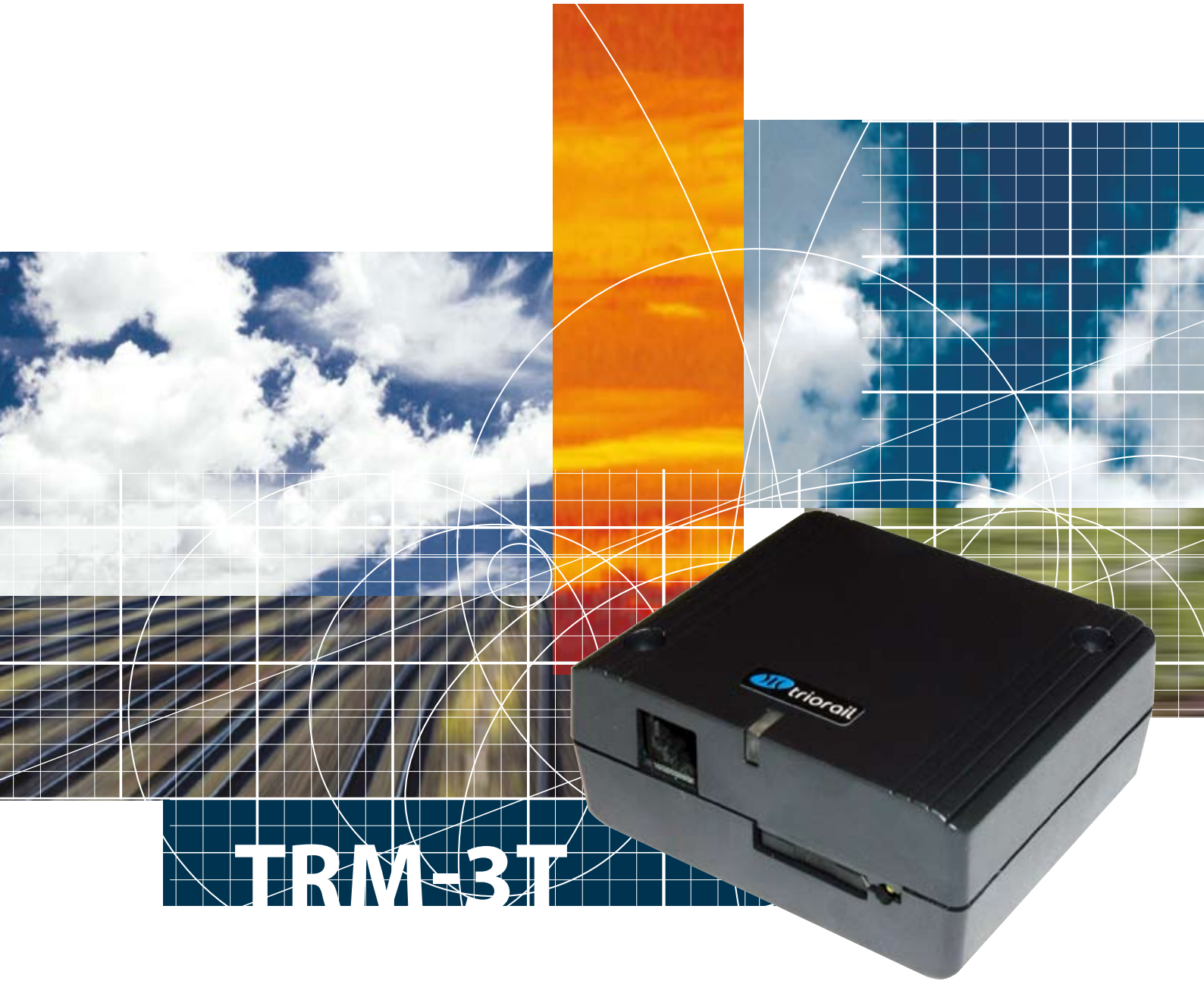special products for special customers

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TRM-3T

Approved Technology for
the GSM-Rail System

Datasheet

TRM-3T

The TRM-3T is a reliable and high performance terminal for GSM-R, the new radio system for railways. Due to long standing product experience and innovative technologies this professional terminal is the high-end modem for GSM-R.

Technical Data

- Dimensions   74 x 65 x 33 mm (L x W x H)
- Weight   130 g
- Supply voltage range   8...30 V
- Power consumption: Standby 2 mA
  Idle mode 40 mA
  Speech mode 300 mA (average)
  GPRS (class 10) 500 mA (average)
  Peak 4 A
- Temperature Range: Normal operation: -20°C ... +55°C
  Restricted operation: -25°C to +70°C
  Storage: -40°C to +70°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: Class 4 (2 W) for GSM-R / EGSM900
     Class 1 (1 W) for GSM1800 / GSM 1900
- Control with AT commands via serial interface
- SIM Application Toolkit

Data Services

- GPRS Class 10: max. 86 kbps (downlink)
- PBCCH support
- Coding scheme CS 1- 4
- CSD data transmission: up to 14.4 kbps
     USSD
     Non transparent mode
     V.110
- 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

Specifications for Voice

- Triple-rate codec for HR, FR, EFR
- Adaptive multi rate (AMR)
- Hands-free operation
- Noise reduction and echo cancellation

Target Applications

The TRM-3T can be easily and ad hoc applied for GSM-R data and voice terminal or modem solutions within PC, notebook or other process computing environment.

SMS via GSM and GPRS

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

Interfaces

- RS232 Interface (9-pin D-Sub)
- AT commands via serial interface
- Voltage supply (western with 6 pins modular plugs)
- Antenna connection (FME)
- Hand set connection (4-pin western modular plug)
- Indication LED
- Miniature SIM card holder

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