

SPECIFICATION

规格书

Products Name 品名	Parts Number 料号	File No:Fn-2006-310	Pevision:	A0
HDMI CONNECTOR	HDMI 系列	DATE:2010.08.02	Page:	2/7

1. SCOPE

This specification is applied to the requirements for HDMI connector .This specification covers the materials, electrical, mechanical and environmental performance of the applicable product description and test method.

2. REQUIREMENTS

2.1 Design and Construction

Product shall be of the design, construction and physical dimensions specified on the Applicable product drawing.

2.2 Materials

Refer to the drawing.

2.3 Related documents

EIA-364

2.4 Rating

Item	Standard
Rated Voltage (Maximum)	AC:40V
Rated Current (Maximum)	DC:0.5A
Operating temperature range	-25℃~+85℃ 85%RH MAX

3. TEST STANDARD

Unless otherwise specified, the standard range of atmospheric conditions for making measurements and tests are as follows

3.1 Ambient temperature: 5℃to35℃

3.2 Relative humidity: 45% to 85%

3.3 Air pressure: 86Kpa to 106 Kpa

3.4 Test Requirements and Procedures Summary

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Item	Test Condition/Method	Requirement		
1	Examination of Product	Meets requirements of product drawing.	No damage	
Electrical Performance				
2	Contact Resistance	Subject mated contacts assembled in housing to 20mV Max open circuit at 10mA Max Shell: Measure by open circuit, 5V maximum, 100mA EIA-364-06C.	Contact: 30 mΩ Max Shell: 50 mΩ maximum	
3	Insulation Resistance	Impressed voltage 500 VDC. Test between adjacent circuits of unmated connector. EIA-364-21C.	100MΩ Min	
4	Withstanding voltage test	Apply AC 500V at sea level on mated and Un-mated connectors for 1 minutes , while applying the voltage, the leakage current is monitored and shall be less than 0.5mA. EIA-364-20B.	Appearance	No damage/ Deformation
			Current leakage	0.5 mA MAX
Mechanical Performance				
5	Connector Mating Force	Operation Speed:25.4mm/min. Measure the force required to mate connector. EIA-364-13.	Mating force	25N Max
6	Connector Un-mating Force	Operation Speed:25.4mm/min. Measure the force required to un-mate connector. EIA-364-13.	Un-mating force	7N-25N

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7	Durability test	Mate and un-mate each connector shall be made with the mating plug and jack for for 5000cycles repeatedly at maximum rate of 200/ hour. EIA-364-09C.	Appearance	No damage
			Contact Resistance	(Before test) 30mΩ Max (after test) 30mΩ Max SHELL: 50mΩ Max
			Mating Force	(Before test) 25N Max (After test) 25N Max
			Un-mating	(Before test) 7N -25N (After test) 5N -25N
8	Vibration test	A Subject mated connectors to 10-55-10 Hz traversed in 1 minute at 1.5mm amplitude 2 hours each 3 mutually perpendicular. EIA-364-28.	Appearance	No damage
			Contact Resistance	(Before test) 30mΩ Max (after test) 30mΩ Max SHELL: 50mΩ Max
			Discontinuity	1μsec Max
Environmental Performance				
9	Heat Resistance	Mate connectors and expose to 85±2℃ for 96 hours. Upon completion of the exposure period, the test specimens shall be conditioned at ambient room conditions for 1 to 2 hours, after which the specified measurements shall be Performed. EIA-364-17B	Appearance	No damage
			Contact Resistance	(Before test) 30mΩ Max (after test) 30mΩ Max SHELL: 50mΩ Max
10	Cold Resistance	Mate connectors and expose to -40±2 ℃ for 96 hours. Upon completion of the exposure period, the test specimens shall be conditioned at ambient room conditions for 1 to 2 hours, after which the specified measurements shall be performed. EIA-364-59A	Appearance	No damage
			Contact Resistance	(Before test) 30mΩ Max (after test) 30mΩ Max SHELL: 50mΩ Max

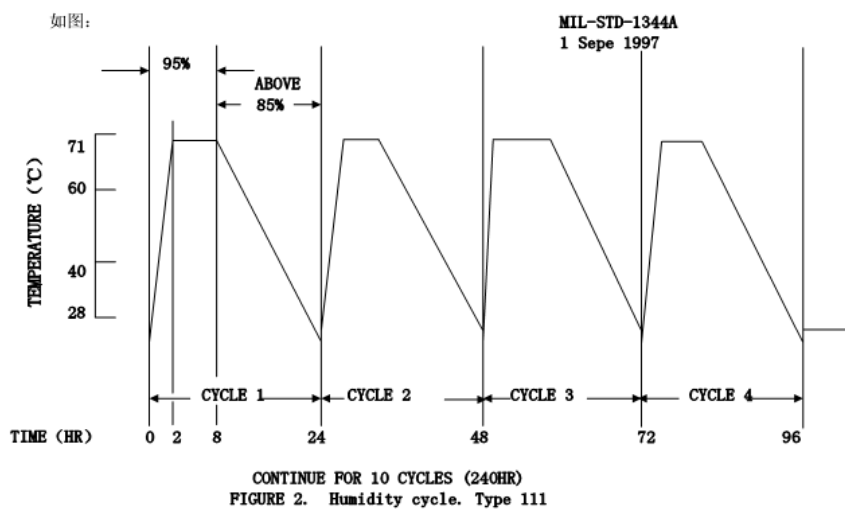
11	Humidity-Temperature cycling	Subject Mated connect to temperature changes between 25~85°C with 90~95 % (R.H) for a period of 96 hours. MIL-STD-1344A	Appearance	No damage
			Contact Resistance	(Before test) 30mΩ Max (after test) 30mΩ Max SHELL: 50mΩ Max

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Attachment (1):



12	High-Low Temperature cycling test	It shall be subject to the following conditions for 5 cycles. Temperature of -40±3°C for 30 minutes , +85±2°C for 30 minutes .Transit time shall be within 10-5 minutes. EIA-364-32B	Appearance	No damage
			Contact Resistance	(Before test) 30mΩ Max (after test) 30mΩ Max SHELL:50mΩ Max
			Insulation Resistance	(Before test) 100MΩ Min (After test) 10MΩ Min

13	Humiditytest	Subject Mated connector to temperature changes between 40±2°C with 90~95%(R.H)for a period of 96 hours. Shall be conditioned at ambient room conditions for 1 to 2 hours EIA-364-31B	Appearance	No damage
			Contact Resistance	(Before test) 30mΩ Max (after test) 30mΩ Max SHELL: 50mΩ Max

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14	Resistance to Soldering heat	Solder bath method: Solder temperature 265±5°C, Immersion time: 10±1Sec,Depth up to the surface of the board 1.6mm. EIA-364-56C	Appearance	No damage
15	Solder-ability	Dip solder tails into the molten solder (held at 240±5°C)up to 2-3mm from the bottom of the housing for 3.0±0.5 seconds. EIA-364-52A	Appearance	95% coverage as measured , no voids, pin holes
16	Salt spray	Mate connectors and expose to the following salt mist conditions: NaCl solution concentration:5±1% Spray time: 24 hours Ambient temperature:35±2°C EIA-364-26B	Appearance	No damage
			Contact Resistance	(Before test) 30mΩ Max (after test) 30mΩ Max SHELL: 50mΩ Max

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TEST GROUP AND SEQUENCE

ITEM	DESCRIPTION	TEST GROUP										
		A	B	C	D	E	F	G	H	I	G	K
		TEST SEQUENCE										
1	Examination of Product	1,9	1,5	1,5	1,5	1,3	1,9	1,7	1,9	1,3	1,3	
2	Contact Resistance	2,6	2,4	2,4	2,4		2,6	2,5	2,6			2,4
3	Insulation Resistance						3,7	3,6	3,7			
4	Withstanding voltage test						4,8		4,8			
5	Connector Mating Force	3,7										
6	Connector Unmating Force	4,8										
7	Durability test	5										
8	Vibration test		3									
9	Heat Resistance			3								
10	Cold Resistance				3							
11	Terminal Keeping force					2						
12	High-Low Temperature cycling test							4				
13	Hunidity test								5			
14	Resistance to Soldering heat									2		
15	Solder-ability										2	
16	Salt spray											3
Sample Size(pcs)		5	5	5	5	5	5	5	5	5	5	5

制表:

审核:

审批: