# molex

Part Number: 465572145

**Product Description :** SEARAY Slim Receptacle, 80 Circuits, 5.00mm Unmated Height, 4 Rows,

with Pegs, Solder Charge Lead-Free

Series Number: 46557

**Status:** Active

**Product Category:** Board-to-Board

Connectors



#### **Documents & Resources**

#### **Drawings**

<u>Drawing 465572145\_sd.pdf</u> Packaging Design Drawing PK-45971-002-001.pdf

### 3D Models and Design Files

3D Model 465572145\_stp.zip
Electrical Model Document EE-46556-0085-001.pdf
Electrical Model Document EE-45970-010-010.pdf
S-Parameter Model SP-45970-010-010.zip
S-Parameter Model SP-46556-0085-001.zip
Symbol Footprint Data SYM-46557-2145-001.zip

#### **Specifications**

Application Specification AS-45970-002-001.pdf
Application Specification AS-45970-990-001.pdf
Application Specification AS-45970-001-001.pdf
Product Specification PS-45970-001-001.pdf
Product Specification TS-45970-001-001.pdf
Test Summary TS-45970-002-001.pdf

## **Product Environment Compliance**

### Compliance

GADSL/IMDS	Not Relevant
China RoHS	<b>©</b>
EU ELV	Not Relevant
Low-Halogen Status	Low-Halogen per IEC 61249-2-21
REACH SVHC	Not Contained per D(2023)3788-DC (14 Jun 2023)
EU RoHS	Compliant per EU 2015/863

## Multiple Part Product Compliance Statements

- Eu RoHS
- REACH SVHC
- Low-Halogen

## Multiple Part Industry Compliance Documents

- IPC 1752A Class C
- IPC 1752A Class D
- Molex Product Compliance Declaration
- IEC-62474
- chemSHERPA (xml)

## EU RoHS Certificate of Compliance

## **Part Details**

#### General

Status	Active
Category	Board-to-Board Connectors
Series	46557
Description	SEARAY Slim Receptacle, 80 Circuits, 5.00mm Unmated Height, 4 Rows, with Pegs, Solder Charge Lead-Free
Application	Board-to-Board, Signal
Component Type	PCB Receptacle
Product Family	SEARAY and SEARAY Slim Mezzanine Family
Product Name	SEARAY
UPC	800756911830

## Agency

CSA	LR19980
UL	E29179

#### **Electrical**

Current - Maximum per Contact	2.7A
Grounding to PCB	No
Voltage - Maximum	240V AC

# Physical

Circuits (Loaded) Circuits (maximum)  Color - Resin Black  Durability (mating cycles max)  Flammability  Glow-Wire Capable No Guide to Mating Part No Keying to Mating Part Lock to Mating Part Lock to Mating Part Amaterial - Metal Copper Alloy Material - Plating Mating Material - Plating Termination Material - Resin High Temperature Thermoplastic Net Weight 1.069/g Number of Rows A Orientation Vertical Packaging Type Embossed Tape on Reel PCB Locator Yes PCB Retention Yes PCB Thickness - Recommended Pitch - Mating Interface Plating min - Mating Plating min - Mating Plating min - Termination Polarized to Mating Part Yes Robotic Placement Pitch - Resin Pick and Place Cap Stackable No Temperature Range - Operating T-55° to +125°C Termination Interface Surface Surface Mount		
Color - Resin Black Durability (mating cycles max) 100  Flammability 94V-0  Glow-Wire Capable No  Guide to Mating Part No  Keying to Mating Part Yes  Lock to Mating Part No  Material - Metal Copper Alloy  Material - Plating Mating Gold  Material - Plating Termination Tin  Material - Resin High Temperature Thermoplastic  Net Weight 1.069/g  Number of Rows 4  Orientation Vertical  Packaging Type Embossed Tape on Reel  PCB Locator Yes  PCB Retention Yes  PCB Thickness - Recommended 2.18mm  Pitch - Mating Interface 1.27mm  Pitch - Termination Interface 1.27mm  Plating min - Mating 0.762µm  Plating min - Termination 2.540µm  Polarized to Mating Part Yes  Robotic Placement Pick and Place Cap  Stackable No  Temperature Range - Operating -55° to +125°C  Termination Interface Style Surface Mount	Circuits (Loaded)	80
Durability (mating cycles max)  Flammability  Glow-Wire Capable  No  Guide to Mating Part  Keying to Mating Part  Lock to Mating Part  Material - Metal  Material - Plating Mating  Material - Plating Termination  Material - Resin  High Temperature Thermoplastic  Net Weight  Norientation  Packaging Type  PCB Locator  PCB Retention  PCB Retention  Pitch - Mating Interface  Plating min - Mating  Plating min - Termination  Polarized to Mating Part  Polarized to PCB  Robotic Placement  Pitch - Temperature Range - Operating  Termination Interface Style  Surface Mount	Circuits (maximum)	80
Flammability 94V-0 Glow-Wire Capable No Guide to Mating Part No Keying to Mating Part Yes Lock to Mating Part No Material - Metal Copper Alloy Material - Plating Mating Gold Material - Plating Termination Tin Material - Resin High Temperature Thermoplastic Net Weight 1.069/g Number of Rows 4 Orientation Vertical Packaging Type Embossed Tape on Reel PCB Locator Yes PCB Retention Yes PCB Thickness - Recommended 2.18mm Pitch - Mating Interface 1.27mm Pitch - Termination Interface 1.27mm Plating min - Mating 0.762µm Plating min - Termination 2.540µm Polarized to Mating Part Yes Robotic Placement Pick and Place Cap Stackable No Temperature Range - Operating -55° to +125°C Termination Interface Style Surface Mount	Color - Resin	Black
Glow-Wire Capable Guide to Mating Part Keying to Mating Part Lock to Mating Part No Material - Metal Material - Plating Mating Material - Plating Termination Material - Resin High Temperature Thermoplastic Net Weight Number of Rows Orientation Packaging Type Embossed Tape on Reel PCB Locator PCB Retention PCB Thickness - Recommended Pitch - Mating Interface Pitch - Termination Interface Plating min - Mating Plating min - Termination Polarized to PCB Robotic Placement Pick and Place Cap Stackable Termination Interface Style Surface Mount	Durability (mating cycles max)	100
Guide to Mating Part  Keying to Mating Part  Lock to Mating Part  No  Material - Metal  Material - Plating Mating  Material - Plating Termination  Material - Resin  High Temperature Thermoplastic  Net Weight  1.069/g  Number of Rows  4  Orientation  Packaging Type  Embossed Tape on Reel  PCB Locator  Yes  PCB Retention  Pitch - Mating Interface  Pitch - Termination Interface  Plating min - Mating  Plating min - Termination  Polarized to Mating Part  Polarized to PCB  Robotic Placement  Stackable  Temperature Range - Operating  Tin  No  Copper Alloy  High Temperaller  Robotic Placement  Plating Termination  Tin  High Temperature Thermoplastic  Temperature Range - Operating  Tess  Tess  Tess  Tess  Polarized Mating Part  Pick and Place Cap  Stackable  No  Temperature Range - Operating  Termination Interface Style  Surface Mount	Flammability	94V-0
Keying to Mating Part Lock to Mating Part No Material - Metal Copper Alloy Material - Plating Mating Material - Plating Termination Material - Resin High Temperature Thermoplastic Net Weight 1.069/g Number of Rows 4 Orientation Vertical Packaging Type Embossed Tape on Reel PCB Locator Yes PCB Retention Yes PCB Thickness - Recommended Pitch - Mating Interface Plating min - Mating Plating min - Termination Polarized to PCB Robotic Placement Stackable Temperature Range - Operating Sunday Purple Copper Alloy No Temperature Range - Operating Polarized Mount	Glow-Wire Capable	No
Lock to Mating Part  Material - Metal  Copper Alloy  Material - Plating Mating  Gold  Material - Plating Termination  Material - Resin  High Temperature Thermoplastic  Net Weight  1.069/g  Number of Rows  4  Orientation  Vertical  Packaging Type  Embossed Tape on Reel  PCB Locator  Yes  PCB Retention  Pitch - Mating Interface  Plating min - Mating  Plating min - Termination  Polarized to Mating Part  Polarized to PCB  Robotic Placement  Stackable  Temperature Range - Operating  Tin  High Temperature Thermoplastic  Tin  Copper Alloy  And Alloy  Fold  One  Temperature Range - Operating  Termination Interface Style  Surface Mount	Guide to Mating Part	No
Material - Metal Gold  Material - Plating Mating  Material - Plating Termination  Material - Resin High Temperature Thermoplastic  Net Weight 1.069/g  Number of Rows 4  Orientation Vertical  Packaging Type Embossed Tape on Reel  PCB Locator Yes  PCB Retention Yes  PCB Thickness - Recommended 2.18mm  Pitch - Mating Interface 1.27mm  Plating min - Mating 0.762µm  Plating min - Termination Polarized to Mating Part Yes  Polarized to PCB Yes  Robotic Placement Pick and Place Cap  Stackable No  Temperature Range - Operating -55° to +125°C  Termination Interface Style Surface Mount	Keying to Mating Part	Yes
Material - Plating Mating  Material - Plating Termination  Material - Resin  High Temperature Thermoplastic  Net Weight  1.069/g  Number of Rows  4  Orientation  Vertical  Packaging Type  Embossed Tape on Reel  PCB Locator  Yes  PCB Retention  Pitch - Mating Interface  Pitch - Termination Interface  Plating min - Mating  Plating min - Termination  Polarized to Mating Part  Polarized to PCB  Robotic Placement  Stackable  Termination Interface Style  Permination Interface Style  Surface Mount	Lock to Mating Part	No
Material - Plating TerminationTinMaterial - ResinHigh Temperature ThermoplasticNet Weight1.069/gNumber of Rows4OrientationVerticalPackaging TypeEmbossed Tape on ReelPCB LocatorYesPCB RetentionYesPCB Thickness - Recommended2.18mmPitch - Mating Interface1.27mmPitch - Termination Interface1.27mmPlating min - Mating0.762μmPlating min - Termination2.540μmPolarized to Mating PartYesPolarized to PCBYesRobotic PlacementPick and Place CapStackableNoTemperature Range - Operating-55° to +125°CTermination Interface StyleSurface Mount	Material - Metal	Copper Alloy
Material - ResinHigh Temperature ThermoplasticNet Weight1.069/gNumber of Rows4OrientationVerticalPackaging TypeEmbossed Tape on ReelPCB LocatorYesPCB RetentionYesPCB Thickness - Recommended2.18mmPitch - Mating Interface1.27mmPitch - Termination Interface1.27mmPlating min - Mating0.762μmPlating min - Termination2.540μmPolarized to Mating PartYesPolarized to PCBYesRobotic PlacementPick and Place CapStackableNoTemperature Range - Operating-55° to +125°CTermination Interface StyleSurface Mount	Material - Plating Mating	Gold
Net Weight  Number of Rows  Orientation  Packaging Type  Embossed Tape on Reel  PCB Locator  PCB Retention  PCB Thickness - Recommended  Pitch - Mating Interface  Plating min - Mating  Plating min - Termination  Polarized to Mating Part  Polarized to PCB  Robotic Placement  Stackable  Temperature Range - Operating  No  Vertical  Embossed Tape on Reel  Yes  2.18mm  1.27mm  1.27mm  0.762µm  0.762µm  Yes  Polarized to Mating Part  Yes  Polarized to PCB  No  Temperature Range - Operating  Termination Interface Style  Surface Mount	Material - Plating Termination	Tin
Number of Rows Orientation Vertical Packaging Type Embossed Tape on Reel PCB Locator Yes PCB Retention Yes PCB Thickness - Recommended Pitch - Mating Interface Pitch - Termination Interface Plating min - Mating Plating min - Termination Polarized to Mating Part Polarized to PCB Robotic Placement Stackable Temperature Range - Operating Termination Interface Style Packaging Type Embossed Tape on Reel Embossed Tape on Reel  2.18mm 1.27mm 1.27	Material - Resin	High Temperature Thermoplastic
OrientationVerticalPackaging TypeEmbossed Tape on ReelPCB LocatorYesPCB RetentionYesPCB Thickness - Recommended2.18mmPitch - Mating Interface1.27mmPitch - Termination Interface1.27mmPlating min - Mating0.762μmPlating min - Termination2.540μmPolarized to Mating PartYesPolarized to PCBYesRobotic PlacementPick and Place CapStackableNoTemperature Range - Operating-55° to +125°CTermination Interface StyleSurface Mount	Net Weight	1.069/g
Packaging Type Embossed Tape on Reel PCB Locator Yes  PCB Retention Yes  PCB Thickness - Recommended 2.18mm  Pitch - Mating Interface 1.27mm  Pitch - Termination Interface 1.27mm  Plating min - Mating 0.762µm  Plating min - Termination 2.540µm  Polarized to Mating Part Yes  Polarized to PCB Yes  Robotic Placement Pick and Place Cap  Stackable No  Temperature Range - Operating -55° to +125°C  Termination Interface Style Surface Mount	Number of Rows	4
PCB Locator PCB Retention Yes PCB Thickness - Recommended Pitch - Mating Interface Pitch - Termination Interface Plating min - Mating Plating min - Termination Polarized to Mating Part Polarized to PCB Robotic Placement Stackable Temperature Range - Operating PCB Thickness - Recommended P. 1.27mm Polarized to Mating Part Yes Polarized to PCB Yes Robotic Placement Pick and Place Cap Stackable No Temperature Range - Operating P. 55° to +125°C Surface Mount	Orientation	Vertical
PCB Retention Yes  PCB Thickness - Recommended 2.18mm  Pitch - Mating Interface 1.27mm  Pitch - Termination Interface 1.27mm  Plating min - Mating Plating min - Termination 2.540µm  Polarized to Mating Part Yes  Polarized to PCB Yes  Robotic Placement Pick and Place Cap  Stackable No  Temperature Range - Operating Termination Interface Style Surface Mount	Packaging Type	Embossed Tape on Reel
PCB Thickness - Recommended  Pitch - Mating Interface  Pitch - Termination Interface  Plating min - Mating  Plating min - Termination  Polarized to Mating Part  Polarized to PCB  Robotic Placement  Stackable  Temperature Range - Operating  Pitch - Mating Interface  1.27mm  0.762µm  2.540µm  Yes  Yes  Polarized to PCB  Yes  Robotic Placement  Pick and Place Cap  No  Temperature Range - Operating  -55° to +125°C  Surface Mount	PCB Locator	Yes
Pitch - Mating Interface  Pitch - Termination Interface  1.27mm  Plating min - Mating  Plating min - Termination  Polarized to Mating Part  Polarized to PCB  Robotic Placement  Stackable  Temperature Range - Operating  Termination Interface Style  1.27mm  1.27mm	PCB Retention	Yes
Pitch - Termination Interface  Plating min - Mating  Plating min - Termination  Polarized to Mating Part  Polarized to PCB  Robotic Placement  Stackable  Temperature Range - Operating  Termination Interface Style  1.27mm  0.762µm  Yes  Yes  Polarized to Mating Part  Yes  Pick and Place Cap  No  Temperature Range - Operating  -55° to +125°C  Surface Mount	PCB Thickness - Recommended	2.18mm
Plating min - Mating  Plating min - Termination  Polarized to Mating Part  Polarized to PCB  Polarized to PCB  Robotic Placement  Stackable  Temperature Range - Operating  Termination Interface Style  Plating min - Mating  2.540µm  Yes  Yes  Pick and Place Cap  No  Stackable  Surface Mount	Pitch - Mating Interface	1.27mm
Plating min - Termination  Polarized to Mating Part  Polarized to PCB  Polarized to PCB  Robotic Placement  Stackable  Temperature Range - Operating  Termination Interface Style  Pick and Place Cap  No  -55° to +125°C  Surface Mount	Pitch - Termination Interface	1.27mm
Polarized to Mating Part  Polarized to PCB  Robotic Placement  Stackable  Temperature Range - Operating  Termination Interface Style  Pick and Place Cap  No  -55° to +125°C  Surface Mount	Plating min - Mating	0.762µm
Polarized to PCB  Robotic Placement  Stackable  Temperature Range - Operating  Termination Interface Style  Pick and Place Cap  No  -55° to +125°C  Surface Mount	Plating min - Termination	2.540µm
Robotic Placement  Stackable  No  Temperature Range - Operating  Termination Interface Style  Pick and Place Cap  No  Stackable  Surface Mount	Polarized to Mating Part	Yes
Stackable No  Temperature Range - Operating -55° to +125°C  Termination Interface Style Surface Mount	Polarized to PCB	Yes
Temperature Range - Operating -55° to +125°C  Termination Interface Style Surface Mount	Robotic Placement	Pick and Place Cap
Termination Interface Style Surface Mount	Stackable	No
	Temperature Range - Operating	-55° to +125°C
Unmated Height 5.00mm	Termination Interface Style	Surface Mount
	Unmated Height	5.00mm

Max-Duration	20
Lead-Free Process Capability	REFLOW
Max-Cycle	3
Max-Temp	260

## Mates With / Use With

# Mates with Part(s)

Description	Part Number
Searay Slim Plugs	<u>46556</u>

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