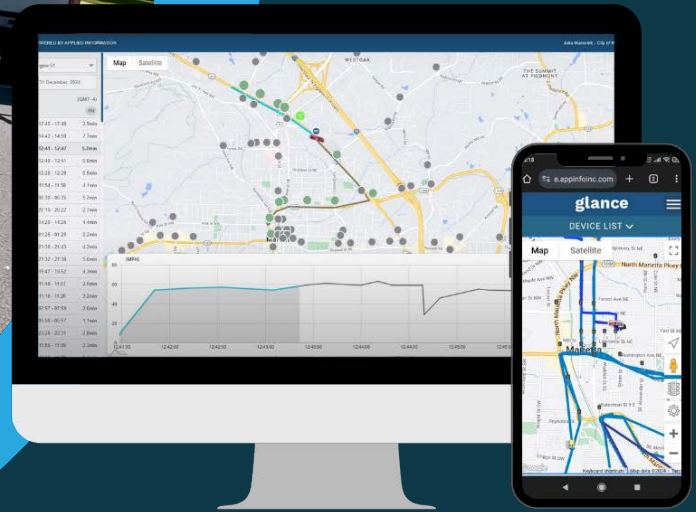# AI-500-065-02
C-V2X Enabled On Board Unit

OVERVIEW

The AI-500-065-02 On Board Unit (OBU) by Applied Information® delivers advanced connected vehicle capabilities. Leveraging C-V2X Direct 5.9GHz radio, the OBU enables real-time, low-latency communication, providing motorists with safety critical in-vehicle alerts. These messages aim to improve road safety by enhancing drivers' awareness and responses to road conditions and hazards communicated by C-V2X Roadside Units (RSUs).

Connecting seamlessly with Applied Information's connected vehicle mobile application, TravelSafely™, the AI-500-065-02 OBU enhances the driving experience by relaying alerts directly to motorists' smartphones. This integration facilitates a direct communication channel for visual and audible warnings, directly from surrounding C-V2X Roadside Units (RSUs) or OBUs. By presenting alerts in an accessible format, the system greatly enhances drivers' awareness and reaction times, directly improving safety and mobility.

Equipped with additional communication technologies including Cellular, GPS, and 900MHz radio, the AI-500-065-02 OBU supports a broad spectrum of applications beyond C-V2X direct communication. Its preemption and priority capabilities enable emergency vehicle preemption and transit signal priority, among other applications. Integration with Applied Information's Glance® platform offers advanced monitoring and real-time vehicle tracking, enhancing operational oversight and response strategies. The AI-500-065-02 OBU provides a comprehensive solution within the connected vehicle ecosystem, specifically engineered to improve safety and mobility on modern roadways.

FEATURES & BENEFITS

- ✔ Future-proof communications
- ✔ Dual-radio design
- ✔ Enhanced GPS with dead reckoning
- ✔ Real-time vehicle monitoring
- ✔ Integration with smartphone app, TravelSafely™
- ✔ C-V2X Direct and Network
- ✔ Preemption and priority solution
- ✔ Seamless infrastructure integration

HARDWARE SPECIFICATION

AI-500-065-02	
Connectivity	
Cell Modem	Yes
900 MHz Radio	Yes
5.9 GHz Radio	Yes
Bluetooth	Yes
C-V2X Direct Enabled	Yes
Enhanced GPS with Dead Reckoning	Yes
Ethernet Port (10/100 Base-T)	Yes

I/O	
Digital Outputs	2
Digital Inputs	7
USB Port	1

Miscellaneous	
Operating Systems	Linux
Operating Temperature	-40°C to 80°C
Humidity	5-95% non-condensing
Dimensions	5.5"L x 8.5"W x 3.5"H
Input Voltage	10-30 VDC
In Service Light	Yes
Battery Backed Memory	Yes

Suitable for	
C-V2X Applications	Yes
Emergency Vehicle Preemption	Yes
Transit Signal Priority	Yes
School Bus Safety Applications	Yes