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Jameco Part Number 884791

## FEATURES AND SPECIFICATIONS

### Features and Benefits

- Mated heights: 8, 9, 10, 11, 12, 13, 14 and 15mm
- Size 64 circuits
- Leaf-style design protects pins
- Antiflux design
- Low insertion force
- High-temperature LCP housing for use with reflow solder processes

### Reference Information

Product Specification: 71436-9999  
 Packaging: Tube or tape and reel  
 UL File No.: E29179  
 Mates With: [71436](#)  
 Designed In: Millimeters

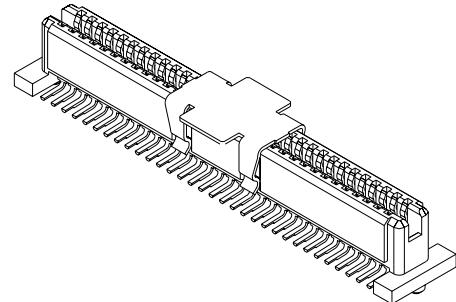


# 1.00mm (.039") Mezzanine IEEE 1386 Board-to-Board Receptacle

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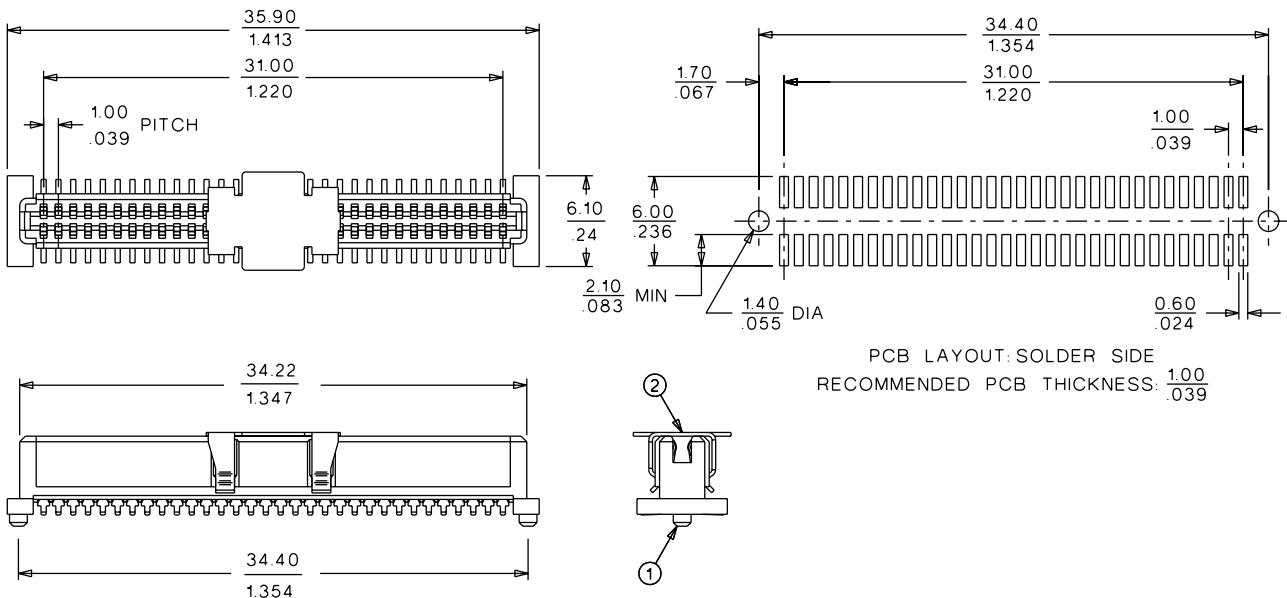
**71439**

## Dual Row, SMT Vertical Stacking



0.40 to 1.60mm (.016 to .063") Pitch

## CATALOG DRAWING (FOR REFERENCE ONLY)



## ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.					Mated Stack Height*	
	Tube Pack (with PCB Pegs, without Pick and Place Cap)		Tape Pack (without PCB Pegs, with Pick and Place Cap)				
	Plug	Receptacle	Plug	Receptacle			
64	71436-0164	71439-0164	71436-0864	71439-0864	8.00 (.315)	Mated Stack Height*	
	71436-1164	71439-0164	71436-1864	71439-0864	9.00 (.354)		
	71436-2164	71439-0164	71436-2864	71439-0864	10.00 (.394)		
	71436-1164	71439-1164	71436-1864	71439-1864	11.00 (.433)		
	71436-2164	71439-1164	71436-2864	71439-1864	12.00 (.472)		
	71436-2164	71439-2164	71436-2864	71439-2864	13.00 (.512)		
	71436-1164	71439-3164	71436-1864	71439-3864	14.00 (.551)		
	71436-2164	71439-3164	71436-2864	71439-3864	15.00 (.591)		

\* Recommended Plug/Receptacle combination for mated stack height per EIA standard 700 AAAB. Also per EIA standard, board stack height measured from facing surfaces of parallel circuit boards includes solder thickness of 0.1mm (.004") per side.

Note: Other options available such as PCB pegs in tape pack, and Pick and Place Cap in tube pack



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PRODUCT SPECIFICATION  
1.0mm BOARD-TO-BOARD CONNECTORS  
PS-71436-9999

1.0 Scope:

This specification covers the 1.0mm pitch board-to-board plug and receptacle connectors.

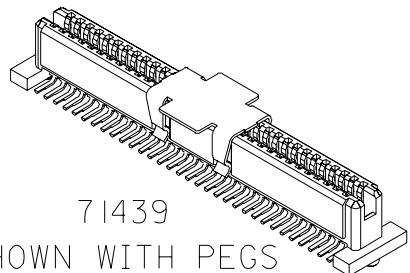
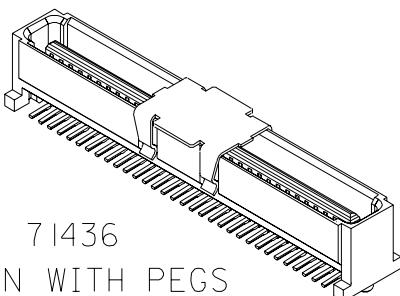
2.0 Product Description:

2.1 The 71436/71741 plug and the 71439/71742 receptacle connectors have been designed in accordance with EIA standard 700 AAAB for 1.0mm two-part connectors for use with parallel printed boards.

2.1.1 All 1.0mm connectors are available with or without locating pegs.

2.1.2 All 1.0mm connectors can be supplied with a vacuum cap for robotic placement.

2.1.3 71741 plug and 71742 receptacle have passive latches (two on each side) for added retention.



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PRODUCT SPECIFICATION  
1.0mm BOARD-TO-BOARD CONNECTORS  
PS-71436-9999

2.0 Product Description: (cont'd)

2.2 Product Name and Item Numbers

See figure 1 and table 1.

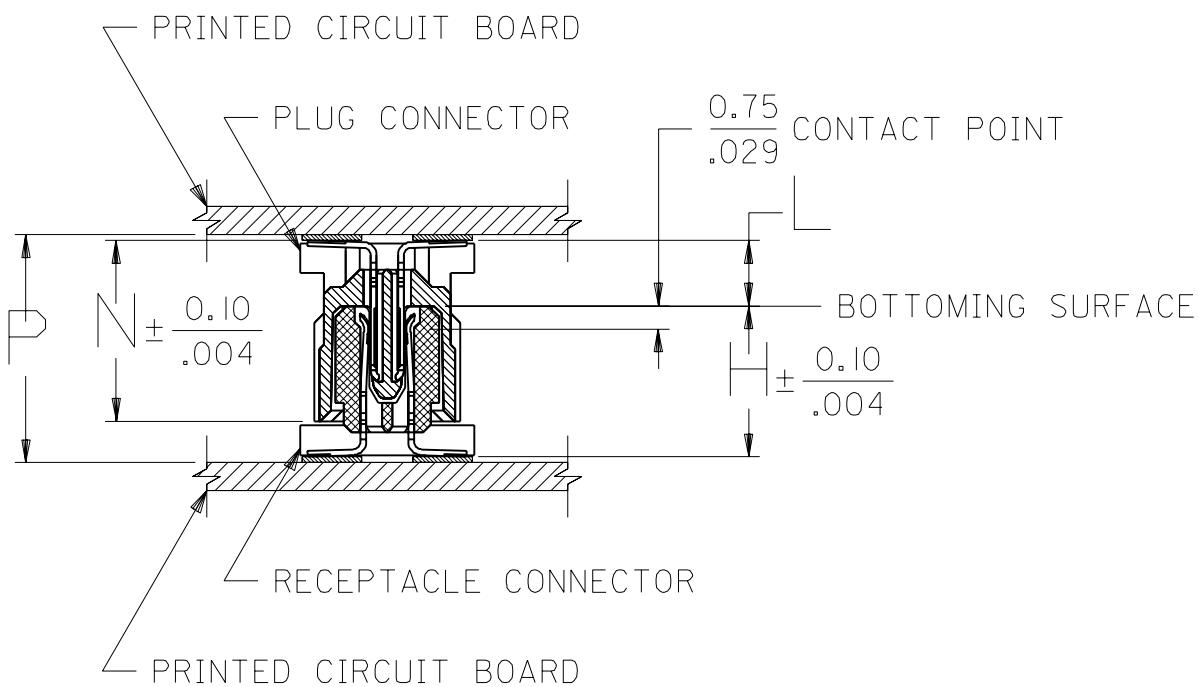


Figure 1

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PRODUCT SPECIFICATION  
1.0mm BOARD-TO-BOARD CONNECTORS  
PS-71436-9999

2.0 Product Description: (cont'd)

2.2 Product Name and Item Numbers

PLUG CONNECTOR			RECEPTACLE CONNECTOR		STACK HT. DIM. P
ITEM NO.	DIM. N	DIM. L	ITEM NO.	DIM. H	
71436-0***	6.35/.250	2.30/.090	71439-0***	5.30/.209	8.00/.315
71436-1***	7.35/.289	3.30/.130	71439-0***	5.30/.209	9.00/.354
71436-2***	8.35/.329	4.30/.169	71439-0***	5.30/.209	10.00/.394
71741-0001	8.35/.329	4.30/.169	71742-0001	5.30/.209	10.00/.394
71436-1***	7.35/.289	3.30/.130	71439-1***	7.30/.287	11.00/.433
71436-2***	8.35/.329	4.30/.169	71439-1***	7.30/.287	12.00/.472
71436-2***	8.35/.329	4.30/.169	71439-2***	8.30/.327	13.00/.512
71436-1***	7.35/.289	3.30/.130	71439-3***	10.30/.406	14.00/.551
71436-2***	8.35/.329	4.30/.169	71439-3***	10.30/.406	15.00/.591

Table I

2.3 Dimensions, Materials, and Platings:

See appropriate sales drawings for information on dimensions, materials, and platings.

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PRODUCT SPECIFICATION  
1.0mm BOARD-TO-BOARD CONNECTORS  
PS-71436-9999

3.0 Applicable Documents and Specifications:

3.1 See sales drawings and other sections of this specification for necessary referenced documents and specifications.

3.2 Recognized Agency Approvals:

3.2.1 Underwriters Laboratories Inc.: Pending

4.0 Ratings:

4.1 Voltage: 250V r.m.s. (contact to contact)

4.2 Current (30°C temperature rise): 0.5 Ampere maximum, all circuits wired in series; 1.0 Ampere maximum, five adjacent circuits wired in series

4.3 Operating temperature range: -55°C to +85°C

5.0 Performance:

5.1 Electrical

Item	Test Condition	Requirement
Contact Resistance (Low Level)	Mate connectors, measure by dry circuit (20mV max., 10mA max.)	30 milliohms maximum, initial
Contact Resistance (Rated)	Mate connectors, measure contact resistance at rated current	15 milliohms maximum change from initial

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PRODUCT SPECIFICATION  
1.0mm BOARD-TO-BOARD CONNECTORS  
PS-71436-9999

5.0 Performance: (cont'd)

5.1 Electrical

Item	Test Condition	Requirement
Insulation Resistance	Apply 250±50 VDC, measure resistance between adjacent terminals	1000 megohms minimum
Dielectric Withstanding Voltage	Apply 250 VAC for 1 minute between adjacent terminals	No breakdown

5.2 Mechanical

Item	Test Condition	Requirement
Terminal Retention Force	Apply axial force on terminal in housing at rate of 25±6mm (1±1/4in) per minute	3.9N (0.4Kgf) minimum
Mate and Un-mate Forces	Mate and un-mate connectors at rate of 25±6mm (1±1/4in) per minute	Mate Force: 60g X no. of circuits maximum Un-mate Force: 23g X no. of circuits, minimum
Durability	Mate connectors up to 100 cycles at rate of 10mm (0.40in) per second maximum; rest 30 seconds minimum (when unmated)	Maximum contact resistance change: 15 milliohms

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PRODUCT SPECIFICATION  
1.0mm BOARD-TO-BOARD CONNECTORS  
PS-71436-9999

## 5.0 Performance: (cont'd)

## 5.2 Mechanical

Item	Test Condition	Requirement
Vibration	Amplitude: 1.9mm (.076in) peak-to-peak; Sweep: 10-55-10 Hz in one minute; Duration: 2 hours in each axis x, y and z	Maximum contact resistance change: 15 milliohms Discontinuity no greater than one microsecond
Mechanical Shock	490 m/s <sup>2</sup> (50 g) peak sawtooth, 11 milliseconds duration; one shock each direction in each axis x, y, and z	Maximum contact resistance change: 15 milliohms Discontinuity no greater than one microsecond

## 5.3 Environmental

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1.0mm BOARD-TO-BOARD CONNECTORS  
PS-71436-9999

5.0 Performance: (cont'd)

5.3 Environmental

Item	Test Condition	Requirement
Thermal Aging	Mated connectors exposed to +85°C for 250 hours	Appearance: No damage Maximum contact resistance change: 15 milliohms
Humidity (Steady State)	Mated connectors exposed to +40±2°C, 90-95%RH, for 240 hours per MIL-STD-202F, Method 103B, Test Condition A	Appearance: No damage Maximum contact resistance change: 15 milliohms
Humidity (Cyclic)	Test mated connectors per MIL-STD-202F, Method 106E, excluding steps 7a and 7b	Appearance: No damage Maximum contact resistance change: 15 milliohms
Temperature Rise and Current Cycling	Measure temperature rise of mated connectors at rated current after 96 hours, then after 45 minutes ON, 15 minutes OFF for 240 hours, and finally after 96 hours at rated current	Maximum temperature rise: 30°C over ambient Maximum contact resistance change: 15 milliohms
Mixed Flowing Gas	Environmental Class II, 7 days unmated	Maximum contact resistance change: 15 milliohms

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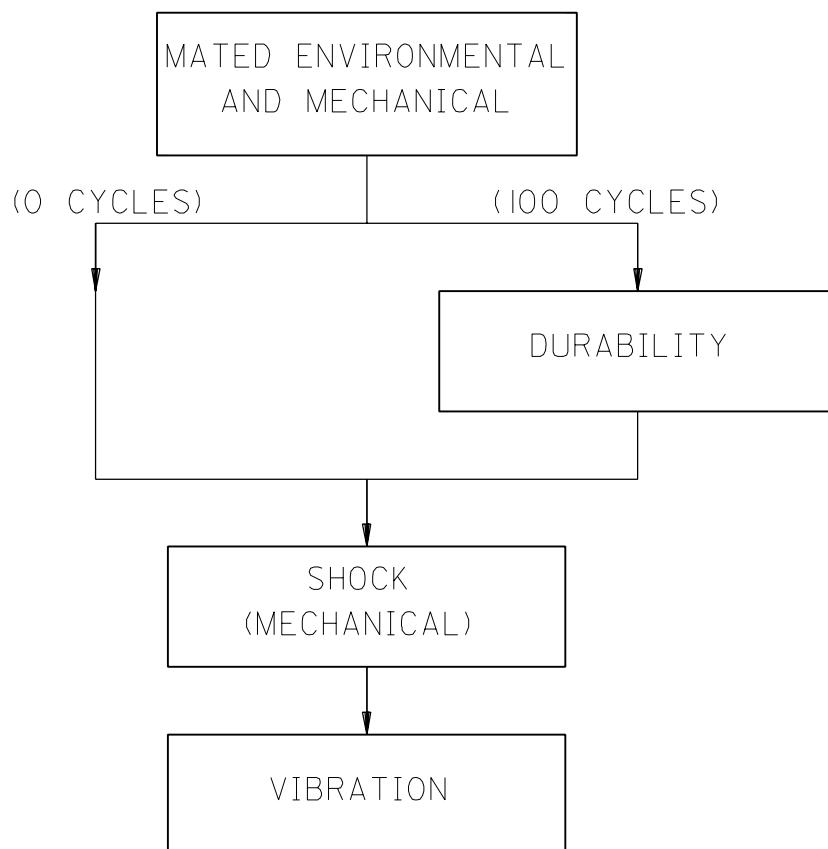
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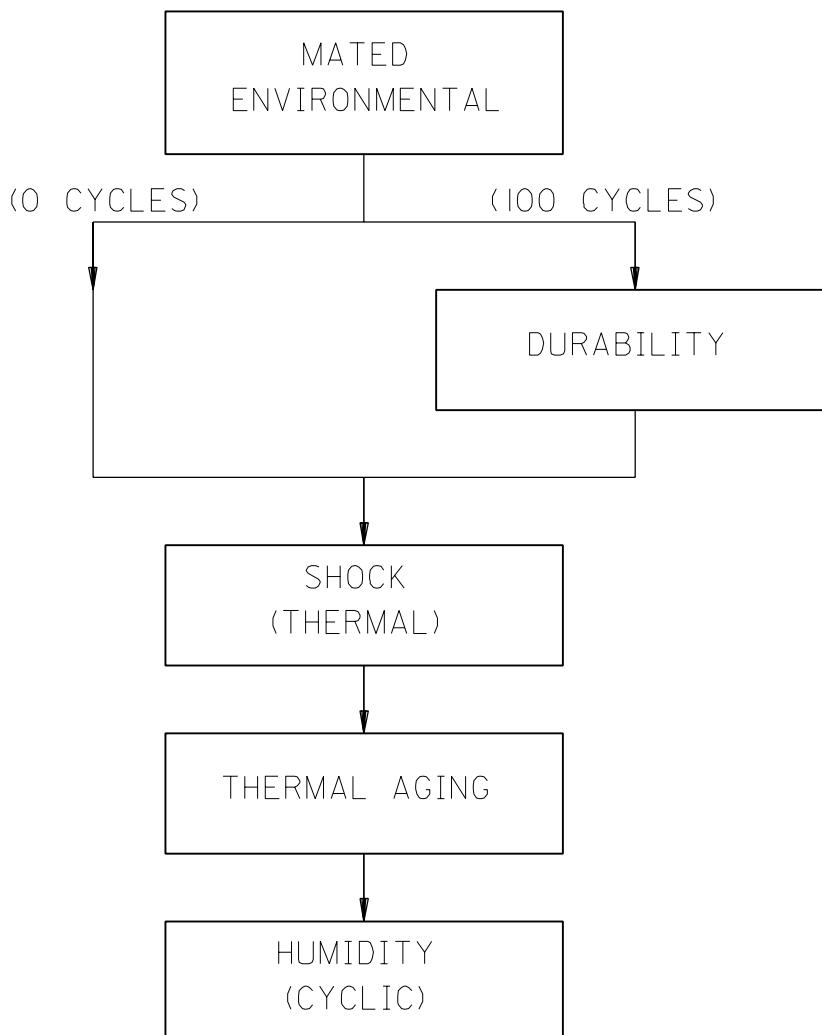
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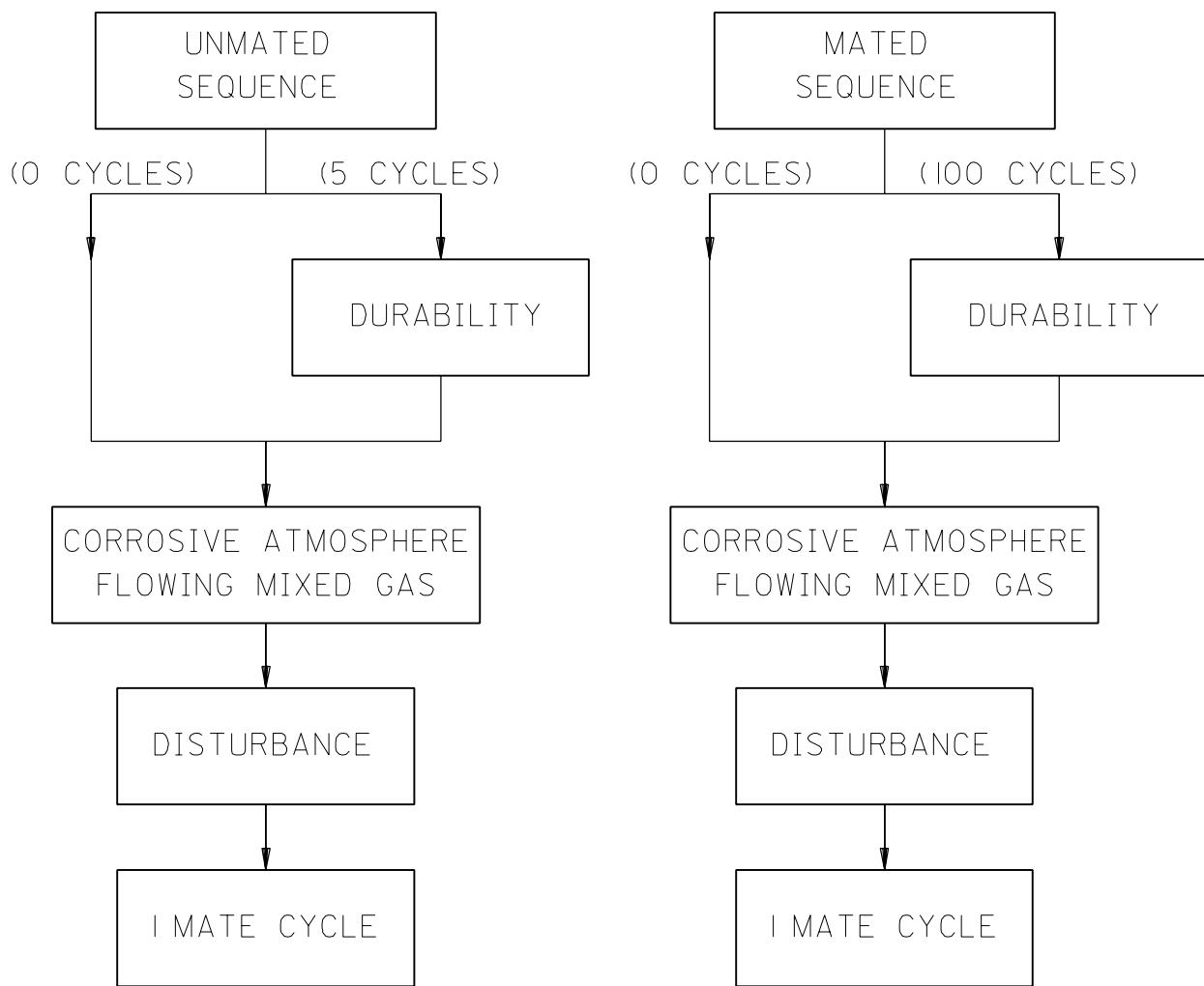
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PRODUCT SPECIFICATION  
1.0mm BOARD-TO-BOARD CONNECTORS  
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1.0mm BOARD-TO-BOARD CONNECTORS  
PS-71436-9999

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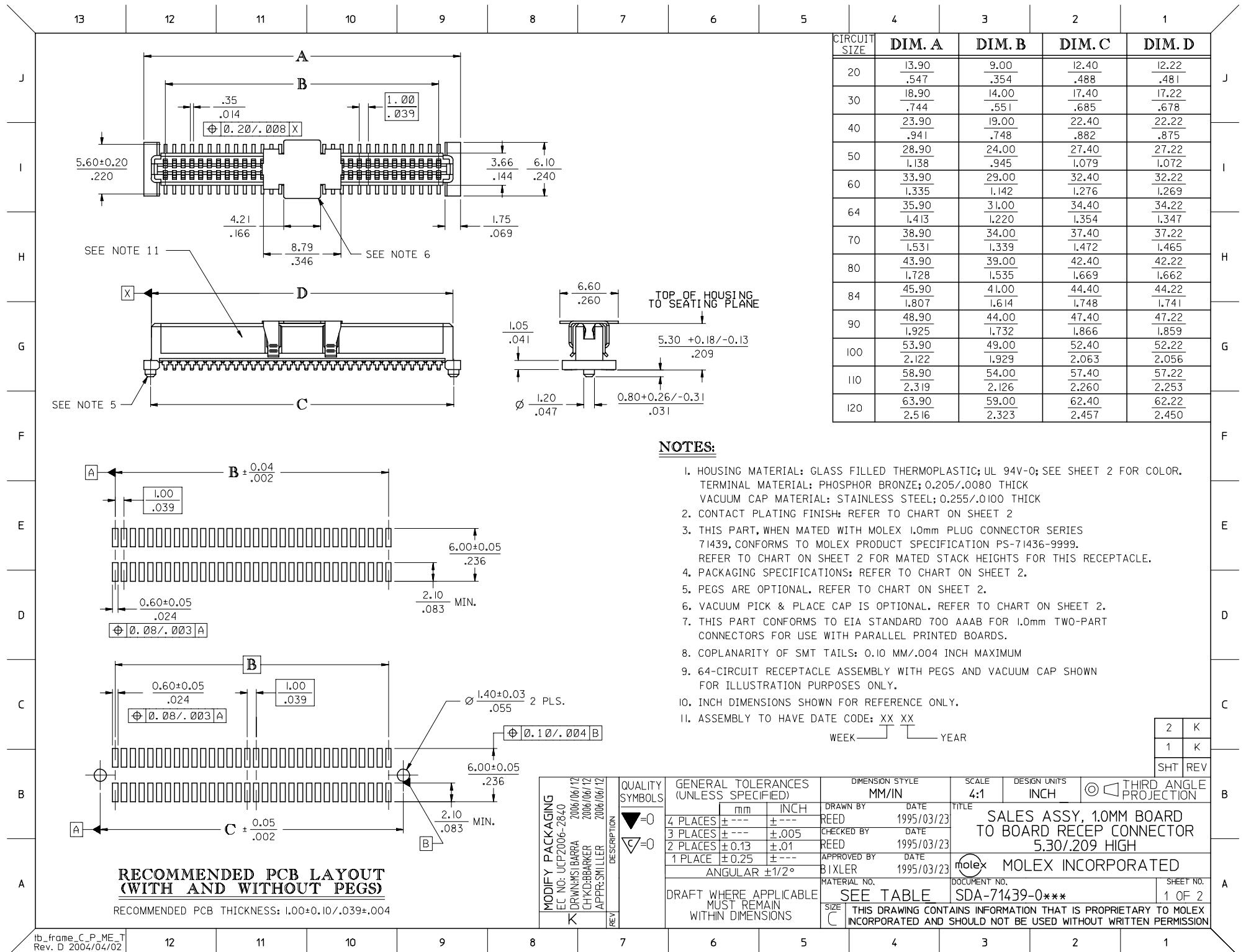
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DRW P<sup>NO.</sup> S-71436-9999



## WHITE (NATURAL) MATERIAL

PART NUMBER	CIRCUIT SIZE	CONTACT PLATING SEE NOTE BELOW CHARTS	PEGS	PICK & PLACE CAP	PACKAGING SPEC. NUMBER	PACKAGING TYPE
71439-0164	64	30 GOLD	YES	NO	PK-70873-0601	TUBE
71439-0264	64	50 GOLD	NO	YES	PK-70873-063	TAPE & REEL
71439-0364	64	30 GOLD	YES	YES	PK-70873-0607	TUBE
71439-0464	64	30 GOLD	YES	YES	PK-70873-063	TAPE & REEL
71439-0564	64	30 GOLD	NO	NO	PK-70873-0683	TUBE
71439-0764	64	30 GOLD	NO	YES	PK-70873-0606	TUBE
71439-0864	64	30 GOLD	NO	YES	PK-70873-063	TAPE & REEL

## BLACK MATERIAL WITH MATTE PICK &amp; PLACE CAP

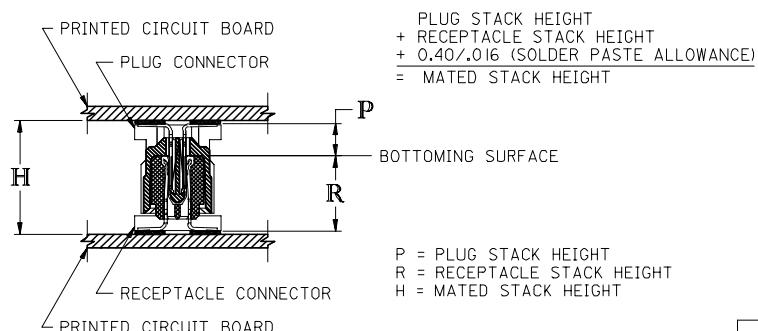
PART NUMBER	CIRCUIT SIZE	CONTACT PLATING SEE NOTE BELOW CHARTS	PEGS	PICK & PLACE CAP	PACKAGING SPEC. NUMBER	PACKAGING TYPE
71439-0964	64	30 GOLD	NO	YES	PK-70873-063	TAPE & REEL

## CONTACT PLATING:

30 GOLD - 0.76 MICROMETER/30 MICROINCH MINIMUM GOLD IN CONTACT AREA AND 1.91 MICROMETER/75 MICROINCH MINIMUM TIN IN SOLDER TAIL AREA. NICKEL UNDERPLATE OVER ENTIRE TERMINAL.

50 GOLD - 1.27 MICROMETER/50 MICROINCH MINIMUM GOLD IN CONTACT AREA AND 1.91 MICROMETER/75 MICROINCH MINIMUM TIN IN SOLDER TAIL AREA. NICKEL UNDERPLATE OVER ENTIRE TERMINAL.

\*THE PRIMARY SHIPPING CARTON WILL BE LABELED 'COMPLIANT TO ROHS DIRECTIVE 2002/95/EC AND ELV ANNEX II OF DIRECTIVE 2000/53/EC'. CARTONS WITHOUT THIS LABEL MAY CONTAIN PRODUCT WITH LEAD.



RECOMMENDED PLUG/RECEPTACLE COMBINATION FOR MATED STACK HEIGHT PER EIA STANDARD 700 AAAB

MATED STACK HEIGHT	RECEPTACLE HEIGHT	RECEPTACLE SERIES NO.	PLUG HEIGHT	PLUG SERIES NO.
8.00/.315	5.30/.209	71439-0***	2.30/.090	71436-0***
9.00/.354	5.30/.209	71439-0***	3.30/.130	71436-1***
10.00/.394	5.30/.209	71439-0***	4.30/.169	71436-2***

MODIFY PACKAGING EC NO: UCP2006-2840 2006/06/12 DEWNTS/BARRA 2006/06/12 CHKD/BARKER 2006/06/12 APPR/SMILLER 2006/06/12 REV: K		QUALITY SYMBOLS ▼=0 △=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM/IN		SCALE --- DESIGN UNITS INCH	THIRD ANGLE PROJECTION SALES ASSY, 1.0MM BOARD TO BOARD RECEPT CONNECTOR 5.30/.209 HIGH
4 PLACES	± ---		± ---	DRAWN BY REED	DATE 1995/03/23			
3 PLACES	± ---	± ---	CHECKED BY	DATE				
2 PLACES	± ---	± ---	APPROVED BY REED	DATE 1995/03/23				
1 PLACE	± ---	± ---	ANGULAR ±1/2° BIXLER	DATE 1995/03/23				
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS					MATERIAL NO.	DOCUMENT NO.	SHEET NO.	
SEE TABLE					SDA-71439-0***		2 OF 2	
					SIZE C	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		