



Rugged Interconnect™
TECHNOLOGIES
Technologies evolve, our commitment remains

MBox-R

Robust BoxPC platform for embedded PC applications and IoT edge gateways

The MBox-R is a very compact Embedded PC based on Intel® Atom™ processor series E3800 (Bay Trail-I) for embedded applications. The highly reliable hardware in combination with the rugged chassis design enable the application under harsh environmental conditions.

The MBox-R is focused to realize individual configurations depending on customers demand. Functionality and interfaces can be added easily by internal Mini PCIe add-in cards. Typical uses are found in embedded server and gateway applications, entry level PC systems for automation, visualization and monitoring and all applications that place high demands on quality, durability and long-term availability.

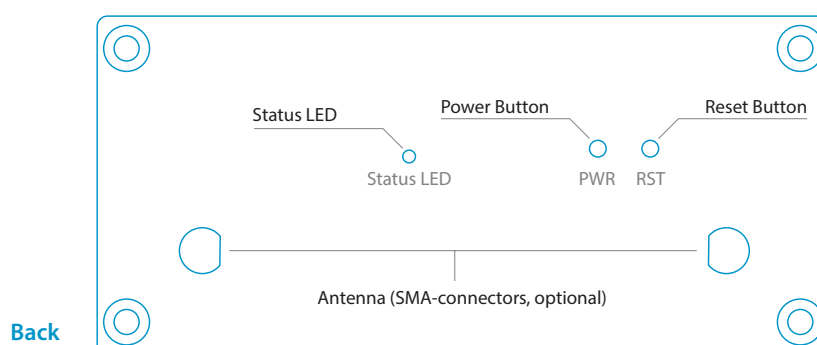
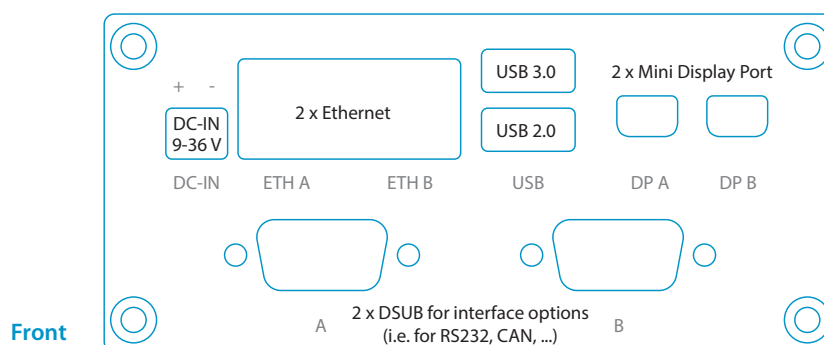
The MBox-R name designates the Robust chassis covered in this data-sheet. Other chassis variants are also available.



The highlights:

- Intel® Atom™ E3800 series (Bay Trail-I)
- Up to 8 GB DDR3L with ECC
- Optimized for ultra low power
- High-Speed IO such as 2x Gb ETH, 2x USB (3.0/2.0)
- 2x Mini DisplayPort to connect two monitors
- TPM 1.2 / 2.0 (option)
- "Green ECO-Off" (minimum of standby power)
- Watchdog und thermal management
- Highest reliability, 24/7 certified
- Extended temperature support (option)
- Very robust design
- Individual configurations and ODM branding

Interfaces



Technical details

CPU

Intel® Atom™ E3800 series („Bay Trail-I“)

E3845: 4x 1.91 GHz, 2 MB L2-Cache, 10 W

E3827: 2x 1.75 GHz, 1 MB L2-Cache, 8 W

E3826: 2x 1.46 GHz, 1 MB L2-Cache, 7 W

E3825: 2x 1.33 GHz, 1 MB L2-Cache, 6 W

E3815: 1x 1.46 GHz, 512 KB L2-Cache, 5 W

Memory

2 GB, 4 GB, 8 GB DDR3L with ECC

Graphics interfaces

2x Mini DisplayPort (DP++)

(DP 1.1a, max. resolution 2560x1600)

System interfaces

2x Gigabit Ethernet (Intel® i210)

1x USB 3.0 (with USB 2.0 backward compatibility)

1x USB 2.0

2x RS-232 Sub-D9 (option)

Wireless and fieldbus communication (options)

WLAN Dual Band AC / Bluetooth 4.0

2G/3G/LTE

CAN, ProfiNet, ProfiBus, DeviceNet, ModBus,...

Others on request

Internal extension sockets

1x Mini PCIe full-size (PCIe & USB), with micro SIM socket

1x Mini PCIe half-size (PCIe & USB)

Internal mass storage

1x mSATA full-size (16 – 512 GB, others on request)

1x Micro SD card socket

Security components

TPM 1.2 / 2.0 (option)

Power supply

Voltage: 9 V - 36 V

Connector type: Phoenix MC1,5/2-G-3,5

Power: typ. 3-10 W / max. 15 W (Green ECO-Off: < 5 mW)

Battery: CR2032 (replaceable)

Environment

Passive cooled (no fan)

Standard temperature: 0°C...+60°C

Extended temperature: -40°C...+70°C (option)

Form factor / dimensions

Integrated hardware kit: 100 x 100 x 23 mm

Chassis: 104 x 110 x 56 mm (excl. wall mount wings)

104 x 130 x 56 mm (incl. wall mount wings)

Operating Systems

Windows 7, Windows 10 (Standard and Embedded/IoT)

Linux (e.g. Ubuntu)

Others on request

Custom specific software images can be pre-installed.

Ordering information

The MBox is focused on individual / customer specific configurations and individual branding. Therefore the ordering code will be generated for each individual configuration.

MBox-R - [CPU variant] - ...

Ready to use BoxPC based on MSys hardware platform (flexible configuration, housing, mounting and branding)



(Picture shows the "robust" chassis variant with optional configuration features like WLAN/BT).

Accessories

Power Supply AC/DC

AC/DC power adapter 90 .. 240 V AC to 12 V DC, with DC power connector adapter 5/2.5-to-Phoenix 2-pin

DC Power Connector

2-pin power connector for easy installation (Phoenix FMC1,5/2-ST-3,5)

Display Cables for Mini DisplayPort Connectors

mDP-to-DP, mDP-to-HDMI, mDP-to-DVI and mDP-to-VGA

DIN rail mounting bracket

Can be mounted on bottom side of the chassis. Inquire about this option when ordering.

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