

## RELIABILITY TEST REPORT

TEST ITEM : 1.ELECTRICAL PERFORMANCE  
2.MECHANICAL PERFORMANCE  
3.ENVIRONMENTAL PERFORMANCE

PART NO. : CF12 SERIES DIP UPSIDE CONNECTORS

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

DATE OF TESTING :04/14/06”

TEST DEPART :QA

TESTER :Scott.Lien

CONTAIN : ATTACHED

REVIEWED : Jackal APPROVED : Rita VERIFIED : Scott .

1.ELECTRICAL PERFORMANCE :

	ITEM	TEST CONDITION	REQUIREMENT	TEST RESULT	
1-1	Contact resistance	Dry circuit of DC 20 mV max.,100 mA max.	Less than 20 mΩ	Sample	20 mΩ max.
				1	9.94 mΩ
				2	9.93 mΩ
				3	9.96 mΩ
				4	9.92 mΩ
				5	9.94 mΩ
1-2	Dielectric strength	When applied AC 500V 1 minute between adjacent terminal	No change	Sample	500 V 1 minute
				1	Pass
				2	Pass
				3	Pass
				4	Pass
				5	Pass
1-3	Insulation resistance	When applied DC 500 V between adjacent terminal or ground	More than 500 MΩ	Sample	500 MΩ min.
				1	
				2	
				3	
				4	
				5	

2. MECHANICAL PERFORMANCE :

	ITEM	TEST CONDITION	REQUIREMENT	TEST RESULT	
2-1	Contact retaining force in insulator	Retention speed 25± 3 mm per minute from housing	More than 0.8 Kgf	Sample	0.8 Kgf min.
				1	1.51 Kgf
				2	1.41 Kgf
				3	1.45 Kgf
				4	1.61 Kgf
				5	1.63 Kgf
2-2	FPC/FFC withdrawal force(Reference data)	Measure force to withdrawal using 0.30mm thickness FPC/FFC at speed 25± 3 mm per minute	25 × No. of Circuits gram min.	Sample	(03P)0.075Kgf min.
				1	0.65 Kgf
				2	0.55 Kgf
				3	0.58 Kgf
				4	0.54 Kgf
				5	0.57 Kgf
				Sample	(14P) 0.35Kgf min.
				1	1.30 Kgf
				2	1.95 Kgf
				3	1.82 Kgf
				4	1.72 Kgf
5	1.86 Kgf				

				Sample	(36P) 0.9 Kgf min.
				1	3.29 Kgf
				2	3.61 Kgf
				3	3.32 Kgf
				4	3.25 Kgf
				5	3.42 Kgf
2-3	Durability	Connector shall be subjected to 5 cycles of insertion and withdrawal	Contact resistance: Less than twice of initial	Sample	< twice of initial
				1	9.93 mΩ
				2	9.93 mΩ
				3	9.92 mΩ
				4	9.94 mΩ
				5	9.96 mΩ

### 3.ENVIRONMENTAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT	TEST RESULT	
3-1	Temperature rise	Then carried the rated current	30 max	Sample	30 max.
3-2	Vibration	1.5 mm 10-55-10 HZ/minute each 2 hours for X, Y and Z directions	Appearance: No damage Discontinuity: 1 micro second max.	Sample	No damage
				Sample	1 micro second max.
3-3	Solder ability	Soldering time: 5 ±0.5 sec. Soldering pot:230 ±5	Minimum: 90% of immersed area	Sample	90% of Immersed area
				1	Pass
				2	Pass
				3	Pass
				4	Pass
				5	Pass
3-4	Resistance to soldering heat	Soldering time: 5 ±0.5 sec. Soldering pot:260 ±5	Appearance: No damage	Sample	No damage
				1	Pass
				2	Pass
				3	Pass
				4	Pass
				5	Pass
3-5	Heat aging	105 ±2 , 96 hours	Appearance: No damage	Sample	No damage
				1	Pass
				2	Pass
				3	Pass
				4	Pass
				5	Pass

3-6	Humidity	40 ±2 , 90-95%RH, 96 hours measurement must be taken within 30 min. after tested	Appearance: No damage	Sample	No damage
				1	Pass
				2	Pass
				3	Pass
				4	Pass
			5	Pass	
			Contact resistance: Less than twice of initial	Sample	< twice of initial
				1	9.96 mΩ
				2	9.95 mΩ
				3	9.95 mΩ
				4	9.94 mΩ
			Dielectric strength: To pass para 1-2	Sample	Pass para 1-2
				1	Pass
				2	Pass
				3	Pass
4	Pass				
5	Pass				
3-7	Temperature cycling	One cycle consists of: 1. -55 <sup>+0</sup> <sub>-3</sub> , 30 min 2. Room temp. 10-15 min 3. 85 <sup>+3</sup> <sub>-0</sub> , 30 min 4. Room temp. 10-15 min	Appearance: No damage	Sample	No damage
				1	Pass
				2	Pass
				3	Pass
				4	Pass
			5	Pass	
			Contact resistance: Less than twice of initial	Sample	< twice of initial
				1	9.93 mΩ
				2	9.95 mΩ
				3	9.94 mΩ
4	9.94 mΩ				
5	9.95 mΩ				
3-8	Salt spray	Temperature:35±3°C Solution:5±1% Spray time:48±4hours Measurement must be taken after water rinse	Appearance: No damage	Sample	No damage
				1	Pass
				2	Pass
				3	Pass
				4	Pass
			5	Pass	
			Contact resistance: Less than twice of initial	Sample	< twice of initial
				1	9.96 mΩ
				2	9.96 mΩ
				3	9.95 mΩ
4	9.96 mΩ				
5	9.94 mΩ				

4.AMBIENT TEMPERATURE RANGE : -40 to +105