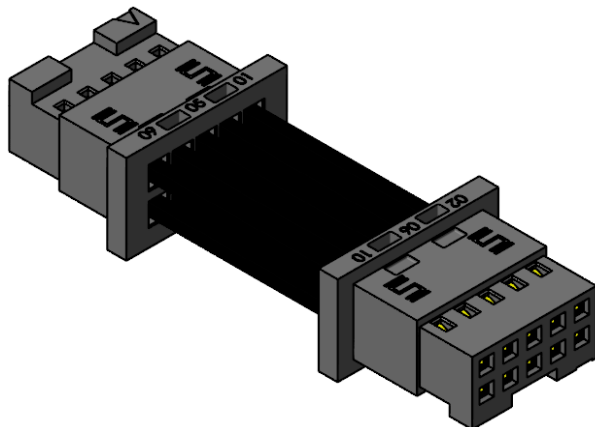
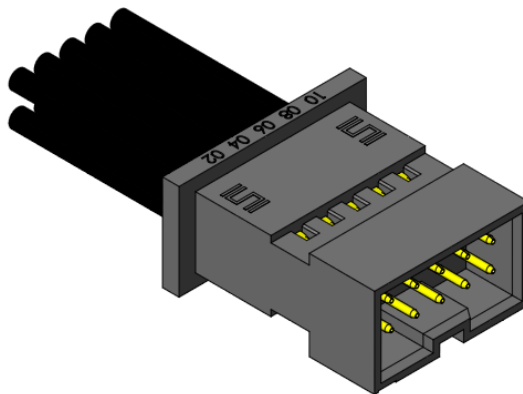


Series: S2SD(T)/T2SD(T) 2.00 mm (.0787") Tiger Eye™ Double Row Discrete Wire Cable, Socket / Terminal

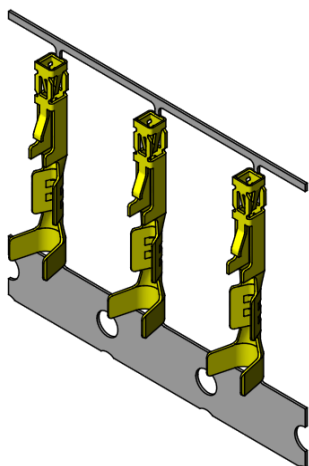
S2SD(T) Series Cable Assembly



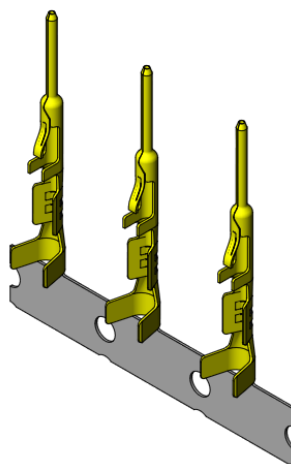
T2SD(T) Series Cable Assembly



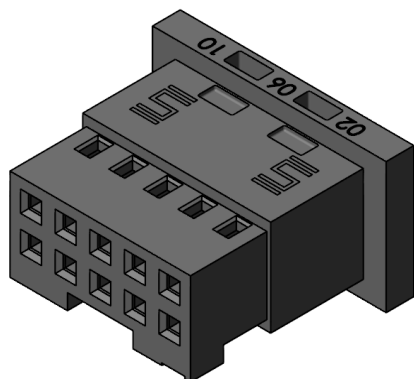
CC81 Crimp Contact



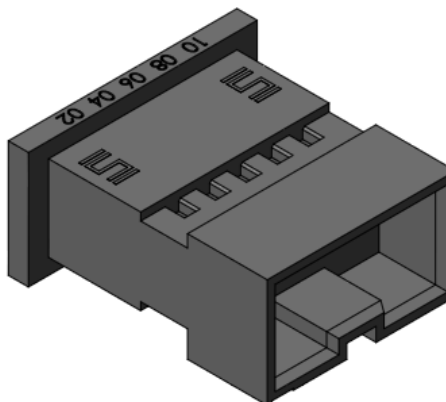
T1M82 Crimp Contact



ISD2 Body



ITD2 Body



See www.samtec.com for more information.



Series: **S2SD(T)/T2SD(T)** 2.00 mm (.0787") Tiger Eye™ Double Row Discrete Wire Cable, Socket / Terminal

1.0 SCOPE

- 1.1 This specification covers performance, testing and quality requirements for Samtec S2SD/T2M Series 2.00 mm (.0787") Tiger Eye™ Double Row Discrete Wire Socket Cable Assembly and Mating Terminal Strip. All information contained in this specification is for a vertical configuration unless otherwise noted.

2.0 DETAILED INFORMATION

- 2.1 Product prints, footprints, catalog pages, test reports and other specific, detailed information can be found at www.samtec.com?S2SDT and <https://www.samtec.com/products/t2sdt>.

3.0 PRODUCT DESCRIPTION

3.1 Product Series

| ITEM | SOCKET | TERMINAL |
|-------------------|--------------|----------------|
| Crimp Contacts | CC81L, CC81R | T1M82L, T1M82R |
| Housings | ISD2 | ITD2 |
| Mating connectors | T2M | S2M |
| Cable Assemblies | S2SD, S2SDT | T2SD, T2SDT |

3.2 Materials and Platings

| ITEM | SOCKET | TERMINAL |
|---|-----------------|-----------------|
| Contact Material | BeCu | Phosphor Bronze |
| Contact Plating | Au over 50u" Ni | Au over 50u" Ni |
| Housing Material | Black LCP | Black LCP |
| Insulation Material (Cable Assemblies only) | PVC, or Teflon | PVC, or Teflon |

3.3 Agency Approvals

| ITEM | SOCKET | TERMINAL |
|---------------------|---------------------|---------------------|
| UL File Numbers | E111594 | E111594 |
| Flammability Rating | 94V-0 | 94V-0 |
| RoHS | RoHS Compliant | RoHS Compliant |
| REACH | REACH 173 Compliant | REACH 173 Compliant |



Series: S2SD(T)/T2SD(T) 2.00 mm (.0787") Tiger Eye™ Double Row Discrete Wire Cable, Socket / Terminal

4.0 TESTING

4.1 Current Rating: 3.8 A (One Pin Powered per row)

4.2 Voltage Rating: 250 VAC

4.3 Operating Temperature Range:

Component with gold plating: -55°C to +125°C

Cable Assembly with PVC wire (28, 30 AWG): -10°C to +80°C

Cable Assembly with PVC wire (24, 26 AWG): -10°C to +105°C

Cable Assembly with Teflon wire: -40°C to +125°C

4.4 Operating Humidity Range: up to 95% (Per EIA-364-31)

4.5 Electrical:

| ITEM | TEST CONDITION | REQUIREMENT | STATUS |
|---------------------------|--|--|--------|
| Withstanding Voltage | EIA-364-20 (No Flashover, Sparkover, or Breakdown) | 750 VAC | Pass |
| Insulation Resistance | EIA-364-21 (1000 M Ω minimum) | >10,000 M Ω | Pass |
| Contact Resistance (LLCR) | EIA-364-23 | Δ 15 m Ω maximum (Samtec defined)/ No damage | Pass |

4.6 Mechanical:

| ITEM | TEST CONDITION | REQUIREMENT | STATUS |
|------------------|---|--|--------|
| Durability | EIA-364-09C | 100 cycles | Pass |
| Random Vibration | EIA-364-28 Condition V, Letter B 7.56 G 'RMS', 50 to 2000 Hz, 2 hours per axis, 3 axis total, PSD 0.04 | Visual Inspection: No Damage LLCR: Δ 15 m Ω maximum | Pass |
| Mechanical Shock | EIA-364-27 100 G, 6 milliseconds, sawtooth wave, 11.3 fps, 3 shocks/direction, 3 axis (18 total shocks) | Visual Inspection: No Damage LLCR: Δ 15 m Ω maximum | Pass |
| Normal Force | EIA-364-04 | 30 grams minimum for gold interface | Pass |

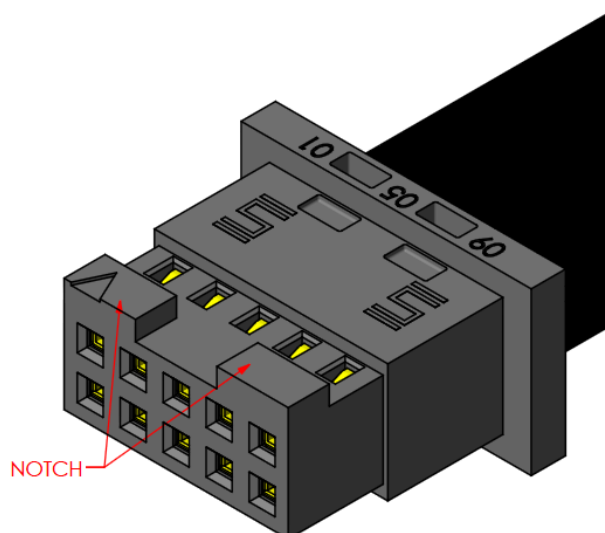
Series: [S2SD\(T\)/T2SD\(T\)](#) 2.00 mm (.0787") Tiger Eye™ Double Row Discrete Wire Cable, Socket / Terminal

4.7 Environmental:

| ITEM | TEST CONDITION | REQUIREMENT | STATUS |
|---------------------------|---|--|--------|
| Thermal Shock | EIA-364-32 Thermal Cycles: 100 (30 minute dwell) Hot Temp: 85°C Cold Temp: -55°C Hot/Cold Transition: Immediate | Visual Inspection: No Damage LLCR: Δ 15 m Ω DWV: 750 VAC IR: >10,000 M Ω | Pass |
| Thermal Aging (Temp Life) | EIA-364-17 Test Condition 4 @ 105°C Condition B for 250 hours | Visual Inspection: No Damage LLCR: Δ 15 m Ω DWV: 750 VAC IR: >10,000 M Ω | Pass |
| Cyclic Humidity | EIA-364-31 Test Temp: 25°C to 65°C Relative Humidity: 90 to 95% Test Duration: 240 hours | Visual Inspection: No Damage LLCR: Δ 15 m Ω DWV: 750 VAC IR: >10,000 M Ω | Pass |
| Gas Tight | EIA-364-36 Gas Exposure: Nitric Acid Vapor Duration: 60 min. Drying Temp.: 50°C +/- 3°C Measurements: Within 1 hour of Exposure | LLCR: Δ 15 m Ω | Pass |

5.0 MATED SYSTEM

5.1 Polarizing Features - Notch prevents mis-mating connectors.



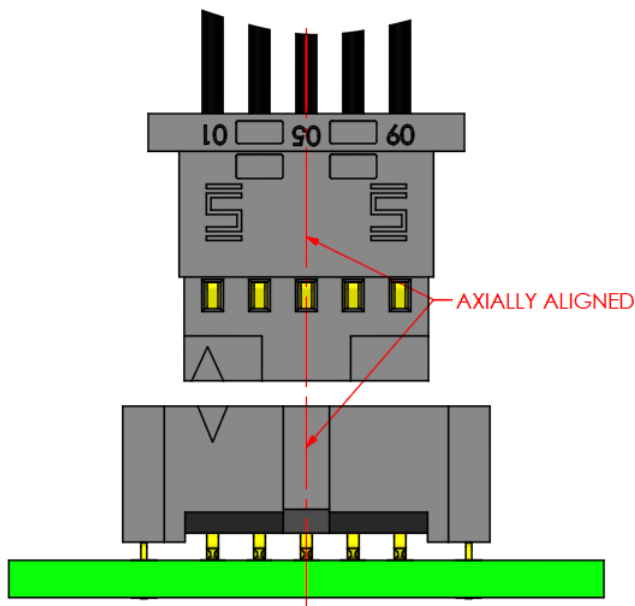
5.2 Mated Views

Mated view information can be found at link below:

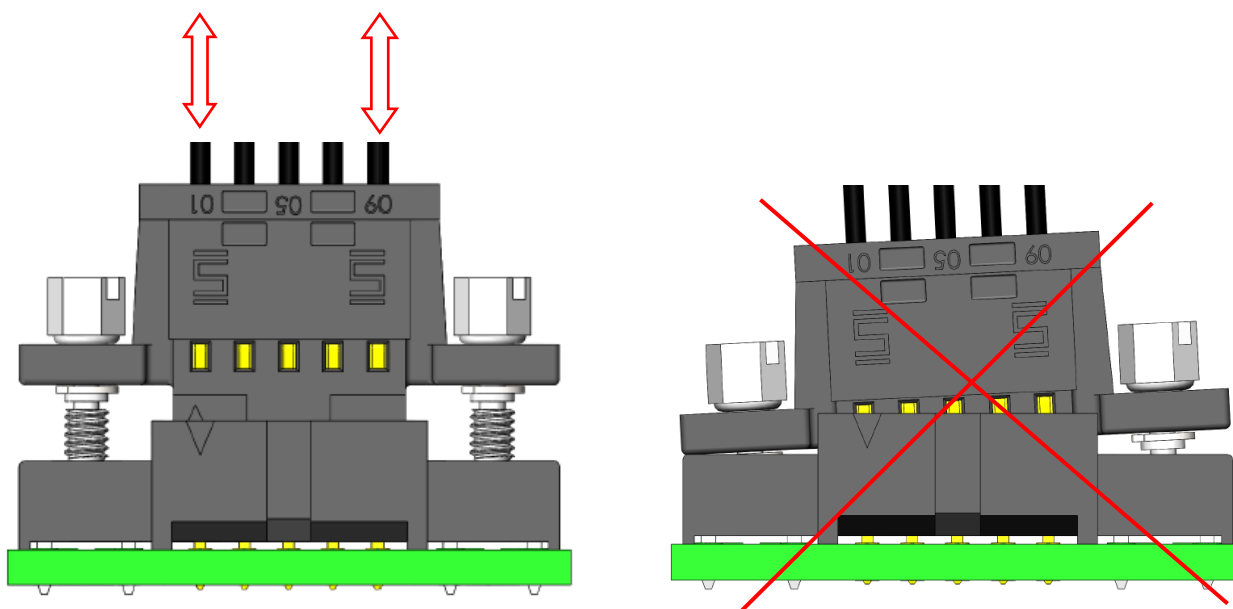
<http://suddendocs.samtec.com/prints/s2sdx%20mated%20document.pdf>

Series: S2SD(T)/T2SD(T) 2.00 mm (.0787") Tiger Eye™ Double Row Discrete Wire Cable, Socket / Terminal

5.3 Mating Angle Requirements: Cable must be axially aligned to connector when mated and un-mated.



5.4 Screw Down Mating Requirements: Screws must be tightened in .060" increments, alternating side to side; Tighten fasteners to 8 in OZ Max.



Series: **S2SD(T)/T2SD(T)** 2.00 mm (.0787") Tiger Eye™ Double Row Discrete Wire Cable, Socket / Terminal

6.0 CRIMP RECOMMENDATIONS AND CABLE PREPARATION

Crimp recommendation and cable preparation can be found on the links below:

<http://suddendocs.samtec.com/prints/cc81x-xxxx-01-x-mkt.pdf>

<http://suddendocs.samtec.com/prints/t1m82-x-xxxx-01-xx-mkt.pdf>

7.0 APPLICATION INFORMATION

7.1 Cable Management: Samtec recommends some form of cable management to prevent non-axial forces being applied to the connector.

7.2 Application tooling

Application tooling information can be found at link below:

<https://www.samtec.com/tooling.aspx#filter=2mm>

8.0 ADDITIONAL RESOURCES

8.1 For additional mechanical testing or product information, contact our Customer Engineering Support Group at CES@samtec.com

8.2 For additional information on high speed performance testing, contact our Signal Integrity Group at SIG@samtec.com

8.3 For additional processing information, contact our Interconnect Processing Group at IPG@samtec.com.

8.4 For RoHS, REACH or other environmental compliance information, contact our Product Environmental Compliance Group at PEC@samtec.com

USE OF PRODUCT SPECIFICATION SHEET

This Product Specification Sheet ("PSS") is a brief summary of information related to the Product identified. As a summary, it should only be used for the limited purpose of considering the purchase/use of Product. For specific, detailed information, including but not limited to testing and Product footprint, refer to Section 2.0 of this document and the links there provided to test reports and prints. This PSS is the property of Samtec, Inc. ("Samtec") and contains proprietary information of Samtec, our various licensors, or both. Samtec does not grant express or implied rights or license under any patent, copyright, trademark or other proprietary rights and the use of the PSS for building, reverse engineering or replication is strictly prohibited. By using the PSS, the user agrees to not infringe, directly or indirectly, upon any intellectual property rights of Samtec and acknowledges that Samtec, our various licensors, or both own all intellectual property therein. The PSS is presented "AS IS". While Samtec makes every effort to present excellent information, the PSS is only provided as a guideline and does not, therefore, warrant it is without error or defect or that the PSS contains all necessary and/or relevant information about the Product. The user agrees that all access and use of the PSS is at its own risk. **NO WARRANTIES EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY KIND WHATSOEVER ARE PROVIDED.**