

Next Generation 8 Watt GSM-R Module



TRC-5RM
TRC-5RM ext

**Ultra-flat 8 Watt GSM-R technology new defined to cope with
challenging neighborhood radio interferences**

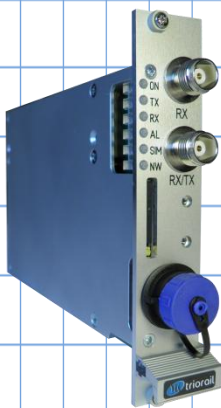
Optional: Extended GSM-R

TRC-5RM / TRC-5RM ext

The TRC-5RM and TRC-5RM ext are the first 8 Watt modules of the 5th generation. This new 8 Watt module generation surpasses the ETSI professional mobile standard by far. The TRC-5RM ext supports the extended frequency band of GSM-R.

Technical Data

- Dimensions 'Eurocard' style - 160mm deep fits to 3U, 5HP (height, width)
- Weight 500g
- Supply voltage 12 Vdc
- Current consumption 20°C / 70°C
74 mA / 315 mA idle mode
380 mA / 630 mA voice call
380 mA / 630 mA GPRS 4RX/1TX
660 mA / 930 mA GPRS 3RX/2TX
- Peak current 4 A (70°C)
- Temperature range -40°C to +85°C
- Advanced receiver performance
Average RX Blocking Level for EGSM900 interferer: > 17 dBm
Average IM3 Threshold for EGSM900 interferer: > 11 dBm



System / Standards

- Frequency bands
GSM-R / EGSM 900 / GSM1800 (TRC-5RM)
EGSM-R / EGSM900 / GSM1800 (TRC-5RM ext)
- Professional Mobile Standard ETSI TS 102 933-1/2 V1.2.1
- ER-GSM Frequencies ETSI TS 102 932-1/2 V1.1.1 (TRC-5RM ext only)
- GSM Phase 2 / Phase 2+
- Mobile station class B
- Output power 900 MHz 8 Watt
1800 MHz 1 Watt
- Triple-rate codec for HR, FR, EFR
- Adaptive multi-rate (AMR) for non ASCII applications supported
- Control with AT commands via UART or USB interface (virtual COM-Port)

Data Services

- GPRS class 8 (8 Watt); class 10 (2 Watt)
- PBCCH (Packet Broadcast Control Channel) support
- Coding scheme CS 1-4
- CSD data transmission up to 14.4 kbps (Non transparent and 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

- 96 pin DIN 41612 backplane connector
- USB Mini B connector /IP68 (service and maintenance interface)
- TNC 'RX' Antenna connector (split mode: RX only; merge mode: off)
- TNC 'RX/TX' Antenna connector (split mode: TX only; merge mode: RX/TX combined)
- 6 LED status indicators
- Miniature 3.0V/1.8V SIM card reader

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 8 Watt TRC-5RM modules are designed for CAB radio and ETCS L2 train control systems and fit into 10", 19" or other industrial sizes.

Part No.

TRC-5RM:	1351
TRC-5RM ext:	1353



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