

CMCP-OS2400-485 Industrial RS-485 Radio

Features

- Low Cost
- Class I, Div II
- Secure Communication
- Worldwide Unlicensed 2.4 GHz
- High Power
- Long Range with Extensive Antenna Selection
- 250 Kbps RF Data Rate
- Accommodates ASCII, DF1, Modbus RTU, Modbus ASCII and DNP protocols
- Configurable to Master/Repeater/Remote
- Secure 128-bit proprietary encryption and frequency hopping spread spectrum (FHSS) physical layer



Overview

The CMCP-OS2400-485 Industrial Radio uses advanced digital signal processing (DSP) to provide the ultimate in performance and reliability. The versatility of the DSP core and small, DIN rail-mountable form factor make the CMCP-OS2400-485 ideally suited for your industrial and utility wireless applications. The radio operates in the license-free 2.4 GHz ISM band and can be used throughout the world with no site licenses or monthly leased line/wireless service fees.

Designed to operate in high-interference environments, the radio combines advanced frequency hopping and digital signal processing technology with outstanding receiver sensitivity and antenna diversity resulting in exceptional noise and interference rejection.

Peer-to-peer addressing and store-and-forward repeaters allow point-to-point, broadcast, and point-multipoint nodes. The RF output levels are user-configurable and 32 data channels allow multiple networks to operate in the same area.

With integrated support for ASCII, DF1, Modbus RTU, Modbus ASCII and DNP, the CMCP-OS2400-485 directly supports your industrial application's RS-232, RS-422 or RS-485 data interfaces. A transparent communications mode is also available as is custom protocol support.

Free Windows®-based software for setup and remote diagnostics is included. The graphical user interface helps make the radio easy to install and operate. The radio allows network-wide radio configuration at one time, saving significant set-up time. Troubleshooting is simplified with remote diagnostics and an extensive context-sensitive online help.

Ordering Information:

Part No.	-XXX	Description
CMCP-	-ETHERNET	802.3 Ethernet Industrial Radio
	-485	RS-232/422/485 MODBUS RTU and ASCII Industrial Radio



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Condition Monitoring Custom Products

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CMCP-OS2400-ETHERNET

Industrial Ethernet Radio

Specifications

General	
Size	4.50" W x 4.12" H x 2.32" D
Weight	8 ounces
Operating Temperature	-40°C to +75°C; -40°F to +167°F
Humidity	To 90% RH, non-condensing
Antenna	Two SMA connectors, automatic antenna diversity
Range	Up to 16 miles with high-gain antennas (can be extended with repeaters)
Software	Windows®-based user setup, diagnostic software
Data Interface	
Serial Data Interface	RS-485, RS-422 and RS-232
Communication	Asynchronous half-duplex/full-duplex
I/O Data Rate	1200 bps to 115.2 Kbps full-duplex
Network Topology	Point-to-point, broadcast, point-to-multipoint, store and forward repeater, peer-to-peer
Channels	32 user-selectable
Error Detection/Correction	32 bit CRC with automatic re-send query (ARQ)
Latency	<20 ms
Encryption	128 bit proprietary encryption
Radio Characteristics	
Frequency	2.4-2.4835 GHz for USA; varies for other countries. Frequency hopping spread spectrum (FHSS)
Output Power	1 mW-250 mW, programmable; Max EIRP up to 64 W effective radiated power
Channel Data Rate	250 Kbps
Receiver Sensitivity	-100 dBm @ 5x10 ⁻⁴ BER typical
Power	
Supply Voltage	6-24 VDC
Average Power	2.5 W master, 1.25 W remote
Certification	
FCC	FCC Part 15.247
Industry Canada	RSS 210
Europe	ETSI 300.328, ETSI 300.826, EN60950
UL	UL 1604 Class I Division 2, Groups A, B, C and D
CSA	C22.2 No. 213-M1987 , 213-1987