

# ATC eX 2070N2 NEMA Controller

Cabinets

**Controllers**

Signals

Signs

Software

Specialty



## Overview

McCain's ATC eX 2070N2 NEMA Controller, TS 2 Type 1 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 2070N2 is a ruggedized, multitasking field processor and communications system based on the 2070 ATC CPU and 2070-2N Field I/O 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 2070N2 controller, or the 2070 ATC CPU module can be used with your existing McCain 2070LN2 controller to create a ATC eX 2070N2.

## Benefits

- NEMA TS 2 Type 1 compatible
- NEMA and ATC standards compliant
- The 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 (available separately)

## Product Description

The McCain ATC eX 2070N2 Controller's primary function is intersection control but can be used for a multitude of applications based on the controller software. Expanded applications include: ramp metering, variable message signs, sprinklers, pumps, and changeable lane control.

The ATC eX 2070N2 is NEMA TS 2 Type 1 compatible and features SDLC capability.

The ATC eX 2070N2 NEMA Controller design is based on three major assemblies: the 2070 Controller, 2070 ATC CPU, and the 2070-2N module. The controller's Linux operating system provides a robust, flexible, and expandable platform that is compatible with multi-vendor application control software.

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## Standard Features

### Operating system

- Linux

### Modules (standard, included)

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

### 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



2070 ATC CPU Module



2070-2N Module

## 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

- NEMA Port 1 C15S
- NEMA TS2 Type A connector

## Software

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

## General Specifications

Dimensions:	7" H x 19" W x 13" D (rounded to the nearest inch)		
Form Factor:	Shelf mount or 19" EIA rack mount		
Power:	90 VAC to 135 VAC, 60 Hz ( $\pm 3$ Hz)		
	+5.0 VDC	1.0 A	10.0 A
	+12.0 VDC Serial	0.1 A	0.5 A
	-12.0 VDC Serial	0.1 A	0.5 A
	+12.0 VDC ISO	0.1 A	1.0 A
Environment:	Operating Temperature: -37°C to +74°C Humidity: 0 to 95% (non-condensing)		
Weight:	$\pm 12$ lbs (based on final module selection)		

## 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

To learn more about  
McCain's Integrated Traffic  
Solutions, please contact  
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