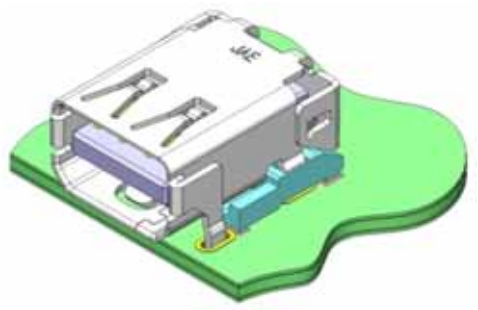
NEW

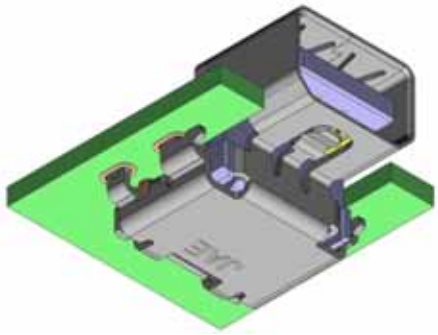
Thunderbolt Compatible Connector
DP3 Series

CONNECTOR
MB-0248-2
July 2013

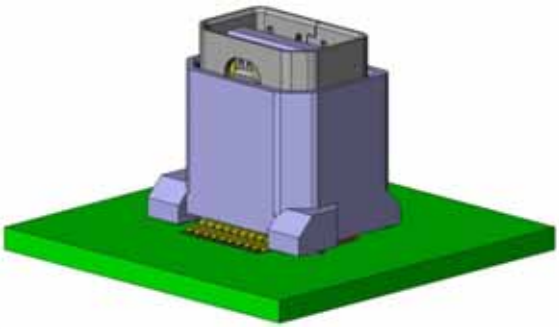
RoHS Compliant



On-board Standard



Reverse Sunk-into-the-board



Straight

The DP3 Series has been developed as an I/O connector compatible with Thunderbolt™ Technology for high-speed transmission between PCs and peripheral devices.

*Thunderbolt is a trademark of Intel Corporation in the US and other countries.

Features

■10Gbps per lane high-speed transmission connector for Thunderbolt.

■Available in standard and reverse mounting, sunk-into-the-board, and straight mounting type. JAE has additionally developed the straight mounting type.

■Enhanced board mounting strength with through-hole hold-downs on the metal shell.

■Friction lock with the metal shell enhances cable plug retention strength and creates a clear click feeling when mated.

■Connector is supplied in embossed reel.

General Information

■No. of Contacts: 20

■Contact Resistance: 100m Ω max.

■Dielectric Withstanding Voltage: AC300Vr.m.s for 1 minute

■Operating Temperature: -20 Deg. C to +85 Deg. C

■Rated Current: 0.5A (signal pin)

■Insulation Resistance: 10MΩ min.

■Durability: 10,000 mating cycles

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Materials and Finishes

Component	Material / Finish
Contact	Copper alloy / 0.3μ min. Au plating over Ni (contact area) Sn plating over Ni (terminal area)
Housing	Glass filled LCP / None
Shell	Stainless steel / Ni

Ordering Information

(On-board, Sunk-into-board)

DP3 A R 0 20 S U32 J Q 1 R****

- Embossed Reel
  Number of pieces per reel
- Through-hole Terminal Length
  None: 1.4mm
  1: 2.1 mm
- Plating
  Q: 0.3μm Au plating
- J: Right Angle type
- Distance from Mounting Surface to Center Line of Mating Interface
  U32: 3.2mm upward from mating surface
  L05: 0.5mm downward from mating surface
- Mounting Direction
  S: Standard mounting
  R: Reverse mounting
- No. of Contacts
- Shell Plating Specification
  O: Ni Plating
  B: Black Ni Plating
- AR: Receptacle
  R: Receptacle
  P: Plug
  B: Plug (without cable)
- Series

(Straight)

DP3 A R 0 20 W Q 1 R****

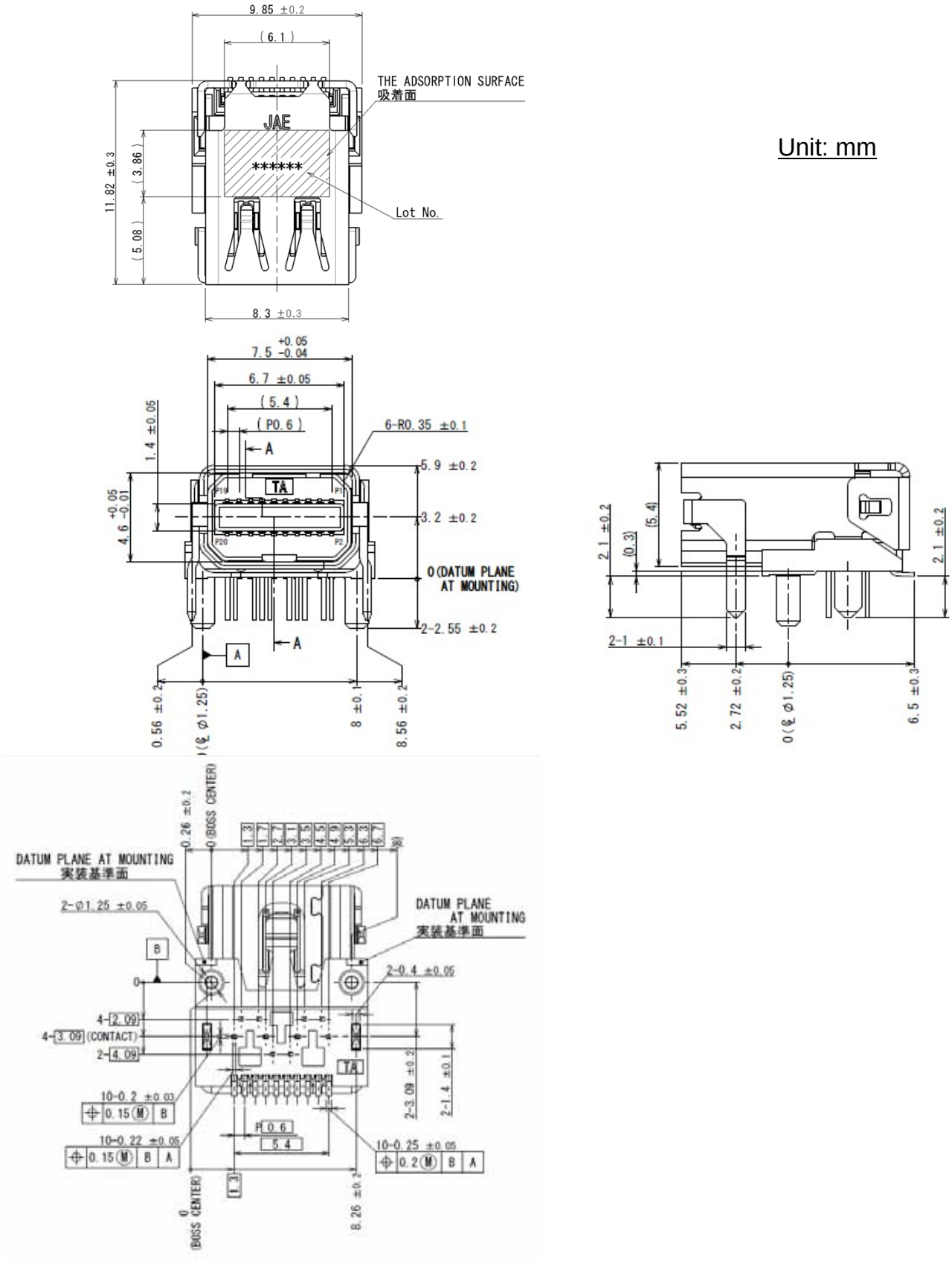
- Embossed Reel
  Number of pieces per reel
- 1: Standard Product
- Plating Q: 0.3μm Au plating
- Mounting Direction
  W: Straight mounting
- No. of Contacts
- Shell Plating Specification
  O: Ni Plating
  B: Black Ni Plating
- AR: Receptacle
- Series

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Part Number	SJ Drawing No.
DP3AR020SU32JQ1 (Individual Connector)	SJ113423
DP3AR020SU32JQ1R400 (Embossed Reel)	SJ113424

On-board Standard Type

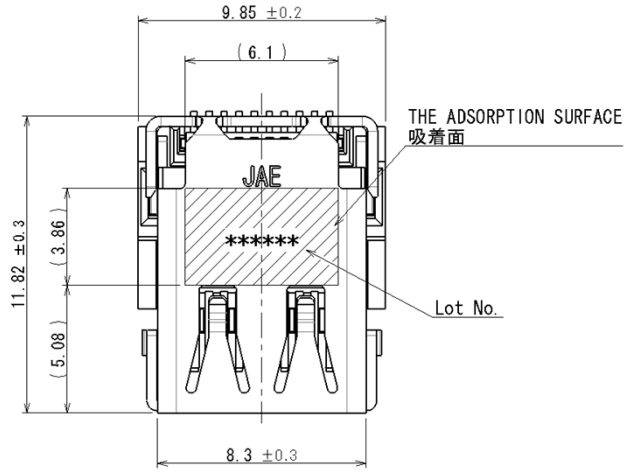
Unit: mm



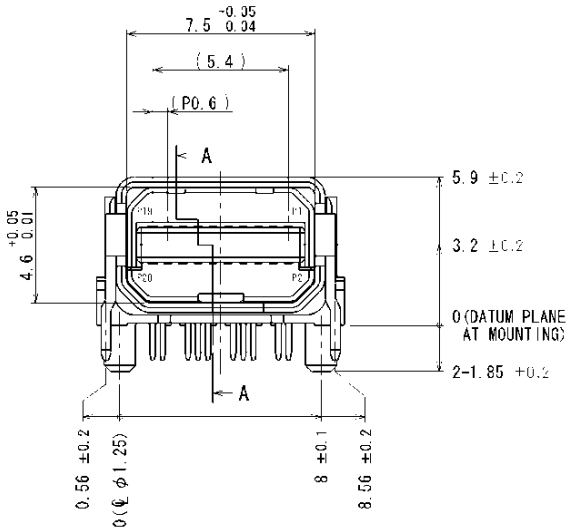
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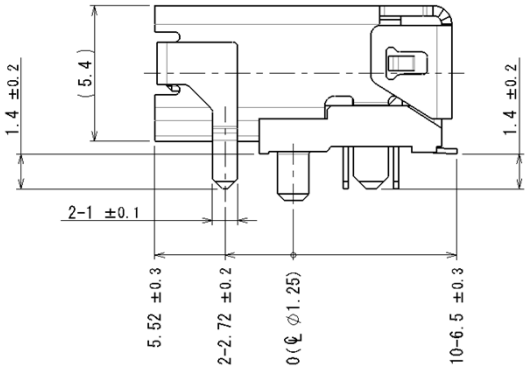
Part Number	SJ Drawing No.
DP3R020SU32JQ (Individual Connector)	SJ112287
DP3R020SU32JQR400 (Embossed Reel)	SJ112331

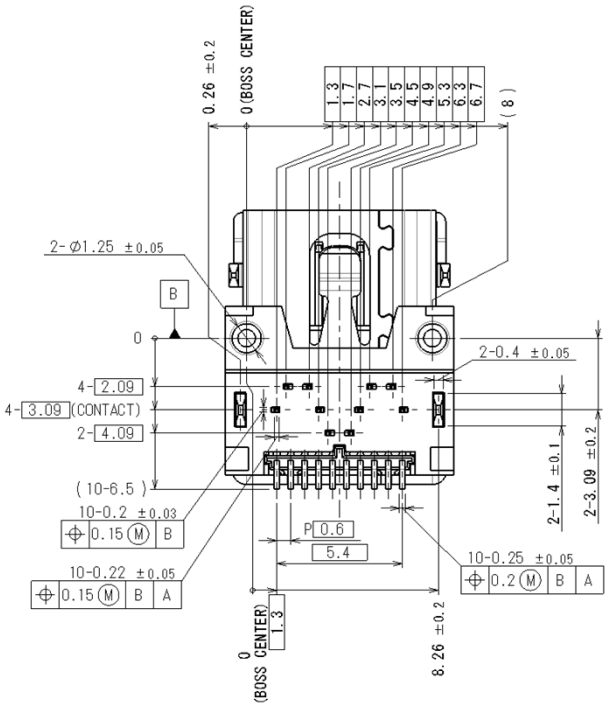
On-board Standard Type



Unit: mm





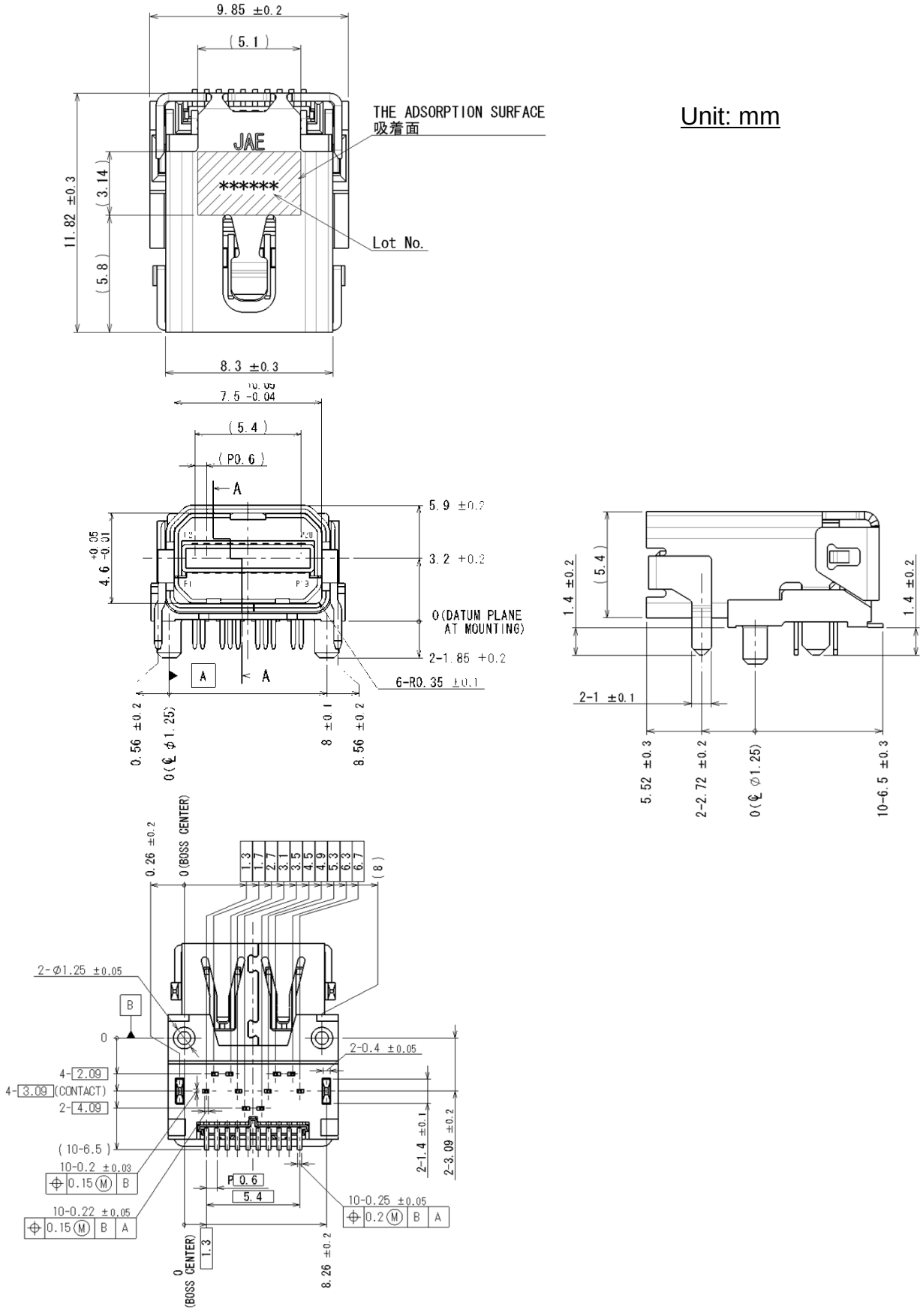


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Part Number	SJ Drawing No.
DP3R020RU32JQ (Individual Connector)	SJ112289
DP3R020RU32JQR400 (Embossed Reel)	SJ112333

On-board Reverse Type

Unit: mm

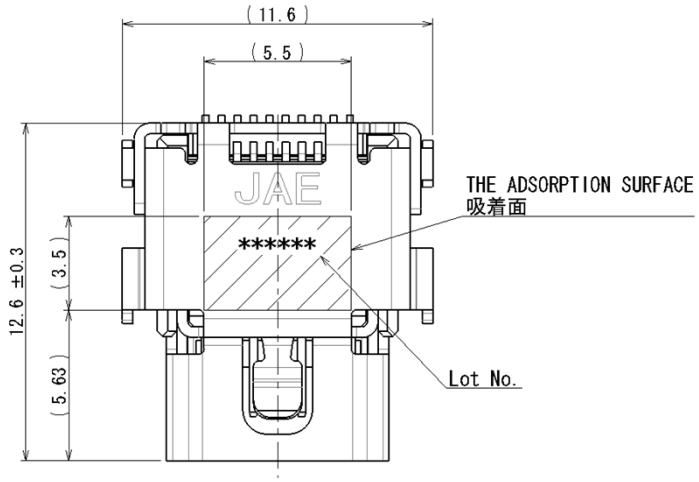


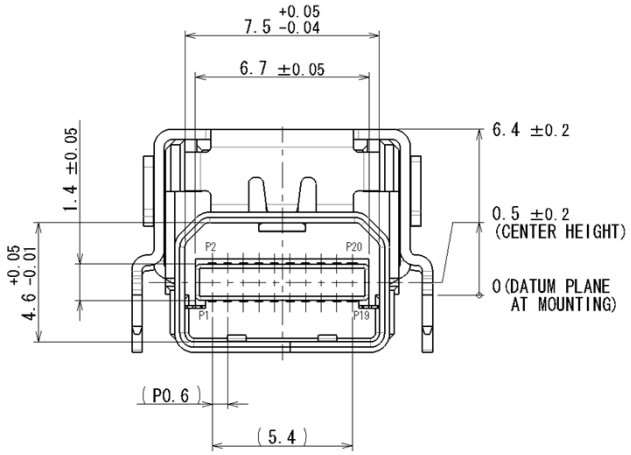
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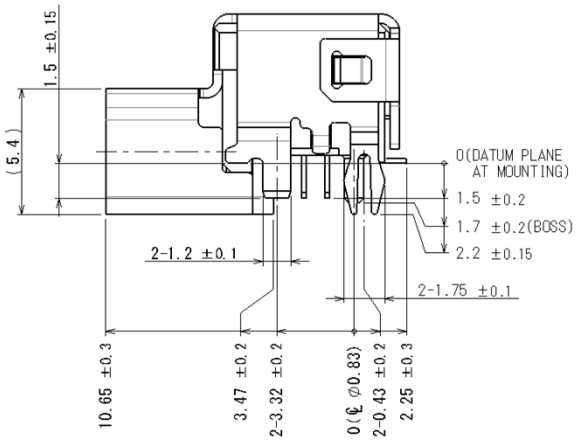
Part Number	SJ Drawing No.
DP3RB20RU05JQ (Individual Connector)	SJ112304
DP3RB20RU05JQR400 (Embossed Reel)	SJ112336

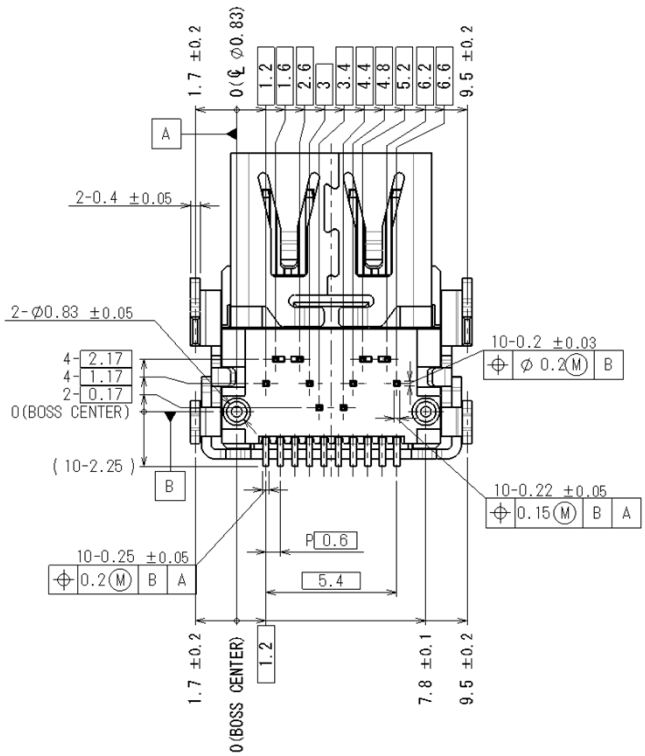
Sunk-into-the-board Reverse Type

Unit: mm







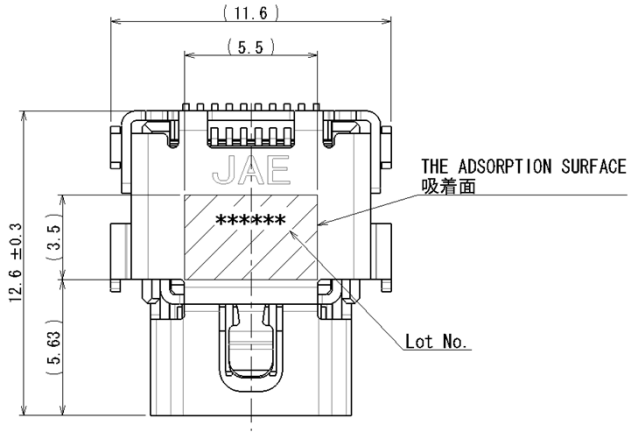


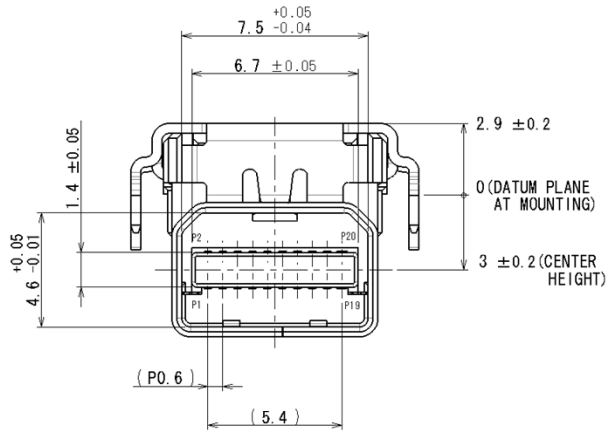
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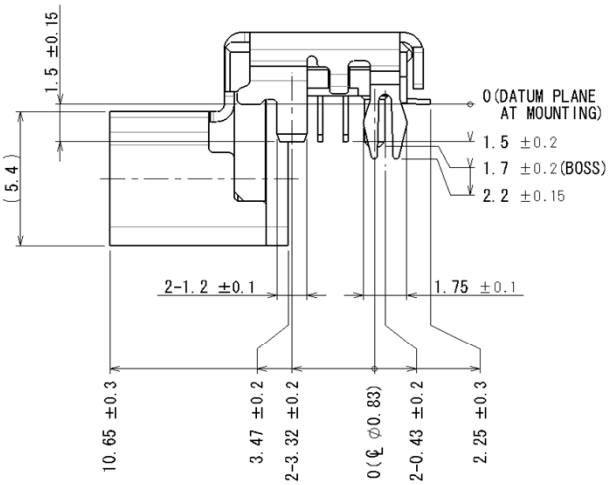
Part Number	SJ Drawing No.
DP3R020RL30JQ (Individual Connector)	SJ112303
DP3R020RL30JQR400 (Embossed Reel)	SJ112335

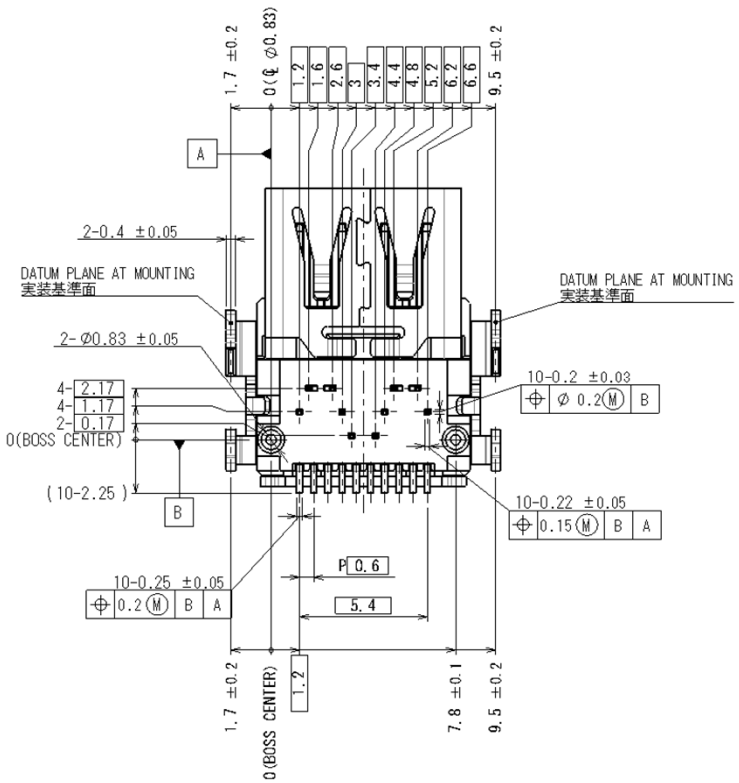
Sunk-into-the-board Reverse Type

Unit: mm







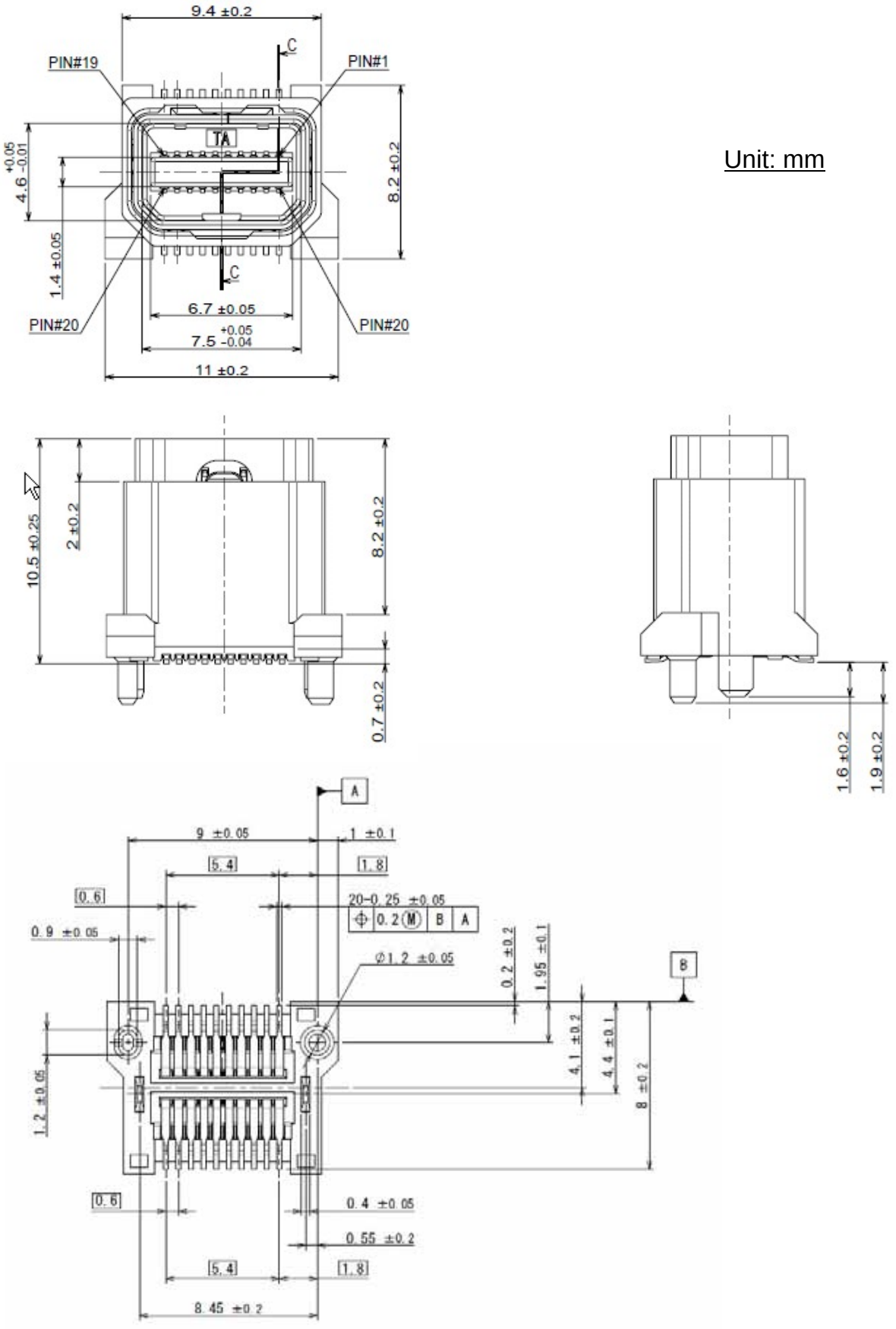


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Part Number	SJ Drawing No.
DP3AR020WQ1 (Individual Connector)	SJ114076
DP3AR020WQ1R400 (Embossed Reel)	SJ114077

On-board Straight Type

Unit: mm

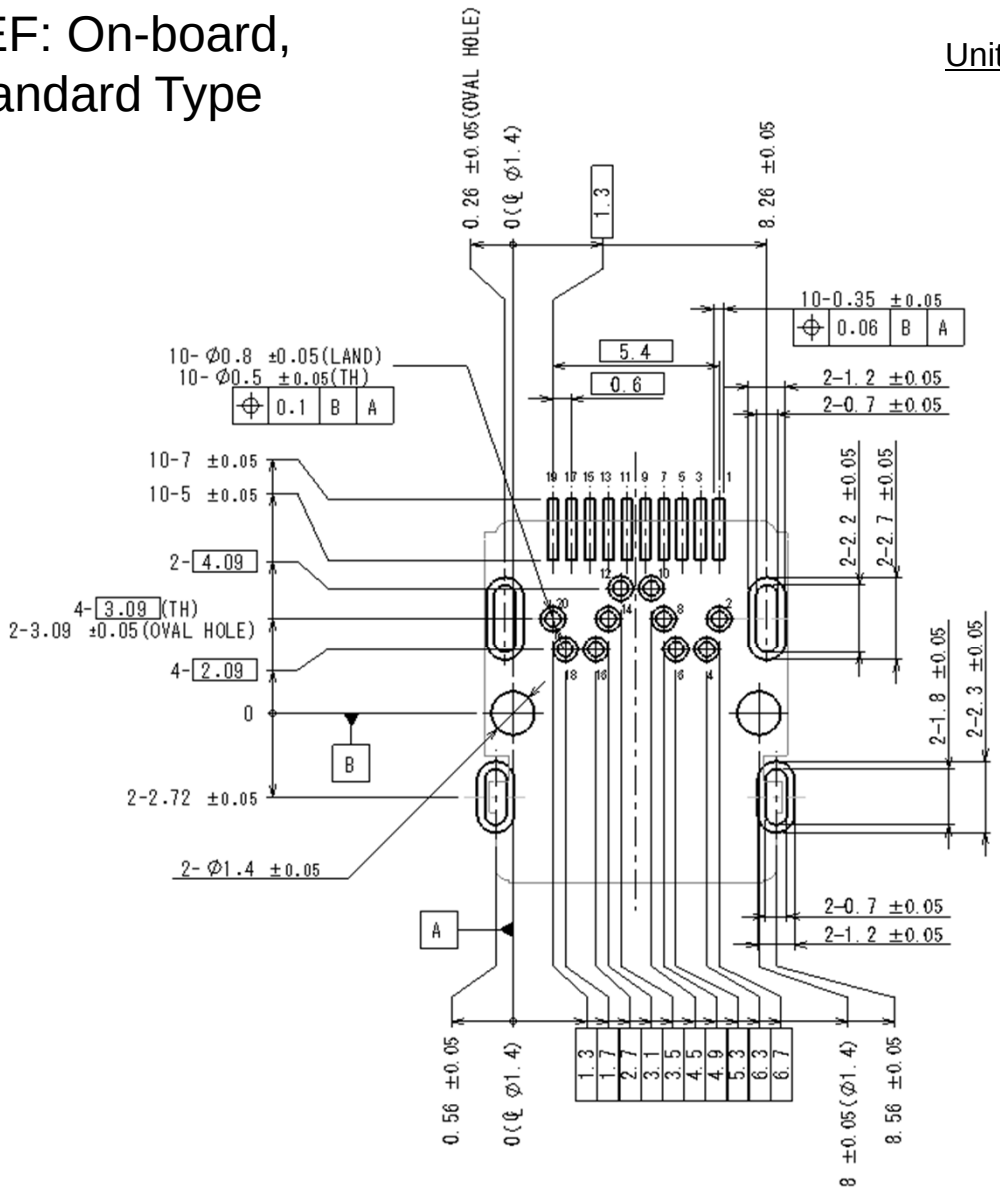


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Applicable Dimensions of Board

REF: On-board, Standard Type

Unit: mm



APPLICABLE P.C.B DIMENSION (REF.)
適合基板寸法（参考）

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Product Line-up

Horizontal Receptacles

Receptacle Type	Mounting Orientation	Height of Mating Centerline (from mounting surface)	Through-hole Pin Length	Part Number	SJ No.
Standard (top)	Standard	+ 3.2mm	2.1mm	DP3AR020SU32JQ1	SJ113423 (Individual Connector) SJ113424 (Embossed Reel)
Standard (top)	Standard	+ 3.2mm	1.4mm	DP3R020SU32JQ	SJ112287 (Individual Connector) SJ112331 (Embossed Reel)
Reverse	Reverse	+ 3.2mm	2.1mm	DP3R020RU32JQ1	SJ112290 (Individual Connector) SJ112334 (Embossed Reel)
Reverse	Reverse	+ 3.2mm	1.4mm	DP3R020RU32JQ	SJ112289 (Individual Connector) SJ113424 (Embossed Reel)
Mid-mount	Reverse	- 3.0mm	1.5mm	DP3R020RL30JQ	SJ112303 (Individual Connector) SJ112335 (Embossed Reel)
Mid-mount	Reverse	+ 0.5mm	1.5mm	DP3RB20RU05JQ	SJ112304 (Individual Connector) SJ112336 (Embossed Reel)

Vertical Receptacles

Receptacle Type	Contact Mounting	Hold-downs	Height	Part Number	SJ No.
Vertical	All SMT	Through-hole, 1.9mm	10.5mm	DP3AR020WQ1	SJ114076 (Individual Connector) SJ114077 (Embossed Reel)

* Please refer to SJ drawing when considering use of this product.

Notice:

1. The values specified in this brochure are only for reference. The products and their specifications are subject to change without notice. Contact our sales staff for further information before considering or ordering any of our products.
For purchase, a product specification must be agreed upon.

2. Users are requested to provide protection circuits and redundancy circuits to ensure safety of the equipment, and sufficiently review the suitability of JAE's products to the equipment.

3. The products presented in this brochure are designed for the uses recommended below.
We strongly suggest you contact our sales staff when considering use of any of the products in any other way than the recommended applications or for a specific use that requires an extremely high reliability.

(1) Applications that require consultation:
(i) Please contact us if you are considering use involving a quality assurance program that you specify or that is peculiar to the industry, such as:
Automotive electrical components, train control, telecommunications devices (mainline), traffic light control, electric power, combustion control, fire prevention or security systems, disaster prevention equipment, etc.
(ii) We may separately give you our support with a quality assurance program that you specify, when you think of a use such as :
Aviation or space equipment, submarine repeaters, nuclear power control systems, medical equipment for life support, etc.

(2) Recommended applications include:
Computers, office appliances, telecommunications devices (terminals, mobile units), measuring equipment, audiovisual equipment, home electric appliances, factory automation equipment, etc

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