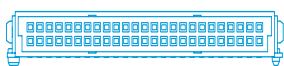
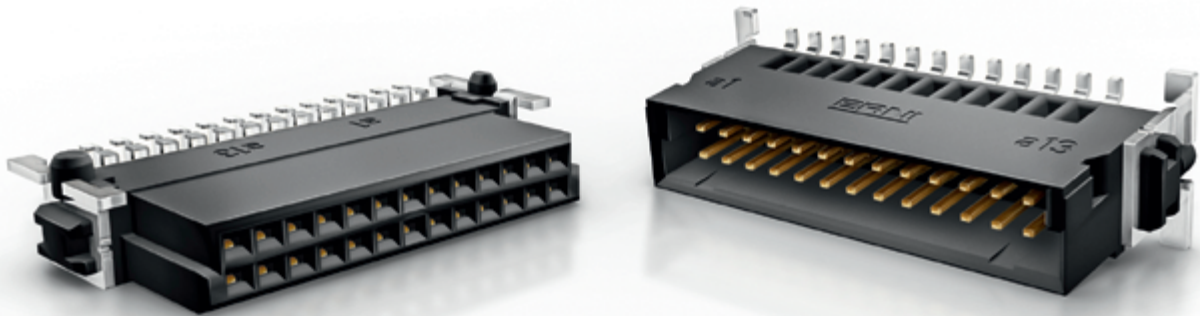


SMC

1.27 mm Connectors



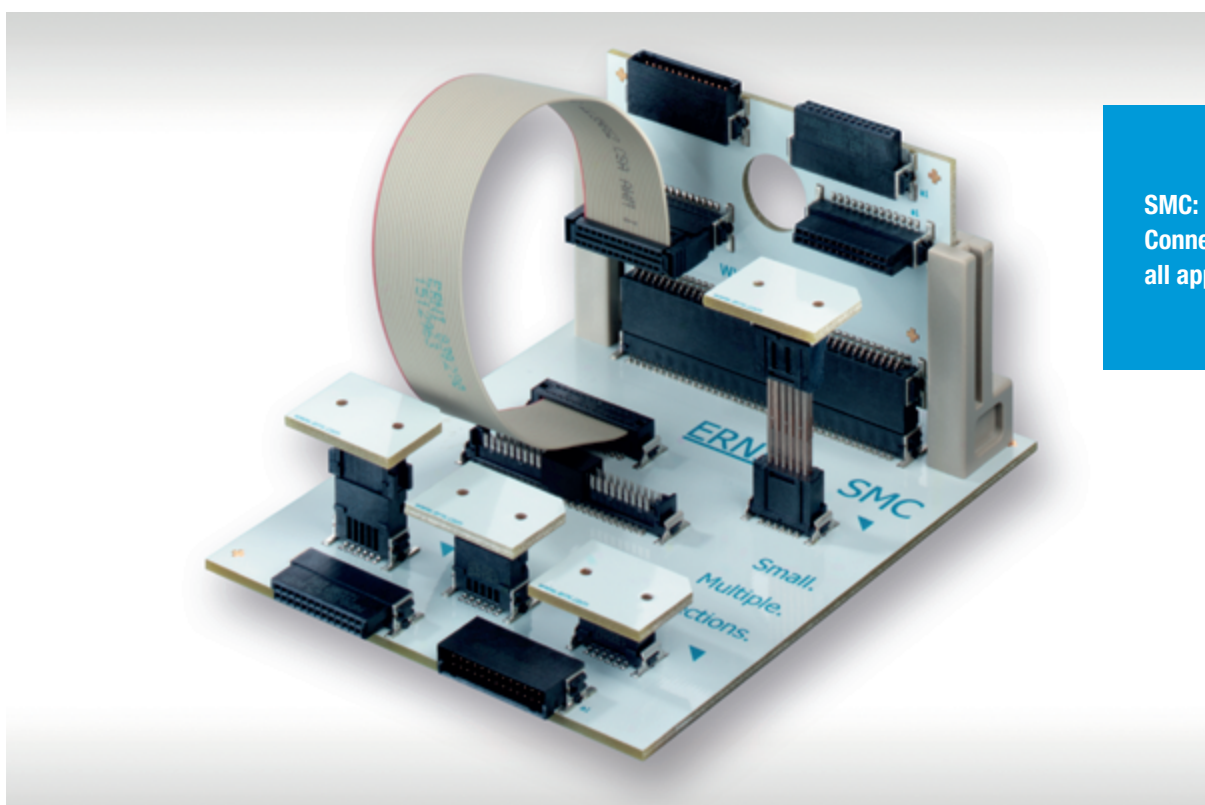
Full-scale SMC 50 Pins



SMC - 1.27 mm Connectors

DUAL ROW CONNECTOR

GENERAL



SMC:
Connectors for
all applications

Small Grid, Big Possibilities

Limited space and high performance demands are characteristics of many modern electronic systems, all of which the connectors must accommodate. There is a corresponding demand for compact, secure, and reliable connectors, with high signal integrity and a relatively high current-carrying capacity.

The comprehensive SMC range helps meet these requirements. The high-performance SMT connectors come in a number of different designs, heights, and contact densities in a 1.27 mm grid.

The basic design criteria for the SMC series include double-sided spring contacts for top-rate contact properties and maximum contact reliability, a

high-temperature resistant insulator with polarization and insertion chamfers, and a very high mating reliability.

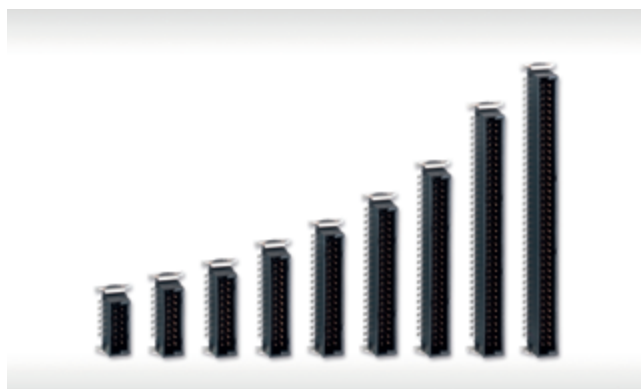
The perfect contact design exhibits a virtually continuous impedance profile and enables secure data transmission rates of up to 3 Gbit/s (differential) if the system is suitably designed.

SMC - 1.27 mm Connectors

CONCEPT —

FEATURES

| | |
|-------------------------------|--|
| Pitch | 1.27 mm |
| No. of Pins | 12, 16, 20, 26, 32, 40, 50, 68, 80 |
| Termination technology | SMT, individual variants in Pressfit technology |
| Applications | <p>Data rate up to 3 Gbit/s Current rating up to 1.7 A per contact Board-to-board connections:</p> <ul style="list-style-type: none"> - stacked (Mezzanine) - orthogonal - coplanar <p>Wire-to-Board connections (ribbon cable):</p> <ul style="list-style-type: none"> - pluggable - permanent |
| Connectors | <p>Male connectors, vertical and right angle Female connectors, vertical and right angle Board-to-Board adapter Board-on IDC Cable assembly:</p> <ul style="list-style-type: none"> - Female connectors IDC, right angle |
| Special versions | <p>Male- and female connectors lockable Pressfit male connectors With reduced or without locating pegs First mate/early brake contacts</p> |

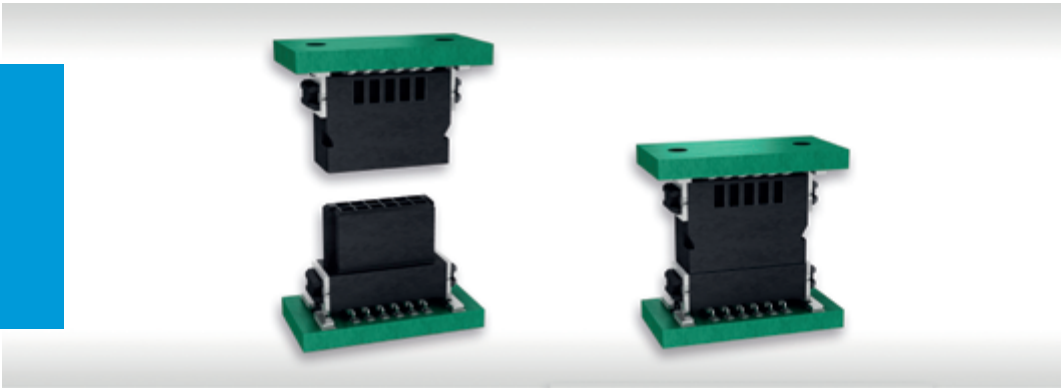


SMC - 1.27 mm Connectors

CONCEPT —

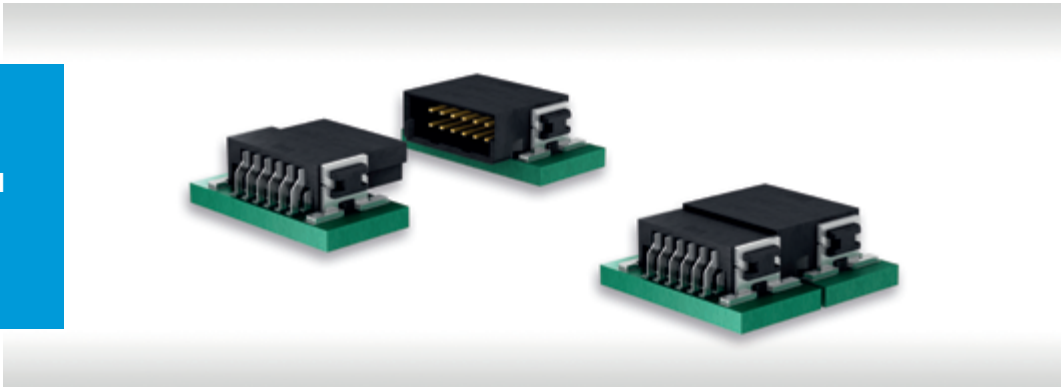
CAPABILITIES

Stacked boards
(Mezzanine)



Board-to-board
adapter: enhanced
board-to-board
heights

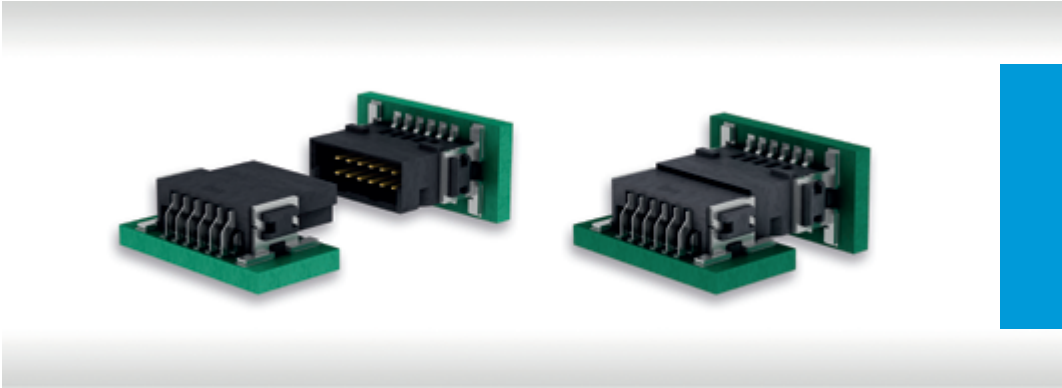
Extender card
(coplanar)



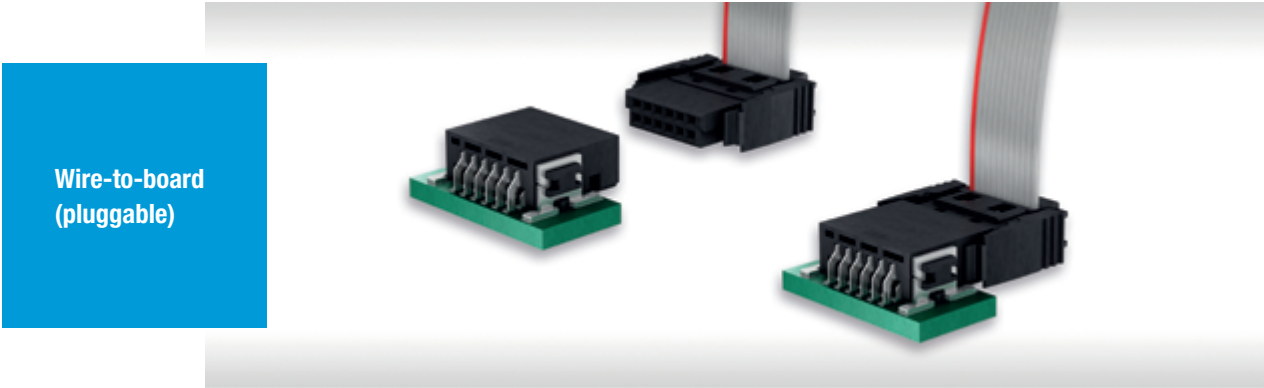
SMC - 1.27 mm Connectors

CONCEPT —

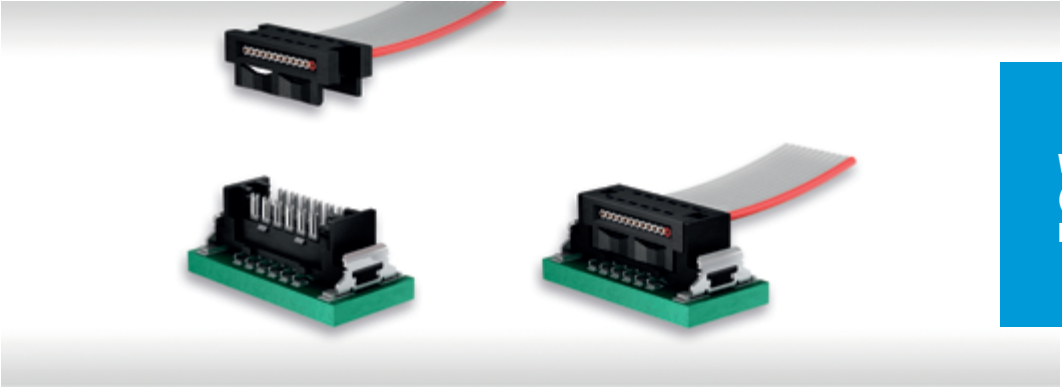
CAPABILITIES



Orthogonal boards



Wire-to-board (pluggable)

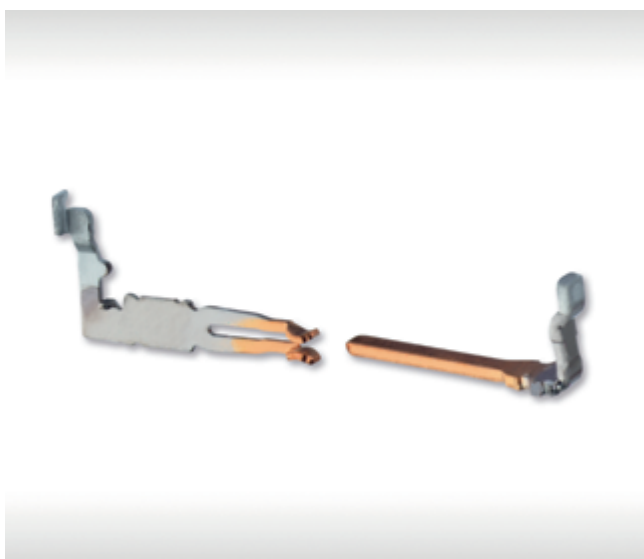


Wire-to-board (permanent):
Board-on IDC

SMC - 1.27 mm Connectors

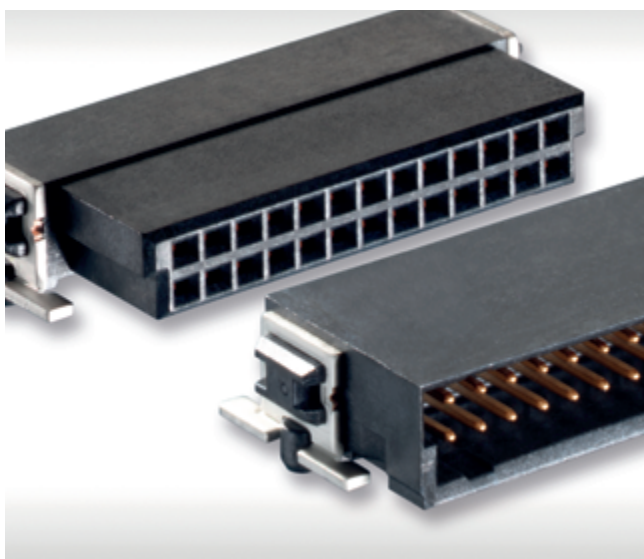
ADVANTAGES —

HIGH RELIABLE CONTACT DESIGN



- ultra-reliable, dual-beam female contact
- twisted contact tulip (90°)
- rolled, homogeneous surface, guarantees secure contact mating
- wide contact surfaces between the mated pairs
- extremely low surface roughness minimizes abrasion
- low contact resistance

POLARIZATION / MATING FACE

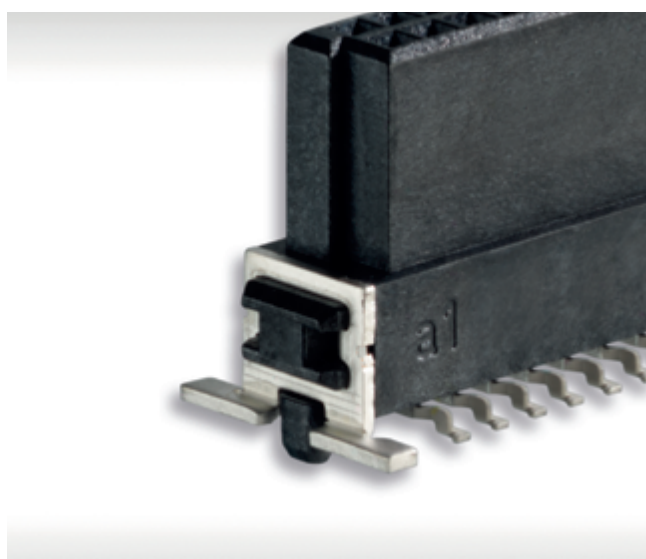


- mating face polarization prevents mismating and incorrect connection
- insertion chamfers in the capture range ensure secure mating
- distinctive guide elements for precise insertion

SMC - 1.27 mm Connectors

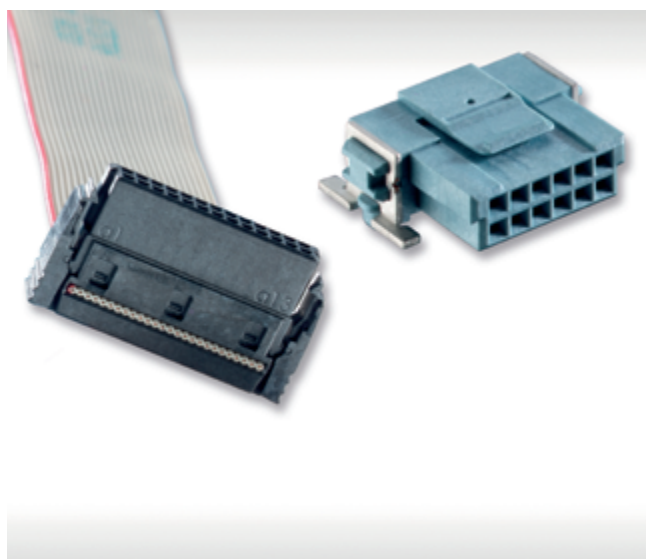
ADVANTAGES —

ROBUST SOLDER CLIPS



- outstanding retention forces on the circuit board
- soldering brackets absorb mechanical stress and are able to withstand high shock and vibration loads
- documented shear and tear-off forces build trust in surface-mounted connectors (e.g., shear force: min. 1000 N; tear-off force: min. 100 N)

INTERLOCKING SNAP-IN



- lockable PCB and cable connectors
- secured against heavy vibration and shock loads
- snap-in: locking when mating; can only be released with tools
- cable connector: integrated locking lever; can be manually released without tools
- protection against accidental release of wire-to-board connections
- cable guide ensures strain relief

SMC - 1.27 mm Connectors

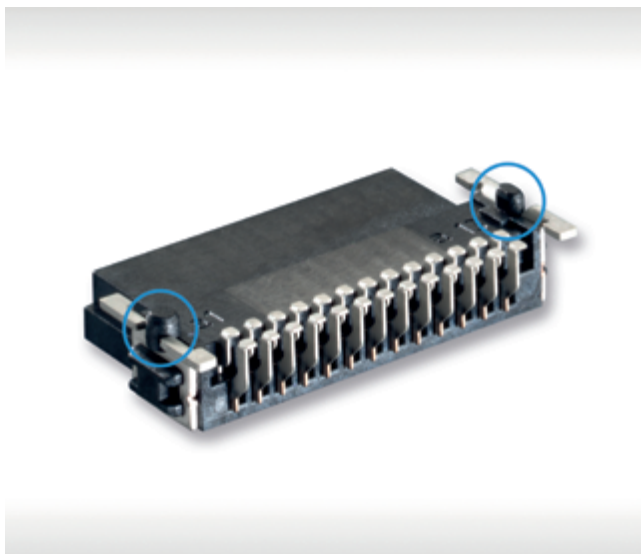
ADVANTAGES —

■ SNAP-IN B-TO-B ADAPTER



- single-sided locking of board-to-board adapters on low-profile female connectors
- enables the mating and release of two boards always on one specified side

■ LOCATING PEGS



- geometrically heterogeneous locating pegs for precise positioning on the circuit board
- enables best possible compensation of PCB holes for both positive and negative tolerances

SMC - 1.27 mm Connectors

PROCESSING —

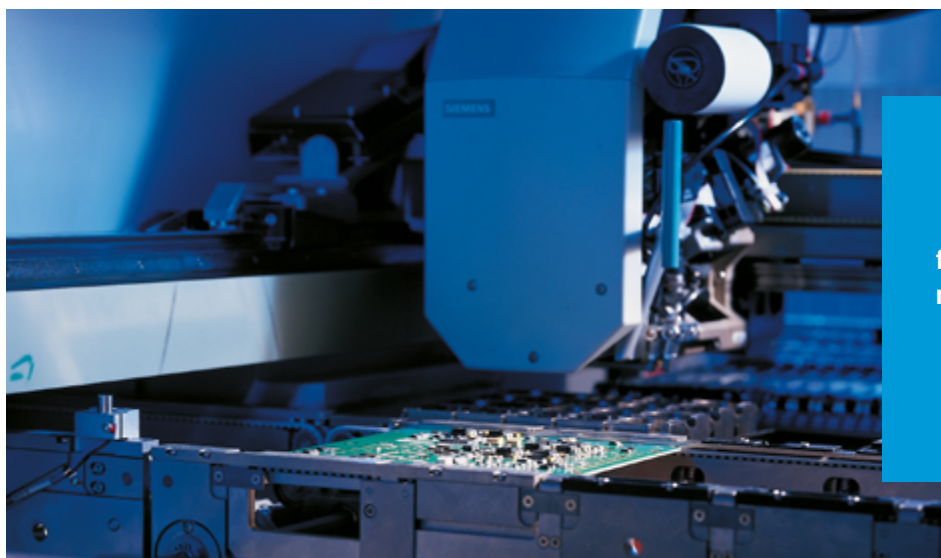
TAPE AND REEL PACKAGING

transport safe packaging
and fully automatic assembly



FULLY AUTOMATIC ASSEMBLY AND REFLOW SOLDERING

for efficient processing on
modern assembly lines



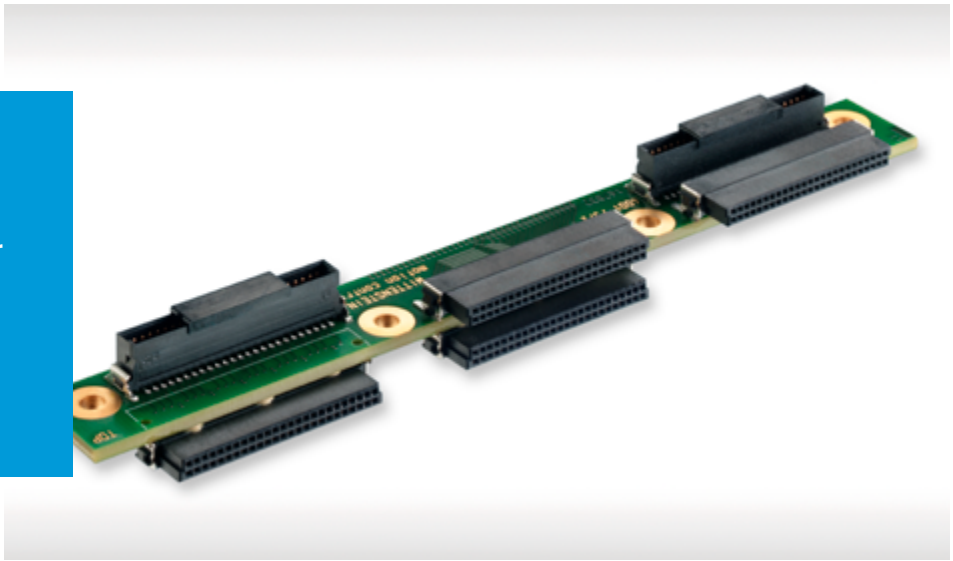
SMC - 1.27 mm Connectors

PROCESSING —

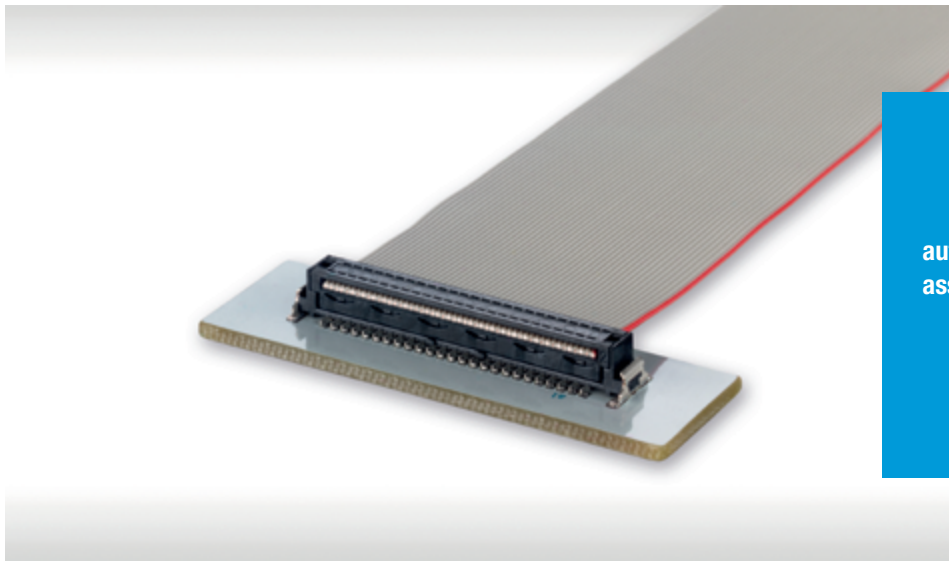


BACKSIDE REFLOW SOLDERING

a challenge, especially for angled connectors



PERMANENT WIRE-TO-BOARD CONNECTION (BOARD-ON IDC)

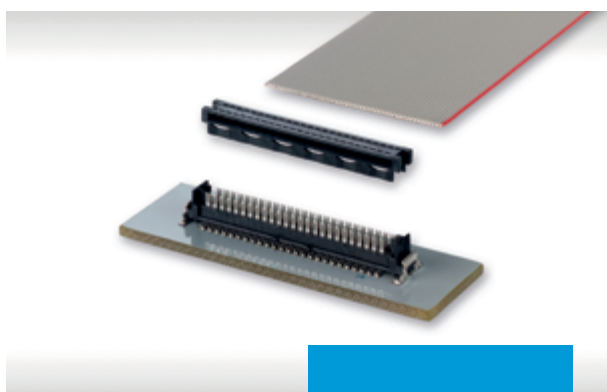


automated and cost-efficient assembly of ribbon cables

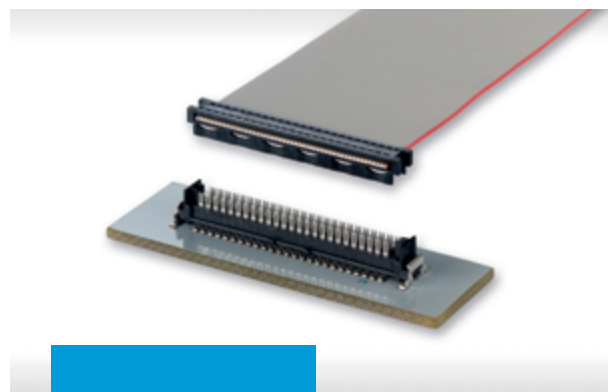
SMC - 1.27 mm Connectors

BOARD-ON IDC —

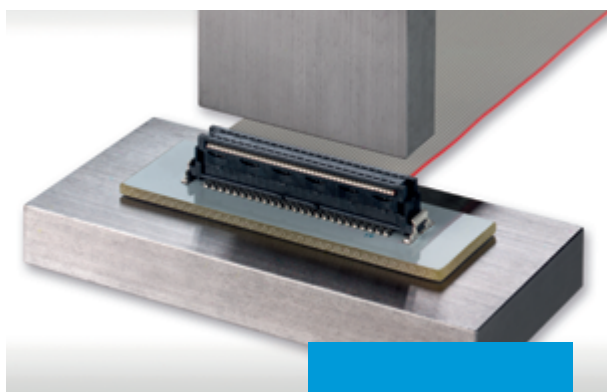
PERMANENT WIRE-TO-BOARD CONNECTION



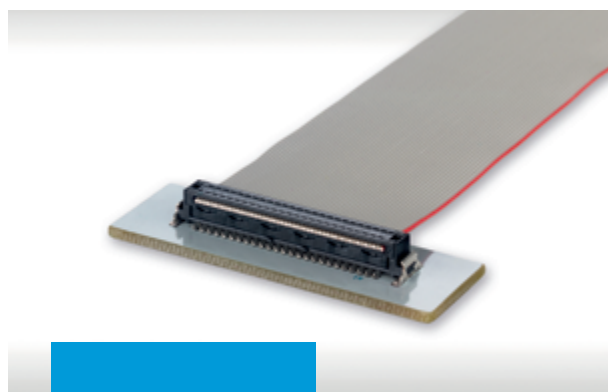
fully automated assembly



feeding of the ribbon cable and cable guide



press-in without special tool

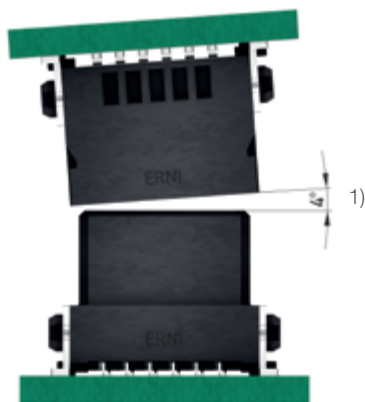


processed connection

SMC - 1.27 mm Connectors

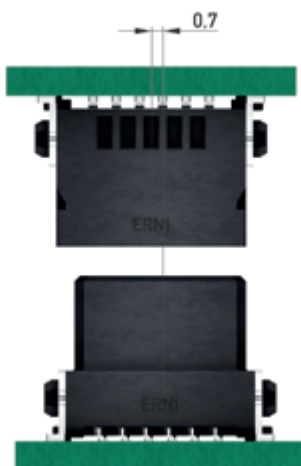
MATING CONDITIONS

ALLOWED INCLINATION FOR A SECURE SELF-CENTERING



1) depends on No. of Pins and misalignment tolerance

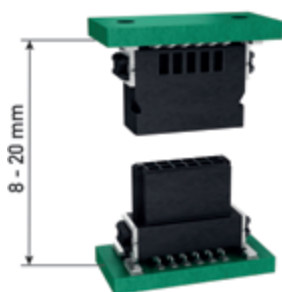
ALLOWED MISALIGNMENT TOLERANCES FOR A SECURE SELF-CENTERING



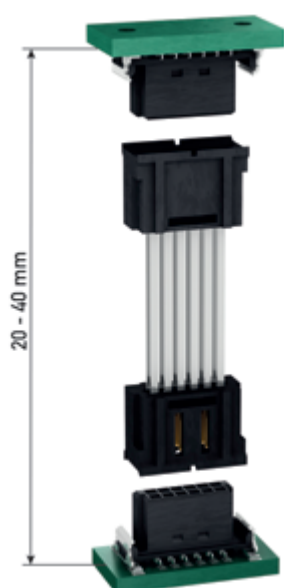
SMC - 1.27 mm Connectors

BOARD-TO-BOARD HEIGHT

STACKED BOARDS / MEZZANINE



| Board-to-Board Height | Male Stacking Height | Female Stacking Height |
|-----------------------|----------------------|------------------------|
| 8.00 - 9.50 mm | 1.75 | 6.25 |
| 9.50 - 11.0 mm | 3.25 | 6.25 |
| 10.80 - 12.30 mm | 1.75 | 9.05 |
| 12.30 - 13.80 mm | 3.25 | 9.05 |
| 13.90 - 15.40 mm | 4.85 | 9.05 |
| 15.40 - 16.90 mm | 1.75 | 13.65 |
| 16.90 - 18.40 mm | 3.25 | 13.65 |
| 18.50 - 20.00 mm | 4.85 | 13.65 |



| Board-to-Board Height | Board-to-Board Adapter | Female Stacking Height |
|-----------------------|--------------------------|------------------------|
| 20 mm | 20 | 2 x 6.25 |
| 22 mm | 22 | 2 x 6.25 |
| 24 mm | 24 | 2 x 6.25 |
| 26 mm | 26 | 2 x 6.25 |
| 28 mm | 28 | 2 x 6.25 |
| 30 mm | 30 | 2 x 6.25 |
| 32 mm | 32 | 2 x 6.25 |
| 34 mm | 34 | 2 x 6.25 |
| 36 mm | 36 | 2 x 6.25 |
| 38 mm | 38 | 2 x 6.25 |
| 40 mm | 38 (reduced wipe length) | 2 x 6.25 |

SMC - 1.27 mm Connectors

CHARACTERISTICS

TECHNICAL DATA

| Description | Standard | PCB Connectors, Cable Assemblies, B-to-B Adapter | Board-on IDC (Ribbon Cable AWG 30, 250 mm) |
|--|-----------------------|--|--|
| Climate category | DIN EN 60068-1 test b | 55 / 150 / 56 | 55 / 125 / 56 |
| Temperature range | | -55 / 125 °C (PCB Connectors) -55 / 105 °C (Cable Assemblies) | -55 / 105 °C |
| Current rating per contact | IEC60512 test 5b | 12-pin version at 20 °C ambient temperature: 1.7 A (up to 2.7 A with optimized layout) | |
| Air- and creepage distance | | contact - contact min. 0.4 mm | |
| Operating voltage | IEC 60664 | The permissible operating voltages depend 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 creepage 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 resistance | IEC 60512 test 2a | < 25 mΩ < 10 mΩ (cable assemblies) | < 10 mΩ |
| Insulation resistance | 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 | |

SMC - 1.27 mm Connectors

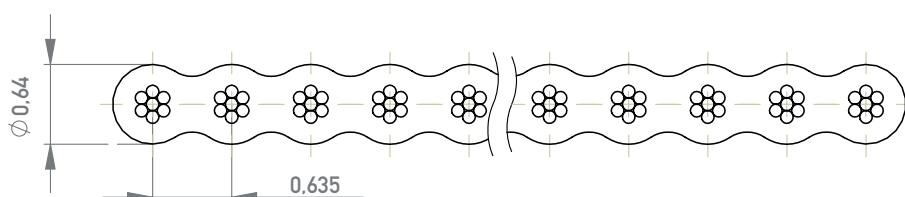
CHARACTERISTICS —

| Description | Standard | PCB Connectors, Cable Assemblies, B-to-B Adapter | Board-on IDC (Ribbon Cable AWG 30, 250 mm) |
|-----------------------------------|--------------------|---|--|
| Mechanical operation | IEC 60512 test 9a | | 500 mating cycles |
| Insertion and withdrawal force | IEC 60512 test 13b | | 0.5 N per contact |
| Gauge retention force | IEC 60512 test 16e | | > 0.1 N |
| Processing Conditions | | | |
| Hand soldering temperature max. | IEC 60068-2-20 | | 3.5 s at 350 °C |
| Dip soldering temperature max. | IEC 60068-2-20 | | 10 s at 260 °C |
| 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 |
| Contact Material | | | |
| Base material | | | Cu alloy |
| Mating area | | gold plating | — |
| Termination area | | | Sn |
| Environment Compatibility | | | |
| Recycling | | no flame-retardent additives, no toxic additives allow easy recycling | |
| Product Approval | | | |
| UL/CSA | | | E84703 |

SMC - 1.27 mm Connectors

CABLE CHARACTERISTICS

TECHNICAL DATA FLAT RIBBON CABLES



| Description | Standard cable (PVC) | High Temperature Cable (TPE-S) | Halogen-free Cable (Polyolefin TPE-O) |
|--------------------------|--|---|--|
| Cross section | AWG-30/ 7/ 0.06 mm ² | | |
| Conductor | stranded Cu wire, tinned, 7x0.102 / 0.06 mm ² | | |
| Coded wire | available | | |
| Insulation | PVC gray (similar to RAL 78032) | TPE-S gray (similar to RAL 78032) | TPE-O gray (similar to RAL 78032) |
| Insulation thickness | min. 0.1mm | | |
| Shore hardness | 94 ±2 (Shore A) | 52 ±3 (Shore D) | 94 ±2 (Shore A); 50 ±3 (Shore D) |
| Technical Data | | | |
| Temperature range | -20/105 °C (fixed) -10/105 °C (mobile) | -60/125 °C (fixed) -40/125 °C (mobile) | -40/105 °C (fixed) -20/105 °C (mobile) |
| Dielectric strength | 1500 V _{rms} | 1000 V _{rms} | 1200 V _{rms} |
| Conductor resistance | ≤ 350 Ω/km at 20 °C | | |
| Insulation resistance | ≥ 20 MΩ x km at 20 °C | | |
| Impedance | 125 Ω (wire-wire) 80 Ω (Ground-Signal-Ground) | 136 Ω (wire-wire) | 110 Ω (wire-wire) 75 Ω (Ground-Signal-Ground) |
| Bending cycles (typical) | min. 1 million at 20 x cable diameter | | |
| RoHS | compliant | | |
| Flame rating | UL 94 VW-1 | IEC 60332-1-2 | UL 1581 (Horizontal Flame Test) |

SMC - 1.27 mm Connectors

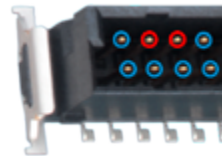
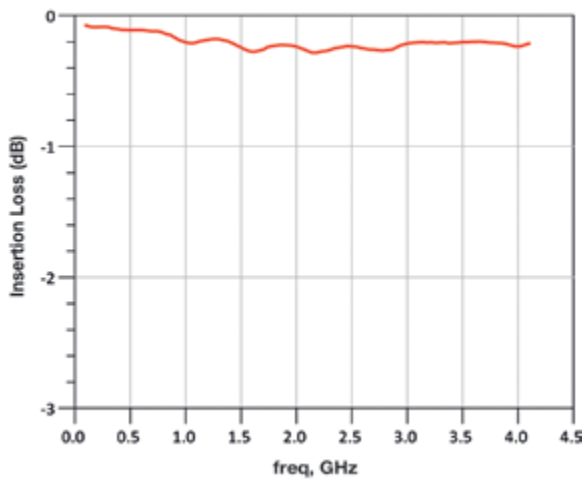
HIGH FREQUENCY CHARACTERISTICS

HIGH-SPEED DATA TRANSMISSION

SMC connectors as solution for unshielded high-speed applications. The practically continuous impedance profile allows for secure data transmission rates of up to 3 Gbit/s (differential) if the system is suitably designed.

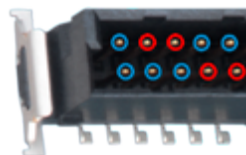
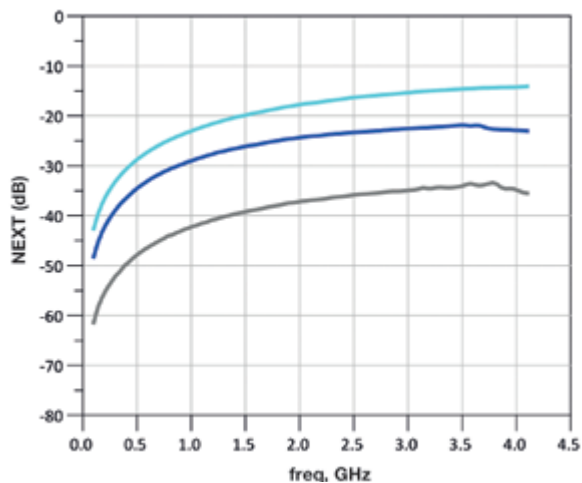
- De-embedded measurement results for the micro backplane/daughter card application
- 50-pin SMC, angled female connector, straight male connector (low profile)
- Differential signal transmission

INSERTION LOSS



- Ground
- Signal

NEAR END CROSSTALK (NEXT)



- Ground
- Signal

- Aggressor / Victim
- A2_3 / B2_3
- A2_3 / A4_5
- A2_3 / B4_5 (shown above)

SMC - 1.27 mm Connectors

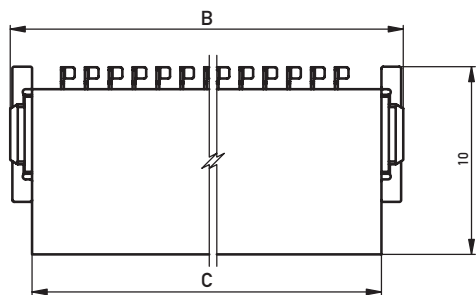
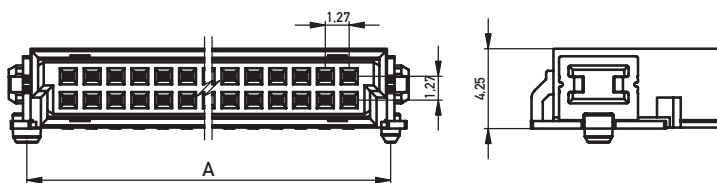
RIGHT ANGLE MALE

PRODUCT SPECIFICATION

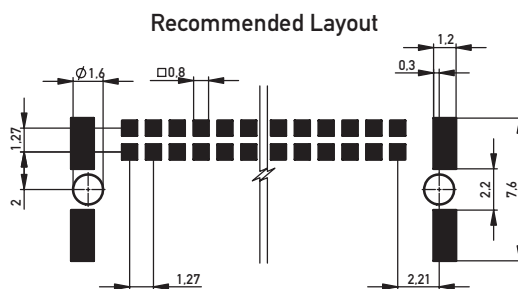


- SMT termination
- dual row connector
- data rates up to 3 Gbit/s
- location pegs for exact board placement
- black insulation body for fast and reliable visual recognition
- fully automated board assembly

DIMENSIONAL DRAWINGS



| | | | |
|-----------------|-------|-------|-------|
| 12 | 10.77 | 12.70 | 10.35 |
| 16 | 13.31 | 15.24 | 12.91 |
| 20 | 15.85 | 17.78 | 15.45 |
| 26 | 19.66 | 21.59 | 19.26 |
| 32 | 23.47 | 25.40 | 23.07 |
| 40 | 28.55 | 30.48 | 28.15 |
| 50 | 34.90 | 36.83 | 34.50 |
| 68 | 46.33 | 48.26 | 45.93 |
| 80 | 53.95 | 55.88 | 53.55 |
| No. of contacts | A | B | C |



SMC - 1.27 mm Connectors

RIGHT ANGLE MALE —

ORDERING INFORMATION

| No. of Pins | Packaging | Part Number |
|-------------|---------------|-------------|
| 12 | Tape and reel | 154763 |
| 16 | Tape and reel | 354094 |
| 20 | Tape and reel | 354095 |
| 26 | Tape and reel | 154764 |
| 32 | Tape and reel | 354096 |
| 40 | Tape and reel | 354097 |
| 50 | Tape and reel | 154765 |
| 68 | Tape and reel | 154766 |
| 80 | Tape and reel | 154767 |

SMC - 1.27 mm Connectors

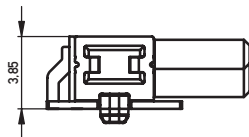
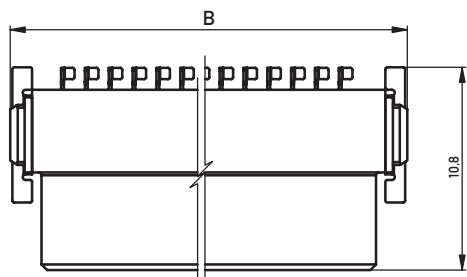
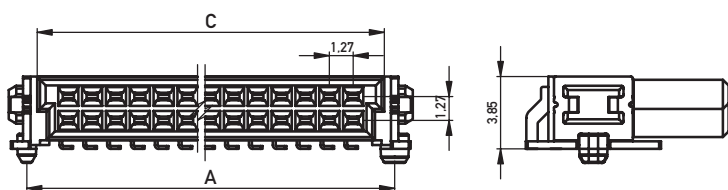
RIGHT ANGLE FEMALE

PRODUCT SPECIFICATION

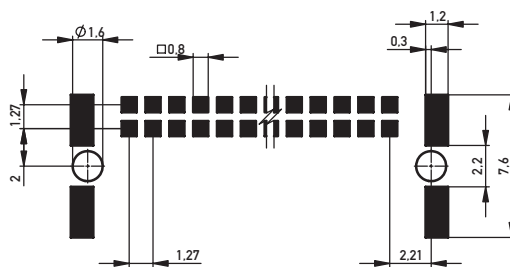


- SMT termination
- dual row connector
- data rates up to 3 Gbit/s
- location pegs for exact board placement
- black insulation body for fast and reliable visual recognition
- fully automated board assembly

DIMENSIONAL DRAWINGS



Recommended Layout



| | | | |
|-----------------|-------|-------|-------|
| 12 | 10.77 | 12.70 | 9.37 |
| 16 | 13.31 | 15.24 | 11.91 |
| 20 | 15.85 | 17.78 | 14.45 |
| 26 | 19.66 | 21.59 | 18.26 |
| 32 | 23.47 | 25.40 | 22.07 |
| 40 | 28.55 | 30.48 | 27.15 |
| 50 | 34.90 | 36.83 | 33.50 |
| 68 | 46.33 | 48.26 | 44.93 |
| 80 | 53.95 | 55.88 | 52.55 |
| No. of contacts | A | B | C |

SMC - 1.27 mm Connectors

RIGHT ANGLE FEMALE

ORDERING INFORMATION

| No. of Pins | Packaging | Part Number |
|-------------|---------------|-------------|
| 12 | Tape and reel | 154740 |
| 16 | Tape and reel | 354078 |
| 20 | Tape and reel | 354079 |
| 26 | Tape and reel | 154741 |
| 32 | Tape and reel | 354080 |
| 40 | Tape and reel | 354081 |
| 50 | Tape and reel | 154742 |
| 68 | Tape and reel | 154743 |
| 80 | Tape and reel | 154744 |

SMC - 1.27 mm Connectors

VERTICAL MALE

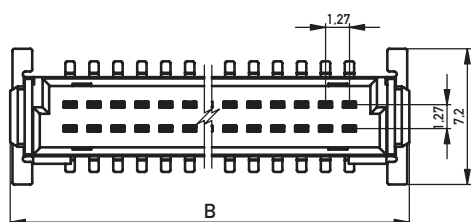
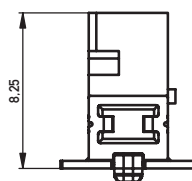
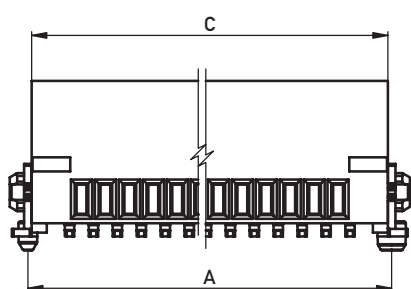
PRODUCT SPECIFICATION



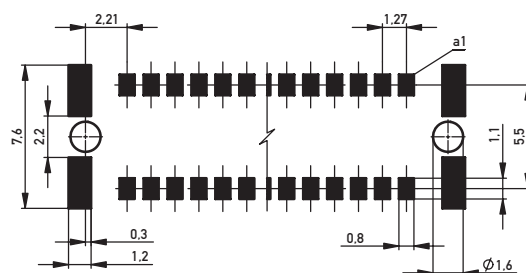
- SMT termination
- dual row connector
- datarate up to 3 Gbit/s
- location pegs for exact board placement
- black insulation body for fast and reliable visual recognition
- fully automated board assembly
- 3 stacking heights (1.75, 3.25, 4.85 mm)

DIMENSIONAL DRAWINGS

Unmated Stacking Height 3.25 mm



Recommended Layout



| | | | |
|-----------------|-------|-------|-------|
| 12 | 10.77 | 12.70 | 10.37 |
| 16 | 13.31 | 15.24 | 12.91 |
| 20 | 15.85 | 17.78 | 15.45 |
| 26 | 19.66 | 21.59 | 19.26 |
| 32 | 23.47 | 25.40 | 23.07 |
| 40 | 28.55 | 30.48 | 28.15 |
| 50 | 34.90 | 36.83 | 34.50 |
| 68 | 46.33 | 48.26 | 45.93 |
| 80 | 53.95 | 55.88 | 53.55 |
| No. of contacts | A | B | C |

SMC - 1.27 mm Connectors

VERTICAL MALE

ORDERING INFORMATION

| No. of Pins | Unmated Stacking Height | Packaging | Part Number |
|-------------|-------------------------|---------------|-------------|
| 12 | 1.75 | Tape and reel | 244836 |
| 16 | 1.75 | Tape and reel | 254587 |
| 20 | 1.75 | Tape and reel | 254588 |
| 26 | 1.75 | Tape and reel | 244837 |
| 32 | 1.75 | Tape and reel | 254589 |
| 40 | 1.75 | Tape and reel | 254590 |
| 50 | 1.75 | Tape and reel | 244838 |
| 68 | 1.75 | Tape and reel | 244839 |
| 80 | 1.75 | Tape and reel | 244840 |
| 12 | 3.25 | Tape and reel | 244854 |
| 16 | 3.25 | Tape and reel | 254536 |
| 20 | 3.25 | Tape and reel | 254537 |
| 26 | 3.25 | Tape and reel | 244855 |
| 32 | 3.25 | Tape and reel | 254538 |
| 40 | 3.25 | Tape and reel | 254539 |
| 50 | 3.25 | Tape and reel | 244856 |
| 68 | 3.25 | Tape and reel | 244857 |
| 80 | 3.25 | Tape and reel | 244858 |

SMC - 1.27 mm Connectors

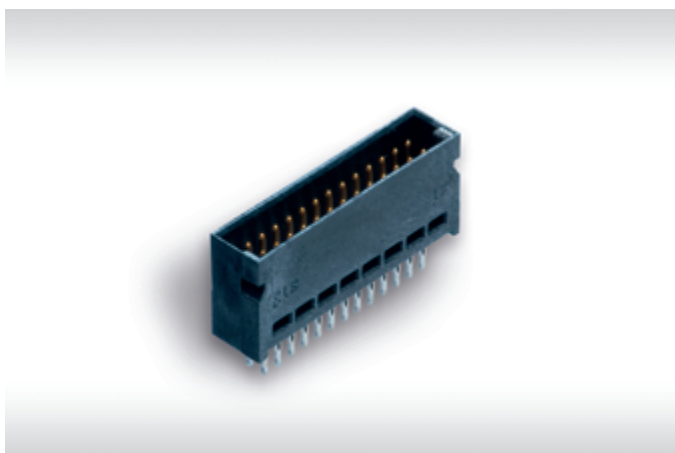
VERTICAL MALE —

| No. of Pins | Unmated Stacking Height | Packaging | Part Number |
|-------------|-------------------------|---------------|-------------|
| 12 | 4.85 | Tape and reel | 234206 |
| 16 | 4.85 | Tape and reel | 254414 |
| 20 | 4.85 | Tape and reel | 254415 |
| 26 | 4.85 | Tape and reel | 234207 |
| 32 | 4.85 | Tape and reel | 254416 |
| 40 | 4.85 | Tape and reel | 254417 |
| 50 | 4.85 | Tape and reel | 234208 |
| 68 | 4.85 | Tape and reel | 234209 |
| 80 | 4.85 | Tape and reel | 234210 |

SMC - 1.27 mm Connectors

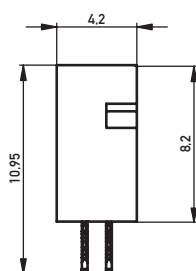
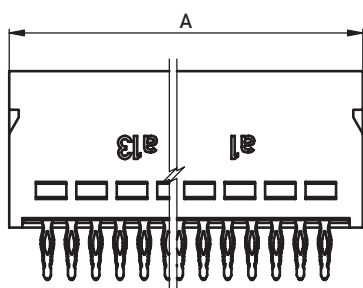
VERTICAL MALE PRESSFIT

PRODUCT SPECIFICATION

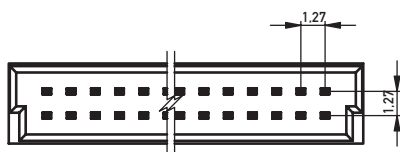
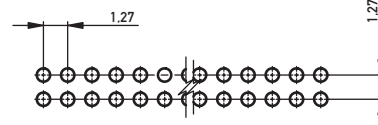


- pressfit termination
- dual row connector
- data rates up to 3 Gbit/s
- black insulation body for fast and reliable visual recognition
- fully automated board assembly
- stacking height 3.25 mm

DIMENSIONAL DRAWINGS

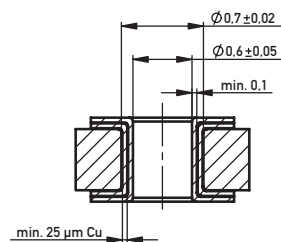


Recommended Layout



| | |
|-----------------|-------|
| 12 | 10.35 |
| 26 | 19.24 |
| 50 | 34.48 |
| 68 | 45.91 |
| 80 | 53.53 |
| No. of contacts | A |

Hole Design



SMC - 1.27 mm Connectors

VERTICAL MALE PRESSFIT

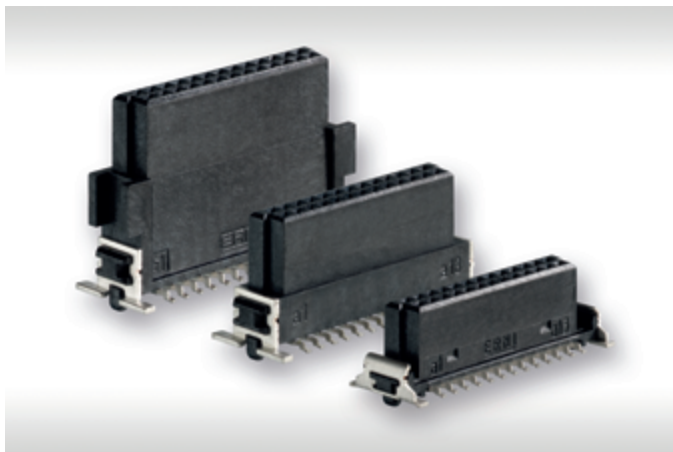
ORDERING INFORMATION

| No. of Pins | Unmated Stacking Height | Packaging | Part Number |
|-------------|-------------------------|-----------|-------------|
| 12 | 3.25 | Tube | 064002 |
| 26 | 3.25 | Tube | 064003 |
| 50 | 3.25 | Tube | 064004 |
| 68 | 3.25 | Tube | 144183 |
| 80 | 3.25 | Tube | 144185 |

SMC - 1.27 mm Connectors

VERTICAL FEMALE

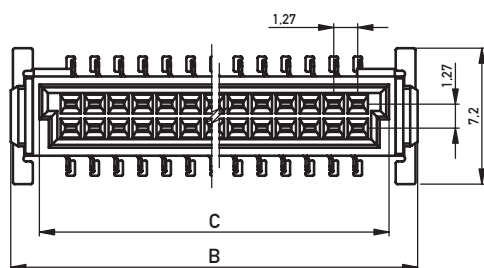
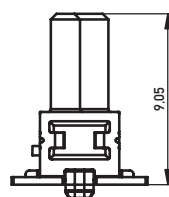
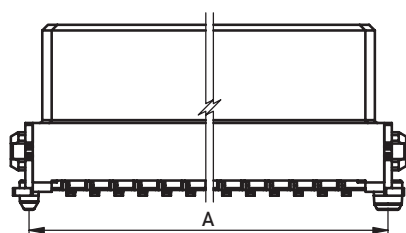
PRODUCT SPECIFICATION



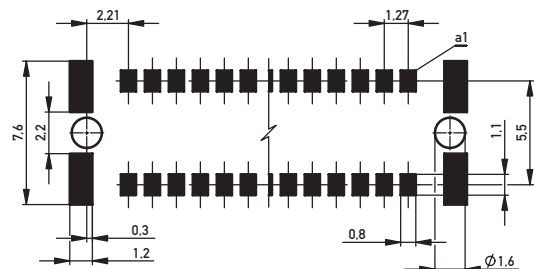
- SMT termination
- dual row connector
- data rates up to 3 Gbit/s
- location pegs for exact board placement
- black insulation body for fast and reliable visual recognition
- fully automated board assembly
- 3 stacking heights (6.25, 9.05, 13.65 mm)

DIMENSIONAL DRAWINGS

Unmated Stacking Height 9.05 mm



Recommended Layout



| | | | |
|-----------------|-------|-------|-------|
| 12 | 10.77 | 12.70 | 9.37 |
| 16 | 13.31 | 15.24 | 11.91 |
| 20 | 15.85 | 17.78 | 14.45 |
| 26 | 19.66 | 21.60 | 18.26 |
| 32 | 23.47 | 25.40 | 22.07 |
| 40 | 28.55 | 30.48 | 27.15 |
| 50 | 34.90 | 36.80 | 33.50 |
| 68 | 46.33 | 48.20 | 44.93 |
| 80 | 53.95 | 55.80 | 52.55 |
| No. of contacts | A | B | C |

SMC - 1.27 mm Connectors

VERTICAL FEMALE

ORDERING INFORMATION

| No. of Pins | Unmated Stacking Height | Packaging | Part Number |
|-------------|-------------------------|---------------|-------------|
| 12 | 6.25 | Tape and reel | 154805 |
| 16 | 6.25 | Tape and reel | 354055 |
| 20 | 6.25 | Tape and reel | 354056 |
| 26 | 6.25 | Tape and reel | 154806 |
| 32 | 6.25 | Tape and reel | 354057 |
| 40 | 6.25 | Tape and reel | 204632 |
| 50 | 6.25 | Tape and reel | 154807 |
| 68 | 6.25 | Tape and reel | 154808 |
| 80 | 6.25 | Tape and reel | 154809 |
| 12 | 9.05 | Tape and reel | 154717 |
| 16 | 9.05 | Tape and reel | 354062 |
| 20 | 9.05 | Tape and reel | 354063 |
| 26 | 9.05 | Tape and reel | 154718 |
| 32 | 9.05 | Tape and reel | 354064 |
| 40 | 9.05 | Tape and reel | 354065 |
| 50 | 9.05 | Tape and reel | 154719 |
| 68 | 9.05 | Tape and reel | 154720 |
| 80 | 9.05 | Tape and reel | 154721 |

SMC - 1.27 mm Connectors

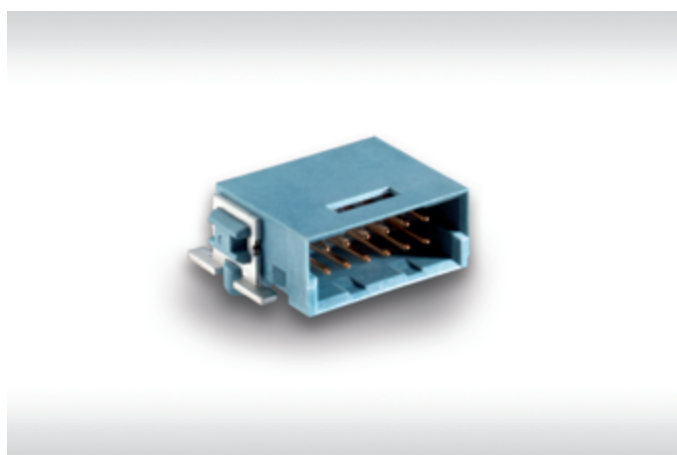
VERTICAL FEMALE —

| No. of Pins | Unmated Stacking Height | Packaging | Part Number |
|-------------|-------------------------|---------------|-------------|
| 12 | 13.65 | Tape and reel | 234198 |
| 16 | 13.65 | Tape and reel | 354070 |
| 20 | 13.65 | Tape and reel | 354071 |
| 26 | 13.65 | Tape and reel | 204763 |
| 32 | 13.65 | Tape and reel | 354072 |
| 40 | 13.65 | Tape and reel | 354073 |
| 50 | 13.65 | Tape and reel | 234199 |
| 68 | 13.65 | Tape and reel | 234200 |
| 80 | 13.65 | Tape and reel | 234201 |

SMC - 1.27 mm Connectors

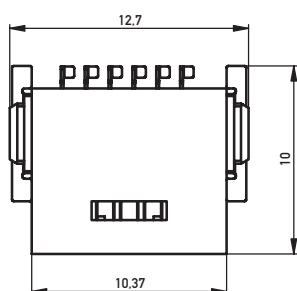
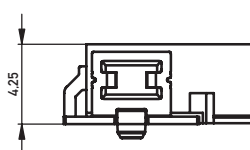
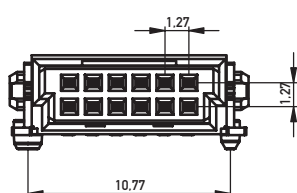
RIGHT ANGLE MALE WITH LOCKING SYSTEM

PRODUCT SPECIFICATION

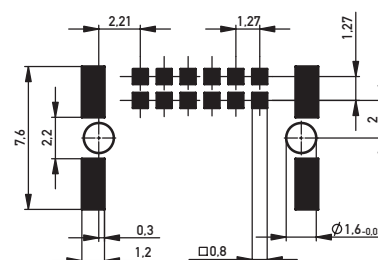


- SMT termination
- dual row connector
- data rates up to 3 Gbit/s
- location pegs for exact board placement
- fully automated board assembly
- with integrated locking feature, color-coded

DIMENSIONAL DRAWINGS



Recommended Layout





SMC - 1.27 mm Connectors

RIGHT ANGLE MALE WITH LOCKING SYSTEM



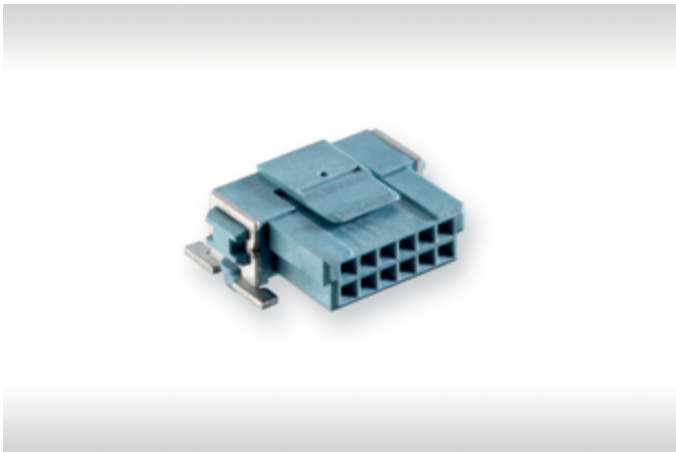
ORDERING INFORMATION

| No. of Pins | Packaging | Part Number |
|-------------|---------------|-------------|
| 12 | Tape and reel | 254273 |

SMC - 1.27 mm Connectors

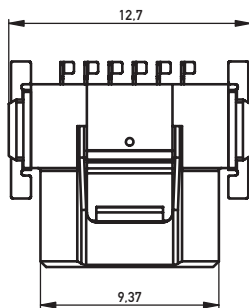
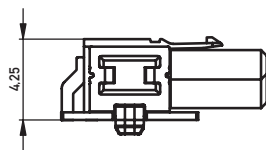
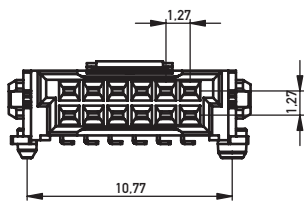
RIGHT ANGLE FEMALE WITH LOCKING SYSTEM

PRODUCT SPECIFICATION

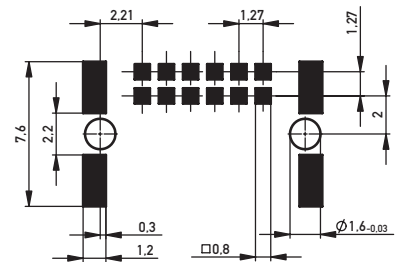


- SMT termination
- dual row connector
- data rates up to 3 Gbit/s
- location pegs for exact board placement
- fully automated board assembly
- with integrated locking feature, color-coded

DIMENSIONAL DRAWINGS



Recommended Layout



SMC - 1.27 mm Connectors

RIGHT ANGLE FEMALE WITH LOCKING SYSTEM



ORDERING INFORMATION

| No. of Pins | Packaging | Part Number |
|-------------|---------------|-------------|
| 12 | Tape and reel | 254262 |

SMC - 1.27 mm Connectors

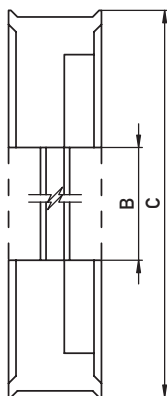
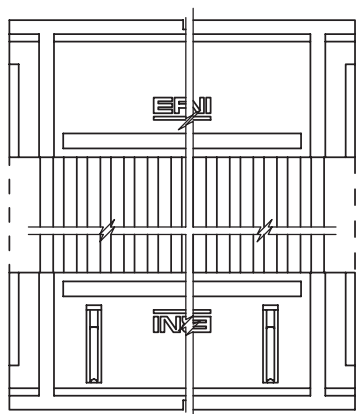
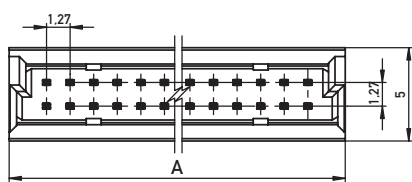
BOARD-TO-BOARD ADAPTER

PRODUCT SPECIFICATION



- Board-to-board Adapter for parallel PCB distances of 20-40 mm
- moulded (hotmelt) versions for improved environmental resistance and finger safe protection
- single-sided locking of board-to-board adapters on low-profile female connectors
- enables the mating and release of two boards always on one specified side

DIMENSIONAL DRAWINGS



| | |
|-----------------|-------|
| 12 | 10.37 |
| 32 | 19.26 |
| 50 | 34.5 |
| 68 | 45.93 |
| 80 | 53.55 |
| No. of contacts | A |

| | | |
|---------------------------------|------|------|
| 20 | 3.5 | 18.2 |
| 22 | 5.5 | 20.2 |
| 24 | 7.5 | 22.2 |
| 26 | 9.5 | 24.2 |
| 28 | 11.5 | 26.2 |
| 30 | 13.5 | 28.2 |
| 32 | 15.5 | 30.2 |
| 34 | 17.5 | 32.2 |
| 36 | 19.5 | 34.2 |
| 38 | 21.5 | 36.2 |
| B-to-B Adapter (Board Distance) | B | C |



SMC - 1.27 mm Connectors

BOARD-TO-BOARD ADAPTER

ORDERING INFORMATION

| No. of Pins | Board Distance | Packaging | Part Number |
|-------------|----------------|-----------|-------------|
| 12 | 20 | Tray | 364094 |
| 12 | 22 | Tray | 364095 |
| 12 | 24 | Tray | 364096 |
| 12 | 26 | Tray | 364097 |
| 12 | 28 | Tray | 364098 |
| 12 | 30 | Tray | 364099 |
| 12 | 32 | Tray | 364100 |
| 12 | 34 | Tray | 364101 |
| 12 | 36 | Tray | 364102 |
| 12 | 38 | Tray | 364103 |
| 26 | 20 | Tray | 364084 |
| 26 | 22 | Tray | 364085 |
| 26 | 24 | Tray | 364086 |
| 26 | 26 | Tray | 364087 |
| 26 | 28 | Tray | 364088 |
| 26 | 30 | Tray | 364089 |
| 26 | 32 | Tray | 364090 |
| 26 | 34 | Tray | 364091 |

Board-to-board distance 40 mm: Board-to-board Adapter 38 with reduced wipe length, on request

SMC - 1.27 mm Connectors

BOARD-TO-BOARD ADAPTER —

| No. of Pins | Board Distance | Packaging | Part Number |
|-------------|----------------|-----------|-------------|
| 26 | 36 | Tray | 364092 |
| 26 | 38 | Tray | 364093 |
| 50 | 20 | Tray | 354307 |
| 50 | 22 | Tray | 354308 |
| 50 | 24 | Tray | 354309 |
| 50 | 26 | Tray | 354310 |
| 50 | 28 | Tray | 354311 |
| 50 | 30 | Tray | 354312 |
| 50 | 32 | Tray | 354313 |
| 50 | 34 | Tray | 354314 |
| 50 | 36 | Tray | 354315 |
| 50 | 38 | Tray | 354316 |
| 68 | 20 | Tray | 364715 |
| 68 | 22 | Tray | 364716 |
| 68 | 24 | Tray | 364717 |
| 68 | 26 | Tray | 364718 |
| 68 | 28 | Tray | 364719 |
| 68 | 30 | Tray | 364720 |
| 68 | 32 | Tray | 364721 |
| 68 | 34 | Tray | 364722 |

Board-to-board distance 40 mm: Board-to-board Adapter 38 with reduced wipe length, on request

SMC - 1.27 mm Connectors

BOARD-TO-BOARD ADAPTER —

| No. of Pins | Board Distance | Packaging | Part Number |
|-------------|----------------|-----------|-------------|
| 68 | 36 | Tray | 364723 |
| 68 | 38 | Tray | 364724 |
| 80 | 20 | Tray | 364725 |
| 80 | 22 | Tray | 364726 |
| 80 | 24 | Tray | 364727 |
| 80 | 26 | Tray | 364728 |
| 80 | 28 | Tray | 364729 |
| 80 | 30 | Tray | 364730 |
| 80 | 32 | Tray | 364731 |
| 80 | 34 | Tray | 364732 |
| 80 | 36 | Tray | 364733 |
| 80 | 38 | Tray | 354030 |

Board-to-board distance 40 mm: Board-to-board Adapter 38 with reduced wipe length, on request

Moulded Versions

| No. of Pins | Board Distance | Packaging | Part Number |
|-------------|----------------|-----------|-------------|
| 26 | 24 | Tray | 474588 |
| 50 | 22 | Tray | 474589 |

SMC - 1.27 mm Connectors

BOARD-ON IDC

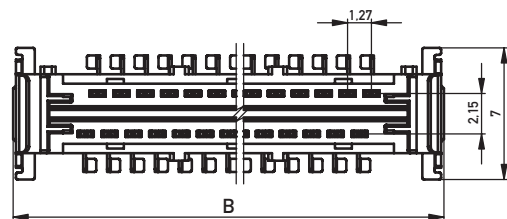
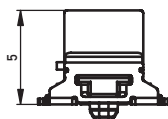
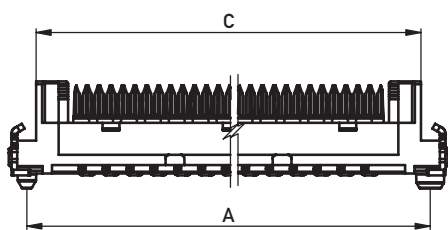
PRODUCT SPECIFICATION



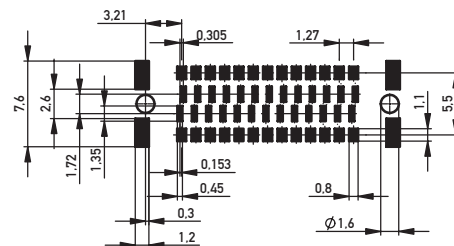
- permanent wire-to-board connection
- SMT and IDC termination
- dual row connector
- data rates up to 3 Gbit/s
- location pegs for exact board placement
- black insulation body for fast and reliable visual recognition
- flat ribbon cables AWG 30
- easy assembly with standard toggle press

DIMENSIONAL DRAWINGS

Board-on Connectors



Recommended Layout

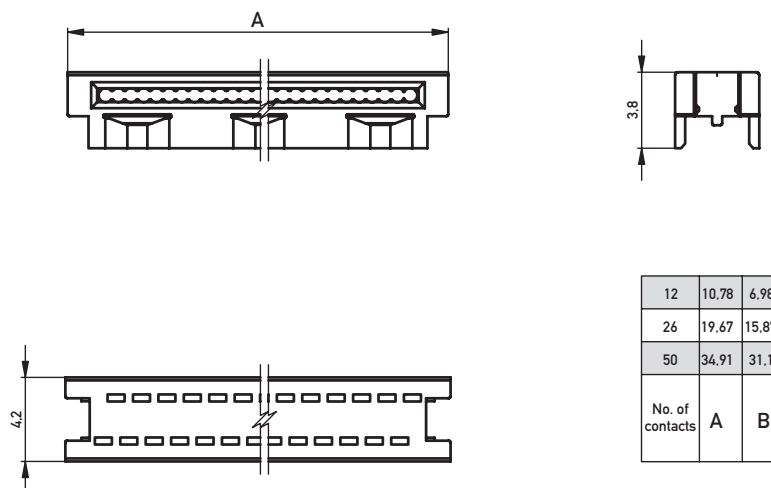


| | | | |
|-----------------|-------|-------|-------|
| 12 | 12.77 | 14.70 | 11.78 |
| 26 | 21.66 | 23.59 | 20.67 |
| 50 | 36.90 | 38.83 | 35.91 |
| No. of contacts | A | B | C |

SMC - 1.27 mm Connectors

BOARD-ON IDC

Board-on Cable Guide



ORDERING INFORMATION

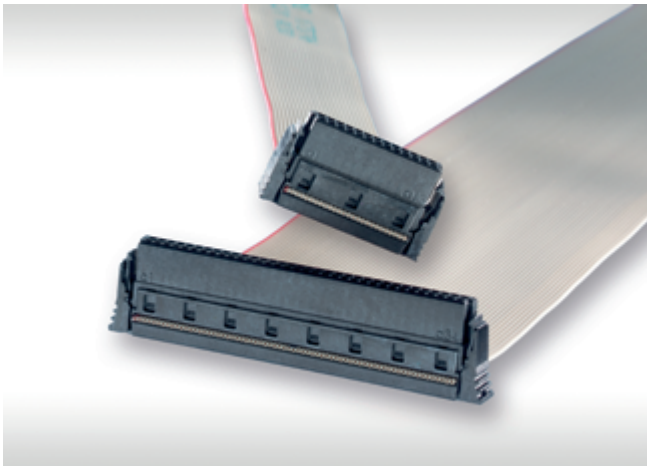
| No. of Pins | Configuration | Packaging | Part Number |
|-------------|---------------|---------------|-------------|
| 12 | Connector | Tape and reel | 244628 |
| 12 | Cable guide | Poly bag | 244631 |
| 26 | Connector | Tape and reel | 244629 |
| 26 | Cable guide | Poly bag | 244632 |
| 50 | Connector | Tape and reel | 244630 |
| 50 | Cable guide | Poly bag | 244633 |

Please order cable guide separately.

SMC - 1.27 mm Connectors

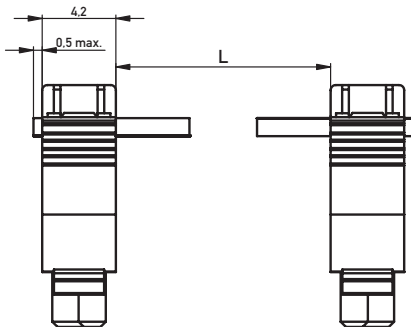
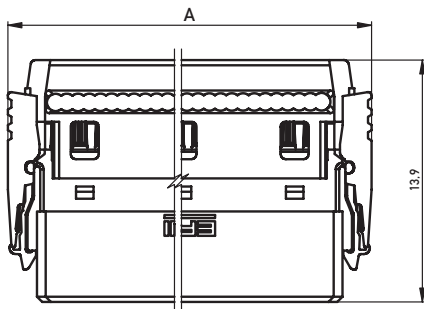
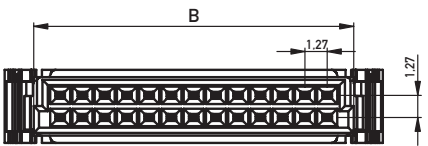
CABLE ASSEMBLIES

PRODUCT SPECIFICATION



- cable assemblies with IDC female connectors
- ribbon cable AWG 30/7
- three different cable types
- assemblies with single wire or shielded wires are possible (on request)

DIMENSIONAL DRAWINGS



| | | |
|-----------------|-------|-------|
| 12 | 12.69 | 9.37 |
| 16 | 15.23 | 11.91 |
| 20 | 17.77 | 14.45 |
| 26 | 21.58 | 18.26 |
| 32 | 25.39 | 22.07 |
| 40 | 32.53 | 27.15 |
| 50 | 38.88 | 33.50 |
| 68 | 50.31 | 44.93 |
| 80 | 57.93 | 52.55 |
| No. of contacts | A | B |

SMC - 1.27 mm Connectors

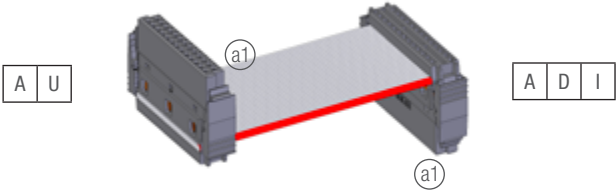
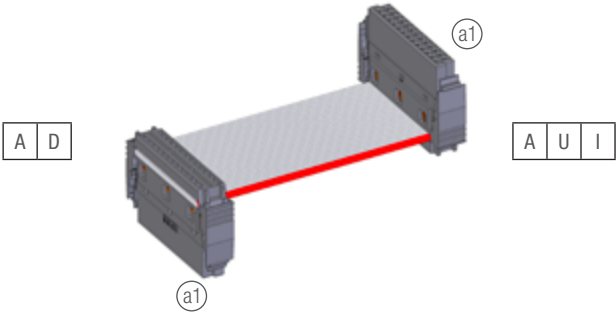
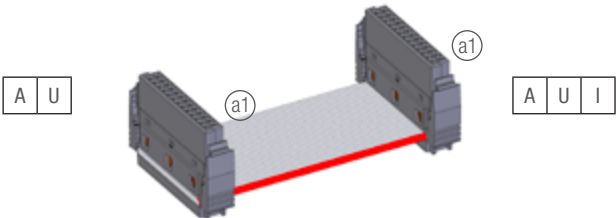
CABLE ASSEMBLIES

CONFIGURATIONS

Standard

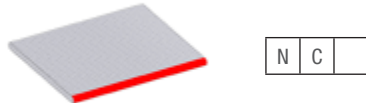
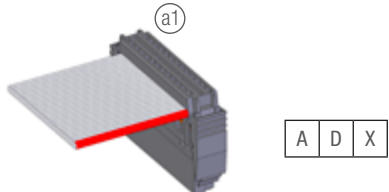
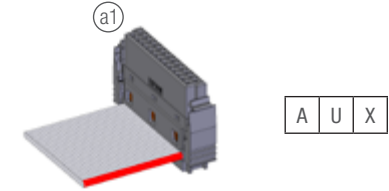
Connector #1

Connector #2



Crossed

Connector #2

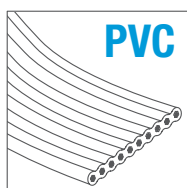
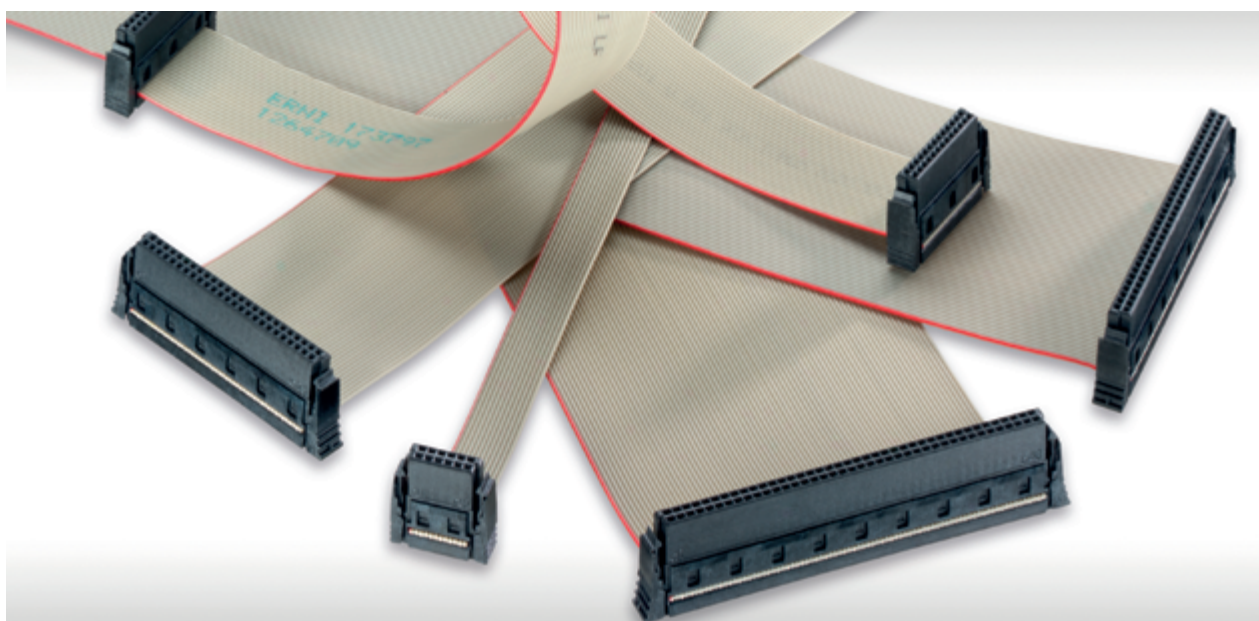


SMC - 1.27 mm Connectors

CABLE ASSEMBLIES



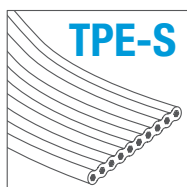
CABLE TYPES



PVC

Standard

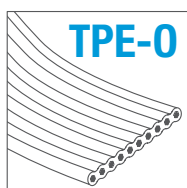
- Standard ribbon cable with PVC insulation
- AWG 30/7
- excellent abrasion and cut resistance
- temperature range: -20 °C to +105 °C (fixed)



TPE-S

High Temperature

- High temperature resistant ribbon cable with TPE-S insulation
- AWG 30/7
- excellent abrasion and cut resistance
- flexible at low temperatures up to -50 °C
- temperature range: -60 °C to +125 °C (fixed)



TPE-O

Halogen-free

- Halogen-free ribbon cable with TPE-O insulation
- AWG 30/7
- excellent abrasion and cut resistance
- Oil-resistant (ASTM 2)
- temperature range: -40 °C to +105 °C (fixed)

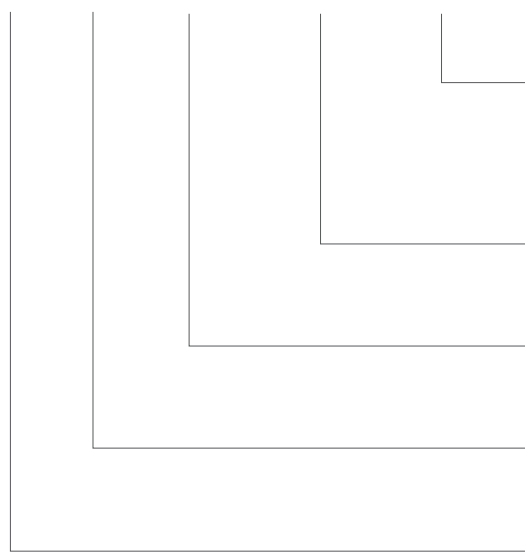
SMC - 1.27 mm Connectors

CABLE ASSEMBLIES



ORDERING INFORMATION STANDARD CABLE ASSEMBLIES

IDCCS _ SMC _ 1.27 _ □□ _ □□ _ □□□ _ □□□□□ _ □□



Cable type

PV: Standard (PVC)
 HT: High temperature (TPE-S)
 HF: Halogen-free (TPE-0)

Length

in mm

Connector #2

e.g.: AUI or AUX

Connector #1

e.g.: AU

No. of Contacts

12, 16, 20, 26, 32, 40, 50, 68, 80

Example for a standard configuration:

IDCCS_SMC_1.27_12_AU_AUI_01000_PV

SMC cable assembly, 12-pin, assembled on both sides with equal connector orientation, length 1000 mm, pin assignment 1:1

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