

ADAS SOLUTION WITH FORWARD COLLISION AVOIDANCE



INTRO

Drivers' behaviour and performance is a decisive factor in the success of any size fleet, business and safety on the roads. If not adequately and timely managed, a poor attitude may cause a significant increase in operational cost, traffic fines, injuries, downtime, loss of cargo, and company reputation. To effectively assist companies with that, Teltonika has developed a thorough present-day vehicle video telematics solution.

CHALLENGE

Despite the pretty strict road traffic safety and monitoring measures, penalty points, hefty fines and driving bans, approximately **1.35 million people** die each year because of road traffic crashes. Even more, these crashes cost most countries 3% of their **GDP**. One of the most widespread factors remains speeding, driving under influence, distracted driving, inappropriate drivers' behaviour such as tailgating, non-use of seatbelts, reckless cornering or breaking, etc.

According to recently conducted a **national survey** among American drivers aiming to understand their habits, 52.5% of respondents reporting eating while driving, 23.6% texting, 11.7% taking photos, 6.5% applying makeup, and 3.4% drinking while driving. Even more, drivers are distracted by their phones at least 10% of their driving time. That is mind-blowing!

On another hand, the **Insurance Institute for Highway Safety** found that **forward collision warning systems** lower front-to-rear crashes by 27%. In fact, these systems may dramatically increase the effectiveness of driving and save a lot of lives worldwide.

SOLUTION

To address the challenges mentioned above, we are proud to present you with the brand-new innovative Teltonika Telematics video solution – **Advanced Driver-Assistance System** (aka **ADAS**) dedicated camera mounted on the windscreen and the special category GPS tracker **FMC125** combo, both connected via an **RS-232** serial port.



Thanks to its unique features and firmware, the ADAS camera detects alarming events in front of a vehicle, GPS device tracks them and sends the relevant data to the dedicated server for timely monitoring and further analysis. Plus, it **notifies a driver immediately** with a visual and sound alert of a likely danger or risky driving conditions.

Its safety features are designed to avoid collisions and traffic accidents by offering leading-edge technologies that alert the drivers, fleet managers or people in charge for potential collisions or common mistakes on the road by tracking and monitoring events. It has multiple integrated warning systems (e.g., forward collision, pedestrian collision, forward proximity, lane departure warnings, front vehicle start alarm, safety distance alert, speed limit recognition) and, when managed correctly, can significantly improve drivers', cargo, and road users' safety.

Of course, there are many different causes of collisions, but here we mainly focus on three key issues causing most **forward collisions on the roads**. Let's go through each of them in more detail and see how ADAS helps to deal with them.

Over speeding. It is a type of aggressive driving behaviour, the most common and troubling one. Speeding causes a greater potential for loss of vehicle control, increased stopping distance, crash severity, and fuel consumption, to say at least. Thanks to the ADAS solution forward collision system, the fact of speeding will be detected and tracked, the time to potential collision will be estimated, a driver and fleet management will be warned helping to avoid costly consequences.

Even more, the ADAS PLUS version camera allows identifying speed limits on the roads through traffic sign recognition feature. As stated before, speeding violation event will be inevitably detected, a driver and fleet management will be warned about this fact.

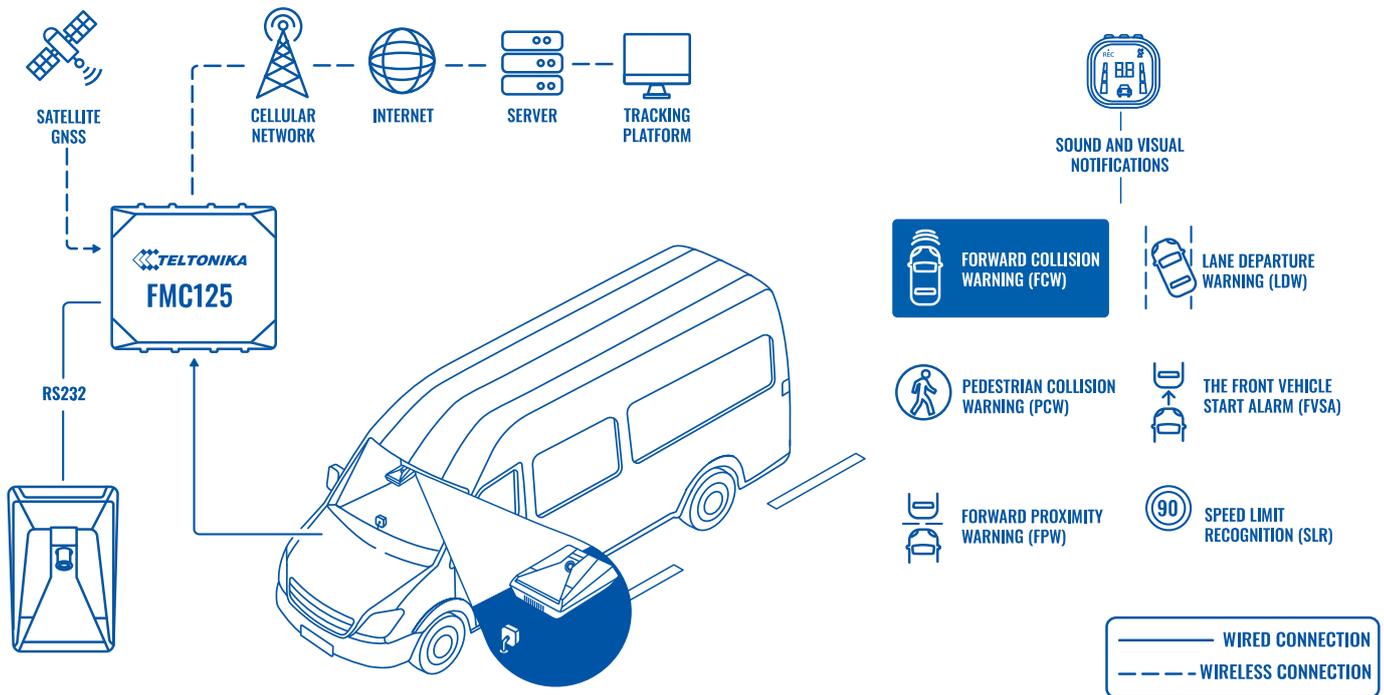
Tailgating. It is defined by driving too close to another vehicle in the front, thus considerably increasing the chances of rear-end collision. The tailgating (aka 'piggybacking') driver can be either conscious or unconscious of his/her high-risk driving. Thanks to the ADAS solution collision avoidance system, the tailgating event will be timely detected and tracked, a driver and fleet management will be warned helping to avoid the costly outcome.

Distracted driving. It is characterised as any activity that diverts attention from driving a vehicle. As mentioned above, smartphone texting is the most alarming and prevailing distraction behind the wheel. It creates tremendous potential for deaths and injuries on roads.

Once again, if an inadequate driving event occurs because of the distraction, it will be detected by the ADAS, a driver and fleet management will be warned helping to prevent costly consequences. For instance, if a vehicle moves out of its lane and a turn signal is off, a lane departure warning will be activated, helping the driver to regain focus and get the car under control in time.

Here to add, all events of interest will be sent to a dedicated server for timely and comprehensive analysis by fleet managers. That assures 100% accountability, detailed and solid evidence of driver's behaviour on the road. Not to mention, the long list of benefits Teltonika GPS tracker can provide too. Undeniably, that helps to deal effectively with the most widespread bad habits and factors mentioned above, saves road user lives, cargo, business reputation, and company resources.

TOPOLOGY



BENEFITS

- **Instant and distinct notifications** - a driver will get a visual and sound alert via a small display in front of him/her whenever an event is detected. It keeps a mind on driving and hands on a wheel.
- **Lower crash rates** - forward collision warning system continuously monitors traffic obstacles in front, an algorithm estimates the time to a potential collision and noticeably reduces front-to-rear crashes, damage to other vehicles and cargo.
- **Automated hassle-free drivers' and events tracking, recording, monitoring, notifying, and management** - an accurate and timely events data transfer to a dedicated server for fleet management utilising ADAS accessory and Teltonika GPS tracker features.
- **Improved road safety and significantly reduced the risk of injuries or deaths** by preventing erratic or inappropriate behaviour, vehicle misuse, dishonesty, pricey errors and enabling informed decisions in unforeseen situations at the same time.
- **It boosts workforce discipline, desirable vehicle usage habits, and work ethics** - constant fleet drivers' routine events tracking and monitoring in a combination with an appropriate motivation system in place will improve company reputation, optimise a workflow and its running cost.
- **Extensive ADAS solution functionality to serve company needs** - flexible configuration for a project or business needs, set of smart warning systems and handy detections on demand to optimise fleet management, lower its running cost, traffic accidents and fines, medical and insurance expenses, and greatly improve ROI.

WHY TELTONIKA?

We have developed, manufactured, and thoroughly tested not only a practical video system ADAS as such, but an advanced and highly sophisticated vehicle telematics solution ensuring automated drivers' tracking, recording, notifying, monitoring, and efficient fleet management for any size of businesses to meet the most demanding needs that currently exist in a market and save lives around the world.

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 23 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, FMB125

RECOMMENDED ACCESSORIES

ADAS

