



Gridstream RF Mesh Residential Endpoints

Landis+Gyr+
manage energy better

Meter Platforms

FOCUS® AL
Enhanced FOCUS AX
Enhanced FOCUS AXe
Series 5 FOCUS AXe
Enhanced Honeywell (Elster) REXU

*Secure Intelligence Meets Residential Metering for
Optimum Revenue and Greater Efficiencies*

Overview

More options. More security. Landis+Gyr's Gridstream® RF Mesh Residential Endpoints deliver. No matter the application, the RF mesh residential platform was designed to excel at advanced metering applications that optimize revenue and efficiency, while providing the data and sensing capabilities need for smarter grid management.

The endpoint leverages its integrated design and advanced functionality to work with the meter and provide a direct, meter register read. The endpoint transmits and receives data via Gridstream's robust and self-healing mesh network, utilizing the 902 to 928 MHz FHSS unlicensed frequency. Our premier single- or poly-phase digital endpoints prioritize application-based messages, expand to millions of endpoints, and offer

control through the intuitive, browser-based interface for streamlined network and data management.

In addition to kWh, kW and voltage readings, the endpoints report load profile, time-of-use periods and up to 5-minute interval data for billing, engineering and customer service applications. With the exception of the FOCUS AL platform, endpoints may be ordered with integral service disconnect and built-in, SEP certified, ZigBee® Home Area Network (HAN) interface.

The Series 5 FOCUS AXe platform accommodates a standards based stack firmware, enabling use of non-proprietary network managers and tools.

FEATURES & BENEFITS:

Why Landis+Gyr makes a difference.

- Enhanced security – tilt/vibration tamper detection, magnetic/DC detection and complete optical port lockout
- Full two-way communication – on-demand or routine
- Scheduling of metrology available data
- Remote upgradeable application – eliminates on-site firmware and hardware changes
- Integral service disconnect with load limiting (AX-SD, AXe and REXU platforms)
- Advanced data support – demand, TOU, load profile, and voltage
- Voltage monitoring and reporting

Product Specifications: Gridstream RF Mesh Residential Endpoints

	FOCUS AL	Enhanced FOCUS AX	Enhanced FOCUS AXe	Series 5 FOCUS AXe	Enhanced Honeywell (Elster) REXU
Electrical					
Voltage	120 or 240 V (depending on meter form)	9–16 V (from meter's power supply)	9–16 V (from meter's power supply)	3.8 V–4.2 V DC (from meter's power supply)	Nominal Voltage (+/-20%)
Power	Max: 2.8W (1.8W meter, 1W transceiver)	Max: 1.0W	Max: 1.0W	Max: 5.6W	Max: 3.0VA
	Typical: 2W (1.6W meter, 0.4W transceiver)	Typical: 0.6W	Typical: 0.6W	Typical: 0.5W	Typical: <1VA
RF 900 MHz					
Output Power	+26 dBm +/-1 dBm	+26 dBm +/-1 dBm	+26 dBm +/-1 dBm	+27 dBm +/-1dBm	+26 dBm +/-1 dBm
Adjacent Channel Power	+39 dBc Nominal	+39 dBc Nominal	+39 dBc Nominal	+40 dBc Nominal	+39 dBc Nominal
Transmit Frequency	902 to 928 MHz ISM unlicensed (FCC Part 15)	902 to 928 MHz ISM unlicensed (FCC Part 15)	902 to 928 MHz ISM unlicensed (FCC Part 15)	902 to 928 MHz ISM unlicensed (FCC Part 15)	902 to 928 MHz ISM unlicensed (FCC Part 15)
Receive Sensitivity	-108 dBm minimum	-108 dBm nominal	-112 dBm (typical, 9.6 kbps)	-114 dBm (typical, 9.6 kbps)	-110 dBm (typical, 9.6 kbps)
			-110 dBm (typical, 19.2 kbps)	-110 dBm (typical, 115.2 kbps)	-102 dBm (typical, 19.2 kbps)
				-99 dBm (typical, 300 kbps)	
RF ZigBee®					
Output Power	N/A	+20 dBm +/-2 dBm	+20 dBm +/-2 dBm	+20 dBm +/-2 dBm	+20 dBm +/-2 dBm
Adjacent Channel Power		40 dBc Nominal	40 dBc Nominal	40 dBc Nominal	40 dBc Nominal
Transmit Frequency		2405–2480 MHz	2405–2480 MHz	2405–2475 MHz	2405–2480 MHz
Communications Protocol		ZigBee Protocol	ZigBee Protocol	ZigBee Protocol	ZigBee Protocol
Receive Sensitivity		-104 dBm Minimum	-104 dBm Minimum	-104 dBm Typical	-104 dBm Minimum
Standards Compliance					
FCC Title 47 CFR Part 15	Radiated and Conducted Emissions (including intentional radiators)				
IEC 61000 4-2, 3, 4, 5, 11, 12	Electromagnetic Compatibility				
ANSI C12.19	Compatible with Utility Industry End				
ANSI C12.20-2002	National Standard for Electricity Meters – 0.2 and 0.5 accuracy class				
ANSI C12.1-2008	Code of Electricity Metering				
ANSI C37.90.1-2002	Standard Surge Withstand Capability (SWC) Tests				

COMPATIBILITY

Class	1S	2S	2SE	2K	3S	4S	9S(8)	12S(25)	12SE(25)	16S	16SE	36 S(6)	45S(5)
100	AL AX* AXe												
200	AXe* REXU*	AL AX* AXe* REXU*						AL AX* REXU*		AX			
320		REXU	AL AX AXe					AXe* REXU	AX		AX		
480				AL AX AXe									
10/20					AL AX AXe	AL AX AXe							
20					REXU	REXU	AX					AX	AX

*Disconnect switch available