WIRELESS NETWORK BRIDGE

LMBC-650

- Connects any DLM wired devices to a wireless IPv6 Mesh secure self-forming network
- Built-in IPv6 Mesh and Bluetooth® low energy technology antennas provide robust signal strength and reliable communication
- Two RJ-45 ports for DLM Cat 5e communication and class 2 power
- Includes trusted hardware chips for device validation and secure out-of-box wireless AES 128-bit encryption
- Dual LED indicators to show wireless network health and DLM Cat 5e communication
- Plenum rated with mounting hardware for fast installation
- Supports third party integration with BAS through BACnet/IP over IPv6 Wireless Mesh network
- Commissioning using DLM Configuration App for iOS® or Android®

GET IT ON Google Play | Get it on iTunes | IPv6 MESH | Bluetooth® | RoHS | BACnet®

Description

The LMBC-650 Wireless Network Bridge provides room to room network connectivity for rooms with Wattstopper Digital Lighting Management (DLM) devices. The wireless DLM platform simplifies room to room communication and installation, and eliminates potential start-up delays caused by wiring issues.

The DLM local room network must include at least one room/load controller. Once connected, the LMBC-650 can communicate to DLM software applications or a third party system using BACnet, exposing the status and parameters of all room connected devices to the broader network.

Applications

The LMBC-650 is ideal for networking multiple rooms together and for adding wireless DLM devices to wired DLM rooms to create hybrid wired/wireless spaces.

Wireless bridges are ideal for projects where centralized monitoring, control, or configuration are needed, but without sacrificing the design flexibility and simplified installation of a wireless system. It enables wireless communication between DLM devices on the local Cat 5e in-room bus (IRB) network and front end hardware. This facilitates advanced sequences of operation including demand response, communication with other BACnet systems and the ability to update firmware in any DLM device via LMCS software. An LMBC-650 is required for each local network.

Operation

The wireless network bridge operates using Class 2 power supplied by a DLM local network from one or more DLM room controllers. It connects to the free-topology local network at any convenient location using a standard LMRJ cable. It then securely communicates via encrypted wireless protocol over a mesh network to an LMBR-650 Border Router on the same floor of the building.

The LMBC-650 monitors the DLM local network and automatically exposes all room devices, settings and calibrations to the Border Router. An optional network controller can also communicate to the individual devices in each room through the Border Router. Incorporating a Network Bridge in each DLM local network also allows the individual local networks to respond as a group to schedules configured on DLM Dashboard software or a network conroller.

The built in Bluetooth low energy technology and IPv6 Mesh radio transceivers in the LMBC-650 allow two-way communication for both wireless configuration using the DLM Configuration App, and wireless system operation, enabling communication to other wireless nodes and the LMBR-650 Border Router.

PROJECT		LOCATION/ TYPE	

Features

- Component of Wireless Digital Lighting Management integrated control system
- Built-in IPv6 Mesh and Bluetooth low energy antennas provide robust signal strength and reliable communication
- Communicates all DLM local network data and device settings to a centralized controller for access by DLM software applications.
- IPv6 Mesh wireless standard delivers reliable, long range, low latency wireless communication that is scalable for a single room or entire buildings with thousands of rooms
- Robust and reliable BACnet over IPv6 Mesh Network based on open standards & protocols
- Easy to install and requires no manual wire terminations
- Two RJ-45 ports for DLM Cat 5e local network
- Firmware can easily be updated over the air using the DLM Configuration App (which comunicates via Bluetooth low energy technology) or LMCS software.
- A fully networked DLM system, paired with RACCESS remote support, allows updates to be pushed to the entire building from the Wattstopper Remote Operations Center (ROC), avoiding downtime or service calls.
- Trusted hardware chip provides device validation, preventing any outside devices from being able to connect to the lighting control network.
- 2.4GHz band, Available channels: 11–25
- LED indicators to indicate wireless network health and local network communication
- Compatible with Wattstopper software: LMCS 4.7 and or later

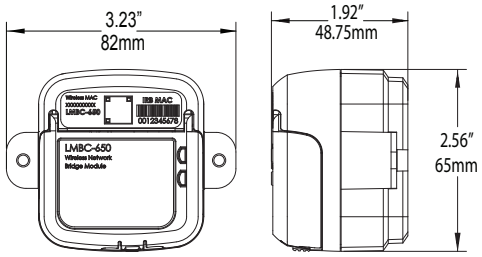
Specifications

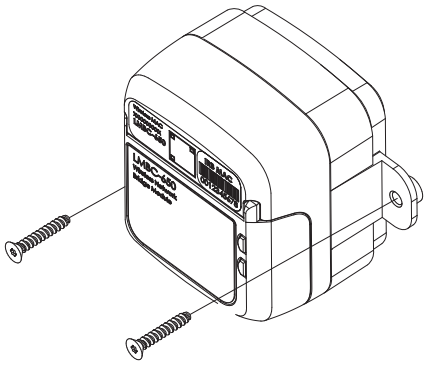
- Voltage: 24VDC from DLM local network
- Current Consumption: 20mA
- Connection to the wired DLM Local Network: two RJ-45 ports
- Wireless Standards supported:
  - IPv6 Mesh (6LoWPAN / 802.15.4 / 2.4GHz), range 100 ft.*
  - Bluetooth low energy (802.15.4 / 2.4GHz), range up to 30 ft.*
- Built-in Antennas: IPv6 Mesh and Bluetooth low energy
- Device Security: Secure-factory provisioned trusted hardware with Legrand-private certificate chain and signed ECC keypair

*If LMBC-650 is mounted inside a metal enclosure, range reduced by up to 25%

- Wireless Encryption: AES 128-bit symmetric key, randomly generated per-PAN, shared via secure DTLS only
- Supported Standards:
  - BACnet
  - IPv6
  - Bluetooth low energy
- Operating conditions: for indoor use only; 32-158°F (0-70°C); 0-95% RH, non-condensing
- The product meets the materials restrictions of RoHS
- UL 2043 Plenum Rated
- UL and cUL listed (E101196)
- Indoor Use Only
- Five Year Warranty

Dimensions and Mounting

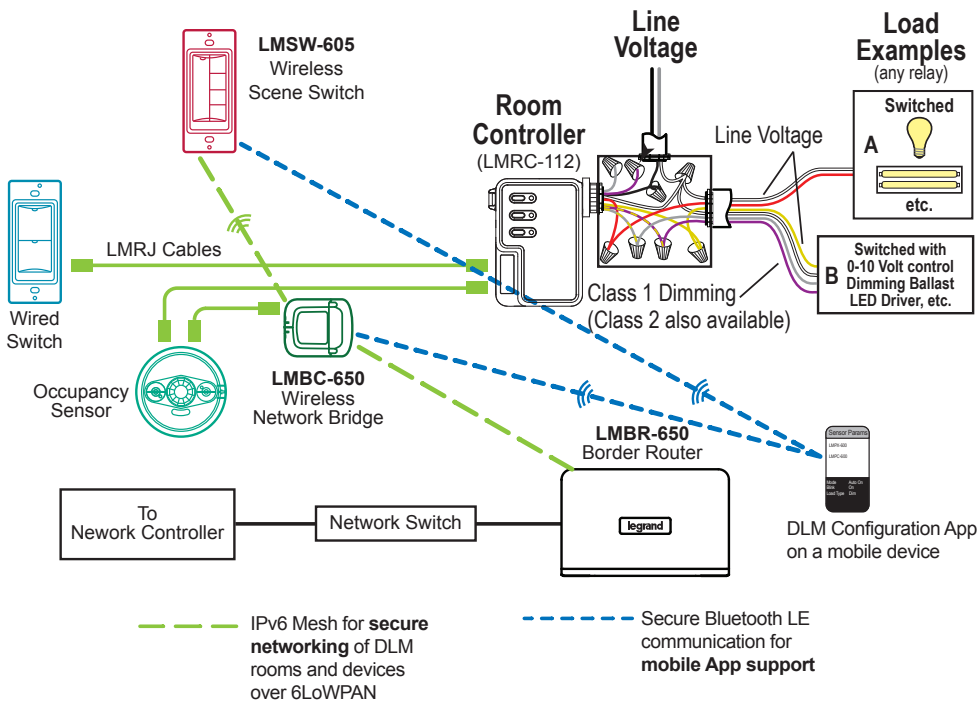




Avoid mounting next to motors, large metal obstructions, or within 12" of another wireless emitting device.

Typical Connection to DLM Local Network

The LMBC-650 provides connection to both wired and wireless DLM devices in the same room to create hybrid wired/wireless spaces.



Ordering Information

Catalog #	Description
☐ LMBC-650	Wireless Network Bridge with Bluetooth low energy