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Part Number: [0465564145](#)
Status: **Active**
Description: 1.27mm (.050") by 1.27mm (.050") Pitch SEARAY* Slim Plug, 160 Circuits, 2.00mm (.078") Unmated Height, 4 Rows, With Pegs, Solder Charge™ Lead-free

Documents:

[3D Model](#) [Product Specification PS-45970-001 \(PDF\)](#)
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

Agency Certification

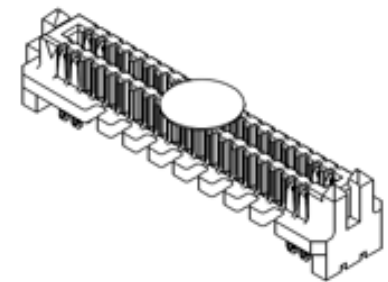
CSA LR19980
 UL E29179

General

Product Family PCB Headers
 Series [46556](#)
 Application Board-to-Board
 MolexKits Yes
 Product Name SEARAY*

Physical

Breakaway No
 Circuits (Loaded) 160
 Circuits (maximum) 160
 Circuits Detail 160
 Color - Resin Black
 Durability (mating cycles max) 100
 First Mate / Last Break No
 Flammability 94V-0
 Glow-Wire Compliant No
 Guide to Mating Part Yes
 Keying to Mating Part None
 Lock to Mating Part None
 Material - Metal Copper Alloy
 Material - Plating Mating Gold
 Material - Plating Termination Tin
 Material - Resin High Temperature Thermoplastic
 Number of Rows 4
 Orientation Vertical
 PCB Locator Yes
 PCB Retention Yes
 PCB Thickness Recommended (in) 0.062 In
 PCB Thickness Recommended (mm) 1.60 mm
 Packaging Type Embossed Tape on Reel
 Pitch - Mating Interface (in) 0.050 In
 Pitch - Mating Interface (mm) 1.27 mm
 Pitch - Term. Interface (in) 0.050 In
 Pitch - Term. Interface (mm) 1.27 mm
 Plating min: Mating (µin) 30
 Polarized to Mating Part Yes
 Polarized to PCB Yes
 Robotic Placement Pick and Place Cap
 Shrouded No
 Stackable No
 Surface Mount Compatible (SMC) Yes
 Temperature Range - Operating -55°C to +125°C



Series

image - Reference only

EU RoHS

ELV and RoHS Compliant

REACH SVHC

Not Reviewed

Halogen-Free

Status

Not Reviewed

China RoHS



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

[46556Series](#)

Mates With

[46557](#) SEARAY* Slim Receptacles

Termination Interface: Style

Surface Mount

Electrical

Current - Maximum per Contact

1A

Voltage - Maximum

240V AC

Solder Process Data

Duration at Max. Process Temperature (seconds)

20

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

Application Specification

AS-45970-001, AS-45970-002, AS-45970-990

Packaging Specification

PK-45970-002

Product Specification

PS-45970-001

Sales Drawing

SD-46556-001

Test Summary

TS-45970-001

*SEARAY is a trademark of Samtec, Inc.

This document was generated on 06/07/2010

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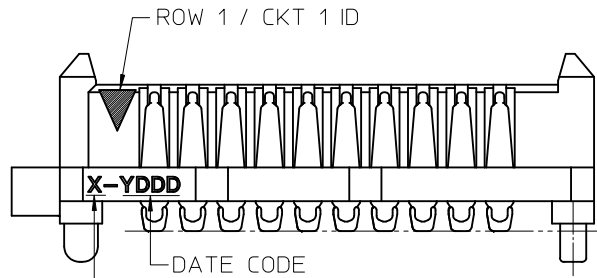
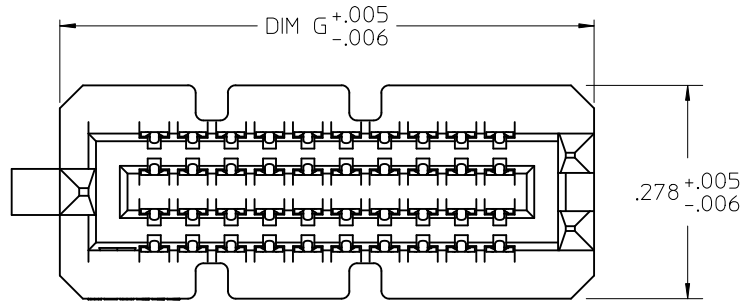
3

2

1

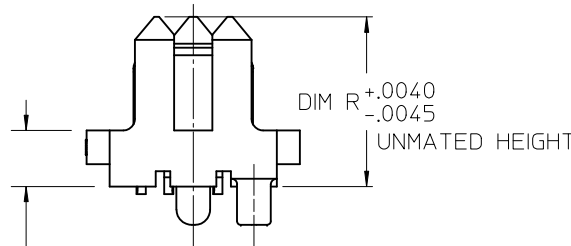
NOTES:

- 1. MATERIALS: HOUSING: LCP, UL94V-0, BLACK
CONTACTS: COPPER ALLOY
SOLDER CHARGE: SEE CHART
- 2. FINISH: ALL OPTIONS - SELECT GOLD IN CONTACT AREA: 30 MI MIN
OPTIONS 2.0 & 2.5: SELECT GOLD FLASH IN TAIL, 7 MI MIN
OPTIONS 3.0 THRU 7.0: SELECT TIN IN TAIL, 100 MI MIN
ALL OPTIONS - OVER NICKEL
- 3. PRODUCT SPECIFICATION: PS-45970-001
- 4. PACKAGING SPECIFICATION: PK-45970-002
- 5. MATES WITH SEARAY RECPT ASSEMBLY 46557
- 6. APPLICATION SPECIFICATION: AS-45970-001
- 7. COSMETIC SPECIFICATION: PS-45499-002 CLASS B
- 8. PART STATUS: CONTACT MOLEX

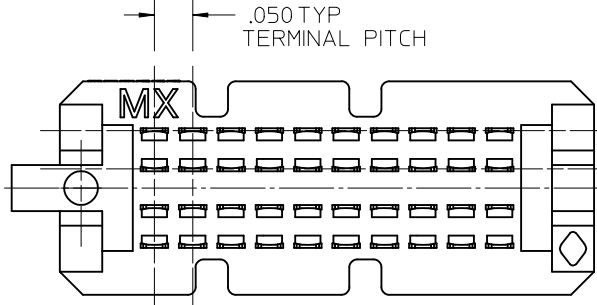


LEAD CODE:
1 = TIN
2 = TIN / LEAD

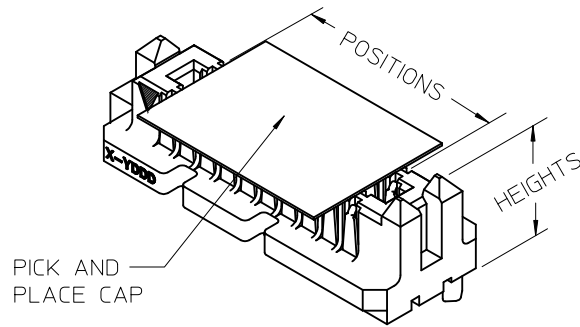
SEE TABLE
ACROSS ALL
SOLDER
CHARGES



DIM P
REF ONLY
MATED STACK
HEIGHT
(MILLIMETERS)



.050 TYP
TERMINAL PITCH



PICK AND
PLACE CAP

POSITIONS	DIM G	
10	.696	.006
15	.946	.006
20	1.196	.006
25	1.446	.006
30	1.696	.006
35	1.946	.006
40	2.196	.006
45	2.446	.009
50	2.696	.009

UPDATED NOTE 2
EC NO: UCP2010-2270
DRWN: TREGORI 2010/03/05
CHKD: JCOMERCI 2007/05/17
APPR: JCOMERCI 2010/03/05
REV
DESCRIPTION

GENERAL TOLERANCES (UNLESS SPECIFIED)	
mm	INCH
4 PLACES ± ---	± ---
3 PLACES ± ---	± .005
2 PLACES ± ---	± ---
1 PLACE ± ---	± ---
ANGULAR ± 1/2°	
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	

DIMENSION STYLE INCH ONLY	
DRAWN BY	DATE
TGREGORI	2007/05/17
CHECKED BY	DATE
JCOMERCI	2007/05/17
APPROVED BY	DATE
JCOMERCI	2010/03/05
MATERIAL NO.	SEE CHART
SIZE	A

SCALE 4:1	DESIGN UNITS INCH	THIRD ANGLE PROJECTION
TITLE SEARAY SLIM PLUG ASSEMBLY .050 PITCH		
MOLEX INCORPORATED		
DOCUMENT NO. SD-46556-001	SHEET NO. 1 OF 4	

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4

3

2

	6	5	4	3	2	1	
DIM P	2.0 MM	3.0 MM	3.5 MM	2.5 MM	4.5 MM	5.0 MM	7.0 MM
DIM R: HOUSING HEIGHT:	.221	.260	.280	.241	.319	.339	.418
D POSITIONS	MATERIAL NO	MATERIAL NO	MATERIAL NO	MATERIAL NO	MATERIAL NO	MATERIAL NO	MATERIAL NO
10	46556-1145	46556-1245	46556-1345	46556-1445	46556-1545	46556-1645	46556-1745
20	46556-2145	46556-2245	46556-2345	46556-2445	46556-2545	46556-2645	46556-2745
30	46556-3145	46556-3245	46556-3345	46556-3445	46556-3545	46556-3645	46556-3745
40	46556-4145	46556-4245	46556-4345	46556-4445	46556-4545	46556-4645	46556-4745
50	46556-5145	46556-5245	46556-5345	46556-5445	46556-5545	46556-5645	46556-5745
C 15	46556-6145	46556-6245	46556-6345	46556-6445	46556-6545	46556-6645	46556-6745
25	46556-7145	46556-7245	46556-7345	46556-7445	46556-7545	46556-7645	46556-7745
35	46556-8145	46556-8245	46556-8345	46556-8445	46556-8545	46556-8645	46556-8745
45	46556-9145	46556-9245	46556-9345	46556-9445	46556-9545	46556-9645	46556-974

NOTES:
1. THIS SHEET CONTAINS THE FOLLOWING OPTIONS
SOLDER CHARGE: TIN

SEE SHEET 1 EC NO: UCP2010-2270 DRWN: TGREGOR I 2010/03/05 CHKD: JCOMERC I 2007/05/17 APPR: JCOMERC I 2010/03/05	DESCRIPTION REV	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE INCH ONLY		SCALE 1:1	DESIGN UNITS INCH	THIRD ANGLE PROJECTION			
			mm	INCH	DRAWN BY TGREGOR I	DATE 2007/05/17	TITLE SEARAY SLIM PLUG ASSEMBLY .050 PITCH				
		4 PLACES	± ---	± ---	CHECKED BY JCOMERC I	DATE 2007/05/17					
		3 PLACES	± ---	± .005	APPROVED BY JCOMERC I		DATE 2010/03/05	 MOLEX INCORPORATED DOCUMENT NO. SD-46556-001			
		2 PLACES	± ---	± ---	MATERIAL NO.		DATE				
1 PLACE	± ---	± ---	ANGULAR ±1/2°		SHEET NO. 3 OF 4						
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS			SIZE A		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION						

	6	5	4	3	2	1	
DIM P	2.0 MM	3.0 MM	3.5 MM	2.5 MM	4.5 MM	5.0 MM	7.0 MM
DIM R: HOUSING HEIGHT:	.221	.260	.280	.241	.319	.339	.418
D POSITIONS	MATERIAL NO	MATERIAL NO	MATERIAL NO	MATERIAL NO	MATERIAL NO	MATERIAL NO	MATERIAL NO
10	46556-1147	46556-1247	46556-1347	46556-1447	46556-1547	46556-1647	46556-1747
20	46556-2147	46556-2247	46556-2347	46556-2447	46556-2547	46556-2647	46556-2747
30	46556-3147	46556-3247	46556-3347	46556-3447	46556-3547	46556-3647	46556-3747
40	46556-4147	46556-4247	46556-4347	46556-4447	46556-4547	46556-4647	46556-4747
50	46556-5147	46556-5247	46556-5347	46556-5447	46556-5547	46556-5647	46556-5747
C 15	46556-6147	46556-6247	46556-6347	46556-6447	46556-6547	46556-6647	46556-6747
25	46556-7147	46556-7247	46556-7347	46556-7447	46556-7547	46556-7647	46556-7747
35	46556-8147	46556-8247	46556-8347	46556-8447	46556-8547	46556-8647	46556-8747
45	46556-9147	46556-9247	46556-9347	46556-9447	46556-9547	46556-9647	46556-9747

NOTES:
1. THIS SHEET CONTAINS THE FOLLOWING OPTIONS
SOLDER CHARGE: TIN / LEAD

SEE SHEET 1 EC NO: UCP2010-2270 DRWN: TGREGOR I 2010/03/05 CHKD: JCOMERC I 2007/05/17 APPR: JCOMERC I 2010/03/05	DESCRIPTION REV	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE INCH ONLY		SCALE 1:1	DESIGN UNITS INCH	THIRD ANGLE PROJECTION		
			mm	INCH	DRAWN BY TGREGOR I	DATE 2007/05/17	TITLE SEARAY SLIM PLUG ASSEMBLY .050 PITCH			
		4 PLACES	± ---	± ---	CHECKED BY JCOMERC I	DATE 2007/05/17				
		3 PLACES	± ---	± .005	APPROVED BY JCOMERC I		DATE 2010/03/05	MOLEX INCORPORATED DOCUMENT NO. SD-46556-001 SHEET NO. 4 OF 4		
		2 PLACES	± ---	± ---	MATERIAL NO.		SEE CHART			
1 PLACE	± ---	± ---	ANGULAR ±1/2°		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION					
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS										