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1.0	Scope : This specification D-Sub 15 Pin Connecto Product shall be of the o drawing.	on covers the requirements for product per rs of the part numbers specified as bellow. design, construction and physical dimensic	formance and test methods of HT'
2.0	Ratings: 2.1 Voltage Rated: 250 2.2 Current Rated: 2.5 2.3 Temperature Rang	0 V [AC (RMS.)/AC] 6A [AC (RMS.)/AC] ge: -40℃ to +105℃ storage; 0℃ to +40	°C operation
3.0 <sup>-</sup> 4.0 <sup>-</sup>	Test Condition: All tests shall be perforr 3.1 Temperature range 3.2 Humidity range: 63 3.3 Atmospheric Press Test Methods and Requ	med as bellow conditions unless otherwise $a: +15^{\circ}$ to $+35^{\circ}$ 3% to 67% sure: 86kPa to 106kPa (860 to 1060mber) irements:	specified.
Iten	4.1 Examination of pro	Test Methods	Requirement
4.1	1 Examination of	EIA 364-28	1). Outward appearance shall be
	product (Outward	Shall be confirmed with eves in	good without such injurious problem
	Appearance	accordance with each drawing.	2). Structure shall be meet the
	Structure)	Shall be confirmed by using proper	design and dimensional
		measuring instruments.	requirements of drawing.

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4	2 Electrical Performan	ice:	
Item	Test Description	Test Methods	Requirement
4.2.1	Contact Resistance	EIA 364-23 (or MIL-STD-1344A, Method	1).Initial: 30 milliohms
		3002.1, Test Condition B)	Maximum.
		Mated connectors,	2).After test: 30 milliohms
		Contact: measure by dry circuit,	Maximum.
		25 milliampere D.C.100millivotsD.C.	
		Resistance measurements should be made	
		from the underside of the PC board to the	
		wire terminated the standard D-Sub	
		connector plug.	
4.2.2	Insulation Resistance	EIA 364-21C (or MIL-STD-202F, Method	1000MΩ minimum
		302, Test Condition B)	
		Unmated connectors, apply 500 Volts DC	
		between adjacent Terminal and between	
		outer shell .	
4.2.3	Dielectric	EIA 364-20C Method A (or	1) Without damaged such as
	Withstanding Voltage	MIL-STD-1344A, Method 3001.1	arcing or breakdown etc
		Unmated connector.	
		apply 750 Volts for 60 seconds 1mA	
		between adjacent terminal and between	
		outer shell.	

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4	.3 Mechanical Perfe	ormance:		
Item	Test Description	Test Methods	Re	quirement
4.3.1	Durability	EIA 364-09 Measure contact and shell resistance after Following. Automatic cycling: 500 cycles at 100 ±50 cycles per hour	Contact Resistance	Change resistance value after test:20 milliohms maximum.
4.3.2	Mating Force	EIA-364-13 Mating and Unmating speed: 20mm/minute Max.	Mating force	0.3kgf/ per pin maximum
4.3.3	Unmating Force	EIA-364-13 Mating and Unmating speed: 20mm/minute Max.	Unmating Force	0.021kgf/ per pin minmum

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4.4 En	vironmental Performa	ance:		
Item	Test Description	Test Methods		Requirement
4.4.1	Vibration	EIA-364-28 Condition III	Appearance	No physical damage
		Connectors are Mating		
		Amplitude: 1.52mm	Contact	Change resistance value
		Frequency: 10-55-10Hz in 1 minutes	Resistance	after test:20 milliohms
		Sweep time: 2hours along each		maximum.
		direction,a total 6 hours.		
		Duration: along three mutually	Discontinuity	No electrical
		perpendicular		discontinuity greater
		Direction( X, Y, Z axes).		than 1 $\mu$ Sec.shall occur.
		Electrical load: DC100mA current shall		
		be		
		Flowed during the test.		
4.4.2	Mechanical Shock	EIA-364-27, Condition A (or MIL-STD	Appearance	No physical damage
		202, Method 213, Test Condition A)		
		Pulse width: 11msec.,		
		Waveform: half sine, 490m/s²{50G}, 3		
		shockes in each direction along three		
		orthogonal axes(18 shockes totally)		
		Mated and terminated		
4.4.3	Thermal Shock	EIA 364-32C, Test Condition I, (or	Appearance	No physical damage
		MIL-202F, Method 107G Condition A.)		
		Temperature:	Contact	Change resistance value
		-40°C±3°C (30minutes)	Resistance	after test:20 milliohms
		→standard atmospheric		maximum.
		condition(10-15minutes)		
		→105°C±2°C (30minutes)		
		$\rightarrow$ standard atmospheric		
		condition(10-15minutes)		
		Transition time:5 minutes Max.		
		Number of exposure:5 cycles.		
		It shall be subjected to standard		
		atmospheric condition for 1to2H,after		
		which measurements shall be made.		

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Item	Test Description	Test Methods	R	Requirement
Item 4.4.4	Test Description Humidity	Test MethodsEIA 364-31BMate connectors together and performthe test as follows.Temperature : +25 to +65°CRelative Humidity: 90 to 95%Duration: 4 cycles (96 hours)Upon completion of the test, specimensshall be conditioned at ambient roomconditions for 24 hours, after which thespecified measurements shall bePerformed.It shall be subjected to standardatmospheric condition for 1 hour after	R Appearance Contact Resistance Insulation Resistance	Requirement No physical damage Change resistance value after test:20 milliohms maximum 1000MΩ minimum
4.4.5	High temperature life	which measurements shall be made. <b>EIA 364-17 Test Condition 3</b> Subject unmated connectors to temperature life at 85°C±3°C for 96 hours It shall be subjected to standard atmospheric condition for 1 hour after which measurements shall be made.	Appearance Contact Resistance	No physical damage Change resistance value after test:20 milliohms maximum
4.4.6	Salt Spray (Unmated)	MIL-STD-202F, Method 101D, Test Condition B Subject mated connectors to 24 hours at 25°C with 5%-Salt-solution concentration.	1). Shall meet show no physi 2).Shall meet additional test SEQUENCE in	l visual requirement, ical damage. requirements of s as specified in TEST n Section 5

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ncin	Test Description	Requirement	
1.4.7	Solder-ability	EIA 364-52	The surface of the portion
		After one hour steam aging.	to be soldered shall at least
		The object of test procedure is to detail a unfirm	95% covered with new
		test methods for determining 2 in 1 cord connector	solder coating, as specified
		solder-ability. The test procedure contained here	in category 2.
		utilizes the solder dip technique. It is not intended	
		to test or evaluate solder cup, solder eyelet, other	
		hand-soldered type or SMT type terminations.	
1.4.8	Resistance to	1) For REFLOW SOLDERING :	1). No mechanical defect
	Soldering Heat	EIAJ RCX-0101/102.	on housing or other parts.
		Pre-heat : 150 $\pm$ 10 $^{\circ}$ C,	
		60 ~120 Seconds	
		Temperature : 260±5 °C	
		Immersion duration : 2040 sec.	
		260 MAX 250	
		Temperature Profile of Reflow Soldring	
		2) for MANUAL SOLDERING :	
		MIL-STD-202F, Method 210A, Test Condition A.	
		Pre-heat : No	
		Temperature : 350 $\pm$ 10 $^{\circ}$ C	
		Immersion duration : $3.5 \pm 0.5$ sec.	

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5.0 Test S	Sequence:													
Test Group (a)		Sample Groups												
Test Item	Test Description	Α	В	С	D	Е	F	G	Н	I	J	K	L	
4.1.1	Examination of product	1,9	1,5	1,5	1,5	1,9	15	15	1,3	1,3				
4.2.1	Low Level Contact Resistance	2,6	2,4	2,4	2,4	2,6	2,4	2,4						
4.2.2	Insulation Resistance					3,7								
4.2.3	Dielectric Withstanding Voltage					4,8								
4.3.1	Durability	5												
4.3.2	Mating Force	3,7												
4.3.3	Unmating Force	4,8												
4.4.1	Vibration		3											
4.4.2	Mechanical Shock			3										
4.4.3	Thermal Shock				3									
4.4.4	Humidity					5								
4.4.5	High temperature life						3							
4.4.6	Salt Spray							3						
4.4.7	Solder-ability								2					
4.4.8	Resistance to Soldering Heat									2				
Number of Test Samples (Minimum)		5	2	5	5	5	5	5	2	2				

Note:

a.Samples shall be prepare in accordance with applicable manufacture's instructions and shall be selected at random from current production.

b. The numbers in the table indicate sequence in which tests are performed.

c. Precondition samples with 3 cycles durability.

d.All the tests shall be performed in the sequence, indicated by the number in the columns.