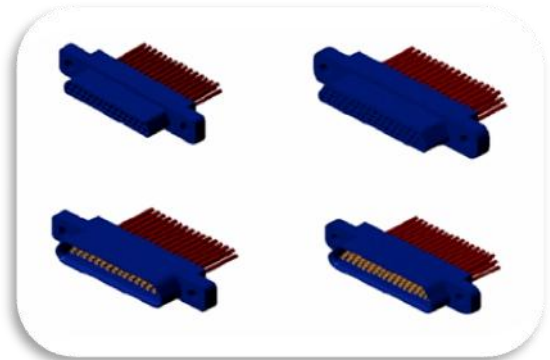


## MD Micro Rectangle Connectors

### Product Features

- Seven kinds of Product size including 9pin,15 pin,21 pin,25 pin, 31 pin, 37 pin, 51 pin.
- Adopting stranded elastic pin with high contacting destiny.
- Cutting the core area of conducting wire from  $0.1\text{mm}^2$  to  $0.15\text{mm}^2$ , also using  $0.07\text{mm}^2$ .
- Contacting size is 24# . Trailing end termination methods including crimping conducting wire, straight cutting into PCB, bend cutting into PCB.
- Product performance confirming to the requirements of GJB2446.
- Mounting accessories of this series products purchased according to order requirements.



### Product Specification

Plated Material and Finish	
Plastic housing	PBT, Glass- fiber reinforced 30%, UL94-V0, Blue
Elastic pin	Beryllium bronze, Gold plating
Body of pin	Phosphor bronze, Gold plating
Socket	Phosphor bronze, Gold plating
Mounting Accessories	Stainless steel ,aluminium alloy or copper alloy, Nickel plating
Mechanical Property	
Maximum insertion force of contact	0.8N
Minimum separating force of contact	0.3N
Vibration	10Hz ~ 2000Hz 196m/s <sup>2</sup>
Random vibration	PSD 0.4G <sup>2</sup> /Hz , RMS value of total acceleration 23.1G
Impact	735m/s <sup>2</sup> 11ms
Durability	1000 Cycles
Electrical Property	
Rate current	3A
Contact resistance	≤ 10mΩ
Insulation resistance	≥ 5000MΩ
Withstand voltage	800V
Environmental performance	
Operating temperature	-55℃~ +125℃

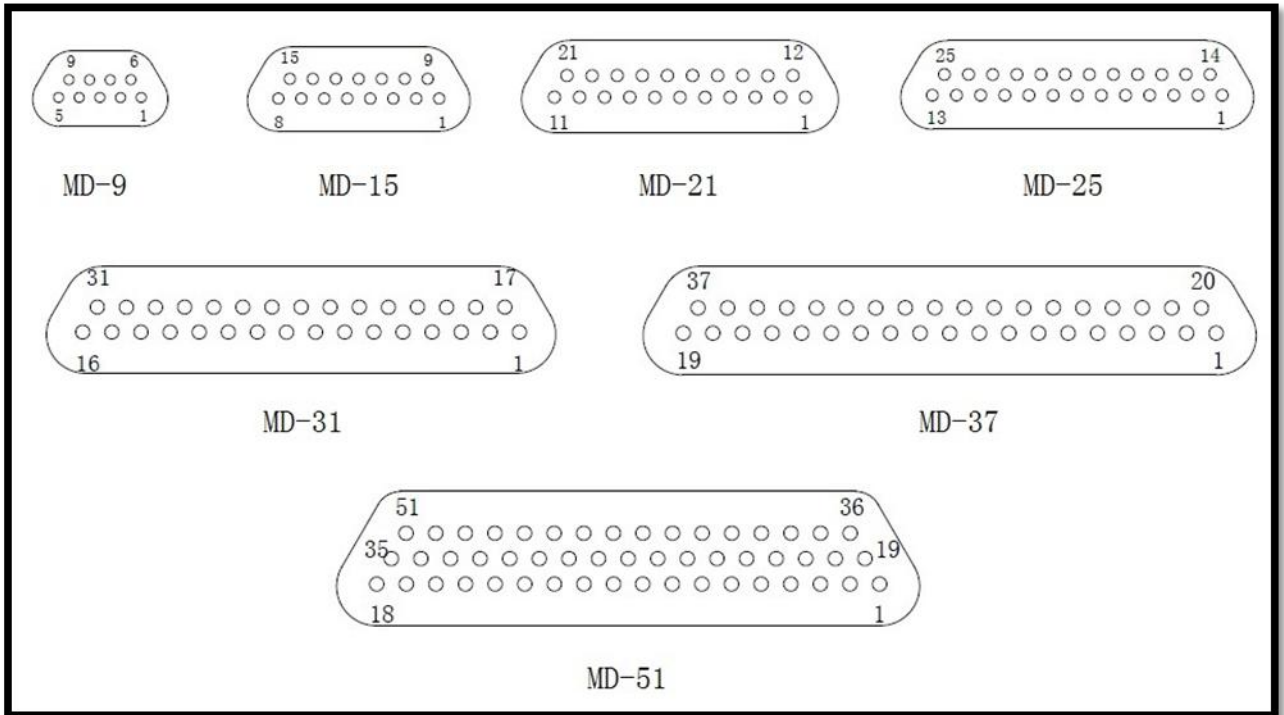
## Shenzhen Copocom electronics co., Ltd

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**Product Spectrum**



Note: Seeing from butting joint terminal of the plug.

**Product application**

- Mini Electronic equipment for military use
- Industrial-grade mobile terminal
- High-performance industrial computer
- Portable AIO
- Portable test instrument
- Portable data collector
- Laser module

**Order code**

MD - 9 T N - J  
 ① ② ③ ④ ⑤

- ① Master Code: MD
- ② Contact quantity: 9、15、21、25、31、37、51
- ③ Types of connector: T – Plug, Z – Receptacle
- ④ Types of Terminal: No letter - Crimping, N - Vertical, W – Right angle
- ⑤ Retrofit: J - Grid spacing for trailing end pins 1.27×2.54

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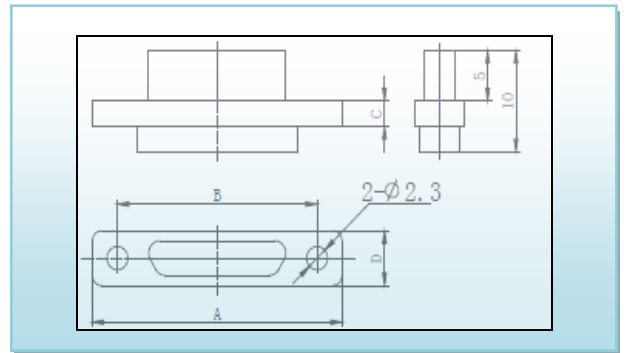
Tel: +86-0755-36695179 Email: sales@copocom.com

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**MD Crimp cable**

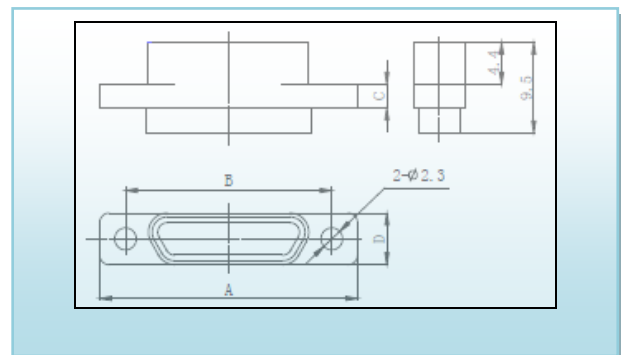
■ Plug

Order mark	A	B	C	D
MD-9T	19.8	14.3	2.5	5.4
MD-15T	23.6	18.2	2.5	5.4
MD-21T	27.5	22	2.5	5.4
MD-25T	30	24.5	2.5	5.4
MD-31T	33.7	28.3	2.5	5.4
MD-37T	37.5	32.2	2.5	5.4
MD-51T	36.3	30.8	2.3	6.5



■ Receptacle

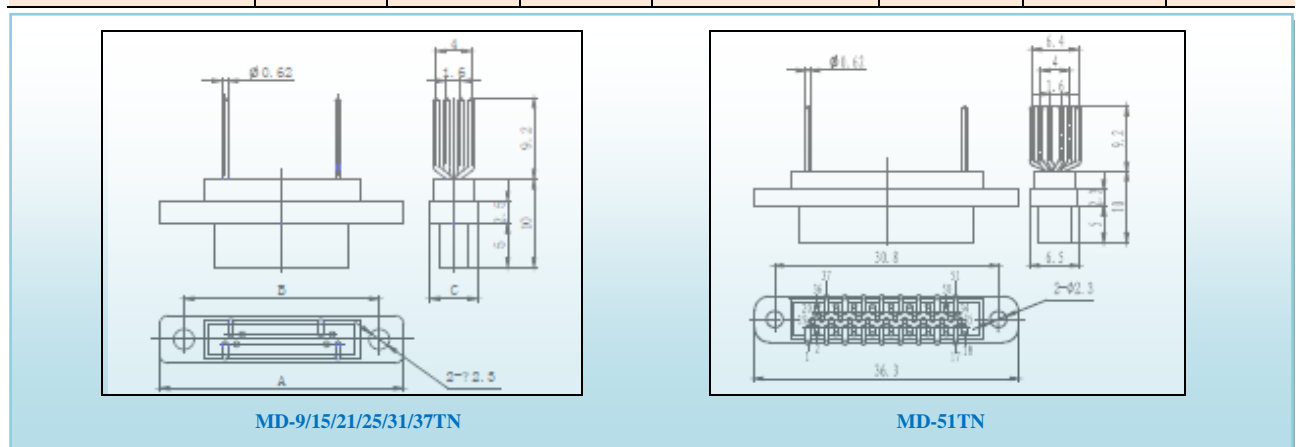
Order mark	A	B	C	D
MD-9Z	19.8	14.3	2.5	5.4
MD-15Z	23.6	18.2	2.5	5.4
MD-21Z	27.5	22	2.5	5.4
MD-25Z	30	24.5	2.5	5.4
MD-31Z	33.7	28.3	2.5	5.4
MD-37Z	37.5	32.2	2.5	5.4
MD-51Z	36.3	30.8	2.3	6.5



**MD-N Vertical**

■ Plug

Order mark	A	B	C	Order mark	A	B	C
MD-9TN	19.8	14.3	5.4	MD-25TN	30	24.5	5.4
MD-15TN	23.6	18.2	5.4	MD-31TN	33.7	28.3	5.4
MD-21TN	27.5	22	5.4	MD-37TN	37.5	32.2	5.4



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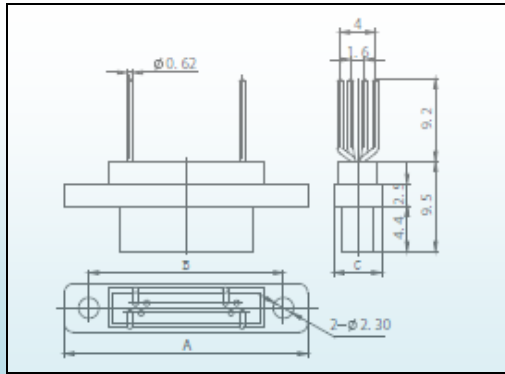
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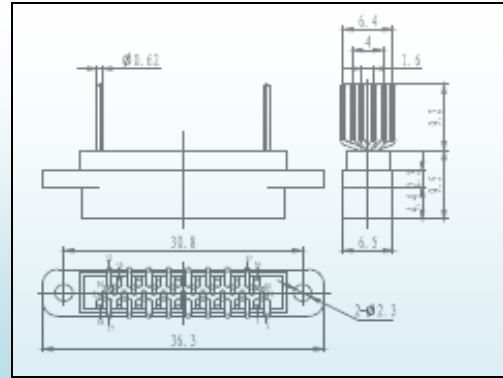
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■ Receptacle

Order mark	A	B	C	Order mark	A	B	C
MD-9ZN	19.8	14.3	5.4	MD-25ZN	30	24.5	5.4
MD-15ZN	23.6	18.2	5.4	MD-31ZN	33.7	28.3	5.4
MD-21ZN	27.5	22	5.4	MD-37ZN	37.5	32.2	5.4



MD-9/15/21/25/31/37ZN

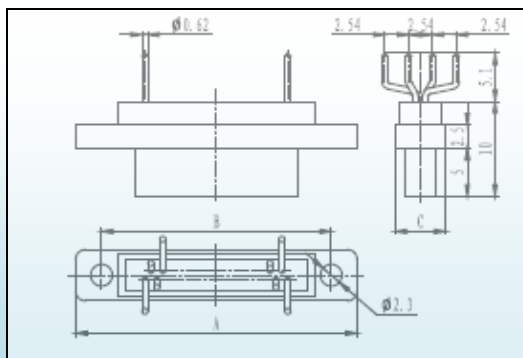


MD-51ZN

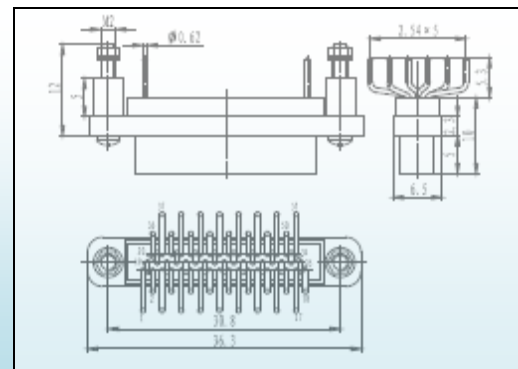
**MD-N1 Vertical**

■ Plug

Order mark	A	B	C	Order mark	A	B	C
MD-9TN1	19.8	14.3	5.4	MD-25TN1	30	24.5	5.4
MD-15TN1	23.6	18.2	5.4	MD-31TN1	33.7	28.3	5.4
MD-21TN1	27.5	22	5.4	MD-37TN1	37.5	32.2	5.4



MD-9/15/21/25/31/37TN1



MD-51TN1

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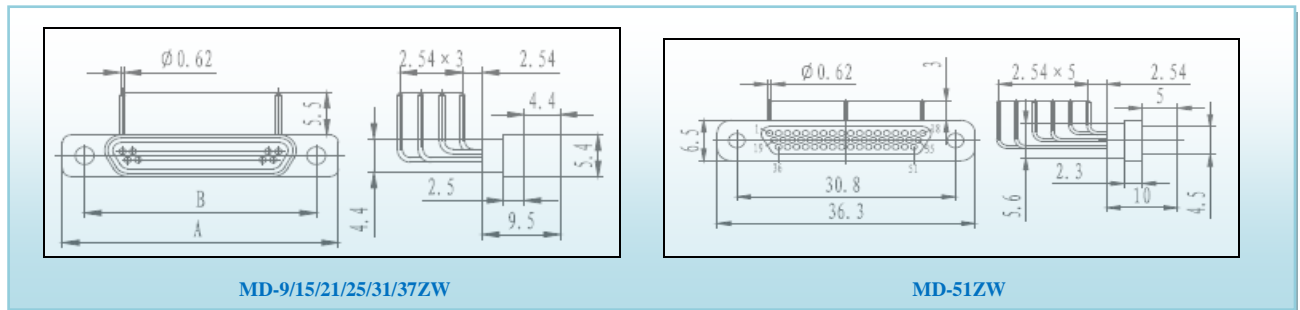
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■ Receptacle

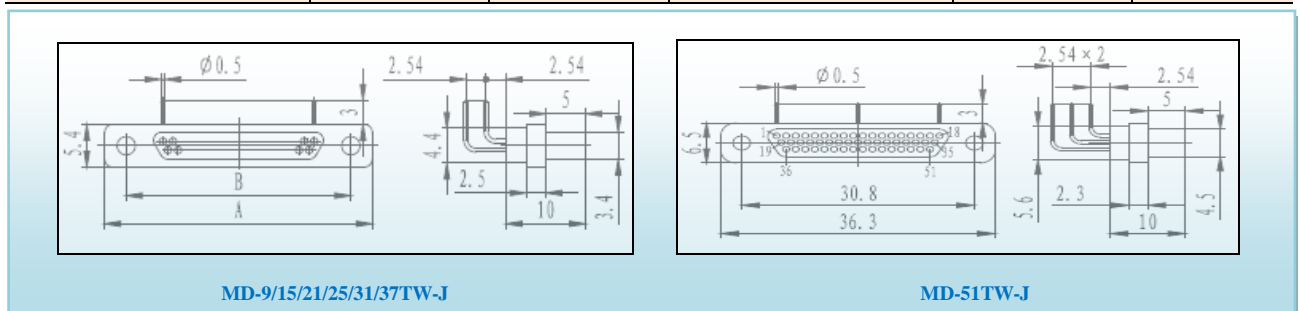
Order mark	A	B	Order mark	A	B
MD-9ZW	19.8	14.3	MD-25ZW	30	24.5
MD-15ZW	23.6	18.2	MD-31ZW	33.7	28.3
MD-21ZW	27.5	22	MD-37ZW	37.5	32.2



**MD-W-J Right angle**

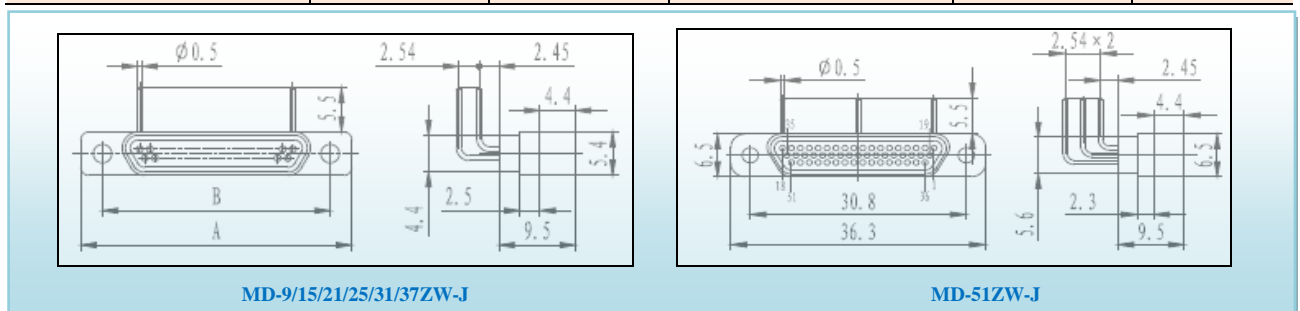
■ Plug

Order mark	A	B	Order mark	A	B
MD-9TW-J	19.8	14.3	MD-25TW-J	30	24.5
MD-15TW-J	23.6	18.2	MD-31TW-J	33.7	28.3
MD-21TW-J	27.5	22	MD-37TW-J	37.5	32.2



■ Receptacle

Order mark	A	B	Order mark	A	B
MD-9ZW	19.8	14.3	MD-25ZW	30	24.5
MD-15ZW	23.6	18.2	MD-31ZW	33.7	28.3
MD-21ZW	27.5	22	MD-37ZW	37.5	32.2



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**MD accessories**

■ There are many forms of MD accessories to meeting the installation and locking of the product. Customers can order separately as needed.

■ According to the different purposes, MD accessories can be divided into two types: locking component and installation component.

■ Locking components are generally used while the product docking needs reliable locking. They are usually installed on the free end of the swinging wire connectors and available for basic crimping series products.

■ Installation components are used to fix the product with installing panel or PCB together. They are usually installed on the fixed end of the swinging wire connector as well as PCB installation series products.

■ Chart for installation size of attachment structure.

Order mark	Name	Outline drawing	Structure drawing	Installation Diagrams
MD-L1	Locking component		Cross-pan head screw M2×6 Flat washer M2 Spring washer M2	
MD-P1	Front plate installation Installation component			
MD-P2	Straight cutting into PCB Installation component			
MD-P3	MD-9/21/25/31/37 Bend inserting into PCB Installation component			
MD-P4	MD-51 Bend inserting into PCB Installation component			
MD-P5	MD-9/21/25/31/37 Bend inserting into PCB Installation component			
MD-P6	MD-51 Bend inserting into PCB Installation component			

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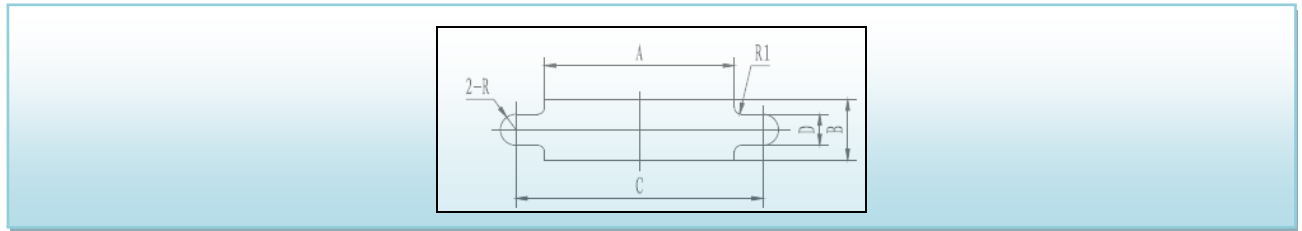
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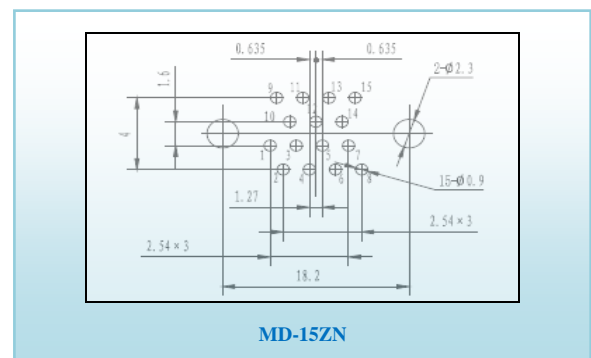
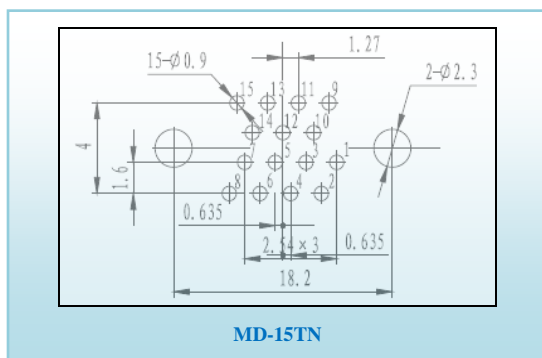
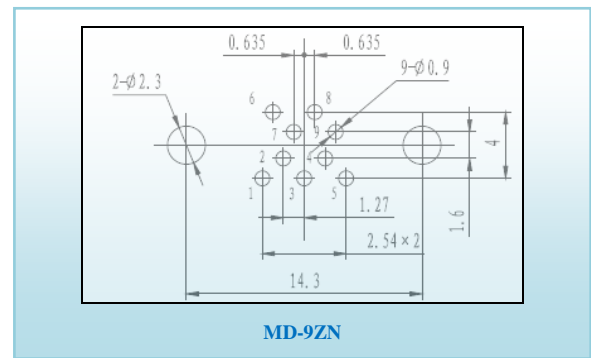
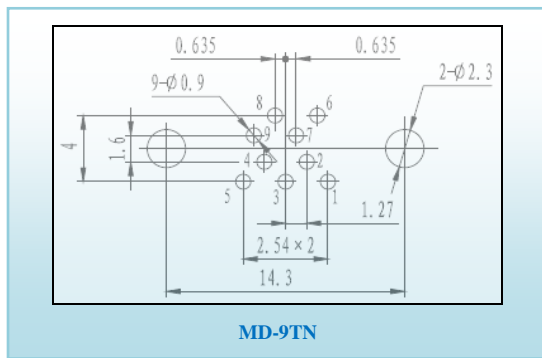
**Panel or PCB layout**

■ MD panel layout(From front of panel installation)



Product size	A	B	C	D
MD-9T/Z	10.1	4.6	14.3	2.3
MD-15T/Z	14.2	4.6	18.2	2.3
MD-21T/Z	17.9	4.6	22	2.3
MD-25T/Z	20.8	4.6	24.5	2.3
MD-31T/Z	24.2	4.6	28.3	2.3
MD-37T/Z	28.2	4.6	32.2	2.3
MD-51T/Z	26.9	5.9	30.8	2.3

■ MD-N PCB layout



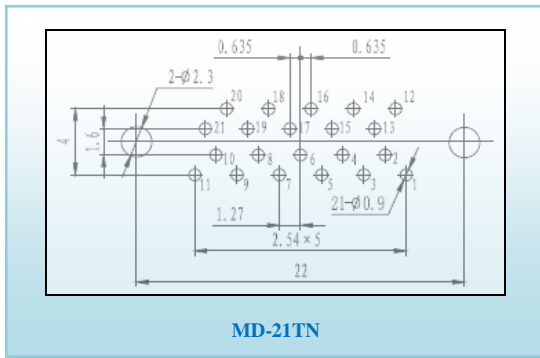
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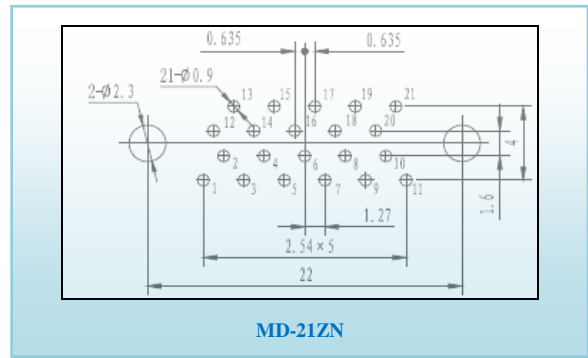
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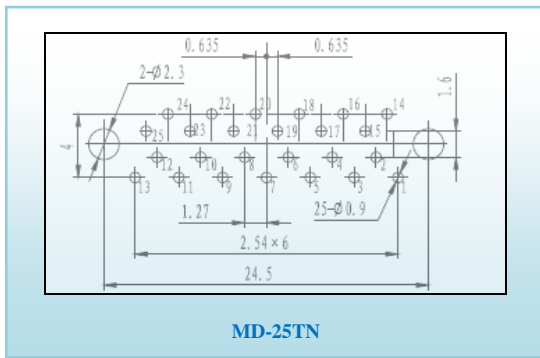




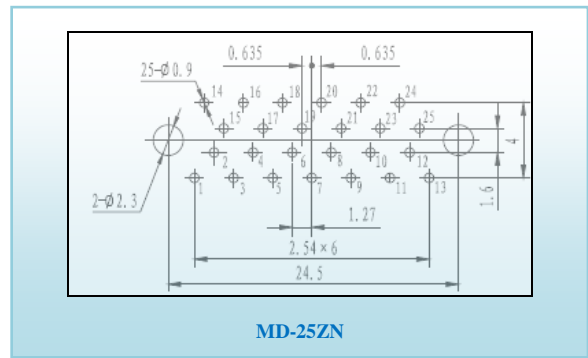
MD-21TN



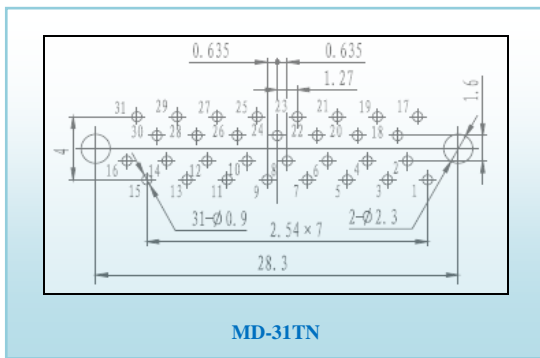
MD-21ZN



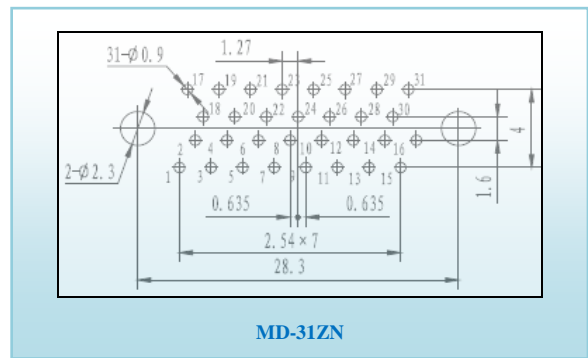
MD-25TN



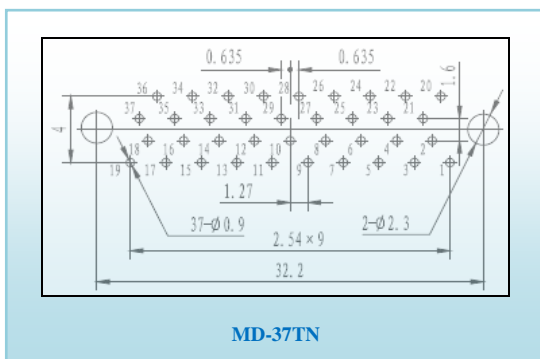
MD-25ZN



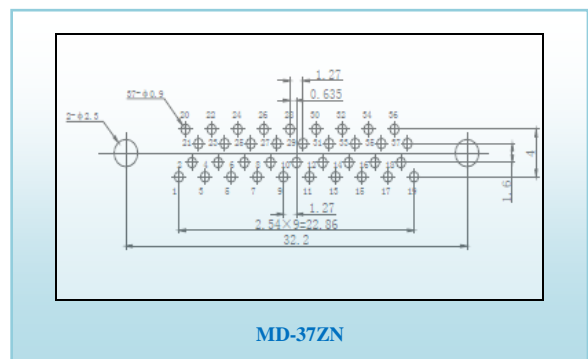
MD-31TN



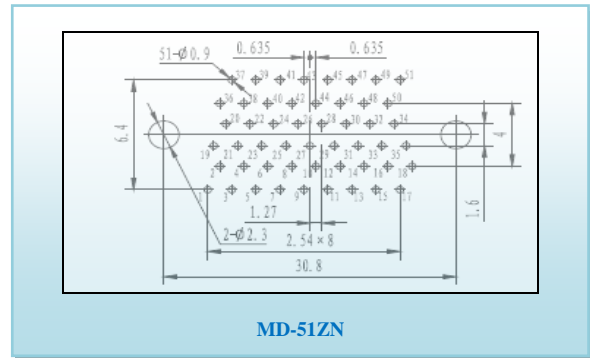
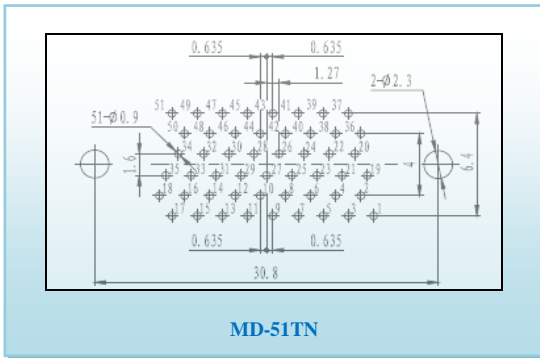
MD-31ZN



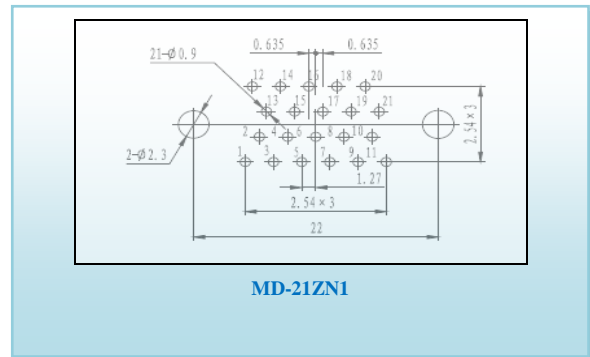
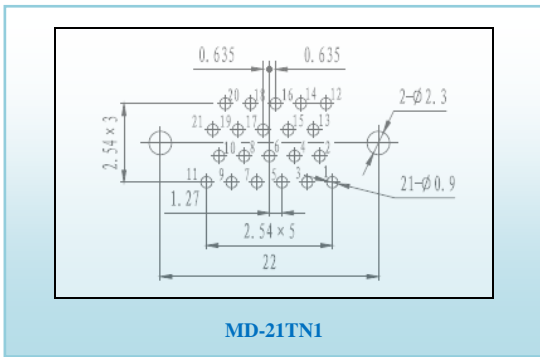
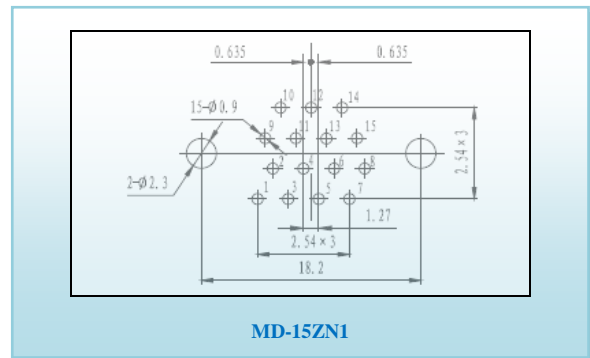
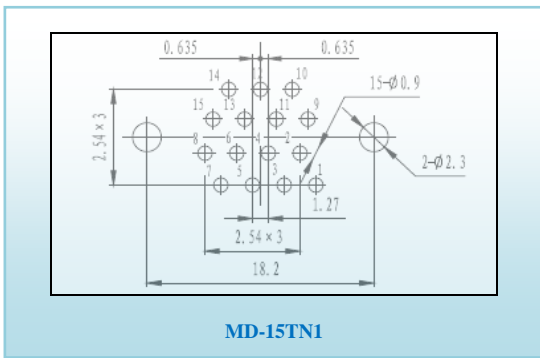
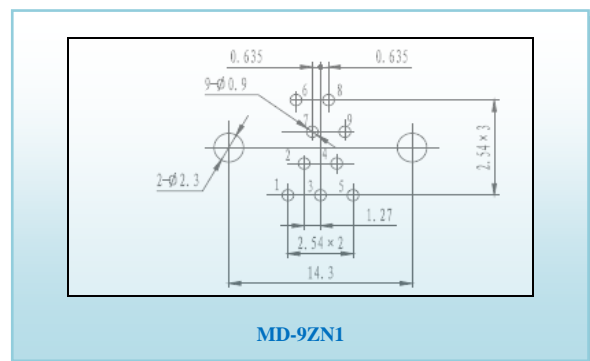
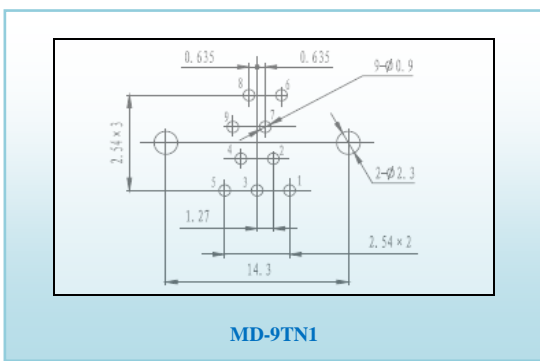
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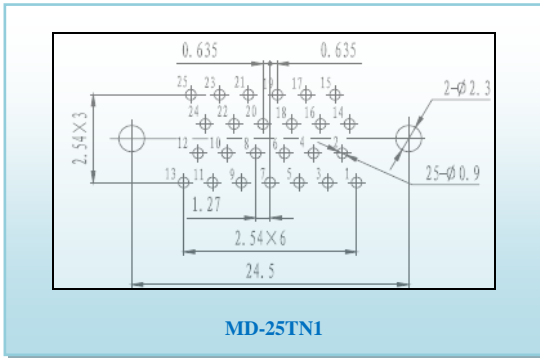


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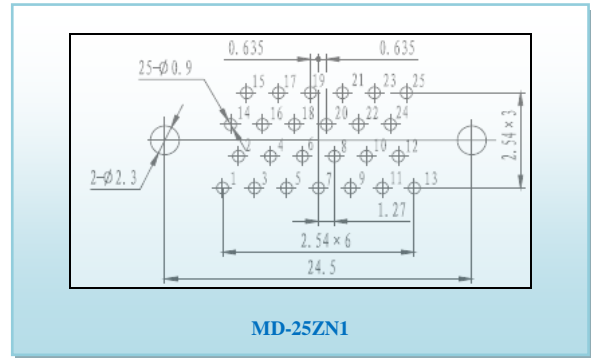


■ MD-N1 PCB layout

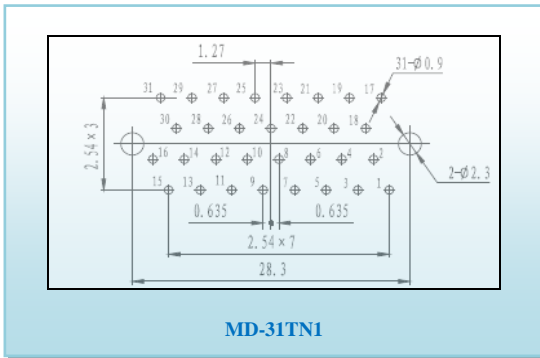




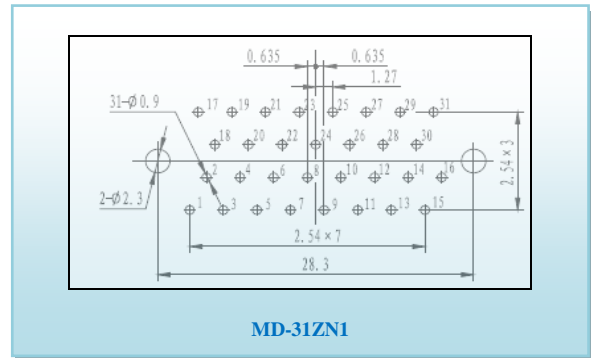
MD-25TN1



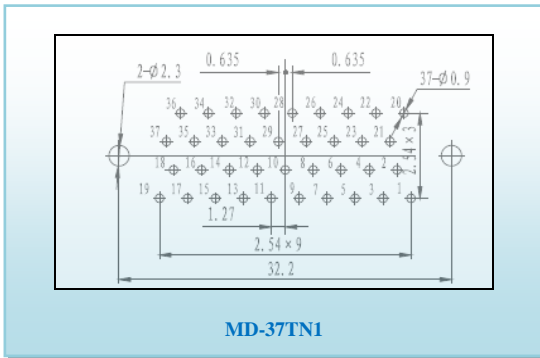
MD-25ZN1



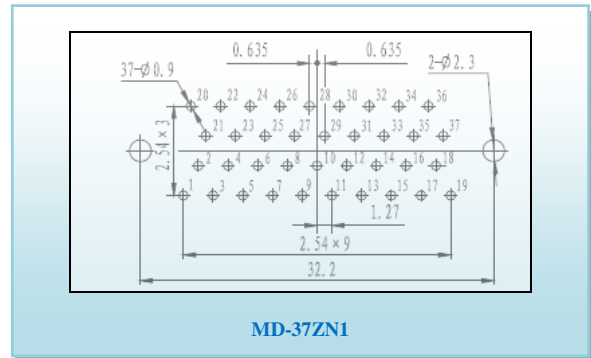
MD-31TN1



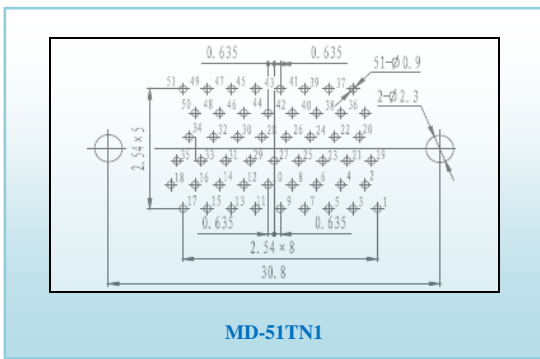
MD-31ZN1



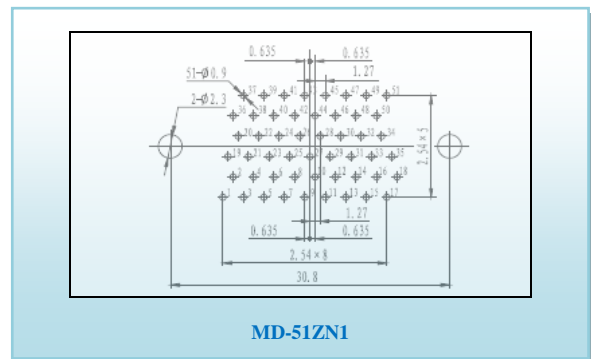
MD-37TN1



MD-37ZN1

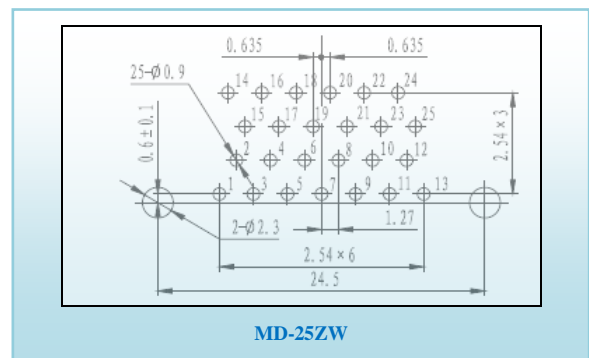
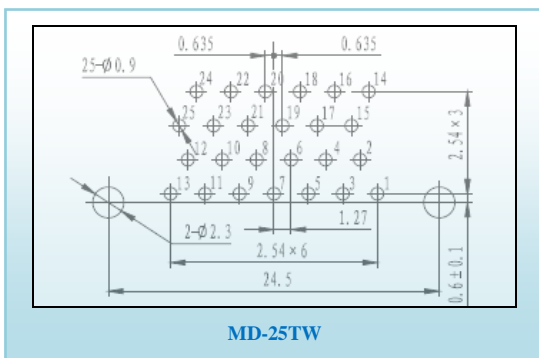
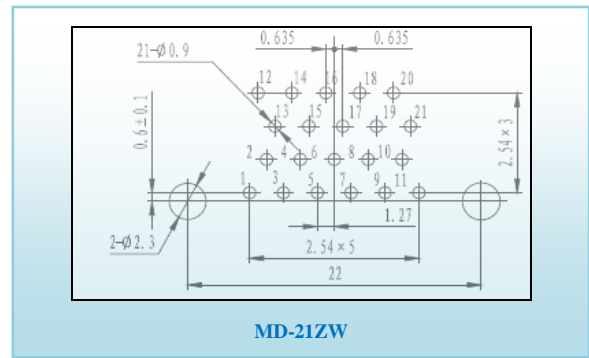
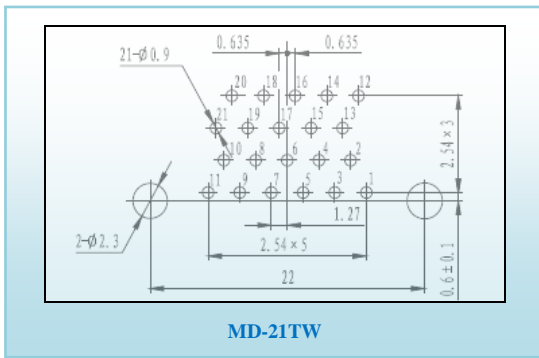
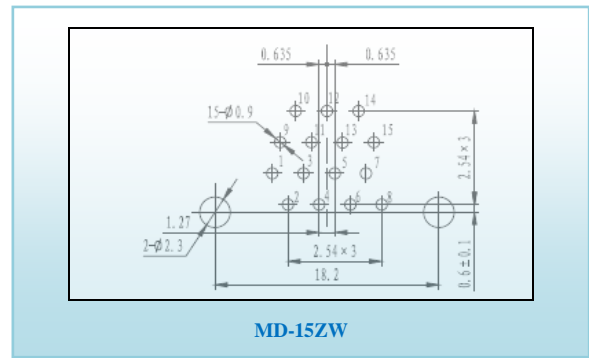
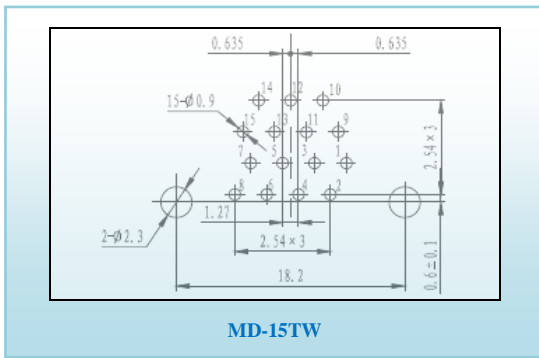
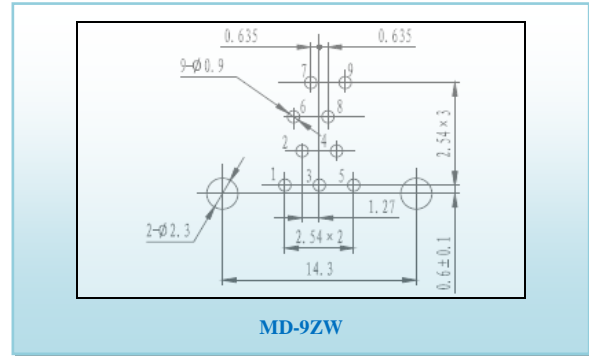
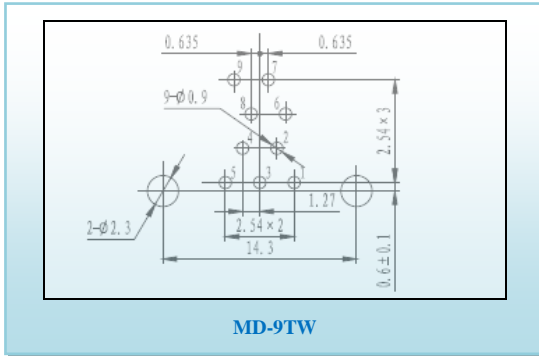


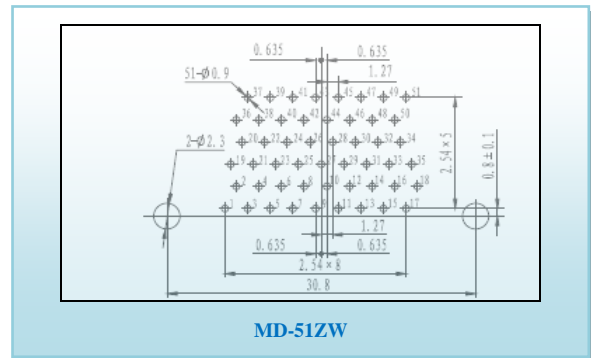
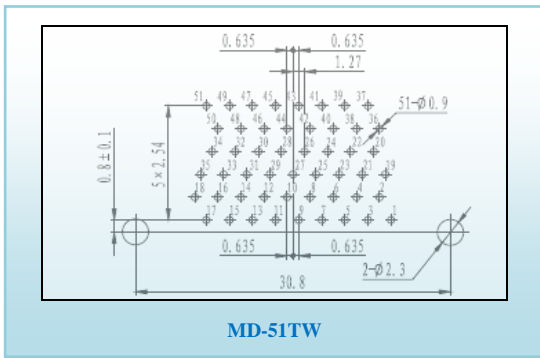
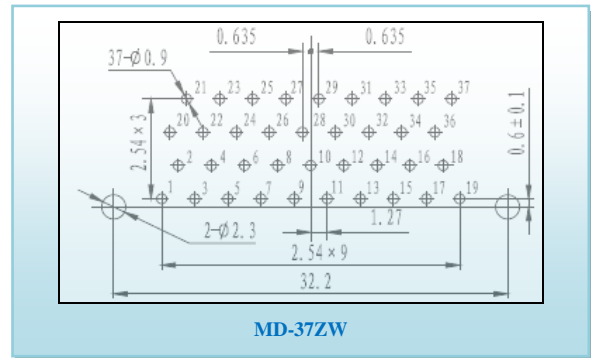
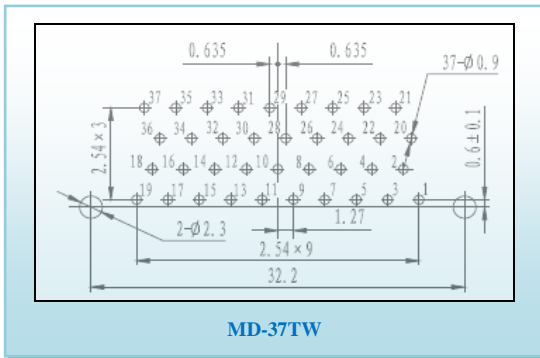
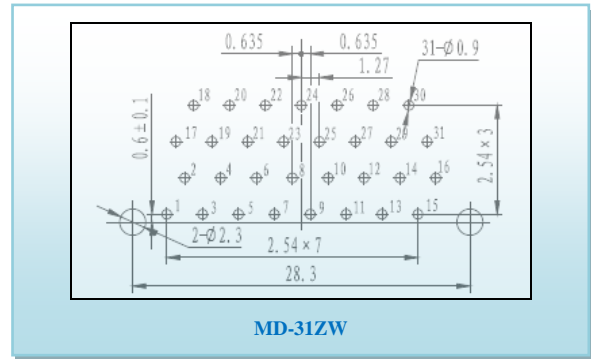
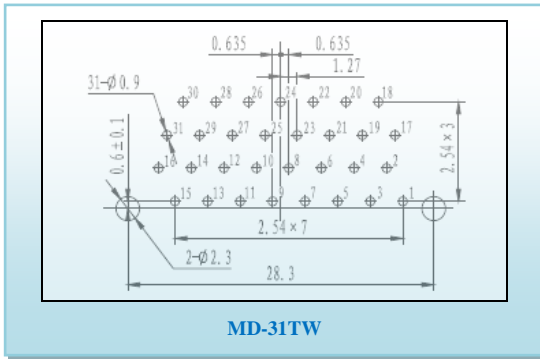
MD-51TN1



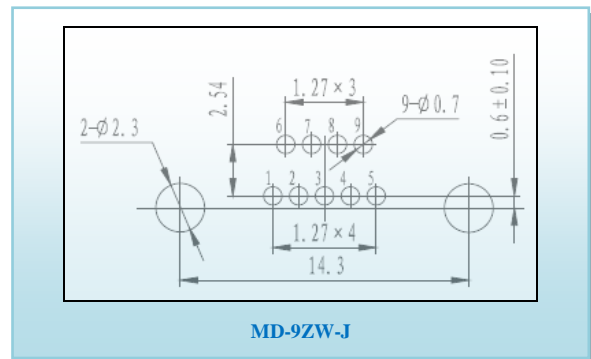
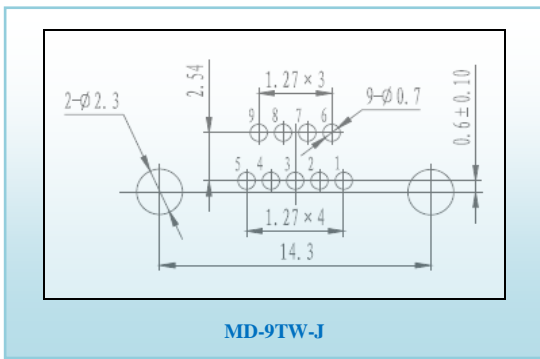
MD-51ZN1

■ MD-W PCB layout





■ MD-W-J PCB layout

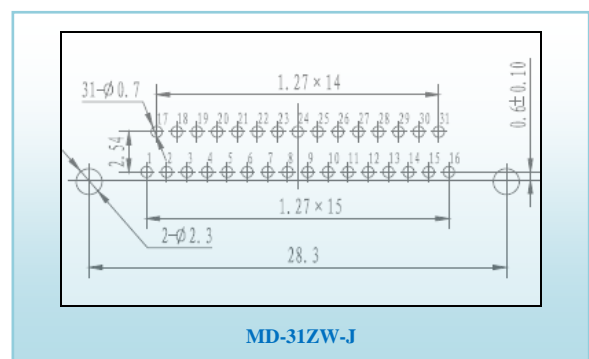
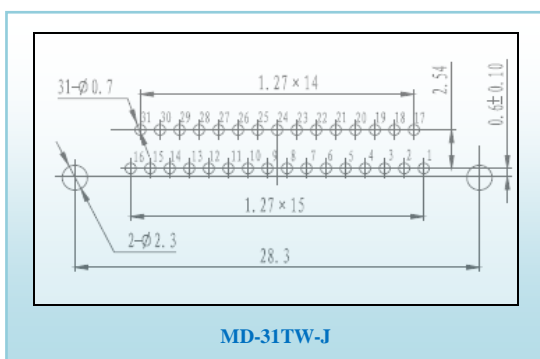
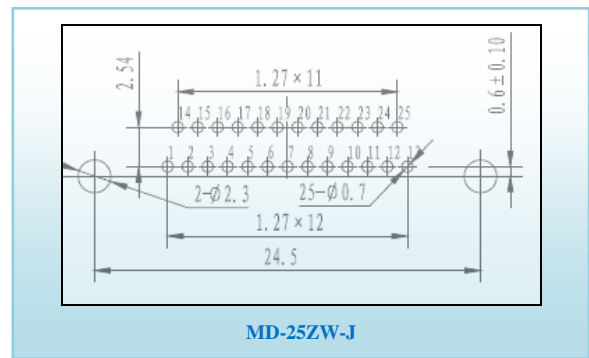
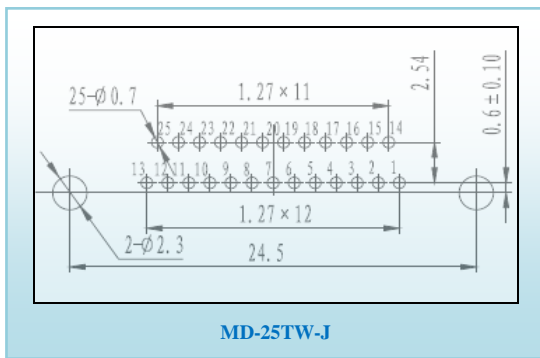
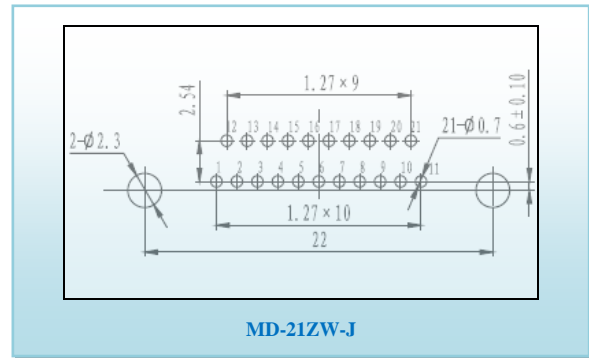
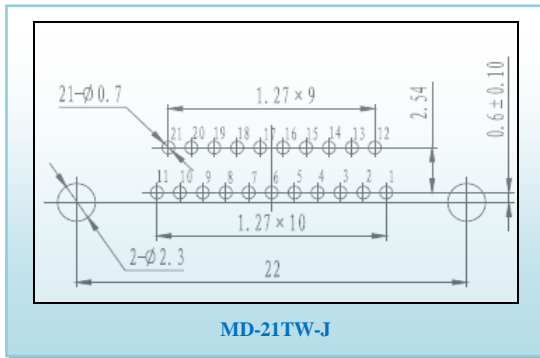
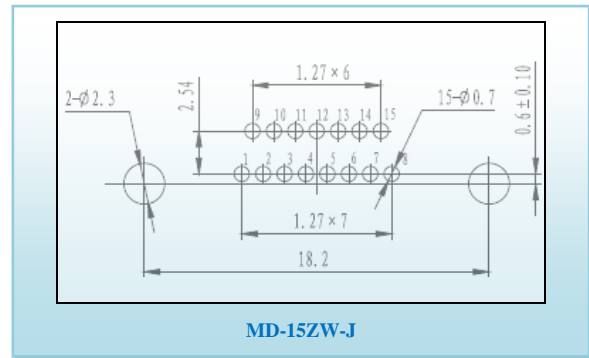
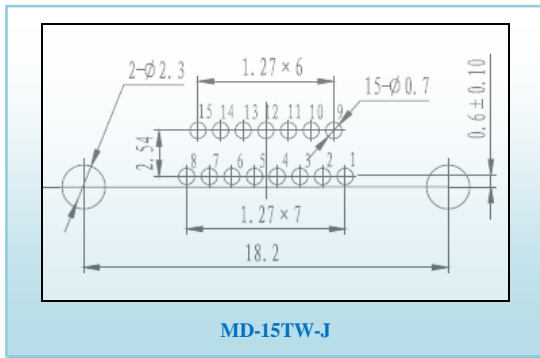


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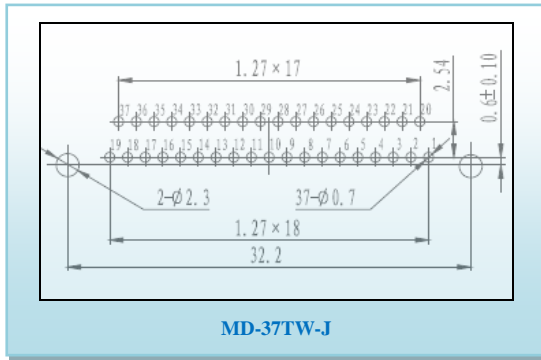


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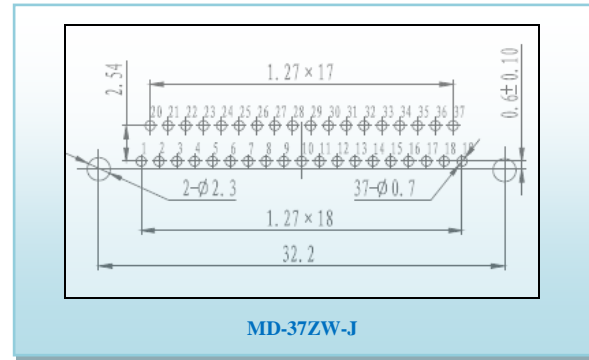
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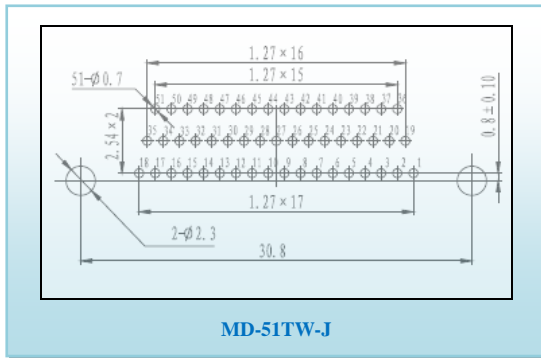
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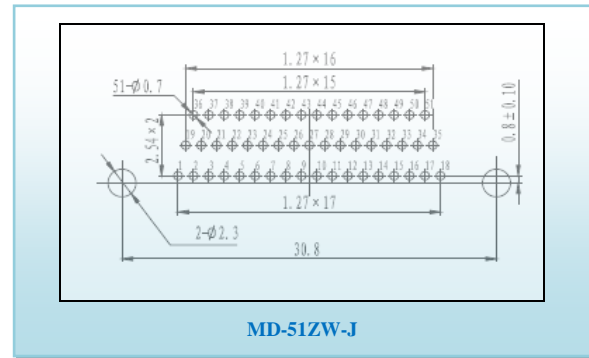
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**MD-37ZW-J**



**MD-51TW-J**



**MD-51ZW-J**