

EncryptorPak Z with ZIGBEE® WIRELESS

The EncryptorPak Z is equipped with wireless ZigBee® to provide secure Ethernet-to-serial and serial-to-serial “over the air” connections between MTU and RTUs. The unit encrypts and tunnels serial DNP3 or Modbus data and its operation requires no change to your network or applications.

Overview**IEEE 1711-2010** standard for cyber security of substation serial links

- AES encryption, HMAC authentication
- Key management (2-level)
- Modbus RTU/ASCII, DNP3
- Point-to-point (P2P) & multipoint operation
- Asynchronous 300 to 115 Kbps

Wireless

- Frequency: 2.4 Ghz
- RF Range: 1 mile (line of sight)

Plus Secure Ethernet-to-serial and serial-to-serial “over the air” connections

Plus Multi-protocol support

- AES (8-bit CFB) in P2P for Allen-Bradley DF-1, Bristol BSAP, Fisher ROC & more

Plus 3-in-1 software-configurable ports

- RS-232/422/485

Plus Up to 200 secure tunnels

- Each tunnel has its own encryption key and protects one or group of RTUs

Plus Web interface for easy configuration & management

- Access is controlled by three separate roles: admin, security officer, and operator

* IEEE 1711-2010, formerly AGA 12*, is a leading industry specification of approved cipher technologies to safeguard SCADA communications.

Benefits**Cost-effective**

- No change to existing software or equipment

Improves security posture

- By easily defining and deploying policy-based security across serial links

Quickly integrates into existing network

- “Bump-in-the-wire” security for serial DNP3, Modbus, and others
- Supports mixed encrypted and clear traffic for seamless operation

Flexible configuration

- Any mix or match of RS-232, RS-422, or RS-485 (2- or 4-wire) interfaces via DB-9 or terminal block
- Supports point-to-point, multi-drop, radio, leased, dial-up

Conforms to NERC CIP audit logging

- Multi-role access control with system activity logging

Continued...

Specs

Standards

- IEEE 1711-2010 Standard for a Cryptographic Protocol for Cyber Security of Substation Serial Links

Cryptographic Suites

- Advanced Encryption Standard (AES) 128-bit
- MD5 128-bit hash (RFC 1321)
- SHA-1 160-bit hash (ANSI X9.30-2 and FIPS 180-1)

Simultaneous Secure Tunnels

- Up to 200

Encryption Keys

- Automated rekey of data key
- Two-level key management:
 - Key Encrypting Key
 - Data Key (unique for tunnel)

Topologies

- Point-to-point (P2P)
- Point-to-multipoint

Protocols

Serial-to-Serial:

- DNP3
- Modbus RTU
- Modbus ASCII
- Any byte-oriented protocol in P2P

Ethernet-to-Serial:

- Modbus TCP and UDP
- Modbus RTU/ASCII Over TCP and UDP
- DNP3 Over TCP

Frequency/RF Range

- 2.4 GHz/1 mile

Interfaces

- LOCAL: 10-pin terminal block & DB9 female (RS-232/422/485)
- REMOTE: ZigBee® wireless antenna
 - * ZigBee is a worldwide open standard for wireless radio networks in the monitoring and control fields
- MGMT: DB9 female (RS-232)
- LAN: RJ45 Ethernet (10/100BaseT)

Web Interface

- 3-level, role-based, password protected login

LED Indicators

- Power
- Ethernet Activity
- Secure Link Activity

Power

- 3.3VDC power adapter

Physical

- Enclosure: 18 gauge steel
- Weight: 1 lb
- Size: 1 x 8 x 5 inches (2.54 x 20.32 x 12.7 cm)

Operating Environment

- -40° C to 85° C (-40° F to 185° F)

Green Technology

- Low-power
- All components are RoHS compliant

Warranty

- 1 year

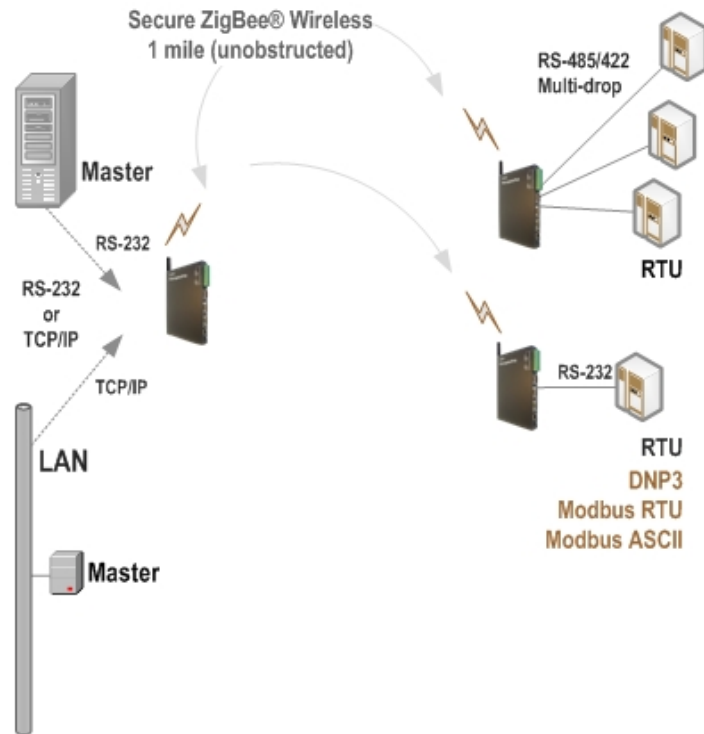
We only use RoHS compliant parts in our products



Network Diagram

Point-to-Multipoint

EncryptorPak Z



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