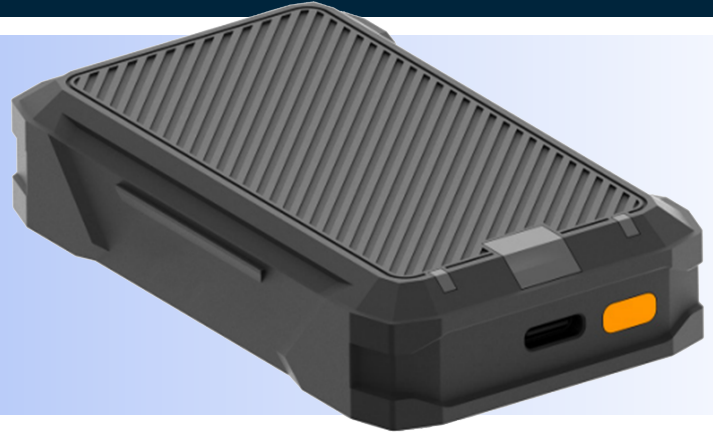


## ATD Tracker/Gateway Reference Device Architectures

Reduce IoT project costs and time to market with proven designs that are ready for final customization



ATD Series Reference Architectures are cost optimized, easy to customize or white label, and leverage the latest cellular, sensor, and battery technologies to deliver real time actionable data. They are the ideal foundations for IoT solutions tasked with tracking and monitoring the location and environmental condition of assets at scale across industries and use cases.

The **521 architecture** is ideal for dry and refrigerated supply chain workflows requiring a Bluetooth-enabled Cat M1/NB-IoT cellular IoT gateway delivering NIST traceable detail from multiple endpoints for critical use cases.

For use cases requiring a Bluetooth-enabled Cat M1 IoT gateway with extended battery, the **600 architecture** is recommended. The 600 is optimized for extended field deployment (up to 7 years). Embedded BLE technology allows for beacon scanning as well as acting like a beacon in advertise mode to conserve power during extended idle periods.

The **530 architecture** is a low-cost Cat M1 option ideal for one-way destination tracking of premium or environmentally sensitive cargo. ATD reference architectures are a smart option for businesses seeking the quickest path to market without sacrificing quality or features.

### Main Features

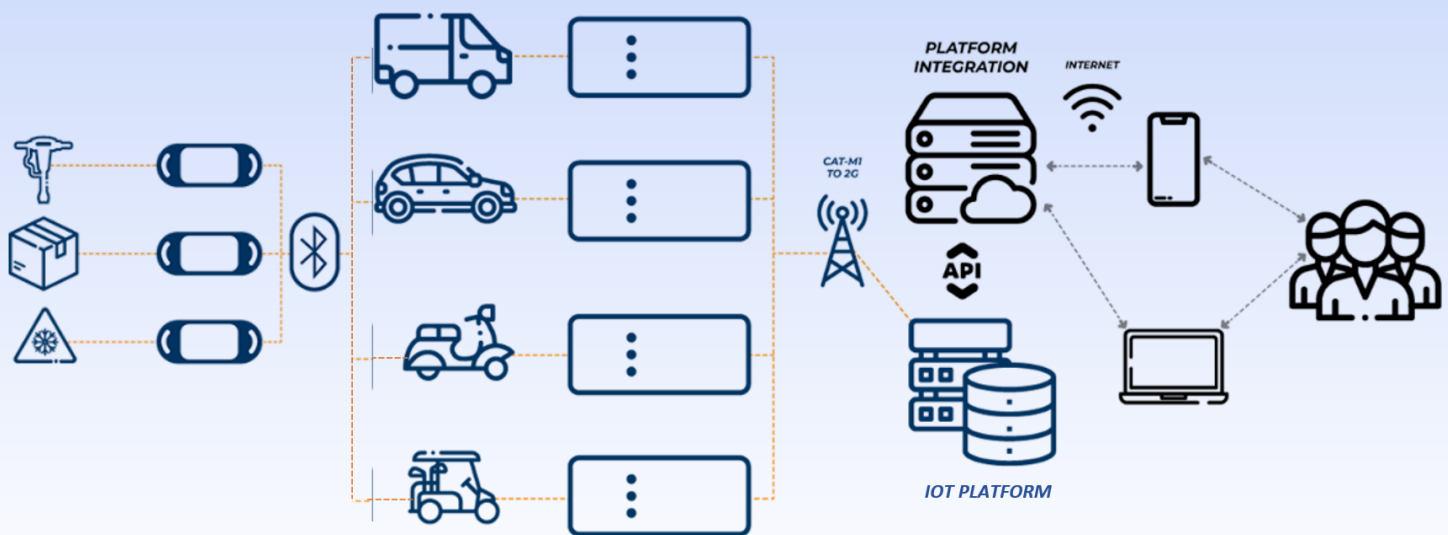
- Real-time and periodic reporting of sensor data
- Bluetooth beaconing gateway\*\*
- Stand-alone GPS
- NIST traceable temperature and humidity monitoring\*
- API setup and device management
- Over-the-air updates (FOTA)
- LooS (indoor and outdoor location services)\*
- Indoor location via BLE beacons

\*Standard in 521 and 530 Architectures

\*\*Standard in 521 and 600 Architectures

# Powered Architectures in IoT Applications

Tracking and monitoring the location and condition of non-powered assets is just as important to productivity as tracking powered assets like vehicles and machinery. Nonpowered assets include generators, tanks, pallets, packages, tools, dumpsters, shipping containers, trailers, and any other equipment that cannot run under its own power supply.



## Advantages and Considerations

- Large backup battery
- Up to years of battery life
- Runs solely off battery
- Real-time monitoring of battery life
- Once-a-day update when not moving
- 15-minute interval updated (when in motion)
- Weatherproof can survive all weather conditions
- No ping/locate-now option
- Goes to sleep when not connected/in use
- Best for assets that are not moved for 6+ months at a time

# Which Device Architecture is Right for You?



**ATD600**

Cat-M1  
Global 2G fallback

GPS, GLONASS,  
BaiDou, Galileo, QZSS

Bluetooth 5.1

Full IMU

6 axis IMU

25 Ah, field replaceable

IP67

300 x 70 x 35mm

FCC, ISED,  
ANATEL, PTCRB



**ATD500**

Cat-M1  
Global 2G fallback

GPS, GLONASS,  
WiFi Laas

Bluetooth 5.1

3-axis  
Accelerometer

6 axis IMU  
Full environment

4,000 mAh

IP54

122 x 60 x 23mm

FCC, ISED, PTCRB, RoHS 2,  
Verizon, T-Mobile,  
US Cellular



**ATD521**

Cat-M1/NB-IoT  
Global 2G fallback

GPS, GLONASS,  
WiFi Laas

Bluetooth 5.1

3-axis  
Accelerometer

6 axis IMU  
Full enviro with NIST

3,000 mAh

IP67

85 x 50 x 20mm

FCC, ISED, PTCRB,  
DO-160, NIST



**ATD530**

Cat-M1  
Global 2G fallback

GPS, GLONASS,  
WiFi Laas

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3-axis  
Accelerometer

3-axis Accelerometer  
NIST temp & humidity

2 AA, field replaceable

Polycarbonate Press Fit Tab  
Assembly

107 x 60 x 20mm

FCC, ISED, PTCRB,  
DO-160, NIST

Create Your Custom IoT Solution

[Learn More](#)