

TABLE OF CONTENTS

APPLICANT: YICK SHUN ELECT. TOYS MFG. LTD

FCC ID: J7IYS268

TEST REPORT CONTAINING:

PAGE 1.....TEST EQUIPMENT LIST AND TEST PROCEDURE
PAGE 2.....TEST PROCEDURE CONTD.
PAGE 3.....RADIATION INTERFERENCE TEST DATA
PAGE 4.....OCCUPIED BANDWIDTH TEST DATA
PAGE 5.....OCCUPIED BANDWIDTH PLOT

EXHIBITS CONTAINING:

EXHIBIT 1.....FCC ID LABEL SAMPLE
EXHIBIT 2.....SKETCH OF FCC ID LABEL LOCATION
EXHIBIT 3.....BLOCK DIAGRAM
EXHIBIT 4.....SCHEMATIC
EXHIBIT 5.....USERS MANUAL
EXHIBIT 6.....EXTERNAL PHOTO - FRONT VIEW
EXHIBIT 7.....EXTERNAL PHOTO - REAR VIEW
EXHIBIT 8.....INTERNAL PHOTO - COMPONENT VIEW
EXHIBIT 9.....INTERNAL PHOTO - COPPER VIEW
EXHIBIT 10.....CIRCUIT DESCRIPTION
EXHIBIT 11.....TEST SET UP PHOTO

APPLICANT: YICK SHUN ELECT. TOYS MFG. LTD

FCC ID: J7IYS268

REPORT #: y\yick\973H1\973H1RPT.doc

PAGE: TABLE OF CONTENTS LIST

APPLICANT: YICK SHUN ELECT. TOYS MFG. LTD
FCC ID: J7IYS268

TEST EQUIPMENT LIST

1. Spectrum Analyzer: HP 8566B-Opt 462, S/N 3138A07786, w/
preselector HP 85685A, S/N 3221A01400, Quasi-Peak Adapter
HP 85650A, S/N 3303A01690 & Preamplifier HP 8449B-OPT H02,
S/N 3008A00372
2. Biconnical Antenna: Eaton Model 94455-1, S/N 1057
3. Biconnical Antenna: Electro-Metrics Model BIA-25, S/N 1171
4. Log-Periodic Antenna: Electro-Metrics Model EM-6950, S/N 632
5. Log-Periodic Antenna: Electro-Metrics Model LPA-30, S/N 409
6. Double-Ridged Horn Antenna: Electro-Metrics Model RGA-180,
1-18 GHz, S/N 2319
7. 18-26.3GHz Systron Donner Standard Gain Horn #DBE-520-20
8. Horn 40-60GHz: ATM Part #19-443-6R
9. Line Impedance Stabilization Network: Electro-Metrics Model
ANS-25/2, S/N 2604
10. Temperature Chamber: Tenney Engineering Model TTRC, S/N 11717-7
11. Frequency Counter: HP Model 5385A, S/N 3242A07460
12. Peak Power Meter: HP Model 8900C, S/N 2131A00545
13. Open Area Test Site #1-3meters
14. Signal Generator: HP 8640B, S/N 2308A21464
15. Signal Generator: HP 8614A, S/N 2015A07428
16. Passive Loop Antenna: EMC0 Model 6512, 9KHz to 30MHz, S/N
9706-1211
17. Dipole Antenna Kit: Electro-Metrics Model TDA-30/1-4, S/N 153
18. AC Voltmeter: HP Model 400FL, S/N 2213A14499
19. Digital Multimeter: Fluke Model 8012A, S/N 4810047
20. Digital Multimeter: Fluke Model 77, S/N 43850817
21. Oscilloscope: Tektronix Model 2230, S/N 300572

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 67° with a humidity of 64%.

APPLICANT: YICK SHUN ELECT. TOYS MFG. LTD
FCC ID: J7IYS268
REPORT #: y\yick\973H1\973H1RPT.doc
PAGE #: 1

APPLICANT: YICK SHUN ELECT. TOYS MFG. LTD
FCC ID: J7IYS268

TEST PROCEDURES CONTINUED

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

APPLICANT: YICK SHUN ELECT. TOYS MFG. LTD
FCC ID: J7IYS268
REPORT #: y\yick\973H1\973H1RPT.doc
PAGE #: 2

APPLICANT: YICK SHUN ELECT. TOYS MFG. LTD
 FCC ID: J7IYS268
 NAME OF TEST: RADIATION INTERFERENCE
 RULES PART NO.: 15.227
 REQUIREMENTS: CARRIER FREQUENCY WILL NOT EXCEED 80 dBuV/m AT 3M.
 OUT-OF-BAND EMISSIONS SHALL NOT EXCEED:

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
27.15	42.6	v	0.31	34.84	77.75	2.25
54.20	13.7	v	0.84	9.64	24.18	15.82

SAMPLE CALCULATION: $FSdBuV/m = MR(dBuV) + ACFdB$.

TEST PROCEDURE: The procedure used was ANSI STANDARD C63.4-1992. The spectrum was scanned from 30 MHz to 1000 MHz. When an emission was found, the table was rotated to produce the maximum signal strength. The antenna was placed in both the horizontal and vertical planes and the worse case emissions were reported. The UUT was tested in 3 orthogonal planes.

TEST RESULTS: THE UNIT DOES MEET THE FCC REQUIREMENTS.

PERFORMED BY: JOE SCOGLIO DATE: SEPTEMBER 26, 2001

APPLICANT: YICK SHUN ELECT. TOYS MFG. LTD
 FCC ID: J7IYS268
 REPORT #: y\yick\973H1\973H1RPT.doc
 PAGE #: 3

APPLICANT: YICK SHUN ELECT. TOYS MFG. LTD
FCC ID: J7IYS268
NAME OF TEST: Occupied Bandwidth
RULES PART NO.: 15.227
REQUIREMENTS: The field strength of any emissions appearing outside the 26.96-27.28 MHz band shall not exceed the general radiated emission limits in (15.209).

THE GRAPH ON PAGE 5 REPRESENTS THE WORSE CASE OCCUPIED BANDWIDTH EMISSIONS FOR THIS DEVICE.

METHOD OF MEASUREMENT: A small sample of the transmitter output was fed into the spectrum analyzer and the attached plot was taken. The vertical scale is set to -10 dBm per division. The horizontal scale is set to 5 kHz per division.

TEST RESULTS: The unit DOES meet the FCC requirements.

PERFORMED BY: JOE SCOLIO

APPLICANT: YICK SHUN ELECT. TOYS MFG. LTD
FCC ID: J7IYS268
REPORT #: y\yick\973H1\973H1RPT.doc
PAGE #: 4

YICK SHUN ELEC. TOYS
FCC ID: J7IYS268
JOB #: 973H1
Page #: 5

OCCUPIED BANDWIDTH PLOT

