Molex 441500001 PDF

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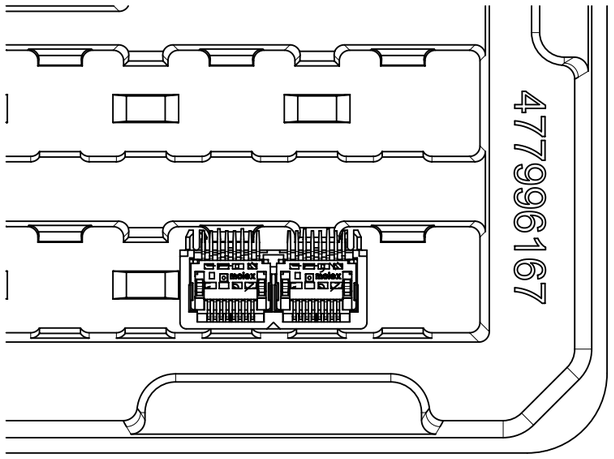
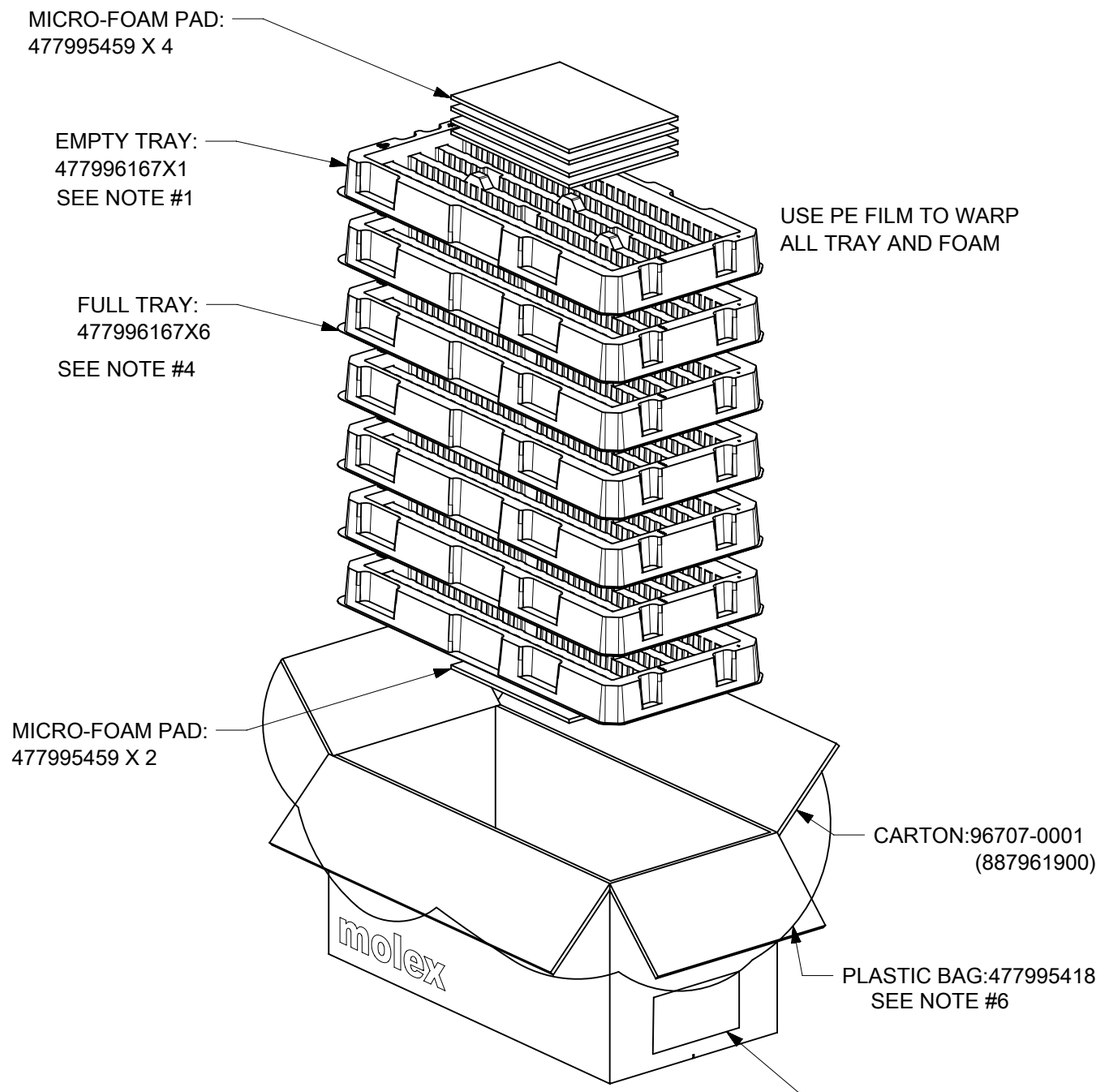




NUMBER OF PORTS	PARTS PER TRAY	TRAYS PER CARTON	PARTS PER CARTON
2	30	6 (WITH PRODUCT) 7 (TOTAL)	180

NOTES:

1) AFTER FILLING (6) TRAYS WITH THE MODJACK QUANTITIES SHOWN IN THE CHART, PLACE (1) EMPTY TRAY AND THE MICRO-FOAM PADS ON TOP OF THE STACK AND TAPE TOGETHER, APPROXIMATELY AS SHOWN

2) CARTONS TO BE SET-UP AND CLOSED WITH TAPE. NO STAPLES ARE TO BE USED IN THE ASSEMBLY OF THIS CARTON

3) A PRODUCT LABEL IS TO BE PLACED ON THE SIDE OF EACH CARTON, APPROXIMATELY AS SHOWN. THE FOLLOWING INFORMATION IS TO BE PROVIDED:
   1. FINAL ASSEMBLY MATERIAL NUMBER
   2. PRODUCT DESCRIPTION
   3. TOTAL QUANTITY OF MODJACKS IN BOX
   4. MANUFACTURING DATE CODE

4) TRAYS TO BE ORIENTED AS SHOWN (NOT ROTATE TRAYS 180°)

5) THIS PACKAGING SPECIFICATION INCLUDES THE FOLLOWING SERIES NUMBERS:

   44150 UNSHIELDED ONLY

6) TRAYS ARE TO BE PLACED IN A PLASTIC BAG AND SEALED WITH A TWIST TIE

RELEASE STATUS	P1	RELEASE DATE	10.07.2017 22:47:20

QUALITY SYMBOLS
EA = 0
EC = 0
EP = 0
▼ = 0
C = 0
☒ = 0
■ = 0
G = 0

REDAWN AND REVISE
EC NO: 119098 2017/07/05
DRWN: AFENG02 2017/07/10
CHK'D: AFENG02 2017/07/10
APPR: KLANG

A3 REV

GENERAL TOLERANCES (UNLESS SPECIFIED)
ANGULAR TOL ± 0.5 °

4 PLACES	±
3 PLACES	±
2 PLACES	±
1 PLACE	±
0 PLACES	±

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

DIMENSION UNITS	MM
SCALE	1:1
DRWN BY	NNGUYEN
DATE	2013/09/26
CHK'D BY	JBELL
DATE	2013/09/26
APPR BY	FSMITH
DATE	2013/10/18
DRAWING SIZE	A3
THIRD ANGLE PROJECTION	

molex®

PACKAGING SPECIFICATION GANGED MODULAR JACKS

PACKAGING DESIGN DRAWING

SERIES	MATERIAL NUMBER	CUSTOMER
44150		GENERAL MARKET

DOCUMENT NUMBER	DOC TYPE	DOC PART	SHEET NUMBER
PK-44150-005	PDD	001	1 OF 1

FORMAT: master-tb-prod-A3
REVISION: G
DATE: 2017/02/06

PRODUCT SPECIFICATION

CATEGORY 5 RIGHT ANGLE MODULAR JACKS

1.0 SCOPE

This Product Specification covers the 1.27 mm (.050 inch) centerline (pitch) printed circuit board (PCB) modular jack connector series with selective gold and tin plating.

2.0 PRODUCT DESCRIPTION

2.1 PRODUCT NAME AND SERIES NUMBER(S)

Right Angle**,** Single Port Modular Jack	44050
Right Angle, Ganged Modular Jack	44150
Right Angle, Stacked Ganged Modular Jack (with light pipes, shielded only)	44170
Right Angle, Stacked Ganged Modular Jack (without light pipes, shielded only)	44520

2.2 DIMENSIONS, MATERIALS, PLATINGS AND MARKINGS

See the appropriate sales drawings (SD-44050-002, SD-44150-002, SD-44170-001, SD-44520-001) for information on dimensions, materials, plating and markings.

2.3 SAFETY AGENCY APPROVALS

UL File Number……E107635
CSA File Number……..LR19980

3.0 REFERENCE DOCUMENTS

FCC Rules and Regulations, Part 68, Subpart F
REA Bulletin 345-81, PE-76; Specification for modular telephone set hardware
ANSI/EIA/TIA-568
IEC-60603-7
UL 1863
MIL-STD-202; General requirements for test specifications

4.0 RATINGS

4.1 VOLTAGE

56.5 V DC
150 V_{RMS} AC (Ringing voltage only)

4.2 CURRENT

1.5 Amps @ 25°C

4.3 TEMPERATURE

Operating: - 40°C to + 85°C
Nonoperating:* - 40°C to + 85°C
*Packaging materials should not exceed + 50°C

5.0 PERFORMANCE

5.1 ELECTRICAL REQUIREMENTS

	DESCRIPTION	TEST CONDITION	REQUIREMENT
	Contact Resistance (Low Level)	Mate connectors: apply a maximum voltage of **20** mV and a current of **100** mA. (Measurement locations in Section 7.0)	**20** milliohms MAXIMUM [initial]
	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
	Dielectric Withstanding Voltage	Mate connectors: apply a voltage of **1000** VAC for **1** minute between adjacent terminals and **1500** VAC between terminals to ground.	No breakdown; current leakage < **5** mA
	Capacitance	Measure between adjacent terminals at **1** kHz	10 picofarads MAXIMUM
	Shielding Effectiveness	Measure at frequency from **30** mHz to **400** mHz.	20dB MINIMUM

5.2 TRANSMISSION PERFORMANCE

ITEM		TEST CONDITION	REQUIREMENT	
Reference Specification TIA/EIA 568A			Frequency (MHz)	Loss (dB)
5.2.1	Maximum Attenuation	Measurement of signal power loss due to connection made on any pair within the connector under test. Worst result shall be within specification.	1 4 10 16 20 31.25 62.5 100	0.1 0.1 0.1 0.2 0.2 0.2 0.3 0.4
5.2.2	Minimum Near End Crosstalk	Jack under test shall be terminated with resistor of 100 ohms +/- 1% (see *figure 1*). Measurements are made in these 2-pair combinations: 1-2, 3-6, 4-5, 7-8. The worst case NEXT loss must be within specification	1 4 10 16 20 25 31.25 62.5 100	65 65 60 56 54 52 50 44 40
5.2.3	Minimum Return Loss	Jack under test shall be terminated with resistor of 100 ohms +/- 1%. (See *figure 1*) A balanced input signal is applied to a connector pair while signals that are reflected back due to the impedance discontinuities are measured at the same port from which the signal is applied. A measurement shall be done for each pair (1-2, 3-6, 4-5, 7-8).	1 16 20 100	20 20 14 14

5.2 MECHANICAL REQUIREMENTS

	DESCRIPTION	TEST CONDITION	REQUIREMENT
	Connector Mate Force	Mate connector at a rate of **25 ± 6** mm (**1 ± ¼** inch) per minute. (Gage dimensions in Section 7.0)	**22** N (**5** lbf) unshielded MAXIMUM insertion force **35** N (**8** lbf) shielded MAXIMUM insertion force
	Durability	Mate connectors up to **500** cycles at a maximum rate of **10** cycles per minute prior to Environmental Tests.	**10** milliohms MAXIMUM (change from initial)
	Vibration (Random)	Amplitude: 1.50mm (.060") peak to peak Sweep: 10-55-10 Hz in one minute Duration: 15 minutes ±X,±Y,±Z axis (45 minutes total)	**10** milliohms MAXIMUM (change from initial) & Discontinuity < **1** microsecond
	Plug Retention Force	Apply an axial pullout force on the plug at a rate of **25 ± 6** mm (**1 ± ¼** inch) per minute.	**89** N (**20** lbf) MINIMUM retention force
	PCB Separation Forces	Apply a perpendicular load on the plug at a rate of **25 ± 6** mm (**1 ± ¼** inch) per minute.	**4.5** N (**1** lbf) MINIMUM withdrawal force before solder reflow **89** N (**20** lbf) MINIMUM withdrawal force after solder reflow
	Shock (Mechanical)	Mate connectors and shock at **50** g's with three saw tooth wave form shocks in the ±X,±Y,±Z axis (18 shocks total).	**10** milliohms MAXIMUM (change from initial) & Discontinuity < **1** microsecond

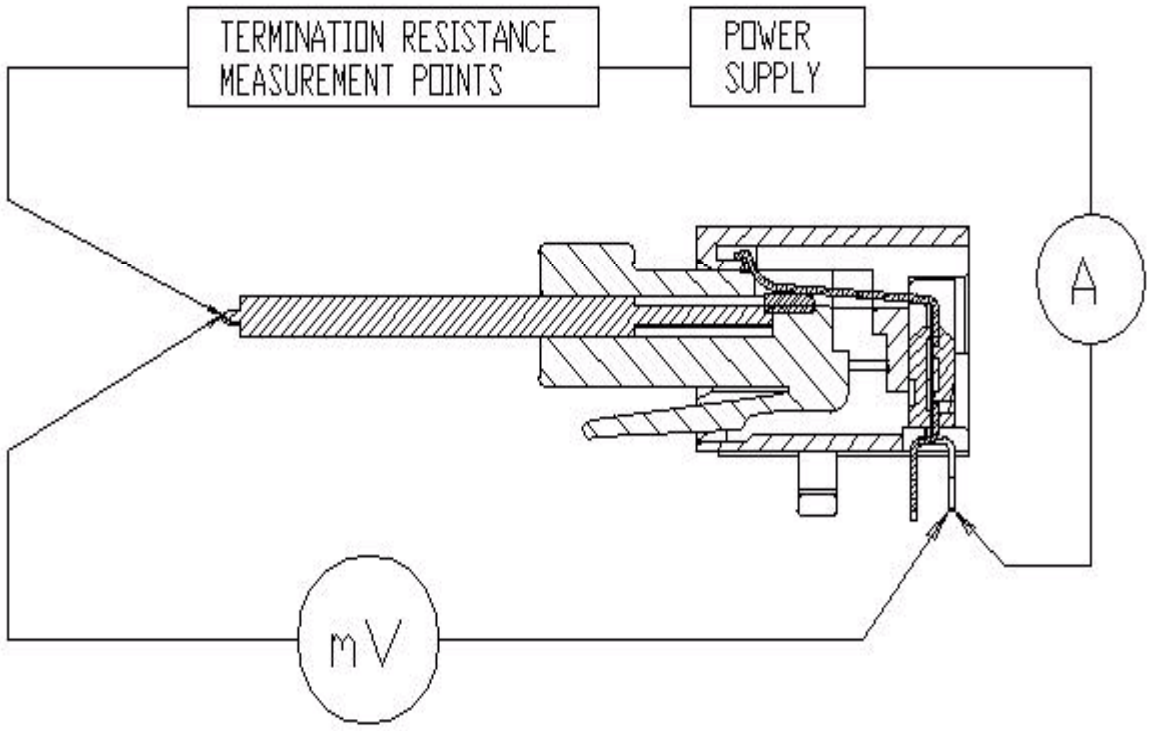
5.3 ENVIRONMENTAL REQUIREMENTS

	DESCRIPTION	TEST CONDITION	REQUIREMENT
	Shock (Thermal)	Mate connectors; expose to **10** cycles of: **-40**°C to +**85**°C **30** minutes dwell	**10** milliohms MAXIMUM (change from initial) & Visual: No Damage
	Thermal Aging	Mate connectors; expose to: **240** hours at **85±2**°C	**10** milliohms MAXIMUM (change from initial) & Visual: No Damage
	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)	**10** milliohms MAXIMUM (change from initial) & Dielectric Withstanding Voltage: No Breakdown at **500** VAC & Insulation Resistance: **200** Megohms MINIMUM & Visual: No Damage
	Solder Resistance	Dip connector terminal tails in solder: Solder Duration: **5±0.5** seconds Solder Temperature: **260±5**°C **{**Recommended same parameters as **SMES-152.}** Note: The solder resistance test simulates a wave solder process. This test should not be used to determine the suitability of the connector for a convection or IR reflow solder process.	Visual: No Damage to insulator material

6.0 PACKAGING

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

7.0 GAGES AND FIXTURES



TERMINATION RESISTANCE MEASUREMENT POINTS
Connector and plug terminals and wire conductor bulk resistance to be subtracted from measurements

8.0 OTHER INFORMATION