MCX3M1

Professional LTE/GNSS terminal

MCX3M1 is a professional worldwide tracker with LTE CAT M1, NB IoT connectivity, that makes this device usable with newest and most cost efficient technologies. MC3M1 features like FMS CAN data (J1939), fuel CAN data (J1708), tachograph live data (K-line), remote tachograph file download, various third party RS232 or RS485 devices support and Dual-SIM will maximize your fleet efficiency. Terminal is suitable for applications like international logistics, refrigerated transport, agriculture, construction & mining, security & emergency services and even more.

MCX3M1 Highlights

Reliable 4G LTE CAT M1 connection

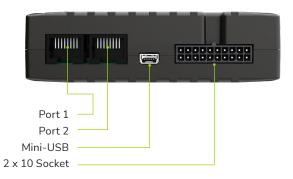Internal battery provides safe tracking if the vehicle battery is disconnected

CAN data reading from vehicles and specialized transport

Double network reliability and multiple network selection
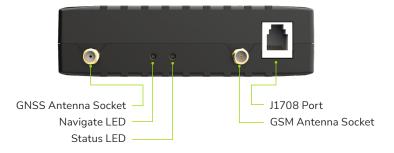
RS232/RS485 serial communication interfaces

Wide range of input and output elements

Use Cases

Construction and Mining

Heavy Duty Transport

Public Safety Services

Refrigerated Transport

International Logistics

Agriculture Transport

Port 1
Port 2
Mini-USB
2 x 10 Socket

GNSS Antenna Socket
Navigate LED
Status LED
J1708 Port
GSM Antenna Socket

GNSS

GNSS	GPS, GLONASS, GALILEO, BEIDOU, QZSS, DGPS, AGPS
Protocol Compatible	NMEA, GGA, GGL, GSA, GSV, RMC, VTG
Receiver	Tracking: 33 Channel
Tracking Sensitivity	-165 dBM
Accuracy	< 3 m
Hot Start	< 1 s
Warm Start	< 25 s
Cold Start	< 35 s

CELLULAR

Module	Quectel BG96
Technology	LTE (CAT M1), 2G (GSM/GPRS), GNSS
2G Bands	Quad-Band: 800/850/900/1900MHz
4G Bands	LTE FDD: B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/B28 LTE TDD: B39 (For CAT M1 Only)
Data Transfer	LTE FDD: Max. 375Kbps (DL), Max. 375Kbps (UL) LTE TDD: Max. 32Kbps (DL), Max. 70Kbps (UL) GPRS: Max. 107Kbps (DL), Max. 85.6Kbps (UL)
Data Support	SMS (Text/Data)

POWER

Input Voltage Range	10–30 V DC With Overvoltage Protection
Internal Back-Up Battery	550 mAh Ni-mH, 8.4 V Battery

PHYSICAL SPECIFICATION

Dimensions	104,1 x 76,8 x 31,5 mm (L x W x H)
Weight	197 g

OPERATING ENVIRONMENT

Operating Temperature (Without Battery)	-40 °C to +85 °C
Storage Temperature (Without Battery)	-40 °C to +85 °C
Operating Humidity	5% to 95% Non-Condensing
Ingress Protection Rating	IP41

INTERFACE

Digital Inputs	4
Negative Inputs	4
Analog Inputs	4
1-Wire Interface	1
RS232	2
RS485	1
CAN J1939	2
J1708	1
K-Line	1
GNSS Antenna	External High Gain
Cellular Antenna	External High Gain
USB	2.0 Mini-USB
LED Indication	2 Status LED Lights
SIM	2x SIM Card (Dual-SIM)
Memory	2 MB Internal Flash Memory and External Micro SD Card

FEATURES

Sensors	Accelerometer
Scenarios	Green/Eco Driving, Over Speeding Detection, Jamming Detection, Excessive Idling Detection, Towing Detection, Crash Detection, Immobilizer, iButton Read Notification
Functionalities	Modbus Support, Auto Geofencing, Manual Geofencing, Trip Detection, Odometer, Fuel Counter, GNSS Unplug Detection, Offline Tracking
Supported Peripherals	Garmin, RFID RS232, RFID 1-Wire, iButton 1-Wire, Temperature 1-Wire, LV-CAN200, ALL-CAN300, CAN-CONTROL, CAN FMS (J1939, J1708), Continental Tire Pressure Measurement Sensor
Sleep Modes	GPS Sleep, Online Deep Sleep, Deep Sleep, Ultra Deep Sleep
Configuration and Firmware Update	FOTA Web, Morey Configurator
SMS	Configuration, Events, DOUT Control, Debug
TCP Commands	Configuration, DOUT Control, Debug
Time Synchronization	GNSS, NITZ, NTP
Fuel Monitoring	LLS (Analog), Digital LLS (RS232, RS485), LV-CAN200, ALL-CAN300, CAN-CONTROL, CAN FMS, Ultrasonic Level Sensor
Ignition Detection	Digital Input, Accelerometer, External Power Voltage

MCX3M1

Additional Information

RELATED PRODUCTS

MCX301 — SKU# 1503559

RELATED SOFTWARE

FOTA Web — Included
Morey Configurator — Included

RELATED PARTS

MCX GPS External Antenna — SKU# 1506247
MCX LTE External Antenna — SKU# 1506248
MCX301/3M1 Power Cable — SKU# 1505482

RELATED ACCESSORIES

LV-CAN200 — SKU# 1503193
ALL-CAN300 — SKU# 1505822
CAN-CONTROL — SKU# 1504399
1-Wire Temp Sensor — SKU# 1506281
1-Wire RFID Card & Reader — SKU# 1505411
1-Wire RFID Reader — SKU# 1506266
RFID Cards - 10 pack — SKU# 1506267
iButton Reader — SKU# 1503195
iButton FOB — SKU# 1503194