

# FLA series

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## Coaxial Connectors

### Outline

The FLA series are screw-coupling type coaxial connectors are far super in durability, while complying with SMA connectors (MIL-C-39012 and IEC169-15). They are widely used as a standard connector for microwave. These connectors are suitable for satellite communications equipment, radar, etc., which utilize the microwave band.

#### Document Disclaimer

- When placing orders with us, minimum order quantities are set for every product.
- Be sure to contact us before starting preliminary design of PCBs using our connectors.
- The specifications and information shown in the catalog are subject to change without notice.

# Specifications

	Item	Specification
Electrical	Characteristic impedance	50 ohms
	Dielectric withstanding voltage	1000V AC for up to one minute
	Insulation resistance	Over 5000 megohms (at 500V DC)
	Contact resistance	4 milliohms or less
	Frequency range	DC to 20 GHz
	Voltage standing wave ratio (VSWR)	Straight connector: $1.05+0.01 f$ , Right-angle connector: $1.05+0.025 f$ (f = Frequency in GHz)
Mechanical	Fixed torque of central contact	Rotational torque: 0.017 N cm or more, axial torque: 1.5 N cm or more
	Insertion or removal force of central contact	0.015 N or more
	Durability	6 milliohm or less after 1000 cycles of insertion and extraction
	Tightening torque of coupling	0.6 to 1.0 N cm
	Hold-down strength of coupling	5.1 N or more
Environmental	Temperature cycling test	Abnormality should not be detected after it is tested in the condition C of the method 102 on MIL-STD-202
	Resistance to corrosion	Abnormality should not be detected after it is tested in the condition B of the method 101 on MIL-STD-202
	Resistance to impact	Abnormality should not be detected after it is tested in the condition C of the method 213 on MIL-STD-202
	Resistance to vibration	Abnormality should not be detected after it is tested in the condition D of the method 204 on MIL-STD-202
	Resistance to moisture	Abnormality should not be detected after it is tested in the method 106 on MIL-STD-202

## Materials and Plating

Part Name	Material	Plating
Shell	Stainless steel or brass	Gold plate or passivation or nickel plate
Insulator	Four-fluoride resin	–
Center contact (male)	Brass	Gold plate
Center contact (female)	Beryllium	
Nuts of coupling	Stainless steel	Gold plate or passivation
Gasket	Silicone rubber	–
Ferrule	Copper	Gold plate or solder plate

### Contact Plating

Example FLA-H-SPM1+ : Passivated  
 FLA-H-SPM1G+ : Gold plate  
 FLA-H-SPM1B+ : Nickel plate

## Cable Assemblies

We assemble semi-rigid cables, semi-flexible cables and flexible cables. Since we assemble them based on your engineering drawings, please contact us.

## Product List



Plug for 0.085-inch semi-rigid cable  
FLA-H-SPM1+,FLA-H-SPM1G+  
FLA-H-SPM1B+

**K-34**  
FLA series...6



Plug for 0.085-inch semi-rigid cable  
FLA-H-SPM14+,FLA-H-SPM14G+  
FLA-H-SPM14B+

**K-34**  
FLA series...6



Plug for 0.141-inch semi-rigid cable  
FLA-H-SPM9  
FLA-H-SPM9G

**K-34**  
FLA series...6



Plug for 0.141-inch semi-rigid cable  
FLA-H-SPM7  
FLA-H-SPM7G

**K-34**  
FLA series...6



Plug for 1.5D-2V cable  
FLA-H-SPM11+  
FLA-H-SPM11G+

**K-35**  
FLA series...7



Right-angle plug for 0.085-inch  
semi-rigid cable  
FLA-H-LPM3+  
FLA-H-LPM3G+

**K-35**  
FLA series...7



Right-angle plug for 1.5D-2V cable  
FLA-H-LPM5+  
FLA-H-LPM5G+

**K-35**  
FLA series...7



Jack for 0.085-inch semi-rigid cable  
FLA-H-SPF6  
FLA-H-SPF6G

**K-36**  
FLA series...8



Jack for 0.141-inch semi-rigid cable  
FLA-H-SPF7  
FLA-H-SPF7G

**K-36**  
FLA series...8



Two-hole panel-mounted jack  
for 0.047-inch semi-rigid cable  
FLA-H-SPF16BG+

**K-36**  
FLA series...8



Four-hole panel-mounted jack  
for 0.047-inch semi-rigid cable  
FLA-H-SPF3+  
FLA-H-SPF3G+

**K-36**  
FLA series...8



Four-hole panel-mounted jack  
for 0.085-inch semi-rigid cable  
FLA-H-SPF1  
FLA-H-SPF1G

**K-37**  
FLA series...9



Four-hole panel-mounted jack  
for 0.085-inch semi-rigid cable  
FLA-H-SPF10G+

**K-37**  
FLA series...9



Four-hole panel-mounted jack  
for 0.141-inch semi-rigid cable  
FLA-H-SPF2  
FLA-H-SPF2G

**K-37**  
FLA series...9



Two-hole panel-mounted jack  
receptacle with round terminal  
FLA-H-SRF9  
FLA-H-SRF9G+

**K-38**  
FLA series...10



Two-hole panel-mounted jack  
receptacle with round terminal  
FLA-H-SRF10

**K-38**  
FLA series...10



Two-hole panel-mounted jack  
receptacle with round terminal  
FLA-H-SRF19  
FLA-H-SRF19G+

**K-38**  
FLA series...10



Two-hole panel-mounted jack  
receptacle with round terminal  
FLA-H-SRF20  
FLA-H-SRF20G+

**K-38**  
FLA series...10



Two-hole panel-mounted jack  
receptacle with soldering terminal  
FLA-H-SRF13  
FLA-H-SRF13G+

**K-39**  
FLA series...11



Two-hole panel-mounted jack  
receptacle with half-round terminal  
FLA-H-SRF12

**K-39**  
FLA series...11



Two-hole panel-mounted jack receptacle with half-round terminal  
FLA-H-SRF27  
FLA-H-SRF27G+  
**K-39**  
FLA series...11



Two-hole panel-mounted jack receptacle with slit terminal  
FLA-H-SRF14  
**K-39**  
FLA series...11



Two-hole panel-mounted jack receptacle with tab terminal  
FLA-H-SRF11  
**K-40**  
FLA series...12



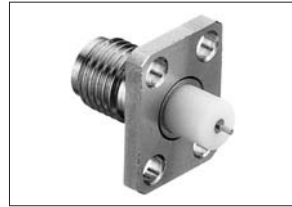
Two-hole panel-mounted jack receptacle with tab terminal  
FLA-H-SRF31  
FLA-H-SRF31G+  
**K-40**  
FLA series...12



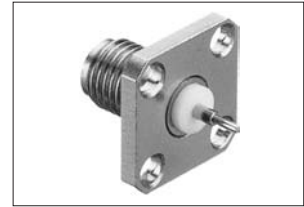
Two-hole panel-mounted jack receptacle with tab terminal  
FLA-H-SRF32  
FLA-H-SRF32G+  
**K-40**  
FLA series...12



Four-hole panel-mounted jack receptacle with round pin contact  
FLA-H-SRF1+  
FLA-H-SRF1G+  
**K-40**  
FLA series...12



Four-hole panel-mounted jack receptacle with round pin contact  
FLA-H-SRF2+  
FLA-H-SRF2G+  
**K-41**  
FLA series...13



Four-hole panel-mounted jack receptacle with round terminal  
FLA-H-SRF3  
FLA-H-SRF3G+  
**K-41**  
FLA series...13



Four-hole panel-mounted jack receptacle with round terminal  
FLA-H-SRF8  
**K-41**  
FLA series...13



Four-hole panel-mounted jack receptacle with round terminal  
FLA-H-SRF16  
**K-41**  
FLA series...13



Four-hole panel-mounted jack receptacle with round terminal  
FLA-H-SRF18  
FLA-H-SRF18G+  
**K-42**  
FLA series...14



Four-hole panel-mounted jack receptacle with soldering terminal  
FLA-H-SRF4  
FLA-H-SRF4G+  
**K-42**  
FLA series...14



Four-hole panel-mounted jack receptacle with half-round terminal  
FLA-H-SRF6  
FLA-H-SRF6G+  
**K-42**  
FLA series...14



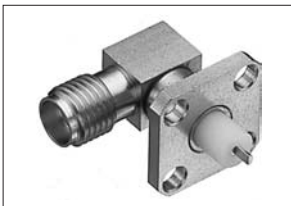
Four-hole panel-mounted jack receptacle with slit terminal  
FLA-H-SRF5  
FLA-H-SRF5G+  
**K-42**  
FLA series...14



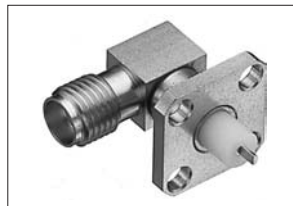
Four-hole panel-mounted jack receptacle with tab terminal  
FLA-H-SRF7  
FLA-H-SRF7G+  
**K-43**  
FLA series...15



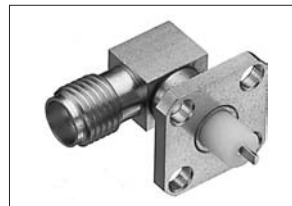
Four-hole panel-mounted jack receptacle with tab terminal  
FLA-H-SRF15  
FLA-H-SRF15G+  
**K-43**  
FLA series...15



Four-hole panel-mounted right-angle jack receptacle with half-round terminal  
FLA-H-LRF2+,FLA-H-LRF2G+  
**K-43**  
FLA series...15



Four-hole panel-mounted right-angle jack receptacle with half-round terminal  
FLA-H-LRF4+,FLA-H-LRF4G+  
**K-43**  
FLA series...15



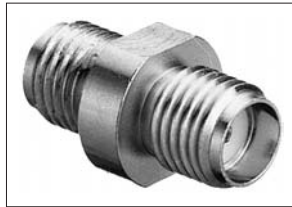
Four-hole panel-mounted right-angle jack receptacle with half-round terminal  
FLA-H-LRF5+,FLA-H-LRF5G+  
**K-44**  
FLA series...16



Four-hole panel-mounted right-angle jack receptacle with half-round terminal  
FLA-H-LRF8+  
**K-44**  
FLA series...16



Through hole type receptacles  
with four legs for PCB  
FLA-H-SRF48  
FLA-H-SRF48B+  
**K-44**  
FLA series...16



Jack-to-jack adaptor  
FLA-H-SA1+  
FLA-H-SA1G+  
**K-45**  
FLA series...17



Four-hole panel-mounted  
jack-to-jack adaptor  
FLA-H-SA3+  
FLA-H-SA3G+  
**K-45**  
FLA series...17



Plug-to-plug adaptor  
FLA-H-SA2+  
FLA-H-SA2G+  
**K-45**  
FLA series...17




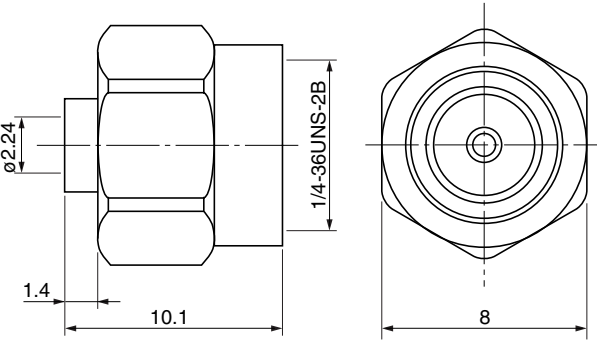

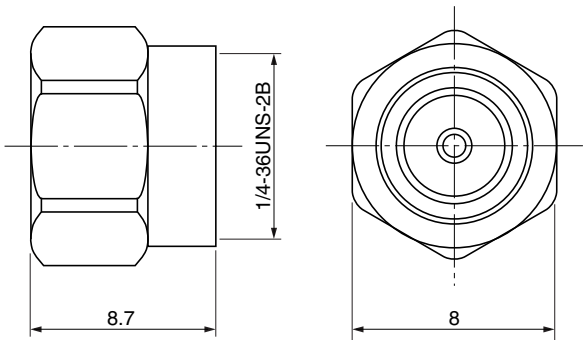

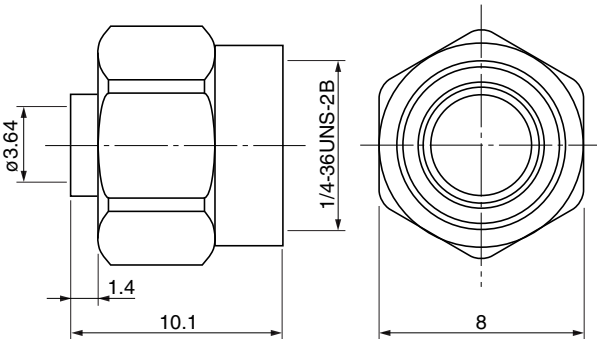

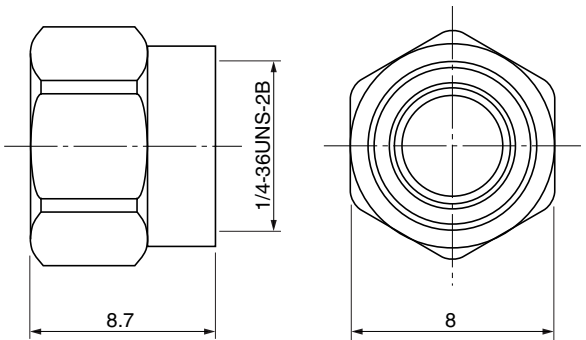
Union-type adaptor  
FLA-H-SA4+  
FLA-H-SA4G+  
**K-45**  
FLA series...17



Cap  
FLA-H-DC1+  
**K-46**  
FLA series...18


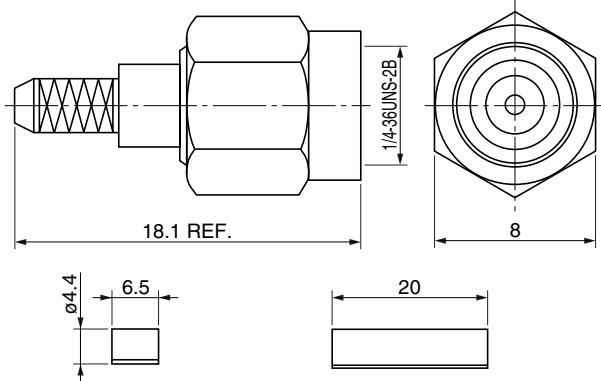

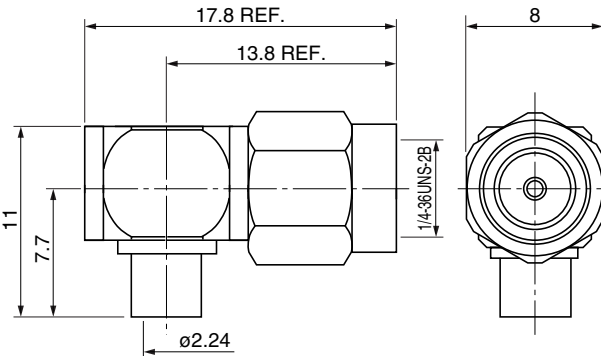

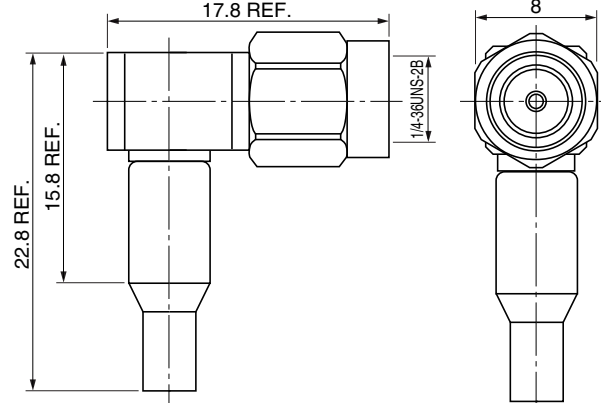
FLA Series of Plug

RoHS

		<p><b>Plug for 0.085-inch semi-rigid cable</b></p> <p><b>FLA-H-SPM1+ SPM1G+ SPM1B+</b></p> <p>For use with cable: RG-405</p>
		<p><b>Plug for 0.085-inch semi-rigid cable</b></p> <p><b>FLA-H-SPM14+ SPM14G+ SPM14B+</b></p> <p>For use with cable: RG-405</p>
		<p><b>Plug for 0.141-inch semi-rigid cable</b></p> <p><b>FLA-H-SPM9 SPM9G</b></p> <p>For use with cable: RG-402</p>
		<p><b>Plug for 0.141-inch semi-rigid cable</b></p> <p><b>FLA-H-SPM7 SPM7G</b></p> <p>For use with cable: RG-402</p>


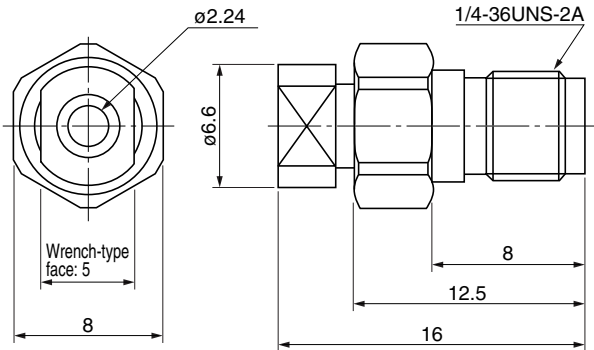

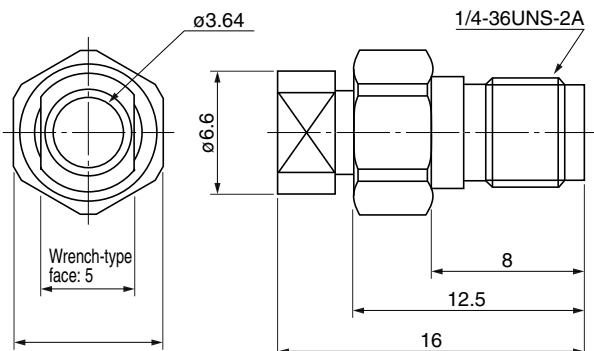

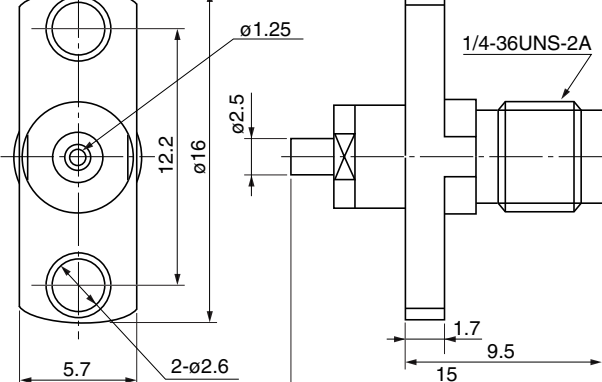

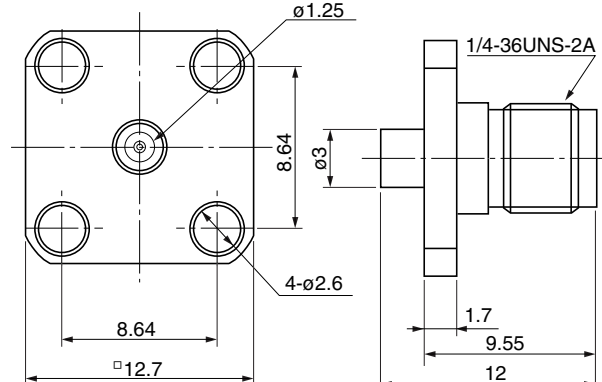
FLA Series of Plug

RoHS

		<p><b>Plug for 1.5D-2V cable</b></p> <p><b>FLA-H-SPM11+ SPM11G+</b></p> <p>For use with cable: 1.5D-2V</p>
		<p><b>Right-angle plug for 0.085-inch semi-rigid cable</b></p> <p><b>FLA-H-LPM3+ LPM3G+</b></p> <p>For use with cable: RG-405</p>
		<p><b>Right-angle plug for 1.5D-2V cable</b></p> <p><b>FLA-H-LPM5+ LPM5G+</b></p> <p>For use with cable: 1.5D-2V</p>

FLA Series of Jack and Panel-mounted Jack


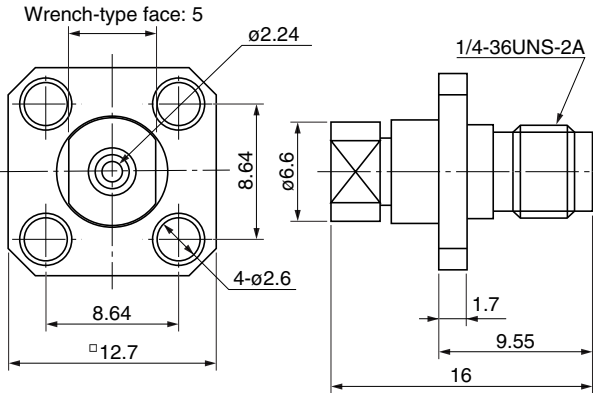

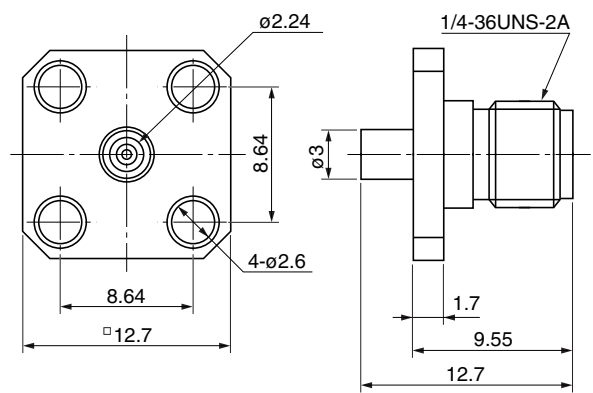

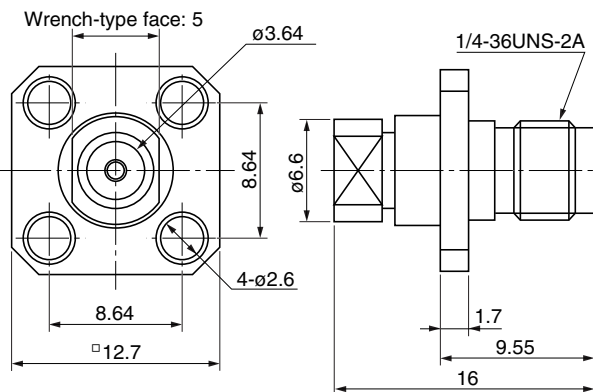
RoHS

		<p><b>Jack for 0.085-inch semi-rigid cable</b></p> <p><b>FLA-H-SPF6 SPF6G</b></p> <p>For use with cable: RG-405</p>
		<p><b>Jack for 0.141-inch semi-rigid cable</b></p> <p><b>FLA-H-SPF7 SPF7G</b></p> <p>For use with cable: RG-402</p>
		<p><b>Two-hole panel-mounted jack for 0.047-inch semi-rigid cable</b></p> <p><b>FLA-H-SPF16BG+</b></p>
		<p><b>Four-hole panel-mounted jack for 0.047-inch semi-rigid cable</b></p> <p><b>FLA-H-SPF3+ SPF3G+</b></p>



FLA Series of Panel-mounted Jack

RoHS

		<p><b>Four-hole panel-mounted jack for 0.085-inch semi-rigid cable</b></p> <p><b>FLA-H-SPF1 SPF1G</b></p> <p>For use with cable: RG-405</p>
		<p><b>Four-hole panel-mounted jack for 0.085-inch semi-rigid cable</b></p> <p><b>FLA-H-SPF10G+</b></p> <p>For use with cable: RG-405</p>
		<p><b>Four-hole panel-mounted jack for 0.141-inch semi-rigid cable</b></p> <p><b>FLA-H-SPF2 SPF2G</b></p> <p>For use with cable: RG-402</p>

FLA Series of Panel-mounted Jack Receptacle

RoHS

			<p><b>Two-hole panel-mounted jack receptacle with round terminal</b></p> <p><b>FLA-H-SRF9</b> <b>SRF9G+</b></p>
			<p><b>Two-hole panel-mounted jack receptacle with round terminal</b></p> <p><b>FLA-H-SRF10</b></p>
			<p><b>Two-hole panel-mounted jack receptacle with round terminal</b></p> <p><b>FLA-H-SRF19</b> <b>SRF19G+</b></p>
			<p><b>Two-hole panel-mounted jack receptacle with round terminal</b></p> <p><b>FLA-H-SRF20</b> <b>SRF20G+</b></p>

FLA Series of Panel-mounted Jack Receptacle

RoHS

		<p><b>Two-hole panel-mounted jack receptacle with soldering terminal</b></p> <p><b>FLA-H-SRF13</b> <b>SRF13G+</b></p>
		<p><b>Two-hole panel-mounted jack receptacle with half-round terminal</b></p> <p><b>FLA-H-SRF12</b></p>
		<p><b>Two-hole panel-mounted jack receptacle with half-round terminal</b></p> <p><b>FLA-H-SRF27</b> <b>SRF27G+</b></p>
		<p><b>Two-hole panel-mounted jack receptacle with slit terminal</b></p> <p><b>FLA-H-SRF14</b></p>

FLA Series of Panel-mounted Jack Receptacle

RoHS

		<p>Two-hole panel-mounted jack receptacle with tab terminal</p> <p>FLA-H-SRF11</p>
		<p>Two-hole panel-mounted jack receptacle with tab terminal</p> <p>FLA-H-SRF31 SRF31G+</p>
		<p>Two-hole panel-mounted jack receptacle with tab terminal</p> <p>FLA-H-SRF32 SRF32G+</p>
		<p>Four-hole panel-mounted jack receptacle with round pin contact</p> <p>FLA-H-SRF1+ SRF1G+</p>

FLA Series of Panel-mounted Jack Receptacle

RoHS

		<p><b>Four-hole panel-mounted jack receptacle with round pin contact</b></p> <p>FLA-H-SRF2+ SRF2G+</p>
		<p><b>Four-hole panel-mounted jack receptacle with round terminal</b></p> <p>FLA-H-SRF3 SRF3G+</p>
		<p><b>Four-hole panel-mounted jack receptacle with round terminal</b></p> <p>FLA-H-SRF8</p>
		<p><b>Four-hole panel-mounted jack receptacle with round terminal</b></p> <p>FLA-H-SRF16</p>

FLA Series of Panel-mounted Jack Receptacle

RoHS

		<p><b>Four-hole panel-mounted jack receptacle with round terminal</b></p> <p><b>FLA-H-SRF18</b> <b>SRF18G+</b></p>
		<p><b>Four-hole panel-mounted jack receptacle with soldering terminal</b></p> <p><b>FLA-H-SRF4</b> <b>SRF4G+</b></p>
		<p><b>Four-hole panel-mounted jack receptacle with half-round terminal</b></p> <p><b>FLA-H-SRF6</b> <b>SRF6G+</b></p>
		<p><b>Four-hole panel-mounted jack receptacle with slit terminal</b></p> <p><b>FLA-H-SRF5</b> <b>SRF5G+</b></p>

FLA Series of Panel-mounted Jack Receptacle

RoHS

		<p><b>Four-hole panel-mounted jack receptacle with tab terminal</b></p> <p><b>FLA-H-SRF7</b> <b>SRF7G+</b></p>
		<p><b>Four-hole panel-mounted jack receptacle with tab terminal</b></p> <p><b>FLA-H-SRF15</b> <b>SRF15G+</b></p>
		<p><b>Four-hole panel-mounted right-angle jack receptacle with half-round terminal</b></p> <p><b>FLA-H-LRF2+</b> <b>LRF2G+</b></p>
		<p><b>Four-hole panel-mounted right-angle jack receptacle with half-round terminal</b></p> <p><b>FLA-H-LRF4+</b> <b>LRF4G+</b></p>

FLA Series of Receptacle


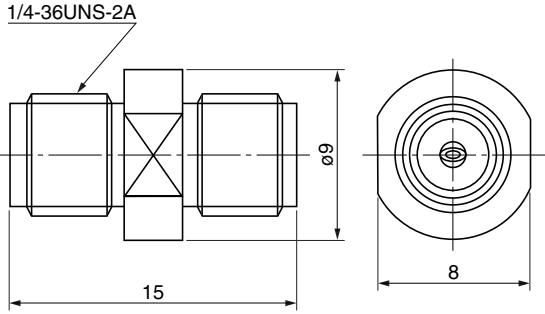

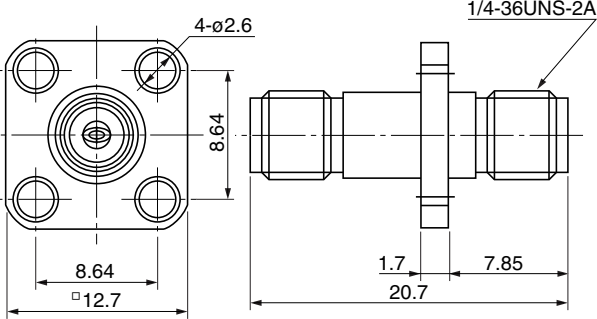

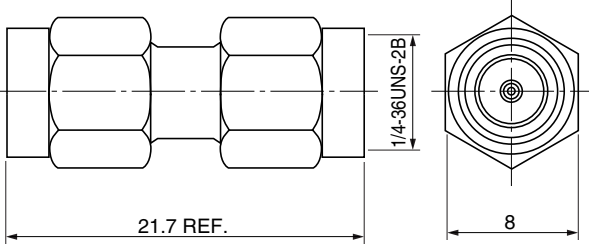

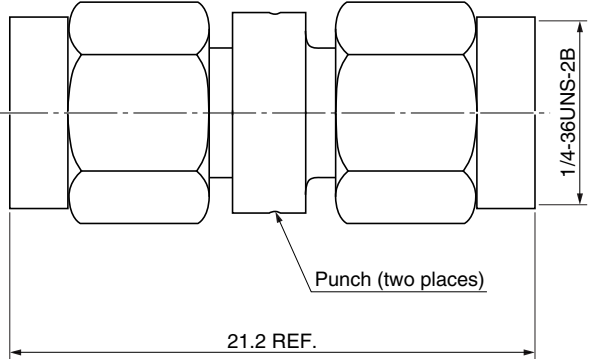
RoHS

		<p><b>Four-hole panel-mounted right-angle jack receptacle with half-round terminal</b></p> <p><b>FLA-H-LRF5+ LRF5G+</b></p>
		<p><b>Four-hole panel-mounted right-angle jack receptacle with half-round terminal</b></p> <p><b>FLA-H-LRF8+</b></p>
		<p><b>Through hole type receptacles with four legs for PCB</b></p> <p><b>FLA-H-SRF48 SRF48B+</b></p>




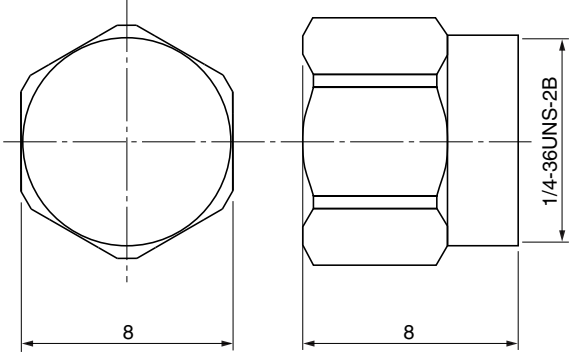
FLA Series of Adaptor

RoHS

		<p><b>Jack-to-jack adaptor</b></p> <p>FLA-H-SA1+ SA1G+</p>
		<p><b>Four-hole panel-mounted jack-to-jack adaptor</b></p> <p>FLA-H-SA3+ SA3G+</p>
		<p><b>Plug-to-plug adaptor</b></p> <p>FLA-H-SA2+ SA2G+</p>
		<p><b>Union-type adaptor</b></p> <p>FLA-H-SA4+ SA4G+</p>

FLA Series of Cap

RoHS

		<p>Cap FLA-H-DC1+</p>
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