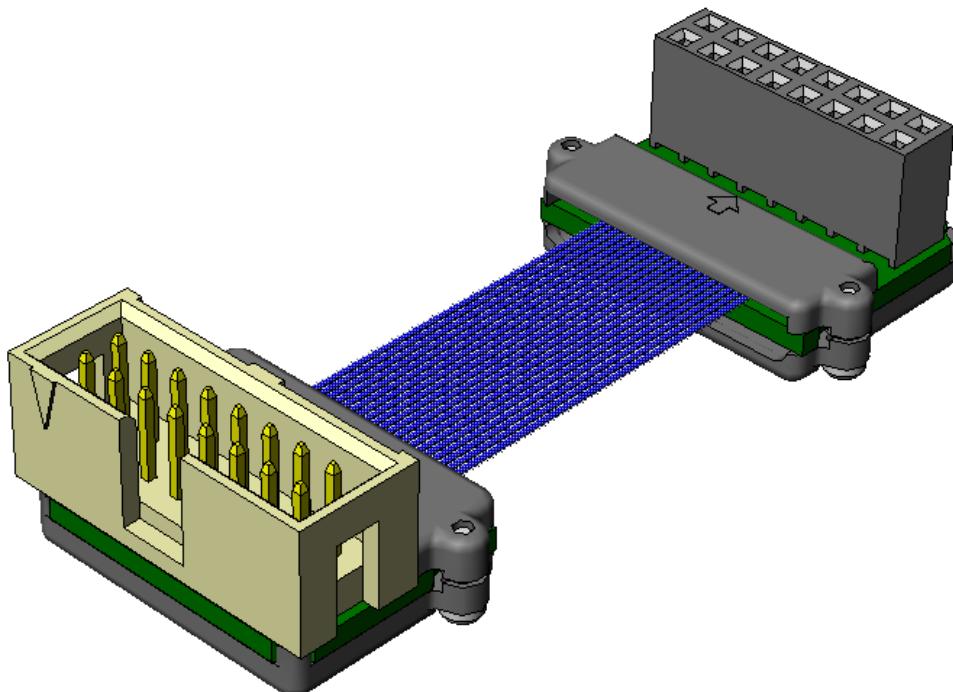


Series: [HHSC](#) .100" (2.54 mm) JTAG Ribbon Coax Cable Assembly

HHSC Series – SU / TU End Options



Other configurations available for:

Terminal / Socket, Edge mount End Options

See www.samtec.com for more information.

Series: **HHSC .100"** (2,54 mm) JTAG Ribbon Coax Cable Assembly

1.0 SCOPE

1.1 This specification covers performance, testing and quality requirements for Samtec HHSC .100" (2,54 mm) JTAG Ribbon Coax Cable Assembly. All information contained in this specification is for an 8 position configuration unless otherwise noted.

2.0 DETAILED INFORMATION

2.1 Product prints, catalog pages, test reports and other specific, detailed information can be found at <http://www.samtec.com/?HHSC>

3.0 TESTING

3.1 Current Rating: 0.2 A (14 Conductors Powered)

3.2 Voltage Rating: 375 VAC

3.3 Operating Temperature Range: -25°C to +105°C

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

3.5 Electrical:

ITEM	TEST CONDITION	REQUIREMENT	STATUS
Withstanding Voltage	EIA-364-20 (No Flashover, Sparkover, or Breakdown)	1125 VAC	Pass
Insulation Resistance	EIA-364-21 (1000 MΩ minimum)	1,000 MΩ	Pass
Contact Resistance (LLCR)	EIA-364-23	Δ 15 mΩ maximum (Samtec defined)/ No damage	Pass

3.6 Mechanical:

ITEM	TEST CONDITION	REQUIREMENT	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	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	30 grams minimum for gold interface	Pass

Series: HHSC .100" (2,54 mm) JTAG Ribbon Coax Cable Assembly**3.7 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 mΩ DWV: 1125 VAC IR: >15,000 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: 1125 VAC IR: >15,000 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: 1125 VAC IR: >15,000 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

Series: HHSC .100" (2,54 mm) JTAG Ribbon Coax Cable Assembly

4.0 MATED SYSTEM

4.1 For application details, please visit <http://www.samtec.com/?HHSC>.

4.2 Application Recommendations

FIRST END OPTION	FIRST END PIN #	SECOND END OPTION					
		SECOND END PIN #					
		-TU	-TD	-SU	-SD	-TE	-SE
-TU	01	01	N-1	01	N-1	01	01
	02	02	N	02	N	02	02
	N-1	N-1	01	N-1	01	N-1	N-1
	N	N	02	N	02	N	N
-TD	01	N-1	01	N-1	01	N-1	N-1
	02	N	02	N	02	N	N
	N-1	01	N-1	01	N-1	01	01
	N	02	N	02	N	02	02
-SU	01	01	N-1	01	N-1	01	01
	02	02	N	02	N	02	02
	N-1	N-1	01	N-1	01	N-1	N-1
	N	N	02	N	02	N	N
-SD	01	N-1	01	N-1	01	N-1	N-1
	02	N	02	N	02	N	N
	N-1	01	N-1	01	N-1	01	01
	N	02	N-2	02	N	02	02
-TE	01	01	N-1	01	N-1	01	01
	02	02	N	02	N	02	02
	N-1	N-1	01	N-1	01	N-1	N-1
	N	N	02	N	02	N	N
-SE	01	01	N-1	01	N-1	01	01
	02	02	N	02	N	02	02
	N-1	N-1	01	N-1	01	N-1	N-1
	N	N	02	N	02	N	N

4.2.1

4.3 Signal Mapping

- 4.3.1 All positions are transmitted as signals across coax center conductors.
- 4.3.2 Samtec recommends grounding at least one pin to take advantage of the benefits of coax cable shielding. Custom signal mapping available as non-standard. Contact HDR@samtec.com for more details.

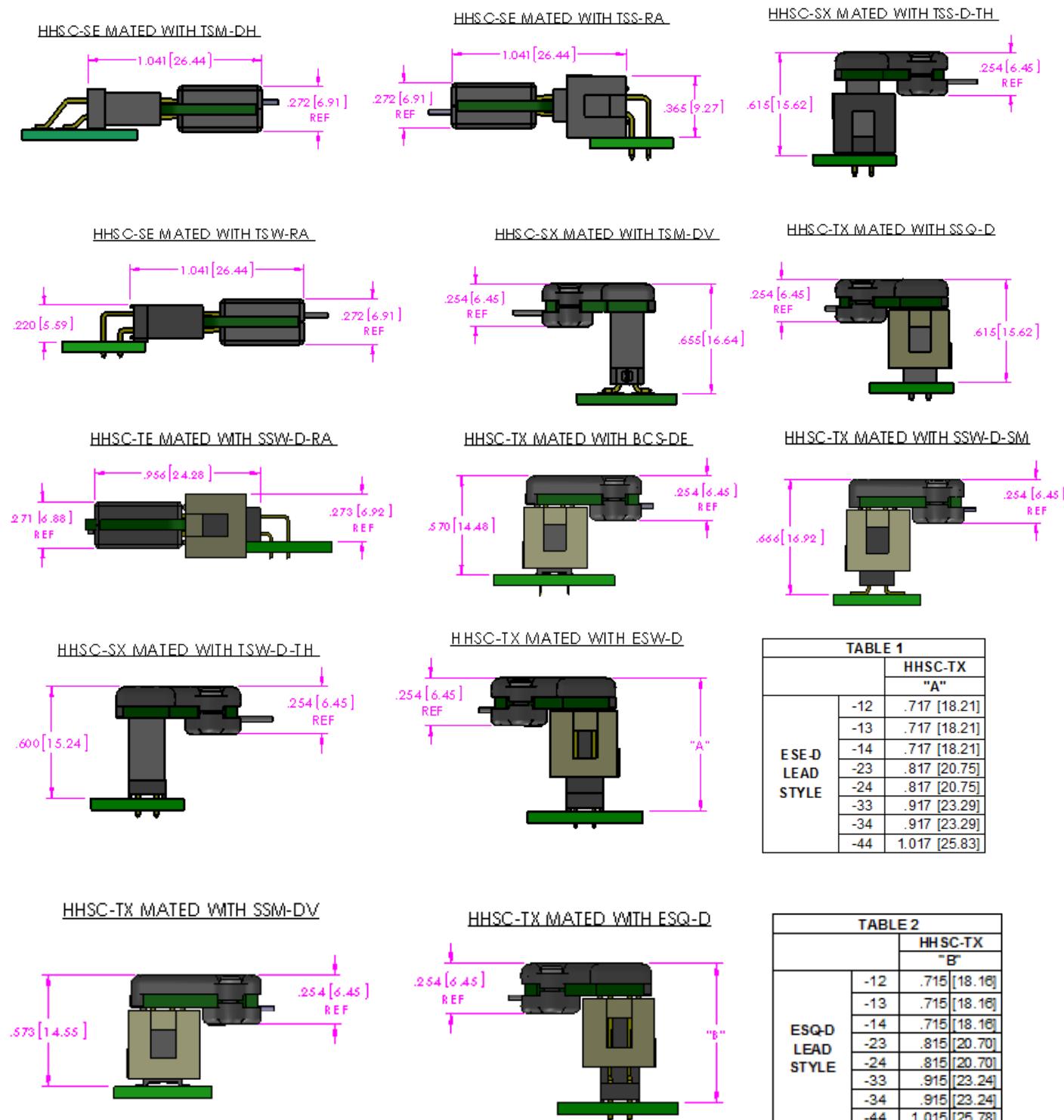
Series: HHSC .100" (2.54 mm) JTAG Ribbon Coax Cable Assembly
4.4 Mated View


TABLE 1	
	HHSC-TX "A"
ESE-D LEAD STYLE	-12 .717 [18.21]
	-13 .717 [18.21]
	-14 .717 [18.21]
	-23 .817 [20.75]
	-24 .817 [20.75]
	-33 .917 [23.29]
	-34 .917 [23.29]
	-44 1.017 [25.83]

TABLE 2	
	HHSC-TX "B"
ESQ-D LEAD STYLE	-12 .715 [18.16]
	-13 .715 [18.16]
	-14 .715 [18.16]
	-23 .815 [20.70]
	-24 .815 [20.70]
	-33 .915 [23.24]
	-34 .915 [23.24]
	-44 1.015 [25.78]

Series: HHSC .100" (2.54 mm) JTAG Ribbon Coax Cable Assembly

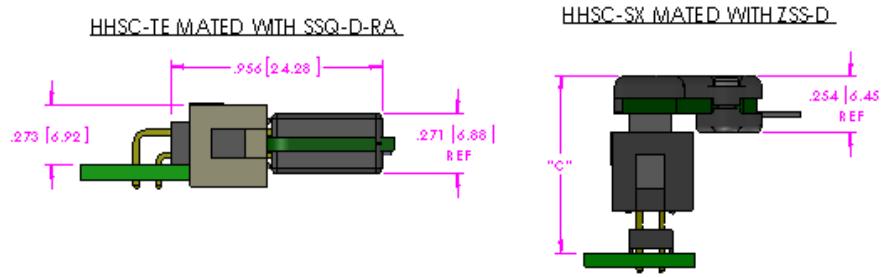


TABLE 3		
		HHSC-SX "C"
ZSS-D LEAD STYLE	-01	.700 [17.78] ~ .790 [20.07]
	-02	.800 [20.32] ~ .890 [22.61]
	-03	.900 [22.86] ~ .990 [25.15]
	-04	1.000 [25.40] ~ 1.090 [27.69]
	-05	1.100 [27.94] ~ 1.190 [30.23]
	-06	1.200 [30.48] ~ 1.290 [32.77]
	-07	1.300 [33.02] ~ 1.390 [35.31]
	-08	1.400 [35.56] ~ 1.490 [37.85]
	-09	1.500 [38.10] ~ 1.590 [40.39]

5.0 HIGH SPEED PERFORMANCE

5.1 Based on a 7 dB insertion loss

Assembly	Frequency @ 7dB IL
254 mm (10") length	2.7 GHz

5.2 System Impedance: 50 ohm single-ended

6.0 ADDITIONAL RESOURCES

- 6.1 For additional mechanical testing or product information, contact our Customer Engineering Support Group at CES@samtec.com
- 6.2 For additional information on high speed performance testing, contact our Signal Integrity Group at SIG@samtec.com
- 6.3 For additional application information, contact our High Speed Cable Group at HDR@samtec.com
- 6.4 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.**