CEN-RFGW-EX

infiNET EX))

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]

> High-speed Ethernet control system interface

> PoE network powered

The CEN-RFGW-EX is a 2-way RF wireless transceiver designed for use with Crestron® infiNET EX® and "ER" (Extended Range RF) wireless devices. A single CEN-RFGW-EX 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-RFGW-EX 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-RFGW-EX 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-RFGW-EX can support up to 100 infiNET EX devices (inclusive of up to six Crestron MLX-3 and/or MTX-3 handheld remotes). 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-RFGW-EX 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-RFGW-EX-PWE.

• 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.

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SPECIFICATIONS

Supported Devices

infiNET EX® Devices: Supports all Crestron and third-party infiNET EX devices including HR-100, HR-150, MLX-3, and MTX-3 handheld remotes
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 and/or MTX-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 802.3af and 802.3at Type 1 compliant

Controls & Indicators

PWR: (1) Green LED, indicates operating power supplied via PoE
ACTIVITY: (1) Red 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
LAN PoE: (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

Power Requirements

Power over Ethernet: IEEE 802.3at Type 1 (802.3af compatible) Class 1 (3.84 W) PoE Powered Device

Environmental

Temperature: 41° to 104° F (5° to 40° C)
Humidity: 10% to 90% RH (non-condensing)
Heat Dissipation: 7 BTU/Hr

Enclosure

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

Dimensions

(Without antenna)

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

Weight

13.1 oz (373 g)

MODELS & ACCESSORIES

Available Models
CEN-RFGW-EX (EXCLUDES PWE): infiNET EX® & ER Wireless Gateway
CEN-RFGW-EX-PWE: infiNET EX® & ER Wireless Gateway w/PoE Injector

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

Available Accessories
ANT-EXT: Antenna Extender
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

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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-RFGW-EX is not compatible with TPS-6X or UFO-WPR-3ER model remotes. For these devices, please use the dedicated ER gateway model CEN-ERFGW-POE.
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.

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Crestron Electronics, Inc. 15 Volvo Drive | Rockleigh, NJ 07647
Tel: 800.237.2041 / 201.767.3400 | Fax: 201.767.1903
www.crestron.com

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