CMA Testing and Certification Laboratories
廠商會檢定中心

TEST REPORT

Report No.	:	AJ031139-001	Date :	2007 October 24
Application No.	:	LJ218923(3)		
Applicant	:	GMT Industrial Ltd. Unit 1006, 10/F., Eastern Centre, 1065 King's Road, Hong Kong		
Sample Description	:	One(1) submitted sample(s) stated to be ARMBAND RADIO of Model No. YASAKI-RDT6806 and GPX-RDT6806 Rating : 2 x 1.5V AAA size battery No. of submitted sample : Three (3) piece(s) ***		
Date Received	:	2007 October 05		
Test Period	:	2007 October 05 – 2007 October 24		
Test Requested	:	FCC Part 15 Certification.		
Test Method	:	47 CFR Part 15 (10-1-05 Edition) ANSI C63.4 – 2003		
Test Result	:	See attached sheet(s) from page 2 to 12.		
Conclusion	:	The submitted sample was found to comply with requirement of FCC Part 15 Subpart B		

For and on behalf of
CMA Industrial Development Foundation Limited

Authorized Signature : _____

Danny Chui
Deputy Manager - EL. Division

FCC ID: BSYRDT6806

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1 General Information

1.1 General Description

The equipment under test (EUT) is a Stereo Radio with AM/FM/TV and Weather Band Digital Tuner and powered by 2 x 1.5 V "AAA" size batteries.

Refer to circuit design, the circuit description is listed as follows:

- IC2(GMT-618), Q8, Q9, X1(32.768KHz) and associated circuit act as a microprocessor to control tuner, key and LCD display.
- IC3(PT4800), Q6, Q7 and associated circuit act as Audio amplifier.
- IC1(ME301), L1, C7, C8, D1 and associated circuit act as a regulator.
- IC4 (TB2132FN), Q11, Q12, Q13, Q14, X2(75KHz), CF1(10.7MHz) and associated circuit act as muting circuit for the AM/FM/TV/WB, RF/ OSC/IF amplifier and decoder.

BAND	Receiving Freq.	OSC Freq.
AM	530-1710kHz	980-2160kHz
FM	87.5-108MHz	98.2-118.7MHz
TV CH2	59.750MHz	70.450MHz
TV CH3	65.750MHz	76.450MHz
TV CH4	71.750MHz	82.450MHz
TV CH5	81.750MHz	92.450MHz
TV CH6	87.750MHz	98.450MHz
TV CH7	179.750MHz	190.450MHz
TV CH8	185.750MHz	196.450MHz
TV CH9	191.750MHz	202.450MHz
TV CH10	197.750MHz	208.450MHz
TV CH11	203.750MHz	214.450MHz
TV CH12	209.750MHz	220.450MHz
TV CH13	215.750MHz	226.450MHz
WB CH1	162.550MHz	173.250MHz
WB CH2	162.400MHz	173.100MHz
WB CH3	162.475MHz	173.175MHz
WB CH4	162.425MHz	173.125MHz
WB CH5	162.450MHz	173.150MHz
WB CH6	162.500MHz	173.200MHz
WB CH7	162.525MHz	173.225MHz

The brief circuit description is saved with filename: OpDes.pdf

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1.2 Location of the test site

Radiated emissions measurements are investigated and taken pursuant to the procedures of ANSI C63.4 – 2003. A Semi-Anechoic Chamber Testing Site is set up for investigation and located at:

Ground Floor, Yan Hing Centre,
9 – 13 Wong Chuk Yeung Street,
Fo Tan, Shatin,
New Territories,
Hong Kong.

Conducted emissions measurements are investigated and also taken pursuant to the procedures of ANSI C63.4 – 2003. A shielded room is located at :

Ground Floor, Yan Hing Centre,
9 – 13 Wong Chuk Yeung Street,
Fo Tan, Shatin,
New Territories,
Hong Kong.

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1.3 List of measuring equipment

Equipment	Manufacturer	Model No.	Serial No.	Calibration Due Day
EMI Test Receiver	R&S	ESCS30	100001	2008 February 04
Bilog Antenna	Schaffner	CBL6112B	2718	2008 May 23

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2 Description of the radiated emission test

2.1 Test Procedure

Radiated emissions measurements are investigated and taken pursuant to the procedures of ANSI C63.4 – 2003.

The equipment under test (EUT) was placed on a non-conductive turntable with dimensions of 1.5m x 1m and 0.8m high above the ground. 3m from the EUT, a broadband antenna mounting on the mast received the signal strength. The turntable was rotated to maximize the emission level. The antenna was then moving along the mast from 1m up to 4m until no more higher value was found. Both horizontal and vertical polarization of the antenna were placed and investigated.

2.2 Test Result

All modes had been tested. The emissions meeting the requirement of section 15.109 are based on measurements employing the CISPR quasi-peak detector below 1000MHz and average detector for frequencies above 1000MHz.

The emissions from 30MHz to 1000MHz were investigated. The highest emissions were presented in next pages.

Emissions with more than 20dB below the limit were not reported.

It was found that the EUT meet the FCC requirement.

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Test Result :

2.3 Radiated Emission Measurement Data

Radiated emission

pursuant to

the requirement of FCC Part 15 subpart B

Mode: TV mode with CH2

Frequency (MHz)	Polarity (H/V)	Reading at 3m (dBμV/m)	Antenna and Cable factor (dB)	Field Strength (dBμV/m)	Limit at 3m (dBμV/m)	Margin (dB)
140.902	H	18.9	12.0	30.9	43.5	-12.6
281.977	H	7.6	13.9	21.5	46.0	-24.5
422.866	H	8.3	17.9	26.2	46.0	-19.8

Mode: TV mode with CH7

Frequency (MHz)	Polarity (H/V)	Reading at 3m (dBμV/m)	Antenna and Cable factor (dB)	Field Strength (dBμV/m)	Limit at 3m (dBμV/m)	Margin (dB)
190.449	H	31.0	9.5	40.5	43.5	-3.0
380.892	H	12.1	14.9	27.0	46.0	-19.0
571.348	H	10.2	19.1	29.3	46.0	-16.7

Mode: TV mode with CH13

Frequency (MHz)	Polarity (H/V)	Reading at 3m (dBμV/m)	Antenna and Cable factor (dB)	Field Strength (dBμV/m)	Limit at 3m (dBμV/m)	Margin (dB)
226.453	H	28.6	9.8	38.4	46.0	-7.6
452.927	H	8.4	17.9	26.3	46.0	-19.7
679.376	H	13.4	21.2	34.6	46.0	-11.4
905.812	H	11.4	23.6	35.0	46.0	-11.0

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Test Result :

2.3 Radiated Emission Measurement Data

Radiated emission

pursuant to

the requirement of FCC Part 15 subpart B

Mode: Weather Band mode with CH1

Frequency (MHz)	Polarity (H/V)	Reading at 3m (dBμV/m)	Antenna and Cable factor (dB)	Field Strength (dBμV/m)	Limit at 3m (dBμV/m)	Margin (dB)
173.250	H	29.5	10.7	40.2	43.5	-3.3
346.502	H	11.0	14.9	25.9	46.0	-20.1
519.806	H	7.9	19.1	27.0	46.0	-19.0

Mode: Weather Band mode with CH4

Frequency (MHz)	Polarity (H/V)	Reading at 3m (dBμV/m)	Antenna and Cable factor (dB)	Field Strength (dBμV/m)	Limit at 3m (dBμV/m)	Margin (dB)
173.122	H	29.4	10.7	40.1	43.5	-3.4
346.262	H	11.4	14.9	26.3	46.0	-19.7
519.366	H	7.7	19.1	26.8	46.0	-19.2

Mode: Weather Band mode with CH7

Frequency (MHz)	Polarity (H/V)	Reading at 3m (dBμV/m)	Antenna and Cable factor (dB)	Field Strength (dBμV/m)	Limit at 3m (dBμV/m)	Margin (dB)
173.224	H	29.4	10.7	40.1	43.5	-3.4
346.438	H	11.3	14.9	26.2	46.0	-19.8
519.682	H	8.3	19.1	27.4	46.0	-18.6
692.896	H	5.7	21.2	26.9	46.0	-19.1

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Test Result :

2.3 Radiated Emission Measurement Data

Radiated emission

pursuant to

the requirement of FCC Part 15 subpart B

Mode: FM mode with frequency 88MHz

Frequency (MHz)	Polarity (H/V)	Reading at 3m (dBμV/m)	Antenna and Cable factor (dB)	Field Strength (dBμV/m)	Limit at 3m (dBμV/m)	Margin (dB)
98.200	H	5.9	11.0	16.9	43.5	-26.6
196.404	H	27.5	9.7	37.2	43.5	-6.3
589.200	H	8.1	21.2	29.3	46.0	-16.7

Mode: FM mode with frequency 98MHz

Frequency (MHz)	Polarity (H/V)	Reading at 3m (dBμV/m)	Antenna and Cable factor (dB)	Field Strength (dBμV/m)	Limit at 3m (dBμV/m)	Margin (dB)
108.200	H	7.6	12.4	20.0	43.5	-23.5
217.402	H	29.0	13.9	42.9	46.0	-3.1
652.200	H	9.4	21.6	31.0	46.0	-15.0

Mode: FM mode with frequency 108MHz

Frequency (MHz)	Polarity (H/V)	Reading at 3m (dBμV/m)	Antenna and Cable factor (dB)	Field Strength (dBμV/m)	Limit at 3m (dBμV/m)	Margin (dB)
118.200	H	10.4	12.4	22.8	43.5	-20.7
237.400	H	24.8	13.9	38.7	46.0	-7.3
356.100	H	10.3	17.7	28.0	46.0	-18.0
712.202	H	15.8	22.5	38.3	46.0	-7.7

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3 Description of the Line-conducted Test

3.1 Test Procedure

Conducted emissions measurements are investigated and also taken pursuant to the procedures of ANSI C63.4 – 2003. The EUT was setup as described in the procedures, and both lines were measured.

3.2 Test Result

No measurement is required as the EUT is a battery-operated product.

3.3 Graph and Table of Conducted Emission Measurement Data

Not Applicable

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4 Photograph

4.1 Photographs of the Test Setup for Radiated Emission and Conduction Emission

For electronic filing, the photos are saved with filename TSup1.jpg to TSup2.jpg

4.2 Photographs of the External and Internal Configurations of the EUT

For electronic filing, the photos are saved with filename ExPho1.jpg to ExPho2.jpg and InPho1.jpg to InPho2.jpg.

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5 Supplementary document

The following document were submitted by applicant, and for electronic filing, the document are saved with the following filenames:

Document	Filename
ID Label/Location	LabelSmp.pdf
Block Diagram	BlkDia.pdf
Schematic Diagram	Schem1.pdf to Schem2.pdf
Users Manual	UserMan.pdf
Operational Description	OpDes.pdf

6 Appendices

A1.	Photos of the set-up of Radiated Emissions	1	page
A2.	Photos of External Configurations	1	page
A3.	Photos of Internal Configurations	1	page
A4.	ID Label/Location	1	page
A5.	Block Diagram	1	page
A6.	Schematics Diagram	1	page
A7.	User Manual	4	pages
A8.	Operation Description	1	page

***** End of Report *****

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