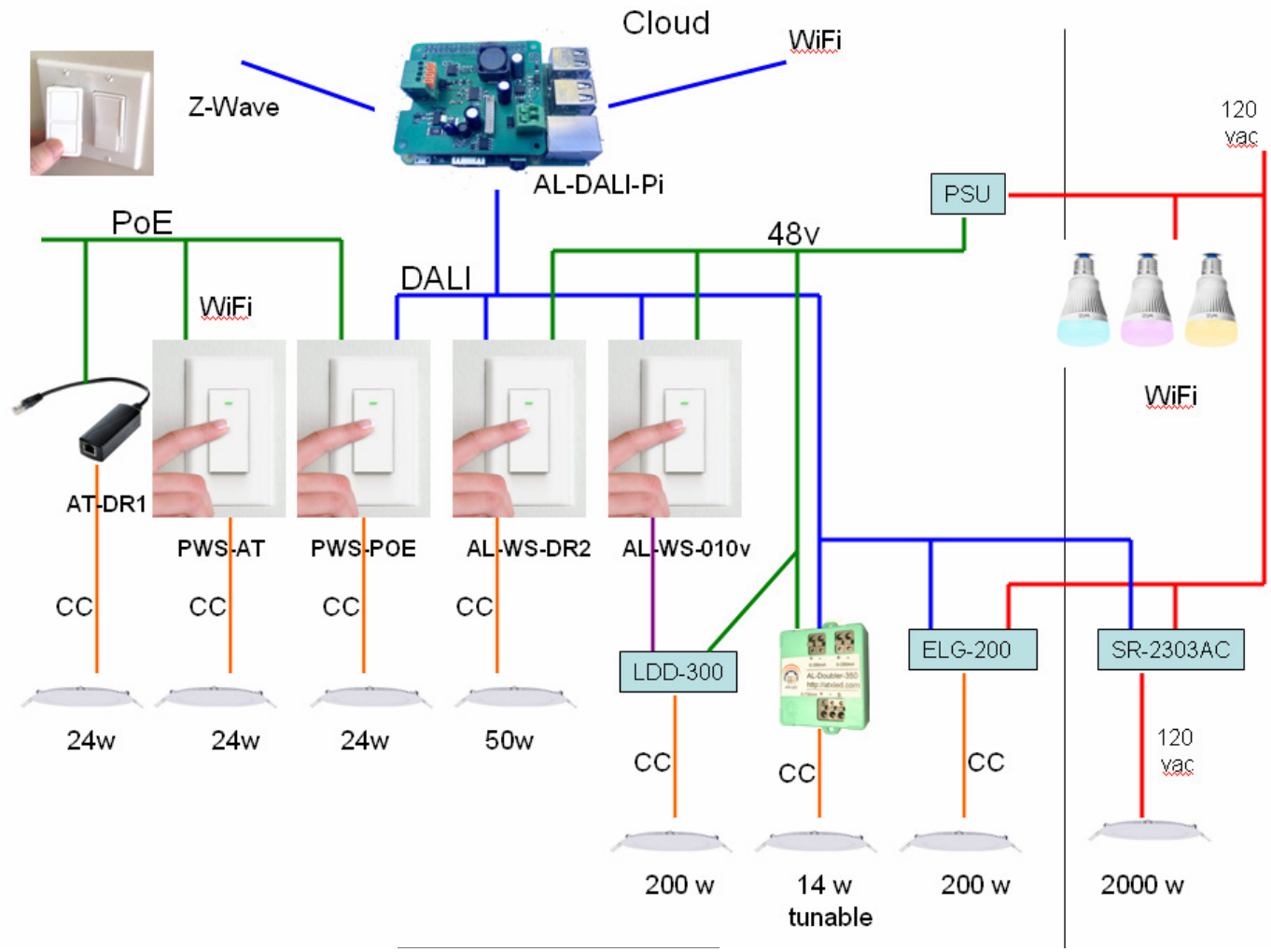
ATX LED Consultants Inc

Merged IoT and Power Solutions

LED Drivers Room quality sensors

ATX-LED

DALI and PoE architecture



Austin Led Consultants

DMX and Led power over ethernet

ATX-LED

ATX LED Consultants Inc
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AL-WS-DR1
Decorator style
PoE Constant Current LED
Dimmer / Driver
with integrated switch
56 watt 3-Way DALI

Product Description - AL-WS-DR1 wall switch

This switch operates just like any standard residential light switch – however it takes 24-50v DC instead of 120VAC, and directly drives up to 24 watts of LEDs. This Decorator style switch is a standard residential style outline fits into any home, looks like any switch yet requires no licensed electrician for installation. No complicated controller is required.

For 3-way operation – a simple 2-wire link with AWG24 or better allows 2, 3, or an unlimited numbers of switches to control one set of LED's. Any single pole switch found at Home Depot can be used to add a 3-Way remote switch, or dual pole switch for an unlimited number of switch points.

Stand alone it operates as a simple switch for 2 strings of LED's. Software configurable 300, 350, 600 mA LEDs with up to 24 watts total. Use AWG CAT 5e or CAT 6 cable to bring 48v (or 24 to 50 volts) from a central power supply over to the switches, then use AWG 18 to connect to your LEDs – no tools are required to wire this device.

A simple momentary switch is used for On/Off and brightness. The standard size of the Decorator switch, now for low voltage applications – any casual user requires no training, no App to use this switch. Perfect, flicker free dimming from off to 1 to 100%. No network setup is required. Temperature feedback assures excellent dimming.

To enable Home / Business automation – the AL-WS-DR1 includes a DALI bus port for App and voice control. Use the AL-DALI-PI to for home automation and to connect to Alexa or Google home voice control. The DALI protocol is supported, with automatic addressing. RJ45 load thru for Power and control to allow Daisy Chain installations. Up to 4 switches can share one home run.

Specifications

Power source and DALI	RJ45 power ready @, DALI (pins 1,2: 9-16Vdc pins 4,5
LED constant current output	700 mA max current, programmable Spring loaded connectors
Input voltage range	24v to 50 volts
Standby power consumption	50 milliwatts
Conversion efficiency	Over 95%
Protection	Reverse protection and static protection
Operating Temperature	0°C - 50°C
Size	115 x 46 x 50 mm
Dimming	1 to 100 % Current control
FCC and interference	All outputs are RF filtered for minimal interference
Maximum output voltage	Input minus 4 volts
Minimum output voltage	6 volts, minimum current self calibrating!
Hot Swap	Yes - can unplug and connect LEDs with power applied.
DALI interface	
Individual, group and scene support	Opto Coupled AWG 18-24 gauge wire spring fit short and long addresses 16 to 24 volts 2 mA
LED output A	Top Left
LED / PIR / Fan output B	Top Right

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AL-WS-DR2 V2
Decorator style
Dual Constant Current LED
Dimmer / Driver
with integrated switch
56 watt 3-Way DALI

Product Description - AL-WS-DR2 wall switch

This switch operates just like any standard residential light switch – however it takes 24-50v DC instead of 120VAC, and directly drives up to 24 LEDs. This Decorator style switch is a standard residential style outline fits into any home, looks like any switch yet requires no licensed electrician for installation. No complicated controller is required.

For 3-way operation – a simple 2-wire link with AWG24 or better allows 2, 3, or an unlimited numbers of switches to control one set of LED's. Any single pole switch found at Home Depot can be used to add a 3-Way remote switch, or dual pole switch for an unlimited number of switch points.

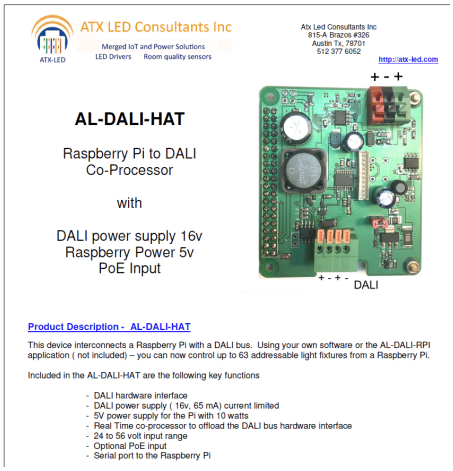
Stand alone it operates as a simple switch for 2 strings of LED's. Jumper selections for 300, 400, 600 or 700 mA LEDs with up to 28 watts per channel - two channels are provided for 54 watts total. For example, 16 3 Watt LEDs can connected in series and parallel to this switch - dimmer device. Use AWG 16 or 18 to bring 48v (or 24 to 50 volts) from a central power supply over to the switches, then use AWG 18 to connect to your LEDs – no tools are required to wire this device.

A proven rocker switch and brightness slider leverages mass production of Decorator switches, now for low voltage applications – any casual user requires no training, no App to use this switch. Perfect, flicker free dimming from off to 5 to 100%. No network setup is required. Temperature feedback assures excellent dimming.

To enable Home / Business automation – the AL-WS-DR2 includes a DALI opto isolated serial bidirectional port for remote and voice control. Use the AL-WIZ to connect to Alexa or Google home voice control. The DALI protocol is supported, with automatic addressing. Use low cost CAT-5 wire up to 1000 ft to implement remote management. Power and DALI are duplicated allowing easy installation.

Specifications

Power source and load	Spring loaded connectors (2 pairs) for AWG 16-20 wire
LED constant current output	300 mA base current, jumper options for 380, 600 or 680 mA per channel Spring loaded connectors (2 pairs)
Input voltage range	24v to 50 volts (power for LEDs)
Standby power consumption	50 milliwatts
Conversion efficiency	Over 95%
Protection	Reverse protection and static protection
Operating Temperature	0°C - 50°C
Size	115 x 46 x 50 mm
Dimming	1 to 100 % Current control with temperature tracking
FCC and interference	All outputs are RF filtered for minimal interference
Maximum output voltage	Input minus 4 volts
Minimum output voltage	6 volts, minimum current self calibrating!
Hot Swap	Yes - can unplug and connect LEDs with power applied.
DALI interface	
Individual, group and scene support	Opto Coupled AWG 18-24 gauge wire spring fit short and long addresses 16 to 24 volts 2 mA
LED output A	Top Left
LED / PIR / Fan output B	Top Right



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AL-DALI-HAT

Raspberry Pi to DALI
Co-Processor

with

DALI power supply 16v
Raspberry Power 5v
PoE Input

+ - +

+ - + - DALI

Product Description - AL-DALI-HAT

This device interconnects a Raspberry Pi with a DALI bus. Using your own software or the AL-DALI-RPI application (not included) – you can now control up to 63 addressable light fixtures from a Raspberry Pi.

Included in the AL-DALI-HAT are the following key functions

- DALI hardware interface
- DALI power supply (16v, 65 mA) current limited
- 5V power supply for the Pi with 10 watts
- Real Time co-processor to offload the DALI bus hardware interface
- 24 to 56 volt input range
- Optional PoE input
- Serial port to the Raspberry Pi

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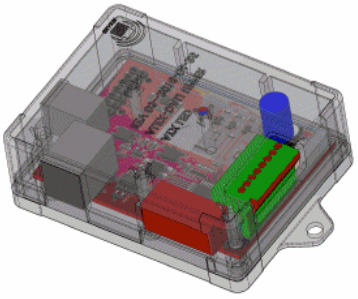
Stage / Audience lighting system

DMX512 from console



Alexa/Google Cloud

AL-DMX-DALI converter

64 DMX addresses

DALI – cat5 wire

120 vac

SR-2303AC

Triac Dimming

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AL-WS-010v AL-WS-010v AL-WS-010v

2000 w

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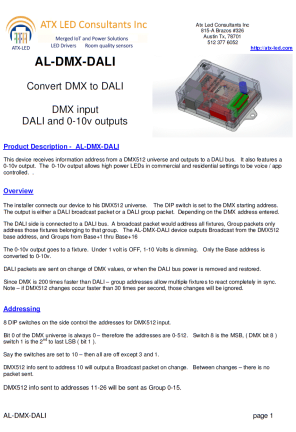
AL-DALI-010v

0-10v Dimmer

3-Way switch with DALI™



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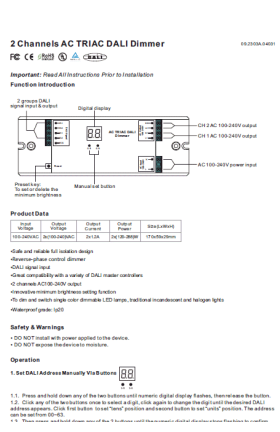
AL-DMX-DALI

Convert DMX to DALI

DMX input

DALI and 0-10v outputs



2 Channels AC TRIAC DALI Dimmer