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Datasheet piAx-AM3517

piAx-AM3517

Features

- Singleboard-Computer
- Super-scalar ARMv7 Cortex™-A8
- up to 600MHz
- POWER VR SGX™ Graphics Acceleration
- DVI-D Display Interface (D1, 720p)
- Ethernet, µSD, USB, RS232/485, CAN, Audio
- GSM/UMTS (optional)
- DC 10-24V
- Power Consumption <3W
- Ångström Linux
- Kernel 2.6.37 and 3.2.x

CANopen®

Also available as piAx-AM3517-H with horizontally extending connectors!

Overview

The piAx-AM3517 is a single board computer based on ARM®'s Cortex™-A8 with integrated POWER VR SGX™ graphics acceleration. For the visualization, the piAx-AM3517 has appropriate interfaces to connect, for example, an LCD display or camera module. If required, the system's functionality can be extended individually by various extension cards, so the piAx-AM3517 can be used with technologies such as WLAN, Bluetooth or RFID.
As a powerful and power-efficient OMAP single board computer the piAx-AM3517 is suitable for stationary and mobile communications and control tasks.
Due to its small size it is the ideal solution, when there is not enough space for a full-sized PC system. Our industrial PC can use whether Windows CE, Android, or embedded Linux as an operating system. For the application development a C/C++ Cross-Compiler-SDK and an Interpreter for Python, Perl, Ruby are available. The design of the piAx-AM3517 is based on the popular BeagleBoard, so that the software development is complemented by an active community.

Details

piAx-AM3517

Processor	OMAP AM3517 ARMv7 Microprocessor (MPU) 600 MHz Cortex™ A8 Core NEON™ FPU DSP core POWER VR SGX™ Graphics Accelerator 2000 DMIPS
RAM	2 x 1Gbit DDR2 SDRAM (256 MB)
Flash	2Gbit NAND Flash (256 MB)

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Interfaces

Display	DVI-D via HDM connector RGB-LCD connector
Camera Interface	compatible to Leopard Imaging (12 bit, 24-Pin)
Ethernet	10/100 Mbps Ethernet (RJ-45)
MMC	µSD-Card
USB 2.0	2 x USB Type A 1x USB-OTG
RS485/RS232	±25 V RX / ±5 V TX
CAN	CAN Transceiver, isolated, 5V

Special Functions

RTC	1x TPS65950 Real Time Clock incl. backup battery
Audio	3.5mm Jack connector, 4poles/stereo
Expansion Header (2x 40-pin)*	MMC/SDIO GPIOs UART SPI
	I²C LCD
Debug	1 x mini USB (FTDI) 1 x JTAG

Other Features

Board Size	130mm x 71.8mm
Power	DC 10V – 24V Battery 3.7V max. 2A
Typical Power Consumption	<4W
Temperature Range	-10°C - +70°C
Enclosure	optional

Software & Documentation

Ångström Linux with kernel 2.6.37 and 3.2.x
Open-Source SDK with board-specific libraries
Hardware Documentation
Software Documentation