

# ATC EX 2070N1 NEMA CONTROLLER

CABINETS

CONTROLLERS

DETECTION

PARKING

SIGNALS

SIGNS

SOFTWARE

SPECIALTY



## Overview

McCain's ATC eX 2070N1 NEMA Controller, TS 2 Type 2 compatible, is designed in full compliance with ATC (Advanced Transportation Controller) 5.2b standards and Caltrans Transportation Electrical Equipment Specifications (TEES) 2009. The ATC eX 2070N1 is a rugged, multitasking field processor and communications system based on the 2070 ATC CPU, 2070 2-B, and 2070-8 modules that are easily configurable for a variety of traffic management applications in a shelf mount configuration. This unit is available as a complete ATC eX 2070N1 NEMA controller, or the 2070 ATC CPU module can be used with your existing McCain 2070LN1 controller to create a ATC eX 2070N1.

## Benefits

- NEMA TS 1 and NEMA TS 2 Type 2 compatible
- NEMA, ATC and Caltrans standards compliant
- Controller's multitasking operating system supports a variety of applications
- Open architecture promotes compatibility with off-the-shelf products
- Easily upgrades current intersection hardware
- Available with McCain's NTCIP-compliant Omni eX® intersection control firmware

## Product Description

The McCain ATC eX 2070N1 NEMA Controller's primary function is intersection control but can be used for a multitude of applications determined by the control software. Expanded applications include: ramp metering, variable message signs, sprinklers, pumps, and changeable lane control.

Compliant with NEMA TS 1 and NEMA TS 2 Type 2, the ATC eX 2070N1 features full I/O capability with A, B and C connectors, as well as the D connector as defined by Caltrans TEES.

The ATC eX 2070N1 NEMA Controller design is based on three major assemblies: the 2070 Controller, 2070 ATC CPU, and the 2070-8 NEMA base. The 2070 ATC CPU module conforms to ATC and Caltrans standards, providing a robust, flexible, and expandable platform that is compatible with application software from multiple vendors.

# ATC eX 2070N1 NEMA Controller

## Standard Features

### Operating system

- Linux

### Modules (standard, included)

- 2070 ATC CPU module
- 2070-2B field I/O module
- 2070-3B LCD front panel module
- 2070-4N (A) power supply
- 2070-8 NEMA adapter

### Microprocessors

- Freescale PowerQUICC II Pro microprocessor

### Memory

- 16MB Flash memory
- 128MB DDR RAM (expandable)
- 2MB non-volatile SRAM

### Backup real-time clock (RTC)

### Applicable standards

- ATC 5.2b
- Caltrans TEES (where applicable)
- All applicable NTCIP base standards
- NEMA TS 2

## General Specifications

Dimensions:	17" W x 12" H x 12" D (rounded to the nearest inch)		
Form Factor:	Shelf mount configuration		
Power:	90 VAC to 135 VAC, 60 Hz ( $\pm$ 3 Hz)		
	+5 VDC	1.0 A	10.0 A
	+12 VDC	Serial 0.1 A	0.5 A
	-12 VDC	Serial 0.1 A	0.5 A
	+12 VDC	ISO 0.1 A	1.0 A
Environment:	Operating Temperature: -37° C to +74° C		
	Humidity: 0 to 95% (non-condensing)		
Weight:	$\pm$ 20 lbs (based on final module selection)		

## Interfaces

### Communication interfaces

- SDLC ports (2)
- Serial (asynchronous) (4)
- ENET 1: 100 Base-T Ethernet switch, 1 uplink and 3 additional ports
- ENET 2: 100 Base-T Ethernet port dedicated for local communications (i.e. laptop or similar)
- USB ports (2)

### Front panel interface

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

### Cabinet interfaces

- Rear connector C125
- NEMA connectors A, B, & C
- D connector with standard TEES pinout

## Software

Available with McCain's NTCIP compliant *Omni eX* intersection control software. Also compatible with third-party NTCIP compliant software. (All software products sold separately. See separate data sheets for details on McCain's software control programs).

## Options

- McCain control software

### Available modules

- 2070-3A large 4 x 40 character display
- 2070-6A dual 1200 baud modem
- 2070-6B dual 9600 baud modem
- 2070-7A dual RS232 serial ports
- 2070-7B dual RS485 serial ports



Standard 2070 ATC CPU Module