

# MC93

## Cat M/NB-IoT Terminal



The MC93 cellular modem supports LTE Cat M1/Cat NB2/EGPRS and optional GNSS.

In addition, the MC93 terminal is suitable for power-restricted applications due to its low power consumption.

AT commands can be used to send data via SMS, TCP/IP, FTP(S), HTTP(S) or MQTT, for example.

### Key features & functionalities:

- Mobile data communication supporting LTE Cat M1/NB2
- Quectel BG95-M3 module integrated
- AT commands control dispatch of data via SMS, FTP(S), HTTP(S), MQTT
- Ultra low power consumption
- Watchdog integrated



Cat M1/NB-IoT



RS-232



USB 2.0



Watchdog integrated



GNSS (optional)

# MC93 Terminal

## Technical Data

Product		Art. -No.
Model designation	MC93 Terminal	163358
General		Description
Type	LTE Cat M1/NB-IoT cellular modem	x
Dimensions (W x H x D)	74 x 33 x 65 mm	x
Weight	approx. 80 g	x
Supply voltage	6 to 30V DC	x
Operation temperature	-30 °C to +60 °C	x
Housing	ABS	x
Protection class	IP20	x
Mounting	Tabletop / DIN rail (with optional mounting kit)	x
Wireless module embedded	Quectel BG95-M3	x
Mobile		
Supporting networks	LTE Cat M1: Bands: B1/2/3/4/5/8/12/13/18/19/20/25/26/27/28/66/85	x
	Cat NB2: Bands: B1/2/3/4/5/8/12/13/18/19/20/25/28/66/71/85	x
	EGPRS: 850/900/1800/1900 MHz	x
	GNSS: GPS/GLONASS/BDS/Galileo/QZSS	optional
Transmission rates LTE Cat M1	Max. 588 (DL) / Max. 1119 (UL)	x
Transmission rates Cat NB2	Max. 127 (DL) / Max. 158.5 (UL)	x
Transmission rates Cat NB1	Max. 32 (DL) / Max. 70 (UL)	x
Transmission rates EDGE	Max. 296 (DL) / Max. 236.8 (UL)	x
Transmission rates GPRS	Max. 107 (DL) / Max. 85.6 (UL)	x
Interfaces		
Power	RJ12	x
RS-232	Sub-D	x
USB	2.0 Type B	x
GSM Antenna	SMA (female)	x
GNSS antenna	SMA (female)	optional
SIM	Mini SIM (lockable)	x
Other properties		
Protocols	PPP, TCP, UDP, SSL, TLS, FTP(S)/, TTP(S), NITZ, PING, MQTT, LwM2M, CoAP, IPv6	x
SMS	Point-to-Point MO/MT, SMS Cell Broadcast, Text and PDU Mode	x
Accessories		Art. -No.
Portable antenna	GSM/UMTS/LTE, 48 mm, SMA (male)	194306
Magnetic base antenna	GSM/UMTS/LTE, 2 dBi, 2,5 m RG174, SMA (male)	101057
Power supply	12 V DC with RJ12	100910
Power adapter	RJ12, open end, approx. 1,5 m	160571
USB cable	A/B, 1 m	100897
USB cable	A/B, 1,8 m	100898
Data cable RS232	9 pin plug / 9 pin jack, 1,5 m	100891
Mounting Kit	for DIN rail	100901

Mistakes and changes are reserved.

### Notes:

- Idle means that the module is registered in the network but no active data transfer is taking place.
- Actual power consumption may vary depending on signal strength and network quality.
- Safety recommendation: We recommend using a power supply with at least 4 to 5W output power to safely absorb short-term power peaks (e.g. when establishing a network connection or during the boot process).
- The MC90, MC92, and MC93 can reach more than 40mA at startup (by 12V). The overtime power consumption can vary based on the signal quality. In our test we notice an over time consumption of around 30mA for MC93.