



FCC 47 CFR PART 15 SUBPART C

TEST REPORT

For

Applicant : Graco Children's Products Inc.

Address : 3 Glenlake Parkway, Atlanta, GA, 30328 USA

Product Name : Baby Monitor

Model Name : PD252347

Brand Name : Graco

FCC ID : M6YPD252347

Report No. : MTE/DAL/T13060857

Date of Issue : Jul. 13, 2013

Issued by : Most Technology Service Co., Ltd.

Address : No.5, Langshan 2nd Rd., North Hi-Tech Industrial park, Nanshan,
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1. VERIFICATION OF CONFORMITY

Equipment Under Test: Baby Monitor

Brand Name: Graco

Model Number: PD252347

Series Model Number: N/A

FCC ID: M6YPD252347

Applicant: Graco Children's Products Inc.
3 Glenlake Parkway, Atlanta, GA, 30328 USA

Manufacturer: Honor Tone Limited
15-16, Western Zone, Daya Bay Wan, Huizhou City, Guangdong Province, China

Technical Standards: 47 CFR Part 15 Subpart C

File Number: MTE/DAL/T13060857

Date of test: May 24-Jul. 12, 2013

Deviation: None

Condition of Test Sample: Normal

Test Result: PASS

The above equipment was tested by *MOST* for compliance with the requirements set forth in FCC rules and the Technical Standards mentioned above. This said equipment in the configuration described in this report shows the maximum emission levels emanating from equipment and the level of the immunity endurance of the equipment are within the compliance requirements.

The test results of this report relate only to the tested sample identified in this report.

Prepared by (+ signature):

Dona

Dona Liu

Jul. 12, 2013

Review by (+ signature):

Elva

Elva Wong

Jul. 13, 2013



Approved by (+ signature):

Yvette

Yvette Zhou

Jul. 13, 2013

2. GENERAL INFORMATION

2.1 Product Information

Description:	Baby Monitor
Model Name:	PD252347
Series Number:	N/A
Model Difference description:	N/A
Frequency Range:	2402MHz – 2480MHz
Number of Channels:	40(CH LOW:2402MHz, CH MID:2440, CH HIGH:2480)
Modulation Technique:	GFSK
Antenna Gain:	0dBi
Power Supply:	DC 5V Adaptor Input AC 100-240V, 50/60Hz DC 3.7V by battery
Temperature Range:	0°C ~ +50°C

NOTE:

1. For a more detailed features description about the EUT, please refer to User's Manual.

2.2 Objective

The objective of the report is to perform tests according to 47 CFR Part 15 Subpart C for the EUT FCC ID Certification:

No.	Identity	Document Title
1	47 CFR Part 15(12-10-09 Edition)	Radio Frequency Devices

2.3 Test Standards and Results

Test items and the results are as below:

No.	Test Procedure	Section	Description	Result	Date of Test
1	FCC Pubic Notice KDB 558074& ANSI C63.4:2009 13. Measurement of intentional radiators	15.247(a)(2)	6dB Bandwidth	PASS	2013/07/01
2	FCC Pubic Notice KDB 558074& ANSI C63.4:2009 13. Measurement of intentional radiators	15.247(b)(3)	Peak Output Power	PASS	2013/05/24
3	FCC Pubic Notice KDB 558074& ANSI C63.4:2009 13. Measurement of intentional radiators	15.247(d)	conducted spurious emission	PASS	2013/07/01
4	FCC Pubic Notice KDB 558074& ANSI C63.4:2009 13. Measurement of intentional radiators	15.247(d)	Band Edge	PASS	2013/07/01-12
5	FCC Pubic Notice KDB 558074& ANSI C63.4:2009 13. Measurement of intentional radiators	15.247(e)	Power Spectral Density	PASS	2013/07/01
6	ANSI C63.4:2009 7. AC powerline conducted emission measurements	15.207	Conducted Emission	PASS	2013/06/08
7	FCC Pubic Notice KDB 558074& ANSI C63.4:2009 13. Measurement of intentional radiators	15.247(d) 15.209	Radiated Emission	PASS	2013/06/08

Note: 1. The test result judgment is decided by the limit of measurement standard
2. The information of measurement uncertainty is available upon the customer's request.

2.4 Environmental Conditions

During the measurement the environmental conditions were within the listed ranges:

- Temperature: 15-35°C
- HuBaby Monitority: 30-60 %
- Atmospheric pressure: 86-106 kPa

2.5 MEASUREMENT UNCERTAINTY

The uncertainty is calculated using the methods suggested in the "Guide to the Expression of Uncertainty in Measurement" (GUM) published by ISO.

The report uncertainty of measurement $y \pm U$, where expanded uncertainty U is based on a standard uncertainty multiplied by a coverage factor of $k=2$, Providing a level of confidence of approximately 95%

- Uncertainty of Conducted Emission, $U_c = \pm 1.8\text{dB}$

- Uncertainty of Radiated Emission, $U_c = \pm 3.2\text{dB}$

3. TEST FACILITY

3.1 Test Facility

Test Site:	Most Technology Service Co., Ltd.
Location:	No.5, Nangshan 2nd Rd., North Hi-Tech Industrial park, Nanshan, Shenzhen, Guangdong, China
Description:	There is one 3m semi-anechoic an area test sites and two line conducted labs for final test. The Open Area Test Sites and the Line Conducted labs are constructed and calibrated to meet the FCC requirements in documents ANSI C63.4 and CISPR 16 requirements. The FCC Registration Number is 490827 .
Site Filing:	The site description is on file with the Federal Communications Commission, 7435 Oakland Mills Road, Columbia, MD 21046.
Instrument Tolerance:	All measuring equipment is in accord with ANSI C63.4 and CISPR 16 requirements that meet industry regulatory agency and accreditation agency requirement.
Ground Plane:	Two conductive reference ground planes were used during the Line Conducted Emission, one in vertical and the other in horizontal. The dimensions of these ground planes are as below. The vertical ground plane was placed distancing 40 cm to the rear of the wooden test table on where the EUT and the support equipment were placed during test. The horizontal ground plane projected 50 cm beyond the footprint of the EUT system and distanced 80 cm to the wooden test table. For Radiated Emission Test, one horizontal conductive ground plane extended at least 1m beyond the periphery of the EUT and the largest measuring antenna, and covered the entire area between the EUT and the antenna. It has no holes or gaps having longitudinal dimensions larger than one-tenth of a wavelength at the highest frequency of measurement up to 1GHz.

3.2 Test Conditions

The EUT has been tested under normal operating (TX) and standby (RX) condition.

The field strength of radiation emission was measured in the following position: EUT stand-up position (Y axis), lie-down position (X, Z axis).

The following data show only with the worst case setup.

The worst case of Y axis was reported.

Based on client request, all normal using modes of the normal function were tested but only the worst test data of the worst mode is reported by this report.

Conducted Emissions

The EUT is placed on the turntable, which is 0.8 m above ground plane. According to the requirements in Section 13.1.4.1 of ANSI C63.4:2009, Conducted emissions from the EUT measured in the frequency range

between 0.15 MHz and 30MHz using CISPR Quasi-peak and average detector modes.

Radiated Emissions

The EUT is placed on a turn table, which is 0.8 m above ground plane. The turntable shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3m away from the receiving antenna, which varied from 1m to 4m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the maximum emissions, exploratory radiated emission measurements were made according to the requirements in Section 13.1.4.1 of ANSI C63.4:2009.

3.3 FCC PART 15.205 RESTRICTED BANDS OF OPERATIONS

(a) Except as shown in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	MHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
¹ 0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2655 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43-36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	(²)
13.36 - 13.41			

¹Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.

²Above 38.6

(b) Except as provided in paragraphs (d) and (e), the field strength of emissions appearing within these frequency bands shall not exceed the limits shown in Section 15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in Section 15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000 MHz, compliance with the emission limits in Section 15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in Section 15.35 apply to these measurements.

4. TEST EQUIPMENT LIST

Instrumentation: The following list contains equipment used at MOST for testing. The equipment conforms to the CISPR 16-1/ANSI C63.2 Specifications for Electromagnetic Interference and Field Strength Instrumentation from 10 kHz to 1.0 GHz or above.

No.	Equipment	Manufacturer	Model No.	S/N	Calibration date	Calibration Interval
1	Test Receiver	Rohde & Schwarz	ESCI	100492	2013/03/10	1 Year
2	Spectrum Analyzer	Agilent	E7405A	US44210471	2013/03/14	1 Year
3	L.I.S.N.	Rohde & Schwarz	ENV216	100093	2013/03/10	1 Year
4	Coaxial Switch	Anritsu Corp	MP59B	6200283933	2013/03/07	1 Year
5	Terminator	Hubersuhner	50Ω	No.1	2013/03/07	1 Year
6	RF Cable	SchwarzBeck	N/A	No.1	2013/03/07	1 Year
7	Test Receiver	Rohde & Schwarz	ESPI	101202	2013/03/10	1 Year
8	Bilog Antenna	Sunol	JB3	A121206	2013/03/14	1 Year
9	Horn Antenna	SCHWARZBECK	BBHA9120D	756	2013/03/14	1 Year
10	Horn Antenna	Penn Engineering	9034	8376	2013/03/14	1 Year
11	Cable	Resenberger	N/A	NO.1	2013/03/07	1 Year
12	Cable	SchwarzBeck	N/A	NO.2	2013/03/07	1 Year
13	Cable	SchwarzBeck	N/A	NO.3	2013/03/07	1 Year
14	DC Power Filter	DuoJi	DL2×30B	N/A	2013/03/07	1 Year
15	Single Phase Power Line Filter	DuoJi	FNF 202B30	N/A	2013/03/07	1 Year
16	3 Phase Power Line Filter	DuoJi	FNF 402B30	N/A	2013/03/07	1 Year
17	Test Receiver	Rohde & Schwarz	ESCI	100492	2013/03/10	1 Year
18	Absorbing Clamp	Luthi	MDS21	3635	2013/03/12	1 Year
19	Coaxial Switch	Anritsu Corp	MP59B	6200283933	2013/03/07	1 Year
20	AC Power Source	Kikusui	AC40MA	LM003232	2013/03/10	1 Year
21	Test Analyzer	Kikusui	KHA1000	LM003720	2013/03/10	1 Year
22	Line Impedance Network	Kikusui	LIN40MA-PCR-L	LM002352	2013/03/10	1 Year
23	ESD Tester	Kikusui	KES4021	LM003537	2013/03/07	1 Year
24	EMC PRO System	EM Test	UCS-500-M4	V0648102026	2013/03/10	1 Year
25	Signal Generator	IFR	2032	203002/100	2013/03/10	1 Year
26	Amplifier	A&R	150W1000	301584	2013/03/14	1 Year
27	CDN	FCC	FCC-801-M2-25	47	2013/03/10	1 Year
28	CDN	FCC	FCC-801-M3-25	107	2013/03/10	1 Year
29	EM Injection Clamp	FCC	F-203I-23mm	403	2013/03/10	1 Year
30	RF Cable	MIYAZAKI	N/A	No.1/No.2	2013/03/10	1 Year
31	Universal Radio Communication Tester	ROHDE&SCHWARZ	CMU200	0304789	2013/03/10	1 Year
32	Telecommunication Antenna	European Antennas	PSA 75301R/170	0304213	2013/03/10	1 Year
33	8 Loop Antenna	ARA	PLA-1030/B	1029	2013/02/19	1 Year
34	Power Meter	R&S	NRVS	100696	2013/07/06	1 Year
35	Power Sensor(AV)	R&S	URV5-Z4	0395.1619.05	2013/07/06	1 Year

NOTE: Equipments listed above have been calibrated and are in the period of validation.

5. 47 CFR Part 15 C 15.247 Requirements

5.1 6dB Bandwidth

5.1.1 Definition

Systems using digital modulation techniques may operate in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

5.1.2 Limit

FCC Part15(15.247)				
Section	Test Item	Limit	Frequency Range(MHz)	Result
15.247(a)(2)	Bandwidth	$\geq 500\text{KHz}$ (6dB Bandwidth)	2400-2483.5	PASS

5.1.3 Test Configuration

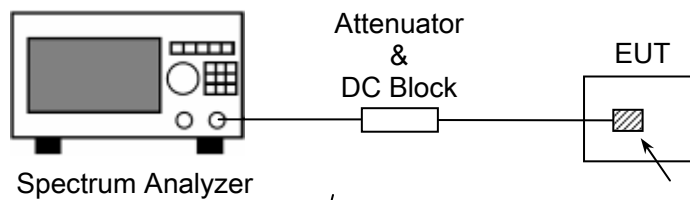


Figure 1: RF Test Setup

5.1.4 Test Procedure

Spectrum Parameters	Setting
Attenuation	Auto
Span Frequency	$>$ Measurement bandwidth or channel separation
RB	100kHz
VB	$\geq 3 \times \text{RBW}$
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

The EUT is powered by the Battery, is coupled to the Spectrum Analyzer (SA) through the Attenuator/DC Block. The path loss as the factor is calibrated to correct the reading. During the measurement, the EUT is activated and is set to operate at maximum power. The RF load attached to the EUT antenna terminal is 50Ohm.

5.1.5 Test Result

The lowest, Middle and highest channels are selected to perform testing to record the 6 dB bandwidth of the Module.

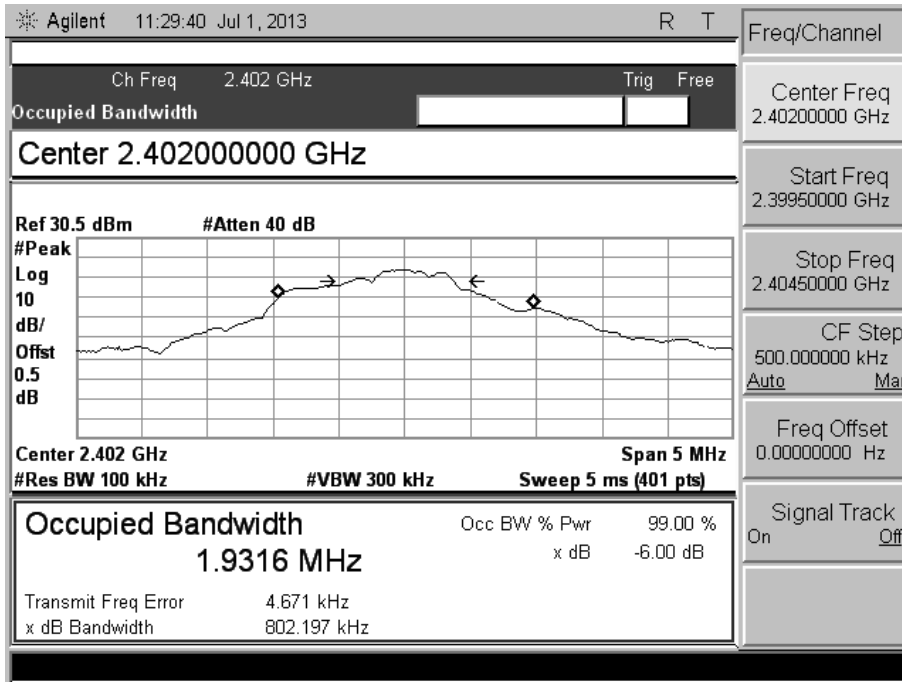
5.1.5.1 Test Mode

The minimum occupied bandwidth for the fundamental frequency 2402 MHz is 802.197KHz. This occupied bandwidth complies with the FCC requirement.

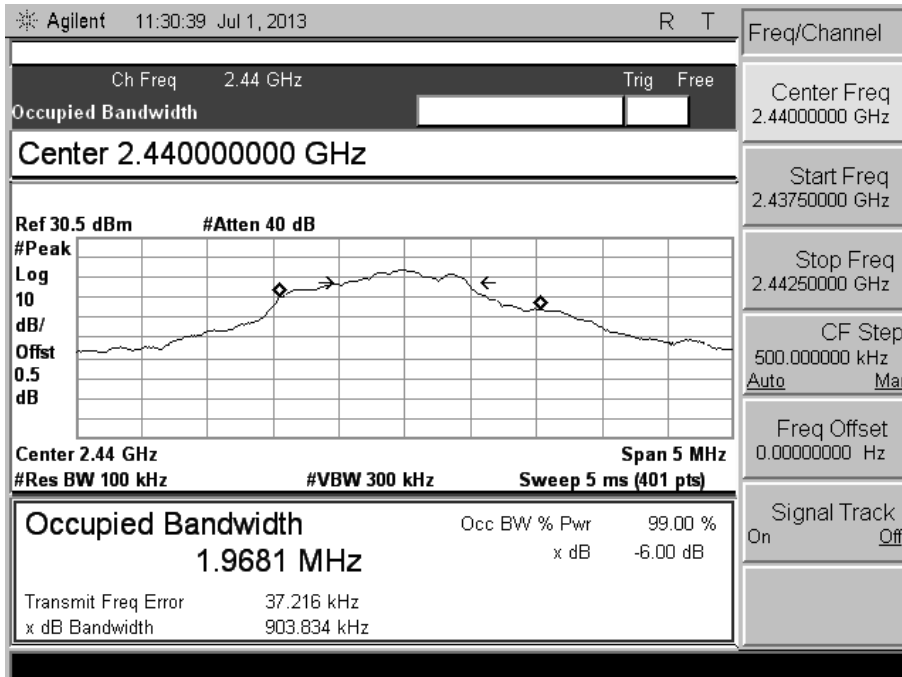
A. Test Verdict:

Channel	Frequency (MHz)	6 dB Bandwidth (KHz)	Limits (kHz)	Result
1	2402	802.197	≥500	PASS
20	2440	903.834	≥500	PASS
40	2480	905.661	≥500	PASS

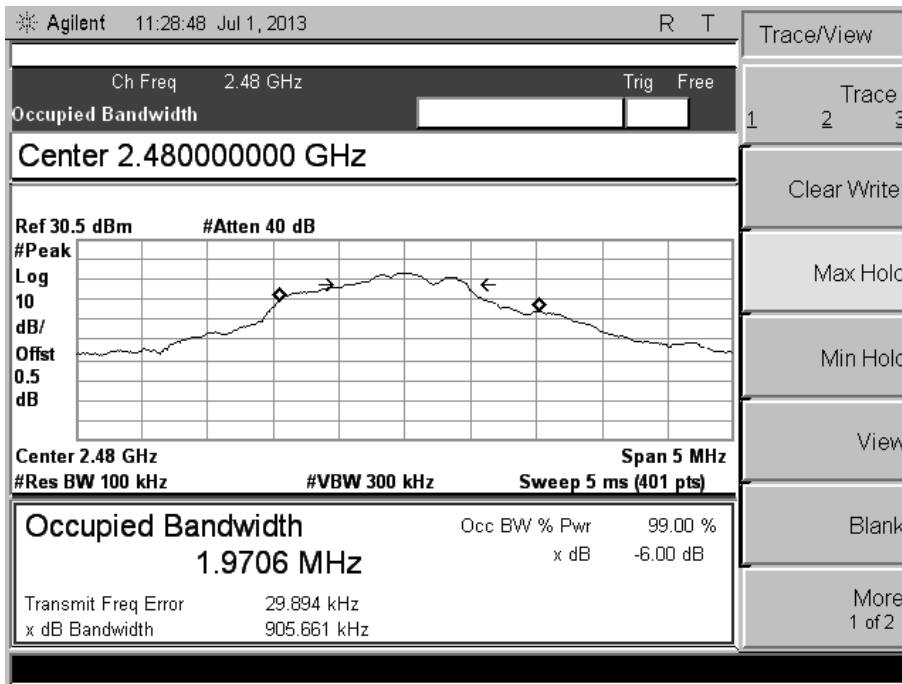
B. Test Plot:



(CH Low)



(CH Mid)



(CH High)

5.2 Peak Output Power

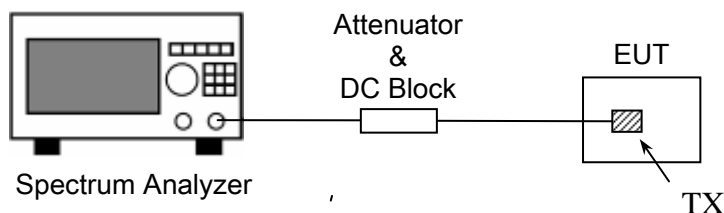
5.2.1 Definition

For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt. As an alternative to a peak power measurement, compliance with the one Watt limit can be based on a measurement of the maximum conducted output power.

5.2.2 Limit

FCC Part15(15.247)				
Section	Test Item	Limit	Frequency Range(MHz)	Result
15.247(b)(1)	Peak Output Power	30dBm	2400-2483.5	PASS

5.2.3 Test Configuration



5.2.4 Test Procedure

1. Place the EUT on a bench and set it in transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to an EMI Test Receiver.
3. Add a correction factor to the display.

5.2.5 Test Result

The EUT operates at maximum output power mode. The lowest, Middle and highest channels are selected to perform testing to verify the conducted RF output peak power of the Module.

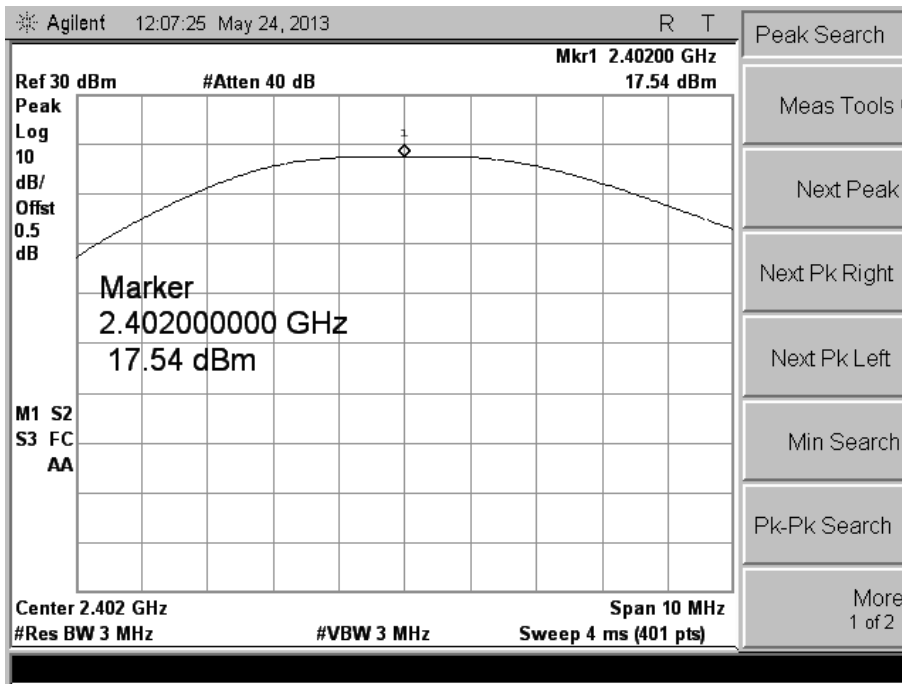
5.2.5.1 Test Mode

The maximum output power for the fundamental frequency 2440MHz is 17.66dBm. This power complies with the FCC requirement.

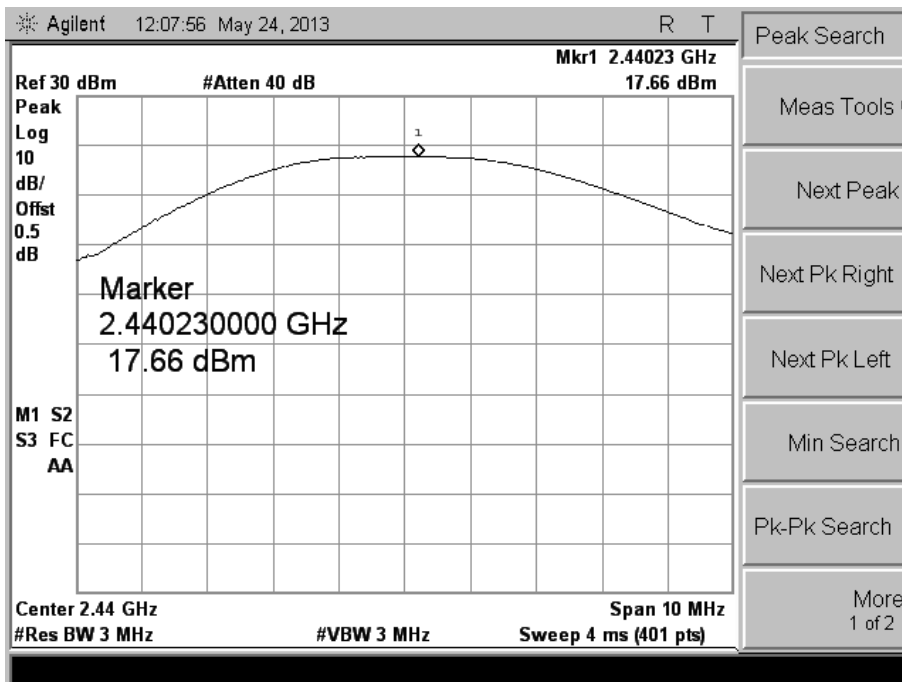
A. Test Verdict:

Channel	Frequency (MHz)	Measured Output Peak Power		Limit		Verdict
		dBm	W	dBm	W	
1	2402	17.54	0.0568	30	1	PASS
20	2440	17.66	0.0583			PASS
40	2480	17.25	0.0530			PASS

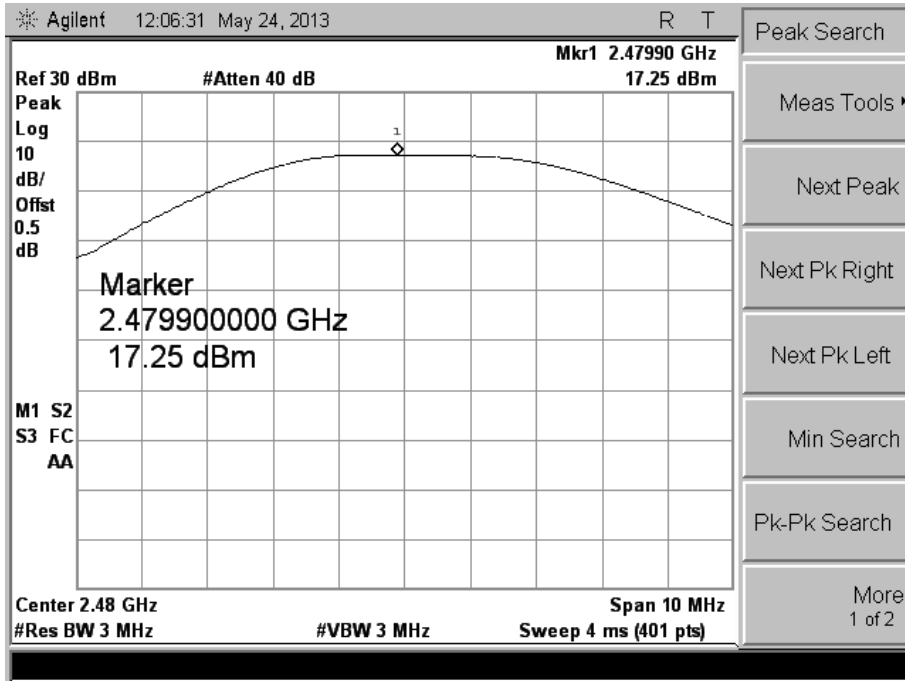
B. Test Plot:



(CH Low)



(CH Mid)



(CH High)

5.3 Conducted Spurious Emission

5.3.1 Definition

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits.

5.3.2 Test Description

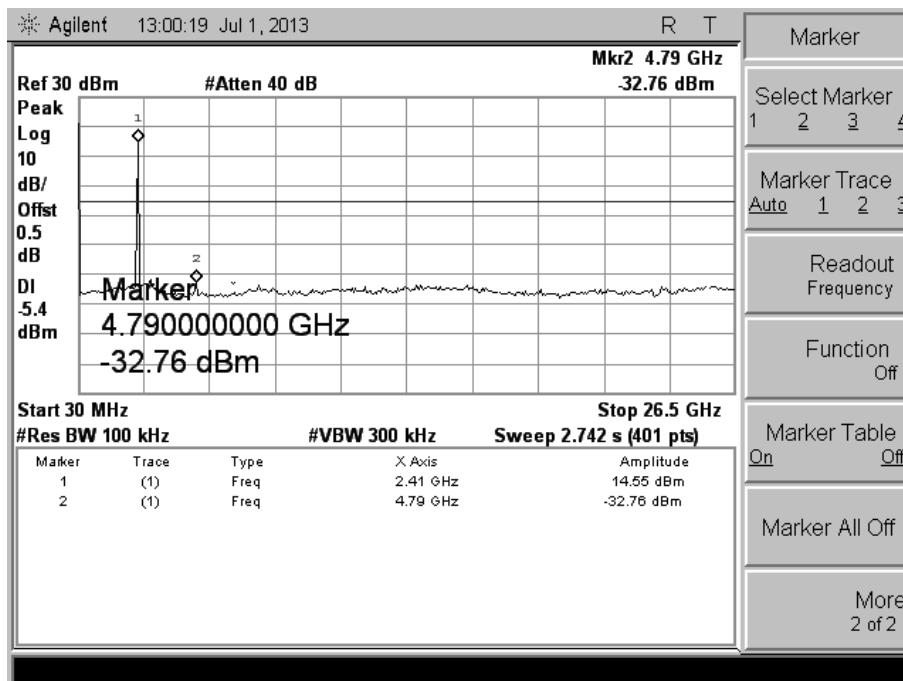
See section 5.1.2 of this report.

5.3.3 Test Result

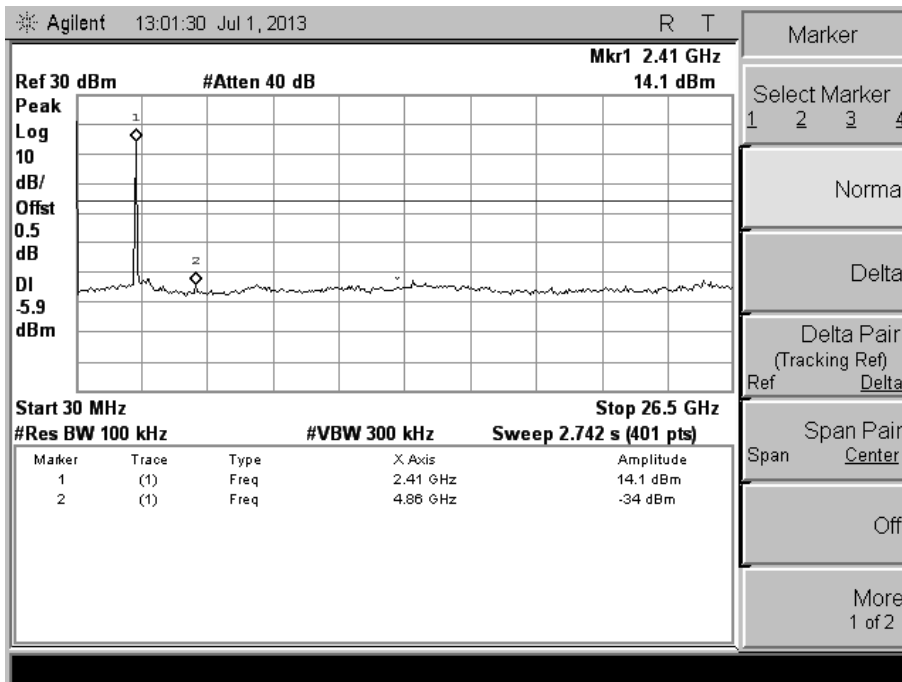
The measurement frequency range is from 30MHz to the 10th harmonic of the fundamental frequency. The lowest, Baby Monitordle and highest channels are tested to verify the spurious emissions.

5.3.3.1 Test Mode

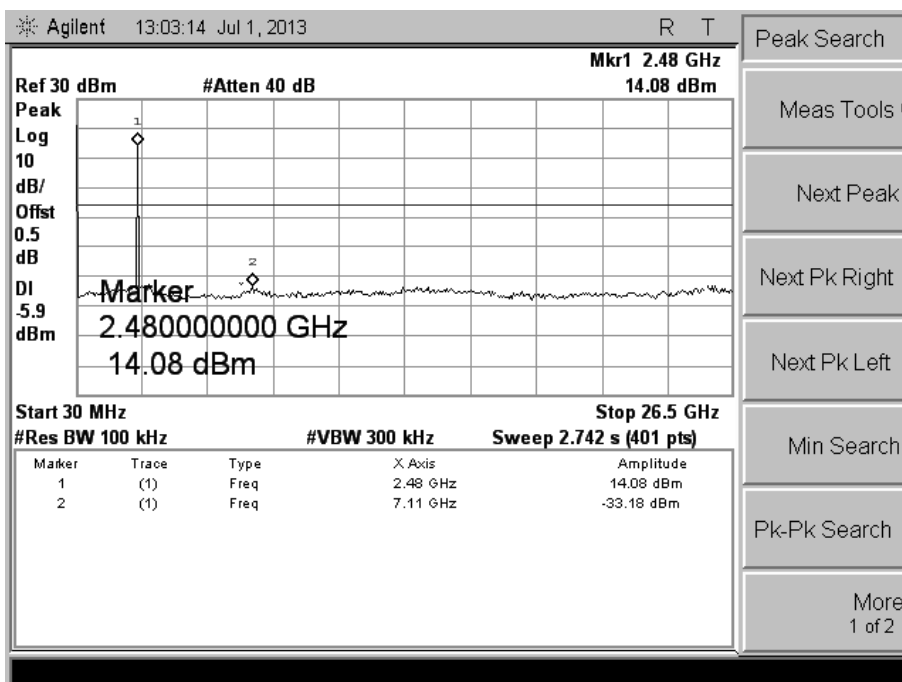
Test Plot:



(CH Low)



(CH Mid)



(CH High)

Note:

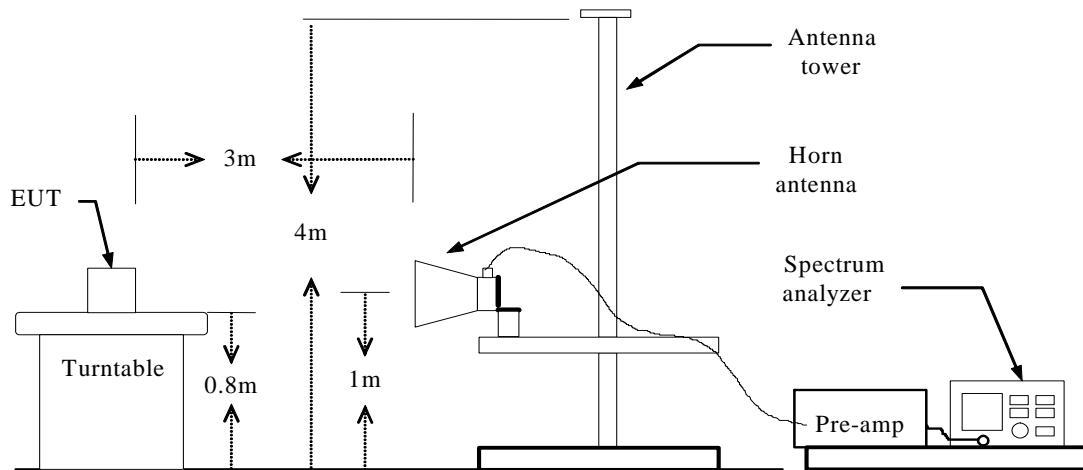
1. The power of the Module transmitting frequency should be ignored.

5.4 Band Edge

5.4.1 Definition

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits.

5.4.2 Test Configuration



5.4.3 Test Result

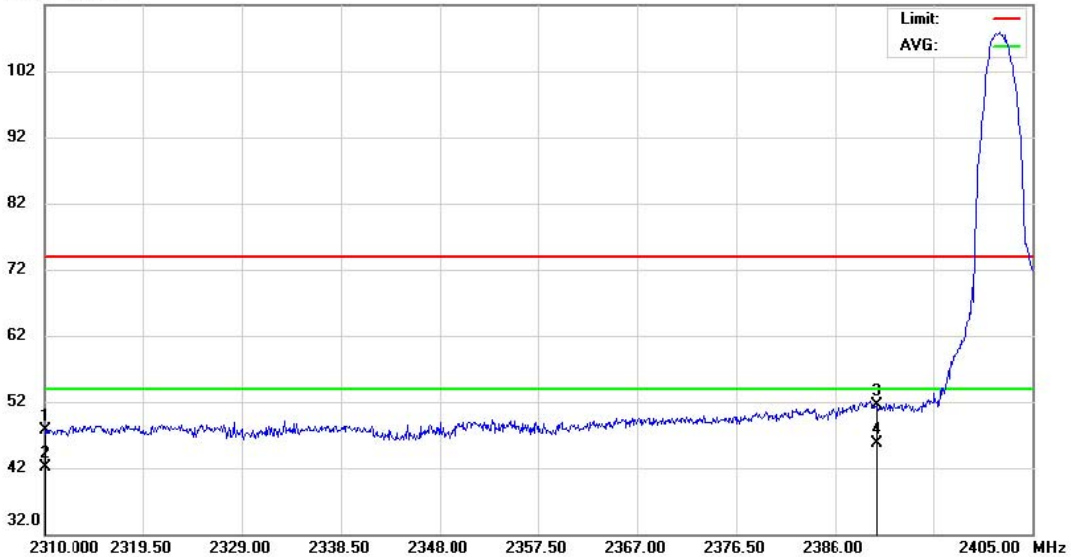
The EUT operates at continuous transmit test mode. The lowest and highest channels are tested to verify the band edge emissions.



Address: No. 5, Langshan 2nd Rd., North Hi-Tech Industrial park
 Guangdong, China
 Tel: 0755-86170306 Fax: 0755-86170310

Radiated Emission Measurement

File : PD252347 Data : #7 Date : 2013-7-12 Time : 17:10:09
 112.0 dBuV/m



Site Chamber #1 Polarization: **Vertical** Temperature: 26
 Limit: 1000M-6000M FCC Power: DC 5V Adapter AC 120V/60Hz Humidity: 61 %
 EUT: Baby Monitor Distance:
 M/N: PD252347
 Mode: Lowest Channel Model
 Note:

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Antenna Height cm	Table Degree degree	Comment
1		2310.000	38.05	9.70	47.75	74.00	-26.25	peak		
2		2310.000	32.40	9.70	42.10	54.00	-11.90	AVG		
3		2390.000	41.34	10.14	51.48	74.00	-22.52	peak		
4	*	2390.000	35.60	10.14	45.74	54.00	-8.26	AVG		

*:Maximum data x:Over limit !:over margin

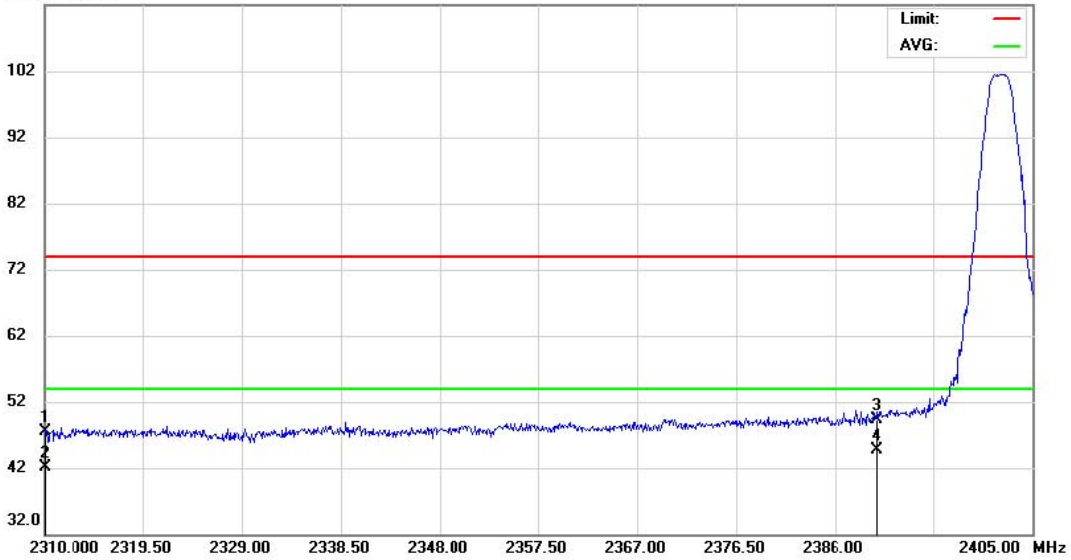
Engineer Signature: Roy



Address: No. 5, Langshan 2nd Rd., North Hi-Tech Industrial park
 Guangdong, China
 Tel: 0755-86170306 Fax: 0755-86170310

Radiated Emission Measurement

File : PD252347 Data : #8 Date : 2013-7-12 Time : 17:42:46
 112.0 dBuV/m



Site Chamber #1 Polarization: **Horizontal** Temperature: 26
 Limit: 1000M-6000M FCC Power: DC 5V Adapter AC 120V/60Hz Humidity: 61 %
 EUT: Baby Monitor Distance:
 M/N: PD252347
 Mode: Lowest Channel Model
 Note:

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Antenna Height cm	Table Degree degree	Comment
1		2310.000	37.75	9.77	47.52	74.00	-26.48	peak			
2		2310.000	32.40	9.77	42.17	54.00	-11.83	AVG			
3		2390.000	39.19	10.15	49.34	74.00	-24.66	peak			
4	*	2390.000	34.60	10.15	44.75	54.00	-9.25	AVG			

*:Maximum data x:Over limit !:over margin

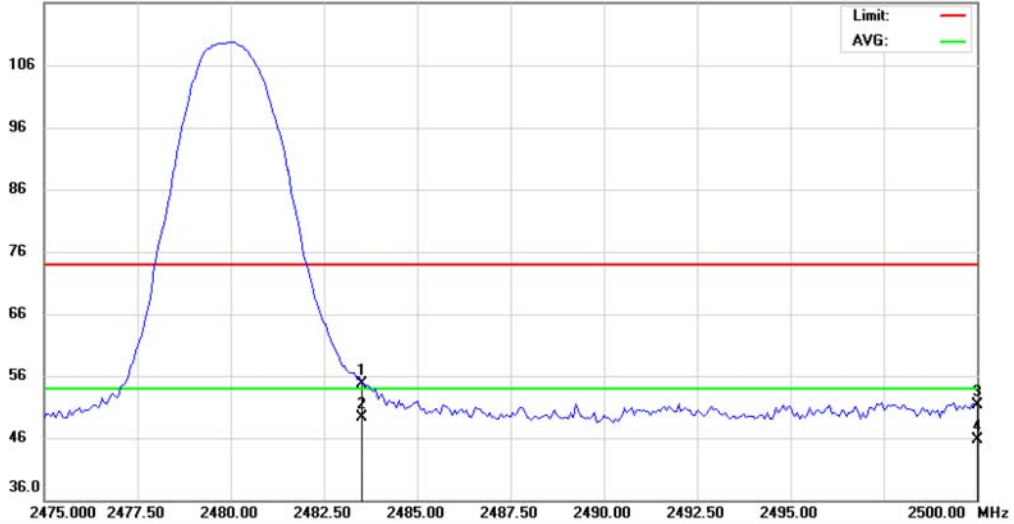
Engineer Signature: Roy



Address: No. 5, Langshan 2nd Rd., North Hi-Tech Industrial park
 Guangdong, China
 Tel: 0755-86170306 Fax: 0755-86170310

Radiated Emission Measurement

File : PD252347 Data : #7 Date : 2013-07-01 Time : 17:12:01
 116.0 dBuV/m



Site Chamber #1 Polarization: **Vertical** Temperature: 26
 Limit: 1000M-6000M FCC Power: DC 5V Adapter AC 120V/60Hz Humidity: 61 %
 EUT: Baby Monitor Distance:
 M/N: PD252347
 Mode: Highest Channel Model
 Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		2483.500	45.65	9.13	54.78	74.00	-19.22	peak		
2	*	2483.500	40.20	9.13	49.33	54.00	-4.67	AVG		
3		2500.000	41.84	9.47	51.31	74.00	-22.69	peak		
4		2500.000	36.20	9.47	45.67	54.00	-8.33	AVG		

*:Maximum data x:Over limit !:over margin

Engineer Signature: Roy



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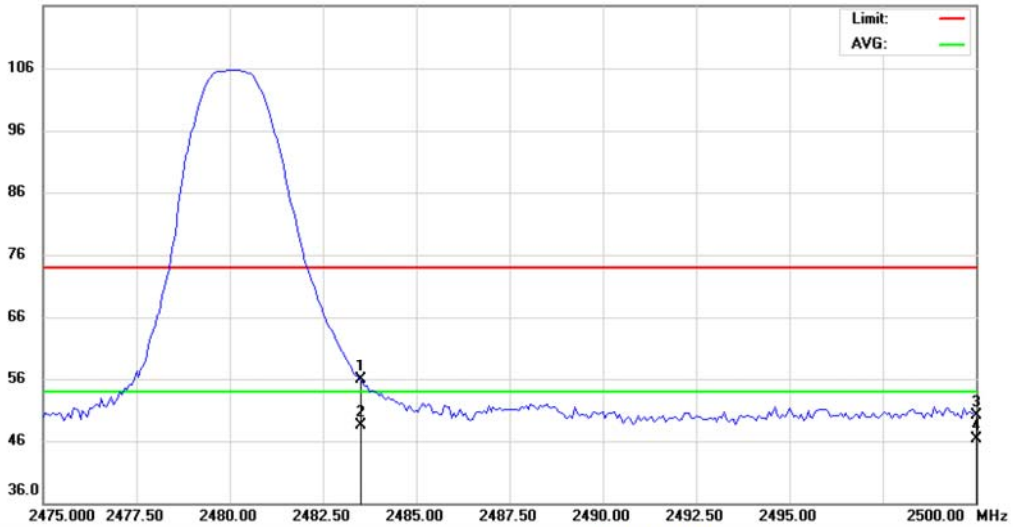
Radiated Emission Measurement

File : PD252347
116.0 dBuV/m

Data #8

Date: 2013-07-01

Time: 17:16:31



Site Chamber #1 Polarization: **Horizontal** Temperature: 26
 Limit: 1000M-6000M FCC Power: DC 5V Adapter AC 120V/60Hz Humidity: 61 %
 EUT: Baby Monitor Distance:
 M/N: PD252347
 Mode: Highest Channel Model
 Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		2483.500	46.70	9.13	55.83	74.00	-18.17	peak		
2	*	2483.500	39.40	9.13	48.53	54.00	-5.47	AVG		
3		2500.000	40.70	9.47	50.17	74.00	-23.83	peak		
4		2500.000	36.90	9.47	46.37	54.00	-7.63	AVG		

*:Maximum data x:Over limit !:over margin

Engineer Signature: Roy

5.5 Power Spectral Density (PSD)

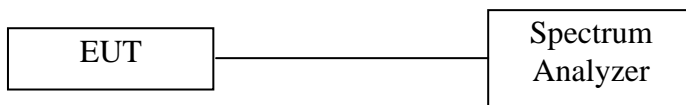
5.5.1 Definition

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band.

5.5.2 Limit

FCC Part15(15.247)				
Section	Test Item	Limit	Frequency Range(MHz)	Result
15.247	Power Spectral Density	8 dBm (in any 3KHz)	2400-2483.5	PASS

5.5.3 Test Configuration

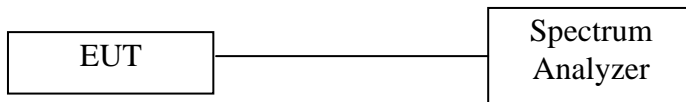


5.5.4 Test Description

Spectrum Parameters	Setting
Attenuation	Auto
Span Frequency	1.5 DTS Bandwidth
RB	3kHz
VB	10KHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

- The EUT was directly connectd to the spectrum analyzer and antenna output port as show in the block diagram below,
- Spectrum Setting: RBW=3KHz, VBW=10KHz, Sweep time=Auto. Span to 1.5 DTS Bandwidth.
- The resulting peak PSD level must be $\leq 8\text{dBm}$.

5.5.5 Test Configuration



5.5.6 Operation Condition

The EUT tested system was configured as the statements of 2.1 unless otherwise a special operating condition is specified in the follows during the testing.

5.5.7 Test Result

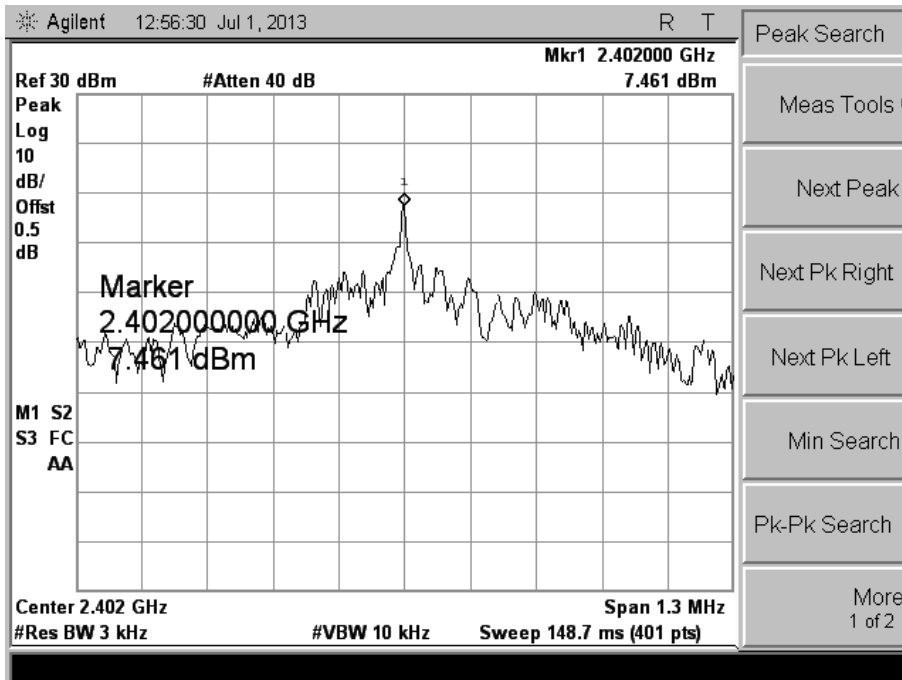
The lowest, Middle and highest channels are tested to verify the power spectral density.

5.5.7.1 Test Mode

A. Test Verdict:

Channel	Frequency (MHz)	PSD (dBm)	Limits(dBm)	Result
1	2402	7.461	≤8	PASS
20	2440	6.363	≤8	PASS
40	2480	5.332	≤8	PASS

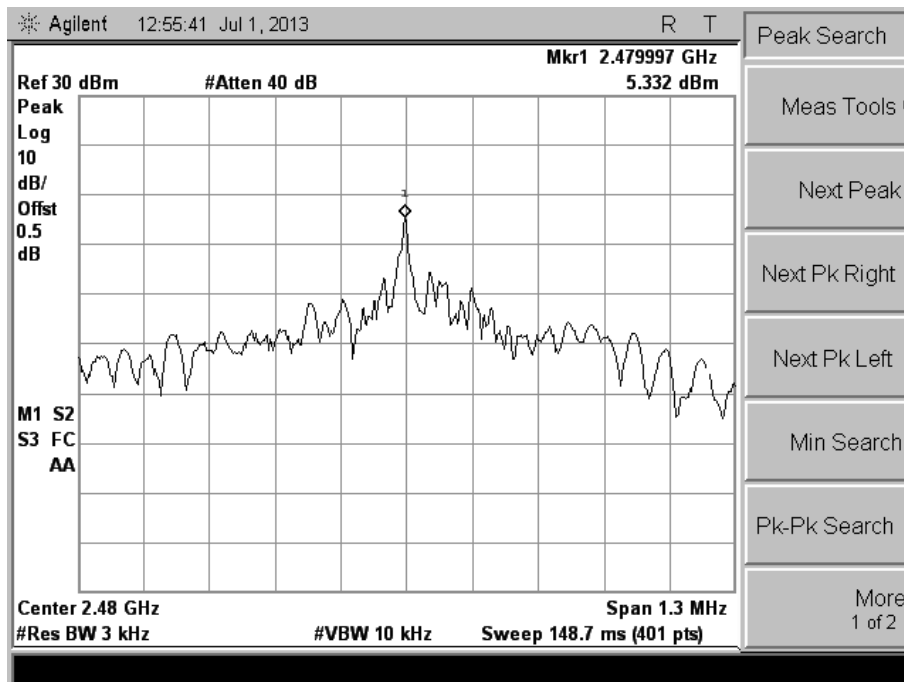
B. Test Plot:



(CH Low)



(CH Mid)



(CH High)

5.6 Conducted Emission

5.6.1 Definition

According to FCC section 15.207, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50 μ H/50 ohms line impedance stabilization network (LISN).

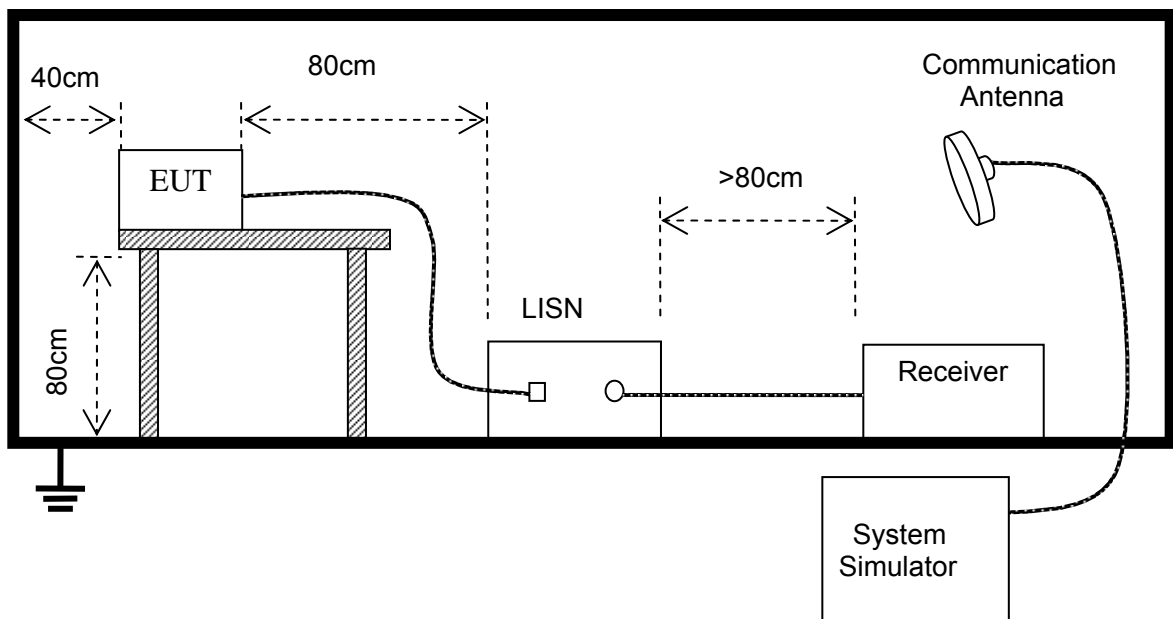
Frequency	Maximum RF Line Voltage	
	Q.P.(dBuV)	Average(dBuV)
150kHz-500kHz	66-56	56-46
500kHz-5MHz	56	46
5MHz-30MHz	60	50

Note:

1. The lower limit shall apply at the transition frequency.
2. The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz

5.6.2 Test Description

The EUT is powered by the Battery charged with the AC Adapter which is powered by 120V, 60Hz AC mains supply. The path loss as the factor is calibrated to correct the reading. During the measurement, the EUT is activated and is set to operate at maximum power.



5.6.3 Test Result

A scan was taken on both power lines, Line 1 and Line 2, recording at least the six highest emissions. Emission frequency and amplitude were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit. If EUT emission level was less -2dB to the A.V. limit in Peak mode, then the emission signal was re-checked using Q.P and Average detector.

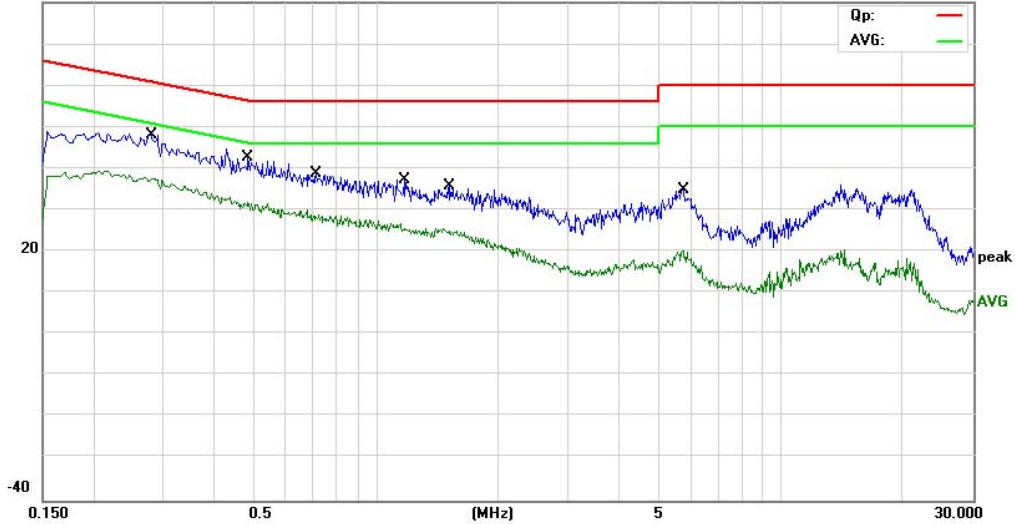
The test data was shown on the summary data page.



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Conducted Emission Measurement

File: PD252347 Data: #1 Date: 13/06/08/ Time: 9/43/01



Site: MOST #1 Phase: **L1** Temperature: 26
 Limit: FCC Part15 B Class B QP Power: DC 5V Adapter AC 120V/60Hz Humidity: 60 %
 EUT: Baby Monitor
 M/N: PD252347
 Mode: Running
 Note:

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	*	0.2780	36.46	11.48	47.94	60.88	-12.94	QP	
2		0.4860	32.57	10.09	42.66	56.24	-13.58	QP	
3		0.7140	28.66	10.00	38.66	56.00	-17.34	QP	
4		1.1740	27.36	9.83	37.19	56.00	-18.81	QP	
5		1.5220	26.30	9.48	35.78	56.00	-20.22	QP	
6		5.7620	23.32	11.54	34.86	60.00	-25.14	QP	

*:Maximum data x:Over limit l:over margin

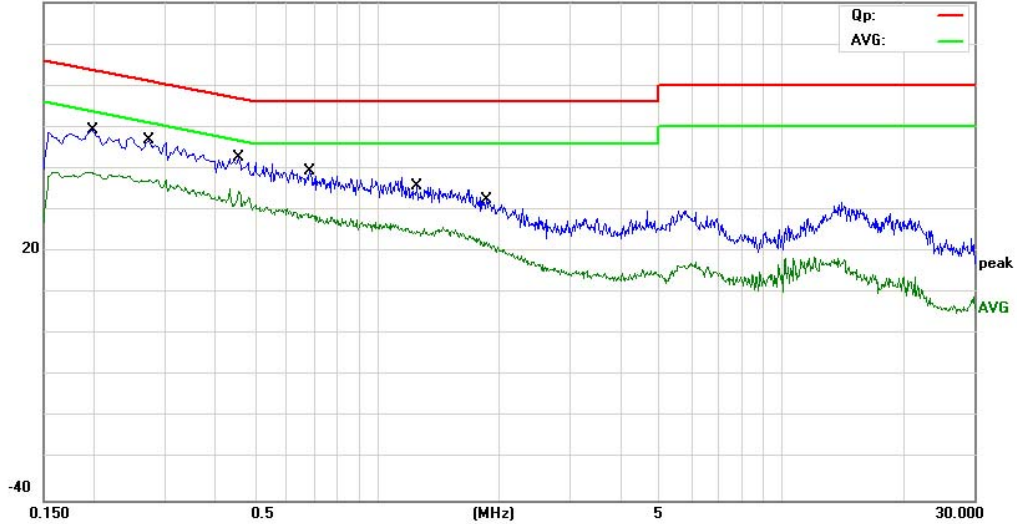
Engineer Signature: Allen



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Conducted Emission Measurement

File: PD252347 Data: #2 Date: 13/06/08/ Time: 9/48/42



Site: MOST #1 Phase: **N** Temperature: 26
 Limit: FCC Part15 B Class B QP Power: DC 5V Adapter AC 120V/60Hz Humidity: 60 %
 EUT: Baby Monitor
 M/N: PD252347
 Mode: Running
 Note:

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		0.1980	37.48	11.88	49.36	63.69	-14.33	QP	
2		0.2740	35.40	11.51	46.91	61.00	-14.09	QP	
3	*	0.4580	32.37	10.28	42.65	56.73	-14.08	QP	
4		0.6860	29.26	10.00	39.26	56.00	-16.74	QP	
5		1.2580	25.91	9.74	35.65	56.00	-20.35	QP	
6		1.8620	23.46	9.14	32.60	56.00	-23.40	QP	

*:Maximum data x:Over limit l:over margin

Engineer Signature: Allen

5.7 Radiated Emission

5.7.1 Definition

According to FCC section 15.247(d), radiated emission outside the frequency band attenuation below the general limits specified in § 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a) (see § 15.205(c)).

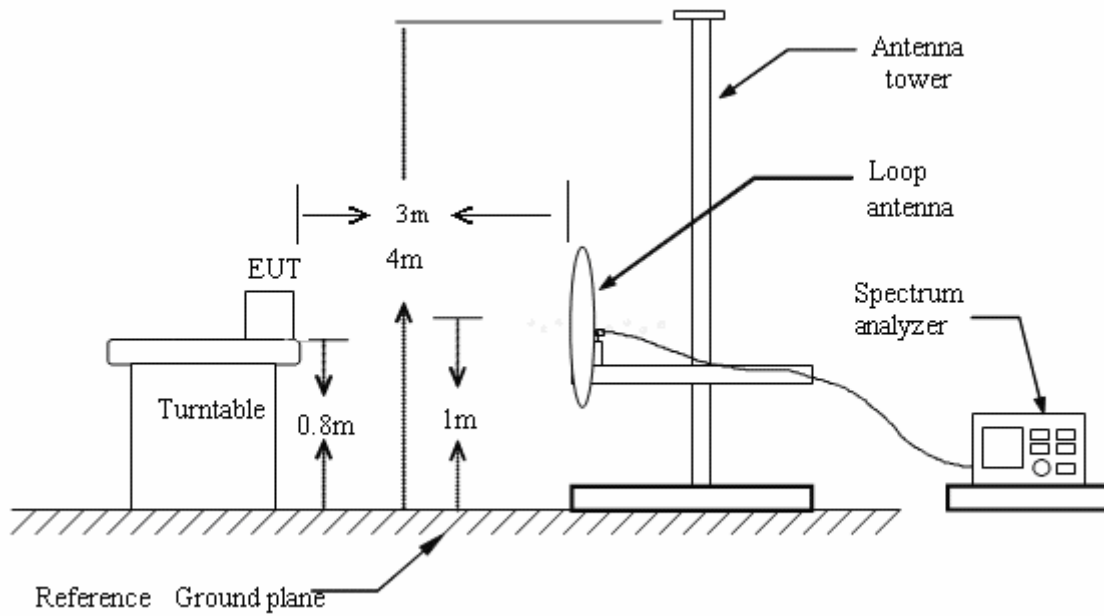
According to FCC section 15.209 (a), except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength ($\mu\text{V/m}$)	Measurement Distance (m)
0.009 - 0.490	$2400/F(\text{kHz})$	300
0.490 - 1.705	$24000/F(\text{kHz})$	30
1.705 - 30.0	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

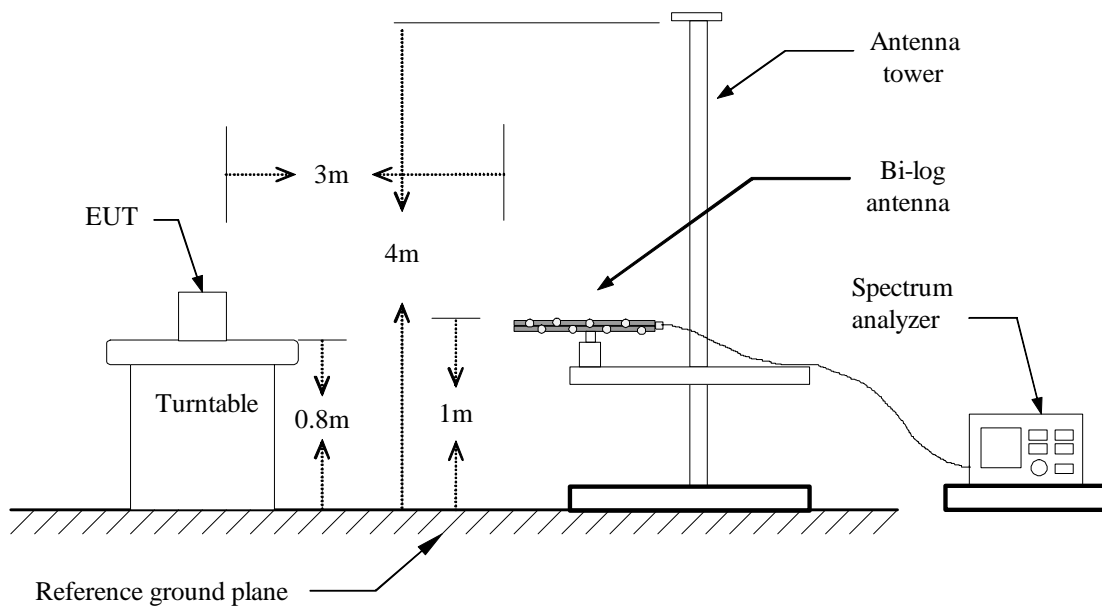
As shown in FCC section 15.35(b), for frequencies above 1000MHz, the field strength limits are based on average detector. When average radiated emission measurements are specified in this part, including emission measurements below 1000MHz, there also is a limit on the radio frequency emissions, as measured using instrumentation with a peak detector function, corresponding to 20dB above the maximum permitted average limit for the frequency being investigated unless a different peak emission limit is otherwise specified in the rules.

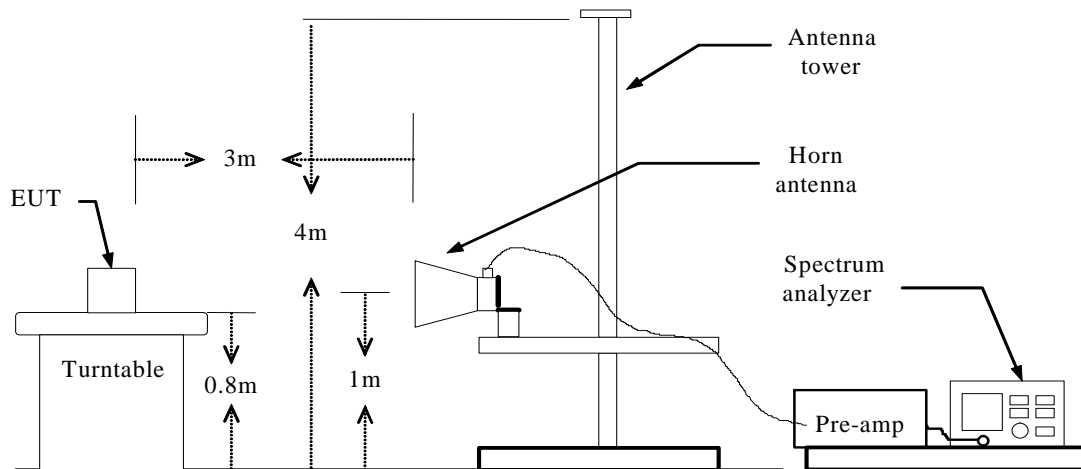
5.7.2 Test Description

A. Test Configuration:



Below 1GHz:



Above 1GHz:**B. Test procedures**

1. The EUT is placed on a turntable, which is 0.8m above ground plane.
2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
3. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emissions.
4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
5. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
6. Set the spectrum analyzer in the following setting as:
 - Below 1GHz: RBW=100 kHz / VBW=300 kHz / Sweep=AUTO
 - Above 1GHz : (a) PEAK: RBW=VBW=1MHz / Sweep=AUTO
 - (b) AVERAGE: RBW=1MHz / VBW=10Hz / Sweep=AUTO
7. Repeat above procedures until the measurements for all frequencies are complete.

5.7.3 Test Result

The test data was shown on the summary data page.

From 9KHz to 30MHz:

EUT:	BABY MONITOR	Model Name. :	PD252347
Temperature:	20 °C	Relative Humidity: Mobility Tableting:	48%
Pressure:	1010 hPa	Test Voltage :	DC 5V by Adapter AC 120V/60Hz
Test Mode :	TX	Polarization :	--

Freq.	Reading	Limit	Margin	State
(MHz)	(dBuV/m)	(dBuV/m)	(dB)	P/F
--	--	--	--	PASS
--	--	--	--	PASS

Note:

The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

Distance extrapolation factor = $20 \log(\text{specific distance}/\text{test distance})$ (dB);

Limit line = specific limits(dBuv) + distance extrapolation factor.

Conclusion: PASS

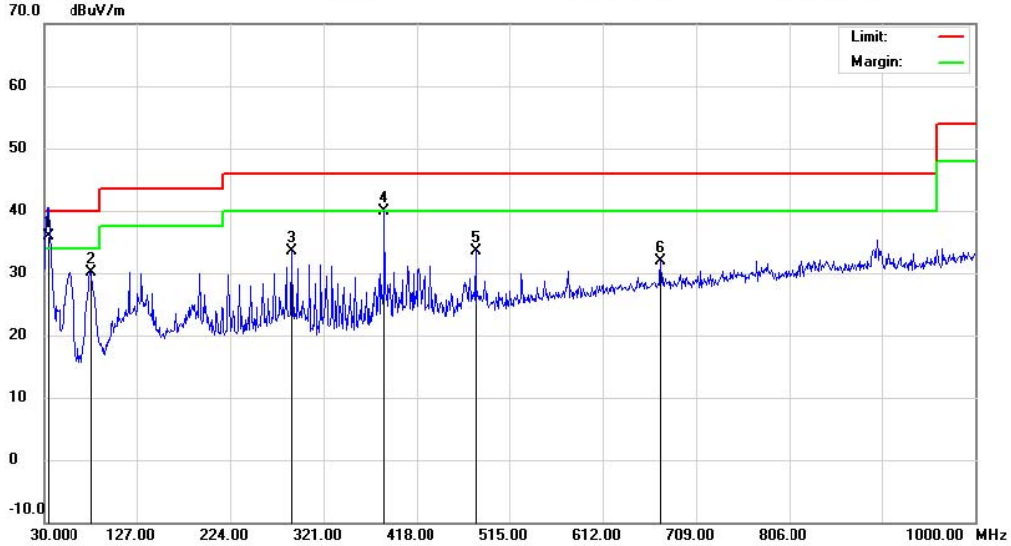
Below 1 GHz



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Radiated Emission Measurement

File: PD252347 Data: #3 Date: 2013-6-8 Time: 11:04:16



Site Chamber #1 Polarization: **Vertical** Temperature: 26
 Limit: FCC Part15 B 3M Radiation Power: DC 5V Adapter AC 120V/60Hz Humidity: 61 %
 EUT: Bobby Monitor Distance:
 M/N: PD252347
 Mode: Running
 Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1	*	34.8500	16.20	19.71	35.91	40.00	-4.09	QP		
2		79.4699	18.74	11.42	30.16	40.00	-9.84	QP		
3		288.0200	14.18	19.40	33.58	46.00	-12.42	QP		
4		384.0500	21.74	18.18	39.92	46.00	-6.08	QP		
5		480.0800	11.72	21.70	33.42	46.00	-12.58	QP		
6		672.1399	7.44	24.50	31.94	46.00	-14.06	QP		

*:Maximum data x:Over limit l:over margin

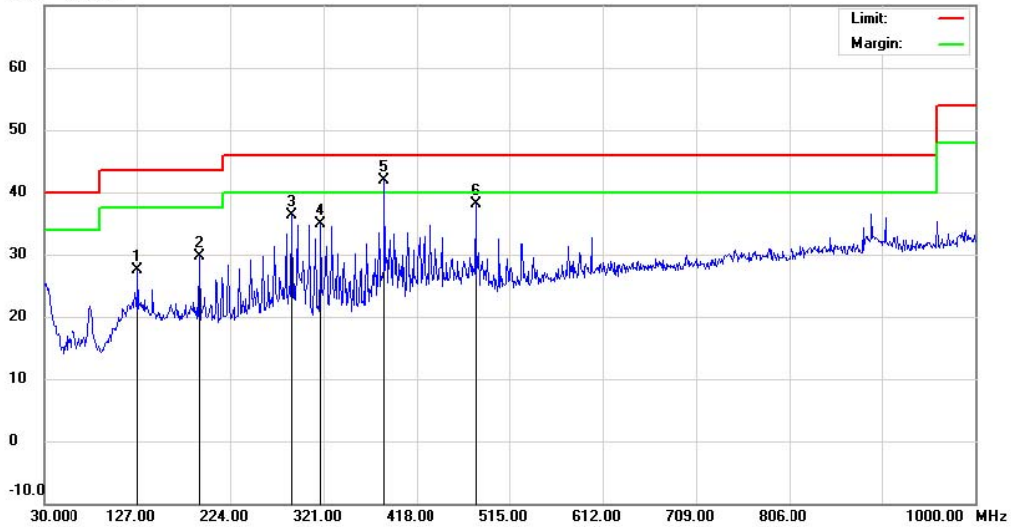
Engineer Signature: Allen



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Radiated Emission Measurement

File: PD252347 Data: #4 Date: 2013-6-8 Time: 11:09:43
 70.0 dBuV/m



Site Chamber #1 Polarization: **Horizontal** Temperature: 26
 Limit: FCC Part15 B 3M Radiation Power: DC 5V Adapter AC 120V/60Hz Humidity: 61 %
 EUT: Bobby Monitor Distance:
 M/N: PD252347
 Mode: Running
 Note:

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Antenna Height cm	Table Degree	Comment
1		127.9700	9.92	17.66	27.58	43.50	-15.92	QP			
2		191.9900	12.99	16.76	29.75	43.50	-13.75	QP			
3		288.0200	16.96	19.40	36.36	46.00	-9.64	QP			
4		318.0899	18.01	16.92	34.93	46.00	-11.07	QP			
5	*	384.0500	23.79	18.18	41.97	46.00	-4.03	QP			
6		480.0800	16.37	21.70	38.07	46.00	-7.93	QP			

*:Maximum data x:Over limit l:over margin

Engineer Signature: Allen

Above 1 GHz

Operation Mode: TX/ CH Low
Temperature: 20°C
HuBaby Monitority: 70 % RH

Test Date: Jun. 08, 2013
Tested by: Allen
Polarity: Ver. / Hor.

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	AV Margin (dB)
					Peak (dBuV/m)	AV (dBuV/m)			
4804.0	H	25.93	21.00	19.20	46.93	40.20	74.00	54.00	-13.80
N/A	H								
4804.0	V	27.04	21.14	21.00	48.04	42.14	74.00	54.00	-11.86
N/A	V								

Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).

Operation Mode: TX/CH MID
Temperature: 20°C
HuBaby Monitority: 70 % RH

Test Date: Jun. 08, 2013
Tested by: Allen
Polarity: Ver. / Hor.

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	AV Margin (dB)
					Peak	AV			
					(dBuV/m)	(dBuV/m)			
4880.0	H	26.54	20.10	19.15	46.64	39.25	74.00	54.00	-14.75
N/A	H								
4880.0	V	27.20	19.53	20.39	46.73	39.92	74.00	54.00	-14.08
N/A	V								

Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown “ --- ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with “ N/A ” remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).

Operation Mode: TX/ CH High

Test Date: Jun. 08, 2013

Temperature: 20°C

Tested by: Allen

HuBaby Monitority: 70 % RH

Polarity: Ver. / Hor.

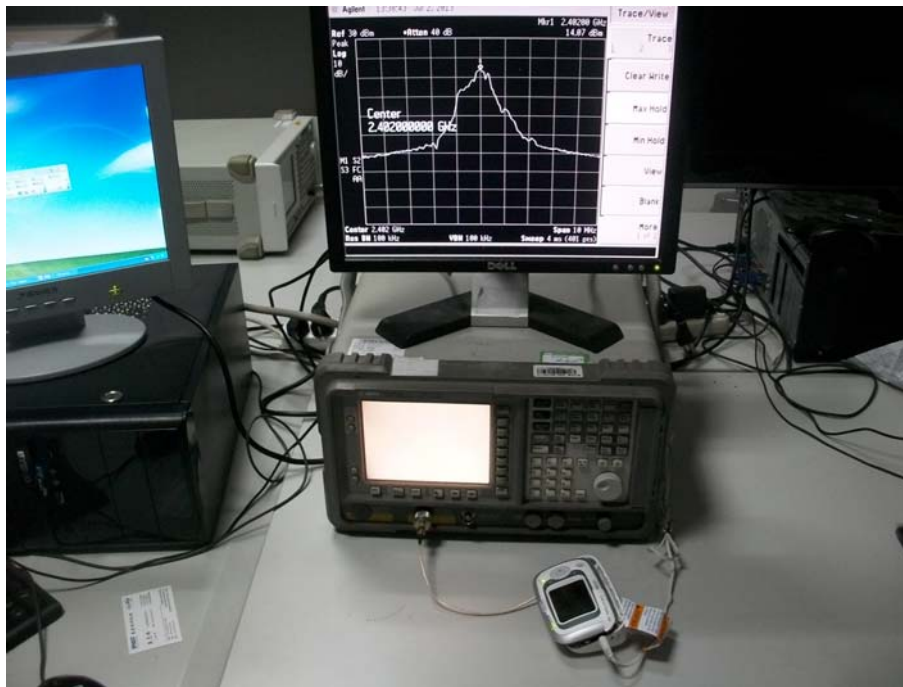
Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	AV Margin (dB)
					Peak (dBuV/m)	AV (dBuV/m)			
					4960.0	H			
N/A	H								
4960.0	V	26.32	19.85	20.62	46.94	40.47	74.00	54.00	-13.53
N/A	V								

Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown “ --- ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with “ N/A ” remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).

APPENDIX 1
PHOTOGRAPHS OF TEST SETUP

CONDUCTED SPURIOUS EMISSION TEST SETUP



-----END OF REPORT-----