC Part 15 DFS rules. The deviations are as follows:

RSS-247 Issue 1

**Note:** For the band 5600–5650 MHz, no operation is permitted.

Until further notice, devices subject to this annex shall not be capable of transmitting in the band 5600–5650 MHz. This restriction is for the protection of Environment Canada weather radars operating in this band.

#### 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)
<i>U-NII Detection Bandwidth and Statistical Performance Check</i>	All BW modes must be tested	Not required
<i>Channel Move Time and Channel Closing Transmission Time</i>	Test using widest BW mode available	Test using the widest BW mode available for the link
<i>All other tests</i>	Any single BW mode	Not required
<b>Note:</b> 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
<p><b>Note 1:</b> This is the level at the input of the receiver assuming a 0 dBi receive antenna  <b>Note 2:</b> 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.  <b>Note 3:</b> E.I.R.P. is based on the highest antenna gain. For MIMO devices refer to KDB publication 662911 D01.</p>	

**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)
<p><b>Note 1:</b> <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.  <b>Note 2:</b> 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.  <b>Note 3:</b> 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.</p>	

**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
<b>Note 1:</b> 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*

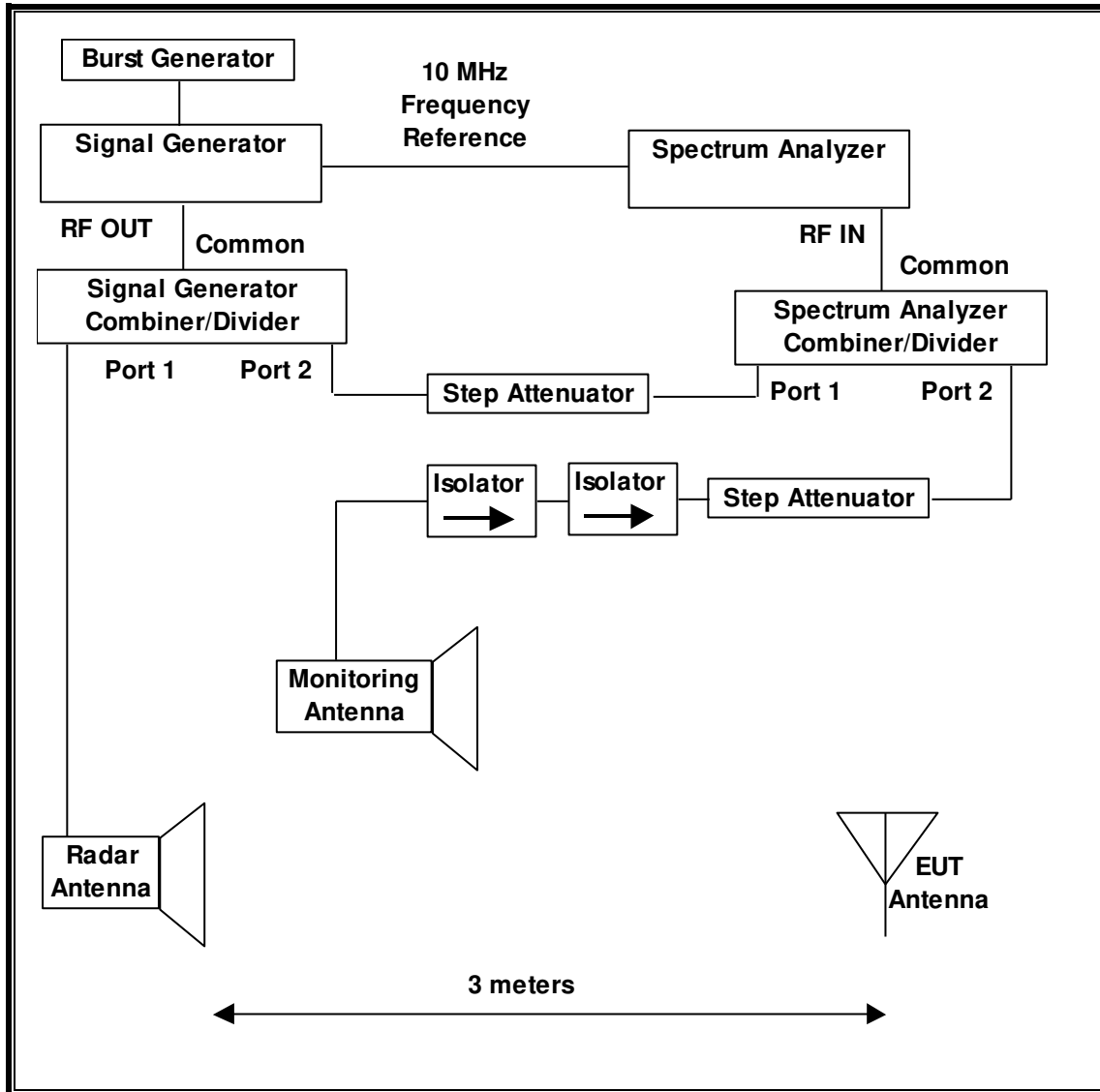
Radar Waveform Type	Pulse Width (μsec)	Chirp Width (MHz)	PRI (μsec)	Pulses per Burst	Number of Bursts	Minimum Percentage of Successful Detection	Minimum Trials
5	50-100	5-20	1000-2000	1-3	8-20	80%	30

**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

### 12.1.2. TEST AND MEASUREMENT SYSTEM

#### RADIATED METHOD SYSTEM BLOCK DIAGRAM



## **SYSTEM OVERVIEW**

The short pulse and long pulse signal generating system utilizes the NTIA software. 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.

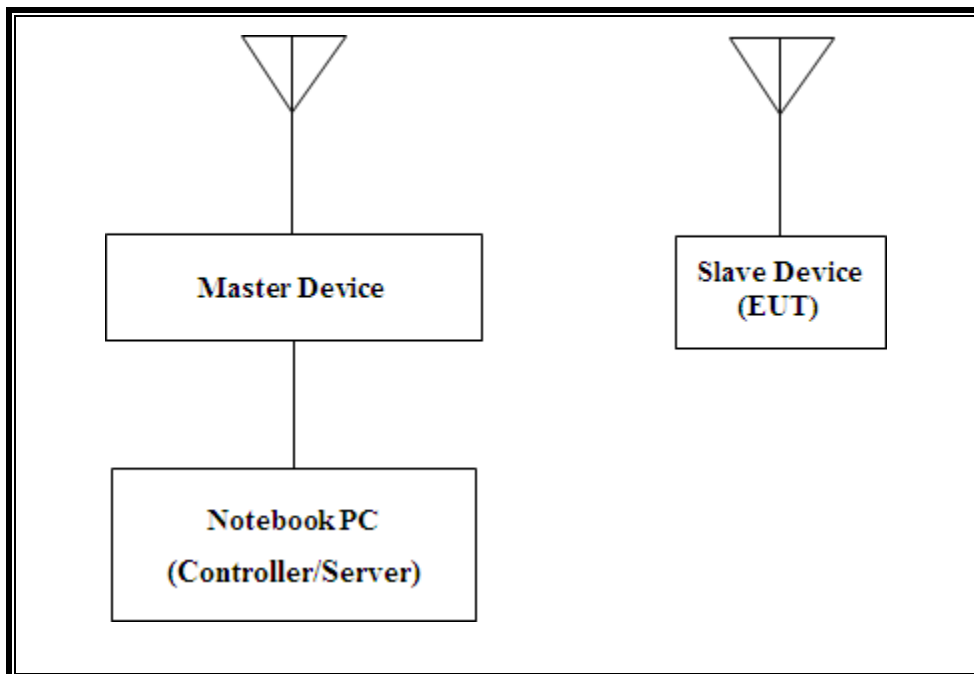
**TEST AND MEASUREMENT EQUIPMENT**

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

<b>TEST EQUIPMENT LIST</b>				
<b>Description</b>	<b>Manufacturer</b>	<b>Model</b>	<b>Serial Number</b>	<b>Cal Due</b>
Spectrum Analyzer, PXA, 3Hz to 44GHz	Keysight	N9030A	US51350187	06/01/16
Signal Generator, MXG X-Series RF Vector	Agilent	N5172B	MY51350337	03/11/17

### 12.1.3. SETUP OF EUT

#### RADIATED 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
802.11ac Dual Band Wireless Access Point (Master Device)	Cisco	AIR-CAP3702E-A-K9	FTX181570A6	LDK102087
P.O.E. Injector (Master)	Phihong	POE30U-560(G)	PHI170102N2	DoC
Notebook PC (Controller/Server)	Lenovo	Type 4236-B92	PB-HEX04 12/05	DoC
AC Adapter (Controller/Server PC)	Lenovo	42T4418	11S42T4418Z1ZGWWG08R90M	DoC

#### **12.1.4. DESCRIPTION OF EUT**

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

For IC the EUT operates over the 5250-5350 MHz and 5470-5725 MHz ranges, excluding the 5600-5650 MHz range.

The EUT is a Slave Device without Radar Detection.

The highest power level within these bands is 7.44 dBm EIRP in the 5250-5350 MHz band and 7.73 dBm EIRP in the 5470-5725 MHz band.

The only antenna assembly utilized with the EUT has a minimum gain of -4.9 dBi in the 5250-5350 MHz band and -5.3 dBi in the 5470-5725 MHz band..

Two antennas are utilized to meet the diversity and MIMO operational requirements.

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.

The EUT uses two transmitter/receiver chains and two receive only chain, each 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 required since the maximum EIRP is greater 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 EUT is Android version 6.0.1, Kernel version 3.18.20-perf-g3442d01-01778-g02ab9f3 BuildUser@BuildHost #194331.

#### **UNIFORM CHANNEL SPREADING**

This is requirement not applicable to Slave Devices.

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**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  $> 23\text{dBm}$  (EIRP). Therefore the required interference threshold level is  $-64\text{ dBm}$ . After correction for procedural adjustments, the required radiated threshold at the antenna port is  $-64 + 1 = -63\text{ dBm}$ .

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



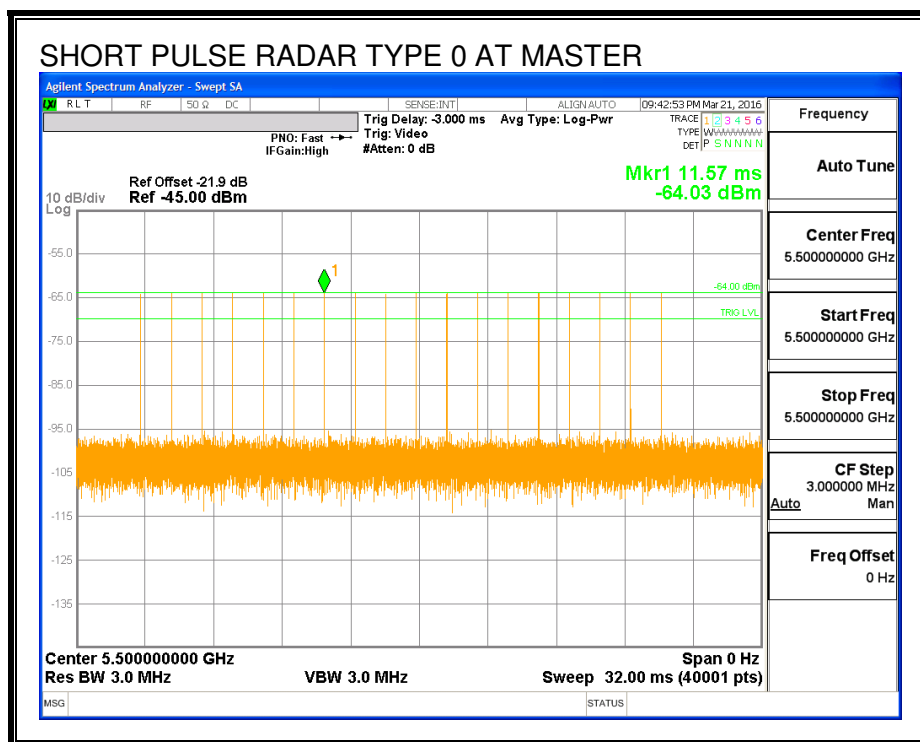
## 12.2. RESULTS FOR 20 MHz BANDWIDTH

### 12.2.1. TEST CHANNEL

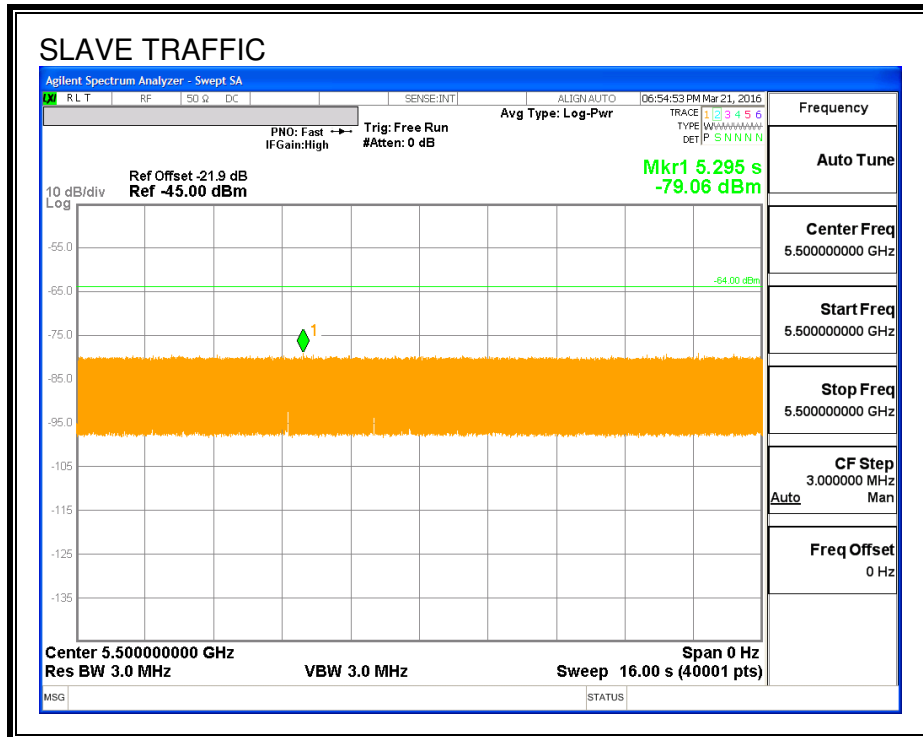
All tests were performed at a channel center frequency of 5500 MHz.

### 12.2.2. RADAR WAVEFORM AND TRAFFIC

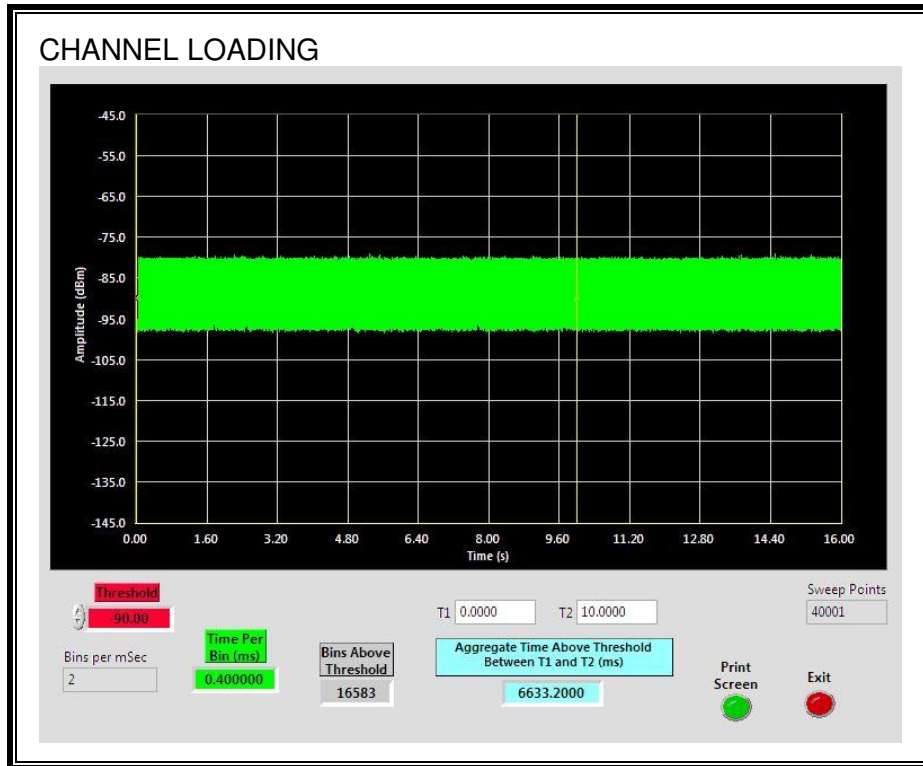
#### RADAR WAVEFORM



**TRAFFIC**



**CHANNEL LOADING**



The level of traffic loading on the channel by the EUT is 60.332%

### 12.2.3. OVERLAPPING CHANNEL TESTS

#### RESULTS

These tests are not applicable.

### 12.2.4. 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).

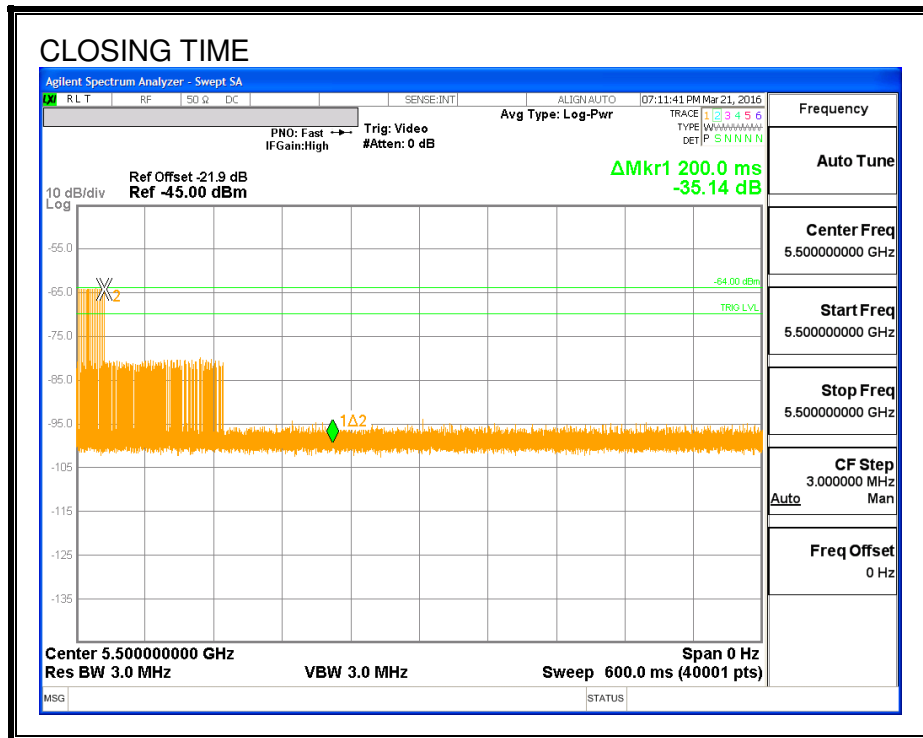
#### RESULTS

Channel Move Time (sec)	Limit (sec)
0.072	10

Aggregate Channel Closing Transmission Time (msec)	Limit (msec)
0.0	60

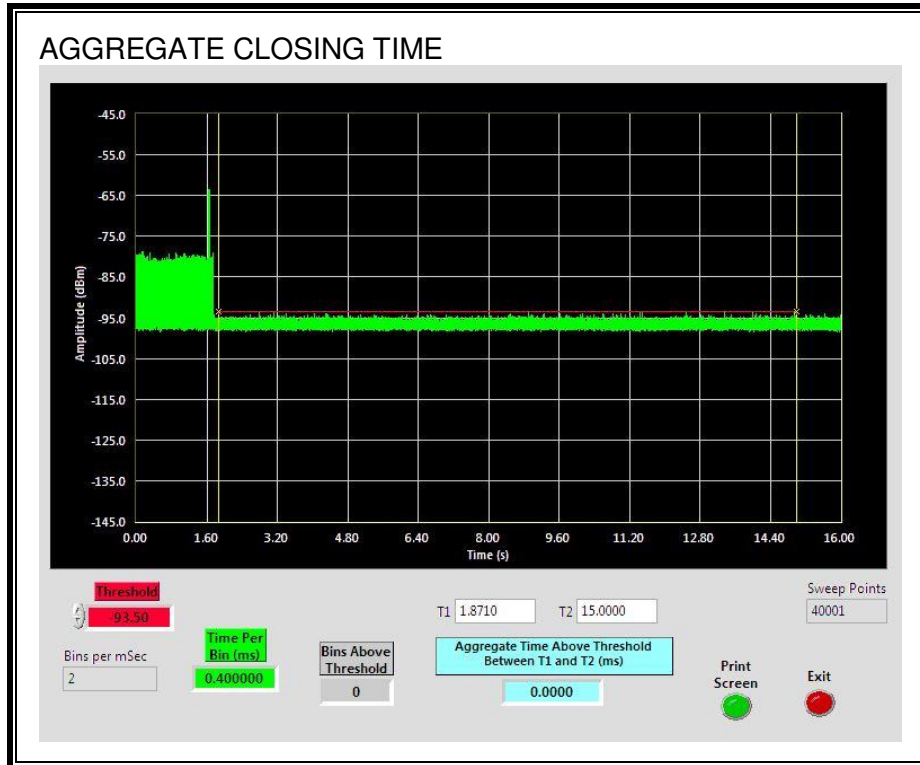


**CHANNEL CLOSING TIME**



**AGGREGATE CHANNEL CLOSING TRANSMISSION TIME**

No transmissions are observed during the aggregate monitoring period.



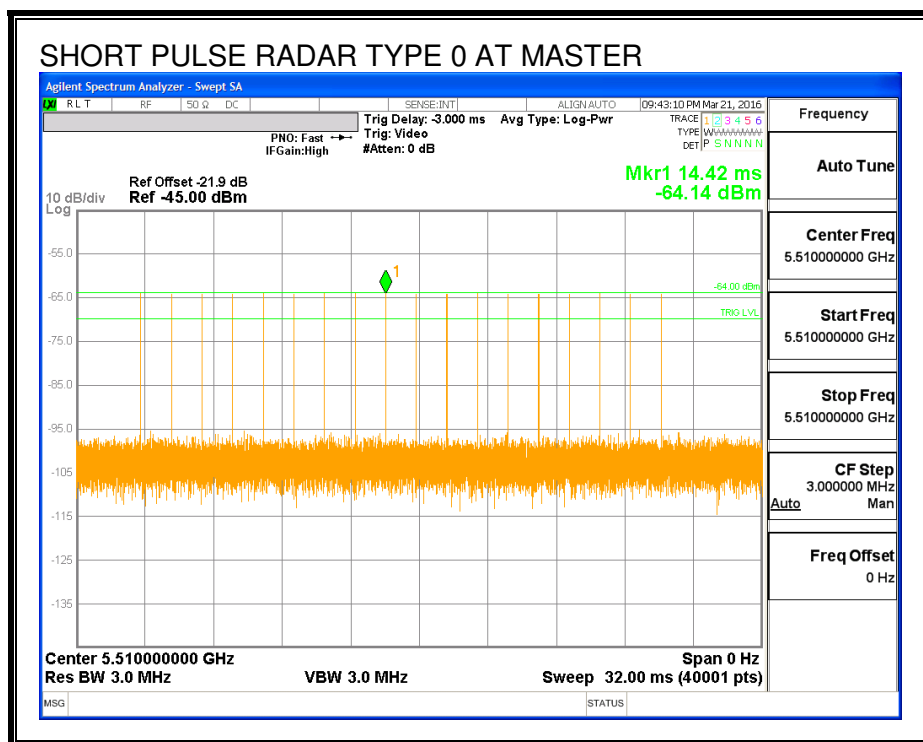
### 12.4. RESULTS FOR 40 MHz BANDWIDTH

#### 12.4.1. TEST CHANNEL

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

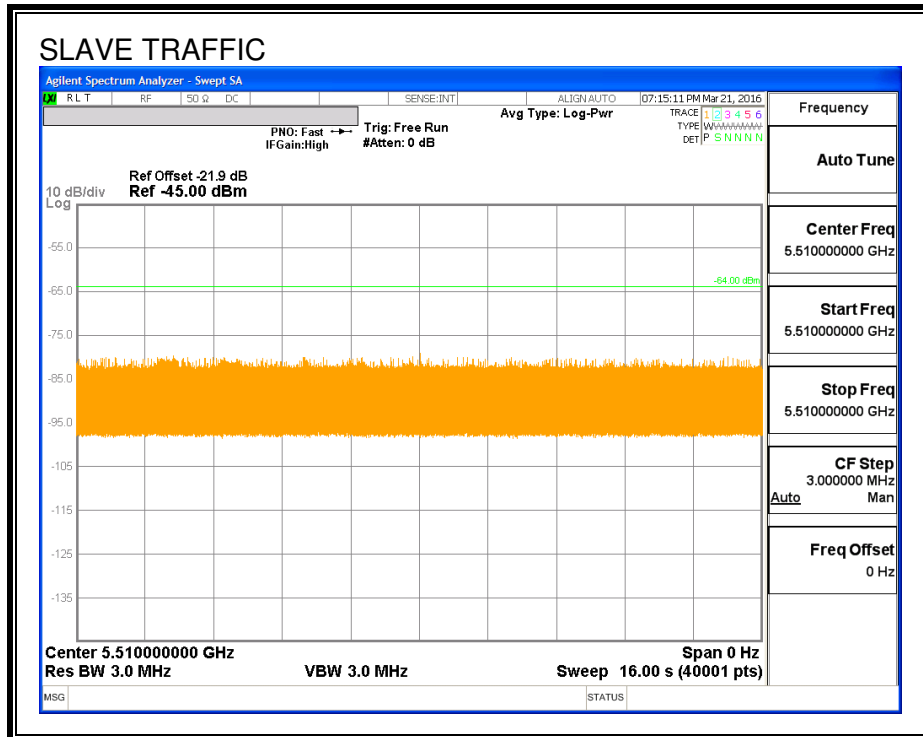
#### 12.4.2. RADAR WAVEFORM AND TRAFFIC

##### RADAR WAVEFORM

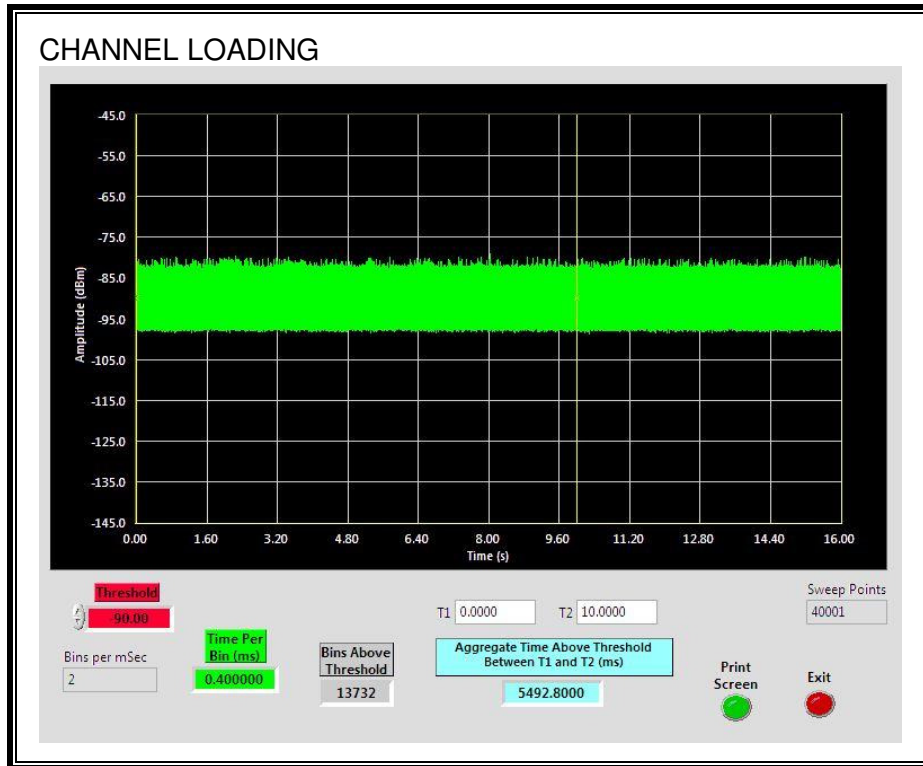




**TRAFFIC**



**CHANNEL LOADING**



The level of traffic loading on the channel by the EUT is 54.928%

### 12.4.3. OVERLAPPING CHANNEL TESTS

#### RESULTS

These tests are not applicable.

### 12.4.4. 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)

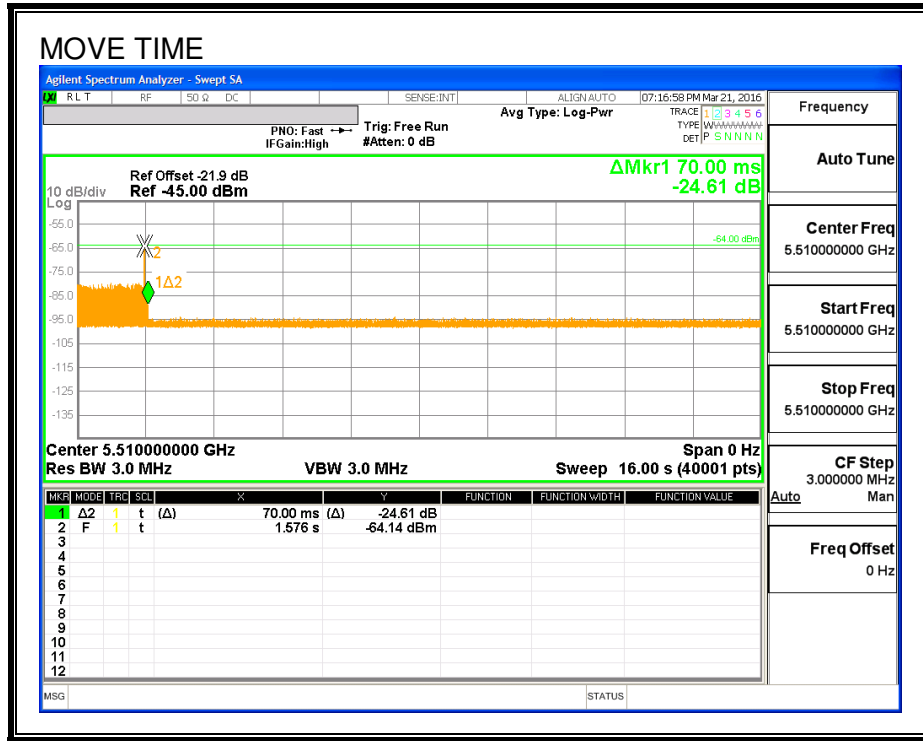
The observation period over which the aggregate time is calculated begins at (Reference Marker + 200 msec) and ends no earlier than (Reference Marker + 10 sec).

#### RESULTS

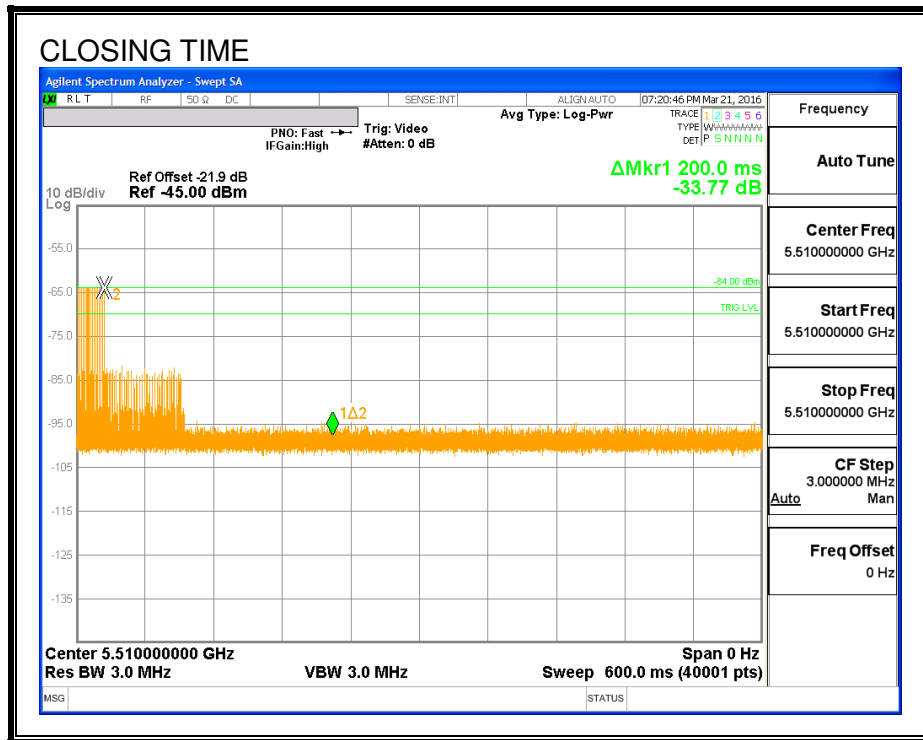
Channel Move Time (sec)	Limit (sec)
0.070	10

Aggregate Channel Closing Transmission Time (msec)	Limit (msec)
0.0	60

**MOVE TIME**

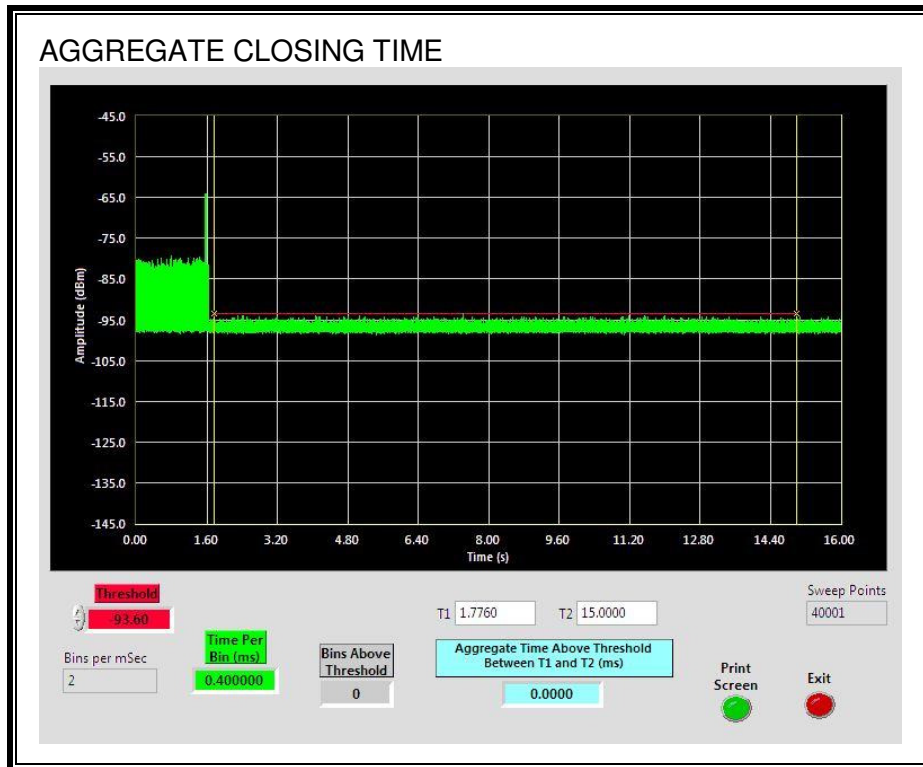


**CHANNEL CLOSING TIME**



**AGGREGATE CHANNEL CLOSING TRANSMISSION TIME**

No transmissions are observed during the aggregate monitoring period.



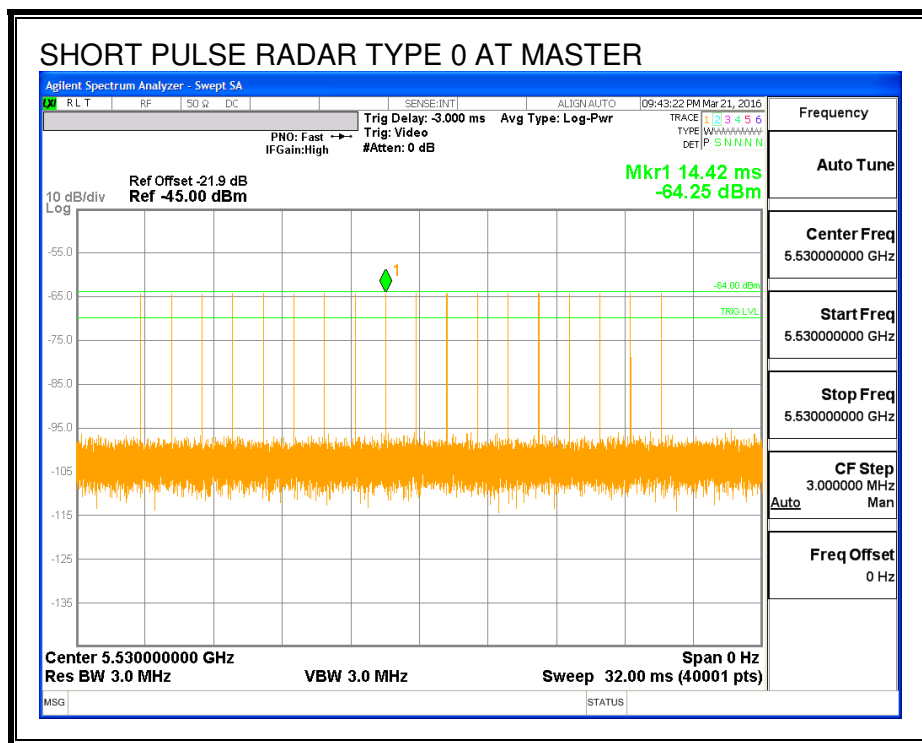
## 12.5. RESULTS FOR 80 MHz BANDWIDTH

### 12.5.1. TEST CHANNEL

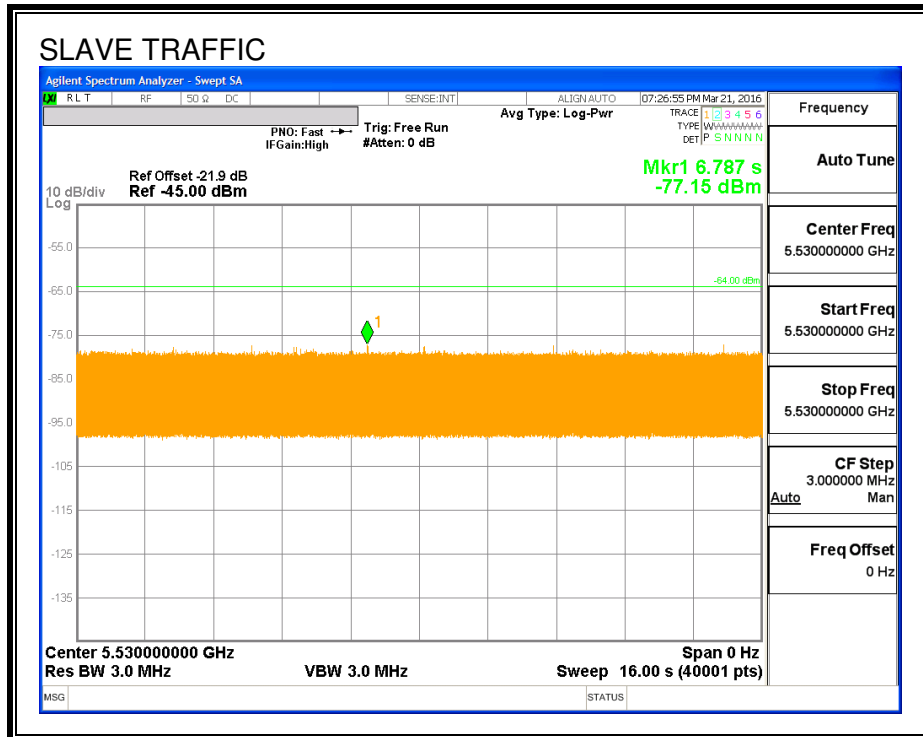
All tests were performed at a channel center frequency of 5530 MHz.

### 12.5.2. RADAR WAVEFORM AND TRAFFIC

#### RADAR WAVEFORM

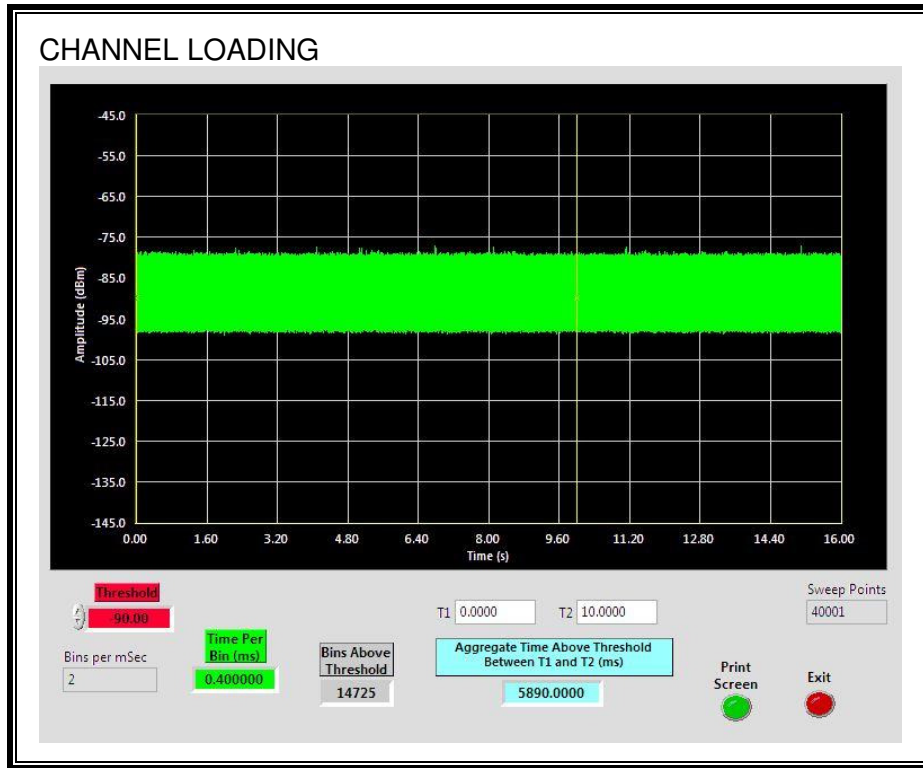


**TRAFFIC**





**CHANNEL LOADING**



The level of traffic loading on the channel by the EUT is 58.9%

### 12.5.3. OVERLAPPING CHANNEL TESTS

#### RESULTS

These tests are not applicable.

### 12.5.4. 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)

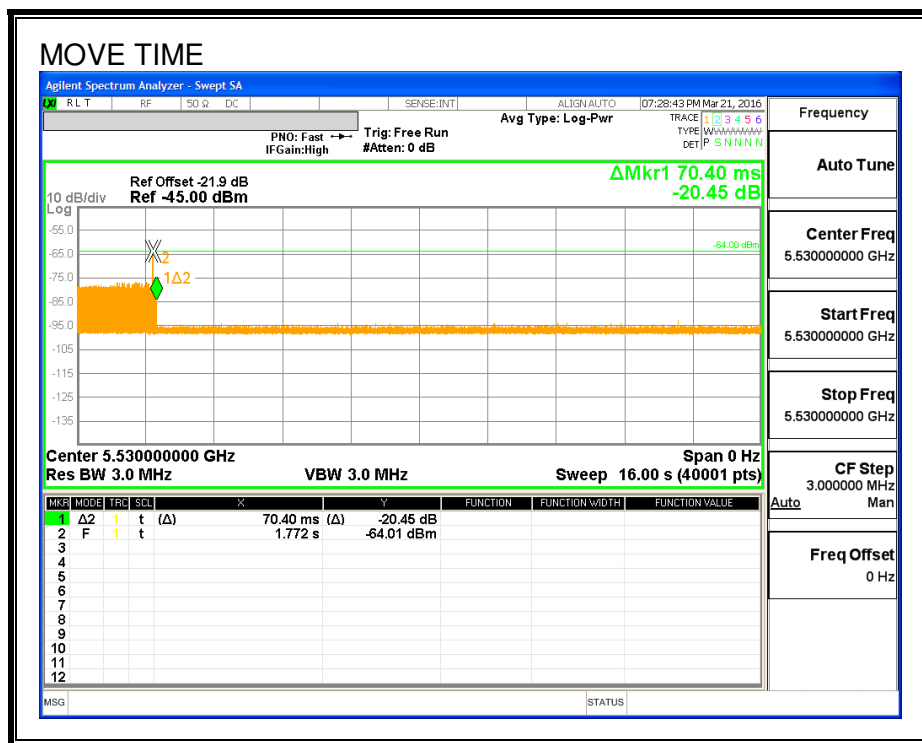
The observation period over which the aggregate time is calculated begins at (Reference Marker + 200 msec) and ends no earlier than (Reference Marker + 10 sec).

#### RESULTS

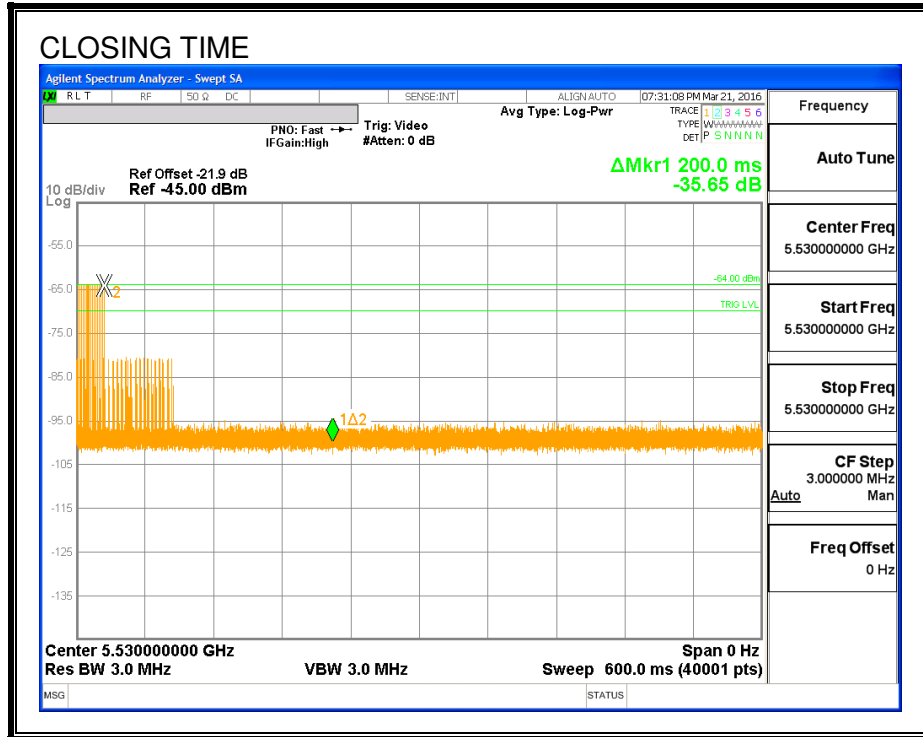
Channel Move Time (sec)	Limit (sec)
0.070	10

Aggregate Channel Closing Transmission Time (msec)	Limit (msec)
0.0	60

**MOVE TIME**



**CHANNEL CLOSING TIME**



**AGGREGATE CHANNEL CLOSING TRANSMISSION TIME**

No transmissions are observed during the aggregate monitoring period.



### 12.5.5. 10-MINUTE BEACON MONITORING PERIOD

#### RESULTS

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

