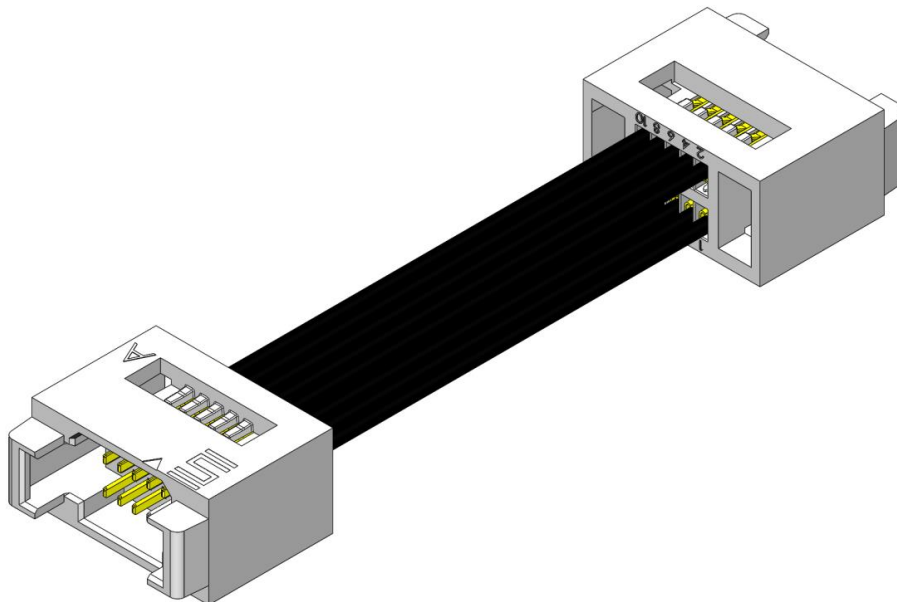
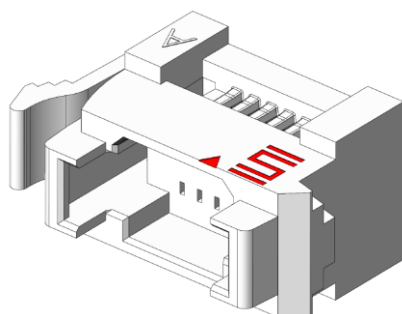


Series: T1XD(T) 1.00 mm (.0394") Double Row Discrete Wire Cable Assembly, Terminal

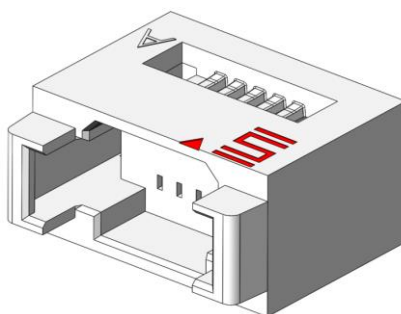
T1SD(T) Series – Double Row Cable Assembly



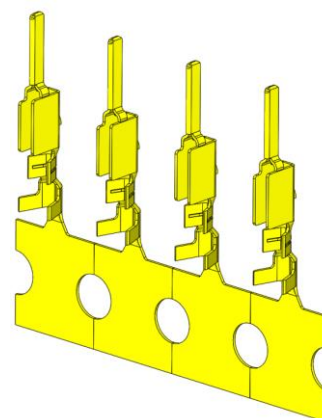
IDP1 Body



IDT1 Body



TC37X Terminal



Other configurations available for:

Panel Mount, Teflon Insulation, Transfer to socket

See www.samtec.com for more information.



Series: T1XD(T) 1.00 mm (.0394") Double Row Discrete Wire Cable Assembly, Terminal

1.0 SCOPE

- 1.1 This specification covers performance, testing and quality requirements for Samtec T1XD(T) Series 1.00 mm (.0394") Double Row Discrete Wire Cable Assembly, Terminal. 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
T1SD(T): <https://www.samtec.com/products/t1sd> ; <https://www.samtec.com/products/t1sdt>
T1PD(T): <https://www.samtec.com/products/t1pd> ; <https://www.samtec.com/products/t1pdt>
IDP1: <http://suddendocs.samtec.com/prints/idp1>
IDT1: <http://suddendocs.samtec.com/prints/idt1>
TC37X: <http://suddendocs.samtec.com/prints/tc37x>

3.0 PRODUCT DESCRIPTION

3.1 Product Series

ITEM	SOCKET
Crimp Contacts	TC37X
Housings	IDP1 & IDT1
Mating connectors	T1M
Cable Assemblies	S1SD, S1SDT

3.2 Materials and Plating

ITEM	SOCKET
Contact Material	Phosphor Bronze
Contact Plating	Au over 50u" Ni
Housing Material	Nylon
Insulation Material (Cable Assemblies only)	PVC, or Teflon

3.3 Agency Approvals

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

Series: T1XD(T) 1.00 mm (.0394") Double Row Discrete Wire Cable Assembly, Terminal

4.0 TESTING

4.1 Current Rating: 2.7A (One Pin Powered per row)

4.2 Voltage Rating: 225 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 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)	680 VAC	Pass
Insulation Resistance	EIA-364-21 (1000 MΩ minimum)	1,000 MΩ	Pass
Contact Resistance (LLCR)	EIA-364-23	Δ 15 mΩ (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 mΩ	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 mΩ	Pass
Normal Force	EIA-364-04	30 grams minimum for gold interface	Pass

Series: T1XD(T) 1.00 mm (.0394") Double Row Discrete Wire Cable Assembly, Terminal

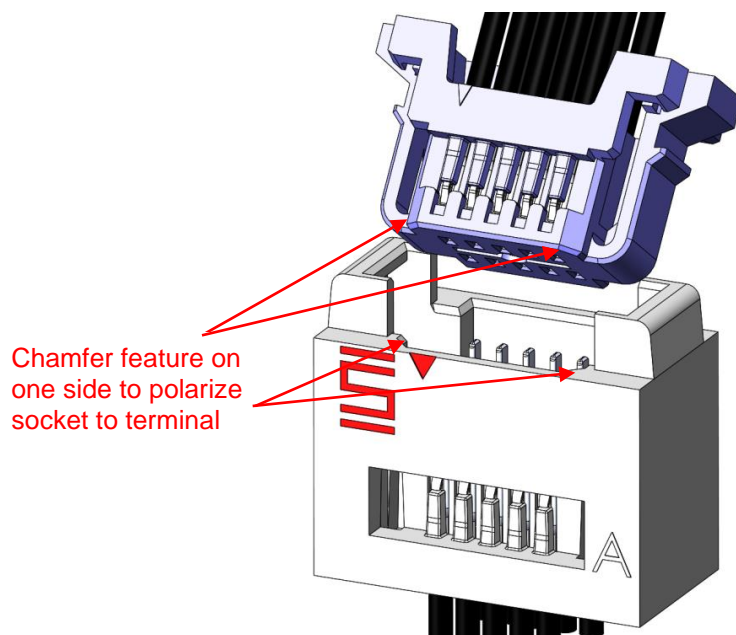
4.7 Environmental:

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: 680 VAC IR: >45,000 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	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: 680 VAC IR: >45,000 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

Series: T1XD(T) 1.00 mm (.0394") Double Row Discrete Wire Cable Assembly, Terminal

5.0 MATED SYSTEM

5.1 Polarizing Features



5.2 Mated Views

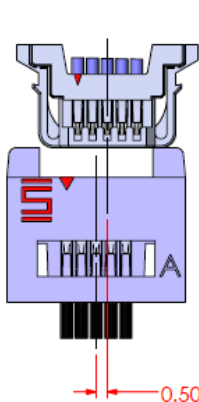
Mated view information can be found at link below:

[http://www.samtec.com/prints/T1XDX-S1SDX mated document.pdf](http://www.samtec.com/prints/T1XDX-S1SDX%20mated%20document.pdf)

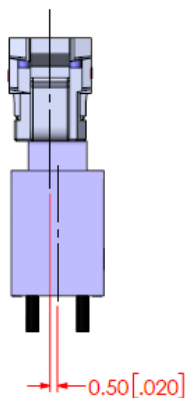
Series: **T1XD(T)** 1.00 mm (.0394") Double Row Discrete Wire Cable Assembly, Terminal

5.3 Mating Alignment Requirements:

5.3.1 Allowable initial linear misalignment



INITIAL X AXIS LINEAR MISALIGNMENT

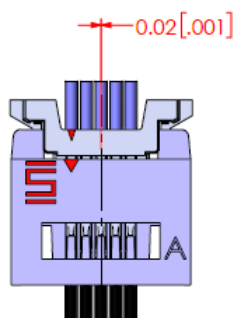


INITIAL Y AXIS LINEAR MISALIGNMENT

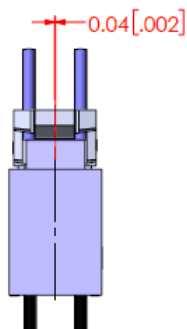
NON APPLICABLE

INITIAL Z AXIS LINEAR MISALIGNMENT

5.3.2 Allowable final linear misalignment



FINAL X AXIS LINEAR MISALIGNMENT



FINAL Y AXIS LINEAR MISALIGNMENT

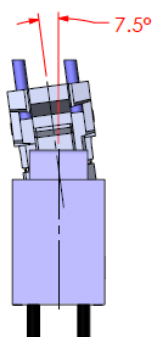
SEE MATED VIEWS DOCUMENT

FINAL Z AXIS LINEAR MISALIGNMENT

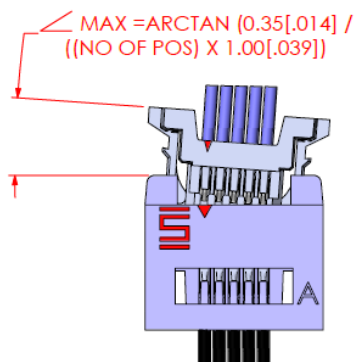
Series: **T1XD(T)** 1.00 mm (.0394") Double Row Discrete Wire Cable Assembly, Terminal

5.4 Mating Angle Requirements:

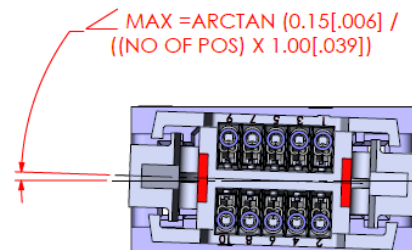
5.4.1 Allowable initial angular misalignment



INITIAL X AXIS ANGULAR MISALIGNMENT

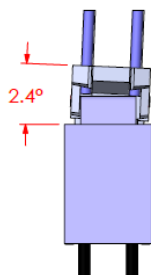


INITIAL Y AXIS ANGULAR MISALIGNMENT

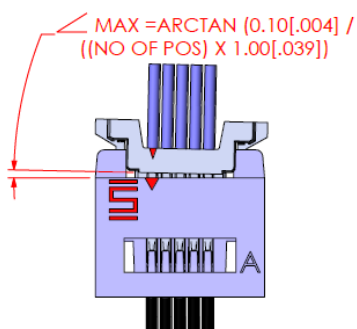


INITIAL Z AXIS ANGULAR MISALIGNMENT

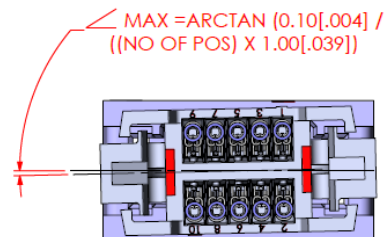
5.4.2 Allowable final angular misalignment



FINAL X AXIS ANGULAR MISALIGNMENT



FINAL Y AXIS ANGULAR MISALIGNMENT



FINAL Z AXIS ANGULAR MISALIGNMENT

Series: T1XD(T) 1.00 mm (.0394") Double Row Discrete Wire Cable Assembly, 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/tc37x-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=1mm>

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.**