

Spectra 425



UHF Frequency Hopping Modem

The Spectra 425 is a 400 to 450 MHz UHF Frequency Hopping Wireless Modem, which can be optimized for long distance communications of over 60 miles (100km). Spectra 425 radios offer the fastest communication over the longest distances.

Applications

- Unmanned Aerial/Ground Vehicles
- Drones
- Robotics
- Wireless Video, Telemetry
- DGPS
- Research & Development



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

The Spectra 425 features robust, high speed, low latency, secure data communications. It has a full serial port and a separate diagnostics port for real-time diagnostics without interrupting data communications. Excellent noise figure, superior interference rejection, agile frequency synthesis, digital modulation, and matched filter detection, are among the many advantages to using the Spectra 425.

Features of the Spectra 425

- Transparent, low latency link, providing up to 230 kbps continuous throughput
- Customizable to meet different emission bandwidths
- Easy migration from ISM band modem (MHX920A) with footprint compatibility.
- Wide temperature specification
- Supports Point-to-Point, Point-to-Multipoint, Peer-to-Peer, Store and Forward Repeater, TDMA, Multimaster
- Adjustable transmit power (100mW - 1W)
- Low power consumption in Sleep Mode and High Voltage Option
- 32 bits of CRC, selectable Forward Error Correction with retransmission
- Separate diagnostics port - transparent remote diagnostics and online network control



Restricted Sale to Military, Government and Export to Qualifying Customers Outside Canada and USA.

Spectra 425

Specifications



Frequency	400 - 450 MHz	Antenna Connector	RP-TNC Female Bulkhead
Channel Bandwidth	Depends on link rate	Environmental	-40°C - +85°C 5-95% humidity, noncondensing
Synthesizer Step	25 Hertz		
Selectable Channels	16,000 at 6.25kHz	Weight	420g (.93lbs)
Error Detection	32 bits of CRC, ARQ		
Encryption	Optional (Canada & USA only. NOT AVAILABLE for export, see -AES option)	Dimensions	Approx. 4.375" x 3.75" x 1.75" (112mm x 95mm x 45mm)
Range	60+ miles (100+ km) (dependant on link rate and line of sight)		
Sensitivity	-107dBm @ 115.2kbps link rate -115dBm @ 19.2kbps link rate	Sale Restriction	Restricted Sale to Military, Government and Export. Export Means Qualifying Customers Outside Canada and USA.
Output Power	100mW - 1W (20-30dBm)		
Serial Interface	RS-232/RS485/RS422		
Serial Baud Rate	300bps to 230.4kbps		
Link Rate	19.2 kbps - 230.4kbps		
Operating Modes	Point-to-Point, Point-to-Multipoint, Store & Forward Repeater, Peer-to-Peer, TDMA, Multimaster		
Signals Interface	RxD1, TxD1, RTS, CTS, DCD, DSR, DTR, RxD2, TxD2, RSSI LEDs, Tx/Rx LEDs, Reset, Config, Wake-up, RSmode		
Diagnostics	Battery Voltage, Temperature, RSSI, and remote diagnostics		
Rejection	Excellent strong signal interference & rejection characteristics		
Input Voltage	9-30VDC		

Order Options

-AES	128-AES Encryption (Canada & USA only. NOT AVAILABLE for export)
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Contact Information

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