

TABLE OF CONTENTS

APPLICANT: DAE RYUNG INDUSTRIES INC.

FCC ID: LXRRTX900M

TEST REPORT CONTAINING:

PAGE 1.....TEST EQUIPMENT LIST
PAGE 2.....TEST PROCEDURES
PAGE 3.....RADIATION INTERFERENCE TEST DATA
PAGE 4.....OCCUPIED BANDWIDTH
PAGE 5A-5B.....OCCUPIED BANDWIDTH PLOTS

EXHIBIT ATTACHMENTS:

EXHIBIT 1.....FCC ID LABEL SAMPLE
EXHIBIT 2.....SKETCH OF FCC ID LABEL LOCATION
EXHIBIT 3.....USER'S MANUAL
EXHIBIT 4.....BLOCK DIAGRAM
EXHIBIT 5A.....SCHEMATIC - MAIN
EXHIBIT 5B.....SCHEMATIC - RX
EXHIBIT 6.....CIRCUIT DESCRIPTION
EXHIBIT 7.....TEST SET UP PHOTO
EXHIBIT 8.....FRONT VIEW EXTERNAL PHOTO
EXHIBIT 9.....REAR VIEW EXTERNAL PHOTO
EXHIBIT 10.....SIDE VIEW EXTERNAL PHOTO
EXHIBIT 11.....COMPONENT SIDE INTERNAL PHOTOS
EXHIBIT 12.....COPPER SIDE INTERNAL PHOTOS

APPLICANT: DAE RYUNG INDUSTRIES INC.

FCC ID: LXRRTX900M

REPORT #: T:\CUS\DAE\164AU1\164AU1.RPT

PAGE: TABLE OF CONTENTS LIST

APPLICANT: DAE RYUNG INDUSTRIES INC.
FCC ID: LXRRTX900M

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 Cal. 1/19/01
2. Biconnical Antenna: Eaton Model 94455-1, S/N 1057, Cal 3/15/00
3. Biconnical Antenna: Electro-Metrics Model BIA-25, S/N 1171
Cal. 3/16/01
4. Log-Periodic Antenna: Electro-Metrics Model EM-6950, S/N 632
Cal. 3/15/00
5. Log-Periodic Antenna: Electro-Metrics Model LPA-30, S/N 409
Cal. 3/15/00
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
EM-7820, w/NEMA Adapter S/N 2682 Cal. 3/16/01
10. Temperature Chamber: Tenney Engineering Model TTRC, S/N 11717-7
Cal. 1/21/01
11. Frequency Counter: HP Model 5385A, S/N 3242A07460 Cal 11/20/00
12. Peak Power Meter: HP Model 8900C, S/N 2131A00545, Cal. 1/26/01
13. Open Area Test Site #1-3meters Cal. 12/22/99
14. Signal Generator: HP 8640B, S/N 2308A21464 Cal. 11/21/00
15. Signal Generator: HP 8614A, S/N 2015A07428
16. Passive Loop Antenna: EMCO 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. 11/24/00
18. AC Voltmeter: HP Model 400FL, S/N 2213A14499 Cal. 2/1/01
19. Digital Multimeter: Fluke Model 8012A, S/N 4810047 Cal 9/21/99
20. Digital Multimeter: Fluke Model 77, S/N 43850817 Cal 11/16/00
21. Oscilloscope: Tektronix Model 2230, S/N 300572 Cal 2/1/01

APPLICANT: DAE RYUNG INDUSTRIES INC.
FCC ID: LXRRTX900M
REPORT #: T:\CUS\DAE\164AU1\164AU1.RPT
PAGE #: 1

APPLICANT: DAE RYUNG INDUSTRIES INC.
FCC ID: LXRRTX900M

TEST PROCEDURE

GENERAL: This report shall NOT be reproduced except in full without the written approval of TIMCO ENGINEERING, INC. The UUT was transmitting a test signal during the testing.

RADIATION INTERFERENCE: The test procedure used was ANSI STANDARD C63.4-1992 using a HEWLETT PACKARD spectrum analyzer with a preselector. 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 up to 1.0GHz and 1.0MHz with a video BW of 3.0MHz above 1.0GHz. The ambient temperature of the UUT was 78oF with a humidity of 58%.

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 the center of the table (1.5m side). 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.

APPLICANT: DAE RYUNG INDUSTRIES INC.
FCC ID: LXRRTX900M
REPORT #: T:\CUS\DAE\164AU1\164AU1.RPT
PAGE #: 2

APPLICANT: DAE RYUNG INDUSTRIES INC.

FCC ID: LXRRTX900M

NAME OF TEST: RADIATION INTERFERENCE

RULES PART NUMBER: 15.249, 15.209

REQUIREMENTS:

| FIELD STRENGTH | FIELD STRENGTH | S15.209 |
|---|--|--|
| of Fundamental: 902-928 MHZ 2.4-2.4835 GHz 94 dBuV/m @3m | of Harmonics 88 -216 MHz 216 -960 MHz 54 dBuV/m @3m | 30 - 88 MHz 40 dBuV/m @3M 88 -216 MHz 43.5 216 -960 MHz 46 ABOVE 960 MHz 54dBuV/m |

EMISSIONS RADIATED OUTSIDE OF THE SPECIFIED FREQUENCY BANDS, EXCEPT FOR HARMONICS, SHALL BE ATTENUATED BY AT LEAST 50 dB BELOW THE LEVEL OF THE FUNDAMENTAL OR TO THE GENERAL RADIATED EMISSION LIMITS IN 15.209, WHICHEVER IS THE LESSER ATTENUATION.

TEST RESULTS: This unit DOES meet the FCC requirements.

TEST DATA:

| EMISSION FREQUENCY MHz | METER READING AT 3 METERS dBuV | COAX LOSS dB | ANTENNA CORRECTION FACTOR | FIELD STRENGTH dBuV/m@3m | MARGIN dB | ANT. POL. |
|------------------------------|--------------------------------------|--------------------|---------------------------------|--------------------------------|--------------|--------------|
| 914.00 | 48.10 | 2.90 | 24.14 | 75.14 | 18.86 | V |
| 1828.10 | 15.90 | 1.00 | 27.31 | 44.22 | 9.78 | V |
| 2742.20 | 1.90 | 1.14 | 29.86 | 32.90 | 21.10 | V |

TEST PROCEDURE: ANSI STANDARD C63.4-1992 using a Hewlett Packard Model 8566B spectrum analyzer, a Hewlett Packard Model 85685A Preselector, a Hewlett Packard Model 85650A Quasi-Peak adapter, and an appropriate antenna - see test equipment list. The bandwidth of spectrum analyzer was 100 kHz with an appropriate sweep speed. 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 spectrum was searched to at least the tenth(10) harmonic of the fundamental.

PERFORMED BY: JOSEPH SCOGLIO

DATE: MAY 15, 2001

APPLICANT: DAE RYUNG INDUSTRIES INC.
FCC ID: LXRRTX900M
REPORT #: T:\CUS\DAE\164AU1\164AU1.RPT
PAGE #: 3

APPLICANT: DAE RYUNG INDUSTRIES INC.

FCC ID: LXRRTX900M

NAME OF TEST: Occupied Bandwidth

RULES PART NO.: 15.249

REQUIREMENTS: The field strength of any emissions appearing outside the band edges and up to 10 kHz above and below the band edges shall be attenuated at least 50 dB below the level of the carrier or to the general limits of 15.249.

THE PLOT ON THE NEXT PAGE REPRESENTS THE EMISSIONS TAKEN FOR THIS DEVICE.

METHOD OF MEASUREMENT: A small sample of the transmitter output was fed into the spectrum analyzer and the attached plot was printed. 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 SC oglIO MAY 15, 2001

APPLICANT: DAE RYUNG INDUSTRIES INC.
FCC ID: LXRRTX900M
REPORT #: T:\CUS\DAE\164AU1\164AU1.RPT
PAGE #: 4