CMA Testing and Certification Laboratories
廠商會檢定中心

TEST REPORT

Report No. : AF006490-001 Date : 2005 April 07

Application No. : LF201178(8)

Applicant : AVC Technology Limited
6/F., Enterprise Square Three,
39 Wang Chiu Road,
Kowloon Bay, Hong Kong

Sample Description : One(1) item of submitted sample stated to be:
Model Name : Digital Audio Player
Model No. : DFP750A
Rating : DC 5V / 1 x 1.5V AAA size battery
No. of sample : One(1) set***

Date Received : 2005 March 11

Test Period : 2005 March 11 – 2005 March 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 15.

Conclusion : The submitted sample was found to comply with the applicable FCC Part 15 Subpart B test.

For and on behalf of
CMA Testing and Certification Laboratories

Authorized Signature : _____

Danny Chui
EMC Engineer - EL. Division

FCC ID : Q93-F034

Room 1302, Yan Hing Centre, 9-13 Wong Chuk Yeung St.., Fo Tan, Shatin, Hong Kong.
Tel: (852) 2698 8198 Fax: (852) 2695 4177 E-mail: info@cmatcl.com Web Site: http://www.cmatcl.com

CMA Testing and Certification Laboratories
廠商會檢定中心

TEST REPORT

Report No. : AF006490-001 Date : 2005 April 07

Table of Contents

Room 1302, Yan Hing Centre, 9-13 Wong Chuk Yeung St.., Fo Tan, Shatin, Hong Kong.
Tel: (852) 2698 8198 Fax: (852) 2695 4177 E-mail: info@cmatcl.com Web Site: http://www.cmatcl.com

TEST REPORT

Report No. : AF006490-001 Date : 2005 April 07

1 General Information

1.1 General Description

The digital audio player is a stand-alone multi-function product and is powered by one 1.5 V "AAA" size battery with built-in 256 MB memory. Controlled by a crystal operating at 24 MHz, the digital audio player has four features:

1. Music Player (supports MP3, WMA and WAV file formats)
2. FM Tuner
3. Voice recording
4. USB interface for uploading and downloading files and as mass storage through a USB connection cable

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.

Room 1302, Yan Hing Centre, 9-13 Wong Chuk Yeung St.., Fo Tan, Shatin, Hong Kong.
Tel: (852) 2698 8198 Fax: (852) 2695 4177 E-mail: info@cmatcl.com Web Site: http://www.cmatcl.com

TEST REPORT

Report No. : AF006490-001 Date : 2005 April 07

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.

Room 1302, Yan Hing Centre, 9-13 Wong Chuk Yeung St.., Fo Tan, Shatin, Hong Kong.
Tel: (852) 2698 8198 Fax: (852) 2695 4177 E-mail: info@cmatcl.com Web Site: http://www.cmatcl.com

TEST REPORT

Report No. : AF006490-001 Date : 2005 April 07

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
Biconical Antenna	R&S	HK116	837414/004	4000.7752.02

Room 1302, Yan Hing Centre, 9-13 Wong Chuk Yeung St.., Fo Tan, Shatin, Hong Kong.
Tel: (852) 2698 8198 Fax: (852) 2695 4177 E-mail: info@cmatcl.com Web Site: http://www.cmatcl.com

TEST REPORT

Report No. : AF006490-001 Date : 2005 April 07

1.5 List of support equipment

1. Intel CPU P4 2.8GHz / 512k cache / 533MHz bus
   Model: 9426A657
2. Intel Mother Board
   Model: Intel Type: D815GVHZ
3. Seagate Hard-disk
   Model: ST340014A, 40GB
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. Earphone

Room 1302, Yan Hing Centre, 9-13 Wong Chuk Yeung St.., Fo Tan, Shatin, Hong Kong.
Tel: (852) 2698 8198 Fax: (852) 2695 4177 E-mail: info@cmatcl.com Web Site: http://www.cmatcl.com

TEST REPORT

Report No. : AF006490-001 Date : 2005 April 07

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 test. The measurement data based on measurements employing the CISPR qusai-peak detector 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.

Room 1302, Yan Hing Centre, 9-13 Wong Chuk Yeung St.., Fo Tan, Shatin, Hong Kong.
Tel: (852) 2698 8198 Fax: (852) 2695 4177 E-mail: info@cmatcl.com Web Site: http://www.cmatcl.com

TEST REPORT

Report No. : AF006490-001 Date : 2005 April 07

2.3 Radiated Emission Measurement Data

Radiated emission

pursuant to

the requirement of FCC Part 15 subpart B

Mode : MP3 playback

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)
192.064	H	12.6	9.2	21.8	43.5	-21.7
216.072	H	13.9	9.7	23.6	46.0	-22.4
223.574	H	16.6	9.7	26.3	46.0	-19.7
229.577	H	16.6	9.7	26.3	46.0	-19.7
230.944	H	13.3	9.7	23.0	46.0	-23.0
240.080	H	19.1	9.7	28.8	46.0	-17.2
288.096	H	11.5	13.9	25.4	46.0	-20.6
336.111	H	11.4	14.9	26.3	46.0	-19.7
345.115	H	13.0	14.9	27.9	46.0	-18.1
346.616	H	7.8	14.9	22.7	46.0	-23.3

TEST REPORT

Report No. : AF006490-001 Date : 2005 April 07

2.3 Radiated Emission Measurement Data

Radiated emission

pursuant to

the requirement of FCC Part 15 subpart B

Mode : Voice recording

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)
225.075	H	17.7	9.7	27.4	46.0	-18.6
226.575	H	21.8	9.7	31.5	46.0	-14.5
228.076	H	20.9	9.7	30.6	46.0	-15.4
232.577	H	22.5	9.7	32.2	46.0	-13.8
234.078	H	21.6	9.7	31.3	46.0	-14.7
238.579	H	18.6	9.7	28.3	46.0	-17.7
240.079	H	20.1	9.7	29.8	46.0	-16.2
334.611	H	14.9	14.9	29.8	46.0	-16.2
336.111	H	15.8	14.9	30.7	46.0	-15.3
340.613	H	15.9	14.9	30.8	46.0	-15.2

Room 1302, Yan Hing Centre, 9-13 Wong Chuk Yeung St.., Fo Tan, Shatin, Hong Kong.
Tel: (852) 2698 8198 Fax: (852) 2695 4177 E-mail: info@cmatcl.com Web Site: http://www.cmatcl.com

TEST REPORT

Report No. : AF006490-001 Date : 2005 April 07

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)
175.456	H	7.1	10.4	17.5	43.5	-26.0
195.836	H	10.3	9.2	19.5	43.5	-24.0
216.445	H	13.4	9.7	23.1	46.0	-22.9
350.914	H	6.2	14.9	21.1	46.0	-24.9
391.672	H	6.1	14.9	21.0	46.0	-25.0
432.891	H	4.6	17.7	22.3	46.0	-23.7
526.370	H	2.0	19.2	21.2	46.0	-24.8
587.508	H	1.9	19.2	21.1	46.0	-24.9
649.338	H	2.1	21.2	23.3	46.0	-22.7

TEST REPORT

Report No. : AF006490-001 Date : 2005 April 07

2.3 Radiated Emission Measurement Data

Radiated emission

pursuant to

the requirement of FCC Part 15 subpart B

Mode : USB (PC Connected)

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)
60.010	H	19.0	5.7	24.7	40.0	-15.3
72.013	H	11.4	5.9	17.3	40.0	-22.7
180.059	H	18.5	9.2	27.7	43.5	-15.8
203.818	H	11.3	9.7	21.0	43.5	-22.5
216.068	H	16.3	9.7	26.0	46.0	-20.0
240.079	H	29.3	9.7	39.0	46.0	-7.0
300.165	H	18.3	14.9	33.2	46.0	-12.8
360.118	H	18.0	14.9	32.9	46.0	-13.1
384.067	H	11.2	14.9	26.1	46.0	-19.9
480.157	H	14.3	17.7	32.0	46.0	-14.0

Room 1302, Yan Hing Centre, 9-13 Wong Chuk Yeung St.., Fo Tan, Shatin, Hong Kong.
Tel: (852) 2698 8198 Fax: (852) 2695 4177 E-mail: info@cmatcl.com Web Site: http://www.cmatcl.com

TEST REPORT

Report No. : AF006490-001 Date : 2005 April 07

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 PC connected mode had been tested. The EUT connecting with an earphone produced the maximum emission. The measurement data was indicated in Appendix.

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

Room 1302, Yan Hing Centre, 9-13 Wong Chuk Yeung St.., Fo Tan, Shatin, Hong Kong.
Tel: (852) 2698 8198 Fax: (852) 2695 4177 E-mail: info@cmatcl.com Web Site: http://www.cmatcl.com

TEST REPORT

Report No. : AF006490-001 Date : 2005 April 07

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 InPho2.jpg

Room 1302, Yan Hing Centre, 9-13 Wong Chuk Yeung St.., Fo Tan, Shatin, Hong Kong.
Tel: (852) 2698 8198 Fax: (852) 2695 4177 E-mail: info@cmatcl.com Web Site: http://www.cmatcl.com

TEST REPORT

Report No. : AF006490-001 Date : 2005 April 07

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

Room 1302, Yan Hing Centre, 9-13 Wong Chuk Yeung St.., Fo Tan, Shatin, Hong Kong.
Tel: (852) 2698 8198 Fax: (852) 2695 4177 E-mail: info@cmatcl.com Web Site: http://www.cmatcl.com

TEST REPORT

Report No. : AF006490-001 Date : 2005 April 07

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	3	pages
A9.	User Manual	12	pages
A10.	Operation Description	1	page

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

Room 1302, Yan Hing Centre, 9-13 Wong Chuk Yeung St.., Fo Tan, Shatin, Hong Kong.
Tel: (852) 2698 8198 Fax: (852) 2695 4177 E-mail: info@cmatcl.com Web Site: http://www.cmatcl.com