Landis+Gyr Comms
Host Board Data Sheet

Publication: 98-2464 Rev AA

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Landis+Gyr Comms Host Board Datasheet			
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Comms Host Board Data Sheet

Comms Host Board Overview

The Comms Host board incorporates a power supply, ZigBee circuitry, stamped metal PIFA, and mPCIe connector to allow for integration of EIC (optional) + communication module assembly. This hardware architecture with mPCIe interface offers flexibility while accommodating various communication devices using a single interface.

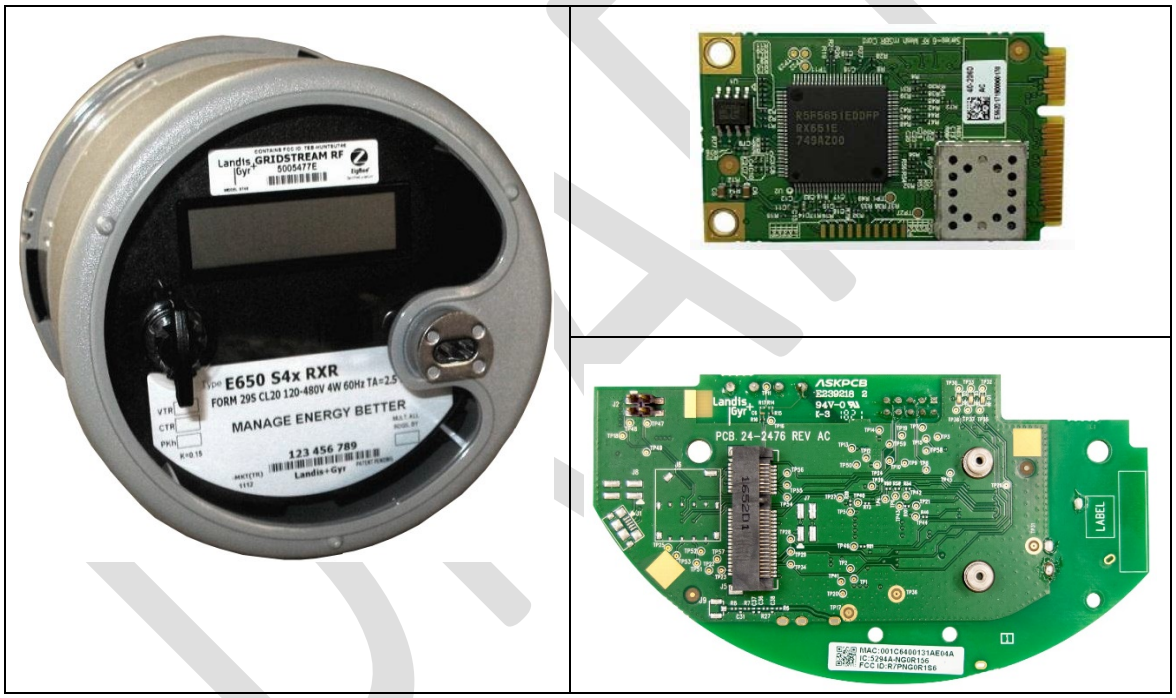


Figure 1 - 1. Gridstream RF E650 S4 x Meter with Comms Host board and Series 6 radio card

This Comms Host board is not available as a standalone product.

The endpoint assembly contains:

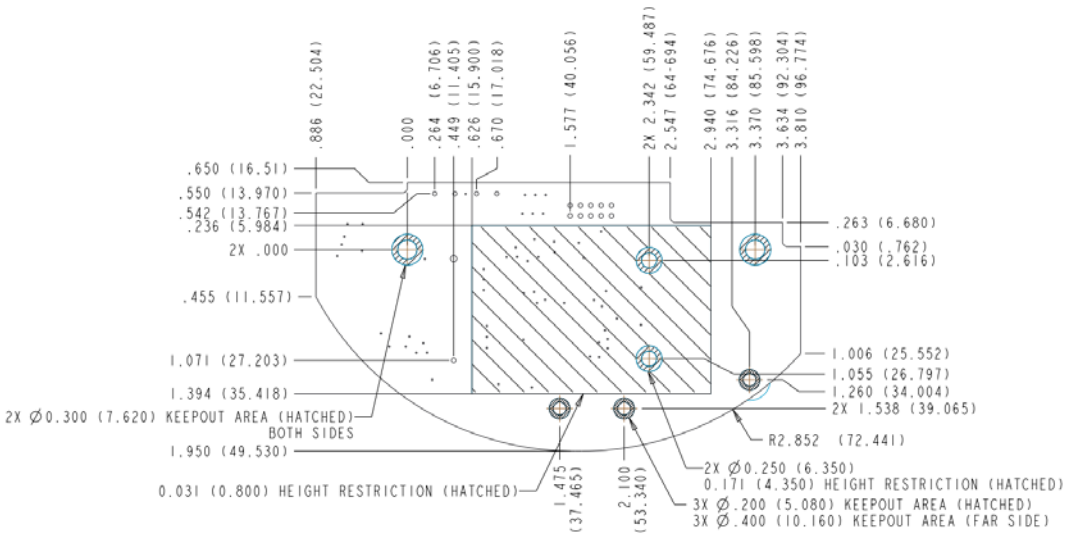
- Comms Host board
- Series 6 mPCIe radio card
- External Flex dipole antenna (Series 6 radio antenna)
- Edge Intelligence Card (EIC) (Optional)

Table 1. Comms Host Specification

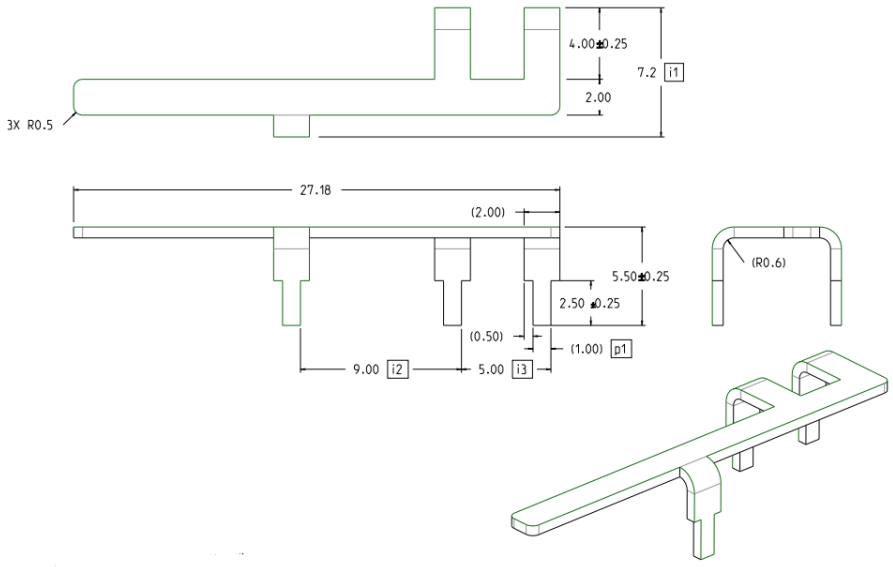
Category	Specification	Value or Range			
Compatible Meters	Landis+Gyr E650 S4x Supported Meter Forms	Form	Class	Voltage	Units
		1S	CL200	120-480	Vac
		2S	CL200	240-480	Vac
		2SE	CL320	240-480	Vac
		3S	CL20	120-480	Vac
		4S	CL20	120-480	Vac
		45S	CL20	120-480	Vac
		36(6)S	CL20	120-480	Vac
		9(8)S	CL20	120-480	Vac
		10A/8A	CL20	120-480	Vac
		12S/25S	CL200	120-480	Vac
		12SE	CL320	120-480	Vac
		14/15/16K	CL480	120-480	Vac
		14/15/16S	CL200	120-480	Vac
		14/15/16SE	CL320	120-480	Vac
Electrical	Voltage	4Vdc ±5% @ 2A max			
	Power	8W			
ZigBee Radio General	RF Frequency Range	2.405 GHz -2.475 GHz			
	RF Baud Rate	250 kbps			
	Output Power	19 dBm (Typical)			
	Receive Sensitivity	-104 dBm (Typical)			
	Antenna type	Stamped metal PIFA			
	Max Antenna Gain	0 dBi			
Standards Compliance	FCC Title 47 CFR Part 15	Radiated and Conducted Emissions (incl. intentional radiators)			
	IEC 61000 4-2,3,4,5, 6, 8, 9, 11	Electromagnetic Compatibility			
	ANSI C12.20	National Standard for Electricity Meters - 0.2 and 0.5 Accuracy Classes			
	ANSI C12.1	Code for Electricity Metering			
	ANSI C37.90.1 (1989)	Standard Surge Withstand Capability (SWC) Tests			
Mechanical	Size	4.696 x 2.600 x 0.792 inches, typical			
Environmental	Storage Temperature	-40 to +85 Degrees Celsius			
	Operating Temperature	-40 to +85 Degrees Celsius			
	Relative Humidity	0 to 95% Relative Humidity non-condensing			

Comms Host Board Outline

The PCB outline is shown below



ZigBee Stamped Metal Antenna Outline



FCC, Industry Canada Compliance

FCC Class B

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference, and
- This device must accept any interference received, including interference that may cause

undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reason- able protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the Instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment andreceiver.
- Consult Landis+Gyr or an experienced radio technician forhelp.

U **WARNING: Changes or modifications to this device not expressly approved by Landis+Gyr could void the user's authority to operate theequipment.**

RF Exposure

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 22 cm between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

` Cet équipement est conforme aux limites FCC/IC d'exposition aux radiations définies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé à une distance minimale de 22cm entre le radiateur et votre corps. Cet émetteur ne doit pas être coimplantés ou exploités en conjonction avec une autre antenne ou émetteur.

Requirement for Modular Certification

Comms Host board is approved for use with the stamped metal PIFA, peak gain 0 dBi. Antenna types that are different or a having higher gain than the maximum indicated for that type, are prohibited for use with this device.

Comms Host is not available as a standalone product, it is only approved for use in Landis+Gyr products and not intended for sale to 3rd party integrators.

Additional Testing, Part 15 Subpart B Disclaimer

The end product with Comms Host board may also need to pass the FCC Part 15 unintentional emission testing requirements and be properly authorized per FCC Part 15 Subpart B.

Industry Canada

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may causeundesired operation of the device.

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (EIRP) is not more than that necessary for successful communication.

This radio transmitter (5294A-NG0R1S6) has been approved by Industry Canada to operate with the antenna types listed below with the maximum permissible gain and required antenna impedance for each antenna type indicated. Antenna types not included in this list or having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

Approved Antennas: Stamped metal PIFA, 2.4 – 2.475 GHz Max Gain 0 dBi

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes: (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Conformément à la réglementation d'Industrie Canada, le présent émetteur radio peut fonctionner avec une antenne d'un type et d'un gain maximal (ou inférieur) approuvé pour l'émetteur par Industrie Canada. Dans le but de réduire les risques de brouillage radioélec- trique à l'intention des autres utilisateurs, il faut choisir le type d'antenne et son gain de sorte que la puissance isotrope rayonnée équivalente (p.i.r.e.) ne dépasse pas l'intensité nécessaire à l'établissement d'une communication satisfaisante.

Le présent émetteur radio (identifier le dispositif par son numéro de certification ou son numéro de modèle s'il fait partie du matériel de catégorie I) a été approuvé par Industrie Canada pour fonctionner avec les types d'antenne énumérés ci-dessous et ayant un gain admissible maximal et l'impédance requise pour chaque type d'antenne. Les types d'antenne non inclus dans cette liste, ou dont le gain est supérieur au gain maximal indiqué, sont strictement interdits pour l'exploitation de l'émetteur.

Host FCC Label Requirement

In the final installation, the following information must be visible:

- Contains FCC ID: **R7PNG0R1S6**
- Contains IC: **5294A-NG0R1S4**

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference thatmay cause undesired operation.

The final meter assembly includes the following labels:

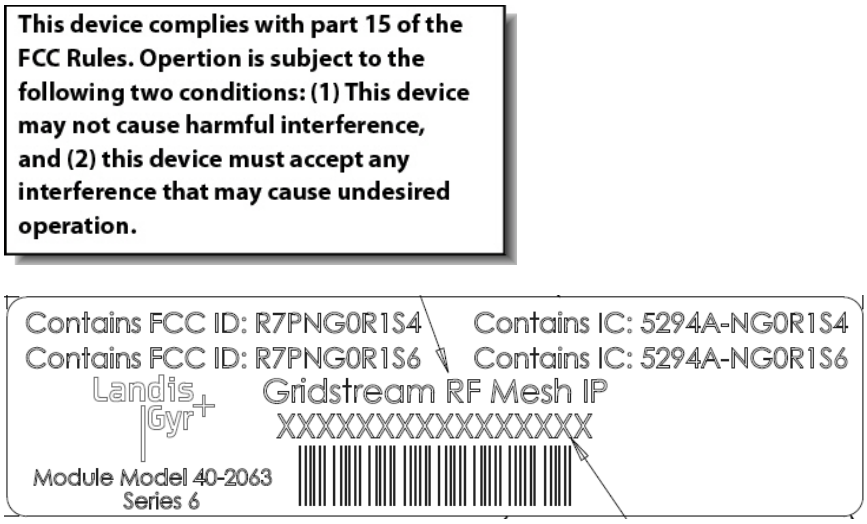


Figure 1 - 2 . Label Identification

Series 6 mPCIe radio card: FCC Id: R7PNG0R1S4, IC: 5294A-NG0R1S4
Comms Host board with ZigBee radio: FCC Id: R7PNG0R1S6, IC: 5294A-NG0R1S6