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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

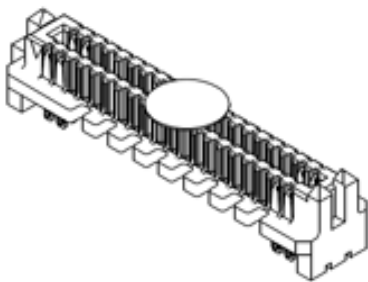
CSA LR19980
UL E29179

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.

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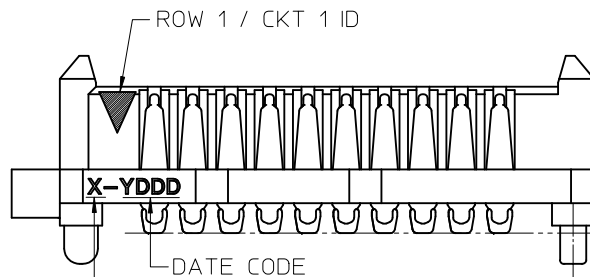
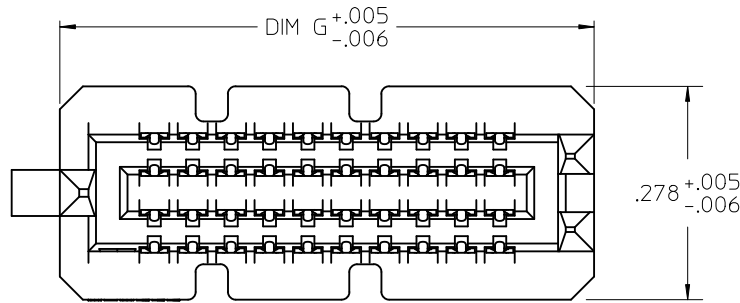
3

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

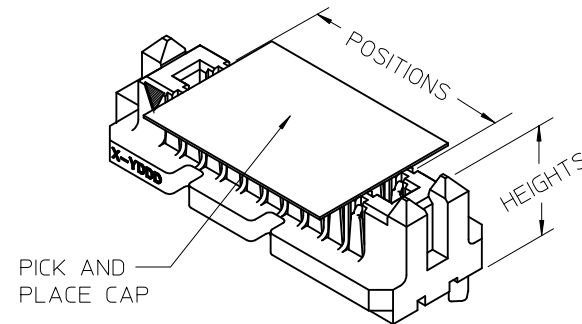
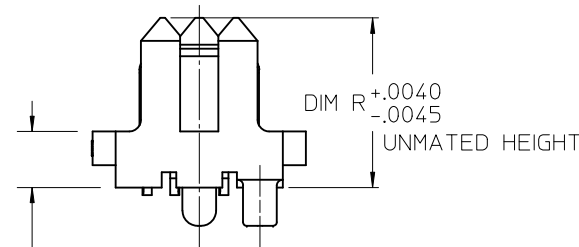
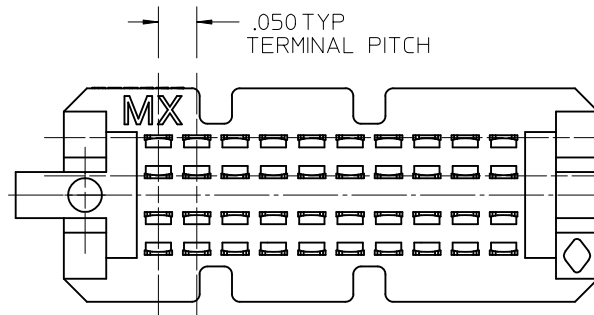


LEAD CODE:
1 = TIN
2 = TIN / LEAD

SEE TABLE

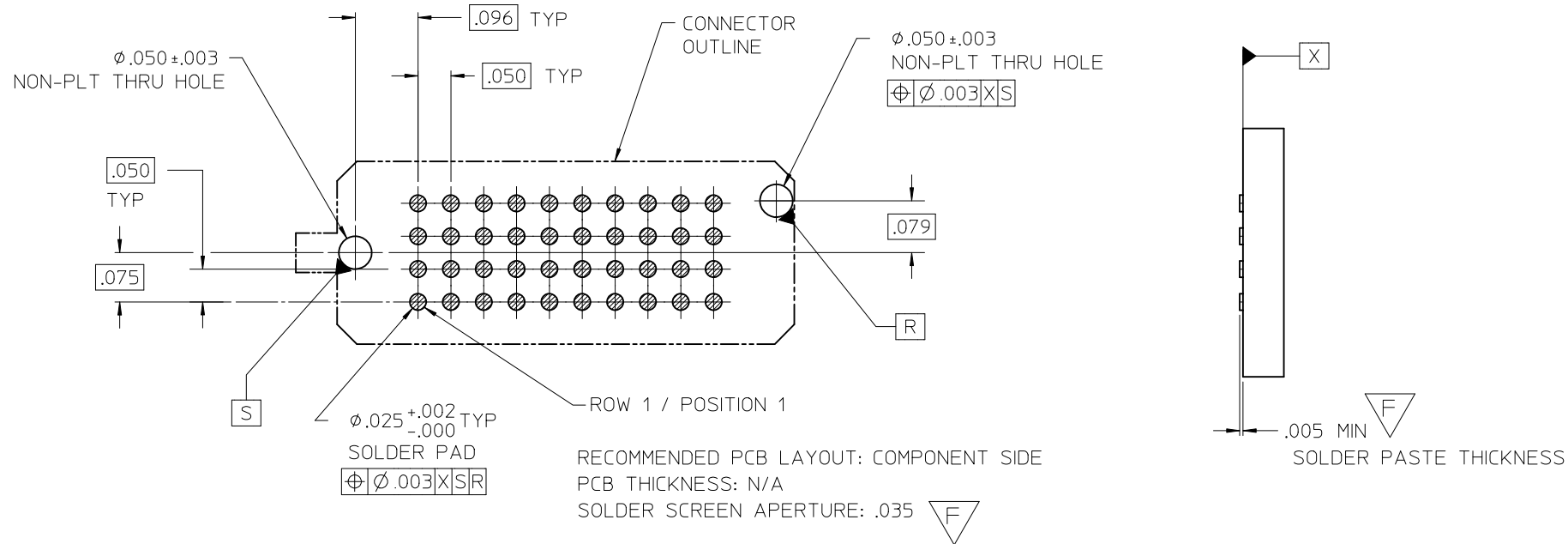
ACROSS ALL
SOLDER
CHARGES

DIM P
REF ONLY
MATED STACK
HEIGHT
(MILLIMETERS)



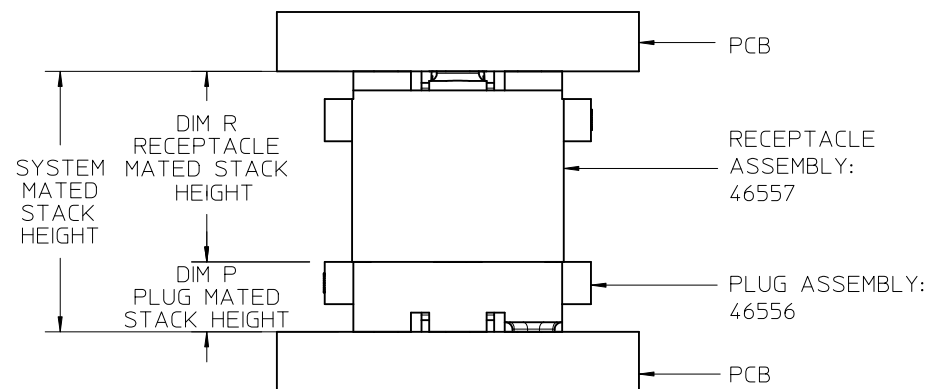
POSITIONS	DIM G	
10	.696	.006
15	.946	.006
20	1.196	.006
25	1.446	.006
30	1.696	.006
35	1.946	.006
40	2.196	.006
45	2.446	.009
50	2.696	.009

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	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		SHEET NO. 1 OF 4	
			1 PLACE	± ---	± ---						
			ANGULAR ±1/2°		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS						
REV	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION										



		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	
	3.0	8.0	9.0	9.5	10.5	11.0	
	3.5	8.5	9.5	10.0	11.0	11.5	
	2.5	7.5	8.5	9.0	10.0	10.5	
	4.5	9.5	10.5	11.0	12.0	12.5	
	5.0	10.0	11.0	11.5	12.5	13.0	
	7.0	12.0	13.0	13.5	14.5	15.0	

STACK HEIGHTS GIVEN IN MM FOR REF ONLY



REV	DESCRIPTION
1	SEE SHEET 1 EC NO: UCP2010-2270 DRWN: TREGORI 2010/03/05 CHKD: JCOMERC 2007/05/17 APPR: JCOMERC 2010/03/05

GENERAL TOLERANCES (UNLESS SPECIFIED)		
	mm	INCH
4 PLACES	± .005	± .0002
3 PLACES	± .005	± .0005
2 PLACES	± .005	± .001
1 PLACE	± .005	± .002
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	2007/05/17
APPROVED BY	DATE
JCOMERC	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. 2 OF 4

AINS INFORMATION THAT IS PROPRIETARY TO MOLEX
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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	46556-1147	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				
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		
					DRAWN BY DATE		TITLE SEARAY SLIM PLUG ASSEMBLY .050 PITCH				
					TGREGOR I 2007/05/17						
			4 PLACES ± --- ± ---		CHECKED BY DATE						
			3 PLACES ± --- ± .005		JCOMERC I 2007/05/17						
			2 PLACES ± --- ± ---		APPROVED BY DATE						
1 PLACE ± --- ± ---		JCOMERC I 2010/03/05		MOLEX MOLEX INCORPORATED		DOCUMENT NO.		SHEET NO.			
			ANGULAR ±1/2°		MATERIAL NO.		SD-46556-001				
			DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE CHART		4 OF 4				
SIZE A		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION									
tb_frame_A_P_AM_T Rev. E 2006/04/15		5		4		3		2		1	

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