

# TX20 SERIES CONNECTORS

## 1.27mm (.050") Contact Spacing, EMI Shielded, PCB-to-PCB Connectors



The TX20 Series is specifically designed to meet high density board-to-board interconnection requirements.

TX20 Series connectors enable either a horizontal or vertical connection between units without using a cable. This low profile half pitch 1.27mm (.050") connector is designed with an extremely low mounting height of 5.4mm (.212") for 10 to 120 contacts in horizontal connection.

The connector features a rugged metal shell that interfaces with the unit, and the reliable ribbon style contact design protects against twisting. The metal ground lug provides excellent EMI shielding for applications that require EMI protection as well as high density.

The flexibility of this connector makes it an ideal product for notebook computers and other high density applications such as disk drives and memory devices.

### FEATURES

- Contact spacing on mating side:  
1.27mm (.050") double row (10 to 120 contacts)  
1.27mm (.050") 4 rows (200 contacts)
- Contact spacing on tail side:  
1.27mm (.050") between contacts  
1.905mm (.075") between staggered rows
- Horizontal or vertical connection between boards is accomplished by combining right angle receptacles with straight or right angle plugs
- Reliable ribbon style contacts are more durable against twisting during mating or unmating
- Ground lug is provided on tail for grounding to PCB
- Eight longer contacts on the outer ends of the receptacle are extended for first to make, last to break

### GENERAL SPECIFICATIONS

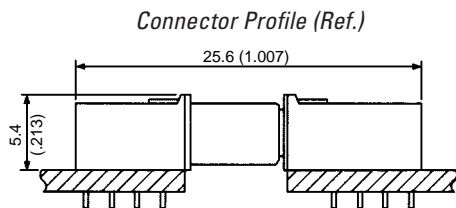
Number of Contacts	10, 26, 40, 120, 200 (Note 1)
Contact Spacing	1.27mm (.050")
Current Rating	0.5 Amps
Dielectric Withstanding Voltage	500 VAC r.m.s. (for one minute)
Insulation Resistance	100 megohms min. (100 VDC)
Contact Resistance	40 milliohms max.
Operating Temperature	-40°C to +80°C

Note 1: Straight plug is available only with 120 contacts.

### MATERIALS AND FINISHES

Description	Materials/Finishes
Shell	Steel/Nickel Plating
Insulator	Glass-filled PBT/UL94V-0, Black
Contact	Phosphor Bronze Connection area: 0.1µm (.000004") Gold over Nickel Terminal area: Tin plating
Ground Lug	Phosphor Bronze/Tin Plating (Note 2)
Hex Nut	Brass/Nickel Plating
Hook Pin	Phosphor Bronze/Tin Plating

Note 2: Zinc alloy/Nickel Plating for 200 contacts.



Example of combined receptacle and plug

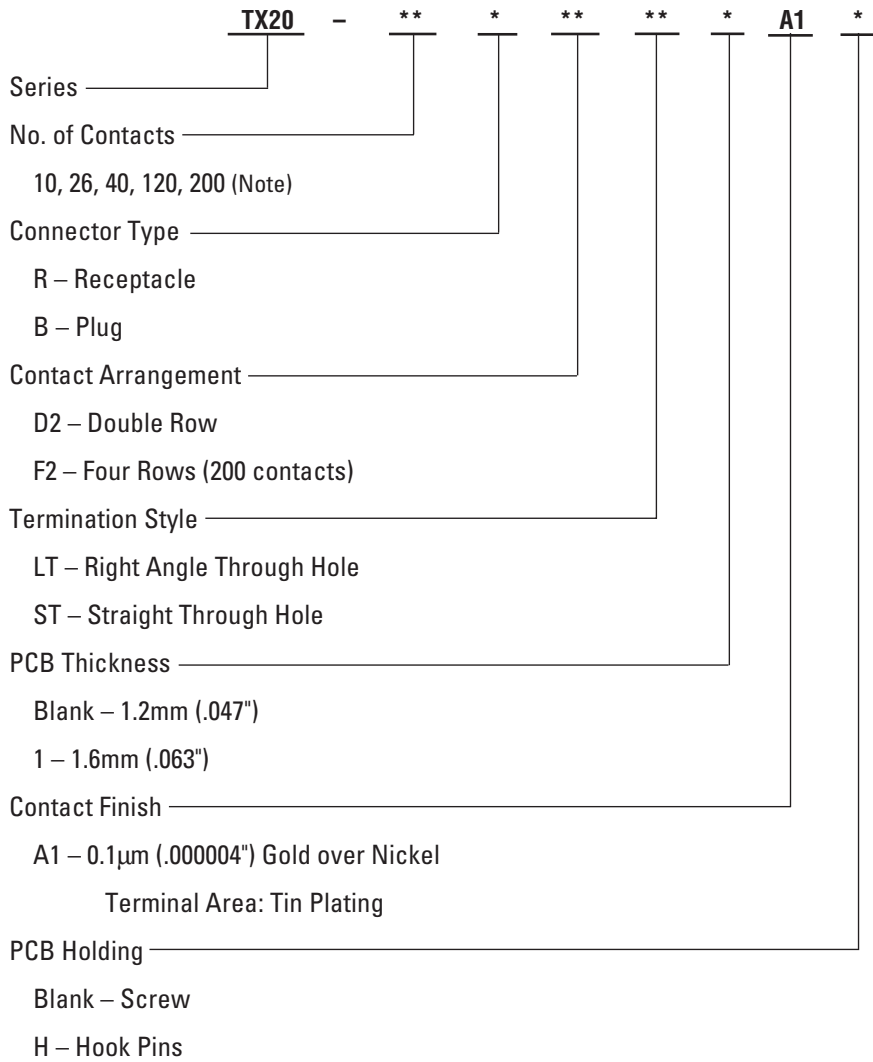
Dimensions in mm (inches).



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## ORDERING INFORMATION



Note: Straight is available only with 120 contacts plug.

Dimensions and specifications subject to change without notice.

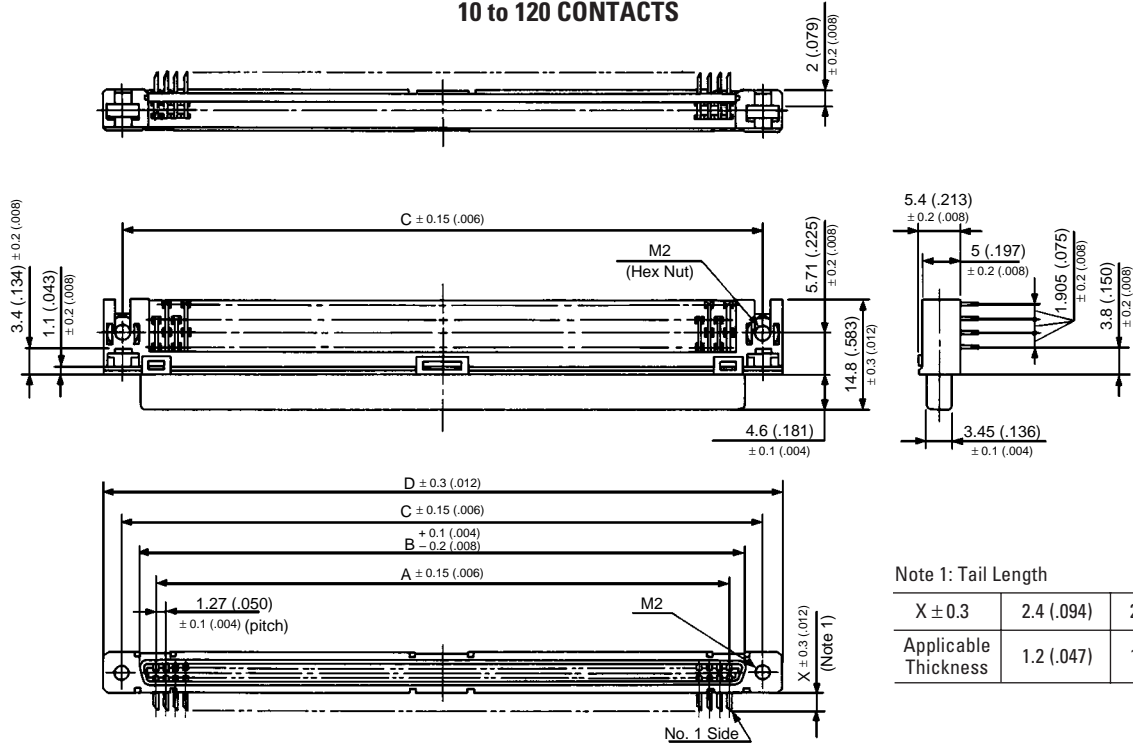


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### RECEPTACLE • RIGHT ANGLE THROUGH HOLE TYPE

#### 10 to 120 CONTACTS



Note 1: Tail Length

X ± 0.3	2.4 (.094)	2.8 (.110)
Applicable Thickness	1.2 (.047)	1.6 (.063)

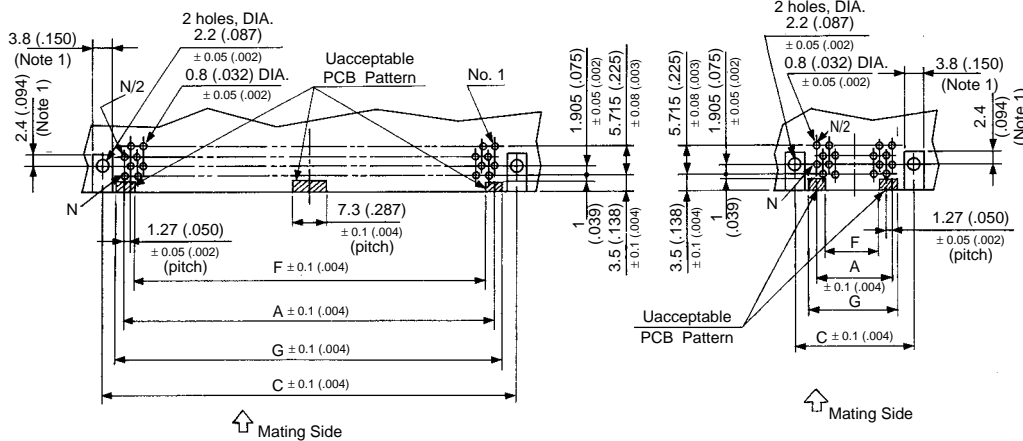
#### PCB Hole Patterns (Ref.)

Applicable PCB thickness: 1.2mm (.047") & 1.6mm (.063")

#### 40, 120 Contacts

#### 10, 26 Contacts

#### Panel Cut-Out (Ref.)



Note 2: Ground lug dimensions/2.4mm (.094") & 3.8mm (.150")

No. of Contacts	Part Number		A	B	C	D	E	F	G
	For 1.2mm PCB thickness	For 1.6mm PCB thickness							
10	TX20- 10R-D2LT-A1	TX20- 10R-D2LT1-A1	5.08 ( .200)	9.34 ( .368)	13.97 ( .550)	19.08 ( .751)	10.74 ( .423)	—	9.38 ( .369)
26	TX20- 26R-D2LT-A1	TX20- 26R-D2LT1-A1	15.24 ( .600)	19.50 ( .768)	24.13 ( .950)	29.24 ( 1.151)	20.90 ( .823)	10.94 ( .431)	19.54 ( .769)
40	TX20- 40R-D2LT-A1	TX20- 40R-D2LT1-A1	24.13 ( .950)	28.39 ( 1.118)	33.02 ( 1.300)	38.13 ( 1.501)	29.79 ( 1.173)	19.83 ( .781)	28.43 ( 1.119)
120	TX20-120R-D2LT-A1	TX20-120R-D2LT1-A1	74.93 ( 2.950)	79.19 ( 3.118)	83.82 ( 3.300)	88.93 ( 3.501)	80.59 ( 3.173)	70.63 ( 2.781)	79.23 ( 3.119)

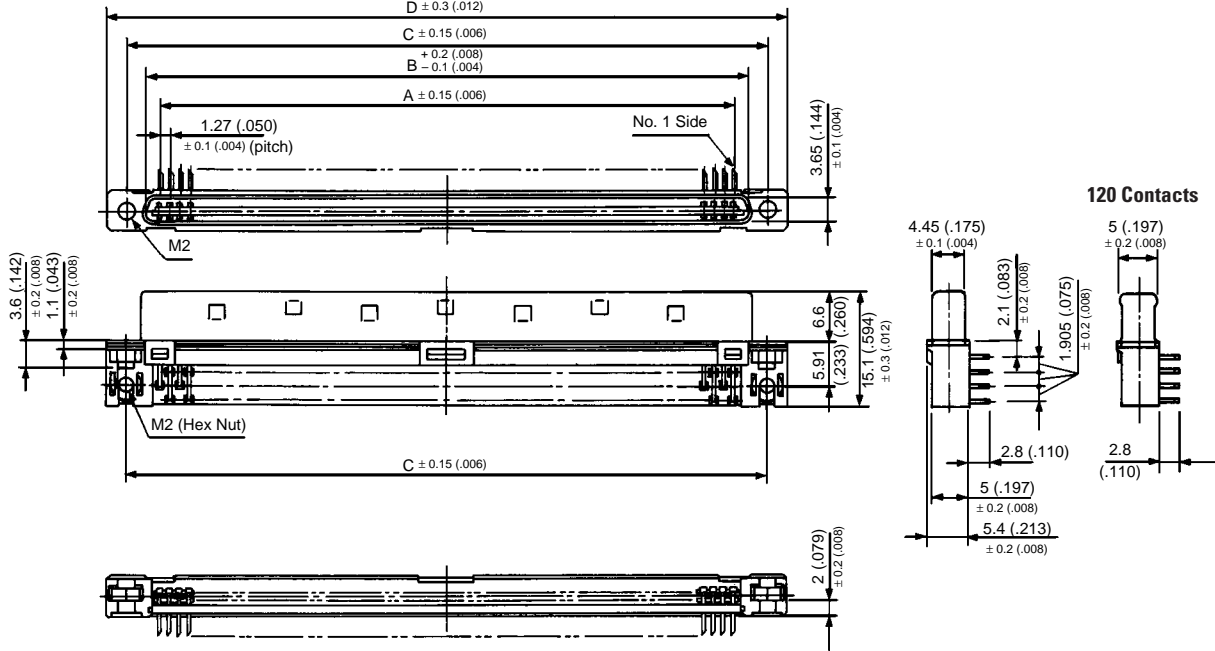
Dimensions in mm (inches).

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1.27mm (.050") Contact Spacing, EMI Shielded, PCB-to-PCB Connectors

PLUG • RIGHT ANGLE THROUGH HOLE TYPE

10 to 120 CONTACTS



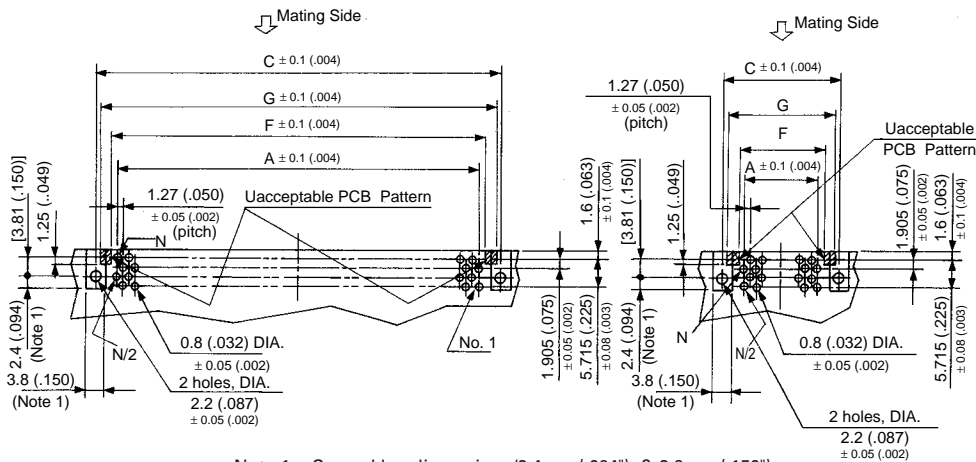
PCB Hole Patterns (Ref.)

Applicable PCB thickness: 1.2mm (.047") & 1.6mm (.063")

40, 120 Contacts

10, 26 Contacts

Panel Cut-Out (Ref.)



Note 1: Ground lug dimensions/2.4mm (.094") & 3.8mm (.150")

No. of Contacts	Part Number	For 1.6mm PCB thickness						
		A	B	C	D	E	F	G
10	TX20- 10B-D2LT1-A1	5.08 ( .200)	9.54 ( .376)	13.97 ( .550)	19.08 ( .751)	10.74 ( .423)	6.58 ( .259)	12.78 ( .503)
26	TX20- 26B-D2LT1-A1	15.24 ( .600)	19.70 ( .776)	24.13 ( .950)	29.24 ( 1.151)	20.90 ( .823)	16.74 ( .659)	22.94 ( .903)
40	TX20- 40B-D2LT1-A1	24.13 ( .950)	28.59 ( 1.126)	33.02 ( 1.300)	38.13 ( 1.501)	29.79 ( 1.173)	25.63 ( 1.009)	31.83 ( 1.253)
120	TX20-120B-D2LT1-A1	74.93 ( 2.950)	79.39 ( 3.126)	83.82 ( 3.300)	88.93 ( 3.501)	80.59 ( 3.173)	76.93 ( 3.029)	82.63 ( 3.253)

Dimensions in mm (inches).

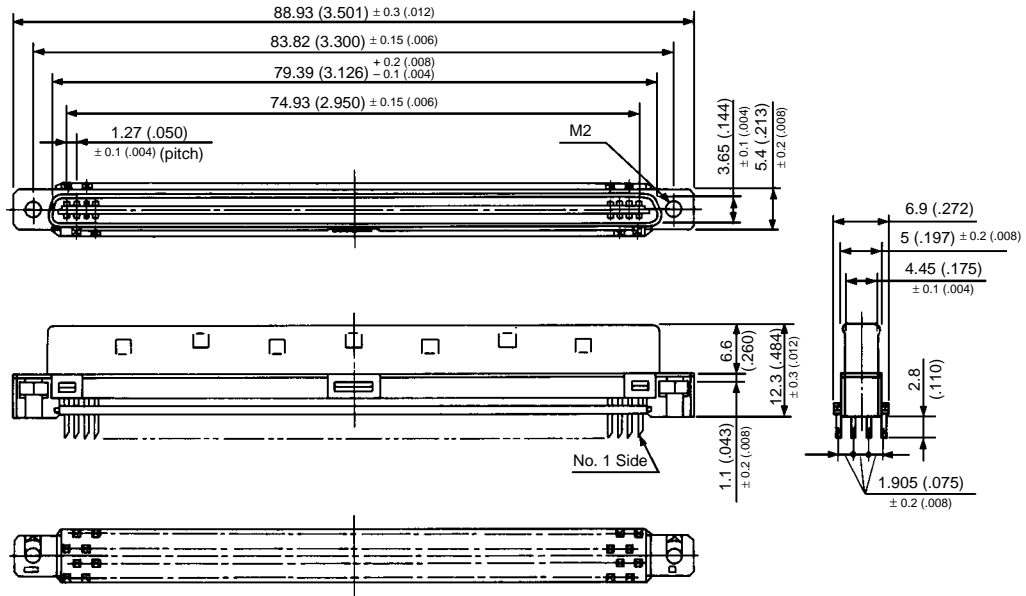
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PLUG • STRAIGHT THROUGH HOLE TYPE

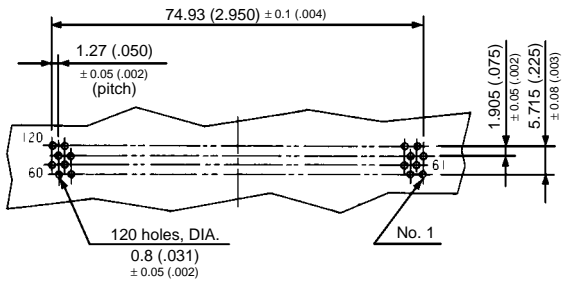
120 CONTACTS

Part Number: TX20-120B-D2ST1-A1

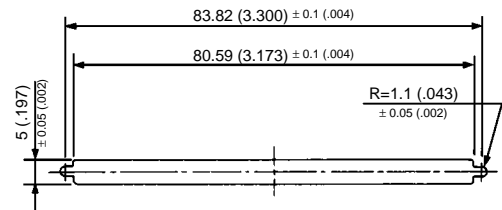


PCB Hole Patterns (Ref.)

Applicable PCB thickness: 1.6mm (.063")



Panel Cut-Out (Ref.)



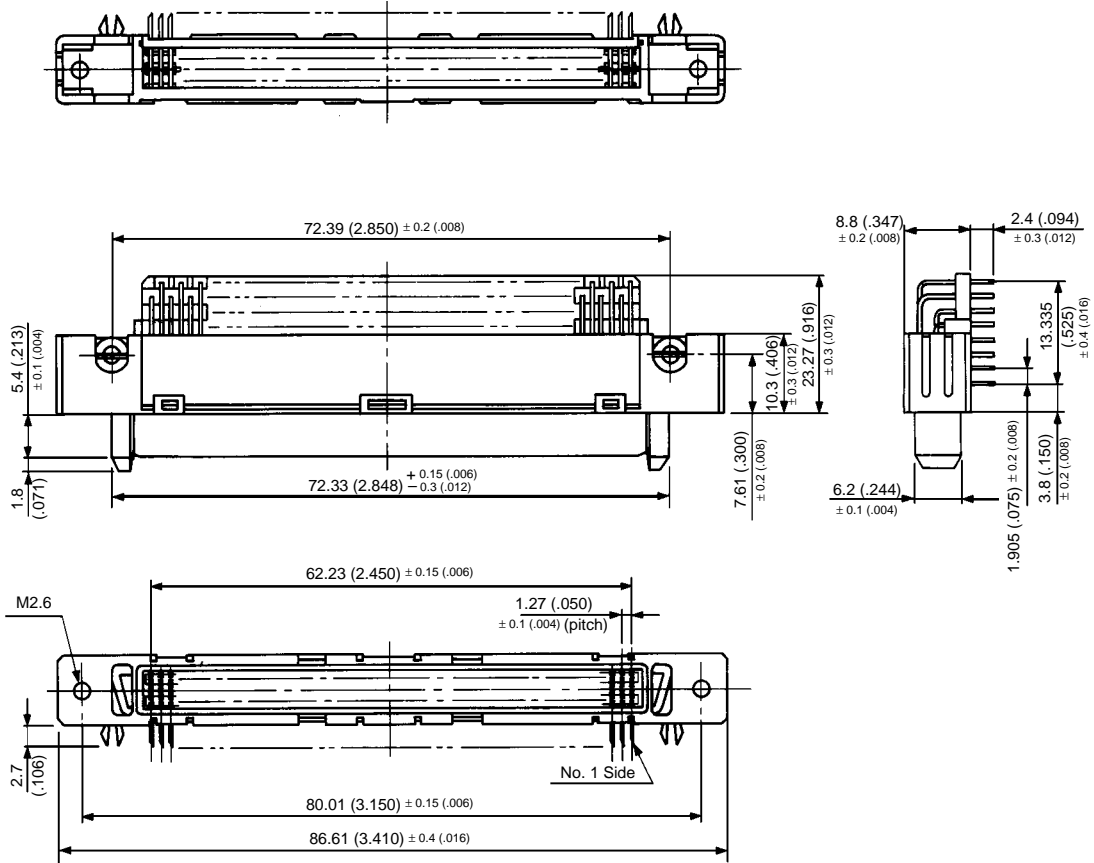
Dimensions in mm (inches).

# TX20 SERIES CONNECTORS

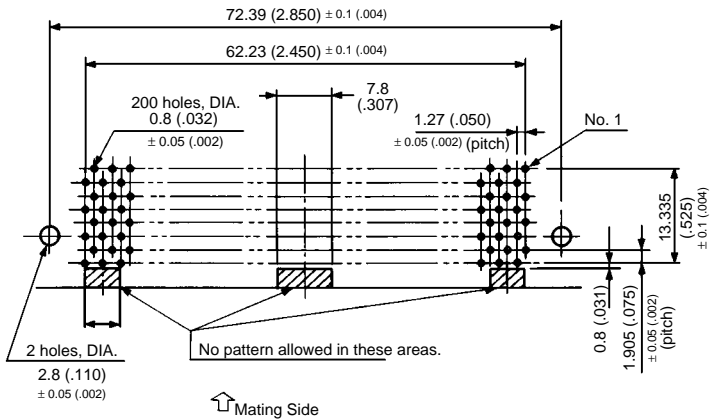
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RECEPTACLE • RIGHT ANGLE THROUGH HOLE TYPE

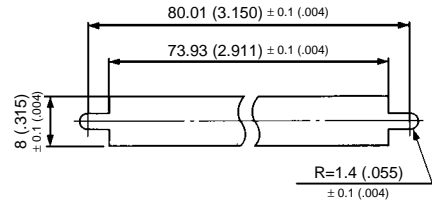
200 CONTACTS



PCB Hole Patterns (Ref.)  
Applicable PCB thickness: 1.2mm (.047")



Panel Cut-Out (Ref.)



No. of Contacts	Part Number	
	Without hook pin	With hook pin
200	TX20-200R-F2LT-A1	TX20-200R-F2LT-A1H

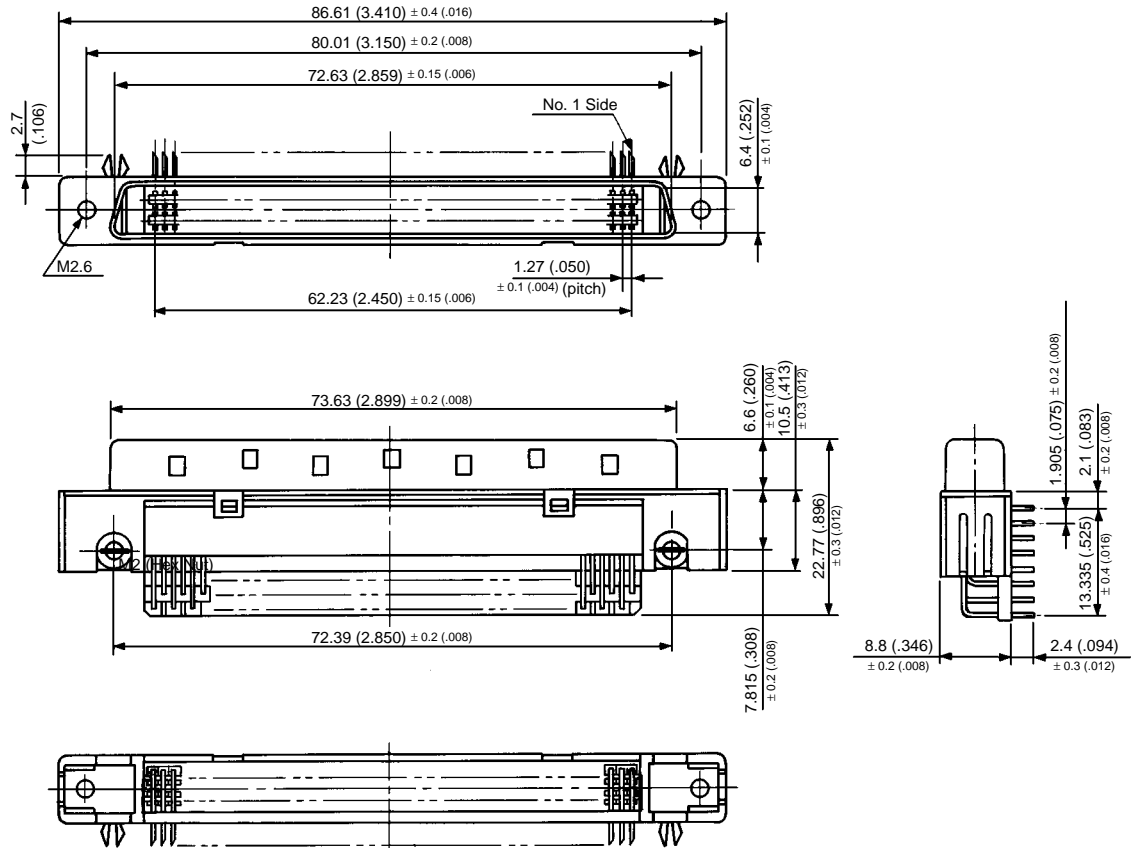
Dimensions and specifications subject to change without notice.

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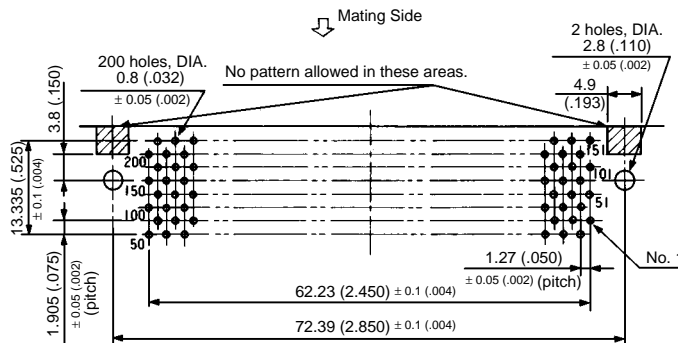
### PLUG • RIGHT ANGLE THROUGH HOLE TYPE

#### 200 CONTACTS

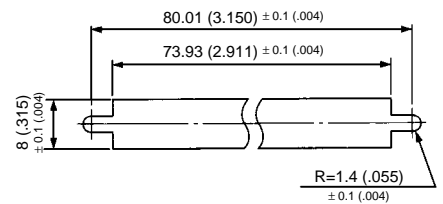


#### PCB Hole Patterns (Ref.)

Applicable PCB thickness: 1.2mm (.047")



#### Panel Cut-Out (Ref.)



No. of Contacts	Part Number	
	Without hook pin	With hook pin
200	TX20-200B-F2LT-A1	TX20-200B-F2LT-A1H

Dimensions in mm (inches).