

Industry leaders for extremely robust and reliable license-free data transfer, the Spectra 910 and 2400 provide up to 115kbaud serial communications over distances up to 60 miles or more. Flexible configuration options allow for various network topologies..



Applications:

- SCADA
- Telemetry
- Vehicle Data/Tracking
- Utilities/Metering
- Display Signs
- Traffic Control
- Many More

Microhard Systems' proprietary radio technology excels in the most demanding RF and physical environments

The Spectra 910/2400 is easily configured through a convenient AT Command serial interface. Users have the ability to deploy a wide range of network styles including repeaters and multipoint. The master site can diagnose the performance and modify the operating parameters of any remote slave unit.

Features of the Spectra 910/Spectra 2400

- Extremely robust long range frequency-hopping data radio
- Very high interference and noise rejection allowing reliable communication in high power cellular and paging environments
- Transparent communications and low latency adding little overhead
- Industrial temperature specification
- Supports point-to-point, point-to-multipoint, repeater, TDMA, and remote diagnostics
- Supports TDMA mode through units configured as a repeater
- 1W transmitted power
- Repeater units can also act as a slave with no restriction on the number of repeaters in the system
- Internal CRC and user-selectable forward error correction ensures reliable transmission

Specifications	Spectra 910	Spectra 2400
Frequency	902 - 928 MHz	2.4000 - 2.4835 GHz
Spreading Code	Frequency Hopping	Frequency Hopping
Output Power	1W user configurable	1W user configurable
Sensitivity	-108 dBm	-108 dBm
Data Rate	2400 to 115.2kbps uncompressed	2400 to 115.2kbps uncompressed
Range	60 miles line of sight with gain antenna	60 miles line of sight with gain antenna
Rejection	70dB out of band; 60dB in band; 50dB adjacent channel	70dB out of band; 60dB in band; 50dB adjacent channel
Operating Modes	Point-to-Point, Point-to-Multipoint, Repeater, TDMA, Multimaster	Point-to-Point, Point-to-Multipoint, Repeater, TDMA, Multimaster
Hopping Patterns	64 user selectable	49 user selectable
Diagnostics	Remote control, remote statistics, remote diagnostics	Remote control, remote statistics, remote diagnostics
Error Detection	32 bits of CRC with optional FEC	32 bits of CRC with optional FEC
Data Interface	Async RS-232, opt. RS-422/RS-485	Async RS-232, opt. RS-422/RS-485
RS-232 Signals	Gnd, TxD, RxD, CTS, RTS, DTR, DSR, DCD	Gnd, TxD, RxD, CTS, RTS, DTR, DSR, DCD
User Interface	AT Command Interface	AT Command Interface
Power Supply	10 to 30 VDC	10 to 30 VDC
Power Consumption	450mA max at 12V and 1W Tx Power; 250mA typ. at 12V and 1W Tx Power	450mA max at 12V and 1W Tx Power; 250mA typ. at 12V and 1W Tx Power
Operating Environment	-40 to +75 C; 5-95% non-condensing	-40 to +75 C; 5-95% non-condensing
Enclosure	Extruded aluminum, powder coat	Extruded aluminum, powder coat
Weight	Approx. 420 grams (0.9 lbs)	Approx. 420 grams (0.9 lbs)
Antenna Connector	Reverse gender TNC	Reverse gender TNC
LED Indicators	Power, TX, RX, RSSI	Power, TX, RX, RSSI
Approvals	FCC Part 15.247, IC RSS210 opt. CSA C1D2	FCC Part 15.247, IC RSS210 opt. CSA C1D2, CE

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