

ESBox LT

SS9002



Product Brief

Connectivity and Control

The SS9002 ESBox LT ZigBee-Ethernet gateway provides a bidirectional link between installed ZigBee devices – such as Saturn South load control products – and a remote server. Up to 20 ZigBee devices can be managed simultaneously by the ESBox LT, with support for a growing number of third-party ZigBee Home Automation compatible devices.

The SS9002 ESBox LT is capable of storing up to 28 days of measurement data for 8 load control devices in internal memory. Logged data can be retrieved on demand by a remote server or sent automatically at a configurable interval.

A flexible update system enables remote firmware upgrades for the ESBox LT and Over The Air (OTA) updating of devices connected to the ZigBee network. Standards-based network security ensures the privacy of consumer information at all times.

A straightforward deployment and commissioning process helps to minimize the cost of large scale roll-outs, and powerful ZigBee network diagnostics tools are available to troubleshoot Home Area Network (HAN) setup in difficult sites.

The ESBox LT connects via wired Ethernet to any network with internet access, and logged data is retrieved from the ESBox LT using a freely available protocol. Communications can be dynamically throttled to limit the use of the consumer's Internet bandwidth as required.

Application Independence

The ESBox LT is suitable for a wide range of applications, from basic data logging and energy consumption reporting, to high-speed Demand Management and Network Support applications in isolated power networks.

Communications with back-office systems can be scheduled to occur at regular intervals throughout the day, or can be run in a continuous rapid response mode to enable the ESBox LT to respond to remote commands within a fraction of a second.

Applications

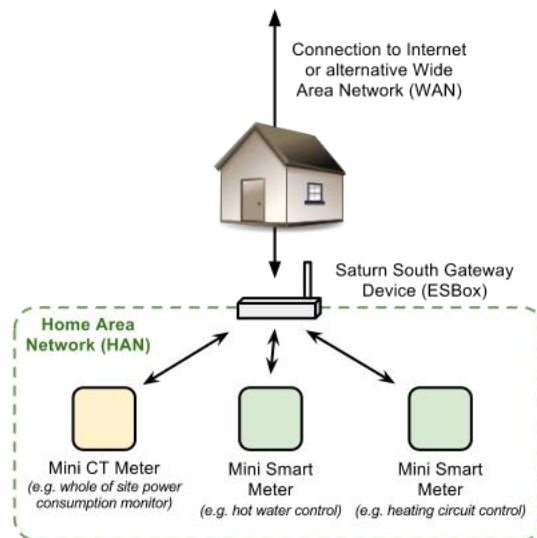
- Energy efficiency monitoring
- Data logging
- Demand Management
- Network Support
- ZigBee HA Network Coordinator

Features

- ZigBee-Ethernet Gateway
- Supports ZigBee Home Automation Profile
- Stores up to 28 days of site data
- On-board web application for network inspection, management and debugging
- Standards based security for ensuring integrity and privacy of consumer data
- Remote upgrade capability
- Supplied with 5V power pack and external antenna
- Compact form factor
- Co-branding options available

About the Saturn Energy Platform

The *Saturn Energy* series of products is a complete hardware platform for the remote, centralized monitoring and control of electrical loads. *Saturn Energy* technology gives network operators the power to match demand with supply by means of a scalable, fine-grained load control capability based on pre-existing communications infrastructure. For energy consumers, the *Saturn Energy* platform provides detailed insight into energy consumption trends, promoting the efficient use of power by identifying waste and providing a mechanism to control consumption.



An example of a typical Saturn Energy network is shown above. In this example, a Mini CT Meter is used to monitor the total consumption at a residential site, while Mini Smart Meters are used to independently monitor and remotely control a hot water and heating circuit within the site.

The three metering devices are connected to the ESBox LT's ZigBee network and are configured to regularly report power consumption data. The ESBox would typically be connected to the site's internet router in order to utilize the existing connection, however an alternative Wide Area Network (WAN) provided by the service operator could also be used (e.g. cellular data network, WiMAX network, etc).

Ordering Code: SS9002.1.3

About Saturn South

Saturn South is an electronics manufacturer specializing in circuit and appliance-level switching and metering solutions.

Based in Tasmania, Australia, Saturn South works closely with its Industry and Government Partners to develop energy management products for the national and global market.

Visit us at www.saturnsouth.com.

Technical Specifications

- 5V DC Supply (power supply included)
- ZigBee (IEEE 802.15.4) Radio in the 2.4000-2.4835 GHz unlicensed ISM band
- -102dBm receiver sensitivity
- +20dBm transmit power
- Tested range of 150m in free space
- AES-128 Radio Encryption
- SSLv3

Standards

- AS/NZS 61000.6.3
- AS/NZS 4268
- C-Tick

Requirements

- Wired Ethernet connection enabling access to management server

Availability

- Available Now