

# SMB Type Coaxial Connector

## 27DP Series

DDK Ltd.

Frequency Range  
DC to 3GHz

Characteristic Impedance  
50 Ω



### FEATURE

- 27DP series are connectors produced based on SMB type (Sub Miniature type B) specified in MIL-PRF-39012.
- 27DP is super small size coaxial cable connectors for 50 Ω group corresponding to minimization of communication equipment.
- Connection method is push on type, and fixing method cable is by crimping or soldering.

### CONFORMING STANDARD

JIS-C-5415、MIL-PRF-39012

### SPECIFICATIONS

Characteristic Impedance	50 Ω
Rated Voltage	335VAC(r.m.s.)
Dielectric Withstanding Voltage	1,000V AC(r.m.s.) for 1minute
Insulation Resistance	1,000M Ω min. at 500V DC
Contact Resistance	6m Ω max.
V.S.W.R.	1.2 max. (DC to 2GHz) 1.3max. (2 to 3GHz)
Operating Temperature	-40 ~ +85°C

\* The specifications are typical but may not apply to all connectors.  
Please check the specifications on each item with its drawing from us when you use.

### MATERIAL/FINISH



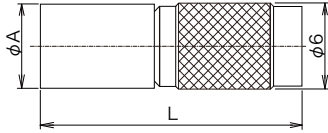
Item	Material / Finish
Shell (Body)	Copper Alloy / Au or Ni Plating
Contact (Male)	Copper Alloy / Au Plating
Contact (Female)	Copper Alloy / Au Plating
Insulator	PTFE

※ Please ask us for the cable assemblies to assure its performance.

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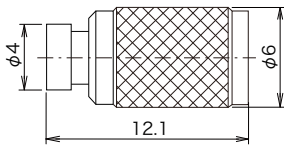
▶ Plug

**Crimp Type**



Part Number	Applicable Cable	φ A	L	Finish		Assembly Instruction	Crimp Tool
				Outer Conductor	Center Conductor		
27DP-P-1.5QEVA-AA-CF	1.5DS-QEHV	4.8	17.5	Ni	Au	1	CR-H-1160
	1.5D-QEV						
27DP-P-1.5QEW-AA-CF	1.5D-2W	4.8	17.5	Ni	Au		CR-H-1160
	1.5D-QEW						
27DP-SP-1.5DHQS-CR1-CF	1.5D-HQ-SUPER	4.8	18.1	Ni	Au		CR-H-1156
27DP-SP-2.5DHQS-CR1-CF	2.5D-HQ-SUPER	5.9	18.2	Ni	Au		CR-H-1163

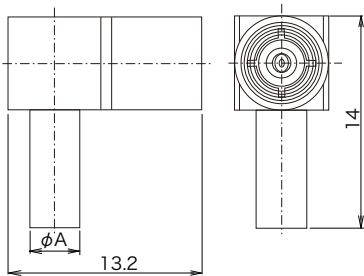
**Semi-Flexible Cable Type**



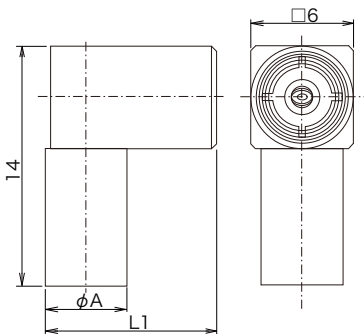
Part Number	Applicable Cable	Finish		Assembly Instruction
		Outer Conductor	Center Conductor	
27DP-SP-FCCAV1-SO-CF	FCCAVG1	Ni	Au	

▶ Right Angle Plug

**Crimp Type**



Part Number	Applicable Cable	φ A	Finish		Assembly Instruction	Crimp Tool
			Outer Conductor	Center Conductor		
27DP-LP-0.8DW-CR1-CF	0.8D-QEW	3.4	Ni	Au		CR-H-K0012-04
27DP-LP-1.5QEVA-AA-CF	1.5DS-QEHV	4.8	Ni	Au		CR-H-1160
	1.5D-QEV					
27DP-LP-1.5QEW-AA-CF	1.5D-QEW	4.8	Ni	Au		CR-H-1160

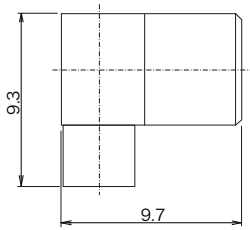


Part Number	Applicable Cable	φ A	L1	Finish		Assembly Instruction	Crimp Tool
				Outer Conductor	Center Conductor		
27DP-LP-1.5DW-CR1-CF	1.5D-QEW	4.8	10.0	Ni	Au	2	CR-H-1156
27DP-LP-1.5DHQS-CR1-CF	1.5D-HQ-SUPER	4.8	10.0	Ni	Au		CR-H-1156
	1.5D-QEV						
27DP-LP-2.5DHQS-CR1-CF	2.5D-HQ-SUPER	5.9	11.0	Ni	Au		CR-H-1163
	2.6D-XFV-A						

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## ▶ Right Angle Plug

## Semi-Flexible Cable Type

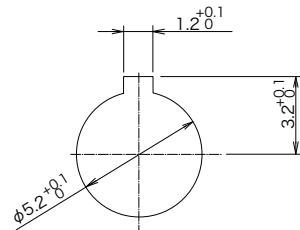
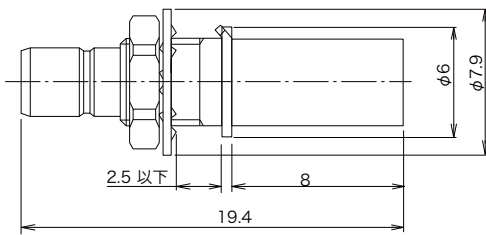


Part Number	Applicable Cable	Finish		Assembly Instruction
		Outer Conductor	Center Conductor	
27DP-LP-FCCA1-SO-1-CF	FCCA1G1	Ni	Au	

## ▶ Bulkhead Jack

## Crimp Type

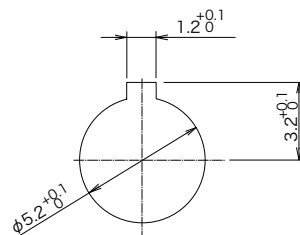
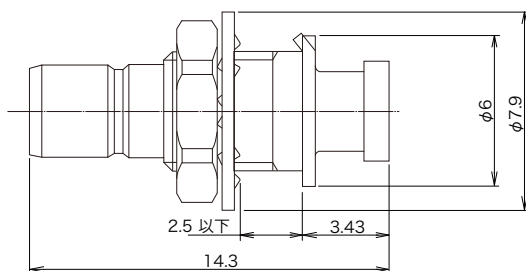
Part Number	Applicable Cable	Finish		Assembly Instruction	Crimp Tool
		Outer Conductor	Center Conductor		
27DP-BJ-1.5DW-CR1-CF	1.5D-QEW	Ni	Au		CR-H-1156



Panel Mounting Dimensions

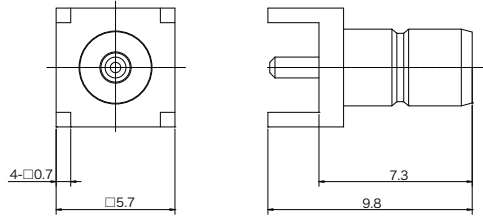
## Semi-Flexible Cable Type

Part Number	Applicable Cable	Finish		Assembly Instruction
		Outer Conductor	Center Conductor	
27DP-BJ-FCCA1-SO-CF	FCCA1G1	Ni	Au	

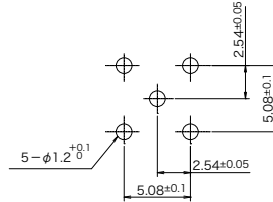


Panel Mounting Dimensions

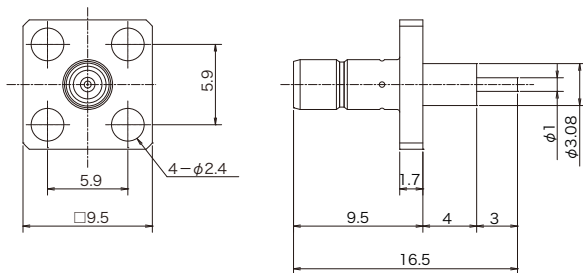
▶ Receptacle



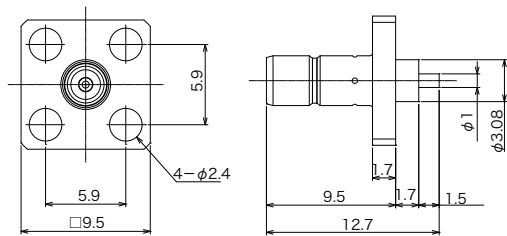
Part Number	Finish	
	Outer Conductor	Center Conductor
27DP-SR-PC-1-CF	Ni	Au



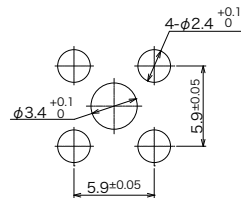
PCB Mounting Dimensions



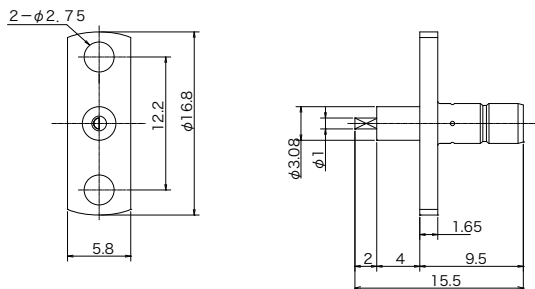
Part Number	Finish	
	Outer Conductor	Center Conductor
27DP-SR-1-CF	Ni	Au



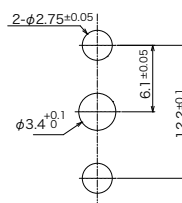
Part Number	Finish	
	Outer Conductor	Center Conductor
27DP-SR-2-CF	Ni	Au



Panel Mounting Dimensions



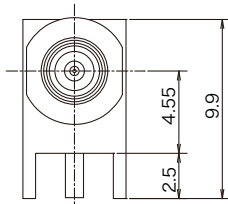
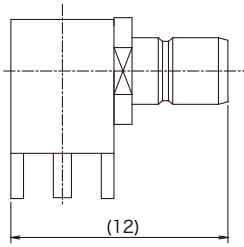
Part Number	Finish	
	Outer Conductor	Center Conductor
27DP-SR2-3-CF	Ni	Au



Panel Mounting Dimensions

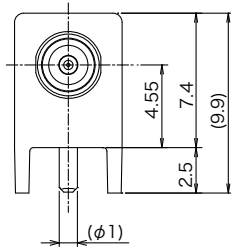
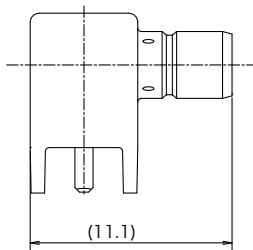
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▶ Right Angle Receptacle



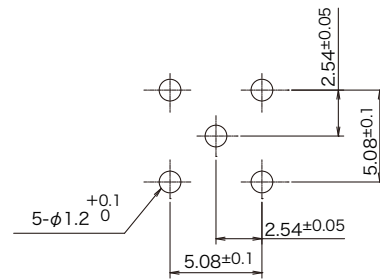
Part Number	Finish	
	Outer Conductor	Center Conductor
27DP-LR-PC-1-CF	Ni	Au

※ Cheap version includes die-casting 27DP-LR-PC-14,



Part Number	Finish	
	Outer Conductor	Center Conductor
27DP-LR-PC-14	Ni	Au

※ Accomplished low cost by using press and molding method.



PCB Mounting Dimensions

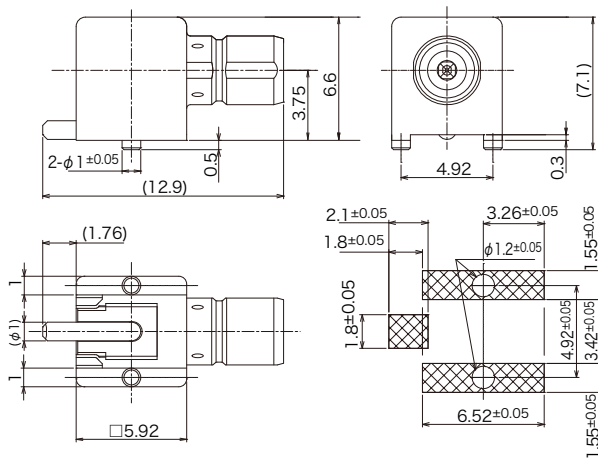
▶ Right Angle Receptacle

Part Number	Finish		Package Style	Minimum Ordering Quantity	Note
	Outer Conductor	Center Conductor			
27DP-LR-PS-1-500	Au	Au	Tape and Reel 500 pcs./ reel	1 reel	27DP-LR-SP-1 500pcs. Package

- ※ SMT mounting style
- ※ Tape and reel package is available.
- ※ The exposing contact tail enables you to be visible the soldering condition after reflow process.
- ※ Accomplished low cost by using press and molding method.
- ※ With regard to orders less than 500, please contact us.

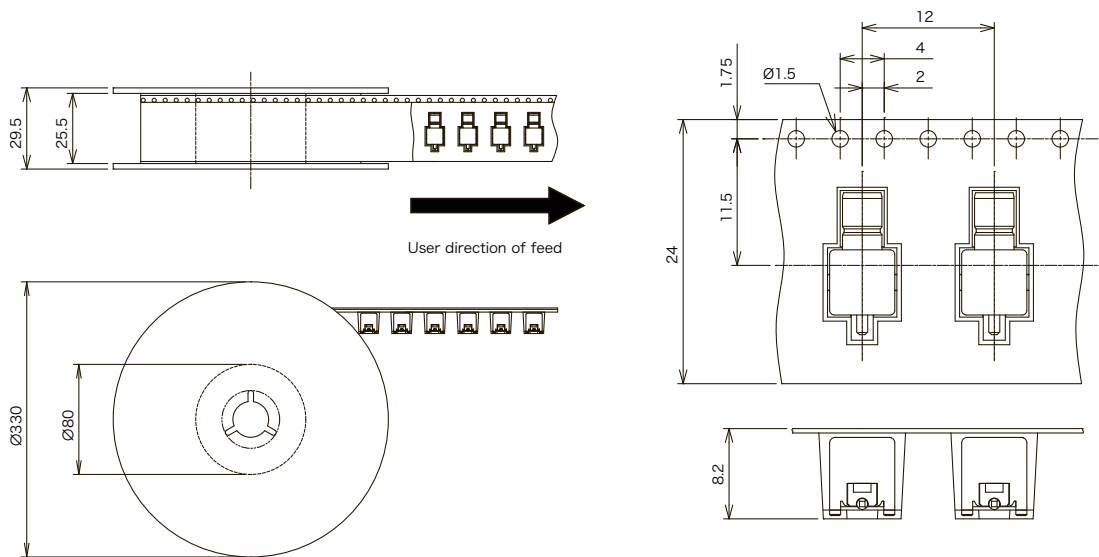
**Connector Dimensions**

27DP-LR-PS-1



PCB Mounting Dimensions

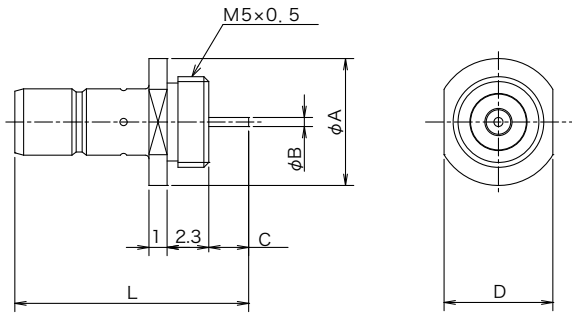
Tape and Reel Dimensions



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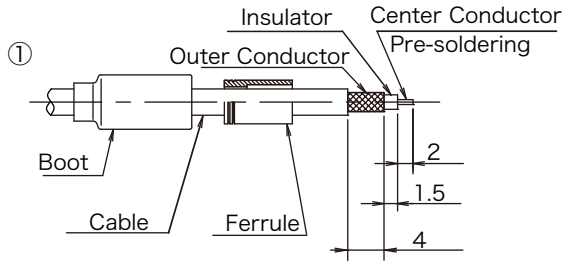
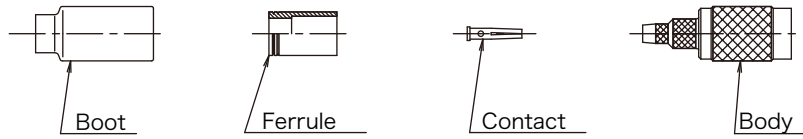
## ▶ Bulkhead Receptacle

Part Number	$\phi A$	$\phi B$	C	D	L	Finish	
						Outer Conductor	Center Conductor
27DP-BR-9-CF	7.0	0.5	2.2	6.0	12.9	Ni	Au
27DP-BR-11-CF	6.2	0.8	3.0	5.4	13.7	Ni	Au



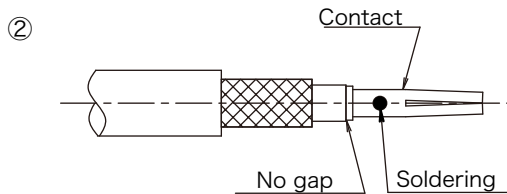
▶ Assembly Instruction (1)

Parts Configuration

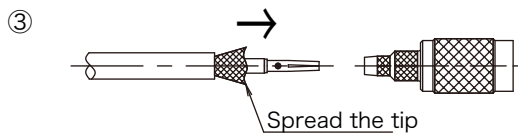


① Show it to illustration dimensions through a boot to a cable.

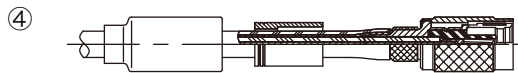
(Note) Be careful about the directionality of the ferrule.  
 (Note) Please be careful to not damage the outer conductor, insulator and center conductor.  
 Pre-soldering the center conductor.



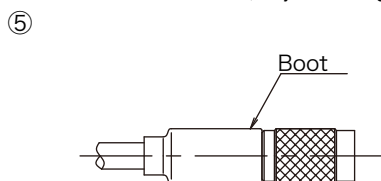
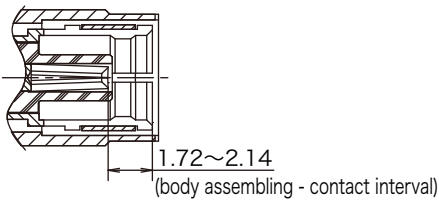
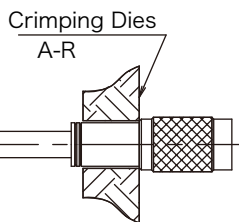
② Soldering cable inside conductor and a contact.  
 (Note) Please be careful to not deform the insulator by heat.  
 (Note) When the solder is stick out, please shave the extra solder.



③ Spread the tip of the outside conductor.



④ Insert a cable in body assembling and cover with the ferrule which let go through beforehand on an outside conductor, Crimp.  
 (Note) The thing by which a gap between the body assembling ferrule is less than 0.5.

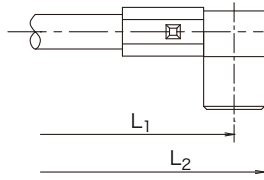
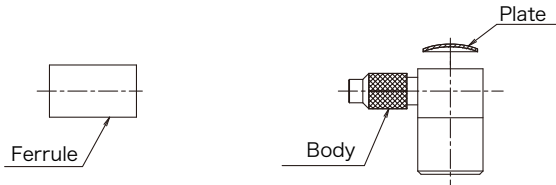


⑤ Cover the boot on the ferrule.



▶ Assembly Instruction (2)

Parts Configuration

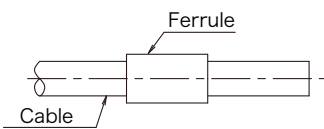


The cable length required for the cable assembly. L

$$L=L_1+0.6$$

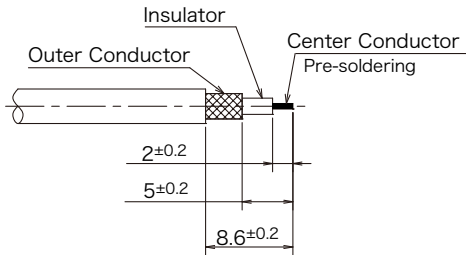
$$L=L_2-2.5$$

①



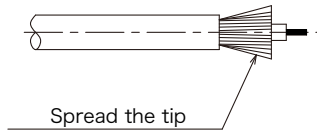
① Insert the ferrule into the cable.

②



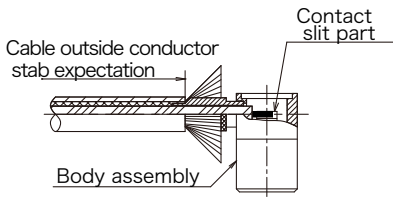
② Handle a cable end face to illustration dimensions. (Note) Please be careful to not damage the outer conductor and center conductor. Pre-solder the center conductor.

③



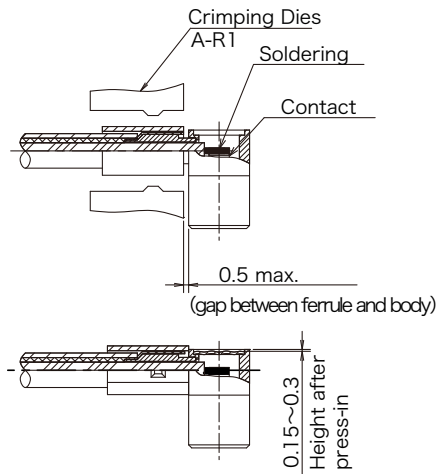
③ Disentangle an outside conductor uniformly and spread the tip.

④



④ Insert body assembling between an outside conductor, insulators. (Note) Internal conductor in a contact slit more than half Being satisfied. (Note) Aya cover evenly over the first knurling the outer conductor. cover with the ferrule which let go through beforehand on an outside conductor and knock it against body system and crimp it. (Note) The gap between body and ferrule is within 0.5. Solder cable inside conductor and a contact. (Note) Please be careful to not deform the insulator by heat.

⑤



⑤ Compress the plate into the body.