

EkoLum Segment Gateway

Efficient Remote Control of Street Lighting

The EkoLum Segment Gateway is the heart of the EkoLum system. The Gateway controls each and every luminaire connected to a segment via narrow band powerline communications (PLC) and reports status back to the central EkoLum control application on the EkoLum or customer's web server.

The EkoLum Segment Gateway is a programmable controller that provides specialised features for the control and the monitoring of each light source on a streetlight network. It monitors equipments both in the cabinet (meters, controllers) and in each Light point (controller and ballasts), through the standardized ISO/IEC 14908-1 and -2 protocol (also called LonWorks).

- Realtime synchronisable clock.
- Integrated astronomical clock.
- Programmable switch and dimming commands at fixed time or dawn/dusk related time.
- Program dimming level up to 1% precision
- Send datalogs each day and on alarm via any available network such as GPRS, 3G, 3G+, WiFi, ADSL.
- Web configuration software to configure and install a segment in record time.
- Automatic reboot in case of power loss.
- Advanced programming available to address specific needs.
- Realtime Operations System for more reliability.



EkoLum Segment Gateway
EK3001

Its robustness, its unique features, its programmability, its size and its attractive price makes it the best and most reliable product on the market.

The EkoLum line of products from EkoPLC permits cities to control their public light sources with greater precision than ever before, with corresponding energy savings, improvement in public safety, and reduced environmental footprint.

System components

<p>Sheeva CPU Core</p> <p>1.2 Ghz operation L1 Cache: 16K Instruction + 16K Data L2 Cache: 256KB</p>	<p>Memory</p> <p>DDR 2 800Mhz, 16-bit bus 512MB 16bit DDR 2 @ 800 MHz data rate NAND FLASH Controller, 8-bit bus 512MB NAND FLASH: 4Gb x8, direct boot 128-bit eFuse Memory</p>
<p>Power</p> <p>Power input: 100-240VAC/50-60Hz Max. 20W DC Consumption: 5V/3.0 A Max. High efficiency POL DC-DC converters</p>	<p>Development Interface</p> <p>JTAG and Console comes with UART RS-232, one Mini-USB Port, and a JTAG Port for Debugging and Programming</p>
<p>High Speedy I/O & Peripherals</p> <p>1x eSATA 2.0 port -3Gbps SATAII 2x USB 2.0 1x Internal MicroSD Socket for Optional Kernel System 1x External MicroSD Socket RTC w/Battery</p>	<p>Harware Security Engines</p> <p>AES, DES and 3DES encrption algorithms SHA1 and MD5 authentication algorithms</p>
<p>Linux Kernel 2.6.32 Wi-Fi 802.11b/g Bluetooth:2.1 / EDR 7x GPIOs for user application- 5 with 3.3V I/O, 2 with 1.8 I/O Optional with SPI Flash + SD card boot up UBIFS Flash file system support NAND Flash boot up</p>	