APT-CC-VDW MODULES

Features

- APT-CC-DW controllers enable dim-to-warm control to LED fixtures, replicating incandescent light
- Integrated between the driver and LED module, the DC modules are powered directly from the driver
- Incredibly smooth color transitions implemented in firmware, customizable upon request

Ordering Information

Product Code	Description
APT-CC-V*DW*-Rnnn-*wwww*	V*DW*- Hardware version (VDW) **Rnnn** – Maximum current at the output port ***wwww***- Arkalumen internal code; not needed for ordering

System Architecture

Design Requirements	
1.	Color mixing of light is produced by adjusting the intensity ratio between two LED channels. Therefore, the maximum current should be determined by the LED channel with the lower maximum current of the two.
2.	Contact Arkalumen for information on compatibility of drivers and overall system architectures. The light fixture manufacturer is responsible for testing of all third party components and the overall system before installation.

Contact Arkalumen for technical support at **support@arkalumen.com**

Operating Conditions

Environmental	
Ambient Temperature, Range	-20 – 55°C
Case Temperature, Max.	85 °C
Material	Polyolefin

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Warnings

1. Do not connect/disconnect input or output wiring while powered
2. Follow ESD protection procedures while handling input or output wiring, and programming port
3. Do not attach an AC input to the APT controller; DC input only
4. Use only with a driver providing an isolated DC output (ie. the output has no earth or protective ground reference).
5. Read and respect all voltage, current and power limits outlined in the electrical specifications section of the hardware version being used
6. Carefully follow and check all wiring diagrams in this document for the correct hardware version being used

Mechanical Specifications

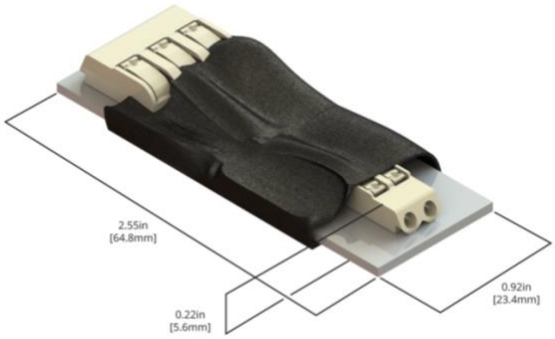

Figure 1 - APT-CC-VDW Mechanical Drawing

Dimensions

Dimensions (inches)	
Length	2.55
Width	0.92
Height	0.22

Wiring Diagram

Figure 2 *- APT-CC-VDW Dim to Warm configuration*

Electrical Specifications

Input

Port	Voltage			Current			Power		
	Min	Max		Min	Max		Min	Max	
DC IN +/-	12	60	V	5	4,160	mA	-	100	W

Output

Port	Voltage			Current			Power		
CH1	-	60	V	0	4,155	mA	-	100	W
CH2	-	60	V	0	4,155	mA	-	100	W

Configuration Code

The configuration code indicates value of key parameters within the controller as configured in factory.

Hardware Version	Configuration Code	Component Description
VDW-Rnnn	**M*qqq***	**M*qqq* –** Color temperature to current mapping

Hardware Configuration

Code	Description	Option	Configuration Trait
Rnnn	**nnn** Denotes the maximum current of the controller. Selecting a maximum current that is as low as possible while not exceeding operating conditions will provide the best resolution.	***R200***	Maximum current of 2000mA (default)
		R416	Maximum current of 4160mA

Firmware Configuration

Code	Description	Option	Configuration Trait
Mqqq	**qqq** Denotes the mapping curve used in dim-to-warm applications.	**MLIN**	Linear mapping
		MLOG	Logarithmic mapping
		Mcus	Custom mappings are available upon request

RESET Instructions

If moving the product to a system with a new driver, please follow the instructions below to RESET the controller's maximum detected current:

To RESET, complete 5 power cycles in a row. Between cycles, ensure the power remains off long enough that the DC power to the APT-CC-VDW is fully off, but otherwise complete the cycles as quickly as possible.