# FARO CANbus Module

## Features

- Full or Half PCI Express Mini Card
- Compliant with CAN 2.0 A/B Specification
- Equips 2-Channel Individual CAN and J1708 Interfaces
- CANbus Baud Rate Setting: 125/250/500/800/1000Kbps
- Vehicle Communication Protocols: OBD-II, J1939 and J1708
- Built-in Programmable CAN Identifier Filtering
- Sensor Integrated: 3D Gyroscope, 3D Accelerometer
- Support Linux Socket CAN Driver
- VehicleON™ and FleetON™ SDK for Quick System Integration
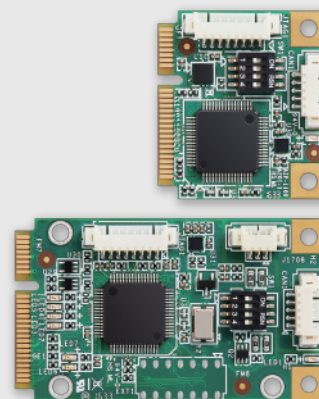
## Introduction

ANTZER TECH's FARO Series can optionally support protocols from RAW CAN 2.0 a/ b, OBDII, J1939 to J1708 . With FARO's VehicleON™ SDK, your system is allowed to get Car, Truck, Bus, Crane, Harvester & other commercial vehicle information easily.

Other powerful advantages as independent dual CANbus, Gyroscope/ Accelerometer on-board, and FleetON™ Middleware for demo cloud make FARO the ideal solution for the Fleet Management, Public Transit, Law Enforcement, Digital Signage Player, Vehicle Data Collection, Vehicle Tracking, Telematics System, and etc.

## Specifications

| | |
|---|---|
| Form Factor | Full or Half PCI Express Mini Card |
| Host Interface | Standard: USB 2.0 via PCI Express Mini Card Socket<br>Note: FARO-FS910 UART via PCI Express Mini Card Socket |
| Interface Number | CAN (ISO 11898) x 2 Individual Channels<br>J1708 x 1 (FARO-FS900/FS910 Only) |
| Sensor | 3D Gyroscope<br>3D Accelerometer |
| Protocol | OBD-II, J1939 and J1708 |
| Identifier filtering | Mask and Identifier List Mode |
| Driver Support | Microsoft Windows 7 / 8.1 / 10<br>Linux Kernel 2.6 , 3.13, and 4.4<br>Socket CAN |
| SDK Support | Microsoft Windows 7 / 8.1 / 10<br>Linux by Project |
| Operation Temp. | -40°C ~ 85°C |
| Vibration Test | Pass 7.69G@ 20~2000Hz, compliant with MIL-STD-810G category 24 |
| ESD Protection | 8kV Contact, 15kV air |
| Certificate | CE/FCC |
| Dimension<br>( L x W x H ) | Full PCI Express Mini Card: 50.9 x 30 x 6.56mm<br>Half PCI Express Mini Card: 26.8 x 30 x 6.56mm |

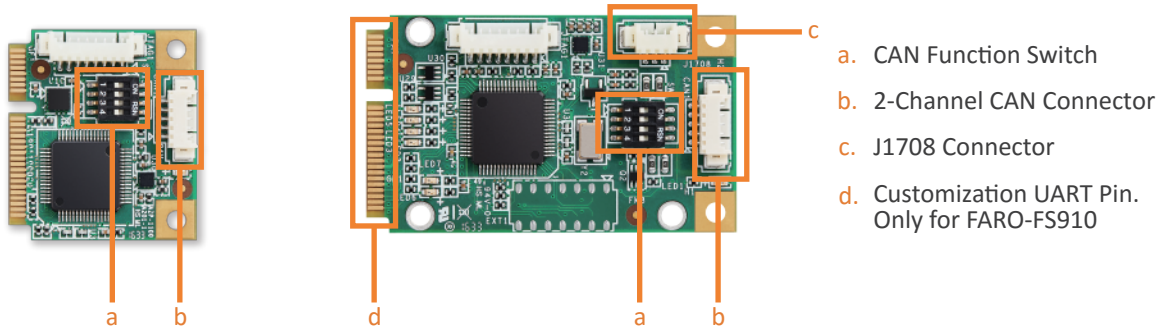\* Specifications are subject to change without prior notice.

### VehicleON™ SDK

ANTZER TECH VehicleON™ is a convenient development kit to enable the CAN, J1708 and sensors hardware functions. Furthermore, the software features, such as the higher-layer protocols and identifier filtering, are also easy and flexible to be integrated to the applications. The included sample code is helpful to speed up the project schedule.
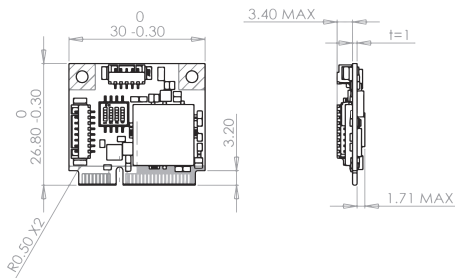
### FleetON™ SDK

FleetON™ has integrated the various well-known cloud protocols. The hard work is not required. Only a couple of commands, all of the vehicle status are reported to the telematics center.
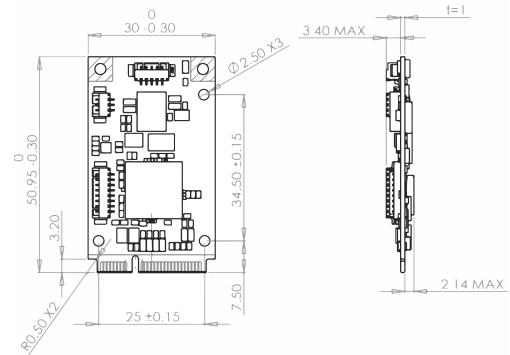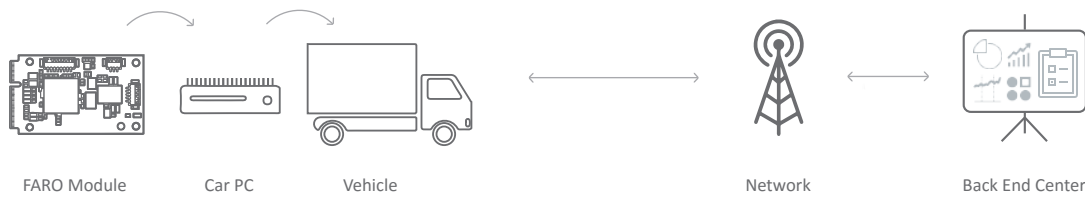
## I/O Connectors



a. CAN Function Switch

b. 2-Channel CAN Connector

c. J1708 Connector

d. Customization UART Pin. Only for FARO-FS910

## Dimensions

### FARO-HS Series



### FARO-FS Series



## Application



FARO Module → Car PC → Vehicle ↔ Network ↔ Back End Center

## Ordering Information

| Part Number | Description |
|---|---|
| FARO-HS100 | Half Mini PCIE(USB), 2 channels CAN 2.0A/B, Gyroscope, Accelerometer |
| FARO-HS300 | Half Mini PCIE(USB), 2 channels CAN 2.0A/B, OBDII, Gyroscope, Accelerometer |
| FARO-HS700 | Half Mini PCIE(USB), 2 channels CAN 2.0A/B, OBDII, J1939, Gyroscope, Accelerometer |
| FARO-FS900 | Full Mini PCIE(USB), 2 channels CAN 2.0A/B, OBDII, J1939, x1 J1708, Gyroscope, Accelerometer |
| FARO-FS910 | Full Mini PCIE(UART), 2 channels CAN 2.0A/B, OBDII, J1939, x1 J1708, Gyroscope, Accelerometer |

\* For available protocol configuration, please refer to FARO series' user manual.

| CAN Function Switch | |
|---|---|
| 1 | CAN 2 Terminal Resistor |
| 2 | NC |
| 3 | CAN 1 TX |
| 4 | CAN 1 Terminal Resistor |
| ON: Enable / OFF: Disable(Default) | |

| CAN Connector Pin Define | |
|---|---|
| 1 | CAN 1 CAN-L |
| 2 | CAN 1 CAN-H |
| 3 | GND |
| 4 | CAN 2 CAN-L |
| 5 | CAN 2 CAN-H |

| J1708 Connector Pin Define | |
|---|---|
| 1 | D- |
| 2 | GND |
| 3 | D+ |