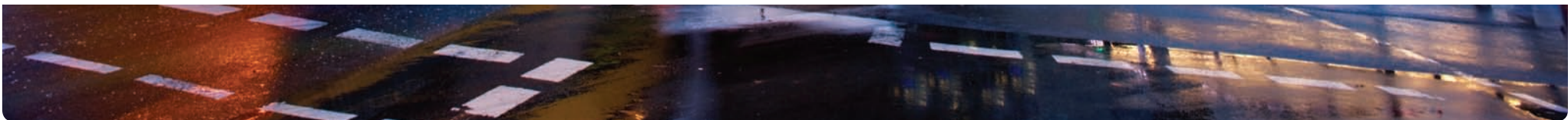# COMMPAK IP

900 MHz Serial/Ethernet Bridge
Up to 1.1 Mbps

Experience the ENCOM difference!

encom
WIRELESS

Bridging the gap between serial and ethernet

Reliable and robust, ENCOM's COMMPAK IP bridge straddles serial and Ethernet networks simultaneously, making it an excellent choice for a host of applications in the traffic, electrical utilities, water/waste water management and oil and gas industries that require IP-based connectivity.

The COMMPAK IP can act as a master access point, remote dual gateway or repeater in any configuration with two serial ports and one Ethernet port operating simultaneously. The COMMPAK IP can also operate in point-to-point, point-to-multipoint and multipoint-to-multipoint configurations up to 60 miles (with clear line of sight). Each serial port has an available 230.4 kbps sustained data throughput for a total constant wireless link of up to 1.1 Mbps.

The COMMPAK IP is powered by ENCOM's field-proven and time-tested 900 MHz frequency-hopping, spread-spectrum radios which provide failsafe connectivity in the noisiest, harshest, most demanding RF and physical environments. It also gives mobile employees roaming access to their IP networks; thus extending and enhancing accessibility. The quality of service (QoS) feature optimizes the radio link and maximizes the available 1.1 Mbps.

This intelligent product comes standard with built-in setup and diagnostics capabilities. It's reliable performance and variable output power capability of one watt keeps maintenance at a minimum. Each COMMPAK IP is equipped with the most advanced and comprehensive suite of security features on the market, including WPA, AES, WEP, MAC and radius server authentication.

Each unit is built and supported by over 25 years of industry experience, includes a five year warranty and comes with powerful, user-friendly ControlPAK software. This program includes highly visual, straightforward tools for remote maintenance and configuration while precise diagnostics minimize issues and downtime. Also included is a spectrum analyzer for determining accurate noise levels and optimal operating frequencies.

COMMPAK IP Key Features:

- License free, frequency-hopping, spread-spectrum technology (900 MHz)
- Each radio can perform as master, remote or repeater
- Operational in point-to-point, point-to-multipoint and multipoint-to-multipoint configurations
- Available bandwidth of 1.1 Mbps
- Sustained data throughput of 230.4 kbps on each serial port
- Easy migration from serial to ethernet systems
- One watt maximum variable output power
- Includes ControlPAK software
- Roaming access to IP networks
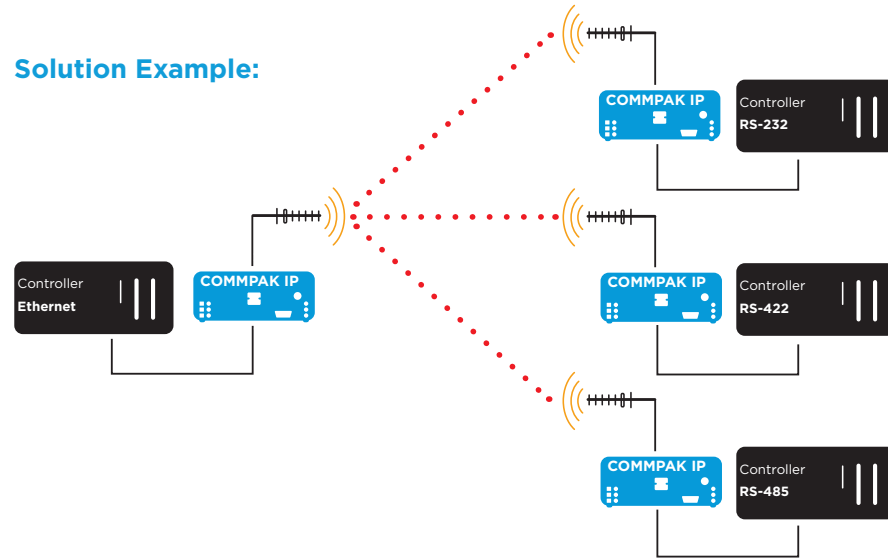- 5 year warranty

Key Benefits:

- Over 25 years of broad industry experience
- Proactive and adaptable solutions for a diverse range of applications
- Unmatched software management tools
- Scaleable and future proof technology platforms
- Personalized customer support programs and corporate culture
- Unequalled warranty and support programs
- Defined and measurable ROI

COMMPAK IP

900 MHz

Solution Example:

**All interfaces are interchangeable within network and can operate as master, repeater or remote

Solution Portfolio:

Intelligent Transportation Systems
- Wireless Controller Interconnect
- Vehicle Detection Systems
- Variable Message Signs

Water/Waste Water Management
- Pump/Lift Stations
- Reservoir Monitoring
- Remote Valve Controls

Electrical Utilities
- Automated Meter Reading (AMR)
- Automatic Circuit Reclosures (ACR)
- Smart Grid Support
- Fault Monitoring

Industrial SCADA Networks
- Pipelines
- Oil and Gas
- Mining

Private Networks
- LAN & WAN Extensions
- Business Continuity Planning
- Disaster Recovery Planning
- Mobile Workforce
- Hotspot Enablement

encom WIRELESS

© ENCOM Wireless

RADIO SPECIFICATIONS

Technology	Frequency-hopping spread-spectrum (FHSS) technology/DTS
Frequency Range	902-928 MHz
Link Rate	1.1 Mbps, 345 Kbps
Hopping Patterns	Automatically generated
Hopping Channels	50 per pattern
Error Detection	32-bit CRC, ARQ
Data Encryption	128-bit WEP, 128-bit WPA, 256-bit AES
Range	60+ miles (clear LOS)
Output Power	100 mW to 1 W (20-30 dBm)
System Gain	156 dB (Yagi antenna)
Serial Port	**RS-232:** RxD TxD RTS, CTS, DCD, DSR, DTR **RS-422:** Tx+, Tx-, Rx+, Rx- **RS-485:** 4 wire/2 wire **Baud rate:** 300 bps to 230.4 Kbps
Dimensions	5.00"W x 2.00"H x 6.00"D

GENERAL SPECIFICATIONS

Ethernet	10/100 Base T, IEEE 802.3
OS Requirements	Microsoft Windows 98 SE, ME, 2000, XP
Security	Administrator and user-group protected; password authentication
Network Protocols	TCP, UDP, ARP, IMCP, DCHP, HTTP, SNMP, FTP Upgrade
Management	Local serial port console, Telnet, WebUI, SNMP, FTP Upgrade, ControlPAK GUI
Diagnostics	VSWR, battery voltage, temperature, RSSI, remote Diagnostics
Operating Modes	Point-to-point, point-to-multipoint, store and forward repeater, peer-to-peer
Nosie Rejection	Excellent strong signal interference and rejection Characteristics
Power Supply	9 VDC to 30 VDC
Current (12 VDC)	**Transmit:** 600 mA **Receive:** 95 mA
Connectors	**Antenna:** Reverse polarity TNC **Serial:** DB9F/Screwdown terminal connector **Ethernet:** Data RJ-45 **Power:** Locking terminal connector
Environment	-40°F to 176F (-40°C to 80°C), 5-95% humidity, noncondensing
Weight	Approximately 420 grams (0.92 lbs)
Enclosure	Extruded aluminum
WARRANTY	Five-year warranty

Please visit **www.encomwireless.com** for customer cases, testimonials and additional information on all ENCOM products and services.