



# Gridstream® Connect Cellular Residential Meters

## Plug-and-play cellular meters that are omni-carrier capable

Landis+Gyr's LTE-M cellular communication for the FOCUS AXe/AXe-SD meters provides Gridstream® Connect customers with another AMI option that is feature-rich and simple to deploy. The LTE-M cellular endpoint is preconfigured to self-register with Landis+Gyr's Command Center head-end. With the turnkey option, Landis+Gyr offers a 15-year contract for connectivity services. This includes omni-carrier capability that ensures that if one cellular network fails, the meter will switch to another available carrier and continue transmitting.

### Features

- Active and reactive energy and demand (TOU capable), including bi-directional measurement
- Integrates into all forms, classes, and voltages of the FOCUS AXe/AXe-SD, including remote disconnect/connect capabilities, and service limiting
- Detection, logging, and reporting of diagnostic information for each meter
- Modem, module, ZigBee, and metrology firmware can be upgraded over the cellular network with no interruption of readings during upgrades
- Two sets of load profile data with configurable intervals (1, 5, 15, 30, and 60 minutes)
- Capable of supporting TOU without a battery
- Advanced Security available

### Software Requirements

Deployment of an LTE-M cellular endpoint requires:

- Command Center version 7.4 or later, licensed with the Cellular Adapter
- 1132 Suite, version 5.13MR1

### Focus AXe Module Overview

The endpoint assembly contains:

- FOCUS-AXe meter
- LTE-M cellular communication module
- SIM card – Form 2FF, industrial rated
- “Under-glass,” wideband antenna for cellular radio
- Built-in antenna for ZigBee

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## Product Specifications

Cellular Module	
Category	Cat-M1
Standards	3GPP Release 13
Supported Bands	2, 4, 12, 13, 25 (Cat-M1)
Regulatory	<ul style="list-style-type: none"><li>FCC, IC</li><li>IEC 61000-4-2, 3, 4, 5, 12, 18</li><li>ANSI C.12.20</li><li>ANSI C12.1</li><li>ANSI C37.90.1 (2002)</li></ul>
Electrical	
Supply Voltage	11 - 28 Vdc
Power	<ul style="list-style-type: none"><li>5W Peak</li><li>0.8W Continuous</li></ul>
Environmental	
Storage Temperature	-40°C - 85°C
Operating Temperature	-40°C - 75°C
Relative Humidity	0% - 95% (non-condensing)
Zigbee Transmit Power and Receive Sensitivity	
RF Frequency Range	2.405 GHz min - 2.475 GHz max
Number of Channels	15
Modulation Type	O-QPSK (Comply with IEEE 802.15.4)
Data Rate	250 kbps
IEEE Specification	802.15.4
On-air Tx Time (Duty Cycle)	66% (66 ms per 100 ms max)
Memory	<ul style="list-style-type: none"><li>12 KB RAM</li><li>192 KB Flash</li></ul>
Antenna Type	Inverted F (printed)
Peak Antenna Gain	-3.07 dBi (peak gain)
Antenna Polarization	Vertical

Zigbee Transmit Parameter	
Output Power (Conducted)	19 dBm (Measured at room temperature)
Frequency Stability	-40 ppm - +40 ppm
Error Vector Magnitude	<ul style="list-style-type: none"><li>Typ: 5%</li><li>Max: 30%</li></ul>
Power Spectral Density 3kHz BW	6 dBm
6dB Bandwidth	1.59 MHz (modulated)
Zigbee Receiver Parameter	
Sensitivity	<ul style="list-style-type: none"><li>Typ: -104 dBm at 35% PER</li><li>Max. -101 dBm at 35% PER</li></ul>
Adjacent Channel Rejection	40 dBc
Image Rejection	30 dB

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Let's build a brighter future together.

Landis+Gyr is a leading global provider of integrated energy management solutions. We measure and analyze energy utilization to generate empowering analytics for smart grid and infrastructure management, enabling utilities and consumers to reduce energy consumption. Our innovative and proven portfolio of software, services and intelligent sensor technology is a key driver to decarbonize the grid. Having enabled 9 million tons of CO<sub>2</sub> savings in FY 2024 through our product offerings, Landis+Gyr manages energy better – since 1896. With sales of USD 1.7 billion in FY 2024, Landis+Gyr employs around 6,300 talented people across five continents. For more information, please visit our website [www.landisgyr.com](http://www.landisgyr.com).