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**Adapters:** SSMA Series Adapters can be found in the Adapter section.

**Cable Connectors:** SSMA Series Connectors can be found in the Cable Connector section.

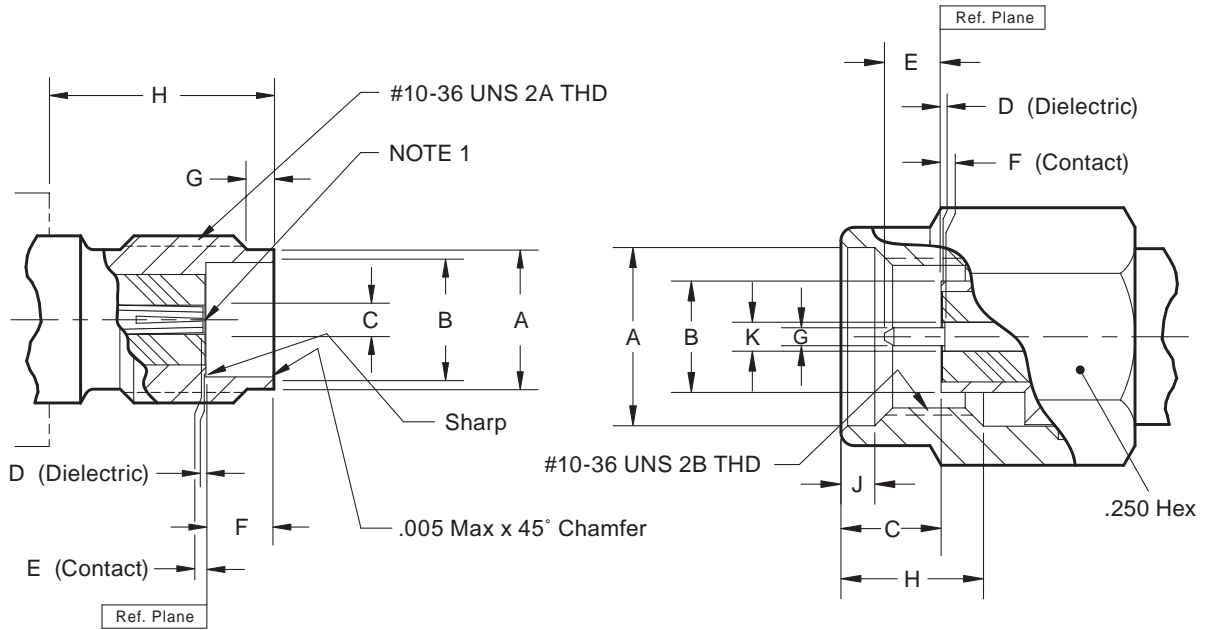
Unless otherwise specified, all dimensions are in inches.



# SSMA Series DC to 36.0 GHz

## SSMA

### Interface Standards



#### SSMA Jack (Socket Contact)

LTR	Inches (Millimeters)			
	Minimum		Maximum	
A	.148	(3.76)	.155	(3.94)
B	.1272	(3.23)	.130	(3.30)
C	.0335	(0.85)	.0348	(0.88)
D	.000	(0.00)	.005	(0.13)
E	.000	(0.00)	.005	(0.13)
F	.075	(1.91)	.077	(1.96)
G	.020	(0.51)	.040	(1.02)
H	.218	(5.54)	—	—
	Inch	(mm)	Inch	(mm)

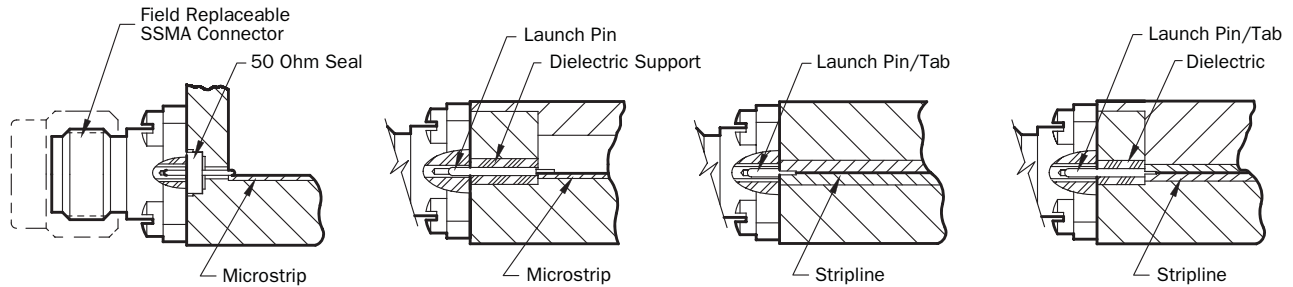
#### SSMA Plug (Pin Contact)

LTR	Inches (Millimeters)			
	Minimum		Maximum	
A	.196	(4.98)	.202	(5.13)
B	.124	(3.23)	.126	(3.20)
C	.105	(2.67)	.125	(3.17)
D	.000	(0.00)	.005	(0.13)
E	.055	(1.40)	.065	(1.65)
F	.000	(0.00)	.005	(0.13)
G	.0195	(0.495)	.0208	(0.528)
H	.150	(3.81)	.170	(4.32)
J	.035	(0.89)	.040	(1.02)
K	.0335	(0.851)	.0348	(0.884)
	Inch	(mm)	Inch	(mm)

Note: Interface I.A.W. MIL-PRF-39012 and MIL-STD-348, Figures 319-1 and 319-2.

## Specifications

### Applications



**Available Accessories:**

- 50 Ohm Seal
- Launch Pin & Dielectric
- Launch Pin/Tab
- Launch Pin/Tab & Dielectric

See Launch Accessories Section.

**Electrical:**

- Mode Free Through 36.0 GHz
- Low VSWR: DC to 18.0 GHz.....1.10:1 max  
18.0 to 27.0 GHz.....1.15:1 max  
27.0 to 36.0 GHz.....1.25:1 max
- Low RF Leakage  $\leq -100$  dB
- Low Insertion Loss

**Materials / Construction:**

- Housing: Steel, CRES Alloy UNS S30300 Per ASTM A582, Passivated Per ASTM A967
- Contact: Beryllium Copper (BeCu), UNS C17300 Per ASTM B196, Gold Plated Per MIL-G-45204 or ASTM B488
- Dielectric: Virgin PTFE Fluorocarbon Per ASTM D1710
- Center Contact Capture: High Temperature Ultem 1000 Per ASTM D5205
- Connector Interface: Per MIL-STD-348, Figs. 319-1 and 319-2
- Raised Metal Grounding Ring for 360° Metal-to-metal Contact

**Environmental:**

- Temperature: -55° C to +165° C



# SSMA Series DC to 36.0 GHz

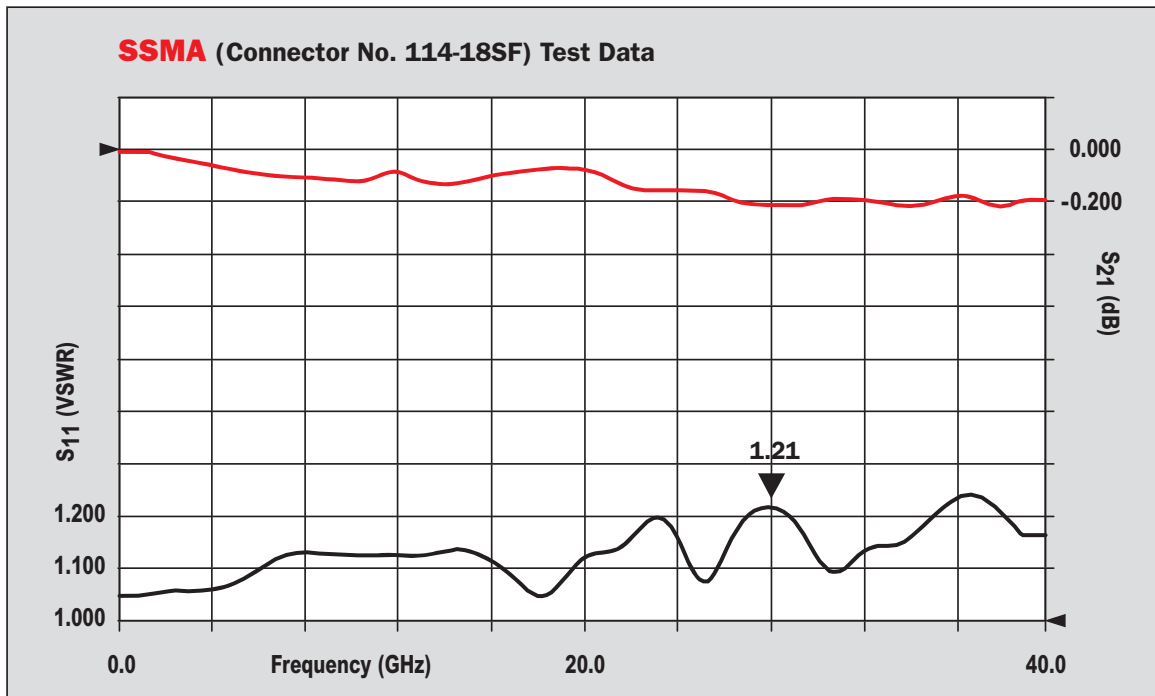
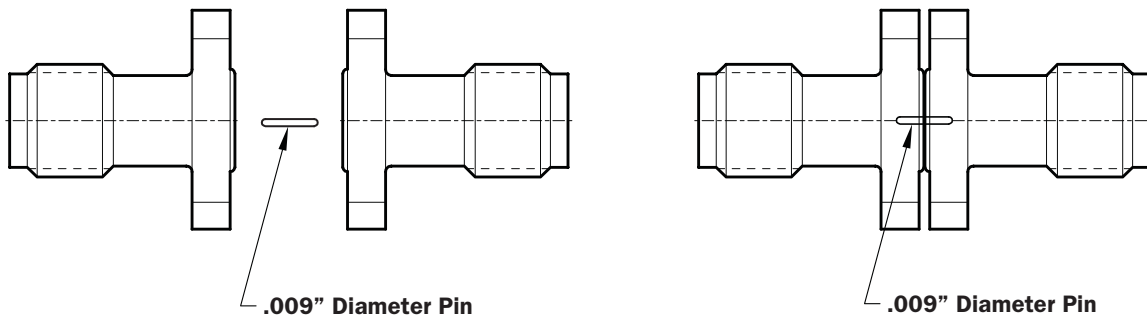
<p><b>SSMA JACK (FEMALE)</b> <b>2 HOLE .480" Long</b></p>		<table border="1"> <thead> <tr> <th>*ACCEPTS PIN DIA.</th> <th>Connector No.</th> </tr> </thead> <tbody> <tr> <td>.020</td> <td>114-20SF</td> </tr> <tr> <td>.018</td> <td>114-17SF</td> </tr> <tr> <td>.015</td> <td>114-16SF</td> </tr> <tr> <td>.012</td> <td>114-18SF</td> </tr> <tr> <td>.009</td> <td>114-19SF</td> </tr> </tbody> </table>	*ACCEPTS PIN DIA.	Connector No.	.020	114-20SF	.018	114-17SF	.015	114-16SF	.012	114-18SF	.009	114-19SF	<table border="1"> <thead> <tr> <th>*ACCEPTS PIN DIA.</th> <th>Connector No.</th> </tr> </thead> <tbody> <tr> <td>.020</td> <td>112-20SF</td> </tr> <tr> <td>.018</td> <td>112-17SF</td> </tr> <tr> <td>.015</td> <td>112-16SF</td> </tr> <tr> <td>.012</td> <td>112-18SF</td> </tr> <tr> <td>.009</td> <td>112-19SF</td> </tr> </tbody> </table>	*ACCEPTS PIN DIA.	Connector No.	.020	112-20SF	.018	112-17SF	.015	112-16SF	.012	112-18SF	.009	112-19SF
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## Typical Test Data

### Back-to-Back Connector Testing

Back-to-back testing shows data for two connectors. Any internal mismatches within the connector will phase together when tested through 40.0 GHz. Taking the square root of the peak VSWR will provide the value for a single connector.

### Connector No. 114-18SF with .009" Test Pin



1.21 is the maximum VSWR for the pair of connectors and two test adapters (Adapter No. 11430-00SF)