

2.4 GHz Spread Spectrum Wireless Modem

The Spectra 2420 is a 2.4 GHz Frequency Hopping Wireless Modem, operating in the 2.4000 - 2.4835 GHz ISM band. The Spectra 2420 offers robust, low latency wireless, which can be optimized for long distance communications of over 30 miles (50km). The fully supported serial ports offer RS232/RS485/RS422 interfaces for any type of serial based device!

Up to 230 kbps

100mW to 1W

Enhanced Range

Extended Temperature

RSSI Indicators

RS232/485/422



Features

- **Transparent, low latency link, providing up to 230 kbps continuous throughput to support protocols such as MODBUS**
- **RS232/485/422 serial port communicates with virtually all types of PLCs, RTUs, and other serial devices**
- **Extended temperature specification (-40 to +85°C)**
- **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**
- **32 bits of CRC, selectable Forward Error Correction with retransmission**
- **Separate diagnostics port - transparent remote diagnostics and online network control**
- **RSSI LED's provide fast antenna alignment support**



Spectra 2420

Specifications

Frequency	2.4000 - 2.4835 GHz	Connectors	Antenna Data	RP-TNC Female Bulkhead Female DE9 Locking screw connector RJ-45
Spread Method	Frequency Hopping			
Band Segments	Selectable via Freq. Restriction	Environmental	Diagnostic	-40°F to 185°F (-40°C to +85°C) 5-95% humidity, noncondensing
Error Detection	32 bits of CRC, ARQ			
Encryption	Optional (see -AES option)	Weight		Approx. 0.92lbs (420g)
Range	30+ miles (50+ km) (dependant on link rate and line of sight)			
Sensitivity	-108dBm @ 172kbps link rate -116dBm @ 19.2kbps link rate (see -SL option)	Dimensions		Approx. 4.40" x 3.85" x 1.70" (111mm x 98mm x 43mm)
Output Power	100mW - 1W (20-30dBm)			
System Gain	142dB w/Rubber Ducky antennas	Enclosure		Extruded Aluminum
Serial Interface	RS-232/RS485/RS422			
Serial Baud Rate	300bps to 230.4kbps	Mount		Panel Mount
Link Rate	19.2 kbps - 230.4kbps (See Order Options)			
Operating Modes	Point-to-Point, Point-to-Multipoint, Store & Forward Repeater, Peer-to-Peer, TDMA, Multimaster	Approvals		FCC Part 15.247 IC RSS210
Signals Interface	RxD1, TxD1, RTS, CTS, DCD, DSR, DTR, Rx/D2, Tx/D2, RSSI LEDs, Tx/Rx LEDs, Reset, Config, Wake-up, RSmode			
Diagnostics	Battery Voltage, Temperature, RSSI, and remote diagnostics	Order Options		
Rejection	Excellent strong signal interference & rejection characteristics	-DIN	DIN rail mount kit	
Input Voltage	9-30VDC	-FT	Standard FAST Mode 115kbps - 230.4kbps	
		-SL	Extended sensitivity / SLOW Mode 19.2kbps - 230.4kbps	
		-C1D2	Class 1 Div 2 (for use in hazardous environments)	
		-AES	128-AES Encryption (Requires export permit outside Canada & USA)	

Contact Information

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