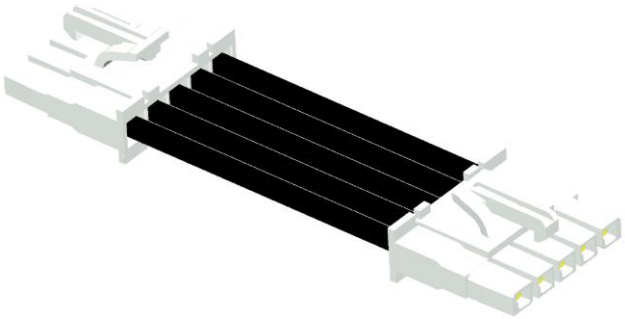
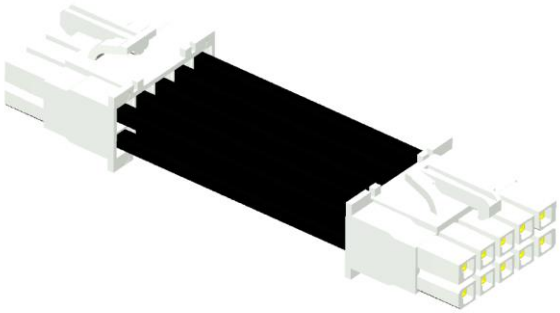
Series: PMSS(T)/PMSD(T) .165” (4.19 mm) Power Mate® Discrete Wire Cable Assembly, Socket

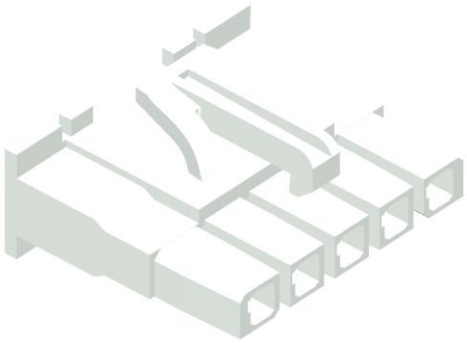
PMSS(T) Series Cable Assembly



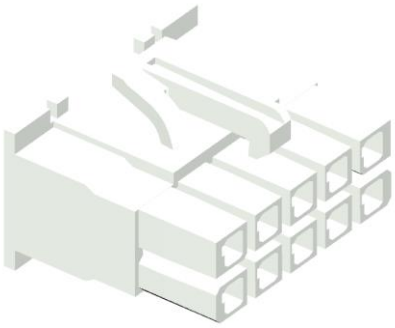
PMSD(T) Series Cable Assembly



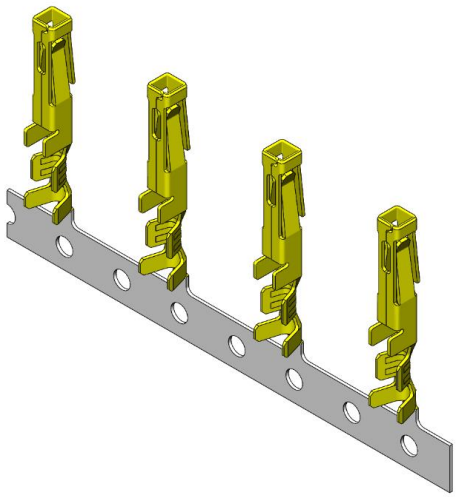
IPBD-S Body



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 103 FHS
Insulation Material (Cable Assemblies only)	PVC or Teflon

3.3 Agency Approvals

ITEM	SOCKET
UL File Numbers	E111594
Flammability Rating	94V-2
RoHS	RoHS Compliant
REACH	REACH 173 Compliant

4.0 TESTING

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

4.1 Current Rating: 10.3 A (One Pin Powered Per Row – 16AWG)

4.2 Voltage Rating: 300 VAC (Cable Rating) 674 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

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) 675 VAC (As tested)	Pass
Insulation Resistance	EIA-364-21 (1000 MΩ minimum)	>10,000 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

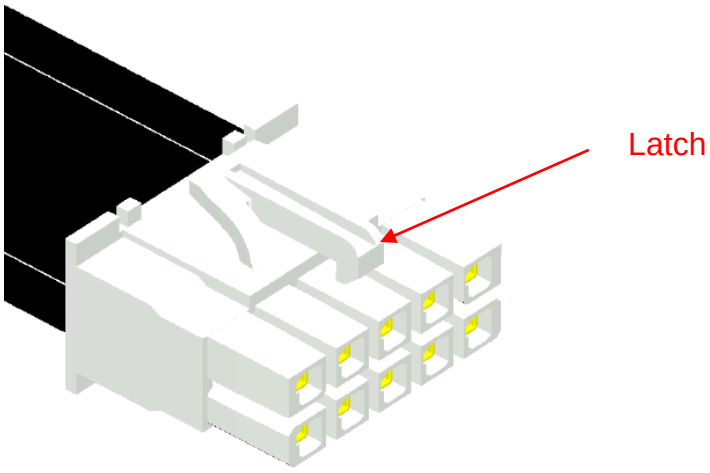
4.7 Environmental:

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

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 mΩ DWV: 2025 VAC IR: >10,000 MΩ	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 mΩ DWV:2025 VAC IR: >10,000 MΩ	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 mΩ DWV: 2025 VAC IR: >10,000 MΩ	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 mΩ	Pass

5.0 MATED SYSTEM

5.1 Polarizing Features - Latch prevents mis-mating connectors.

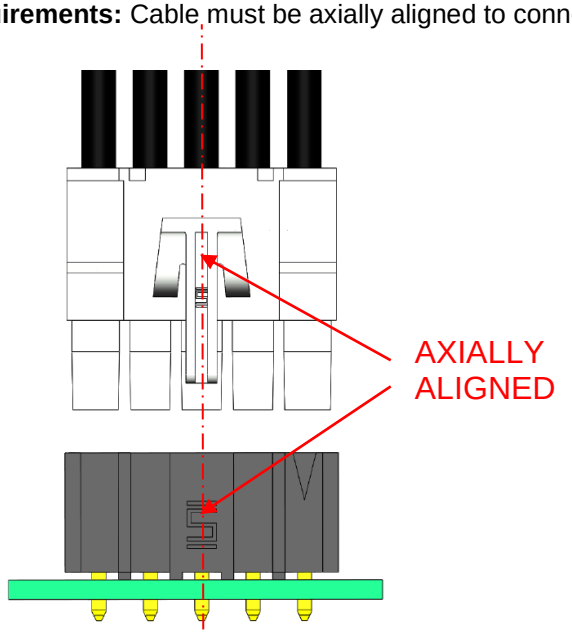


Series: PMSS(T)/PMSD(T) .165" (4.19 mm) Power Mate® Discrete Wire Cable Assembly, Socket

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://wwws.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**