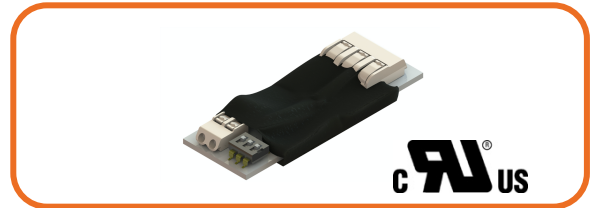


APT-CC-VFW MODULES



Features

- > APT-CC-VFW controllers enable adjustable fixed white control to LED fixtures using DIP switches
- > Integrated between single channel constant current driver and dual CCT LED module, the DC modules are powered directly from the driver
- > The module has 3 DIP switches which allow for 8 different output ratio configurations to be set. These configurations can be calibrated to different CCTs, customizable upon request.

Product Code

The product code indicates the hardware and firmware versions of the controller.

APT-CC-VFW-*www* **VFW**- Hardware version (VFW)
www- Arkalumen internal code; not needed for ordering

Code	Description	Option	Configuration Trait
VFW	FW Denotes the hardware version	VFW	DIP switch CCT selection

Specifications

Power Characteristics

Input		Output	
DC IN Current, Max.	4,160 mA	OUT Current, Max.	4,160 mA
DC IN Voltage, Range	12 – 60 V	OUT Voltage Range	12 – 60 V
		OUT Current Per Channel, Max.	4,160 mA
		OUT Voltage Per Channel, Max.	60 V
		Max. Power	100 W

Operating Conditions

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

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. The forward voltage of the LED channels should be matched. If there is variability in the forward voltage of the LED channels, the system should be tested for proper operation.

Arkalumen Products may be covered by patents in the US and elsewhere. www.arkalumen.com/patents

Please specify the desired product code and configuration code when ordering.

Product Code: APT-CC-VFW-<i>www</i>	Ensure to specify the hardware version (VFW). The internal code (<i>www</i>) will be provided by Arkalumen and does not need to be specified.
Output ratio Configuration Code: R1aaa-R2bbb- R3ccc-R4ddd- R5eee-R6fff- R7ggg-R8hhh	Please inform Arkalumen of the 8 different ratio configurations desired for the DIP switches. Arkalumen also offers complementary CCT calibration services to determine the ratios for the DIP switches.

Configuration Code

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

Hardware Version	Configuration Code	Component Description
VFW-Rnnn	R1aaa-R2bbb- R3ccc-R4ddd- R5eee-R6fff- R7ggg-R8hhh	R(1-8)(xxx) – Ratio configurations for desired output color temperature.

Firmware Configuration

Code	Description	Option	Configuration Trait
R(0-7)(xxx)	xxx – Denotes the ratio output configuration for a specific colour temperature	0-100	CH1 will have this duty cycle and CH2 will have its complement

Mechanical Drawings

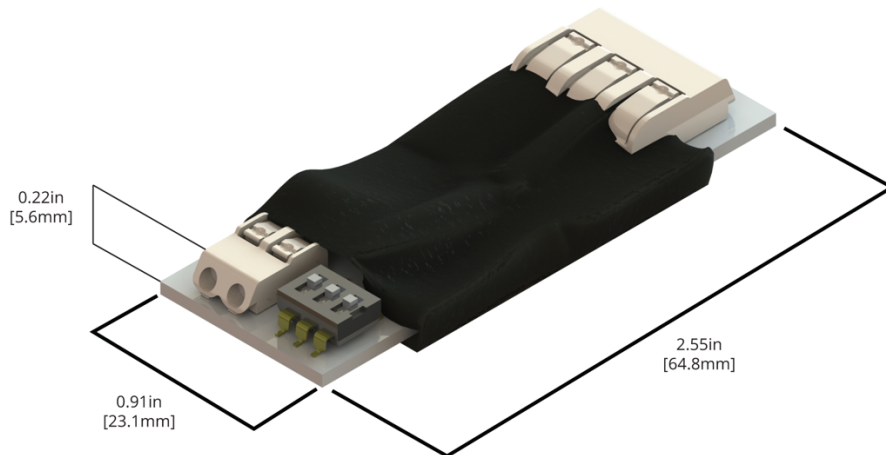


Figure 1 - APT-CC-VFW Adjustable fixed white configuration

Dimensions

Dimensions (inches)	
Length	2.55
Width	0.91
Height	0.24

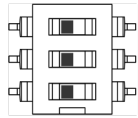
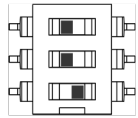
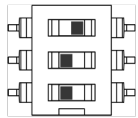
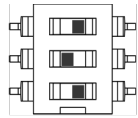
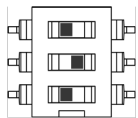
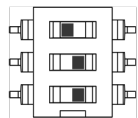
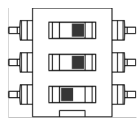
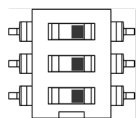
Wiring Diagrams



Figure 2 - APT-CC-VFW Adjustable fixed white configuration

DIP Switch Settings



DIP Switch Setting	Ratio 0-100 (%)	DIP Switch Setting	Ratio 0-100 (%)
 0	R0xxx	 4	R4xxx
 1	R1xxx	 5	R5xxx
 2	R2xxx	 6	R6xxx
 3	R3xxx	 7	R7xxx