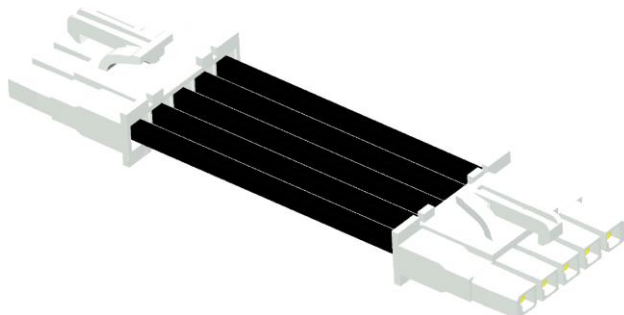
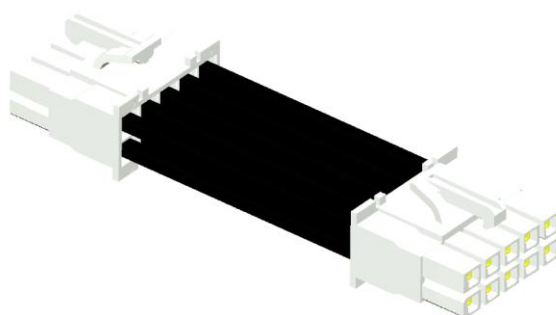


Series: PMSS(T)/PMSD(T) .165" (4.19 mm) Power Mate® Discrete Wire Cable Assembly, Socket

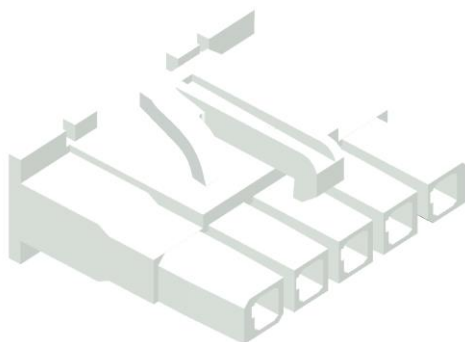
PMSS(T) Series Cable Assembly



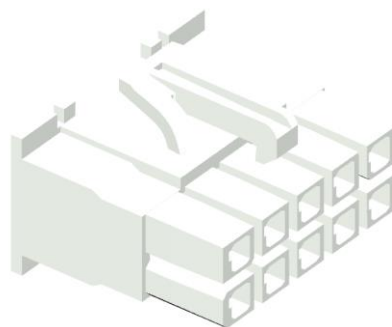
PMSD(T) Series Cable Assembly



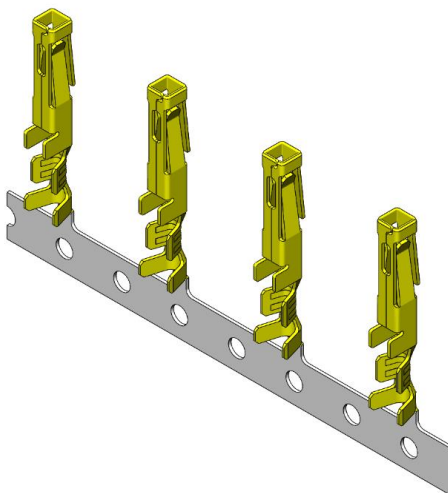
IPBD-S Body



IPBD-D Body



CC69 Crimp Contact



See www.samtec.com for more information.



Series: PMSS(T)/PMSD(T) .165" (4.19 mm) Power Mate® Discrete Wire Cable Assembly, Socket

1.0 SCOPE

- 1.1 This specification covers performance, testing and quality requirements for PMSS(T)/PMSD(T) .165" (4.19 mm) Power Mate® Discrete Wire Cable Assembly, Socket. 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 <https://www.samtec.com/products/pmsd> and <https://www.samtec.com/products/pmss>.

3.0 PRODUCT DESCRIPTION

3.1 Product Series

ITEM	SOCKET
Crimp Contacts	CC69L, CC69R
Housings	IPBD
Mating connectors	IPBT
Cable Assemblies	PMSS, PMSST, PMSD, PMSDT

3.2 Materials and Platings

ITEM	SOCKET
Contact Material	Phosphor Bronze
Contact Plating	Tin 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: PMSS(T)/PMSD(T) .165" (4.19 mm) Power Mate® Discrete Wire Cable Assembly, Socket

4.0 TESTING

4.1 Current Rating: 10.4 A (One Pin Powered Per Row – 16AWG),
8.8 A (One Pin Powered Per Row – 18AWG)

4.2 Voltage Rating: 300 VAC (Cable Rating) 300 VAC (as tested)

4.3 Operating Temperature Range:

Component with tin plating: -55°C to +105°C

Cable Assembly with PVC wire (16, 18, 22, 203, 206, 24AWG): -30°C to +105°C

Cable Assembly with Teflon wire: -40°C to +105°C

Cable Assembly with Teflon wire with Au plating: -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)	300 VAC (Cable Rating) 300 VAC (As tested)	Pass
Insulation Resistance	EIA-364-21 (1000 MΩ minimum)	>9,000 MΩ	Pass
Contact Resistance (LLCR)	EIA-364-23	Δ 15 mΩ maximum (Samtec defined)/ No damage	Pass

4.6 Mechanical:

ITEM	TEST CONDITION	REQUIREMENT	STATUS
Durability	EIA-364-09C	30 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 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 mΩ maximum	Pass
Normal Force	EIA-364-04	100 grams minimum for Tin interface	Pass

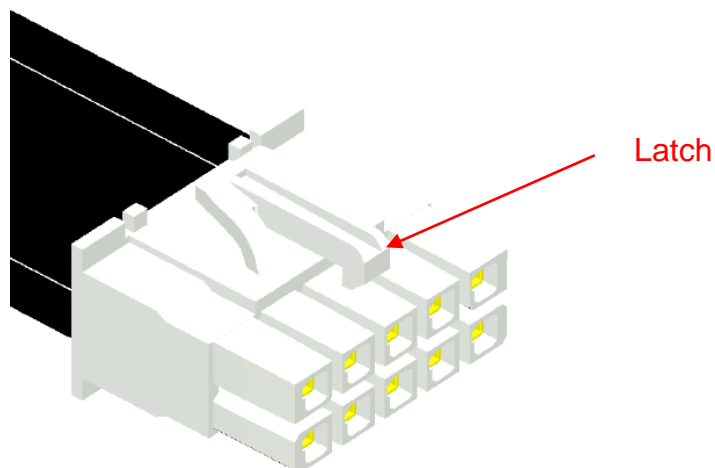
Series: PMSS(T)/PMSD(T) .165" (4.19 mm) Power Mate® Discrete Wire Cable Assembly, Socket

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: 900 VAC IR: >9,000 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: 900 VAC IR: >9,000 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: 900 VAC IR: >9,000 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 - Latch prevents mis-mating connectors.



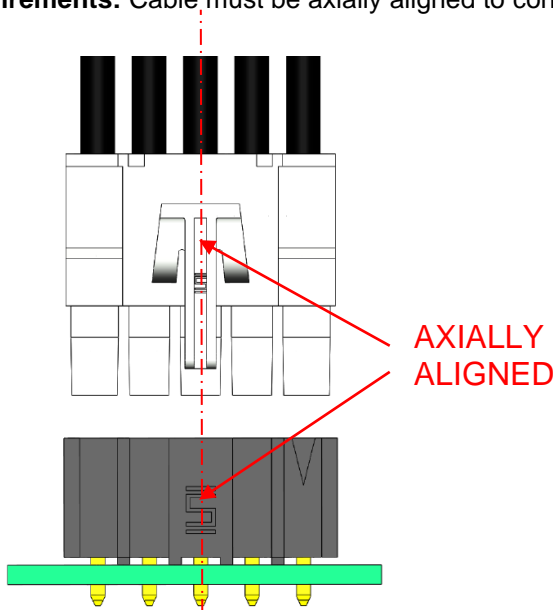
Series: PMSS(T)/PMSD(T) .165" (4.19 mm) Power Mate® Discrete Wire Cable Assembly, Socket

5.2 Mated Views

Mated view information can be found at link below:

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

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



6.0 CRIMP RECOMMENDATIONS AND CABLE PREPARATION

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

<http://suddendocs.samtec.com/prints/cc69x-xxxx-01-x-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=165>



Series: [PMSS\(T\)/PMSD\(T\)](#) .165" (4.19 mm) Power Mate® Discrete Wire Cable Assembly, Socket

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.**