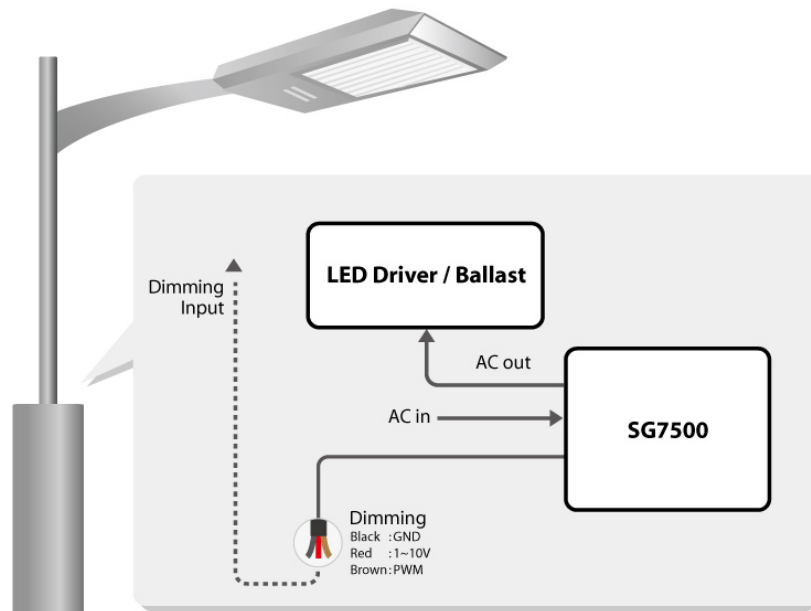


Billion SG7500

Intelligent Power Line Lighting Control Box



The Billion Intelligent Power Line Lighting Control Box is embedded inside of every streetlight, serving as a transceiver transmitting data to PLC communication gateway over AC power line. It also plays as an end-point controller in the Intelligent Lighting Control Management System (LCMS) network, enabling administrators to make dimming and power on/off switch remotely.



- Communicate over AC power line
- Remote lighting switch on/off functionality
- Dimming adjustment 10% ~ 100 %
- Measure AC output for
 - Voltage
 - Current
 - Power Consumption.
- Compact and modest model size
- IP-65 compliant rugged design for high level of protection against dust and water

The diagram indicates the system layout of Billion's LCMS broadband PLC technology. The SG7510 communication gateway receives the lighting data that is transferred from the Intelligent Control Boxes installed inside of every streetlight. Users can access, monitor, and oversee a broad range of lighting status on a Billion-provided cloud computing platform. LCMS is an excellent technology grid allowing system operators to remotely control numerous streetlights at scattered locations from wherever they are located.

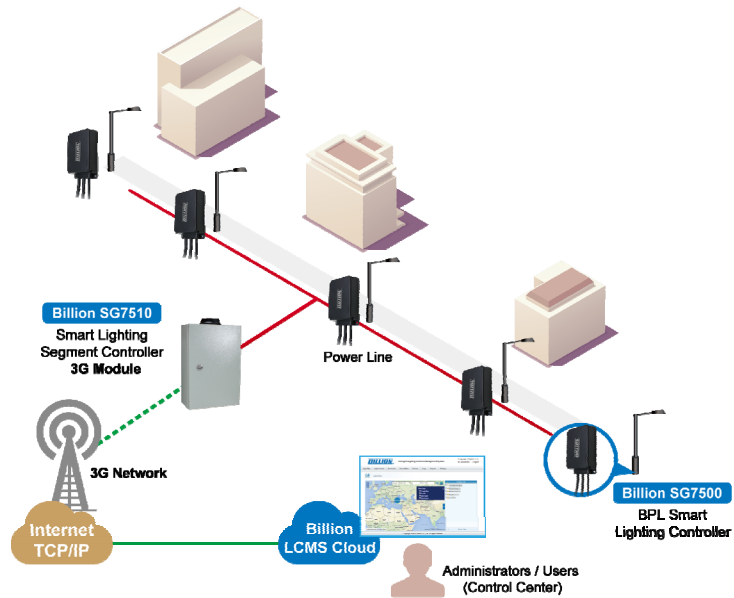


Diagram 1: Smart Lighting BPLC System Architecture (Single Segment)

For any particular circumstance, SG7530 can be optionally mounted underneath the assigned street light fixtures, bridging the status of individual street-lighting segments to one versatile LCMS Communication Broadband Gateway. System operators are able to drastically reduce hardware and WAN network operational costs through this Intelligent Lighting Control System integration.

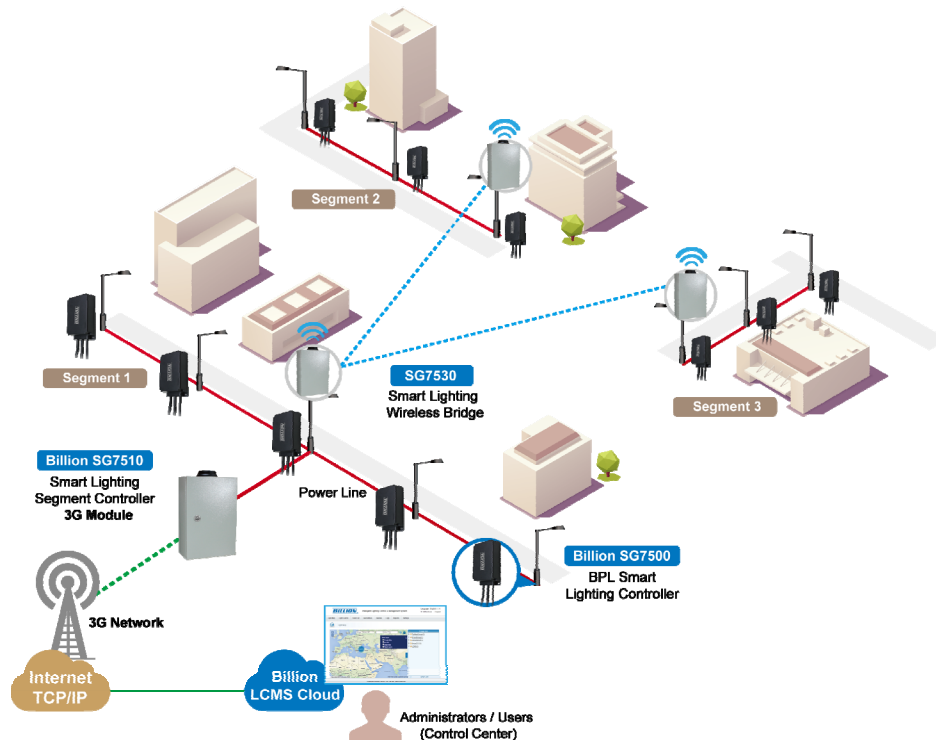


Diagram 2: Smart Lighting BPLC System Diagram (Multiple Street-Lighting Segments)

Technical Specifications

Standard	Broadband over powerline
Carrier Frequencies	2MHz ~ 30MHz
Communication Technique	OFDM
AC Input Voltage	Voltage: AC 100V ~ 277V
AC Output	Voltage: AC 100V ~ 277V, Current: AC 4 Amp (Max)
PWM Dimming	Cable: Brown (+), Black (-) Frequency: 200Hz ~ 8KHz Duty Cycle: 10 % ~ 100 %, 10 steps
1~10V Dimming	Cable: Red (+), Black (-) Voltage: 1 ~ 10V, 10 steps
Meter	Voltage Measurement: 100V ~ 277V \pm 1 % Current Measurement: < 0.3A \pm 20mA > 0.3A \pm 1 % Frequency Measurement: 50/60 Hz \pm 1 % Power Factor Measurement: -0.95 ~ 1 \pm 1 % Power Measurement: \pm 2 % (depending on Power Factor) Accumulated Energy Measurement: Wh (per hour)
Power Consumption	5 Watt (Max)
Operating Temperature	-40 $^{\circ}$ C ~ 60 $^{\circ}$ C
Humidity	10 % ~ 95 %
Dimensions (L x W x H)	13 cm x 8 cm x 3.8 cm (with Mounting Flange)

Note: All the specifications are subject to change without prior notice.
Please contact Sales for the most updated information.

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