

APLICOM A1 PRODUCT FAMILY

VERSATILE, RELIABLE AND FLEXIBLE PRODUCTS FOR TELEMATICS APPLICATIONS



Use the same A1 product platform for all your solutions, even when they differ significantly from one another! A1 product family is featured with clever, open and reliable architecture in which Aplicom's long experience as a global fleet management hardware provider is realised for customers benefit. By choosing Aplicom A1 Product Family the system partner can profit from a consistent set of products that create product synergy and ensure fast Aplicom support, future-proof offering and continuous introduction of new features.



APLICOM A1 PRODUCT FAMILY with six versions of telematics units offers an extensive set of features for fleet and asset management as well as mobile or wireless applications. The system partner can choose from a configurable unit with ready-made software or a Java programmable unit. Available are all needed interfaces, flexibility with processing capacity and in-built functionalities in a compact and cost-effective package for most imaginable applications.

A1 MAX AND A1 FLEX ARE SUITED for applications where driver performance information and engine data are utilised with FMS CAN, K-line and digital tachograph connections. Vehicle telematics combined with GPS based tracking and tracing functions make the A1 MAX and A1 FLEX ideal to be applied in transport and logistics, waste management, public transport, public safety and security as well as fleet management of construction machines for instance.

A1 TRAX, A1 BASIX AND A1 BOX ENABLE mileage information and precise GPS positioning. Additional devices for example for driver identification or cargo temperature measuring are easily connected to A1. Alarm and other data interfaces available make the A1 ideal for advanced tracking and tracing applications.

A1 M2M, A TELEMETRY UNIT with its large set of IO interfaces, is suited for wireless applications where GPS positioning is not needed. It can be used for example in meter reading, remote diagnostics of industrial cranes, weather stations and railway safety equipment.

A1 PRODUCTS are easily connected via GPRS to any fleet telematics or other M2M systems. Partners are provided with easy-to-use development tools (SDKs) or a configurator tool depending on the chosen product version. A configuration service is also available upon request.

IN ADDITION to the hardware units, Aplicom offers a good range of optional hardware and accessories: Navigators, WinCE-device, Driver Log Keypad, iButton, temperature sensor solution etc.

A1 products have gone through extensive tests for low and high temperatures, vibrations and other environmental conditions to withstand the vehicle and other demanding environments.

	Configurable software	Java-programmable
Fleet Telematics	A1 MAX	A1 FLEX
Advanced Tracking	A1 TRAX	A1 BOX
Tracking & Tracing	A1 BASIX	
Telemetry	A1 M2M	

Aplicom A1 Product Family

www.aplicom.com

Technical Data

(A1 MAX – vehicle telematics unit with inbuilt functionality)



APPLICATION SOFTWARE

MAX SW RELEASE 3.0

Factory installed A1 telematics software with FMS CAN and digital tachograph interface.

- Fully configurable event to action based operation with optional conditional execution (AND, OR, IF operators)
- Sending of event based snapshots to server according to configuration
- Events: Time interval, Distance, Geofence, Start/Stop moving, Direction change, Driver-ID read, IGN on/off, Speed limit, Battery low, Alarm active, Input changed, Heading change, A/D threshold, Comm fail, flag changed, GPS status changed, tachograph event, data event from incoming SMS or TCP message or connected serial device, net changed, scheduled event, harsh braking, acceleration limit, FMS CAN events (cruise control, overtemp, overrevolutions, overspeed, harsh braking) etc.
- Accurate GPS based distance calculation
- Open protocols for server connectivity with optional security and certificates: Bearers: GPRS: TCP/UDP, SMS
- Protocols: data, compact and verbose text, digital tachograph data and FMS CAN data protocols, full IMEI identification, R-protocol with session timeout for end to end acknowledgements
- Data protocol report size further optimised with selectable content for saving costs
- Roaming with LAI list control: Operator allowed / not allowed and non-critical reporting can be prevented and reports optionally stored to nonvolatile memory
- Over-the-air (OTAP, OTA) configuration and updates

GPRS platform	Quad-Band GPRS multislots	Power switch	IGN and SW controlled power management, no mechanical switch
Memory	1,7 MB FLASH RAM 400 KB	Fuse	External fuse on power cable: 3A (max 10A) Internal fuse: 3A/slow
Coprocessor	ARM7, realtime processing, Watch dog	Dimensions	78mm (W) x 95 mm (H) x 101 mm (D)
GPS	50 channel module, Supersense under coprocessor control. 2 trip distance counters	Weight	Without internal battery: 230g With internal battery: 270g
Power supply	6,8...48VDC (nominal +12V) Typical: <100mA Max (peak): 1A / <1s Stand by: <1mA Battery charger operation: 8...48VDC internal Li-Ion, 12...48VDC external lead acid	Operating conditions	-30°C...+65°C -5°C...+60°C with internal battery -30°C...+50°C with external battery -40°C...+70°C storage humidity +95 % max
User interface	Indicators (LEDs): Led A – Power on Led B, C, D – Telematics appl. SIM card slot, Reset switch	Housing / material	IP31, IP54 option Plastic ABS+PC / PC / TPE+SEBS
RTC	Date, Time, Wake-up	Options	Battery option 1*: internal Li-Ion 800mAh, full operation back-up Battery option 2*: external sealed lead acid 12V, 7Ah, with installation kit
Common connections	FME for GSM antenna SMA for GPS antenna Serial ports (RJ45): - COM1, dataevents, snapshots or proxy, AT command interface, Garmin FMI (optional) - COM2 GPS NMEA output - Debug port, info and protocol snapshots (COM2 connector) General connectors (Molex): - Power, 4 pin: • Power, IGN on/off control - Bus1, 4 pin: • Driver ID reader with LED indicator • DLKP interface - Bus2, 6 pin: • K-line, digital tachograph • FMS CAN - IO1 and IO2, 6 pin: • 6 digital in, with 4 parallel AD inputs • 2 open collector outputs,	Application software	Aplicom ready-made telematics software (see above)
		Development tools	Software configurator tool
		Approvals	
		CE marking	2004/108/EC (EMC directive)
		e-type	2004/104/EC 99/05/EC (R&TTE)

*Note: Cannot be used at the same time.