



**CMA Testing
and Certification
Laboratories**
廠商會檢定中心

TEST REPORT

Report No. : AF019367-001 Date : 2005 August 19
Application No. : LF213631(5)
Client : Asia Global Corporation Limited
Flat M, 3/F, Kaiser Estate Phase 3
11 Hok Yuen Street, Hung Hom
Kowloon, Hong Kong
Sample Description : One(1) submitted sample stated to be Weather Station of Model No. P13809
Rating : 3 x 1.5V AAA size batteries
AC 120V/ DC 3V (adaptor)
Testing Voltage : AC 120V
No. of submitted sample : Two (2) set(s)***
Date Received : 2005 July 18
Test Period : 2005 July 18 – 2005 August 17
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 11.
Conclusion : The submitted sample was found to comply with requirement of FCC Part 15
Subpart B tests.

For and on behalf of
CMA Testing and Certification Laboratories

Authorized Signature : _____

Daisy Chui
EMC Engineer - EL. Division

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FCC ID : THKP13809

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1 General Information

1.1 General Description

The equipment under test (EUT) is a receiver for Weather Station operating at 433.9MHz and is controlled by a crystal. The EUT is powered by 3 x 1.5V AAA size battery or an AC-DC adaptor. It receives radio signals from the outdoor sensor and displays the data on the LCD. The EUT itself also has a temperature sensor.

Referring to the circuit diagram, the brief circuit description listed as follows:

- RF module and associated circuit act as receiver and amplifier circuit
- U1 and associated circuit act as decoder and encoder
- U2 and associated circuit act as voltage regulator
- L2, C7, C8, C12, C13 and associated circuit act as low pass filter
- Y1, Y2 and associated circuit act as oscillator
- RT and associated circuit act as indoor temperature sensor



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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 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
Biconical Antenna	R&S	HK116	837414/004	2GB05000535-0001
Loop Antenna	EMCO	6502	00056620	49906



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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.

For below 30MHz, a loop antenna with its vertical plane is placed 3m from the EUT and rotated about its vertical axis for maximum response at each azimuth about the EUT. And the centre of the loop shall be 1 m above the ground.

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 harmonic emissions meeting the requirement of section 15.109 are based on measurements employing the CISPR quasi-peak detector below 1000 MHz and average detector for frequencies above 1000 MHz.

It was found that the EUT meet the FCC requirement.



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2.3 Radiated Emission Measurement Data

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

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)
435.880	H	12.4	17.7	30.1	46.0	-15.9
435.880	V	15.9	17.7	33.6	46.0	-12.4
871.728	H	6.3	22.5	28.8	46.0	-17.2
871.728	V	5.1	22.5	27.6	46.0	-18.4
1307.592	V	10.7	28.4	39.1	54.0	-14.9
1743.452	V	10.6	30.7	41.3	54.0	-12.7



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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

The test result showed that the EUT met the FCC requirement.

3.3 Graph and Table of Conducted Emission Measurement Data

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



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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 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 InPho7.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	Schem.pdf
Users Manual	UserMan.pdf
Operational Description	OpDes.pdf



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6 Appendices

A1	Photos of the set-up of Radiated Emissions	1 page
A2	Photos of the set-up of Conducted Emissions	2 pages
A3	Photos of External Configurations	1 page
A4	Photos of Internal Configurations	4 pages
A5	ID Label/Location	1 page
A6	Conducted Emission Test Result	2 pages
A7	Block Diagram	1 page
A8	Schematics	1 page
A9	User Manual	1 page
A10	Operation Description	1 page

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