MODULAR JACK RIGHT ANGLE WITH INTEGRATED MAGNETICS

1.0 SCOPE

This Product Specification covers the Modular Jack Right Angle Dip With Integrated Magnetics with selective gold and tin plating for IR reflow application

2.0 PRODUCT DESCRIPTION

2.1 PRODUCT NAME AND SERIES NUMBER(S)

Modular Jack Right Angle With Integrated Magnetics

PRODUCT NUMBER(S)

48025-0091; 48025-1190; 48025-2090; 48025-3090; 48025-1090; 48025-1091

2.2 DIMENSIONS, MATERIALS, PLATINGS AND MARKINGS

See the appropriate sales drawings (SD-48025-007,009,010,011,012) for information on dimensions, materials, plating and markings.

3.0 APPLICABLE DOCUMENTS AND SPECIFICATIONS

3.1 INDUSTRY DOCUMENTS

FCC Rules and Regulations, Part 68, Subpart F
IEC-60603-7

3.2 MOLEX DOCUMENTS

See the appropriate sales drawing for the necessary referenced documents and specifications

Note that in terms of conflicting info, the Molex Sales Drawing takes precedence followed by Molex PS.

4.0 RATINGS OF CONNECTOR

4.1 VOLTAGE

150 V_{RMS} AC (Ringing voltage only)

4.2 CURRENT

1.5 Amps @ 25°C

4.3 TEMPERATURE

Operating: - 40°C to + 70°C

5.0 PERFORMANCE

5.1 ELECTRICAL REQUIREMENTS

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
1	**DC Resistance**	apply a maximum voltage of **20** mV and a current of **100** mA. (Measure J6-J3 or J2-J1)	**1.2** Ω MAXIMUM
2	**Insulation Resistance**	Unmated connector, mounted to a PCB: apply a voltage of **100** VDC between adjacent terminals and between terminals to ground.	**500** Megohms MINIMUM
3	**Dielectric Withstanding Voltage**	**1500** VAC rms (**1**mA cutoff current) for **60** seconds.	No Breakdown
4	**Current Temperature Rating**	Mate connector and measure the temperature rise at the rated current **(1.5Amps)** after **1** hour	**30**℃ rise maximum from initial

5.2 MECHANICAL REQUIREMENTS

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
5	**Connector Mate Force**	Mate connector at a rate of **25 ± 6** mm (**1 ± ¼** inch) per minute.	**22** N (**5** lbf) unshielded MAXIMUM insertion force **35** N (**8** lbf) shielded MAXIMUM insertion force
6	**Durability**	Mate connectors up to **750** cycles at a maximum rate of **10** cycles per minute prior to Environmental Tests.	**1.2** Ω MAXIMUM
7	**Vibration (Random)**	Amplitude: 1.50mm (.060”) peak to peak Sweep: 10-55-10 Hz in one minute Duration: 15 minutes Direction: X, Y,Z axis (45 minutes total)	a. Discontinue ≦ 1microsecond b. **1.2** Ω MAXIMUM
8	**Plug Retention Force**	Apply an axial pullout force on the plug at a rate of **25 ± 6** mm (**1 ± ¼** inch).	**89** N (**20** lbf) MINIMUM retention force

9	**Shock (Mechanical)**	Mate connectors and shock at **50 G** Half-sine,**11ms** form shocks in the X, Y, Z axis (9 shocks total).	a. Discontinue ≦ 1microsecond b. **1.2** Ω MAXIMUM
10	**Solderability**	Dip solder tails into the molten solder (held at **245 ± 5**℃) up to 1.0mm from the bottom of the housing for **5 ± 1** second	Solderable area shall have minimum of **95%** solder coverage

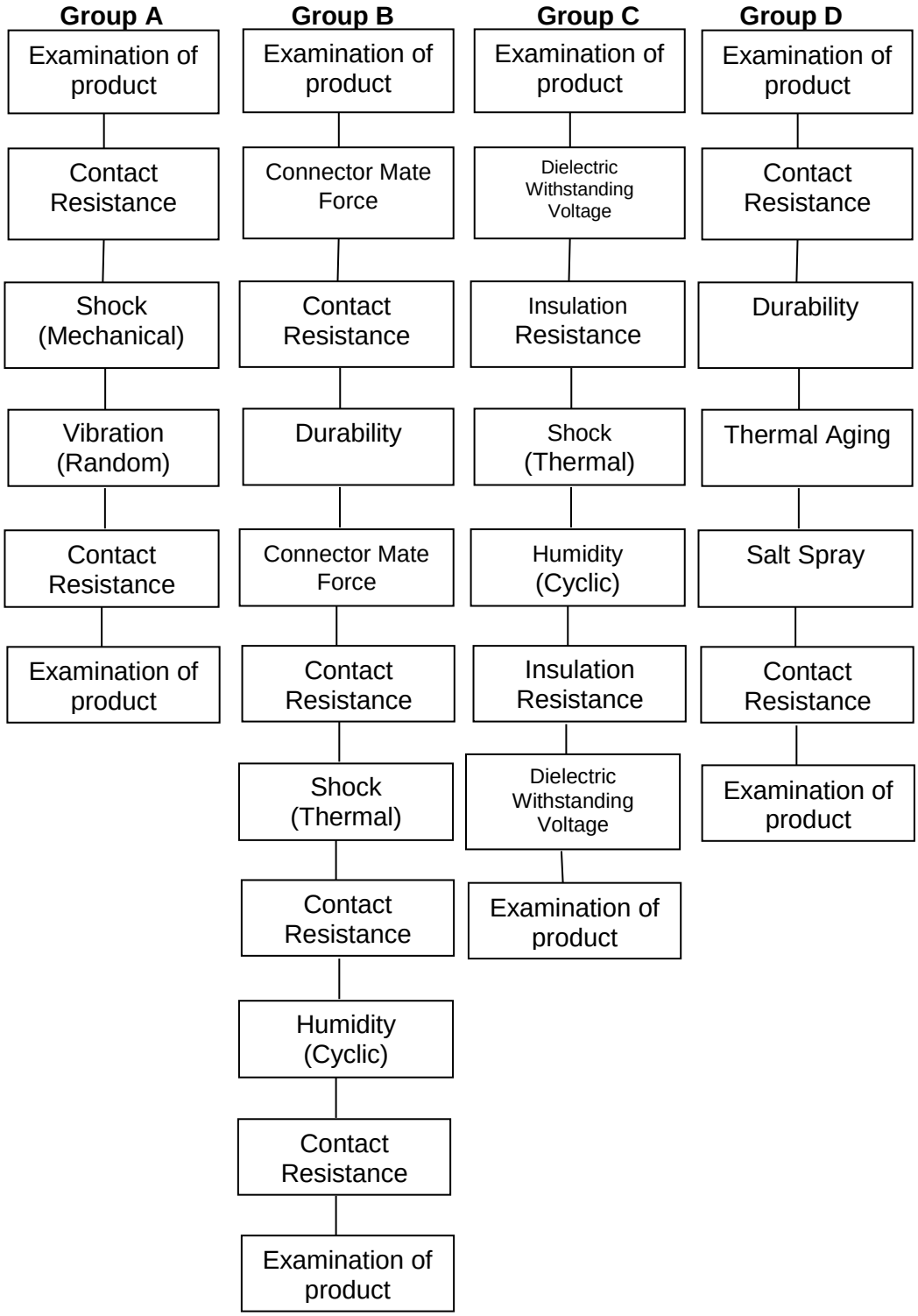
5.3 ENVIRONMENTAL REQUIREMENTS

	DESCRIPTION	TEST CONDITION	REQUIREMENT
	Shock (Thermal)	Mate connectors; expose to **10** cycles of: **-40**°C to +**85**°C **30** minutes dwell	a.IEEE traffic test not to fail. b. Visual: No Damage c. **1.2** Ω MAXIMUM
	Thermal Aging	Mate connectors; expose to: **48** hours at **85±2**°C	a.IEEE traffic test not to fail. b. Visual: No Damage c. **1.2** Ω MAXIMUM
	Humidity (Cyclic)	Mate connectors: expose to **10** cycles at **90-95**% relative humidity with temperatures at +**25**°C and +**65**°C per MIL-STD-202F method 106F (without -10°C dip)	a.IEEE traffic test not to fail. b. Visual: No Damage c. **1.2** Ω MAXIMUM
	IR Reflow	See appendix "A"	a.IEEE traffic test not to fail. b. Visual: No Damage c. **1.2** Ω MAXIMUM
	Salt Spray	**5±1%** salt solution Duration **48** hrs	a.IEEE traffic test not to fail. b. Visual: No Damage c. **1.2** Ω MAXIMUM

Note:

All tests shall meet visual requirements, show no physical damage and meet requirements of following additional 5.4 tests group. The test group shows the test sequences and shall completely test 5 pcs samples in each group. There are another four test items (Current Temperature Rating, Plug Retention Force, Solderability, IR Reflow) should be done by individual test condition and requirement shown above.

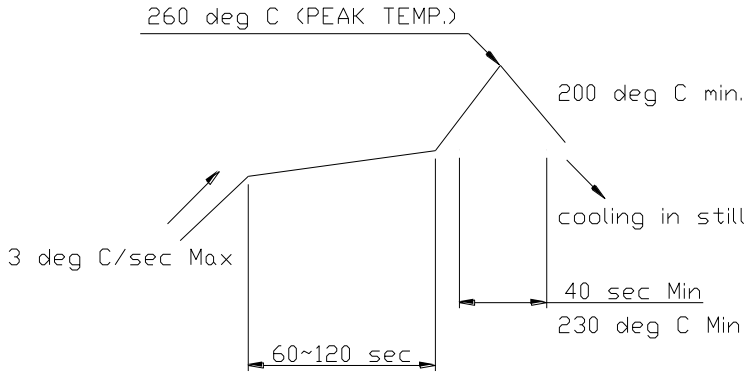
5.4 TEST GROUP / TEST SEQUENCE



5.5 APPENDIX "A"

(INFRARED SOLDERING CONDITION)

TEMPERATURE CONDITION GRAPH
TEMPERATURE ON BOARD PATTERN SIDE
TWICE



(NOTE)
1.Please check the reflow soldering condition by your own devices beforehand
Because the condition changes by the soldering devices, P.C.Boards, and so on.
2.Thickness of the cream solder shall be maintained 0.12mm MIN.
After reflow process.

6.0 PACKAGING

Parts shall be packaged to protect against damage during handling, transit and storage.
See appropriate sales drawings on Sheet 1/4 for packaging descriptions.

7.0 OTHER INFORMATION

(A) MAGNETICS ELECTRICAL PERFORMANCE& LED ELECTRICAL PERFORMANCE SEE APPROPRIATE SALES DRAWINGS

(B) PLUG RETENTION FORCE TEST INSTRUCTION