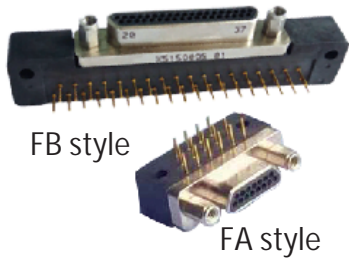


R04S Series Connectors for Space Applications Space Grade Micro D Connector Right Angle to PCB Style



Brief Introduction

- Micro-D connectors for space applications
- Twist pin contacts, high density interconnection, 1.27mm contact spacing and 1.1mm spacing between rows.
- Contacts of FA style:9,15,21,31,37pins.
- Contacts of FB style:9,15,21,31,37, 51,100pins.
- PCB layout:2.54*2.54mm
- Product feature:small and light, antivibration etc. high performance.
- Meet space applications.

Material and finish

Item	Material	Finish
shell	Aluminum alloy	Electroless nickel plating
insulator	20%FPPS	—
seal ring	Silicone rubber	—
contacts	copper alloy	gold plating
locking hardware	stainless steel	passivation
backshell	Aluminum alloy	Electroless nickel plating

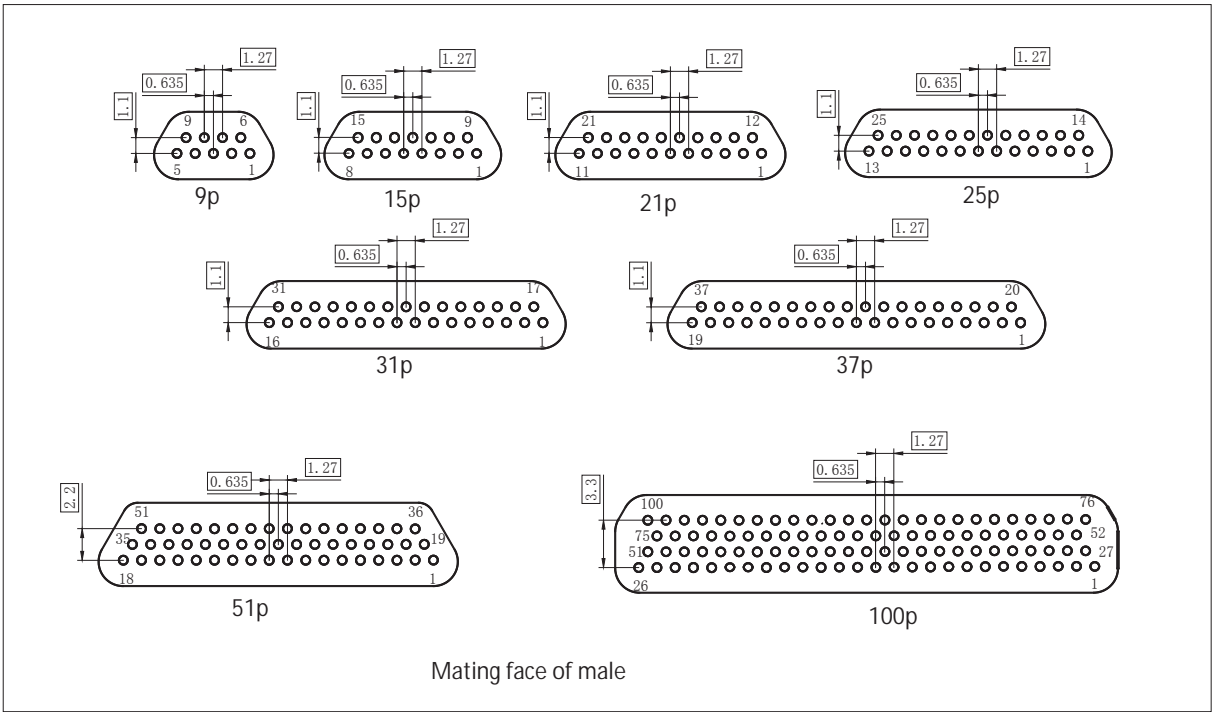
Electrical Performance

Performance	Marking	Rating value
Current rating(max)	I	3A (24#),13A (16#)
Dielectric withstanding voltage (sea level)	U	800 Vr.m.x(50Hz)
Contact resistance	R	≤ 10mΩ (24#), ≤ 5 mΩ (16#)
Insulation resistance(500VDS, sea level)	R	≥ 5000MΩ

Environment performance

Performance	Rating value	Test method
Environment temperature range:	-55 ~ +125 °C	/
Durability	500 mating cycles	/
Vibration	10Hz ~ 2000Hz, 294m ² /s	EIA-364-28, test condition IV
Random vibration	Power spectral density 0.6G ² /Hz, root mean square value of total acceleration 28.4G	/
Shock	980m/s ² 、6ms	EIA-364-27, test condition E
Salt spray	96h	EIA-364-26, test condition B
Humidity	240h	EIA-364-31, test condition IV
Thermal shock	-55 ~ +125°C	EIA-364-32, test condition IV
Contact engaging and separating force	0.3 ~ 1.5 N (24#) 0.56 ~ 8.35N (16#)	/
Irradiation resistant	Total dose:1X10 ⁵ Gy	/
Thermal vacuum outgassing	TML ≤ 1%, CVCM ≤ 0.1%	/
Magnetic permeability	200 gamma	/


Contact arrangements



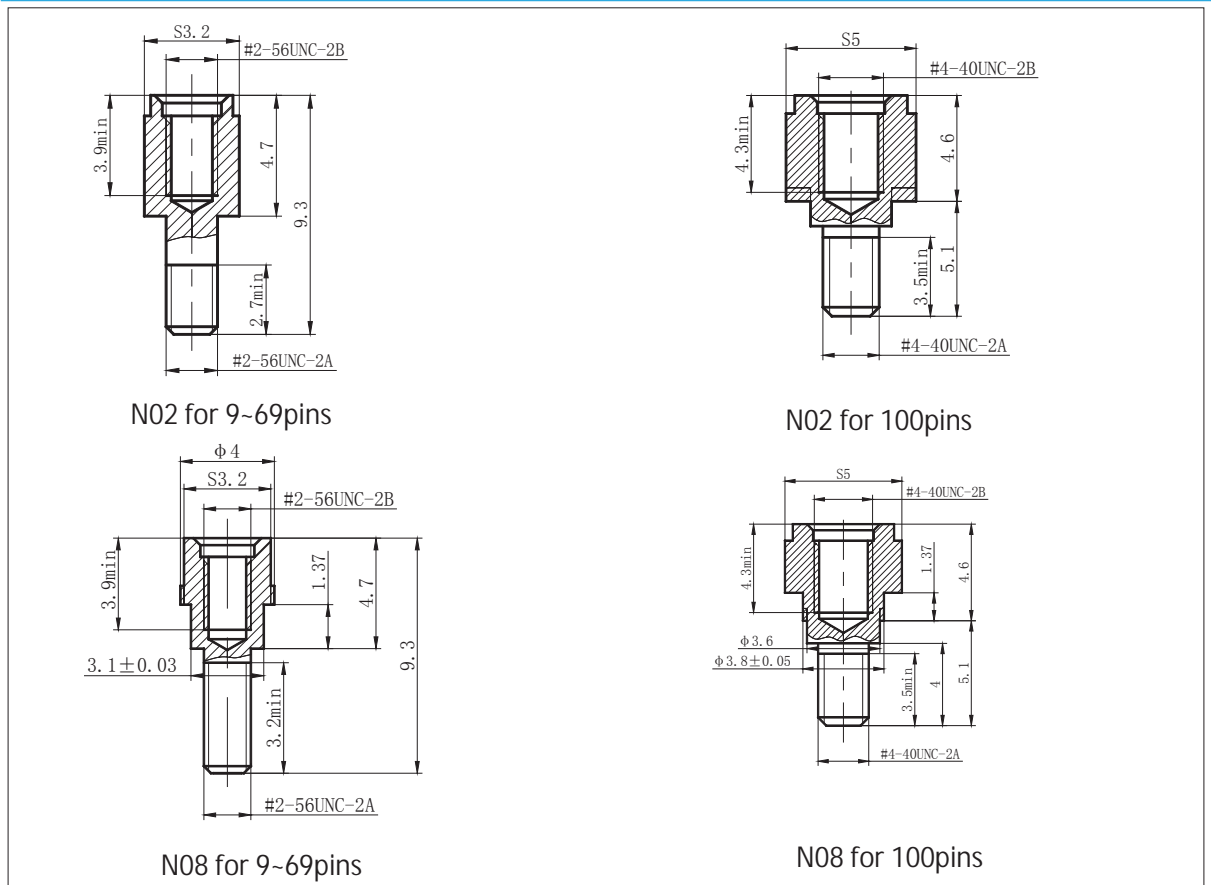
How to order

Sample part number:	R04S	-31	PI	FB	3	N02
Series:	R04S-Micro D connectors for space applications.					
Contact number:	9,15,21,25,31,37,51,100pins					
Contact type:	PI-pin in plug RH-socket in receptacle					
Right angle to PCB type:	FA style and the PCB layout is 2.54*2.54mm FB style and the PCB layout is 2.54*2.54mm					
Tail length(see page3):	1-2.77mm	2-3.56mm	3-4.37mm			
Locking hardware:	blank-without N02-locking hardware, please see page3					

The mating locking hardware

Code	Feature	The thichness of mounting panel	Stereogram	Outline dimension
N02	Jackpost with hex head	/		Please see below
N08	1. Jackpost with hex head 2. Fitted to Rear panel mounting only	1.5 $_{-0.10}^0$ mm		

Outline dimension



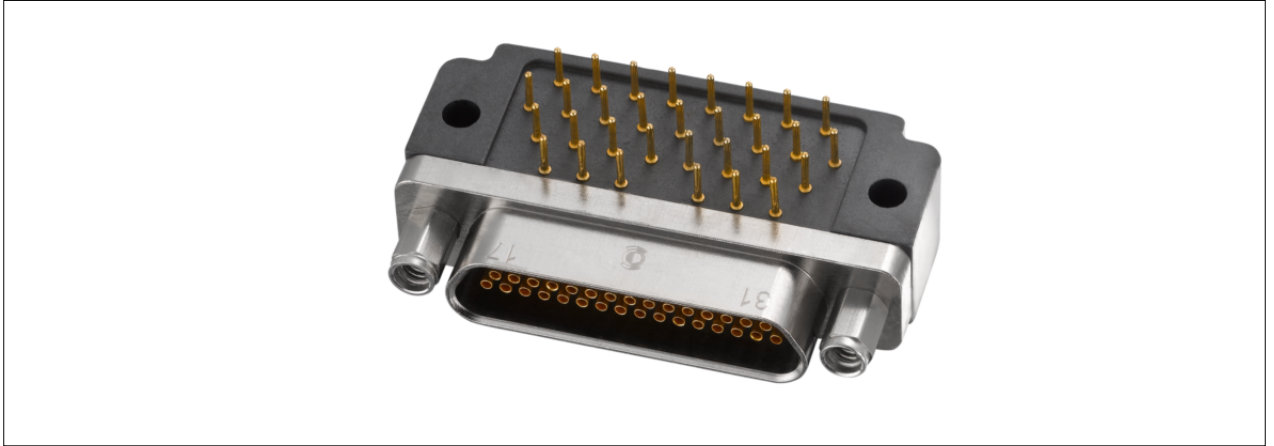
Tail length

tail code	tail length	Recommend the thickness of PCB(in mm)
1	2.77	1.2~2.2
2	3.56	2.0~3.0
3	4.37	2.8~3.8

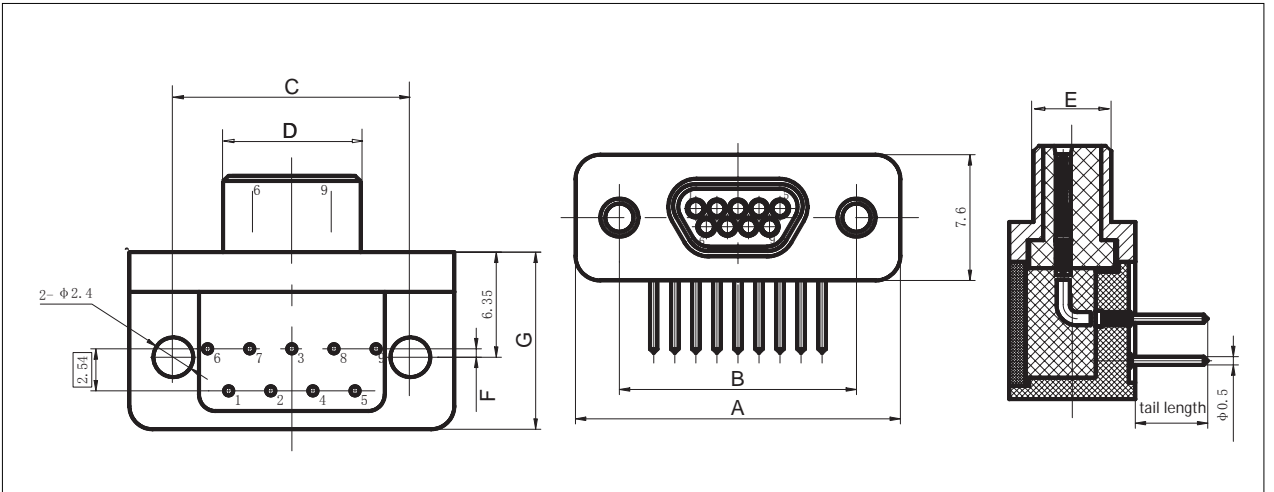
Note: all dimensions are in mm.

R04S series right angle to PCB connectors for FA style

Product stereogram



Outline dimension

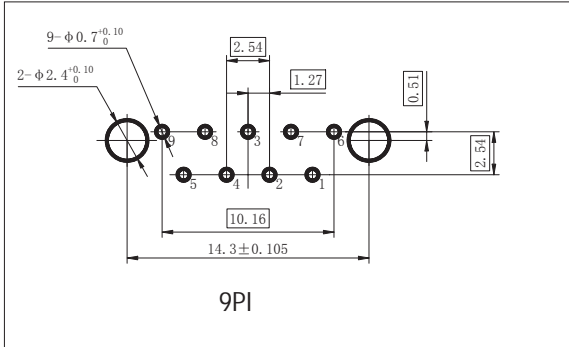


Contact Nos	A	B	C	D		E		F		G	
				PI	RH	PI	RH	PI	RH	PI	RH
9	19.6	14.3	14.3	8.4	10.16	4.7	6.1	0.51	0.51	10.7	10.7
15	23.5	18.2	18.2	12.3	14	4.7	6.1	3.05	3.05	10.7	10.7
21	27.3	22	22	16.1	17.8	4.7	6.1	3.05	3.05	10.7	10.7
25	29.8	24.5	24.5	18.6	20.3	4.7	6.1	3.05	3.05	10.7	10.7
31	33.6	28.3	28.3	22.4	24.12	4.7	6.1	3.05	3.05	13.1	13.1
37	37.4	32.1	32	26.3	27.9	4.7	6.1	3.05	3.05	13.1	13.1

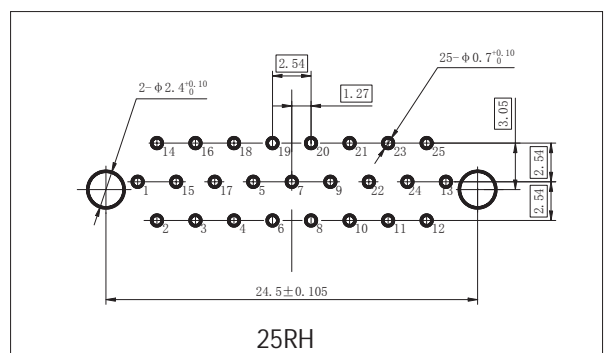
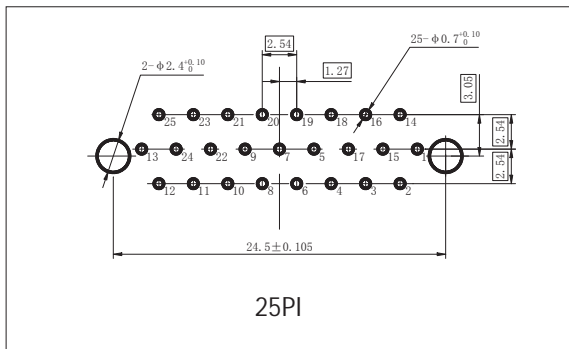
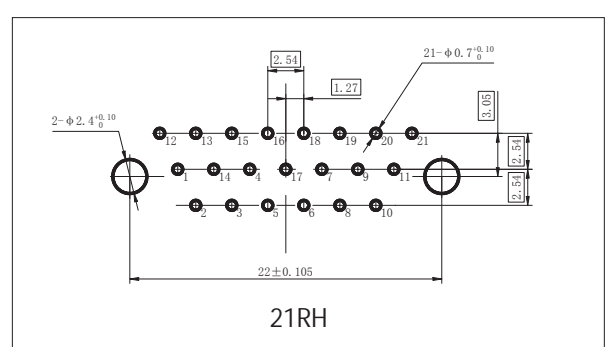
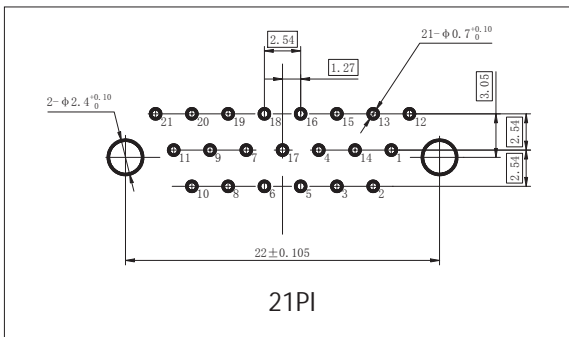
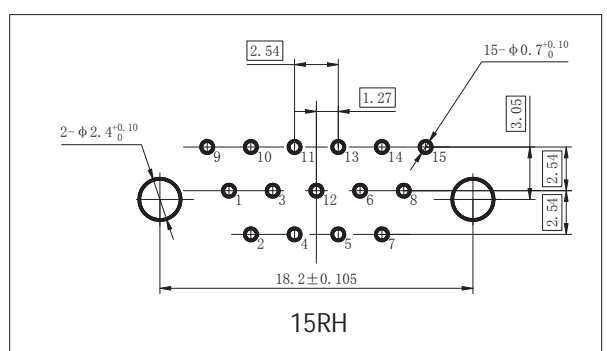
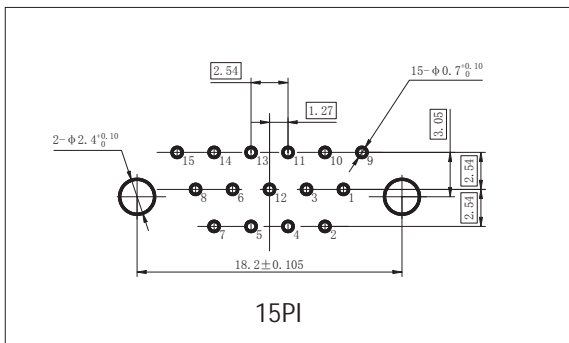
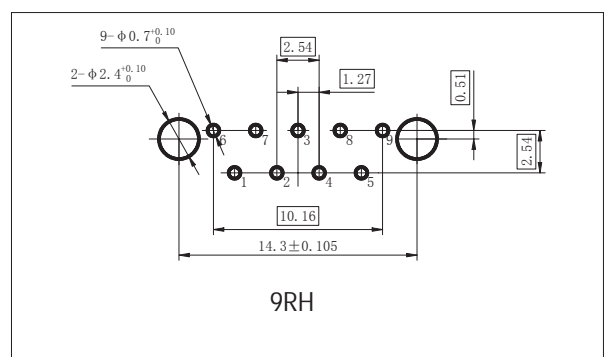
Note: all dimensions are in mm.

Recommend PCB layout for FA style

PCB layout for plug

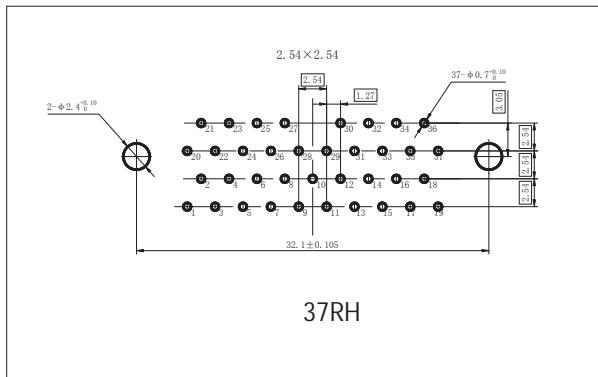
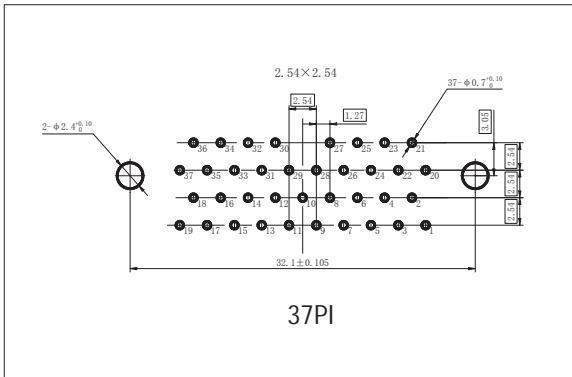
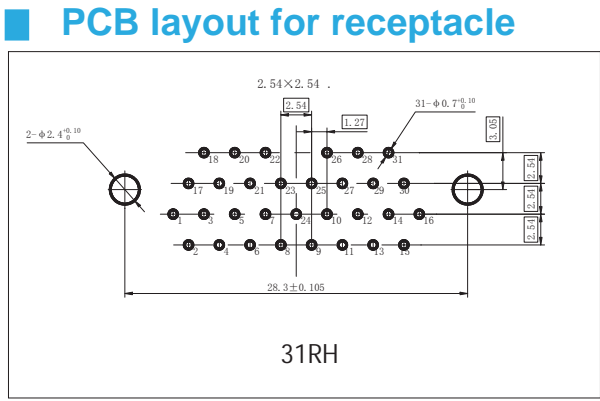
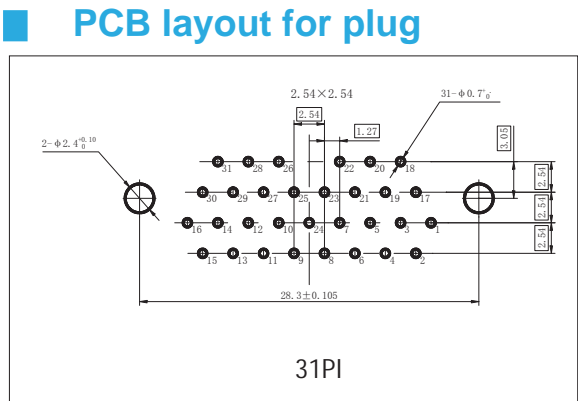


PCB layout for receptacle



Notes: 1. all dimensions are in mm. 2.View top side of PCB board.

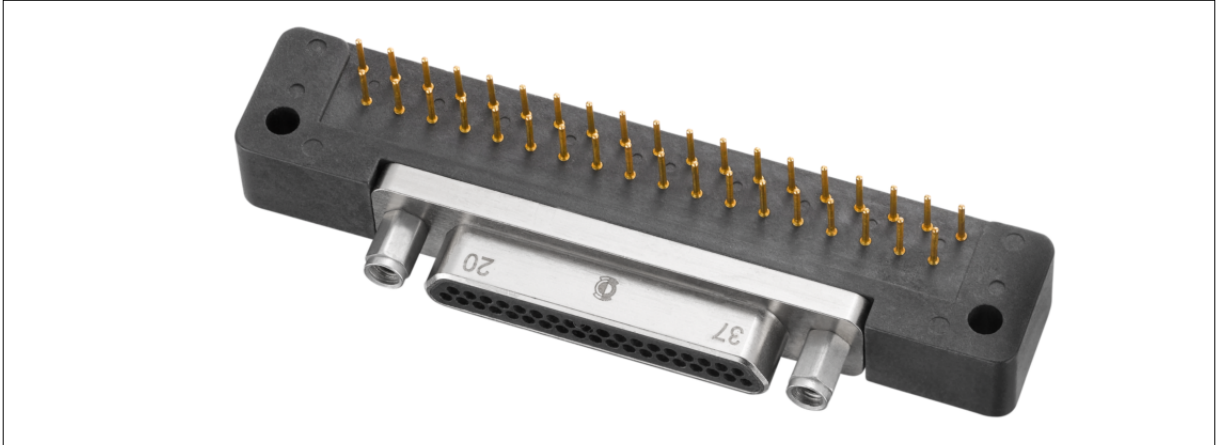
Recommend PCB layout for FA style



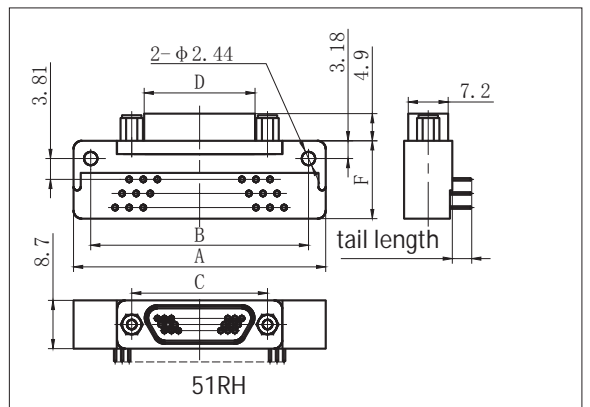
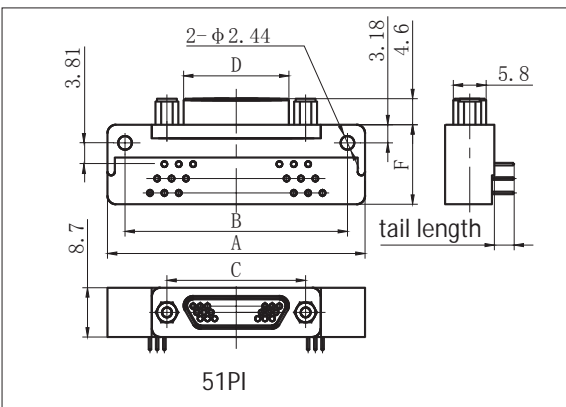
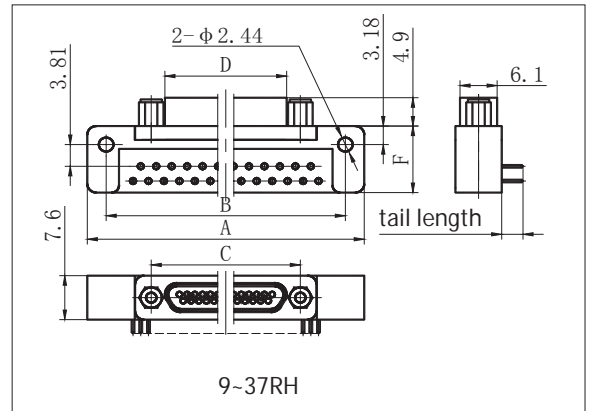
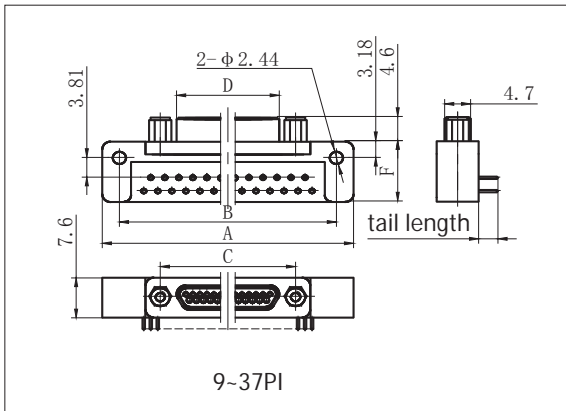
Notes: 1. all dimensions are in mm. 2.View top side of PCB board.

R04S series right angle to PCB connectors for FB style

Product stereogram

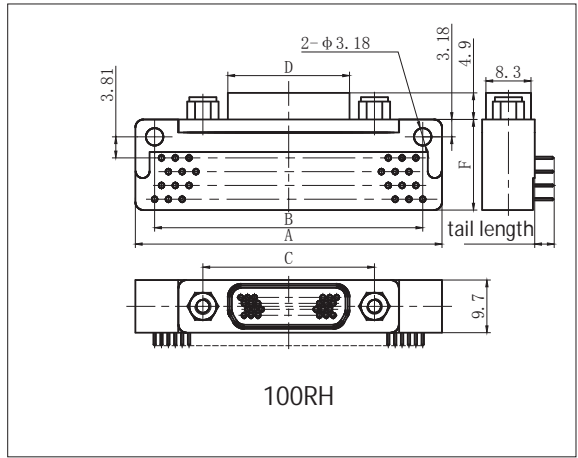
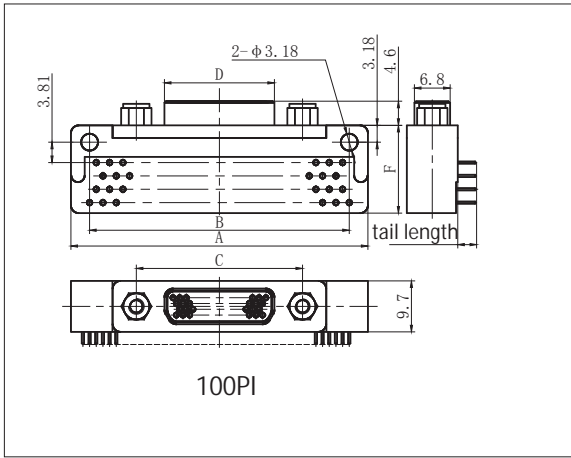


Outline Dimension



Notes: 1. all dimensions are in mm.

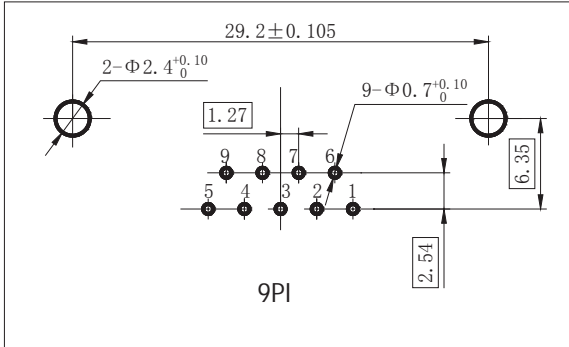
Outline Dimension



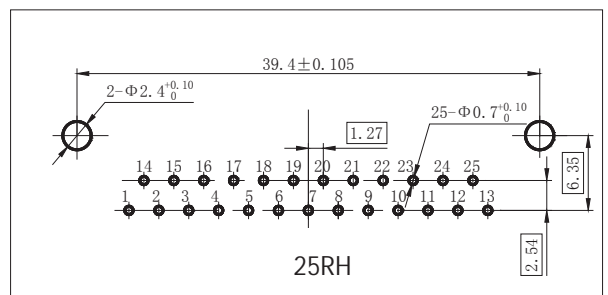
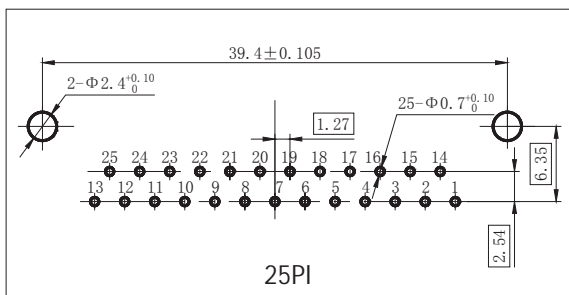
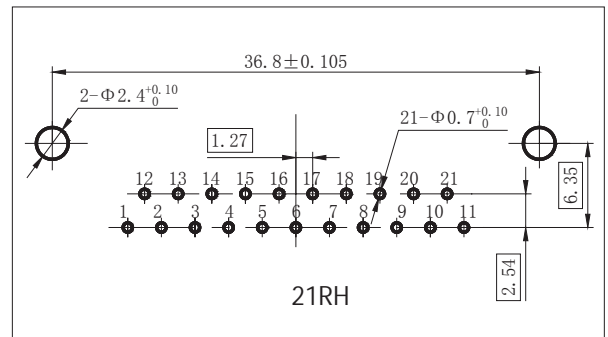
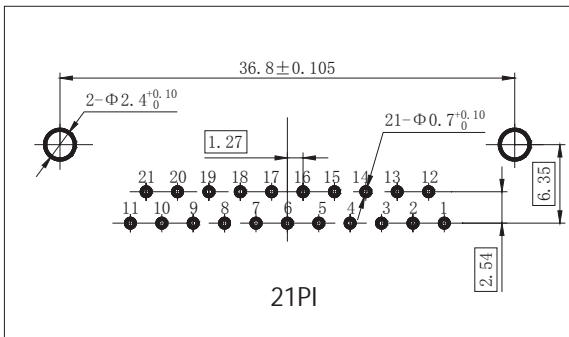
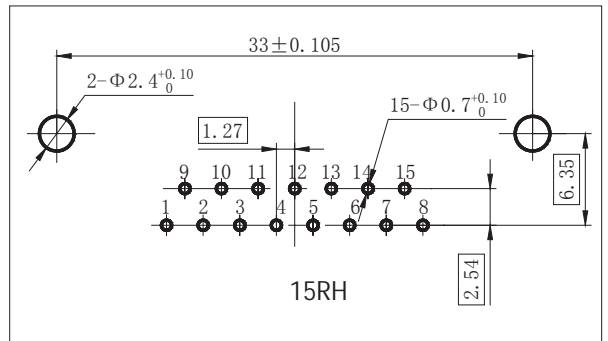
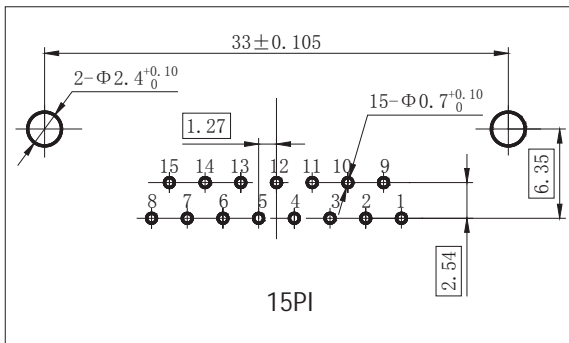
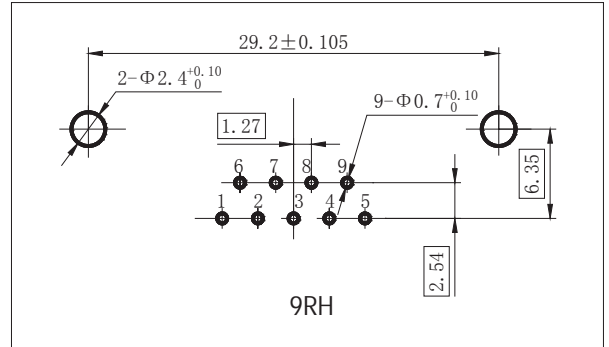
Contact Nos	Outline dimension(in mm)				
	A	B	C	D	F
9PI	35.2	29.2	14.3	8.4	11.5
15PI	39	33	18.2	12.3	11.5
21PI	42.8	36.8	22	16.1	11.5
25PI	45.4	39.4	24.5	18.6	11.5
31PI	51.7	45.7	28.3	22.4	11.5
37PI	59.3	53.3	32.1	26.2	11.5
51PI	47.6	40.6	30.9	25	14.3
100PI	70.5	63.5	45.7	35.1	16.8
9RH	35.2	29.2	14.3	8.4	11.5
15RH	39	33	18.2	12.3	11.5
21RH	42.8	36.8	22	16.1	11.5
25RH	45.4	39.4	24.5	18.6	11.5
31RH	51.7	45.7	28.3	22.4	11.5
37RH	59.3	53.3	32.1	26.2	11.5
51RH	47.6	40.6	30.9	25	14.3
100RH	70.5	63.5	45.7	35.1	16.8

Recommend the PCB layout for FB style

PCB layout for plug



PCB layout for receptacle

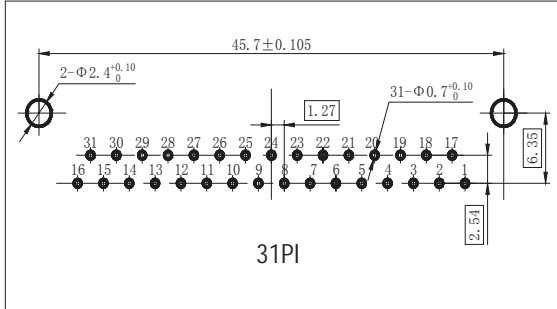


Notes: 1. all dimensions are in mm. 2. View top side of PCB board.



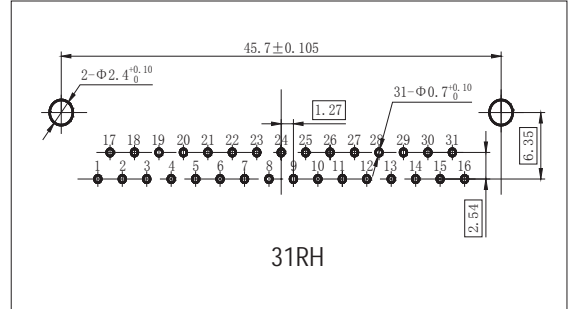
Recommend the PCB layout for FB style

PCB layout for plug

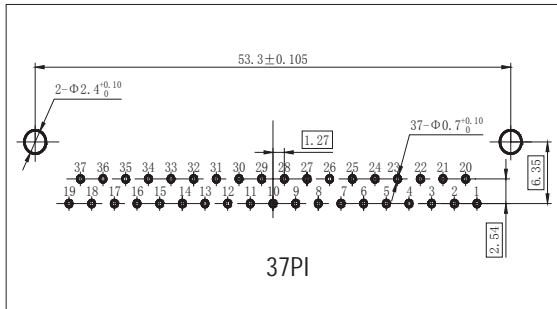


31PI

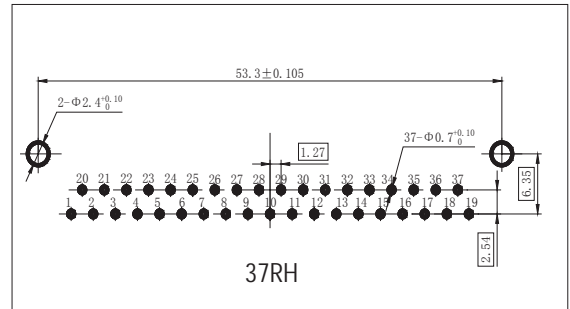
PCB layout for receptacle



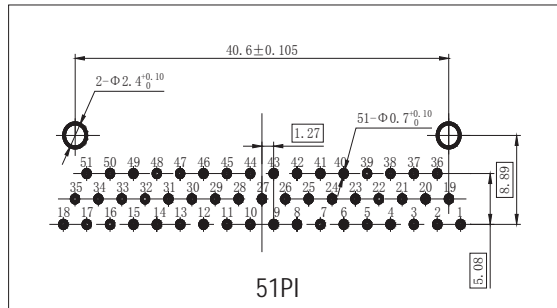
31RH



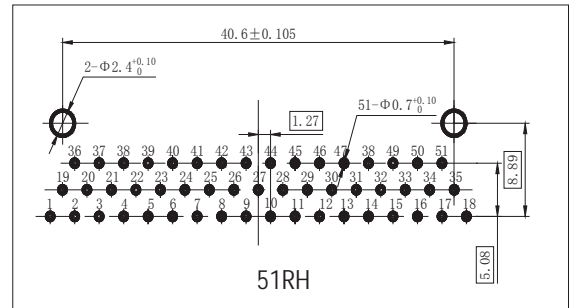
37PI



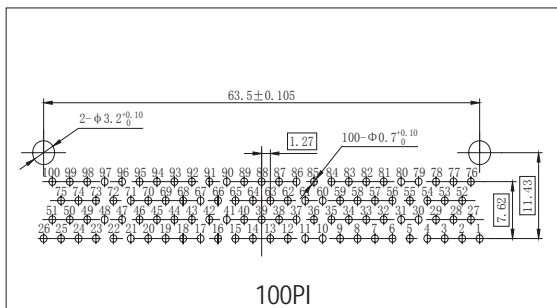
37RH



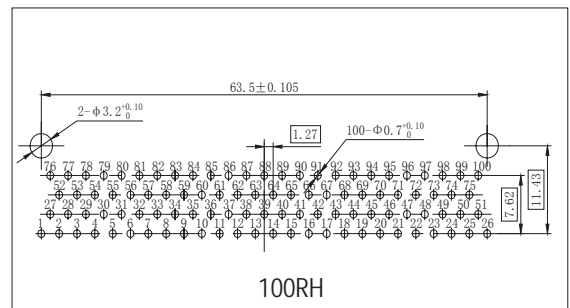
51PI



51RH



100PI



100RH

Notes: 1. all dimensions are in mm. 2.View top side of PCB board.