PROTOCOL CONVERTERS

IMPORTANT NOTES

- Convert input control signals (DMX or DALI) to 0/1-10V signals to control LED drivers
- Have the capacity to control a large number of LED drivers (eg. 70 per channel)
- Are well suited for large areas where many Cooledge TILEs are controlled as a single illuminated surface
- May be used for dimming and/or tuning CCT for TILE Premium products
- Enable one-way communication from a DMX/DALI controller to the drivers. RDM or DALI diagnostics are not possible when converting these protocols to a 0/1-10V signal.
- Operate at 12-24 VDC through separate power supply (typ. Maximum power consumption = 6W)

PROTOCOL CONVERTERS FOR DIMMING

- For use with TILE Standard, TILE Plus, and LINE products for dimming control
- Allows the use of standalone DMX/DALI based dimmers or connection to a central DMX/DALI controller
- One DMX or DALI address (channel) converts to one 0-10V (1-10V) dimming channel
- One converter channel may operate a large number of LED drivers when all of the TILEs or LINEs are to be dimmed simultaneously as a group or zone

IMPORTANT NOTES

Protocol Converter

- Controller
  - (Contact Cooledge)
  - (Supplied by others)

DMX or DALI

0/1-10V

Up to 8/16 channels

Example: Zone 1

Cooledge Driver 1
Cooledge Driver 2
Cooledge Driver 3
Cooledge Driver n

Channel 1

0/1-10V

Channel 2

0/1-10V

Channel n

n is dependent on the converter model

Fig. 1 Protocol Converter Used for Dimming

Example: to TILEs

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For use with TILE Premium products for tunable white and dimming control

- Allows the use of standalone DMX/DALI based controllers or connection to a central DMX/DALI controller
- Two DMX/DALI channels are needed for each driver group or zone:
  - One DMX or DALI address (channel) converts to one 0-10V (1-10V) CCT tuning signal
  - One DMX or DALI address (channel) converts to one 0-10V (1-10V) dimming signal
- One converter channel may operate a large number of LED drivers when all of the Premium TILEs are to change CCTs or dim simultaneously

![Diagram of Protocol Converter and Control Schematic](image-url)

**Fig. 3 Protocol Converter Used for Dimming + CCT Tuning**

**Fig. 4 LED Tunable Driver Dimming + Tuning Schematic**