

Siemens m60 Series

Advanced Traffic Controller for NEMA and ATC Cabinets

The Siemens m60 Linux Series controllers complies with industry's latest standards, with variants compatible for both ATC (Advanced Traffic Controller) and NEMA (National Electrical Manufacturers Association) standards.

Built on the proven m50 hardware architecture and combined with state-of-the-art SEPAC traffic controller software, the Linux-based m60 controllers are equipped with a number of functions to meet the everchanging needs of traffic agencies of all sizes.

The m60 series controllers provide multiple Ethernet ports, USB ports and other interfaces, highlighted in this datasheet, to facilitate backwards compatibility. The field devices also enable easy hosting of third-party applications, exceeding industry standards by providing usability features that include the new Siemens Multiview Display concept of real-time active status, context-sensitive HELP screens and user-programmable favorite buttons.

Siemens is dedicated to providing ultra-modern hardware, such as the m60, along with innovative software for your traffic needs!

New Products

- The m60 ATC Cabinet-Ready Controller
- The m60 ATC LITE Cabinet-Ready Controller

The latest additions to the m60 series are the m60 ATC Cabinet-Ready controller and the m60 ATC LITE Cabinet-Ready controller. These controllers feature an ATC Cabinet compatible backplane which provides an innovative approach to those preferring to utilize an ATC shelf-mount cabinet. These new controllers will come with an "ATC Cabinet-Ready" product label to indicate that they come with an ATC Cabinet Compatible Backplane.



m60 ATC Cabinet-Ready Controller

General features

- Linux operating system
- Operates in both TS-2 Type 1 and 2 cabinets
- 5 RJ-45 Ethernet connectors
- 4 Port USB hubs
- Active TFT backlit LCD display
- Siemens Multiview Display technology designed for the everyday user in mind
- m50 USB upgrade package available
- Compatible with SEPAC traffic controller software
- m60 Backplane – for shelf mount cabinet compatibility

ATC variant

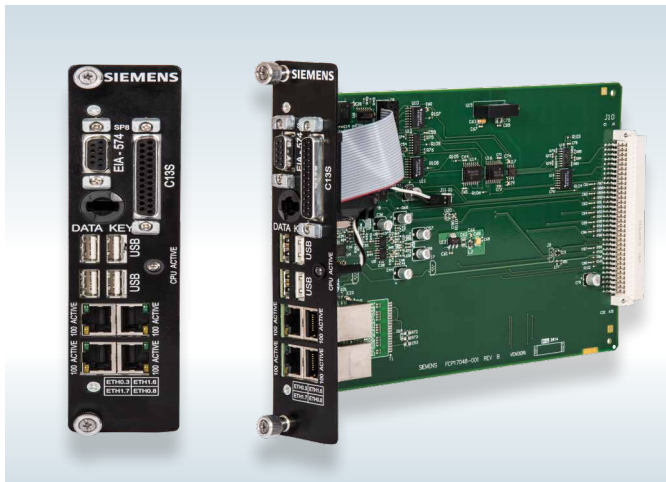
- Meets ATC 6.25 standard compliance
- Modular ATC communications hub
- m60 ATC upgrade package available

NEMA variant

- Exceeds NEMA TS-2 requirements
- m60 NEMA upgrade package available

Central Processor Unit (CPU)

- Open architecture platform with standard Linux operating system
- MPC 8309 333MHz processor
- 512MB FLASH, 256MB DRAM and 2MB SRAM
- TOD Clock with automatic daylight savings time adjustment
- Power supply will power the SRAM during power failures
 - Supports SEPAC controller software
 - SD memory card
 - Operating System: Linux 4.4



m60 ATC Communications Module



ATC Cabinet Module

Keyboard and Display

- Siemens Multiview Display with dual view screens
 - 5 1/8 inch active TFT display
 - Easily removable display and keypad
 - Easily identifiable, discrete HELP button
 - Real-time context sensitive HELP screens
 - User programmable function buttons F1 to F5
- Removable LED backlit LCD with 16 lines of 40 characters with adjustable contrast
- Emulation of terminal per Joint NEMA/AASHTO/ITE Standard
- Key quantity and function per Joint NEMA/AASHTO/ITE Standard

m60 Communications Module

- 10/100 Base-T Ethernet with built-in switch and 4 front panel RJ-45 connectors
 - ENET1 and ENET2 network switches
 - 5 10/100 TCP/IP ports
- 4 USB 2.0 Ports and a Datakey Port
- Dedicated GPS – SP8 Port (9pin EIA-574)
- Unique MAC address assigned by the Institute of Electrical and Electronic Engineers (IEEE)

Controller Housing

- 7 slots with card guides for standard size Versa Modules
- 2 slots with card guides for standard Joint NEMA/AASHTO, ITE ATC modems (optional) or ATC Communication Module or USB Plate
- Polycarbonate construction (excluding back panel), rear mounting tabs and aluminum power supply mounting plate for electrical grounding
- Carrying handle

Controllers	
m60 ATC Cabinet-Ready Controller (ATC Cabinet Compatible Backplane & ATC Cabinet Module included)	8134-4604-SSS
m60 ATC LITE Cabinet-Ready Controller (ATC Cabinet Compatible Backplane & Single USB Module Included)	8134-4600-SSS
m60 ATC LITE	8133-0000-SSS
m60 ATC	8133-0004-SSS
m60 NEMA Linux No Communications, Any Software	8132-0000-SSS
m60 NEMA Linux Any Communications, Any Software	8132-YYZZ-SSS

Upgrade Kits	
m50 OS9 to m60 NEMA Upgrade Kit	MBV17084-001
m50 OS9 to m60 NEMA w/ MultiView Display Upgrade Kit	MBV17046-003
m60 NEMA to m60 ATC Upgrade Kit*	MBV17086-001
m60 NEMA to m60 ATC Cabinet-Ready Upgrade Kit*	MBV17142-001
m60 ATC LITE to m60 ATC LITE Cabinet-Ready Upgrade Kit*	MBV17146-001
m60 ATC to m60 ATC Cabinet-Ready Upgrade Kit*	MBV17143-001

* = Factory upgradeable only

Modules and Spare Parts	
m60 MultiView Display (16 line display)	AAD17047-001
EPAC Power Supply Module	AAD17098-001
ATC Communications Module	AAD17048-001
ATC Cabinet Module	AAD14243-002
Field I/O Module	ACP16826-002
m60 Backplane	ACP17049-001
m60 ATC Cabinet Compatible Backplane (with DC-DC)	ACP17049-002
Single USB Module	MBV17147-001
Linux Engine Board Kit	MBV17046-001

Accessories	
Datakey and 2 PORT3 RS232 for OS9 Standard (P001)	AAD15288P001
Datakey for OS9 Standard (P002)	AAD15288P002
2 PORT3 RS232 for OS9 Standard (P003)	AAD15288P003
Datakey and 2 PORT3 RS232 for OS9 FSK 2-Wire (P004)	AAD15288P004
Datakey for OS9 FSK 2-Wire (P005)	AAD15288P005
2 PORT3 RS232 for OS9 FSK 2-Wire (P006)	AAD15288P006
Datakey and 2 PORT3 RS232 for OS9 MMF (P010)	AAD15288P010

The following Product Label will be included on all controllers which contain the ATC Cabinet Compatible Backplane. In order to connect any m60 series controller to an ATC Cabinet, an ATC Compatible Backplane and ATC Cabinet Module are needed.



Product Label placement on all controllers containing the ATC Cabinet Compatible Backplane



Product Label indicating presence of ATC Cabinet Compatible Backplane

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Subject to change without prior notice

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Miovision Detection

Move traffic through your network quickly and safely

Understand demand at your intersection so you can safely and efficiently move traffic through your city. With reliable, accurate presence and pulse detection you can control and optimize traffic flow, identify and handle demand, and reduce the number of opportunities for traffic incidents to occur.

Easy to install and maintain

Non-invasive installation minimizes disruption to your traffic network saving you time and resources.

- Above ground installation is easy to install and troubleshoot with minimal downtime
- Remote and roadside access allows you to configure devices to fit your workflow
- Supports up to six cameras and customize detection zones across all lanes of traffic at the intersection or as vehicles approach

Reliable in all conditions

Hardware and algorithms designed to provide reliable performance in all environments.

- Rugged commercial-grade components ensure maximum product life
- Accurate consistent results with algorithms that can adapt to inclement weather
- Optimized design means fewer issues at the intersection and fewer citizen complaints

Complete, accurate data

Make informed decision with data you can trust from the industry leaders in computer vision.

- Metrics for occupancy ratios, phase intervals, and arrivals on red and green
- Available rolling 365-day count data for vehicles, bicycles, and pedestrians
- Optional advance detection data for vehicles approaching the intersection



Features

The Miovision Detection solution meets the needs of today's traffic teams with:

Detection Features		Detection	Detection Plus
Detection zones	Unlimited presence and pulse detection zones	•	•
Turning Movement Counts (TMCs)	Rolling 365-day count (CSV) (vehicles, pedestrians, bicycles)		•
Detection metrics	Occupancy ratios, arrivals on red, arrivals on green, and phase interval		•
Usability Features			
Cameras	Connect up to three cameras for each Core DCM, or up to six with an additional switch (sold separately)	•	•
Advance detection	Detect vehicles as they approach from 500 ft away (requires SmartView Approach)	•	•
Remote configuration and validation	Configure and validate detection performance without a truck roll	•	•
Local configuration and data access	Connect directly via Ethernet or existing fiber to perform local configurations, access available data, and manage MQTT APIs and RTSP interfaces	•	•
Actuation Channels			
SDLC	64	•	•
GPIO header block	16 x I/O pins for actuation (fail active)	•	•

Hardware

The Miovision Detection solution is built on the industry's most versatile and scalable traffic operations hardware platform.



Core DCM

Miovision Core® DCM

Full-stack ITS solution for managing and analyzing your intersections

Open and secure platform provides wireless connectivity and communications to access your cabinets from anywhere. The improved modular design optimizes performance and reliability in all environments and can be upgraded to expand functionality and evolve with the development of your traffic network.

The high-performance NVIDIA Volta™ GPU enables you to process detection and count data at the source with industry-leading precision and accuracy giving you the power to make real-time decisions with accurate and complete data.

Required Hardware. See the Miovision Core DCM Datasheet for full specifications.

Industry Certified

NEMA TS-2 Compliant
UL and cUL certified power source

Cabinet Ready

64-Channel SDLC, RS232, GPIO,
Networked Ethernet, 16 actuating IOs

Secure

TPM with secure RSA key generation
and management

Camera Support

Support for two SmartView 360
cameras with future extensibility

Color Display

2.4" TFT color display



SmartView 360

Miovision SmartView™ 360

Get a 360° birds eye view of your intersection

Designed for robust operation in all weather conditions delivers high-resolution video streams required by a range of traffic operations solutions.

Required Hardware. See the Miovision SmartView 360 Datasheet for full specifications.

Sensor

4K, 9 megapixel, 360° fisheye lens

Angular Field of View

Horizontal: 182°, Vertical: 176°



SmartView Approach

Miovision SmartView™ Approach

Detect vehicles as they approach your intersection

Move traffic efficiently through your network by using anticipated demand to build responsive control schemes and measuring free-flow traffic to understand how effectively you are servicing demand.

Optional Hardware. See the Miovision SmartView Approach Datasheet for full specifications.

Sensor

Approx. 1/2.8 type CMOS image
sensor, 1280x960

Maximum Detection Range

500'

Angular Field of View

Horizontal: 15° (Zoom),
Vertical: 9° (Zoom)

For more information, visit miovision.com/trafficlink, email us at hello@miovision.com, or call us NA Toll-free at 1-855-360-7752

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