# **TELTONIKA DSM**

**D**RIVER **S**AFETY **M**ONITORING (DSM) CAMERA WITH PROFFSSIONAL GPS TRACKER







## **DRIVER NOTIFICATION ON EVENTS IN**

The driver will get sound notifications via a camera in front of the driver when events will like drowsiness, distraction, yawning, smoking, phone use, and seat belt off occur.

#### **EVENTS TRANSFER TO A SERVER**

By receiving event data in a dedicated server, a fleet owner and/or managers can analyse driver behaviour and avoid potential dangers on the roads.

### **VISUAL EVIDENCE**

Fleet owner and/or managers can receive photos of events from DSM for further analysis. Pictures can be sent by triggers or requests.

Every road user must be aware that their behaviour and actions have a huge impact on their own and others safety. Distraction is still the main cause of many road accidents resulting in serious injuries, casualties, and damage to cargo. Moreover, according to Driver Fatigue in European Road Transport Report (2021 year) 24% of bus and coach drivers and 30% of truck drivers indicated that they had fallen asleep while driving at least once in the previous 12 month. We are happy to announce that Teltonika Telematics has developed a new Driver Safety Monitoring (or DSM in sort) solution.

Based on leading-edge technologies, Teltonika DSM has several integrated warning conditions: drowsiness, yawning, distraction, smoking, phone use, and seatbelt use. Moreover, it can recognise and store 200 driver IDs and identifies which driver is on board. DSM notifies a driver immediately with a sound alert if any of these events are detected.

After the camera detects alarming events inside the vehicle cabin, the GPS device tracks them and sends the relevant data to the dedicated server for timely monitoring and further analysis. Fleet owner can get photo evidence for future investigation. This integrated safety warning solution is designed to avoid possible car accidents, injuries, casualties, and financial losses.

The Driver Safety Monitoring solution consists of the DSM camera, which is mounted on the front window (next to the A-pillar) of the vehicle, and the Teltonika professional GPS tracker FMC640 both connected via an RS-232 serial port interface. DSM camera detects alarming events by scanning and calculates head position detection, face direction detection ('yaw', 'pitch', 'roll') and eyeopening/mouth opening/closing. All the event data will be sent to the dedicated server for further monitoring and analysis.





#### Features

Photo	Using FMX640 you can request a photo from DSM, or set periodical image sending to the server
Drowsiness	When the driver closes his/her eyes for a certain period. If the driver closes his/her eyes again within 30 seconds
Distraction	When the driver looks outside of the warning range below. If the driver remains distracted for a certain period
Yawning	When the driver yawns for 3 seconds twice within 1 minute
Smoking	When the driver smokes for a certain period
Phone use	When the driver talks over the phone for a certain period (Every 30 seconds)
Seat belt	When the driver doesn't fasten the seat belt over 10 km/h
Driver ID	Defect driver face (store max 200 IDs)

# **Technical Data**

Supported by	FMB640/FMC640
Storage	Up to 128 GB micro SD card, 64 GB (included). 64 GB SD card Approx recording time 24 Hours
Camera resolution	720p@30fps, HDR
Infared	2x IR LED
Dimensions	Camera: 48.7 mm x 56.18 mm x 78.52 mm / Main connetcion box: 172 mm x 84.65 mm x 27 m
Main cable length	Main cable 3.5 m "Split cable"
Speaker/Microphone	Yes
GNSS	Built-in (GPS, GLONASS, QZSS)
Indicator (LED)	Indicator (LED) Red/Green dual LED, Operating status

### **Electrical parameters**

Power Consumption	Max. 8.4 W (12 V/24 V)
Operating temperature	-20 °C to 70 °C

# Interface

USB	USB Type-C for calibration via PC
CAN	CAN 2.0 (option for DSM to detect speed from CAN line)
RS-232	Indicator TX/RX (for communication with FMX640 devices)