

ENGINEERING DEPT.		PRODUCT SPECIFICATION For CU11 HDMI Right Angle Series	SPEC.NO.: SPCU029B
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1. SCOPE:

This specification covers the product performance, tests methods and quality requirements of the HDMI C Type Series connector.

2. APPLICABLE STANDARDS

MIL - STD - 202	Test methods for electrical component parts
EIA-364	Test methods for electrical connectors
EIA - RS - 364	Test methods for electrical connectors
J-STD-020	Resistance to soldering Temperature for through hole Mounted Devices
SS-00254	Test methods for electronic components ,LEAD-FREE soldering Part design standards

3. APPLICABLE SERIES NO.: **CU11SAH1UF0**

4. SHAPE, CONSTRUCTION AND DIMENSIONS

See attached drawings

5. MATERIALS

See attached drawings

6. ACCOMMODATED P.C.BOARD

6.1 Thickness: 1.6 mm (.063")

6.2 P.C. Board Layout: See attached drawings

REVIEWED : Eisley APPROVED : Sun VERIFIED : Jessie .

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7. ELECTRICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
7.1	Rated current and voltage		0.5A. 40V AC.
7.2	Contact resistance	Mate connectors Contacts: Measure by dry circuit, 20m Volts Max. 10mA. EIA-RS-364-23B	Contacts: 30 mΩ Max. (before & after)
		Mate connectors Shell : Measure by open circuit, 5Volts Max.100mA EIA-RS-364-23B	Shell : 30 mΩ Max. (before & after)
7.3	Dielectric strength	Unmated connectors, Apply 500 Volts AC (R.M.S.) for 1minute between adjacent terminal or ground. Mated connectors, Apply 300 Volts AC (R.M.S.) for 1 minute between adjacent terminal and ground. EIA-RS-364-20C	No breakdown
7.4	Insulation resistance	Unmated connectors, Apply 500Volts DC between adjacent terminal or ground. EIA-RS-364-21C	Unmated: 100 MΩ Min.
		Mated connectors, Apply 150Volts DC between adjacent terminal or ground. EIA-RS-364-21C	Mated: 10 MΩ Min.

8. MECHANICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
8.1	Insertion / Withdrawal Force	The force shall be measured with the plug at rate of 25mm/minute. This test shall be made in a direction along the axis of both the socket and the plug. After 4 times, mating force and un-mating force shall be measure. EIA-RS-364-13A	Appearance: No damage Insertion force: 4.5 kgf Max. Withdrawal force: 1.0~4.0 kgf
8.2	Durability	Measure contact and shell resistance after Following. Automatic cycling: Type A:10,000 cycles at 100±50 cycles per hour EIA-RS-364-09A	Appearance: No damage Contact resistance : Contact: 30 mΩ Max. (before & after) Shell: 30 mΩ Max. (before & after)

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9. ENVIRONMENTAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
9.1	Vibration	<p>Amplitude: 1.52mm P-P or 147m/s² (15G)</p> <p>Sweep time: 50-2000-50Hz in 20 minutes.</p> <p>Duration: 12 times in each X、Y、Z axes. (total of 36 times)</p> <p>Electrical load: DC 100mA current shall be flowed during the test. EIA-RS-364-28</p>	<p>Appearance: No damage.</p> <p>Contact resistance: Contact: 30 mΩ Max. (before & after)</p> <p>Shell: 30 mΩ Max. (before & after)</p> <p>Discontinuity: 1 μsec max.</p>
9.2	Solder ability	<p>Soldering time: 5 ± 0.5 seconds</p> <p>Soldering pot: 245 ± 5 °C</p> <p>MIL-STD-202F, Method 208</p>	<p>Minimum: 95% of immersed area</p>
9.3	Humidity	<p>The specimens shall be placed in a chamber and subjected to a relative humidity of 90% to 95% and a temperature of 40±2 °C for 96 hours then placed in ambient temperature for more than 1 hour.</p> <p>EIA-RS-364-31A</p>	<p>Appearance: No damage.</p> <p>Insulation resistance: 100 MΩ Min (before & after)</p> <p>Contact resistance: Contact: 30 mΩ Max. (before & after)</p> <p>Shell: 30 mΩ Max. (before & after)</p>
9.4	Salt spray	<p>Temperature: 35 ± 3 °C</p> <p>Solution: 5 ± 1%</p> <p>Spray time: 48 ± 4 hours (Stamping before plated)</p> <p>Spray time: 24 ± 4 hours (Stamping after plated)</p> <p>Mate connectors and expose to the following salt mist conditions. Upon completion of the exposure period, salt deposits shall be removed by a gentle wash or dip in running water and dried naturally, after which the specified measurements shall be performed.</p> <p>The specimens shall be suspended from the top using waxed twine, string or nylon thread.</p> <p>The test only define the plating area, without plating area (as copper cross section) will not be defined.</p> <p>(EIA 364-26B / MIL-STD-202 Method 101)</p>	<p>Appearance: No damage</p> <p>Contact resistance: Less than twice of initial</p>

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	ITEM	TEST CONDITION	REQUIREMENT
9.5	Resistance to soldering heat	The connector shall be tested resistance. To soldering heat in the following conditions. Soldering time: 10 second. Soldering pot: 250°C Refer Reflow temperature profile(11.1)	Appearance: No evidence of physical damage
9.6	Temperature life (heat)	The specimens shall be subjected to a temperature of 105±5°C for 250 hours, then placed in ambient temperature for more than 3 hours. MIL-STD-1344A, Method 1005.1	Appearance: No damage. Insulation resistance: 100 MΩ Min (before & after) Contact resistance: Contact: 30 mΩ Max. (before & after) Shell: 30 mΩ Max. (before & after)
9.7	Temperature life (Cold)	The specimens shall be subjected to a temperature of -25 for 96 hours, then placed in ambient temperature for more than 3 hours. MIL-STD-1344A, Method 1005.1	Appearance: No damage. Insulation resistance: 100 MΩ Min (before & after) Contact resistance: Contact: 30 mΩ Max. (before & after) Shell: 30 mΩ Max. (before & after)

10. AMBIENT TEMPERATURE RANGE: Operating Temperature: -25°C to +85°C

