



DFI

Agile Customer Service Help European Customers to Build Artificial Intelligence Workstations For the Transportation Industry

Artificial intelligence applications have already penetrated our lives, and AIoT, combined with the Internet of Things, has stepped into the transportation industry. With agile business feedback, rapid customization, and product line integrity, DFI assisted European customers in creating artificial intelligence workstations and optimized the transportation industry in the shortest amount of time.

Region: **Europe**

Industry: **Transportation**

Application: **Artificial Intelligence Workstation**

Solution: **WM343 microATX wall-mounted chassis,
CMS310 industrial-grade motherboard**



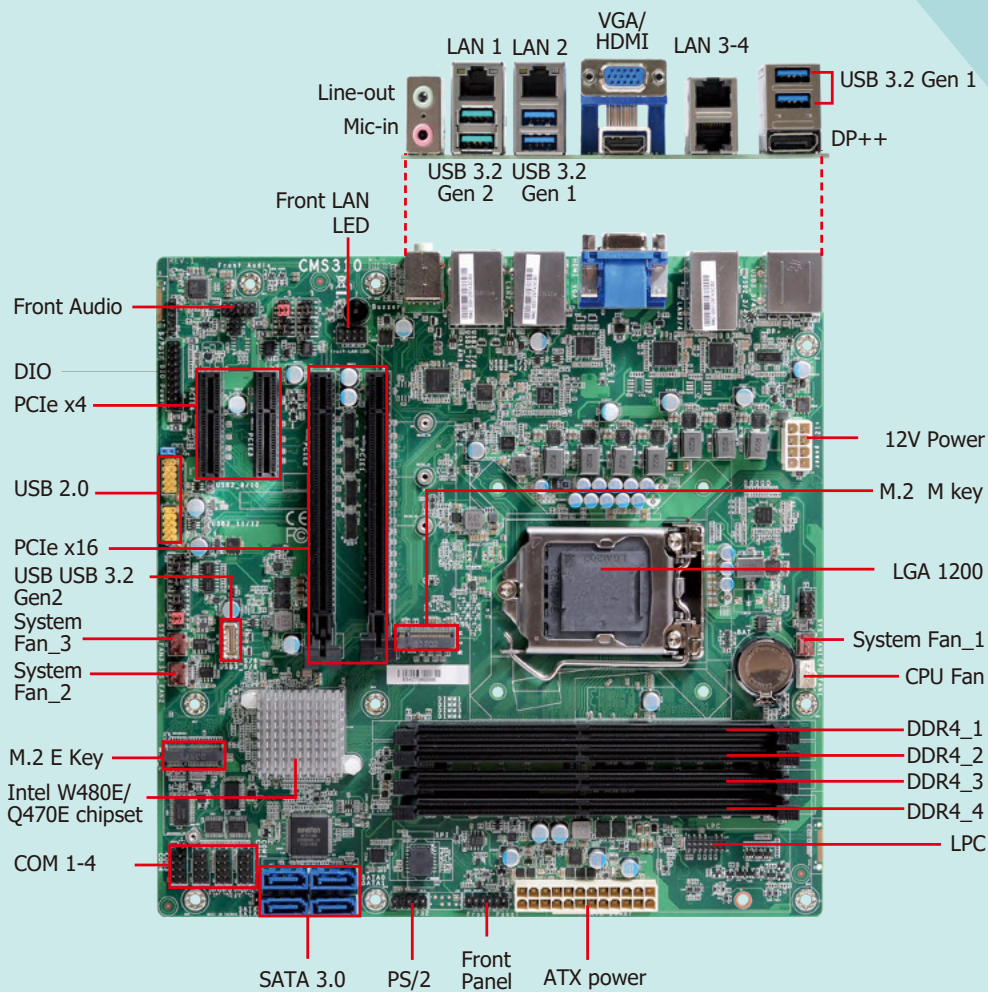
The development of the rail industry has gradually stepped into the application areas of AIoT, such as autonomous driving, rail intrusion detection, and passenger behavior monitoring, which require robust and highly expandable embedded industrial computers to reduce tedious and repetitive tasks and make rail products operations safer, smarter, and more efficient to improve user experience.

A European manufacturer rooted in embedded computers, real-time machine control, and IoT applications for more than 25 years has operations in Europe, North America, and Japan. Its customers mainly need ready-to-use modular solutions to shorten the time to market and focus on their areas of expertise. One of the specialized artificial intelligence workstations for the transportation industry has attracted many European manufacturers to compete for this business opportunity. However, in the end, they still chose DFI's solution that combines ready-made and

customized products to complete product development and shorten the time to market.

Since this project has a solid time to market and price competition, and there are many competitors, DFI directly proposed combining the existing WM343 microATX wall-mounted chassis and the CMS310 microATX industrial-grade motherboard. DFI quickly put forward a quotation and was the first to pass the first of the two-stage bidding successfully. But there were still daunting challenges: customization.

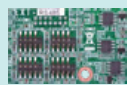
DFI's CMS310 uses the tenth generation Intel Core processor, from 10-core Xeon to dual-core Celeron, and has a variety of processor options, PCIe x16 for installing discrete graphics cards, and supports DFI's patented COM expansion module, which can be connected to the LPC (Low Pin Count) interface on the motherboard. This provides four additional sets of RS-232 or RS-485 to enhance the application flexibility in the industrial computer field.



2 Extension Modules for Additional 4 COM Ports (via the LPC connector)



EXT-RS232
- 4 RS232



EXT-RS485
- 4 RS485



DFI Motherboard
EXT-RS232/RS485
Additional 4 COM

However, the WM343 wall-mounted chassis has initially been developed for ATMs, and its heat dissipation efficiency will be brutal to withstand the harsh environmental temperature of the transportation industry. In addition, the customer's

preset application environment uses 12V DC instead of the general ATX power supply, and the transportation industry often faces voltage instability.



Front View



Rear View



Therefore, by adding a second system fan to solve the heat dissipation problem, DFI has developed an exclusive 12V DC to ATX power supply board with a system on/off delay time management (System On/Off Delay Time) naming power ignition function to provide low-voltage power protection. Now, the operating system has sufficient time to boot and shutdown (OS Protection Time) to ensure the integrity of the data of this artificial intelligence workstation. In addition, DFI also proposed flexible options for peripheral devices, such as discrete display cards that are essential for artificial intelligence applications.

With agile business services, complete product lines, rapid customization, and the speed of existing solutions with the energy of customized projects, DFI successfully assisted European customers in creating artificial intelligence workstations optimized for the transportation industry in the shortest time, thus, helping the transportation industry to take a revolutionary step into the world of AIoT.

Please click or scan the QR code to see our website if you would like us to contact you.



DFI

Founded in 1981, DFI is a global leading provider of high-performance computing technology across multiple embedded industries. With its innovative design and premium quality management system, DFI's industrial-grade solutions enable customers to optimize their equipment and ensure high reliability, long-term life cycle, and 24/7 durability in a breadth of markets including factory automation, medical, gaming, transportation, smart energy, defense, and intelligent retail.

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