



October 14, 2008

RTX Consumer Products Hong Kong Limited
11/F., CAC Tower,
165 Hoi Bun Road, Kwun Tong,
Kowloon, Hong Kong.
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Dear Preben Rasmussen:

Enclosed you will find your file copy of a Part 15 Certification (FCC ID: T7HRTX8050).

For your reference, TCB will normally take another 15 to 20 days for reviewing the report. Approval will then be granted when no query is sorted.

Please contact me if you have any questions regarding the enclosed material.

Sincerely,

A handwritten signature in black ink, appearing to read "Ken Sit".

Sit Kim Wai, Ken
Assistant Manager

Enclosure

RTX Consumer Products Hong Kong Limited

Application
For
Certification

1.9GHz Digital Modulation Cordless Handset with Caller ID,
Speakerphone, and Bluetooth – Bluetooth Portion

(FCC ID: T7HRTX8050)

HK08070361-1
KS/ Ann Choy
October 14, 2008

- The test report only allows to be revised within the retention period unless further standard or the requirement was noticed.
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Intertek Testing Services Hong Kong Ltd.

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INTERTEK TESTING SERVICES

LIST OF EXHIBITS

INTRODUCTION

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INTERTEK TESTING SERVICES

MEASUREMENT/TECHNICAL REPORT

RTX Consumer Products Hong Kong Limited

Model: I755d, I755s, RTX8050

FCC ID: T7HRTX8050

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

Equipment Type : DXX - Low Power Transmitter

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 [09-20-07
Edition] Provision.

Report prepared by:

Sit Kim Wai, Ken
Intertek Testing Services Hong Kong Ltd.
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List of attached file

Exhibit type	File Description	filename
Test Report	Test Report	report.pdf
Operational Description	Technical Description	descri 1.pdf descri 2.pdf
Test Setup Photos	Radiated & Conducted Emission	config photos.pdf
Test Report	Emission Plot	emission.pdf
Test Report	Conducted Emission Test Result	conduct.pdf
External Photos	External Photo	external photos.pdf
Internal Photos	Internal Photo	internal photos.pdf
Block Diagram	Block Diagram	block.pdf
Schematics	Circuit Diagram	circuit.pdf
ID Label/Location Info	Label Artwork and Location	label.pdf
Cover Letters	Label Location Justification	justification.pdf
Users Manual	User Manual	manual.pdf
Cover Letter	Letter of Agency	letter of agency.pdf
Cover Letter	Confidentiality Request	request.pdf

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EXHIBIT 1 GENERAL DESCRIPTION

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1.0 General Description

1.1 Product Description

The Equipment Under Test (EUT) is a 1.9GHz Digital Modulation Cordless Handset with Caller ID, Speakerphone, and Bluetooth. It offers Bluetooth as a feature with an add-on RF module, and it operates at frequency range of 2402MHz-2480MHz with 79 channels. It is powered by a 3.7V 650mAh "Li-ion" rechargeable battery pack. With Bluetooth wireless communication enable, it allows a user uses a corresponding Bluetooth-equipped headset instead of a corded headset.

Antenna Type : Integral, Internal

The Model: I755s and RTX8050 are the same as the Model: I755d in hardware aspect. The difference in model number serves as marketing strategy.

For electronic filing, the circuit description is saved with filename: descri 1.pdf. and descri 2.pdf

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1.2 Related Submittal(s) Grants

This is an Application for Certification of a DXX - Part 15 Low Power Com. Device Tx. One transmitter is included in this application. On the other hand, a 1.9GHz transmitter, a composite device subject to an additional equipment authorization, has the same as this FCC ID: T7HRTX8050 and has been filed at the same time.

A charging unit, associated with this handset subject to FCC Part 18, has FCC ID: T7HCH8050 and has been filed at the same time.

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 and conducted data are 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 EUT was powered by a fully charged battery.

For the measurements, the EUT was attached to a plastic stand if necessary and placed on the wooden turntable. 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.

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.

Analyzer resolution was 100 kHz or greater for frequencies below 1000 MHz. The resolution was 1 MHz or greater for frequencies above 1000 MHz. The spurious emissions more than 20 dB below the permissible value were not reported.

Radiated emission measurement were performed the lowest radio frequency signal generated in the device which was greater than 9 kHz to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever was lower.

Determination of pulse desensitization was made according to *Hewlett Packard Application Note 150-2, Spectrum Analysis... Pulsed RF*. The effective period (τ_{eff}) was 625 μs for Bluetooth. With the resolution bandwidth 1MHz and spectrum analyzer IF bandwidth 3 dB, the pulse desensitization factor was 0 dB.

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 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) Handset: A "Li-ion" type rechargeable battery (3.7V 650mAh) (Supplied by Client)

Description of Peripherals:

- (1) Base Unit, Model: RTX3080.103, FCC ID: ELIRTX3080 (Supplied by Client)
- (2) Base Unit A Switching AC Adaptor (100-240VAC to 12VDC 300mA, Model: SSW-1187US) (Supplied by Client)
- (3) Charging Unit, Model: I755d, FCC ID: T7HCH8050 (Supplied by Client)
- (4) Charging Unit: A Switching AC Adaptor (100-240VAC to 12VDC 400mA, Model: Q060621) (Supplied by Client)
- (5) Telecommunication cable with RJ11C connectors (1m, unshielded), terminated (Supplied by Intertek)
- (6) Bluetooth Headset, Model: Bluetrek G2, FCC ID: QITBTG2

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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 RTX Consumer Products Hong Kong Limited will be incorporated in each production model sold/leased in the United States.

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

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

Confirmed by:

*Sit Kim Wai, Ken
Assistant Manager
Intertek Testing Services
Agent for RTX Consumer Products Hong Kong Limited*



Signature

October 14, 2008

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

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

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

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

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

$$FS = RR + LF$$

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

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

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

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

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3.2 Radiated Emission Configuration Photograph - Handset

Worst Case Radiated Emission

at 12205.000 MHz

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

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3.3 Radiated Emission Data - Handset

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

Judgement : Passed by 1.0 dB margin

TEST PERSONNEL:



Tester Signature

Jess Tang, Lead Engineer
Typed/Printed Name

October 14, 2008
Date

INTERTEK TESTING SERVICES

Company: RTX Consumer Products Hong Kong Limited Date of Test: September 4-30, 2008
Model: I755d
Mode : TX-Channel 0

Table 1, Handset

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)
H	2402.000	89.6	33	29.4	86.0	94.0	-8.0
H	*4804.000	47.9	33	34.9	49.8	54.0	-4.2
H	7206.000	44.0	33	37.9	48.9	54.0	-5.1
H	9608.000	42.7	33	40.4	50.1	54.0	-3.9
H	*12010.000	45.2	33	40.5	52.7	54.0	-1.3

- 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: RTX Consumer Products Hong Kong Limited Date of Test: September 4-30, 2008
Model: I755d
Mode : TX-Channel 39

Table 2, Handset

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)
H	2441.000	92.5	33	29.4	88.9	94.0	-5.1
H	*4882.000	48.5	33	34.9	50.4	54.0	-3.6
H	*7323.000	43.8	33	37.9	48.7	54.0	-5.3
H	9764.000	43.3	33	40.4	50.7	54.0	-3.3
H	*12205.000	45.5	33	40.5	53.0	54.0	-1.0

- 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: RTX Consumer Products Hong Kong Limited Date of Test: September 4-30, 2008
Model: I755d
Mode : TX-Channel 78

Table 3, Handset

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)
H	2480.000	90.1	33	29.4	86.5	94.0	-7.5
H	*4960.000	48.4	33	34.9	50.3	54.0	-3.7
H	*7440.000	43.8	33	37.9	48.7	54.0	-5.3
H	9920.000	43.2	33	40.4	50.6	54.0	-3.4
H	*12400.000	45.3	33	40.5	52.8	54.0	-1.2

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

Test Engineer: Jess Tang

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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 H1A*: Handset - Low Channel Emissions

Plot H1B**: Handset - High Channel Emissions

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

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

Peak Resultant: Resultant field strength = Fundamental emissions - delta from the plot
= 86.0dB μ V/m – 42.62dB
= 43.38dB μ V/m

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

Peak Resultant: Resultant field strength = Fundamental emissions - delta from the plot
= 86.5dB μ V/m – 47.46dB
= 39.04dB μ V/m

The resultant field strength meets the general radiated emission limit in section 15.209, which does not exceed 74dB μ V/m for peak limit and also 54dB μ V/m for average limit.

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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3.5 Line Conducted Configuration Photograph - Handset

Worst Case Line-Conducted Configuration

at 5.945 MHz

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

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3.6 Line Conducted Emission Data - Handset

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 14, 2008
Date

INTERTEK TESTING SERVICES

Company: RTX Consumer Products Hong Kong Limited Date of Test: September 4-30, 2008
Model: I755d

Conducted Emissions

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

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EXHIBIT 4 EQUIPMENT PHOTOGRAPHS

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4.0 Equipment Photographs

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

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EXHIBIT 5 PRODUCT LABELLING

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5.0 **Product Labelling**

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

For electronic filing, the label location justification letter is save as filename: justification.pdf

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EXHIBIT 6 TECHNICAL SPECIFICATIONS

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6.0 Technical Specifications

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

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EXHIBIT 7 INSTRUCTION MANUAL

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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 the Instruction Manual.

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

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EXHIBIT 8 LETTER OF AGENCY

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8.0 Letter of Agency

For electronic filing, a letter of agency is saved with filename: letter of agency.pdf

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EXHIBIT 9 CONFIDENTIALITY REQUEST

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9.0 **Confidentiality Request**

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