



AD21

The AD21 OBD tracker is a real-time vehicle tracking system designed for vehicle monitoring & tracking, fleet management, Insurance Industrial and more.

IT'S RELIABLE

With super small size (could be smallest in the market), AD21 is a high-performance cellular tracking device, designed for vehicle monitoring, financing, vehicle tracking, fleet management or other application cases. With an integrated GNSS receiver, the AD21 includes LTE Cat-M1 modem, and BLE for wireless data communication. The built-in high-performance antennas for both cellular radio and GNSS receivers make installation easy. The super cap is used to improve reliability and as back-up power for short period of time.

IT'S SIMPLE

No programming skills required; the AD21 comes with easy-to-configure application software and an extended AT command set. Reports can be triggered periodically or in response to events such as motion, speeding, harsh acceleration and braking, and geo-fence violations.

IT'S FUNCTIONAL

The AD21 interface supports standard CAN Bus interface. A built-in 3-axis accelerometer enables motion detection and monitoring of driver behavior. An internal 10F super capacitor allows for continuous operation when the device is disconnected from the main power.

HIGHLIGHTS

- LTE Cat-M1 & GPRS
- Integrated cellular and GNSS antenna
- LED status indicators for GNSS and network registration
- Integrated accelerometer for monitoring vehicle status & driver behavior
- BLE 5.0 support, low power consumption
- SMS, UDP, TCP, FTP & MQTT
- Standard CAN Bus interface
- Super Capacitor for SOS reports
- Over the air configuration and firmware update
- Extended AT Command set for flexible and easy configuration
- Ultra-Small form factor with 16-pin OBD interface



Specifications:

SKUs for Features

- AD21 LTE Cat-M1
- AD21-5 LTE Cat-M1 & GPRS

CELLULAR

- LTE Cat M1 & GPRS
- LTE Bands: B2/4/5/12/13
- GSM Bands: 850/900/1800/1900
- Integrated high-performance antenna

GNSS

- GPS, GLONASS, BDS, QZSS & Galileo
- Tracking Sensitivity: -161 dBm
- Acquisition Sensitivity: -146 dBm
- Location Accuracy: <2.5 CEP

SENSORS

- Accelerometer: 3-axis

POWER INFORMATION

- Type: Super Capacitor
- Capacity: 10F @ 2.7V

**Depends on cellular signal strength and environment temperature.*

ELECTRICAL

- Operating Voltage: 8~24V
- Over voltage protected
- Over current protected with resettable fuse
- Operating Current
- ✓ GNSS Acquisition: ~48mA @ 12V
- ✓ GNSS Tracking/Reporting: ~74mA @ 12V
- ✓ Sleep Mode: < 1mA @ 12V



FCC Regulations

- This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
- This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
 - Reorient or relocate the receiving antenna.
 - Increase the separation between the equipment and receiver.
 - Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
 - Consult the dealer or an experienced radio/TV technician for help.
- Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

FCC RF Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. To comply with FCC RF Exposure

compliance requirements, this grant is applicable to only Mobile Configurations. The antennas used for the transmitter must be installed to provide a separation distance of at least 20cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.



PHYSICAL

- Dimensions: 47.5 x 45 x 25mm
- Weight: < 40g
- SIM Card Type: 4FF

ENVIRONMENTAL

- Operation Temperature: -40°C to +65°C
- Storage Temperature: -40°C to +85°C

BLE

- BLE 5.0

INTERFACE IOs

- Standard 16-Pin OBD connector

OBD PARAMETERS

- VIN (Vehicle Identification Number)
- RPM (Revolutions Per Minute)
- Speed
- Odometer
- Fuel Level
- MIL (Malfunction Indicator Lamp)
- DTC (Diagnostic Trouble Code)

APPROVALS

- FCC
- PTCRB
- Carrier (TBD)