

# GADN Series Module

## Features

- Built-in u-blox NEO-M8 GPS Module
- Optional Untethered/Automotive Dead Reckoning Technology
- Single Mini PCI Express Socket Services All Features
- 2-Channel Individual CAN and 1-Channel J1708 Interfaces
- Sensor Integrated: 3D Gyroscope, 3D Accelerometer
- VehicleON™ SDK for Quick System Integration
- Vehicle Communication: CANbus 2.0 a/b, OBD-II, J1939 and J1708



## Introduction

ANTZER TECH's GADN series integrates CAN (CANbus 2.0 a/b, OBDII, J1939, J1708), 6 axis sensors, and GPS features into one mini PCI-E combo module.

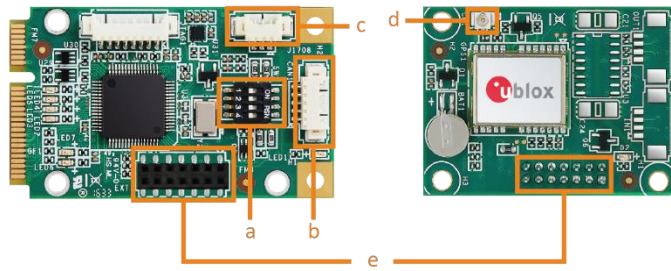
GADN series has optional configuration for UDR (Untethered Dead Reckoning) or ADR (Automotive Dead Reckoning) function that supports powerful positioning using inertial sensing data and GNSS signals (a.k.a. sensor fusion). With Dead Reckoning Function, the module could give accurate information on position even when the GPS signals are poor or obstructed such as short signal loss in tunnels, driving in indoor parking facilities, or urban canyons.

ANTZER TECH's GADN Series is the ideal solution for the Fleet Management, Public Transit, Law Enforcement, Digital Signage Player, Vehicle Data Collection, Vehicle Tracking and Telematics System.

## Specifications

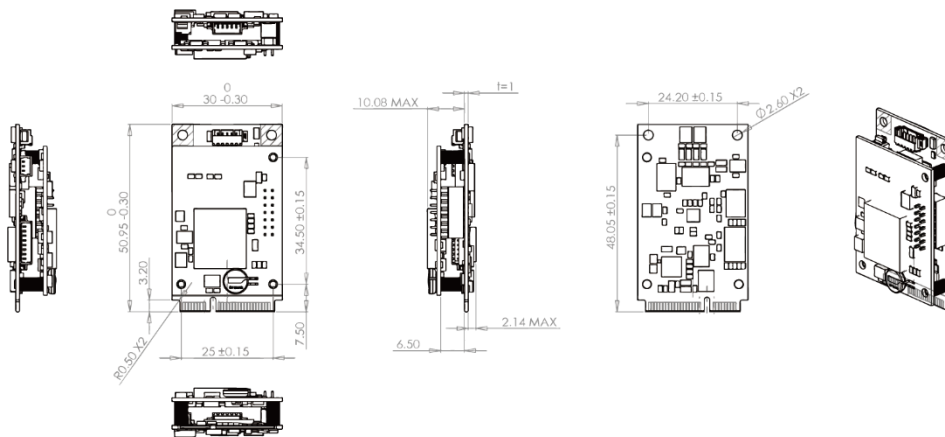
Interface	Form Factor	Full PCI Express Mini Card with Extension Board
	Host Interface	USB 2.0 via PCI Express Mini Card Socket
CAN/Sensor	Interface Number	CAN (ISO 11898) x 2 Individual Channels J1708 x 1
	Sensor	3D Gyroscope 3D Accelerometer
	CAN	CANbus 2.0 a/b, OBD-II (ISO 15765-4), J1939 and J1708
	Identifier Filtering	Mask and Identifier List Mode
GPS	GPS Module	u-blox NEO-M8N/M8U/M8L
	Receive Type	72-channel u-blox M8 engine Concurrent reception of up to 3 GNSS (GPS, GLONASS, BeiDou)
	Dead Reckoning	GADN-FxxUx for UDR, GADN-FxxLx for ADR
	Quick Hot Start	Support, Li-Coin Battery is Required
	GPS Antenna	External, IPEX connector onboard (Support both Passive and Active Antenna)
Software	Driver Support	Microsoft Windows 7 / 8 / 8.1 / 10 Linux Ubuntu 14.04 and Later SocketCAN (Source Code)
	SDK Support	Microsoft Windows 7 / 8 / 8.1 / 10 Linux Ubuntu 14.04 and Later
Environment	Operating Temp	-40°C ~ 85°C (without Li-Coin Battery) -20°C ~ 60°C (with Li-Coin Battery)
	Vibration Test	Pass 7.69G@ 20~2000Hz, compliant with MIL-STD-810G category 24
	ESD Protection	8kV Contact, 15kV air
Dimension	Certification	CE, FCC Class B
	L x W x H	50.9 x 30 x 13.2mm

## I/O Connectors



- a. CAN Function Switch
- b. 2-Channel CAN Connector
- c. J1708 Connector
- d. GPS Antenna Connector
- e. Extension Connector

## Dimensions



## Ordering Information

Part Number	Description
GADN-FS1N0	2-Ch CAN 2.0 A/B, Gyroscope, Accelerometer, u-blox NEO-M8N GPS
GADN-FS7N0	2-Ch CAN 2.0 A/B, OBDII, J1939, Gyroscope, Accelerometer, u-blox NEO-M8N GPS
GADN-FS9N0	2-Ch CAN 2.0 A/B, OBDII, J1939, 1-Ch J1708, Gyroscope, Accelerometer, u-blox NEO-M8N GPS
GADN-FS1U0	2-Ch CAN 2.0 A/B, Gyroscope, Accelerometer, u-blox NEO-M8U GPS (UDR)
GADN-FS7U0	2-Ch CAN 2.0 A/B, OBDII, J1939, Gyroscope, Accelerometer, u-blox NEO-M8U GPS (UDR)
GADN-FS9U0	2-Ch CAN 2.0 A/B, OBDII, J1939, 1-Ch J1708, Gyroscope, Accelerometer, u-blox NEO-M8U GPS (UDR)
GADN-FS1L0	2-Ch CAN 2.0 A/B, Gyroscope, Accelerometer, u-blox NEO-M8L GPS (ADR)
GADN-FS7L0	2-Ch CAN 2.0 A/B, OBDII, J1939, Gyroscope, Accelerometer, u-blox NEO-M8L GPS (ADR)
GADN-FS9L0	2-Ch CAN 2.0 A/B, OBDII, J1939, 1-Ch J1708, Gyroscope, Accelerometer, u-blox NEO-M8L GPS (ADR)

### 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.

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