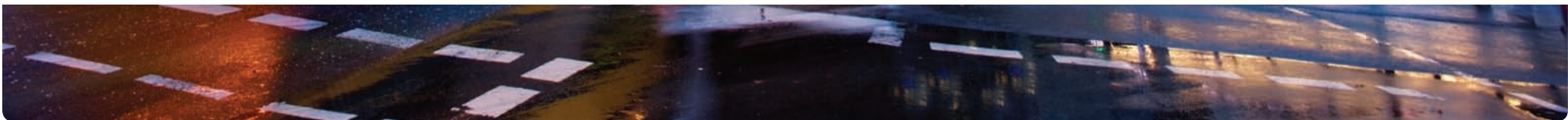




## COMMPAK IP

900 MHz Serial/Ethernet Bridge  
Up to 1.1 Mbps

Experience the ENCOM difference!



## 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:

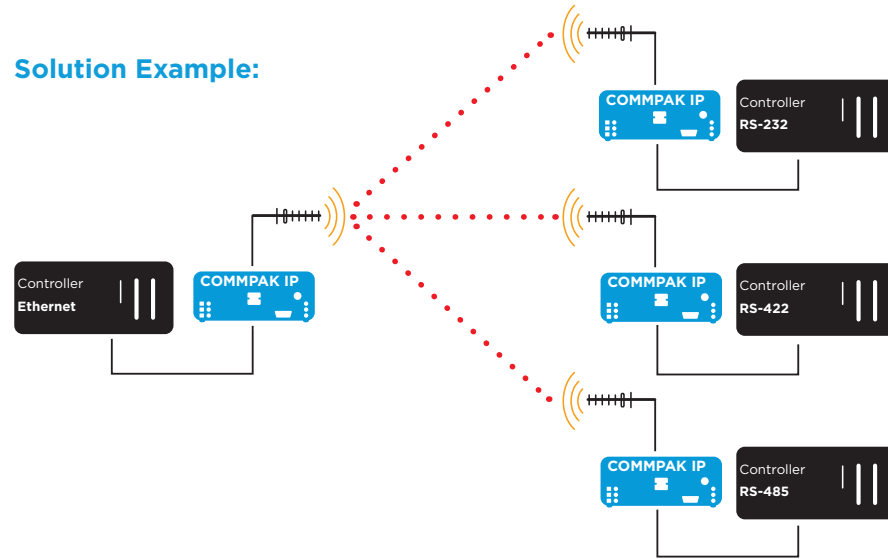
- Over 25 years of broad industry experience
- Proactive and adaptable solutions for a diverse range of applications
- Unmatched software management tools
- Scalable and future proof technology platforms
- Personalized customer support programs and corporate culture
- Unequaled warranty and support programs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



### About ENCOM:

ENCOM, a Global Wireless Solutions Provider, creates field proven, cost-effective wireless data solutions for municipal and industrial clients, with applications involving:

- Intelligent Transportation Systems
- Public Safety Communications
- Municipal Corporate Security and IT Networks
- Water and Waste Water Management
- Electrical Utilities
- Oil and Gas

### Who relies on ENCOM?

- Municipal Governments
- Corporate IT Departments
- Departments of Homeland Security
- Departments of Transportation
- Emergency First Responders
- Mobile Workforces
- Private Networks

### Customer Testimonials:

- City of Aurora, Colorado
- City of Burnaby, British Columbia
- City of Calgary, Alberta
- City of Greely, Colorado
- Los Alamos County, New Mexico
- Macomb County, Michigan
- Missouri DOT
- North Carolina DOT
- City of San Jose, CA
- City of Tampa, Florida
- TxDOT



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

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

Please visit [www.encomwireless.com](http://www.encomwireless.com) for customer cases, testimonials and additional information on all ENCOM products and services.

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