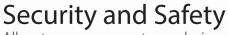
## **Technical Specifications**

- UHF technology for wireless RFID communication
- Fast reading capability, farther reading range and less susceptibility to metal surfaces compared to similar systems
- Very small and easy to install vehicle antenna
- Communication with the automation system using 2,4 GHz FHSS for prevention of interference in communication
- 2 year minimum battery life (Depending on usage)
- "Free Fall Detection" feature detects and transmits to the automation system any fall of nozzles "Invalid Orientation Sensing" feature detects the location of the nozzle, prevents unauthorized filling at incorrect locations and notified the automation system of such situations
- "Integrated Odometer Integration" feature detects existence of the odometer, if any, on the vehicle, and transmits the odometer data to the automation system
- Detects low battery levels and transmits to the automation system
- "Temper proof" feature prevents operation when tampered on the nozzle, and the situation is notified to the automation system
- IP 67 protection (Water/Dust protection)
- ATEX Ex protection class
- Operating temperature range: -20°C ~ +50°C
- Made of materials resistant to fuel and filling station operating conditions



All system components are designed and certificated according to international safety regulations.



ZONE 2

ZONE 1

ZONE 0

4-----

PINEAL



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# **Cyber® TTS** Vehicle Identification System

Fleet fuel supply management system allows control over fuel expenses of fleets and supply of fuel in a controlled and manageable manner.





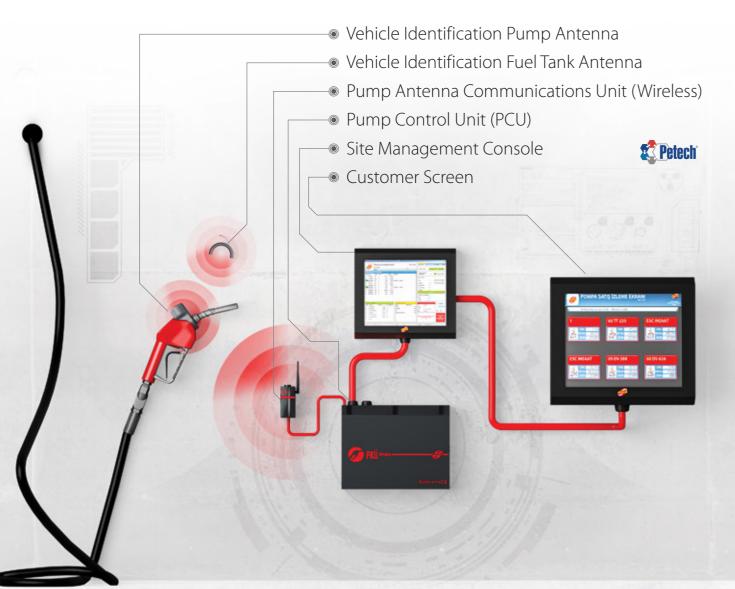


# Cyber<sup>®</sup> TTS Vehicle Identification Systems

Cyber® TTS, the reader of the UHF Tag vehicle identification unit installed on the fuel nozzle and operating in integration with the vehicle identification system, is a fleet fuel supply management system allowing the filling stations to control the fuel expenses of fleets and to supply the fuel under control and with ease thanks to its special design and ease of use.

The Ultra High Frequency (UHF) technology provides flexibility and technological security in vehicle identification units, while eliminating the reading faults on fuel nozzles and any environmental problems. The system supports expansion of the projects with its economic and rapid installation. Cyber® TTS has a special design suitable for use with almost all fuel nozzles and nozzle holders and can adapt to any nozzle and nozzle holder easily with its flawless mechanical design.

#### System Architecture



### Basic Features of the System

Wireless Dispenser Antenna: The vehicle identification readers installed on nozzles are completely designed with wireless architecture. The life of the batteries of these readers as active units is minimum 2 years for a filling station with medium level of traffic intensity. The batteries of the readers can be replaced on the site.

Vehicle Antenna: The antenna installed on vehicles have a chip containing some vehicle details. The vehicle antenna is tamper-proof and in case of removal or deformation following installation, they become inoperative, providing high level of security.

**Odometer Unit:** This unit is installed inside the vehicle and transmits the odometer values to the automation system.

**CAN-BUS Unit:** The CAN-BUS system is used instead of the odometer unit on vehicles supporting standard CAN-BUS protocols. This unit transmits the current fuel consumption data, amount of fuel in the fuel tank of the vehicle, odometer data, etc. to the automation system.

**Operation:** Once the nozzle is inserted in the fuel tank of a vehicle, the reader on the nozzle safely reads the vehicle's ID information from the antenna chip of the vehicle, as well as the data from the odometer or the CAN-BUS unit as the case may be and transmits them to the automation system.

The automation system transmits these data to the Asis Central Management System to obtain approval from the center for fuel supply. Once the approval has been obtained, the automation system instructs the pump to begin supplying fuel. Following completion of the fuel supply, the automation system records the fuel supply details as well as other data obtained from the vehicle and transmits them to the center simultaneously.

#### Vehicle Antenna Reading Capability:

A high-level contactless reading technology is utilized between the vehicle antenna and the nozzle reader. Furthermore, the reading intensity of the system can be adjusted parametrically to eliminate any reading problems on vehicles with different types of fuel tanks. The system also prevents supply of fuel to other vehicles while supplying fuel to a specific vehicle by removing the nozzle.

Security and Safety: All vehicle identification system components are ATEX certified and they are suitable for use at filling stations and on vehicle fuel tanks. The contactless communication between the vehicle unit and the nozzle is protected by means of a special encryption method to provide complete security.

