Range Extender

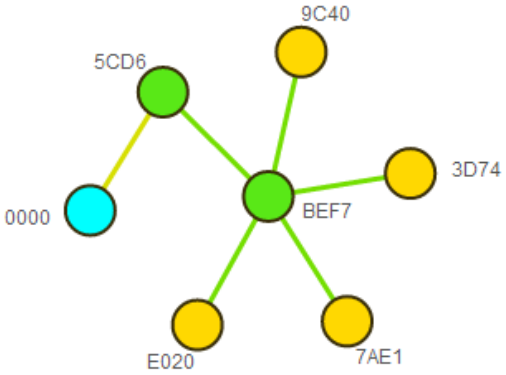
SS9006

Product Brief

Reliability and Reach

The SS9006 Range Extender enables Saturn Energy networks to be extended through large sites in which the site gateway cannot be placed in close proximity to all devices in the network. The SS9006 Range Extender uses mesh networking technology to improve network reliability and provide redundancy in ZigBee Home Automation networks.

The SS9006 Range Extender includes a Low-Noise receive amplifier and transmit amplifier to enable long hops between routing nodes, providing a robust self-healing communications backbone for endpoint sensors such as the Mini Smart Meter and Mini CT Meter.



A versatile set of network inspection capabilities enable dynamic mapping of complex mesh network topologies to identify and resolve connectivity issues. For deployments the Range Extender offers a simple UI for ensuring devices join the network in the desired hierarchy, and will automatically optimise the network structure in response to changing RF conditions at the site.

A flexible update system enables remote firmware upgrades for the Range Extender using the ZigBee Over-The-Air (OTA) programming standard. Standards-based network security ensures the privacy of consumer information at all times.

Applications

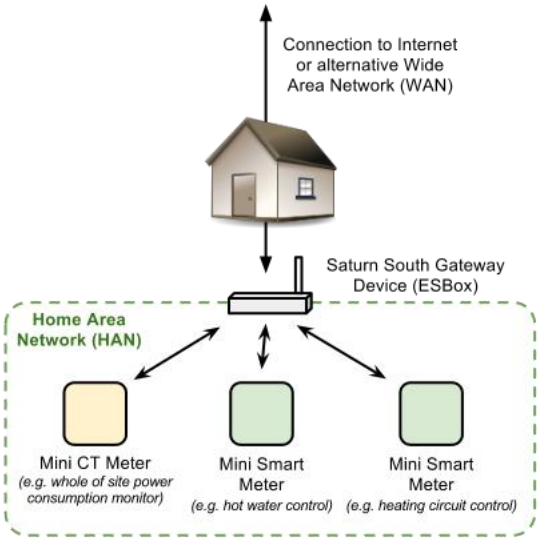
- Energy efficiency monitoring
- Data logging
- Demand Management
- Network Support

Features

- ZigBee HA Mesh Router
- Supports ZigBee Home Automation Profile
- Provides multiple-path redundancy in complex networks
- Enables deployment and maintenance of large scale networks across large physical areas
- 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 show 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 utilise 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).

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

Standards

- AS/NZS 61000.6.3
- AS/NZS 4268

Requirements

- ZigBee Home Automation network using Standard Security

Availability

- Available Now

Ordering Code: SS9006.1.2

About Saturn South

Saturn South develops circuit-level switching and metering products for the remote management and monitoring of electrical loads and generators.

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

Visit us at **www.saturnsouth.com**.