MCX2M1

ADVANCED LTE TERMINAL WITH FLEXIBLE INPUTS CONFIGURATION

Morey MCX2M1 is ADVANCED tracker with internal GNSS, GSM antennas, configurable digital, analogue inputs and digital outputs, negative input, impulse inputs, Bluetooth connectivity and backup battery. MCX2M1 is designed for light vehicles tracking but is also suitable for advanced applications like logistics, delivery services, utility transport and more. It is excellent for refrigerated transport, because it has extended input/output set and 1-wire interface for temperature monitoring.

LTE M1/ NB IoT

Reliable 4G LTE Cat M1 connection

Bluetooth for exchanging data over short distances

Configurarable DIN/AIN for flexible remote monitoring and control

1 2 3

Impulse inputs for fuel flow meters data reading

1-Wire®

1-Wire® interface to monitor temperature data and RFID/iButton tags

Negative INPUT

Negative input will allow easier installation of accessories

USE CASES

- LIGHT VEHICLES
- HEAVY DUTY TRANSPORT
- TRAILER TRACKING
- REFRIGERATED TRANSPORT
- INTERNATIONAL LOGISTICS
- CAR SHARING

GNSS

GNSS	GPS, GLONASS, GALILEO, BEIDOU, QZSS
Protocol compatible	NMEA, GGA, GGL, GSA, GSV, RMC, VTG
Receiver	Tracking: 33/99 acquisition channels
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 bands	B2/B3/B5/B8
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: Max. 375Kbps (DL)/Max.375Kbps (UL) GPRS: Max. 85.6Kbps (DL)/Max. 85.6Kbps (UL)
Data support	SMS (text/data)

Power

Input voltage range	10 - 30 V DC with overvoltage protection
Removable Back-up battery	170 mAh Li-Ion battery 3.7 V (0.63 Wh)

Bluetooth

Specification	4.0 + LE
Supported peripherals	BLE beacon label, BLE Beacon, BLE temperature sensor, BLE magnetic sensor, BLE movement sensor, Bluetooth temperature and humidity sensor, OBDII dongle

Physical specification

Dimensions	65 x 56,6 x 20,6 mm (L x W x H)
Weight	55 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
Battery charge temperature	0 °C to +45 °C
Battery discharge temperature	-20 °C to +60 °C
Battery storage temperature	-20 °C to +45 °C for 1 month -20 °C to +35 °C for 6 months

Interface

Digital Inputs	3
Negative Inputs	1 (Digital Input 2)
Impulse Inputs	2 (Digital Input 1, Digital Input 2)
Digital Outputs	3
Analog Inputs	2
CAN Adapter Inputs	1
1-Wire interface	1
GNSS antenna	Internal High Gain
GSM antenna	Internal High Gain
USB	2.0 Micro-USB
LED indication	2 status LED lights
SIM	Micro-SIM + eSIM
Memory	128MB internal flash memory

Features

Sensors	Accelerometer
Scenarios	Green Driving, Over Speeding detection, Jamming detection, GNSS Fuel Counter, DOUT Control Via Call, Excessive Idling detection, Immobilizer, iButton Read Notification, Unplug detection, Towing detection, Crash detection, Auto Geofence, Manual Geofence, Trip
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), LV-CAN200, ALL-CAN300, CAN-CONTROL, OBDII dongle
Ignition detection	Digital Input 1, Accelerometer, External Power Voltage, Engine RPM (CAN Adapters, OBDII dongle)

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