

SMP Series RF Coaxial Connectors

Brief Introduction

- Miniature push type RF Coaxial Connectors
- Small size, saving mounting space to the max, the operating frequency range DC ~ 40GHz
- Excellent electrical characteristics, mechanical characteristics, and environmental characteristics
- There are 3 kinds of Interfaces that is Full escapement, Semi escapement and Aperture. The customer can make choice according to the different application requirements.

Advantages

SMP series RF coaxial connectors have small size and widely used in radio frequency circuit connection between boards. It can save large mounting space to realize high density board room connection. The working bandwidth scope is DC ~ 12.4 GHz. This series has smooth manting, quick coupling and can connect coaxial cable and microstrip circuit to realize conversion between coaxial system and microstrip system, etc. Clear "identification" for the attachment inplace----- more reliable operation during mounting.

SMP series connector plug has three structures:

1. Full escapement structure
2. Semi escapement structure
3. Aperture structure

According to the different using environment, the user can choose plugs with different structures. When a user does not need frequent insertion, they can use full escapement structure. When they need many times of insertion, they can use semi escapement structure. When they need more or need to assemble many SMP board to board connectors, they can use the aperture structure.

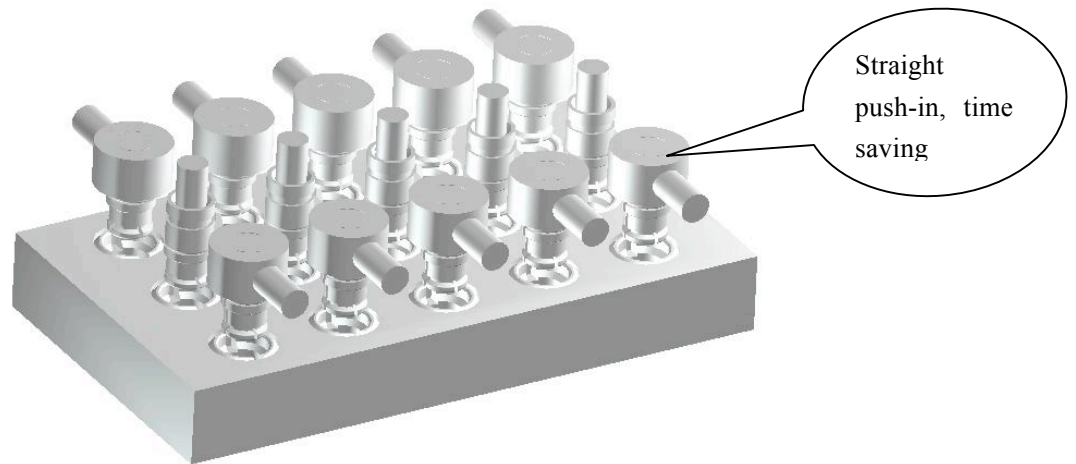
SMP series connector receptacle has three structures:

1. With shielding ring and shockproof ring structure (generally used for military products)
2. With only fixed ring structure (generally used for civilian products)
3. Without shielding ring and shockproof ring structure (partial adapter)

Shielding ring can reduce radio frequency leak and the fixed ring plays the interface fixation effect after coupling to make connector characteristics more stable. According to their different requirements, users can make choice. Recommend to choose the receptacle with shielding ring and shock ring structure.

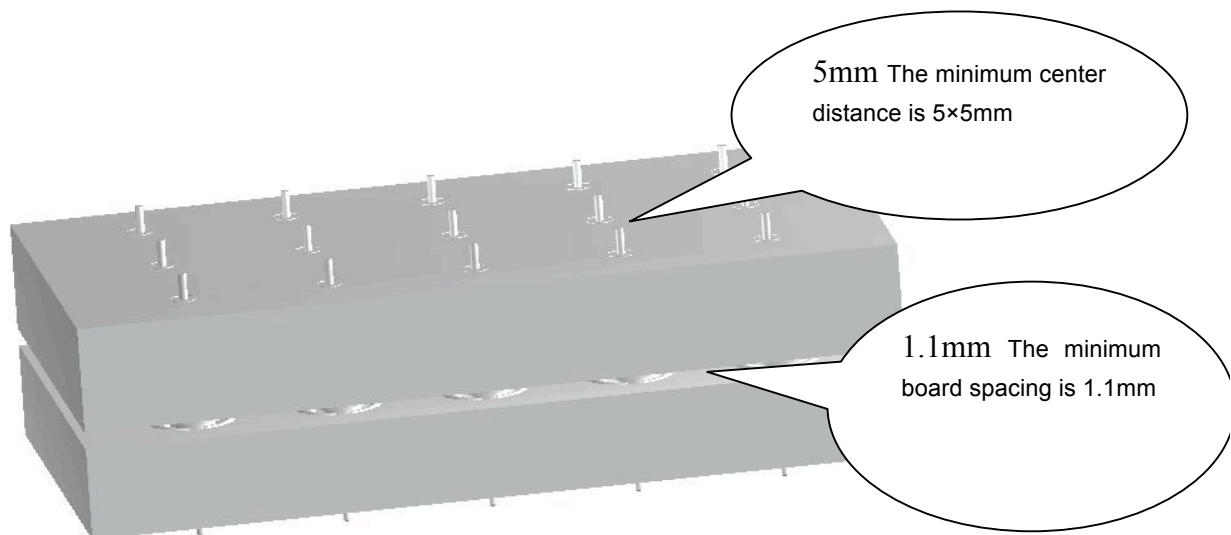
Quick connect---- Convenience and time saving

Due to the use of direct push type structure during SMP plug and socket mating, it only takes 3 seconds to screw joint.



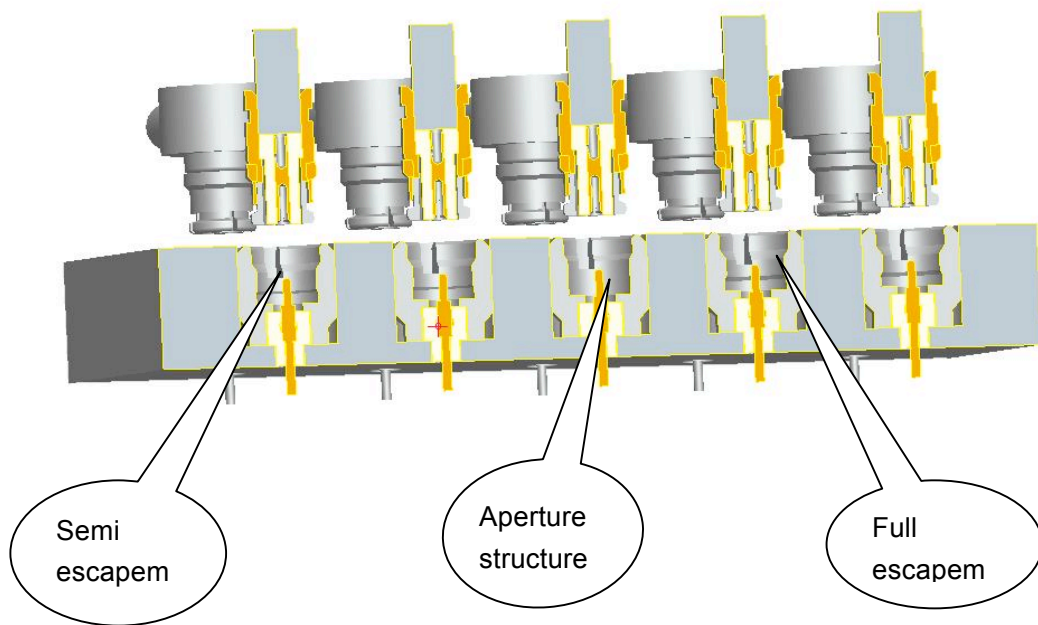
Mounting space miniaturization----- To realize high density connection

Due to the small size of SMP series FR coaxial connector, it is widely used in board to board RF circuit connection, and can saving mounting space to realize the high density connection, the minimum center distance is 5×5mm, the minimum board spacing is 1.1mm.



Three interface types--- Convenient for customers selection

SMP series has three interface types: full escapement, semi escapement and aperture, According to their different requirements ,users can make a convenient choice.



Main characteristics

Electrical characteristics

Characteristic Impedance	50 Ω
Use frequency range	DC~12.4GHz (Recommend) 12.4~26.5GHz (Recommend) 25.6~40GHz (Working range)
VSWR	
DC~12GHz	1.15
12~26.5GHz	1.35
26.5~40GHz	1.6
Insertion loss	0.76dB
Current rating	165V (Sea level)
Withstanding voltage	500V (Sea level)
Insulation resistance	1000M Ω
Contact resistance	
Central conductor	$\leq 6m \Omega$
Outer conductor	$\leq 8m \Omega$ (Shell is made of stainless steel)

Mechanical characteristics

Endurance	Full escapement:100 times Semi escapement:500 times Aperture structure:1000times
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Material and environmental characteristics

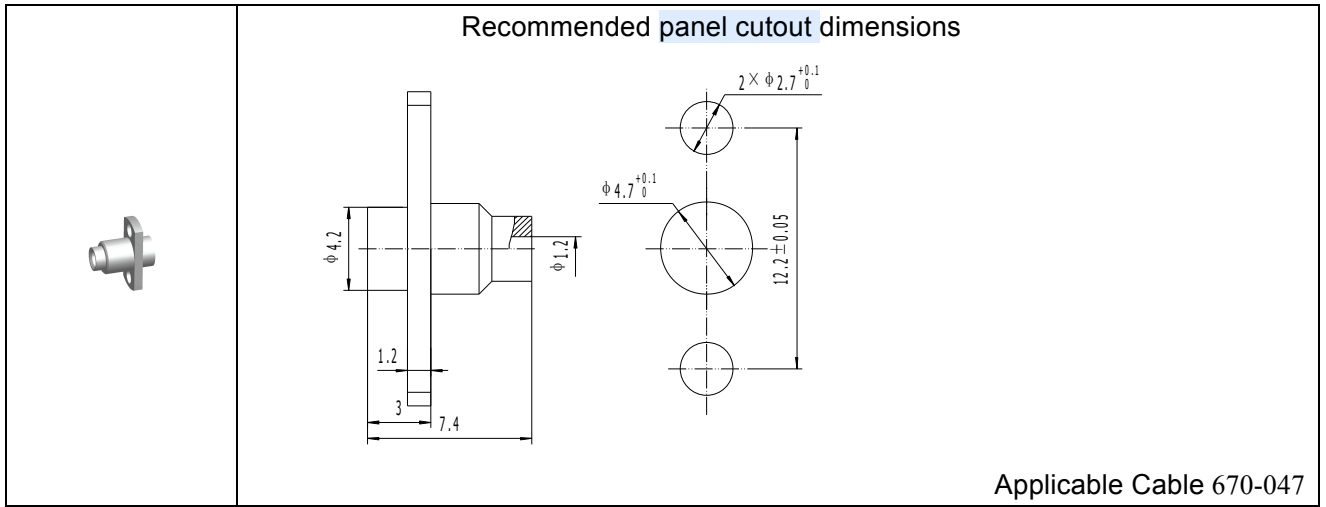
Central conductor	Tin bronze(Pin)、 Beryllium bronze(Socket)
Outer conductor	Brass、 Beryllium bronze(Elastic parts)、 Stainless steel
Insulator	Teflon
Environment temperature	-65°C ~ 165°C

Ordering information

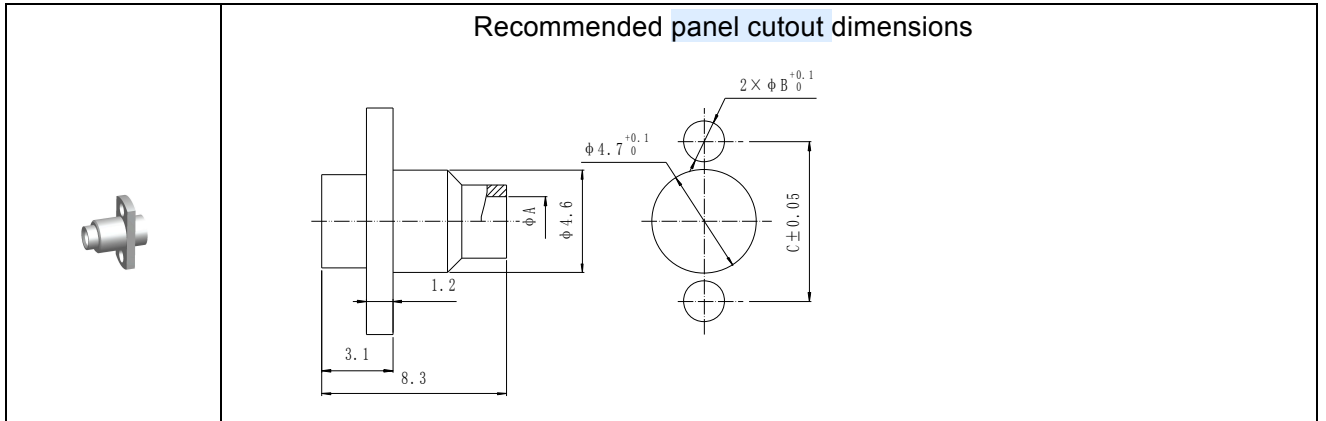
Basic series		SMP	(01)	(M)	—K	W	F	B	3
Inter face Stru ctur e	Socket	No Mark-- With shielding ring and shockproof ring (01) —Only with one shockproof ring (02) —Without shielding ring and shockproof ring							
	Pin	No mark-- Full escapement (01)—Semi-escapement (02) —Aperture							
Fun ctio n Stru ctur e	Auxiliary function	Hermetic (Only for pin connector)							
	Central conductor	J—Pin K—Socket							
	Shape	No mark—Straight W-right-angle							
	Mounting type	F—Flange mounting Y—Jam nut mounting							
	Type of termination	B—soldered with cable(terminated with semi-rigid cable, semi-flexible cable, flexible cable tin plated soldering) Y—Crimp flexible cable							
	No.	Applicable cable No. or Design No.							

— Plug, terminated with the semi-rigid / semi-flexible cable

SMP-JFB1


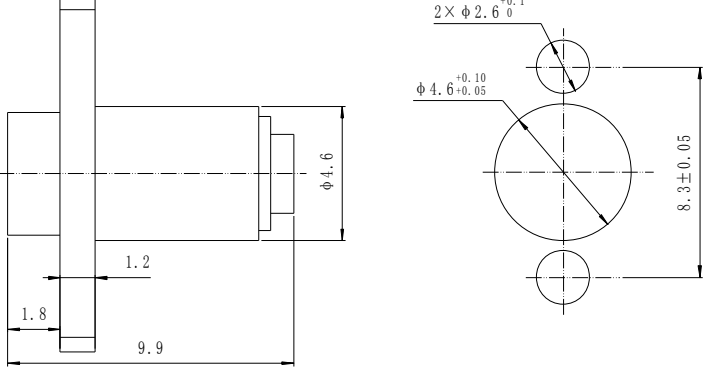


SMP-JFB1G-1 etc.


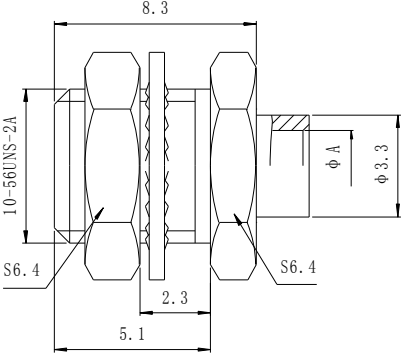


Part No.	A	B	C	Applicable Cable	Part No.	A	B	C	Applicable Cable
SMP-JFB1G-1 SMP(01)-JFB1G-1 SMP(02)-JFB1G-1	1.3	1.8	7.15	047	SMP-JFB2G SMP(01)-JFB2G SMP(02)-JFB2G	2.2	1.8	7.15	SFT-50-2-1 IW1251 IW085
SMP-JFB1G-2 SMP(01)-JFB1G-2 SMP(02)-JFB1G-2	1.3	2.5	8.35	047	SMP-JFB2G-1 SMP(01)-JFB2G-1 SMP(02)-JFB2G-1	2.2	2.5	8.35	SFT-50-2-1 IW1251 IW085
SMP-JFB1G-3 SMP(01)-JFB1G-3 SMP(02)-JFB1G-3	1.3	1.8	8.95	047	SMP-JFB2G-2 SMP(01)-JFB2G-2 SMP(02)-JFB2G-2	2.2	1.8	8.95	SFT-50-2-1 IW1251 IW085

SMP-JF3506G etc.


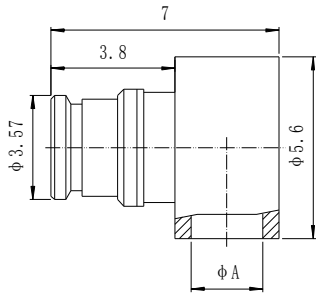
	<p style="text-align: right;">Recommended panel cutout dimension</p> 	
<p style="text-align: center;">Part No.</p>	<p style="text-align: center;">Applicable Cable</p>	
<p style="text-align: center;">SMP-JF3506G SMP(01)-JF3506G SMP(02)-JF3506G</p>	<p style="text-align: center;">Gore 3506</p>	

SMP-JYB1G etc.


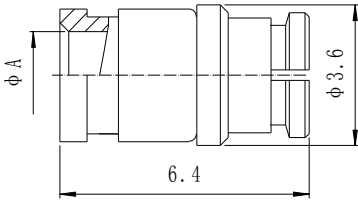
		
<p style="text-align: center;">Part No.</p>	<p style="text-align: center;">A</p>	<p style="text-align: center;">Applicable Cable</p>
<p style="text-align: center;">SMP-JYB1 SMP(01)-JYB1 SMP(02)-JYB1</p>	<p style="text-align: center;">1.3</p>	<p style="text-align: center;">047</p>
<p style="text-align: center;">SMP-JYB2 SMP(01)-JYB2 SMP(02)-JYB2</p>	<p style="text-align: center;">2.2</p>	<p style="text-align: center;">SFT-50-2-1 IW1251 IW085</p>

— Receptacle, terminated with the semi-rigid / semi-flexible cable

SMP-KWB1 etc.


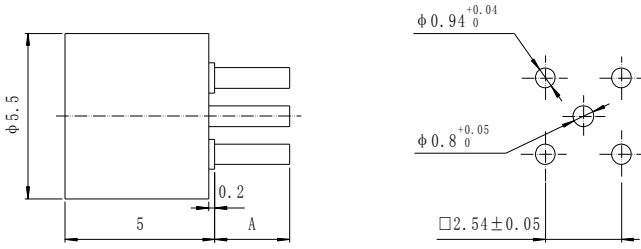
		
Part No.	A	Applicable Cable
SMP-KWB1	1.3	047
SMP-KWB2	2.2	SFT-50-2-1 IW1251 IW085

SMP-KB1 etc.

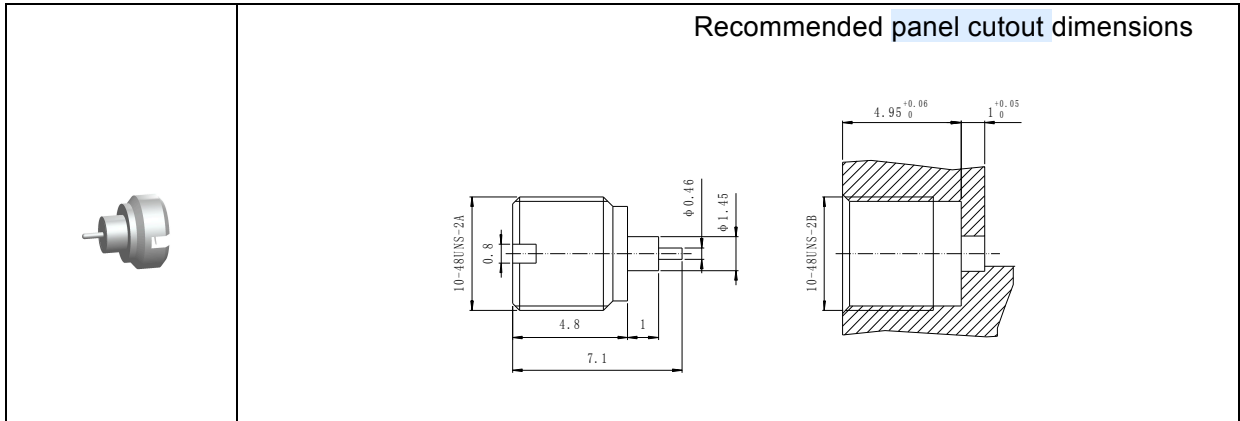
		
Part No.	A	Applicable Cable
SMP-KB1	1.3	047
SMP-KB2a	2.2	SFT-50-2-1 IW1251 IW085

— Plug, terminated with the microstrip and PCB

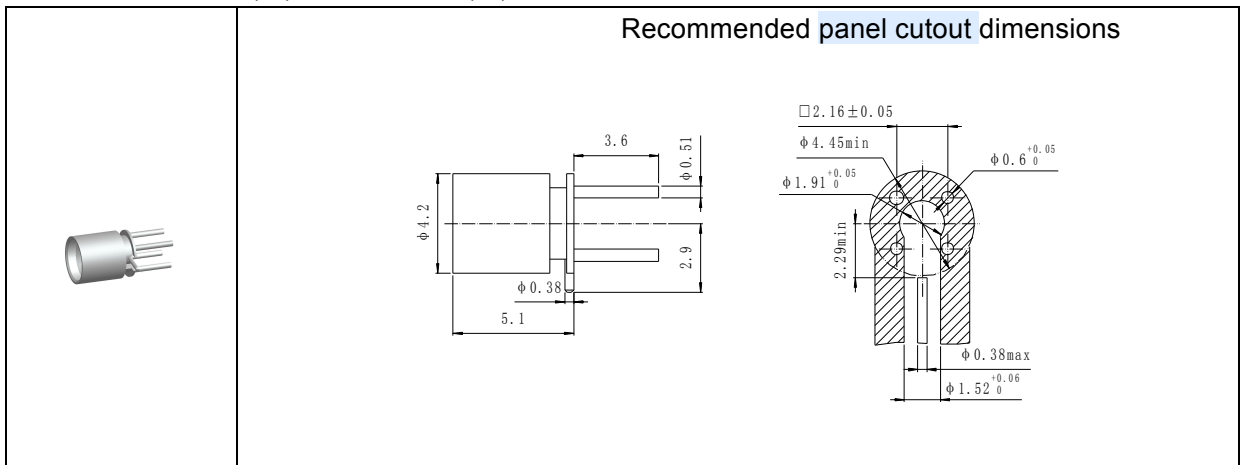
SMP-JHD etc.

	<p style="text-align: center;">Recommended panel cutout dimensions</p> 	
Part No.	A	
SMP-JHD SMP(01)-JHD SMP(02)-JHD	2.5	
SMP-JHD1 SMP(01)-JHD1 SMP(02)-JHD1	3.6	

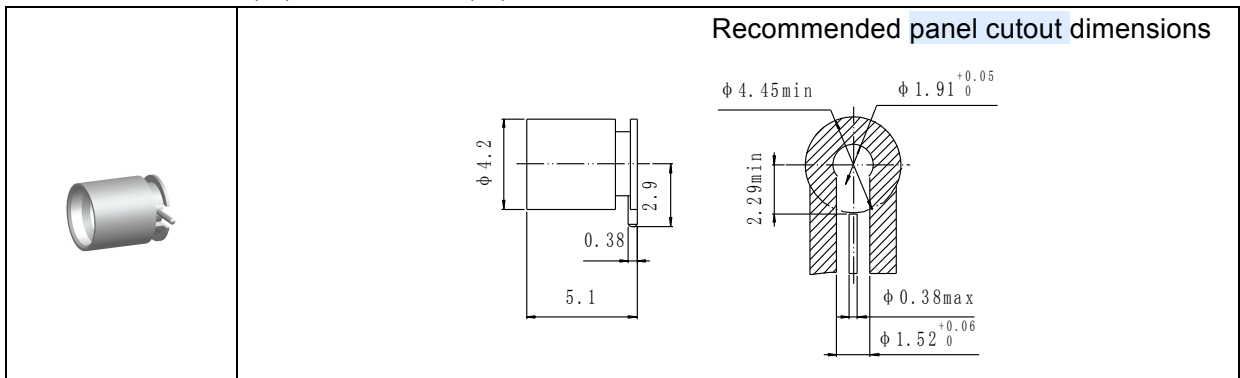
SMP-JD、SMP(01)-JD、SMP(02)-JD



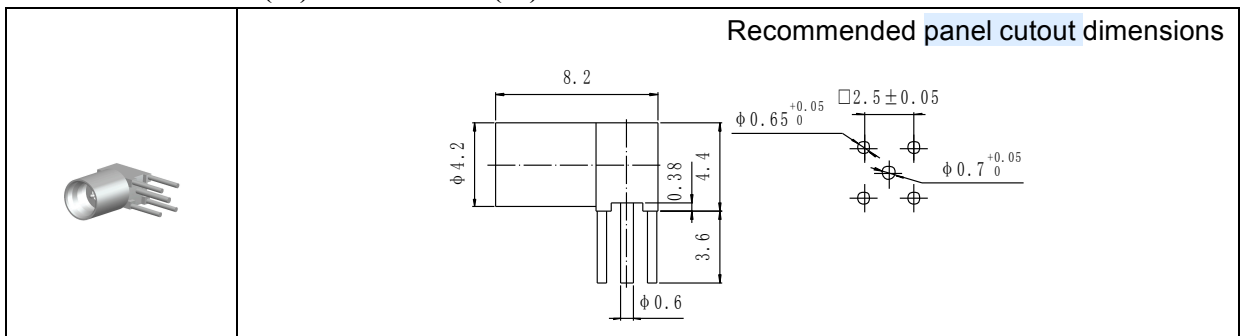
SMP-JHD3、SMP(01)-JHD3、SMP(02)-JHD3



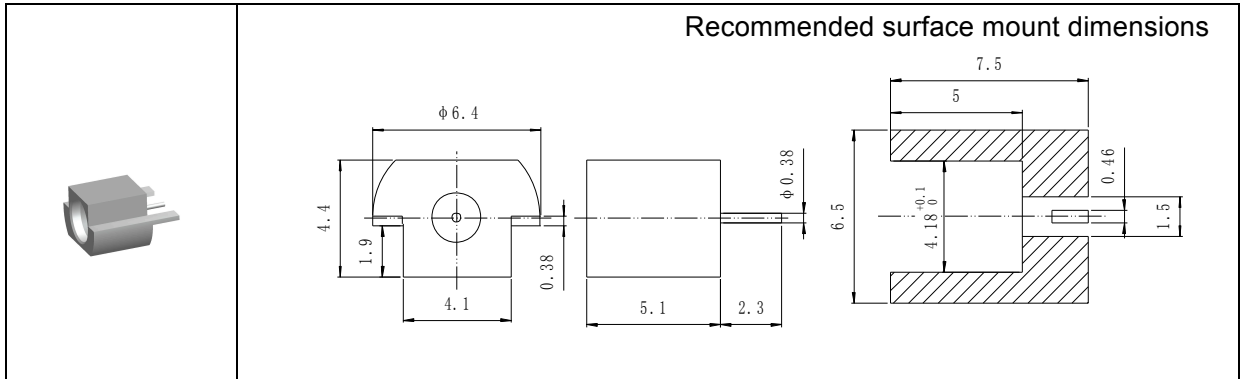
SMP-JHD2、SMP(01)-JHD2、SMP(02)-JHD2



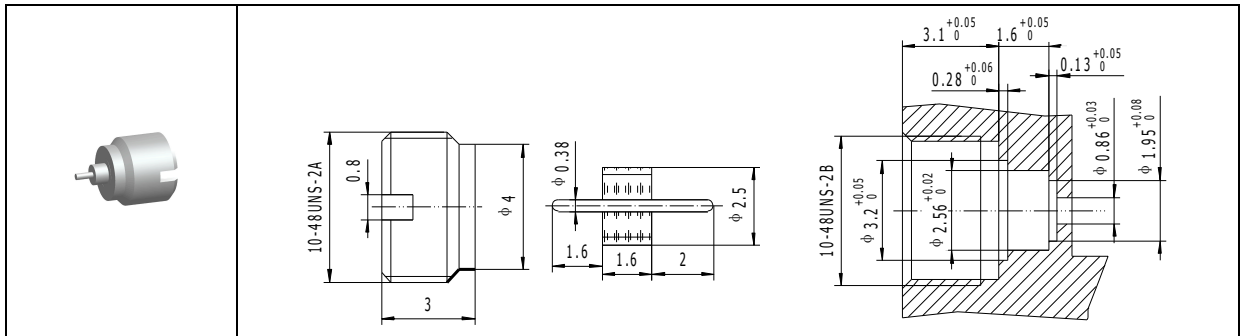
SMP-JWHD、SMP(01)-JWHD、SMP(02)-JWHD



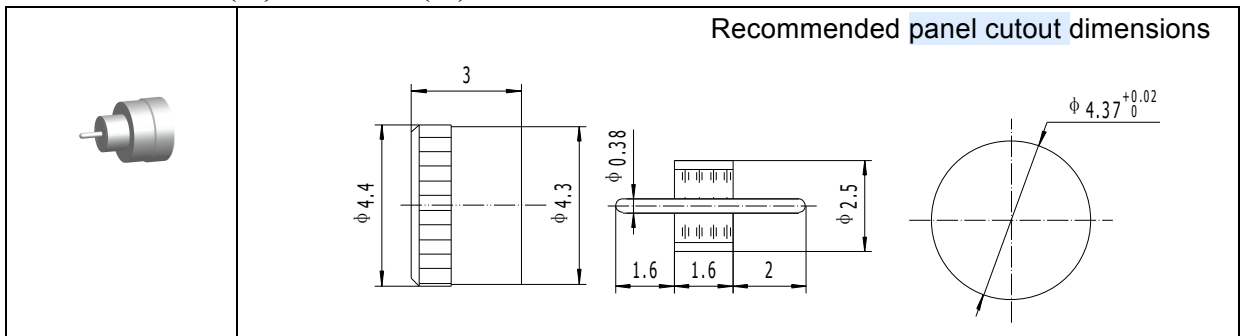
SMP-JD1, SMP(01)-JD1, SMP(02)-JD1



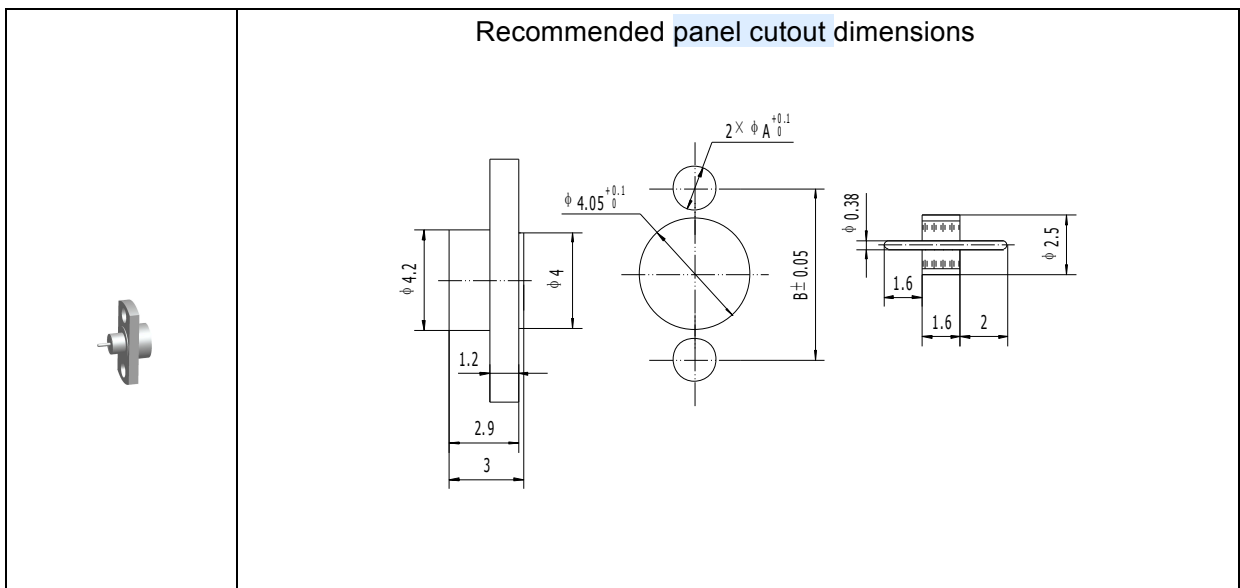
SMP-JD2, SMP(01)-JD2, SMP(02)-JD2



SMP-JD3, SMP(01)-JD3, SMP(02)-JD3




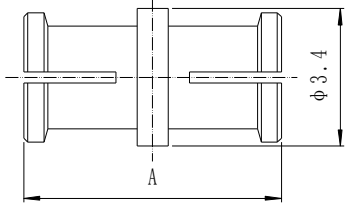
SMP-JFD etc.




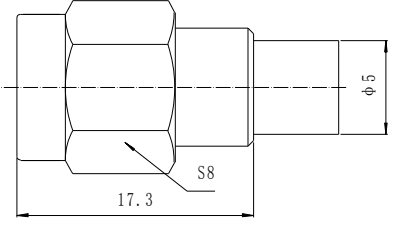
Part No.	A	B
SMP-JFD SMP(01)-JFD SMP(02)-JFD	1.8	7.15
SMP-JFD1 SMP(01)-JFD1 SMP(02)-JFD1	2.5	8.35
SMP-JFD2 SMP(01)-JFD2 SMP(02)-JFD2	1.8	8.95

— SMP Series adapters within series and between various series


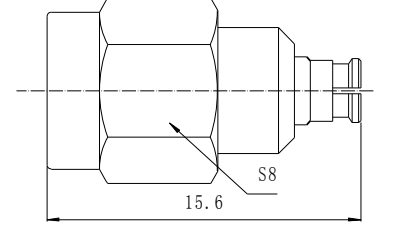
SMP-KK etc.

	
Part No.	A
SMP-KK	6.5
SMP-KK-1	10.3


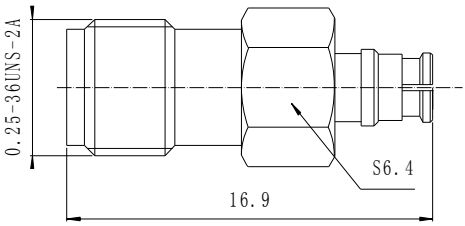
SMA/SMP-JJ

	
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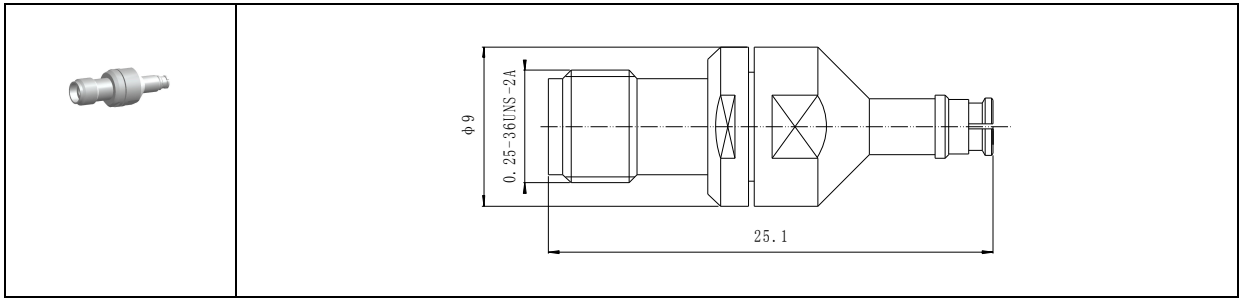
SMA/SMP-JK

	
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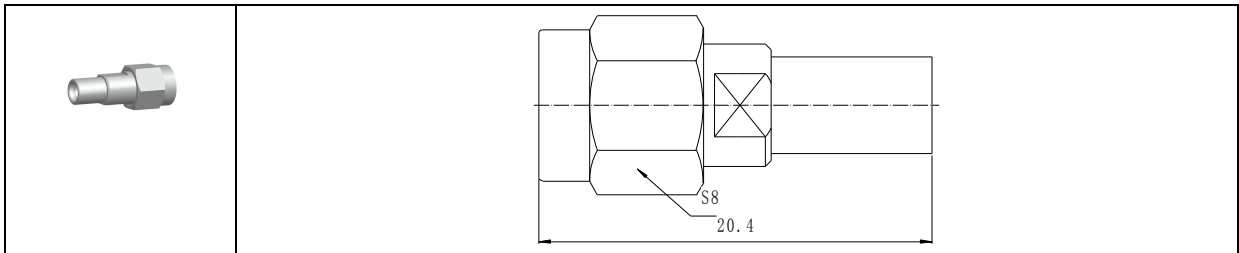
SMA/SMP-KK

	
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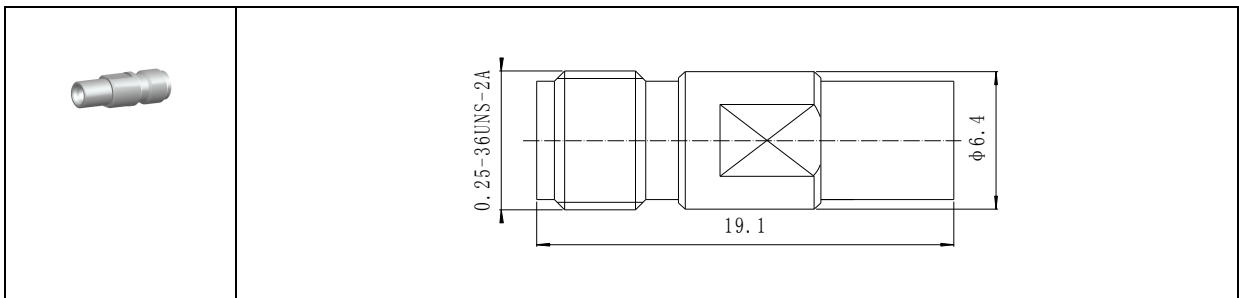
SMA/SMP-KK-1



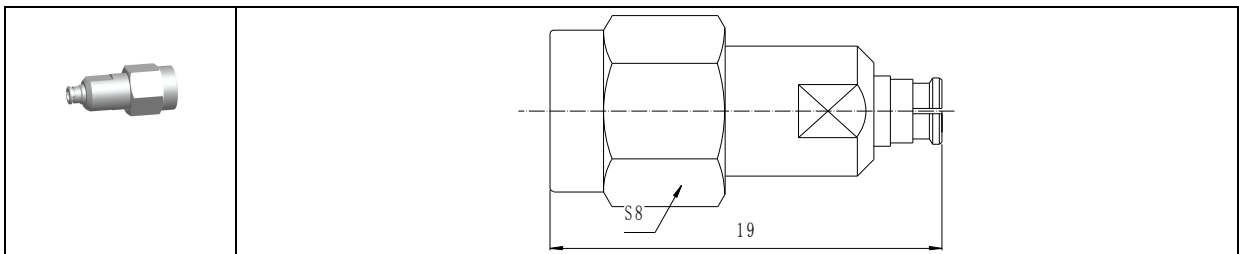
2.92/SMP-JJ



2.92/SMP-KJ



2.92/SMP-JK



2.92/SMP-KK

