

PC/104 Radio Modems

Wireless Communications


Xtreme/104 Radio Modems, 900 MHz and 2.4 GHz

Features

- 900 MHz or 2.4 GHz , incorporating Cirronet's WIT910, WIT2410 or WIT2450 frequency hopping transceiver modules
- Data speeds between 86.4 Kbps (900 MHz) and 230.4 Kbps (2.4 GHz)
- Radio modem operating ranges of up to 20 miles (900 MHz model)
- Low power requirement of 5V DC enables powering from the PC/104 bus
- Point-to-point and point-to-multipoint network deployments
- Store-and-forward repeating forwards data for another module
- I/O address ranges from 0x000 to 0x7F8 (jumper selectable)
- Operating temperature range of 0°C to 70°C
- RTS/CTS hardware flow control
- Jumper selectable IRQ interrupts 3, 4, 6, 7, 9, 10, 11, 12, 14, 15
- Requires no additional drivers, appears as COM port to your operating system



Specifications

Frequency Range	900 MHz: 902 to 927 MHz 2.4 GHz: 2400 to 2483 MHz
Operating Range	Indoor: 900 MHz- 1000'+, 2.4 GHz 450 to 900' Outdoor: 900 MHz >20 miles with omni-directional antenna 2.4 GHz 3000' with dipole antenna, >5 miles with gain antenna
Bandwidth	900 MHz: 460 KHz 2.4 GHz: 864 KHz 2.4 GHz roaming: 750 KHz
I/O Data Rate	900 MHz: up to 86.4 Kbps (Channel data rate 172.8 Kbps) 2.4 GHz: up to 230.4 Kbps (Channel data rate 460.8 Kbps)
Error Detection	24-bit CRC error checking and ARR (automatic repeat-request) for auto-retransmission of bad packets
Receiver Sensitivity	900 MHz: -103 dBm for 10 ⁻⁵ BER 2.4 GHz: -93 dBm for 10 ⁻⁵ BER
Interrupts	Jumper selectable IRQs 3, 4, 6, 7, 9, 10, 11, 12, 14, 15
I/O Addresses	Jumper selectable, from 0x000 to 0x7F8 (8/16 byte increments) Radio modem Configuration Mode accessible through I/O space
UART Type	XR16L580 UART with 16 byte transmit and receive FIFO buffers RTS/CTS hardware flow control
Dimensions	Width: 9.1 cm/3.6" Length: 9.7 cm/3.8" Height: 1.1 cm/0.44"
Power Requirements	+5 V DC, powered via PC/104 bus, 630 mA Max.
Environmental	Operating Temperature (standard): 0° C to 70° C (32° F to 158° F) Storage Temperature: -40° C to 150° C (-40° F to 302° F) Humidity: 95% non-condensing
Bus	ISA bus compatible, 16 bit PC/104 connector
Software Compatibility	DOS, Linux, SCO Unix, Solaris, QNX, VxWorks, Windows 95/98/Me/CE/CE.Net/NT Windows 2000/XP 
System Requirements	One available PC/104 module stack connector
Regulatory Approvals	900 MHz: FCC FCC Part 15.247, license free 2.4 GHz: FCC FCC Part 15.247 and ETS 300.328 rules, license free

Enjoy the freedom of up to 20 miles of reliable wireless communications from your PC/104 application.

Connect Tech's Xtreme/104 Radio Modems feature the robust Frequency Hopping Spread Spectrum (FHSS) technology of Cirronet's WIT transceiver modules. This technology uses a 24-bit cyclic redundancy check (CRC) and automatic repeat request (ARR) mechanism to ensure seamless, error-free delivery. Communications are immune to electrical noise and multipath fading, making them well suited to industrial and factory settings.

Offering low power consumption, these boards require only 5V DC, powered via the PC/104 bus.

All the radio modems are FCC certified. 2.4 GHz modules are also CE marked.

Xtreme/104 Radio Modems are covered by a 1-year warranty and no-charge technical support.



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