



Exhibit 11 – RF Exposure

**SpectraPoint Wireless LLC
SP2000 Series Node Transmitter**

FCC ID: NNSTX2000-HG-99

Model Number: TX2000-28-HG-510

Information Provided in this Exhibit:

This exhibit presents a discussion of the SpectraPoint High Gain Transmitter relative to the RF Exposure requirements for transmitters approved for use in the Local Multipoint Distribution Service as defined in FCC Parts 1, 2 and 101 and Office of Engineering Technology Bulletin 65.

RF Exposure Information

1.0 RF Exposure Requirements for LMDS Transmitters

Some transmitters approved for operation for Local Multipoint Distribution Service (LMDS) under FCC Part 101 are subject to an Environmental Evaluation as defined in Part 1, Paragraph 1.1307, and are required to display warning labels. FCC Part 2 also provides requirements for some transmitters with specific usage. This exhibit provides information relating to the specific requirements for the SpectraPoint High Gain Node transmitter for compliance with the RF Exposure requirements of FCC Parts 1, 2 and 101, and FCC Office of Engineering and Technology (OET) Bulletin 65.

2.0 Environmental Assessment

FCC Part 1, Paragraph 1.1307 and OET Bulletin 65, Appendix A, Table 1, state that "Routine Environmental Evaluation" must be performed for LMDS transmitters if:

- a) for non-building-mounted antennas, the height above ground level to the lowest point of the antenna is less than 10 meters AND the power is greater than 1640 Watts EIRP
- b) for building-mounted antennas, the power is greater than 1640 Watts EIRP.

The SpectraPoint High Gain Node transmitter at maximum rated operating power has an EIRP of 158.5 Watts, considerably less than that required for an Environment Assessment. The factors contributing to calculation of EIRP for the SpectraPoint High Gain Node transmitter are discussed in paragraph 2.2, below.

2.1 Radio Frequency Radiation Exposure Evaluation Assessment

FCC Part 2, Paragraph 2.1091 defines the requirements for a radio frequency radiation exposure evaluation for mobile devices and 2.1093 defines the same for portable devices. The SpectraPoint High Gain Node transmitter is neither mobile nor portable and is therefore considered exempt from these requirements.

2.2 Effective Isotropic Radiated Power (EIRP) and Power Density Calculations

The maximum EIRP from the SpectraPoint High Gain LMDS transmitter is 158.5 Watts, based on a maximum power output of 1.0 Watt and an antenna gain 22 dBi.

The maximum on-axis power density of High Gain transmitter is 0.82 mW/cm^2 based on calculations using equations contained in OET Bulletin 65.

3.0 Labeling Requirements:

Part 1, Paragraph 1.1307, Table 1 specifies that LMDS *subscriber transceivers* are required to have a label which provides adequate notice regarding potential radio frequency hazards relative to the limits of Part 1, Paragraph 1.1310. There are no similar requirements for non-subscriber transmitters.

The SpectraPoint High Gain LMDS transmitter is not a “subscriber” transceiver. It normally will be installed with other transmitters in commercial locations such as buildings or towers rather than at subscriber locations. Consequently, there are no RF exposure labeling requirements for the SpectraPoint High Gain LMDS transmitter.