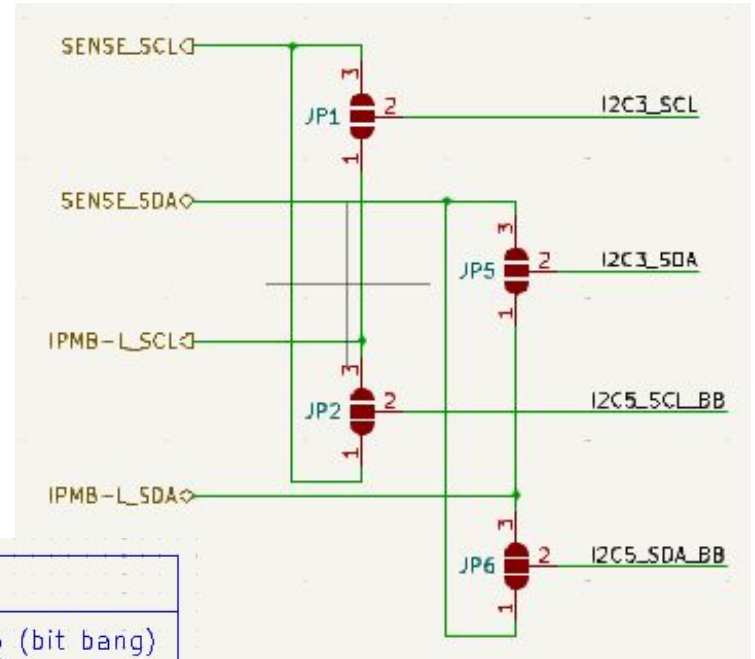# Update on OpenIPMC

**Regular Technical Meeting**

Carlos Ruben Dell'Aquila
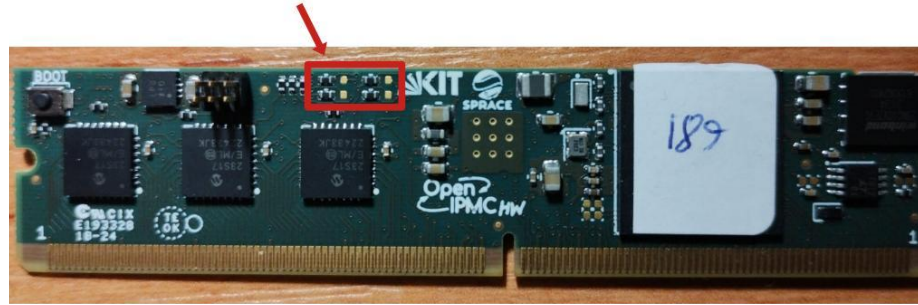(carlos.dellaquila@cern.ch)

- OpenIPMC-HW v1.2 jumpers
  - Used to select the MCU I2C buses that are connected to **SENSE_I2C** and the **IPMB-L** pins of the dimm connector
    - **I2C_3,** MCU peripheral
    - **I2C_5,** Bitbang (BB) interface

- OpenIPMC-HW v1.2 jumpers

  - First 82 samples produced at SPRACE in June 2024 have the jumpers in the position 'all 1-2'

  

  - The right choice depends of the firmware implementation
    - **Sensor Reading** functions on **board specific** code can be implemented to use one of these I2C interfaces

  - Board fabrication files should be modified according to desired position in order to set it properly during the manufacturing process
    - The stencil and component placement instruction file should be built according that choose

- ## Syslog Client Task

  - Task stack OVERFLOW condition has been detected for Apollo OpenIPMC implementation

    - Sometimes, the board gets stuck when the board is ramping up

      - Easy to reproduce with an OpenIPMC connected in the Apollo SM and during a debugger session.
        - Couldn't reproduce it with the Break-Out Board

      - Task controlled by the OpenIPMC-FW code

        - Two changes introduced changes have been testing for one week
          - Task stack size has been increased, and the corresponding variables and constants are in main.c file

```c
static osThreadId_t syslog_client_task_handle;
static const osThreadAttr_t syslog_client_task_attributes = {
  .name = "SyslogClientTask",
  .priority = (osPriority_t) osPriorityNormal,
  .stack_size =  512 * 4 // 384 * 4
};
```

          - Two local arrays which requires in total 34 bytes have been moved as global ones

- ## OpenIPMC-HW STDC14-to-header Adapter Board

  - Allows debugging the OpenIPMC firmware when the board is seated on an ATCA board

    - https://gitlab.com/openipmc/openipmc-hw-stdc14-to-header-adapter-board
    - VCP UART TX/RX signals should be swapped to work properly
      - The actual design requires that modification