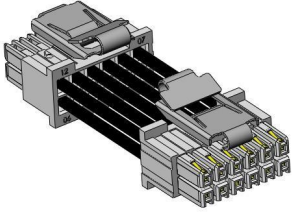
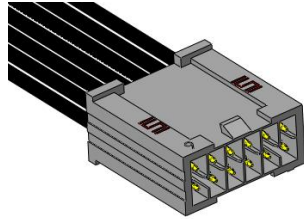


Series: .100" (2,54 mm) Mini Mate™ Double / Single Row Discrete Wire Cable Assembly, Socket / Terminal

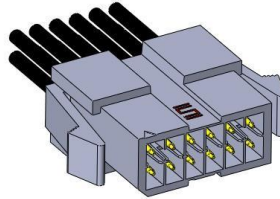
MMSD(T)/MMSS(T)  
Series Cable Assemblies



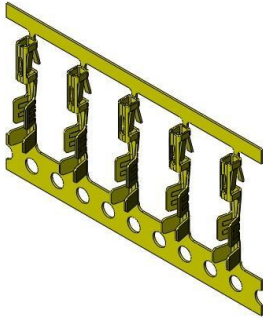
MMTD(T)/MMTS(T)  
Series Cable Assemblies



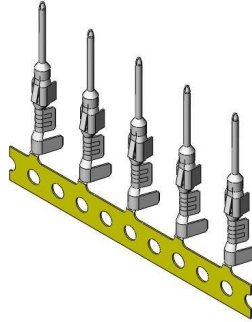
MRTD(T) Cable Assemblies  
Cable Assemblies



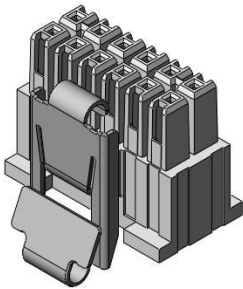
CC79 Crimp Contact



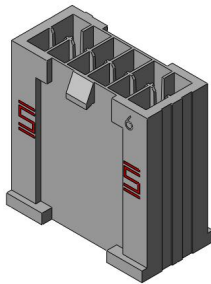
T1M74 Crimp Terminal



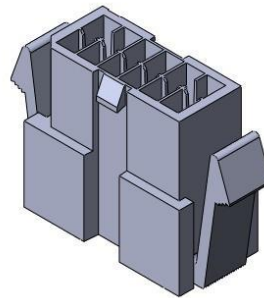
IPD1 Series Socket Housings



IPM1 Series Terminal Housings



IPR1 Series Terminal Housings



**Series:** .100" (2,54 mm) Mini Mate™ Double / Single Row Discrete Wire Cable Assembly, Socket / Terminal

**1.0 SCOPE**

- 1.1 This specification covers performance, testing and quality requirements for Samtec .100" (2,54mm) Mini Mate™ Double / Single Row Discrete Wire Cable Assembly Socket / Terminal System. Testing was performed using a dual row, female MMSD Series cable assembly mated to a IPL1 Series terminal strip 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 <http://www.samtec.com/cable-systems/discrete-wire.aspx#100MiniMate>.

**3.0 PRODUCT DESCRIPTION**
**3.1 Product Series**

ITEM	SOCKET	TERMINAL
Crimp Contacts	CC79R, CC79L	T1M74-L, T1M74-R
Housings	IPD1	IPM1, IPR1
Mating connectors	IPL1, MMTD(T), MRTD(T)	MMSD(T), MMSS(T), IPD1
Cable Assemblies	MMSD(T), MMSS(T), IPD1	MRTD

**3.2 Materials and Platings**

ITEM	SOCKET	TERMINAL
Contact Material	Phosphor Bronze	Phosphor Bronze
Contact Plating	Au over 50u" Ni	Au over 50u" Ni
Housing Material	White Zytel 101F	White Zytel PA66, Natural Zytel PA66
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 114 Compliant	REACH 114 Compliant

Series: .100" (2,54 mm) Mini Mate™ Double / Single Row Discrete Wire Cable Assembly, Socket / Terminal

4.0 TESTING

4.1 **Current Rating:** 2.9 A (One Pin Powered Per Row)

4.2 **Voltage Rating:** 275 VAC

4.3 **Operating Temperature Range:**

Components: -55°C to +125°C

Cable Assembly with PVC Cable: -10°C to +80°C

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

4.4 **Operating Humidity Range:** 90% to 95% (Per EIA-364-31)

4.5 **Electrical**

ITEM	TEST CONDITION	REQUIREMENT	STATUS
Withstanding Voltage	EIA-364-20 (No Flashover, Spark-over, or Breakdown)	825 VAC	Pass
Insulation Resistance	EIA-364-21 (1000 MΩ minimum)	5, 000 MΩ	Pass
Contact Resistance (LLCR)	EIA-364-23	Δ15 mΩ maximum (Samtec defined)/ No damage	Pass

4.6 **Mechanical**

ITEM	TEST CONDITION	REQUIREMENT	STATUS
Durability	EIA-364-09C	100 cycles (10u" Au)	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 Event Detection: No interruption > 50 Nanoseconds	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 Event Detection: No interruption > 50 Nanoseconds	Pass
Normal Force	EIA-364-04	30 grams minimum for gold interface	Pass

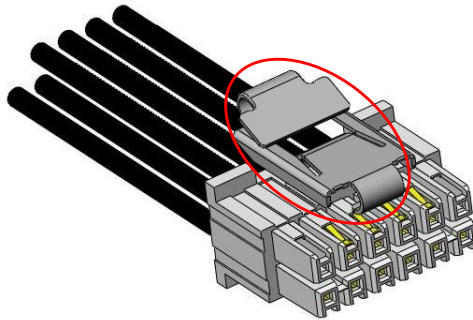
Series: .100" (2,54 mm) Mini Mate™ Double / Single Row Discrete Wire Cable Assembly, Socket / Terminal

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: $\Delta$ 15 m $\Omega$ DWV: 825 VAC IR: >15,000 M $\Omega$	Pass
Thermal Aging (Temp Life)	EIA-364-17 Test Condition 4 @ 105°C Condition B for 250 hours	Visual Inspection: No Damage LLCR: $\Delta$ 15 m $\Omega$ DWV: 825 VAC IR: >15,000 M $\Omega$	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: $\Delta$ 15 m $\Omega$ DWV: 825 VAC IR: >15,000 M $\Omega$	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: $\Delta$ 15 m $\Omega$	Pass

5.0 MATED SYSTEM

5.1 Latching Features – Optional squeeze latches assure positive engagement for cable assemblies.



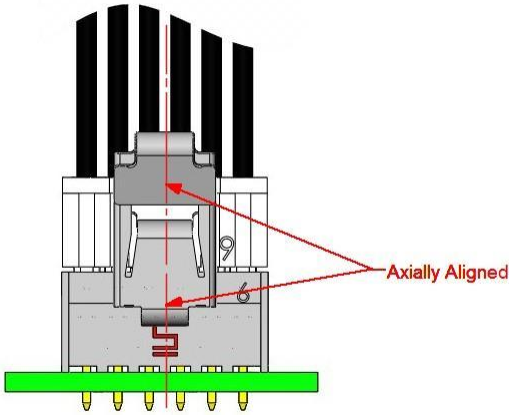
Series: .100" (2.54 mm) Mini Mate™ Double / Single Row Discrete Wire Cable Assembly, Socket / Terminal

5.2 Mated Views

Mated view information can be found at link below:

<http://www.samtec.com/documents/webfiles/cpdf/MMSS%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://www.samtec.com/documents/webfiles/cpdf/CC79X-XXXX-XX-X-MKT.pdf>

<http://www.samtec.com/documents/webfiles/cpdf/T1M74-X-XX-X-MKT.pdf>

<http://www.samtec.com/documents/webfiles/cpdf/CRIMP-SPECIFICATIONS-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 Tools

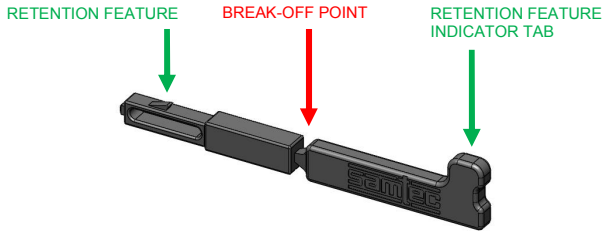
CONTACT/TERMINAL TO TOOLING CHART					
Contact/ Terminal	AWG	Hand Tooling	AUTO TOOLING*		
			CAT 3000 & AMP G (40mm Stroke Length)	AMP T (40mm Stroke Length)	AMP K (30mm Stroke Length)
CC79	20-24	CAT-HT-179-2024-11	CAT-MA-179-2024-FR-01	CAT-MA-179-2024-FS-01	CAT-MA-179-2024-TR-01
	26-30	CAT-HT-179-2630-11	CAT-MA-179-2630-FR-01	CAT-MA-179-2630-FS-01	CAT-MA-179-2630-TR-01
	28-30	N/A	CAT-MA-179-2830-FR-01	CAT-MA-179-2830-FS-01	CAT-MA-179-2830-TR-01
T-1M74	20-24	CAT-HT-174-2024-11	CAT-MA-174-2024-FR-01	CAT-MA-174-2024-FS-01	CAT-MA-174-2024-TR-01
	26-30	CAT-HT-174-2630-11	CAT-MA-174-2630-FR-01	CAT-MA-174-2630-FS-01	CAT-MA-174-2630-TR-01
	28-30	N/A	CAT-MA-174-2830-FR-01	CAT-MA-174-2830-FS-01	CAT-MA-174-2830-TR-01

Series: .100" (2,54 mm) Mini Mate™ Double / Single Row Discrete Wire Cable Assembly, Socket / Terminal

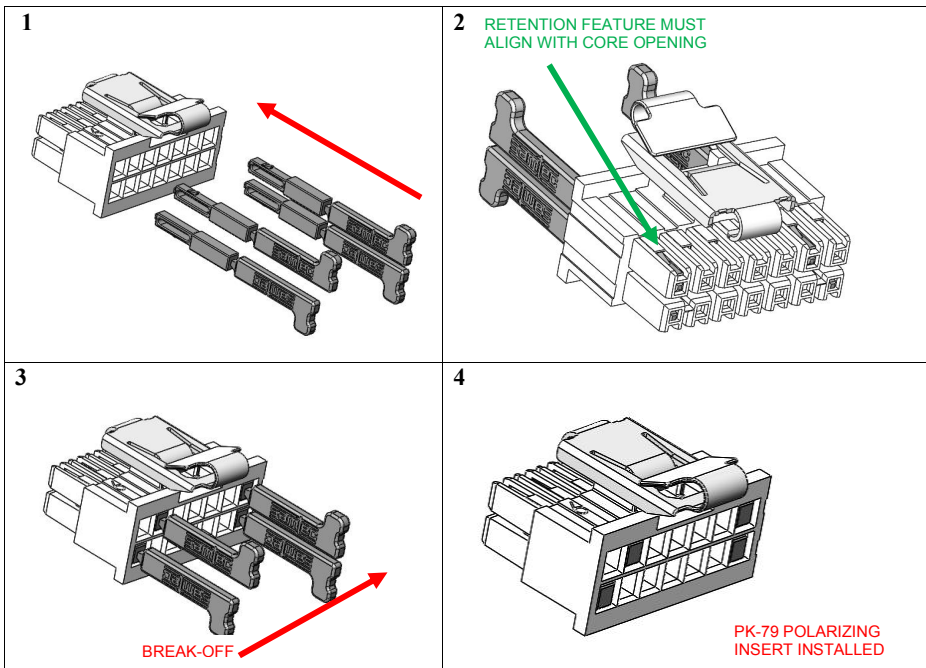
7.3 Extraction Tools

Contact/Terminal	AWG	CONTACT EXTRACTION TOOL
CC79	20-30	CAT-EX-179-01
T-1M74	20-30	CAT-EX-74-01

7.4 PK-79 Polarizing Insert

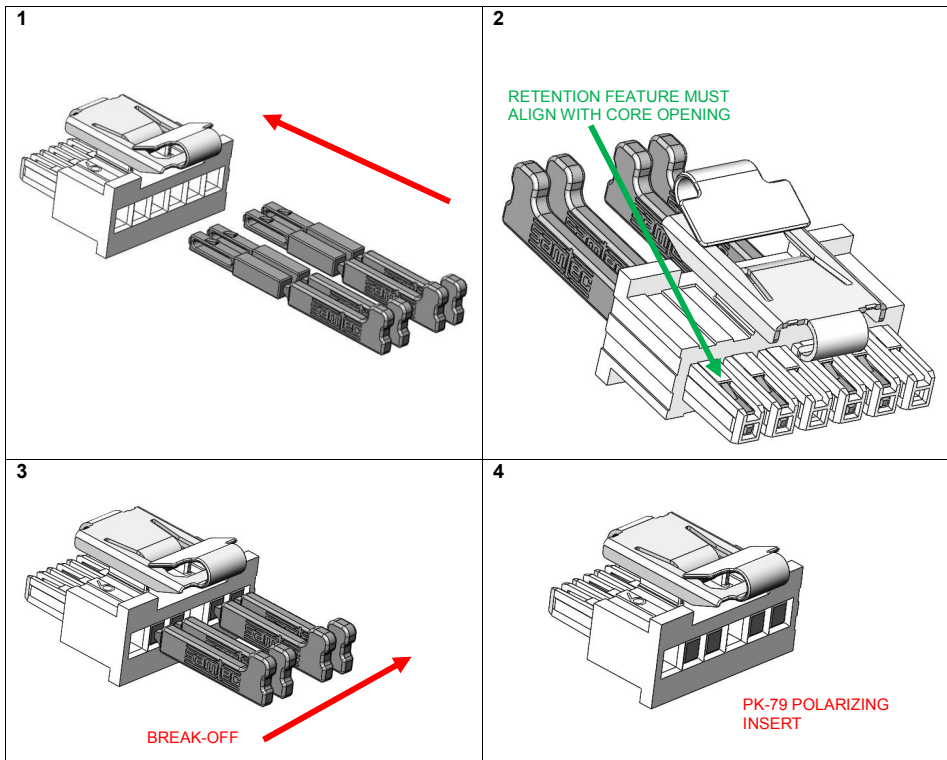


7.5.1 PK-79 Polarizing IPD1-07-D



Series: .100" (2,54 mm) Mini Mate™ Double / Single Row Discrete Wire Cable Assembly, Socket / Terminal

7.5.2 PK-79 Polarizing IPD1-06-S



7.5.3 Installation instructions for PK-79 Insert

1. Align the PK-79 with the cores to be polarized
2. Use the Retention Feature Indicator Tab to align the retention feature with the core opening on the outside of the body. Retention feature must align with core opening for proper performance. Once aligned, insert the PK-79 until fully seated.
3. Break off PK-79 by bending remaining body along center axis of part
4. PK-79 fully installed

**Series:** .100" (2,54 mm) Mini Mate™ Double / Single Row Discrete Wire Cable Assembly, Socket / Terminal

**8.0 ADDITIONAL RESOURCES**

- 8.1 For general application and product assistance, contact our Rugged Product Group at [RUGGED@samtec.com](mailto:RUGGED@samtec.com)
- 8.2 For RoHS, REACH or other environmental compliance information, contact our Product Environmental Compliance Group at [PEC@samtec.com](mailto:PEC@samtec.com)
- 8.3 For additional mechanical testing or product information, contact our Customer Engineering Support at [CES@samtec.com](mailto:CES@samtec.com)
- 8.4 For any questions regarding tooling or assembly processes, contact our Tooling Group at [ATG@samtec.com](mailto:ATG@samtec.com)