

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	48.78	PK2	29.3	-27.1	9	59.98	74	14.02	69	124	H
* 3.613	42.11	PK2	31.6	-26.8	10.4	57.31	74	16.69	41	122	H
* 4.513	33.84	PK2	32.2	-26.6	11.7	51.14	74	22.86	34	326	H
* 5.416	29.73	PK2	34.3	-26.7	12.9	50.23	74	23.77	263	310	H
* 8.128	30.66	PK2	37.1	-26.2	16	57.56	74	16.44	61	360	H
* 9.03	30.76	PK2	37.6	-25.9	16.9	59.36	74	14.64	182	241	H
* 2.708	47.3	PK2	29.3	-27.1	9	58.5	74	15.5	88	138	V
* 3.613	36.96	PK2	31.6	-26.8	10.4	52.16	74	21.84	177	159	V
* 4.513	33.63	PK2	32.2	-26.6	11.7	50.93	74	23.07	103	365	V
* 5.416	30.67	PK2	34.3	-26.7	12.9	51.17	74	22.83	350	291	V
* 8.126	30.5	PK2	37.1	-26.2	16	57.4	74	16.6	38	243	V
* 9.03	31.01	PK2	37.6	-25.9	16.9	59.61	74	14.39	244	332	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	66.54	PK2	27	-26.9	7.3	73.94	83	9.06	183	119	H
6.318	32.85	PK2	34.9	-26.4	14	55.35	83	27.65	312	389	H
7.223	31.15	PK2	36.3	-26.2	15	56.25	83	26.75	336	394	H
1.805	65.05	PK2	27	-26.9	7.3	72.45	83	10.55	315	120	V
6.321	33.38	PK2	34.9	-26.4	14	55.88	83	27.12	40	370	V
7.224	31.61	PK2	36.3	-26.2	15	56.71	83	26.29	138	298	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
* 2.709	40.67	MAv1	29.3	-27.1	9	51.87	54	2.13	69	124	H
* 3.612	34.22	MAv1	31.6	-26.8	10.4	49.42	54	4.58	41	122	H
* 4.514	24.28	MAv1	32.2	-26.6	11.7	41.58	54	12.42	34	326	H
* 5.417	20.64	MAv1	34.3	-26.7	12.9	41.14	54	12.86	263	310	H
* 8.126	20.96	MAv1	37.1	-26.2	16	47.86	54	6.14	61	360	H
* 9.031	21.53	MAv1	37.6	-25.9	16.9	50.13	54	3.87	182	241	H
* 2.708	40.5	MAv1	29.3	-27.1	9	51.7	54	2.3	88	138	V
* 3.612	28.62	MAv1	31.6	-26.8	10.4	43.82	54	10.18	177	159	V
* 4.516	24.87	MAv1	32.2	-26.6	11.7	42.17	54	11.83	103	365	V
* 5.419	20.99	MAv1	34.3	-26.7	12.9	41.49	54	12.51	350	291	V
* 8.126	20.66	MAv1	37.1	-26.2	16	47.56	54	6.44	38	243	V
* 9.03	21.56	MAv1	37.6	-25.9	16.9	50.16	54	3.84	244	332	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	47.73	PK2	29.4	-27	9	59.13	74	14.87	223	129	H
* 3.656	37.3	PK2	31.8	-26.9	10.4	52.6	74	21.4	34	139	H
* 4.573	31.6	PK2	32.2	-26.7	11.8	48.9	74	25.1	1	105	H
* 7.315	31.28	PK2	36.7	-26.2	15.1	56.88	74	17.12	197	336	H
* 8.229	30.49	PK2	37.1	-26.1	16.1	57.59	74	16.41	5	141	H
* 9.141	30.14	PK2	37.6	-25.9	16.9	58.74	74	15.26	252	364	H
* 2.742	44.62	PK2	29.4	-27	9	56.02	74	17.98	78	100	V
* 3.657	33.55	PK2	31.8	-26.9	10.4	48.85	74	25.15	170	356	V
* 4.57	31.92	PK2	32.2	-26.7	11.8	49.22	74	24.78	307	276	V
* 5.384	29.81	PK2	34.3	-26.7	12.8	50.21	74	23.79	104	225	V
* 7.315	31.55	PK2	36.7	-26.2	15.1	57.15	74	16.85	315	203	V
* 8.227	30.48	PK2	37.1	-26.1	16.1	57.58	74	16.42	314	123	V
* 9.143	31.26	PK2	37.6	-25.9	16.9	59.86	74	14.14	223	145	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	58.44	PK2	27.2	-26.9	7.3	66.04	79.7	13.66	122	133	H
5.485	29.71	PK2	34.4	-26.6	13	50.51	79.7	29.19	159	267	H
6.398	32.79	PK2	34.8	-26.2	14.1	55.49	79.7	24.21	301	382	H
1.828	61.99	PK2	27.2	-26.9	7.3	69.59	79.7	10.11	290	119	V
6.399	32.04	PK2	34.8	-26.2	14.1	54.74	79.7	24.96	174	335	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	40.79	MAv1	29.4	-27	9	52.19	54	1.81	223	129	H
* 3.657	28.14	MAv1	31.8	-26.9	10.4	43.44	54	10.56	34	139	H
* 4.57	22.47	MAv1	32.2	-26.7	11.8	39.77	54	14.23	1	105	H
* 7.315	21.95	MAv1	36.7	-26.2	15.1	47.55	54	6.45	197	336	H
* 8.227	20.78	MAv1	37.1	-26.1	16.1	47.88	54	6.12	5	141	H
* 9.144	21.67	MAv1	37.6	-25.9	16.9	50.27	54	3.73	252	364	H
* 2.742	37.35	MAv1	29.4	-27	9	48.75	54	5.25	78	100	V
* 3.656	25.4	MAv1	31.8	-26.9	10.4	40.7	54	13.3	170	356	V
* 4.572	22.25	MAv1	32.2	-26.7	11.8	39.55	54	14.45	307	276	V
* 5.386	19.95	MAv1	34.3	-26.7	12.8	40.35	54	13.65	104	225	V
* 7.314	22.46	MAv1	36.7	-26.2	15.1	48.06	54	5.94	315	203	V
* 8.227	20.75	MAv1	37.1	-26.1	16.1	47.85	54	6.15	314	123	V
* 9.143	21.75	MAv1	37.6	-25.9	16.9	50.35	54	3.65	223	145	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	43.68	PK2	29.5	-27.1	9.1	55.18	74	18.82	282	103	H
* 3.708	32.79	PK2	32	-26.9	10.6	48.49	74	25.51	35	112	H
* 4.634	33.18	PK2	32.4	-26.6	11.8	50.78	74	23.22	69	311	H
* 7.418	30.64	PK2	36.8	-26.2	15.2	56.44	74	17.56	160	371	H
* 8.346	31.17	PK2	37.3	-26.1	16.2	58.57	74	15.43	192	225	H
* 2.782	42.43	PK2	29.5	-27.1	9.1	53.93	74	20.07	12	309	V
* 3.71	32.36	PK2	32	-26.9	10.6	48.06	74	25.94	281	301	V
* 4.637	33.25	PK2	32.4	-26.6	11.8	50.85	74	23.15	114	280	V
* 7.416	31.2	PK2	36.8	-26.2	15.2	57	74	17	199	286	V
* 8.345	31.03	PK2	37.3	-26.1	16.2	58.43	74	15.57	214	132	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
1.854	57.73	PK2	27.5	-26.9	7.4	65.73	82.3	16.57	157	143	H
5.565	29.98	PK2	34.4	-26.4	13.1	51.08	82.3	31.22	276	114	H
6.488	33.45	PK2	34.8	-26.4	14.2	56.05	82.3	26.25	346	257	H
9.271	30.34	PK2	37.8	-26	17.1	59.24	82.3	23.06	156	320	H
1.854	56.98	PK2	27.5	-26.9	7.4	64.98	82.3	17.32	321	254	V
5.561	30.42	PK2	34.4	-26.4	13.1	51.52	82.3	30.78	131	381	V
6.492	33.27	PK2	34.8	-26.4	14.2	55.87	82.3	26.43	62	348	V
9.272	30.1	PK2	37.8	-26	17.1	59	82.3	23.3	353	159	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	37.17	MAv1	29.5	-27.1	9.1	48.67	54	5.33	282	103	H
* 3.708	24.34	MAv1	32	-26.9	10.6	40.04	54	13.96	35	112	H
* 4.637	24.14	MAv1	32.4	-26.6	11.8	41.74	54	12.26	69	311	H
* 7.416	21.39	MAv1	36.8	-26.2	15.2	47.19	54	6.81	160	371	H
* 8.346	21.31	MAv1	37.3	-26.1	16.2	48.71	54	5.29	192	225	H
* 2.781	35.49	MAv1	29.5	-27.1	9.1	46.99	54	7.01	12	309	V
* 3.708	22.35	MAv1	32	-26.9	10.6	38.05	54	15.95	281	301	V
* 4.637	24.08	MAv1	32.4	-26.6	11.8	41.68	54	12.32	114	280	V
* 7.417	21.58	MAv1	36.8	-26.2	15.2	47.38	54	6.62	199	286	V
* 8.344	21.1	MAv1	37.3	-26.1	16.2	48.5	54	5.5	214	132	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

3.6 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	902.875	H	98.94	7.1	7.9
1	902.875	V	90.6	-0.6	0.2
1	914.325	H	99.93	9.2	10
1	914.325	V	90.27	-0.1	0.7
1	927.125	H	100.99	11.3	12.1
1	927.125	V	91.19	2.25	3.05
2	902.875	H	101.36	9.5	10.3
2	902.875	V	92.03	0.8	1.6
2	914.325	H	100.22	9.4	10.2
2	914.325	V	82	-8.4	-7.6
2	927.125	H	99.22	9.5	10.3
2	927.125	V	86.59	-2.4	-1.6
3	902.875	H	98.09	6.2	7
3	902.875	V	83.28	-8	-7.2
3	914.325	H	94.27	3.5	4.3
3	914.325	V	80.19	-10.2	-9.4
3	927.125	H	96.84	7.2	8
3	927.125	V	87.74	-1.2	-0.4

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

Wireless Heat Detector

4 FHSS CHANNELS

4.1 PEAK OUTPUT POWER

EUT Nomenclature	Wireless Heat Detector	Test Request No.	20295-1
Model No.	FWH-200FIX135	Serial No.	MEL-153
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.	3.3Vdc		
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	DA 00-705		
Comment	NA		

TEST DETAILS

Method	Radiated ☐	Conducted ☒
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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 09:50:55 Aug 2, 2016

L

Mkr1 903.640 7 MHz
10.18 dBm

Ref 30 dBm

Atten 40 dB

#Peak

Log

10

dB/

LgAv

V1 S2

S3 FC

AA

£(f):

FTun

Swp

Center 903.550 0 MHz

#Res BW 360 kHz

#VBW 1.1 MHz

Span 1.6 MHz

Sweep 1 ms (601 pts)

Channel 1 (903.55 MHz) – Antenna 1

Agilent 09:55:48 Aug 2, 2016

L

Mkr1 915.906 7 MHz
10.17 dBm

Ref 30 dBm

Atten 40 dB

#Peak

Log

10

dB/

LgAv

V1 S2

S3 FC

AA

£(f):

FTun

Swp

Center 916.000 0 MHz

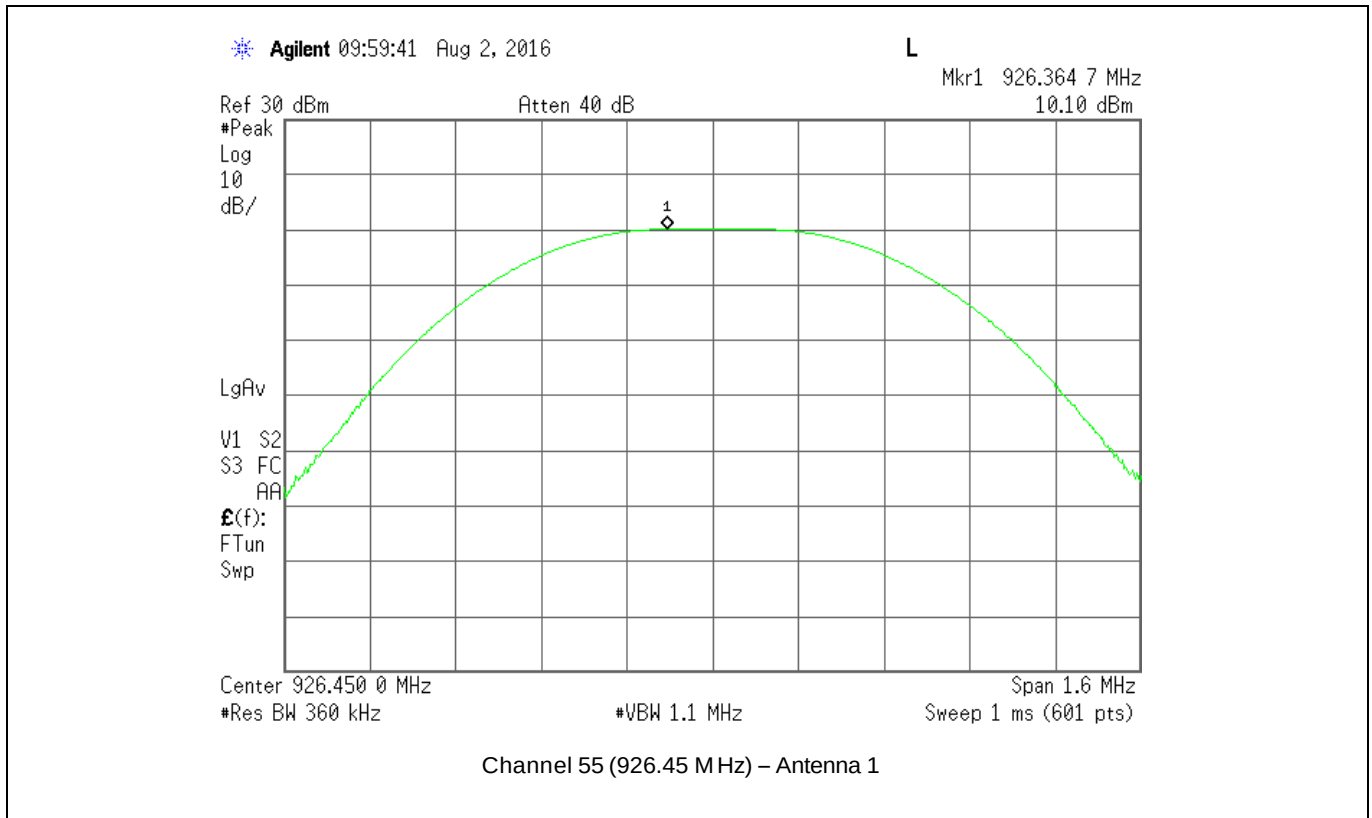
#Res BW 360 kHz

#VBW 1.1 MHz

Span 1.6 MHz

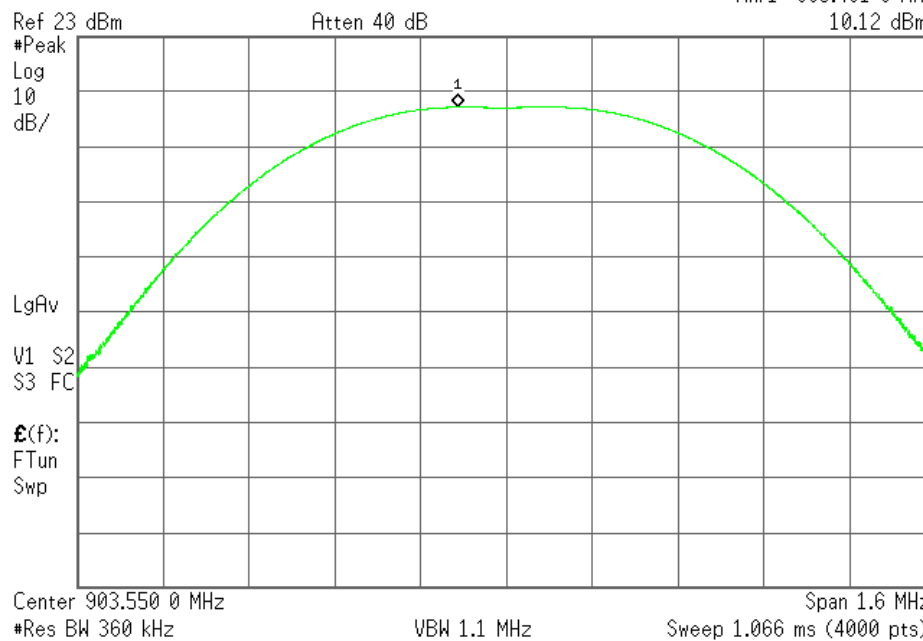
Sweep 1 ms (601 pts)

Channel 28 (916 MHz) – Antenna 1



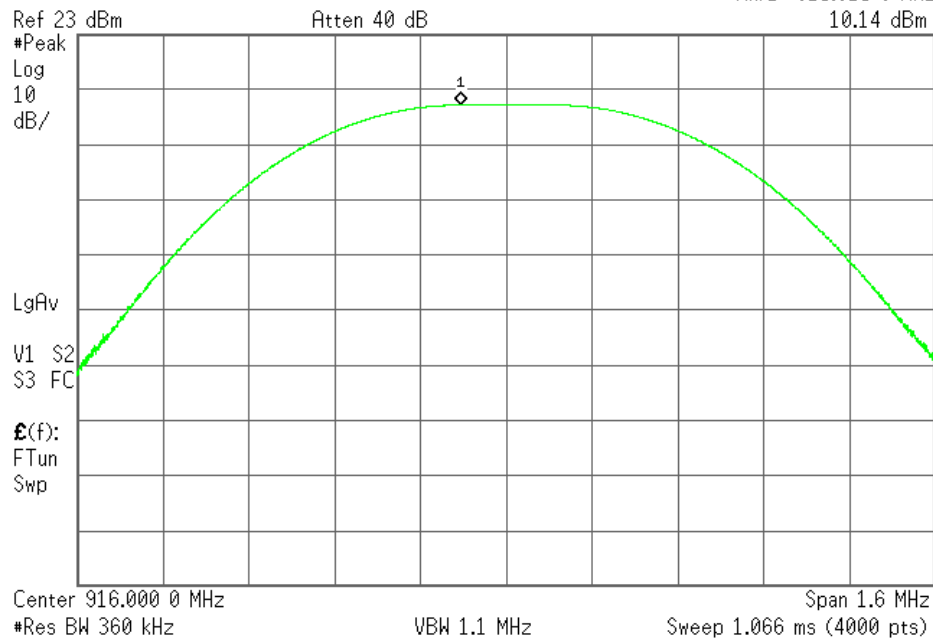
TEST GRAPHS

Agilent 11:30:08 Aug 3, 2016

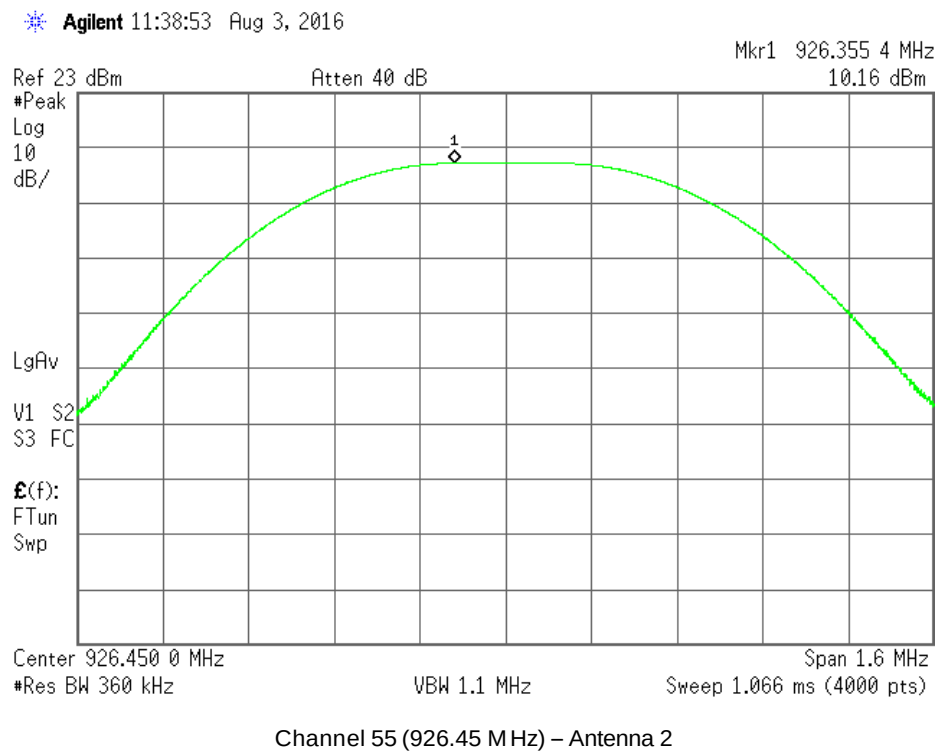
Mkr1 903.461 0 MHz
10.12 dBm

Channel 1 (903.55 MHz) – Antenna 2

Agilent 11:42:56 Aug 3, 2016

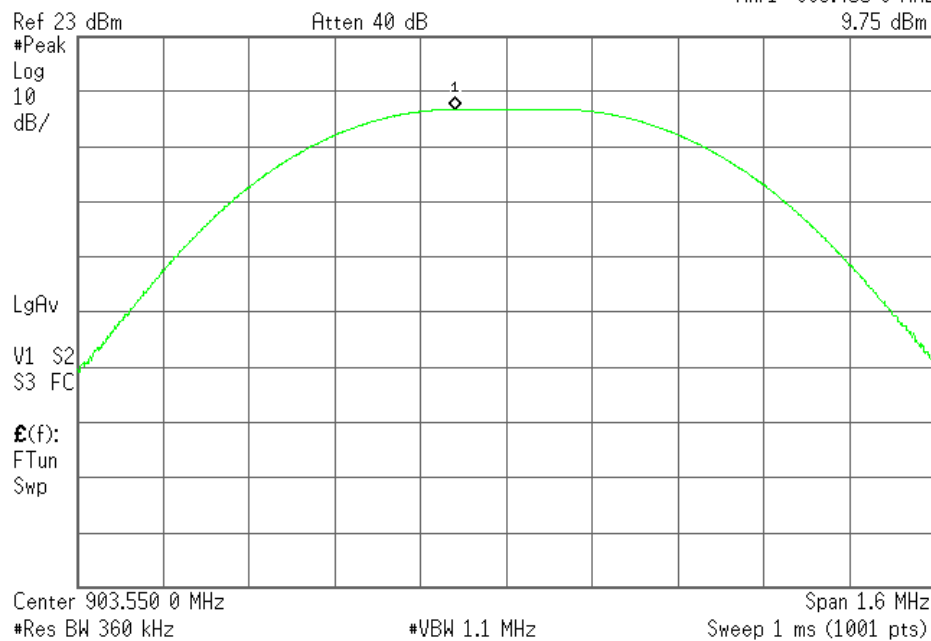
Mkr1 915.915 8 MHz
10.14 dBm

Channel 28 (916 MHz) – Antenna 2



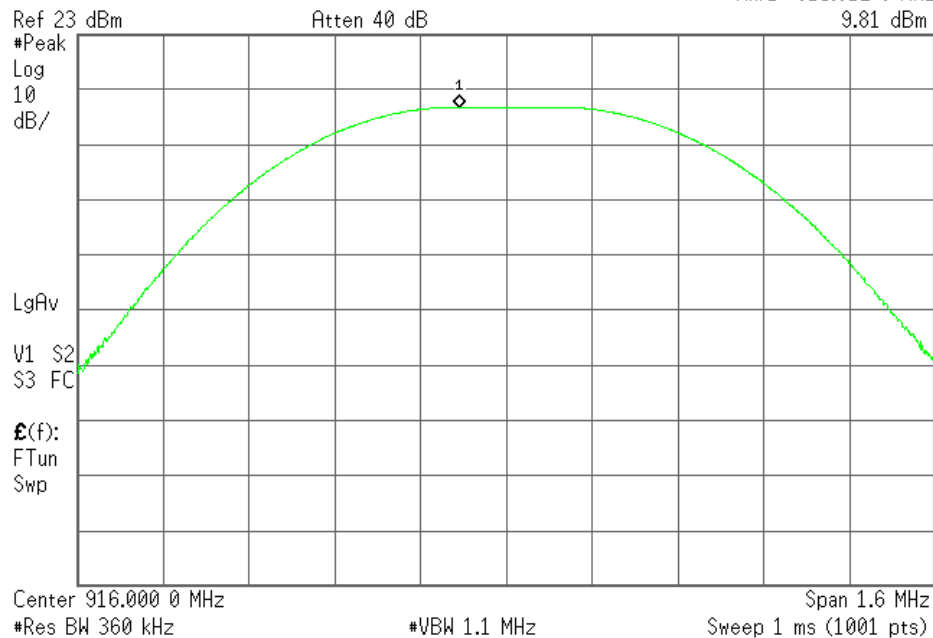
TEST GRAPHS

Agilent 12:15:54 Aug 2, 2016

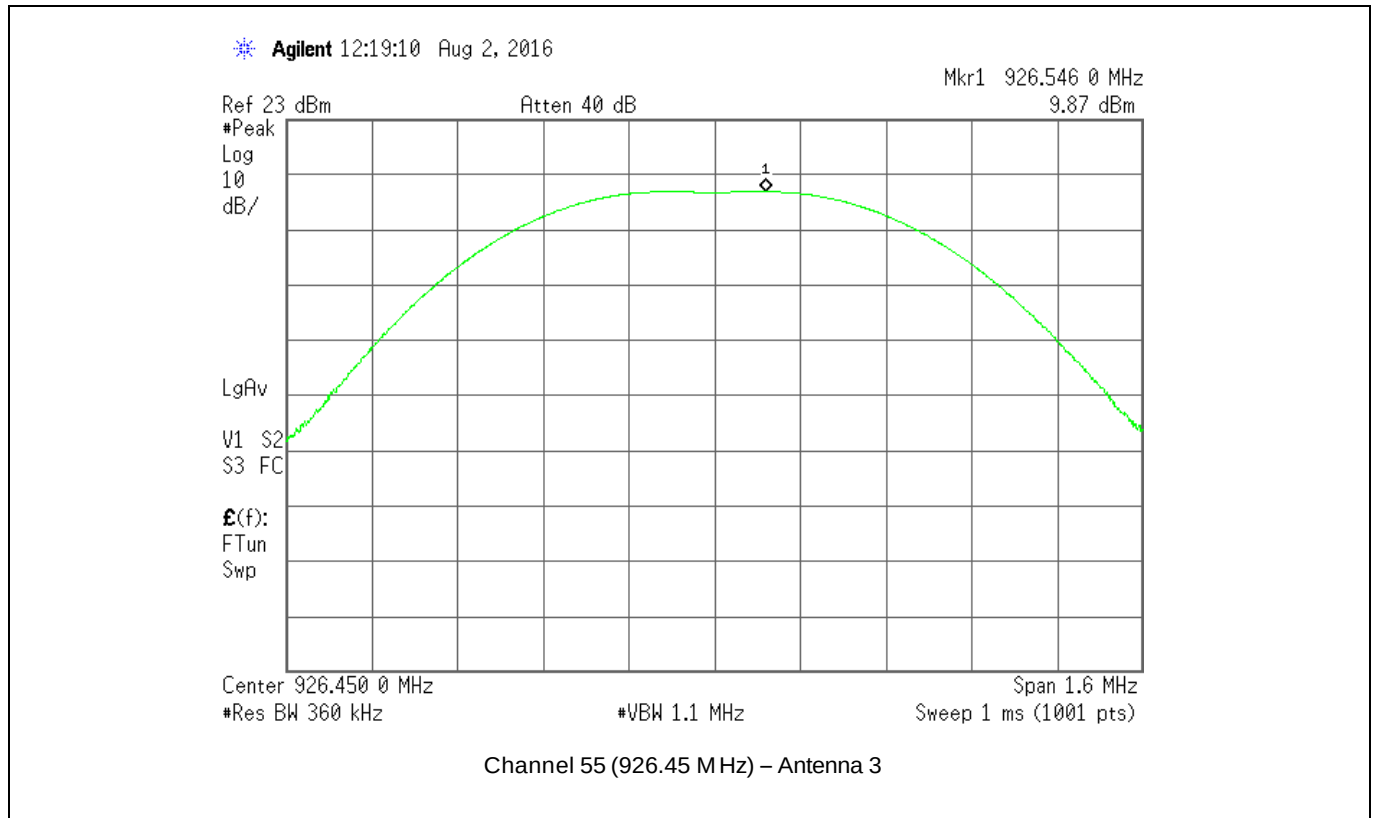
Mkr1 903.455 6 MHz
9.75 dBm

Channel 1 (903.55 MHz) – Antenna 3

Agilent 12:12:14 Aug 2, 2016

Mkr1 915.912 0 MHz
9.81 dBm

Channel 28 (916 MHz) – Antenna 3



TEST RESULT

Channel	Frequency	Measured Power Level	Cable Loss + Attenuator	Transmitter Power Level	Limit	Result
#	MHz	dBm	dB	dBm	dBm	
Antenna 1						
1	903.55	10.18	6.5	16.83	≤23.979	PASS
28	916	10.17	6.5	16.82	≤23.979	PASS
55	926.45	10.10	6.5	16.75	≤23.979	PASS
Antenna 2						
1	903.55	10.12	6.5	16.62	≤23.979	PASS
28	916	10.14	6.5	16.79	≤23.979	PASS
55	926.45	10.16	6.5	16.81	≤23.979	PASS
Antenna 3						
1	903.55	9.75	6.5	16.25	≤23.979	PASS
28	916	9.81	6.5	16.31	≤23.979	PASS
55	926.45	9.87	6.5	16.37	≤23.979	PASS

Note: Transmitter Output Power = Measured Level (dBm) + Attenuator(dB) +cable Loss(dB)

TEST SETUP PHOTOGRAPH

Refer Annexure -1

Conducted RF Test setup

4.2 SPURIOUS RADIATED EMISSIONS

EUT Nomenclature	Wireless Heat Detector	Test Request No.	20295-1
Model No.	FWH-200FIX135	Serial No.	MEL-153
Test Start Date	2016-09-22	Temperature (°C)	0°C-35°C
Test End Date	2017-03-28	Humidity RH (%)	10%RH-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		
Applicable standard	FCC Part 15.247 : 2010 & 15.209 : 2010		
Test Method	ANSI 63.10 - 2013		
Comment	NA		

TEST DETAILS

Method	Radiated ☒	Conducted ☐
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TEST PARAMETERS

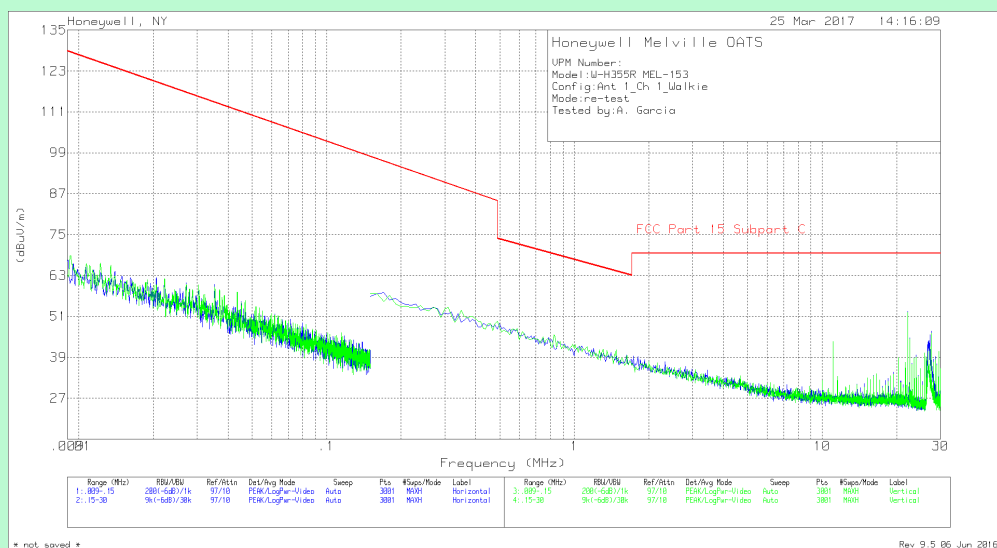
Antenna Height	1m to 4m	Turntable Rotation	0° to 360°
Equipment Class	NA	Measurement Distance	3m

TEST EQUIPMENT

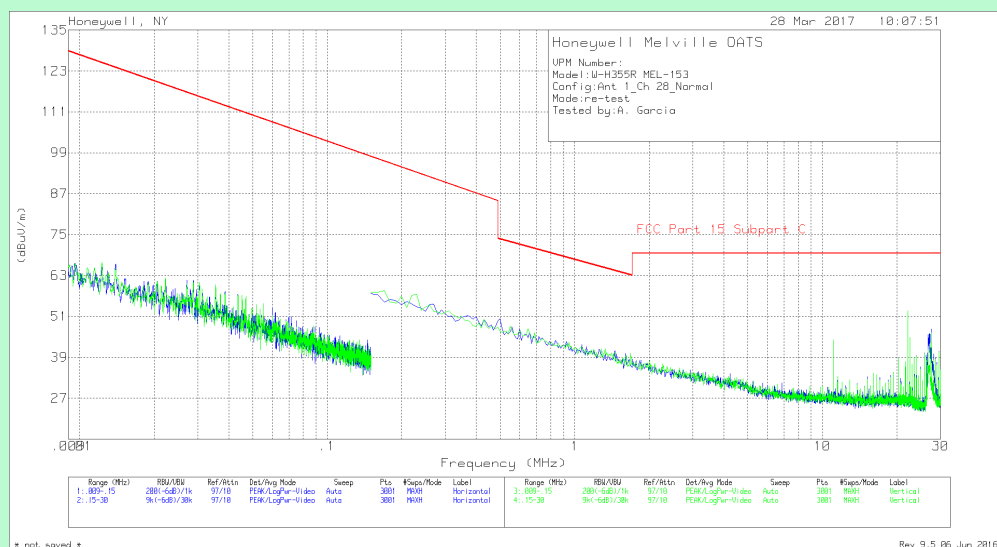
Y/N	Equipment	Make	Model	Sl. No.	Cal Due Date
Y	Spectrum Analyzer	Rohde & Schwarz	FSW26	103125	2018-02-14
Y	Spectrum Analyzer	Rohde & Schwarz	FSU26	100303	2017-03-31
Y	Bilog Antenna	Sunol	JB6	A012816	2018-03-09
Y	Bilog Antenna	Sunol	JB5	A022406	2017-12-18
Y	Horn Antenna	EMCO	RGA-60	3127	2017-02-03
Y	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 (903.55 MHz) – Antenna 1



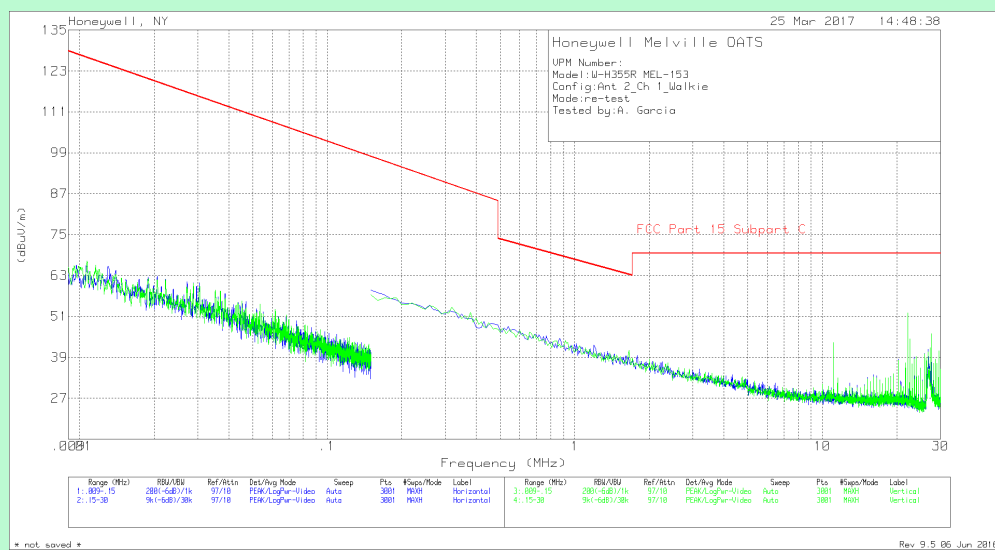
Channel 28 (916.0 MHz) – Antenna 1



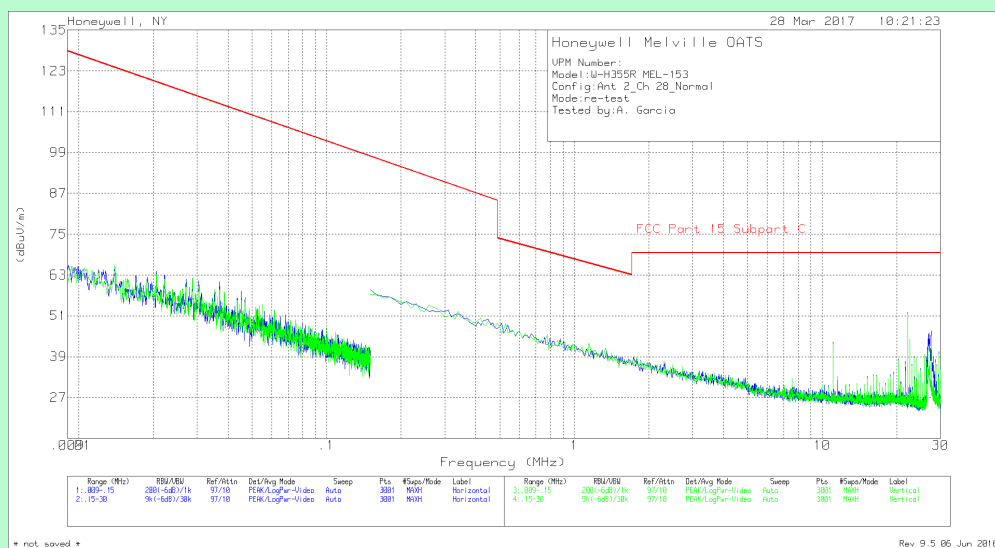
No emissions detected that are a product of the transmitter. Emissions shown in the plot are related to the chamber ambient

Note : Measured Field Strength –dBuV/m = Receiver Readings (dBuV) + Antenna Factor (dB/m) + Cable loss (dB)

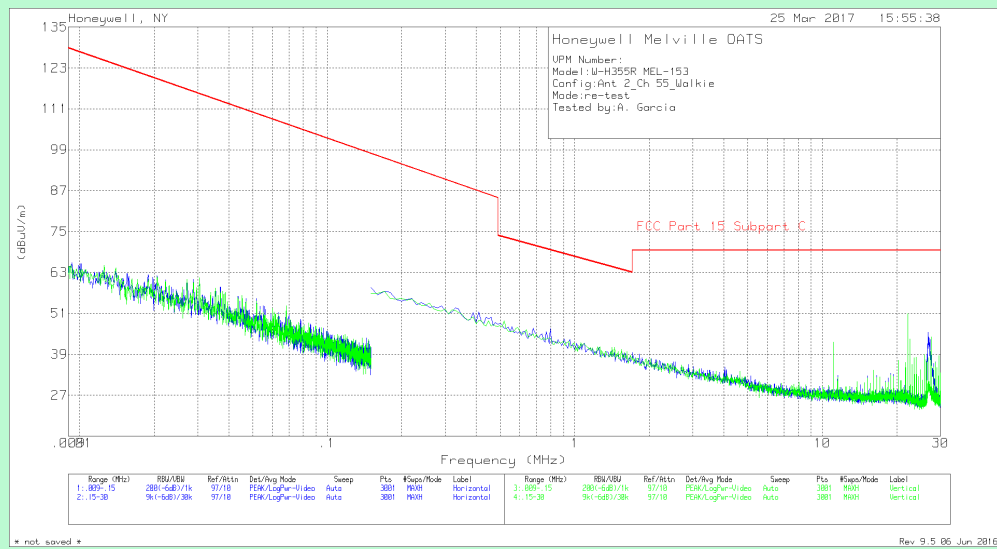
TEST GRAPHS – 9 KHz to 30 MHz (ANTENNA 2)



Channel 1 (903.55 MHz) – Antenna 2



Channel 28 (916.00 MHz) – Antenna 2

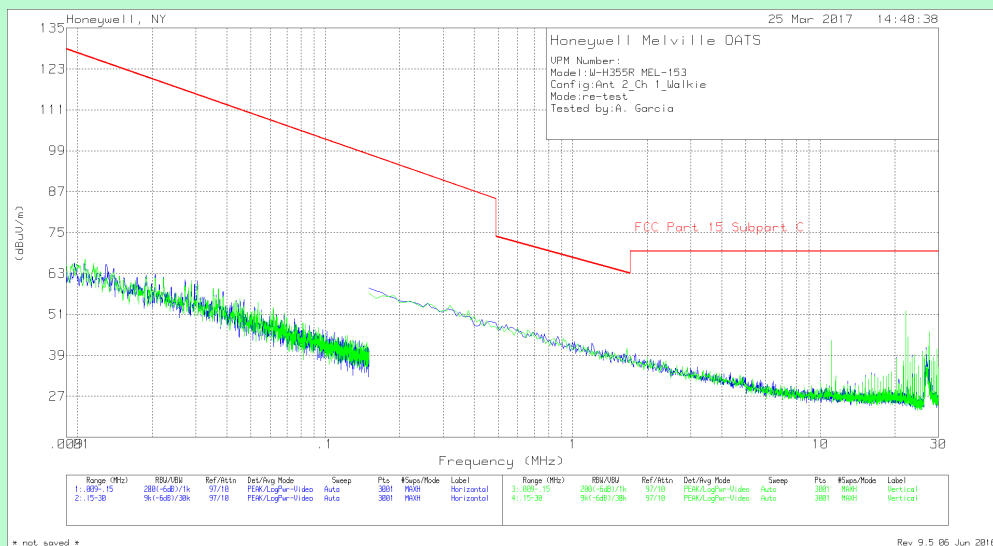


Channel 55 (926.45 MHz) – Antenna 2

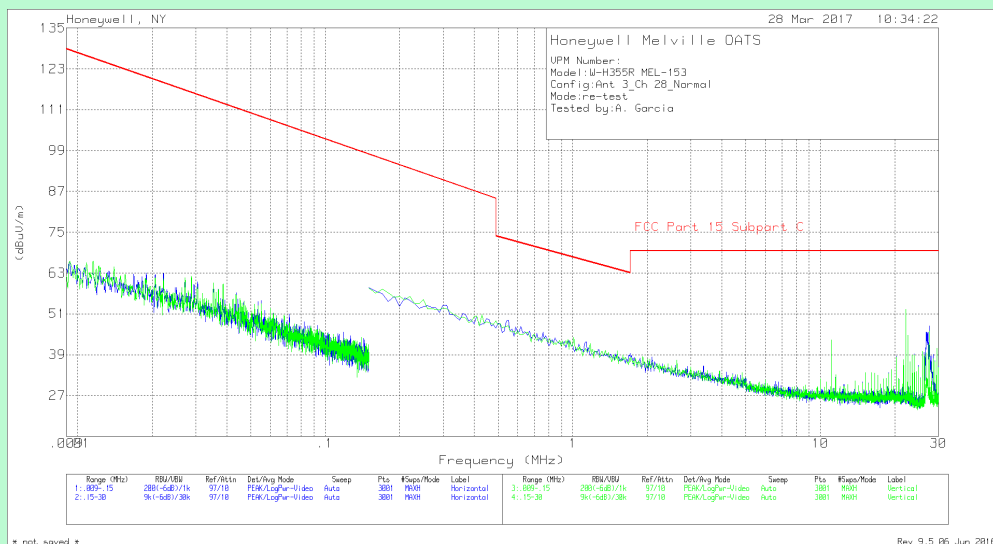
TEST RESULT – 9 KHz to 30 MHz

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									
<u>Note :</u> Measured Field Strength –dBuV/m = Receiver Readings (dBuV) + Antenna Factor (dB/m) + Cable loss (dB)									

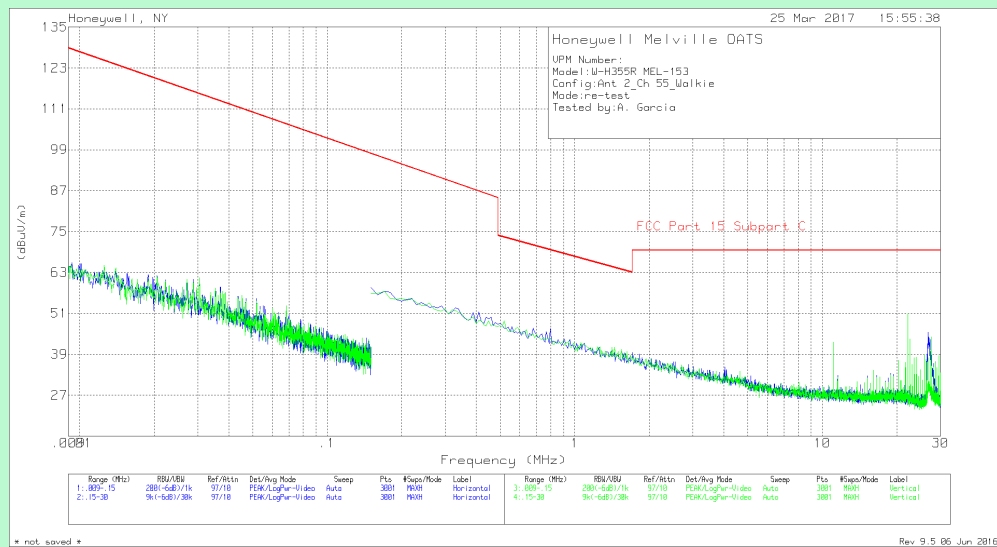
TEST GRAPHS – 9 KHz to 30 MHz (ANTENNA 3)



Channel 1 (903.55 MHz) – Antenna 3



Channel 28 (916.0 MHz) – Antenna 3

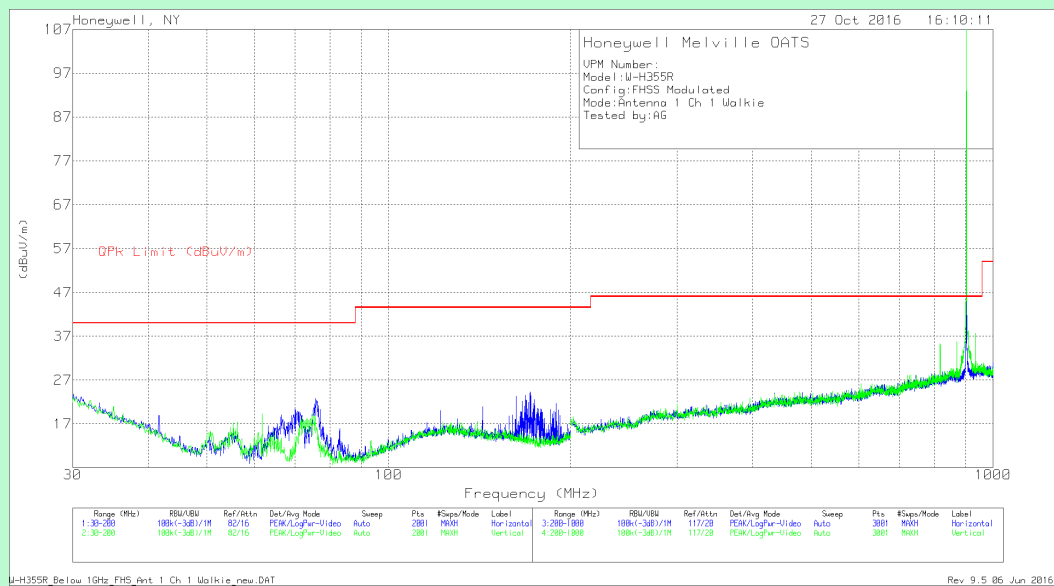


Channel 55 (926.45 MHz) – Antenna 3

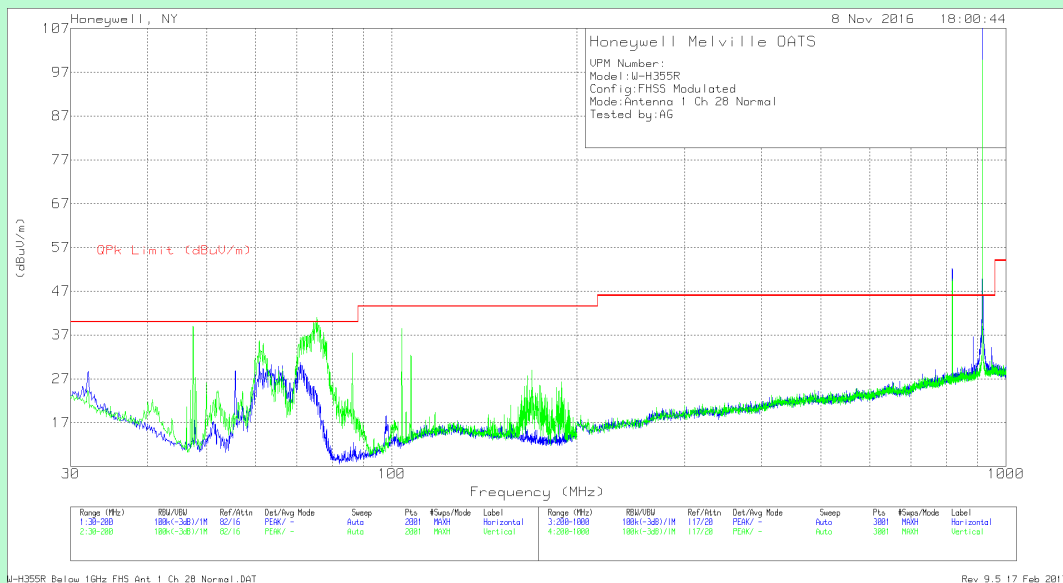
TEST RESULT – 9 KHz to 30 MHz

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)									

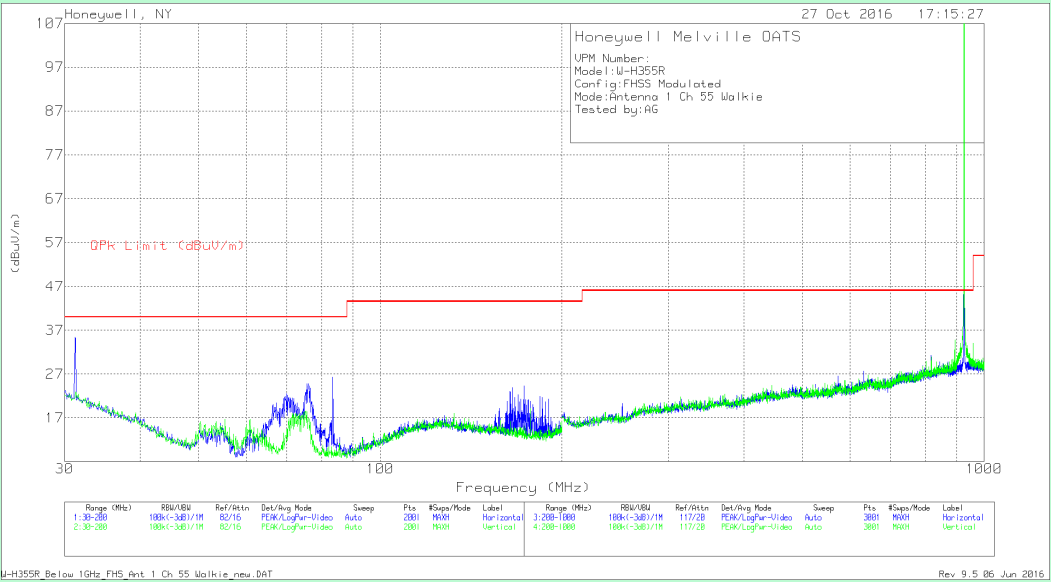
TEST GRAPHS –30 MHz to 1 GHz (ANTENNA 1)



Channel 1 (903.55 MHz) – Antenna 1



Channel 28 (916.0 MHz) – 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] JB6 w/4dB pad	Pre Amp #1	RDE #1	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
69.7607	32.09	Qp	12.2	-29	1.2	16.49	40	23.51	110	267	H
75.4045	37.35	Qp	12.1	-28.9	1.2	21.75	40	18.25	295	398	H
* 171.2257	30.48	Qp	16.4	-28.5	1.9	20.28	43.52	23.24	323	386	H
61.6532	33.47	Qp	12	-29	1.1	17.57	40	22.43	66	195	V
* 75.1709	40.37	Qp	12.1	-28.9	1.2	24.77	40	15.23	39	126	V
** 903.602	104.08	Pk	27	-27.6	5.5	108.98	-	-	195	101	H
** 903.602	93.3	Pk	27	-27.6	5.5	98.2	-	-	359	153	V
Channel 28											
31.6994	26.91	Qp	24.5	-29.1	.8	23.11	40	16.89	141	221	H
60.7603	34.57	Qp	11.9	-29	1.1	18.57	40	21.43	15	400	H
70.8924	35.71	Qp	12.2	-28.9	1.2	20.21	40	19.79	259	385	H
47.257	44.36	Qp	13.8	-29	1	30.16	40	9.84	335	114	V
161.3893	37.87	Qp	17	-28.5	1.8	28.17	43.52	15.35	178	238	V
* 246.4606	30.56	Qp	16.2	-28	2.4	21.16	46.02	24.86	187	146	H
** 916.052	104.8	Pk	27.3	-27.5	5.6	110.2	-	-	180	100	H
** 916.056	94.33	Pk	27.3	-27.5	5.6	99.73	-	-	30	140	V
Channel 55											
30.8708	26.19	Qp	25.2	-29.1	.8	23.09	40	16.91	83	391	H
83.4967	35.65	Qp	11.8	-28.9	1.3	19.85	40	20.15	250	376	H
173.2729	29.74	Qp	16.2	-28.5	1.9	19.34	43.52	24.18	250	362	H
53.456	48.69	Qp	12.1	-29	1.1	32.89	40	7.11	195	343	V
75.3405	40.75	Qp	12.1	-28.9	1.2	25.15	40	14.85	311	170	V
** 926.498	105.3	Pk	27.3	-27.5	5.7	110.8	-	-	182	100	H
** 926.498	94.82	Pk	27.3	-27.5	5.7	100.32	-	-	240	151	V

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

** - indicates intended frequency

Pk - Peak detector

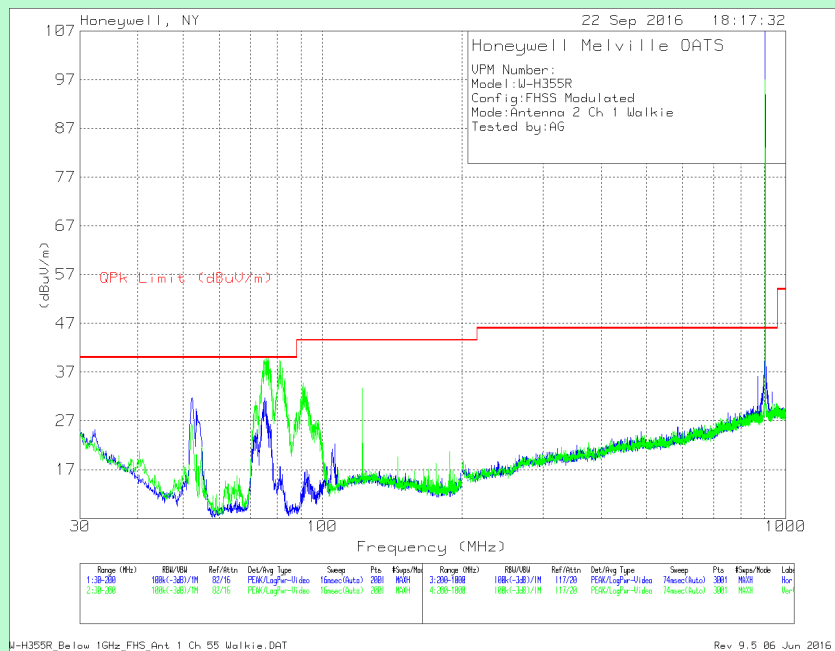
Qp - Quasi-Peak detector

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

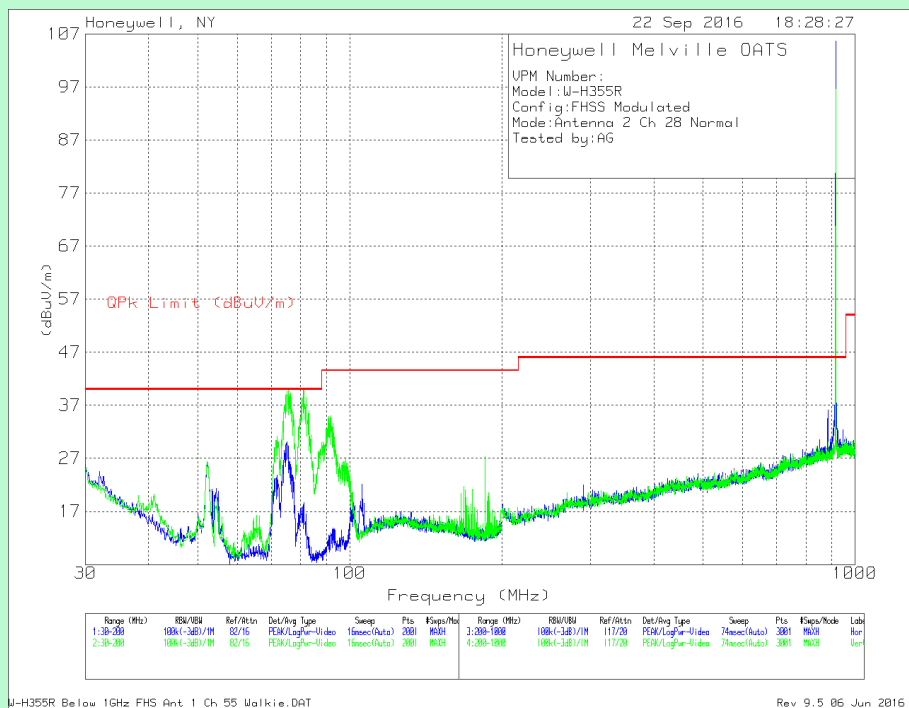
Prescans performed in a pre-compliance chamber. Final measurements performed on an OATS.

Emissions shown in the plot are related to the chamber ambient

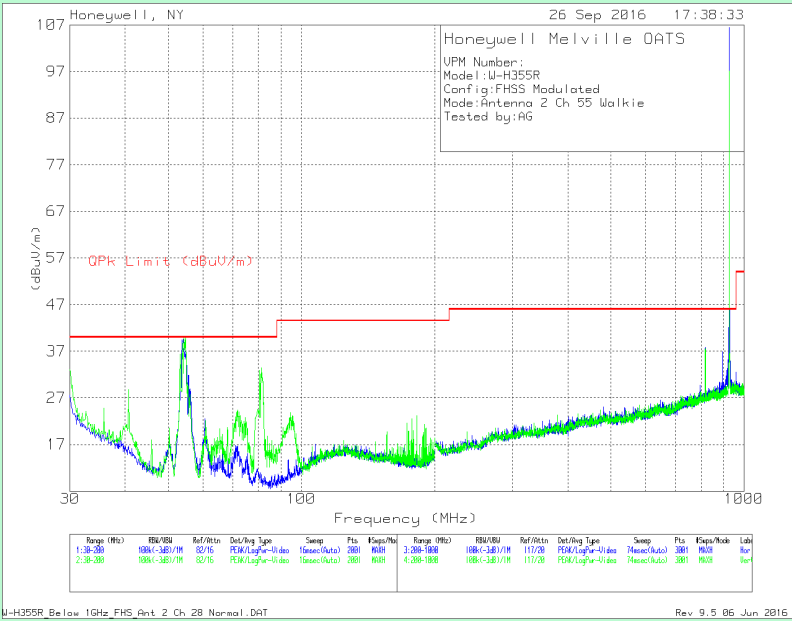
TEST GRAPHS –30 MHz to 1 GHz (ANTENNA 2)



Channel 1 (903.55 MHz) – Antenna 2



Channel 28 (916.0 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] JB6 w/4dB pad	Pre Amp #1	RDE #1	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
52.2453	36.3	Qp	12.2	-29	1	20.5	40	19.5	317	101	H
75.3877	35.11	Qp	12.1	-28.9	1.2	19.51	40	20.49	187	386	H
75.3986	40.04	Qp	12.1	-28.9	1.2	24.44	40	15.56	187	101	V
81.0877	40.37	Qp	11.8	-28.9	1.3	24.57	40	15.43	152	129	V
91.8935	36.21	Qp	12.3	-28.8	1.4	21.11	43.52	22.41	70	101	V
* 121.9118	32.66	Qp	17.8	-28.7	1.6	23.36	43.52	20.16	74	105	V
** 903.606	110.38	Pk	27	-27.6	5.5	115.28	-	-	332	101	H
** 903.606	96.26	Pk	27	-27.6	5.5	101.16	-	-	317	113	V
Channel 28											
52.622	37.43	Qp	12.1	-29	1	21.53	40	18.47	302	389	H
75.3659	36.94	Qp	12.1	-28.9	1.2	21.34	40	18.66	288	386	H
52.222	49.73	Qp	12.2	-29	1	33.93	40	6.07	322	197	V
* 75.135	39.52	Qp	12.1	-28.9	1.2	23.92	40	16.08	34	356	V
80.8352	37.94	Qp	11.8	-28.9	1.3	22.14	40	17.86	273	353	V
91.9439	30.48	Qp	12.3	-28.8	1.4	15.38	43.52	28.14	335	106	V
185.6532	35.68	Qp	15.7	-28.4	2	24.98	43.52	18.54	27	113	V
** 916.056	108.6	Pk	27.3	-27.5	5.6	114	-	-	10	101	H
** 916.056	96.65	Pk	27.3	-27.5	5.6	102.05	-	-	331	110	V
Channel 55											
54.3203	45.36	Qp	12	-29	1.1	29.46	40	10.54	345	376	H
60.6286	35.1	Qp	11.9	-29	1.1	19.1	40	20.9	78	391	H
54.2539	47.77	Qp	12	-29	1.1	31.87	40	8.13	339	172	V
81.2153	41.59	Qp	11.8	-28.9	1.3	25.79	40	14.21	324	168	V
** 926.494	108.18	Pk	27.3	-27.5	5.7	113.68	-	-	345	101	H
818.1738	37.3	Pk	26.3	-27.9	5.2	40.9	46.02	5.12	179	373	H
** 926.41	97.58	Pk	27.3	-27.5	5.7	103.08	-	-	315	111	V
817.9687	30.2	Qp	26.3	-27.9	5.2	33.8	46.02	12.22	335	332	V
54.3203	45.36	Qp	12	-29	1.1	29.46	40	10.54	345	376	H

Note:

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

** - indicates intended frequency

Pk - Peak detector

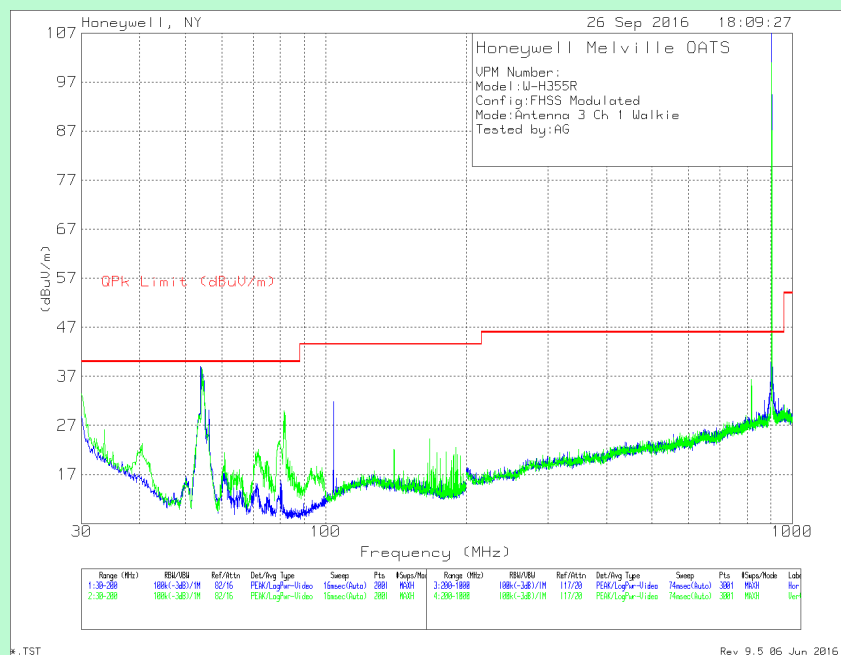
Qp - Quasi-Peak detector

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

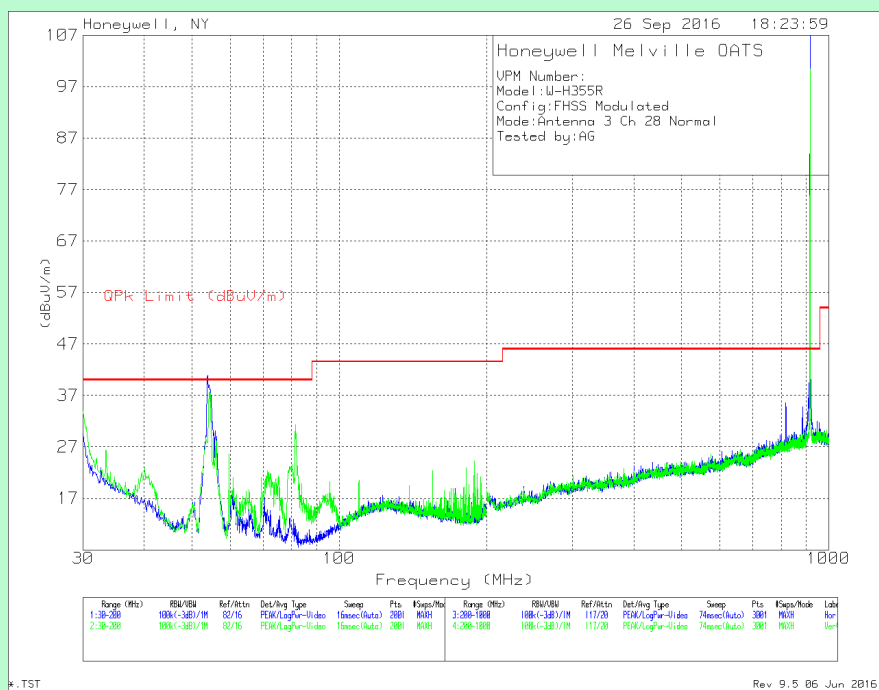
Prescans performed in a pre-compliance chamber. Final measurements performed on an OATS.

Emissions shown in the plot are related to the chamber ambient

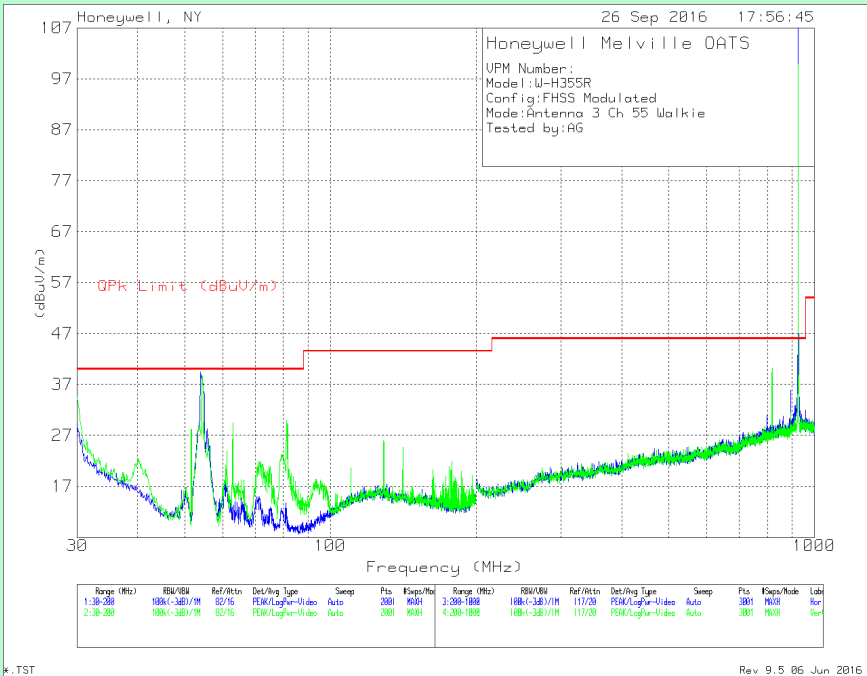
TEST GRAPHS –30 MHz to 1 GHz (ANTENNA 3)



Channel 1 (903.55 MHz) – Antenna 3



Channel 28 (916.0 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] JB6 w/4dB pad	Pre Amp #1	RDE #1	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
54.3197	39.77	Qp	12	-29	1.1	23.87	40	16.13	308	192	H
103.8852	41.26	Qp	15.4	-28.8	1.4	29.26	43.52	14.26	213	399	H
54.3006	47.98	Qp	12	-29	1.1	32.08	40	7.92	112	125	V
61.0361	34.19	Qp	11.9	-29	1.1	18.19	40	21.81	265	156	V
72.1382	44.36	Qp	12.2	-28.9	1.2	28.86	40	11.14	334	149	V
81.8376	37.7	Qp	11.8	-28.9	1.3	21.9	40	18.1	5	300	V
** 903.606	106.1	Pk	27	-27.6	5.5	111	-	-	333	100	H
** 903.498	96.56	Pk	27	-27.6	5.5	101.46	-	-	309	108	V
Channel 28											
53.8713	35.68	Qp	12	-29	1.1	19.78	40	20.22	55	378	H
60.331	27.31	Qp	11.9	-29	1.1	11.31	40	28.69	84	355	H
71.2874	33.3	Qp	12.2	-28.9	1.2	17.8	40	22.2	299	310	H
54.3073	47.83	Qp	12	-29	1.1	31.93	40	8.07	53	199	V
59.7543	46.76	Qp	11.9	-29	1.1	30.76	40	9.24	21	108	V
81.4831	38.05	Qp	11.8	-28.9	1.3	22.25	40	17.75	62	230	V
** 916.056	106.12	Pk	27.3	-27.5	5.6	111.52	-	-	335	101	H
** 916.056	95.81	Pk	27.3	-27.5	5.6	101.21	-	-	327	110	V
Channel 55											
54.3195	44.94	Qp	12	-29	1.1	29.04	40	10.96	56	351	H
54.4857	47.65	Qp	12	-29	1.1	31.75	40	8.25	120	337	V
62.6551	39.51	Qp	12	-29	1.1	23.61	40	16.39	120	108	V
81.3542	41.04	Qp	11.8	-28.9	1.3	25.24	40	14.76	255	172	V
30.0042	33.19	Qp	25.6	-29.1	.8	30.49	40	9.51	5	124	V
818.3916	29.8	Qp	26.3	-27.9	5.2	33.4	46.02	12.62	214	328	H
818.4564	30.07	Qp	26.3	-27.9	5.2	33.67	46.02	12.35	231	284	H
** 926.502	107.21	Pk	27.3	-27.5	5.7	112.71	-	-	334	100	H
** 926.406	96.39	Pk	27.3	-27.5	5.7	101.89	-	-	297	101	V

Note:

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

** - indicates intended frequency

Pk - Peak detector

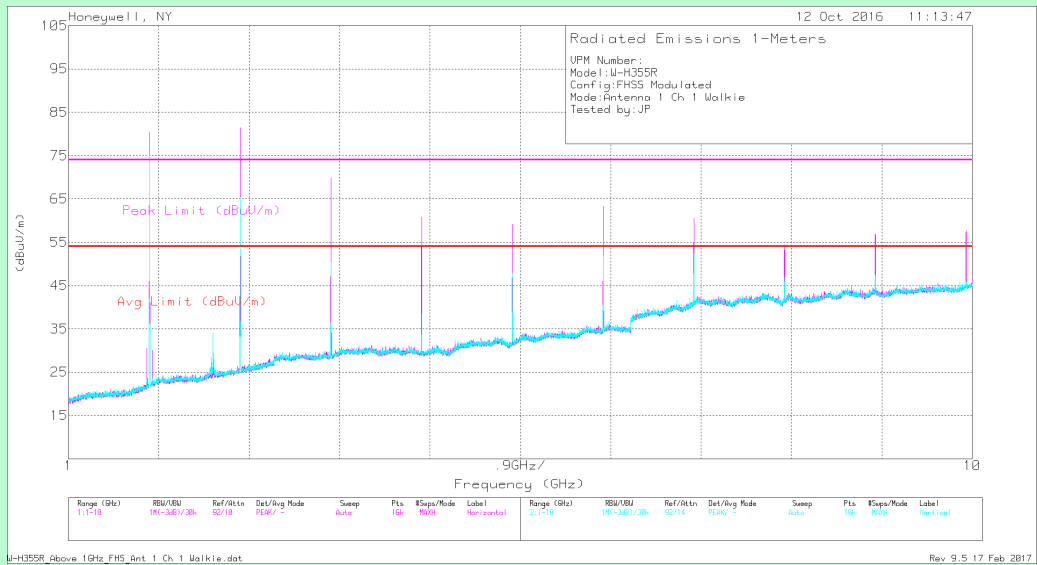
Qp - Quasi-Peak detector

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

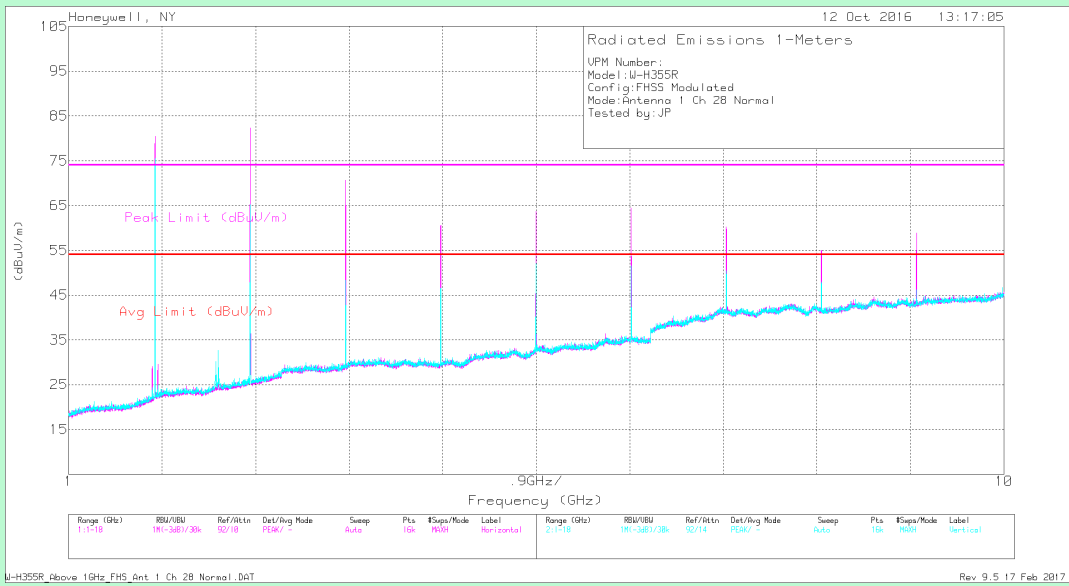
Prescans performed in a pre-compliance chamber. Final measurements performed on an OATS.

Emissions shown in the plot are related to the chamber ambient

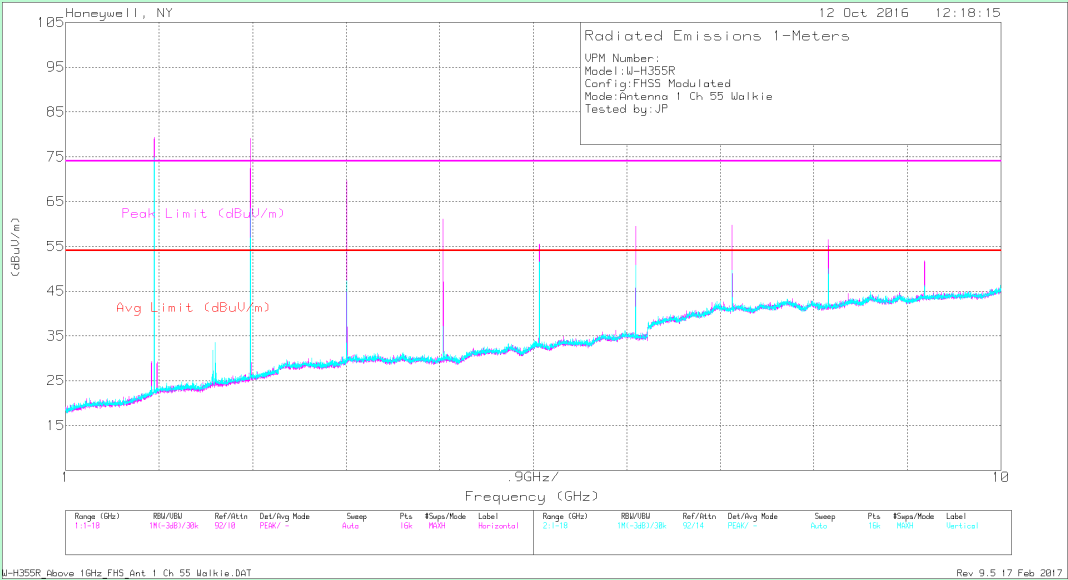
TEST GRAPHS –1 GHz to 10 GHz (ANTENNA 1)



Channel 1 (903.55 MHz) – Antenna 1



Channel 28 (916.0 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]	Preamp [dB]	SMA1 [dB]	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 2.711	44.68	PKFH	29.3	-27.1	9	55.88	74	18.12	215	148	H
* 3.614	39.57	PKFH	31.6	-26.8	10.4	54.77	74	19.23	44	362	H
* 4.518	37.25	PKFH	32.2	-26.6	11.7	54.55	74	19.45	8	356	H
* 5.421	37.64	PKFH	34.3	-26.7	12.9	58.14	74	15.86	185	313	H
* 8.133	34.74	PKFH	37.1	-26.2	16	61.64	74	12.36	196	239	H
* 9.036	34.46	PKFH	37.6	-25.9	16.9	63.06	74	10.94	321	227	H
* 2.71	46.65	PKFH	29.3	-27.1	9	57.85	74	16.15	341	170	V
* 3.614	38.12	PKFH	31.6	-26.8	10.4	53.32	74	20.68	281	225	V
* 4.518	34.91	PKFH	32.2	-26.6	11.7	52.21	74	21.79	188	335	V
* 5.421	40.41	PKFH	34.3	-26.7	12.9	60.91	74	13.09	326	320	V
* 8.131	36.48	PKFH	37.1	-26.2	16	63.38	74	10.62	320	240	V
* 9.036	37.12	PKFH	37.6	-25.9	16.9	65.72	74	8.28	330	229	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	57.31	PKFH	27.1	-26.9	7.3	64.81	89	24.19	51	101	H
6.325	37.46	PKFH	34.9	-26.4	14	59.96	89	29.04	141	276	H
7.229	38.82	PKFH	36.3	-26.2	15	63.92	89	25.08	192	258	H
1.807	57.05	PKFH	27.1	-26.9	7.3	64.55	89	24.45	342	164	V
6.325	39.61	PKFH	34.9	-26.4	14	62.11	89	26.89	221	283	V
7.229	41.77	PKFH	36.3	-26.2	15	66.87	89	22.13	138	256	V

AVERAGE DATA

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
1.807	56.32	VA1T	27.1	-26.9	7.3	-12.53	51.29	54	2.71	51	101	H
* 2.711	41.21	VA1T	29.3	-27.1	9	-12.53	39.88	54	14.12	215	148	H
* 3.614	34.91	VA1T	31.6	-26.8	10.4	-12.53	37.58	54	16.42	44	362	H
* 4.518	26.69	VA1T	32.2	-26.6	11.7	-12.53	31.46	54	22.54	8	356	H
* 5.421	29.79	VA1T	34.3	-26.7	12.9	-12.53	37.76	54	16.24	185	313	H
6.325	26.3	VA1T	34.9	-26.4	14	-12.53	36.27	54	17.73	141	276	H
7.229	27.41	VA1T	36.3	-26.2	15	-12.53	39.98	54	14.02	192	258	H
* 8.133	22.66	VA1T	37.1	-26.2	16	-12.53	37.03	54	16.97	196	239	H
* 9.036	22.27	VA1T	37.6	-25.9	16.9	-12.53	38.34	54	15.66	321	227	H
1.807	56.46	VA1T	27.1	-26.9	7.3	-12.53	51.43	54	2.57	342	164	V
* 2.711	44.41	VA1T	29.3	-27.1	9	-12.53	43.08	54	10.92	341	170	V
* 3.614	32.03	VA1T	31.6	-26.8	10.4	-12.53	34.7	54	19.3	281	225	V
* 4.518	24.04	VA1T	32.2	-26.6	11.7	-12.53	28.81	54	25.19	188	335	V
* 5.421	33.8	VA1T	34.3	-26.7	12.9	-12.53	41.77	54	12.23	326	320	V
6.325	30.46	VA1T	34.9	-26.4	14	-12.53	40.43	54	13.57	221	283	V
7.228	32.12	VA1T	36.3	-26.2	15	-12.53	44.69	54	9.31	138	256	V
* 8.132	24.69	VA1T	37.1	-26.2	16	-12.53	39.06	54	14.94	320	240	V
* 9.036	24.64	VA1T	37.6	-25.9	16.9	-12.53	40.71	54	13.29	330	229	V

Note:

* - indicates frequency in CFR47 Pt 15 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 = $20 \log (\text{Dwell time} / 100 \text{msec})$, Number of Transmission for 100msec: 8, Dwell time per Transmission: 1.572 msecDuty Cycle correction Factor = $20 \log (1.572 \times 8 / 100) = -18 \text{dB}$

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	41.3	PKFH	29.4	-27	9	52.7	74	21.3	54	187	H
* 3.664	35.92	PKFH	31.8	-26.9	10.4	51.22	74	22.78	345	345	H
* 4.58	35.16	PKFH	32.2	-26.7	11.8	52.46	74	21.54	22	325	H
* 7.328	36.88	PKFH	36.7	-26.2	15.1	62.48	74	11.52	194	269	H
* 8.245	32.87	PKFH	37.1	-26.1	16.2	60.07	74	13.93	143	361	H
* 9.161	33.68	PKFH	37.6	-25.9	17	62.38	74	11.62	40	261	H
* 2.748	45.54	PKFH	29.4	-27	9	56.94	74	17.06	292	331	V
* 3.664	37.73	PKFH	31.8	-26.9	10.4	53.03	74	20.97	341	327	V
* 4.58	34.43	PKFH	32.2	-26.7	11.8	51.73	74	22.27	159	336	V
* 7.327	40.66	PKFH	36.7	-26.2	15.1	66.26	74	7.74	132	254	V
* 8.243	37.01	PKFH	37.1	-26.1	16.2	64.21	74	9.79	309	233	V
* 9.159	37.2	PKFH	37.6	-25.9	17	65.9	74	8.1	278	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	57.96	PKFH	27.3	-26.9	7.3	65.66	90.2	24.54	174	150	H
5.497	36.78	PKFH	34.4	-26.6	13	57.58	90.2	32.62	186	321	H
6.411	36.47	PKFH	34.8	-26.3	14.1	59.07	90.2	31.13	323	376	H
1.832	55.2	PKFH	27.3	-26.9	7.3	62.9	90.2	27.3	272	267	V
5.496	41.16	PKFH	34.4	-26.6	13	61.96	90.2	28.24	328	308	V
6.412	40.48	PKFH	34.8	-26.3	14.1	63.08	90.2	27.12	276	299	V

AVERAGE DATA

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
1.832	57.19	VA1T	27.3	-26.9	7.3	-12.53	52.36	54	1.64	174	150	H
* 2.748	37.24	VA1T	29.4	-27	9	-12.53	36.11	54	17.89	54	187	H
* 3.664	29.6	VA1T	31.8	-26.9	10.4	-12.53	32.37	54	21.63	345	345	H
* 4.58	23.67	VA1T	32.2	-26.7	11.8	-12.53	28.44	54	25.56	22	325	H
5.496	27.51	VA1T	34.4	-26.6	13	-12.53	35.78	54	18.22	186	321	H
6.412	25.78	VA1T	34.8	-26.3	14.1	-12.53	35.85	54	18.15	323	376	H
* 7.328	25.72	VA1T	36.7	-26.2	15.1	-12.53	38.79	54	15.21	194	269	H
* 8.245	19.86	VA1T	37.1	-26.1	16.2	-12.53	34.53	54	19.47	143	361	H
* 9.161	20.98	VA1T	37.6	-25.9	17	-12.53	37.15	54	16.85	40	261	H
1.832	54.5	VA1T	27.3	-26.9	7.3	-12.53	49.67	54	4.33	272	267	V
* 2.748	43.13	VA1T	29.4	-27	9	-12.53	42	54	12	292	331	V
* 3.664	31.4	VA1T	31.8	-26.9	10.4	-12.53	34.17	54	19.83	341	327	V
* 4.58	23.84	VA1T	32.2	-26.7	11.8	-12.53	28.61	54	25.39	159	336	V
5.496	34.35	VA1T	34.4	-26.6	13	-12.53	42.62	54	11.38	328	308	V
6.412	32.04	VA1T	34.8	-26.3	14.1	-12.53	42.11	54	11.89	276	299	V
* 7.328	29.76	VA1T	36.7	-26.2	15.1	-12.53	42.83	54	11.17	132	254	V
* 8.244	24.73	VA1T	37.1	-26.1	16.2	-12.53	39.4	54	14.6	309	233	V
* 9.161	24.65	VA1T	37.6	-25.9	17	-12.53	40.82	54	13.18	278	244	V

Note:

* - indicates frequency in CFR47 Pt 15 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	43.79	PKFH	29.5	-27.1	9.1	55.29	74	18.71	235	266	H
* 3.706	36.84	PKFH	32	-26.9	10.6	52.54	74	21.46	57	323	H
* 4.632	35.17	PKFH	32.4	-26.6	11.8	52.77	74	21.23	68	297	H
* 7.411	34.87	PKFH	36.8	-26.2	15.2	60.67	74	13.33	14	252	H
* 8.338	35.39	PKFH	37.3	-26.1	16.2	62.79	74	11.21	277	251	H
* 2.779	43.21	PKFH	29.5	-27.1	9.1	54.71	74	19.29	359	142	V
* 3.706	37.08	PKFH	32	-26.9	10.6	52.78	74	21.22	11	353	V
* 4.632	34.62	PKFH	32.3	-26.6	11.8	52.12	74	21.88	195	309	V
* 7.411	38.64	PKFH	36.8	-26.2	15.2	64.44	74	9.56	174	304	V
* 8.339	34.68	PKFH	37.3	-26.1	16.2	62.08	74	11.92	183	289	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
1.854	41.67	PKFH	27.5	-	7.4	76.57	90.8	14.23	290	107	H
5.559	36.46	PKFH	34.4	-26.4	13.1	57.56	90.8	27.74	321	278	H
6.486	38.54	PKFH	34.8	-26.4	14.2	61.14	90.8	24.16	29	257	H
9.265	33.35	PKFH	37.8	-26	17.1	62.25	90.8	23.05	86	238	H
1.853	49.98	PKFH	27.5	-	7.4	84.8	90.8	6	301	212	V
5.558	42.13	PKFH	34.4	-26.4	13.1	63.23	90.8	22.07	19	288	V
6.486	42.35	PKFH	34.8	-26.4	14.2	64.95	90.8	20.35	285	271	V
9.264	34.2	PKFH	37.8	-26	17.1	63.1	90.8	22.2	62	301	V

AVERAGE DATA

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
1.853	45.4	VA1T	27.5	-26.9	7.4	-12.53	40.87	54	13.13	290	107	H
* 2.779	37.35	VA1T	29.5	-27.1	9.1	-12.53	36.32	54	17.68	235	266	H
* 3.706	31.56	VA1T	32	-26.9	10.6	-12.53	34.73	54	19.27	57	323	H
* 4.632	26.23	VA1T	32.3	-26.6	11.8	-12.53	31.2	54	22.8	68	297	H
5.558	29.95	VA1T	34.4	-26.4	13.1	-12.53	38.52	54	15.48	321	278	H
6.485	32	VA1T	34.8	-26.4	14.2	-12.53	42.07	54	11.93	29	257	H
* 7.412	27.21	VA1T	36.8	-26.2	15.2	-12.53	40.48	54	13.52	14	252	H
* 8.338	25.82	VA1T	37.3	-26.1	16.2	-12.53	40.69	54	13.31	277	251	H
9.265	24.03	VA1T	37.8	-26	17.1	-12.53	40.4	54	13.6	86	238	H
1.853	45.84	VA1T	27.5	-26.9	7.4	-12.53	41.31	54	12.69	110	221	V
* 2.779	40.62	VA1T	29.5	-27.1	9.1	-12.53	39.59	54	14.41	359	142	V
* 3.706	31.11	VA1T	32	-26.9	10.6	-12.53	34.28	54	19.72	11	353	V
* 4.632	26.27	VA1T	32.4	-26.6	11.8	-12.53	31.34	54	2.66	195	309	V
5.559	37.31	VA1T	34.4	-26.4	13.1	-12.53	45.88	54	8.12	19	288	V
6.486	37.61	VA1T	34.8	-26.4	14.2	-12.53	47.68	54	6.32	285	271	V
* 7.411	31.72	VA1T	36.8	-26.2	15.2	-12.53	44.99	54	9.01	174	304	V
* 8.339	26.22	VA1T	37.3	-26.1	16.2	-12.53	41.09	54	12.91	183	289	V
9.264	24.88	VA1T	37.8	-26	17.1	-12.53	41.25	54	12.75	62	301	V

Note:

* - indicates frequency in CFR47 Pt 15 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)

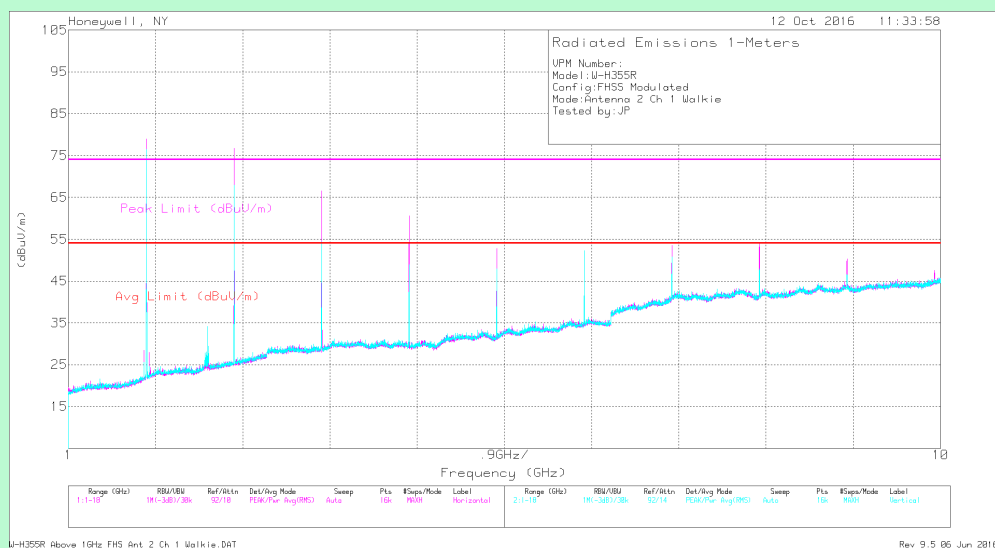
Prescans performed in a pre-compliance chamber. Final measurements performed on an OATS

Duty Cycle Correction Factor is calculated using the guidelines provided in DA 00 -705

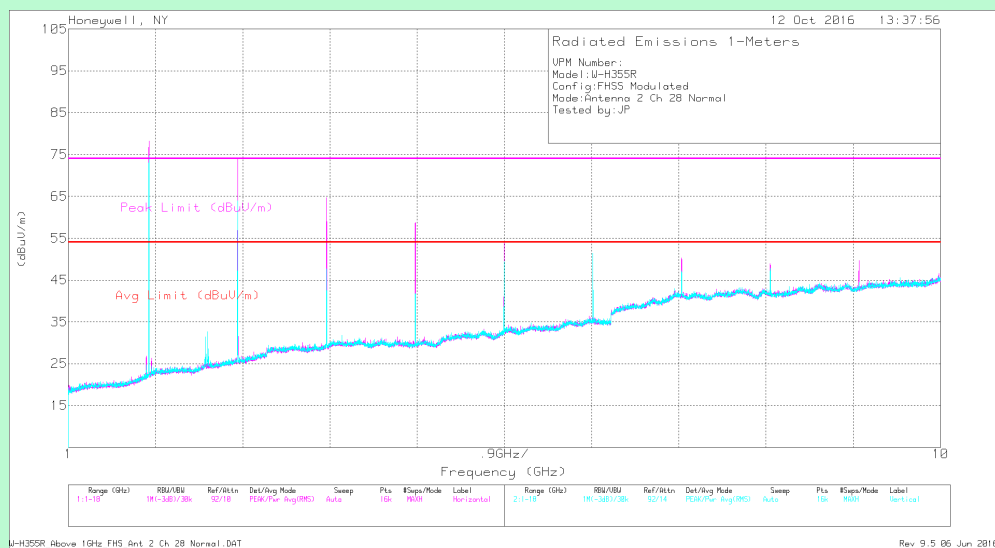
Duty Cycle Factor = 20*log (Dwell time /100msec), Number of Transmission for 100msec: 8, Dwell time per Transmission: 1.572 msec

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

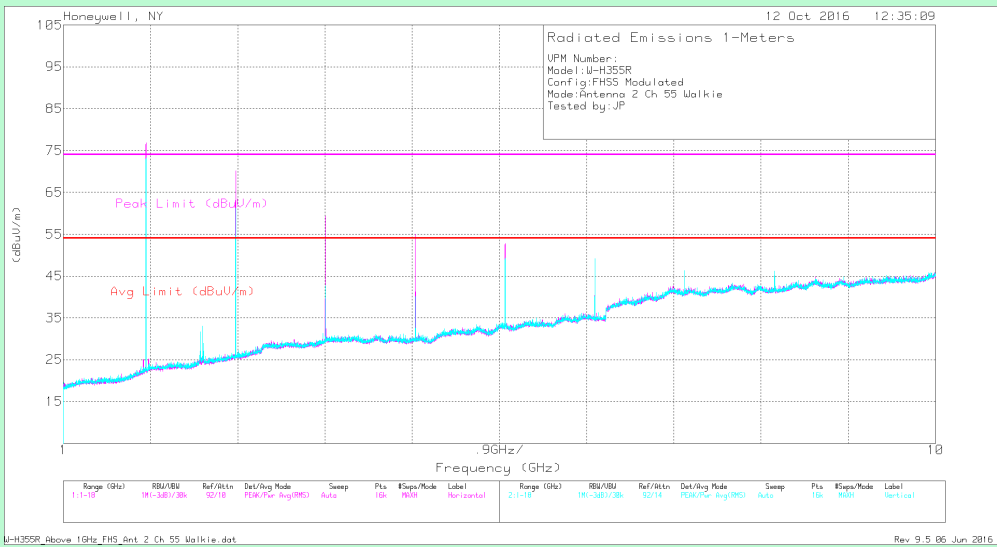
TEST GRAPHS –1 GHz to 10 GHz (ANTENNA 2)



Channel 1 (903.55 MHz) – Antenna 2



Channel 28 (916.00 MHz) – 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
* 2.711	34.04	PKFH	29.3	-27.1	9	45.24	74	28.76	31	359	H
* 3.614	31.72	PKFH	31.6	-26.8	10.4	46.92	74	27.08	342	110	H
* 4.518	32.81	PKFH	32.2	-26.6	11.7	50.11	74	23.89	212	213	H
* 5.421	32.5	PKFH	34.3	-26.7	12.9	53	74	21	193	277	H
* 8.132	33.29	PKFH	37.1	-26.2	16	60.19	74	13.81	187	281	H
* 9.035	32.27	PKFH	37.6	-25.9	16.9	60.87	74	13.13	261	264	H
* 2.711	35.53	PKFH	29.3	-27.1	9	46.73	74	27.27	268	351	V
* 3.614	31.62	PKFH	31.6	-26.8	10.4	46.82	74	27.18	265	255	V
* 4.517	32.8	PKFH	32.2	-26.6	11.7	50.1	74	23.9	164	107	V
* 5.421	33.39	PKFH	34.3	-26.7	12.9	53.89	74	20.11	161	176	V
* 8.133	33.68	PKFH	37.1	-26.2	16	60.58	74	13.42	293	243	V
* 9.035	33.6	PKFH	37.6	-25.9	16.9	62.2	74	11.8	273	282	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	49.04	PKFH	27.1	-26.9	7.3	56.54	95.3	-38.76	352	104	H
6.325	34.86	PKFH	34.9	-26.4	14	57.36	95.3	37.94	349	395	H
7.229	33.98	PKFH	36.3	-26.2	15	59.08	95.3	36.22	334	228	H
1.807	40.13	PKFH	27.1	-26.9	7.3	47.63	95.3	47.67	74	383	V
6.324	34.72	PKFH	34.9	-26.4	14	57.22	95.3	38.08	223	246	V
7.228	33.39	PKFH	36.3	-26.2	15	58.49	95.3	36.81	223	246	V

AVERAGE DATA

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
1.807	47.47	VA1T	27.1	-26.9	7.3	-12.53	42.44	54	11.56	352	104	H
* 2.711	23.45	VA1T	29.3	-27.1	9	-12.53	22.12	54	31.88	31	359	H
* 3.614	18.67	VA1T	31.6	-26.8	10.4	-12.53	21.34	54	32.66	342	110	H
* 4.518	20.07	VA1T	32.2	-26.6	11.7	-12.53	24.84	54	29.16	212	213	H
* 5.421	20.15	VA1T	34.3	-26.7	12.9	-12.53	28.12	54	25.88	193	277	H
6.325	23	VA1T	34.9	-26.4	14	-12.53	32.97	54	21.03	349	395	H
7.229	20.81	VA1T	36.3	-26.2	15	-12.53	33.38	54	20.62	334	228	H
* 8.133	19.5	VA1T	37.1	-26.2	16	-12.53	33.87	54	20.13	187	281	H
* 9.036	19.74	VA1T	37.6	-25.9	16.9	-12.53	35.81	54	18.19	261	264	H
1.807	36.49	VA1T	27.1	-26.9	7.3	-12.53	31.46	54	22.54	74	383	V
* 2.711	27.65	VA1T	29.3	-27.1	9	-12.53	26.32	54	27.68	268	351	V
* 3.614	18.32	VA1T	31.6	-26.8	10.4	-12.53	20.99	54	33.01	265	255	V
* 4.518	20.33	VA1T	32.2	-26.6	11.7	-12.53	25.1	54	28.9	164	107	V
* 5.421	22.1	VA1T	34.3	-26.7	12.9	-12.53	30.07	54	23.93	161	176	V
6.325	23.19	VA1T	34.9	-26.4	14	-12.53	33.16	54	20.84	223	246	V
7.229	19.98	VA1T	36.3	-26.2	15	-12.53	32.55	54	21.45	223	246	V
* 8.133	21.37	VA1T	37.1	-26.2	16	-12.53	35.74	54	18.26	293	243	V
* 9.036	20.31	VA1T	37.6	-25.9	16.9	-12.53	36.38	54	17.62	273	282	V

Note:

* - indicates frequency in CFR47 Pt 15 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 = $20 \cdot \log(\text{Dwell time} / 100\text{msec})$, Number of Transmission for 100msec: 8, Dwell time per Transmission: 1.572 msec

Duty Cycle correction Factor = $20 \log(1.572 \cdot 8 / 100) = -18\text{dB}$

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
* 2.747	32.71	PKFH	29.4	-27	9	44.11	74	29.89	209	132	H
* 3.666	31.23	PKFH	31.8	-26.9	10.4	46.53	74	27.47	281	198	H
* 4.58	33.41	PKFH	32.2	-26.7	11.8	50.71	74	23.29	287	194	H
* 7.33	33.08	PKFH	36.7	-26.2	15.1	58.68	74	15.32	77	195	H
* 8.244	32.96	PKFH	37.1	-26.1	16.2	60.16	74	13.84	250	280	H
* 9.161	32.45	PKFH	37.6	-25.9	17	61.15	74	12.85	212	189	H
* 2.748	34.74	PKFH	29.4	-27	9	46.14	74	27.86	241	264	V
* 3.662	32.66	PKFH	31.8	-26.9	10.4	47.96	74	26.04	277	296	V
* 4.58	32.96	PKFH	32.2	-26.7	11.8	50.26	74	23.74	234	235	V
* 7.328	34.53	PKFH	36.7	-26.2	15.1	60.13	74	13.87	88	379	V
* 8.245	32.17	PKFH	37.1	-26.1	16.2	59.37	74	14.63	238	278	V
* 9.158	32.8	PKFH	37.6	-25.9	17	61.5	74	12.5	108	384	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	47.01	PKFH	27.3	-26.9	7.3	54.71	94	39.29	341	174	H
5.497	31.06	PKFH	34.4	-26.6	13	51.86	94	42.14	259	369	H
6.412	33.56	PKFH	34.8	-26.3	14.1	56.16	94	37.84	158	384	H
1.832	35.76	PKFH	27.3	-26.9	7.3	43.46	94	50.54	293	195	V
5.497	34.42	PKFH	34.4	-26.6	13	55.22	94	38.78	287	310	V
6.412	35.55	PKFH	34.8	-26.3	14.1	58.15	94	35.85	291	400	V

AVERAGE DATA

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
1.832	45.22	VA1T	27.3	-26.9	7.3	-12.53	40.39	54	13.61	341	174	H
* 2.748	19.82	VA1T	29.4	-27	9	-12.53	18.69	54	35.31	209	132	H
* 3.666	18.22	VA1T	31.8	-26.9	10.4	-12.53	20.99	54	33.01	281	198	H
* 4.582	19.35	VA1T	32.2	-26.7	11.8	-12.53	24.12	54	29.88	287	194	H
5.496	18.81	VA1T	34.4	-26.6	13	-12.53	27.08	54	26.92	259	369	H
6.412	21.68	VA1T	34.8	-26.3	14.1	-12.53	31.75	54	22.25	158	384	H
* 7.328	19.86	VA1T	36.7	-26.2	15.1	-12.53	32.93	54	21.07	77	195	H
* 8.246	18.71	VA1T	37.1	-26.1	16.2	-12.53	33.38	54	20.62	250	280	H
* 9.162	19.17	VA1T	37.6	-25.9	17	-12.53	35.34	54	18.66	212	189	H
1.832	29.04	VA1T	27.3	-26.9	7.3	-12.53	24.21	54	29.79	293	195	V
* 2.748	25.04	VA1T	29.4	-27	9	-12.53	23.91	54	30.09	241	264	V
* 3.664	18.48	VA1T	31.8	-26.9	10.4	-12.53	21.25	54	32.75	277	296	V
* 4.58	19.56	VA1T	32.2	-26.7	11.8	-12.53	24.33	54	29.67	234	235	V
5.496	23.36	VA1T	34.4	-26.6	13	-12.53	31.63	54	22.37	287	310	V
6.412	23.61	VA1T	34.8	-26.3	14.1	-12.53	33.68	54	20.32	291	400	V
* 7.328	21.3	VA1T	36.7	-26.2	15.1	-12.53	34.37	54	19.63	88	379	V
* 8.245	19.2	VA1T	37.1	-26.1	16.2	-12.53	33.87	54	20.13	238	278	V
* 9.161	19.27	VA1T	37.6	-25.9	17	-12.53	35.44	54	18.56	108	384	V

Note:

* - indicates frequency in CFR47 Pt 15 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 = $20 \cdot \log(\text{Dwell time} / 100\text{msec})$, Number of Transmission for 100msec: 8, Dwell time per Transmission: 1.572 msecDuty Cycle correction Factor = $20 \log(1.572 \cdot 8 / 100) = -18\text{dB}$

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	32.67	PKFH	29.5	-27.1	9.1	44.17	74	29.83	356	336	H
* 3.705	32.26	PKFH	32	-26.9	10.6	47.96	74	26.04	358	256	H
* 4.633	33.69	PKFH	32.4	-26.6	11.8	51.29	74	22.71	180	154	H
* 7.412	32.81	PKFH	36.8	-26.2	15.2	58.61	74	15.39	356	393	H
* 8.337	32.31	PKFH	37.3	-26.1	16.2	59.71	74	14.29	287	246	H
* 2.779	34.23	PKFH	29.5	-27.1	9.1	45.73	74	28.27	276	355	V
* 3.707	32.82	PKFH	32	-26.9	10.6	48.52	74	25.48	141	253	V
* 4.634	33.78	PKFH	32.4	-26.6	11.8	51.38	74	22.62	312	215	V
* 7.412	33.55	PKFH	36.8	-26.2	15.2	59.35	74	14.65	105	279	V
* 8.337	33.21	PKFH	37.3	-26.1	16.2	60.61	74	13.39	310	136	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	33.84	PKFH	27.5	-26.9	7.4	41.84	93.7	51.86	252	346	H
5.559	32.02	PKFH	34.4	-26.4	13.1	53.12	93.7	40.58	315	348	H
6.485	33.98	PKFH	34.8	-26.4	14.2	56.58	93.7	37.12	310	390	H
9.266	32.81	PKFH	37.8	-26	17.1	61.71	93.7	31.99	17	123	H
1.852	34.61	PKFH	27.5	-26.9	7.4	42.61	93.7	51.09	203	159	V
5.559	32.64	PKFH	34.4	-26.4	13.1	53.74	93.7	39.96	163	164	V
6.485	34.06	PKFH	34.8	-26.4	14.2	56.66	93.7	37.04	256	304	V
9.265	32.49	PKFH	37.8	-26	17.1	61.39	93.7	32.31	61	226	V

AVERAGE DATA

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
1.853	21.68	VA1T	27.5	-26.9	7.4	-12.53	17.15	54	36.85	252	346	H
* 2.779	22.24	VA1T	29.5	-27.1	9.1	-12.53	21.21	54	32.79	356	336	H
* 3.706	18.98	VA1T	32	-26.9	10.6	-12.53	22.15	54	31.85	358	256	H
* 4.634	19.8	VA1T	32.4	-26.6	11.8	-12.53	24.87	54	29.13	180	154	H
5.559	18.67	VA1T	34.4	-26.4	13.1	-12.53	27.24	54	26.76	315	348	H
6.485	21.26	VA1T	34.8	-26.4	14.2	-12.53	31.33	54	22.67	310	390	H
* 7.412	19.73	VA1T	36.8	-26.2	15.2	-12.53	33	54	21	356	393	H
* 8.34	19.1	VA1T	37.3	-26.1	16.2	-12.53	33.97	54	20.03	287	246	H
9.266	18.98	VA1T	37.8	-26	17.1	-12.53	35.35	54	18.65	17	123	H
9.266	18.97	VA1T	37.8	-26	17.1	-12.53	35.34	54	18.66	9	161	H
1.853	19.32	VA1T	27.5	-26.9	7.4	-12.53	14.79	54	39.21	203	159	V
* 2.779	24.98	VA1T	29.5	-27.1	9.1	-12.53	23.95	54	30.05	276	355	V
* 3.706	18.56	VA1T	32	-26.9	10.6	-12.53	21.73	54	32.27	141	253	V
* 4.634	19.79	VA1T	32.4	-26.6	11.8	-12.53	24.86	54	29.14	312	215	V
5.559	19.62	VA1T	34.4	-26.4	13.1	-12.53	28.19	54	25.81	163	164	V
6.485	22.39	VA1T	34.8	-26.4	14.2	-12.53	32.46	54	21.54	256	304	V
* 7.412	19.82	VA1T	36.8	-26.2	15.2	-12.53	33.09	54	20.91	105	279	V
* 8.339	19.08	VA1T	37.3	-26.1	16.2	-12.53	33.95	54	20.05	310	136	V
9.266	18.98	VA1T	37.8	-26	17.1	-12.53	35.35	54	18.65	61	226	V

Note:

* - indicates frequency in CFR47 Pt 15 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)

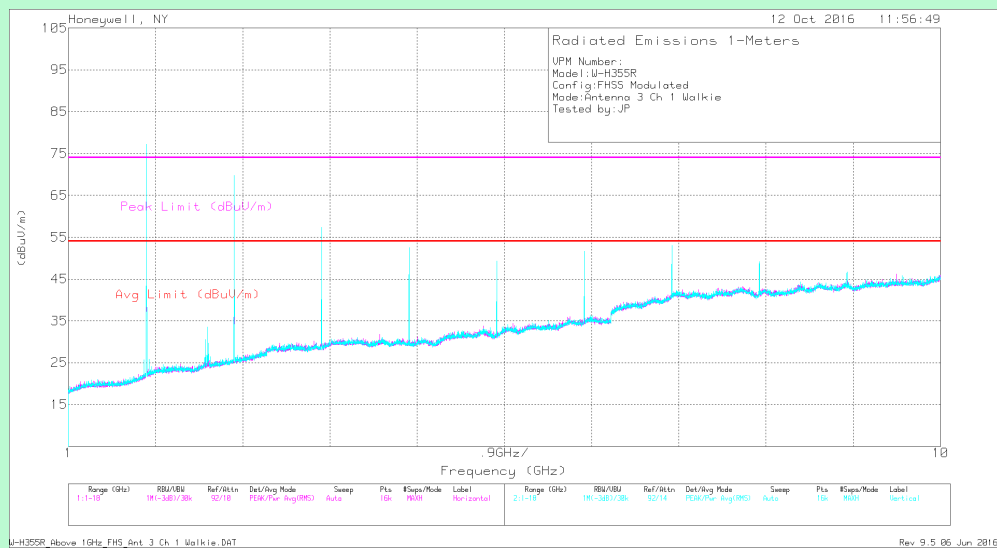
Prescans performed in a pre-compliance chamber. Final measurements performed on an OATS

Duty Cycle Correction Factor is calculated using the guidelines provided in DA 00 -705

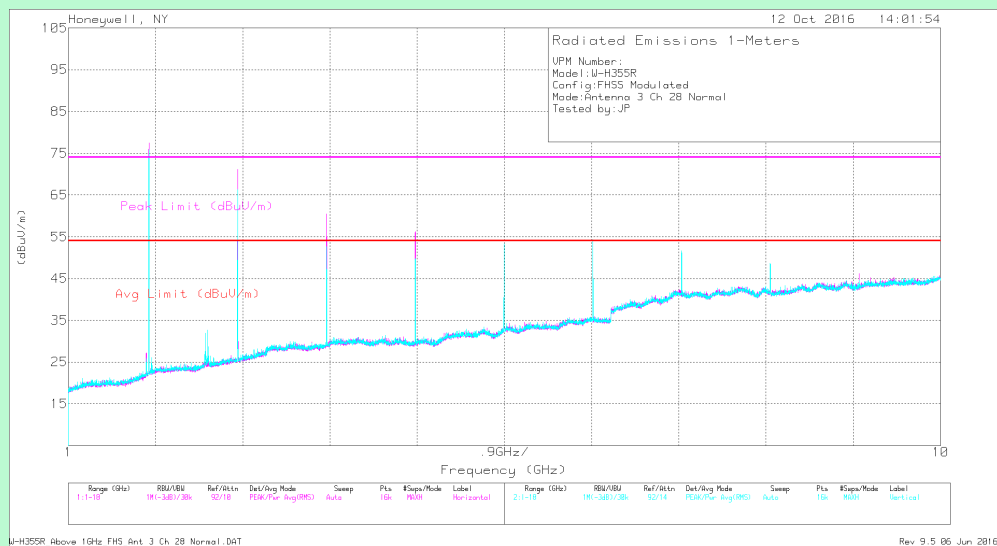
Duty Cycle Factor =20*log (Dwell time /100msec), Number of Transmission for 100msec: 8, Dwell time per Transmission: 1.572 msec

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

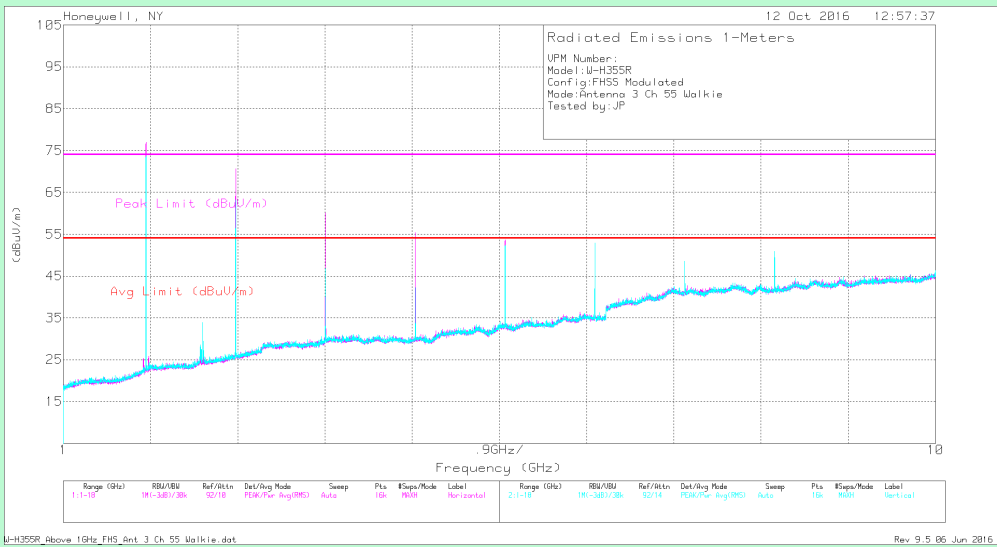
TEST GRAPHS –1 GHz to 10 GHz (ANTENNA 3)



Channel 1 (903.55 MHz) – Antenna 3



Channel 28 (916.00 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]	Preamplifier [dB]	SMA1 [dB]	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 2.711	36.36	PKFH	29.3	-27.1	9	47.56	74	26.44	85	103	H
* 3.614	35.61	PKFH	31.6	-26.8	10.4	50.81	74	23.19	271	102	H
* 4.518	34.95	PKFH	32.2	-26.6	11.7	52.25	74	21.75	281	131	H
* 5.422	31.13	PKFH	34.3	-26.7	12.9	51.63	74	22.37	93	274	H
* 8.132	33.27	PKFH	37.1	-26.2	16	60.17	74	13.83	166	271	H
* 9.034	32.71	PKFH	37.6	-25.9	16.9	61.31	74	12.69	340	111	H
* 2.71	33.25	PKFH	29.3	-27.1	9	44.45	74	29.55	105	117	V
* 3.614	34.36	PKFH	31.6	-26.8	10.4	49.56	74	24.44	296	337	V
* 4.518	33.32	PKFH	32.2	-26.6	11.7	50.62	74	23.38	333	114	V
* 5.422	32.49	PKFH	34.3	-26.7	12.9	52.99	74	21.01	225	266	V
* 8.134	32.14	PKFH	37.1	-26.2	16	59.04	74	14.96	303	108	V
* 9.035	32.74	PKFH	37.6	-25.9	16.9	61.34	74	12.66	52	218	V

PEAK DATA – NON RESTRICTED BAND

Frequency (GHz)	Meter Reading (dBuV)	Det	AF [dB/m]	Preamplifier [dB]	SMA1 [dB]	Corrected Reading (dBuV/m)	Peak Limit [Fundamental-20dBc] (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1.807	51.75	PKFH	27.1	-26.9	7.3	59.25	91	31.75	178	159	H
6.325	32.85	PKFH	34.9	-26.4	14	55.35	91	35.65	305	397	H
7.228	33.16	PKFH	36.3	-26.2	15	58.26	91	32.74	158	140	H
1.807	53.61	PKFH	27.1	-26.9	7.3	61.11	91	29.89	325	123	V
6.326	33.64	PKFH	34.9	-26.4	14	56.14	91	34.86	38	247	V
7.229	33.94	PKFH	36.3	-26.2	15	59.04	91	31.96	73	345	V

AVERAGE DATA

Frequency (GHz)	Meter Reading (dBuV)	Det	AF [dB/m]	Preamplifier [dB]	SMA1 [dB]	DC Corr [dB]	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1.807	50.5	VA1T	27.1	-26.9	7.3	-12.53	45.47	54	8.53	178	159	H
* 2.711	29.98	VA1T	29.3	-27.1	9	-12.53	28.65	54	25.35	85	103	H
* 3.614	28.5	VA1T	31.6	-26.8	10.4	-12.53	31.17	54	22.83	271	102	H
* 4.518	21.84	VA1T	32.2	-26.6	11.7	-12.53	26.61	54	27.39	281	131	H
* 5.422	18.65	VA1T	34.3	-26.7	12.9	-12.53	26.62	54	27.38	93	274	H
6.324	20.16	VA1T	34.9	-26.4	14	-12.53	30.13	54	23.87	305	397	H
7.229	19.89	VA1T	36.3	-26.2	15	-12.53	32.46	54	21.54	158	140	H
* 8.133	18.9	VA1T	37.1	-26.2	16	-12.53	33.27	54	20.73	166	271	H
* 9.037	19.41	VA1T	37.6	-25.9	16.9	-12.53	35.48	54	18.52	340	111	H
1.807	52.56	VA1T	27.1	-26.9	7.3	-12.53	47.53	54	6.47	325	123	V
* 2.711	23.72	VA1T	29.3	-27.1	9	-12.53	22.39	54	31.61	105	117	V
* 3.614	25.84	VA1T	31.6	-26.8	10.4	-12.53	28.51	54	25.49	296	337	V
* 4.518	21.05	VA1T	32.2	-26.6	11.7	-12.53	25.82	54	28.18	333	114	V
* 5.422	20.24	VA1T	34.3	-26.7	12.9	-12.53	28.21	54	25.79	225	266	V
6.325	21.74	VA1T	34.9	-26.4	14	-12.53	31.71	54	22.29	38	247	V
7.229	21.75	VA1T	36.3	-26.2	15	-12.53	34.32	54	19.68	73	345	V
* 8.133	19.05	VA1T	37.1	-26.2	16	-12.53	33.42	54	20.58	303	108	V
* 9.037	19.42	VA1T	37.6	-25.9	16.9	-12.53	35.49	54	18.51	52	218	V

Note:

* - indicates frequency in CFR47 Pt 15 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	37.5	PKFH	29.4	-27	9	48.9	74	25.1	85	105	H
* 3.664	31.62	PKFH	31.8	-26.9	10.4	46.92	74	27.08	287	162	H
* 4.58	33.07	PKFH	32.2	-26.7	11.8	50.37	74	23.63	152	114	H
* 7.327	33.33	PKFH	36.7	-26.2	15.1	58.93	74	15.07	45	234	H
* 8.243	32.08	PKFH	37.1	-26.1	16.2	59.28	74	14.72	339	252	H
* 9.159	31.86	PKFH	37.6	-25.9	17	60.56	74	13.44	120	242	H
* 2.748	35.54	PKFH	29.4	-27	9	46.94	74	27.06	31	196	V
* 3.666	31.06	PKFH	31.8	-26.9	10.4	46.36	74	27.64	69	190	V
* 4.582	33.93	PKFH	32.2	-26.7	11.8	51.23	74	22.77	69	150	V
* 7.326	33.07	PKFH	36.7	-26.2	15.1	58.67	74	15.33	54	282	V
* 8.244	31.98	PKFH	37.1	-26.1	16.2	59.18	74	14.82	104	194	V
* 9.162	32.27	PKFH	37.6	-25.9	17	60.97	74	13.03	305	152	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	48.85	PKFH	27.3	-26.9	7.3	56.55	91.5	34.95	191	159	H
5.496	31.93	PKFH	34.4	-26.6	13	52.73	91.5	38.77	290	269	H
6.413	32.63	PKFH	34.8	-26.3	14.1	55.23	91.5	36.27	129	399	H
1.832	49.07	PKFH	27.3	-26.9	7.3	56.77	91.5	34.73	346	201	V
5.498	31.86	PKFH	34.4	-26.6	13	52.66	91.5	38.84	130	235	V
6.412	32.81	PKFH	34.8	-26.3	14.1	55.41	91.5	36.09	27	302	V

AVERAGE DATA

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
1.832	47.3	VA1T	27.3	-26.9	7.3	-12.53	42.47	54	11.53	191	159	H
* 2.748	31.01	VA1T	29.4	-27	9	-12.53	29.88	54	24.12	85	105	H
* 3.664	18.6	VA1T	31.8	-26.9	10.4	-12.53	21.37	54	32.63	287	162	H
* 4.58	19.85	VA1T	32.2	-26.7	11.8	-12.53	24.62	54	29.38	152	114	H
5.496	19.09	VA1T	34.4	-26.6	13	-12.53	27.36	54	26.64	290	269	H
6.412	20.26	VA1T	34.8	-26.3	14.1	-12.53	30.33	54	23.67	129	399	H
* 7.328	19.84	VA1T	36.7	-26.2	15.1	-12.53	32.91	54	21.09	45	234	H
* 8.245	18.74	VA1T	37.1	-26.1	16.2	-12.53	33.41	54	20.59	339	252	H
* 9.162	19.14	VA1T	37.6	-25.9	17	-12.53	35.31	54	18.69	120	242	H
1.832	47.3	VA1T	27.3	-26.9	7.3	-12.53	42.47	54	11.53	346	201	V
* 2.748	27.99	VA1T	29.4	-27	9	-12.53	26.86	54	27.14	31	196	V
* 3.664	18.28	VA1T	31.8	-26.9	10.4	-12.53	21.05	54	32.95	69	190	V
* 4.582	19.3	VA1T	32.2	-26.7	11.8	-12.53	24.07	54	29.93	69	150	V
5.496	19.02	VA1T	34.4	-26.6	13	-12.53	27.29	54	26.71	130	235	V
6.412	20.89	VA1T	34.8	-26.3	14.1	-12.53	30.96	54	23.04	27	302	V
* 7.329	20.23	VA1T	36.7	-26.2	15.1	-12.53	33.3	54	20.7	54	282	V
* 8.245	18.69	VA1T	37.1	-26.1	16.2	-12.53	33.36	54	20.64	104	194	V
* 9.162	19.16	VA1T	37.6	-25.9	17	-12.53	35.33	54	18.67	305	152	V

Note:

* - indicates frequency in CFR47 Pt 15 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	37.6	PKFH	29.5	-27.1	9.1	49.1	74	24.9	56	122	H
* 3.705	31.53	PKFH	32	-26.9	10.6	47.23	74	26.77	297	150	H
* 4.632	32.26	PKFH	32.3	-26.6	11.8	49.76	74	24.24	46	353	H
* 7.412	31.97	PKFH	36.8	-26.2	15.2	57.77	74	16.23	304	213	H
* 8.339	31.98	PKFH	37.3	-26.1	16.2	59.38	74	14.62	141	307	H
* 2.78	35.41	PKFH	29.5	-27.1	9.1	46.91	74	27.09	10	207	V
* 3.707	31.1	PKFH	32	-26.9	10.6	46.8	74	27.2	116	265	V
* 4.633	33.42	PKFH	32.4	-26.6	11.8	51.02	74	22.98	351	334	V
* 7.412	32.05	PKFH	36.8	-26.2	15.2	57.85	74	16.15	73	183	V
* 8.338	31.84	PKFH	37.3	-26.1	16.2	59.24	74	14.76	149	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
1.853	45.89	PKFH	27.5	-26.9	7.4	53.89	92.7	38.81	181	173	H
5.56	31.77	PKFH	34.4	-26.4	13.1	52.87	92.7	39.83	136	282	H
6.484	32.69	PKFH	34.8	-26.4	14.2	55.29	92.7	37.41	99	280	H
9.265	32.1	PKFH	37.8	-26	17.1	61	92.7	31.7	129	370	H
1.853	41.45	PKFH	27.5	-26.9	7.4	49.45	92.7	43.25	261	384	V
5.559	32.51	PKFH	34.4	-26.4	13.1	53.61	92.7	39.09	222	302	V
6.486	33.1	PKFH	34.8	-26.4	14.2	55.7	92.7	37	266	270	V
9.265	33.1	PKFH	37.8	-26	17.1	62	92.7	30.7	180	178	V

AVERAGE DATA

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
1.853	44.03	VA1T	27.5	-26.9	7.4	-12.53	39.5	54	14.5	181	173	H
* 2.779	31.24	VA1T	29.5	-27.1	9.1	-12.53	30.21	54	23.79	56	122	H
* 3.706	18.29	VA1T	32	-26.9	10.6	-12.53	21.46	54	32.54	297	150	H
* 4.633	19.77	VA1T	32.4	-26.6	11.8	-12.53	24.84	54	29.16	46	353	H
5.559	18.44	VA1T	34.4	-26.4	13.1	-12.53	27.01	54	26.99	136	282	H
6.486	19.93	VA1T	34.8	-26.4	14.2	-12.53	30	54	24	99	280	H
* 7.412	19.19	VA1T	36.8	-26.2	15.2	-12.53	32.46	54	21.54	304	213	H
* 8.339	18.98	VA1T	37.3	-26.1	16.2	-12.53	33.85	54	20.15	141	307	H
9.265	18.88	VA1T	37.8	-26	17.1	-12.53	35.25	54	18.75	129	370	H
1.853	38.27	VA1T	27.5	-26.9	7.4	-12.53	33.74	54	20.26	261	384	V
* 2.779	25.33	VA1T	29.5	-27.1	9.1	-12.53	24.3	54	29.7	10	207	V
* 3.706	18.56	VA1T	32	-26.9	10.6	-12.53	21.73	54	32.27	116	265	V
* 4.632	19.99	VA1T	32.3	-26.6	11.8	-12.53	24.96	54	29.04	351	334	V
5.559	19.07	VA1T	34.4	-26.4	13.1	-12.53	27.64	54	26.36	222	302	V
6.486	20.78	VA1T	34.8	-26.4	14.2	-12.53	30.85	54	23.15	266	270	V
* 7.411	19.26	VA1T	36.8	-26.2	15.2	-12.53	32.53	54	21.47	73	183	V
* 8.339	19.08	VA1T	37.3	-26.1	16.2	-12.53	33.95	54	20.05	149	185	V
9.265	18.92	VA1T	37.8	-26	17.1	-12.53	35.29	54	18.71	180	178	V

Note:

* - indicates frequency in CFR47 Pt 15 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

4.3 Effective Isotropic Radiated Power

EUT Nomenclature	Wireless Smoke Detector	Test Request No.	20295-1
Model No.	FWH-200FIX135	Serial No.	MEL-153
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		
Applicable standard	ANSI C63.10: 2013		
Test Method	KDB 412172 v01r01		
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	104.08	12.7	18.1
1	903.55	V	93.3	2.55	7.95
1	916	H	104.8	14.1	19.5
1	916	V	94.33	4.05	9.45
1	926.45	H	105.3	15.9	21.3
1	926.45	V	94.82	6.1	11.5
2	903.55	H	110.38	19.1	24.5
2	903.55	V	96.26	5.5	10.9
2	916	H	108.6	18	23.4
2	916	V	96.65	6.4	11.8
2	926.45	H	108.18	18.8	24.2
2	926.45	V	97.58	8.8	14.2
3	903.55	H	106.1	14.8	20.2
3	903.55	V	96.56	5.8	11.2
3	916	H	106.12	15.4	20.8
3	916	V	95.81	5.5	10.9
3	926.45	H	107.21	17.8	23.2
3	926.45	V	96.39	7.65	13.05

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

5 DTS CHANNELS

5.1 MAXIMUM PEAK CONDUCTED OUTPUT POWER

EUT Nomenclature	Wireless Smoke Detector	Test Request No.	20295-1
Model No.	FWH-200FIX135	Serial No.	MEL-153
Test Start Date	2016-08-02	Temperature (°C)	23.6°C
Test End Date	2016-08-02	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 ☒
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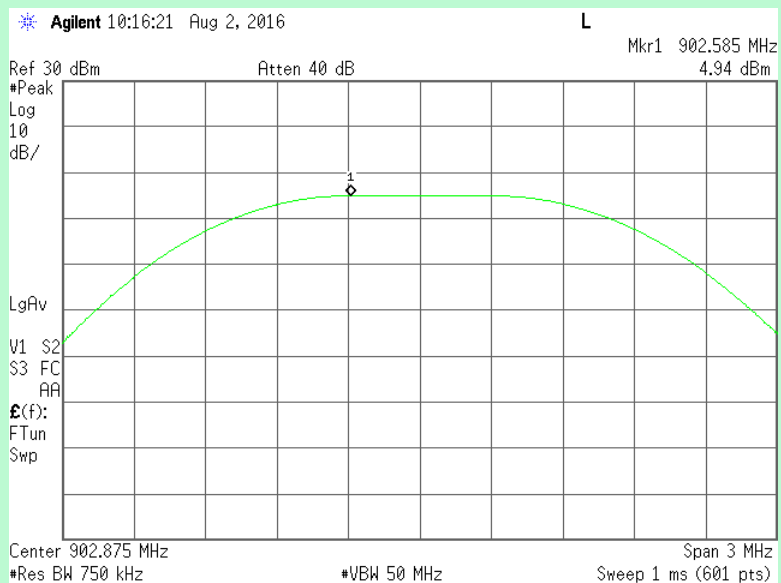
TEST PARAMETERS

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

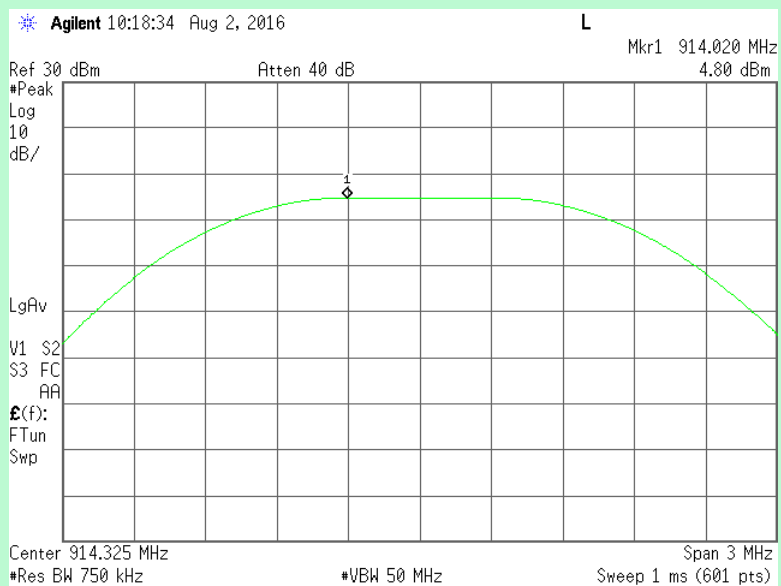
TEST EQUIPMENT

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

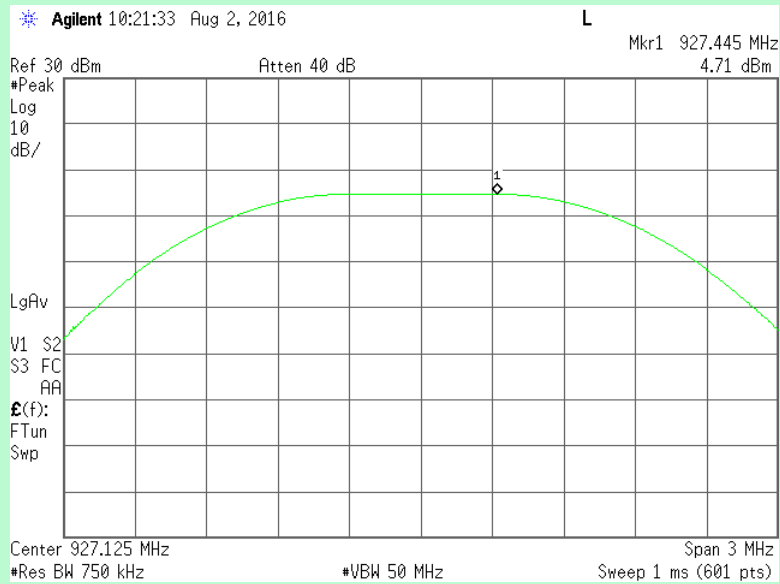
TEST GRAPHS



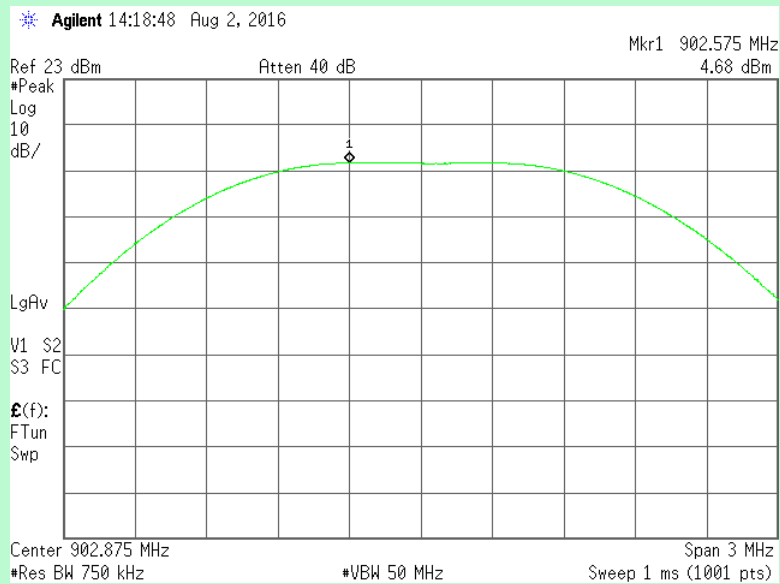
Channel 1 (902.875 MHz) – Antenna 1



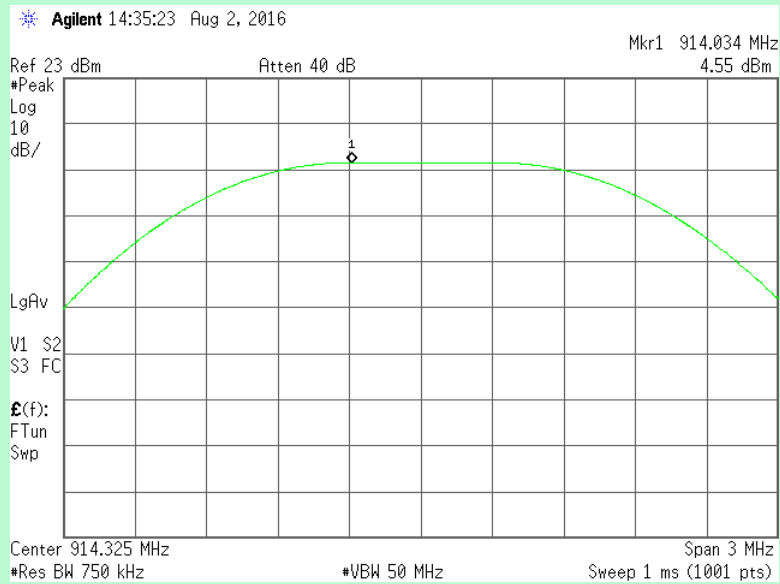
Channel 3 (914.325 MHz) – Antenna 1



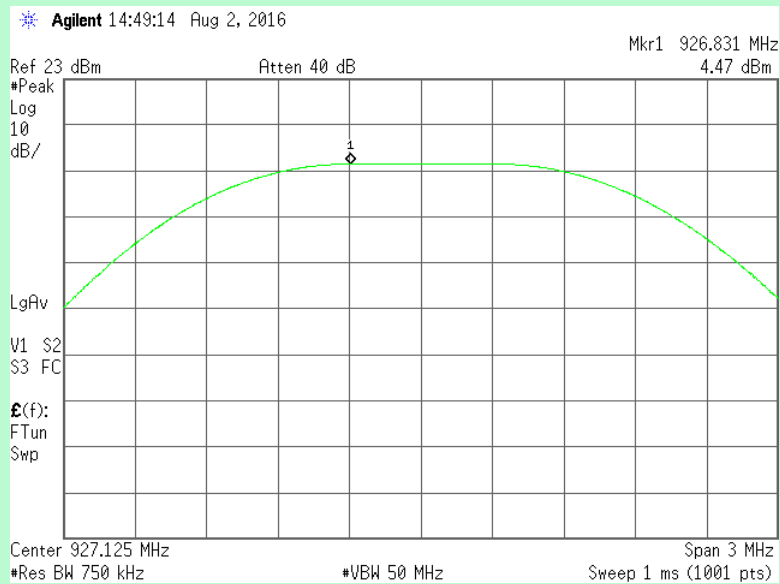
Channel 6 (927.125 MHz) – Antenna 1



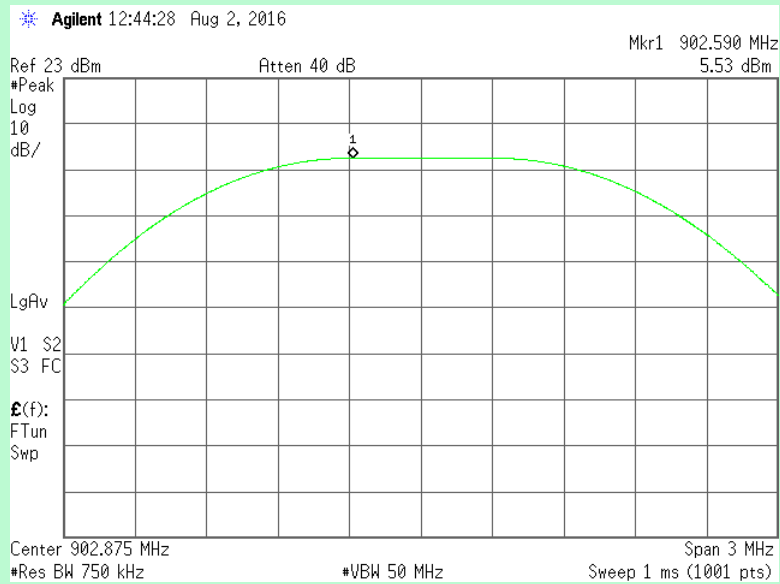
Channel 1 (902.875 MHz) – Antenna 2



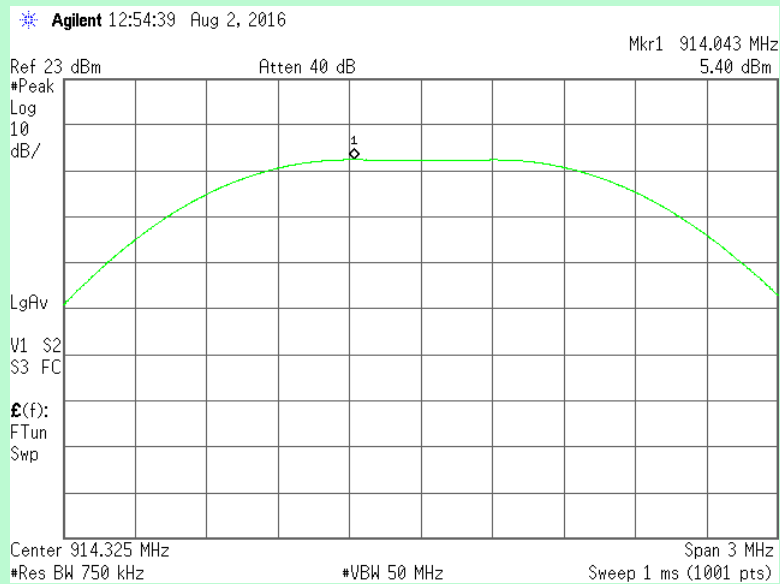
Channel 3 (914.325 MHz) – Antenna 2



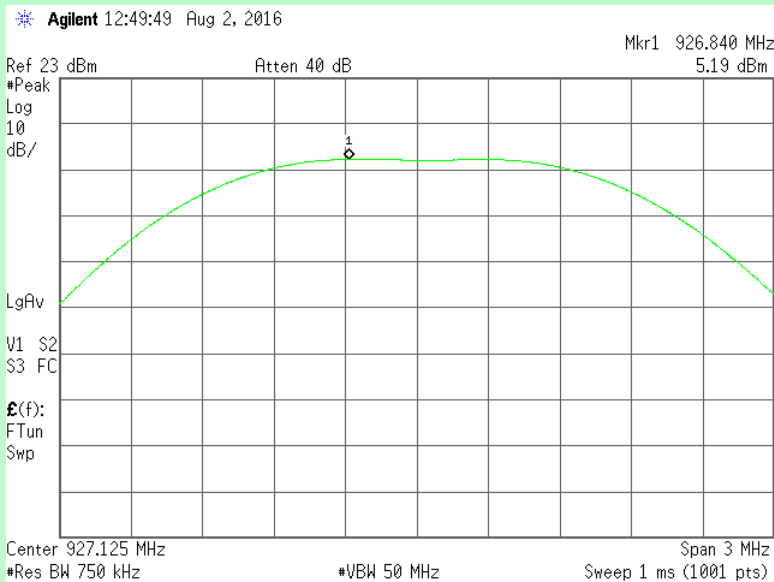
Channel 6 (927.125 MHz) – Antenna 2



Channel 1 (902.875 MHz) – Antenna 3



Channel 3 (914.325 MHz) – Antenna 3



Channel 6 (927.125 MHz) – Antenna 3

TEST RESULT						
Channel	Frequency	Measured Level	Cable Loss + Attenuator	Transmitter Output Power Level	Limit	Result
#	MHz	dBm	dB	dBm	dBm	
Antenna 1						
1	902.875	4.94	6.5	11.44	≤30	PASS
3	914.325	4.80	6.5	11.30	≤30	PASS
6	927.125	4.71	6.5	11.21	≤30	PASS
Antenna 2						
1	902.875	4.68	6.5	11.18	≤30	PASS
3	914.325	4.55	6.5	11.05	≤30	PASS
6	927.125	4.47	6.5	10.97	≤30	PASS
Antenna 3						
1	902.875	5.53	6.5	12.03	≤30	PASS
3	914.325	5.40	6.5	11.90	≤30	PASS
6	927.125	5.19	6.5	11.69	≤30	PASS
Note: Transmitter Output Power = Measured Level (dBm) + Cable Loss (dB)+Attenuator						

TEST SETUP PHOTOGRAPH

Refer Annexure -1

Conducted RFTest Setup

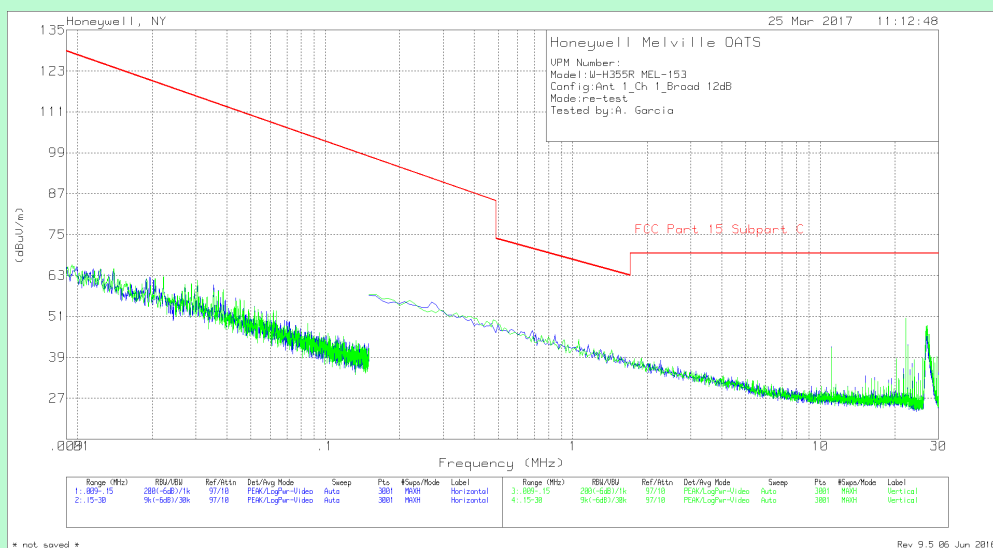
5.2 SPURIOUS RADIATED EMISSIONS

EUT Nomenclature	Wireless Heat Detector	Test Request No.	20295-1
Model No.	FWH-200FIX135	Serial No.	MEL-153
Test Start Date	2016-09-22	Temperature (°C)	0°C-35°C
Test End Date	2017-03-28	Humidity RH (%)	10%RH-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		
Applicable standard	FCC Part 15.247 : 2010 & 15.209 : 2010		
Test Method	ANSI 63.10 - 2013		
Comment	NA		
TEST FREQUENCY RANGE			
9kHz	9kHz	9kHz	
TEST PARAMETERS			
Antenna Height	1m to 4m	Turntable Rotation	0° to 360°
Equipment Class	NA	Measurement Distance	3m

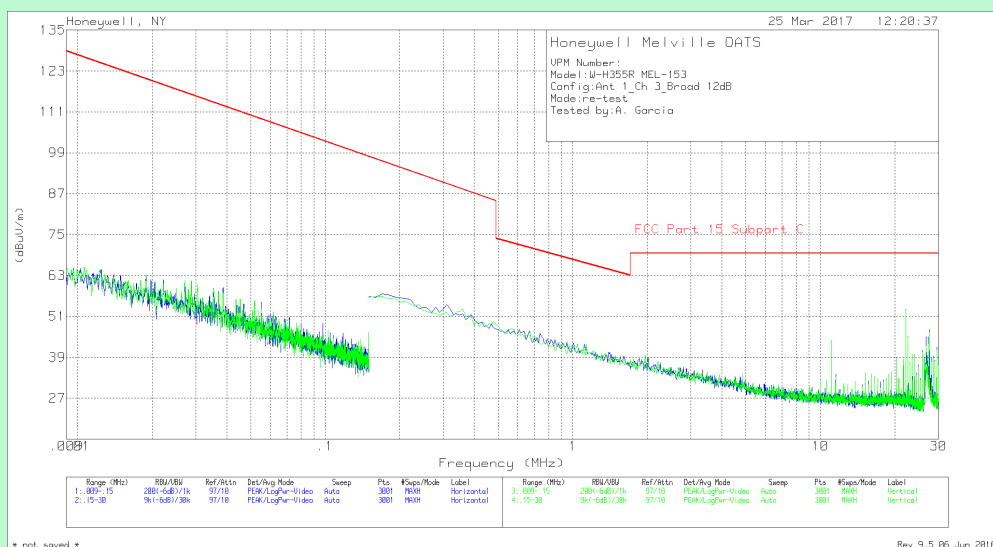
TEST EQUIPMENT

Y/N	Equipment	Make	Model	Serial Number	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

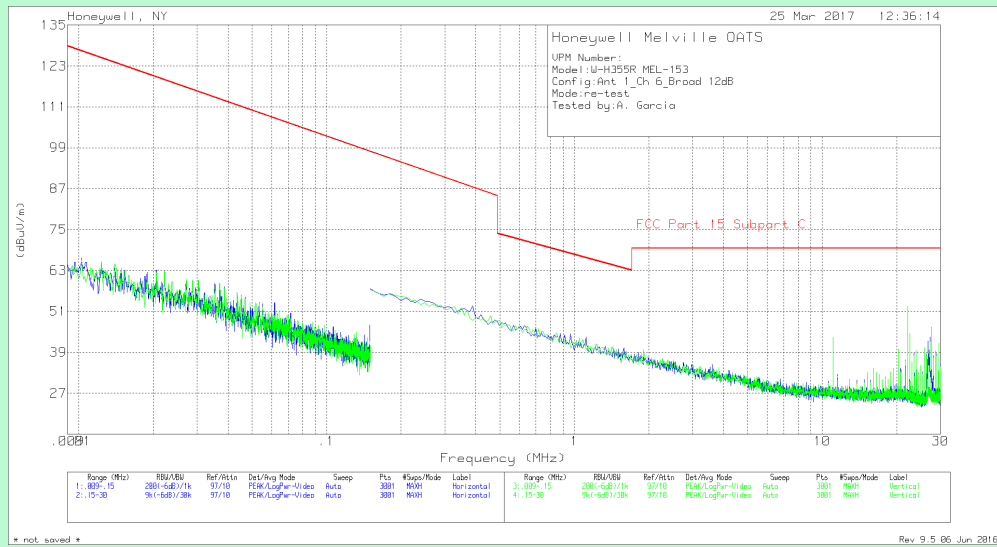
TEST GRAPHS – 9 KHz to 30 MHz (ANTENNA 1)



Channel 1 (902.875 MHz) – Antenna 1



Channel 3 (914.325 MHz) – Antenna 1

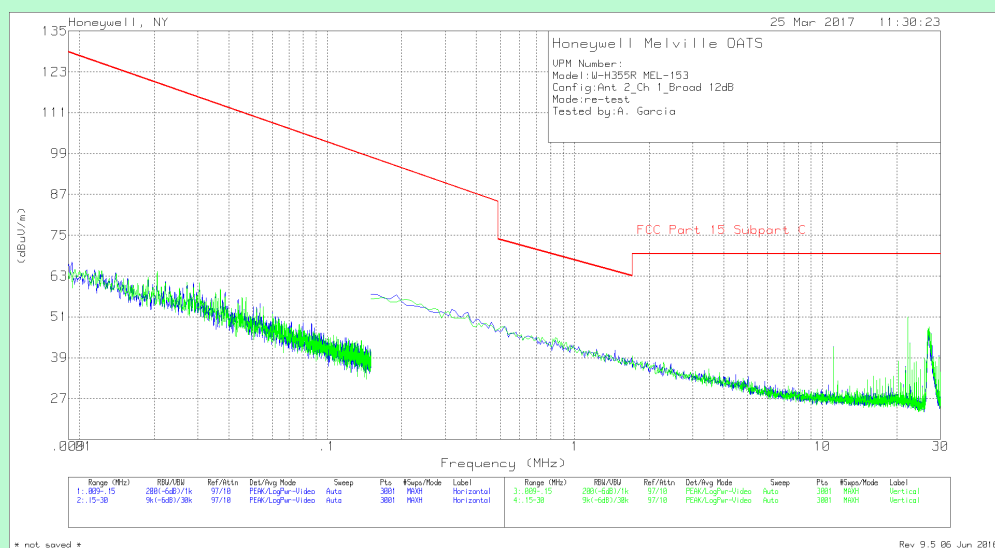


Channel 6 (927.125 MHz) – Antenna 1

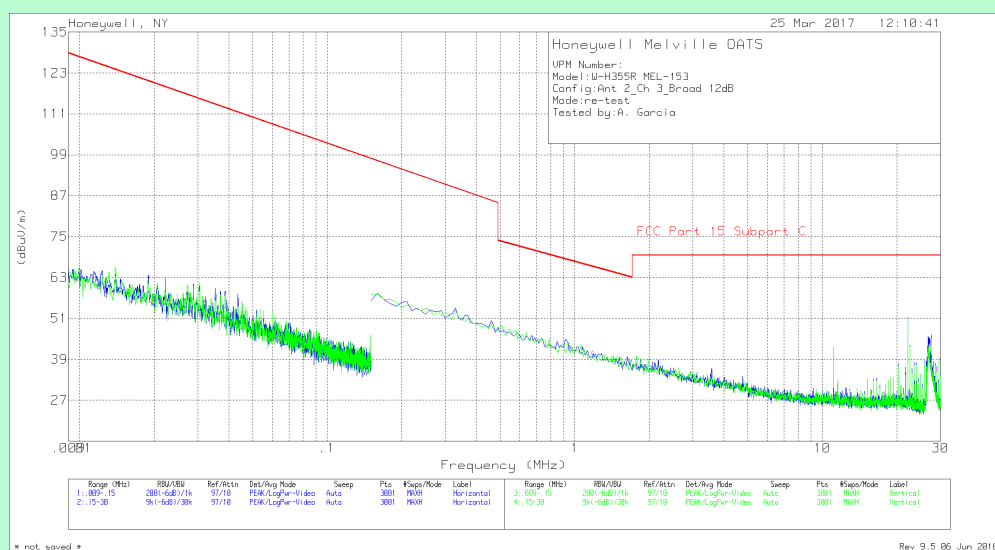
TEST RESULT – 9 KHz to 30 MHz

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									
<u>Note :</u> Measured Field Strength –dBuV/m = Receiver Readings (dBuV) + Antenna Factor (dB/m) + Cable loss (dB)									

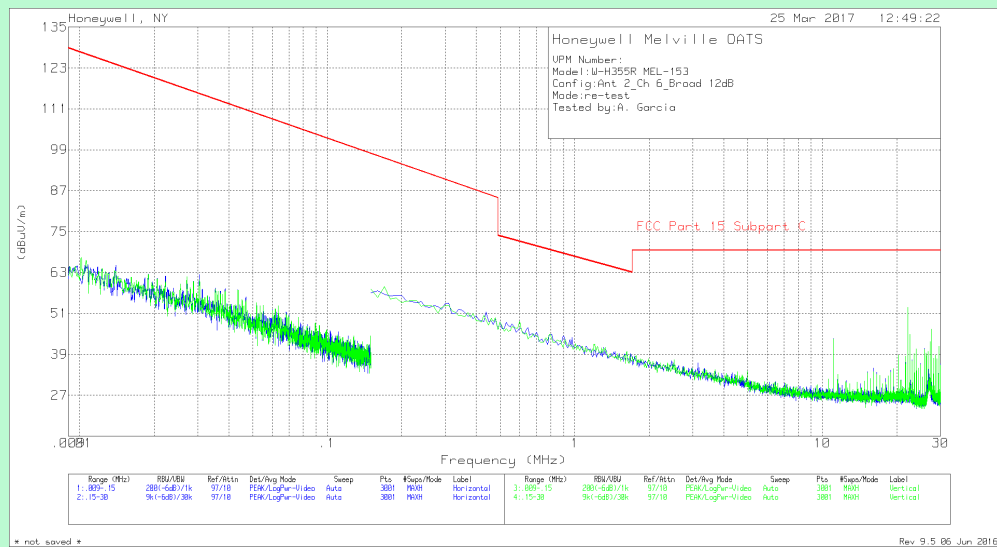
TEST GRAPHS – 9 KHz to 30 MHz (ANTENNA 2)



Channel 1 (902.875 MHz) – Antenna 2



Channel 3 (914.325 MHz) – Antenna 2

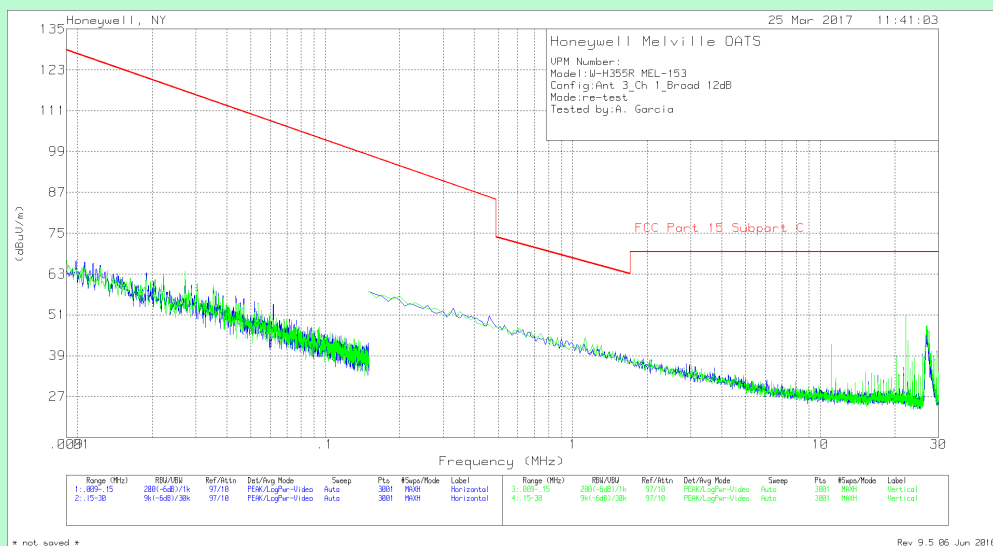


Channel 6 (927.125 MHz) – Antenna 2

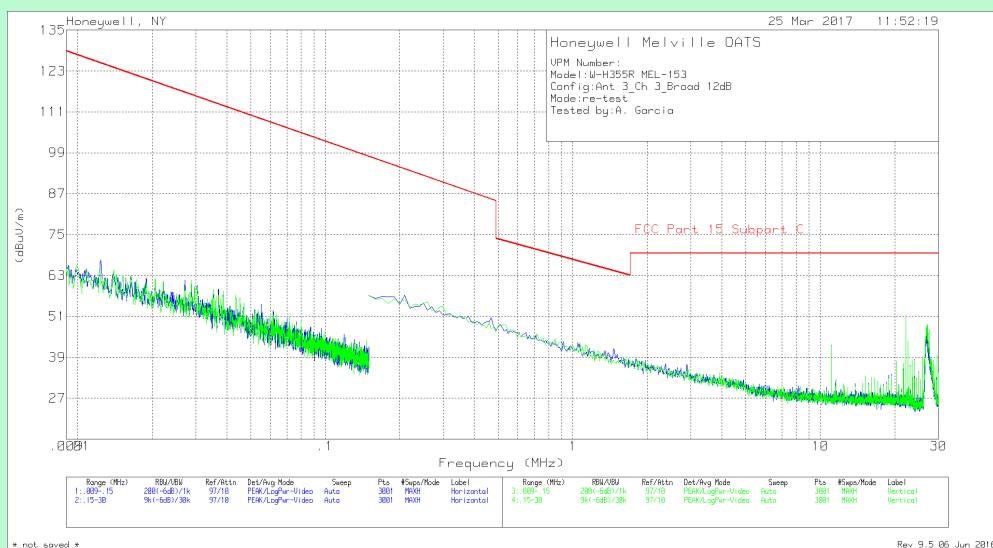
TEST RESULT – 9 KHz to 30 MHz

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)									

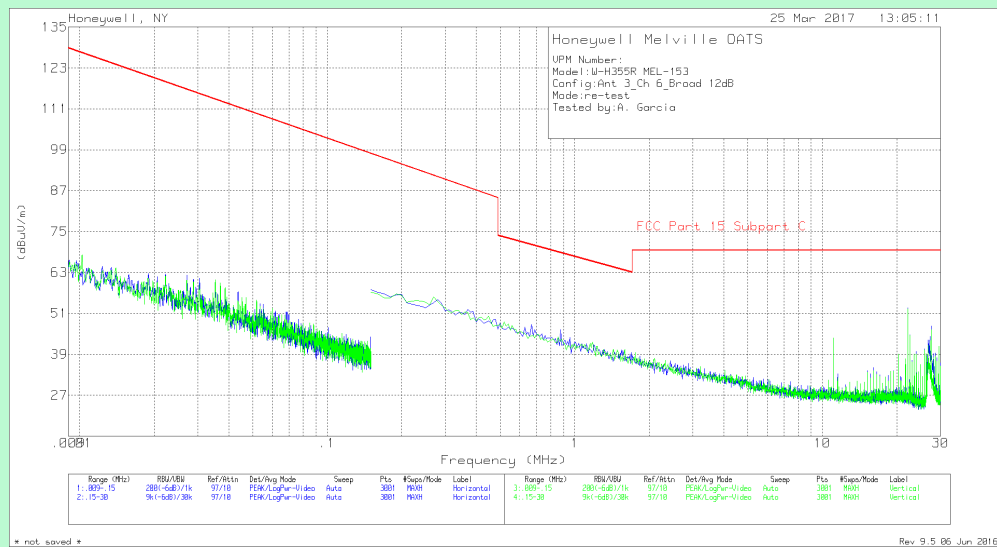
TEST GRAPHS – 9 KHz to 30 MHz (ANTENNA 3)



Channel 1 (902.875 MHz) – Antenna 3



Channel 3 (914.325 MHz) – Antenna 3

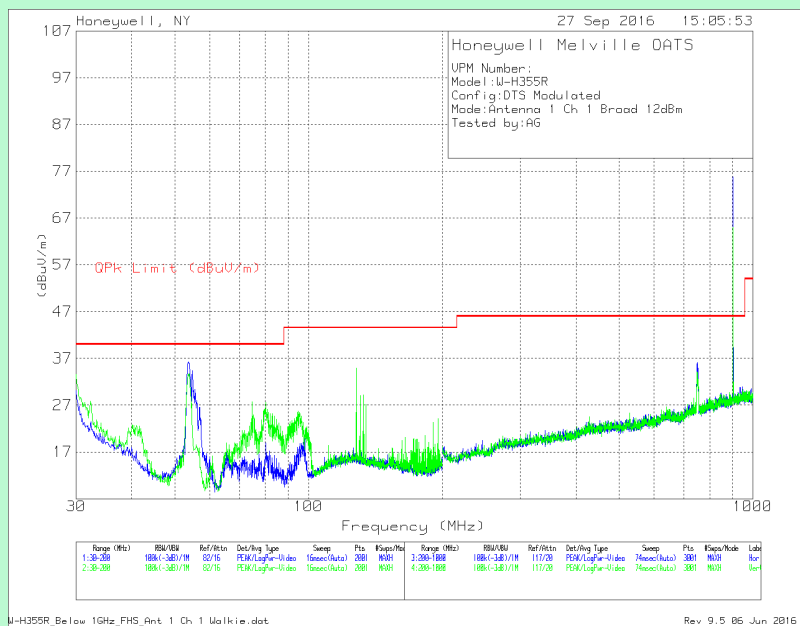


Channel 6 (927.125 MHz) – Antenna 3

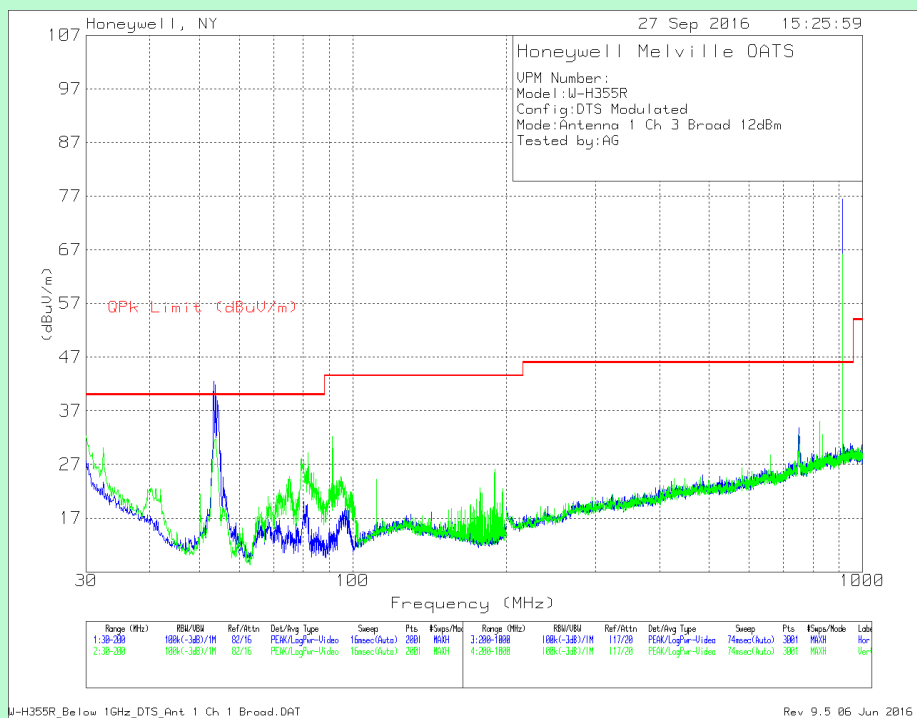
TEST RESULT – 9 KHz to 30 MHz

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)									

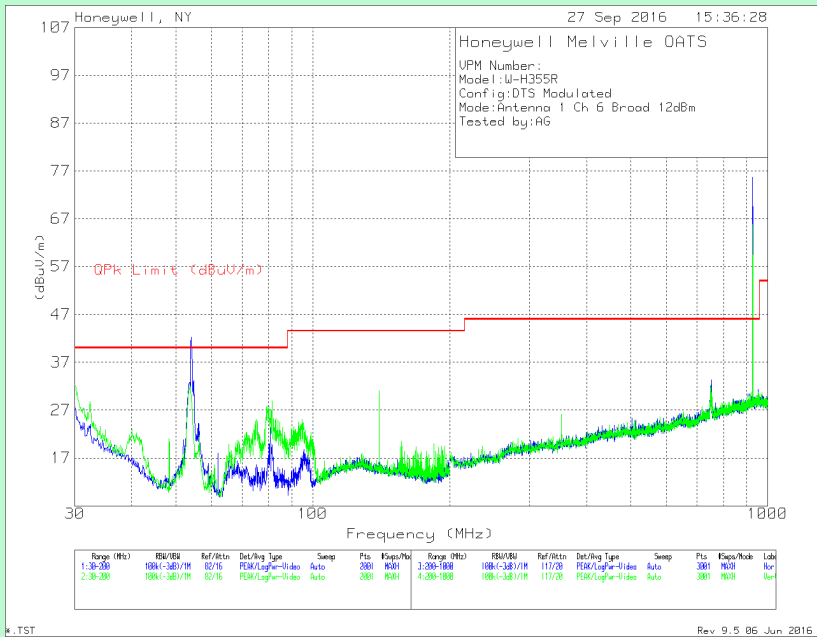
TEST GRAPHS – 30 MHz to 1GHz (ANTENNA 1)



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
53.8575	31.13	Qp	12	-29	1.1	15.23	40	24.77	122	135	H
30.1006	30.21	Qp	25.5	-29.1	.8	27.41	40	12.59	181	220	V
53.6539	46.69	Qp	12	-29	1.1	30.79	40	9.21	6	388	V
* 128.1565	32.83	Qp	17.8	-28.7	1.6	23.53	43.52	19.99	188	311	V
** 902.727	97.1	Pk	27	-27.6	5.5	102	-	-	190	101	H
** 902.727	86.44	Pk	27	-27.6	5.5	91.34	-	-	360	153	V
747.9259	31.19	Qp	25.4	-28.4	4.9	33.09	46.02	12.93	151	175	V
753.6009	37.51	Qp	25.6	-28.4	5	39.71	46.02	6.31	101	352	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
53.2547	32.15	Qp	12.1	-29	1.1	16.35	40	23.65	326	200	H
30.2464	31.11	Qp	25.5	-29.1	.8	28.31	40	11.69	232	153	V
53.6725	46.62	Qp	12	-29	1.1	30.72	40	9.28	208	328	V
91.2869	65.15	Qp	12.2	-28.8	1.3	39.85	43.52	6.33	354	400	V
** 914.181	97.43	Pk	27.3	-27.5	5.6	102.83	-	-	175	101	H
** 914.1822	87.54	Pk	27.3	-27.5	5.6	92.94	-	-	241	145	V
751.2003	29.73	Qp	25.5	-28.4	5	31.83	46.02	14.19	64	390	V
824.3313	29.7	Qp	26.3	-27.9	5.2	33.3	46.02	12.72	221	369	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
54.3204	45.5	Qp	12	-29	1.1	29.6	40	10.4	311	393	H
48.0818	44.87	Qp	13.6	-29	1	30.47	40	9.53	231	111	V
139.7422	32.28	Qp	17.4	-28.6	1.7	22.78	43.52	20.74	172	316	V
81.1826	40.2	Qp	11.8	-28.9	1.3	24.4	40	15.6	353	166	V
** 926.981	99.08	Pk	27.3	-27.5	5.7	104.58	-	-	158	101	H
751.9897	35.69	Qp	25.6	-28.4	5	37.89	46.02	8.13	351	367	H
** 926.981	78.15	Pk	27.3	-27.5	5.7	83.65	-	-	282	106	V
352.2664	29.65	Qp	19.4	-27.9	3	24.15	46.02	21.87	342	344	V

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

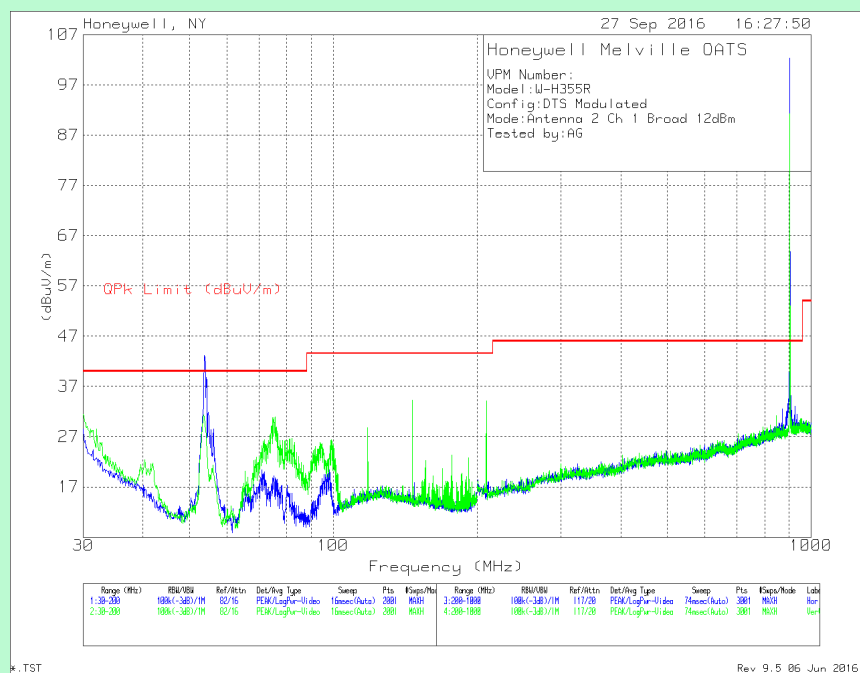
** - indicates intended frequency

Pk - Peak detector

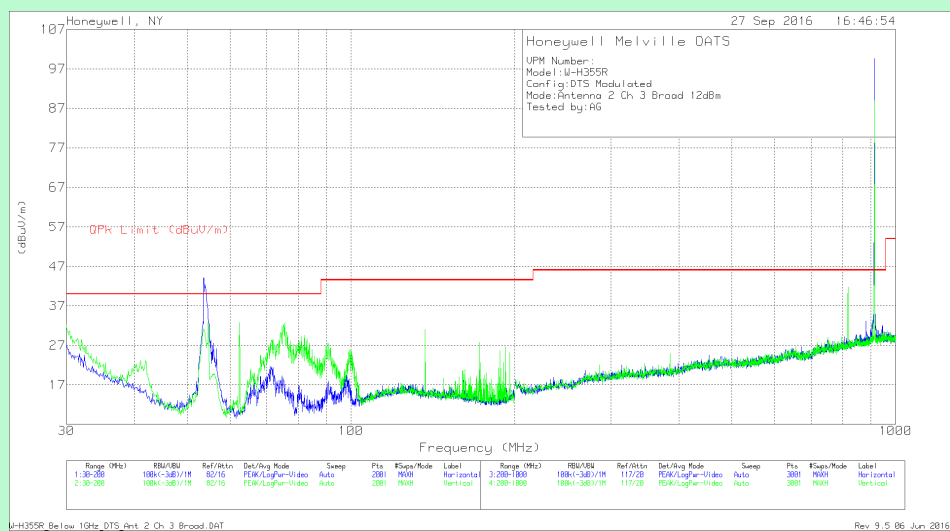
Qp - Quasi-Peak detector

Emissions shown in the plot are related to the chamber ambient

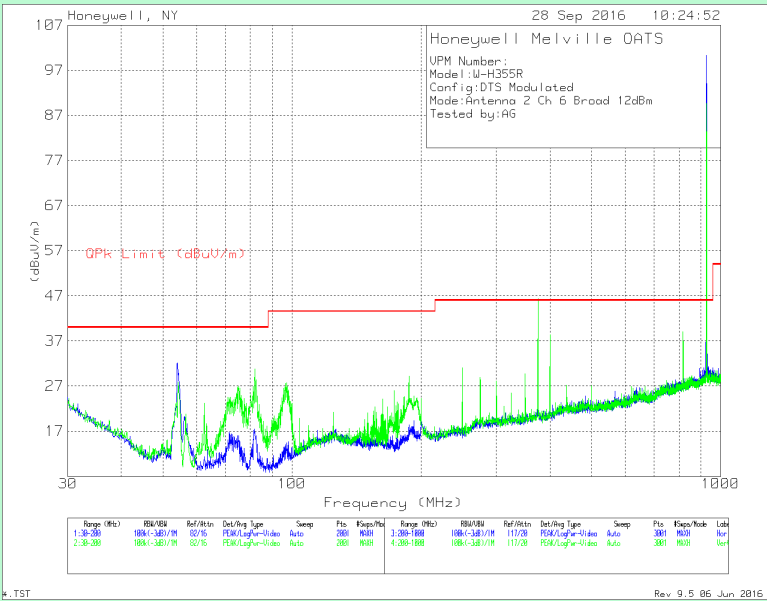
TEST GRAPHS – 30 MHz to 1GHz (ANTENNA 2)



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
30.0449	26.05	Qp	25.6	-29.1	.8	23.35	40	16.65	334	266	H
53.8641	36.03	Qp	12	-29	1.1	20.13	40	19.87	89	392	H
30.0446	32.8	Qp	25.6	-29.1	.8	30.1	40	9.9	166	105	V
53.6545	46.76	Qp	12	-29	1.1	30.86	40	9.14	70	154	V
76.3753	42.24	Qp	12.1	-28.9	1.3	26.74	40	13.26	183	130	V
146.3266	33.49	Qp	17.2	-28.6	1.7	23.79	43.52	19.73	188	297	V
** 902.731	102.98	Pk	27	-27.6	5.5	107.88	-	-	1	100	H
** 902.731	92.41	Pk	27	-27.6	5.5	97.31	-	-	78	149	V
209.0393	35.78	Qp	15.5	-28.2	2.1	25.18	43.52	18.34	157	196	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
30.1926	30.76	Qp	25.5	-29.1	.8	27.96	40	12.04	0	107	H
53.8868	35.27	Qp	12	-29	1.1	19.37	40	20.63	75	383	H
30.022	31.74	Qp	25.6	-29.1	.8	29.04	40	10.96	12	387	V
54.7157	48.16	Qp	11.9	-29	1.1	32.16	40	7.84	162	181	V
75.3899	40.38	Qp	12.1	-28.9	1.2	24.78	40	15.22	247	230	V
62.2032	35.52	Qp	12	-29	1.1	19.62	40	20.38	224	129	V
** 914.181	100.73	Pk	27.3	-27.5	5.6	106.13	-	-	0	101	H
** 914.177	88.52	Pk	27.3	-27.5	5.6	93.92	-	-	313	109	V
818.404	30.33	Qp	26.3	-27.9	5.2	33.93	46.02	12.09	342	285	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
53.9629	33.38	Qp	12	-29	1.1	17.48	40	22.52	43	363	H
81.7296	38.74	Qp	11.8	-28.9	1.3	22.94	40	17.06	223	179	V
** 926.981	100.63	Pk	27.3	-27.5	5.7	106.13	-	-	343	100	H
374.6974	29.71	Qp	19.7	-28	3.1	24.51	46.02	21.51	227	383	H
** 926.981	80.29	Pk	27.3	-27.5	5.7	85.79	-	-	199	177	V
374.744	29.76	Qp	19.7	-28	3.1	24.56	46.02	21.46	47	183	V
399.8061	29.81	Qp	20.3	-28.4	3.2	24.91	46.02	21.11	277	216	V
817.3476	30.53	Qp	26.2	-27.9	5.2	34.03	46.02	11.99	122	271	V

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

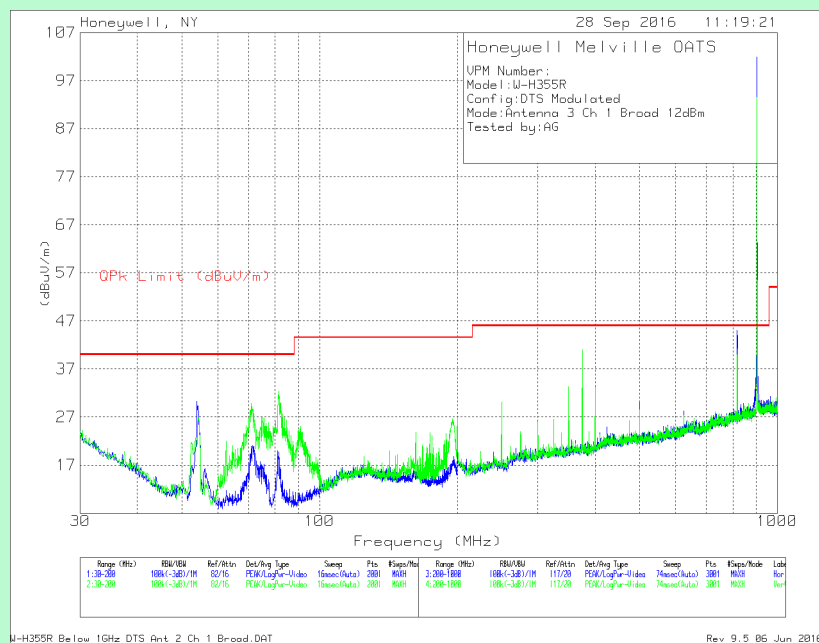
** - indicates intended frequency

Pk - Peak detector

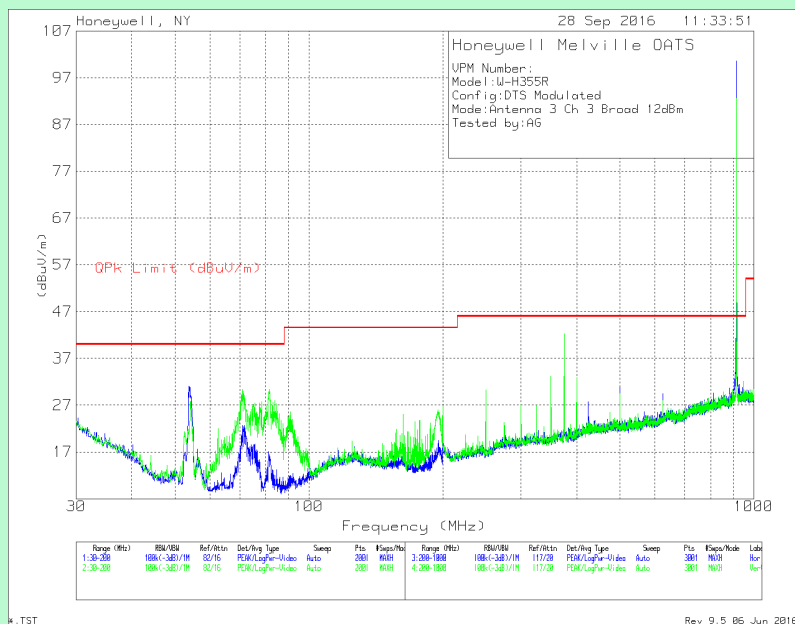
Qp - Quasi-Peak detector

Emissions shown in the plot are related to the chamber ambient

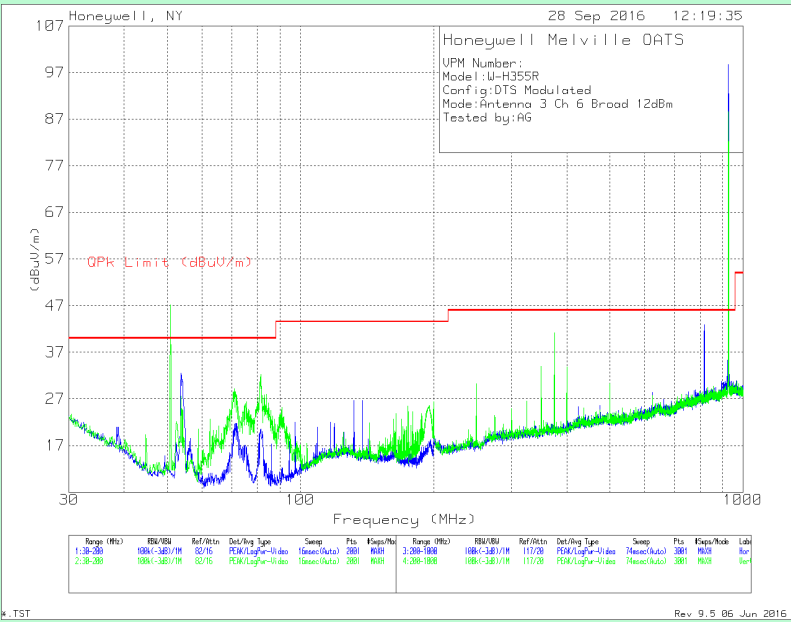
TEST GRAPHS – 30 MHz to 1GHz (ANTENNA 3)



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
54.3192	47	Qp	12	-29	1.1	31.1	40	8.9	261	384	H
71.1385	39.38	Qp	12.2	-28.9	1.2	23.88	40	16.12	108	177	V
81.4795	38.24	Qp	11.8	-28.9	1.3	22.44	40	17.56	151	271	V
** 902.727	97.71	Pk	27	-27.6	5.5	102.61	-	-	334	101	H
817.5989	29.71	Qp	26.3	-27.9	5.2	33.31	46.02	12.71	183	152	H
** 902.731	88.39	Pk	27	-27.6	5.5	93.29	-	-	309	108	V
375.0186	30.1	Qp	19.7	-28	3.1	24.9	46.02	21.12	102	155	V
818.24	31.57	Qp	26.3	-27.9	5.2	35.17	46.02	10.85	313	215	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
53.4589	35.55	Qp	12.1	-29	1.1	19.75	40	20.25	61	398	H
54.0644	45.71	Qp	12	-29	1.1	29.81	40	10.19	319	135	V
70.8736	40.44	Qp	12.2	-28.9	1.2	24.94	40	15.06	14	188	V
81.1964	40.17	Qp	11.8	-28.9	1.3	24.37	40	15.63	195	109	V
** 914.1797	95.44	Pk	27.3	-27.5	5.6	100.84	-	-	338	101	H
374.7805	29.64	Qp	19.7	-28	3.1	24.44	46.02	21.58	20	133	H
** 914.1771	89.55	Pk	27.3	-27.5	5.6	94.95	-	-	346	101	V
374.7196	32.39	Qp	19.7	-28	3.1	27.19	46.02	18.83	20	101	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
53.4868	33.06	Qp	12.1	-29	1.1	17.26	40	22.74	174	317	H
50.5679	49.05	Qp	12.6	-29	1	33.65	40	6.35	174	101	V
81.2158	39.85	Qp	11.8	-28.9	1.3	24.05	40	15.95	77	102	V
** 926.981	95.86	Pk	27.3	-27.5	5.7	101.36	-	-	0	100	H
374.9336	29.64	Qp	19.7	-28	3.1	24.44	46.02	21.58	287	177	H
817.6728	29.58	Qp	26.3	-27.9	5.2	33.18	46.02	12.84	258	278	H
** 926.9817	75.01	Pk	27.3	-27.5	5.7	80.51	-	-	15	148	V
374.9336	32.31	Qp	19.7	-28	3.1	27.11	46.02	18.91	297	215	V

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

** - indicates intended frequency

Pk - Peak detector

Qp - Quasi-Peak detector

Emissions shown in the plot are related to the chamber ambient