SKF

Condition Monitoring Custom Products

CMCP-OS2400-ETHERNET
Industrial Ethernet 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 all 802.3 compliant protocols**
- **Configurable to Master/Repeater/Remote**
- **Secure 128-bit proprietary encryption and frequency hopping spread spectrum (FHSS) physical layer**

Overview
The CMCP-OS2400-ETHERNET 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-ETHERNET ideally suited for 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 and unfriendly 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. The radio operates at extreme temperatures and withstands industrial vibrations and shocks.

The CMCP-OS2400-ETHERNET automatically determines where an Ethernet device is located and only routes messages to the appropriate remote wireless port. Each Ethernet radio can be programmed to operate as a store-and-forward repeater to extend network range and conserve bandwidth over the RF channel.

The CMCP-OS2400-ETHERNET is compatible with all protocols that run over standard IEEE 802.3 Ethernet, including TCP/IP, IP, UDP, NetBEUI, HTTP, BootP, Ethernet/IP, IPX and Modbus/TCP. The radio will simultaneously support multiple 802.3 compliant protocols. Free Windows®-based software for setup and remote diagnostics is included. The graphical user interface helps make installation and operate. 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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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 RP-SMA connectors, automatic antenna diversity
Range	Up to 25 km/16 miles with high-gain antennas (can be extended with repeaters)
Software	Windows®-based user setup, diagnostic software
Data Interface	
Ports	10/100 BaseT
Connector	RJ-45
Compliance	IEEE 802.3, 802.3u, 802.3x
Network Topology	Peer-to-peer
Channels	32 user-selectable
Error Detection/Correction	32 bit CRC with automatic re-send query (ARQ)
Encryption	128 bit proprietary encryption
Radio Characteristics	
Frequency	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	10-24 VDC
Average Power	<6 Watts (peak)
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

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