



Discover new  
tracking solutions

Wireless  
Modules



Be inspired

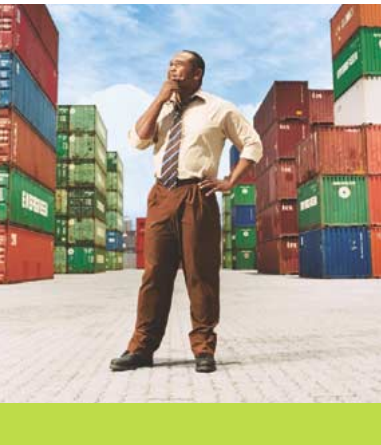
**SIEMENS**  
mobile

**XT55**  
with GSM/GPRS & GPS  
preliminary

[www.siemens-mobile.com/wm](http://www.siemens-mobile.com/wm)

# Track anything at any time, anywhere

With its new XT55 module, Siemens mobile has introduced the first Tri-Band GSM/GPRS-enabled module on the market that is also equipped with GPS technology for satellite navigation. The combination of both technologies allows goods, vehicles and people to be tracked seamlessly – at any location and any time.



## Where you can profit from XT55

The market for tracking systems will be growing sharply in the coming years. There is a demand for systems that can be used globally, that save space, can be integrated unobtrusively and are absolutely reliable round the clock.

There are a number of different areas where tracking devices can be used:

- Rescue services (e. g. ambulance services, police)
- Emergency services (car security, people tracking)
- Transport and logistics services (fleet management, asset tracking)

## The new XT55 by Siemens mobile meets every requirement:

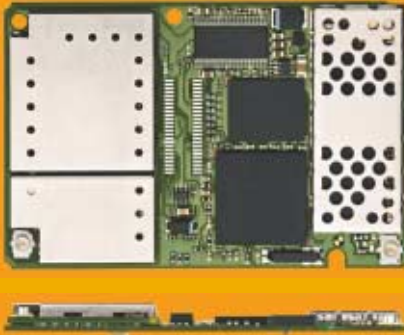
- Small and ultra-compact (combining GSM/GPRS & GPS on a single board)
- Tri-Band technology for global deployment (900/1800 and 1900 MHz)
- High-speed (GPRS class 10 for quick data transmission allows for extremely quick and precise localization)
- Economical (ultra-low power consumption)
- All on-board (high-performance hardware, optimized software, extended storage space), that means rapid implementation into existing applications
- Fast integration in existing solutions

## The support of a market leader

We have acquired profound knowledge of the market and can tailor our service to your exact needs. Choosing Siemens mobile means complete, professional and individual support right from the start.

**Choose the Siemens Tri-Band module XT55 with the world's unique combination of GSM/GPRS & GPS for optimal tracking functions. You will sharply increase your competitiveness.**

# A small module with a great advantage: XT55 with GPS



Original size

The compact design of the new XT55 makes it easy to integrate GSM/GPRS & GPS as an all-in-one solution. You will save significantly both time and cost for the integration of additional hardware components. The result: your new logistics and car security application will attain very fast time to market! For the XT55, we have designed a special Evaluation Kit providing different default settings and/or protocols that facilitate integration of the XT55 considerably.

**Decide for the future with the new XT55 – the first integrated GSM/GPRS/GPS Tri-Band module for tracking applications!**

## Wireless Modules – benefits and hard facts

### General features:

- Overall dimensions:  
35 x 53 x 5.1 mm
- Weight: approx. 11 g

### GSM/GPRS specifications:

#### General features:

- Tri-Band 900/1800/1900
- GPRS multi-slot class 10
- GPRS mobile station class B
- Compliant to GSM phase 2/2+
- Output power:  
2 W for EGSM900  
1 W for GSM1800  
1 W for GSM1900
- Control via AT commands (GSM 07.07 and 07.05)
- SIM application tool kit WAP compliant
- Low power consumption
- Supply voltage range 3.3...4.8 V
- Ambient temperature -20°C to +55°C
- Auto switch-off at +70°C

### Specifications for SMS via GSM and GPRS:

- Point to point MO and MT
- SMS cell broadcast
- Text and PDU mode

### Specifications for audio:

- Tricodex:
  - Half rate (HR)
  - Full rate (FR)
  - Enhanced full rate (EFR)
- Adaptive multi rate (AMR)
- Hands-free operation

### Specifications for fax:

- Group 3, class 2

### Specifications for data transfer:

- GPRS class 10
- Max. 85.6 kbps (downlink)
- PBCCH support
- Coding schemes CS 1, 2, 3, 4
- CSD up to 14.4 kbps
- USSD
- V.110
- PPP-stack
- Integrated TCP/IP stack

### Interfaces:

- 80-pin board-to-board
- Multiplexer
- Interface to external SIM
- Digital and analog audio interface
- AT commands via serial interface
- Serial interfaces
  - 1 x GSM
  - 2 x GPS
- 2 separate antenna connectors for GSM/GPRS & GPS (Hirose)

### Compatibility:

- AT cellular command interface

### Specifications for GPS:

- Receiver 12 channel, L1 1575.42 MHz, C/A code 1,023 MHz chip rate
- Accuracy Position 10 m CEP w/o SA/Velocity 0.1 m/s, w/o SA/Time 1  $\mu$ s synchronized to GPS time
- DGPS accuracy 1 to 5 m, typical, 0.05 m/s, typical
- Date WGS-84
- Acquisition rate (TTFF defined at 95% of first position localisation)  
Snap start <3 s, average  
Hot start <8 s, average  
Warm start <38 s, average  
Cold start <48 s, average
- Operating voltage 3.3 V DC  $\pm$ 5%
- Low power consumption ca. 200 mW at 3.3 V
- Protocols  
NMEA-0183,  
RTCM SC-104,  
SiRF binary
- Crystal oscillator (TCXO), temperature compensated with frequency stability of  $\pm$ 2.5 ppm
- Memory 1 MB flash

### Software

- Indoor tracking with less SNR
- AGPS with Wheelticks and Gyro
- Build-in history- and alarm function
- Remote tracking

# Get more information

This brochure provides an overview of the products and services of Wireless Modules. For further information and queries kindly contact:

Siemens AG  
Information and Communication Mobile  
Wireless Modules  
Haidenauplatz 1  
81667 Munich, Germany

Phone: +49 (0) 89-722-4 06 52

Fax: +49 (0) 89-722-2 96 74

E-Mail: [wireless.modules@siemens.com](mailto:wireless.modules@siemens.com)

Detailed and updated information on our products and services is also accessible at our website:  
[www.siemens-mobile.com/wm](http://www.siemens-mobile.com/wm)

Copyright 2004, Siemens AG  
Information and Communication  
Mobile  
Wireless Modules  
Haidenauplatz 1  
81667 Munich, Germany

Subject to changes in  
technology, design and  
availability  
Order No.:  
A31001-W25-A300-X-7600  
Printed in Germany