



TEST REPORT

Report No. : AF009554-001

Date : 2005 July 15

Application No.: LF205047(7)

Applicant : GMT Industrial Ltd.
Unit 1006, 10/F., Eastern Centre,
1065 King's Road, Hong Kong.

Sample Description : One(1) submitted sample stated to be.

Item Name	Model No.
YASAKI	CRCD6805
GPX	CRCD6805DT

Rating : AC 120V
No. of sample(s) : Two(2) pieces ***

Date Received : 2005 April 15

Test Period : 2005 April 15 to 2005 July 15

Test Requested : FCC Part 15 Certification

Test Method : FCC Rules and Regulations Part 15 – July 2004
ANSI C63.4 – 2003

Test Result : See attached sheet(s) from page 2 to 17.

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 construction, and
therefore model YASAKI-CRCD6805 was chosen to be the representative of the
test sample.

For and on behalf of
CMA Testing and Certification Laboratories

Authorized Signature : _____

Danny Chui
EMC Engineer - EL. Division

Page 1 of 17

FCC ID : BSYCRCD6805

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TEST REPORT

Report No. : AF009554-001

Date : 2005 July 15

Table of Contents

1	General Information	3
1.1	General Description	3
1.2	Related Submittal Grants	3
1.3	Location of the test site	4
1.4	List of measuring equipment	5
2	Description 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
2.3	Radiated Emission Measurement Data	9
2.3	Radiated Emission Measurement Data	10
3	Description of the Antenna Power Conducted emission test	11
3.1	Test Procedure	11
3.2	Test Result	11
3.3	Antenna Power Conducted emission Measurement Data	12
3.3	Antenna Power Conducted emission Measurement Data	13
3.3	Antenna Power Conducted emission Measurement Data	14
4	Description of the Line-conducted Test	15
4.1	Test Procedure	15
4.2	Test Result	15
4.3	Graph and Table of Conducted Emission Measurement Data	15
5	Photograph	16
5.1	Photographs of the Test Setup for Radiated Emission and Conduction Emission	16
5.2	Photographs of the External and Internal Configurations of the EUT	16
6	Supplementary document	16
6.1	Bandwidth	16
7.	Appendices	17



TEST REPORT

Report No. : AF009554-001

Date : 2005 July 15

1 General Information

1.1 General Description

The equipment under test (EUT) is a CD player and Stereo Radio. The Radio function is Digital Tuner with AM/FM/TV and Weather Band and to power by AC120V.

There are front, side and back cabinet and tuner display for the function control and indicator. (details see user manual)

The brief circuit description is listed as follows :

- IC1, IC5, Y1(16.9344MHz) and associated circuit act as CD Player,
- IC201, X201(75 KHz), IC205, X202(10.25MHz) and associated circuit act as muting circuit for the AM/FM/WB/TV RF/OSC/IF amplifier and stereo decoder.
- LCD101, IC1, X101(32.768 KHz) and associated circuit act as programmable microprocessor to control CD player, tuner, keyboard and LCD display.
- IC202, IC203, IC204 and associated circuit act as Audio amplifier.

All two models are the same in circuitry and components; and therefore model CRCD6805 was chosen to be the representative of the test sample.

1.2 Related Submittal Grants

This is a single application for certification of a CD player and AM/FM/TV/Weather band receiver.



TEST REPORT

Report No. : AF009554-001

Date : 2005 July 15

1.3 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.



TEST REPORT

Report No. : AF009554-001

Date : 2005 July 15

1.4 List of measuring equipment

Equipment	Manufacturer	Model No.	Serial No.	Calibration Certification No.
EMI Test Receiver	R&S	ESCS30	100001	S43284
Broadband Antenna	Schaffner	CBL6112B	2692	CA3025
Signal Generator	IFR	2023B	202302/938	S43098
LISN	R&S	ESH3-Z5	100038	S43377
LISN	R&S	ESH3-Z5	100010	S43101
Pulse Limiter	R&S	ESH3-Z2	100001	S43325



TEST REPORT

Report No. : AF009554-001

Date : 2005 July 15

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.

The device was rotated through three orthogonal axes to determine which attitude and configuration produce the highest emission during measurement.

2.2 Test Result

The 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.



TEST REPORT

Report No. : AF009554-001

Date : 2005 July 15

2.3 Radiated Emission Measurement Data

**Radiated emission
pursuant to
the requirement of FCC Part 15 subpart B**

Mode : CD

Frequency (MHz)	Polarity (H/V)	Reading at 3m (dB μ V/m)	Antenna and Cable factor (dB)	Field Strength (dB μ V/m)	Limit at 3m (dB μ V/m)	Margin (dB)
101.819	H	28.7	11.9	40.6	43.5	-2.9
118.764	H	25.2	11.9	37.1	43.5	-6.4
135.754	H	28.5	13.1	41.6	43.5	-1.9
152.721	H	23.2	12.5	35.7	43.5	-7.8
173.231	H	28.2	11.4	39.6	43.5	-3.9
220.315	H	33.4	10.8	44.2	46.0	-1.8
305.443	H	27.8	15.7	43.5	46.0	-2.5



TEST REPORT

Report No. : AF009554-001

Date : 2005 July 15

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 (dB μ V/m)	Antenna and Cable factor (dB)	Field Strength (dB μ V/m)	Limit at 3m (dB μ V/m)	Margin (dB)
98.001	H	18.3	10.2	28.5	43.5	-15.0
108.699	H	14.5	11.9	26.4	43.5	-17.1
118.320	H	16.8	11.9	28.7	43.5	-14.8
196.002	H	29.3	10.1	39.4	43.5	-4.1
217.398	H	27.4	10.8	38.2	46.0	-7.8
236.641	H	28.1	10.8	38.9	46.0	-7.1



TEST REPORT

Report No. : AF009554-001

Date : 2005 July 15

2.3 Radiated Emission Measurement Data

**Radiated emission
pursuant to
the requirement of FCC Part 15 subpart B**

Mode : Weather Band (CH1 – CH7)

Frequency (MHz)	Polarity (H/V)	Reading at 3m (dB μ V/m)	Antenna and Cable factor (dB)	Field Strength (dB μ V/m)	Limit at 3m (dB μ V/m)	Margin (dB)
173.105	H	25.3	11.4	36.7	43.5	-6.8
173.133	H	25.8	11.4	37.2	43.5	-6.3
173.156	H	25.9	11.4	37.3	43.5	-6.2
173.181	H	26.3	11.4	37.7	43.5	-5.8
173.200	H	25.9	11.4	37.3	43.5	-6.2
173.229	H	25.6	11.4	37.0	43.5	-6.5
173.245	H	25.7	11.4	37.1	43.5	-6.4



TEST REPORT

Report No. : AF009554-001

Date : 2005 July 15

2.3 Radiated Emission Measurement Data

**Radiated emission
pursuant to
the requirement of FCC Part 15 subpart B**

Mode : TV (CH2 – CH13)

Frequency (MHz)	Polarity (H/V)	Reading at 3m (dB μ V/m)	Antenna and Cable factor (dB)	Field Strength (dB μ V/m)	Limit at 3m (dB μ V/m)	Margin (dB)
140.906	H	26.4	12.5	38.9	43.5	-4.6
152.903	H	23.6	12.5	36.1	43.5	-7.4
164.901	H	26.7	11.4	38.1	43.5	-5.4
184.899	H	25.3	10.1	35.4	43.5	-8.1
190.446	H	29.5	10.1	39.6	43.5	-3.9
196.450	H	29.5	10.1	39.6	43.5	-2.9
196.900	H	30.1	10.1	40.2	43.5	-3.3
202.446	H	28.9	10.8	39.7	43.5	-3.8
208.455	H	26.8	10.8	37.6	43.5	-5.9
214.446	H	27.0	10.8	37.8	43.5	-5.7
220.446	H	26.7	10.8	37.5	46.0	-8.5
226.450	H	26.0	10.8	36.8	46.0	-9.2



TEST REPORT

Report No. : AF009554-001

Date : 2005 July 15

3 Description of the Antenna Power Conducted emission test

3.1 Test Procedure

Antenna Power Conducted emissions measurements are investigated and also taken pursuant to the procedures of ANSI C63.4 – 2003.

3.2 Test Result

The emissions meeting the requirement of section 15.111 are based on measurements employing the CISPR quasi-peak detector.

It was found that the EUT meet the FCC requirement.



TEST REPORT

Report No. : AF009554-001

Date : 2005 July 15

3.3 Antenna Power Conducted emission Measurement Data

Radiated emission
pursuant to
the requirement of FCC Part 15 subpart B

Mode : FM

Frequency (MHz)	Antenna Power (nW)	Limit (nW)	Margin (nW)
98.001	0.047	2.0	-1.953
108.699	0.040	2.0	-1.960
118.314	0.043	2.0	-1.957
196.002	0.076	2.0	-1.924
217.398	0.066	2.0	-1.934
236.627	0.107	2.0	-1.893



TEST REPORT

Report No. : AF009554-001

Date : 2005 July 15

3.3 Antenna Power Conducted emission Measurement Data

Radiated emission
pursuant to
the requirement of FCC Part 15 subpart B

Mode : TV (CH2 – CH13)

Frequency (MHz)	Antenna Power (nW)	Limit (nW)	Margin (nW)
140.906	0.364	2.0	-1.636
152.903	0.235	2.0	-1.765
164.901	0.381	2.0	-1.619
184.899	0.123	2.0	-1.877
190.446	0.112	2.0	-1.888
196.450	0.096	2.0	-1.904
196.900	0.126	2.0	-1.874
202.446	0.103	2.0	-1.897
208.455	0.098	2.0	-1.902
214.446	0.081	2.0	-1.919
220.466	0.068	2.0	-1.932
226.450	0.100	2.0	-1.900



TEST REPORT

Report No. : AF009554-001

Date : 2005 July 15

3.3 Antenna Power Conducted emission Measurement Data

Radiated emission
pursuant to
the requirement of FCC Part 15 subpart B

Mode : Weather Band (CH1 – CH7)

Frequency (MHz)	Antenna Power (nW)	Limit (nW)	Margin (nW)
173.105	0.289	2.0	-1.711
173.133	0.258	2.0	-1.742
173.156	0.296	2.0	-1.704
173.181	0.283	2.0	-1.717
173.197	0.283	2.0	-1.717
173.200	0.276	2.0	-1.724
173.245	0.276	2.0	-1.724



TEST REPORT

Report No. : AF009554-001

Date : 2005 July 15

4 Description of the Line-conducted Test

4.1 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.

4.2 Test Result

The result showed that the EUT met the FCC requirement of class B equipment.

4.3 Graph and Table of Conducted Emission Measurement Data

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



TEST REPORT

Report No. : AF009554-001

Date : 2005 July 15

5 Photograph

5.1 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

5.2 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 InPho8.jpg

6 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 and LabelSmp2.jpg
Block Diagram	BlkDia.pdf
Schematic Diagram	Schem1.jpg and Schem2.jpg
Users Manual	UserMan.pdf
Operational Description	OpDes.pdf

6.1 Bandwidth

N.A.



TEST REPORT

Report No. : AF009554-001

Date : 2005 July 15

7. Appendices

A1.	Photos of the set-up of Radiated Emissions	1 page
A2.	Photos of the set-up of Conducted Emissions	3 pages
A3.	Photos of External Configurations	1 page
A4.	Photos of Internal Configurations	4 pages
A5.	ID Label/Location	1 page
A6.	Conducted Emission Measurement Data	4 pages
A7.	Block Diagram	1 page
A8.	Schematics	2 pages
A8.	User Manual	4 pages
A9.	Operation Description	1 page

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