



Federal Communications Commission
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The purpose of this letter is to request limited modular approval of the Elster Electricity LLC, Energy Axis Internal LAN Controller (ILC) / Internal LAN Node (ILN) option board, which operates as a frequency-hopping spread-spectrum transceiver for automatic meter reading in the 902-928 MHz ISM band under the provisions of FCC Part 15.247. The ILC/ILN is designed to be an option board in Elster Electricity LLC A3 electricity meters.

To address the specific numbered items of Public Notice DA 00-1407:

1. The ILC/ILN incorporates a shield over the wireless transceiver that is attached (soldered) to the printed-circuit board. The bottom of the shield is enclosed by a copper plane that is part of the printed-circuit board.
2. The ILC/ILN transmitter incorporates digital buffers on the data inputs, which are part of the transceiver IC. The peak modulation is set by the program that is stored within the transceiver IC. The data rate is set by the same stored program. For this reason, over-driving the modulation input, or applying excessive data rates to the data input cannot produce over-modulation.
3. The ILC/ILN has its own power supply regulation. It receives unregulated power from the metering devices and this is applied to a switching regulator which is followed by a linear regulator to supply the lower voltage sections of the device. For this reason, varying the supply voltage to the ILC/ILN cannot vary the transmitter power, which is set and measured at the time of manufacture.
4. Antennas. For the internal antenna that is supplied with the ILC/ILN, the short cable is permanently attached to the antenna that is designed to wrap around the round exterior of the electricity module. The antenna resides under the exterior meter cover that is secured by the meter socket enclosure and the electric utility meter seal. For those installations that require the use of an external antenna, Elster Electricity LLC has approved three antennas as described in the installation leaflet provided to Elster customers and detailed in the FCC filing.
5. The module is intended to be installed only in A3 ALPHA electricity meters and metering equipment supplied by Elster Electricity LLC and the module has been tested in representative configurations.
6. The ILC/ILN has a label to identify the module's FCC ID. This label is affixed to the ILC/ILN. Additionally, the FCC ID appears on the front-panel nameplate of the Elster Electricity LLC devices that contain the ILC/ILN.
7. The ILC/ILN complies and is certified for compliance with all of the applicable provisions of FCC Part 15.247 for frequency-hopping spread-spectrum devices.



8. The ILC/ILN is a low-power (250 mW) device and operates with a low duty cycle. The ILC/ILN has been demonstrated and certified to comply with the MPE RF exposure requirements for mobile devices. Installation and operating instructions specify the required minimum distance from humans for installed electricity meters

Respectfully,
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