

June 16, 2009

Giant Telecom Limited  
7/F., Elite Industrial Building,  
135-137 Hoi Bun Road, Kwun Tong,  
Kowloon, Hong Kong.

Dear Mark Yuen:

Enclosed you will find your file copy of a Part 15 Certification (FCC ID: RAQIV730B)

For your reference, TCB will normally take another 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,



Shawn Xing  
Assistant Manager

Enclosure

**Intertek Testing Services Shenzhen Ltd. Kejiyuan Branch**

6F, D Block, Huahan Building, Langshan Road, Nanshan District, Shenzhen, P. R. China  
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## **Giant Telecom Limited**

### **Application For Certification**

**Digital Photo Frame with WiFi  
(WiFi Transceiver)**

**(FCC ID: RAQIV730B)**

**Model: IT7350  
Additional Model: IT7340**

*Louisa Lu*

**SZ09020274-3**

**Louisa Lu**

**June 16, 2009**

- 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.
- This report is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this report. Only the Client is authorized to copy or distribute this report. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. The observations and test results referenced from this report are relevant only to the sample tested. This report by itself does not imply that the material, product, or service is or has ever been under an Intertek certification program.
- For Terms And Conditions of the services, it can be provided upon request.
- The evaluation data of the report will be kept for 3 years from the date of issuance.

**TRF no.: FCC 15C\_TXa**

**Intertek Testing Services Shenzhen Ltd. Kejiyuan Branch**

6F, D Block, Huahan Building, Langshan Road, Nanshan District, Shenzhen, P. R. China  
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## INTERTEK TESTING SERVICE

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### LIST OF EXHIBITS

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<i>EXHIBIT 2:</i>	General Description
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<i>EXHIBIT 11:</i>	Test Equipment List

# INTERTEK TESTING SERVICES

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## MEASUREMENT/TECHNICAL REPORT

**Giant Telecom Limited - MODEL: IT7350  
ADDITIONAL MODEL: IT7340**

**FCC ID: RAQIV730B**

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

Equipment Type: DTS - Part 15 Digital Transmission Systems (WiFi transmitter portion)

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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.

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Transition Rules Request per 15.37?      Yes       No

If no, assumed Part 15, Subpart C for intentional radiator - the new 47 CFR [09-20-07 Edition] provision.

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Report prepared by:



Shawn Xing  
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# INTERTEK TESTING SERVICES

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## INTERTEK TESTING SERVICES

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### List of attached file

<b>Exhibit Type</b>	<b>File Description</b>	<b>Filename</b>
Cover Letter	Letter of Agency	letter.pdf
Test Report	Test Report	report.pdf
Test Report	6 dB Bandwidth Plot	6dB.pdf
Test Report	Maximum Power Density Plot	maxpd.pdf
Test Report	Out Band Antenna Conducted Emission Plot	obantcon.pdf
Test Report	Bandedge Plot	bandedge.pdf
Test Setup Photo	Radiated Emission	radiated photos.pdf
Test Setup Photo	Conducted Emission	conducted photos.pdf
External Photo	External Photo	external photos.pdf
Internal Photo	Internal Photo	internal photos.pdf
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
Operation Description	Technical Description	descri.pdf
Cover Letter	Confidentiality Request	request.pdf
Equipment List	Test Equipment List	equipment list.pdf
RF Exposure info	RF Safety	RF exposure info.pdf

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**INTERTEK TESTING SERVICES**

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**EXHIBIT 1**

**SUMMARY OF TEST RESULTS**

## INTERTEK TESTING SERVICES

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### 1.0 Summary of Test

**Giant Telecom Limited - MODEL: IT7350**

**FCC ID: RAQIV730B**

TEST	REFERENCE	RESULTS
Max. Output power	15.247(b)	Pass
6 dB Bandwidth	15.247(a)(2)	Pass
Max. Power Density	15.247(e)	Pass
Out of Band Antenna Conducted Emission	15.247(d)	Pass
Radiated Emission in Restricted Bands	15.247(d)	Pass
AC Conducted Emission	15.207	Pass
Antenna Requirement	15.203	Pass (See Notes)

Notes: The EUT uses a Internal integral antenna which in accordance to Section 15.203 is considered sufficient to comply with the provisions of this section.

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### **EXHIBIT 2**

#### **GENERAL DESCRIPTION**

## INTERTEK TESTING SERVICES

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### 2.0 General Description

#### 2.1 Product Description

The Equipment Under Test (EUT) is a Digital Photo Frame with WiFi operating at 2.412-2.462GHz, 11 channels selection. The EUT is powered by 3.7Vdc (1×3.7V “2100mAh 3.7V” Lithium-ion rechargeable battery) and/or AC/DC adaptor 100-240VAC 50/60Hz input, 5.0VDC 3A output, model: ZDA050300US. The EUT can support playback of digital multimedia contents, such as photo, MP3 and video and can download data from PC, it also has integrated WiFi function.

For more detailed features description, please refer to the user's manual.

The Model: IT7340 is the same as the tested Model: IT7350 in hardware and software aspect except that IT7350 has motion sensor but IT7340 doesn't have it which we have considered it during testing. The only differences are the packing accessories and model no. for trading purpose.

Antenna Type: Internal, Integral

The circuit descriptions are saved with filename: descri.pdf.

## INTERTEK TESTING SERVICES

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### 2.2 Related Submittal(s) Grants

This is an application for certification of:  
DTS- Part 15 Digital Transmission Systems (WiFi transmitter portion)

Remaining portions are subject to the following procedures

1. Computer peripheral (USB portion): 15 Certification (report no. : SZ09020274-2).
2. Receiver portion of WiFi: exempt from technical requirement of this Part.
3. Other function: Verification (report no. SZ09020274-1).

### 2.3 Test Methodology

Both AC mains line-conducted and radiated emission measurements were performed according to the procedures in ANSI C63.4 (2003) and KDB 558074. Radiated emission measurement was performed in semi-anechoic chamber and conducted emission measurement was performed in shield room. For radiated emission measurement, preliminary scans were performed in the semi-anechoic chamber only to determine the 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. All other measurements were made in accordance with the procedures in part 2 of CFR 47.

### 2.4 Test Facility

The Semi-Anechoic chamber and shield room used to collect the radiated data and conducted data is **Intertek Testing Services Shenzhen Ltd. Kejiyuan Branch** and located at 6F, Block D, Huahan Building, Langshan Road, Nanshan District, Shenzhen, P. R. China. This test facility and site measurement data have been fully placed on file with the FCC.

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**EXHIBIT 3**

**SYSTEM TEST CONFIGURATION**

# INTERTEK TESTING SERVICES

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## 3.0 System Test Configuration

### 3.1 Justification

For emissions testing, the equipment under test (EUT) 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. It was powered by 1×3.7V “2100mAh 3.7V” Lithium-ion rechargeable battery and AC/DC adaptor 100-240VAC 50/60Hz input, 5.0VDC 3A output (Model: ZDA050300US). Only the worst case data were recorded in this test report.

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.

### 3.2 EUT Exercising Software

The EUT exercise program (provided by client) used during radiated and conducted testing was designed to exercise the various system components in a manner similar to a typical use.

The parameters of test software setting:

During the test, Channel and power controlling software provided by the applicant was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the application and is going to be fixed on the firmware of the end product.

#### Power Parameters of IEEE 802.11b/g

Test software setting of IEEE 802.11b/g			
Channel No.	Output Power	Data rate	Date modulation
1,6,11	12	802.11b: 1-11Mbps	802.11b: DSSS (BPSK, QPSK,CCK)
	12	802.11g: 6-54Mbps	802.11g: OFDM (BPSK, QPSK, 16/64QAM)

We test all data rate and only the worst - case data is shown in the report.

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### 3.3 Details of EUT and Description of Peripherals

#### Details of EUT:

An AC to DC adaptor and a battery (provided with the units ) are used to power the device. Their description are listed below.

- (1) A 3.7V “2100mAh 3.7V” Lithium-Ion type rechargeable battery.
- (2) A AC-DC adaptor: 100-240VAC 50-60Hz input, 5VDC 3A output, Model: ZDA050300US
- (3) Adaptor DC cable with a ferrite ring.

### 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 Giant Telecom Limited will be incorporated in each production model sold/leased in the United States.

No modifications were installed by Intertek Testing Services.

## INTERTEK TESTING SERVICES

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### 3.6 Support Equipment List and Description

This product was tested in the following configuration:

Refer List:

Description	Manufacturer	Model No.
SD Card	Sandisk	1G (BB0723011986D)
CF Card	Kingston	CF/2GB
Flash Disk	Sony Erisson	1G (SA-U007)
Earphone	---	Length 150cm

All the items listed under section 3.0 of this report are confirmed by:

*Confirmed by:*

*Shawn Xing  
Assistant Manager  
Intertek Testing Services Shenzhen Ltd. Kejiyuan Branch  
Agent for Giant Telecom Limited*



*Signature*

June 16, 2009 *Date*

**INTERTEK TESTING SERVICES**

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**EXHIBIT 4**

**MEASUREMENT RESULTS**

# INTERTEK TESTING SERVICES

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Applicant: Giant Telecom Limited  
Model: IT7350

Date of Test: June 16, 2009

## 4.0 Measurement Results

### 4.1 Maximum Conducted Output Power at Antenna Terminals, FCC Rules 15.247(b)(3):

- The antenna power of the EUT was connected to the input of a power meter. Power was read directly and cable loss correction was added to the reading to obtain power at the EUT antenna terminals.
- The antenna port of the EUT was connected to the input of a spectrum analyzer. The analyzer was set for RBW > 6dB bandwidth and power was read directly in dBm. External attenuation and cable loss were compensated from the measured value.

For antennas with gains of 6 dBi or less, maximum allowed Transmitter output is 1 watt (+30 dBm).

IEEE 802.11b (Antenna Gain = -2.5 dBi)		
Frequency (MHz)	Output in dBm	Output in mWatt
Low Channel: 2412	20.4	110.4
Middle Channel: 2437	21.1	127.8
High Channel: 2462	20.3	106.8

IEEE 802.11g (Antenna Gain = -2.5 dBi)		
Frequency (MHz)	Output in dBm	Output in mWatt
Low Channel: 2412	22.3	168.7
Middle Channel: 2437	22.7	186.6
High Channel: 2462	21.9	156.2

Cable loss: 0.5 dB    External Attenuation : 0 dB

Cable loss, external attenuation:  included in OFFSET function  
 added to power meter raw reading

EUT dBm max. output level = 22.7 dBm (+30 dBm or less)

For RF Safety, the information is saved with filename: RF exposure info.pdf.

## INTERTEK TESTING SERVICES

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Applicant: Giant Telecom Limited  
2009  
Model: IT7350

Date of Test: June 16,

### 4.2 Minimum 6 dB RF Bandwidth, FCC Rule 15.247(a)(2):

The antenna port of the EUT was connected to the input of a spectrum analyzer. Analyzer RES BW was set to 100kHz. For each RF output channel investigated, the spectrum analyzer center frequency was set to the channel carrier. A PEAK output reading was taken, a DISPLAY line was drawn 6 dB lower than PEAK level. The 6dB bandwidth was determined from where the channel output spectrum intersected the display line.

IEEE 802.11b (DSSS, 11Mbps)	
Frequency (MHz)	6 dB Bandwidth (MHz)
2462	10.0

IEEE 802.11g (OFDM, 6Mbps)	
Frequency (MHz)	6 dB Bandwidth (MHz)
2437	16.4

Limit: at least 500 kHz

Refer to the following plots for 6 dB bandwidth sharp:

#### IEEE 802.11b

Plot B2A1- B2A2: Low Channel 6 dB RF Bandwidth  
Plot B2B1- B2B2: Middle Channel 6 dB RF Bandwidth  
Plot B2C1- B2C2: High Channel 6 dB RF Bandwidth

#### IEEE 802.11g

Plot G2A1- G2A2: Low Channel 6 dB RF Bandwidth  
Plot G2B1- G2B2: Middle Channel 6 dB RF Bandwidth  
Plot G2C1- G2C2: High Channel 6 dB RF Bandwidth

For electronic filing, the above plots are saved with filename: 6dB.pdf

## INTERTEK TESTING SERVICES

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Applicant: Giant Telecom Limited  
2009  
Model: IT7350

Date of Test: June 16,

### 4.3 Maximum Power Density Reading, FCC Rule 15.247(e) :

The spectrum analyzer RES BW was set to 3kHz. In order to look for a peak, the START and STOP frequencies were set to the band edges of the maximum output passband. If there is no clear maximum amplitude in any given portion of the band, it may be necessary to make measurements at a number of bands defined by several START and STOP frequency pairs.

Antenna output of the EUT was coupled directly to spectrum analyzer; if an external attenuator and/or cable was used, these losses are compensated for with the analyzer OFFSET function.

IEEE 802.11b (DSSS, 11Mbps)	
Frequency (MHz)	Power Density (dBm/3kHz)
2412.315	-8.65

Frequency Span = 1.5MHz

Sweep Time = Frequency Span/3kHz  
= 500 seconds

Cable Loss: 0.5dB

Peak Power Density (at 2412.315MHz) = -8.65 dBm/3kHz

Limit: 8dBm/ 3 kHz

Refer to the following plots for power density data :

Plot B3A1- B3A2: Low Channel power density  
Plot B3B1- B3B2: Middle Channel power density  
Plot B3C1- B3C2: High Channel power density

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

## INTERTEK TESTING SERVICES

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Applicant: Giant Telecom Limited  
Model: IT7350

Date of Test: June 16, 2009

### 4.3 Maximum Power Density Reading, FCC Rule 15.247(e)-Continued:

IEEE 802.11g (OFDM, 54Mbps)	
Frequency (MHz)	Power Density (dBm/3kHz)
2436.976	-12.62

Frequency Span = 1.5MHz

Sweep Time = Frequency Span/3kHz  
= 500 seconds

Cable Loss: 0.5dB

Peak Power Density (at 2436.976MHz) = -12.62 dBm/3kHz

Limit: 8dBm/ 3 kHz

Refer to the following plots for power density data :

Plot G3A1- G3A2: Low Channel power density  
Plot G3B1- G3B2: Middle Channel power density  
Plot G3C1- G3C2: High Channel power density

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

## INTERTEK TESTING SERVICES

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Applicant: Giant Telecom Limited  
2009  
Model: IT7350

Date of Test: June 16,

### 4.4 Out of Band Conducted Emissions, FCC Rule 15.247(d)

In any 100 kHz bandwidth outside the EUT passband, the RF power produced by the modulation products of the spreading sequence, the information sequence, and the carrier frequency shall be at least 20dB below that of the maximum in-band 100 kHz emission, or else shall meet the general limits for radiated emissions at frequencies outside the passband, whichever results in lower attenuation.

All other types of emissions from the EUT shall meet the general limits for radiated frequencies outside the passband.

Refer to the following plots for out of band conducted emissions data:

Plot B4A1 - B4A2: Low Channel Emissions  
Plot B4B1 - B4B2: Middle Channel Emissions  
Plot B4C1 - B4C2: High Channel Emissions  
Plot G4A1 - G4A2: Low Channel Emissions  
Plot G4B1 - G4B2: Middle Channel Emissions  
Plot G4C1 - G4C2: High Channel Emissions

The plots showed all spurious emission and up to the tenth harmonic was measured and they were found to be at least 20 dB below the highest level of the desired power in the passband.

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

## INTERTEK TESTING SERVICES

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Applicant: Giant Telecom Limited  
2009  
Model: IT7350

Date of Test: June 16,

### 4.5 Out of Band Radiated Emissions (for emissions in 4.4 above that are less than 20dB below carrier), FCC Rule 15.247(d):

For out of band emissions that are close to or that exceed the 20dB attenuation requirement described in the specification, radiated measurements were performed at a 3m separation distance to determine whether these emissions complied with the general radiated emission requirement.

- Not required, since all emissions are more than 20dB below fundamental
- See attached data sheet

## INTERTEK TESTING SERVICES

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Applicant: Giant Telecom Limited  
Model: IT7350

Date of Test: June 16, 2009

### 4.6 Transmitter Radiated Emissions in Restricted Bands, FCC Rule 15.35(b), (c):

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. All measurements were performed with peak detection unless otherwise specified.

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

## INTERTEK TESTING SERVICES

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Applicant: Giant Telecom Limited  
Model: IT7350

Date of Test: June 16, 2009

### 4.7 Field Strength Calculation

The field strength is calculated by adding the reading on the Spectrum Analyzer to the factors associated with preamplifiers (if any), antennas, cables, pulse desensitization and average factors (when specified limit is in average and measurements are made with peak detectors). A sample calculation is included below.

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

Where      FS = Field Strength in dB $\mu$ V/m  
RA = Receiver Amplitude (including preamplifier) in dB $\mu$ V  
CF = Cable Attenuation Factor in dB  
AF = Antenna Factor in dB  
AG = Amplifier Gain in dB  
PD = Pulse Desensitization in dB  
AV = Average Factor in -dB

In the radiated emission table which follows, the reading shown on the data table may reflect the preamplifier gain. An example of the calculations, where the reading does not reflect the preamplifier gain, follows:

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

#### Example

Assume a receiver reading of 62.0 dB $\mu$ 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. The pulse desensitization factor of the spectrum analyzer was 0 dB, and the resultant average factor was -10 dB. The net field strength for comparison to the appropriate emission limit is 32 dB $\mu$ V/m. This value in dB $\mu$ V/m was converted to its corresponding level in  $\mu$ V/m.

$$RA = 62.0 \text{ dB}\mu\text{V}$$

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

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

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

$$PD = 0 \text{ dB}$$

$$AV = -10 \text{ dB}$$

$$FS = 62 + 7.4 + 1.6 - 29 + 0 + (-10) = 32 \text{ dB}\mu\text{V/m}$$

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

## **INTERTEK TESTING SERVICES**

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Applicant: Giant Telecom Limited  
2009  
Model: IT7350

Date of Test: June 16,

### **4.8 Radiated Emission Configuration Photograph**

**Worst Case Radiated Emission  
at  
2483.500 MHz**

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

## INTERTEK TESTING SERVICES

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Applicant: Giant Telecom Limited  
2009  
Model: IT7350

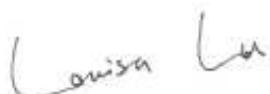
Date of Test: June 16,

### 4.9 Radiated Emission Data

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

Judgement : Passed by 0.6 dB margin

### **TEST PERSONNEL:**



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*Tester Signature*

Louisa Lu, Engineer  
Typed/Printed Name

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June 16, 2009

*Date*

## INTERTEK TESTING SERVICES

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Applicant: Giant Telecom Limited  
2009

Date of Test: June 16,

Model: IT7350

Mode: 802.11b (TX-Channel 01) (Powered by Adaptor)

Table 1-2  
**Radiated Emissions**

Polarization	Frequency (MHz)	Reading (dB $\mu$ V)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dB $\mu$ V/m)	Limit at 3m (dB $\mu$ V/m)	Margin (dB)
Vertical	*2310.000	44.1	36.7	28.4	35.8	54.0	-18.2
Vertical	*2390.000	56.7	36.7	28.4	48.4	54.0	-5.6
Vertical	*4824.000	34.3	36.1	33.4	31.6	54.0	-22.4

Polarization	Frequency (MHz)	Reading (dB $\mu$ V)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dB $\mu$ V/m)	Limit at 3m (dB $\mu$ V/m)	Margin (dB)
Vertical	*2310.000	44.1	36.7	28.4	35.8	74.0	-38.2
Vertical	*2390.000	56.7	36.7	28.4	48.4	74.0	-25.6
Vertical	*4824.000	34.3	36.1	33.4	31.6	74.0	-42.4

NOTES: 1. Peak detector is used for the emission measurement.

2. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
3. Negative value in the margin column shows emission below limit.
4. Horn antenna used for the emission over 1000MHz.

\* Emission within the restricted band meets the requirement of section 15.205. The corresponding limit as per 15.209 is based on Quasi peak limit for frequencies below 1000 MHz and average limit for frequencies over 1000 MHz. The radio frequency emissions above 1GHz also meet corresponding 20dB permitted peak limit with a peak detector function.

Test Engineer: Louisa Lu

## INTERTEK TESTING SERVICES

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Applicant: Giant Telecom Limited  
2009

Date of Test: June 16,

Model: IT7350

Mode: 802.11b (TX-Channel 06) (Powered by Adaptor)

Table 3-4  
**Radiated Emissions**

Polarization	Frequency (MHz)	Reading (dB $\mu$ V)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dB $\mu$ V/m)	Limit at 3m (dB $\mu$ V/m)	Margin (dB)
Vertical	*4874.000	34.8	36.1	33.4	32.1	54.0	-21.9
Vertical	*7311.000	29.6	36.3	38.0	31.3	54.0	-22.7

Polarization	Frequency (MHz)	Reading (dB $\mu$ V)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dB $\mu$ V/m)	Limit at 3m (dB $\mu$ V/m)	Margin (dB)
Vertical	*4874.000	34.8	36.1	33.4	32.1	74.0	-41.9
Vertical	*7311.000	29.6	36.3	38.0	31.3	74.0	-42.7

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. Horn antenna used for the emission over 1000MHz.

\* Emission within the restricted band meets the requirement of section 15.205. The corresponding limit as per 15.209 is based on Quasi peak limit for frequencies below 1000 MHz and average limit for frequencies over 1000 MHz. The radio frequency emissions above 1GHz also meet corresponding 20dB permitted peak limit with a peak detector function.

Test Engineer: Louisa Lu

## INTERTEK TESTING SERVICES

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Applicant: Giant Telecom Limited

Date of Test: June 16, 2009

Model: IT7350

Mode: 802.11b (TX-Channel 11) (Powered by Adaptor)

**Table 5-6**  
**Radiated Emissions**

Polarization	Frequency (MHz)	Reading (dB $\mu$ V)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dB $\mu$ V/m)	Limit at 3m (dB $\mu$ V/m)	Margin (dB)
Vertical	**2462.480	108.6	36.7	28.5	100.4	N/A	N/A
Vertical	*4924.000	34.8	36.1	33.5	32.2	54.0	-21.8
Vertical	*7386.000	29.0	36.3	38.1	30.8	54.0	-23.2

Polarization	Frequency (MHz)	Reading (dB $\mu$ V)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dB $\mu$ V/m)	Limit at 3m (dB $\mu$ V/m)	Margin (dB)
Vertical	**2462.480	108.6	36.7	28.5	100.4	N/A	N/A
Vertical	*4924.000	34.8	36.1	33.5	32.2	74.0	-41.8
Vertical	*7386.000	29.0	36.3	38.1	30.8	74.0	-43.2

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 used for the emission over 1000MHz.
  - \* Emission within the restricted band meets the requirement of section 15.205. The corresponding limit as per 15.209 is based on Quasi peak limit for frequencies below 1000 MHz and average limit for frequencies over 1000 MHz. The radio frequency emissions above 1GHz also meet corresponding 20dB permitted peak limit with a peak detector function.
  - \*\* Fundamental emissions were measured for determining band-edge compliance of using delta measurements technique. The worst case emissions were at 2483.500MHz, which was passed by 7.7dB margin compared with average limit. (refer to attached bandedge plot)

Test Engineer: Louisa Lu

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FCC ID: RAQIV730B

## INTERTEK TESTING SERVICES

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Applicant: Giant Telecom Limited

Date of Test: June 16, 2009

Model: IT7350

Mode: 802.11g (TX-Channel 01) (Powered by Adaptor)

Table 7-8  
**Radiated Emissions**

Polarization	Frequency (MHz)	Reading (dB $\mu$ V)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dB $\mu$ V/m)	Limit at 3m (dB $\mu$ V/m)	Margin (dB)
Vertical	*2310.000	44.2	36.7	28.4	35.9	54.0	-18.1
Vertical	*2390.000	57.6	36.7	28.4	49.3	54.0	-4.7
Vertical	*4824.000	34.0	36.1	33.4	31.3	54.0	-22.7

Polarization	Frequency (MHz)	Reading (dB $\mu$ V)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dB $\mu$ V/m)	Limit at 3m (dB $\mu$ V/m)	Margin (dB)
Vertical	*2310.000	44.2	36.7	28.4	35.9	74.0	-38.1
Vertical	*2390.000	57.6	36.7	28.4	49.3	74.0	-24.7
Vertical	*4824.000	34.0	36.1	33.4	31.3	74.0	-42.7

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. Horn antenna used for the emission over 1000MHz.
  - \* Emission within the restricted band meets the requirement of section 15.205. The corresponding limit as per 15.209 is based on Quasi peak limit for frequencies below 1000 MHz and average limit for frequencies over 1000 MHz. The radio frequency emissions above 1GHz also meet corresponding 20dB permitted peak limit with a peak detector function.

Test Engineer: Louisa Lu

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FCC ID: RAQIV730B

## INTERTEK TESTING SERVICES

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Applicant: Giant Telecom Limited

Date of Test: June 16, 2009

Model: IT7350

Mode: 802.11g (TX-Channel 06) (Powered by Adaptor)

Table 9-10  
**Radiated Emissions**

Polarization	Frequency (MHz)	Reading (dB $\mu$ V)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dB $\mu$ V/m)	Limit at 3m (dB $\mu$ V/m)	Margin (dB)
Vertical	*4874.000	34.2	36.1	33.4	31.5	54.0	-22.5
Vertical	*7311.000	29.4	36.3	38.0	31.1	54.0	-22.9

Polarization	Frequency (MHz)	Reading (dB $\mu$ V)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dB $\mu$ V/m)	Limit at 3m (dB $\mu$ V/m)	Margin (dB)
Vertical	*4874.000	34.2	36.1	33.4	31.5	74.0	-42.5
Vertical	*7311.000	29.4	36.3	38.0	31.1	74.0	-42.9

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 used for the emission over 1000MHz.
  - \* Emission within the restricted band meets the requirement of section 15.205. The corresponding limit as per 15.209 is based on Quasi peak limit for frequencies below 1000 MHz and average limit for frequencies over 1000 MHz. The radio frequency emissions above 1GHz also meet corresponding 20dB permitted peak limit with a peak detector function.

Test Engineer: Louisa Lu

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FCC ID: RAQIV730B

## INTERTEK TESTING SERVICES

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Applicant: Giant Telecom Limited

Date of Test: June 16, 2009

Model: IT7350

Mode: 802.11g (TX-Channel 11) (Powered by Adaptor)

**Table 11-12**  
**Radiated Emissions**

Polarization	Frequency (MHz)	Reading (dB $\mu$ V)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dB $\mu$ V/m)	Limit at 3m (dB $\mu$ V/m)	Margin (dB)
Vertical	**2462.480	105.0	36.7	28.5	96.8	N/A	N/A
Vertical	*4924.000	34.7	36.1	33.5	32.1	54.0	-21.9
Vertical	*7386.000	29.6	36.3	38.1	31.4	54.0	-22.6

Polarization	Frequency (MHz)	Reading (dB $\mu$ V)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dB $\mu$ V/m)	Limit at 3m (dB $\mu$ V/m)	Margin (dB)
Vertical	**2462.480	105.0	36.7	28.5	96.8	N/A	N/A
Vertical	*4924.000	34.7	36.1	33.5	32.1	74.0	-41.9
Vertical	*7386.000	29.6	36.3	38.1	31.4	74.0	-42.6

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 used for the emission over 1000MHz.
  - \* Emission within the restricted band meets the requirement of section 15.205. The corresponding limit as per 15.209 is based on Quasi peak limit for frequencies below 1000 MHz and average limit for frequencies over 1000 MHz. The radio frequency emissions above 1GHz also meet corresponding 20dB permitted peak limit with a peak detector function.
  - \*\* Fundamental emissions were measured for determining band-edge compliance of using delta measurements technique. The worst case emissions were at 2483.500MHz, which was passed by 0.6dB margin compared with average limit. (refer to attached bandedge plot)

Test Engineer: Louisa Lu

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FCC ID: RAQIV730B

## **INTERTEK TESTING SERVICES**

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### **4.10 Conducted Emission Configuration Photograph**

Worst Case Line-Conducted Configuration  
at  
0.202 MHz

For electronic filing, the worst case conducted emission configuration photograph is saved with filename: conducted photos.pdf.

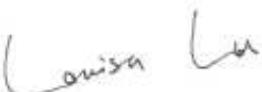
## INTERTEK TESTING SERVICES

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### 4.11 Conducted Emission Data

Judgement: Passed by 15.0 dB margin

#### ***TEST PERSONNEL:***



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Signature

Louisa Lu, Engineer  
*Typed/Printed Name*

June 16, 2009  
*Date*

## INTERTEK TESTING SERVICES

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Company: Giant Telecom Limited

Date of Test: May 18, 2009

Model: IT7350

Worst Case Operating Mode: Transmit (Powered by Adaptor)

**Table 13-14  
Conducted Emissions**

**Live Line Data**

Frequency (MHz)	Quasi-Peak		Average	
	Disturbance level dB(µV)	Permitted limit dB(µV)	Disturbance level dB(µV)	Permitted limit dB(µV)
0.204	46.6	63.4	34.6	53.4
0.343	32.8	59.1	25.1	49.1
0.478	31.3	56.4	23.7	46.4
1.018	29.0	56.0	21.1	46.0
2.553	27.9	56.0	20.5	46.0
6.679	27.3	60.0	21.3	50.0

**Neutral Line Data**

Frequency (MHz)	Quasi-Peak		Average	
	Disturbance level dB(µV)	Permitted limit dB(µV)	Disturbance level dB(µV)	Permitted limit dB(µV)
0.202	48.5	63.5	36.8	53.5
0.342	35.5	59.2	26.3	49.2
0.474	29.6	56.4	21.7	46.4
1.090	28.8	56.0	21.3	46.0
2.810	29.2	56.0	21.5	46.0
16.434	32.6	60.0	27.3	50.0

Test Engineer: Louisa Lu

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FCC ID: RAQIV730B

## INTERTEK TESTING SERVICES

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Applicant: Giant Telecom Limited  
Model: IT7350

Date of Test: June 16, 2009

### 4.12 Radiated Emissions from Digital Section of Transceiver, FCC Ref: 15.109

- [ ] Not required - No digital part
- [ ] Test results are attached
- [ x ] Included in the separated Verification report.

## INTERTEK TESTING SERVICES

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Applicant: Giant Telecom Limited  
Model: IT7350

Date of Test: June 16, 2009

### 4.13 Transmitter Duty Cycle Calculation and Measurements, FCC Rule 15.35(b), (c)

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 SWEP function on the analyzer was set to ZERO SPAN. The Transmitter ON time was determined from the resultant time-amplitude display:

	See attached spectrum analyzer chart (s) for Transmitter timing
	See Transmitter timing diagram provided by manufacturer
x	Not applicable, duty cycle was not used.

**INTERTEK TESTING SERVICES**

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**EXHIBIT 5**

**EQUIPMENT PHOTOGRAPHS**

## INTERTEK TESTING SERVICES

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### 5.0 Equipment Photographs

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

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**INTERTEK TESTING SERVICES**

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**EXHIBIT 6**

**PRODUCT LABELLING**

## INTERTEK TESTING SERVICES

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### 6.0 Product Labelling

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

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## **INTERTEK TESTING SERVICES**

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### **EXHIBIT 7**

### **TECHNICAL SPECIFICATIONS**

## INTERTEK TESTING SERVICES

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### 7.0 Technical Specifications

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

**INTERTEK TESTING SERVICES**

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**EXHIBIT 8**

**INSTRUCTION MANUAL**

## INTERTEK TESTING SERVICES

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### 8.0 Instruction Manual

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

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

**INTERTEK TESTING SERVICES**

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**EXHIBIT 9**

**MISCELLANEOUS INFORMATION**

## INTERTEK TESTING SERVICES

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### 9.0 Discussion of Pulse Desensitization

The determination of pulse desensitivity was made in accordance with Hewlett Packard Application Note 150-2, *Spectrum Analysis ... Pulsed RF*.

Pulse desensitivity is not applicable for this device since the transmitter transmits the RF signal continuously.

**INTERTEK TESTING SERVICES**

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**EXHIBIT 10**

**CONFIDENTIALITY REQUEST**

## INTERTEK TESTING SERVICES

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### **10.0 Confidentiality Request**

The applicant would like to have confidential protection of the following documents:

- Block Diagram
- Circuit Diagram
- Operational Description

For electronic filing, the request letter is saved with filename: request.pdf.

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**INTERTEK TESTING SERVICES**

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**EXHIBIT 11**

**TEST EQUIPMENT LIST**

## INTERTEK TESTING SERVICES

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### 11.0 Test Equipment List

For electronic filing, the test equipment list of the tested EUT is saved with filename: equipment list.pdf.