



New Generation Tracking Solutions



VEHICLE TRACKING SYSTEM

ELTRAC

>B



ELTRAC>B is a new generation vehicle tracking module from Electronia, built based on a powerful ARM processor core with quad-band GSM support and 16-channel GPS receiver. A rugged device with low power consumption, designed to work in demanding and harsh environmental conditions, providing highly accurate position / velocity information with time & date stamp.

ELTRAC>B can be easily mounted anywhere inside the

The module integrates a powerful quad band EGSM 900 / 1800 MHz, EGSM 850 / 1900 MHz GSM module with a 16 Channel GPS receiver. The GPS unit has a very quick cold start with low power consumption and ideally suited for battery back-up operation.

The device has internal flash memory based design, which can store thousands of full-detailed reports consisting of - position, time, date & speed.

ELTRAC is a compact unit and encased in a tamper proof metallic enclosure.

The device offers flexibility by which the system parameters such as position update interval can be modified from the remote location over the air. The automatic position update interval can be programmed as low as 15 seconds.

Additional emergency scenarios can be fully customized on the fly using application software. The device is protected against power supply surges.

ELTRAC also provides a number of new features that enable users to pinpoint location of moving objects via satellite.

The Quad-Band support provided allows vehicles, individual people, freight containers, and other important or valuable objects to be tracked using any GSM radio network in the world.

ELTRAC > B with the Quad band support and GPRS, is suitable for many tracking and online data transfer applications.



ELTRAC >B Technical Specifications

1. General

Application: Fleet Management, Vehicle Tracking, asset tracking

Mode of Communication: SMS, GPRS, SMS & GPRS

Parameter setting:

- Real-Time Tacking (Time/Distance)
- SMS, GPRS parameters
- Power Management configuration
- Time-zone (GMT) adjustment
- Password setting up
- Tracking setting up
- Timer setting up (set timer for polling)

Visual indication: Power, GPS, GPRS, ERROR LEDs



2. GPS Technology:

GPS Receiver: 16 channel, L1 1575.42 MHz
Accuracy Position: 2.5m CEP, 5.0m SEP
Tracking sensitivity: -158dBm (with active antenna)
GPS Protocol: NMEA-0183 V2.3
Datum: WGS-84

GPS Start-up Time

- Hot start: <3.5 s
- Warm start: 33 s
- Cold start: 34 s

GPS active antenna supply: 3.0 V



3. Communication

GSM: Quad-Band GSM900/1800 MHz
GPRS Data: Class 12, TCP/UDP
SMS: Text and PDU mode
Serial Port: DB9 male connector (RS232)

ELTRAC Vehicle Tracking System



4. Hardware

Processor: ARM966 core
Flash Memory: 512KB
RAM: 92 KB
EEPROM: 2K for configuration data
Battery backup: 3V, Lithium Rechargeable
LED Indication: Power/ Battery, GPS, GSM/GPRS
Flash Programming: Firmware upgradeable through serial port



5. Electrical, Mechanical and Environmental

Battery: Li-Ion Rechargeable
 5 hours back-up time

Power Supply: 9 to 32V DC

Current: 90mA (min) to 180mA @12V

Mechanical Design: Rugged Metal enclosure

Dimensions: 100 x 115 x 40 mm

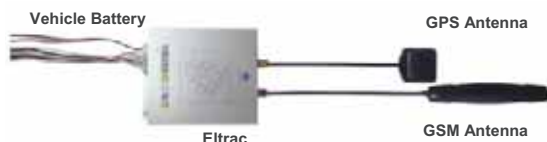
Weight: 400gm (including Battery)

Temperature range:

- Normal Operation: 0 °C to +60 °C
- Storage: -40 °C to +85 °C



Typical Installation Diagram





New Generation Container Tracking

ELTRAC >C



CONTAINER TRACKING SYSTEM

ELTRAC



Tracking Challenges

Today's shippers are looking for more than static location reporting for their mobile assets. They want to know in real-time where a container is regardless of whether it is at a port, on a train, or on the road. In addition, they want to monitor the container for security reasons. All these need to be accomplished with no power source available.

ELTRAC >C is a ruggedized container tracking system.

It works in demanding and harsh environmental conditions, providing highly accurate position & speed information with date and time stamp.

You will never have to worry about changing batteries because ELTRAC >C rugged unit utilizes a built-in solar power system.

ELTRAC >C can be easily mounted anywhere on the side or top of the container. The SIM card accessibility has been designed to prevent any kind of tampering. ELTRAC >C enable users to track all types of mobile assets without any external electric power.

The module integrates a powerful quad band EGSM 900 / 1800 MHz, GSM 850 / 1900 MHz GSM module with a 16 Channel GPS receiver. The GPS unit has a very quick cold start with low power consumption and ideally suited for solar powered devices.

The device has internal flash memory based design, which can store full-detailed reports consisting of - position, time, date & speed - ELTRAC is fully-integrated unit enclosed in a robust enclosure.

ELTRAC >C is a ruggedized container tracking system.

It can be used for many tracking and online data transfer applications.

Additional emergency scenarios can be fully customized on the fly using application software.

ELTRAC >C integrate GSM and GPS features in an absolutely logical manner, not just combine them. ELTRAC >C provides a superb set of GPS features that enable users to pinpoint location of moving objects.

The Quad-Band support provided allows vehicles or valuable objects to be tracked using any GSM radio network in the world.

ELTRAC >C is suitable for many tracking and online data transfer applications.

ELTRAC >C Technical Specifications

1. General

- Application:** Container tracking, Fleet Management, asset tracking
- Mode of Communication:** SMS, GPRS, SMS & GPRS
- Parameter setting:**
- Real-Time Tracking (Time/Distance)
 - SMS, GPRS parameters
 - Power Management configuration
 - Time-zone (GMT) adjustment
 - Password setting up
 - Tracking setting up
 - Rugged outdoor enclosure rating IP 65 (NEMA 4)
- Packaging:**

2. GPS Technology:

- GPS Receiver:** 16 channel, L1 1575.42 MHz
- Accuracy Position:** 2.5m CEP, 5.0m SEP
- Tracking sensitivity:** -158dBm (with active antenna)
- GPS Protocol:** NMEA-0183 V2.3
- Datum:** WGS-84

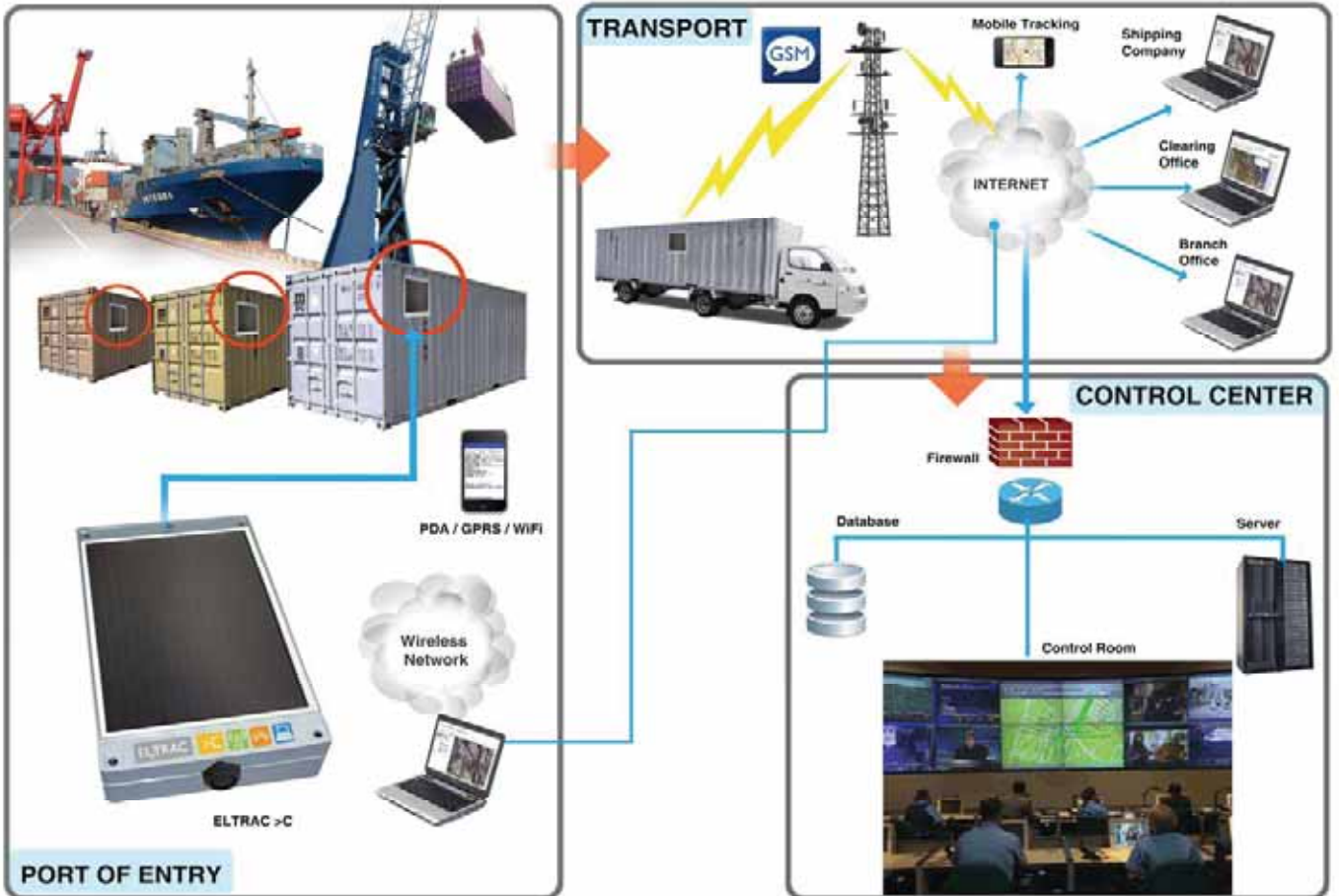
GPS Start-up Time

- Hot start: <3.5 s
- Warm start: 33 s
- Cold start: 34 s

GPS active antenna supply: 3.0 V

3. Communication

- GSM:** Quad-Band GSM900/1800 MHz
- GPRS Data:** Class 12, TCP/UDP
- SMS:** Text and PDU mode





New Generation Marine Tracking



MARINE TRACKING SYSTEM

ELTRAC

>BM



ELTRAC>BM is a new generation vessel tracking module from Electronia for different vessels such as boats and ships, built based on a powerful ARM processor core with quad-band GSM support and 16-channel GPS receiver. A rugged device with low power consumption, designed to work in demanding and harsh environmental conditions, providing highly accurate position / velocity information with time & date stamp.

The device has internal flash memory based design, which can store thousands of full-detailed reports consisting of position, time, date & speed.

ELTRAC is a compact unit and encased in a IP66/EN 60529 rated enclosure which is water and dust proof.

The module integrates a powerful quad band EGSM 900 / 1800 MHz, EGSM 850 / 1900 MHz GSM module with a 16 Channel GPS receiver. The GPS unit has a very quick cold start with low power consumption and ideally suited for battery back-up operation.

The device has internal flash memory based design, which can store thousands of full-detailed reports consisting of position, time, date & speed.

ELTRAC is a compact unit and encased in a IP66/EN 60529 rated enclosure which is water and dust proof.

The device offers flexibility by which the system parameters such as position update interval can be modified from the remote location over the air. The automatic position update interval can be programmed as low as 15 seconds.

Additional emergency scenarios can be fully customized on the fly using application software. The device is protected against power supply surges.

The device has internal flash memory based design, which can store thousands of full-detailed reports consisting of position, time, date & speed.

ELTRAC>BM provides a superior set of tracking services that enable users to pinpoint location of moving objects via satellite.

The Quad-Band support provided allows vehicles, individual people, freight containers, and other important or valuable objects to be tracked using any GSM radio network in the world.

ELTRAC > BM with the Quad band support and GPRS, is suitable for many tracking and online data transfer applications.

ELTRAC >BM Technical Specifications

1. General

Application: Vessel Tracking, Fleet Tracking, asset tracking

Mode of Communication: SMS, GPRS, SMS & GPRS

Parameter setting:

- Real-Time Tacking (Time/Distance)
- SMS, GPRS parameters
- Power Management configuration.
- Time-zone (GMT) adjustment.
- Password setting up
- Tracking setting up
- Timer setting up (set timer for polling)

Visual indication: Power, GPS, GPRS, ERROR LEDs

2. GPS Technology:

GPS Receiver: 16 channel, L1 1575.42 MHz
Accuracy Position: 2.5m CEP, 5.0m SEP
Tracking sensitivity: -158dBm (with active antenna)
GPS Protocol: NMEA-0183 V2.3
Datum: WGS-84

GPS Start-up Time
 Hot start: <3.5 s
 Warm start: 33 s
 Cold start: 34 s

GPS active antenna supply: 3.0 V

3. Communication

GSM: Quad-Band GSM900/1800 MHz,
GPRS Data: Class 12, TCP/JDP,
SMS: Text and PDU mode,
Serial Port: DB9 male connector (RS232)

4. Hardware

Processor ARM968 core
Flash Memory 512KB
RAM 92 KB
EEPROM 2K for configuration data
Battery backup 3V, Lithium Rechargeable
LED Indication Power/ Battery, GPS, GSM/GPR
Flash Programming Firmware upgradeable through serial port

5. Electrical, Mechanical and Environmental

Battery: Li-Ion Rechargeable
 5 hours back-up time
Power Supply: 9 to 32V DC
Current: 90mA (min) to 180mA@12V
Mechanical Design: Rugged Metal enclosure
Dimensions: 100 x 115 x 40 mm
Weight: 400gm (including Battery)
Temperature range:
 Normal Operation: 0 °C to +60 °C
 Storage: -40 °C to +85 °C

6. Enclosure

Material Standard: ABS -40°C up to +80°C halogen free
 On Request: Polycarbonate -50°C up to +120°C halogen free
Ingress protection IP 65 / EN 60529
Surface resistance ABS 4 x 10¹⁴ Ohm
 Polycarbonate 10¹⁵ Ohm
Combustion behavior HB – UL 94
Insulation Fully insulated VDE 0100
Gasket Designed gasket, made of silicon (-40°C up to +120°C)



ELTRAC Vehicle Tracking System

