

TABLE OF CONTENTS LIST

APPLICANT: YICK SHUN ELECTRONIC TOYS MANUFACTORY LTD.

FCCID: J7IYS3WT-GUNDAM-1

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.....BLOCK DIAGRAM
EXHIBIT 2.....SCHEMATIC
EXHIBIT 3.....INSTRUCTION MANUAL
EXHIBIT 4.....SAMPLE OF FCC ID LABEL
EXHIBIT 5.....LOCATION OF FCC ID LABEL
EXHIBIT 6A.....EXTERNAL PHOTO - FRONT SIDE
EXHIBIT 6B.....EXTERNAL PHOTO - BACK SIDE
EXHIBIT 7A.....INTERNAL PHOTO - COMPONENT SIDE
EXHIBIT 7B.....INTERNAL PHOTO - COPPER SIDE
EXHIBIT 8.....CIRCUIT DESCRIPTION

APPLICANT: YICK SHUN ELECTRONIC TOYS MANUFACTORY LTD.

FCCID: J7IYS3WT-GUNDAM-1

REPORT #: T:\CUS\Y\YICK\133AH1\133AH1RPT.DOC

PAGE: TABLE OF CONTENTS LIST

APPLICANT: YICK SHUN ELECTRONIC TOYS MANUFACTORY LTD.
FCCID: J7IYS3WT-GUNDAM-1

TEST EQUIPMENT LIST

1. X 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 Cal. 10/17/99
2. X Biconnical Antenna: Eaton Model 94455-1, S/N 1057
3. Biconnical Antenna: Electro-Metrics Model BIA-25, S/N 1171
4. X 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 Cal. 2/9/00
10. Temperature Chamber: Tenney Engineering Model TTRC, S/N 11717-7
11. Frequency Counter: HP Model 5385A, S/N 3242A07460 Cal 10/6/99
12. Peak Power Meter: HP Model 8900C, S/N 2131A00545
13. X Open Area Test Site #1-3meters Cal. 12/22/99
14. Signal Generator: HP 8640B, S/N 2308A21464 Cal. 9/23/99
15. Signal Generator: HP 8614A, S/N 2015A07428
16. Passive Loop Antenna: EMC0 Model 6512, 9KHz to 30MHz, S/N 9706-1211 Cal. 6/10/00
17. Dipole Antenna Kit: Electro-Metrics Model TDA-30/1-4, S/N 153 Cal. 11/24/99
18. AC Voltmeter: HP Model 400FL, S/N 2213A14499 Cal. 9/21/99
19. Digital Multimeter: Fluke Model 8012A, S/N 4810047 Cal 9/21/99
20. Digital Multimeter: Fluke Model 77, S/N 43850817 Cal 9/21/99
21. Oscilloscope: Tektronix Model 2230, S/N 300572 Cal 9/23/99

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 80oC with a humidity of 76%.

APPLICANT: YICK SHUN ELECTRONIC TOYS MANUFACTORY LTD.
FCCID: J7IYS3WT-GUNDAM-1
REPORT #: T:\CUS\Y\YICK\133AH1\133AH1RPT.DOC
PAGE: 1

APPLICANT: YICK SHUN ELECTRONIC TOYS MANUFACTORY LTD.
FCCID: J7IYS3WT-GUNDAM-1

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

POWER LINE CONDUCTED INTERFERENCE: The procedure used was ANSI STANDARD C63.4-1992 using a 50uH LISN. Both lines were observed. The bandwidth of the spectrum analyzer was 10kHz with an appropriate sweep speed. The ambient temperature of the UUT was 80oC with a humidity of 76%.

ANSI STANDARD C63.4-1992 10.1.7 MEASUREMENT PROCEDURES: The unit under test was placed on a table 80 cm high and with dimensions of 1m by 1.5m. 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.

The situation was similar for the conducted measurement except that the table did not rotate. The EUT was setup as described in ANSIC63.4-1992 with the EUT 40 cm from the vertical ground wall.

APPLICANT: YICK SHUN ELECTRONIC TOYS MANUFACTORY LTD.
FCCID: J7IYS3WT-GUNDAM-1
REPORT #: T:\CUS\Y\YICK\133AH1\133AH1RPT.DOC
PAGE: 2

APPLICANT: YICK SHUN ELECTRONIC TOYS MANUFACTORY LTD.
 FCCID: J7IYS3WT-GUNDAM-1
 NAME OF TEST: RADIATION INTERFERENCE
 RULES PART NO.: 15.235
 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 AT 3 METERS dBuV	COAX LOSS dB	ANTENNA CORRECTION FACTOR dB	PEAK FIELD STRENGTH dBuV/m@3m	MARGIN dB	ANT. POL.
49.90	55.10	0.25	11.00	66.35	13.65	V
99.70	5.60	0.80	8.39	14.79	28.71	V
249.30	16.30	1.20	13.35	30.85	15.15	V
349.00	8.00	1.40	15.52	24.92	21.08	V
448.70	10.20	1.60	18.12	29.92	16.08	V
498.60	5.40	1.60	19.27	26.27	19.73	V

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: JOSEPH SCOGLIO

DATE: FEBUARY 14, 2001

APPLICANT: YICK SHUN ELECTRONIC TOYS MANUFACTORY LTD.
 FCCID: J7IYS3WT-GUNDAM-1
 REPORT #: T:\CUS\Y\YICK\133AH1\133AH1RPT.DOC
 PAGE #: 3

APPLICANT: YICK SHUN ELECTRONIC TOYS MANUFACTORY LTD.
FCCID: J7IYS3WT-GUNDAM-1
NAME OF TEST: Occupied Bandwidth
RULES PART NO.: 15.235
REQUIREMENTS: The field strength of any emissions appearing between the band edges and up to 10 kHz above and below the band edges shall be attenuated at least 26 dB below the level of the unmodulated carrier or to the general limits of 15.209, whichever permits the higher emission levels.

THE GRAPH ON THE NEXT PAGE REPRESENTS THE EMISSIONS TAKEN FOR THE 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: JOSEPH SCOGLIO DATE: FEBUARY 14, 2001

APPLICANT: YICK SHUN ELECTRONIC TOYS MANUFACTORY LTD.
FCCID: J7IYS3WT-GUNDAM-1
REPORT #: T:\CUS\Y\YICK\133AH1\133AH1RPT.DOC
PAGE #: 4

hp

REF 69.0 dB μ V

ATTEN 10 dB +0 dB

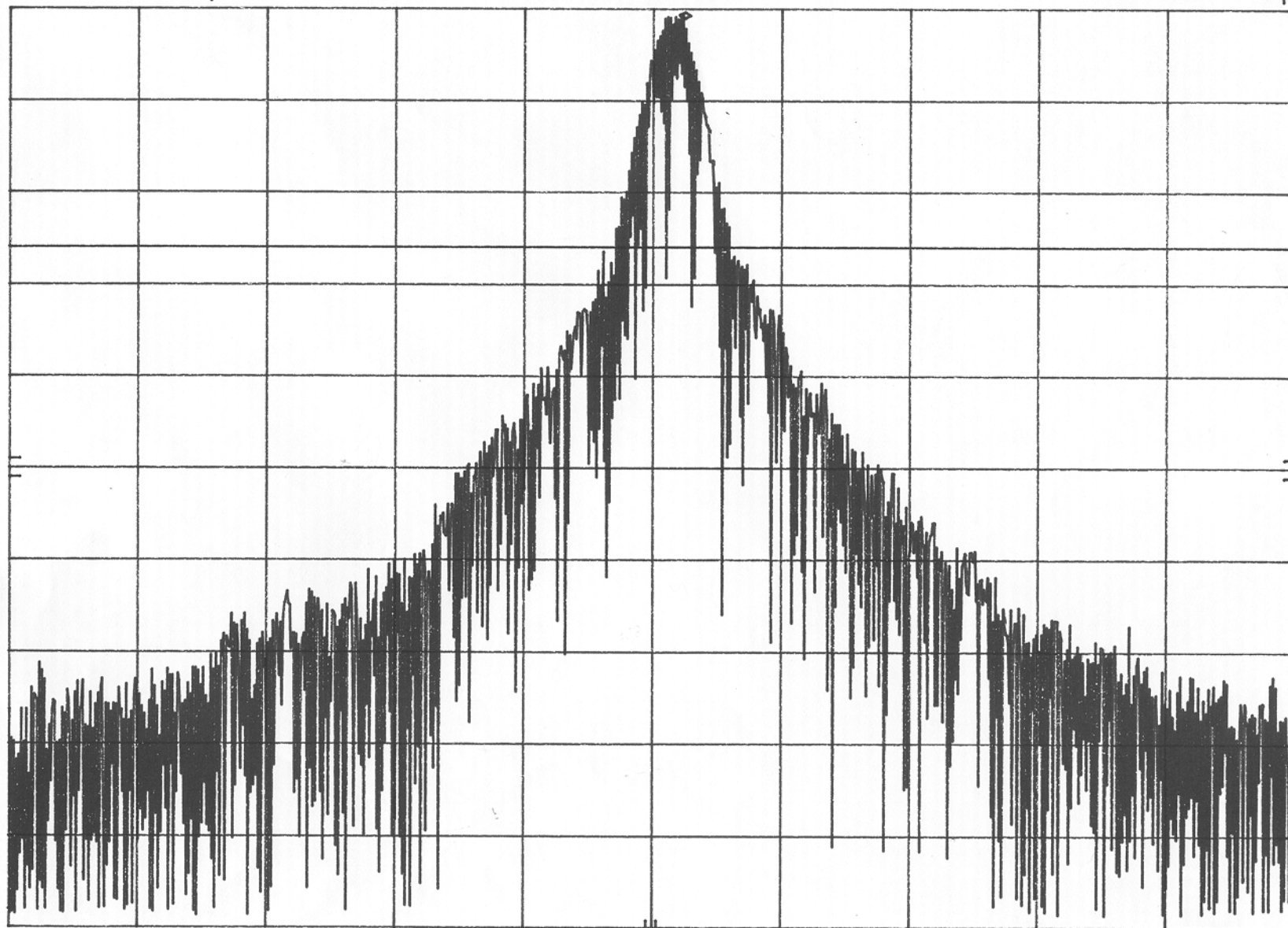
MKR 49.86192 MHz

68.30 dB μ V

10 dB/

OFFSET
-20.0
dB

DL
43.0
dB μ V



START 49.82000 MHz

RES BW 1 kHz

VBW 100 kHz

STOP 49.90000 MHz

SWP 1.0 sec

YICK SHUN ELECT TOYS
JOB #: 133AH1
FCCid: J71YS3WT-GUNDAM-1