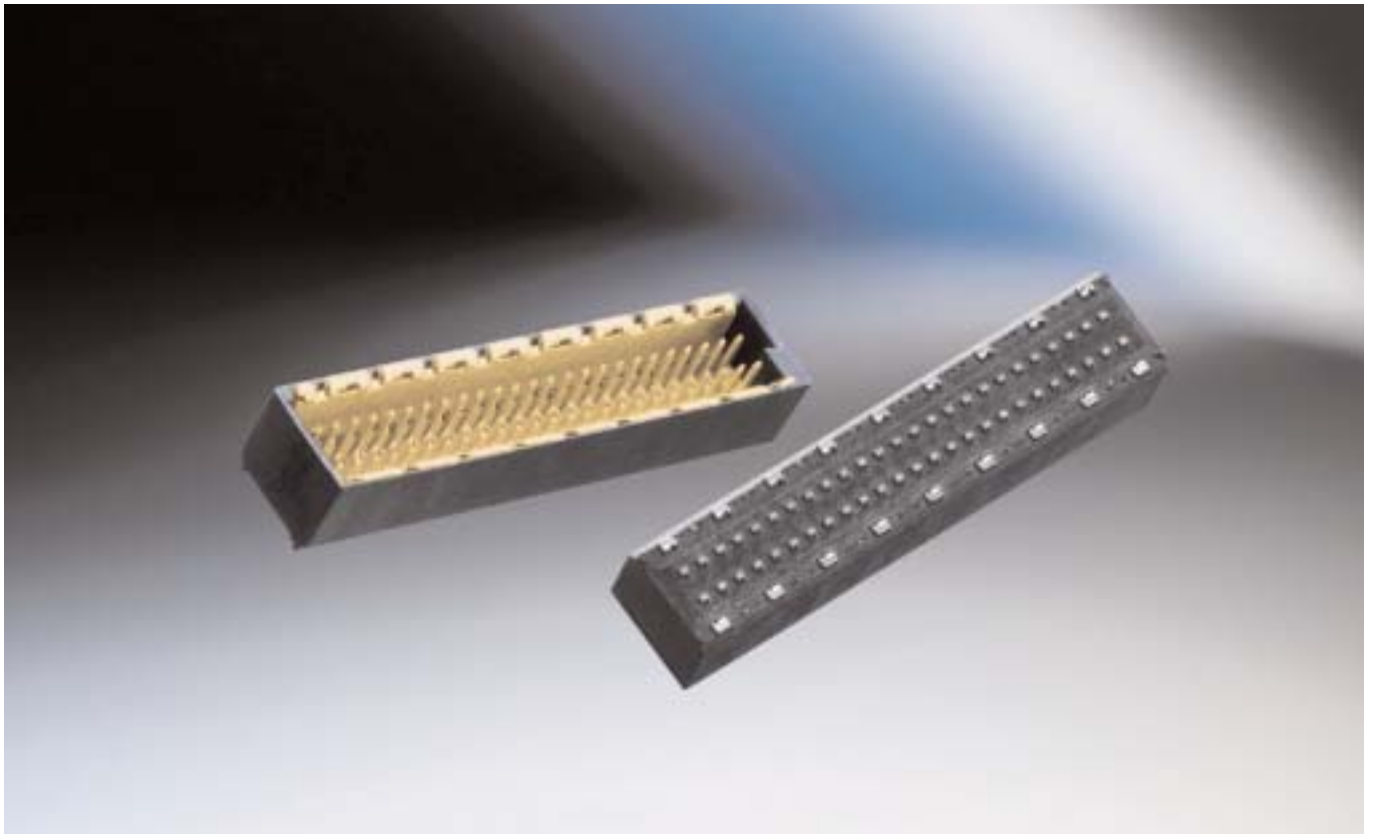


MicroSpeed

1.0 mm SMT High Speed Connector System for 10 GBit/s



General

The new high-speed SMT connector Microspeed with the pitch 1.0mm is especially designed for modern board-to-board applications in tele-com and datacom equipments. For next generation systems with data rates up to 10 GBit/s is this new modular connector system the right solution. MicroSpeed features differential signal transmission with a impedance of 100 Ohm or single ended signal transmission with a impedance of 50 Ohm. Two different signal contact arrangements are possible. For improved crosstalk parallel signal ports are recommended. A excellent signal integrity is achieved by a design with 2 signal and 2 shield contact rows. The termination area of the shield contacts is available in 2 options: SMT or THR (Thru Hole Reflow). For fully automatic SMT assembly the connector is provided with tape-and-reel packaging.

Features

Pitch:

- within row: 1.0 mm
- within column: 1.5 mm

Style: Vertical male and vertical female connectors

Number of pins:

- signal contacts: 50
- ground contacts: 18

Module length: app. 27 mm

Termination style:

- signal contacts: SMT
- ground contacts: THR or SMT

Technical Data

Electrical data

- Differential impedance: 100 Ohm
- Single ended impedance: 50 Ohm
- Crosstalk: < 2% at 100 ps
- Reflection factor: < 5% (for board thickness of 1.6 mm)
- Current rating: min. 1 A at 20°

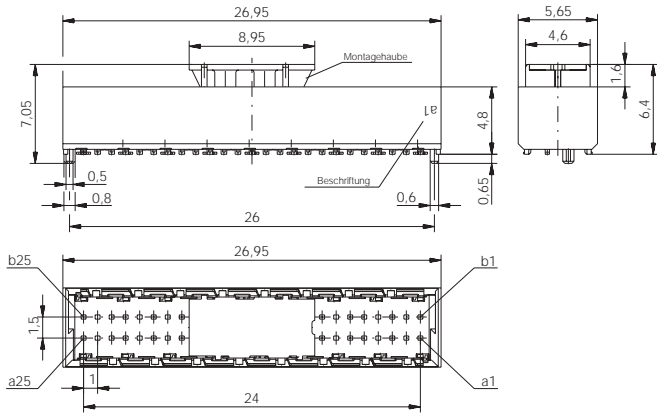
Material data

- Insulator: LCP
- Contact
 - Material: Cu alloy
 - Plating:
 - Mating area: Au
 - Termination area: Sn

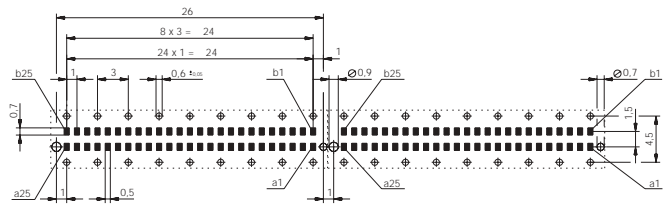
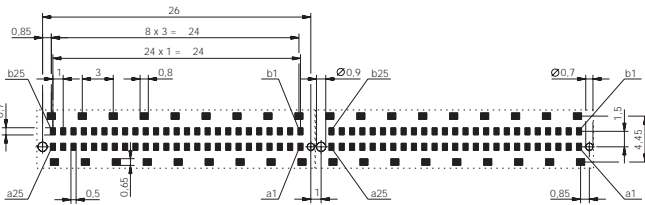
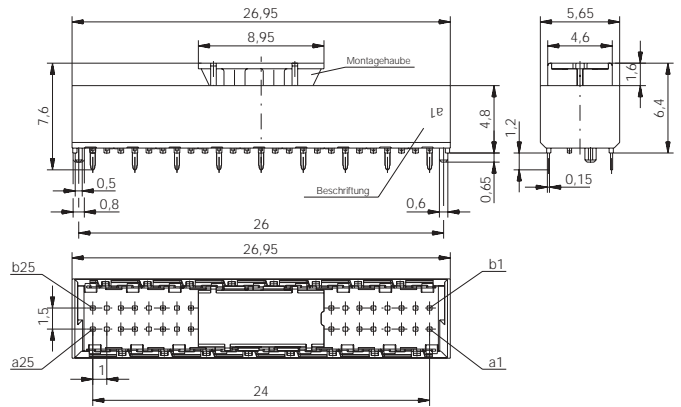
Male Connectors

Dimensional Drawings

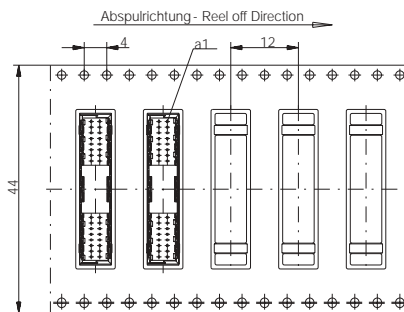
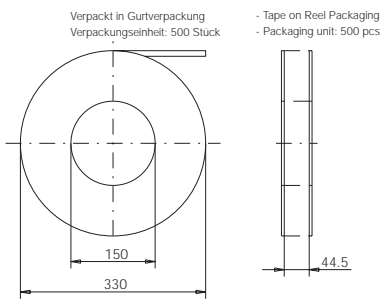
SMT version



SMT/THR version



Packaging



Ordering Informations

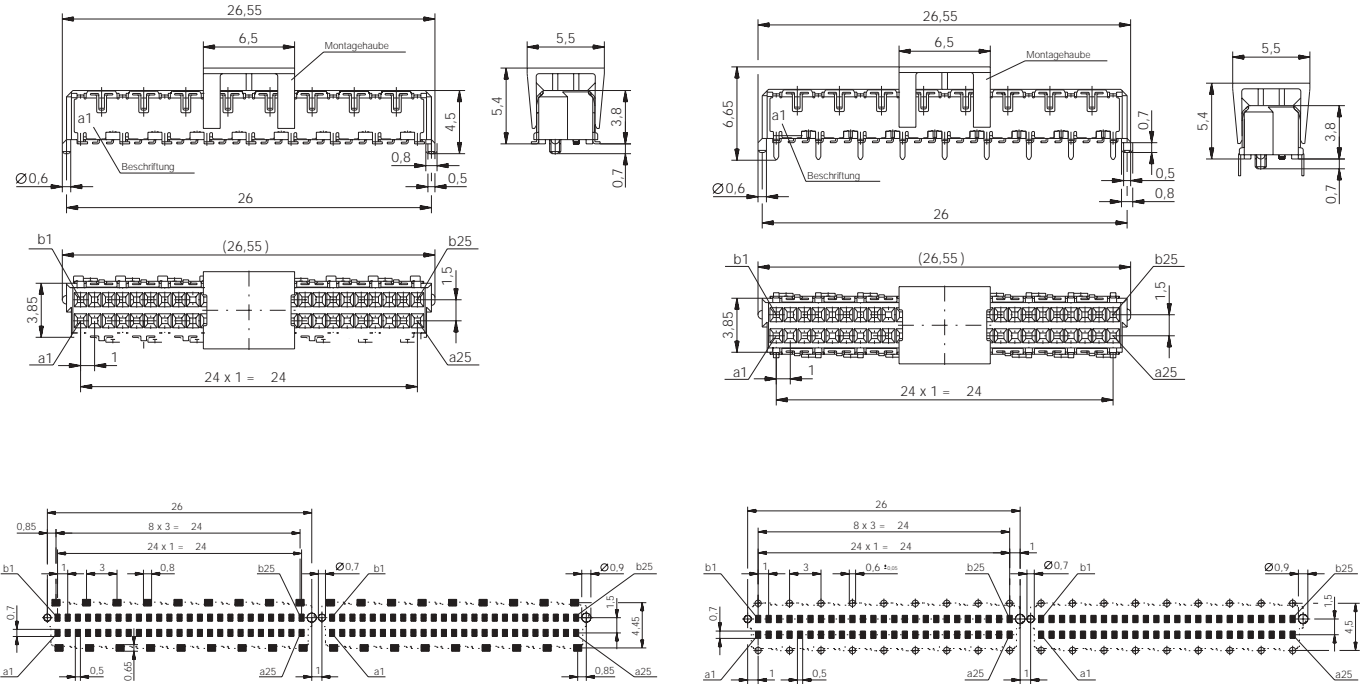
Configuration	Number of pins	Termination ground contact	Packaging unit per reel	Part Number
Male connector	50	SMT	500 pcs	144680
Male connector	50	THR	500 pcs	144681

Female Connectors

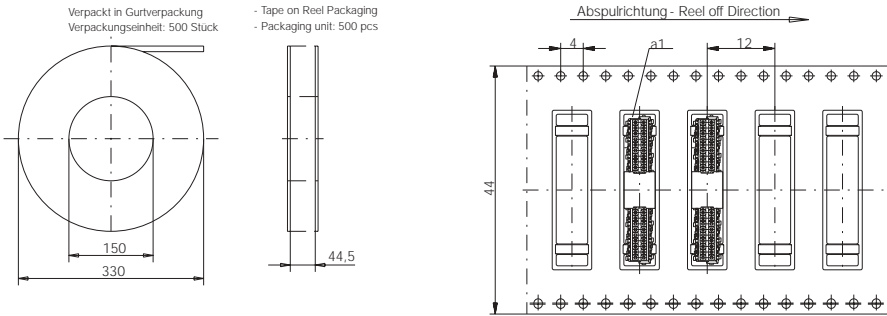
Dimensional Drawings

SMT version

SMT/THR version



Packaging



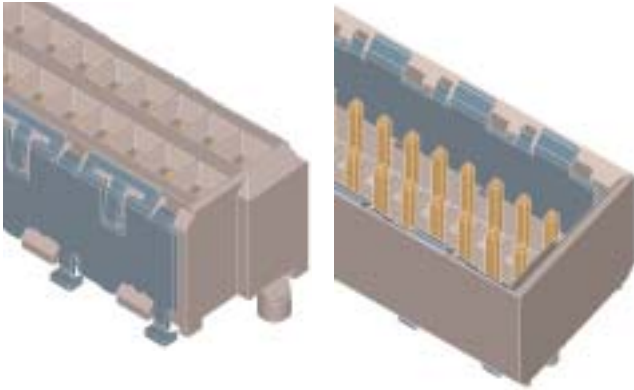
Ordering Informations

Configuration	Number of pins	Termination ground contact	Packaging unit per reel	Part Number
Female connector	50	SMT	500 pcs	144662
Female connector	50	THR	500 pcs	144663

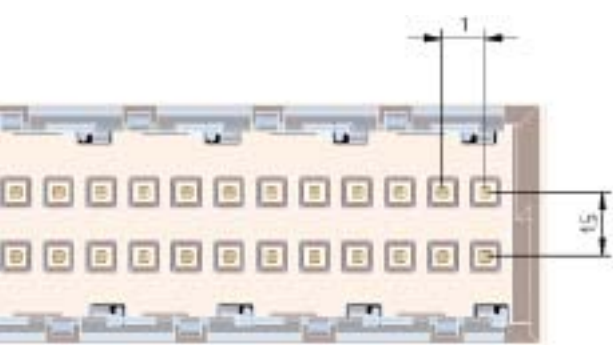
Excellent RF Characteristics

The MicroSpeed connector features a special shielding design with an optimized grid design for excellent RF characteristics and for easy and economical pcb footprint.

Effective shielding design



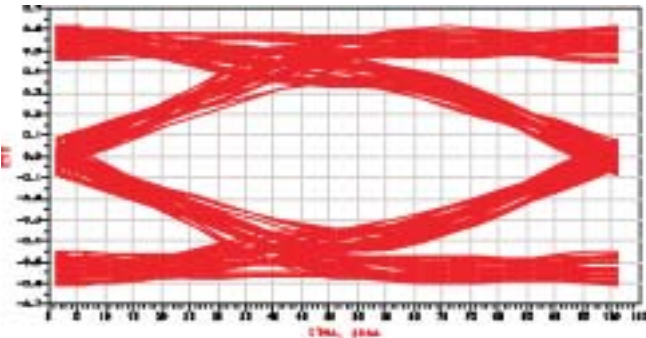
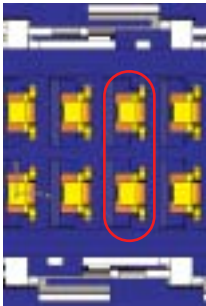
Optimized grid design



Excellent Signal integrity

Eye diagrams for 10 GBit/s with 100 mm FR4 trace.

Vertical configuration:



Horizontal configuration:

