

廠商會檢定中心

# **TEST REPORT**

Report No.	:	AG002569-001		Date :	2006 February 14	
Application No.	:	LF219566(7)				
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 Dig	gital Tune A	M/FM Radio	
		Item Name	Model No			
		YASAKI	CR6806D			
		GPX	CR6806D			
		Rating :	2 x 1.5V AA siz	ze batteries		
		: No. of submitted sample :	AC 120V	a) ***		
		No. of sublinued sample.	Three (3) prece(	5)		
Date Received	:	2005 December 19				
Test Period	:	2005 December 23 – 2006 February 14				
Test Requested	:	FCC Part 15 Certification				
Test Method	:	47 CFR Part 15 (10-1-05	Edition) and ANS	I C63.4 – 20	003	
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.				
Remark	:	All two models are the same in circuitry and components; and therefore model YASAKI - CR6806DT was chosen to be the representative of the test sample.				

*For and on behalf of* CMA Industrial Development Foundation Limited

Authorized Signature :

Danny Chui EMC Engineer - EL. Division

FCC ID: BSYCR6806DT

Page 1 of 12

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廠商會檢定中心

# **TEST REPORT**

Report No.

AG002569-001

:

Date : 20

2006 February 14

### **Table of Contents**

1	Gen	eral Information	3
	1.1	General Description	3
	1.2	Location of the test site	4
	1.3	List of measuring equipment	
2	Dese	cription of the radiated emission test	6
	2.1	Test Procedure	6
	2.2	Test Result	6
	2.3	Radiated Emission Measurement Data	7
	2.3	Radiated Emission Measurement Data	8
3	Dese	cription of the Line-conducted Test	
	3.1	Test Procedure	9
	3.2	Test Result	
	3.3	Graph and Table of Conducted Emission Measurement Data	9
4	Phot	tograph	
	4.1	Photographs of the Test Setup for Radiated Emission and Conduction Emission	10
	4.2	Photographs of the External and Internal Configurations of the EUT	10
5	Sup	plementary document	
	5.1	Bandwidth	11
	5.2	Duty cycle	
	5.3	Transmission time	
6	App	endices	12

FCC ID: BSYCR6806DT

Page 2 of 12



## **TEST REPORT**

Report No. : AG002569-001

•

Date : 2006 February 14

Test Result

#### **1** General Information

#### **1.1 General Description**

The equipment under test (EUT) is single-function product and powered by AC 120V and DC 3V for Clock backup. The EUT is a Stereo Digital Tune with AM/FM and Weather Band.

The brief circuit description is listed as follows:

- IC101, IC102, IC103 X101 (4.5MHz), CF 1 (10.7MHz), CF 3 (10.7MHz) and associated circuit act as AM/FM/WB Radio
- IC202 and associated circuit act as Amplifier
- IC130, X301 (32.768kHz) and associated control Radio and LCD Display

FCC ID: BSYCR6806DT



# **TEST REPORT**

Report No. : AG002569-001

Date : 2006 February 14

Test Result

### **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.

FCC ID: BSYCR6806DT

Page 4 of 12



# **TEST REPORT**

Report No. : AG002569-001

:

Date : 2006 February 14

Test Result

### 1.3 List of measuring equipment

Equipment	Manufacturer	Model No.	Serial No.
EMI Test Receiver	R&S	ESCI	100152
EMI Test Receiver	R&S	ESCS30	100001
Broadband Antenna	Schaffner	CBL6112B	2692
Signal Generator	IFR	2023B	202302/938
LISN	R&S	ESH3-Z5	100038
LISN	R&S	ESH3-Z5	100010
Loop Antenna	EMCO	6502	00056620

FCC ID: BSYCR6806DT

Page 5 of 12



## **TEST REPORT**

Report No. : AG002569-001

•

Date : 2006 Fe

2006 February 14

Test Result

### 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

The harmonic emissions meeting the requirement of section 15.109 are based on measurements employing the CISPR quasi-peak detector.

It was found that the EUT meet the FCC requirement.

FCC ID: BSYCR6806DT

Page 6 of 12



## **TEST REPORT**

Report No. : AG002569-001

:

Date : 2006 February 14

Test Result

### 2.3 Radiated Emission Measurement Data

**Radiated emission** 

### pursuant to

### the requirement of FCC Part 15 subpart B

Mode: FM

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)
98.700	Н	19.6	11.0	30.6	43.5	-12.9
108.700	Н	21.8	12.4	34.2	43.5	-9.3
118.707	Н	27.6	12.4	40.0	43.5	-3.5
135.530	Н	21.1	11.9	33.0	43.5	-10.5
197.404	Н	26.4	9.7	36.1	43.5	-7.4
217.400	Н	24.0	13.9	37.9	46.0	-8.1
296.106	Н	21.7	14.9	36.6	46.0	-9.4
296.756	Н	19.1	14.9	34.0	46.0	-12.0
326.172	Н	17.9	17.7	35.6	46.0	-10.4
474.813	Н	15.1	19.2	34.3	46.0	-11.7

FCC ID: BSYCR6806DT

Page 7 of 12



## **TEST REPORT**

Report No. : AG002569-001

:

Date : 2006 February 14

Test Result

### 2.3 Radiated Emission Measurement Data

**Radiated emission** 

### pursuant to

### the requirement of FCC Part 15 subpart B

Mode: WB

Frequency (MHz)	Polarity (H/V)	Reading at 3m	Antenna and Cable factor	Field Strength	Limit at 3m (dBµV/m)	Margin (dB)
		$(dB\mu V/m)$	(dB)	(dBµV/m)		
137.032	Н	23.5	11.9	35.4	43.5	-8.1
172.920	Н	11.0	9.2	20.2	43.5	-23.3
174.016	Н	19.7	9.2	28.9	43.5	-14.6
174.148	Н	19.0	9.2	28.2	43.5	-15.3
273.174	Н	11.7	14.9	26.6	46.0	-19.4
273.468	Н	9.1	14.9	24.0	46.0	-22.0
273.835	Н	11.3	14.9	26.2	46.0	-19.8
410.188	Н	4.9	19.2	24.1	46.0	-21.9
544.032	Н	12.0	21.2	22.4	46.0	-23.6
546.452	Н	1.4	21.2	22.6	46.0	-23.4

FCC ID: BSYCR6806DT

Page 8 of 12



## **TEST REPORT**

Report No. : AG002569-001

•

Date : 2006 February 14

Test Result

### **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

The result showed that the EUT met the FCC requirement. The measurement data was indicated in Appendix.

#### 3.3 Graph and Table of Conducted Emission Measurement Data

For electronic filing, the document are saved with filename TestRpt2.pdf

FCC ID: BSYCR6806DT



# **TEST REPORT**

Report No. : AG002569-001

:

·001

Date : 2006 February 14

Test Result

### 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 TSup5.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 InPho14.jpg.

FCC ID: BSYCR6806DT

Page 10 of 12



## **TEST REPORT**

Report No. : AG002569-001

:

2006 February 14

Date :

Test Result

#### 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	LabelSmp1.jpg to LabelSmp2.jpg		
Block Diagram	BlkDia.pdf		
Schematic Diagram	Schem.pdf		
Users Manual	UserMan1.pdf to UserMan2.pdf		
Operational Description	OpDes.pdf		

#### 5.1 Bandwidth

N/A

#### 5.2 Duty cycle

N/A

#### 5.3 Transmission time

N/A

FCC ID: BSYCR6806DT

Page 11 of 12



# **TEST REPORT**

Report No.		: AG002569-001		Date :	2006 February 14
6	Appen	ndices			
	A1	Photos of the set-up of Radiated Emissions	1	page	
A2 I		Photos of the set-up of Conducted Emissions	2	pages	
A3 P		Photos of External Configurations	1	page	
	A4 Photos of Internal Configurations		7	pages	
	A5 ID Label/Location		1	page	
	A6 Conducted Emission Test Result		2	pages	
	A7 Block Diagram		1	page	
A8 Schematics Diag		Schematics Diagram	1	pages	
	A9	User Manual	2	pages	
	A10	Operation Description	1	page	

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

FCC ID: BSYCR6806DT

Page 12 of 12