

AK500

LTE Cat.4 Telematics Gateway

AK500 is a high-speed LTE Cat.4 multi-functional telematics gateway. It provides 2.4GHz, 5GHz Wi-Fi hotspot, Bluetooth, engine diagnostics, live GPS tracking, and multiple interface for various telematics applications. It is perfect for transportation industry and both heavy-duty trucks and passenger vehicles.



Truck



Tractor



Bus



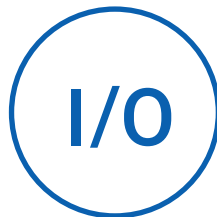
SUV/VAN



Features



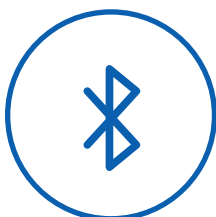
LTE Cat.4 connectivity



Multiple interface for various monitoring and control



Supports vehicle bus for getting detail vehicle engine data



Bluetooth for wireless sensors or Mobile App



Wi-Fi hotspot allows other devices to access the internet



Built-in internal GNSS antenna, and supports optional external antenna

Specifications

CELLULAR

AK500-FX (N. America)	LTE FDD Cat.4 B2, B4, B5, B12, B13
Data Support	UDP / IP, TCP / IP, SMS over IMS
Antenna	Embedded cellular antenna

GNSS

Receiver Type	33 Tracking channels 99 Acquisition channels
Location Technology	GPS & GLONASS
SBAS Support	WAAS, EGNOS, GAGAN, MSAS
Tracking Sensitivity	-167dBm
Acquisition Sensitivity	-149dBm
Location Accuracy	2.5m CEP 50%
Antenna	Internal (Optional external antenna)

INPUTS/OUTPUTS

Vehicle BUS Protocols	ISO 15765-4 (CAN) ISO 14230-4 (KWP2000) ISO 9141-2 SAE J1850 VPW / PWM SAE J1939 / J1708 OEM CAN Data
Digital Ignition Input	1 Positive Input
Digital Inputs	Up to 8 (Configurable)
Digital Outputs	Up to 5 (Configurable) Max. sink current 300mA
Analog Inputs	Up to 3 (Configurable) DC 0~5V, DC 0~40V (12bits resolution)
1-Wire® Interface	1 (iButton®, Temperature sensors)
LED Indicators	5 LEDs (Power, GPS, Cellular, Wi-Fi, BT)
Buzzer	93 ± 3dB @ 10cm
Bluetooth *	Bluetooth Low Energy 5.0, Class 3
Wi-Fi *	2.4GHz + 5GHz IEEE 802.11 b/g/n/ac, AP Mode

SENSORS

Accelerometer	3-axis ±16g
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* Optional accessories required

ELECTRICAL

Operating Voltage	Vehicle 12V / 24V system
Current Consumption	Operating: 45-180mA @ 12V Deep Sleep: 1.4mA @ 12V
Backup Battery	3.7V 920mAh

MEMORY

Internal Flash Memory	64 Megabits Up to 120,000 logs Up to 21,000 queues
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ENVIRONMENTAL

Temperature	-40°C to 60°C (connected to primary power) -20°C to 60°C (operating on internal battery)
Humidity	95%RH @ 50°C non-condensing
Vibration/Shock	MIL-STD-810G

PHYSICAL

Dimension	152mm × 98mm × 30mm (5.98" × 3.86" × 1.18")
Weight	229g (0.50 lb)
Enclosure	Flame Retardant ABS+PC
Mounting Method	Screw Mounting Bracket, Adhesive

CONNECTORS

I/O Connection	Molex 14 Pin Connector
SIM Card Socket	Mini SIM (2FF)
PC/Accessory Interface	JST 4-Pin Connector RS232 with DC 5V power output
External GPS Antenna	SMA Female Connector
Configuration Interface	Mini USB Port
Vehicle BUS Interface	Molex 12 Pin Connector Optional Wire Harness for OBD-II, DEUTSCH 6Pin / 9Pin Connector, RP1226

DEVICE MANAGEMENT

Configuration	ADM (ATrack Device Management), SMS, USB Cable
Firmware Update	ADM (ATrack Device Management), FOTA, USB Cable

CERTIFICATIONS

Standards	FCC, IC, PTCRB, RoHS
Carriers	AT&T, Verizon

Ordering Information

Model	Region	Connectivity	Interface Comparison				
			Wi-Fi	Bluetooth	DLC	RS232	1-Wire®
AK500-FXNCB-AT02	N. America	LTE Cat.4	•	•	•	•	•

