

# 200-PEU

900MHz LONG-RANGE SERIAL/ETHERNET TRANSCEIVER



## OVERVIEW

The 200-PEU from Intuicom is a long-range, low-power, and high-speed solution that features both IP and serial connectivity, supporting current and future connectivity needs. The 200-PEU utilizes the 900 MHz license-free spectrum to deliver reliable connectivity in harsh environments over long distances.

## FUNCTIONALITY & FLEXIBILITY

Offering simultaneous Ethernet and Serial connectivity, the 200-PEU offers a single solution to a broad range of applications. The hardened enclosure, industrial temperature specifications, and AES encryption provides the integrity and security demanded by today's wireless automation.

Empowered with an ultra-sensitive and highly selective RF receiver, the 200-PEU provides real-time reliable data transport. With top performance and security that includes 128-bit or 256-bit AES encryption, the 200-PEU provides superior "real world" throughput and performance.

## FREEWAVE COMPATIBILITY

Intuicom's 200-PEU offers superior performance while also providing over-the-air compatibility with the FreeWave FGR2-PE family of products. Leveraging interfaces, operation and the familiarity with the FreeWave FGR2-PE product, the 200-PEU is fully compatible with FreeWave's Tool Suite software for intuitive programming, configuration and monitoring.

## KEY FEATURES

- **Performance:** "Best-in-Class" 900 MHz
- **Fully compatible with:** FreeWave's FGR2-PE-U, FGR2-PE, FGR2-P
- **Supported with:** FreeWave's Tool Suite Software
- **UL Listed:** Class 1, Div. 2
- **Industry Standards:** Dual Ethernet 10/100 and DB-9 Serial Port interfaces
- **Long-Range:** Up to 60 Miles (LOS)
- **Secure:** FHSS, 128-bit and 256-bit AES encryption
- **Error Free Communications:** 32-bit CRC with automatic retransmissions
- **Low Power Consumption**

## GENERAL SPECIFICATIONS

Enclosure Size	Cast aluminum 165mm x 107mm x 53mm
Weight	680 g/ 23.8 oz
Operating Temp.	-40°C to +75°C
Humidity	0 to 95%, non-condensing
RoHS	Directive 2011/65/EU
Ethernet	RJ45 (two)
Serial	DB-9 (two)
RF Connector	TNC (F)

## RECEIVER

Sensitivity	-108 dBm@115.2 kbps BER 10 <sup>-4</sup> -103 dBm@153.6 kbps BER 10 <sup>-4</sup>
IF Selectivity	40 dB at fc +/- 230 kHz
RF Selectivity	50 dB at 896 MHz, 935 MHz

## DATA TRANSMISSION

Type	Frequency Hopping Spread Spectrum
Modulation	2 Level GFSK
Data Throughput	115.2 kbps and 153.6 kbps, user selectable
Error Detection	32-bit CRC retransmit on error
Hopping Patterns	15 per band, user selectable
Hopping Zones	16 zones, user-selectable
Hopping Channels	50 to 112, user-selectable
Security	128-bit and 256-bit AES encryption

## TRANSMITTER

Frequency Range	902-928 MHz
Output Power	Up to 1 Watt, user selectable
Range	+60 Miles (LOS)
Channel Spacing	230.4 kHz
RF Data Rates	115.2 kbps standard speed 153.6 kbps high speed

## POWER REQUIREMENTS

Operating Voltage	+ 10 to + 36 VDC		
Consumption	Voltage	Transmit	Idle
	12 VDC	550 mA	155 mA
	24 VDC	252 mA	84 mA
	36 VDC	191 mA	56 mA

## INTERFACES

Data Interfaces	2 Ethernet 10/100 Mbps, RJ45 2 Serial: RS-232, DB-9
Diagnostic Interfaces	Ethernet and Serial (RS-232)
Antenna Connector	TNC, female



Oil and Gas



Automation



Agriculture



Survey and  
Construction



Environmental and  
Structural Monitoring



Industrial



Security

Note: Specifications subject to change without notice.