

### Introduction

The GPS AIS 140 - 4G device is a cutting-edge solution designed to enhance vehicle and fleet management, ensuring safety, compliance, and efficiency. This advanced device combines the power of GPS (Global Positioning System) and AIS (Automotive Industry Standards) technology with 4G connectivity to provide real-time tracking and monitoring of vehicles.

With AIS 140 compliance, this device meets regulatory standards, making it an essential tool for transportation and logistics companies, public transportation, and government authorities.

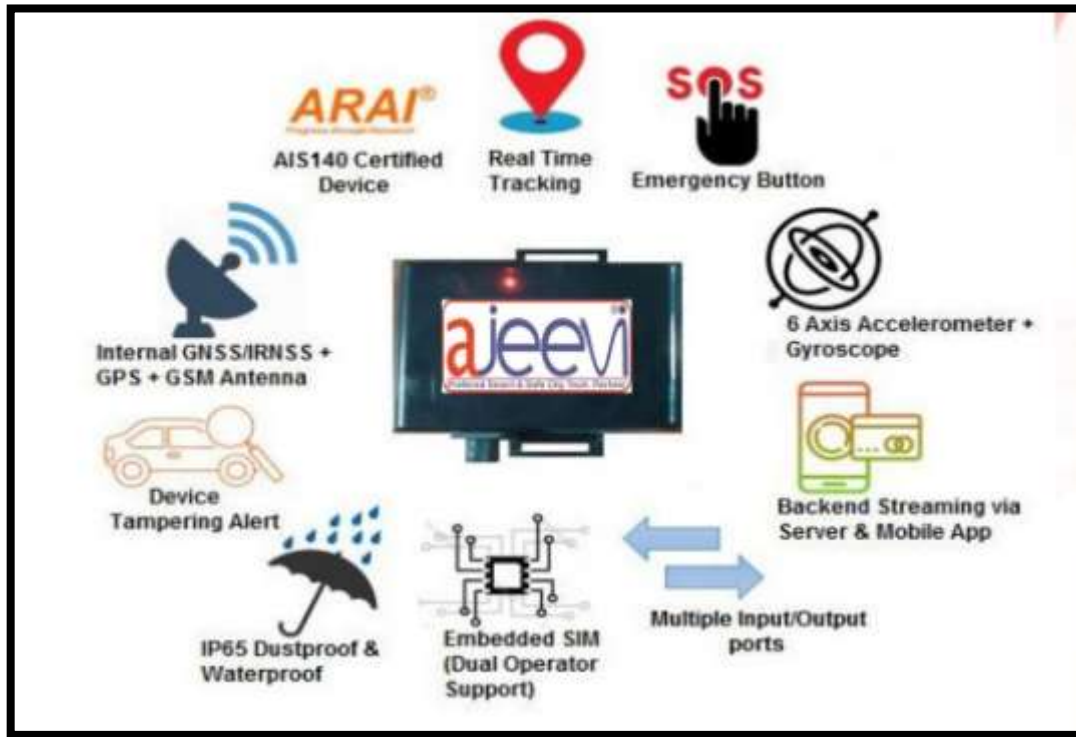
### Uses

GPS tracking devices are simple to use, and their installation is an even simpler process. Apart from opting for a wireless GPS tracker, there are ones that can be embedded into vehicle in the OBD port with a power backup, or can also be integrated with the vehicle's battery.

### Features

- Smart GPS device is fixed in vehicles for tracking live location with live speed.
- This device automatically pushes encrypted data into a secure server.
- LED indicators: - GPS, GSM & Power.
- Real-time tracking with GPS/ Glonass /IRNSS.
- Alert/regular SMS or email can be sent to Tracking collection team.
- IP65 enclosure to sustain in harsh environment.
- Vehicles geo location details can be sent to server on real-time basis.
- Device able to communicate over 2G, 3G, 4G technology.
- Emergency Button as per AIS 140
- Embedded Sim
- Driver Behaviour Monitoring
- Device Tampering Alert
- Real-time tracking with GPS/Glonass/IRNSS
- Multiple Input /output ports





**Technical Specifications:**

S. No.	Parameter	Value
<b>A</b>	<b>GSM Specification</b>	
	GSM / GPS	EC-200U Quectel 4G/3G/2G bands
	Protocols	TCP/IP
	SIM	Neon SIM Card/E-SIM
	SMS	Text SMS OTA Command Support
	FOTA	FOTA FTP support
<b>B</b>	<b>GSM Specification</b>	
	GPS Channels	33 (Tracking) / 99 (Acquisition)
	Horizontal Position Accuracy	<2.5 m CEP
	Velocity Accuracy	<0.1m/s
	Acceleration Accuracy	0.1 m/s <sup>2</sup>

	Cold Start Warm Start Hot Start	<35s <30s <1s
	Sensitivity Acquisition Tracking Reacquisition	-148dBm -165dBm -160dBm
<b>C</b>	<b>Micro Controller and IO's Specification</b>	
	Micro-controller	Nuvoton NUC131 32-bit ARM Cortex™-M0 Processor with 50MHzPLL Clock, 32KB SRAM , 64KB Code Memory
	Flash Memory	64 M-Bit for Data logging up to 50000 data packs
	Accelerometer / Gyro Meter	Yes 16G Sensitivity
	Digital Inputs	One dedicated to Ignition Input Four Other Active High Digital inputs One Rising edge detector with active low input for Emergency button
	Analog Inputs	One Frequency Input for RPM reading / Optional with digital input 4 Four 12bit ADC channels read up to 28000 mV
	Digital Output	Two Digital output active low up to 500mA
	CAN BUS OBD PORT	One CAN BUS (J1939 protocol) port/optional RS-485
	UART RS232 Port	One UART RS232 Port with configurable baud rate Use to read digital RS232 fuel Sensor data/Biometric sensor inputs/RF-ID.It can be customize as per requirement as well
	Communication Protocols Supported	https, MQTT, tcp-ip
	Tamper Switch	Yes, to detect device cover open/close
	Hardware Reset Switch	Yes
<b>D</b>	<b>Device Power Specification</b>	
	Input Power Voltage	8V to 56V
	Current Drawn by device	Max - 350mA during Charging Nominal – 80mA when internal battery is full
	Li-ion Battery	600mAH battery gives backup up to 6 hours (1000mAH optional for longer backup up to 8 hours).

Device LED Indications	
LED's	<p>RED – Blinks every 5sec When working on external voltage</p> <p>Yellow – Blinks when GPS Signals is acquired</p> <p>Blue – Blinks when device is active and ready to connect with the internet</p> <p>Green – Blinks in every 3 sec Normal working Twice blink device is sensing vibrations Fast Blinking when sending data to SERVER</p>
F	Housing Specification
Housing Type	ABS Plastic Optional Polycarbonate
Dimensions	<p>Length: 100 mm</p> <p>Width: 92 mm</p> <p>Height: 33 mm</p>
G	Certifications
Certificates	<p>ARAI Certified , CE , RoHS</p> <p>Make In India , Made In India</p>