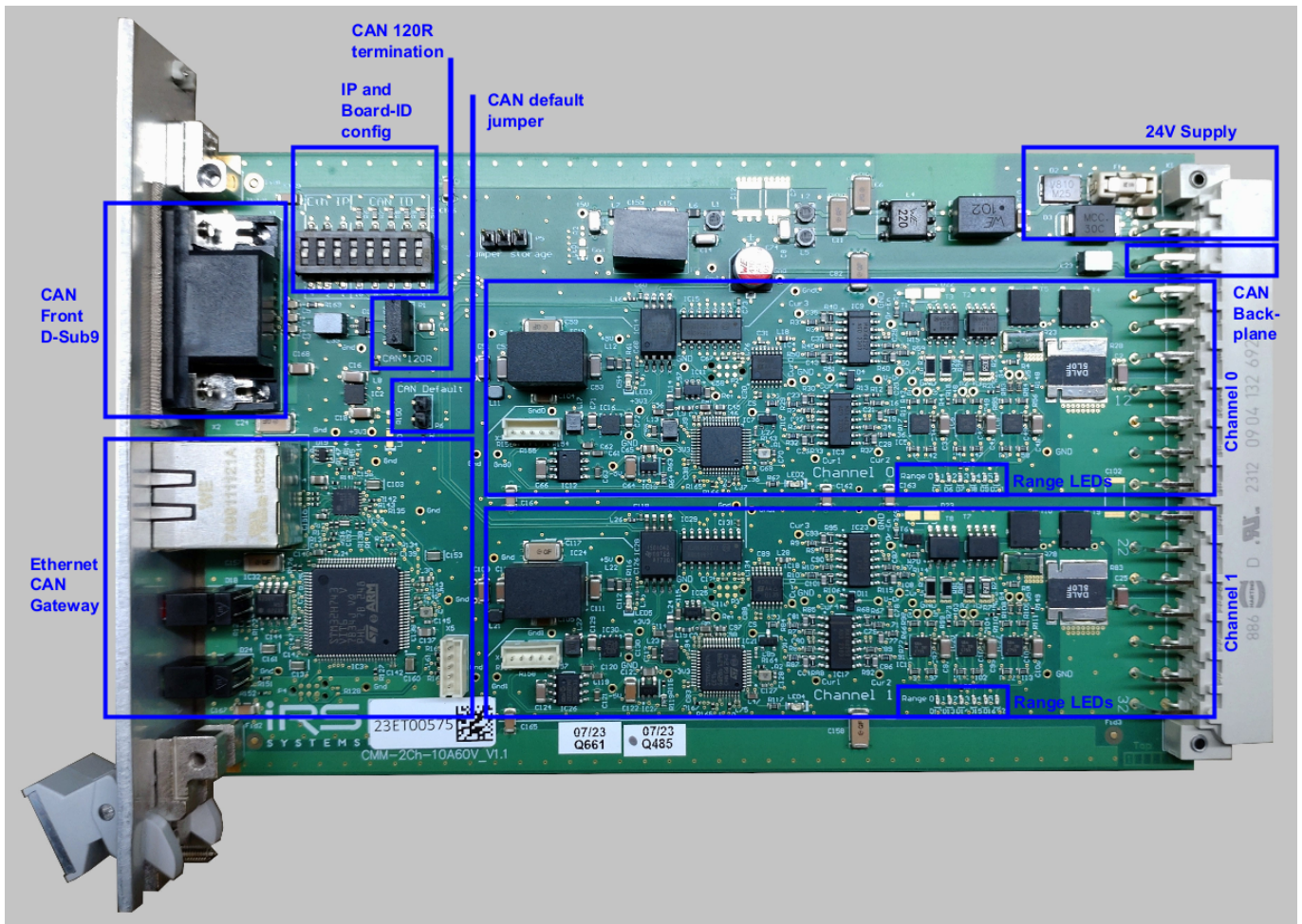


# CMM-2CH: Getting Started



## Download IRS-CMM-xCH-GUI

You can find the latest GUI and documentation under <https://docs.irs.systems/>

## IP Address

At delivery the IP address of the module is set to 192.168.222.1. You can configure the IP address in a limited range with the DIP switch on the PCB. The switches are treated as a binary number and marked with their place value (1, 2, 4). Depending on the set binary number an IP address between 192.168.222.1 and 192.168.222.7 is used. If all three switches are "off" the default IP address is used.

You can change the default IP address of the module with "Tools -> DiscoveryTool" in the IRS-CMM-xCH GUI. See CMM-xCH-GUI-Manual for details.

## Setup CAN-Bus

The Ethernet-CAN-Gateway and the two Channels are connected via CAN-FD. At delivery the CAN-FD is configured to 1000 kBit/s without bit rate switching. If necessary, the baudrate settings can be changed in the IRS-CMM-xCH-GUI. The settings can be reset to their default values with the "CAN default jumper". See CMM-xCH-GUI-Manual for more details. A single termination resistor is installed on the board and is activated with the "CAN 120R jumper". This single termination resistor is sufficient for one single CMM-2CH without bit rate switching. If you want to connect multiple CMM-2CH or use bit rate switching a proper termination of the CAN bus with two resistors at both ends of the CAN bus is highly recommended. Without proper termination a reliable communication between the Gateway and the Channels may not be possible.

## Configure Board and Channel

Multiple CMM-xCH boards can be connected via CAN bus. To address the individual boards, each board needs to be configured with a unique Board ID. The configuration of the Board ID is done with the DIP switch on the board marked with "CAN ID". The switches are treated as a binary number and marked with their place value (1, 2, 4, ...). The switches are read at power up. So after changing the Board ID a power cycle is required.

## How to Read Measured Current Values

### **Use the CMM-xCH-GUI**

In the GUI switch to the tab "Measurement" and either use the Button "MIN/AVG/MAX" or enable cyclic messages. For details see CMM-xCH-GUI-Manual.

### **Use the Messy CMM API**

If the CMM-2CH is connected to a MesSy-II or MesSy-II-FD you can use the integrated Messy CMM API to read min, max and average values. For details see MesSy documentation.

### **Directly send and receive CAN messages**

You can either query min, max and average values with a CAN message or enable cyclic messages. You can use the the IsoTP protocol which is known from CMM III and CMM IV or a new protocol which is based on CAN-FD. For the details of the new protocol we can send you a DBC or SYM file on request.