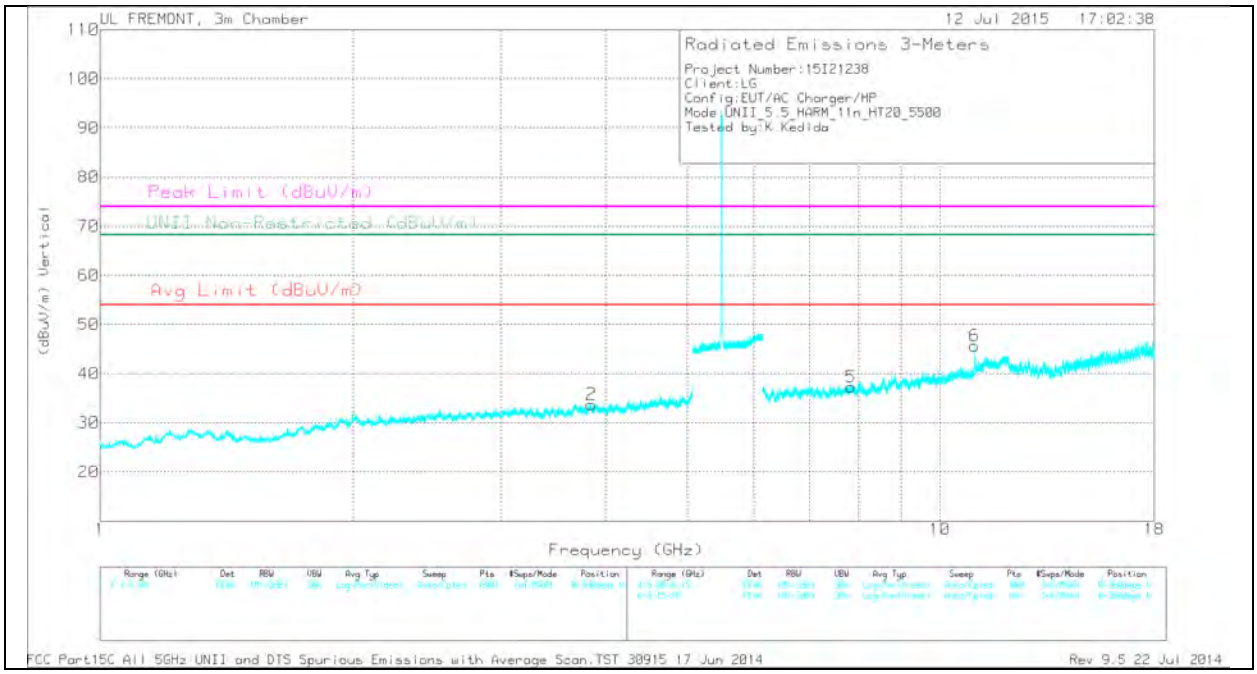
LOW CHANNEL VERTICAL



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

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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	* 3.848	30.83	Pk	33.1	-30.2	0	33.73	-	-	74	-40.27	-	-	0-360	200	H
2	* 3.846	30.84	Pk	33.1	-30.2	0	33.74	-	-	74	-40.26	-	-	0-360	200	V
4	* 12.053	28.52	Pk	39	-23.7	0	43.82	-	-	74	-30.18	-	-	0-360	100	H
6	* 11	31.07	Pk	37.9	-23.3	0	45.67	-	-	74	-28.33	-	-	0-360	100	V
5	7.839	28.29	Pk	35.8	-26.8	0	37.29	-	-	-	-	68.2	-30.91	0-360	200	V
3	7.986	29.06	Pk	35.8	-27.4	0	37.46	-	-	-	-	68.2	-30.74	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
* 3.849	39.94	PK1	33.1	-30.2	0	42.84	-	-	74	-31.16	-	-	360	200	H
* 3.846	28.53	AD1	33.1	-30.2	.25	31.68	54	-22.32	-	-	-	-	360	200	H
* 3.847	40.52	PK1	33.1	-30.2	0	43.42	-	-	74	-30.58	-	-	360	200	V
* 3.847	28.64	AD1	33.1	-30.2	.25	31.79	54	-22.21	-	-	-	-	360	200	V
* 12.054	36.37	PK1	39	-23.7	0	51.67	-	-	74	-22.33	-	-	360	100	H
* 12.055	25.34	AD1	39	-23.7	.25	40.89	54	-13.11	-	-	-	-	360	100	H
* 10.999	44.29	PK1	37.9	-23.3	0	58.89	-	-	74	-15.11	-	-	292	100	V
* 11	29.71	AD1	37.9	-23.3	.25	44.56	54	-9.44	-	-	-	-	292	100	V
7.839	37.81	PK1	35.8	-26.8	0	46.81	-	-	-	-	68.2	-21.39	360	200	V
7.988	38.08	PK1	35.8	-27.4	0	46.48	-	-	-	-	68.2	-21.72	360	200	H

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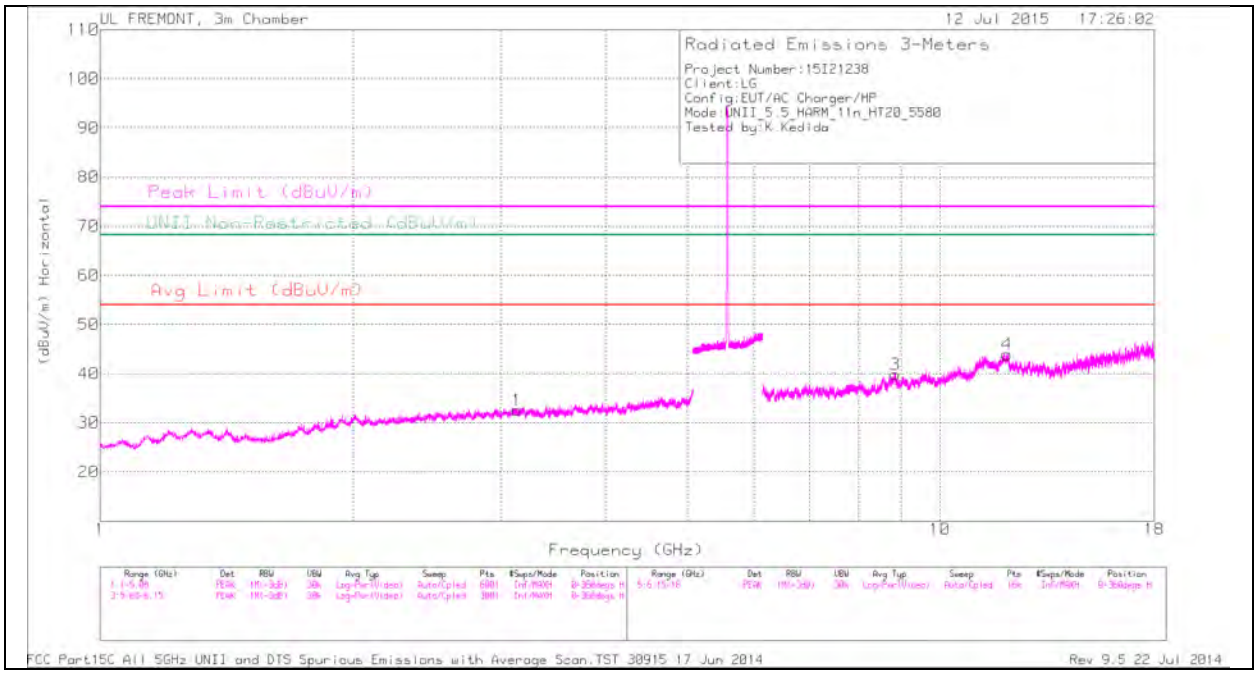
MID CHANNEL HORIZONTAL



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

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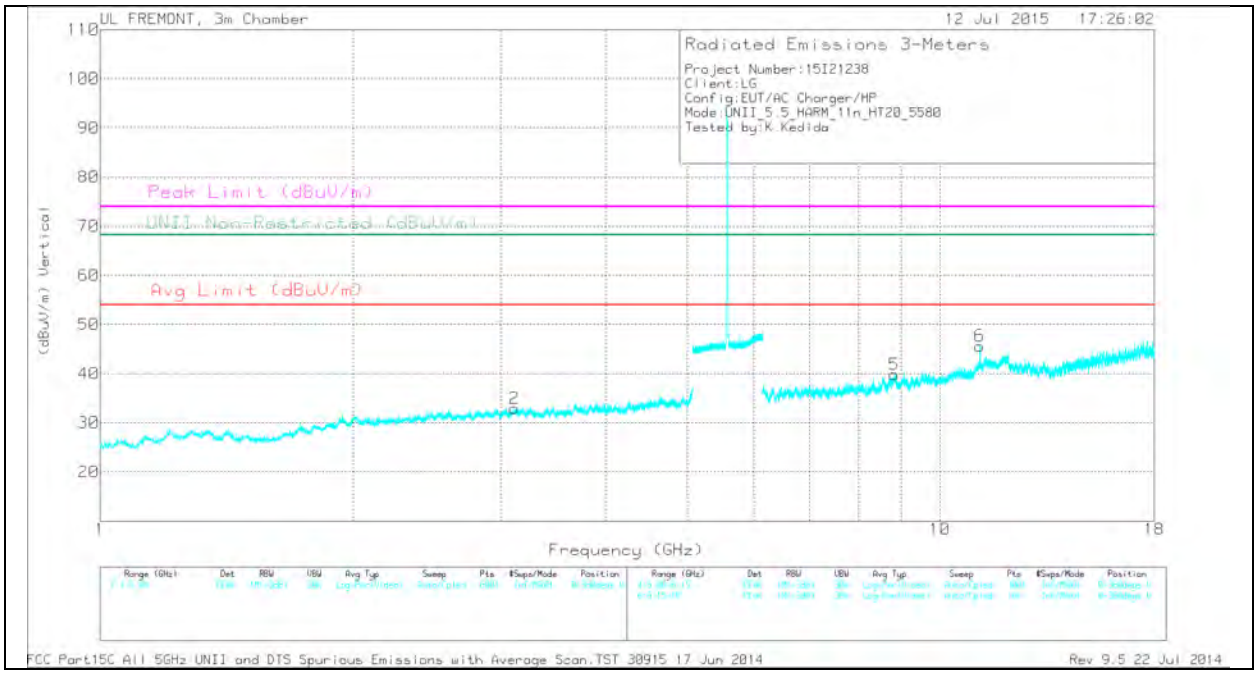
MID CHANNEL VERTICAL



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

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MID 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
4	* 12.021	28.38	Pk	39.1	-23.6	0	43.88	-	-	74	-30.12	-	-	0-360	200	H
6	* 11.16	31.23	Pk	37.9	-23.5	0	45.63	-	-	74	-28.37	-	-	0-360	100	V
2	3.115	31.62	Pk	32.7	-31.4	0	32.92	-	-	-	-	68.2	-35.28	0-360	100	V
1	3.136	30.82	Pk	32.7	-31	0	32.52	-	-	-	-	68.2	-35.68	0-360	200	H
5	8.829	28.2	Pk	35.9	-24.3	0	39.8	-	-	-	-	68.2	-28.4	0-360	100	V
3	8.849	28.82	Pk	35.9	-24.9	0	39.82	-	-	-	-	68.2	-28.38	0-360	100	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
* 12.022	37.02	PK1	39.1	-23.6	0	52.52	-	-	74	-21.48	-	-	360	200	H
* 12.022	25.25	AD1	39.1	-23.6	.25	41	54	-13	-	-	-	-	360	200	H
* 12.021	36.53	PK1	39.1	-23.6	0	52.03	-	-	74	-21.97	-	-	360	200	H
* 12.02	25.2	AD1	39.1	-23.6	.25	40.95	54	-13.05	-	-	-	-	360	200	H
* 11.16	44.87	PK1	37.9	-23.5	0	59.27	-	-	74	-14.73	-	-	204	107	V
* 11.161	29.27	AD1	37.9	-23.5	.25	43.92	54	-10.08	-	-	-	-	204	107	V
3.116	41.25	PK1	32.7	-31.3	0	42.65	-	-	-	-	68.2	-25.55	360	100	V
3.134	40.51	PK1	32.7	-31	0	42.21	-	-	-	-	68.2	-25.99	360	200	H
8.829	37.08	PK1	35.9	-24.3	0	48.68	-	-	-	-	68.2	-19.52	360	100	V
8.851	37.3	PK1	35.9	-25	0	48.2	-	-	-	-	68.2	-20	360	100	H

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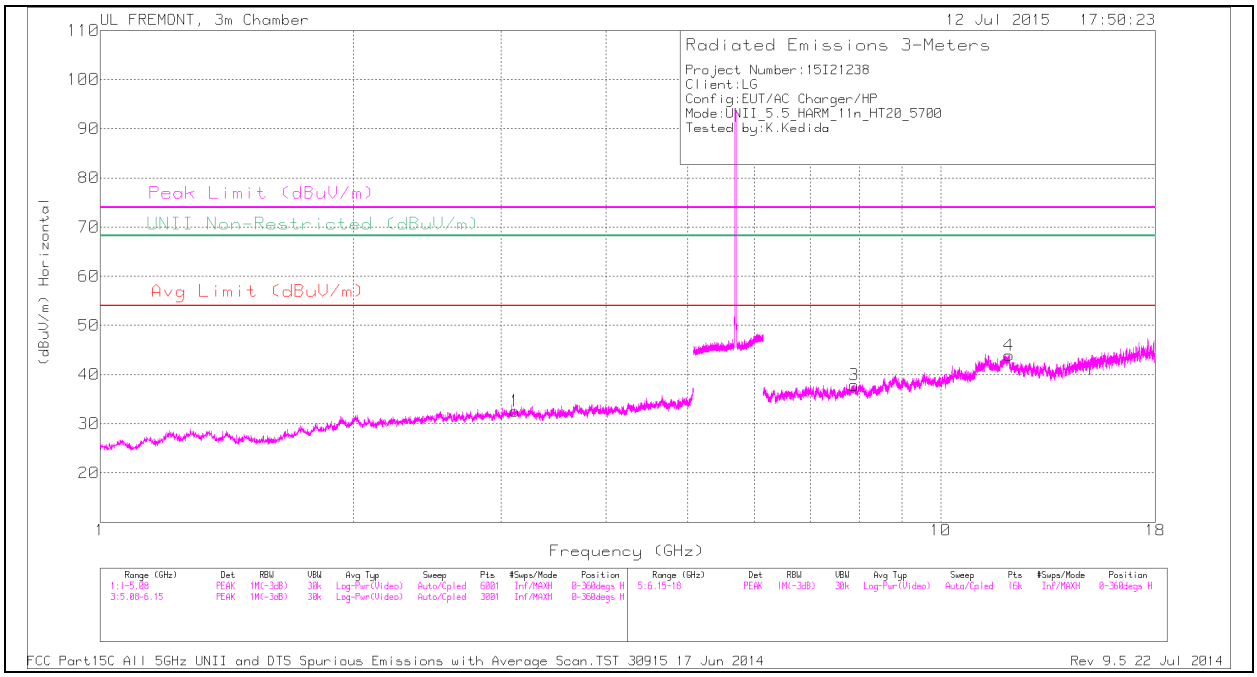
HIGH CHANNEL HORIZONTAL



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

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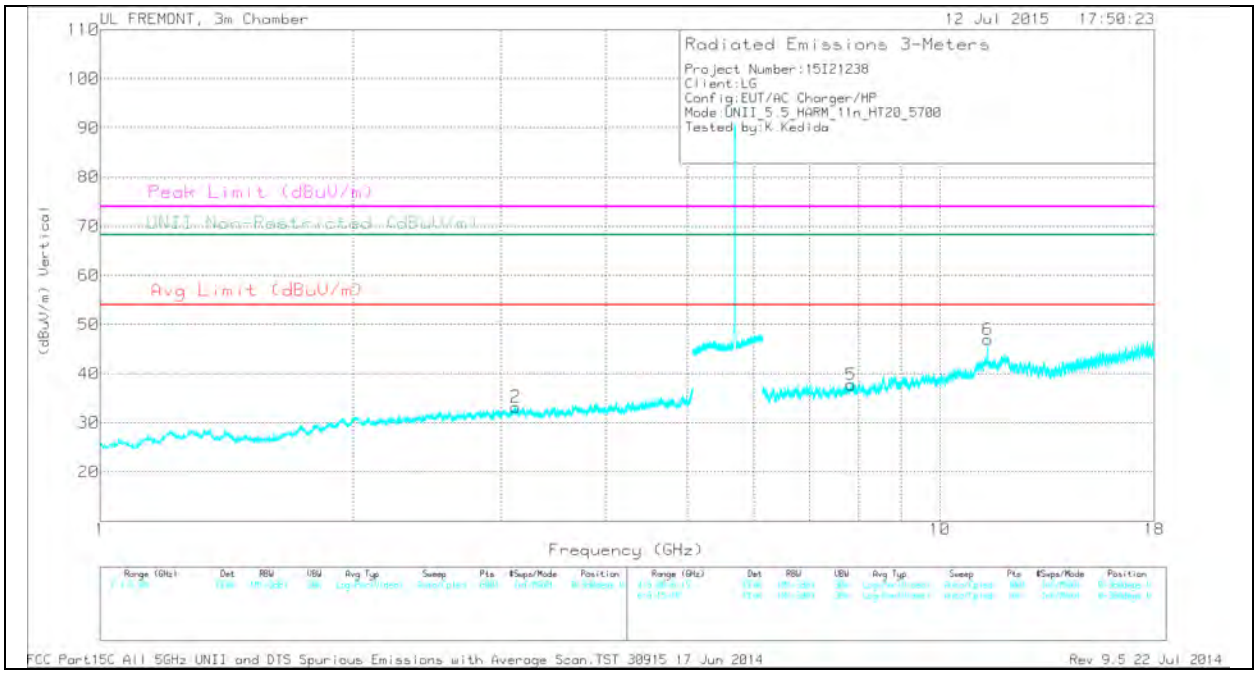
HIGH CHANNEL VERTICAL



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

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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
4	* 12.06	28.73	Pk	39	-23.8	0	43.93	-	-	74	-30.07	-	-	0-360	100	H
6	* 11.399	31.87	Pk	38.2	-23.1	0	46.97	-	-	74	-27.03	-	-	0-360	100	V
1	3.115	31.17	Pk	32.7	-31.3	0	32.57	-	-	-	-	68.2	-35.63	0-360	100	H
2	3.125	31.72	Pk	32.7	-31.2	0	33.22	-	-	-	-	68.2	-34.98	0-360	200	V
5	7.836	28.75	Pk	35.8	-26.8	0	37.75	-	-	-	-	68.2	-30.45	0-360	200	V
3	7.896	28.77	Pk	35.8	-26.7	0	37.87	-	-	-	-	68.2	-30.33	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
* 12.061	36.65	PK1	39	-23.8	0	51.85	-	-	74	-22.15	-	-	360	100	H
* 12.061	25.4	AD1	39	-23.8	.25	40.85	54	-13.15	-	-	-	-	360	100	H
* 11.4	42.93	PK1	38.2	-23.1	0	58.03	-	-	74	-15.97	-	-	240	135	V
* 11.4	28.83	AD1	38.2	-23.1	.25	44.18	54	-9.82	-	-	-	-	240	135	V
* 11.16	44.87	PK1	37.9	-23.5	0	59.27	-	-	74	-14.73	-	-	204	107	V
* 11.161	29.27	AD1	37.9	-23.5	.25	43.92	54	-10.08	-	-	-	-	204	107	V
3.116	41.12	PK1	32.7	-31.3	0	42.52	-	-	-	-	68.2	-25.68	360	100	H
3.124	40.83	PK1	32.7	-31.2	0	42.33	-	-	-	-	68.2	-25.87	360	200	V
7.835	37.77	PK1	35.8	-26.8	0	46.77	-	-	-	-	68.2	-21.43	360	200	V
7.897	38.29	PK1	35.8	-26.8	0	47.29	-	-	-	-	68.2	-20.91	360	200	H

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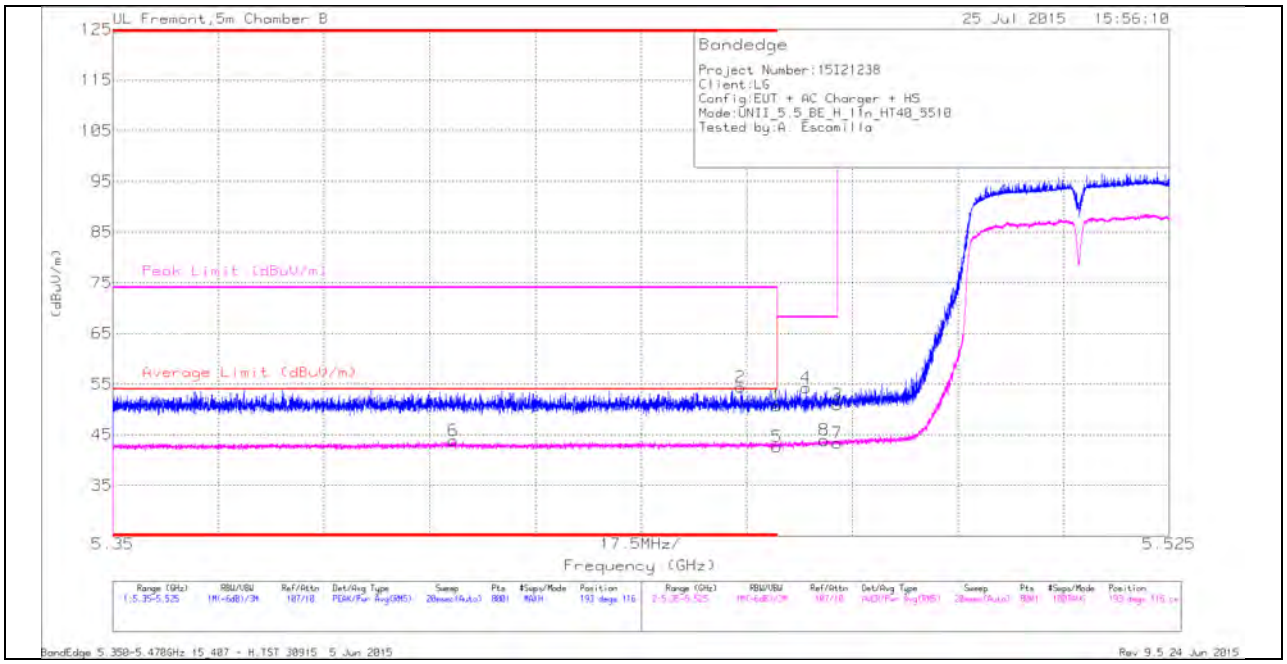
11.3.3. TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.5 GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (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
6	* 5.406	30.85	RMS	34.5	-22	.5	43.85	-	-	-	-	193	116	H
2	* 5.454	41.94	Pk	34.5	-22.1	0	54.34	-	-	74	-19.66	193	116	H
1	* 5.46	38.11	Pk	34.5	-22	0	50.61	-	-	74	-23.39	193	116	H
5	* 5.46	29.61	RMS	34.5	-22	.5	42.61	-	-	-	-	193	116	H
4	5.465	41.74	Pk	34.5	-22	0	54.24	-	-	68.2	-13.96	193	116	H
8	5.468	31	RMS	34.5	-22.1	.5	43.9	-	-	-	-	193	116	H
3	5.47	38.56	Pk	34.5	-22.1	0	50.96	-	-	68.2	-17.24	193	116	H
7	5.47	30.41	RMS	34.5	-22.1	.5	43.31	-	-	-	-	193	116	H

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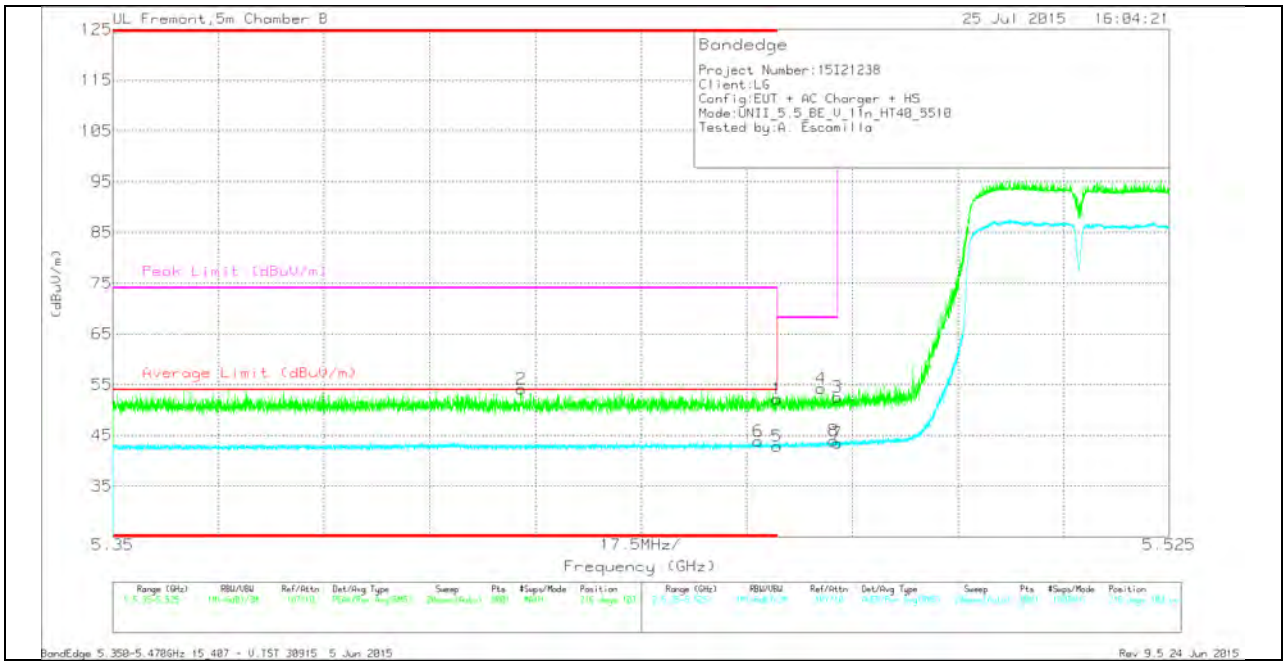
VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (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
2	* 5.418	41.65	Pk	34.5	-22	0	54.15	-	-	74	-19.85	216	103	V
6	* 5.457	30.9	RMS	34.5	-22.1	.5	43.8	-	-	-	-	216	103	V
1	* 5.46	39.7	Pk	34.5	-22	0	52.2	-	-	74	-21.8	216	103	V
5	* 5.46	29.88	RMS	34.5	-22	.5	42.88	-	-	-	-	216	103	V
4	5.467	41.89	Pk	34.5	-22.1	0	54.29	-	-	68.2	-13.91	216	103	V
8	5.469	31.09	RMS	34.5	-22.1	.5	43.99	-	-	-	-	216	103	V
3	5.47	40.15	Pk	34.5	-22.1	0	52.55	-	-	68.2	-15.65	216	103	V
7	5.47	30.59	RMS	34.5	-22.1	.5	43.49	-	-	-	-	216	103	V

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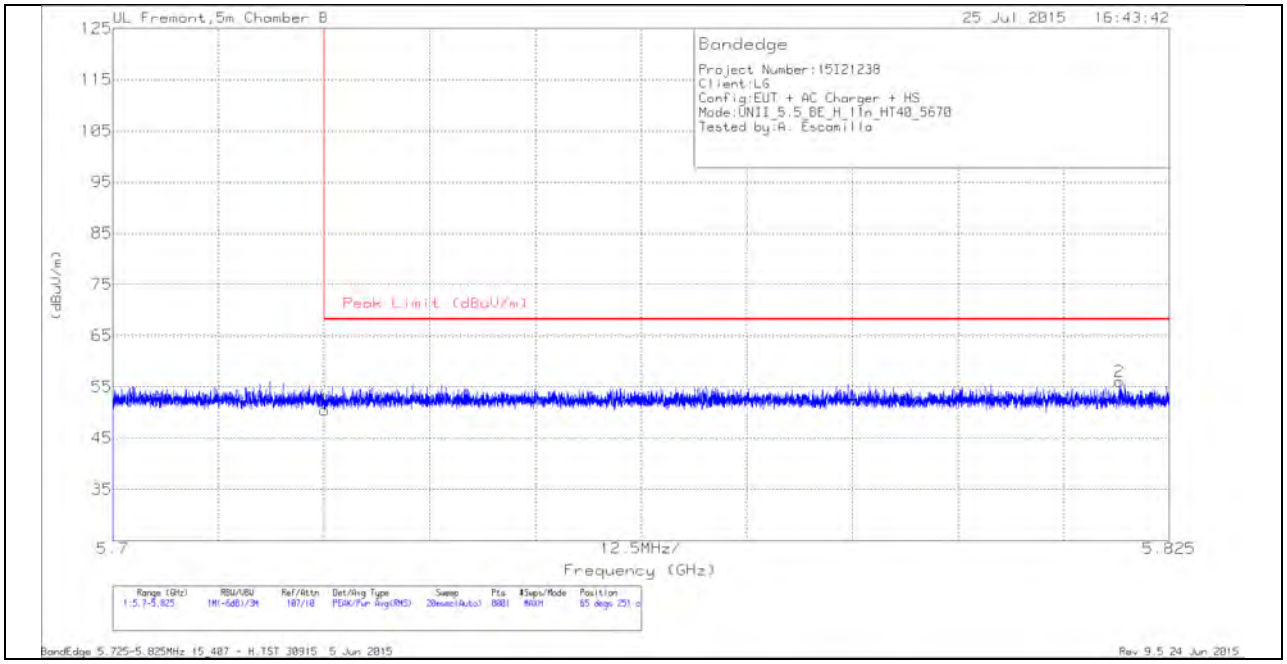
AUTHORIZED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (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	37.21	Pk	35	-21.7	0	50.51	68.2	-17.69	65	251	H
2	5.819	42.5	Pk	35.2	-21.7	0	56	68.2	-12.2	65	251	H

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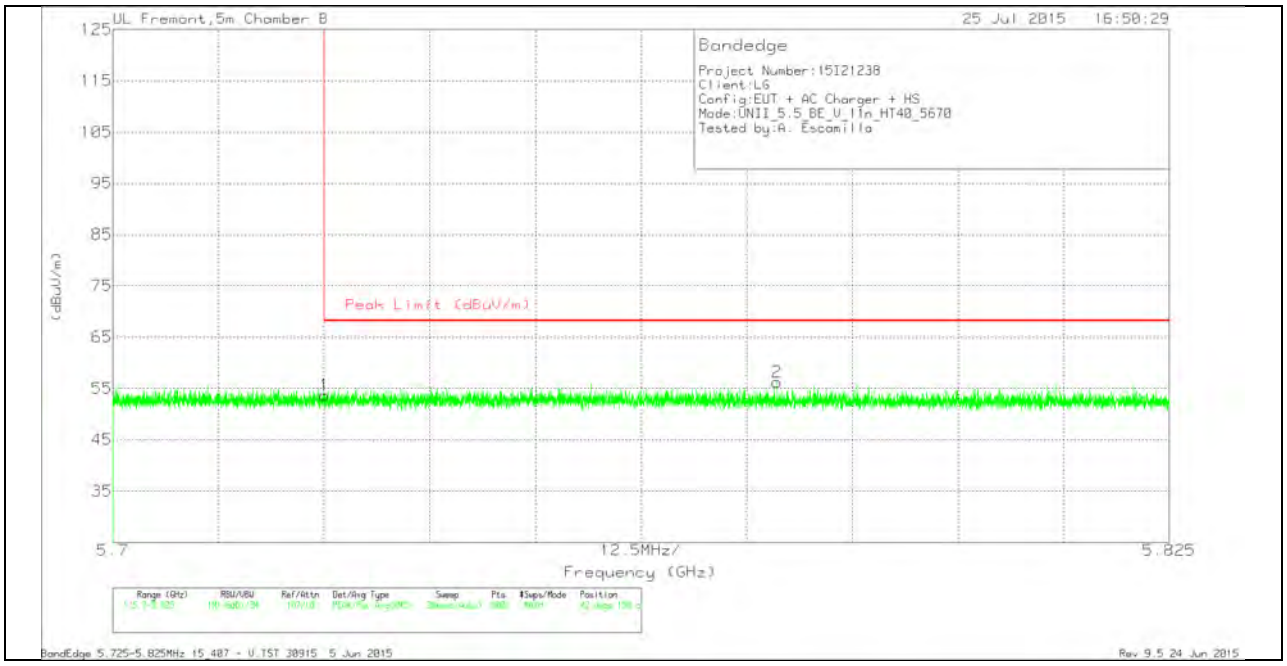
VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (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	40.37	Pk	35	-21.7	0	53.67	68.2	-14.53	42	158	V
2	5.779	42.86	Pk	35.1	-21.7	0	56.26	68.2	-11.94	42	158	V

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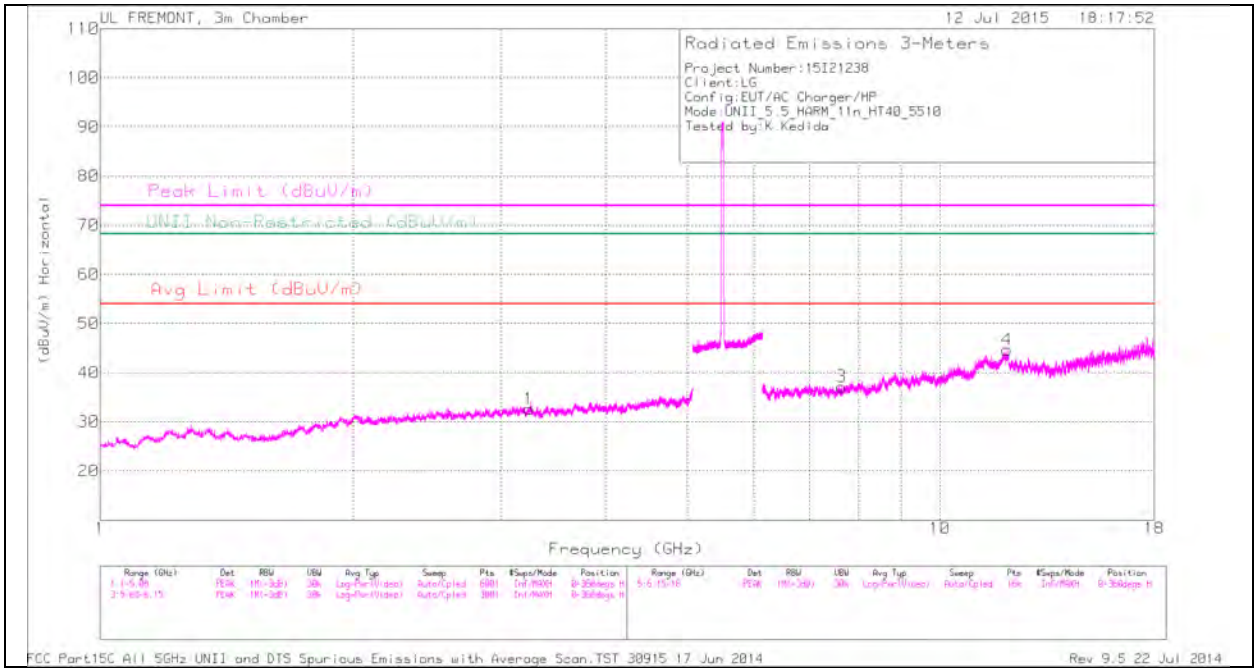
HARMONICS AND SPURIOUS EMISSIONS

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.

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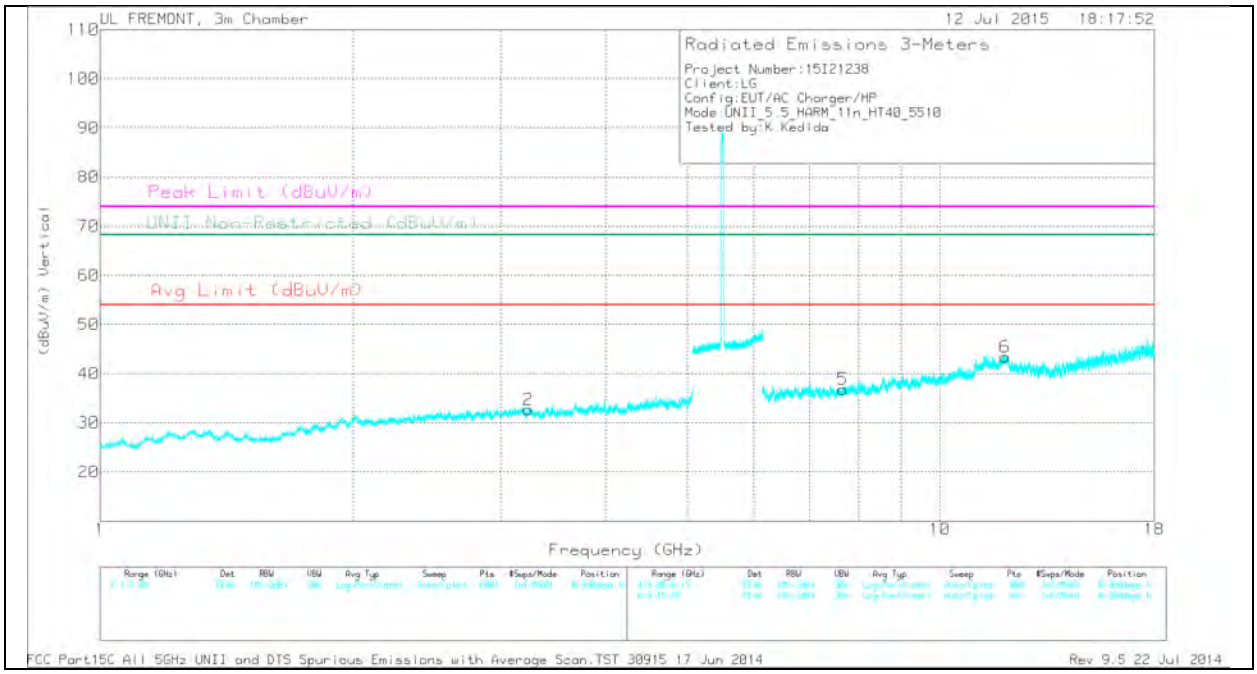
LOW CHANNEL VERTICAL



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

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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
3	* 7.642	29.27	Pk	35.8	-27.9	0	37.17	-	-	74	-36.83	-	-	0-360	100	H
4	* 12.021	29.15	Pk	39.1	-23.6	0	44.65	-	-	74	-29.35	-	-	0-360	200	H
5	* 7.662	28.71	Pk	35.8	-27.7	0	36.81	-	-	74	-37.19	-	-	0-360	200	V
6	* 11.956	28.18	Pk	39.1	-23.9	0	43.38	-	-	74	-30.62	-	-	0-360	100	V
2	3.236	30.65	Pk	32.6	-30.6	0	32.65	-	-	-	-	68.2	-35.55	0-360	100	V
1	3.243	30.68	Pk	32.6	-30.7	0	32.58	-	-	-	-	68.2	-35.62	0-360	100	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
* 7.641	38.61	PK1	35.8	-27.8	0	46.61	-	-	74	-27.39	-	-	360	100	H
* 7.64	27.28	AD1	35.8	-27.8	.5	35.78	54	-18.22	-	-	-	-	360	100	H
* 12.023	36.57	PK1	39.1	-23.6	0	52.07	-	-	74	-21.93	-	-	360	200	H
* 12.023	25.23	AD1	39.1	-23.6	.5	41.23	54	-12.77	-	-	-	-	360	200	H
* 7.662	38.61	PK1	35.8	-27.7	0	46.71	-	-	74	-27.29	-	-	360	200	V
* 7.66	27.16	AD1	35.8	-27.8	.5	35.66	54	-18.34	-	-	-	-	360	200	V
* 11.955	37.38	PK1	39.1	-23.9	0	52.58	-	-	74	-21.42	-	-	360	100	V
* 11.955	25.83	AD1	39.1	-23.8	.5	41.63	54	-12.37	-	-	-	-	360	100	V
3.235	39.99	PK1	32.6	-30.6	0	41.99	-	-	-	-	68.2	-26.21	360	100	V
3.242	40.37	PK1	32.6	-30.7	0	42.27	-	-	-	-	68.2	-25.93	360	100	H

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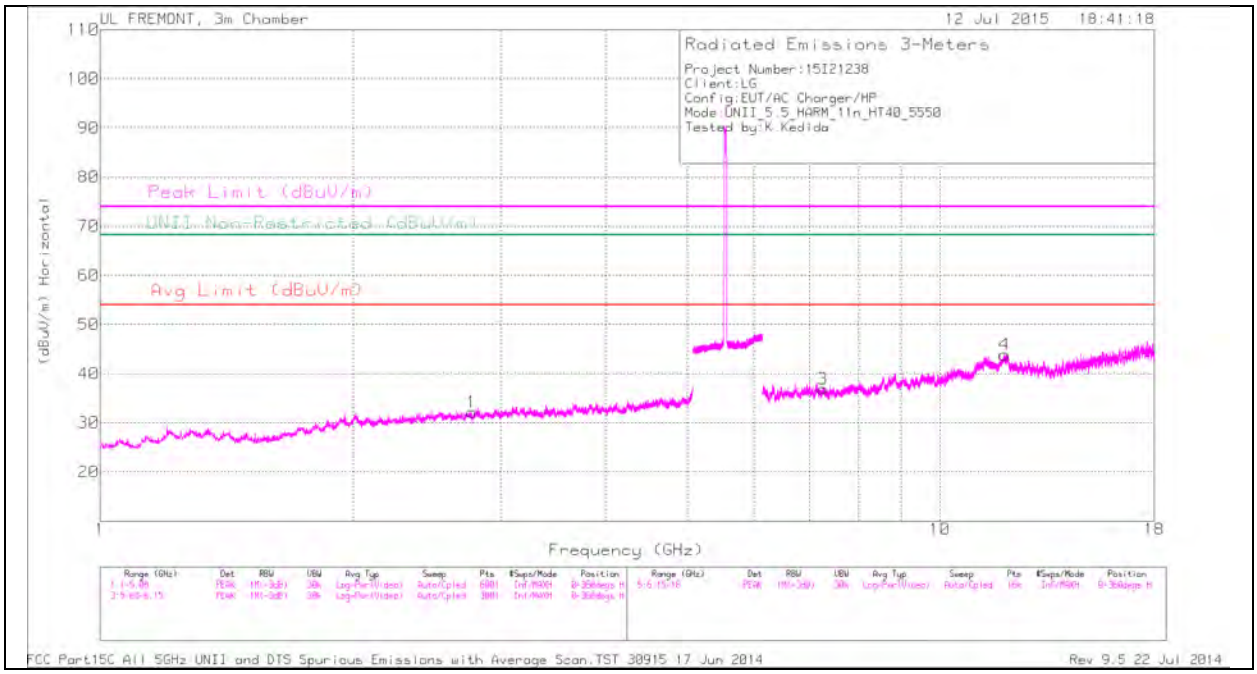
MID CHANNEL HORIZONTAL



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

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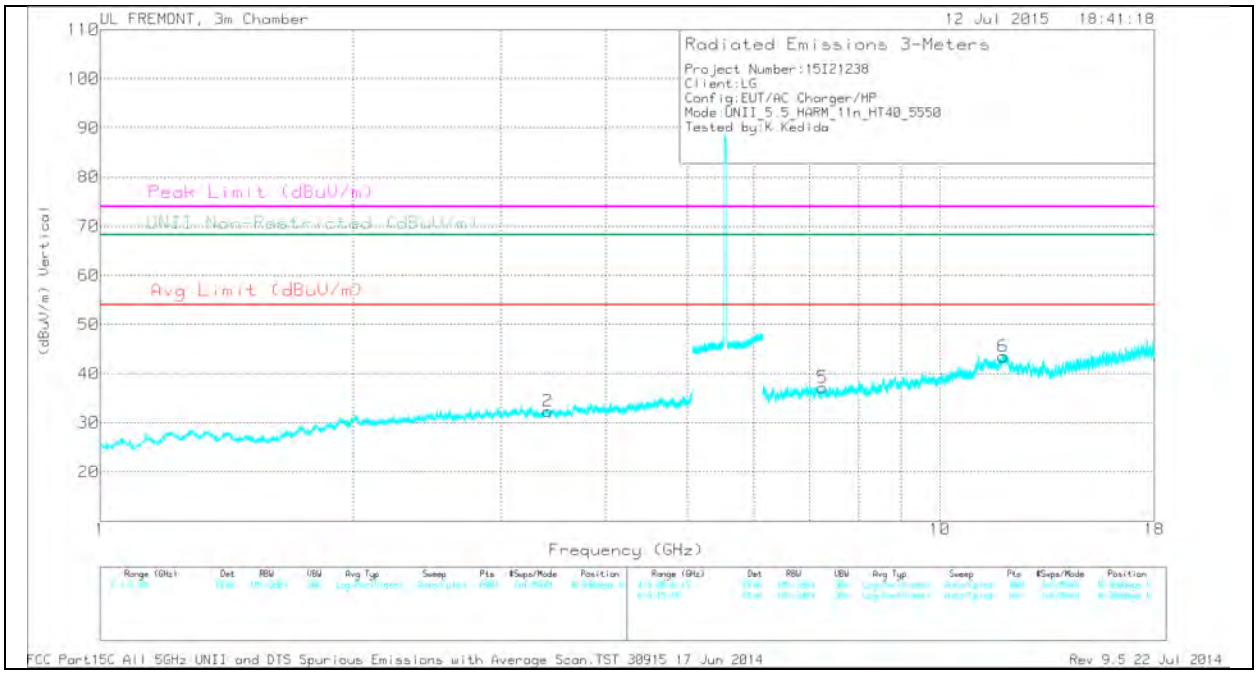
MID CHANNEL VERTICAL



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

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MID 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	* 2.77	31.24	Pk	32.5	-31.6	0	32.14	-	-	74	-41.86	-	-	0-360	100	H
4	* 11.939	28.37	Pk	39.1	-23.6	0	43.87	-	-	74	-30.13	-	-	0-360	100	H
6	* 11.895	27.79	Pk	39.1	-23.4	0	43.49	-	-	74	-30.51	-	-	0-360	200	V
2	3.415	30.45	Pk	32.7	-30.8	0	32.35	-	-	-	-	68.2	-35.85	0-360	100	V
3	7.248	29.3	Pk	35.6	-28	0	36.9	-	-	-	-	68.2	-31.3	0-360	200	H
5	7.25	29.57	Pk	35.6	-28	0	37.17	-	-	-	-	68.2	-31.03	0-360	100	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
* 2.77	40.8	PK1	32.5	-31.6	0	41.7	-	-	74	-32.3	-	-	359	100	H
* 2.768	29.15	AD1	32.5	-31.6	.5	30.55	54	-23.45	-	-	-	-	359	100	H
* 11.939	38.3	PK1	39.1	-23.6	0	53.8	-	-	74	-20.2	-	-	359	100	H
* 11.938	26.02	AD1	39.1	-23.6	.5	42.02	54	-11.98	-	-	-	-	359	100	H
* 7.251	38.95	PK1	35.6	-28	0	46.55	-	-	74	-27.45	-	-	359	100	V
* 7.252	27.63	AD1	35.6	-28	.5	35.73	54	-18.27	-	-	-	-	359	100	V
* 11.896	36.8	PK1	39.1	-23.4	0	52.5	-	-	74	-21.5	-	-	359	200	V
* 11.894	25.4	AD1	39.1	-23.4	.5	41.6	54	-12.4	-	-	-	-	359	200	V
3.413	40.28	PK1	32.7	-30.8	0	42.18	-	-	-	-	68.2	-26.02	359	100	V
3.416	28.82	AD1	32.7	-30.8	.5	31.22	-	-	-	-	-	-	359	100	V
7.249	40.02	PK1	35.6	-28	0	47.62	-	-	-	-	68.2	-20.58	359	200	H
7.25	27.59	AD1	35.6	-28	.5	35.69	-	-	-	-	-	-	359	200	H

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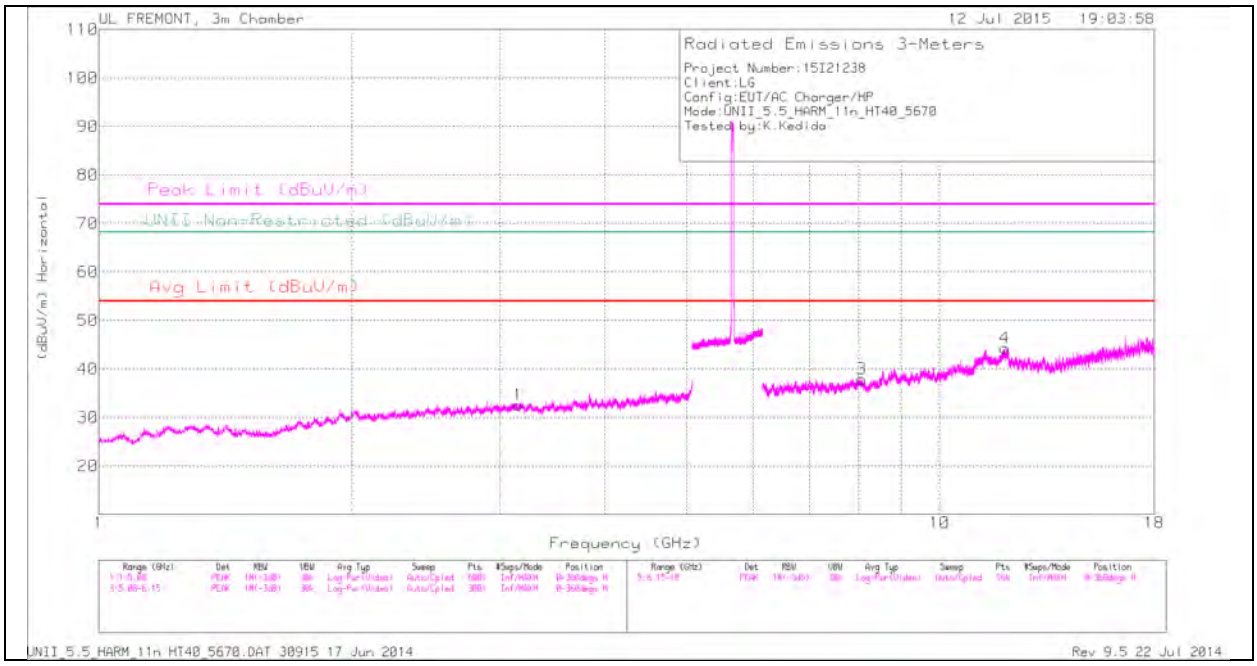
HIGH CHANNEL HORIZONTAL



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

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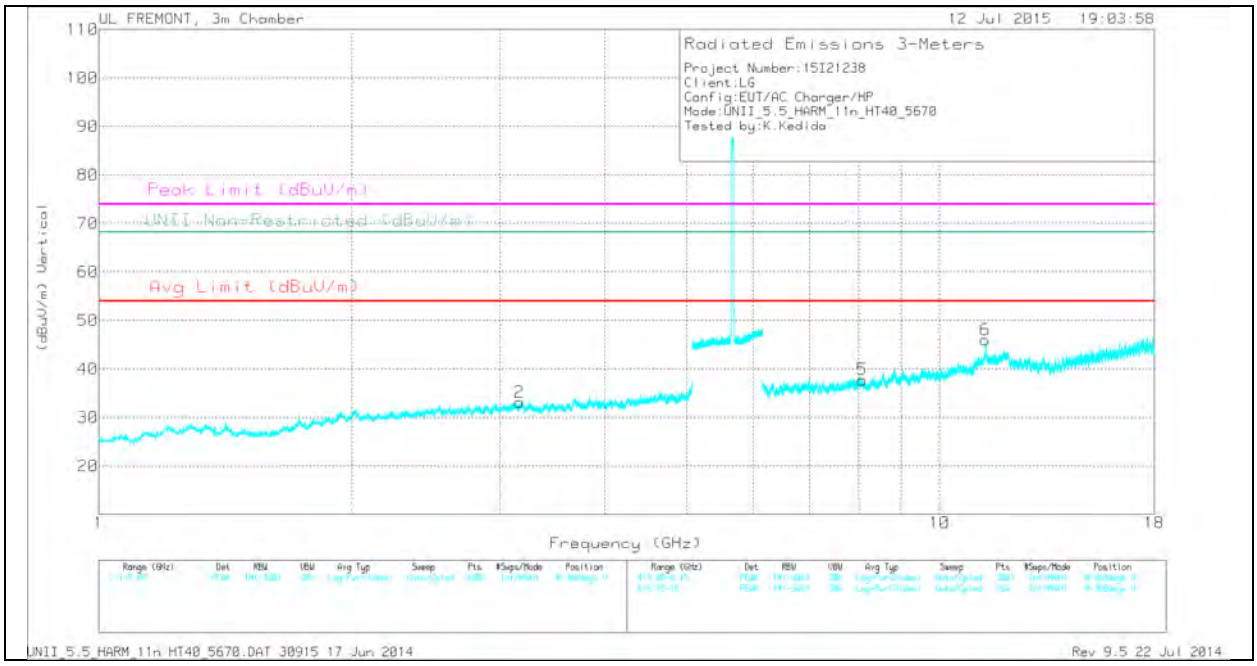
HIGH CHANNEL VERTICAL



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

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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
3	* 8.073	28.76	Pk	35.7	-26.5	0	37.96	-	-	74	-36.04	-	-	0-360	200	H
4	* 11.943	28.98	Pk	39.1	-23.7	0	44.38	-	-	74	-29.62	-	-	0-360	100	H
5	* 8.089	28.28	Pk	35.7	-26.2	0	37.78	-	-	74	-36.22	-	-	0-360	100	V
6	* 11.339	30.57	Pk	38.1	-22.7	0	45.97	-	-	74	-28.03	-	-	0-360	100	V
1	3.153	30.85	Pk	32.7	-31	0	32.55	-	-	-	-	68.2	-35.65	0-360	100	H
2	3.166	31.23	Pk	32.7	-30.8	0	33.13	-	-	-	-	68.2	-35.07	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
* 8.072	37.38	PK1	35.7	-26.5	0	46.58	-	-	74	-27.42	-	-	360	200	H
* 8.075	26.24	AD1	35.7	-26.4	.5	36.04	54	-17.96	-	-	-	-	360	200	H
* 11.944	37.37	PK1	39.1	-23.7	0	52.77	-	-	74	-21.23	-	-	360	100	H
* 11.944	25.96	AD1	39.1	-23.7	.5	41.86	54	-12.14	-	-	-	-	360	100	H
* 8.089	38.19	PK1	35.7	-26.2	0	47.69	-	-	74	-26.31	-	-	360	100	V
* 8.09	25.99	AD1	35.7	-26.2	.5	35.99	54	-18.01	-	-	-	-	360	100	V
* 11.337	41.22	PK1	38.1	-22.7	0	56.62	-	-	74	-17.38	-	-	189	107	V
* 11.34	27.73	AD1	38.1	-22.7	.5	43.63	54	-10.37	-	-	-	-	189	107	V
3.152	41.05	PK1	32.7	-31	0	42.75	-	-	-	-	68.2	-25.45	360	100	H
3.168	41.07	PK1	32.7	-30.8	0	42.97	-	-	-	-	68.2	-25.23	360	200	V

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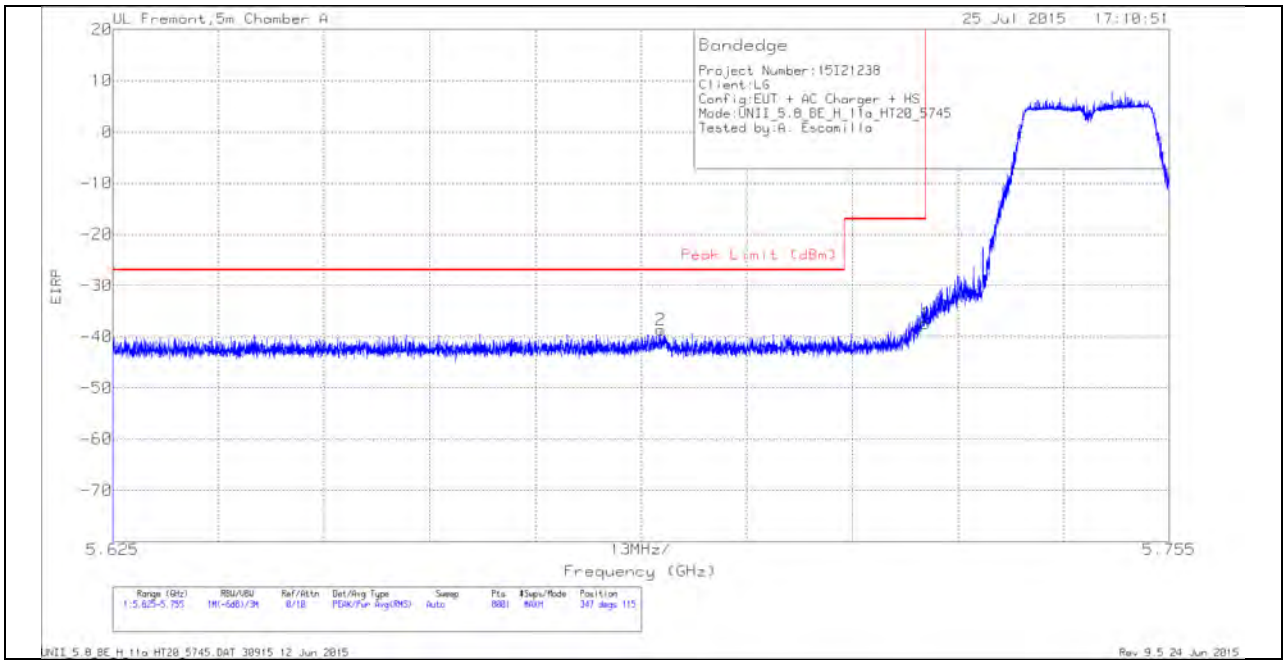
11.4. 5.8 GHz

11.4.1. 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 T136 (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	5.692	-65.3	Pk	34.7	-19.9	11.8	0	-38.7	-27	-11.7	347	115	H
1	5.725	-64.19	Pk	34.7	-19.8	11.8	0	-37.49	-17	-20.49	347	115	H

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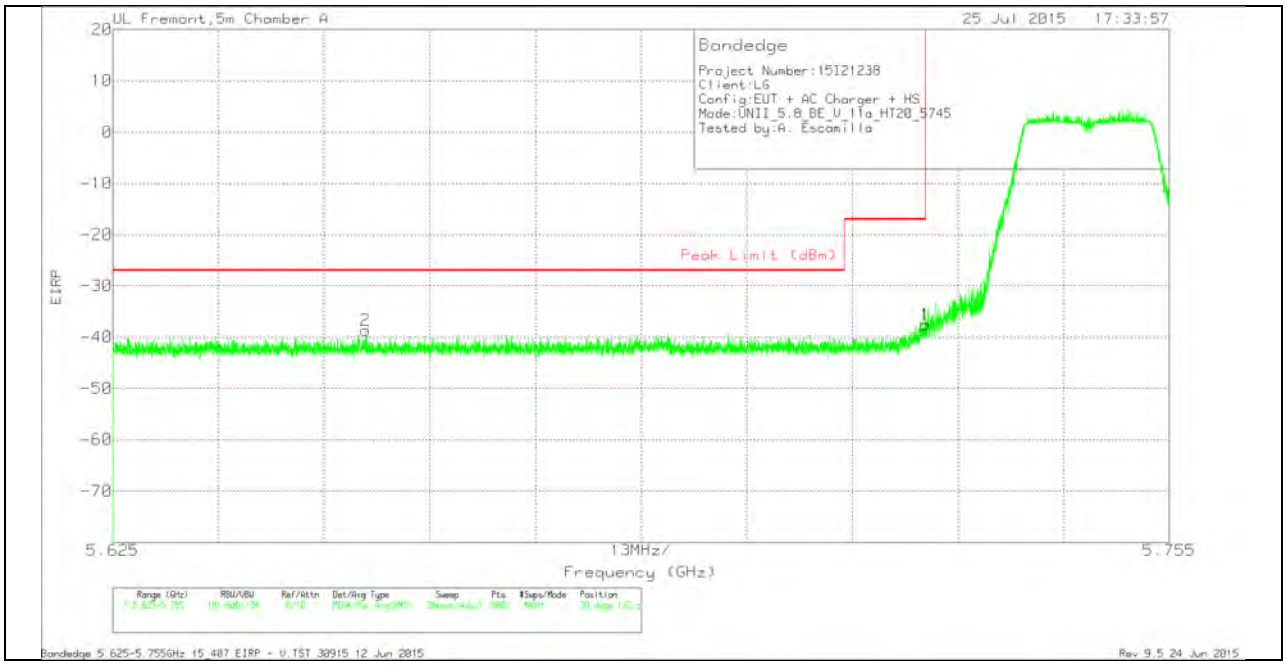
VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T136 (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	5.656	-64.97	Pk	34.6	-20.1	11.8	0	-38.67	-27	-11.67	30	132	V
1	5.725	-64.28	Pk	34.7	-19.8	11.8	0	-37.58	-17	-20.58	30	132	V

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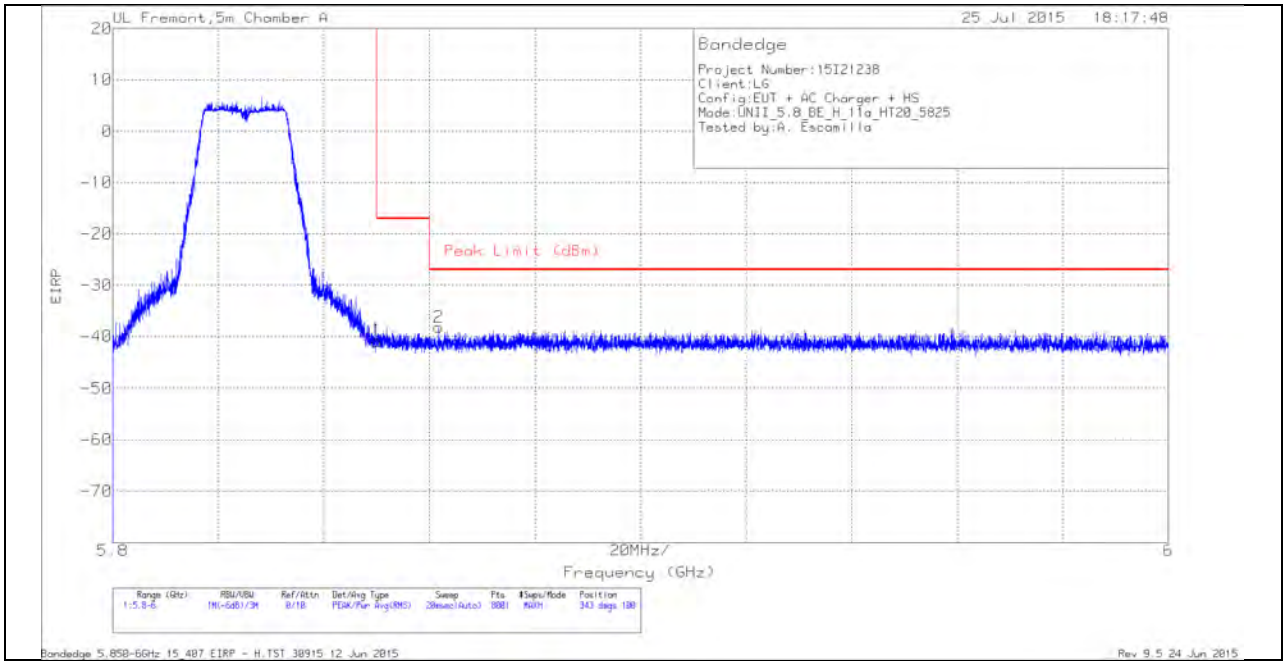
AUTHORIZED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T136 (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	-68.42	Pk	35.1	-19.3	11.8	0	-40.82	-17	-23.82	343	100	H
2	5.862	-65.71	Pk	35.1	-19.4	11.8	0	-38.21	-27	-11.21	343	100	H

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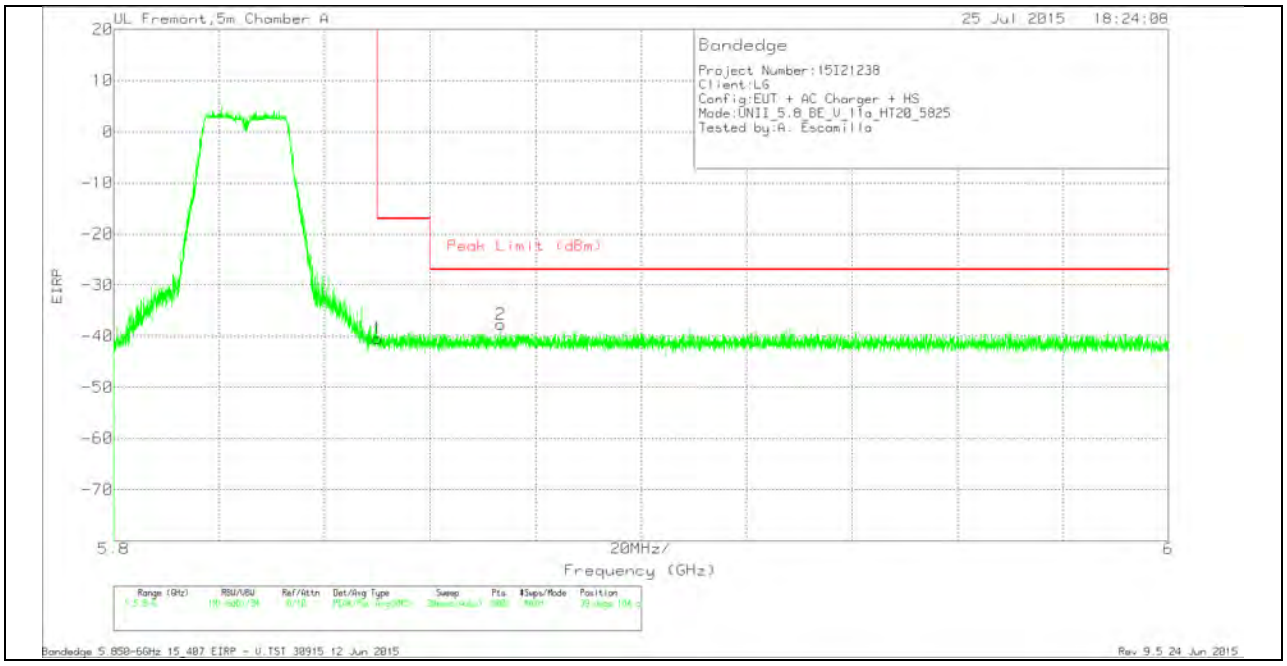
VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T136 (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	-68.05	Pk	35.1	-19.3	11.8	0	-40.45	-17	-23.45	39	104	V
2	5.873	-65.34	Pk	35.1	-19.3	11.8	0	-37.74	-27	-10.74	39	104	V

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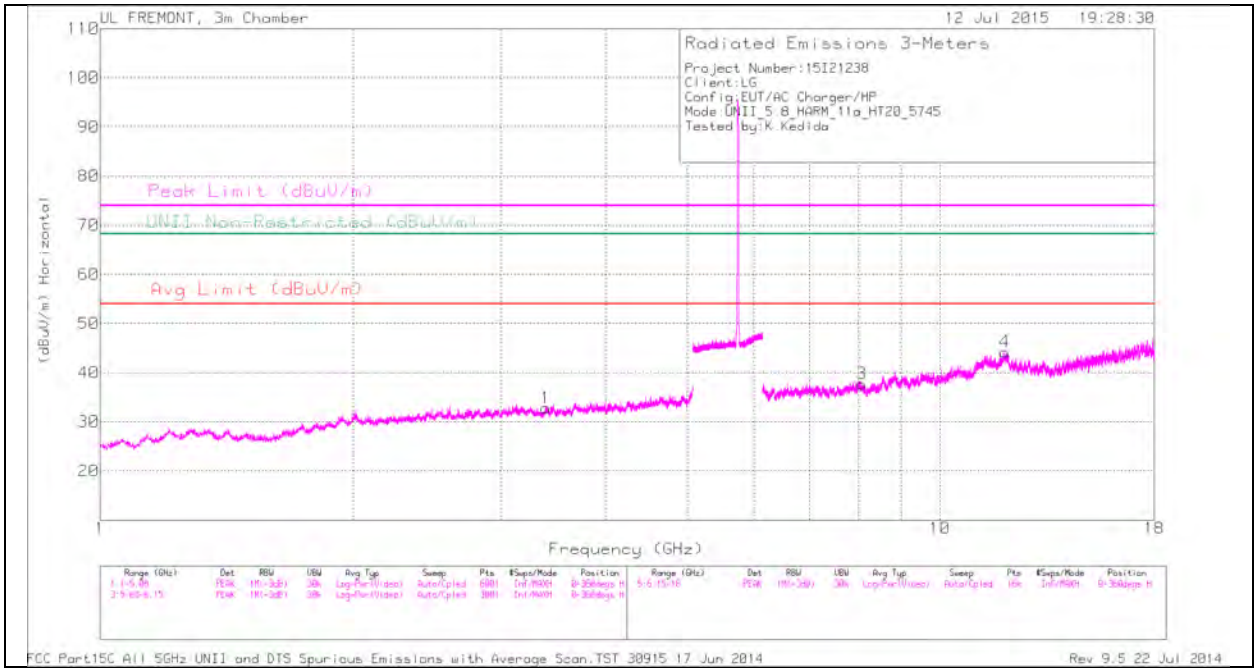
HARMONICS AND SPURIOUS EMISSIONS

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.

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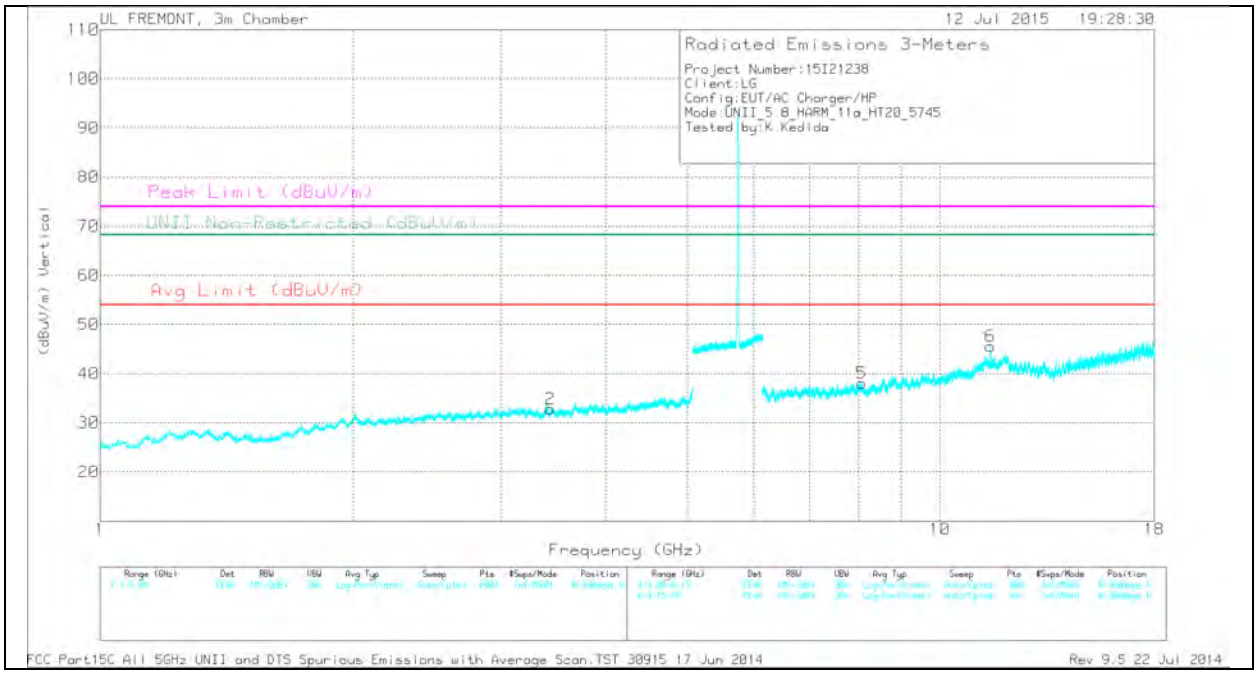
LOW CHANNEL VERTICAL



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

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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
3	* 8.073	28.52	Pk	35.7	-26.5	0	37.72	-	-	74	-36.28	-	-	0-360	100	H
4	* 11.948	28.9	Pk	39.1	-23.8	0	44.2	-	-	74	-29.8	-	-	0-360	100	H
5	* 8.073	28.85	Pk	35.7	-26.5	0	38.05	-	-	74	-35.95	-	-	0-360	100	V
6	* 11.49	30.28	Pk	38.4	-23.1	0	45.58	-	-	74	-28.42	-	-	0-360	100	V
1	3.397	30.9	Pk	32.7	-30.8	0	32.8	-	-	-	-	68.2	-35.4	0-360	100	H
2	3.437	30.91	Pk	32.7	-30.8	0	32.81	-	-	-	-	68.2	-35.39	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
* 8.072	38.06	PK1	35.7	-26.5	0	47.26	-	-	74	-26.74	-	-	360	100	H
* 8.074	26.18	AD1	35.7	-26.4	.25	35.73	54	-18.27	-	-	-	-	360	100	H
* 11.948	38.21	PK1	39.1	-23.8	0	53.51	-	-	74	-20.49	-	-	360	100	H
* 11.947	26.01	AD1	39.1	-23.7	.25	41.66	54	-12.34	-	-	-	-	360	100	H
* 8.074	37.68	PK1	35.7	-26.4	0	46.98	-	-	74	-27.02	-	-	360	100	V
* 8.074	26.34	AD1	35.7	-26.4	.25	35.89	54	-18.11	-	-	-	-	360	100	V
* 11.49	43.5	PK1	38.4	-23.1	0	58.8	-	-	74	-15.2	-	-	204	115	V
* 11.49	28.58	AD1	38.4	-23.1	.25	44.13	54	-9.87	-	-	-	-	204	115	V
3.398	40.42	PK1	32.7	-30.8	0	42.32	-	-	-	-	68.2	-25.88	360	100	H
3.439	39.8	PK1	32.7	-30.8	0	41.7	-	-	-	-	68.2	-26.5	360	200	V

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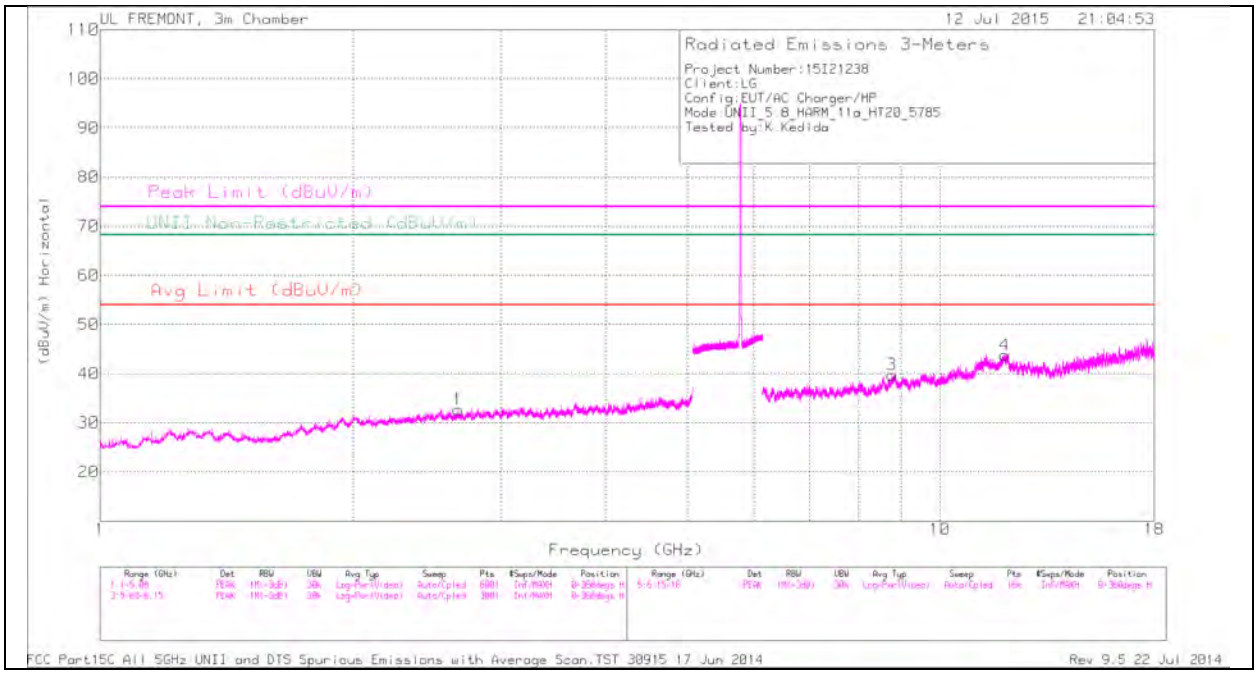
MID CHANNEL HORIZONTAL



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

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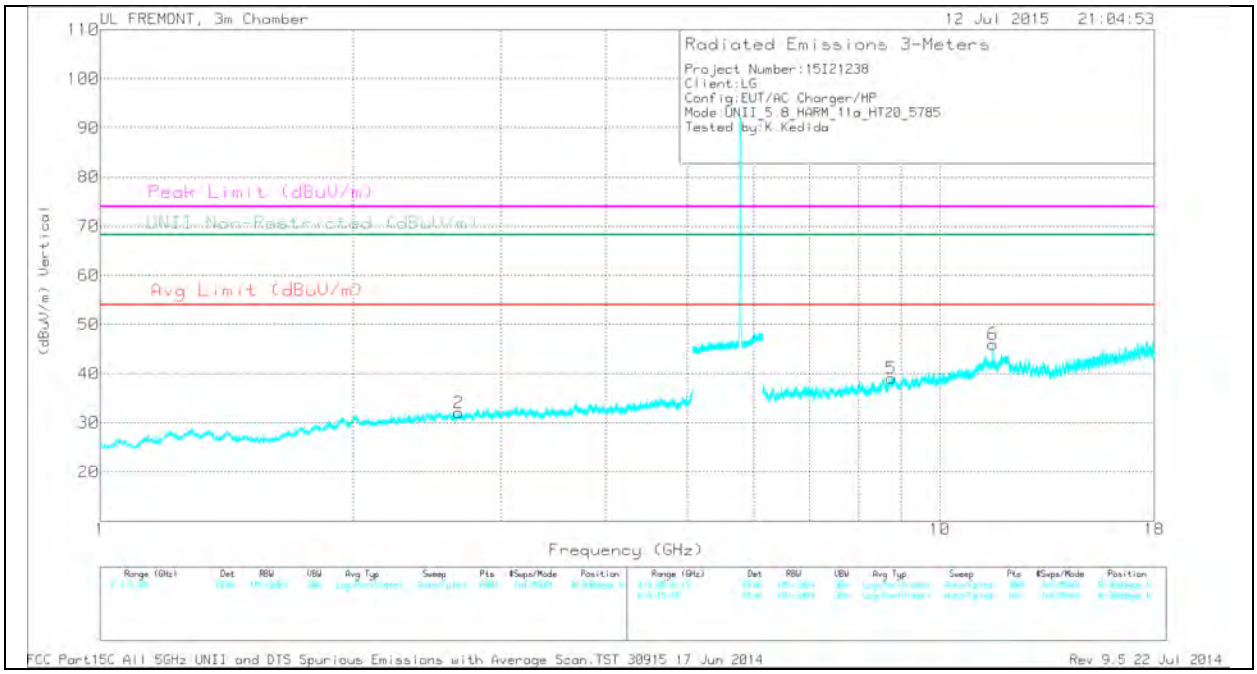
MID CHANNEL VERTICAL



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

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MID CHANNEL DATA

TRACE MARKERS

PK - Peak detector

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	* 2.67	31.95	Pk	32.3	-31.6	0	32.65	-	-	74	-41.35	-	-	0-360	200	H
2	* 2.672	31.32	Pk	32.3	-31.6	0	32.02	-	-	74	-41.98	-	-	0-360	200	V
4	* 11.947	28.4	Pk	39.1	-23.7	0	43.8	-	-	74	-30.2	-	-	0-360	100	H
6	* 11.57	30.08	Pk	38.6	-22.7	0	45.98	-	-	74	-28.02	-	-	0-360	100	V
5	8.755	28.36	Pk	35.9	-25.2	0	39.06	-	-	-	-	68.2	-29.14	0-360	200	V
3	8.764	28.57	Pk	35.9	-24.7	0	39.77	-	-	-	-	68.2	-28.43	0-360	100	H

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
* 2.668	40.99	PK1	32.3	-31.6	0	41.69	-	-	74	-32.31	-	-	360	200	H
* 2.671	29.29	AD1	32.3	-31.6	.25	30.24	54	-23.76	-	-	-	-	360	200	H
* 2.673	41.67	PK1	32.3	-31.6	0	42.37	-	-	74	-31.63	-	-	360	200	V
* 2.672	29.43	AD1	32.3	-31.6	.25	30.38	54	-23.62	-	-	-	-	360	200	V
* 2.673	40.65	PK1	32.3	-31.6	0	41.35	-	-	74	-32.65	-	-	360	200	V
* 2.674	29.33	AD1	32.3	-31.6	.25	30.28	54	-23.72	-	-	-	-	360	200	V
* 11.947	37.14	PK1	39.1	-23.7	0	52.54	-	-	74	-21.46	-	-	360	100	H
* 11.949	26.03	AD1	39.1	-23.8	.25	41.58	54	-12.42	-	-	-	-	360	100	H
* 11.57	40.85	PK1	38.6	-22.7	0	56.75	-	-	74	-17.25	-	-	259	103	V
* 11.57	29.73	AD1	38.6	-22.7	.25	45.88	54	-8.12	-	-	-	-	259	103	V
8.755	36.98	PK1	35.9	-25.2	0	47.68	-	-	-	-	68.2	-20.52	360	200	V
8.763	36.77	PK1	35.9	-24.7	0	47.97	-	-	-	-	68.2	-20.23	360	100	H

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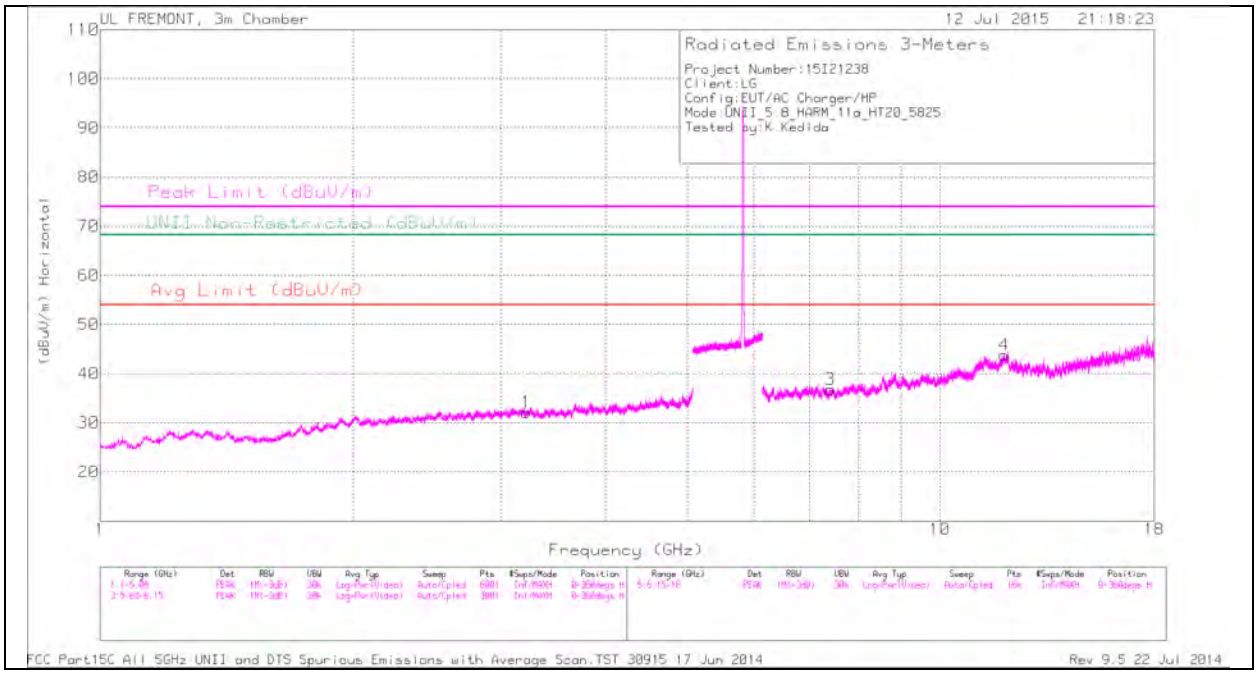
HIGH CHANNEL HORIZONTAL



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

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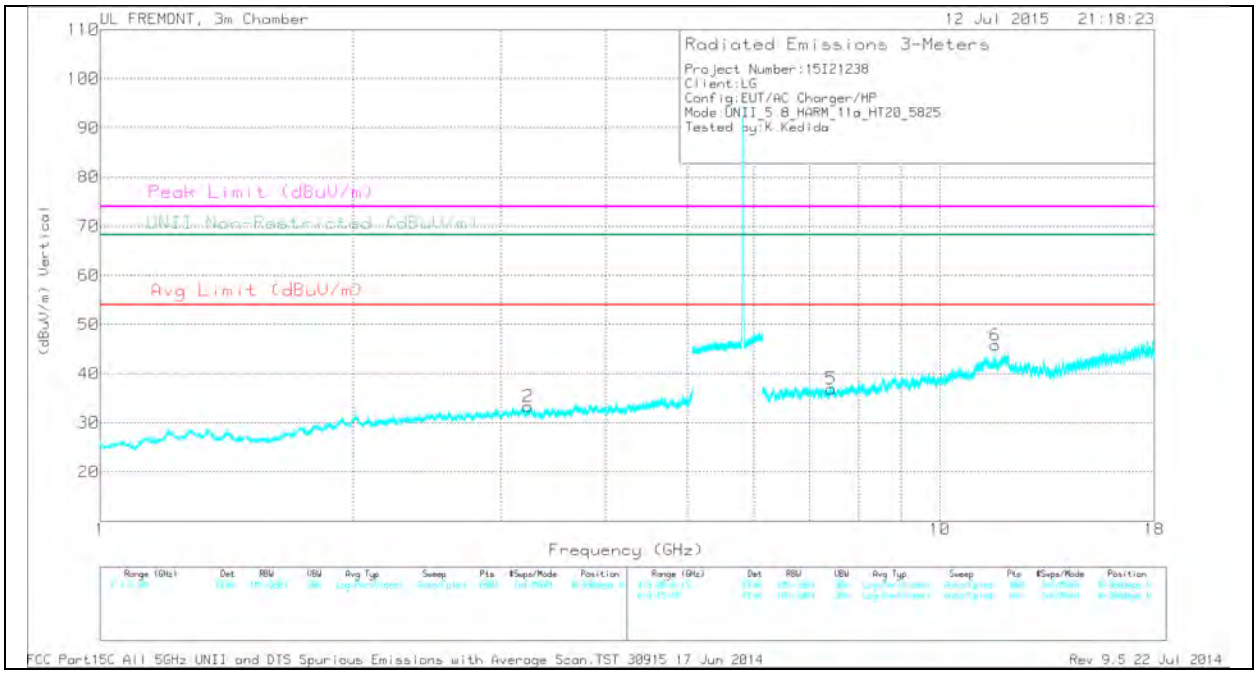
HIGH CHANNEL VERTICAL



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

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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
3	* 7.404	28.7	Pk	35.6	-27.5	0	36.8	-	-	74	-37.2	-	-	0-360	200	H
4	* 11.92	28.29	Pk	39.1	-23.6	0	43.79	-	-	74	-30.21	-	-	0-360	200	H
5	* 7.422	28.94	Pk	35.7	-27.7	0	36.94	-	-	74	-37.06	-	-	0-360	100	V
6	* 11.65	30.51	Pk	38.7	-23.4	0	45.81	-	-	74	-28.19	-	-	0-360	100	V
1	3.217	30.27	Pk	32.6	-30.8	0	32.07	-	-	-	-	68.2	-36.13	0-360	100	H
2	3.233	31.43	Pk	32.6	-30.7	0	33.33	-	-	-	-	68.2	-34.87	0-360	100	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
* 7.405	39.02	PK1	35.6	-27.4	0	47.22	-	-	74	-26.78	-	-	360	200	H
* 7.404	27.24	AD1	35.6	-27.5	.25	35.59	54	-18.41	-	-	-	-	360	200	H
* 11.947	37.14	PK1	39.1	-23.7	0	52.54	-	-	74	-21.46	-	-	360	100	H
* 11.949	26.03	AD1	39.1	-23.8	.25	41.58	54	-12.42	-	-	-	-	360	100	H
* 11.648	39.07	PK1	38.7	-23.4	0	54.37	-	-	74	-19.63	-	-	360	100	V
* 11.65	27.77	AD1	38.7	-23.4	.25	43.32	54	-10.68	-	-	-	-	360	100	V
* 11.57	40.85	PK1	38.6	-22.7	0	56.75	-	-	74	-17.25	-	-	259	103	V
* 11.57	29.73	AD1	38.6	-22.7	.25	45.88	54	-8.12	-	-	-	-	259	103	V
3.215	39.68	PK1	32.6	-30.8	0	41.48	-	-	-	-	68.2	-26.72	360	100	H
3.235	40.64	PK1	32.6	-30.6	0	42.64	-	-	-	-	68.2	-25.56	360	100	V
8.755	36.98	PK1	35.9	-25.2	0	47.68	-	-	-	-	68.2	-20.52	360	200	V

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

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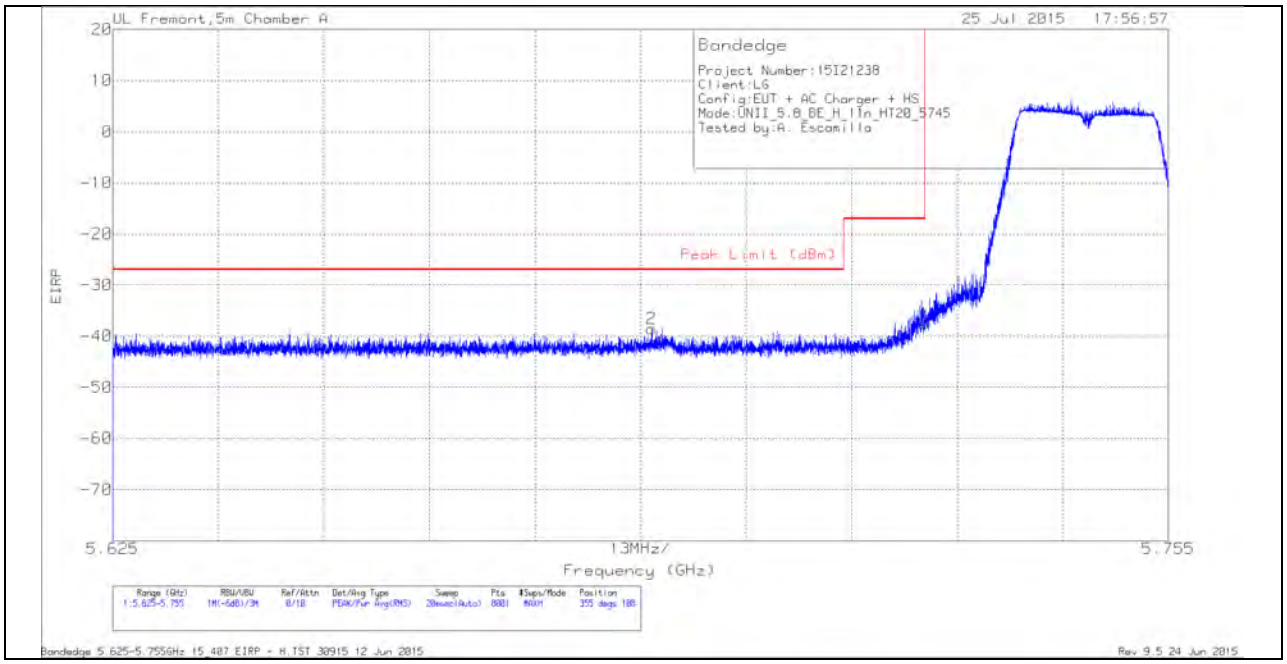
11.4.2. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.8 GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T136 (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	5.691	-65.02	Pk	34.6	-19.9	11.8	0	-38.52	-27	-11.52	355	108	H
1	5.725	-64.26	Pk	34.7	-19.8	11.8	0	-37.56	-17	-20.56	355	108	H

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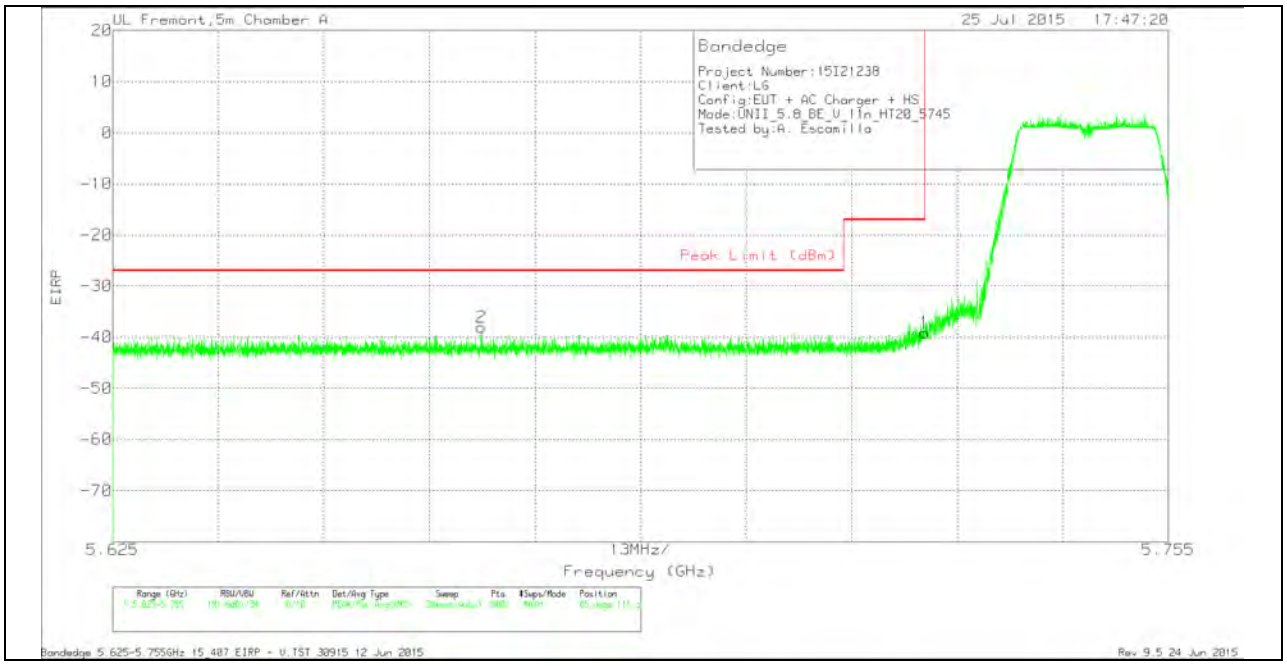
VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T136 (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	5.67	-64.45	Pk	34.6	-20	11.8	0	-38.05	-27	-11.05	65	111	V
1	5.725	-65.82	Pk	34.7	-19.8	11.8	0	-39.12	-17	-22.12	65	111	V

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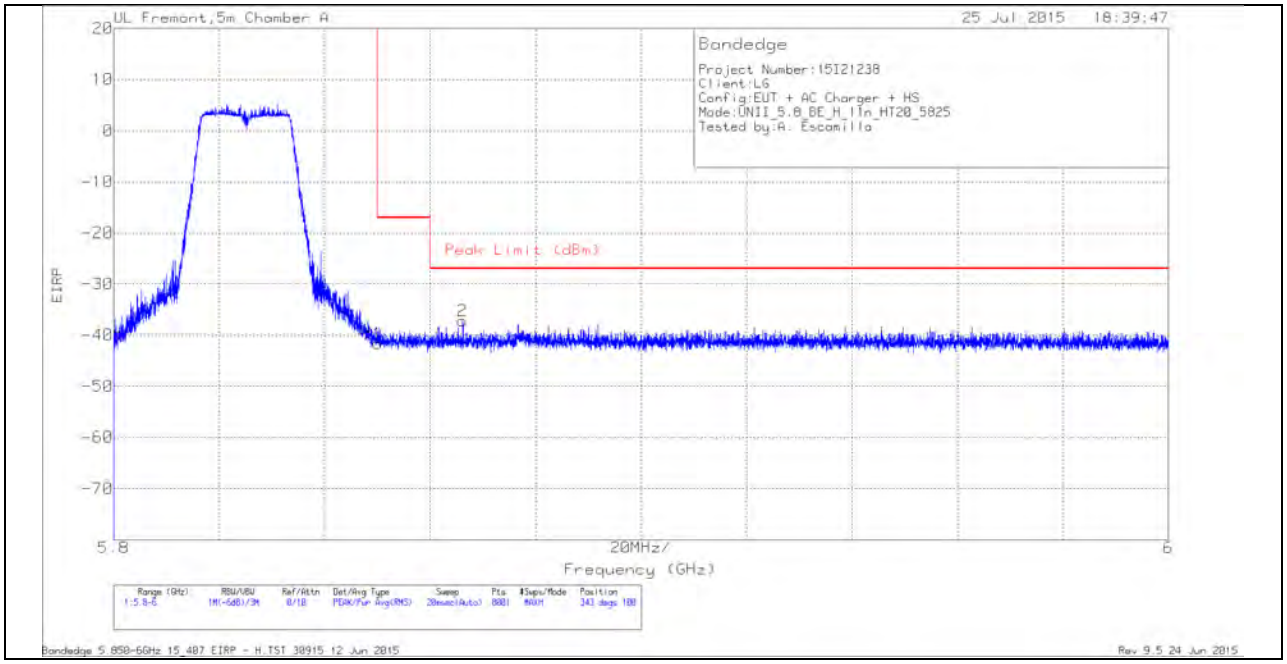
AUTHORIZED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T136 (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	-69.19	Pk	35.1	-19.3	11.8	0	-41.59	-17	-24.59	343	100	H
2	5.866	-64.84	Pk	35.1	-19.3	11.8	0	-37.24	-27	-10.24	343	100	H

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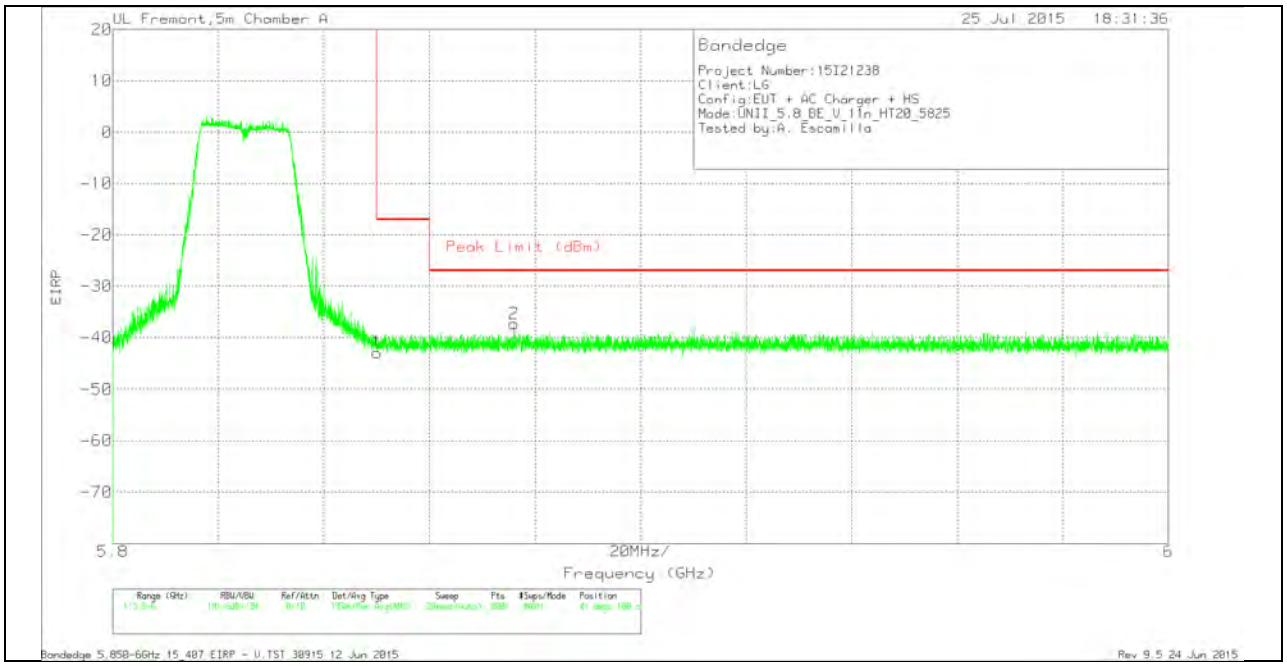
VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T136 (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	-70.43	Pk	35.1	-19.3	11.8	0	-42.83	-17	-25.83	41	100	V
2	5.876	-64.96	Pk	35.1	-19.3	11.8	0	-37.36	-27	-10.36	41	100	V

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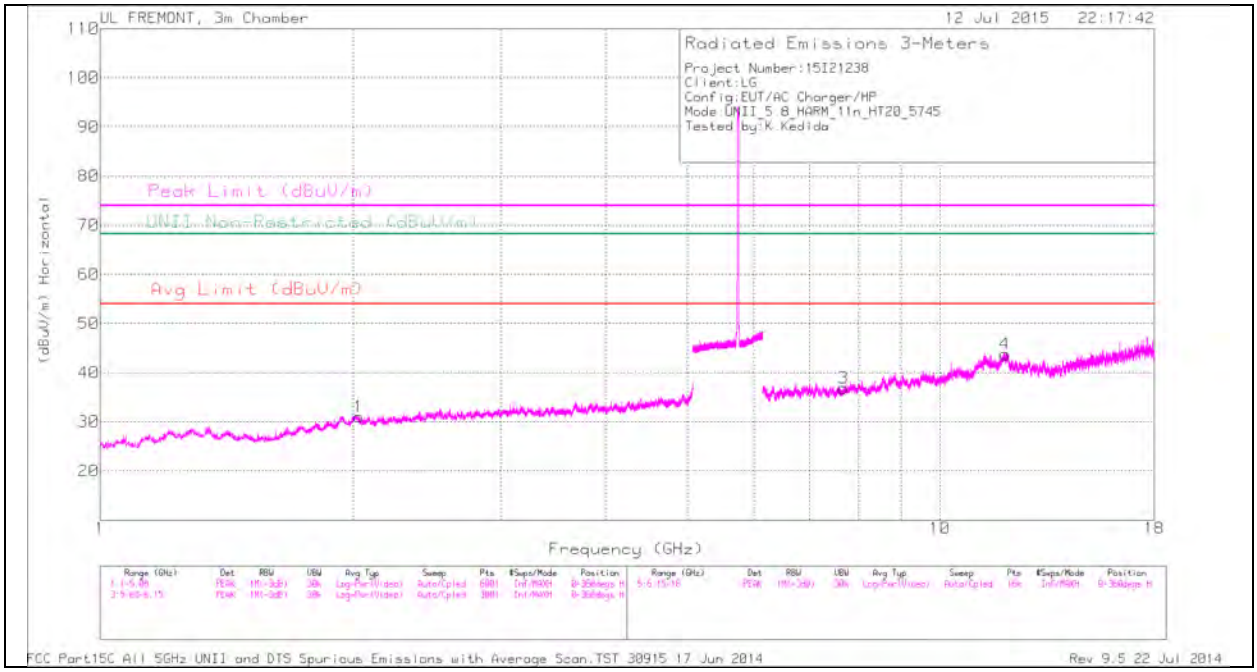
HARMONICS AND SPURIOUS EMISSIONS

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.

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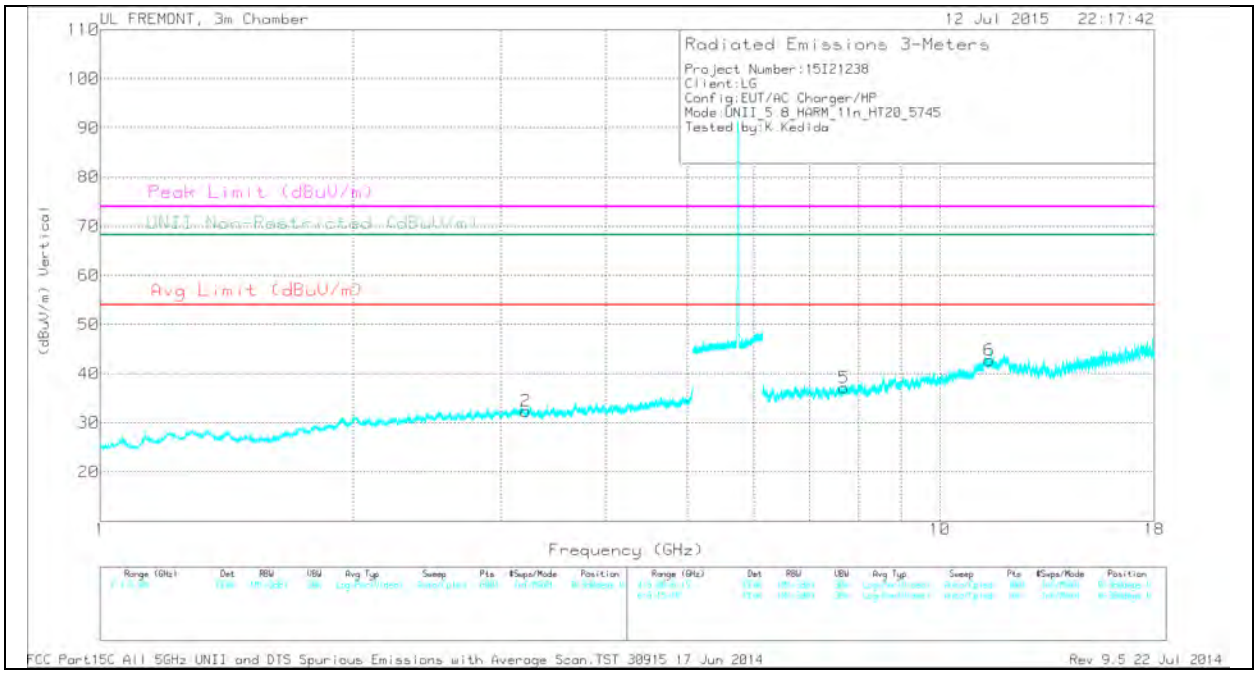
LOW CHANNEL VERTICAL



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

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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
3	* 7.673	28.64	Pk	35.8	-27.6	0	36.84	-	-	74	-37.16	-	-	0-360	100	H
4	* 11.942	28.35	Pk	39.1	-23.7	0	43.75	-	-	74	-30.25	-	-	0-360	200	H
5	* 7.688	29.24	Pk	35.8	-27.9	0	37.14	-	-	74	-36.86	-	-	0-360	100	V
6	* 11.456	27.43	Pk	38.3	-23	0	42.73	-	-	74	-31.27	-	-	0-360	100	V
1	2.032	31.09	Pk	31.5	-31.6	0	30.99	-	-	-	-	68.2	-37.21	0-360	100	H
2	3.213	30.57	Pk	32.6	-30.8	0	32.37	-	-	-	-	68.2	-35.83	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
* 7.672	39.11	PK1	35.8	-27.6	0	47.31	-	-	74	-26.69	-	-	359	100	H
* 7.671	27.49	AD1	35.8	-27.6	.25	35.94	54	-18.06	-	-	-	-	359	100	H
* 11.942	37.24	PK1	39.1	-23.7	0	52.64	-	-	74	-21.36	-	-	359	200	H
* 11.941	25.91	AD1	39.1	-23.6	.25	41.66	54	-12.34	-	-	-	-	359	200	H
* 7.687	38.68	PK1	35.8	-27.8	0	46.68	-	-	74	-27.32	-	-	359	100	V
* 7.687	27.38	AD1	35.8	-27.8	.25	35.63	54	-18.37	-	-	-	-	359	100	V
* 11.456	36.53	PK1	38.3	-23	0	51.83	-	-	74	-22.17	-	-	359	100	V
* 11.458	25.05	AD1	38.3	-23	.25	40.6	54	-13.4	-	-	-	-	359	100	V
* 11.57	40.85	PK1	38.6	-22.7	0	56.75	-	-	74	-17.25	-	-	259	103	V
* 11.57	29.73	AD1	38.6	-22.7	.25	45.88	54	-8.12	-	-	-	-	259	103	V
2.03	40.22	PK1	31.5	-31.6	0	40.12	-	-	-	-	68.2	-28.08	359	100	H
3.214	39.68	PK1	32.6	-30.8	0	41.48	-	-	-	-	68.2	-26.72	359	200	V

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

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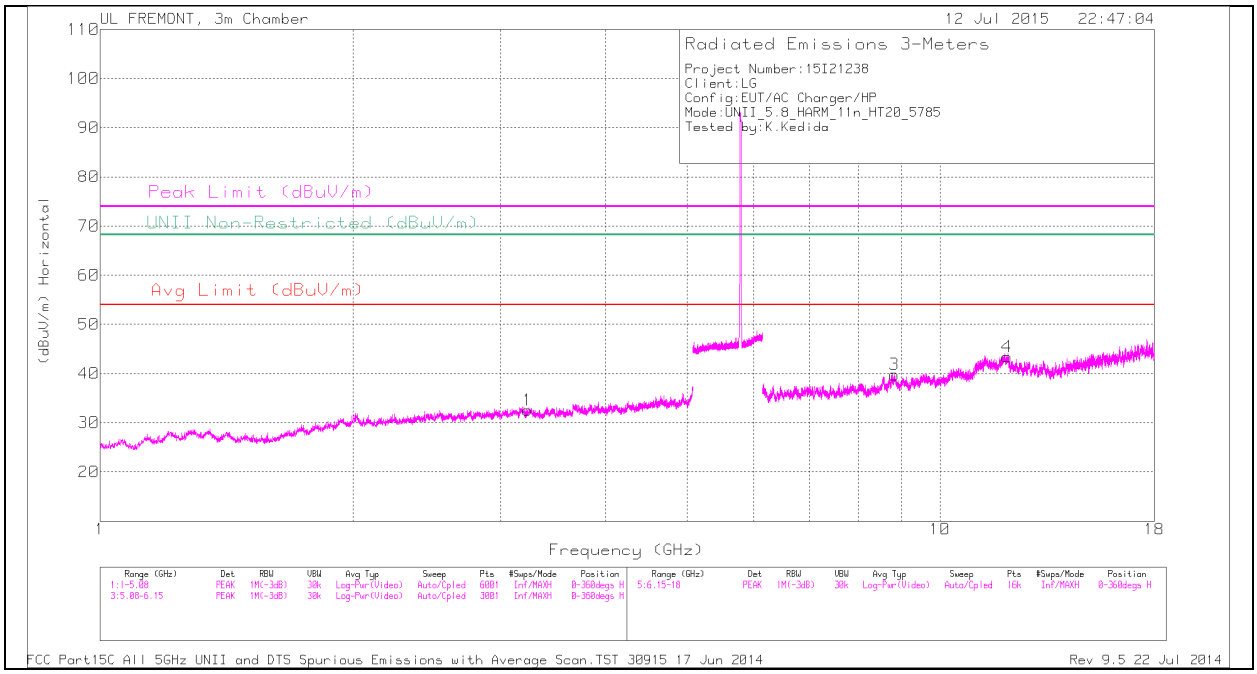
MID CHANNEL HORIZONTAL



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

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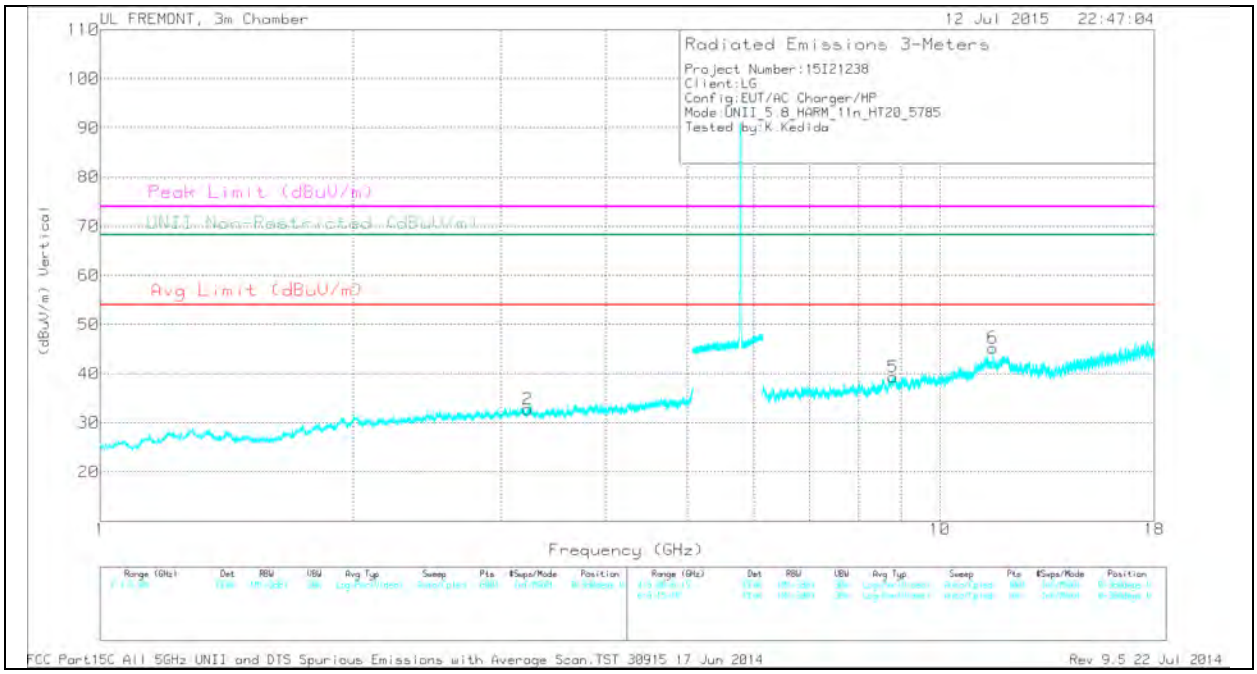
MID CHANNEL VERTICAL



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

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MID 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
4	* 12.021	27.9	Pk	39.1	-23.6	0	43.4	-	-	74	-30.6	-	-	0-360	100	H
6	* 11.57	29.33	Pk	38.6	-22.7	0	45.23	-	-	74	-28.77	-	-	0-360	100	V
1	3.228	30.65	Pk	32.6	-30.7	0	32.55	-	-	-	-	68.2	-35.65	0-360	100	H
2	3.228	30.86	Pk	32.6	-30.7	0	32.76	-	-	-	-	68.2	-35.44	0-360	100	V
5	8.791	27.9	Pk	35.9	-24.5	0	39.3	-	-	-	-	68.2	-28.9	0-360	200	V
3	8.821	28.08	Pk	35.9	-24.2	0	39.78	-	-	-	-	68.2	-28.42	0-360	100	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
* 12.019	36.46	PK1	39.1	-23.6	0	51.96	-	-	74	-22.04	-	-	360	100	H
* 12.021	25.23	AD1	39.1	-23.6	.25	40.98	54	-13.02	-	-	-	-	360	100	H
* 11.571	37.25	PK1	38.6	-22.7	0	53.15	-	-	74	-20.85	-	-	360	100	V
* 11.57	26.14	AD1	38.6	-22.7	.25	42.29	54	-11.71	-	-	-	-	360	100	V
* 11.57	40.85	PK1	38.6	-22.7	0	56.75	-	-	74	-17.25	-	-	259	103	V
* 11.57	29.73	AD1	38.6	-22.7	.25	45.88	54	-8.12	-	-	-	-	259	103	V
3.229	39.83	PK1	32.6	-30.7	0	41.73	-	-	-	-	68.2	-26.47	360	100	H
3.229	40.39	PK1	32.6	-30.7	0	42.29	-	-	-	-	68.2	-25.91	360	100	V
8.792	36.06	PK1	35.9	-24.6	0	47.36	-	-	-	-	68.2	-20.84	360	200	V
8.823	36.58	PK1	35.9	-24.2	0	48.28	-	-	-	-	68.2	-19.92	360	100	H

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

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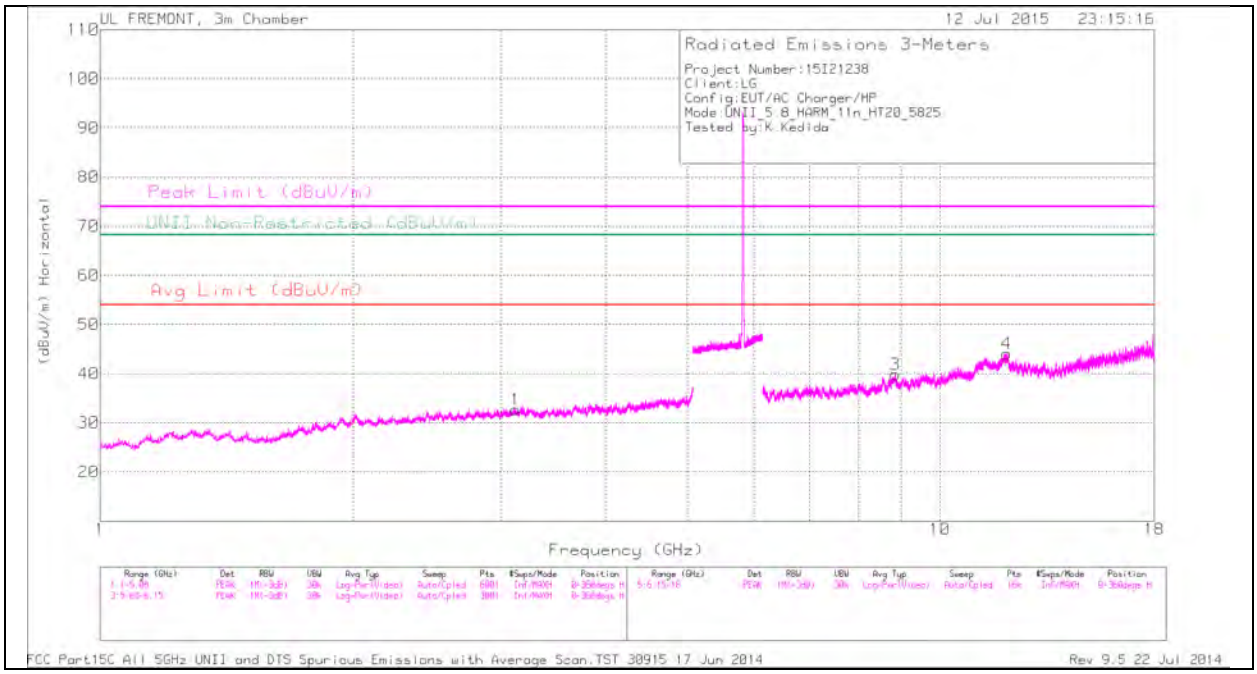
HIGH CHANNEL HORIZONTAL



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

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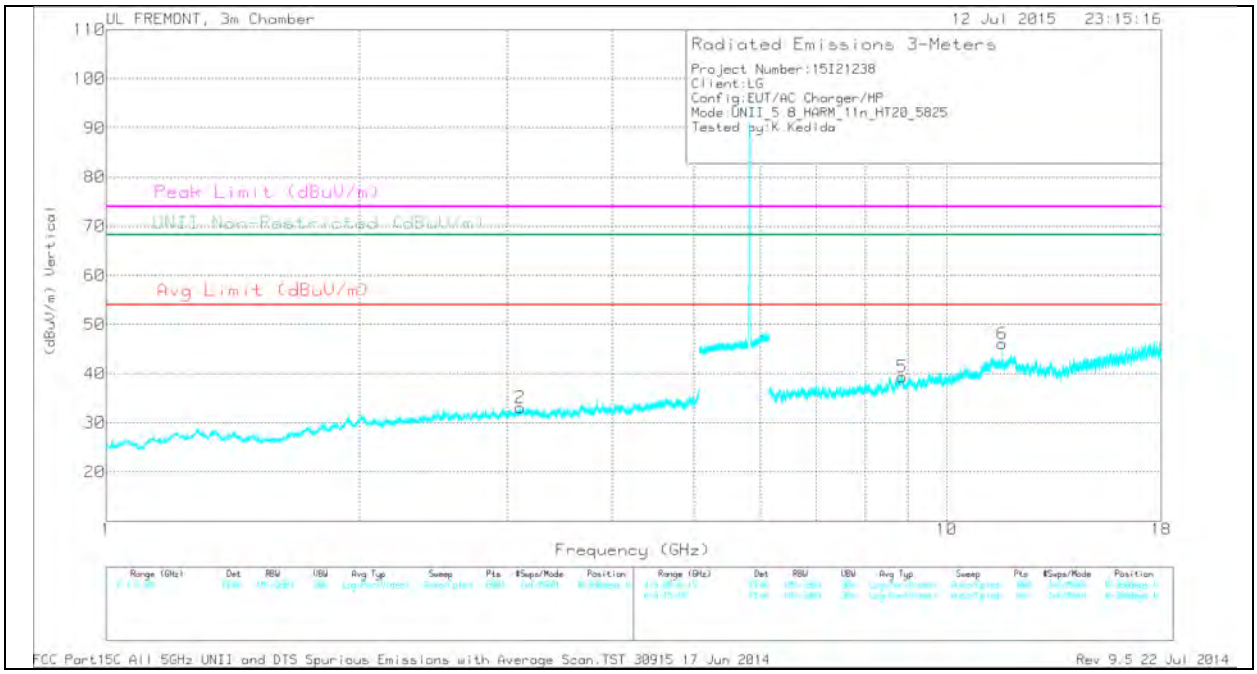
HIGH CHANNEL VERTICAL



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

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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
4	* 12.012	28.45	Pk	39.1	-23.5	0	44.05	-	-	74	-29.95	-	-	0-360	100	H
6	* 11.65	30.79	Pk	38.7	-23.4	0	46.09	-	-	74	-27.91	-	-	0-360	100	V
2	3.111	31.8	Pk	32.7	-31.4	0	33.1	-	-	-	-	68.2	-35.1	0-360	200	V
1	3.125	31.17	Pk	32.7	-31.2	0	32.67	-	-	-	-	68.2	-35.53	0-360	200	H
3	8.849	28.84	Pk	35.9	-24.9	0	39.84	-	-	-	-	68.2	-28.36	0-360	100	H
5	8.85	28.44	Pk	35.9	-25	0	39.34	-	-	-	-	68.2	-28.86	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
* 12.014	36.55	PK1	39.1	-23.5	0	52.15	-	-	74	-21.85	-	-	360	100	H
* 12.014	25.1	AD1	39.1	-23.5	.25	40.95	54	-13.05	-	-	-	-	360	100	H
* 11.65	38.42	PK1	38.7	-23.4	0	53.72	-	-	74	-20.28	-	-	360	100	V
* 11.65	27.72	AD1	38.7	-23.4	.25	43.27	54	-10.73	-	-	-	-	360	100	V
* 11.57	40.85	PK1	38.6	-22.7	0	56.75	-	-	74	-17.25	-	-	259	103	V
* 11.57	29.73	AD1	38.6	-22.7	.25	45.88	54	-8.12	-	-	-	-	259	103	V
3.11	40.94	PK1	32.8	-31.4	0	42.34	-	-	-	-	68.2	-25.86	360	200	V
3.123	41.05	PK1	32.7	-31.2	0	42.55	-	-	-	-	68.2	-25.65	360	200	H
8.849	37.08	PK1	35.9	-24.9	0	48.08	-	-	-	-	68.2	-20.12	360	100	H
8.852	36.97	PK1	35.9	-25.1	0	47.77	-	-	-	-	68.2	-20.43	360	200	V

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

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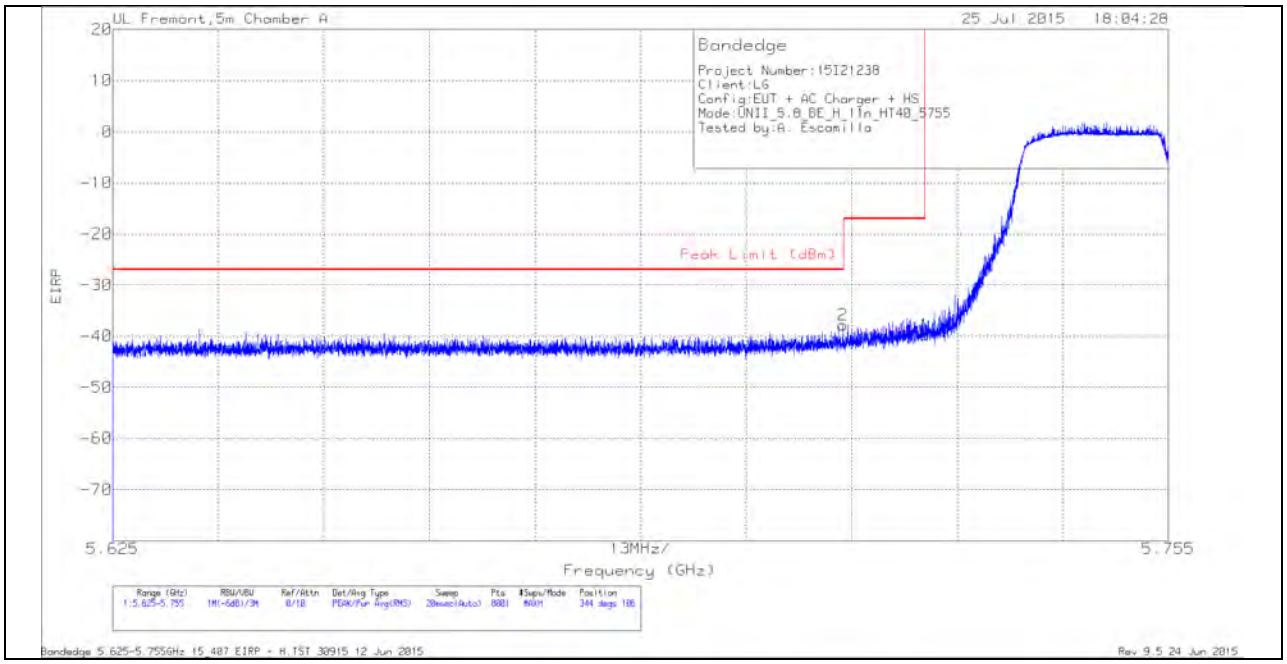
11.4.3. TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.8 GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T136 (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	-64.55	Pk	34.7	-19.8	11.8	0	-37.85	-27	-10.85	344	106	H
1	5.725	-66.46	Pk	34.7	-19.8	11.8	0	-39.76	-17	-22.76	344	106	H

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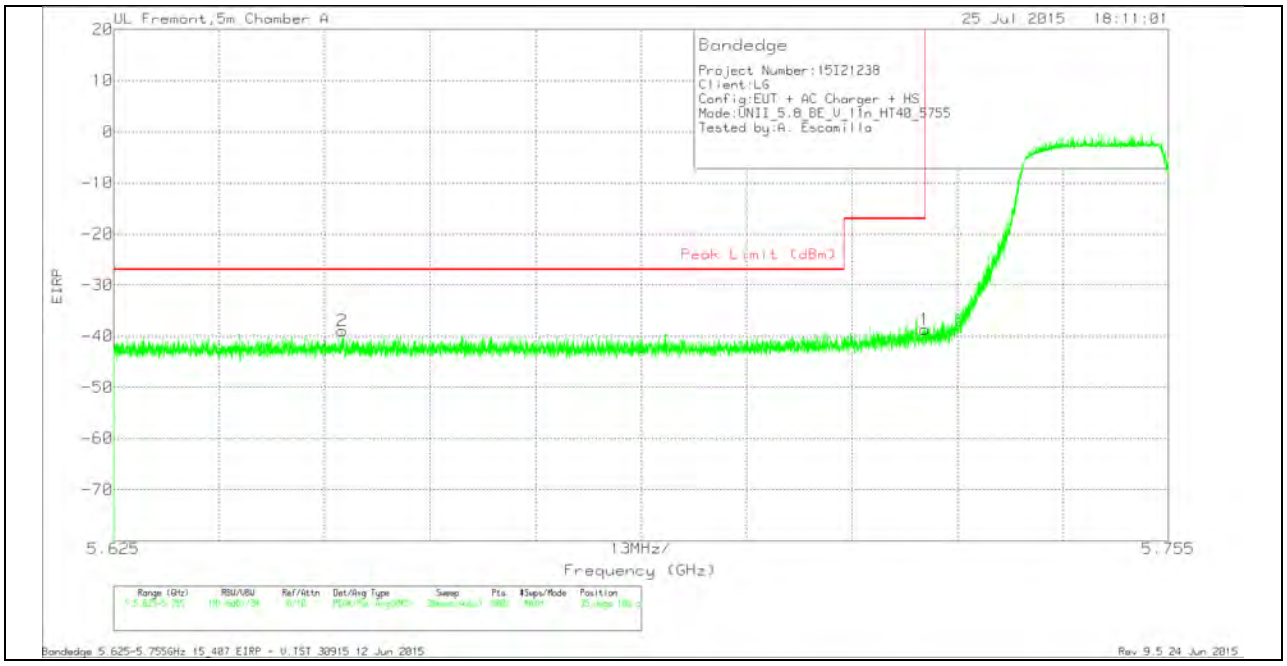
VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T136 (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	5.653	-65.19	Pk	34.6	-20.1	11.8	0	-38.89	-27	-11.89	35	106	V
1	5.725	-65.34	Pk	34.7	-19.8	11.8	0	-38.64	-17	-21.64	35	106	V

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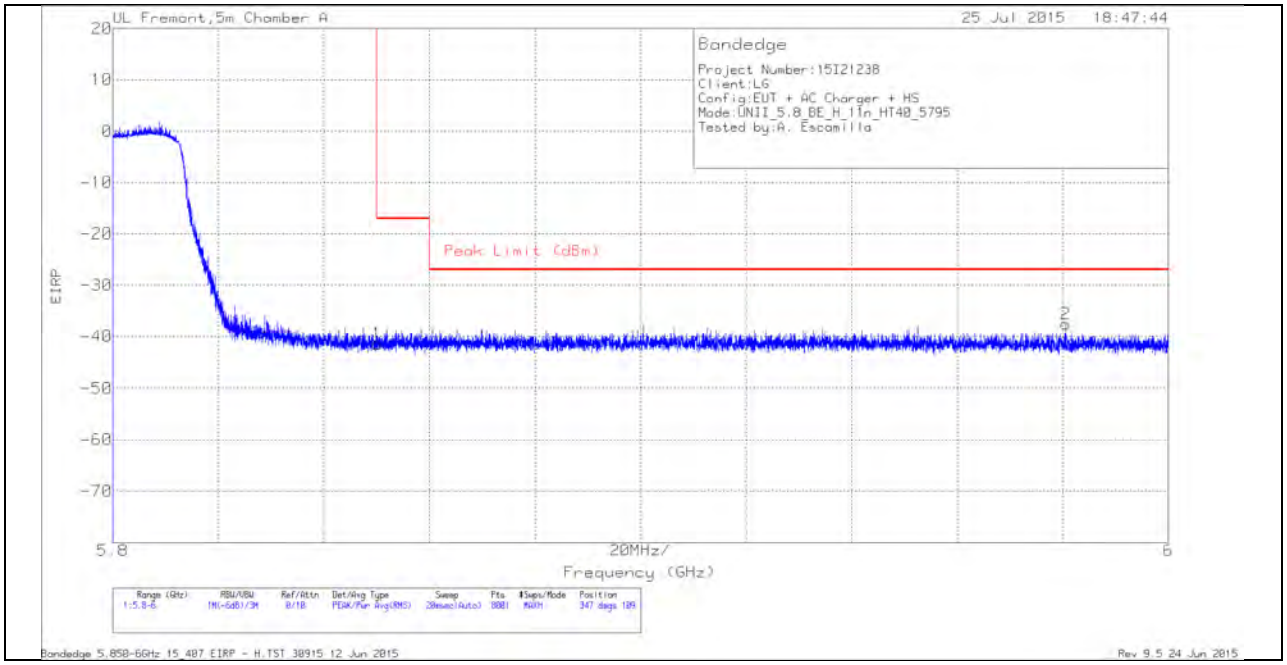
AUTHORIZED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T136 (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	-68.94	Pk	35.1	-19.3	11.8	0	-41.34	-17	-24.34	347	109	H
2	5.981	-65.41	Pk	35.3	-19.3	11.8	0	-37.61	-27	-10.61	347	109	H

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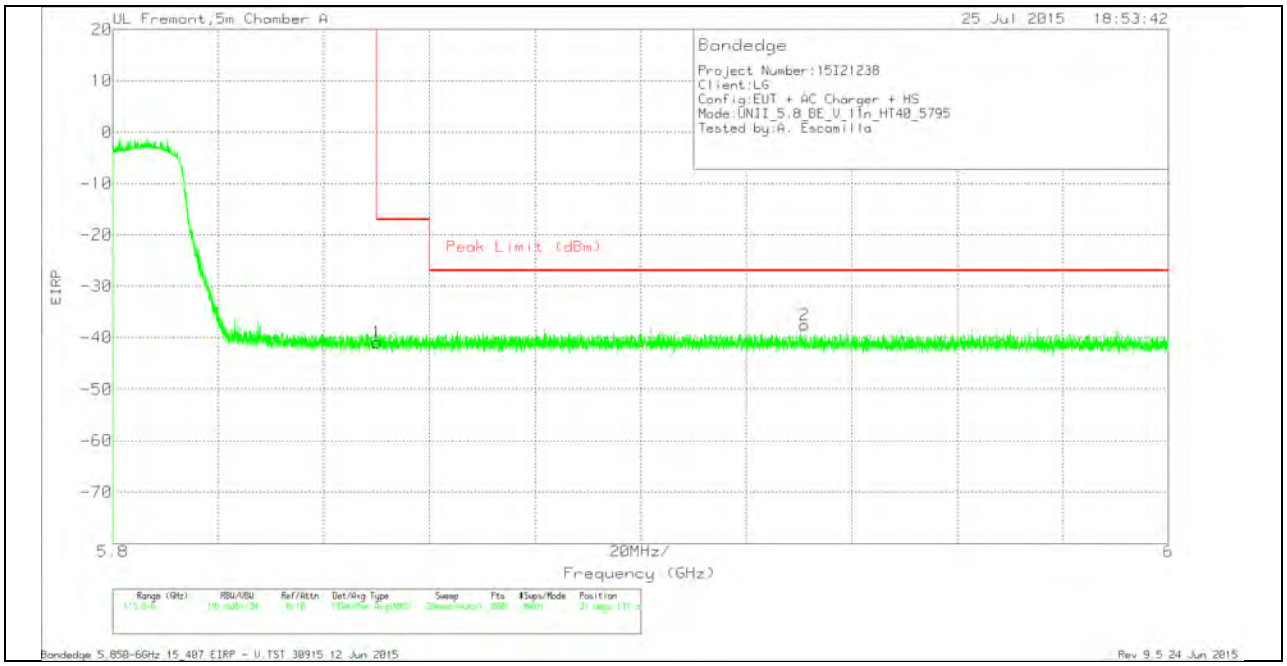
VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T136 (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	-68.47	Pk	35.1	-19.3	11.8	0	-40.87	-17	-23.87	31	131	V
2	5.931	-65.39	Pk	35.2	-19.2	11.8	0	-37.59	-27	-10.59	31	131	V

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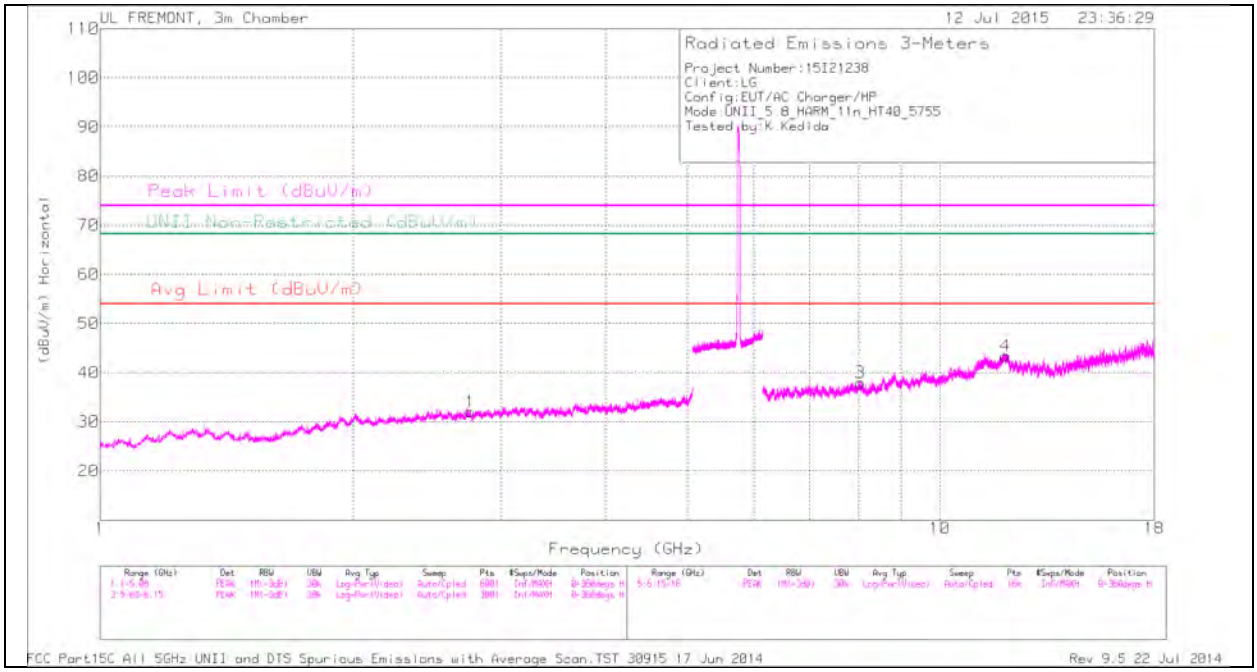
HARMONICS AND SPURIOUS EMISSIONS

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.

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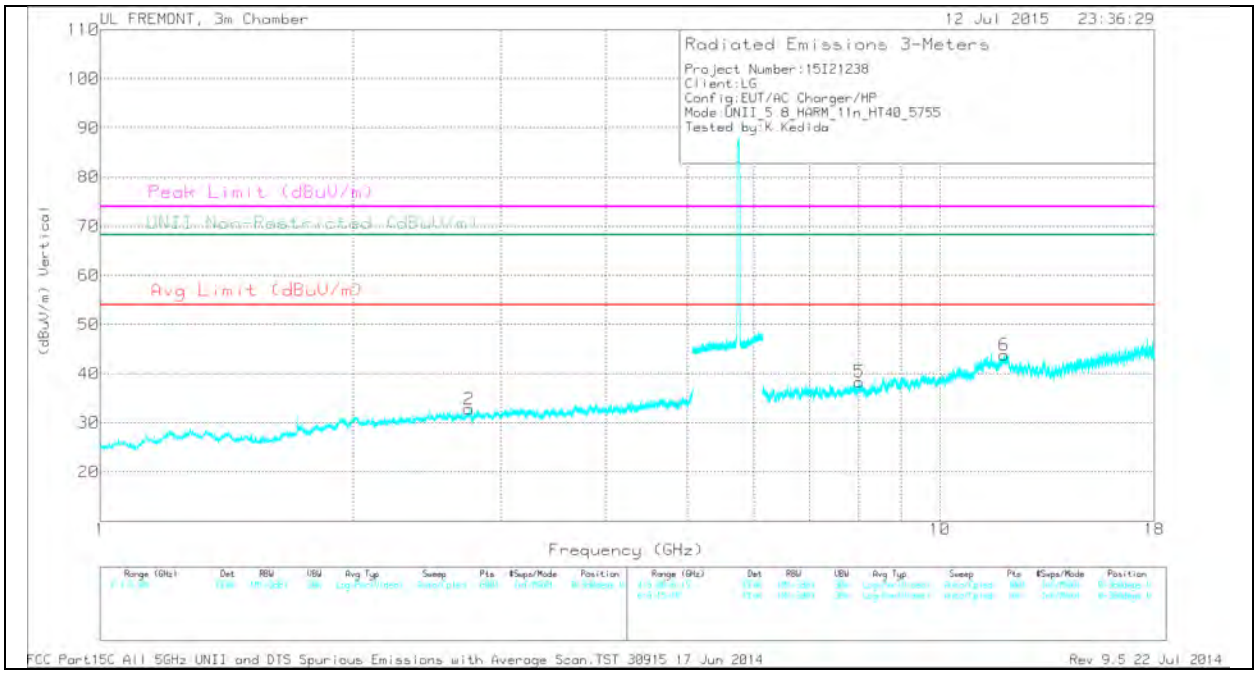
LOW CHANNEL VERTICAL



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

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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	* 2.763	31.16	Pk	32.5	-31.6	0	32.06	-	-	74	-41.94	-	-	0-360	200	H
2	* 2.75	31.87	Pk	32.4	-31.5	0	32.77	-	-	74	-41.23	-	-	0-360	100	V
3	* 8.043	28.67	Pk	35.7	-26.4	0	37.97	-	-	74	-36.03	-	-	0-360	200	H
4	* 11.967	28.1	Pk	39.1	-23.8	0	43.4	-	-	74	-30.6	-	-	0-360	100	H
6	* 11.924	28.32	Pk	39.1	-23.6	0	43.82	-	-	74	-30.18	-	-	0-360	200	V
5	8.016	29.45	Pk	35.8	-26.9	0	38.35	-	-	-	-	68.2	-29.85	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
* 2.765	40.09	PK1	32.5	-31.6	0	40.99	-	-	74	-33.01	-	-	360	200	H
* 2.761	29.1	AD1	32.5	-31.6	.5	30.5	54	-23.5	-	-	-	-	360	200	H
* 2.751	41.77	PK1	32.4	-31.5	0	42.67	-	-	74	-31.33	-	-	360	100	V
* 2.75	29.27	AD1	32.4	-31.5	.5	30.67	54	-23.33	-	-	-	-	360	100	V
* 8.044	37.47	PK1	35.7	-26.4	0	46.77	-	-	74	-27.23	-	-	360	200	H
* 8.045	26.2	AD1	35.7	-26.4	.5	36	54	-18	-	-	-	-	360	200	H
* 11.966	36.86	PK1	39.1	-23.8	0	52.16	-	-	74	-21.84	-	-	360	100	H
* 11.965	25.48	AD1	39.1	-23.8	.5	41.28	54	-12.72	-	-	-	-	360	100	H
* 11.922	37.17	PK1	39.1	-23.6	0	52.67	-	-	74	-21.33	-	-	360	200	V
* 11.925	25.76	AD1	39.1	-23.6	.5	41.76	54	-12.24	-	-	-	-	360	200	V
* 11.57	40.85	PK1	38.6	-22.7	0	56.75	-	-	74	-17.25	-	-	259	103	V
* 11.57	29.73	AD1	38.6	-22.7	.5	46.13	54	-7.87	-	-	-	-	259	103	V
8.016	37.9	PK1	35.8	-26.9	0	46.8	-	-	-	-	68.2	-21.4	360	200	V

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

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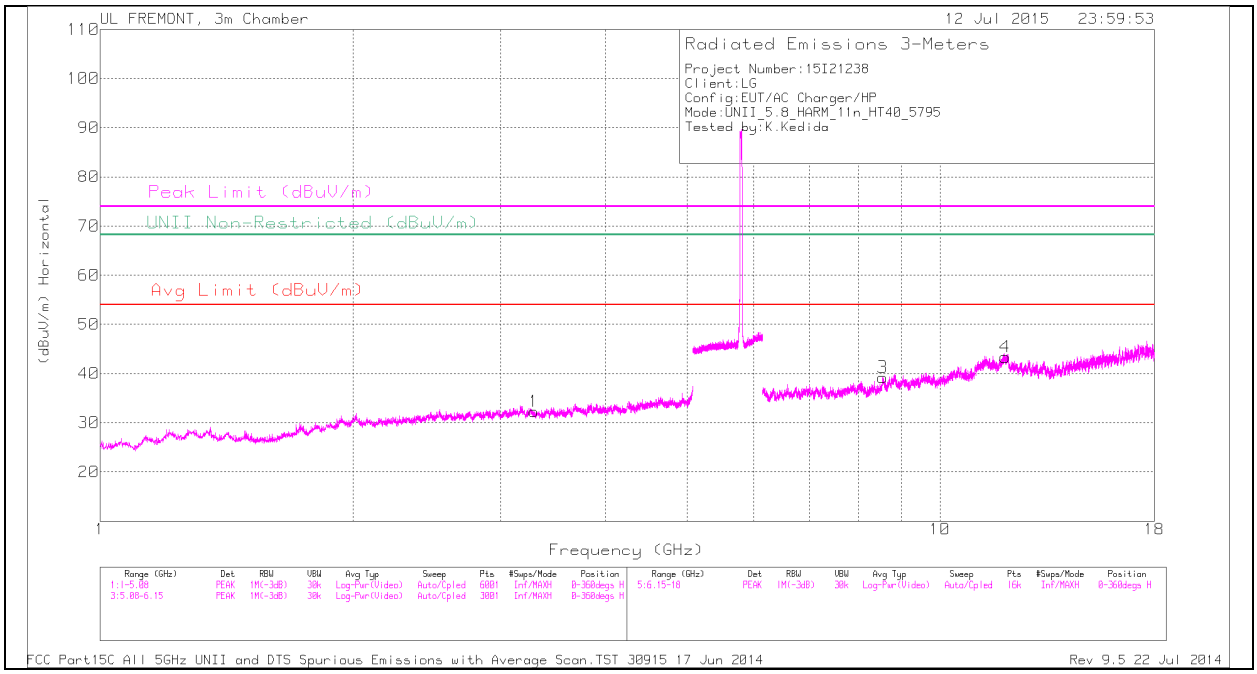
HIGH CHANNEL HORIZONTAL



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

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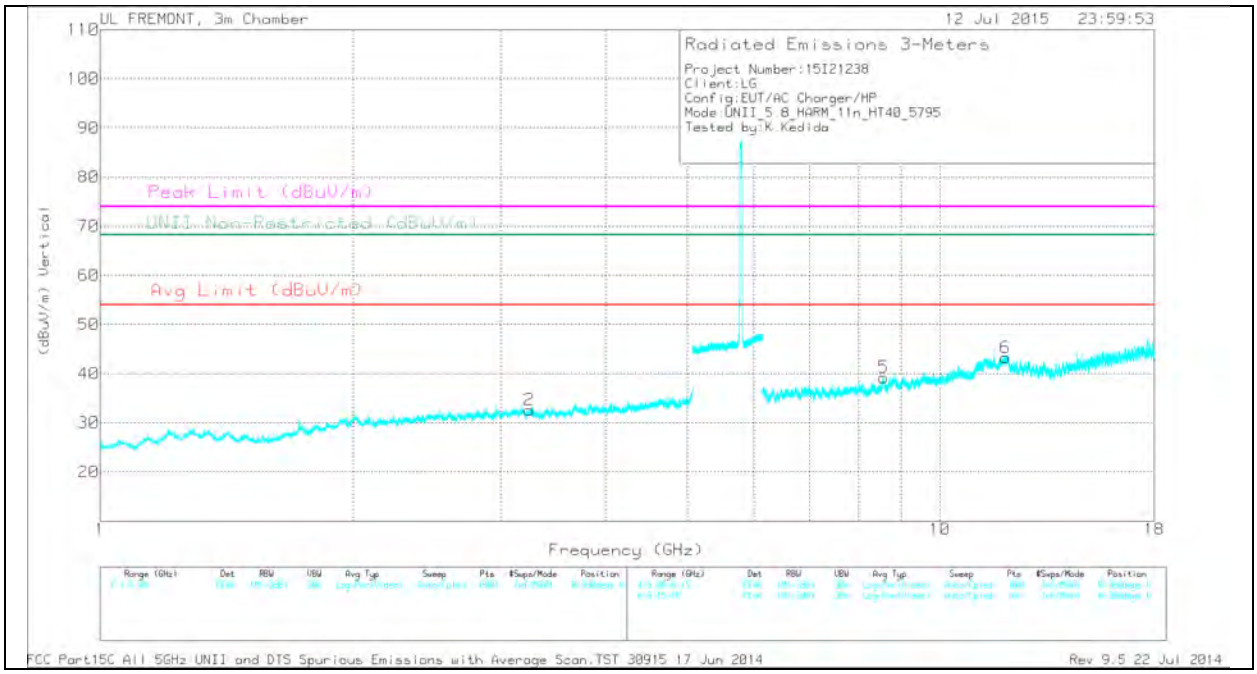
HIGH CHANNEL VERTICAL



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

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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
4	* 11.958	28.17	Pk	39.1	-23.9	0	43.37	-	-	74	-30.63	-	-	0-360	100	H
6	* 11.967	27.99	Pk	39.1	-23.8	0	43.29	-	-	74	-30.71	-	-	0-360	200	V
2	3.244	30.71	Pk	32.6	-30.7	0	32.61	-	-	-	-	68.2	-35.59	0-360	200	V
1	3.287	31.09	Pk	32.6	-31.4	0	32.29	-	-	-	-	68.2	-35.91	0-360	100	H
3	8.548	28.41	Pk	35.8	-25	0	39.21	-	-	-	-	68.2	-28.99	0-360	100	H
5	8.573	28.23	Pk	35.8	-24.8	0	39.23	-	-	-	-	68.2	-28.97	0-360	100	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
* 11.956	37.21	PK1	39.1	-23.9	0	52.41	-	-	74	-21.59	-	-	360	100	H
* 11.956	25.69	AD1	39.1	-23.9	.5	41.39	54	-12.61	-	-	-	-	360	100	H
* 11.967	36.84	PK1	39.1	-23.8	0	52.14	-	-	74	-21.86	-	-	360	200	V
* 11.967	25.49	AD1	39.1	-23.8	.5	41.29	54	-12.71	-	-	-	-	360	200	V
* 11.57	40.85	PK1	38.6	-22.7	0	56.75	-	-	74	-17.25	-	-	259	103	V
* 11.57	29.73	AD1	38.6	-22.7	.5	46.13	54	-7.87	-	-	-	-	259	103	V
3.245	40.42	PK1	32.6	-30.7	0	42.32	-	-	-	-	68.2	-25.88	360	200	V
3.286	41.3	PK1	32.6	-31.4	0	42.5	-	-	-	-	68.2	-25.7	360	100	H
8.549	37.27	PK1	35.8	-25	0	48.07	-	-	-	-	68.2	-20.13	360	100	H
8.574	36.81	PK1	35.8	-24.8	0	47.81	-	-	-	-	68.2	-20.39	360	100	V

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

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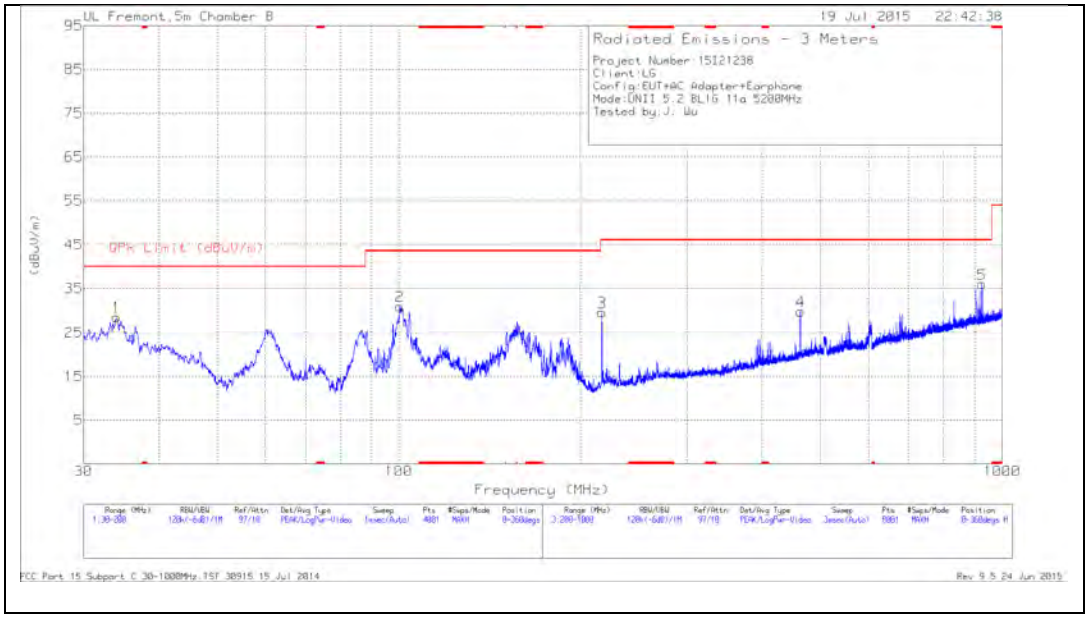
12. WORST-CASE BELOW 1 GHz (in the 5.3 GHz Band)

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



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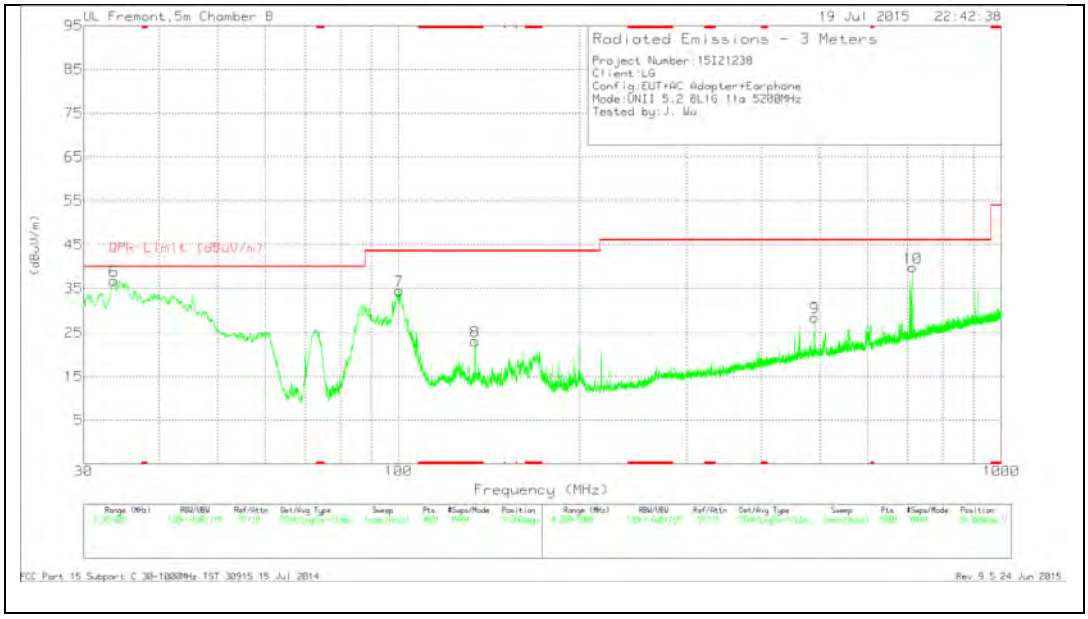
SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, VERTICAL)



Below 1G Data

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T243 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
8	* 133.955	37.01	Pk	13.7	-27.6	23.11	43.52	-20.41	0-360	101	V
6	33.6975	47.02	Pk	18.4	-28.7	36.72	40	-3.28	0-360	101	V
1	33.995	39.09	Pk	18.2	-28.7	28.59	40	-11.41	0-360	299	H
7	100.21	52.17	Pk	10.3	-28	34.47	43.52	-9.05	0-360	101	V
2	100.295	48.73	Pk	10.3	-28	31.03	43.52	-12.49	0-360	199	H
3	217	45.77	Pk	10.6	-26.7	29.67	46.02	-16.35	0-360	101	H
4	463.7	38.36	Pk	17.2	-25.7	29.86	46.02	-16.16	0-360	299	H
9	490.2	36.37	Pk	17.8	-25.7	28.47	46.02	-17.55	0-360	101	V
10	712.8	43.67	Pk	20.4	-24.3	39.77	46.02	-6.25	0-360	101	V
5	926.3	35.89	Pk	22.6	-22.5	35.99	46.02	-10.03	0-360	299	H

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

Radiated Emissions

Frequency (MHz)	Meter Reading (dBuV)	Det	AF T243 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
45.218	53.36	Pk	10.4	-28.6	35.16	40	-4.84	183	101	V

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13. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

FCC §15.207 (a)

RSS-Gen 8.8

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

* Decreases with the logarithm of the frequency.

TEST PROCEDURE

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

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

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

RESULTS

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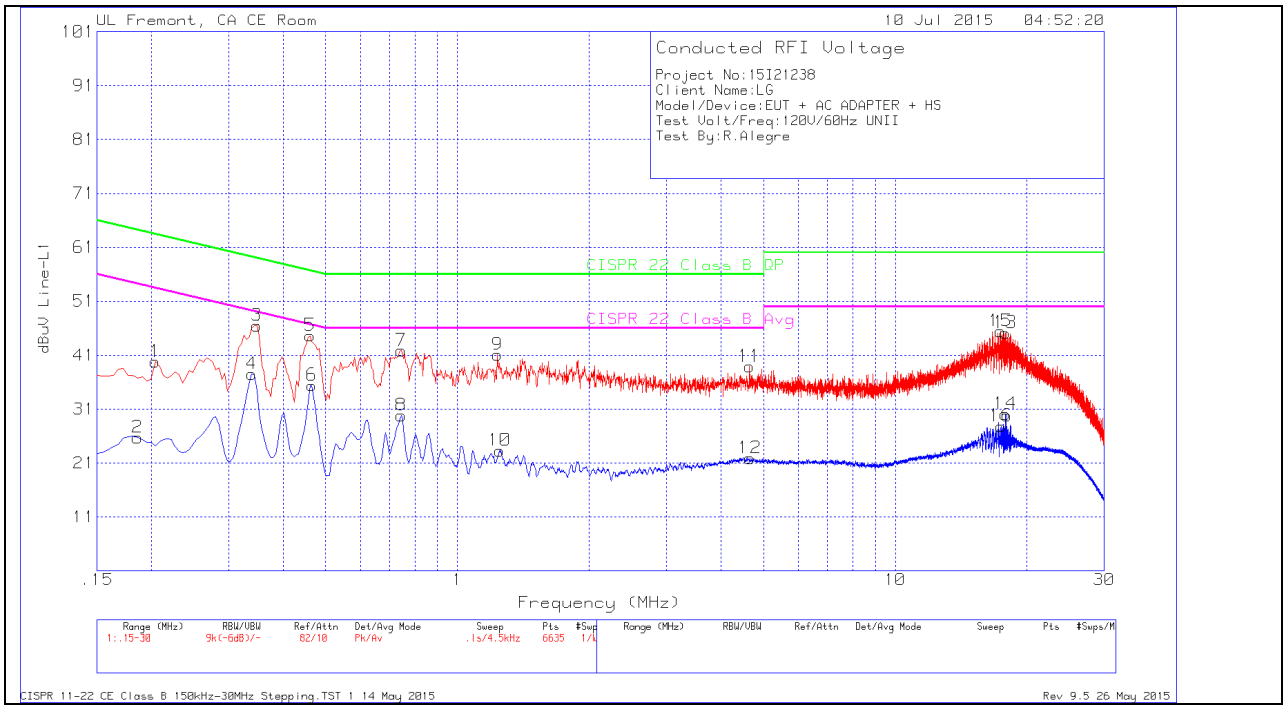
LINE 1 PLOT



LINE 1 RESULTS

Range 1: Line-L1 .15 - 30MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T24 IL L1	LC Cables 1&3	Corrected Reading dBuV	CISPR 22 Class B QP	Margin (dB)	CISPR 22 Class B Avg	Margin (dB)
1	.204	38.88	Pk	.9	0	39.78	63.45	-23.67	-	-
2	.186	24.72	Av	1	0	25.72	-	-	54.21	-28.49
3	.348	46	Pk	.5	0	46.5	59.01	-12.51	-	-
4	.339	36.99	Av	.5	0	37.49	-	-	49.23	-11.74
5	.4605	44.22	Pk	.4	0	44.62	56.68	-12.06	-	-
6	.465	34.99	Av	.4	0	35.39	-	-	46.6	-11.21
7	.744	41.52	Pk	.3	0	41.82	56	-14.18	-	-
8	.744	29.53	Av	.3	0	29.83	-	-	46	-16.17
9	1.2345	40.77	Pk	.2	.1	41.07	56	-14.93	-	-
10	1.248	23.12	Av	.2	0	23.32	-	-	46	-22.68
11	4.6455	38.58	Pk	.2	.1	38.88	56	-17.12	-	-
12	4.659	21.56	Av	.2	.1	21.86	-	-	46	-24.14
13	17.835	44.63	Pk	.3	.2	45.13	60	-14.87	-	-
14	17.8395	29.61	Av	.3	.2	30.11	-	-	50	-19.89
15	17.394	44.92	Pk	.3	.2	45.42	60	-14.58	-	-
16	17.439	27.34	Av	.3	.2	27.84	-	-	50	-22.16

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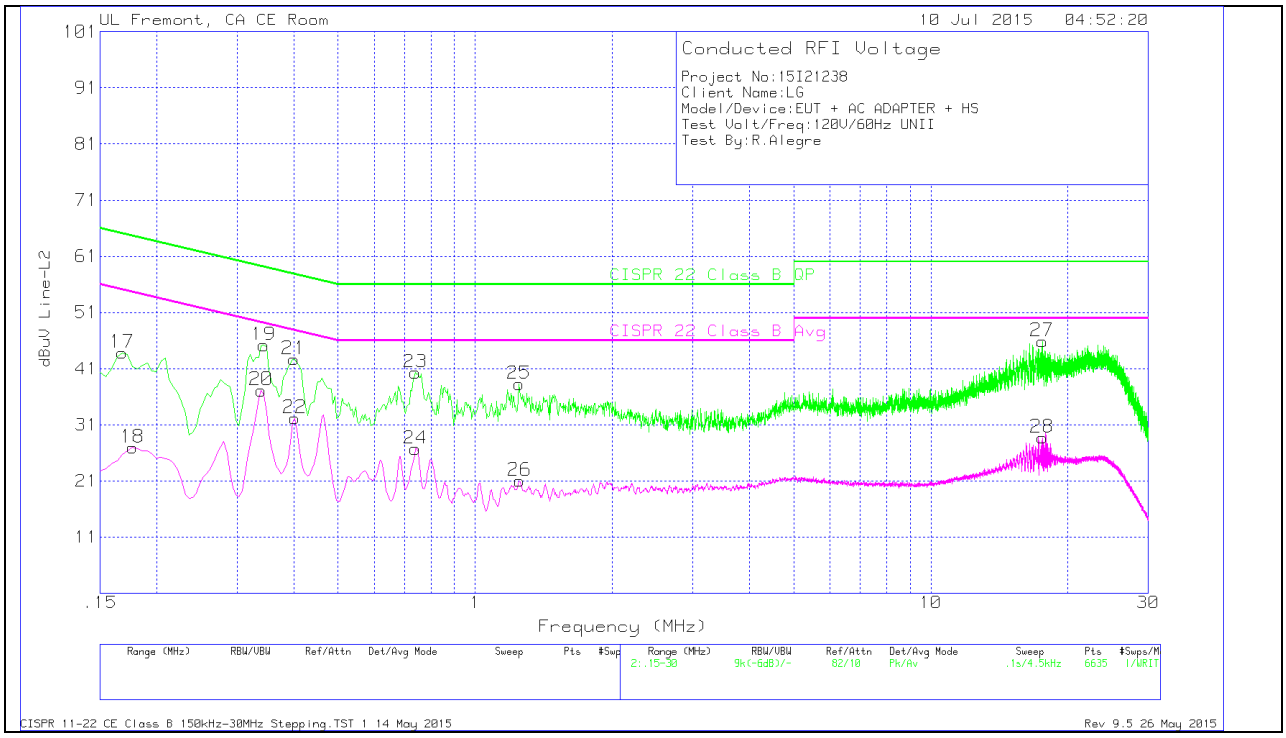
LINE 2 PLOT



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	CISPR 22 Class B QP	Margin (dB)	CISPR 22 Class B Avg	Margin (dB)
17	.168	42.55	Pk	1.3	0	43.85	65.06	-21.21	-	-
18	.177	25.75	Av	1.2	0	26.95	-	-	54.63	-27.68
19	.3435	44.71	Pk	.5	0	45.21	59.12	-13.91	-	-
20	.339	36.66	Av	.5	0	37.16	-	-	49.23	-12.07
21	.39975	42.3	Pk	.4	0	42.7	57.86	-15.16	-	-
22	.402	31.78	Av	.4	0	32.18	-	-	47.81	-15.63
23	.7395	40.03	Pk	.3	0	40.33	56	-15.67	-	-
24	.7395	26.44	Av	.3	0	26.74	-	-	46	-19.26
25	1.248	38.09	Pk	.2	0	38.29	56	-17.71	-	-
26	1.2525	20.84	Av	.2	0	21.04	-	-	46	-24.96
27	17.5605	45.38	Pk	.3	.2	45.88	60	-14.12	-	-
28	17.5605	28.24	Av	.3	.2	28.74	-	-	50	-21.26

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14. DYNAMIC FREQUENCY SELECTION

14.1. OVERVIEW

14.1.1. LIMITS

INDUSTRY CANADA

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

RSS-247 Issue 1

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

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

FCC

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

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

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

Table 2: Applicability of DFS requirements during normal operation

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

Additional requirements for devices with multiple bandwidth modes	Master Device or Client with Radar DFS	Client (without DFS)
U-NII Detection Bandwidth and Statistical Performance Check	All BW modes must be tested	Not required
Channel Move Time and Channel Closing Transmission Time	Test using widest BW mode available	Test using the widest BW mode available for the link
All other tests	Any single BW mode	Not required
Note: Frequencies selected for statistical performance check (Section 7.8.4) should include several frequencies within the radar detection bandwidth and frequencies near the edge of the radar detection bandwidth. For 802.11 devices it is suggested to select frequencies in all 20 MHz channel blocks and a null frequency between the bonded 20 MHz channel blocks.		

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

Maximum Transmit Power	Value (see notes)
E.I.R.P. ≥ 200 mill watt	-64 dBm
E.I.R.P. < 200 mill watt and power spectral density < 10 dBm/MHz	-62 dBm
E.I.R.P. < 200 mill watt that do not meet power spectral density requirement	-64 dBm

Note 1: This is the level at the input of the receiver assuming a 0 dBi receive antenna
Note 2: Throughout these test procedures an additional 1 dB has been added to the amplitude of the test transmission waveforms to account for variations in measurement equipment. This will ensure that the test signal is at or above the detection threshold level to trigger a DFS response.
Note 3: E.I.R.P. is based on the highest antenna gain. For MIMO devices refer to KDB publication 662911 D01.

Table 4: DFS Response requirement values

Parameter	Value
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.

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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

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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

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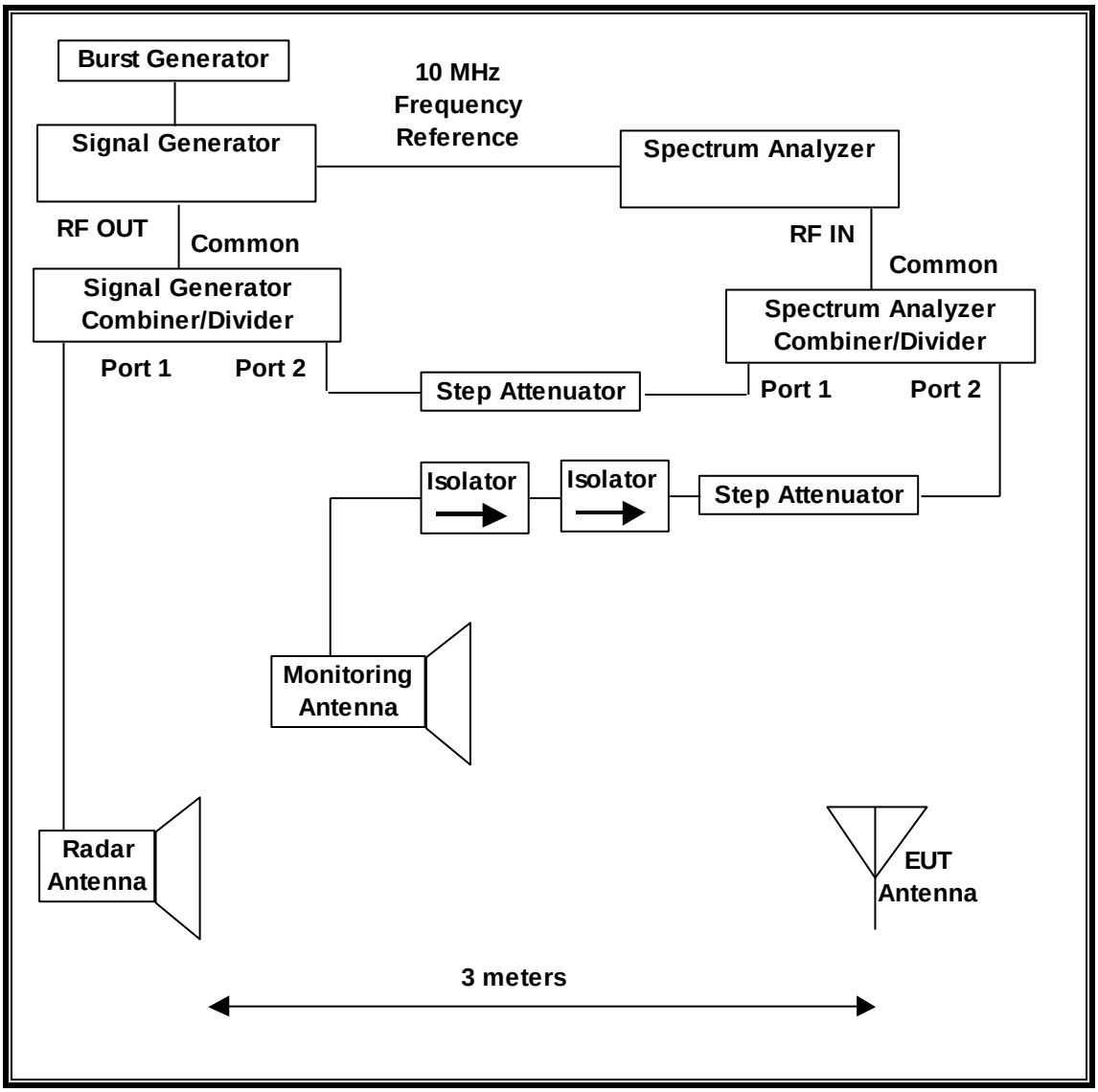
14.1.2. TEST AND MEASUREMENT SYSTEM

RADIATED METHOD SYSTEM BLOCK DIAGRAM



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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.

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ADJUSTMENT OF DISPLAYED TRAFFIC LEVEL

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

TEST AND MEASUREMENT EQUIPMENT

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

TEST EQUIPMENT LIST				
Description	**Manufacturer**	**Model**	**Serial Number**	**Cal Due**
Spectrum Analyzer, PXA, 3Hz to 44GHz	Agilent	N9030A	US51350187	06/01/16
Signal Generator, MXG X-Series RF Vector	Agilent	N5172B	MY51350337	02/17/16

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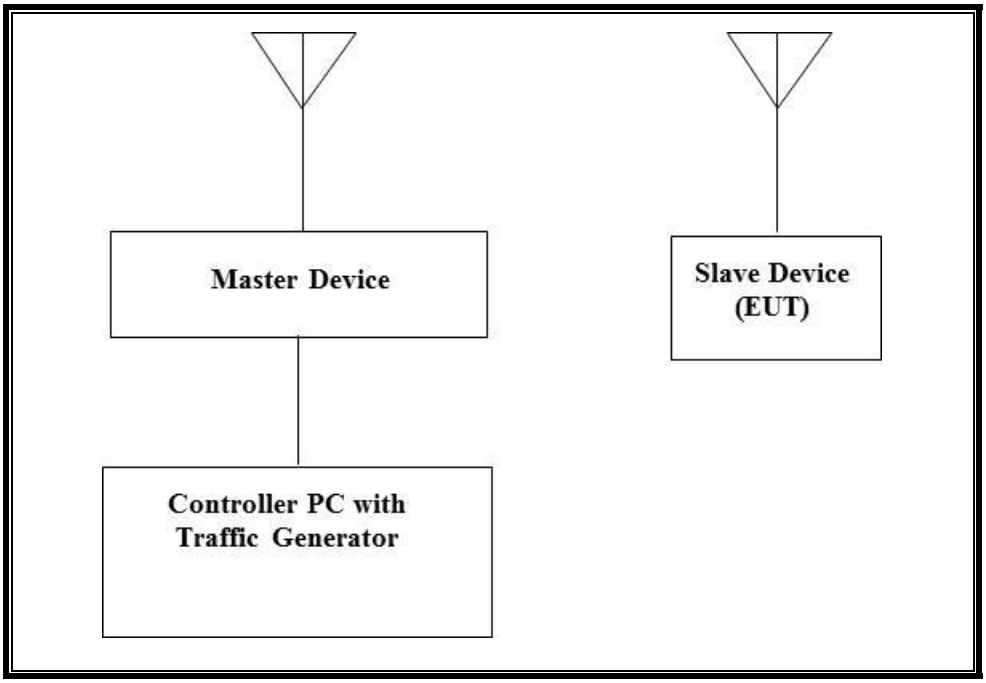
14.1.3. SETUP OF EUT

RADIATED METHOD EUT TEST SETUP



SUPPORT EQUIPMENT

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

PERIPHERAL SUPPORT EQUIPMENT LIST				
Description	**Manufacturer**	**Model**	**Serial Number**	**FCC ID**
802.11ac Dual Band Wireless Access Point	Cisco	AIR-CAP3702E-A-K9	FTX181570A6	LDK102087
P.O.E. Injector	Phihong	POE30U-560(G)	PHI170102N2	DoC
Notebook PC (Controller/Server)	Lenovo	Type 4236-B92	PB-HEX04 12/05	DoC
AC Adapter (Controller/Server PC)	Lenovo	42T4418	11S42T4418Z1ZGWG08 R90M	DoC

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14.1.4. DESCRIPTION OF EUT

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

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

The EUT is a Slave Device without Radar Detection.

The highest power level within these bands is 14.24 dBm EIRP in the 5250-5350 MHz band and 13.85 dBm EIRP in the 5470-5725 MHz band.

The highest gain antenna assembly utilized with the EUT has a gain of -3.1 dBi in the 5250-5350 MHz band and -3.1 dBi in the 5470-5725 MHz band. The lowest gain antenna assembly utilized with the EUT has a gain of -3.1 dBi in the 5250-5350 MHz band and -3.1 dBi in the 5470-5725 MHz band.

The only antenna assembly utilized with the EUT has a gain of -3.1 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 chains and one receives only chain, each connected to an antenna to perform radiated tests.

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

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

The EUT utilizes the 802.11n architecture. Two nominal channel bandwidths are implemented: 20MHz and 40MHz.

The software installed in the EUT is Android version 5.1.1, Software version H74007c

UNIFORM CHANNEL SPREADING

This function is not required per KDB 905462.

This is requirement not applicable to Slave Devices.

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

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

The rated output power of the Master unit is > 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.

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14.2. RESULTS FOR 20 MHz BANDWIDTH

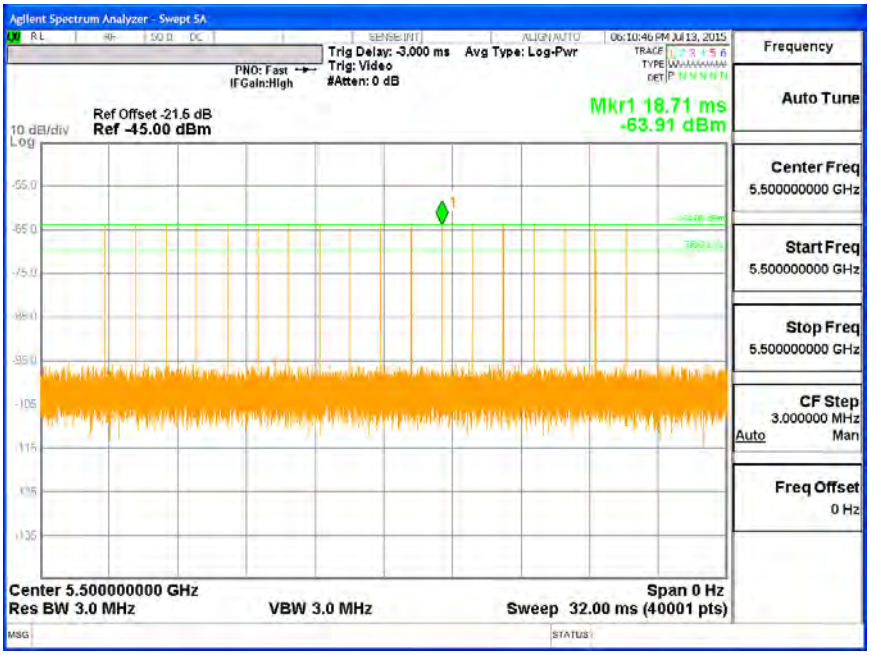
14.2.1. TEST CHANNEL

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

14.2.2. RADAR WAVEFORM AND TRAFFIC

RADAR WAVEFORM

SHORT PULSE RADAR TYPE 0 AT MASTER



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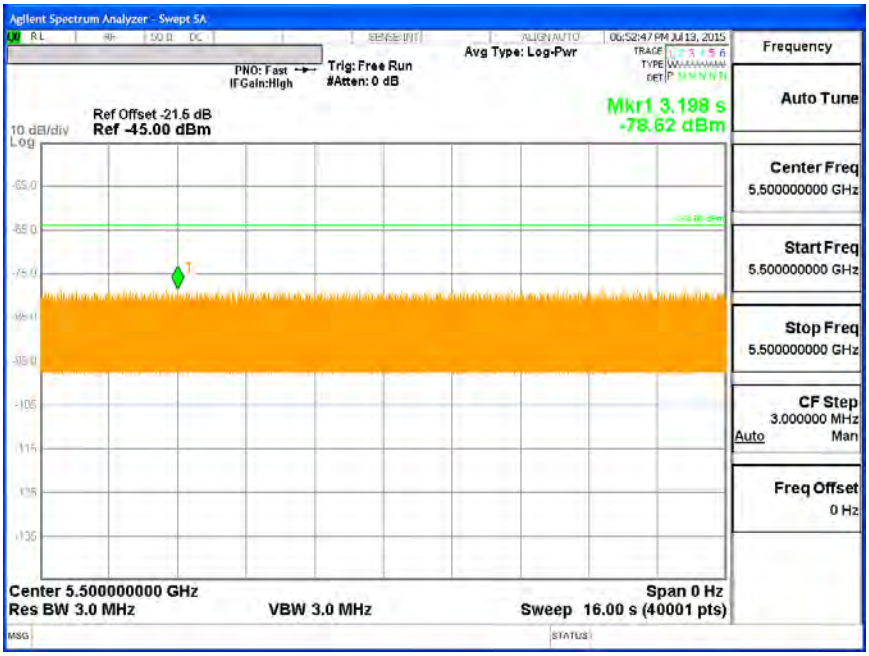
TRAFFIC

SLAVE TRAFFIC



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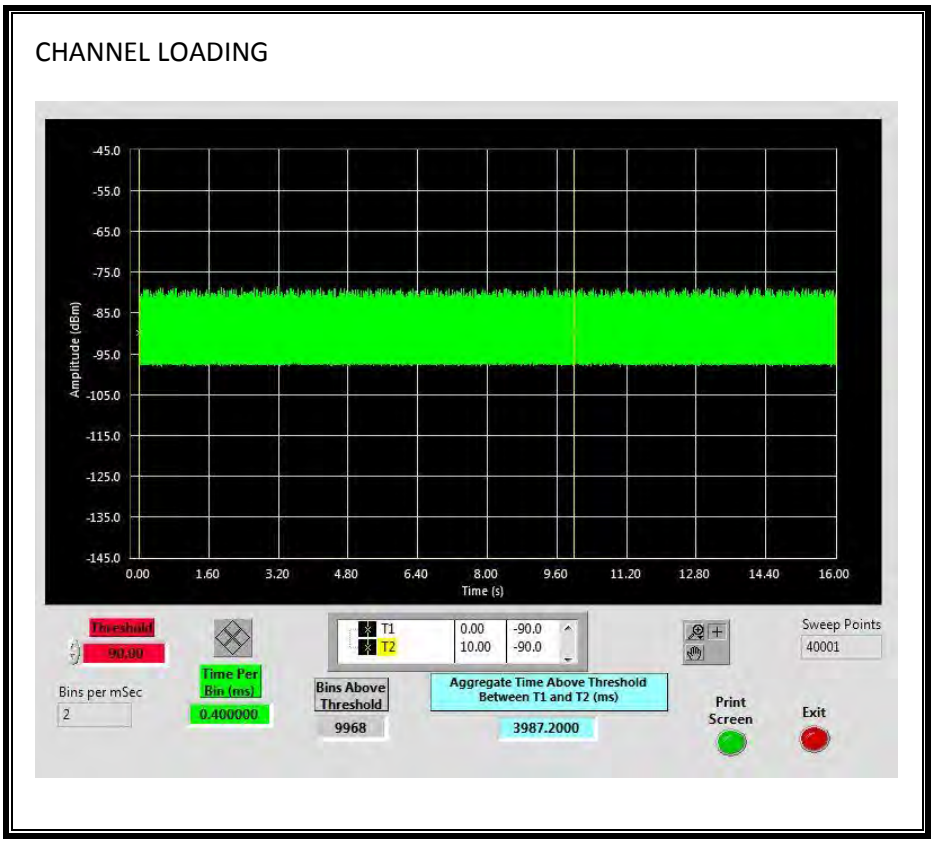
CHANNEL LOADING



The level of traffic loading on the channel by the EUT is 39.872%

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14.2.3. OVERLAPPING CHANNEL TESTS

RESULTS

These tests are not applicable.

14.2.4. MOVE AND CLOSING TIME

REPORTING NOTES

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

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

The aggregate channel closing transmission time is calculated as follows:

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

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

RESULTS

Channel Move Time (sec)	Limit (sec)
0.090	10

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

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MOVE TIME

MOVE TIME

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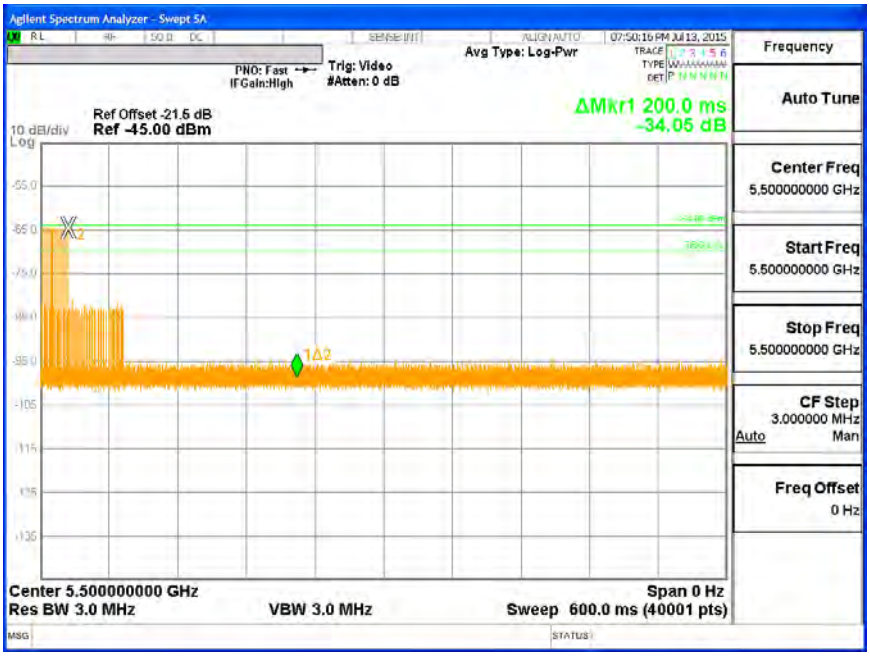
CHANNEL CLOSING TIME

CLOSING TIME



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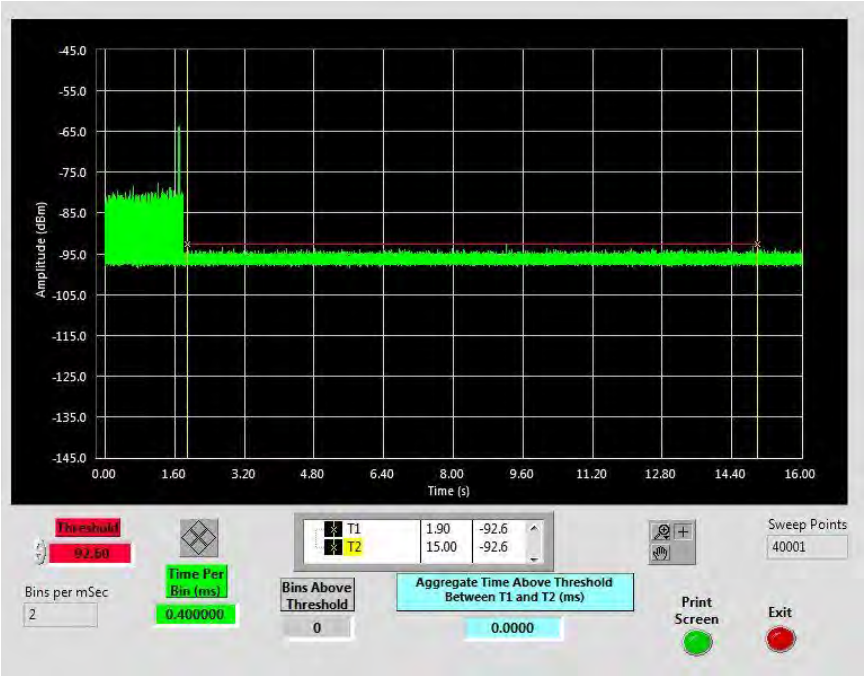
AGGREGATE CHANNEL CLOSING TRANSMISSION TIME

No transmissions are observed during the aggregate monitoring period.

AGGREGATE CLOSING TIME



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14.3. RESULTS FOR 40 MHz BANDWIDTH

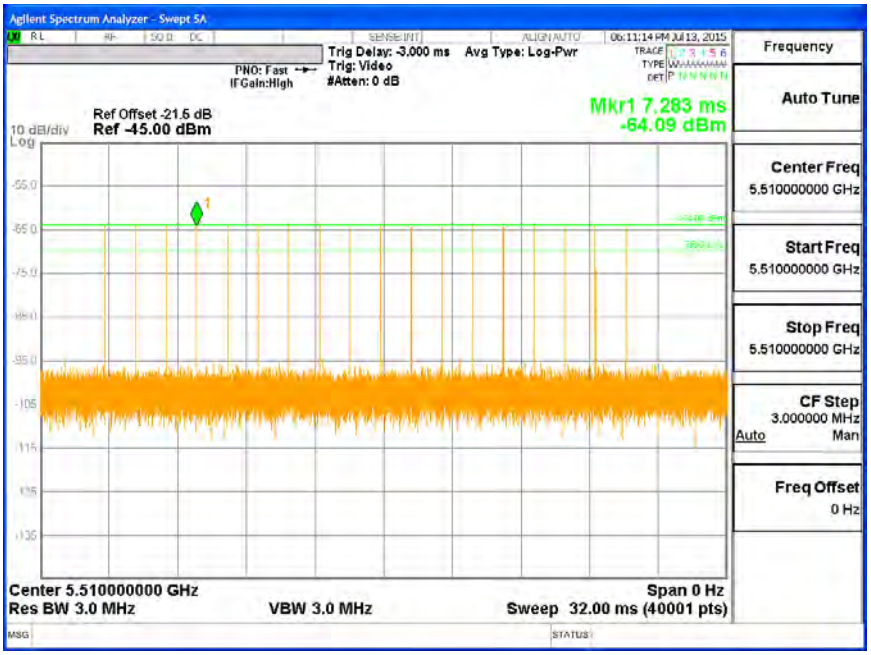
14.3.1. TEST CHANNEL

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

14.3.2. RADAR WAVEFORM AND TRAFFIC

RADAR WAVEFORM

SHORT PULSE RADAR TYPE 0 AT MASTER



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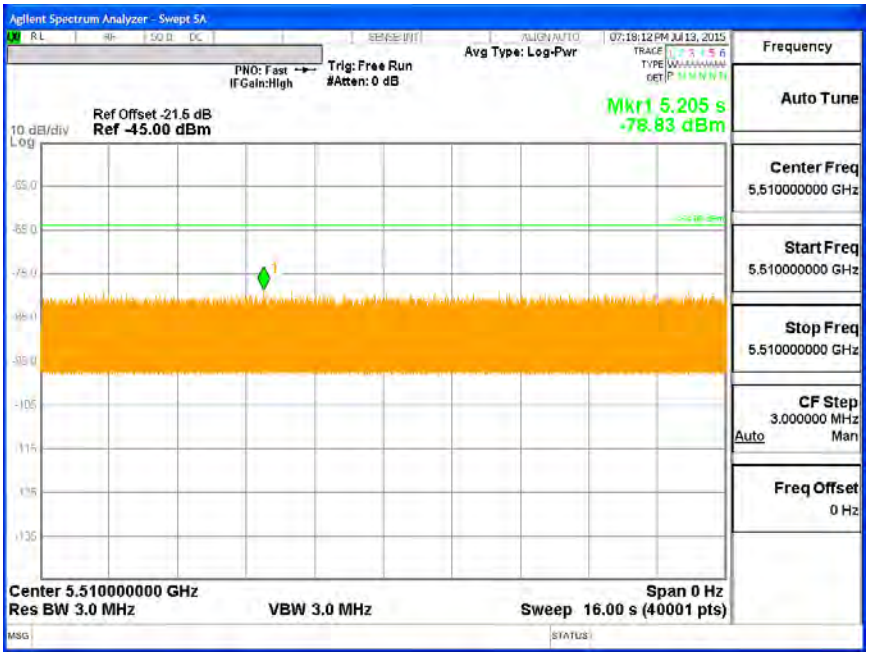
TRAFFIC

SLAVE TRAFFIC



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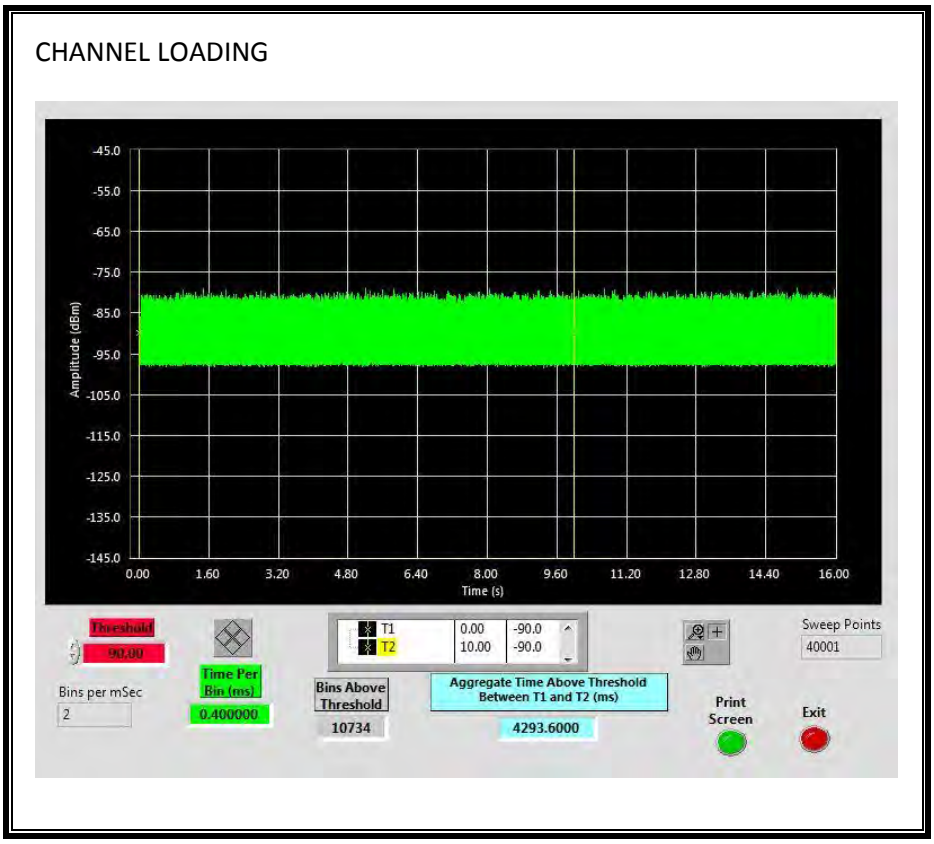
CHANNEL LOADING



The level of traffic loading on the channel by the EUT is 42.936%

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14.3.3. OVERLAPPING CHANNEL TESTS

RESULTS

These tests are not applicable.

14.3.4. MOVE AND CLOSING TIME

REPORTING NOTES

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

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

The aggregate channel closing transmission time is calculated as follows:

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

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

RESULTS

Channel Move Time (sec)	Limit (sec)
0.075	10

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

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MOVE TIME

MOVE TIME

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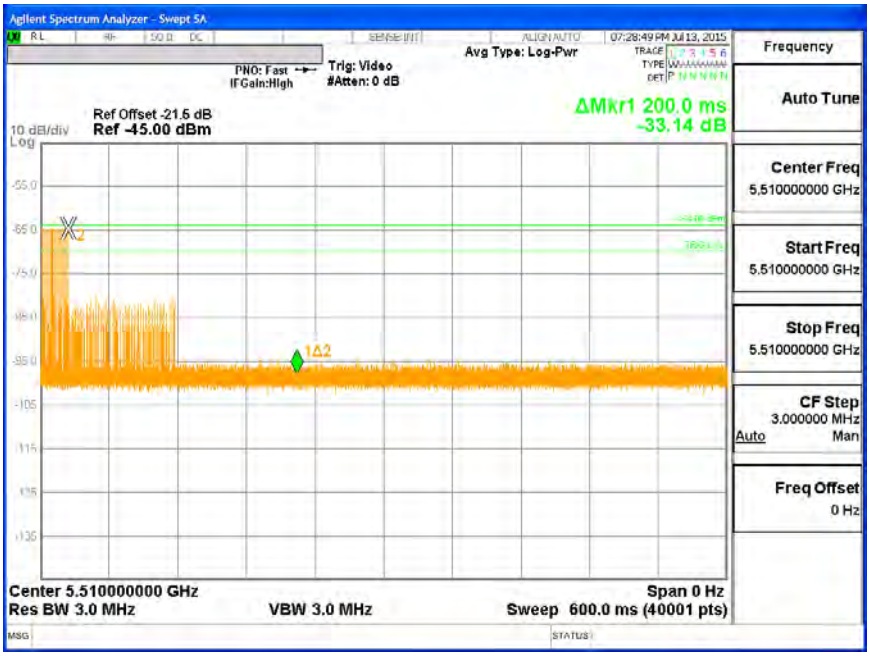
CHANNEL CLOSING TIME

CLOSING TIME



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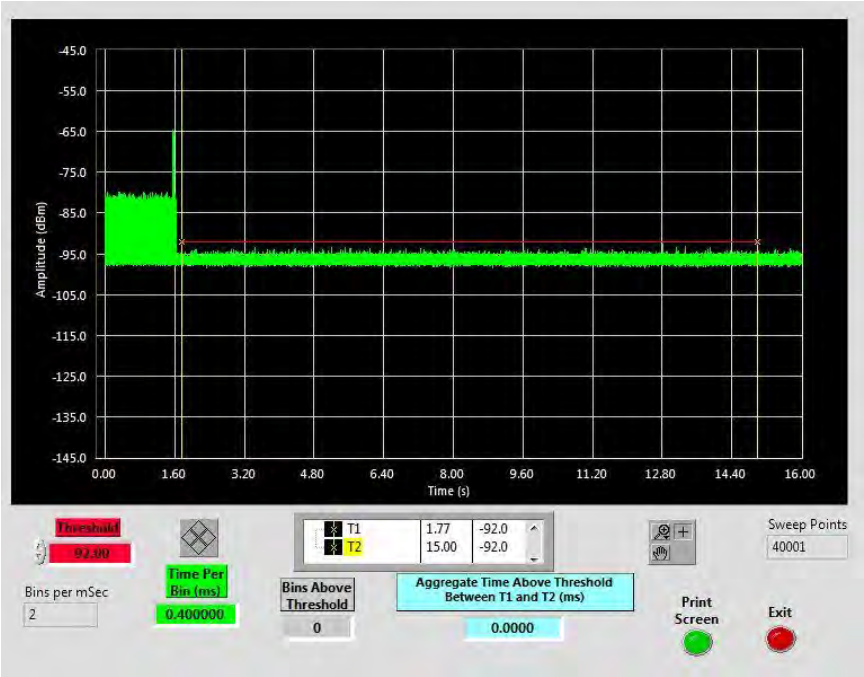
AGGREGATE CHANNEL CLOSING TRANSMISSION TIME

No transmissions are observed during the aggregate monitoring period.

AGGREGATE CLOSING TIME



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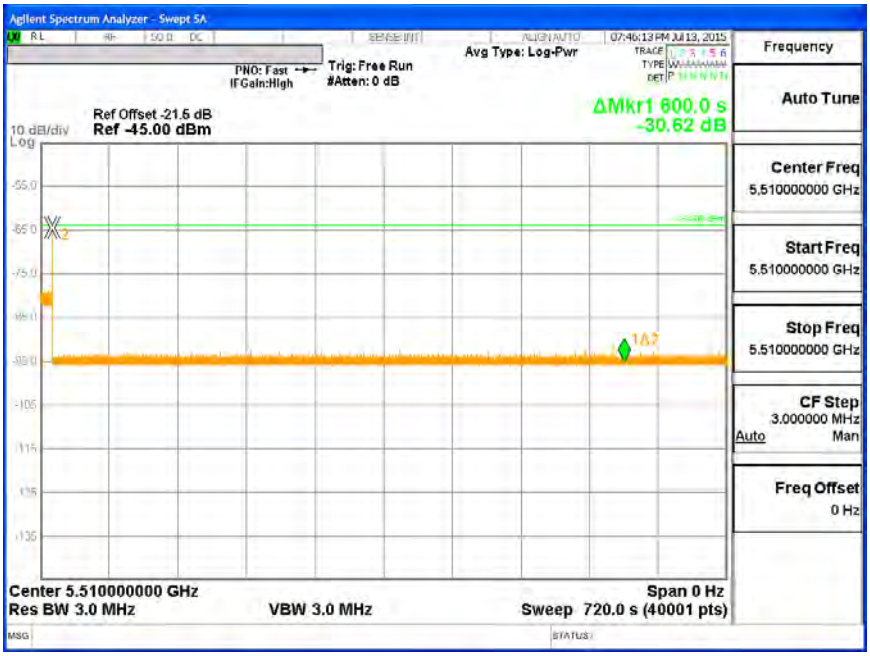
14.3.5. 10-MINUTE BEACON MONITORING PERIOD

RESULTS

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

10-MINUTE BEACON MONITORING PERIOD



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