

# Phase IV Collector

## Enhanced Data Collection Capabilities for RF Mesh Systems

The Phase IV RF Collector provides a powerful and flexible data collection and control center for users of Landis+Gyr's RF Mesh advanced metering systems. An active data collection point that monitors up to 25,000 endpoints simultaneously, the collector is in continuous communication with each endpoint. It also serves as the control hub for sending commands to endpoints individually, in defined groups or across the entire network. The collector receives data from network routers and endpoints providing a conduit to the host system via internet packets. Auto-Baud provides the flexibility to vary data rates based on changes in RF link quality, offering an optimally, always connected service without disruption. This technology is capable of maximizing bandwidth use with asynchronous spread spectrum frequency hopping. The collector provides packet switching for guaranteed message transfer with store and forward routing. The secure NEMA-4 collector can be installed at a distribution substation, on a wood utility pole, steel monopole, radio tower or in a rack, and can support a variety of communications options to the utility, including RF, fiber, cellular, microwave, leased line and POTS, with the use of a WAN modem.

### Key Benefits:

- Monitors up to 25,000 AMI endpoints
- Utilizes auto-baud rates for uninterrupted data communication regardless of RF link quality changes
- Capable of maximizing bandwidth use with asynchronous spread spectrum frequency hopping
- Uses packet switching for guaranteed message transfer with automatic store and forward routing
- Automatically notifies utility of power outages and restoration of power across the AMI system



**Phase IV Collector Specifications**

Product Part Number	26-1318 Landis+Gyr Gridstream Collector, Phase IV
	45-1128 Phase IV Collector + Accessories
Collector Dimensions	18"H x 17.5"W x 11"D (excludes antennas)
Weight	51 lbs.
Antennas	Four (4), remote RF Mesh Antennas, Antenex FG 9023 (typical)
Input Voltage	Selectable: 120/240 +/-20%
Input Current	1A typical at 120V
Power Consumption	48W maximum, 20W typical
Operating Frequency Band	902-928 MHz, Unlicensed
Transmit Output Power	1W maximum for each IWR
Standards Compliance	FCC Part 15, Class B
Operating Temperature	-40°C to +85°C (maximum local internal ambient temperature)*
Storage Temperature	-40°C to +85°C
Color	Gray
Enclosure Material/Type	Aluminum/ NEMA-4, Lockable
Backup Battery	SLA, 12V, 13 Ah
Backhaul Data	Ethernet 10/100T
Mounting Options	Rack Mount, Utility Pole, Pad Mount, Roof Top, Unistrut Frame, other

\*-40C to +60C outdoors, direct sunlight; -40C to +70C indoors or out of direct sunlight

**Gridstream Series IV Radio Specifications**

<b>Electrical (General)</b>	
Input Voltage Range	6 - 28 VDC
Input Current (in transmitting mode)	320 mA typical (12 VDC operation)
Input Current (in receiving mode)	38 mA typical (12 VDC operation)
RF Frequency Range	902-928 MHz
Channel Spacing	100 or 300 kHz depending on the mode
RF Data Rate	9.6-115.2 kbps
<b>Receiver</b>	
Sensitivity (at 10% packet error rate)	-112 dBm (9.6 kbps) Typical / -101 dBm (115.2 kbps) Typical
Co-channel rejection	10 dB Typical
Adjacent Channel Rejection	30 dB Typical
Alternate Channel Rejection	45 dB Typical
<b>Transmitter</b>	
Output Power (at Antenna Connector)	21/25/30 dBm (user selectable)
Modulation Type	2-FSK, GFSK
Modulation Index	1
Out-of-band Spurious Emissions	<-70 dB

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