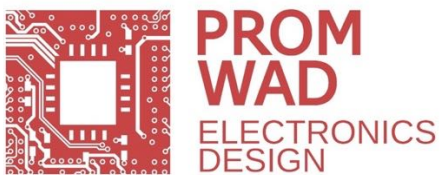


Promwad: Accelerated Design of Telematics Devices with Telit Cinterion Modules



This is a case study by Promwad, our partner that designs software and hardware for its clients in the automotive industry. With universal modules from Telit Cinterion, Promwad optimises development processes, reduces costs, and improves technical support.

About Company



Promwad is an EU-based software and hardware development company with 100+ experts who cover all their clients' needs in creating cutting-edge solutions for the electronics market, from proof of concept to industrial design and the launch of mass production.

Founded in 2004, Promwad serves various industries, such as automotive, telecom, consumer electronics and industrial automation. [Read more](#) about the company.

How Promwad Solves Automotive Telematics Challenges

When developing telematics and IoT transport monitoring systems, Promwad clients experienced a lack of integrated solutions. The use of telematics modules from various vendors led to longer development time, higher costs, and complicated technical support. Promwad solved all these problems through its engineering support and Telit Cinterion modules covering WiFi, Bluetooth, GSM, and GNSS.

Below, you will find the description of two projects implemented by Promwad: a smart dashboard camera and a vehicle tracking device with Telit Cinterion modules for wireless communication and positioning.

Design #1: Driver Monitoring System

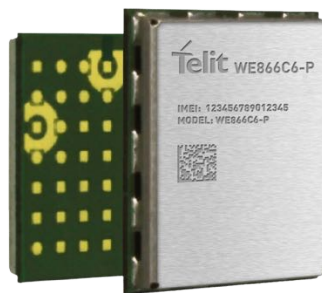
Promwad engineers developed a telematics device for a provider of vehicle insurance solutions, and module versatility was essential in this solution. Using two integrated modules from Telit Cinterion instead of four ones made by different vendors, the engineering team fulfilled the client's requirement to create a miniaturised device without compromising performance and functions.



A dashboard camera prototype based on Telit Cinterion modules

Promwad developed a dashboard camera with artificial intelligence for video recording and processing at the client's request. The system was designed to monitor driver distractions and passenger behaviour, as well as detect specific events, such as overtaking and traffic violations. The company engineers implemented all this functionality with neural networks.

To ensure reliable communication even in harsh conditions, Telit Cinterion telecommunication and navigation modules were incorporated into the solution. Promwad selected the WE866C6-P and the LE910Cx GSM/GNSS module for this purpose.



Telit Cinterion dual-band and single-threaded module [Telit Cinterion WE866C6-P](#) provides short-range wireless communications

The Telit Cinterion WE866C6-P module combines Wi-Fi 802.11 a/b/g/n/ac & Bluetooth® /Bluetooth® Low Energy 5.0 connectivity in one package.



[Telit Cinterion LE910Cx module](#) for reliable cellular connectivity and precise positioning

Telit Cinterion LE910Cx GSM/GNSS module was chosen to provide reliable cellular communication and accurate positioning. It supports a variety of communication technologies, including 2G, 3G and LTE, making it compatible with various networks worldwide.

Both modules integrate seamlessly with each other, offering a compact form factor and low power consumption — characteristics that fully meet the requirements for the designed device.

Design #2: Vehicle Tracking Device

In the second project, commissioned by a leading provider of automotive telematics solutions, Promwad developed a GPS tracker for fleet management and vehicle monitoring. The client required a device that provides accurate positioning, reliable connectivity and seamless integration into their current telematics platforms.

Drawing on their expertise in embedded systems and wireless technology, the Promwad team developed a compact and versatile GPS tracker that not only tracks vehicles but also detects emergency incidents: theft, hit-and-runs, speeding and zone violations.

Owners of vehicles with the tracker installed receive all the information about the vehicle's status on a mobile app or server.



[Telit Cinterion's line of modules](#) with LTE-M and NB-IoT
(Promwad chose a module with 2G backup mode)

To ensure accurate communication and navigation, the engineers used the Telit Cinterion ME910C1 module. It provides a reliable LTE connection, guaranteeing uninterrupted communication between GPS trackers and backend servers. These features enable real-time data transmission, remote monitoring and fleet management even in challenging conditions.



“Promwad's commitment to excellence is reflected in every aspect of automotive solutions for our clients. Using Telit Cinterion modules, we ensure optimal performance, simplified development, and unrivalled support,” — says [Alexey Safonov](#), Head of the Automotive Unit at Promwad

Advantages of Choosing Telit Cinterion Modules for Promwad Clients

In addition to the technical compliance with the assigned task, Promwad clients gained several other advantages by choosing Telit Cinterion modules:

- **Built-in module Integration**, so there is no need to use and integrate modules from different vendors. Ultimately, a complete solution simplifies design and ensures seamless functionality.
- **Access to a single point of support** for all module-related questions and issues for timely problem resolution.
- **A single procurement process for mass production** simplifies purchasing logistics, saving time and resources.
- **Competitive prices** without compromising the quality and performance of the final solutions, allowing Promwad clients to achieve project goals within budget constraints.
- **Comprehensive support at the development stage**, including technical consultations, circuit analysis and recommendations for optimising module integration.
- **Provision of test benches** in case of prototype problems. Telit Cinterion offers RF testing capability in its lab to identify and troubleshoot problems. In addition, Telit Cinterion provides recommendations and guidance on how to improve the design.

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The integration of Telit Cinterion modules into telematics devices has enabled Promwad to significantly optimise development processes, increase system performance and simplify technical support.

Using universal Telit Cinterion modules, the engineering team ensured reliable wireless communication and accurate positioning, effectively meeting all their client needs.

Now, Promwad is ready to apply these advantages in engineering support for your business, creating solutions for your specific requirements. Learn more about [Promwad's services and success stories](#) in the automotive industry.

Would you like to learn more about how Promwad can support your engineering projects? [Contact](#) us today or reach out on LinkedIn to [Alexey Safonov](#), Head of the Automotive Unit at Promwad.