CJTconn 長江連接器有限公司
CHANGJIANG CONNECTORS CO.,LTD.

PRODUCT SPECIFICATION

PRODUCT SERIES NAME：B3961 SERIES | PAGE ： 1/4

Index

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A0	NEW RELEASE	2022.04.12	Haisen Li			
REV.	DESCRIPTION	DATE	NAME	DOCUMENT NO: PS-B3961-000		

PRODUCT SPECIFICATION

PRODUCT SERIES NAME：B3961 SERIES

1.SCOPE:

This specification covers the requirements for product performance of 3.96mm pitch connector series.

2.PART NAME & PART NUMBERS

Part Name	Part Number
Housing	B3961AW B3961BW B3961CW
Wafer	A3961WV/WVA A3961WR/WRA

3. CONSTRUCTION. DIMENSIONS . MATERIAL & SURFACE FINISH

Construction and dimensions shall be in accordance with the referenced drawings.
Material and surface finish shall be as specified below.

Part Name	Material		Surface finish
Housing	Body	Nylon 66	UL94V-2/UL94V-0
	Pin	Brass	Tin over Nickel
Wafer	Body	Nylon 66/PBT/LCP	UL94V-0
	Pin	Brass	Tin over Nickel/Gold over Nickel

4. RATINGS

Connector Style	Amps (Max) With Brass Terminals
Top Entry	4.50
Right Angle	4.50
Bottom Entry	4.00
Ambient Temperature Range	-40℃~105℃*

*: Including terminal temperature rise

5. PERFORMANCE

5.1 ELECTRICAL PERFORMANCE

Test Description		Procedure	Requirement
5-1-1	Contact Resistance	Mate connectors, measure by dry circuit, 20mV max. 10mA.	10mΩ Max.
5-1-2	Insulation Resistance	Mate connectors, apply 500V DC between adjacent terminal or ground.	1000MΩ Min.
5-1-3	Dielectric Withstanding Voltage	Mate connectors, apply 1000V AC (rms) for 1 minute between adjacent terminal or ground.	No Breakdown

5.2 MECHANICAL PERFORMANCE

Test Description		Procedure		Requirement
5-2-1	Insertion & Withdrawal Force	Insert and withdraw connectors at the speed rate of 25 ± 3mm/minute.		1.59kgf per circuit Max. mate force & 0.18kgf per circuit Min. unmate force
5-2-3	Terminal/Housing Retention Force	Apply axial pull out force at the speed rate of 25 ± 3mm/minute on the terminal assembled in the		2.55kgf Min.
5-2-4	Post Retention Force	Apply axial push force at the speed rate of 25 ± 3mm/minute.		2.5kgf Min.
5-2-5	Durability	When mated up to 25 cycles repeatedly	Contact Resistance	10mΩ Max.
5-2-6	Vibration (Random)	Mate connectors and vibrate per EIA 364-28, test condition VII.	Appearance	No Damage
			Contact Resistance	10mΩ Max.
			Discontinuity	1μsec. Max.
5-2-7	Physical Shock	Mate connectors and shock at 50 g's with ½ sine wave (11 milliseconds) shocks in the ±X,±Y,±Z axes (18 shocks total).	Appearance	No Damage
			Contact Resistance	10mΩ Max.
			Discontinuity	1μsec. Max.

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5.3 ENVIRONMENTAL PERFORMANCE AND OTHERS

Test Description		Procedure			Requirement
5-3-1	Temperature Rise	Carrying rated current load.		Temperature Rise	30°C Max.
5-3-2	Heat Resistance	Temperature °C	Duration	Appearance	No Damage
		-40 °C +0/-3	30		
		+25 °C ± 10	5 MAXIMUM	Contact Resistance	10mΩ max.
		+105 °C +3/-0	30		
		+25 °C ± 10	5 MAXIMUM		
5-3-3	Cold Resistance	Mate connectors: Duration: 96 hours; Temperature: -40 ± 3°C		Appearance	No Damage
				Contact Resistance	10mΩ Max.
5-3-4	Humidity	Temperature: 40 ± 2°C Relative Humidity: 90~95% Duration: 96 hours		Appearance	No Damage
				Contact Resistance	10mΩ Max.
				Insulation Resistance	100MΩ Min.
				Dielectric Withstandin	Must meet 6-1-3
5-3-5	Temperature Cycling	24 cycles of: a) 25±3°C 60 minutes b) 65±3°C 60 minutes dwell time of 1.0 hour; ramp time of 0.5 hours.(Based upon EIA-364-31)		Appearance	No Damage
				Contact Resistance	10mΩ Max.
5-3-6	Corrosive Atmosphere: Flowing Mixed Gas (FMG)	Mate connectors: Test per EIA-364-65, method 2A		Appearance	No Damage
				Contact Resistance	10mΩ Max.
5-3-7	Solderability	Soldering Time: 3~5 sec. Solder Temperature: 240 ± 5°C		Solder Wetting	Solder coverage: 95% MIN
5-3-8	Resistance to Soldering Heat	<u>Normal materials</u> Soldering Time: 3~5 sec. Solder Temperature: 250 ± 5°C <u>High temperature resistant materials</u> Soldering Time:3~5 sec. Solder Temperature: 260 ± 5°C		Appearance	No Damage