

3M™ Ribbon Cable Wiremount Socket Assembly, 451 Series, 1.27 mm (0.050") Pitch

3M™ Shrouded Boardmount Header, 452 Series, 1.27 mm (0.050") Pitch

3M has been among the world's leaders in connectors utilizing Insulation Displacement Contacts (IDCs).

- 3M™ Ribbon Cable Wiremount Socket Assembly, 451 Series, 1.27 mm (0.050") Pitch
- 3M™ Shrouded Boardmount Header, 452 Series, 1.27 mm (0.050") Pitch

The 3M cable socket 451 and 3M header 452 series are used together as a high density wire-to-board solution with a 1.27mm (0.050") pitch and a 0.635mm (0.025") pitch ribbon cable. This system uses insulation displacement contact (IDC) technology and cantilever U-contacts, proven reliable termination and space saving without sacrificing connection density.

The 3M cable socket 451 series offers a robust connector in a very small package and with the following options:

- Fine pitch delivers high connection density in a very small space
- 30 μ" Au and Au flash available plating versions offer multiple mate/unmate cycle option levels at different price points
- Available friction latch configurations enable increased protection against accidental disconnect when using a box header
- Optional strain relief accessory provides additional security to help guard against damage when users pull on a terminated cable

The 3M header 452 series is designed to maximize design flexibility while minimizing PCB footprint. They mate to 3M cable socket 451 series and are available in the following configurations:

- The standard shrouded header is available with or without ejector latches. This innovative assembly method allows the addition of positive latch and ejection functionality with minimal size addition.
- 30 μ" Au and Au flash available plating versions offer multiple mate/unmate cycle option levels at different price points
- Vertical mount, right angle mount, thru-hole and SMT configurations available
- Tape and reel packaging for SMT version enables use in automated placement applications
- Lead-free process capable
- PCB standoffs enable pin-in-paste processing capability



3M cable socket 451 and 3M header 452 series

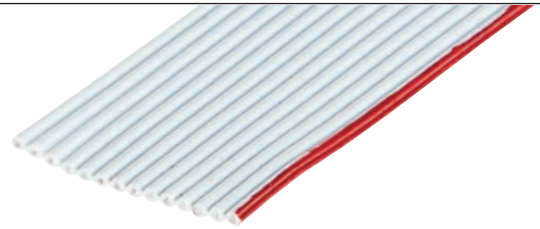
| Configuration | Part Number | Customer Drawing |
|----------------------------|---------------|------------------|
| 3M cable socket 451 series | 451XX-0XXXXX | 78-5100-2436-3 |
| 3M header 452 series | 452XXX-XX0XXX | 78-5100-2437-1 |

Product Specifications

3M™ Ribbon Cable Wiremount Socket Assembly, 451 Series,
1.27 mm (0.050") Pitch
3M™ Shrouded Boardmount Header, 452 Series,
1.27 mm (0.050") Pitch

| | |
|----------------------------|---------------------------------------|
| Current Rating | 1.0 A, all lines energized, per UL |
| Voltage Rating | 125 VAC |
| Insulation Resistance | > 1 × 10 ⁹ Ohms at 500 VDC |
| Withstanding Voltage | 1250 VDC at sea level |
| Operating Temperature | -65°C to +125°C |
| Processing Temperature | 260°C |
| Lead-Free Solderable | Yes |
| Moisture Sensitivity Level | MSL1 per J-STD-020 |

Related Products



- 3M™ Round Conductor Flat Cable, 3604 Series
- 3M™ Round Conductor Flat Cable, 3609 Series
- 3M™ Round Conductor Flat Cable, 3447 Series
- 3M™ Round Conductor Flat Cable, 3749 Series
- 3M™ Round Conductor Flat Cable, 3754 Series
- 3M™ Round Conductor Flat Cable, 3756 Series
- 3M™ Round Conductor Flat IDC Cable, 7700 Series
- 3M™ Round Conductor Flat, LSHF Cable, HF447 Series

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