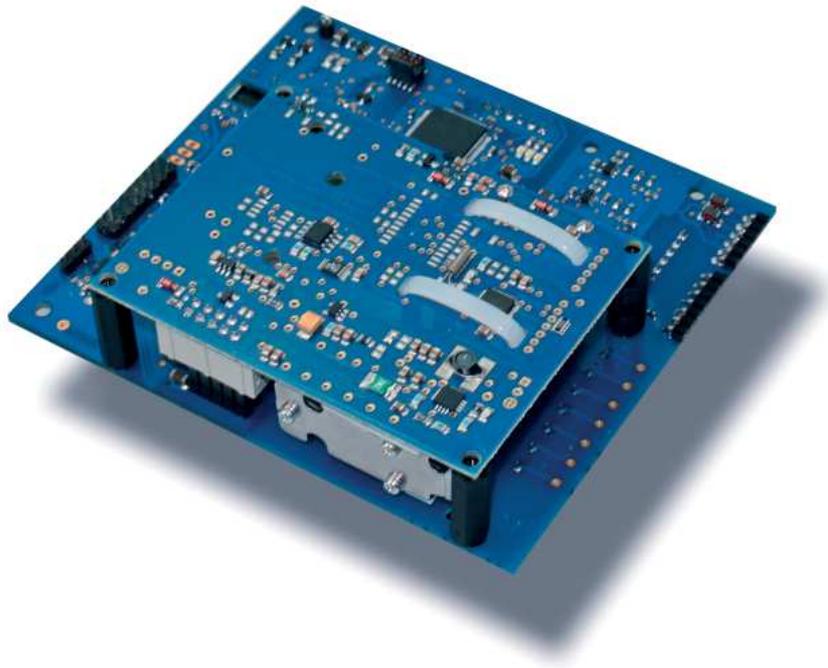




Multiparameter OEM Board for Patient Monitors

Testkit

Quickstart Manual



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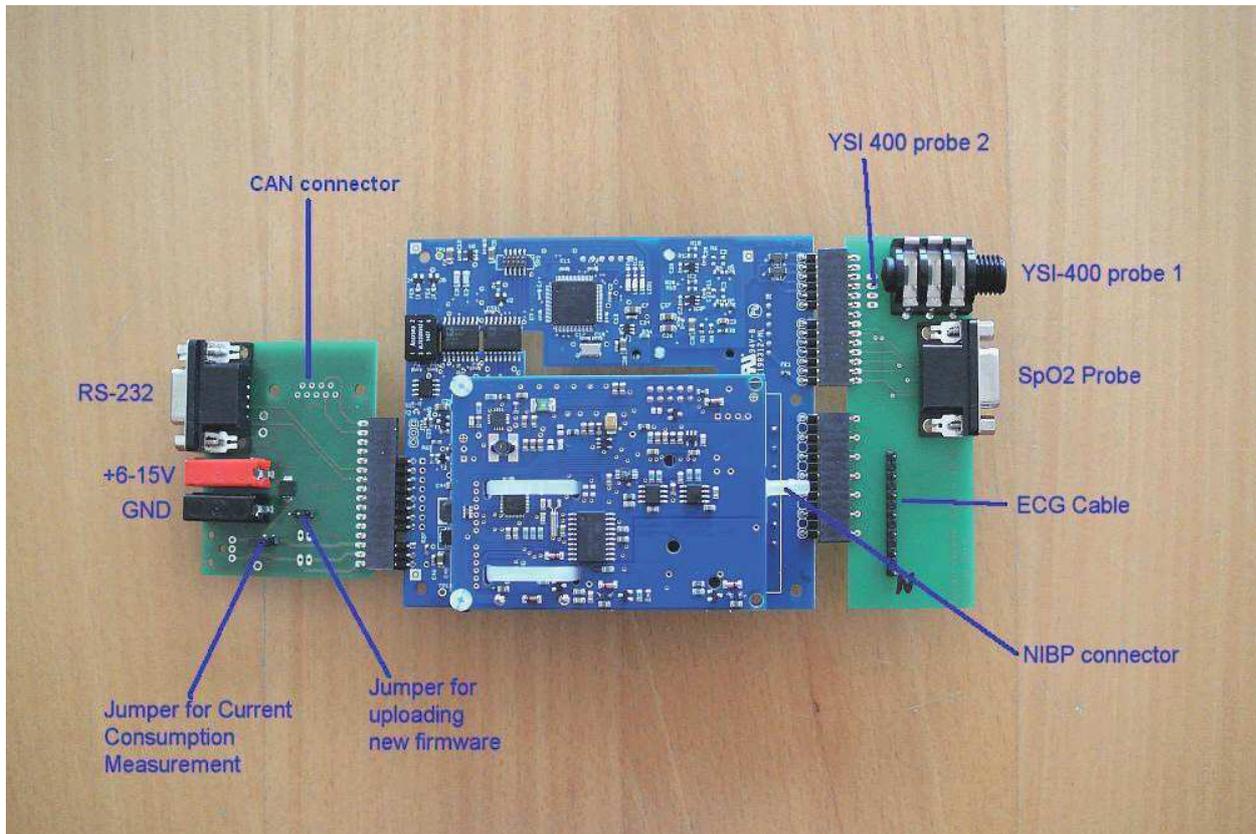
Version 1.02

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Hardware



The MP01000 is tested using two additional PCBs which are included in the testkit:

On the left side, a board that hosts the interface and power connections, on the right side a board that adapts to the patient cables.

In the final product, these boards should be part of the medical product of the customer.

The interface board has two jumpers:

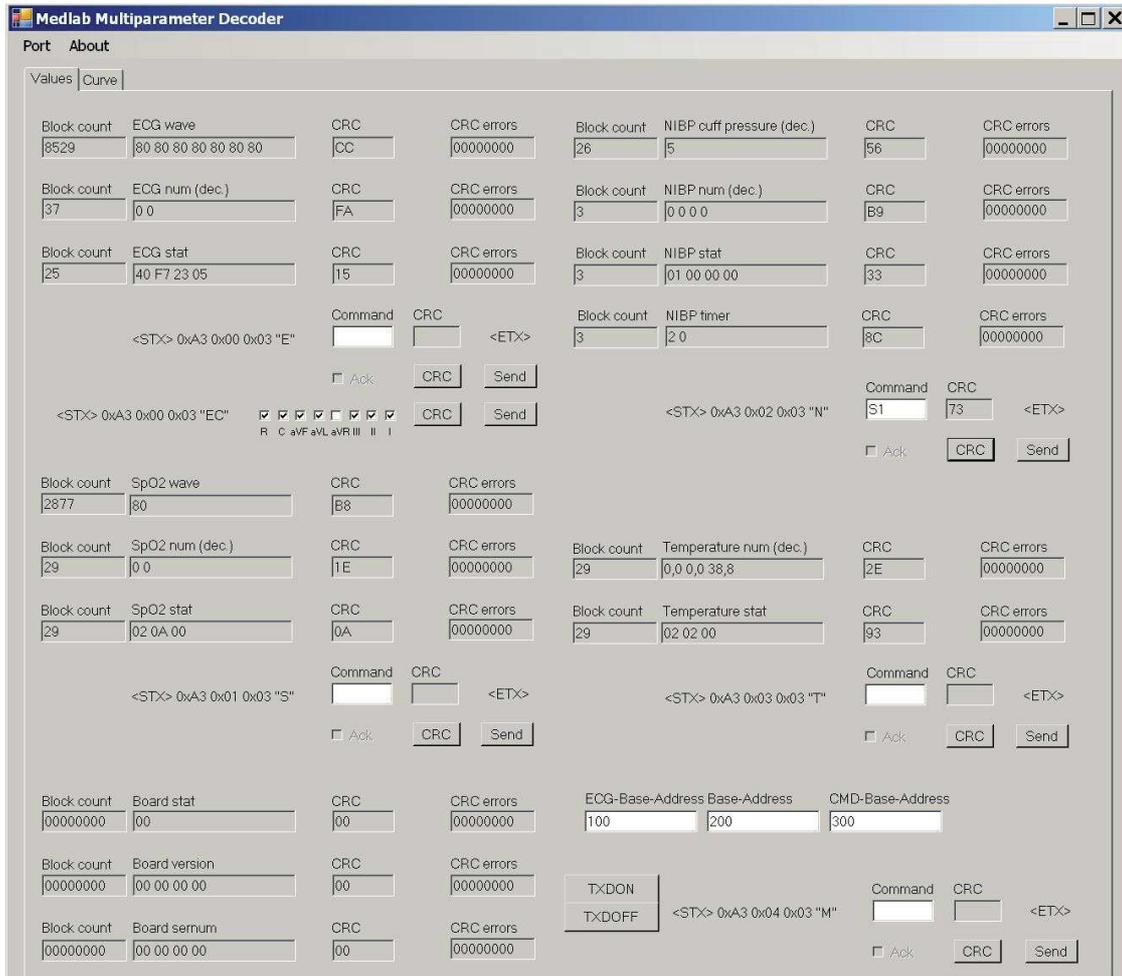
The left jumper, normally closed, allows to measure the total power consumption of the system when connecting a current meter instead of the jumper.

The right jumper, open during normal operation, allows reloading the firmware of the module, if software updates should become available.

The board is connected to the RS-232 interface of a PC for the test. Please see the next page for a brief description of the test program.

Due to the increased current requirements during NIBP measurement, because of pump and valves, the power supply should be able to supply at least 3W of power. Connection is done over standard 4mm connectors. A medical grade power supply is recommended for testing, and absolutely necessary for a final medical product.

PC Software



The software allows to transmit commands to the module, including the generated CRC values, and to display the transmitted blocks of the board in numerical form. A second tab show the curves that are coming from the MP01000 in graphical format also. When transmitting a command, the first character of the respective command is automatically added, as shown in the text left of the command window.

Example: To transmit a "start NIBP measurement, the board needs to receive the data block:

```
0x02    0xA3    0x02    0x03    0x4E    0x53    0x31    <CRC8>    0x03
STX     Count+0xA0  Addr low  Addr high  'N'      'S'      '1'      CRC      ETX
```

(Please see page 28 -29 of the user manual for a description of the available commands)

In the test program, one only has to enter "S1" in the right top NIBP command window, and press the "CRC" button, which generates the CRC8 value for the complete block. Then, presse "Send" to transmit the block. If the command is recognized, the board sends back an "ACK" command, which can be checked in the marker box below the command window, and executes the command.. The tick boxes on the left side, in the ECG window allow for easy selection of the curves the user wants to receive: tick the boxes you want to select for reception, press "CRC" and "Send". In the "curve" tab on the program, one can see the curves in graphical form.

The software is written in Visual C# and is supplied in source form to customers, as a VisualC# project folder.

History:

Rev. 1.00:	Initial Revision
Rev. 1.01:	Added new picture
Rev. 1.02:	Corrected layout

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