

9. RADIATED TEST RESULTS

9.1. LIMITS AND PROCEDURE

LIMITS

FCC §15.205 and §15.209

IC RSS-GEN, Section 8.8.

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.

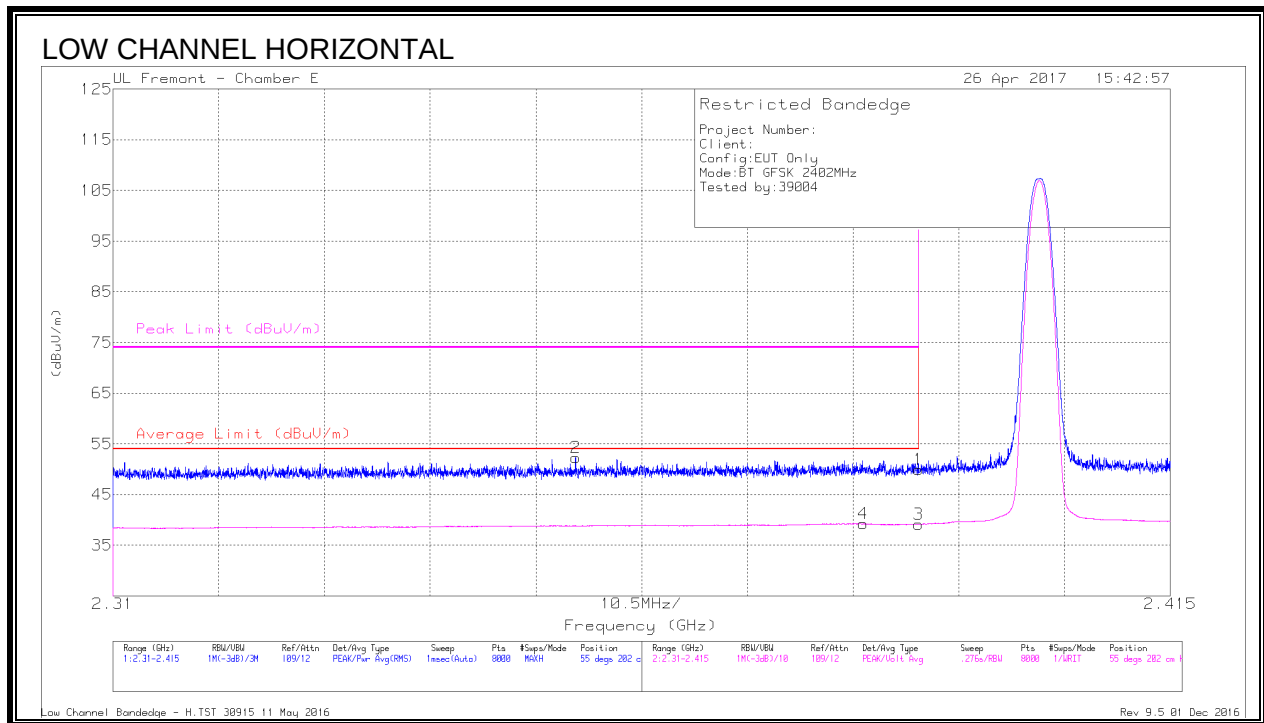
PKFH - FHSS: RB=100k/1MHz VB=3 x RB, Peak→ this is a note from Radiated automation software. When the frequency is below 1G, software is using RB=100kHz; when the frequency is above 1G, software is using RB=1MHz.

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

9.1. UAT 1, Pmax BASIC DATA RATE GFSK MODULATION

9.1.1. RESTRICTED BANDEDGE (LOW CHANNEL)



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/C bl/Filtr/ Pad (dB)	Correct ed Reading (dBuV/ m)	Averag e Limit (dBuV/ m)	Margin (dB)	Peak Limit (dBuV/ m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 2.356	40.22	Pk	31.9	-19.8	52.32	-	-	74	-21.68	55	202	H
4	* 2.385	26.74	VA1T	32	-19.5	39.24	54	-14.76	-	-	55	202	H
1	* 2.39	37.65	Pk	32	-19.7	49.95	-	-	74	-24.05	55	202	H
3	* 2.39	26.82	VA1T	32	-19.7	39.12	54	-14.88	-	-	55	202	H

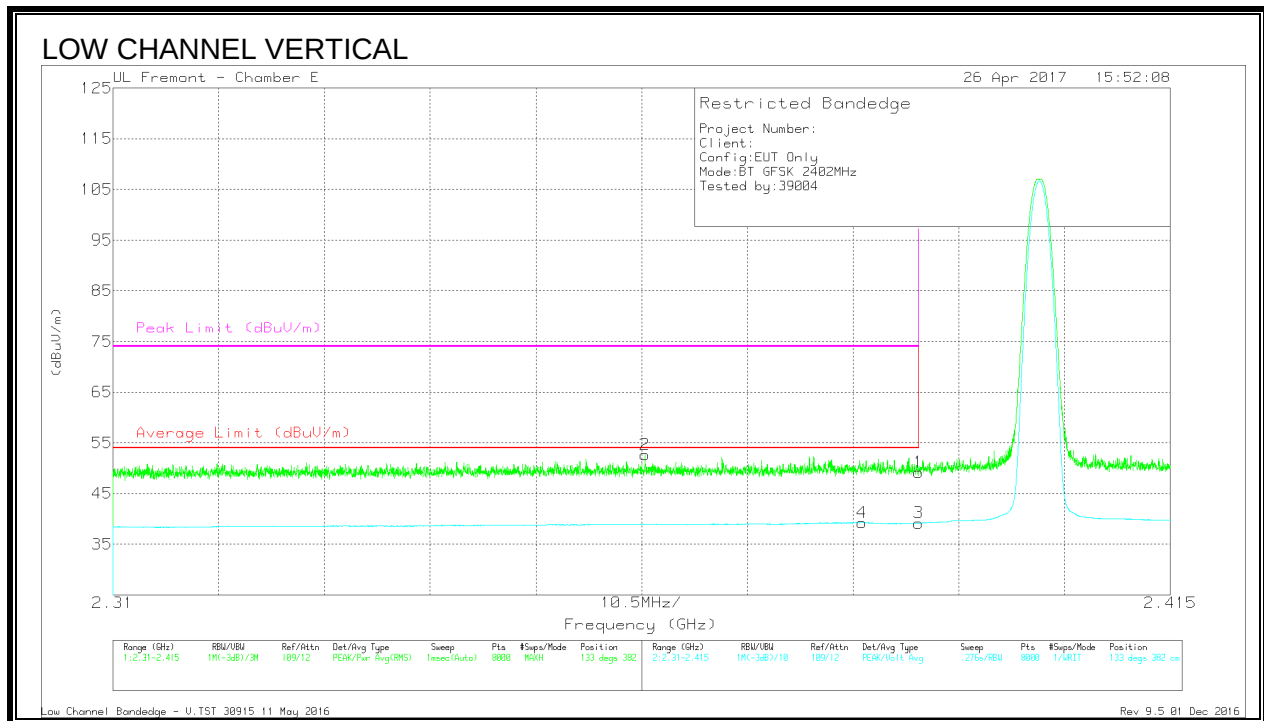
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

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

Low Channel Bandedge - H.TST.30915 11 May 2016

Rev 9.5 01 Dec 2016



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/C bl/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	36.9	Pk	32	-19.7	49.2	-	-	74	-24.8	133	382	V
2	* 2.363	40.47	Pk	31.9	-19.7	52.67	-	-	74	-21.33	133	382	V
3	* 2.39	26.88	VA1T	32	-19.7	39.18	54	-14.82	-	-	133	382	V
4	* 2.384	26.75	VA1T	32	-19.5	39.25	54	-14.75	-	-	133	382	V

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

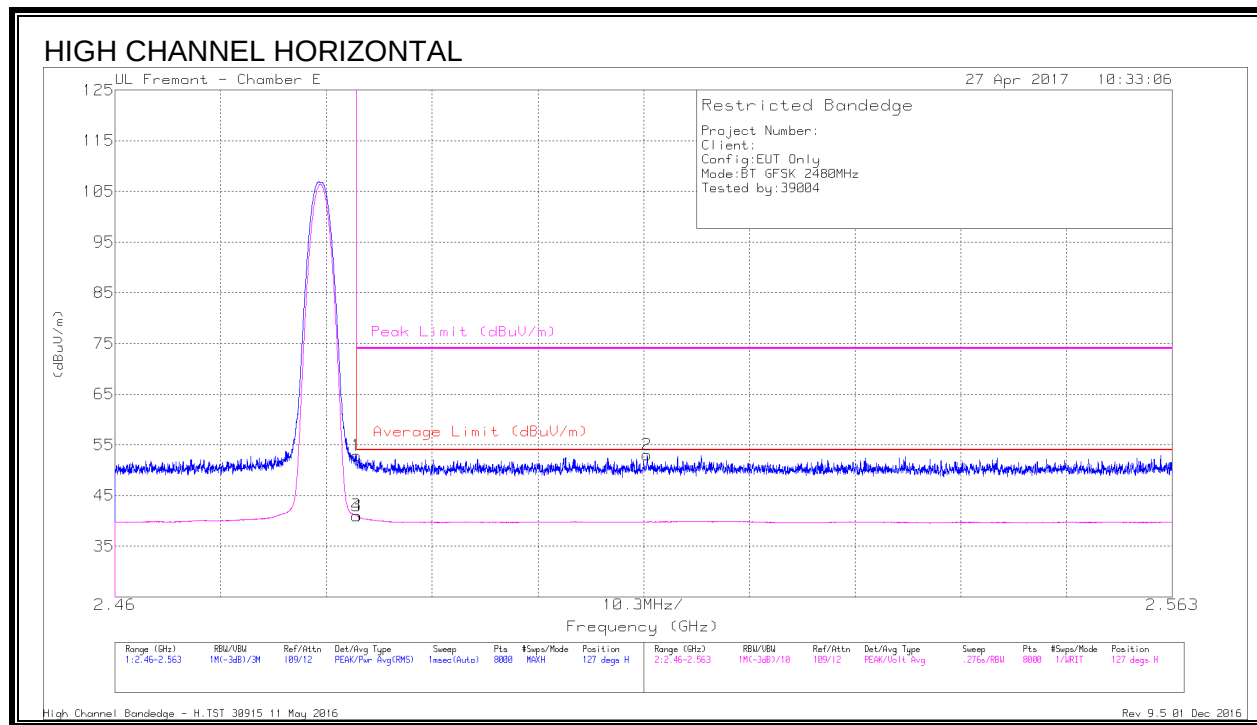
Pk - Peak detector

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

Low Channel Bandedge - V.TST 30915 11 May 2016

Rev 9.5 01 Dec 2016

9.1.2. AUTHORIZED BANDEDGE (HIGH CHANNEL)



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (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	40.08	Pk	32.5	-19.7	52.88	-	-	74	-21.12	127	136	H
3	* 2.484	28.24	VA1T	32.5	-19.7	41.04	54	-12.96	-	-	127	136	H
4	* 2.484	28.17	VA1T	32.5	-19.7	40.97	54	-13.03	-	-	127	136	H
2	2.512	40.19	Pk	32.6	-19.8	52.99	-	-	74	-21.01	127	136	H

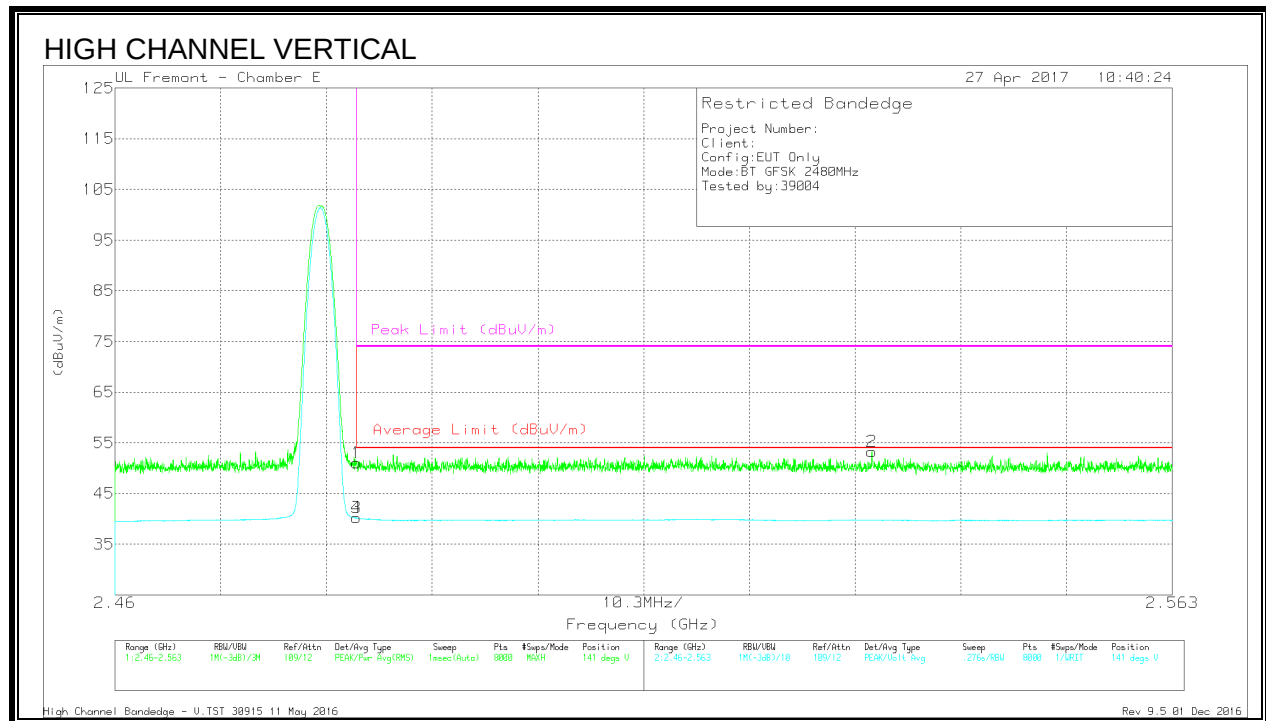
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

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

High Channel Bandedge - H.TST 30915 11 May 2016

Rev 9.5 01 Dec 2016



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (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	38.26	Pk	32.5	-19.7	51.06	-	-	74	-22.94	141	175	V
3	* 2.484	27.38	VA1T	32.5	-19.7	40.18	54	-13.82	-	-	141	175	V
4	* 2.484	27.38	VA1T	32.5	-19.7	40.18	54	-13.82	-	-	141	175	V
2	2.534	40.52	Pk	32.6	-19.8	53.32	-	-	74	-20.68	141	175	V

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

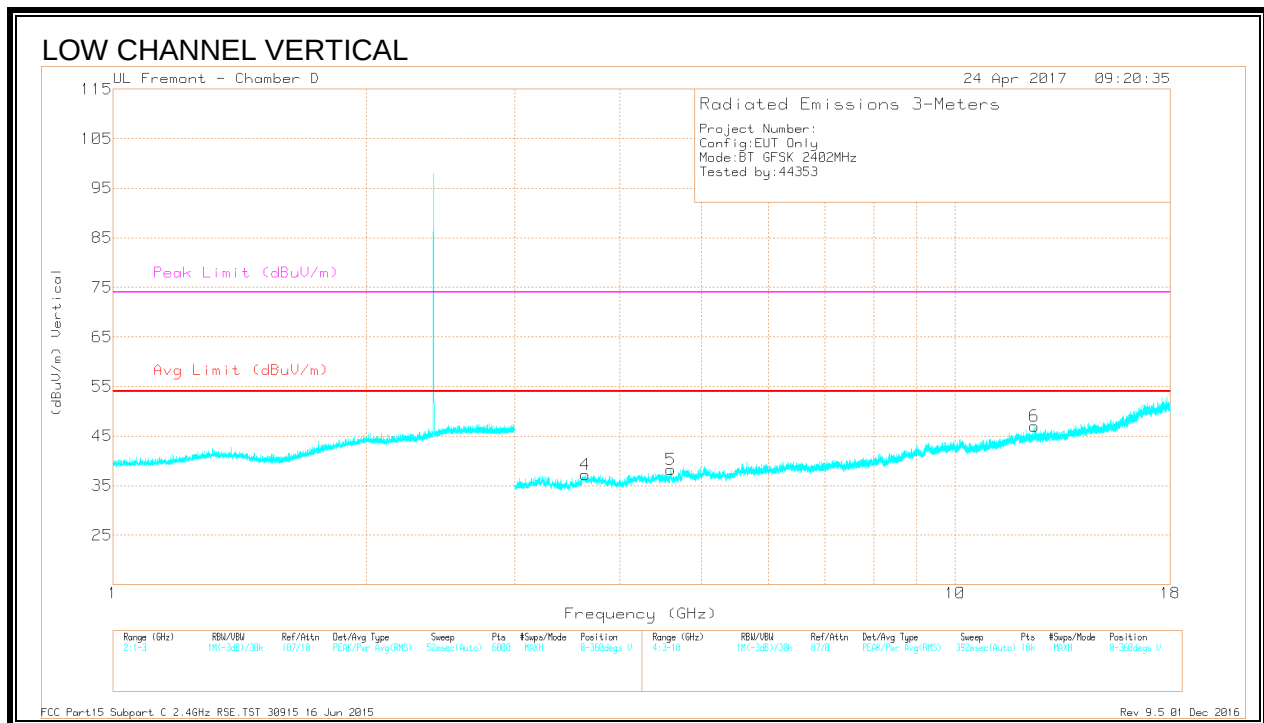
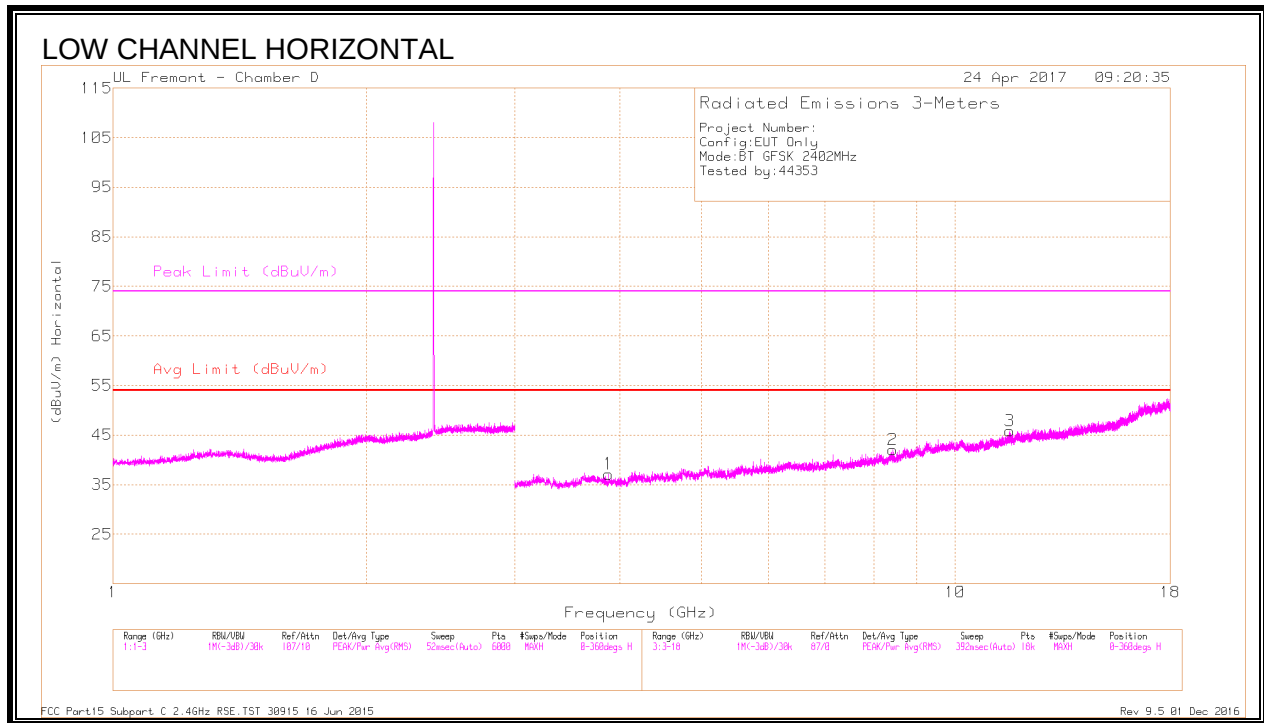
Pk - Peak detector

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

High Channel Bandedge - V.TST 30915 11 May 2016

Rev 9.5 01 Dec 2016

9.1.3. HARMONICS AND SPURIOUS EMISSIONS



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cb/FI tr/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	* 3.875	38.11	PKFH	33.2	-28.4	42.91	-	-	74	-31.09	212	179	H
	* 3.876	26.02	VA1T	33.2	-28.3	30.92	54	-23.08	-	-	212	179	H
2	* 8.438	35.11	PKFH	36	-23.4	47.71	-	-	74	-26.29	153	188	H
	* 8.439	22.69	VA1T	36	-23.4	35.29	54	-18.71	-	-	153	188	H
3	* 11.598	32.79	PKFH	38.5	-20.6	50.69	-	-	74	-23.31	26	311	H
	* 11.598	21.24	VA1T	38.5	-20.6	39.14	54	-14.86	-	-	26	311	H
4	* 3.636	37.78	PKFH	33.2	-28.8	42.18	-	-	74	-31.82	310	144	V
	* 3.636	25.73	VA1T	33.2	-28.8	30.13	54	-23.87	-	-	310	144	V
5	* 4.596	37.48	PKFH	34.1	-28.2	43.38	-	-	74	-30.62	166	243	V
	* 4.599	26.03	VA1T	34.1	-28.2	31.93	54	-22.07	-	-	166	243	V
6	* 12.422	33.97	PKFH	39	-20.5	52.47	-	-	74	-21.53	109	272	V
	* 12.422	21.63	VA1T	39	-20.5	40.13	54	-13.87	-	-	109	272	V

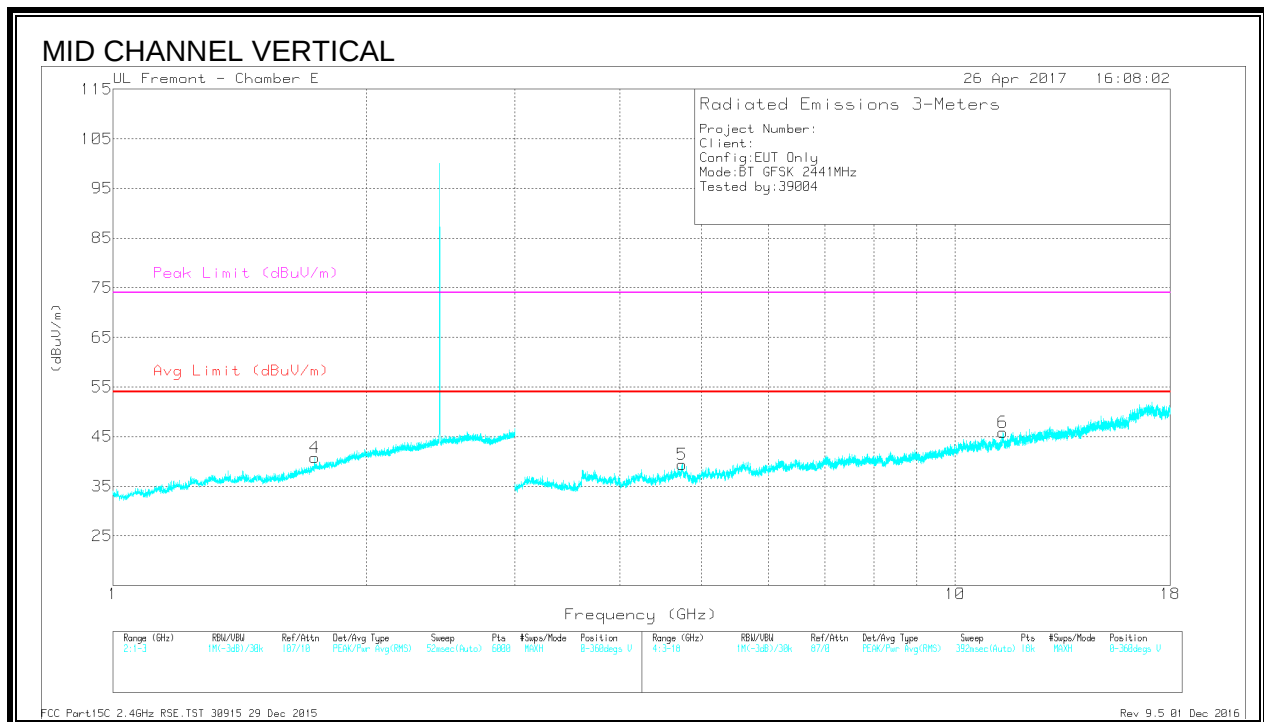
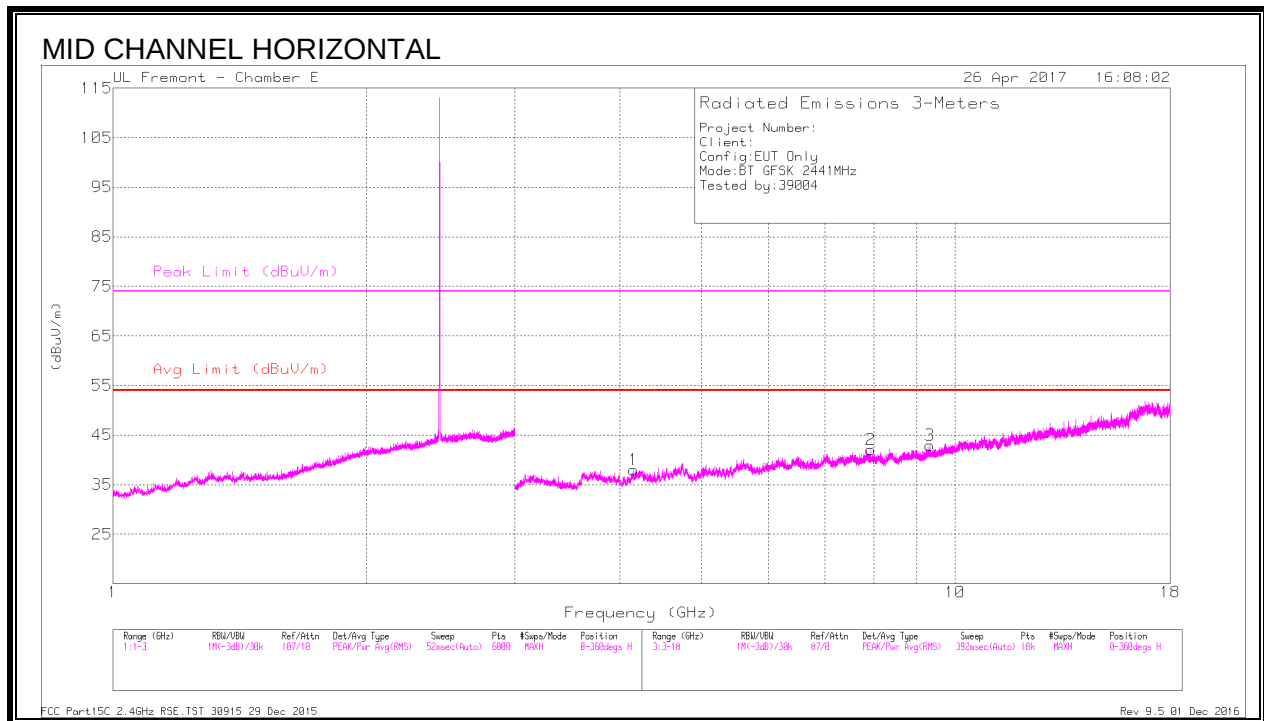
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

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

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

FCC Part15 Subpart C 2.4GHz RSE.TST 30915 16 Jun 2015

Rev 9.5 01 Dec 2016



DATA

Marker	Frequenc y (GHz)	Meter Reading (dBuV)	Det	AF T863 (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	* 4.15	40.96	PKFH	33.5	-30.6	43.86	-	-	74	-30.14	18	135	H
	* 4.149	28.67	VA1T	33.5	-30.6	31.57	54	-22.43	-	-	18	135	H
3	* 9.326	36.64	PKFH	36.5	-25.4	47.74	-	-	74	-26.26	18	145	H
	* 9.328	25.03	VA1T	36.5	-25.4	36.13	54	-17.87	-	-	18	145	H
5	* 4.74	39.33	PKFH	34.3	-28.9	44.73	-	-	74	-29.27	42	155	V
	* 4.741	27.84	VA1T	34.3	-28.9	33.24	54	-20.76	-	-	42	155	V
6	* 11.395	35.08	PKFH	38	-21.7	51.38	-	-	74	-22.62	68	212	V
	* 11.394	23.02	VA1T	38	-21.7	39.32	54	-14.68	-	-	68	212	V
4	1.738	35.79	PKFH	29.6	-20.2	45.19	-	-	-	-	101	225	V
2	7.94	38.81	PKFH	36	-27.3	47.51	-	-	-	-	112	133	H

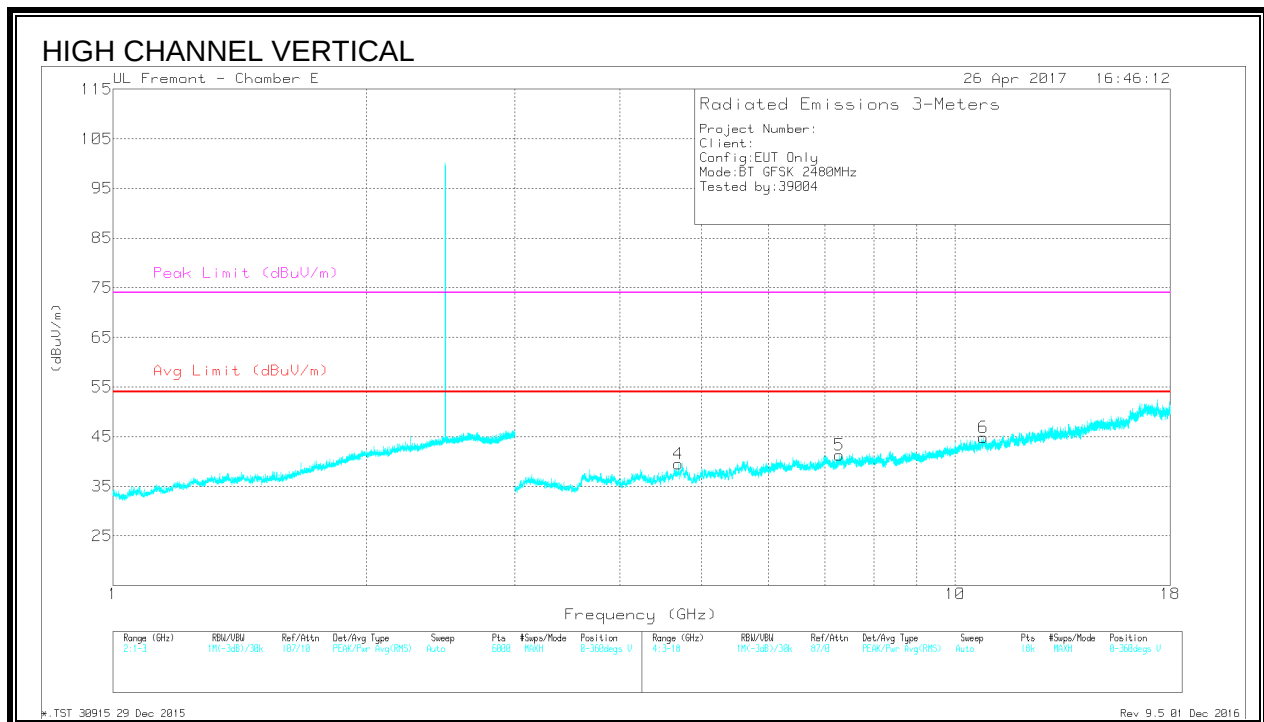
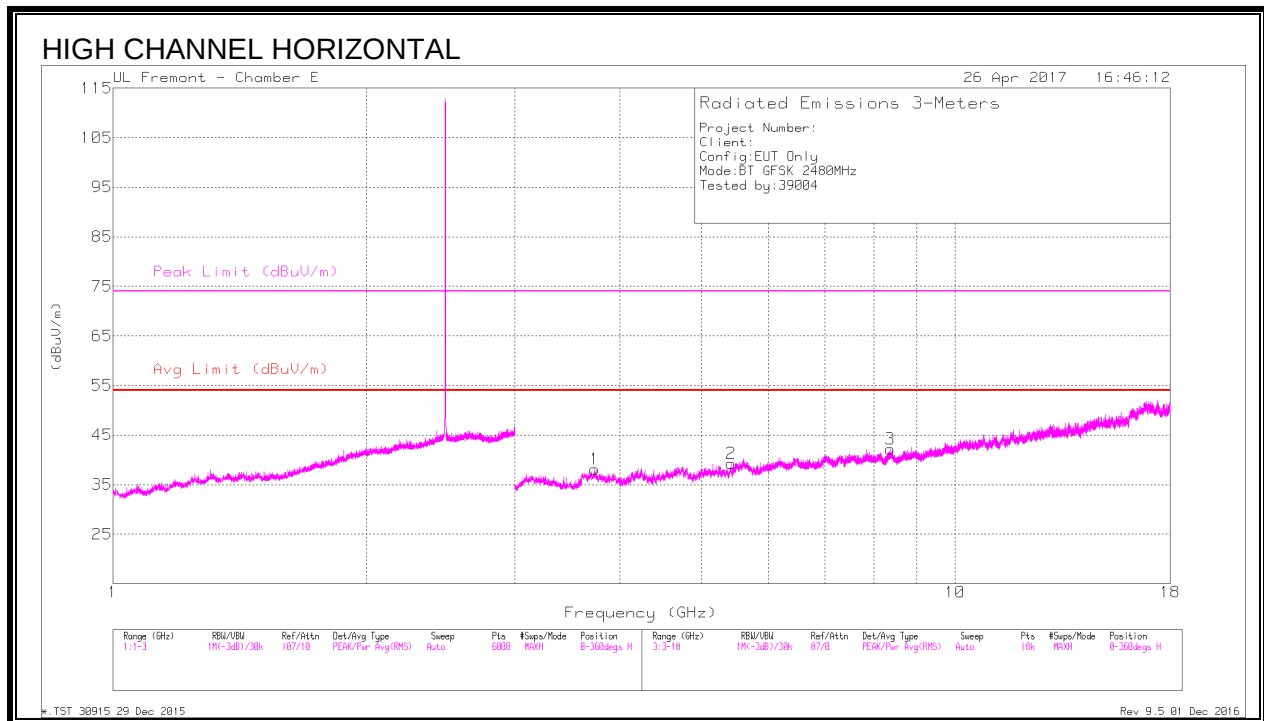
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

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

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

FCC Part15C 2.4GHz RSE.TST 30915 29 Dec 2015

Rev 9.5 01 Dec 2016



DATA

Marker	Frequenc y (GHz)	Meter Reading (dBuV)	Det	AF T863 (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	* 3.732	40.68	PKFH	33.4	-29.8	44.28	-	-	74	-29.72	209	150	H
	* 3.73	29.23	VA1T	33.4	-29.8	32.83	54	-21.17	-	-	209	150	H
2	* 5.414	38.98	PKFH	35	-29.4	44.58	-	-	74	-29.42	164	222	H
	* 5.414	27.16	VA1T	35	-29.4	32.76	54	-21.24	-	-	164	222	H
3	* 8.367	37.39	PKFH	36.1	-25.6	47.89	-	-	74	-26.11	219	125	H
	* 8.368	25.37	VA1T	36	-25.5	35.87	54	-18.13	-	-	219	125	H
4	* 4.689	40.64	PKFH	34.3	-29.4	45.54	-	-	74	-28.46	174	122	V
	* 4.688	28.9	VA1T	34.3	-29.4	33.8	54	-20.2	-	-	174	122	V
5	* 7.283	37.41	PKFH	35.9	-26.2	47.11	-	-	74	-26.89	4	139	V
	* 7.284	25.57	VA1T	35.9	-26.2	35.27	54	-18.73	-	-	4	139	V
6	* 10.798	36.45	PKFH	37.6	-23.3	50.75	-	-	74	-23.25	13	120	V
	* 10.797	24.04	VA1T	37.6	-23.3	38.34	54	-15.66	-	-	13	120	V

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

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

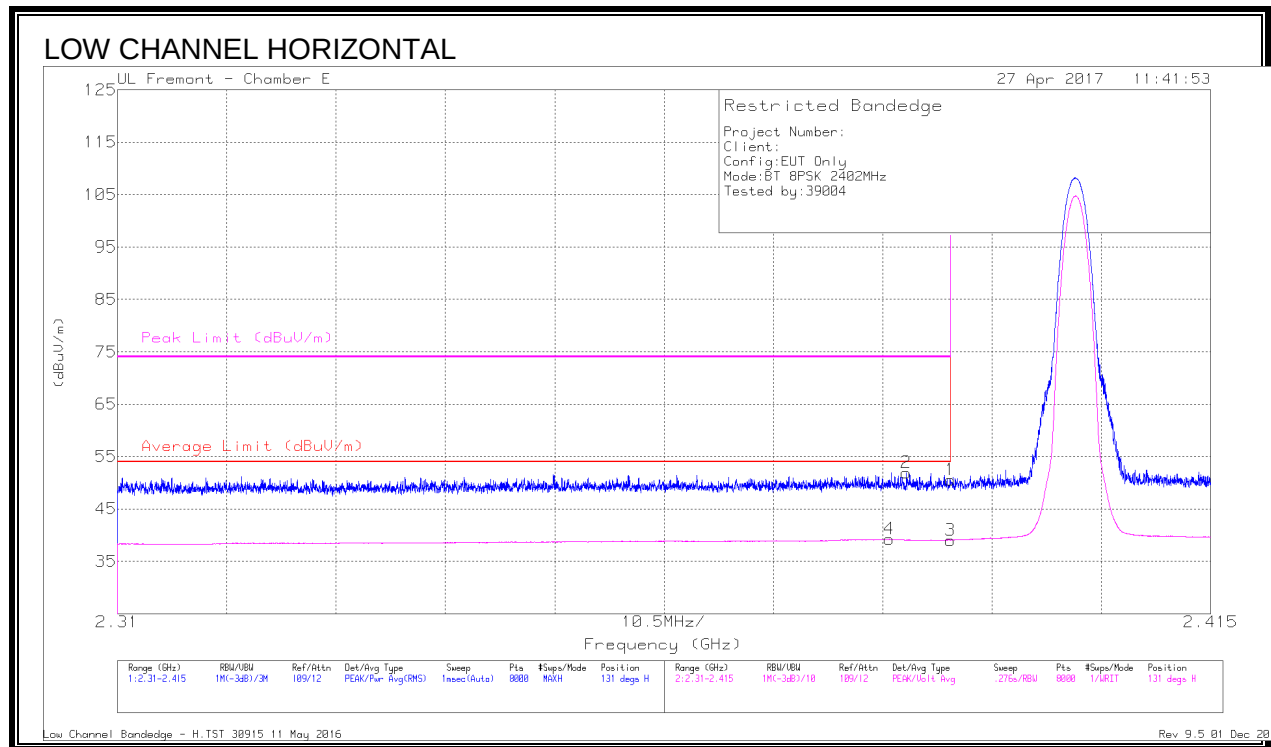
VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

* TST 30915 29 Dec 2015

Rev 9.5 01 Dec 2016

9.2. UAT 1, Pmax ENHANCED DATA RATE 8PSK MODULATION

9.2.1. RESTRICTED BANDEDGE (LOW CHANNEL)



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (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	38.2	Pk	32	-19.7	50.5	-	-	74	-23.5	131	122	H
2	* 2.386	39.47	Pk	32	-19.6	51.87	-	-	74	-22.13	131	122	H
3	* 2.39	26.74	VA1T	32	-19.7	39.04	54	-14.96	-	-	131	122	H
4	* 2.384	26.69	VA1T	32	-19.5	39.19	54	-14.81	-	-	131	122	H

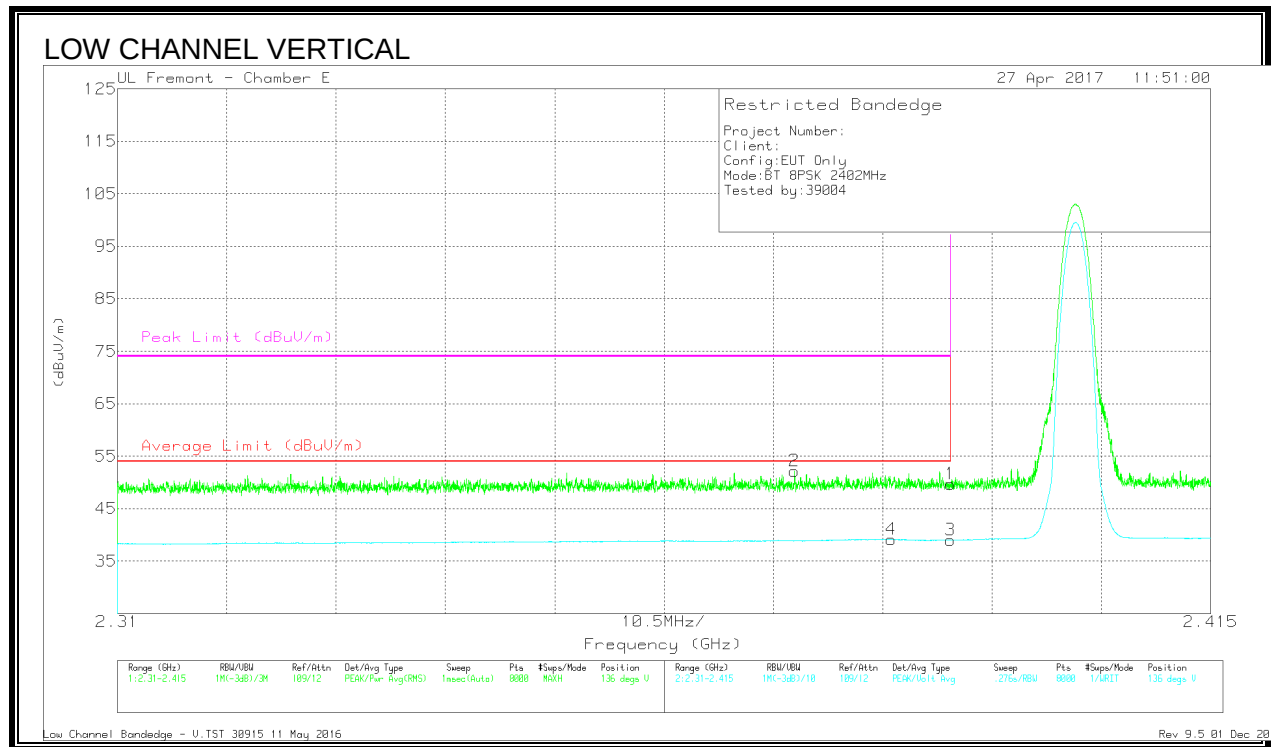
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

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

Low Channel Bandedge - H.TST 30915 11 May 2016

Rev 9.5 01 Dec 2016



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (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
2	* 2.375	39.83	Pk	32	-19.7	52.13	-	-	74	-21.87	136	103	V
4	* 2.384	26.65	VA1T	32	-19.5	39.15	54	-14.85	-	-	136	103	V
1	* 2.39	37.41	Pk	32	-19.7	49.71	-	-	74	-24.29	136	103	V
3	* 2.39	26.67	VA1T	32	-19.7	38.97	54	-15.03	-	-	136	103	V

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

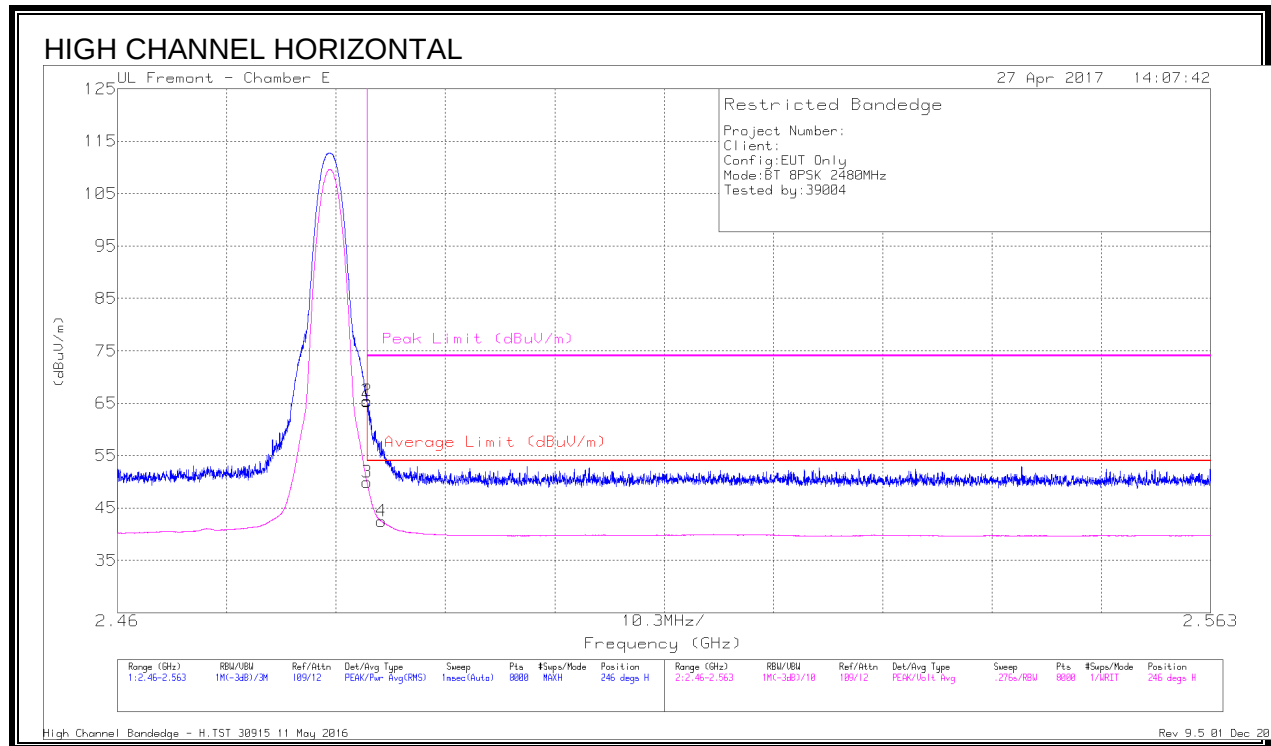
Pk - Peak detector

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

Low Channel Bandedge - V.TST 30915 11 May 2016

Rev 9.5 01 Dec 2016

9.2.2. AUTHORIZED BANDEDGE (HIGH CHANNEL)



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (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	52.46	Pk	32.5	-19.7	65.26	-	-	74	-8.74	246	101	H
2	* 2.484	52.68	Pk	32.5	-19.7	65.48	-	-	74	-8.52	246	101	H
3	* 2.484	37.1	VA1T	32.5	-19.7	49.9	54	-4.1	-	-	246	101	H
4	* 2.485	29.64	VA1T	32.5	-19.7	42.44	54	-11.56	-	-	246	101	H

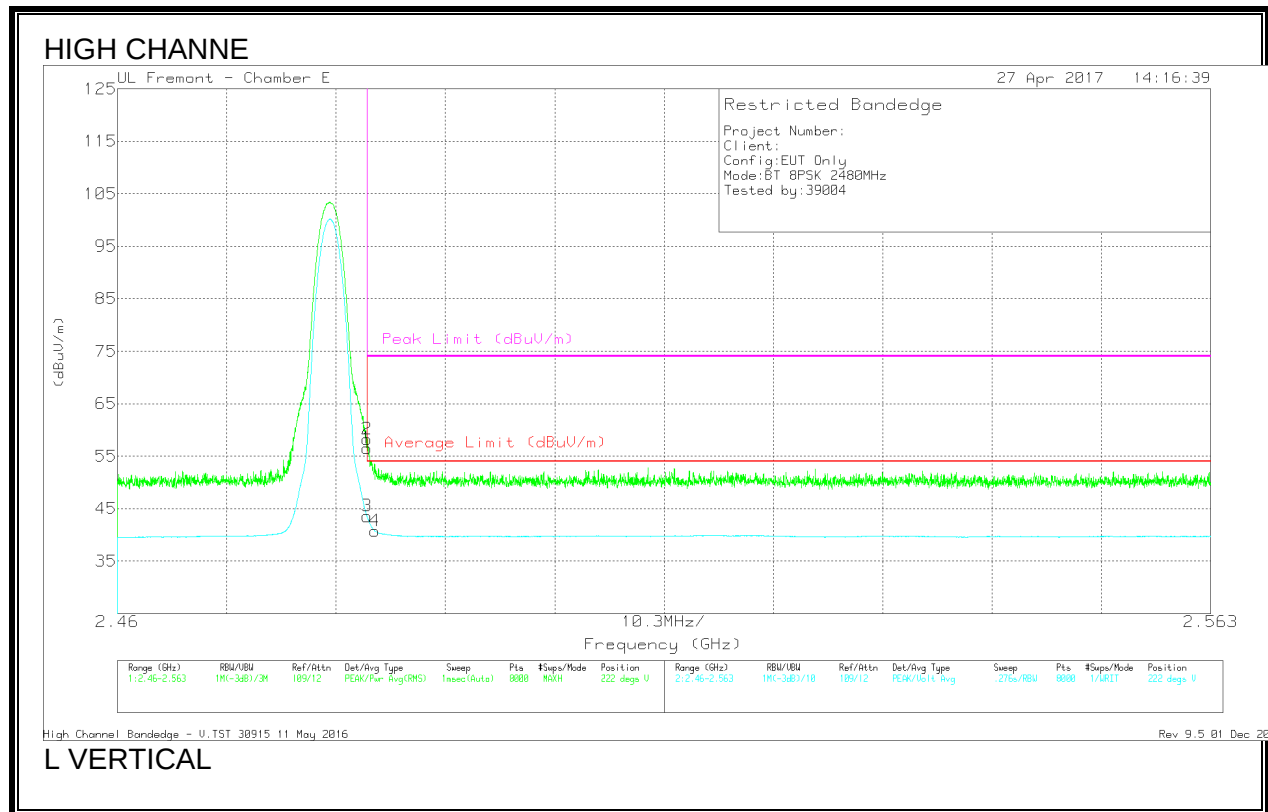
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

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

High Channel Bandedge - H.TST 30915 11 May 2016

Rev 9.5 01 Dec 2016



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/C bl/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	43.71	Pk	32.5	-19.7	56.51	-	-	74	-17.49	222	102	V
2	* 2.484	45.44	Pk	32.5	-19.7	58.24	-	-	74	-15.76	222	102	V
3	* 2.484	30.73	VA1T	32.5	-19.7	43.53	54	-10.47	-	-	222	102	V
4	* 2.484	27.92	VA1T	32.5	-19.7	40.72	54	-13.28	-	-	222	102	V

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

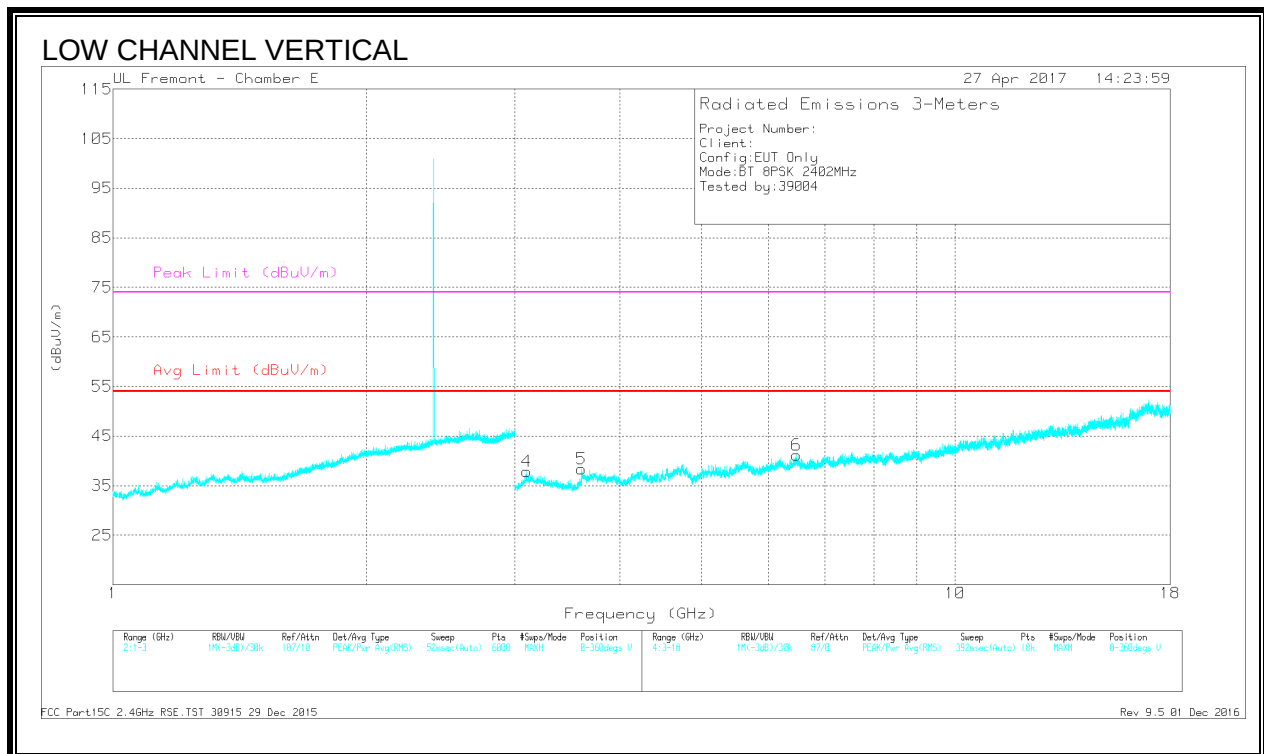
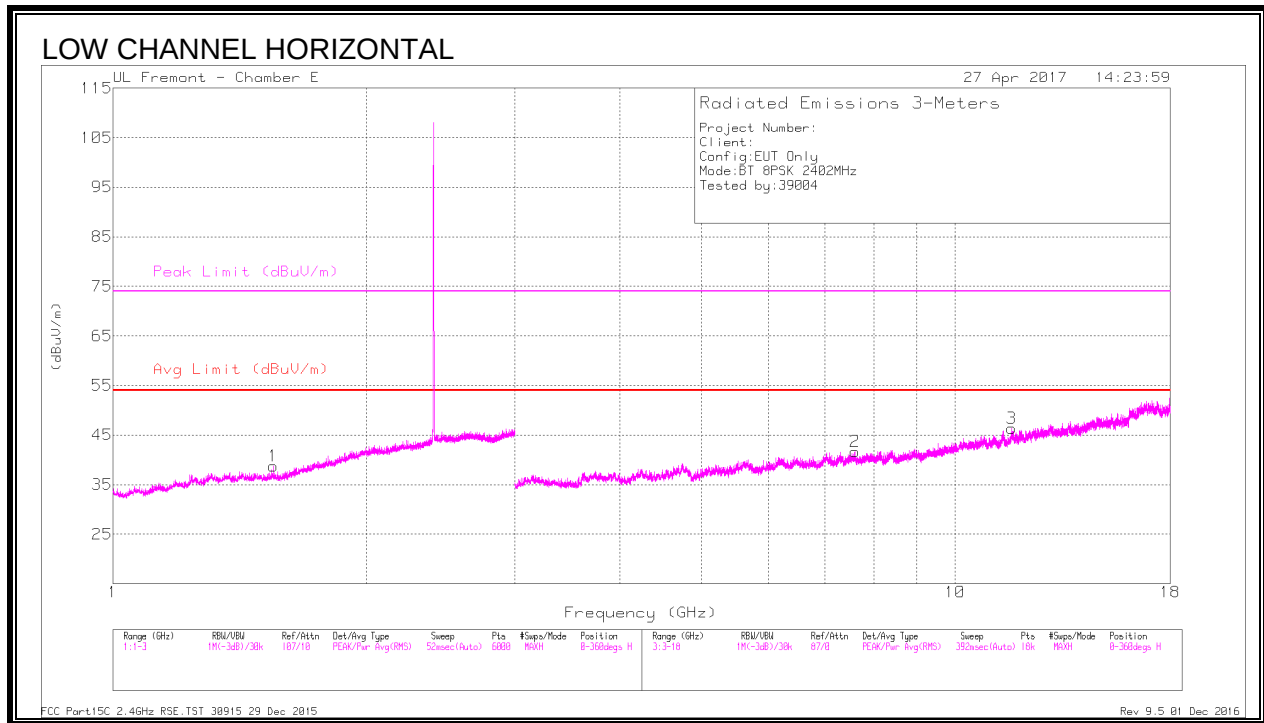
Pk - Peak detector

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

High Channel Bandedge - V.TST 30915 11 May 2016

Rev 9.5 01 Dec 2016

9.2.3. HARMONICS AND SPURIOUS EMISSIONS



DATA

Marker	Frequenc y (GHz)	Meter Reading (dBuV)	Det	AF T863 (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	* 1.552	36.36	PKFH	28.1	-20.9	43.56	-	-	74	-30.44	321	245	H
	* 1.551	23.73	VA1T	28.1	-20.9	30.93	54	-23.07	-	-	321	245	H
2	* 7.604	37.11	PKFH	36.1	-26.1	47.11	-	-	74	-26.89	304	166	H
	* 7.604	25.28	VA1T	36.1	-26.1	35.28	54	-18.72	-	-	304	166	H
3	* 11.672	35.94	PKFH	38.3	-22.1	52.14	-	-	74	-21.86	285	223	H
	* 11.673	23.72	VA1T	38.3	-22.1	39.92	54	-14.08	-	-	285	223	H
5	* 3.602	40.6	PKFH	32.9	-30.6	42.9	-	-	74	-31.1	300	174	V
	* 3.602	28.44	VA1T	32.9	-30.6	30.74	54	-23.26	-	-	300	174	V
4	3.099	39.61	PKFH	33.2	-30.3	42.51	-	-	-	-	251	152	V
6	6.477	39.2	PKFH	35.7	-27.2	47.7	-	-	-	-	212	136	V

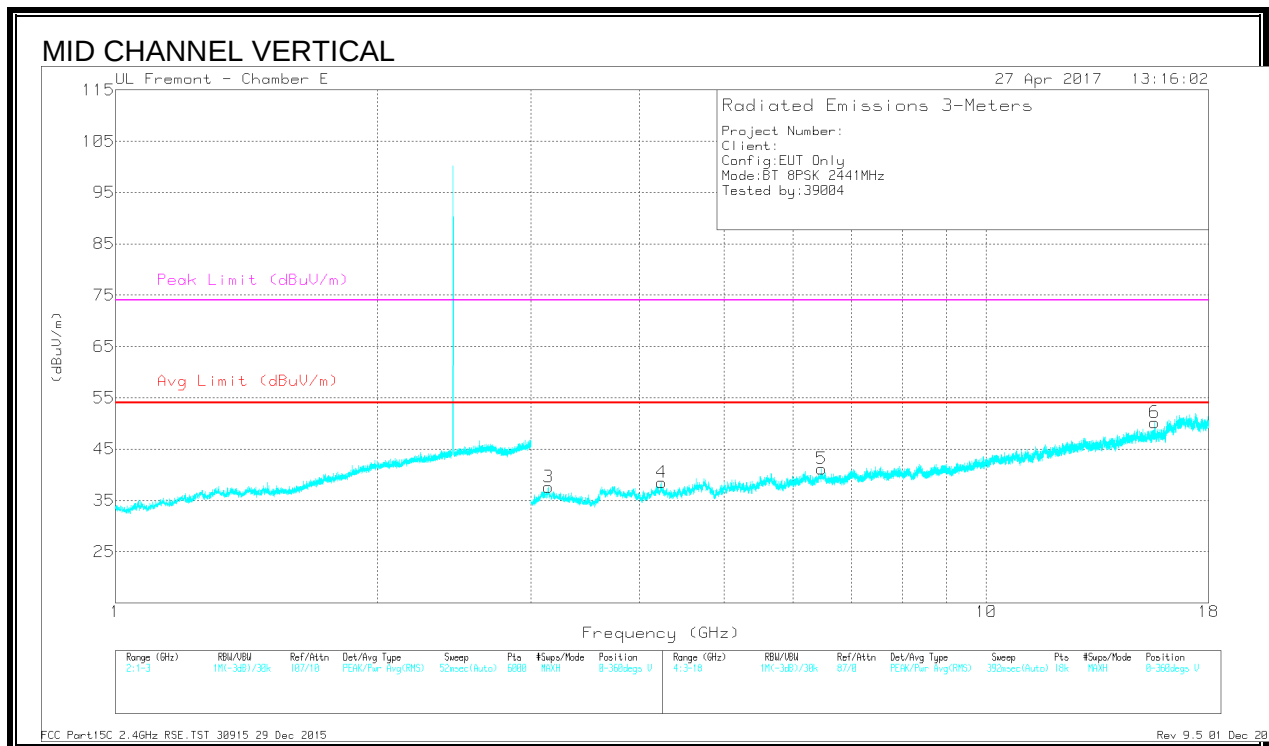
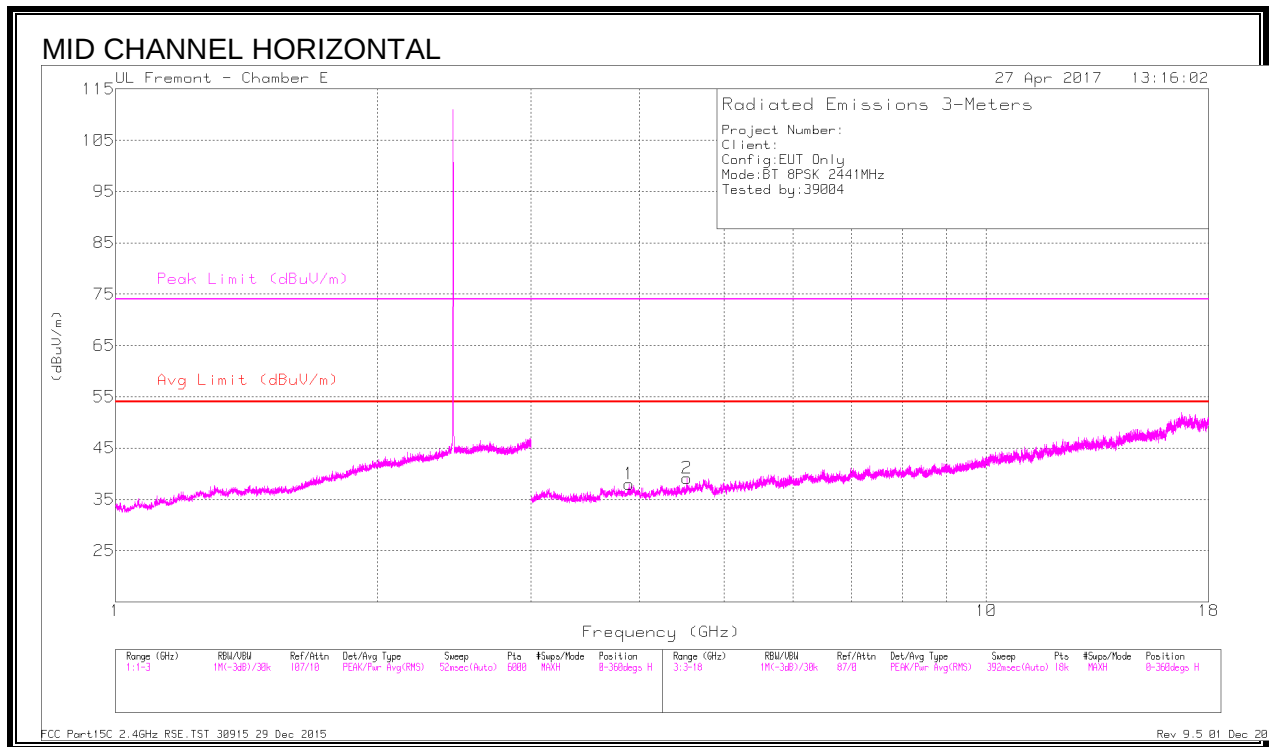
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

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

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

FCC Part15C 2.4GHz RSE.TST 30915 29 Dec 2015

Rev 9.5 01 Dec 2016



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (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	* 3.891	40.31	PKFH	33.4	-30.3	43.41	-	-	74	-30.59	25	132	H
	* 3.891	29.02	VA1T	33.4	-30.3	32.12	54	-21.88	-	-	25	132	H
4	* 4.53	39.72	PKFH	34	-29.8	43.92	-	-	74	-30.08	33	153	H
	* 4.528	28.13	VA1T	34	-29.9	32.23	54	-21.77	-	-	33	153	H
2	* 4.236	40.32	PKFH	33.5	-28.7	45.12	-	-	74	-28.88	53	224	V
	* 4.237	28.19	VA1T	33.5	-28.7	32.99	54	-21.01	-	-	53	224	V
6	* 15.612	34.95	PKFH	40.7	-21.5	54.15	-	-	74	-19.85	85	182	V
	* 15.612	23.37	VA1T	40.7	-21.5	42.57	54	-11.43	-	-	85	182	V
3	3.14	39.47	PKFH	33.2	-29.8	42.87	-	-	-	-	112	216	V
5	6.471	38.52	PKFH	35.7	-27.3	46.92	-	-	-	-	88	197	V

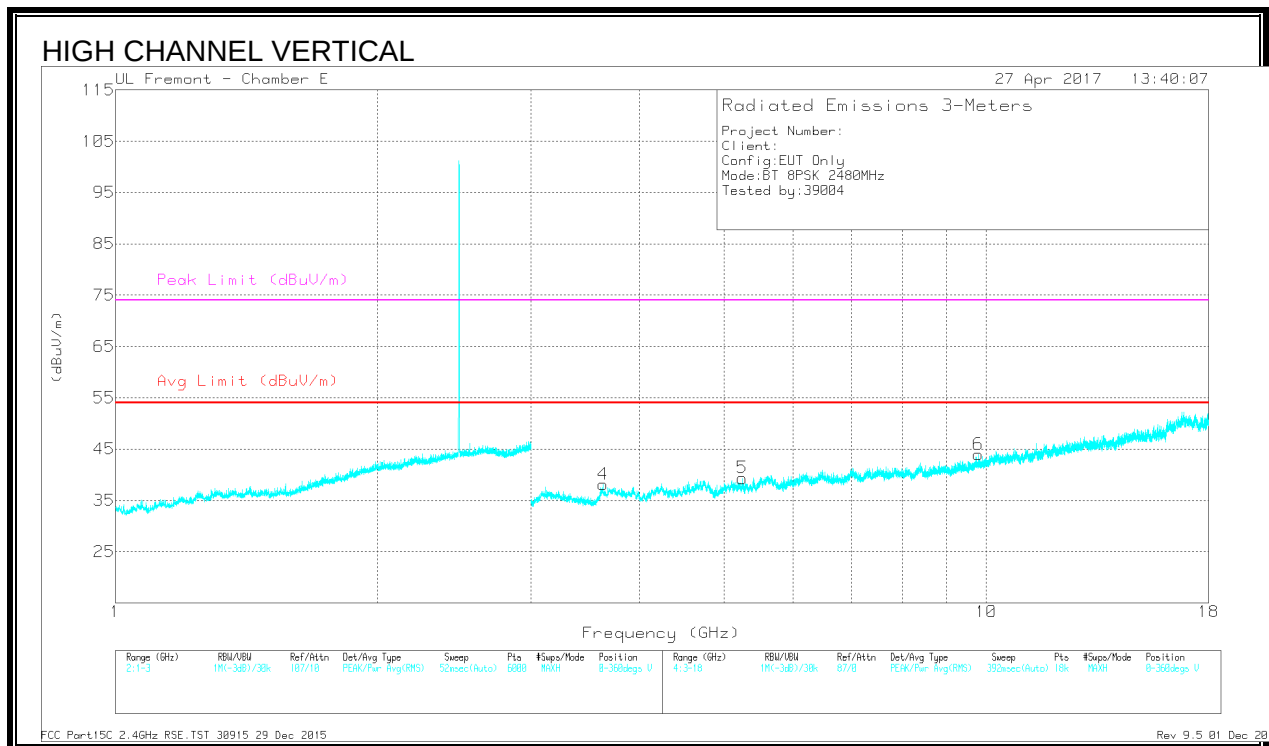
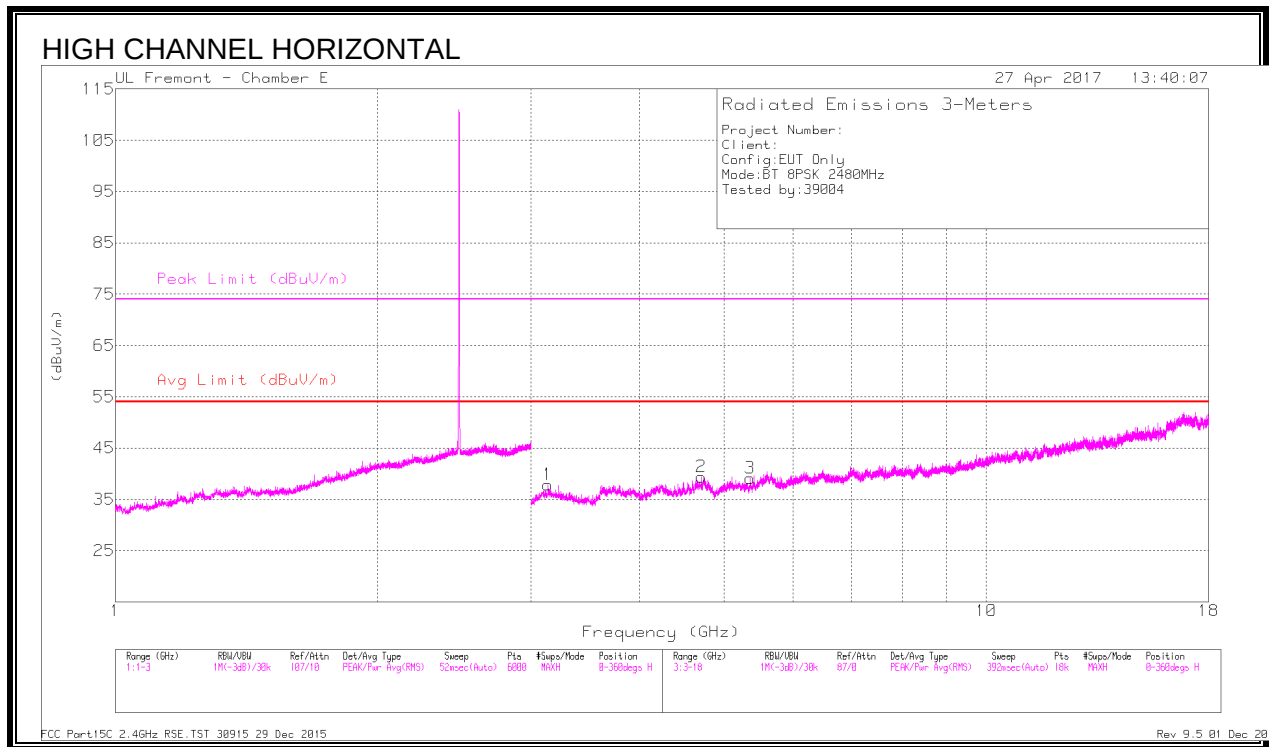
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

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

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

FCC Part15C 2.4GHz RSE.TST 30915 29 Dec 2015

Rev 9.5 01 Dec 2016



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (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
2	* 4.706	40.24	PKFH	34.3	-29.2	45.34	-	-	74	-28.66	54	244	H
	* 4.704	27.82	VA1T	34.3	-29.2	32.92	54	-21.08	-	-	54	244	H
3	* 5.357	39.22	PKFH	34.9	-29.4	44.72	-	-	74	-29.28	72	128	H
	* 5.358	27.23	VA1T	34.9	-29.4	32.73	54	-21.27	-	-	72	128	H
4	* 3.631	41.09	PKFH	33.1	-30.2	43.99	-	-	74	-30.01	52	156	V
	* 3.632	28.78	VA1T	33.1	-30.2	31.68	54	-22.32	-	-	52	156	V
1	3.14	39.67	PKFH	33.2	-29.8	43.07	-	-	-	-	66	195	H
5	5.247	39.37	PKFH	34.6	-29.6	44.37	-	-	-	-	101	310	V
6	9.79	36.55	PKFH	36.8	-24.7	48.65	-	-	-	-	124	131	V

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

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

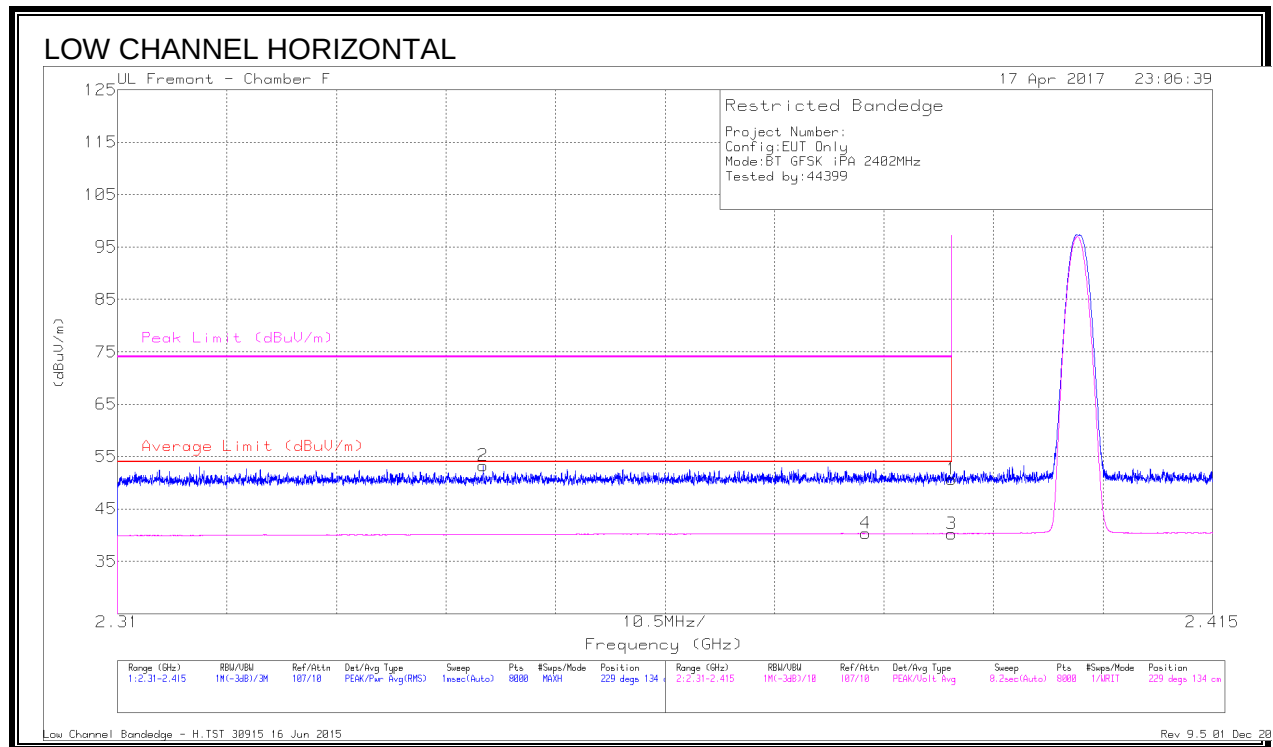
VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

FCC Part15C 2.4GHz RSE.TST 30915 29 Dec 2015

Rev 9.5 01 Dec 2016

9.3. UAT 1, Plow BASIC DATA RATE GFSK MODULATION

9.3.1. RESTRICTED BANDEDGE (LOW CHANNEL)



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (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	39.75	Pk	31.9	-21	50.65	-	-	74	-23.35	229	134	H
2	* 2.345	42.53	Pk	31.7	-21	53.23	-	-	74	-20.77	229	134	H
3	* 2.39	29.39	VA1T	31.9	-21	40.29	54	-13.71	-	-	229	134	H
4	* 2.382	29.42	VA1T	31.8	-20.9	40.32	54	-13.68	-	-	229	134	H

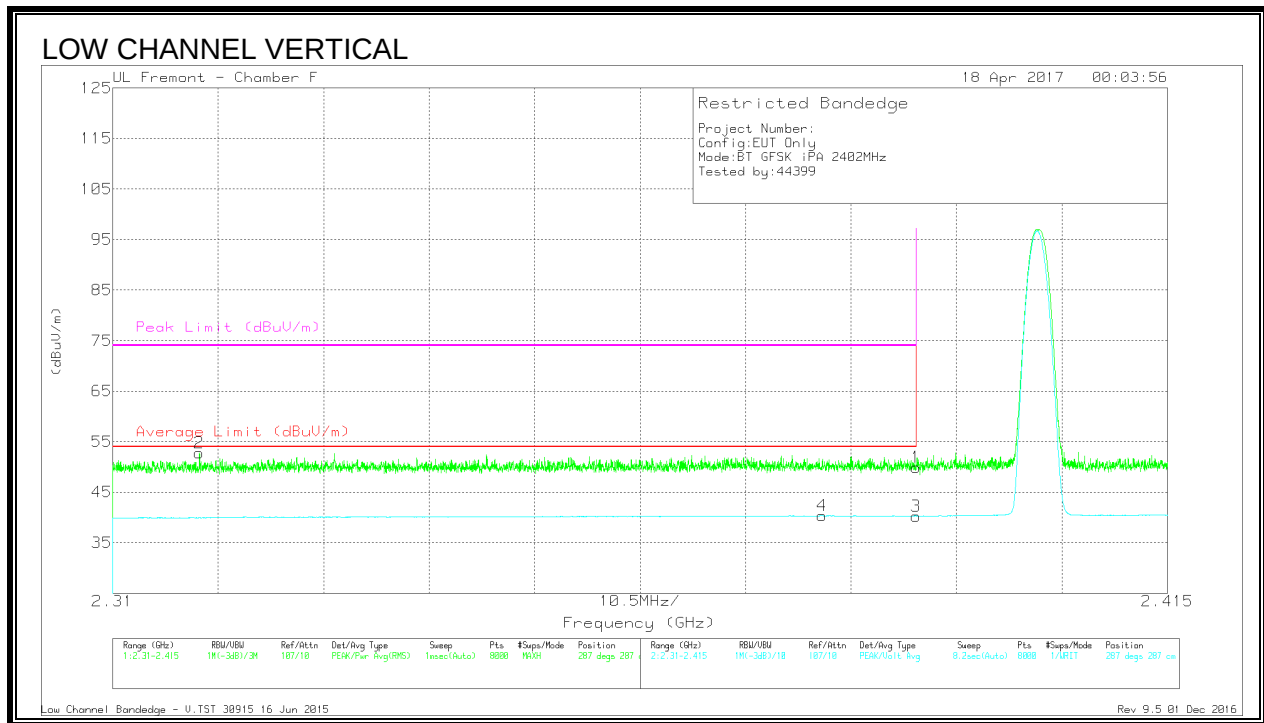
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

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 01 Dec 2016



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (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	38.97	Pk	31.9	-21	49.87	-	-	74	-24.13	287	287	V
2	* 2.319	42.03	Pk	31.7	-21	52.73	-	-	74	-21.27	287	287	V
3	* 2.39	29.39	VA1T	31.9	-21	40.29	54	-13.71	-	-	287	287	V
4	* 2.381	29.43	VA1T	31.8	-20.9	40.33	54	-13.67	-	-	287	287	V

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

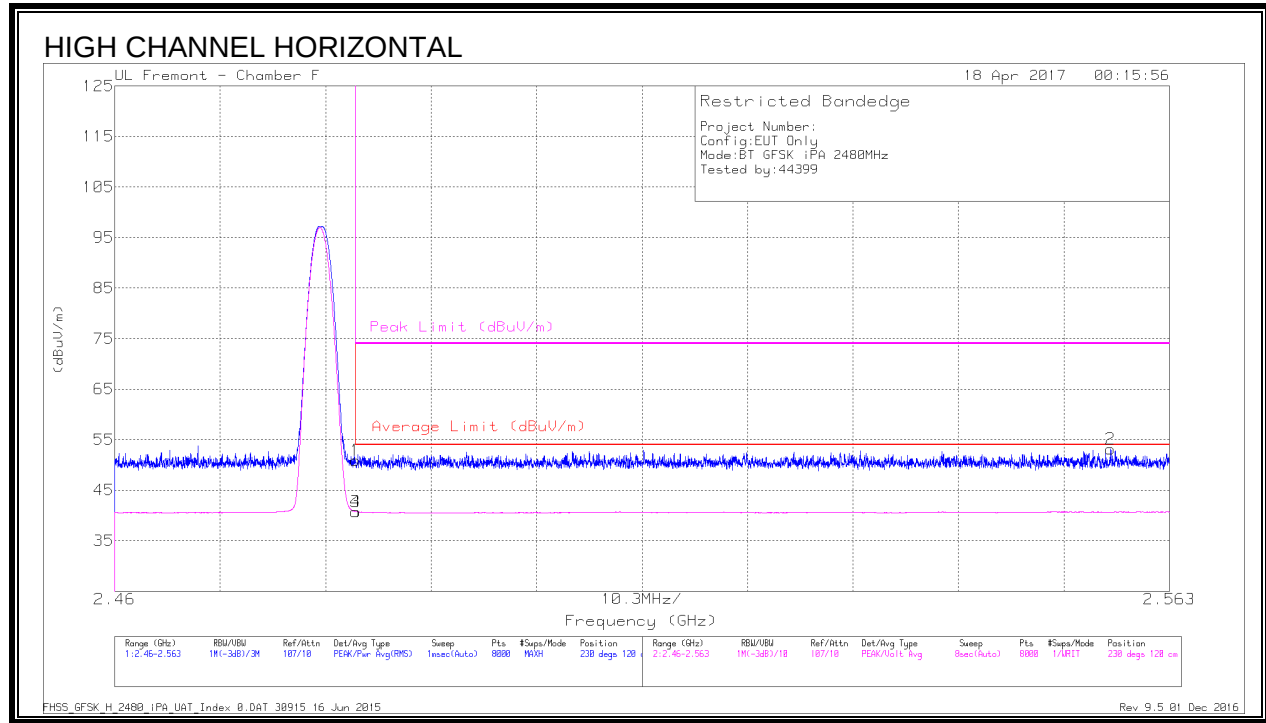
Pk - Peak detector

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 01 Dec 2016

9.3.2. AUTHORIZED BANDEDGE (HIGH CHANNEL)



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (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)	Polarization
1	* 2.484	39.82	Pk	32.1	-21	50.92	-	-	74	-23.08	230	120	H
2	2.557	41.83	Pk	32.2	-20.9	53.13	-	-	74	-20.87	230	120	H
3	* 2.484	29.64	VA1T	32.1	-21	40.74	54	-13.26	-	-	230	120	H
4	* 2.484	29.63	VA1T	32.1	-21	40.73	54	-13.27	-	-	230	120	H

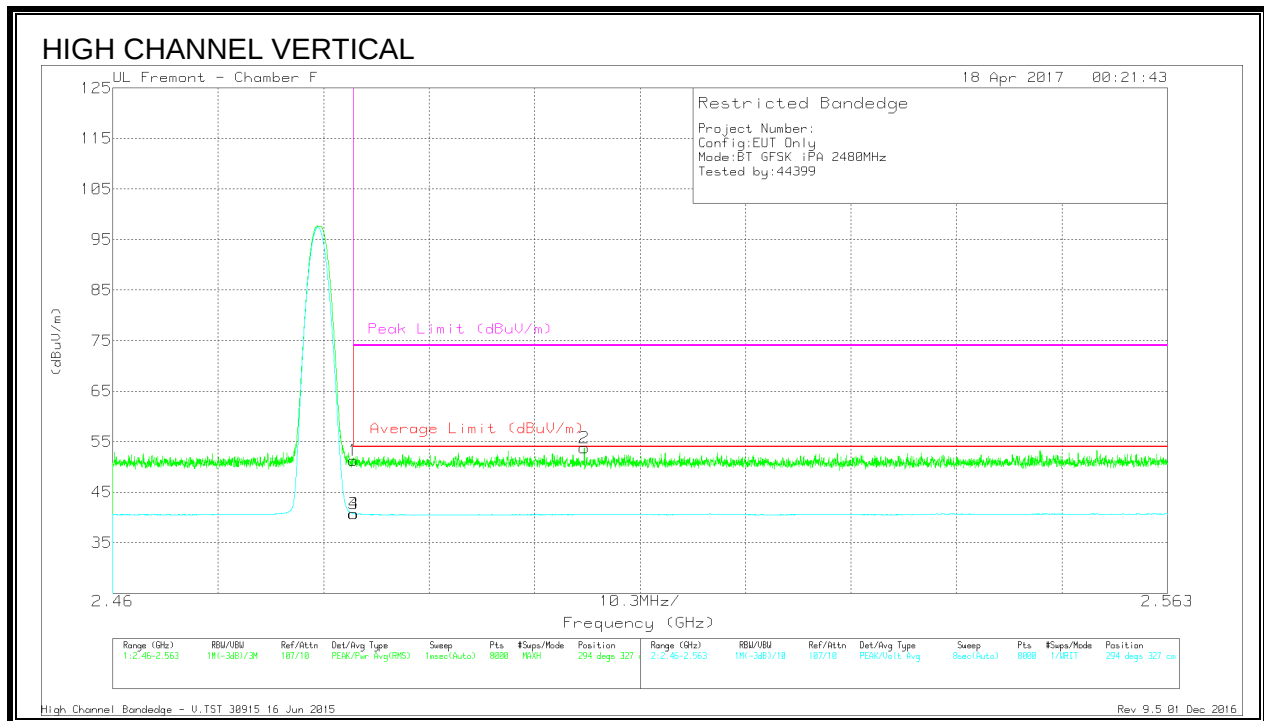
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

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

FHSS_GFSK_H_2480_LOW POWER_UAT_Index 0.DAT 30915 16 Jun 2015

Rev 9.5 01 Dec 2016



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/C bl/Filtr/ Pad (dB)	Correct ed Reading (dBuV/ m)	Averag e Limit (dBuV/ m)	Margin (dB)	Peak Limit (dBuV/ m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	40.15	Pk	32.1	-21	51.25	-	-	74	-22.75	294	327	V
2	2.506	42.54	Pk	32.2	-21	53.74	-	-	74	-20.26	294	327	V
3	* 2.484	29.68	VA1T	32.1	-21	40.78	54	-13.22	-	-	294	327	V
4	* 2.484	29.65	VA1T	32.1	-21	40.75	54	-13.25	-	-	294	327	V

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

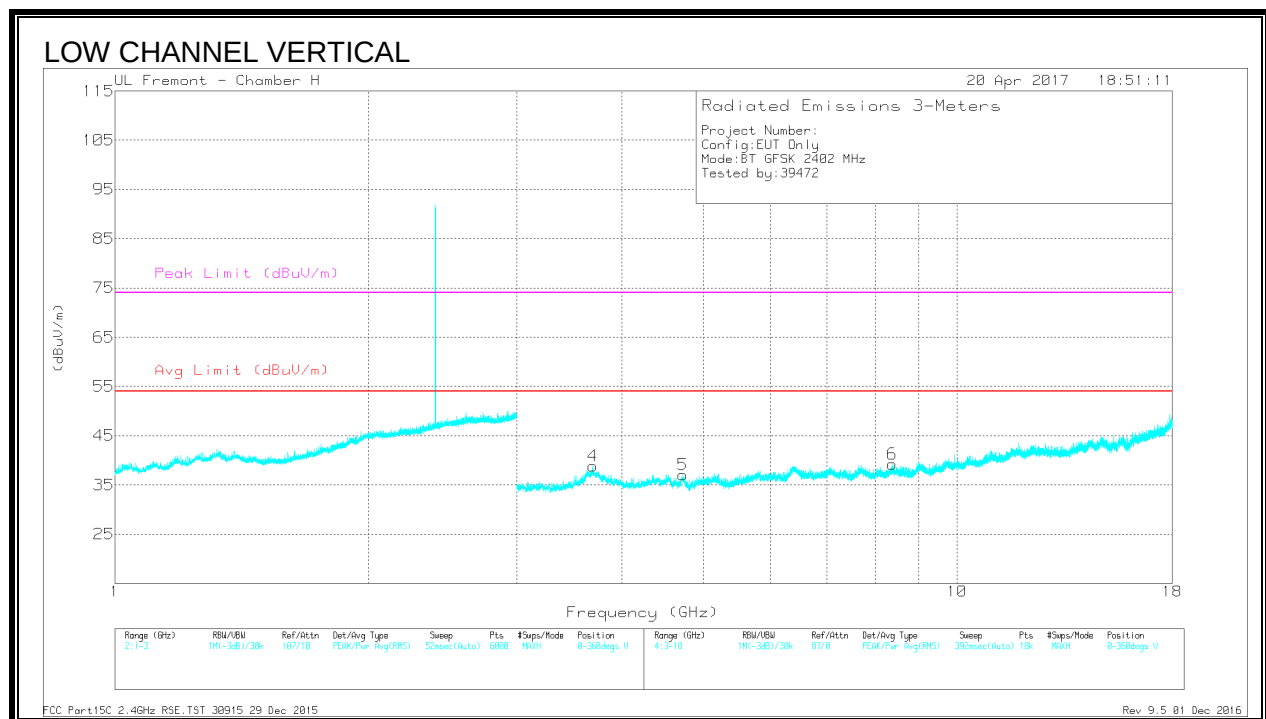
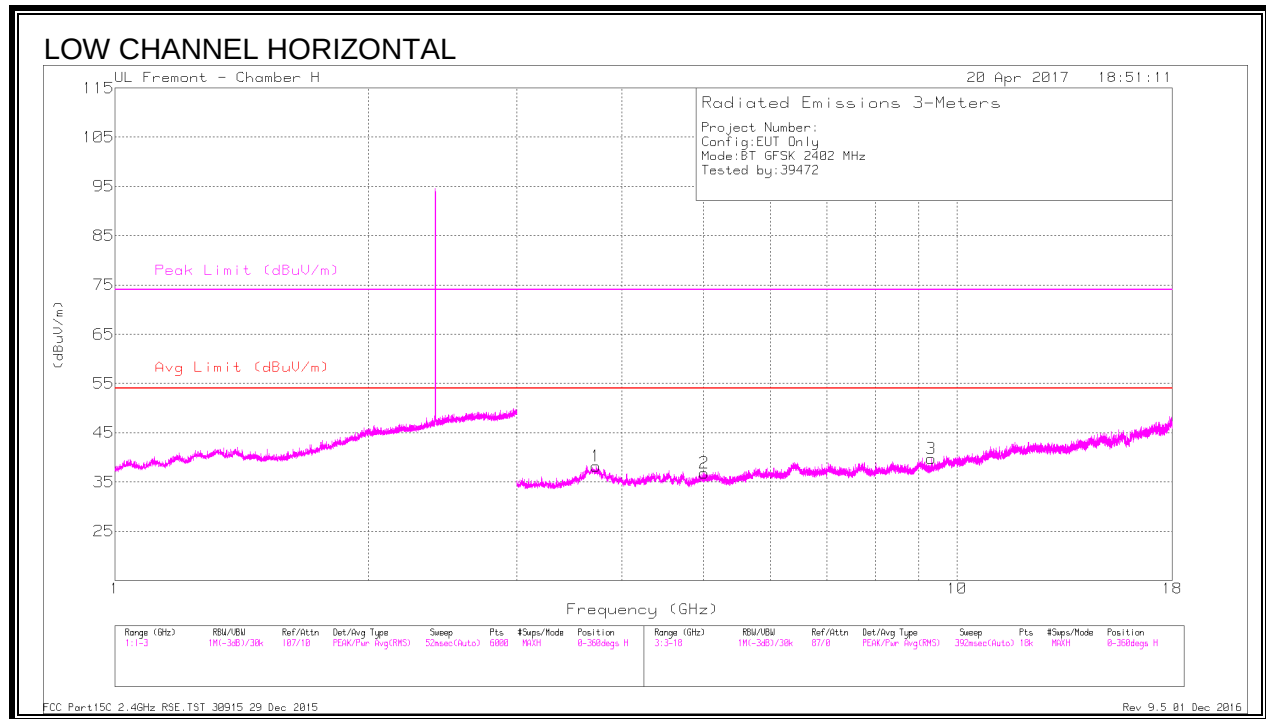
Pk - Peak detector

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

High Channel Bandedge - V.TST 30915 16 Jun 2015

Rev 9.5 01 Dec 2016

9.3.3. HARMONICS AND SPURIOUS EMISSIONS



DATA

Marker	Frequenc y (GHz)	Meter Reading (dBuV)	Det	AF T120 (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
1	* 3.728	44.27	PKFH	34.7	-35.8	43.17	-	-	74	-30.83	290	134	H
	* 3.73	32.74	VA1T	34.7	-35.8	31.64	54	-22.36	-	-	290	134	H
2	* 5.009	42.19	PKFH	34.1	-34.2	42.09	-	-	74	-31.91	262	214	H
	* 5.009	30.45	VA1T	34.1	-34.2	30.35	54	-23.65	-	-	262	214	H
3	* 9.308	37.3	PKFH	36.5	-29.3	44.5	-	-	74	-29.5	273	144	H
	* 9.31	25	VA1T	36.5	-29.3	32.2	54	-21.8	-	-	273	144	H
4	* 3.694	45.59	PKFH	34.9	-35.9	44.59	-	-	74	-29.41	230	239	V
	* 3.694	33.32	VA1T	34.9	-35.9	32.32	54	-21.68	-	-	230	239	V
5	* 4.727	41.98	PKFH	34	-34.5	41.48	-	-	74	-32.52	160	266	V
	* 4.726	30.48	VA1T	34	-34.5	29.98	54	-24.02	-	-	160	266	V
6	* 8.378	38.26	PKFH	35.8	-29.7	44.36	-	-	74	-29.64	204	189	V
	* 8.377	26.37	VA1T	35.8	-29.7	32.47	54	-21.53	-	-	204	189	V

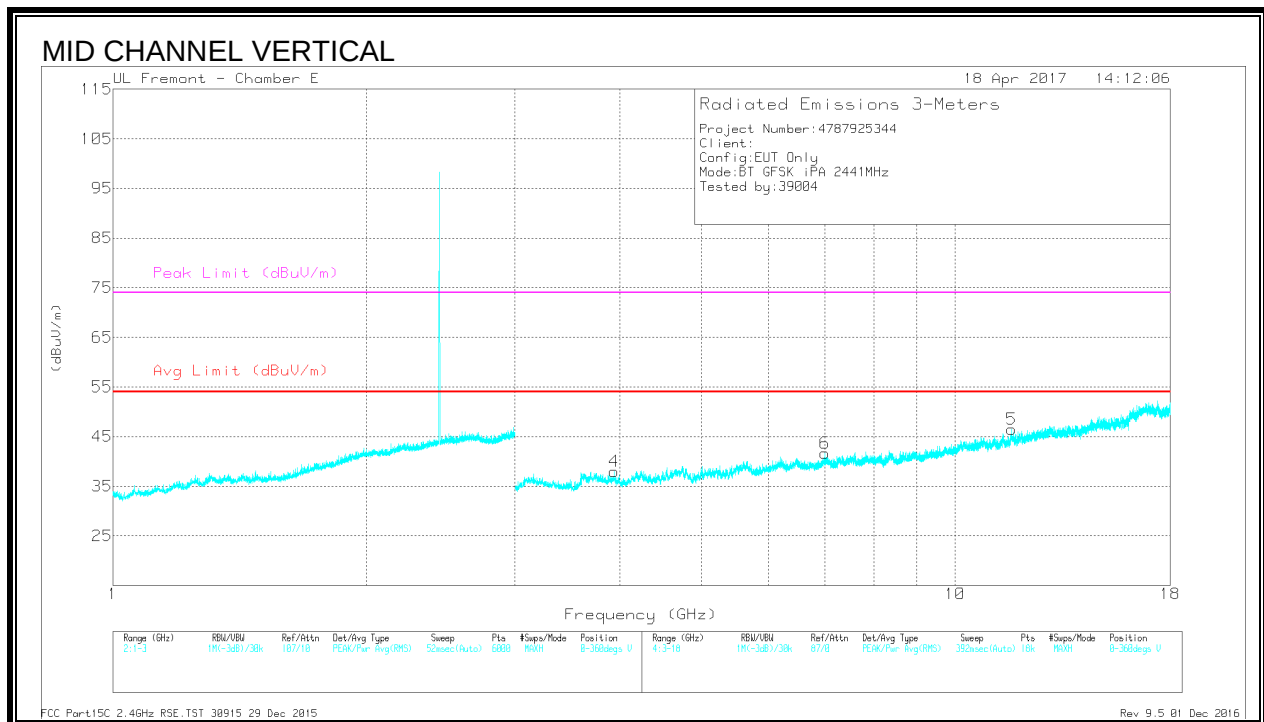
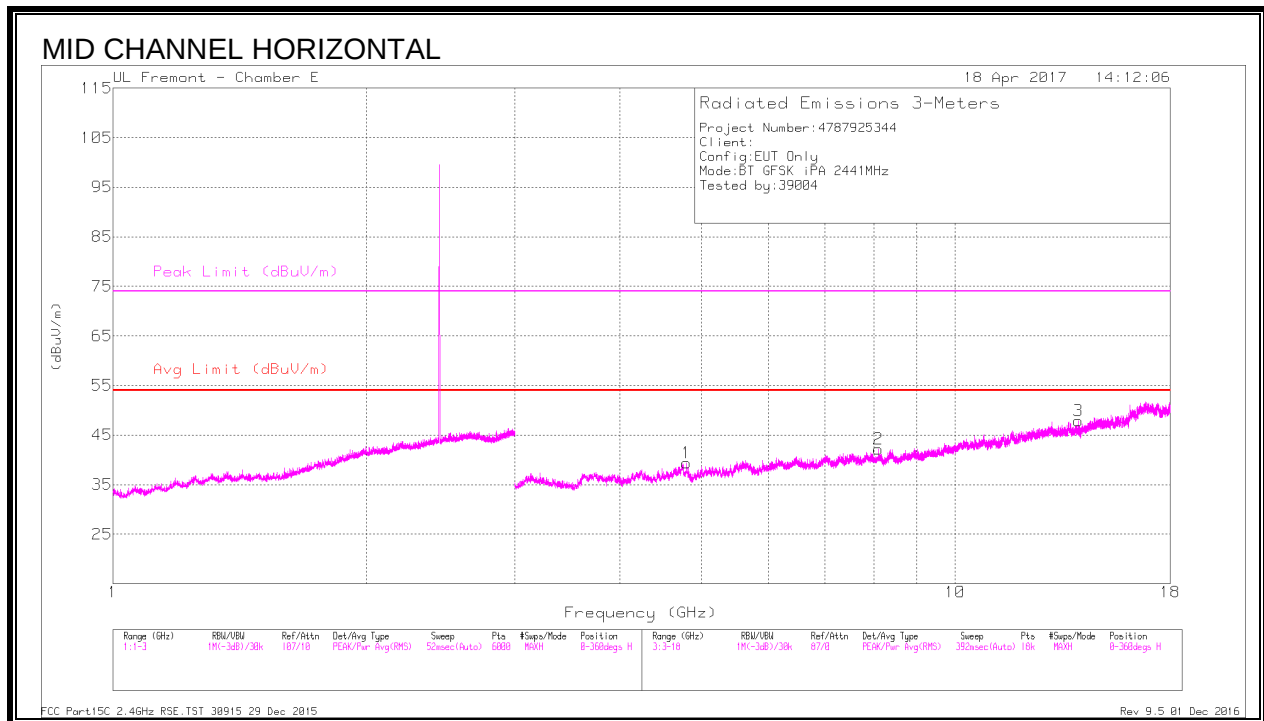
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

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

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

FCC Part15C 2.4GHz RSE.TST 30915 29 Dec 2015

Rev 9.5 01 Dec 2016



DATA

Marker	Frequenc y (GHz)	Meter Reading (dBuV)	Det	AF T863 (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	* 4.799	40.69	PKFH	34.2	-29.5	45.39	-	-	74	-28.61	169	331	H
	* 4.8	28.91	VA1T	34.2	-29.5	33.61	54	-20.39	-	-	169	331	H
2	* 8.11	36.48	PKFH	36	-25.6	46.88	-	-	74	-27.12	167	109	H
	* 8.109	25.07	VA1T	36	-25.6	35.47	54	-18.53	-	-	167	109	H
4	* 3.936	40.8	PKFH	33.4	-29.3	44.9	-	-	74	-29.1	93	375	V
	* 3.935	28.06	VA1T	33.4	-29.2	32.26	54	-21.74	-	-	93	375	V
5	* 11.668	35.56	PKFH	38.3	-22	51.86	-	-	74	-22.14	229	151	V
	* 11.671	23.53	VA1T	38.3	-22.1	39.73	54	-14.27	-	-	229	151	V
6	7.008	37.51	PKFH	35.7	-26.6	46.61	-	-	-	-	198	215	V
3	13.992	37.71	PKFH	39.3	-23.7	53.31	-	-	-	-	233	112	H

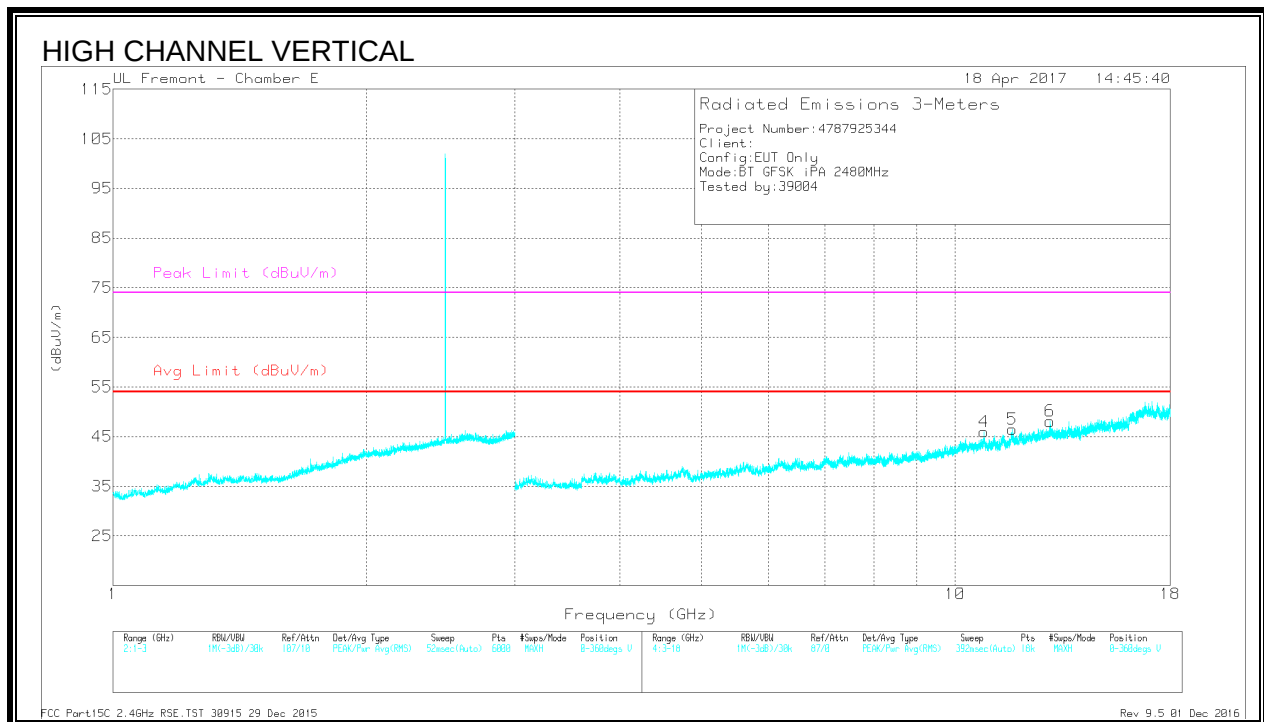
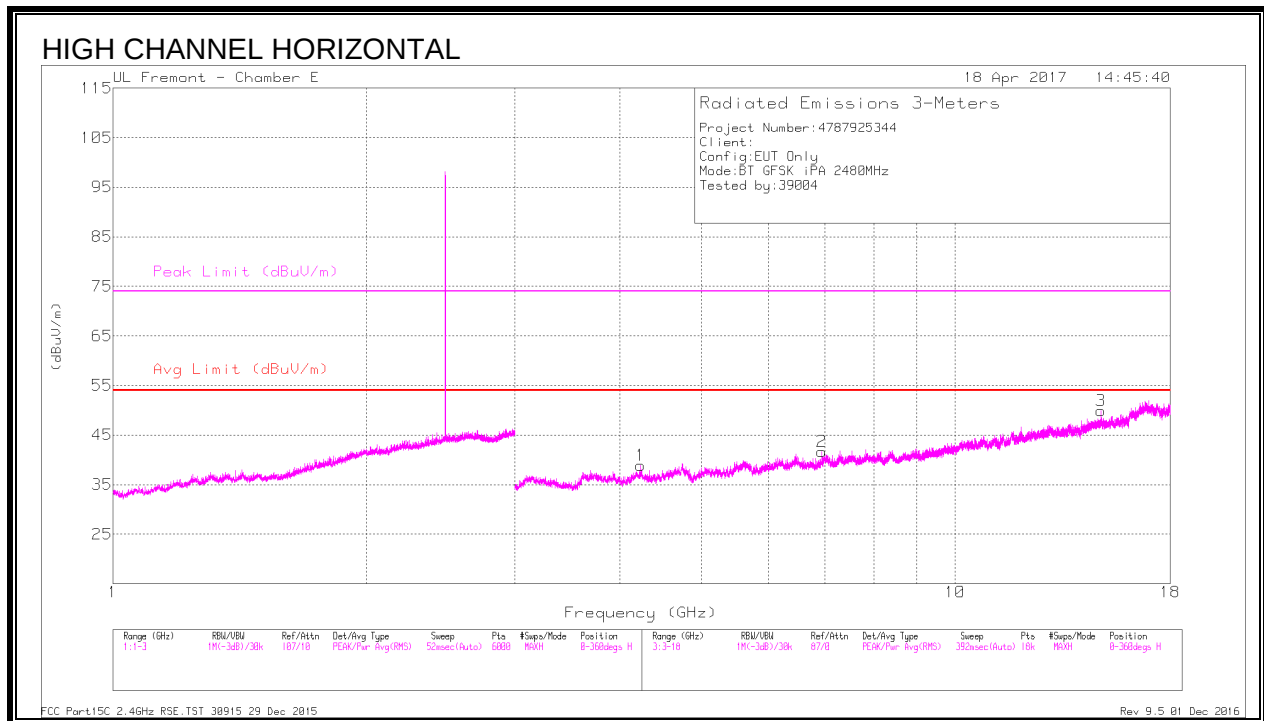
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

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

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

FCC Part15C 2.4GHz RSE.TST 30915 29 Dec 2015

Rev 9.5 01 Dec 2016



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/FI tr/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	* 4.232	39.74	PKFH	33.5	-28.9	44.34	-	-	74	-29.66	56	288	H
	* 4.234	27.82	VA1T	33.5	-28.8	32.52	54	-21.48	-	-	56	288	H
4	* 10.818	35.71	PKFH	37.6	-22.5	50.81	-	-	74	-23.19	2	190	V
	* 10.815	23.7	VA1T	37.6	-22.6	38.7	54	-15.3	-	-	2	190	V
5	* 11.687	35.15	PKFH	38.3	-22.4	51.05	-	-	74	-22.95	15	166	V
	* 11.687	23.51	VA1T	38.3	-22.4	39.41	54	-14.59	-	-	15	166	V
2	6.947	38.24	PKFH	35.7	-27.9	46.04	-	-	-	-	8	216	H
6	14.904	36.41	PKFH	40.6	-22.8	54.21	-	-	-	-	55	198	H
3	14.905	36.39	PKFH	40.6	-22.8	54.19	-	-	-	-	36	165	H

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

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

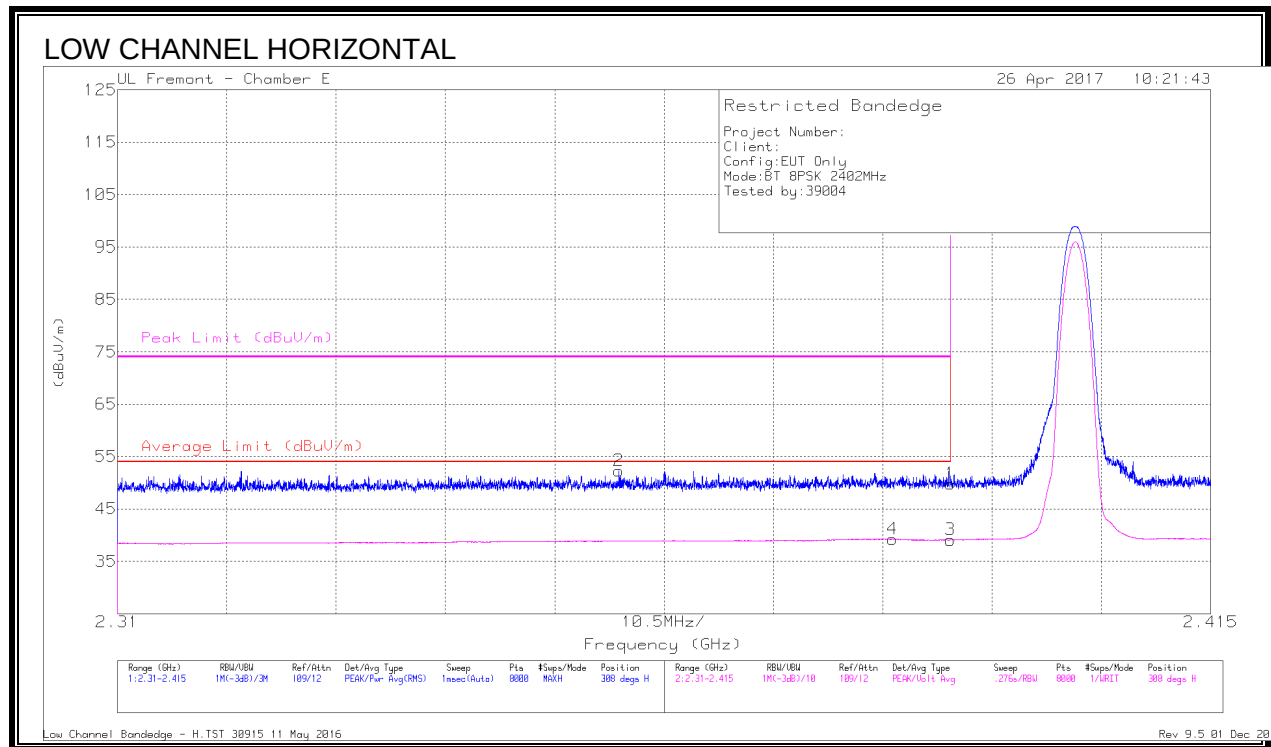
VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

FCC Part15C 2.4GHz RSE.TST 30915 29 Dec 2015

Rev 9.5 01 Dec 2016

9.4. UAT 1, Plow ENHANCED DATA RATE 8PSK MODULATION

9.4.1. RESTRICTED BANDEDGE (LOW CHANNEL)



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/C bl/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	37.53	Pk	32	-19.7	49.83	-	-	74	-24.17	308	147	H
2	* 2.358	40.04	Pk	31.9	-19.7	52.24	-	-	74	-21.76	308	147	H
3	* 2.39	26.76	VA1T	32	-19.7	39.06	54	-14.94	-	-	308	147	H
4	* 2.384	26.75	VA1T	32	-19.5	39.25	54	-14.75	-	-	308	147	H

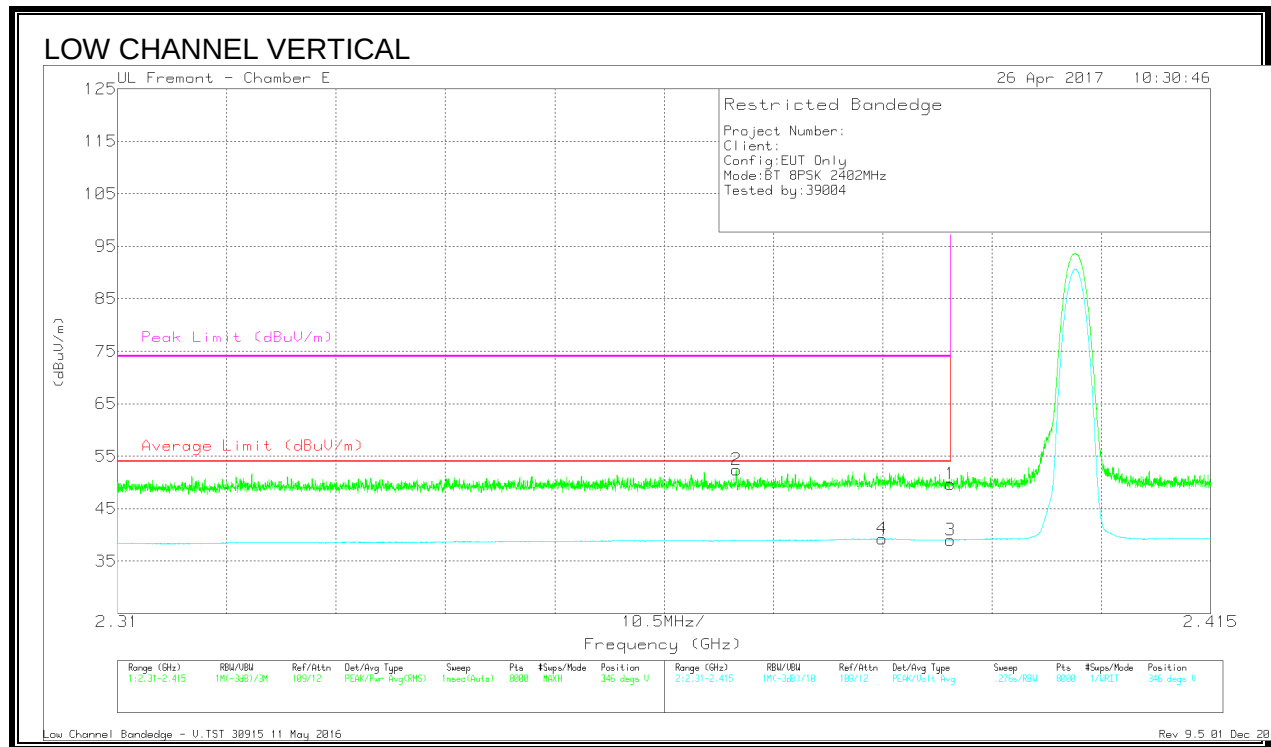
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

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

Low Channel Bandedge - H.TST 30915 11 May 2016

Rev 9.5 01 Dec 2016



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (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
2	* 2.369	40.15	Pk	32	-19.8	52.35	-	-	74	-21.65	346	393	V
4	* 2.383	26.74	VA1T	32	-19.5	39.24	54	-14.76	-	-	346	393	V
1	* 2.39	37.36	Pk	32	-19.7	49.66	-	-	74	-24.34	346	393	V
3	* 2.39	26.7	VA1T	32	-19.7	39	54	-15	-	-	346	393	V

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

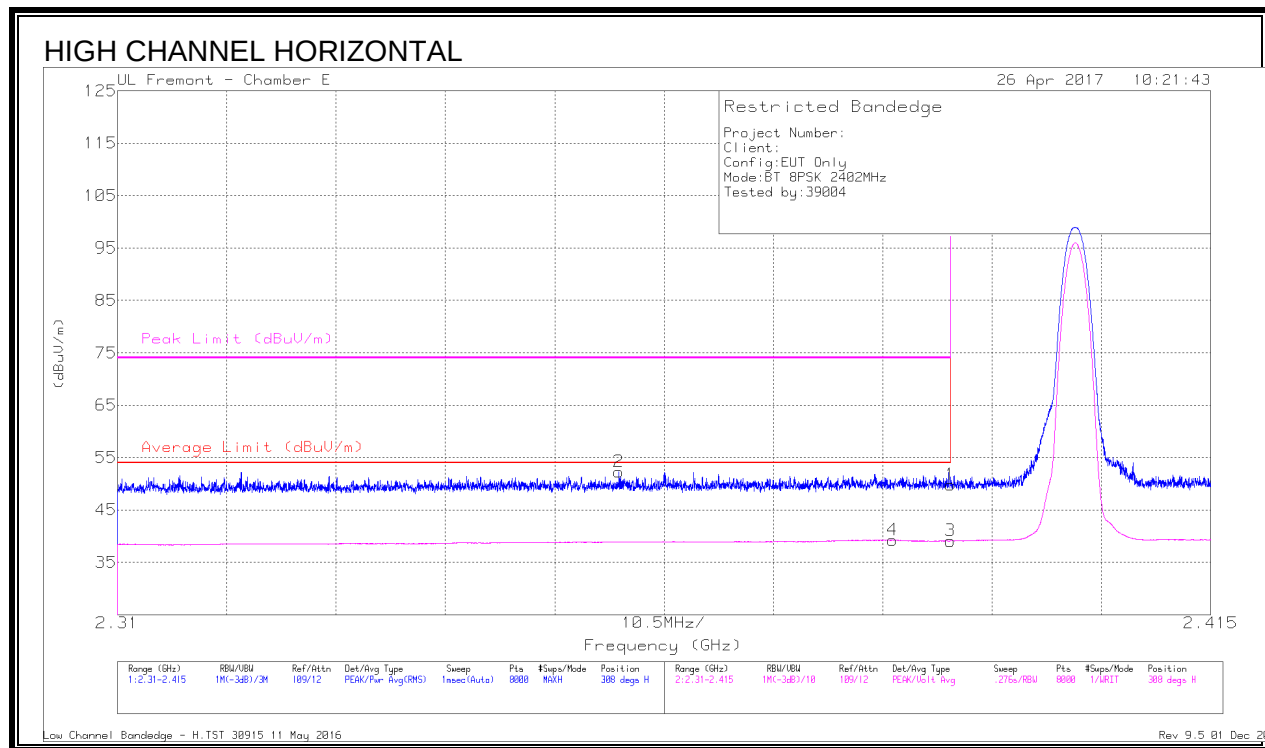
Pk - Peak detector

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

Low Channel Bandedge - V.TST 30915 11 May 2016

Rev 9.5 01 Dec 2016

9.4.2. AUTHORIZED BANDEDGE (HIGH CHANNEL)



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (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	37.53	Pk	32	-19.7	49.83	-	-	74	-24.17	308	147	H
2	* 2.358	40.04	Pk	31.9	-19.7	52.24	-	-	74	-21.76	308	147	H
3	* 2.39	26.76	VA1T	32	-19.7	39.06	54	-14.94	-	-	308	147	H
4	* 2.384	26.75	VA1T	32	-19.5	39.25	54	-14.75	-	-	308	147	H

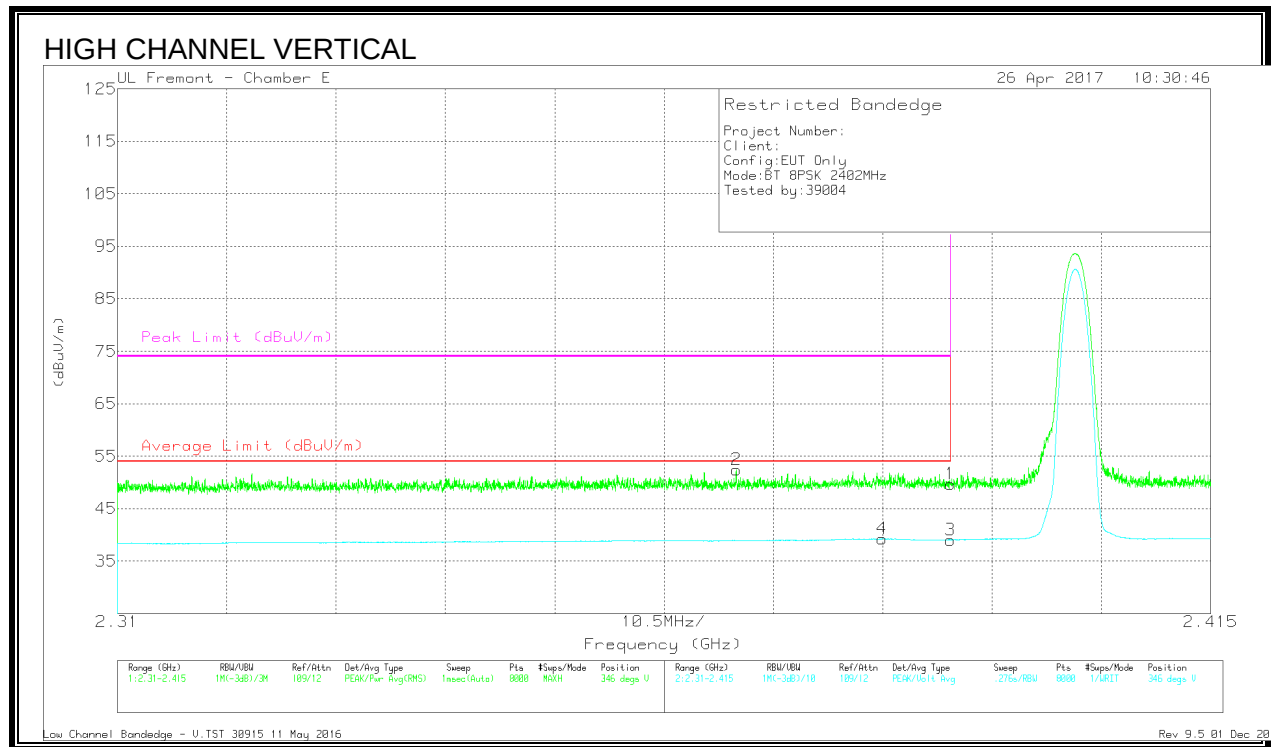
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

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

Low Channel Bandedge - H.TST 30915 11 May 2016

Rev 9.5 01 Dec 2016



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (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
2	* 2.369	40.15	Pk	32	-19.8	52.35	-	-	74	-21.65	346	393	V
4	* 2.383	26.74	VA1T	32	-19.5	39.24	54	-14.76	-	-	346	393	V
1	* 2.39	37.36	Pk	32	-19.7	49.66	-	-	74	-24.34	346	393	V
3	* 2.39	26.7	VA1T	32	-19.7	39	54	-15	-	-	346	393	V

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

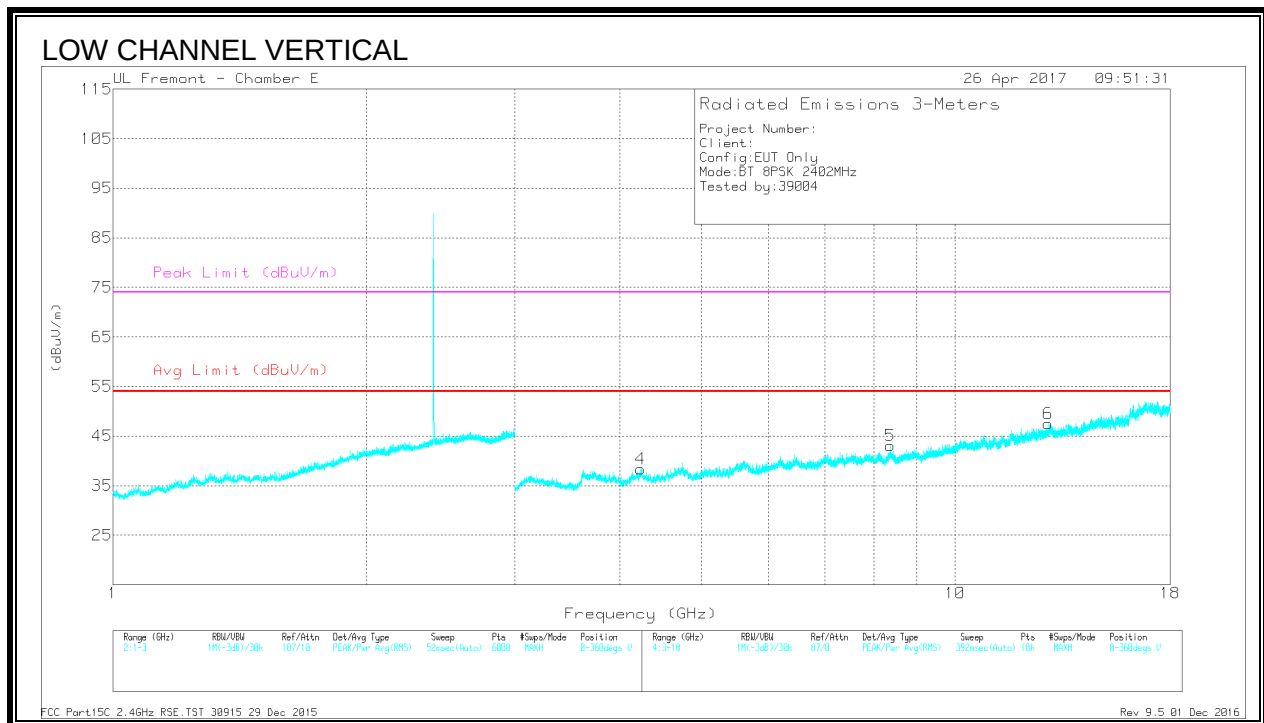
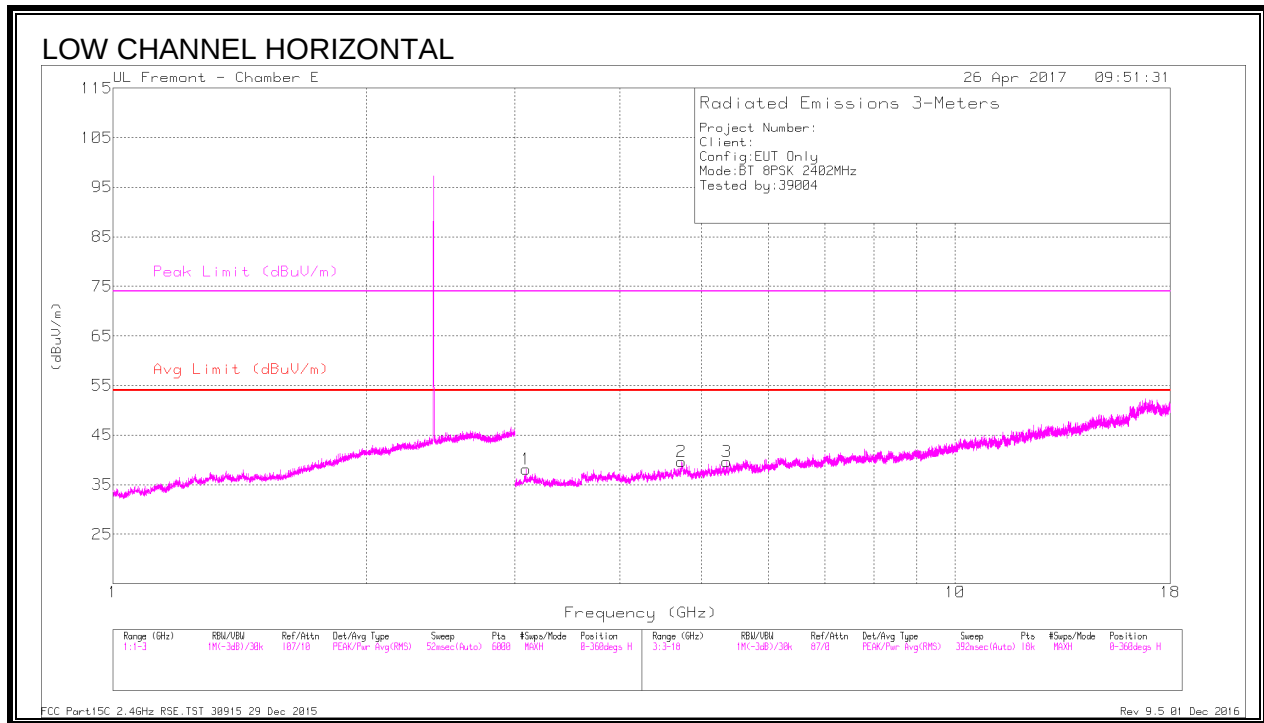
Pk - Peak detector

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

Low Channel Bandedge - V.TST 30915 11 May 2016

Rev 9.5 01 Dec 2016

9.4.3. HARMONICS AND SPURIOUS EMISSIONS



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/FI tr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 4.732	40.19	PKFH	34.3	-29	45.49	-	-	74	-28.51	344	234	H
	* 4.735	27.92	VA1T	34.3	-29.1	33.12	54	-20.88	-	-	344	234	H
3	* 5.359	39.14	PKFH	34.9	-29.3	44.74	-	-	74	-29.26	320	135	H
	* 5.356	27.34	VA1T	34.9	-29.4	32.84	54	-21.16	-	-	320	135	H
4	* 4.235	40.86	PKFH	33.5	-28.7	45.66	-	-	74	-28.34	311	122	V
	* 4.233	28.22	VA1T	33.5	-28.8	32.92	54	-21.08	-	-	311	122	V
5	* 8.366	37.84	PKFH	36.1	-25.6	48.34	-	-	74	-25.66	296	155	V
	* 8.367	25.57	VA1T	36.1	-25.6	36.07	54	-17.93	-	-	296	155	V
1	3.092	39.67	PKFH	33.1	-30.3	42.47	-	-	-	-	254	186	H
6	12.894	36.97	PKFH	39.9	-24.6	52.27	-	-	-	-	210	165	V

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

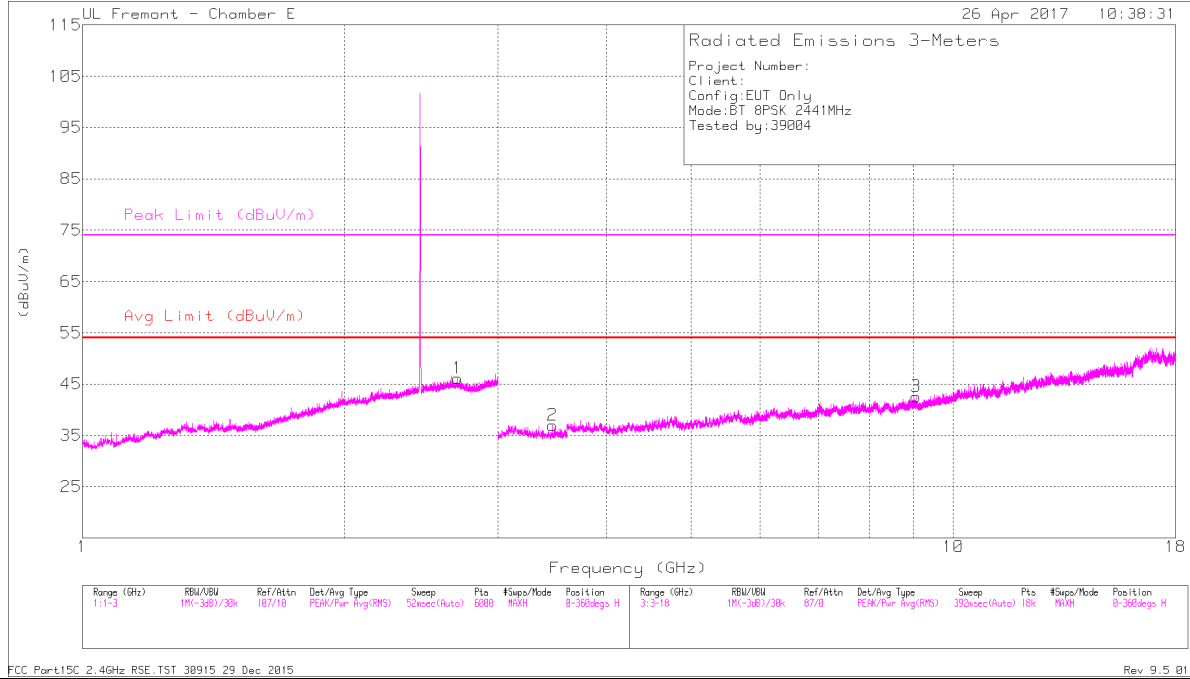
PKFH - FHSS: RB=100k/1MHz VB=3 x RB, Peak

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

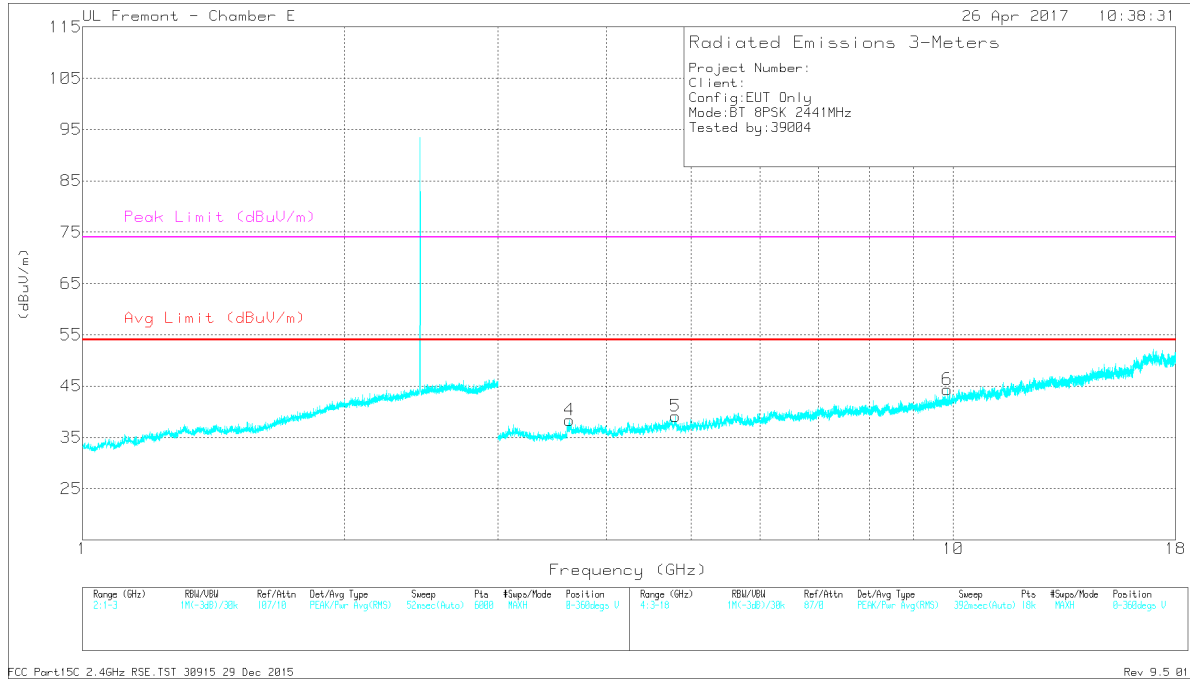
FCC Part15C 2.4GHz RSE.TST 30915 29 Dec 2015

Rev 9.5 01 Dec 2016

MID CHANNEL HORIZONTAL



MID CHANNEL VERTICAL



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fit r/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	* 2.698	37.54	PKFH	32.4	-19.4	50.54	-	-	74	-23.46	243	147	H
	* 2.698	25.39	VA1T	32.4	-19.4	38.39	54	-15.61	-	-	243	147	H
3	* 9.065	36.89	PKFH	36.3	-25.7	47.49	-	-	74	-26.51	226	133	H
	* 9.064	25.08	VA1T	36.3	-25.7	35.68	54	-18.32	-	-	226	133	H
4	* 3.628	40.94	PKFH	33	-30.2	43.74	-	-	74	-30.26	210	175	V
	* 3.629	28.32	VA1T	33	-30.2	31.12	54	-22.88	-	-	210	175	V
5	* 4.795	40.53	PKFH	34.2	-29.6	45.13	-	-	74	-28.87	220	225	V
	* 4.796	28.81	VA1T	34.2	-29.6	33.41	54	-20.59	-	-	220	225	V
2	3.466	38.91	PKFH	32.8	-30.3	41.41	-	-	-	-	197	169	H
6	9.848	36.52	PKFH	36.9	-24.3	49.12	-	-	-	-	163	146	V

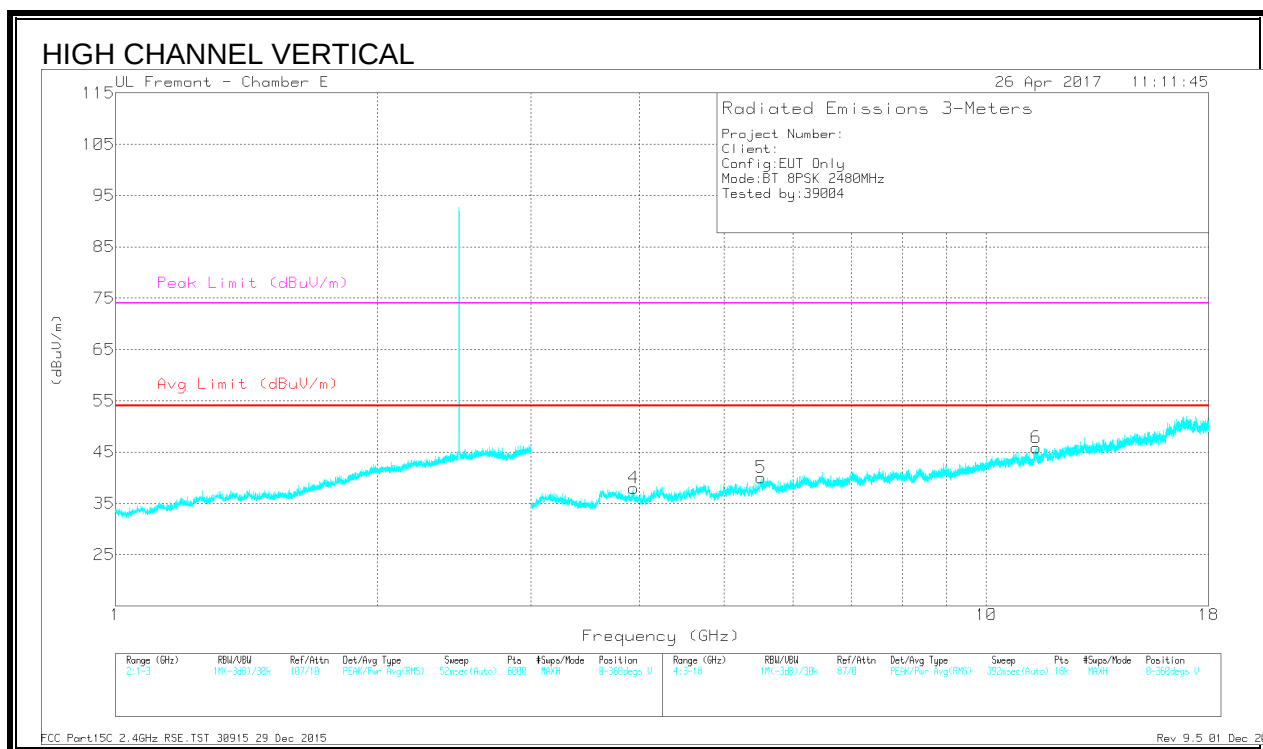
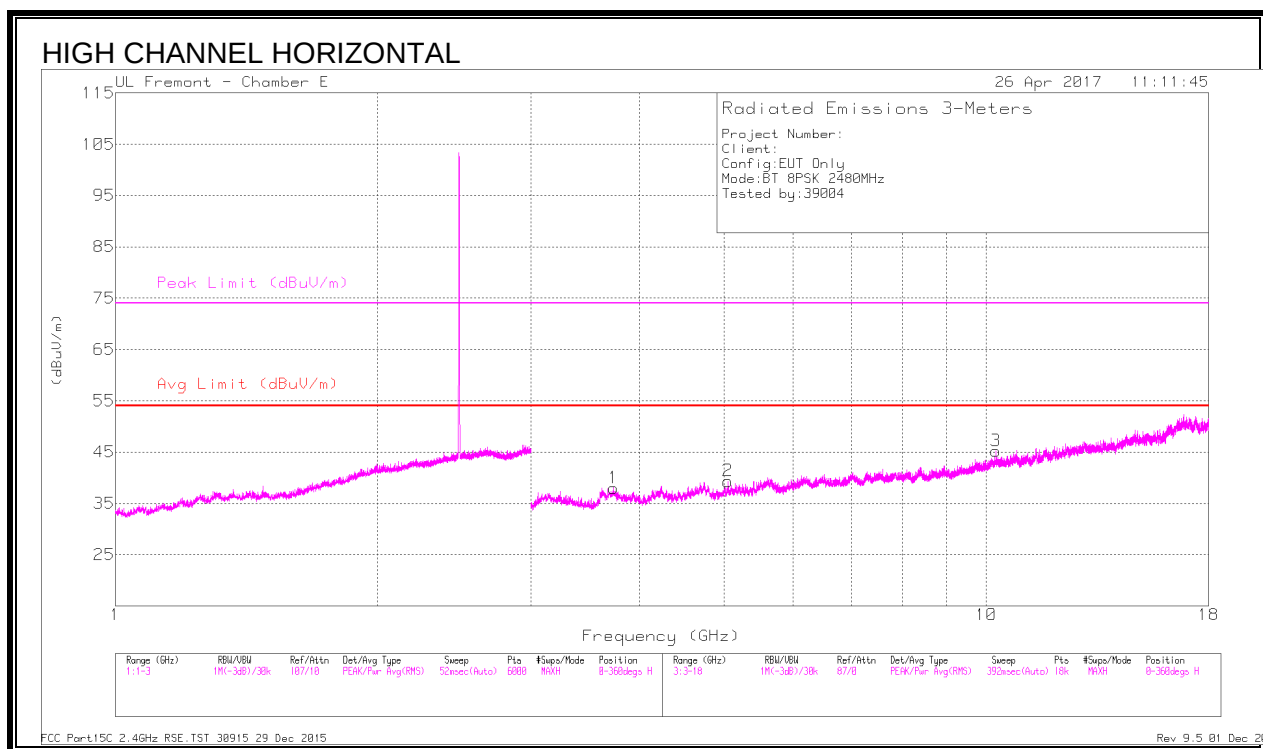
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

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

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

FCC Part15C 2.4GHz RSE.TST 30915 29 Dec 2015

Rev 9.5 01 Dec 2016



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AFT863 (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
1	* 3.734	40.54	PKFH	33.4	-29.7	44.24	-	-	74	-29.76	18	221	H
	* 3.736	28.42	VA1T	33.4	-29.7	32.12	54	-21.88	-	-	18	221	H
2	* 5.049	40.05	PKFH	34.3	-29.7	44.65	-	-	74	-29.35	74	165	H
	* 5.052	28.48	VA1T	34.3	-29.7	33.08	54	-20.92	-	-	74	165	H
4	* 3.935	39.9	PKFH	33.4	-29.2	44.1	-	-	74	-29.9	85	179	V
	* 3.934	27.97	VA1T	33.4	-29.2	32.17	54	-21.83	-	-	85	179	V
6	* 11.412	35.26	PKFH	38	-21.8	51.46	-	-	74	-22.54	101	210	V
	* 11.411	23.18	VA1T	38	-21.8	39.38	54	-14.62	-	-	101	210	V
5	5.511	40.07	PKFH	35.5	-29.9	45.67	-	-	-	-	150	174	V
3	10.256	36.12	PKFH	37.3	-23.7	49.72	-	-	-	-	118	240	H

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

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

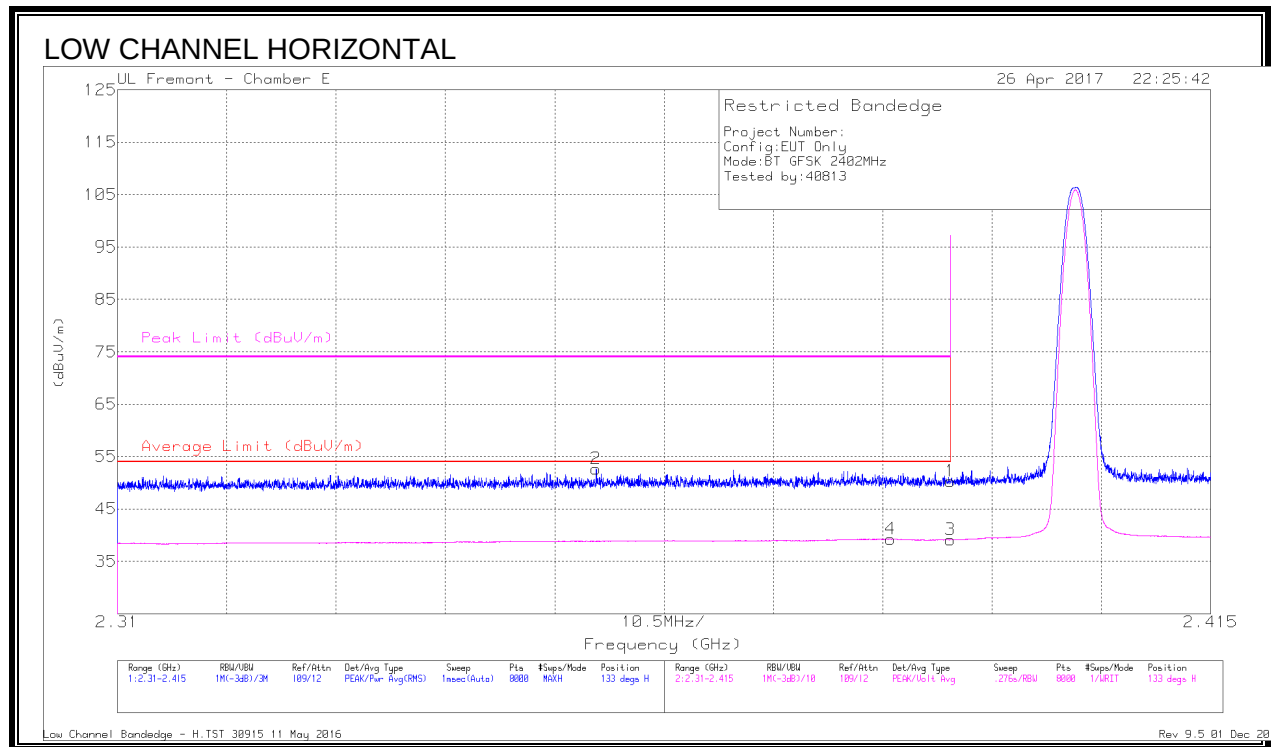
VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

FCC Part15C 2.4GHz RSE.TST 30915 29 Dec 2015

Rev 9.5 01 Dec 2016

9.5. LAT 3, Pmax BASIC DATA RATE GFSK MODULATION

9.5.1. RESTRICTED BANDEDGE (LOW CHANNEL)



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (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	37.97	Pk	32	-19.7	50.27	-	-	74	-23.73	133	171	H
2	* 2.356	40.5	Pk	31.9	-19.8	52.6	-	-	74	-21.4	133	171	H
3	* 2.39	26.81	VA1T	32	-19.7	39.11	54	-14.89	-	-	133	171	H
4	* 2.384	26.77	VA1T	32	-19.5	39.27	54	-14.73	-	-	133	171	H

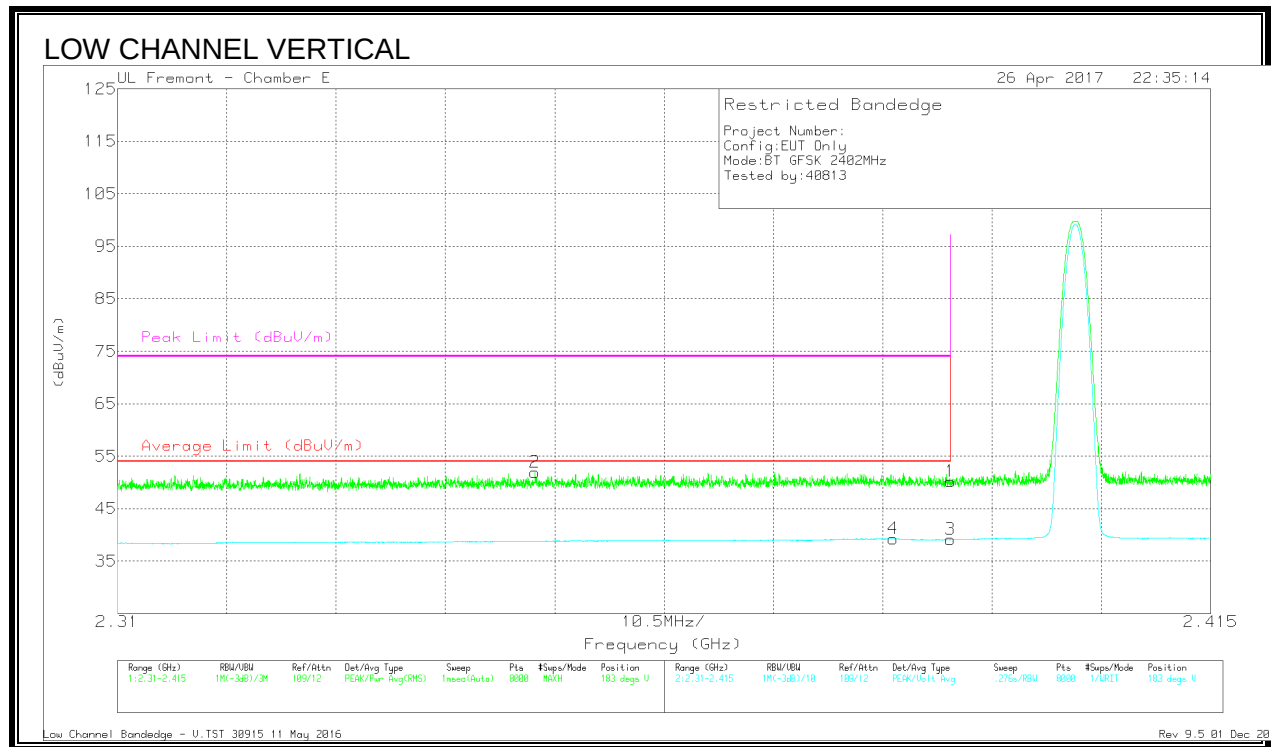
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

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

Low Channel Bandedge - H.TST 30915 11 May 2016

Rev 9.5 01 Dec 2016



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (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
2	* 2.35	39.86	Pk	31.9	-19.8	51.96	-	-	74	-22.04	183	279	V
4	* 2.384	26.76	VA1T	32	-19.5	39.26	54	-14.74	-	-	183	279	V
1	* 2.39	37.9	Pk	32	-19.7	50.2	-	-	74	-23.8	183	279	V
3	* 2.39	26.77	VA1T	32	-19.7	39.07	54	-14.93	-	-	183	279	V

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

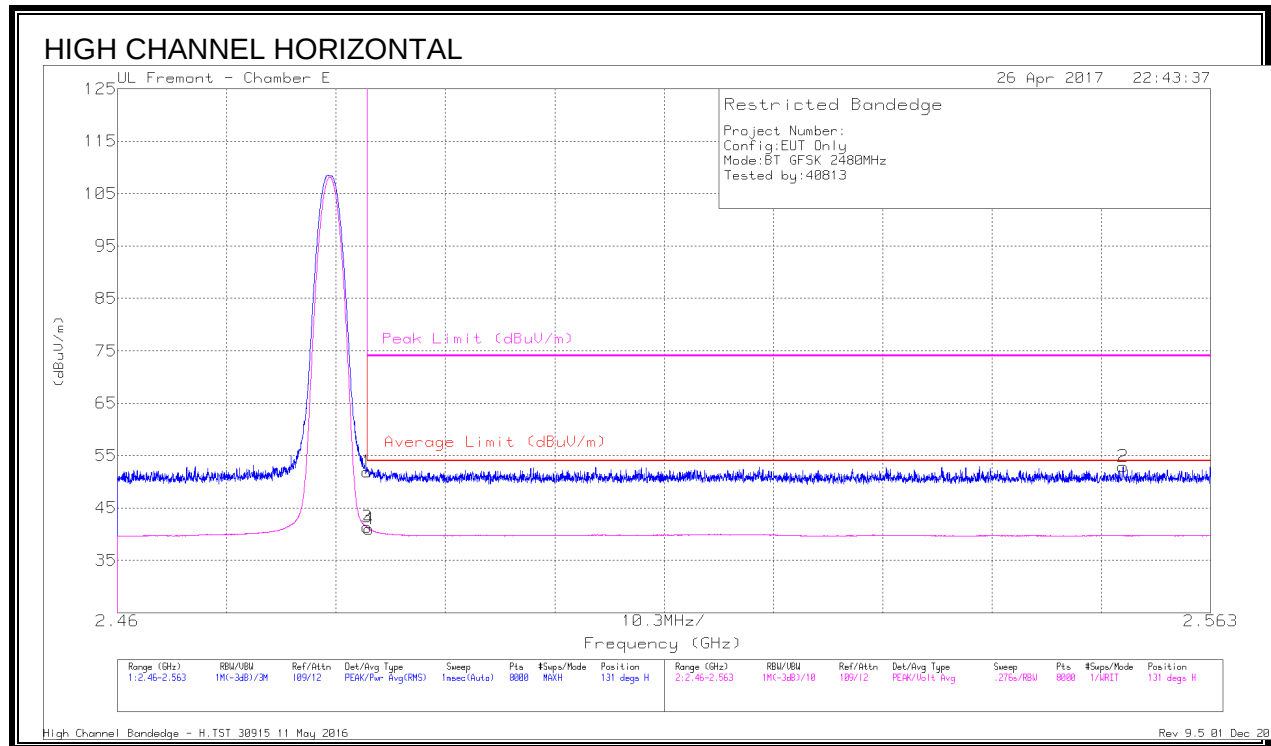
Pk - Peak detector

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

Low Channel Bandedge - V.TST 30915 11 May 2016

Rev 9.5 01 Dec 2016

9.5.2. AUTHORIZED BANDEDGE (HIGH CHANNEL)



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (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	39.14	Pk	32.5	-19.7	51.94	-	-	74	-22.06	131	113	H
3	* 2.484	28.57	VA1T	32.5	-19.7	41.37	54	-12.63	-	-	131	113	H
4	* 2.484	28.14	VA1T	32.5	-19.7	40.94	54	-13.06	-	-	131	113	H
2	2.555	40.22	Pk	32.5	-19.8	52.92	-	-	74	-21.08	131	113	H

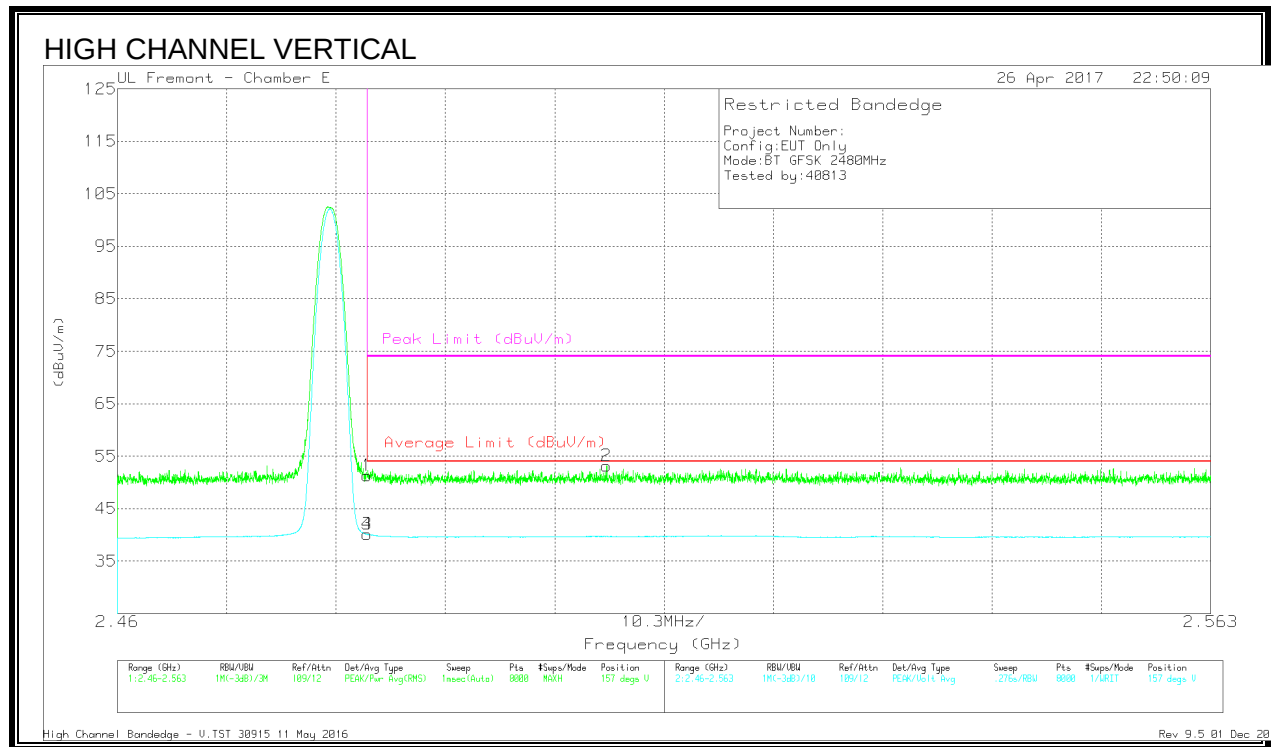
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

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

High Channel Bandedge - H.TST 30915 11 May 2016

Rev 9.5 01 Dec 2016



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (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	38.51	Pk	32.5	-19.7	51.31	-	-	74	-22.69	157	298	V
3	* 2.484	27.31	VA1T	32.5	-19.7	40.11	54	-13.89	-	-	157	298	V
4	* 2.484	27.3	VA1T	32.5	-19.7	40.1	54	-13.9	-	-	157	298	V
2	2.506	40.38	Pk	32.6	-19.8	53.18	-	-	74	-20.82	157	298	V

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

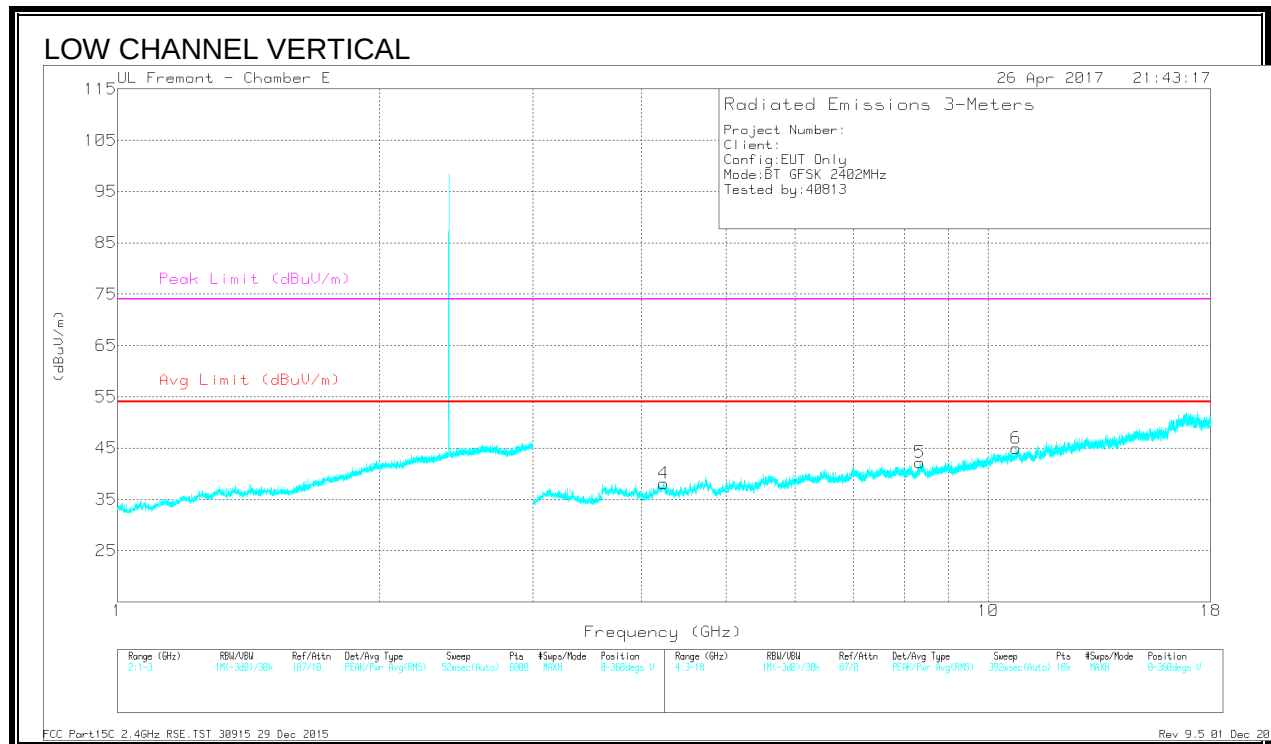
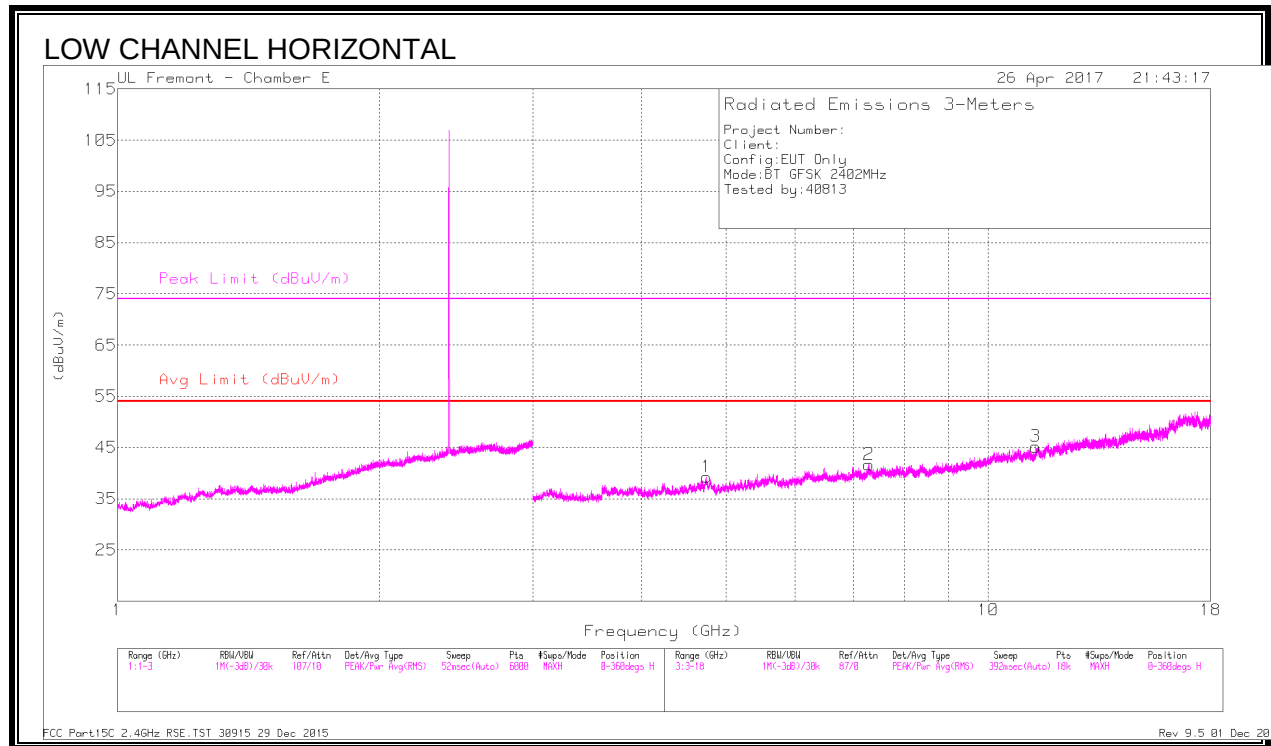
Pk - Peak detector

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

High Channel Bandedge - V.TST 30915 11 May 2016

Rev 9.5 01 Dec 2016

9.5.3. HARMONICS AND SPURIOUS EMISSIONS



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fit r/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	* 4.75	39.81	PKFH	34.3	-28.9	45.21	-	-	74	-28.79	171	138	H
	* 4.748	27.72	VA1T	34.3	-29	33.02	54	-20.98	-	-	171	138	H
2	* 7.292	36.92	PKFH	35.9	-26.3	46.52	-	-	74	-27.48	106	325	H
	* 7.292	25.32	VA1T	35.9	-26.2	35.02	54	-18.98	-	-	106	325	H
3	* 11.337	35.44	PKFH	37.9	-23.1	50.24	-	-	74	-23.76	233	158	H
	* 11.335	23.84	VA1T	37.9	-23.2	38.54	54	-15.46	-	-	233	158	H
4	* 4.239	40.89	PKFH	33.5	-28.7	45.69	-	-	74	-28.31	75	220	V
	* 4.241	27.99	VA1T	33.5	-28.6	32.89	54	-21.11	-	-	75	220	V
5	* 8.337	37.53	PKFH	36.1	-26.5	47.13	-	-	74	-26.87	79	304	V
	* 8.337	25.68	VA1T	36.1	-26.5	35.28	54	-18.72	-	-	79	304	V
6	* 10.76	36.42	PKFH	37.6	-23.5	50.52	-	-	74	-23.48	319	389	V
	* 10.76	24.1	VA1T	37.6	-23.6	38.1	54	-15.9	-	-	319	389	V

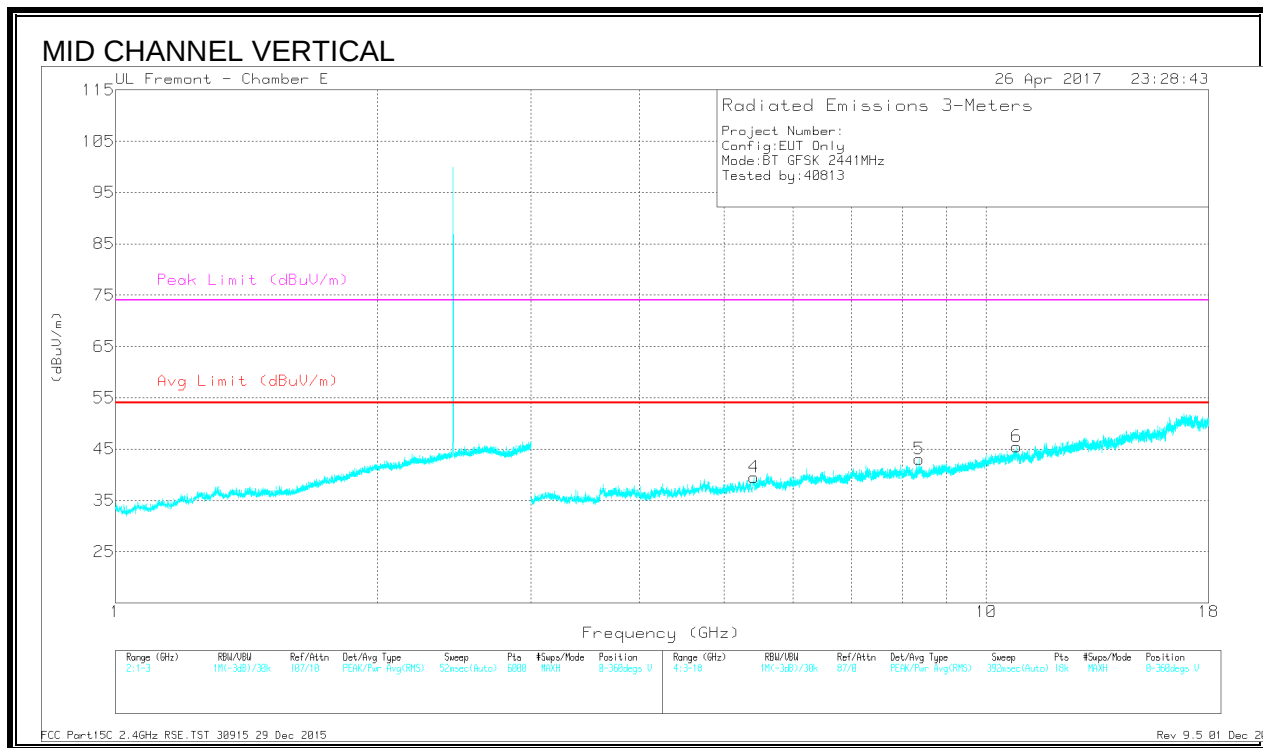
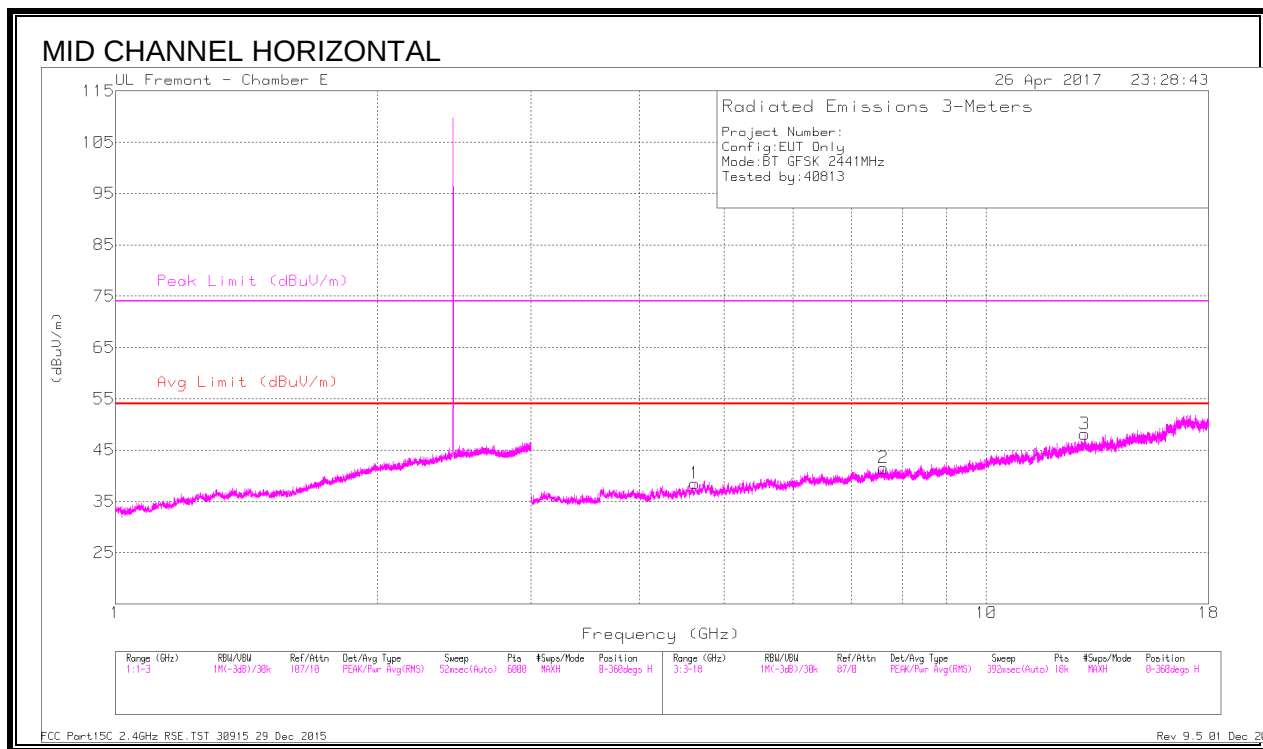
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

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

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

FCC Part15C 2.4GHz RSE.TST 30915 29 Dec 2015

Rev 9.5 01 Dec 2016



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fit r/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	* 4.627	40.95	PKFH	34.2	-30.5	44.65	-	-	74	-29.35	26	260	H
	* 4.63	28.89	VA1T	34.2	-30.6	32.49	54	-21.51	-	-	26	260	H
2	* 7.613	37.51	PKFH	36.1	-26.4	47.21	-	-	74	-26.79	135	235	H
	* 7.613	25.36	VA1T	36.1	-26.4	35.06	54	-18.94	-	-	135	235	H
4	* 5.411	39.04	PKFH	35	-29.3	44.74	-	-	74	-29.26	250	244	V
	* 5.411	27.31	VA1T	35	-29.3	33.01	54	-20.99	-	-	250	244	V
5	* 8.375	37.37	PKFH	36	-25.6	47.77	-	-	74	-26.23	262	126	V
	* 8.376	25.57	VA1T	36	-25.6	35.97	54	-18.03	-	-	262	126	V
6	* 10.842	35.82	PKFH	37.6	-22.7	50.72	-	-	74	-23.28	286	196	V
	* 10.844	23.47	VA1T	37.6	-22.8	38.27	54	-15.73	-	-	286	196	V
3	12.97	36.48	PKFH	40	-23.3	53.18	-	-	-	-	219	134	H

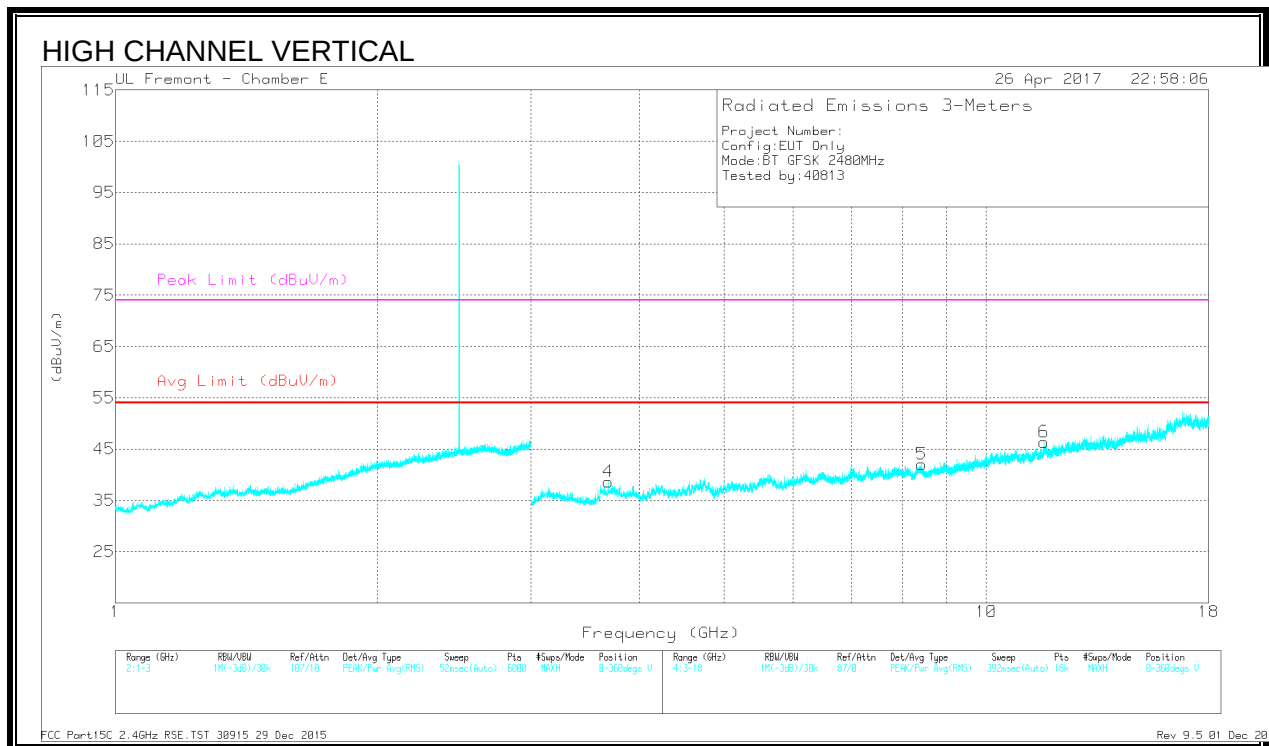
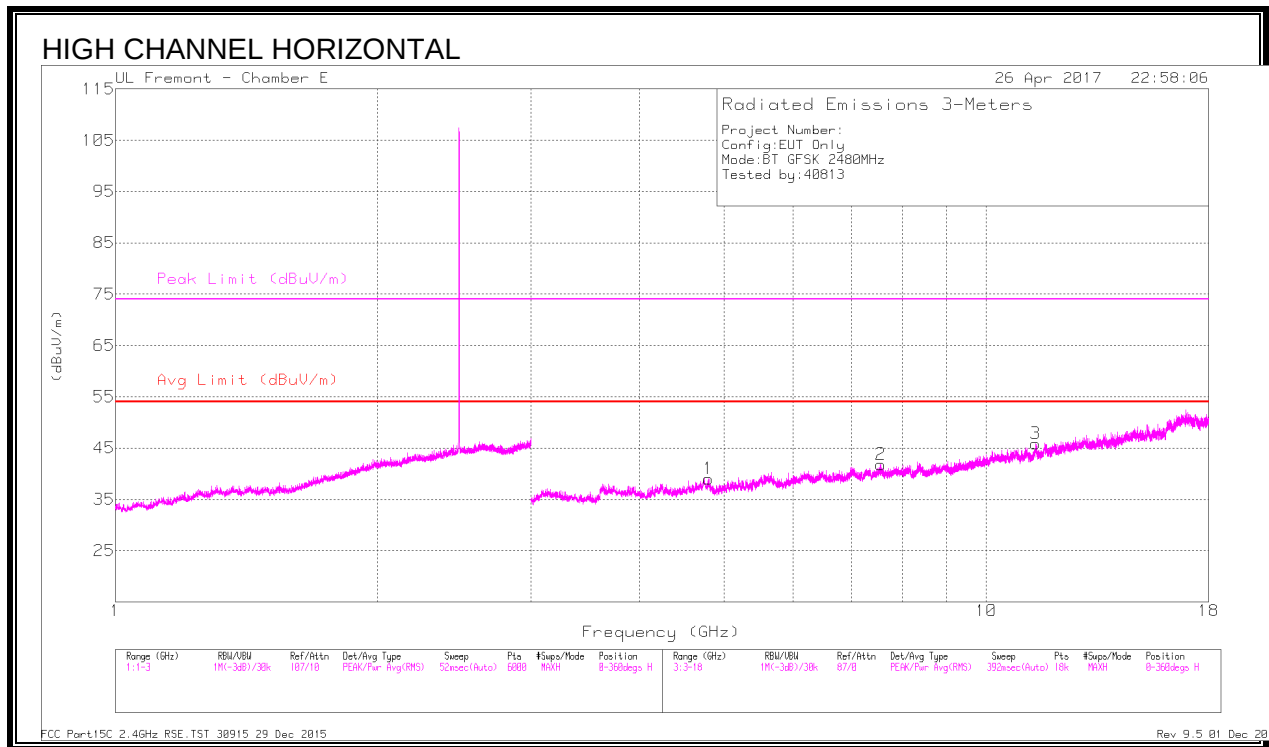
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

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

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

FCC Part15C 2.4GHz RSE.TST 30915 29 Dec 2015

Rev 9.5 01 Dec 2016



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fit r/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	* 4.794	40.56	PKFH	34.2	-29.7	45.06	-	-	74	-28.94	54	215	H
	* 4.795	28.85	VA1T	34.2	-29.6	33.45	54	-20.55	-	-	54	215	H
2	* 7.565	37.34	PKFH	36.1	-26	47.44	-	-	74	-26.56	262	145	H
	* 7.564	25.07	VA1T	36.1	-26	35.17	54	-18.83	-	-	262	145	H
3	* 11.384	35.41	PKFH	38	-22.1	51.31	-	-	74	-22.69	11	247	H
	* 11.384	23.27	VA1T	38	-22.1	39.17	54	-14.83	-	-	11	247	H
4	* 3.68	39.91	PKFH	33.3	-30.3	42.91	-	-	74	-31.09	296	243	V
	* 3.684	28.38	VA1T	33.4	-30.2	31.58	54	-22.42	-	-	296	243	V
5	* 8.432	36.89	PKFH	36	-25.6	47.29	-	-	74	-26.71	263	117	V
	* 8.432	25.28	VA1T	36	-25.6	35.68	54	-18.32	-	-	263	117	V
6	* 11.649	35.58	PKFH	38.2	-22.7	51.08	-	-	74	-22.92	59	163	V
	* 11.648	24.12	VA1T	38.2	-22.7	39.62	54	-14.38	-	-	59	163	V

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

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

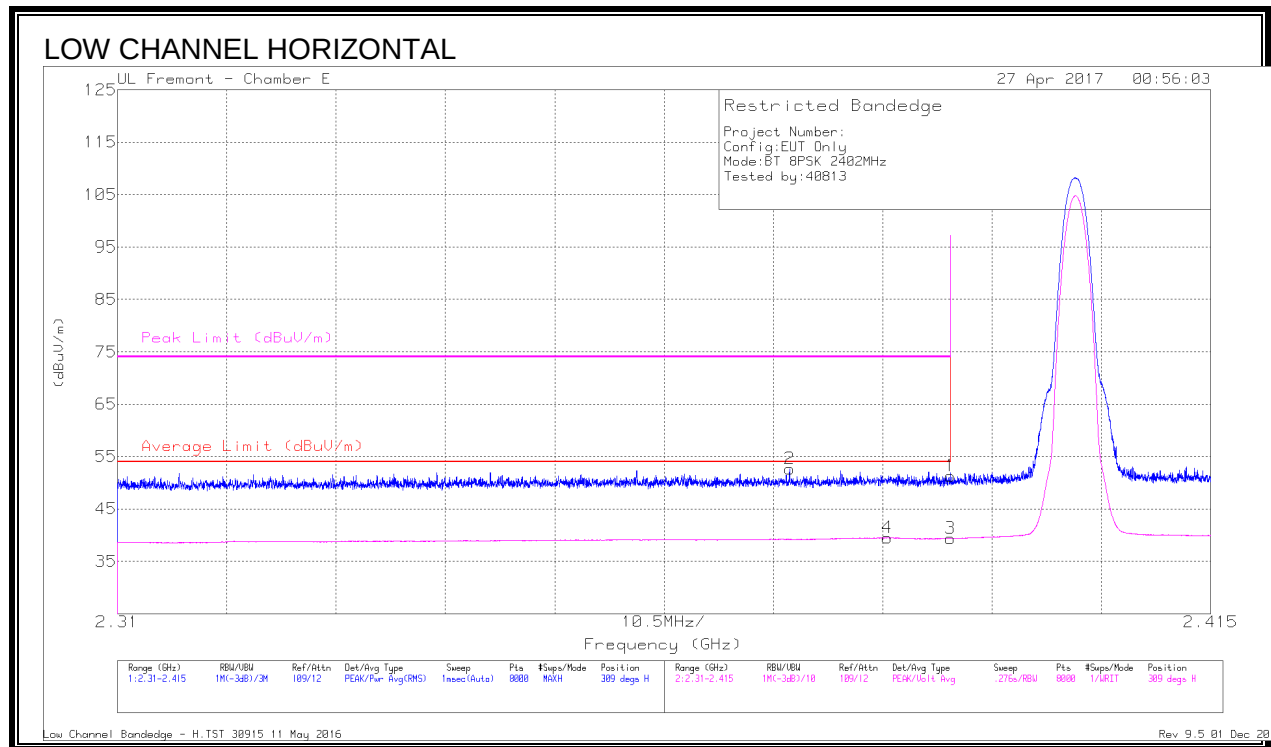
VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

FCC Part15C 2.4GHz RSE.TST 30915 29 Dec 2015

Rev 9.5 01 Dec 2016

9.6. LAT 3, Pmax ENHANCED DATA RATE 8PSK MODULATION

9.6.1. RESTRICTED BANDEDGE (LOW CHANNEL)



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/C bl/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
2	* 2.375	40.3	Pk	32	-19.7	52.6	-	-	74	-21.4	309	104	H
4	* 2.384	26.98	VA1T	32	-19.5	39.48	54	-14.52	-	-	309	104	H
1	* 2.39	39.02	Pk	32	-19.7	51.32	-	-	74	-22.68	309	104	H
3	* 2.39	27.04	VA1T	32	-19.7	39.34	54	-14.66	-	-	309	104	H

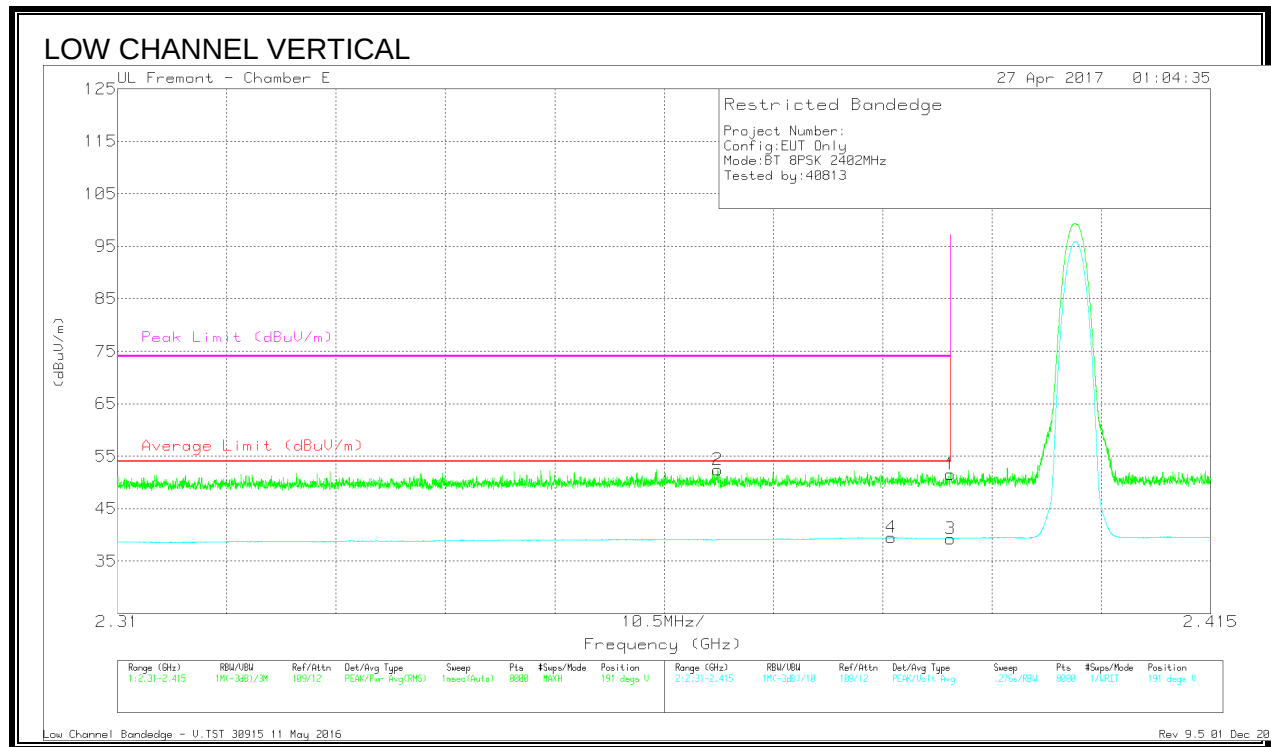
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

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

Low Channel Bandedge - H.TST 30915 11 May 2016

Rev 9.5 01 Dec 2016



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (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
2	* 2.368	40.3	Pk	31.9	-19.8	52.4	-	-	74	-21.6	191	108	V
4	* 2.384	26.96	VA1T	32	-19.5	39.46	54	-14.54	-	-	191	108	V
1	* 2.39	39.27	Pk	32	-19.7	51.57	-	-	74	-22.43	191	108	V
3	* 2.39	26.98	VA1T	32	-19.7	39.28	54	-14.72	-	-	191	108	V

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

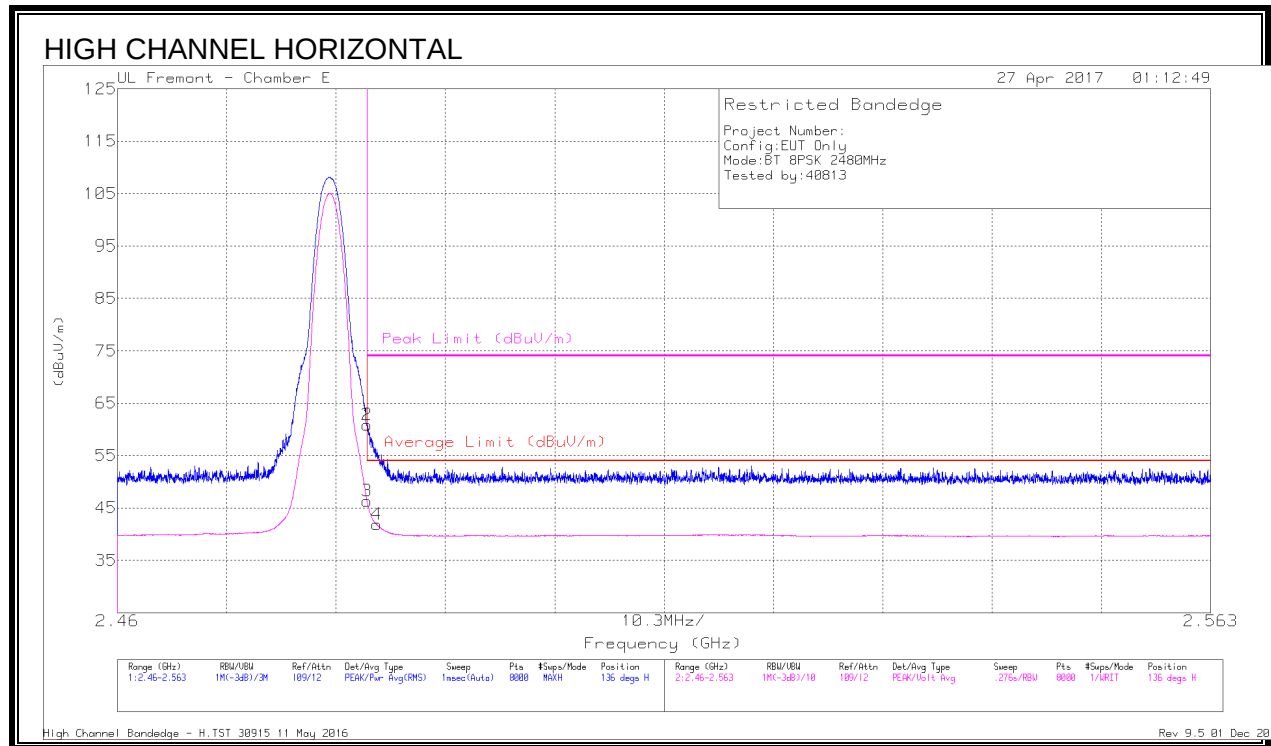
Pk - Peak detector

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

Low Channel Bandedge - V.TST 30915 11 May 2016

Rev 9.5 01 Dec 2016

9.6.2. AUTHORIZED BANDEDGE (HIGH CHANNEL)



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (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	48.02	Pk	32.5	-19.7	60.82	-	-	74	-13.18	136	111	H
2	* 2.484	48.07	Pk	32.5	-19.7	60.87	-	-	74	-13.13	136	111	H
3	* 2.484	33.57	VA1T	32.5	-19.7	46.37	54	-7.63	-	-	136	110	H
4	* 2.484	29.01	VA1T	32.5	-19.7	41.81	54	-12.19	-	-	136	110	H

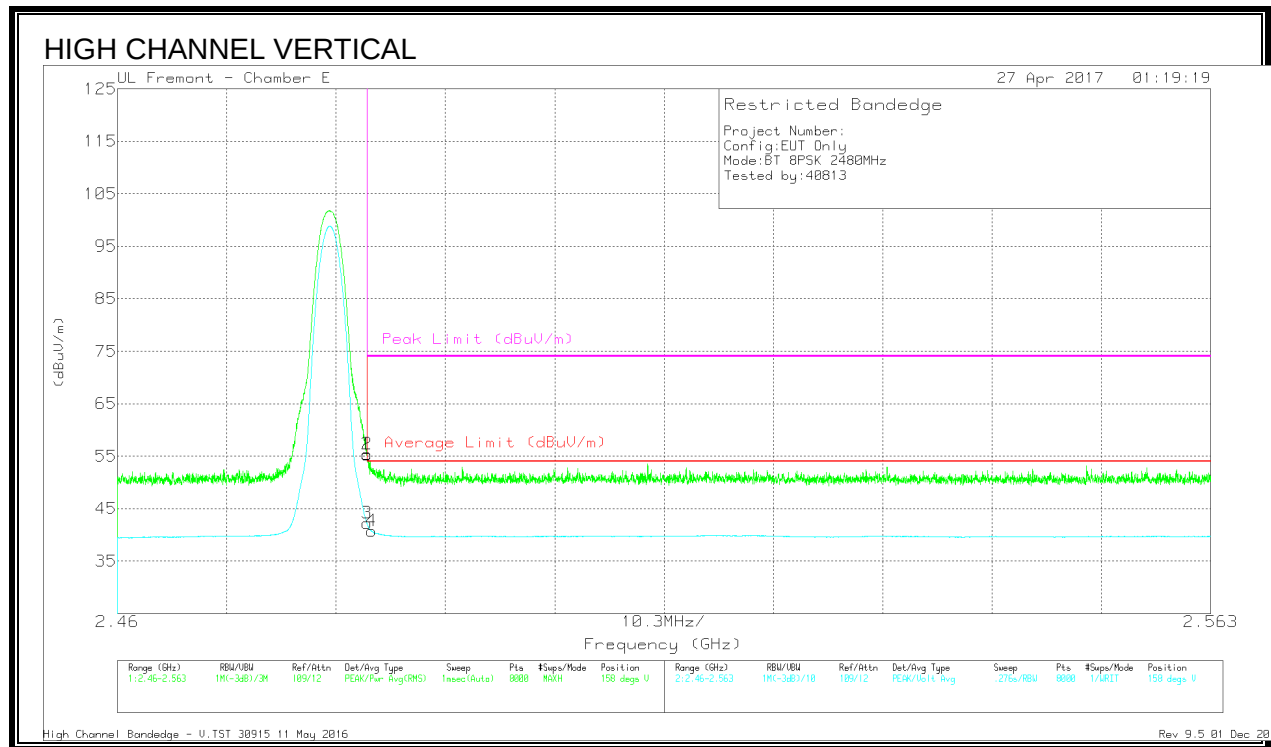
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

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

High Channel Bandedge - H.TST 30915 11 May 2016

Rev 9.5 01 Dec 2016



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (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	42.43	Pk	32.5	-19.7	55.23	-	-	74	-18.77	158	294	V
2	* 2.484	42.54	Pk	32.5	-19.7	55.34	-	-	74	-18.66	158	294	V
3	* 2.484	29.38	VA1T	32.5	-19.7	42.18	54	-11.82	-	-	158	294	V
4	* 2.484	27.93	VA1T	32.5	-19.7	40.73	54	-13.27	-	-	158	294	V

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

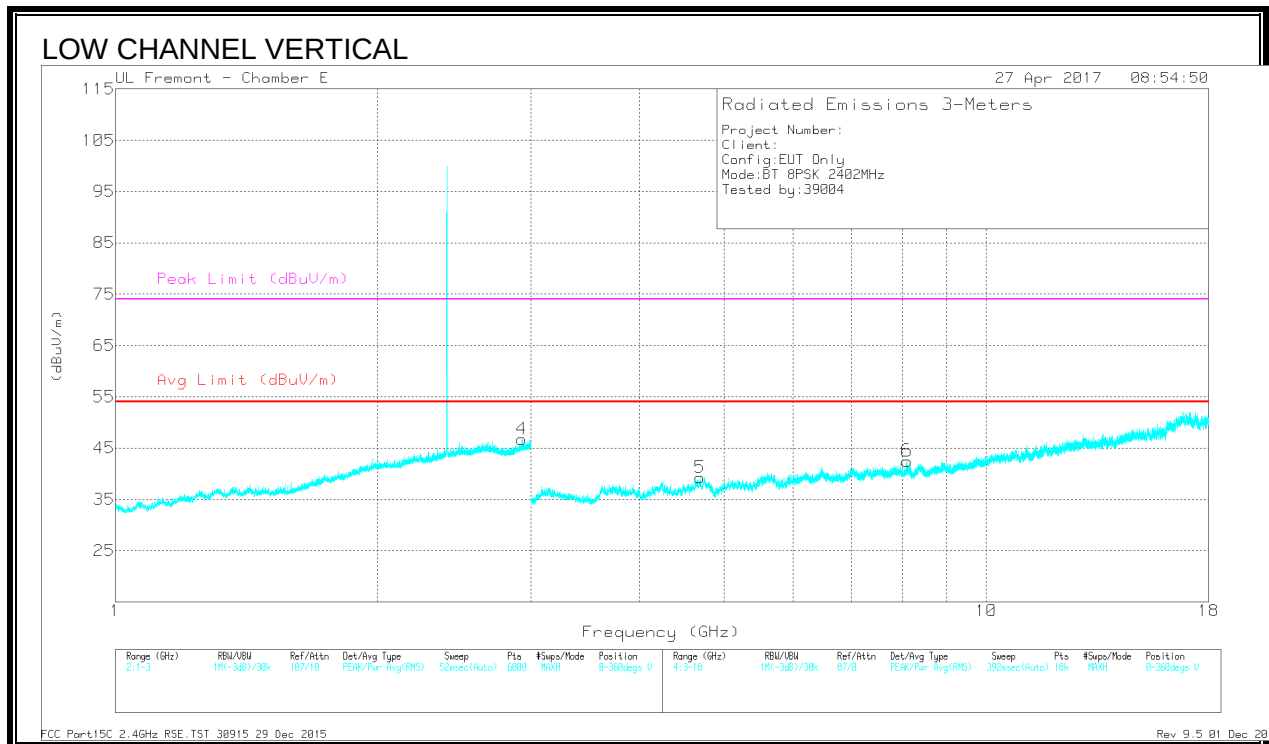
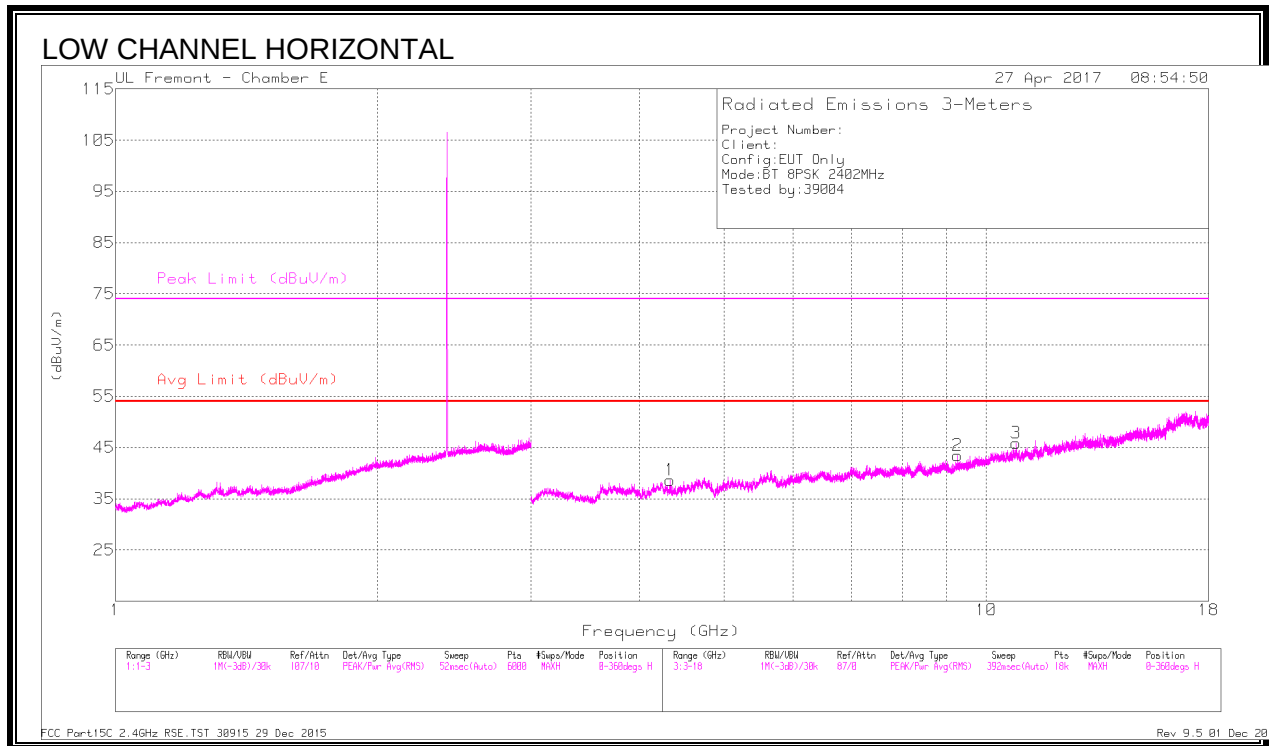
Pk - Peak detector

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

High Channel Bandedge - V.TST 30915 11 May 2016

Rev 9.5 01 Dec 2016

9.6.3. HARMONICS AND SPURIOUS EMISSIONS



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fit r/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	* 4.33	41.07	PKFH	33.6	-30.5	44.17	-	-	74	-29.83	311	132	H
	* 4.331	29.3	VA1T	33.6	-30.5	32.4	54	-21.6	-	-	311	132	H
3	* 10.814	36.07	PKFH	37.6	-22.7	50.97	-	-	74	-23.03	295	118	H
	* 10.813	23.73	VA1T	37.6	-22.7	38.63	54	-15.37	-	-	295	118	H
5	* 4.688	40.37	PKFH	34.3	-29.4	45.27	-	-	74	-28.73	306	137	V
	* 4.689	28.99	VA1T	34.3	-29.4	33.89	54	-20.11	-	-	306	137	V
6	* 8.111	36.89	PKFH	36	-25.5	47.39	-	-	74	-26.61	262	182	V
	* 8.11	25.1	VA1T	36	-25.6	35.5	54	-18.5	-	-	262	182	V
4	2.93	36.98	PKFH	32.6	-18.9	50.68	-	-	-	-	250	223	V
2	9.263	36.52	PKFH	36.4	-24.8	48.12	-	-	-	-	238	155	H

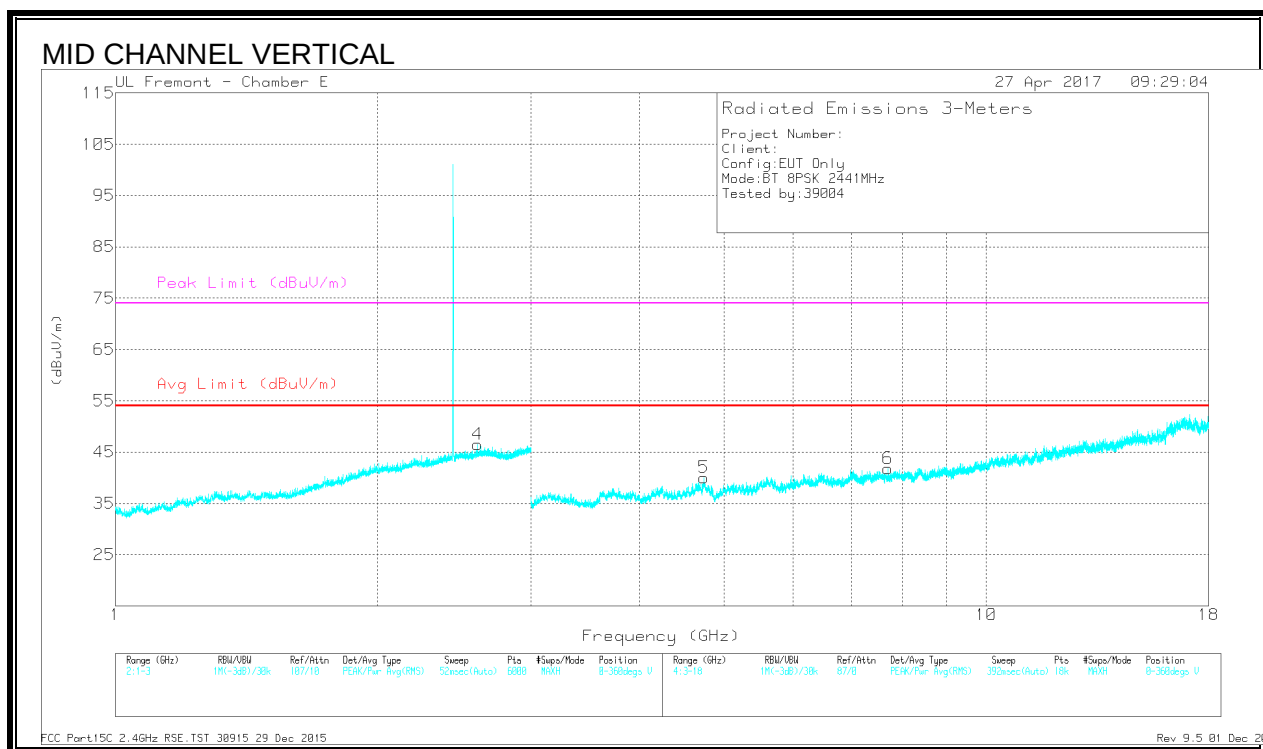
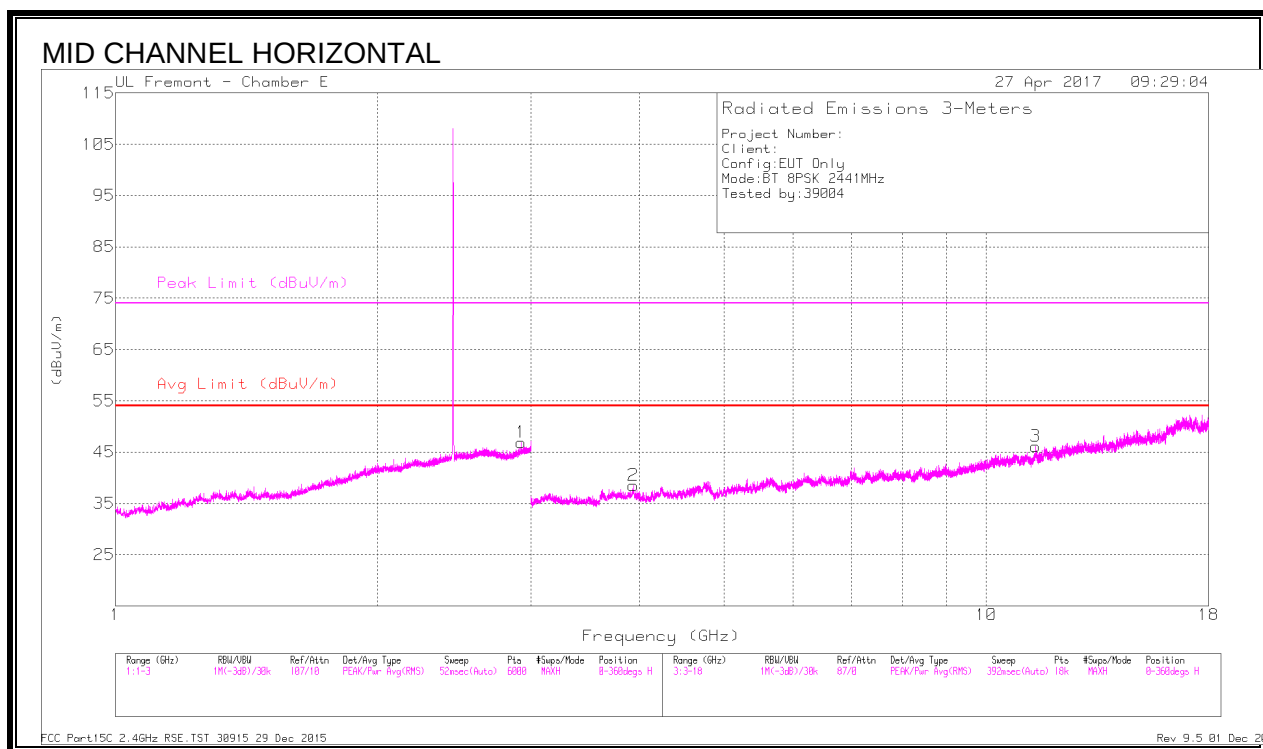
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

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

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

FCC Part15C 2.4GHz RSE.TST 30915 29 Dec 2015

Rev 9.5 01 Dec 2016



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fit r/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 3.931	41.17	PKFH	33.4	-29.3	45.27	-	-	74	-28.73	310	255	H
	* 3.932	28.43	VA1T	33.4	-29.2	32.63	54	-21.37	-	-	310	255	H
3	* 11.392	34.97	PKFH	38	-21.9	51.07	-	-	74	-22.93	293	178	H
	* 11.391	23.33	VA1T	38	-21.9	39.43	54	-14.57	-	-	293	178	H
5	* 4.743	39.9	PKFH	34.3	-29	45.2	-	-	74	-28.8	255	124	V
	* 4.744	28.35	VA1T	34.3	-29	33.65	54	-20.35	-	-	255	124	V
6	* 7.714	37.63	PKFH	36.1	-27.3	46.43	-	-	74	-27.57	238	145	V
	* 7.715	26.18	VA1T	36.1	-27.3	34.98	54	-19.02	-	-	238	145	V
4	2.605	37.12	PKFH	32.5	-19.5	50.12	-	-	-	-	244	142	V
1	2.923	37.04	PKFH	32.6	-19.2	50.44	-	-	-	-	227	114	H

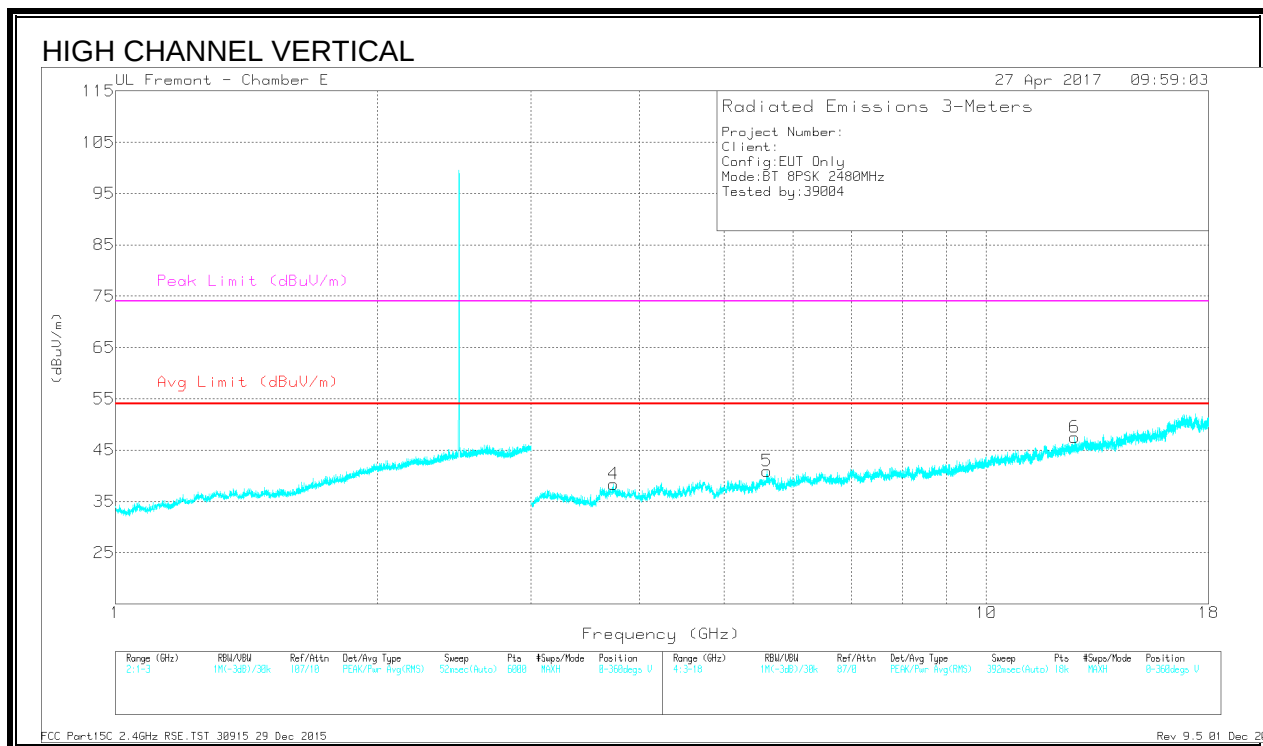
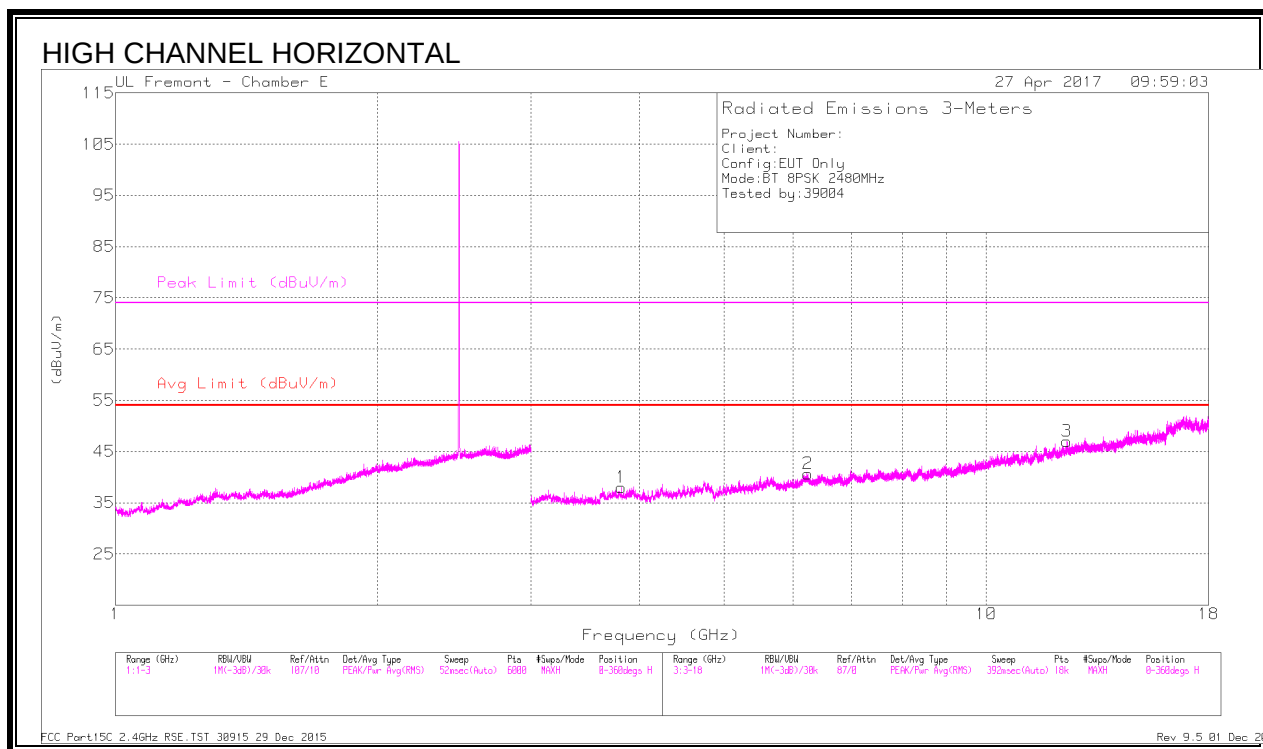
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

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

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

FCC Part15C 2.4GHz RSE.TST 30915 29 Dec 2015

Rev 9.5 01 Dec 2016



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fit r/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	* 3.809	41.88	PKFH	33.4	-30.8	44.48	-	-	74	-29.52	344	176	H
	* 3.81	29.47	VA1T	33.4	-30.8	32.07	54	-21.93	-	-	344	176	H
3	* 12.364	36.11	PKFH	39.2	-23.6	51.71	-	-	74	-22.29	240	138	H
	* 12.364	24.35	VA1T	39.2	-23.5	40.05	54	-13.95	-	-	240	138	H
4	* 3.732	40.6	PKFH	33.4	-29.8	44.2	-	-	74	-29.8	250	192	V
	* 3.733	28.91	VA1T	33.4	-29.7	32.61	54	-21.39	-	-	250	192	V
6	* 12.629	36.41	PKFH	39.6	-24.3	51.71	-	-	74	-22.29	226	127	V
	* 12.629	24.8	VA1T	39.6	-24.3	40.1	54	-13.9	-	-	226	127	V
5	5.6	40.15	PKFH	35.4	-28.9	46.65	-	-	-	-	252	215	V
2	6.244	38.67	PKFH	35.7	-28	46.37	-	-	-	-	240	172	H

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

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

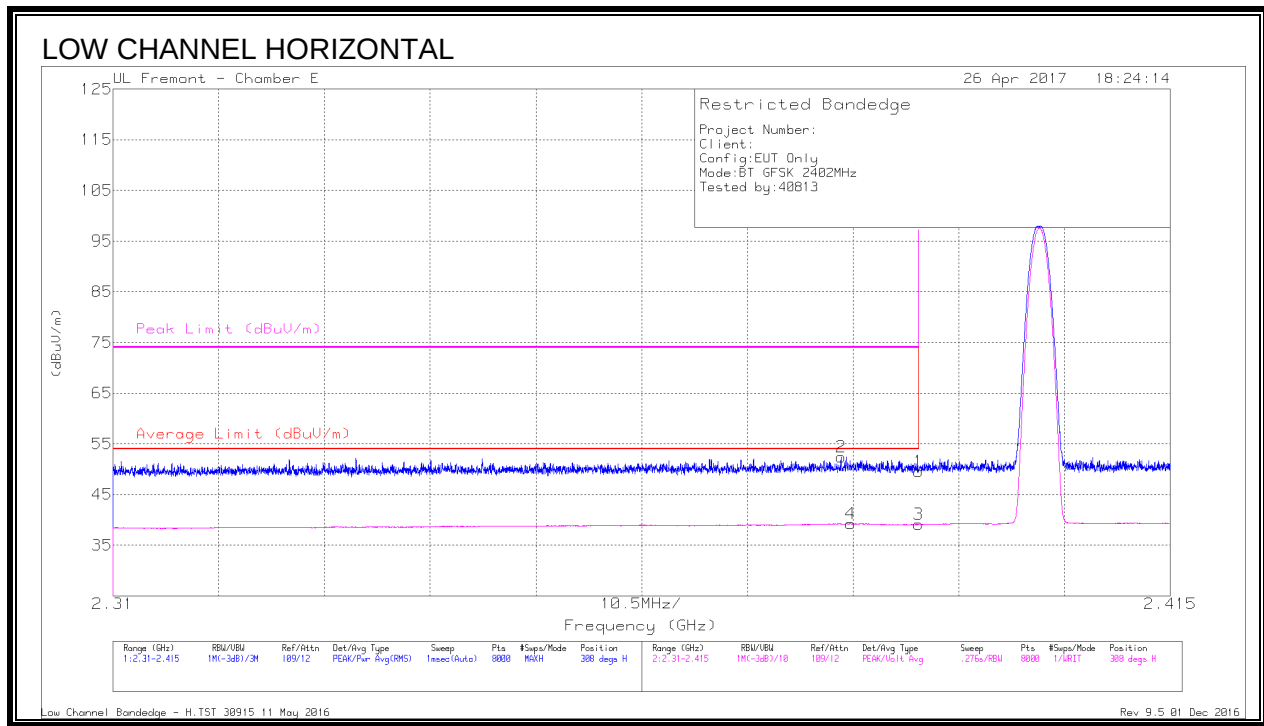
VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

FCC Part15C 2.4GHz RSE.TST 30915 29 Dec 2015

Rev 9.5 01 Dec 2016

9.7. LAT 3, Plow BASIC DATA RATE GFSK MODULATION

9.7.1. RESTRICTED BANDEGE (LOW CHANNEL)



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (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	37.26	Pk	32	-19.7	49.56	-	-	74	-24.44	308	100	H
2	* 2.382	39.95	Pk	32	-19.5	52.45	-	-	74	-21.55	308	100	H
3	* 2.39	26.78	VA1T	32	-19.7	39.08	54	-14.92	-	-	308	100	H
4	* 2.383	26.74	VA1T	32	-19.5	39.24	54	-14.76	-	-	308	100	H

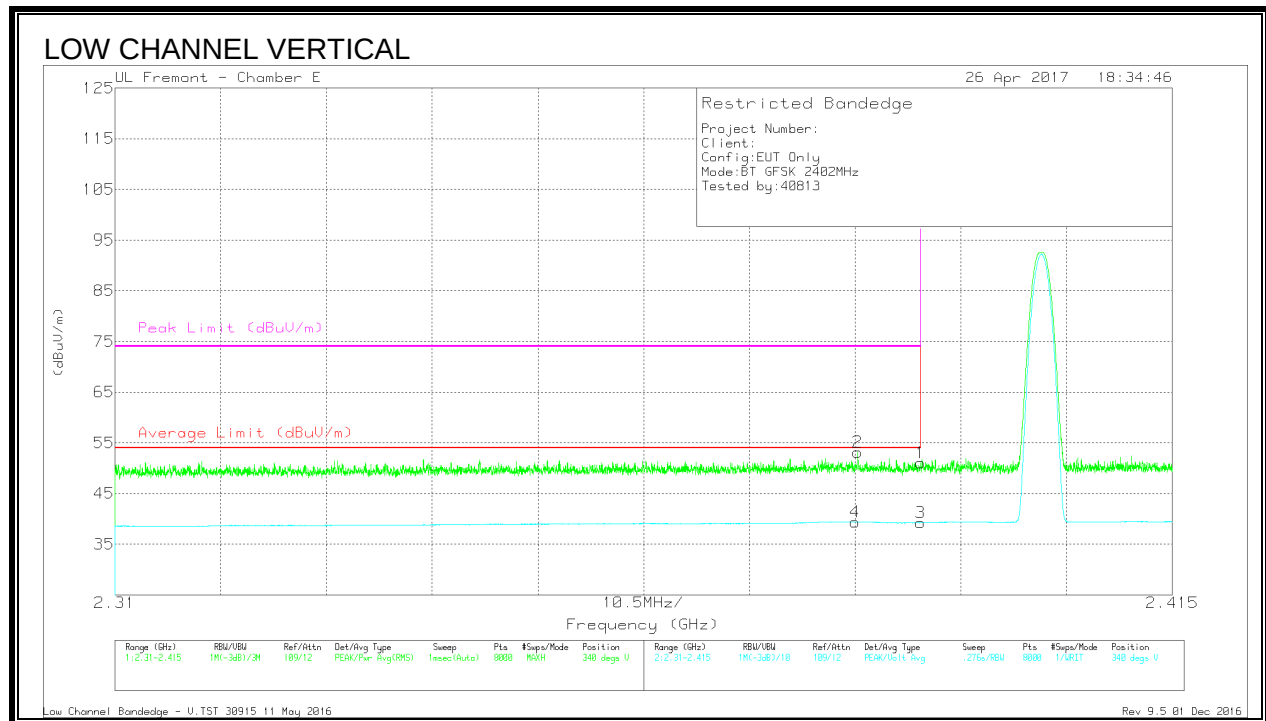
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

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

Low Channel Bandedge - H.TST.30915 11 May 2016

Rev 9.5 01 Dec 2016



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/C bl/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	38.72	Pk	32	-19.7	51.02	-	-	74	-22.98	340	289	V
2	* 2.384	40.6	Pk	32	-19.5	53.1	-	-	74	-20.9	340	289	V
3	* 2.39	26.89	VA1T	32	-19.7	39.19	54	-14.81	-	-	340	289	V
4	* 2.384	26.92	VA1T	32	-19.5	39.42	54	-14.58	-	-	340	289	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 11 May 2016

Rev 9.5 01 Dec 2016

9.7.2. AUTHORIZED BANDEDGE (HIGH CHANNEL)



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (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	37.81	Pk	32.5	-19.7	50.61	-	-	74	-23.39	317	118	H
3	* 2.484	27.06	VA1T	32.5	-19.7	39.86	54	-14.14	-	-	317	118	H
4	* 2.484	27.06	VA1T	32.5	-19.7	39.86	54	-14.14	-	-	317	118	H
2	2.563	41.1	Pk	32.5	-19.8	53.8	-	-	74	-20.2	317	118	H

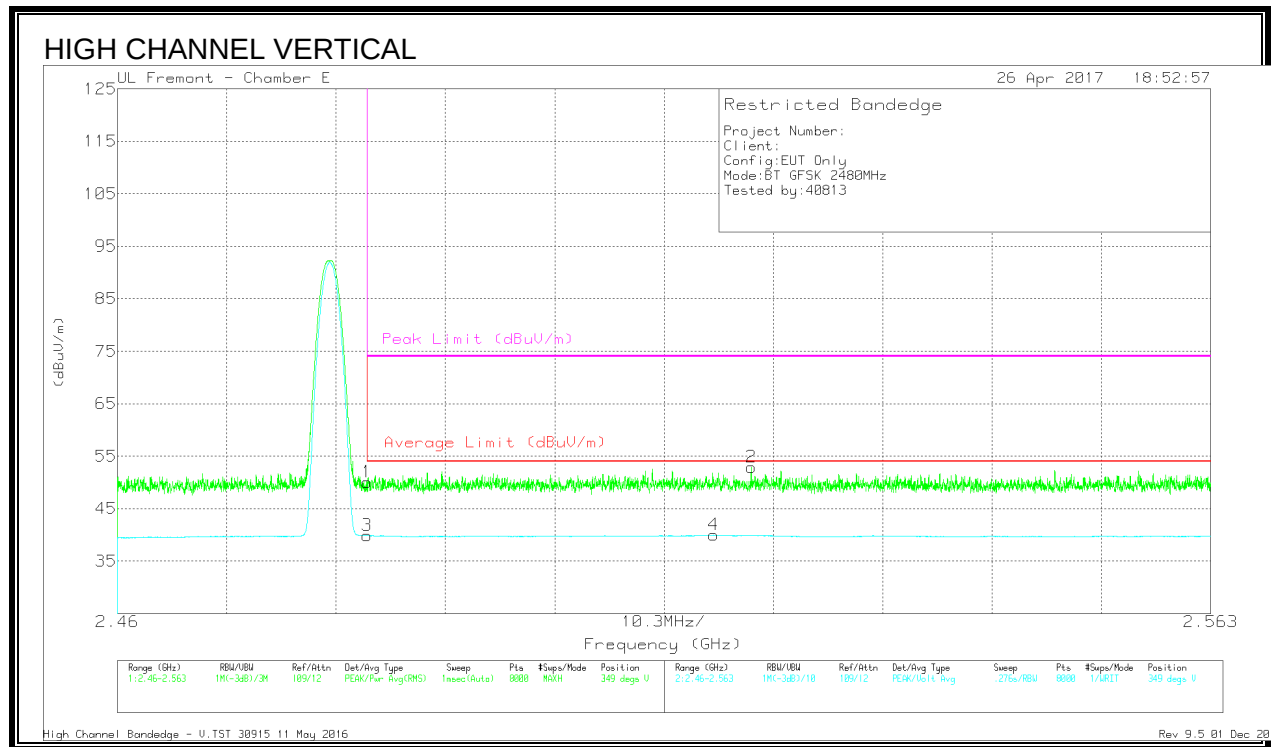
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

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

High Channel Bandedge - H.TST 30915 11 May 2016

Rev 9.5 01 Dec 2016



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (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	37.24	Pk	32.5	-19.7	50.04	-	-	74	-23.96	349	243	V
3	* 2.484	27.03	VA1T	32.5	-19.7	39.83	54	-14.17	-	-	349	243	V
4	2.516	27.03	VA1T	32.6	-19.7	39.93	54	-14.07	-	-	349	243	V
2	2.52	39.99	Pk	32.6	-19.7	52.89	-	-	74	-21.11	349	243	V

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

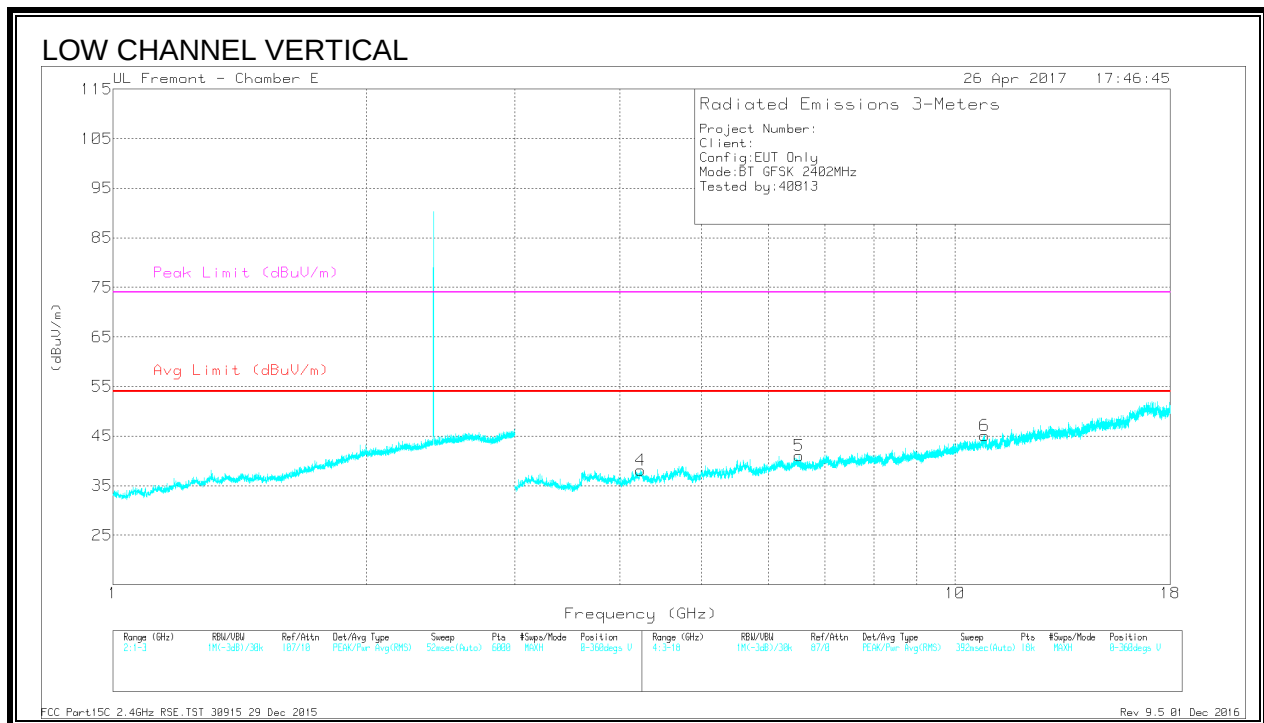
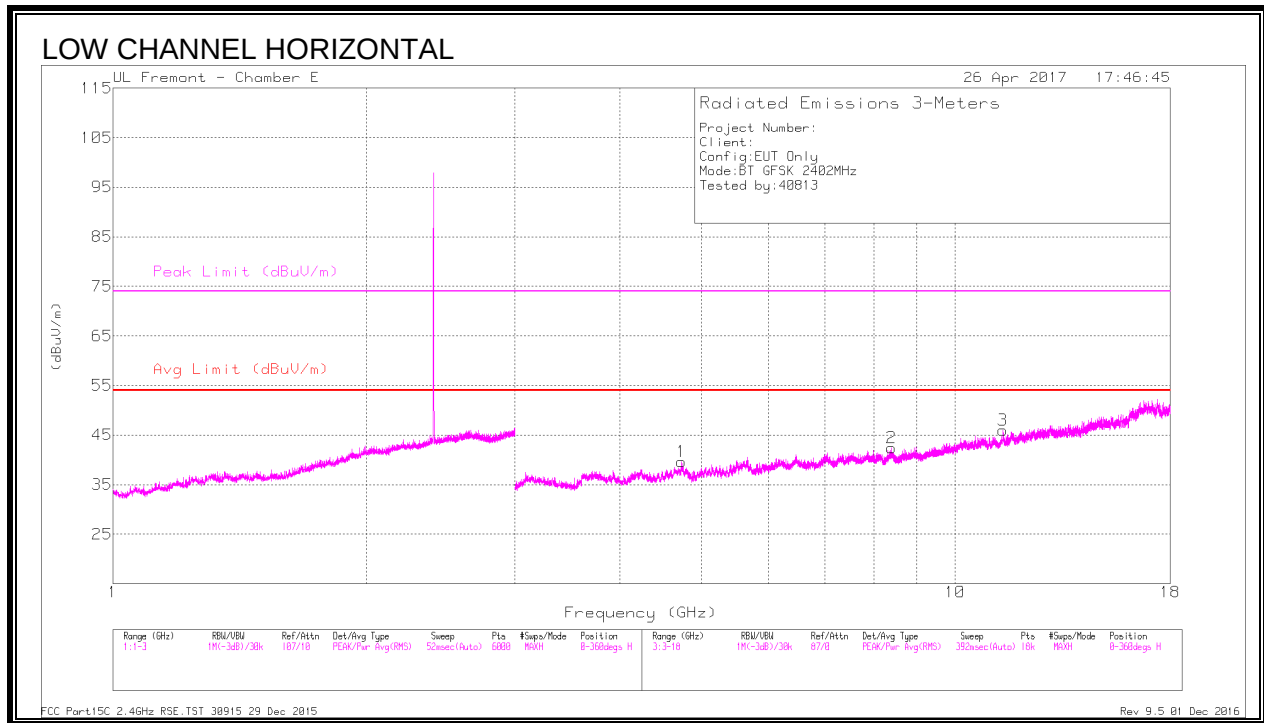
Pk - Peak detector

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

High Channel Bandedge - V.TST 30915 11 May 2016

Rev 9.5 01 Dec 2016

9.7.3. HARMONICS AND SPURIOUS EMISSIONS



DATA

1	* 4.732	40.01	PKFH	34.3	-29	45.31	-	-	74	-28.69	127	118	H
	* 4.735	28.2	VA1T	34.3	-29.1	33.4	54	-20.6	-	-	127	118	H
2	* 8.397	37.13	PKFH	36	-25.5	47.63	-	-	74	-26.37	128	292	H
	* 8.398	25.18	VA1T	36	-25.5	35.68	54	-18.32	-	-	128	292	H
3	* 11.396	34.81	PKFH	38	-21.7	51.11	-	-	74	-22.89	180	123	H
	* 11.395	23.21	VA1T	38	-21.7	39.51	54	-14.49	-	-	180	123	H
4	* 4.23	39.66	PKFH	33.5	-29	44.16	-	-	74	-29.84	51	125	V
	* 4.23	28.3	VA1T	33.5	-29	32.8	54	-21.2	-	-	51	125	V
6	* 10.829	35.49	PKFH	37.6	-22.4	50.69	-	-	74	-23.31	329	165	V
	* 10.83	23.46	VA1T	37.6	-22.4	38.66	54	-15.34	-	-	329	165	V
5	6.526	38.94	PKFH	35.7	-28.2	46.44	-	-	-	-	162	237	V

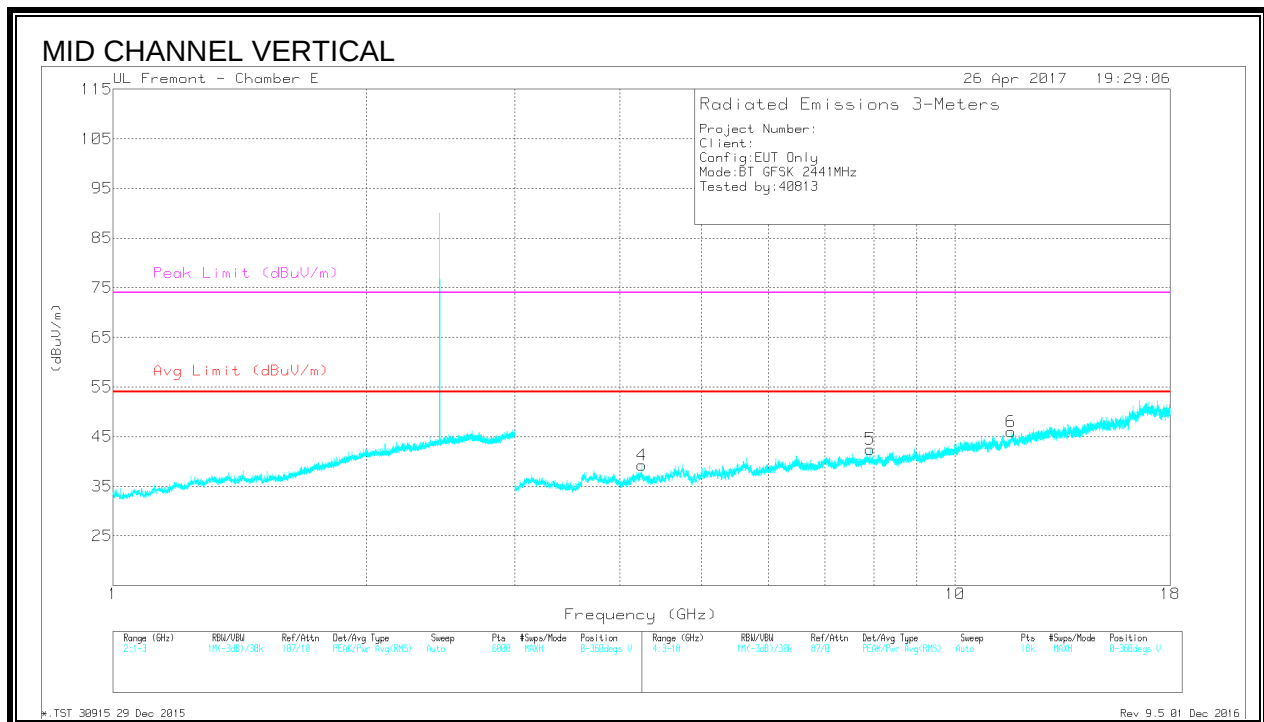
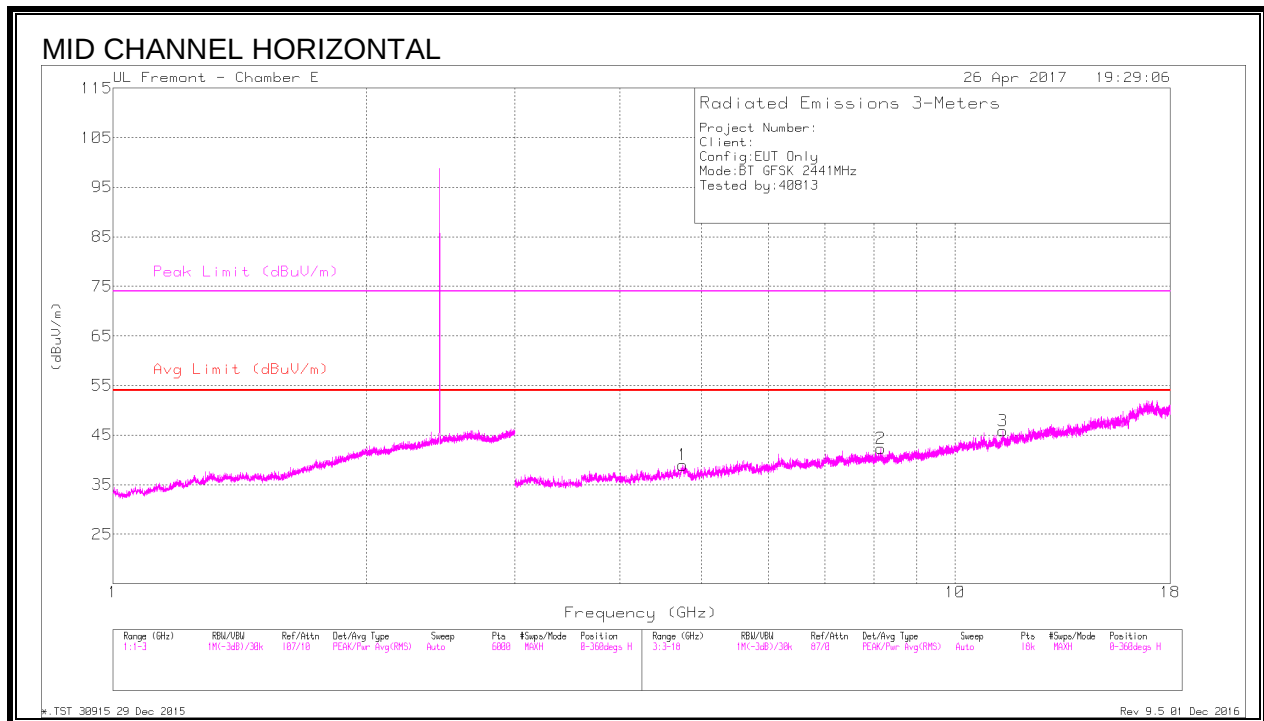
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

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

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

FCC Part15C 2.4GHz RSE.TST 30915 29 Dec 2015

Rev 9.5 01 Dec 2016



DATA

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cb/FI tr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.748	39.95	PKFH	34.3	-29	45.25	-	-	74	-28.75	188	119	H
* 4.746	27.77	VA1T	34.3	-29.1	32.97	54	-21.03	-	-	188	119	H
* 8.155	37.07	PKFH	36	-25.3	47.77	-	-	74	-26.23	190	221	H
* 8.155	25.08	VA1T	36	-25.3	35.78	54	-18.22	-	-	190	221	H
* 11.397	34.41	PKFH	38	-21.6	50.81	-	-	74	-23.19	183	116	H
* 11.396	23.19	VA1T	38	-21.6	39.59	54	-14.41	-	-	183	116	H
* 4.245	39.92	PKFH	33.5	-28.6	44.82	-	-	74	-29.18	177	114	V
* 4.244	27.72	VA1T	33.5	-28.6	32.62	54	-21.38	-	-	177	114	V
* 11.654	36.1	PKFH	38.2	-22.5	51.8	-	-	74	-22.2	184	240	V
7.922	37.83	PKFH	36	-27.2	46.63	-	-	-	-	206	124	V
7.925	26.47	VA1T	36	-27.2	35.27	-	-	-	-	206	124	V

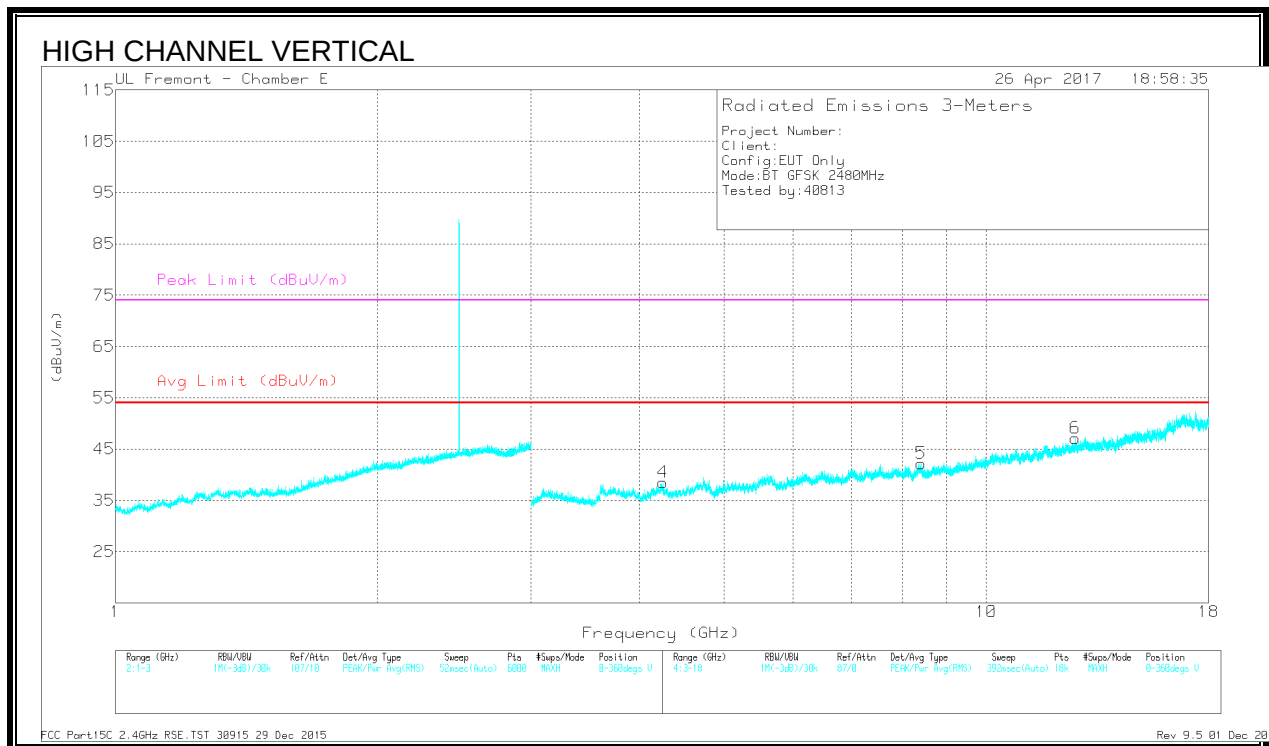
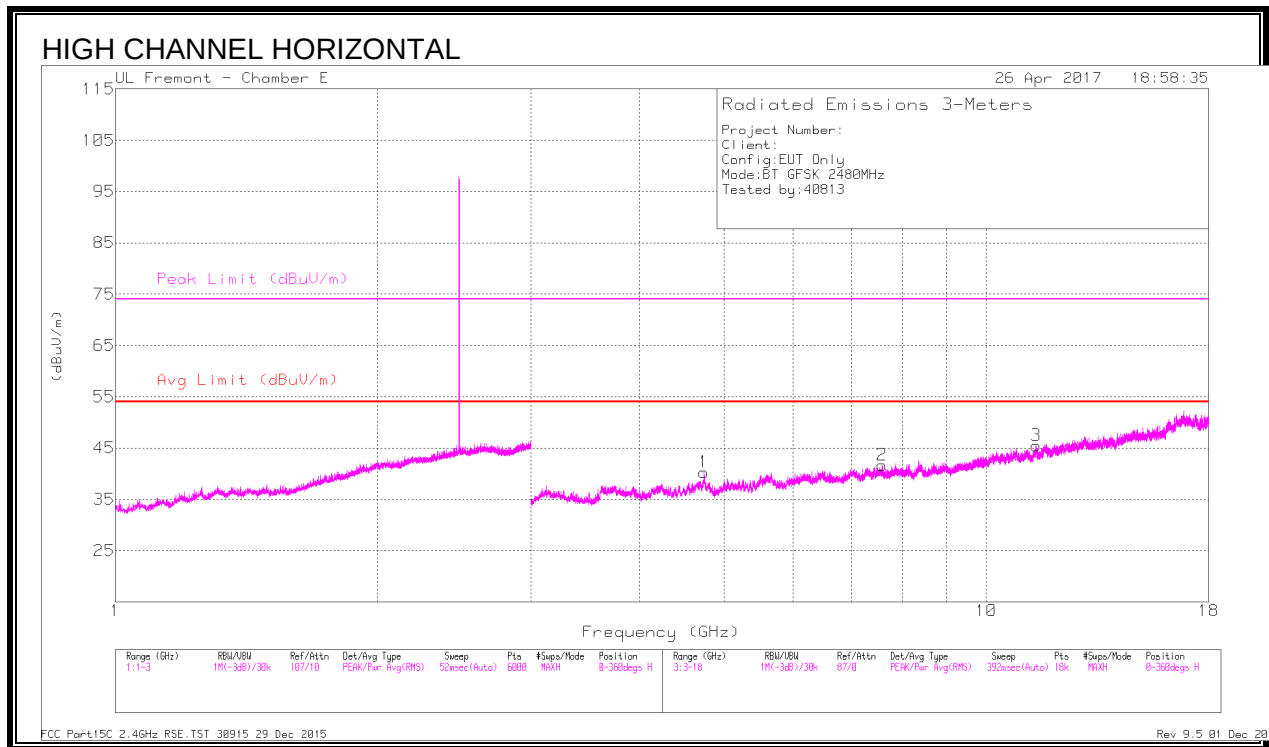
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

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

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

*.TST 30915 29 Dec 2015

Rev 9.5 01 Dec 2016



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fit r/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	* 4.743	39.49	PKFH	34.3	-29	44.79	-	-	74	-29.21	250	213	H
	* 4.745	28.01	VA1T	34.3	-29.1	33.21	54	-20.79	-	-	250	213	H
2	* 7.588	36.75	PKFH	36.1	-25.7	47.15	-	-	74	-26.85	182	277	H
	* 7.589	24.67	VA1T	36.1	-25.7	35.07	54	-18.93	-	-	182	277	H
3	* 11.414	35.06	PKFH	38	-21.9	51.16	-	-	74	-22.84	356	120	H
	* 11.413	23.14	VA1T	38	-21.9	39.24	54	-14.76	-	-	356	120	H
4	* 4.253	40.79	PKFH	33.5	-28.9	45.39	-	-	74	-28.61	248	227	V
	* 4.253	27.67	VA1T	33.5	-28.9	32.27	54	-21.73	-	-	248	227	V
5	* 8.419	36.76	PKFH	36	-25.3	47.46	-	-	74	-26.54	254	226	V
	* 8.42	25.01	VA1T	36	-25.3	35.71	54	-18.29	-	-	254	226	V
6	* 12.652	36.56	PKFH	39.6	-24.1	52.06	-	-	74	-21.94	117	101	V
	* 12.653	24.98	VA1T	39.6	-24.1	40.48	54	-13.52	-	-	117	101	V

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

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

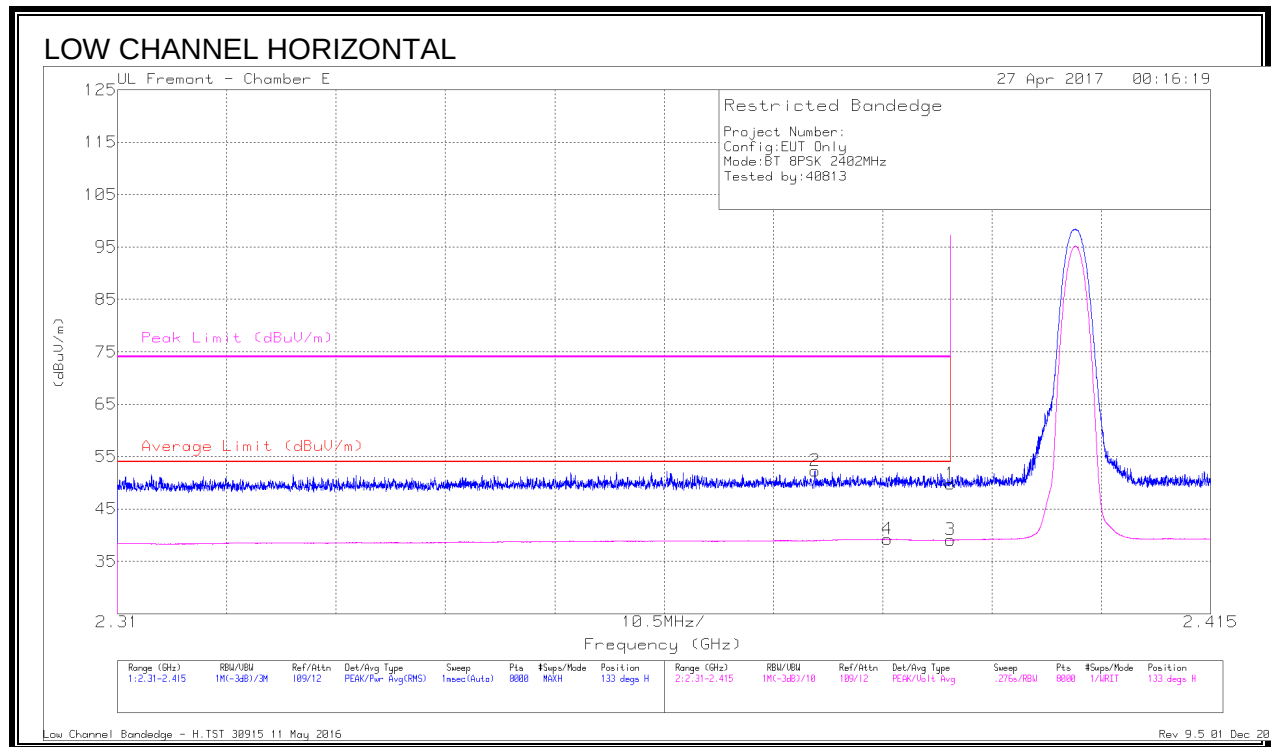
VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

FCC Part15C 2.4GHz RSE.TST 30915 29 Dec 2015

Rev 9.5 01 Dec 2016

9.8. LAT 3, Plow ENHANCED DATA RATE 8PSK MODULATION

9.8.1. RESTRICTED BANDEDGE (LOW CHANNEL)



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/C bl/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	37.54	Pk	32	-19.7	49.84	-	-	74	-24.16	133	168	H
2	* 2.377	39.93	Pk	32	-19.7	52.23	-	-	74	-21.77	133	168	H
3	* 2.39	26.76	VA1T	32	-19.7	39.06	54	-14.94	-	-	133	168	H
4	* 2.384	26.72	VA1T	32	-19.5	39.22	54	-14.78	-	-	133	168	H

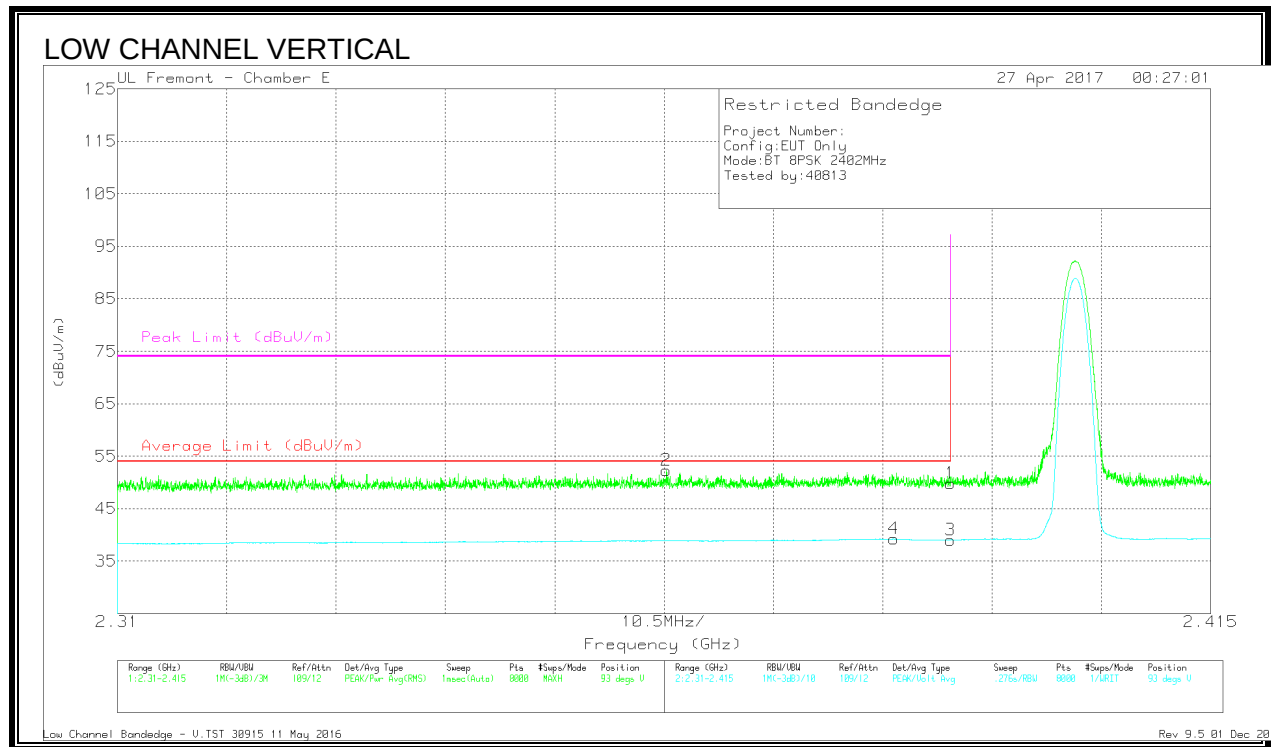
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

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

Low Channel Bandedge - H.TST 30915 11 May 2016

Rev 9.5 01 Dec 2016



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (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
2	* 2.363	40.11	Pk	31.9	-19.7	52.31	-	-	74	-21.69	93	303	V
4	* 2.385	26.7	VA1T	32	-19.5	39.2	54	-14.8	-	-	93	303	V
1	* 2.39	37.55	Pk	32	-19.7	49.85	-	-	74	-24.15	93	303	V
3	* 2.39	26.69	VA1T	32	-19.7	38.99	54	-15.01	-	-	93	303	V

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

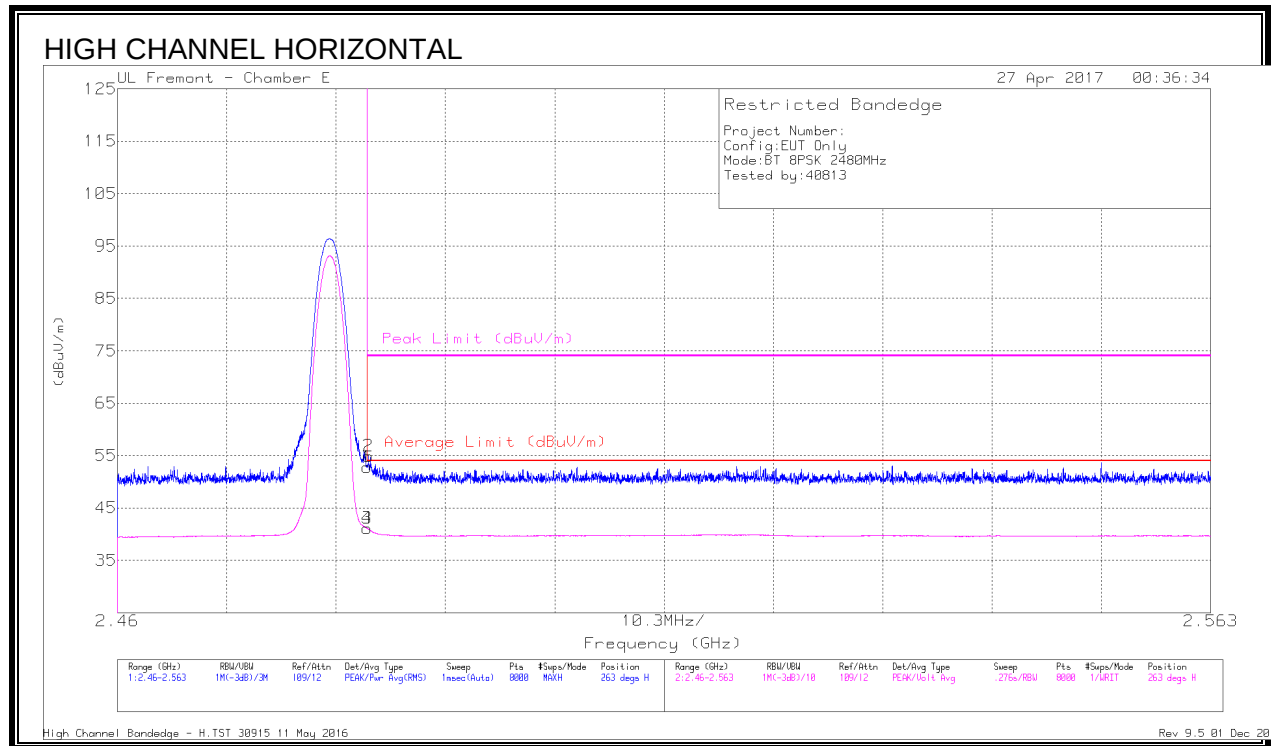
Pk - Peak detector

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

Low Channel Bandedge - V.TST 30915 11 May 2016

Rev 9.5 01 Dec 2016

9.8.2. AUTHORIZED BANDEDGE (HIGH CHANNEL)



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (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	39.95	Pk	32.5	-19.7	52.75	-	-	74	-21.25	263	130	H
2	* 2.484	42.1	Pk	32.5	-19.7	54.9	-	-	74	-19.1	263	130	H
3	* 2.484	28.33	VA1T	32.5	-19.7	41.13	54	-12.87	-	-	263	130	H
4	* 2.484	28.33	VA1T	32.5	-19.7	41.13	54	-12.87	-	-	263	130	H

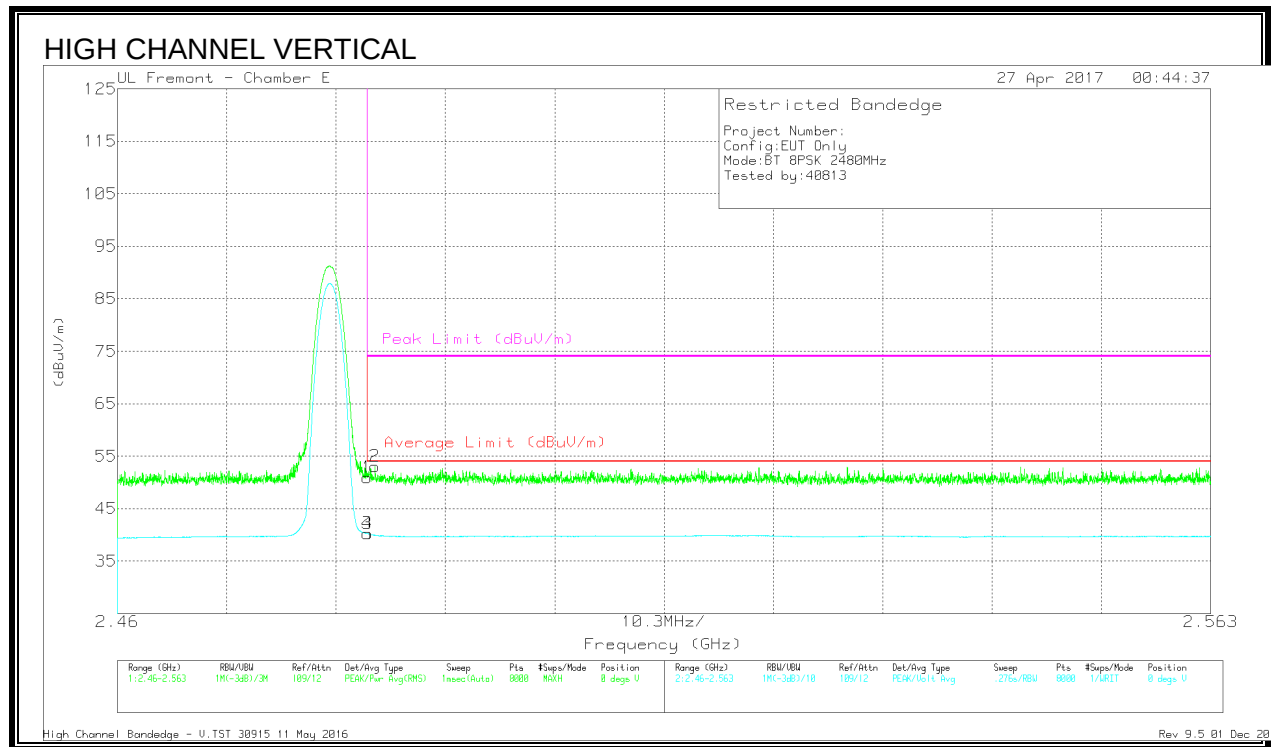
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

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

High Channel Bandedge - H.TST 30915 11 May 2016

Rev 9.5 01 Dec 2016



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (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	38.15	Pk	32.5	-19.7	50.95	-	-	74	-23.05	0	112	V
2	* 2.484	40.27	Pk	32.5	-19.7	53.07	-	-	74	-20.93	0	112	V
3	* 2.484	27.44	VA1T	32.5	-19.7	40.24	54	-13.76	-	-	0	112	V
4	* 2.484	27.4	VA1T	32.5	-19.7	40.2	54	-13.8	-	-	0	112	V

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

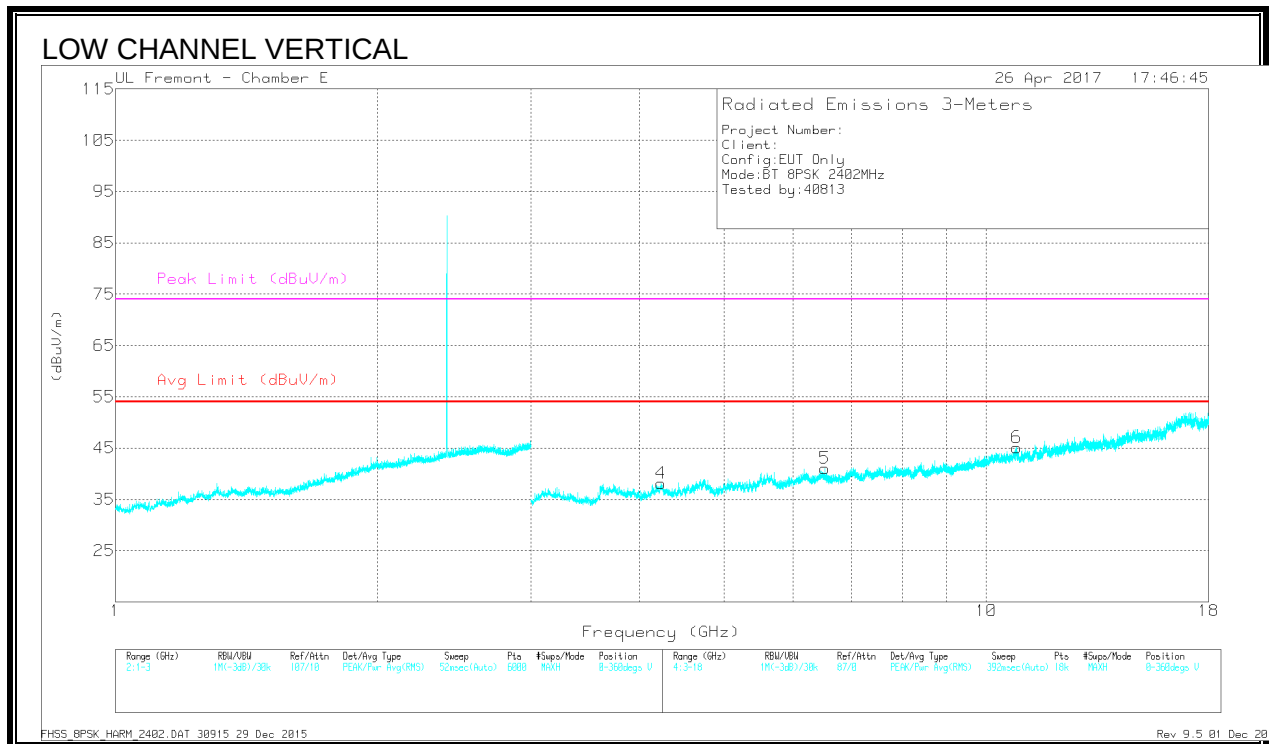
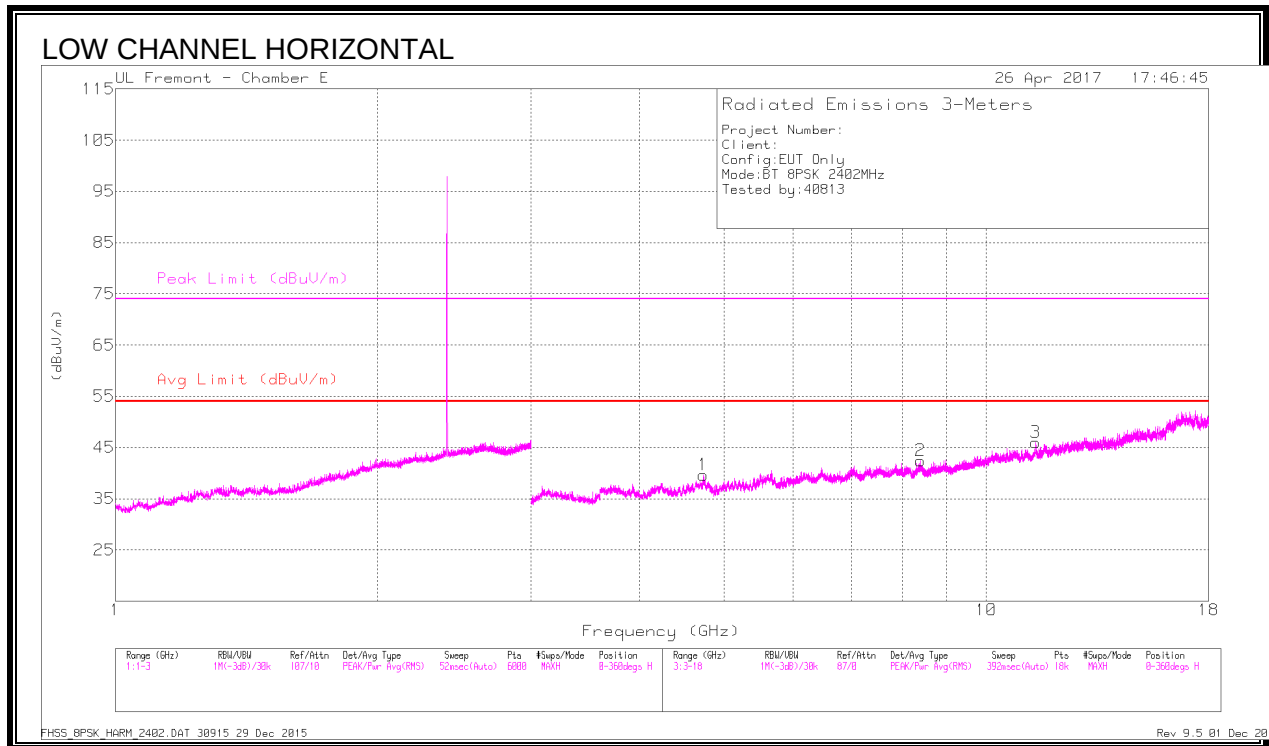
Pk - Peak detector

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

High Channel Bandedge - V.TST 30915 11 May 2016

Rev 9.5 01 Dec 2016

9.8.3. HARMONICS AND SPURIOUS EMISSIONS



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fit r/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	* 4.732	40.01	PKFH	34.3	-29	45.31	-	-	74	-28.69	127	118	H
	* 4.735	28.2	VA1T	34.3	-29.1	33.4	54	-20.6	-	-	127	118	H
2	* 8.397	37.13	PKFH	36	-25.5	47.63	-	-	74	-26.37	128	292	H
	* 8.398	25.18	VA1T	36	-25.5	35.68	54	-18.32	-	-	128	292	H
3	* 11.396	34.81	PKFH	38	-21.7	51.11	-	-	74	-22.89	180	123	H
	* 11.395	23.21	VA1T	38	-21.7	39.51	54	-14.49	-	-	180	123	H
4	* 4.23	39.66	PKFH	33.5	-29	44.16	-	-	74	-29.84	51	125	V
	* 4.23	28.3	VA1T	33.5	-29	32.8	54	-21.2	-	-	51	125	V
6	* 10.829	35.49	PKFH	37.6	-22.4	50.69	-	-	74	-23.31	329	165	V
	* 10.83	23.46	VA1T	37.6	-22.4	38.66	54	-15.34	-	-	329	165	V
5	6.526	38.94	PKFH	35.7	-28.2	46.44	-	-	-	-	162	237	V

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

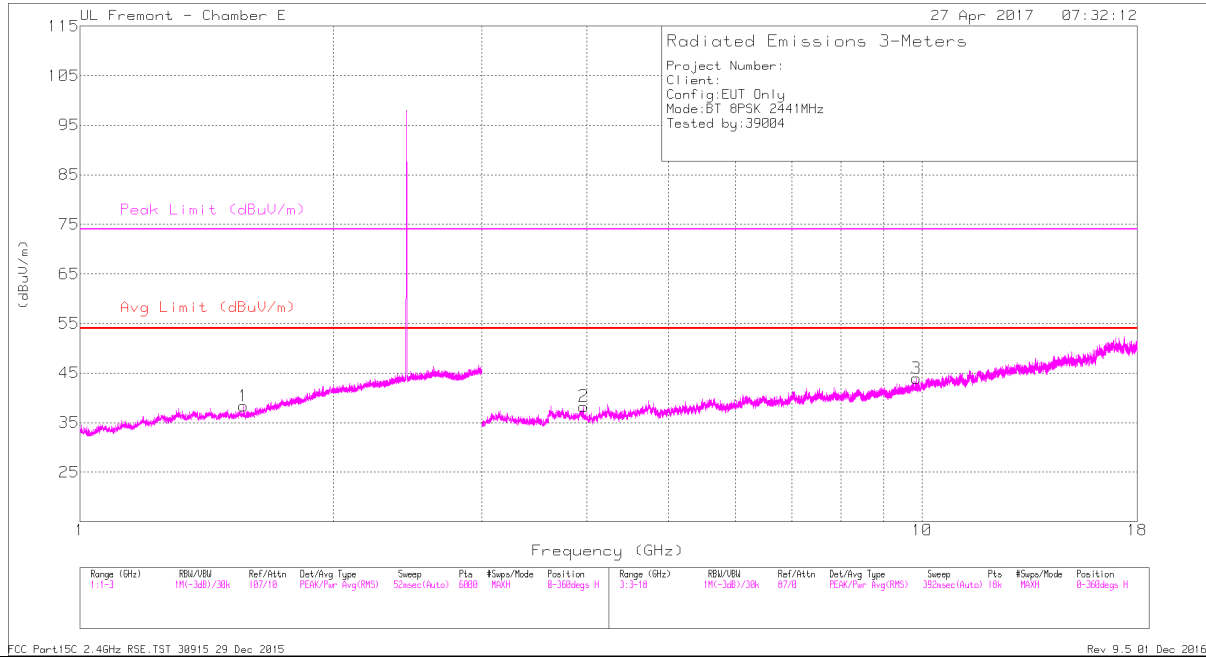
PKFH - FHSS: RB=100k/1MHz VB=3 x RB, Peak

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

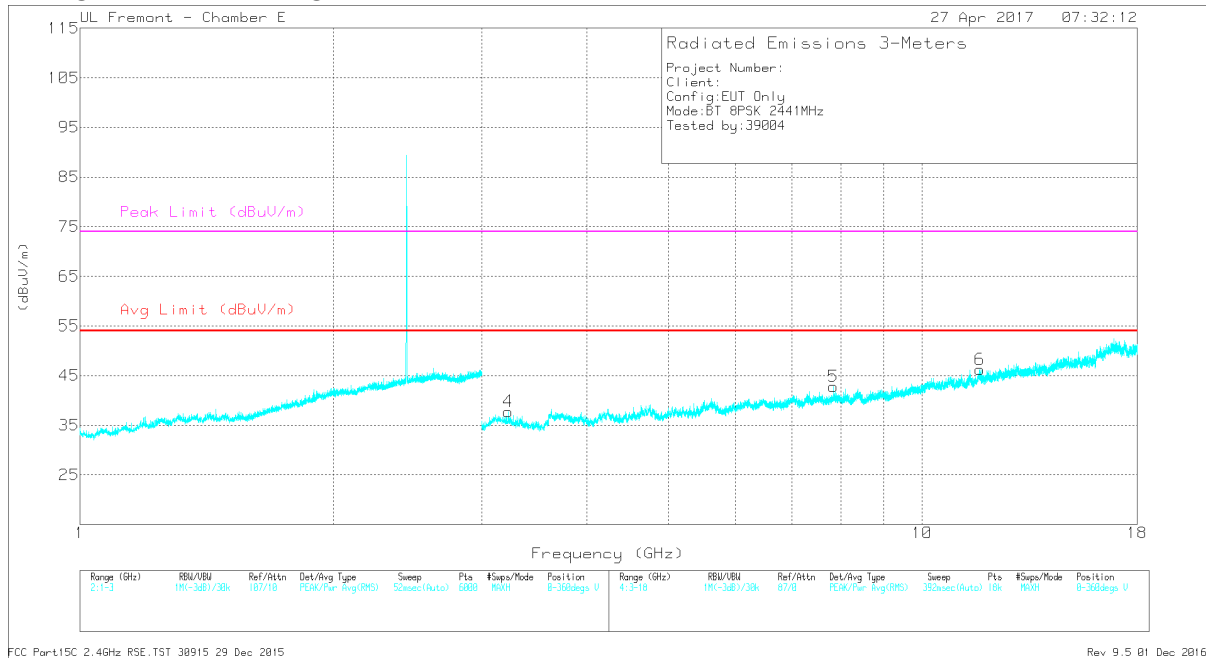
FHSS_8PSK_HARM_2402.DAT 30915 29 Dec 2015

Rev 9.5 01 Dec 2016

MID CHANNEL HORIZONTAL



MID CHANNEL VERTICAL



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/FI tr/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	* 1.565	35.84	PKFH	28.1	-20.9	43.04	-	-	74	-30.96	49	298	H
	* 1.566	23.73	VA1T	28.1	-20.8	31.03	54	-22.97	-	-	49	298	H
2	* 3.966	39.01	PKFH	33.3	-29.6	42.71	-	-	74	-31.29	55	177	H
	* 3.967	27.46	VA1T	33.3	-29.6	31.16	54	-22.84	-	-	55	177	H
6	* 11.709	35.56	PKFH	38.3	-22.6	51.26	-	-	74	-22.74	67	220	V
	* 11.711	23.75	VA1T	38.3	-22.6	39.45	54	-14.55	-	-	67	220	V
4	3.225	40.41	PKFH	33.1	-30.8	42.71	-	-	-	-	95	125	V
5	7.839	36.21	PKFH	36.1	-25.5	46.81	-	-	-	-	120	144	V
3	9.845	36.13	PKFH	36.9	-24.2	48.83	-	-	-	-	101	234	H

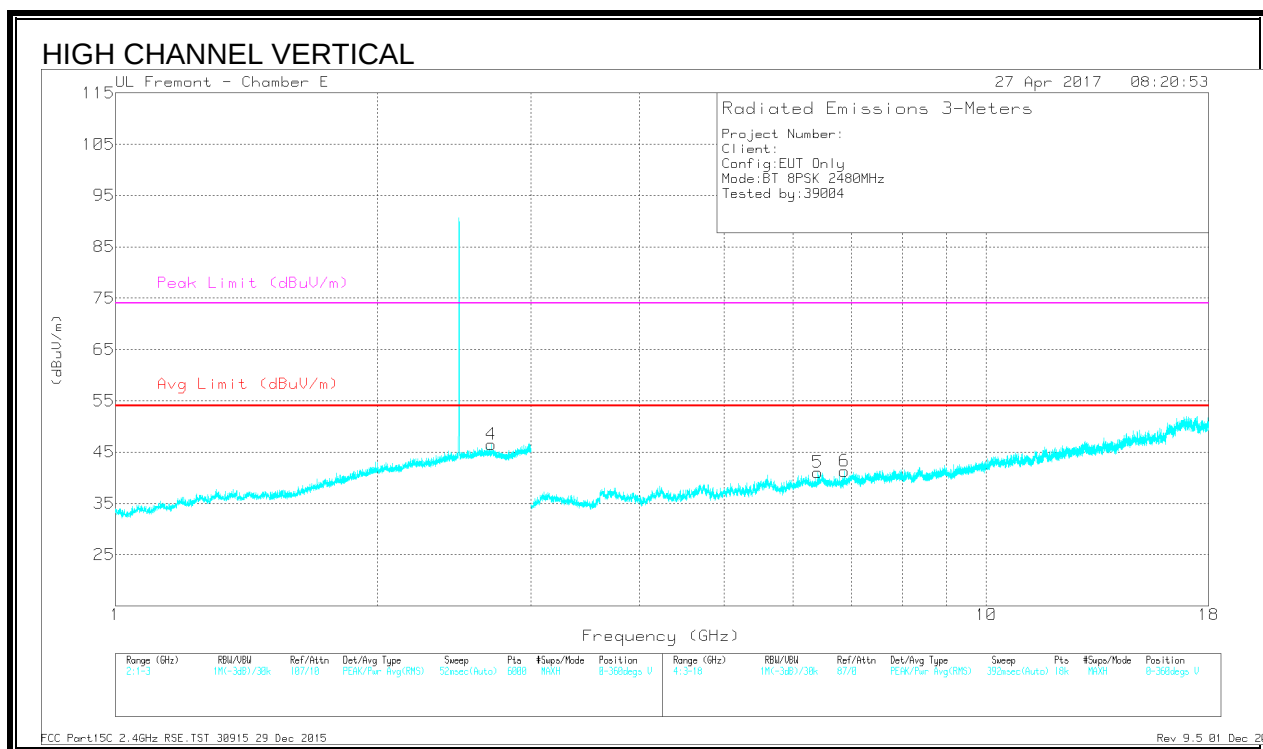
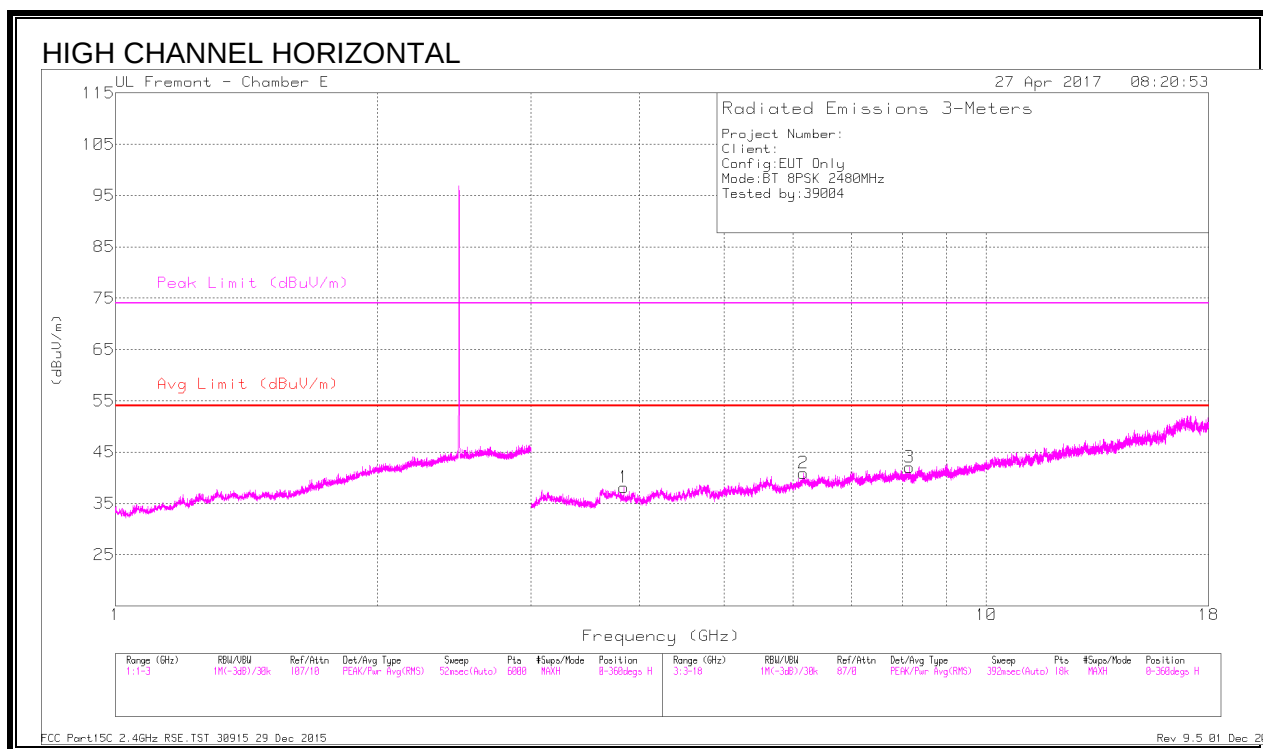
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

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

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

FCC Part15C 2.4GHz RSE.TST 30915 29 Dec 2015

Rev 9.5 01 Dec 2016



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fit r/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	* 2.701	37.85	PKFH	32.4	-19.4	50.85	-	-	74	-23.15	191	212	V
	* 2.703	25.43	VA1T	32.4	-19.4	38.43	54	-15.57	-	-	191	212	V
1	* 3.838	41.23	PKFH	33.4	-31	43.63	-	-	74	-30.37	201	177	H
	* 3.84	29.72	VA1T	33.4	-31	32.12	54	-21.88	-	-	201	177	H
3	* 8.154	38.26	PKFH	36	-25.3	48.96	-	-	74	-25.04	216	179	H
	* 8.156	25.18	VA1T	36	-25.4	35.78	54	-18.22	-	-	216	179	H
2	6.165	38.65	PKFH	35.7	-28	46.35	-	-	-	-	234	244	H
5	6.406	39.65	PKFH	35.6	-28.7	46.55	-	-	-	-	247	126	V
6	6.867	38.79	PKFH	35.6	-28.5	45.89	-	-	-	-	262	148	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

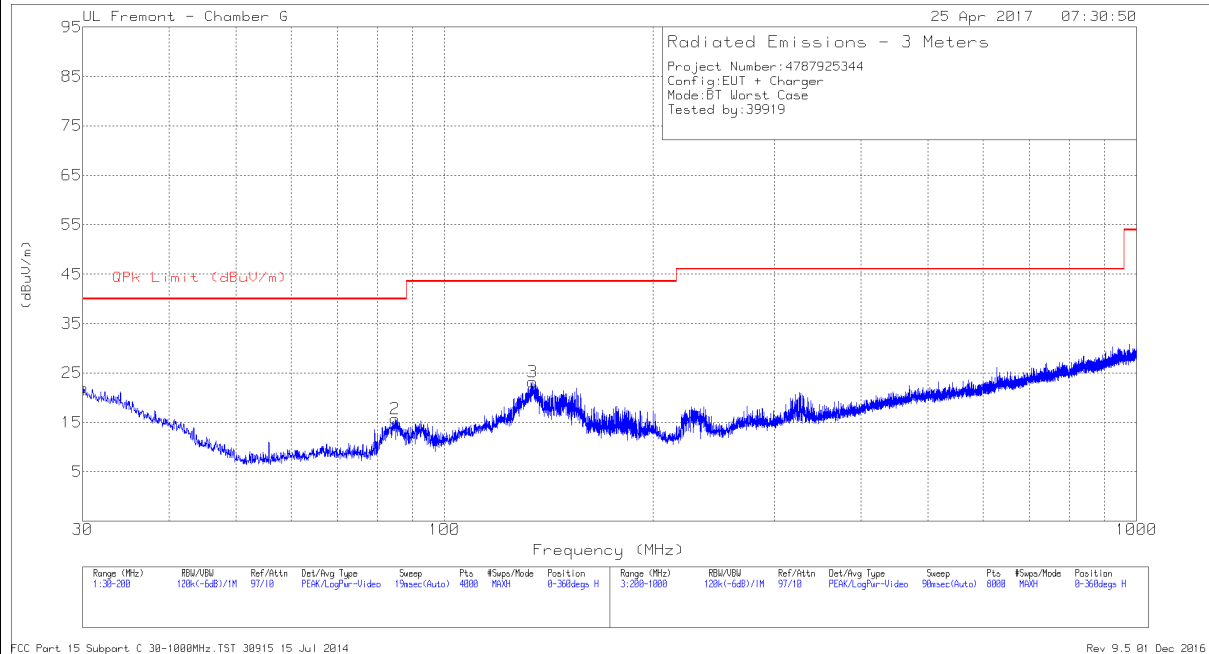
FCC Part15C 2.4GHz RSE.TST 30915 29 Dec 2015

Rev 9.5 01 Dec 2016

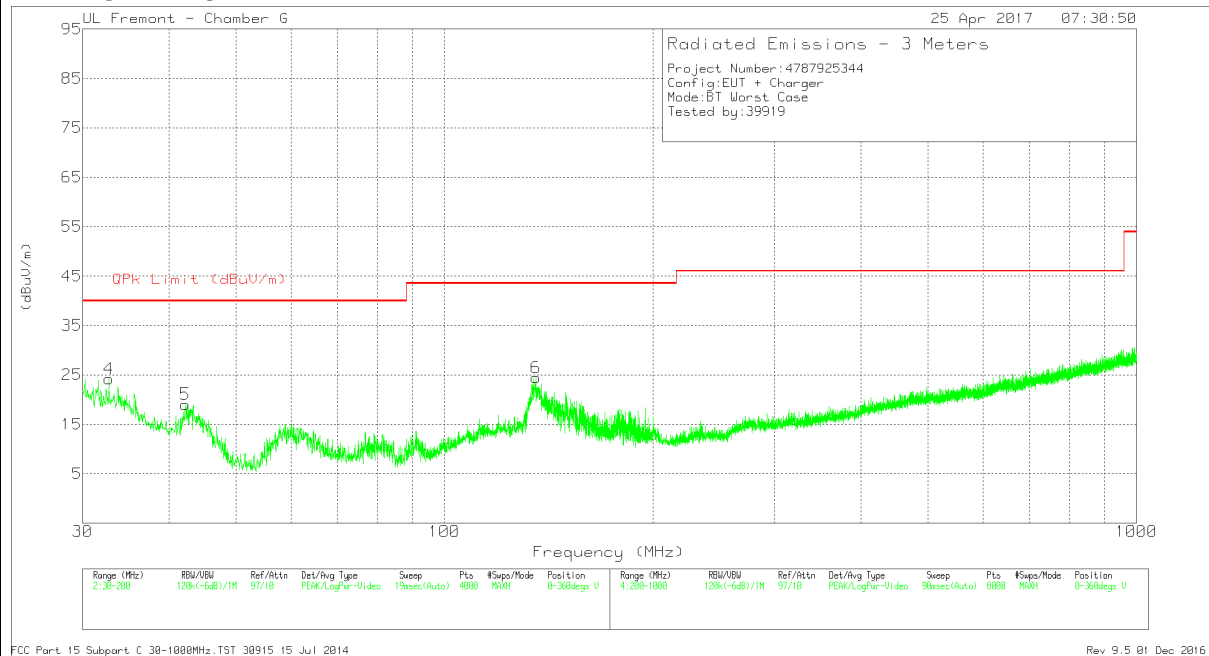
9.9. WORST-CASE BELOW 1 GHz

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

HORIZONTAL PLOT



VERTICAL PLOT



DATA

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T900 (dB/m)	Amp Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
3	* 134.0244	35.68	Pk	17.7	-30.2	23.18	43.52	-20.34	0-360	200	H
6	* 135.5973	37.08	Pk	17.6	-30.2	24.48	43.52	-19.04	0-360	100	V
1	30.0425	27.75	Pk	25.6	-31.3	22.05	40	-17.95	0-360	400	H
4	32.7207	31.94	Pk	23.6	-31.3	24.24	40	-15.76	0-360	100	V
5	42.2007	33.66	Pk	16.6	-31.2	19.06	40	-20.94	0-360	100	V
2	84.8817	35.09	Pk	11.2	-30.6	15.69	40	-24.31	0-360	300	H

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

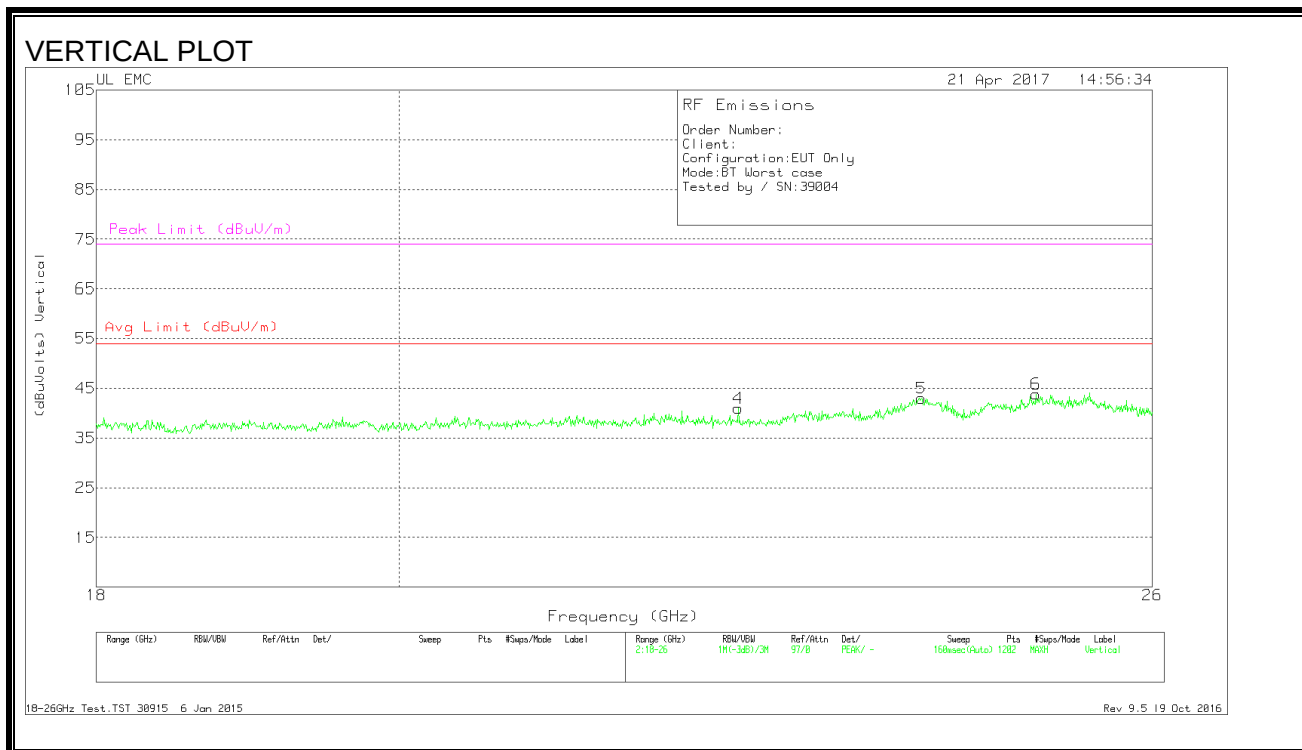
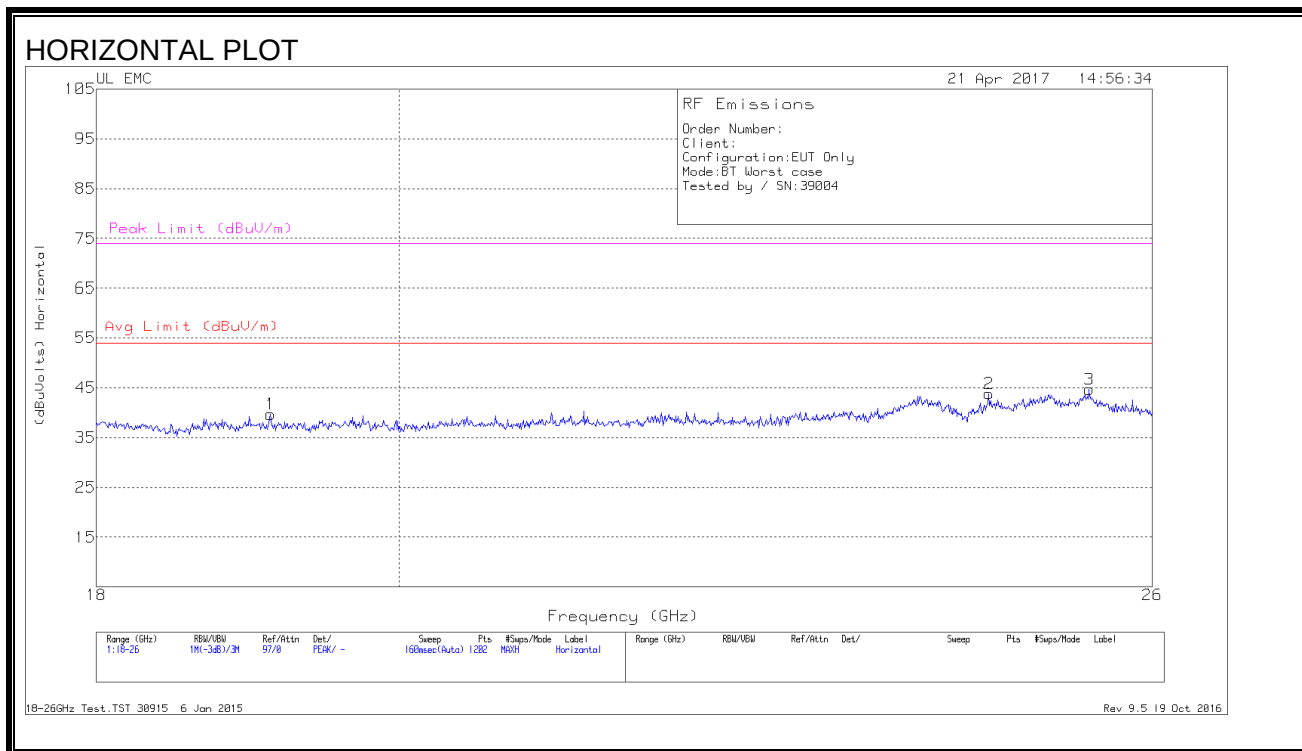
Pk - Peak detector

FCC Part 15 Subpart C 30-1000MHz.TST 30915 15 Jul 2014

Rev 9.5 01 Dec 2016

9.10. WORST-CASE ABOVE 18 GHz

SPURIOUS EMISSIONS 18 TO 26 GHz (WORST-CASE CONFIGURATION)



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	19.126	40.87	Pk	32.7	-24.4	-9.5	39.66	54	-14.33	74	-34.33
2	24.561	43.13	Pk	34.1	-23.9	-9.5	43.83	54	-10.16	74	-30.16
3	25.434	44.07	Pk	34.4	-24.3	-9.5	44.66	54	-9.33	74	-29.33
4	22.51	42	Pk	33.5	-25	-9.5	41	54	-13	74	-33
5	23.988	42.8	Pk	34	-24.3	-9.5	43	54	-11	74	-31
6	24.968	43.33	Pk	34.2	-24.2	-9.5	43.83	54	-10.16	74	-30.16

Pk - Peak detector

18-26GHz Test.TST 30915 6 Jan 2015

Rev 9.5 19 Oct 2016

10. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

FCC §15.207 (a)

RSS-Gen 8.8

Frequency of Emission (MHz)	Conducted Limit (dBμV)	
	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.

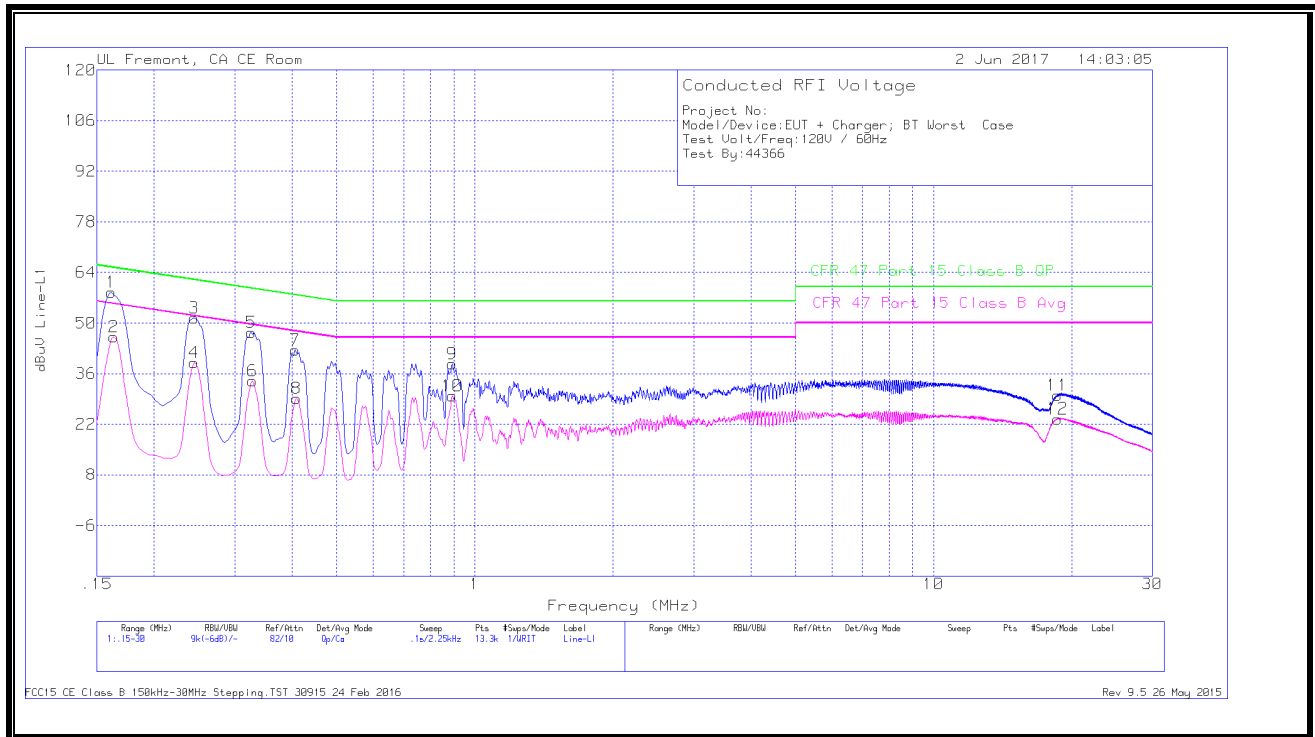
The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

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

RESULTS

10.1. EUT POWERED BY AC/DC ADAPTER VIA USB CABLE

LINE 1 RESULTS



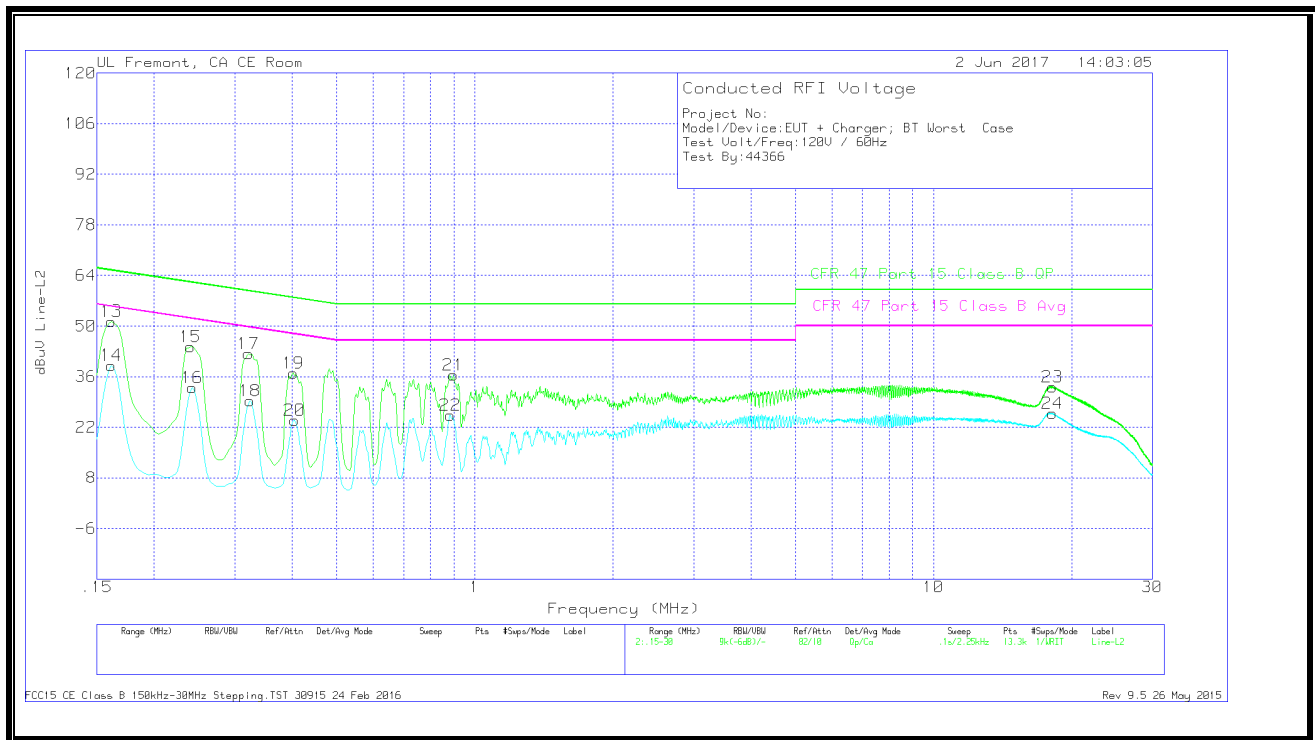
WORST EMISSIONS

Range 1: Line-L1 .15 - 30MHz											
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN L1	LC Cables C1&C3	Limiter (dB)	Corrected Reading dBuV	CFR 47 Part 15 Class B QP	QP Margin (dB)	CFR 47 Part 15 Class B Avg	Av(CISPR) Margin (dB)
1	.16125	48.24	Qp	0	.1	10.1	58.44	65.4	-6.96	-	-
2	.1635	35.96	Ca	0	.1	10.1	46.16	-	-	55.28	-9.12
3	.2445	41.11	Qp	0	.1	10.1	51.31	61.94	-10.63	-	-
4	.2445	28.85	Ca	0	.1	10.1	39.05	-	-	51.94	-12.89
5	.3255	37.21	Qp	0	.1	10.1	47.41	59.57	-12.16	-	-
6	.32775	23.83	Ca	0	.1	10.1	34.03	-	-	49.51	-15.48
7	.4065	32.31	Qp	0	.1	10.1	42.51	57.72	-15.21	-	-
8	.40875	18.88	Ca	0	.1	10.1	29.08	-	-	47.67	-18.59
9	.8925	28.47	Qp	0	.1	10.1	38.67	56	-17.33	-	-
10	.8925	19.63	Ca	0	.1	10.1	29.83	-	-	46	-16.17
11	18.6281	19.34	Qp	0	.3	10.3	29.94	60	-30.06	-	-
12	18.6259	12.89	Ca	0	.3	10.3	23.49	-	-	50	-26.51

Qp - Quasi-Peak detector

Ca - CISPR average detection

LINE 2 RESULTS



WORST EMISSIONS

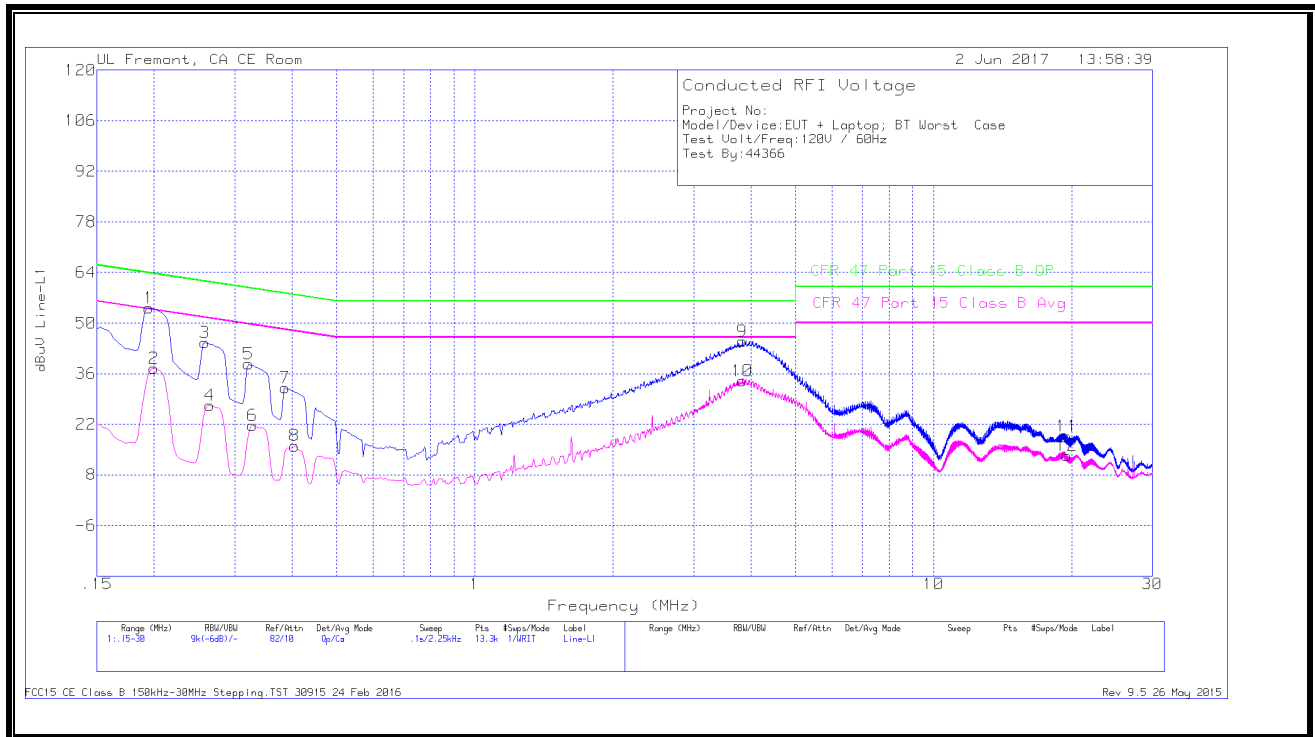
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN L2	LC Cables C2&C3	Limiter (dB)	Corrected Reading dBuV	CFR 47 Part 15 Class B QP	QP Margin (dB)	CFR 47 Part 15 Class B Avg	Av(CISPR) Margin (dB)
13	.16125	41.1	Qp	0	.1	10.1	51.3	65.4	-14.1	-	-
14	.16125	28.93	Ca	0	.1	10.1	39.13	-	-	55.4	-16.27
15	.24	34.12	Qp	0	.1	10.1	44.32	62.1	-17.78	-	-
16	.24225	22.76	Ca	0	.1	10.1	32.96	-	-	52.02	-19.06
17	.321	32.15	Qp	0	.1	10.1	42.35	59.68	-17.33	-	-
18	.32325	19.14	Ca	0	.1	10.1	29.34	-	-	49.62	-20.28
19	.402	26.69	Qp	0	.1	10.1	36.89	57.81	-20.92	-	-
20	.40425	13.79	Ca	0	.1	10.1	23.99	-	-	47.77	-23.78
21	.89925	26.25	Qp	0	.1	10.1	36.45	56	-19.55	-	-
22	.8835	15.13	Ca	0	.1	10.1	25.33	-	-	46	-20.67
23	18.1613	22.59	Qp	0	.3	10.3	33.19	60	-26.81	-	-
24	18.177	15.16	Ca	0	.3	10.3	25.76	-	-	50	-24.24

Qp - Quasi-Peak detector

Ca - CISPR average detection

10.2. EUT POWERED BY HOST PC VIA USB CABLE

LINE 1 RESULTS



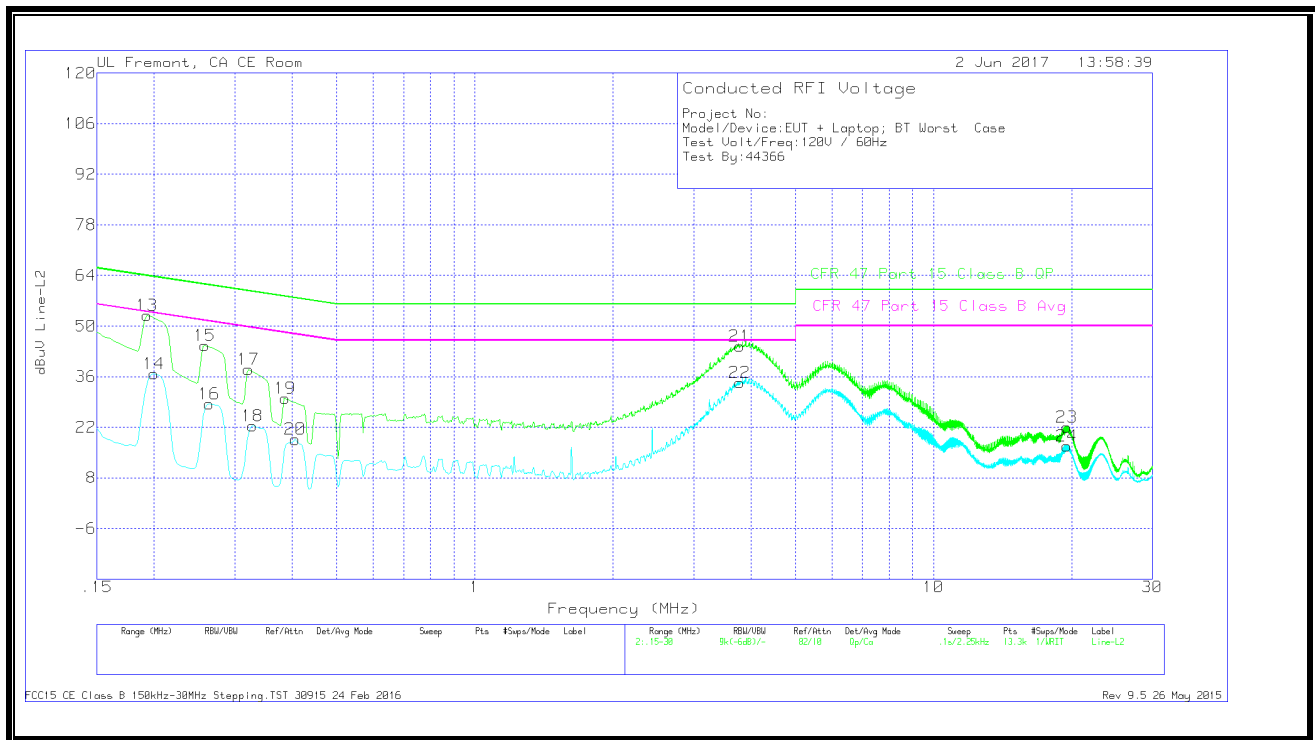
WORST EMISSIONS

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN L1	LC Cables C1&C3	Limiter (dB)	Corrected Reading dBuV	CFR 47 Part 15 Class B QP	QP Margin (dB)	CFR 47 Part 15 Class B Avg	Av(CISPR) Margin (dB)
1	.195	44.03	Qp	0	.1	10.1	54.23	63.82	-9.59	-	-
2	.1995	27.25	Ca	0	.1	10.1	37.45	-	-	53.63	-16.18
3	.258	34.41	Qp	0	.1	10.1	44.61	61.5	-16.89	-	-
4	.26475	16.98	Ca	0	.1	10.1	27.18	-	-	51.28	-24.1
5	.321	28.43	Qp	0	.1	10.1	38.63	59.68	-21.05	-	-
6	.32775	11.43	Ca	0	.1	10.1	21.63	-	-	49.51	-27.88
7	.38625	21.88	Qp	0	.1	10.1	32.08	58.14	-26.06	-	-
8	.40425	5.82	Ca	0	.1	10.1	16.02	-	-	47.77	-31.75
9	3.82875	34.76	Qp	0	.1	10.1	44.96	56	-11.04	-	-
10	3.82875	23.81	Ca	0	.1	10.1	34.01	-	-	46	-11.99
11	19.527	8.03	Qp	0	.3	10.3	18.63	60	-41.37	-	-
12	19.5315	2.77	Ca	0	.3	10.3	13.37	-	-	50	-36.63

Qp - Quasi-Peak detector

Ca - CISPR average detection

LINE 2 RESULTS



WORST EMISSIONS

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN L2	LC Cables C2&C3	Limiter (dB)	Corrected Reading dBuV	CFR 47 Part 15 Class B QP	QP Margin (dB)	CFR 47 Part 15 Class B Avg	Av(CISPR) Margin (dB)
13	.19275	42.76	Qp	0	.1	10.1	52.96	63.92	-10.96	-	-
14	.1995	26.58	Ca	0	.1	10.1	36.78	-	-	53.63	-16.85
15	.258	34.38	Qp	0	.1	10.1	44.58	61.5	-16.92	-	-
16	.26363	18.3	Ca	0	.1	10.1	28.5	-	-	51.32	-22.82
17	.321	27.78	Qp	0	.1	10.1	37.98	59.68	-21.7	-	-
18	.32775	12.16	Ca	0	.1	10.1	22.36	-	-	49.51	-27.15
19	.38625	19.8	Qp	0	.1	10.1	30	58.14	-28.14	-	-
20	.4065	8.43	Ca	0	.1	10.1	18.63	-	-	47.72	-29.09
21	3.78375	34.26	Qp	0	.1	10.1	44.46	56	-11.54	-	-
22	3.786	24.16	Ca	0	.1	10.1	34.36	-	-	46	-11.64
23	19.5203	11.39	Qp	0	.3	10.3	21.99	60	-38.01	-	-
24	19.5203	6.22	Ca	0	.3	10.3	16.82	-	-	50	-33.18

Qp - Quasi-Peak detector

Ca - CISPR average detection