February 5, 2003

Federal Communications Commissions

Subject: Cover letter of Request for Modular Approval

Dear Application Examiner,

The Intech 916.5MHz Transmitter module is seeking FCC authorization as a part 15 unlicensed modular transmitter approval. The requirements of the FCC public notice DA 00-1407 are met.

The following requirements are fulfilled.

1. **The modular transmitter must have its own RF shielding.**
   The radio portion of the module is contained in its own RF shielding. See Fig.1 (the radio portion of the module is located in the lower left side on the PCB) in MET Report EMC11968FCC and See the 916.5MHz Transceiver User Manual.
2. **The modular transmitter must have buffered modulation/data inputs**
   The module has a memory management unit inside of the IC. It buffers the data inputs from UART through embedded microcontroller. See the Device description and the User Manual.

3. **The modular transmitter must have its own power supply regulation**
   The IC contains an own voltage regulation. In case of changes in the supply voltage VCC (for example caused by temperature changes or other effects), the internal voltage will be stabilized.

4. **The modular transmitter must comply with the antenna requirements of Section 15.203 and 14.204(c)**
   The transmitter shall only be used with the tested integral antenna permanently attached to the PCB.

5. **The modular transmitter must be tested in a stand-alone configuration**
   The EUT was tested in a stand-alone configuration. The module was set in a continuous transmit mode. See also the test report and test setup photos for more details.

6. **The modular transmitter must be labeled with its own FCC ID number**
   The EUT will be labeled with its own FCC ID number . The label is specified in the Label for 916.5MHz Transceiver.
   If the module is installed inside of an end-product, the label will not be visible. In this case the OEM customer will be instructed to how to apply the exterior label.

7. **The modular transmitter must comply with any specific rule or operating requirements applicable to the transmitter and the manufacturer must provide adequate instructions along with the module to explain any such requirements**
   The EUT is compliant will all applicable FCC rules. Detail instructions are given in the User Manual and in the Technical Description.
8. **The modular transmitter must comply with any applicable RF exposure requirements.**
   The maximum measured power output is 1mW, the maximum antenna gain is 2dBi, numeric gain is 1.6(see also FCC test report)

The maximum permissible exposure is defined in the 47CFT 1.1310 with 1 mW/cm2. The distance from the EUT's transmitting antenna where the exposure level reaches the maximum permitted level is calculated using the general equation:

$$S = P * G / 4\pi R^2$$

Smax = 1mW/cm2, P=1mW, linear power gain relative to the isotropic radiator = 2.dBi, 1.6 (numeric gain), R= distance in cm.

Solving for R, the 1mW/cm^2 limit is reached in a distance of 0.36cm to the transmitting antenna.

The module has to be integrated in a way that the minimum distance of 0.36 cm is ensured so a statement in the users manual is not necessary. Even so see a *Note** in the User Manual.

If you have any further questions please feel free to contact us.

Best Regards,

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