

UM004

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User Manual UM004

Super Cap Module

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Introduction

The Ctek Super Cap module is designed to provide several minutes of backup power for the Z4XXX family of automation platforms and peripherals. Backup time will vary based on load. Charging control and system shut down thresholds are managed by Ctek's automation control firmware and a standard control configuration is provided.

Operation

When power is applied to the input of the Super Cap module, output voltage will be immediately available on the output of the Super Cap module. Output voltage will be approximately 0.5Vdc less than input voltage. From the time that power is initially applied to the Super Cap module, it may take several minutes for the internal Super Caps to achieve a charge level that will allow them to provide backup power. Much like a battery, charge time will vary based on the existing charge level of the Super Caps when power up occurs.

Input Range

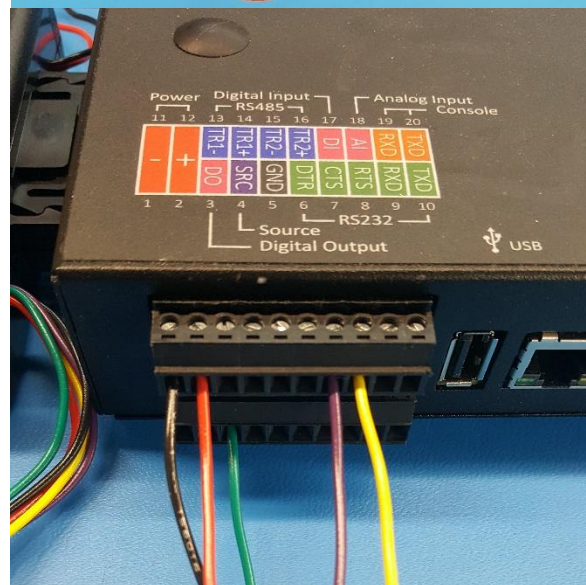
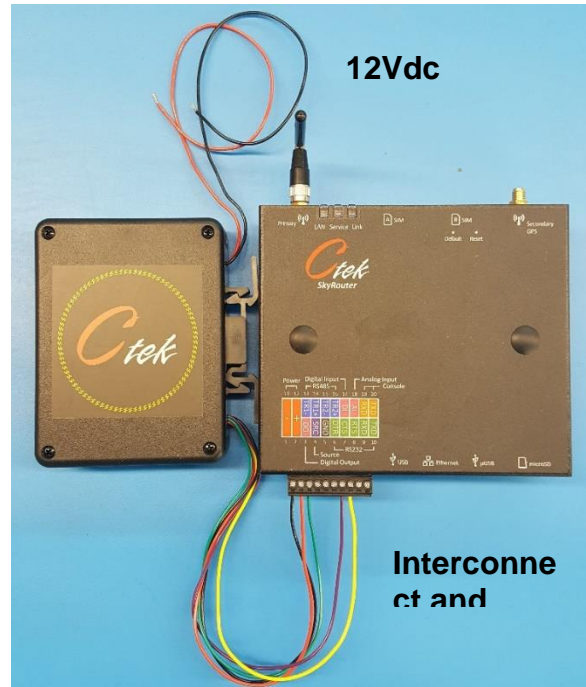
The Super Cap module is designed to operate with 12Vdc power systems. Maximum input voltage should not exceed 16Vdc.

Output Range

The Super Cap module will begin supplying power from the internal Super Caps whenever input voltage sags or fails. Output voltage will decrease over time. When output voltage reaches approximately 9Vdc, the Super Cap module will shut down so that attached equipment does not experience marginal supply levels. The shutdown threshold may be adjusted to address a range of supply requirements.

Installation

The enclosure of the Ctek Super Cap module is designed for either DIN rail mounting or wall mounting. DIN clip and wall mount bracket are included as part of the standard enclosure. Wiring instructions are detailed below.



Wire	Pin	Description
Black	1 or 11	(-) Power negative
Red	2 or 12	(+) Power positive
Green	3	(DO) Shut down
Purple	17	(DI) Input power fail
Yellow	18	(AI) Charge level



Configuration

To configure the Super Cap module please install the standard automation control configuration provided.