

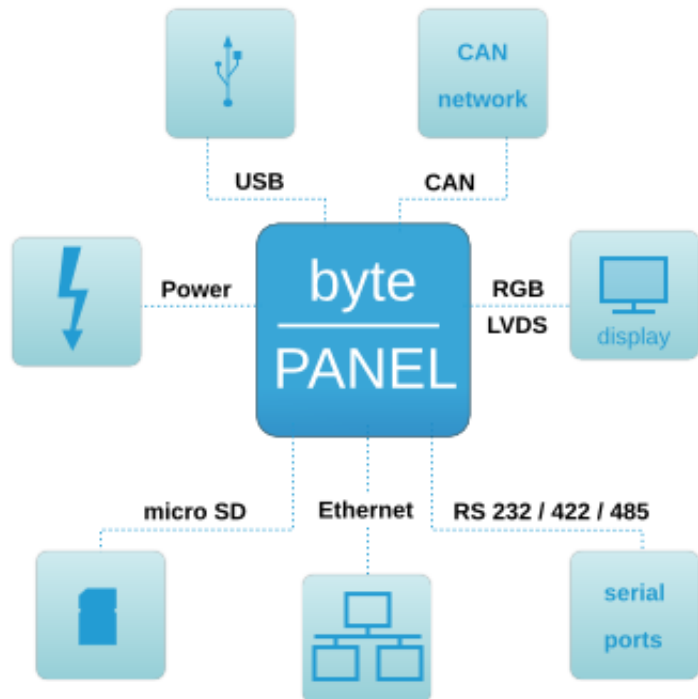
INSTALLATION



Human Machine Interface

QUICK GUIDE

Multi functional



About the **bytePANEL**

*Thank you for purchasing our product. The **bytePANEL** is designed for a long lifetime and low power consumption, but provides enough flexibility to attach all your industrial devices - also in the future.*

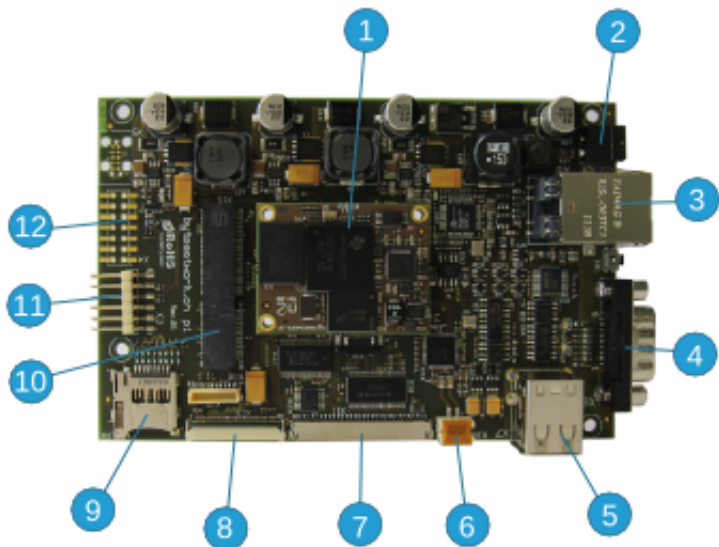
Key facts

- 720 MHz CPU Power
- 256 MB DDR2 RAM / 256 MB Flash
- 5-48 Volt Power – Low power device
- MTBF > 100'000 hours @ 25°C
- Full featured pre-installed Linux (Debian embedded)
- Easy to use and install
- Elected long lifetime components to keep your device operational 7*24h

The device offers you following flexibility

- Ethernet (10/100 Mbit/s)
- CAN Port
- Serial ports RS 232 / 422 / 485
- USB HS (2.0)
- Multimedia Video LVDS 24 bit
- Display parallel RGB or LVDS
- micro SD
- Customizable

Know the **bytePANEL**



Know the **bytePANEL**

Module

- 1 ARM Cortex A-8
Module 720 MHz , 256 MB RAM / 256 MB Flash

Right side

- 2 Power connector
- 3 Ethernet
- 4 Serial RS 232 / 422 / 485 / CAN

Bottom

- 5 USB HS
- 6 Speaker
- 7 LVDS
- 8 parallel RGB
- 9 micro SD

Left side

- 10 Wifi / bluetooth extension
- 11 Serial console
- 12 JTAG

Getting started

This section describes how to make the **bytePANEL** ready for a first login.

Step 1 Check the 'Packing list' for completion.

Step 2 Connect to your device using

- a serial console cable (step **3**)
- or by Ethernet (step **4**).

Step 3 Serial console login / developer version



3.1 Connect the FTDI USB- Serial converter to your computer and the **bytePANEL**.

3.2 Configure your terminal emulation program with the following settings:

- Baudrate: 115200
- Parity: 8N1

3.3 Continue at step **5**

Getting started

Step 4 Serial console login / developer version

Connecting to the [bytePANEL](#) using `dhcp`.



- 4.1 Connect your ethernet cable to **Interface 1**.
- 4.2 Check for a running `dhcp-server`.

Step 5 Power the device

First login either as described at step [6](#) or [7](#) .

Getting started

Step 6 Serial console login / developer version

During the boot procedure, after various messages by the booting kernel on your console the following login-prompt is shown:

Debian GNU/Linux

bytePANEL login:

Connect to **bytePANEL** as user **root** with password **rootme**.

Step 7 Ethernet

Connect to **bytePANEL** using a ssh client:

```
user@host:~$ ssh root@<ip address>
```

Then the following login-prompt is shown:

```
root@<ip address> password:
```

Connect to **bytePANEL** as user **root** with password **rootme**.

Getting started

Step 8 Congratulations, you initially connected to your device!

Enjoy Debian embedded on your **bytePANEL**.



For more information visit <http://www.bytesatwork.ch/support>

Important Comands

dpk-l

List all installed packages.

apt-get update

Update debian packaging list on your device

apt-get upgrade

Upgrade your device (Install new version of packages)

apt-cache search <package name>

Search for specific package

apt-cache show <package name>

Get details for specific package

apt-get install <package name>

Install a new package with ts dependencies

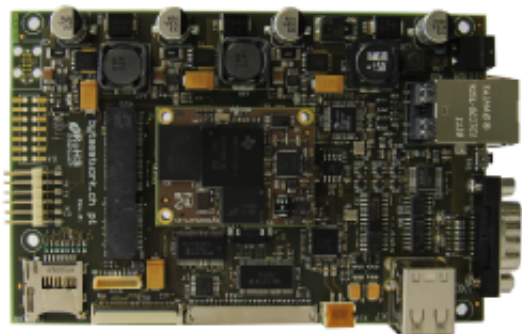
apt-get remove <package name>

Remove a specific package

For more information visit <http://www.emdebian.org>

Specifications

Core	ARM Cortex A-8
CPU	Texas Instruments AM3352 / AM3354 / AM3359
Power	5 - 48 VDV
Frequency	720 MHz
Memory	DDR2 256 MB
OS	Linux (embedded Debian) pre-installed
Ethernet	1x 10/100 (Mbit/s)
Serial Ports	RS 232 / 422 / 485 / CAN
USB	Host 2x HS (2.0)
Multimedia Video	LVDS 24 bit or parallel RGB
Operating Temperature	-20 °C up to +50 °C



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