



Type Approval Certificate

Germanischer Lloyd

This is to certify that the undernoted product(s) has/have been tested in accordance with the relevant requirements of the GL Type Approval System.

Certificate No. **1566200 HH**

Company **Hirschmann Electronics GmbH**
Stuttgarter Straße 45 - 51
D-72654 Neckartenzlingen

Product Description **Ethernet LAN components for DIN-Rail snap-on mounting**
HUBs, Switches, Transceivers, Adapter

Type **Rail RX1**
Rail RX2

Environmental Category **C, EMC 1**

Technical Data /
Range of Application **The Rail Switch modules support switched ETHERNET networks in accordance with IEEE standard 802.3 or 802.3u using copper and fiber optic technology. The switch modules are plugged onto the standard DIN rail.**

The RX1 support ETHERNET 10 MBit/s.
The RX2 support ETHERNET 10 MBit/s and Fast ETHERNET 100 MBit/s.

The components covered by this certificate are listed on page 2 and 3.

Test Standard **Guidelines for the Performance of Type Approvals 2003**
Regulations for the Use of Computers and Computer Systems 1994

Documents **Reports and proofs according to table "Rail1-Familie", "Rail2-Familie"**
Submitted documentation (1999-07-09, 2000-03-29, 2001-06-28)
CDs GL251002, 140203, 060303, RS-TX, 170703, 121203, 070504, 040524
Software Questionnaire according to requirement class 3, dated 2000-03-28

Remarks **Application specific system requirements are to be observed for the layout**

Valid until **2010-03-13**

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Hamburg, 2005-03-14

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Ethernet Rail Managed Switches:

- RS2-TX/TX (NAVY) for 7x10/100Base-TX, RJ45 *)
- RS2-FX/FX (NAVY) for 2x100BASE-FX, multimode, 5x10/100Base-TX, RJ45 *)
- RS2-TX/TX for 7x10/100Base-TX, RJ45
- RS2-FX/FX for 2x100BASE-FX, multimode, 5x10/100Base-TX, RJ45
- RS2-TX for 8x 10/100BASE-TX, RJ45
- RS2-FX-SM/FX-SM for 2x100BASE-FX, singlemode, 5x10/100Base-TX, RJ45
- RS2-FX/FX ST for 2x100BASE-FX, multimode, 5x10/100Base-TX, RJ45
- RS2-FX-SM/FX-LH for 1x100BASE-FX, singlemode 1300 nm, 1x100BASE-FX, singlemode 1550 nm, 5x10/100Base-TX, RJ45
- RS2-FX-LH/FX-LH for 2x100BASE-FX, singlemode 1550 nm, 5x10/100Base-TX, RJ45
- RS2-16(M): All types for 14x10/100BASE TX, RJ45 and additional:
 - RS2-16(M) for 2x10/100BASE TX, RJ45
 - RS2-16(M) 1MM SC for 1x10/100BASE TX, RJ45, 1x100BASE-FX, multimode
 - RS2-16(M) 1SM SC for 1x10/100BASE TX, RJ45, 1x100BASE-FX, singlemode, 1300 nm
 - RS2-16(M) 1LH SC for 1x10/100BASE TX, RJ45, 1x100BASE-FX, singlemode, 1550 nm
 - RS2-16(M) 2MM SC for 2x100BASE-FX, multimode
 - RS2-16(M) 1MM SC/1 SM SC for 1x100BASE-FX, multimode, 1x100BASE-FX, singlemode, 1300 nm
 - RS2-16(M) 1MM SC/1 LH SC for 1x100BASE-FX, multimode, 1x100BASE-FX, singlemode, 1550 nm
 - RS2-16(M) 2SM SC for 2x100BASE-FX, singlemode, 1300 nm
 - RS2-16(M) 1SM SC/1LH SC for 1x100BASE-FX, singlemode, 1300 nm, 1x100BASE-FX, singlemode, 1550 nm
 - RS2-16(M) 2LH SC for 2x100BASE-FX, singlemode, 1550 nm
- RS2-4R 4 TP/TX for 4x10/100BASE-TX, RJ45 ***)
- RS2-4R 1MM SC for 3x10/100BASE-TX, RJ45, 1x100BASE-FX, multimode ***)
- RS2-4R 1SM SC for 3x10/100BASE-TX, RJ45, 1x100BASE-FX, singlemode, 1300 nm ***)
- RS2-4R 1LH SC for 3x10/100BASE-TX, RJ45, 1x100BASE-FX, singlemode, 1550 nm
- RS2-4R 2MM SC for 2x10/100BASE-TX, RJ45, 2x100BASE-FX, multimode ***)
- RS2-4R 2SM SC for 2x10/100BASE-TX, RJ45, 2x100BASE-FX, singlemode, 1300 nm ***)
- RS2-4R 2LH SC for 2x10/100BASE-TX, RJ45, 2x100BASE-FX, singlemode, 1550 nm

*) For the use in bridge or open deck zones Filtermodule OVP24 (K. Pfeffer) is prescribed (EMC-Emissions).

**) All types RS2-16(M) and RS2-4R: 1x V.24 port for external management

***) All RS2-4R module types not 1550 nm have temperature range - 40°C... + 70°C

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Ethernet Rail Entry Level Switches:

- RS2-3TX/2FX for 3x100BASE-TX, RJ45, 2x100BASE-FX, fibre optic
- RS2-3TX/2FX EEC for 3x100BASE-TX, RJ45, 2x100BASE-FX, fibre optic
- RS2-3TX/2FX-SM for 3x100BASE-TX, RJ45, 2x100BASE-FX, fibre optic, single mode
- RS2-3TX/2FX-SM EEC for 3x100BASE-TX, RJ45, 2x100BASE-FX, fibre optic, single mode
- RS2-4TX/1FX for 4x100BASE-TX, RJ45, 1x100BASE-FX, fibre optic
- RS2-4TX/1FX EEC for 4x100BASE-TX, RJ45, 1x100BASE-FX, fibre optic
- RS2-4TX/1FX-SM for 4x100BASE-TX, RJ45, 1x100BASE-FX, fibre optic, single mode
- RS2-4TX/1FX-SM EEC for 4x100BASE-TX, RJ45, 1x100BASE-FX, fibre optic, single mode
- RS2-4TX EEC for 4x10/100Base-TX, RJ45

Ethernet Rail Hubs:

- RH1-TP for 4x10BASE-T, RJ45
- RH2-TX for 4x100BASE-TX, RJ45
- RH1-TP/FL for 3x10BASE-T, RJ45, 2x10BASE-FL, BFOC
- RH1-CX+ (NAVY) for 2x10Base-T, 1x10Base-FL, 1x10Base-2

Ethernet Rail Transceivers:

- RT1-TP/FL for 1x10BASE-T, RJ45, 1x10BASE-FL, BFOC
- RT2-TX/FX for 1x100BASE-TX, RJ45, 1x100BASE-FX Multicode, SC

Auto Configuration Adapter:

- ACA 11

Software Version RS2: 9.01
Software Version RS2-16M: 9.01
Software Version RS2-4R: 1.0

Modules with extension "EEC" have temperature range -40 °C...+70°C.

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