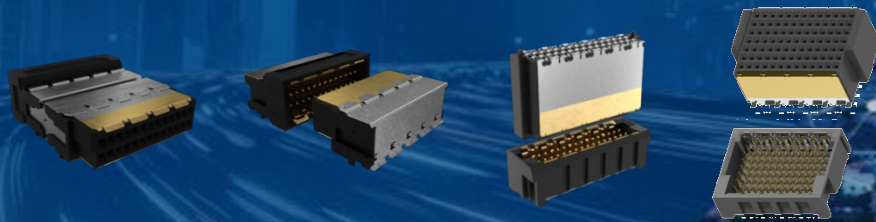


Amphenol

COMMUNICATIONS SOLUTIONS

Minitek® MicroSpeed 1.00mm Board-to-Board Connector Product Presentation



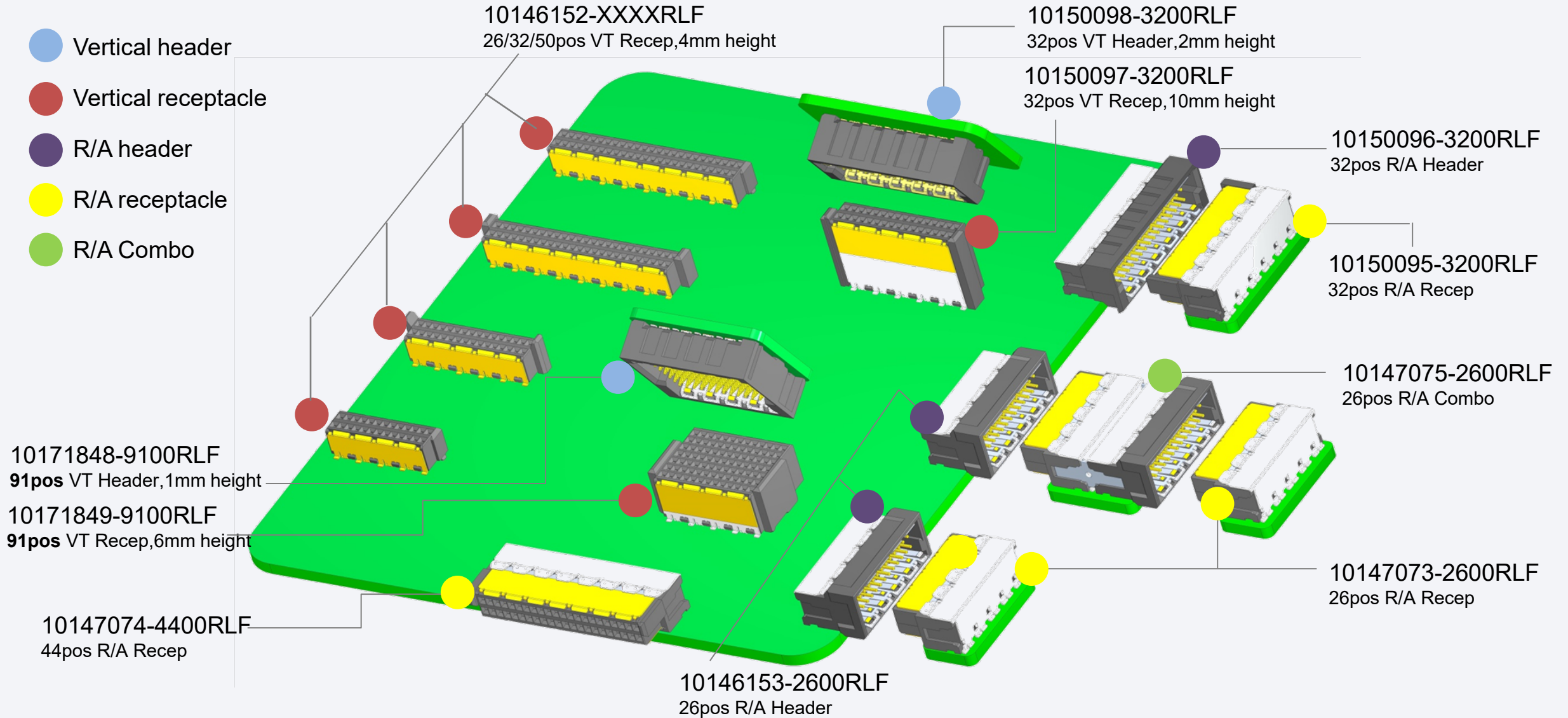
FCi Basics

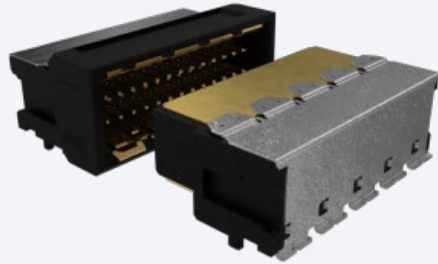
- Value Proposition
- Product Overview
- Product Specifications
- Features & Benefits
- Part Numbers
- Markets & Application

- Minitek[®] MicroSpeed connector family is known for its **fast data transmission, high signal quality**, and **time-proven reliability** under extended periods of application.
- This shielded connector with 1.0mm pitch provides **superior EMI / EMC performance**, and enables high-speed data transfer up to **25Gb/s**. Suit for applications that require high-speed transmission.
- Minitek[®] MicroSpeed is designed with a **robust frame** together with **blind-mating** features, the aspects which are decisive for use in **industrial environments**.
- Minitek[®] MicroSpeed is available in Right Angle and Vertical header and receptacle, which **support all PCB orientation** applications (perpendicular & coplanar & parallel).
- Minitek[®] MicroSpeed is a licensed second-source to ERNI with an exact cross-reference for mating parts.

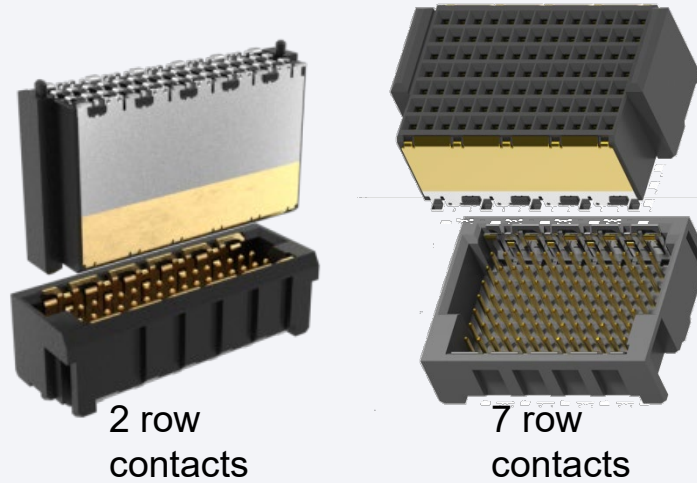
Solution Overview

- Vertical header
- Vertical receptacle
- R/A header
- R/A receptacle
- R/A Combo





R/A receptacle
R/A header



Vertical receptacle
Vertical header



R/A Combo
Combo connector with two ends,
One end features Microspeed receptacle interface,
The other one end features Microspeed header interface.

Product Facts

- 1.0mm contact pitch, 2row and 7row contacts
- Vast range of sizes and stack heights
- Supports speed performance up to 25Gb/s
- Electromagnetic Compatibility (EMC)

Basic Specifications

Pitch	1.0 mm
Pin Count	Up to 91
PCB Termination	SMT
Conn Direction	Right Angle, Vertical
Plating	Gold / GXT on contact area, and tin plating on soldering tail

Technical Documents

- Product Spec.: GS-12-1446

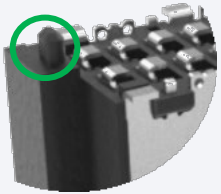
Performance Characteristics

- Durability: 500 cycles
- Mating and un-mating Force: 1N max./contact
- Temperature Range: -55°C to +125°C
- Current Rating: 1A per contact; 10A per shield
- Insulation Resistance: $1 \times 10^{10} \Omega$ min.
- Contact Resistance: <50 m Ω max.
- Signal Integrity
 - Data rate: up to 25Gbps
 - Multiline crosstalk: < 0.5% at 50ps (10-90%)
 - Differential impedance: 100 Ω
 - Single ended impedance: 50 Ω

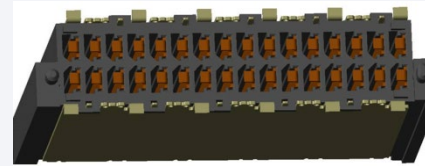
Materials

- Housing: Glass filled LCP (UL94V-0, MSL level 1)
- Contact Base Metal
 - Receptacles: Copper Alloy, high spring
 - Headers: Copper Alloy, high spring
- Shell: Copper Alloy, high spring

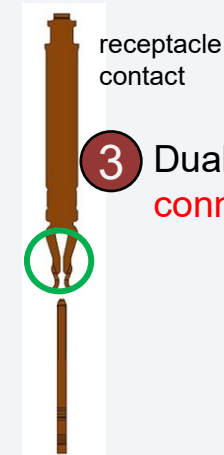
Features	Benefits
High speed performance up to 25Gb/s.	Can be used in high-computing and signal transfer applications in data communication, computing, medical, and industrial automation segments.
EMI Shielding.	Reduced coupling inductance leading to excellent electromagnetic compatibility.
Dual-beam receptacle contacts.	Provide high electrical reliability and withstands high level of vibration.
Blind-mating.	Suit for those tasks where visual and tactile tools are compromised during mating process.
Vertical, Right Angle, Combo solutions.	Support various applications.
Lead-free and RoHS compliant.	Meets environmental, health and safety requirements.
Licensed second source to Erni with an exact mating cross-reference.	Allows direct selection and usage of mating counterpart for Erni's product.



1 Easier to locate to board with help of **post pegs**.



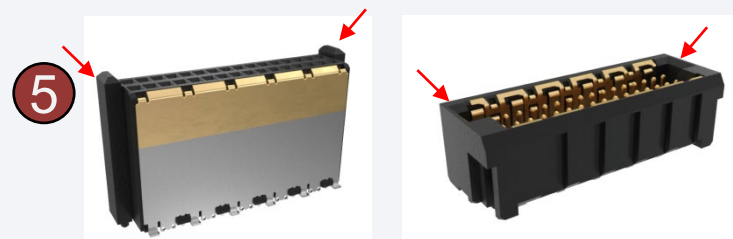
2 Both contact & shield tails ensure **robust connection** with board.



3 Dual-beam receptacle contacts make **connection more reliable**.



4 **Shielding** provides EMC performance and Power transmittability.



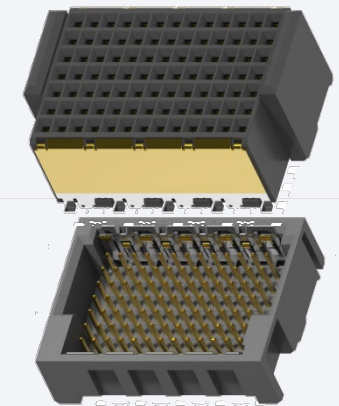
receptacle

header

5

Extended guide on receptacle and self-alignment features on header to achieve **Blind mating**.

6



Variant with **7row** contacts to fulfill high signal density requirement.

Part Numbers

-Header and receptacle

Description	Part Numbers
Minitek® MicroSpeed 26P R/A Header, P	10146153-2600RLF
Minitek® MicroSpeed 32P R/A Header, B&P	10150096-3200RLF
Minitek® MicroSpeed 26P R/A Receptacle, P	10147073-2600RLF
Minitek® MicroSpeed 32P R/A Receptacle, B&P	10150095-3200RLF
Minitek® MicroSpeed 44P R/A Receptacle, P	10147074-4400RLF
Minitek® MicroSpeed 26P R/A COMBO, P	10147075-2600RLF
Minitek® MicroSpeed 26P VT Receptacle,4MM HEIGHT, P	10146152-2600RLF
Minitek® MicroSpeed 32P VT Receptacle,4MM HEIGHT, B&P	10146152-3220RLF
Minitek® MicroSpeed 50P VT Receptacle,4MM HEIGHT, P	10146152-5000RLF
Minitek® MicroSpeed 50P VT Receptacle,4MM HEIGHT, B&P	10146152-5010RLF
Minitek® MicroSpeed 32P VT Receptacle,10MM HEIGHT, B&P	10150097-3200RLF
Minitek® MicroSpeed 32P VT Header,2MM HEIGHT, B&P	10150098-3200RLF
Minitek® MicroSpeed 91P VT Header,1MM HEIGHT,7 Row, B&P	10171848-9100RLF
Minitek® MicroSpeed 91P VT Receptacle,6MM HEIGHT,7 Row, B&P	10171849-9100RLF

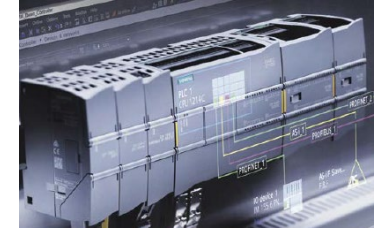
R/A - Right Angle
B - Blind mating
P - POKA-YOKE





Industrial

Programmable Logic Controller (PLC)
Automation Machines



Automotive

Advanced Driver Assistance Systems (ADAS)



IT Datacom

Server/Storage



Thank You

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 **FCi Basics**