

PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

Part Number: [71436-2164](#)
Status: **Active**
Overview: [PMC](#)
Description: 1.00mm Pitch Mezzanine IEEE 1386 Plug, Surface Mount, Dual Row, Vertical Stacking, 64 Circuits, 8.35mm Unmated Height, with PCB Locator Pegs, without Robotic Placement Metal Cap, 0.76µm Gold (Au) Selective Plating, Tube

Documents:
[3D Model](#) [Product Specification PS-71436-9999 \(PDF\)](#)
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

Agency Certification

CSA LR19980
UL E29179

General

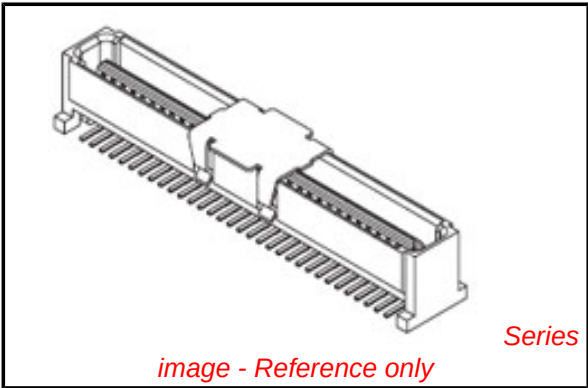
Product Family PCB Headers
Series [71436](#)
Application Board-to-Board, Signal
MolexKits Yes
Overview [PMC](#)
Product Name Mezzanine
UPC 800753677814

Physical

Breakaway No
Circuits (Loaded) 64
Circuits (maximum) 64
Color - Resin Natural
Flammability 94V-0
Glow-Wire Compliant No
Lock to Mating Part None
Mated Height 10.00mm, 12.00mm, 13.00mm, 15.00mm
Material - Metal Phosphor Bronze
Material - Plating Mating Gold
Material - Plating Termination Tin
Material - Resin High Temperature Thermoplastic
Net Weight 1.402/g
Number of Rows 2
Orientation Vertical
PCB Locator Yes
PCB Retention None
PCB Thickness - Recommended 1.00mm
Packaging Type Tube
Pitch - Mating Interface 1.00mm
Plating min - Mating 0.762µm
Plating min - Termination 1.905µm
Polarized to Mating Part No
Shrouded Fully
Stackable No
Temperature Range - Operating -55°C to +85°C
Termination Interface: Style Surface Mount

Electrical

Current - Maximum per Contact 1A
Voltage - Maximum 100V



EU RoHS
ELV and RoHS
Compliant
REACH SVHC
Contains SVHC: No
Low-Halogen Status
Low-Halogen



Need more information on product environmental compliance?

Email productcompliance@molex.com
For a multiple part number RoHS Certificate of Compliance, [click here](#)

Please visit the [Contact Us](#) section for any non-product compliance questions.

Search Parts in this Series
[71436Series](#)

Mates With
71439-0*** for Stack Height 10.00mm|
71439-1*** for Stack Height 12.00mm|
71439-2*** for Stack Height 13.00mm|
71439-3*** for Stack Height 15.00mm



PRODUCT SPECIFICATION

TABLE OF CONTENTS

- 1.0 SCOPE
- 2.0 PRODUCT DESCRIPTION
- 3.0 APPLICABLE DOCUMENTS AND SPECIFICATIONS
- 4.0 RATINGS
- 5.0 PERFORMANCE
- 6.0 PROCESSING GUIDELINES

1.0 SCOPE

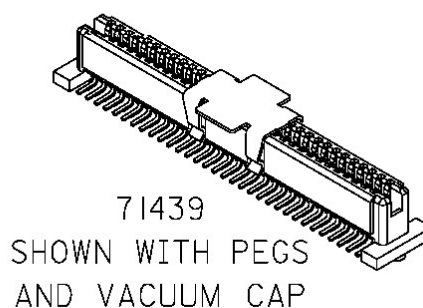
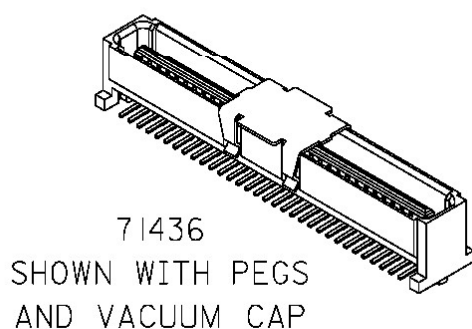
This Product Specification covers the 1.0mm pitch board-to-board plug and receptacle connectors.

2.0 PRODUCT DESCRIPTION

2.1 The 71436 plug and the 71439 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.



REVISION: F	ECR/ECN INFORMATION: EC No: UCP2008-0856 DATE: 2007/10/15	TITLE: PRODUCT SPECIFICATION FOR 1.0mm BOARD-TO-BOARD CONNECTORS	SHEET No. 1 of 7
DOCUMENT NUMBER: PS-71436-9999	CREATED / REVISED BY: Marc Ibarra	CHECKED BY: Bob Barker	APPROVED BY: Steve Miller



PRODUCT SPECIFICATION

2.0 PRODUCT DESCRIPTION (CONT'D)

2.2 Product Name and Item Numbers

See figure 1 and table 1.

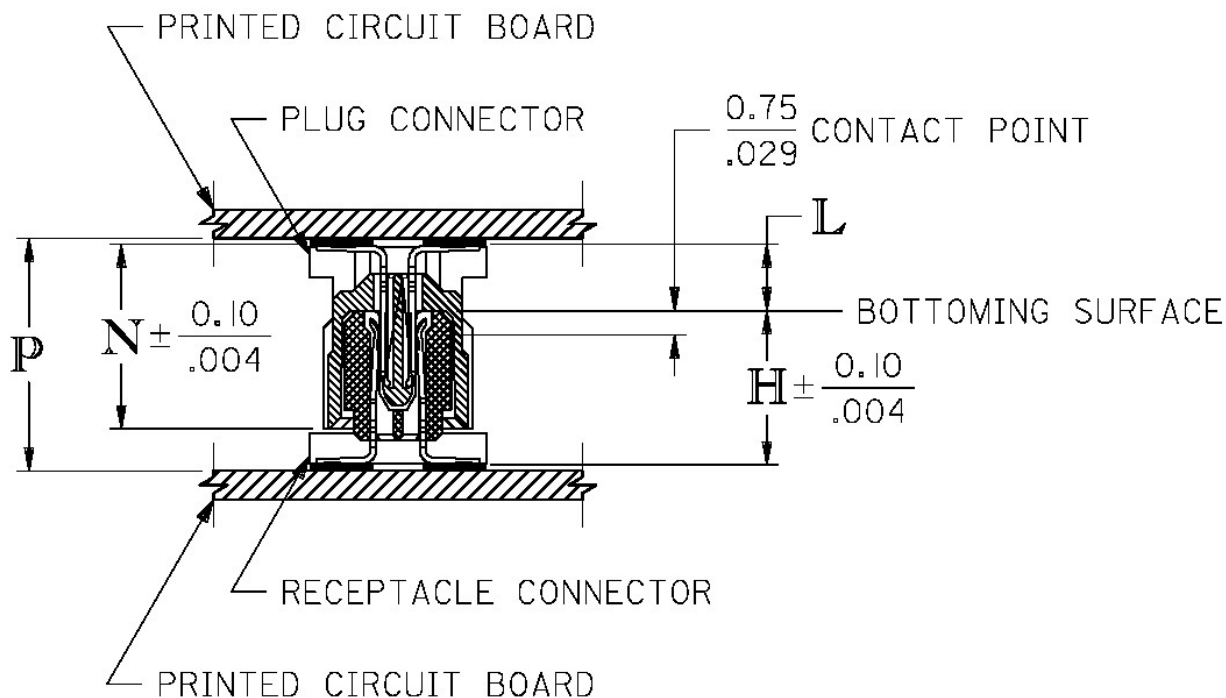


Figure 1

PLUG CONNECTOR			RECEPTACLE CONNECTOR		STACK HEIGHT DIMENSION P +0.00/-0.40 mm +.000/-.016 Inch
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
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 1

REVISION: F	ECR/ECN INFORMATION: EC No: UCP2008-0856 DATE: 2007/10/15	TITLE: PRODUCT SPECIFICATION FOR 1.0mm BOARD-TO-BOARD CONNECTORS	SHEET No. 2 of 7
DOCUMENT NUMBER: PS-71436-9999		CREATED / REVISED BY: Marc Ibarra	CHECKED BY: Bob Barker
		APPROVED BY: Steve Miller	



PRODUCT SPECIFICATION

2.3 Dimensions, Materials, and Platings:

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

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.: File Number E29179

4.0 RATINGS

4.1 VOLTAGE

250Volts AC (RMS) (contact to contact)

4.2 CURRENT (30°C Temperature rise)

0.5 Amps maximum, all circuits wired in series ; 1.0 Amps maximum, five adjacent circuits wired in series

4.3 TEMPERATURE

Operating: - 55°C to + 85°C

5.0 PERFORMANCE

5.1 ELECTRICAL REQUIREMENTS

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
1	Contact Resistance (Low Level)	Mate connectors, measure by dry circuit: apply a maximum voltage of 20 mV and a current of 10 mA.	30 milliohms MAXIMUM [initial]
2	Contact Resistance @ Rated Current	Mate connectors: apply a maximum voltage of 20 mV at rated current.	15 milliohms MAXIMUM [initial]
3	Insulation Resistance	Apply 250±50 VDC, measure resistance between adjacent terminals.	100 megaohms MINIMUM
4	Dielectric Withstanding Voltage	Apply 250VAC for 1 minute between adjacent terminals.	No breakdown;

REVISION: F	ECR/ECN INFORMATION: EC No: UCP2008-0856 DATE: 2007/10/15	TITLE: PRODUCT SPECIFICATION FOR 1.0mm BOARD-TO-BOARD CONNECTORS	SHEET No. 3 of 7
DOCUMENT NUMBER: PS-71436-9999		CREATED / REVISED BY: Marc Ibarra	CHECKED BY: Bob Barker
		APPROVED BY: Steve Miller	



PRODUCT SPECIFICATION

5.2 MECHANICAL REQUIREMENTS

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
5	Terminal Retention Force	Apply axial force on terminal in housing at rate of 25±6mm (1 ± ¼ inch) per minute.	3.9 N (0.4 Kgf) MINIMUM retention force
6	Connector Mate and Unmate Forces	Mate and unmate connectors (male to female) at a rate of 25 ± 6 mm (1 ± ¼ inch) per minute.	Mate Force: 60g X no. of circuits maximum & Un-Mate Force: 23g X no. of circuits, minimum
7	Durability	Mate connectors up to 100 cycles at a maximum rate of 10mm (0.40in) per second; rest 30 seconds minimum (when unmated).	Maximum contact resistance change: 15 milliohms
8	Vibration (Random)	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 < 1 microsecond
10	Shock (Mechanical)	490 m/s ² (50g) peak saw-tooth, 11 milliseconds duration; one shock each direction in each axis x, y and z.	Maximum contact resistance change: 15 milliohms & Discontinuity < 1 microsecond

5.3 ENVIRONMENTAL REQUIREMENTS

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT						
11	Shock (Thermal)	Mate connectors; expose to 5 cycles of: <table><tr><td><u>Temperature °C</u></td><td><u>Duration (Minutes)</u></td></tr><tr><td>-40 +0/-3</td><td>30</td></tr><tr><td>+105 +3/-0</td><td>30</td></tr></table>	<u>Temperature °C</u>	<u>Duration (Minutes)</u>	-40 +0/-3	30	+105 +3/-0	30	Maximum contact resistance change: 15 milliohms & Visual: No Damage
<u>Temperature °C</u>	<u>Duration (Minutes)</u>								
-40 +0/-3	30								
+105 +3/-0	30								
12	Thermal Aging	Mate connectors; expose to: 250 hours at 85 ± 2°C	Maximum contact resistance change: 15 milliohms & Visual: No Damage						

REVISION:	ECR/ECN INFORMATION:	TITLE:	SHEET No.
F	EC No: UCP2008-0856 DATE: 2007/10/15	PRODUCT SPECIFICATION FOR 1.0mm BOARD-TO-BOARD CONNECTORS	4 of 7
DOCUMENT NUMBER:	CREATED / REVISED BY:	CHECKED BY:	APPROVED BY:
PS-71436-9999	Marc Ibarra	Bob Barker	Steve Miller



PRODUCT SPECIFICATION

5.3 ENVIRONMENTAL REQUIREMENTS (continued)

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
27	Humidity (Steady State)	Mate connectors: expose to a temperature of $40 \pm 2^{\circ}\text{C}$ with a relative humidity of 90-95% for 240 hours. Per MIL-STD-202F, Method 103B, Test Condition A.	Maximum contact resistance change: 15 milliohms & Visual: No Damage
28	Humidity (Cyclic)	Test mated connectors per MIL-STD-202F, Method 106E, excluding steps 7a and 7b.	Maximum contact resistance change: 15 milliohms & Visual: No Damage
30	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
36	Mixed Flowing Gas	Environmental Class II, 7 days unmated.	Maximum contact resistance change: 15 milliohms

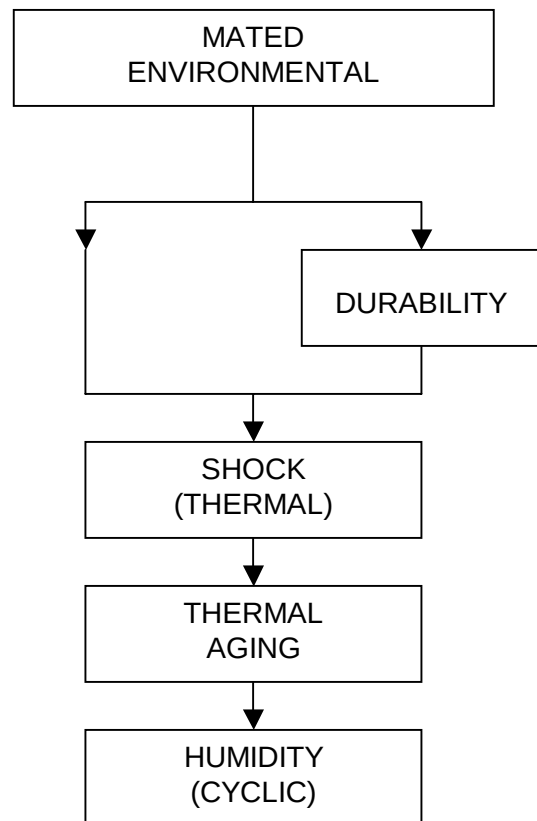
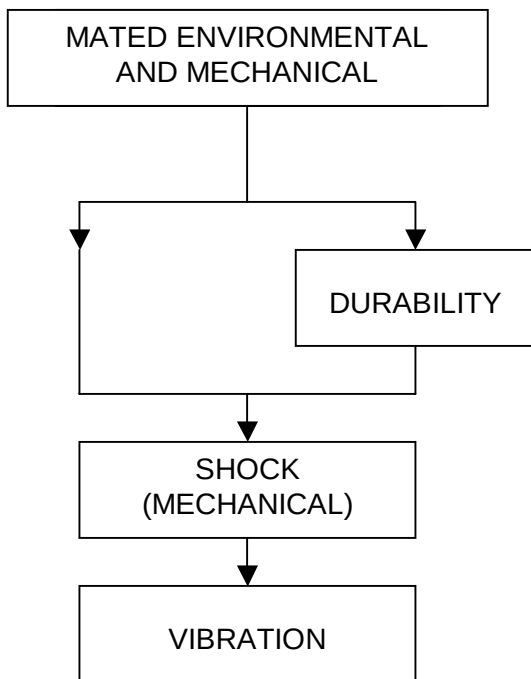
6.0 PROCESSING GUIDELINES

<u>PROCESSING STEPS</u>	<u>RECOMMENDATION</u>	<u>COMMENTS</u>
Resistance to Soldering Heat	Peak soldering temperature to be 265 degrees C. Maximum time within 5 degrees of peak temperature to be 40 seconds. Note: Connectors must be dried for 8 hours @ 70°C prior to processing at temperatures over 245°C . Connectors may be left in the tape and reel or tubes during the drying operation.	Appearance: No Physical Damage

REVISION: F	ECR/ECN INFORMATION: EC No: UCP2008-0856 DATE: 2007/10/15	TITLE: PRODUCT SPECIFICATION FOR 1.0mm BOARD-TO-BOARD CONNECTORS	SHEET No. 5 of 7
DOCUMENT NUMBER: PS-71436-9999		CREATED / REVISED BY: Marc Ibarra	CHECKED BY: Bob Barker
		APPROVED BY: Steve Miller	



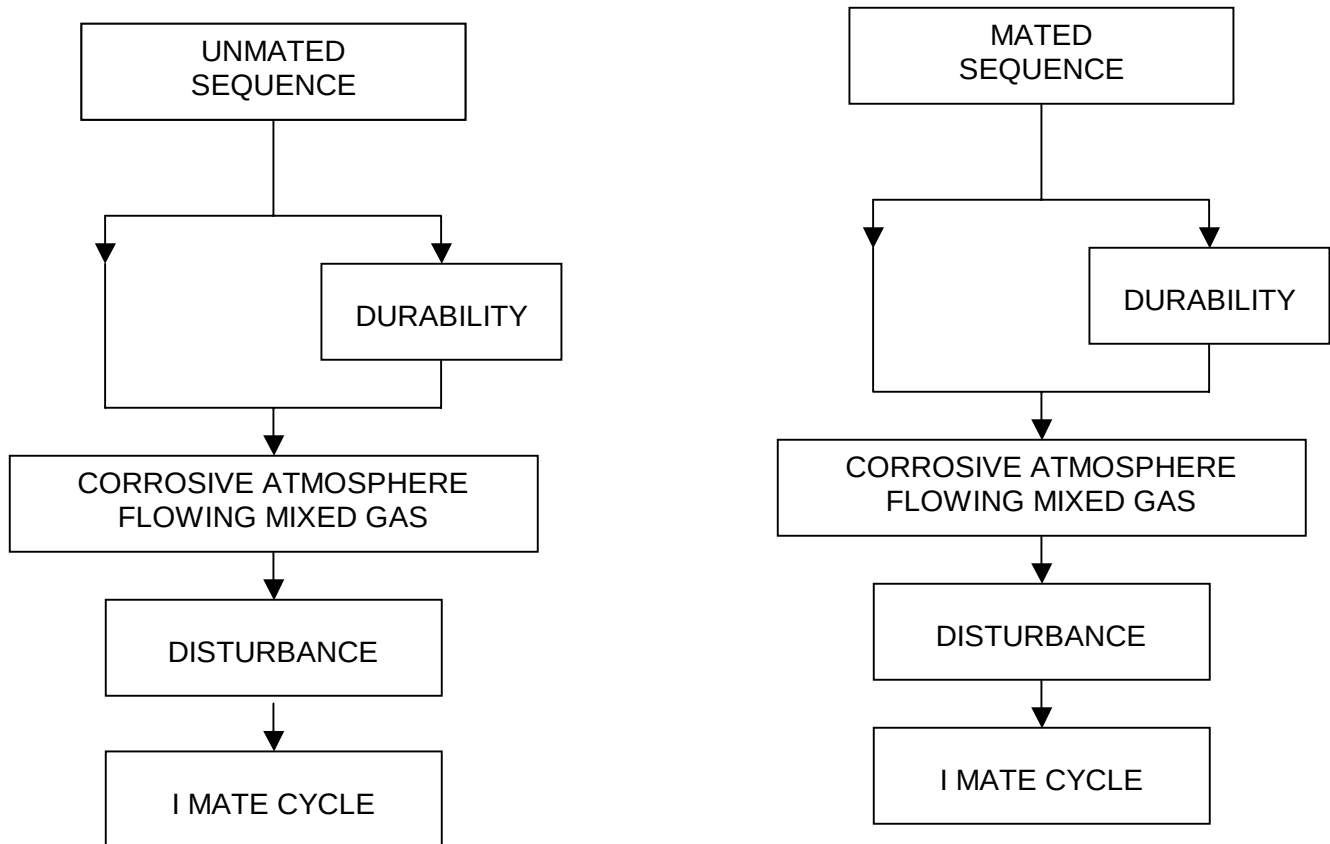
PRODUCT SPECIFICATION



REVISION: F	ECR/ECN INFORMATION: EC No: UCP2008-0856 DATE: 2007/10/15	TITLE: PRODUCT SPECIFICATION FOR 1.0mm BOARD-TO-BOARD CONNECTORS	SHEET No. 6 of 7
DOCUMENT NUMBER: PS-71436-9999	CREATED / REVISED BY: Marc Ibarra	CHECKED BY: Bob Barker	APPROVED BY: Steve Miller

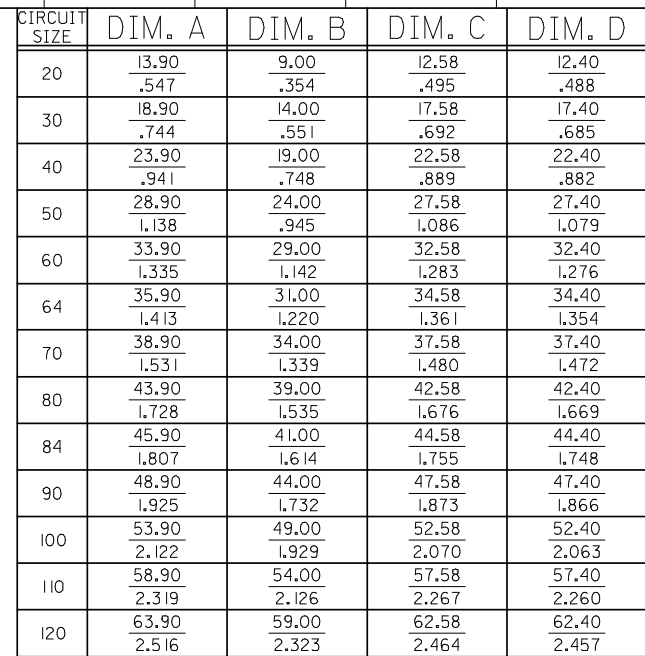


PRODUCT SPECIFICATION



REVISION: F	ECR/ECN INFORMATION: EC No: UCP2008-0856 DATE: 2007/10/15	TITLE: PRODUCT SPECIFICATION FOR 1.0mm BOARD-TO-BOARD CONNECTORS	SHEET No. 7 of 7
DOCUMENT NUMBER: PS-71436-9999	CREATED / REVISED BY: Marc Ibarra	CHECKED BY: Bob Barker	APPROVED BY: Steve Miller

TEMPLATE FILENAME: PRODUCT_SPEC[SIZE_A](V.1).DOC



1. HOUSING MATERIAL: LIQUID CRYSTAL POLYMER (LCP) GLASS FILLED.;
UL RATING: 94V-0; COLOR: WHITE OR BLACK
TERMINAL MATERIAL: PHOSPHOR BRONZE; 0.205/-.0080 THICK
VACUUM CAP MATERIAL: STAINLESS STEEL; 0.255/-.0100 THICK
2. PLATING FINISHES: SEE SHEET 2
3. PRODUCT SPECIFICATION: PS-71436-999
4. PACKAGING SPECIFICATIONS: REFER TO CHART ON SHEET 2.
5. MATES WITH: 71439 SERIES. SEE SHEET 2 FOR MATING VIEW
AND STACK HEIGHT.
6. PEGS ARE OPTIONAL. REFER TO CHART ON SHEET 2.
7. VACUUM PICK & PLACE CAP IS OPTIONAL. REFER TO CHART ON
SHEET 2.
8. THIS PART CONFORMS TO EIA STANDARD 700 AAAB FOR 1.0mm TWO-PART
CONNECTORS FOR USE WITH PARALLEL PRINTED BOARDS.
9. COPLANARITY OF SMT TAILS: 0.10/-.004 MAX.
10. 64-CIRCUIT PLUG ASSEMBLY WITH PEGS AND VACUUM CAP SHOWN
FOR ILLUSTRATION PURPOSES ONLY.
11. DIMENSIONS ARE IN mm/in. INCH DIMENSIONS SHOWN FOR REFERENCE ONLY.
12. ASSEMBLY TO HAVE DATE CODE: XX XX

2	L
1	M
SHT	REV



REV	DESCRIPTION	QUALITY SYMBOL
		 = 0  = 0
	CORRECT DESIGN UNITS EC NO: UCP2008-2464 DRWN:MS IBARRA 2008/04/07 CH'D:BBARKER 2008/04/16 APPR:SWILLER 2008/04/16	

GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM/IN		SCALE 4:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION
	mm	INCH	DRAWN BY	DATE	TITLE	
4 PLACES	± .---	± .---	REED	1995/03/23	SALES ASSY, 1.0MM BOARD TO BOARD PLUG CONNECTOR 4.30/169 STACK HEIGHT	
3 PLACES	± .---	± .005	CHECKED BY	DATE		
2 PLACES	± 0.13	± .01	REED	1995/01/23		
1 PLACE	± 0.25	± .---	APPROVED BY	DATE	MOLEX MOLEX INCORPORATED	
ANGULAR ± 1/2°		BIXLER		1995/03/23		
MATERIAL NO.			DOCUMENT NO.			SHEET NO.
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS			SEE TABLE			SDA-71436-2*** 1 OF 2
SIZE: THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION						

13

12

11

10

9

8

7

6

5

4

3

2

1

WHITE (NATURAL) MATERIAL

CIRCUIT SIZE	PLUG ASSEMBLY ITEM NUMBER	PEGS	CONTACT PLATING (SEE PLATING NOTES)	PICK & PLACE CAP	PACKAGING SPEC. NUMBER	PACKAGING TYPE
64	71436-2164	YES	30 GOLD	NO	PK-70873-0607	TUBE
64	71436-2364	YES	30 GOLD	YES	PK-70873-0607	TUBE
64	71436-2464	YES	30 GOLD	YES	PK-70873-063	TAPE & REEL
64	71436-2564	NO	30 GOLD	NO	PK-70873-0606	TUBE
64	71436-2764	NO	30 GOLD	YES	PK-70873-0606	TUBE
64	71436-2864	NO	30 GOLD	YES	PK-70873-063	TAPE & REEL
64	71436-2264	NO	50 GOLD	YES	PK-70873-063	TAPE & REEL
64	71436-2664	YES	50 GOLD	NO	PK-70873-0607	TUBE
64	71436-2064	NO	50 GOLD	NO	PK-70873-0607	TUBE

PLATING NOTES:

30 GOLD: SELECTIVE GOLD (Au) IN THE CONTACT AREA;
THICKNESS = 0.76 MICROMETERS (30 MICROINCHES) MINIMUM;
SELECTIVE TIN (Sn) IN THE PC TAIL AREA;
THICKNESS = 1.88 MICROMETERS (75 MICROINCHES) MINIMUM;
NICKEL UNDERPLATE OVERALL.

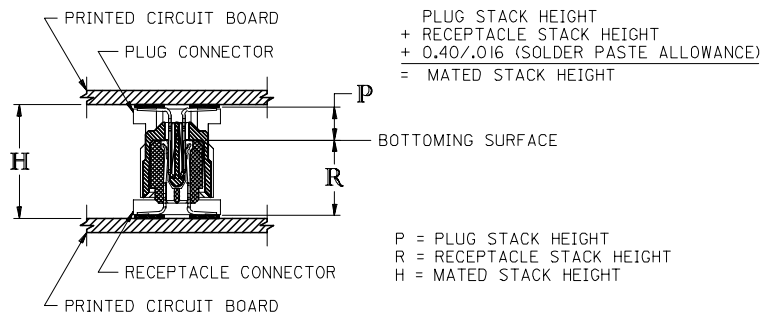
50 GOLD: SELECTIVE GOLD (Au) IN THE CONTACT AREA;
THICKNESS = 1.27 MICROMETERS (50 MICROINCHES) MINIMUM;
SELECTIVE TIN (Sn) IN THE PC TAIL AREA;
THICKNESS = 1.88 MICROMETERS (75 MICROINCHES) MINIMUM;
NICKEL UNDERPLATE OVERALL.

BLACK MATERIAL WITH PICK & PLACE CAP

CIRCUIT SIZE	PLUG ASSEMBLY ITEM NUMBER	PEGS	CONTACT PLATING (SEE NOTES PAGE2)	PICK & PLACE CAP	PACKAGING SPEC. NUMBER	PACKAGING TYPE
64	71436-2964	NO	30 GOLD	YES	PK-70873-063	TAPE & REEL

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.
10.00/.394	5.30/.209	71439-0***	4.30/.169	71436-2***
12.00/.472	7.30/.287	71439-1***	4.30/.169	71436-2***
13.00/.512	8.30/.327	71439-2***	4.30/.169	71436-2***
15.00/.591	10.30/.406	71439-3***	4.30/.169	71436-2***



ADD 71436-2064/-2664 EC NO: UCP2007-2420 DRAWNS: BARRA 2007/05/08 CHKD: MORGAN 2007/05/17 APPR: MILLER 2007/05/18	QUALITY SYMBOLS ▽=0 ▽=0	DESCRIPTION	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM/IN		SCALE ---	DESIGN UNITS INCH	 THIRD ANGLE PROJECTION		
			mm	INCH	DRAWN BY	DATE	TITLE SALES ASSY, 1.0MM BOARD TO BOARD PLUG CONNECTOR 4.30/.169 STACK HEIGHT				
			4 PLACES ± ---	± ---	REED	1995/03/23					
			3 PLACES ± ---	± ---	CHECKED BY	DATE	MOLEX INCORPORATED				
			2 PLACES ± ---	± ---	REED	1995/03/23					
			1 PLACE ± ---	± ---	APPROVED BY	DATE	SHEET NO. 2 OF 2				
			ANGULAR ±1/2°		BIXLER	1995/03/23					
			DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		MATERIAL NO. SEE TABLE		DOCUMENT NO. SDA-71436-2***				
					SIZE C	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION					

12

11

10

9

8

7

6

5

4

3

2

1

Solder Process Data

Duration at Max. Process Temperature (seconds)	40
Lead-free Process Capability	Reflow Capable (SMT only)
Max. Cycles at Max. Process Temperature	3
Process Temperature max. C	260

Material Info

Reference - Drawing Numbers

Product Specification	PS-71436-9999
Sales Drawing	SDA-71436-2***

This document was generated on 09/04/2013

PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION