



piA-Data-Recorder



Features

- Single Board Computer
- Super-scalar ARMv7 Cortex™-A8
- up to 1GHz
- Aluminum housing incl. wall mounting
- Ethernet, µSD, USB, RS232/485, CAN
- GSM/GPRS, GPRS
- WLAN
- DC 12-24V
- Power consumption <5W
- Ångström Linux
- Kernel 2.6.37 and 3.2.x



Overview

The piA-Data-Recorder is a single board computer based on the ARM® Cortex™ A8 32-bit RISC architecture with enhanced graphics processing and a variety of peripherals and industrial interfaces.

As a powerful and energy-efficient OMAP single board computer, the piA-Data-Recorder is ideal for stationary as well as mobile communications, control and data management tasks. Due to its small size it is the ideal solution, when there is not enough space for a full-sized PC system or an ATOM board. The sustainability of the system is enhanced by the use of embedded Linux as the operating system. For an additional application development a C/C++ cross compiler SDK and interpreter for Python, Perl, Ruby are available.

Details

Basics

Processor	AM3352 ARM Cortex-A8 800MHz, optional 300/600/1000MHz up to 2000 MIPS Crypto Hardware Accelerators (AES, SHA, PKA, RNG)
RAM	2 x 1Gbit DDR3 SDRAM (256 MB), opt. 512MB
Flash	8GB eMMC, 128Mbit NOR Flash
SIM card	integrated into the device vibration-proof mechanical support

Interfaces

Ethernet	2 x 10/100 Mbps Ethernet (M12)
Memory Card	microSD/microSDHC
USB 2.0	1 x USB micro (slave) for service purposes 1 x USB Typ A (Host)
RS485	± 25 V RX / ± 5 V TX, galvanically isolated
IBIS	galvanically isolated, slave 22pol. SPT plug, IOs (24VDC)
CAN	2 x CAN Transceiver
GSM/GPRS/GPS	Quad-Band GSM 850/900/1800/1900MHz, GPRS, GPS GPS: SMA connector, GSM: FMA plug
WLAN	A combined module, 802.11b/g/n compliant, HF-Connector
Antenna Connection	SMA
Digital IOs	24VDC, voltage applied externally

Other properties

RTC	Real-time Clock incl. Battery
Power Supply	24VDC, 4-pin JPT connector Battery 3.7V
Energy Consumption	<5W
Temperature Range	-25°C - +70°C
Housing	Aluminium housing, IP40 Dimensions: 104mm x 135mm x 50mm (L x W x H)

Software

Ångström Linux Kernel 3.2.x
Open-Source SDK with board-specific libraries

Schematic Drawing

