

ILC-640-D™ DALI II (DT-8) Controller/Encoder

CS-Bus™ DALI II Controller for DALI II Fixtures

Remote Power/Control for multiple DALI II Tunable White (RGBW) or monochrome (W) LED fixtures

Networkable system enables up to 4 CS-Bus Controllers (320 fixtures) to be connected (per gateway) over a 4000 ft. digital bus

Bi-Directional Support with all popular Lighting and Automation Systems available in the market



Licensed Technology from Philips Lighting

DIN-Rail form factor can be remotely mounted for group fixture control

Sophisticated Programmable Software

Product Description

Background

The Intelligent Lighting Controller (ILC-640-D™) is an ingenious state-of-the art networkable controller for DALI II Tunable White (CCT/color temperature controlled) and Monochrome fixtures. Unlike traditional DALI gateways which offer only limited integration partner connectivity and which requires expensive DALI power supplies, the ILC-640-D controller provides cross platform connectivity **for all popular integration systems** PLUS system support with simple/inexpensive constant voltage power supplies (without the need of high-priced DALI power supplies). Integration partner support includes accurate color temperature and Circadian rhythm control. Many enhanced features including static and dynamic (moving) scene selection, as well as bi-directional feedback, are all built-in.

Operation

Up to 4 ILC-640-D™ controllers can be networked to control up to 320 DALI fixtures (Qty TBD at launch). Automation systems and 3rd-party lighting panels can operate ILC-640-D networks up to 4000 feet away.

Easy Setup and Configuration

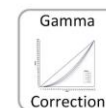
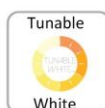
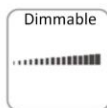
The controller's incredibly small size enables the unit to be positioned seamlessly within a soffit, equipment rack, J-Box or control panel. A built-in microprocessor allows easy system programming while the unique CS-Bus™ discovery technology allows one or more controllers to be interfaced to control lighting functions and scenes. Popular building and home automation systems have developed customized device drivers which enable simple to sophisticated control of scenes and functions.

Applications

The system is designed to operate either as a standalone device or within an integrated system controlling DALI II tunable white or monochrome fixtures. Typical applications include architectural lighting, general purpose illumination, navigational/accessibility lighting, decorative ambient, focal point, and object of interest illumination. Bi-directional feedback enables automation systems to indicate any actual lighting states selected (on touchscreens and iPads). The ILC-640-D™ allows you to be the designer for LED lighting.

Features

- Full support of selected DALI II/DT-8 Fixtures¹
- Full tunable white (1600K to 7000K) and Circadian Color control (measurement of Big Island, HI natural sun)
- Wide range of network control options
- Support from all popular lighting and automation systems
- IP connectivity-64 DALI II devices per controllers (up to 320 fixtures per gateway)¹
- 64-bit dimming internal processing (compared to 8-bit processing with typical systems)



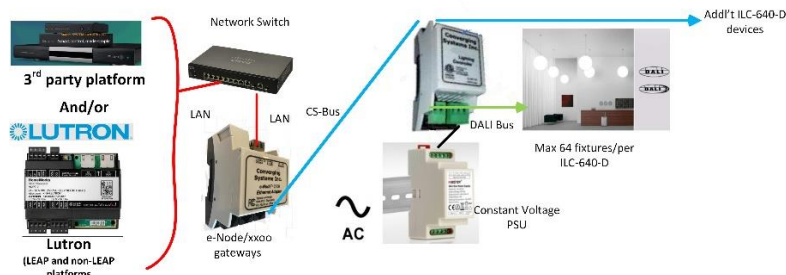
Specifications

Feature	Detail
DALI II Tunable White and Monochrome LED Fixture Support*	-Supports DALI II/DT-8 Tunable White and Monochrome LED fixtures. For supported tunable white fixtures, a full range of CCT (correlated color temperature) support is possible. -Full color support (coming)
LED Fixture Compatibility	-Tunable White DALI II Type -Monochrome DALI II Type
DALI II Fixture Commissioning	Native (built-in) commissioning of connected DALI devices
Communication Wiring Topology	-16/2 awg. CL2 (typical) cabling to downstream DALI fixtures for communication (up to 300 meters) -Trees, branches are acceptable (no rings) -No termination required
Communication (between ILC-640-DI and Communication Gateway)	CS-Bus™ (3-pair CAT 5e or better—Brown pr. not used). 1220 meters maximum wire length. On-board dual RJ-11/25 connector for additional downstream CS-Bus™ connections
CS-Bus Monitoring	Built-in CS-Bus monitoring signals in case of faults or shorts
Addressability	-Individual addressability for up to 64 DALI II slave devices (fixtures) -Group addressability up to 16 DALI II lighting groups -System Limits—Up to 4 ILC-640-D per e-Node 2x00/4x00 (subject to integration platform limits)
Overvoltage and ESI protection	-Unique circuitry permits overvoltage protection as well as ESD (electro-static discharge) protection. -Galvanic isolation for fault-free operation

Feature	Detail
Lighting and Automation System Compatibility	-Pilot app Virtual keypad PC application -Web page UI control -Any compatible 3 rd party system (AMX, Crestron, Control4, Elan/NICE, Key Digital, Lutron (RR2/RR3, HWQS/HWQSX), RTI, URC, Vantage)
Control Options	-CSI Keypads (BSKP-2xxx)--(TBD) -IP: Through e-Node 2x00/4x00
Power Supply requirement	-ILC-640-D has a built-in current limiting circuit that limits current to connected devices to 250ma (thus obviating the need for expensive DALI power supplies). -Standard constant voltage 15vdc 250ma min PSU sufficient (more expensive DALI PSU not required)
Size	DIN-Rail format permits rapid installation within equipment racks -3.52"(89.74mm) x 2.12" (53.76mm) x 2.4" (50.90mm) (not including extendable Din lugs)
Internal Microprocessor	-32-bit ARM CPU assures minimal turnaround on DALI bus this significantly reducing any latency in communication
Weight	3.3 oz. (93 gm)
Compliance	RoHS, UL Listed, Rated to work with UL rated Category 2 power supplies
Manufacturing	Designed and Manufactured in California

Overview

Wiring



Application

The ILC- x00 family of LED controllers and associated LED luminaires of single color, full color and adjustable color temperature are ideal for a variety of applications. They are widely used in a variety of application areas where **precise color settings, 3rd-party lighting and automation control, networkable functionality, expandability** and **bi-directional feedback** are demanded. You application may be easily adapted from our core technology. Contact us for more information.

- Architectural Lighting
- Soffit and Alcove Lighting
- Object of Interest Illumination
- Cabinet Lighting
- Marine/Boat applications
- Energy savings applications
- Enhanced functionality for Lighting Panels
- Space saving requirement

Note: ¹ Contact factory for specific fixtures supported, maximum number of fixtures per controller, required power supplies and wiring directions.

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