



TEST REPORT

Report No. : AB013997

Date : 2001 November 26

Client : Mbox Technology Ltd.
Room 1303, Swire & MacLaine House,
19-23 Austin Avenue, Tsim Sha Tsui,
Kowloon, Hong Kong.

Sample Description : Sample stated to be :

<u>Description</u>	<u>Model No.</u>
MP3 Player (MP-001)	BW3250
Plush Toy MP3 Player (MMPT-1300B)	BW3251
Plush Toy MP3 Player (MMPT-1300B)	BW3252
Plush Bear Speaker	BW3300
Rating : 2 x 1.5 V AAA size batteries	
No. of sample(s) : Three(3) pieces	***

Date Received : 2001 September 26.

Test Period : 2001 September 26 – 2001 October 29.

Test Requested : FCC Part 15 Certification

Test Method : FCC Rules and Regulations Part 15 – May 2001
ANSI C63.4 – 1992

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 C.

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 MP3 Player which is powered by 2 x 1.5 V AAA size batteries. The EUT has 4 different model numbers with the following features :

1. MP3 Player (MP-001)

Model No. : BW3250

It is a standalone MP3 Player and operates with a earphones. It can also be connected and worked with a PC through a USB connecting cable.

2. Plush Toy MP3 Player (MMPT-1300B)

Model No. : BW3251

The models consist of a MP3 Player, a bear with external control buttons on its feet, an USB connecting cable and earphones. It can be connected and operated with all these contents.

3. Plush Toy MP3 Player (MMPT-1300B)

Model No. : BW3252

The models consist of a MP3 Player, a bear with external control buttons on its feet, an USB connecting cable and earphones. It can be connected and operated with all these contents.

The difference between BW3252 and BW3251 is that BW3251 contains a carrying strop at the back of the bear in the package, and which does not affect the testing.

4. Plush Bear Speaker

Model No. : BW3300

The models consist of a MP3 Player and a bear with external passive loudspeaker on its feet. It can be connected and operated with all these contents.

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,
Hong Kong.



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1.4 List of measuring equipment

Equipment	Manufacturer	Model No.	Serial No.	Calibration Certification No.	Calibration Date	Calibration Due Date
EMI Test Receiver	R&S	ESCS30	100001	20-69223	Mar. 21, 2001	Sept. 20, 2002
Broadband Antenna	Schaffner	CBL6113B	2718	AC1753	Dec. 15, 2000	Jun. 14, 2002
Signal Generator	IFR	2023B	202302/938	Nil	Oct. 23, 2000	Apr. 22, 2002
LISN	R&S	ESH3-Z5	100010	20-70405	Mar. 29, 2001	Sept. 28, 2002
Pulse Limiter	R&S	ESH3-Z2	100001	20-73194	May 2, 2001	Nov. 1, 2002



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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. MAG Monitor
Model: CTFD1570T
S/N: MPD8L1012406
5. IBM Mouse
Model: 12J3618
S/N: 23-005077
6. Acer Keyboard
Model: 6511-VA
7. Epson Printer
Model: P152A
S/N: B6MK000304
8. ZyXEL Modem
Model: U-1496E
S/N: SZ40208685



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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 models and combinations had been test. The combination with an MP3 player and on earphones produced the maximum emissions and the measurement data was indicated in next page.

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 C**

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)
143.490	H	20.0	14.5	34.5	43.5	-9.0
159.316	H	12.3	14.0	26.3	43.5	-17.2
189.254	H	19.1	14.2	33.3	43.5	-10.2
223.600	H	18.8	14.2	33.0	46	-13.0
240.320	H	17.2	14.2	31.4	46	-14.6
270.879	H	16.2	17.5	33.7	46	-12.3
293.465	H	18.6	17.5	36.1	46	-9.9



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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

All models and combination connecting with a PC had been tested. The combination with a MP3 Player, a bear with extended control buttons on its feet, an USB connecting cable and an earphones produced 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 TestRpt 2.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 ExtPho1 to ExtPho5 and IntPho1 to IntPho5

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	LabelSmpl.pdf
Block Diagram	BlkDia.pdf
Schematic Diagram	Schem.pdf
Users Manual	UserMan.pdf
Operational Description	OpDes



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6 Appendices

A1.	Conducted Emission Measurement Data	2 pages
A2.	Photos of the set-up of Radiated Emissions	1 page
A3.	Photos of the set-up of Conducted Emissions	2 pages
A4.	ID Label/Location	1 page
A5.	Block Diagram	1 page
A6.	Schematic Diagram	1 page
A7.	Users Manual	3 pages
A8.	Operational Description	1 page

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