

**SIEMENS**  
**m**obile



# Overtake the competition

Wireless  
Modules



Be inspired

Accelerate your automotive business with GPRS and reach top speed on the data highway. The AC45 GPRS module, developed especially for the automotive industry, integrates ultra-fast GPRS technology in your applications. Thanks to its innovative mounting and connecting concept, this robust super-slim module can be quickly and conveniently integrated everywhere. The target applications are:

- Radiophones and Internet radios
- Navigation systems
- Emergency call systems

The AC45 provides unlimited opportunities – and it puts every vehicle at the peak of communication technology: via hands-free phoning with outstanding sound quality, vehicle workstations featuring permanent access to Internet or Intranet, fax, fleet management, automatic SOS emergency call, diagnostic functions, dynamic navigation, local information services, on-board games and MP3 downloads.

# AC45

pre-release

For contact and more information please visit  
[www.siemens.com/wm](http://www.siemens.com/wm)

# The new GPRS module especially designed for automotive applications

Optimized for automotive applications the Cellular Engine AC45 provides high-speed data transfer according to GPRS class 8. Temperature monitoring and diagnostic functions (antenna) are possible. The AC45 provides hands-free operations and can be used in enhanced operating temperature ranges. The robust design and the innovative mounting and connecting concept meet automotive requirements. Full type approval according to R&TTE with reference equipment, GCF and automotive E-Mark are a matter of course. Our Application Engineering service is available to you worldwide to support you with integration into your specific solution.



## Wireless Modules Benefits and hard facts

Original size

### General features:

- Dual-Band EGSM900 and GSM1800
- GPRS multi-slot class 8
- GPRS mobile station class B
- Compliant to GSM phase 2/2 +
- Output power:
  - Power class 4 (2 W) for EGSM900
  - Power class 1 (1 W) for GSM1800
- Control via AT commands
- SIM application tool kit
- Multiplexed asynchronous serial interface with 3 virtual serial channels
- Power supply (separate supply of BB and RF recommended):
  - Base-band 3.5 V
  - RF-PA 4.2 V
  - Single supply voltage 4.2 V possible
- Power consumption (typical):
- Power down 50  $\mu$ A
  - Sleep mode (registered, DRX = 6): 3,5 mA
  - Idle mode (registered, DXR = 2): 25 mA
  - Speech mode: 300 mA (average)
  - GPRS class 8: <360 mA
- Peak (GSM or GPRS): <2.0 A
- Weight/Dimensions:  
11 g/65 x 36 x 4.3 mm

- Ambient temperature:  
–29°C ... +75°C
- Temperature warning: >65°C
- High temperature protective shutdown: >75°C and <–29°C
- Measurements of module temperature possible
- Emergency shutdown

### Specifications for fax:

- Group 3: class 1, class 2

### Specifications for data transfer:

- GPRS: max. 85.6 kbps (downlink)
- PBCCH support
- CSD up to 14.4 kbps
- USSD
- Non transparent mode
- V.110
- Coding scheme CS 1, 2, 3, 4
- PPP-stack

### Specifications for SMS via GSM and GPRS:

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

### Specifications for audio:

- Half rate (HR)
- Full rate (FR)
- Enhanced full rate (EFR)
- Enhanced hands-free operation:
  - Echo cancellation
  - Noise reduction

### Interfaces:

- 40 pin board-to-board connector:
  - Power supply
  - External SIM 3 V
  - RS232 bi-directional
  - Autobauding and fixed bauding up to 230.4 kbaud
  - 2 analog audio interfaces
- 50  $\Omega$  antenna connector (meets automotive requirements)

### Compatibility:

- AT cellular command interface

More about Wireless Modules at:  
[www.siemens.com/wm](http://www.siemens.com/wm)

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Subject to changes in technology,  
design and availability

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