BOLERO40 Series

**IP68-Rated and Roadworthy Micro-Tracker**

Available in 2G, LTE-M1 and 3G, the BOLERO40 series of rugged micro-trackers is especially designed to match the environmental, mechanical and electrical requirements of the vehicle tracking market.

**Trustworthy Automotive Compliant Design**

- Performance in even the harshest environments.
- V0 flame retardant
- Waterproof (immersion at 1.2 metres for 60 minutes)
- Dustproof

**"Indestructible" Power Section**

Resilient power supply offering roadworthy 10.8 VDC ~ 48.0 VDC. Ideal for electrical and recreational vehicles.

**Save Money and Ensures Highest Coverage Available with Dual Sim Function**

Hosts two Mini SIM (aka 2FF) and switches between carriers to ensure continuous nationwide/cross border coverage across two service provides effectively reducing mobile roaming charges.

**Improve Efficiency with Smart Remote Management**

PFAL monitors the vehicle environment and responds instantly to user-defined threshold conditions related to input, time, date, location, zone, motion and other event combinations.

**D2SPHERE™ Device Management Services**

D2SPHERE™ device management services let you monitor, diagnose, control and update your Lantronix mobility solutions devices. Information such as signal strength, geographic location, battery state, temperature, device firmware and software versions can be remotely monitored, stored and presented to help you maintain connectivity, manage quality of service and prevent downtime.
**HARDWARE**

**Casing**
Automotive compliant, non-flammable fibre-glass-reinforced IP66-certified casing

**Dimensions**
70 x 52.5 x 20.6 mm without connection cable

**Weight**
Approx. 118 g

**Wire harness**
1 m with a (2x4) connector at cable’s end

**Temperature**
Battery discharging temp.: -10°C ~ +60°C
Battery charging: 0°C ~ +45°C

**SDRAM**
16 Mbit

**TRACING**

**GNSS**
72-channel GNSS engine
GPS/QZSS, GLONASS, Galileo, BeiDou
SBAS: WAAS, EGNOS, MSAS

**A-GNSS**
Add-In:Now Online / offline / autonomous

**Protocols**
NMEA, FALCOM (binary)

**Accuracy**
Position: 2.5 m (GPS) / 4.0 m (GLONASS)

**Acquisition**
Cold Start: 30 s (GPS) / 33 s (GLONASS)
Tracking: 164 dBm (GPS) / -163 dBm (GLONASS)

**Sensitivity**
Cold Start: -147 dBm (GPS)/-145 dBm (GLONASS)

**Limits**
Velocity: 500 m/s (972 knots)
Altitude: 50,000 m
Update rate: 1 Hz

**POWER**

**Main source**
Roadworthy 10.8 VDC ~ 48.0 VDC

**Alternate source**
L-Ion 3.15 Wh backup battery

**Average Power Consumption (W)**
At temp. = 23°C, DC = 12 V; BOLER041: 2G (1800 MHz); BOLER045: 3G (2100 MHz)
Sleep*: 0.02 (BOLER041); 0.02 (BOLER045)
Standby*: 0.61 (BOLER041); 0.61 (BOLER045)

**MOUNTING**

**Types**
- Double-sided adhesive pad (not included)
- Cable ties (not included)

**FIRMWARE FEATURES**

- Embedded TCP/IP stack for client-server application
- Support SMS/USSD/TCP/IP/UDP/SMT/P/HTTP
- FALCOM protocols: IOP, GSM, AREA, 3DP, BIN
- 40 programmable timers, triggers, counters
- 3000 built-in geofences and 2000 waypoints (rectangular/circular)
- Support primary and backup servers
- GSM/GSM jamming detections
- Multi-power-saving modes and wake-up conditions

**INTERFACES**

**SIM Interface**
2FF SIM 1.8 V / 3.0V x 2 or factory-fitted MFF SIM x 2

**Cellular and GNSS Antennas**
Internal

**Internet**
TCP / UDP / SMTP / HTTP

**I/Os**
Two versatile, i.e., user-configurable as analogue/digital input, or digital output and ignition sensing

**Analog input**
Max, 32 VDC

**Digital output**
Open collector, 100 mA max., 32 V D C max., 0 - 32 VDC, User-programmed high and low thresholds

**1-Wire Interface**
3.3 VDC for temperature sensor or button driver ID

**Multi-Power Saving Mode**

- Accelerometer
- Built in, ± 8G triple-axis (moving, standing, harsh braking and acceleration, tilt detection)

**LEDs**
User-configurable (e.g., Cellular, GNSS, Power ... etc.)

**Cloud Services**
Embedded profile to connect to D2Sphere™ device management

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Please consult us regarding the models or features shown in grey, which are subject to MOQ and other considerations.