



DX07 Series USB Type-C™ Connector

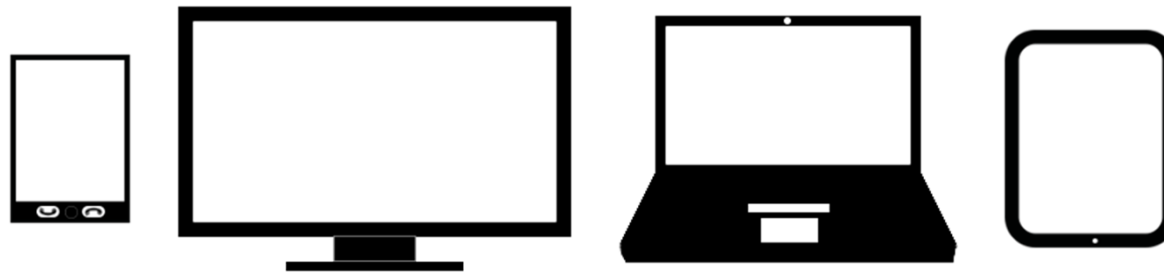
Product Information Module

JAE DX07 Series

USB Type-C™ Connector

Application Examples

- Smartphones
- Tablets
- PCs
- Monitors/TVs
- Digital cameras
- Other consumer devices



DX07 Series Overview

The next-generation USB Type-C™ interface has been defined by the USB-IF^(Note) for connecting current and future consumer and industrial devices such as mobile phones, various PCs, imaging devices, etc. It features a reversible plug that enables insertion and removal in the right side up, or up side down orientation. It also supports USB 3.1 transmission speeds of up to 10Gbps, and a maximum of 5A of power. JAE's new family of Type-C™ connectors, the DX07 Series, includes plugs, receptacles, and harnesses.

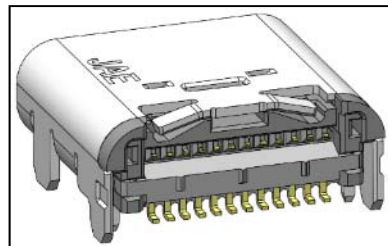


Note - USB Implementers Forum, Inc. is a non-profit corporation founded by the group of companies that developed the Universal Serial Bus specification.

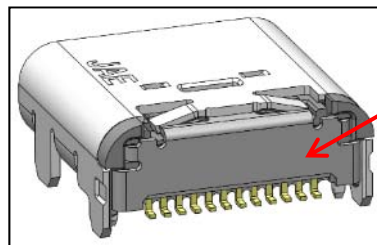
DX07 Series Features

User friendly – Reversible insertion

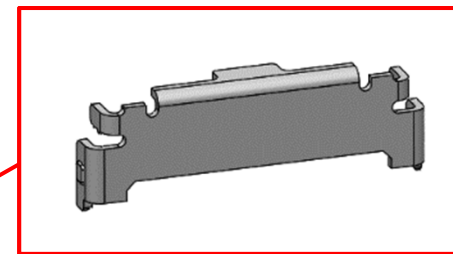
- Compatible with Universal Serial Bus (USB) Type-C™ Cable and Connector Specification Rev 1.2
- Compatible with SuperSpeed Plus USB 3.1 Gen 2 communication (10Gbps)
- Supports a maximum of 5A and 20V of power for charging
 - Compatible with USB Power Delivery
- Reversible plug allows for easy insertion and removal
- Superior EMI / EMC characteristics with multiple ground contact points
- Friction lock included within plug connector
- Rear shell option available for some SMT variants



Without rear shell



With rear shell



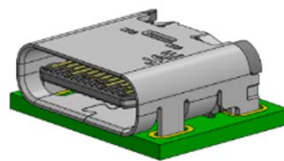
Optional rear shell for extra shielding

General Specifications

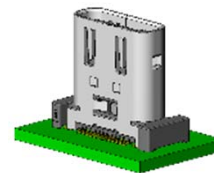
No. of Contacts	24
Rated Current	Terminal No. A1, A4, A9, A12, B1, B4, B5, B9, B12 are DC 1.25A (maximum), Others are DC 0.25A
Rated Voltage	AC 20V r.m.s.
Contact Resistance	40mΩ max. (initial)
Dielectric Withstanding Voltage	AC 100V r.m.s. for 1minute
Insulation Resistance	100MΩ min. (initial)
Operating Temperature Range	-30 Deg. C ~ +80 Deg. C
Mating Durability	10,000 cycles



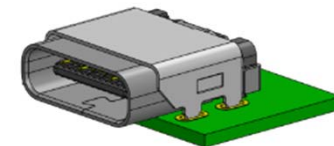
Slim Plug



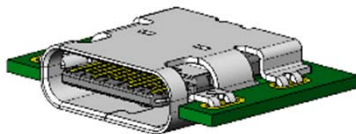
Receptacle
(Dual Row SMT On-Board)



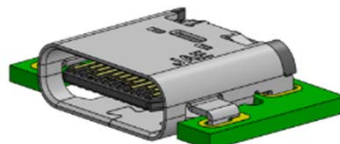
Receptacle
(Dual Row SMT Vertical)



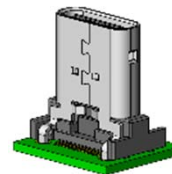
Receptacle
(Hybrid On-Board)



Receptacle
(Dual Row SMT Mid-Mount)



Receptacle
(Dual Row SMT Mid-Mount)



Receptacle
(Dual Row SMT Vertical)



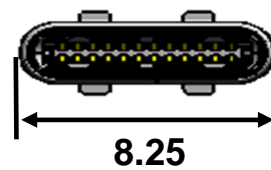
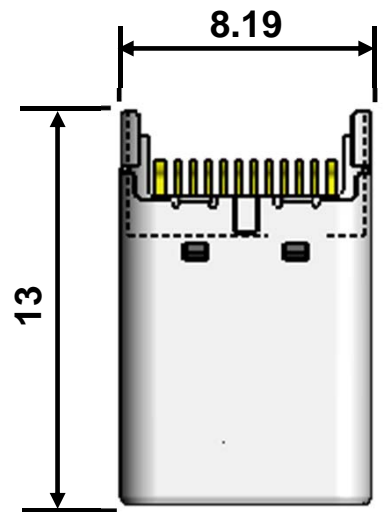
Receptacle
(Hybrid Mid-Mount)

Basic Dimensions

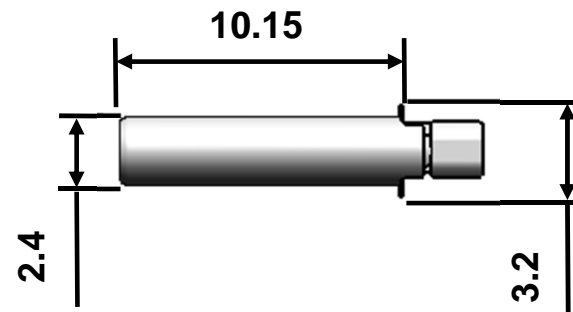
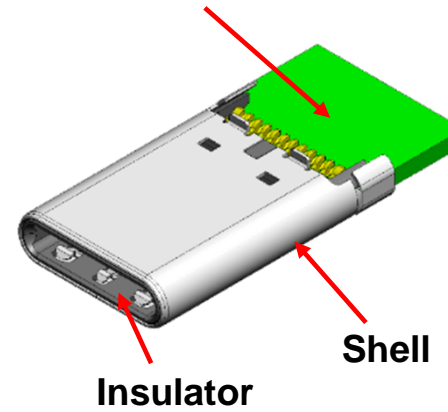
*All units in mm

Slim Plug

p/n: DX07P024AJ1



Paddle card
(not included)

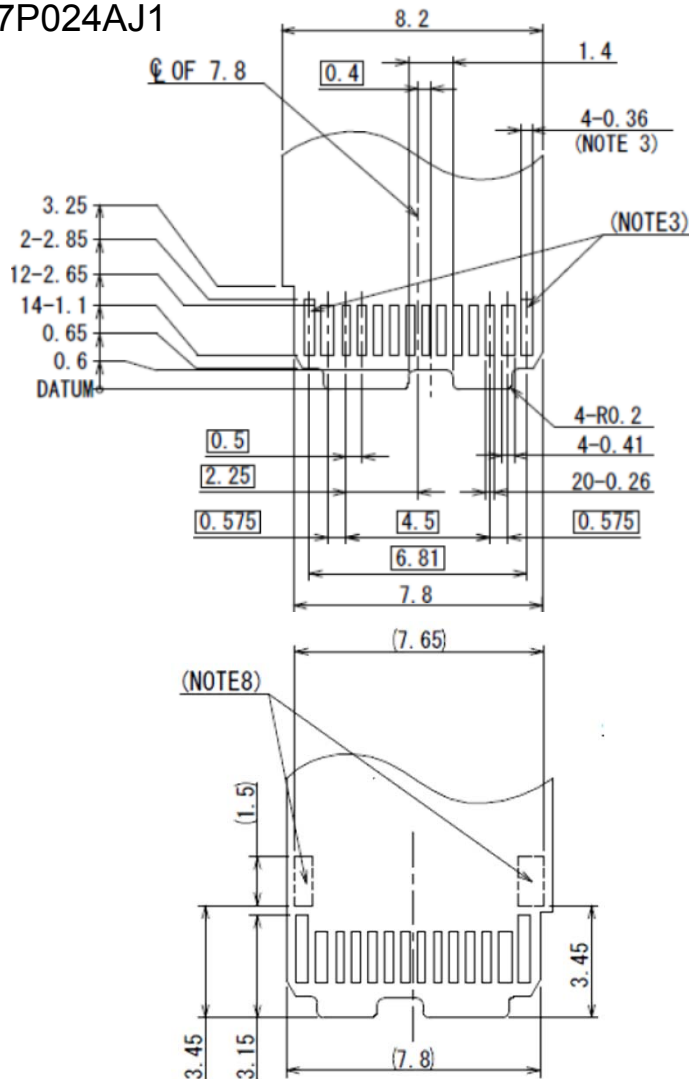


Basic Dimensions (continued)

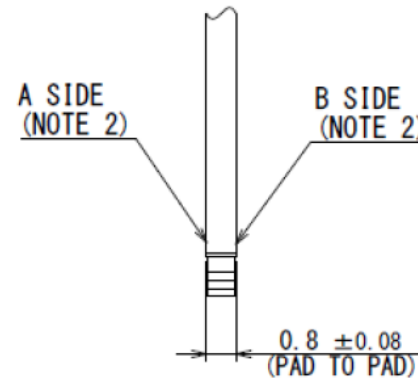
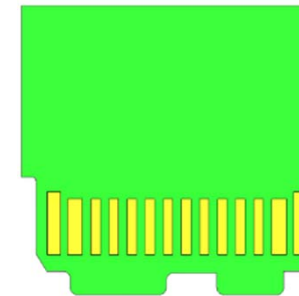
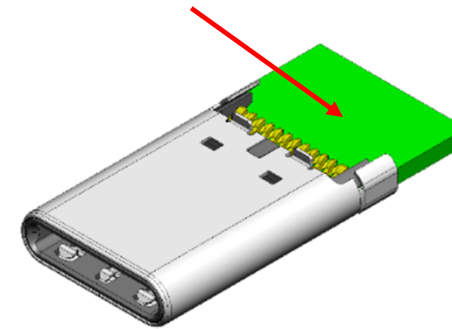
*All units in mm

Slim Plug

p/n: DX07P024AJ1



Paddle card
(not included)

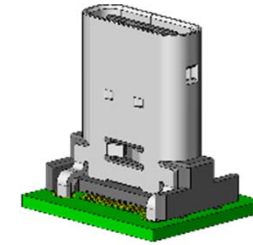


Basic Dimensions

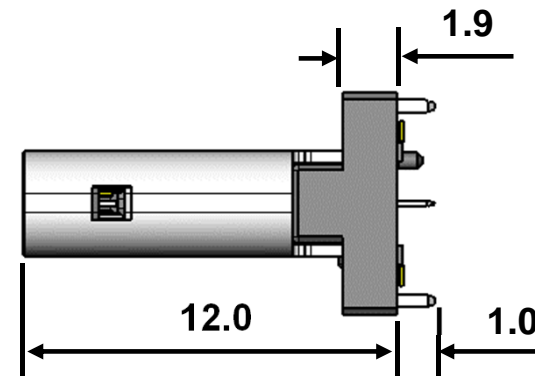
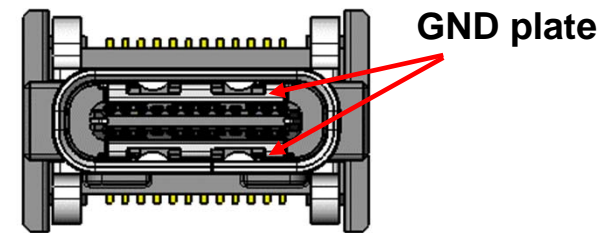
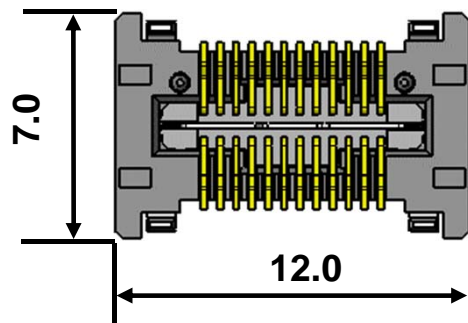
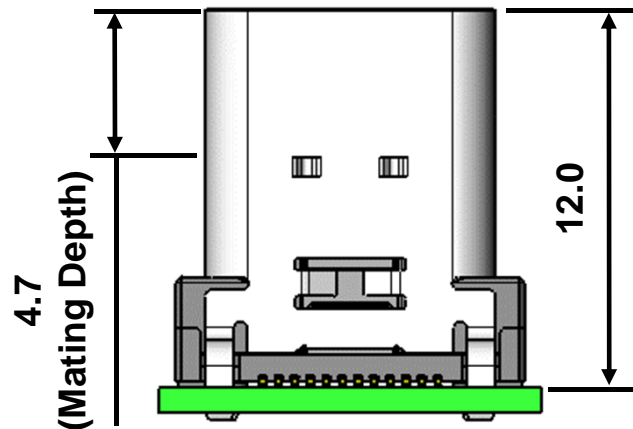
*All units in mm

Receptacle
(Dual Row SMT Vertical Mount)

p/n: DX07S024WJ1



(Dual Row SMT Vertical Mount)

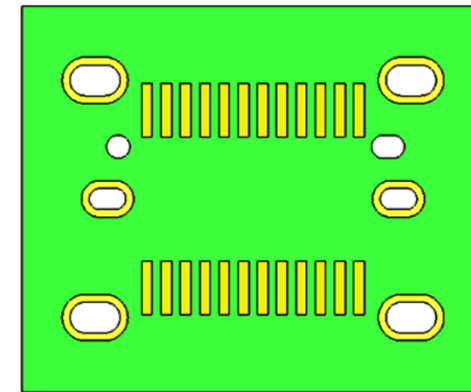
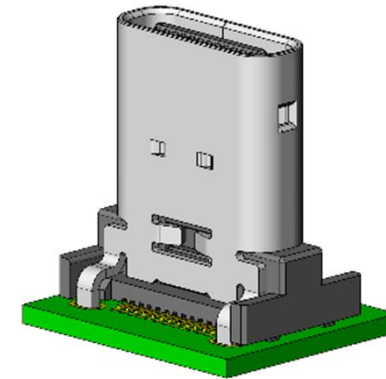
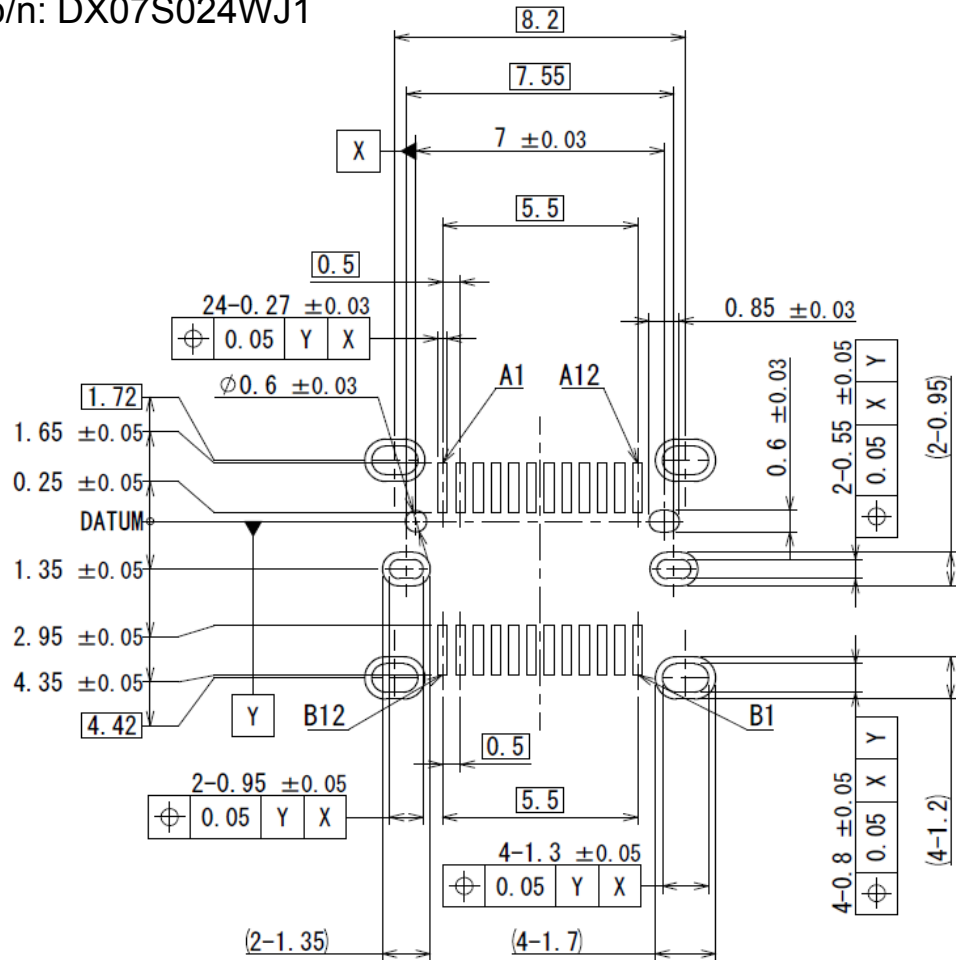


Basic Dimensions (continued)

*All units in mm

Receptacle (Dual Row SMT Vertical Mount)

p/n: DX07S024WJ1



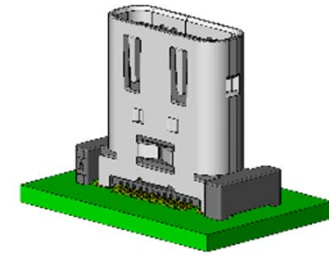
Not compatible with reference footprint on the Type C™ spec.

Basic Dimensions

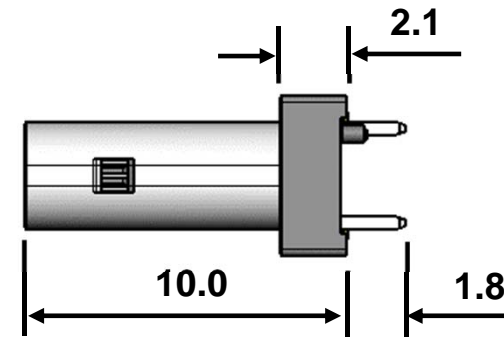
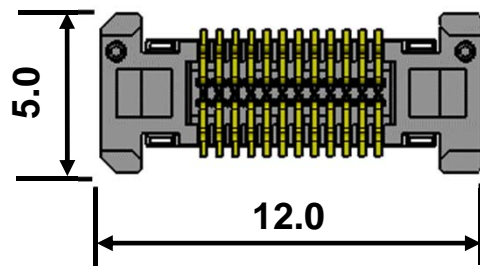
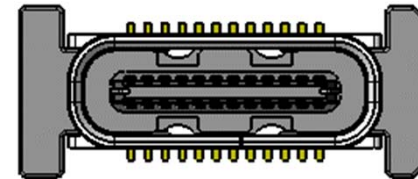
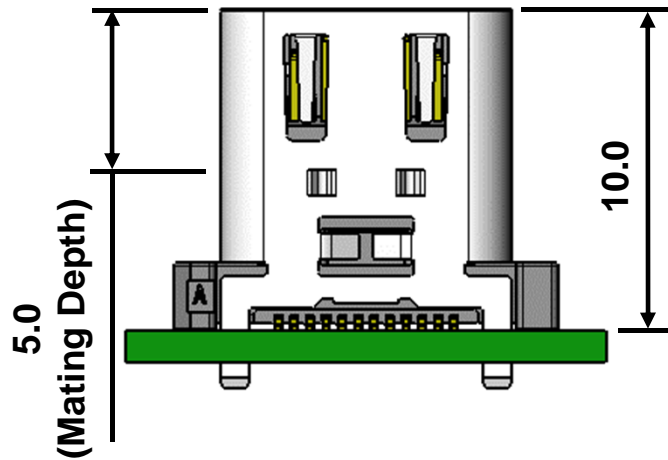
*All units in mm

Receptacle (Dual Row SMT Vertical Mount)

p/n: DX07S024WJ3



(Dual Row SMT Vertical Mount)



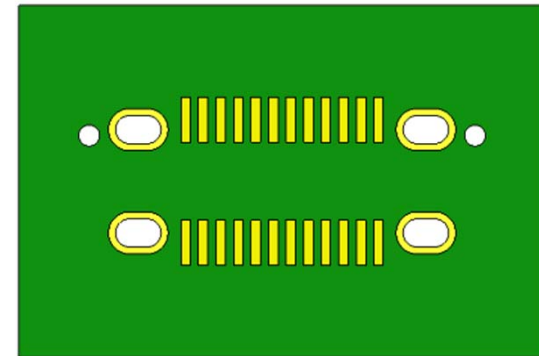
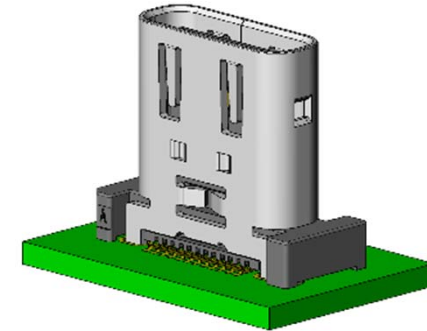
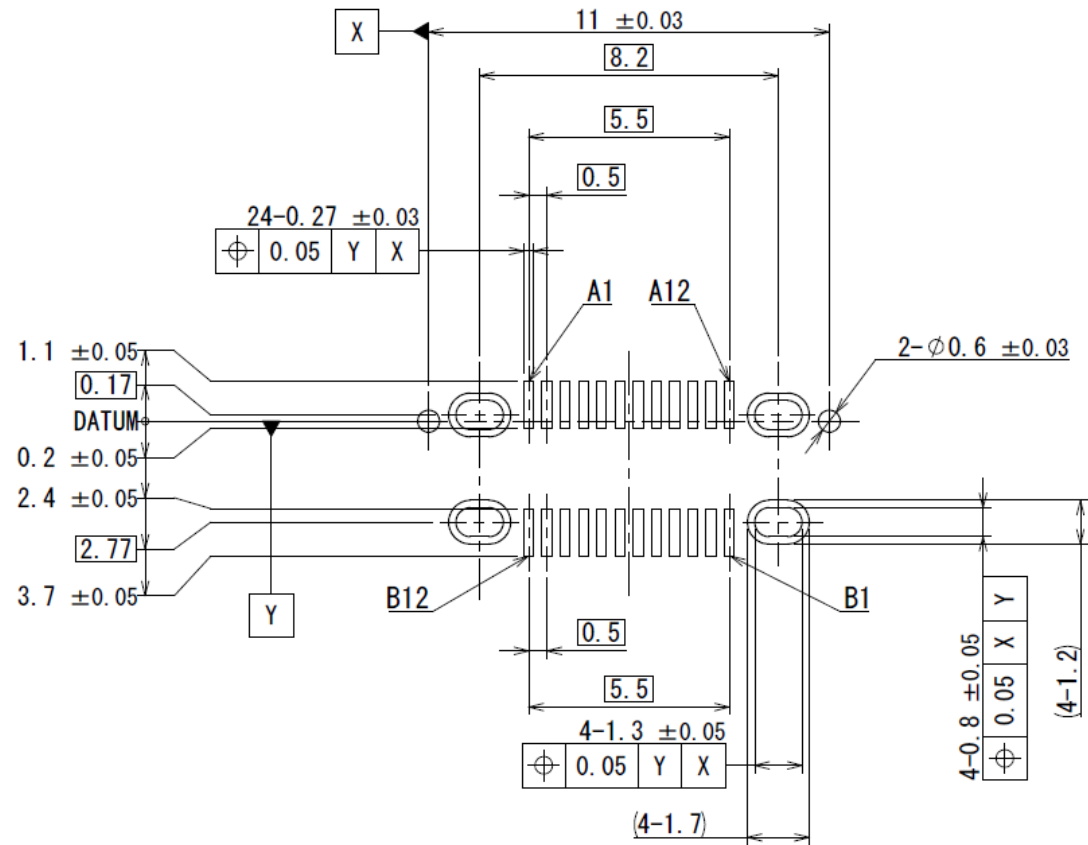
Basic Dimensions (continued)

*All units in mm

Receptacle

(Dual Row SMT Vertical Mount)

p/n: DX07S024WJ3



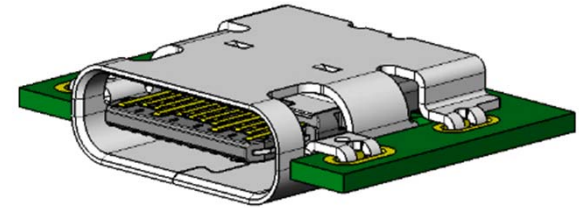
Not compatible with reference footprint on the Type C™ spec.

Basic Dimensions

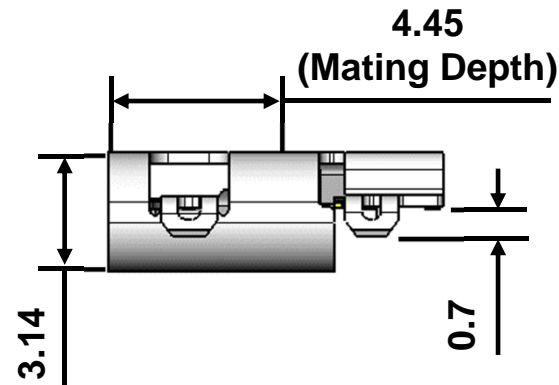
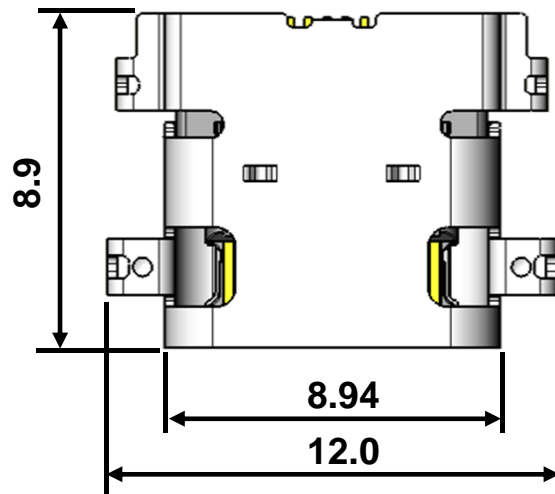
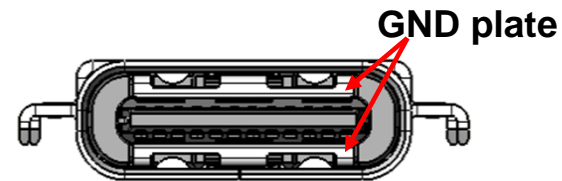
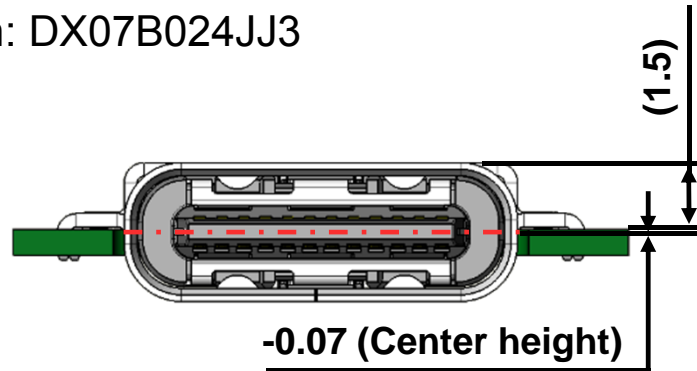
*All units in mm

Receptacle (Dual Row SMT Mid-Mount)

p/n: DX07B024JJ3



(Dual Row SMT Mid-Mount)

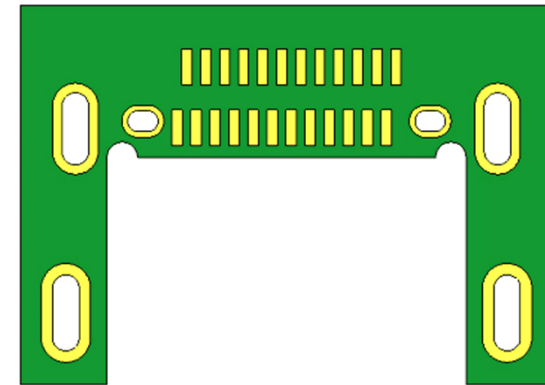
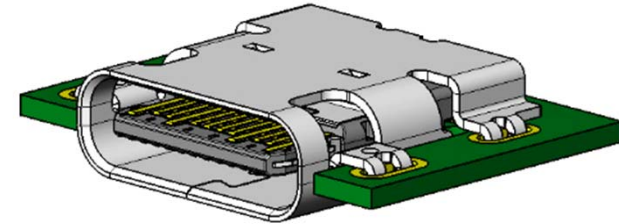
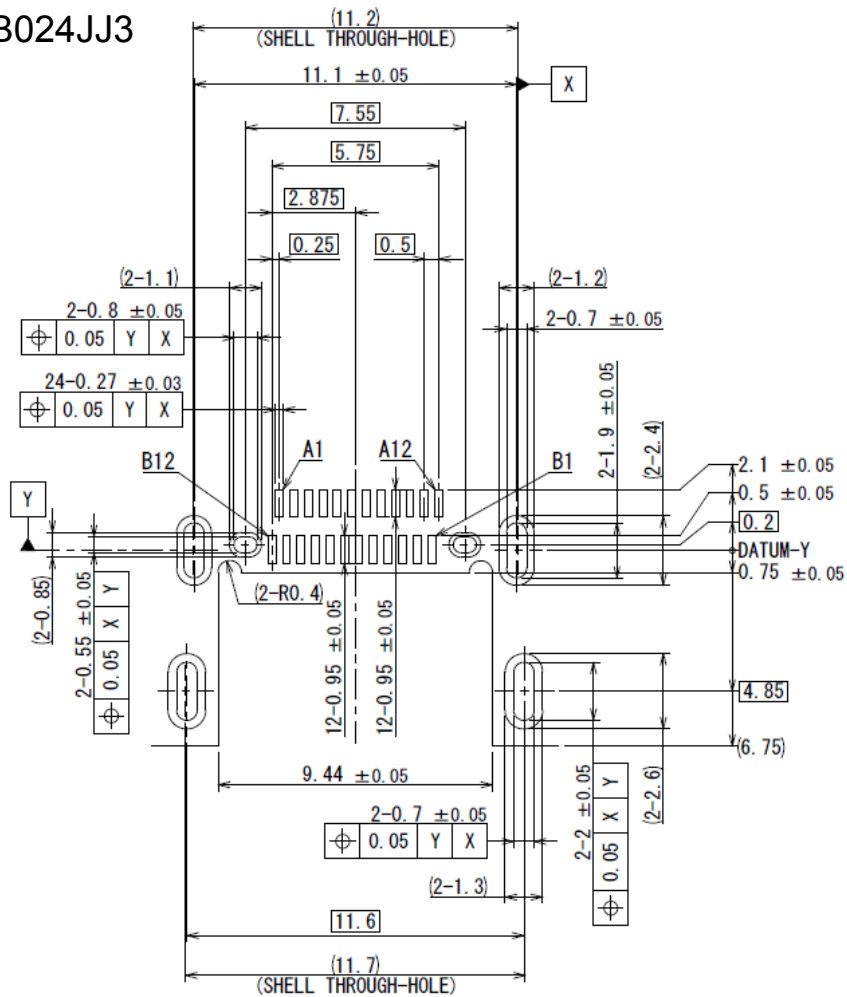


Basic Dimensions (continued)

*All units in mm

Receptacle (Dual Row SMT Mid-Mount)

p/n: DX07B024JJ3



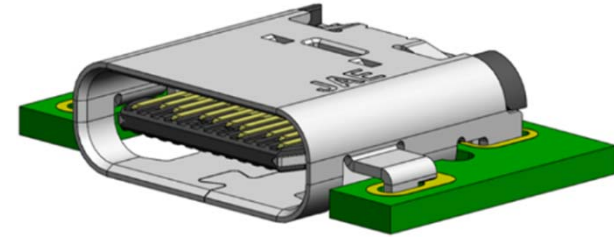
Footprint will be on the Type C™ spec for dual row SMT mid mount.

Basic Dimensions

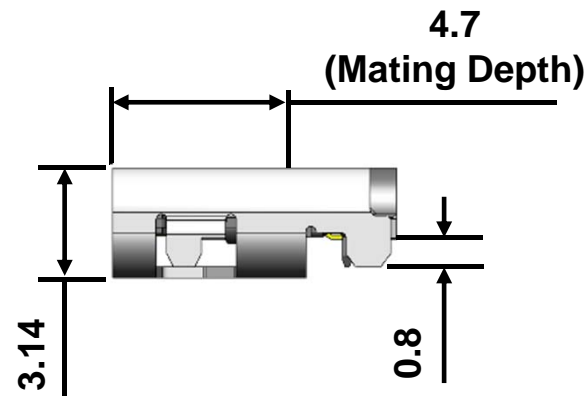
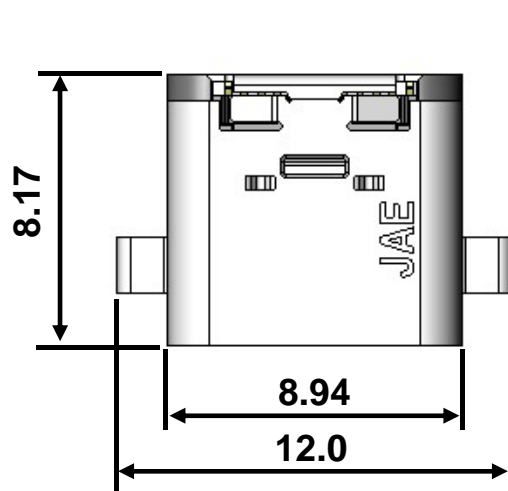
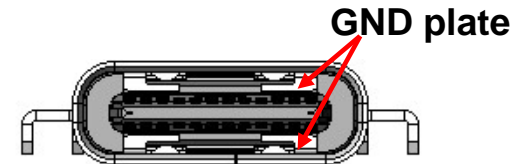
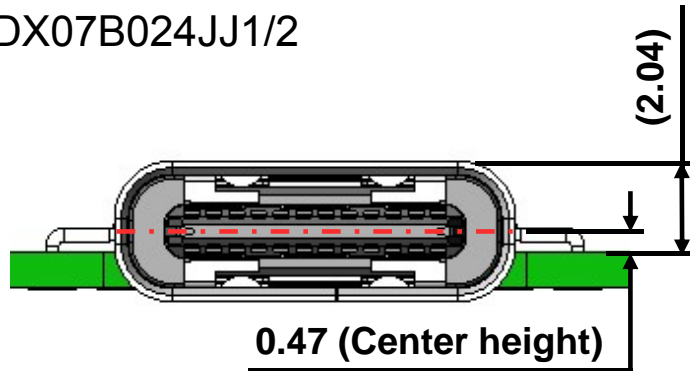
*All units in mm

Receptacle (Dual Row SMT Mid-Mount)

p/n: DX07B024JJ1/2



(Dual Row SMT Mid-Mount)

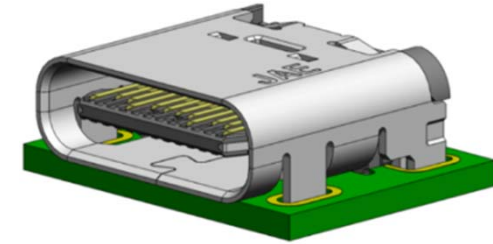


Basic Dimensions

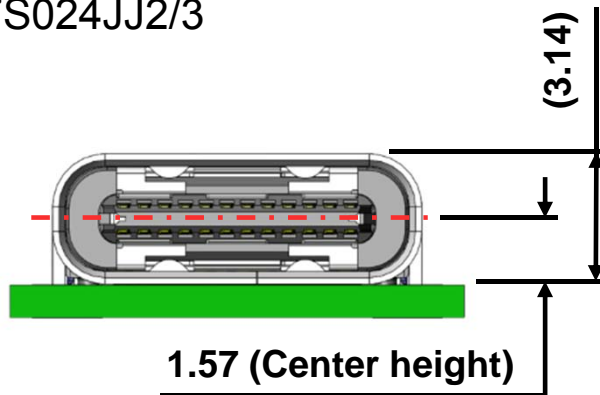
*All units in mm

Receptacle (Dual Row SMT On-board)

p/n: DX07S024JJ2/3

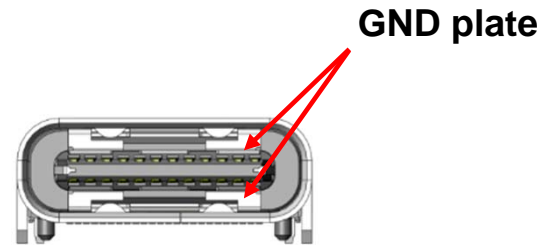


(Dual Row SMT On-board)

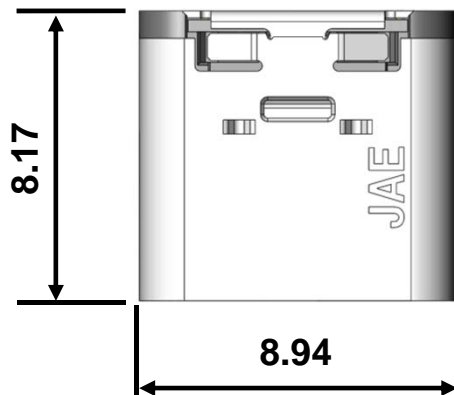


1.57 (Center height)

(3.14)

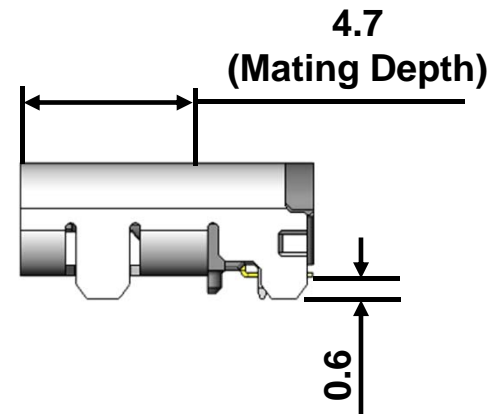


GND plate



8.17

8.94



4.7
(Mating Depth)

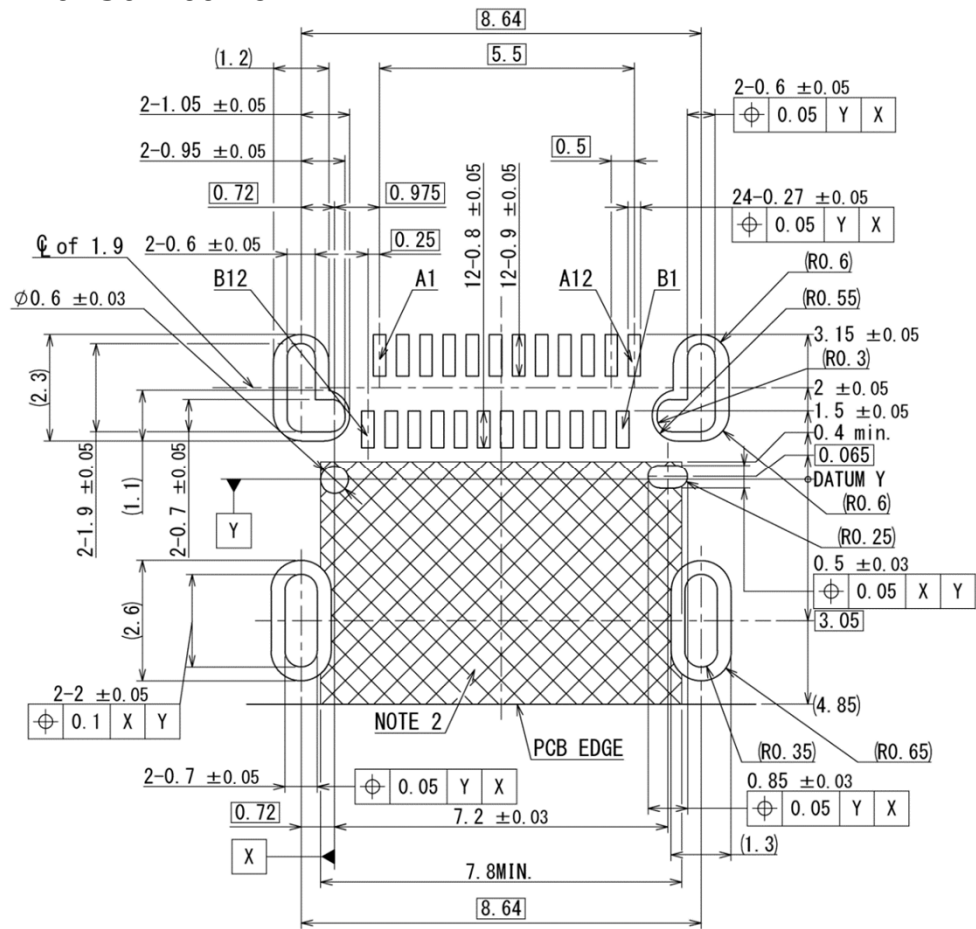
0.6

Basic Dimensions (continued)

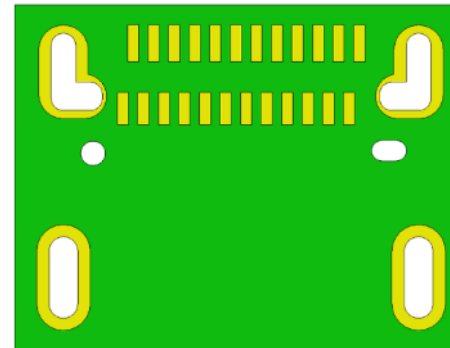
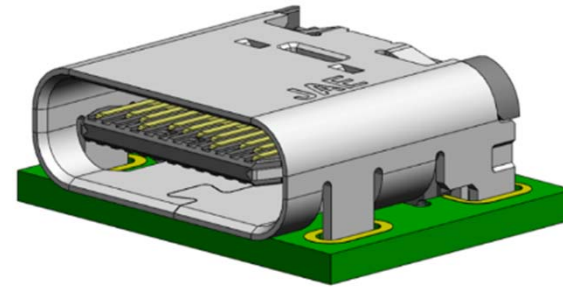
*All units in mm

Receptacle (Dual Row SMT On-board)

p/n: DX07S024JJ2/3



NOTE2. NO PCB ROUTING ALLOWED IN THIS AREA.



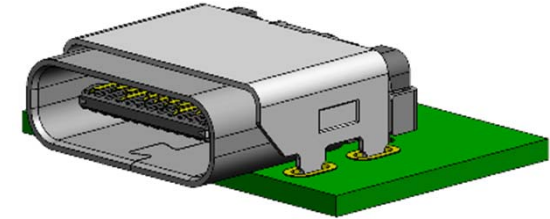
Not compatible with reference footprint on the Type C™ spec.

Basic Dimensions

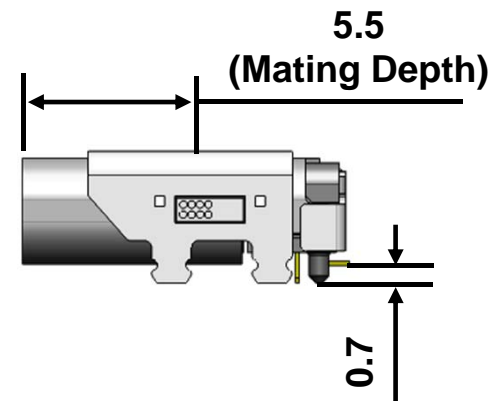
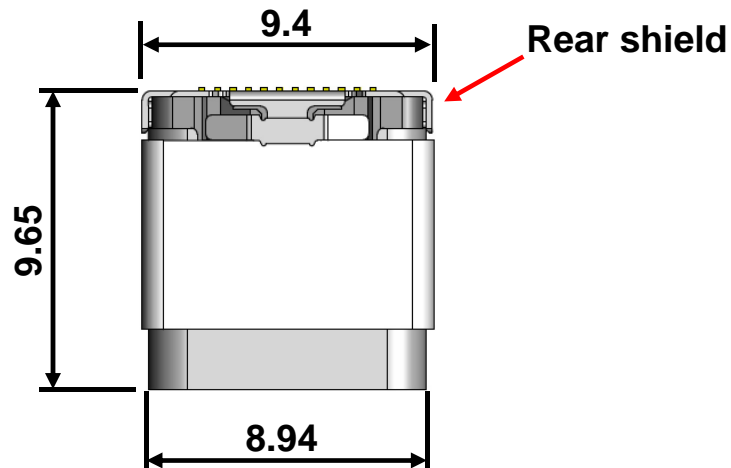
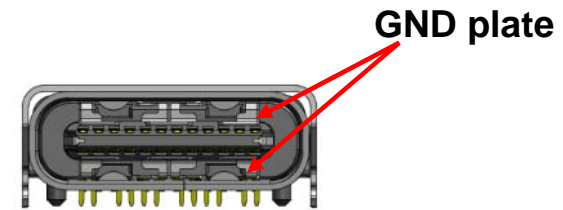
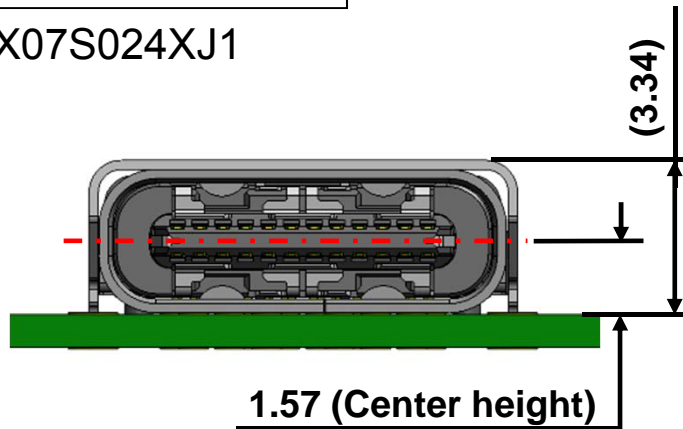
*All units in mm

Receptacle (Hybrid On-board)

p/n: DX07S024XJ1



(Hybrid On-board)

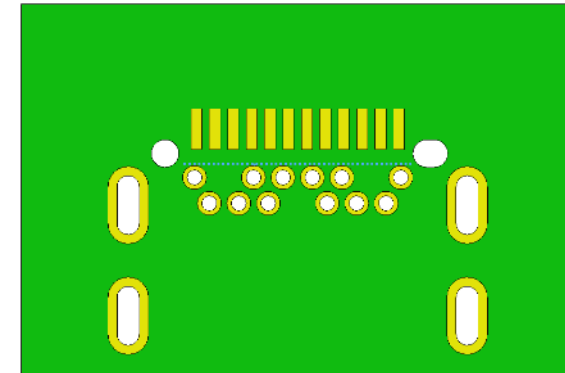
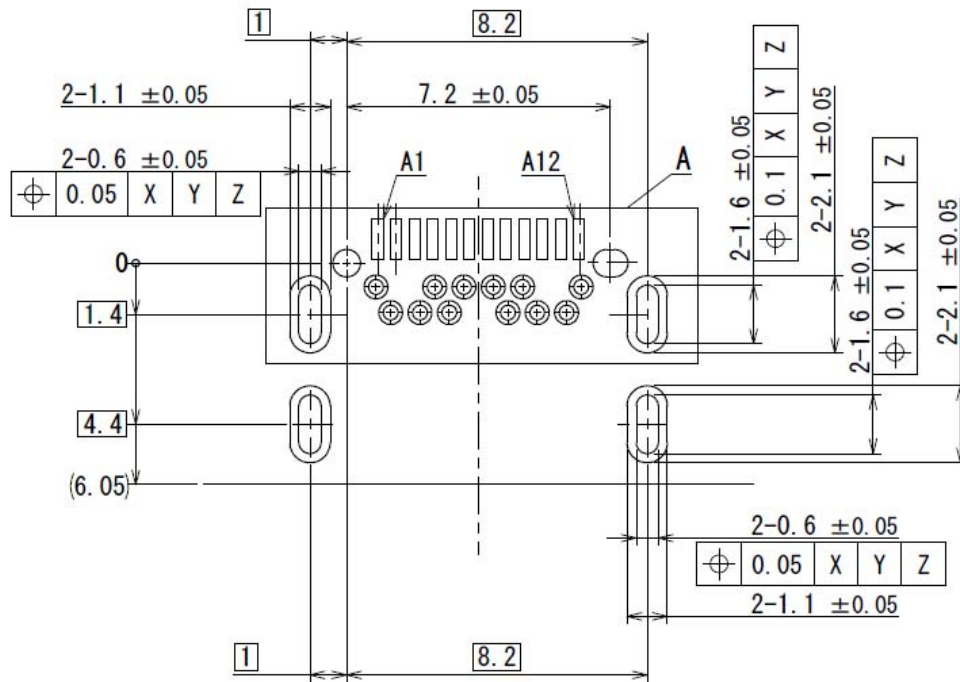
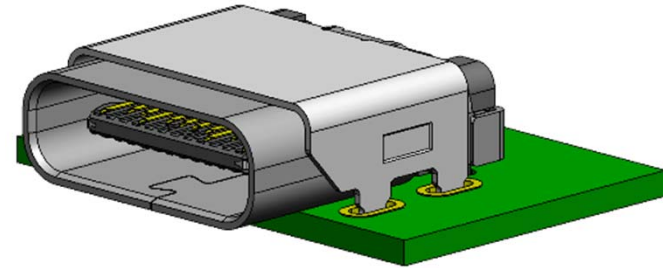


Basic Dimensions (continued)

*All units in mm

Receptacle (Hybrid On-board)

p/n: DX07S024XJ1



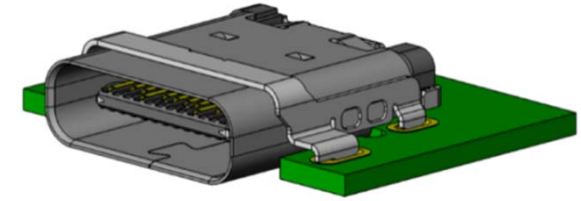
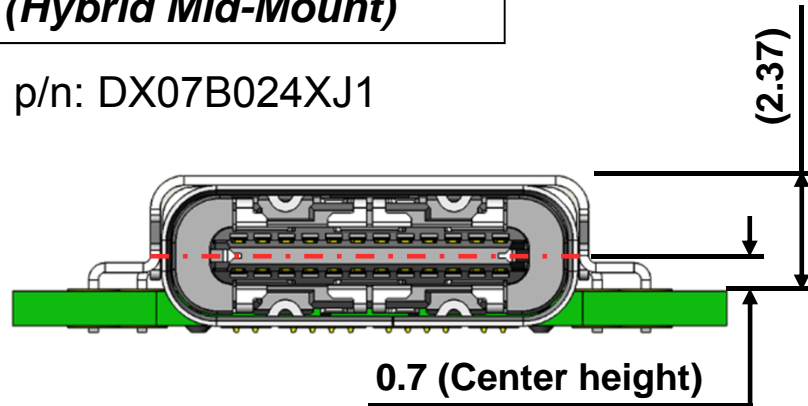
Not compatible with reference footprint on the Type C™ spec.

Basic Dimensions

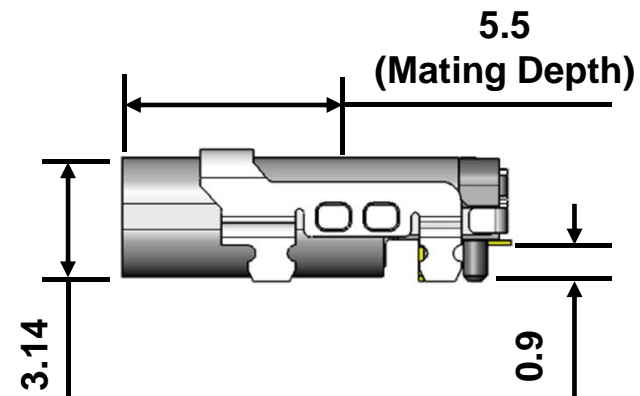
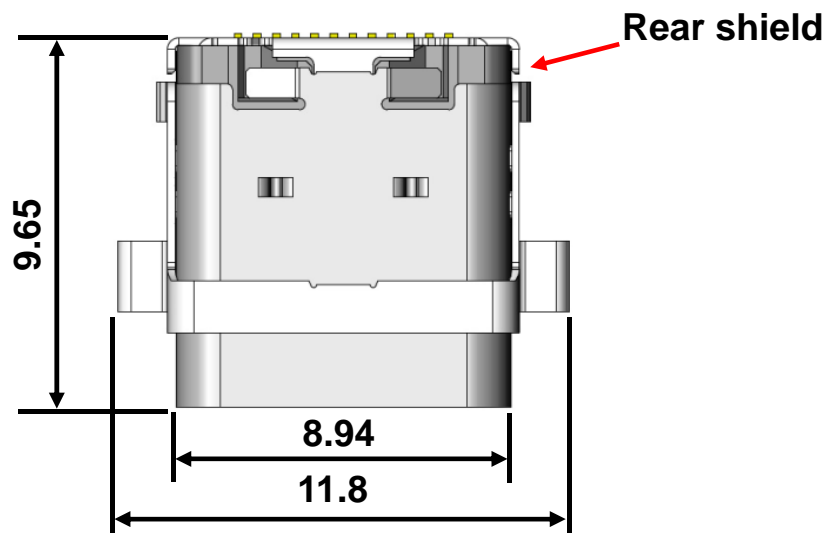
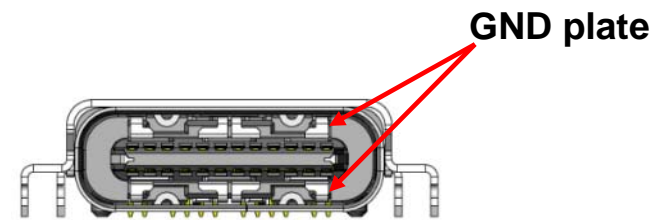
*All units in mm

Receptacle (Hybrid Mid-Mount)

p/n: DX07B024XJ1



(Hybrid Mid-Mount)

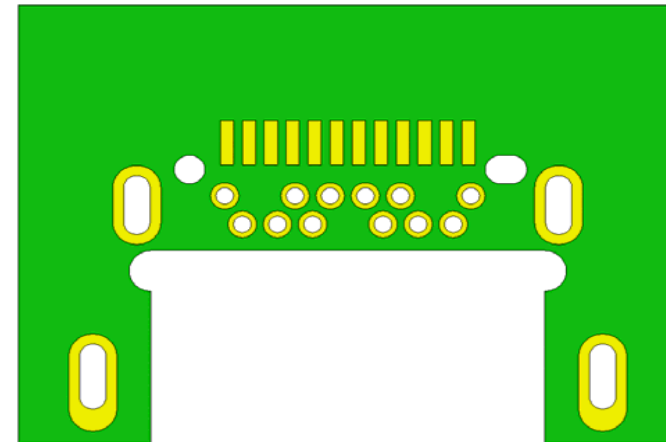
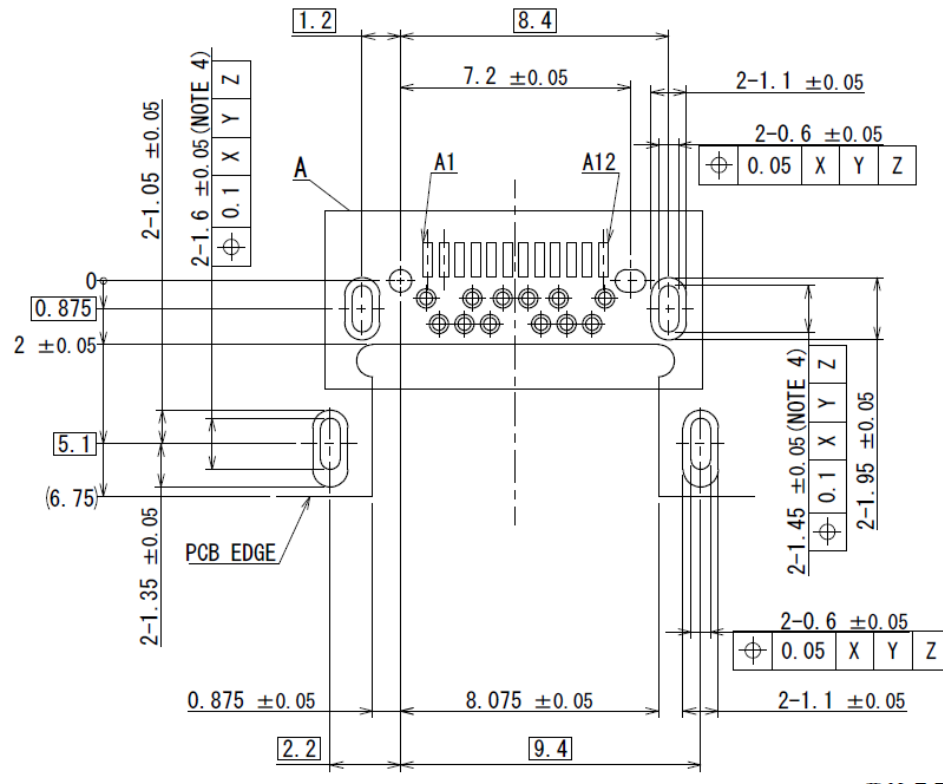
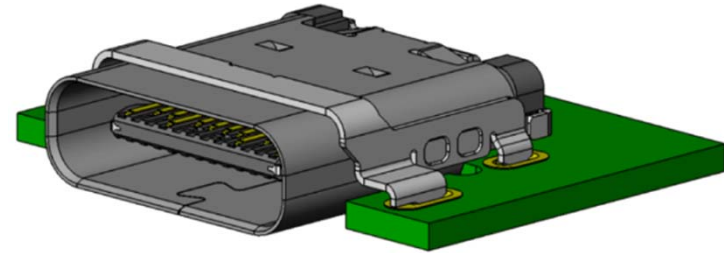


Basic Dimensions (continued)

*All units in mm

Receptacle (Hybrid Mid-Mount)

p/n: DX07B024XJ1



Not compatible with reference footprint on the Type C™ spec.

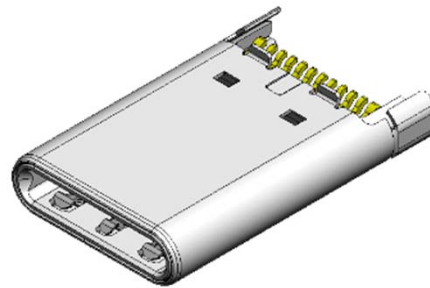
Materials and Finishes

Dual Row SMT Receptacle	
Component	Material / Finish
Insulators	Synthetic Resin
Rear Shield (optional)	Stainless Steel w/ Nickel Plating
Shell	Stainless Steel w/ Nickel Plating
Ground Plate	Stainless Steel w/ Nickel Plating
Mid Plate	Stainless Steel w/ Nickel Plating (No plating for DX07S024WJ3)
Contacts	Copper Alloy w/ Contact area: Gold Flash plating over Palladium-Nickel over Nickel Solder tails: Gold Flash plating over Nickel

Hybrid Receptacle	
Component	Material / Finish
Insulator	Synthetic Resin
Rear Shield	Stainless Steel w/ Nickel Plating
Bracket	Stainless Steel w/ Nickel Plating
Shell	Stainless Steel w/ Black Nickel Plating
Ground Plate	Stainless Steel w/ Nickel Plating
Mid Plate	Stainless Steel w/ Nickel Plating
Contacts	Copper Alloy w/ Contact area: Gold Flash plating over Palladium-Nickel over Nickel Solder tails: Gold Flash plating over Nickel

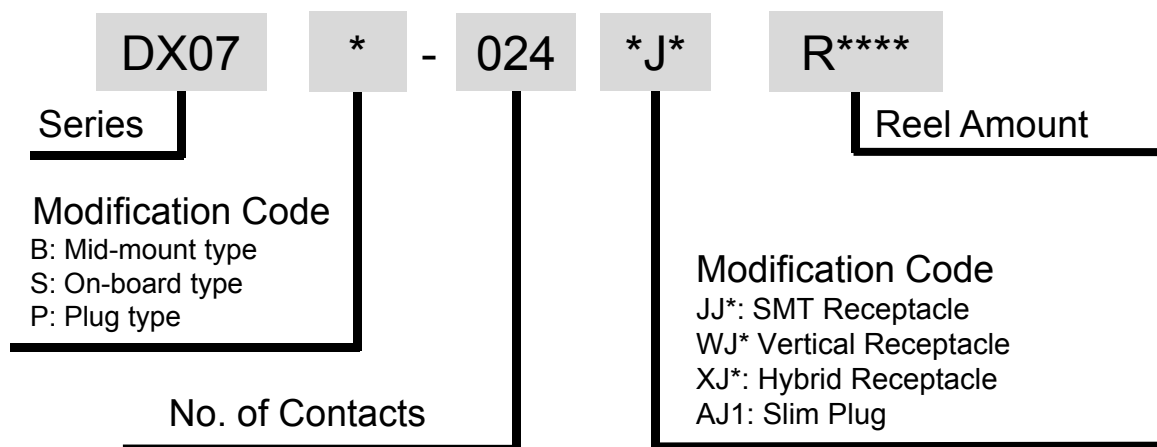
Materials and Finishes (continued)

Slim Plug	
Component	Material / Finish
Contact	Copper Alloy w/ Contact area: Palladium over Nickel Plating - Gold Flash Plating over Nickel alloy Solder tails: Gold Flash Plating over Nickel
Ground Spring	Stainless Steel w/ Nickel Plating
Friction Lock	Stainless Steel w/ Nickel Plating
Shell	Stainless Steel w/ Nickel Plating
Insulator	Heat Resistant Resin / Black (Halogen-free)
Inner Insulator	Heat Resistant Resin / Black (Halogen-free)
Insulation Tape	Polyimide
Protection Cap	Heat Resistant Resin / Black (Halogen-free)



Ordering Information

Type		Part Number	Rear Shield	SJ Drawing
Slim Plug		DX07P024AJ1R1500	-	SJ116680 / SJ116681 (Individual / reel)
Receptacles	Mid-mount type	DX07B024JJ1R1500	Yes	SJ115850 / SJ115851 (Individual / reel)
		DX07B024JJ2R1500	No	SJ115996 / SJ115997 (Individual / reel)
		DX07B024JJ3R1600	No	SJ117601 / SJ117602 (Individual / reel)
		DX07B024XJ1R1300	Yes	SJ116121 / SJ116122 (Individual / reel)
	On-board type	DX07S024JJ2R1300	Yes	SJ115946 / SJ115947 (Individual / reel)
		DX07S024JJ3R1300	No	SJ115994 / SJ115995 (Individual / reel)
		DX07S024XJ1R1100	Yes	SJ116123 / SJ116124 (Individual / reel)
	Vertical type	DX07S024WJ1R350	N/A	SJ117219 / SJ117220 (Individual / reel)
		DX07S024WJ3R400	N/A	SJ117928 / SJ117929 (Individual / reel)



Summary

- USB 3.1 high speed signaling supported up to 10Gbps
- Mid-mount, on-board and vertical type receptacles available
- User-friendly – Reversible insertion
- Friction lock equipped
- Enhanced EMI performance
- Power Delivery supported (3A/5A)



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