



piA-AM3352



Features

- Sitara Single Board Computer
- ARM® Cortex™-A8
- up to 800MHz
- Top-hat rail housing
- Ethernet, µSD, USB, RS232, RS485, CAN
- GSM/UMTS/LTE (optional)
- DC 10-24V
- Power consumption <3W
- Ångström Linux
- Kernel 4.4.x
- Open-Source SDK



Overview

The piA-AM3352 is a single board computer based on the ARM® Cortex™ A8 architecture enclosed in industry standard top-hat rail housing. The combination of above-average performance and high power efficiency makes the piA-AM3352 a good choice for mobile communication as well as stationary control applications. Due to its small size it is the ideal solution, when there is not enough space for a full-sized PC system.

In addition to Ethernet, RS485 and USB, the system allows the exchange of data via CAN / CANOpen and wirelessly via GPRS / UMTS. The communication of multiple modules can be done via a CAN-based DIN rail (DIN rail bus CH20M) which replaces the complicated individual wiring by an uninterrupted and flexible system solution.

The sustainability of the system is underlined by the use of Linux. Alternatively to this pre-configured Ångström based system, any Linux distribution that supports ARMv7 (e.g. Debian, Poky) can be used. For development of customized applications a cross compiler SDK (C / C, QT, diverse libraries) is available. A performance upgrade is possible by exchanging the processor module.

Details

Basics

CPU	OMAP AM3352 Sitara™ microprocessor (MPU) up to 800 MHz Cortex™-A8 Core NEON™ SIMD Coprocessor
RAM	2 Gbit LPDDR3 (256 MByte LPDDR3)
Flash	128 Mbit NOR-Flash (optional FRAM)
eMMC	8 GByte
EEPROM	2 Kbit EUI48 EEPROM

Interfaces

Ethernet	10/100 Mbps Ethernet with RJ-45 connector
µSD	bootable
CAN	CAN Transceiver, isolated
RS232	
RS485	
Debug Terminal	virtual COM-Port via miniUSB
HS USB 2.0	USB A
GPIO	1 x Open drain Output, 1 x 24 V Input

Special Functions

Sensors	3D-Acceleration ±8g Temperature
RTC	Real Time Clock incl. rechargeable battery
Watchdog	1 x Watchdog Timer, 1 x Power Supervisor
GSM/UMTS (optional)	Dual-Band HSPA+/WCDMA: 900/2100 MHz Quad-Band GSM/GPRS/EDGE: 850/900/1800/1900 MHz
LTE (optional)	Five-Band FDD-LTE B1/B3/B7/B8/B20 Dual-Band TDD-LTE B38/B40
	Dual-Band UMTS/HSDPA/HSPA+ B1/B8 Dual-Band GSM/GPRS/EDGE 900/1800 MHz
Debug	1 x JTAG 1 x virtual COM-Port via miniUSB

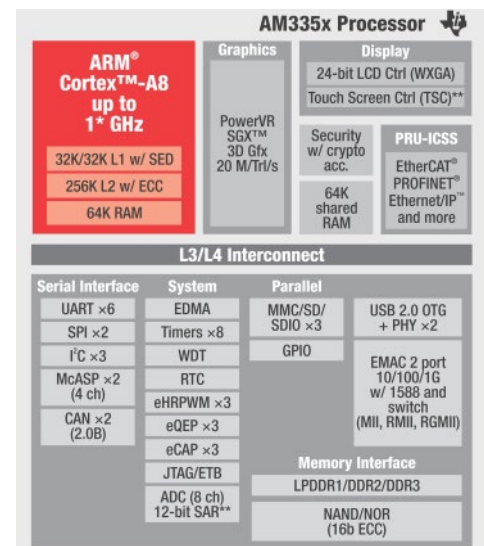
Other Features

Power	USB 5V DC 10-24V 2A max
Typical Power Consumption	<3W
Temperature Range	-10°C - +60°C
Enclosure	Top-rail housing, IP20

Software & Documentation

Ångström Linux Kernel 4.4.x
Open-Source SDK with board-specific libraries
Hardware Documentation

*** Customized development of expansion cards**



Functional Block Diagram for AM3352
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