



# DUALCAM SOLUTION FOR DELIVERY SERVICES

## INTRO

The latest shift in the global economy has triggered many changes, including online shopping behaviours and popularity that are likely to have lasting effects for many years to come. It caused a spike in demand for courier and delivery services and, unfortunately, some major concerns related to it too. To assist delivery companies with that, Teltonika has developed a thorough present-day vehicle telematics solution.

## CHALLENGE

Did you know, according to the survey and [a new report on e-commerce trends](#), 90% of companies in Europe and North America saw their online sales increase at least a bit, with 50 per cent of respondents claiming it grew by over 100 per cent during the [global COVID-19 pandemic](#) outbreak in the year 2020?

Generating groceries, clothes, medicine demand, panic buying, rocketing subscription services and more online sales for retailers is one thing, but the lockdown and heavy restrictions have also led to things like disrupted supply chains, poorly staffed customer service, lack of delivery drivers, parcel delays, pricey mistakes, etc.

Inevitably, the coronavirus outbreak has caused a **burst in delivery services** and couriers' demand. Now, a great number of websites, mobile apps, and social media pages are providing all sorts of deliveries straight to the buyer's door. Courier service providers are on the boost, servicing online shoppers who would rather not take a risk to go outside.



But here comes a problem - lack of skilled and experienced delivery drivers available for hire. In ['The new in-demand jobs: delivery drivers and tax specialists'](#) article, Financial Times explains that many recruiters in the UK agree the pandemic is driving demand hardest for workers who do move stuff - like drivers. This situation is pretty similar in other countries too. Even more, already recruited ones often experience hectic workload, longer working hours, stress, and sleep deprivation leading to all sorts of challenges.

Keep in mind, **inadequate driving style** and inappropriate behaviour will, surely, cause fuel efficiency decrease, fleet maintenance overheads, traffic accidents and fines, loss or damage of goods to be delivered, insurance cost rise, higher medical expenses, injuries or deaths, downtimes and delivery delays, customer complaints, poor company reputation leading to fewer orders, market share loss, and shrinking profitability.

What about **drivers' safety** then? It is a challenge too. According to one of the [BBC News reports](#), thousands of delivery drivers face intimidation, serious injury and even death to bring food to consumers' doorsteps. Here to say, delivery services need to handle huge global shifts in consumption habits, customer service quality, fleet safety, and delivery capabilities.

Keeping all the above in mind, the Teltonika Telematics team has come up with a practical present-day solution greatly helping delivery and courier businesses with these significant issues. We call it [Teltonika DualCam solution](#).

## SOLUTION

This comprehensive solution combines the best of both - digital double-sided driving recorder [Teltonika DualCam](#) and **special category FMx125 series** or **FMU126** vehicle GPS tracker benefits. A set of two must be connected over the [RS-232 serial port](#). Better yet, these FM devices can be used together with the remote FMB device firmware update and configuration tool [Teltonika FOTA](#). Please note, to use this functionality on your FMC125 or other supported trackers, you will require firmware version 03.27.00.Rev.100 or above.

This vehicle telematics tracker, like any other Teltonika GPS device, has diverse well-conceived usage scenarios tracking specific events and generating their data, respectively. To tackle the driving issues mentioned above and activate DualCam, we utilise [Green Driving](#) (aka Eco Driving), [Crash detection](#), [Over Speeding detection](#), and [Excessive Idling detection](#) scenarios.

## RECORDING GREEN DRIVING EVENTS

The scenario allows to set up and activate tracking of 3 vehicle parameters - 'Max Acceleration', 'Max Braking', and 'Max Cornering'. If any pre-set value is exceeded, the FMC125 tracker registers the event and sends its data to a dedicated server. After that, by sending SMS/GPRS command from the server to the FM device, up to 30 seconds long video relevant to this event can be requested from a Teltonika DualCam accessory. A video record or photos capturing the moments of interest can be sent to the server **upon demand** based on pre-set time intervals.

Thanks to this, whenever an event triggered, its comprehensive information (video records, images, and vehicle-related data) will be gathered and available for timely analysis helping fleet management to assess a situation and tackle a driver's behaviour issues if necessary.

**Eco/Green Driving**

Scenario Settings

Disable	Low Priority
High Priority	Panic Priority

Max Acceleration (m/s<sup>2</sup>)

Max Braking (m/s<sup>2</sup>)

Max Cornering (m/s<sup>2</sup>)

Source

GPS	Accelerometer
-----	---------------

Eco/Green Driving Duration

Disable	Enable
---------	--------

Output Control

None	DOUT 1
------	--------

DOUT ON Duration (ms)

DOUT OFF Duration (ms)

Send SMS To

SMS Text

## RECORDING CRASH DETECTION EVENTS

For this example, we set up and activate tracking of 2 vehicle parameters - 'Threshold' and 'Duration'. GPS tracker can detect events ranging between a slight tapping on the device and a severe accident. If any pre-set parameter value is exceeded, the FMC125 model registers the event and sends a full data packet to a dedicated server **at once automatically** including up to 30 seconds long video relevant to this event from a Teltonika DualCam device.

To assist businesses and insurance agencies even further, there are 2 configurable Crash Trace modes to choose from - 'Trace Change' and 'Trace Full'. If [Crash Detection Feature](#) events detected, their accurate and detailed set of data (including visuals) to monitor, analyse, and generate relevant reports will be available for company managers in charge and insurers involved to get a traffic accident sorted as efficiently as possible saving time and precious resources.

**Crash Detection**

Scenario Settings

Disable	Low Priority
<b>High Priority</b>	Panic Priority

Duration (ms)

Threshold (mg)

Send SMS To

SMS Text

Trace Filter

Disable	<b>Enable</b>
---------	---------------

Crash Trace

Disable	<b>Trace Changes</b>
<b>Trace Full</b>	

Trace ODR (Hz)

Accel duration (s)

GNSS duration (s)

## RECORDING OVER SPEEDING DETECTION EVENT

The scenario allows to set up and activate tracking of the 'Max Speed' parameter. As above, if the pre-set value is exceeded, the FMC125 tracker registers the event and sends its data to a server. After that, by sending SMS/GPRS command from the server to the FM device, up to 30 seconds long video relevant to this event can be requested from a Teltonika DualCam. The video record or photos can be sent to the server **upon demand** based on pre-set time intervals.

As noted previously, when over speeding event triggered, its data will be available for analysis assisting to get the matter to be dealt with. To enhance its effectiveness, this detection can be combined with the Manual Geofence scenario.

**Over Speeding**

Scenario Settings

Disable	<b>Low Priority</b>
High Priority	Panic Priority

Max Speed (km/h)

Output Control

<b>None</b>	DOUT 1
-------------	--------

DOUT ON Duration (ms)

DOUT OFF Duration (ms)

Send SMS To

SMS Text

## RECORDING EXCESSIVE IDLING DETECTION EVENTS

The scenario allows to set up and activate tracking of 2 vehicle parameters - 'Time To Stopped' and 'Time to Moving'. As stated before, if any pre-set value is exceeded, the FMC125 tacker registers the event and sends its data to a server. Thereafter, by sending SMS/GPRS command from the server to the FM device, up to 30 seconds long video relevant to this event can be requested from a DualCam. The video record or photos can be sent to the server **upon demand** based on pre-set time intervals.

As above, at any time a vehicle idling event triggered, its data will be available for timely analysis assisting to get the matter sorted most effective way possible.

**Excessive Idling**

Scenario Settings

Disable	Low Priority
High Priority	Panic Priority

Eventual Records

Disable	Enable
---------	--------

Time To Stopped (s)

Time To Moving (s)

Output Control

None	DOUT 1
------	--------

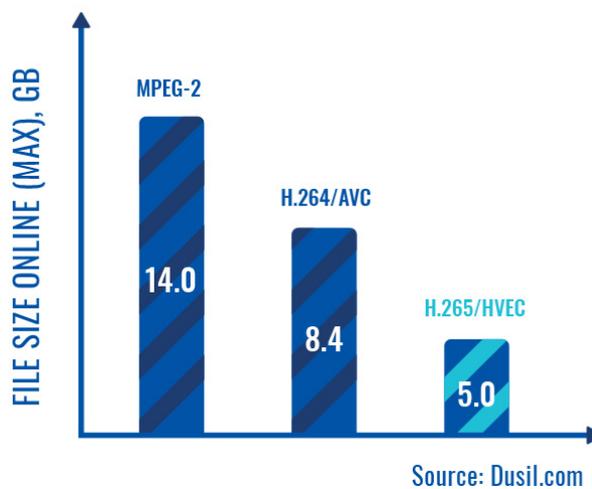
DOUT ON Duration (ms)

DOUT OFF Duration (ms)

Send SMS To

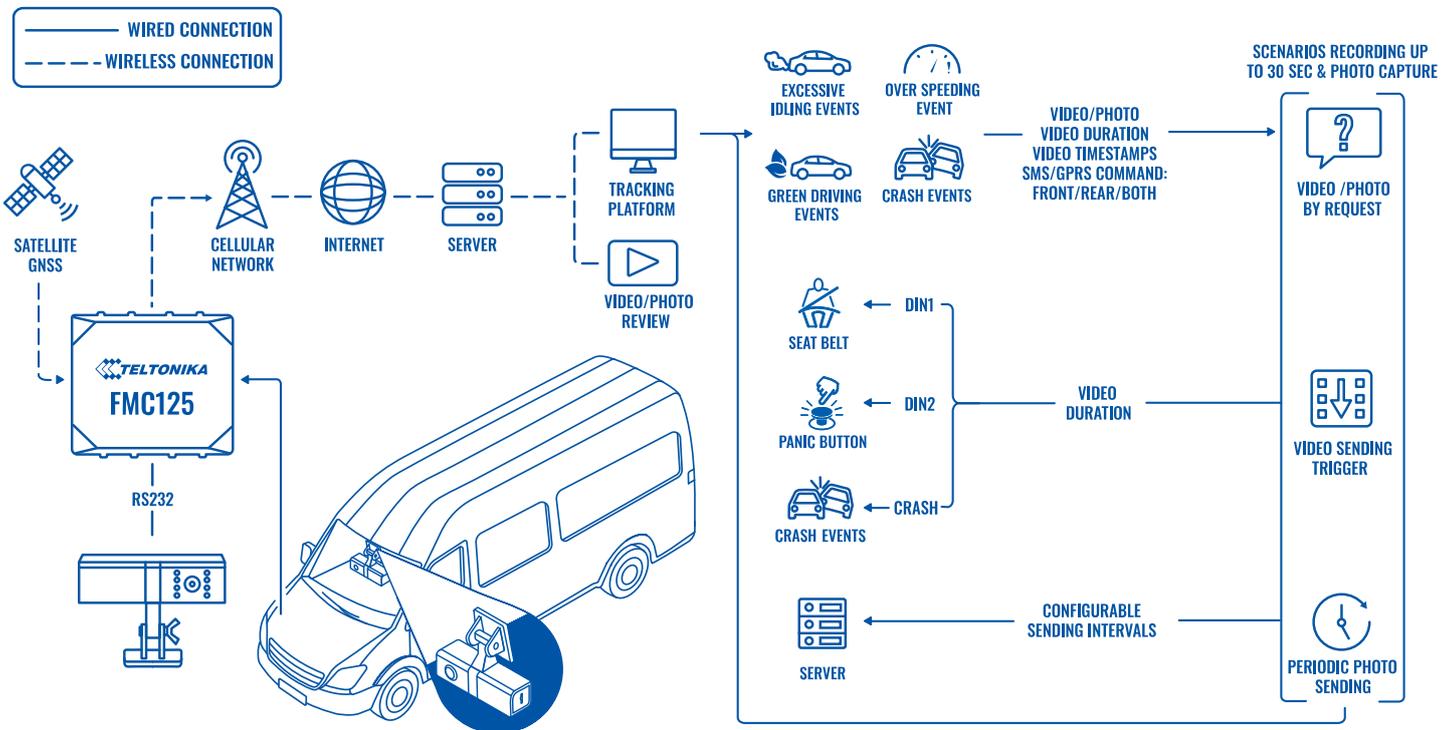
SMS Text

As a result, now fleet management can timely gather all-inclusive data, analyse it and swiftly identify inappropriate drivers' behaviour and improve it by taking necessary disciplinary actions, promote safer driving, reduce accidents, fleet running and maintenance cost, improve business efficiency and drivers' skills if required, cut corporate vehicle insurance costs, provide strong evidence in court to resolve insurance claims faster, protect drivers from crash-for-cash scams, etc. Upon demand, any event can be added from other scenarios and recorded.



The brand new Teltonika DualCam solution merges the best of both worlds - wide-angle dual dashcam supporting **High Efficiency Video Coding** (H.265/HEVC) with better data compression ratio, reduced bandwidth, storage volume and vehicle Teltonika GPS tracker – effectively dealing with specified issues by assisting corporate fleet managers, drivers, passengers, road users, police, and society. Everybody wins!

## TOPOLOGY



## BENEFITS

- **Automated hassle-free drivers' and events tracking, recording, monitoring, and management** - an accurate, all-in-one, and easy-to-use solution for delivery services utilising wide-angle dual dashcam and Teltonika GPS tracker. Data available and accessible anytime and anywhere via PC, tablet, and smartphone.
- **Encourage safe and reliable parcel deliveries** by preventing costly mistakes, inappropriate behaviour, thefts and enabling informed decisions in unforeseen situations at the same time.
- **Boosts workforce discipline, encourages desirable vehicle usage habits, and work ethics** - constant fleet drivers' routine events tracking and monitoring in a combination with appropriate motivation system in place will improve customer service, optimise a workflow and its running cost for any size fleets.
- **Extensive Teltonika DualCam solution functionality to serve company needs** - flexible configuration for a project or business needs, handy detections such as over speeding, excessive idling, crash or others on demand to optimise fleet management, lower its running cost, traffic fines, medical expenses, and greatly improve ROI.

## WHY TELTONIKA?

We offer not only advanced Teltonika DualCam as such, but a comprehensive up-to-date solution for delivery services ensuring automated drivers' tracking, recording, monitoring, and efficient fleet management for any size of businesses to meet the most demanding needs that currently exist in a global market.

Teltonika is the right place to get all you need to succeed - an impressive variety of certified GPS trackers, accessories, and solutions for any use case imaginable in vehicle telematics. Our over 22 years of expertise and innovative approach, extensive global market knowledge, top-notch product quality, state-of-the-art production facilities with automated robotic assembly lines and customer support meeting your expectations give us a competitive edge and make Teltonika Telematics a business partner of choice.

## FEATURED PRODUCT

FMC125

## RECOMMENDED PRODUCTS

FMM125, FMU125, FMU126

## RECOMMENDED ACCESSORIES

TELTONIKA DUALCAM

