

To: File
From: James L. Stortz
Subject: N651 (Series 6, IP, Gen1), FCC ID: R7PNG0R1S4 Modular Approval Request

September 27, 2019

Scope

47CFR 15.212 communicates requirements for products requesting modular approval. In particular, eight requirements are enumerated along with a request that each of the eight be explained for any product requesting such approval. It is the purpose of this document to respond to those eight requirements in regard to the Landis+Gyr product: N651 (Series 6, IP, Gen1).

Modular Approval Requirements

1.1 RF Shielding

The N651 (Series 6, IP, Gen1) module 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.

1.2 Buffered Modulation / Data Inputs

The N651 (Series 6, IP, Gen1) module does not have external modulation or data inputs. Rather, the RF sections are driven by an on-board microprocessor which directly controls the RF data lines and operates so as to not allow excessive modulation.

1.3 Power Supply Regulation

The N651 (Series 6, IP, Gen1) module uses a linear, low-dropout regulator to provide all the electronics with a supply that is fixed, even when the input voltage is varied.

1.4 Antenna Requirement

The N651 (Series 6, IP, Gen1) module utilizes a dual-band dipole, 4.5dBi (900MHz), 8dBi (2400MHz)

1.5 Stand-Alone Testing

All testing on the N651 (Series 6, IP, Gen1) module was conducted standalone. No shields or enclosures were used, other than those fully integrated into the modules themselves. No ferrites were used on data or power lines during testing. These devices are DC powered and exceed applicable conducted emission requirements.

1.6 Labeling

As indicated, each N651 (Series 6, IP, Gen1) module will have its own FCC ID label. In addition, devices into which they are placed will have labels indicating that this module is contained within. Exact text will be as specified in 47CFR 15.212.

1.7 Specific Rules and Operating Requirements

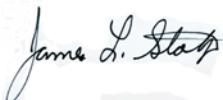
The N651 (Series 6, IP, Gen1) module complies with all pertinent rules for its section.

1.8 RF Exposure Requirements

The N651 (Series 6, IP, Gen1) module complies with all exposure requirements. As a component used in the Utility industry, this product is not intended for use near human operators.

This module undergoes continuous, rigorous testing to ensure that full compliance is always maintained.

Sincerely,
James L. Stortz



Title: Director of Hardware Engineering