

December 3, 2015

**To:** File  
**From:** Richard Timko  
**Subject:** Modular Approval Request for Gridstream S5 SBR, FCC ID: R7PNG0R1S3

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## 1. Scope

47CFR15.212 communicates 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 Landis+Gyr product: **Gridstream S5 SBR**.

### Modular Approval Requirements

#### 1.1 RF Shielding

The **Gridstream S5 SBR** 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 **Gridstream S5 SBR** 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.

#### 1.3 Power Supply Regulation

The **Gridstream S5 SBR** uses linear, low-dropout regulators to provide all the electronics with a supply that is fixed, even when the input voltage is varied.

#### 1.4 Antenna Requirement

The **Gridstream S5 SBR** utilizes an external antenna which is connected by a unique UFL-type connector.

#### 1.5 Stand-Alone Testing

All testing on the **Gridstream S5 SBR** was conducted standalone. No shields or enclosures were used, other than those fully integrated into the module itself. No ferrites were used on data or power lines during testing. This device is DC powered, and exceeds applicable conducted emission requirements.

#### 1.6 Labeling

As indicated, the module will have its own FCC ID label. In addition, devices into which it is placed will have labels indicating that this module is contained within. Exact text will be as specified in the FCC Public Notice.

#### 1.7 Specific Rules and Operating Requirements

The **Gridstream S5 SBR** complies with all pertinent rules for its section.

#### 1.8 RF Exposure Requirements

The **Gridstream S5 SBR** complies with all exposure requirements.