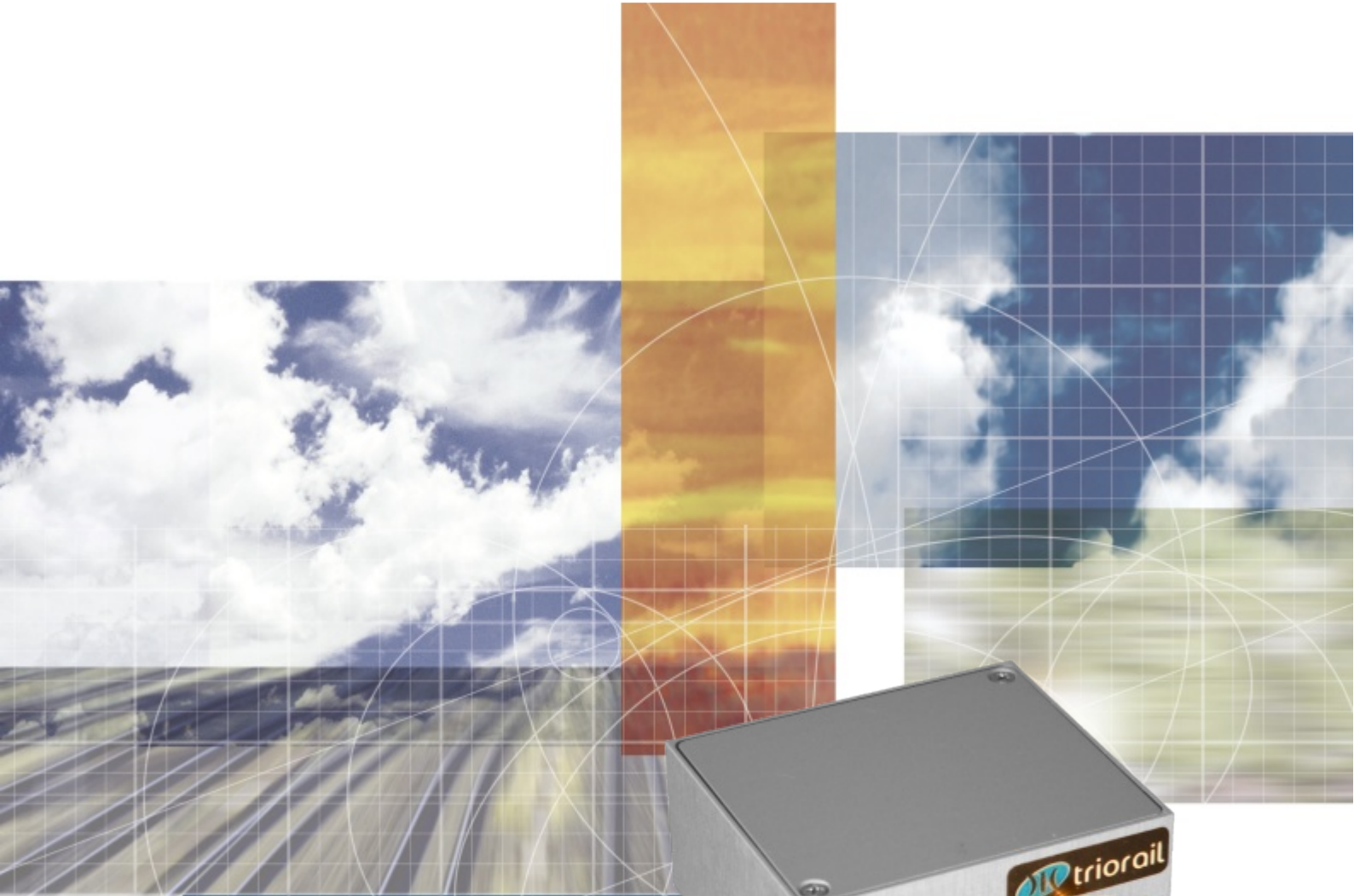




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TRM-3T USB



Approved Technology for the
GSM-Rail System

Datasheet

TRM-3T USB

The TRM-3T USB 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

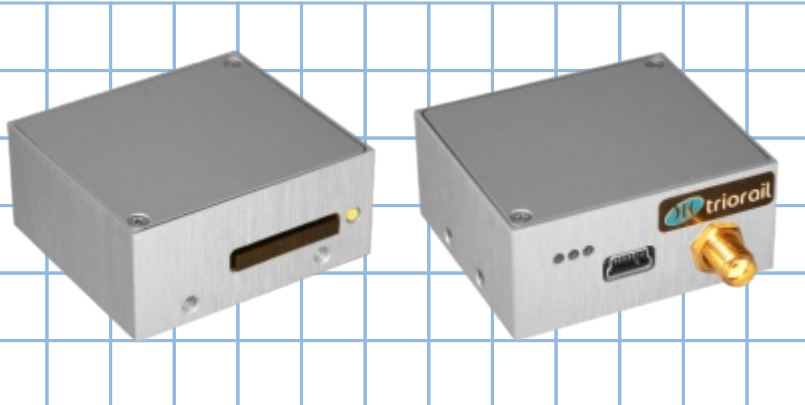
• Dimensions	45 x 40 x 20 mm (L x W x H) (not including the antenna connector)
• Weight	70 g
• Power supply	via USB
• Power consumption	Idle mode 30 mA Speech mode 200 mA (average), 450mA (peak) GPRS (class 8) 200mA (average), 450mA (peak) GPRS (class 10) 320 mA (average), 700mA (peak) Inrush current 900mA
• Temperature range	Normal operation -20°C to +55°C Restr. operation -25°C to +70°C Storage -40°C to +70°C

Data Services

- GPRS class 10 max. 86 kbps (downlink)
- PBCCH support
- Coding scheme CS 1-4
- CSD data transmission
Up to 14.4 kbps
Non 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

- USB Interface (USB Mini B connector)
- AT commands via USB CDC ACM interface
- Digital audio via USB
- Voltage supply via USB
- Antenna connector (SMA)
- 3 Status LEDs
- Miniature SIM card holder



Specifications for Voice

- Triple-rate codec for HR, FR, EFR
- Adaptive multi-rate (AMR)

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 / EGSM 900
Class 1 (1 W) for GSM 1800 / GSM 1900
- Control with AT commands via virtual COM-Port
(USB CDC ACM interface)
- SIM Application Toolkit

SMS via GSM and GPRS

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

Target Applications

The TRM-3T USB 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.