

General Purpose Router

WLAN router with integrated Ethernet switch



Peripheral devices in local public transport vehicles are increasingly being connected through the Ethernet. This requires routers and switches suitable for use in vehicles. The General Purpose Router (GPR) by Trapeze ITS integrates peripheral devices such as Multifunctional Displays or ticket printers in the vehicle network using Ethernet. This means that these devices can also utilize the WLAN functionality of the GPR.

The GPR is integrated in Trapeze ITS' operations control system so that firmware and configuration data can be loaded through the depot data manager and WLAN. The universal GPR is available in various configurations. These differ in terms of the particular Ethernet connectors and the possible communication procedures.

The following functions are available:

- WLAN router
- 8 port Ethernet switch
- Power line (for connections via the couplings of multi-car vehicles)

The 8 port switch has either eight RJ45 connectors or four RJ45 connectors and four M12 connectors. The GPR is designed as a 19 inch rack version with back panel, but can also be installed outside racks without back panel.

General Purpose Router

TECHNICAL DATA

General features

- Operating system: Linux 2.6
- Processor core: 333 MHz MIPS processor, 64 MB RAM, 16MB Flash

Interfaces

- Ethernet interface: 10/100BaseT, auto-negotiation
- Connector versions: 8 Ethernet ports with RJ45 or 4× RJ45 and 4× M12

Power supply

- Input voltage: 24 V DC, typical consumption: 8 W
- Power line: LAN connection via VDV train bus or 2-wire connection

WLAN features

- Communication standards: 802.11 a/b/g
- Range adjustment: 802.11h
- Adjustment to regional settings: 802.11d
- Security authentication: 802.1x/EAP-PEAP and PSK
- Security encryption: WPA2, WEP, WPA
- Automatic selection of channel and data rate
- DHCP client
- Network Address Translation (NAT)

Mechanical features

- Dimensions: 19" housing, 12 HP, (WxHxD)
60.6 × 128.4 × 183.2 mm
- Weight: 540 g

Ambient specifications

- Storage temperature: -40 °C to +85 °C
- Operating temperature: -25 °C to +60 °C
- Rail applications EN50155, electronic rail vehicle equipment
- Protection rating DIN 40050: IP 30
- Humidity as per VDV 410: inside the vehicle occasionally up to 95%, without condensation
- RoHS conform

EMC conformity:

- CE guidelines 2004/108/EC
- e1 guidelines 2006/28/EC