

# piA-AM3354

Item number:: 91120007



IPCs



Gateway

## Linux IPC for Edge Computing

### Overview

The piA-AM3354 is a single board computer based on ARM® Cortex™-A8 architecture enclosed in industry standard top-hat rail housing.

Its combination of above-average performance combined with high power efficiency makes the piA-AM3354 a good choice for mobile communication as well as stationary controller applications.

Due to its small size it is the ideal solution, when there is not enough space for a full-sized PC system.

### Use cases

- › industrial automation
- › process visualization
- › security technology
- › research
- › device control
- › location-independent software updates
- › remote diagnosis

In addition to Ethernet, RS485 and USB, the piA-AM3354 allows data exchange via CAN/CANOpen and GPRS/UMTS. The communication of multiple modules can be carried out by a CAN-based DIN rail (CH20M DIN rail bus), which replaces the traditional wiring by an uninterrupted and flexible system solution.

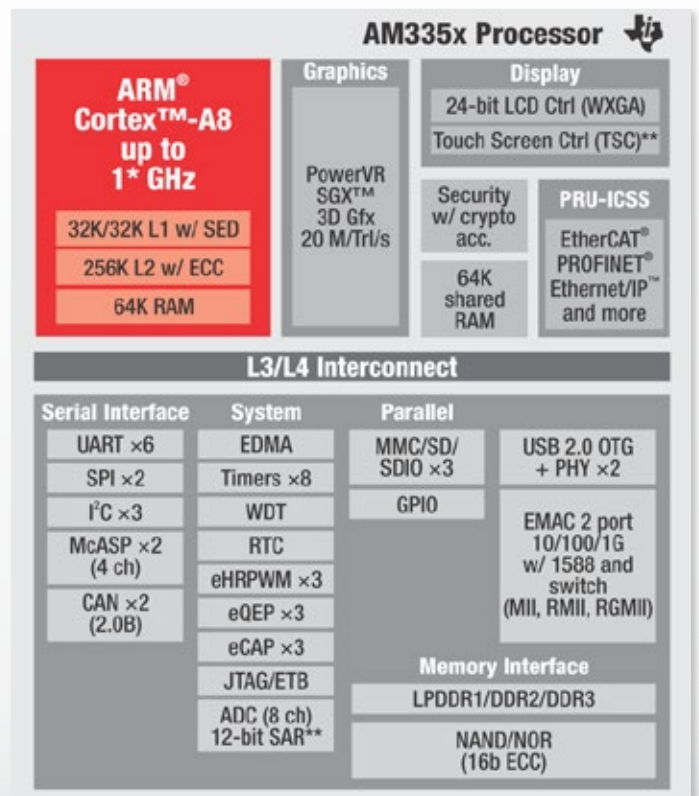
The sustainability of the system is underlined through the usage of Linux as an operating system. As an alternative to preconfigured Ångström based system, any Linux distribution that supports ARMv7 (f.g. Debian, Poky) can be used.

For the development of customized applications a cross compiler SDK (C/C++, QT, diverse libraries) is

available.

Since the piA-AM3354 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.



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## Technical specifications

### Basics

|                           |  |
|---------------------------|--|
| <b>Supply voltage</b>     | DC 12-24V<br>2 A max.  |
| <b>Processor</b>          | OMAP AM3354 Sitara™ Micro-processor (MPU)<br>up to 800 MHz Cortex™-A8 Core<br>NEON™ SIMD Coprocessor |
| <b>Dimensions</b>         | 119.2 x 113.6 x 22.5 mm, 1u  |
| <b>Housing</b>            | DIN rail housing, IP20   |
| <b>Energy consumption</b> | < 3W   |

### Interfaces

|                        |   |
|------------------------|---|
| <b>Ethernet</b>        | › 10 / 100 Mbps Ethernet with RJ-45 connector |
| <b>μSD</b>             | › bootable                                    |
| <b>CAN</b>             | › transceiver, isolated                       |
| <b>RS232<br/>RS485</b> |   |
| <b>Debug Terminal</b>  | › virtual COM-Port via miniUSB                |
| <b>HS USB 2.0</b>      | › USB A                                       |

### Other properties

|                         |  |
|-------------------------|--|
| <b>RAM</b>              | › 2 Gbit LPDDR3<br>(256 MByte LPDDR3)  |
| <b>eMMC</b>             | › 8 GByte  |
| <b>Flash</b>            | › 128 Mbit NOR-Flash (optional FRAM)   |
| <b>EEPROM</b>           | › 2 Kbit EUI48 EEPROM  |
| <b>Sensors</b>          | › Sensors Acceleration sensor 3 axes up to ± 8g<br>› Temperature sensor  |
| <b>Battery</b>          | lithium polymer battery<br>2 x 3000 mAh 18650  |
| <b>RTC</b>              | › real-time clock<br>› including battery   |
| <b>IO interfaces</b>    | Expandable GPIOs (isolated)  |
| <b>Watchdog</b>         | 1 x Watchdog Timer<br>1 x Power Supervisor   |
| <b>Debug</b>            | 1 x JTAG<br>1 x virtual COM-Port via miniUSB   |
| <b>GSM/UMTS (2G/3G)</b> | › 1 x Dual-Band HSPA+/WCDMA: 900/2100 MHz<br>› 1 x Quad-Band GSM/GPRS/EDGE: 850/900/1800/1900 MHz  |
| <b>LTE (4G)</b>         | › 1 x Five-Band FDD-LTE B1/B3/B7/B8/B20<br>› 1 x Dual-Band TDD-LTE B38/B40<br>› 1 x Dual-Band UMTS/HSDPA/HSPA+ B1/B8<br>› 1 x Dual-Band GSM/GPRS/EDGE 900/1800 MHz |