



Excellence in Compliance Testing

Certification Exhibit

FCC ID: YJ4CSAG200

FCC Rule Part: 15.247

ACS Project Number: 14-0047

Manufacturer: Consert, Inc.
Model: CSAG200-1.0

Manual



CONSERT STAND ALONE GATEWAY

OVERVIEW

The Stand Alone Gateway enables electric utilities with existing communicating meters or AMI installations to deploy the Consert Load Management Suite of advanced solutions for residential and light commercial applications, including:

- Virtual Peak Plant™
- AC T-Stat Program
- Intelligent AC Switch
- Statistical VPP™

The Stand Alone Gateway is self-contained with an unobtrusive design, and may be placed near any interior power source and either mounted to the wall or laid flat on a desktop. It supports multiple WAN interfaces including cellular, RF Mesh, WiFi and Ethernet.

In addition, the Stand Alone Gateway utilizes two ZigBee® subsystems. The first is used to communicate to the existing ZigBee enabled meter, and the other is used as a communication conduit to the Consert Home Area Network, which includes Device Controllers and Programmable Communicating Thermostats.

Consert's Stand Alone Gateway does not require an existing communicating meter, although if one does exist they may work in tandem. Usage data and control options are available to consumers through a secure web portal accessible from any Web-enabled device. A separate portal for the electric utility provides a real-time graphic snapshot of aggregated loads at the home or device level via cellular or RF mesh communication. Options within Consert's Load Management Solution Suite will present utilities with a real-time, device-level view and control for conservation events, analytics and ancillary services.



Active Conservation Mode



Consert Network Connectivity



Signal Strength



Power On

FEATURES AND BENEFITS

Specifications

- ARM9 400 MHz Processor (Atmel AT91SAM9G20)
- 16 MB Flash/32 MB SDRAM
- Embedded Linux OS
- WAN
 - 802.11n WiFi radio (Marvel SD8787)
 - RJ45 Ethernet port
 - 3G Gobi3000 radio (PCIE slot)
- HAN
 - Two ZigBee radios (Ember EM357)
 - 802.11n WiFi radio (Marvel SD8787)
 - Expansion bus to support add-on radio modules (ZWave, GridStream, etc.)

Electrical

- External switching power supply supports 120-240 VAC (50-60 Hz)

Mechanical

- Custom-tooled plastic enclosure
- LED indicators
 - Active Conservation Mode
 - Consert Network Connectivity
 - Signal Strength
 - Power

ZigBee

- ZigBee (2.4 GHz) High Powered support (20 dBm transmit power) (UART/SPI interface)
- Supports SEP 1.1



REGULATORY INFORMATION

- Complies with Part 15 of the FCC Rules.
- USA-Federal Communications Commission (FCC)
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.

Cautions

- Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
- Exposure to radio frequency radiation: To comply with FCC RF exposure compliance requirements, a separation distance of at least 20 cm must be maintained between the antenna of this device and all persons. This device must not be colocated or operating in conjunction with any other antenna or transmitter.

Note

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 when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, 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 (only applicable if using an external antenna).
- Increase the separation between the equipment and receiver.
- Connect the equipment to 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.

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