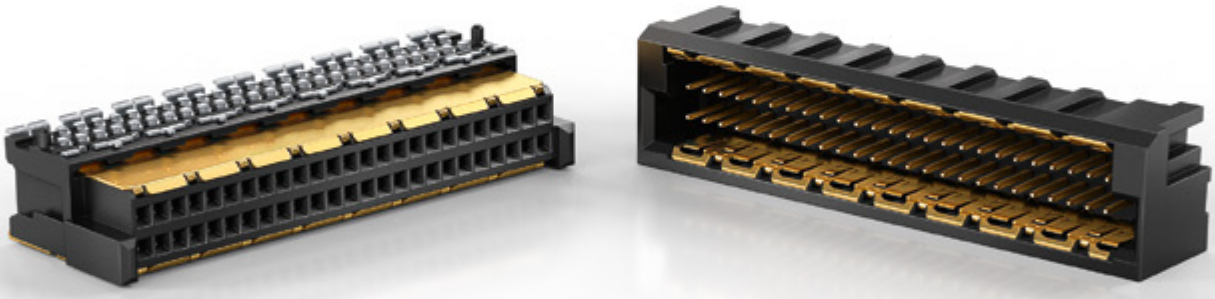
MicroSpeed

1.0 mm High Speed Connectors



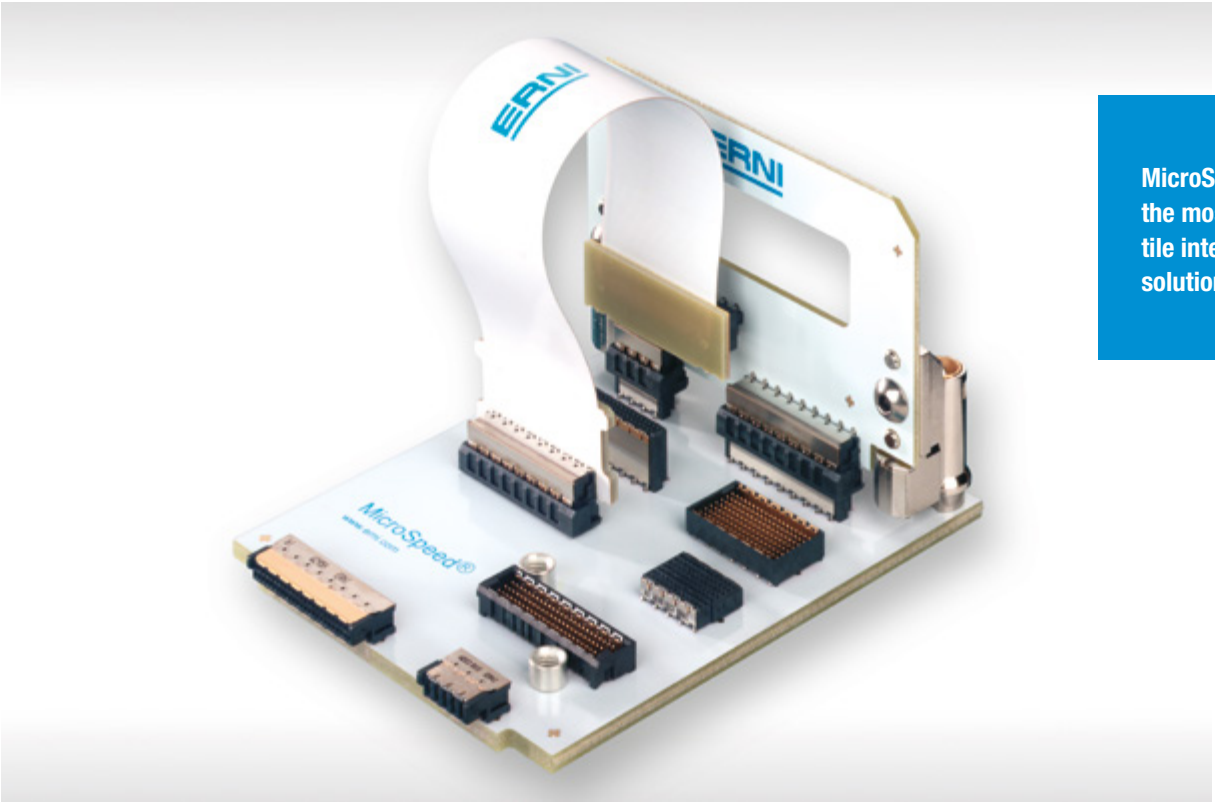
Full-Scale MicroSpeed 50 Pins

ED. 02 | 05.2015
Catalog E 074574

MicroSpeed - High-Speed Connectors

HIGH-SPEED. INTERCONNECT. SOLUTIONS.

GENERAL



MicroSpeed - the most versatile interconnect solution

ERNI's MicroSpeed® connector family is synonymous with fast data transmission, for high signal quality and for time proven reliability in permanent application.

The shielded connector family with 1 mm pitch enables high-speed data applications with up to 25 Gbit/s. The connectors are ideal for next generation communication standards like Ethernet 100 Gbps (IEEE 802.3ba), Optical Internetworking Forum (OIF), USB 3.1 etc. Typical applications which will benefit from the new connectors are data communication and telecommunication, high-end computing, medical technology or industrial automation with high speed transmissions and high data volumes.

Electromagnetic compatibility can be significantly improved thanks to the optimized shield concept. The connectors have minimized electromagnetic radiation and very good immunity to interference.

The robust frame design with polarized mating face and the blind-mate features are decisive aspects for use in industrial environments. The dual-beam female contact ensures safe and reliable connection in rough environments and guarantees a wipe length of 1.5 mm.

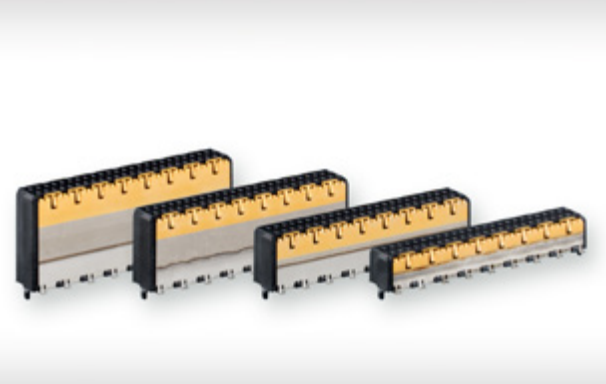
MicroSpeed: moving data faster.

MicroSpeed - High-Speed Connectors

CONCEPT

FEATURES

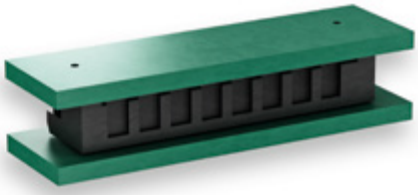
Pitch	1.0 mm
No. of Pins	50 (2-row), 75 (3-row), 91 and 133 (7-row)
Data rate	up to 25 Gbit/s
Board-to-Board height	5 - 20 mm
Termination technology	SMT (signal contacts), SMT or THR (shield contacts)
Connectors	2-row versions 3-row versions (MicroSpeed Triple) 7-row versions (Open Pin Field Array) Power Modules
Variants	Male and female connectors Vertical and right angle Standard (non-Blind Mate) and Blind Mate EMC enhanced shielding MicroFlex FPC Customized solutions

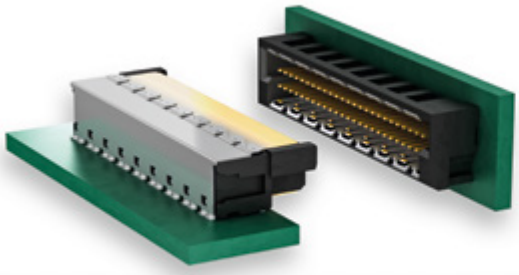


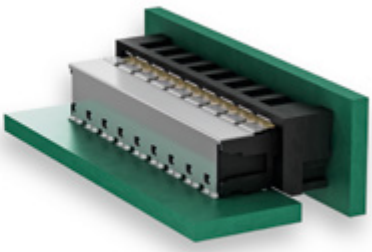
CONCEPT

CAPABILITIES

2-row
Stacked boards
(Mezzanine)

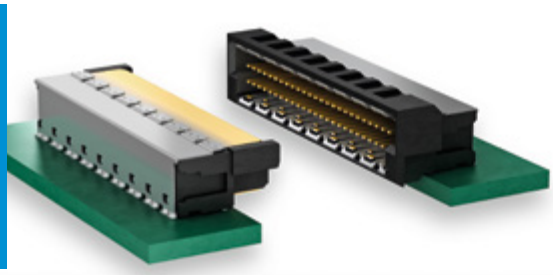


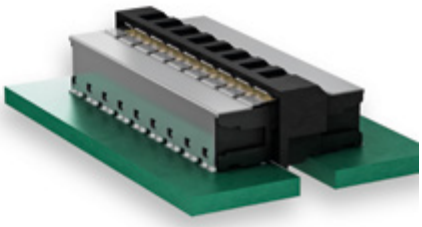




2-row
Orthogonal boards

2-row
Extender card
(Coplanar)

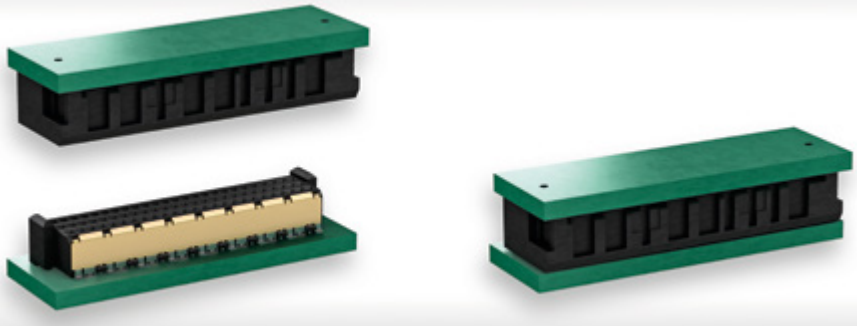




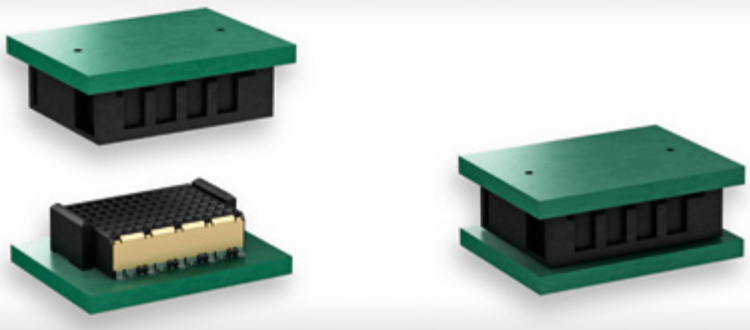
CONCEPT

CAPABILITIES

MicroFlex FPC



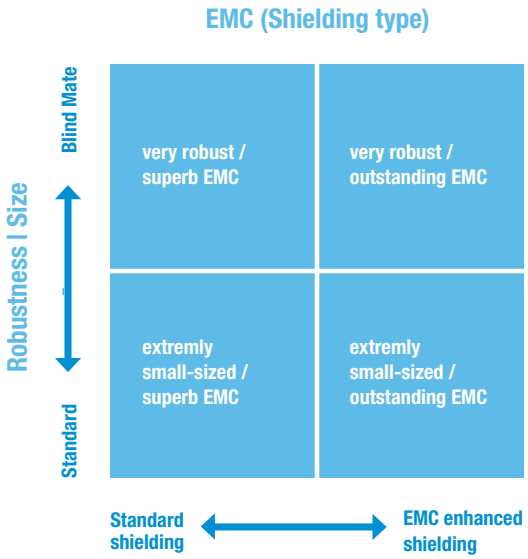
3-row
Stacked boards
(Mezzanine)



7-row
Stacked boards
(Mezzanine)

VARIOUS TYPES

MECHANICAL DESIGN & SHIELDING CONCEPT

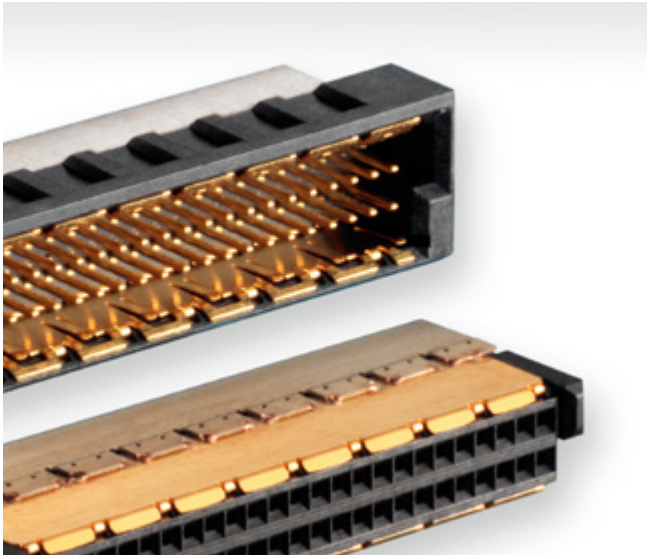


For various requirements the MicroSpeed family of products offer the best solutions:

Robustness / Size of Connector
- Standard (very small-sized footprint)
- Blind-Mate (very robust, slightly larger footprint)

Electromagnetic Compatibility (EMC)
- Standard shields (very good EMC performance)
- EMC improved shields (outstanding EMC capability; minimized coupling inductance)

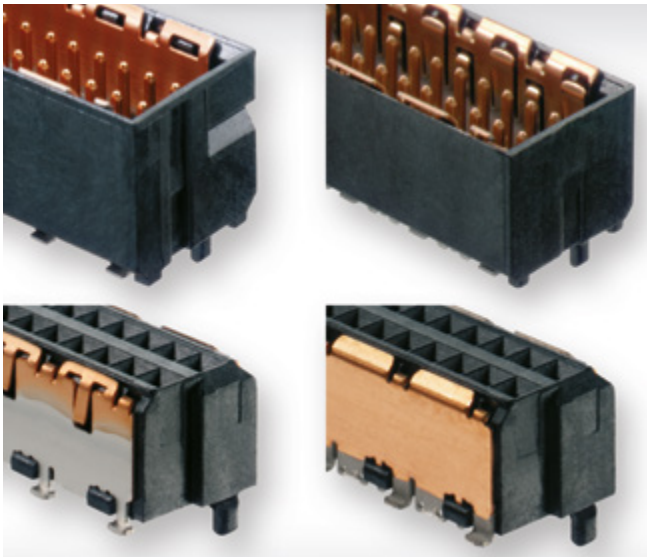
BLIND MATE DESIGN



- Blind Mate versions feature
  - a distinctive polarization of the mating face
  - extended guides to capture the mating connector
  - increased wall thickness
  - slightly larger footprint
- Self-aligning feature, guide the Blind Mate connectors into correct mating position
- Designed to ensure consistent and reliable mating even in difficult conditions
- Robust connectors for harsh environments

VARIOUS TYPES

SHIELDING DESIGN

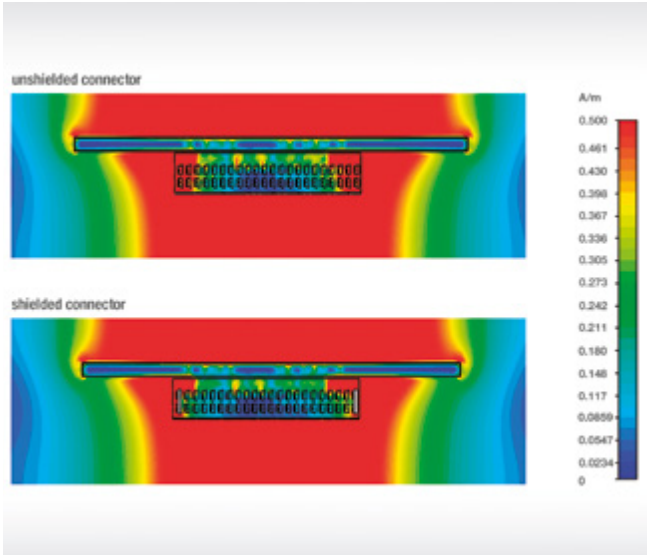


Standard Shielding
- EMC fingers on Female

EMC Enhanced Shielding
- EMC fingers on Male
- Additional SMT shielding tabs for both Male and Female

Significantly reduced coupling inductance and hence excellent electromagnetic compatibility.

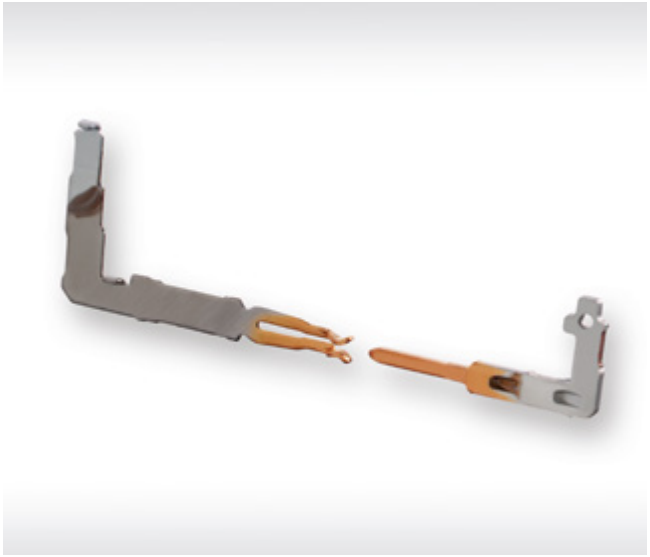
HIGH-END EMC SHIELDING



- MicroSpeed's high-end shielding design guarantees best performance and highly effective electromagnetic compatibility
  - standard shielding provides an excellent interference resistance / immunity against electrostatic discharge (ESD)
  - minimizes the emitted electromagnetic interference (EMI) and prevents undesirable influences on sensitive board components
- The EMC enhanced shielding increases the performance to best-in-class by significantly reducing inductive coupling
- Thus more advanced communication systems benefit from high signal integrity and secure data transmission
- Optionally, the shields can be used as power planes, providing up to 10 A per shield

ADVANTAGES

CONTACT DESIGN AND DURABILITY



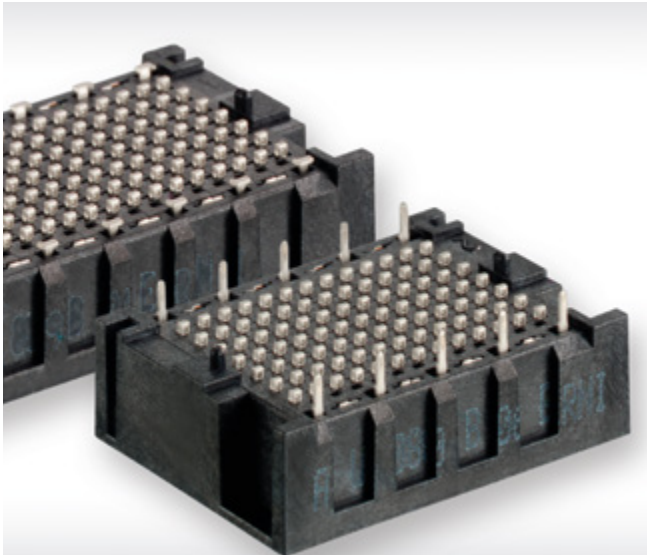
- Superior reliability due to dual-beam female contact design:
  - Twisted contact tulip (90°)
  - Homogeneous, rolled surface guarantees secure contact
  - Wide contact surface between mated pair
  - Low surface roughness minimizes abrasion
  - Low contact resistance
- Provides excellent misalignment tolerance/ tolerance compensation
- Wipe length 1.5 mm
- Durability: > 500 mating cycles
- Contact finish: Au plating
- Lubricated contacts avoid fretting corrosion

INTERFACE/MATING FACE

- Shrouded housing protect contacts; high-temperature resistant materials
- Distinctive polarization avoids mismating
- The capture range guarantees self-alignment and provides a high misalignment tolerance and inclination
- Low-profile narrow housing design ensures airflow to promote system cooling

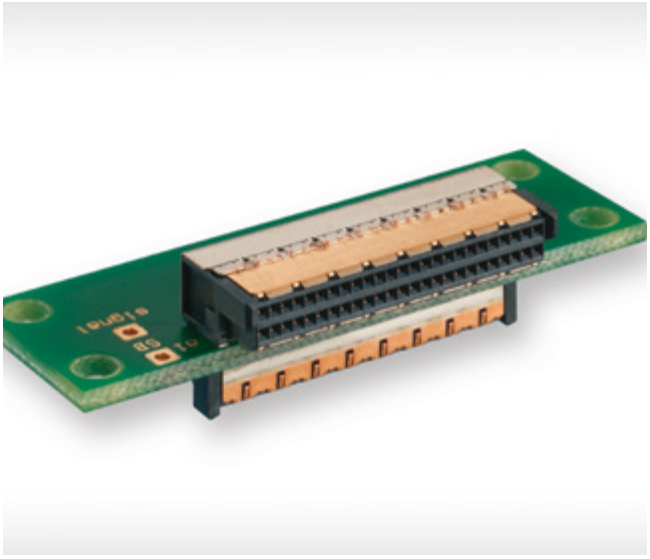
ADVANTAGES

SMT/SMT AND SMT/THR TERMINATION



- Surface mount connectors (SMT contacts / SMT shielding)
  - Double sided board assembly
  - 100% coplanarity of ≤0.1 mm leads to excellent soldering results
- Optional THR terminals on shielding (SMT contacts / THR shielding)
  - THR shield terminals provide strong mechanical solder joint for demanding industrial applications

BACKSIDE REFLOW SOLDERING

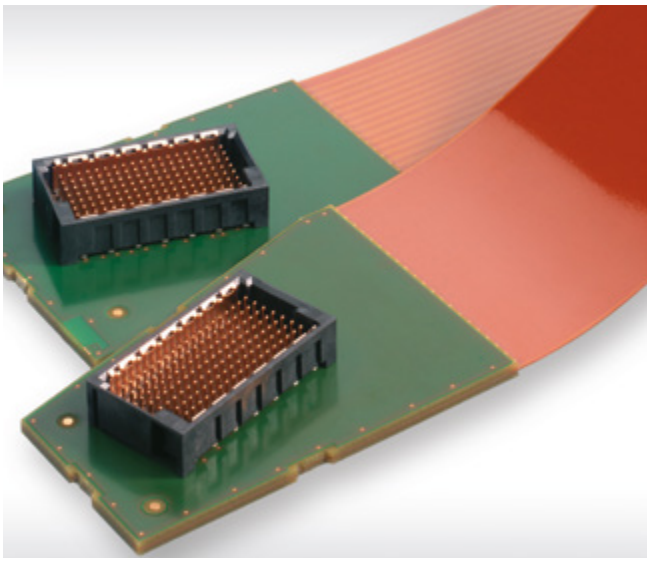


MicroSpeed meets highly efficient board processing:

- Capable of backside reflow soldering vertical low profile male & female SMT versions)

ADVANTAGES

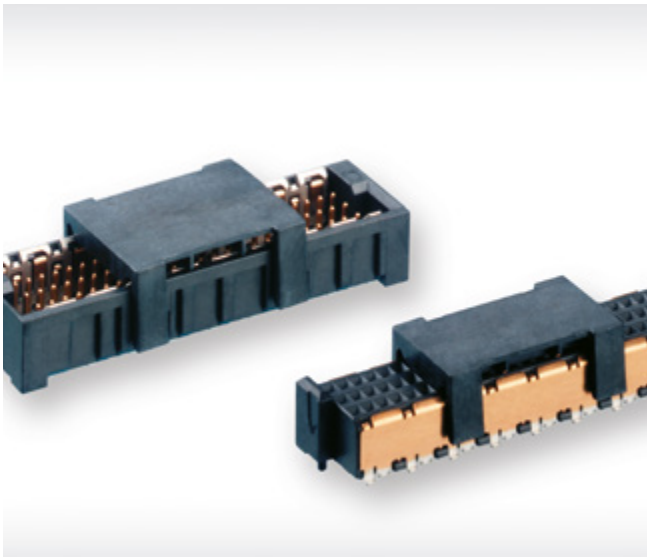
MICROFLEX



FPC high-speed connections using multi-layer rigid-flexible boards, e.g.

- Two-layer FPC
- High-speed data 25 Gbit/s
- 20 differential pairs
- 500 mm length
- MicroSpeed Open Pin Field Array, 133 pin
- Test equipment for 100 Gig optical network transmission system

PICK & PLACE PAD



- Pick and place pad for vacuum pick-up nozzles provided for straight connectors
- High-temperature plastic to withstand reflow solder temperatures
- Right angled versions are commonly picked-up at the smooth shield surface

MicroSpeed - Power Modules

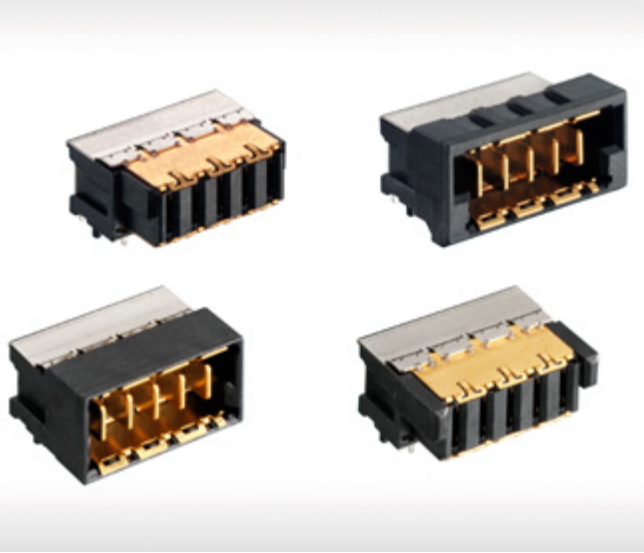
CONCEPT

POWER MODULES

Power Modules supplement the MicroSpeed product portfolio and enable the board's power supply.

- Miniaturized design with high power blade contacts of 2 mm pitch
- High current carrying capacity of 18 A per contact
- Durable and very reliable 3-point dual-beam female contact
- THR shield terminals provide strong mechanical resistance particularly suitable for industrial applications subject to mechanical stress

VARIOUS TYPES

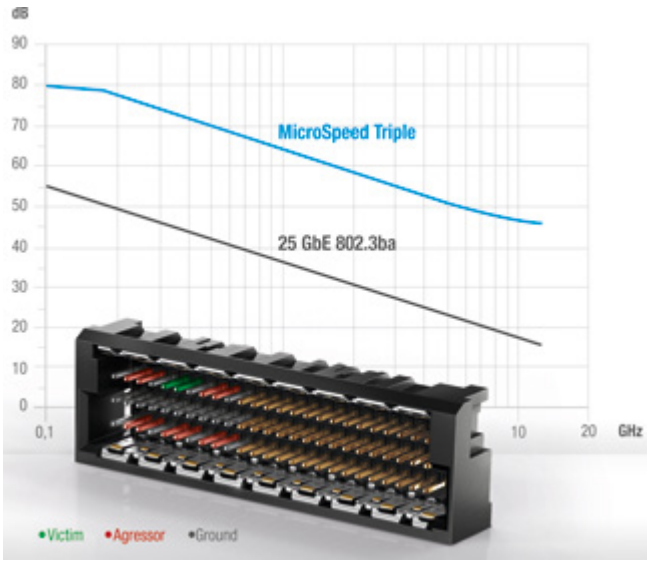


Various types of Power Modules allow for virtually every PCB arrangement: mezzanine, backplane-to-daughtercard or extender card applications.

- Male and female Power Modules
- Vertical and right angle
- Various connector heights provide for flexible board stacking
  - Male: 1 / 2 / 9 / 10 mm
  - Female: 4 / 6 / 8 / 10 mm
- Standard (non-Blind Mate) and robust Blind Mate versions
- SMT versions and SMT/THR shielding types

HIGH FREQUENCY CHARACTERISTICS

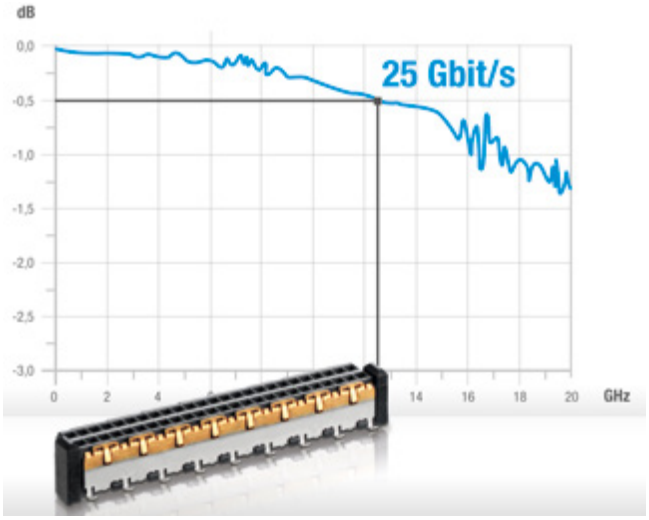
PERFORMANCE



Next-generation platforms demand optimal signal integrity performance when routing high-speed signals. Maintaining proper impedance while minimizing discontinuities can be a challenge. Also unwanted noise from coupling of nearby signal lines may result in distortion of the desired signal.

- The MicroSpeed family of products combines best high-speed performance with excellent signal integrity.
- Based on experience, the best performance is gives at shorter stack heights as it results in shorter period of time for reflections and undesired coupling.

HIGH-SPEED CONNECTOR RATING

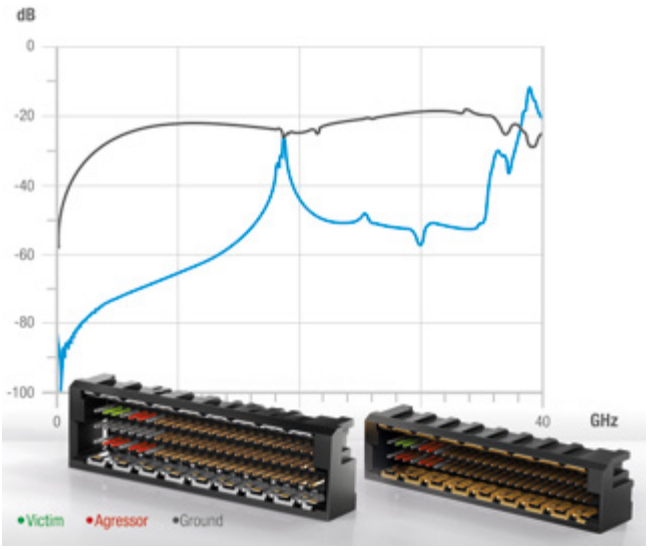


Insertion Loss is a performance feature for signal integrity and high-speed characterization as it indicates the loss of power in a transmission channel. MicroSpeed high-speed connector rating is based on 0.5 dB insertion loss (IL).

- Performance 25 Gbit/s at 0.5dB IL / 12.5 GHz
- Meets 100 Gigabit Ethernet standard (IEEE 802.3ba; 25Gbps per channel)
- Up to 42 differential IOs for 25+Gbit/s high-speed rating
- Low inductance to ground

HIGH FREQUENCY CHARACTERISTICS

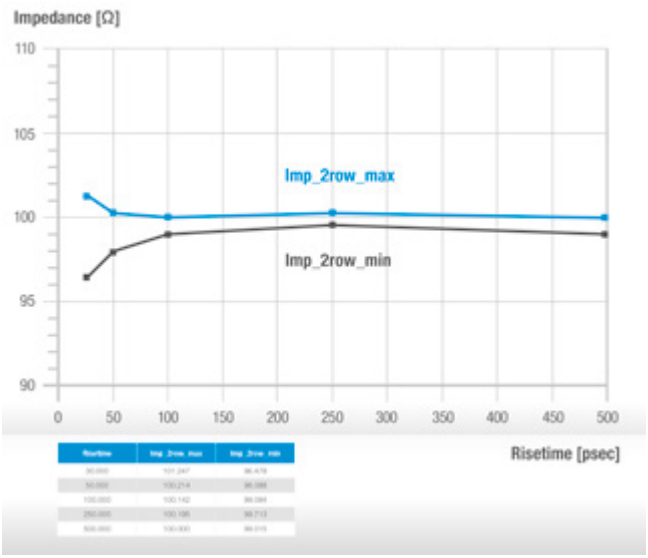
SIGNAL INTEGRITY



MicroSpeed connectors and Open Pin Field Arrays offer maximum grounding and routing flexibility for transversal, longitudinal or meshed pin assignments.

- Various signal-to-ground pattern meet the individual crosstalk requirements (NEXT, FEXT) and hence maintain signal integrity.
- The MicroSpeed Triple supports crosstalk reduction of up to 90% for certain pattern.

CONTROLLED IMPEDANCE

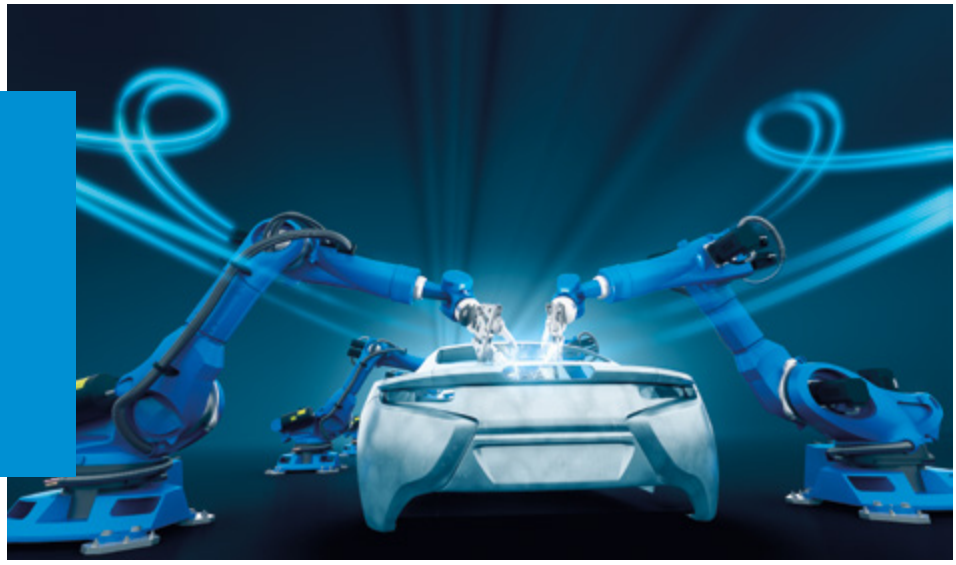


- Impedance matched connectors designed to minimize impedance mismatch
- For single-ended (50 Ω) or differential pair (100 Ω) signaling type

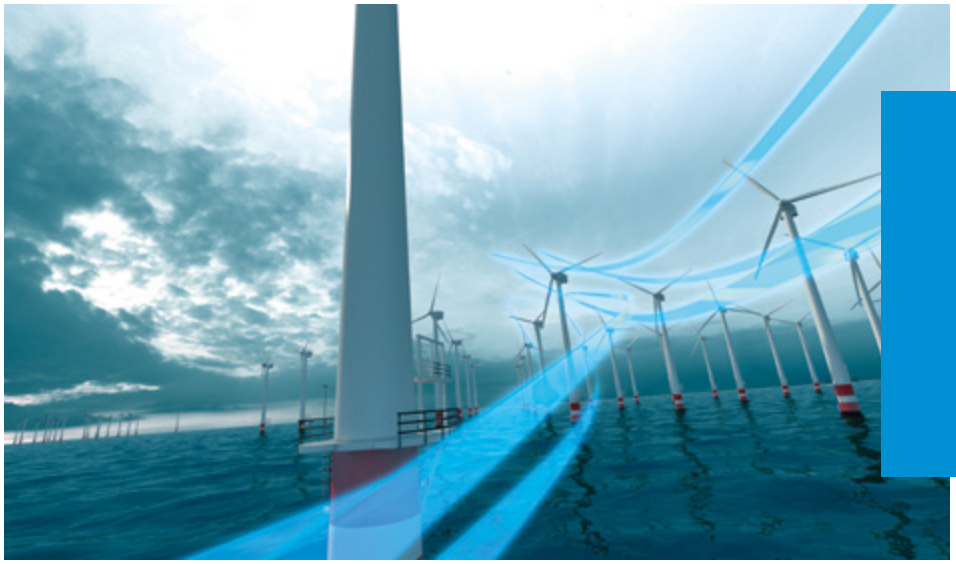
APPLICATIONS

YOUR CONNECTION TO THE WORLD

Telecommunications.
Industrial.
Computing.
Medical.



CREATING A SUSTAINABLE FUTURE

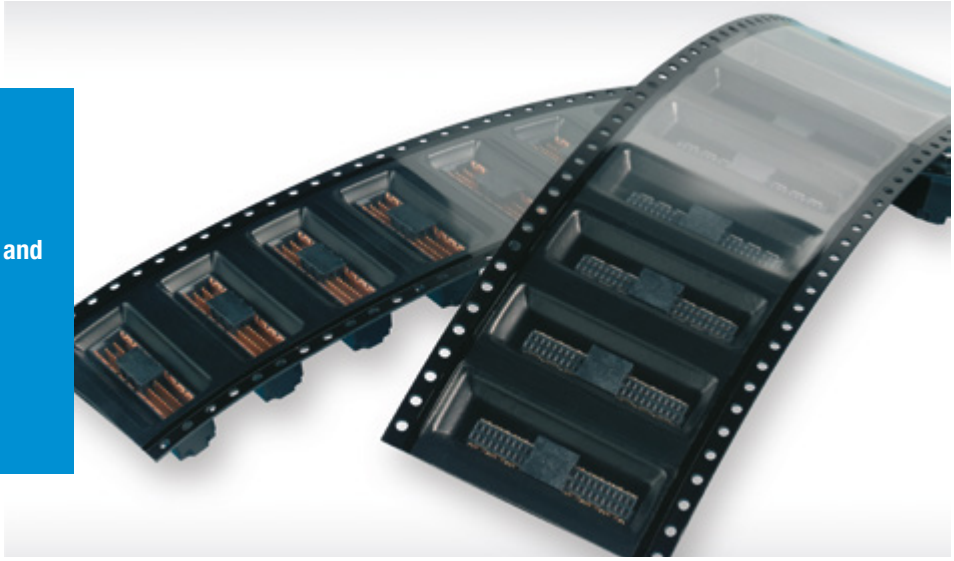


Intelligent Networks.
Connected Business.

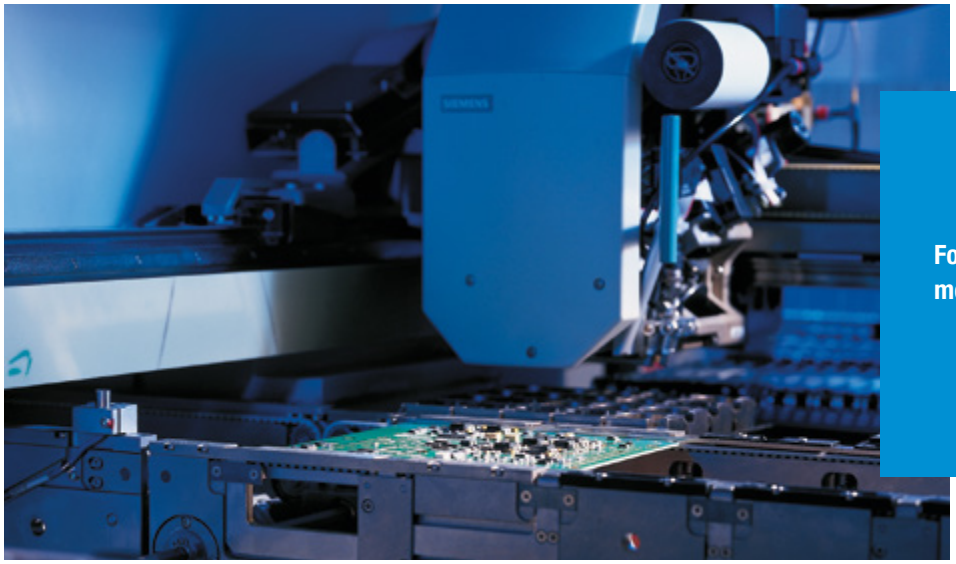
PROCESSING

TAPE AND REEL PACKAGING

Transport safe packaging and fully automatic assembly



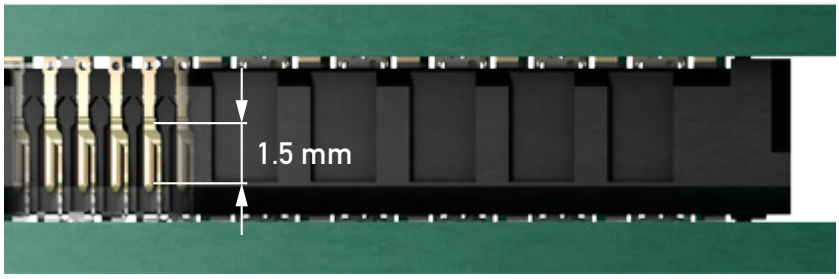
FULLY AUTOMATIC ASSEMBLY AND REFLOW SOLDERING



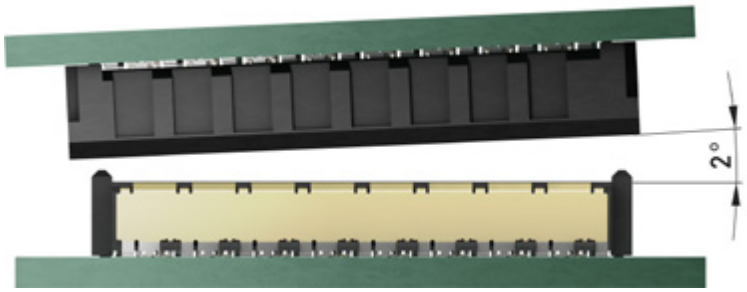
For efficient processing on modern assembly lines

MATING CONDITIONS

WIPE LENGTH

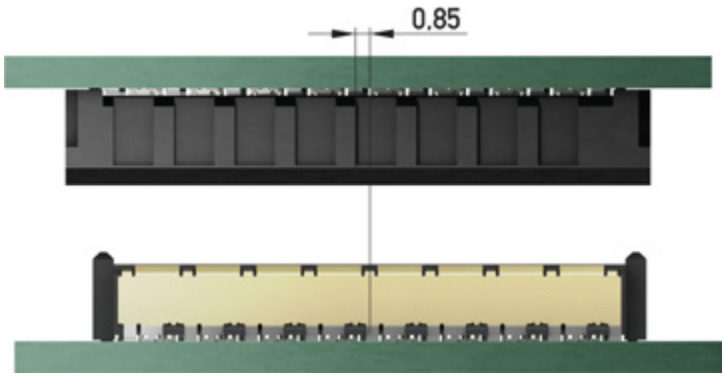


ALLOWED INCLINATION FOR SECURE SELF-CENTERING



* 50 pin Blind Mate Version

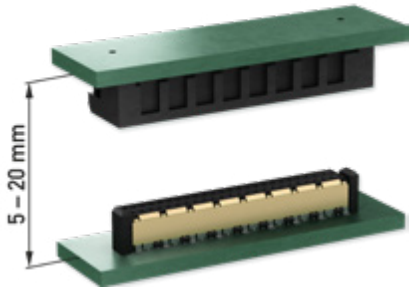
ALLOWED MISALIGNMENT FOR SECURE SELF-CENTERING

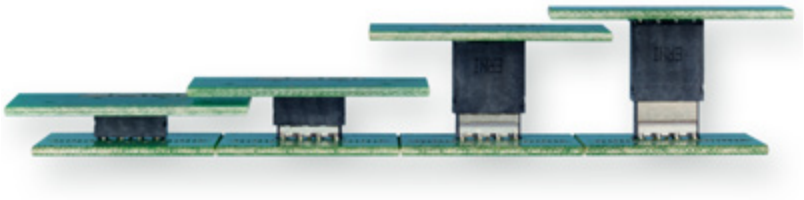


* 50 pin Blind Mate Version

BOARD-TO-BOARD HEIGHT

FLEXIBLE BOARD STACKING





Board-to-Board Height	Male Stacking Height	Female Stacking Height
5 – 6 mm	1 mm	4 mm
6 – 7mm	2 mm	4 mm
7 – 8 mm	1 mm	6 mm
8 – 9 mm	2 mm	6 mm
9 – 10 mm	1 mm	8 mm
10 – 11 mm	2 mm	8 mm
11 – 12 mm	1 mm	10 mm
12 – 13 mm	2 mm	10 mm
13 – 14 mm	9 mm	4 mm
14 – 15 mm	10 mm	4 mm
15 – 16 mm	9 mm	6 mm
16 – 17 mm	10 mm	6 mm
17 – 18 mm	9 mm	8 mm
18 – 19 mm	10 mm	8 mm
19 – 20 mm	9 mm	10 mm
20 – 21 mm	10 mm	10 mm

CHARACTERISTICS

TECHNICAL DATA

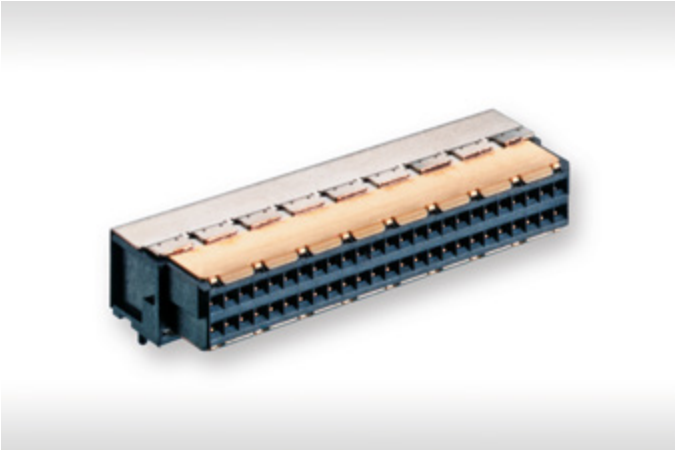
Description	Standard	Male and Female Connectors
Climate category	DIN EN 60068-1 test b	55 / 125 / 56
Temperature range		-55 / 125 °C
Current rating per contact	IEC60512 test 5b	ca. 1 A signal contacts / 10 A per shield
Air- and creepage (min.)		contact – contact 0.5 mm
Operating voltage	IEC 60664	The permissible operating voltages depends on the customer application and on the applicable or specified safety requirements. Insulation coordination according to IEC 60664-1 has to be regarded for the complete electrical device. Therefore, the maximum creep- age and clearance distances of the mated connectors are specified for consideration as a part of the whole current path. In practice, reductions in creepage or clearance distances may occur due to the conductive pattern of the printed board or the wiring used, and have to be taken into account separately. As a result the creepage and clearance distances for the application may be reduced compared to those of the connector.
Dielectric strength	IEC 60512 test 4a	contact – contact 500 V_{rms} contact – ground 500 V_{rms}
Contact resistant	IEC 60512 test 2a	< 25 mΩ
Insulation resistant	IEC 60512 test 3a	> 10^4 MΩ
Vibration, sine	IEC 60512 test 6d	10 – 2000 Hz 20 g
Contact disturbance (while vibration test)	IEC 60512 test 2e	< 1 µs
Shock, halfsine	IEC 60512 test 6c	50 g 11 ms
Contact disturbance (while shock test)	IEC 60512 test 2e	< 1 µs
Mechanical Operation	IEC 60512 test 9a	500 mating cycles
Insertion and withdrawal force	IEC 60512 test 13b	max. 0.5 N per contact
Gauge retention force	IEC 60512 test 16e	> 0.1 N

CHARACTERISTICS

Description	Standard	Male and Female Connectors
Signal Transmission Data		
Data rate		up to 25 Gbit/s
Multiline crosstalk		< 0.5% at 50 ps (10-90%)
Differential impedance		100 Ω
Single ended impedance		50 Ω
Processing Conditions		
Reflow soldering temperature max.	JEDEC J-STD-020	20 - 40 s at 260 °C
Coplanarity		< 0.1 mm
Housing Material		
Insulation body		LCP
CTI value	IEC 112	175
UL flame rating	UL 94	V-0
UL file plastic material		E83005
MSL	JEDEC J-STD-020	Level 1
Contact Material		
Base material		Cu alloy
Mating area		Gold plating
Termination area		Sn plating
Environment Compatibility		
Recycling		no flame-retardent additives, no toxic additives allow easy recycling
Product Approval		
UL/CSA		E84703

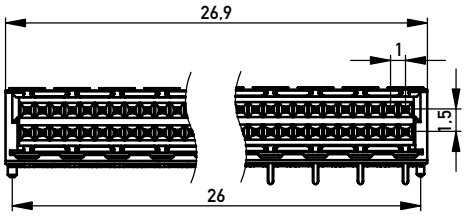
STANDARD EMC ENHANCED, RIGHT ANGLE FEMALE

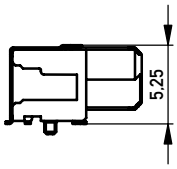
PRODUCT SPECIFICATION

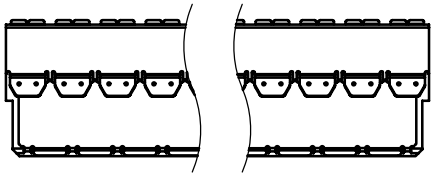


- Right angle, 2-row
- Data rates up to 25 Gbit/s
- EMC enhanced shielding
- Shield contacts available in SMT or THR
- Polarized mating face
- Tape and reel packaging

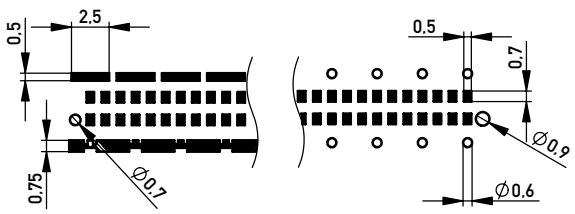
DIMENSIONAL DRAWINGS







Recommended Layout



STANDARD EMC ENHANCED, RIGHT ANGLE FEMALE

ORDERING INFORMATION

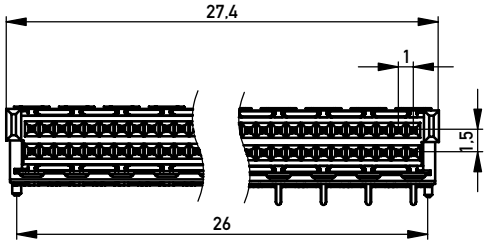
No. of Pins	Termination	Packaging	Part Number
50	SMT	Tape and reel	244676
50	SMT/THR	Tape and reel	374719

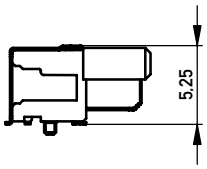
BLIND MATE EMC ENHANCED, RIGHT ANGLE FEMALE

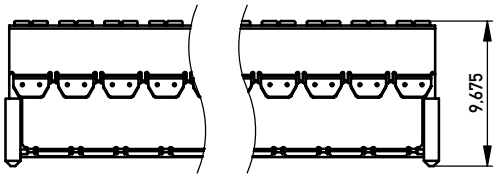
PRODUCT SPECIFICATION

- Right angle, 2-row
- Blind Mate design
- Data rates up to 25 Gbit/s
- EMC enhanced shielding
- Shield contacts available in SMT or THR
- Polarized mating face
- Tape and reel packaging

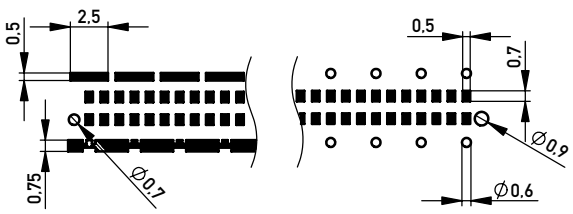
DIMENSIONAL DRAWINGS







Recommended Layout



BLIND MATE EMC ENHANCED, RIGHT ANGLE FEMALE

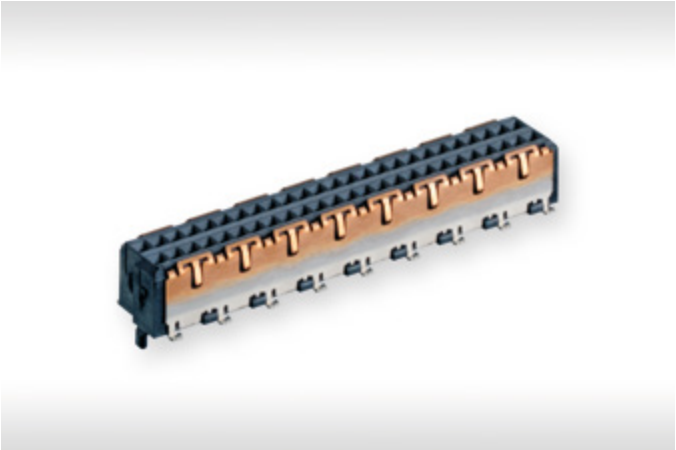
ORDERING INFORMATION

No. of Pins	Termination	Packaging	Part Number
50	SMT	Tape and reel	284310
50	SMT/THR	Tape and reel	374720

MicroSpeed - Two-row Configurations

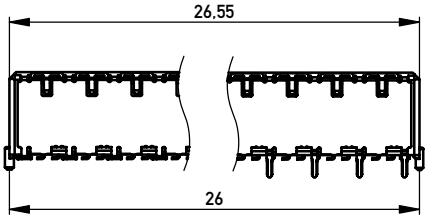
STANDARD, VERTICAL FEMALE —

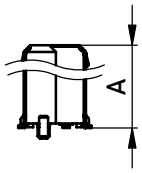
PRODUCT SPECIFICATION



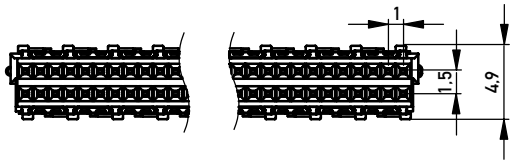
- Vertical, 2-row
- Data rates up to 25 Gbit/s
- Standard shielding
- Shield contacts available in SMT or THR
- Heights: 4, 6, 8, 10 mm
- Polarized mating face
- Tape and reel packaging

DIMENSIONAL DRAWINGS

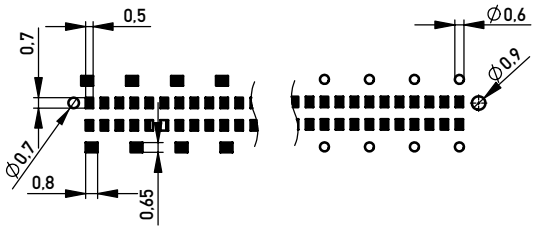




4 mm	3,80
6 mm	5,80
8 mm	7,80
10 mm	9,80
Stacking Height	A



Recommended Layout



STANDARD, VERTICAL FEMALE

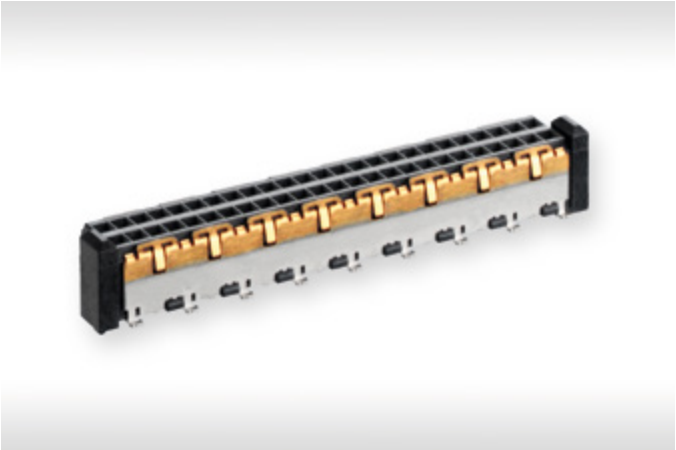
ORDERING INFORMATION

No. of Pins	Unmated Stacking Height	Termination	Packaging	Part Number
50	4	SMT	Tape and reel	144662
50	4	SMT/THR	Tape and reel	144663
50	6	SMT	Tape and reel	224512
50	6	SMT/THR	Tape and reel	224513
50	8	SMT	Tape and reel	224514
50	8	SMT/THR	Tape and reel	224515
50	10	SMT	Tape and reel	224516
50	10	SMT/THR	Tape and reel	224517

MicroSpeed - Two-row Configurations

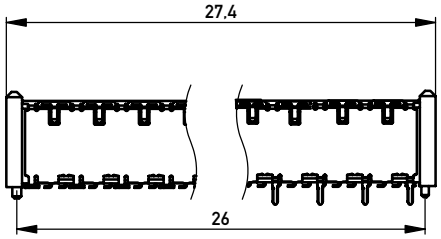
BLIND MATE, VERTICAL FEMALE —

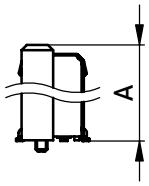
PRODUCT SPECIFICATION



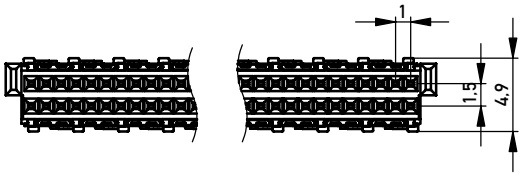
- Vertical, 2-row
- Blind Mate design
- Data rates up to 25 Gbit/s
- Standard shielding
- Shield contacts available in SMT or THR
- Heights: 4, 6, 8, 10 mm
- Polarized mating face
- Tape and reel packaging

DIMENSIONAL DRAWINGS

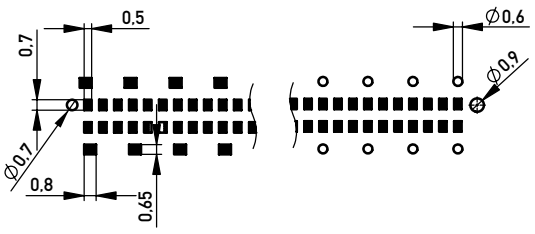




4 mm	4,40
6 mm	6,40
8 mm	8,40
10 mm	10,40
Stacking Height	A



Recommended Layout



MicroSpeed - Two-row Configurations

BLIND MATE, VERTICAL FEMALE

ORDERING INFORMATION

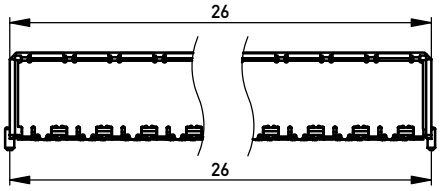
No. of Pins	Unmated Stacking Height	Termination	Packaging	Part Number
50	4	SMT	Tape and reel	254876
50	4	SMT/THR	Tape and reel	354175
50	6	SMT	Tape and reel	354176
50	6	SMT/THR	Tape and reel	354177
50	8	SMT	Tape and reel	354178
50	8	SMT/THR	Tape and reel	354179
50	10	SMT	Tape and reel	354180
50	10	SMT/THR	Tape and reel	354181

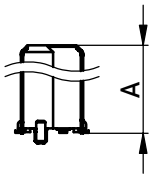
STANDARD EMC ENHANCED, VERTICAL FEMALE

PRODUCT SPECIFICATION

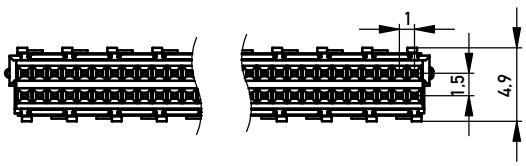
- Vertical, 2-row
- Data rates up to 25 Gbit/s
- EMC enhanced shielding
- Shield contacts available in SMT
- Heights: 4 mm
- Polarized mating face
- Tape and reel packaging

DIMENSIONAL DRAWINGS

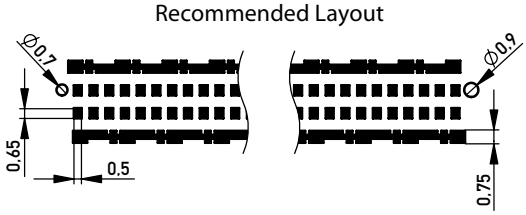




4 mm	3.80
Stacking Height	A



Recommended Layout



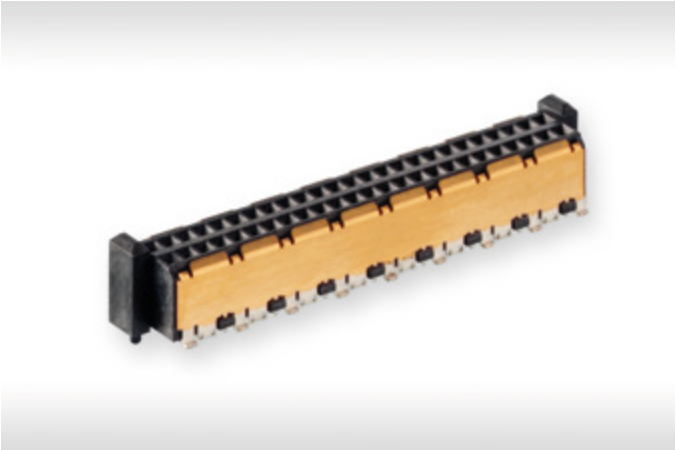
STANDARD EMC ENHANCED, VERTICAL FEMALE

ORDERING INFORMATION

No. of Pins	Unmated Stacking Height	Termination	Packaging	Part Number
50	4	SMT	Tape and reel	374730

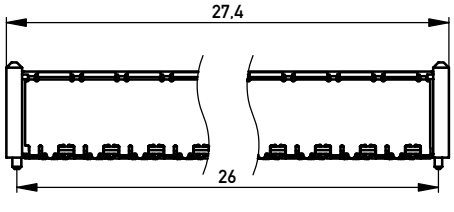
BLIND MATE EMC ENHANCED, VERTICAL FEMALE

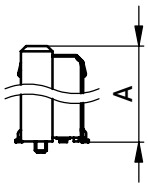
PRODUCT SPECIFICATION



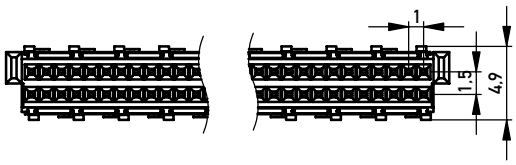
- Vertical, 2-row
- Blind Mate design
- Data rates up to 25 Gbit/s
- EMC enhanced shielding
- Shield contacts available in SMT
- Heights: 4 mm
- Polarized mating face
- Tape and reel packaging

DIMENSIONAL DRAWINGS

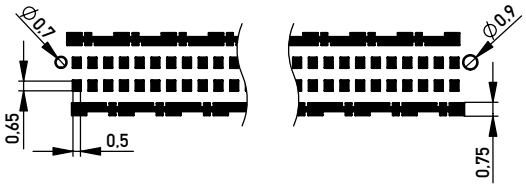




4 mm	4.40
Stacking Height	A



Recommended Layout



BLIND MATE EMC ENHANCED, VERTICAL FEMALE

ORDERING INFORMATION

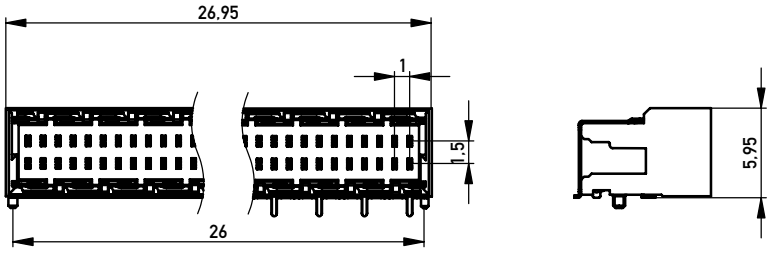
No. of Pins	Unmated Stacking Height	Termination	Packaging	Part Number
50	4	SMT	Tape and reel	374725

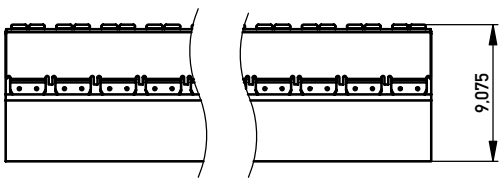
STANDARD EMC ENHANCED, RIGHT ANGLE MALE

PRODUCT SPECIFICATION

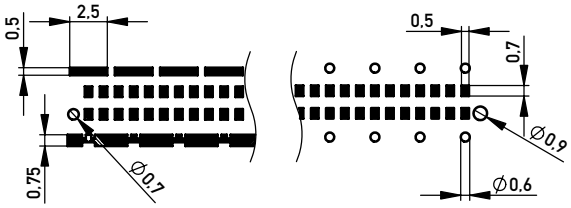
- Right angle, 2-row
- Data rates up to 25 GBit/s
- EMC enhanced shielding
- Shield contacts available in SMT or THR
- Polarized mating face
- Tape and reel packaging

DIMENSIONAL DRAWINGS





Recommended Layout



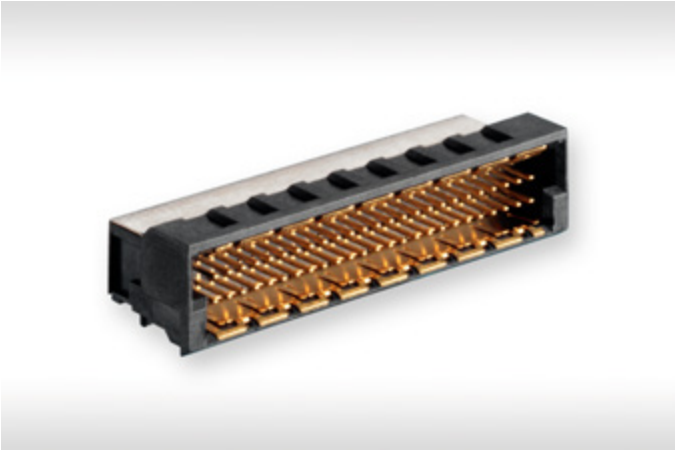
STANDARD EMC ENHANCED, RIGHT ANGLE MALE

ORDERING INFORMATION

No. of Pins	Termination	Packaging	Part Number
50	SMT	Tape and reel	244692
50	SMT/THR	Tape and reel	374721

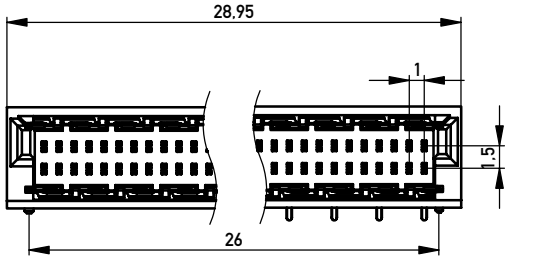
BLIND MATE EMC ENHANCED, RIGHT ANGLE MALE

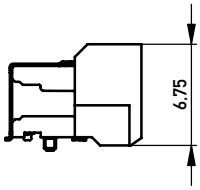
PRODUCT SPECIFICATION

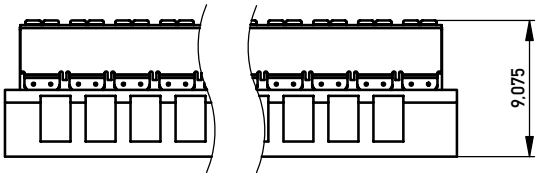


- Right angle, 2-row
- Blind Mate design
- Data rates up to 25 GBit/s
- EMC enhanced shielding
- Shield contacts available in SMT or THR
- Polarized mating face
- Tape and reel packaging

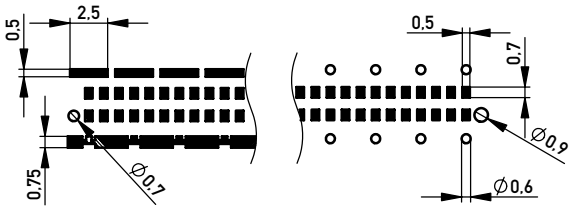
DIMENSIONAL DRAWINGS







Recommended Layout



BLIND MATE EMC ENHANCED, RIGHT ANGLE MALE

ORDERING INFORMATION

No. of Pins	Termination	Packaging	Part Number
50	SMT	Tape and reel	284332
50	SMT/THR	Tape and reel	374722

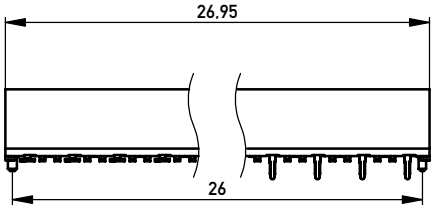
MicroSpeed - Two-row Configurations

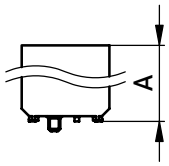
STANDARD, VERTICAL MALE —

PRODUCT SPECIFICATION

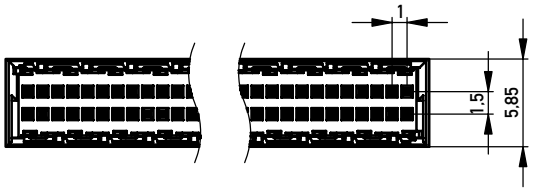
- Vertical, 2-row
- Data rates up to 25 Gbit/s
- Standard shielding
- Shield contacts available in SMT or THR
- Heights: 1, 2, 9, 10 mm
- Polarized mating face
- Tape and reel packaging

DIMENSIONAL DRAWINGS

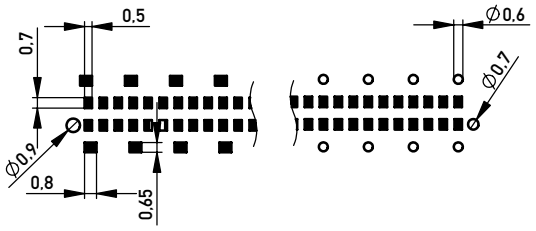




1 mm	4,80
2 mm	5,80
9 mm	12,80
10 mm	13,80
Stacking Height	A



Recommended Layout



MicroSpeed - Two-row Configurations

STANDARD, VERTICAL MALE

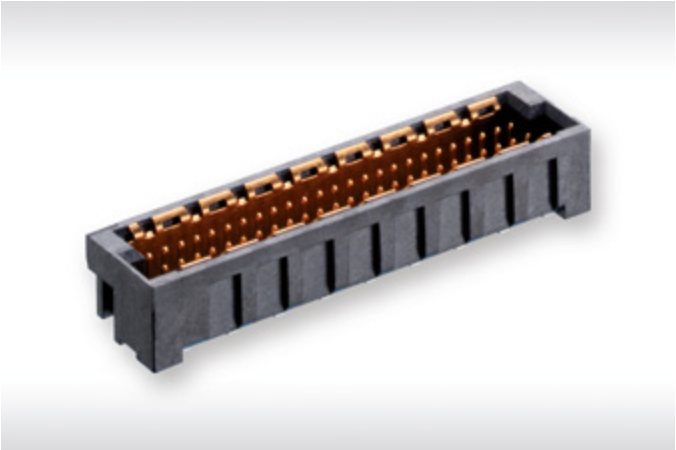
ORDERING INFORMATION

No. of Pins	Unmated Stacking Height	Termination	Packaging	Part Number
50	1	SMT	Tape and reel	144680
50	1	SMT/THR	Tape and reel	144681
50	2	SMT	Tape and reel	224557
50	2	SMT/THR	Tape and reel	224558
50	9	SMT	Tape and reel	224559
50	9	SMT/THR	Tape and reel	224560
50	10	SMT	Tape and reel	224561
50	10	SMT/THR	Tape and reel	224562

MicroSpeed - Two-row Configurations

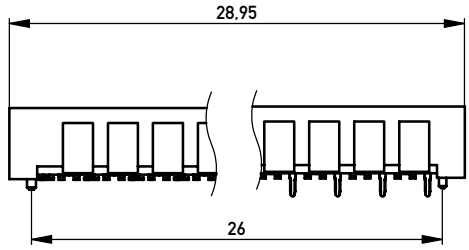
BLIND MATE, VERTICAL MALE —

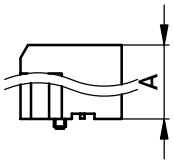
PRODUCT SPECIFICATION



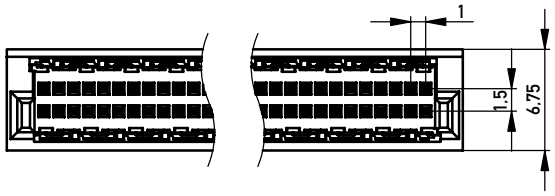
- Vertical, 2-row
- Blind Mate design
- Data rates up to 25 Gbit/s
- Standard shielding
- Shield contacts available in SMT or THR
- Heights: 1, 2, 9, 10 mm
- Polarized mating face
- Tape and reel packaging

DIMENSIONAL DRAWINGS

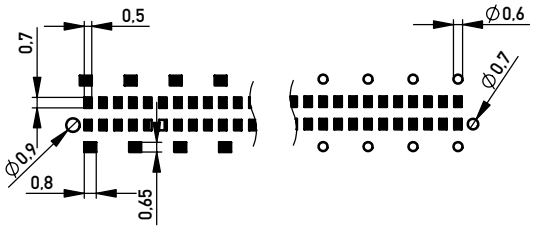




1 mm	4,80
2 mm	5,80
9 mm	12,80
10 mm	13,80
Stacking Height	A



Recommended Layout



MicroSpeed - Two-row Configurations

BLIND MATE, VERTICAL MALE

ORDERING INFORMATION

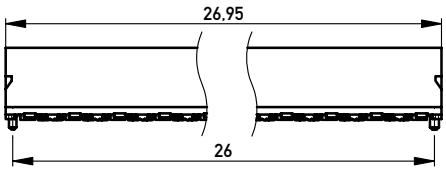
No. of Pins	Unmated Stacking Height	Termination	Packaging	Part Number
50	1	SMT	Tape and reel	254877
50	1	SMT/THR	Tape and reel	354182
50	2	SMT	Tape and reel	354183
50	2	SMT/THR	Tape and reel	354184
50	9	SMT	Tape and reel	354185
50	9	SMT/THR	Tape and reel	354186
50	10	SMT	Tape and reel	354187
50	10	SMT/THR	Tape and reel	354188

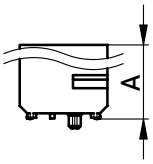
STANDARD EMC ENHANCED, VERTICAL MALE

PRODUCT SPECIFICATION

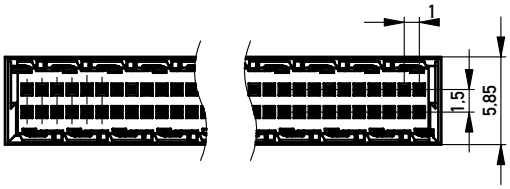
- Vertical, 2-row
- Data rates up to 25 Gbit/s
- EMC enhanced shielding
- Shield contacts available in SMT
- Heights: 1 mm
- Polarized mating face
- Tape and reel packaging

DIMENSIONAL DRAWINGS

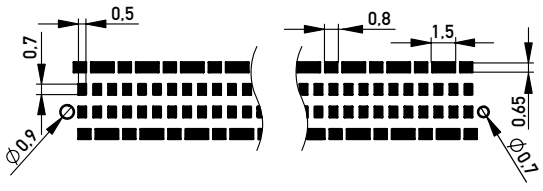




1 mm	4,80
Stacking Height	A



Recommended Layout



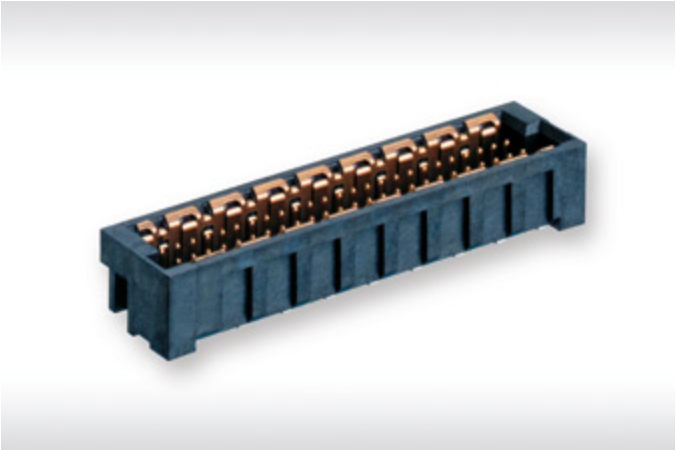
STANDARD EMC ENHANCED, VERTICAL MALE

ORDERING INFORMATION

No. of Pins	Unmated Stacking Height	Termination	Packaging	Part Number
50	1	SMT	Tape and reel	374732

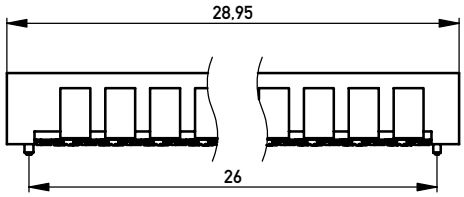
BLIND MATE EMC ENHANCED, VERTICAL MALE

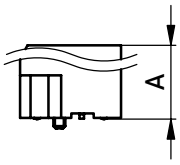
PRODUCT SPECIFICATION



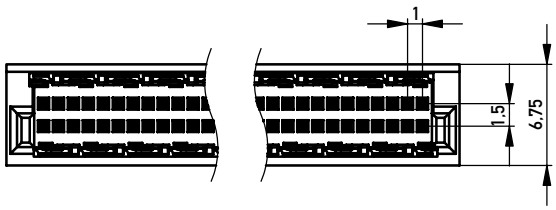
- Vertical, 2-row
- Blind Mate design
- Data rates up to 25 Gbit/s
- EMC enhanced shielding
- Shield contacts available in SMT
- Heights: 1 mm
- Polarized mating face
- Tape and reel packaging

DIMENSIONAL DRAWINGS

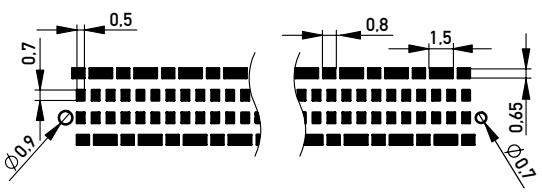




1 mm	4,80
Stacking Height	A



Recommended Layout



BLIND MATE EMC ENHANCED, VERTICAL MALE

ORDERING INFORMATION

No. of Pins	Unmated Stacking Height	Termination	Packaging	Part Number
50	1	SMT	Tape and reel	374723

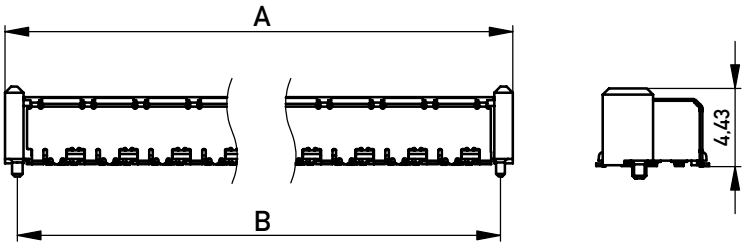
MicroSpeed Triple

BLIND MATE EMC ENHANCED, VERTICAL FEMALE

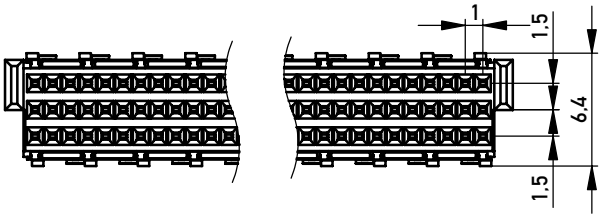
PRODUCT SPECIFICATION

- Vertical, 3-row
- Blind Mate design
- Data rates up to 25 Gbit/s
- EMC enhanced shielding
- Shield contacts available in SMT
- Heights: 4 mm
- Polarized mating face
- Tape and reel packaging

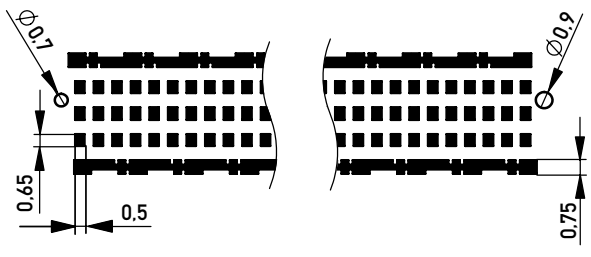
DIMENSIONAL DRAWINGS



75	27.40	26.00
No. of contacts	A	B



Recommended Layout



BLIND MATE EMC ENHANCED, VERTICAL FEMALE

ORDERING INFORMATION

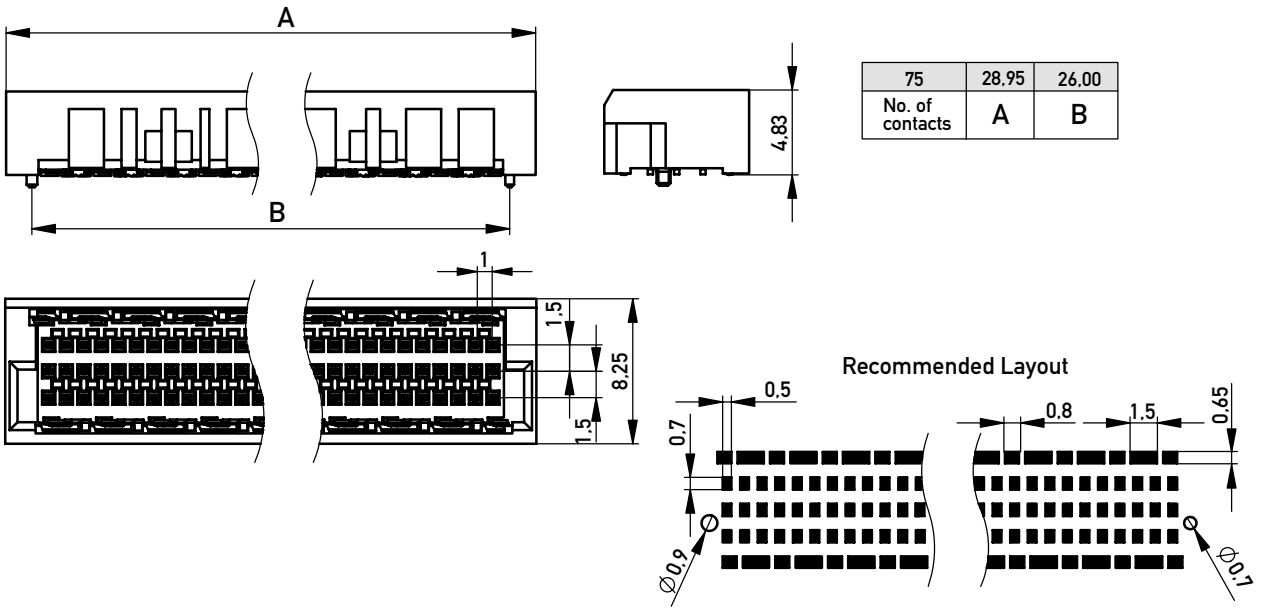
No. of Pins	Unmated Stacking Height	Termination	Packaging	Part Number
75	4	SMT	Tape and reel	474473

BLIND MATE EMC ENHANCED, VERTICAL MALE

PRODUCT SPECIFICATION

- Vertical, 3-row
- Blind Mate design
- Data rates up to 25 Gbit/s
- EMC enhanced shielding
- Shield contacts available in SMT
- Heights: 1 mm
- Polarized mating face
- Tape and reel packaging

DIMENSIONAL DRAWINGS



75	28,95	26,00
No. of contacts	A	B

BLIND MATE EMC ENHANCED, VERTICAL MALE

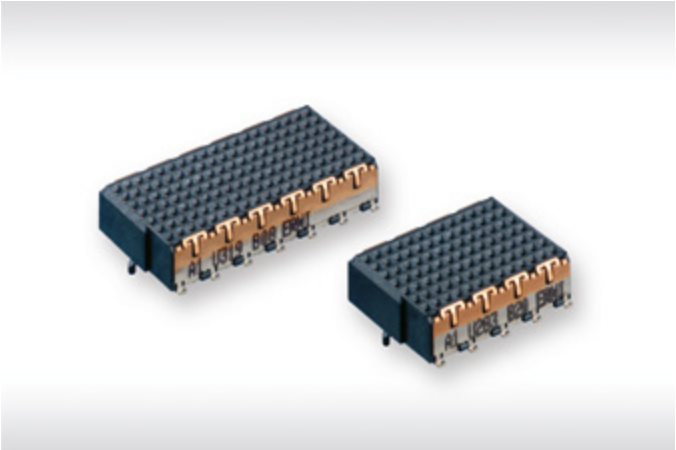
ORDERING INFORMATION

No. of Pins	Unmated Stacking Height	Termination	Packaging	Part Number
75	1	SMT	Tape and reel	474471

MicroSpeed - Open Pin Field Array

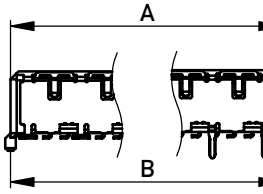
STANDARD, VERTICAL FEMALE —

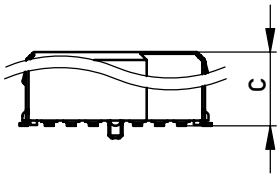
PRODUCT SPECIFICATION

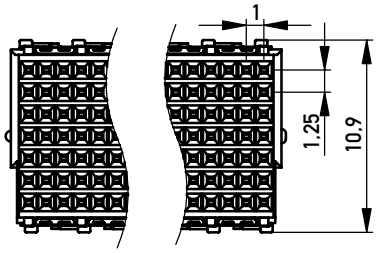


- Open Pin Field Array
- Vertical, 7-row
- Data rates up to 25 Gbit/s
- Standard shielding
- Shield contacts available in SMT or THR
- Heights: 4 mm
- Polarized mating face
- Tape and reel packaging

DIMENSIONAL DRAWINGS



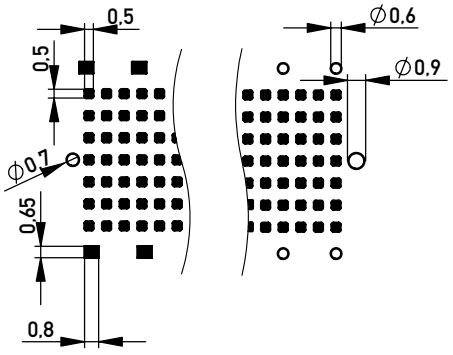




4 mm	3,80
Stacking Height	C

133	20,00	20,00
91	14,00	14,00
No. of contacts	A	B

Recommended Layout



MicroSpeed - Open Pin Field Array

STANDARD, VERTICAL FEMALE

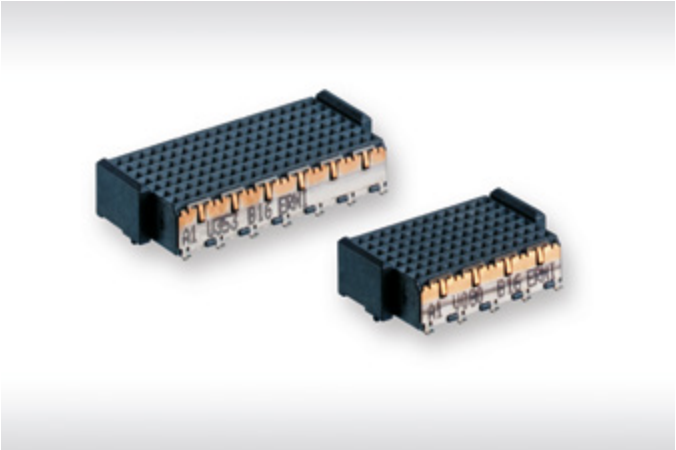
ORDERING INFORMATION

No. of Pins	Unmated Stacking Height	Termination	Packaging	Part Number
91	4	SMT	Tape and reel	224209
91	4	SMT/THR	Tape and reel	234097
133	4	SMT	Tape and reel	214352
133	4	SMT/THR	Tape and reel	234098

MicroSpeed - Open Pin Field Array

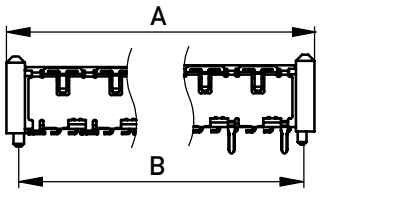
BLIND MATE, VERTICAL FEMALE —

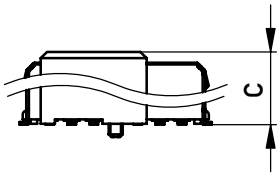
PRODUCT SPECIFICATION

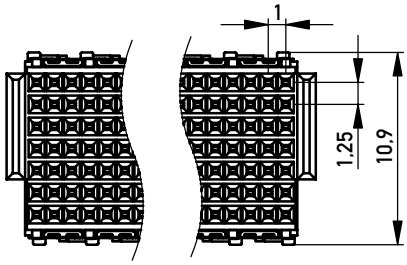


- Open Pin Field Array
- Vertical, 7-row
- Blind Mate design
- Data rates up to 25 Gbit/s
- Standard shielding
- Shield contacts available in SMT or THR
- Heights: 4, 6 mm
- Polarized mating face
- Tape and reel packaging

DIMENSIONAL DRAWINGS



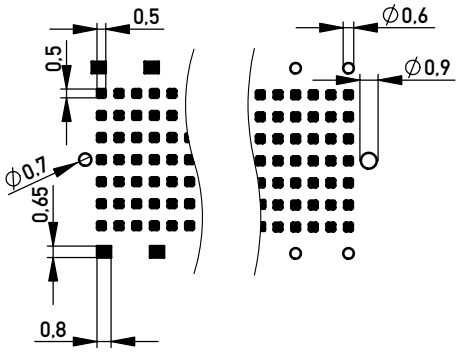




4 mm	4,40
6 mm	6,40
Stacking Height	C

133	21,40	20,00
91	15,40	14,00
No. of Contacts	A	B

Recommended Layout



MicroSpeed - Open Pin Field Array

BLIND MATE, VERTICAL FEMALE

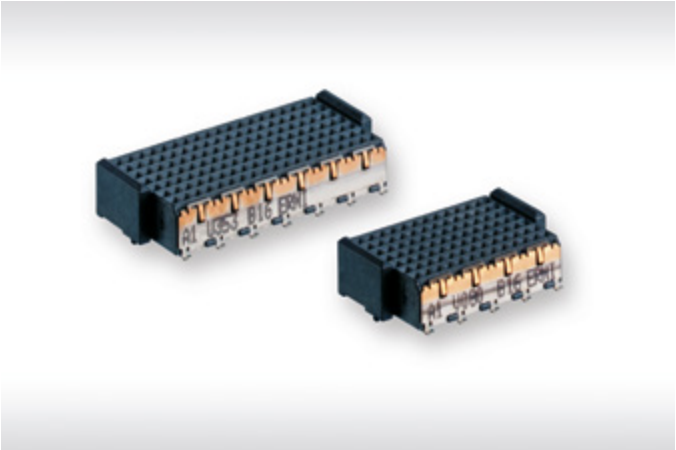
ORDERING INFORMATION

No. of Pins	Unmated Stacking Height	Termination	Packaging	Part Number
91	4	SMT	Tape and reel	454701
91	4	SMT/THR	Tape and reel	394930
91	6	SMT	Tape and reel	474192
133	4	SMT	Tape and reel	394256

MicroSpeed - Open Pin Field Array

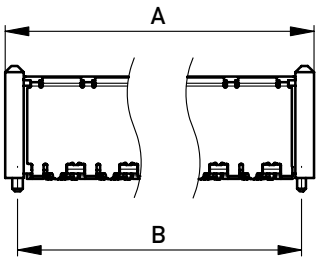
BLIND MATE EMC ENHANCED, VERTICAL FEMALE

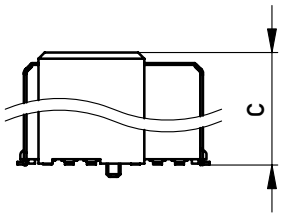
PRODUCT SPECIFICATION

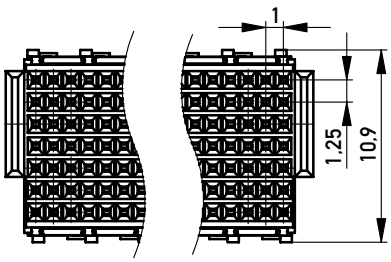


- Open Pin Field Array
- Vertical, 7-row
- Blind Mate design
- Data rates up to 25 Gbit/s
- EMC enhanced shielding
- Shield contacts available in SMT
- Heights: 6, 8 mm
- Polarized mating face
- Tape and reel packaging

DIMENSIONAL DRAWINGS



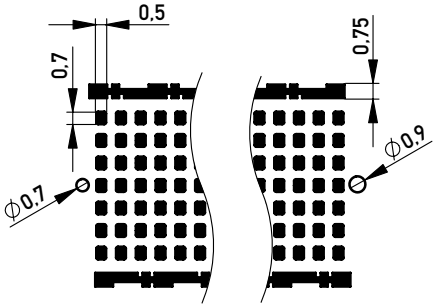




6 mm	6,40
8 mm	8,40
Stacking Height	C

133	21,40	20,00
91	15,40	14,00
No. of Contacts	A	B

Recommended Layout



BLIND MATE EMC ENHANCED, VERTICAL FEMALE

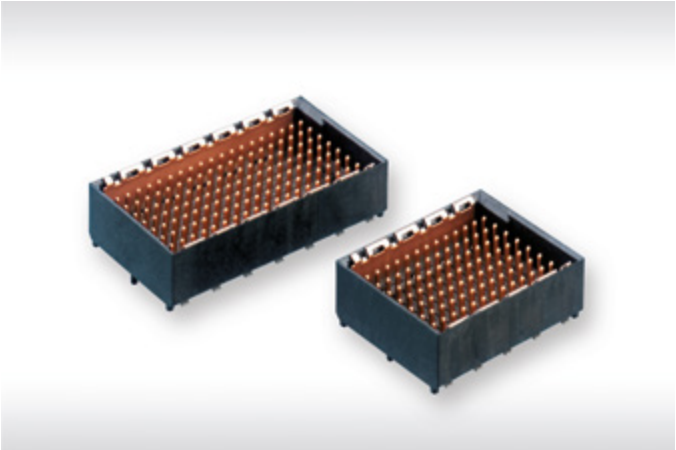
ORDERING INFORMATION

No. of Pins	Unmated Stacking Height	Termination	Packaging	Part Number
91	6	SMT	Tape and reel	464138
91	8	SMT	Tape and reel	464139

MicroSpeed - Open Pin Field Array

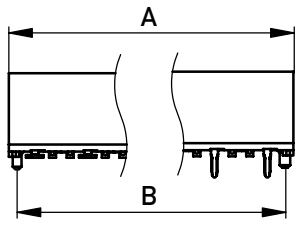
STANDARD, VERTICAL MALE —

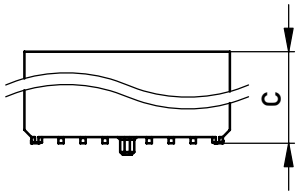
PRODUCT SPECIFICATION

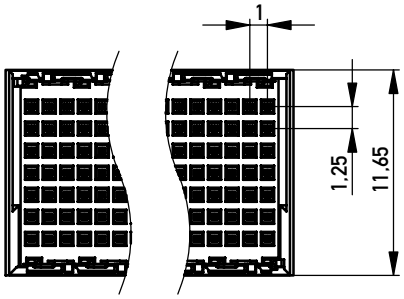


- Open Pin Field Array
- Vertical, 7-row
- Data rates up to 25 GBit/s
- Standard shielding
- Shield contacts available in SMT or THR
- Heights: 1 mm
- Polarized mating face
- Tape and reel packaging

DIMENSIONAL DRAWINGS



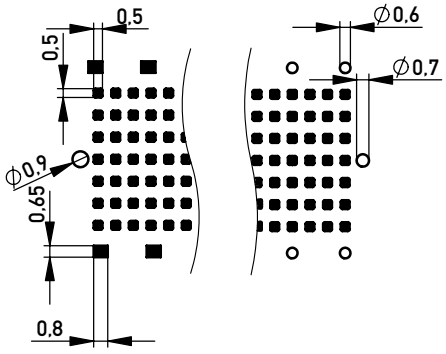




1 mm	4.80
Stacking Height	C

133	20.95	20.00
91	14.95	14.00
No. of contacts	A	B

Recommended Layout



MicroSpeed - Open Pin Field Array

STANDARD, VERTICAL MALE —

ORDERING INFORMATION

No. of Pins	Unmated Stacking Height	Termination	Packaging	Part Number
91	1	SMT	Tape and reel	224212
91	1	SMT/THR	Tape and reel	234752
133	1	SMT	Tape and reel	214355
133	1	SMT/THR	Tape and reel	234753

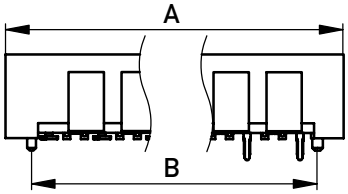
MicroSpeed - Open Pin Field Array

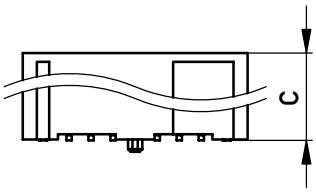
BLIND MATE, VERTICAL MALE —

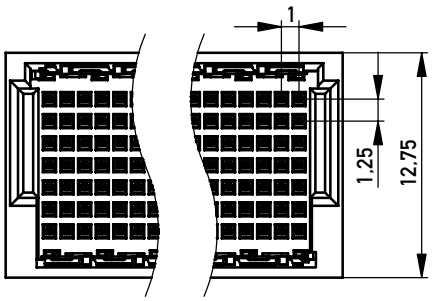
PRODUCT SPECIFICATION

- Open Pin Field Array
- Vertical, 7-row
- Blind Mate design
- Data rates up to 25 Gbit/s
- Standard shielding
- Shield contacts available in SMT or THR
- Heights: 1, 2 mm
- Polarized mating face
- Tape and reel packaging

DIMENSIONAL DRAWINGS



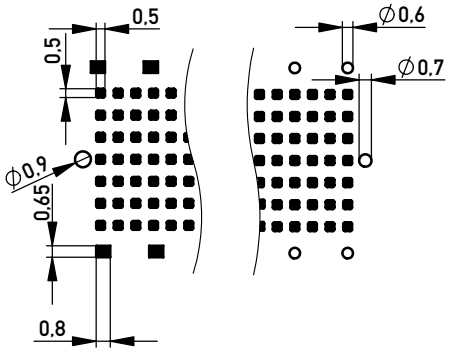




1 mm	4,80
2 mm	5,80
Stacking Height	C

133	22,95	20,00
91	16,95	14,00
No. of contacts	A	B

Recommended Layout



MicroSpeed - Open Pin Field Array

BLIND MATE, VERTICAL MALE

ORDERING INFORMATION

No. of Pins	Unmated Stacking Height	Termination	Packaging	Part Number
91	1	SMT	Tape and reel	454700
91	1	SMT/THR	Tape and reel	394931
91	2	SMT	Tape and reel	474191
133	1	SMT	Tape and reel	394257

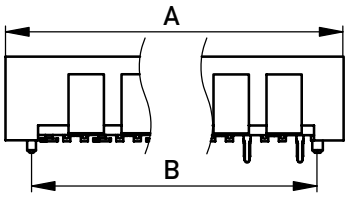
MicroSpeed - Open Pin Field Array

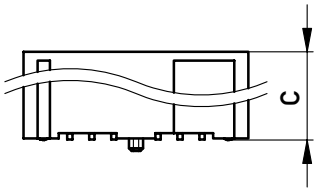
BLIND MATE EMC ENHANCED, VERTICAL MALE

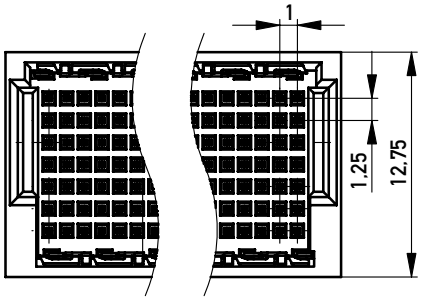
PRODUCT SPECIFICATION

- Open Pin Field Array
- Vertical, 7-row
- Blind Mate design
- Data rates up to 25 Gbit/s
- EMC enhanced shielding
- Shield contacts available in SMT
- Heights: 1, 2 mm
- Polarized mating face
- Tape and reel packaging

DIMENSIONAL DRAWINGS



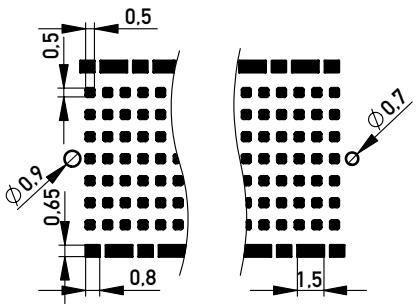




1 mm	4,80
2 mm	5,80
Stacking Height	C

133	22,95	20,00
91	16,95	14,00
No. of contacts	A	B

Recommended Layout



BLIND MATE EMC ENHANCED, VERTICAL MALE

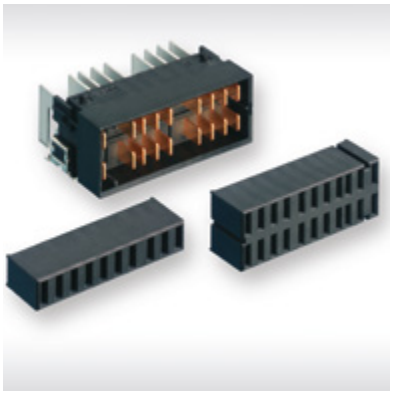
ORDERING INFORMATION

No. of Pins	Unmated Stacking Height	Termination	Packaging	Part Number
91	1	SMT	Tape and reel	464136
91	2	SMT	Tape and reel	464137

CUSTOMIZED SOLUTIONS

HIGH SPEED & HIGH POWER INTERCONNECTS

Numerous pin counts



RWB Connectors

Power Connectors

Combo Module

PART NUMBER INDEX

PART NUMBER INDEX

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