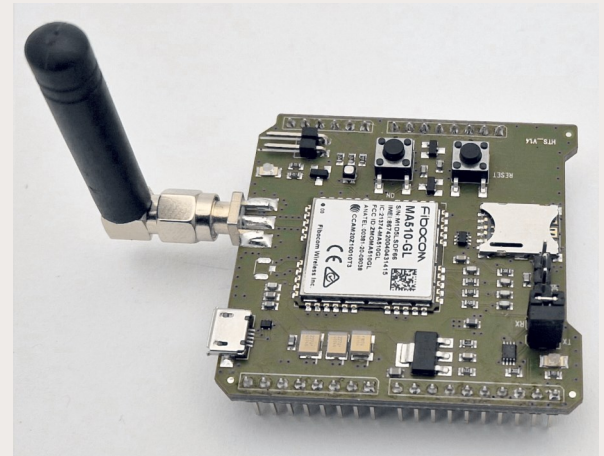
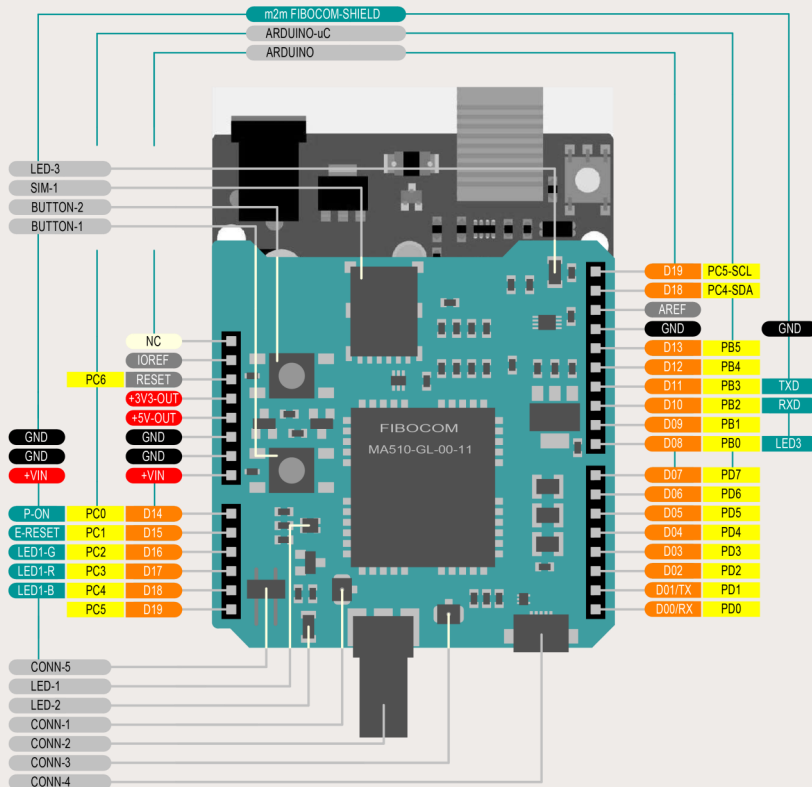


## Arduino-compatible NB-IoT/LTE-M Shield



Legend:

BUTTON-1: MANUAL POWER ON  
 BUTTON-2: MANUAL NB-IoT RESET  
 LED-1: USER LED-RGB  
 LED-2: USER LED  
 LED-3: LED NB-IoT NETWORK ACTIVITY  
 SIM-1: CARD-HOLDER FOR NANO-SIM CARD

CONN-1: UFL / ALTERNATIVE NB-IoT RF-CONNECTOR  
 CONN-2: SMA / MAIN NB-IoT RF-CONNECTOR  
 CONN-3: UFL GNSS ANTENNA CONNECTOR  
 CONN-4: MICRO-USB CONNECTOR FOR FW-UPDATE  
 CONN-5: ALTERNATIVE CONNECTION FOR LED-2



EXAMPLE BASED ON ARDUINO UNO REV3  
 ARDUINO BOARD TO BE POWERED  
 FROM EXTERNAL POWER SUPPLY (+7-12VDC)

### Features

- Cat M1 Rel.14
- Cat NB1 Rel.13
- Cat NB2 Rel.14
- GNSS
- AT command support 3GPP and proprietary Fibocom AT
- Wide Area Coverage
- Shield is compatible with Dragino
- Raspberry-Pi compatible
- Shield Versions on request

### Specifications

- RF Output Power: max. +21dBm
- Operation Temperature: -30°C - +75°C
- Input Voltage: +7-12VDC powered from Arduino (VIN)
- Voltage Level on Shield-UART I/Os: selectable 3V3 or 5V
- Nano-SIM Card Interface
- Antenna Interface NB-IoT/LTE-M: SMA, optional UFL
- Antenna Interface GNSS: UFL

### Applications

- R&D purpose and Proof of Concept
- Smart Metering
- Facility Management
- Alarms
- Connected Appliances
- Smart City
- Smart Industrial

### Related documents: (on request)

- Datasheet
- Schematics
- Short User Manual
- Hardware Source
- Software/Firmware Sources

## Equipment for Arduino-compatible NB-IoT/LTE-M Shield



Part no. 007283 (*optional*)  
4G LTE/FirstNet/LPWA Adhesive Mount (without GNSS)



Part no. 007375 (*optional*)  
4G LTE/FirstNet/LPWA + GNSS 2-in-1 Combination  
Antenna

### Antenna Connectors

- SMA Antenna or SMA Cable remote Antenna for NB-IoT/LTE-M
- (on request: UFL Connector onboard for NB-IoT/LTE-M)
- UFL Connector for external GNSS Antenna (passive Antenna)
- Recommended antennas
  - **(optional)** Part no. 007375, 4G LTE/FirstNet/LPWA + GNSS 2-in-1 Combination Antenna
  - **(optional)** Part no. 007283, 4G LTE/FirstNet/LPWA Adhesive Mount (without GNSS)
  - **(included)** Part no. 004661 Cellular / LTE Ultra Wide band Antenna, 2G GSM, 3G UMTS, 4G LTE

- Option 1: SparkFun Accessories Arduino Stackable Header
- Option 2: Non-stackable Pin-Header



Part no. 004661 (*included*)  
Cellular / LTE Ultra Wide band Antenna