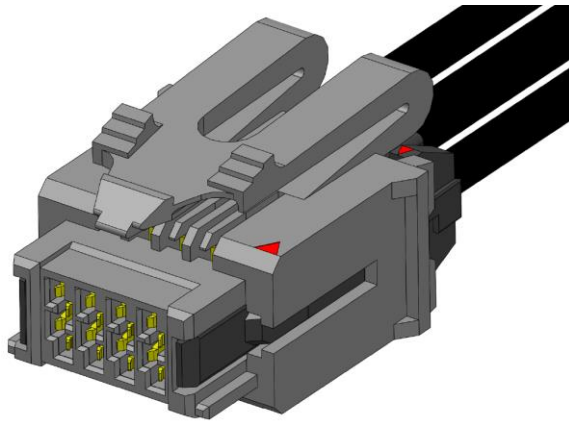


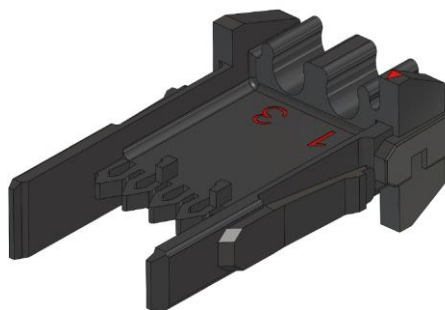
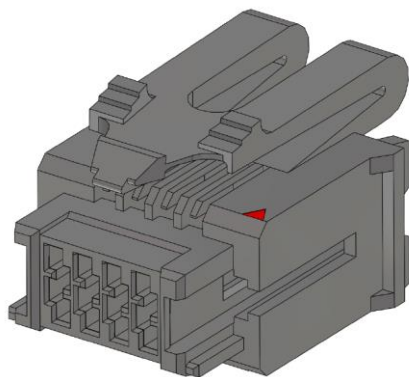
Series: UMPCX 2.00 mm (.0787") Ultra Micro Power Cable Assembly

UMPCX Cable Assembly Series

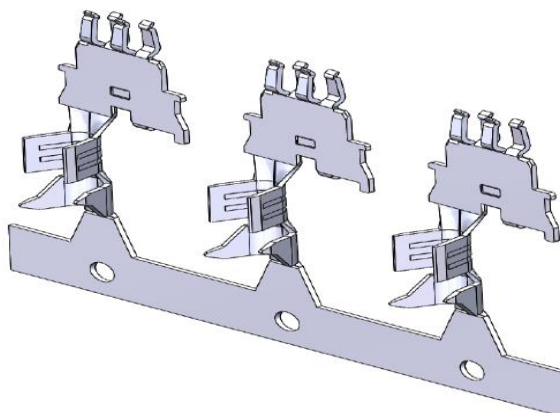


IMPC Body

IMPCC Holder



CC489 Crimp Contact



Other configurations available for:

Metal Latching Option, Right Angle Mating Board Connector
See www.samtec.com for more information.



Series: **UMPCX** 2.00 mm (.0787") Ultra Micro Power Cable Assembly

1.0 SCOPE

- 1.1** This specification covers performance, testing and quality requirements for Samtec's UMPCX Series 2.00 mm (.0787") pitch Ultra Micro Power Cable Assembly in a horizontal orientation.

2.0 DETAILED INFORMATION

- 2.1** Product prints, footprints, catalog pages, test reports and other specific, detailed information can be found at
UMPCX: <https://suddendocs.samtec.com/prints/umpcx>
IMPC: <https://www.samtec.com/products/impc>
IMPCC: <https://www.samtec.com/products/impcc>

3.0 PRODUCT DESCRIPTION

3.1 Product Series

ITEM	SOCKET
Crimp Contacts	CC489
Housings	IMPC, IMPCC
Mating connectors	UMPT-RA, UMPT-V
Cable Assemblies	UMPC, UMPCT

3.2 Material & Platings

ITEM	SOCKET
Contact Material	Copper Alloy
Contact Plating	Au/Sn over 50u" Ni
Housing Material	LCP(IMPC), Nylon (IMPCC)
Insulation Material (Cable Assemblies only)	PVC(UMPC), Teflon (UMPCT)

3.3 Agency Approvals

ITEM	SOCKET
UL File Numbers	E111594
Flammability Rating	94V-0
RoHS	RoHS Compliant
REACH	REACH 114 Compliant

Series: **UMPCX** 2.00 mm (.0787") Ultra Micro Power Cable Assembly

4.0 TESTING

4.1 Current Rating: 16.8A (16 AWG, 1 Pin Powered)

4.2 Voltage Rating: 435 VAC

4.3 Operating Temperature Range:

Components: -55°C to +125°C

Cable assembly with PVC Cable (UMPC): -10°C to 105°C

Cable assembly with Teflon Cable (UMPCT): -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)	1305 VAC	PASS
Insulation Resistance	EIA-364-21 (5000 MΩ minimum)	5,000 MΩ	PASS
Contact Resistance (LLCR)	EIA-364-23	Δ 5.0 mΩ (Samtec defined)/ No damage	PASS

4.6 Mechanical:

ITEM	TEST CONDITION	RESULT	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 Nanosecond Event Detection: EIA-364-87	Visual Inspection: No Damage LLCR: Δ 5 mΩ No Events	PASS
Mechanical Shock	EIA-364-27 100 G, 6 milliseconds, Half Sine wave, 12.3 fps, 3 shocks/direction, 3 axis (18 total shocks) Nanosecond Event Detection: EIA-364-87	Visual Inspection: No Damage LLCR: Δ 5 mΩ	PASS
Normal Force	EIA-364-04	100 grams minimum for Tin interface	PASS

Series: UMPCX 2.00 mm (.0787") Ultra Micro Power Cable Assembly

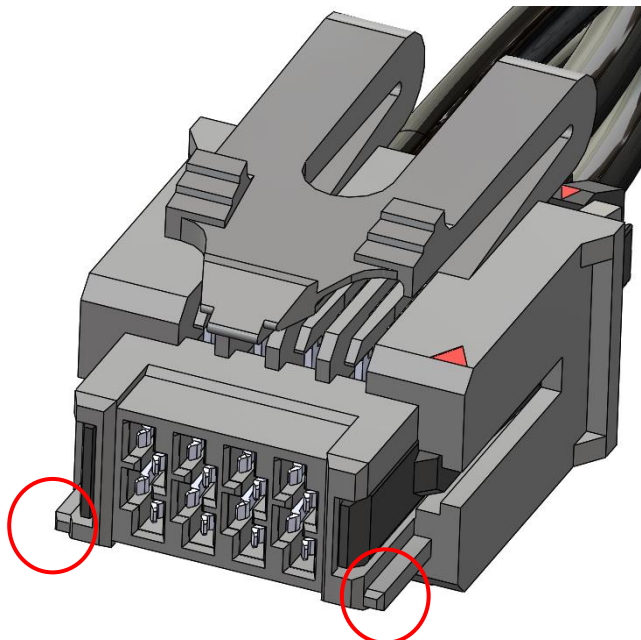
4.7 Environmental:

ITEM	TEST CONDITION	RESULT	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 5 m Ω DWV: 1305 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 5 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 5 m Ω DWV: 1305 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 5 m Ω	PASS

Series: **UMPCX** 2.00 mm (.0787") Ultra Micro Power Cable Assembly

5.0 MATED SYSTEM

5.1 Polarizing Features – Side Keys prevents mis-mating connectors.

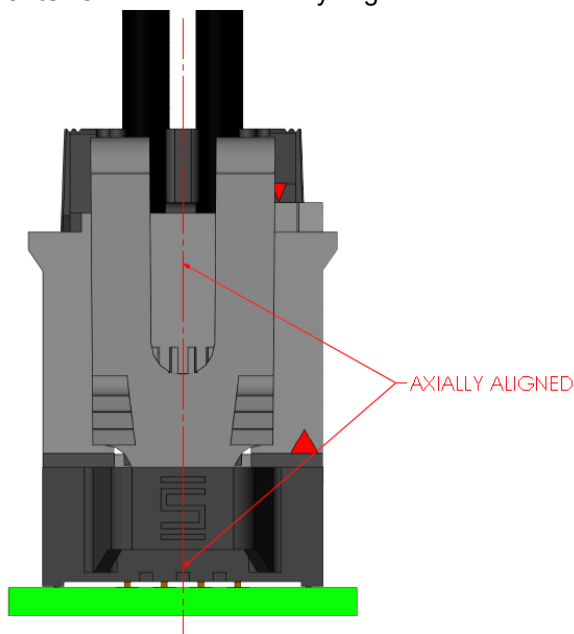


5.2 Mated Views

Mated view information can be found at link below:

[Mated Document](#)

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



Series: **UMPCX** 2.00 mm (.0787") Ultra Micro Power Cable Assembly

6.0 CRIMP RECOMMENDATIONS AND CABLE PREPARATION

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

<https://suddendocs.samtec.com/prints/cc489-xx-x-x-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=080>

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
- 8.5** For applications requiring inverted reflow soldering, use of an epoxy adhesive is recommended. For more information on the use of epoxy adhesives, please visit the Processing page on our website or contact Samtec's Interconnect Processing Group at IPG@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.**