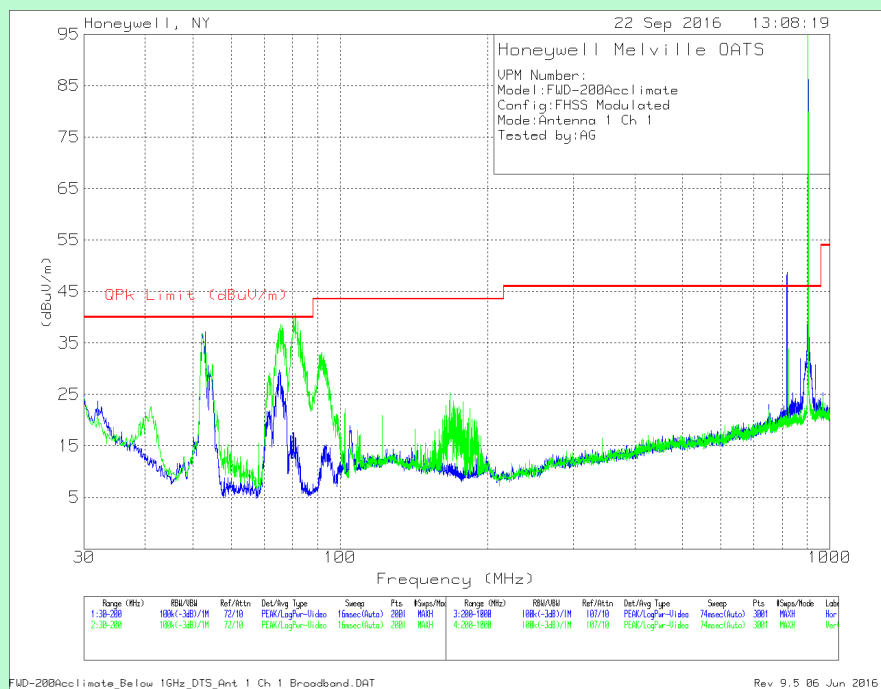
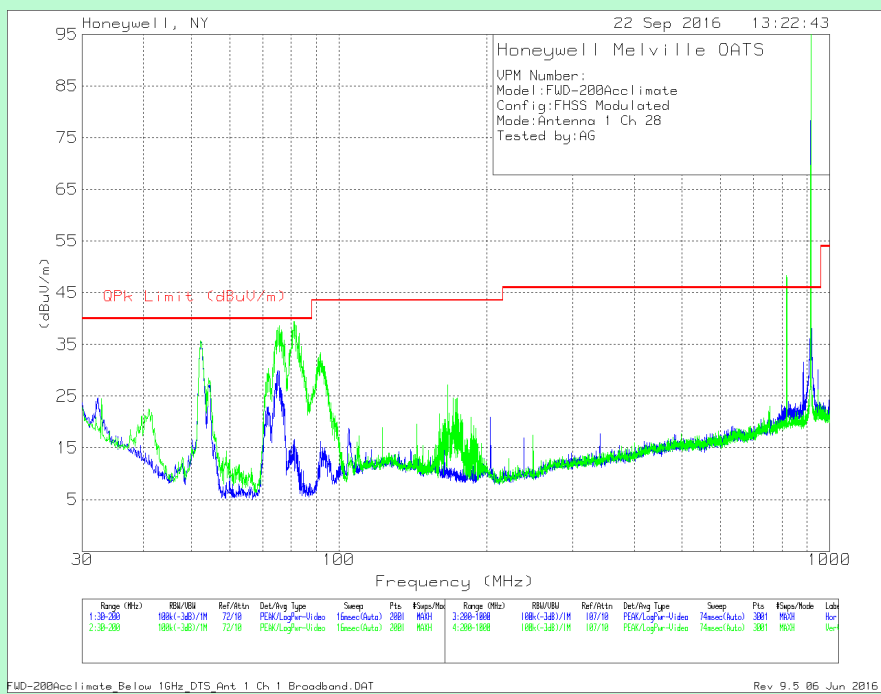


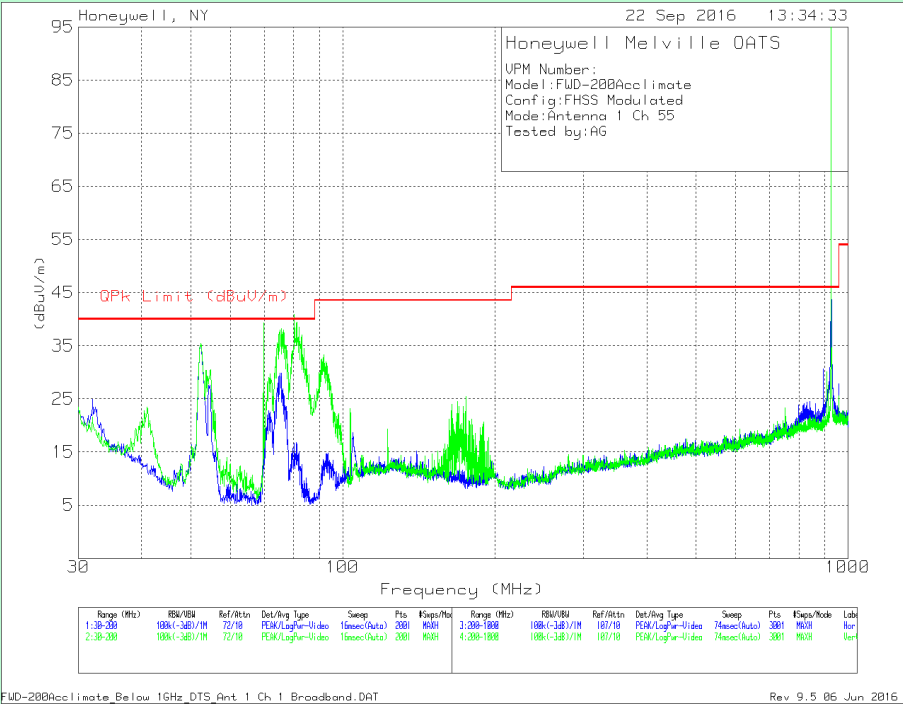
TEST GRAPHS –30 MHz to 1 GHz (ANTENNA 1)



Channel 1 (903.55 MHz) – Antenna 1



Channel 28 (916.00MHz) – Antenna 1

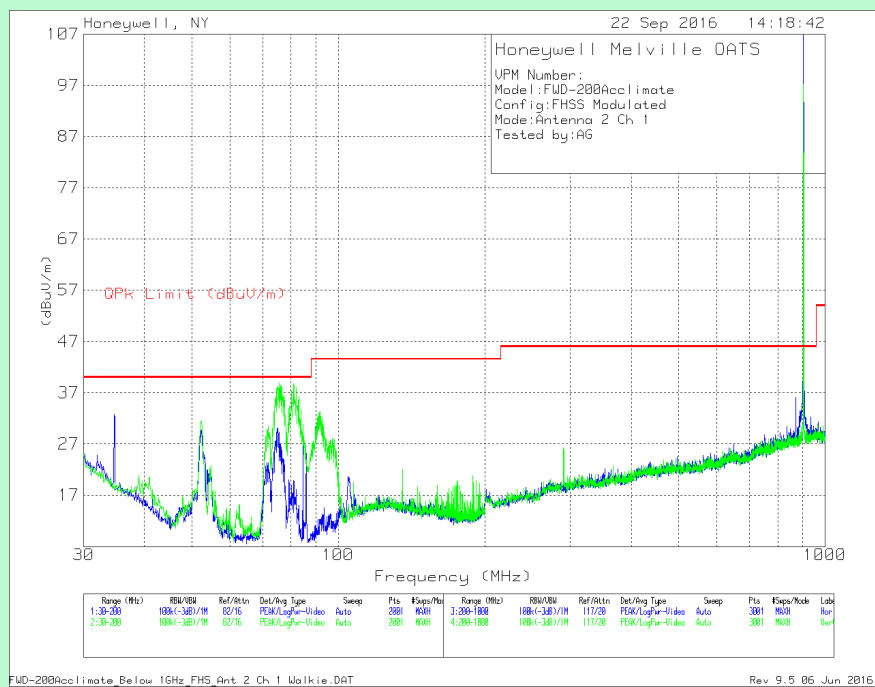


Channel 55 (926.45 MHz) – Antenna 1

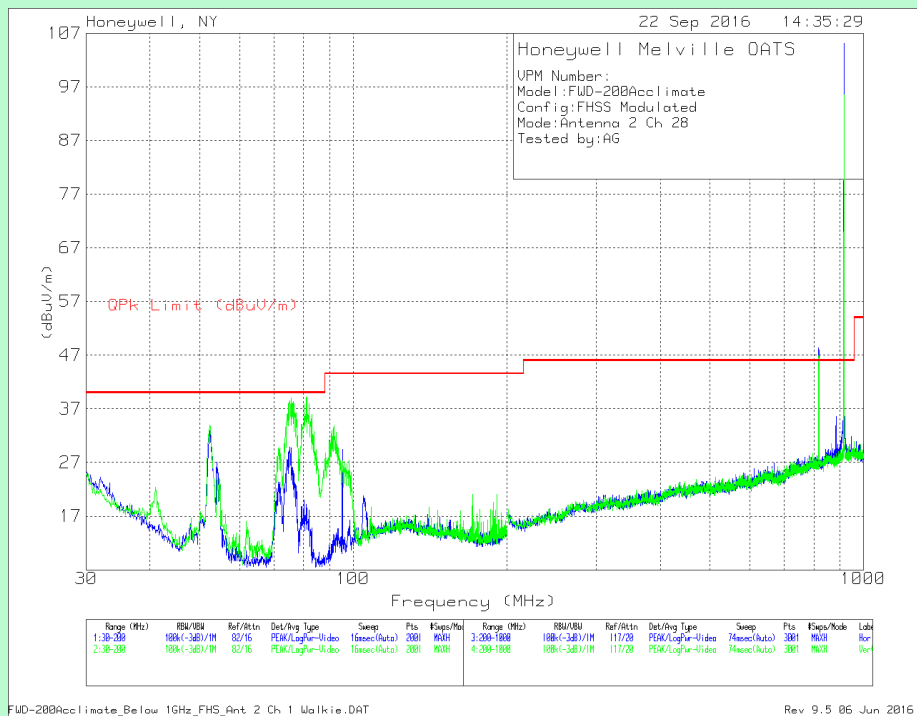
TEST RESULT – 30 MHz to 1 GHz

Channel 1											
Frequency (MHz)	Meter Reading (dBuV)	Det	AF [dB/m]	Pre Amp #1 [dB]	RDE #1 [dB]	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
53.035	35.44	Qp	12.1	-29	1	19.54	40	20.46	358	399	H
* 75.135	35.53	Qp	12.1	-28.9	1.2	19.93	40	20.07	26	354	H
52.4208	51.98	Qp	12.2	-29	1	36.18	40	3.82	333	227	V
75.56	43.18	Qp	12.1	-28.9	1.2	27.58	40	12.42	182	187	V
81.0072	49.48	Qp	11.8	-28.9	1.3	33.68	40	6.32	240	123	V
818.4008	21.65	Qp	26.3	-27.9	5.2	25.25	46.02	20.77	9	390	H
** 903.5222	107.56	Pk	27	-27.6	5.5	112.46	-	-	309	100	H
** 903.6068	97.98	Pk	27	-27.6	5.5	102.88	-	-	300	101	V
Channel 28											
Frequency (MHz)	Meter Reading (dBuV)	Det	AF [dB/m]	Pre Amp #1 [dB]	RDE #1 [dB]	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
52.525	35.94	Qp	12.1	-29	1	20.04	40	19.96	161	272	H
* 75.135	37.23	Qp	12.1	-28.9	1.2	21.63	40	18.37	46	393	H
52.1826	51.64	Qp	12.2	-29	1	35.84	40	4.16	178	105	V
75.56	40.43	Qp	12.1	-28.9	1.2	24.83	40	15.17	22	316	V
81.2852	49.51	Qp	11.8	-28.9	1.3	33.71	40	6.29	234	119	V
817.3341	23.62	Qp	26.2	-27.9	5.2	27.12	46.02	18.9	199	383	H
** 916.0605	106.7	Pk	27.3	-27.5	5.6	112.1	-	-	334	149	H
817.793	19.5	Pk	26.3	-27.9	5.2	23.1	46.02	22.92	69	154	V
817.793	26.73	Qp	26.3	-27.9	5.2	30.33	46.02	15.69	69	154	V
** 915.9736	97.03	Pk	27.3	-27.5	5.6	102.43	-	-	269	158	V
Channel 55											
Frequency (MHz)	Meter Reading (dBuV)	Det	AF [dB/m]	Pre Amp #1 [dB]	RDE #1 [dB]	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
52.501	33.75	Qp	12.1	-29	1	17.85	40	22.15	190	385	H
75.56	36.82	Qp	12.1	-28.9	1.2	21.22	40	18.78	355	396	H
52.4011	51.19	Qp	12.2	-29	1	35.39	40	4.61	205	350	V
69.7858	41.12	Qp	12.2	-29	1.2	25.52	40	14.48	233	235	V
75.56	41.46	Qp	12.1	-28.9	1.2	25.86	40	14.14	151	153	V
80.235	39.37	Qp	11.9	-28.9	1.3	23.67	40	16.33	284	296	V
** 926.5066	105.35	Pk	27.3	-27.5	5.7	110.85	-	-	154	100	H
** 926.4265	97.67	Pk	27.3	-27.5	5.7	103.17	-	-	50	119	V
Note : * - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band ** - indicates intended frequency Pk - Peak detector Qp - Quasi-Peak detector NOTE: Measured Field Strength –dBuV/m (9 KHz to 1GHz) = Receiver Readings (dBuV) + Antenna Factor (dB/m) + Cable loss (dB) - Preamp gain (dB) Prescans performed in a pre-compliance chamber. Final measurements performed on an OATS. Emissions shown in the plot are related to the chamber ambient											

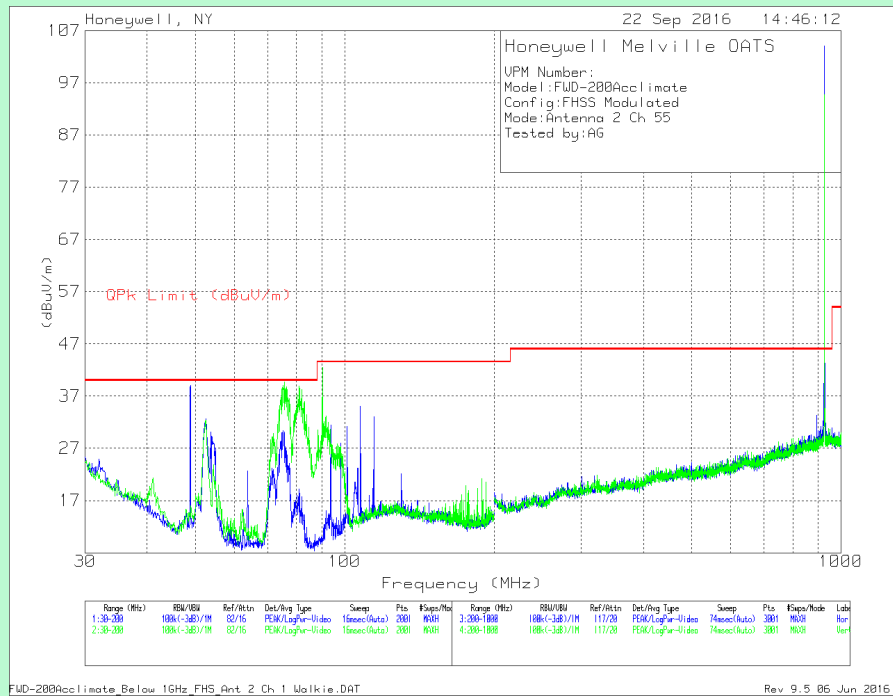
TEST GRAPHS -30 MHz to 1 GHz (ANTENNA 2)



Channel 1 (903.55 MHz) – Antenna 2



Channel 28 (916.00 MHz) – Antenna 2

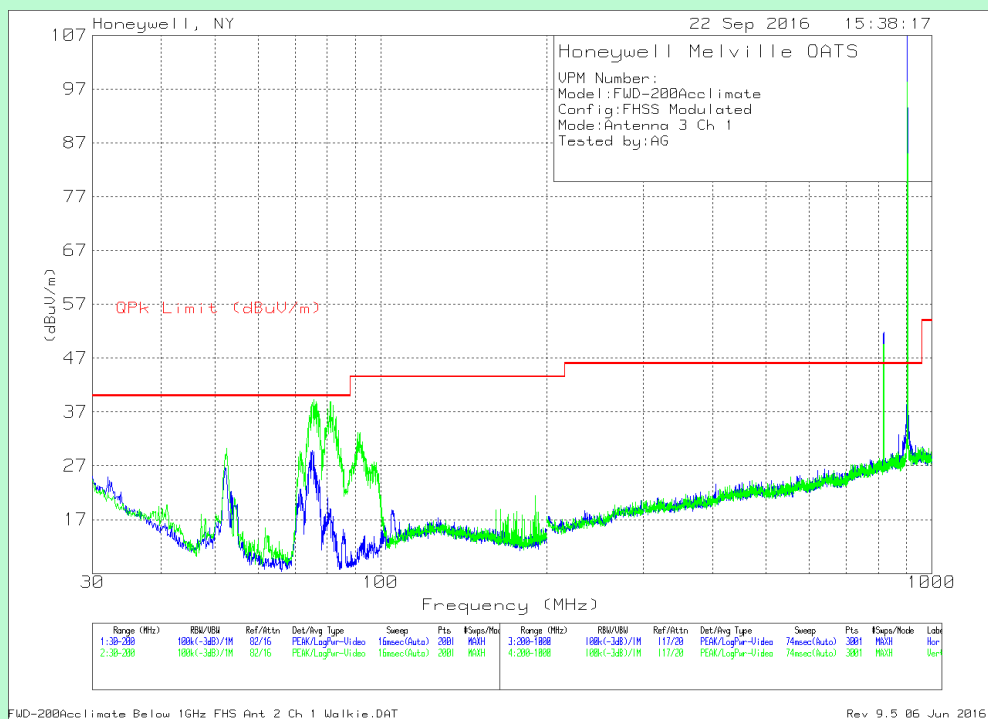


Channel 55 (926.45 MHz) – Antenna 2

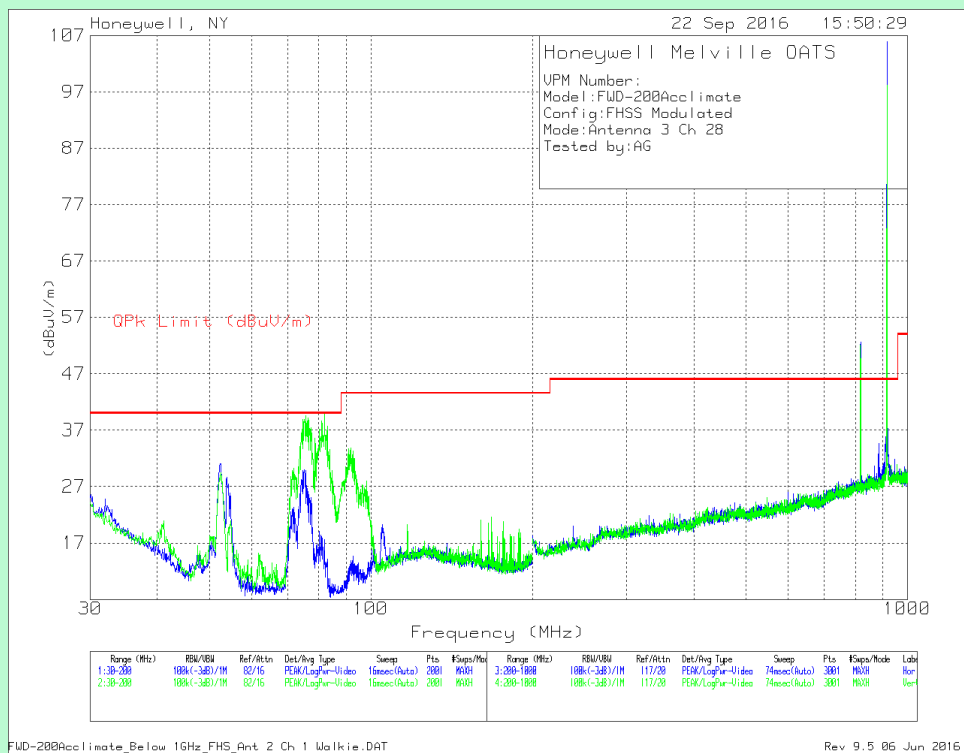
TEST RESULT – 30 MHz to 1 GHz

Channel 1											
Frequency (MHz)	Meter Reading (dBuV)	Det	AF [dB/m]	Pre Amp #1 [dB]	RDE #1 [dB]	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
34.675	26.58	Qp	22.5	-29.1	.9	20.88	40	19.12	143	267	H
52.355	33.69	Qp	12.2	-29	1	17.89	40	22.11	326	400	H
74.625	33.97	Qp	12.1	-28.9	1.2	18.37	40	21.63	117	355	H
52.355	46.78	Qp	12.2	-29	1	30.98	40	9.02	76	209	V
75.22	40.02	Qp	12.1	-28.9	1.2	24.42	40	15.58	242	349	V
82.02	38.54	Qp	11.8	-28.9	1.3	22.74	40	17.26	345	363	V
91.9466	26.96	Qp	12.3	-28.8	1.4	11.86	43.52	31.66	128	399	V
** 903.602	109.53	Pk	27	-27.6	5.5	114.43	-	-	167	100	H
** 903.602	95.05	Pk	27	-27.6	5.5	99.95	-	-	33	100	V
Channel 28											
Frequency (MHz)	Meter Reading (dBuV)	Det	AF [dB/m]	Pre Amp #1 [dB]	RDE #1 [dB]	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
52.44	34.63	Qp	12.2	-29	1	18.83	40	21.17	173	371	H
75.56	38.48	Qp	12.1	-28.9	1.2	22.88	40	17.12	157	400	H
52.355	47.85	Qp	12.2	-29	1	32.05	40	7.95	95	183	V
75.56	40.15	Qp	12.1	-28.9	1.2	24.55	40	15.45	9	363	V
81.085	42.35	Qp	11.8	-28.9	1.3	26.55	40	13.45	57	109	V
91.71	48.32	Qp	12.2	-28.8	1.4	33.12	43.52	10.4	84	109	V
** 915.968	106.91	Pk	27.3	-27.5	5.6	112.31	-	-	173	152	H
817.8674	30.15	Qp	26.3	-27.9	5.2	33.75	46.02	12.27	6	390	H
** 915.972	99.24	Pk	27.3	-27.5	5.6	104.64	-	-	251	141	V
Channel 55											
Frequency (MHz)	Meter Reading (dBuV)	Det	AF [dB/m]	Pre Amp #1 [dB]	RDE #1 [dB]	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
48.955	35.57	Qp	13	-29	1	20.57	40	19.43	87	375	H
107.52	47.33	Qp	16	-28.8	1.5	36.03	43.52	7.49	252	400	H
* 114.5124	27.94	Qp	17.2	-28.8	1.5	17.84	43.52	25.68	200	313	H
52.525	44.92	Qp	12.1	-29	1	29.02	40	10.98	291	263	V
75.56	42.62	Qp	12.1	-28.9	1.2	27.02	40	12.98	18	186	V
80.8327	39.14	Qp	11.8	-28.9	1.3	23.34	40	16.66	112	304	V
90.265	35.15	Qp	12	-28.9	1.3	19.55	43.52	23.97	121	128	V
** 926.414	105.41	Pk	27.3	-27.5	5.7	110.91	-	-	172	100	H
** 926.506	93.03	Pk	27.3	-27.5	5.7	98.53	-	-	26	100	V
Note: * - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band ** - indicates intended frequency Pk - Peak detector Qp - Quasi-Peak detector NOTE: Measured Field Strength –dBuV/m (9 KHz to 1GHz) = Receiver Readings (dBuV) + Antenna Factor (dB/m) + Cable loss (dB) - Preamp gain (dB) Prescans performed in a pre-compliance chamber. Final measurements performed on an OATS. Emissions shown in the plot are related to the chamber ambient											

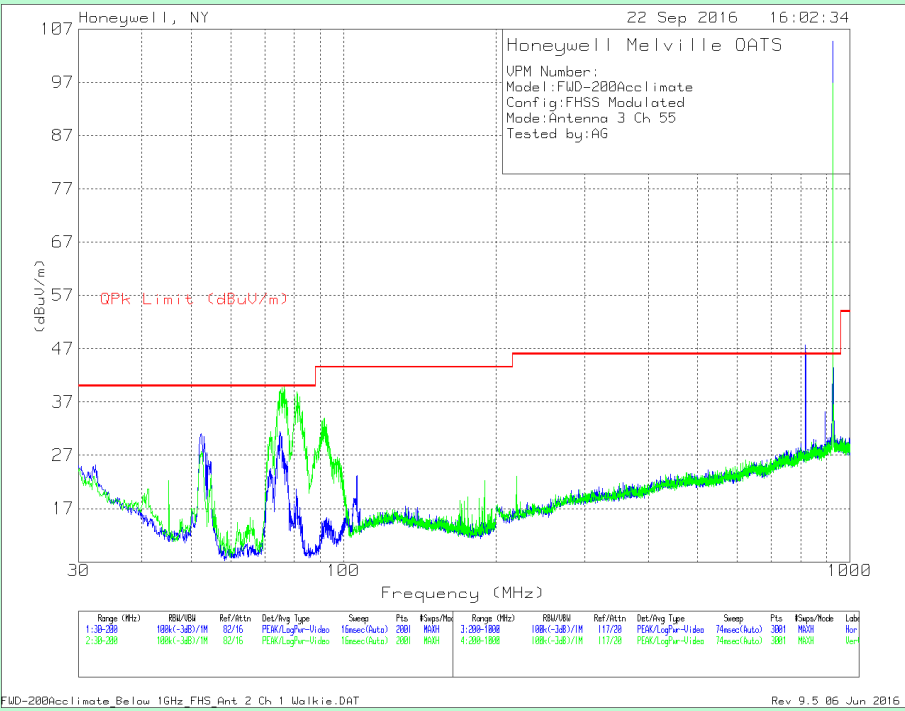
TEST GRAPHS –30 MHz to 1 GHz (ANTENNA 3)



Channel 1 (903.55 MHz) – Antenna 3



Channel 28 (916.00 MHz) – Antenna 3

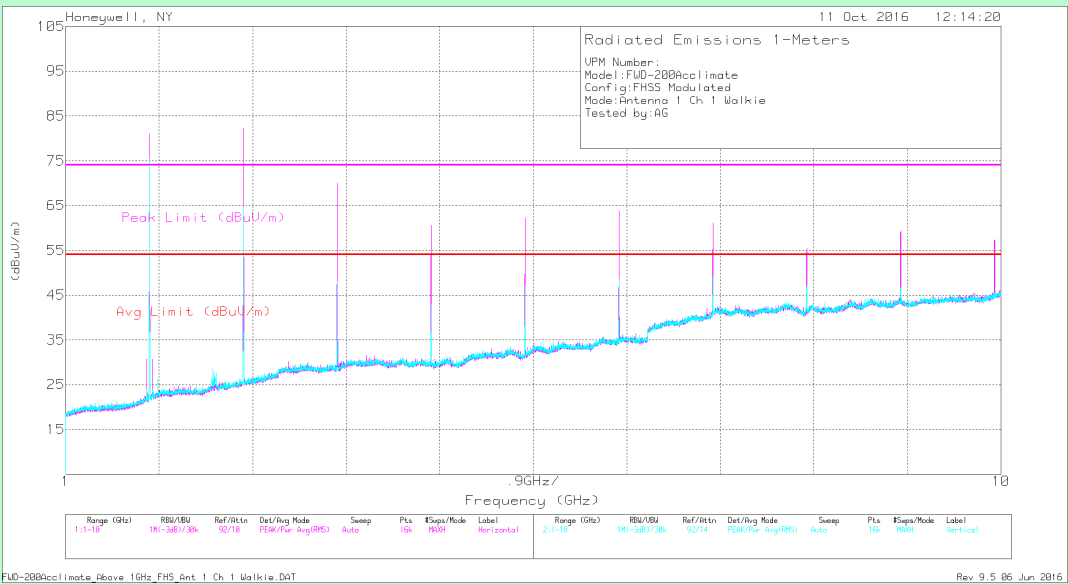


Channel 55 (926.45 MHz) – Antenna 3

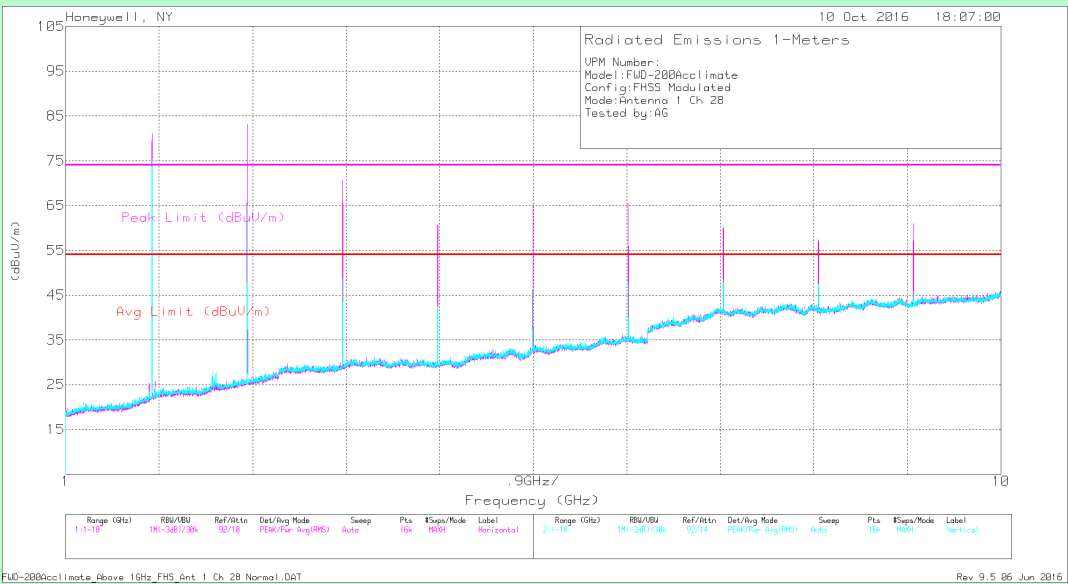
TEST RESULT – 30 MHz to 1 GHz

Channel 1											
Frequency (MHz)	Meter Reading (dBuV)	Det	AF [dB/m]	Pre Amp #1 [dB]	RDE #1 [dB]	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
52.27	33.64	Qp	12.2	-29	1	17.84	40	22.16	7	397	H
* 75.135	28.81	Qp	12.1	-28.9	1.2	13.21	40	26.79	7	100	H
52.525	44.77	Qp	12.1	-29	1	28.87	40	11.13	128	338	V
75.56	41.1	Qp	12.1	-28.9	1.2	25.5	40	14.5	34	255	V
81.1275	41.56	Qp	11.8	-28.9	1.3	25.76	40	14.24	192	180	V
** 903.61	106.63	Pk	27	-27.6	5.5	111.53	-	-	359	148	H
818.1341	30.73	Qp	26.3	-27.9	5.2	34.33	46.02	11.69	185	216	H
** 903.622	97.34	Pk	27	-27.6	5.5	102.24	-	-	47	139	V
817.6008	30.48	Qp	26.3	-27.9	5.2	34.08	46.02	11.94	287	201	V
Channel 28											
Frequency (MHz)	Meter Reading (dBuV)	Det	AF [dB/m]	Pre Amp #1 [dB]	RDE #1 [dB]	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
52.7194	34.55	Qp	12.1	-29	1	18.65	40	21.35	145	315	H
75.22	31.77	Qp	12.1	-28.9	1.2	16.17	40	23.83	49	175	H
75.56	40.26	Qp	12.1	-28.9	1.2	24.66	40	15.34	188	318	V
82.02	41.91	Qp	11.8	-28.9	1.3	26.11	40	13.89	13	159	V
91.71	47.23	Qp	12.2	-28.8	1.4	32.03	43.52	11.49	359	139	V
**915.972	105.99	Pk	27.3	-27.5	5.6	111.39	-	-	167	153	H
818.1341	31.02	Qp	26.3	-27.9	5.2	34.62	46.02	11.4	250	138	H
**915.972	98.26	Pk	27.3	-27.5	5.6	103.66	-	-	107	101	V
817.6008	31.19	Qp	26.3	-27.9	5.2	34.79	46.02	11.23	332	136	V
Channel 55											
Frequency (MHz)	Meter Reading (dBuV)	Det	AF [dB/m]	Pre Amp #1 [dB]	RDE #1 [dB]	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
52.44	33.89	Qp	12.2	-29	1	18.09	40	21.91	323	397	H
* 74.965	34.23	Qp	12.1	-28.9	1.2	18.63	40	21.37	63	331	H
76.495	42.58	Qp	12.1	-28.9	1.3	27.08	40	12.92	105	118	V
81.085	42.74	Qp	11.8	-28.9	1.3	26.94	40	13.06	17	165	V
91.71	46.56	Qp	12.2	-28.8	1.4	31.36	43.52	12.16	130	135	V
**926.506	105.37	Pk	27.3	-27.5	5.7	110.87	-	-	347	146	H
817.3341	29.91	Qp	26.2	-27.9	5.2	33.41	46.02	12.61	67	325	H
**926.426	98.29	Pk	27.3	-27.5	5.7	103.79	-	-	83	150	V
Note: * - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band ** - indicates intended frequency Pk - Peak detector Qp - Quasi-Peak detector NOTE: Measured Field Strength –dBuV/m (9 KHz to 1GHz) = Receiver Readings (dBuV) + Antenna Factor (dB/m) + Cable loss (dB) - Preamp gain (dB) Prescans performed in a pre-compliance chamber. Final measurements performed on an OATS. Emissions shown in the plot are related to the chamber ambient											

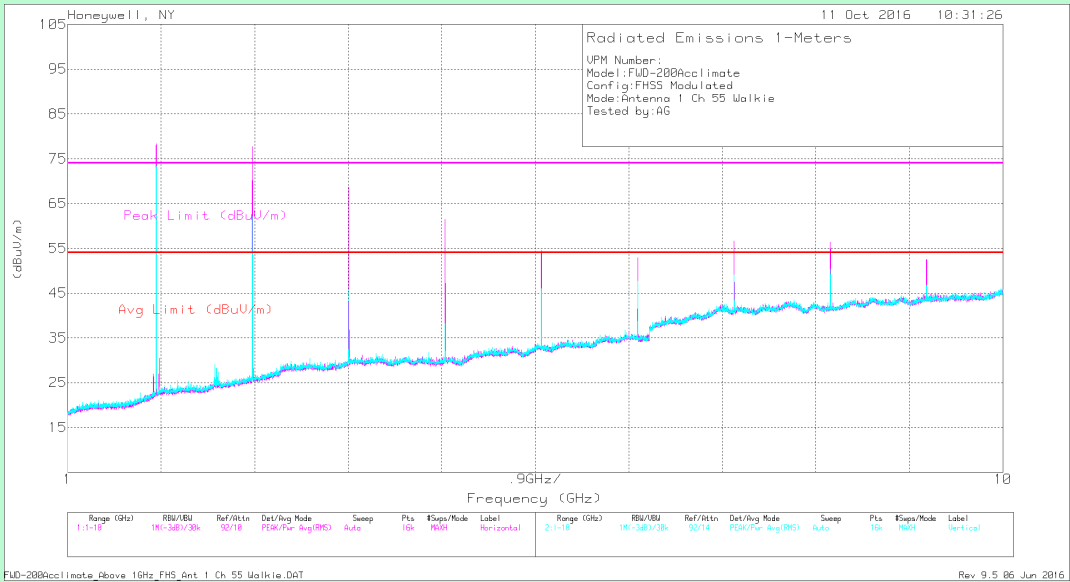
TEST GRAPHS –1 GHz to 10 GHz (ANTENNA 1)



Channel 1 (903.55 MHz) – Antenna 1



Channel 28 (916.00 MHz) – Antenna 1



Channel 55 (926.45 MHz) – Antenna 1

TEST RESULT – 1 GHz to 10 GHz – CHANNEL 1

PEAK DATA – RESTRICTED BAND

Frequency (GHz)	Meter Reading (dBuV)	Det	AF [dB/m]	Preampl [dB]	SMA1 [dB]	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 2.711	48.92	PKFH	29.3	-27.1	9	60.12	74	13.88	39	119	H
* 3.614	39.98	PKFH	31.6	-26.8	10.4	55.18	74	18.82	201	107	H
* 4.518	35.34	PKFH	32.2	-26.6	11.7	52.64	74	21.36	85	286	H
* 5.421	37.36	PKFH	34.3	-26.7	12.9	57.86	74	16.14	101	279	H
* 8.131	34.24	PKFH	37.1	-26.2	16	61.14	74	12.86	30	233	H
* 9.034	30.91	PKFH	37.6	-25.9	16.9	59.51	74	14.49	353	189	H
* 2.71	48.43	PKFH	29.3	-27.1	9	59.63	74	14.37	272	102	V
* 3.615	35.53	PKFH	31.6	-26.8	10.4	50.73	74	23.27	0	320	V
* 4.518	35.74	PKFH	32.2	-26.6	11.7	53.04	74	20.96	31	161	V
* 5.422	37.91	PKFH	34.3	-26.7	12.9	58.41	74	15.59	20	265	V
* 8.133	33.82	PKFH	37.1	-26.2	16	60.72	74	13.28	308	245	V
* 9.037	34.45	PKFH	37.6	-25.9	16.9	63.05	74	10.95	75	242	V

PEAK DATA – NON RESTRICTED BAND

Frequency (GHz)	Meter Reading (dBuV)	Det	AF [dB/m]	Preampl [dB]	SMA1 [dB]	Corrected Reading (dBuV/m)	Peak Limit [Fundamental-20dBc] (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1.807	67.45	PKFH	27.1	-26.9	7.3	74.95	92.5	17.55	11	138	H
6.326	37.09	PKFH	34.9	-26.4	14	59.59	92.5	32.91	301	274	H
7.228	37.25	PKFH	36.3	-26.2	15	62.35	92.5	30.15	17	260	H
1.807	62.75	PKFH	27.1	-26.9	7.3	70.25	92.5	22.25	109	123	V
6.324	38.31	PKFH	34.9	-26.4	14	60.81	92.5	31.69	33	264	V
7.228	36.97	PKFH	36.3	-26.2	15	62.07	92.5	30.43	308	245	V

AVERAGE DATA – RESTRICTED BAND

Frequency (GHz)	Meter Reading (dBuV)	Det	AF [dB/m]	Preampl [dB]	SMA1 [dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 2.711	47.11	VA1T	29.3	-27.1	9	-12.55	45.76	54	8.24	39	119	H
* 3.614	36.59	VA1T	31.6	-26.8	10.4	-12.55	39.24	54	14.76	201	107	H
* 4.518	28.06	VA1T	32.2	-26.6	11.7	-12.55	32.81	54	21.19	85	286	H
* 5.421	31.45	VA1T	34.3	-26.7	12.9	-12.55	39.4	54	14.6	101	279	H
* 8.133	26.3	VA1T	37.1	-26.2	16	-12.55	40.65	54	13.35	30	233	H
* 9.037	21.73	VA1T	37.6	-25.9	16.9	-12.55	37.78	54	16.22	353	189	H
* 2.711	46.55	VA1T	29.3	-27.1	9	-12.55	45.2	54	8.8	272	102	V
* 3.614	29.9	VA1T	31.6	-26.8	10.4	-12.55	32.55	54	21.45	0	320	V
* 4.518	28.6	VA1T	32.2	-26.6	11.7	-12.55	33.35	54	20.65	31	161	V
* 5.421	31.71	VA1T	34.3	-26.7	12.9	-12.55	39.66	54	14.34	20	265	V
* 8.133	24.09	VA1T	37.1	-26.2	16	-12.55	38.44	54	15.56	308	245	V
* 9.035	26.2	VA1T	37.6	-25.9	16.9	-12.55	42.25	54	11.75	75	242	V

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

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

VA1T - FHSS: Linear Voltage Average RB=1MHz VB=10Hz

Field Strength –dBuV/m =Receiver Readings (dBuV) +Antenna Factor (dB/m) +Cable Loss (dB) +Filter Insertion Loss –Preamplifier Gain (dB)

Prescans performed in a pre-compliance chamber .Final measurements performed on an OATS

Duty Cycle correction Factor is calculated using the Guidelines provided in DA 00-705

Duty Cycle Factor =20*log (Dwell time /100msec), Number of Transmission for 100msec: 8, Dwell time per Transmission: 1.572 msec

Duty Cycle correction Factor =20 log (1.572*8/100) = -18dB

TEST RESULT – 1 GHz to 10 GHz – CHANNEL 28

PEAK DATA – RESTRICTED BAND

Frequency (GHz)	Meter Reading (dBuV)	Det	AF [dB/m]	Preamp [dB]	SMA1 [dB]	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 2.748	37.55	PKFH	29.4	-27	9	48.95	74	25.05	15	162	H
* 3.664	33.33	PKFH	31.8	-26.9	10.4	48.63	74	25.37	208	397	H
* 3.664	33.48	PKFH	31.8	-26.9	10.4	48.78	74	25.22	179	354	H
* 4.58	32.31	PKFH	32.2	-26.7	11.8	49.61	74	24.39	180	341	H
* 7.329	36.52	PKFH	36.7	-26.2	15.1	62.12	74	11.88	4	253	H
* 8.244	35.31	PKFH	37.1	-26.1	16.2	62.51	74	11.49	27	245	H
* 9.16	32.15	PKFH	37.6	-25.9	17	60.85	74	13.15	71	255	H
* 2.748	39.85	PKFH	29.4	-27	9	51.25	74	22.75	169	275	V
* 3.665	34.21	PKFH	31.8	-26.9	10.4	49.51	74	24.49	79	282	V
* 4.58	34.48	PKFH	32.2	-26.7	11.8	51.78	74	22.22	304	293	V
* 4.58	34.02	PKFH	32.2	-26.7	11.8	51.32	74	22.68	304	293	V
* 7.328	35.73	PKFH	36.7	-26.2	15.1	61.33	74	12.67	310	243	V
* 8.243	35.28	PKFH	37.1	-26.1	16.2	62.48	74	11.52	60	242	V
* 9.161	33.51	PKFH	37.6	-25.9	17	62.21	74	11.79	70	244	V

PEAK DATA – NON RESTRICTED BAND

Frequency (GHz)	Meter Reading (dBuV)	Det	AF [dB/m]	Preamp [dB]	SMA1 [dB]	Corrected Reading (dBuV/m)	Peak Limit [Fundamental-20dBc] (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1.832	59.97	PKFH	27.3	-26.9	7.3	67.67	92.1	24.43	358	163	H
5.496	34.49	PKFH	34.4	-26.6	13	55.29	92.1	36.81	51	290	H
6.413	37.9	PKFH	34.8	-26.3	14.1	60.5	92.1	31.6	121	308	H
1.832	49.43	PKFH	27.3	-26.9	7.3	57.13	92.1	34.97	207	236	V
5.496	36.81	PKFH	34.4	-26.6	13	57.61	92.1	34.49	17	285	V
6.412	38.08	PKFH	34.8	-26.3	14.1	60.68	92.1	31.42	29	264	V

AVERAGE DATA – RESTRICTED BAND

Frequency (GHz)	Meter Reading (dBuV)	Det	AF [dB/m]	Preamp [dB]	SMA1 [dB]	DC Corr [dB]	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 2.748	33.93	VA1T	29.4	-27	9	-12.55	32.78	54	21.22	15	162	H
* 3.664	26.68	VA1T	31.8	-26.9	10.4	-12.55	29.43	54	24.57	208	397	H
* 3.664	27.22	VA1T	31.8	-26.9	10.4	-12.55	29.97	54	24.03	179	354	H
* 4.58	24.25	VA1T	32.2	-26.7	11.8	-12.55	29	54	25	180	341	H
* 7.329	28.39	VA1T	36.7	-26.2	15.1	-12.55	41.44	54	12.56	4	253	H
* 8.245	26.32	VA1T	37.1	-26.1	16.2	-12.55	40.97	54	13.03	27	245	H
* 9.159	23.29	VA1T	37.6	-25.9	17	-12.55	39.44	54	14.56	71	255	H
* 2.748	37.02	VA1T	29.4	-27	9	-12.55	35.87	54	18.13	169	275	V
* 3.664	26.08	VA1T	31.8	-26.9	10.4	-12.55	28.83	54	25.17	79	282	V
* 4.58	27.13	VA1T	32.2	-26.7	11.8	-12.55	31.88	54	22.12	304	293	V
* 4.58	27.43	VA1T	32.2	-26.7	11.8	-12.55	32.18	54	21.82	304	293	V
* 7.329	27.51	VA1T	36.7	-26.2	15.1	-12.55	40.56	54	13.44	310	243	V
* 8.243	27.32	VA1T	37.1	-26.1	16.2	-12.55	41.97	54	12.03	60	242	V
* 9.161	25.73	VA1T	37.6	-25.9	17	-12.55	41.88	54	12.12	70	244	V

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

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

VA1T - FHSS: Linear Voltage Average RB=1MHz VB=10Hz

Field Strength –dBuV/m =Receiver Readings(dBuV) +Antenna Factor(dB/m) +Cable Loss(dB) +Filter Insertion Loss –Preamplifier Gain(dB)

Prescans performed in a pre-compliance chamber .Final measurements performed on an OATS

Duty Cycle correction Factor is calculated using the Guidelines provided in DA 00-705

Duty Cycle Factor =20*log (Dwell time /100msec), Number of Transmission for 100msec: 8, Dwell time per Transmission: 1.572 msec

Duty Cycle correction Factor =20 log (1.572*8/100) = -18dB

TEST RESULT – 1 GHz to 10 GHz – CHANNEL 55

PEAK DATA – RESTRICTED BAND

Frequency (GHz)	Meter Reading (dBuV)	Det	AF [dB/m]	Preamp [dB]	SMA1 [dB]	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 2.78	38.72	PKFH	29.5	-27.1	9.1	50.22	74	23.78	44	106	H
* 3.705	33.36	PKFH	32	-26.9	10.6	49.06	74	24.94	215	104	H
* 4.633	33.39	PKFH	32.4	-26.6	11.8	50.99	74	23.01	226	334	H
* 7.411	35.65	PKFH	36.8	-26.2	15.2	61.45	74	12.55	7	244	H
* 8.338	33.91	PKFH	37.3	-26.1	16.2	61.31	74	12.69	41	220	H
* 2.779	39.41	PKFH	29.5	-27.1	9.1	50.91	74	23.09	168	290	V
* 3.706	34.29	PKFH	32	-26.9	10.6	49.99	74	24.01	330	112	V
* 4.633	34.64	PKFH	32.4	-26.6	11.8	52.24	74	21.76	301	294	V
* 7.411	32.05	PKFH	36.8	-26.2	15.2	57.85	74	16.15	256	163	V
* 8.339	32.22	PKFH	37.3	-26.1	16.2	59.62	74	14.38	188	290	V

PEAK DATA – NON RESTRICTED BAND

Frequency (GHz)	Meter Reading (dBuV)	Det	AF [dB/m]	Preamp [dB]	SMA1 [dB]	Corrected Reading (dBuV/m)	Peak Limit [Fundamental-20dBc] (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1.853	61.29	PKFH	27.5	-26.9	7.4	69.29	90.9	21.61	359	140	H
5.558	34.26	PKFH	34.4	-26.4	13.1	55.36	90.9	35.54	0	285	H
6.486	37.93	PKFH	34.8	-26.4	14.2	60.53	90.9	30.37	114	271	H
9.265	31.02	PKFH	37.8	-26	17.1	59.92	90.9	30.98	29	205	H
1.853	52.66	PKFH	27.5	-26.9	7.4	60.66	90.9	30.24	139	376	V
5.559	35.96	PKFH	34.4	-26.4	13.1	57.06	90.9	33.84	19	290	V
6.486	37.69	PKFH	34.8	-26.4	14.2	60.29	90.9	30.61	71	388	V
9.264	32.87	PKFH	37.8	-26	17.1	61.77	90.9	29.13	85	255	V

AVERAGE DATA – RESTRICTED BAND

Frequency (GHz)	Meter Reading (dBuV)	Det	AF [dB/m]	Preamp [dB]	SMA1 [dB]	DC Corr [dB]	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 2.779	35.5	VA1T	29.5	-27.1	9.1	-12.55	34.45	54	19.55	44	106	H
* 3.706	25.98	VA1T	32	-26.9	10.6	-12.55	29.13	54	24.87	215	104	H
* 4.632	25.4	VA1T	32.3	-26.6	11.8	-12.55	30.35	54	23.65	226	334	H
* 7.412	27.89	VA1T	36.8	-26.2	15.2	-12.55	41.14	54	12.86	7	244	H
* 8.339	26.51	VA1T	37.3	-26.1	16.2	-12.55	41.36	54	12.64	41	220	H
* 2.779	36.25	VA1T	29.5	-27.1	9.1	-12.55	35.2	54	18.8	168	290	V
* 3.706	27.34	VA1T	32	-26.9	10.6	-12.55	30.49	54	23.51	330	112	V
* 4.632	27.51	VA1T	32.4	-26.6	11.8	-12.55	32.56	54	21.44	301	294	V
* 7.411	22.26	VA1T	36.8	-26.2	15.2	-12.55	35.51	54	18.49	256	163	V
* 8.338	22.48	VA1T	37.3	-26.1	16.2	-12.55	37.33	54	16.67	188	290	V

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

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

VA1T - FHSS: Linear Voltage Average RB=1MHz VB=10Hz

Field Strength –dBuV/m =Receiver Readings(dBuV) +Antenna Factor(dB/m) +Cable Loss(dB) +Filter Insertion Loss –Preamplifier Gain(dB)

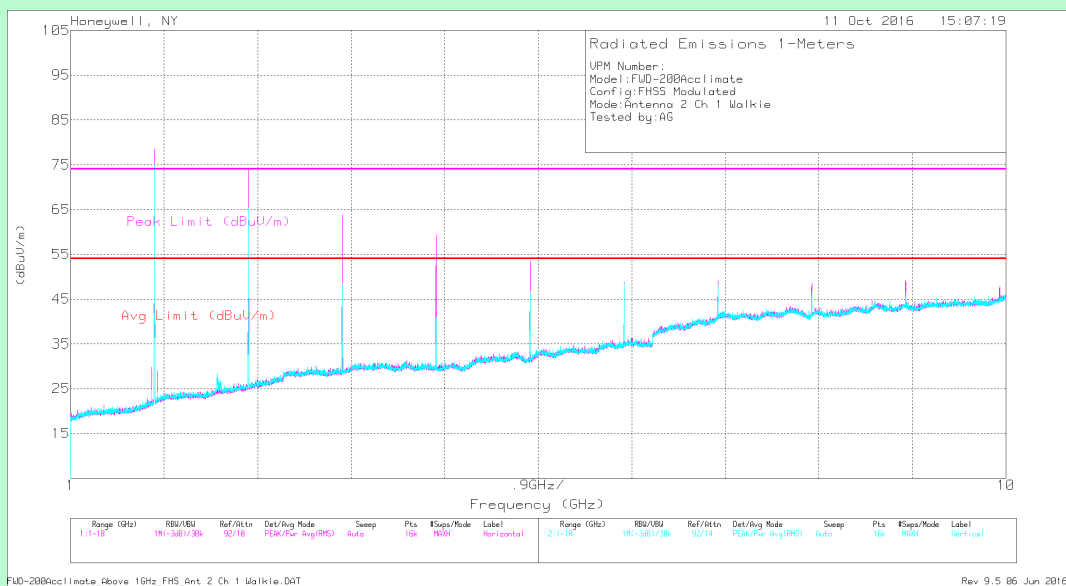
Prescans performed in a pre-compliance chamber .Final measurements performed on an OATS

Duty Cycle correction Factor is calculated using the Guidelines provided in DA 00-705

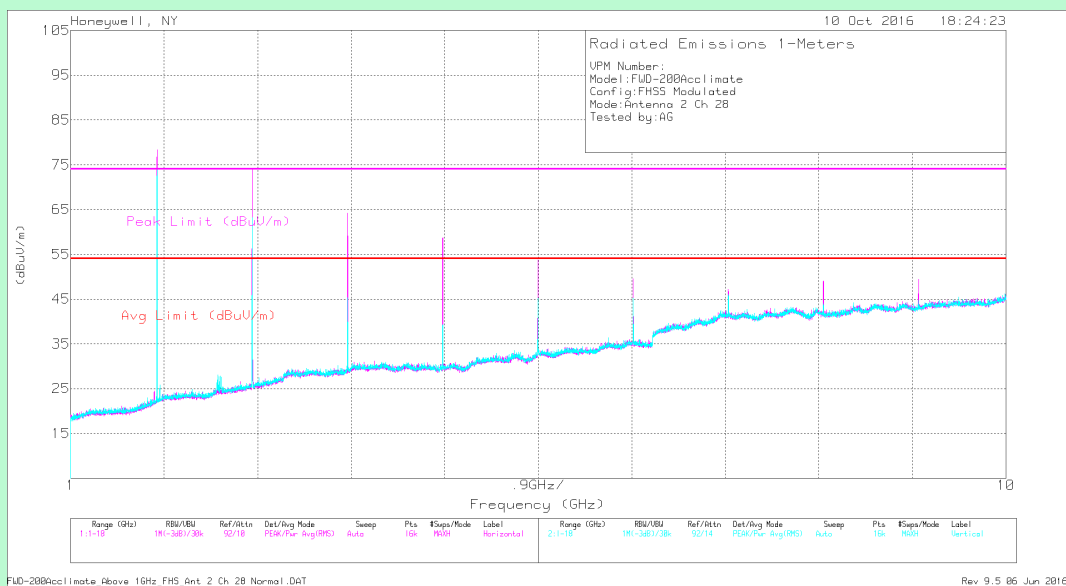
Duty Cycle Factor =20*log (Dwell time /100msec), Number of Transmission for 100msec: 8, Dwell time per Transmission: 1.572 msec

Duty Cycle correction Factor =20 log (1.572*15/100) = -18dB

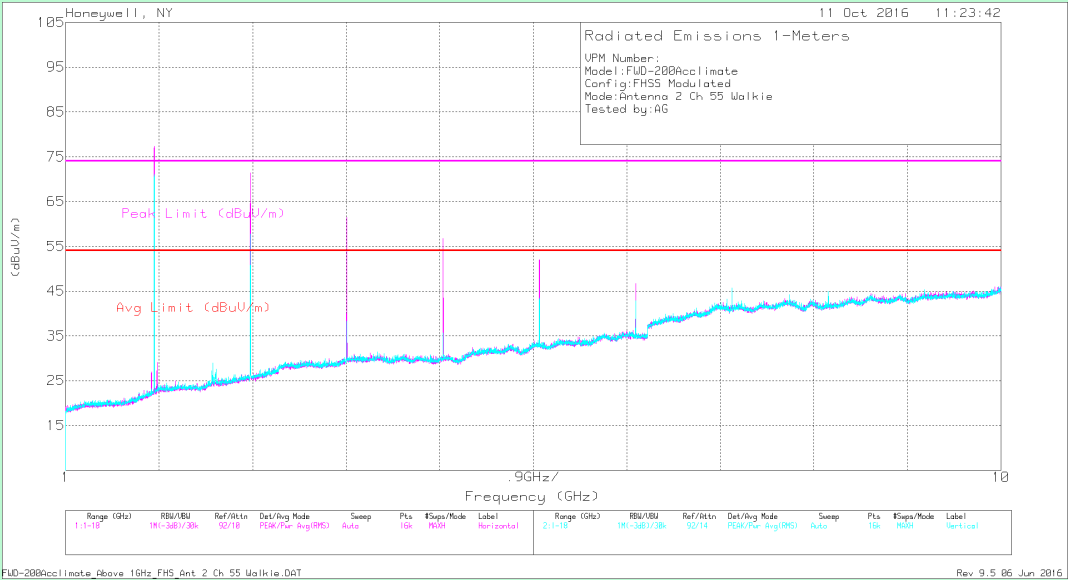
TEST GRAPHS –1 GHz to 10 GHz (ANTENNA 2)



Channel 1 (903.55 MHz) – Antenna 2



Channel 28 (916.0MHz) – Antenna 2



Channel 55 (926.45 MHz) – Antenna 2

TEST RESULT – 1 GHz to 10 GHz – CHANNEL 1

PEAK DATA – RESTRICTED BAND

Frequency (GHz)	Meter Reading (dBuV)	Det	AF [dB/m]	Preamp [dB]	SMA1 [dB]	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 2.71	43.68	PK2	29.3	-27.1	9	54.88	74	19.12	187	110	H
* 3.614	31.68	PK2	31.6	-26.8	10.4	46.88	74	27.12	217	390	H
* 4.518	34.89	PK2	32.2	-26.6	11.7	52.19	74	21.81	287	293	H
* 5.421	36.54	PK2	34.3	-26.7	12.9	57.04	74	16.96	108	280	H
* 8.133	33.49	PK2	37.1	-26.2	16	60.39	74	13.61	33	263	H
* 9.036	32.53	PK2	37.6	-25.9	16.9	61.13	74	12.87	79	255	H
* 2.71	41.65	PK2	29.3	-27.1	9	52.85	74	21.15	241	274	V
* 3.614	32.38	PK2	31.6	-26.8	10.4	47.58	74	26.42	88	384	V
* 4.518	35.25	PK2	32.2	-26.6	11.7	52.55	74	21.45	312	322	V
* 5.421	37.49	PK2	34.3	-26.7	12.9	57.99	74	16.01	36	286	V
* 8.133	32.93	PK2	37.1	-26.2	16	59.83	74	14.17	37	310	V
* 9.036	34.04	PK2	37.6	-25.9	16.9	62.64	74	11.36	86	259	V

PEAK DATA – NON RESTRICTED BAND

Frequency (GHz)	Meter Reading (dBuV)	Det	AF [dB/m]	Preamp [dB]	SMA1 [dB]	Corrected Reading (dBuV/m)	Peak Limit [Fundamental-20dBc] (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1.807	59.38	PK2	27.1	-26.9	7.3	66.88	94.4	27.52	324	164	H
6.324	37.15	PK2	34.9	-26.4	14	59.65	94.4	34.75	322	259	H
7.228	37.04	PK2	36.3	-26.2	15	62.14	94.4	32.26	29	259	H
1.807	51.23	PK2	27.1	-26.9	7.3	58.73	94.4	35.67	252	377	V
6.325	34.88	PK2	34.9	-26.4	14	57.38	94.4	37.02	47	128	V
7.229	34.5	PK2	36.3	-26.2	15	59.6	94.4	34.8	206	182	V

AVERAGE DATA – RESTRICTED BAND

Frequency (GHz)	Meter Reading (dBuV)	Det	AF [dB/m]	Preamp [dB]	SMA1 [dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 2.711	41.38	VA1T	29.3	-27.1	9	-12.55	40.03	54	13.97	187	110	H
* 3.614	25.86	VA1T	31.6	-26.8	10.4	-12.55	28.51	54	25.49	217	390	H
* 4.518	26.73	VA1T	32.2	-26.6	11.7	-12.55	31.48	54	22.52	287	293	H
* 5.421	29.69	VA1T	34.3	-26.7	12.9	-12.55	37.64	54	16.36	108	280	H
* 8.133	25.63	VA1T	37.1	-26.2	16	-12.55	39.98	54	14.02	33	263	H
* 9.035	23.91	VA1T	37.6	-25.9	16.9	-12.55	39.96	54	14.04	79	255	H
* 2.711	38.86	VA1T	29.3	-27.1	9	-12.55	37.51	54	16.49	241	274	V
* 3.614	24.35	VA1T	31.6	-26.8	10.4	-12.55	27	54	27	88	384	V
* 4.518	28.48	VA1T	32.2	-26.6	11.7	-12.55	33.23	54	20.77	312	322	V
* 5.421	32.02	VA1T	34.3	-26.7	12.9	-12.55	39.97	54	14.03	36	286	V
* 8.133	24.45	VA1T	37.1	-26.2	16	-12.55	38.8	54	15.2	37	310	V
* 9.036	26.19	VA1T	37.6	-25.9	16.9	-12.55	42.24	54	11.76	86	259	V

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

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

VA1T - FHSS: Linear Voltage Average RB=1MHz VB=10Hz

Field Strength –dBuV/m =Receiver Readings(dBuV) +Antenna Factor(dB/m) +Cable Loss(dB) +Filter Insertion Loss –Preamplifier Gain(dB)

Prescans performed in a pre-compliance chamber .Final measurements performed on an OATS

Duty Cycle correction Factor is calculated using the Guidelines provided in DA 00-705

Duty Cycle Factor =20*log (Dwell time /100msec), Number of Transmission for 100msec: 8, Dwell time per Transmission: 1.572 msec

Duty Cycle correction Factor =20 log (1.572*8/100) = -18dB

TEST RESULT – 1 GHz to 10 GHz – CHANNEL 28

PEAK DATA – RESTRICTED BAND

Frequency (GHz)	Meter Reading (dBuV)	Det	AF [dB/m]	Preamp [dB]	SMA1 [dB]	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 2.748	42.11	PKFH	29.4	-27	9	53.51	74	20.49	314	153	H
* 3.664	34.94	PKFH	31.8	-26.9	10.4	50.24	74	23.76	6	399	H
* 3.664	35.22	PKFH	31.8	-26.9	10.4	50.52	74	23.48	6	391	H
* 4.58	34.95	PKFH	32.2	-26.7	11.8	52.25	74	21.75	24	371	H
* 7.329	34.73	PKFH	36.7	-26.2	15.1	60.33	74	13.67	208	272	H
* 8.243	33.94	PKFH	37.1	-26.1	16.2	61.14	74	12.86	230	205	H
* 9.162	33.13	PKFH	37.6	-25.9	17	61.83	74	12.17	72	361	H
* 2.748	35.75	PKFH	29.4	-27	9	47.15	74	26.85	259	245	V
* 3.664	33.6	PKFH	31.8	-26.9	10.4	48.9	74	25.1	154	277	V
* 4.58	34.99	PKFH	32.2	-26.7	11.8	52.29	74	21.71	157	262	V
* 7.328	34.61	PKFH	36.7	-26.2	15.1	60.21	74	13.79	99	314	V
* 8.244	34.71	PKFH	37.1	-26.1	16.2	61.91	74	12.09	242	334	V
* 9.159	33.36	PKFH	37.6	-25.9	17	62.06	74	11.94	251	245	V

PEAK DATA – NON RESTRICTED BAND

Frequency (GHz)	Meter Reading (dBuV)	Det	AF [dB/m]	Preamp [dB]	SMA1 [dB]	Corrected Reading (dBuV/m)	Peak Limit [Fundamental-20dBc] (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1.832	60.93	PKFH	27.3	-26.9	7.3	68.63	92.3	23.67	360	164	H
5.496	34.15	PKFH	34.4	-26.6	13	54.95	92.3	37.35	118	292	H
6.412	38.62	PKFH	34.8	-26.3	14.1	61.22	92.3	31.08	322	275	H
1.832	49.47	PKFH	27.3	-26.9	7.3	57.17	92.3	35.13	106	223	V
5.497	36.47	PKFH	34.4	-26.6	13	57.27	92.3	35.03	211	268	V
6.412	37.19	PKFH	34.8	-26.3	14.1	59.79	92.3	32.51	237	365	V

AVERAGE DATA – RESTRICTED BAND

Frequency (GHz)	Meter Reading (dBuV)	Det	AF [dB/m]	Preamp [dB]	SMA1 [dB]	DC Corr [dB]	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 2.748	37.88	VA1T	29.4	-27	9	-12.55	36.73	54	17.27	314	153	H
* 3.664	26.56	VA1T	31.8	-26.9	10.4	-12.55	29.31	54	24.69	6	399	H
* 3.664	26.37	VA1T	31.8	-26.9	10.4	-12.55	29.12	54	24.88	6	391	H
* 4.58	26.08	VA1T	32.2	-26.7	11.8	-12.55	30.83	54	23.17	24	371	H
* 7.328	24.46	VA1T	36.7	-26.2	15.1	-12.55	37.51	54	16.49	208	272	H
* 8.243	22.51	VA1T	37.1	-26.1	16.2	-12.55	37.16	54	16.84	230	205	H
* 9.16	21.41	VA1T	37.6	-25.9	17	-12.55	37.56	54	16.44	72	361	H
* 2.748	28.57	VA1T	29.4	-27	9	-12.55	27.42	54	26.58	259	245	V
* 3.664	24.58	VA1T	31.8	-26.9	10.4	-12.55	27.33	54	26.67	154	277	V
* 4.58	26.01	VA1T	32.2	-26.7	11.8	-12.55	30.76	54	23.24	157	262	V
* 7.329	24.76	VA1T	36.7	-26.2	15.1	-12.55	37.81	54	16.19	99	314	V
* 8.245	24.83	VA1T	37.1	-26.1	16.2	-12.55	39.48	54	14.52	242	334	V
* 9.159	23.05	VA1T	37.6	-25.9	17	-12.55	39.2	54	14.8	251	245	V

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

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

VA1T - FHSS: Linear Voltage Average RB=1MHz VB=10Hz

Field Strength –dBuV/m =Receiver Readings(dBuV) +Antenna Factor(dB/m) +Cable Loss(dB) +Filter Insertion Loss –Preamplifier Gain(dB)

Prescans performed in a pre-compliance chamber .Final measurements performed on an OATS

Duty Cycle correction Factor is calculated using the Guidelines provided in DA 00-705

Duty Cycle Factor =20*log (Dwell time /100msec), Number of Transmission for 100msec: 8, Dwell time per Transmission: 1.572 msec

Duty Cycle correction Factor =20 log (1.572*8/100) = -18dB

TEST RESULT – 1 GHz to 10 GHz – CHANNEL 55

PEAK DATA – RESTRICTED BAND

Frequency (GHz)	Meter Reading (dBuV)	Det	AF [dB/m]	Preamp [dB]	SMA1 [dB]	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 2.78	36.6	PKFH	29.5	-27.1	9.1	48.1	74	25.9	20	182	H
* 3.706	32.65	PKFH	32	-26.9	10.6	48.35	74	25.65	185	175	H
* 4.632	34.68	PKFH	32.3	-26.6	11.8	52.18	74	21.82	22	378	H
* 7.411	33.74	PKFH	36.8	-26.2	15.2	59.54	74	14.46	202	271	H
* 8.337	32.28	PKFH	37.3	-26.1	16.2	59.68	74	14.32	202	271	H
* 2.78	40.41	PKFH	29.5	-27.1	9.1	51.91	74	22.09	67	370	V
* 3.705	33.43	PKFH	32	-26.9	10.6	49.13	74	24.87	305	112	V
* 4.633	33.68	PKFH	32.4	-26.6	11.8	51.28	74	22.72	125	175	V
* 7.411	34.09	PKFH	36.8	-26.2	15.2	59.89	74	14.11	84	360	V
* 8.34	33.25	PKFH	37.3	-26.1	16.2	60.65	74	13.35	275	247	V

PEAK DATA – NON RESTRICTED BAND

Frequency (GHz)	Meter Reading (dBuV)	Det	AF [dB/m]	Preamp [dB]	SMA1 [dB]	Corrected Reading (dBuV/m)	Peak Limit [Fundamental-20dBc] (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1.853	40.81	PKFH	27.5	-26.9	7.4	48.81	90.9	42.09	263	382	H
5.558	33.43	PKFH	34.4	-26.4	13.1	54.53	90.9	36.37	205	302	H
6.484	35.14	PKFH	34.8	-26.4	14.2	57.74	90.9	33.16	205	302	H
9.266	33.35	PKFH	37.8	-26	17.1	62.25	90.9	28.65	295	333	H
1.853	37.39	PKFH	27.5	-26.9	7.4	45.39	90.9	45.51	220	378	V
5.558	35.2	PKFH	34.4	-26.4	13.1	56.3	90.9	34.6	218	106	V
6.486	36.22	PKFH	34.8	-26.4	14.2	58.82	90.9	32.08	244	400	V
9.266	32.82	PKFH	37.8	-26	17.1	61.72	90.9	29.18	282	261	V

AVERAGE DATA – RESTRICTED BAND

Frequency (GHz)	Meter Reading (dBuV)	Det	AF [dB/m]	Preamp [dB]	SMA1 [dB]	DC Corr [dB]	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 2.781	29.61	VA1T	29.5	-27.1	9.1	-12.55	28.56	54	25.44	20	182	H
* 3.706	20.89	VA1T	32	-26.9	10.6	-12.55	24.04	54	29.96	185	175	H
* 4.632	22.59	VA1T	32.3	-26.6	11.8	-12.55	27.54	54	26.46	22	378	H
* 7.412	21.69	VA1T	36.8	-26.2	15.2	-12.55	34.94	54	19.06	202	271	H
* 8.339	19.11	VA1T	37.3	-26.1	16.2	-12.55	33.96	54	20.04	202	271	H
* 2.779	35.82	VA1T	29.5	-27.1	9.1	-12.55	34.77	54	19.23	67	370	V
* 3.706	22.35	VA1T	32	-26.9	10.6	-12.55	25.5	54	28.5	305	112	V
* 4.632	22.34	VA1T	32.4	-26.6	11.8	-12.55	27.39	54	26.61	125	175	V
* 7.412	22.53	VA1T	36.8	-26.2	15.2	-12.55	35.78	54	18.22	84	360	V
* 8.339	20.9	VA1T	37.3	-26.1	16.2	-12.55	35.75	54	18.25	275	247	V

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

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

VA1T - FHSS: Linear Voltage Average RB=1MHz VB=10Hz

Field Strength –dBuV/m =Receiver Readings(dBuV) +Antenna Factor(dB/m) +Cable Loss(dB) +Filter Insertion Loss –Preamplifier Gain(dB)

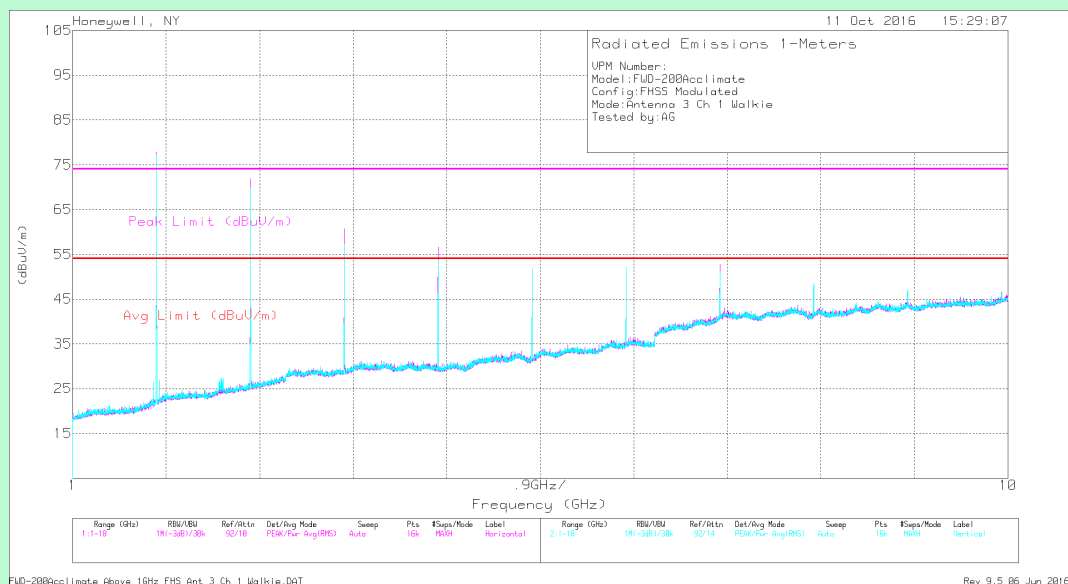
Prescans performed in a pre-compliance chamber .Final measurements performed on an OATS

Duty Cycle correction Factor is calculated using the Guidelines provided in DA 00-705

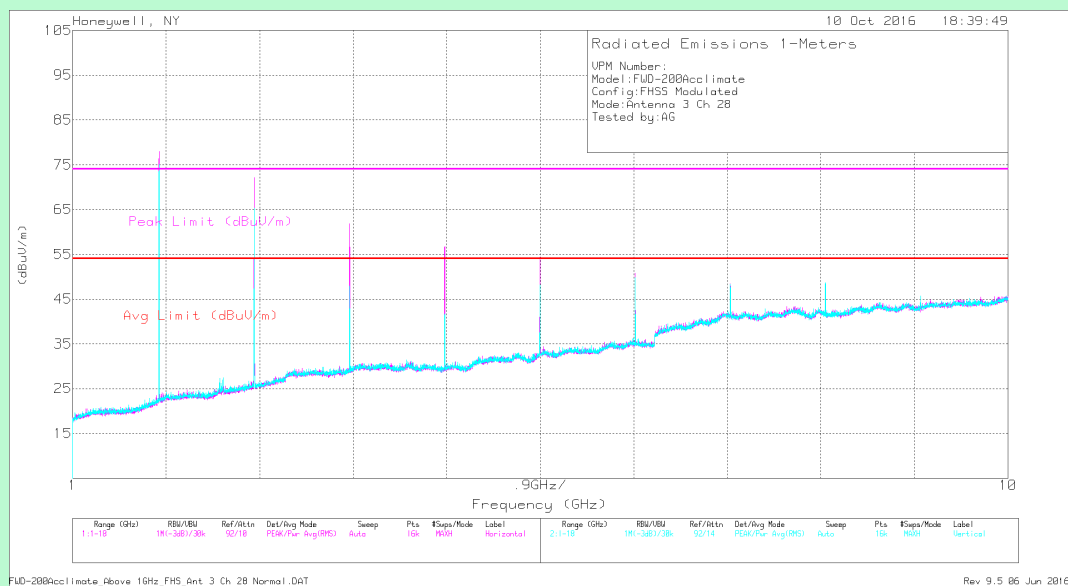
Duty Cycle Factor =20*log (Dwell time /100msec), Number of Transmission for 100msec: 8, Dwell time per Transmission: 1.572 msec

Duty Cycle correction Factor =20 log (1.572*8/100) = -18dB

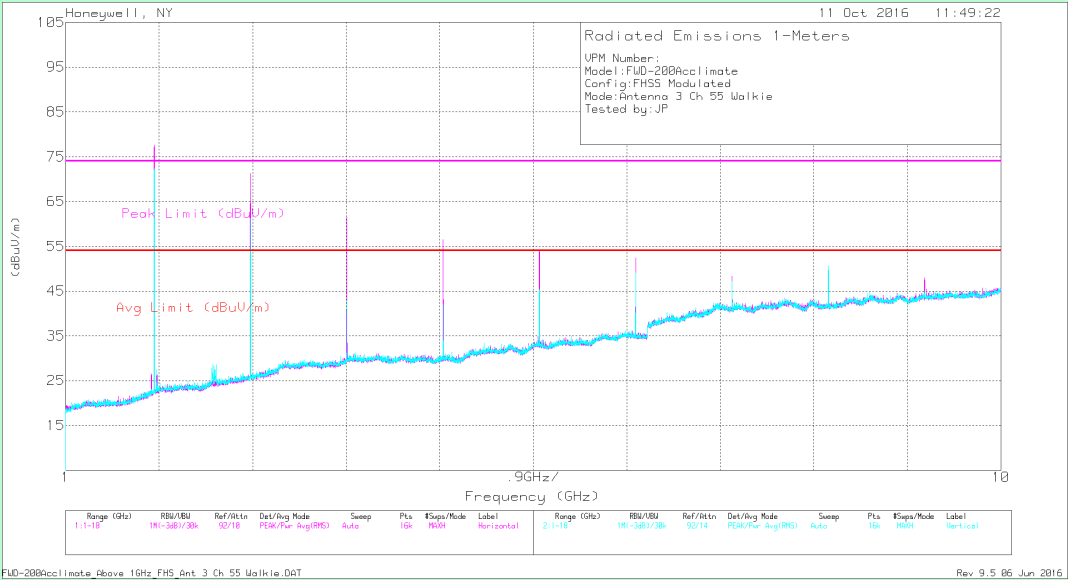
TEST GRAPHS –1 GHz to 10 GHz (ANTENNA 3)



Channel 1 (903.55 MHz) – Antenna 3



Channel 28 (916.0 MHz) – Antenna 3



Channel 55 (926.45 MHz) – Antenna 3

TEST RESULT – 1 GHz to 10 GHz – CHANNEL 1

PEAK DATA – RESTRICTED BAND

Frequency (GHz)	Meter Reading (dBuV)	Det	AF [dB/m]	Preamp [dB]	SMA1 [dB]	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 2.71	51.84	PKFH	29.3	-27.1	9	63.04	74	10.96	266	109	H
* 3.614	50.69	PKFH	31.6	-26.8	10.4	65.89	74	8.11	235	119	H
* 4.518	38.06	PKFH	32.2	-26.6	11.7	55.36	74	18.64	160	383	H
* 5.421	37.68	PKFH	34.3	-26.7	12.9	58.18	74	15.82	42	281	H
* 8.133	34.05	PKFH	37.1	-26.2	16	60.95	74	13.05	16	238	H
* 9.035	32.24	PKFH	37.6	-25.9	16.9	60.84	74	13.16	58	245	H
* 2.711	50.19	PKFH	29.3	-27.1	9	61.39	74	12.61	262	114	V
* 3.615	46.34	PKFH	31.6	-26.8	10.4	61.54	74	12.46	333	115	V
* 4.517	40.35	PKFH	32.2	-26.6	11.7	57.65	74	16.35	88	101	V
* 5.422	39.35	PKFH	34.3	-26.7	12.9	59.85	74	14.15	6	289	V
* 8.131	34.77	PKFH	37.1	-26.2	16	61.67	74	12.33	58	241	V
* 9.035	33.97	PKFH	37.6	-25.9	16.9	62.57	74	11.43	78	252	V

PEAK DATA – NON RESTRICTED BAND

Frequency (GHz)	Meter Reading (dBuV)	Det	AF [dB/m]	Preamp [dB]	SMA1 [dB]	Corrected Reading (dBuV/m)	Peak Limit [Fundamental-20dBc] (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1.807	77.88	PKFH	27.1	-26.9	7.3	85.38	91.5	6.12	1	138	H
6.324	36.3	PKFH	34.9	-26.4	14	58.8	91.5	32.7	301	278	H
7.228	38.59	PKFH	36.3	-26.2	15	63.69	91.5	27.81	10	251	H
1.807	74.77	PKFH	27.1	-26.9	7.3	82.27	91.5	9.23	139	127	V
6.326	36.64	PKFH	34.9	-26.4	14	59.14	91.5	32.36	34	256	V
7.228	36.43	PKFH	36.3	-26.2	15	61.53	91.5	29.97	302	246	V

AVERAGE DATA – RESTRICTED BAND

Frequency (GHz)	Meter Reading (dBuV)	Det	AF [dB/m]	Preamp [dB]	SMA1 [dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 2.711	50.06	VA1T	29.3	-27.1	9	-12.55	48.71	54	5.29	266	109	H
* 3.614	47.76	VA1T	31.6	-26.8	10.4	-12.55	50.41	54	3.59	235	119	H
* 4.518	31.07	VA1T	32.2	-26.6	11.7	-12.55	35.82	54	18.18	160	383	H
* 5.422	30.41	VA1T	34.3	-26.7	12.9	-12.55	38.36	54	15.64	42	281	H
* 8.131	25.69	VA1T	37.1	-26.2	16	-12.55	40.04	54	13.96	16	238	H
* 9.035	23.34	VA1T	37.6	-25.9	16.9	-12.55	39.39	54	14.61	58	245	H
* 2.711	48.24	VA1T	29.3	-27.1	9	-12.55	46.89	54	7.11	262	114	V
* 3.614	42.97	VA1T	31.6	-26.8	10.4	-12.55	45.62	54	8.38	333	115	V
* 4.518	34.8	VA1T	32.2	-26.6	11.7	-12.55	39.55	54	14.45	88	101	V
* 5.422	33.53	VA1T	34.3	-26.7	12.9	-12.55	41.48	54	12.52	6	289	V
* 8.133	26.68	VA1T	37.1	-26.2	16	-12.55	41.03	54	12.97	58	241	V
* 9.037	25.89	VA1T	37.6	-25.9	16.9	-12.55	41.94	54	12.06	78	252	V

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

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

VA1T - FHSS: Linear Voltage Average RB=1MHz VB=10Hz

Field Strength –dBuV/m =Receiver Readings(dBuV) +Antenna Factor(dB/m) +Cable Loss(dB) +Filter Insertion Loss –Preamplifier Gain(dB)

Prescans performed in a pre-compliance chamber .Final measurements performed on an OATS

Duty Cycle correction Factor is calculated using the Guidelines provided in DA 00-705

Duty Cycle Factor =20*log (Dwell time /100msec), Number of Transmission for 100msec: 8, Dwell time per Transmission: 1.572 msec

Duty Cycle correction Factor =20 log (1.572*8/100) = -18dB

TEST RESULT – 1 GHz to 10 GHz – CHANNEL 28

PEAK DATA – RESTRICTED BAND

Frequency (GHz)	Meter Reading (dBuV)	Det	AF [dB/m]	Preamp [dB]	SMA1 [dB]	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 2.748	54.03	PKFH	29.4	-27	9	65.43	74	8.57	92	127	H
* 3.664	46.84	PKFH	31.8	-26.9	10.4	62.14	74	11.86	218	102	H
* 4.58	35.32	PKFH	32.2	-26.7	11.8	52.62	74	21.38	121	307	H
* 7.328	35.99	PKFH	36.7	-26.2	15.1	61.59	74	12.41	10	253	H
* 8.244	33.96	PKFH	37.1	-26.1	16.2	61.16	74	12.84	35	244	H
* 9.158	30.97	PKFH	37.6	-25.9	17	59.67	74	14.33	68	231	H
* 2.748	48.74	PKFH	29.4	-27	9	60.14	74	13.86	280	120	V
* 3.664	44.2	PKFH	31.8	-26.9	10.4	59.5	74	14.5	332	110	V
* 4.58	40.01	PKFH	32.2	-26.7	11.8	57.31	74	16.69	21	124	V
* 7.329	36.14	PKFH	36.7	-26.2	15.1	61.74	74	12.26	309	258	V
* 8.244	35.38	PKFH	37.1	-26.1	16.2	62.58	74	11.42	65	256	V
* 9.16	32.81	PKFH	37.6	-25.9	17	61.51	74	12.49	85	238	V

PEAK DATA – NON RESTRICTED BAND

Frequency (GHz)	Meter Reading (dBuV)	Det	AF [dB/m]	Preamp [dB]	SMA1 [dB]	Corrected Reading (dBuV/m)	Peak Limit [Fundamental-20dBc] (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1.832	76.93	PKFH	27.3	-26.9	7.3	84.63	91.4	6.77	0	134	H
5.497	35.06	PKFH	34.4	-26.6	13	55.86	91.4	35.54	9	289	H
6.412	37.52	PKFH	34.8	-26.3	14.1	60.12	91.4	31.28	126	266	H
1.832	74.48	PKFH	27.3	-26.9	7.3	82.18	91.4	9.22	143	122	V
5.496	38.04	PKFH	34.4	-26.6	13	58.84	91.4	32.56	22	280	V
6.411	38.34	PKFH	34.8	-26.3	14.1	60.94	91.4	30.46	57	273	V

AVERAGE DATA – RESTRICTED BAND

Frequency (GHz)	Meter Reading (dBuV)	Det	AF [dB/m]	Preamp [dB]	SMA1 [dB]	DC Corr [dB]	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 2.748	52.43	VA1T	29.4	-27	9	-12.55	51.28	54	2.72	92	127	H
* 3.664	44.19	VA1T	31.8	-26.9	10.4	-12.55	46.94	54	7.06	218	102	H
* 4.58	29.03	VA1T	32.2	-26.7	11.8	-12.55	33.78	54	20.22	121	307	H
* 7.328	27.8	VA1T	36.7	-26.2	15.1	-12.55	40.85	54	13.15	10	253	H
* 8.244	25.86	VA1T	37.1	-26.1	16.2	-12.55	40.51	54	13.49	35	244	H
* 9.161	22.62	VA1T	37.6	-25.9	17	-12.55	38.77	54	15.23	68	231	H
* 2.748	46.97	VA1T	29.4	-27	9	-12.55	45.82	54	8.18	280	120	V
* 3.664	41.33	VA1T	31.8	-26.9	10.4	-12.55	44.08	54	9.92	332	110	V
* 4.58	34.99	VA1T	32.2	-26.7	11.8	-12.55	39.74	54	14.26	21	124	V
* 7.328	28.32	VA1T	36.7	-26.2	15.1	-12.55	41.37	54	12.63	309	258	V
* 8.245	27.3	VA1T	37.1	-26.1	16.2	-12.55	41.95	54	12.05	65	256	V
* 9.161	23.7	VA1T	37.6	-25.9	17	-12.55	39.85	54	14.15	85	238	V

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

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

VA1T - FHSS: Linear Voltage Average RB=1MHz VB=10Hz

Field Strength –dBuV/m =Receiver Readings(dBuV) +Antenna Factor(dB/m) +Cable Loss(dB) +Filter Insertion Loss –Preamplifier Gain(dB)

Prescans performed in a pre-compliance chamber .Final measurements performed on an OATS

Duty Cycle correction Factor is calculated using the Guidelines provided in DA 00-705

Duty Cycle Factor =20*log (Dwell time /100msec), Number of Transmission for 100msec: 8, Dwell time per Transmission: 1.572 msec

Duty Cycle correction Factor =20 log (1.572*8/100) = -18dB

TEST RESULT – 1 GHz to 10 GHz – CHANNEL 55

PEAK DATA – RESTRICTED BAND

Frequency (GHz)	Meter Reading (dBuV)	Det	AF [dB/m]	Preamp [dB]	SMA1 [dB]	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 2.779	54.69	PKFH	29.5	-27.1	9.1	66.19	74	7.81	91	120	H
* 3.706	40.72	PKFH	32	-26.9	10.6	56.42	74	17.58	197	101	H
* 4.632	37.07	PKFH	32.3	-26.6	11.8	54.57	74	19.43	147	266	H
* 7.412	34.14	PKFH	36.8	-26.2	15.2	59.94	74	14.06	357	269	H
* 8.339	34.33	PKFH	37.3	-26.1	16.2	61.73	74	12.27	32	242	H
* 2.779	49.05	PKFH	29.5	-27.1	9.1	60.55	74	13.45	317	361	V
* 3.706	40.45	PKFH	32	-26.9	10.6	56.15	74	17.85	124	379	V
* 4.632	38.01	PKFH	32.3	-26.6	11.8	55.51	74	18.49	7	331	V
* 7.411	34.92	PKFH	36.8	-26.2	15.2	60.72	74	13.28	247	372	V
* 8.338	34.77	PKFH	37.3	-26.1	16.2	62.17	74	11.83	43	274	V

PEAK DATA – NON RESTRICTED BAND

Frequency (GHz)	Meter Reading (dBuV)	Det	AF [dB/m]	Preamp [dB]	SMA1 [dB]	Corrected Reading (dBuV/m)	Peak Limit [Fundamental-20dBc] (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1.853	72.95	PKFH	27.5	-26.9	7.4	80.95	90.9	9.95	315	134	H
5.559	33.96	PKFH	34.4	-26.4	13.1	55.06	90.9	35.84	81	272	H
6.485	38.82	PKFH	34.8	-26.4	14.2	61.42	90.9	29.48	115	292	H
9.265	31.08	PKFH	37.8	-26	17.1	59.98	90.9	30.92	37	291	H
1.853	70.46	PKFH	27.5	-26.9	7.4	78.46	90.9	12.44	200	285	V
5.558	33.43	PKFH	34.4	-26.4	13.1	54.53	90.9	36.37	89	363	V
6.485	39.56	PKFH	34.8	-26.4	14.2	62.16	90.9	28.74	220	368	V
9.264	30.98	PKFH	37.8	-26	17.1	59.88	90.9	31.02	73	220	V

AVERAGE DATA – RESTRICTED BAND

Frequency (GHz)	Meter Reading (dBuV)	Det	AF [dB/m]	Preamp [dB]	SMA1 [dB]	DC Corr [dB]	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 2.779	53.27	VA1T	29.5	-27.1	9.1	-12.55	52.22	54	1.78	91	120	H
* 3.706	37.29	VA1T	32	-26.9	10.6	-12.55	40.44	54	13.56	197	101	H
* 4.632	31.53	VA1T	32.4	-26.6	11.8	-12.55	36.58	54	17.42	147	266	H
* 7.411	26.64	VA1T	36.8	-26.2	15.2	-12.55	39.89	54	14.11	357	269	H
* 8.338	26.44	VA1T	37.3	-26.1	16.2	-12.55	41.29	54	12.71	32	242	H
* 2.779	47.08	VA1T	29.5	-27.1	9.1	-12.55	46.03	54	7.97	317	361	V
* 3.706	36.94	VA1T	32	-26.9	10.6	-12.55	40.09	54	13.91	124	379	V
* 4.632	31	VA1T	32.4	-26.6	11.8	-12.55	36.05	54	17.95	7	331	V
* 7.412	26.32	VA1T	36.8	-26.2	15.2	-12.55	39.57	54	14.43	247	372	V
* 8.338	27.17	VA1T	37.3	-26.1	16.2	-12.55	42.02	54	11.98	43	274	V

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

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

VA1T - FHSS: Linear Voltage Average RB=1MHz VB=10Hz

Field Strength –dBuV/m =Receiver Readings(dBuV) +Antenna Factor(dB/m) +Cable Loss(dB) +Filter Insertion Loss –Preamplifier Gain(dB)

Prescans performed in a pre-compliance chamber .Final measurements performed on an OATS

Duty Cycle correction Factor is calculated using the Guidelines provided in DA 00-705

Duty Cycle Factor =20*log (Dwell time /100msec), Number of Transmission for 100msec: 8, Dwell time per Transmission: 1.572 msec

Duty Cycle correction Factor =20 log (1.572*8/100) = -12.55dB

2.9 Effective Isotropic Radiated Power

EUT Nomenclature	Wireless Smoke Detector	Test Request No.	20295-1
Model No.	FWD-200ACCLIMATE	Serial No.	MEL-150
Test Start Date	2017-05-30	Temperature (°C)	0°C-35°C
Test End Date	2017-05-30	Humidity RH (%)	10%RH-90%RH
Tested By	Chris Locke	Pressure (mbar)	NR
Input Voltage / Freq.	3.3 Vdc		
Operating Mode	Refer Page 5 for Operating Mode Table		
Test configuration	Refer Page 5 for Test Configuration Table		
Deviation from Std.	NA		
Comment	NA		

MAXIMUM OPERATING FREQUENCY

902 MHz to 928 MHz

TEST PARAMETERS

Antenna Height	1m to 4m	Turntable Rotation	NA
Applicable Standard	ANSI C63.10 – 2013	Test Method	KDB 412172 v01r01
Equipment Class	NA	Measurement Distance	3m

TEST EQUIPMENT

Y/N	Equipment	Make	Model	Sl. No.	Cal Due Date
Y	Spectrum Analyzer	Rohde & Schwarz	FSW26	103125	2018-02-14
Y	Bilog Antenna	Sunol	JB6	A012816	2018-03-09
Y	Log Periodic Antenna	A.H.Systems	SAS-200	365TX	2018-02-02
Y	Preamplifier (Below 1GHz)	HP	8447D	2443AUF555	NA
Y	Signal Generator	Agilent	N5183A (MXG)	MY50140667	2018-06-02

Note: Switch ON /OFF the Internal Preamplifier based on carrier level and or noise floor without overloading the receiver

TEST RESULT – EIRP

ANTENNA	Frequency (MHz)	Polarity	Fundamental Target (dBuV/m)	Signal Generator Level (dBm)	EIRP (dBm)
1	903.55	H	107.6	16.2	17
1	903.55	V	97.98	7.25	8.05
1	916	H	106.7	15.9	16.7
1	916	V	97.03	6.8	7.6
1	926.45	H	105.35	15.95	16.75
1	926.45	V	97.67	8.9	9.7
2	903.55	H	109.53	18.2	19
2	903.55	V	95.05	4.3	5.1
2	916	H	106.91	16.1	16.9
2	916	V	99.24	9	9.8
2	926.45	H	105.41	16	16.8
2	926.45	V	93.03	4.3	5.1
3	903.55	H	106.63	15.2	16
3	903.55	V	97.34	6.6	7.4
3	916	H	105.99	15.2	16
3	916	V	98.26	8	8.8
3	926.45	H	105.37	15	15.8
3	926.45	V	98.29	9.55	10.35

Note: EIRP=Signal Generator Level (dBm)+ Substitute Antenna Gain(dBi)+Cable loss(dB)
 Substitute Antenna Gain =5.4dBi
 Cable Loss =4.6dB

TEST SETUP PHOTOGRAPH

Refer Annexure -1

EIRP Test Setup

3 DTS CHANNELS

3.1 DTS 6dB BANDWIDTH

EUT Nomenclature	Wireless Smoke Detector	Test Request No.	20295-1
Model No.	FWD-200ACCLIMATE	Serial No.	MEL-150
Test Start Date	2017-04-24	Temperature (°C)	23.6°C
Test End Date	2017-04-24	Humidity RH (%)	51.9%RH
Tested By	Chris Locke	Pressure (mbar)	NR
Input Voltage / Freq.	3.3 Vdc		
Operating Mode	Refer Page 5 for Operating Mode Table		
Test configuration	Refer Page 5 for Test Configuration Table		
Deviation from Std.	NA		
Applicable standard	FCC Part 15.247:2010		
Test Method	KDB 558074		
Comment	NA		

TEST DETAILS

Method	Radiated ☐	Conducted ☒
--------	-----------------------------------	---

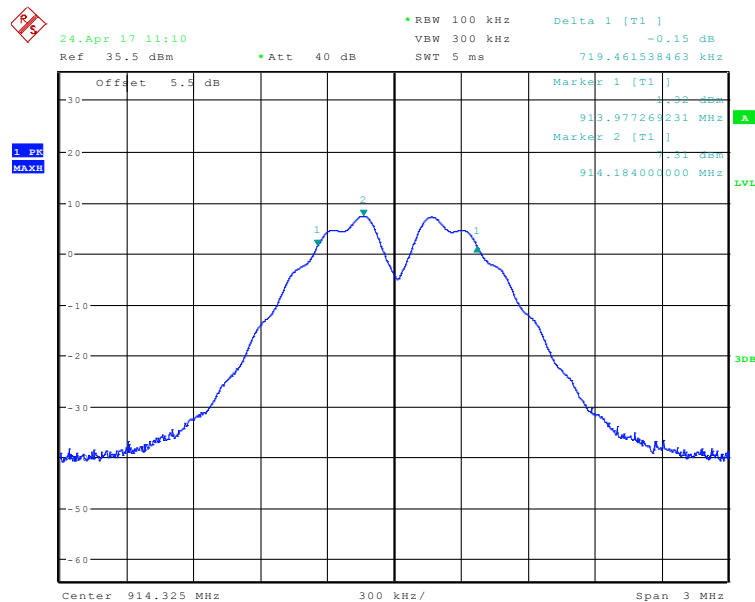
TEST PARAMETERS

Antenna Height	NA	Turntable Rotation	NA
Equipment Class	NA	Measurement Distance	NA

TEST EQUIPMENT

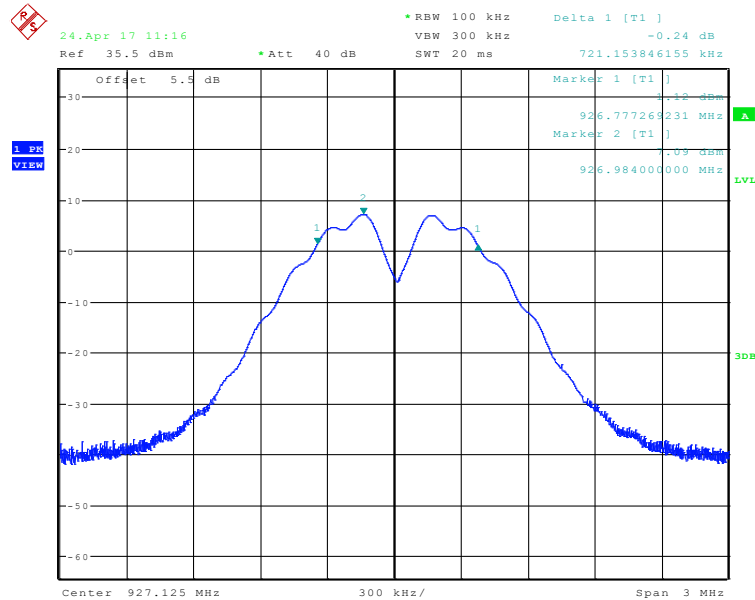
Y/N	Equipment	Make	Model	Serial Number	Cal Due Date
Y	Spectrum Analyzer	Rohde & Schwarz	FSU26	100303	2018-04-10
Y	RF Cable	Digikey	1	NA	NA

TEST GRAPHS



Date: 24.APR.2017 11:10:39

Channel 3 (914.325 MHz) – Antenna 1



Date: 24.APR.2017 11:16:56

Channel 6 (927.125 MHz) – Antenna 1

TEST RESULT				
Channel	Frequency	Measured Value	Limit	Result
#	MHz	KHz	KHz	
3	914.325	719.46	>500	PASS
6	927.125	721.15	>500	PASS

TEST SETUP PHOTOGRAPHS

Refer Annexure – 1

Conducted RF Test Setup

3.2 MAXIMUM PEAK CONDUCTED OUTPUT POWER

EUT Nomenclature	Wireless Smoke Detector	Test Request No.	20295-1
Model No.	FWD-200ACCLIMATE	Serial No.	MEL-150
Test Start Date	2016-08-02	Temperature (°C)	23.6°C
Test End Date	2016-08-03	Humidity RH (%)	51.9%RH
Tested By	Jose Badia/Arnoldo Garcia	Pressure (mbar)	NR
Input Voltage / Freq.	3.3 Vdc		
Operating Mode	Refer Page 5 for Operating Mode Table		
Test configuration	Refer Page 5 for Test Configuration Table		
Deviation from Std.	NA		
Applicable standard	FCC Part 15.247:2010		
Test Method	KDB 558074		
Comment	NA		

TEST DETAILS

Method	Radiated ☐	Conducted ☒
--------	-----------------------------------	---

TEST PARAMETERS

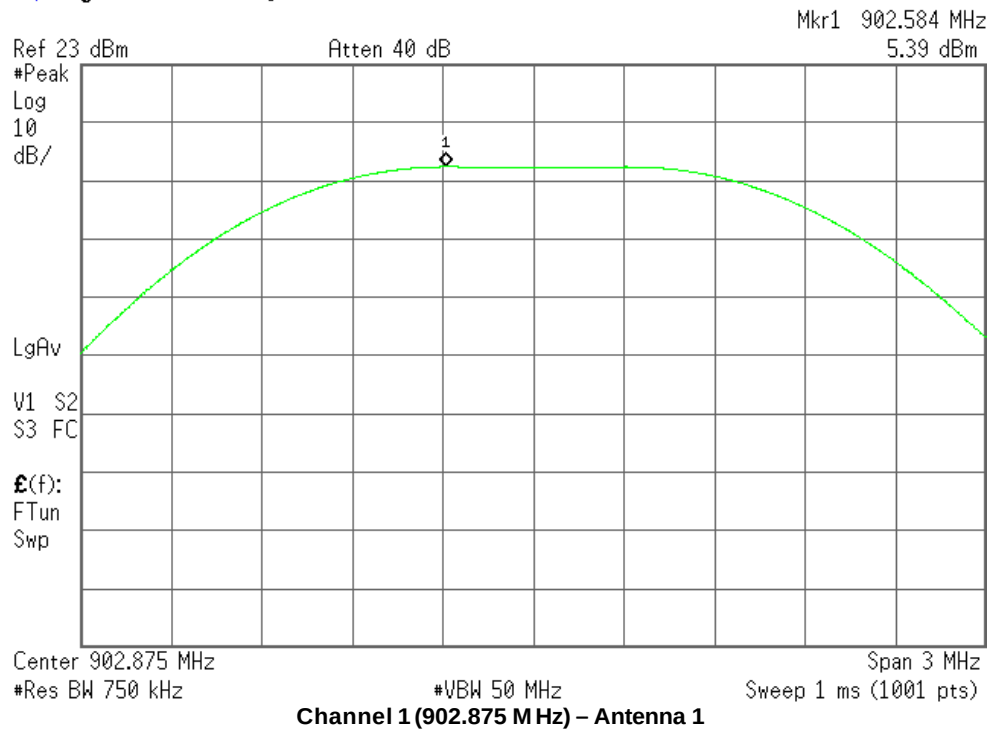
Antenna Height	NA	Turntable Rotation	NA
Equipment Class	NA	Measurement Distance	NA

TEST EQUIPMENT

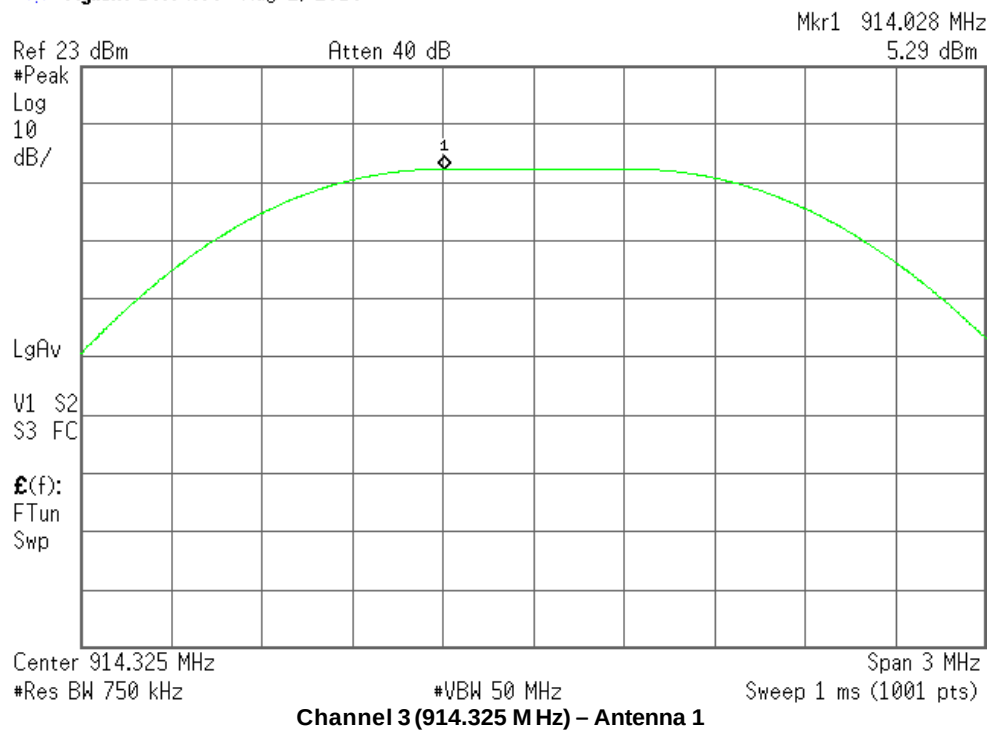
Y/N	Equipment	Make	Model	Serial Number	Cal Due Date
Y	Spectrum Analyzer	Agilent	E4440A	MY41000078	2017-05-18
Y	RF Cable	Digikey	1	NA	NA

TEST GRAPHS

Agilent 17:58:48 Aug 2, 2016



Agilent 18:04:00 Aug 2, 2016



Agilent 18:17:52 Aug 2, 2016

Mkr1 926.825 MHz
5.26 dBm

Ref 23 dBm

Atten 40 dB

#Peak
Log
10
dB/

LgAv

V1 S2
S3 FC

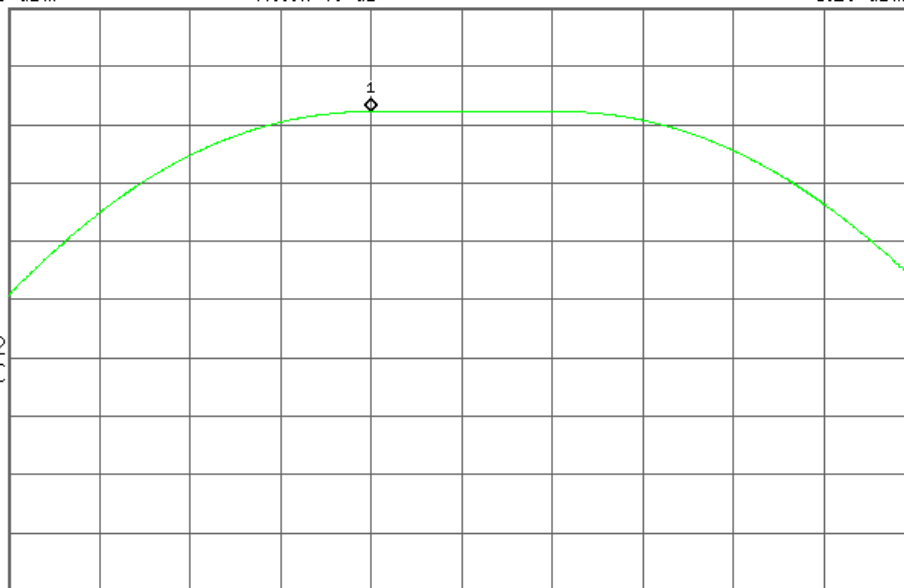
$\mathcal{E}(f)$:
FTun
Swp

Center 927.125 MHz
#Res BW 750 kHz

#VBW 50 MHz

Span 3 MHz
Sweep 1 ms (1001 pts)

Channel 6 (927.125 MHz) – Antenna 1



TEST GRAPHS

Agilent 13:40:14 Aug 3, 2016

Mkr1 902.590 3 MHz
5.05 dBm

Ref 23 dBm

Atten 40 dB

#Peak
Log
10
dB/

LgAv

V1 S2
S3 FCE(f):
FTun
Swp

Center 902.875 0 MHz

#Res BW 750 kHz

#VBW 50 MHz

#Sweep 1.066 ms (4000 pts)

Span 3 MHz

Channel 1 (902.875 MHz) – Antenna 2

Agilent 13:43:33 Aug 3, 2016

Mkr1 914.016 3 MHz
4.91 dBm

Ref 23 dBm

Atten 40 dB

#Peak
Log
10
dB/

LgAv

V1 S2
S3 FCE(f):
FTun
Swp

Center 914.325 0 MHz

#Res BW 750 kHz

#VBW 50 MHz

#Sweep 1.066 ms (4000 pts)

Span 3 MHz

Channel 3 (914.325 MHz) – Antenna 2

Agilent 13:47:40 Aug 3, 2016

Mkr1 926.829 1 MHz
4.82 dBm

Ref 23 dBm

Atten 40 dB

#Peak

Log

10

dB/

LgAv

V1 S2

S3 FC

$\mathcal{E}(f)$:

FTun

Swp

Center 927.125 0 MHz

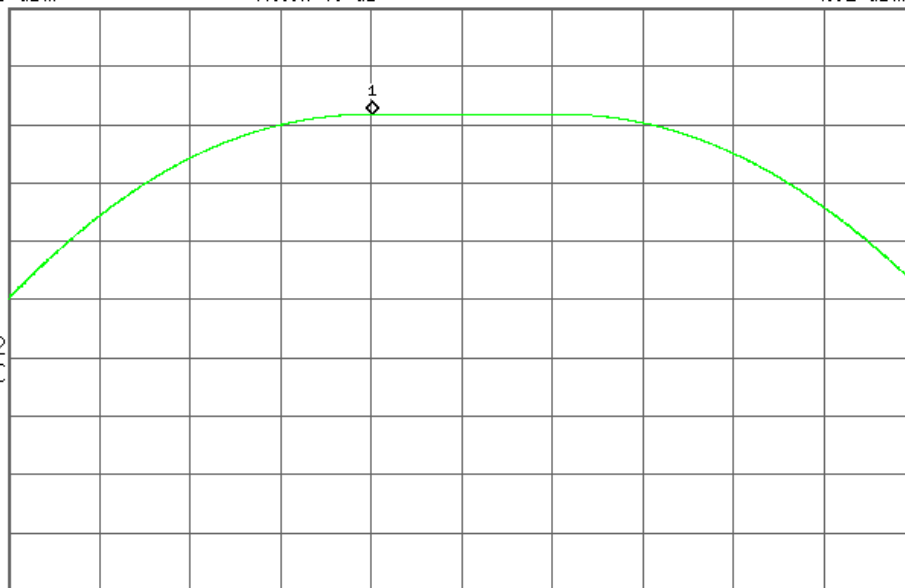
#Res BW 750 kHz

#VBW 50 MHz

#Sweep 1.066 ms (4000 pts)

Span 3 MHz

Channel 6 (927.125 MHz) – Antenna 2



TEST GRAPHS

Agilent 14:25:08 Aug 3, 2016

Mkr1 902.582 1 MHz
5.73 dBm

Ref 23 dBm

Atten 40 dB

#Peak
Log
10
dB/

LgAv

V1 S2

S3 FC

E(f):

FTun

Swp

Center 902.875 0 MHz

#Res BW 750 kHz

#VBW 50 MHz

#Sweep 1.066 ms (4000 pts)

Span 3 MHz

Channel 1 (902.875 MHz) – Antenna 3

Agilent 13:58:07 Aug 3, 2016

Mkr1 914.033 6 MHz
5.58 dBm

Ref 23 dBm

Atten 40 dB

#Peak
Log
10
dB/

LgAv

V1 S2

S3 FC

E(f):

FTun

Swp

Center 914.325 0 MHz

#Res BW 750 kHz

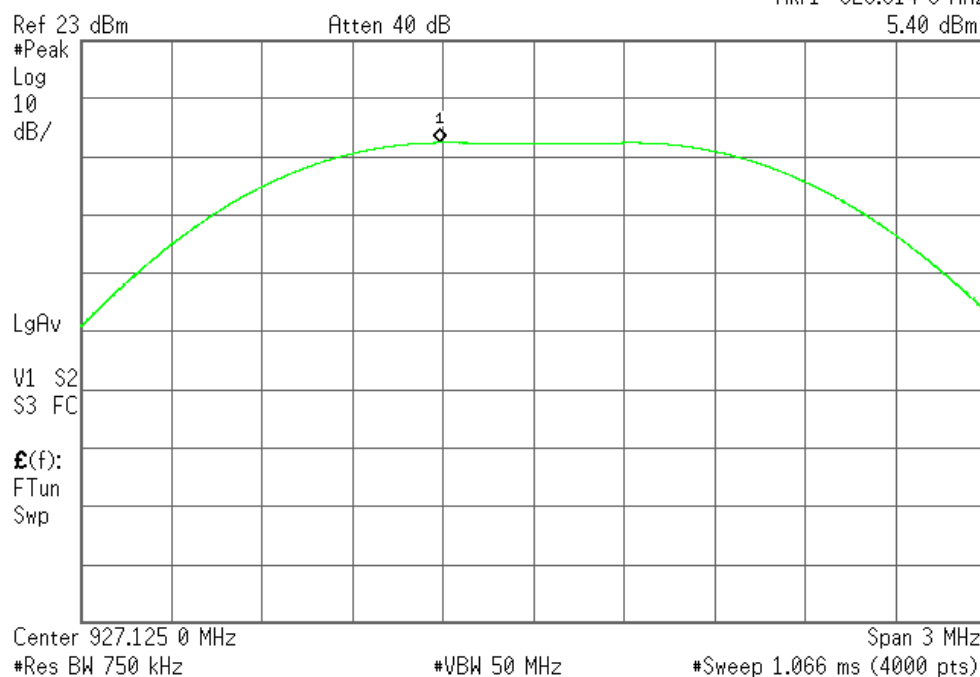
#VBW 50 MHz

#Sweep 1.066 ms (4000 pts)

Span 3 MHz

Channel 3 (914.325 MHz) – Antenna 3

Agilent 13:52:19 Aug 3, 2016

Mkr1 926.814 0 MHz
5.40 dBm

Channel 6 (927.125 MHz) – Antenna 3

TEST RESULT

Channel	Frequency	Measured Level	Cable Loss + Attenuator	Transmitter Ooutput Power Level	Limit	Result
#	MHz	dBm	dB	dBm	dBm	
Antenna 1						
1	902.875	5.39	6.5	11.99	≤30	PASS
3	914.325	5.29	6.5	11.89	≤30	PASS
6	927.125	5.26	6.5	11.86	≤30	PASS
Antenna 2						
1	902.875	5.05	6.5	11.10	≤30	PASS
3	914.325	4.91	6.5	11.41	≤30	PASS
6	927.125	4.82	6.5	11.32	≤30	PASS
Antenna 3						
1	902.875	5.73	6.5	12.23	≤30	PASS
3	914.325	5.58	6.5	12.08	≤30	PASS
6	927.125	5.40	6.5	11.90	≤30	PASS

Note: Transmitter Output Power = Measured Level (dBm) + Attenuator (dB) + Cable loss (dB)

TEST SETUP PHOTOGRAPHS

Refer Annexure – 1

Conducted RF Test Setup

3.3 MAXIMUM POWER SPECTRAL DENSITY

EUT Nomenclature	Wireless Smoke Detector	Test Request No.	20295-1
Model No.	FWD-200ACCLIMATE	Serial No.	MEL-150
Test Start Date	2017-04-24	Temperature (°C)	23.6°C
Test End Date	2017-04-24	Humidity RH (%)	51.9%RH
Tested By	Chris Locke	Pressure (mbar)	NR
Input Voltage / Freq.	3.3 Vdc		
Operating Mode	Refer Page 5 for Operating Mode Table		
Test configuration	Refer Page 5 for Test Configuration Table		
Deviation from Std.	NA		
Applicable standard	FCC Part 15.247:2010		
Test Method	KDB 558074		
Comment	NA		

TEST DETAILS

Method	Radiated ☐	Conducted ☒
--------	-----------------------------------	---

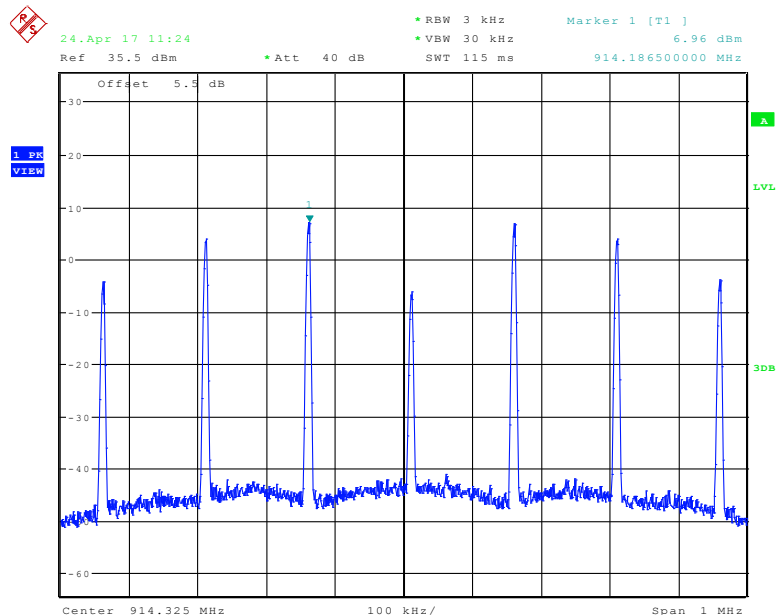
TEST PARAMETERS

Antenna Height	NA	Turntable Rotation	NA
Equipment Class	NA	Measurement Distance	NA

TEST EQUIPMENT

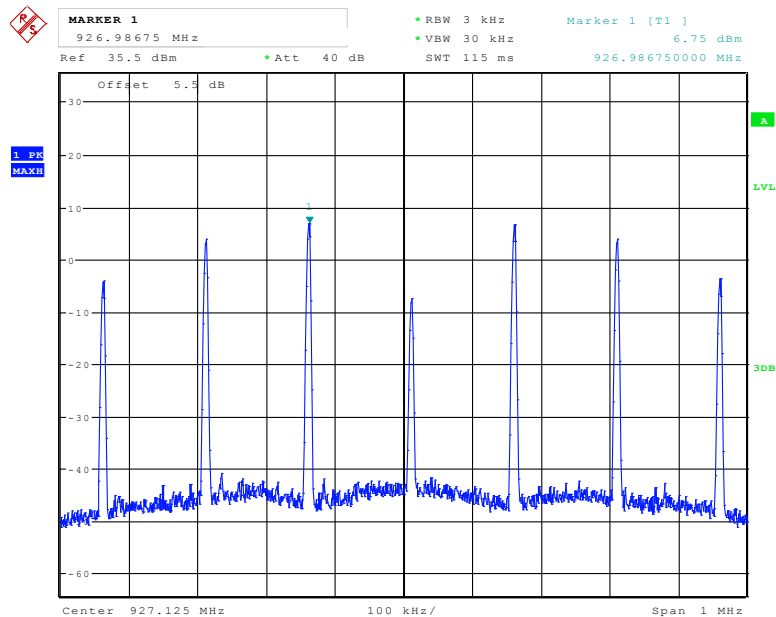
Y/N	Equipment	Make	Model	Serial Number	Cal Due Date
Y	Spectrum Analyzer	Rohde & Schwarz	FSU26	100303	2018-04-10
Y	RF Cable	Digikey	1	NA	NA

TEST GRAPHS



Date: 24.APR.2017 11:24:54

Channel 3 (914.325 MHz) – Antenna 1



Date: 24.APR.2017 11:27:13

Channel 6 (927.125 MHz) – Antenna 1

TEST RESULT				
Channel	Freq	Measured Level	Limit	Result
#	MHz	dBm/3KHz	dBm/ 3KHz	
3	914.325	6.96	<8	PASS
6	927.125	6.75	<8	PASS
Note: Cable and attenuator factor was entered as an offset in the analyzer.				

TEST SETUP PHOTOGRAPHS

Refer Annexure – 1

Conducted RF Test Setup

3.4 BAND-EDGE MEASUREMENTS

EUT Nomenclature	Wireless Smoke Detector	Test Request No.	20295-1
Model No.	FWD-200ACCLIMATE	Serial No.	MEL-150
Test Start Date	2016-08-25	Temperature (°C)	23.6°C
Test End Date	2016-08-25	Humidity RH (%)	51.9%RH
Tested By	Jose Badia/Arnoldo Garcia	Pressure (mbar)	NR
Input Voltage / Freq.	3.3 Vdc		
Operating Mode	Refer Page 5 for Operating Mode Table		
Test configuration	Refer Page 5 for Test Configuration Table		
Deviation from Std.	NA		
Applicable standard	FCC Part 15.247:2010		
Test Method	KDB 558074		
Comment	NA		

TEST DETAILS

Method	Radiated ☐	Conducted ☒
--------	-----------------------------------	---

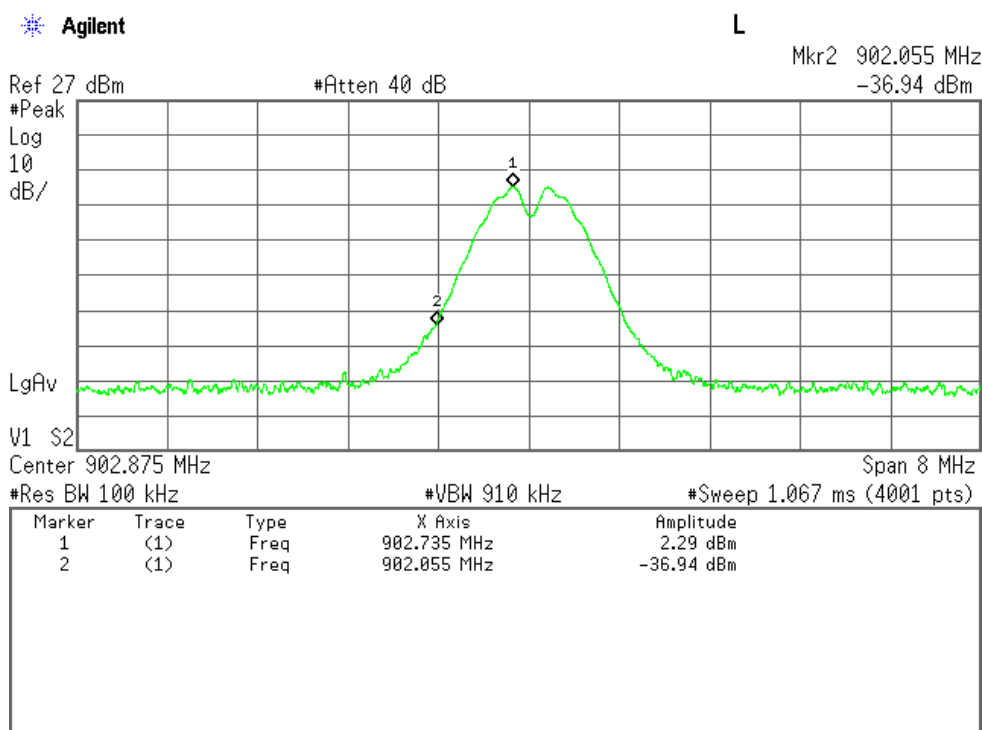
TEST PARAMETERS

Antenna Height	NA	Turntable Rotation	NA
Equipment Class	NA	Measurement Distance	NA

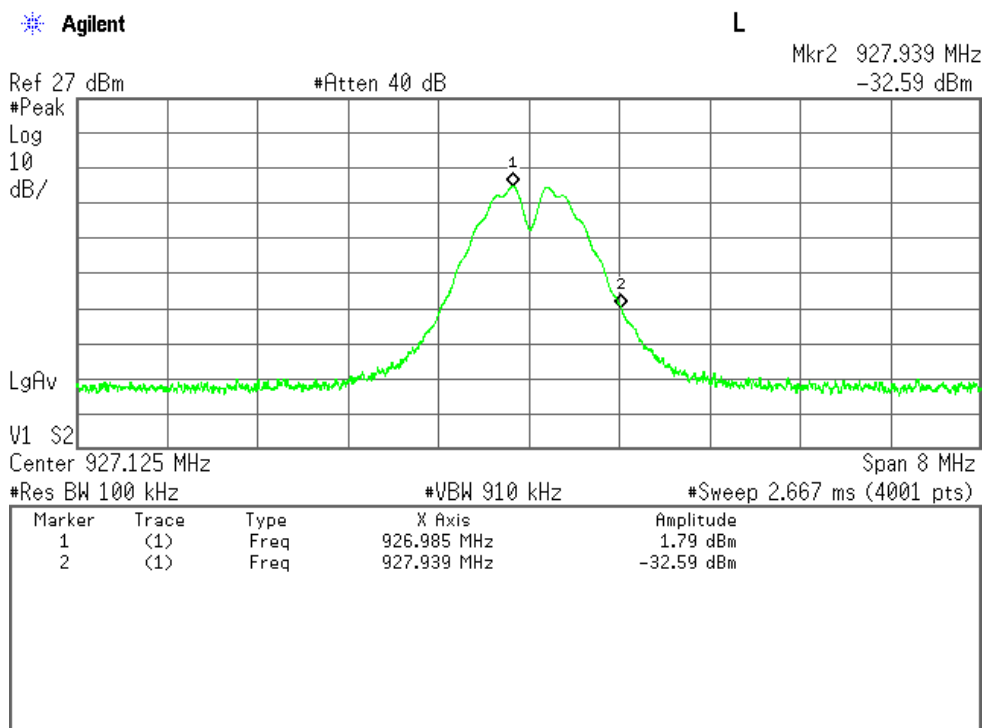
TEST EQUIPMENT

Y/N	Equipment	Make	Model	Serial Number	Cal Due Date
Y	Spectrum Analyzer	Agilent	E4440A	MY41000078	2017-05-18
Y	RF Cable	Digikey	1	NA	NA

TEST GRAPHS



Channel 1 (902.875 MHz) – Antenna 1



Channel 6 (927.125 MHz) – Antenna 1

TEST RESULT

Channel	Frequency	Measured Level	Limit	Results
#	MHz	dB	dBc	
1	914.325	39.23	>20	PASS
6	927.125	34.38	>20	PASS

TEST SETUP PHOTOGRAPHS

Refer Annexure – 1
Conducted RF Test Setup

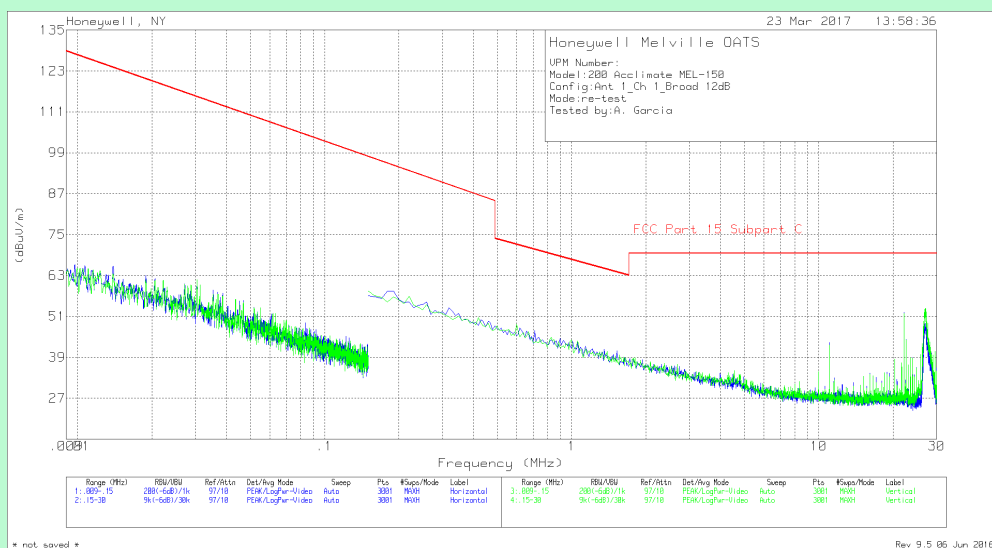
3.5 SPURIOUS RADIATED EMISSIONS

EUT Nomenclature	Wireless Smoke Detector	Test Request No.	20295-1
Model No.	FWD-200ACCLIMATE	Serial No.	MEL-150
Test Start Date	2016-09-22	Temperature (°C)	0°C to 50°C
Test End Date	2017-03-28	Humidity RH (%)	10% to 90% RH
Tested By	Jose Badia/Arnoldo Garcia/Chris Locke	Pressure (mbar)	NR
Input Voltage / Freq.	3.3 Vdc		
Operating Mode	Refer Page 5 for Operating Mode Table		
Test configuration	Refer Page 5 for Test Configuration Table		
Deviation from Std.	NA		
Comment	NA		
TEST FREQUENCY RANGE			
Start Frequency	9kHz	Stop Frequency	10GHz
MAXIMUM OPERATING FREQUENCY			
902MHz to 928MHz			
TEST PARAMETERS			
Antenna Height	1m to 4m	Turntable Rotation	0° to 360°
Applicable Standard	FCC Part 15.247 : 2010 & 15.209 : 2010	Test Method	ANSI 63.10 - 2013
Equipment Class	Class B	Measurement Distance	3m

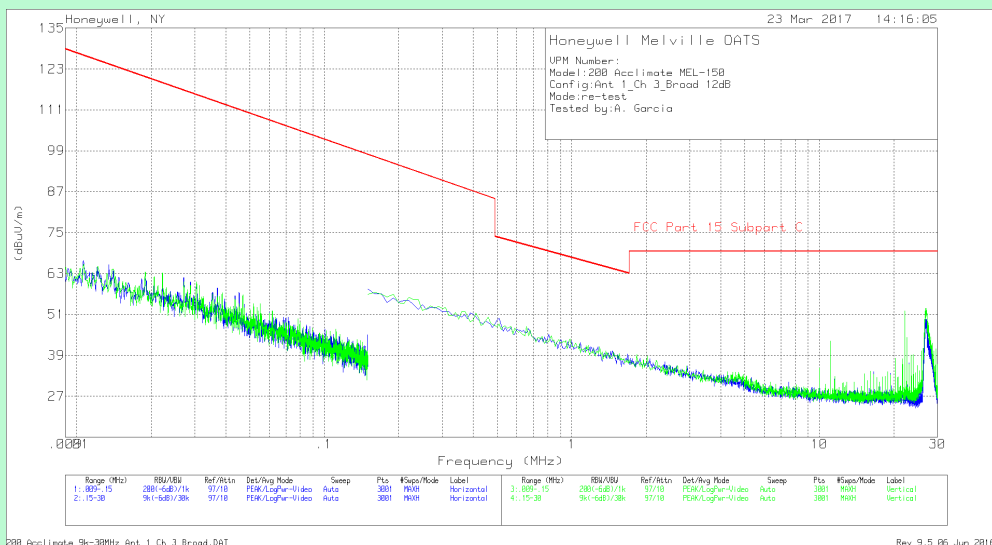
TEST EQUIPMENT

Y/N	Equipment	Make	Model	Sl. No.	Cal Due Date
Y	Spectrum Analyzer	Rohde & Schwarz	FSW26	103125	2018-02-14
Y	Spectrum Analyzer	Rohde & Schwarz	FSU26	100303	2017-03-31
Y	Bilog Antenna	Sunol	JB6	A012816	2018-03-09
Y	Bilog Antenna	Sunol	JB5	A022406	2017-12-18
Y	Horn Antenna	EMCO	RGA-60	3127	2017-02-03
Y	Preamplifier (Below 1GHz)	HP	8447D	2443AUF555	NA
Y	Preamplifier (Above 1GHz)	Amplical	AMP1G18-35	160362	NA
Y	Active Loop Antenna	Com-Power	AL-130R	121080	2017-08-15
Note: Switch ON /OFF the Internal Preamplifier based on carrier level and or noise floor without overloading the receiver					

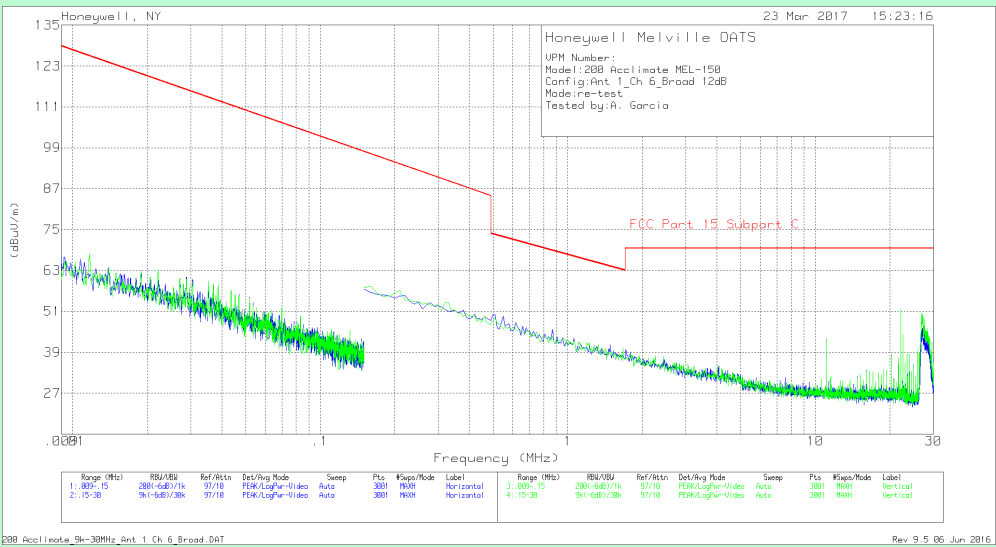
TEST GRAPHS – 9 KHz to 30 MHz (ANTENNA 1)



Channel 1 (902.875 MHz) – Antenna 1



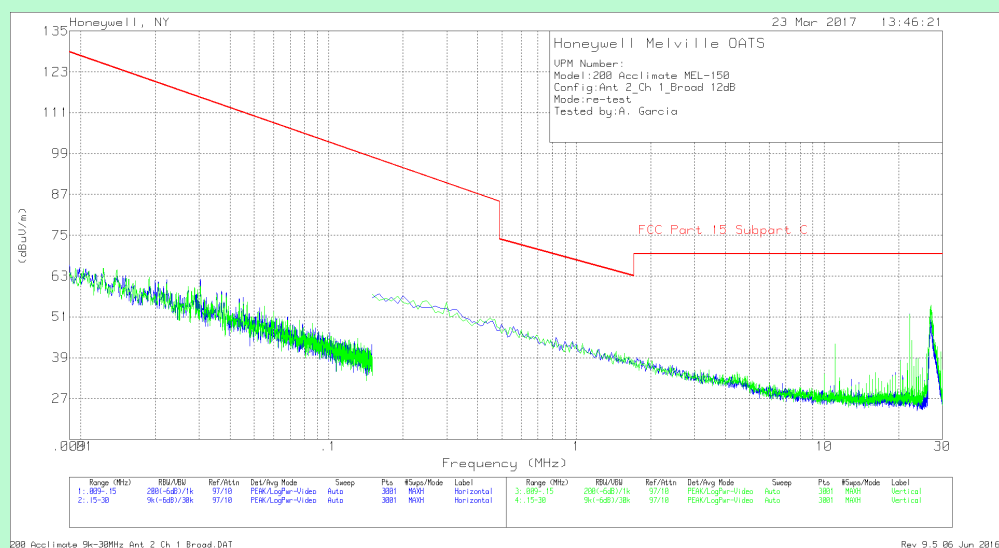
Channel 3 (914.325 MHz) – Antenna 1



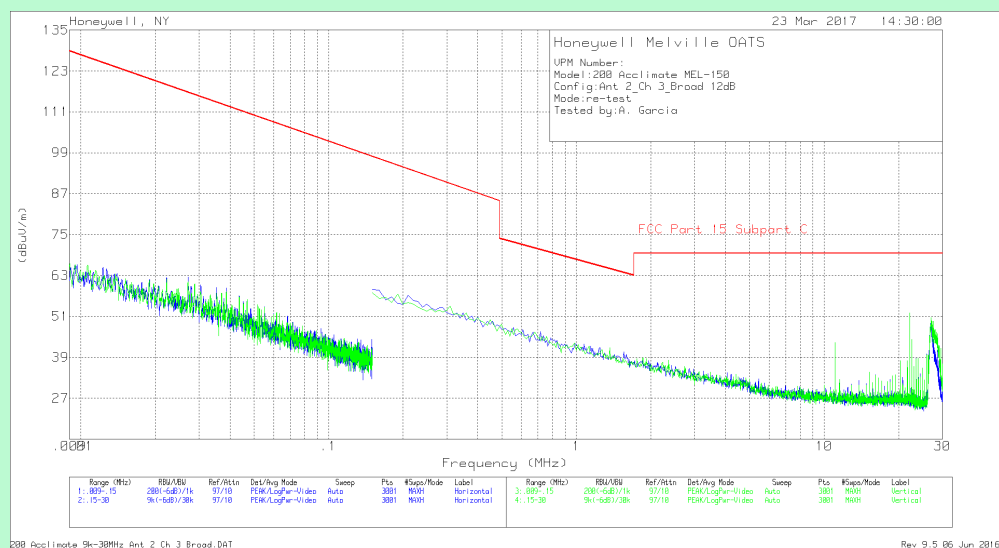
Channel 6 (927.125 MHz) – Antenna 1

TEST RESULT – 9 KHz to 30 MHz									
Channel	Channel Frequency	Measured Spurious	Quasi Peak	Height	Ant Pol	Azimuth	Margin	Limit @ 3m Distance	Results
#	MHz	MHz	dBµV/m	cm	Parallel / Perpendicular	deg	dB	dBµV/m	
No emissions detected that are a product of the transmitter. Emissions shown in the plot are related to the chamber ambient									
Note : Measured Field Strength –dBuV/m = Receiver Readings (dBuV) + AntennaFactor (dB/m) + Cable loss (dB)									

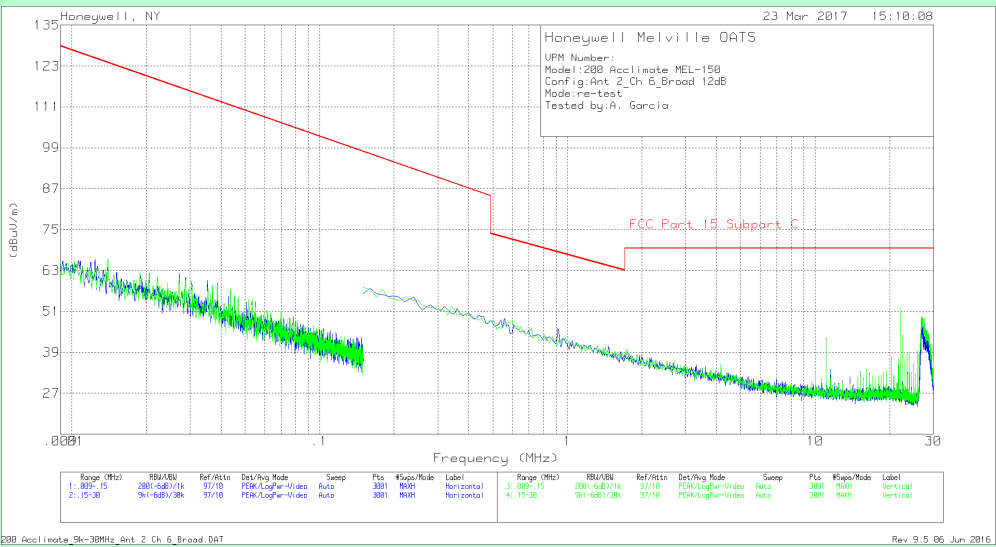
TEST GRAPHS – 9 KHz to 30 MHz (ANTENNA 2)



Channel 1 (902.875 MHz) – Antenna 2



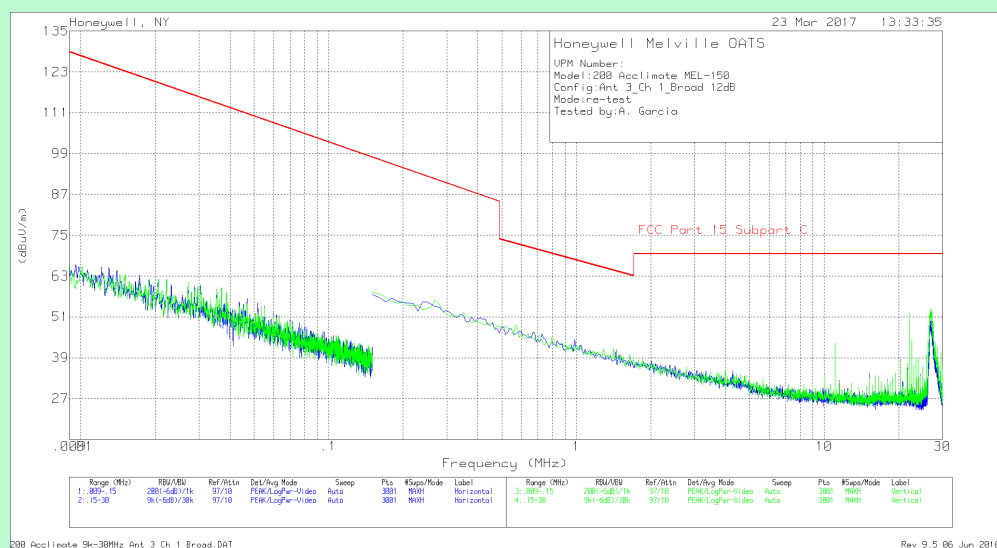
Channel 3 (914.325 MHz) – Antenna 2



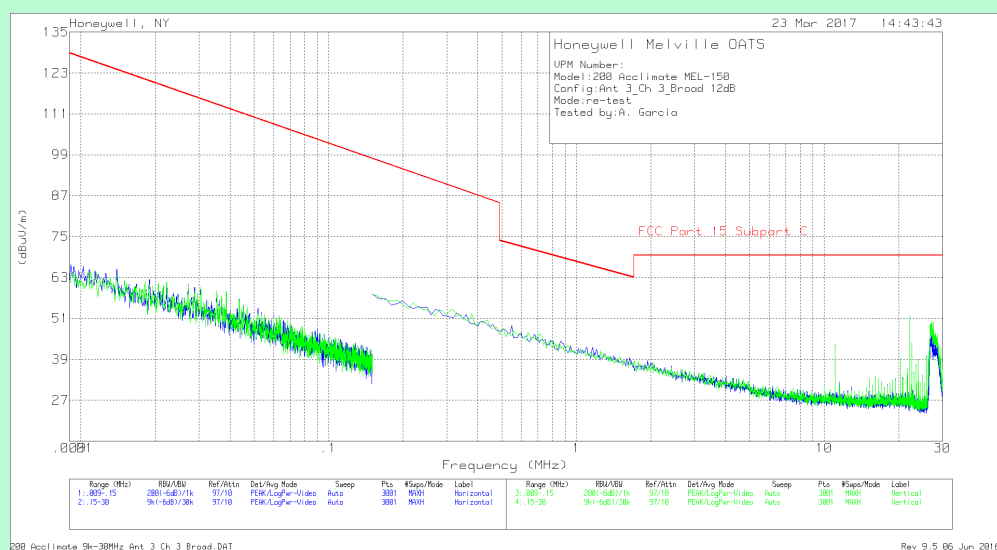
Channel 6 (927.125 MHz) – Antenna 2

TEST RESULT – 9 KHz to 30 MHz									
Channel	Channel Frequency	Measured Spurious	Quasi Peak	Height	Ant Pol	Azimuth	Margin	Limit @ 3m Distance	Results
#	MHz	MHz	dBµV/m	cm	Parallel / Perpendicular	deg	dB	dBµV/m	
No emissions detected that are a product of the transmitter. Emissions shown in the plot are related to the chamber ambient									
Note : Measured Field Strength –dBuV/m = Receiver Readings (dBuV) + Antenna Factor (dB/m) + Cable loss (dB)									

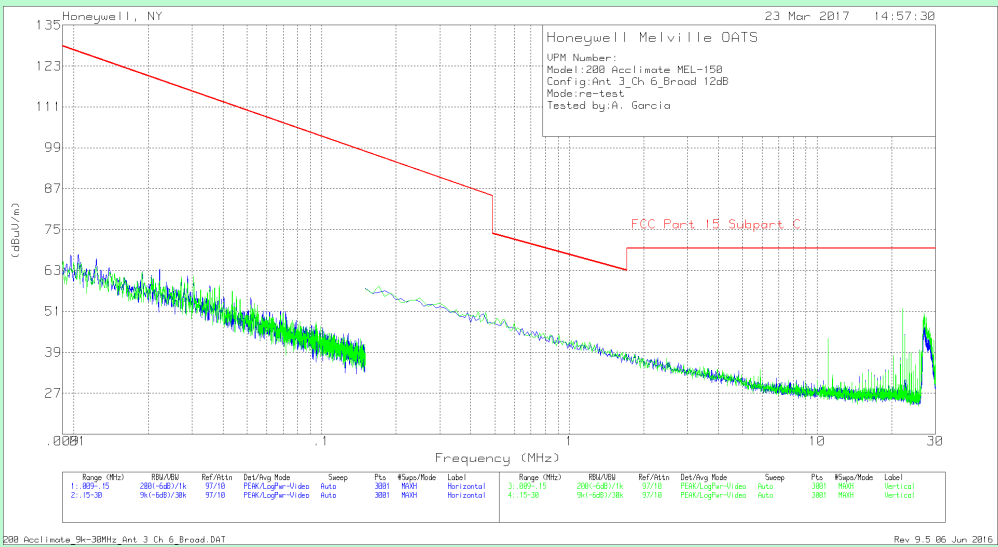
TEST GRAPHS – 9 KHz to 30 MHz (ANTENNA 3)



Channel 1 (902.875 MHz) – Antenna 3



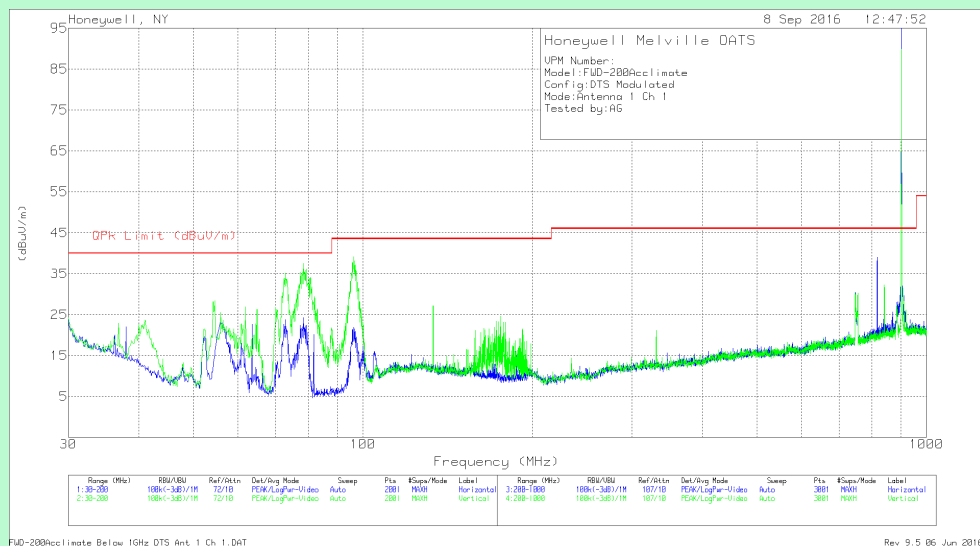
Channel 3 (914.325 MHz) – Antenna 3



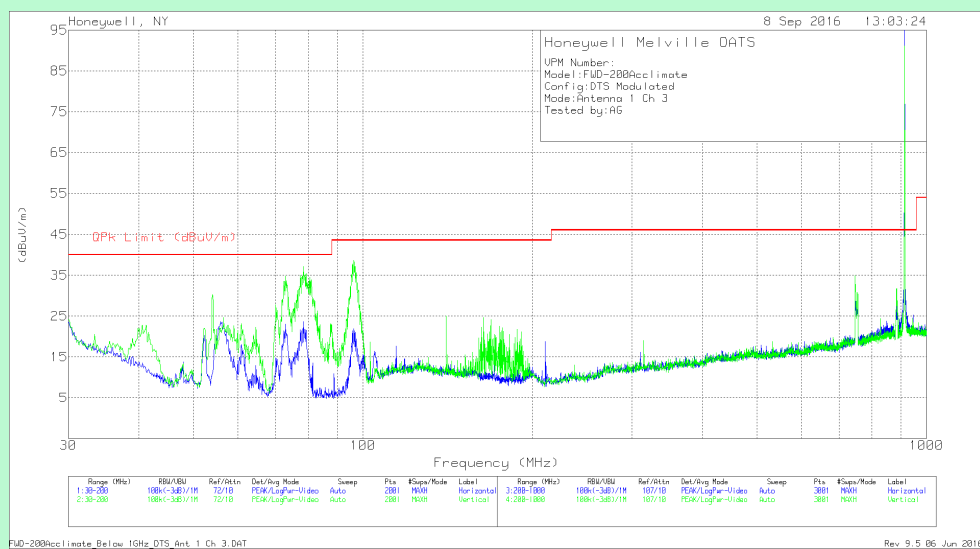
Channel 6 (927.125 MHz) – Antenna 3

TEST RESULT – 9 KHz to 30 MHz									
Channel	Channel Frequency	Measured Spurious	Quasi Peak	Height	Ant Pol	Azimuth	Margin	Limit @ 3m Distance	Results
#	MHz	MHz	dBµV/m	cm	Parallel / Perpendicular	deg	dB	dBµV/m	
No emissions detected that are a product of the transmitter. Emissions shown in the plot are related to the chamber ambient									
Note : Measured Field Strength –dBuV/m = Receiver Readings (dBuV) + Antenna Factor (dB/m) + Cable loss (dB)									

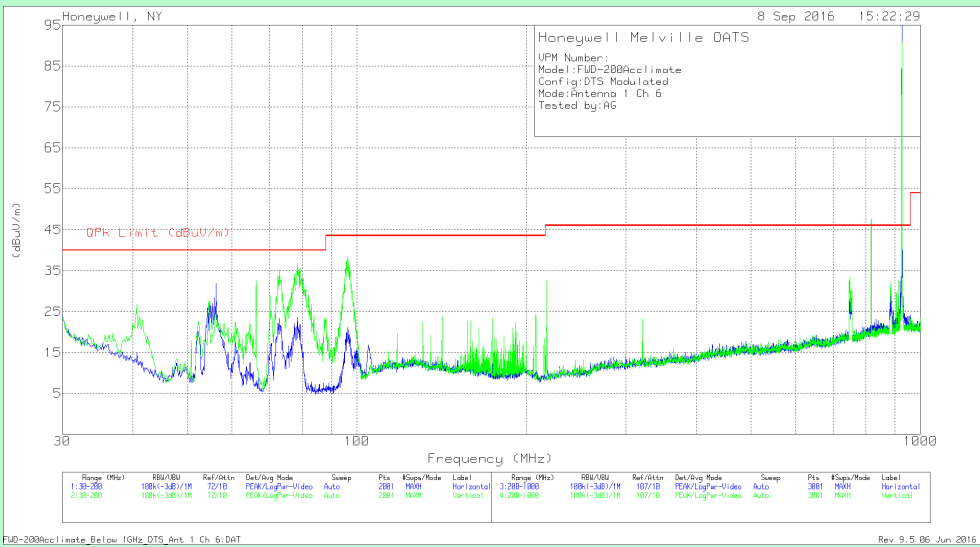
TEST GRAPHS – 30 MHz to 1GHz (ANTENNA 1)



Channel 1 (902.875 MHz) – Antenna 1



Channel 3 (914.325 MHz) – Antenna 1



Channel 6 (927.125 MHz) – Antenna 1

TEST RESULT – 30 MHz to 1 GHz

Channel 1											
Frequency (MHz)	Meter Reading (dBuV)	Det	AF [dB/m]	Pre Amp #1 [dB]	RDE #1 [dB]	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 37.99	26.46	Qp	20	-29	.9	18.36	40	21.64	320	343	H
54.565	44.94	Qp	11.9	-29	1.1	28.94	40	11.06	91	108	V
72.84	41.51	Qp	12.2	-28.9	1.2	26.01	40	13.99	186	237	V
78.365	40.83	Qp	12	-28.9	1.3	25.23	40	14.77	148	196	V
96.06	25.96	Qp	13.3	-28.8	1.4	11.86	43.52	31.66	296	253	V
** 902.739	98.94	Pk	27	-27.6	5.5	103.84	-	-	360	145	H
817.8674	21.41	Qp	26.3	-27.9	5.2	25.01	46.02	21.01	296	281	H
** 902.739	90.6	Pk	27	-27.6	5.5	95.5	-	-	40	135	V
Channel 3											
Frequency (MHz)	Meter Reading (dBuV)	Det	AF [dB/m]	Pre Amp #1 [dB]	RDE #1 [dB]	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
55.925	42.31	Qp	11.9	-29	1.1	26.31	40	13.69	164	392	H
54.055	45.82	Qp	12	-29	1.1	29.92	40	10.08	69	127	V
72.84	40.15	Qp	12.2	-28.9	1.2	24.65	40	15.35	14	133	V
78.365	41.58	Qp	12	-28.9	1.3	25.98	40	14.02	115	149	V
96.3	47.67	Qp	13.4	-28.8	1.4	33.67	43.52	9.85	3	400	V
** 914.189	99.93	Pk	27.3	-27.5	5.6	105.33	-	-	0	143	H
746.934	29.02	Qp	25.4	-28.4	4.9	30.92	46.02	15.1	296	182	H
** 914.189	90.27	Pk	27.3	-27.5	5.6	95.67	-	-	45	137	V
Channel 6											
Frequency (MHz)	Meter Reading (dBuV)	Det	AF [dB/m]	Pre Amp #1 [dB]	RDE #1 [dB]	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
56.265	40.43	Qp	11.9	-29	1.1	24.43	40	15.57	280	400	H
66.295	43.96	Qp	12.1	-29	1.2	28.26	40	11.74	235	190	V
72.84	41	Qp	12.2	-28.9	1.2	25.5	40	14.5	116	114	V
78.365	42.33	Qp	12	-28.9	1.3	26.73	40	13.27	289	195	V
96.4551	49.71	Qp	13.4	-28.8	1.4	35.71	43.52	7.81	8	352	V
** 926.989	100.99	Pk	27.3	-27.5	5.7	106.49	-	-	347	145	H
818.4008	21.43	Qp	26.3	-27.9	5.2	25.03	46.02	20.99	20	210	H
** 926.989	91.19	Pk	27.3	-27.5	5.7	96.69	-	-	226	132	V

Note:

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

** - indicates intended frequency

Pk - Peak detector

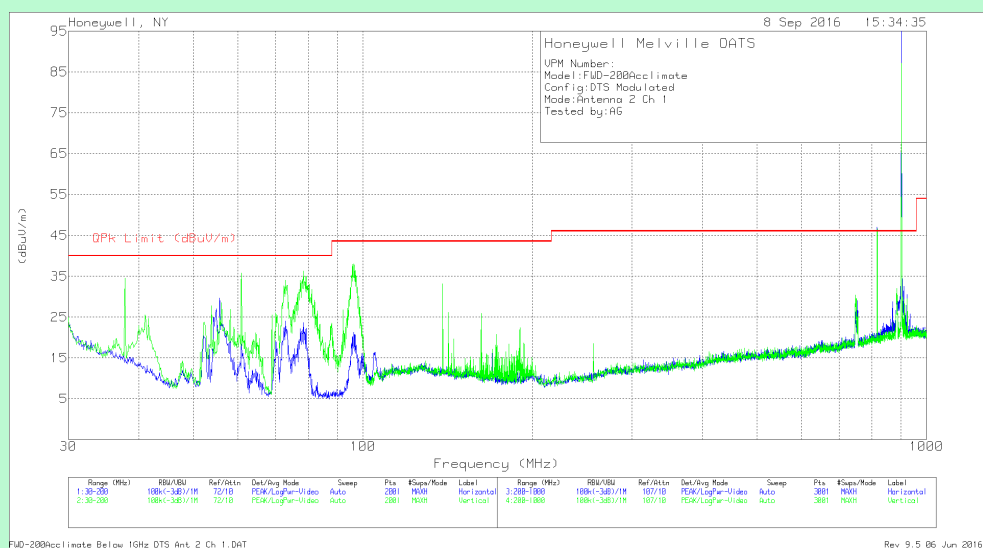
Qp - Quasi-Peak detector

NOTE: Measured Field Strength –dBuV/m (9 KHz to 1GHz) = Receiver Readings (dBuV) + Antenna Factor (dB/m) + Cable loss (dB) - Preamp gain (dB)

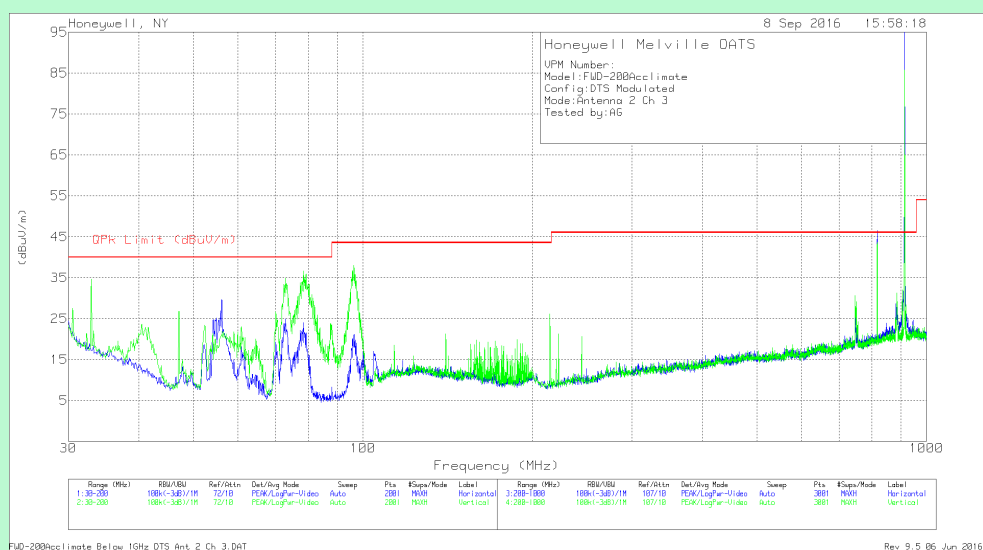
Prescans performed in a pre-compliance chamber. Final measurements performed on an OATS.

Emissions shown in the plot are related to the chamber ambient

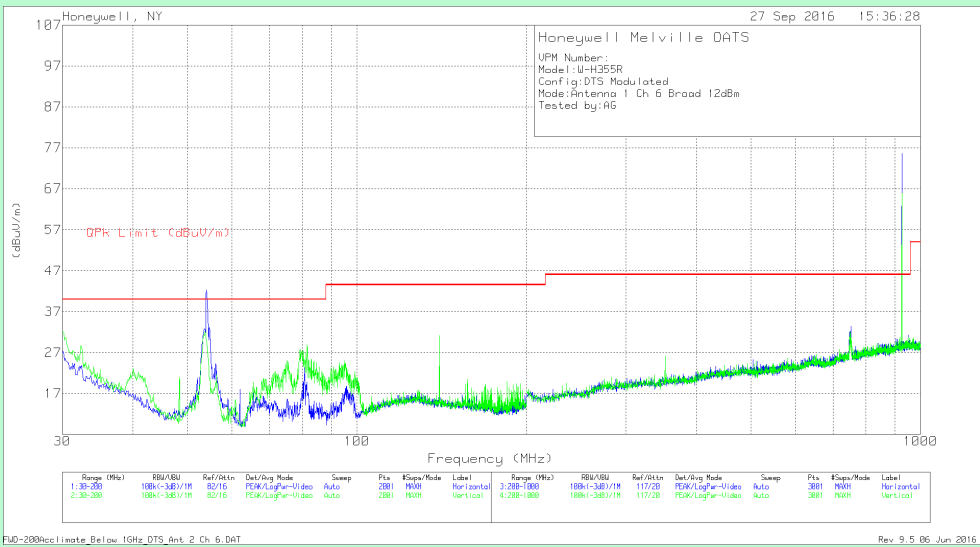
TEST GRAPHS – 30 MHz to 1GHz (ANTENNA 2)



Channel 1 (902.875 MHz) – Antenna 2



Channel 3 (914.325 MHz) – Antenna 2



Channel 6 (927.125 MHz) – Antenna 2

TEST RESULT – 30 MHz to 1 GHz

Channel 1											
Frequency (MHz)	Meter Reading (dBuV)	Det	AF [dB/m]	Pre Amp #1 [dB]	RDE #1 [dB]	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 37.82	33.57	Qp	20.2	-29	.9	25.67	40	14.33	34	111	V
60.8095	36.7	Qp	11.9	-29	1.1	20.7	40	19.3	120	165	V
72.84	42.6	Qp	12.2	-28.9	1.2	27.1	40	12.9	239	158	V
78.365	42.96	Qp	12	-28.9	1.3	27.36	40	12.64	205	174	V
96.215	26.5	Qp	13.3	-28.8	1.4	12.4	43.52	31.12	337	400	V
** 902.735	101.36	Pk	27	-27.6	5.5	106.26	-	-	181	156	H
817.3341	36.39	Qp	26.2	-27.9	5.2	39.89	46.02	6.13	251	253	H
** 902.735	92.03	Pk	27	-27.6	5.5	96.93	-	-	267	145	V
818.1341	39.01	Qp	26.3	-27.9	5.2	42.61	46.02	3.41	213	338	V
Channel 3											
Frequency (MHz)	Meter Reading (dBuV)	Det	AF [dB/m]	Pre Amp #1 [dB]	RDE #1 [dB]	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
56.095	38.69	Qp	11.9	-29	1.1	22.69	40	17.31	62	368	H
32.975	29.69	Qp	23.6	-29.1	.8	24.99	40	15.01	114	261	V
72.84	42.91	Qp	12.2	-28.9	1.2	27.41	40	12.59	347	144	V
78.365	42.26	Qp	12	-28.9	1.3	26.66	40	13.34	218	180	V
96.3	42.11	Qp	13.4	-28.8	1.4	28.11	43.52	15.41	351	112	V
** 914.185	100.22	Pk	27.3	-27.5	5.6	105.62	-	-	171	152	H
818.1341	26.65	Qp	26.3	-27.9	5.2	30.25	46.02	15.77	68	192	H
** 914.189	82	Pk	27.3	-27.5	5.6	87.4	-	-	7	161	V
818.1341	24.02	Qp	26.3	-27.9	5.2	27.62	46.02	18.4	150	391	V
Channel 6											
Frequency (MHz)	Meter Reading (dBuV)	Det	AF [dB/m]	Pre Amp #1 [dB]	RDE #1 [dB]	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
54.055	35.94	Qp	12	-29	1.1	20.04	40	19.96	268	391	H
30.1625	33.3	Qp	25.5	-29.1	.8	30.5	40	9.5	166	142	V
53.715	45.58	Qp	12	-29	1.1	29.68	40	10.32	254	178	V
140.075	32.91	Qp	17.4	-28.6	1.7	23.41	43.52	20.11	297	357	V
** 926.993	99.22	Pk	27.3	-27.5	5.7	104.72	-	-	165	151	H
752.2674	35.52	Qp	25.6	-28.4	5	37.72	46.02	8.3	35	219	H
** 926.993	86.59	Pk	27.3	-27.5	5.7	92.09	-	-	287	216	V
752.0007	34.89	Qp	25.6	-28.4	5	37.09	46.02	8.93	336	379	V

Note:

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

** - indicates intended frequency

Pk - Peak detector

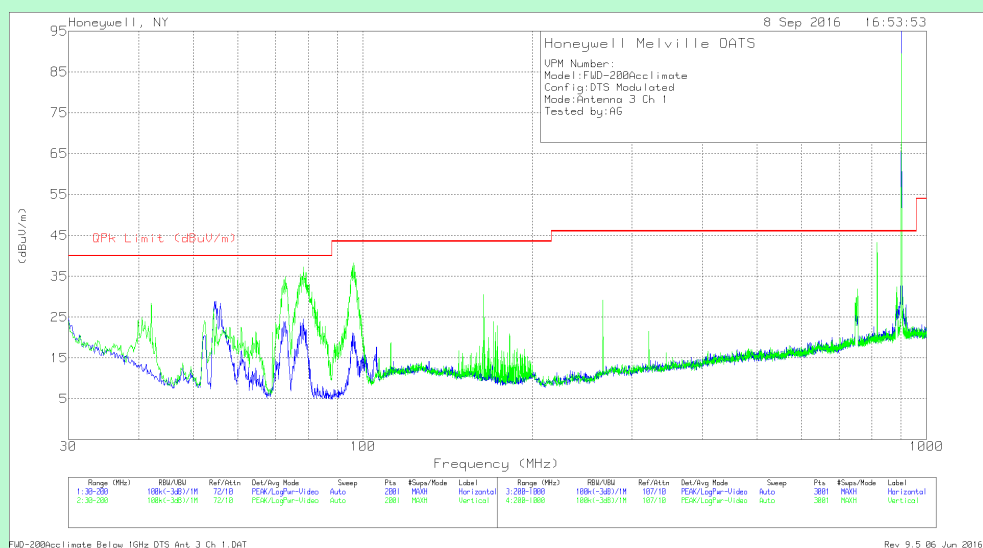
Qp - Quasi-Peak detector

NOTE: Measured Field Strength –dBuV/m (9 KHz to 1GHz) = Receiver Readings (dBuV) + Antenna Factor (dB/m) + Cable loss (dB) - Preamp gain (dB)

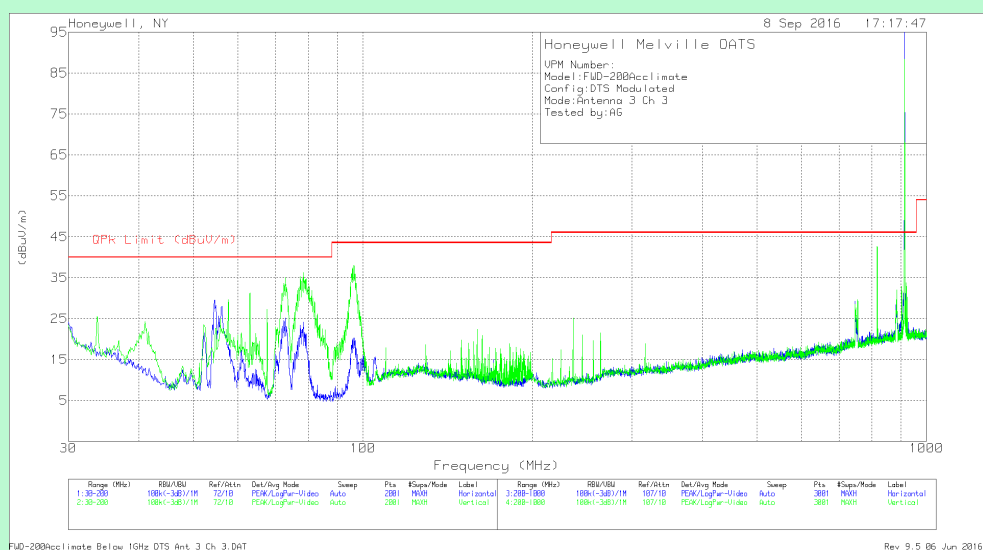
Prescans performed in a pre-compliance chamber. Final measurements performed on an OATS.

Emissions shown in the plot are related to the chamber ambient

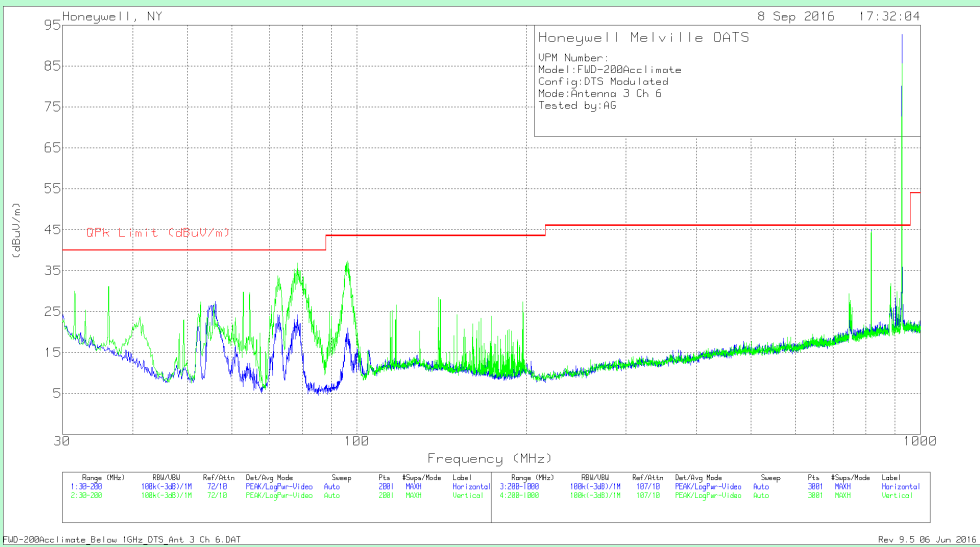
TEST GRAPHS – 30 MHz to 1GHz (ANTENNA 3)



Channel 1 (902.875 MHz) – Antenna 3



Channel 3 (914.325 MHz) – Antenna 3



Channel 6 (927.125 MHz) – Antenna 3

TEST RESULT – 30 MHz to 1 GHz

Channel 1											
Frequency (MHz)	Meter Reading (dBuV)	Det	AF [dB/m]	Pre Amp #1 [dB]	RDE #1 [dB]	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
54.82	39.2	Qp	11.9	-29	1.1	23.2	40	16.8	287	364	H
72.84	40.74	Qp	12.2	-28.9	1.2	25.24	40	14.76	69	155	V
78.365	42.6	Qp	12	-28.9	1.3	27	40	13	147	169	V
96.385	14.76	Qp	13.4	-28.8	1.4	.76	43.52	42.76	9	115	V
96.385	21.39	Qp	13.4	-28.8	1.4	7.39	43.52	36.13	9	115	V
* 163.62	26.83	Qp	16.9	-28.5	1.8	17.03	43.52	26.49	299	279	V
** 902.739	98.09	Pk	27	-27.6	5.5	102.99	-	-	160	152	H
** 902.739	83.28	Pk	27	-27.6	5.5	88.18	-	-	232	221	V
817.3341	27.02	Qp	26.2	-27.9	5.2	30.52	46.02	15.5	287	156	V
Channel 3											
Frequency (MHz)	Meter Reading (dBuV)	Det	AF [dB/m]	Pre Amp #1 [dB]	RDE #1 [dB]	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
54.3221	46.22	Qp	12	-29	1.1	30.32	40	9.68	36	390	H
57.625	47.55	Qp	11.8	-29	1.1	31.45	40	8.55	345	257	V
63.065	40.05	Qp	12	-29	1.1	24.15	40	15.85	145	187	V
72.755	40.69	Qp	12.2	-28.9	1.2	25.19	40	14.81	262	101	V
78.365	42.52	Qp	12	-28.9	1.3	26.92	40	13.08	74	155	V
96.385	24.02	Qp	13.4	-28.8	1.4	10.02	43.52	33.5	216	337	V
** 914.189	94.27	Pk	27.3	-27.5	5.6	99.67	-	-	343	107	H
817.3341	22.23	Qp	26.2	-27.9	5.2	25.73	46.02	20.29	259	285	H
** 914.189	80.19	Pk	27.3	-27.5	5.6	85.59	-	-	281	397	V
Channel 6											
Frequency (MHz)	Meter Reading (dBuV)	Det	AF [dB/m]	Pre Amp #1 [dB]	RDE #1 [dB]	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
55.9299	41.9	Qp	11.9	-29	1.1	25.9	40	14.1	193	392	H
36.0404	35.87	Qp	21.5	-29.1	.9	29.17	40	10.83	46	224	V
72.415	50.27	Qp	12.2	-28.9	1.2	34.77	40	5.23	58	101	V
78.365	42.02	Qp	12	-28.9	1.3	26.42	40	13.58	188	237	V
96.2947	55.16	Qp	13.4	-28.8	1.4	41.16	43.52	2.36	252	400	V
818.4008	22.31	Qp	26.3	-27.9	5.2	25.91	46.02	20.11	159	191	H
** 926.991	96.84	Pk	27.3	-27.5	5.7	102.34	-	-	1	100	H
818.1831	27.1	Qp	26.3	-27.9	5.2	30.7	46.02	15.32	179	229	V
** 926.992	87.74	Pk	27.3	-27.5	5.7	93.24	-	-	327	101	V

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

** - indicates intended frequency

Pk - Peak detector

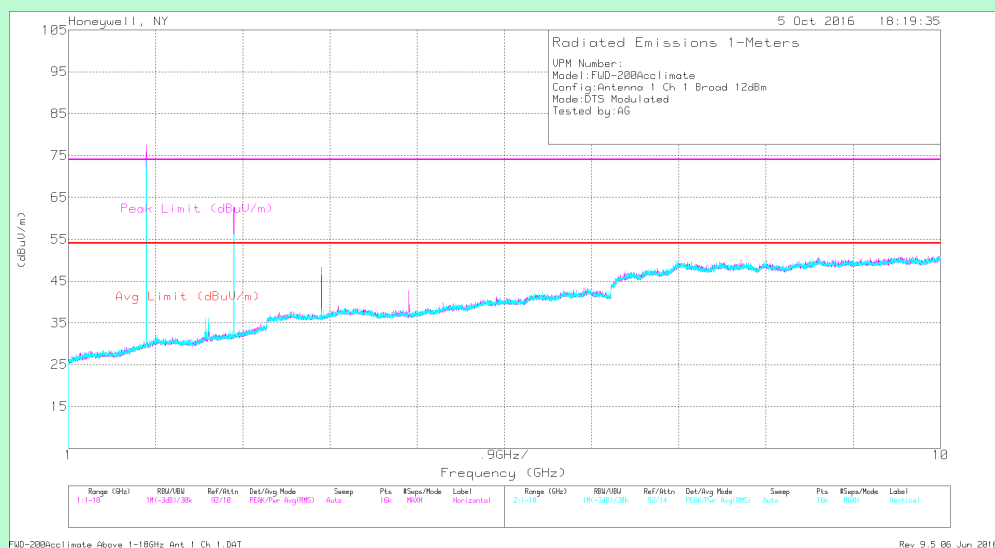
Qp - Quasi-Peak detector

NOTE: Measured Field Strength –dBuV/m (9 KHz to 1GHz) = Receiver Readings (dBuV) + Antenna Factor (dB/m) + Cable loss (dB) - Preamp gain (dB)

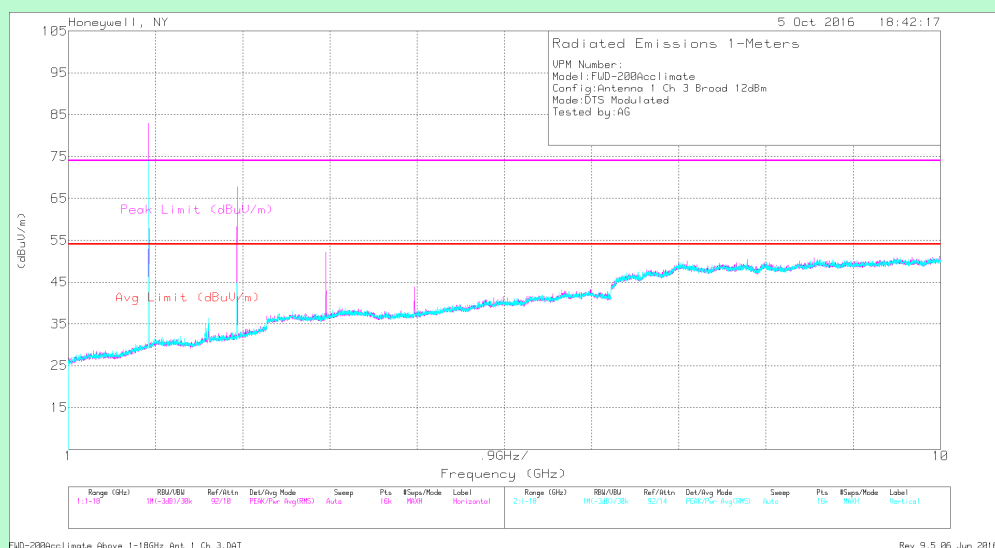
Prescans performed in a pre-compliance chamber. Final measurements performed on an OATS.

Emissions shown in the plot are related to the chamber ambient

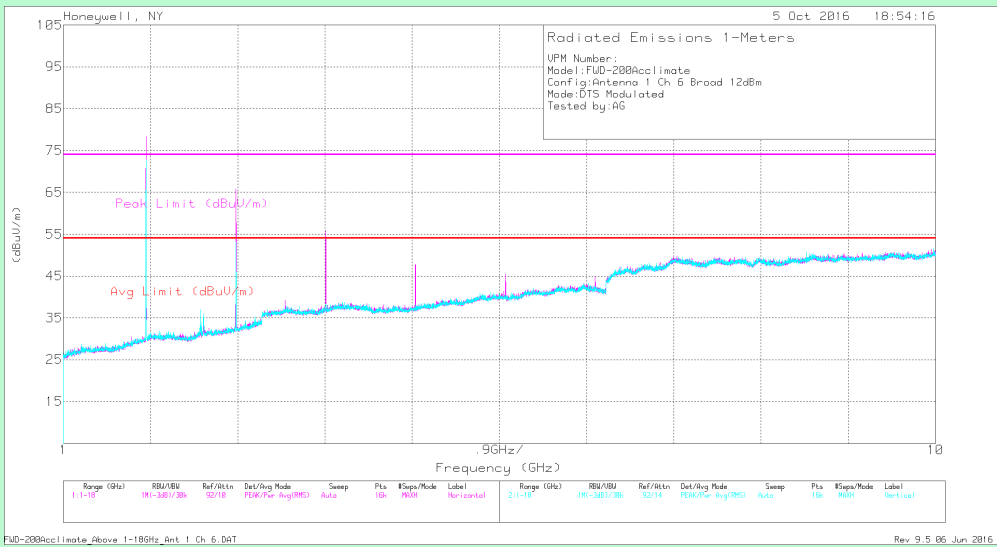
TEST GRAPHS – 1GHz to 10GHz (ANTENNA 1)



Channel 1 (902.875 MHz) – Antenna 1



Channel 3 (914.325 MHz) – Antenna 1



Channel 6 (927.125 MHz) – Antenna 1

TEST RESULT – 1 GHz to 10 GHz – CHANNEL 1**PEAK DATA – RESTRICTED BAND**

Frequency (GHz)	Meter Reading (dBuV)	Det	AF [dB/m]	Preamp [dB]	SMA1 [dB]	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 2.71	41.46	PK2	29.3	-27.1	9	52.66	74	21.34	114	116	H
* 4.515	40.78	PK2	32.2	-26.6	11.7	58.08	74	15.92	41	396	H
* 5.416	39.71	PK2	34.3	-26.7	12.9	60.21	74	13.79	236	133	H
* 8.126	40.27	PK2	37.1	-26.2	16	67.17	74	6.83	305	251	H
* 9.029	40.98	PK2	37.6	-25.9	16.9	69.58	74	4.42	70	209	H
* 3.612	41.29	PK2	31.6	-26.8	10.4	56.49	74	17.51	147	122	H
* 2.708	45.54	PK2	29.3	-27.1	9	56.74	74	17.26	94	142	V
* 3.611	42.25	PK2	31.6	-26.8	10.4	57.45	74	16.55	185	104	V
* 4.516	41.63	PK2	32.2	-26.6	11.7	58.93	74	15.07	128	336	V
* 5.418	40.87	PK2	34.3	-26.7	12.9	61.37	74	12.63	94	133	V
* 8.127	40.88	PK2	37.1	-26.2	16	67.78	74	6.22	140	138	V
* 9.03	42.44	PK2	37.6	-25.9	16.9	71.04	74	2.96	72	272	V

PEAK DATA – NON RESTRICTED BAND

Frequency (GHz)	Meter Reading (dBuV)	Det	AF [dB/m]	Preamp [dB]	SMA1 [dB]	Corrected Reading (dBuV/m)	Peak Limit [Fundamental-20dBc] (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1.805	54.82	PK2	27	-26.9	7.3	62.22	83.8	21.58	148	174	H
6.319	40.06	PK2	34.9	-26.4	14	62.56	83.8	21.24	178	398	H
7.223	40.08	PK2	36.3	-26.2	15	65.18	83.8	18.62	195	262	H
1.805	54.03	PK2	27	-26.9	7.3	61.43	83.8	22.37	263	113	V
6.321	39.82	PK2	34.9	-26.4	14	62.32	83.8	21.48	112	211	V
7.225	40.69	PK2	36.3	-26.2	15	65.79	83.8	18.01	150	173	V

AVERAGE DATA – RESTRICTED BAND

Frequency (GHz)	Meter Reading (dBuV)	Det	AF [dB/m]	Preamp [dB]	SMA1 [dB]	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 2.708	31.38	MAV1	29.3	-27.1	9	42.58	54	11.42	114	116	H
* 4.516	28.36	MAV1	32.2	-26.6	11.7	45.66	54	8.34	41	396	H
* 5.416	27.81	MAV1	34.3	-26.7	12.9	48.31	54	5.69	236	133	H
* 8.125	20.57	MAV1	37.1	-26.2	16	47.47	54	6.53	297	114	H
* 9.028	11.9	MAV1	37.6	-25.9	16.9	40.5	54	13.5	131	167	H
* 3.611	28.97	MAV1	31.6	-26.8	10.4	44.17	54	9.83	147	122	H
* 2.708	38.59	MAV1	29.3	-27.1	9	49.79	54	4.21	94	142	V
* 3.611	29.39	MAV1	31.6	-26.8	10.4	44.59	54	9.41	185	104	V
* 4.516	28.84	MAV1	32.2	-26.6	11.7	46.14	54	7.86	128	336	V
* 5.417	27.98	MAV1	34.3	-26.7	12.9	48.48	54	5.52	94	133	V
* 8.127	11.32	MAV1	37.1	-26.2	16	38.22	54	15.78	15	391	V
* 9.028	11.81	MAV1	37.6	-25.9	16.9	40.41	54	13.59	32	123	V

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

** - indicates intended frequency

Pk - Peak detector

Qp - Quasi-Peak detector

Prescans performed in a pre-compliance chamber. Final measurements performed on an OATS.

Emissions shown in the plot are related to the chamber ambient

TEST RESULT – 1 GHz to 10 GHz – CHANNEL 3

PEAK DATA – RESTRICTED BAND

Frequency (GHz)	Meter Reading (dBuV)	Det	AF [dB/m]	Preamp [dB]	SMA1 [dB]	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 2.742	43.26	PK2	29.4	-27	9	54.66	74	19.34	39	132	H
* 3.658	41.8	PK2	31.8	-26.9	10.4	57.1	74	16.9	216	144	H
* 4.571	40.66	PK2	32.2	-26.7	11.8	57.96	74	16.04	126	160	H
* 7.313	39.86	PK2	36.7	-26.2	15.1	65.46	74	8.54	219	352	H
* 8.231	40.26	PK2	37.1	-26.1	16.1	67.36	74	6.64	43	274	H
* 9.144	41.85	PK2	37.6	-25.9	16.9	70.45	74	3.55	36	352	H
* 2.743	47.31	PK2	29.4	-27	9	58.71	74	15.29	181	343	V
* 3.655	45.95	PK2	31.8	-26.9	10.4	61.25	74	12.75	156	395	V
* 4.573	46.46	PK2	32.2	-26.7	11.8	63.76	74	10.24	324	323	V
* 7.313	45.12	PK2	36.7	-26.2	15.1	70.72	74	3.28	201	365	V
* 8.227	45.32	PK2	37.1	-26.1	16.1	72.42	74	1.58	111	371	V
* 9.143	21.68	PK2	37.6	-25.9	16.9	50.28	74	23.72	102	185	V

PEAK DATA – NON RESTRICTED BAND

Frequency (GHz)	Meter Reading (dBuV)	Det	AF [dB/m]	Preamp [dB]	SMA1 [dB]	Corrected Reading (dBuV/m)	Peak Limit [Fundamental-20dBc] (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1.829	59.37	PK2	27.3	-26.9	7.3	67.07	85.3	18.23	0	141	H
5.488	40.14	PK2	34.4	-26.6	13	60.94	85.3	24.36	92	332	H
6.399	40.41	PK2	34.8	-26.2	14.1	63.11	85.3	22.19	122	361	H
1.828	50.39	PK2	27.2	-26.9	7.3	57.99	85.3	27.31	312	352	V
5.488	45.08	PK2	34.4	-26.6	13	65.88	85.3	19.42	30	363	V
6.401	44.58	PK2	34.8	-26.2	14.1	67.28	85.3	18.02	267	326	V

AVERAGE DATA – RESTRICTED BAND

Frequency (GHz)	Meter Reading (dBuV)	Det	AF [dB/m]	Preamp [dB]	SMA1 [dB]	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 2.742	33.83	MAv1	29.4	-27	9	45.23	54	8.77	39	132	H
* 3.656	29.32	MAv1	31.8	-26.9	10.4	44.62	54	9.38	216	144	H
* 4.573	28.23	MAv1	32.2	-26.7	11.8	45.53	54	8.47	126	160	H
* 7.314	27.55	MAv1	36.7	-26.2	15.1	53.15	54	0.85	219	352	H
* 8.23	10.97	MAv1	37.1	-26.1	16.1	38.07	54	15.93	208	168	H
* 9.142	11.49	MAv1	37.6	-25.9	16.9	40.09	54	13.91	134	253	H
* 2.744	37.33	MAv1	29.4	-27	9	48.73	54	5.27	181	343	V
* 3.656	33.88	MAv1	31.8	-26.9	10.4	49.18	54	4.82	156	395	V
* 4.571	33.51	MAv1	32.2	-26.7	11.8	50.81	54	3.19	324	323	V
* 7.314	12.55	MAv1	36.7	-26.2	15.1	38.15	54	15.85	143	365	V
* 8.23	11.08	MAv1	37.1	-26.1	16.1	38.18	54	15.82	277	398	V
* 9.144	10.69	MAv1	37.6	-25.9	16.9	39.29	54	14.71	102	185	V

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

** - indicates intended frequency

Pk - Peak detector

Qp - Quasi-Peak detector

Prescans performed in a pre-compliance chamber. Final measurements performed on an OATS.

Emissions shown in the plot are related to the chamber ambient

TEST RESULT – 1 GHz to 10 GHz – CHANNEL 6

PEAK DATA – RESTRICTED BAND

Frequency (GHz)	Meter Reading (dBuV)	Det	AF [dB/m]	Preamp [dB]	SMA1 [dB]	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 2.781	42.95	PK2	29.5	-27.1	9.1	54.45	74	19.55	76	391	H
* 3.709	41.57	PK2	32	-26.9	10.6	57.27	74	16.73	217	141	H
* 4.634	41.13	PK2	32.4	-26.6	11.8	58.73	74	15.27	149	390	H
* 7.415	40.06	PK2	36.8	-26.2	15.2	65.86	74	8.14	55	128	H
* 8.342	40.94	PK2	37.3	-26.1	16.2	68.34	74	5.66	51	202	H
* 2.781	47.15	PK2	29.5	-27.1	9.1	58.65	74	15.35	180	266	V
* 3.709	46.25	PK2	32	-26.9	10.6	61.95	74	12.05	16	135	V
* 4.634	45.9	PK2	32.4	-26.6	11.8	63.5	74	10.5	68	224	V
* 7.418	45.42	PK2	36.8	-26.2	15.2	71.22	74	2.78	103	281	V
* 8.342	45.83	PK2	37.3	-26.1	16.2	73.23	74	0.77	302	254	V

PEAK DATA – NON RESTRICTED BAND

Frequency (GHz)	Meter Reading (dBuV)	Det	AF [dB/m]	Preamp [dB]	SMA1 [dB]	Corrected Reading (dBuV/m)	Peak Limit [Fundamental-20dBc] (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1.855	60.9	PK2	27.5	-26.9	7.4	68.9	86.5	17.6	336	141	H
5.562	39.99	PK2	34.4	-26.4	13.1	61.09	86.5	25.41	121	250	H
6.492	39.95	PK2	34.8	-26.4	14.2	62.55	86.5	23.95	328	356	H
9.27	40.94	PK2	37.8	-26	17.1	69.84	86.5	16.66	102	254	H
1.855	52.45	PK2	27.5	-26.9	7.4	60.45	86.5	26.05	128	331	V
5.563	44.96	PK2	34.4	-26.4	13.1	66.06	86.5	20.44	97	271	V
6.492	45.23	PK2	34.8	-26.4	14.2	67.83	86.5	18.67	63	349	V
9.271	45.79	PK2	37.8	-26	17.1	74.69	86.5	11.81	92	235	V

AVERAGE DATA – RESTRICTED BAND

Frequency (GHz)	Meter Reading (dBuV)	Det	AF [dB/m]	Preamp [dB]	SMA1 [dB]	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 2.781	32.98	MAv1	29.5	-27.1	9.1	44.48	54	9.52	76	391	H
* 3.708	29.19	MAv1	32	-26.9	10.6	44.89	54	9.11	217	141	H
* 4.637	28.2	MAv1	32.4	-26.6	11.8	45.8	54	8.2	149	390	H
* 7.419	27.97	MAv1	36.8	-26.2	15.2	53.77	54	0.23	55	128	H
* 8.345	11.07	MAv1	37.3	-26.1	16.2	38.47	54	15.53	305	206	H
* 2.781	36.42	MAv1	29.5	-27.1	9.1	47.92	54	6.08	180	266	V
* 3.708	33.76	MAv1	32	-26.9	10.6	49.46	54	4.54	16	135	V
* 4.635	33.11	MAv1	32.4	-26.6	11.8	50.71	54	3.29	68	224	V
* 7.418	11.06	MAv1	36.8	-26.2	15.2	36.86	54	17.14	252	124	V
* 8.343	11.25	MAv1	37.3	-26.1	16.2	38.65	54	15.35	61	284	V

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

** - indicates intended frequency

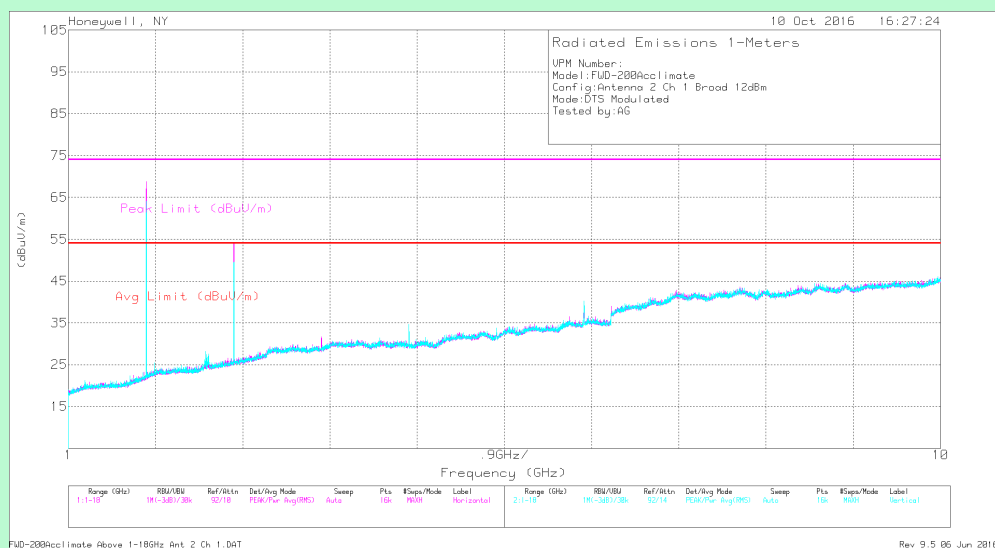
Pk - Peak detector

Qp - Quasi-Peak detector

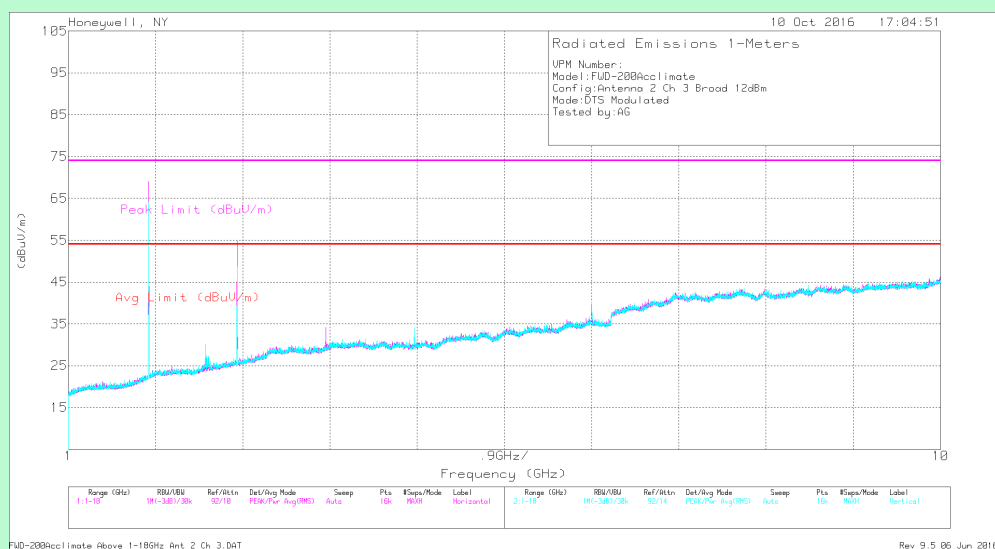
Prescans performed in a pre-compliance chamber. Final measurements performed on an OATS.

Emissions shown in the plot are related to the chamber ambient

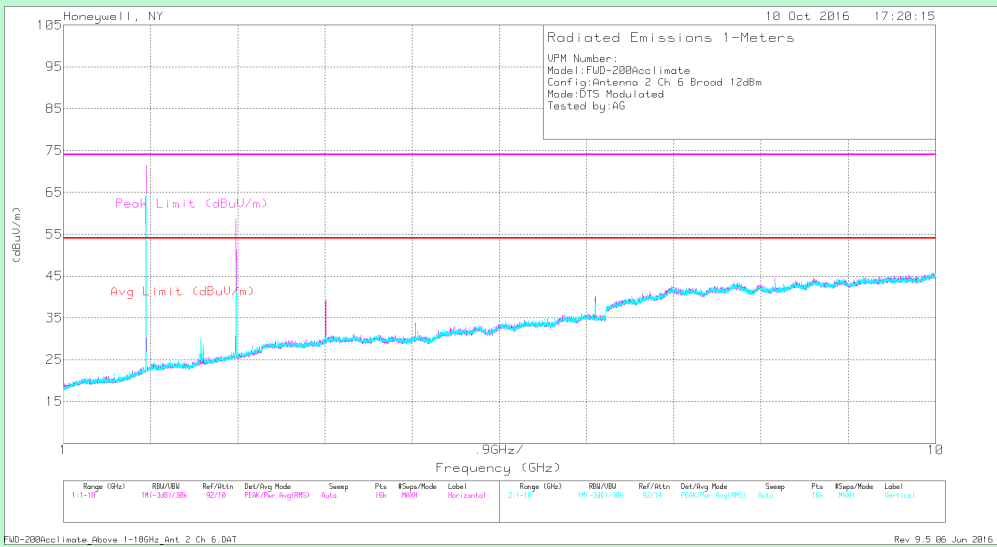
TEST GRAPHS – 1GHz to 10GHz (ANTENNA 2)



Channel 1 (902.875 MHz) – Antenna 2



Channel 3 (914.325 MHz) – Antenna 2



Channel 6 (927.125 MHz) – Antenna 2

TEST RESULT – 1 GHz to 10 GHz – CHANNEL 1

PEAK DATA – RESTRICTED BAND

Frequency (GHz)	Meter Reading (dBuV)	Det	AF [dB/m]	Preamp [dB]	SMA1 [dB]	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 2.708	37.5	PK2	29.3	-27.1	9	48.7	74	25.3	171	183	H
* 3.61	21.51	PK2	31.6	-26.8	10.4	36.71	74	37.29	185	242	H
* 4.516	27.4	PK2	32.2	-26.6	11.7	44.7	74	29.3	37	358	H
* 5.419	22.5	PK2	34.3	-26.7	12.9	43	74	31	201	356	H
* 8.125	23.36	PK2	37.1	-26.2	16	50.26	74	23.74	151	371	H
* 9.027	21.45	PK2	37.6	-25.9	16.9	50.05	74	23.95	11	369	H
* 2.71	39.54	PK2	29.3	-27.1	9	50.74	74	23.26	166	309	V
* 3.612	30.03	PK2	31.6	-26.8	10.4	45.23	74	28.77	314	299	V
* 4.516	34.01	PK2	32.2	-26.6	11.7	51.31	74	22.69	302	133	V
* 5.416	30.54	PK2	34.3	-26.7	12.9	51.04	74	22.96	33	276	V
* 8.126	30.62	PK2	37.1	-26.2	16	57.52	74	16.48	31	265	V
* 9.029	30.63	PK2	37.6	-25.9	16.9	59.23	74	14.77	31	265	V

PEAK DATA – NON RESTRICTED BAND

Frequency (GHz)	Meter Reading (dBuV)	Det	AF [dB/m]	Preamp [dB]	SMA1 [dB]	Corrected Reading (dBuV/m)	Peak Limit [Fundamental-20dBc] (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1.805	57.35	PK2	27	-26.9	7.3	64.75	86.3	21.55	159	189	H
6.318	27.86	PK2	34.9	-26.4	14	50.36	86.3	35.94	343	387	H
7.222	22.89	PK2	36.3	-26.2	15	47.99	86.3	38.31	328	370	H
1.806	48.46	PK2	27.1	-26.9	7.3	55.96	86.3	30.34	259	236	V
6.322	32.9	PK2	34.9	-26.4	14	55.4	86.3	30.9	59	389	V

AVERAGE DATA – RESTRICTED BAND

Frequency (GHz)	Meter Reading (dBuV)	Det	AF [dB/m]	Preamp [dB]	SMA1 [dB]	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 2.708	30.58	MAv1	29.3	-27.1	9	41.78	54	12.22	171	183	H
* 3.611	13.39	MAv1	31.6	-26.8	10.4	28.59	54	25.41	185	242	H
* 4.516	17.68	MAv1	32.2	-26.6	11.7	34.98	54	19.02	37	358	H
* 5.416	13.32	MAv1	34.3	-26.7	12.9	33.82	54	20.18	201	356	H
* 8.124	14.35	MAv1	37.1	-26.2	16	41.25	54	12.75	151	371	H
* 9.027	12.86	MAv1	37.6	-25.9	16.9	41.46	54	12.54	11	369	H
* 2.709	31.11	MAv1	29.3	-27.1	9	42.31	54	11.69	166	309	V
* 3.613	20.51	MAv1	31.6	-26.8	10.4	35.71	54	18.29	314	299	V
* 4.516	24.4	MAv1	32.2	-26.6	11.7	41.7	54	12.3	302	133	V
* 5.416	21.57	MAv1	34.3	-26.7	12.9	42.07	54	11.93	33	276	V
* 8.126	21.07	MAv1	37.1	-26.2	16	47.97	54	6.03	31	265	V
* 9.027	16.13	MAv1	37.6	-25.9	16.9	44.73	54	9.27	31	265	V
* 9.03	21.95	MAv1	37.6	-25.9	16.9	50.55	54	3.45	31	265	V

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

** - indicates intended frequency

Pk - Peak detector

Qp - Quasi-Peak detector

Prescans performed in a pre-compliance chamber. Final measurements performed on an OATS.

Emissions shown in the plot are related to the chamber ambient

TEST RESULT – 1 GHz to 10 GHz – CHANNEL 3

PEAK DATA – RESTRICTED BAND

Frequency (GHz)	Meter Reading (dBuV)	Det	AF [dB/m]	Preamp [dB]	SMA1 [dB]	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 2.742	37	PK2	29.4	-27	9	48.4	74	25.6	184	185	H
* 3.658	30.1	PK2	31.8	-26.9	10.4	45.4	74	28.6	324	207	H
* 4.57	31.55	PK2	32.2	-26.7	11.8	48.85	74	25.15	309	276	H
* 7.313	31.36	PK2	36.7	-26.2	15.1	56.96	74	17.04	313	100	H
* 8.229	31.35	PK2	37.1	-26.1	16.1	58.45	74	15.55	239	252	H
* 9.142	30.02	PK2	37.6	-25.9	16.9	58.62	74	15.38	36	212	H
* 2.742	37.53	PK2	29.4	-27	9	48.93	74	25.07	249	377	V
* 3.658	29.51	PK2	31.8	-26.9	10.4	44.81	74	29.19	65	370	V
* 4.57	32.47	PK2	32.2	-26.7	11.8	49.77	74	24.23	348	288	V
* 7.313	31.7	PK2	36.7	-26.2	15.1	57.3	74	16.7	325	337	V
* 8.23	30.15	PK2	37.1	-26.1	16.1	57.25	74	16.75	273	203	V
* 9.145	30.55	PK2	37.6	-25.9	16.9	59.15	74	14.85	113	246	V

PEAK DATA – NON RESTRICTED BAND

Frequency (GHz)	Meter Reading (dBuV)	Det	AF [dB/m]	Preamp [dB]	SMA1 [dB]	Corrected Reading (dBuV/m)	Peak Limit [Fundamental-20dBc] (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1.828	57.47	PK2	27.2	-26.9	7.3	65.07	85.6	20.53	175	190	H
5.486	29.76	PK2	34.4	-26.6	13	50.56	85.6	35.04	323	167	H
6.402	32.67	PK2	34.8	-26.2	14.1	55.37	85.6	30.23	147	237	H
1.828	44.73	PK2	27.2	-26.9	7.3	52.33	85.6	33.27	266	362	V
5.488	29.94	PK2	34.4	-26.6	13	50.74	85.6	34.86	340	307	V
6.398	33.79	PK2	34.8	-26.2	14.1	56.49	85.6	29.11	50	277	V

AVERAGE DATA – RESTRICTED BAND

Frequency (GHz)	Meter Reading (dBuV)	Det	AF [dB/m]	Preamp [dB]	SMA1 [dB]	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 2.742	28.39	MAv1	29.4	-27	9	39.79	54	14.21	184	185	H
* 3.657	20.1	MAv1	31.8	-26.9	10.4	35.4	54	18.6	324	207	H
* 4.572	22.29	MAv1	32.2	-26.7	11.8	39.59	54	14.41	309	276	H
* 7.315	22.63	MAv1	36.7	-26.2	15.1	48.23	54	5.77	313	100	H
* 8.23	20.42	MAv1	37.1	-26.1	16.1	47.52	54	6.48	239	252	H
* 9.145	21.32	MAv1	37.6	-25.9	16.9	49.92	54	4.08	36	212	H
* 2.742	30.4	MAv1	29.4	-27	9	41.8	54	12.2	249	377	V
* 3.656	20.36	MAv1	31.8	-26.9	10.4	35.66	54	18.34	65	370	V
* 4.572	22.93	MAv1	32.2	-26.7	11.8	40.23	54	13.77	348	288	V
* 7.313	22.87	MAv1	36.7	-26.2	15.1	48.47	54	5.53	325	337	V
* 8.23	20.37	MAv1	37.1	-26.1	16.1	47.47	54	6.53	273	203	V
* 9.143	21.34	MAv1	37.6	-25.9	16.9	49.94	54	4.06	113	246	V

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

** - indicates intended frequency

Pk - Peak detector

Qp - Quasi-Peak detector

Prescans performed in a pre-compliance chamber. Final measurements performed on an OATS.

Emissions shown in the plot are related to the chamber ambient

TEST RESULT – 1 GHz to 10 GHz – CHANNEL 6

PEAK DATA – RESTRICTED BAND

Frequency (GHz)	Meter Reading (dBuV)	Det	AF [dB/m]	Preamp [dB]	SMA1 [dB]	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 2.782	35.31	PK2	29.5	-27.1	9.1	46.81	74	27.19	260	382	H
* 3.709	30.92	PK2	32	-26.9	10.6	46.62	74	27.38	206	216	H
* 4.637	31.06	PK2	32.4	-26.6	11.8	48.66	74	25.34	105	206	H
* 7.418	30.19	PK2	36.8	-26.2	15.2	55.99	74	18.01	163	356	H
* 8.342	30.93	PK2	37.3	-26.1	16.2	58.33	74	15.67	140	221	H
* 2.782	36.88	PK2	29.5	-27.1	9.1	48.38	74	25.62	182	307	V
* 3.708	30.06	PK2	32	-26.9	10.6	45.76	74	28.24	246	116	V
* 4.635	31.69	PK2	32.4	-26.6	11.8	49.29	74	24.71	140	267	V
* 7.415	30.8	PK2	36.8	-26.2	15.2	56.6	74	17.4	298	107	V
* 8.343	31.07	PK2	37.3	-26.1	16.2	58.47	74	15.53	164	281	V

PEAK DATA – NON RESTRICTED BAND

Frequency (GHz)	Meter Reading (dBuV)	Det	AF [dB/m]	Preamp [dB]	SMA1 [dB]	Corrected Reading (dBuV/m)	Peak Limit [Fundamental-20dBc] (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1.855	43	PK2	27.5	-26.9	7.4	51	84.7	33.7	83	240	H
5.561	30.23	PK2	34.4	-26.4	13.1	51.33	84.7	33.37	189	387	H
6.49	31.71	PK2	34.8	-26.4	14.2	54.31	84.7	30.39	311	166	H
9.272	31.41	PK2	37.8	-26	17.1	60.31	84.7	24.39	184	291	H
1.856	52.66	PK2	27.5	-26.9	7.4	60.66	84.7	24.04	265	250	V
5.562	30.26	PK2	34.4	-26.4	13.1	51.36	84.7	33.34	113	345	V
6.49	31.68	PK2	34.8	-26.4	14.2	54.28	84.7	30.42	323	140	V
9.271	30.67	PK2	37.8	-26	17.1	59.57	84.7	25.13	49	285	V

AVERAGE DATA – RESTRICTED BAND

Frequency (GHz)	Meter Reading (dBuV)	Det	AF [dB/m]	Preamp [dB]	SMA1 [dB]	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 2.781	26.26	MAv1	29.5	-27.1	9.1	37.76	54	16.24	260	382	H
* 3.708	21.51	MAv1	32	-26.9	10.6	37.21	54	16.79	206	216	H
* 4.634	22.25	MAv1	32.4	-26.6	11.8	39.85	54	14.15	105	206	H
* 7.415	21.96	MAv1	36.8	-26.2	15.2	47.76	54	6.24	163	356	H
* 8.346	21.5	MAv1	37.3	-26.1	16.2	48.9	54	5.1	140	221	H
* 2.781	28.57	MAv1	29.5	-27.1	9.1	40.07	54	13.93	182	307	V
* 3.708	20.68	MAv1	32	-26.9	10.6	36.38	54	17.62	246	116	V
* 4.634	22.28	MAv1	32.4	-26.6	11.8	39.88	54	14.12	140	267	V
* 7.417	21.47	MAv1	36.8	-26.2	15.2	47.27	54	6.73	298	107	V
* 8.345	21.22	MAv1	37.3	-26.1	16.2	48.62	54	5.38	164	281	V

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

** - indicates intended frequency

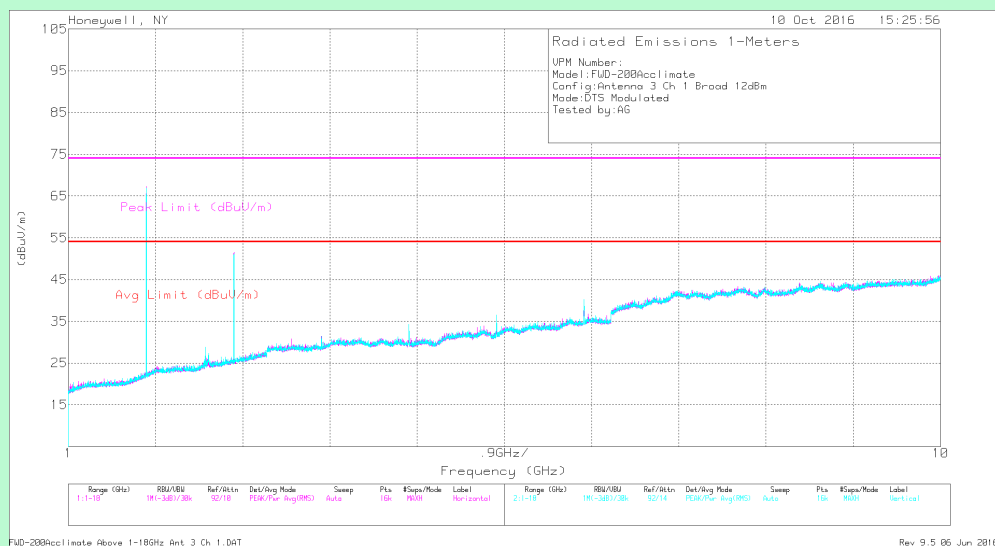
Pk - Peak detector

Qp - Quasi-Peak detector

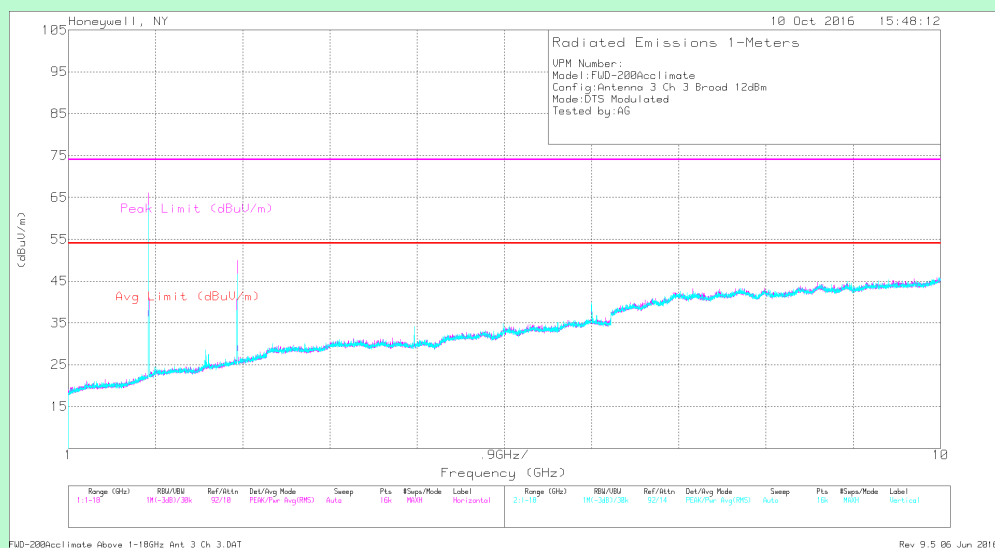
Prescans performed in a pre-compliance chamber. Final measurements performed on an OATS.

Emissions shown in the plot are related to the chamber ambient

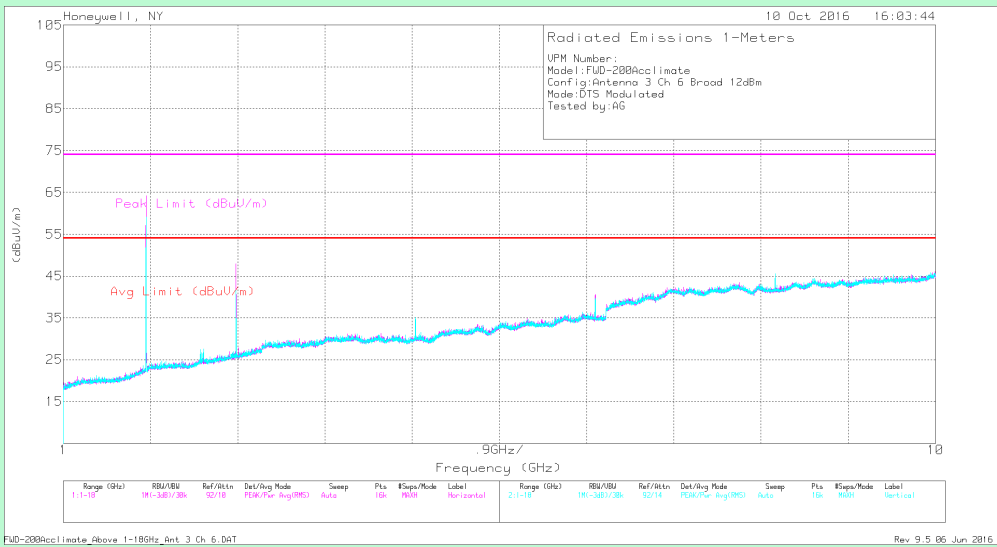
TEST GRAPHS – 1GHz to 10GHz (ANTENNA 3)



Channel 1 (902.875 MHz) – Antenna 3



Channel 3 (914.325 MHz) – Antenna 3



Channel 6 (927.125 MHz) – Antenna 3