

# TIMCO ENGINEERING INC.

849 NW State Road 45

Newberry, Florida 32669

<http://www.timcoengr.com>

888.472.2424 F 352.472.2030 email: [sid@timcoengr.com](mailto:sid@timcoengr.com)



## Test Report

Product Name: MP3 AND DIGITAL RECORDER WATCH

FCC ID: RFZMP3USB

Applicant:

**XONIX HOLDINGS LIMITED  
1B - 4B, 2/F, HOPLITE INDUSTRIAL CENTRE  
NO. 3 - 5 WANG TAI ROAD  
KOWLOON BAY, KOWLOON  
HONG KONG**

**Date Receipt: APRIL 19, 2004**

**Date Tested: MAY 12, 2004**

APPLICANT: XONIX HOLDINGS LIMITED

FCC ID: RFZMP3USB

REPORT #: X\XONIX\_RFZ\548HTR\548HT4TestReport.doc

COVER SHEET

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## Equipment List

Device	Manufacturer	Model	Serial Number	Cal/Char Date	Due Date
3/10-Meter OATS	TEI	N/A	N/A	Listed 3/27/04	3/26/07
3-Meter OATS	TEI	N/A	N/A	Listed 1/13/03	1/13/06
Biconnical Antenna	Eaton	94455-1	1057	CAL 3/18/03	3/18/05
Biconnical Antenna	Eaton	94455-1	1096	CAL 10/1/01	10/1/03
Biconnical Antenna	Electro-Metrics	BIA-25	1171	CAL 4/26/01	4/26/03
Blue Tower Quasi-Peak Adapter	HP	85650A	2811A01279	CAL 4/15/03	4/15/05
Blue Tower RF Preselector	HP	85685A	2620A00294		out for Cal
Blue Tower Spectrum Analyzer	HP	8568B	2928A04729 2848A18049	CAL 4/15/03	4/15/05
LISN	Electro-Metrics	ANS-25/2	2604	CAL 10/9/01	10/9/03
LISN	Electro-Metrics	EM-7820	2682	CAL 3/12/03	3/12/05
Log-Periodic Antenna	Eaton	96005	1243	CAL 5/8/03	5/8/05

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## TEST PROCEDURE

**GENERAL:** This report shall NOT be reproduced except in full without the written approval of TIMCO ENGINEERING, INC.

**RADIATION INTERFERENCE:** The test procedure used was ANSI STANDARD C63.4-1992 using a HEWLETT PACKARD spectrum analyzer with a preselector. The bandwidth of the spectrum analyzer was 100 kHz with an appropriate sweep speed. The analyzer was calibrated in dB above a microvolt at the output of the antenna. The resolution bandwidth was 100KHz and the video bandwidth was 300KHz. The ambient temperature of the UUT was 82°F with a humidity of 42%.

**FORMULA OF CONVERSION FACTORS:** The Field Strength at 3m was established by adding the meter reading of the spectrum analyzer (which is set to read in units of dBuV) to the antenna correction factor supplied by the antenna manufacturer. The antenna correction factors are stated in terms of dB. The gain of the Preselector was accounted for in the Spectrum Analyzer Meter Reading.

**Example:**

Freq (MHz)	METER READING + ACF = FS
33	20 dBuV + 10.36 dB = 30.36 dBuV/m @ 3m

**ANSI STANDARD C63.4-1992 10.1.7 MEASUREMENT PROCEDURES:** The UUT was placed on a table 80 cm high and with dimensions of 1m by 1.5m. The UUT was placed in a manner that was representative of the way the EUT would be used. If the EUT had any peripherals, they were attached and placed in a similar manner. The table used for radiated measurements is capable of continuous rotation.

When an emission was found, the table was rotated to produce the maximum signal strength. At this point, the antenna was raised and lowered from 1m to 4m. The antenna was placed in both the horizontal and vertical planes. In addition, in the event of the test being for a computer set up, the modem and printer positions were swapped and cables were manipulated as much as possible. The monitor was not moved, as that would not represent a typical situation configuration.

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**APPLICANT:** XONIX HOLDINGS LIMITED

**FCC ID:** RFZMP3USB

**NAME OF TEST:** RADIATED SPURIOUS EMISSIONS

**RULES PART NO.:** 15.109(a) - Class B Computing Device

**REQUIREMENTS:** 30 - 88 MHz 40.0 dBuV/m measured at 3 meters  
88 - 216 MHz 43.5 dbuV/m  
216 - 960 MHz 46.0 dbuV/m  
ABOVE 960 MHz 54.0 dbuV/m

## TEST DATA:

Emission Frequency MHz	Meter Reading dBuV	Ant. Polarity	Coax Loss dB	Correction Factor dB	Field Strength dBuV/m	Margin dB
33.48	16.2	H	0.83	12.32	29.35	10.65
33.48	19.9	V	0.83	10.89	31.62	8.38
38.52	12.9	V	0.87	10.12	23.89	16.11
38.52	15.5	H	0.87	11.45	27.82	12.18
60.02	16.4	H	1.06	11.09	28.55	11.45
60.02	17.5	V	1.06	10.79	29.35	10.65
124.52	10.3	V	1.57	13.70	25.57	17.93
161.38	10.9	V	1.83	15.61	28.34	15.16
182.88	13.8	H	1.98	16.69	32.47	11.03
195.24	14.5	H	2.07	17.20	33.77	9.73
219.78	6.7	V	2.20	11.30	20.20	25.80
219.78	10.4	H	2.20	12.01	24.61	21.39
232.46	7.2	V	2.26	11.52	20.98	25.02
232.46	8.5	H	2.26	11.92	22.68	23.32
258.18	6.9	H	2.39	12.96	22.25	23.75
270.48	5.1	V	2.45	12.74	20.29	25.71
270.48	13.4	H	2.45	13.64	29.49	16.51
293.48	10.1	V	2.57	13.73	26.40	19.60
293.48	12.8	H	2.57	14.40	29.77	16.23
321.08	5.1	V	2.71	15.12	22.93	23.07
321.08	8.6	H	2.71	15.47	26.78	19.22
333.29	6.7	H	2.77	15.33	24.80	21.20
367.33	6.8	H	2.94	15.43	25.17	20.83

**TEST PROCEDURE:** ANSI STANDARD C63.4-1992. The spectrum was scanned from 30 to 1000 MHz. The unit was measured at Timco Engineering Inc. 849 N.W. State Road 45, Newberry, FL 32669.

**TEST RESULTS:** The unit DOES appear to meet the FCC requirements.

**PERFORMED BY:** NAM NGUYEN

**DATE:** MAY 12, 2004

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