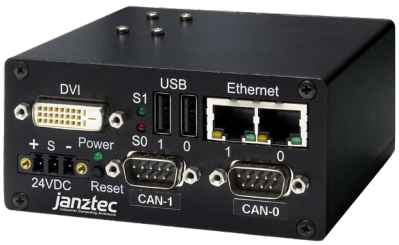
emPC-A/iMX6

Fanless and compact Multi-Core ARM-based Embedded Controller



PRODUCT DESCRIPTION

The emPC-A/iMX6 is a compact and fanless embedded controller system. It is based on the i.MX6Q ARM Cortex-A9 quad-core processor. The system combines a strong CPU unit with a fanless and robust system design, two ethernet ports and up to 4 D-SUB interfaces[1)] for either CAN/CANopen or RS232/RS485, which makes it suitable for machine control or IoT gateway applications. emPC-A/iMX6 systems can be expanded with additional expansion boards. Optionally advanced security features are available.

FEATURES

Processor

- NXP i.MX6 quad-core CPU based on ARM Cortex -A9, 800 MHz
- ARM TrustZone Security Technology

Memory

- 2 GB DDR3 RAM system memory
- 128 kB battery-free NVRAM

Storage

- Internal 4 GB eMMC flash
- Internal CFast Socket for SATA SSD
- Internal SD card slot

External Interfaces

- 2 x 10/100/1000 MBit/s Ethernet
- 2 x USB (V2.0) with 500 mA power supply capacity
- Up to 4 x 9-pin D-SUB connectors for CAN or serial ports [1)]
  - SJA1000 CAN Controller
  - Physical Layer ISO/DIS 11898-2
- DVI-D graphics interface
- Serial port with RTS/CTS only

Environment

- Ambient operating temperature range -40 °C ... 70 °C [2)]
- Non-operating temperature range -40 °C ... 85 °C
- 5 % ... 95 % r.H., non-condensing
- Dimensions (w x h x d):
  - 2 D-SUB: 52 x 105 x 117 mm
  - 4 D-SUB: 72 x 105 x 117 mm

PRODUCT DATASHEET

1) Available with 2 D-SUB: 2 x RS232 or 2 x CAN/CANopen or 1 x RS232 & 1 x CAN/CANopen
4 D-SUB: additional 2 x RS232/485 or 2 x CAN/CANopen
More interfaces on request.

2) Up to 75 °C ensured with limited CPU load

Customized Solutions Feel free to contact Janz Tec's sales team for special requirements and features:

Janz Tec AG Im Dörener Feld 8 33100 Paderborn Germany
P +49 5251 1550-0 **F** +49 5251 1550-190 mail@janztec.com

Power Supply

- Input 9 ... 34 V_{DC}
- Power consumption ca. 6 W

Expansion

- Internal ix-bus 8/16 bit interface for I/O and low speed peripherals [3)]
- Expansion boards available for additional I/O and other peripherals [3)]

Software

- Linux Debian
- CODESYS V 3.5 IEC 61131-3 runtime environment

Options

- Security Features:
  - Signed and encrypted boot (High Assurance Boot)
  - Hardware random number generator
  - Hardware-accelerated cryptographic engine

[3] Please see external datasheet for available expansion boards

Customized Solutions Feel free to contact Janz Tec's sales team for special requirements and features:

Janz Tec AG Im Dörener Feld 8 33100 Paderborn Germany
P +49 5251 1550-0 **F** +49 5251 1550-190 mail@janztec.com