

CCT R&D Ltd.

Application
For
Permissive Change Class II

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

(FCC ID: NC8KX-TG2120)

06184141
KL/ Ann Choy
October 13, 2006

- The test results reported in this test report shall refer only to the sample actually tested and shall not refer or be deemed to refer to bulk from which such a sample may be said to have been obtained.
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LIST OF EXHIBITS

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MEASUREMENT/TECHNICAL REPORT

CCT R&D Ltd. - Model: KX-TG2130X, KX-TG2132X
FCC ID: NC8KX-TG2120

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

Equipment Type : DXT - Cordless Telephone

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

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 X

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

Report prepared by:

Lam Chun Cheong, Kenneth
Intertek Testing Services Hong Kong Ltd.
2/F., Garment Centre,
576 Castle Peak Road,
Kowloon, Hong Kong.
Phone : 852-2173-8474
Fax: 852-2741-1693

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List of attached file

Exhibit type	File Description	filename
Cover Page	Confidentiality Request	request.pdf
Test Report	Test Report	report.pdf
Operation Description	Technical Description	descri.pdf
Operation Description	Purpose of Change	product change.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 photos.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

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EXHIBIT 1 GENERAL DESCRIPTION

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1.0 General Description

1.1 Product Description

The KX-TG2130, KX-TG2132 is a 2.4GHz/900MHz 35 Channel Analog Modulation Cordless Phone with Caller ID and Digital Answering Machine. 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, together with twelve function keys (ANSWER ON, GREETING, MEMO, MESSAGE/STOP, ERASE, REPEAT/RWD, SKIP/FWD, DAY/CHECK, HOUR, MIN, VOL up, VOL down) .

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

The base unit Model: KX-TG2130, KX-TG2132 are one of the Model: KX-TG2130X, KX-TG2132X respectively. Suffix "X" represents cosmetic changes and serves as marketing strategy, but does not affect Part 15 compliance. KX-TG2130X is the same as KX-TG2132X, except KX-TG2132X has additional reset circuit on the base band circuit for supporting two handsets feature. KX-TG2132X 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.

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1.2 Purpose of Change

The purpose of this report is to add the digital answering machine feature to the base unit of the Model: KX-TG2130, KX-TG2132. Digital answering machine module is integrated, and related control buttons and display are added. The other characteristics including RF module, PCB layout, circuitry are identical to the Model: KX-TG2120, KX-TG2122. In order to match the enclosure geometry, the antenna has been changed in its geometry.

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 granted before this application. This specific report details the emission characteristics of base unit transmitter.

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

1.3 Related Submittal(s) Grants

This is an Application for Certification of a cordless telephone system. Transmitters from Model: KX-TG2130, KX-TG2132 are included in this Application. This specific report details the emission characteristics of each transmitter. The receivers are subject to the verification authorization process, in accordance with 15.101(b). A verification report has been prepared for the receiver sections of each device. The device is also subject to Part 68 Registration.

1.4 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.

1.5 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:

An AC adaptor 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 450mA, Model: HKSD-066779EP) (Supplied by Client)
- (2) Base Unit: An AC adaptor (120VAC to 9VDC 500mA, Model: PQWATG2132M) (Supplied by Client)
- (3) Handset: A "Ni-Cd" type rechargeable battery (3.6V 600mAh) (Supplied by Client)

CABLES:

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

OTHERS:

- (1) A headset for telephone use with 1.2m unshielded cable permanently affixed. (Supplied by Intertek)
- (2) Handset, FCC ID: NC8KX-TG2120H (Supplied by Client)

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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

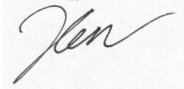
Any modifications installed previous to testing by CCT R&D Ltd. will be incorporated in each production model sold/leased in the United States.

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

October 13, 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 $\text{dB}\mu\text{V/m}$
 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 $\text{dB}\mu\text{V/m}$
 $RR = RA - AG$ 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 $32 \text{ dB}\mu\text{V/m}$. This value in $\text{dB}\mu\text{V/m}$ was converted to its corresponding level in $\mu\text{V/m}$.

$RA = 52.0 \text{ dB}\mu\text{V}$	
$AF = 7.4 \text{ dB}$	$RR = 23.0 \text{ dB}\mu\text{V}$
$CF = 1.6 \text{ dB}$	$LF = 9.0 \text{ dB}$
$AG = 29.0 \text{ dB}$	
$FS = RR + LF$	
$FS = 23 + 9 = 32 \text{ dB}\mu\text{V/m}$	

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

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3.2 Radiated Emission Configuration Photograph - Base Unit

Worst Case Radiated Emission

at 2480.059 MHz

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

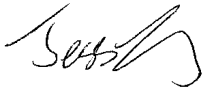
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3.3 Radiated Emission Data - Base Unit

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

Judgement : Passed by 3.0 dB margin

TEST PERSONNEL:



Tester Signature

Jess Tang, Lead Engineer

Typed/Printed Name

October 13, 2006

Date

INTERTEK TESTING SERVICES

Company: CCT R&D Ltd.

Date of Test: August 18-September 14, 2006

Model: KX-TG2130

Mode : TX-Channel 00 (450mA adaptor)

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	94.6	33	29.4	91.0	94.0	-3.0
H	413.343	24.9	16	25.0	33.9	46.0	-12.1
H	826.686	18.8	16	31.0	33.8	46.0	-12.2
V	1240.029	50.5	33	26.1	43.6	54.0	-10.4
H	1653.373	51.2	33	27.2	45.4	54.0	-8.6
H	2066.716	49.7	33	29.4	46.1	54.0	-7.9
H	*2893.402	44.4	33	30.4	41.8	54.0	-12.2
H	3306.745	45.7	33	31.9	44.6	54.0	-9.4
H	*4133.432	41.7	33	34.8	43.5	54.0	-10.5
H	*4960.118	44.2	33	34.9	46.1	54.0	-7.9
H	5786.804	43.4	33	36.6	47.0	54.0	-7.0
H	6613.490	38.2	33	36.9	42.1	54.0	-11.9

- 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. 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-TG2130
Mode : TX-Channel 34 (450mA adaptor)

Date of Test: August 18-September 14, 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	94.1	33	29.4	90.5	94.0	-3.5
H	413.817	24.8	16	25.0	33.8	46.0	-12.2
H	827.634	18.6	16	31.0	33.6	46.0	-12.4
V	1241.451	50.4	33	26.1	43.5	54.0	-10.5
H	1655.267	51.0	33	27.2	45.2	54.0	-8.8
H	2069.084	49.7	33	29.4	46.1	54.0	-7.9
H	*2896.718	44.5	33	30.4	41.9	54.0	-12.1
H	3310.535	45.6	33	31.9	44.5	54.0	-9.5
H	*4138.169	41.8	33	34.8	43.6	54.0	-10.4
H	*4965.802	44.1	33	34.9	46.0	54.0	-8.0
H	5793.436	43.4	33	36.6	47.0	54.0	-7.0
H	6621.070	38.3	33	36.9	42.2	54.0	-11.8

- 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.

Date of Test: August 18-September 14, 2006

Model: KX-TG2132

Mode : TX-Channel 00 (450mA adaptor)

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	94.4	33	29.4	90.8	94.0	-3.2
H	413.343	24.8	16	25.0	33.8	46.0	-12.2
H	826.686	18.8	16	31.0	33.8	46.0	-12.2
V	1240.029	50.4	33	26.1	43.5	54.0	-10.5
H	1653.373	51.2	33	27.2	45.4	54.0	-8.6
H	2066.716	49.8	33	29.4	46.2	54.0	-7.8
H	*2893.402	44.5	33	30.4	41.9	54.0	-12.1
H	3306.745	46.0	33	31.9	44.9	54.0	-9.1
H	*4133.432	41.8	33	34.8	43.6	54.0	-10.4
H	*4960.118	44.1	33	34.9	46.0	54.0	-8.0
H	5786.804	43.2	33	36.6	46.8	54.0	-7.2
H	6613.490	38.1	33	36.9	42.0	54.0	-12.0

- 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.

Date of Test: August 18-September 14, 2006

Model: KX-TG2132

Mode : TX-Channel 34 (450mA adaptor)

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	94.1	33	29.4	90.5	94.0	-3.5
H	413.817	24.9	16	25.0	33.9	46.0	-12.1
H	827.634	18.8	16	31.0	33.8	46.0	-12.2
V	1241.451	50.5	33	26.1	43.6	54.0	-10.4
H	1655.267	51.0	33	27.2	45.2	54.0	-8.8
H	2069.084	49.8	33	29.4	46.2	54.0	-7.8
H	*2896.718	45.4	33	30.4	42.8	54.0	-11.2
H	3310.535	44.9	33	31.9	43.8	54.0	-10.2
H	*4138.169	41.7	33	34.8	43.5	54.0	-10.5
H	*4965.802	44.3	33	34.9	46.2	54.0	-7.8
H	5793.436	43.2	33	36.6	46.8	54.0	-7.2
H	6621.070	38.6	33	36.9	42.5	54.0	-11.5

- 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. 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.

Date of Test: August 18-September 14, 2006

Model: KX-TG2130

Mode : TX-Channel 00 (500mA adaptor)

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	94.6	33	29.4	91.0	94.0	-3.0
V	413.343	25.1	16	25.0	34.1	46.0	-11.9
V	826.686	20.8	16	31.0	35.8	46.0	-10.2
V	1240.029	51.3	33	26.1	44.4	54.0	-9.6
H	1653.373	51.4	33	27.2	45.6	54.0	-8.4
H	2066.716	50.4	33	29.4	46.8	54.0	-7.2
H	*2893.402	45.3	33	30.4	42.7	54.0	-11.3
H	3306.745	45.6	33	31.9	44.5	54.0	-9.5
H	*4133.432	42.2	33	34.8	44.0	54.0	-10.0
H	*4960.118	44.7	33	34.9	46.6	54.0	-7.4
H	5786.804	43.4	33	36.6	47.0	54.0	-7.0
H	6613.490	38.6	33	36.9	42.5	54.0	-11.5

- 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. 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.

Date of Test: August 18-September 14, 2006

Model: KX-TG2130

Mode : TX-Channel 34 (500mA adaptor)

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	94.1	33	29.4	90.5	94.0	-3.5
V	413.817	25.6	16	25.0	34.6	46.0	-11.4
V	827.634	20.6	16	31.0	35.6	46.0	-10.4
V	1241.451	50.5	33	26.1	43.6	54.0	-10.4
H	1655.267	50.9	33	27.2	45.1	54.0	-8.9
H	2069.084	49.6	33	29.4	46.0	54.0	-8.0
H	*2896.718	44.8	33	30.4	42.2	54.0	-11.8
H	3310.535	45.5	33	31.9	44.4	54.0	-9.6
H	*4138.169	42.0	33	34.8	43.8	54.0	-10.2
H	*4965.802	44.1	33	34.9	46.0	54.0	-8.0
H	5793.436	42.9	33	36.6	46.5	54.0	-7.5
H	6621.070	39.1	33	36.9	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. 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.

Date of Test: August 18-September 14, 2006

Model: KX-TG2132

Mode : TX-Channel 00 (500mA adaptor)

Table 7, 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	2480.055	94.4	33	29.4	90.8	94.0	-3.2
V	413.343	25.0	16	25.0	34.0	46.0	-12.0
V	826.685	20.5	16	31.0	35.5	46.0	-10.5
V	1240.028	51.0	33	26.1	44.1	54.0	-9.9
H	1653.370	51.2	33	27.2	45.4	54.0	-8.6
H	2066.713	49.8	33	29.4	46.2	54.0	-7.8
H	*2893.398	44.9	33	30.4	42.3	54.0	-11.7
H	3306.740	46.8	33	31.9	45.7	54.0	-8.3
H	*4133.425	42.6	33	34.8	44.4	54.0	-9.6
H	*4960.110	44.4	33	34.9	46.3	54.0	-7.7
H	5786.795	42.4	33	36.6	46.0	54.0	-8.0
H	6613.480	37.6	33	36.9	41.5	54.0	-12.5

- 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. 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.

Date of Test: August 18-September 14, 2006

Model: KX-TG2132

Mode : TX-Channel 34 (500mA adaptor)

Table 8, 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	2482.900	94.1	33	29.4	90.5	94.0	-3.5
V	413.817	24.8	16	25.0	33.8	46.0	-12.2
V	827.633	19.9	16	31.0	34.9	46.0	-11.1
V	1241.450	50.9	33	26.1	44.0	54.0	-10.0
H	1655.267	50.6	33	27.2	44.8	54.0	-9.2
H	2069.083	49.7	33	29.4	46.1	54.0	-7.9
H	*2896.717	45.6	33	30.4	43.0	54.0	-11.0
H	3310.533	47.0	33	31.9	45.9	54.0	-8.1
H	*4138.167	42.3	33	34.8	44.1	54.0	-9.9
H	*4965.800	44.1	33	34.9	46.0	54.0	-8.0
H	5793.433	42.7	33	36.6	46.3	54.0	-7.7
H	6621.067	37.0	33	36.9	40.9	54.0	-13.1

- 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 B1A01: Base Unit, KX-TG2130, 450mA adaptor - Low Channel Emissions
Plot B1B02: Base Unit, KX-TG2130, 450mA adaptor - High Channel Emissions
Plot B1A03: Base Unit, KX-TG2132, 450mA adaptor - Low Channel Emissions
Plot B1B04: Base Unit, KX-TG2132, 450mA adaptor - High Channel Emissions
Plot B1A11: Base Unit, KX-TG2130, 500mA adaptor - Low Channel Emissions
Plot B1B12: Base Unit, KX-TG2130, 500mA adaptor - High Channel Emissions
Plot B1A13: Base Unit, KX-TG2132, 500mA adaptor - Low Channel Emissions
Plot B1B14: Base Unit, KX-TG2132, 500mA adaptor - High Channel Emissions

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

INTERTEK TESTING SERVICES

3.5 Line Conducted Configuration Photograph - Base Unit

Worst Case Line-Conducted Configuration

at 6.260 MHz

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

INTERTEK TESTING SERVICES

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 7.0 dB margin

TEST PERSONNEL:



Tester Signature

Jess Tang, Lead Engineer
Typed/Printed Name

October 26, 2006

Date

INTERTEK TESTING SERVICES

Company: CCT R&D Ltd.
Model: KX-TG2130, KX-TG2132

Date of Test: August 18-September 14, 2006

Conducted Emissions

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

INTERTEK TESTING SERVICES

**EXHIBIT 4
EQUIPMENT PHOTOGRAPHS**

INTERTEK TESTING SERVICES

4.0 Equipment Photographs

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

INTERTEK TESTING SERVICES

**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

The required FCC Information to the User is stated on P.30-31 of the Instruction Manual.

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

INTERTEK TESTING SERVICES

**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.

INTERTEK TESTING SERVICES

**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