Airmax REMOTE

DATASHEET

Airmax Remote Telematics Unit (RTU)

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

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Installation and Configuration :

Simple Unobtrusive Installation

- The unit is small and can be mounted in any convenient location with the vehicles 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

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 in-terface 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 Privacy Button

- Simple, dashboard mounted, illuminated switch which allows the driver to select whether the journey they are about to take is a 'business' trip or a 'private' trip

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Blue Light 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 addi-tional 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 Air-max 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

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