

8. RADIATED TEST RESULTS

8.1. LIMITS AND PROCEDURE

LIMITS

FCC §15.205 and §15.209

IC RSS-GEN, Section 8.9 and 8.10.

Frequency Range (MHz)	Field Strength Limit (uV/m) at 3 m	Field Strength Limit (dBuV/m) at 3 m
30 - 88	100	40
88 - 216	150	43.5
216 - 960	200	46
Above 960	500	54

TEST PROCEDURE

The EUT is placed on a non-conducting table 80 cm above the ground plane for measurement below 1GHz; 1.5 m above the ground plane for measurement above 1GHz. The antenna to EUT distance is 3 meters. The EUT is configured in accordance with ANSI C63.10. The EUT is set to transmit in a continuous mode.

For measurements below 1 GHz the resolution bandwidth is set to 100 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

For pre-scans above 1 GHz the resolution bandwidth is set to 1 MHz; the video bandwidth is set to 30 KHz for peak measurements.

For final scans above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 3 MHz for peak measurements and 1 MHz resolution bandwidth with 1/T (10 Hz) video bandwidth with peak detector for average measurements.

The spectrum from 30 MHz to 26 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in the 2.4 GHz band.

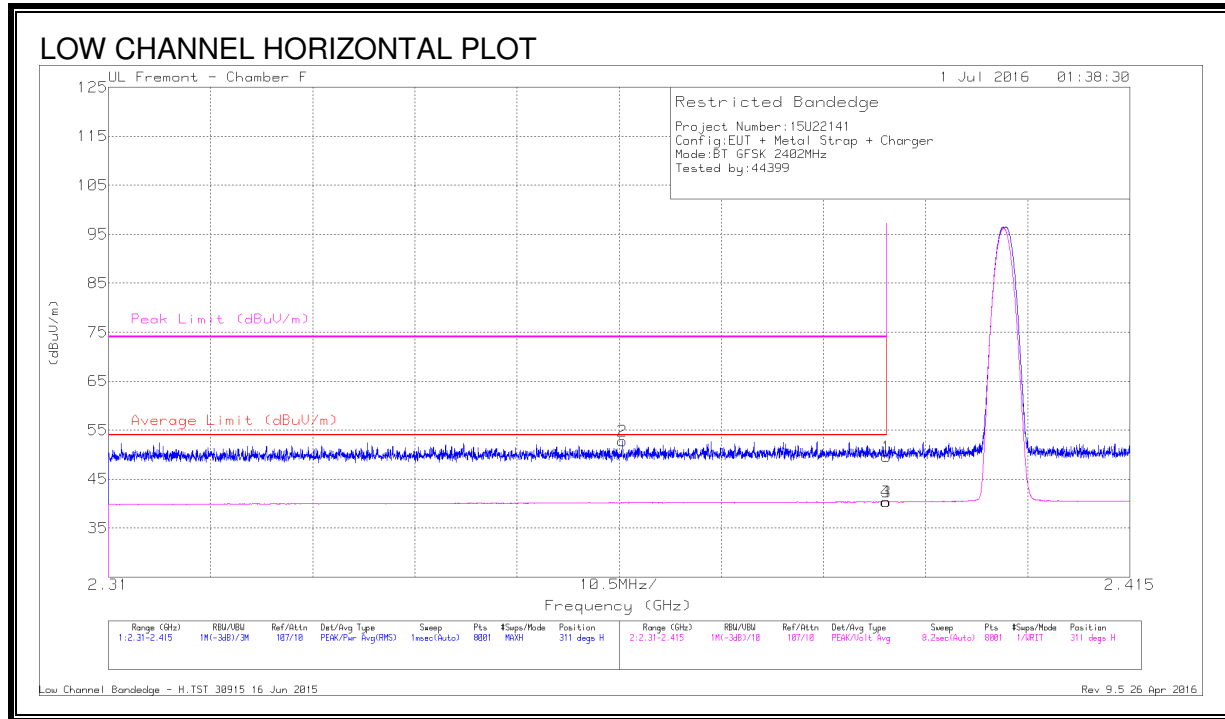
The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized in both the vertical and the horizontal positions.

RESULTS

8.2. ABOVE 1 GHz

8.2.1. HIGH POWER BASIC DATA RATE GFSK MODULATION

RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/Fitr/Pa d (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	38.3	Pk	32.1	-20.9	49.5	-	-	74	-24.5	311	143	H
2	* 2.363	41.67	Pk	32	-20.9	52.77	-	-	74	-21.23	311	143	H
3	* 2.39	29.15	VA1T	32.1	-20.9	40.35	54	-13.65	-	-	311	143	H
4	* 2.39	29.16	VA1T	32.1	-20.9	40.36	54	-13.64	-	-	311	143	H

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

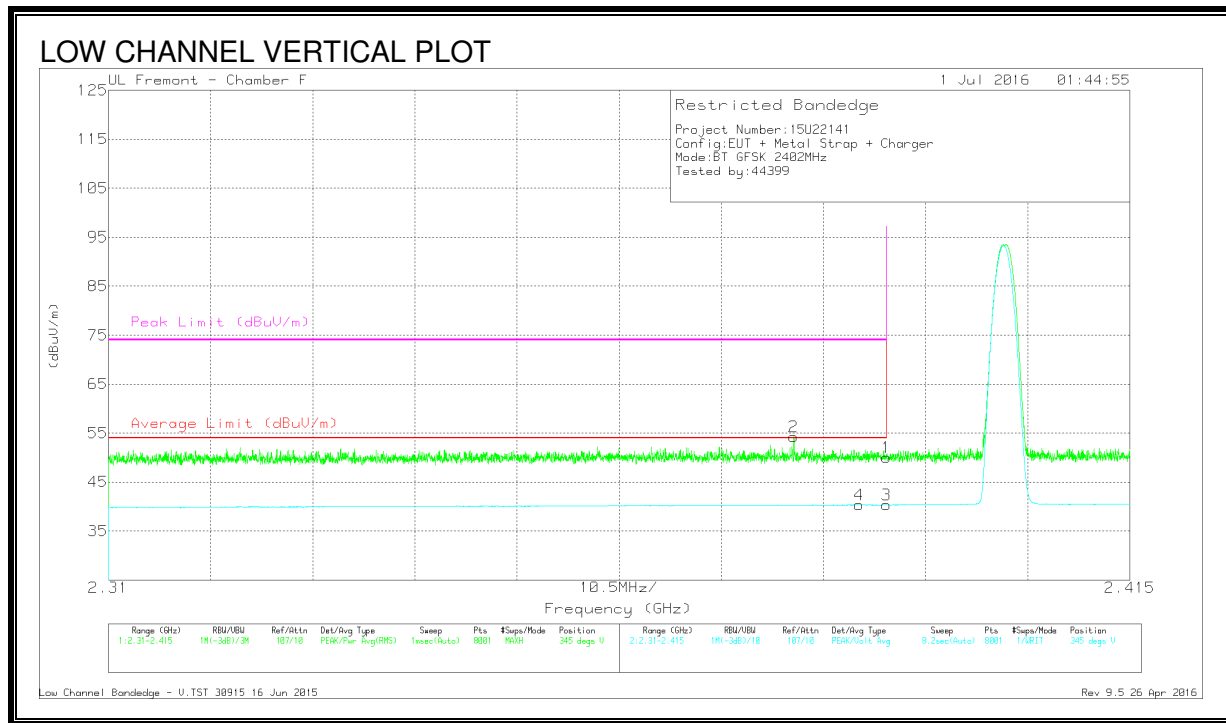
Pk - Peak detector

VA1T - FHSS: Linear Voltage Average $VB=1/Ton$ where: Ton is transmit duration

Low Channel Bandedge - H.TST 30915 16 Jun 2015

Rev 9.5 26 Apr 2016

RESTRICTED BANDEGE (LOW CHANNEL, VERTICAL)



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/Filtr/Pa d (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	38.83	Pk	32.1	-20.9	50.03	-	-	74	-23.97	345	194	V
2	* 2.38	43.04	Pk	32.1	-20.9	54.24	-	-	74	-19.76	345	194	V
3	* 2.39	29.12	VA1T	32.1	-20.9	40.32	54	-13.68	-	-	345	194	V
4	* 2.387	29.15	VA1T	32.1	-20.9	40.35	54	-13.65	-	-	345	194	V

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

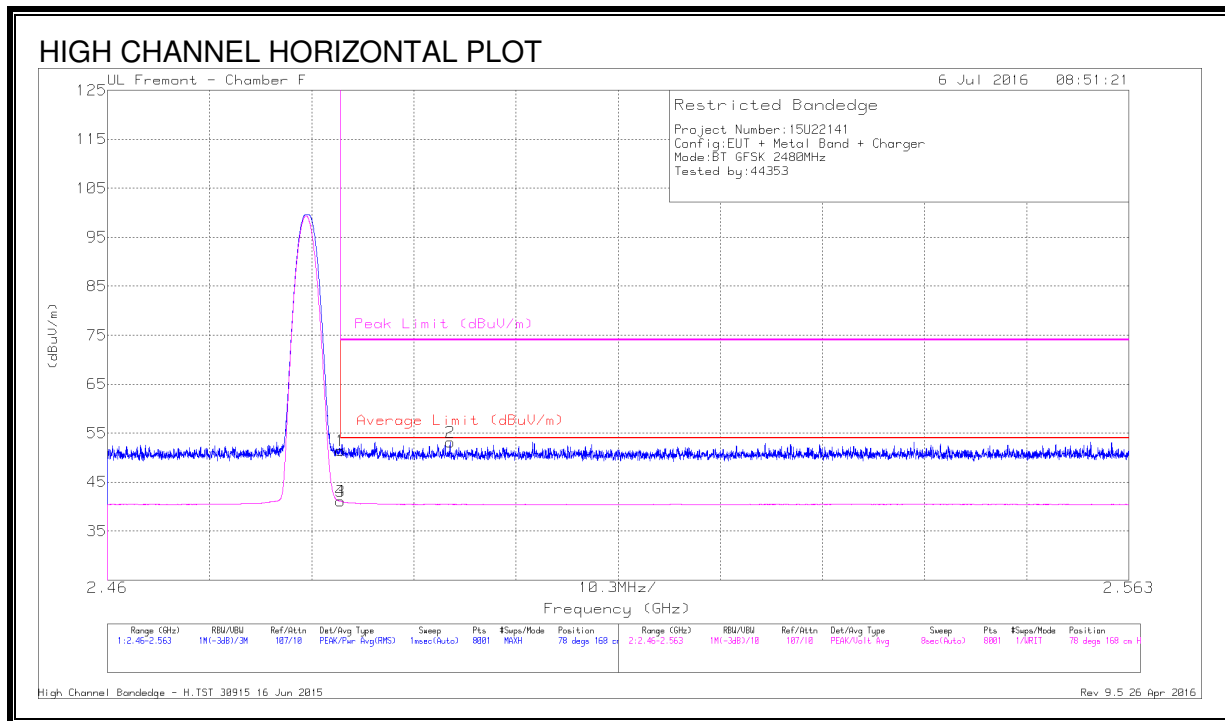
Pk - Peak detector

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

Low Channel Bandedge - V.TST 30915 16 Jun 2015

Rev 9.5 26 Apr 2016

RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)



DATA

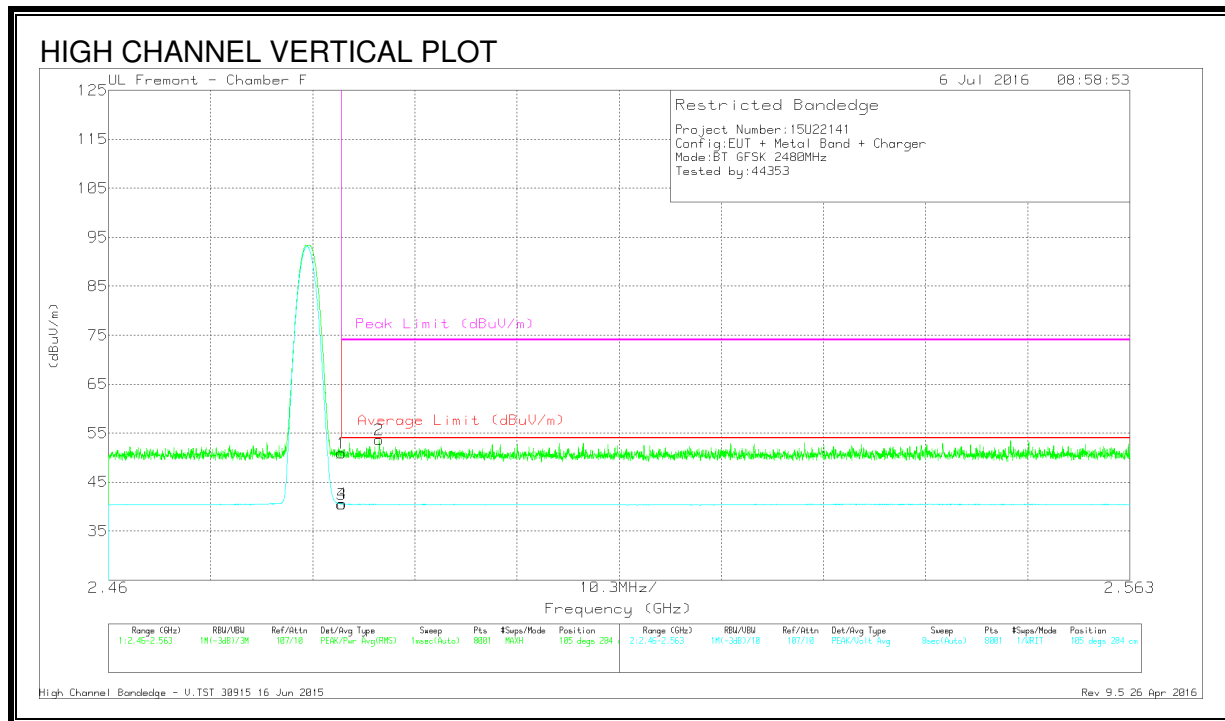
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1	* 2.484	40.09	Pk	32.3	-21	51.39	-	-	74	-22.61	78	168	H
2	* 2.495	41.77	Pk	32.3	-20.9	53.17	-	-	74	-20.83	78	168	H
3	* 2.484	29.79	VA1T	32.3	-21	41.09	54	-12.91	-	-	78	168	H
4	* 2.484	29.79	VA1T	32.3	-21	41.09	54	-12.91	-	-	78	168	H

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

Pk - Peak detector

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)



DATA

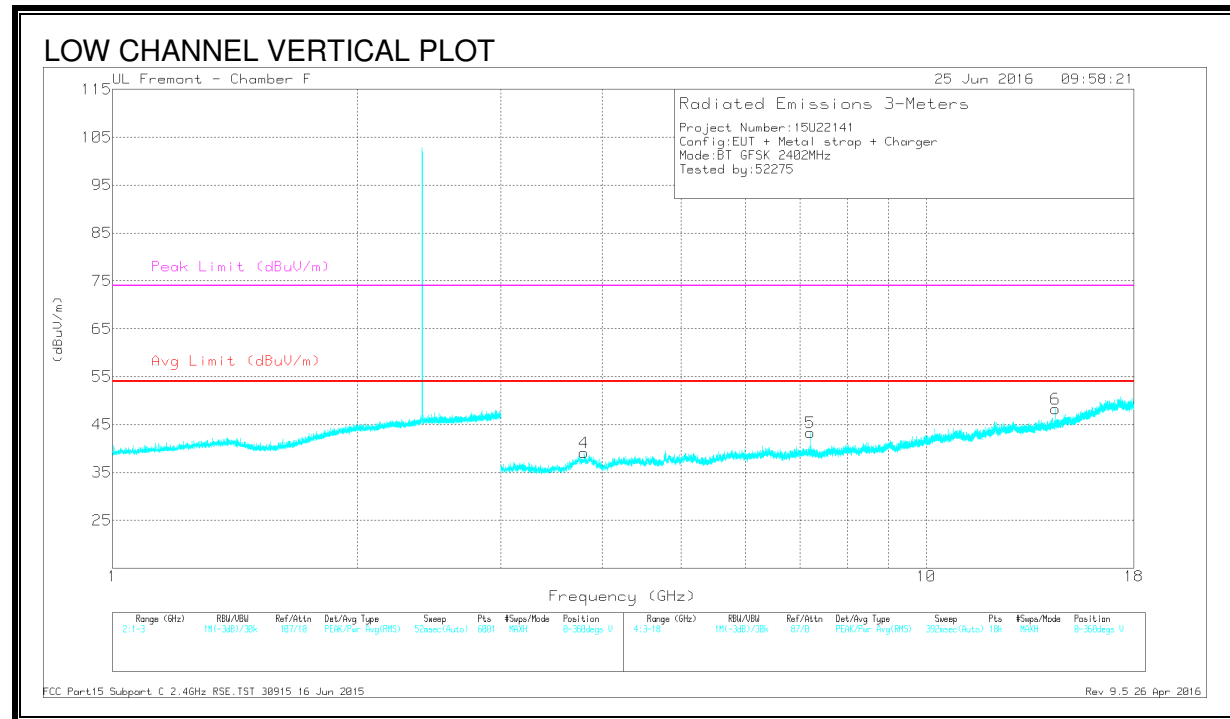
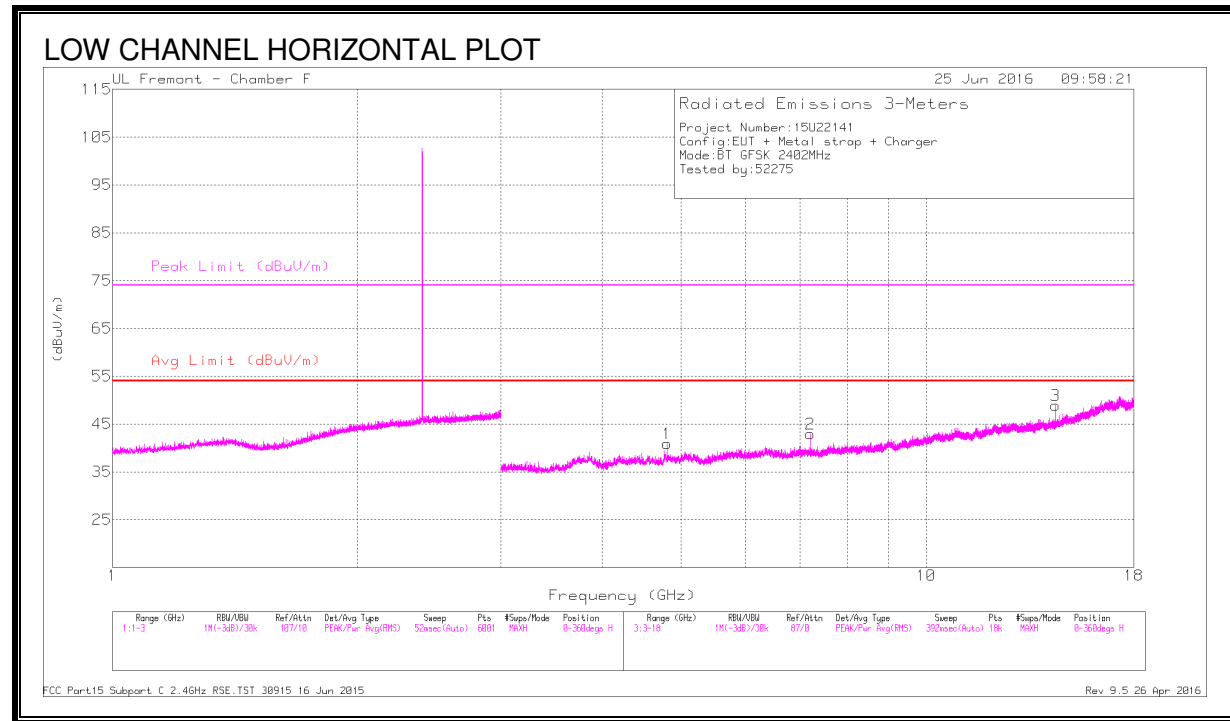
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/Filtr/P ad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	39.56	Pk	32.3	-21	50.86	-	-	74	-23.14	105	284	V
2	* 2.487	42.2	Pk	32.3	-20.9	53.6	-	-	74	-20.4	105	284	V
3	* 2.484	29.23	VA1T	32.3	-21	40.53	54	-13.47	-	-	105	284	V
4	* 2.484	29.25	VA1T	32.3	-21	40.55	54	-13.45	-	-	105	284	V

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

Pk - Peak detector

VA1T - FHSS: Linear Voltage Average $VB=1/Ton$ where: Ton is transmit duration

HARMONICS AND SPURIOUS EMISSIONS



DATA

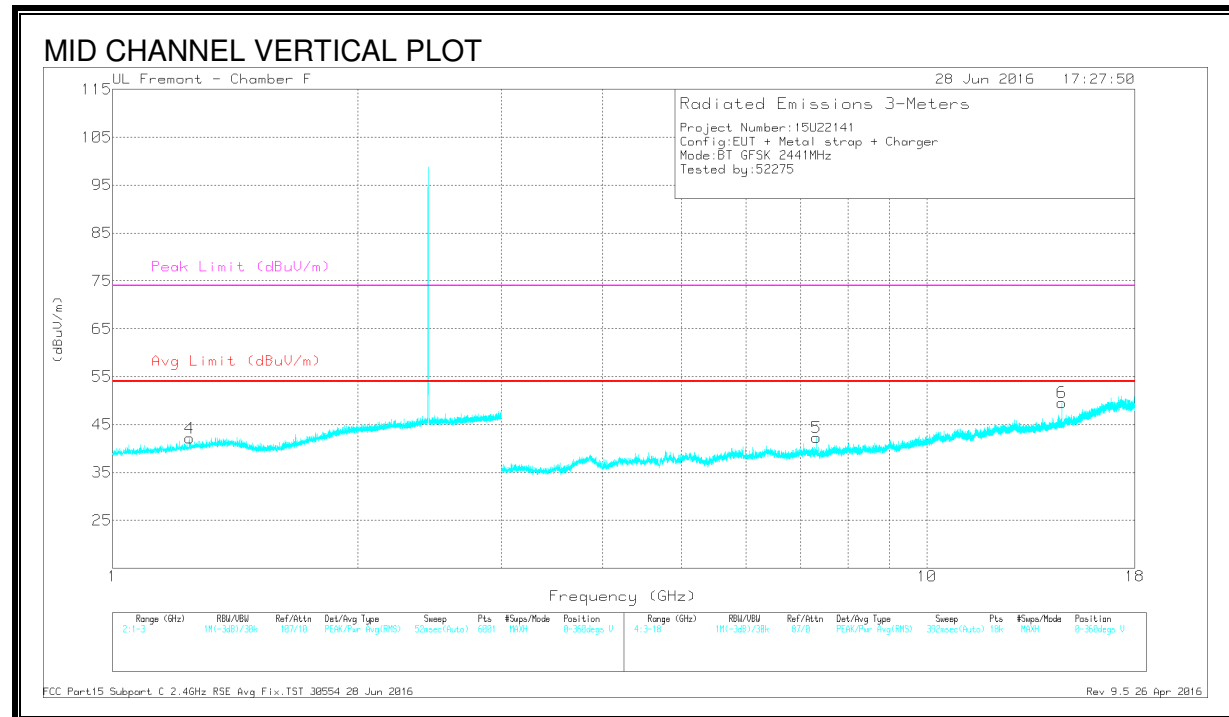
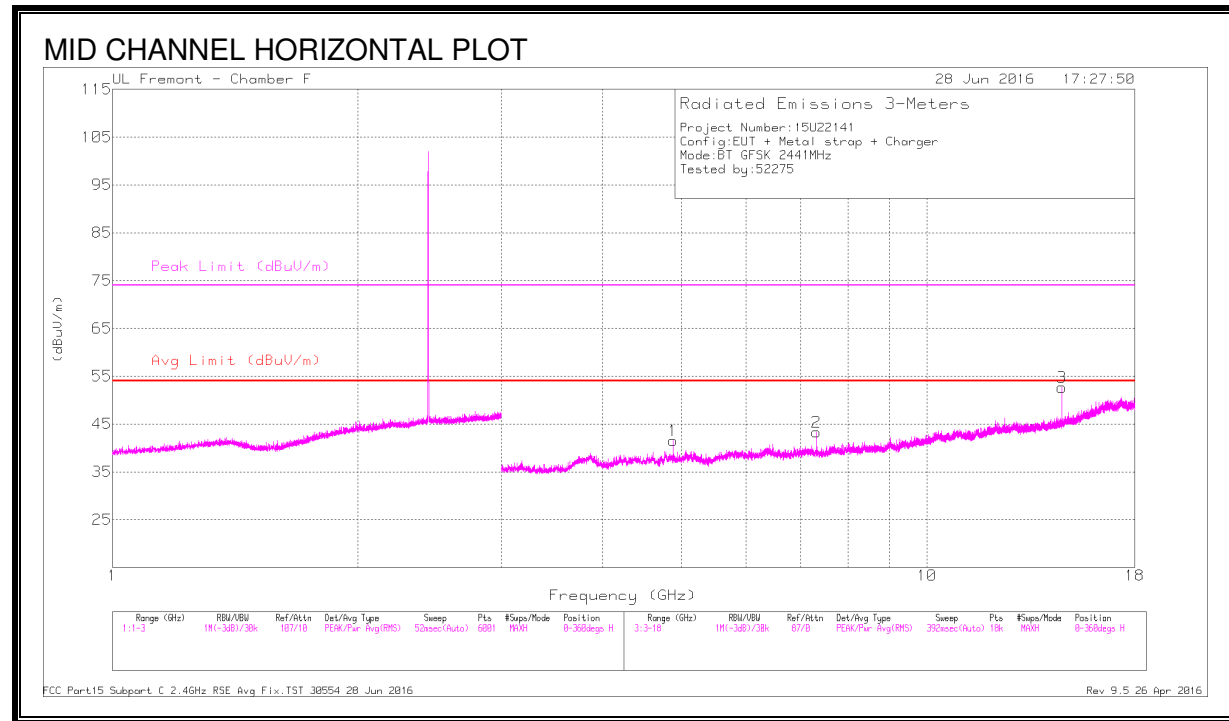
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/Fitr/P ad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.804	38.4	PKFH	34	-27.6	44.8	-	-	74	-29.2	138	109	H
	* 4.804	30.27	VA1T	34	-27.6	36.67	54	-17.33	-	-	138	109	H
2	7.206	39.14	PKFH	35.6	-26.4	48.34	-	-	-	-	77	101	H
	7.206	31.32	VA1T	35.6	-26.4	40.52	-	-	-	-	77	101	H
3	14.411	39.3	PKFH	39.4	-23.4	55.3	-	-	-	-	207	193	H
	14.413	29.67	VA1T	39.4	-23.4	45.67	-	-	-	-	207	193	H
5	7.206	39.96	PKFH	35.6	-26.4	49.16	-	-	-	-	149	362	V
	7.206	31.28	VA1T	35.6	-26.4	40.48	-	-	-	-	149	362	V
6	14.413	38.3	PKFH	39.4	-23.4	54.3	-	-	-	-	132	195	V
	14.413	27.92	VA1T	39.4	-23.4	43.92	-	-	-	-	132	195	V
4	* 3.798	38.71	PKFH	33.4	-28.7	43.41	-	-	74	-30.59	132	200	V
	* 3.799	26.67	VA1T	33.4	-28.7	31.37	54	-22.63	-	-	132	200	V

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

PKFH - FHSS: RB=100k/1MHz VB=3 x RB, Peak

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

HARMONICS AND SPURIOUS EMISSIONS



DATA

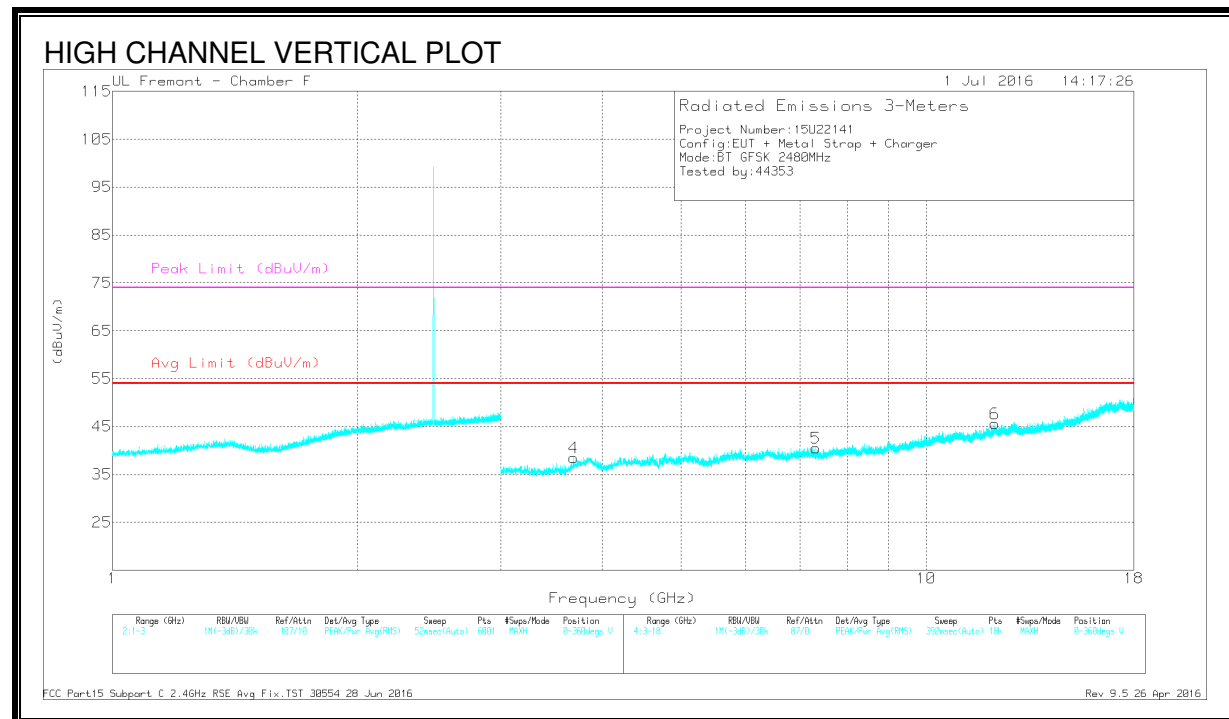
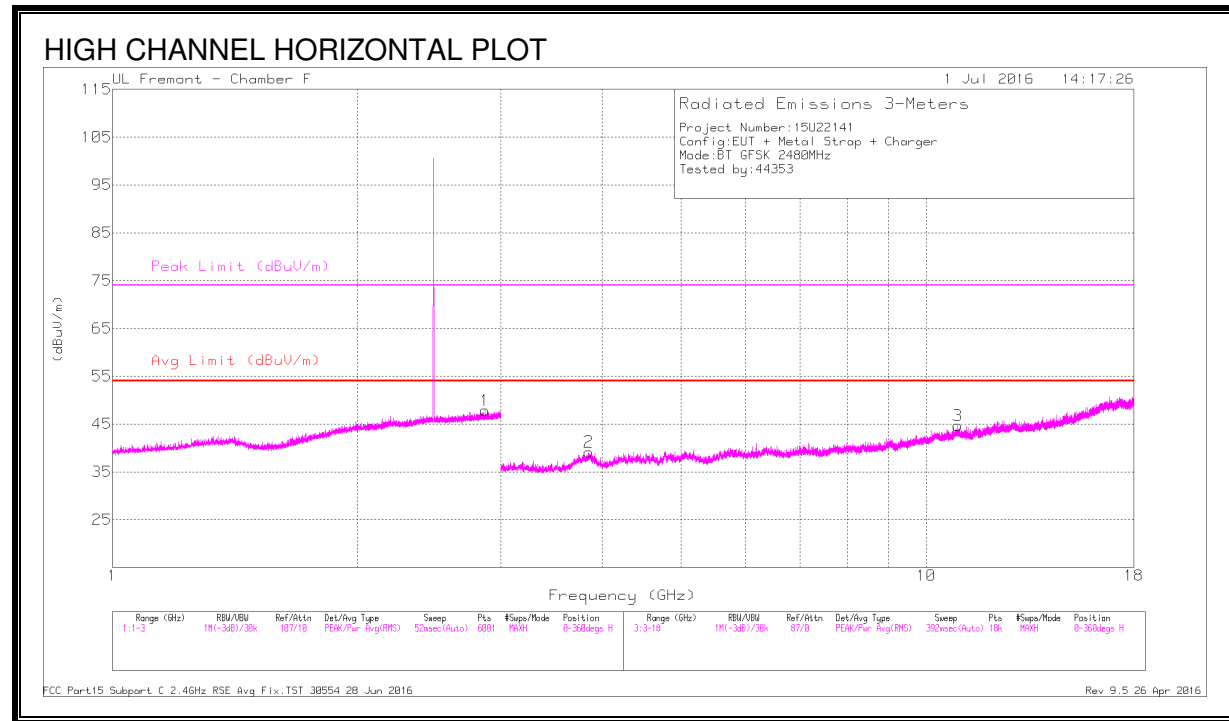
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	* 1.242	41.58	PKFH	28.6	-22.3	47.88	-	-	74	-26.12	131	151	V
	* 1.241	29.43	VA1T	28.6	-22.3	35.73	54	-18.27	-	-	131	151	V
2	* 7.323	39.47	PKFH	35.6	-26.5	48.57	-	-	74	-25.43	1	114	H
	* 7.323	30.82	VA1T	35.6	-26.5	39.92	54	-14.08	-	-	1	114	H
3	14.647	41.16	PKFH	39.7	-23.2	57.66	-	-	-	-	116	225	H
	14.647	32.16	VA1T	39.7	-23.2	48.66	-	-	-	-	116	225	H
1	* 4.883	37.4	PKFH	34.1	-27.8	43.7	-	-	74	-30.3	240	301	H
	* 4.882	25.71	VA1T	34.1	-27.8	32.01	54	-21.99	-	-	240	301	H
6	14.649	35.33	PKFH	39.7	-23.2	51.83	-	-	-	-	258	282	V
	14.647	24.04	VA1T	39.7	-23.2	40.54	-	-	-	-	258	282	V
5	* 7.323	36.49	PKFH	35.6	-26.5	45.59	-	-	74	-28.41	200	151	V
	* 7.324	25.05	VA1T	35.6	-26.4	34.25	54	-19.75	-	-	200	151	V

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

PKFH - FHSS: RB=100k/1MHz VB=3 x RB, Peak

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

HARMONICS AND SPURIOUS EMISSIONS



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/Filtr/P ad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.869	40.39	PKFH	32.6	-20.3	52.69	-	-	74	-21.31	110	240	H
	* 2.871	28.98	VA1T	32.6	-20.3	41.28	54	-12.72	-	-	110	240	H
2	* 3.849	37.7	PKFH	33.4	-28.2	42.9	-	-	74	-31.1	327	202	H
	* 3.849	26.47	VA1T	33.4	-28.2	31.67	54	-22.33	-	-	327	202	H
3	* 10.928	33.67	PKFH	37.9	-21.6	49.97	-	-	74	-24.03	81	133	H
	* 10.928	21.76	VA1T	37.9	-21.6	38.06	54	-15.94	-	-	81	133	H
4	* 3.688	39.36	PKFH	33.3	-29.2	43.46	-	-	74	-30.54	212	176	V
	* 3.688	27.05	VA1T	33.3	-29.3	31.05	54	-22.95	-	-	212	176	V
5	* 7.323	36.44	PKFH	35.6	-26.5	45.54	-	-	74	-28.46	294	311	V
	* 7.325	25.11	VA1T	35.6	-26.4	34.31	54	-19.69	-	-	294	311	V
6	* 12.155	33.75	PKFH	38.9	-21.4	51.25	-	-	74	-22.75	200	117	V
	* 12.153	22.1	VA1T	38.9	-21.4	39.6	54	-14.4	-	-	200	117	V

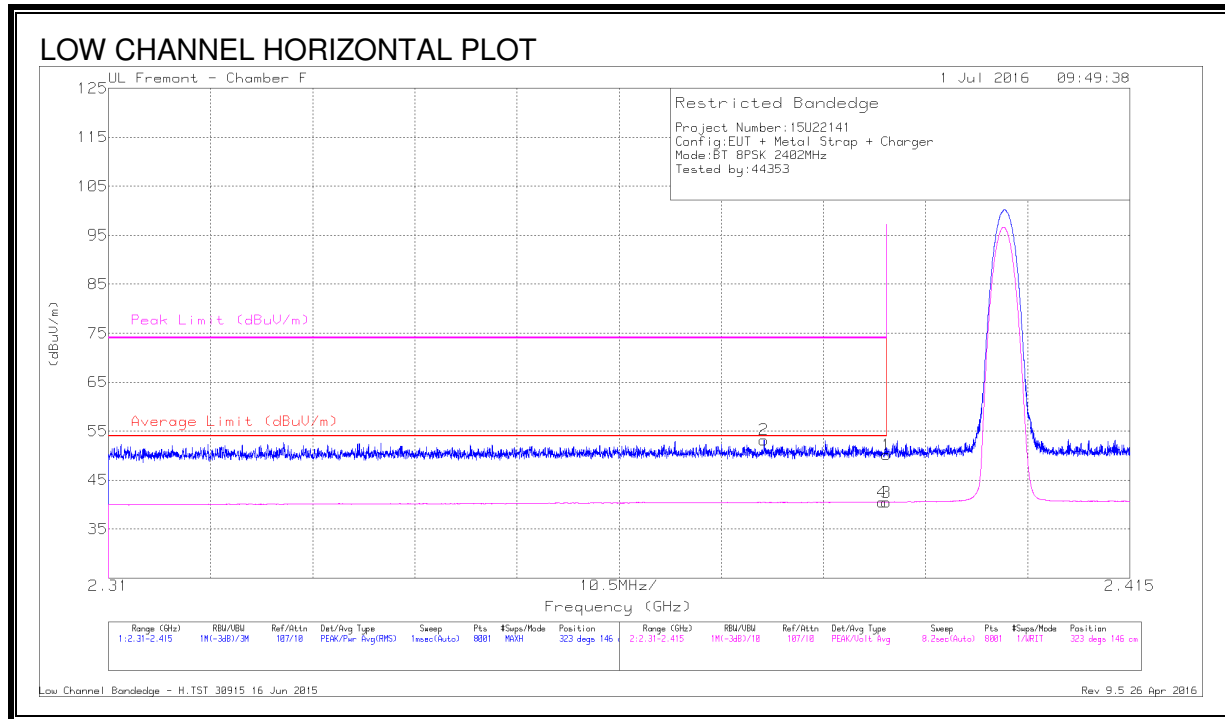
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PKFH - FHSS: RB=100k/1MHz VB=3 x RB, Peak

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

8.2.2. HIGH POWER ENHANCED DATA RATE 8PSK MODULATION

RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



DATA

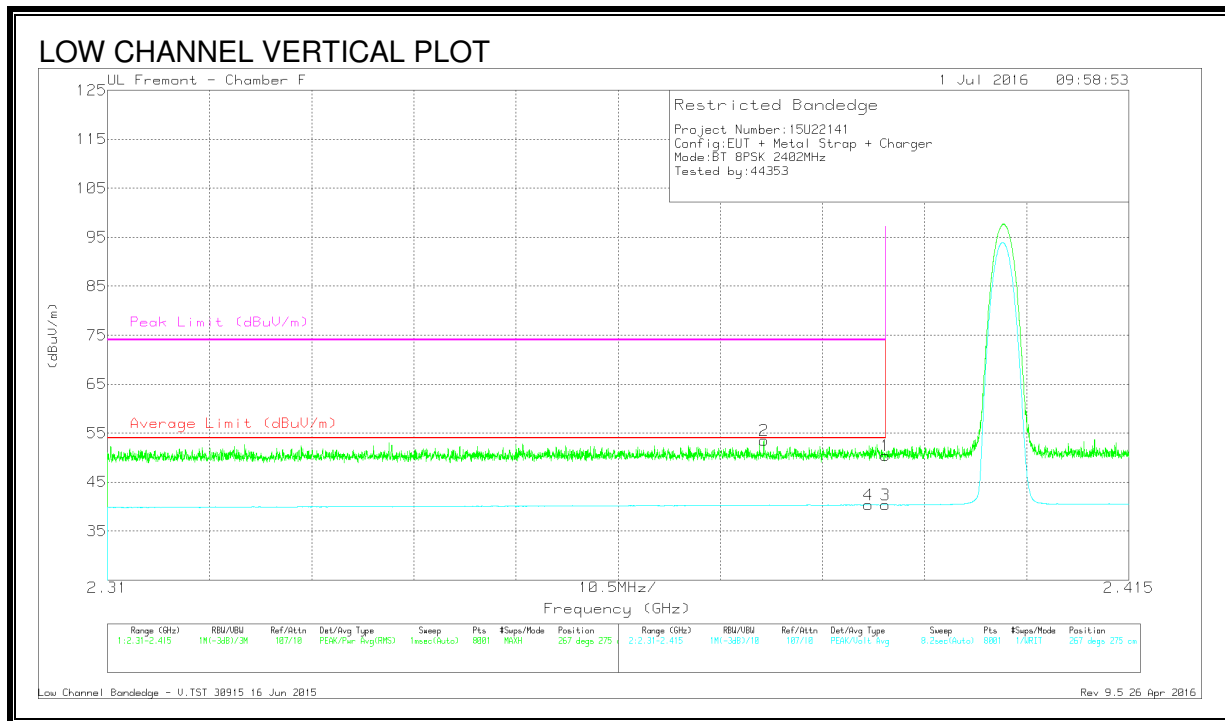
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1	* 2.39	38.92	Pk	32.1	-20.9	50.12	-	-	74	-23.88	323	146	H
2	* 2.377	42.01	Pk	32.1	-20.9	53.21	-	-	74	-20.79	323	146	H
3	* 2.39	29.29	VA1T	32.1	-20.9	40.49	54	-13.51	-	-	323	146	H
4	* 2.39	29.33	VA1T	32.1	-20.9	40.53	54	-13.47	-	-	323	146	H

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

Pk - Peak detector

VA1T - FHSS: Linear Voltage Average $VB=1/T_{on}$ where: T_{on} is transmit duration

RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



DATA

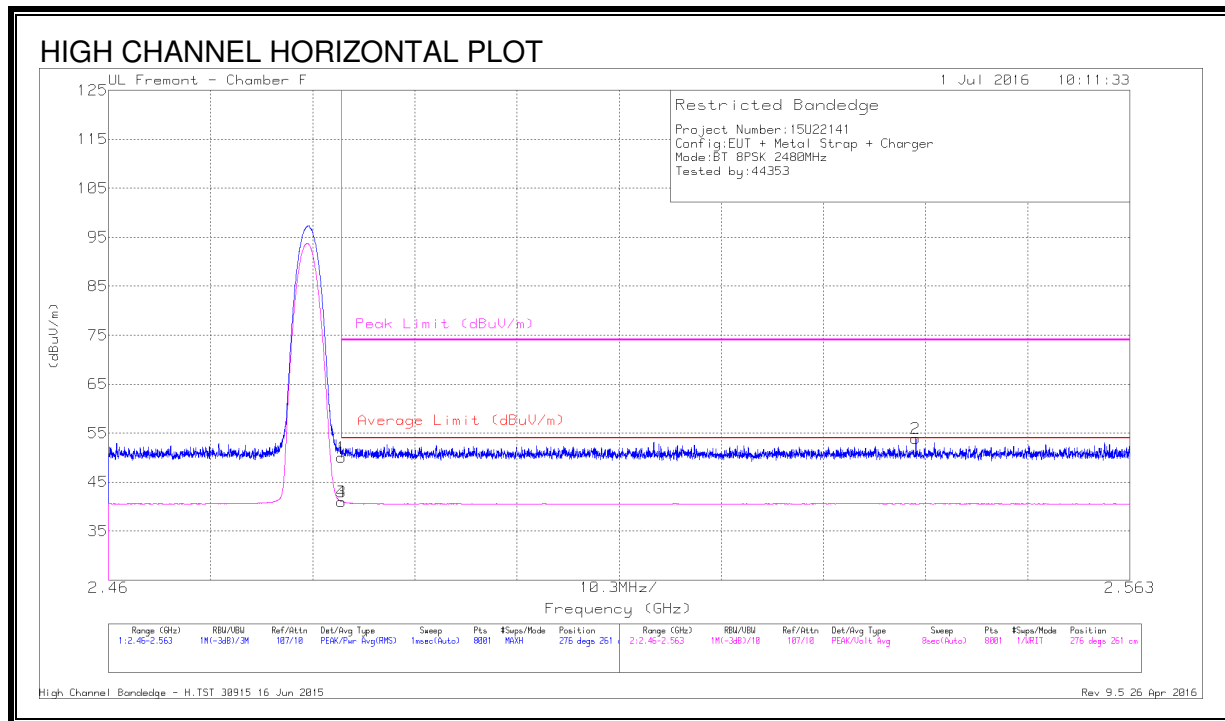
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1	* 2.39	39.25	Pk	32.1	-20.9	50.45	-	-	74	-23.55	267	275	V
2	* 2.377	42.36	Pk	32.1	-20.9	53.56	-	-	74	-20.44	267	275	V
3	* 2.39	29.14	VA1T	32.1	-20.9	40.34	54	-13.66	-	-	267	275	V
4	* 2.388	29.17	VA1T	32.1	-20.9	40.37	54	-13.63	-	-	267	275	V

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

Pk - Peak detector

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)



DATA

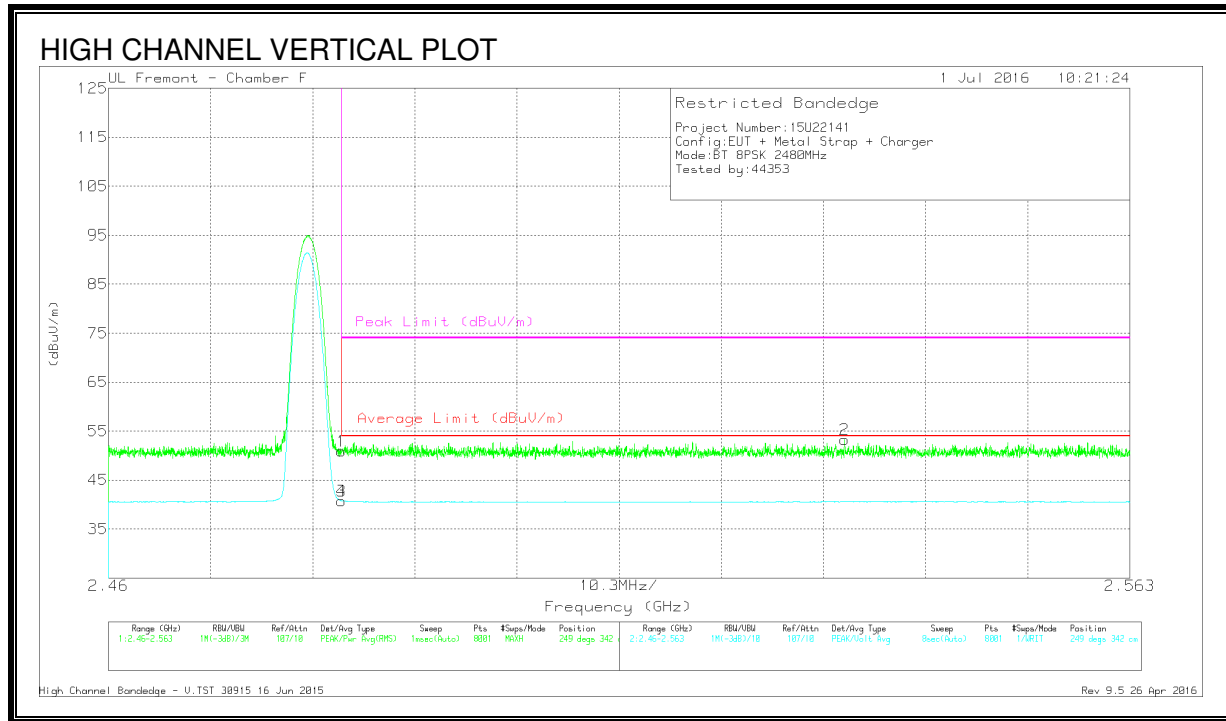
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/Filtr/Pa d (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	38.78	Pk	32.3	-21	50.08	-	-	74	-23.92	276	261	H
2	2.541	42.63	Pk	32.2	-20.9	53.93	-	-	74	-20.07	276	261	H
3	* 2.484	29.7	VA1T	32.3	-21	41	54	-13	-	-	276	261	H
4	* 2.484	29.71	VA1T	32.3	-21	41.01	54	-12.99	-	-	276	261	H

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

Pk - Peak detector

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)



DATA

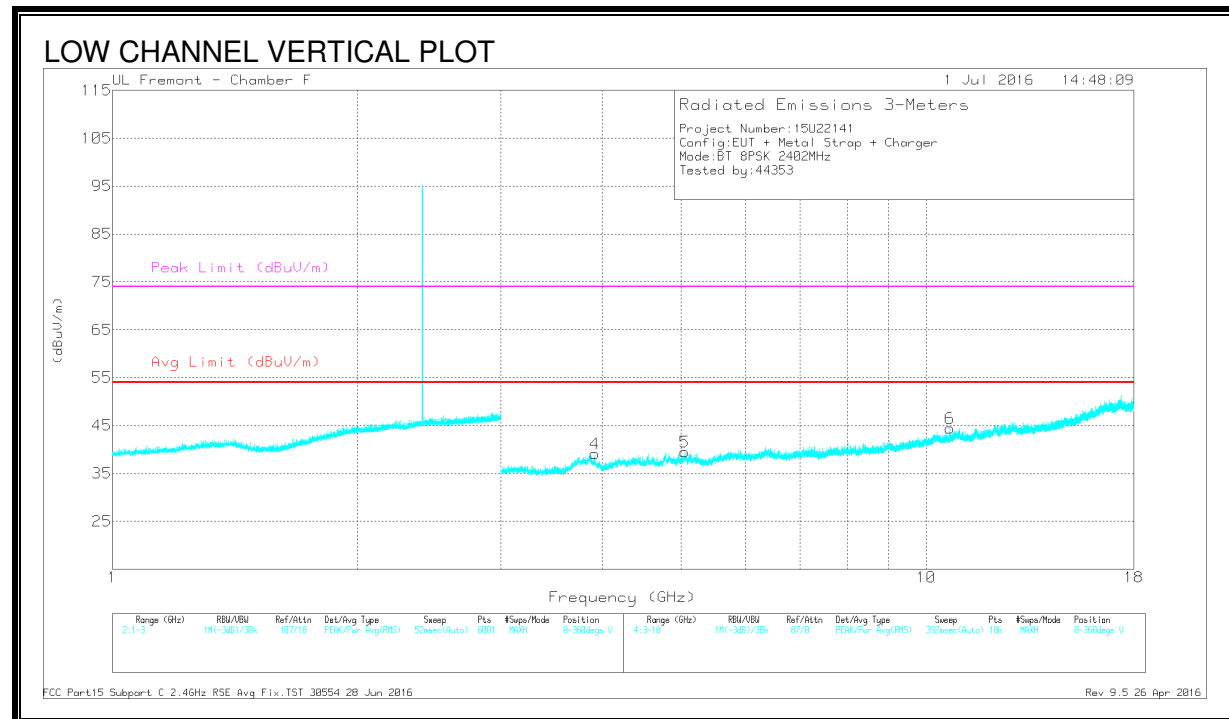
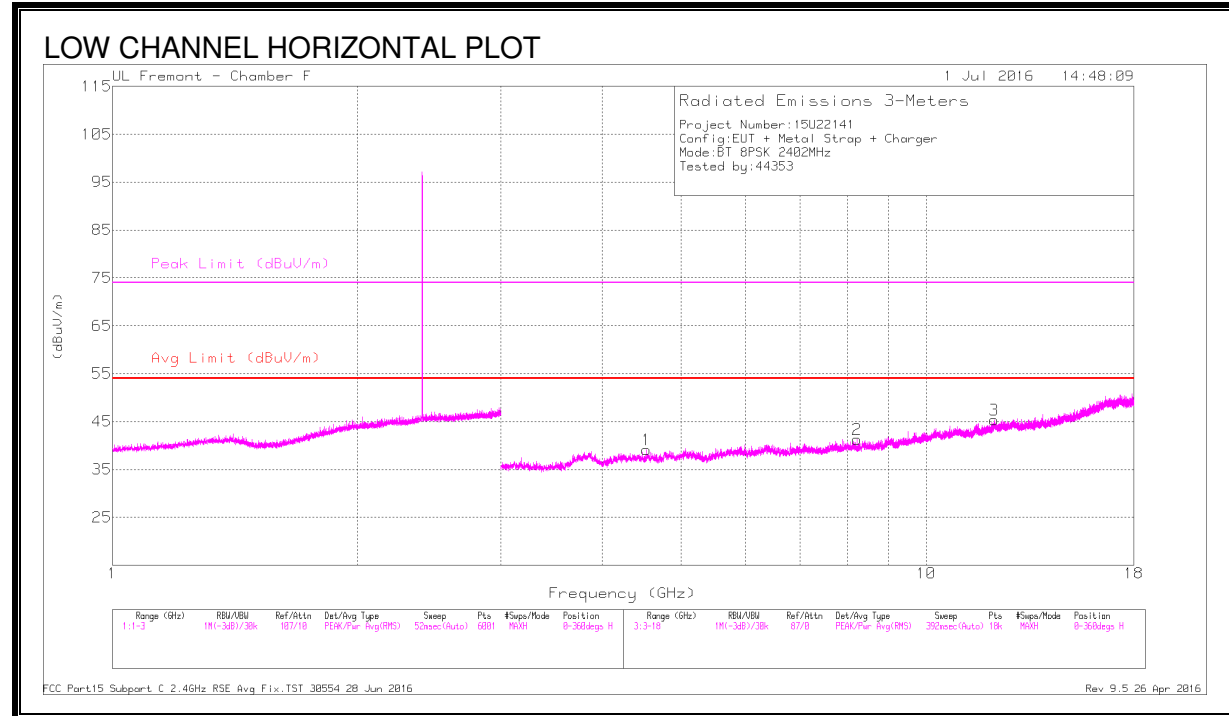
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	39.58	Pk	32.3	-21	50.88	-	-	74	-23.12	249	342	V
2	2.534	41.84	Pk	32.2	-20.8	53.24	-	-	74	-20.76	249	342	V
3	* 2.484	29.45	VA1T	32.3	-21	40.75	54	-13.25	-	-	249	342	V
4	* 2.484	29.45	VA1T	32.3	-21	40.75	54	-13.25	-	-	249	342	V

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

Pk - Peak detector

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

HARMONICS AND SPURIOUS EMISSIONS



DATA

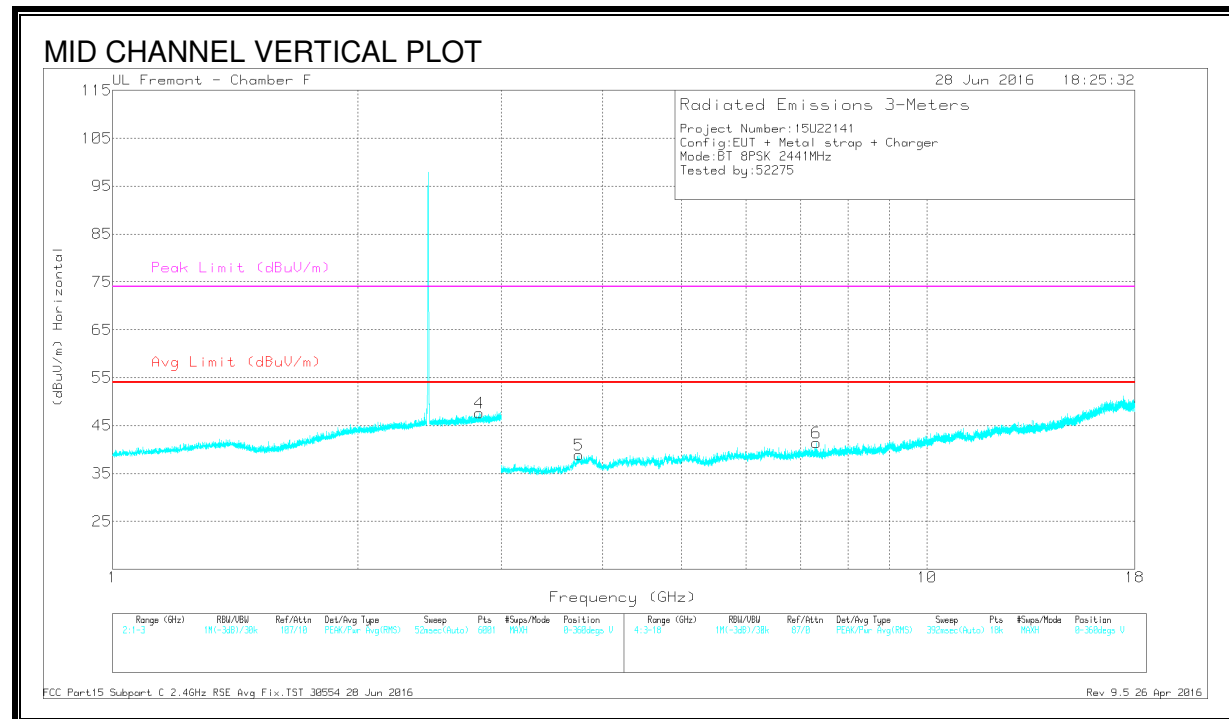
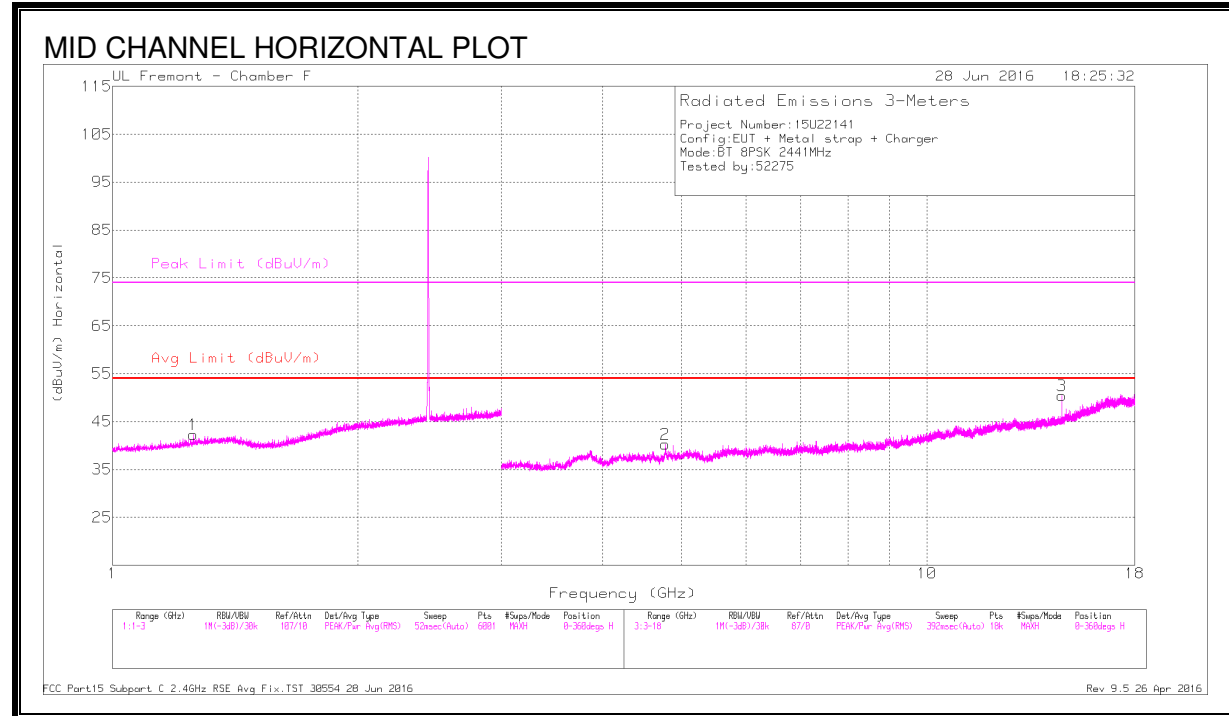
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/Filtr/P ad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.536	37.27	PKFH	34	-28.1	43.17	-	-	74	-30.83	36	128	H
	* 4.535	26.06	VA1T	34	-28.1	31.96	54	-22.04	-	-	36	128	H
2	* 8.224	34.91	PKFH	35.8	-25.1	45.61	-	-	74	-28.39	254	187	H
	* 8.22	23.86	VA1T	35.8	-25	34.66	54	-19.34	-	-	254	187	H
3	* 12.125	33.42	PKFH	38.9	-21.7	50.62	-	-	74	-23.38	112	156	H
	* 12.124	22.19	VA1T	38.9	-21.7	39.39	54	-14.61	-	-	112	156	H
4	* 3.915	37.59	PKFH	33.4	-29	41.99	-	-	74	-32.01	330	272	V
	* 3.911	26.74	VA1T	33.4	-29	31.14	54	-22.86	-	-	330	272	V
5	* 5.049	38.73	PKFH	34.2	-28.1	44.83	-	-	74	-29.17	194	203	V
	* 5.049	26.54	VA1T	34.2	-28.1	32.64	54	-21.36	-	-	194	203	V
6	* 10.698	33.15	PKFH	37.7	-21.8	49.05	-	-	74	-24.95	226	235	V
	* 10.696	21.8	VA1T	37.7	-21.8	37.7	54	-16.3	-	-	226	235	V

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

PKFH - FHSS: RB=100k/1MHz VB=3 x RB, Peak

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

HARMONICS AND SPURIOUS EMISSIONS



DATA

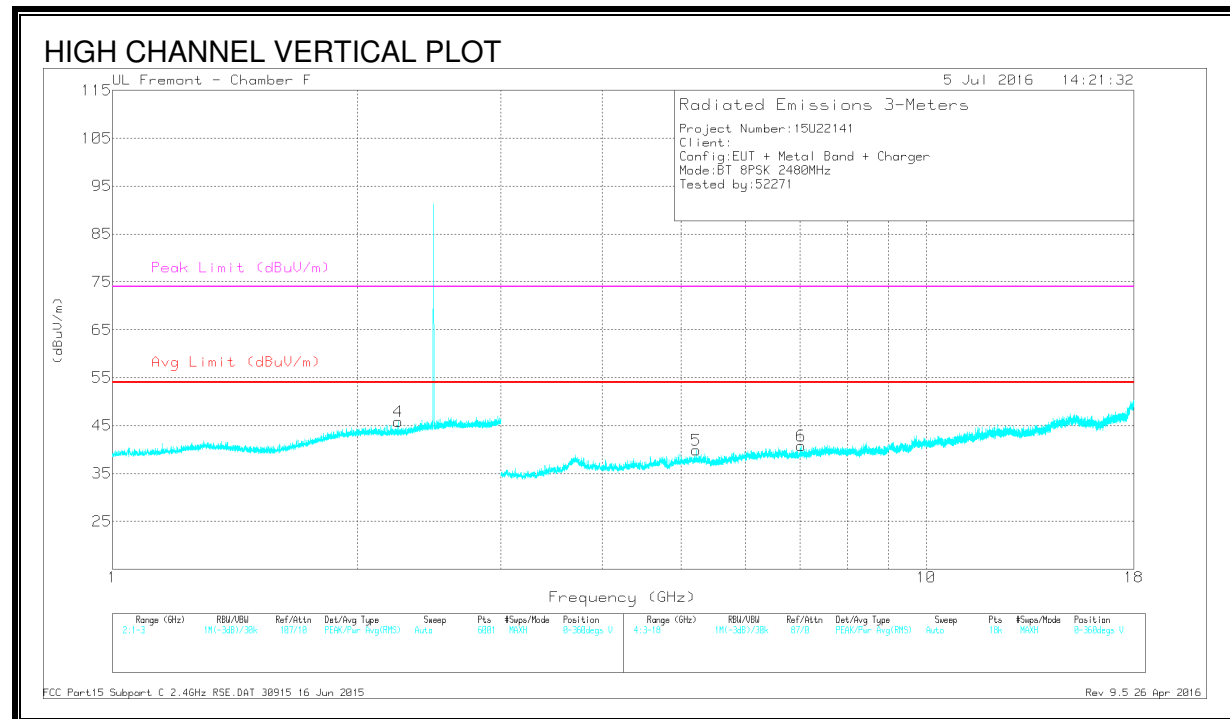
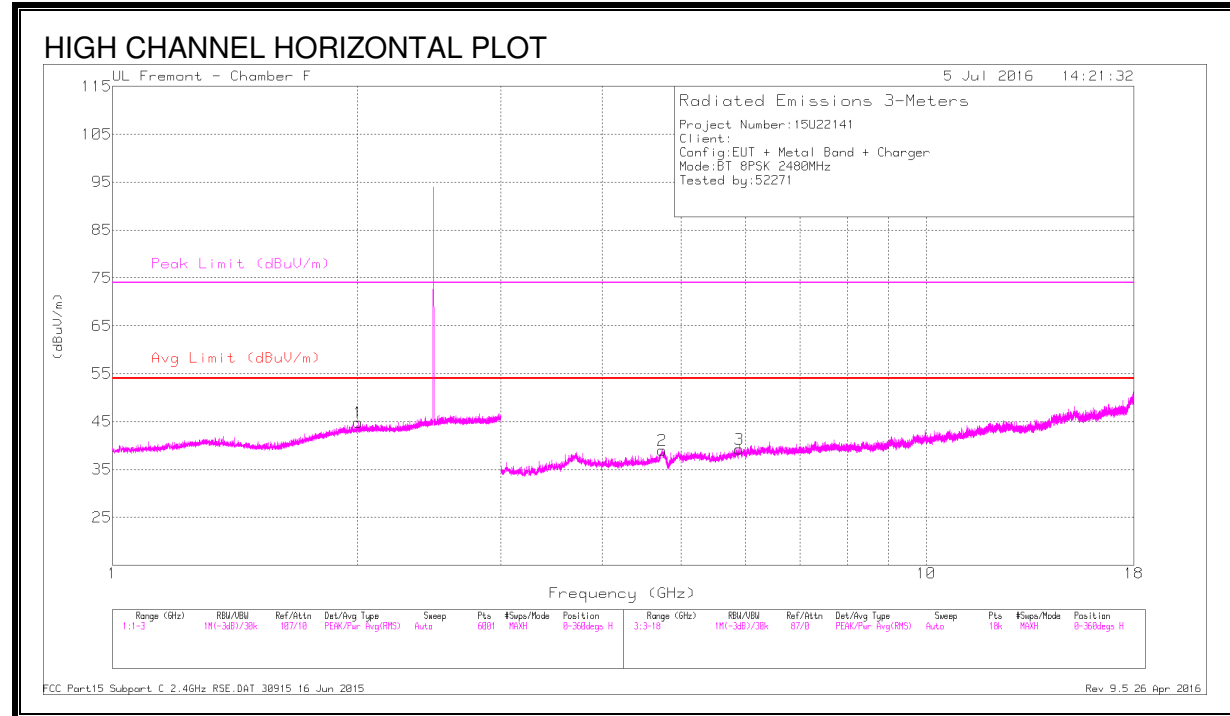
Markers	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.257	40.94	PKFH	28.7	-22.3	47.34	-	-	74	-26.66	200	131	H
	* 1.258	29.41	VA1T	28.7	-22.3	35.81	54	-18.19	-	-	200	131	H
2	* 2.822	40.12	PKFH	32.5	-20.3	52.32	-	-	74	-21.68	115	302	V
	* 2.821	29.02	VA1T	32.5	-20.3	41.22	54	-12.78	-	-	115	302	V
4	* 4.769	37.73	PKFH	34.1	-27.9	43.93	-	-	74	-30.07	280	197	H
	* 4.769	26.65	VA1T	34.1	-27.9	32.85	54	-21.15	-	-	280	197	H
3	14.647	39.21	PKFH	39.7	-23.2	55.71	-	-	-	-	161	100	H
	14.646	28.95	VA1T	39.7	-23.2	45.45	-	-	-	-	161	100	H
5	* 3.74	37.93	PKFH	33.4	-29.1	42.23	-	-	74	-31.77	210	176	V
	* 3.742	26.72	VA1T	33.4	-29.1	31.02	54	-22.98	-	-	210	176	V
6	* 7.323	37.25	PKFH	35.6	-26.5	46.35	-	-	74	-27.65	99	241	V
	* 7.323	26.69	VA1T	35.6	-26.5	35.79	54	-18.21	-	-	99	241	V

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

PKFH - FHSS: RB=100k/1MHz VB=3 x RB, Peak

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

HARMONICS AND SPURIOUS EMISSIONS



DATA

Marker	Frequenc y (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/Fitr/P ad (dB)	Correcte d Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	* 2.243	42.96	PK2	31.5	-23.9	50.56	-	-	74	-23.44	323	240	V
	* 2.244	30.88	VA1T	31.5	-23.9	38.48	54	-15.52	-	-	323	240	V
	* 2.242	43.35	PK2	31.5	-23.9	50.95	-	-	74	-23.05	0	256	V
	* 2.242	30.72	VA1T	31.5	-23.9	38.32	54	-15.68	-	-	0	256	V
2	* 4.74	43.93	PK2	34.4	-31.7	46.63	-	-	74	-27.37	360	144	H
	* 4.741	31.6	VA1T	34.4	-31.7	34.3	54	-19.7	-	-	360	144	H
1	2.004	43.92	PK2	31.6	-24.1	51.42	-	-	-	-	174	390	H
	2.004	31.14	VA1T	31.6	-24.1	38.64	-	-	-	-	174	390	H
5	5.215	30.18	VA1T	35.2	-32.1	33.28	-	-	-	-	53	129	V
	5.218	42.05	PK2	35.2	-32.2	45.05	-	-	-	-	53	129	V
3	5.896	42.14	PK2	35.1	-31.7	45.54	-	-	-	-	244	273	H
	5.899	30.48	VA1T	35.1	-31.7	33.88	-	-	-	-	244	273	H
6	7.018	41.3	PK2	35.7	-30.7	46.3	-	-	-	-	137	210	V
	7.019	29.26	VA1T	35.7	-30.7	34.26	-	-	-	-	137	210	V

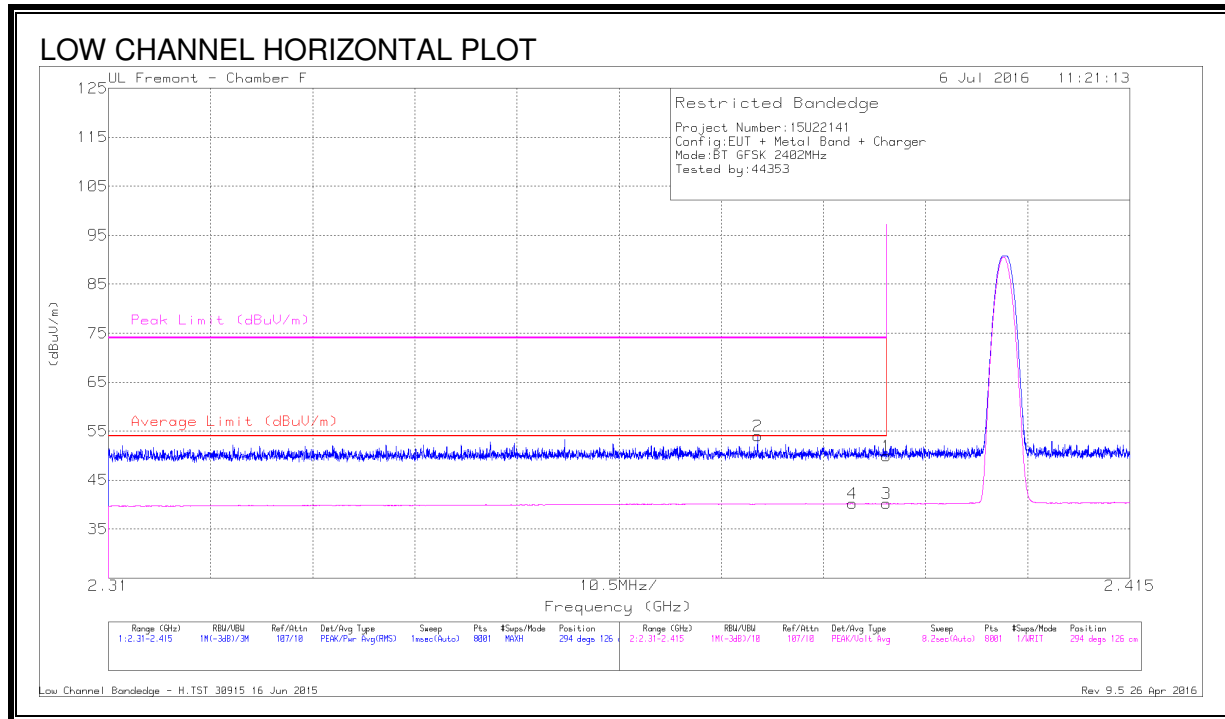
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PK2 - KDB558074 Method: Maximum Peak

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

8.2.3. LOW POWER BASIC DATA RATE GFSK MODULATION

RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



DATA

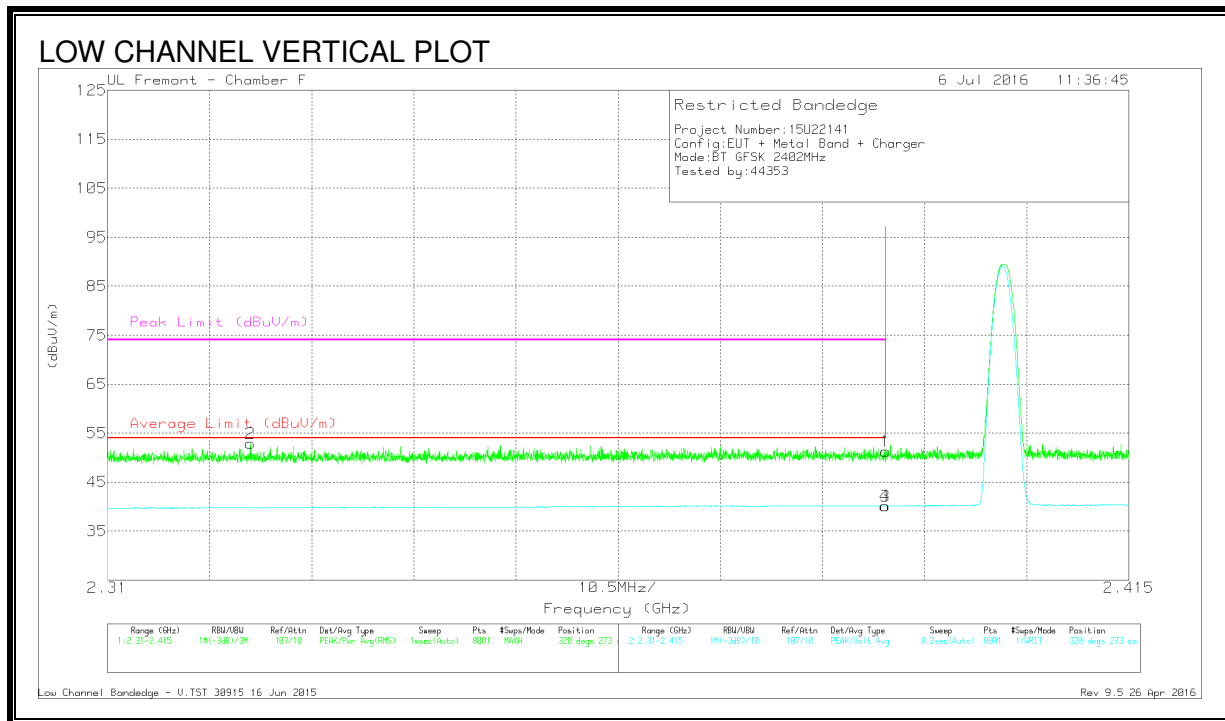
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AFT344 (dB/m)	Amp/Cbl/Fitr/Pa d (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	38.77	Pk	32.1	-20.9	49.97	-	-	74	-24.03	294	126	H
2	* 2.377	42.86	Pk	32.1	-20.9	54.06	-	-	74	-19.94	294	126	H
3	* 2.39	28.98	VA1T	32.1	-20.9	40.18	54	-13.82	-	-	294	126	H
4	* 2.386	29	VA1T	32.1	-20.9	40.2	54	-13.8	-	-	294	126	H

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

Pk - Peak detector

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



DATA

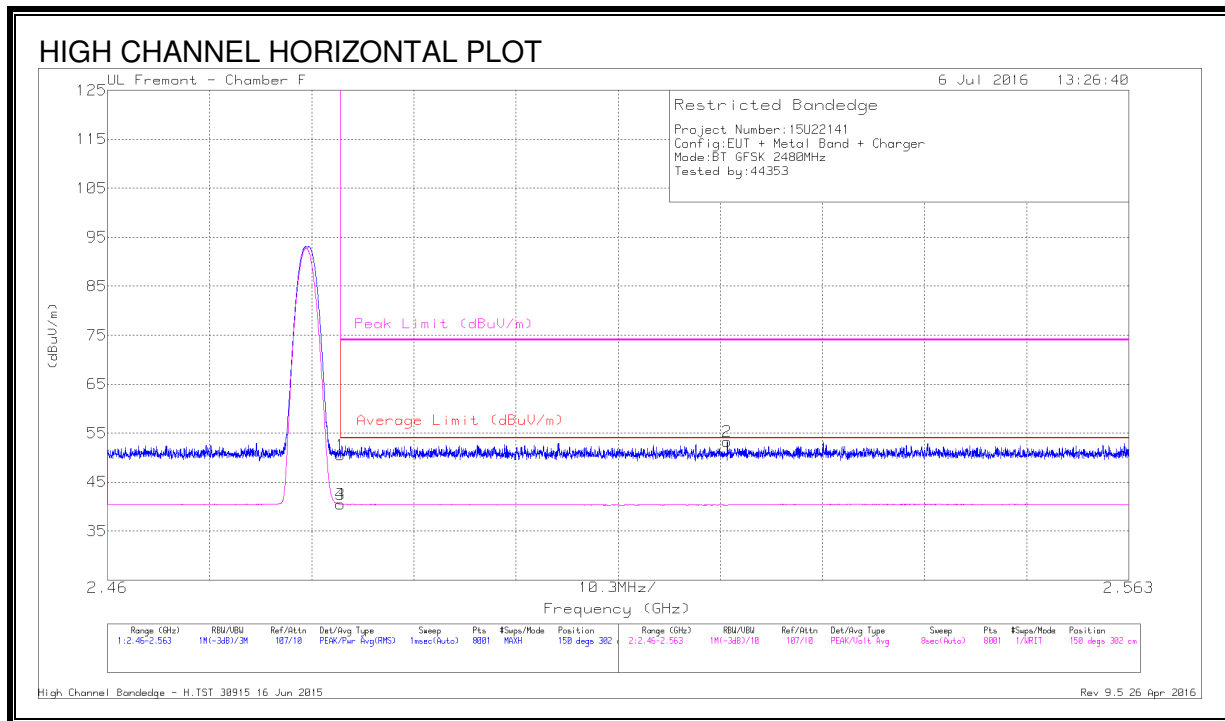
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/Filt/Pa d (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	40.08	Pk	32.1	-20.9	51.28	-	-	74	-22.72	320	273	V
2	* 2.325	41.98	Pk	31.8	-20.9	52.88	-	-	74	-21.12	320	273	V
3	* 2.39	28.94	VA1T	32.1	-20.9	40.14	54	-13.86	-	-	320	273	V
4	* 2.39	28.96	VA1T	32.1	-20.9	40.16	54	-13.84	-	-	320	273	V

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

Pk - Peak detector

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)



DATA

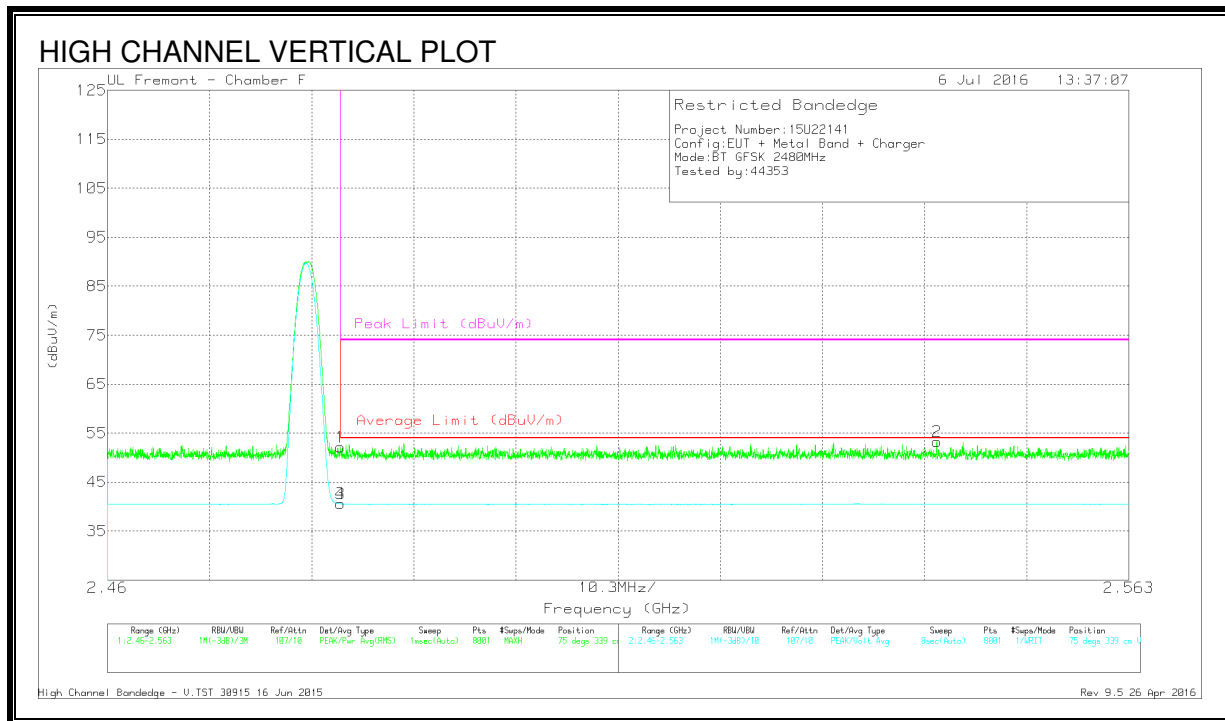
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/Filt/Pa d (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	39.22	Pk	32.3	-21	50.52	-	-	74	-23.48	150	302	H
2	2.523	41.85	Pk	32.3	-20.9	53.25	-	-	74	-20.75	150	302	H
3	* 2.484	29.21	VA1T	32.3	-21	40.51	54	-13.49	-	-	150	302	H
4	* 2.484	29.22	VA1T	32.3	-21	40.52	54	-13.48	-	-	150	302	H

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

Pk - Peak detector

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)



DATA

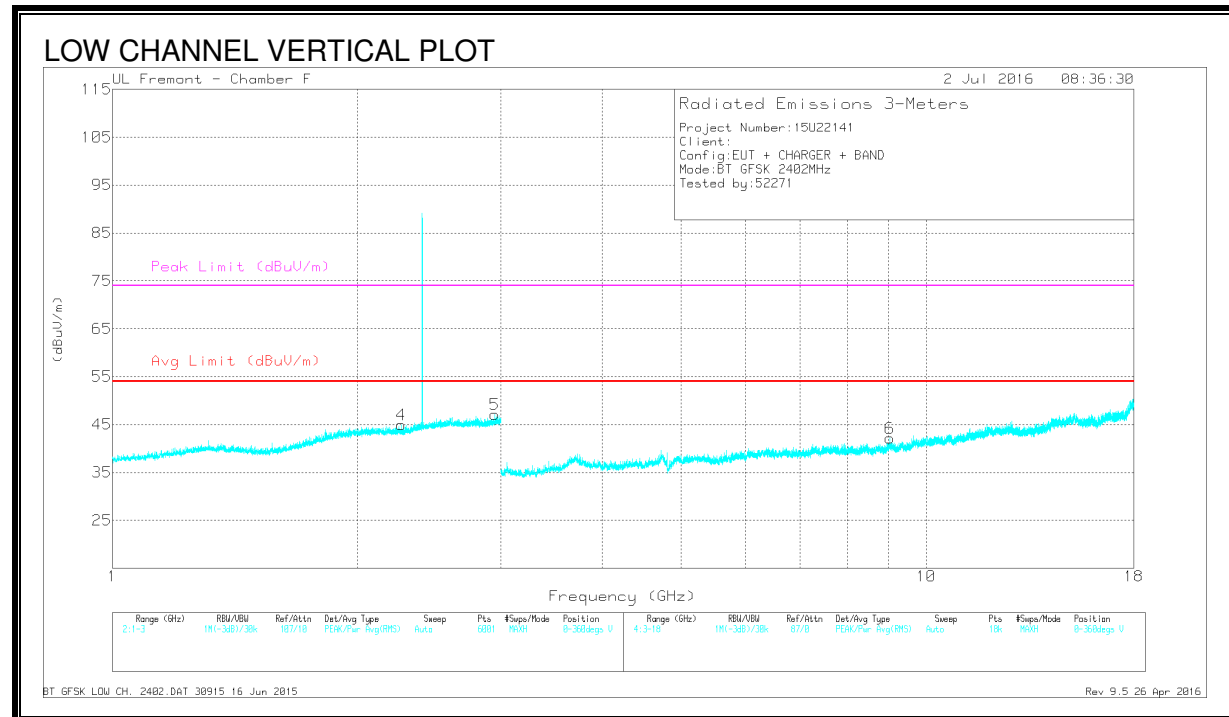
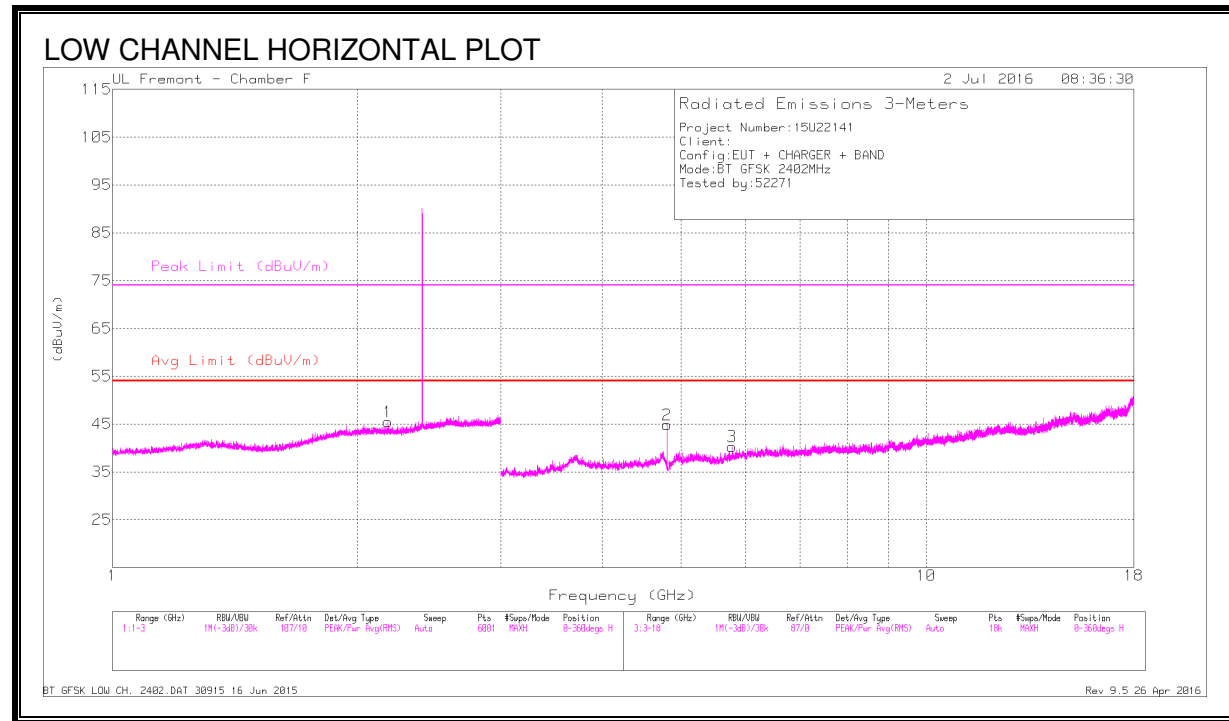
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/Filt/Pa d (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	40.8	Pk	32.3	-21	52.1	-	-	74	-21.9	75	339	V
2	2.544	41.94	Pk	32.2	-20.9	53.24	-	-	74	-20.76	75	339	V
3	* 2.484	29.26	VA1T	32.3	-21	40.56	54	-13.44	-	-	75	339	V
4	* 2.484	29.26	VA1T	32.3	-21	40.56	54	-13.44	-	-	75	339	V

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

Pk - Peak detector

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

HARMONICS AND SPURIOUS EMISSIONS



DATA

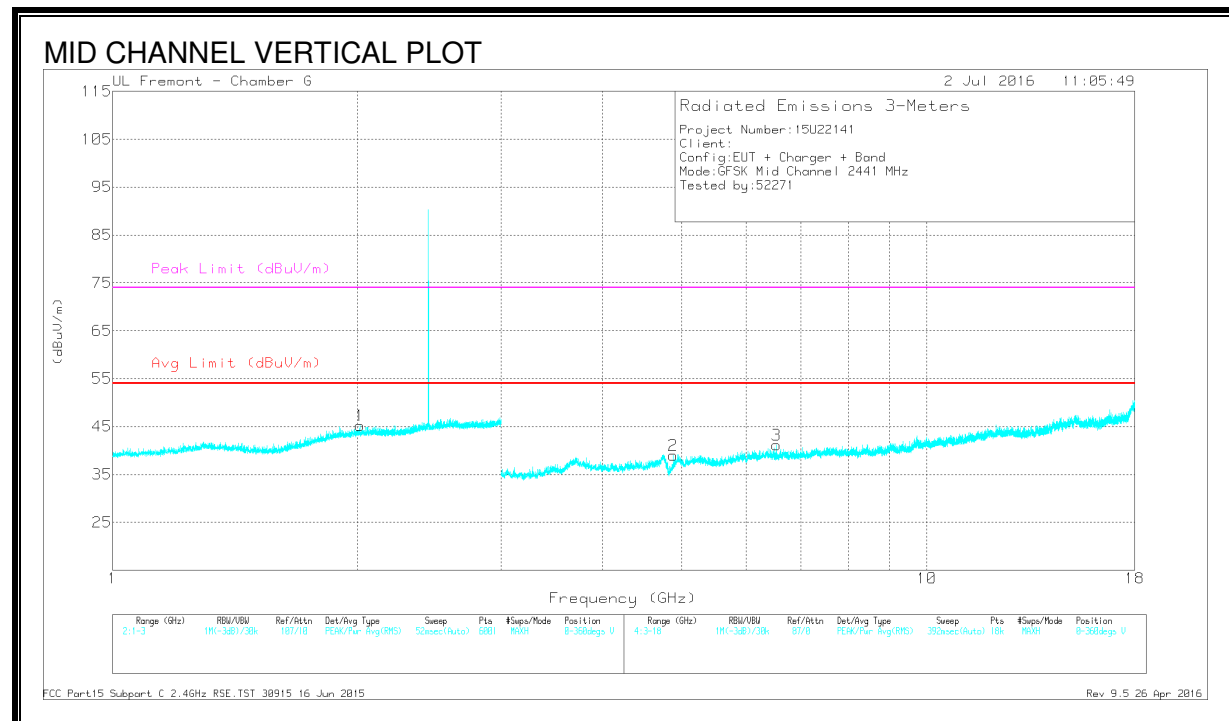
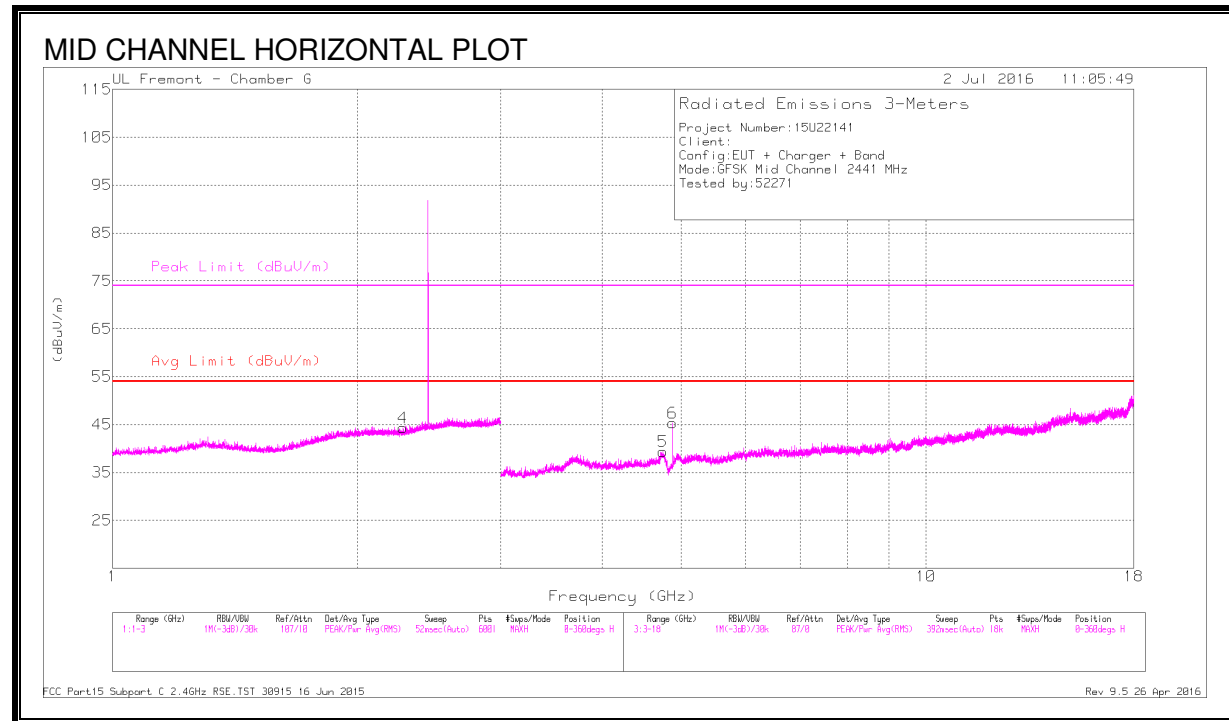
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	* 2.266	44.28	PK2	31.5	-23.9	51.88	-	-	74	-22.12	206	383	V
	* 2.263	31.53	VA1T	31.5	-23.9	39.13	54	-14.87	-	-	206	383	V
2	* 4.804	46.08	PK2	34.4	-31.9	48.58	-	-	74	-25.42	295	101	H
	* 4.804	40.15	VA1T	34.4	-31.9	42.65	54	-11.35	-	-	295	101	H
6	* 9.026	39.45	PK2	36.1	-27.7	47.85	-	-	74	-26.15	246	136	V
	* 9.026	27.5	VA1T	36.1	-27.7	35.9	54	-18.1	-	-	246	136	V
1	2.181	44.62	PK2	31.5	-24	52.12	-	-	-	-	239	191	H
5	2.953	44.49	PK2	32.7	-23.3	53.89	-	-	-	-	89	132	V
3	5.778	42.25	PK2	34.8	-31.5	45.55	-	-	-	-	192	195	H

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

PK2 - KDB558074 Method: Maximum Peak

VA1T - FHSS: Linear Voltage Average $V_B = 1/T_{on}$ where: T_{on} is transmit duration

HARMONICS AND SPURIOUS EMISSIONS



DATA

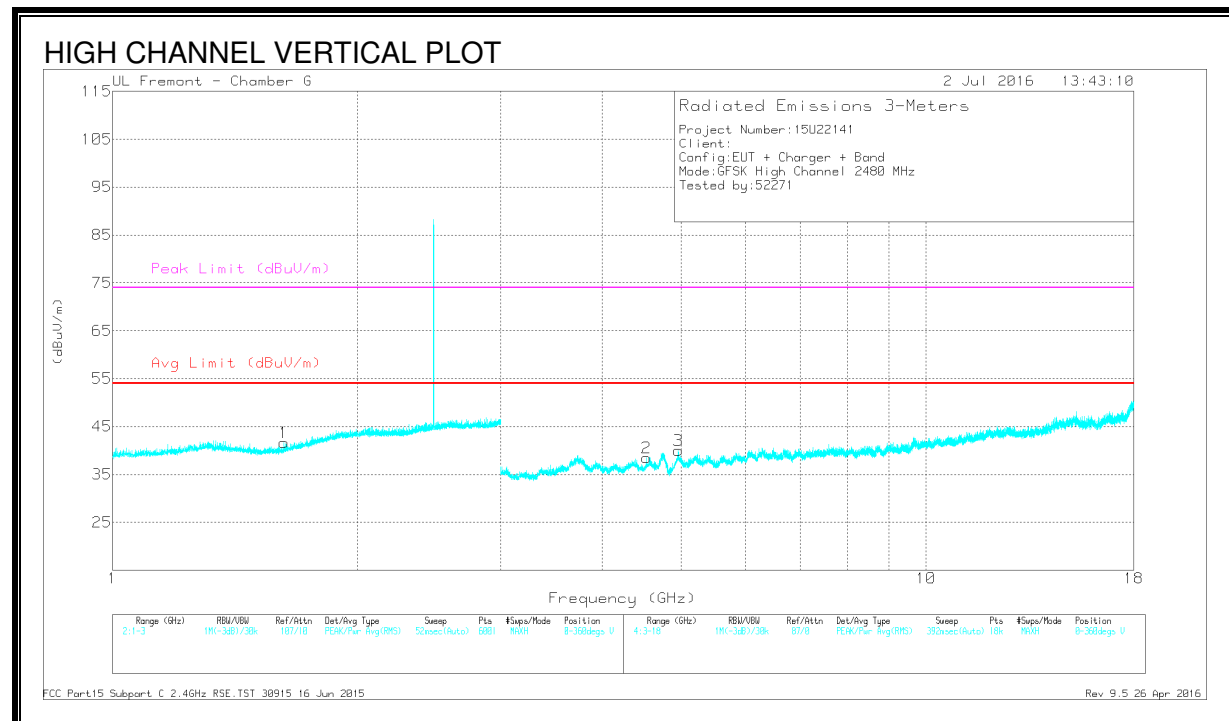
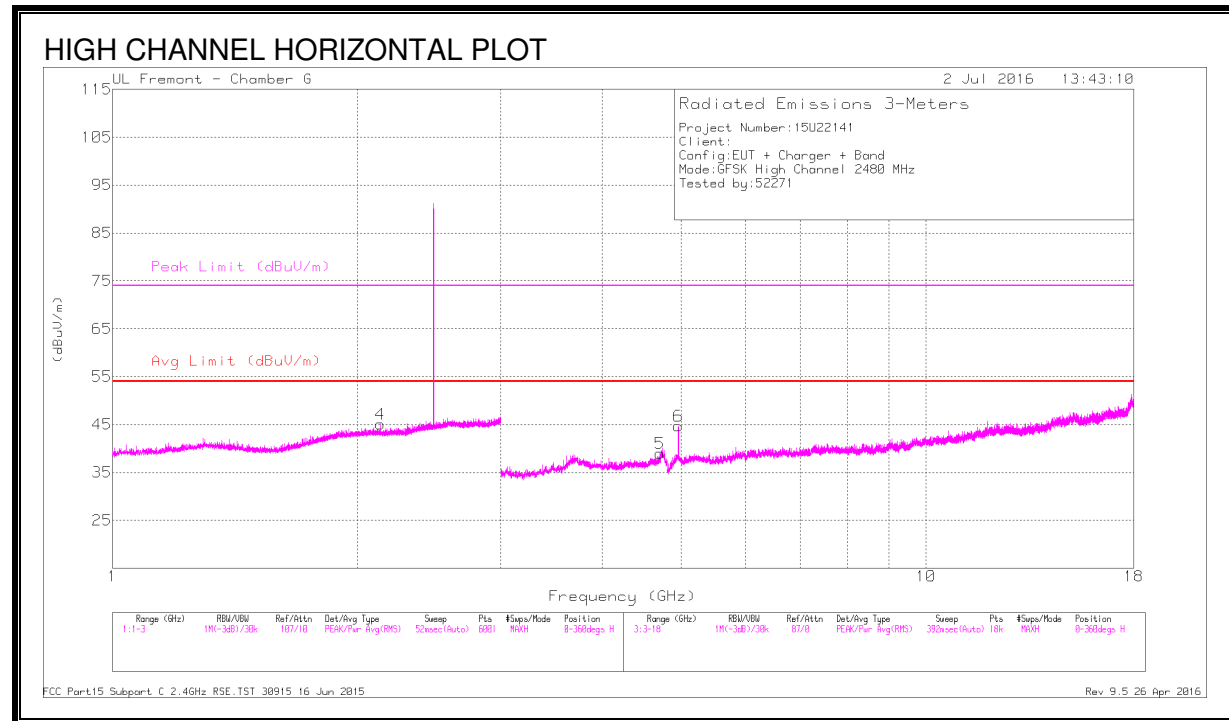
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/Filtr/P ad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	* 2.274	41.49	PK2	31.5	-23.9	49.09	-	-	74	-24.91	293	105	H
	* 2.276	29.48	VA1T	31.5	-23.9	37.08	54	-16.92	-	-	293	105	H
5	* 4.742	43.59	PK2	34.4	-31.8	46.19	-	-	74	-27.81	53	235	H
	* 4.746	31.41	VA1T	34.4	-31.8	34.01	54	-19.99	-	-	53	235	H
6	* 4.883	45.72	PK2	34.5	-31.8	48.42	-	-	74	-25.58	286	140	H
	* 4.882	40.04	VA1T	34.5	-31.8	42.74	54	-11.26	-	-	286	140	H
2	* 4.882	43.21	PK2	34.5	-31.8	45.91	-	-	74	-28.09	263	120	V
	* 4.882	34.24	VA1T	34.5	-31.8	36.94	54	-17.06	-	-	263	120	V
1	2.014	31.38	VA1T	31.6	-24.1	38.88	-	-	-	-	142	392	V
	2.015	43.62	PK2	31.6	-24.1	51.12	-	-	-	-	142	392	V
6	6.533	29.74	VA1T	35.7	-31.2	34.24	-	-	-	-	315	111	V
	6.534	41.76	PK2	35.7	-31.2	46.26	-	-	-	-	315	111	V

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

PK2 - KDB558074 Method: Maximum Peak

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

HARMONICS AND SPURIOUS EMISSIONS



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/Filtr/P ad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.458	44.71	PK2	28.4	-24.6	48.51	-	-	74	-25.49	206	219	V
	* 1.367	31.87	VA1T	28.9	-24.9	35.87	54	-18.13	-	-	206	219	V
2	* 4.534	36.24	PK2	34.2	-31.9	38.54	-	-	74	-35.46	250	100	V
	*4.534	26.74	VA1T	34.2	-31.9	29.04	54	-24.96	-	-	250	100	V
6	* 4.96	46.76	PK2	34.6	-31.8	49.56	-	-	74	-24.44	321	102	H
	* 4.96	40.53	VA1T	34.6	-31.8	43.33	54	-10.67	-	-	321	102	H
5	* 4.533	42.59	PK2	34.1	-31.9	44.79	-	-	74	-29.21	164	163	V
	* 4.532	29.79	VA1T	34.1	-31.9	31.99	54	-22.01	-	-	164	163	V
3	* 4.961	44.91	PK2	34.6	-31.8	47.71	-	-	74	-26.29	268	101	V
	* 4.96	34.38	VA1T	34.6	-31.8	37.18	54	-16.82	-	-	268	101	V
4	2.136	43.52	PK2	31.6	-24	51.12	-	-	-	-	227	250	H
	2.136	31.05	VA1T	31.6	-24	38.65	-	-	-	-	227	250	H

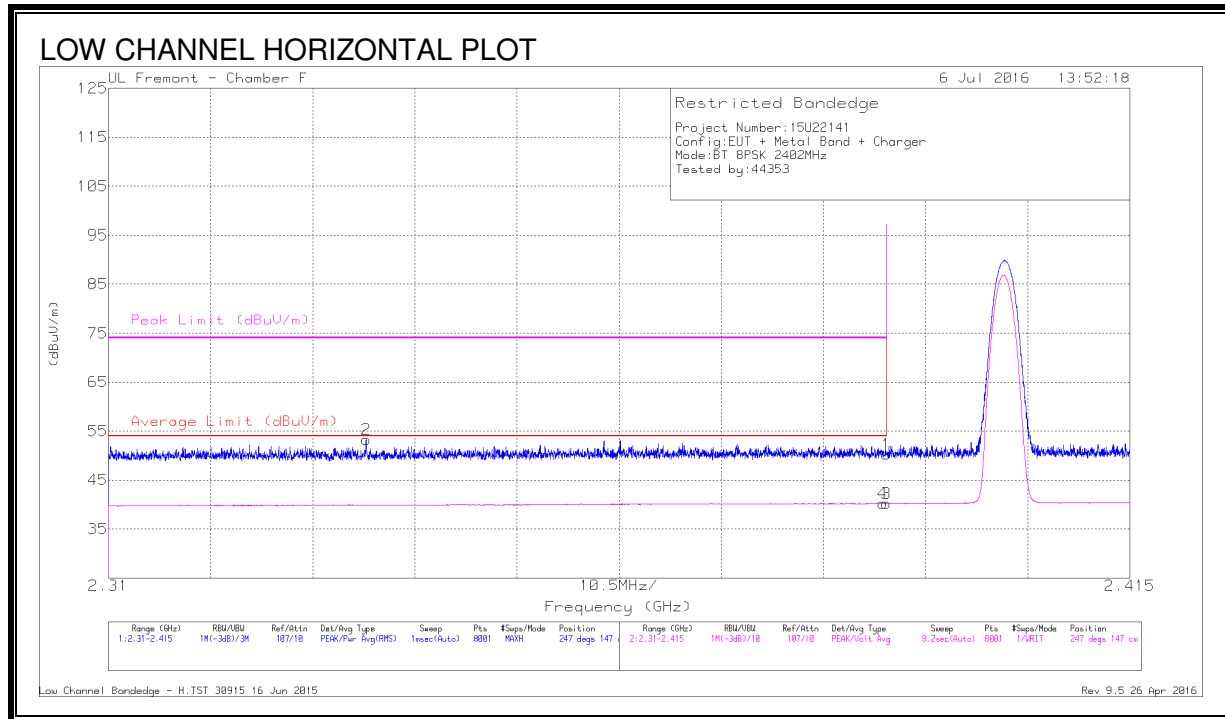
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PK2 - KDB558074 Method: Maximum Peak

VA1T - FHSS: Linear Voltage Average $V_B = 1/T_{on}$ where: T_{on} is transmit duration

8.2.4. LOW POWER ENHANCED DATA RATE 8PSK MODULATION

RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



DATA

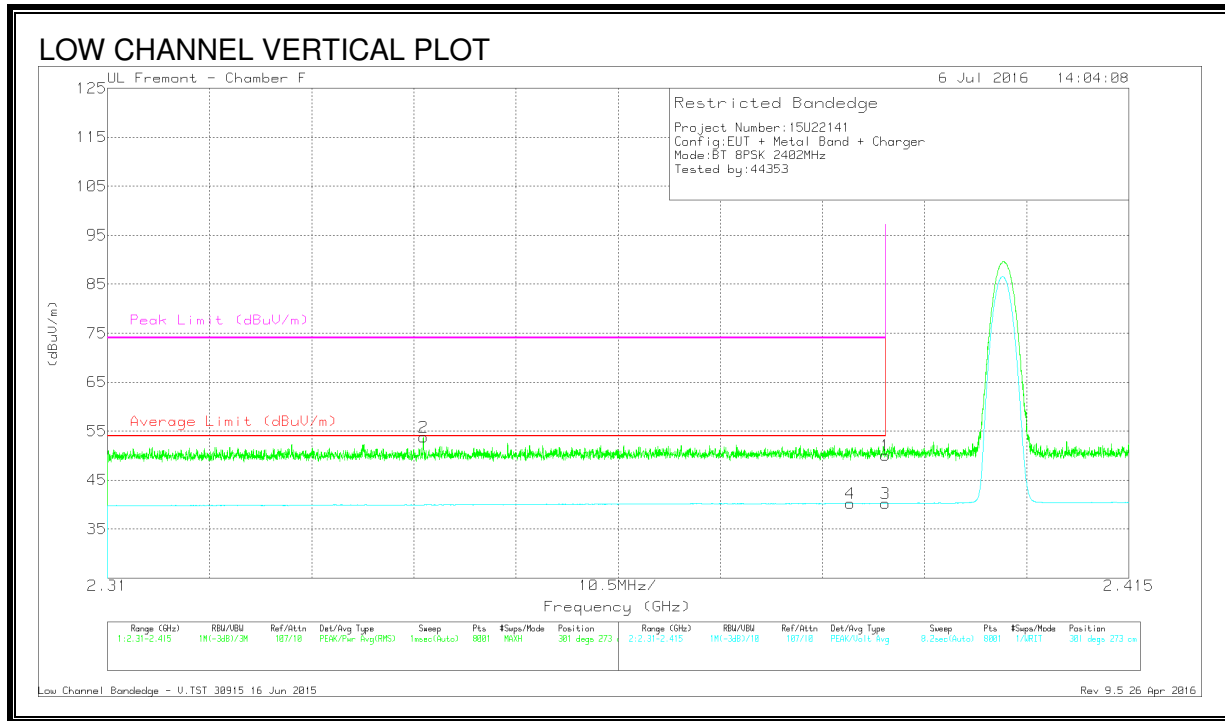
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cb/Filt/Pa d (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	39.08	Pk	32.1	-20.9	50.28	-	-	74	-23.72	247	147	H
2	* 2.336	42.25	Pk	31.9	-20.9	53.25	-	-	74	-20.75	247	147	H
3	* 2.39	29	VA1T	32.1	-20.9	40.2	54	-13.8	-	-	247	147	H
4	* 2.39	29.04	VA1T	32.1	-20.9	40.24	54	-13.76	-	-	247	147	H

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

Pk - Peak detector

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



DATA

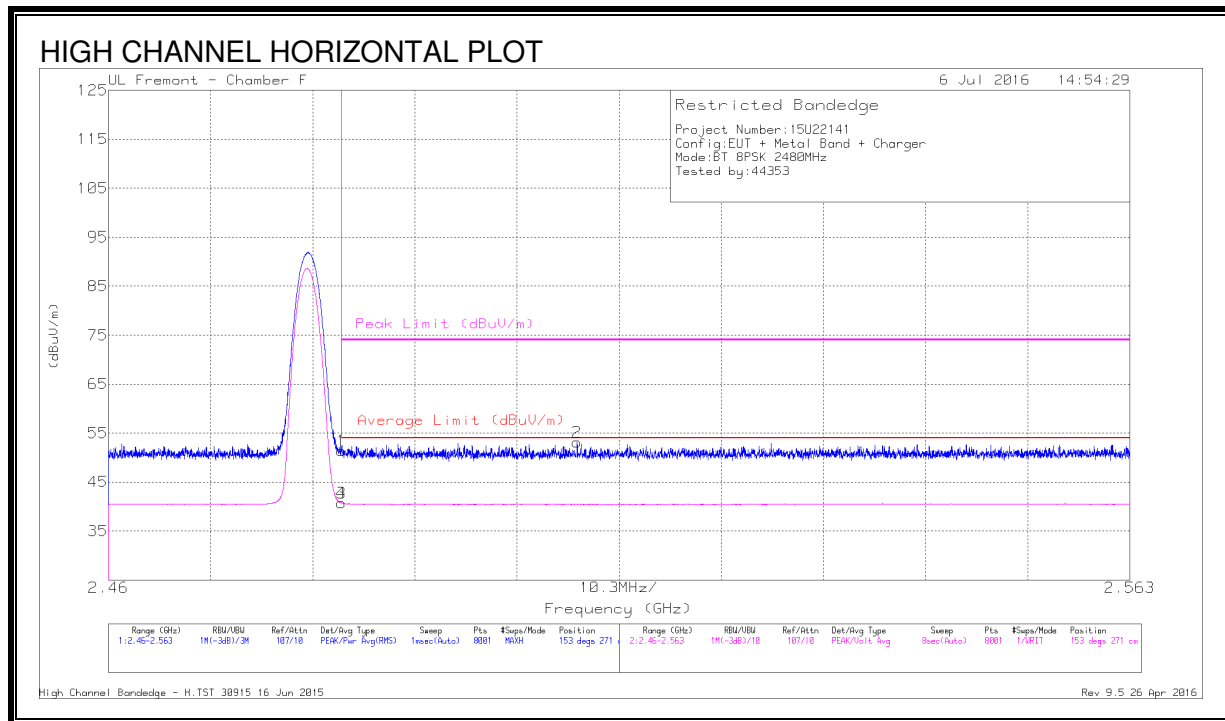
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	38.8	Pk	32.1	-20.9	50	-	-	74	-24	301	273	V
2	* 2.342	42.85	Pk	31.9	-21	53.75	-	-	74	-20.25	301	273	V
3	* 2.39	29.01	VA1T	32.1	-20.9	40.21	54	-13.79	-	-	301	273	V
4	* 2.386	29.05	VA1T	32.1	-20.9	40.25	54	-13.75	-	-	301	273	V

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

Pk - Peak detector

VA1T - FHSS: Linear Voltage Average $VB=1/Ton$ where: Ton is transmit duration

RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)



DATA

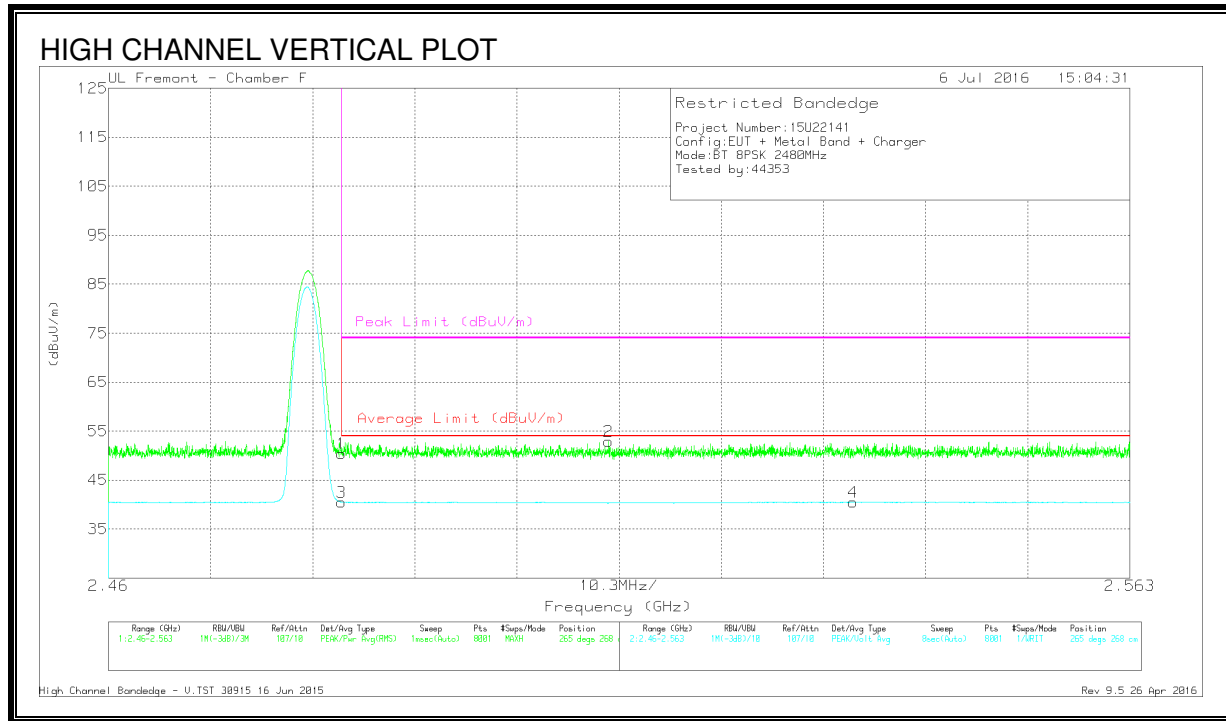
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1	* 2.484	40.16	Pk	32.3	-21	51.46	-	-	74	-22.54	153	271	H
2	2.507	41.8	Pk	32.3	-21	53.1	-	-	74	-20.9	153	271	H
3	* 2.484	29.45	VA1T	32.3	-21	40.75	54	-13.25	-	-	153	271	H
4	* 2.484	29.45	VA1T	32.3	-21	40.75	54	-13.25	-	-	153	271	H

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

Pk - Peak detector

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

RESTRICTED BANDEGE (HIGH CHANNEL, VERTICAL)



DATA

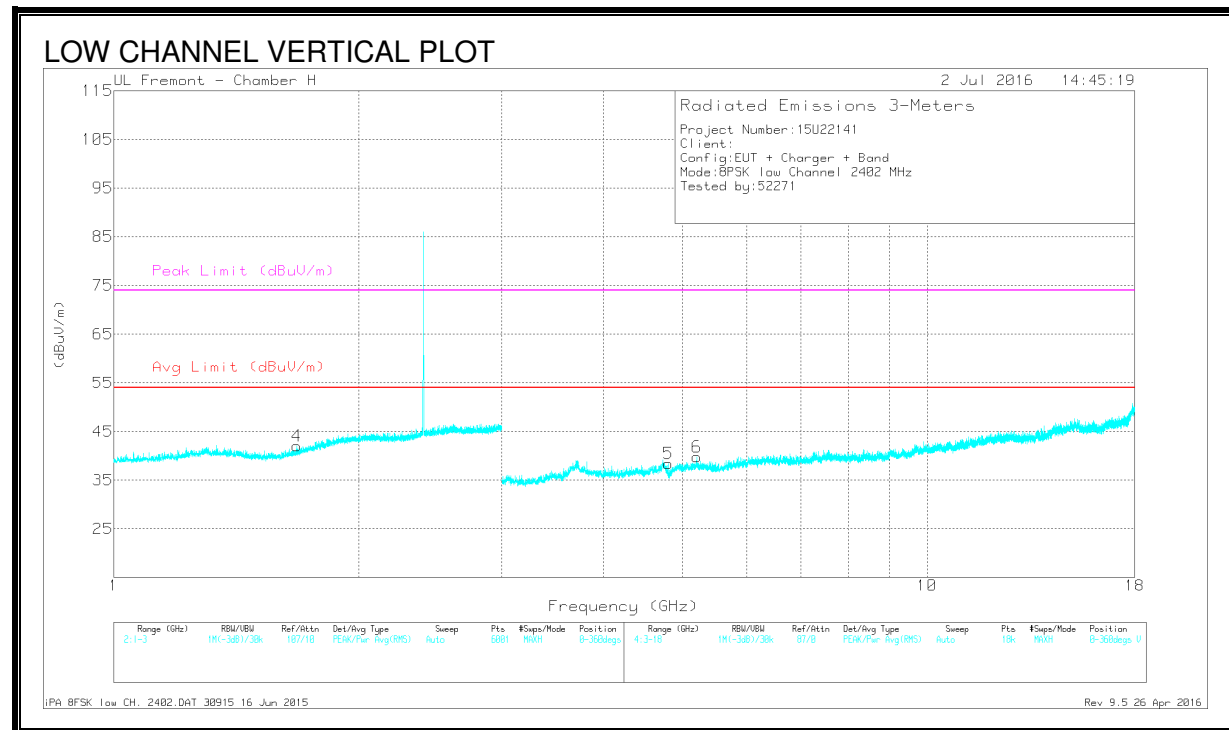
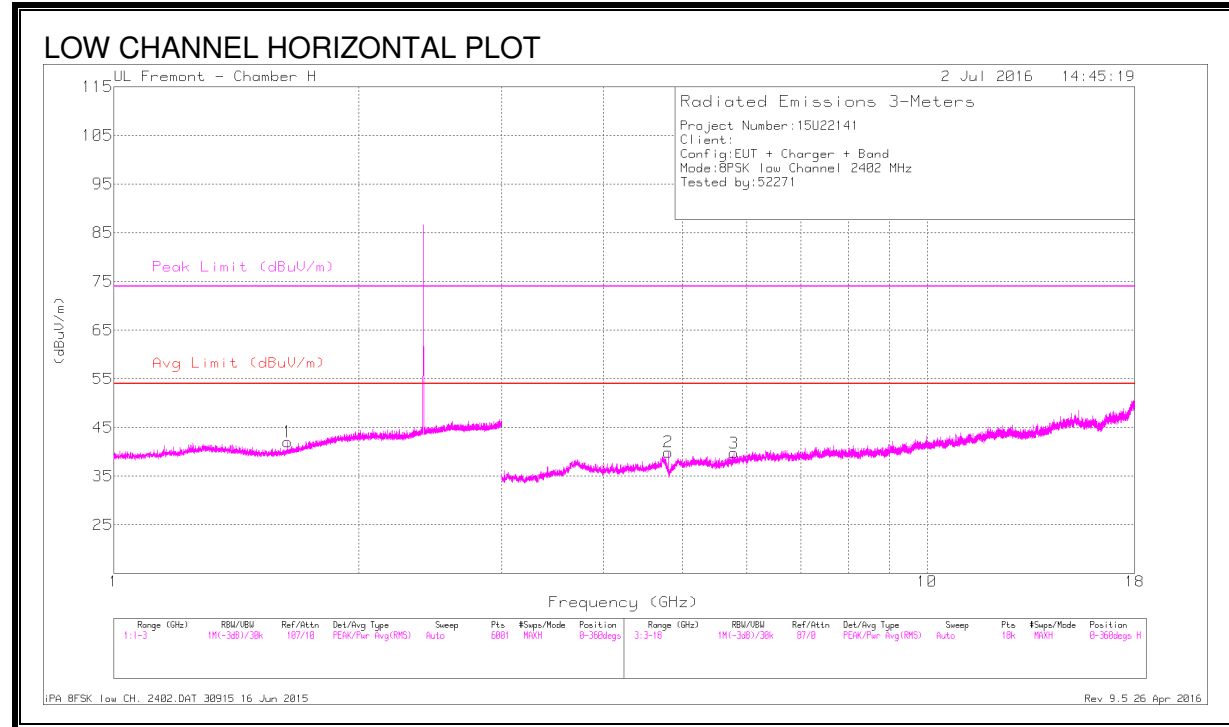
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/Filtr/Pa d (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	39.07	Pk	32.3	-21	50.37	-	-	74	-23.63	265	268	V
2	2.51	41.62	Pk	32.3	-21	52.92	-	-	74	-21.08	265	268	V
3	* 2.484	29.2	VA1T	32.3	-21	40.5	54	-13.5	-	-	265	268	V
4	2.535	29.12	VA1T	32.2	-20.8	40.52	54	-13.48	-	-	265	268	V

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

Pk - Peak detector

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

HARMONICS AND SPURIOUS EMISSIONS



DATA

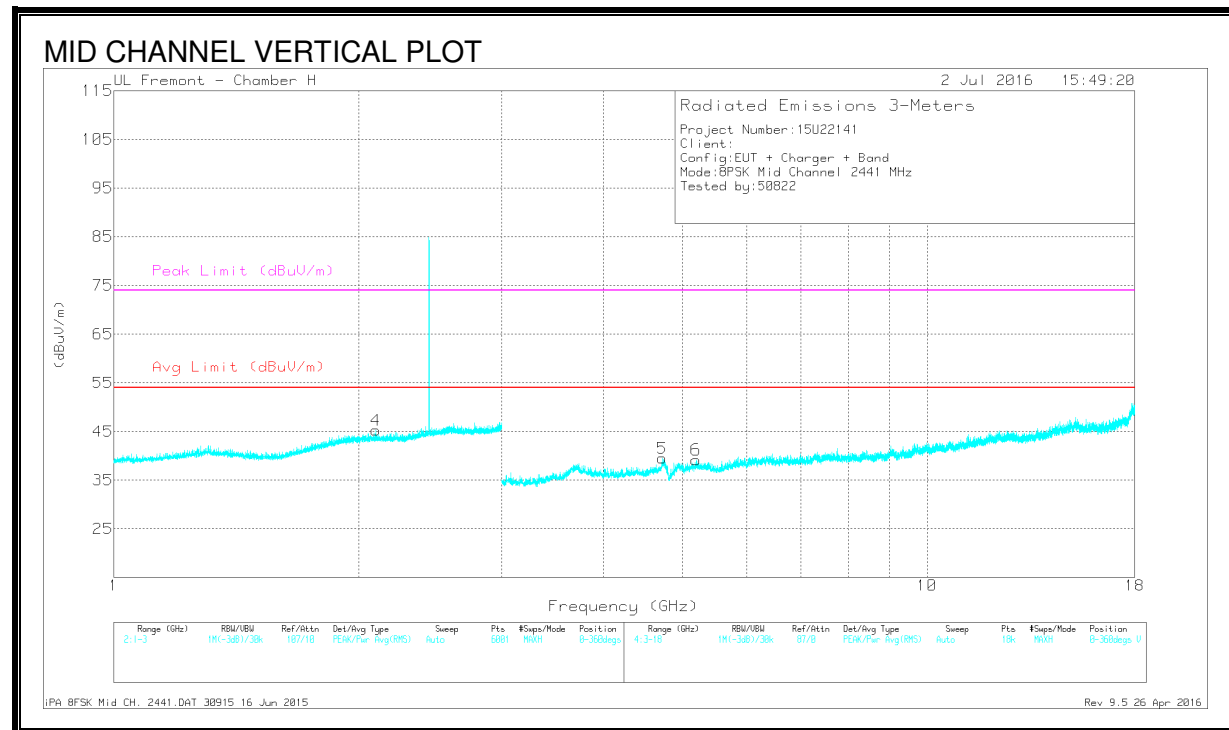
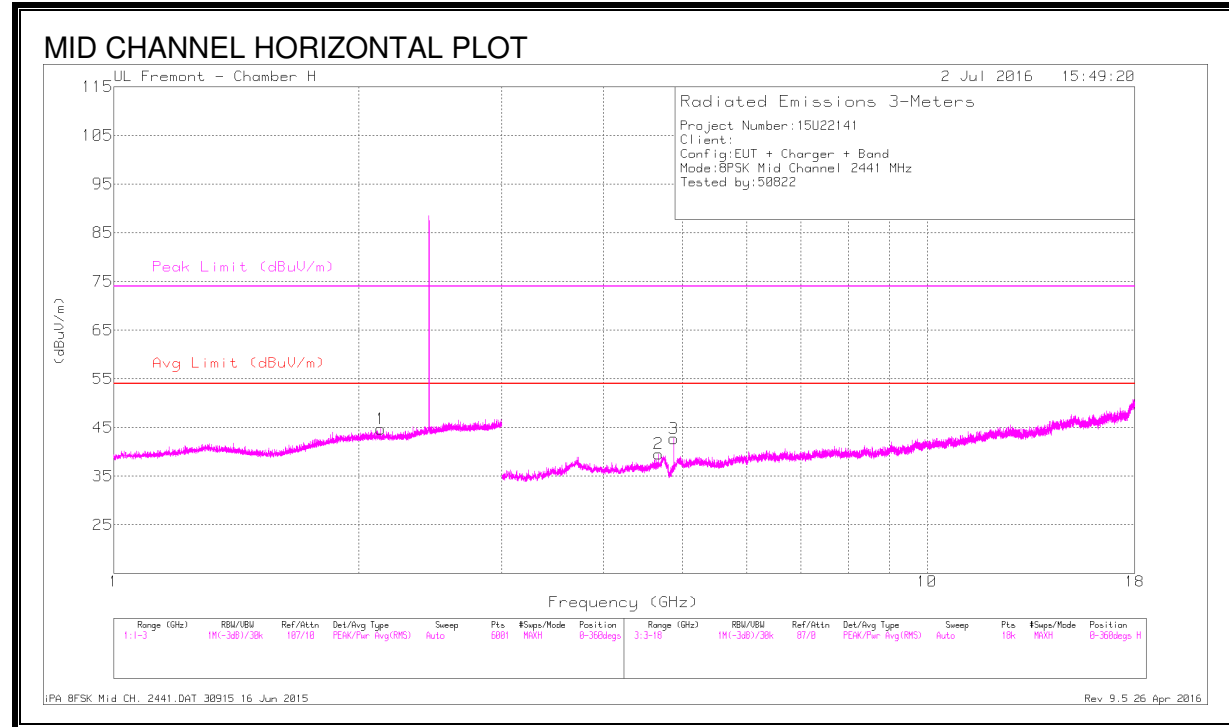
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AFT136 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	* 1.68	44.56	PK2	29	-24.3	49.26	-	-	74	-24.74	146	397	V
	* 1.681	31.47	VA1T	29	-24.3	36.17	54	-17.83	-	-	146	397	V
2	* 4.804	45.14	PK2	34.4	-31.9	47.64	-	-	74	-26.36	138	232	H
	* 4.804	35.96	VA1T	34.4	-31.9	38.46	54	-15.54	-	-	138	232	H
5	* 4.805	44.31	PK2	34.4	-31.9	46.81	-	-	74	-27.19	234	315	H
	* 4.804	31.98	VA1T	34.4	-31.9	34.48	54	-19.52	-	-	234	315	H
1	1.638	43.03	PK2	28.6	-24.4	47.23	-	-	-	-	173	364	H
	1.638	34.5	VA1T	28.6	-24.4	38.7	-	-	-	-	324	139	H
6	5.212	41.97	PK2	35.2	-32.1	45.07	-	-	-	-	335	169	V
	5.214	30.68	VA1T	35.2	-32.1	33.78	-	-	-	-	96	240	V
3	5.792	41.57	PK2	34.8	-31.6	44.77	-	-	-	-	59	279	H
	5.794	29.69	VA1T	34.8	-31.6	32.89	-	-	-	-	59	279	H

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

PK2 - KDB558074 Method: Maximum Peak

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

HARMONICS AND SPURIOUS EMISSIONS



DATA

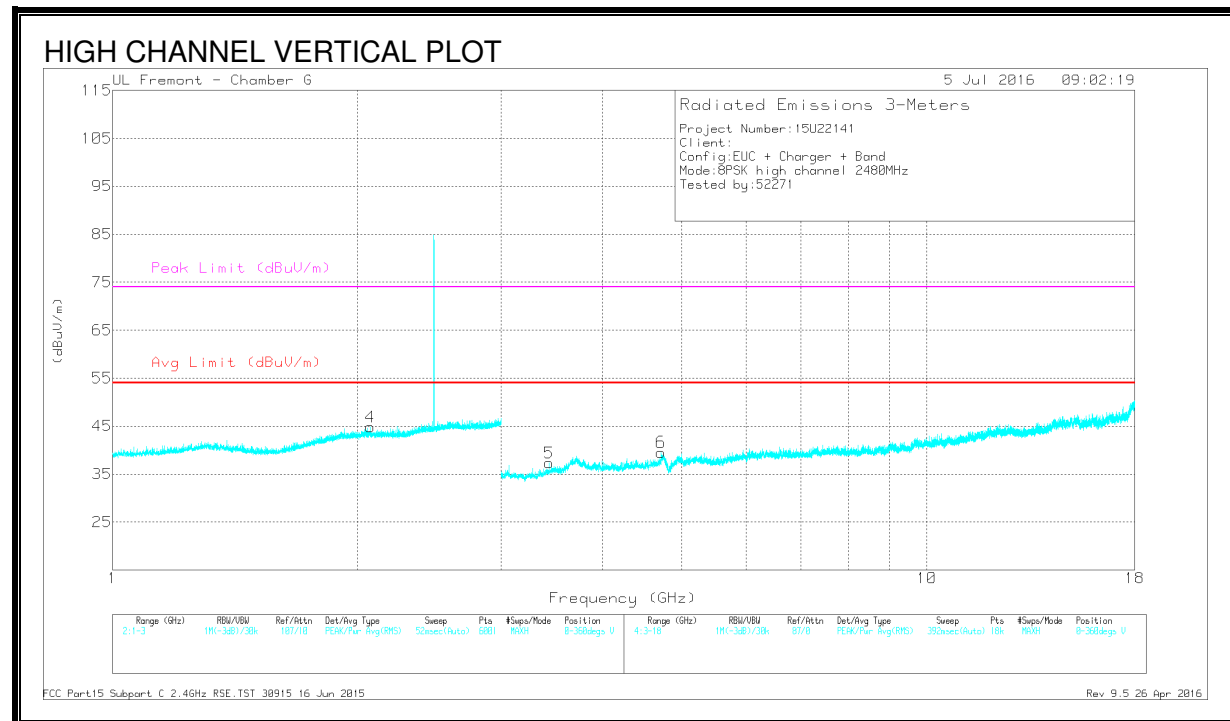
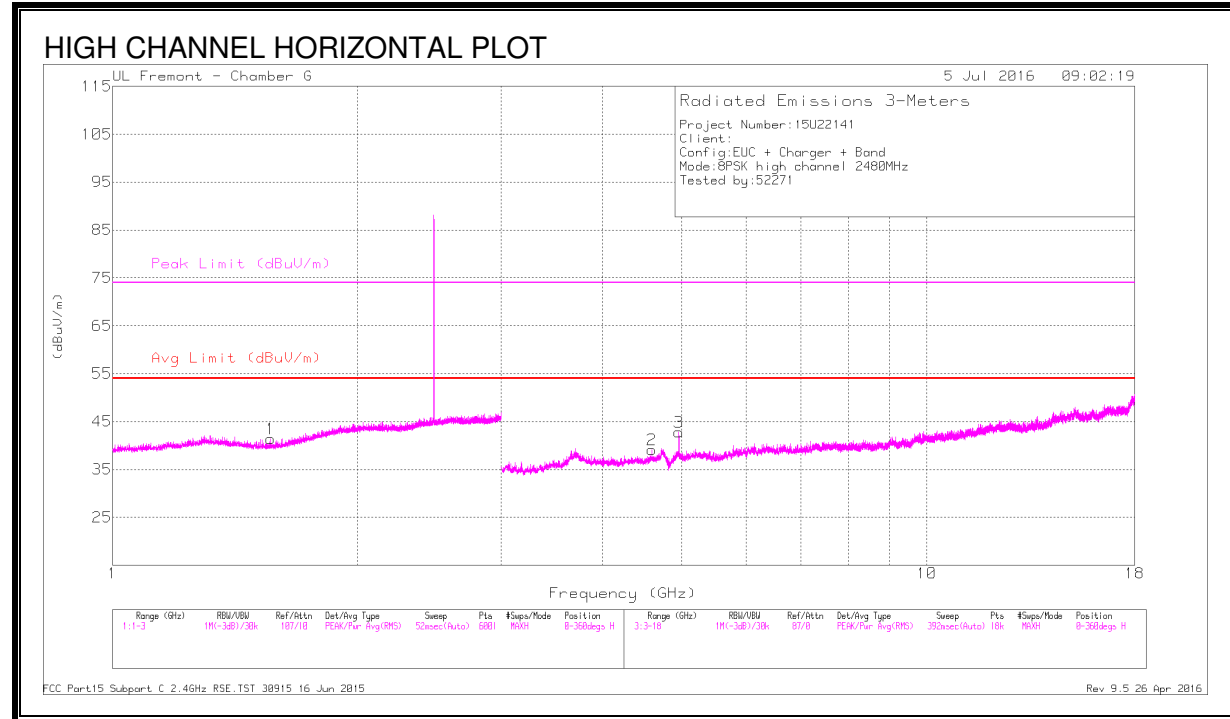
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/Filtr/P ad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 4.675	41.75	PK2	34.3	-31.6	44.45	-	-	74	-29.55	241	164	H
	* 4.676	29.99	VA1T	34.3	-31.6	32.69	54	-21.31	-	-	241	164	H
3	* 4.882	44.49	PK2	34.5	-31.8	47.19	-	-	74	-26.81	310	289	H
	* 4.882	35.82	VA1T	34.5	-31.8	38.52	54	-15.48	-	-	310	289	H
5	* 4.721	42.93	PK2	34.3	-31.7	45.53	-	-	74	-28.47	319	296	V
	* 4.722	30.91	VA1T	34.3	-31.7	33.51	54	-20.49	-	-	319	296	V
4	2.1	43.25	PK2	31.6	-24	50.85	-	-	-	-	349	237	V
	2.1	34.92	VA1T	31.6	-24	42.52	-	-	-	-	295	254	V
1	2.13	34.87	VA1T	31.6	-24	42.47	-	-	-	-	132	231	H
	2.132	43.32	PK2	31.6	-24	50.92	-	-	-	-	90	184	H
6	5.201	42.2	PK2	35.3	-32.1	45.4	-	-	-	-	74	378	V
	5.214	30.68	VA1T	35.2	-32.1	33.78	-	-	-	-	96	240	V

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

PK2 - KDB558074 Method: Maximum Peak

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

HARMONICS AND SPURIOUS EMISSIONS



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/Filtr/P ad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.565	44.37	PK2	28.1	-24.5	47.97	-	-	74	-26.03	16	396	H
	* 1.564	31.49	VA1T	28.1	-24.5	35.09	54	-18.91	-	-	16	396	H
2	* 4.592	42.32	PK2	34.4	-31.9	44.82	-	-	74	-29.18	271	264	H
	* 4.594	29.91	VA1T	34.4	-31.9	32.41	54	-21.59	-	-	271	264	H
6	* 4.718	42.97	PK2	34.3	-31.7	45.57	-	-	74	-28.43	274	160	V
	* 4.719	31.23	VA1T	34.3	-31.7	33.83	54	-20.17	-	-	274	160	V
4	2.074	31.09	VA1T	31.6	-24	38.69	-	-	-	-	319	234	V
	2.075	43.89	PK2	31.6	-24	51.49	-	-	-	-	319	234	V

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

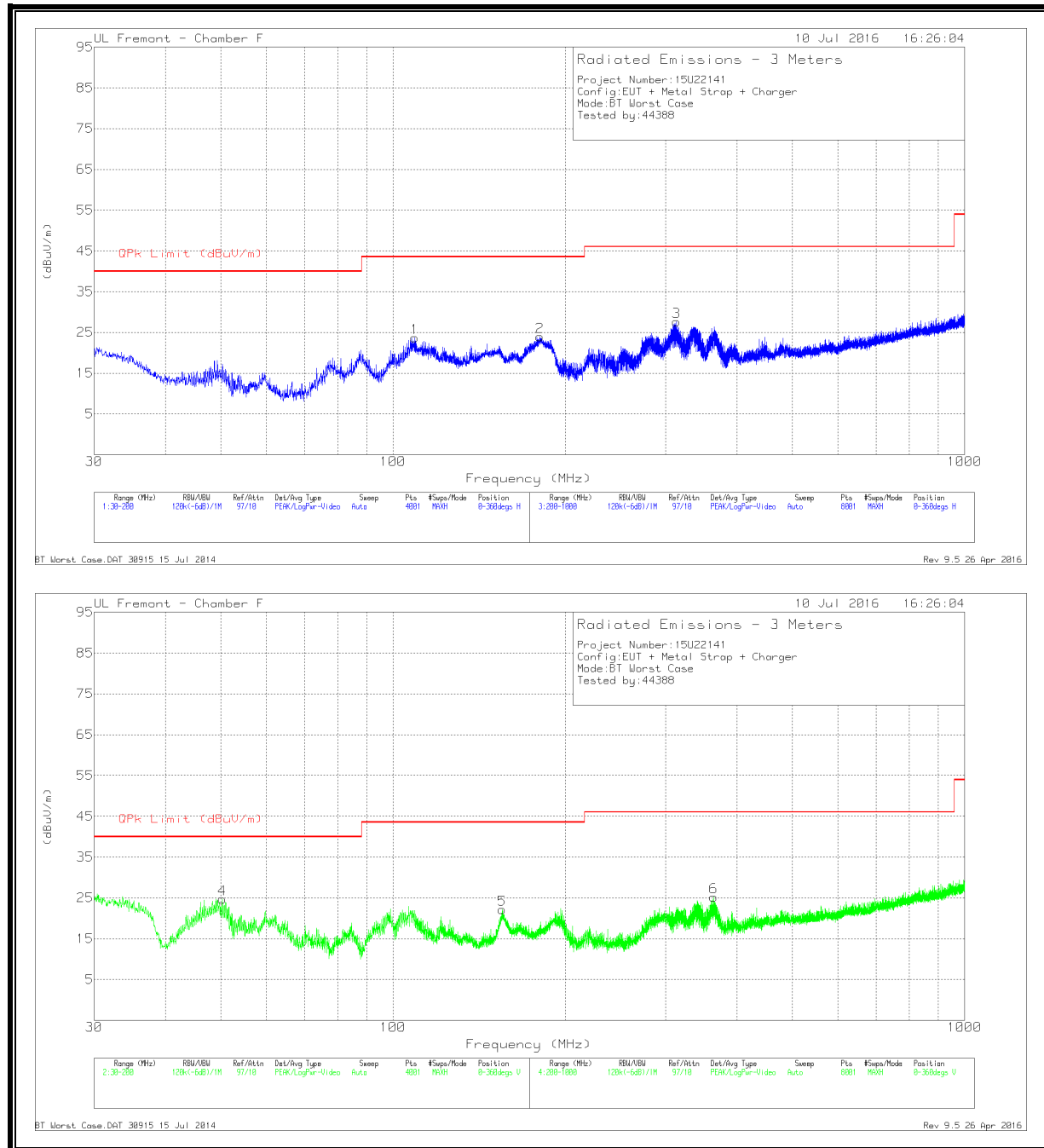
PK2 - KDB558074 Method: Maximum Peak

VA1T - FHSS: Linear Voltage Average $V_B = 1/T_{on}$ where: T_{on} is transmit duration

8.3. WORST-CASE BELOW 1 GHz

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

CAL)



Data

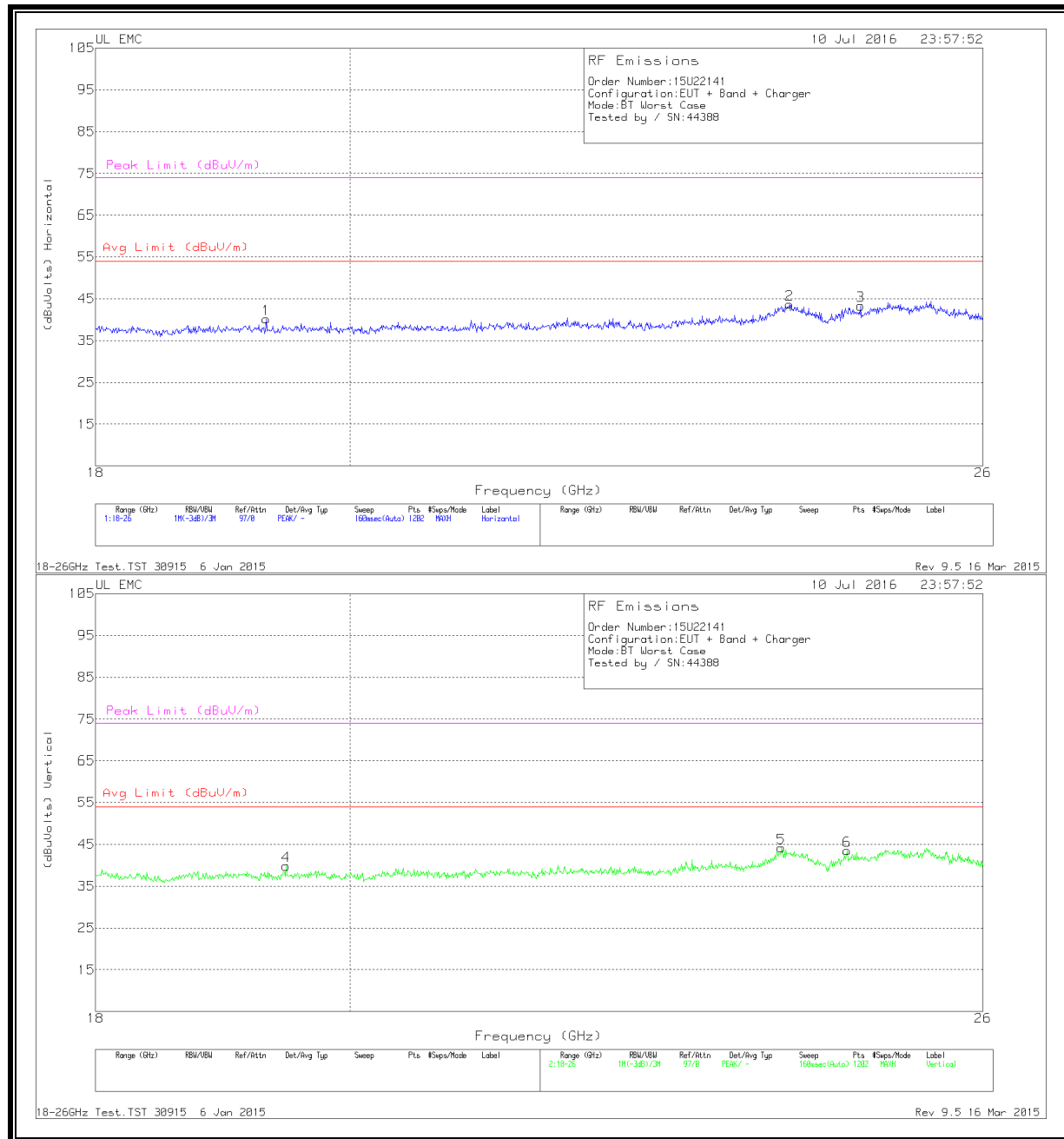
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T185 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 109.22	38.58	Pk	16.2	-31.1	23.68	43.52	-19.84	0-360	299	H
2	180.79	39.52	Pk	15	-30.6	23.92	43.52	-19.6	0-360	99	H
4	50.315	44.48	Pk	11.8	-31.6	24.68	40	-15.32	0-360	100	V
5	155.12	36.51	Pk	16.4	-30.7	22.21	43.52	-21.31	0-360	100	V
3	313.4	39.69	Pk	17.7	-29.8	27.59	46.02	-18.43	0-360	99	H
6	364.1	35.91	Pk	18.9	-29.6	25.21	46.02	-20.81	0-360	100	V

Pk - Peak detector

8.4. WORST-CASE ABOVE 18 GHz

SPURIOUS EMISSIONS 18 TO 26 GHz (WORST-CASE CONFIGURATION, HORIZONTAL & VERTICAL)

CAL)



Data

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T449 (dB/m)	Amp/Cbl (dB)	Dist Corr (dB)	Corrected Reading (dBuVolts)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)
1	19.319	42.07	Pk	32.7	-25.1	-9.5	40.17	54	-13.83	74	-33.83
2	23.995	43.57	Pk	34	-24.4	-9.5	43.67	54	-10.33	74	-30.33
3	24.714	43.33	Pk	34.2	-24.7	-9.5	43.33	54	-10.67	74	-30.67
4	19.479	41.63	Pk	32.7	-25	-9.5	39.83	54	-14.17	74	-34.17
5	23.915	43.57	Pk	34	-23.9	-9.5	44.17	54	-9.83	74	-29.83
6	24.575	42.9	Pk	34.1	-24	-9.5	43.5	54	-10.5	74	-30.5

Pk - Peak detector

9. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

FCC §15.207 (a)

RSS-Gen 8.8

Frequency of Emission (MHz)	Conducted Limit (dB μ V)	
	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

EUT is powered by battery. AC line conducted emission is not applicable.