



High Frequency RF Coaxial Connectors Catalog

1.85mm



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1.85mm Precision Connectors



DESCRIPTION

The 1.85mm connector are 50 ohm precision connector developed in the mid-1980s by Hewlett Packard. Perform mode free to 65GHz. The outer conductor measures 1.85mm and the robust wall of the connector body is designed to engage before the center conductor, assuring a rugged, repeatable mating interface. The interface is air dielectric with the contact supported by a short dielectric bead.

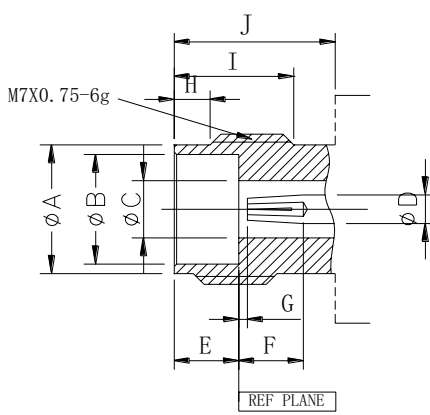
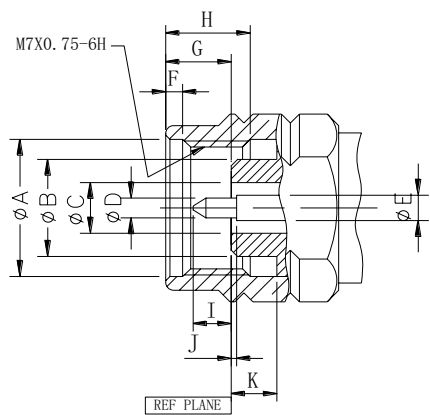
1.85mm Design Features

- Excellent performance up to 65GHz
- Rugged construction for reliability
- Mechanically compatible with 2.4mm connector series

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1.85mm INTERFACE



1.85mm Male				
	mm		Inch	
	Min	Max	Min	Max
A	7.01	7.11	.276	.280
B	4.72	4.75	.186	.187
C	1.84	1.86	.7233	.0733
D	0.50	0.52	.0196	.0206
E	0.79	0.82	.0311	.0321
F	0.51	0.76	.020	.030
G	1.85	2.45	.073	.096
H	4.37	4.62	.172	.182
I	1.35	1.45	.053	.057
J	—	0.08	—	.003
K	3.38	3.48	.133	.137

1.85mm Female				
	mm		Inch	
	Min	Max	Min	Max
A	5.79	5.89	.228	.232
B	4.77	4.80	.1878	.1888
C	1.84	1.86	.07233	.07333
D	0.79	0.82	.0311	.0321
E	3.00	3.10	.118	.122
F	2.64	—	.104	—
G	—	0.08	—	.003
H	1.37	1.63	.054	.064
I	4.80	5.05	.189	.199
J	6	—	.236	—

Interface dimensions conformable to the standards: IEC61169

TECHNICAL DATA

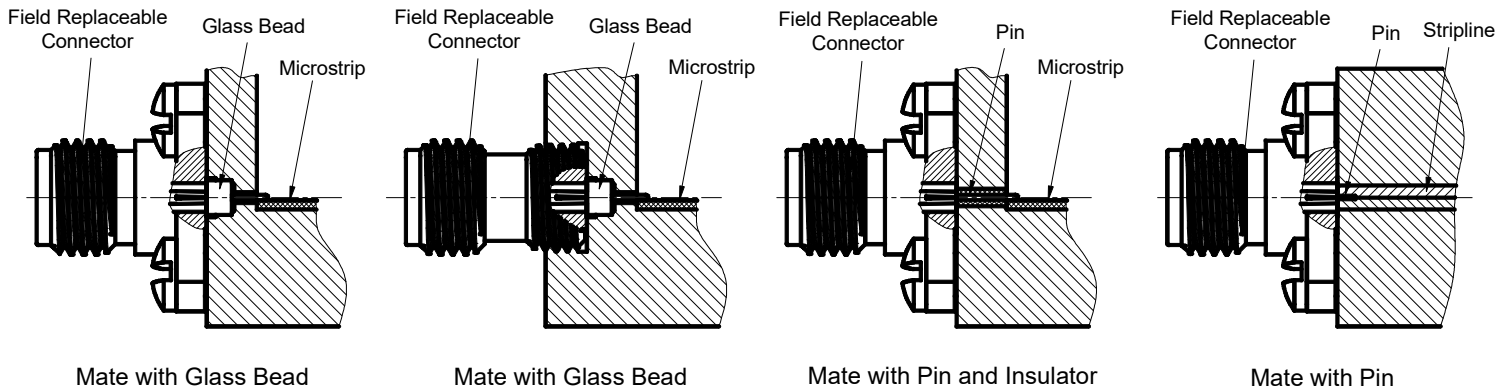


ELECTRICAL DATA	
Impedance	50 Ohm
Frequency range	DC — 65GHz
Dielectric withstanding voltage	500V
Insulation resistance	$\geq 3 \times 1000 \text{ M}\Omega$
Contact resistance	inter contact $\leq 3 \text{ m}\Omega$ out contact $\leq 2.5 \text{ m}\Omega$
VSWR max.	1.25 : 1

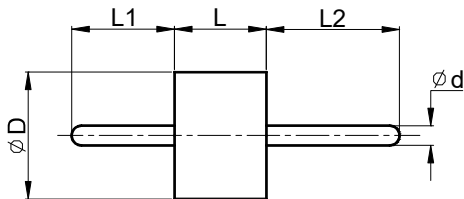
MECHANICAL DATA	
Base material	
Centercontact	Copper Beryllium Alloy, Gold-pated
Body	Stainless Steel, Passivated
Insulator	PEI
Durability(matings)	≥ 500

ENVIRONMENTAL	
Temperature Range	-55 °C to + 165 °C
Thermal shock	MIL-STD-202, Method 107, Condition B
Corrosion	Saltspray test acc.to MIL-STD-202, Method 101, Condition B
Vibration	MIL-STD-202, Method 204, Condition D

1.85mm Connector Application

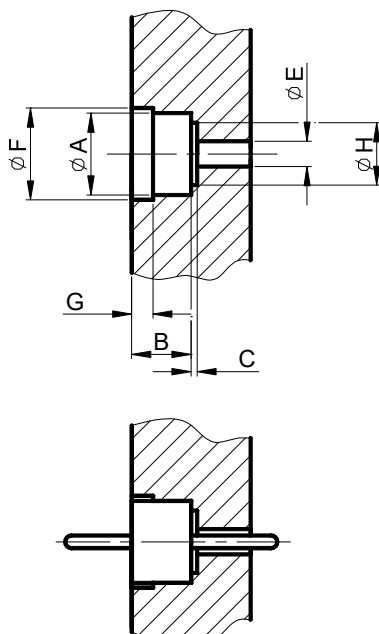


Glass Bead



Recommended Dimensions		
Ø d	0.23 [.009]	0.30 [.012]
D	1.73 [.068]	1.93 [.076]
L	1.40 [.055]	
L1	3.05 [.120]	1.02 [.040]
L2	0.76 [.030]	2.03 [.080]

Recommend Glass Bead Mounting Dimensions



Recommended Dimensions		
Ø d	0.23 [.009]	0.30 [.012]
A	According as Glass Bead Dimension D	
B	According as Glass Bead Dimension L	
C	0.15 [.006] — 0.20 [.008]	0.06 [.0025] — 0.09 [.0035]
H	0.77 [.0302] — 0.82 [.0322]	1.65 [.065] — 1.70 [.067]
E	d x 2.3	
F	A + 1 [A+.039]	
G	0.5 [.020]	

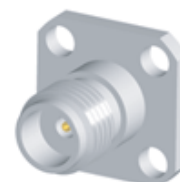
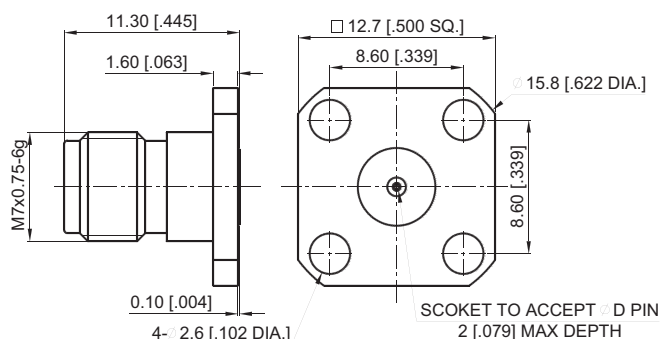
RECEPTACLES WITH ACCEPTS PIN



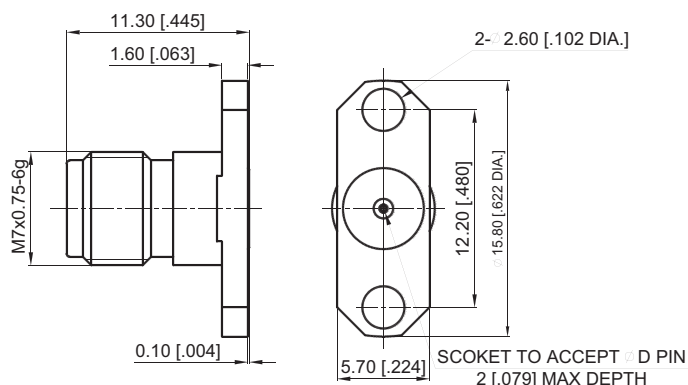
Receptacles, jacks (female), Flange Mount



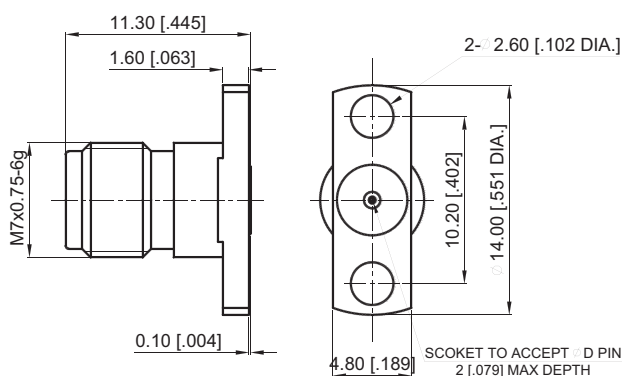
Part Number	Ø D PIN
98-02-9F5-001A	0.23 [.009]
98-02-9F5-001B	0.30 [.012]



Part Number	Ø D PIN
98-02-9E5-002A	0.23 [.009]
98-02-9E5-002B	0.30 [.012]

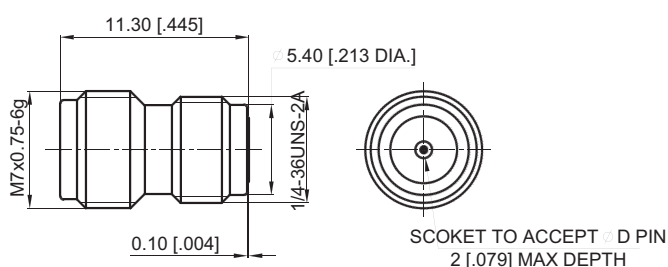


Part Number	Ø D PIN
98-02-9E5-003A	0.23 [.009]
98-02-9E5-003B	0.30 [.012]



Receptacles, jacks (female), Thread in

Part Number	Ø D PIN
98-02-9A5-004A	0.23 [.009]
98-02-9A5-004B	0.30 [.012]



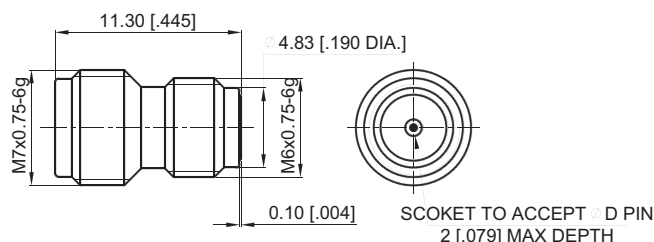
RECEPTACLES WITH ACCEPTS PIN



Receptacles, jacks (female), Thread in

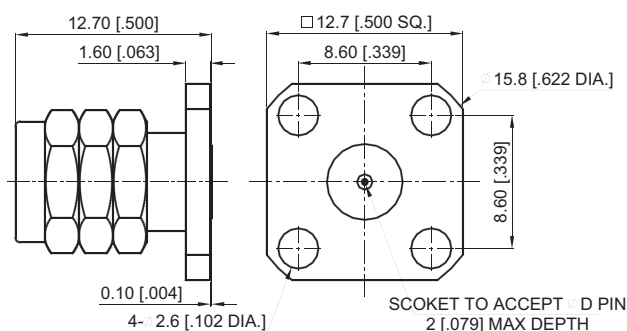


Part Number	Ø D PIN
98-02-9A5-005A	0.23 [.009]
98-02-9A5-005B	0.30 [.012]

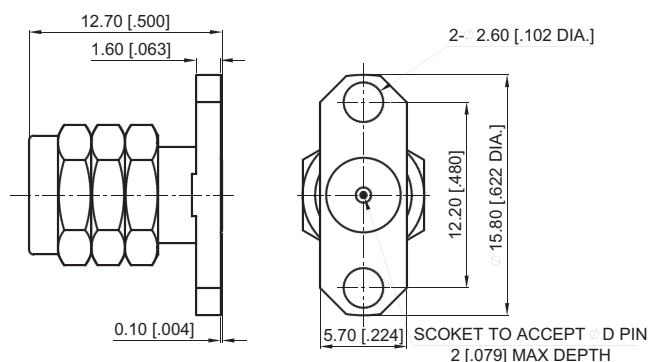


Receptacles, plugs (male), Flange Mount

Part Number	Ø D PIN
98-03-9F5-006A	0.23 [.009]
98-03-9F5-006B	0.30 [.012]



Part Number	Ø D PIN
98-03-9E5-007A	0.23 [.009]
98-03-9E5-007B	0.30 [.012]



Part Number	Ø D PIN
98-03-9E5-008A	0.23 [.009]
98-03-9E5-008B	0.30 [.012]

