RF Energy Exposure Assessment Record

Product or Equipment Name: LMDS (SpectraPoint CPE 1.3) Date: 11/08/99

Program/Project Contact Person: Bill Paschetag Phone: (972) 852-6949

M/D: Texas TX-38

Location of Product/Equipment: Unit tested in Hayden EMC Lab Anechoic Chamber

1. RF Emitting Product or Equipment Description

Manufacturer: SpectraPoint

Model: RTU2000-28-2 Serial Number: P-107

Describe the product or equipment, the environment(s) where it is used, and information about operators and others who might be exposed to its emitted RF energy.

The unit is a wideband datalink for point to multipoint data communications. The transmitter is located within the antenna housing. It is used for line-of-sight operation. The unit will be roof-mounted on a short mast (generally less than 3 meters) to clear any nearby obstructions. The unit will operate 24 hrs per day and 7 days per week. The only people who may be exposed are those doing maintenance work on the roof, or the LMDS operators during set-up and alignment.

Frequencies of Operation (GHz): 27.5-28.35 GHz

Maximum Output Power Level (Watts): 200 mW (1259 W EIRP)

Modulation Characteristics: QPSK Data

If pulsed; Pulse duration: Indeterminant Pulse repetition frequency (PRF): Indeterminant

Duty cycle: Controlled by data modem in normal operation. 100% for this test.

Antenna description: Directional antenna enclosed in radome.

Antenna gain: 38 dBi

Failure Modes

Are there credible failure modes in the product or equipment (hardware, software) or operations (controls, procedures, human error) that could cause the average output power to increase above the normal operating level?

Yes ____ No **X** If Yes, describe the failure mode, probability of occurrence of the failure, and the expected level of output power.

RF Energy Exposure Assessment Record

Product or Equipment Name: LMDS (SpectraPoint CPE 1.3) Date: 11/08/99

2. Maximum Permissible Exposure (MPE) Levels

MPE Levels based on ANSI/IEEE C95.1-1992 and 47 CFR 1.1310, Table 1 requirements, unless otherwise specified.

	Frequency (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Plane Wave Equiv. Power Density (S) (mW/cm^2)	Specific Absorption Rate (SAR) (mW/g)
Controlled Environment	27500-28350	N/A	N/A	5.0	N/A
Uncontrolled Environment	27500-28350	N/A	N/A	1.0	N/A

3. Measurement Results

Applicable Document: Radio Frequency (RF) Energy Exposure Test Procedure, Rev E.

	Frequency (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Plane Wave Equiv. Power Density (S) (mW/cm^2)	Specific Absorption Rate (SAR) (mW/g)
Controlled Environment	27500-28350	N/A	N/A	0.68 **	N/A
Uncontrolled Environment	27500-28350	N/A	N/A	0.68 **	N/A

** All measurements taken at distance of 20cm unless otherwise noted.
0.3 mW/cm^2 at 1 meter, and 0.46 mW/cm^2 at 1.5 meters, and 0.14 mW/cm^2 at 2 meters.

Is the Maximum Permissible Exposure Level for an uncontrolled environment exceeded?

Yes _____ No **X** If Yes, provide drawings to show the boundaries of the Restricted Access Area.

Is the Maximum Permissible Exposure Level for a controlled environment exceeded?

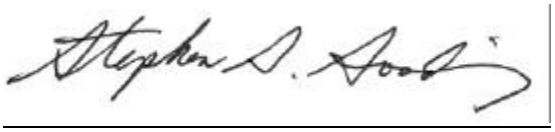
Yes _____ No **X** If Yes, define and implement necessary controls.

4. RF Energy Measurement Equipment

Manufacturer	Description	Model	Asset No.	Date of Last Cal.	Cal. Due Date
Narda	Electromagnetic Survey Meter	8718	G58802	02/16/99	02/28/00
Narda	Probe, E-Field	8741	G52451	12/23/98	12/31/99

RF Energy Exposure Assessment Record

Product or
Equipment Name: LMDS (SpectraPoint CPE 1.3) Date: 11/08/99

Measurements made by: 

Steve Gooding
Motorola, SSG

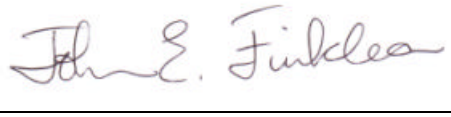
11/08/99
Date

5. Required Hazard Controls

Fully describe all hazard controls to be implemented. Provide drawings and other attachments, as necessary, to describe Restricted Access Areas.

None required for its present configuration and intended state of use.

6. Review & Approval

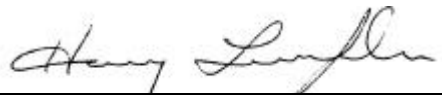


Date: 18 February 2000

John Finklea
Project Leader

Date: 18 February 2000

Mike O'Hara
Program / Product Manager



Date: 18 February 2000

Harry Littlejohn
Engineering Manager