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 vehicle. The SIM card accessibility has been designed to prevent any kind of tampering. ELTRAC>B enable users to track all types of mobile assets.

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>B integrate GSM and GPS features in an absolutely logical manner, not just combine them. ELTRAC>B provides a superb set of GPS 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 Tracking (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)

4. Hardware

Processor: ARM9 core
Flash Memory: 512KB
RAM: 92 KB
EEPROM: 2K for configuration data
Battery backup: 3V, Lithium Rechargeable
LED Indication: Power, Battery, GPS, 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
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.

Electronia solution ELTRAC >C is a new generation container 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 / 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 all the data generated by the ELTRAC >C. It is fully integrated and enclosed in a robust 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 for 10 minutes.

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 and not 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
- End-user (GPS) equipment
- Password setting up
- Tracking setting up

Packaging:
- Rugged outdoor enclosure rating IP 65 (NEMA 4)

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
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.

ELTRAC>BM can be easily mounted anywhere inside the vessel. The SIM card accessibility has been designed to prevent any kind of tampering. ELTRAC>BM enables users to track all types of mobile assets.

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.

ELTRAC>BM integrates GSM and GPS features in an absolutely logical manner, not just combine them. ELTRAC>BM provides a superb set of GPS 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 > 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 Tracking (Time/Distance)
- SMS, GPRS parameters
- Power Management configuration
- Latitude/Longitude 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: 32 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)

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, GPRS

Flash Programming: Firmware upgradable through serial port

5. Electrical, Mechanical and Environmental

Battery: Li-Ion Rechargeable

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 -20°C up to +120°C halogen free

Ingress protection: IP 66 / EN 60529

Surface resistance:
- ABS 4 x 10¹⁴ Ohm
- Polycarbonate 10¹⁸ Ohm

Combustion behavior: HB – UL 94

Insulation: Fully Insulated VDE 0105

Gasket: Designed gasket, made of silicon

(-40°C up to +125°C)