

XN-1 CONTROLLER

NEMA TS 2, TYPE 1 ATC TRAFFIC SIGNAL CONTROLLER



OVERVIEW

The XN Controller is a modern workhorse for advanced traffic signal operations that sets the scene for the connected world.

It's open architecture platform organizes and improves traffic signal operations while reducing the amount of equipment in traffic cabinets through multi-application support for things like:

- Managing Ethernet traffic
- Monitoring detection devices
- Integrating with third-party devices

An OLED screen improves visibility in all conditions, during the day and at night.

Utilizing a Linux-based operating system that meets and exceeds current ATC, NEMA, and NTCIP standards, the XN Controller provides agencies with an industry leading, robust and scalable open-architecture platform to meet transportation needs today and tomorrow.

BENEFITS

- Fast, reliable intersection control
- Powerful CPU with expandable memory configurations
- Schedule updates or run live
- Install firmware and operating system updates without placing the controller in flash
- Exceeds current ATC standards
- Unrestricted use license for MIBs



BUILT-IN WEB
SERVER



SECURE
COMMUNICATION



MODERN PLATFORM

OPEN ARCHITECTURE

- Linux operating system
- Linux and API library
- Software development kit (SDK) provided at no charge to qualified ATC software developers
- Unrestricted use license for NTCIP MIBs

USER INTERFACE

- 128 x 256 pixels OLED display (16x40 characters)
- 4x4 and 3x4 tactile keyboards

PROCESSING AND MEMORY

- Motorola MPC8248, 32-bit processor, 400 MHz (750 MIPS)
- 64MB Flash memory
- 128MB DRAM
- 2MB SRAM

COMMUNICATION INTERFACES

- 10/100 Mbit Ethernet ports (4)
- USB (3)
- AUX Serial (1)
- SD Card (1)
- External SDLC port (NEMA cabinets)
- C12S SDLC/HDLC (ITS/ATC cabinets)
- RS232 external serial port (1)
- Integrated GPS/GNSS

INDUSTRY STANDARDS

- ATC 5201, current
- ATC API 5401
- NEMA TS 2-2016 v3.07
- NTCIP - 1201, 1202, and applicable base standards

ON-BOARD WEB SERVER

Secure, modern communications for traffic operators to access controller functions wirelessly or via wired Ethernet connections from any internet-enabled device (smart phone, tablet, laptop).

- 40 phases, 16 rings, 32 overlaps, 16 preempts
- HTTPS communication between device and Q-Free central system
- Advanced functionality comes standard
 - Master/closed loop
 - Peer-to-peer communications
 - Transit signal priority

See *MAXTIME ic* product sheet for more details.

TECHNICAL SPECIFICATIONS

Form factor:	Shelf or rack mount
Dimensions* (HWD):	<i>Rack Mount</i> 7" x 18.8" x 7.8" 17.8 x 47.8 x 19.8 cm
	<i>Shelf Mount</i> 7" x 13.4" x 7.8" 17.8 x 34 x 19.8 cm
Power:	Variable power supply (89-250 VAC 50/60 Hz, or 48VDC)
Power connector:	Standard NEMA Type 1 'A'
Temperature:	-40°C to +80°C

* Dimensions rounded to nearest 0.1



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