

# **ZigBee Extender 3**

## **Features**

The Card Access ZigBee Extender 3 operates as a ZigBee® (IEEE 802.15.4) router and mesh extender. The Extender is designed to improve ZigBee signal latency that can occur when ZigBee devices are installed on the fringes of a ZigBee mesh network. The Extender is also used to extend the ZigBee network into distant or hard-to-reach areas. The ZigBee Extender 3 works with your Control4® system and should be located within 500 feet of another routing node. For optimal results, the Extender should be located in areas of the project where the mesh may be weak or non-existent. The Extender should not be placed next to a Home Controller.

## **Supported Models and Requirements**

This documentation applies to the following Card Access products:

ZCA-ZXT30 ZigBee Extender 3

Requires a Control4 Home Controller with Composer 2.0 or higher.

## **Important Safety Instructions**

WARNING! You should install this device in accordance with all national and local electrical codes.

IMPORTANT! This product is not intended for direct connections to AC mains (120V/220V). Refer to specifications.

IMPORTANT! Improper use or installation of this device can result in LOSS OF/DAMAGE TO PROPERTY.

IMPORTANT! Using this product in any manner other than outlined in this document voids your warranty. Also, Card Access is NOT responsible or otherwise liable in any way for any damage resulting from the misuse of this product. See the section of this document entitled WARRANTY for details.

## **What Is Included:**

- One (1) ZigBee Extender 3 device
- One (1) North American 5V DC power supply
- One (1) wall mounting Velcro strip
- One (1) Button Press Guide/LED Color Code instruction card

## **Specifications**

Power Source: 5VDC Power Supply

Power Usage: 65 mA at 5V

Device Temperature Range: Operational -20°F to 158°F (-28°C to 70°C)

Humidity 5% to 95% Non-Condensing

Storage -20°F to 158°F (-28°C to 70°C)

Dimensions (LxWxD): 2.80"(L) x 1.75"(W) x 0.57(D)" (77.1mm x 44.5mm x 14.4mm)

The ZigBee Extender 3 is NOT waterproof and must be kept out of direct contact with water. The product must NOT be immersed.

Communications: ZigBee (IEEE 802.15.4) 2.4 GHz, 15-channel, spread spectrum radio

## Installation

1. Place the Extender in a location that ensures:
  - Easy access to an outlet
  - ZigBee mesh networking efficiency

**NOTE:** Make sure the Extender gets good ZigBee wireless reception by:

  - Ensuring it is within 500 feet of another ZigBee device.
  - Ensuring the device is not installed by other electrical equipment that may cause interference with the ZigBee signal (such as some cordless telephones or other devices that operate on the 2.4 GHz frequency).
  - Avoiding exposure to extreme environmental conditions.
2. Add the driver to your project by searching the Composer Online Driver Database. Search Device Type "other" Manufacturer "Card Access"
  - a. If you'd prefer, you can download the ZigBee Extender 3 DriverWorks Driver from the Card Access web site: [www.cardaccess-inc.com/automation/drivers](http://www.cardaccess-inc.com/automation/drivers). Copy the Driver to the "Control4 / Drivers" folder on your PC. (The Control4 Drivers folder should be located under "My Documents" on your PC.)
  - b. Launch Composer. If Composer is already running, shut it down and restart it.
  - c. Using Composer, make a connection to Director. Select the System Design Tab to add the ZigBee Extender 3 Driver. The Driver is found by selecting the Search Tab and then the Local Database. The device type is "other" and the manufacturer is Card Access.
3. Power up the Extender using the supplied 5V Power Supply. In Composer, choose Connections and click the Network Tab. Next click on the unidentified "Card Access ZigBee Extender 3" device. Identify the Extender in Composer by pressing the clear identification button on the top of the Module four (4) times. The LED should start flashing yellow. Once the Extender is identified in the system, the LED will turn solid blue. If identification fails the LED will blink green several times and go back to solid green.
4. Once the Extender's MAC ID address appears in the Identify dialog box, click "Close" to close the dialog box.
5. After a few seconds, the Extender's LED should change to a solid BLUE color, indicating it is successfully identified in the Control4 project.

## Troubleshooting

### Button Press Guide

4 button presses to identify and join ZigBee network.

9 button presses to reset to factory defaults.

13 button presses to remove it from the network.

15 button presses to reboot.

**LED Color Codes.** Button will be:

GREEN when unprovisioned.

YELLOW when scanning for a network.

RED when it can't find a network.

BLUE when it joins the network.

### **Card Access Product Support:**

For help on the installation or operation of this product, email or call Card Access Product Support. Please provide your exact model number and the MAC ID/Serial Number for the device. You may contact Product Support by phone (801-748-4900 x 2), by e-mail ([dealersupport@cardaccess-inc.com](mailto:dealersupport@cardaccess-inc.com)) or on the Internet at <http://www.cardaccess-inc.com/automation/support>.

### **Regulatory Compliance**

The Card Access ZigBee Extender 3 complies with relevant standards established by the following regulatory bodies: Federal Communications Commission (FCC), Conformité Européene (CE), and Restriction of Hazardous Substances (RoHS).

#### **FCC**

FCC ID: MHIZXT

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
  - Increase the separation between the equipment and receiver.
  - Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
  - Consult the dealer or an experienced radio/TV technician for help.
- IMPORTANT! Changes or modifications not expressly approved by Card Access, Inc. void the user's authority to operate the equipment.

#### **CE**

We, Card Access, Inc. of 11778 South Election Road, Suite 260, Salt Lake City, Utah, 84020 USA, declare under our sole responsibility that the product, the Card Access Wireless ZigBee Extender 3, Model Number **WCS10-X-ZP**, to which this declaration relates, is in conformity with the following standards and / or other normative documents:

EN60950, EN55022, EN55024

We hereby declare that the above named product is in conformity with the essential requirements and other relevant provisions of Directive 1999/5/EC.

The conformity assessment procedure referred to in Article 10(3) and detailed in Annex II of Directive 1999/5/EC has been followed.

## Restriction of Hazardous Substances (RoHS)

All parts in the Card Access ZigBee Extender 3 meet the material restrictions of RoHS, as proposed by the RoHS Technical Adaptation Committee. This is based upon information provided by suppliers of the raw materials used by Card Access, Inc. to manufacture these products. As such, Card Access, Inc. makes no independent representations or warranties, expressed or implied, and assumes no liability in connection with the use of this information.

## Industry Canada

IC: 3681C-ZXT

This class B digital apparatus complies with Canadian ICES-003.

CET appareil numérique de la classe B est conforme à la norme NMB-003 du Canada'

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions:

- (1) this device may not cause interference, and
- (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence.

L'exploitation est autorisée aux deux conditions suivantes:

- (1) l'appareil ne doit pas produire de brouillage, et
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

## One-Year Limited Warranty

This product is warranted to be free of defects in material and workmanship for one year from date of original purchase from Card Access, Inc. ("Card Access").

Card Access will, at its election and as the purchaser's or end user's sole and exclusive remedy for any breach of the limited warranty set forth above, repair or replace this product if a defect in material or workmanship is identified and communicated to Card Access within the one-year period described above. Card Access is not responsible for removal or reinstallation costs. This warranty is not valid in cases where damage to this product is the result or arises out of misuse, abuse, incorrect repair or improper wiring or installation.

To notify Card Access of any breach of the foregoing limited warranty and to obtain warranty service, contact Card Access Customer Support by e-mail to [dealersupport@cardaccess-inc.com](mailto:dealersupport@cardaccess-inc.com) or by calling 801-748-4900, extension 2,

to obtain a Return Materials Authorization ("RMA") number and instructions for returning your defective product to Card Access.

IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE EXPRESSLY DISCLAIMED, EXCEPT WHERE SUCH DISCLAIMER IS PROHIBITED BY APPLICABLE LAW. CARD ACCESS AND/OR THE SELLER DISCLAIM(S) ANY AND ALL LIABILITY FOR SPECIAL, INCIDENTAL AND CONSEQUENTIAL DAMAGE IN ANY WAY ASSOCIATED WITH OR RELATED TO THE PURCHASE, INSTALLATION AND/OR USE OF THIS PRODUCT.

Some states/provinces do not allow limitations on how long an implied warranty lasts, or the exclusion or limitation of special, incidental or consequential damages, so these limitations and exclusions may not apply to you. This warranty gives you specific legal rights. You may also have other rights which vary from state/province to state/province.

This is Card Access' exclusive written warranty.