RF Dimming Module with 0–10 V Control

Compatible with RA2 Select, RadioRA 2, and HomeWorks systems

The RF dimming module with 0–10 V control is a radio frequency (RF) control that operates 0–10 V controlled fluorescent ballasts or LED drivers based on input from RA2 Select, RadioRA 2, and HomeWorks systems.

- 0–10 V control link automatically sources or sinks up to 60 mA to third-party fixtures.
- Switches line voltage up to 5 A.
- Configurable high- and low-end trim.
- Various operating voltages available—refer to Models chart below for details on voltage requirements.
- Utilizes Lutron Clear Connect RF technology—refer to Models chart below for frequency band data and Lutron system compatibility.
- RadioRA 2 Inclusive or HomeWorks software required for system functionality.
- Mounts to an electrical junction box through a 1/2 in (21 mm trade-size) knockout opening.
- Complies with requirements for use in a compartment handling environmental air (plenum) per NEC® 2011 300.22(C)(3) (LMJ- model only).

Models

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Region</th>
<th>Operating Voltage</th>
<th>Frequency Band</th>
<th>Compatible Systems</th>
</tr>
</thead>
<tbody>
<tr>
<td>LMJ-5T-DV-B</td>
<td>U.S.A., Canada, Mexico</td>
<td>120 / 277 V~</td>
<td>431.0–437.0 MHz</td>
<td>RA2 Select, RadioRA 2, HomeWorks</td>
</tr>
<tr>
<td>LMM-5T-DV-B</td>
<td>China</td>
<td>220–240 V~</td>
<td>868.125–868.475 MHz</td>
<td></td>
</tr>
<tr>
<td>LMQ-5T-DV-B</td>
<td>Hong Kong, Israel</td>
<td></td>
<td>433.05–434.79 MHz</td>
<td></td>
</tr>
</tbody>
</table>

NOTE: Contact Lutron for frequency band compatibility for your geographic region if it is not indicated above.
# RF Dimming Module with 0–10 V- Control

## Specification

<table>
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<tr>
<th>Specification</th>
<th>Details</th>
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<tbody>
<tr>
<td><strong>Model Number</strong></td>
<td>LMJ-5T-DV-B, LMK-5T-DV-B, LMM-5T-DV-B, LMQ-5T-DV-B</td>
</tr>
</tbody>
</table>
| **Power** | 120/277 V~ 50/60 Hz  5 A (LMJ- model)  
220–240 V~ 50/60 Hz  5 A (LMK-, LMM-, LMQ- models) |
| **Typical Power Consumption** | < 1.0 W |
| **Regulatory Approvals** | UL, UL 2043 Plenum Rated, FCC Approved. Complies with the limits for a Class B device, pursuant to Part 15 of the FCC rules:  
CSA, IC, NOM (LMJ- model)  
CE, TRA, CITC (LMK- model) |
| **Environment** | Ambient operating temperature: 32 °F to 104 °F (0 °C to 40 °C)  
Ambient operating humidity: 0% to 90% humidity, non-condensing. Indoor use only |
| **Communications** | Operates using Clear Connect RF technology for reliable wireless communication; refer to model number chart on page 1 for frequency band details. RF range is 30 ft (9 m) from repeaters. Contact Lutron for applications using foil-backed or metallic ceiling tiles. |
| **Load** | 0–10 V- Control Link Maximum Load: 60 mA, source or sink automatically configures. Control link compatible with ANSI E1.3 2001 (R2006), IEC 60929 Annex E.  
Switched Maximum Load: 5 A lighting. No minimum load requirements. Load types include, but are not limited to: MLV, ELV, Incandescent, Magnetic fluorescent, Electronic fluorescent and LEDs. |
| **Surge Protection** | Tested to withstand surge voltages without damage or loss of operation, in accordance with IEEE C62.41-1991 Recommended Practice on Surge Voltages in Low-Voltage AC Power Circuits. |
| **Mounting** | Mounts to an electrical junction box through a 1/2 in (21 mm trade-size) knockout opening. |
RF Dimming Module with 0–10 V Control

Dimensions

Dimensions are shown as: in (mm)

Dimensions for all models. Model LMJ-5T-DV-B shown.
RF Dimming Module with 0–10 V Control

Wiring Schematics

LMJ-, LMQ- models:
Use the supplied conduit nut and wire the module as shown.

120/277 V ~ 50/60 Hz (LMJ-model)
220–240 V ~ 50/60 Hz (LMQ-model)

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1 Some applications (in the USA) require the RF module to be installed inside an additional junction box. For information about how to perform this installation see Application Note #423 (P/N 048423) at www.lutron.com

Please consult all local and national electric codes for proper installation methods.

2 Use 18 AWG to 16 AWG (0.75 mm² to 1.5 mm²) solid wire only
RF Dimming Module with 0–10 V\textendash\textendash\textendash Control

Wiring Schematics (continued)

LMK-, LMM- models:

220–240 V\textendash\textendash\textendash 50 / 60 Hz

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3 RF module can be installed in a junction box or marshalling box. Please consult all local and national electric codes for proper installation methods.
RF Dimming Module with 0–10 V-Control

Communications

Wired and RF Configuration (RadioRA 2 and HomeWorks)

* In HomeWorks systems, use Hybrid Repeaters for range extension. In RadioRA 2, the repeater shown may be either a main repeater (1 required) or auxiliary repeater (up to 4 permitted).

RA2 Select RF Range

All devices must be located within 30 ft (9 m) of a repeater. The range can be extended with up to 4 Lutron wireless repeaters (Lutron wireless Repeaters).