



1.27 mm SMC Board-to-Board Adapter



1.27 mm SMC Board-to-Board Adapter

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The SMC Board-to-Board-Adapter is an exciting addition to the extensive SMC 1.27mm (.050") pitch connector line, offering impressive flexibility in its board-to-board heights ranging from 20 mm to 40 mm in 2 mm increments.

Available in 12, 26, 50, 68 and 80 pins, the SMC Adapter has male contacts on both component ends, and securely locks into a female SMC connector for a robust assembled solution.

To protect the daughter card from handling mishaps, the SMC Adapter can be attached during the end-of-assembly process.

Features

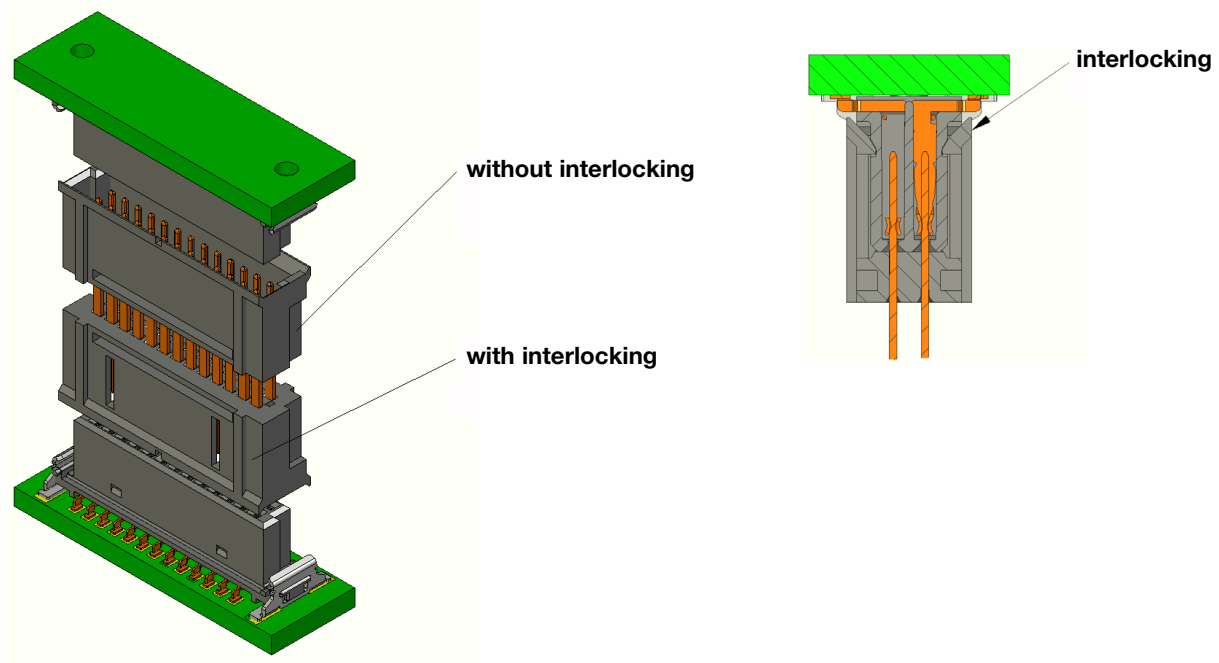
- Number of pins: 12, 26, 50, 68, 80
- Pitch: 1.27 mm
- Board-to-board height with female connectors (6.25 mm): 20-38 mm (by utilization of the wipe length, continuously variable board-to-board heights of 20-40 mm)
- Male connectors on both sides
- Tray packaging
- Robust interlocking on one side

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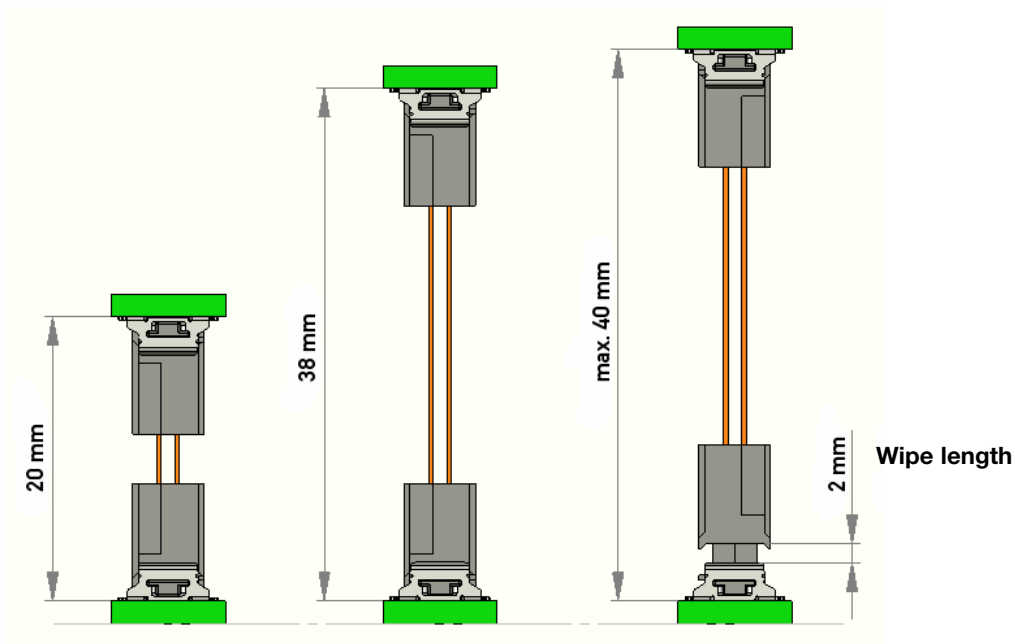
Mating Conditions



Mating Principle



Board-to-Board Height



Notice:
PCBs have to be secured by spacers.

1.27 mm SMC Board-to-Board Adapter

Electrical and Mechanical Characteristics



| | Standard | Board-to-Board Adapter | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--------------------------|--|--------|------|--------|-------|--------|-------|--------|-------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Number of Pins | | 12, 26, 50, 68, 80 | | | | | | | | | | | | | | | | | | | | | | | | |
| Technical data | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Climate category | DIN EN 60068-1 test b | -55/125/56 | | | | | | | | | | | | | | | | | | | | | | | | |
| Temperature range | | -55/125 °C | | | | | | | | | | | | | | | | | | | | | | | | |
| Current rating per contact | IEC60512 test 5b | <table border="1"> <thead> <tr> <th></th> <th>20°C</th> <th>70°C</th> <th>100°C</th> </tr> </thead> <tbody> <tr> <td>12pin</td> <td>1.6 A</td> <td>1.1 A</td> <td>0.7 A</td> </tr> <tr> <td>26pin</td> <td>1.3 A</td> <td>0.9 A</td> <td>0.6 A</td> </tr> <tr> <td>50pin</td> <td>1.1 A</td> <td>0.8 A</td> <td>0.5 A</td> </tr> <tr> <td>68pin</td> <td>1.0 A</td> <td>0.8 A</td> <td>0.5 A</td> </tr> <tr> <td>80pin</td> <td>1.0 A</td> <td>0.8 A</td> <td>0.5 A</td> </tr> </tbody> </table> <p>The mentioned current carrying capacity values are standard values, which are reached without taking any special measures. Significant higher values are possible, if pcb design matches the connector performance. For further information please contact your ERNI sales person.</p> | | 20°C | 70°C | 100°C | 12pin | 1.6 A | 1.1 A | 0.7 A | 26pin | 1.3 A | 0.9 A | 0.6 A | 50pin | 1.1 A | 0.8 A | 0.5 A | 68pin | 1.0 A | 0.8 A | 0.5 A | 80pin | 1.0 A | 0.8 A | 0.5 A |
| | 20°C | 70°C | 100°C | | | | | | | | | | | | | | | | | | | | | | | |
| 12pin | 1.6 A | 1.1 A | 0.7 A | | | | | | | | | | | | | | | | | | | | | | | |
| 26pin | 1.3 A | 0.9 A | 0.6 A | | | | | | | | | | | | | | | | | | | | | | | |
| 50pin | 1.1 A | 0.8 A | 0.5 A | | | | | | | | | | | | | | | | | | | | | | | |
| 68pin | 1.0 A | 0.8 A | 0.5 A | | | | | | | | | | | | | | | | | | | | | | | |
| 80pin | 1.0 A | 0.8 A | 0.5 A | | | | | | | | | | | | | | | | | | | | | | | |
| Air – and creepage distance | | 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 | | | | | | | | | | | | | | | | | | | | | | | | |
| Insulation resistance | IEC 60512 test 3a | > 10 ⁹ 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 (mating cycles) | IEC 60512 test 9a | > 500 mating cycles Class 1 | | | | | | | | | | | | | | | | | | | | | | | | |
| Insertion and withdrawal force | IEC 60512 test 13b | <table border="1"> <tbody> <tr> <td>12pin:</td> <td>6 N</td> </tr> <tr> <td>26pin:</td> <td>13 N</td> </tr> <tr> <td>50pin:</td> <td>26 N</td> </tr> <tr> <td>68pin:</td> <td>35 N</td> </tr> <tr> <td>80pin:</td> <td>40 N</td> </tr> </tbody> </table> | 12pin: | 6 N | 26pin: | 13 N | 50pin: | 26 N | 68pin: | 35 N | 80pin: | 40 N | | | | | | | | | | | | | | |
| 12pin: | 6 N | | | | | | | | | | | | | | | | | | | | | | | | | |
| 26pin: | 13 N | | | | | | | | | | | | | | | | | | | | | | | | | |
| 50pin: | 26 N | | | | | | | | | | | | | | | | | | | | | | | | | |
| 68pin: | 35 N | | | | | | | | | | | | | | | | | | | | | | | | | |
| 80pin: | 40 N | | | | | | | | | | | | | | | | | | | | | | | | | |
| Gauge retention force | IEC 60512 test 16e | > 0.1 N min. | | | | | | | | | | | | | | | | | | | | | | | | |

1.27 mm SMC Board-to-Board Adapter

Electrical and Mechanical Characteristics



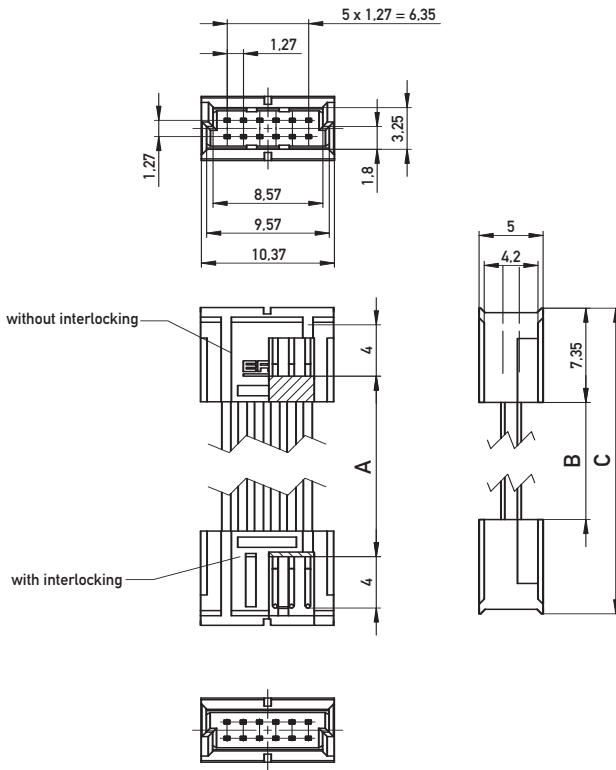
| | Standard | Board-to-Board Adapter |
|----------------------------------|----------|--|
| Number of Pins | | 12, 26, 50, 68, 80 |
| Housing materials | | |
| Plastic material (symbol) | | LCP |
| CTI value | IEC 112 | CTI 175 |
| UL flame rating | | UL 94 V-0 |
| UL file | | E 83005 |
| Contact materials | | |
| Base material | | Cu alloy |
| Mating area | | Gold plating |
| Environment compatibility | | |
| Recycling | | no flame-retardent additives, no toxic additives allows easy recycling |
| Product-approval | | |
| UL | | E 84703 |

1.27 mm SMC Board-to-Board Adapter

12pin Versions



Dimensional Drawing



| | | | |
|-----------------|------|------|------|
| 20 | 7,5 | 3,5 | 18,2 |
| 22 | 9,5 | 5,5 | 20,2 |
| 24 | 11,5 | 7,5 | 22,2 |
| 26 | 13,5 | 9,5 | 24,2 |
| 28 | 15,5 | 11,5 | 26,2 |
| 30 | 17,5 | 13,5 | 28,2 |
| 32 | 19,5 | 15,5 | 30,2 |
| 34 | 21,5 | 17,5 | 32,2 |
| 36 | 23,5 | 19,5 | 34,2 |
| 38 | 25,5 | 21,5 | 36,2 |
| Stacking Height | A | B | C |

Ordering Information

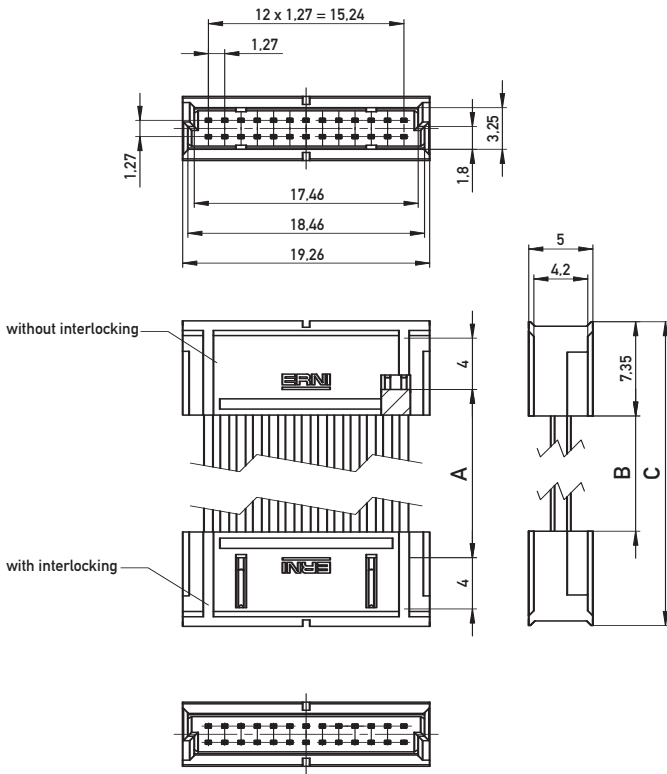
| Number of Pins | Board-to-Board Height, mated | Suitable Female Connector, Part Number | Packaging | Part Number |
|----------------|------------------------------|--|--------------|-------------|
| 12 | 20 mm | 154805 | Tray/102 pcs | 364094 |
| 12 | 22 mm | 154805 | Tray/90 pcs | 364095 |
| 12 | 24 mm | 154805 | Tray/84 pcs | 364096 |
| 12 | 26 mm | 154805 | Tray/78 pcs | 364097 |
| 12 | 28 mm | 154805 | Tray/72 pcs | 364098 |
| 12 | 30 mm | 154805 | Tray/66 pcs | 364099 |
| 12 | 32 mm | 154805 | Tray/60 pcs | 364100 |
| 12 | 34 mm | 154805 | Tray/54 pcs | 364101 |
| 12 | 36 mm | 154805 | Tray/54 pcs | 364102 |
| 12 | 38 mm | 154805 | Tray/48 pcs | 364103 |

1.27 mm SMC Board-to-Board Adapter

26pin Versions



Dimensional Drawing



| | | | |
|-----------------|------|------|------|
| 20 | 7,5 | 3,5 | 18,2 |
| 22 | 9,5 | 5,5 | 20,2 |
| 24 | 11,5 | 7,5 | 22,2 |
| 26 | 13,5 | 9,5 | 24,2 |
| 28 | 15,5 | 11,5 | 26,2 |
| 30 | 17,5 | 13,5 | 28,2 |
| 32 | 19,5 | 15,5 | 30,2 |
| 34 | 21,5 | 17,5 | 32,2 |
| 36 | 23,5 | 19,5 | 34,2 |
| 38 | 25,5 | 21,5 | 36,2 |
| Stacking Height | A | B | C |

Ordering Information

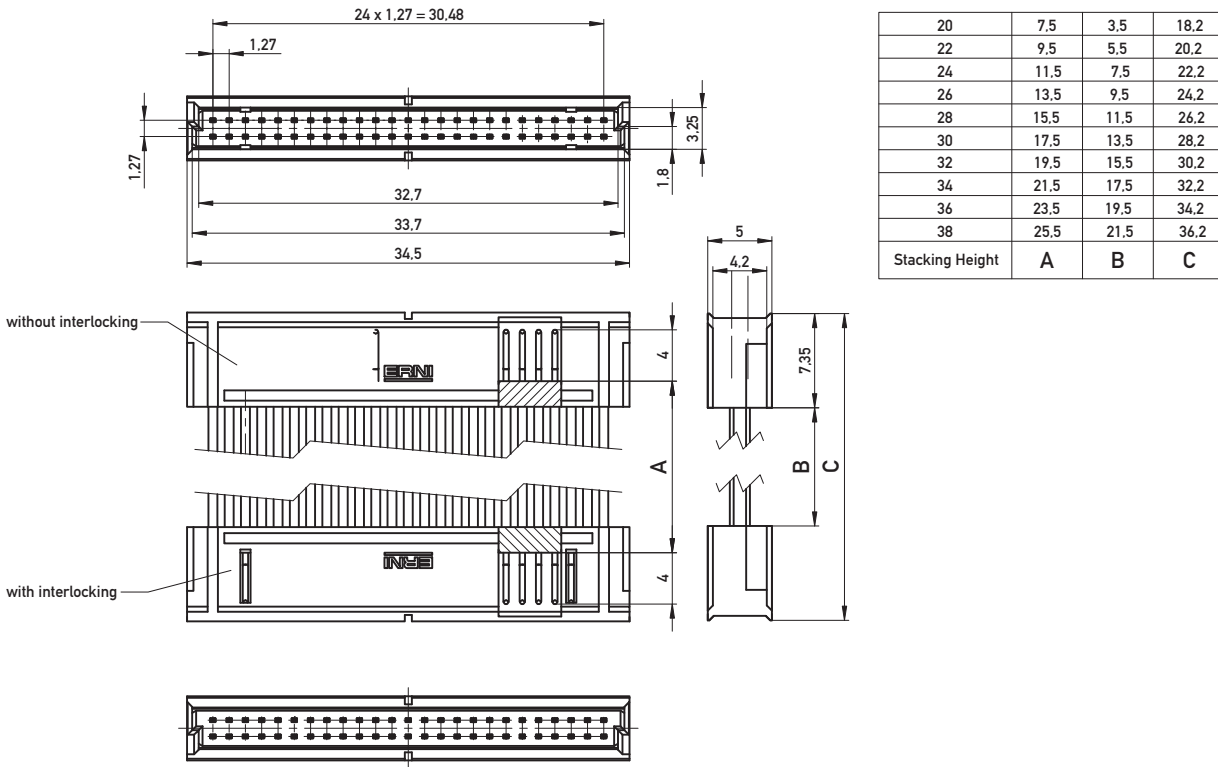
| Number of Pins | Board-to-Board Height, mated | Suitable Female Connector, Part Number | Packaging | Part Number |
|----------------|------------------------------|--|-------------|-------------|
| 26 | 20 mm | 154806 | Tray/68 pcs | 364084 |
| 26 | 22 mm | 154806 | Tray/60 pcs | 364085 |
| 26 | 24 mm | 154806 | Tray/56 pcs | 364086 |
| 26 | 26 mm | 154806 | Tray/52 pcs | 364087 |
| 26 | 28 mm | 154806 | Tray/48 pcs | 364088 |
| 26 | 30 mm | 154806 | Tray/44 pcs | 364089 |
| 26 | 32 mm | 154806 | Tray/40 pcs | 364090 |
| 26 | 34 mm | 154806 | Tray/36 pcs | 364091 |
| 26 | 36 mm | 154806 | Tray/36 pcs | 364092 |
| 26 | 38 mm | 154806 | Tray/32 pcs | 364093 |

1.27 mm SMC Board-to-Board Adapter

50pin Versions



Dimensional Drawing



Ordering Information

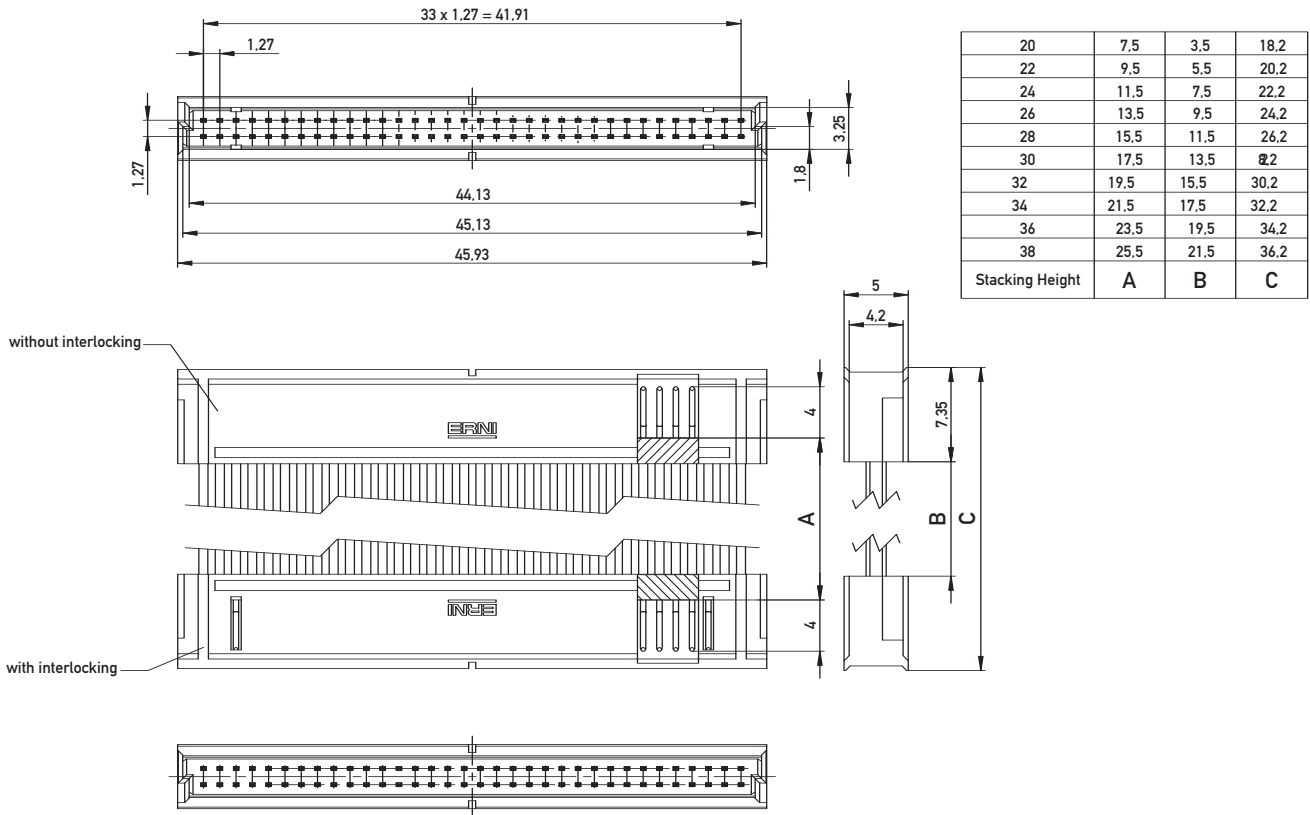
| Number of Pins | Board-to-Board Height, mated | Suitable Female Connector, Part Number | Packaging | Part Number |
|----------------|------------------------------|--|-------------|-------------|
| 50 | 20 mm | 154807 | Tray/34 pcs | 354307 |
| 50 | 22 mm | 154807 | Tray/30 pcs | 354308 |
| 50 | 24 mm | 154807 | Tray/28 pcs | 354309 |
| 50 | 26 mm | 154807 | Tray/26 pcs | 354310 |
| 50 | 28 mm | 154807 | Tray/24 pcs | 354311 |
| 50 | 30 mm | 154807 | Tray/22 pcs | 354312 |
| 50 | 32 mm | 154807 | Tray/20 pcs | 354313 |
| 50 | 34 mm | 154807 | Tray/18 pcs | 354314 |
| 50 | 36 mm | 154807 | Tray/18 pcs | 354315 |
| 50 | 38 mm | 154807 | Tray/16 pcs | 354316 |

1.27 mm SMC Board-to-Board Adapter

68pin Versions



Dimensional Drawing



Ordering Information

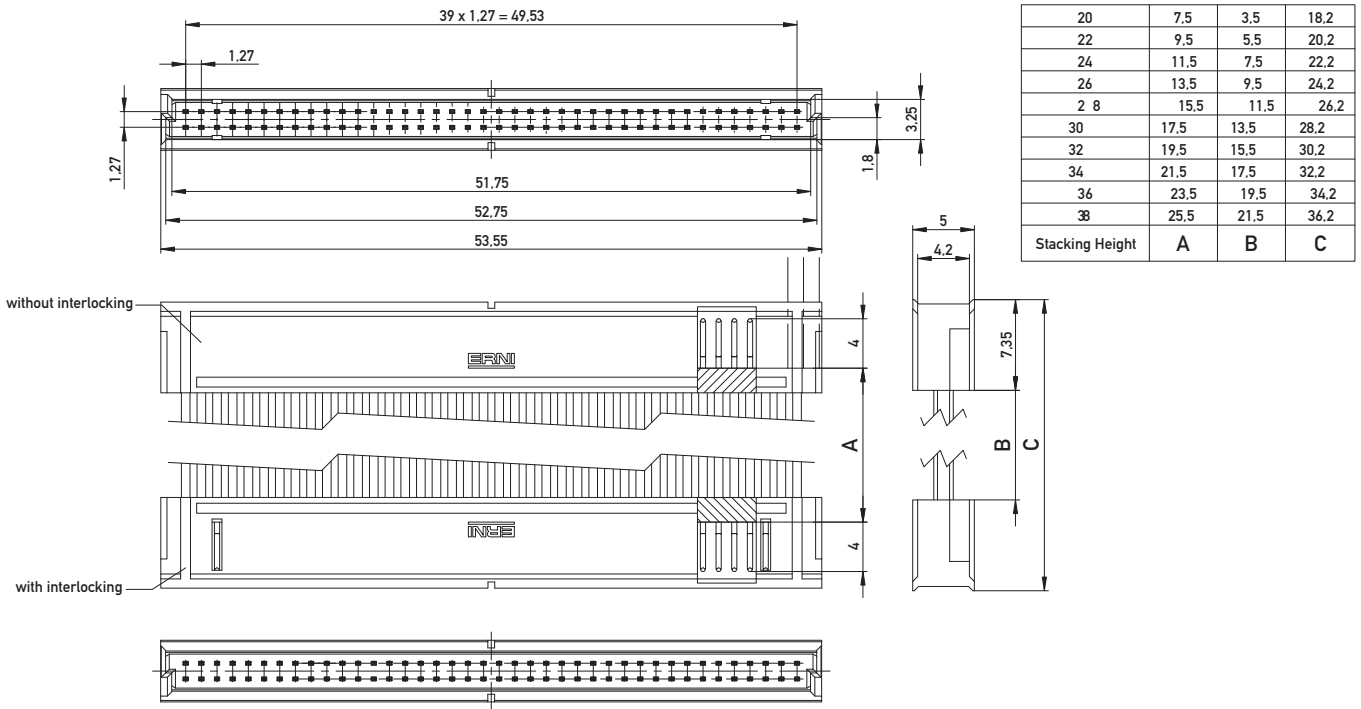
| Number of Pins | Board-to-Board Height, mated | Suitable Female Connector, Part Number | Packaging | Part Number |
|----------------|------------------------------|--|-------------|-------------|
| 68 | 20 mm | 154808 | Tray/68 pcs | 364715 |
| 68 | 22 mm | 154808 | Tray/60 pcs | 364716 |
| 68 | 24 mm | 154808 | Tray/56 pcs | 364717 |
| 68 | 26 mm | 154808 | Tray/52 pcs | 364718 |
| 68 | 28 mm | 154808 | Tray/48 pcs | 364719 |
| 68 | 30 mm | 154808 | Tray/44 pcs | 364720 |
| 68 | 32 mm | 154808 | Tray/40 pcs | 364721 |
| 68 | 34 mm | 154808 | Tray/36 pcs | 364722 |
| 68 | 36 mm | 154808 | Tray/36 pcs | 364723 |
| 68 | 38 mm | 154808 | Tray/32 pcs | 364724 |

1.27 mm SMC Board-to-Board Adapter

80pin Versions



Dimensional Drawing



Ordering Information

| Number of Pins | Board-to-Board Height, mated | Suitable Female Connector, Part Number | Packaging | Part Number |
|----------------|------------------------------|--|-------------|-------------|
| 80 | 20 mm | 154809 | Tray/51 pcs | 364725 |
| 80 | 22 mm | 154809 | Tray/45 pcs | 364726 |
| 80 | 24 mm | 154809 | Tray/42 pcs | 364727 |
| 80 | 26 mm | 154809 | Tray/39 pcs | 364728 |
| 80 | 28 mm | 154809 | Tray/36 pcs | 364729 |
| 80 | 30 mm | 154809 | Tray/33 pcs | 364730 |
| 80 | 32 mm | 154809 | Tray/30 pcs | 364731 |
| 80 | 34 mm | 154809 | Tray/27 pcs | 364732 |
| 80 | 36 mm | 154809 | Tray/27 pcs | 364733 |
| 80 | 38 mm | 154809 | Tray/24 pcs | 364734 |

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