

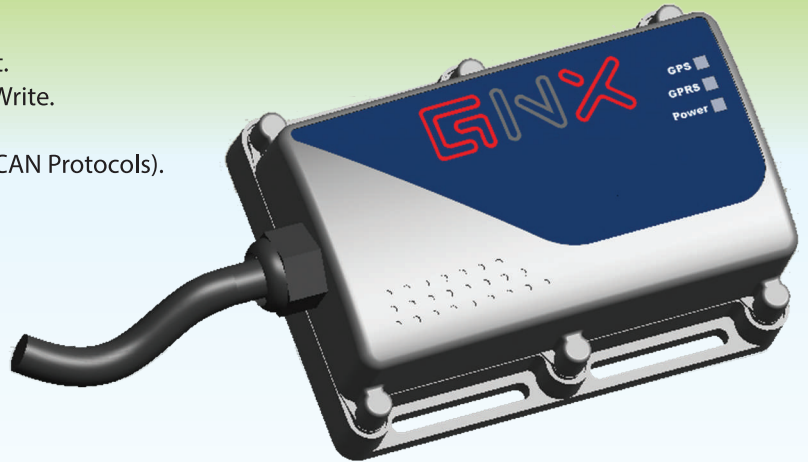


Advanced Vehicle Tracker

Tracking + RFID Reader+CAN + RS-232

Key Features:

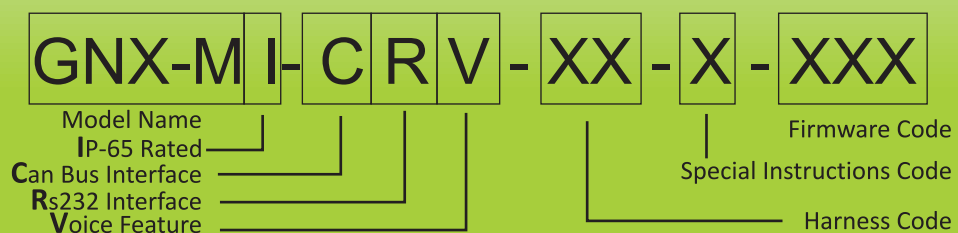
- Embedded GPS and GPRS Antenna.
- IP 65 Compliant Rugged ABS Body.
- Quad band Class 12 GPRS Modem.
- Multi-GNSS GPS and GLONASS with AGPS support.
- In-built RFID reader supports MIFARE Cards Read/Write.
- USB 2.0 Device Port.
- CAN Bus (Supports ISO15765-4, J-1939 and Open CAN Protocols).
- RS-232 Port.
- Analog Input 0-10V or 0-30V.
- 3 Digital Inputs, 2 Digital Outputs.
- Voice Support (Mic + Speaker)[#].
- 15000 logs offline storage.
- **Distance measurement from odometer sensor by setting K-Factor. GPS based distance measurement in addition.**
- **In-built application firmware to read Mi-fare cards - for student tracking in school bus applications.**
- **In-built application firmware to read Fuel sensor data over RS-232 Port.**
- **Device monitoring / configuration through USB using android based application on phone or tablet.**
- **Device dials a programmed phone number if panic button pressed.**
- **OBD-II over CAN for CARS and other vehicles. J1939 interface for Trucks and Buses.**
- **Over the air Firmware Update and Configuration Update.**
- **Geo-Fencing polygonal, 3 nos. of Geo-Zone circular inside the device.**
- **Andriod based application for device configuration and monitoring over SMS.**
- **Packet data over TCP/IP protocol. MQTT and data publish and subscribe on standard IOT platforms like IBM Bluemix and AWS IOT on request.**
- **Battery Back-up up to 6 Hrs.****



Application Areas:

- **School Bus Tracking**
- **Vehicle Health Monitoring**
- **Fuel Monitoring**
- **Fleet Management**
- **Driver Authentication**
- **Immobilizer**
- **Sensor Integration Over CAN**

Ordering Code:



- Optional. Ordering variant based feature. ** - @ GPRS data rate above 2 minutes.

Technical Specifications

MCU

Core	ARM Cortex-M4
Memory	256KB Flash, 60KB RAM

Memory for Offline Logs

Type	Data Flash
Size	2Mbyte / 15000 Logs

RFID Reader (MIFARE + NFC)

Supported Standards	ISO-14443-A (ID only) Other protocols under development
Measurement Range	45mm

Cellular

Communication	2G, GPRS
Frequency	Quadband 850/900/1800/1900 MHZ
GPRS Class	Class 12
Antenna	Internal (External optional)
SIM card	1.8/3.3V, Micro SIM
Data Support	TCP, HTTP, MQTT, SMS

GNSS

GPS+GLONASS	GPS- 1575.42MHz, GLONASS - 1601.71 MHZ.
Output format	NMEA 0183
No. of Channels	33 Tracking, 99 Acquisition
Sensitivity	Acquisition -148dBm Tracking -165dBm
Antenna	Internal (External optional)

Inputs / Outputs

Digital Inputs	3 Nos.
Voltage levels	0 to 7.2V Logic Low / OFF 7.2 to 37V Logic High / ON

Alternate Functions of Digital Inputs

Digital Input 1	Odometer Pulse
Digital Input 2	Ignition Input
Digital Input 3	Panic

Digital Outputs	2 Nos.
Current	Open Drain, 500mA max.

Analog Inputs	1 Nos.
Range	0-10V (0-30V optional)

+5V Output	300mA Fused, With MOSFET based ON/OFF
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Status LEDs	Power, Cellular, GPS
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Slide Switch	For Reset, Firmware update using USB
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USB

Type	Device, USB 2.0
Connector	Micro USB AB

RS-232

Baudrate	2400 to 115200 Configurable
Hardware Handshake	No

CAN

Speed	250 / 500 Kbps
Protocol Support	ISO 15765-4 J1939 OpenCAN

Voice / Audio

Connector	4 Pin Relimate
Speaker	1W, 4Ohm
Mic	1.5V working Voltage Load Resistance 2.2KOhm

Internal Battery

Type	Li-ion Rechargeable
Capacity	1100mAH @ 3.7V
Protection Circuit	Yes. Internal to Battery Pack.
Battery temperature monitoring using NTC	Yes.

Electrical

Input Voltage	7.2 to 40 VDC.
Power Consumption	3 Watts Maximum
Protections	Reverse Battery Transient Protection Under voltage lockout EMI/EMC Filter

Certifications

In Process...

Environmental

Operating Temperature	-40 to 85 Deg C
	Charging of Battery shall be terminated above +55 DegC

Mechanical

Dimensions	120 X 88 X 45 mm.
Material	ABS (UV stabilised + HR)
Ingress Protection	IP65
Weight	TBD

Version 1.0. Specifications are subjected to change without prior notice.

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