

# MC90 EU LTE terminal



The MC90 EU is an LTE Cat 4 cellular modem optimized for M2M and IoT applications.

It is backward compatible to EDGE and GSM/GPRS ensuring that it can even be connected in areas missing 4G or 3G.

AT commands can be used to send and receive SMS messages as well as data via TCP/IP, FTP(S), HTTP(S) and MQTT directly.

## Key features & functionalities:

- IoT/M2M-optimized LTE Cat 4 cellular modem
- Quectel EC200T module integrated
- Worldwide LTE, UMTS/HSPA(+) and GSM/GPRS/EDGE coverage



LTE Cat 4



RS-232



USB 2.0

# MC90 EU

## Technical Data

Product		Art.-No.
Model designation	MC90 EU Terminal	194308
General		Description
Type	LTE Cat 4 cellular modem	
Dimensions (W x H x D)	74 x 33 x 65 mm	
Weight	approx. 80 g	
Supply voltage	9 V to 30 V DC (min. 12 W guaranteed output power of power supply)	
Average power consumption	at full load (data transfer): 1.27 W in idle mode: 0.30 W	
Operation temperature	-35°C to +75°C	
Housing	ABS	
Protection class	IP20	
Mounting	Tabletop / DIN rail (with optional mounting kit)	
Wireless module embedded	Quectel EC200T	
Mobile		
Supporting networks	LTE-FDD: B1/B3/B5/B7/B8/B20/B28 LTE-TDD: B38/B40/B41 WCDMA: B1/B5/B8 GSM: 900/1800MHz	
Transmission rates LTE-FDD	Up to 50 Mbps upload and 150 Mbps download	
Transmission rates LTE-TDD	Up to 30 Mbps upload and 130 Mbps download	
Transmission rates HSPA+	Up to 21 Mbps download	
Transmission rates HSUPA	Up to 5.76 Mbps upload	
Transmission rates WCDMA	Up to 384 kbps upload and 384 kbps download	
Transmission rates EDGE	Up to 236.8 kbps upload and 236.8 kbps download	
Transmission rates GPRS	Up to 85.6 kbps upload and 85.6 kbps download	
Interfaces		
Power	RJ12	
RS-232	Sub-D	
USB	2.0 Type B	
GSM antenna	SMA (female)	
SIM	Mini SIM (lockable)	
Other properties		
Protocols	TCP, UDP, PPP, FTP, HTTP, NTP, PING, QMI, NITZ, SMTP, MQTT, CMUX, HTTPS, FTPS, SMTPS, SSL, MMS, FILE	
Approvals	CE, Country-specific approvals upon request	
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 plug	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

Errors and omissions excepted.

### 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.