CEN-ERFGW-POE

Extended Range RF Wireless Gateway

> 2-way "Extended Range" wireless transceiver/gateway

> Supports up to 16 touch screens and remotes

> Dynamic discovery for fast, easy setup

> "Wi-Fi friendly" channel selection

> Built-in RF network diagnostics

> 100 to 200 feet range indoors, 1000 feet outdoors

> Supports roaming for extended coverage [2]

> Antenna extendable using optional ANT-EXT

> Crestron Toolbox™ software configuration and management

> Cresnet® or Ethernet control system interface

> Single-wire Cresnet or PoE network powered

> Compatible with models TSR-302, TST-602, and TST-902 [1]

> Compatible with legacy models TST-600, TPS-6X, and UFO-WPR-3ER

The CEN-ERFGW-POE gateway is a 2-way RF transceiver that enables wireless communication and management for up to 16 Crestron® "Extended Range" wireless touch screens and remotes. It is compatible with the TSR-302, TST-602, and TST-902 wireless touch screens.[1] It is also compatible with legacy models TST-600, TPS-6X, and UFO-WPR-3ER. A single wire links the CEN-ERFGW-POE to a Crestron control system via Cresnet® or high-speed Ethernet with PoE.

Extended Range 2.4 GHz RF Technology

Crestron Extended Range (ER) wireless technology affords robust bidirectional wireless communications over an impressive distance of approximately 100 to 200 feet indoors and up to 1000 feet outdoors. Roaming capability allows for even greater coverage using up to eight CEN-ERFGW-POE gateways.[2] "Wi-Fi friendly" RF technology permits selection from 16 ISM channels within the 2.4 GHz spectrum to minimize the possibility of interference with other RF equipment including 802.11 devices.

The CEN-ERFGW-POE continuously monitors each device on the network, diligently keeping track when any device goes to sleep, shuts down, or wanders out of range, restoring communications seamlessly when the device reappears on the network. The control data to and from each associated device is passed cleanly and quickly through the gateway without any cumbersome processing to affect performance. Excessive network traffic and noise are combated using intelligent data routing to ensure every control signal is delivered intact to its intended destination without interruption.

Easy Setup

Setting up a network of ER wireless devices is simple, utilizing dynamic discovery to locate and acquire each device automatically. Up to 16 ER wireless touch screens and remotes can be linked to a control system via a single CEN-ERFGW-POE gateway. Additional gateways may be installed to support more devices, with up to 16 gateways possible in a complete system (RF conditions allowing).

Single-Wire Hookup

Wired communications between the CEN-ERFGW-POE gateway and the control system can be via Cresnet or Ethernet, with power for the gateway delivered over the same Cresnet or Ethernet connection. Power over Ethernet (PoE) simply requires the presence of an 802.3af or 802.3at PoE power source. Crestron offers the PWE-4803RU PoE Injector, which connects in line with the Ethernet cable, allowing for installation at any convenient location between the gateway and the network switch. The PWE-4803RU is capable of powering a single gateway, and is available separately or packaged with the gateway as model CEN-ERFGW-POE-PWE.

Crestron also offers Ethernet switches with built-in PoE (models CEN-SW-POE-5 and CEN-SWPOE-16 [1]), affording a complete high-performance networking solution capable of providing PoE for multiple gateways and other PoE powered devices. Using an Ethernet switch with built-in PoE eliminates the need for separate PoE Injectors.

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SPECIFICATIONS

Wireless Communications

RF Transceiver: 2-way RF, 2.4 GHz ISM Channels 11-26 (2400 to 2483.5 MHz), IEEE 802.15.4 compliant
Transmitting Power: 170.2 mW (Ch.11), 110.7 mW (Ch.12-24), 23.4 mW (Ch.25), 0.6 mW (Ch.26) @ high setting; 3.2 mW (Ch.11-25), 0.6 mW (Ch.26) @ low setting
Range (typical): 100 to 200 feet (33 to 66 m) maximum indoor, 1000 feet (305 m) outdoor, subject to site-specific conditions
Roaming: Supports roaming amongst up to 8 gateways [2]
Maximum 16 "ER" wireless devices per gateway or roaming network

Wired Communications

Ethernet: 10/100 Mbps, auto-switching, auto-negotiating, auto-discovery, full/half duplex, DHCP, IEEE 802.3af and 802.3at Type 1 compliant
Cresnet®: Supports Cresnet slave mode

Controls & Indicators

PWR: (1) Green LED, indicates DC power supplied from Cresnet network or PoE
NET: (1) Yellow LED, indicates communication with the Cresnet system
RXD: (1) Red LED, indicates data is being received from wireless network devices
TXD: (1) Red LED, indicates data is being transmitted to wireless network devices
ACQUIRE: (1) Recessed pushbutton with red LED, used to set up connections with wireless devices
SETUP: (1) Recessed pushbutton with red LED, used to set up connection with the control system via Cresnet or Ethernet
LAN: (1) Green and (1) Amber LEDs, green indicates link status, amber indicates Ethernet activity

Connectors

Antenna: (1) Connection for supplied antenna

LAN PoE: (1) 8-wire RJ45, female; 10Base-T/100Base-TX Ethernet port, Power over Ethernet compliant

NET: (1) 4-pin 3.5mm detachable terminal block; Cresnet slave port, connects to Cresnet control network

Power Requirements

Power over Ethernet: IEEE 802.3at Type 1 (802.3af compatible) Class 1 (3.84 W) PoE Powered Device
Cresnet Power Usage: 3 Watts (0.13 Amps @ 24 Volts DC)

Note: May be powered by PoE or Cresnet network power, not both.

Enclosure

Construction: Aluminum w/polycarbonate label overlay and (4) integral mounting flanges
Mounting: Freestanding, surface mount, or attach to a single rack rail

Environmental

Temperature: 41° to 104° F (5° to 40° C)
Humidity: 10% to 90% RH (non-condensing)

Dimensions

(Without antenna)

Height: 6.41 in (163 mm)
Width: 3.91 in (100 mm)
Depth: 1.43 in (37 mm)

Weight

13.6 oz (386 g)

MODELS & ACCESSORIES

Available Models
CEN-ERFGW-POE (EXCLUDES PWE): Extended Range RF Wireless Gateway
CEN-ERFGW-POE-PWE: Extended Range RF Wireless Gateway w/PoE Injector

Included Accessories
PWE-4803RU: PoE Injector (Qty. 1 included with CEN-ERFGW-POE-PWE)

Available Accessories
ANT-EXT: Antenna Extender
PWE-4803RU: PoE Injector
CEN-SW-POE-5: 5-Port PoE Switch
CEN-SWPOE-16: 16-Port Managed PoE Switch
CRESNET-NP: Cresnet® Control Cable, non-plenum
CRESNET-P: Cresnet® Control Cable, plenum
CRESNET-HP-NP: Cresnet® "High-Power" Control Cable, non-plenum

Notes:

1. Item(s) sold separately.
2. Some ER devices do not support roaming. Consult the spec sheet for each device to verify its roaming capabilities.

This product may be purchased from an authorized Crestron dealer. To find a dealer, please contact the Crestron sales representative for your area. A list of sales representatives is available online at www.crestron.com/salesreps or by calling 800-237-2041.

The specific patents that cover Crestron products are listed online at: patents.crestron.com.

Certain Crestron products contain open source software. For specific information, please visit www.crestron.com/opensource.