

# Quick Guide



## MC92

MC Technologies GmbH - Kabelkamp 2 - D-30179 Hannover  
Telefon +49 511 67 69 99 128 - Fax +49 511 67 69 99 150  
[www.mc-technologies.net](http://www.mc-technologies.net) - [www.mc-technologies.com](http://www.mc-technologies.com)  
[info@mc-technologies.net](mailto:info@mc-technologies.net)

## Installation

The MC92 data terminal is designed for applications over LTE with fall back to UMTS, EDGE and GSM multifunctional applicable.

**Please follow the instructions step by step and configure the settings for the SIM card. An incorrect PIN can lead to the SIM card being blocked.**



**Warning:** user must be at least 20 cm away from the transmitting antenna during device long-term operation.

### 1.1 Antenna

Mount the supplied antenna on connector "LTE" of the MC92. Check whether there is sufficient local network coverage from your mobile phone provider.

### 1.2 Inserting the SIM card

Insert your SIM card as shown in the figure below until it locks into place.



### 1.3 Power supply

The MC92 is operated with a supply voltage of 8 - 30V DC. Please connect an external DC power supply with an output voltage of 8 - 30V DC to the power supply socket "PWR".

Please connect the power supply unit to the power supply or switch on the power supply. A green "PWR" LED will light up.

After a short initialization phase (approx. 30 seconds) the device is ready for operation.

### 1.4 Configuration via Putty

1. In Putty, "Serial" as a Connection type.
2. Choose the right Serial port for your USB-RS232 connector.
3. Set the speed to "115200".
4. Expand the connection tab on the right side, then under "SSH" click on "Serial".
5. Set "Flow control" to "None"

### 1.5 Configuration via Minicom

You can use the linux command line tool minicom to connect to the MC92.

- 1 Using Command Prompt, give the command:

```
minicom --device /dev/ttyUSB0 --baud 115200,8,N,1
```

- 2 Disable flow control by pressing CTRL+A followed by O to get into configuration. Then go down to "Serial port setup", press "Enter" to enter and press "F" do toggle "Hardware Flow Control"

The Modem will now respond to AT-Commands.

## 1 AT Commands

### 2.1 AT commands for SIM presence and status

#### 2.1.1 SIM Presence

1. Enable the extended error codes to get a verbose format:

```
AT+CMEE=2
OK
```

2. Now get the status of SIM presence:

```
AT+CPIN?
+CME ERROR: SIM not inserted
```

Above AT command response indicates that SIM card is not present.

3. Verify that SIM is inserted properly and check again:

```
AT+CPIN?
+CPIN: READY
OK
```

When the SIM card is ready, above AT response will be received from the module.

#### 2.1.2 SIM PIN Status

1. Get the status of SIM PIN:

```
AT+CPIN?
```

Pin status can be:

- READY: SIM PIN is already unlocked or lock has been disabled.
  - SIM PIN: This means SIM PIN is locked and code is required.
  - SIM PUK: Maximum number of retries to unlock has reached. PUK code is required from network provider
2. If SIM PIN is required enter the following command to unlock the SIM:

```
AT+CPIN="XXXX"
```

**Enter the SIM PIN instead of XXXX**

## 2.2 GPS

### 2.2.1 Turn on and off the GNSS

- Turn on GNSS function:  
`AT+QGPS=1`
- Turn off GNSS function:  
`AT+QGSEND`
- Set GNSS function to turn on automatically:  
`AT+QGPSCFG="autgps",1`

## 2.3 Wi-fi

### 2.3.1 Turn on and off Wi-fi

- Turn on Wi-fi function:  
`AT+QWIFI=1`
- Turn off Wi-fi function:  
`AT+QWIFI=0`
- Wi-Fi Status  
`AT+QWIFI?`