

170 ATC COLDFIRE CONTROLLER

CABINETS

CONTROLLERS

DETECTION

PARKING

SIGNALS

SIGNS

SOFTWARE

SPECIALTY



Overview

SWARCO McCain Inc.'s 170 ATC ColdFire Controller is a modernized version of the 170 family of controllers featuring a Freescale ColdFire 32 Bit micro-controller. The 170 ATC ColdFire is a drop-in replacement for 170 controllers with superior computing power and performance. The controller is a cost-effective alternative to 2070 controllers.

Benefits

- Better performance than a 2070 controller
- Menu driven LCD front panel (2070 compatible)
- Onboard temperature sensor provides internal controller temperature readings.
- Custom built-in operating system
- True Ethernet capability
- USB mass-storage device interface

Product Description

The McCain 170 ATC ColdFire Controller is a low-cost upgrade alternative to other modern traffic controllers. It is fully hardware compatible with existing 170 cabinet infrastructure.

The controller eliminates the need for external memory modules as used in standard 170 controllers by incorporating onboard flash and EEPROM memory technology. It also features a menu-driven display, improved serial port operation, an onboard Ethernet port, and a USB interface.

Together with McCain's intersection control application software the 170 ATC ColdFire offers state-of-the-art modern technology without jeopardizing the rugged reliability that the 170 family of controllers are known for.

170 ATC ColdFire Controller

Standard Features

Operating system

- Uses a custom BIOS
- Application program interface (API) available from McCain for third party software development

Modules (standard, included)

- CPU Module
- Input Module
- Output Module
- LCD/Front Panel Module
- Power Supply

Microprocessors

- CPU Module: Freescale MCF5282CVM66, 32 Bit MCU

Memory

- 16 MB SDRAM
- 64 KB SRAM
- 32 KB Serial EEPROM
- 8 MB Flash memory

Backup real-time clock (RTC)

Applicable standards

- Compatible with Caltrans TEES standards as applicable to 170 controllers

Crystal control and AC line tracking via software PLL

General Specifications

Dimensions:	19" H x 7" W x 13" D (rounded to the nearest inch)
Form Factor:	EIA rack mount compatible
Power:	120 VAC, 60 Hz (typical), 40 watts
	+5 VDC Logic +0.1 VDC 2.4 A
	+5 VDC External +0.25 VDC 300 mA
	+5 VDC Front Panel +0.25 VDC 500 mA
	-5 VDC Spare +0.25 VDC 300 mA
	+12 VDC Modem +0.6 VDC 1.0 A
	-12 VDC Modem +0.6 VDC 300 mA
Environment:	Operating Temperature: -37° C to +74° C
	Humidity: 0 to 95% (non-condensing)
Weight:	± 15 lbs (based on final module selection)

Interfaces

Communication interfaces

- RS232 Serial ports (4) of which (1) can be rerouted to FPA
- Modem slots (2)
- Ethernet port
- USB port

Front panel interface

- Display: 8 lines x 40 characters
- Keyboards: 3 x 4 navigation and 4 x 4 data entry keypads

Cabinet interfaces

- Rear connectors C1S, C2S, C20S, C30S, C40S, and T1

Software

Compatible with McCain's 750 intersection control software program. (See separate data sheets for details on McCain's software control programs).

Options

- McCain control software

Available modules

- GPS (Global Positioning System) module
- Modem module