

# SPECIFICATION

<b>TITLE</b> DC POWER JACK	<b>SPC. NO.</b> DC_020_30B	<b>PAGE :</b> 1 OF 3 <b>DATE :</b> 2013.04.08
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## 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°C to 35°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

Operating temperature range: -25°C to 85°C

Storage temperature range: -25°C to 70°C

## 3.Mechanical characteristics

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

ISSUE	DATE	WRTN	CHKD	APVD	DESCRIPTIONS
	2013.04.08	JON	JON	ELVIS	

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## 4. Electrical characteristics

	Item	Conditions	Specification
1	Rating		DC 24V , 3A
2	Contact resistance	1K Hz Measured at small current (1A or less)	30 mΩ 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.	100MΩ 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	The terminals shall be dipped into soldering flux, and shall be immersed into molten solder of 230°C±5°C for a period 3±0.5 seconds.	A new uniform coating of solder shall cover a minimum of 95% of the surface being immersed.
2	Resistance to soldering heat	The terminal for a printed circuit board : Temperature of solder : 260 ±5°C Dip time : 5 ±1 seconds The terminal for a lead wire : Temperature of solder : 350 ±10°C Dip time : 3 ±1 seconds	Electrical and mechanical characteristics shall be satisfied.
3	Cold	The jack shall be stored at a temperature of -40°C±2°C for 96 hours. And then it shall be subjected to the controlled recovery conditions for 0.5 hours after which measurement shall be made.	Electrical and mechanical characteristics shall be satisfied.
4	Dry heat	The jack shall be stored at a temperature of 70°C ±2°C 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°C±2°C 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 : 50MΩ MIN. Contact resistance : 50mΩ MAX.

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	Item	Conditions	Specification
6	Life test	Insertion and withdrawal shall be made with the mating plugs and jacks for 5000 cycles at a speed of 10~30 cycles/min.	Insertion force : 29.4N MAX ( 3Kgf ) Withdrawal force : 2.94~29.4N ( 0.3~3kgf ) Contact resistance : Between plug and contact : 100mΩ MAX. Each closed contact : 60mΩ 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°C MAX.

Preheat temperature : 90°C MAX.

Preheat time : 2 minute MAX.