



# GSM-R module 8W



## TRC-5AP2 TRC-5AP2 ext

**GSM-R new defined to cope with  
challenging radio interferer**

**Optional: Extended GSM-R**

**GSM-R technology for railways**

# TRC-5AP2 / TRC-5AP2 ext

The modules for tailored embedded solutions provide excellent receiver characteristics.



## Technical data

Dimensions	125 x 70 x 25 mm [LxWxH]		
Weight	325 g		
Supply voltage	14 – 50 Vdc		
Current consumption	@24Vdc	@20°C	@70°C
	Idle mode	37 mA	160 mA
	Speech mode	180 mA	310 mA
	GPRS (cl. 10)	312 mA	440 mA
In-rush current	4 A		
Temperature range	-40°C to +85°C		

## Interfaces

80-pin board-to-board connector

- Power supply
- 2 serial interfaces
- USB
- 2 audio interfaces
- LED interface

Antenna connector A	U.FL 50Ω	[RX/TX]
Antenna connector B	U.FL 50Ω	[RX]
Card reader	Mini-SIM	

## ASCI features

VGCS	[Voice Group Call Service]
VBS	[Voice Broadcast Service]
UUS1	[User-to-User Signaling 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]

## Applications

The modules TRC-5AP2 and TRM-5AP2 ext are designed for CAB-Radio and Data-Only-Radio applications and fit perfectly into many embedded railway solutions.

## System / Standards

Frequency bands	GSM-R/EGSM900/GSM1800	[TRC-5AP2]
	EGSM-R/EGSM900/GSM1800	[TRC-5AP2 ext]
RF output power	Class 2 [8 W] for GSM-R/EGSM-R/EGSM900	
	Class 1 [1 W] for GSM1800	
Professional Mobile Standard	ETSI TS 102 933 V 1.2.1	
ER-GSM Frequencies	ETSI TS 102 932 V 1.1.1	[TRM-5AP2 ext only]
GSM Phase 2 and 2+		
Mobile station class B		
Audio	Voice triple-rate codec for HR, FR and EFR	
	AMR for non ASCII applications supported	
AT commands via serial or USB interface		

## Data services

GPRS class 10
PBCCH supported
Coding scheme CS 1-4
CSD data transmission with up to 14.4 kbps
[Transparent and non transparent mode]
Fax group 3, class 2
PPP stack for GPRS data transfer
Authentication: PAP, CHAP
Protocols: TCP, UDP, HTTP, FTP, SMTP, POP3
SMS via GSM, GSM-R and GPRS
[MO, MT, CB, text and PDU mode]

## Part no.

TRC-5AP2	1341
TRC-5AP2 ext	1342