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A1091

Positioning Products

Rugged
Telematics Platform

The A1091 family of telematics products combines fastest time-to-market, an excellent price-performance ratio, and state-of-the-art technology. It addresses all mobile applications that require accurate positioning and communication based on cost-effective, convenient and secure standard internet protocols.
By integrating the antennas as well as the backup battery into a waterproof enclosure the A1091 provides easy installation and use in outdoor environments. The A1091 is the first product integrating the SiRFStarIV GPS providing an unprecedented level of performance in asset tracking.

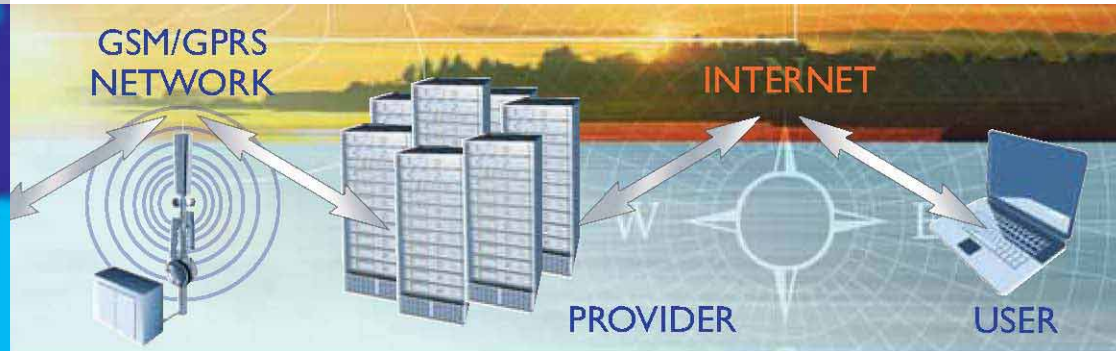|	
Complete ■	Integrated antennas and battery
Short time-to-market ■	Wide support for application implementation
SiRFStarIV GPS ■	Industry leading tracking performance
Standard interfaces ■	Industry standard M12 connector
Reduced operating cost ■	WLAN option available
Compliant to worldwide legislation ■	CE, FCC, A-tick
Use in vehicles ■	E-Marking
Build options available ■	Fit to diverse applications

SiRF
SiRFstarIV
Powered

Vast Application Areas

Further features of the family include flexible 1/0, a wide power input range, a CANbus interface and a backup battery, making the A1091 family ideal for basic as well as advanced tracking applications. As qualified and certified products with a single standard interface connector, the A1091 family members provide advantages in terms of low system, installation and market entrance cost. With excellent tools and professional support for application implementation to save our customers' investment and know-how, this product is ideally suited for easy integration into existing client & server based back end office solutions.

A1091 Rugged Telematics Platform

GSM/GPRS NETWORK
INTERNET
PROVIDER
USER

- Transport & Logistics
- Security & Surveillance
- Insurance Rental
- Cars/vans/trucks
- Trailer tracking
- Asset tracking
- Taxi/bus fleets management
- Motor homes and caravans
- Boats
- Mobile construction equipment
- Farm machinery
- . . .

YOUR PARTNER

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MAJOR COMPONENTS

GPS Receiver	Vincotech A2100-A SiRFStarIV
Channels	48 parallel tracking
Position accuracy (horizontal)	< 2.5 m CEP autonomous
Sensitivity	-163 dBm (tracking)
	-148 dBm (acquisition - cold)
GSM/GPRS modem	Sagem HiLo
Quad-band	850/900/1,800/1,900 MHz
Mode	GPRS, CSD, SMS, Fax
GPRS	Multi-Slot Class 10 (4Rx/2Tx) up to 85.6 kbps
µ-Controller	STM32 CortexM3 32-bit RISC
SRAM	512 kbit internal
	plus up to 16 Mbit ext.
Flash	4 Mbit internal
	plus up to 32 Mbit ext.

WiFi	Atheros RoC AR6102
Mode	WLAN 802.11b/g
	Lowest power consumption

MECHANICAL (with mounting flanges)

Dimensions	95.0 x 89.0 x 30.0 mm³
	3.7″ x 3.5″ x 1.2″
Weight (with battery)	160 g / 5.6 oz.

ENVIRONMENT

Temperature	
Operation	-40°C to +85°C (no battery)
	-20°C to +60°C (with battery)
Storage	-40°C to +85°C
Protection	IP67

Technical Details A1091

POWER

Input voltage	8 to 32 VDC
Current draw	
Operational	t.b.d. (typ.)
Sleep mode	0.5 mA (max)
Standby	t.b.d. (max)
Battery (opt.)	LiIon or LiPolymer
Capacity	1,700 mAh
Charging	integrated, SW controlled
Power Alarm	External power fail Low battery voltage
Protection	Reverse polarity protection Over-voltage protection Internal self-resetting fuse

CAPABILITIES

	A1091-A	A1091-B	A1091-C
Tremble detector	•	•	•
MEMS (± 2/8 g)	•	•	•
MEMS (± 35 g)	-	•	•
Additional Memory	-	•	•
Micro-SD	-	•	•
WLAN 802.11b/g	-	-	•

INPUT/OUTPUT **

	A1091-A	A1091-B	A1091-C
Digital inputs	3	1	1
Digital outputs	1	1	1
Analog inputs	2	1	1
Serial data (RS232)	1	1	1
Dallas interface	1	1	1
CAN-HS	-	1	1

CONNECTOR

IO interface	M12, 8 pin, male

PRODUCTS

A1091-A	Basic version
A1091-B	CAN, µSD, 35g-MEMS
A1091-C	WLAN 802.11b/g

COMMUNICATION *

Internet protocol	via GPRS
UDP/IP	User Datagram Protocol
TCP/IP	Transfer Control Protocol
FTP	File Transfer Protocol
SMTP/POP3	Mail Transfer Protocol
SMS	Short Message Service
Data call	Asynchronous 9.6 kbps when no GPRS is available
Fax	Fax transmission

* Depending on application
** Some IO pins are shared, please refer to the respective manual.

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