ACME TESTING INC., 2002 VALLEY HWY, P.O. BOX 3, ACME, WASHINGTON 98220-0003 888-226-3837.

REPORT OF MEASUREMENTS
PART 15B - UNINTENTIONAL RADIATORS

DEVICE:	SPREAD SPECTRUM TRANSCEIVER
MODEL:	ESTeem 192S
MANUFACTURER:	ELECTRONIC SYSTEMS TECHNOLOGY, INC.
ADDRESS:	415 NORTH QUAY STREET KENNEWICK WA 99336

THE DATA CONTAINED IN THIS REPORT WAS COLLECTED
ON 18 FEBRUARY & 2 MARCH 1999 AND COMPILED BY:

PAUL G. SLAVENS	LEONARD G. BELISLE
CHIEF EMC ENGINEER	EMC TECHNICIAN

WORK ORDER: 10730C-1

(Table Of Contents Continued)

1. General

1.1 Purpose

The purpose of this report is to show compliance to the FCC regulations for spread spectrum unlicensed devices operating under section 15.247 of the Code of Federal Regulations title 47.

1.2 Manufacturer

Company Name:	Electronic Systems Technology, Inc.
Contact:	Brent Strecker
Street Address:	415 N. Quay Street
City/State/Zip:	Kennewick WA 99336
Telephone:	509 735-9092
Fax:	509 783-5475
Web:	www.esteem.com

1.3 Test location

Company:	Acme Testing Inc.
Street Address:	2002 Valley Highway
Mailing Address:	PO Box 3
City/State/Zip:	Acme WA 98220-0003
Laboratory:	Test Site 2, IC APPROVAL # IC 3251
Telephone:	888 226-3837
Fax:	360 595-2722
E-mail:	acmetest@acmetesting.com
Web:	www.acmetesting.com

1.4 Test Personnel

Paul G. Slavens

2. Test Results Summary

Summary of Test Results
Spread Spectrum Transceiver, model ESTeem 192S

Requirement	CFR Section	Test Result
Radiated Spurs < 15.209	15.205(b)	PASS
Conducted Emissions < 48.0 dBuV	15.207	PASS
6 dB BW > 500 kHz	15.247(a2)	PASS
Max Output Power < 1 W	15.247(a2b)	PASS
Conducted Spurious >-20 dBc	15.247(a2c)	PASS
Power Density < 8dBm in 3 kHz	15.247(a2d)	PASS
Process Gain > 10 dB	15.247(a2e)	PASS

The signed original of this report, supplied to the client, represents the only "official" copy. Retention of any additional copies (electronic or non-electronic media) is at Acme Testing's discretion to meet internal requirements only. The client has made the determination that EUT Condition, Characterization, and Mode of Operation are representative of production units, and meet the requirements of the specifications referenced herein.

Consistent with Industry practice, measurement and test equipment not directly involved in obtaining measurement results but having an impact on measurements (such as cable loss, antenna factors, etc.) are factored into the "Correction Factor" documented in certain test results. Instrumentation employed for testing meets tolerances consistent with known Industry Standards and Regulations.

The measurements contained in this report were made in accordance with the referenced standards and all applicable Public Notices received prior to the date of testing. Acme Testing assumes responsibility only for the accuracy and completeness of this data as it pertains to the sample tested.

Paul G. Slavens
Chief EMC Engineer

Date of Issuance

3. Description of Equipment and Peripherals

3.1 Equipment Under Test (EUT)

Device:	Spread Spectrum Transceiver
Model Number:	ESTeem 192S
Serial Number:	None
Power:	12 VDC
Grounding:	DC
Antenna Distance:	3 m

3.2 EUT Peripherals

Device	Manufacturer	Model Number	FCC ID	Serial Number
Computer	Compaq	DeskPro	D.O.C.	672688C3Q451
Monitor	ViewSonic	P775	GSS17019	JP72701467
Printer	Hewlett-Packard	C2642A	B94C2642X	MY68L1D0JK
Keyboard	Dell	SK-1000RE	GYUR10SK	M940673251
Mouse	Microsoft Corp.	Intellimouse	C3KKMPS	2792206-00000
DC Power Supply	Chaplet Systems Inc.	AC-EO1-12	None	9600338

3.3 The Mode of Operation During Tests

The EUT was exercised in a constant transmit mode by an emulation program that was supplied by the manufacturer in the peripheral computer. The EUT was preview tested at the lowest, middle and highest frequency. The highest frequency channel produced the worst case results and therefore was used for final compliance testing.

3.4 Modifications Required for Compliance

1. None.

3.5 Description of Interface Cables

EUT/Computer

Shielded	Unshielded	Flat	Round	Length	Ferrite
Yes	No	No	Yes	1.5 m	No

EUT/Power Supply

Shielded	Unshielded	Flat	Round	Length	Ferrite
No	Yes	No	Yes	1 m	No

Computer/Monitor

Shielded	Unshielded	Flat	Round	Length	Ferrite
Yes	No	No	Yes	1 m	Yes

Computer/Keyboard

Shielded	Unshielded	Flat	Round	Length	Ferrite
Yes	No	No	Yes	1 m	Yes

Computer/Mouse

Shielded	Unshielded	Flat	Round	Length	Ferrite
Yes	No	No	Yes	1 m	Yes

ARRANGEMENT OF INTERFACE CABLES: All interface cables were positioned for worst case maximum emissions within the manner assumed to be a typical operation condition (please reference photographs).

4. Antenna requirement

4.1 Regulation

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section. The manufacturer may design the unit so that the user can replace a broken antenna, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of Sections 15.211, 15.213, 15.217, 15.219, or 15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with Section 15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this Part are not exceeded.

4.2 Result

The intentional radiator uses a reverse threaded TNC connector.