

## **SPECIFICATION**

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DC POWER JACK		DATE:	2006.07.29

#### 1.Scope

This specification applies to unified polarity type DC jack used in electronic equipment. For DC input use.

### 2. Standard atmospheric conditions

Unless otherwise specified. The standard range of atmospheric condition for making measurements and tests are as follows:

Ambient temperature :  $15^{\circ}$ C to  $35^{\circ}$ C

Relative humidity: 25% to 80% Air pressure: 86kPa to 106kPa

If there is any doubt about the results, measurements shall be made within the follow limits:

Ambient temperature : 20±2°C Relative humidity : 60% to 70% Air pressure : 86kPa to 106kPa

### 3. Mechanical characteristics

	Item	Conditions	Specification
1		Measurement shall be made after insertion and withdrawal using standard plug gauge 3 times.	2.04 20.4N (0.2 21raf)
2	Withdrawal force	Measurement shall be made after insertion and withdrawal using standard plug gauge 3 times.	2.94 29.4N (0.3 3kgf)

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	2003/1/3	WANG	ZHU	ZHU	

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## 4. Electrical characteristics

	Item	Conditions	Specification
1	Rating		DC 12V 3.5A
2	Contact resistance	1K Hz Measured at small current (1A or less)	30 m or less
3	Insulation resistance	A voltage of 500V DC shall be applied for a minute.  Between conductors which should not make contact under normal conditions after which measurement shall be made.	100M MIN.
4	Dielectric strength	Between conductors which should not make contact under normal conditions.  500V AC 50 to 60Hz for 1 min.(trip current 2mA)	Without distinct damage.

## 5. Endurance characteristics

	Item	Conditions	Specification		
1	Solderability		A new uniform coating of solder shall cover a minimum of 95% of the surface being immersed.		
2	Resistance to soldering heat	Solder temperature 350 10 Immersion depth 2 0.5mm Immersion time 3 0.5 seconds By a soldering iron to have a capacity of 60 watts.	Electrical and mechanical characteristics shall be satisfied.		
3	Cold	The jack shall be stored at a temperature of -40 2 for 96 hours. And then it shall be subjected to the controlled recovery conditions for 0.5 hours after which measurement shall be made.			
4	Dry heat	The jack shall be stored at a temperature of 70 2 for 96 hours. And then it shall be subjected to the controlled recovery conditions for 0.5 hours after which measurement shall be made.	There shall be not show remarkable failure.		
5	Humidity	The Pin Jack shall be subject to 90 ~95%RH, 40 2 for 96 hours, and shall then be conditioned at room ambient conditions for a period of 30 minutes.	Electrical and mechanical characteristics shall be satisfied.  Insulation resistance 30M MIN.  Contact resistance 50m MAX.		

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	Item	Conditions	Specification
			Insertion force: 29.4N MAX (3Kgf)
			Withdrawal force: 1.96 29.4N
		Insertion and withdrawal shall be made with	(0.2 3kgf)
6	Life test	the mating plugs and jacks for 5000 cycles at	Contact resistance:
		a speed of 10~30 cycles/min.	Between plug and contact : $100 \mathrm{M}\Omega$
			MAX.
			Each closed contact : $60 \mathrm{M}\Omega\mathrm{MAX}$ .

## 6. Warning:

Dc power jack shall be dipped, warning to inferior contact by flux and transform mold.

Resistance to flux : It shall be prevention between PCB and housing.

Transform mold : It must not add direct heat to Dc power jack

Temperature of solder :  $255^{\circ}$ C MAX. Preheat temperature :  $90^{\circ}$ C MAX. Preheat time : 2 minute MAX.