

AI-500-085-02 Field Monitoring Unit

C-V2X Capable

Overview

The AI-500-085-02 Field Monitoring Unit (FMU) by Applied Information® is a key solution for modern traffic management, integrating seamlessly with traffic cabinets to enhance preemption, priority, and remote communication capabilities. Equipped with a 4G LTE modem, GPS, and 900MHz radio, it enables efficient remote monitoring and control, as well as passthrough communication and video streaming capabilities. The device provides C-V2X (Connected Vehicle-to-Everything) capabilities, supporting C-V2X Network (cellular) to enhance safety and mobility. In addition, it seamlessly integrates with Applied Information's Roadside Unit for C-V2X Direct 5.9GHz (radio) communication.

The AI-500-085-02 FMU enables remote switching of power outlets, features a built-in 4-port Ethernet switch, comes standard with multiple inputs and outputs, and is built with resilience in mind. Seamless integration with the Glance® Platform enhances traffic system management through 24/7 monitoring, real-time alerts, and automated reports, allowing for prompt responses to any detected issues, from power failures to system errors. The combination of reliable hardware and thorough monitoring supports efficient and responsive traffic system management.

As an intelligent transportation system (ITS) solution, the AI-500-085-02 FMU prioritizes future-ready traffic infrastructure management through wireless communication. Its C-V2X capability and robust feature set make it a versatile tool, providing enhanced safety, efficiency, and connectivity, while streamlining operations in any urban setting.

Features & Benefits

- ✓ Low-cost internet connectivity solution
- ✓ 19-inch rack mount 1U high
- ✓ 4 Port Ethernet switch
- ✓ Remotely switchable outlets
- ✓ On-demand wireless video streaming
- ✓ GPS enabled for self-locating
- ✓ C-V2X Ready
- ✓ Passthrough communications
- ✓ Connects to TravelSafely smartphone app
- ✓ Alarm alerts sent via text or email
- ✓ Integrated battery backup for power fail reporting
- ✓ Redundant communications supporting both 900MHz radio & Cellular communication



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AI-500-085-02

Connectivity

Cell Modem	Yes, 4G LTE
Connected Vehicles	Yes, Cellular, C-V2X Ready
Ethernet Port	4 Ethernet Ports
GPS	Yes

Industrial I/O

Digital Outputs	10
Digital Inputs	8
Analog Inputs	8

Power

Outlets	NEMA 5-15 (2x 120V, remotely switchable rated 15 amp total)
Power Consumption	12.5W

Miscellaneous

Operating Systems	µC/OS-II
Manual Preempt Selector	Yes
Operating Temperature	-40°C to 80°C
Humidity	5-95% non-condensing
Dimensions	17.5" W x 1.75" H x 7.5" D
Input Voltage	120V AC
Battery Backup	Yes
Cabinet Temperature Sensor	Yes
Cabinet Humidity Sensor	Yes

Suitable for

Emergency Vehicle Preemption
Transit Signal Priority
School Bus Priority
Remote Communication
Police Preemption
Connected Vehicle Applications

