

TEST REPORT

Report Number: HK09061219-1(R1)

Application
for
Original Grant of 47 CFR Part 15 Certification
New Family of RSS-210 Issue 7 Equipment Certification

900MHz Direct Sequence Spread Spectrum Cordless Phone with
Speakerphone

FCC ID: TYD35911

IC: 8471A-35911

Supersede report no. HK09061219-1 dated January 07, 2010

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January 28, 2010

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GENERAL INFORMATION

Applicant Name:	LogicMark, LLC
Applicant Address:	8625 Hampton Way, Fairfax Station, Virginia 22039, USA.
FCC Specification Standard:	FCC Part 15: 2008
FCC ID:	TYD35911
FCC Model(s):	35911, 37911
IC Specification Standard:	RSS-210 Issue 7, June 2007 RSS-Gen Issue 2, June 2007 RSS-102 Issue 3, June 2009
IC:	8471A-35911
IC Model(s):	35911, 37911
Type of EUT:	Transceiver
Description of EUT:	900MHz Direct Sequence Spread Spectrum Cordless Phone with Speakerphone
Serial Number:	N/A
Sample Receipt Date:	June 24, 2009
Date of Test:	August 18-21, 2009
Report Date:	January 28, 2010
Environmental Conditions:	Temperature: +10 to 40°C Humidity: 10 to 90%

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1.0 Summary of Test Results

Test Items	FCC Part 15 Section	RSS-210/ RSS-Gen [#] / RSS-310 [^] Section	Results	Details see section
Antenna Requirement	15.203	7.1.4 [#]	Pass	2.1
Security Code Information	15.214(d)	2.4	Pass	2.1
Radiated Emission	15.249(a), 209, & 109 15.249(d)	A2.9(a)	Pass	4.2
Radiated Emission on the Bandedge		A2.9(b)	Pass	4.4
Radiated Emission in Restricted Bands	15.205	2.2	Pass	4.2
Radiated Emission from Receiver	N/A	2.3	Pass	4.3
AC Power Line Conducted Emission	15.207 & 15.107	7.2.2 [#]	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.

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EXHIBIT 2 GENERAL DESCRIPTION

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2.0 **General Description**

2.1 Product Description

The 35911 is a 900MHz Direct Sequence Spread Spectrum Cordless Phone with Speakerphone. It operates at frequency range of 903.5MHz to 926.3MHz. The Base Unit is powered by an adaptor 100-240VAC to 7.5VDC 0.5A. The Handset is powered by a "Li-ion" type rechargeable battery pack (3.7V 320mAh).

The antennas used in base unit and handset are integral, and the test sample is a prototype.

For FCC and IC, the Model(s): 37911 is the same as the Model: 35911 in hardware aspect. The difference in model number serves as the marketing strategy.

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

Connection between the device and the telephone network is accomplished through the use of USOC RJ11C in the 2-wire loop calling central office line.

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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 located at Roof Top and 2nd Floor respectively of 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 Base Unit was powered by a 100-240VAC to 7.5VDC 0.5A adaptor.

The handset was powered by a fully charged battery.

For the measurements, the EUT is attached to a plastic stand if necessary and placed on the wooden turntable. The handset is remotely located as far from the antenna and the base as possible to ensure full power transmission from the base. Else, the base is wired to transmit full power without modulation.

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

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 5GHz frequency, whichever is lower.

Emission that are directly caused by digital circuits in the transmit path and transmitter portion are 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 100kHz 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 Peripherals

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) Base Unit: An AC adaptor (100-240VAC to 7.5VDC 0.5A, Model: KSAA0750050W1US) (Supplied by Client)
- (2) Base Unit and Handset: A "Li-ion" type rechargeable battery pack (3.7V 320mAh) (Supplied by Client)
- (3) Base Unit: Backup Battery 4 x "Ni-MH" rechargeable battery, "AA" size, (1.2V, 1600mAh) (Supplied by Client)

Description of Peripherals:

- (1) Telecommunication cable with RJ11C connector (3m, unshielded) (Supplied by Intertek)
- (2) Telecommunication cable with RJ11C connector (1m, unshielded), terminated (Supplied by Intertek)
- (3) Simple Corded Phone, Model: FC2548W (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 LogicMark, LLC 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.

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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 Antenna Factor and Cable Factor, and subtracting the Amplifier Gain (if any) from the measured reading. The basic equation with a sample calculation is as follows:

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

where FS = Field Strength in dB μ V/m
 RA = Receiver Amplitude (including preamplifier) in dB μ V
 CF = Cable Attenuation Factor in dB
 AF = Antenna Factor in dB
 AG = Amplifier Gain in dB

In the following table(s), the reading shown on the data table reflects the preamplifier gain. An example for the calculations in the following table is as follows:-

$$FS = RR + LF$$

where FS = Field Strength in dB μ V/m
 RR = RA - AG in dB μ V
 LF = CF + AF in dB

Assume a receiver reading of 52.0 dB μ 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, giving a field strength of 32 dB μ V/m. This value in dB μ V/m was converted to its corresponding level in μ V/m.

RA = 52.0 dB μ V	
AF = 7.4 dB	RR = 23.0 dB μ V
CF = 1.6 dB	LF = 9.0 dB
AG = 29.0 dB	
FS = RR + LF	
FS = 23 + 9 = 32 dB μ V/m	

Level in μ V/m = Common Antilogarithm [(32 dB μ V/m)/20] = 39.8 μ V/m

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4.2 Radiated Emissions

4.2.1 Radiated Emission Configuration Photograph

Worst Case Radiated Emission
at

Base Unit: 1807.000 MHz

Handset: 2475.000 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 -

Base Unit: Passed by 5.6 dB margin compare with limit

Handset: Passed by 2.0 dB margin compare with limit

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4.2.3 Average Factor Calculation and Transmitter ON Time Measurements

- [] The EUT antenna output port was connected to the input of the spectrum analyzer. The analyzer center frequency was set to EUT RF channel carrier. The SPAN function on the analyzer was set to ZERO. The transmitter ON time was determined from the resultant time-amplitude display:

Please refer to the attached plots for more details:

The plots of Transmitter ON Time Measurements are saved as filename: txon.pdf

- [] Please refer to the attached transmitter timing diagram that are provided by manufacturer
- [×] Not applicable - No average factor is required. 100% duty cycle is considered for worst - case operation.
- [] Please refer to Technical Description (descri.pdf) for more details

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Mode: TX

Table 1, Base Unit

Radiated Emission Data

Lowest Channel

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Limit at 3m (dBμV/m)	Margin (dB)
V	903.500	59.0	16	32.0	75.0	94.0	-19.0
V	1807.000	54.2	33	27.2	48.4	54.0	-5.6
V	2710.500	50.2	33	30.4	47.6	54.0	-6.4
V	3614.000	47.7	33	33.3	48.0	54.0	-6.0
V	4517.500	45.7	33	34.9	47.6	54.0	-6.4
V	5421.000	44.5	33	35.7	47.2	54.0	-6.8
V	6324.500	42.9	33	36.9	46.8	54.0	-7.2
V	7228.000	38.3	33	37.9	43.2	54.0	-10.8

Middle Channel

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Limit at 3m (dBμV/m)	Margin (dB)
V	915.000	58.0	16	33.0	75.0	94.0	-19.0
V	1830.000	50.8	33	27.2	45.0	54.0	-9.0
H	2745.000	49.6	33	30.4	47.0	54.0	-7.0
H	3660.000	46.1	33	33.3	46.4	54.0	-7.6
H	4575.000	44.2	33	34.9	46.1	54.0	-7.9
H	5490.000	45.4	33	35.7	48.1	54.0	-5.9
H	6405.000	41.1	33	36.9	45.0	54.0	-9.0
H	7320.000	38.3	33	37.9	43.2	54.0	-10.8

Highest Channel

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Limit at 3m (dBμV/m)	Margin (dB)
V	926.300	58.0	16	33.0	75.0	94.0	-19.0
V	1852.600	51.0	33	27.2	45.2	54.0	-8.8
H	2778.900	49.6	33	30.4	47.0	54.0	-7.0
H	3705.200	46.2	33	33.3	46.5	54.0	-7.5
H	4631.500	44.1	33	34.9	46.0	54.0	-8.0
H	5557.800	44.6	33	36.6	48.2	54.0	-5.8
H	6484.100	41.3	33	36.9	45.2	54.0	-8.8
H	7410.400	38.5	33	37.9	43.4	54.0	-10.6

- 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.
 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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Mode: Talk

Table 2, Base 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	38.485	39.6	16	10.0	33.6	40.0	-6.4
V	45.982	39.9	16	10.0	33.9	40.0	-6.1
V	54.574	39.1	16	11.0	34.1	40.0	-5.9
H	108.683	36.2	16	14.0	34.2	43.5	-9.3
H	132.594	35.2	16	14.0	33.2	43.5	-10.3
H	192.263	32.8	16	16.0	32.8	43.5	-10.7

- 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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Mode: TX

Table 3, Handset

Radiated Emission Data

Lowest Channel

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Limit at 3m (dBμV/m)	Margin (dB)
V	903.500	59.0	16	32.0	75.0	94.0	-19.0
H	1807.000	53.8	33	27.2	48.0	54.0	-6.0
H	2710.500	52.6	33	30.4	50.0	54.0	-4.0
H	3614.000	47.9	33	33.3	48.2	54.0	-5.8
H	4517.500	44.5	33	34.9	46.4	54.0	-7.6
H	5421.000	40.7	33	35.7	43.4	54.0	-10.6
H	6324.500	39.3	33	36.9	43.2	54.0	-10.8
H	7228.000	38.1	33	37.9	43.0	54.0	-11.0

Middle Channel

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Limit at 3m (dBμV/m)	Margin (dB)
V	915.000	58.0	16	33.0	75.0	94.0	-19.0
H	1830.000	53.8	33	27.2	48.0	54.0	-6.0
H	2745.000	54.6	33	30.4	52.0	54.0	-2.0
H	3660.000	47.7	33	33.3	48.0	54.0	-6.0
H	4575.000	44.1	33	34.9	46.0	54.0	-8.0
H	5490.000	40.1	33	35.7	42.8	54.0	-11.2
H	6405.000	38.9	33	36.9	42.8	54.0	-11.2
H	7320.000	38.1	33	37.9	43.0	54.0	-11.0

Highest Channel

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Limit at 3m (dBμV/m)	Margin (dB)
V	926.300	58.0	16	33.0	75.0	94.0	-19.0
H	1852.600	53.8	33	27.2	48.0	54.0	-6.0
H	2778.900	54.4	33	30.4	51.8	54.0	-2.2
H	3705.200	47.7	33	33.3	48.0	54.0	-6.0
H	4631.500	44.3	33	34.9	46.2	54.0	-7.8
H	5557.800	39.4	33	36.6	43.0	54.0	-11.0
H	6484.100	39.1	33	36.9	43.0	54.0	-11.0
H	7410.400	38.1	33	37.9	43.0	54.0	-11.0

- 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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Mode: Talk

Table 4, Handset

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	38.469	39.4	16	10.0	33.4	40.0	-6.6
V	45.834	39.8	16	10.0	33.8	40.0	-6.2
V	54.376	39.1	16	11.0	34.1	40.0	-5.9
H	108.629	36.3	16	14.0	34.3	43.5	-9.2
H	132.546	35.2	16	14.0	33.2	43.5	-10.3
H	194.629	32.6	16	16.0	32.6	43.5	-10.9

- 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

Base Unit: 914.500MHz

Handset: 914.500MHz

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 5-6 list the significant emission frequencies, the limit and the margin of compliance.

Judgement -

Base Unit: Passed by 4.2 dB margin

Handset: Passed by 4.4 dB margin

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Mode: Receiving – Middle Channel

Table 5, Base Unit

Radiated Emissions Data

Polarization	Frequency (MHz)	Reading (dB μ V)	Pre-amp (dB)	Antenna Factor (dB)	Net at 3m (dB μ V/m)	Limit at 3m (dB μ V/m)	Margin (dB)
V	914.500	24.8	16	33.0	41.8	46.0	-4.2
H	1828.000	46.0	33	27.2	40.2	54.0	-13.8
H	2743.500	42.7	33	30.4	40.1	54.0	-13.9
H	3658.000	38.9	33	33.3	39.2	54.0	-14.8
H	4572.500	35.9	33	34.9	37.8	54.0	-16.2

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.

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Mode: Receiving – Middle Channel

Table 6, Handset

Radiated Emissions Data

Polarization	Frequency (MHz)	Reading (dB μ V)	Pre-amp (dB)	Antenna Factor (dB)	Net at 3m (dB μ V/m)	Limit at 3m (dB μ V/m)	Margin (dB)
V	914.500	24.6	16	33.0	41.6	46.0	-4.4
H	1828.000	45.8	33	27.2	40.0	54.0	-14.0
H	2743.500	42.6	33	30.4	40.0	54.0	-14.0
H	3658.000	39.1	33	33.3	39.4	54.0	-14.6
H	4572.500	36.3	33	34.9	38.2	54.0	-15.8

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. 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 (902MHz and 928MHz). In case of the fundamental emissions are within two standard bandwidths 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 2 of RSS-210, 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

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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 is powered by battery for operation. 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

0.344 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 conducted emission test result is attached in the Appendix and saved with filename: conduct.pdf

Judgement -

Passed by 5.42 dB margin compare with quasi-peak limit

INTERTEK TESTING SERVICES

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

5.0 Equipment List

1) Radiated Emissions Test

Equipment	Biconical Antenna	Log Periodic Antenna	Double Ridged Guide Antenna
Registration No.	EW-0954	EW-0446	EW-1015
Manufacturer	EMCO	EMCO	EMCO
Model No.	3104C	3146	3115
Calibration Date	Sep. 30, 2008	Oct. 02, 2008	Jul. 28, 2008
Calibration Due Date	Mar. 30, 2010	Apr. 02, 2010	Jan. 28, 2010

Equipment	EMI Test Receiver	Spectrum Analyzer
Registration No.	EW-0014	EW-2188
Manufacturer	R&S	AGILENTTECH
Model No.	ESVS30	E4407B
Calibration Date	June 01, 2009	Dec. 18, 2008
Calibration Due Date	June 01, 2010	Dec. 18, 2009

2) Conducted Emissions Test

Equipment	EMI Test Receiver	LISN	Pulse Limiter
Registration No.	EW-2251	EW-0192	EW-0698
Manufacturer	R&S	R&S	R&S
Model No.	ESCI	ESH3-Z5	ESH3-Z2
Calibration Date	Oct. 28, 2008	Nov. 12, 2008	Feb 03, 2009
Calibration Due Date	Oct. 28, 2009	Nov. 12, 2009	Feb 03, 2010

END OF TEST REPORT