

# Wireless Module AC45 Robust connectivity for intelligent vehicles

The AC45 is resistant to high temperatures, offers SIM Access Profile (SAP), and it has been produced to be in line with the TS16949 automotive quality standard, which is recognized throughout the world. These factors make it predestined for use in all kinds of vehicles, in fact anywhere where high demands are made.

Being equipped with GPRS class 10 technology, the module is capable of transferring data to and from the vehicle at high speed. The AC45 is also the very first wireless module to feature SIM Access Profile technology, which makes it possible to access information on the SIM card of a cell phone via Bluetooth. Moreover, the module will operate smoothly even at a high temperature – an indispensable characteristic for an automotive system.

High reliability, SAP, resistance to high temperatures, and very easy integration all make the AC45 extremely well-suited for implementation in vehicles – in emergency call devices, radio phones, tracking, navigation, and fleet-management systems.

Besides full type approval (FTA), the AC45 comes with e-mark approval in line with European vehicle electronics legislation, so you've got all the certification you'll need along with the module.



**DUAL-BAND** 



**GPRS CLASS 10** 



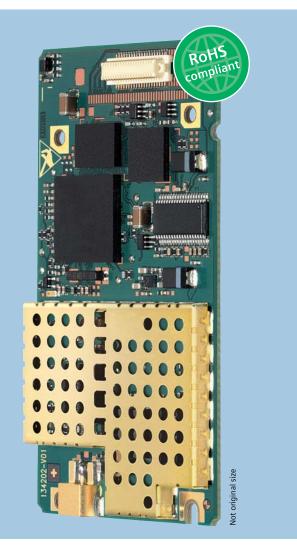
SIM ACCESS PROFILE



EXTENDED TEMPERATURE RANGE



**FAX FUNCTIONALITY** 





# Wireless Module AC45

Robust connectivity for intelligent vehicles

#### **General features:**

- Dual-Band GSM 900/1800 MHz
- GPRS multi-slot class 10
- Compliant to GSM phase 2/2 +
- Output power:
  - Class 4 (2 W) for EGSM900
  - Class 1 (1 W) for GSM1800
- Control via AT commands
- SIM Application Toolkit
- Power supply:
  - Base-band 3.3V
  - RF-PA 4.2 V
- Single supply voltage 4.2 V possible
- Power consumption:
  - Power down 50 µA
  - Sleep mode (registered,DRX = 6)
    3,0 mA
  - Speech mode (average) 225 mA
  - GPRS class 10 (average) 410 mA
- Temperature range
  - Operation: -30°C to +80°C
- Switch off: +85°C
- Storage: -40°C to +85°C
- Dimensions: 36 x 65 x 4.3 mm
- Weight: 11 g

# Specification for GPRS data transmission:

- GPRS class 10: max. 86 kbps (DL)
- Mobile station class B
- PBCCH support
- Coding schemes CS 1-4

#### Specification for CSD data transmission:

- Up to 14.4 kbps
- V.110
- Non-transparent mode
- USSD support

### Specification for SMS:

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

# Specification for fax:

• Group 3, class 1, 2

### Specification for voice:

- Triple-rate codec for HR, FR and EFR
- Enhanced hands-free operation
- Echo cancellation
- Noise reduction

#### Special automotive features:

- SIM Access Profile integrated
- Extended temperature range
- Measurement of module temperature
- Antenna diagnostic
- Emergency call even at high temperature
- IMDS listed
- GASDL compliant
- · ISO/TS16949 manufacturing

# Interfaces:

- Rosenberger SMP 50 Ω antenna connector (meets automotive requirements)
- Hirose 40-pin board-to-board connector
  - Power supply
  - Audio: 2 x analog
  - SIM card interface 3 V
  - Serial interface (ITU-T V.24 protocol)

# Approvals:

- R&TTE, GCF, e-mark, CE
- Local approvals and network operator certifications

More about Siemens Wireless Modules at: www.siemens.com/wm

# Global thinking, local understanding



U.K.←Football →USA

# Here, there and everywhere

Global but local - Siemens lives up to this motto! Not only are we present locally but we are also able to open up amazing global business perspectives for you! Find the details of your local Siemens contact partner here: www.siemens.com/wm-contact

#### **Technical Support**

Our application engineers support you from the design-in phase over the integration of the module into the application to the certification process.

# We protect your business

Profit from our strong Intellectual Property Rights position (IPR) – guarded by our legal professionalism you secure the fruits of your business effort.

Our technology portfolio covers → +++ Java<sup>™</sup> Open Platform +++ EDGE +++ GPS +++ HSDPA +++