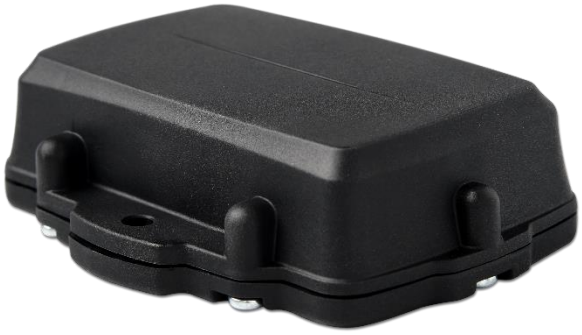
DQ53
Asset Tracker

DQ53 is a rugged waterproof, battery-powered GPS asset tracking device ideal for monitoring Vehicles, Boats, Outboard Motors, Tenders, Personal Watercraft, Trailers, containers and other assets without power where long battery life is required.

Powered by 3 x AA lithium batteries, DQ53 provides from one to four years operation depending on settings.



- Long-term battery powered monitoring (1-4 years)
- Rugged IP67 waterproof housing
- Easy to install and conceal
- High sensitivity GPS for accurate positioning
- Update settings remotely
- Tracks in hard-to-reach places such as container stacks, ‘urban canyons’ or forested areas
- Adaptive tracking adjusts the rate of updates to preserve battery life

APPLICATIONS

Vehicle and fleet tracking

Non-powered asset tracking

Equipment locate and recovery

Trailers and mobile assets

Shipping containers and freight

Anchoring and security of assets

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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	DQ53 be remotely configured and updated OTA (over the air) from Duotraq's asset monitoring platform.
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	DQ53 can be remotely switched into Recovery Mode for live tracking and reporting to recover assets that are lost or stolen.
G-Force Events	The 3D accelerometer provides an option to detect High-G events (for example if an asset is dropped or involved in accidents) and reports these to the server
MECHANICAL SPECIFICATIONS	
Compact Housing	DQ53 comes in a compact, rugged IP67 rated waterproof housing that is UV stable.
Dimensions	L 137 x W 72 x H 30mm
Operating Temperature	-20°C to +60°C* *For operation in extreme temperatures, Lithium batteries should be fitted. Batteries are affected by temperature extremes and typical performance is dependent on temperature

POWER	
Batteries	3 x AA 1.5V Lithium batteries.
Battery Life	1 - 4 years depending on settings
Max input voltage	6V Max (no reverse input protection)
Sleep current	10uA (micro amps)
CONNECTIVITY	
SIM Size	Micro (3FF) size cellular SIM card
2G or 4G	DQ53 can be manufactured for specific markets around the world.
2G Modem	2G: SARA-G350-02S-01 850/900/1800/1900 MHz
4G IoT Modem	uBlox SARA-R410M Modem operates on all major global LTE-Cat-M1 and NB-IoT bands. These new low-power networks are specifically designed for IoT applications, providing long battery life. Supported LTE bands: 1-5, 6, 8, 12, 13, 17, 19, 20, 25, 26, 28
OTHER	
3-axis accelerometer	The 3-axis accelerometer allows DQ53 to 'sleep' in an ultra-low power state yet still wakeup when movement occurs. It can also detect high-G events and after-hours activity.
Internal Memory	Internal memory stores up to 25,000 records ensuring that data is not lost when the device is out of range. Normally data is sent to the server immediately