

## TEST REPORT

**Report Number: HK11020796-1**

Application  
for

Original Grant of 47 CFR Part 15 Certification  
Single New of RSS-210 Issue 8 Equipment Certification

2.4GHz Frequency Hopping Spread Spectrum Baby Monitor - Parent Unit

**FCC ID: BMWTFY7400P**

**IC: 6195A-TFY7400P**

Prepared and Checked by:



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Koo Wai Ip  
Lead Engineer  
April 01, 2011

Approved by:



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Nip Ming Fung, Melvin  
Supervisor  
April 01, 2011

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### GENERAL INFORMATION

<b>Applicant Name:</b>	Learning Curve Brands, Inc.
<b>Applicant Address:</b>	1111 W. 22 <sup>nd</sup> Street, Suite 320 Oak Brook, Illinois 60523 United States.
<b>FCC Specification Standard:</b>	FCC Part 15, October 1, 2009 Edition
<b>FCC ID:</b>	BMWTFY7400P
<b>FCC Model(s):</b>	Y7400P
<b>IC Specification Standard:</b>	RSS-210 Issue 8, December 2010 RSS-Gen Issue 3, December 2010 RSS-102 Issue 4, March 2010 RSS-310 Issue 3, December 2010
<b>IC:</b>	6195A-TFY7400P
<b>IC Model(s):</b>	Y7400P
<b>Type of EUT:</b>	Transceiver / Class B Personal Computers and Peripherals
<b>Description of EUT:</b>	2.4GHz Frequency Hopping Spread Spectrum Baby Monitor - Parent Unit
<b>Serial Number:</b>	N/A
<b>Sample Receipt Date:</b>	February 25, 2011
<b>Date of Test:</b>	Radiated Emission Test: March 03, 2011 Conducted Emission Test: March 02, 2011
<b>Report Date:</b>	April 01, 2011
<b>Environmental Conditions:</b>	Temperature: +10 to 40°C Humidity: 10 to 90%

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### Appendix – Exhibits for Application of Certification

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### **EXHIBIT 1 TEST RESULTS SUMMARY & STATEMENT OF COMPLIANCE**

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### 1.0 Test Results Summary & Statement of Compliance

#### 1.1 Summary of Test Results

Test Items	FCC Part 15 Section	RSS-210/ RSS-Gen <sup>#</sup> / RSS-310 <sup>^</sup> Section	Results	Details see section
Antenna Requirement	15.203	7.1.2 <sup>#</sup>	Pass	2.1
Radiated Emission	15.249(a), 209, & 109	A2.9(a)	Pass	4.2
Radiated Emission on the Bandedge	15.249(d)	A2.9(b)	Pass	4.4
Radiated Emission in Restricted Bands	15.205	2.2	Pass	4.2
Radiated Emission from Receiver	N/A	3.1 <sup>^</sup>	Pass	4.3
AC Power Line Conducted Emission	15.207 & 15.107	7.2.4 <sup>#</sup>	Pass	4.5
Radiated Emission from Class B Personal Computers and Peripherals	15.109	ICES-003	Pass	4.2
AC Power Line Conducted Emission	15.107	ICES-003	Pass	4.5
Radio Frequency Exposure Compliance	N/A	RSS-102	Pass	4.6

Note: Pursuant to FCC Part 15 Section 15.215(c), the 20dB bandwidth of the emission was contained within the frequency band designated (mentioned as above) which the EUT operated. The effects, if any, from frequency sweeping, frequency hopping, other modulation techniques and frequency stability over expected variations in temperature and supply voltage were considered.

#### 1.2 Statement of Compliance

The equipment under test is found to be complying with the following standards:

FCC Part 15, October 1, 2009 Edition  
RSS-210 Issue 8, December 2010  
RSS-Gen Issue 3, December 2010  
RSS-102 Issue 4, March 2010  
RSS-310 Issue 3, December 2010  
ICES-003 Issue 4, February 2004

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### **EXHIBIT 2 GENERAL DESCRIPTION**

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### 2.0 General Description

#### 2.1 Product Description

The Equipment Under Test (EUT) is a 2.4GHz Frequency Hopping Spread Spectrum Baby Monitor - Parent Unit. It operates at frequency range of 2407.500MHz to 2475.000MHz, and there are total 21 channels, and 21 channels are used for the communication environment. The EUT is powered by a computer through USB port.

The antenna used in Parent Unit is integral, and the test sample is a prototype.

The circuit description is attached in the Appendix and saved with filename: descri.pdf.

#### 2.2 Test Methodology

Both AC power line-conducted and radiated emission measurements were performed according to the procedures in ANSI C63.4 (2003). Preliminary radiated scans and all radiated measurements were performed in Open Area Test Sites. All Radiated tests were performed at an antenna to EUT distance of 3 meters, unless stated otherwise in the "**Justification Section**" of this Application.

#### 2.3 Test Facility

The open area test site and conducted measurement facility used to collect the radiated data and conducted data are at Roof Top and 2<sup>nd</sup> Floor respectively of Intertek Testing Services Hong Kong Ltd., which is located at Garment Centre, 576 Castle Peak Road, Kowloon, Hong Kong. This test facility and site measurement data have been fully placed on file with the FCC and the Industry Canada.

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### **EXHIBIT 3 SYSTEM TEST CONFIGURATION**



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### 3.0 **System Test Configuration**

#### 3.1 Justification

For radiated emissions testing, the equipment under test (EUT) was setup to transmit / receive continuously to simplify the measurement methodology. Care was taken to ensure proper power supply voltages during testing. During testing, all cables (if any) were manipulated to produce worst case emissions.

The EUT was powered by a computer through USB port.

For the measurements, the EUT was attached to a plastic stand if necessary and placed on the wooden turntable. If the EUT attached to peripherals, they were connected and operational to simulate typical use.

The signal was maximized through rotation and placement in the three orthogonal axes. The antenna height and polarization were varied during the search for maximum signal level. The antenna height was varied from 1 to 4 meters. Radiated emissions were taken at three meters unless the signal level was too low for measurement at that distance. If necessary, a pre-amplifier was used and/or the test was conducted at a closer distance.

For any intentional radiator powered by AC power line, measurements of the radiated signal level of the fundamental frequency component of the emission was performed with the supply voltage varied between 85% and 115% of the nominal rated supply voltage.

For transmitter radiated measurement, the spectrum analyzer resolution bandwidth was 100 kHz for frequencies below 1000 MHz. The resolution bandwidth was 1 MHz for frequencies above 1000 MHz.

For receiver radiated measurement, the spectrum analyzer resolution bandwidth was 1MHz for measurement above 1GHz while 100kHz for measurement from 30MHz to 1GHz.

Radiated emission measurement for transmitter was performed from the lowest radio frequency signal generated in the device which is greater than 9 kHz to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower. Receiver was performed from 30MHz to the fifth harmonic of the highest frequency or 40GHz, whichever is lower.

Emission that are directly caused by digital circuits and Class B personal computers and peripherals in the transmit path and transmitter portion were measured, and the limit are according to FCC Part 15 Section 15.109.

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### 3.1 Justification - Cont'd

Detector function for radiated emissions is in peak mode. Average readings, when required, are taken by measuring the duty cycle of the equipment under test and subtracting the corresponding amount in dB from the measured peak readings. A detailed description for the calculation of the average factor can be found in Exhibit 4.2.3.

Determination of pulse desensitization was made according to *Hewlett Packard Application Note 150-2, Spectrum Analysis... Pulsed RF*. The effective period (Teff) was referred to Exhibit 4.2.3. With the resolution bandwidth 1MHz and spectrum analyzer IF bandwidth 3dB, the pulse desensitization factor was 0dB.

For AC line conducted emission test, the EUT along with its peripherals were placed on a 1.0m(W)x1.5m(L) and 0.8m in height wooden table and the EUT was adjusted to maintain a 0.4 meter space from a vertical reference plane. The EUT was connected to power mains through a line impedance stabilization network (LISN), which provided 50ohm coupling impedance for measuring instrument. The LISN housing, measuring instrument case, reference ground plane, and vertical ground plane were bounded together. The excess power cable between the EUT and the LISN was bundled.

All connecting cables of EUT and peripherals were manipulated to find the maximum emission.

All relevant operation modes have been tested, and the worst case data is included in this report.

### 3.2 EUT Exercising Software

The EUT exercise program used during radiated and conducted testing was designed to exercise the various system components in a manner similar to a typical use.

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### 3.3 Details of EUT and Description of Accessories

#### Details of EUT:

N/A

#### Description of Accessories:

- (1) HP Notebook, Model: CPQ NC2400, S/N: CNF638276D (Supplied by Intertek)
- (2) Smartdrive External Hard Disk, Model: HD3-SU2FW, S/N: 0800261, DoC Product (Supplied by Intertek)
- (3) 1 x USB cable with 0.7 meter long (Supplied by Intertek)
- (4) 1 x 1394 cable with 0.8 meter long (Supplied by Intertek)

### 3.4 Measurement Uncertainty

When determining of the test conclusion, the Measurement Uncertainty of test has been considered.

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### **EXHIBIT 4 TEST RESULTS**

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### 4.0 Test Results

Data is included of the worst case configuration (the configuration which resulted in the highest emission levels). A sample calculation, configuration photographs and data tables of the emissions are included.

#### 4.1 Field Strength Calculation

The field strength is calculated by adding the reading on the Spectrum Analyzer to the factors associated with preamplifiers (if any), antennas, cables, pulse desensitization and average factors (when specified limit is in average and measurements are made with peak detectors). A sample calculation is included below.

$$FS = RA + AF + CF - AG + PD + AV$$

where      FS = Field Strength in dB $\mu$ V/m  
              RA = Receiver Amplitude (including preamplifier) in dB $\mu$ V  
              CF = Cable Attenuation Factor in dB  
              AF = Antenna Factor in dB  
              AG = Amplifier Gain in dB  
              PD = Pulse Desensitization in dB  
              AV = Average Factor in -dB

In the radiated emission table which follows, the reading shown on the data table may reflect the preamplifier gain. An example of the calculations, where the reading does not reflect the preamplifier gain, follows:

$$FS = RA + AF + CF - AG + PD + AV$$

#### Example

Assume a receiver reading of 62.0 dB $\mu$ V is obtained. The antenna factor of 7.4 dB and cable factor of 1.6 dB is added. The amplifier gain of 29 dB is subtracted. The pulse desensitization factor of the spectrum analyzer was 0 dB, and the resultant average factor was -10 dB. The net field strength for comparison to the appropriate emission limit is 32 dB $\mu$ V/m. This value in dB $\mu$ V/m was converted to its corresponding level in  $\mu$ V/m.

$$\begin{aligned} RA &= 62.0 \text{ dB}\mu\text{V} \\ AF &= 7.4 \text{ dB} \\ CF &= 1.6 \text{ dB} \\ AG &= 29 \text{ dB} \\ PD &= 0 \text{ dB} \\ AV &= -10 \text{ dB} \\ FS &= 62 + 7.4 + 1.6 - 29 + 0 + (-10) = 32 \text{ dB}\mu\text{V/m} \end{aligned}$$

$$\text{Level in } \mu\text{V/m} = \text{Common Antilogarithm } [(32 \text{ dB}\mu\text{V/m})/20] = 39.8 \mu\text{V/m}$$

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### 4.2 Radiated Emissions

#### 4.2.1 Radiated Emission Configuration Photograph

Worst Case Radiated Emission  
at

36.000 MHz

The worst case radiated emission configuration photographs are attached in the Appendix and saved with filename: config photos.pdf

#### 4.2.2 Radiated Emission Data

The data in tables 1-4 list the significant emission frequencies, the limit and the margin of compliance.

Judgement -

Passed by 6.4 dB margin

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### 4.2.3 Transmitter Duty Cycle Calculation

$$\begin{aligned}\text{Duty Cycle (DC)} &= \text{Maximum On time in 100ms/100ms} \\ &= 495.6 \mu\text{s} / 100\text{ms} \\ &= 4.956 \times 10^{-3}\end{aligned}$$

$$\begin{aligned}\text{Average Factor (AF)} &= 20 \log_{10} (4.956 \times 10^{-3}) \\ &= -46 \text{ dB}\end{aligned}$$

The sample plot shows the bit timing is attached in the Appendix and saved with filename: timing.pdf

## INTERTEK TESTING SERVICES

Mode: TX-Channel 01

Table 1

### Radiated Emission Data

Polarization	Frequency (MHz)	Reading (dBuV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Average Factor (dB)	Calculated at 3m (dBuV/m)	Average Limit at 3m (dBuV/m)	Margin (dB)
V	2407.500	89.0	33	29.4	46	39.4	94.0	-54.6
<b>H</b>	<b>4815.000</b>	<b>48.5</b>	<b>33</b>	<b>34.9</b>	<b>46</b>	<b>4.4</b>	<b>54.0</b>	<b>-49.6</b>
H	7222.500	45.3	33	37.9	46	4.2	54.0	-49.8
H	9630.000	42.2	33	40.4	46	3.6	54.0	-50.4
<b>H</b>	<b>12037.500</b>	<b>41.7</b>	<b>33</b>	<b>40.5</b>	<b>46</b>	<b>3.2</b>	<b>54.0</b>	<b>-50.8</b>

Polarization	Frequency (MHz)	Reading (dBuV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBuV/m)	Peak Limit at 3m (dBuV/m)	Margin (dB)
V	2407.500	89.0	33	29.4	85.4	114.0	-28.6
<b>H</b>	<b>4815.000</b>	<b>48.5</b>	<b>33</b>	<b>34.9</b>	<b>50.4</b>	<b>74.0</b>	<b>-23.6</b>
H	7222.500	45.3	33	37.9	50.2	74.0	-23.8
H	9630.000	42.2	33	40.4	49.6	74.0	-24.4
<b>H</b>	<b>12037.500</b>	<b>41.7</b>	<b>33</b>	<b>40.5</b>	<b>49.2</b>	<b>74.0</b>	<b>-24.8</b>

- NOTES:
1. Peak detector is used for the emission measurement.
  2. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
  3. Negative value in the margin column shows emission below limit.
  4. Horn antenna is used for the emission over 1000MHz.
  5. Emission (the row indicated by **bold italic**) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-210 Section 2.2.



## INTERTEK TESTING SERVICES

Mode: TX-Channel 11

Table 2

### Radiated Emission Data

Polarization	Frequency (MHz)	Reading (dBuV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Average Factor (dB)	Calculated at 3m (dBuV/m)	Average Limit at 3m (dBuV/m)	Margin (dB)
V	2441.250	89.4	33	29.4	46	39.8	94.0	-54.2
<b>H</b>	<b>4882.500</b>	<b>48.7</b>	<b>33</b>	<b>34.9</b>	<b>46</b>	<b>4.6</b>	<b>54.0</b>	<b>-49.4</b>
<b>H</b>	<b>7323.750</b>	<b>45.5</b>	<b>33</b>	<b>37.9</b>	<b>46</b>	<b>4.4</b>	<b>54.0</b>	<b>-49.6</b>
H	9765.000	42.4	33	40.4	46	3.8	54.0	-50.2
<b>H</b>	<b>12206.250</b>	<b>41.8</b>	<b>33</b>	<b>40.5</b>	<b>46</b>	<b>3.3</b>	<b>54.0</b>	<b>-50.7</b>

Polarization	Frequency (MHz)	Reading (dBuV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBuV/m)	Peak Limit at 3m (dBuV/m)	Margin (dB)
V	2441.250	89.4	33	29.4	85.8	114.0	-28.2
<b>H</b>	<b>4882.500</b>	<b>48.7</b>	<b>33</b>	<b>34.9</b>	<b>50.6</b>	<b>74.0</b>	<b>-23.4</b>
<b>H</b>	<b>7323.750</b>	<b>45.5</b>	<b>33</b>	<b>37.9</b>	<b>50.4</b>	<b>74.0</b>	<b>-23.6</b>
H	9765.000	42.4	33	40.4	49.8	74.0	-24.2
<b>H</b>	<b>12206.250</b>	<b>41.8</b>	<b>33</b>	<b>40.5</b>	<b>49.3</b>	<b>74.0</b>	<b>-24.7</b>

- NOTES:
1. Peak detector is used for the emission measurement.
  2. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
  3. Negative value in the margin column shows emission below limit.
  4. Horn antenna is used for the emission over 1000MHz.
  5. Emission (the row indicated by **bold italic**) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-210 Section 2.2.

## INTERTEK TESTING SERVICES

Mode: TX-Channel 21

Table 3

### Radiated Emission Data

Polarization	Frequency (MHz)	Reading (dBuV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Average Factor (dB)	Calculated at 3m (dBuV/m)	Average Limit at 3m (dBuV/m)	Margin (dB)
V	2475.000	88.9	33	29.4	46	39.3	94.0	-54.7
<b>H</b>	<b>4950.000</b>	<b>48.5</b>	<b>33</b>	<b>34.9</b>	<b>46</b>	<b>4.4</b>	<b>54.0</b>	<b>-49.6</b>
<b>H</b>	<b>7425.000</b>	<b>45.3</b>	<b>33</b>	<b>37.9</b>	<b>46</b>	<b>4.2</b>	<b>54.0</b>	<b>-49.8</b>
H	9900.000	42.2	33	40.4	46	3.6	54.0	-50.4
<b>H</b>	<b>12375.000</b>	<b>41.7</b>	<b>33</b>	<b>40.5</b>	<b>46</b>	<b>3.2</b>	<b>54.0</b>	<b>-50.8</b>

Polarization	Frequency (MHz)	Reading (dBuV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBuV/m)	Peak Limit at 3m (dBuV/m)	Margin (dB)
V	2475.000	88.9	33	29.4	85.3	114.0	-28.7
<b>H</b>	<b>4950.000</b>	<b>48.5</b>	<b>33</b>	<b>34.9</b>	<b>50.4</b>	<b>74.0</b>	<b>-23.6</b>
<b>H</b>	<b>7425.000</b>	<b>45.3</b>	<b>33</b>	<b>37.9</b>	<b>50.2</b>	<b>74.0</b>	<b>-23.8</b>
H	9900.000	42.2	33	40.4	49.6	74.0	-24.4
<b>H</b>	<b>12375.000</b>	<b>41.7</b>	<b>33</b>	<b>40.5</b>	<b>49.2</b>	<b>74.0</b>	<b>-24.8</b>

- NOTES:
1. Peak detector is used for the emission measurement.
  2. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
  3. Negative value in the margin column shows emission below limit.
  4. Horn antenna is used for the emission over 1000MHz.
  5. Emission (the row indicated by **bold italic**) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-210 Section 2.2.

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## INTERTEK TESTING SERVICES

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Mode: Talk

Table 4

### Radiated Emission Data

Polarization	Frequency (MHz)	Reading (dB $\mu$ V)	Pre-amp (dB)	Antenna Factor (dB)	Net at 3m (dB $\mu$ V/m)	Limit at 3m (dB $\mu$ V/m)	Margin (dB)
V	36.000	39.6	16	10.0	33.6	40.0	-6.4
V	72.000	42.4	16	7.0	33.4	40.0	-6.6
<b>H</b>	<b>108.000</b>	<b>36.1</b>	<b>16</b>	<b>14.0</b>	<b>34.1</b>	<b>43.5</b>	<b>-9.4</b>
H	144.000	36.5	16	14.0	34.5	43.5	-9.0
H	216.000	32.4	16	17.0	33.4	43.5	-10.1
<b>H</b>	<b>324.000</b>	<b>24.9</b>	<b>16</b>	<b>24.0</b>	<b>32.9</b>	<b>46.0</b>	<b>-13.1</b>

- NOTES:
1. Peak detector is used for the emission measurement.
  2. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
  3. Negative value in the margin column shows emission below limit.
  4. Emission (the row indicated by **bold italic**) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-210 Section 2.2.

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### 4.3 Radiated Emissions from Receiver

#### 4.3.1 Radiated Emission Configuration Photograph

Worst Case Radiated Emission  
at

2436.750 MHz

The worst case radiated emission configuration photographs are attached in the Appendix and saved with filename: config photos.pdf

#### 4.3.2 Radiated Emission Data

The data in tables 5 list the significant emission frequencies, the limit and the margin of compliance.

Judgement -

Passed by 13.1 dB margin

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## INTERTEK TESTING SERVICES

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Mode: Receiving – Middle Channel

Table 5

### Radiated Emissions Data

Polarization	Frequency (MHz)	Reading (dB $\mu$ V)	Pre-amp (dB)	Antenna Factor (dB)	Net at 3m (dB $\mu$ V/m)	Limit at 3m (dB $\mu$ V/m)	Margin (dB)
V	2436.750	44.5	33	29.4	40.9	54.0	-13.1
V	4873.500	38.7	33	34.9	40.6	54.0	-13.4
V	7310.250	35.3	33	37.9	40.2	54.0	-13.8
V	9747.000	32.2	33	40.4	39.6	54.0	-14.4
V	12183.750	31.9	33	40.5	39.4	54.0	-14.6

#### NOTES:

1. Peak detector is used for the emission measurement.
2. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
3. Negative value in the margin column shows emission below limit.
4. Horn antenna is used for the emission over 1000MHz.

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### 4.4 Radiated Emission on the Bandedge

From the following plots, they show that the fundamental emissions are confined in the specified band (2400MHz and 2483.5MHz). In case of emissions up to two standard bandwidths away from the bandedge, the delta measurement technique is used for determining bandedge compliance. Standard bandwidth is the bandwidth specified by ANSI C63.4 (2003) for frequency being measured.

Emissions radiated outside of the specified frequency bands, except harmonics, are attenuated by 50 dB below the level of the fundamental or to the general radiated emission limits in FCC Part 15 Section 15.209 / Table 5 of RSS-Gen, whichever is the lesser attenuation, which meet the requirement of FCC Part 15 Section 15.249(d) / RSS-210 A2.9(b).

Radiated Emission on bandedge plots are attached in the Appendix and saved with filename: be.pdf

Bandedge compliance is determined by applying marker-delta method, i.e.

Resultant Field Strength = Fundamental Emissions - Delta from the plot

Resultant field strength for the lowest and/or highest channel(s), with corresponding average values are calculated as follows:

	Channel	Fundamental Emission (dBμV/m)	Delta from the Plot (dB)	Resultant Field Strength (dBμV/m)	Average Limit (dBμV/m)	Margin (dB)
Parent	Lowest	39.4	40.02	-0.62	54	-54.62
	Highest	39.3	41.49	-2.19	54	-56.19

	Channel	Fundamental Emission (dBμV/m)	Delta from the Plot (dB)	Resultant Field Strength (dBμV/m)	Peak Limit (dBμV/m)	Margin (dB)
Parent	Lowest	85.4	40.02	45.38	74	-28.62
	Highest	85.3	41.49	43.81	74	-30.19

The resultant field strength meets the general radiated emission limit in FCC Part 15 Section 15.209 / Table 5 of RSS-Gen, which does not exceed 74dBμV/m for peak limit and also 54dBμV/m for average limit.

## INTERTEK TESTING SERVICES

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### 4.5 AC Power Line Conducted Emission

- ☐ Not applicable – EUT is only powered by battery for operation.
- ☒ EUT connects to AC power line. Emission Data is listed in following pages.
- ☐ Base Unit connects to AC power line and has transmission. Handset connects to AC power line but has no transmission. Emission Data of Base Unit is listed in following pages.

#### 4.5.1 AC Power Line Conducted Emission Configuration Photograph

Worst Case Line-Conducted Configuration  
at

0.533 MHz

The worst case line conducted configuration photographs are attached in the Appendix and saved with filename: config photos.pdf

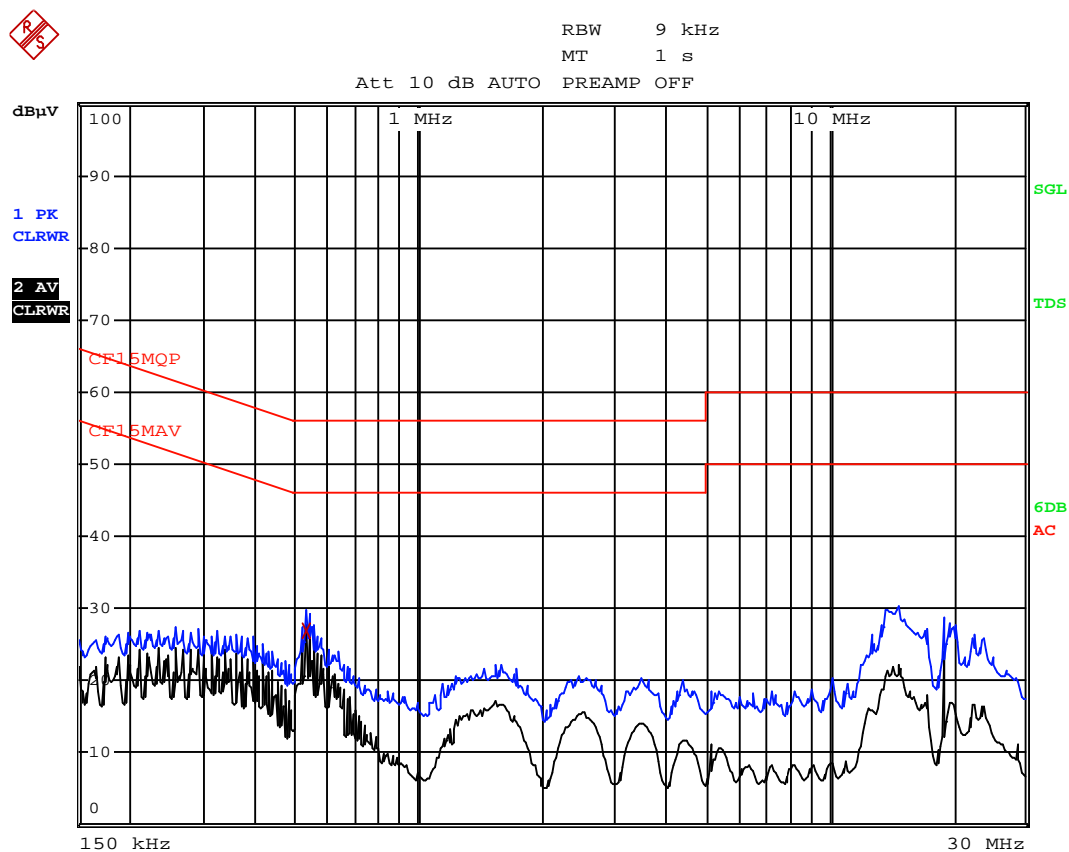
#### 4.5.2 AC Power Line Conducted Emission Data

The plot(s) and data in the following pages list the significant emission frequencies, the limit and the margin of compliance.

Passed by 19.03 dB margin compare with average limit

## INTERTEK TESTING SERVICES

Worst Case: TX with PC Mode (PC's AC Mains)



Date: 2.MAR.2011 18:40:47



## INTERTEK TESTING SERVICES

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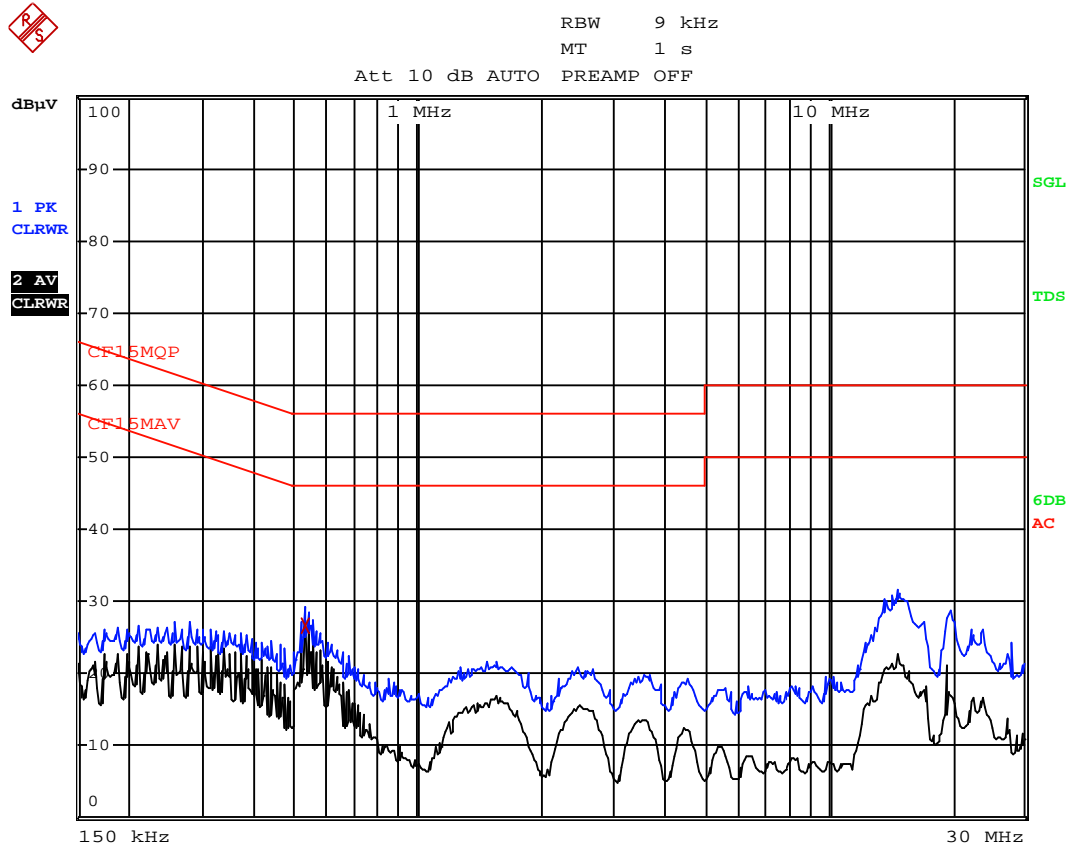
Worst Case: TX with PC Mode (PC's AC Mains)

EDIT PEAK LIST (Final Measurement Results)				
Trace1:	CF15MQP			
Trace2:	CF15MAV			
Trace3:	---			
TRACE	FREQUENCY	LEVEL dBμV	DELTA LIMIT dB	
2 CISPR Average	532.5 kHz	26.97 L1	-19.03	

Date: 2.MAR.2011 18:40:40

# INTERTEK TESTING SERVICES

Worst Case: RX with PC Mode (PC's AC Mains)



Date: 2.MAR.2011 18:48:10

## INTERTEK TESTING SERVICES

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Worst Case: RX with PC Mode (PC's AC Mains)

EDIT PEAK LIST (Final Measurement Results)				
Trace1:	CF15MQP			
Trace2:	CF15MAV			
Trace3:	---			
TRACE	FREQUENCY	LEVEL dBμV	DELTA	LIMIT dB
2 CISPR Average	532.5 kHz	26.65 N	-19.34	

Date: 2.MAR.2011 18:48:01

## **INTERTEK TESTING SERVICES**

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### **4.6 Radio Frequency Exposure Compliance**

The Routine RF Exposure Evaluation, Routine SAR Evaluation and Declaration of RF Exposure Compliance are saved as filename: RF exposure.pdf

## **INTERTEK TESTING SERVICES**

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### **EXHIBIT 5 EQUIPMENT LIST**

## INTERTEK TESTING SERVICES

### 5.0 Equipment List

#### 1) Radiated Emissions Test

Equipment	Biconical Antenna	Spectrum Analyzer	Log Periodic Antenna
Registration No.	EW-0954	EW-2188	EW-0446
Manufacturer	EMCO	AGILENTTECH	EMCO
Model No.	3104C	E4407B	3146
Calibration Date	Apr. 14, 2010	Dec. 27, 2010	Apr. 26, 2010
Calibration Due Date	Oct. 14, 2011	Dec. 31, 2011	Oct. 26, 2011

Equipment	EMI Test Receiver	Spectrum Analyzer 40GHz	Digital Multimeter
Registration No.	EW-2251	EW-2253	EW-1237
Manufacturer	R&S	ROHDESCHWARZ	FLUKE
Model No.	ESCI	FSP40	179
Calibration Date	Oct. 22, 2009	Jun. 10, 2010	Sep. 01, 2010
Calibration Due Date	Apr. 22, 2011	Jun. 10, 2011	Oct. 01, 2011

Equipment	Double Ridged Guide Antenna	Broad-Band Horn Antenna with frequency range 14G - 40GHz
Registration No.	EW-1015	EW-1679
Manufacturer	EMCO	SCHWARZBECK
Model No.	3115	BBHA9170
Calibration Date	Feb. 09, 2010	Mar. 03, 2011
Calibration Due Date	Aug. 09, 2011	Sep. 03, 2011

#### 2) Conducted Emissions Test

Equipment	LISN	EMI Test Receiver	Pulse Limiter
Registration No.	EW-0090	EW-2666	EW-0699
Manufacturer	R&S	R&S	R&S
Model No.	ESH3-Z5	ESCI7	ESH3-Z2
Calibration Date	Feb. 05, 2010	Oct. 12, 2010	Dec. 24, 2009
Calibration Due Date	May 05, 2011	Oct. 12, 2011	Jun. 24, 2011

**END OF TEST REPORT**