

Cellular Fieldbus Gateway – Preliminary data

Easily connect your commercial and industrial equipment to the cloud

The Cellular Fieldbus Gateway allows customers to easily connect commercial and industrial equipment to the cloud using impCellular. Based on the impC modules, the design provides a lightweight but universal cellular gateway platform that is customizable to support a variety of interfaces and protocols and rapidly enable secure monitoring and control applications.

Besides cellular connectivity, the gateway can connect to the internet via Ethernet, using cellular as a backup if wired connectivity fails. The Ethernet port can also be used for LAN communication, for example to interface with MODBUS-TCP devices.

Standard I/O connectors include USB host, RS-232, isolated RS-485, with further extensibility via XBee or MikroBUS sockets – providing a wide range of interface options to accelerate PoC implementations and Field Trials. I/O protocols are readily supported via software libraries which can be modified or extended to meet the needs of applications, equipment, or legacy systems.

Both the hardware design as well as the software libraries are open-source, allowing easy re-use of components as a base for your own impCellular products.

impC module support

- Supports all configurations of impC001 and impC002 modules
- Status LED and BlinkUp™ phototransistor for first-time configuration

I/O and expansion

- USB host type A connector for use of impOS' USB host functionality
- RS-232 on RJ11-6 modular jack
- Isolated RS-485 transceiver
- 10/100 Ethernet
- MikroBUS socket allowing access to the [450+ MikroElektronika Click boards](#) such as LoRA radios, CAN interfaces, RS485/MODBUS-RTU, etc
- XBee socket for off-the-shelf XBee modules

On-board devices

- User-controllable red, green, and yellow LEDs

Power input

- 8-24v AC/DC input
- 5v DC via USB mini input (power only, no data)

Antenna

- External SMA antenna
- Internal patch antenna option

