

piA-SF (91120010)



piA-SF



Features

- 10.1" panel PC with multitouch display
- ARM® Cortex™-A8
- up to 800MHz
- Touch panel housing
- Ethernet, µSD, USB, RS485, CAN-Bus
- GSM/UMTS/LTE (optional)
- DC 12V or AC 230V
- Energy consumption 15W
- Ångström Linux (Yocto based)
- Kernel 4.4.x
- Open source SDK

Overview

piA-SF is a panel PC based on the piA-AM335x-PM processor module (ARM® Cortex™-A8 architecture) with 10.1" multitouch display, continuous solid glass front and LED backlighting.

Next to the Ethernet, RS485 and USB the system allows the data exchange via CAN/CANOpen as well as wirelessly via GSM/UMTS/LTE.

The sustainability of the systems is underlined by the application of Linux. Alternatively to the pre-configured Ångström basis system any Linux-distribution with ARMv7-Support (e.g. Debian, Poky) can be used. For the development of customized applications a cross compiler SDK (C/C++, QT, diverse libraries) is available.

Since the piA-AM335x-PM (processor module) architecture is similar to the wide-spread Beagle-/Craneboard designs, there is a large and actively supporting open-source development community.

A performance upgrade is possible by exchanging the processor module.

Technical Data

Basics

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

Interfaces

Ethernet	10 / 100 Mbit Ethernet (M12 plug)
µSD	bootable
CAN	2 x CAN-Bus (M12 plug)
RFID / NFC	13,56 MHz RFID including NFC
RS485	(M12 plug)
Debug Terminal	virtual COM-Port via miniUSB
HS USB 2.0	USB A
Audio	10W class D Stereo
Additional outputs	2 x relay output 350mA 24V 2 x LED output 50mA
Inputs	2 x switch input 5V

Special Functions

Sensors	3G sensor Temperature sensor
RTC	Real Time Clock incl. backup battery
Watchdog	1 x watchdog timer
Debug	1 x JTAG 1 x virtual COM-Port via miniUSB
GSM/UMTS (2G/3G) optional	1 x Dual-Band HSPA+/WCDMA 1 x Quad-Band GSM/GPRS/EDGE
Radio module	1 x 868MHz SRD Band (optional WMBUS)

Other Features

Power supply	12V or 230V, depending on building power supply 2 A max. (M12 plug)
Typical Power Consumption	15W (30W peak with audio)
Temperature Range	-10 °C to +60 °C
Enclosure	Plastic housing including display, glass protection and LED backlighting
Display (Capacitive Multi-Touch)	TFT 10,1", 1280x800 pixel, 16,7M colours, typ. 85° perspective 680cd/m ² light, 60Hz, contrast ratio: typ 800

Software & documentation

Ångström Linux kernel 4.4.x
Open-Source SDK with required library
Hardware Documentation

Schematic drawing

