

Miniature Mesh 1W 900 MHz Wireless Modem

For the ultimate solution for cost and size sensitive applications, consider the P900 with its extremely small footprint and design flexibility. The P900 offers a low cost solution with the reliability, features, and performance of our larger modems!

Very Low Cost

Mesh

1 Watt

Extended Temperature

Dual Serial Ports

Excellent Sensitivity

Weights only 5 grams!



1.3" X 1.05" X 0.13"

The P900 features robust, high speed, low latency, secure data communications. The P900 has full serial and diagnostics data capabilities for legacy devices! The P900 offers excellent noise figure, superior interference rejection, agile frequency synthesis, digital modulation, and matched filter detection.

Features of the P900

- Very Low Cost
- Supports up to 276kbps!
- Quad Filter Stage provides Extreme Noise & Interference Rejection
- True Self Healing Mesh, Auto Routing, Store & Forward
- Industrial Temperature (-55°C to +85°C)
- Maximum allowable transit power (Adjustable, up to 1W)
- Low Power consumption in Sleep and Sniff modes
- 32 bits of CRC, selectable Forward Error Correction with retransmit
- Separate diagnostics port—transparent remote diagnosis and online network control
- Extremely Small Footprint (26.5 x 33 x 3.5mm | 1.3 x 1.05 x 0.15")

Enclosed Option



P900

Specifications

Frequency	902-928 MHz	Power Consumption (3.3V +/- 0.3V @1W)	Sleep < 1mA Idle 3.5mA Rx: 45mA to 98mA Tx : 1000mA to 1400mA
Spreading Method	Frequency Hopping		
Forward Error Detection	Hamming BCH Golay Reed-Solomon		Connectors: OEM Antenna Data Enclosed Antenna Data
Error Detection	32 bits of CRC, ARQ	RP-SMA Female Bulkhead DB-9F	
Encryption	Optional (see –AES option)		
Range	40 miles (60 km)	Environmental	-55°C - +85°C
Sensitivity (@10 ⁻⁴)	-114 dBm @ 57.6 kbps -112 dBm @ 115.2 kbps -109 dBm @ 172.8 kbps -107 dBm @ 230.4 kbps	Weight	OEM Enclosed Approx. 5 grams Approx. 120 grams
		Dimensions	OEM Enclosed Approx. 1.05" x 1.3" x .13" (26.5mm x 33mm x 3.5mm) Approx. 1.80" x 2.60" x 1.0" (46mm x 66mm x 25mm)
		Approvals	FCC Part 15.247 IC RSS210 Anatel RoHS Compliant
Output Power	100mW - 1W (20-30dBm)	Order Options	
Serial Interface	3.3V CMOS RS232/485 (Selectable)	-AES	128-bit AES Encryption (requires permit for export outside of Canada and USA.)
Serial Baud Rate	Up to 230.4 kbps asynchronous	-AES256	256-bit AES Encryption (requires permit for export outside of Canada and USA.)
Link Rate	57.6 to 276 kbps	-ENC	Enclosed Model
Operating Modes	Mesh, Auto Routing, Store and Forward, Self Healing, Packet Routing Modes		
Signals Interface	RxD1, Tx D1, RTS, CTS DCD, DSR, DTR, RxD2, Tx D2, RSSI LEDs, Tx/Rx LEDs, Reset, Config, Wake-up, RSmode, 4 Digital Inputs/Outputs, 1 Analog Input, 1 Analog Output		
Blocking	+/- 1 MHz > 55 dBc +/- 2.5 MHz > 60 dBc +/- 5 MHz > 65 dBc > 930 MHz > 70 dBc < 890 MHz > 70 dBc		
Remote Diagnostics	Battery Voltage, Temperature, RSSI, Packet Statistics		
Core Voltage	OEM: 3.3VDC Nominal (+/- 0.3V) Enclosed: 9-30 VDC		

Contact Information

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