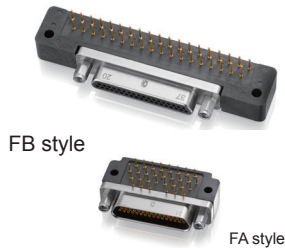




## R04S Series Connectors for Space Applications Space Grade Micro D Connector Right Angle to PCB Style



### 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:9,15,21,31,37, 51,100pins.
- PCB layout:2.54\*2.54mm
- FA & FB style.
- 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

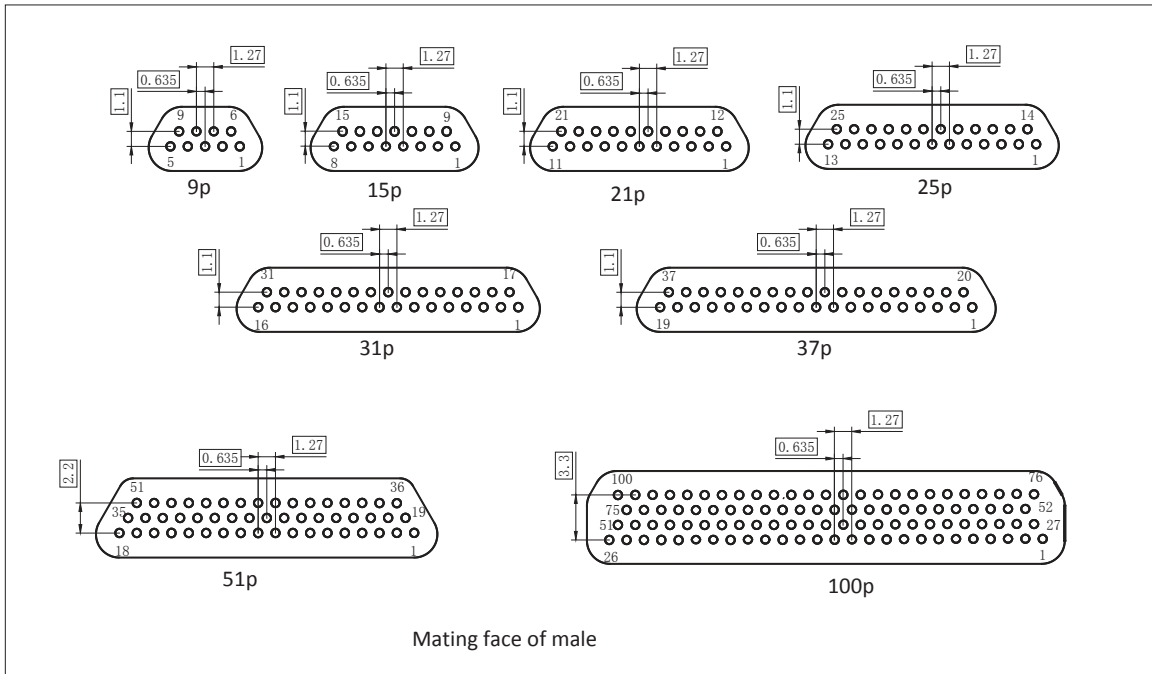
Performance	Marking	Rating value
Current rating(max)	I	3A(24#),13A(16#)
Dielectric withstanding voltage (sea level)	U	800 Vr.m.x(50Hz)
Contact resistance	R	$\leq 10\text{m}\Omega$ (24#), $\leq 5\text{m}\Omega$ (16#)
Insulation resistance(500VDS, sea level)	R	$\geq 5000\text{M}\Omega$

### Environment performance

Performance	Rating value	Test method
Environment temperature range:	-55 ~ +125 °C	/
Durability	500 mating cycles	/
Vibration	10Hz ~ 2000Hz, 294m <sup>2</sup> /s	EIA-364-28, test condition IV
Random vibration	Power spectral density 0.6G <sup>2</sup> /Hz, root mean square value of total acceleration 28.4G	/
Shock	980m/s <sup>2</sup> 、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 <sup>3</sup> Gy	/
Thermal vacuum outgassing	TML $\leq 1\%$ , CVCM $\leq 0.1\%$	/
Magnetic permeability	200 gamma	/



## Contact arrangements




## How to order

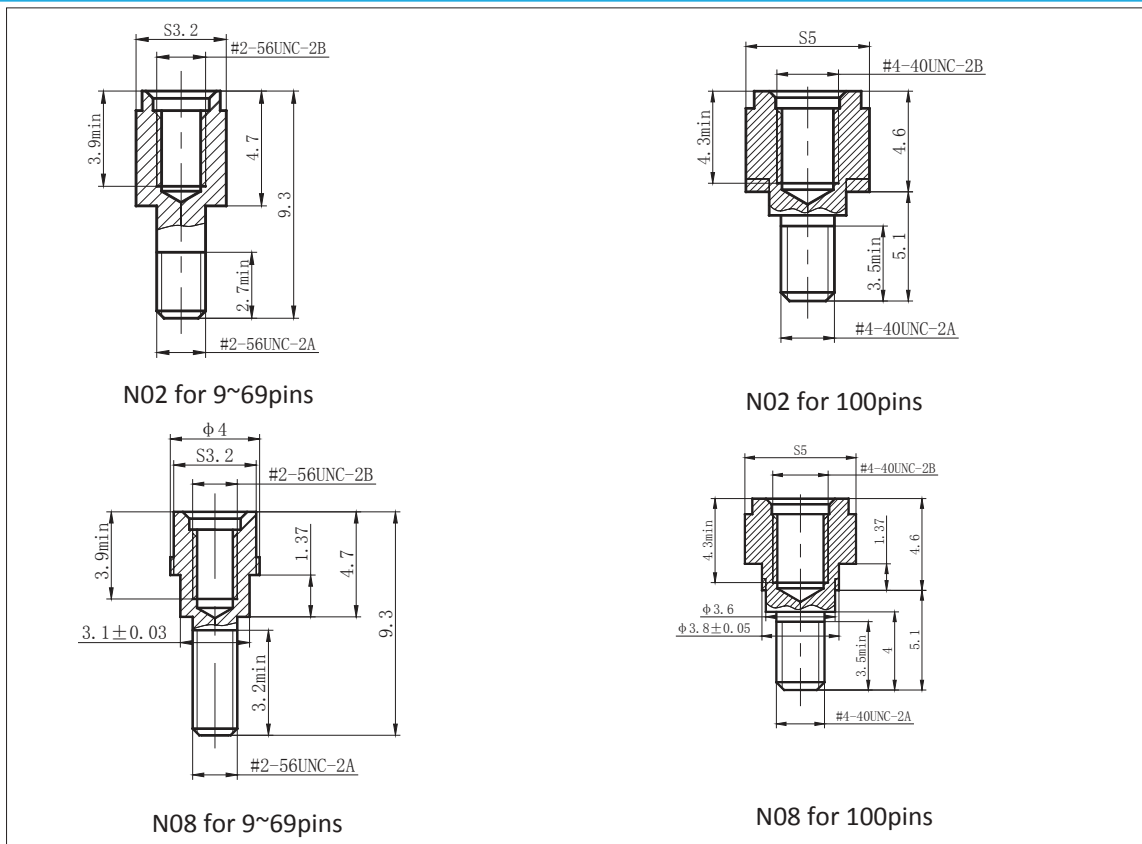
Sample part number:	R04S	-31	PI	FB	3	N02
Series:	R04S-Micro D connectors for space applications.					
Contact number:	9,15,21,25,31,37,51,100pins					
Contact type:	PI-pin in plug          RH-socket in receptacle					
Right angle to PCB type:	FA style and the PCB layout is 2.54*2.54mm FB style and the 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 thickness 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 <sup>0</sup> <sub>-0.10</sub> 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.

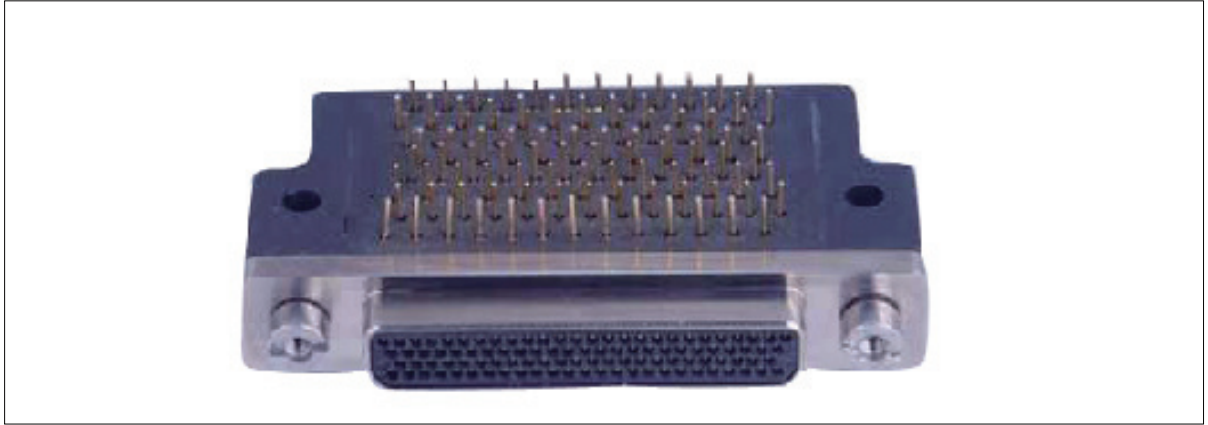


Space grade micro D connector

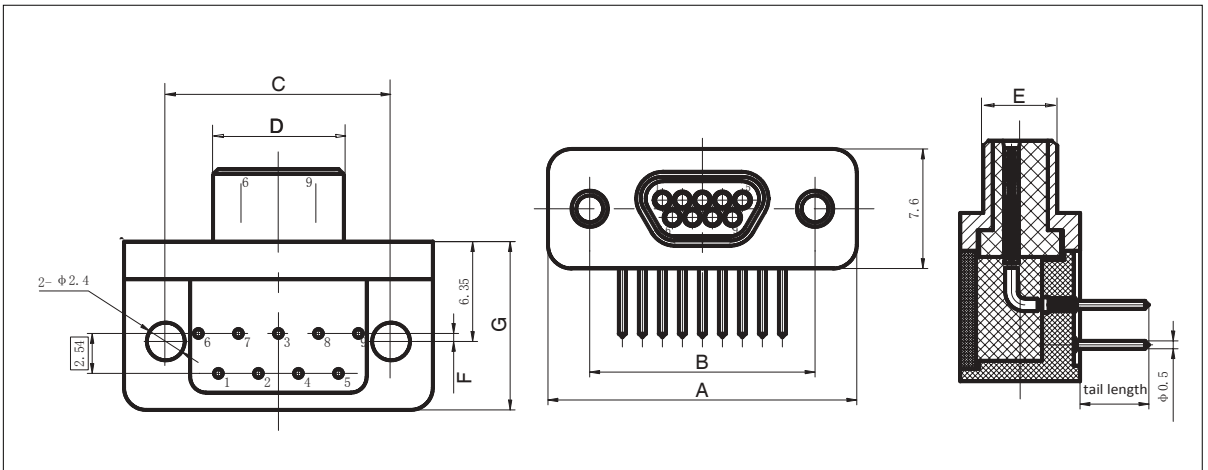
**SUNKYE**  
www.sunkye.com

## R04S series right angle to PCB connectors for FA style

### Product stereogram



### Outline dimension



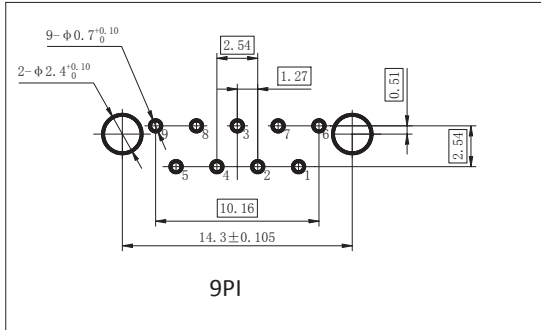
Contact Nos	A	B	C	D		E		F		G	
				PI	RH	PI	RH	PI	RH	PI	RH
9	19.6	14.3	14.3	8.4	10.16	4.7	6.1	0.51	0.51	10.7	10.7
15	23.5	18.2	18.2	12.3	14	4.7	6.1	3.05	3.05	10.7	10.7
21	27.3	22	22	16.1	17.8	4.7	6.1	3.05	3.05	10.7	10.7
25	29.8	24.5	24.5	18.6	20.3	4.7	6.1	3.05	3.05	10.7	10.7
31	33.6	28.3	28.3	22.4	24.12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

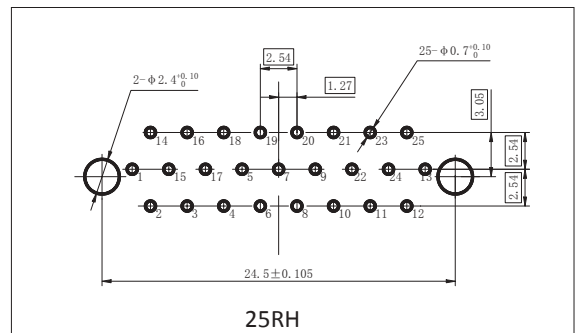
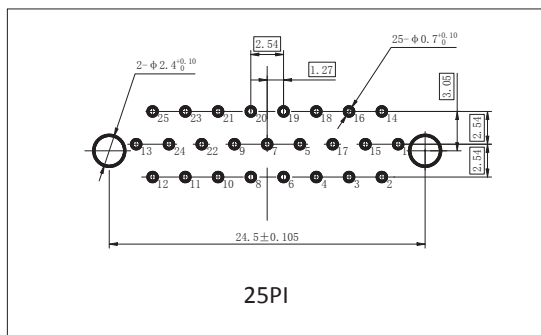
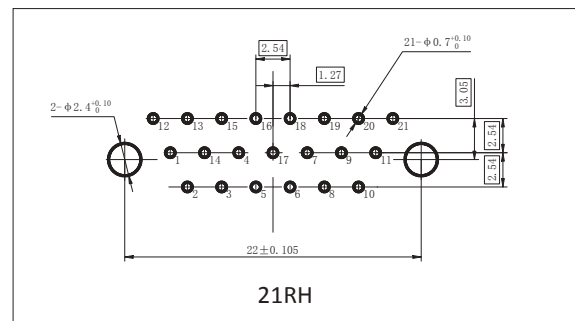
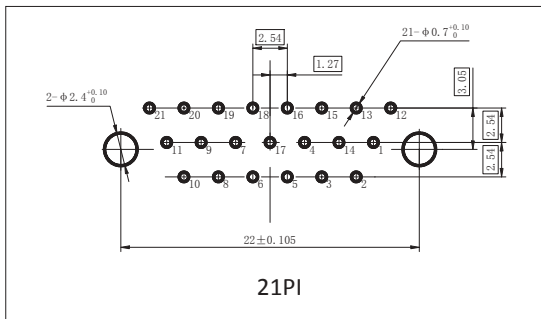
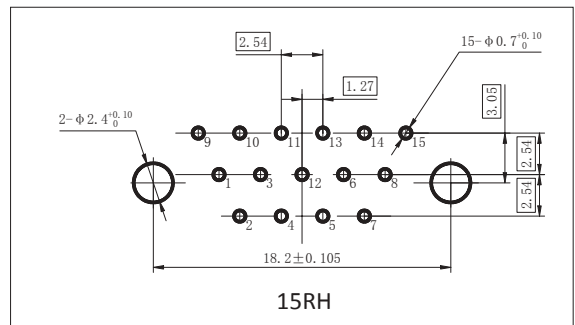
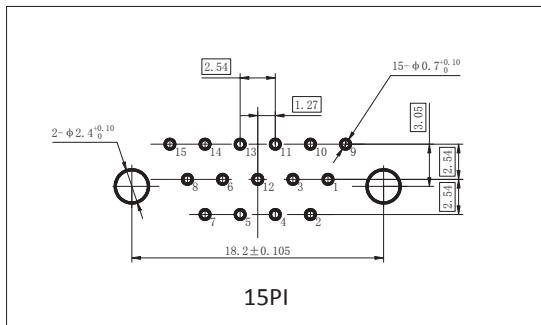
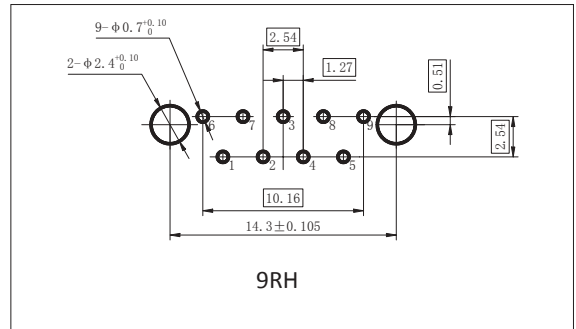


## Recommend PCB layout for FA style

### PCB layout for plug



### PCB layout for receptacle

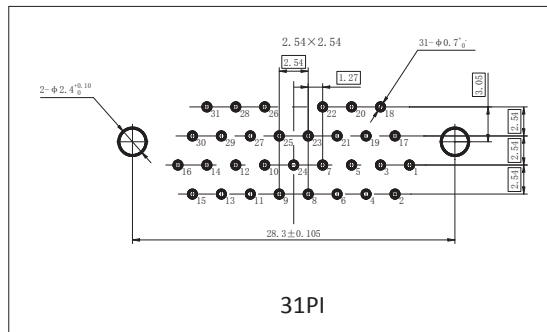


Notes: 1. all dimensions are in mm. 2.View top side of PCB board.

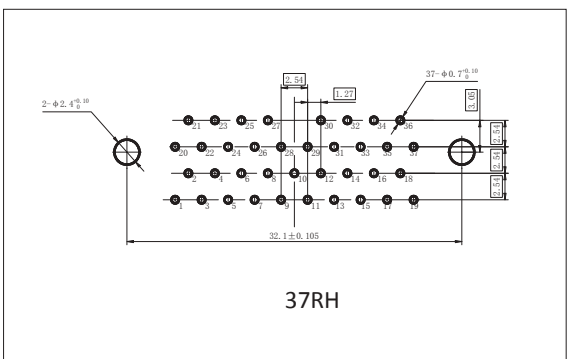
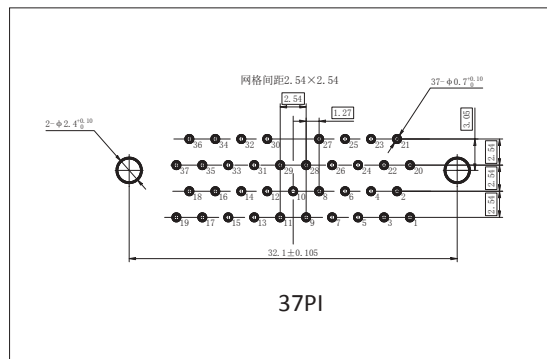
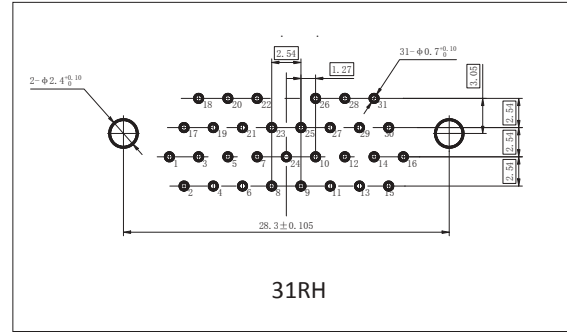


## Recommend PCB layout for FA style

### PCB layout for plug



### PCB layout for receptacle



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