

ERNI's new ZDHD connector is a high speed, differential board to backplane connector. It is a higher density extension of our standard ERmet ZD product line. The ZDHD has an optimized footprint for improved electrical performance and is designed for data rates up to 25 Gbits/s. ERNI's ZD HD will be available in a 6-pair version. Future additions to the product line will include a 2- and 4-pair version.

Features

- 14 rows per inch by 6 differential pairs per row
- 84 differential pairs per inch
- L-shield for each differential pair
- Impedance 100 Ohm, 85 Ohm on request
- Datarate up to 25 Gbit/s
- Superior crosstalk behavior
- Pitch 1,8 mm between rows
- Pitch 3,6 mm between diff. pair within a row
- Downsized pressfit technology 0.46 mm dia. hole
- Robust alignment guides on male side walls

Technical Features

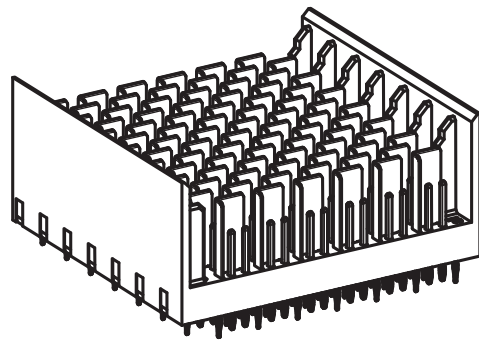
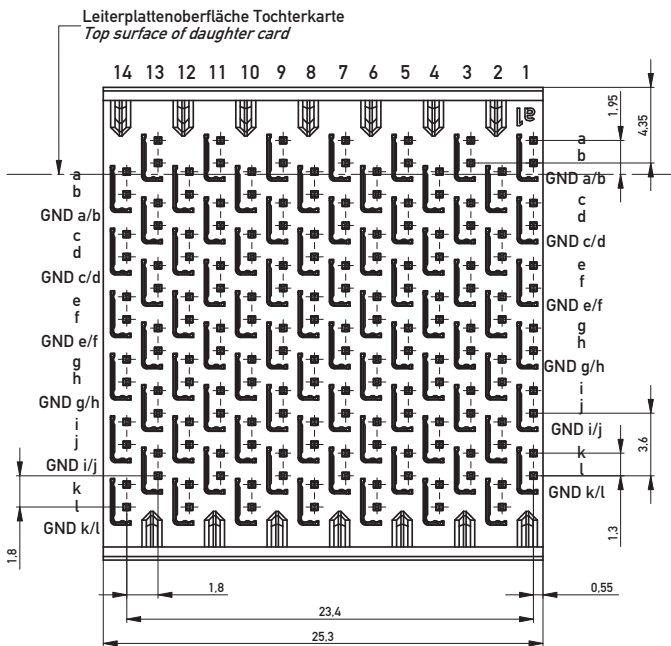
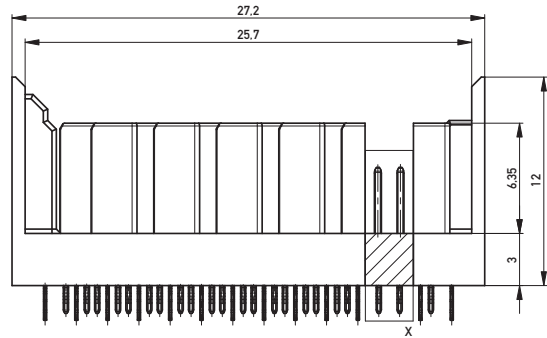
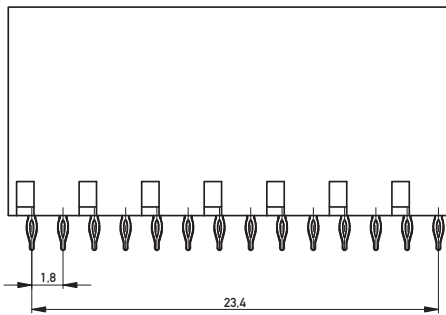
- Operating temperature: -55/125 °C
- Mechanical operation: >250 mating cycles
- Insertion and withdrawal force: 0,7 N/pin (Signal)

Material

- Housing material: LCP
- Contact material:
 - Base material: Cu alloy
 - Mating area: PdNi + Au
 - Termination area: Sn

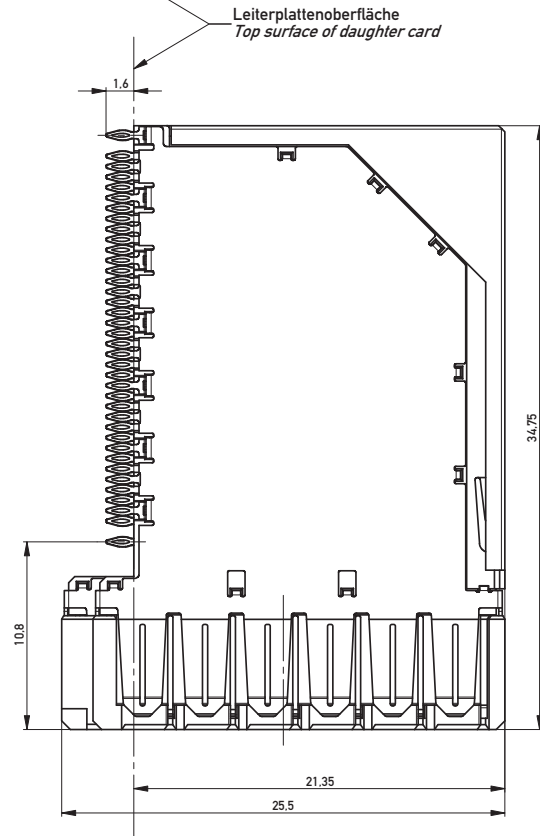
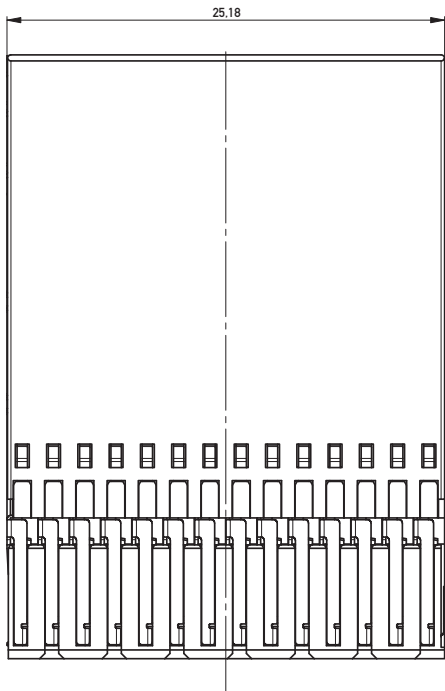
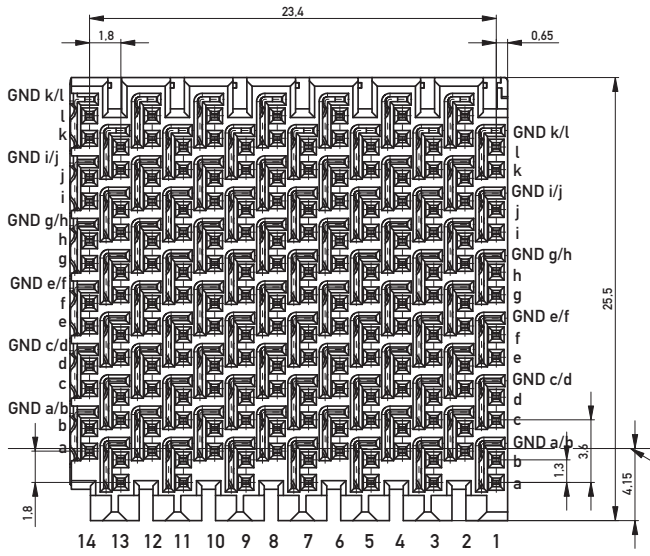
Vertical Male Connector

Dimensional Drawing



Right Angle Female Connector

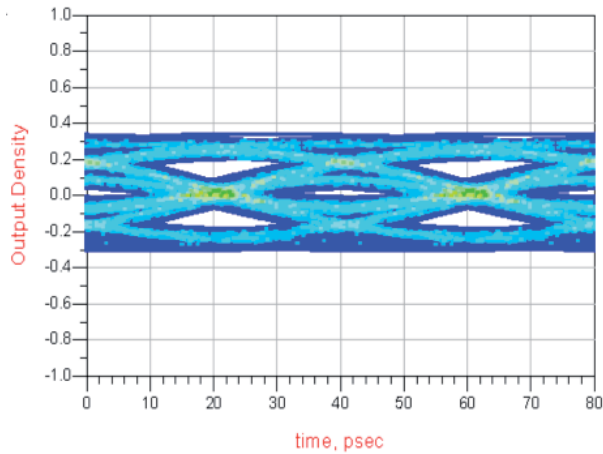
Dimensional Drawing



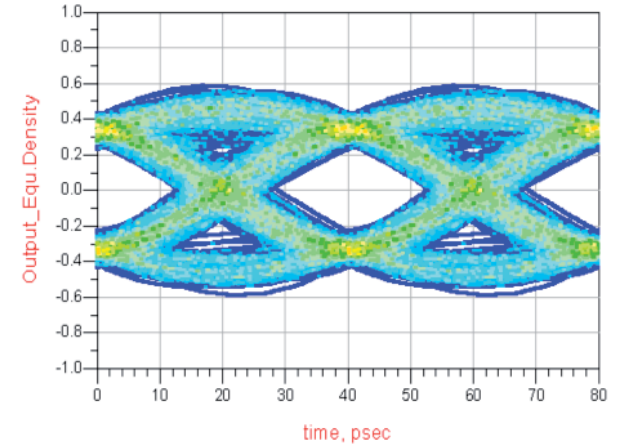
Simulations

25 Gbit/s transmission behavior of a backplane system, with a daughtercard trace length of 25 mm and a backplane trace length of 200 mm. Boardmaterial: Dielectric loss = 0,009

without Equalizing

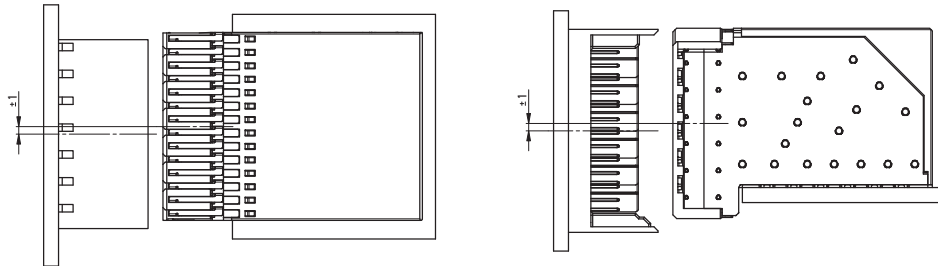


with 6-Tab FFE Equalizing

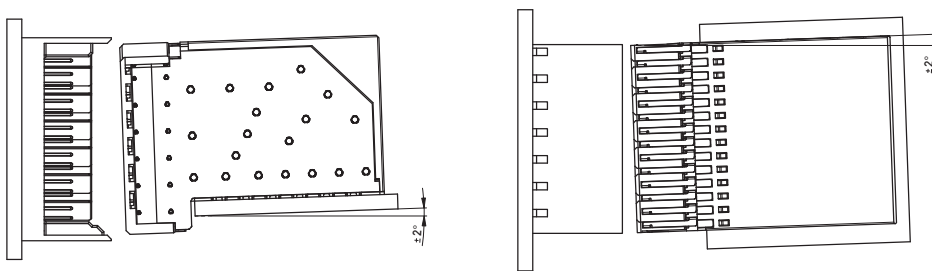


Mating Conditions

Allowed misalignment tolerances longitudinal and transverse axes ± 1 mm



Allowed angular inclination tolerances, longitudinal $\pm 2^\circ$, transverse $\pm 2^\circ$



Wipe length max. 1.5 mm

