FMC640

PROFESSIONAL LTE/GNSS TERMINAL

FUTURE-PROOF NETWORK SUPPORT

Reliable 4G LTE Cat 1 network coverage with fallback to 2G – guaranteed future-proof network support for your fleet

REMOTE DOWNLOAD OF TACHOGRAPH FILES AND LIVE DATA

Tachograph live data reading via K-Line, ALL-CAN, Tacho CAN or FMS connections for everyday driver management and fleet efficiency

CAN DATA READING FROM HEAVY VEHICLES AND SPECIAL MACHINERY

Read J1939 data that includes standard CAN FMS from heavy vehicles like trucks and raw J1939 data from special machinery, such as construction cranes or electric buses

CONNECTING EXTERNAL DEVICES

2x RS232 and 1x RS485 serial communication interfaces for connecting external devices, such as thermographs, sensors, RFID readers and more

CONSTRUCTION AND MINING | HEAVY DUTY TRANSPORT | PUBLIC SAFETY SERVICES | REFRIGERATED TRANSPORT | INTERNATIONAL LOGISTICS

Teltonika FMC640 is a PROFESSIONAL series device with 4G (LTE Cat 1) network coverage including 3G (UMTS), 2G (GSM) fallback compatibility. Device equipped with GNSS and LTE modules, external GNSS and LTE antennas. FMC640 will maximize your fleet efficiency with 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. Terminal is suitable for applications like international logistics, refrigerated transport, agriculture, construction & mining, security & emergency services and even more.

Module

Name	Quectel EG91-EX
Technology	LTE(CaT1)/3G(UMTS/HSPA)/2G(GSM/GPRS)/GNSS

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
Position accuracy	< 2.5 CEP
Velocity accuracy	< 0.1m/s (within +/- 15% error)
Hot start	< 1 s
Warm start	< 25 s
Cold start	< 35 s

Cellular

Technology	LTE Cat 1, UMTS, GSM
2G bands	EG91-EX: GSM: B3/B8
3G bands	EG91-EX: WCDMA: B1/B8
4G bands	EG91-EX: LTE FDD: B1/B3/B7/B8/B20/B28
Data transfer	LTE FDD: Max 10Mbps (DL)/Max 5Mbps (UL) WCDMA: Max 384Kbps (DL)/Max 384Kbps (UL) GPRS: Max 107Kbps (DL)/Max 85.6Kbps (UL)
Data support	SMS (text/data)

Power

Input voltage range	10 - 30 V DC with overvoltage and reverse polarity protection
Internal Back-up battery	550 mAh Ni-Mh, 8,4 V battery

Physical specification

Dimension	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

Interface

Digital Inputs	4
Digital Outputs	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 LTE CAT 1 High Gain
USB	2.0 Mini-USB
LED indication	2 status LED lights
SIM	2x SIM Card (Dual-SIM) or 1x eSIM
Memory	2 MB internal flash memory and external Micro SD card up to 32GB

Features

Movement detection	Accelerometer
Scenarios	Green/Eco Driving, Over Speeding detection, Jamming detection, Excessive Idling detection, Towing detection, Crash detection, Immobilizer, iButton Read Notification
Functionalities	Auto Geofencing, Manual Geofencing, Trip detection, Odometer, Fuel counter, DDD download and Tacho online data, 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), K-line data, Continental tire pressure measurement sensor, Iridium SBD (TSM232), Carrier freezer, Log Mode, NMEA, TCP ASCII/Binary, Temperature and humidity sensor, Universal BLE sensors support
Sleep modes	GPS Sleep, Online Deep Sleep, Deep Sleep
Configuration and firmware update	FOTA Web, FOTA, Teltonika Configurator
SMS	Configuration, Events, DOUT control, Debug
GPRS 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
RS485 input voltage range on A or B pin (common-mode voltage)	-7V to +12V
RS232 input voltage range (common-mode voltage)	+/-15V
RS232 input voltage range (maximum operational voltage)	+/-25V