

CCT R&D Ltd.

Application
For
Permissive Change Class II

2.4GHz/900MHz 35 Channel Analog Modulation Cordless Phone with
Caller ID - Base Unit

(FCC ID: NC8KX-TG2120)

06151701
KL/ Ann Choy
July 15, 2006

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MEASUREMENT/TECHNICAL REPORT

CCT R&D Ltd. - Model: KX-TG2120X, KX-TG2122X
FCC ID: NC8KX-TG2120

This report concerns (check one): Original Grant Class II Change

Equipment Type : DXT - Cordless Telephone

Deferred grant requested per 47 CFR
0.457(d)(1)(ii)? Yes No

If yes, defer until : _____
date

Company Name agrees to notify the Commission
by:

date

of the intended date of announcement of the product so that the grant can be issued
on that date.

Transition Rules Request per 15.37 ? Yes No

If no, assumed Part 15, Subpart C for intentional radiator - the new 47 CFR [04-05-05
Edition] Provision.

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List of attached file

Exhibit type	File Description	filename
Cover Page	Purpose of Application	product change.pdf
Cover Page	Confidentiality Request	request.pdf
Test Report	Test Report	report.pdf
Operation Description	Technical Description	descri.pdf
Test Setup Photo	Radiated Emission for Base	config photos.doc
Test Report	Emission Plot	emission.pdf
Test Setup Photo	Conducted Emission	config photos.doc
Test Report	Conducted Emission Test Result	conduct.pdf
External Photo	External Photo	external photos.doc
Internal Photo	Internal Photo	internal photos1.doc internal photos2.doc internal photos3.doc
Block Diagram	Block Diagram	block.pdf
Schematics	Circuit Diagram	circuit.pdf
ID Label/Location	Label Artwork and Location	label.pdf
User Manual	User Manual	manual.pdf
User Manual	FCC Information	fcc information.pdf

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EXHIBIT 1
GENERAL DESCRIPTION

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1.0 General Description

1.1 Product Description

The KX-TG2120, KX-TG2122 is a 2.4GHz/900MHz 35 Channel Analog Modulation Cordless Phone with Caller ID. Base unit and handset operate at frequency of 2480.059MHz to 2482.901MHz and 911.172MHz to 913.067MHz respectively. The unit is capable of either tone or pulse dialing. The internal power supply's isolation is accomplished through a power transformer having an adequate dielectric rating. The circuit wiring is consistent under the requirement of part 68.

The handset unit consists of a keypad with twelve standard keys (0,...9,*,#), seven function keys (REDIAL/PAUSE, FLASH, CID/VOL up, CID/VOL down, EDIT, MUTE/CLEAR, AUTO/FUNCTION), and one channel switch key. A Talk and OFF keys are provided to control pick/release telephone line in a toggle base.

The base unit has a page key, which is used to page the handset unit.

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

The base unit Model: KX-TG2120, KX-TG2122 are one of the Model: KX-TG2120X, KX-TG2122X respectively. Suffix "X" represents cosmetic changes and serves as marketing strategy, but does not affect Part 15 compliance. KX-TG2120X is the same as KX-TG2122X, except KX-TG2122X has additional reset circuit on the base band circuit for supporting two handsets feature. KX-TG2122X has one additional handset and extra charger. The difference in model number serves as marketing strategy.

The circuit description is 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.

1.2 Purpose of Application

In general, the base TX antenna was changed to improve the indoor range performance of the product. Some components were changed to improve the overall EMI performance.

In addition, the configuration of TX power amplifier Q4, are different for model KX-TG2120 and KX-TG2122. All of the following versions are tested and test results are enclosed in this report:

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KX-TG2120 - Totally two versions

Version 1 - TX power amplifier Q4 model: MTS45T.

Version 2 - TX power amplifier Q4 model: MTS37T.

KX-TG2122 - TX power amplifier Q4 model: MTS45T.

This is a single application for Certification of base unit of a cordless telephone system. The FCC ID of the associated handset is NC8KX-TG2120H and has been filed at the same time as this application. This specific report details the emission characteristics of each transmitter. The device is also subject to Part 68 Registration.

The purpose of application is saved with filename: product change.pdf

1.3 Test Methodology

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

1.4 Test Facility

The open area test site and conducted measurement facility used to collect the radiated data 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.

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EXHIBIT 2
SYSTEM TEST CONFIGURATION

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2.0 System Test Configuration

2.1 Justification

For emissions testing, the equipment under test (EUT) was setup to transmit continuously to simplify the measurement methodology. Care was taken to ensure proper power supply voltages during testing. During testing, all cables were manipulated to produce worst case emissions. 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. If the base unit attaches to peripherals, they are connected and operational (as typical as possible). 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.

All readings are extrapolated back to the equivalent three meter reading using inverse scaling with distance. Analyzer resolution is 100 kHz or greater for frequencies below 1000 MHz. The resolution is 1 MHz or greater for frequencies above 1000 MHz. The spurious emissions more than 20 dB below the permissible value are not reported.

Radiated emission measurement were performed 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.

2.2 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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2.3 Support Equipment List and Description

The FCC ID's for all equipment, plus descriptions of all cables used in the tested system are:

HARDWARE:

The unit was operated standalone. An AC adapter and a battery (provided with the unit) were used to power the device. Their description are listed below.

- (1) Base Unit: An AC adaptor (120VAC to 9VDC 200mA, Model: D9200CEC)
- (2) Handset: A "Ni-Cd" type rechargeable battery (3.6V 600mAh)

CABLES:

- (1) Telecommunication cable with RJ11C connectors (1m, unshielded), terminated

OTHERS:

- (1) A headset for telephone use with 1.2m unshielded cable permanently affixed. (Supplied by Intertek)

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2.4 Measurement Uncertainty

When determining of the test conclusion, the Measurement Uncertainty 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.

2.5 Equipment Modification

Any modifications installed previous to testing by CCT R&D Ltd. will be incorporated in each production model sold/leased in the United States.

No modifications were installed by ETL Division, Intertek Testing Services Hong Kong Ltd.

All the items listed under section 2.0 of this report are confirmed by:

Confirmed by:

*Lam Chun Cheong, Kenneth
Senior Lead Engineer
Intertek Testing Services
Agent for CCT R&D Ltd.*



Signature

July 15, 2006 Date

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EXHIBIT 3
EMISSION RESULTS

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3.0 Emission 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.

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3.1 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 $\text{dB}\mu\text{V}/\text{m}$

RA = Receiver Amplitude (including preamplifier) in $\text{dB}\mu\text{V}$

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 $\text{dB}\mu\text{V}/\text{m}$

RR = $RA - AG$ in $\text{dB}\mu\text{V}$

LF = $CF + AF$ in dB

Assume a receiver reading of 52.0 $\text{dB}\mu\text{V}$ 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 $\text{dB}\mu\text{V}/\text{m}$. This value in $\text{dB}\mu\text{V}/\text{m}$ was converted to its corresponding level in $\mu\text{V}/\text{m}$.

$$RA = 52.0 \text{ dB}\mu\text{V}$$

$$AF = 7.4 \text{ dB}$$

$$CF = 1.6 \text{ dB}$$

$$AG = 29.0 \text{ dB}$$

$$FS = RR + LF$$

$$FS = 23 + 9 = 32 \text{ dB}\mu\text{V}/\text{m}$$

$$RR = 23.0 \text{ dB}\mu\text{V}$$

$$LF = 9.0 \text{ dB}$$

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

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3.2 Radiated Emission Configuration Photograph - Base Unit

Worst Case Radiated Emission

at 827.634 MHz

For electronic filing, the worst case radiated emission configuration photographs are saved with filename: config photos.doc

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3.3 Radiated Emission Data - Base Unit

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

Judgement : Passed by 3.1 dB margin compare with the peak limit

TEST PERSONNEL:



Tester Signature

Jess Tang, Lead Engineer
Typed/Printed Name

15 July, 2006
Date

INTERTEK TESTING SERVICES

Company: CCT R&D Ltd.
Model: KX-TG2120 (Version 1)
Mode : TX-Channel 00

Date of Test: July 9-13, 2006

Table 1, Base unit

Radiated Emissions

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	2480.059	88.2	33	29.4	84.6	94.0	-9.4
V	413.343	24.1	16	25.0	33.1	46.0	-12.9
V	826.686	25.5	16	31.0	40.5	46.0	-5.5
V	1240.030	48.3	33	26.1	41.4	54.0	-12.6
H	1653.373	47.8	33	27.2	42.0	54.0	-12.0
V	2066.716	45.7	33	29.4	42.1	54.0	-11.9
H	*2893.402	43.1	33	30.4	40.5	54.0	-13.5
H	3306.745	44.5	33	31.9	43.4	54.0	-10.6
H	*4133.432	39.8	33	34.8	41.6	54.0	-12.4
H	*4960.118	40.9	33	34.9	42.8	54.0	-11.2
H	5786.804	39.6	33	36.6	43.2	54.0	-10.8
H	6613.491	36.1	33	36.9	40.0	54.0	-14.0

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. 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 Section 15.209, whichever is the lesser attenuation, which meet the requirement of part 15.249(d).

* Emission within the restricted band meets the requirement of part 15.205.

Test Engineer: Jess Tang

INTERTEK TESTING SERVICES

Company: CCT R&D Ltd.
Model: KX-TG2120 (Version 1)
Mode : TX-Channel 34

Date of Test: July 9-13, 2006

Table 2, Base unit

Radiated Emissions

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	2482.901	89.1	33	29.4	85.5	94.0	-8.5
V	413.817	24.0	16	25.0	33.0	46.0	-13.0
V	827.634	25.6	16	31.0	40.6	46.0	-5.4
V	1241.451	48.1	33	26.1	41.2	54.0	-12.8
H	1655.267	48.2	33	27.2	42.4	54.0	-11.6
V	2069.084	45.7	33	29.4	42.1	54.0	-11.9
H	*2896.718	43.2	33	30.4	40.6	54.0	-13.4
H	3310.535	44.6	33	31.9	43.5	54.0	-10.5
H	*4138.168	39.4	33	34.8	41.2	54.0	-12.8
H	*4965.802	40.5	33	34.9	42.4	54.0	-11.6
H	5793.436	39.8	33	36.6	43.4	54.0	-10.6
H	6621.069	36.1	33	36.9	40.0	54.0	-14.0

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. 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 Section 15.209, whichever is the lesser attenuation, which meet the requirement of part 15.249(d).

* Emission within the restricted band meets the requirement of part 15.205.

Test Engineer: Jess Tang

INTERTEK TESTING SERVICES

Company: CCT R&D Ltd.
Model: KX-TG2120 (Version 2)
Mode : TX-Channel 00

Date of Test: July 9-13, 2006

Table 3, Base unit

Radiated Emissions

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	2480.059	91.7	33	29.4	88.1	94.0	-5.9
V	413.343	23.4	16	25.0	32.4	46.0	-13.6
V	826.686	27.8	16	31.0	42.8	46.0	-3.2
V	1240.030	49.1	33	26.1	42.2	54.0	-11.8
H	1653.373	50.4	33	27.2	44.6	54.0	-9.4
V	2066.716	48.6	33	29.4	45.0	54.0	-9.0
H	*2893.402	43.8	33	30.4	41.2	54.0	-12.8
H	3306.745	46.7	33	31.9	45.6	54.0	-8.4
H	*4133.432	40.4	33	34.8	42.2	54.0	-11.8
H	*4960.118	43.3	33	34.9	45.2	54.0	-8.8
H	5786.804	42.2	33	36.6	45.8	54.0	-8.2
H	6613.491	36.3	33	36.9	40.2	54.0	-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. Horn antenna is used for the emission over 1000MHz.
5. 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 Section 15.209, whichever is the lesser attenuation, which meet the requirement of part 15.249(d).

* Emission within the restricted band meets the requirement of part 15.205.

Test Engineer: Jess Tang

INTERTEK TESTING SERVICES

Company: CCT R&D Ltd.
Model: KX-TG2120 (Version 2)
Mode : TX-Channel 34

Date of Test: July 9-13, 2006

Table 4, Base unit

Radiated Emissions

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	2482.901	91.2	33	29.4	87.6	94.0	-6.4
V	413.817	23.1	16	25.0	32.1	46.0	-13.9
V	827.634	27.9	16	31.0	42.9	46.0	-3.1
V	1241.451	48.7	33	26.1	41.8	54.0	-12.2
H	1655.267	50.0	33	27.2	44.2	54.0	-9.8
V	2069.084	49.2	33	29.4	45.6	54.0	-8.4
H	*2896.718	44.2	33	30.4	41.6	54.0	-12.4
H	3310.535	46.9	33	31.9	45.8	54.0	-8.2
H	*4138.168	40.5	33	34.8	42.3	54.0	-11.7
H	*4965.802	43.9	33	34.9	45.8	54.0	-8.2
H	5793.436	42.6	33	36.6	46.2	54.0	-7.8
H	6621.069	36.9	33	36.9	40.8	54.0	-13.2

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. 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 Section 15.209, whichever is the lesser attenuation, which meet the requirement of part 15.249(d), and this is the worst-case of 3.1dB margin at 827.647MHz.

* Emission within the restricted band meets the requirement of part 15.205.

Test Engineer: Jess Tang

INTERTEK TESTING SERVICES

Company: CCT R&D Ltd.
Model: KX-TG2122
Mode : TX-Channel 00

Date of Test: July 9-13, 2006

Table 5, Base unit

Radiated Emissions

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	2480.059	91.4	33	29.4	87.8	94.0	-6.2
V	413.343	24.2	16	25.0	33.2	46.0	-12.8
V	826.686	25.2	16	31.0	40.2	46.0	-5.8
V	1240.030	47.9	33	26.1	41.0	54.0	-13.0
H	1653.373	49.6	33	27.2	43.8	54.0	-10.2
V	2066.716	46.1	33	29.4	42.5	54.0	-11.5
H	*2893.402	43.5	33	30.4	40.9	54.0	-13.1
H	3306.745	45.1	33	31.9	44.0	54.0	-10.0
H	*4133.432	39.7	33	34.8	41.5	54.0	-12.5
H	*4960.118	41.6	33	34.9	43.5	54.0	-10.5
H	5786.804	40.5	33	36.6	44.1	54.0	-9.9
H	6613.491	36.1	33	36.9	40.0	54.0	-14.0

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. 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 Section 15.209, whichever is the lesser attenuation, which meet the requirement of part 15.249(d).

* Emission within the restricted band meets the requirement of part 15.205.

Test Engineer: Jess Tang

INTERTEK TESTING SERVICES

Company: CCT R&D Ltd.
Model: KX-TG2122
Mode : TX-Channel 34

Date of Test: July 9-13, 2006

Table 6, Base unit

Radiated Emissions

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	2482.901	91.2	33	29.4	87.6	94.0	-6.4
V	413.817	24.1	16	25.0	33.1	46.0	-12.9
V	827.634	25.3	16	31.0	40.3	46.0	-5.7
V	1241.451	48.2	33	26.1	41.3	54.0	-12.7
H	1655.267	49.2	33	27.2	43.4	54.0	-10.6
V	2069.084	46.2	33	29.4	42.6	54.0	-11.4
H	*2896.718	43.5	33	30.4	40.9	54.0	-13.1
H	3310.535	45.3	33	31.9	44.2	54.0	-9.8
H	*4138.168	39.8	33	34.8	41.6	54.0	-12.4
H	*4965.802	41.5	33	34.9	43.4	54.0	-10.6
H	5793.436	40.0	33	36.6	43.6	54.0	-10.4
H	6621.069	36.3	33	36.9	40.2	54.0	-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. Horn antenna is used for the emission over 1000MHz.

5. 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 Section 15.209, whichever is the lesser attenuation, which meet the requirement of part 15.249(d).

* Emission within the restricted band meets the requirement of part 15.205.

Test Engineer: Jess Tang

INTERTEK TESTING SERVICES

3.4 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 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 Section 15.209, whichever is the lesser attenuation, which meet the requirement of part 15.249(d).

Please refer to the following plots for radiated emission on the bandedge:

Plot B1A1: KX-TG2120 (Version 1) - Low Channel Emissions
Plot B1B1: KX-TG2120 (Version 1) - High Channel Emissions
Plot B1A2: KX-TG2120 (Version 2) - Low Channel Emissions
Plot B1B2: KX-TG2120 (Version 2) - High Channel Emissions
Plot B1A3: KX-TG2122- Low Channel Emissions
Plot B1B3: KX-TG2122 - High Channel Emissions

For electronic filing, the above plots are saved with filename: emission.pdf

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3.5 Line Conducted Configuration Photograph - Base Unit

Worst Case Line-Conducted Configuration

For electronic filing, the worst case line conducted configuration photographs are saved with filename: config photos.doc

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3.6 Line Conducted Emission Data

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

Judgement : Passed by more than 20 dB margin

TEST PERSONNEL:



Tester Signature

Jess Tang, Lead Engineer
Typed/Printed Name

15 July, 2006

Date

INTERTEK TESTING SERVICES

Company: CCT R&D Ltd.
Model: KX-TG2120 (Version 1)

Date of Test: July 9-13, 2006

Conducted Emissions

For electronic filing, the conducted emission test result is saved with filename:
conduct.pdf

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EXHIBIT 4
EQUIPMENT PHOTOGRAPHS

INTERTEK TESTING SERVICES

4.0 **Equipment Photographs**

For electronic filing, the photographs are saved with filename: external photos.doc, internal photos1.doc, internal photos2.doc & internal photos3.doc

EXHIBIT 5
PRODUCT LABELLING

INTERTEK TESTING SERVICES

5.0 **Product Labelling**

For electronic filing, the FCC ID label artwork and location is saved with filename: label.pdf

EXHIBIT 6
TECHNICAL SPECIFICATIONS

INTERTEK TESTING SERVICES

6.0 Technical Specifications

For electronic filing, the block diagram and circuit diagram are saved with filename: block.pdf and circuit.pdf respectively.

EXHIBIT 7
INSTRUCTION MANUAL

INTERTEK TESTING SERVICES

7.0 Instruction Manual

For electronic filing, a preliminary copy of the Instruction Manual is saved with filename: manual.pdf

Please note that the required FCC Information to the User is saved with filename: fcc information.pdf.

This manual will be provided to the end-user with each unit sold/leased in the United States.

EXHIBIT 8
SECURITY CODE INFORMATION

INTERTEK TESTING SERVICES

8.0 Security Code Information

The telephone has an internal security code with 65,536 possible combinations. Each time the HANDSET is placed on the BASE UNIT, the code is randomly set to a new combination.

EXHIBIT 9
CONFIDENTIALITY REQUEST

INTERTEK TESTING SERVICES

9.0 Confidentiality Request

For electronic filing, a preliminary copy of the Confidentiality Request is saved with filename: request.pdf