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Part Number: [0465564745](#)
Status: **Active**
Description: 1.27mm (.050") by 1.27mm (.050") Pitch SEARAY* Slim Plug, 160 Circuits, 7.00mm (.275") 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

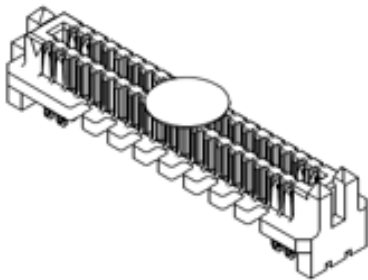
CSA	LR19980
UL	E29179

General

Product Family	PCB Headers
Series	46556
Application	Board-to-Board
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
Termination Interface: Style	Surface Mount



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* Receptacle

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 06/01/2010

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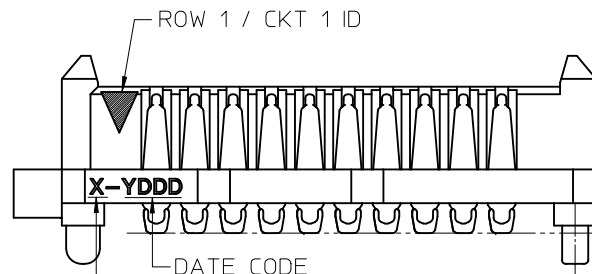
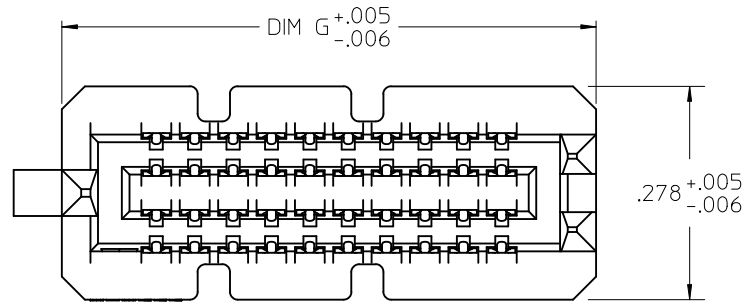
3

2

1

NOTES:

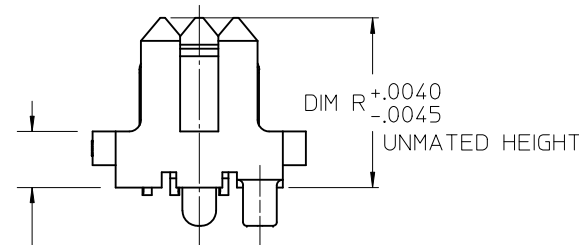
1. MATERIALS: HOUSING: LCP, UL94V-0, BLACK
CONTACTS: COPPER ALLOY
SOLDER CHARGE: SEE CHART
2. FINISH: ALL OPTIONS - SELECT GOLD IN CONTACT AREA: 30 MI MIN
OPTIONS 2.0 & 2.5: SELECT GOLD FLASH IN TAIL, 7 MI MIN
OPTIONS 3.0 THRU 7.0: SELECT TIN IN TAIL, 100 MI MIN
ALL OPTIONS - OVER NICKEL
3. PRODUCT SPECIFICATION: 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



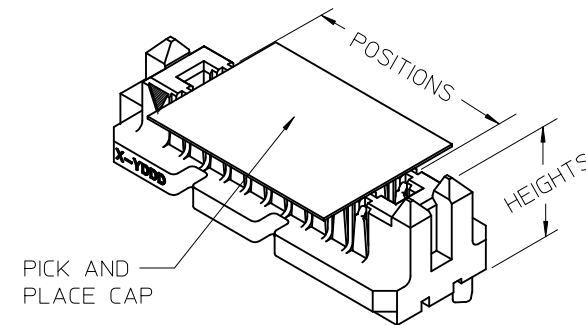
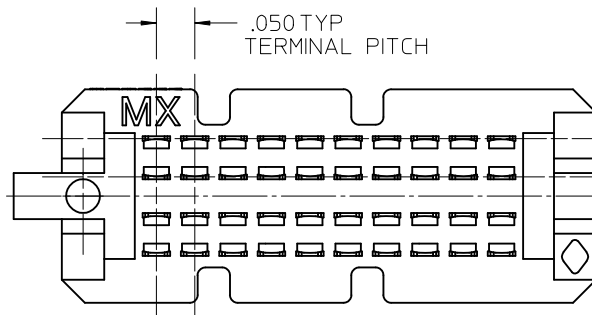
LEAD CODE:
1 = TIN
2 = TIN / LEAD



ACROSS ALL
SOLDER
CHARGES

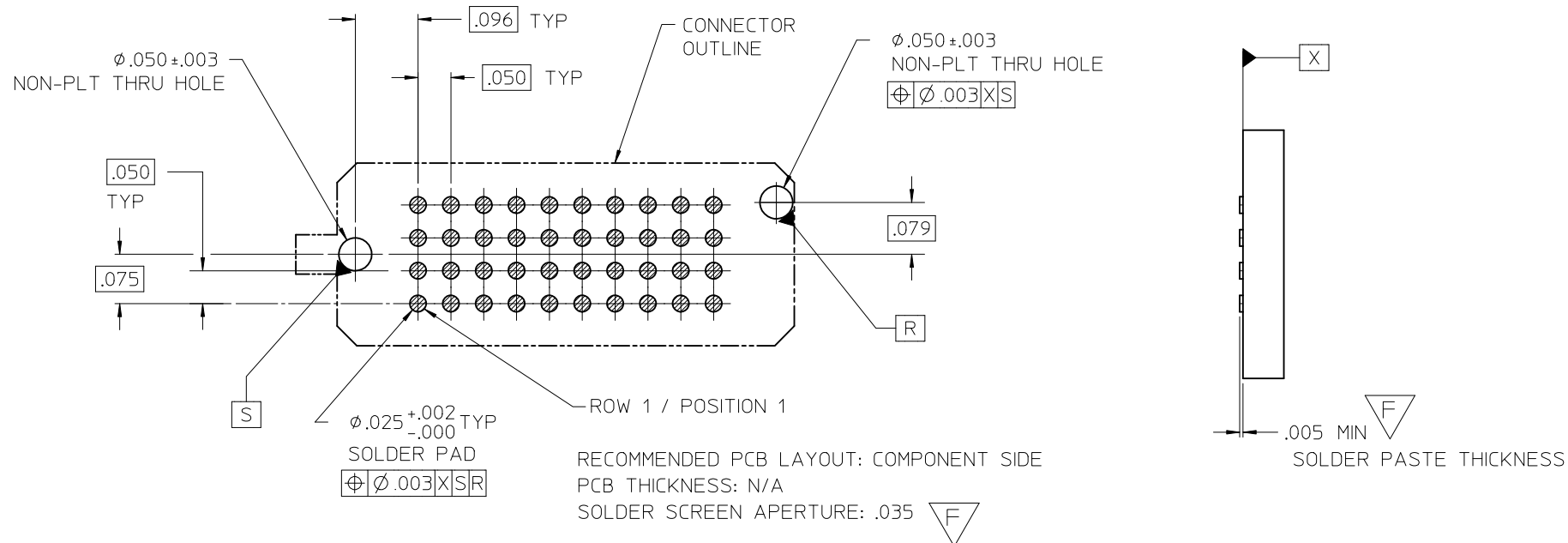


DIM P
REF ONLY
MATED STACK
HEIGHT
(MILLIMETERS)



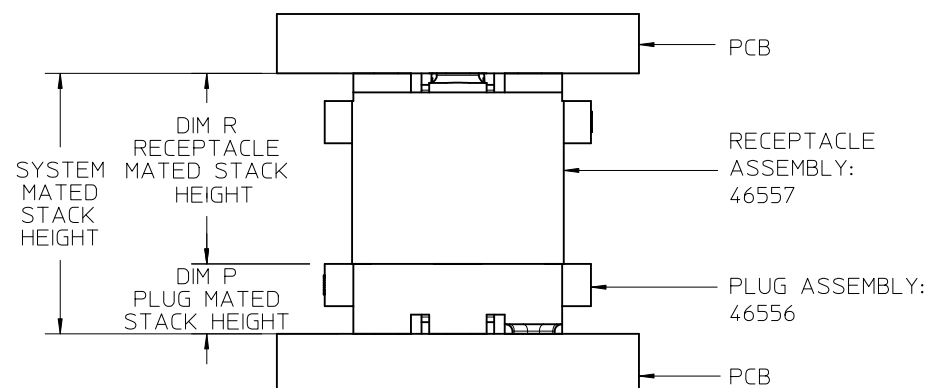
POSITIONS	DIM G	
10	.696	.006
15	.946	.006
20	1.196	.006
25	1.446	.006
30	1.696	.006
35	1.946	.006
40	2.196	.006
45	2.446	.009
50	2.696	.009

UPDATED NOTE 2 EC NO: UCP2010-2270 DRWN: TREGORI 2010/03/05 CH'KD: JCOMERC I 2007/05/17 APPR: JCOMERC I 2010/03/05		DESCRIPTION REV	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE INCH ONLY		SCALE 4:1	DESIGN UNITS INCH	THIRD ANGLE PROJECTION			
				mm	INCH	DRAWN BY TREGORI	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					
			2 PLACES	± ---	± ---	MATERIAL NO. SEE CHART		DOCUMENT NO. SD-46556-001				
			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									
			SIZE A									



		DIM R RECEPTACLE STACK HEIGHT					
		MM	5.0	6.0	6.5	7.5	8.0
DIM P PLUG STACK HEIGHT	2.0	7.0	8.0	8.5	9.5	10.0	11.0
	3.0	8.0	9.0	9.5	10.5	11.0	11.5
	3.5	8.5	9.5	10.0	11.0	11.5	12.0
	2.5	7.5	8.5	9.0	10.0	10.5	11.5
	4.5	9.5	10.5	11.0	12.0	12.5	13.0
	5.0	10.0	11.0	11.5	12.5	13.0	13.5
	7.0	12.0	13.0	13.5	14.5	15.0	15.5

STACK HEIGHTS GIVEN IN MM FOR REF ONLY



REV	DESCRIPTION
—	SEE SHEET 1 EC NO: UCP2010-2270 DRWN: TIGREGORI 2010/03/05 CHK'D: JCOMERCI 2007/05/17 APPR: JCOMERCI 2010/03/05

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
JCOMERC I	2007/05/17
APPROVED BY	DATE
JCOMERC I	2010/03/05
MATERIAL NO.	
SEE CHART	
SIZE ▲	THIS DRAWING CONTAINS INCORPORATED AND

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. 2 OF 4
THIS INFORMATION THAT IS PROPRIETARY TO MOLEX 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				
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				
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: TGREGORI 2010/03/05 CHKD: JCOMERCI 2007/05/17 APPR: JCOMERCI 2010/03/05		DESCRIPTION	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE INCH ONLY		SCALE 1:1	DESIGN UNITS INCH	THIRD ANGLE PROJECTION		
				mm	INCH	DRAWN BY TGREGORI	DATE 2007/05/17	TITLE SEARAY SLIM PLUG ASSEMBLY .050 PITCH			
			4 PLACES	± ---	± ---	CHECKED BY JCOMERCI	DATE 2007/05/17				
			3 PLACES	± ---	± .005	APPROVED BY JCOMERCI	DATE 2010/03/05			MOLEX INCORPORATED	
2 PLACES	± ---	± ---	ANGULAR ±1/2°								
1 PLACE	± ---	± ---									
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE CHART		DOCUMENT NO. SD-46556-001		SHEET NO. 3 OF 4					
tb_frame_A_P_AM_T Rev. E 2006/04/15		5		4		3		2		1	

