Advanced Trackers

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Contents

Description

GPS trackers with extended I/O and advanced feature set. Covering the vast majority of use cases:

- Car sharing;
- Courier delivery service;
- Car rental and leasing;
- Security and emergency services;
- Utility transport;
- International logistics;
- Service and maintenance;
- Agriculture;
- And more.

Technology

FMB – GSM (2G), GNSS, Bluetooth® trackers	**FMU** – 3G (UMTS), 2G fallback, GNSS, Bluetooth® trackers
FMC – 4G LTE (CAT1), 3G/2G fallback, GNSS, Bluetooth® trackers	**FMM** – 4G LTE (CAT M1), NB-IoT, 2G fallback, GNSS, Bluetooth® trackers

FMB Series*

2G trackers – GSM, GNSS, Bluetooth® trackers

The letter **B** in the name stands for Bluetooth®. FMB is the first series of devices in Teltonika that offered Bluetooth® functionality. All of the following series will be based on the FMB series, but with different network technology.

*MTB100, FMT100, FMP100 or MSP500 devices fall into this category.

FMU Series*

3G trackers – 3G (with 2G fallback), GNSS, Bluetooth® trackers

The letter **U** stands for UMTS or in other words 3G. FMU series devices support 3G technology.

*FM3001 and FM6300 devices fall into this category.

FMC Series

4G (CAT 1) trackers – 4G (with 3G and 2G fallback), GNSS, Bluetooth® trackers

The letter **C** stands for CAT 1. FMC series devices support 4G LTE CAT 1 technology.

FMM Series

4G (CAT M1) trackers – LTE CAT M1 (with 2G fallback), NB-IoT, GNSS, Bluetooth® trackers

The letter **M** stands for CAT M1. FMM series devices support 4G LTE CAT M1 technology.

IP Series

FMB, FMC, FMM IP67 trackers – Ingress Protection (IP) rating.

The letter **IP67** stands for (6) - Totally protected against dust, (7) - Protected against the effects of temporary immersion between 15cm and 1m. Duration of test 30 minutes.

Difference between FMM and FMC series devices

LTE CAT 1 (FMC) and **LTE CAT M1 (FMM)** technologies sound quite similar although it’s two different technologies.

	FMC CAT 1	FMM CAT M1
Power Requirements	□	□□□□
Bandwidth	□□□□□	□□
Availability (Worldwide at the moment)	□□□□	□□□
Overall complexity	□□	□□□□

Power requirements (the higher □, the less power consumption) – LTE CAT 1 has the highest throughput, lowest latency, and full mobility compared with CAT M1, however, these additional benefits bring higher power consumption for the LTE CAT 1 technology. LTE CAT M1 is designed for IoT devices, which means that the power consumption is much lower. CAT M1 supports half or full-duplex communication, Voice-over-LTE and the data rates are at medium.

Bandwidth (the higher □, the more bandwidth) – FMC with LTE CAT 1 Downlink peak rate 10 Mbps, Uplink peak rate 5 Mbps, latency 50-100ms. FMM with LTE CAT M1 Downlink and Uplink rates are 375 Kbps, latency 10ms-15ms.

Availability (the higher □, the more coverage it has) – worldwide at the moment LTE CAT 1 has the highest coverage. Technically, it has even more, because it has a fallback to 3G and 2G. LTE CAT M1 is quite new technology and countries are steadily installing it into their telecommunications networks. LTE CAT M1 fastest growing network in the world. Worldwide mobile operators predict that CAT M1 technology will be the one that will change the 2G network.

Overall complexity (the higher □, the less complex technology is) – LTE CAT M1 technology draws significantly less power compared to LTE CAT 1 and simplifies device design. LTE CAT M1 also allows chipset, module, and modem manufacturers to use fewer, and less powerful components, resulting in simpler hardware design.

Currently, FMC with LTE CAT 1 technology provides the best solution for Fleet Management devices, because of the global coverage and 3G/2G fallback support. However, FMM with LTE CAT M1 is more future-proof technology, which brings the best solution for low-cost, low-energy telecommunications systems.