



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

TEST REPORT

Report No. : AB017483

Date : 2001 December 10

Client : Milwaukee Electric Tool Corporation
(An Atlas Copco Company)
13135 W. Lisbon Road
Brookfield
WI 53005
USA

Sample Description : Sample stated to be :
Description: Boombox Radio
Model No. : 00777
Rating : AC 120V
No. of sample(s) : One(1) piece ***

Date Received : 2001 November 07.

Test Period : 2001 November 08 – 2001 November 22.

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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FCC ID: P3600777

Room 1401-3, Yan Hing Centre, 9-13 Wong Chuk Yeung St., Fo Tan, Shatin, Hong Kong.

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This report is restricted by the Terms and Conditions as stated on the back page of the application form or it can be provided on request.



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1 General Information

1.1 General Description

The equipment under test is an AM, FM and Weather band receiver. The EUT is powered by AC 120V with 12-18V rechargeable battery pack.

The brief circuit description is listed as follows :

- IC TA2030FN and associated circuit act as FM and Weather band tuner
- IC TA8132AN and associated circuit act as AM Tuner
- MCU TC9318 and associated circuit act as Tuner Control
- IC TA8223K and associated circuit act as Amplifier

1.2 Related Submittal Grants

This is a single application for certification of an AM, FM and Weather band receiver.



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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

1.5 Support Equipment

Auxiliary cable with 47k ohms resistive load.



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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

The Quasi-peak measurements were performed on the open area test site. 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

Operation 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)
98.203	H	18.0	12.1	30.1	43.5	-13.4
108.603	H	26.5	14.2	40.7	43.5	-2.8
118.803	H	23.5	14.2	37.7	43.5	-5.8
196.406	H	14.9	13.4	28.3	43.5	-15.2
217.206	H	18.6	14.2	32.8	46.0	-13.2
237.606	H	25.9	14.2	40.1	46.0	-5.9



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Radiated emission

pursuant to

the requirement of FCC Part 15 subpart C

Operation mode: Weather band

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)
173.138	H	22.0	13.6	35.6	43.5	-7.9
173.169	H	22.6	13.6	36.2	43.5	-7.3
173.195	H	21.6	13.6	35.2	43.5	-8.3
173.223	H	21.4	13.6	35.0	43.5	-8.5
173.257	H	21.8	13.6	35.4	43.5	-8.1
173.285	H	21.3	13.6	34.9	43.5	-8.6
173.310	H	21.7	13.6	35.3	43.5	-8.2
346.278	H	18.4	19.7	38.1	46.0	-7.9
346.338	H	18.2	19.7	37.9	46.0	-8.1
346.389	H	18.5	19.7	38.2	46.0	-7.8
346.454	H	18.5	19.7	38.2	46.0	-7.8
346.515	H	19.4	19.7	39.1	46.0	-6.9
346.577	H	19.1	19.7	38.8	46.0	-7.2
346.624	H	19.0	19.7	38.7	46.0	-7.3



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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 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.pdf



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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. Photos of External Configurations	1 page
A5. Photos of Internal Configurations	3 pages
A6. ID Label/Location	1 page
A7. Block Diagram	1 page
A8. Schematic Diagram	1 page
A9. Users Manual	1 pages
A10. Operational Description	4 pages

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