Giant Electronics Ltd.

Application
For
Permissive Change
(FCC ID: K7GT6100)

April 20, 2005

0504772
TL/ Ann Choy
April 20, 2005

Intertek Testing Services Hong Kong Ltd.
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SUMMARY OF CONTENTS

LIST OF EXHIBITS

MEASUREMENT/TECHNICAL REPORT

Application : Giant Electronics Limited
Trade Name/Model No : Giant/ T6300
Date : April 20, 2005

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

Equipment Type: GMRS + FRS

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.

Report prepared by:

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Exhibit type	File Description	Filename
Cover Page	Purpose of Application	purpose of change.pdf
Test Report	Spurious Emission	spurious.pdf
ID Label/Location	Label Artwork and Location	label.pdf
User Manual	User Manual	manual.pdf
Test Report	Test Report	report.pdf
Test Setup Photo	Radiated Emission	config photos.doc
Internal Photo	Internal Photo	internal photos.doc
External Photo	External Photo	external photos.doc

EXHIBIT 1

GENERAL DESCRIPTION

1.0 General Description

1.1 Product Description

The Equipment Under Test (EUT) is a Two Way Radio with FRS and GMRS operating between 462.5500MHz and 467.7125MHz. The EUT is powered by 4.8V (1 x 4.8V NiMH rechargeable battery) or 6.0V (4 x "AAA" size 1.5V alkaline batteries).

Transmitter Portion

(i)	Type of Emission	:	GMRS - 5K80F3E, FRS - 5K75F3E
(ii)	Frequency Range	:	FRS 7 Channels from 467.5625MHz to 467.7125MHz GMRS 15 Channels from 462.5500MHz to 462.7250MHz
(iii)	Maximum Power Rating	:	FRS - 0.23W ERP, GMRS - 0.26W ERP
(iv)	Antenna Type	:	Integral

1.2 Purpose of Application

The purpose of the change is to report changes in the original certified product for reason of different cosmetic enclosures. The RF module, PCB layout, and design including electronic and electrical are remained the same. Therefore, only the spurious emission results were included in this report.

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

1.3 Test Methodology

Radiated emission measurements were performed according to the procedures in ANSI C63.4 (2001) and ANSI/TIA/EIA-603-A-2001. All measurement were performed in Open Area Test Sites. Preliminary scans were performed in the Open Area Test Sites only to determine worst case modes. For each scan, the procedure of maximizing emissions in Appendices D and E were followed. All Radiated tests were performed at an antenna the 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 emission data is located at Garment Centre, 576 Castle Peak Road, Kowloon, Hong Kong. The test facility and site measurement data have been fully placed on file with the FCC.

EXHIBIT 2

SYSTEM TEST CONFIGURATION

2.0 System Test Configuration

2.1 Justification

The device was configured for testing in a typical fashion (as a customer would normally use it). The device was placed on a turntable, which enabled the engineer to maximize emissions through its placement in the three orthogonal axes. When the radiated emissions are measured.

The device was powered by 4 new "AAA" size 1.5V alkaline batteries.

The frequency range from 30 MHz to 4.69 GHz was searched for spurious emissions from the device. Only those emissions reported were detected. All other emissions were at least 20 dB below the applicable limits.

2.2 EUT Exercising Software

There was no special software to exercise the device. Once the unit is powered on, a signal is transmitted.

2.3 Special Accessories

No special accessory is needed for compliance of this device.

2.4 Measurement Uncertainty

When determining of the test conclusion, the Measurement Uncertainty of test has been considered.

2.5 Equipment Modification

Any modification installed previous to testing by Giant Electronics Ltd. will be incorporated in each production model sold/leased in the United States.

No modification were installed by Intertek Testing Services.

2.6 Support Equipment

A headset with 1.2m unshielded cable. (Supplied by Client)

Confirmed by:

Tommy Leung
Assistant Manager
Intertek Testing Services
Agent for Giant Electronics Ltd.

Signature

April 20, 2005 Date

EXHIBIT 3

SPURIOUS EMISSION

3.0 **Spurious Emission (Section 95.635)**

In order to satisfy the 95.635 requirement, the spurious emission from the EUT are measured and shown in the Exhibit 3.1.

3.1 Field Strength of Spurious Radiation (Section 95.635)

A. Test Equipment

Equipment	Brand Name	Model No.
Antenna	EMCO	A100, 3148, 3104C, 3115
Spectrum Analyzer	ADVANTEST	R3271
Test receiver	Rohde & Schwarz	ESVS30
RF Filter	Trilithic	3VF500/1000-5-50-CC

B. Testing Procedure

Radiated emission measurements were performed according to the procedures in ANSI C63.4(2001). All measurements were performed in Open Area Test Sites located at Roof Top of Garment Centre, 576 Castle Peak Road, Kowloon, Hong Kong.

C. Radiated Emission Configuration Photograph

Worst Case Radiated Emission

For electronic filing, the radiated emission configurations photograph is saved with filename: config photos.doc

C. Test Result

Giant Electronics Ltd.
Giant/ T6300

Table 1(a)

1) Unwanted emission from CARRIER ±6.25kHz to CARRIER ±31.25kHz

(Refer to the plots which is saved with filename: spurious.pdf)

Region	Unwanted emission	
	Channel 4	Channel 11
CARRIER ±6.25kHz to ±12.5kHz	<25dB	<25dB
CARRIER ±12.5kHz to ±31.25kHz	<35dB	<35dB

Table 1(b): Channel 4

Frequency (MHz)	Effective Radiated Power (dBm)	Transmission Power (dBm)	Attenuation (dBc)	Limit (dB)	Margin (dB)
925.278	-26.5	24.2	50.7	37.2	-13.5
1387.917	-34.0	24.2	58.2	37.2	-21.0
1850.556	-36.6	24.2	60.8	37.2	-23.6
2313.195	-36.9	24.2	61.1	37.2	-23.9
2775.834	-35.6	24.2	59.8	37.2	-22.6
3238.473	-42.5	24.2	66.7	37.2	-29.5
3701.112	-34.9	24.2	59.1	37.2	-21.9
4163.781	-43.6	24.2	67.8	37.2	-30.6
4626.390	-46.6	24.2	70.8	37.2	-33.6

Remark: 1. Transmission power is 24.2 dBm or -5.8 dB(W).

2. According to Section 95.635(b7), the unwanted emission should be attenuated below TP by at least $43 + 10 \log_{10}$ (TP) dB or 37.2 dB.

3. The test is performed according to ANSI/TIA/EIA-603-A-2001.

Test Engineer: Kenneth C. C. Lam Date of Test: March 18-April 11, 2005

Table 1(b): Channel 11

Frequency (MHz)	Effective Radiated Power (dBm)	Transmission Power (dBm)	Attenuation (dBc)	Limit (dB)	Margin (dB)
935.274	-28.5	23.6	52.1	36.6	-15.5
1402.911	-37.5	23.6	61.1	36.6	-24.5
1870.548	-44.5	23.6	68.1	36.6	-31.5
2338.185	-39.6	23.6	63.2	36.6	-26.6
2805.822	-44.2	23.6	67.8	36.6	-31.2
3273.459	-44.9	23.6	68.5	36.6	-31.9
3741.096	-45.4	23.6	69.0	36.6	-32.4
4208.733	-47.6	23.6	71.2	36.6	-34.6
4676.370	-49.4	23.6	73.0	36.6	-36.4

Remark: 1. Transmission power is 23.6 dBm or -6.4 dB(W).

2. According to Section 95.635(b7), the unwanted emission should be attenuated below TP by at least $43 + 10 \log_{10}$ (TP) dB or 36.6 dB.

3. The test is performed according to ANSI/TIA/EIA-603-A-2001.

Test Engineer: Kenneth C. C. Lam Date of Test: March 18-April 11, 2005

EXHIBIT 4

PRODUCT LABELLING

4.0 **Product Labelling**

4.1 Label Artwork & Location

Figure 4.1 Label Artwork & Location

An engineering drawing of the label which will be permanently affixed to the unit. For electronic filing, the label artwork & location are saved with filename: label.pdf

EXHIBIT 5

PHOTOGRAPHS

5.0 Equipment Photographs

For electronic filing, photographs of the tested EUT are saved with filename: external photos.doc and internal photos.doc

EXHIBIT 6

INSTRUCTION MANUAL

6.0 **Instruction Manual**

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

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

EXHIBIT 7

RF EXPOSURE INFO

7.0 **RF Exposure Info**

The RF Safety Information is shown on P.1 of User Manual.