

To: File

From: Timothy R. Walters

Subject: L+G S4e 2G Utilinet Endpoint Modular Approval Request

6/19/07

1 Scope

FCC Public Notice **DA 00-1407** released June 26, 2000 communicated guidelines for products requesting modular approval. In particular, 8 requirements were enumerated along with a request that each of the 8 be explained for any product requesting such approval.

It is the purpose of this document to respond to those 8 guidelines in regard to the Cellnet product: L+G S4e 2G Utilinet Endpoint.

2 Modular Approval Requirements

2.1 RF Shielding

The L+G S4e 2G Utilinet Endpoint radio is self shielding and is not dependent on any component or characteristic of the device into which it is embedded. Shielding is accomplished through a combination of metallic self-shielding components, copper planes, guards, and vias in the PCB. The result is a design that has been proven to be neither sensitive to outside influence nor capable of introducing interference into outside components.

2.2 Buffered Modulation / Data Inputs

The L+G S4e 2G Utilinet Endpoint does not have external modulation or data inputs. Rather, the RF section is driven by an on-board microprocessor which directly controls the RF data lines and operates so as to not allow excessive modulation.

2.3 Power Supply Regulation

The L+G S4e 2G Utilinet Endpoint uses a linear regulator to provide all the electronics with a supply that is fixed, even when the input voltage is varied.

2.4 Antenna Requirement

The L+G S4e 2G Utilinet Endpoint does not include an integrated antenna. A 50-ohm MCX connector is utilized to efficiently couple the RF energy from the output of the low pass filter into an external flex dipole antenna (Landis_Gyr part number 71654). It has a typical gain of 2 dBi. It's bandwidth is large enough to effectively radiate at 903-927MHz.

2.5 Stand-Alone Testing

All testing on the L+G S4e 2G Utilinet Endpoint module was conducted stand-alone. No shields or enclosures were used, other than that fully integrated to the module itself. No ferrites were used on data or power lines during testing. The device is DC powered, and exceeds applicable conducted emission requirements.

2.6 Labeling

As indicated, each module will have its own FCC ID as part of the silkscreen on the board. In addition, devices into which it is placed will have a sticker indicating that this module is contained within. Exact text will be as specified in the FCC Public Notice.

2.7 Specific Rules and Operating Requirements

The L+G S4e 2G Utilinet Endpoint complies with all the pertinent rules for its section. Other than its reduced power level, it shares common code and is functionally equivalent to the 40-1080 (Module, Utilinet, GEKV2c) product which is FCC certified as **R7PEC3R1S4**.



2.8 RF Exposure Requirements

The L+G S4e 2G Utilinet Endpoint complies with all exposure requirements. As a component used in the Utility industry, this product is not intended for use near human operators. It is a reduced-power version of products that reside in the same locations and have already been approved for use.