

infiNET EX® & ER Wireless Gateway

- > Multipurpose 2-way RF wireless gateway
- > Simultaneously supports infiNET EX® and Crestron “ER” wireless devices^[2]
- > Ultra dependable infiNET EX mesh network technology
- > “Extended Range” RF technology optimized for wireless touch screen remotes
- > Dynamic discovery for fast, easy setup
- > “Wi-Fi® friendly” channel selection for trouble-free operation
- > Built-in RF network diagnostics
- > Up to 150 feet (46 meters) infiNET EX range indoors, 250 feet (76 m) outdoors^[1]
- > 100 to 200 feet (33 to 66 meters) ER range indoors, 1000 feet outdoors
- > Supports infiNET EX expanders and ER roaming for extended coverage^[1,3]
- > Extendable antenna using optional ANT-EXT^[5]
- > Compact, stackable “IFE small” form factor
- > Surface or DIN rail mountable using bracket provided
- > Available rack mount and pole mount options^[5]
- > High-speed Ethernet control system interface
- > 24VDC or PoE network powered
- > Models available with PoE injector included
- > Optional 24VDC power pack sold separately

The CEN-GWEXER is a 2-way RF wireless transceiver designed for use with Crestron® infiNET EX® and “ER” (Extended Range RF) wireless devices. A single CEN-GWEXER gateway enables an entire wireless network of Crestron remotes, keypads, lighting dimmers, motorized shades, thermostats, door locks, and other devices to communicate with a Crestron control system.

infiNET EX® Technology

Ultra-reliable infiNET EX wireless technology provides steadfast 2-way RF communications throughout a residential or commercial structure without the need for physical control wiring. Employing a 2.4 GHz mesh network topology, nearly every infiNET EX device on the network acts as an “expander,” relaying wireless commands between the gateway and all the other “EX” devices on the network to ensure that every command reaches its intended destination without disruption. Each infiNET EX device that is added to the network effectively increases the range and stability of the entire network by providing multiple redundant signal paths. The wireless range between any two EX devices is typically up to 150 ft (46 m) indoors.^[1]

“ER” Extended Range RF Technology

Crestron Extended Range (ER) wireless technology enables compatibility with certain Crestron wireless touch screens and handheld remotes including the [TSR-302](#), [TST-600](#), [TST-602](#), and [TST-902](#).^[2] Crestron “ER” operates in the same 2.4 GHz spectrum as infiNET EX, and is specifically optimized for use with wireless touch screen devices to ensure robust and dependable bidirectional RF communications. The CEN-GWEXER continuously monitors each ER device on the network, diligently keeping



track when a device goes to sleep, shuts down, or wanders out of range, and restores communications seamlessly when the device reappears on the network. The typical wireless range for ER devices is 100 to 200 feet indoors, or up to 1000 feet outdoors. For even greater coverage, ER supports roaming amongst up to eight gateways.^[3]

Easy Setup

The CEN-GWEXER can manage both infiNET EX and ER wireless devices simultaneously, eliminating the need for separate gateways, antennas, and LAN connections. Setting up a network of infiNET EX and/or ER devices is simple, utilizing dynamic discovery to locate and acquire each wireless device automatically. If no ER devices are acquired, the CEN-GWEXER can support up to 100 infiNET EX devices (inclusive of up to six Crestron [MLX-3](#) handheld remotes^[2]). Each ER device that is added to the network negates ten EX devices, with a maximum of ten ER devices allowed. For a more detailed breakdown, please refer to “Supported Devices” in the specifications section of this spec sheet.^[4]

Single-Wire Hookup

The CEN-GWEXER gateway communicates with a control system over Ethernet and gets its operating power over the same Ethernet connection using PoE technology. PoE (Power over Ethernet) simply requires the presence of an 802.3af or 802.3at PoE power source.

- Crestron offers the [PWE-4803RU](#) PoE Injector, which connects inline 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-GWEXER-PWE or CENI-GWEXER-PWE.

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Rear & Front Views

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

As an alternative to PoE, the CEN-GWEXER can be powered using an optional 24VDC power pack, model [PW-2407WU](#).^[5]

Integrator Friendly Enclosure

The CEN-GWEXER features the Crestron IFE form factor, a compact “Integrator Friendly Enclosure” design that fits almost anywhere and enables a variety of installation options. Its shape allows multiple gateways and other IFE compliant devices to be stacked together. Using the included mounting bracket, it can be fastened to any flat surface or snapped onto a standard DIN rail. Rack mount and pole mount kits are also available.^[5]

SPECIFICATIONS

Supported Devices

infiNET EX® Devices: Supports all Crestron and third-party infiNET EX devices including HR-100, HR-150, and MLX-3 handheld remotes^[2]

infiNET EX Expanders: Supports Crestron infiNET EX expander models CLW-EXPEX and GLA-EXPEX

ER “Extended Range” Devices: Supports Crestron wireless touch screen models TSR-302, TST-600, TST-602, & TST-902^[2]

Maximum Devices Allowed^[4]:

infiNET EX Devices*	infiNET EX Expanders	ER “Extended Range” Devices
100	5	0
90	5	1
80	5	2
70	5	3
60	5	4
50	5	5
40	5	6
30	5	7
20	5	8
10	5	9
0	5	10

*Inclusive of a maximum of six MLX-3 remotes

Wireless Communications

RF Transceiver: infiNET EX & ER 2-way RF, 2.4 GHz ISM Channels 11-26 (2400 to 2483.5 MHz), default channel 15; IEEE 802.15.4 compliant
infiNET EX Range (typical): 150 ft (46 m) indoor, 250 ft (76 m) outdoor, to nearest mesh network device(s); subject to site-specific conditions and individual device capabilities^[1]

ER Range (typical): 100 to 200 ft (33 to 66 m) maximum indoor, 1000 ft (305 m) outdoor, subject to site-specific conditions

ER Roaming: Supports roaming amongst up to 8 gateways^[3]

Wired Communications

Ethernet: 10/100 Mbps, auto-switching, auto-negotiating, auto-discovery, full/half duplex, DHCP, IEEE 802.3at Type 1 compliant

Controls & Indicators

PWR: (1) Green LED, indicates operating power supplied via PoE or 24VDC

ACT: (1) Green LED, indicates wireless RX and TX data activity

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 Ethernet

RESET: (1) Recessed pushbutton, for hardware reset

LAN PoE: (1) Green and (1) Amber LEDs, green indicates Ethernet link status, amber indicates Ethernet activity

Connectors

ANTENNA: (1) Connection for supplied antenna

COMPUTER: (1) Micro-B USB female;
Computer console port, for installer use only;
6 ft (2.83 m) Micro-B to A USB cable included

G: (1) 4-40 screw, chassis ground lug

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24VDC 0.75A: (1) 2.1 x 5.5 mm DC power connector;
24 Volt DC power input;
PW-2407WU power pack sold separately

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

Power

Power over Ethernet: IEEE 802.3at Type 1 (802.3af compatible) Class 1 (3.84 W) PoE Powered Device; 100-250 Volts AC, 50/60 Hz PoE Injector, model PWE-4803RU included with models CEN-GWEXER-PWE & CENI-GWEXER-PWE

Power Pack: 0.75 Amps (minimum) @ 24 Volts DC; 100-240 Volts AC, 50/60 Hz power pack, model PW-2407WU sold separately

Power Consumption: 2.1 Watts typical

Environmental

Temperature: 41° to 104° F (5° to 40° C)

Humidity: 10% to 90% RH (non-condensing)

Heat Dissipation: 7 BTU/Hr

Construction

Enclosure: IFE small form factor, black and blue plastic

Mounting: Freestanding, stackable, surface mount, or 35 mm DIN EN 60715 rail mount; occupies 8 DIN module spaces (144 mm); surface/DIN rail mounting bracket included, optional rack mount and pole mount kits sold separately

Dimensions

(Without antenna)

Height: 1.35 in (35 mm), 1.77 in (45 mm) with bracket

Width: 5.04 in (128 mm), 5.36 in (137 mm) with bracket

Depth: 5.20 in (133 mm)

Weight

8.9 oz (253 g) without bracket



Shown with mounting bracket

MODELS & ACCESSORIES

Available Models

CEN-GWEXER: infiNET EX® & ER Wireless Gateway

CEN-GWEXER-PWE: infiNET EX® & ER Wireless Gateway w/PoE Injector

CENI-GWEXER: infiNET EX® & ER Wireless Gateway – International Version

CENI-GWEXER-PWE: infiNET EX® & ER Wireless Gateway w/PoE Injector – International Version

Included Accessories

PWE-4803RU: PoE Injector (Qty. 1 included with CEN-GWEXER-PWE & CENI-GWEXER-PWE)

Available Accessories

ANT-EXT: Antenna Extender

RMK-IFE-1U: IFE Rack Mount Kit

PLMK-IFE-101: IFE Pole Mount Kit

CLW-EXPEX: infiNET EX® Wireless Expander

GLA-EXPEX: Crestron Green Light® Wireless Expander for infiNET EX® Networks

PWE-4803RU: PoE Injector

CEN-SW-POE-5: 5-Port PoE Switch

CEN-SWPOE-16: 16-Port Managed PoE Switch

PW-2407WU: 24 Volt DC Power Pack

Notes:

1. Battery-powered infiNET EX devices do not provide expander functionality, and may have reduced RF range capabilities. Consult the specifications for each network device to confirm its actual wireless capabilities. Crestron also offers dedicated infiNET EX expanders (models [CLW-EXPEX](#) or [GLA-EXPEX](#), sold separately), which may be deployed to fill gaps in coverage and extend the wireless range of the mesh network. infiNET EX expanders are only for infiNET EX networks and offer no benefit to the performance of ER devices. A maximum of five infiNET EX expanders may be deployed on an infiNET EX network.
2. The CEN-GWEXER is not compatible with MTX-3, TPS-6X, or UFO-WPR-3ER model remotes.
3. Roaming capability using multiple gateways is for ER devices only. infiNET EX utilizes only one gateway and does not support roaming.
4. Best practices suggest configuring the system with no more than 50% of the maximum devices allowed per gateway. Additional gateways may be deployed to support more devices, with a maximum of 16 gateways permitted on a complete system (RF conditions allowing).
5. Item(s) sold separately.

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.

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