## GPRS • GPS • CAN

# Greenwich Telematic Device

## For Professional Telematic Applications

**Greenwich is a new product family based on state of the art GSM and GPS technology. Several products with different configurations provide best flexibility for many use cases.**

**A highly reliable M2M SIM-card with private APN and fixed IP address can be offered on request, which can improve security and quality of a network connection significantly.**

*Three different variants of Greenwich are available:*

- **Greenwich JAVA:** GSM/GPRS/GPS with embedded JAVA platform. A rechargeable Li-Ion battery gives autonomy for stand alone applications or antitheft purpose. A complete set of digital and analogue inputs allows to collect data from the vehicle and use them for telemetry solutions. A full programmable 3D accelerometer can be used as movement sensor or crash detector. Thanks to the embedded JAVA machine the device can be easily programmed to be adapted to the customer service application.

- **Greenwich ADVANCED:** Greenwich Advanced adds a CAN bus port and more IOs to the JAVA verion. Thanks to the CAN bus a complete telemetry solution can be developed: fuel level, vehicle speed, door opened and many other parameters can be monitored. The FMS standard protocol is also available as JAVA library. A second serial line allows the connection of other options like driver identification, temperature control, RFID and barcode readers. The Advanced RC option complete the product family integrating Remote Control capabilities for use as antitheft solution or work phase marker.

- **Greenwich RM** is the rugged IP65 version of Greenwich JAVA for outdoor installation. A higher capacity Li-Ion battery gives autonomy for months for installation with intermittent power supply. The Box can be easily fitted to the vehicle thanks to internal well protected screws.

**M2M SIM card with private APN and fixed IP address on request**

TYPICAL

APPLICATIONS

- Tracking (container, fleets)
- Logistics and service
- Antitheft
- Renting
- Public transport
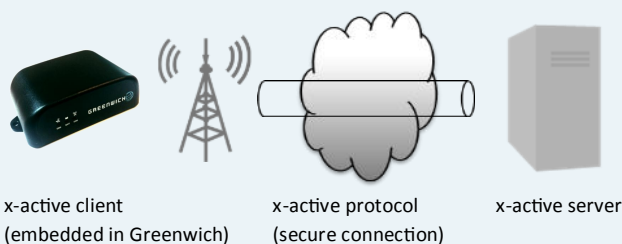- Earthworks machines
- Security
- Work force management

## Easy integration with x-active

Thanks to the embedded Java platform, Greenwich can easily be integrated to the M2M Simplexx communication platform x-active. A x-active software client on Greenwich handles the communication with the x-active server. The x-active software on the server forward all relevant data to a customer application via standard interfaces. As a horizontal platform, x-active is independent of the application. It can be any from third parties or it can be traxactive, which is M2M Simplexx' traking portal.
Find more about x-active: www.m2msimplexx.de and
Traxactive: www.traxactive.de

## Accessories


Greenwich JAVA SDK


Driver ID key-pad


Indoor and outdoor antennas

x-active client
(embedded in Greenwich)

x-active protocol
(secure connection)

x-active server

trax|active
WEBPORTAL

traxactive portal
(or any other application)

## Technical Specification Greenwich

**GSM/GPRS module**

- LGA 119 pads mounting technology
- GPRS Class 12 for both 86 kbps in uplink and downlink
- Quad-Band (850/9000/1800/1900 MHz)
- Java IMP-NG Virtual Machine open platform
- USB, I2C, SPI, two serial interfaces
- Extended temperature range: -40°C to +85°C
- Radio Link Stability (RLS) monitoring (e.g. jamming detection)

**GPS receiver**

- 50 Channels, GPS L1 frequency, C/A Code
- SBAS: WAAS, EGNOS, MSAS, GAGAN
- Time-to-first-fix
    Cold Start (Autonomous)   32s
    Warm Start (Autonomous) 32s
    Hot Start (Autonomous)    <1 s
- Aided Start <1 s, Sensitivity -160dBm
- Horizontal accuracy 2.5 m, Max navigation update rate 5 Hz

**Accelerometer 3D**

- 3-Axes accelerometer, ±2g, ±4g, ±8g, ±16g ranges
- High sensitivity for motion detect
- Measures also high intensity decelerations (crashes)
- Ultra low power mode for energy saving
- 2 programmable interrupts

**CAN bus**

- Greenwich includes a read only CAN bus port
- transceiver NXP TJA1040 with CAN h, CAN l e Ground (3 lines)
- port supports 11 bit and extended 29 bit protocol
- Baud rate range from 50 kbps to 1000 kbps
- CAN bus data are available at JAVA application through a dedicated library
- Raw data acquisition and FMS protocol can be configured

**Electrical characteristics**

- Power supply 8-32 VDC
- Li-Ion rechargeable battery 1200 mAh
- Typical current @12VDC: 50 mA
- Low power @4.2VDC: < 300 µA (Java); < 1 mA  (Advanced)

**2 Molex Microfit connectors**

- 4 digital inputs, 3 Open Collector outputs
- 2 12-bit analogue input, Ignition input
- 2 serial lines RS232 (3 cables), CAN bus, Audio (low level)

**Antenna connector:** 2 x Fakra

**Dimension:** 70 * 110 * 35 mm

**Homologations**

- CE 2006/95/CE R&TTE
- e 2004/104/CE