

The Airmax RTU is a high performance, vehicle connected, in-vehicle unit, capable of supporting a wide variety of telematics based services for a range of customer needs, which include; leasing, insurance, driver monitoring and training, fleet management, and vehicle security.

### Key Features

- Designed for the passenger car market and operating from a nominal +12V vehicle supply (24 volts truck supported using cable options)
- Direct connection to host vehicles diagnostics: supports all CAN plus legacy K-Line protocols
- Automatic detection of vehicle diagnostics protocol and the diagnostic services available from the vehicle,
- Truck option supports FMS
- “Over the-air” software updates.
- Simple, plug and play installation compatible with around 98% of typical fleet vehicles.
- Powerful, ARM based, (40MIPS) processor, with 64KB RAM, 256KB FLASH, plus 4kB EEPROM and 1MB SERIAL FLASH (capable of being expanded to 8MB) non-volatile memory.
- Internal QUAD-band, GSM/GPRS modem, with TCP/IP-UPD support, 3g upgrade available.
- High sensitivity (SIRF III) GPS receiver, with active antenna
- Integral 3-axis accelerometer
- Factory programmed with a powerful suite of vehicle and driver monitoring features, but capable of being over-air updated with new firmware to support new or additional functionality.
- Sophisticated data management and event detection modes to minimize air-time usage.
- Multiple Power Modes to minimise power consumption
- “Heartbeat” function during power-down,
- GPRS plus SMS and SMS fall-back and dial-up (CSD) for “over-air” diagnostics
- Simple, modular, construction with a single main printed circuit board mounted inside a compact, rugged enclosure.
- Supports the simultaneous connection of a garage diagnostics tool for normal garage diagnostics purposes.
- Enhancements and options are provided via build variants or using “daughter board(s)” or external modules to provide optional features/functionality—see below



### Installation and Configuration

#### Simple Unobtrusive Installation

- The unit is small and can be mounted in any convenient location with the vehicle’s passenger compartment.
- Installation times range from 10 to 20 minutes, depending on vehicle type

#### Safe

- Fusing and current limiting protect the vehicle from unit failures.

#### Calibration & Configuration

- Simple “Plug and Play” installation allows the unit to be installed without any specialised training
- Automatic configuration and commissioning.



telematics solutions *beyond* the ordinary

## Options

### Build Options

- FMS Truck Interface —cable options supporting 48V supplies
- Internal GSM and / or GPS antennas.
- Serial RS232 Interface
- Non-GPS and/or accelerometer option for cost reduced applications (uses GSM / STD positioning)
- Battery Backup - provided as separate housing into which the RTU is fitted. Battery capacity sufficient for 10 days stand alone operation (period and duty of operation may not be continuous); intelligent battery interface allows remote monitoring of the battery status and charging.

### Daughter Board Options

- Memory Card, using daughter board
- Bluetooth—via daughter board
- Additional CAN interface (with fused power) for external and auxiliary devices (e.g. camera).

### Auxiliary Modules

**Airmax Smart Card Reader,** for driver ID and supporting all current smart card and tag formats



**Airmax Vehicle Interface Module (VIM),** connecting via CAN to the RTU and providing additional analogue and digital interfaces



## Interfaces

### Vehicle

- EOBD vehicle diagnostics (J1962) compatible; in-line connection for power, and data.
- Electrical and logical connection to all ISO 15031 bus types.
- Separate ignition sense line for non-standard vehicle types.
- All interfaces fully automotive compatible and safe for direct connection to the vehicle.
- Suitable for direct connection to an 'Ignition Sensed' or permanent vehicle supply.
- Current consumption in the Sleep mode consistent with automotive standards.

### User

- Four status LEDs (RED, AMBER, YELLOW, GREEN) indicating current state of operation.

### General

- LIN (CAN vehicles only), low speed automotive bus for connection to peripheral devices, includes the Airmax Smart Card Reader
- Memory Card - support an internal MMC memory card.
- General Purpose Inputs/ Output - "open collector" drive with weak pull-up

## Performance

Size	20 x 50 x 110 mm
Weight	150g
Voltage Range	+12 volt nominal, automotive supply - 10 to 16 volts operating (+24 volt nominal operation as a build option).
Power Consumption	Operating < 180mA (2.5A peak), "Sleep" < 5mA
Data Storage	Capable of storing at least 1 month' of normal data
M.T.B.F.	10 years
Environmental	BS EN 60721-3-5:1997 Class 5M3
IP Rating	433 (IK06)
EMC	EMC Type Approved to 72/245/EC (as last amended by 2009/19/EC)
Automotive Approval	E and e marked (VCA Approval: 10R-035370)
Temperature Range	-40C to +85C, storage, -25C to +70C, operating

**Airmax Remote Ltd**  
Logic House  
31 Black Moor Road  
Ebblake Industrial Estate  
Verwood,  
Dorset, BH31 6BB

For more information on any of our solutions, call or email  
Phone: +44 (0) 1932 504300  
Email: sales@airmaxgroup.com  
Or visit us at: www.airmaxremote.com

