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> ⚠️ The device must not be used without a proper 50 Ohm Antenna on the MHF4 MAIN port. So before powering the device make sure an antenna is connected.

Overview

The M.2 card is based on the multi band Quectel BG77 module. In the following the hardware installation and the software setup on a Raspberry Pi 5 running Raspberry Pi OS to connect to the Internet is described.

Hardware Installation

1. Insert in an E-key M.2 slot with the USB bus being wired and which has a SIM card slot or an eSIM respectively.
2. Insert the SIM card either on the hosts SIM card holder or use the on-board SIM card holder .
3. Connect a suitable 2.4 GHz LTE antenna to the main port.

Starting Up the Device

After powering up the device, the BG77 module is in power off mode. It needs to be woken up with a high pulse (3.3 V logic level) on M.2 PIN 55 (PWRKEY/ PEWAKE0) for at least 30 ms.

Serial Communication

The device can be communicated with via the nativa UART interface or the USB virtual com port device with the following settings:

- Data bits: 8
- Parity bit: No
- Stop bit: 1
- Baud rate: 115200

To issue AT commands for testing, you can for example use the screen like so:

```
sudo screen /dev/ttyACM0 115200
```

Connecting to the Internet

FOLLOWS IN NEXT VERSION.

Useful AT Commands

The output should look similar to this:

```
// Query Network Information
AT+QNWINFO

// Query and Report Signal Strength
AT+QCSQ"

// Signal Quality Report
```

AT+CSQ"

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