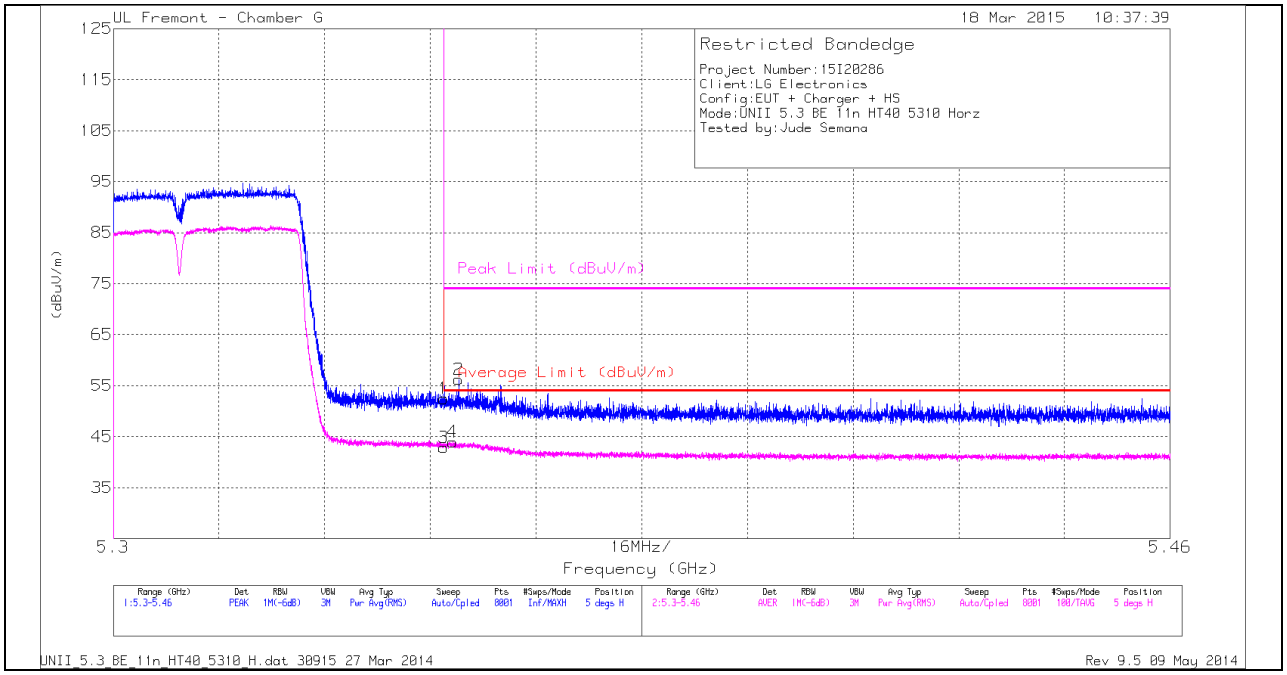
12.2.3. TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.3 GHz BAND AUTHORIZED BANDEDGE (HIGH CHANNEL)

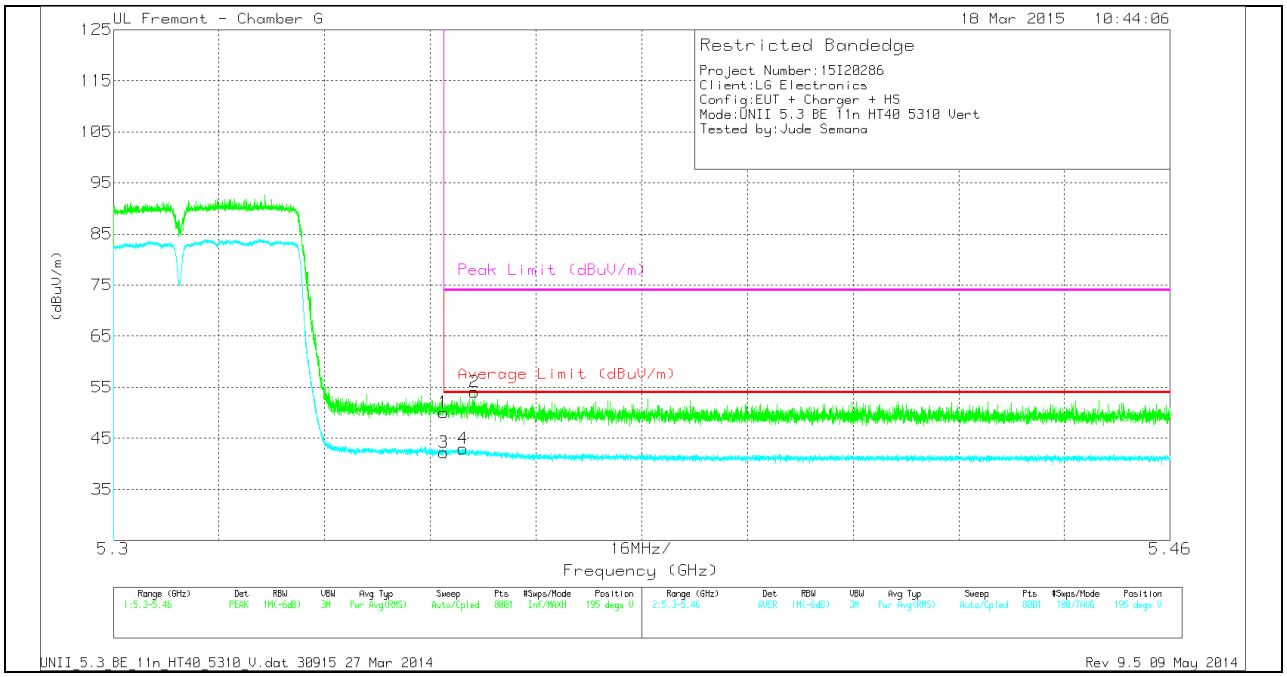
HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/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	41.56	PK	34.6	-23.7	0	52.46	-	-	74	-21.54	5	277	H
2	* 5.352	45.33	PK	34.6	-23.7	0	56.23	-	-	74	-17.77	5	277	H
3	* 5.35	31.51	RMS	34.6	-23.7	.5	42.91	54	-11.09	-	-	5	277	H
4	* 5.351	32.59	RMS	34.6	-23.7	.5	43.99	54	-10.01	-	-	5	277	H

VERTICAL PEAK AND AVERAGE PLOT

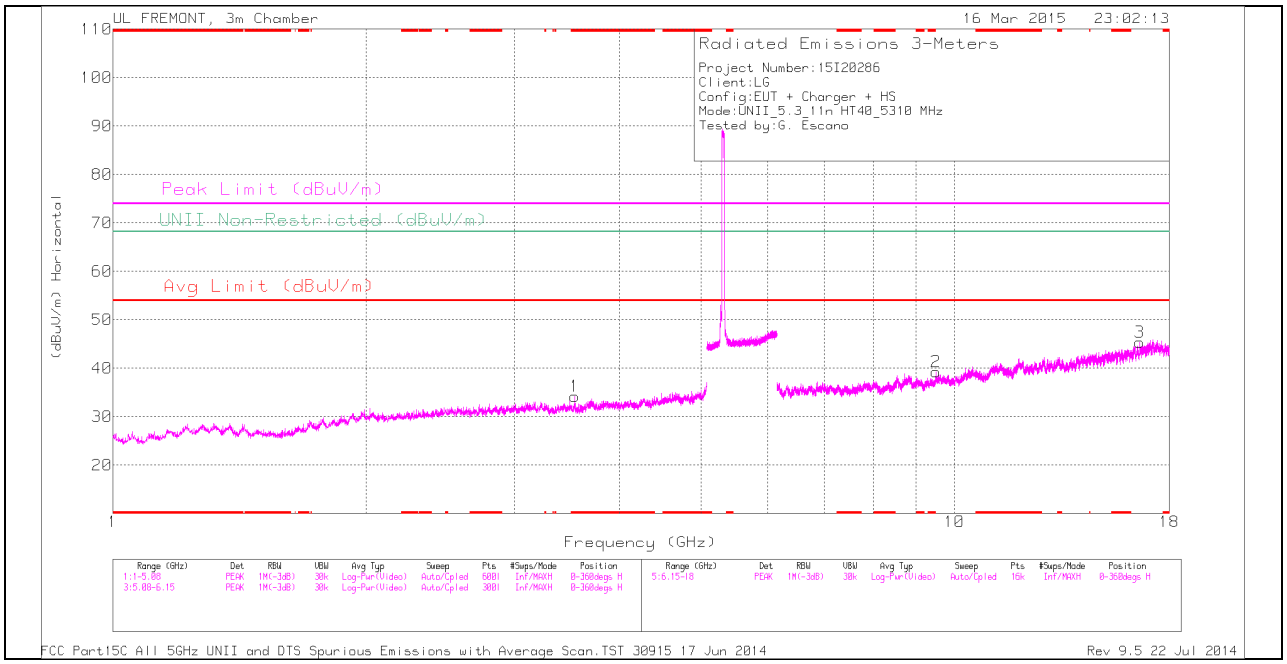


VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/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	39.12	PK	34.6	-23.7	0	50.02	-	-	74	-23.98	195	269	V
2	* 5.355	43.18	PK	34.6	-23.7	0	54.08	-	-	74	-19.92	195	269	V
3	* 5.35	30.88	RMS	34.6	-23.7	.5	42.28	54	-11.72	-	-	195	269	V
4	* 5.353	31.59	RMS	34.6	-23.7	.5	42.99	54	-11.01	-	-	195	269	V

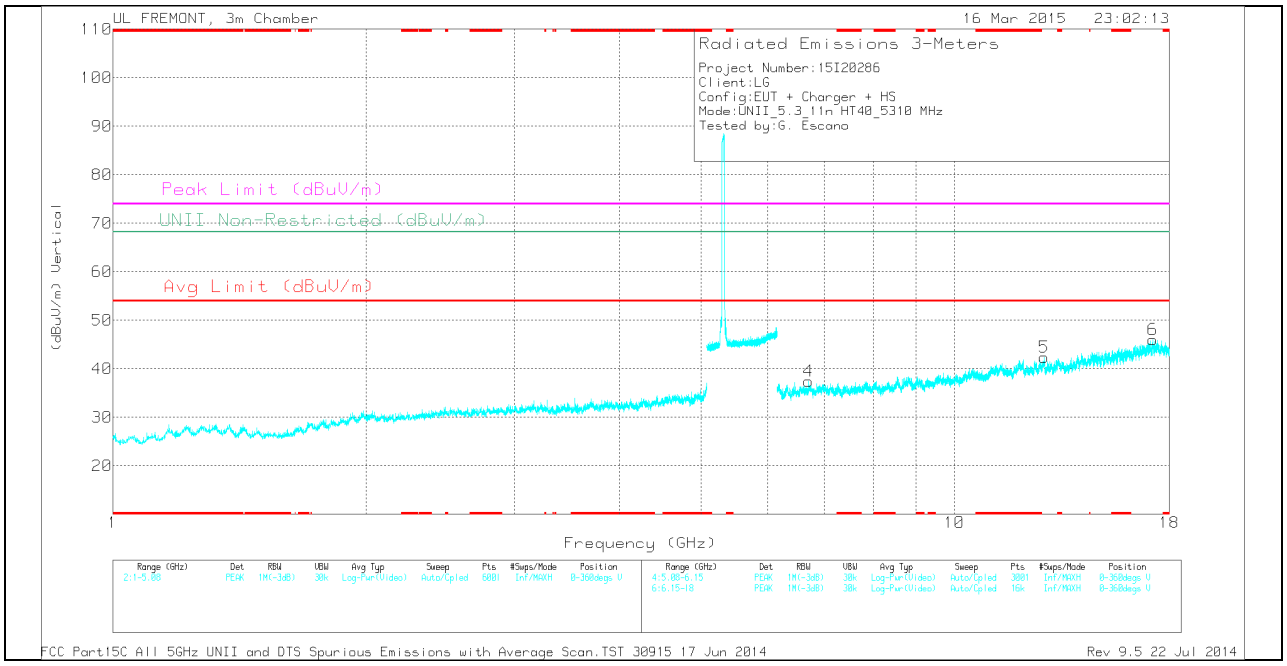
HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



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 VERTICAL



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

LOW CHANNEL DATA

TRACE MARKERS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/ Fltr/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	* 3.54	33.26	PK	32.8	-31.8	0	34.26	-	-	74	-39.74	-	-	0-360	200	H
5	12.788	29.24	PK	39.1	-25.9	0	42.44	-	-	-	-	68.2	-25.76	0-360	200	V
3	16.609	28.87	PK	41	-24.5	0	45.37	-	-	-	-	68.2	-22.83	0-360	100	H
6	17.208	27.69	PK	41.3	-23	0	45.99	-	-	-	-	68.2	-22.21	0-360	100	V
4	6.707	31.3	PK	35.6	-29.4	0	37.5	-	-	-	-	68.2	-30.7	0-360	200	V
2	9.506	28.53	PK	36.6	-25.8	0	39.33	-	-	-	-	68.2	-28.87	0-360	200	H

PK - Peak detector

RADIATED EMISSIONS

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/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
* 3.538	40.92	PK1	32.8	-31.8	0	41.92	-	-	74	-32.08	-	-	340	221	H
* 3.539	29.18	AD1	32.8	-31.8	.46	30.64	54	-23.36	-	-	-	-	340	221	H

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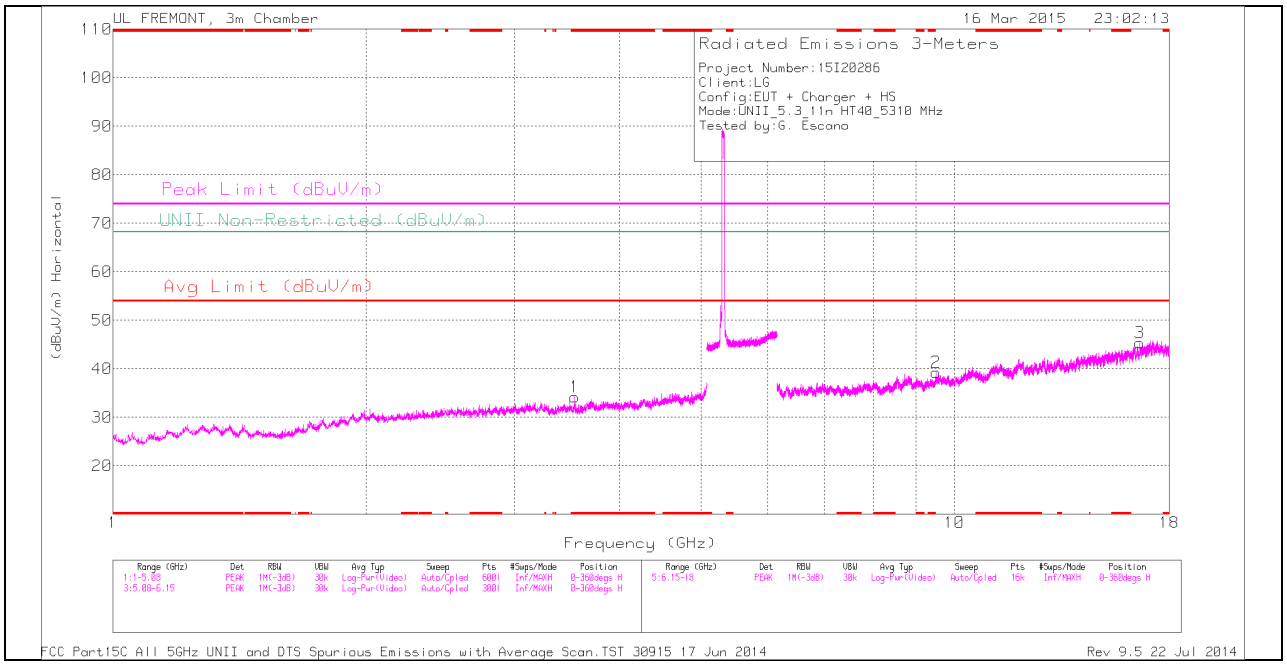
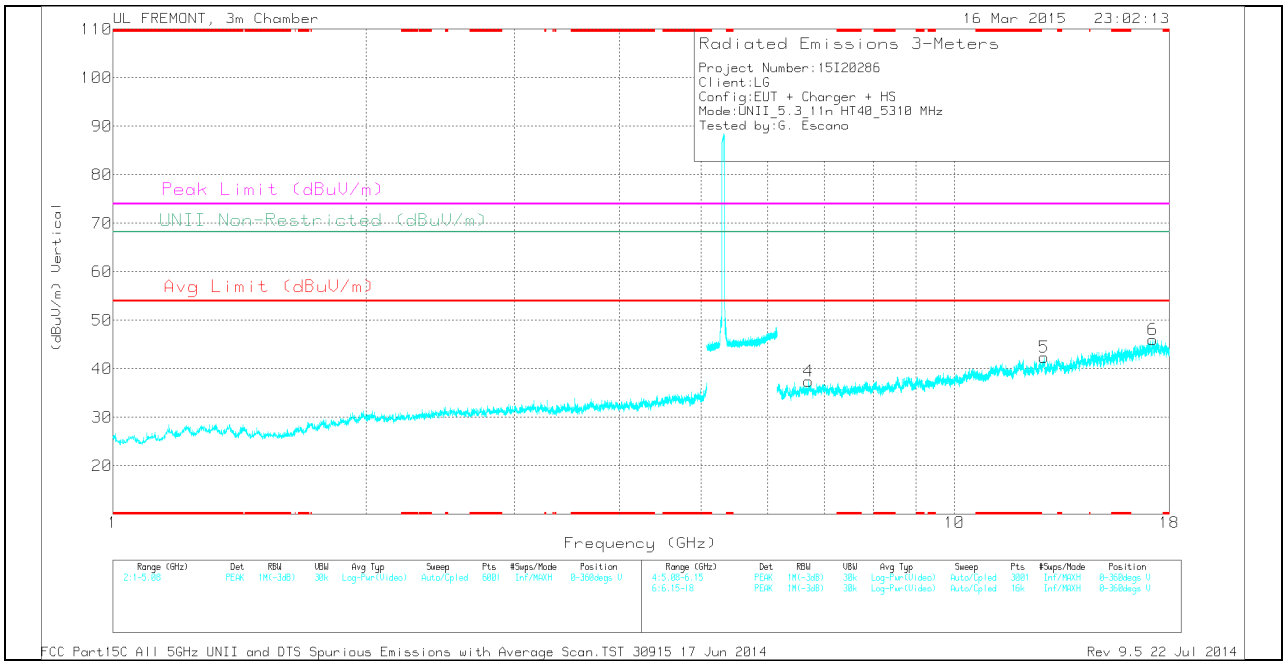
HIGH CHANNEL HORIZONTAL



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 VERTICAL



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

HIGH CHANNEL DATA

TRACE MARKERS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/ Fltr/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	* 3.54	33.26	PK	32.8	-31.8	0	34.26	-	-	74	-39.74	-	-	0-360	200	H
5	12.788	29.24	PK	39.1	-25.9	0	42.44	-	-	-	-	68.2	-25.76	0-360	200	V
3	16.609	28.87	PK	41	-24.5	0	45.37	-	-	-	-	68.2	-22.83	0-360	100	H
6	17.208	27.69	PK	41.3	-23	0	45.99	-	-	-	-	68.2	-22.21	0-360	100	V
4	6.707	31.3	PK	35.6	-29.4	0	37.5	-	-	-	-	68.2	-30.7	0-360	200	V
2	9.506	28.53	PK	36.6	-25.8	0	39.33	-	-	-	-	68.2	-28.87	0-360	200	H

* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

PK - Peak detector

RADIATED EMISSIONS

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/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
* 3.538	40.92	PK1	32.8	-31.8	0	41.92	-	-	74	-32.08	-	-	340	221	H
* 3.539	29.18	AD1	32.8	-31.8	.46	30.64	54	-23.36	-	-	-	-	340	221	H

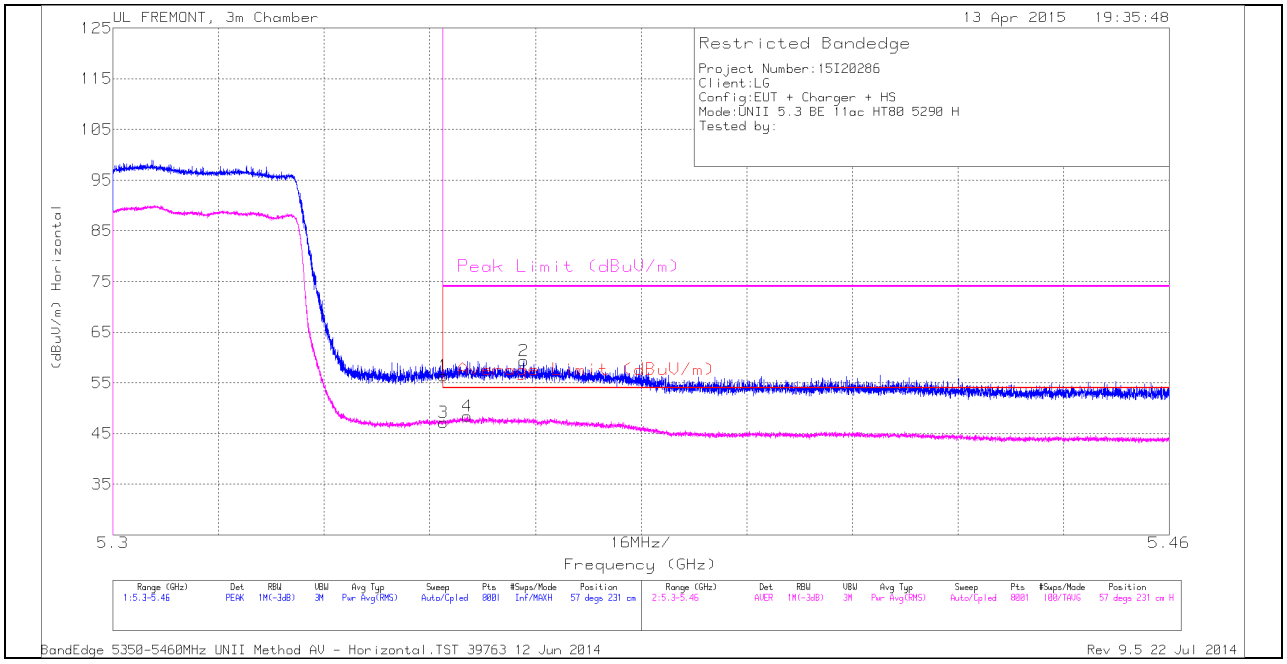
* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

PK1 - KDB789033 Method: Peak

AD1 - KDB789033 Method: AD Primary Power Average

12.2.4. TX ABOVE 1 GHz 802.11ac HT80 MODE IN THE 5.3 GHz BAND AUTHORIZED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



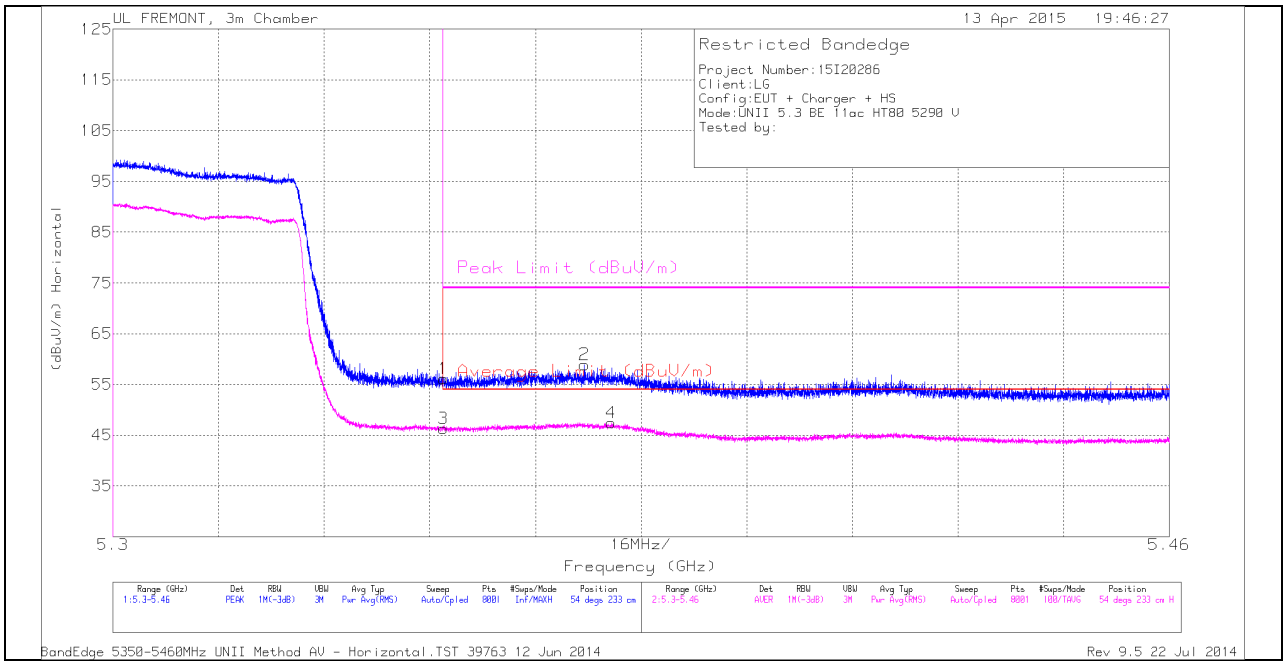
HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/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	43.27	PK	34.5	-21.4	0	56.37	-	-	74	-17.63	57	231	H
3	5.35	33.7	RMS	34.5	-21.4	.44	47.24	54	-6.76	-	-	57	231	H
4	5.354	34.9	RMS	34.5	-21.4	.44	48.44	54	-5.56	-	-	57	231	H
2	5.362	46.21	PK	34.5	-21.4	0	59.31	-	-	74	-14.69	57	231	H

PK - Peak detector

RMS - RMS detection

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

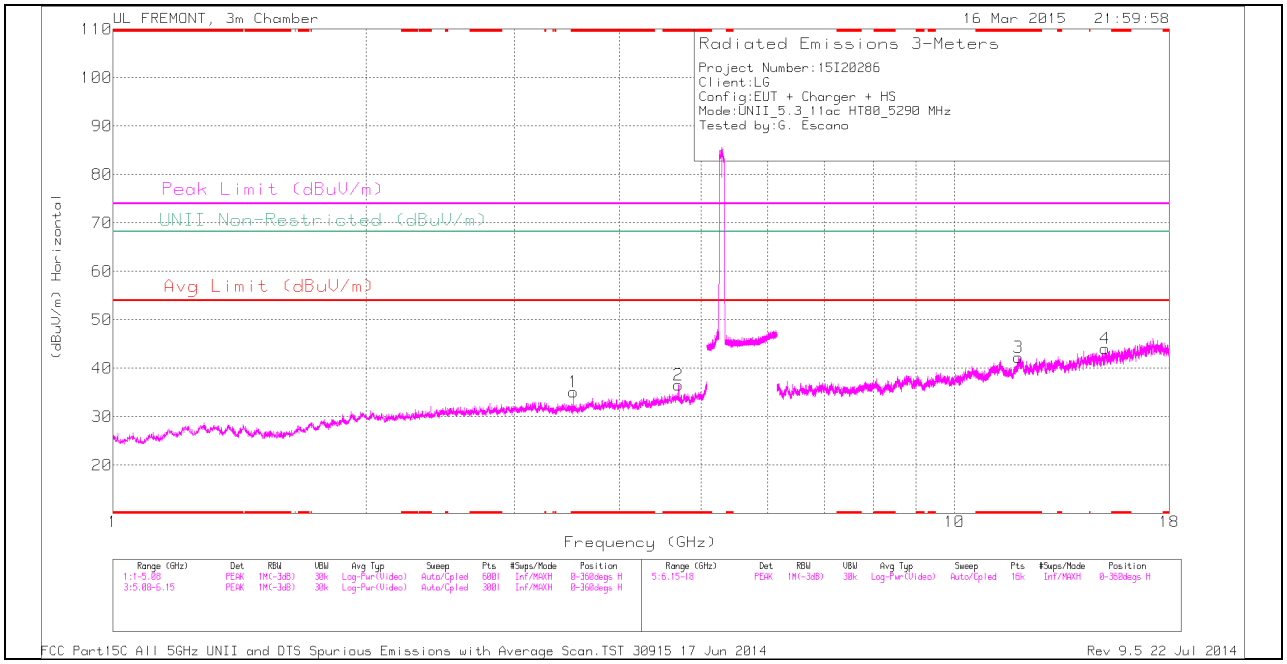
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Flt r/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.35	42.98	PK	34.5	-21.4	0	56.08	-	-	74	-17.92	54	233	H
3	5.35	32.76	RMS	34.5	-21.4	.44	46.3	54	-7.7	-	-	54	233	H
2	5.371	45.82	PK	34.6	-21.5	0	58.92	-	-	74	-15.08	54	233	H
4	5.376	33.67	RMS	34.6	-21.3	.44	47.41	54	-6.59	-	-	54	233	H

PK - Peak detector

RMS - RMS detection

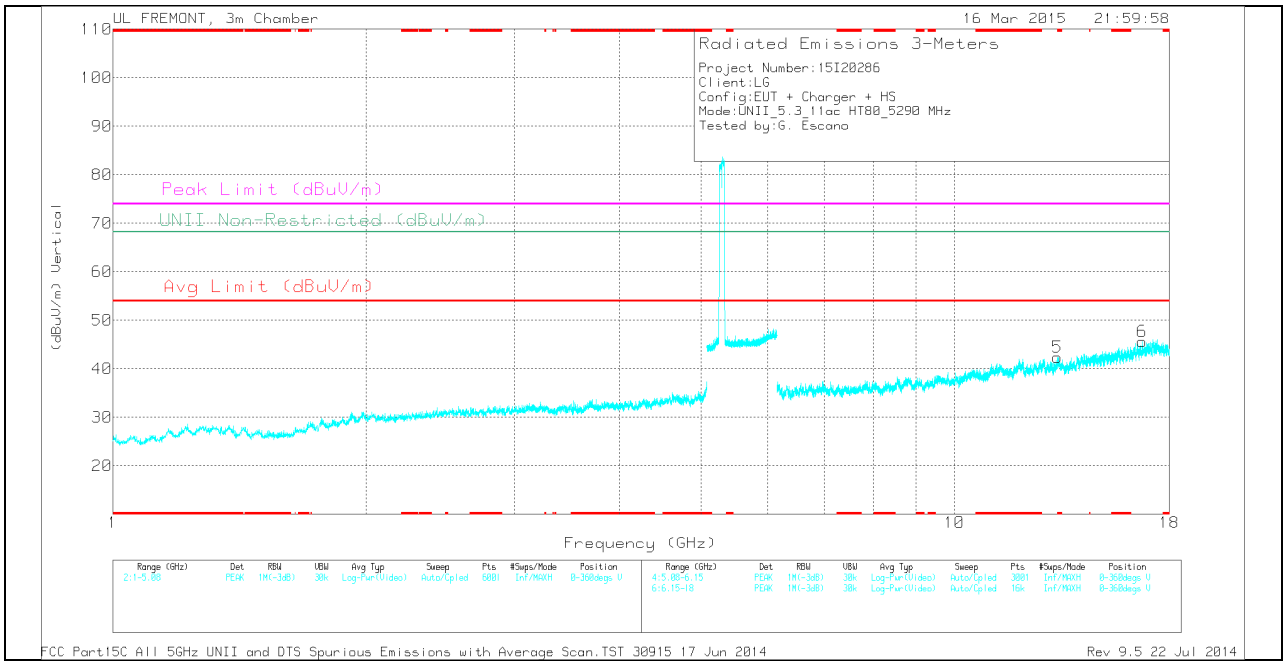
HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



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 VERTICAL



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

LOW CHANNEL DATA

TRACE MARKERS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/ Fltr/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	* 3.527	34.06	PK	32.8	-31.7	0	35.16	-	-	74	-38.84	-	-	0-360	200	H
2	* 4.702	33.1	PK	34.1	-30.7	0	36.5	-	-	74	-37.5	-	-	0-360	200	H
3	* 11.916	29.39	PK	39.1	-26.2	0	42.29	-	-	74	-31.71	-	-	0-360	100	H
5	13.25	29.92	PK	39	-26.5	0	42.42	-	-	-	-	68.2	-25.78	0-360	100	V
4	15.088	30.75	PK	39.8	-26.5	0	44.05	-	-	-	-	68.2	-24.15	0-360	200	H
6	16.717	29.18	PK	41.2	-24.7	0	45.68	-	-	-	-	68.2	-22.52	0-360	200	V

PK - Peak detector

RADIATED EMISSIONS

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/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
* 3.527	42.22	PK1	32.8	-31.7	0	43.32	-	-	74	-30.68	-	-	85	120	H
* 3.527	33.07	AD1	32.8	-31.7	.44	34.61	54	-19.39	-	-	-	-	85	120	H
* 4.702	42.31	PK1	34.1	-30.7	0	45.71	-	-	74	-28.29	-	-	117	304	H
* 4.702	32.23	AD1	34.1	-30.7	.44	36.07	54	-17.93	-	-	-	-	117	304	H
* 11.917	37.71	PK1	39.1	-26.2	0	50.61	-	-	74	-23.39	-	-	296	340	H
* 11.918	25.72	AD1	39.1	-26.2	.44	39.06	54	-14.94	-	-	-	-	296	340	H

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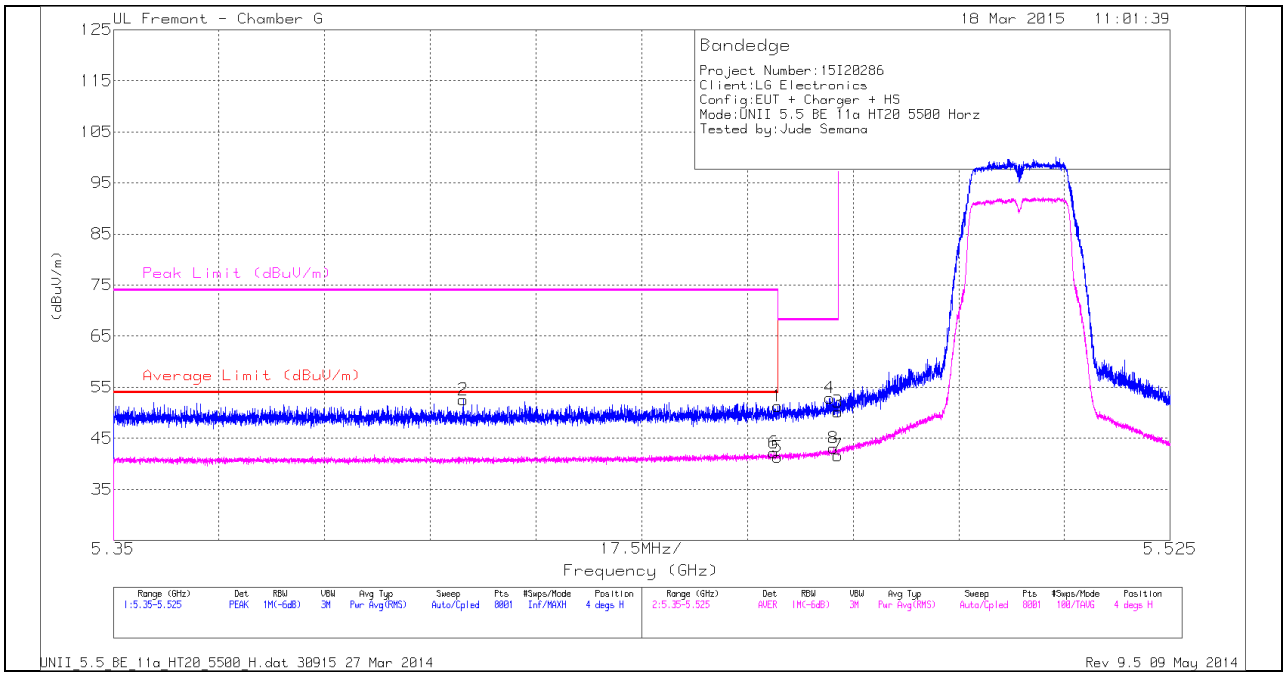
12.3. 5.5-5.6 GHz

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

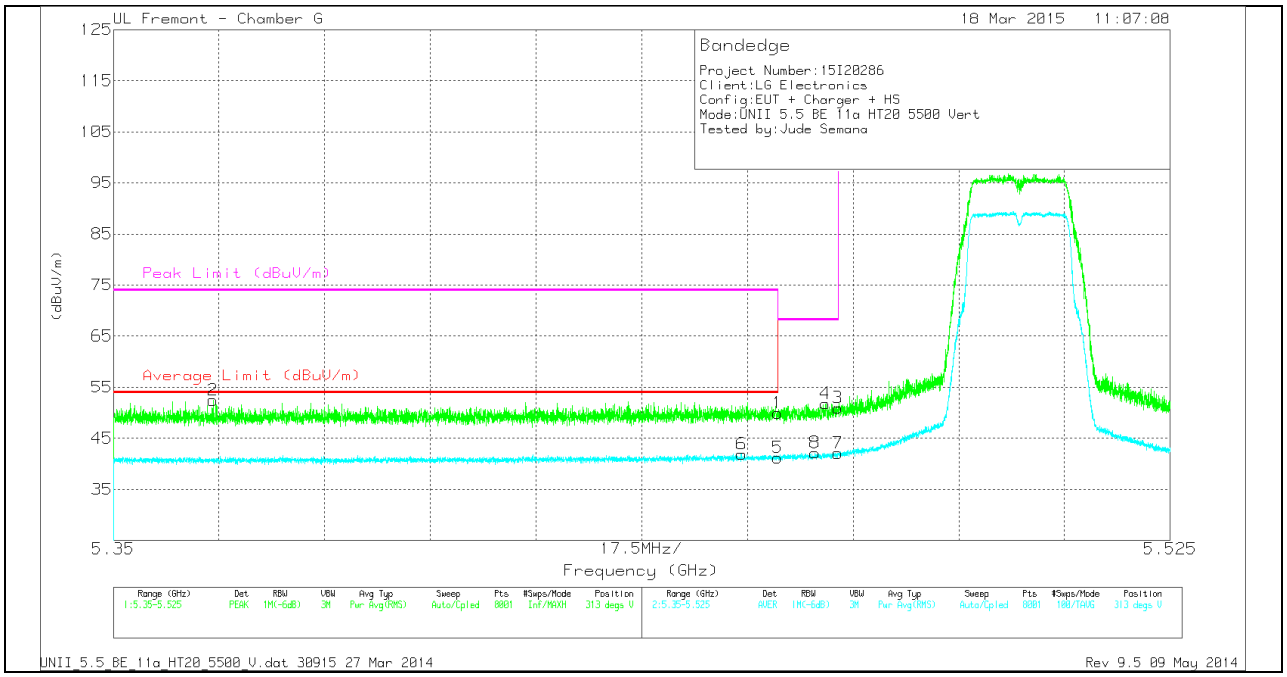
HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Flt r/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	40.2	PK	34.7	-23.6	0	51.3	-	-	74	-22.7	4	355	H
2	* 5.408	41.55	PK	34.6	-23.6	0	52.55	-	-	74	-21.45	4	355	H
5	* 5.46	30	RMS	34.7	-23.6	.2	41.3	54	-12.7	-	-	4	355	H
6	* 5.459	30.85	RMS	34.7	-23.6	.2	42.15	54	-11.85	-	-	4	355	H
4	5.469	41.81	PK	34.7	-23.6	0	52.91	-	-	68.2	-15.29	4	355	H
8	5.469	31.77	RMS	34.7	-23.6	.2	43.07	-	-	-	-	4	355	H
3	5.47	39.07	PK	34.7	-23.6	0	50.17	-	-	68.2	-18.03	4	355	H
7	5.47	30.33	RMS	34.7	-23.6	.2	41.63	-	-	-	-	4	355	H

VERTICAL PEAK AND AVERAGE PLOT

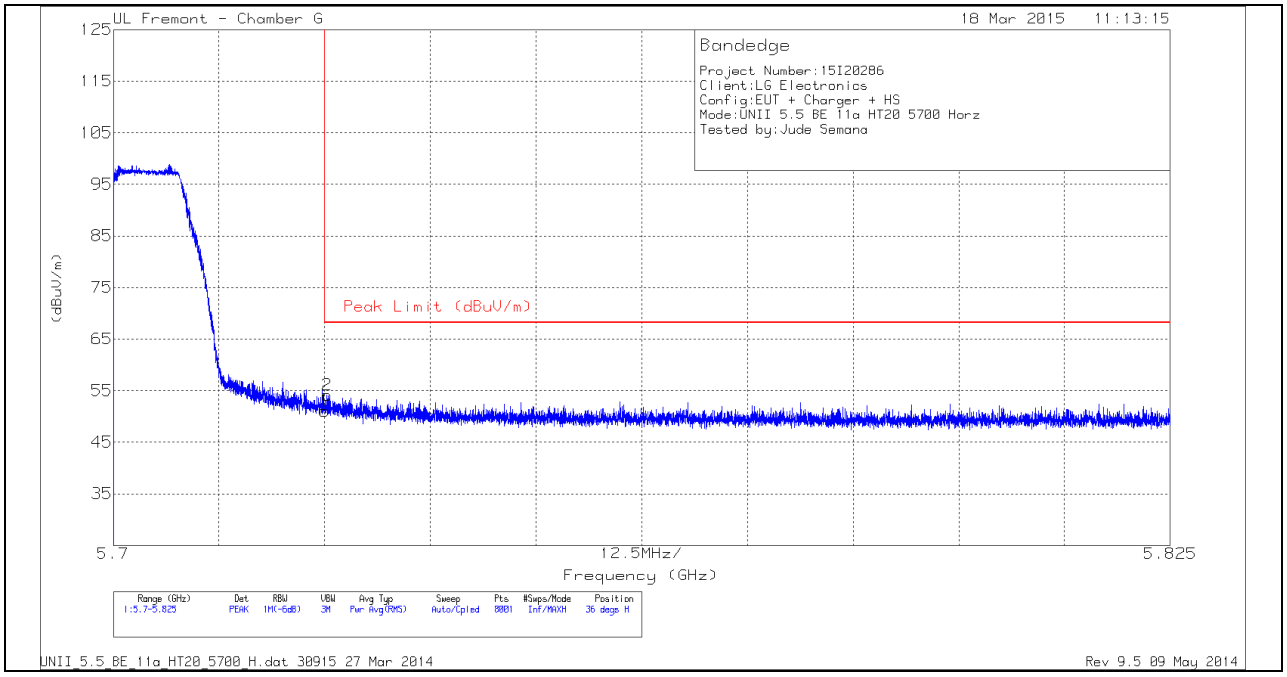


VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/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	38.85	PK	34.7	-23.6	0	49.95	-	-	74	-24.05	313	361	V
2	* 5.367	41.58	PK	34.6	-23.7	0	52.48	-	-	74	-21.52	313	361	V
5	* 5.46	29.9	RMS	34.7	-23.6	.2	41.2	54	-12.8	-	-	313	361	V
6	* 5.454	30.58	RMS	34.7	-23.6	.2	41.88	54	-12.12	-	-	313	361	V
8	5.466	30.84	RMS	34.7	-23.6	.2	42.14	-	-	-	-	313	361	V
4	5.468	40.69	PK	34.7	-23.6	0	51.79	-	-	68.2	-16.41	313	361	V
3	5.47	39.85	PK	34.7	-23.6	0	50.95	-	-	68.2	-17.25	313	361	V
7	5.47	30.74	RMS	34.7	-23.6	.2	42.04	-	-	-	-	313	361	V

AUTHORIZED BANDEDGE (HIGH CHANNEL)

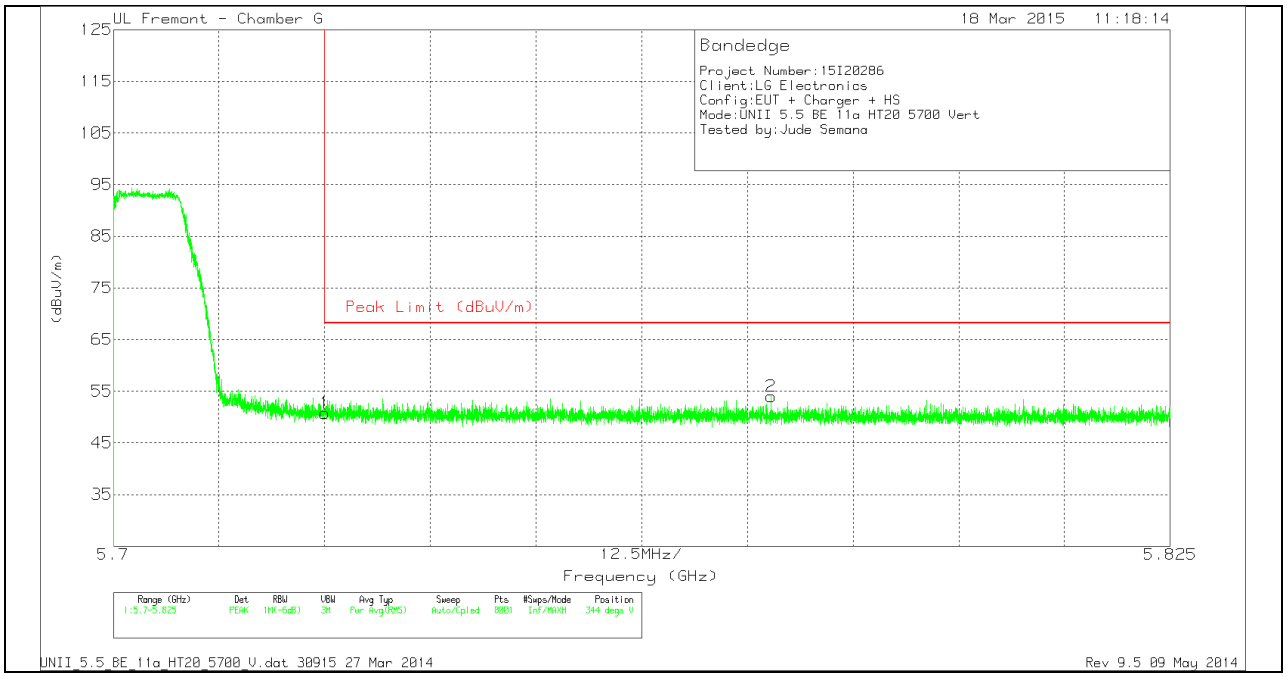
HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.725	39.76	PK	34.8	-23.5	0	51.06	68.2	-17.14	36	396	H
2	5.725	42.84	PK	34.8	-23.5	0	54.14	68.2	-14.06	36	396	H

VERTICAL PEAK AND AVERAGE PLOT

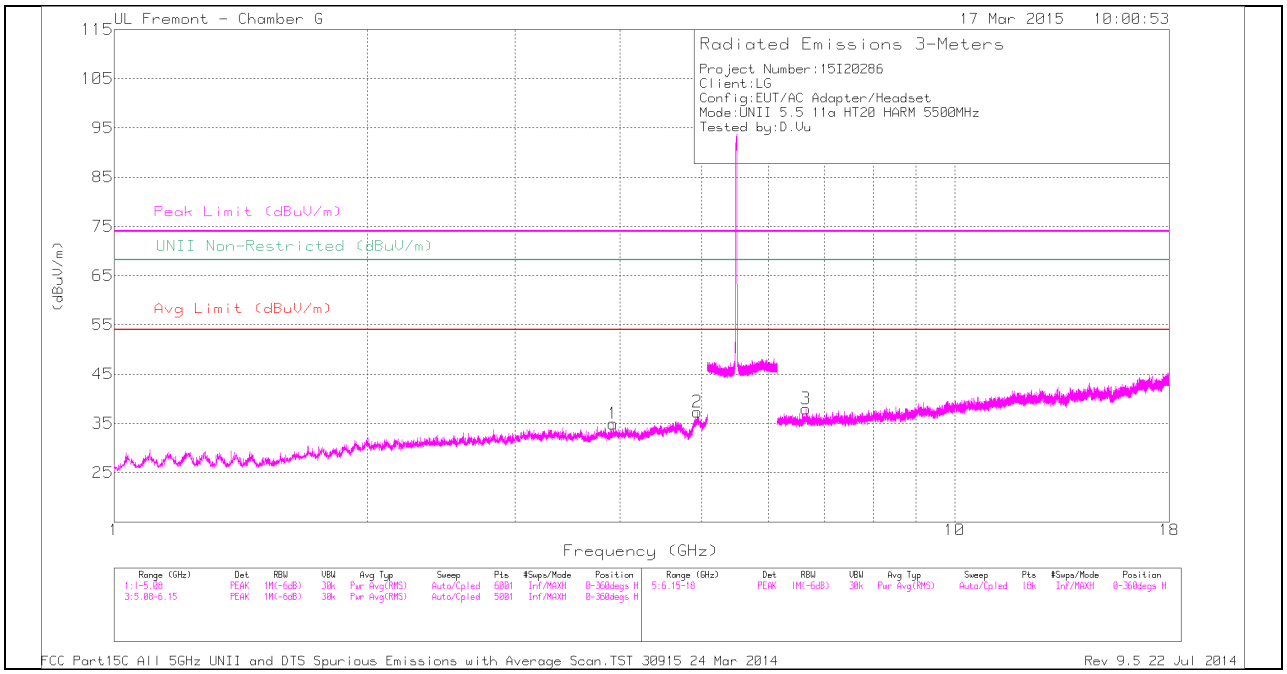


VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.725	39.49	PK	34.8	-23.5	0	50.79	68.2	-17.41	344	395	V
2	5.778	42.67	PK	34.8	-23.5	0	53.97	68.2	-14.23	344	395	V

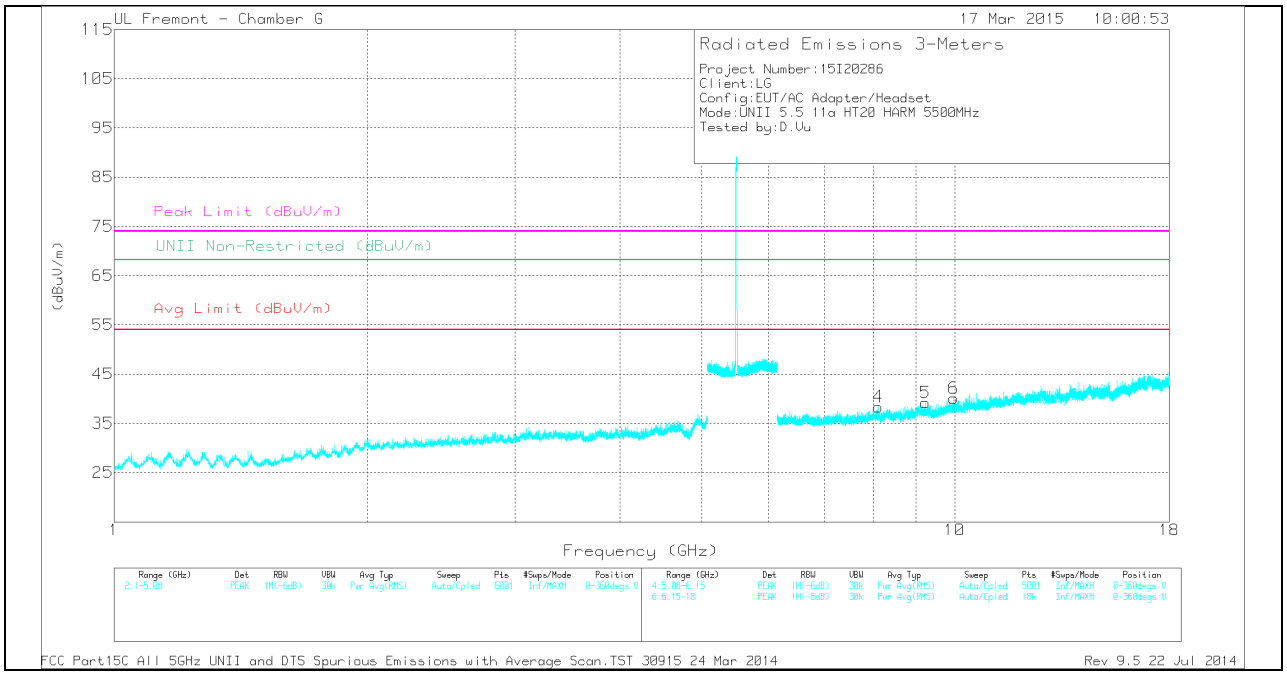
HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



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 VERTICAL



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

LOW CHANNEL DATA

TRACE MARKERS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/ Fltr/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	* 3.922	35.44	PK	33.2	-33.7	0	34.94	-	-	74	-39.06	-	-	0-360	201	H
2	* 4.938	34.92	PK	34.1	-31.7	0	37.32	-	-	74	-36.68	-	-	0-360	101	H
4	* 8.115	32.53	PK	35.8	-30	0	38.33	-	-	74	-35.67	-	-	0-360	101	V
3	6.653	33.87	PK	35.6	-31.5	0	37.97	-	-	-	-	68.2	-30.23	0-360	100	H
5	9.228	31.88	PK	36.5	-29.2	0	39.18	-	-	-	-	68.2	-29.02	0-360	201	V
6	9.968	31.08	PK	37.3	-28.3	0	40.08	-	-	-	-	68.2	-28.12	0-360	201	V

* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

PK - Peak detector

RADIATED EMISSIONS

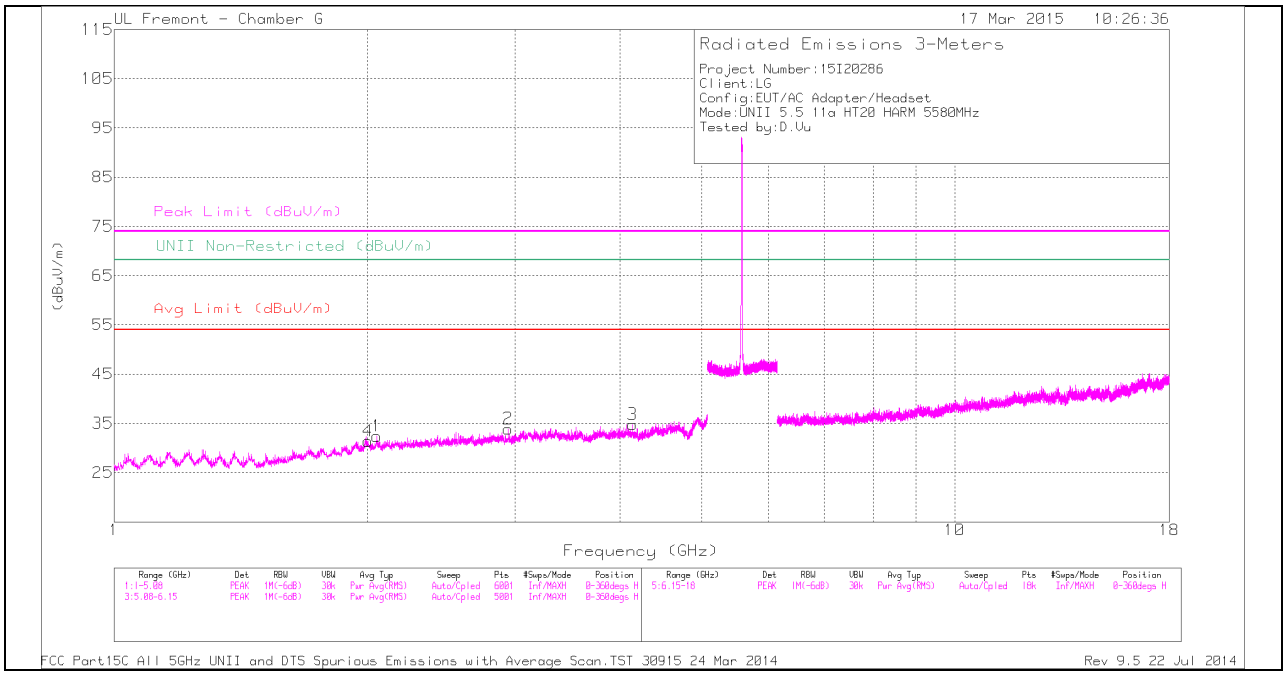
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.939	41.29	PK1	34.1	-31.7	0	43.69	-	-	74	-30.31	-	-	212	278	H
* 4.938	30.05	AD1	34.1	-31.7	.46	32.91	54	-21.09	-	-	-	-	212	278	H
* 8.116	39.13	PK1	35.8	-30	0	44.93	-	-	74	-29.07	-	-	102	291	V
* 8.116	27.62	AD1	35.8	-30	.46	33.88	54	-20.12	-	-	-	-	102	291	V

* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

PK1 - KDB789033 Method: Peak

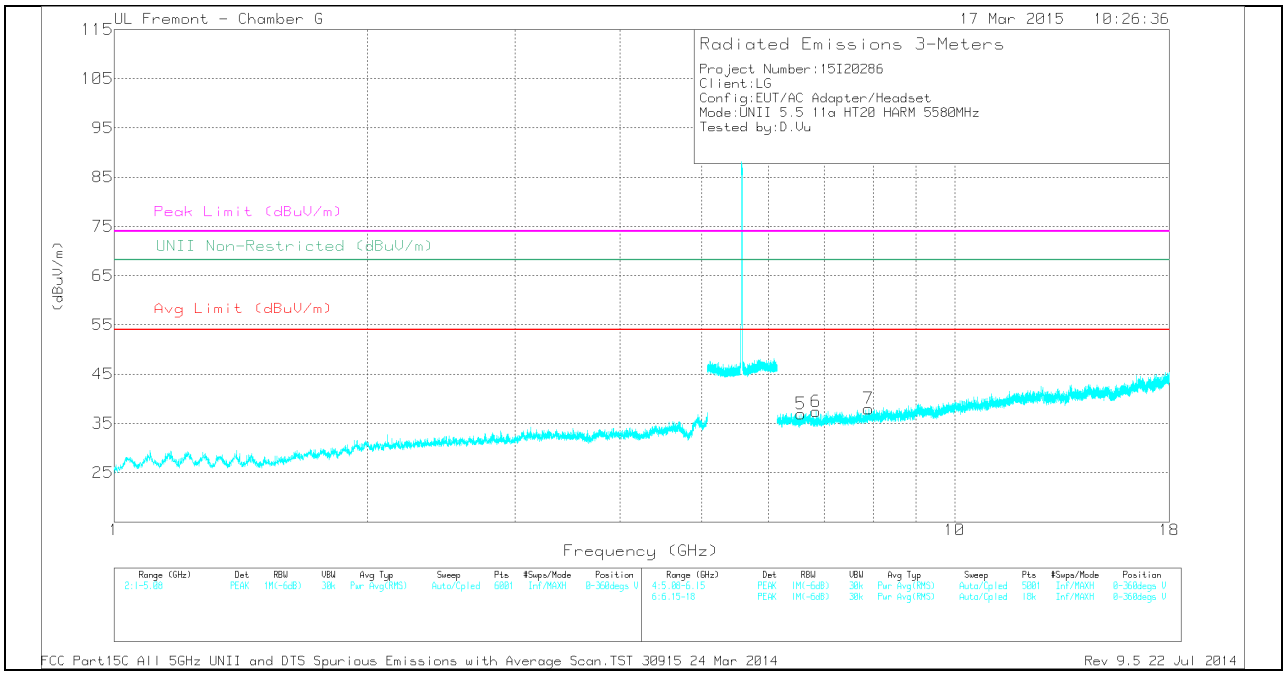
AD1 - KDB789033 Method: AD Primary Power Average

MID CHANNEL HORIZONTAL



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 VERTICAL



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

MID CHANNEL DATA

TRACE MARKERS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/ Fltr/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
3	* 4.137	34.86	PK	33.4	-33.5	0	34.76	-	-	74	-39.24	-	-	0-360	201	H
4	2.004	34.78	PK	31.3	-34.7	0	31.38	-	-	-	-	68.2	-36.82	0-360	201	H
1	2.053	35.99	PK	31.3	-34.9	0	32.39	-	-	-	-	68.2	-35.81	0-360	201	H
2	2.941	35.89	PK	32.4	-34.4	0	33.89	-	-	-	-	68.2	-34.31	0-360	201	H
5	6.561	33.93	PK	35.6	-32.6	0	36.93	-	-	-	-	68.2	-31.27	0-360	101	V
6	6.839	34.12	PK	35.6	-32.3	0	37.42	-	-	-	-	68.2	-30.78	0-360	201	V
7	7.898	32.79	PK	35.8	-30.6	0	37.99	-	-	-	-	68.2	-30.21	0-360	201	V

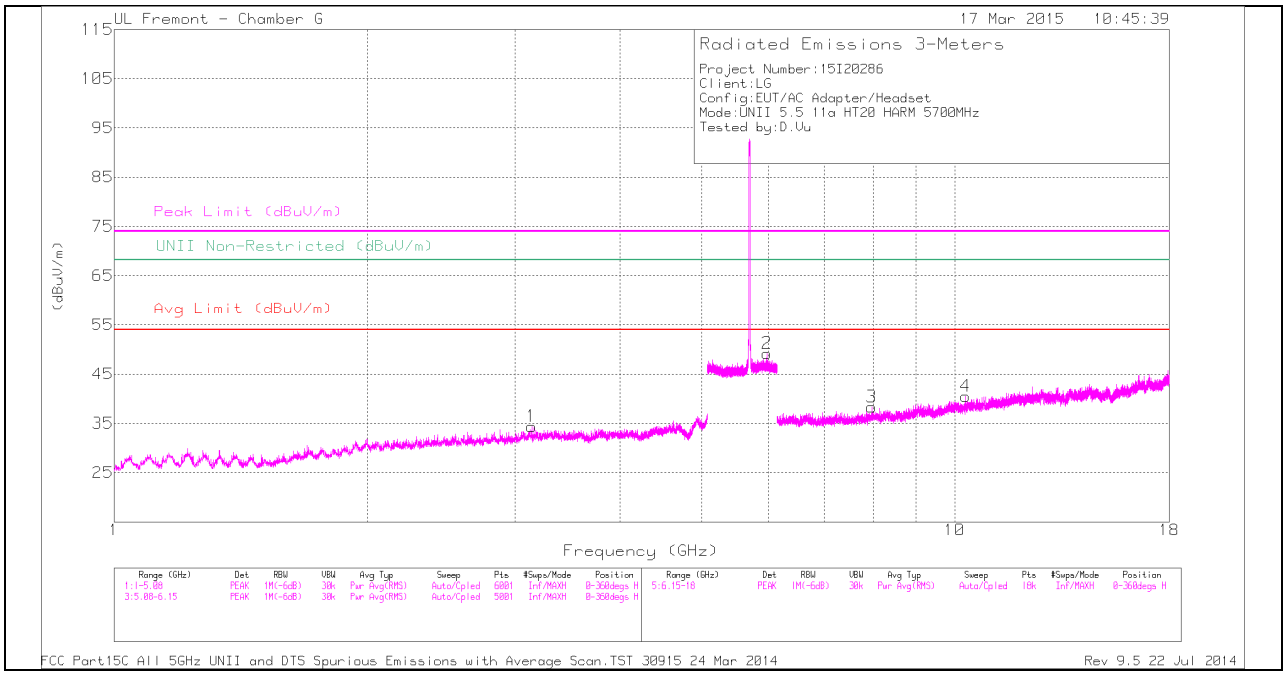
PK - Peak detector

RADIATED EMISSIONS

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Fltr/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
* 4.135	41.75	PK1	33.4	-33.5	0	41.65	-	-	74	-32.35	-	-	0	202	H
* 4.136	30.34	AD1	33.4	-33.5	.22	30.46	54	-23.54	-	-	-	-	0	202	H

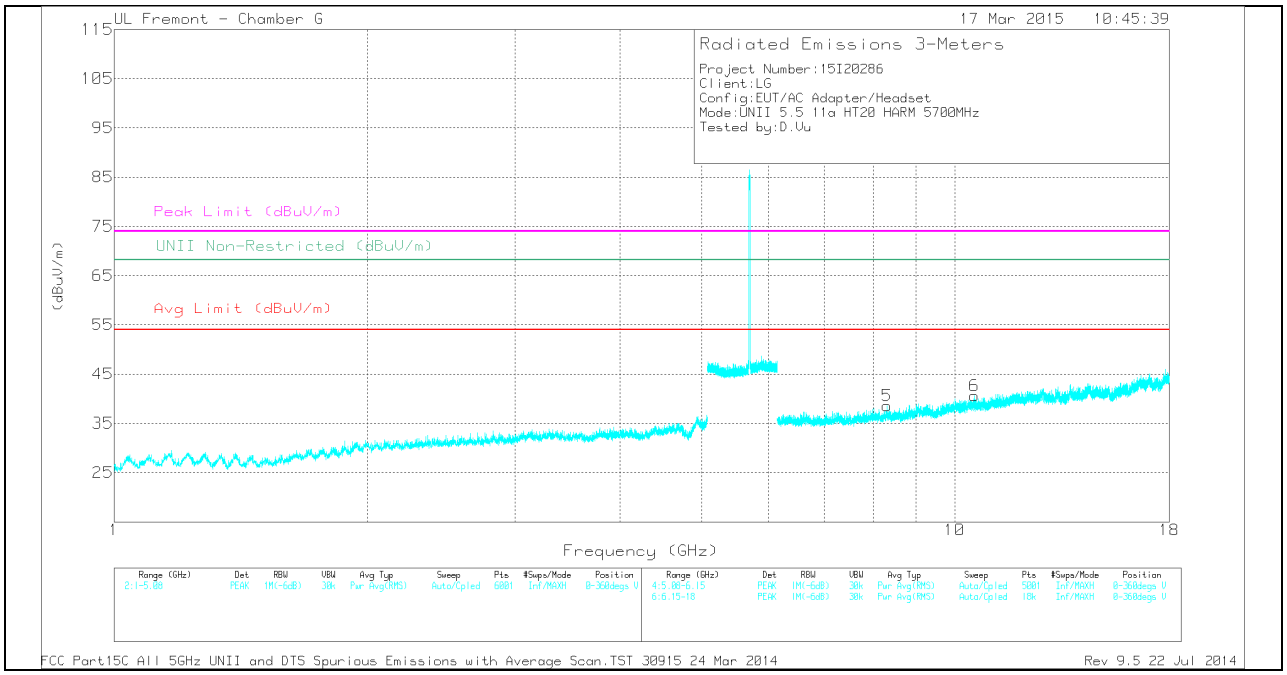
FCC Part15 Subpart C T186 2400MHz Spurious Emissions.TST 12746Rev 9.5 12 Jun 2013

HIGH CHANNEL HORIZONTAL



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 VERTICAL



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

HIGH CHANNEL DATA

TRACE MARKERS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/ Fltr/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
5	* 8.305	31.96	PK	35.8	-29.2	0	38.56	-	-	74	-35.44	-	-	0-360	201	V
1	3.139	35.2	PK	32.7	-33.5	0	34.4	-	-	-	-	68.2	-33.8	0-360	201	H
2	5.979	37.61	PK	35.2	-23.6	0	49.21	-	-	-	-	68.2	-18.99	0-360	201	H
3	7.967	33.34	PK	35.8	-30.8	0	38.34	-	-	-	-	68.2	-29.86	0-360	201	H
4	10.307	30.32	PK	37.5	-27.3	0	40.52	-	-	-	-	68.2	-27.68	0-360	201	H
6	10.551	29.99	PK	37.6	-27	0	40.59	-	-	-	-	68.2	-27.61	0-360	101	V

PK - Peak detector

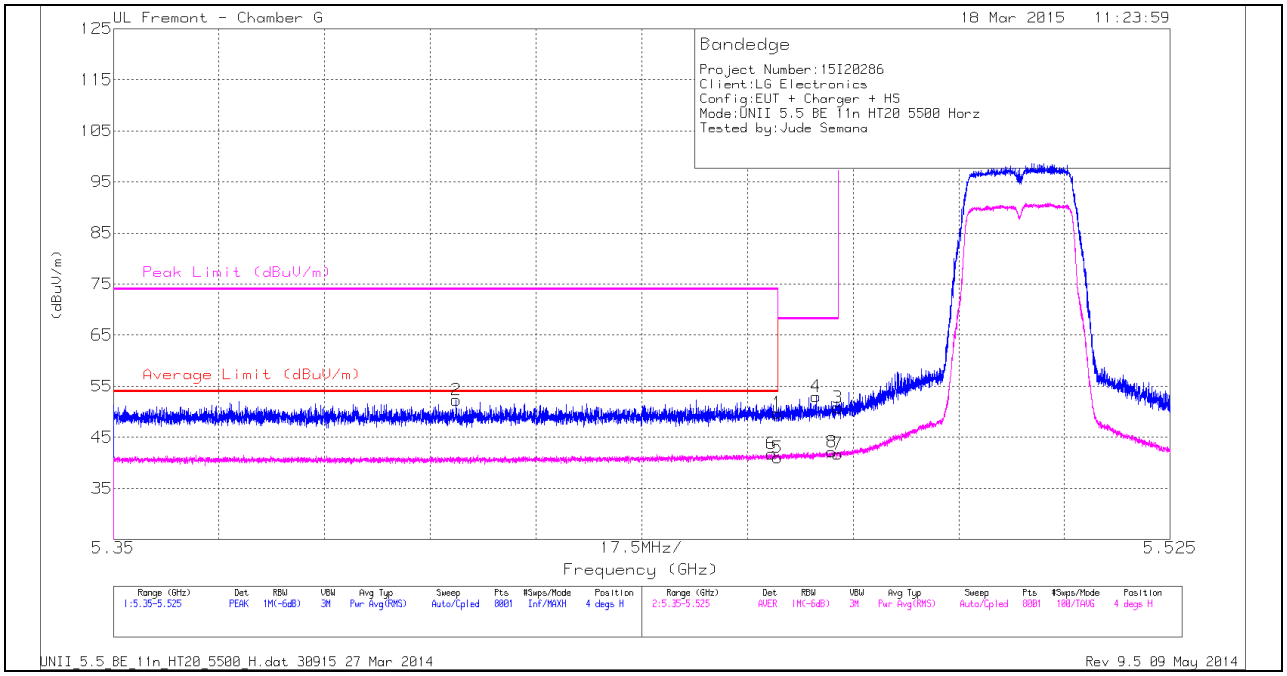
RADIATED EMISSIONS

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Fltr/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
* 8.305	39.01	PK1	35.8	-29.2	0	45.61	-	-	74	-28.39	-	-	0	202	V
* 8.303	28.06	AD1	35.8	-29.2	.22	34.88	54	-19.12	-	-	-	-	0	202	V

FCC Part15 Subpart C T186 2400MHz Spurious Emissions.TST 12746Rev 9.5 12 Jun 2013

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

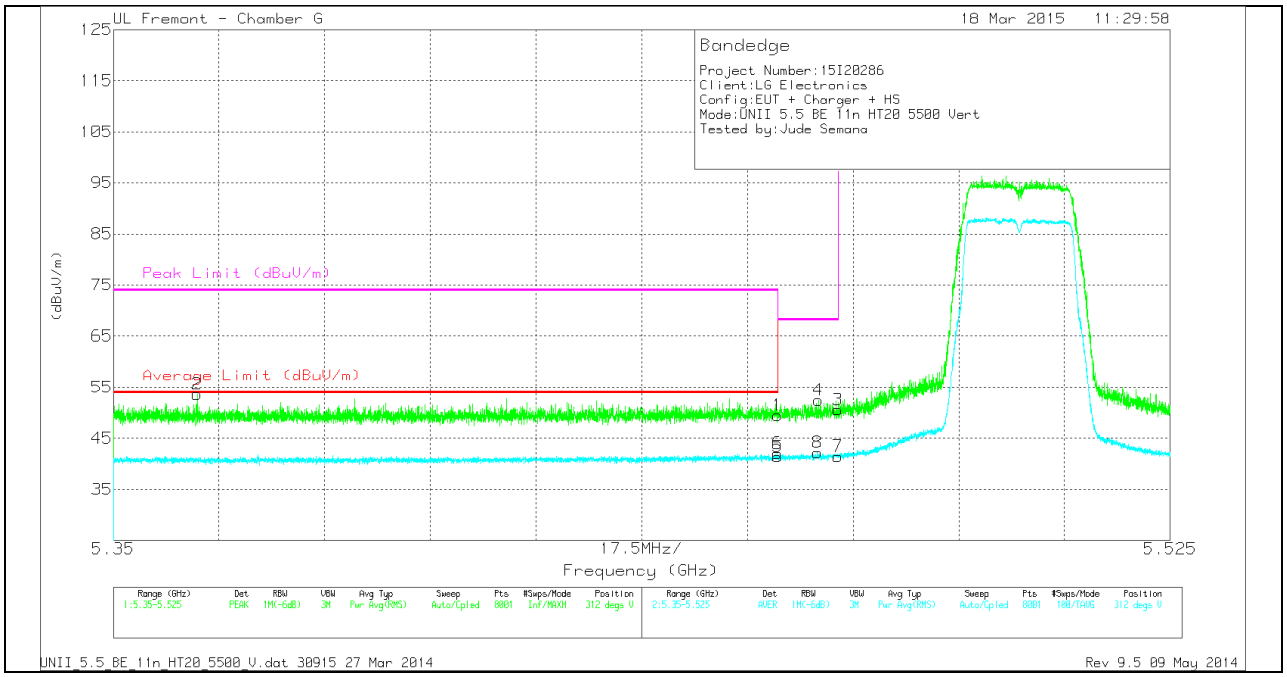
HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/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	38.65	PK	34.7	-23.6	0	49.75	-	-	74	-24.25	4	354	H
2	* 5.407	41.31	PK	34.6	-23.6	0	52.31	-	-	74	-21.69	4	354	H
5	* 5.46	29.7	RMS	34.7	-23.6	.2	41	54	-13	-	-	4	354	H
6	* 5.459	30.46	RMS	34.7	-23.6	.2	41.76	54	-12.24	-	-	4	354	H
4	5.466	41.89	PK	34.7	-23.6	0	52.99	-	-	68.2	-15.21	4	354	H
8	5.469	30.82	RMS	34.7	-23.6	.2	42.12	-	-	-	-	4	354	H
3	5.47	39.72	PK	34.7	-23.6	0	50.82	-	-	68.2	-17.38	4	354	H
7	5.47	30.41	RMS	34.7	-23.6	.2	41.71	-	-	-	-	4	354	H

VERTICAL PEAK AND AVERAGE PLOT

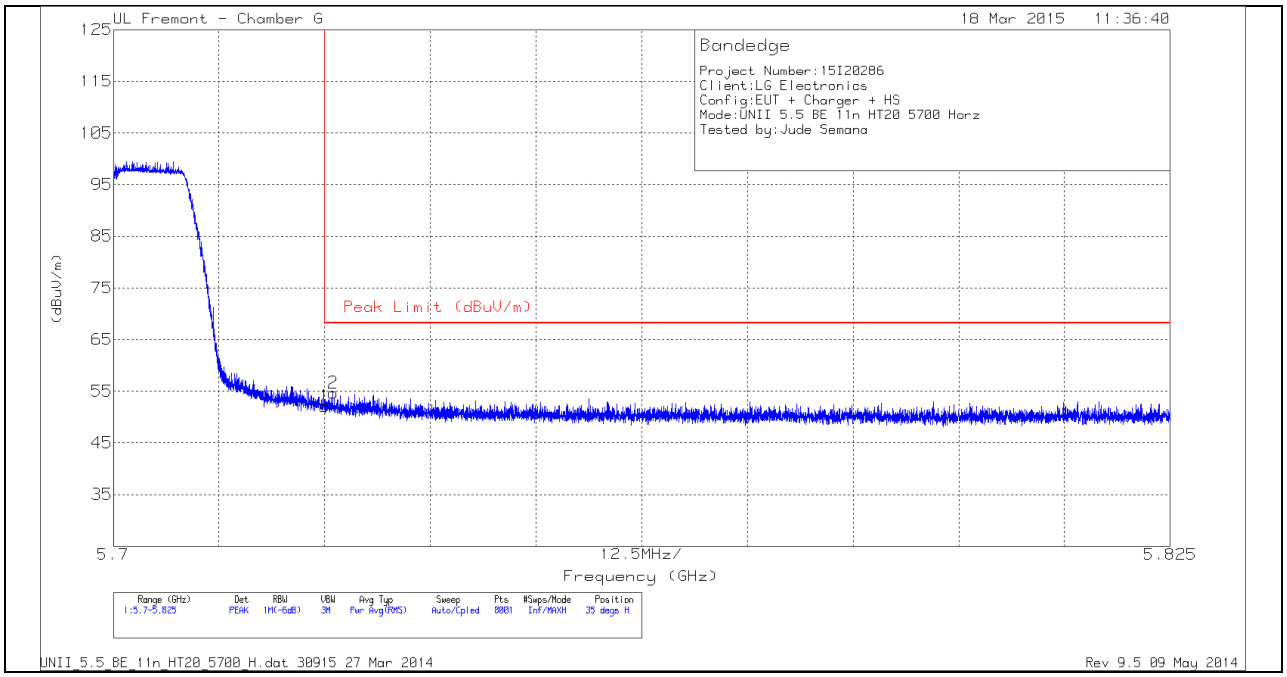


VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/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	38.41	PK	34.7	-23.6	0	49.51	-	-	74	-24.49	312	399	V
2	* 5.364	42.75	PK	34.6	-23.7	0	53.65	-	-	74	-20.35	312	399	V
5	* 5.46	30.07	RMS	34.7	-23.6	.2	41.37	54	-12.63	-	-	312	399	V
6	* 5.46	30.71	RMS	34.7	-23.6	.2	42.01	54	-11.99	-	-	312	399	V
4	5.467	41.37	PK	34.7	-23.6	0	52.47	-	-	68.2	-15.73	312	399	V
8	5.467	30.88	RMS	34.7	-23.6	.2	42.18	-	-	-	-	312	399	V
3	5.47	39.48	PK	34.7	-23.6	0	50.58	-	-	68.2	-17.62	312	399	V
7	5.47	30.12	RMS	34.7	-23.6	.2	41.42	-	-	-	-	312	399	V

AUTHORIZED BANDEDGE (HIGH CHANNEL)

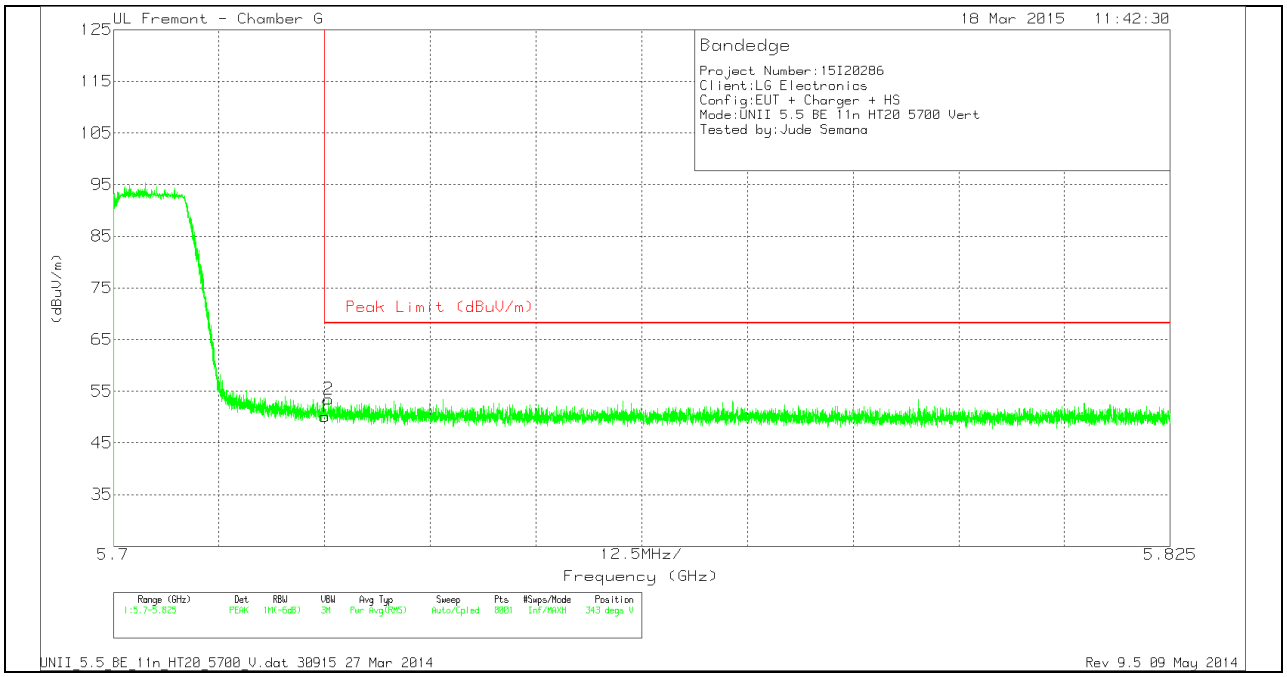
HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/F ltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.725	40.8	PK	34.8	-23.5	0	52.1	68.2	-16.1	35	362	H
2	5.726	43.45	PK	34.8	-23.6	0	54.65	68.2	-13.55	35	362	H

VERTICAL PEAK AND AVERAGE PLOT

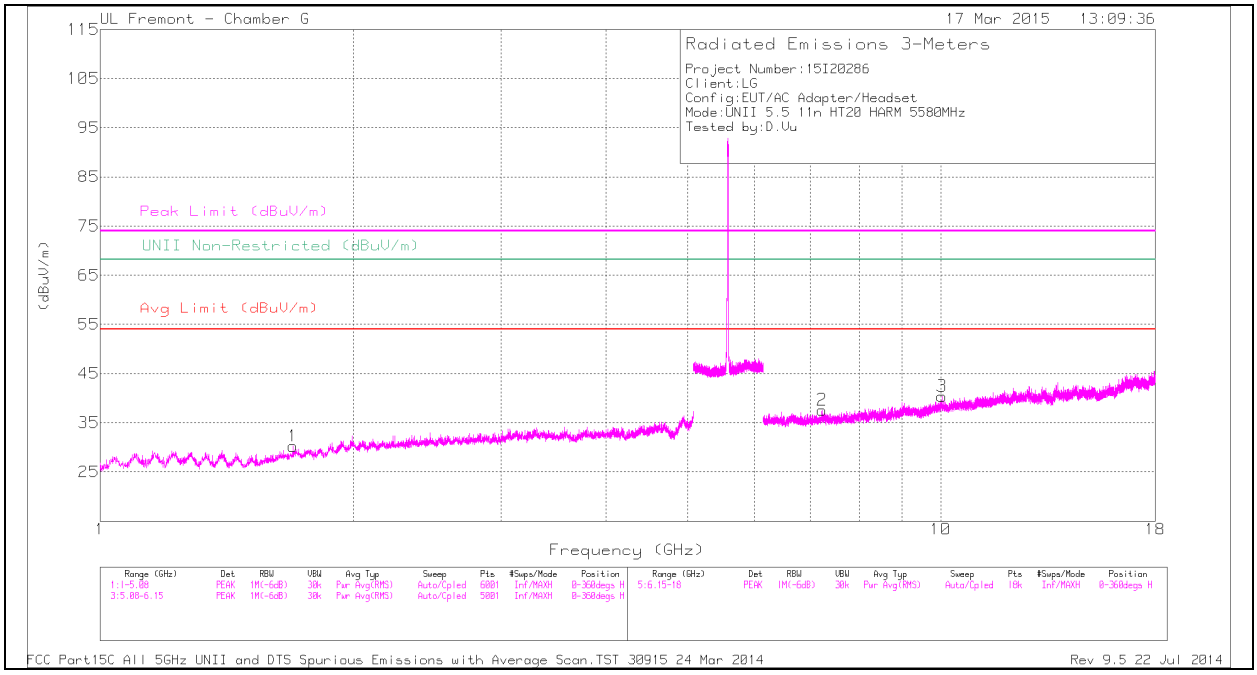


VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.725	38.81	PK	34.8	-23.5	0	50.11	68.2	-18.09	343	396	V
2	5.725	42.17	PK	34.8	-23.5	0	53.47	68.2	-14.73	343	396	V

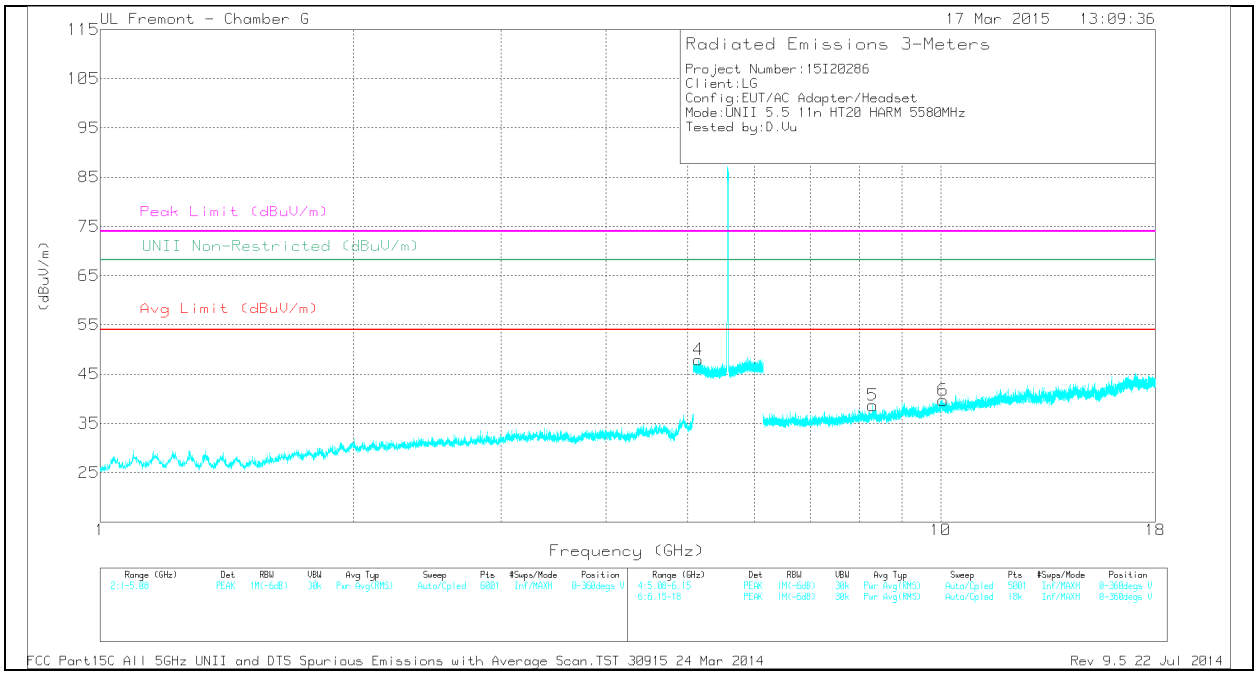
HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



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 VERTICAL



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

LOW CHANNEL DATA

TRACE MARKERS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/ Fltr/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	* 1.696	35.43	PK	29.2	-34.4	0	30.23	-	-	74	-43.77	-	-	0-360	201	H
4	* 5.148	37.23	PK	34.3	-23.6	0	47.93	-	-	74	-26.07	-	-	0-360	201	V
5	* 8.301	32.15	PK	35.8	-29.3	0	38.65	-	-	74	-35.35	-	-	0-360	101	V
2	7.224	32.98	PK	35.6	-31	0	37.58	-	-	-	-	68.2	-30.62	0-360	101	H
3	10.034	30.61	PK	37.4	-27.6	0	40.41	-	-	-	-	68.2	-27.79	0-360	101	H
6	10.066	30.08	PK	37.4	-27.8	0	39.68	-	-	-	-	68.2	-28.52	0-360	201	V

* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

PK - Peak detector

RADIATED EMISSIONS

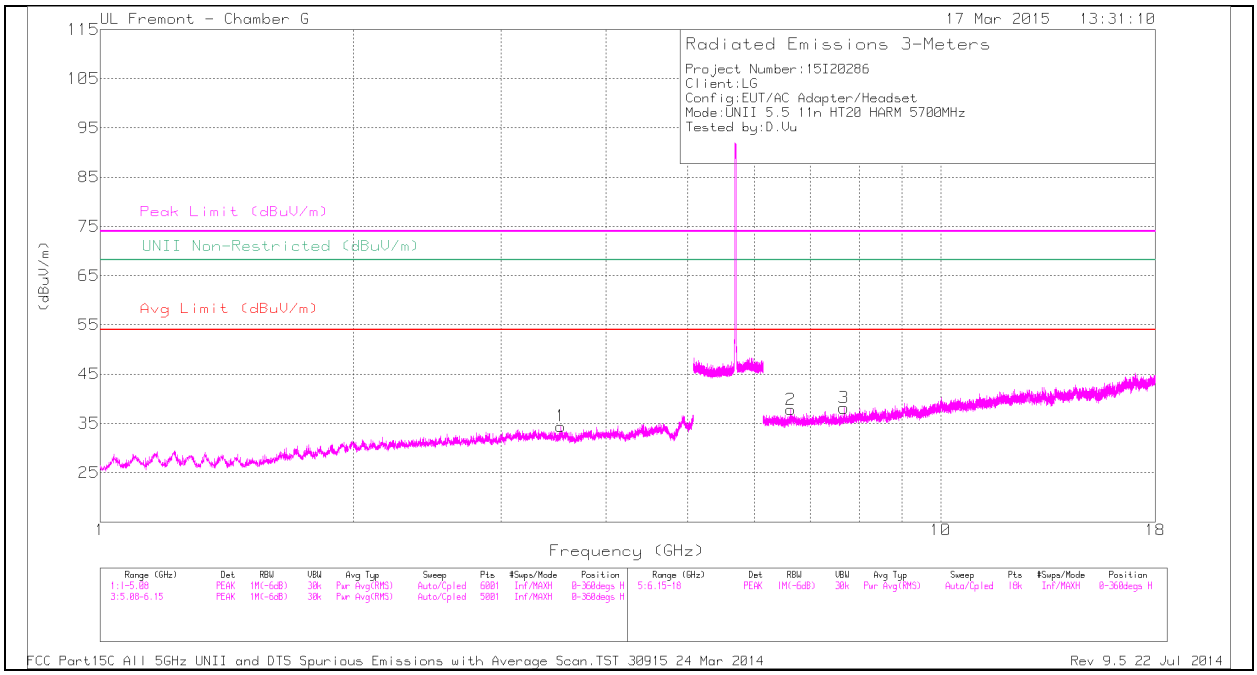
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 5.149	43.74	PK1	34.3	-23.6	0	54.44	-	-	74	-19.56	-	-	0	202	V
* 5.148	32.64	AD1	34.3	-23.6	.22	43.56	54	-10.44	-	-	-	-	0	202	V
* 8.3	38.97	PK1	35.8	-29.3	0	45.47	-	-	74	-28.53	-	-	0	102	V
* 8.299	27.95	AD1	35.8	-29.3	.22	34.67	54	-19.33	-	-	-	-	0	102	V

* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

PK1 - KDB789033 Method: Peak

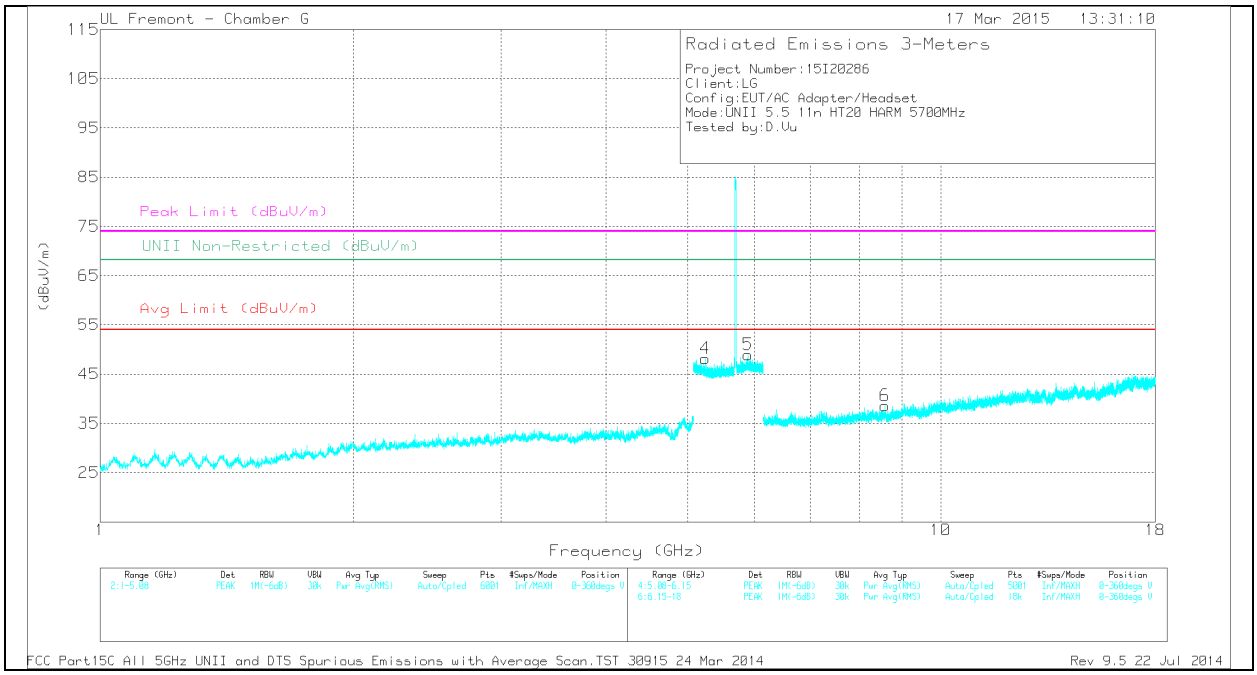
AD1 - KDB789033 Method: AD Primary Power Average

HIGH CHANNEL HORIZONTAL



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 VERTICAL



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

HIGH CHANNEL DATA

TRACE MARKERS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/ Fltr/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	* 3.534	35.12	PK	32.8	-33.5	0	34.42	-	-	74	-39.58	-	-	0-360	102	H
3	* 7.671	33.05	PK	35.7	-30.6	0	38.15	-	-	74	-35.85	-	-	0-360	100	H
4	5.244	37.37	PK	34.5	-23.7	0	48.17	-	-	-	-	68.2	-20.03	0-360	101	V
5	5.899	37.57	PK	35	-23.6	0	48.97	-	-	-	-	68.2	-19.23	0-360	201	V
2	6.634	33.81	PK	35.6	-31.6	0	37.81	-	-	-	-	68.2	-30.39	0-360	100	H
6	8.586	31.59	PK	35.9	-28.9	0	38.59	-	-	-	-	68.2	-29.61	0-360	201	V

* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

PK - Peak detector

RADIATED EMISSIONS

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Fltr/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
* 3.533	42.36	PK1	32.8	-33.5	0	41.66	-	-	74	-32.34	-	-	0	101	H
* 3.534	30.64	AD1	32.8	-33.5	.22	30.16	54	-23.84	-	-	-	-	0	101	H
* 7.67	39.5	PK1	35.7	-30.6	0	44.6	-	-	74	-29.4	-	-	0	101	H
* 7.669	28.82	AD1	35.7	-30.6	.22	34.14	54	-19.86	-	-	-	-	0	101	H

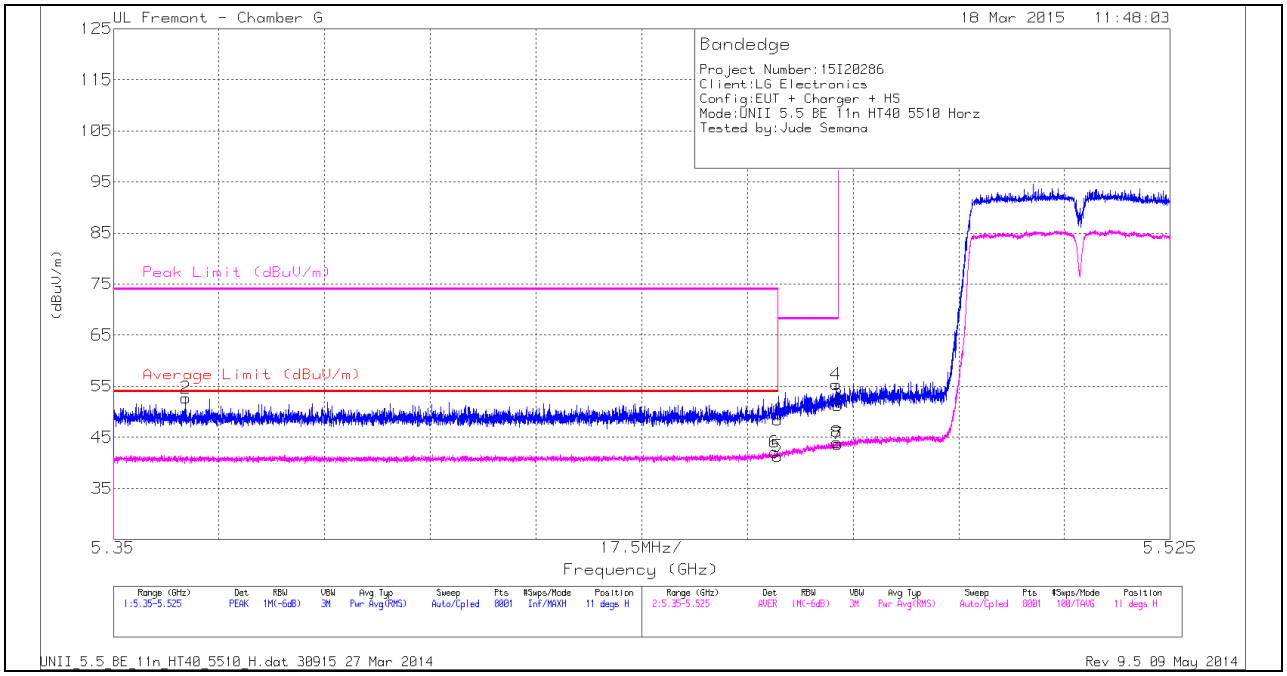
* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

PK1 - KDB789033 Method: Peak

AD1 - KDB789033 Method: AD Primary Power Average

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

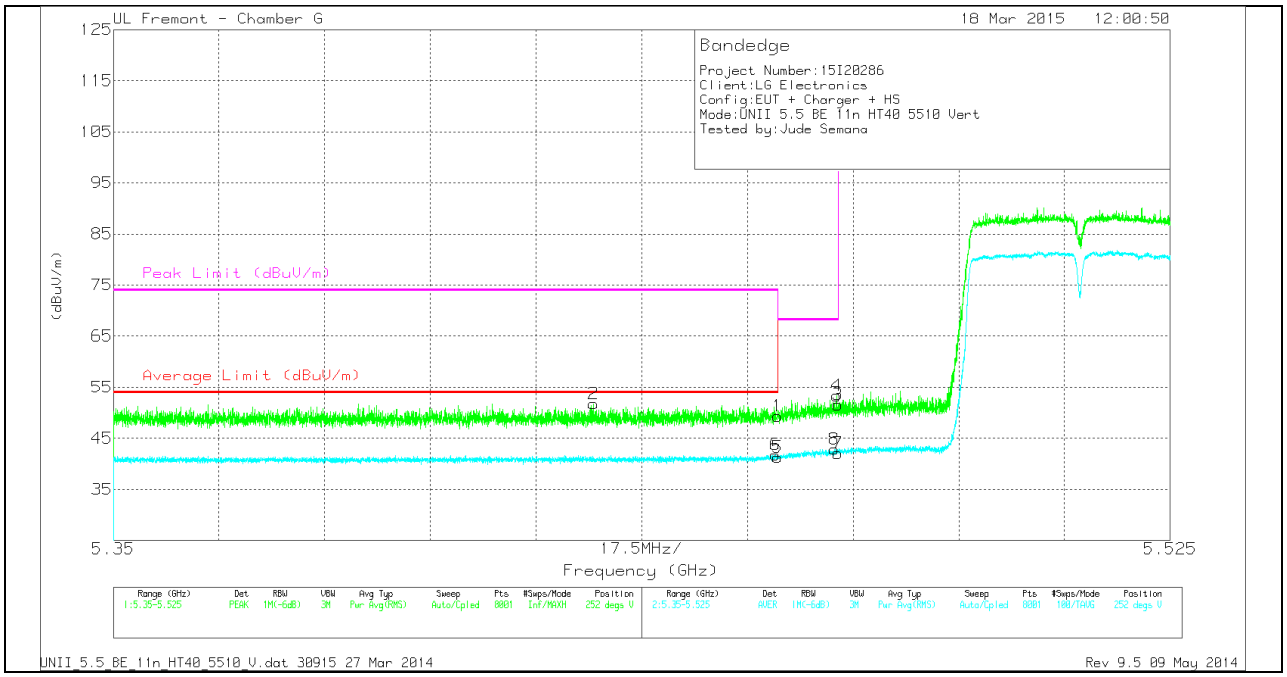
HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/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	37.26	PK	34.7	-23.6	0	48.36	-	-	74	-25.64	11	320	H
2	* 5.362	41.79	PK	34.6	-23.7	0	52.69	-	-	74	-21.31	11	320	H
5	* 5.46	29.72	RMS	34.7	-23.6	.5	41.32	54	-12.68	-	-	11	320	H
6	* 5.46	30.51	RMS	34.7	-23.6	.5	42.11	54	-11.89	-	-	11	320	H
3	5.47	40.19	PK	34.7	-23.6	0	51.29	-	-	68.2	-16.91	11	320	H
4	5.47	44.27	PK	34.7	-23.6	0	55.37	-	-	68.2	-12.83	11	320	H
7	5.47	32.17	RMS	34.7	-23.6	.5	43.77	-	-	-	-	11	320	H
8	5.47	32.47	RMS	34.7	-23.6	.5	44.07	-	-	-	-	11	320	H

VERTICAL PEAK AND AVERAGE PLOT

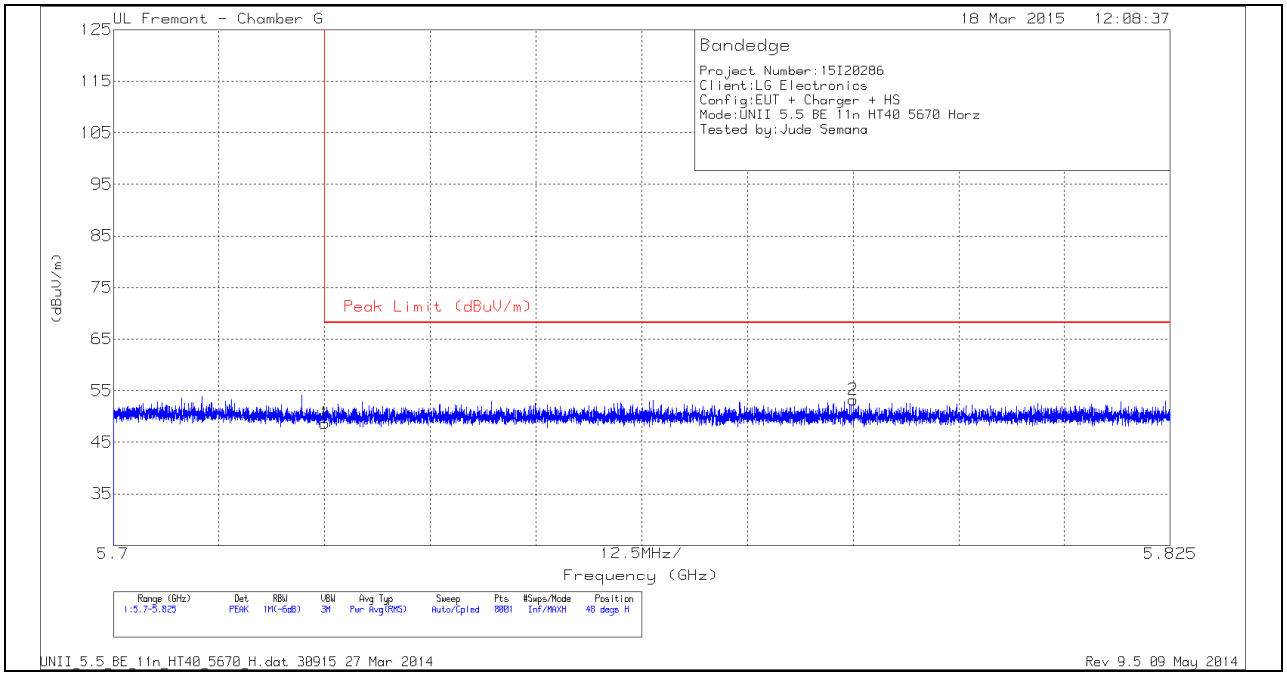


VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/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	38.26	PK	34.7	-23.6	0	49.36	-	-	74	-24.64	252	333	V
2	* 5.43	40.77	PK	34.6	-23.6	0	51.77	-	-	74	-22.23	252	333	V
5	* 5.46	29.72	RMS	34.7	-23.6	.5	41.32	54	-12.68	-	-	252	333	V
6	* 5.46	30.2	RMS	34.7	-23.6	.5	41.8	54	-12.2	-	-	252	333	V
8	5.469	31.33	RMS	34.7	-23.6	.5	42.93	-	-	-	-	252	333	V
3	5.47	40.48	PK	34.7	-23.6	0	51.58	-	-	68.2	-16.62	252	333	V
4	5.47	42.27	PK	34.7	-23.6	0	53.37	-	-	68.2	-14.83	252	333	V
7	5.47	30.55	RMS	34.7	-23.6	.5	42.15	-	-	-	-	252	333	V

AUTHORIZED BANDEDGE (HIGH CHANNEL)

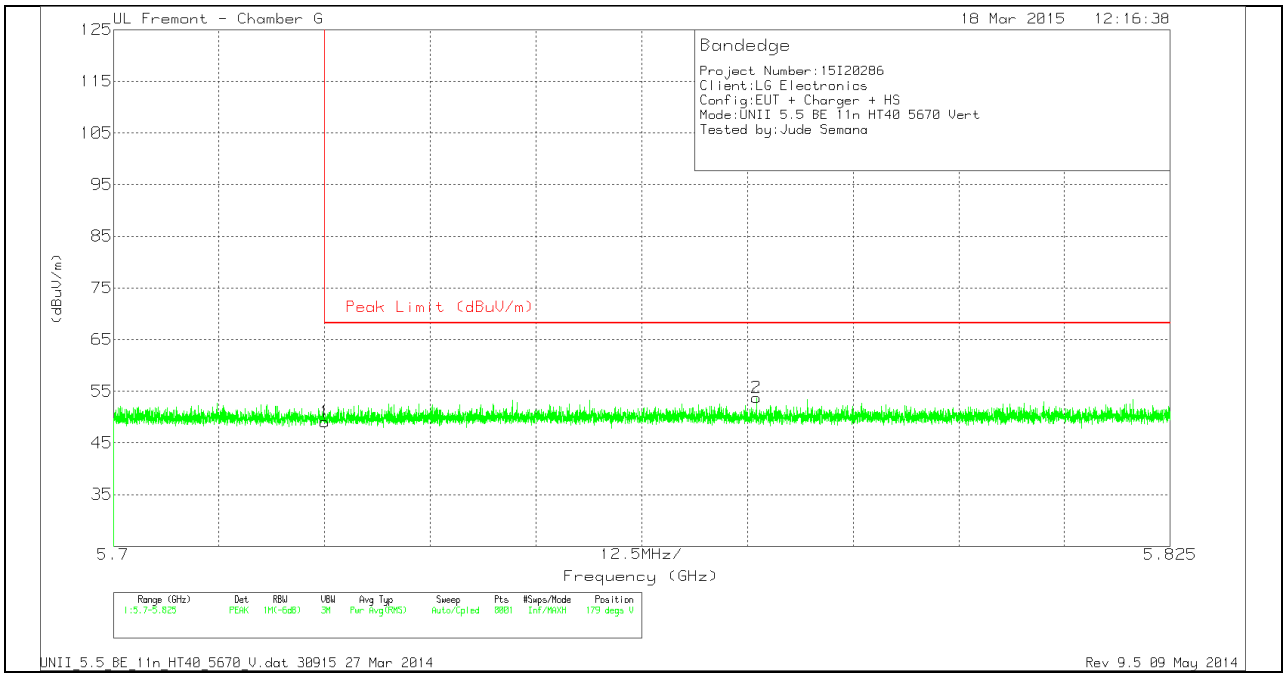
HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.725	37.37	PK	34.8	-23.5	0	48.67	68.2	-19.53	48	114	H
2	5.788	41.82	PK	34.9	-23.5	0	53.22	68.2	-14.98	48	114	H

VERTICAL PEAK AND AVERAGE PLOT

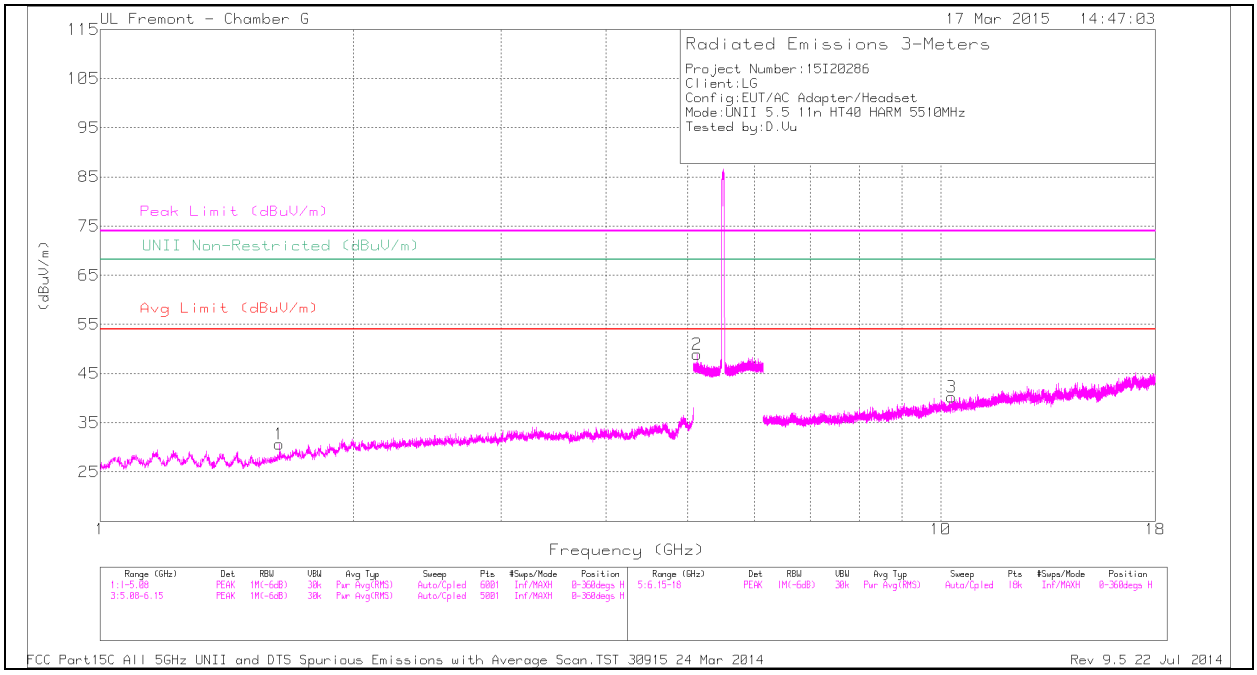


VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.725	37.77	PK	34.8	-23.5	0	49.07	68.2	-19.13	179	299	V
2	5.776	42.46	PK	34.8	-23.5	0	53.76	68.2	-14.44	179	299	V

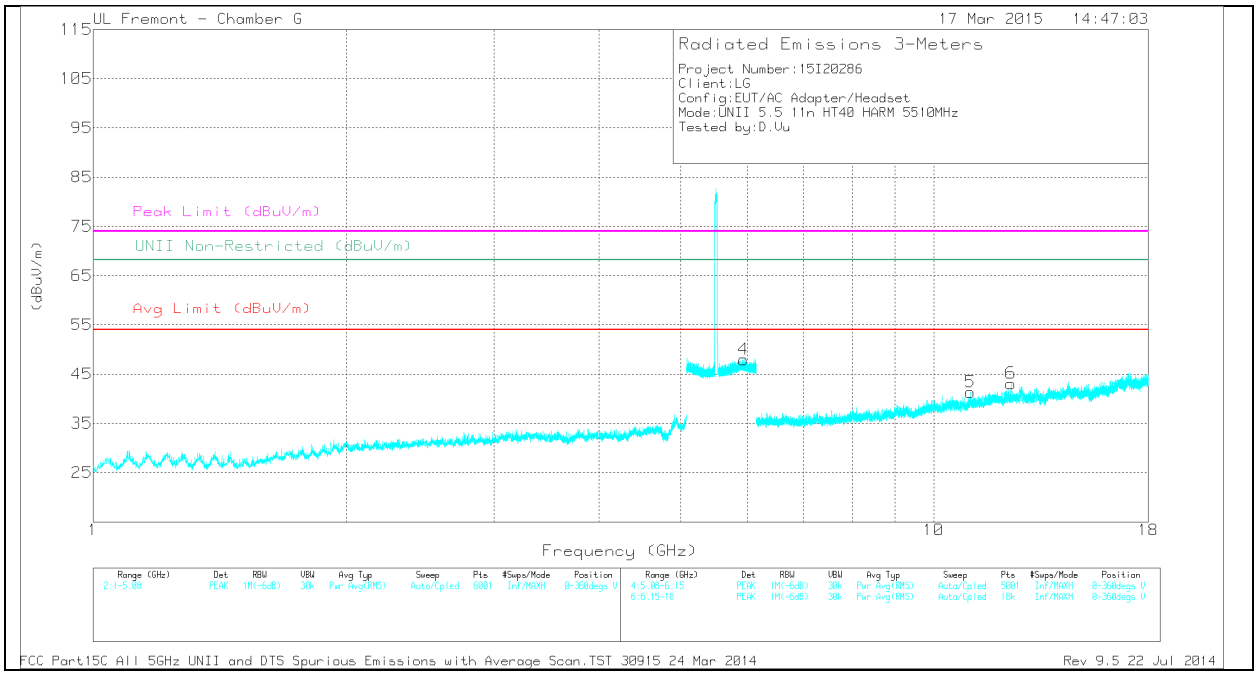
HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



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 VERTICAL



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

LOW CHANNEL DATA

TRACE MARKERS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/ Fltr/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
2	* 5.134	38.2	PK	34.3	-23.6	0	48.9	-	-	74	-25.1	-	-	0-360	201	H
5	* 11.062	30.34	PK	37.8	-26.8	0	41.34	-	-	74	-32.66	-	-	0-360	201	V
6	* 12.356	31.2	PK	38.9	-27	0	43.1	-	-	74	-30.9	-	-	0-360	201	V
1	1.634	36.56	PK	28.8	-34.7	0	30.66	-	-	-	-	68.2	-37.54	0-360	201	H
4	5.94	36.47	PK	35.1	-23.6	0	47.97	-	-	-	-	68.2	-20.23	0-360	101	V
3	10.305	30.03	PK	37.5	-27.3	0	40.23	-	-	-	-	68.2	-27.97	0-360	201	H

* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

PK - Peak detector

RADIATED EMISSIONS

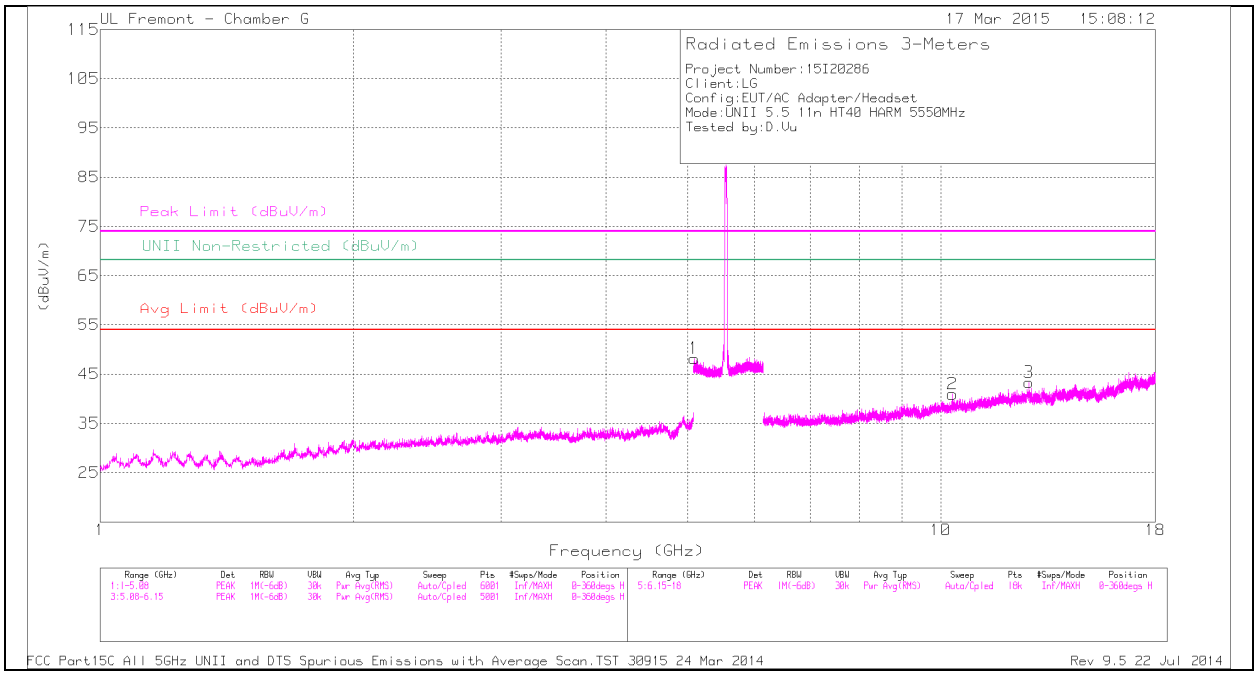
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 5.133	44.45	PK1	34.3	-23.6	0	55.15	-	-	74	-18.85	-	-	0	202	H
* 5.134	32.7	AD1	34.3	-23.6	.46	43.86	54	-10.14	-	-	-	-	0	202	H
5.94	43.87	PK1	35.1	-23.6	0	55.37	-	-	-	-	68.2	-12.83	0	101	V
5.94	32.68	AD1	35.1	-23.6	.46	44.64	-	-	-	-	-	-	0	101	V

* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

PK1 - KDB789033 Method: Peak

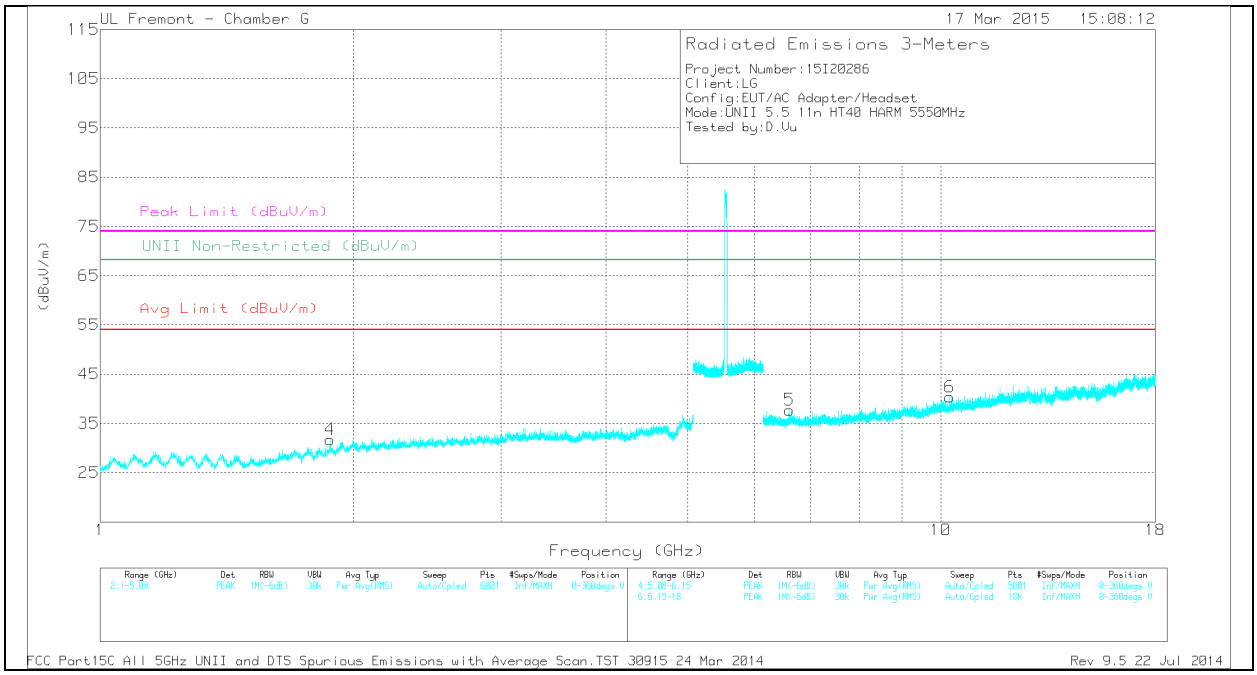
AD1 - KDB789033 Method: AD Primary Power Average

MID CHANNEL HORIZONTAL



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 VERTICAL



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

MID CHANNEL DATA

TRACE MARKERS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/ Fltr/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	* 5.092	37.7	PK	34.2	-23.7	0	48.2	-	-	74	-25.8	-	-	0-360	201	H
4	1.879	36.21	PK	30.5	-35	0	31.71	-	-	-	-	68.2	-36.49	0-360	201	V
5	6.612	34.22	PK	35.6	-32.1	0	37.72	-	-	-	-	68.2	-30.48	0-360	201	V
6	10.248	30.53	PK	37.5	-27.7	0	40.33	-	-	-	-	68.2	-27.87	0-360	101	V
2	10.329	30.95	PK	37.5	-27.5	0	40.95	-	-	-	-	68.2	-27.25	0-360	101	H
3	12.738	29.63	PK	39.1	-25.4	0	43.33	-	-	-	-	68.2	-24.87	0-360	101	H

* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

PK - Peak detector

RADIATED EMISSIONS

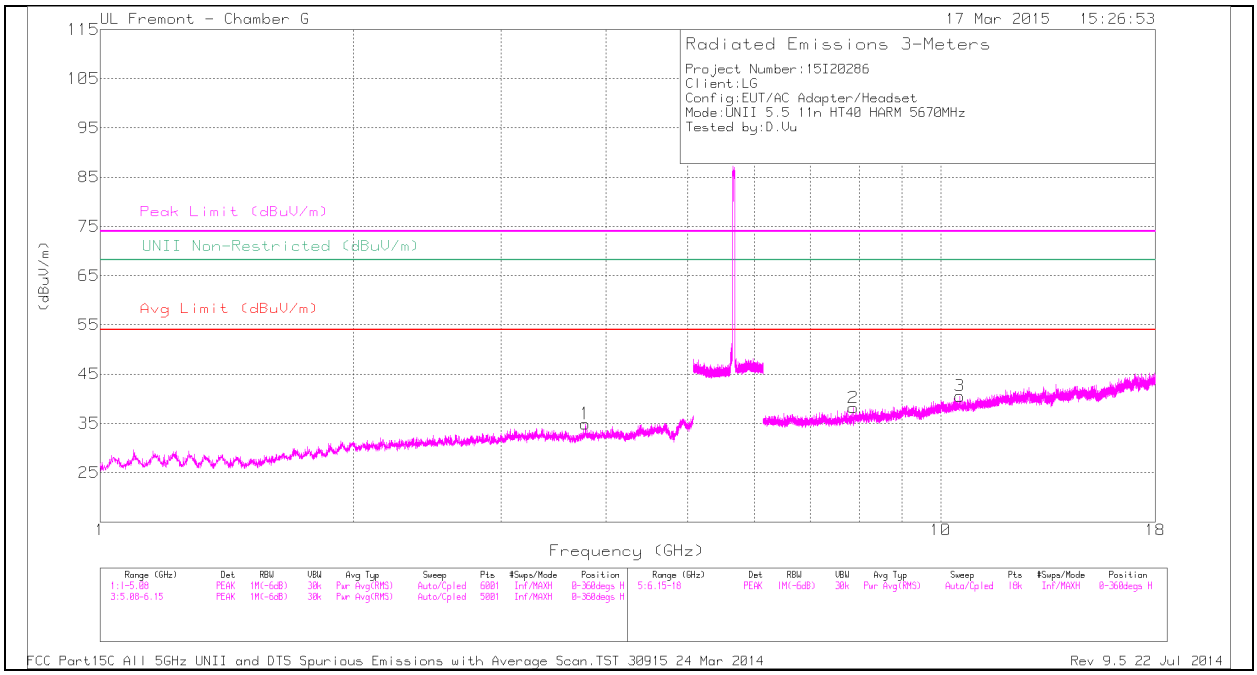
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 5.093	43.19	PK1	34.2	-23.7	0	53.69	-	-	74	-20.31	-	-	0	202	H
* 5.09	32.8	AD1	34.2	-23.7	.46	43.76	54	-10.24	-	-	-	-	0	202	H

* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

PK1 - KDB789033 Method: Peak

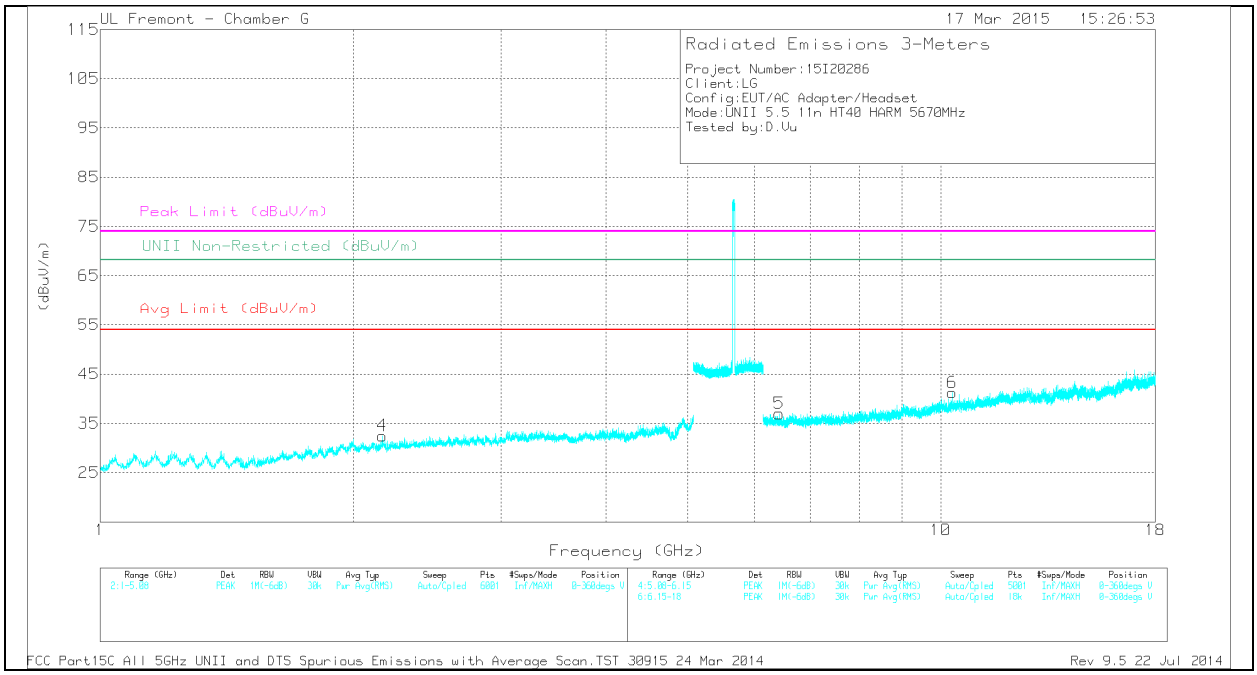
AD1 - KDB789033 Method: AD Primary Power Average

HIGH CHANNEL HORIZONTAL



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 VERTICAL



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

HIGH CHANNEL DATA

TRACE MARKERS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/ Fltr/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	* 3.78	35.39	PK	33	-33.5	0	34.89	-	-	74	-39.11	-	-	0-360	100	H
4	2.168	35.79	PK	31.4	-34.7	0	32.49	-	-	-	-	68.2	-35.71	0-360	201	V
5	6.425	33.18	PK	35.6	-31.8	0	36.98	-	-	-	-	68.2	-31.22	0-360	101	V
2	7.872	33.17	PK	35.7	-30.7	0	38.17	-	-	-	-	68.2	-30.03	0-360	101	H
6	10.316	31.12	PK	37.5	-27.4	0	41.22	-	-	-	-	68.2	-26.98	0-360	101	V
3	10.538	29.86	PK	37.6	-26.9	0	40.56	-	-	-	-	68.2	-27.64	0-360	201	H

* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

PK - Peak detector

RADIATED EMISSIONS

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Fltr/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
* 3.779	42.83	PK1	33	-33.5	0	42.33	-	-	74	-31.67	-	-	0	101	H
* 3.78	31.66	AD1	33	-33.5	.46	31.62	54	-22.38	-	-	-	-	0	101	H

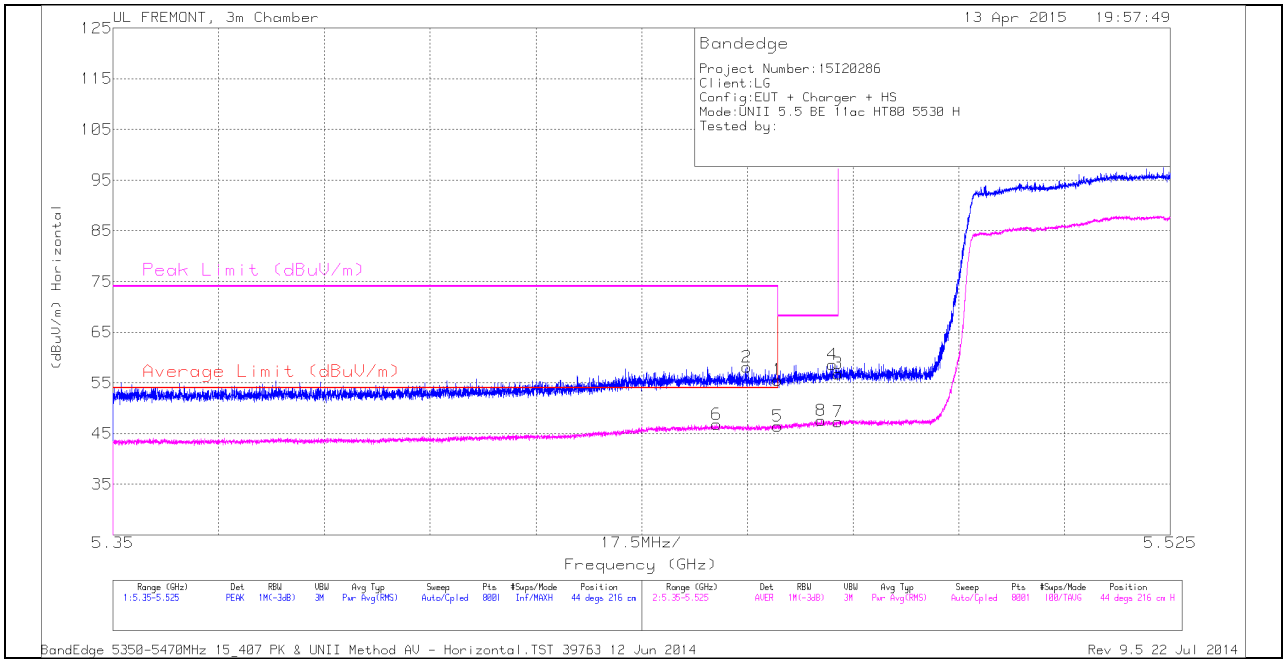
* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

PK1 - KDB789033 Method: Peak

AD1 - KDB789033 Method: AD Primary Power Average

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

HORIZONTAL PEAK AND AVERAGE PLOT



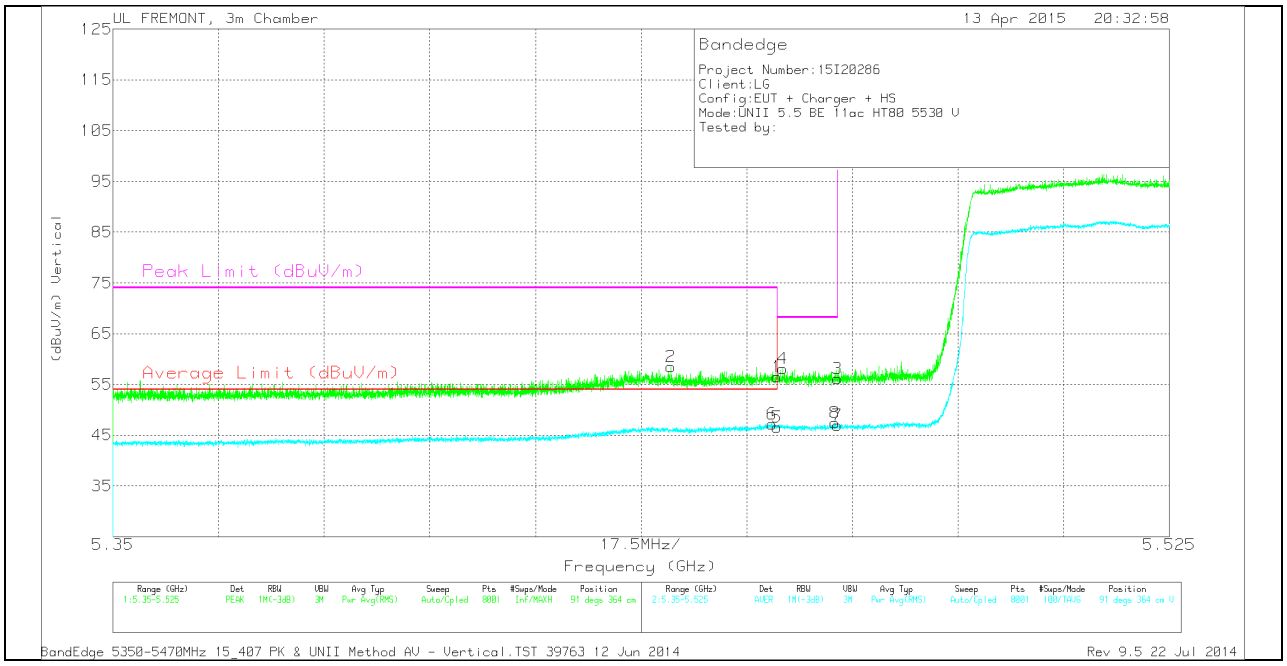
HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Flt r/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
6	5.45	33.13	RMS	34.6	-21.4	.44	46.77	54	-7.23	-	-	44	216	H
2	5.455	44.91	PK	34.6	-21.4	0	58.11	-	-	74	-15.89	44	216	H
1	5.46	42.37	PK	34.6	-21.4	0	55.57	-	-	74	-18.43	44	216	H
5	5.46	32.83	RMS	34.6	-21.4	.44	46.47	54	-7.53	-	-	44	216	H
8	5.467	33.82	RMS	34.6	-21.3	.44	47.56	-	-	-	-	44	216	H
4	5.469	45.32	PK	34.6	-21.3	0	58.62	-	-	68.2	-9.58	44	216	H
3	5.47	43.51	PK	34.6	-21.3	0	56.81	-	-	68.2	-11.39	44	216	H
7	5.47	33.57	RMS	34.6	-21.3	.44	47.31	-	-	-	-	44	216	H

PK - Peak detector

RMS - RMS detection

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

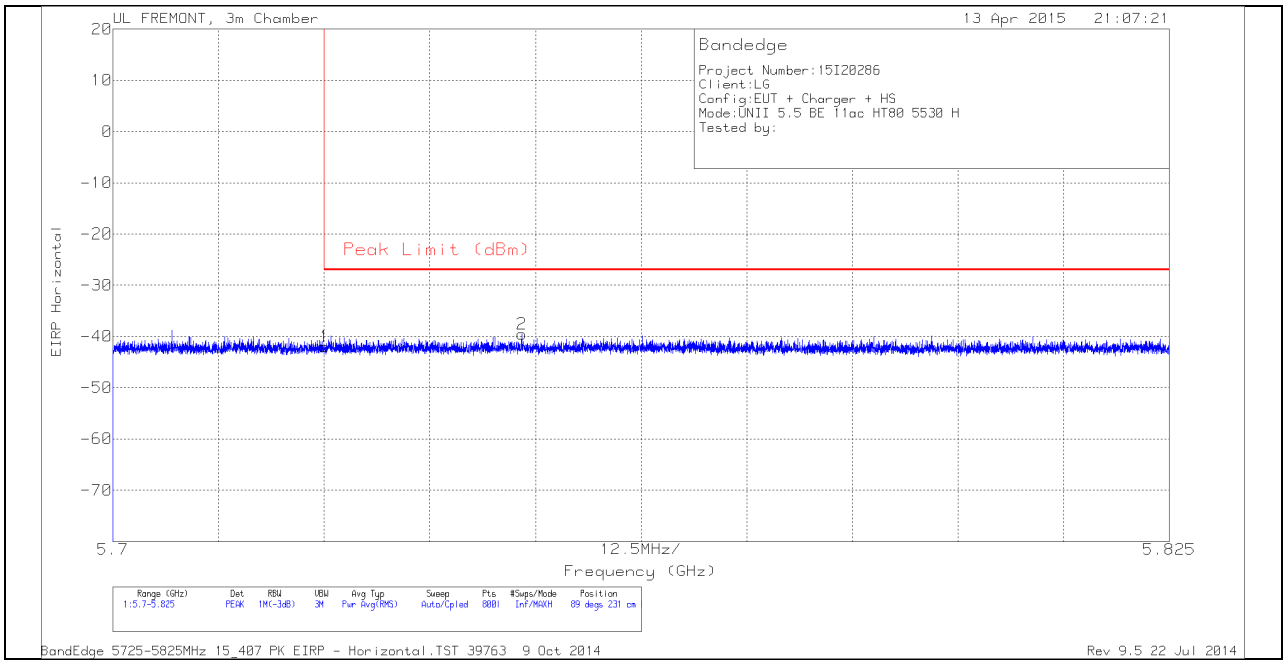
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Flt r/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	5.442	45.37	PK	34.6	-21.5	0	58.47	-	-	74	-15.53	91	364	V
6	5.459	33.59	RMS	34.6	-21.4	.44	47.23	54	-6.77	-	-	91	364	V
1	5.46	43.29	PK	34.6	-21.4	0	56.49	-	-	74	-17.51	91	364	V
5	5.46	32.91	RMS	34.6	-21.4	.44	46.55	54	-7.45	-	-	91	364	V
4	5.461	44.91	PK	34.6	-21.4	0	58.11	-	-	68.2	-10.09	91	364	V
3	5.47	42.79	PK	34.6	-21.3	0	56.09	-	-	68.2	-12.11	91	364	V
7	5.47	33.22	RMS	34.6	-21.3	.44	46.96	-	-	-	-	91	364	V
8	5.47	33.71	RMS	34.6	-21.3	.44	47.45	-	-	-	-	91	364	V

PK - Peak detector

RMS - RMS detection

AUTHORIZED BANDEDGE

HORIZONTAL PEAK AND AVERAGE PLOT

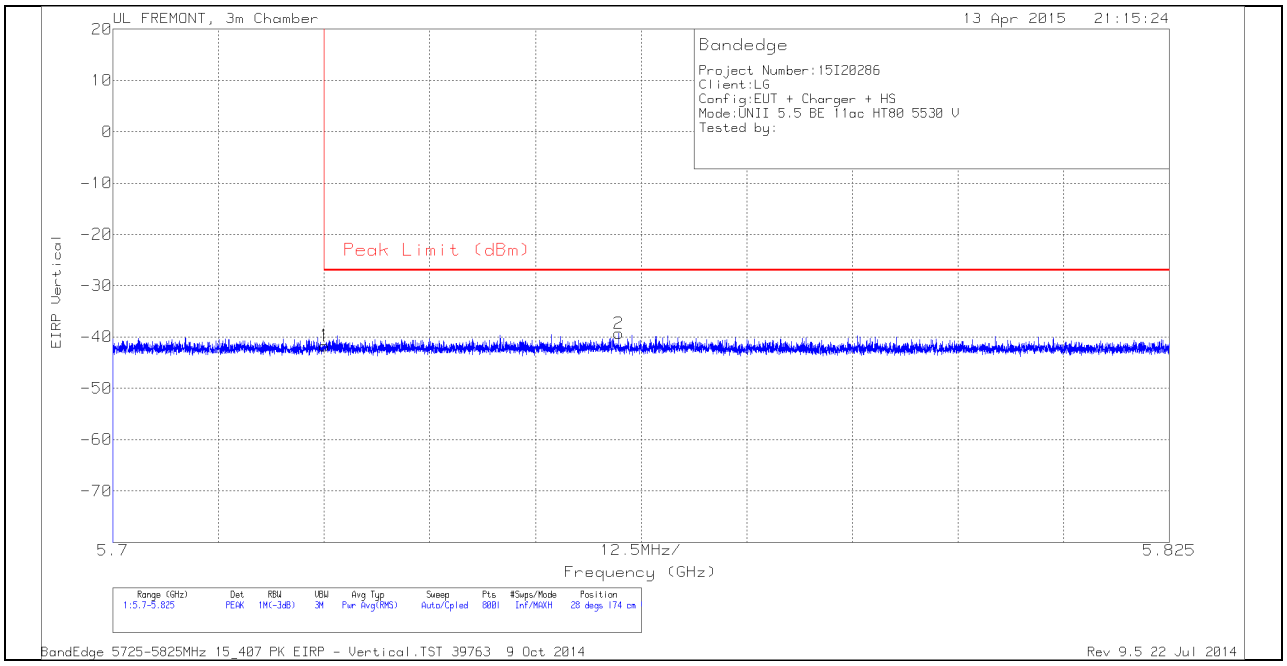


HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T119 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Conversion Factor (dB)	DC Corr (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.725	-67.48	PK	34.8	-21.1	11.8	0	-41.98	-27	-14.98	89	231	H
2	5.748	-64.96	PK	34.8	-21.2	11.8	0	-39.56	-27	-12.56	89	231	H

PK - Peak detector

VERTICAL PEAK AND AVERAGE PLOT



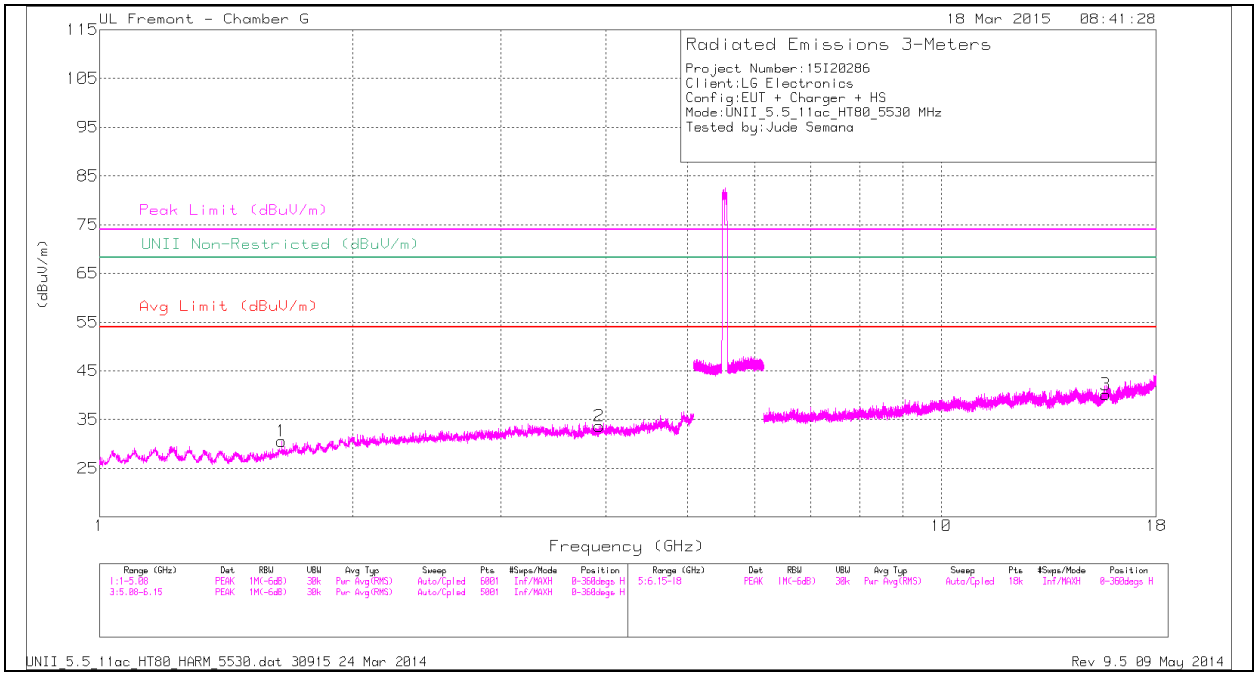
VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T119 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Conversio n Factor (dB)	DC Corr (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.725	-67.18	PK	34.8	-21.1	11.8	0	-41.68	-27	-14.68	28	174	V
2	5.76	-64.61	PK	34.8	-21.3	11.8	0	-39.31	-27	-12.31	28	174	V

PK - Peak detector

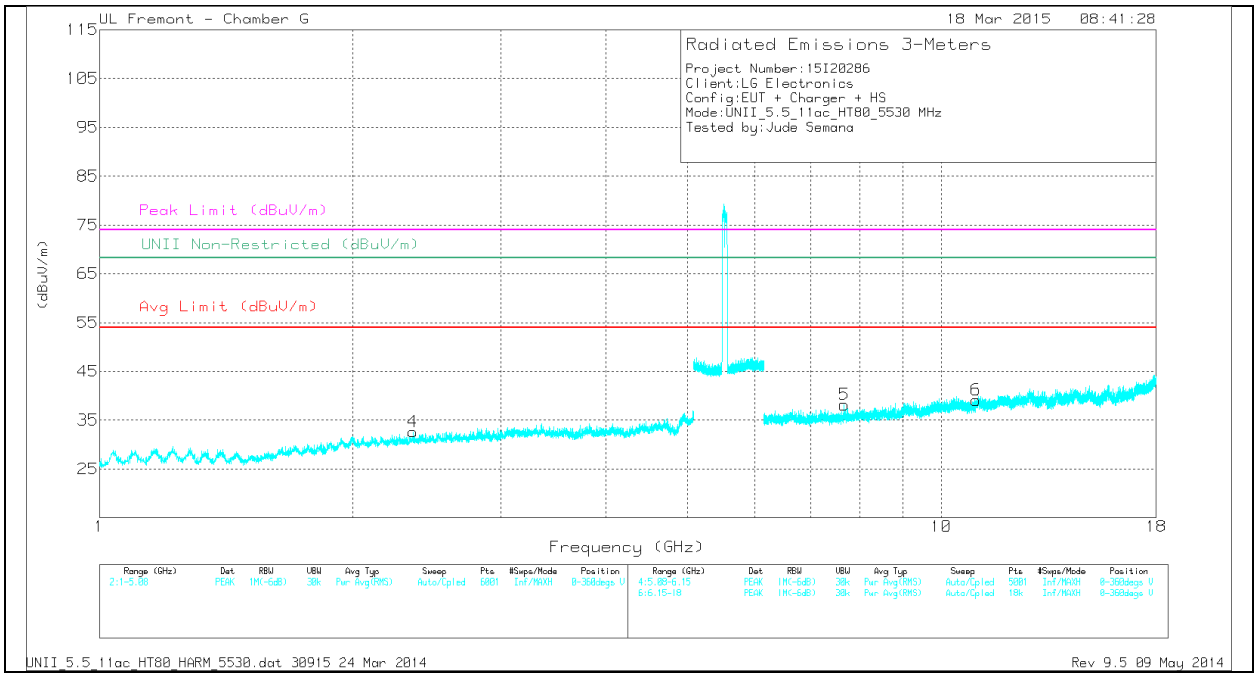
HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



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 VERTICAL



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

LOW CHANNEL DATA

TRACE MARKERS

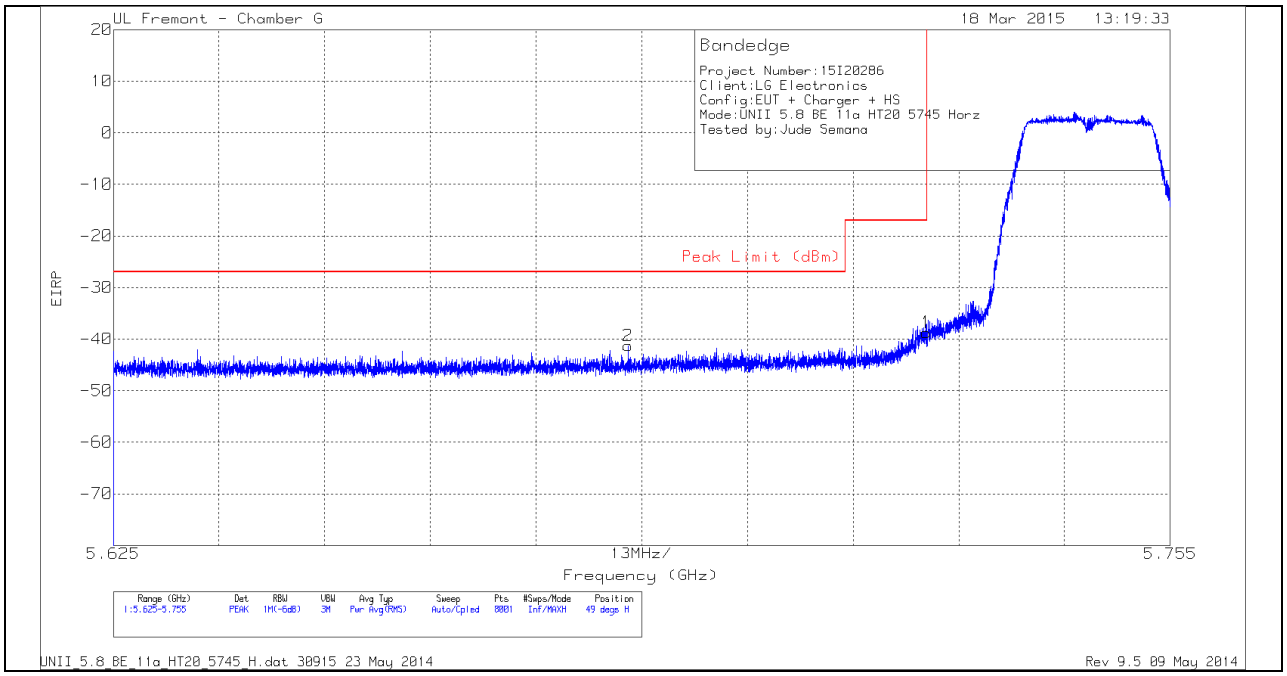
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 3.924	34.1	PK	33.2	-33.6	0	33.7	-	-	74	-40.3	-	-	0-360	201	H
4	* 2.358	35.35	PK	31.7	-34.4	0	32.65	-	-	74	-41.35	-	-	0-360	201	V
3	* 15.681	27.65	PK	40.1	-27.6	0	40.15	-	-	74	-33.85	-	-	0-360	101	H
5	* 7.669	33.11	PK	35.7	-30.6	0	38.21	-	-	74	-35.79	-	-	0-360	201	V
6	* 11.003	28.25	PK	37.8	-26.9	0	39.15	-	-	74	-34.85	-	-	0-360	201	V
1	1.647	36.26	PK	28.9	-34.6	0	30.56	-	-	-	-	68.2	-37.64	0-360	101	H

PK - Peak detector

12.4. 5.8 GHz

12.4.1. TX ABOVE 1 GHz 802.11a MODE IN THE 5.8 GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



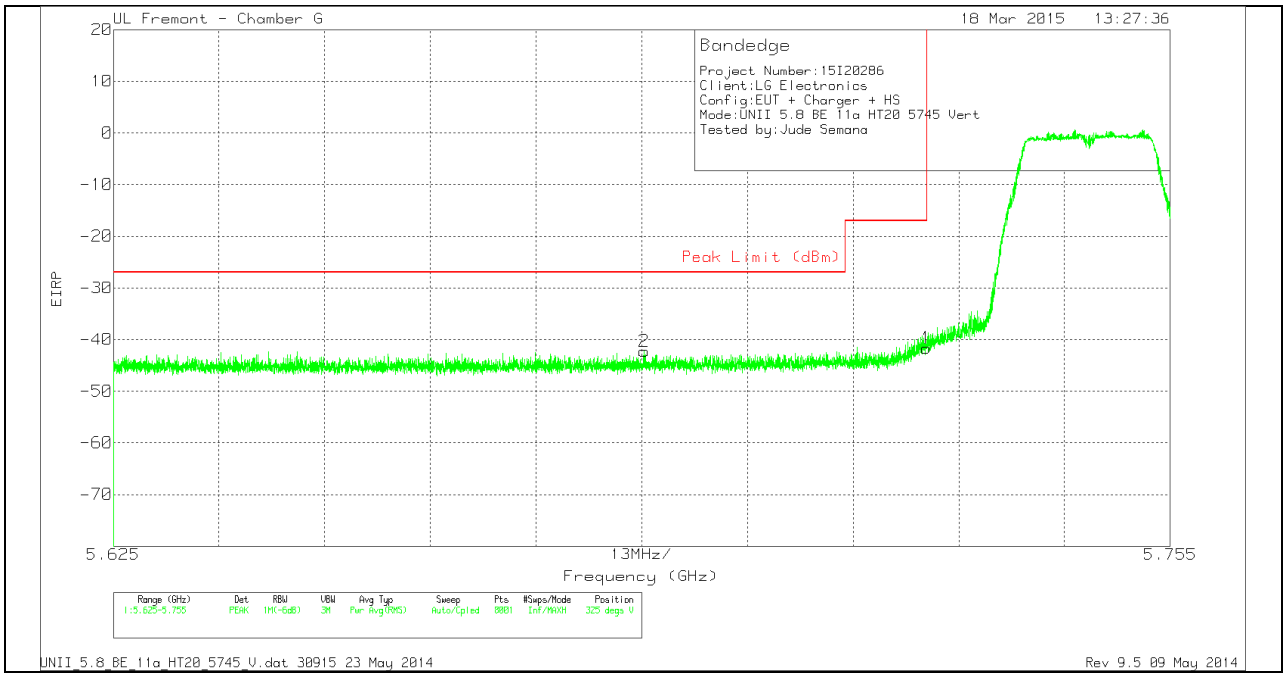
HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T862 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Conversion Factor (dB)	DC Corr (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	5.688	-64.39	PK	34.8	-23.5	11.8	0	-41.29	-27	-14.29	49	327	H
1	5.725	-61.87	PK	34.8	-23.5	11.8	0	-38.77	-17	-21.77	49	327	H

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

PK - Peak detector

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

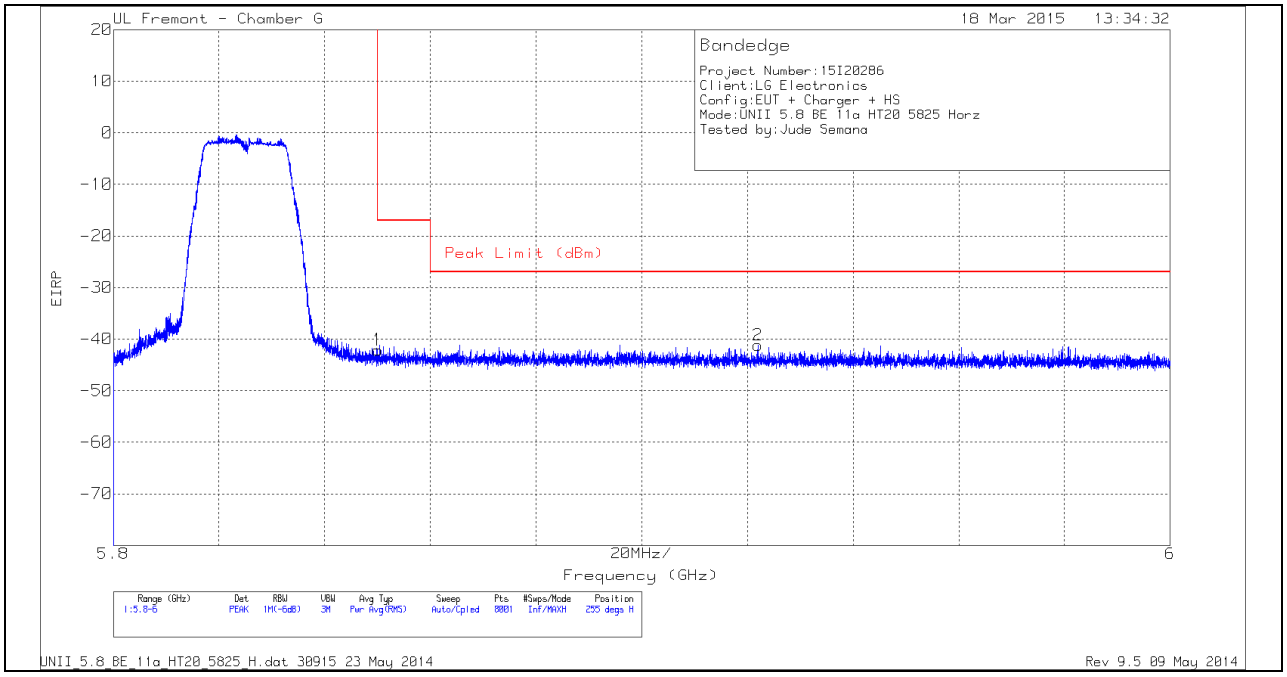
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T862 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Conversion Factor (dB)	DC Corr (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	5.69	-65.38	PK	34.8	-23.5	11.8	0	-42.28	-27	-15.28	325	399	V
1	5.725	-64.78	PK	34.8	-23.5	11.8	0	-41.68	-17	-24.68	325	399	V

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

PK - Peak detector

AUTHORIZED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



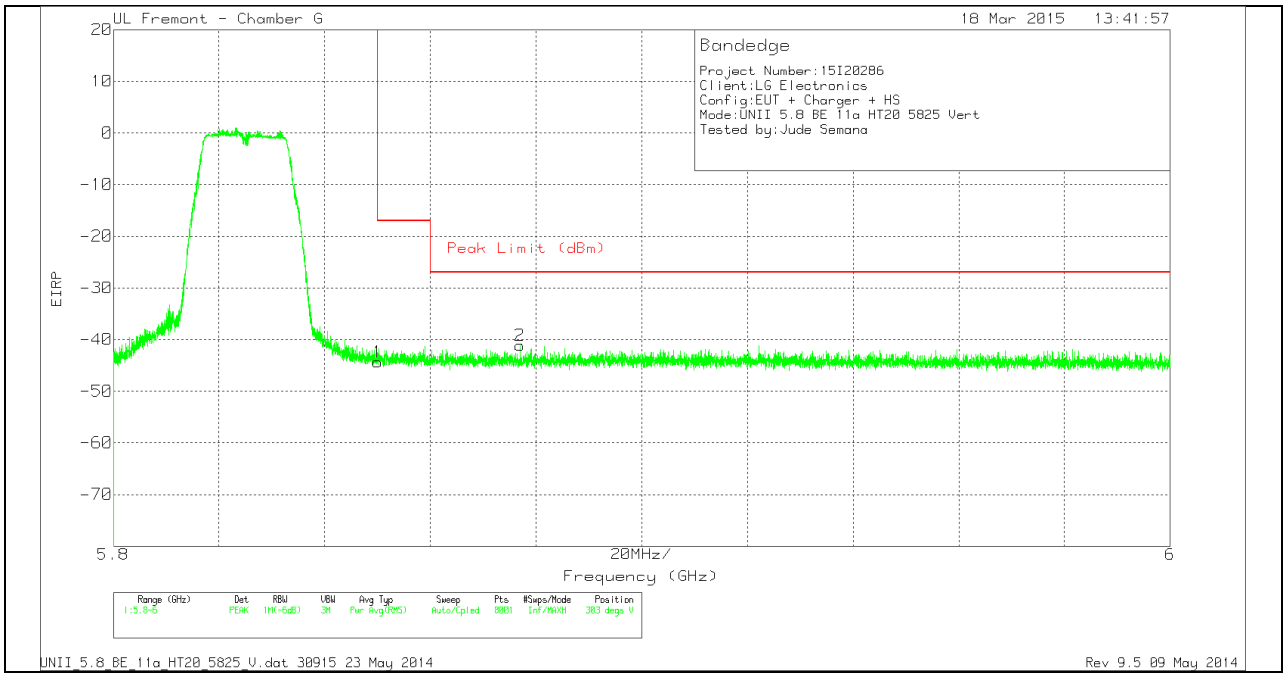
HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T862 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Conversion Factor (dB)	DC Corr (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.85	-65.34	PK	35	-23.6	11.8	0	-42.14	-17	-25.14	255	356	H
2	5.922	-64.5	PK	35.1	-23.6	11.8	0	-41.2	-27	-14.2	255	356	H

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

PK - Peak detector

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

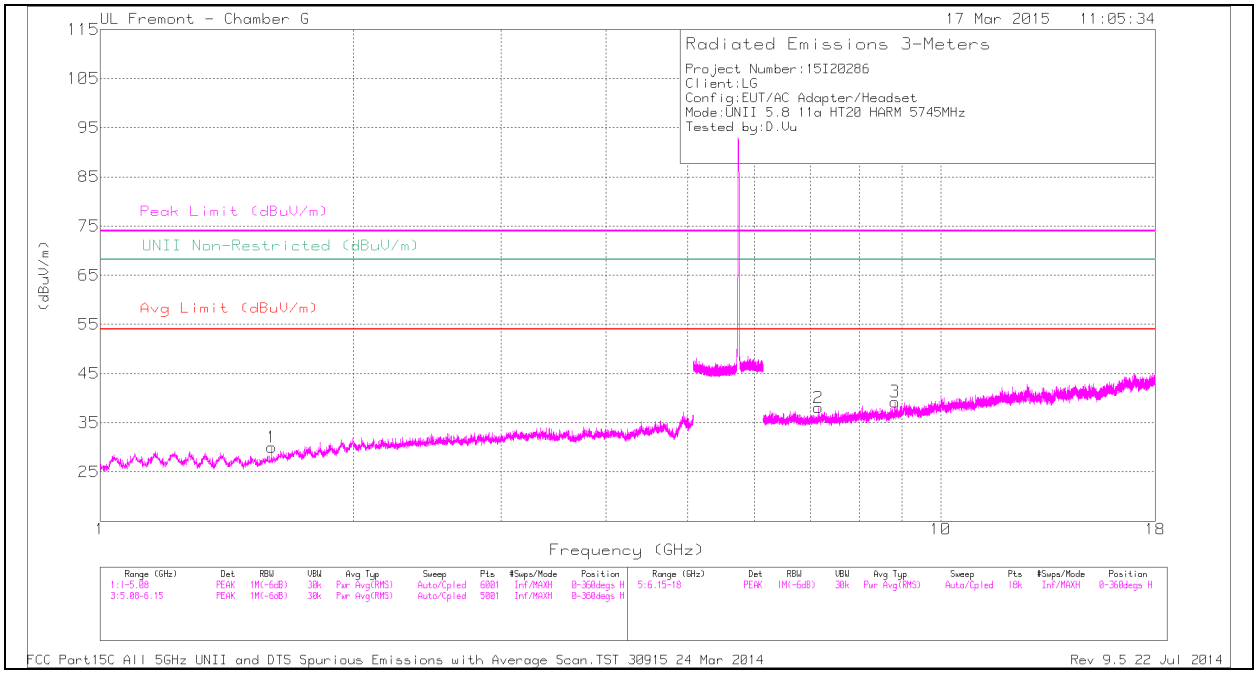
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T862 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Conversion Factor (dB)	DC Corr (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.85	-67.57	PK	35	-23.6	11.8	0	-44.37	-17	-27.37	303	353	V
2	5.877	-64.34	PK	35	-23.6	11.8	0	-41.14	-27	-14.14	303	353	V

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

PK - Peak detector

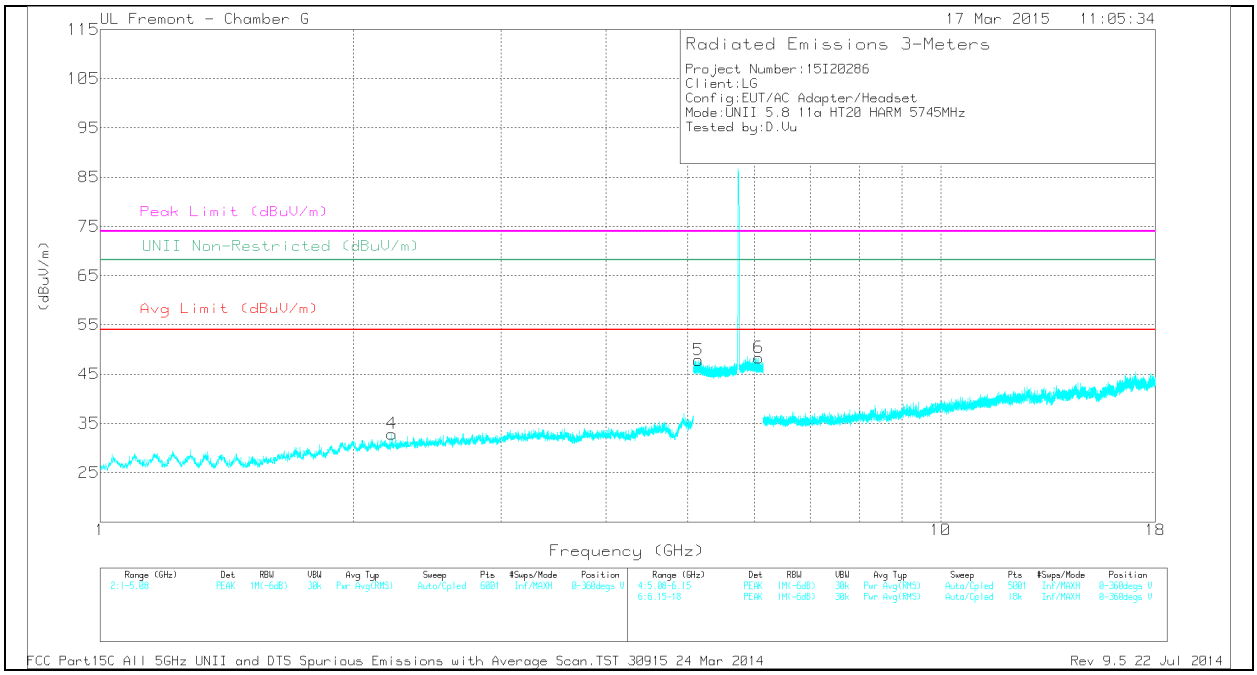
HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



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 VERTICAL



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

LOW CHANNEL DATA

TRACE MARKERS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/ Fltr/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	* 1.6	36.72	PK	28.6	-35.3	0	30.02	-	-	74	-43.98	-	-	0-360	101	H
4	* 2.225	36.09	PK	31.5	-34.7	0	32.89	-	-	74	-41.11	-	-	0-360	201	V
5	* 5.148	37.14	PK	34.3	-23.6	0	47.84	-	-	74	-26.16	-	-	0-360	101	V
6	6.071	36.54	PK	35.3	-23.5	0	48.34	-	-	-	-	68.2	-19.86	0-360	101	V
2	7.151	34.23	PK	35.6	-31.8	0	38.03	-	-	-	-	68.2	-30.17	0-360	101	H
3	8.823	31.76	PK	36.1	-28.6	0	39.26	-	-	-	-	68.2	-28.94	0-360	201	H

* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

PK - Peak detector

RADIATED EMISSIONS

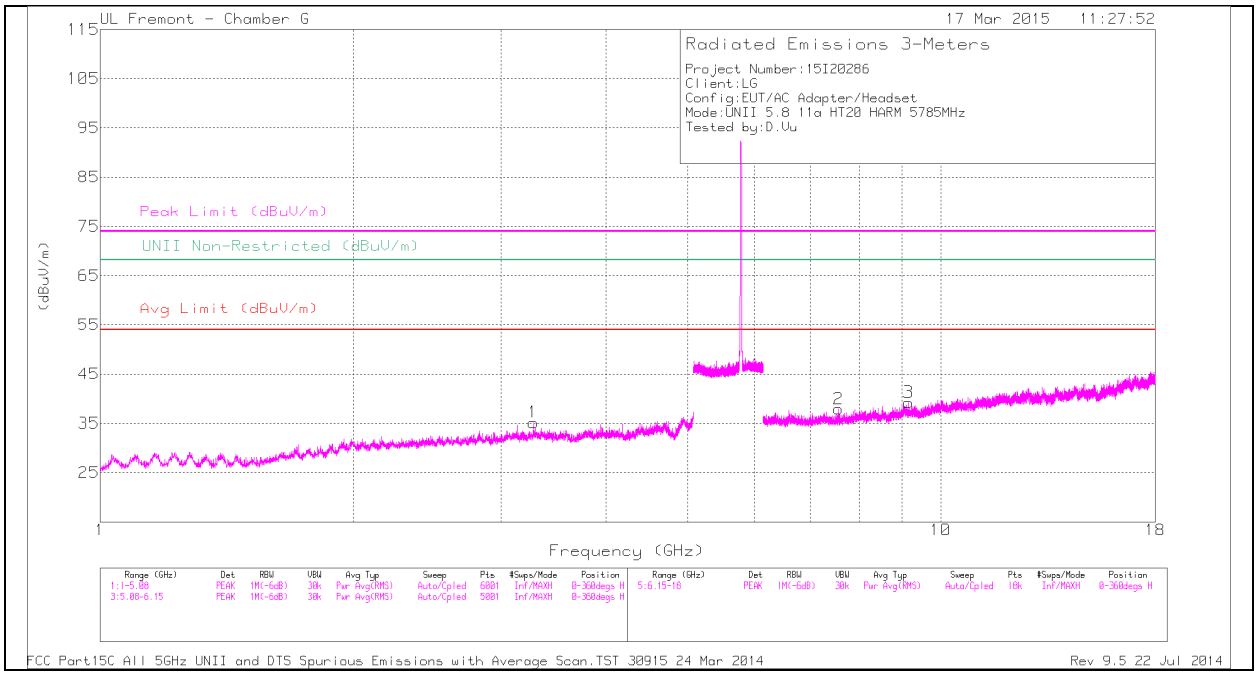
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 5.15	43.81	PK1	34.3	-23.6	0	54.51	-	-	74	-19.49	-	-	0	101	V
* 5.149	32.7	AD1	34.3	-23.6	.41	43.81	54	-10.19	-	-	-	-	0	101	V

* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

PK1 - KDB789033 Method: Peak

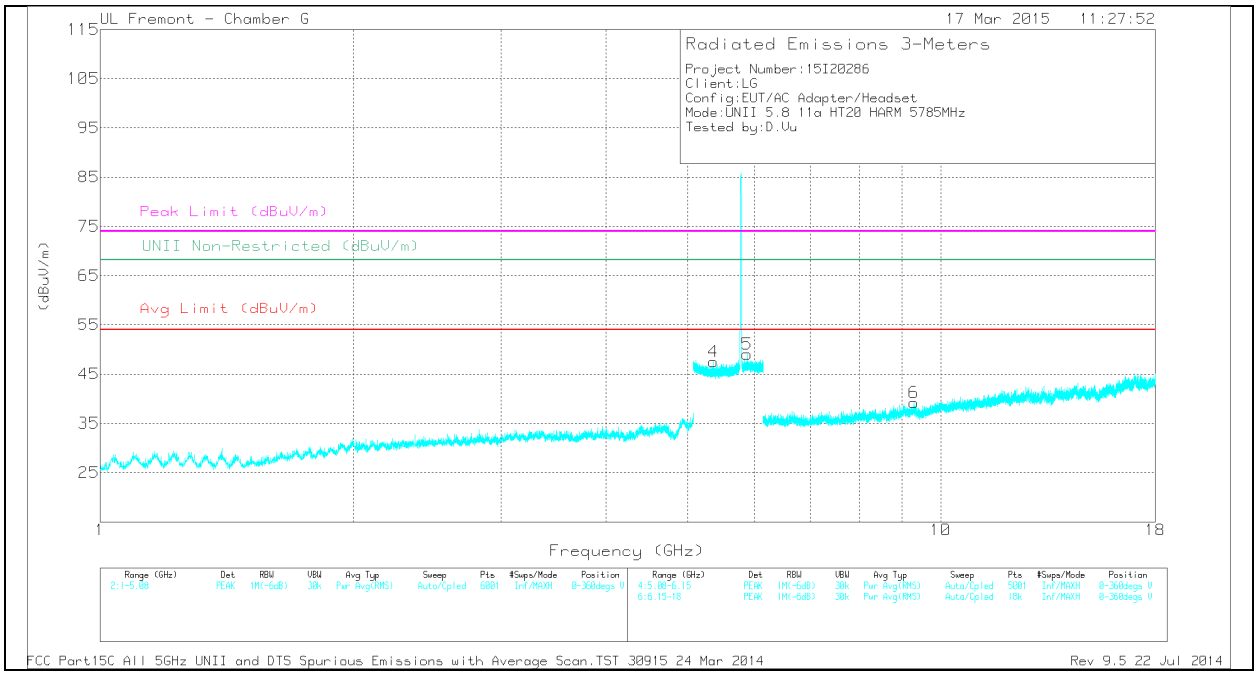
AD1 - KDB789033 Method: AD Primary Power Average

MID CHANNEL HORIZONTAL



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 VERTICAL



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

MID CHANNEL DATA

TRACE MARKERS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/ Fltr/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	* 5.368	36.58	PK	34.6	-23.7	0	47.48	-	-	74	-26.52	-	-	0-360	101	V
2	* 7.56	33.23	PK	35.6	-30.9	0	37.93	-	-	74	-36.07	-	-	0-360	101	H
3	* 9.156	32.35	PK	36.5	-29.6	0	39.25	-	-	74	-34.75	-	-	0-360	101	H
1	3.277	35.88	PK	33	-33.7	0	35.18	-	-	-	-	68.2	-33.02	0-360	201	H
5	5.884	37.66	PK	35	-23.6	0	49.06	-	-	-	-	68.2	-19.14	0-360	201	V
6	9.289	31.52	PK	36.5	-28.8	0	39.22	-	-	-	-	68.2	-28.98	0-360	101	V

* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

PK - Peak detector

RADIATED EMISSIONS

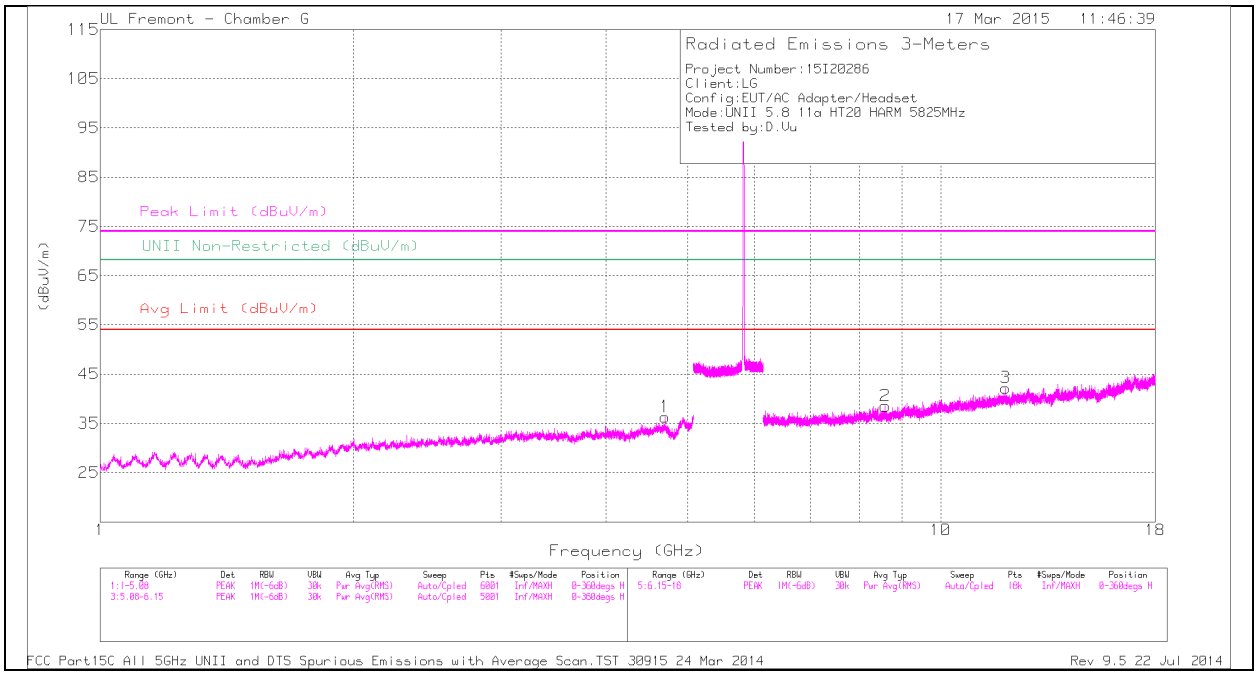
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 5.369	43.04	PK1	34.6	-23.7	0	53.94	-	-	74	-20.06	-	-	0	101	V
* 5.366	31.96	AD1	34.6	-23.7	.22	43.08	54	-10.92	-	-	-	-	0	101	V

* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

PK1 - KDB789033 Method: Peak

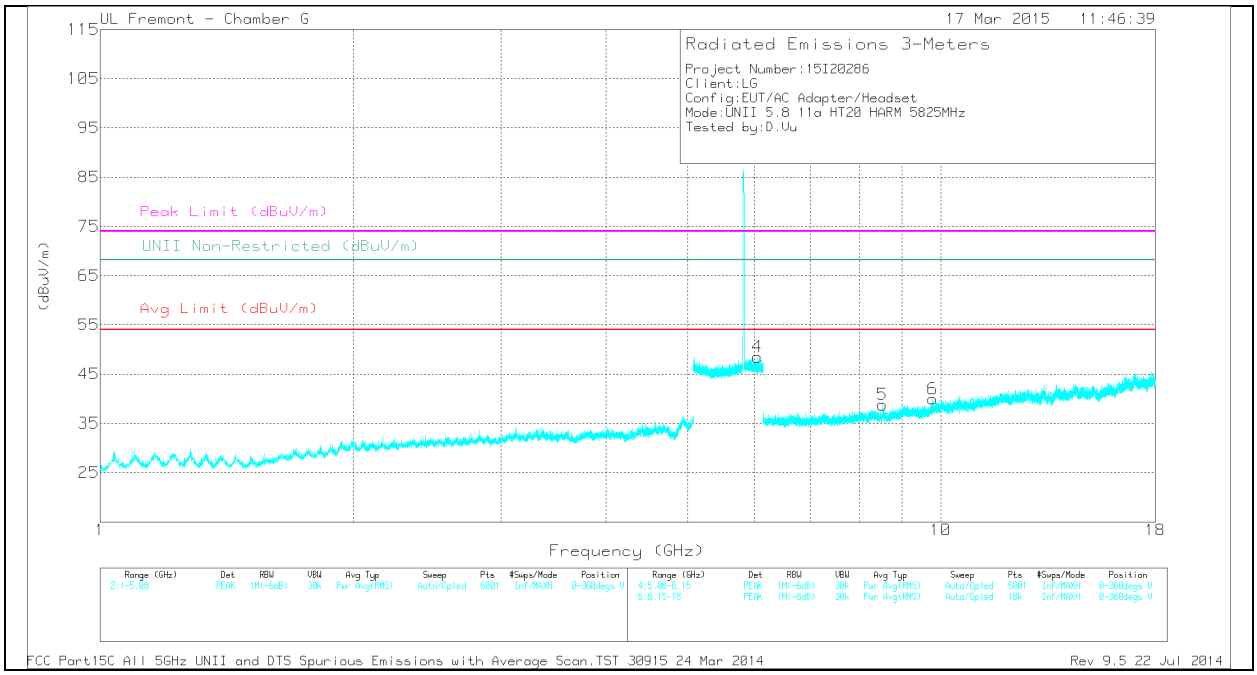
AD1 - KDB789033 Method: AD Primary Power Average

HIGH CHANNEL HORIZONTAL



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 VERTICAL



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

HIGH CHANNEL DATA

TRACE MARKERS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/ Fltr/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	* 4.701	35.22	PK	34	-32.9	0	36.32	-	-	74	-37.68	-	-	0-360	201	H
3	* 11.948	30.31	PK	38.8	-26.9	0	42.21	-	-	74	-31.79	-	-	0-360	100	H
4	6.05	36.69	PK	35.3	-23.5	0	48.49	-	-	-	-	68.2	-19.71	0-360	201	V
5	8.53	32.39	PK	35.8	-29.4	0	38.79	-	-	-	-	68.2	-29.41	0-360	101	V
2	8.592	31.52	PK	35.9	-28.9	0	38.52	-	-	-	-	68.2	-29.68	0-360	201	H
6	9.79	31.09	PK	37.1	-28.2	0	39.99	-	-	-	-	68.2	-28.21	0-360	101	V

* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

PK - Peak detector

RADIATED EMISSIONS

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Fltr/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
* 11.949	36.67	PK1	38.8	-26.9	0	48.57	-	-	74	-25.43	-	-	0	101	H
* 11.949	25.61	AD1	38.8	-26.9	.22	37.73	54	-16.27	-	-	-	-	0	101	H

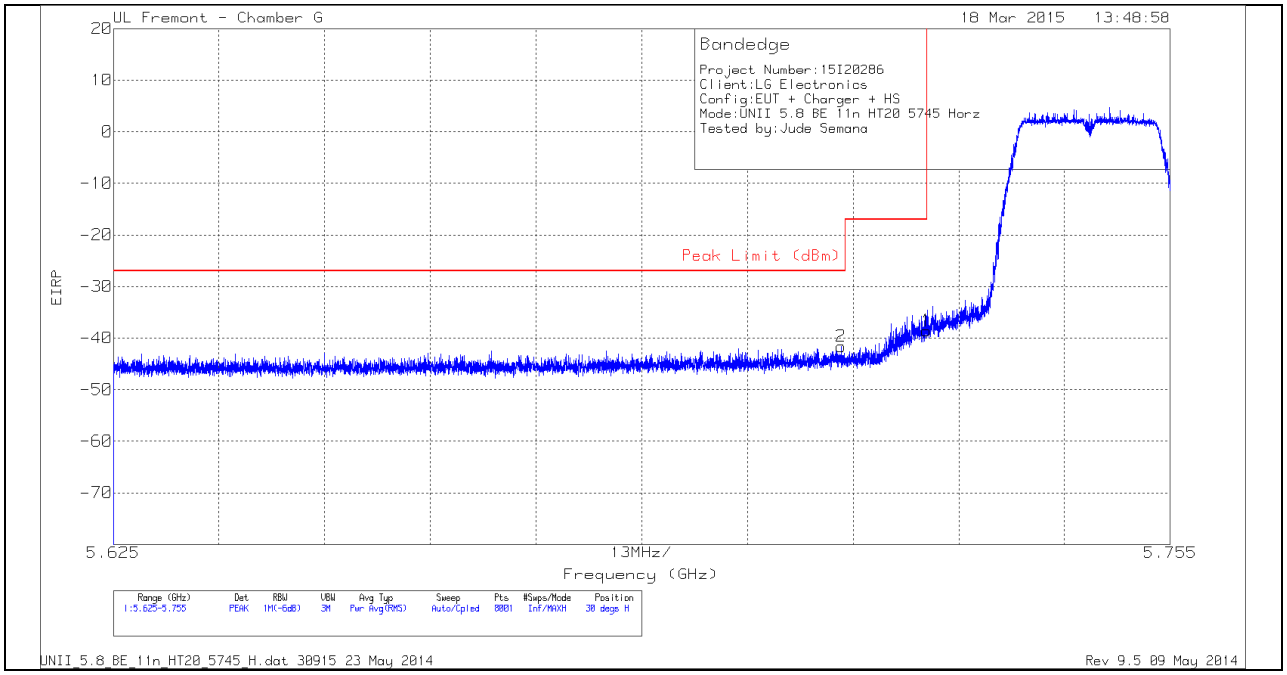
* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

PK1 - KDB789033 Method: Peak

AD1 - KDB789033 Method: AD Primary Power Average

12.4.2. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.8 GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



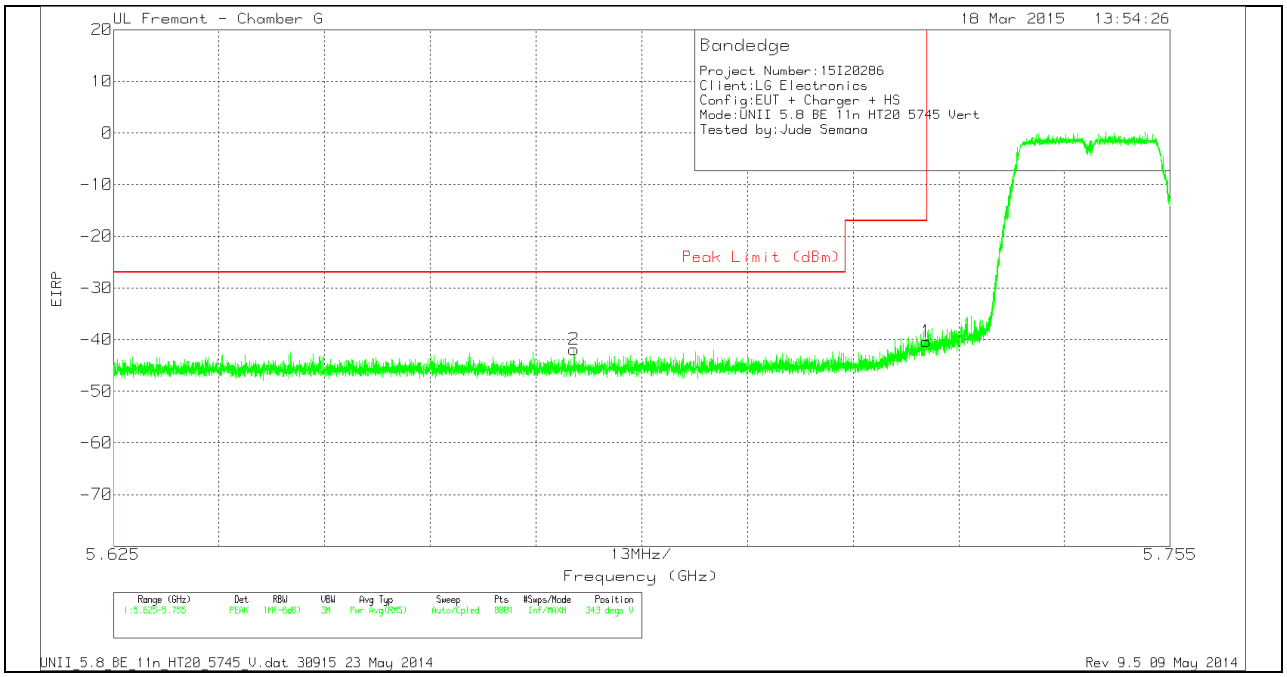
HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T862 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Conversion Factor (dB)	DC Corr (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	5.715	-64.69	PK	34.8	-23.5	11.8	0	-41.59	-27	-14.59	30	324	H
1	5.725	-61.71	PK	34.8	-23.5	11.8	0	-38.61	-17	-21.61	30	324	H

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

PK - Peak detector

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

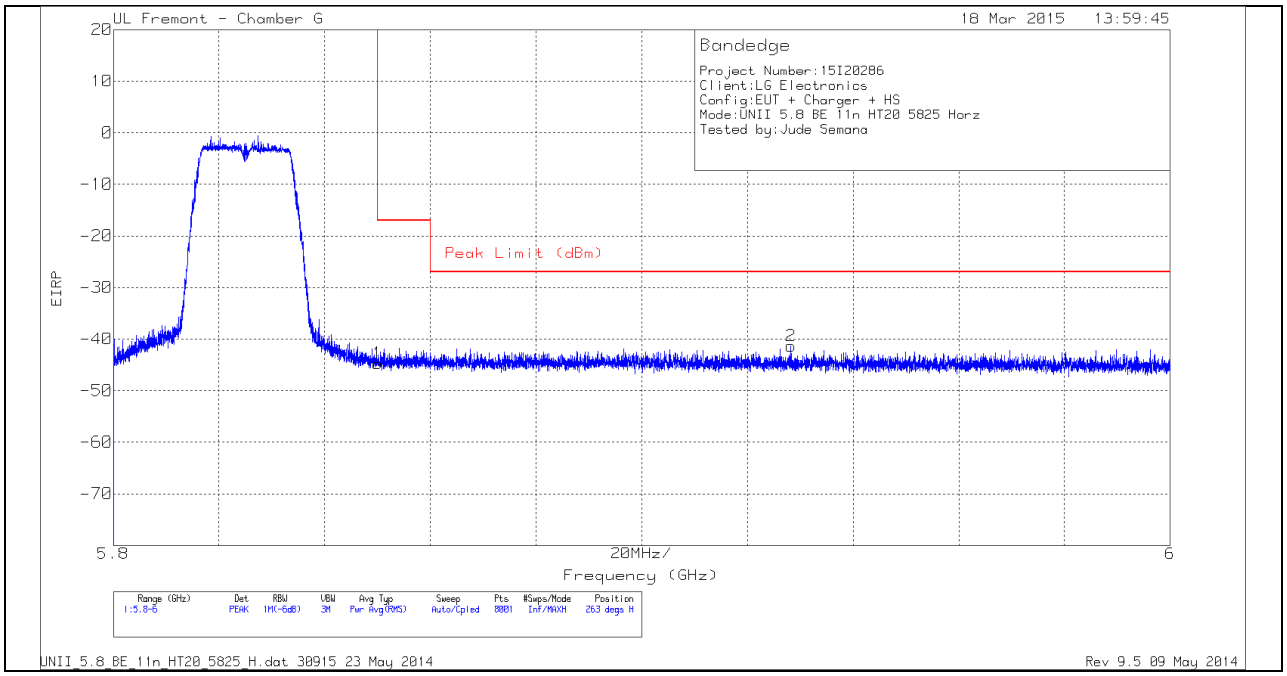
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T862 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Conversion Factor (dB)	DC Corr (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	5.682	-64.99	PK	34.8	-23.5	11.8	0	-41.89	-27	-14.89	343	396	V
1	5.725	-63.47	PK	34.8	-23.5	11.8	0	-40.37	-17	-23.37	343	396	V

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

PK - Peak detector

AUTHORIZED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



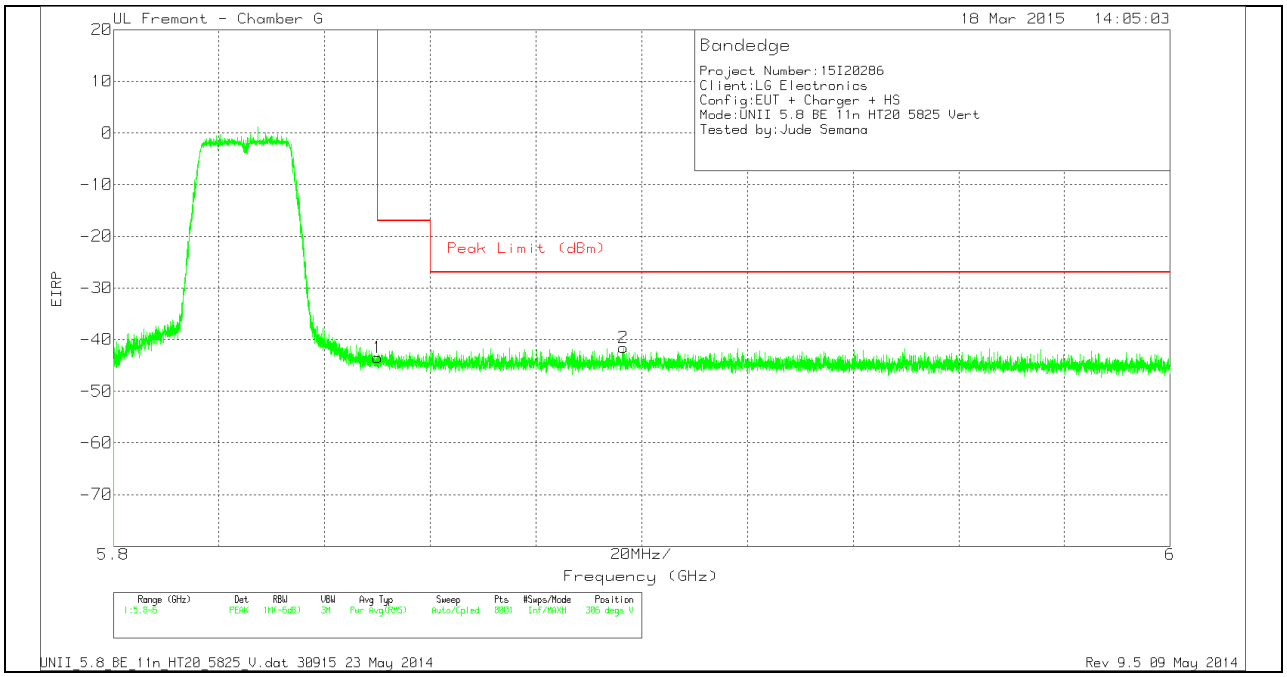
HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T862 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Conversion Factor (dB)	DC Corr (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.85	-67.94	PK	35	-23.6	11.8	0	-44.74	-17	-27.74	263	354	H
2	5.928	-64.65	PK	35.1	-23.6	11.8	0	-41.35	-27	-14.35	263	354	H

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

PK - Peak detector

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

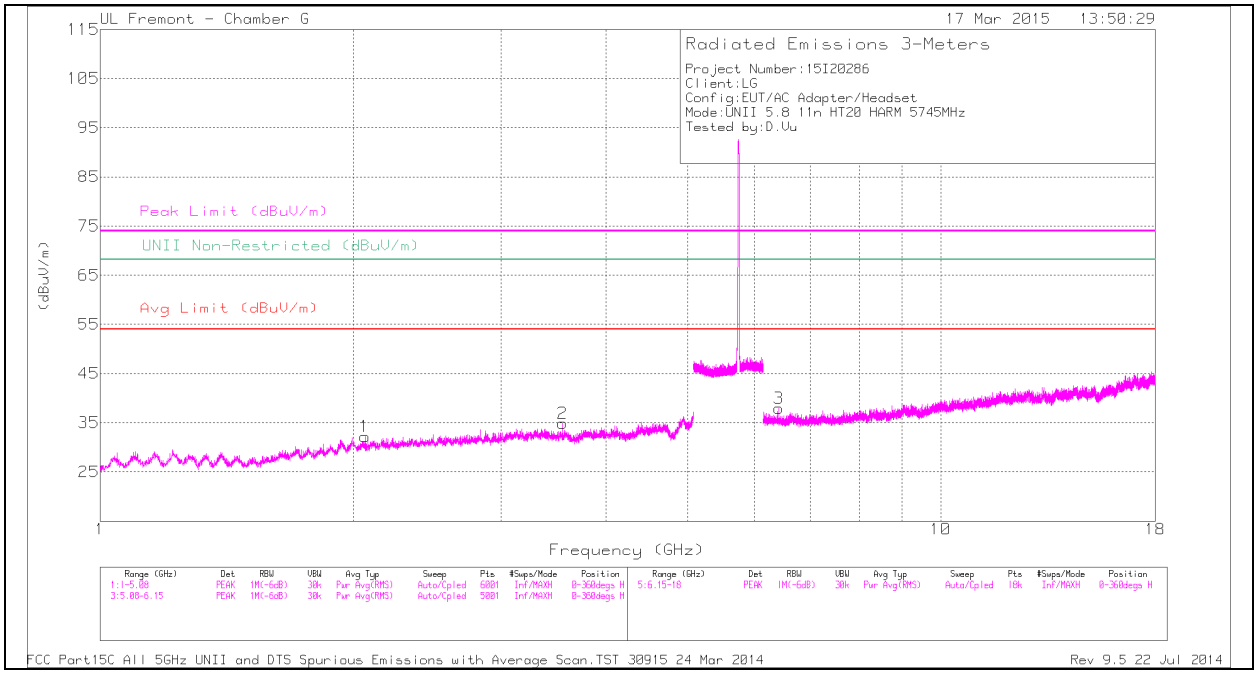
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T862 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Conversion Factor (dB)	DC Corr (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.85	-66.68	PK	35	-23.6	11.8	0	-43.48	-17	-26.48	306	320	V
2	5.897	-64.78	PK	35	-23.6	11.8	0	-41.58	-27	-14.58	306	320	V

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

PK - Peak detector

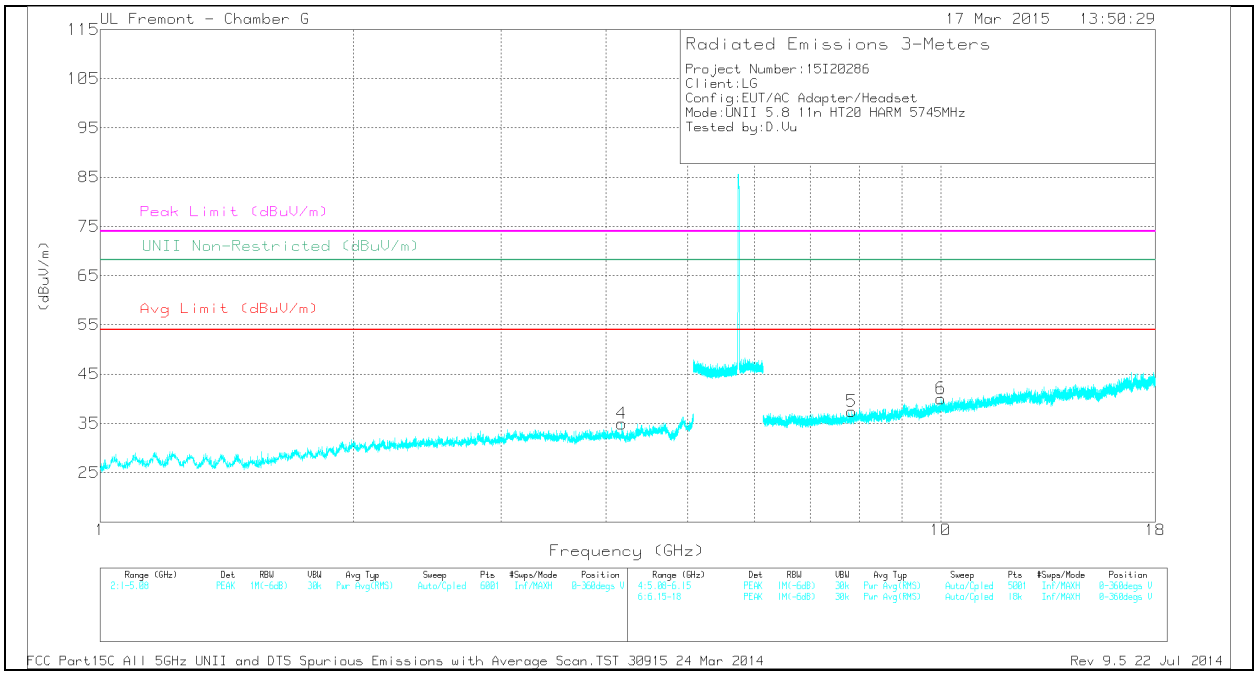
HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



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 VERTICAL



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

LOW CHANNEL DATA

TRACE MARKERS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/ Fltr/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
2	* 3.549	35.57	PK	32.8	-33.5	0	34.87	-	-	74	-39.13	-	-	0-360	201	H
4	* 4.175	34.75	PK	33.4	-33.2	0	34.95	-	-	74	-39.05	-	-	0-360	101	V
1	2.066	35.68	PK	31.4	-34.9	0	32.18	-	-	-	-	68.2	-36.02	0-360	201	H
3	6.42	34.21	PK	35.6	-31.9	0	37.91	-	-	-	-	68.2	-30.29	0-360	101	H
5	7.839	32.14	PK	35.7	-30.4	0	37.44	-	-	-	-	68.2	-30.76	0-360	101	V
6	10.012	30.33	PK	37.4	-27.7	0	40.03	-	-	-	-	68.2	-28.17	0-360	201	V

* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

PK - Peak detector

RADIATED EMISSIONS

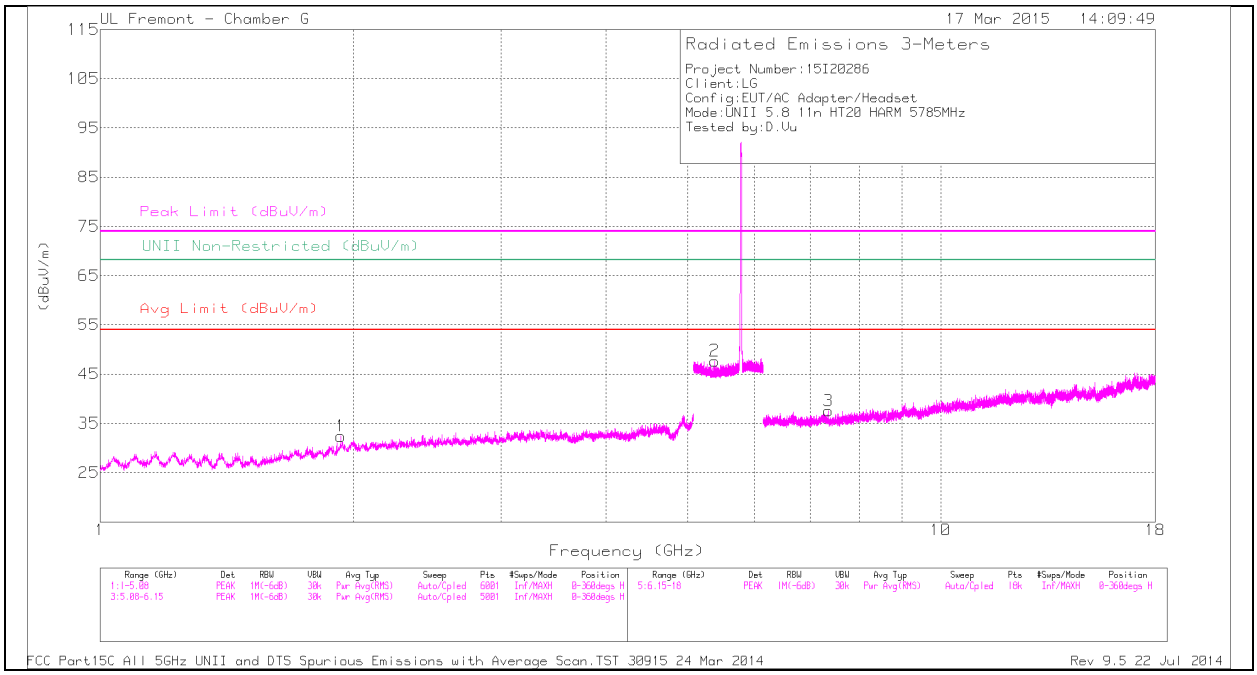
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.177	40.92	PK1	33.4	-33.2	0	41.12	-	-	74	-32.88	-	-	0	101	V
* 4.175	29.93	AD1	33.4	-33.2	.22	30.35	54	-23.65	-	-	-	-	0	101	V

* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

PK1 - KDB789033 Method: Peak

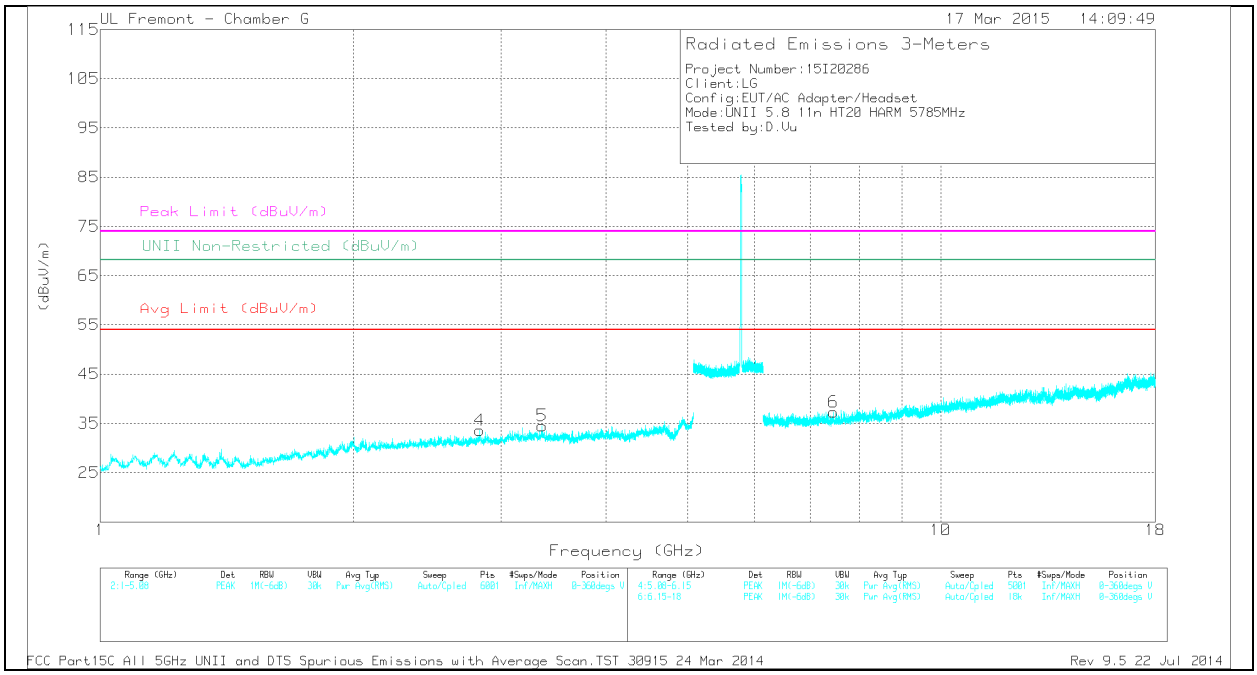
AD1 - KDB789033 Method: AD Primary Power Average

MID CHANNEL HORIZONTAL



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 VERTICAL



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

MID CHANNEL DATA

TRACE MARKERS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/ Fltr/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	* 2.828	34.99	PK	32.3	-33.7	0	33.59	-	-	74	-40.41	-	-	0-360	101	V
5	* 3.357	34.81	PK	32.9	-33.2	0	34.51	-	-	74	-39.49	-	-	0-360	201	V
2	* 5.386	36.69	PK	34.6	-23.6	0	47.69	-	-	74	-26.31	-	-	0-360	101	H
3	* 7.355	33.46	PK	35.6	-31.5	0	37.56	-	-	74	-36.44	-	-	0-360	101	H
6	* 7.454	32.88	PK	35.6	-31.2	0	37.28	-	-	74	-36.72	-	-	0-360	101	V
1	1.933	36.19	PK	30.8	-34.6	0	32.39	-	-	-	-	68.2	-35.81	0-360	101	H

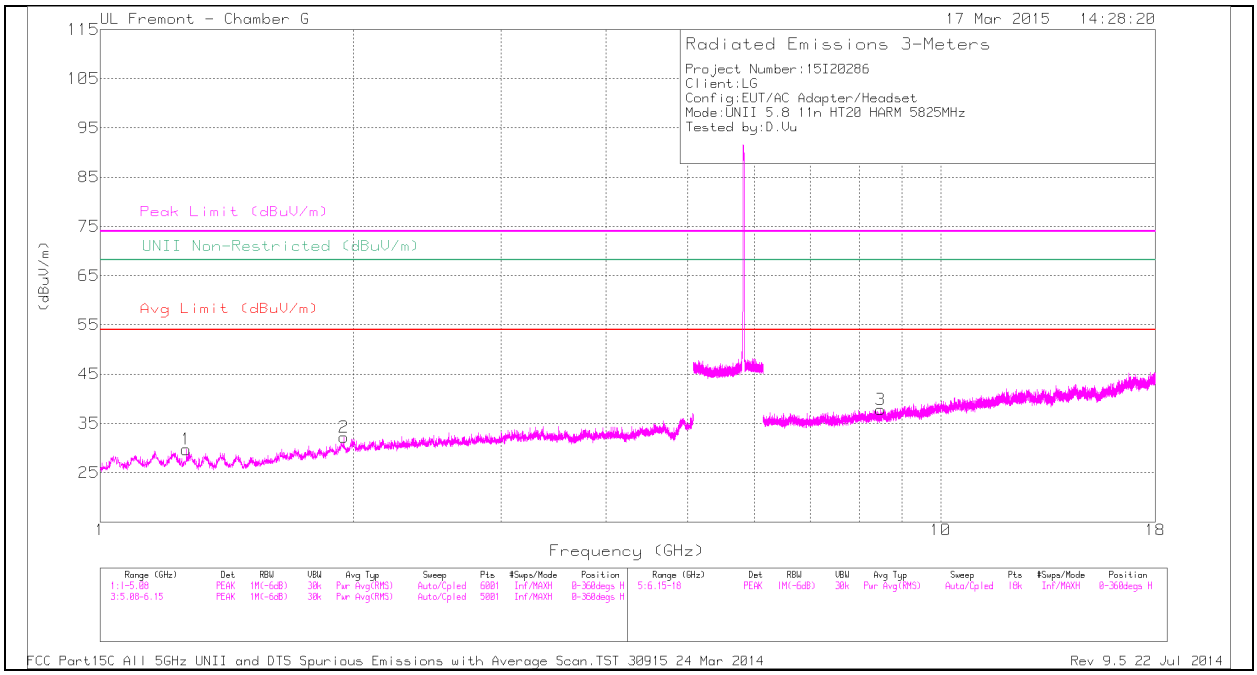
PK - Peak detector

RADIATED EMISSIONS

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Fltr/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
* 5.385	43	PK1	34.6	-23.6	0	54	-	-	74	-20	-	-	2	101	H
* 5.386	32.01	AD1	34.6	-23.6	.22	43.23	54	-10.77	-	-	-	-	2	101	H

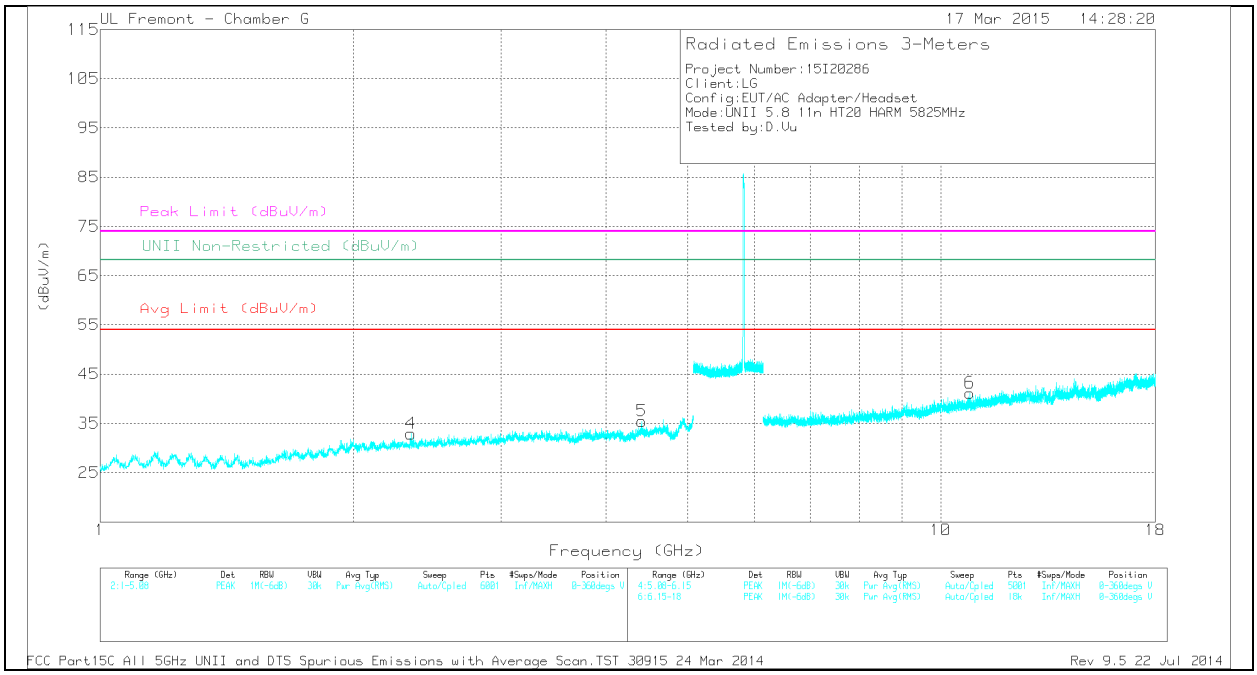
FCC Part15 Subpart C T186 2400MHz Spurious Emissions.TST 12746Rev 9.5 12 Jun 2013

HIGH CHANNEL HORIZONTAL



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 VERTICAL



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

HIGH CHANNEL DATA

TRACE MARKERS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/ Fltr/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	* 1.267	36.51	PK	29.1	-35.9	0	29.71	-	-	74	-44.29	-	-	0-360	101	H
4	* 2.343	35.71	PK	31.7	-34.5	0	32.91	-	-	74	-41.09	-	-	0-360	101	V
3	* 8.477	31.98	PK	35.8	-30	0	37.78	-	-	74	-36.22	-	-	0-360	100	H
6	* 10.831	30.18	PK	37.7	-26.7	0	41.18	-	-	74	-32.82	-	-	0-360	201	V
2	1.95	35.77	PK	31	-34.6	0	32.17	-	-	-	-	68.2	-36.03	0-360	101	H
5	4.413	34.55	PK	33.6	-32.7	0	35.45	-	-	-	-	68.2	-32.75	0-360	101	V

PK - Peak detector

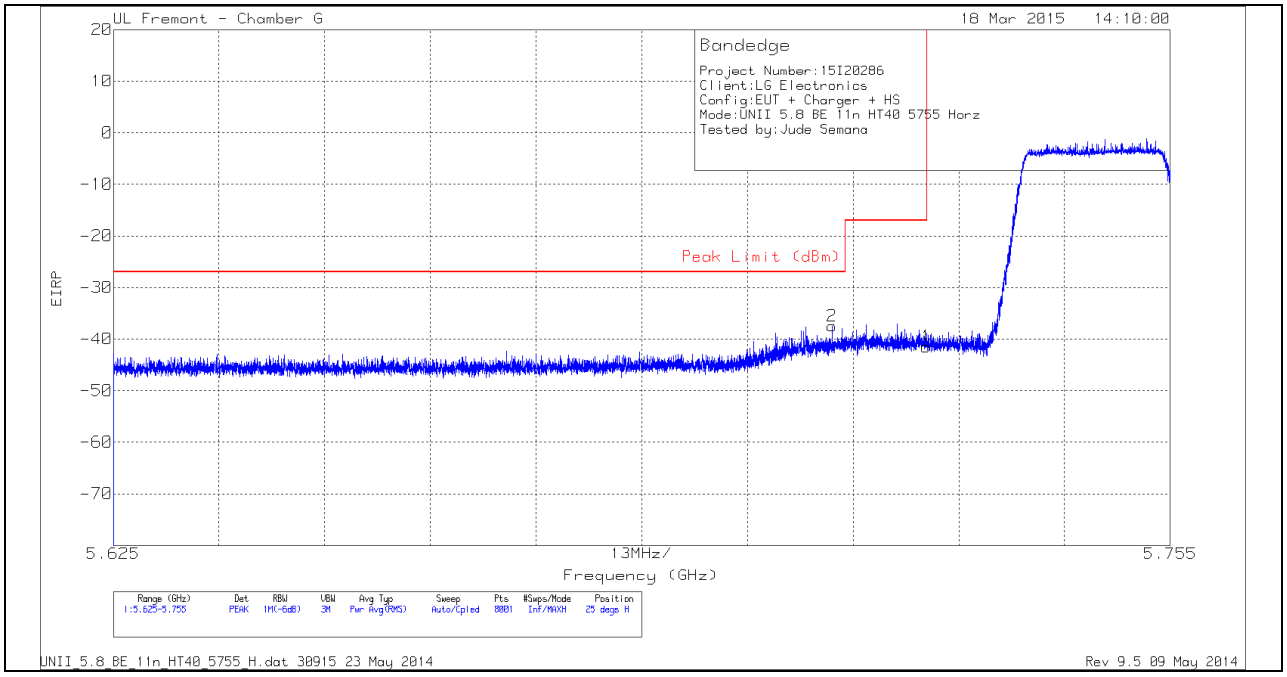
RADIATED EMISSIONS

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Fltr/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
* 8.476	39.69	PK1	35.8	-30.1	0	45.39	-	-	74	-28.61	-	-	0	101	H
* 8.477	28.45	AD1	35.8	-30	.22	34.47	54	-19.53	-	-	-	-	0	101	H

FCC Part15 Subpart C T186 2400MHz Spurious Emissions.TST 12746Rev 9.5 12 Jun 2013

TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.8 GHz BAND
RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



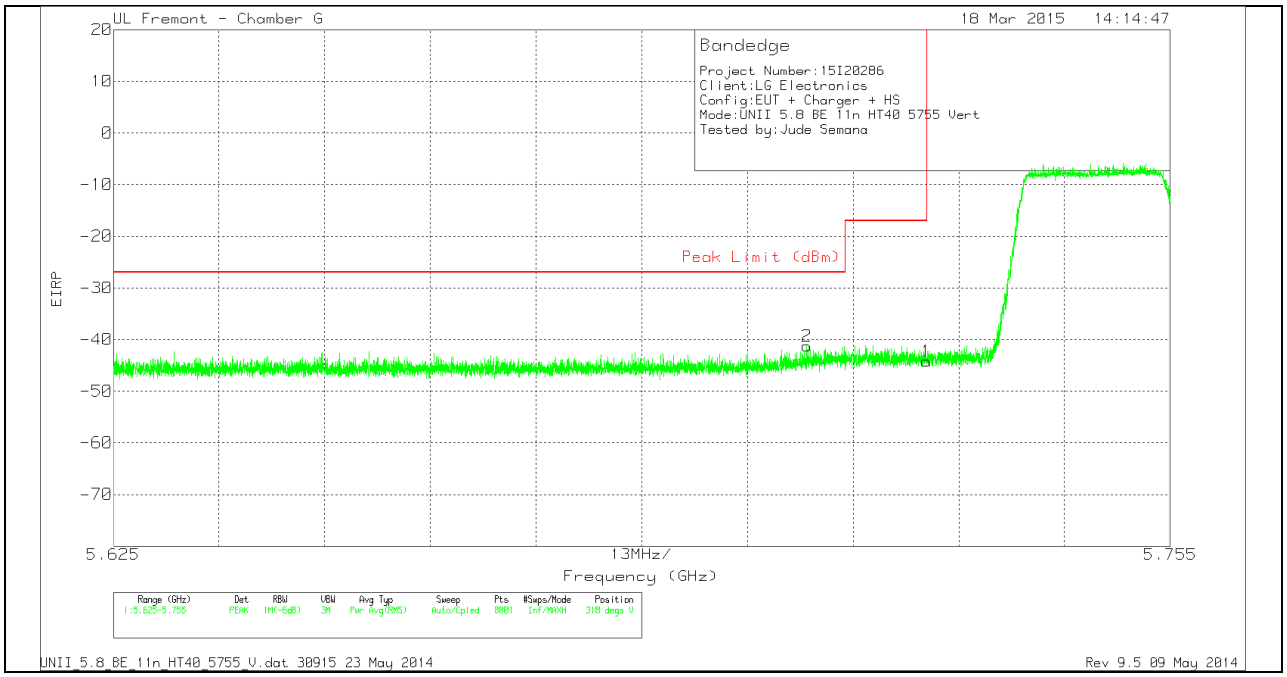
HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T862 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Conversion Factor (dB)	DC Corr (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	5.713	-60.56	PK	34.8	-23.5	11.8	0	-37.46	-27	-10.46	25	358	H
1	5.725	-64.54	PK	34.8	-23.5	11.8	0	-41.44	-17	-24.44	25	358	H

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

PK - Peak detector

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

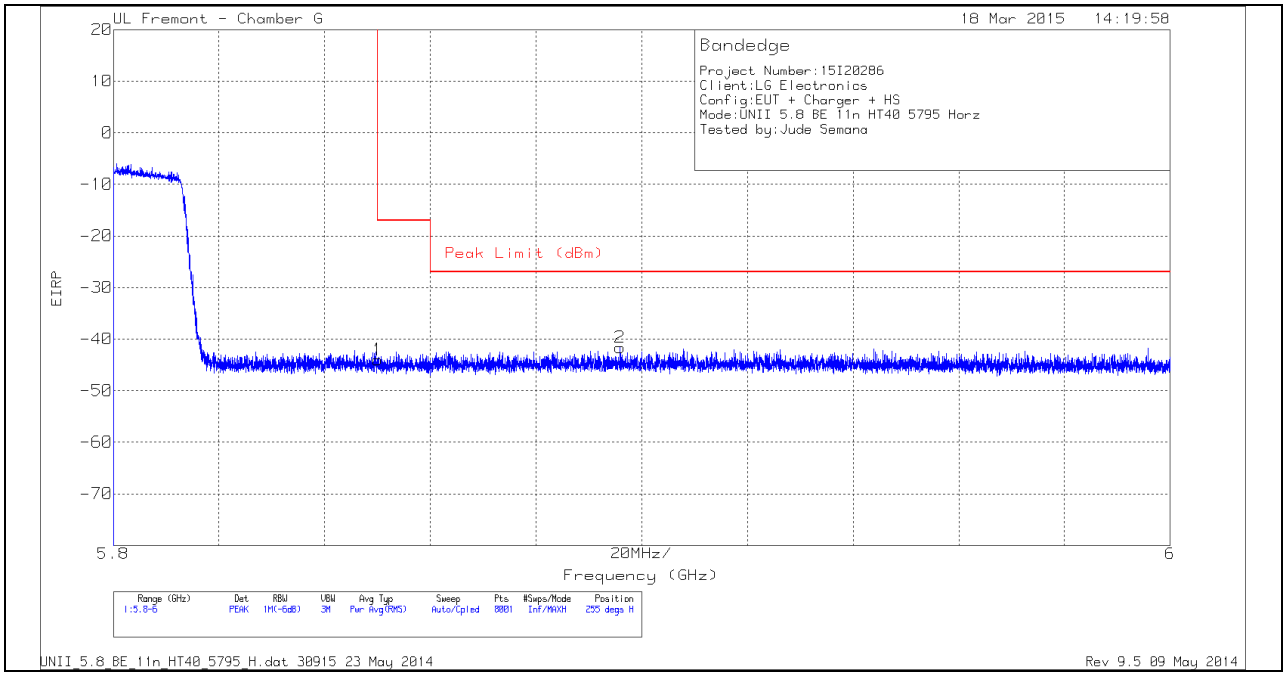
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T862 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Conversion Factor (dB)	DC Corr (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	5.71	-64.37	PK	34.8	-23.5	11.8	0	-41.27	-27	-14.27	318	401	V
1	5.725	-67.32	PK	34.8	-23.5	11.8	0	-44.22	-17	-27.22	318	401	V

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

PK - Peak detector

AUTHORIZED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



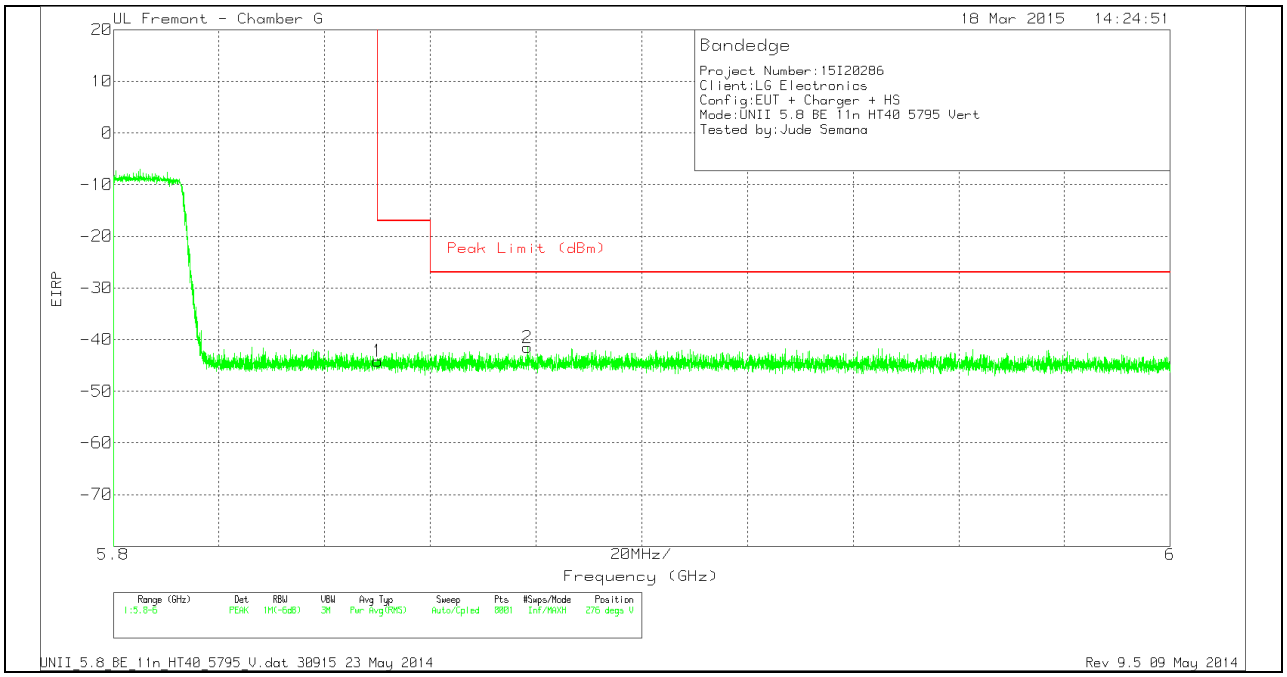
HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T862 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Conversion Factor (dB)	DC Corr (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.85	-67.23	PK	35	-23.6	11.8	0	-44.03	-17	-27.03	255	364	H
2	5.896	-64.86	PK	35	-23.6	11.8	0	-41.66	-27	-14.66	255	364	H

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

PK - Peak detector

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

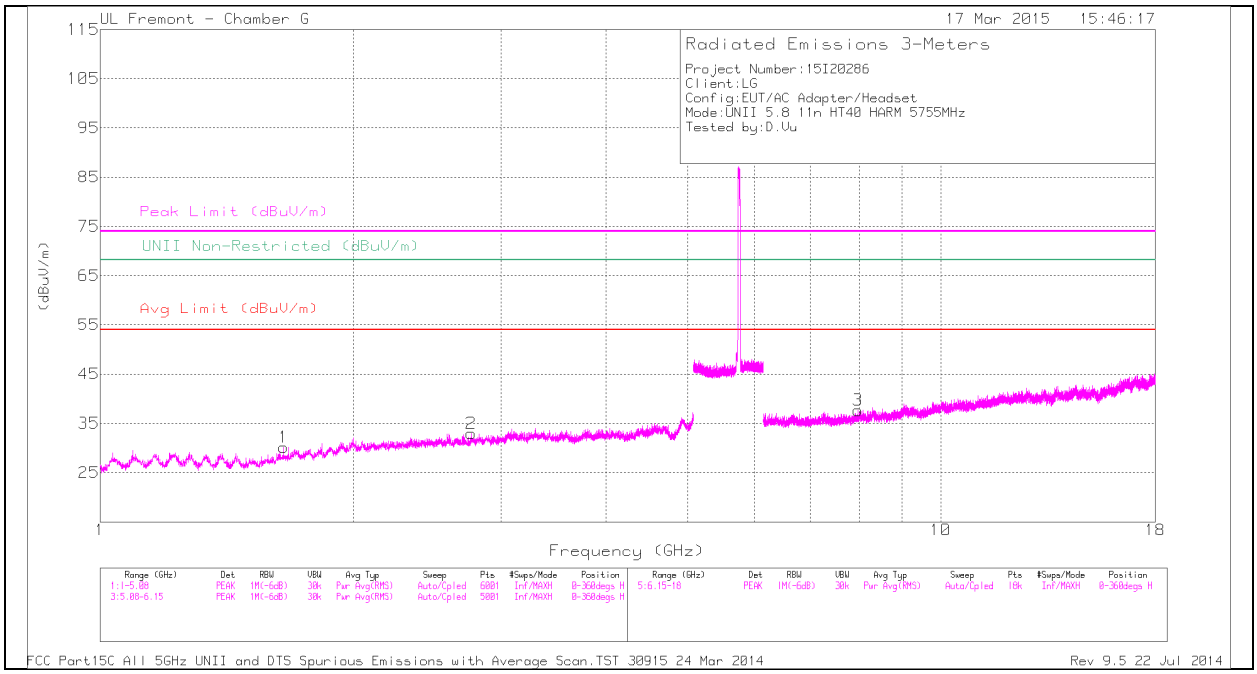
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T862 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Conversio n Factor (dB)	DC Corr (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.85	-67.39	PK	35	-23.6	11.8	0	-44.19	-17	-27.19	276	297	V
2	5.878	-64.74	PK	35	-23.6	11.8	0	-41.54	-27	-14.54	276	297	V

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

PK - Peak detector

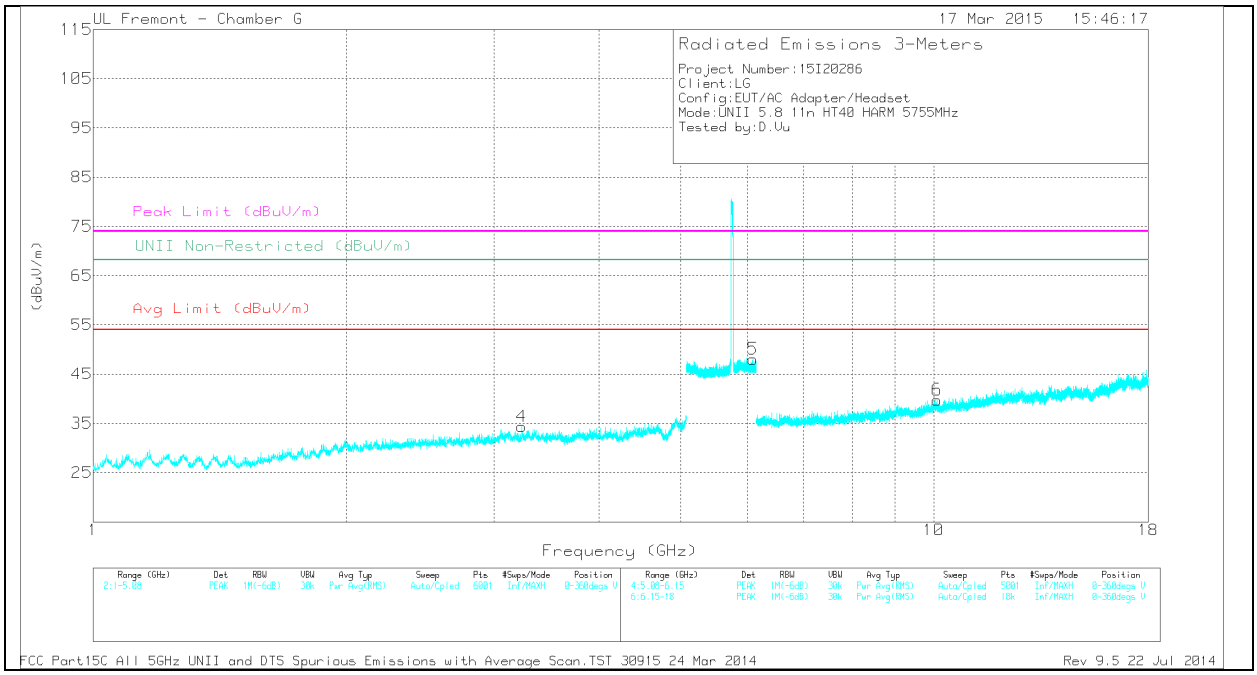
HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



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 VERTICAL



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

LOW CHANNEL DATA

TRACE MARKERS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/ Fltr/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
2	* 2.764	35.06	PK	32.2	-34.3	0	32.96	-	-	74	-41.04	-	-	0-360	101	H
1	1.653	35.81	PK	28.9	-34.6	0	30.11	-	-	-	-	68.2	-38.09	0-360	201	H
4	3.234	35.74	PK	33	-34.4	0	34.34	-	-	-	-	68.2	-33.86	0-360	101	V
5	6.094	36.16	PK	35.4	-23.5	0	48.06	-	-	-	-	68.2	-20.14	0-360	201	V
3	7.97	32.74	PK	35.8	-30.9	0	37.64	-	-	-	-	68.2	-30.56	0-360	100	H
6	10.1	30.37	PK	37.4	-28	0	39.77	-	-	-	-	68.2	-28.43	0-360	201	V

* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

PK - Peak detector

RADIATED EMISSIONS

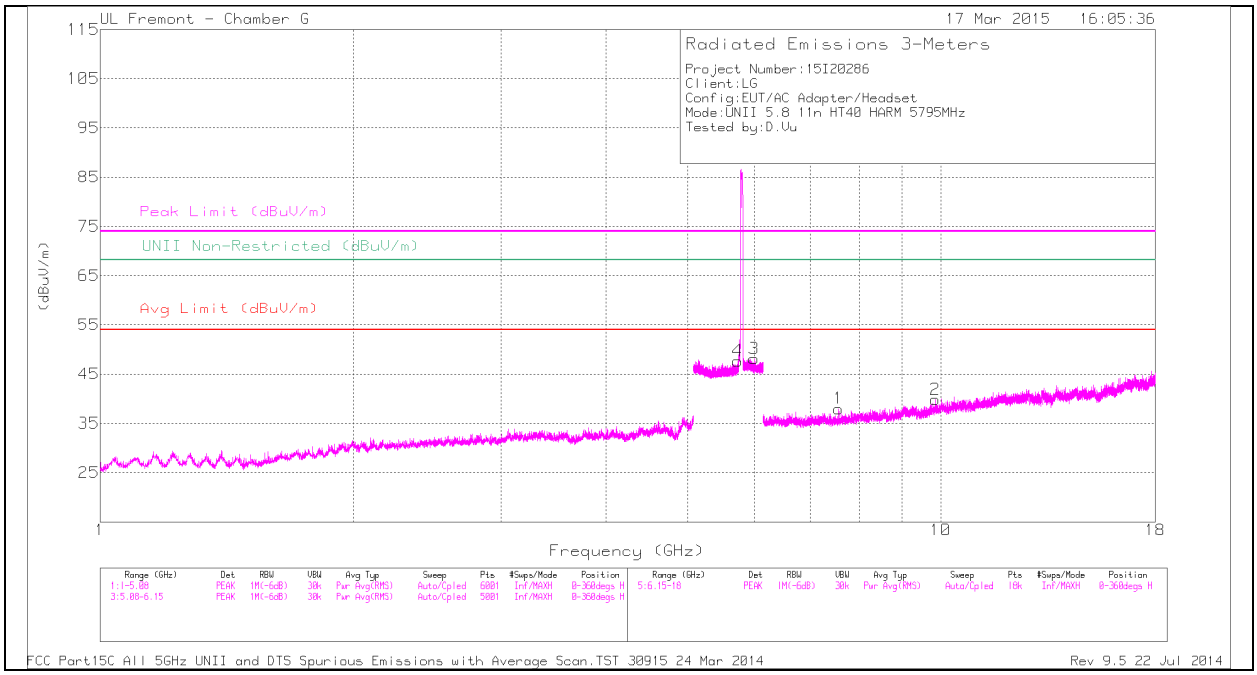
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 2.765	42.59	PK1	32.2	-34.3	0	40.49	-	-	74	-33.51	-	-	0	101	H
* 2.763	31.32	AD1	32.2	-34.3	.51	29.73	54	-24.27	-	-	-	-	0	101	H

* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

PK1 - KDB789033 Method: Peak

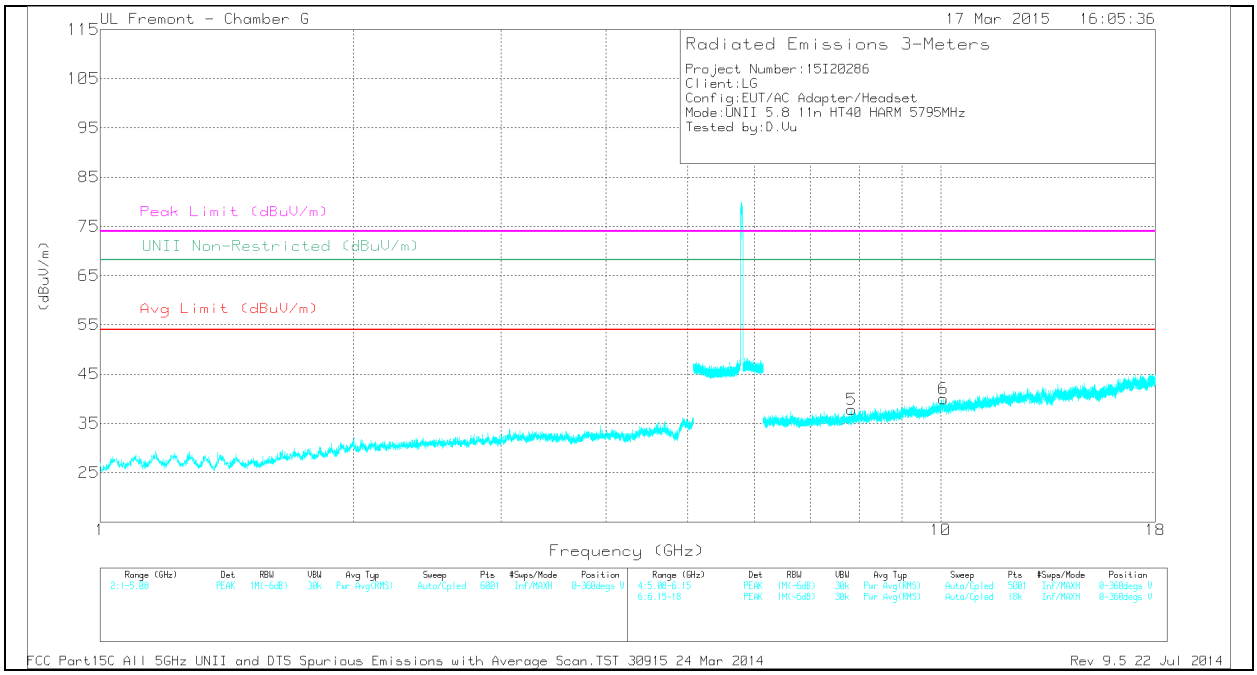
AD1 - KDB789033 Method: AD Primary Power Average

HIGH CHANNEL HORIZONTAL



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 VERTICAL



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

HIGH CHANNEL DATA

TRACE MARKERS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/ Fltr/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	* 7.562	33.29	PK	35.6	-30.9	0	37.99	-	-	74	-36.01	-	-	0-360	101	H
4	5.735	36.37	PK	34.8	-23.5	0	47.67	-	-	-	-	68.2	-20.53	0-360	201	H
3	5.998	36.55	PK	35.2	-23.6	0	48.15	-	-	-	-	68.2	-20.05	0-360	101	H
5	7.839	32.5	PK	35.7	-30.4	0	37.8	-	-	-	-	68.2	-30.4	0-360	201	V
2	9.855	30.85	PK	37.2	-28.2	0	39.85	-	-	-	-	68.2	-28.35	0-360	201	H
6	10.075	30.28	PK	37.4	-27.7	0	39.98	-	-	-	-	68.2	-28.22	0-360	201	V

* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

PK - Peak detector

RADIATED EMISSIONS

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Fltr/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
* 7.562	40.22	PK1	35.6	-30.9	0	44.92	-	-	74	-29.08	-	-	0	101	H
* 7.561	28.68	AD1	35.6	-30.8	.51	33.99	54	-20.01	-	-	-	-	0	101	H

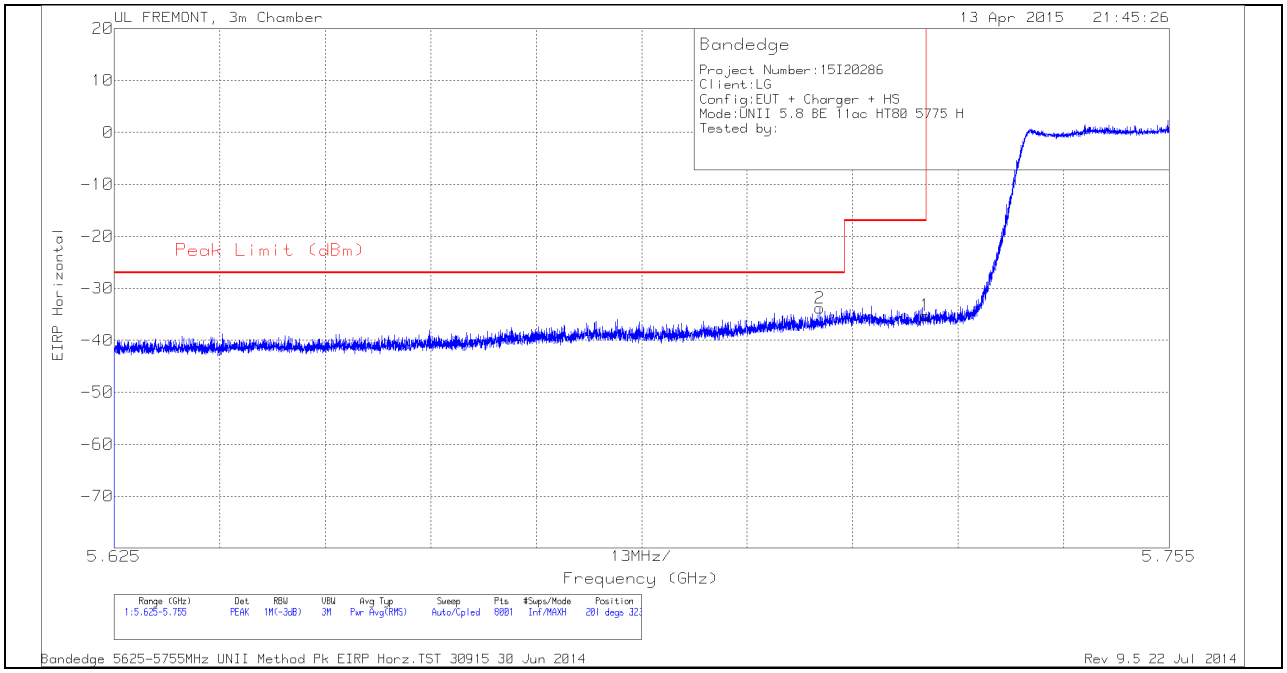
* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

PK1 - KDB789033 Method: Peak

AD1 - KDB789033 Method: AD Primary Power Average

12.4.3. TX ABOVE 1 GHz 802.11ac HT80 MODE IN THE 5.8 GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

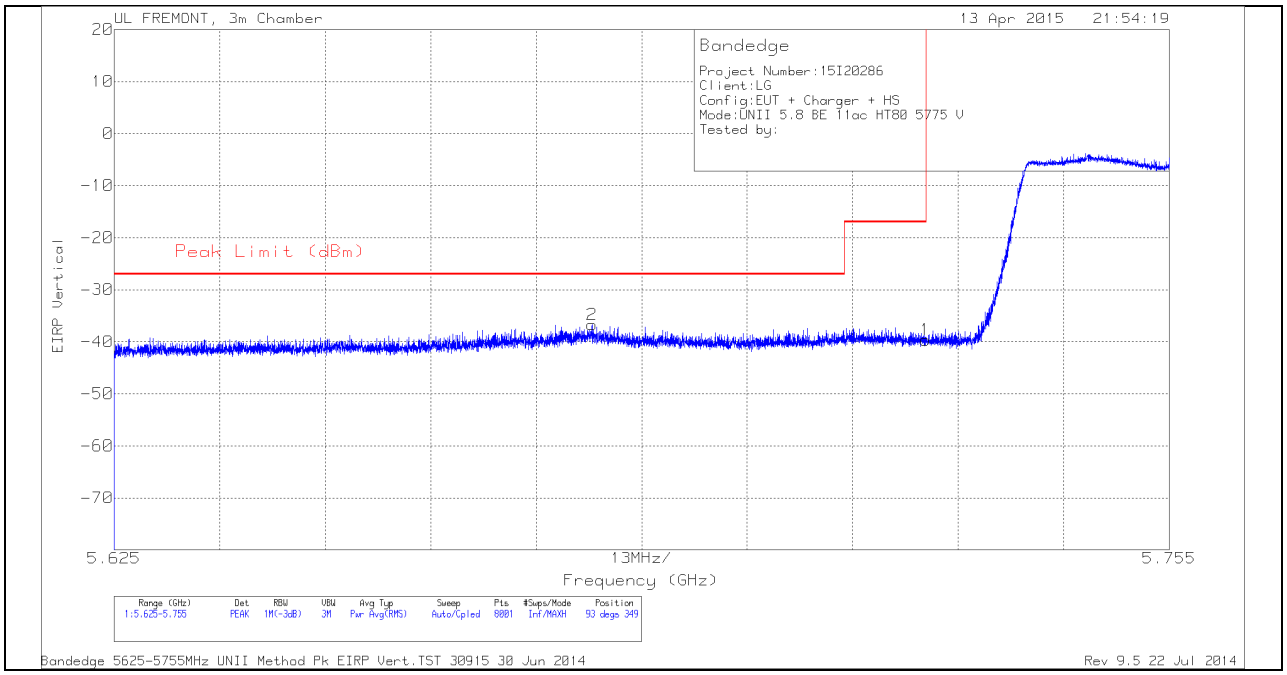
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T119 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Conversion Factor (dB)	DC Corr (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	5.712	-59.43	PK	34.8	-21	11.8	0	-33.83	-27	-6.83	201	323	H
1	5.725	-60.73	PK	34.8	-21.1	11.8	0	-35.23	-17	-18.23	201	323	H

PK - Peak detector

Bandedge 5625-5755MHz UNII Method Pk EIRP Horz.TST 30915 30 Jun 2014

Rev 9.5 22 Jul 2014

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T119 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Conversion Factor (dB)	DC Corr (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	5.684	-62.23	PK	34.7	-21	11.8	0	-36.73	-27	-9.73	93	349	V
1	5.725	-65.14	PK	34.8	-21.1	11.8	0	-39.64	-17	-22.64	93	349	V

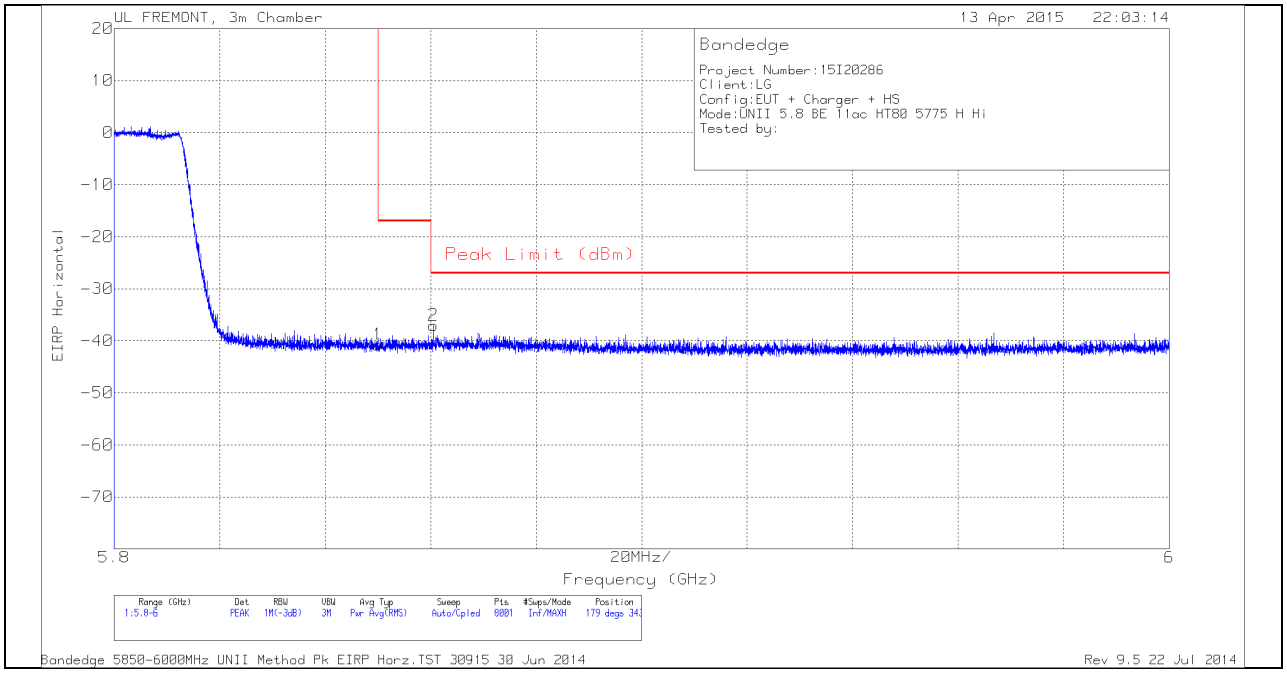
PK - Peak detector

Bandedge 5625-5755MHz UNII Method Pk EIRP Vert.TST 30915 30 Jun 2014

Rev 9.5 22 Jul 2014

AUTHORIZED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

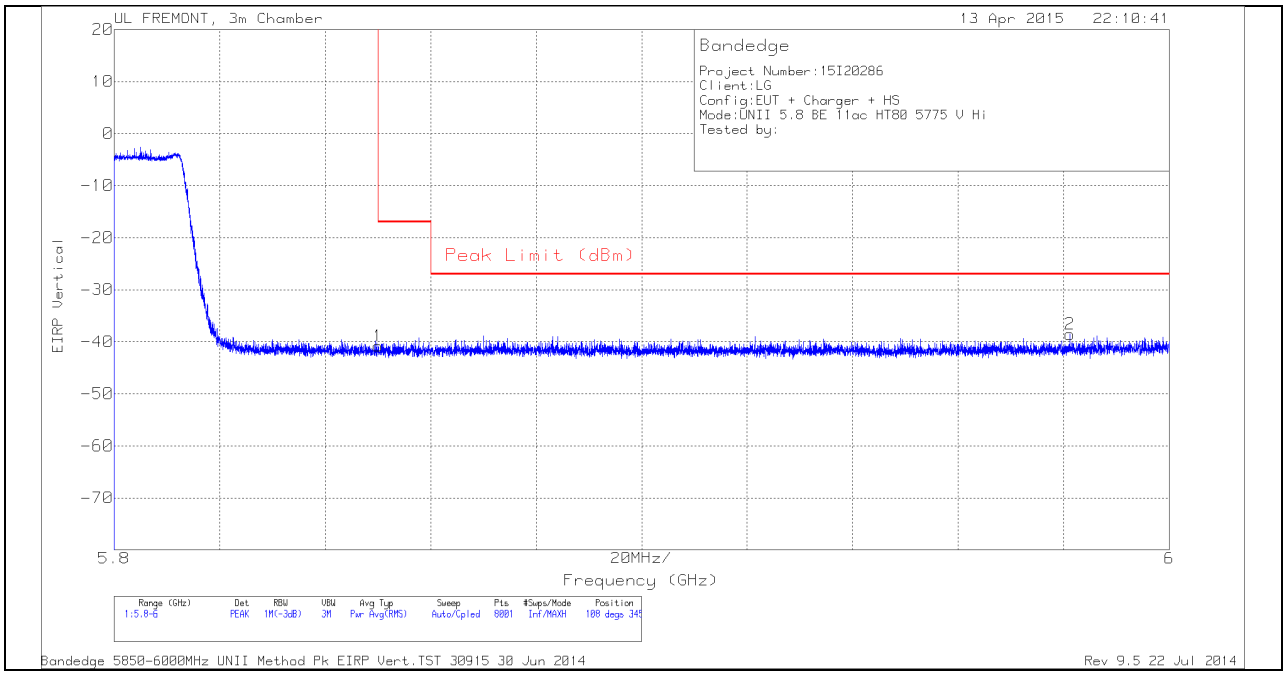
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T119 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Conversion Factor (dB)	DC Corr (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.85	-66.13	PK	34.9	-21.3	11.8	0	-40.73	-17	-23.73	179	343	H
2	5.861	-62.44	PK	34.9	-21.3	11.8	0	-37.04	-27	-10.04	179	343	H

PK - Peak detector

Bandedge 5850-6000MHz UNII Method Pk EIRP Horz.TST 30915 30 Jun 2014

Rev 9.5 22 Jul 2014

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T119 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Conversion Factor (dB)	DC Corr (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.85	-66.21	PK	34.9	-21.3	11.8	0	-40.81	-17	-23.81	108	345	V
2	5.981	-64.66	PK	35.2	-20.9	11.8	0	-38.56	-27	-11.56	108	345	V

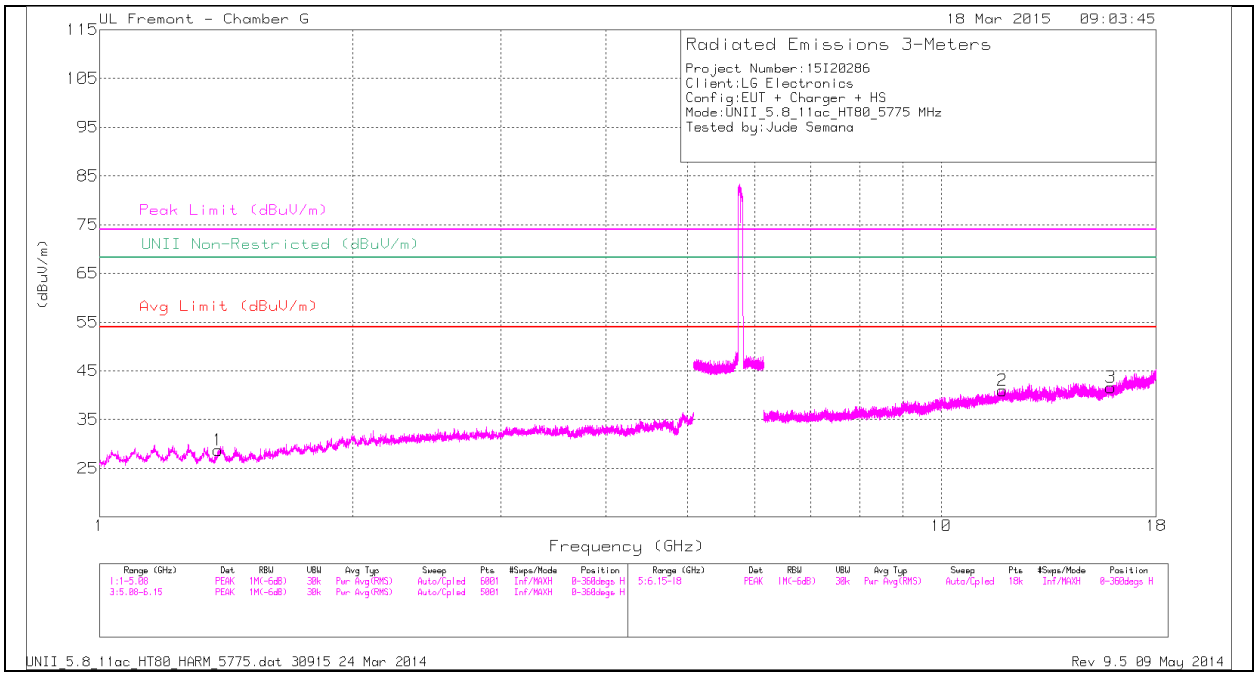
PK - Peak detector

Bandedge 5850-6000MHz UNII Method Pk EIRP Vert.TST 30915 30 Jun 2014

Rev 9.5 22 Jul 2014

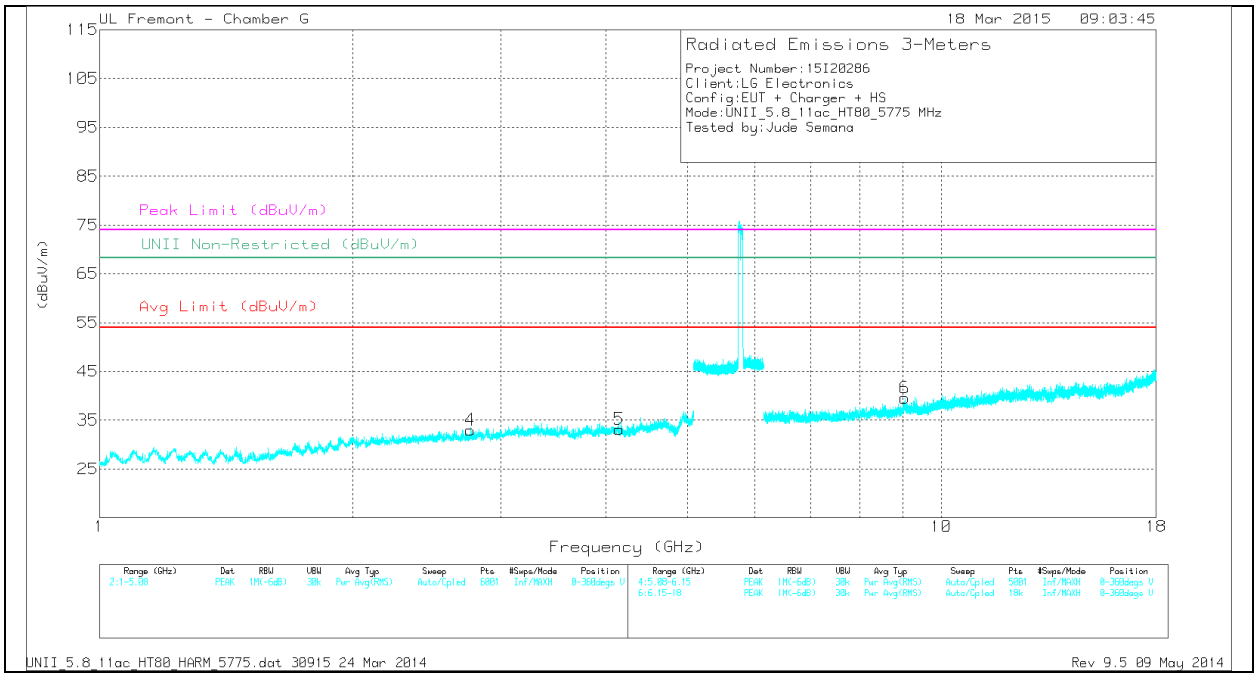
HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



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 VERTICAL



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

LOW CHANNEL DATA

TRACE MARKERS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/ Fltr/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	* 1.384	35.42	PK	28.5	-35.2	0	28.72	-	-	74	-45.28	-	-	0-360	201	H
4	* 2.758	35.18	PK	32.2	-34.4	0	32.98	-	-	74	-41.02	-	-	0-360	201	V
5	* 4.144	33.05	PK	33.4	-33.3	0	33.15	-	-	74	-40.85	-	-	0-360	101	V
2	* 11.825	29.38	PK	38.7	-27.1	0	40.98	-	-	74	-33.02	-	-	0-360	101	H
3	* 15.895	28.53	PK	40.4	-27.3	0	41.63	-	-	74	-32.37	-	-	0-360	201	H
6	* 9.05	31.56	PK	36.4	-28.4	0	39.56	-	-	74	-34.44	-	-	0-360	201	V

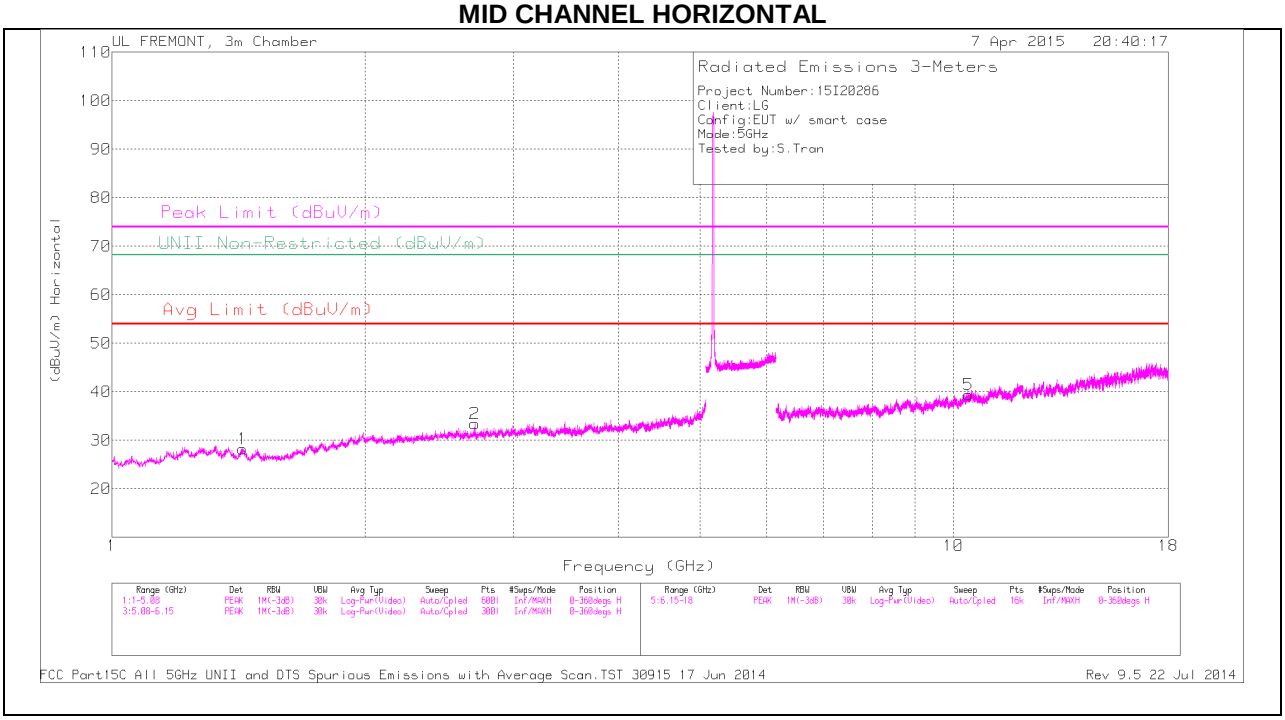
PK - Peak detector

12.5. ADDITIONAL TESTS (PHONE WITH SMART COVER)

12.5.1. TX ABOVE 1 GHz 802.11a MODE IN THE 5.2 GHz BAND

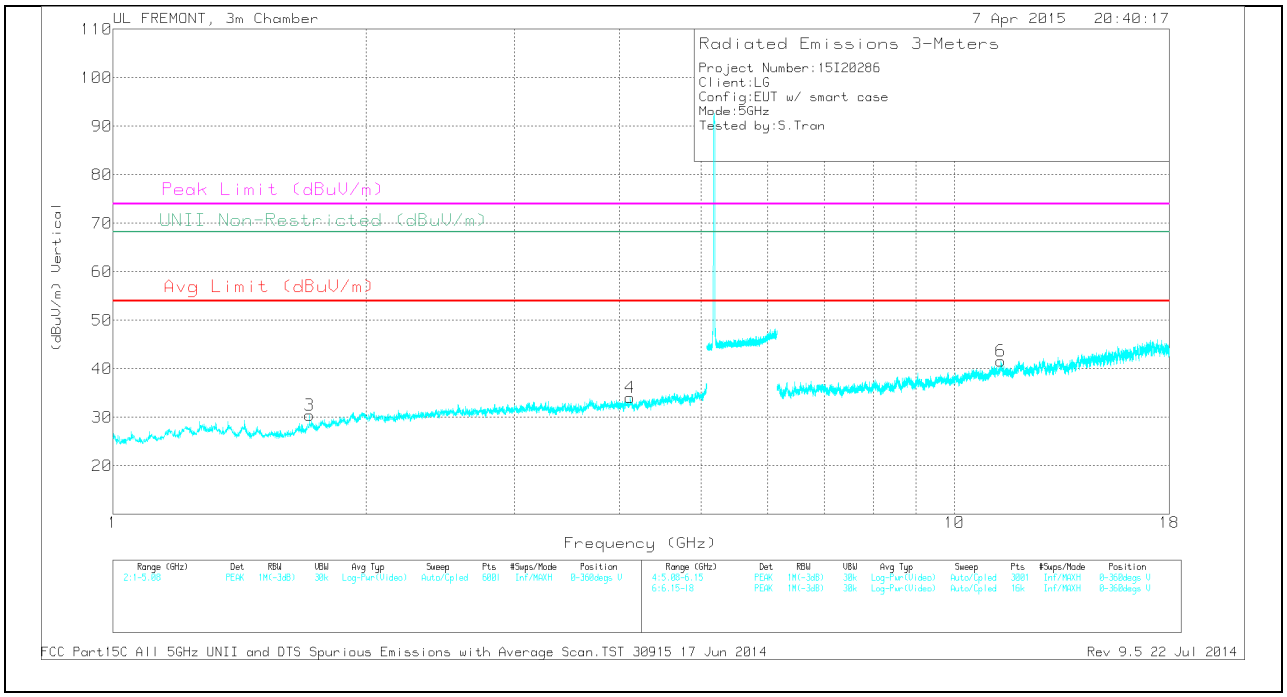
HARMONICS AND SPURIOUS EMISSIONS

MID CHANNEL HORIZONTAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL VERTICAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL DATA

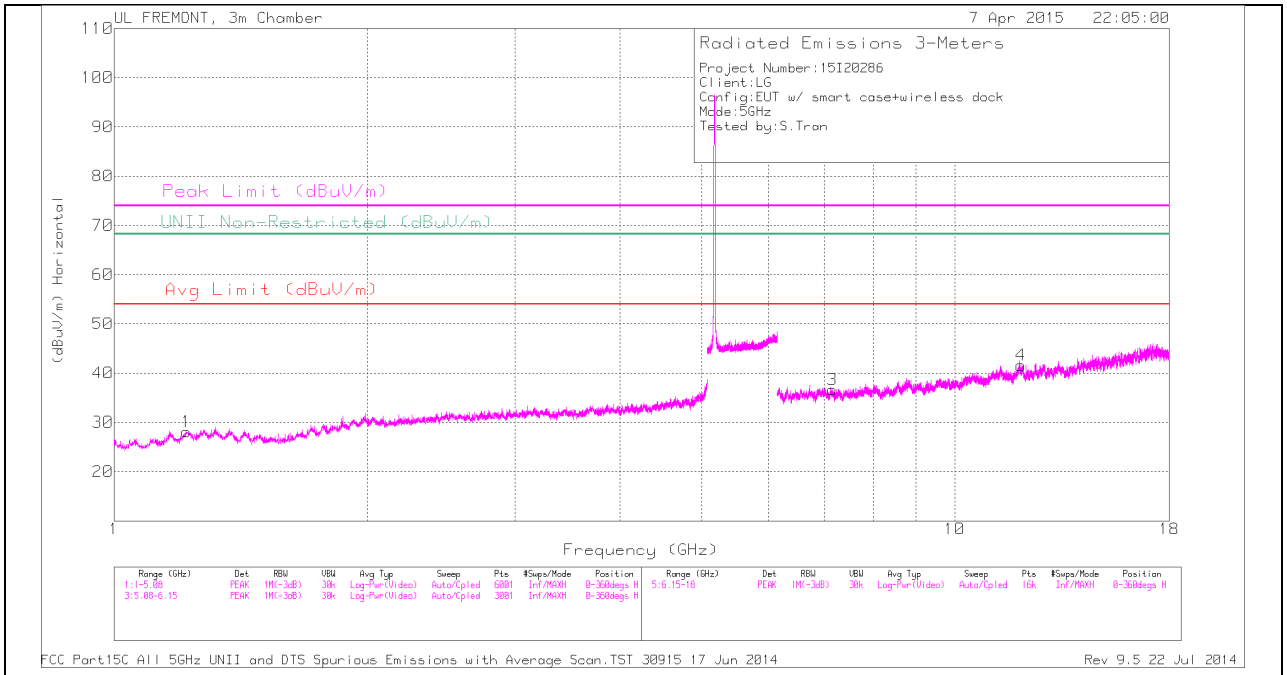
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr /Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.431	32.36	PK	28.5	-32.6	28.26	-	-	-	-	68.2	-39.94	0-360	200	H
3	1.712	33.44	PK	29.1	-32.1	30.44	-	-	-	-	68.2	-37.76	0-360	100	V
2	2.699	33.29	PK	32.3	-32.2	33.39	-	-	74	-40.61	-	-	0-360	200	H
4	4.117	31.64	PK	33.3	-30.9	34.04	-	-	74	-39.96	-	-	0-360	100	V
5	10.414	27.84	PK	37.3	-25.7	39.44	-	-	-	-	68.2	-28.76	0-360	100	H
6	11.344	28.97	PK	38.1	-25.5	41.57	-	-	74	-32.43	-	-	0-360	100	V

PK - Peak detector

FCC Part15C All 5GHz UNII and DTS Spurious Emissions with Average Scan.TST 30915 17 Jun 2014

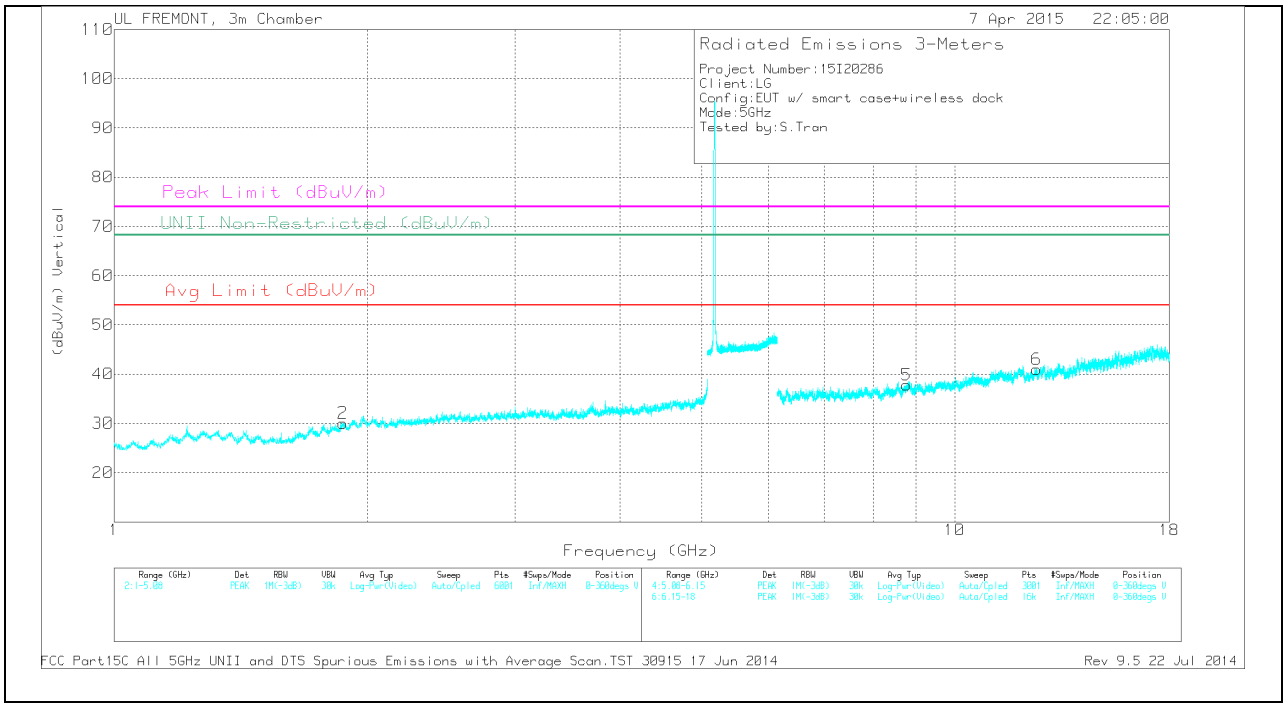
Rev 9.5 22 Jul 2014

MID CHANNEL HORIZONTAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL VERTICAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr /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)	Azimuth (Degs)	Height (cm)	Polarity
1	1.219	32.16	PK	29.1	-33.2	28.06	-	-	74	-45.94	-	-	0-360	200	H
2	1.872	32.33	PK	30.9	-33.2	30.03	-	-	-	-	68.2	-38.17	0-360	200	V
3	7.156	30.03	PK	35.6	-29	36.63	-	-	-	-	68.2	-31.57	0-360	100	H
5	8.759	28.08	PK	35.9	-26.2	37.78	-	-	-	-	68.2	-30.42	0-360	200	V
4	11.993	28.77	PK	39.1	-26.3	41.57	-	-	74	-32.43	-	-	0-360	100	H
6	12.515	28.35	PK	39	-26.4	40.95	-	-	74	-33.05	-	-	0-360	100	V

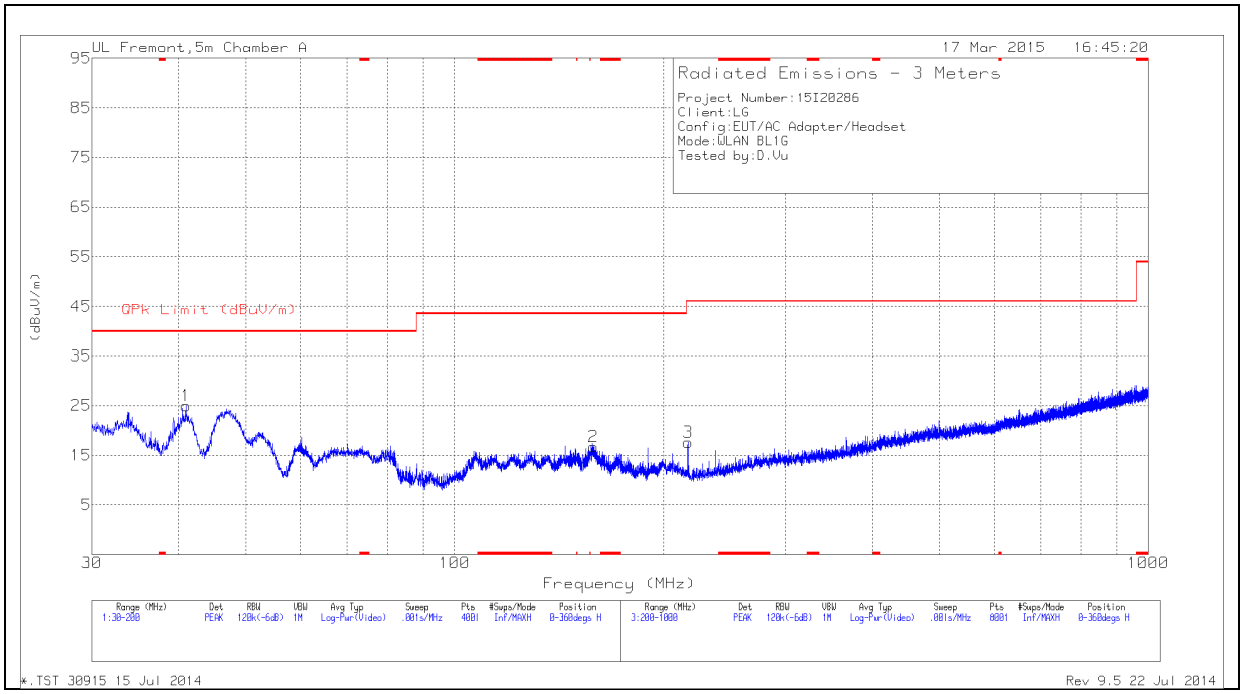
PK - Peak detector

FCC Part15C All 5GHz UNII and DTS Spurious Emissions with Average Scan.TST 30915 17 Jun 2014

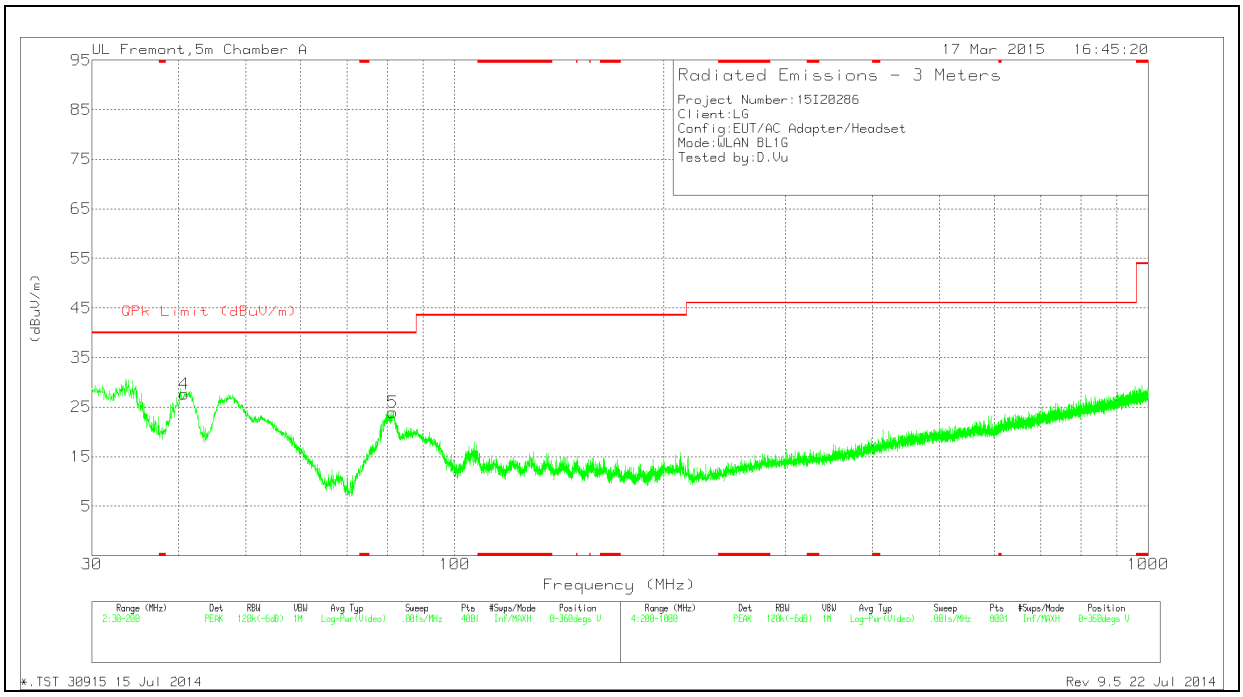
Rev 9.5 22 Jul 2014

13. TRANSMITTER BELOW 1 GHz (in the 5.3 GHz Band)

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



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



Below 1G Data

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T899 (dB/m)	Amp Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	40.795	42.09	PK	16.7	-31.2	27.59	40	-12.41	0-360	100	V
1	41.0075	39.67	PK	16.5	-31.2	24.97	40	-15.03	0-360	401	H
5	81.425	44.27	PK	10.3	-30.6	23.97	40	-16.03	0-360	100	V
2	158.4775	31.31	PK	15.3	-29.9	16.71	43.52	-26.81	0-360	201	H
3	217	33.29	PK	13.8	-29.5	17.59	46.02	-28.43	0-360	100	H

PK - Peak detector

14. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

FCC §15.207 (a)

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

* Decreases with the logarithm of the frequency.

TEST PROCEDURE

The EUT is placed on a non-conducting table 40 cm from the vertical ground plane and 80 cm above the horizontal ground plane. The EUT is configured in accordance with ANSI C63.4.

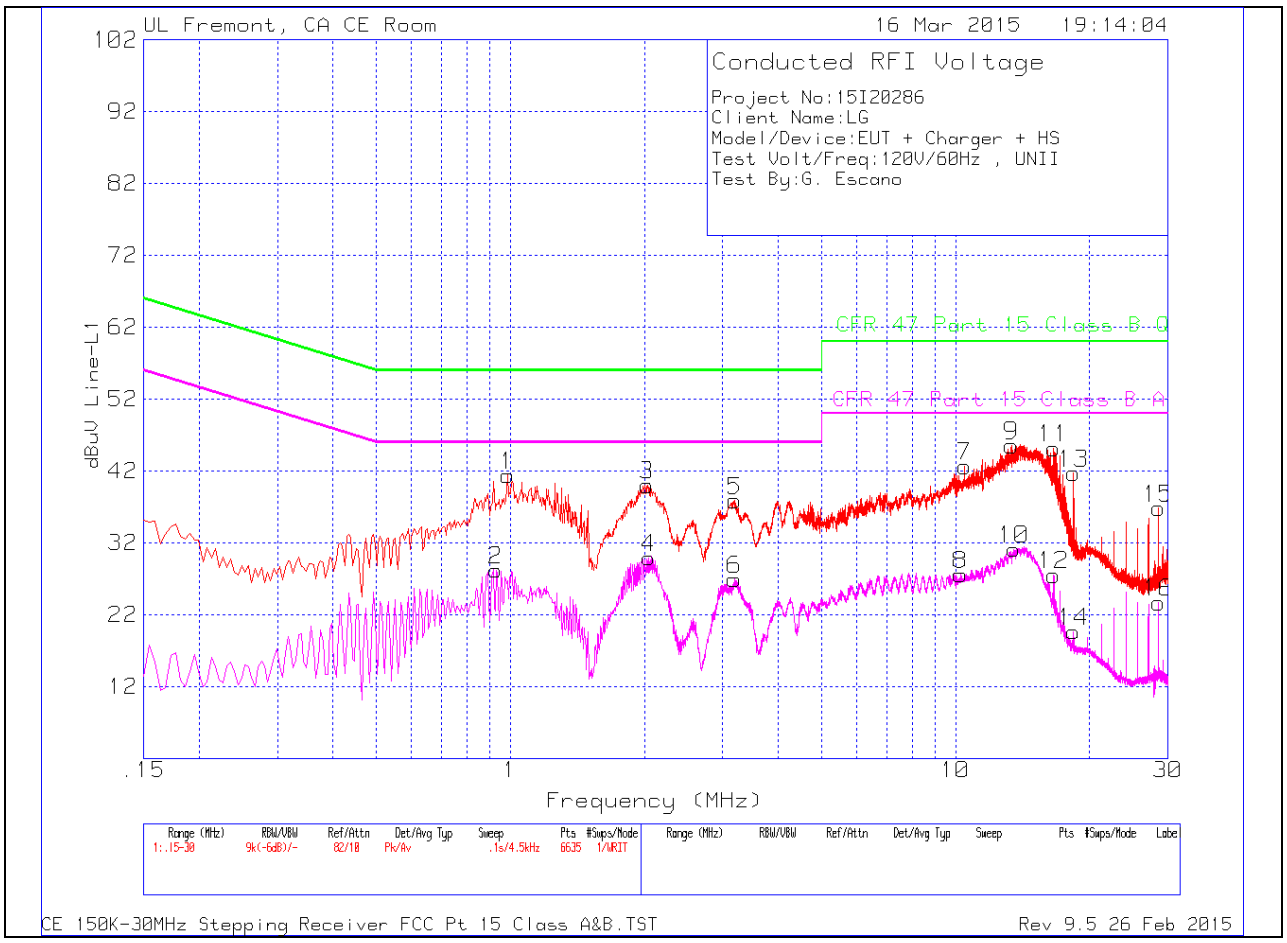
The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

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

RESULTS

6 WORST EMISSIONS

LINE 1 PLOT



LINE 1 RESULTS

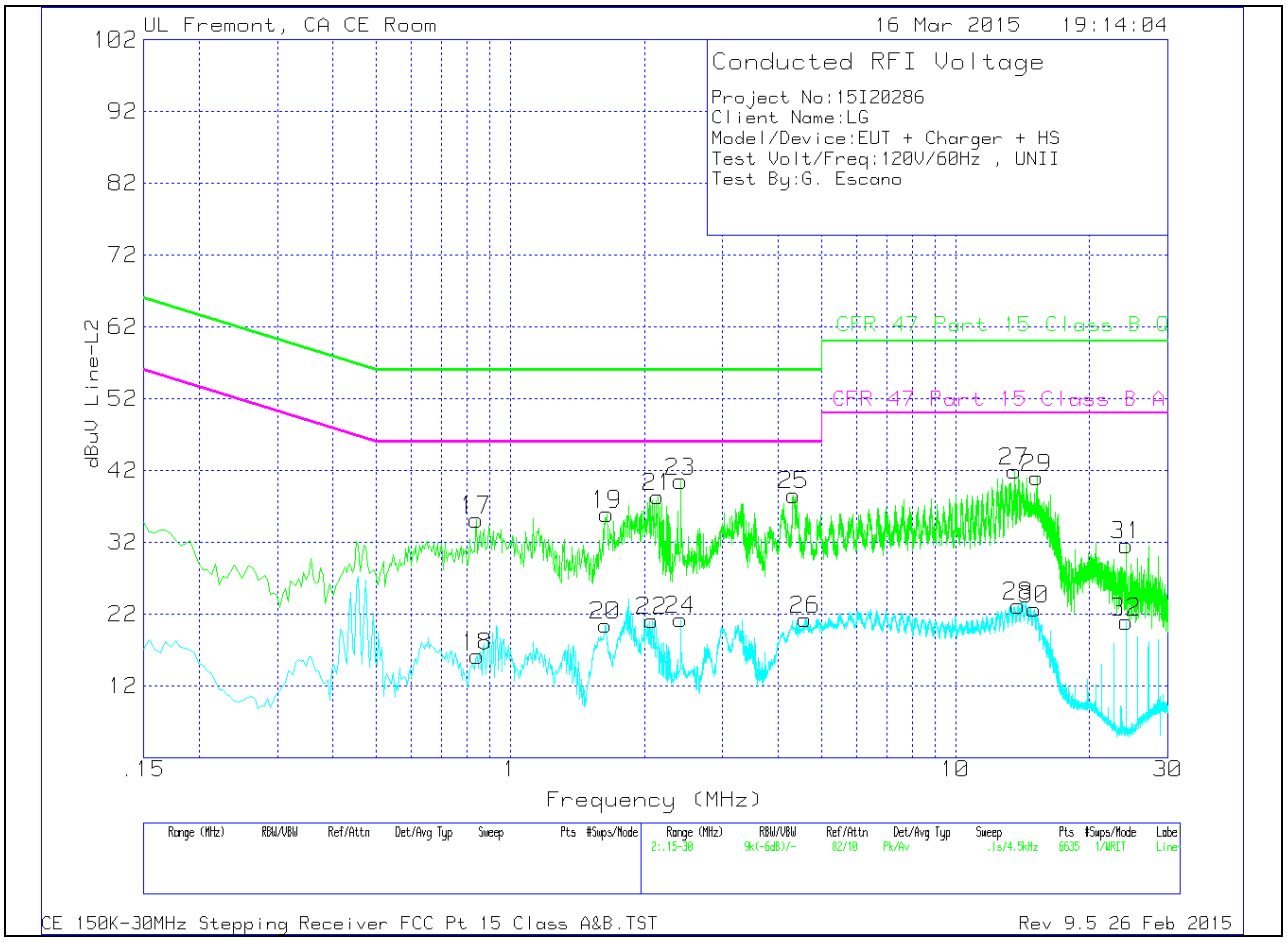
Trace Markers

Range 1: Line-L1 .15 - 30MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T24 IL L1	LC Cables 1&3	Corrected Reading dBuV	CFR 47 Part 15 Class B QP	Margin (dB)	CFR 47 Part 15 Class B Avg	Margin (dB)
1	.987	41.13	Pk	.3	0	41.43	56	-14.57	-	-
2	.9285	27.93	Av	.3	0	28.23	-	-	46	-17.77
3	2.031	39.74	Pk	.2	.1	40.04	56	-15.96	-	-
4	2.049	29.63	Av	.2	.1	29.93	-	-	46	-16.07
5	3.192	37.59	Pk	.2	.1	37.89	56	-18.11	-	-
6	3.1875	26.65	Av	.2	.1	26.95	-	-	46	-19.05
7	10.482	42.28	Pk	.2	.2	42.68	60	-17.32	-	-
8	10.2705	27.2	Av	.2	.2	27.6	-	-	50	-22.4
9	13.3575	45.15	Pk	.2	.2	45.55	60	-14.45	-	-
10	13.524	30.73	Av	.2	.2	31.13	-	-	50	-18.87
11	16.611	44.68	Pk	.3	.2	45.18	60	-14.82	-	-
12	16.6155	27.04	Av	.3	.2	27.54	-	-	50	-22.46
13	18.42	41.23	Pk	.3	.2	41.73	60	-18.27	-	-
14	18.42	19.16	Av	.3	.2	19.66	-	-	50	-30.34
15	28.572	36.23	Pk	.3	.3	36.83	60	-23.17	-	-
16	28.5765	23.11	Av	.3	.3	23.71	-	-	50	-26.29

Pk - Peak detector
Av - Average detection

LINE 2 PLOT



LINE 2 RESULTS

Range 2: Line-L2 .15 - 30MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T24 IL L2	LC Cables 2&3	Corrected Reading dBuV	CFR 47 Part 15 Class B QP	Margin (dB)	CFR 47 Part 15 Class B Avg	Margin (dB)
17	.8385	34.75	Pk	.3	.1	35.15	56	-20.85	-	-
18	.843	15.79	Av	.3	.1	16.19	-	-	46	-29.81
19	1.6485	35.64	Pk	.2	.1	35.94	56	-20.06	-	-
20	1.635	20.17	Av	.2	.1	20.47	-	-	46	-25.53
21	2.1435	38.08	Pk	.2	.1	38.38	56	-17.62	-	-
22	2.0805	20.8	Av	.2	.1	21.1	-	-	46	-24.9
23	2.4135	40.22	Pk	.2	.1	40.52	56	-15.48	-	-
24	2.4135	20.94	Av	.2	.1	21.24	-	-	46	-24.76
25	4.326	38.3	Pk	.2	.1	38.6	56	-17.4	-	-
26	4.596	20.99	Av	.2	.1	21.29	-	-	46	-24.71
27	13.56	41.53	Pk	.2	.2	41.93	60	-18.07	-	-
28	13.83	22.77	Av	.2	.2	23.17	-	-	50	-26.83
29	15.2295	40.54	Pk	.3	.2	41.04	60	-18.96	-	-
30	15.027	22.18	Av	.3	.2	22.68	-	-	50	-27.32
31	24.1845	31.01	Pk	.3	.3	31.61	60	-28.39	-	-
32	24.1845	20.34	Av	.3	.3	20.94	-	-	50	-29.06

Pk - Peak detector
Av - Average detection

15. DYNAMIC FREQUENCY SELECTION

15.1. OVERVIEW

15.1.1. LIMITS

INDUSTRY CANADA

IC RSS-210 is closely harmonized with FCC Part 15 DFS rules. The deviations are as follows:

RSS-210 Issue 8 A9.3

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)
U-NII Detection Bandwidth and Statistical Performance Check	All BW modes must be tested	Not required
Channel Move Time and Channel Closing Transmission Time	Test using widest BW mode available	Test using the widest BW mode available for the link
All other tests	Any single BW mode	Not required

Note: Frequencies selected for statistical performance check (Section 7.8.4) should include several frequencies within the radar detection bandwidth and frequencies near the edge of the radar detection bandwidth. For 802.11 devices it is suggested to select frequencies in all 20 MHz channel blocks and null frequencies 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. ≥ 200 milliwatt	-64 dBm
E.I.R.P. < 200 milliwatt and power spectral density < 10 dBm/MHz	-62 dBm
E.I.R.P. < 200 milliwatt that do not meet power spectral density requirement	-64 dBm
Note 1: This is the level at the input of the receiver assuming a 0 dBi receive antenna **Note 2:** Throughout these test procedures an additional 1 dB has been added to the amplitude of the test transmission waveforms to account for variations in measurement equipment. This will ensure that the test signal is at or above the detection threshold level to trigger a DFS response. **Note 3:** E.I.R.P. is based on the highest antenna gain. For MIMO devices refer to KDB publication 662911 D01.	

Table 4: DFS Response requirement values

Parameter	Value
Non-occupancy period	30 minutes
Channel Availability Check Time	60 seconds
Channel Move Time	10 seconds (See Note 1)
Channel Closing Transmission Time	200 milliseconds + approx. 60 milliseconds over remaining 10 second period. (See Notes 1 and 2)
U-NII Detection Bandwidth	Minimum 100% of the U-NII 99% transmission power bandwidth.

	(See Note 3)

Note 1: *Channel Move Time* and the *Channel Closing Transmission Time* should be performed with Radar Type 0. The measurement timing begins at the end of the Radar Type 0 burst.
Note 2: The *Channel Closing Transmission Time* is comprised of 200 milliseconds starting at the beginning of the *Channel Move Time* plus any additional intermittent control signals required to facilitate a *Channel* move (an aggregate of 60 milliseconds) during the remainder of the 10 second period. The aggregate duration of control signals will not count quiet periods in between transmissions.
Note 3: During the *U-NII Detection Bandwidth* detection test, radar type 0 should be used. For each frequency step the minimum percentage of detection is 90 percent. Measurements are performed with no data traffic.

Table 5 – Short Pulse Radar Test Waveforms

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

Note 1: Short Pulse Radar Type 0 should be used for the *Detection Bandwidth* test, *Channel Move Time*, and *Channel Closing Time* tests.

Table 6 – Long Pulse Radar Test Signal

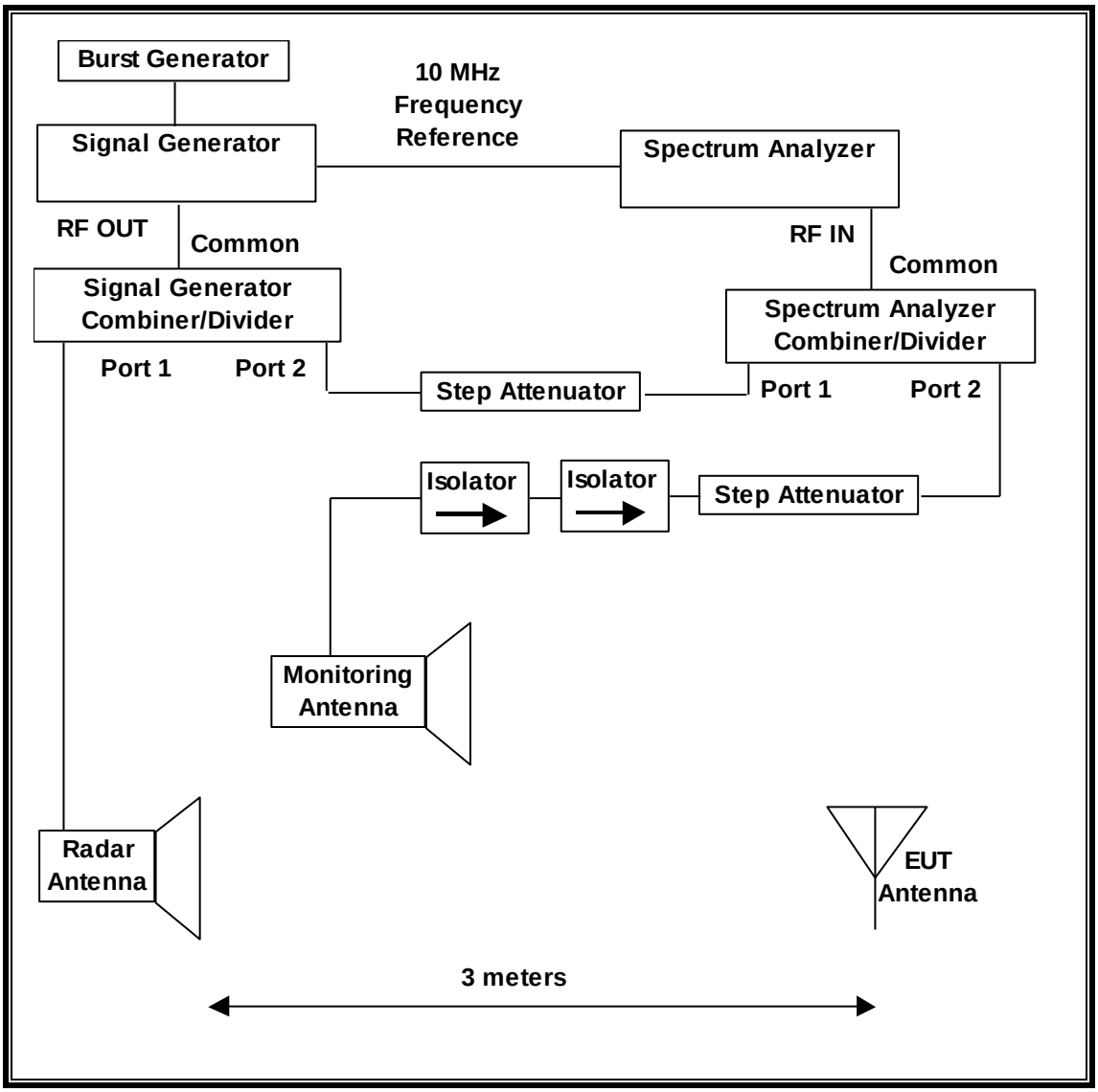
Radar Waveform Type	Pulse Width (µsec)	Chirp Width (MHz)	PRI (µsec)	Pulses per Burst	Number of Bursts	Minimum Percentage of Successful Detection	Minimum Trials
5	50-100	5-20	1000-2000	1-3	8-20	80%	30

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

15.1.2. 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.

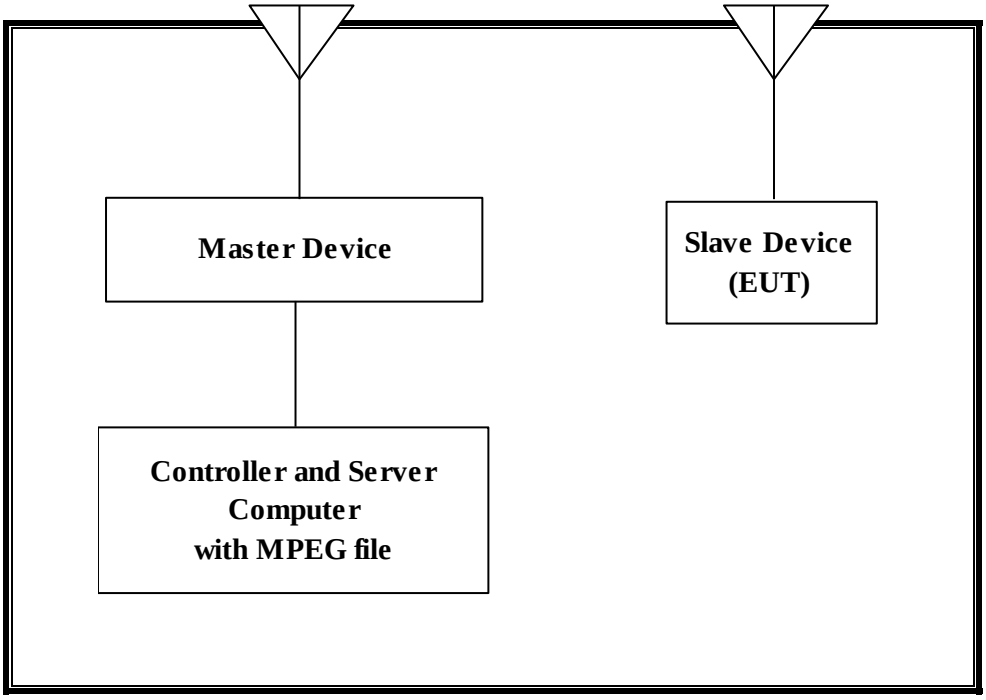
TEST AND MEASUREMENT EQUIPMENT

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

PERIPHERAL SUPPORT EQUIPMENT LIST				
Description	**Manufacturer**	**Model**	**Serial Number**	**FCC ID**
802.11ac Access Point (Master Device 1)	Cisco	AIR-CAP3702E-A-K9	FTX181570A6	LDK102087
P.O.E. Injector (Master 1)	Phihong	POE30U-560(G)	PHI170102N2	DoC
Notebook PC (Controller/Server)	Lenovo	Type 20B7-S0A200	PF-02JN9J 14/06	DoC
AC Adapter (Controller/Server PC)	Lenovo	ADLX65NLC2A	11S45N0259Z1ZS974594A9	DoC

15.1.3. 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 Access Point (Master Device 1)	Cisco	AIR-CAP3702E-A-K9	FTX181570A6	LDK102087
P.O.E. Injector (Master 1)	Phihong	POE30U-560(G)	PHI170102N2	DoC
Notebook PC (Controller/Server)	Lenovo	Type 20B7-S0A200	PF-02JN9J 14/06	DoC
AC Adapter (Controller/Server PC)	Lenovo	ADLX65NLC2A	11S45N0259Z1ZS974594A9	DoC

15.1.4. 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 The EUT is a Slave Device without Radar Detection.

The highest power level within these bands is 14.41dBm EIRP in the 5250-5350 MHz band and 14.15 dBm EIRP in the 5470-5725 MHz band.

The only antenna assembly utilized with the EUT has a gain of 5.3 dBi.

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

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

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

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

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

The EUT utilizes the 802.11ac architecture. Three nominal channel bandwidths are implemented: 20 MHz, 40 MHz and 80 MHz. Therefore, pursuant to FCC KDB Publication 905462 D3, “Client devices with 80 MHz BW mode can be tested with an approved master operating in 40 MHz BW mode”. Therefore, 80MHz BW DFS testing was not performed and has been excluded from this report.

The software installed in the access point is AP3G2-K9W7-M Version 15.2(4)JB4.

The software installed in the EUT is Android revision 5.0.2; kernelversion 3.10.49.

UNIFORM CHANNEL SPREADING

This requirement is not applicable to Slave radio devices.

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

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

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

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

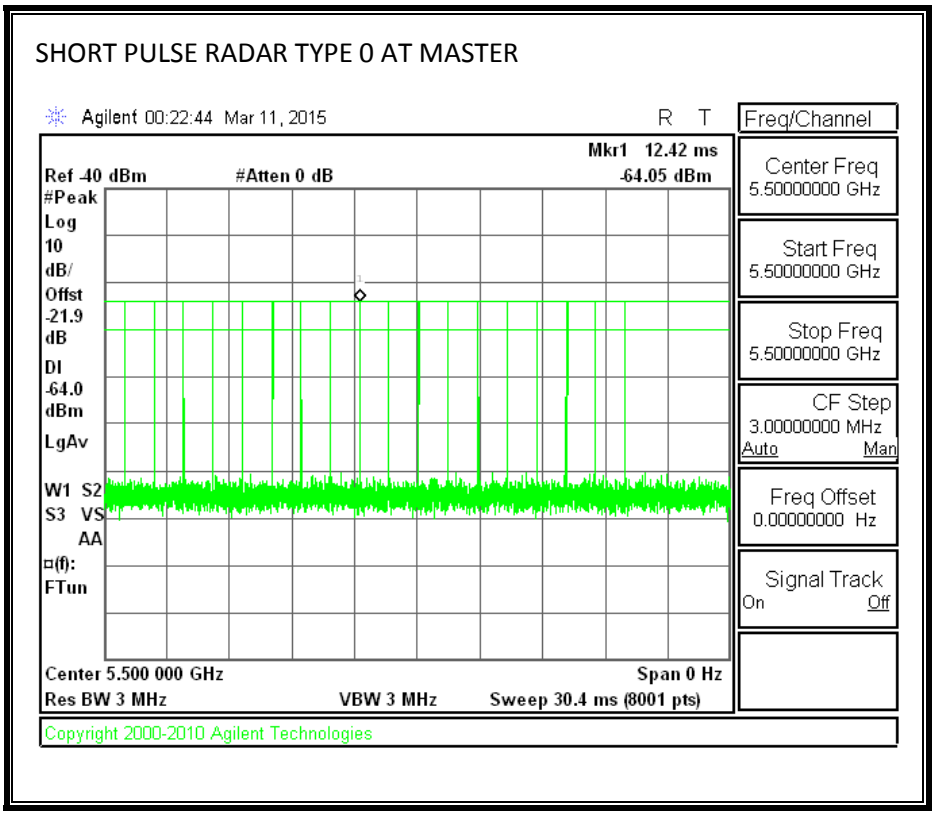
15.2. RESULTS FOR 20 MHz BANDWIDTH

15.2.1. TEST CHANNEL

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

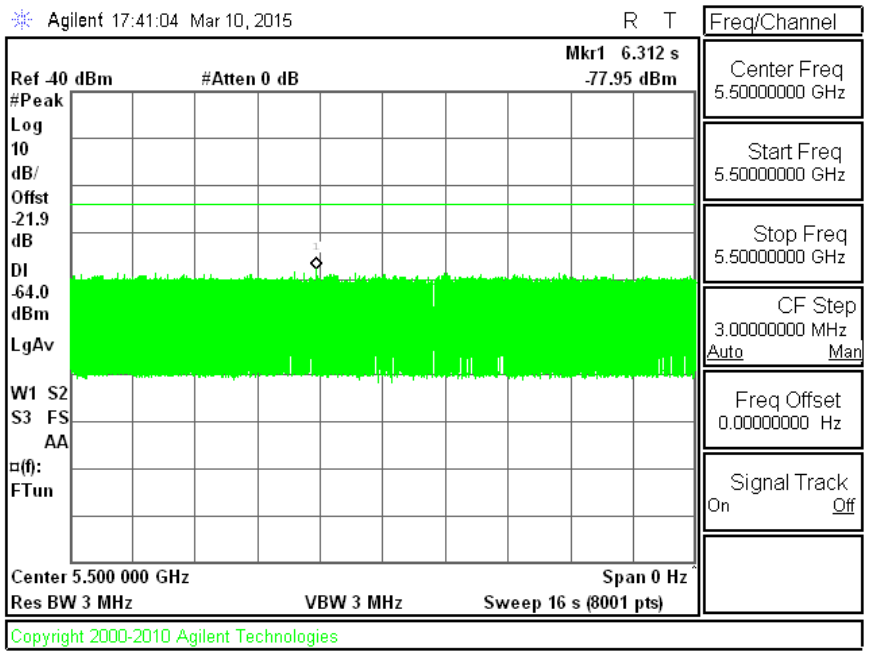
15.2.2. RADAR WAVEFORM AND TRAFFIC

RADAR WAVEFORM

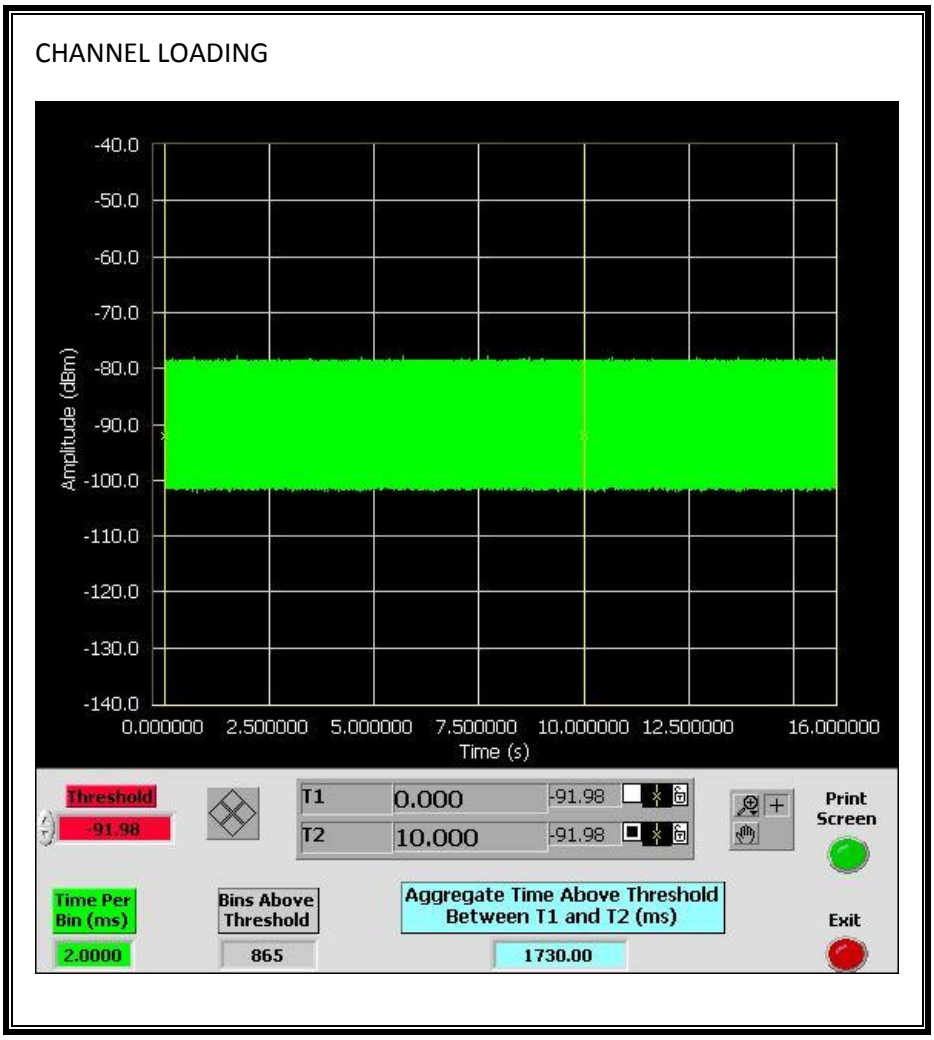


TRAFFIC

SLAVE TRAFFIC



CHANNEL LOADING



The level of traffic loading on the channel by the EUT is 17.30%

15.2.3. OVERLAPPING CHANNEL TESTS

RESULTS

These tests are not applicable.

15.2.4. 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)

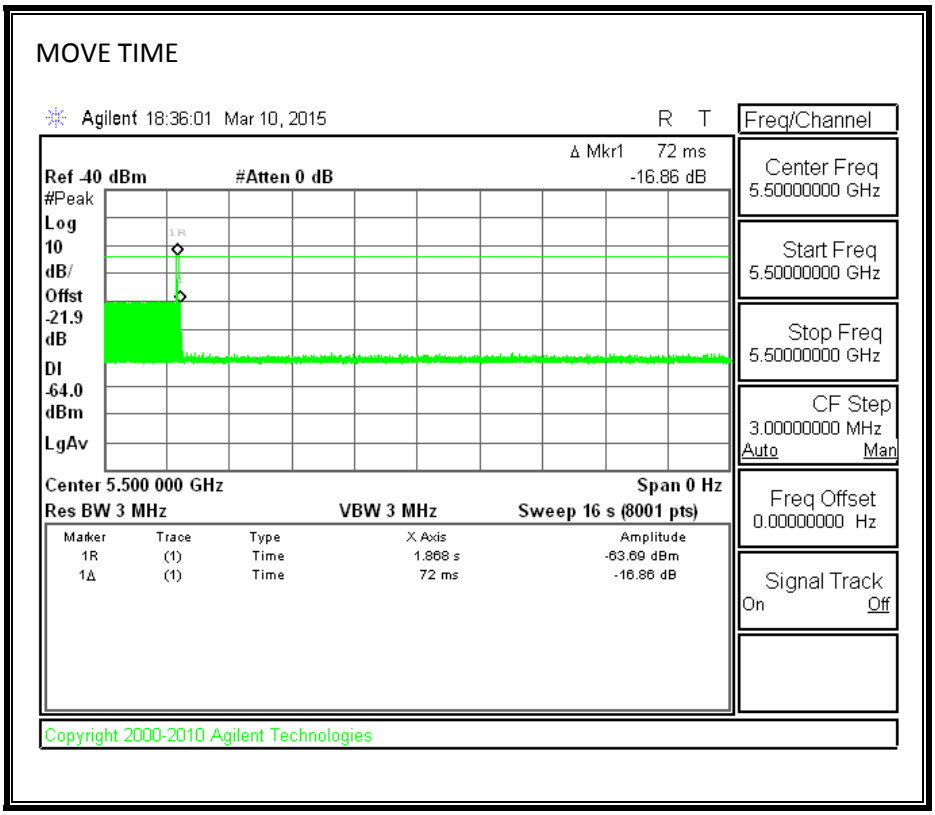
The observation period over which the aggregate time is calculated begins at (Reference Marker + 200 msec) and ends no earlier than (Reference Marker + 10 sec).

RESULTS

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

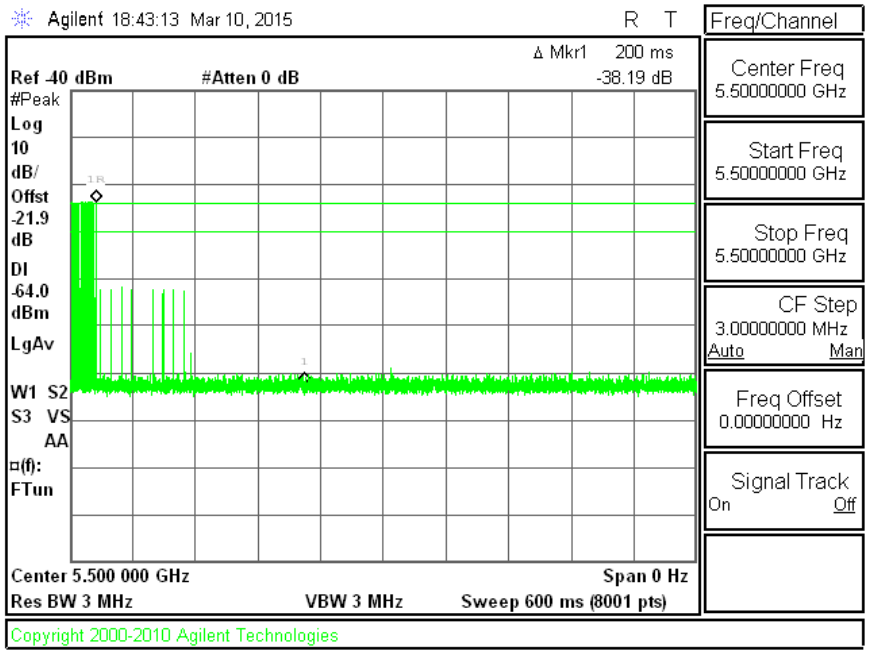
Aggregate Channel Closing Transmission Time (msec)	Limit (msec)
0.0	60

MOVE TIME



CHANNEL CLOSING TIME

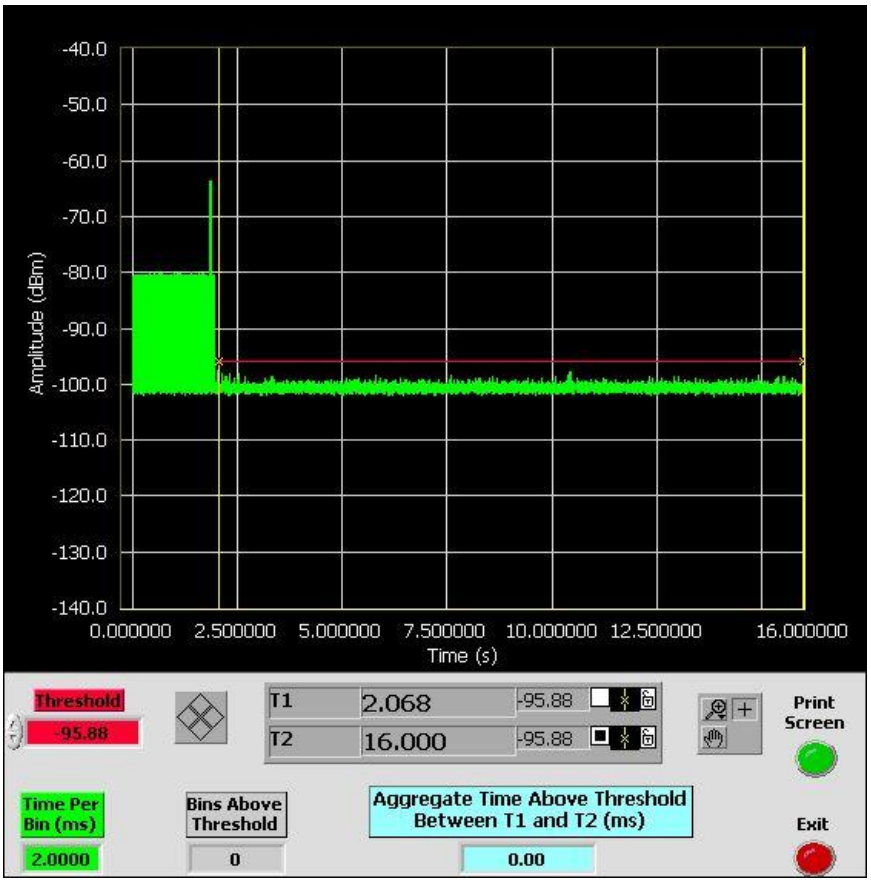
CLOSING TIME



AGGREGATE CHANNEL CLOSING TRANSMISSION TIME

No transmissions are observed during the aggregate monitoring period.

AGGREGATE CLOSING TIME



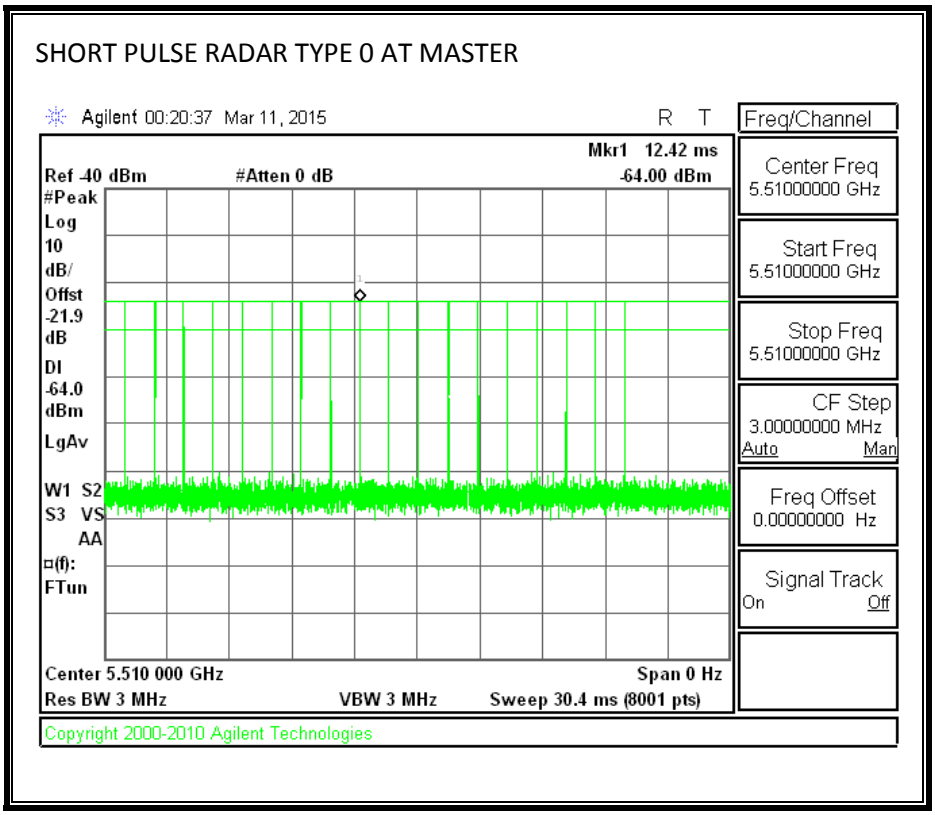
15.3. RESULTS FOR 40 MHz BANDWIDTH

15.3.1. TEST CHANNEL

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

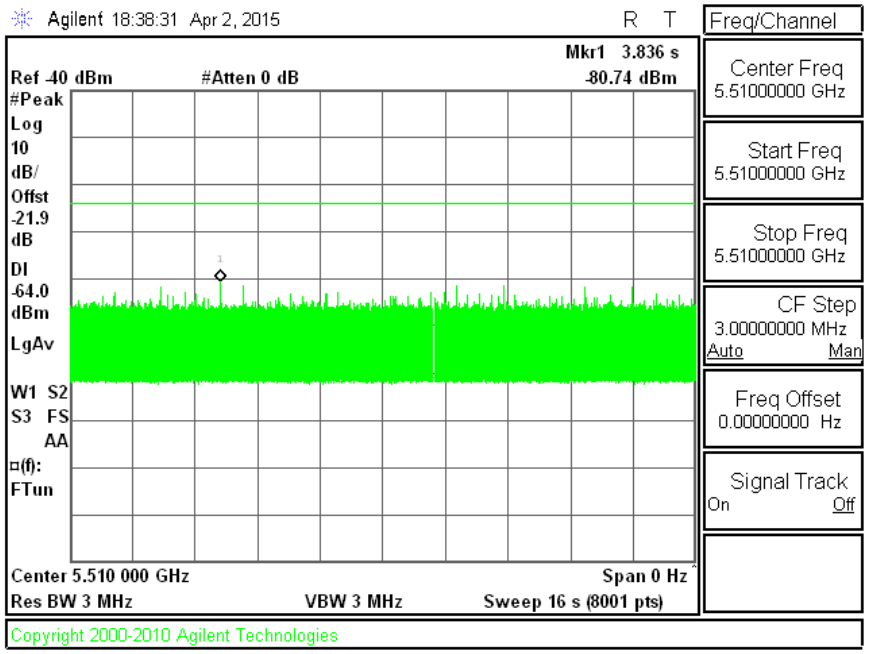
15.3.2. RADAR WAVEFORM AND TRAFFIC

RADAR WAVEFORM

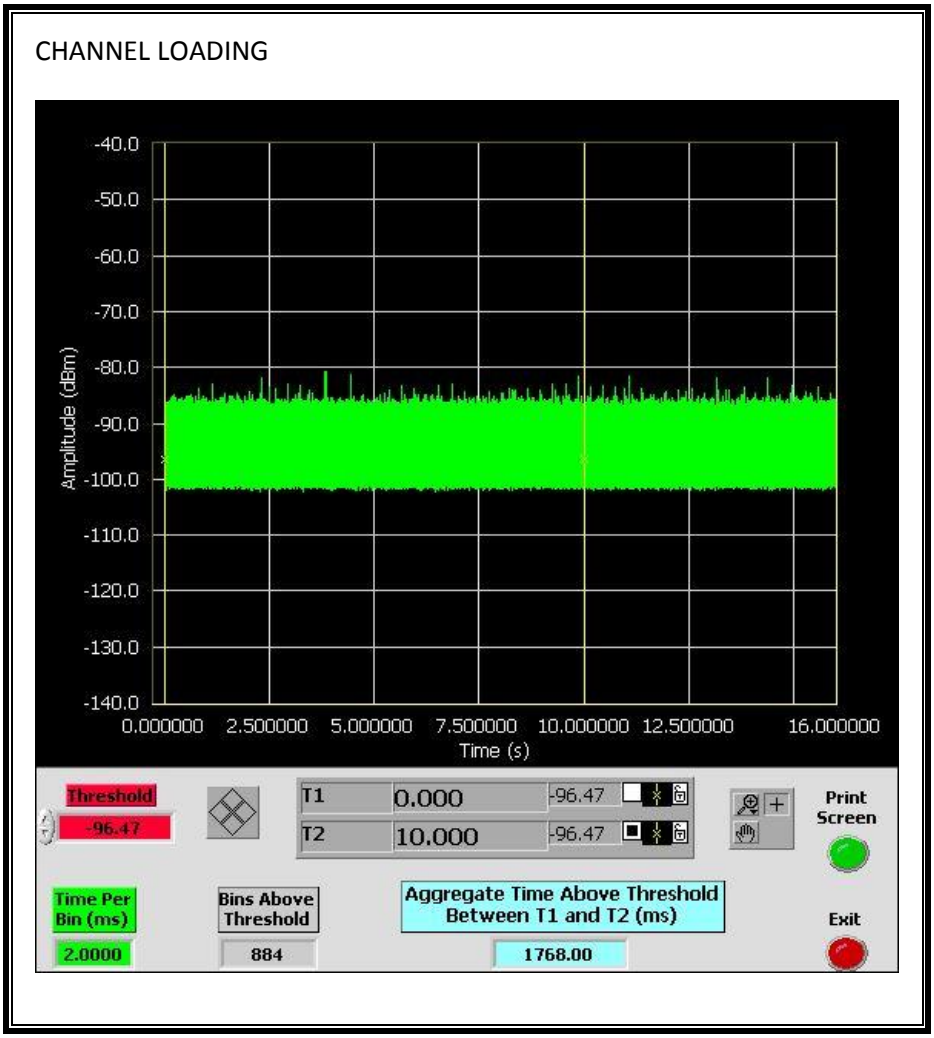


TRAFFIC

SLAVE TRAFFIC



CHANNEL LOADING



The level of traffic loading on the channel by the EUT is 17.68%

15.3.3. OVERLAPPING CHANNEL TESTS

RESULTS

These tests are not applicable.

15.3.4. MOVE AND CLOSING TIME

REPORTING NOTES

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

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

The aggregate channel closing transmission time is calculated as follows:

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

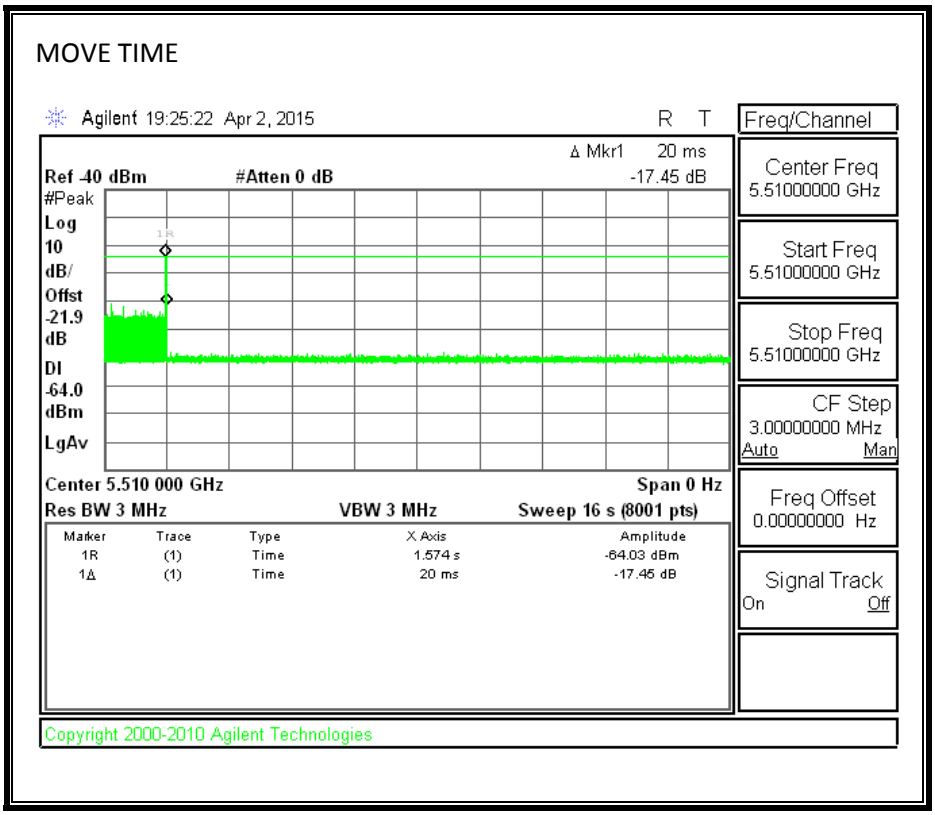
The observation period over which the aggregate time is calculated begins at (Reference Marker + 200 msec) and ends no earlier than (Reference Marker + 10 sec).

RESULTS

Channel Move Time (sec)	Limit (sec)
0.020	10

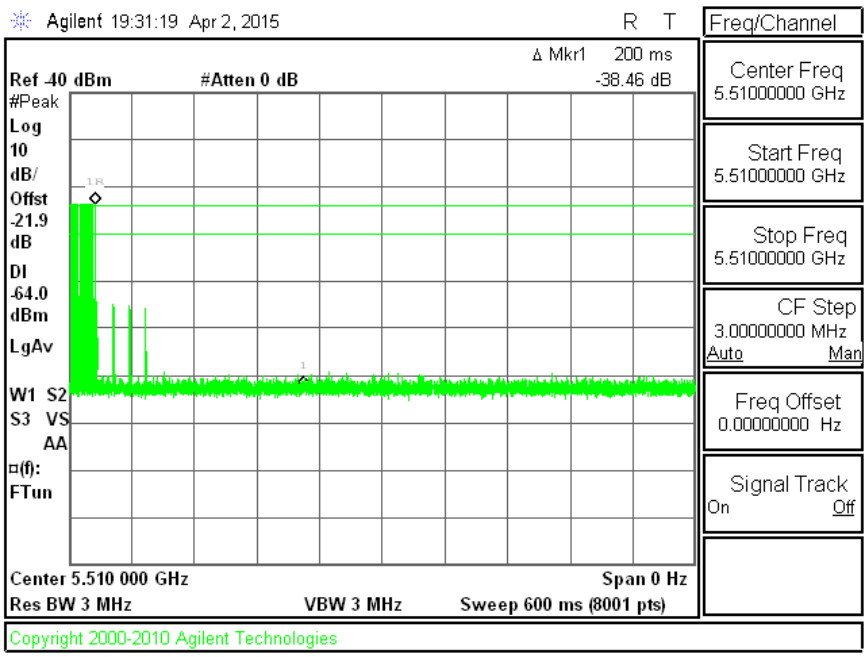
Aggregate Channel Closing Transmission Time (msec)	Limit (msec)
0.0	60

MOVE TIME



CHANNEL CLOSING TIME

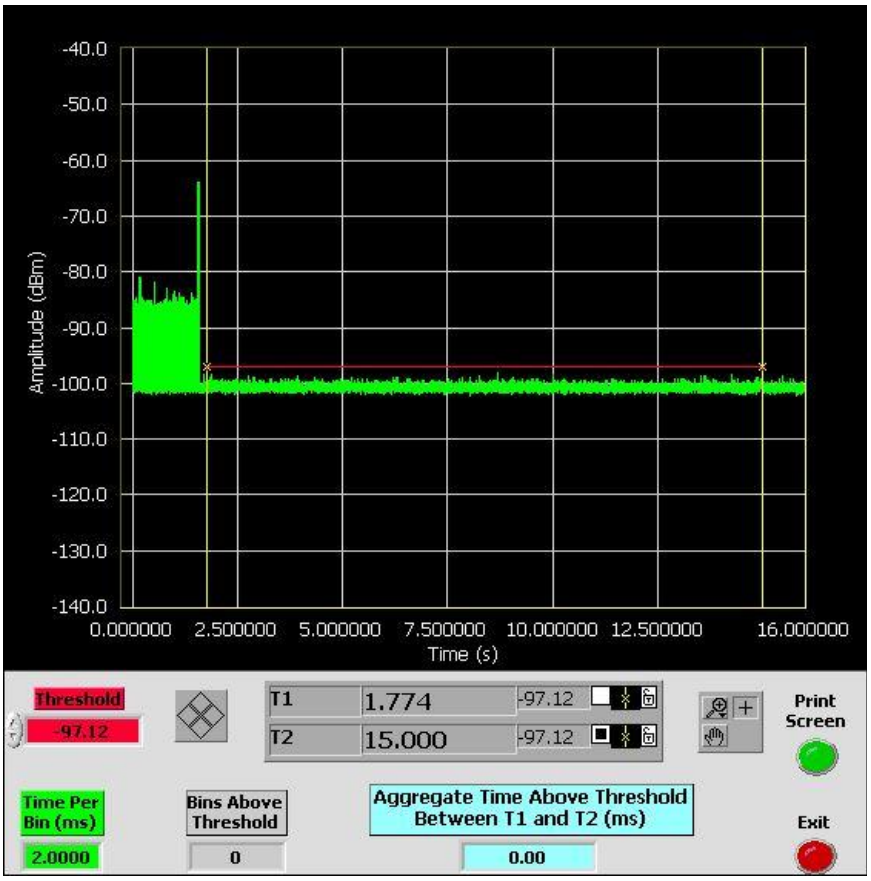
CLOSING TIME



AGGREGATE CHANNEL CLOSING TRANSMISSION TIME

No transmissions are observed during the aggregate monitoring period.

AGGREGATE CLOSING TIME



15.3.5. 10-MINUTE BEACON MONITORING PERIOD

RESULTS

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