FMM920

SMALL AND SMART GPS TRACKER
WITH 4G CAT M1 CONNECTIVITY

M1 WIDE COVERAGE
RANGE CAPABILITIES

RELIABLE CONNECTION
BETWEEN DEVICES

JAMMING
DETECTION

4G CAT M1	BLUETOOTH® TECHNOLOGY	JAMMING DETECTION	BACKUP BATTERY
Reliable 4G (LTE Cat M1) connection with fallback 2G (GSM) network	Bluetooth® LE for external devices and sensors	Anti-theft solution and stolen vehicle recovery	Allows device to work without external power source

LIGHT
VEHICLES

MOTORBIKES

INSURANCE
TELEMATICS

COURIER
DELIVERY
SERVICES

RENTAL AND
LEASING

Teltonika FMM920 is a small and smart tracker with Bluetooth® connectivity, internal High Gain GNSS and GSM antennas and an integrated backup battery. The 4G Cat M1 technology offers much higher bandwidth, lower latency and improved spectrum efficiency.

The model is compact, reliable, accurate and enduring. All the interfaces it has are more than enough for basic tracking. Digital Input can be used for ignition, door or alarm button status monitoring, while vehicle remote immobilizing may be achieved by using the Digital Output of the device. At the same time, Analog Input extends device usage scenarios with temperature, humidity, liquid level monitoring and many more.

All of that brings unquestionable value to numerous market segments and societies, countries' budgets and the global economy overall. It can be perfectly adapted to any fleet, to any transportation. The far-reaching experience of the FMM920 predecessor shows that it is a perfect choice for basic track & trace and fleet management.

43 mm

79 mm

12 mm

Module

Name	FMM920-Q3IB0: Quectel BG95-M3 with Teltonika TM2500
Technology	LTE Cat M1/NB-IoT/GSM/GPRS/GNSS/BLUETOOTH® LE

GNSS

GNSS	GPS, GLONASS, GALILEO, BEIDOU, SBAS, QZSS, DGPS, AGPS
Receiver	33 channel
Tracking sensitivity	-165 dBM
Accuracy	< 3 m
Hot start	< 1 s
Warm start	< 25 s
Cold start	< 35 s

Cellular

Technology	LTE Cat M1/NB-IoT/GSM
2G bands	BG95-M3: B2/B3/B5/B8
4G bands	Cat M1: B1/B2/B3/B4/B5/B8/ B12/B13/B18/B19/ B20/B25/B26/B27/ B28/B66/B85 Cat NB2: B1/B2/B3/B4/B5/B8/ B12/B13/B18/B19/ B20/B25/B28/B66/ B71/B85
Data transfer	BG95: LTE: Max. 588Kbps (DL)/Max.1119Kbps (UL) GPRS: Max. 107Kbps (DL)/Max. 85.6Kbps (UL)
Transmit power	Class 4 for GSM850/900: 23±2dBm Class 1 for GSM1800/1900: 20±2dBm Class 3 for LTE-TDD: 23±2.7dBm Class 3 for LTE-FDD: 23±2.7dBm

Power

Input voltage range	10 - 30 V DC with overvoltage protection
Back-up battery	170 mAh Li-Ion battery (0.63 Wh)
Power consumption	At 12V < 2 mA (Ultra Deep Sleep) At 12V < 3 mA (Deep Sleep) At 12V < 8 mA (Online Sleep) At 12V < 12 mA (GNSS Sleep) At 12V < 28 mA (Nominal)

BLUETOOTH® technology

Specification	4.0 + LE
Supported peripherals	EYE beacon and sensor, OBDII dongle, Inateck Barcode Scanner, Unversal Bluetooth® LE beacons and sensors support

Physical specification

Dimensions	79 x 43 x 12 mm (L x W x H)
Weight	54 g

Interface

Digital Inputs	1
Digital Outputs	1
Analog Inputs	1
GNSS antenna	Internal High Gain
Cellular antenna	Internal High Gain
USB	2.0 Micro-USB
LED indication	2 status LED lights
SIM	Micro-SIM
Memory	128MB internal flash memory

Operating environment

Operating temperature (with battery)	-20 °C to +40 °C
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	IP54
Battery charge temperature	0 °C to +45 °C
Battery discharge temperature	-20 °C to +60 °C
Battery storage temperature	-20 °C to +35 °C for 1 month -20 °C to +30 °C for 6 months

Features

Sensors	Accelerometer
Scenarios	Green Driving, Over Speeding detection, Jamming detection, GNSS Fuel Counter, DOUT Control Via Call, Excessive Idling detection, 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, FOTA, Teltonika Configurator (USB, Bluetooth® wireless technology)
SMS	Configuration, Events, DOUT control, Debug
GPRS commands	Configuration, DOUT control, Debug
Time Synchronization	GPS, NITZ, NTP
Fuel monitoring	LLS (Analog), OBDII dongle
Ignition detection	Digital Input 1, Accelerometer, External Power Voltage, Engine RPM (OBDII dongle)

Certification & Approvals

Regulatory	FMM920-Q3IB0: Anatel, CE/RED, E-Mark, RCM, RoHS, REACH