



NB IoT/LTE Cat-M/GPRS Things

This IoT Things uses the NB IoT and/or LTE Cat-M and/or GPRS Cellular Mobile Network technology, to communicate between the local system and the Internet based Cloud system/server.

The Things connect direct to the Internet, no additional router is needed!

The default application software uses the MQTT protocol to communicate to the Cloud, but other protocols may easily be used (pure socket, REST, ...).

Mobile Network (WWAN):

- SIM7070G with Worldwide Mobile Network
 - NB IoT Release 14 (NB2)
 - LTE Cat-M
 - GPRS (2G) fallback
- SIM7070G with GNSS
- On Board Antenna for Network and GNSS.

I/O:

- 5 x Input (each: Analog, Counter or Binary Level capable)
- 7 x Output (2x TTL, 3x Relay, 2xPWM/TTL)
- 2 x Keys (User & Reset)
- 4 x Status LEDs (1x RGB, 1x G)
- UART

MCU:

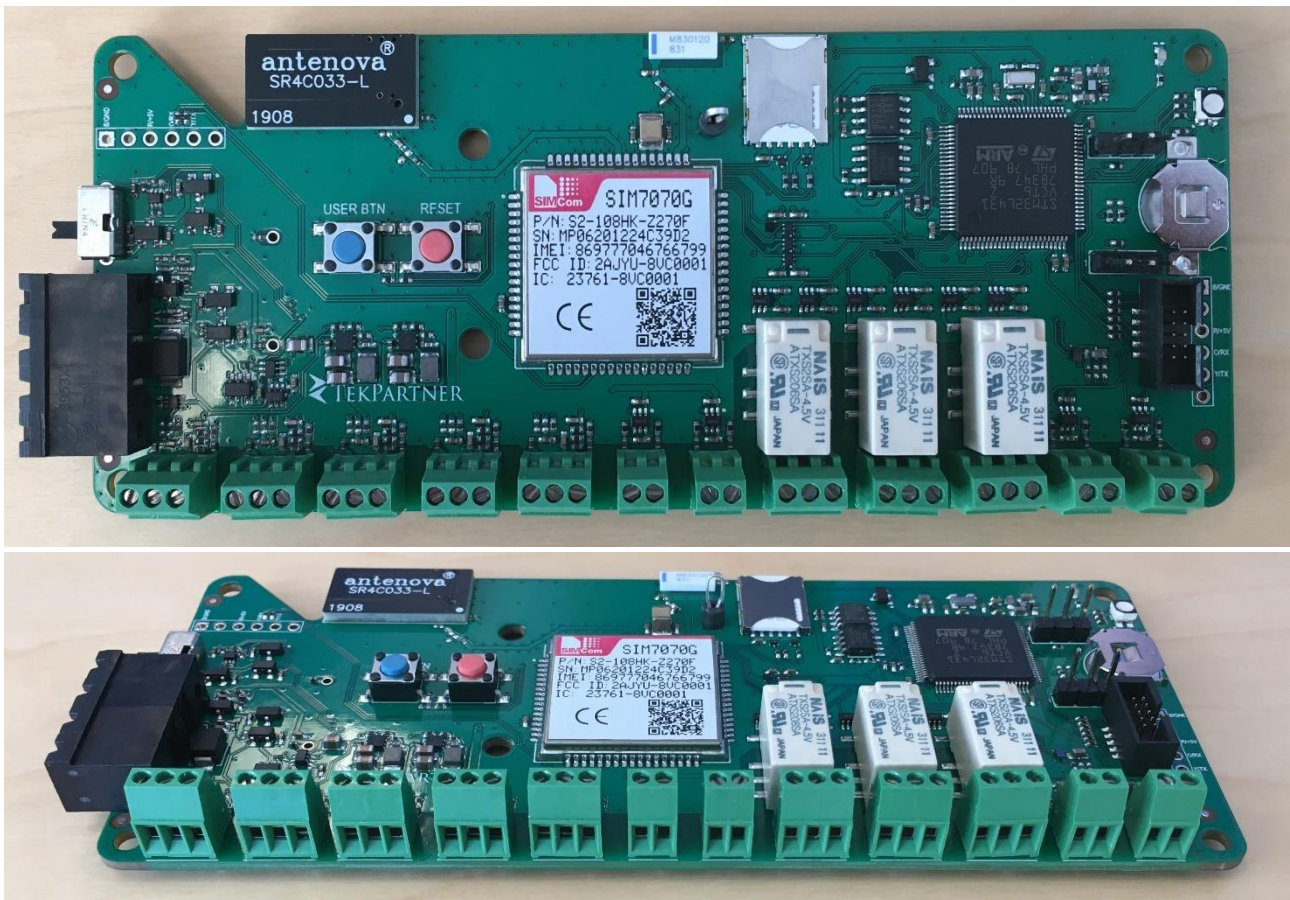
- STM32L431 (80 MHz ARM Cortex M4)

Memory:

- 64 KB RAM
- 256 KB Program FLASH
- 32 KB FRAM (i2c) – rapidly changes non-volatile persistent data
- 2 MB Data FLASH (spi) – rarely changes non-volatile persistent data

Power:

- Battery compartment (optional)
- 5 VDC Connector



2021-01