Lumewave Base Station

Product Description

The Lumewave Base Station is comparable to the Lumewave Gateway, but with a bi-directional pole-mounted amplifier that doubles the range. Part of a Lumewave by Echelon® intelligent control system, the Base Station connects wireless lighting controllers with the central management system through an Ethernet link for LAN connections or a cellular link via an integrated modem. The Base Station supports up to 2,000 controllers over a range of up to 4 miles, line of sight, facilitating secure and robust network communication. Lumewave intelligent networks are designed to handle multiple Gateways and Base Stations for large scale deployment support.

Operation

The Base Station is housed in an IP66-rated NEMA 4x enclosure that can be pole- or wall-mounted. It uses a 900 MHz antenna that is connected via a lightning protected port, either affixed directly to the device or remotely mounted. All models operate from 120-240VAC at 50/60Hz. The Base Station is supplied with a secondary amplifier, with an extension cable, that is pole-mounted to extend the range of communication. The device is built on a powerful and scalable Linux-based platform with a built-in modem for cellular connection from multiple wireless carriers.

Features and Benefits

- Doubles the wireless range compared to a Lumewave Gateway using a bi-directional pole-mounted amplifier
- Ethernet link for LAN connection or cellular link via built-in modem
- Supports up to 2,000 controllers up to a 4-mile line of sight
- Secure AES 128-bit encryption for wireless data transmission
- External RF port for extended coax antenna runs
- Built-in lightning surge arrester on all antenna ports
- Wall or pole mount inside of UL IP66 rated polycarbonate enclosure
- Works in extended temperature range conditions without service interruptions
**Product Specifications**

### Wireless parameters

- **Network type:** Star-mesh topology
- **Operating frequency:** 902-928 MHz
- **RF Power:** +30dBm
- **Range:** 4 miles (6.4km), line of sight
- **Number of controllers supported:** 2000

### Connectivity

- **Cellular model:** Multiple carriers
- **Ethernet model:** 10/100 Ethernet

### Mounting and operation

- **Housing:** Polycarbonate with built-in pole mounting brackets
- **Mounting:** Wall or pole
- **Dimensions:** 17.6” x 13” x 4.1” (H X W x D)
- **Operating voltage:** 120-240VAC, 50/60Hz
- **Temperature range:** -30°C to +70°C (Base Station box); -40°C to +70°C (external amplifier)

### Safety, compliance and warranty

- IP66 certified
- NEMA 4x
- FCC and IC approved
- 5 year limited warranty*

*Subject to terms and conditions found at [http://echelon.com/lp/warranty_five_year](http://echelon.com/lp/warranty_five_year)

### Wiring Diagrams

#### Base Station - Cellular

![Base Station - Cellular wiring diagram]

#### Base Station - Ethernet

![Base Station - Ethernet wiring diagram]

### Ordering #

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<tr>
<td>100142</td>
<td>Lumewave Base Station - Ethernet</td>
<td>Ethernet connection gateway with bi-directional amplifier for range extension</td>
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<tr>
<td>100143</td>
<td>Lumewave Base Station - Cellular</td>
<td>Cellular connection gateway with bi-directional amplifier for range extension</td>
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