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TRC-3 AP

Approved Technology for the  
GSM-Rail System

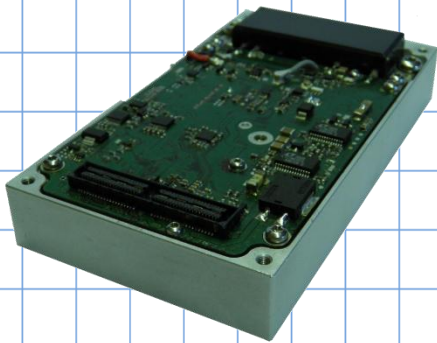
Datasheet

# TRC-3 AP

The TRC-3 AP is a high performance module for GSM-R networks. Due to long standing product experience and innovative technologies this professional device is a module for all kind of embedded CAB Radio and ETCS applications.

## Technical Data

- Dimensions 125 x 70 x 25 mm (L x W x H)
- Weight 350g
- Power consumption 800mA max. (without Peltier element)  
3.5 A (peak)
- Supply voltage 14-50 volt DC
- Temperature range -25°C to +85°C



## System / Standards

- Quad-band GSM-R / EGSM 900 / GSM 1800 / GSM 1900
- GSM Phase 2 / Phase 2+
- GPRS multi-slot class 10
- Mobile station class B
- Output power
  - 900 MHz 8 watt
  - 1800 MHz 1 watt
  - 1900 MHz 1 watt
- Control with AT commands via UART or USB interface (virtual COM-Port)

## Specifications for Voice

- Trippel-rate codec for HR, FR, EFR
- Adaptive multi-rate (AMR) for non ASCII applications supported
- Hands-free operation (with operational accessories)
- Noise reduction (with optional accessories)

## Data Services

- GPRS class 10
- PBCCH (Packet Broadcast Control Channel) support
- CSD data transmission
  - Up to 14.4 kbps
  - Non transparent mode
  - Transparent mode
- PPP stack for GPRS data transfer
- Fax group 3, class 2
- TCP/IP stack access via AT command protocols: TCP, UDP, HTTP, FTP, SMTP, POP3

## Interfaces

- Samtec QSE-040-01-L-D-A (80 pins) for
  - Power-supply
  - USB
    - 2x serial via USB
    - Digital audio via USB
  - UART (3.3V)
  - RS232
- AT commands via RS232 or USB interface
- Antenna connector (U.FL) 50 ohm
- Miniature SIM card holder

## ASCII Features

- VGCS (Voice Group Call Service)
- VBS (Voice Broadcast Service)
- UUS1 (User-to-User Signalling type 1)
- eMLPP (Enhanced Multi-Level Precedence and Preemption)

## EIRENE Features

- FN supported (Functional Number)
- PFN supported (Presentation Functional Number)
- REC supported (Railway Emergency Call)

## Target Applications

The TRC-3 AP can be used for portable, as well as built-in CAB Radio systems or for ETCS (European Train Control Systems)



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The manufacturer reserves the right to modify the specifications of the product without prior notice.

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