

USB Connectors

XM7

Small Interface Connectors That Conform to USB Standards

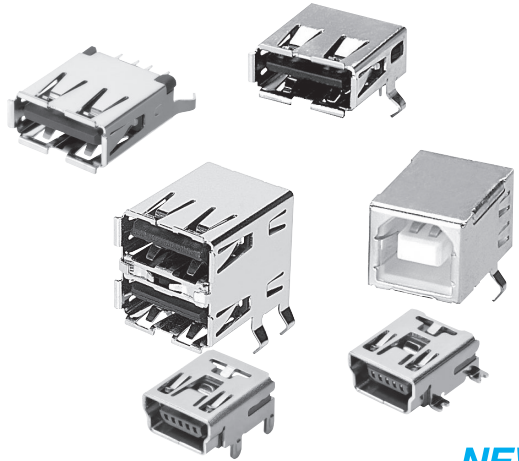
mini-USB Connectors

- Insertion life of 5,000 insertions.
- Right-angle DIP terminals or right-angle SMT terminals.

USB Connectors

- USB A-type sockets for mounting on personal computers and USB hubs. USB B-type sockets for mounting on printers, scanner, mouses, and other peripheral devices for computers.

RoHS Compliant



NEW

XM7D mini-USB Connectors

Model Number Legend

XM7D-05 1 □
 1 2 3 4

1 Type

D: mini-B-type socket

2 No. of Contacts

05: 5 contacts

3 Plating Specification



1: Gold plated

4 Terminal Shape

- 2: Right-angle DIP terminals
- 4: Right-angle SMT terminals

Ordering Information

●Sockets

	Right-angle DIP terminals	Right-angle SMT terminals
Appearance	 NEW	 NEW
Model	XM7D-0512	XM7D-0514
Minimum ordering quantity (pieces)	100	50

XM7

■Ratings and Characteristics

Rated current	1 A
Rated voltage	30 V
Insulation resistance	100 MΩ min.
Contact resistance	50 mΩ max.
Dielectric strength	100 VAC for 1 min (leakage current: 0.5 mA max.)
Total insertion force	35 N max.
Total removal force	7 N min.
Insertion durability	5,000 insertions
Ambient operating temperature	0 to 50°C (with no icing)

■Materials

Housing	LCP resin
Contacts	Copper alloy
Shell	Copper alloy

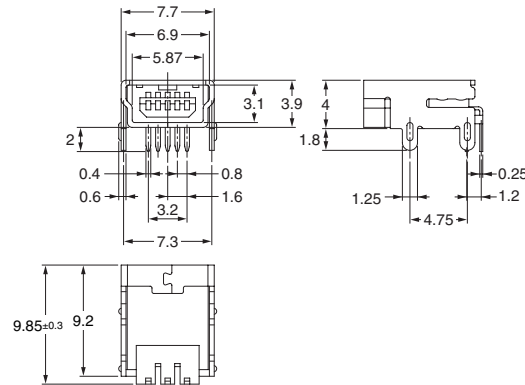
■Dimensions

(Unit: mm)

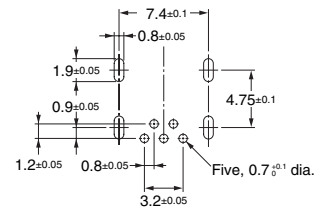
XM7D-0512



NEW



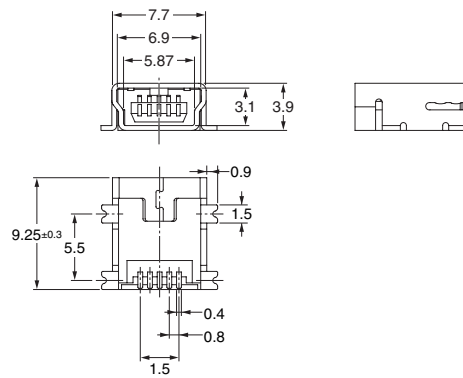
PCB Mating Dimensions
(BOTTOM VIEW)



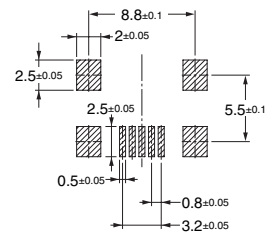
XM7D-0514



NEW



PCB Mating Dimensions
(TOP VIEW)



XM7A/B USB Connectors

Model Number Legend

XM7□-04 4 □-□
 1 2 3 4 5

1 Type

A: A-type socket
 B: B-type socket

2 No. of Contacts

04: 4 contacts

3 Plating Specification

4: Gold plated

4 Terminal Shape

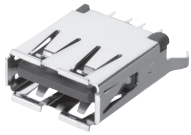
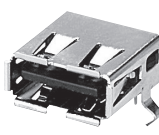
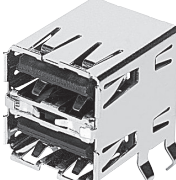

1: Straight (A-type sockets only)
 2: Right angle

5 Special Code

A-type sockets	Blank: 1 socket (black housing) A: 2 stacked sockets (black housing)
B-type sockets	Blank: White housing

Ordering Information

●Sockets

Item	Type	One A-type Socket	One A-type Socket	Two Stacked A-type Sockets	One B-type Socket
Appearance		With straight DIP kinked terminals	With right-angle DIP kinked terminals	With right-angle DIP kinked terminals	With right-angle DIP kinked terminals
					
Model		XM7A-0441	XM7A-0442	XM7A-0442-A	XM7B-0442
Minimum ordering quantity (pieces)		120	150	120	150

Ratings and Characteristics

Rated current	1 A
Rated voltage	30 VAC
Contact resistance	30 mΩ max. (at 20 mV, 100 mA max. (excluding cable conductor resistance))
Insulation resistance	1,000 MΩ min. (at 500 VDC)
Dielectric strength	750 VAC for 1 min (leakage current: 0.5 mA max.)
Total insertion force	35.3 N max.
Total removal force	10 N min.
Insertion durability	1,500 insertions
Ambient operating temperature	-40 to 60°C (with no icing)

Materials and Finish

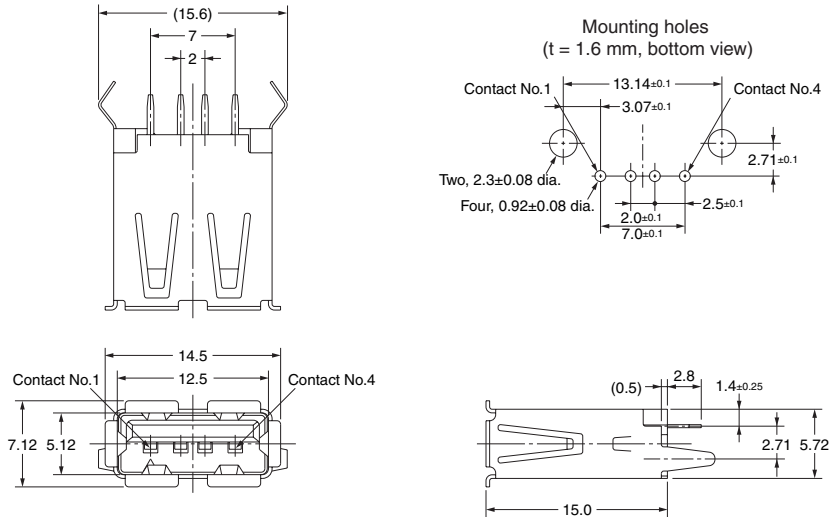
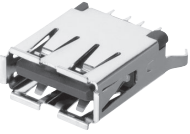
Item	Classification Type	Sockets	
		A-type Sockets	B-type Sockets
Housing		Fiber-glass reinforced PBT resin (UL94V-0)/black	Fiber-glass reinforced PBT resin (UL94V-0)/white
Contacts	Mating end	Phosphor bronze/nickel base, gold plating	
	Terminals	Phosphor bronze/nickel base, tin alloy plated	
Shell		Copper alloy/tin plated	

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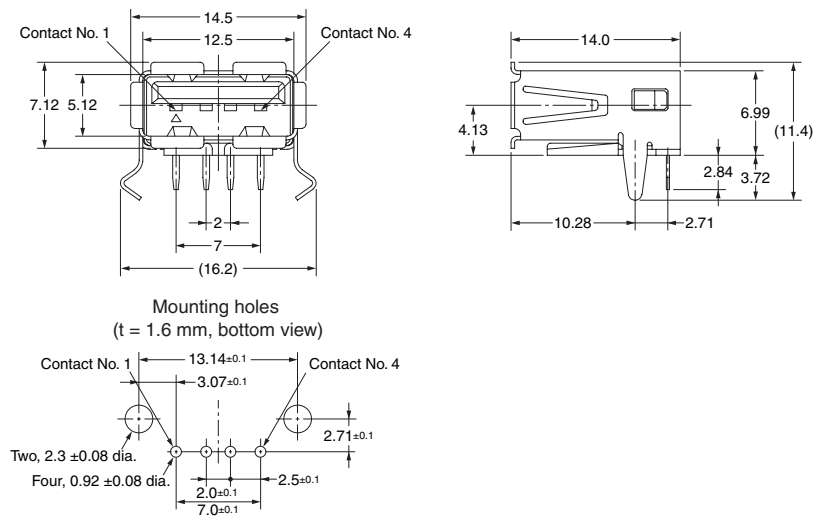
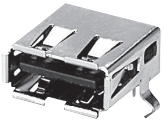
■Dimensions

(Unit: mm)

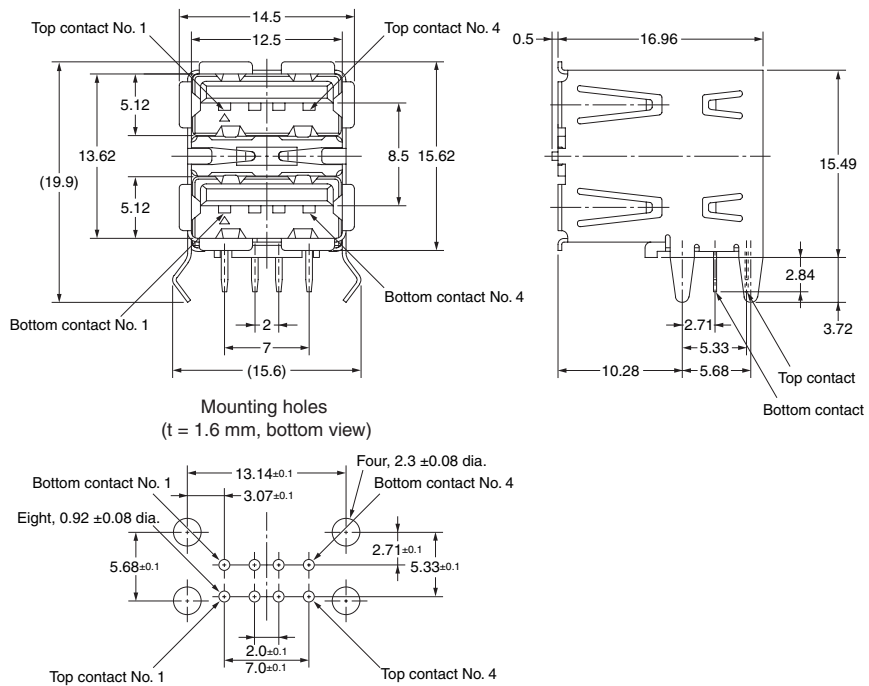
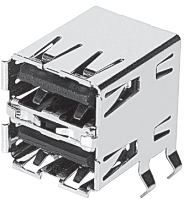
XM7A-0441 One A-type Socket



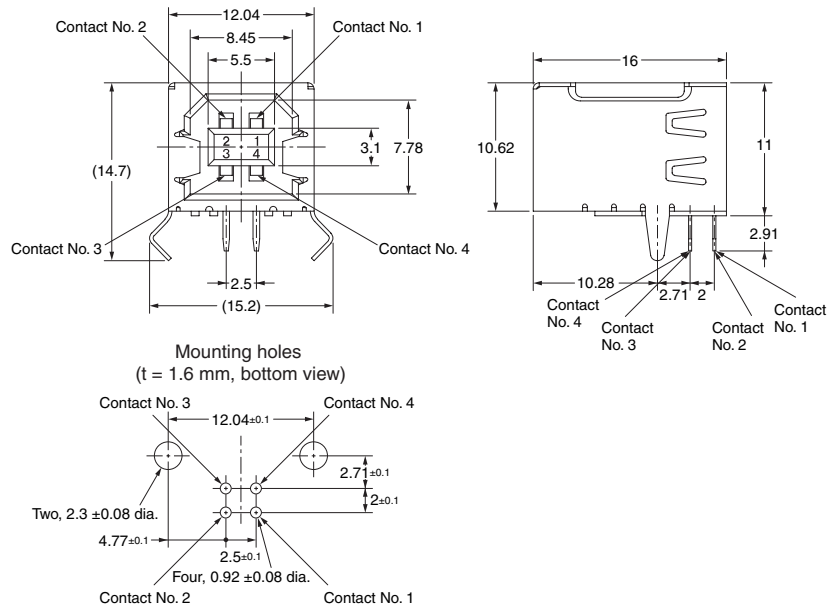
XM7A-0442 One A-type Socket



XM7A-0442-A Two Stacked A-type Sockets



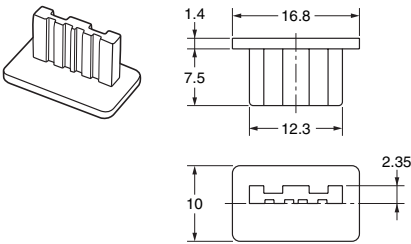
XM7B-0442
One B-type Socket



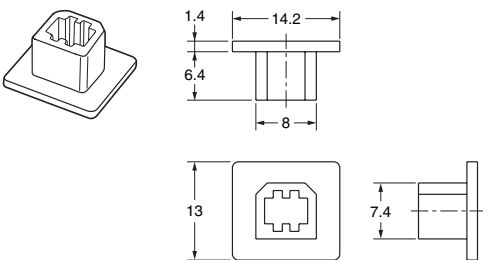
Accessories (sold separately)

(Unit: mm)

●Dust cover (For XM7A One A-type socket)
XM7Z-0001 (A type)



●Dust cover (For XM7B sockets)
XM7Z-0002 (B type)



Characteristics/Material

Ambient operating temperature	-40 to 60°C
Material	Polyethylene resin

Model	Applicable	Minimum ordering quantity (pieces)
XM7Z-0001	XM7A (One A-type Socket)	50
XM7Z-0002	XM7B	

Note: Dust covers cannot be used for Two Stacked A-type sockets.

■Precautions

Precautions for Correct Use

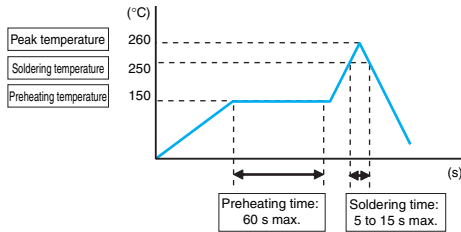
●Automatic Soldering

Reference Information: Automated Soldering Conditions (Jet Flow)

- (1) Soldering temperature: $250 \pm 5^{\circ}\text{C}$
- (2) Continuous soldering time: 5 ± 1 s max.

●Soldering Conditions

- Reference Information: Reflow Conditions
 - Maximum temperature: 260°C
 - Time: 5 to 15 s max.



These conditions, however, depend on the type of solder, the manufacturer, the amount of solder, the size of the board, and the other mounting materials.

●Screen Thickness for Printing Cream Solder

We recommend a metal mask thickness of 0.15 mm when printing cream solder.

The appropriate conditions, however, depend on the type of solder, the manufacturer, the amount of solder, the size of the circuit board, other mounting materials, and other conditions.

●Terminal Shapes

The terminals will deform if they are subjected to an excessive load, which will in turn reduce solderability when mounting. Do not drop the Connectors or handle them carelessly. Do not connect anything when the Connectors are not mounted to a board. Doing so may deform the terminals.

●Using an Automatic Solder Bath after Reflow

Mask the mating portion with tape before you perform automatic soldering to prevent flux or solder from entering the mating portion of the Connector. Select and use a suitable masking tape.

●Application Precautions

- Confirm that there is no excessive misalignment or inclination in the mating contact portion between the plug and socket before mating the Connector. Make sure that the Connector is mated all the way to the back. If the Connector is not mated all the way to the back, contact reliability may be lost.
- Do not apply an extreme load during Connector insertion or removal. The Connector may be damaged, and contact failure may result. Twist the plug and socket as little as possible when mating the Connector. Not doing so may deform the terminals or housing or crack the housing.
- Do not insert a foreign object, such as tweezers, into the Connector mating contact portion. Doing so may cause the plating to peel off or deform the terminals.

●Precautions for Board Mounting

Be careful of the amount of board warping. If the board is excessively warped, soldering faults may occur.

●Storage

Do not store the Connectors in locations subject to dust or high humidity. Do not store the Connectors in locations close to sources of gasses such ammonia gas or sulfide gas.

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