

Series 4 DA IWR Radio

Serial Connectivity for Advanced RF Mesh Networks

The Landis+Gyr Series 4 IWR Radio helps form the powerful Gridstream RF wireless mesh network used in Distribution Automation and Demand Response applications. The radio provides the basic mesh functions such as full two-way peer-to-peer communication to all devices within the network, asynchronous spread spectrum frequency hopping, and dynamic message routing to ensure network performance and reliability.

The Series 4 IWR Radio can be used as a DA access point for the mesh network but is typically used to directly interface with intelligent end devices such as reclosers, switches, and capacitor banks. It offers additional advanced functionality such as individual message prioritization, automatic network registration, and on-board memory for localized intelligence. Through the use of programmable applets, the radios can be used to provide distributed device control capabilities.

The radio has one RS-232 port and one RS-232/485 serial port – a LAN Packet Protocol Port and a Transparent Port. The LAN Packet Protocol Port is used to communicate to devices through the LAN Packet Protocol (LPPx), such as PC with configuration or diagnostic software, or an end device that has implemented LPPx. The Transparent Port is a general data port that is used to transport byte-oriented data, such as DNP 3.0, Modbus, or DF1.

The Series 4 IWR Radios are housed in an extruded aluminum enclosure and operate on 6 to 28 VDC. The radios utilize a standard SMA-type, female antenna connection and a bi-colored LED is used for radio status information.



Key Benefits

- **Interoperability** – Ability to integrate with numerous partners and supported devices using common protocols.
- **Distributed Intelligence** – Supports programming at the radio level for near real time monitoring and control functions.
- **Individual Message Prioritization** – Allows end-devices to interface with other smart grid applications and functions.
- **Dynamic Routing** – Independent and intelligent routing by each radio in the mesh network.
- **Data Security** – Encryption security and error-checking algorithms assure integrity and reliability.
- **Downloadable Code** – Firmware updates easily downloaded over the air.

Specifications

Product Part Number	26-1309
Size	4.25W x 5.77D x 1.72H inches
Weight	20 oz. (567 g)
Operating Temperature	-40C to +85C (internal ambient of enclosure)
Operating Voltage	6 – 28 VDC
Current	Input for Receive mode / 12 VDC Operation – 38 mA (typical)
	Input for Transmit mode / 12VDC Operation – 320 mA (typical)
RF Output Power	21, 25, 30 dBm (user selectable)
General Radio Items	Frequency Range – 902-928 MHz
	Channel Spacing – 100 kHz or 300 kHz (dependent on mode)
	Channels – 80 – 240 (dependent on mode)
	RF Baud Rates – 9.6 – 115.2 kbps
	LAN Packet Port – RS-232C; DB9 female 1,200 to 115.2 kbps
	Transparent Port – RS-232C/RS-485; DB9 female 300 to 38.4 kbps
Approvals	FCC Certified Part 15.247
	Industry Canada

30000 Mill Creek Ave., Suite 100
 Alpharetta, GA 30022 U.S.A
 Phone: **678.258.1500** • FAX: **678.258.1550**
www.landisgyr.com

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