

RELIABILITY TEST REPORT

TESTITEM : 1.ELECTRICAL  
2.MECHANICAL  
3.ENVIRONMENTAL

SERIES NO. : CF25 SERIES

TEST EQUIPMENT : 1.INSERTION & REMOVAL APPARATUS  
2.ELECTRONIC MEASURING APPARATUS  
3.ENVIRONMENTAL APPARATUS

DATE OF TESTING : 8/1/2005

TEST DEPART : R&D TESTER : DAVID

CONTAIN : ATTACHED



REVIEWED : ALEX APPROVED : DAVID VERIFIED : DAVID

1. ELECTRICAL PERFORMANCE :

	ITEM	TEST CONDITION	REQUIREMENT	TEST RESULT					
1-1	Dielectric strength	For 0.5mm Pitch When applied AC 150V 1 minute between adjacent terminal  For 1.0mm Pitch When applied AC 500V 1 minute between adjacent terminal	No Damage	Sample	150 V 1 minute				
				1	OK				
				2	OK				
				3	OK				
				4	OK				
				5	OK				
				Sample	500 V 1 minute				
				1	OK				
				2	OK				
				3	OK				
				4	OK				
				5	OK				
				1-2	Insulation resistance	When applied DC 500 V between adjacent terminal or ground	More than 500 MΩ	Sample	500 MΩ min.
								1	20x10 <sup>4</sup>
								2	20x10 <sup>4</sup>
3	20x10 <sup>4</sup>								
4	20x10 <sup>4</sup>								
5	20x10 <sup>4</sup>								
1-3	Contact Resistance	Dry circuit of DC 20mV max.,100mA max.	50 mΩ Max. Initial	Sample	50 mΩ Max.				
				1	19.1 mΩ				
				2	18.4 mΩ				
				3	20.4 mΩ				
				4	19.5 mΩ				
				5	20.2 mΩ				

2. MECHANICAL PERFORMANCE :

	ITEM	TEST CONDITION	REQUIREMENT	TEST RESULT	
2-1	Single contact retaining force in insulator	Retention speed 25±3 mm per minute form housing	More than 0.2 Kgf.	Sample	0.2 Kgf min.
				1	1.01
				2	1.06
				3	0.98
				4	1.03
				5	1.09

ITEM	TEST CONDITION	REQUIREMENT	TEST RESULT	
2-2 FFC / FPC withdrawal force (Reference data)	Measure force to withdrawal using 0.30mm Thickness FPC/FFC at speed 25±3 mm per minute	(0.07 x no. of Contacts) Kgf min. For 50 Pin more than 1.0 Kgf	Sample	3.5 Kgf min.
			1	4.52
			2	4.62
			3	4.92
			4	4.75
			5	4.85
2-3 Durability	Connector shall be subjected to 20 cycles of insertion and withdrawal	Contact resistance: Less than twice of initial	Sample	
			1	20.2 mΩ
			2	20.6 mΩ
			3	21.4 mΩ
			4	20.8 mΩ
			5	20.3 mΩ

### 3.ENVIRONMENTAL PERFORMANCE:

ITEM	TEST CONDITION	REQUIREMENT	TEST RESULT	
3-1 Vibration	1.5mm 10-55-10 HZ/minute each 2 hours for X,Y and Z directions	Appearance: No damage	Sample	
			1	OK
			2	OK
			3	OK
			4	OK
		5	OK	
		Discontinuity: 1 micro second max	Sample	
			1	OK
			2	OK
			3	OK
4	OK			
3-2 Heat aging	85± 2°C, 96 hours	No damage	Sample	
			1	OK
			2	OK
			3	OK
			4	OK
			5	OK
3-3 Humidity	40± 2°C, 90-95% RH, 96 hours measurement must be taken within 30 min. after tested	Contact resistance: Less than twice of initial	Sample	
			1	21.43 mΩ
			2	21.56 mΩ
			3	20.34 mΩ
			4	20.95 mΩ
			5	20.98 mΩ

ITEM	TEST CONDITION	REQUIREMENT	TEST RESULT	
3-4	Temperature cycling One cycle consists of : (1) $-55_{-3}^{+0}$ °C , 30 min. (2) Room temp. 10-15 min. (3) $105_{-0}^{+3}$ °C , 30 min. (4) Room temp. 10-15 min.	Appearance : No damage	Sample	
			1	OK
			2	OK
			3	OK
			4	OK
		5	OK	
		Contact resistance: Less than twice of initial	Sample	
			1	20.45 mΩ
			2	20.77 mΩ
			3	21.56 mΩ
4	21.76 mΩ			
5	21.45 mΩ			
3-5	Salt spray Temperature: $35 \pm 3$ °C Solution: $5 \pm 1$ % Spray time: $48 \pm 4$ hours Measurement must be taken after water rinse	Appearance : No damage	Sample	
			1	OK
			2	OK
			3	OK
			4	OK
		5	OK	
		Contact resistance: Less than twice of initial	Sample	
			1	21.45
			2	21.70
			3	21.73
4	21.59			
5	21.88			