

DQ50

GPS Asset Tracker



DQ50 is a low-profile, rugged IP67 GPS device designed for tracking Vehicles, Boats, Trailers, Shipping Containers and other assets without power, where long battery life is required without sacrificing the frequency of updates and performance.



- Long battery life (up to 5 years)
- Rugged IP67 waterproof housing
- High sensitivity GPS gives fast and accurate positions
- Suitable for tracking and monitoring in extreme climates
- Tracks in hard-to-reach areas such as container stacks, 'urban canyons' or forested areas
- Easy to install

APPLICATIONS



Vehicle and fleet tracking



Non-powered asset tracking



Run hour monitoring



Trailers and mobile assets



Shipping containers and freight



Anchoring and security of assets

DQ50 GPS Asset Tracker



Technical Specification

TRACKING	
GPS and Cellular Antenna	Internal GPS and cellular antennas tuned by RF laboratories for optimal performance.
GPS/GLONASS tracking	Concurrent GPS and GLONASS tracking. uBlox EVA-M8 Module. 72 channel high sensitivity receiver. -167dBm industry leading tracking performance.
AssistNow Offline	AssistNow Offline aiding data for extremely fast time-to-first-fix and performance in urban canyon environments.
Low Noise GPS Amplifier (LNA)	GPS signals are boosted by a special low-noise amplifier (LNA). This allows operation where normal units will fail to receive GPS signal.
FIRMWARE	
OTA Configuration	DQ50 can be remotely configured and updated OTA (over the air) from Duotraq's asset monitoring platform.
Auto-APN	Auto-APN allows DQ50 to analyse the SIM card and select the correct APN details from a list that is pre-loaded in the device's firmware.
Multi-APN	DQ50 can be configured to roam across multiple networks and automatically use the different APN details for the roaming networks
Text Message Setup	DQ50 can be set up using text messages to set the APN, server and other details
Adaptive Tracking	Adaptive-Tracking uses the accelerometer and GPS data intelligently to send frequent updates when the device is moving and reduce to once per day when stationary to preserve battery life.
Recovery Mode	The DQ50 can be remotely switched into Recovery Mode which switches the device to live tracking and reporting – which means that assets can be recovered.
G-Force Events	The DQ50 can detect High G-Force events (like assets being dropped or involved in accidents) and report these to the server.
Performance Monitoring	Track how the DQ50 is using its power with intelligent performance counters. Monitor wakeups, GPS fixes, uploads and more to understand exactly what the device is doing.

MECHANICAL SPECIFICATIONS	
Low profile Housing	<p>The IP67 rated housing is made of sturdy ABS/Polycarbonate plastic to survive bumps, knocks and years of exposure to sun and weather.</p> <p>Low-profile waterproof housing screws together for easy assembly and has convenient mounting tabs, so straightforward to mount in the corrugation on containers or concealed on the underside of a trailer.</p>
Dimensions	L225 x W 65 x H 30mm
Operating Temperature	<p>-20°C to +60°C*</p> <p>*Batteries are affected by temperature extremes and typical performance is dependent on temperature</p>
POWER	
4 x C-Cell Batteries	DQ50 uses standard “C-Cell” size batteries
Alkaline Battery option	Low cost off-the-shelf alkaline batteries can be used
LTC Battery option	For applications that require extreme temperature or extra long-life Lithium-Thionyl-Chloride (LTC) batteries can be used. Ensure they will supply a high enough pulse current.
Sleep Current	<p>5µA **</p> <p>**At room temperature in the lowest power state.</p>
CONNECTIVITY	
SIM Size	Standard cellular SIM (2FF) form factor
2G Modem	<p>2G: SARA-G350-02S-01</p> <p>850/900/1800/1900 MHz</p>
OTHER	
3-axis accelerometer	<p>The 3-axis accelerometer allows DQ50 to ‘sleep’ in an ultra-low power state yet still wakeup when movement occurs.</p> <p>The accelerometer also detects extreme G-Force events such as impact from an accident or if a container is dropped.</p>
Internal Memory	Internal memory stores up to 55,000 records ensuring that data is not lost when the device is out of range. Normally data is sent to the server immediately.
Magnetic Tamper Detect	Optional magnetic wireless tamper switch detects when the device has been removed from the asset.