TEST REPORT

Report Number: HK10080945-1

Application
for
Original Grant of 47 CFR Part 15 Certification
New Family of RSS-210 Issue 8 Equipment Certification

2.4GHz Frequency Hopping Spread Spectrum Baby Unit

FCC ID: N7TAC1100T

IC: 5786A-AC1100T

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November 30, 2010	November 30, 2010

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GENERAL INFORMATION

Applicant Name:	Angelcare Monitors Inc.
Applicant Address:	3980, Rue St-Ambroise, Montreal, Quebec, H4C 2C7, Canada.
FCC Specification Standard:	FCC Part 15, October 1, 2009 Edition
FCC ID:	N7TAC1100T
FCC Model(s):	AC1100, AC1120
IC Specification Standard:	RSS-210 Issue 8, December 2010 RSS-Gen Issue 3, December 2010 RSS-102 Issue 4, March 2010
IC:	5786A-AC1100T
IC Model(s):	AC1100, AC1120
Type of EUT:	Spread Spectrum Transmitter
Description of EUT:	2.4GHz Frequency Hopping Spread Spectrum Baby Unit
Serial Number:	N/A
Sample Receipt Date:	August 19, 2010
Date of Test:	October 14-November 22, 2010
Report Date:	November 30, 2010
Environmental Conditions:	Temperature: +10 to 40°C Humidity: 10 to 90%

Table of Contents

EXHIBIT 1
TEST RESULTS SUMMARY & STATEMENT OF COMPLIANCE

1.0 Test Results Summary & Statement of Compliance

1.1 Summary of Test Results

Test Items	FCC Part 15 Section	RSS-210/ RSS-Gen# Section	Results	Details see section
Antenna Requirement	15.203	7.1.2#	Pass	2.1
Max. Conducted Output Power	15.247(b)(1) & (4)	A8.4(2)	Pass	4.1
Max. 20dB RF Bandwidth	N/A	N/A	N/A	4.2
Min. No. of Hopping Frequencies	15.247(a)(1)(iii)	A8.1(d)	Pass	4.3
Min. Hopping Channel Carrier Frequency Separation	15.247(a)(1)	A8.1(b)	Pass	4.4
Average Time of Occupancy	15.247(a)(1)(iii)	A8.1(d)	Pass	4.5
Out of Band Antenna Conducted Emission	15.247(d)	A8.5	Pass	4.6
Radiated Emission in Restricted Bands and Spurious Emissions	15.247(d) & 15.109	2.2	Pass	4.8
Radiated Emission from Receiver	N/A	2.3	Pass	4.9
AC Power Line Conducted Emission	15.207 & 15.107	7.2.4#	Pass	4.10
Radio Frequency Radiation Exposure	15.247(i)	RSS-102	Pass	4.11 4.12

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

EXHIBIT 2
GENERAL DESCRIPTION

2.0 General Description

2.1 Product Description

The Equipment Under Test (EUT) is a 2.4GHz Frequency Hopping Spread Spectrum Baby Unit of Video Baby Monitor. It operates at frequency range of 2404.125MHz to 2464.875MHz. It uses 19 channels in a clear RF environment and 16 channels in a RF interference environment. The EUT is powered by a 100-240VAC to 7.5VDC 0.5A AC adaptor or 3 x "AAA" size 1.5VDC battery.

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

The Model(s): AC1120 is the same as the Model: AC1100 in electronics/electrical designs, including software & firmware, PCB layout and construction design/physical design/enclosure. The only differences between these models are model number, components for movement detection and sensor pad jack are removed in AC1120 to be sold for marketing purpose.

The circuit description and frequency hopping algorithm are 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. Antenna port conducted measurements were performed according to FCC Public Notice DA 00-705. All other measurements were made in accordance with the procedures in 47 CFR Part 2.

2.3 Test Facility

The open area test site, AC Power Line conducted measurement facility, and antenna port conducted measurement facility used to collect the radiated data, AC Power Line conducted data, and conductive data are at Roof Top, 2nd Floor, and 5th 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.

EXHIBIT 3
SYSTEM TEST CONFIGURATION

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 100-240VAC to 7.5VDC 0.5A adaptor or 3 x “AAA” size 1.5VDC battery.

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 (as typical as possible).

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 were 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 in the transmit path and transmitter portion were measured, and the limit are according to FCC Part 15 Section 15.109.

3.1 Justification - Cont'd

Detector function for radiated emissions was in peak mode. Average readings, when required, were 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 4.8.3.

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 4.8.3. 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.

3.3 Details of EUT and Description of Accessories

Details of EUT:

An AC adaptor and/or a battery (provided with the unit) were used to power the device. Their description are listed below.

(1) An AC adaptor (100-240VAC to 7.5VDC 0.5A, Model: T07505U002) (Supplied by Client)
(2) Operated Battery: 3 x "AAA" size 1.5VDC battery (Supplied by Intertek)

Description of Accessories:

(1) Angelcare Parent Unit, Model: AC1100, FCC ID: N7TAC1100R (Supplied by Client)
(2) Angelcare Sensor Pad (Supplied by Client)

3.4 Measurement Uncertainty

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

Uncertainty and Compliance - Unless the standard specifically states that measured values are to be extended by the measurement uncertainty in determining compliance, all compliance determinations are based on the actual measured value.

3.5 Equipment Modification

Any modifications installed previous to testing by Angelcare Monitors Inc. will be incorporated in each production model sold/leased in the United States and Canada.

No modifications were installed by Commercial & Electrical Division, Intertek Testing Services Hong Kong Ltd.

EXHIBIT 4
TEST RESULTS

4.0 **Test Results**

4.1 Maximum Conducted Output Power at Antenna Terminals

☐ The antenna power of the EUT was connected to the input of a power meter. Power was read directly and cable loss correction was added to the reading to obtain power at the EUT antenna terminals.

☒ The antenna port of the EUT was connected to the input of a spectrum analyzer. The analyzer was set for RBW>20dB bandwidth and power was read directly in dBm. External attenuation and cable loss were compensated for using the OFFSET function of the analyser.

(Baby Unit) Antenna Gain = 0 dBi		
Frequency (MHz)	Output in dBm	Output in mWatt
Low Channel: 2404.125	15.94	39.26
Middle Channel: 2434.500	16.25	42.17
High Channel: 2464.875	16.00	39.81

Cable loss : 0.5 dB External Attenuation : 0 dB

Cable loss, external attenuation: ☒ included in OFFSET function
☐ added to SA raw reading

dBm max. output level = 16.25 dBm

Limits:
☒ 0.125W (21dBm) for antennas with gains of 6dBi or less

☐ 0.25W (24dBm) for antennas with gains of 6dBi or less

☐ 1W (30dBm) for antennas with gains of 6dBi or less

☐ ___W (___dBm) for antennas with gains more than 6dBi

The plots of conducted output power are attached in the Appendix and saved with filename: maxop.pdf

4.2 Maximum 20 dB RF Bandwidth

The antenna port of the EUT was connected to the input of a spectrum analyzer. Analyzer RES BW was chosen so that the display was a result of the hopping channel modulation. For each RF output channel investigated, the spectrum analyzer center frequency was set to the channel carrier. A PEAK output reading was taken, a DISPLAY line was drawn 20 dB lower than PEAK level. The 20 dB bandwidth was determined from where the channel output spectrum intersected the display line.

Baby Unit	
Frequency (MHz)	20 dB Bandwidth (kHz)
Low Channel: 2404.125	3312
Middle Channel: 2434.500	3310
High Channel: 2464.875	3348

Limits

☐ ≤500kHz for 902-928MHz

☒ N/A for 2400-2483.5MHz

☐ ≤1MHz for 5725-5850MHz

The plots of 20dB RF bandwidth are attached in the Appendix and saved with filename: 20dB.pdf

4.3 Minimum Number of Hopping Frequencies

With the analyzer set to MAX HOLD readings were taken for 2-3 minutes in each band. The channel peaks so recorded were added together, and the total number compared to the minimum number of channels required in the regulation.

Baby Unit	
No. of hopping channels (Traffic – in a RF interference environment)	16

Minimum Requirements:

☐ at least 50 hopping channels for 902MHz-928MHz (20 dB bandwidth of hopping channel < 250kHz)

☐ at least 25 hopping channels for 902MHz-928MHz (20 dB bandwidth of hopping channel ≥ 250kHz)

☒ at least 15 hopping channels for 2400MHz-2483.5MHz.

☐ at least 75 hopping channels for 5725MHz-5850MHz.

The plots of number of hopping frequencies are attached in the Appendix and saved with filename: chno.pdf

4.4 Minimum Hopping Channel Carrier Frequency Separation

Using the DELTA MARKER function of the analyzer, the frequency separation between two adjacent channels was measured and met the requirement.

Baby Unit	
Channel Separation (Channel 9 and Channel 10)	3375

Limits:
The channel separation must be larger than:

☐ 25 kHz

☐ 20 dB bandwidth of hopping channel: ___Hz

☒ 2/3 of 20dB bandwidth of hopping channel: 2232 kHz

The plot(s) of hopping channel carrier frequency separation is attached in the Appendix and saved with filename: fsepa.pdf

4.5 Average Channel Occupancy Time

The spectrum analyzer center frequency was set to one of the known hopping channels. The SWEEP was set to 1ms, the SPAN was set to ZERO SPAN, and the TRIGGER was set to VIDEO. The time duration of the transmission so captured was measured with the MARKER DELTA function.

The SWEEP was then set to the time required by the regulation (20 seconds for 902-928 MHz devices, if the 20dB bandwidth is less than 250kHz, 10 seconds for 902-928 MHz if the 20dB bandwidth is or greater than 250kHz, "0.4 seconds x Number of hopping channels employed" seconds for 2400-2483.5 MHz, 30 seconds for 5725-5850 MHz). The analyzer was set to SINGLE SWEEP, the total ON time was added and compared against the limit (0.4 seconds).

Baby Unit (worst-case: 1 parent unit operation)	
Average Occupancy Time (Traffic – in a clear RF environment) =	0.804 ms x 350 = 281.4 ms

Limits:
Average 0.4 seconds maximum occupancy in:

☒ 7.6 seconds (0.4 sec. x 19) for 2400MHz-2483.5MHz
(Traffic – in a clear RF environment)

☐ 20 seconds for 902MHz-928MHz ≥ 50 hopping channels

☐ 10 seconds for 902MHz-928MHz ≥ 25 hopping channels

☐ 30 seconds for 5725-5850MHz

The plots of average channel occupancy time are attached in the Appendix and saved with filename: avetime.pdf

4.6 Out of Band Conducted Emissions

In any 100 kHz bandwidth outside the EUT passband, the RF power produced by the modulation products of the spreading sequence, the information sequence, and the carrier frequency shall be at least 20 dB below that of the maximum in-band 100 kHz emission.

The plot(s) of bandedge compliance is shown the worst-case which has been already considered between enable and disable the hopping function of the EUT.

Furthermore, delta measurement technique for measuring bandedge emissions was incorporated in the test of the edge at 2483.5MHz.

Limits:
All spurious emission and up to the tenth harmonic was measured and they were found to be at least 20 dB below the highest level of the desired power in the passband.

The plots of out of band conducted emissions are attached in the Appendix and saved with filenames: obantcon.pdf

4.7 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 dBμV/m
RA = Receiver Amplitude (including preamplifier) in dBμV
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 reflects 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 dBμV 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 dBμV/m. This value in dBμV/m was converted to its corresponding level in μV/m.

RA = 62.0 dBμV
AF = 7.4 dB
CF = 1.6 dB
AG = 29 dB
PD = 0 dB
AV = -10 dB
FS = 62 + 7.4 +1.6 -29 +0 + (-10) = 32 dBμV/m

Level in μV/m = Common Antilogarithm [(32 dBμV/m)/20] = 39.8 μV/m

4.8 Transmitter Radiated Emissions in Restricted Bands and Spurious Emissions

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.

The data on the following pages list the significant emission frequencies, the limit and the margin of compliance.

4.8.1 Radiated Emission Configuration Photograph

Worst Case Restricted Band Radiated Emission
at

Baby Unit: 2484.350 MHz

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

4.8.2 Radiated Emission Data

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

Judgement -

Baby Unit: Passed by 1.1 dB margin compare with average limit

4.8.3 Transmitter Duty Cycle Calculation

For 1 parent unit operation,
Duty Cycle (DC) = (Maximum ON time in 1.608 ms) / (1.608 ms)
= 0.804 ms / 1.608 ms

Average Factor (AF) = 20 log(DC)
= 20* log (0.804 / 1.608)
= -6.0 dB

The plot(s) shows the bit timing is attached in the Appendix and saved with filename: dcc.pdf

Mode: TX-Channel 1

Table 1, Baby Unit

Radiated Emission Data

Polari-zation	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Average Factor (dB)	Calculated at 3m (dBµV/m)	Average Limit at 3m (dBµV/m)	Margin (dB)
H	***4808.250***	***48.9***	***33***	***34.9***	***6***	***44.8***	***54.0***	***-9.2***
H	***12020.625***	***42.9***	***33***	***40.5***	***6***	***44.4***	***54.0***	***-9.6***
H	***19233.000***	***45.1***	***33***	***37.7***	***6***	***43.8***	***54.0***	***-10.2***

Polari-zation	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBµV/m)	Peak Limit at 3m (dBµV/m)	Margin (dB)
H	***4808.250***	***48.9***	***33***	***34.9***	***50.8***	***74.0***	***-23.2***
H	***12020.625***	***42.9***	***33***	***40.5***	***50.4***	***74.0***	***-23.6***
H	***19233.000***	***45.1***	***33***	***37.7***	***49.8***	***74.0***	***-24.2***

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.

Mode: TX-Channel 10

Table 2, Baby Unit

Radiated Emission Data

Polari-zation	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Average Factor (dB)	Calculated at 3m (dBµV/m)	Average Limit at 3m (dBµV/m)	Margin (dB)
H	***2338.464***	***59.2***	***33***	***29.4***	***6***	***49.6***	***54.0***	***-4.4***
H	***4869.000***	***48.9***	***33***	***34.9***	***6***	***44.8***	***54.0***	***-9.2***
H	***7303.500***	***45.6***	***33***	***37.9***	***6***	***44.5***	***54.0***	***-9.5***
H	***12172.500***	***42.4***	***33***	***40.5***	***6***	***43.9***	***54.0***	***-10.1***
H	***19476.000***	***44.9***	***33***	***37.7***	***6***	***43.6***	***54.0***	***-10.4***

Polari-zation	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBµV/m)	Peak Limit at 3m (dBµV/m)	Margin (dB)
H	***2338.464***	***59.2***	***33***	***29.4***	***55.6***	***74.0***	***-18.4***
H	***4869.000***	***48.9***	***33***	***34.9***	***50.8***	***74.0***	***-23.2***
H	***7303.500***	***45.6***	***33***	***37.9***	***50.5***	***74.0***	***-23.5***
H	***12172.500***	***42.4***	***33***	***40.5***	***49.9***	***74.0***	***-24.1***
H	***19476.000***	***44.9***	***33***	***37.7***	***49.6***	***74.0***	***-24.4***

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.

Mode: TX-Channel 19

Table 3, Baby Unit

Radiated Emission Data

Polari-zation	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Average Factor (dB)	Calculated at 3m (dBµV/m)	Average Limit at 3m (dBµV/m)	Margin (dB)
V	**2464.875	115.1	33	29.4	6	105.5	–	--
H	***2368.852***	***59.3***	***33***	***29.4***	***6***	***49.7***	***54.0***	***-4.3***
H	***4929.750***	***49.0***	***33***	***34.9***	***6***	***44.9***	***54.0***	***-9.1***
H	***7394.625***	***45.7***	***33***	***37.9***	***6***	***44.6***	***54.0***	***-9.4***
H	***12324.375***	***42.3***	***33***	***40.5***	***6***	***43.8***	***54.0***	***-10.2***
H	***19719.000***	***44.7***	***33***	***37.8***	***6***	***43.5***	***54.0***	***-10.5***

Polari-zation	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBµV/m)	Peak Limit at 3m (dBµV/m)	Margin (dB)
V	**2464.875	115.1	33	29.4	111.5	--	--
H	***2368.852***	***59.3***	***33***	***29.4***	***55.7***	***74.0***	***-18.3***
H	***4929.750***	***49.0***	***33***	***34.9***	***50.9***	***74.0***	***-23.1***
H	***7394.625***	***45.7***	***33***	***37.9***	***50.6***	***74.0***	***-23.4***
H	***12324.375***	***42.3***	***33***	***40.5***	***49.8***	***74.0***	***-24.2***
H	***19719.000***	***44.7***	***33***	***37.8***	***49.5***	***74.0***	***-24.5***

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.

** Fundamental emission was measured for determining band-edge compliance of using delta measurement technique. Peak level and average level at the upper bandedge were 58.9 dBµV/m and 52.9 dBµV/m respectively.

Mode: Talk

Table 4, Baby Unit

Radiated Emission Data

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-amp (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Limit at 3m (dBµV/m)	Margin (dB)
V	***120.000***	***35.4***	***16***	***14.0***	***33.4***	***43.5***	***-10.1***
H	***132.000***	***36.5***	***16***	***14.0***	***34.5***	***43.5***	***-9.0***
H	180.000	30.6	16	20.0	34.6	43.5	-8.9
H	204.000	35.4	16	16.0	35.4	43.5	-8.1
H	216.000	34.2	16	17.0	35.2	43.5	-8.3
H	***240.000***	***32.0***	***16***	***19.0***	***35.0***	***46.0***	***-11.0***
H	***264.000***	***29.5***	***16***	***21.0***	***34.5***	***46.0***	***-11.5***
H	312.000	27.6	16	23.0	34.6	46.0	-11.4
H	360.000	25.4	16	24.0	33.4	46.0	-12.6
H	***408.000***	***24.2***	***16***	***24.0***	***32.2***	***46.0***	***-13.8***

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.

4.9 Radiated Emissions from Receiver

4.9.1 Radiated Emission Configuration Photograph

Worst Case Radiated Emission
at

Baby Unit: 2430.000 MHz

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

4.9.2 Radiated Emission Data

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

Judgement –

Baby Unit: Passed by 13.2 dB margin

Mode: Receiving – Middle Channel

Table 5, Baby Unit

Radiated Emissions Data

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-amp (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Limit at 3m (dBµV/m)	Margin (dB)
V	2430.000	44.4	33	29.4	40.8	54.0	-13.2
V	4860.000	38.6	33	34.9	40.5	54.0	-13.5
V	7290.000	35.5	33	37.9	40.4	54.0	-13.6
V	9720.000	32.2	33	40.4	39.6	54.0	-14.4
V	12150.000	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.

4.10 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.

4.10.1 AC Power Line Conducted Emission Configuration Photograph

Worst Case Line-Conducted Configuration
at

1.536 MHz

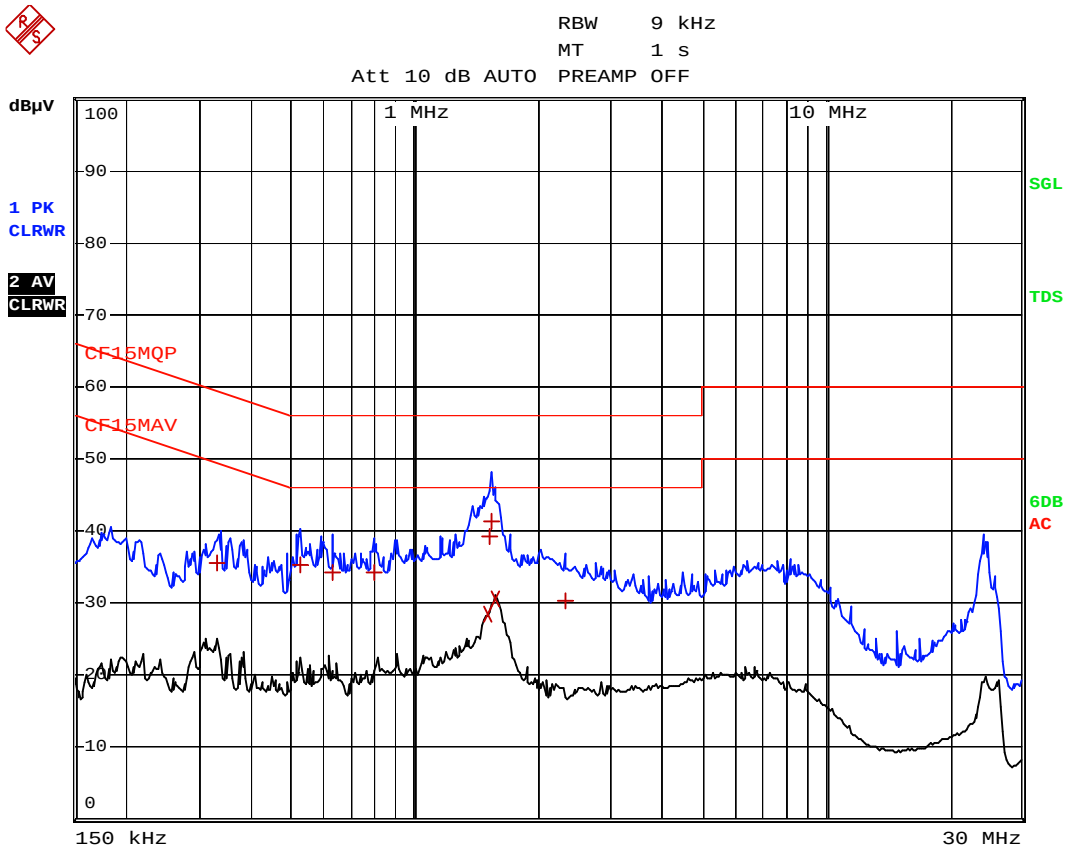
The worst case line conducted configuration photographs are attached in the Appendix and saved with filename: config photos.pdf

4.10.2 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 14.57 dB margin compare with quasi-peak limit

Worst Case: Rx Mode



Date: 14.OCT.2010 23:58:25

Worst Case: Rx Mode

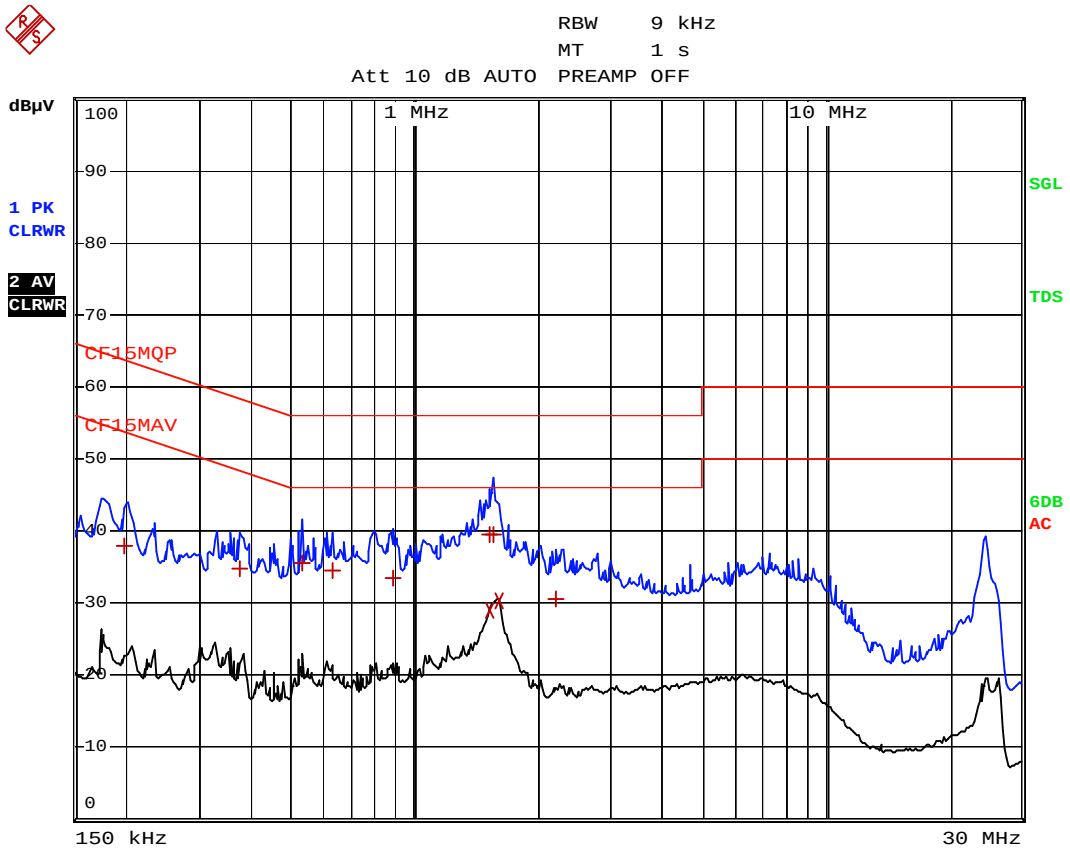
EDIT PEAK LIST (Final Measurement Results)

Trace1: CF15MQP
Trace2: CF15MAV
Trace3: ---

	TRACE	FREQUENCY	LEVEL dBµV		DELTA LIMIT dB
1	Quasi Peak	334.5 kHz	35.53	L1 gnd	-23.80
1	Quasi Peak	523.5 kHz	35.28	L1 gnd	-20.71
1	Quasi Peak	627 kHz	34.25	N gnd	-21.75
1	Quasi Peak	793.5 kHz	34.23	N gnd	-21.76
1	Quasi Peak	1.518 MHz	39.29	L1 gnd	-16.70
2	CISPR Average	1.518 MHz	28.54	L1 gnd	-17.46
1	Quasi Peak	1.536 MHz	41.43	L1 gnd	-14.57
2	CISPR Average	1.5765 MHz	30.56	L1 gnd	-15.43
1	Quasi Peak	2.337 MHz	30.21	N gnd	-25.78

Date: 14.OCT.2010 23:58:16

Worst Case: Tx Mode



Date: 14.OCT.2010 23:28:32

Worst Case: Tx Mode

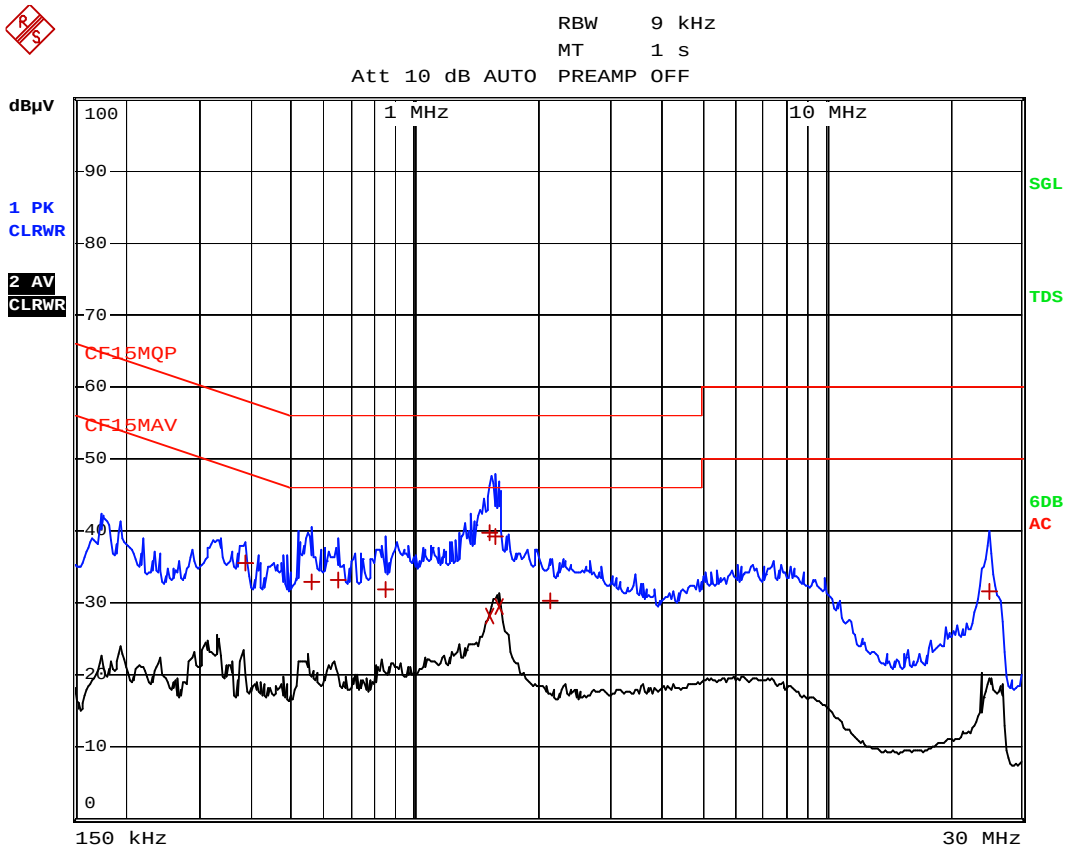
EDIT PEAK LIST (Final Measurement Results)

Trace1: CF15MQP
Trace2: CF15MAV
Trace3: ---

TRACE		FREQUENCY	LEVEL dBµV		DELTA LIMIT dB
1	Quasi Peak	199.5 kHz	37.95	L1 gnd	-25.68
1	Quasi Peak	375 kHz	34.82	N gnd	-23.56
1	Quasi Peak	532.5 kHz	35.54	L1 gnd	-20.45
1	Quasi Peak	631.5 kHz	34.55	N gnd	-21.45
1	Quasi Peak	888 kHz	33.38	L1 gnd	-22.61
1	Quasi Peak	1.5225 MHz	39.55	L1 gnd	-16.44
2	CISPR Average	1.5225 MHz	28.90	L1 gnd	-17.09
1	Quasi Peak	1.554 MHz	39.48	L1 gnd	-16.51
2	CISPR Average	1.6125 MHz	30.23	L1 gnd	-15.76
1	Quasi Peak	2.2155 MHz	30.52	N gnd	-25.47

Date: 14.OCT.2010 23:28:15

Worst Case: Alarm Mode



Date: 14.OCT.2010 23:53:55

Worst Case: Alarm Mode

EDIT PEAK LIST (Final Measurement Results)

Trace1: CF15MQP
Trace2: CF15MAV
Trace3: ---

	TRACE	FREQUENCY	LEVEL dBµV		DELTA LIMIT dB
1	Quasi Peak	384 kHz	35.47	L1 gnd	-22.72
1	Quasi Peak	559.5 kHz	32.89	L1 gnd	-23.10
1	Quasi Peak	649.5 kHz	33.29	N gnd	-22.71
1	Quasi Peak	852 kHz	31.94	N gnd	-24.06
2	CISPR Average	1.518 MHz	28.20	L1 gnd	-17.80
1	Quasi Peak	1.5225 MHz	39.70	L1 gnd	-16.29
1	Quasi Peak	1.572 MHz	39.17	L1 gnd	-16.82
2	CISPR Average	1.608 MHz	29.46	L1 gnd	-16.53
1	Quasi Peak	2.148 MHz	30.34	N gnd	-25.65
1	Quasi Peak	25.008 MHz	31.75	L1 gnd	-28.24

Date: 14.OCT.2010 23:53:47

4.11 Radio Frequency Radiation Exposure

EUT is subject to the radio frequency exposure requirements specified in FCC Rule §§ 1.1307. It shall be considered to operate in a “general population / uncontrolled” environment.

☐ Output power is less than the applicable low threshold from SAR evaluation. The evaluation calculation results are saved as filename: RF exposure info.pdf

☒ EUT was evaluated for Maximum Permissible Exposure (MPE) evaluation compliance according to OET Bulletin 65 (Edition 97-01). The evaluation calculation results are attached in the Appendix and saved as filename: RF exposure info.pdf

4.12 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

EXHIBIT 5
EQUIPMENT LIST

5.0 **Equipment List**

1) Radiated Emissions Test

Equipment	Biconical Antenna	Log Periodic Antenna	Double Ridged Guide Antenna	Digital Multimeter
Registration No.	EW-0954	EW-0446	EW-1015	EW-1237
Manufacturer	EMCO	EMCO	EMCO	FLUKE
Model No.	3104C	3146	3115	179
Calibration Date	Apr. 14, 2010	Apr. 26, 2010	Feb. 09, 2010	Sep. 01, 2010
Calibration Due Date	Apr. 14, 2011	Oct. 26, 2011	Aug. 09, 2011	Oct. 01, 2011

Equipment	EMI Test Receiver	Spectrum Analyzer	Broad-Band Horn Antenna
Registration No.	EW-2251	EW-2188	EW-1679
Manufacturer	R&S	AGILENTTECH	SCHWARZBECK
Model No.	ESCI	E4407B	BBHA9170
Calibration Date	Oct. 22, 2009	Dec. 25, 2009	Feb. 17, 2010
Calibration Due Date	Jan. 22, 2011	Dec. 31, 2010	Feb. 17, 2011

2) Conducted Emissions Test

Equipment	EMI Test Receiver	LISN	Pulse Limiter
Registration No.	EW-2500	EW-0090	EW-0698
Manufacturer	R&S	R&S	R&S
Model No.	ESCI	ESH3-Z5	ESH3-Z2
Calibration Date	Sep. 20, 2009	Feb. 05, 2010	Mar. 01, 2010
Calibration Due Date	Dec. 20, 2010	Feb. 05, 2011	Mar. 01, 2011

3) Conductive Measurement Test

Equipment	Spectrum Analyzer
Registration No.	EW-2466
Manufacturer	R&S
Model No.	FSP30
Calibration Date	Nov. 11, 2009
Calibration Due Date	Feb. 11, 2011

END OF TEST REPORT