CPD002

CGW-Z-0100 User Manual

The Cortet Z100 Gateway (CGW-Z-0100) is a device intended for use in various wireless sensor network (WSN), machine-to-machine (M2M), and Internet of Things (IOT) applications. The Cortet Z100 Gateway is primarily intended to act as a reliable, secure, and low-cost bridge between two different IEEE 802.15.4 wireless networks such a ZigBee-based networks. The Cortet Z100 Gateway can as a ZigBee Coordinator (ZC) for one ZigBee network, coordinating communication of ZigBee end nodes using one of its two IEEE 802.15.4 radios. The Cortet Z100 Gateway can act as ZigBee Router (ZR) on another ZigBee network, acting as a backhaul to another ZigBee Coordinator (ZC) using its other IEEE 802.15.4 radio The Cortet Z100 Gateway will store, maintain, and perform many critical configurable network functions on the ZigBee networks – particularly on the ZigBee network it is coordinating as the ZC. Such functions include groupings of wireless devices, rules governing the behavior of wireless devices, schedules governing the behavior of wireless devices, etc.

This document provides information on the features of the Z100 Gateway and how to use the Z100.

Contents

1.0 Z100 Features

The Thin Gateway has a modular design that uses a Power board and a Communication board. The Power board converts outside power to what is needed for the Communication board. The Communication board contains the radio and processor for Gateway operation. The Z100 contains the following features:

- Radio Board
  - o 802.15.4 Radio for connecting to ZigBee RF devices
  - o 802.15.4 Radio for connecting to ZigBee Backbone network
  - o Power Connector for connecting to power board
  - o Button
  - o Tri-color LED
- Power Board
  - o Standard wall plug for connecting to North American wall socket
  - o Power converter to convert from AC power to DC for Communication board
- Easy Commissioning
- Over-the-air firmware updates

2.0 Z100 External Interface

The Z100 external interface contains:
- Button
- Tri-Color LED
- Plug
- Safety Tab
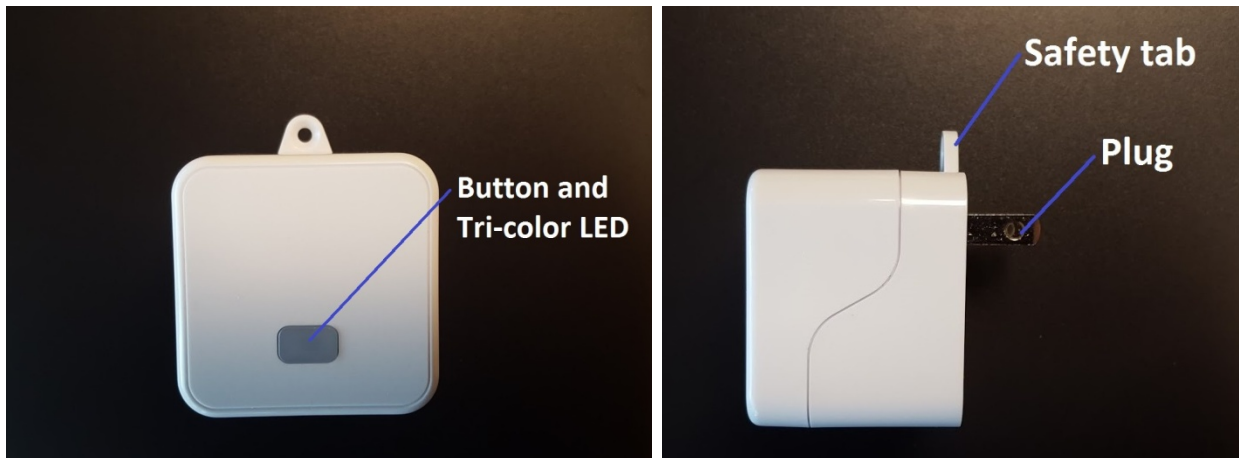
3.0 Setting up theZ100

To setup the Thin Gateway follow these steps
1. Plug the Z100 into the wall socket
2. The Z100 LED illuminate based on the status of the device
3. Use the Cortet mobile app and follow on-screen instructions

A.1 IMPORTANT SAFETY INSTRUCTIONS

1. READ and KEEP these instructions
2. FOLLOW all instructions
3. DO NOT use this apparatus near water, Dry location use only
4. DO NOT attempt to modify this product. Doing so could result in personal injury

A.2 Mounting Tab Use

CAUTION - The Z100 has an integral mounting tab for optional semi-permanent attachment to a grounded 15-ampere, 125-volt duplex receptacle. Use only with duplex receptacle having center screw.

NOTICE - Local Regulations in Canada do not permit use of a mounting tab. In Canada, do not use the mounting tab to attach the unit to an outlet

Risk of Electric Shock – Disconnect power to the receptacle before installing or removing the unit. When removing receptacle cover screw, cover may fall across plug pins or receptacle may become displaced

1. Using a standard slotted screwdriver, remove the center plate screw from the wallplate (do not remove the wallplate itself).
2. Plug the device into the receptacle, oriented such that the mounting tab hole lines up with the wall plate screw hole.
3. Secure unit in place by receptacle cover screw

A.3 Specifications

Input AC Voltage
      100-240 VAC, 50/60 Hz
Maximum Current Drain
      0.07A
Operating Temperature Range
      -20 to 40C [-4 to 104F]
Overall Product Envelope Dimensions (includes mounting tab and blades)
      60.3 mm high x 51.0 mm wide x 59.2 mm deep [2.37 in x 2.00 in x 2.33 in]
Product Envelope Dimensions when installed (includes mounting tab)
      60.3 mm high x 51.0 mm wide x 42.1 mm deep [2.37 in x 2.00 in x 1.66 in]
AC input
      IEC Type A, ungrounded, non-polarized

A.4 Agency Certifications

The CGW-Z-0100 has been certified per FCC Part 15 rules and to Industry Canada license-exempt RSS Standards. To fulfill the FCC and IC certification requirements, the label is placed on the outside of the device and contains its own FCC ID and IC ID as shown below. The CGW-Z-0100 also contains transmitter module FCC ID: W7Z-ZICM357SP2, IC ID: 8254A-ZICM357SP2.

Conforms to FCC Part 15B
FCC ID: W7Z-WD6102
IC: 8254A-WD6102

ZigBee
Certified product

A.5 FCC & Canada Compliance Statement

This device complies with Part 15 of the FCC rules and with Industry Canada license-exempt RSS Standards. 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.

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.

A.6 Warning (Part 15.21)

Changes or modifications not expressly approved by CEL could void the user's authority to operate the equipment.