

# Minitek® MicroSpeed 1.00mm Board-to-Board Connector

## SHIELDED HIGH-SPEED BOARD-TO-BOARD CONNECTOR

Basics' Minitek® MicroSpeed connector family with 1.00mm pitch supports high-speed data applications with up to 25Gb/s. These connectors feature a shielded design that provides superior EMC performance and significantly improved electromagnetic compatibility. The poka-yoke polarization prevents visual mismatching, which makes it ideal for use in industrial environments.

- Supports high-speed performance up to 25Gb/s
- EMC shielding reduces coupling inductance, providing excellent electromagnetic compatibility
- Dual-beam contact with a robust design for customer application
- Blind-mating feature
- Supports multiple PCB orientation applications



### TARGET MARKETS



### FEATURES

- High speed performance up to 25Gb/s
- EMI shielding
- Dual-beam receptacle contacts
- Blind-mating feature
- Vertical, right angle and combo solutions
- Licensed second source to ERNI with an exact mating cross-reference
- Lead-free and RoHS compliant

### BENEFITS

- Can be used in high-end computing and signal transfer applications in data communication telecommunication, computing, medical technology and industrial automation segments
- Significantly reduced coupling inductance leading to excellent electromagnetic compatibility
- Provides high electrical reliability and withstands high level of vibration
- Suit for those tasks where visual and tactile tools are compromised during mating process
- Supports various applications
- Allows direct selection and usage of mating counterpart for ERNI's product
- Meets health, safety and environment requirements

# ▶ Minitek® MicroSpeed 1.00mm Board-to-Board Connector

## TECHNICAL INFORMATION

### MATERIAL

- Housing: High temperature thermoplastic LCP, black (UL94V-0)
- Terminal & Shield Base Material: Copper Alloy
- Plating Specification:
  - Mating Area: Gold and PdNi over Nickel plating with lubrication
  - Termination Area: Tin plating over nickel

### ELECTRICAL PERFORMANCE

- Current Rating: 1A per contact, 10A per shield
- Voltage Rating: 500V(AC RMS, 60Hz) for 60 seconds.
- LLCR: 50mΩ max.
- Insulation Resistance: 1x10<sup>10</sup>Ω min.
- Signal Integrity:
  - Data Rate: up to 25Gbps
  - Multiline Crosstalk: < 0.5% at 50ps (10-90%)
  - Differential Impedance: 100Ω
  - Single Ended Impedance: 50Ω

### MECHANICAL PERFORMANCE

- Durability: 500 cycles
- Mating Force: 1N max. per contact
- Un-mating Force: 1N max. per contact
- Gauge Retention Force: 0.1N min. per contact
- Coplanarity: 0.1mm max. at termination area

### ENVIRONMENTAL

- Operating Temperature: -55°C ~ 125°C.
- Industrial Atmosphere Durability: 10 days
- Vibration Sinusoidal: 20g
- Shock Half Sine: 50g

### APPROVALS AND CERTIFICATIONS

- UL E66906

### SPECIFICATIONS

- GS-12-1446

### PACKAGING

- Tape & reel

### TARGET MARKETS/APPLICATIONS



Factory Automation  
PLC



Server/Storage



MRI Machine  
Computed Tomography

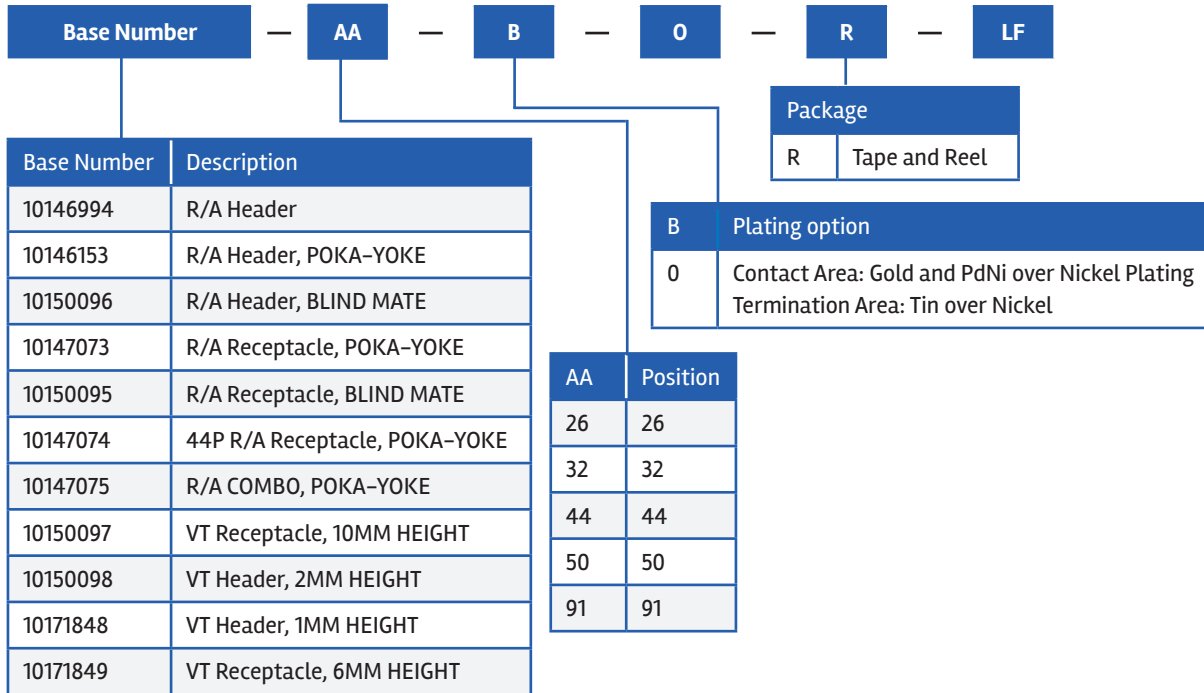


MCU  
ADAS

## PART NUMBERS

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

## PART NUMBER SELECTOR



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

