

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 features robust, high speed, low latency, secure data communications. The P900 offers excellent noise figure, superior interference rejection, agile frequency synthesis, digital modulation, and matched filter detection. The P900 offers a low cost solution with the reliability, features, and performance of our larger modems!

Weights only 5 grams!



1.3" X 1.05" X 0.13"

Very Low Cost

PTP | PMP | Relay | MESH

30 dBm (1W)

Extended Temperature

Dual Serial Ports

Excellent Sensitivity

Features

- 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")



Frequency	902-928 MHz
Spreading Method	Frequency Hopping
Forward Error Detection	Hamming BCH Golay Reed-Solomon
Error Detection	32 bits of CRC, ARQ
Encryption	Optional (see -AES option)
Range	40 miles (60 km)
Sensitivity (@10⁻⁴)	-114 dBm @ 57.6 kbps -112 dBm @ 115.2 kbps -109 dBm @ 172.8 kbps -107 dBm @ 230.4 kbps
Output Power	100mW - 1W (20-30dBm)
Serial Interface	3.3V CMOS RS232/485 (Selectable)
Serial Baud Rate	Up to 230.4 kbps asynchronous
Link Rate	57.6 to 276 kbps
Operating Modes	Mesh, Auto Routing, Store and Forward, Self Healing, Packet Routing Modes
Signals Interface	RxD1, TxD1, RTS, CTS DCD, DSR, DTR, RxD2, TxD2, 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 SWP: 7-30 VDC

Power Consumption (3.3V +/- 0.3V @1W)	Sleep < 1mA Idle 3.5mA Rx: 45mA to 98mA Tx: 100mA to 1400mA
Connectors:	OEM Antenna UFL Data 80 Pin SMT Enclosed Antenna RP-SMA Female Bulkhead Data DB-9F SWP Antenna MMCX Power, Data 10-Pin (GHR-10V-S)
Environmental	-55°C to +85°C
Weight	OEM ~ 5 grams Enclosed ~ 120 grams SWP ~ 37 grams
Dimensions	OEM ~ 26.5 x 33 x 3.5 mm Enclosed ~ 46 x 66 x 25 mm SWP ~ 36 x 48 x 15 mm
Approvals	FCC Part 15.247 IC RSS210 Anatel RoHS Compliant
Order Options	
-AES	128-bit AES Encryption (requires permit for export outside of Canada and USA.)
-AES256	256-bit AES Encryption (requires permit for export outside of Canada and USA.)
-ENC	Enclosed Model
-SWP	SWP Series