# Table of Contents

TIM v3 Commissioning.................................................................................................................................1
  Commissioning sequence...........................................................................................................................1
  Standalone test........................................................................................................................................1
  Full setup test via FSM............................................................................................................................2
    Connection to the Patch panel in Tracker Plane....................................................................................2
TIM v3 Commissioning

<table>
<thead>
<tr>
<th>Name</th>
<th>Version</th>
<th>Mac Address</th>
<th>IP Address</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>FASER-TIM-03</td>
<td>3</td>
<td>80-D3-36-00-4A-03</td>
<td>128.141.189.249</td>
<td>lab161 port 0009/08</td>
</tr>
<tr>
<td>FASER-TIM-02</td>
<td>3</td>
<td>80-D3-36-00-4A-02</td>
<td>128.141.189.247</td>
<td>lab161 port 0009/10</td>
</tr>
</tbody>
</table>

Commissioning sequence

Standalone test

1. Connect the network cable.
2. Connect DB25 connector with external sensors
3. Connect 24V power (after connecting other ports above)

Open a terminal and check if the communication is good with TIM board. You can ping either the name of the board or IP which are mentioned in the table above.

```
ping FASER-TIM-02.CERN.CH. // or

ping 128.141.189.247   // if you get the following output means that you communicate with TIM successfully.
```

PING 128.141.189.247 (128.141.189.247) 56(84) bytes of data.
64 bytes from 128.141.189.229: icmp_seq=1 ttl=58 time=0.444 ms
64 bytes from 128.141.189.229: icmp_seq=2 ttl=58 time=0.461 ms
64 bytes from 128.141.189.229: icmp_seq=3 ttl=58 time=0.578 ms
64 bytes from 128.141.189.229: icmp_seq=4 ttl=58 time=0.619 ms

if you have a Windows PC install the software "Modbus Poll". f you have an OSX install "Modbus Client" or "Modbus Probe". Note that, the PC must be in the same network segment as the TIM motherboard. The Modbus Poll setting parameters can be found in TIMTestList After having proper settings on Modbus poll you can read the temperature and humidity values on the Modbus display. Modbus Poll uses a multiple document interface. That means several windows can be opened. Each one with different data contents from different slave devices at the same time. But for our case, we only open one window to monitor the data contents(temperature & humidity). The MODBUS interface window and related channels on TIM as shown in the below figures.

![MODBUS interface window and related channels on TIM](image)

The coloured boxes, circles and hexagonal shapes in the MODBUS window monitor the SCTs temperatures, frame temperatures of SCT and Humidity values with respect to the connectors on TIM board, respectively.

- Blue box & circle & hexagon: Temperature of SCTs & frame temperature & humidity connector1 on TIM
- Maroon box & circle & hexagonal: Temperature of SCTs & frame temperature & humidity connector2 on TIM
Yellow box & circle & hexagon | Temperature of SCTs & frame temperature & humidity | connector3 on TIM  
Purple box & circle & hexagon | Temperature of SCTs & frame temperature & humidity | connector4 on TIM  
Green box & circle & hexagon | Temperature of SCTs & frame temperature & humidity | connector5 on TIM  
Orange box & circle & hexagon | Temperature of SCTs & frame temperature & humidity | connector6 on TIM  

Only on the 6th. connector (orange) temperature sensors are connected on TIM board and so you can only see the temperature values (24C) on 6th. (orange) box as well as the orange circle (24C) in the Modbus window. There is no humidity sensors are connected so the values are all "0".

- Note that If the humidity sensors are not connected the values monitored as "0".

**Full setup test via FSM**

**Connection to the Patch panel in Tracker Plane.**

-- CandanDozen - 2020-05-04