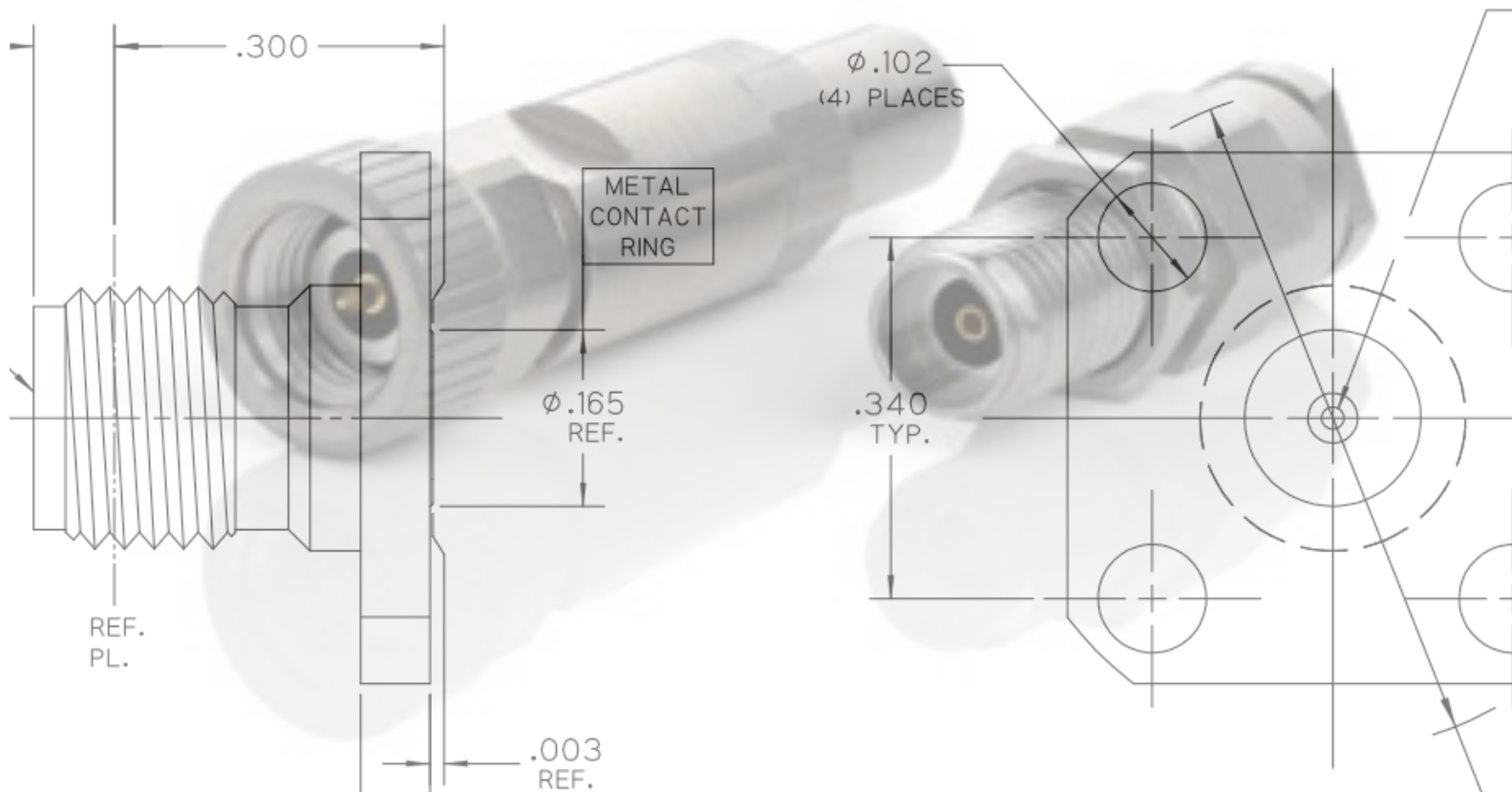


2.92mm

Precision 40GHz Connectors



Technology
Partner

 **Richardson
Electronics**
POWER & MICROWAVE
TECHNOLOGIES



800.348.5580
630.208.2200



rellpower.com
rellpower@rell.com

2.92mm Precision Connectors

DESCRIPTION

2.92mm connectors are 50ohm precision connector designed to operate up to 40GHz. The outer conductor measures 2.92mm and has a strong outer body wall compared to dielectric loaded interfaces of comparable size. The interface dielectric is air with the center conductor supported by a short dielectric bead. 2.92mm connectors are mechanically compatible with SMA and 3.5mm connectors, but the male centre pin is shortened to allow outer conductor engagement before the center contacts mate, preventing damage to the female contact tines during mating. ConductRF offers 2.92mm connectors for semi-rigid and low-loss flexible cable, receptacles and precision adapters. ConductRF can also support Custom 2.92mm solutions by request.

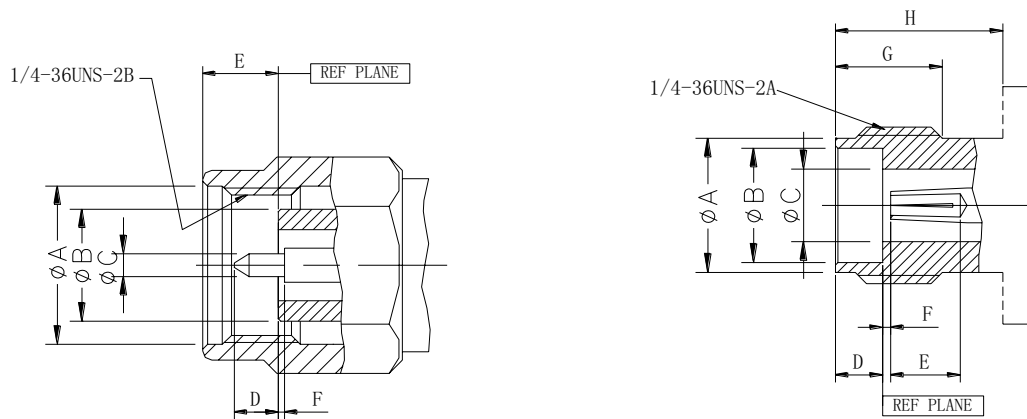
2.92mm DESIGN FEATURES

- Excellent performance up to 40GHz
- Low VSWR and Insertion loss
- Rugged stainless steel construction
- Mechanically compatible with 3.5mm and SMA connector series

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2.92mm INTERFACE



2.92mm Male				
	mm		Inch	
	Min	Max	Min	Max
A	6.48	—	0.255	—
B	4.52	4.57	0.178	0.180
C	0.90	0.94	0.0355	0.0370
D	1.40	1.65	0.055	0.065
E	—	3.43	—	0.135
F	0.00	0.13	0.000	0.005

2.92mm Female				
	mm		Inch	
	Min	Max	Min	Max
A	5.23	5.44	0.206	0.214
B	4.60	4.65	0.181	0.183
C	2.90	2.95	0.114	0.116
D	1.88	1.98	0.074	0.078
E	2.67	—	0.105	—
F	0.00	0.13	0.000	0.005
G	4.32	—	0.170	—
H	5.54	—	0.218	—

Interface dimensions conformable to the standards: MIL-STD-348A

TECHNICAL DATA

ELECTRICAL DATA	
Impedance	50 Ohm
Frequency range	DC — 40GHz
Dielectric withstanding voltage	750V
Insulation resistance	$\geq 3 \times 1000 \text{ M}\Omega$
Contact resistance	Inner Contact $\leq 3 \text{ m}\Omega$ Outer Contact $\leq 2.0 \text{ m}\Omega$
VSWR max.	1.15 : 1

MECHANICAL DATA	
Base material	
Center Contact	Beryllium Copper Alloy, Gold-pated
Body	Stainless Steel, Passivated
Insulator	PEI, PTFE
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

Cable Configurations



Description

2.92mm Jacks

2.92mm BULKHEAD JACK, SOLDER CLAMP FOR RG-405 CABLE	PDF31A-A28S01
2.92mm JACK, SOLDER CLAMP FOR .047 SEMI-RIGID CABLE	PDF11A-A33S01
2.92mm JACK, 4-HOLE FLANGE, SOLDER CLAMP FOR .047 SEMI-RIGID CABLE	PDF41A-A33S01
2.92mm JACK, SOLDER CLAMP FOR RG-405 CABLE	PDF11B-A28S01
2.92mm JACK, SOLDER CLAMP FOR FLEX .085 CABLE	PDF12B-A28S01
2.92mm JACK, SOLDER CLAMP FOR ARMORED .085-LL SEMI-RIGID CABLE	PDF13B-A28S01
2.92mm JACK, 4-HOLE FLANGE, SOLDER CLAMP FOR RG-405 SEMI-RIGID CABLE	PDF41B-A28S01
2.92mm NMD JACK, SOLDER CLAMP FOR ARMORED .085-LL SEMI-RIGID CABLE	PDFNMD-A28S01
2.92mm JACK, SOLDER CLAMP FOR RG-402 CABLE	PDF11B-A29S01
2.92mm JACK, SOLDER CLAMP FOR ATM CF160	Contact Factory
2.92mm JACK, SOLDER CLAMP FOR DYNAWAVE DF150 CABLE	PDF11C-A72S01
2.92mm JACK, SOLDER CLAMP FOR DYNAWAVE DF150 CABLE (ARMORED)	PDF11D-A72S01
2.92mm JACK, SOLDER CLAMP FOR IW1501 CABLE	Contact Factory
2.92mm JACK, SOLDER CLAMP FOR SEMFLEX HP160	Contact Factory
2.92mm JACK, SPARK PLUG, STUB CONTACT	PDF11A-RECS01

ConductRF

2.92mm Plugs

2.92mm PLUG, SOLDER CLAMP FOR .047 SEMI-RIGID CABLE	PDM11A-A33S01
2.92mm PLUG, DIRECT SOLDER FOR RG-405 CABLE	PDM11B-A28S01
2.92mm PLUG, DIRECT SOLDER FOR RG-405 CABLE	PDM12B-A28S01
2.92mm (SMK) PLUG, DIRECT SOLDER FOR RG-405 CABLE (ANTI-TORQUE FEATURE)	PDM11C-A28S01
2.92mm (SMK) PLUG, DIRECT SOLDER FOR RG-405 CABLE (WITH CABLE STOP)	PDM11D-A28S01
2.92mm PLUG, SOLDER CLAMP FOR RG-405 CABLE	PDM11E-A28S01
2.92mm PLUG, DIRECT SOLDER FOR RG-405 LOW LOSS CABLE	PDM13B-A28S01
2.92mm PLUG, SOLDER CLAMP FOR ARMORED .085-LL SEMI-RIGID CABLE	PDM11F-A28S01
2.92mm PLUG, SOLDER CLAMP FOR ARMORED .085-LL SEMI-RIGID CABLE	PDM12F-A28S01
2.92mm PLUG, DIRECT SOLDER FOR RG-402 CABLE	PDM11B-A29S01
2.92mm PLUG, SOLDER CLAMP FOR ATM CF160	Contact Factory
2.92mm PLUG, SOLDER CLAMP FOR ATM CF-210 CABLE	Contact Factory
2.92mm PLUG, SOLDER CLAMP FOR DYNAWAVE DF150 CABLE, KNURL/HEX NUT	PDM12A-A72S01
2.92mm PLUG, SOLDER CLAMP FOR DYNAWAVE DF426W CABLE, KNURL/HEX NUT	Contact Factory
2.92mm PLUG, SOLDER CLAMP FOR DYNAWAVE DF440W CABLE, KNURL/HEX NUT	Contact Factory
2.92mm PLUG, SOLDER CLAMP FOR DYNAWAVE DF465 CABLE, KNURL/HEX NUT	Contact Factory
2.92mm PLUG, SOLDER CLAMP FOR HARBOUR LL120	PDM11H-A75S01
2.92mm PLUG, SOLDER CLAMP FOR HARBOUR LL142 CABLE	PDM11F-A74S01
2.92mm PLUG, SOLDER CLAMP FOR HARBOUR LL142 CABLE (VENTED)	PDM13F-A74S01
2.92mm PLUG, SOLDER CLAMP FOR HAVERHILL HC35004 (.118 S/R) CABLE	Contact Factory
2.92mm PLUG, SOLDER CLAMP FOR IW1501 CABLE	Contact Factory
2.92mm PLUG, SOLDER CLAMP FOR IW1503 CABLE	Contact Factory
2.92mm PLUG, SOLDER CLAMP FOR IW1801 CABLE	Contact Factory
2.92mm PLUG, SOLDER CLAMP FOR SEMFLEX HP120	PDM12F-A76S01
2.92mm PLUG, SOLDER CLAMP FOR SEMFLEX HP160 CABLE	PDM11F-A77S01
2.92mm PLUG, SOLDER CLAMP FOR SEMFLEX HP160 CABLE (VENTED)	PDM14F-A77S01
2.92mm PLUG, SOLDER CLAMP FOR SEMFLEX HP190	Contact Factory
2.92mm PLUG, SOLDER CLAMP FOR TIMES SFT205	Contact Factory

Drawings available on Request

Adapter Configurations



Description

2.92mm In-Series Adapters

- 2.92mm PLUG TO 2.92mm JACK, ADAPTER
- 2.92mm JACK TO 2.92mm JACK, ADAPTER
- 2.92mm PLUG TO 2.92mm PLUG, ADAPTER
- 2.92mm BULKHEAD JACK TO 2.92mm JACK
- 2.92mm BULKHEAD JACK TO 2.92mm JACK (.375 HEX)
- 2.92mm BULKHEAD JACK TO 2.92mm PLUG

2.92mm Between-Series Adapters

- ADAPTER, 2.92mm JACK TO 1.85 PLUG
- ADAPTER, 2.92mm PLUG TO 1.85 PLUG
- ADAPTER, 2.92mm JACK TO SMPM SOCKET
- ADAPTER, 2.92mm JACK TO SMPM PLUG
- ADAPTER, 2.92mm JACK TO SMA JACK
- ADAPTER, 2.92mm PLUG TO SMA PLUG
- ADAPTER, 2.92mm JACK TO SMA PLUG
- ADAPTER, 2.92mm PLUG TO SMA JACK
- ADAPTER, 2.92mm JACK TO 3.5mm JACK
- ADAPTER, 2.92mm JACK BULKHEAD TO 3.5mm JACK
- ADAPTER, 2.92mm JACK TO 3.5mm PLUG

Drawings available on Request

ConductRF

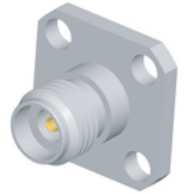
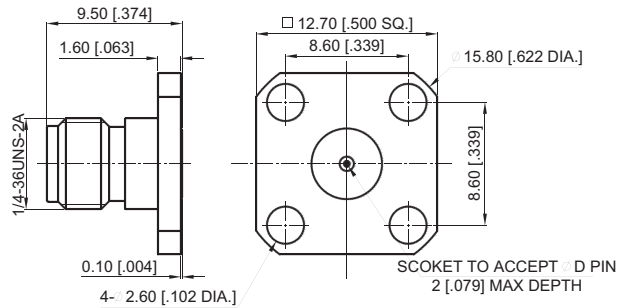
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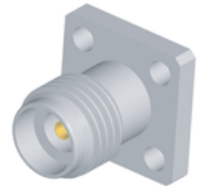
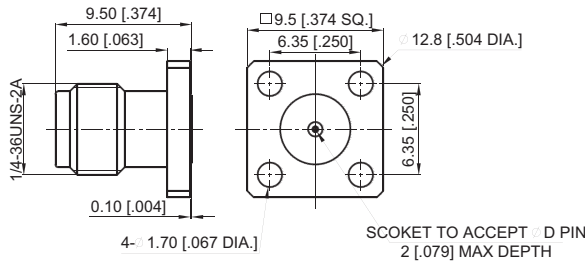
Receptacles that Accept Pins

Receptacles, jacks (female), Flange Mount

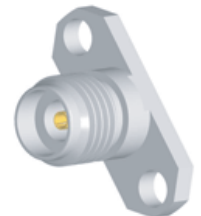
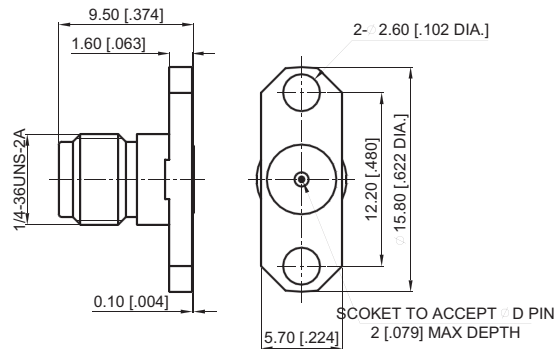
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PDF42A-4HLS01	0.30 [.012]
PDF43A-4HLS01	0.38 [.015]
PDF44A-4HLS01	0.51 [.020]



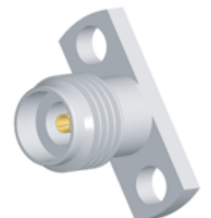
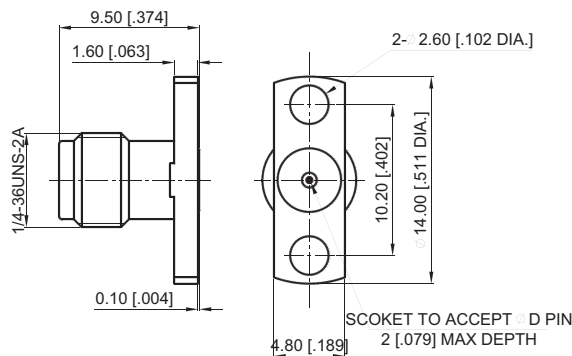
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PDF43B-4HLS01	0.38 [.015]
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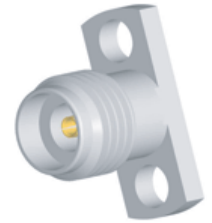
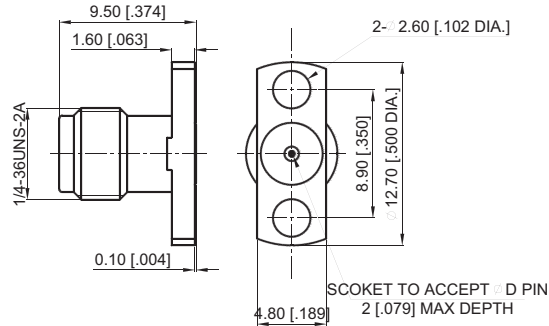
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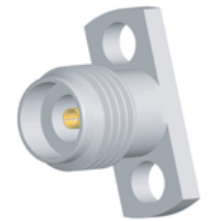
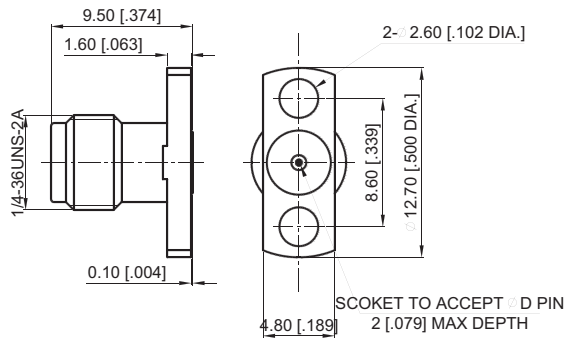
Receptacles that Accept Pins

Receptacles, jacks (female), Flange Mount

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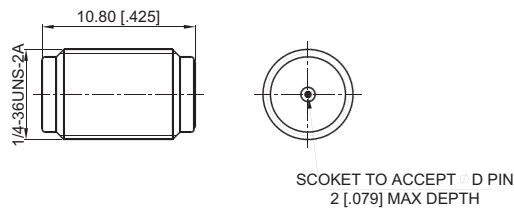


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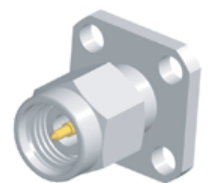
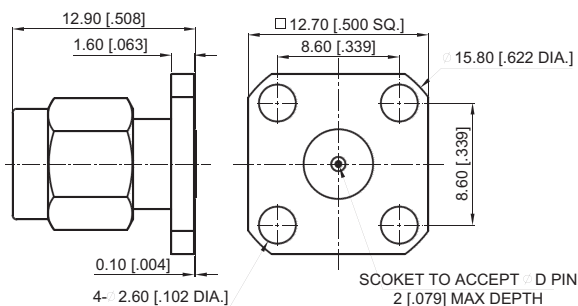
Receptacles, jacks (female), Thread in

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PDF12B-RECS01	0.30 [.012]
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PDF14B-RECS01	0.51 [.020]



Receptacles, plugs (male), Flange Mount

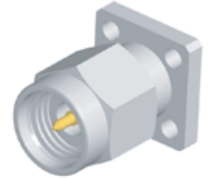
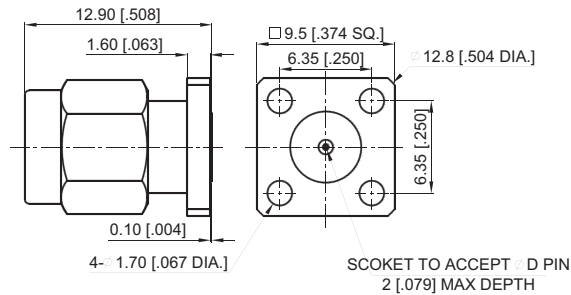
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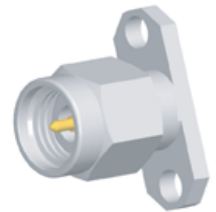
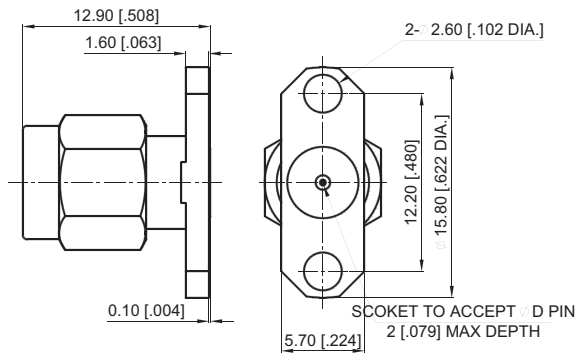
Receptacles that Accept Pins

Receptacles, plugs (male), Flange Mount

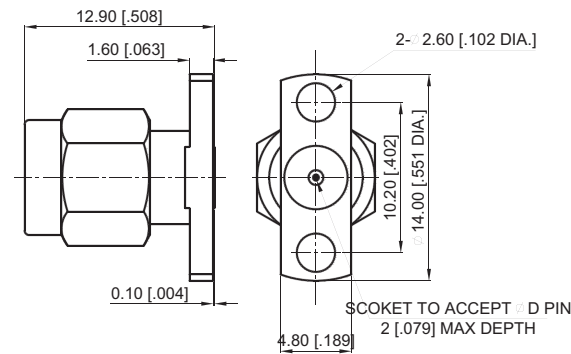
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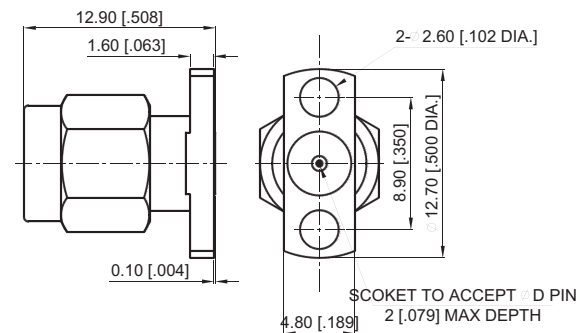
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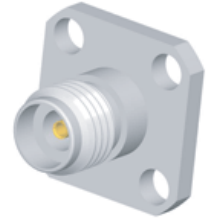
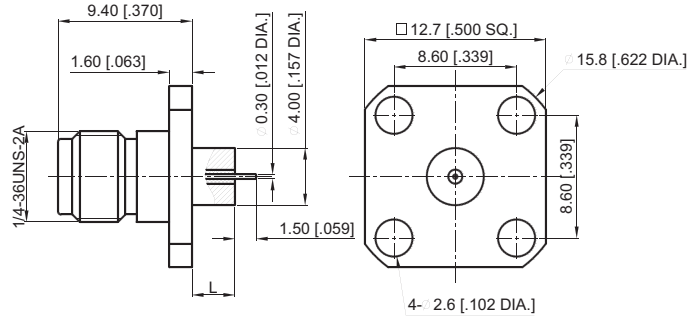
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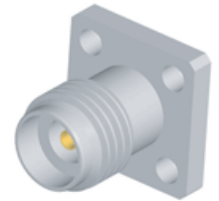
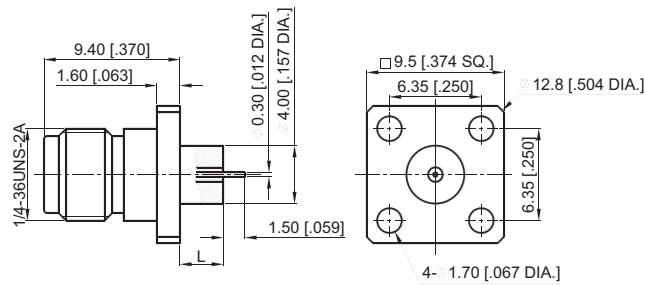
Receptacles with Extended Rear Body

Receptacles, jacks (female), Flange Mount

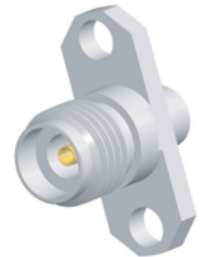
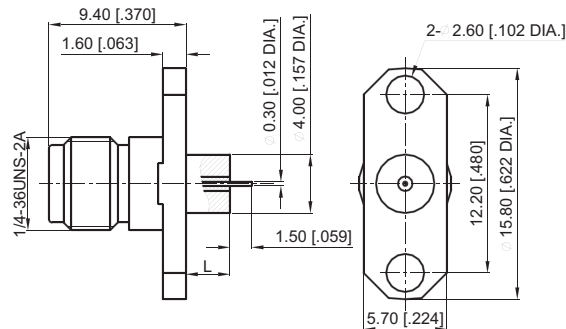
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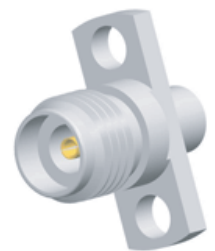
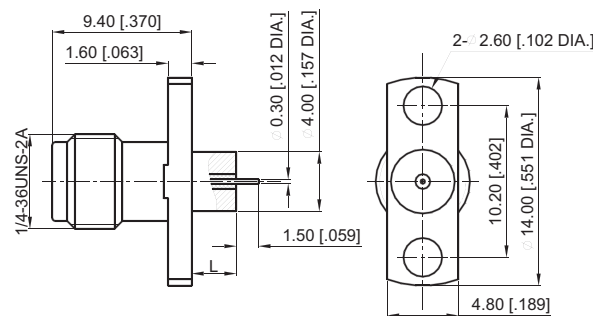
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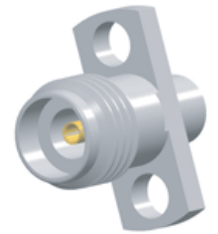
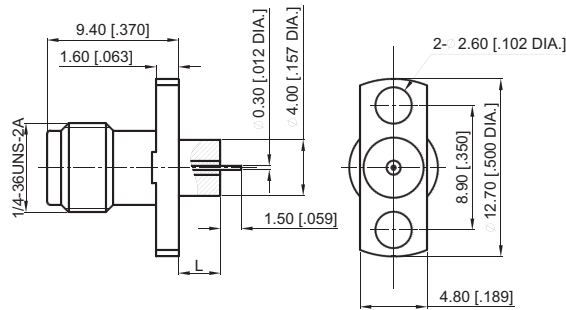
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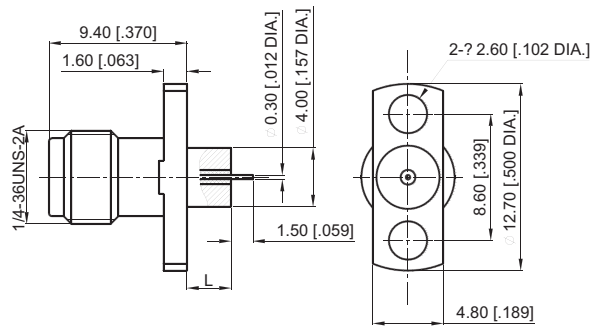
Receptacles with Extended Rear Body

Receptacles, jacks (female), Flange Mount

Part Number	L
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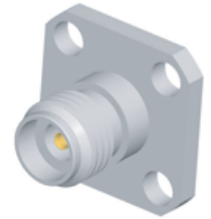
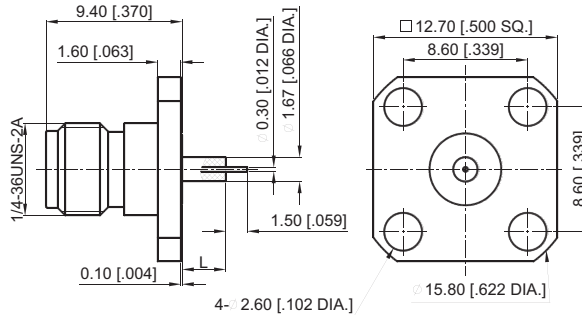
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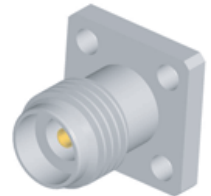
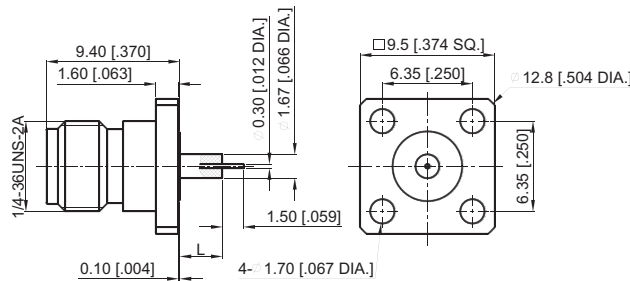
Receptacles with Extended Insulator

Receptacles, jacks (female), Flange Mount

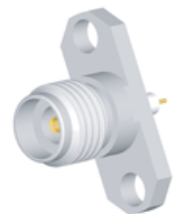
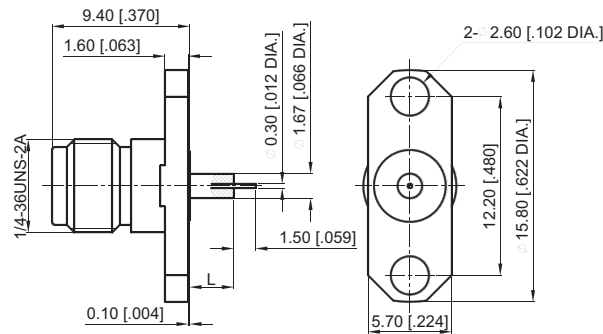
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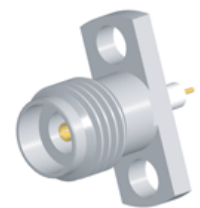
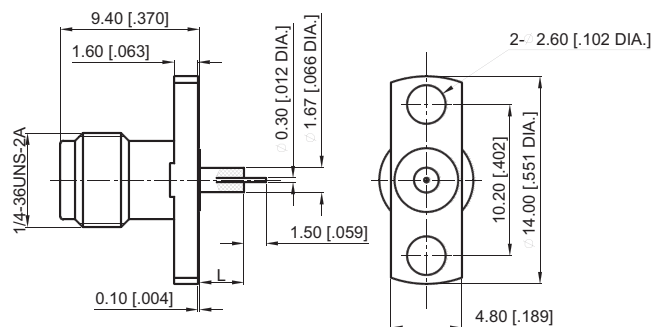
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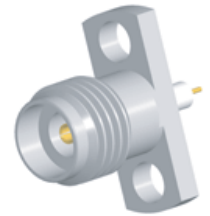
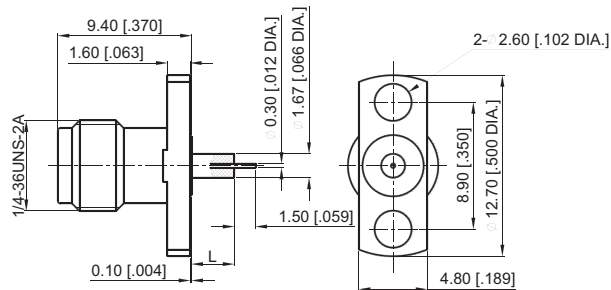
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PDF42K-2HLS01	3 [.118]



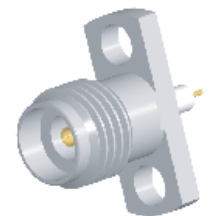
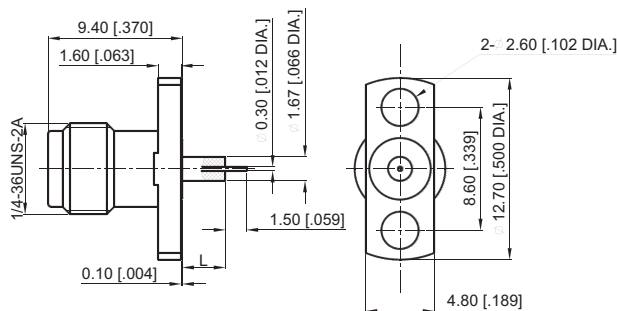
Receptacles with Extended Insulator

Receptacles, jacks (female), Flange Mount

Part Number	L
PDF41L-2HLS01	1.4 [.055]
PDF42L-2HLS01	3 [.118]



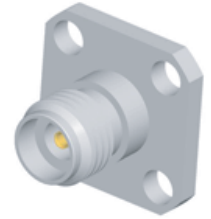
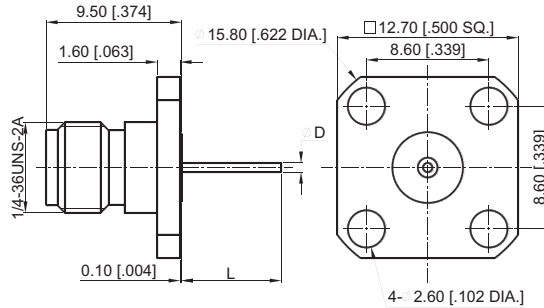
Part Number	L
PDF41M-2HLS01	1.4 [.055]
PDF42M-2HLS01	3 [.118]



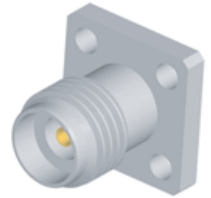
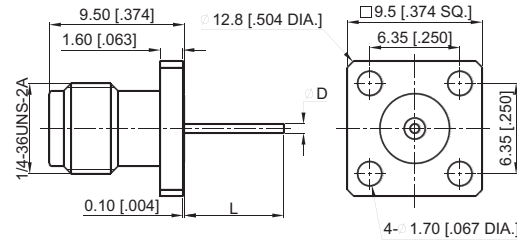
Receptacles with Extended Contact

Receptacles, jacks (female), Flange Mount

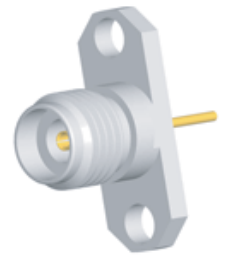
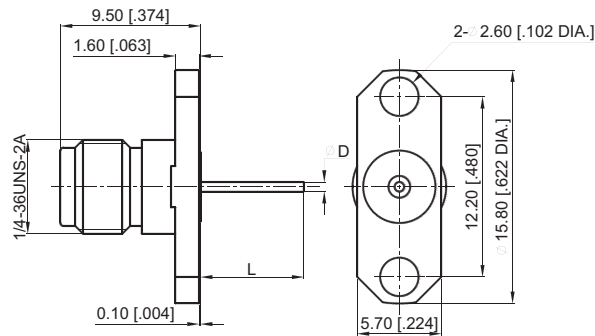
Part Number	D	L
PDF41N-4HLS01	0.64 [.025]	10.92 [.430]
PDF42N-4HLS01	0.64 [.025]	6.84 [.269]
PDF43N-4HLS01	0.30 [.012]	7 [.276]



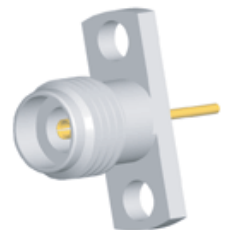
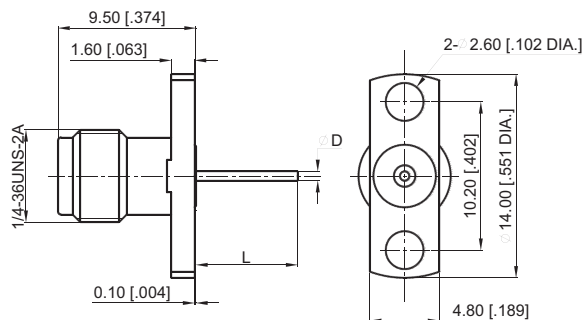
Part Number	D	L
PDF41P-4HLS01	0.64 [.025]	10.92 [.430]
PDF42P-4HLS01	0.64 [.025]	6.84 [.269]
PDF43P-4HLS01	0.30 [.012]	7 [.276]



Part Number	D	L
PDF41N-2HLS01	0.64 [.025]	10.92 [.430]
PDF42N-2HLS01	0.64 [.025]	6.84 [.269]
PDF43N-2HLS01	0.30 [.012]	7 [.276]



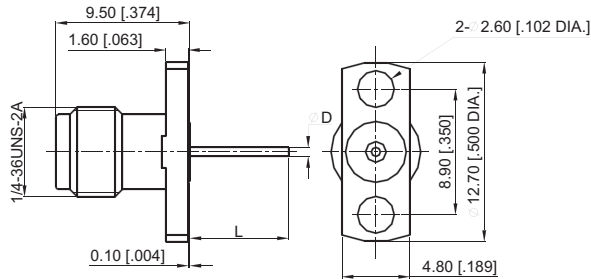
Part Number	D	L
PDF41P-2HLS01	0.64 [.025]	10.92 [.430]
PDF42P-2HLS01	0.64 [.025]	6.84 [.269]
PDF43P-2HLS01	0.30 [.012]	7 [.276]



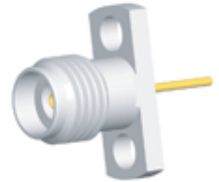
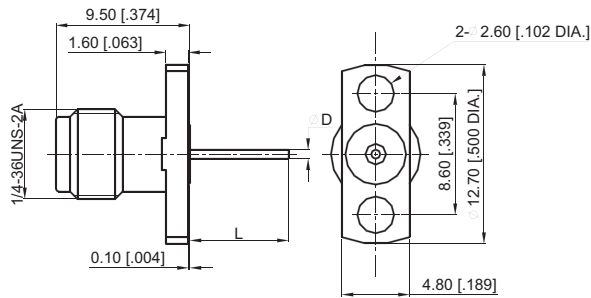
Receptacles with Extended Contact

Receptacles, jacks (female), Flange Mount

Part Number	Ø D	L
PDF41R-2HLS01	0.64 [.025]	10.92 [.430]
PDF42R-2HLS01	0.64 [.025]	6.84 [.269]
PDF43R-2HLS01	0.30 [.012]	7 [.276]

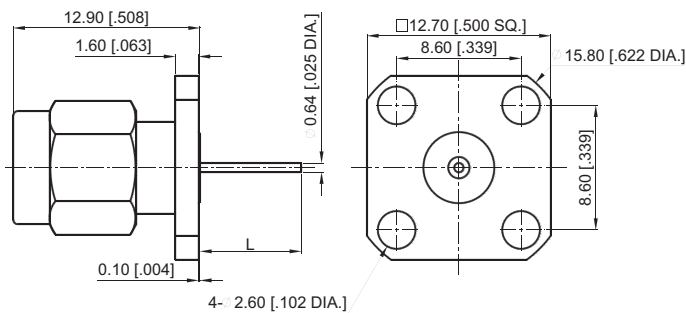


Part Number	Ø D	L
PDF41S-2HLS01	0.64 [.025]	10.92 [.430]
PDF42S-2HLS01	0.64 [.025]	6.84 [.269]
PDF43S-2HLS01	0.30 [.012]	7 [.276]

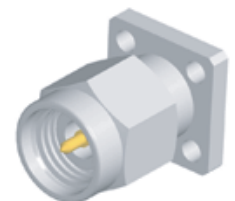
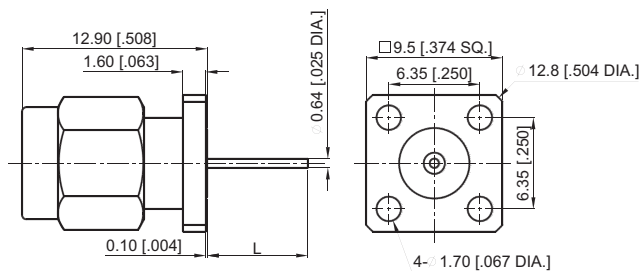


Receptacles, plugs (male), Flange Mount

Part Number	L
PDM41N-4HLS01	10.92 [.430]
PDM42N-4HLS01	6.84 [.269]



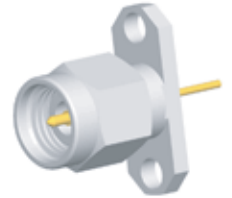
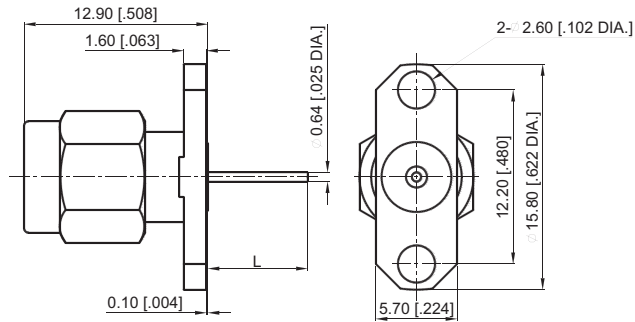
Part Number	L
PDM41P-4HLS01	10.92 [.430]
PDM42P-4HLS01	6.84 [.269]



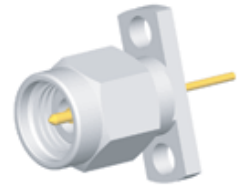
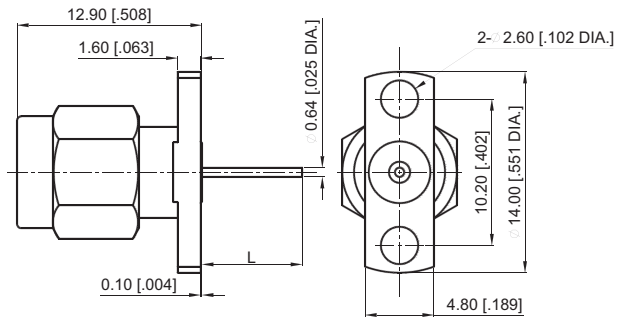
Receptacles with Extended Contact

Receptacles, plugs (Male), Flange Mount

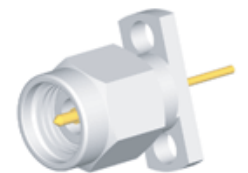
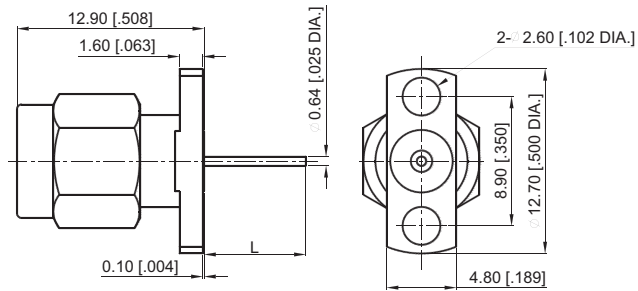
Part Number	L
PDM41N-2HLS01	10.92 [.430]
PDM42N-2HLS01	6.84 [.269]



Part Number	L
PDM41P-2HLS01	10.92 [.430]
PDM42P-2HLS01	6.84 [.269]



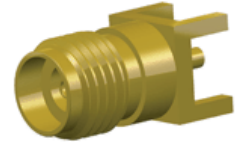
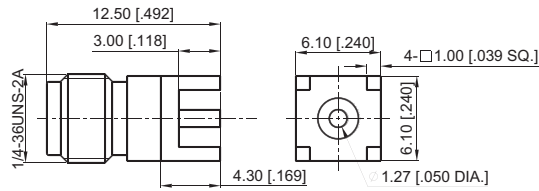
Part Number	L
PDM41R-2HLS01	10.92 [.430]
PDM42R-2HLS01	6.84 [.269]



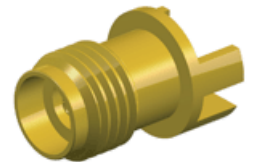
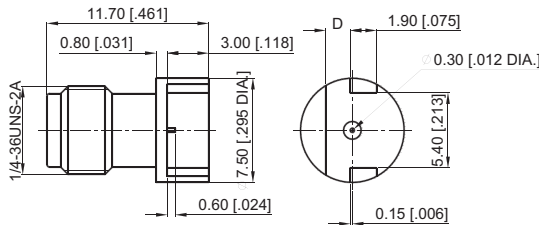
PCB Connectors

Straight PCB jacks(female)

Part Number
PDF11A-TPCG01



Part Number	D	Board Thickness
PDF11A-EPCG01	1.93 [.076]	1.78 [.070]
PDF12A-EPCG01	0.76 [.030]	0.61 [.024]
PDF13A-EPCG01	1.02 [.040]	0.87 [.034]



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