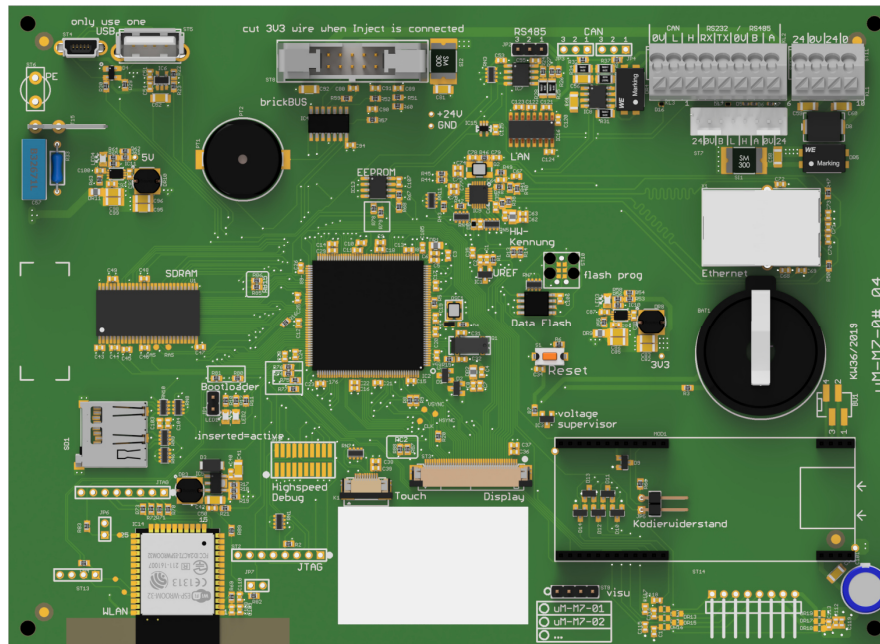
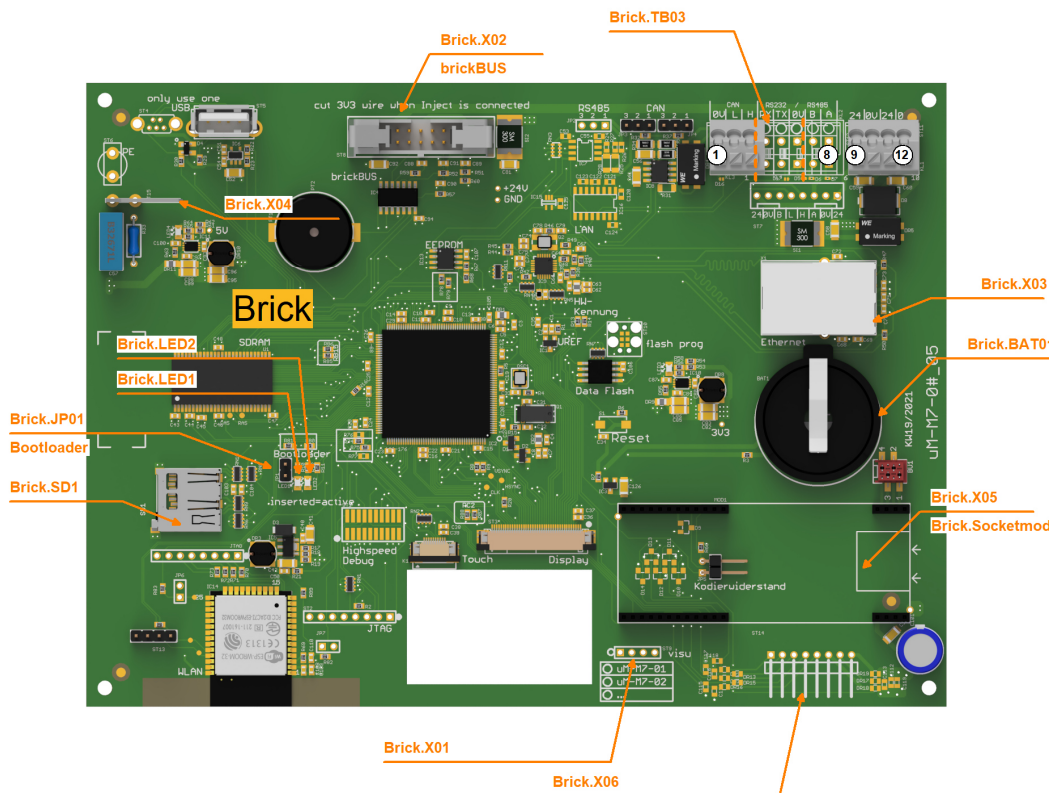


CBB_CPU-uniMIND-M7-05



1.1 Description

1.2 Connectors and Indication-/Operation-Elements



1.2.1 Connectors (X)

Hereinafter the necessary connections, connectors and their specification for operation are listed. The location of a specific connector is documented with the ID (left column) in the previous illustrations.

ID	Model	Usage	Num. of term.	Model / Series	connection	elec. usage
Brick.SD01	SD card slot	Data storage, transfer and software update	-	µSD	for SD, SDHC with max. 32GB, no XDHC	-
Brick.X01	Box connector	emBRICK I/O-Bus	10		-	brickBUS master
Brick.X01	Pin connector	PC visualisation	4	2,54mm	only for service	TTL-Level (3.3V) 38400 Baud
Brick.X03	Plug	LAN		RJ45	-	Ethernet IEEE 802.3
Brick.X04	Flachstecker	PE-Connection	1	6,3x0,8mm liegend	min. 1,5mm ²	
Brick.X05	Buchsenleiste	Socket for communication module	32	2mm		Socket-Modem
Brick.X06	Print Connector	Expansion Connector	8			SPI mit 3V3 Vers.

1.2.2 Terminal block (TB)

The following Illustration the technical details for Terminal blocks are listed. The location of a specific block is documented with the ID (left coloumn) in the preavious Illustrations.

ID	Model	Model / Series	Grid	Num. of term.	connection	elec. usage
Brick.TB03	Cage Terminal	WAGO250	3.5mm	3	up to 1.5mm ²	RS232 interface

1.2.3 Terminal assignment

Here the assignment of individual terminals and there affilation to terminal blocks (Te block), terminal numbers (Te no.) and short description (T.desc.) aswell as there electrical function and usage are explained.

The associated mechanical and electrical properties are stated with the specific terminal block in the previous chapter. The position of a terminal is dedicated through the "Te block" and the actual terminal number (Te no.) or the therminal description (T.descr.) in the previous Illustration respectively. In the coloumn "usage" the technical-/ device-functional use is listed.

Te block	Te no.	T. descr.	Function	Usage
Brick.TB03	4	RX	RS232 Rx	RS232
Brick.TB03	5	TX	RS232 Tx	RS232
Brick.TB03	6	GND	Ground	RS232
Brick.X06	1	CS	SPI CS	Expansion Connector
Brick.X06	2	SCK	SPI SCK	Expansion Connector
Brick.X06	3	MOSI	SPI MOSI	Expansion Connector
Brick.X06	4	MISO	SPI MISO	Expansion Connector
Brick.X06	5	IRQ	SPI IRQ	Expansion Connector
Brick.X06	6	GND	Ground	Expansion Connector
Brick.X06	7	/RES	nRST	Expansion Connector
Brick.X06	8	Vcc	3,3V	Expansion Connector

1.2.4 Jumper overview (JP)

The individuell jumpers, their combination to logical jumper groups and their usage are stated below. The location of individual jumpers is determined through the jumper ID (left coloumn) in the previous Illustrations.

ID	Jumper Block	Usage
Brick.JP01	JP-Bootloader	Activation of Bootloader

1.2.5 Jumpergroups and configuration

Hereafter possible jumper groups settings are described. They refer to jumper-ID of the previous listings. A "o" symbolises a disconnected jumper, a "x" symbolises a connected jumper.

Jumper Block	Selections	Effect
JP-Bootloader	A: JP=o B: JP=x	A: Bootloader not active (normal state) B: Bootloader activie When the Bootloader is activated, a new firmware from a data carriere (SD card) can be programmed to the system. The detection of this jumper is only done when starting (power on, reset) the system.

1.2.6 LED Indications

ID	Type	Specification	Type / Usage
Brick.LED01	SMD-LED	red	Bootloader LED
Brick.LED02	SMD-LED	green	StateLED

1.3 Input-/Output Scheme

The following diagram shows the adaption of the control unit. To avoid overlapping, some wires are displayed interrupted and dashed.

no DocCompAdapt available

1.4 Technical Data

1.4.1 User Notes

- Blinking behavior StateLED:
Each Morse code is 3 seconds long!
not initialized = flashing continuously at approx. 5Hz
no communication = short-long-short
too little communication = short-short-short
disturbed communication = short-long-long
OK = continuous flashing at approx. 1Hz (0.6-1.5Hz)

1.5 History

On the following page you will find a list of changes that have been made to the product.

1.5.1 History

Date	Entry scope (HW, SWappl, SWapi, Release)	Entry type (enhancement, improvement, bugfix, release)	Version	Status (development, implemented, tested)	Responsible	Reason for the modification	Items of modification	Impact for (end-)customer	Comment	Location in model/source
xxxx-xx-xx		Release	0.99	Tested	NSt					

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