

FMC640

PROFESSIONAL LTE/GNSS TERMINAL

FMC640 is a PROFESSIONAL series device with 4G (LTE Cat 1) network coverage including 3G (UMTS), 2G (GSM) fallback compatibility. Device equipped with GNSS/Bluetooth 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. Device supports universal BLE sensors, beacon tags, hands-free, firmware and configuration update via Bluetooth.



USE CASES





HEAVY DUTY Transport



PUBLIC SAFETY SERVICES



REFRIGERATED TRANSPORT

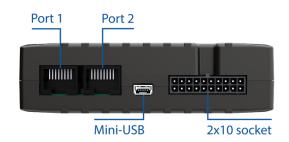


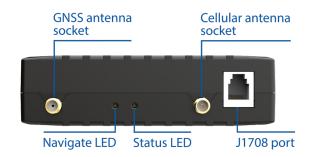
INTERNATIONAL LOGISTICS



AGRICULTURE TRANSPORT







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 |
| Accuracy | < 3 m |
| Hot start | <1s |
| Warm start | < 25 s |
| Cold start | < 35 s |

Cellular

| Technology | LTE Cat 1, | UMTS, GSM |
|------------------------------------|-----------------------|---|
| 2G bands | EG91-EX: | GSM: B3/B8 |
| 3G bands | EC91-EX: | WCDMA: B1/B8 |
| 4G bands dedicated for EMEA region | EC91-EX: | LTE FDD: B1/B3/B7/B8/B20/B28 |
| Data transfer | LTE: UMTS: GSM: | 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 protection |
|--------------------------|--|
| Internal Back-up battery | 550 mAh Ni-Mh, 8,4 V battery |

Bluetooth

| Specification | 5.0 + LE |
|-----------------------|---|
| Supported peripherals | Temperature and Humidity sensor, Headset, Universal BLE sensors support |

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 |
| 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) |
| Memory | 2 MB internal flash memory and external Micro SD card |
| 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, GNSS Unplug Detection, 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 |
| 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 |

