

# NEMA TS2 Type 1 & 2

## ADVANCED TRANSPORTATION CONTROLLER (ATC)

### Basic Hardware Features:

- Compliant with current NEMA TS2 and ATC 5.2b standards
- Open Architecture Embedded Linux Multi-Processing Operating System
- 4 Standard 10/100 Mbit Ethernet Ports
- 2 Quad 4 Port Integral Ethernet Switches
- 4 USB Ports
- 2 Keypads & 8 Programmable Special Function Keys
- ATC 5.2b Compliant Engine Board CPU
- ATC Standard API for third party application support
- Two ATC/2070 Type Communications/Modem Slots
- 16 Line X 40 Character (240 X 120 Graphics) LCD Display
- 7 configurable Serial Ports (5 are SDLC capable)
- 143/4" W X 73/4" D X 101/2" H
- Power 95 - 250 VAC 50/60 Hz Auto Sensing
- -40 to +80° C operating environment
- 64MB Flash / 64MB DRAM memory / 1MB SRAM



### Key Software Features:

- Integral Web Server (all parameters are accessible thru a Laptop/PDA browser)
- Compliant with all current NTCIP - ASC requirements
- Open Architecture Embedded Linux Multi-Processing Operating System
- Full support for all required ATC 5.2b software drivers under the latest Linux kernel release v 2.6.34
- ATC Standard API for third party application support
- Runtime libraries per ATC 5.2b Standard
- One touch updates via Network or USB interface
- Compliant with latest TS 2 with NTCIP Standards
- Support for 50 Signal Phases each assignable to one of 16 rings
- Programming of Phases across multiple rings which can operate simultaneously per NTCIP established Phases concurrencies





### Extended Options:

- 5.7" 320 X 240 Pixel High Brightness (700 cd/m<sup>2</sup>) Color TFT LCD Display
- Touch Panel Screen
- Additional 4 Ports 10/100 Mbit Ethernet
- Peer-to-Peer Area Master Software
- Alternate NEMA "D" Connectors
- Board-support toolchain package with all necessary libraries for 3<sup>rd</sup> party software development
- C++ support library (libstdc++ 6.0.10 and uclibc 0.9.30)
- Integral Video Server w/
  - Analog to Digital H.264 Real-time Streaming Video Compression
  - NTCIP managed 10-port Analog NTSC/PAL/SECAM Video Decoder/Input Switch
  - Front Panel Video Display Selection
- ATC/2070 Comm/Modem Module Plug-ins (2070-6A/B, 2070-7A/B, 2070-7T w/ GPS, etc.)

### Key Software Features (cont.):

- Up to 32 Programmed Sequences per Ring (Selectable by NTCIP Action Plan)
- Programming of up to 8 alternate Phase to Ring configurations (w/ allowed sequences, allowed concurrences and barriers)
- Extended Pedestrian features including: delayed walk, delayed, green, and alternate Walk/FDW timing per 2009 US MUTCD
- 16 Selectable Overlap types including :
  - NTCIP Types 1 through 3
  - Flashing Yellow Arrow (FYA) displays controlling all 4 color outputs
  - Flashing Red Arrow (FRA) displays
  - Advance warning flasher outputs
  - Light Rail Transit (LRT) bar indication displays.
- 128 Independently Programmable Coordinated Timing Patterns

