Green Energy Management

BILLION

BEsmart

Billion SG600

ZigBee Smart Energy Wireless-N Bridge

The Billion SG600, ZigBee Smart Energy Wireless-N Bridge, is a TCP/IP based ZigBee/Wi-Fi appliance designed for users to enjoy real-time power management. Integrated with ZigBee wireless technology, the Smart Energy Wireless-N Bridge can communicate wirelessly with Billion ZigBee-enabled smart meters such as Billion SG3010 series and Billion SG3015 series.

The Billion SG600 not only provides a wireless AP feature for connecting with local smart phone or notebook but also acts as a wireless client for connecting to exiting wireless gateway. This feature can extend the wireless coverage and reduce the wiring cost.

This Smart Energy Wireless-N Bridge is an important hub of Billion/BEC BEsmart Home Automation and Energy Management Ecosystem which consists of various sensors such as smart meter, power plug, smart switch, IHD, thermostat, and IP-Cam. The Billion SG600 provides flexible and easy development platform via a well-defined API (Application Program Interface) for system integrator and software partner to integrate their back-end solution and application software, and further to come out their own cloud service and apps.

This Smart Energy Wireless-N Bridge pushes all the recorded data to the back-end / cloud system which were built by SI and software companies so users can remotely monitor energy consumption and manage their appliances. This solution is ideal for SI of energy management, utility projects and service providers.

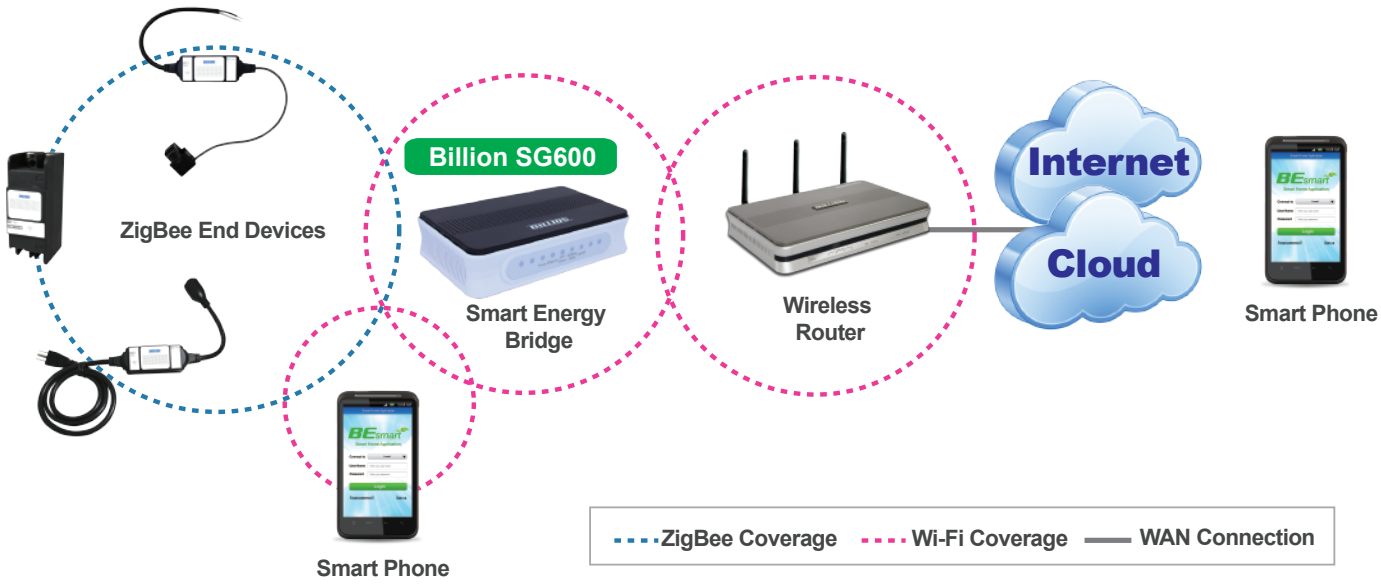
Ideal for

Residential & SOHO
I&C Users
Utility Companies

- Fully IEEE 802.15.4 and ZigBee PRO compliant
- 802.11n wireless AP, up to 150Mbps data rate
- Supports wireless AP mode and client mode
- 64/128 bits WEP supported for encryption
- WPS (Wi-Fi Protected Setup) for easy setup
- Wireless security with WPA-PSK /WPA2-PSK
- WDS repeater function
- Wireless bridge for connecting to existing wireless gateway
- Provides API for vendors to develop their App and cloud service
- Works as part of ZigBee-based energy management solution for business partners:
  - Power utilities: solar power, wind power, etc.
  - ZigBee network system integrator and planners
  - House builders
  - Suppliers of smart energy devices in IHD, load control, and PCT
  - Sub-metering service provider

Application Diagram

The Billion SG600 can be used as a wireless AP and wireless client at the same time. It can be able to collect data from ZigBee end devices via ZigBee wireless network for energy management. Meanwhile, it's able to be a wireless bridge in order to connect with existing wireless gateway.



Features & Specifications

Wireless Connectivity

- Compliant with IEEE 802.11n, 802.11g and 802.11b standards
- 2.4GHz - 2.484GHz frequency range
- Support Wireless in AP mode for wireless enabled device access
- Support Wireless client mode on WAN side for connect to next wireless node for expand the wireless coverage
- 64 / 128 bits WEP supported for encryption
- WPS (Wi-Fi Protected Setup) for easy setup
- Wireless Security with WPA-PSK / WPA2-PSK support
- WDS repeater function support
- Wireless bridge for connect to existing wireless gateway

ZigBee RF Specifications

- Fully IEEE 802.15.4 / ZigBee PRO compliant
- Operating Band: 2.400 - 2.483 GHz
- 16 channels in the 2.4GHz ISM band
- AES-128 hardware supported encryption

Hardware Specifications

Physical Interface

- 802.11n WLAN: Internal antenna
- Ethernet: 1 x 10/100Mbps Auto-MDI/MDI-X RJ-45 Ethernet ports
- Reset button
- WPS/ZigBee push button
- Power jack

Physical Specifications

- Dimensions: 5.53" x 3.56" x 1.37" (140.5mm x 90.5mm x 35mm)

Power Requirements

- Input: 12V DC, 1A

Operating Environment

- Operating temperature: 0˚C ~ 40˚C
- Storage temperature: -20˚C ~ 70˚C
- Humidity: 20% ~ 95% non-condensing

Specifications on this datasheet are subject to change without prior notice.

V06262013

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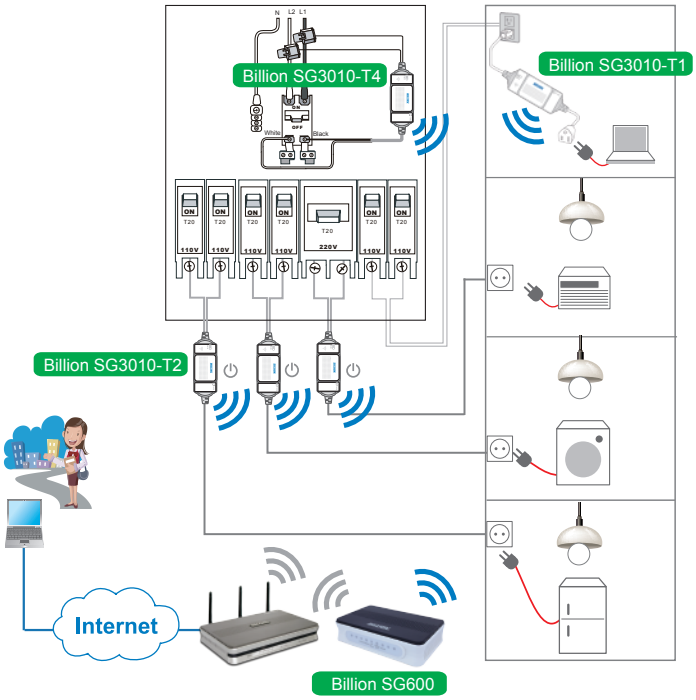
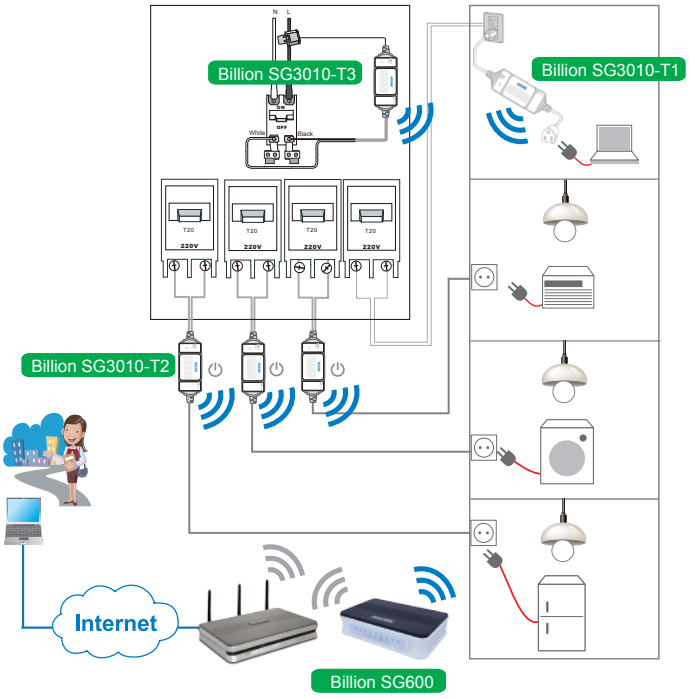
Gateway-based Energy Management Application

▶ Single-phase 3-wire (e.g. USA and Taiwan)



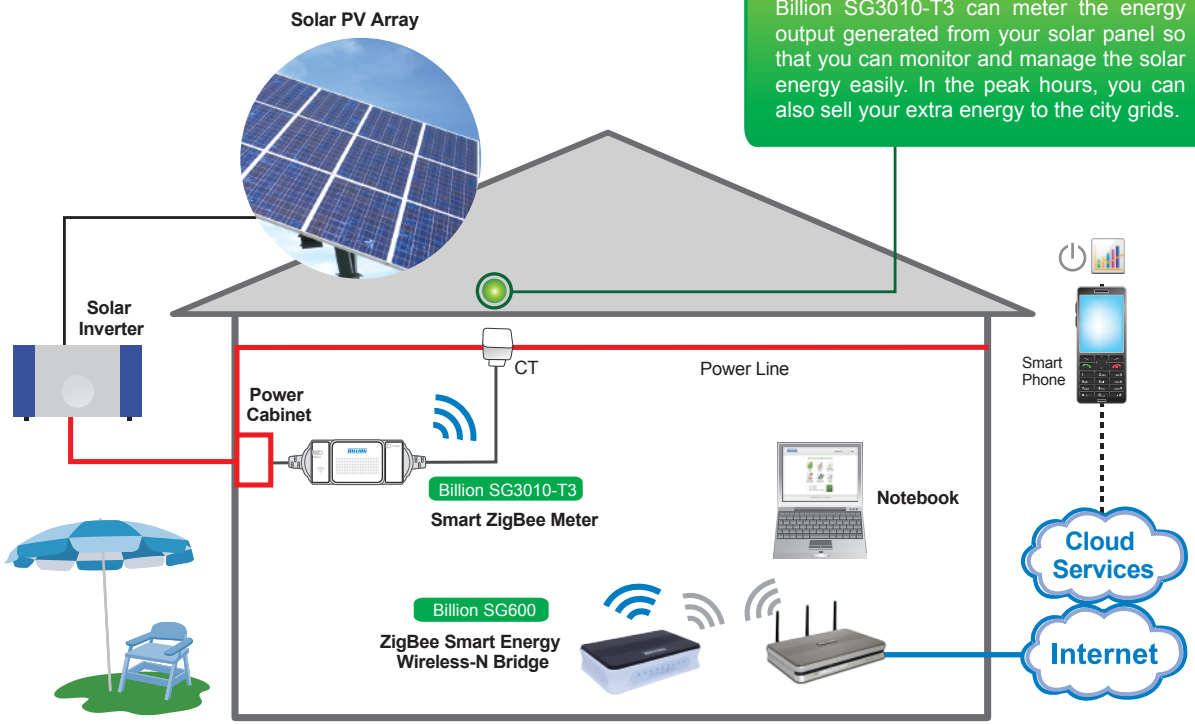
▶ Single-phase 2-wire (e.g. Europe)



Solar Energy Management Application

Solar Energy Management

Billion SG3010-T3 can meter the energy output generated from your solar panel so that you can monitor and manage the solar energy easily. In the peak hours, you can also sell your extra energy to the city grids.



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