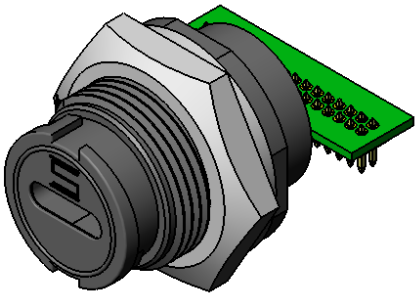
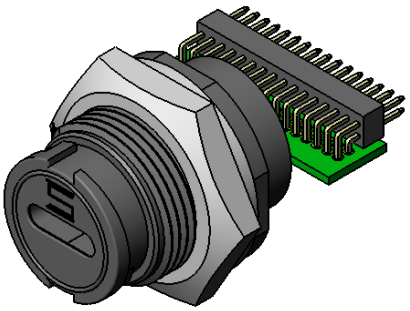
Series: BRU/BCU Sealed USB-C Cable Assembly / Interconnect

BRU Series – Right Angle



BRU Series – Vertical



BCU Series – Plug Cable assembly



BPCU Series –Receptacle Cable assembly



Related configurations:

Dust Caps: DCA-BRU-C-01

See www.samtec.com for more information.

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Series: BRU/BCU Sealed USB-C Cable Assembly / Interconnect

1.0 SCOPE

1.1 This specification covers performance, testing and quality requirements for Samtec's BRU/BCU/BPCU Series Sealed USB-C Cable Assembly / Interconnect.

2.0 DETAILED INFORMATION

2.1 Product prints, footprints, catalog pages, test reports and other specific, detailed information can be found at
BRU: https://www.samtec.com/products/bru , BCU: https://www.samtec.com/products/bcu
BPCU: https://www.samtec.com/products/bpcu

3.0 TESTING

3.1 Current Rating: 5A @ 20V.
3.2 Voltage Rating: Vertical 270 VAC, RA 250 VAC
3.3 Ingress Protection: IP67
3.4 Operating Temperature Range: -40°C to 85°C
3.5 Operating Humidity Range: Up to 95% (Per EIA-364-31)
3.6 Electrical:

ITEM	TEST CONDITION	REQUIREMENT	STATUS
Withstanding Voltage	EIA-364-20 (No Flashover, Sparkover, or Breakdown)	Vertical 810 VAC, RA 750 VAC	PASS
Insulation Resistance	EIA-364-21 (1000 MΩ minimum)	Vertical 15,000, RA 9,500 MΩ	PASS
Contact Resistance (LLCR)	EIA-364-23	Δ 20 mΩ (Samtec defined)/ No damage	PASS

3.7 Mechanical:

ITEM	TEST CONDITION	REQUIREMENT	STATUS
Durability	EIA-364-09C	500 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 0.10 G^2/Hz	Visual Inspection: No Damage LLCR: Δ 20 mΩ No Events	PASS

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Series: BRU/BCU Sealed USB-C Cable Assembly / Interconnect

3.8 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 20 mΩ DWV: Vertical 810 VAC, RA 750 VAC IR: Vertical >19,000 MΩ, RA >45,000 MΩ	PASS
Thermal Aging (Temp Life)	EIA-364-17 Test Condition 3 @ 85°C for 96 hours	Visual Inspection: No Damage LLCR: Δ 20 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 20 mΩ DWV: Vertical 810 VAC, RA 750 VAC Vertical IR: >15,000 MΩ, RA >9,500 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

4.0 PROCESSING RECOMMENDATIONS

4.1 Wave Soldering: Due to variances in equipment, solder, flux, and board design, Samtec does not recommend specific wave solder profiles for our connectors. The processing parameters provided by the flux manufacturer should be employed and can usually be found on their website.

For a lead-free wave process, the pot temperature (-260-270C) and contact time (~4 seconds) will likely be similar for most solders and fluxes, however different fluxes can require substantially different pre-heat temperatures.

For a tin-lead wave process, a pot temperature in the range of 230-250C and contact time of ~4 seconds is typically recommended.

Samtec strongly recommends a thorough thermal profile study be performed to fully understand the dynamics of your overall application.

For further discussion, please contact Samtec's Interconnect Processing Group (IPG) at ipg@samtec.com or 1-800-726-8329.

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4.2 Min Cable Bend Radius: 25.0mm

4.3 Cleaning: Samtec, Inc. has verified that our connectors may be cleaned in accordance with the solvents and conditions designated in the EIA-364-11 standard.

5.0 ADDITIONAL RESOURCES

5.1 For additional mechanical testing or product information, contact our Customer Engineering Support Group at **CES@samtec.com**

5.2 For additional information on high speed performance testing, contact our Signal Integrity Group at **SIG@samtec.com**

5.3 For additional processing information, contact our Interconnect Processing Group at **IPG@samtec.com**.

5.4 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.**