

GATEBox 100

Product overview

The GATEBox 100 is a compact embedded Box PC based on a flexible interface concept.

The requirements for communication devices (e.g. gateways) are met by two ethernet interfaces. These ethernet interfaces are suitable for the precision time protocol, to synch the time base of different systems.

For wireless data connection the options for LTE/UMTS (incl. SIM) or WiFi are available via mPCIe extension cards.

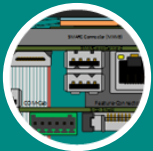
Next to the communication interfaces further interfaces like analogue/digital I/O, CAN or audio can be integrated via the SIODI I/O shields. Even full customer specific I/Os can be implemented without developing the complete box from the beginning.

This industrial PC was designed for maximum reliability during 24/7 operation and long term availability. The operation and service cost are minimized due to a maintenance free design. On the one hand there are no moving parts, like fans or hard discs, on the other hand in this design no battery is built in. The real time clock in this device keeps the time with a goldcap. The battery change is no longer necessary and the export of the devices is simplified.

For mass storage extension internally a μ SD card slot and a M.2 adaptor for SATA SSD is available.



Robust, industrial quality and flexible



SIODI I/O Concept
Expansion for custom I/O
Predefined I/O Shields



CPU Classes
Intel® Atom E3845
or
Freescale i.MX6 Quad



Operating Temperature
-40 up to +60°C without convection
up to +85°C temp. within the GATEBox housing



Maintenance Free Design
No moving parts
Passive cooling
No RTC battery



Communication
Dual Ethernet
mPCIe for WiFi or LTE



Mechanics
All connectors front accessible
Multiple mounting options

Technical information

Processor

- Intel® Atom E3845 (4x1,9GHz)
- Freescale i.MX6 Quad (4x800MHz)

RAM

- 4GB DDR3L ECC with E3845 CPU
- 2GB DDR3L with i.MX6 CPU

Front sided connectors for all versions

- 2x Gigabit Ethernet
- 1x HDMI, 2x USB 2.0
- Reset Button, Power In

Supported OS²

- Windows 7
- Windows 10 IoT
- Linux x64

Housing dimensions

- 150 x 58 x 99.5mm (W x H x D)

Supply voltage

- 6.5V – 32V wide range input

Mounting options

- Rail / Book / Wall / Desktop

Cooling

- passive

Power consumption¹

- 5-7W typical, 15W Max. (without peripherals)

Operating temperature

- 40 up to +60°C, without airflow
- 40 up to +85°C (temp within the GATEBox housing)

Non-operating temperature

- 40 bis zu +85°C

Humidity

- 93% @ 40°C non-condensing

Vibration and shock

- EN 60068-2-6:2008 (10-50Hz - 2G)
- EN 60068-2-27:2009 (half sine, 11ms, 15G)

EMC

- EN 55022/EN 55032 und EN 55024 (IT)
- EN 61000-6-2/EN61000-6-4 (Industrie)
- FCC (Industrial)

Safety

- EN 60950 Safety

Expansion possibilities

SIODI I/O Blocks

- SIODI S0: 2x RS232 (E3845) or 2xRS232, 1xRS485, 1xCAN (i.MX6)
- SIODI S1: 2x CAN, 4x Analogue/Digital In, 4x Digital Out, 1x RS422, 2x Relais (E3845 only)
- SIODI S2: HDAudio Controller with 4x 3.5mm cinch, S/PDIF, 1x USB 2.0 and internal M.2 Slot (E3845 only)

PCIe Mini Card

- Full Size Expansion slot for WiFi, 4G LTE or Dual CAN

Storage

- 2.5" SATA SSD (industrial MLC) with 2.5" mounting kit B17000-GTB-100-A002
- M.2 SATA SSD (industrial MLC) with M.2 adapter B17000-GTB-100-A001

Name

Part-No.

Description

Name	Part-No.	Description
GATEBox 102 S0	B17000-GTB-102-0001	CPU: Freescale i.MX6 Quad / RAM:2GB DDR3L / Storage: 4 GB eMMC SIODI: S0 / Software: Debian 7 / Mounting: Desktop
GATEBox 103 S0	B17000-GTB-103-S000	CPU: Intel® Atom™ E3845 / RAM: 4GB DDR3L ECC / Storage: 16GB eMMC SIODI: S0 / Software: Debian 9 / Mounting: Desktop
GATEBox 103 S1	B17000-GTB-103-S100	CPU: Intel® Atom™ E3845 / RAM: 4GB DDR3L ECC / Storage: 16GB eMMC SIODI: S1 / Software: Debian 9 / Mounting: Desktop
GATEBox 103 S2	B17000-GTB-102-S200	CPU: Intel® Atom™ E3845 / RAM: 4GB DDR3L ECC / Storage: 16GB eMMC SIODI: S2 / Software: Debian 9 / Mounting: Desktop

Alle Daten bei 25°C Umgebungstemperatur, falls nicht anders angegeben. / All data at nominal input and 25° C ambient temperature, if not marked otherwise. * Alle Daten dienen nur Informationszwecken und sind nicht als zugesicherte Eigenschaften aufzufassen. / All data for information purposes only, no assured characteristics. * Technische Änderungen ohne vorherige Ankündigung sowie Irrtümer vorbehalten. / Technical modifications without notice and errors reserved. * Belastung mit Extremwerten über einen längeren Zeitraum kann die Zuverlässigkeit beeinflussen. / Strain with extreme values for a longer period may affect the reliability. * Alle Trademarks und Logos sind Eigentum der jeweiligen Unternehmen. / All trademarks and logos are property of the concerning companies. In case of doubts the German version of the document is binding. © b-plus GmbH • Feb-15 • Version 4.1