XM7

USB Connectors

Small Interface Connectors That Conform to USB Standards

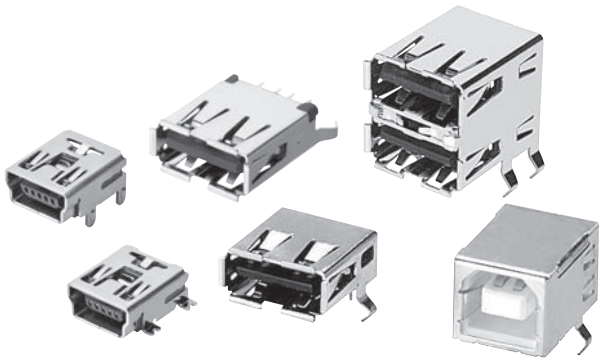
- **Compliant with the USB 2.0 standard.**

mini-USB Connectors

- **Insertion durability of 5,000 times.**
- **Lineup includes models with right-angle DIP terminals and SMT terminals.**
- **Models with SMT terminals are available with reel packaging.**

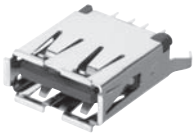
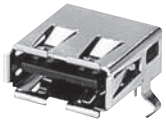
USB Connectors

- **Insertion durability of 1,500 times.**
- **USB A-type sockets for mounting on personal computers and USB hubs. USB B-type sockets for mounting on printers, scanners, mouses, and other peripheral devices for computers.**



RoHS Compliant

■Connectors

USB 2.0 Mini-USB Connectors	Appearance	Right-angle DIP Terminals		Right-angle SMT Terminals	
	Model	**XM7D-0512**		**Packaged on stick: XM7D-0514, Packaged on reel: XM7D-0514-R**	
	Page	Page 2			
USB 2.0 Connectors	Appearance	Straight DIP Terminals 	Right-angle DIP Terminals 	Right-angle DIP Terminals	Right-angle DIP Terminals
	Model	**XM7A-0441**	**XM7A-0442**	**XM7A-0442-A**	**XM7B-0442**
	Page	Page 4			

XM7D USB 2.0 mini-USB Connectors

■Model Number Legend

XM7D-05 1 □-□
1 2 3 4 5

1 Type
D: mini-B-type socket

2 No. of Contacts
05: 5 contacts

3 Plating Specification
1: Gold plating

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

5 Special Specification
(Right-angle SMT Terminals Only)
Blank : Packaged on tray or stick
R : Packaged on reel

■Ordering Information

●Sockets

Appearance	Right-angle DIP terminals	Right-angle SMT terminals
Model	**XM7D-0512**	**XM7D-0514**
Minimum ordering quantity (pieces)	100/tray	50/stick
Model	–	**XM7D-0514-R**
Quantity per reel (pieces)*	–	500/reel*

* Please order by integer multiple of the quantity per reel.

■Ratings and Characteristics

Rated current	1 A
Rated voltage	30 VAC
Contact resistance	50 mΩ max. (at 20 mV, 100 mA max.)
Insulation resistance	100 MΩ min.
Dielectric strength	100 VAC for 1 min (leakage current: 0.5 mA max.)
Insertion durability	5,000 times
Ambient operating temperature	0 to 50°C (with no icing or condensation)

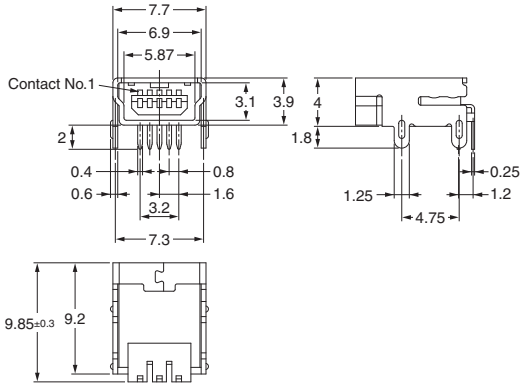
■Materials and Finish

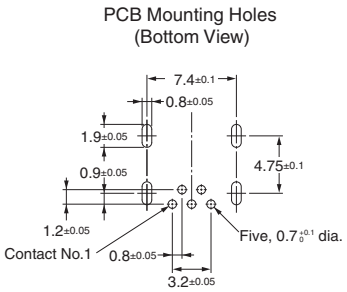
Housing		LCP/Black
Contacts	Mating end	Copper alloy/gold plating
	Terminals	Copper alloy/tin plating
Shell		Copper alloy/nickel plating

■Dimensions

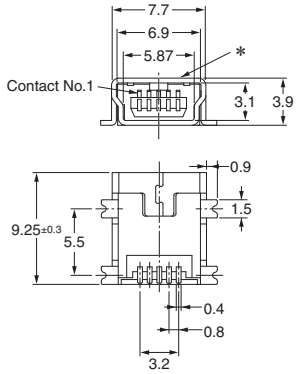
(Unit: mm)

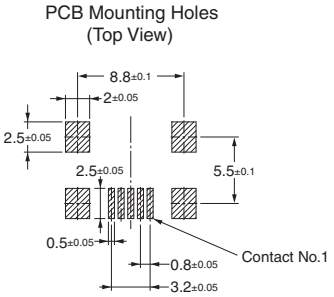
XM7D-0512





XM7D-0514
XM7D-0514-R





* The adhesive tape is on the top surface of the Connectors.

XM7A/B USB 2.0 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

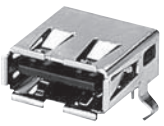
3 Plating Specification
4: Gold plating

4 Terminal Shape
1: Straight DIP terminals
2: Right-angle DIP terminals

5 Special Specification (A-type Sockets Only)
Blank : Single socket
A : Double stacked sockets

■Ordering Information

●Sockets

Item / Type	Single A-type Socket	Single A-type Socket	Double Stacked A-type Sockets	Single B-type Socket
Appearance	Straight DIP Terminals	Right-angle DIP Terminals 	Right-angle DIP Terminals	Right-angle DIP 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.)
Insulation resistance	1,000 MΩ min. (at 500 VDC)
Dielectric strength	750 VAC for 1 min (leakage current: 0.5 mA max.)
Insertion durability	1,500 times
Ambient operating temperature	–40 to 60°C (with no icing or condensation)

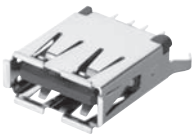
■Materials and Finish

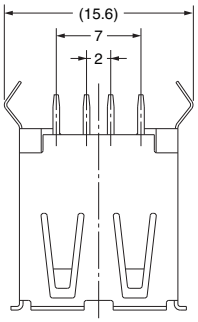
Housing		PBT A-type Sockets: Black B-type Sockets: White
Contacts	Mating end	Copper alloy/gold plating
	Terminals	Copper alloy/tin alloy plating
Shell		Copper alloy/tin plating

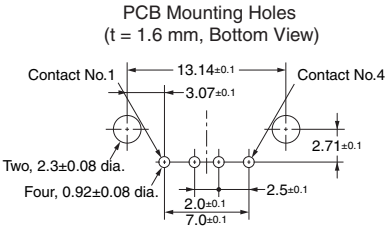
■Dimensions

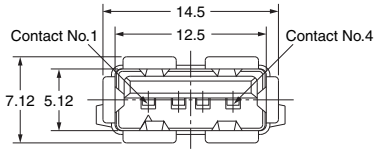
(Unit: mm)

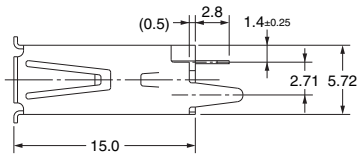
XM7A-0441
Single A-type Socket



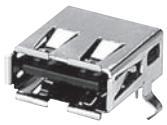


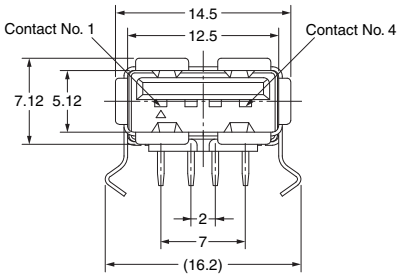


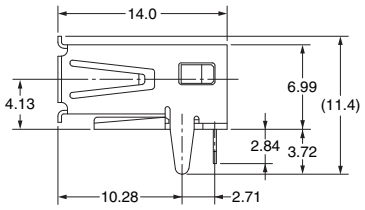


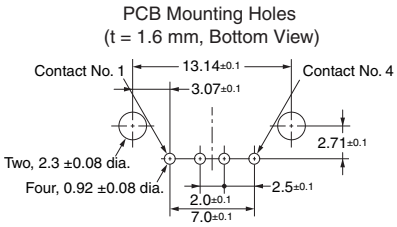


XM7A-0442
Single A-type Socket

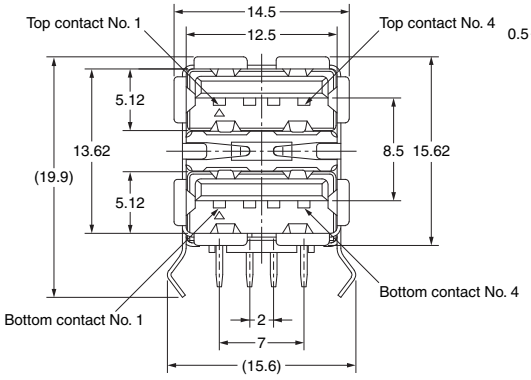


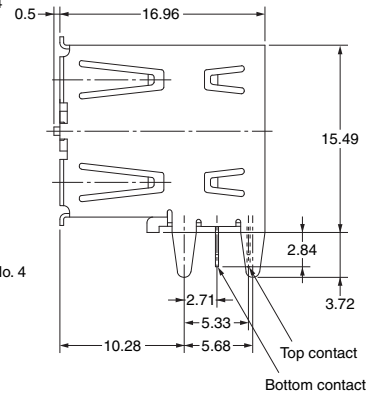


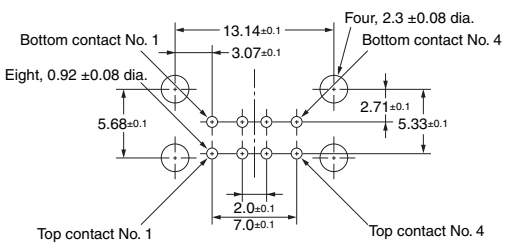




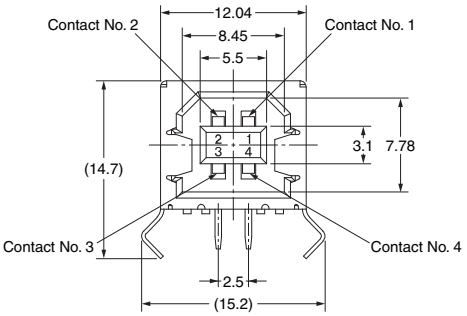
XM7A-0442-A
Double Stacked A-type Sockets

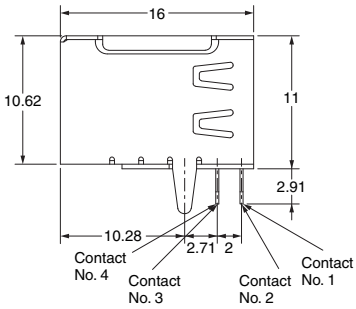




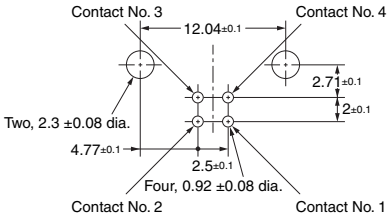


XM7B-0442
Single B-type Socket





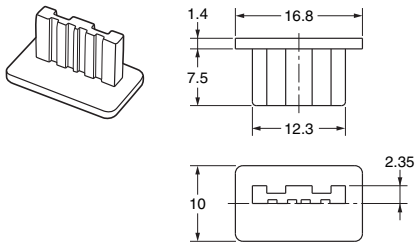
PCB Mounting Holes
(t = 1.6 mm, Bottom View)



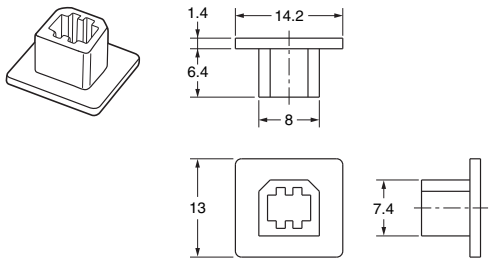
■Accessories (sold separately)

(Unit: mm)

●Dust cover (For XM7A Single 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 (with no icing or condensation)
Material	PE

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

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

■Precautions

Precautions for Correct Use

●Automatic Soldering

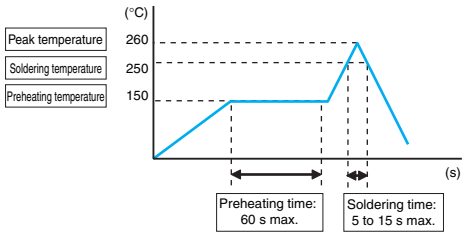
Reference Information: Automated Soldering Conditions (Jet Flow)

(1) Soldering temperature: 250 ±5°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.

●Metal Mask for Cream Solder Printing

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.

●Mating

Do not connect the connectors in the wrong direction.
Doing so will damage the connectors.

●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.

MEMO

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Note: Do not use this document to operate the Unit.

OMRON Corporation
Electronic and Mechanical Components Company
Contact: www.omron.com/ecb

Cat. No. G079-E1-04
0914(0813)(O)

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Адрес: 105318, г.Москва, ул.Щербаковская д.3, офис 1107

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Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

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