

Free Height Receptacle

Conn: Board-Board, Vertical,

64, 1mm



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Free Height PCB mount receptacle assembly with 64 positions, intended for board to board parallel stacking and having a centerline pitch of 1mm with vertical PCB mount orientation. These are surface mounted and used for signal circuit application.



PCB Connector Assembly Type: **PCB Mount Receptacle**

PCB Mount Orientation: **Vertical**

Connector System: **Board-to-Board**

Number of Positions: **64**

Contact Mating Area Plating Material: **Gold**

Features

Product Type Features

PCB Connector Assembly Type	PCB Mount Receptacle
Connector System	Board-to-Board
Sealable	No
Connector & Contact Terminates To	Printed Circuit Board

Configuration Features

Number of Columns	32
Stackable	Yes
PCB Mount Orientation	Vertical
Number of Positions	64
Board-to-Board Configuration	Parallel

Electrical Characteristics

Insulation Resistance (MΩ)	2
Operating Voltage (VAC)	250

Signal Characteristics

Differential Signaling	Yes
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Body Features

Primary Product Color	Black
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Contact Features

Contact Mating Area Length (mm)	2
PCB Contact Termination Area Plating Material Thickness (µm)	3.81, 3.81 - 6.35
PCB Contact Termination Area Plating Material Thickness (µin)	150, 150 - 250
Contact Layout	Inline
Mating Tab Width (mm)	.63
Mating Tab Width (in)	.024
Mating Tab Thickness (mm)	.2
Mating Tab Thickness (in)	.008
Contact Underplating Material Thickness (µm)	1.27
Contact Underplating Material Thickness (µin)	50
PCB Contact Termination Area Plating Material Finish	Matte
Contact Shape & Form	Single Beam, Square
PCB Contact Termination Area Plating Material	Tin, Tin-Lead
Contact Base Material	Phosphor Bronze
Contact Mating Area Plating Material	Gold
Contact Mating Area Plating Material Thickness (µm)	.00076, .76, 1.27
Contact Mating Area Plating Material Thickness (µin)	29.92, 29.9212, 30, 50
Contact Type	Receptacle, Socket, Tab
Contact Current Rating (Max) (A)	.8, 1

Termination Features

Rectangular Termination Post & Tail Thickness (mm)	.2
Rectangular Termination Post & Tail Thickness (in)	.008
Rectangular Termination Post & Tail Width (mm)	.3
Rectangular Termination Post & Tail Width (in)	.011, .012
Termination Method to PCB	Surface Mount

Mechanical Attachment

PCB Mount Alignment Type	Locating Posts
Mating Retention	Without
PCB Mount Retention Type	None
Mating Alignment	With, Without

Mating Alignment Type	None, Polarization
PCB Mount Retention	With, Without
PCB Mount Alignment	With, Without
Connector Mounting Type	Board Mount

Housing Features

Mating Entry Location	Top
Centerline (Pitch) (mm)	.63, 1
Centerline (Pitch) (in)	.039
Housing Material	LCP, Matte, Thermoplastic

Dimensions

Connector Length (mm)	34.22
Connector Length (in)	1.347
Connector Height (mm)	5.37, 7.37, 8.37, 8.4, 10.37
Connector Height (in)	.211, .29, .329, .33, .408
Connector Width (mm)	3.81
Connector Width (in)	150
Stack Height (mm)	8, 9, 10, 11, 12, 13, 14, 15
Stack Height (in)	.394, .433, .472, .512, .591

Usage Conditions

Operating Temperature Range (°C)	-55 - 110
Operating Temperature Range (°F)	-67 - 230

Operation/Application

Assembly Process Feature	Pick and Place Cover
Circuit Application	Signal

Industry Standards

UL Rating	Listed
Compatible With Agency/Standards Products	CSA, UL
Compatible With Approved Standards Products	CSA LR7189, UL E28476
Industry Standard	IEEE 1386
UL Flammability Rating	UL 94V-0

Packaging Features

Packaging Quantity	300, 400, 450, 650
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Packaging Method

Tape & Reel

Reference Number

TE Internal Number

CAT-314-RCB64

SEE PRODUCTS ON NEXT PAGE

Products (1 of 5)



	1FHR,64,30A/P,S,N,S08,09,10	1FHR,64,30A/S,S,C,S14,15	1FHR,64,30A/S,S,N,S14,15	1FHR,64,30A/S,S,N,S08,09,10
TE Part #	120521-1	5146896-1	5120524-1	5120521-1
Centerline (Pitch)	1 mm	1 mm	1 mm	1 mm
Stack Height	8 mm, 9 mm, 10 mm	14 mm, 15 mm	14 mm, 15 mm	8 mm, 9 mm, 10 mm
Contact Mating Area Plating Material Thickness	.76 µm	.00076 µm	.00076 µm	.76 µm
Mating Alignment	Without	Without	Without	Without
Mating Alignment Type	None	None	None	None
PCB Mount Retention	Without	Without	Without	Without
PCB Mount Alignment	With	With	With	With
Sealable	No			No
Contact Type	Socket	Receptacle	Receptacle	Socket
Contact Current Rating (Max)	1 A	.8 A	.8 A	1 A
Circuit Application	Signal			Signal
Housing Material	Matte	Thermoplastic	Thermoplastic	Thermoplastic
Connector Mounting Type				
Operating Temperature Range	-55 - 110 °C	-55 - 110 °C	-55 - 110 °C	-55 - 110 °C
EU RoHS Directive 2011/65 /EU	Not EU RoHS Compliant	EU RoHS Compliant	EU RoHS Compliant	EU RoHS Compliant
EU ELV Directive 2000/53/EC	EU ELV Compliant with Exemptions	EU ELV Compliant	EU ELV Compliant	EU ELV Compliant
Series	Free Height	Free Height	Free Height	Free Height

*EU RoHS Directive 2011/65/EU

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Products (2 of 5)



1FHR,64,30A/S,N,C,S14,15

1FHR,64,50A/S,N,C,S08,09,10

1FHR,64,30A/S,S,C,S08,09,10

1FHR,64,30A/S,N,C,S08,09,10

TE Part #	5120531-1	1-5120528-1	5146893-1	5120528-1
Centerline (Pitch)	1 mm	1 mm	1 mm	1 mm
Stack Height	14 mm, 15 mm	8 mm, 9 mm, 10 mm	8 mm, 9 mm, 10 mm	8 mm, 9 mm, 10 mm
Contact Mating Area Plating Material Thickness	.76 µm	1.27 µm	.76 µm	.76 µm
Mating Alignment	Without	Without	Without	Without
Mating Alignment Type	None	None	None	None
PCB Mount Retention	Without	Without	Without	Without
PCB Mount Alignment	Without	Without	With	Without
Sealable	No	No	No	No
Contact Type	Socket	Socket	Socket	Socket
Contact Current Rating (Max)	1 A	1 A	1 A	1 A
Circuit Application	Signal	Signal	Signal	Signal
Housing Material	Thermoplastic	Thermoplastic	Thermoplastic	Thermoplastic
Connector Mounting Type				
Operating Temperature Range	-55 - 110 °C			
EU RoHS Directive 2011/65/EU	EU RoHS Compliant	EU RoHS Compliant	EU RoHS Compliant	EU RoHS Compliant
EU ELV Directive 2000/53/EC	EU ELV Compliant	EU ELV Compliant	EU ELV Compliant	EU ELV Compliant
Series	Free Height	Free Height	Free Height	Free Height

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Products (3 of 5)



1FHR,64,30A/P,S,N,S14,15 **1FHR,64,30A/P,S,C,S08,09,10** **1FHR,64,30A/S,S,N,S11,12** **1FHR,64,30A/S,S,C,S11,12**

TE Part #	120524-1	146893-1	5120603-1	5146894-1
Centerline (Pitch)	1 mm	1 mm	1 mm	1 mm
Stack Height	14 mm, 15 mm	8 mm, 9 mm, 10 mm	11 mm, 12 mm	11 mm, 12 mm
Contact Mating Area Plating Material Thickness	29.9212 μ in	29.9212 μ in	.00076 μ m	.00076 μ m
Mating Alignment	Without	Without	Without	Without
Mating Alignment Type	None	None	None	None
PCB Mount Retention	Without	Without	Without	Without
PCB Mount Alignment	With	With	With	With
Sealable				
Contact Type	Tab	Tab	Receptacle	Receptacle
Contact Current Rating (Max)	1 A	1 A	.8 A	.8 A
Circuit Application				
Housing Material	Matte	Thermoplastic	Thermoplastic	Thermoplastic
Connector Mounting Type				
Operating Temperature Range	-55 - 110 °C	-55 - 110 °C	-55 - 110 °C	-55 - 110 °C
EU RoHS Directive 2011/65 /EU	Not EU RoHS Compliant	Not EU RoHS Compliant	EU RoHS Compliant	EU RoHS Compliant
EU ELV Directive 2000/53/EC	EU ELV Compliant with Exemptions	EU ELV Compliant with Exemptions	EU ELV Compliant	EU ELV Compliant
Series	Free Height	Free Height	Free Height	Free Height

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Products (4 of 5)



	1FHR,64,30A/S,R,N,S08,09,10	1FHR,64,50A/S,S,N,S08,09,10	1FHR,64,30A/S,N,C,S13	1FHR,64,50A/P,S,N,S08,09,10
TE Part #	2-5120521-1	1-5120521-1	5120530-1	1-120521-1
Centerline (Pitch)	1 mm	1 mm	1 mm	1 mm
Stack Height	8 mm, 9 mm, 10 mm	8 mm, 9 mm, 10 mm	13 mm	8 mm, 9 mm, 10 mm
Contact Mating Area Plating Material Thickness	.76 µm	1.27 µm	.76 µm	.76 µm
Mating Alignment	Without	Without	Without	Without
Mating Alignment Type	None	None	None	None
PCB Mount Retention	Without	Without	Without	Without
PCB Mount Alignment	With	With	Without	With
Sealable	No	No	No	No
Contact Type	Socket	Socket	Socket	Socket
Contact Current Rating (Max)	1 A	1 A	1 A	1 A
Circuit Application	Signal	Signal	Signal	Signal
Housing Material	Thermoplastic	Thermoplastic	Thermoplastic	Matte
Connector Mounting Type				
Operating Temperature Range	-55 - 110 °C	-55 - 110 °C	-55 - 110 °C	-55 - 110 °C
EU RoHS Directive 2011/65 /EU	EU RoHS Compliant	EU RoHS Compliant	EU RoHS Compliant	Not EU RoHS Compliant
EU ELV Directive 2000/53/EC	EU ELV Compliant	EU ELV Compliant	EU ELV Compliant	EU ELV Compliant with Exemptions
Series	Free Height	Free Height	Free Height	Free Height

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Products (5 of 5)



1FHR,64,50A/P,S,C,S08,09,10

1FHR,64,30A/P,S,C,S13

1FHR,64,50A/P,N,C,S11,12

1FHR,64,50A/P,N,C,S14,15

TE Part #	1-146893-1	146895-1	1-120529-1	1-120531-1
Centerline (Pitch)	1 mm	1 mm	1 mm	1 mm
Stack Height	8 mm, 9 mm, 10 mm	13 mm	11 mm, 12 mm	14 mm, 15 mm
Contact Mating Area Plating Material Thickness	1.27 µm	.76 µm	1.27 µm	1.27 µm
Mating Alignment	Without	Without	Without	Without
Mating Alignment Type	None	None	None	None
PCB Mount Retention	Without	Without	Without	Without
PCB Mount Alignment	With	With	Without	Without
Sealable	No	No	No	No
Contact Type	Socket	Socket	Socket	Socket
Contact Current Rating (Max)	1 A	1 A	1 A	1 A
Circuit Application	Signal	Signal	Signal	Signal
Housing Material	Matte	Thermoplastic	Matte	Matte
Connector Mounting Type				
Operating Temperature Range	-55 - 110 °C			
EU RoHS Directive 2011/65 /EU	Not EU RoHS Compliant			
EU ELV Directive 2000/53/EC	EU ELV Compliant with Exemptions			
Series	Free Height	Free Height	Free Height	Free Height

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