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T R A N S M I T T E R C E R T I F I C A T I O N

of

FCC ID: QUZ126742
MODEL: PICSR-1

to

FEDERAL COMMUNICATIONS COMMISSION

Rule Part(s) 15.245, Confidentiality

DATE OF REPORT: March 17, 2003
AMENDED: June 4, 2003

ON THE BEHALF OF THE APPLICANT:

EG & G Technical Services, Inc.

AT THE REQUEST OF: P.O. Part of A322501712

EG & G Technical Services, Inc.
2420 Comanche Rd., NE., STE D-2
Albuquerque, NM 87107

Attention of: Marie Stoffer
(505) 998-0677 x 211; FAX: -0671
email: mstoffer@egginc.com

SUPERVISED BY: Morton Flom, P. Eng.

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LIST OF GENERAL INFORMATION REQUIRED FOR CERTIFICATION

IN ACCORDANCE WITH FCC RULES AND REGULATIONS,
VOLUME II, PART 2 AND TO

15.245, Confidentiality

Sub-part 2.1033

(c)(1): NAME AND ADDRESS OF APPLICANT:

EG & G Technical Services, Inc.
P.O. Box 9100
Albuquerque, NM 87119-9100

MANUFACTURER:

Applicant

(c)(2): FCC ID: QUZ126742

MODEL NO: PICSR-1

(c)(3): INSTRUCTION MANUAL(S):

PLEASE SEE ATTACHED EXHIBITS

(c)(4): TYPE OF EMISSION: 182K0F2D

(c)(5): FREQUENCY RANGE, MHz: 902 to 928

(c)(6): POWER RATING, Watts: 0.0005 to 0.004
___ Switchable x Variable ___ N/A

(c)(7): MAXIMUM POWER RATING, Watts: 500 mv/m @ 3m

15.203: ANTENNA REQUIREMENT:
___ The antenna is permanently attached to the EUT
x The antenna uses a unique coupling
___ The EUT must be professionally installed
___ The antenna requirement does not apply

PLEASE NOTE: 1) This device contains an R.F. module manufactured by Linx Technologies, FCC ID: OJM-TR-916-SC.

2) This devise operates with an Antenna Gain of 14.5 dbi.

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Sub-part 2.1033(b): TEST AND MEASUREMENT DATA

All tests and measurement data shown were performed in accordance with FCC Rules and Regulations, Volume II; Part 2, Sub-part J, Sections 2.1031, 2.1033, 2.1035, 2.1041, 2.1043, 2.1045, and the following individual Parts:

_____	15.209	Radiated emission limits; general requirements
_____	15.211	Tunnel radio systems
_____	15.213	Cable locating equipment
_____	15.214	Cordless telephones
_____	15.217	Operation in the band 160-190 kHz
_____	15.219	Operation in the band 510-1705 kHz
_____	15.221	Operation in the band 525-1705 kHz (leaky coax)
_____	15.223	Operation in the band 1.705-10 MHz
_____	15.225	Operation in the band 13.553-13.567 MHz
_____	15.227	Operation in the band 26-27.28 MHz (remote control)
_____	15.229	Operation in the band 40.66-40.70 MHz
_____	15.231	Periodic operation in the band 40.66-40.70 MHz and above 70 MHz
_____	15.233	Operation within the bands 43.71-44.49, 46.60-46.98 MHz 48.75-49.51 MHz and 49.66-50.0 MHz
_____	15.235	Operation within the band 49.82-49.90 MHz
_____	15.237	Operation within the bands 72.0-73.0 MHz, 74.6-74.8 MHz and 75.2-76.0 MHz (auditory assistance)
_____	15.239	Operation in band 88-108 MHz
_____	15.241	Operation in the band 174-216 MHz (biomedical)
_____	15.243	Operation in the band 890-940 MHz (materials)
x	15.245	Operation within the bands 902-928 MHz, 2435-2465 MHz, 5785-5815 MHz, 10500-10550 MHz, and 24075-24175 MHz (field disturbance sensors)
_____	15.247	Operation within bands 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz (spread spectrum)
_____	15.249	Operation within the bands 902-928 MHz, 2400-2483.5 MHz, 5725-5875 MHz, and 24.0-24.25 GHz
_____	15.251	Operation within the bands 2.9-3.26 GHz, 3.267-3.332 GHz, 3.339-3.3458 GHz, and 3.358-3.6 GHz (vehicle identification systems)
_____	15.321	Specific requirements for asynchronous devices operating in the 1910-1920 MHz and 2390-2400 MHz bands (Unlicensed PCS)
_____	15.323	Specific requirements for isochronous devices operating in the 1920-1930 MHz sub-band (Unlicensed PCS)

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NAME OF TEST: Unwanted Emissions (Transmitter Conducted)

LIMIT, dBc
-49, 4 mw

g0330056: 2003-Mar-10 Mon 10:30:00
STATE: 2:High Power

FREQUENCY TUNED, MHz	FREQUENCY EMISSION, MHz	LEVEL, dBm	LEVEL, dBc
916.480000	1832.882700	-80.5	≤ -79.8
916.480000	2749.620100	-86.2	≤ -79.8
916.480000	3665.743400	-87.4	≤ -79.8
916.480000	4582.309700	-86.7	≤ -79.8
916.480000	5498.861500	-86.1	≤ -79.8
916.480000	6415.144400	-80.5	≤ -79.8
916.480000	7331.678300	-80.6	≤ -79.8
916.480000	8248.209200	-81.2	≤ -79.8
916.480000	9164.695700	-79.5	≤ -79.8
916.480000	10081.403300	-80.1	≤ -79.8
916.480000	10998.009500	-79.5	≤ -79.8
916.480000	11914.466000	-79.6	≤ -79.8
916.480000	12830.692100	-74.9	≤ -79.8
916.480000	13747.443500	-74.8	≤ -79.8

Worst case = -74.8
= 42 microvolts

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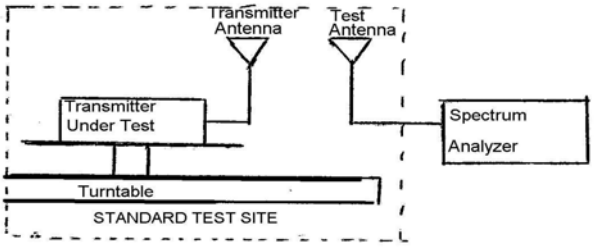
NAME OF TEST: ERP Carrier Power (Radiated)

SPECIFICATION: TIA/EIA 603A (Substitution Method)

2.2.17.1 Definition: The average radiated power of a licensed device is the equivalent power required, when delivered to a half-wave dipole or horn antenna, to produce at a distant point the same average received power as produced by the licensed device.

2.2.17.2 Method of Measurement:
a) Connect the equipment as illustrated. Place the transmitter to be tested on the turntable in the standard test site.



b) Raise and lower the test antenna from 1m to 6 m with the transmitter facing the antenna and record the highest received signal in dB as LVL.

c) Repeat step b) for seven additional readings at 45˚ interval positions of the turntable.

d) Replace the transmitter under test with a half-wave or horn vertically polarized antenna. The center of the antenna should be at the same location as the transmitter under test. Connect the antenna to a signal generator with a known output power and record the path loss in dB or LOSS.

e) Calculate the average radiated output power from the readings in step c) and d) by the following:

average radiated power = $10 \log_{10} \Sigma\, 10(\text{LVL} - \text{LOSS})/10$ (dBm)

RESULTS

	916.48 MHZ LVL, dbm	Path Loss, db
0˚	-26.8	1.8
45˚	-37.9	1.8
90˚	-4.2	1.8
135˚	-25.0	1.8
180˚	-29.0	1.8
225˚	-23.6	1.8
270˚	-30.2	1.8
315˚	-23.5	1.8

	916.48 MHZ
Av. Radiated Power:	-26.83 dbm

Worst Case = -4.2 dbm
= 140 millivolts

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NAME OF TEST: Field Strength of Spurious Radiation
g0330059: 2003-Mar-10 Mon 11:19:00
STATE: 2:High Power

FREQUENCY TUNED, MHz	FREQUENCY EMISSION, MHz	ERP, dBm	ERP, dbc
916.480000	1832.927333	≤ -47.6	≤ -77.6
916.480000	2749.302333	≤ -47.6	≤ -77.6
916.480000	3666.004000	≤ -47.6	≤ -77.6
916.480000	4581.937333	≤ -47.6	≤ -77.6
916.480000	5499.112333	≤ -47.6	≤ -77.6
916.480000	6415.535666	≤ -47.6	≤ -77.6
916.480000	7332.195666	≤ -47.6	≤ -77.6
916.480000	8248.292333	≤ -47.6	≤ -77.6
916.480000	9164.917333	≤ -47.6	≤ -77.6

Worst Case = -47.6 dbm
= 0.94 millivolt