



TEST REPORT

Report No. : AE000956-2

Date : 2004 March 04

Applicant : Sweda Limited
8/F., Cheung Lung Ind. Bldg.,
10 Cheung Yee Street, Cheung Sha Wan,
Kowloon, Hong Kong.

Sample Description : One(1) submitted sample stated to be :
Model Name : Digit Mini Mega
Model No. : SSP20
Rating : 2 x 1.5 V AAA size batteries
No. of sample(s) : One(1) piece ***

Date Received : 2004 January 17.

Test Period : 2004 January 29 – 2004 February 17.

Test Requested : FCC Part 15 Certification

Test Method : FCC Rules and Regulations Part 15 – July 2003
ANSI C63.4 – 1992

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 Testing and Certification Laboratories

Authorized Signature :

Danny Chui
EMC Engineer - EL. Division

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1 General Information

1.1 General Description

The equipment under test (EUT) is a digital camera. The EUT is powered by 3 V dc. (AAA size batteries). It has the features : three resolution (320*240, 640*480 and 1280*960) and movie function, USB port output for upload images and PC camera mode. And auto power off function after 30 seconds of non-use the camera.

Refer to the block diagram, the circuit description is listed as follows :

- Sensor and associated circuit act as clip photo image
- USB and associated circuit act as camera and computer link
- DSP and associated circuit act as clip, display and storage photo images
- EEPROM and associated circuit act as storage controlling program
- SDRAM and associated circuit act as storage temp photo and process
- Power Supply and associated circuit act as provide all circuit power

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

1.2 Related Submittal Grants

This is a single application for certification of a computer peripheral product.

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1.3 Location of the test site

Radiated emissions measurements are investigated and taken pursuant to the procedures of ANSI C63.4 – 1992. An Open Area Testing Site is set up for investigation and located at :

Top of the Roof, 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 – 1992. A double shielded room is located at :

Roof Floor, Yan Hing Centre,
9 – 13 Wong Chuk Yeung Street,
Fo Tan, Shatin,
New Territories,
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1.4 List of measuring equipment

Equipment	Manufacturer	Model No.	Serial No.	Calibration Certification No.
EMI Test Receiver	R&S	ESCS30	100001	S21141
Broadband Antenna	Schaffner	CBL6113B	2718	AC1753
Signal Generator	IFR	2023B	202302/938	Nil
LISN	R&S	ESH3-Z5	100038	S21142
LISN	R&S	ESH3-Z5	100010	20-70405
Pulse Limiter	R&S	ESH3-Z2	100001	20-73194
Biconical Antenna	R&S	HK116	837414/004	4000.7752.02

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1.5 List of support equipment

1. Intel CPU PIII 800EB / 256 cache / 133MHz
Model: L103A455-0041 SL4MB
2. Intel Mother Board
Model: Intel Type: D815EEA
3. IBM Hard-disk
Model: DTLA-30720, 20.5GB
4. Proview LCD Monitor
Model: 568
S/N: FYUJ240040133
5. IBM Mouse
Model: 12J3618
S/N: 23-005077
6. Acer Keyboard
Model: 6511-VA
7. Hewlett Packard LaserJet 2100TN
Model: C4172A
S/N: SGGS038577
8. PenPower Handwriting System
Model: PP403N
S/N: PT9122239
9. USB Cable
(Provided by applicant)

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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 – 1992.

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 test. The measurement data were indicated in next page.

All other measurement were 20 dB below the 15.109 limits. Thus, those highest emissions were presented in next page (section 2.3).

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**

Mode : Standalone

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)
36.007	V	10.7	18.9	29.6	40.0	-10.4
96.004	H	16.2	10.0	26.2	43.5	-17.3
144.005	H	16.7	12.2	28.9	43.5	-14.6
168.005	H	19.0	11.0	30.0	43.5	-13.5
192.006	H	21.9	10.5	32.4	43.5	-11.1
240.001	H	18.4	10.7	29.1	46.0	-16.9
264.009	H	15.3	13.9	29.2	46.0	-16.8
288.009	H	16.1	13.9	30.0	46.0	-16.0
408.016	H	22.0	18.6	40.6	46.0	-5.4
456.014	H	14.8	18.6	33.4	46.0	-12.6

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2.3 Radiated Emission Measurement Data

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

Mode : PC connected

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)
36.007	V	15.1	18.9	34.0	40.0	-6.0
72.012	H	14.9	6.3	21.2	40.0	-18.8
96.004	H	24.6	10.0	34.6	43.5	-8.9
144.005	H	18.3	12.2	30.5	43.5	-13.0
168.005	H	15.2	11.0	26.2	43.5	-17.3
192.006	H	26.3	10.5	36.8	43.5	-6.7
264.009	H	19.3	13.9	33.2	46.0	-12.8
288.009	H	17.4	13.9	31.3	46.0	-14.7
312.010	H	12.1	15.3	27.4	46.0	-18.6
432.013	H	20.0	18.6	38.6	46.0	-7.4

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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 – 1992. The EUT was setup as described in the procedures, and both lines were measured.

3.2 Test Result

The PC connected mode had been tested. The EUT connecting with an USB cable will produce the maximum emission. The measurement data was indicated in next page.

The result showed that the EUT met the FCC requirement.

3.3 Graph and Table of Conducted Emission Measurement Data

For electronic filing, the document 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 to ExPho2 and InPho1 to InPho2.

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.jpg
Block Diagram	BlkDia.pdf
Schematic Diagram	Schem.pdf
Users Manual	UserMan1.jpg – UserMan5.jpg
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	1 page
A5.	ID Label/Location	1 page
A6.	Conducted Emission Measurement Data	2 pages
A7.	Block Diagram	1 page
A8.	Schematics Diagram	1 page
A9.	User Manual	5 pages
A10.	Operation Description	1 page

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

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