

# SWARCO ATC FLeX<sup>®</sup> II CONTROLLER

SHELF MOUNT  
RACK MOUNT  
NEMA TS2 TYPE 1  
NEMA TS2 TYPE 2



As transportation networks evolve, agencies need traffic hardware built to integrate, adapt, and perform reliably over time. The ATC FLeX II Controller provides a flexible, standards-based hardware platform designed to support modern and advanced intersection control software.

With broad cabinet compatibility, high-speed connectivity, open architecture, and intuitive usability, the ATC FLeX II Controller gives agencies the flexibility to modernize traffic operations without replacing existing infrastructure.



## KEY BENEFITS

- **True Interoperability:** Open, standards-based hardware designed to support Omni eX<sup>®</sup> Intersection Control Software<sup>1</sup> and compatible third-party controller software
- **Flexible Integration:** Designed to operate across ATC, Caltrans, and NEMA cabinet environments to support existing infrastructure
- **High-Speed Connectivity:** Includes Gigabit Ethernet, USB 3.0, Wi-Fi, and GPS<sup>2</sup> to support evolving traffic management needs
- **Intuitive Usability:** 7-inch, full-color resistive touchscreen and convenient front-panel access designed for real-world field use

## PRODUCT DESCRIPTION

The ATC FLeX II Controller is a modern hardware solution designed to support advanced intersection control software. Built on a proven Linux-based architecture and designed for broad cabinet compatibility, the ATC FLeX II Controller provides a reliable, standards-based platform for integrating with SWARCO McCain's Omni eX<sup>®</sup> Intersection Control Software<sup>1</sup> and third-party controller software.

Its flexible interfaces and modern connectivity, including Gigabit Ethernet, USB 3.0, Wi-Fi, and GPS<sup>2</sup>, allow agencies to integrate the ATC FLeX II Controller across existing infrastructure while supporting evolving operational needs.

Built for real-world use, the ATC FLeX II Controller features a 7-inch, full-color touchscreen for clear, intuitive operation and convenient front-panel access for programming, updates, diagnostics, and data retrieval.

# ATC FLeX II CONTROLLER

## STANDARD FEATURES

- AC line fuse
- Aux switch
- Guarded power switch
- Handle

## ENGINE BOARD

### Engine Board 4

- Linux Kernel: 5.X
- Processor: PowerPC
- Processor Speed: 400 MHz
- Main Memory: 256 MB
- NOR Flash: 512 MB
- SRAM: 2 MB

## SOFTWARE

Compatible with Omni eX Intersection Control Software<sup>1</sup> as well as multiple third-party ATC controller software solutions.

## OPTIONS

- Standard and manufacturer-specific D connectors: Caltrans/McCain, EPAC DB37, Traconex, PEEK DB25, LMD9200
- Optional Input Voltage: 240 VAC, 50/60 Hz

## INTERFACES

### Cabinet Interfaces

- ATC cabinets
- Caltrans cabinets
- NEMA cabinets

### Front Panel Interfaces

- Display: 7", full-color, resistive touchscreen
- Keypad: 7 x 4 (28 keys)
- USB 2.0 ports (2)
- USB 3.0 ports (2)
- External SD card slot

### Communication Interfaces

- ENET 1: 10/100/1000 Mbps Ethernet switch, 2 front-mounted RJ45 ports
- ENET 2: 10/100/1000 Mbps Ethernet switch, 2 front-mounted RJ45 ports
- Wi-Fi and GPS<sup>2</sup>
- SMA female connectors for Wi-Fi and GPS (2)
- Asynchronous serial ports (3)
- SDLC ports (2)

## APPLICABLE STANDARDS

- ATC 5201 v06A.37
- NEMA TS 2-2003 v02.06

## GENERAL SPECIFICATIONS

### SPECIFICATIONS

|                              |                                                                             |                         |                       |                                                    |
|------------------------------|-----------------------------------------------------------------------------|-------------------------|-----------------------|----------------------------------------------------|
| Form Factor:                 | FLeX II                                                                     | FLeX II RM              | FLeX II TS2 Type 1    | FLeX II TS2 Type 2                                 |
| Cabinet Mount:               | Shelf Mount                                                                 | Rack Mount              | Shelf Mount           | Shelf Mount                                        |
| Compatibility:               | ATC Cabinet                                                                 | ATC Caltrans            | ATC NEMA TS2 Type 1   | ATC NEMA TS1<br>NEMA TS2 TYPE 1<br>NEMA TS2 TYPE 2 |
| Cabinet Interface Connector: | A2 Port 1 SP5                                                               | A2 Port 1 C1S/C11S/C12S | A2 Port 1 SP5         | A, B, C, D <sup>3</sup> Port 1 SP5                 |
| Dimensions:                  | 12.5"W x 7.01"H x 7"D                                                       | 19"W x 7"H x 7"D        | 12.5"W x 7.10"H x 7"D | 12.5"W x 10.10"H x 7"D                             |
| Power:                       | 85 VAC to 135 VAC, 60 Hz (±3 Hz)   Optional: 240 VAC, 50/60 Hz              |                         |                       |                                                    |
| Environment:                 | Operating Temperature: -37°C to +74°C   Humidity: 0 to 95% (non-condensing) |                         |                       |                                                    |
| Weight:                      | 5.7 lbs                                                                     | 6.6 lbs                 | 5.8 lbs               | 8.25 lbs                                           |

### VIEW

|        |                                                                                     |                                                                                     |                                                                                      |                                                                                       |
|--------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Front: |  |  |  |  |
|--------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|

<sup>1</sup>See product specific cutsheet

<sup>2</sup>External antenna required (sold separately)

<sup>3</sup>Manufacturer specific connector