

MatesBUS Stand DATASHEET

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Introduction

BBM-MatesBUS-Stand (ref. MatesBUS Stand) is an aluminium stand with integrated PCB designed to provide a base platform for MatesBUS based products such as TIMI-96, for development or showcasing.



Product Features

The MatesBUS Stand offers a simple connection for a MatesBUS compatible device, such as the TIMI-96, and eases development by propping the MatesBUS compatible device up on an angle (35 degrees off vertical), aiding development when the device is situated on a desk or bench.



TIMI-96 connected to the MatesBUS Stand

Note

- 1. TIMI-96 is not included with the stand
- 2. Production Stands will be branded with BBM Logo on the front

The MatesBUS Stand breaks out the 10 signals found on the MatesBUS interface, into 2 separate 5-pin headers, one out of each side of the stand itself. This allows easy connections to the Mates Programmer for programming the connected module (such as the TIMI-96). The headers are also easy to attach jumper wires to other devices or a Host, which can then be situated on a Breadboard or direct, somewhere beside or behind the stand itself.

Hardware Detail

The MatesBUS Stand utilises the BBM MatesBUS, which is a unique interface pinout designed to be simple and easy to use.

The MatesBUS is made up of 2 rows of 5 pins, 0.1" (2.54mm) pitch, spaced 0.3" (7.62mm) apart, ideal for direct plug into a breadboard, or compatible adaptor or development board.

On the base of the MatesBUS stand are 4 mounting holes, which can be used to fasten the stand down as required.

Hardware Interfaces

The MatesBUS Stand offers up connections to all 10 of the MatesBUS interface, to 2 different 5-way connectors, one out each side of the stand. There are no electronics as such on the board, it is simply a breakout, so the pins found are a mirror of the MatesBUS pins themselves.

+5V (Device Supply Voltage)

MatesBUS supply voltage pin. This pin supplies the MatesBUS with 5VDC from the 5V side header (H4)

GND (Module Ground)

Device ground pin. One GND pin is found on each H3 and H4 side headers.

TX (Serial UART Transmit - MatesBUS)

TX of the MatesBUS connects to RX of the Host board (or Mates Programmer), this is the 3.3V Asynchronous Serial UART Transmit for communications between the device connected to the MatesBUS headers and the Host. Connects to the TX on the side Header H4.

RX (Serial UART Receive - MatesBUS)

RX of the MatesBUS connects to TX of the Host board (or Mates Programmer), this is the 3.3V Asynchronous Serial UART Receive for communications between the device connected to the MatesBUS headers and the Host. Connects to the RX on the side Header H4.

RESET (MatesBUS Reset)

This pin is primarily connected to the Mates Programmer, for programming the connected MatesBUS device, such as the TIMI-96. It can also be connected to a Host, making it possible for the Host to initiate a reset of the MatesBUS device as required. This pin is found on the side Header H4.

3V3 (3.3V Output)

This pin is the 3.3V output (where applicable) from the connected MatesBUS product (such as the TIMI-96) and offers 3.3V output for the User to power sensors etc. The availability and capability of this pin is purely dependent on what MatesBUS device is connected to the stand.

GPIO (GPIO Pins)

These GPIO pins are break-outs of the GPIO pins found on the connected MatesBUS product. The naming is left simply as GPIO, as the naming of the GPIO could change depending on what MatesBUS device is connected. Please refer to the MatesBUS product datasheet that is connected to determine the GPIO availability or capability. Not all GPIO pins may be used.

Hardware Drawing



Hardware Schematic

