

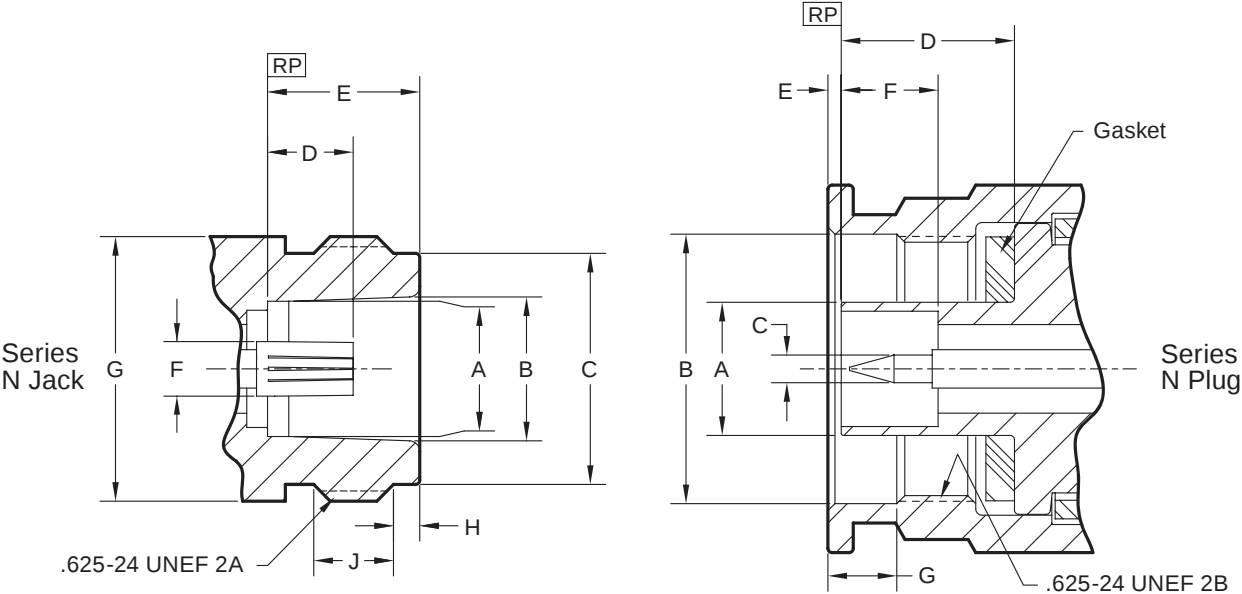


Index

N Series Connectors (18 GHz)	Page
Interface Standards	18
Specifications	19
Connector Numbers	20
Typical Test Data	21

Adapters: N Adapters can be found in the Adapter section.

N Series Interface Standards



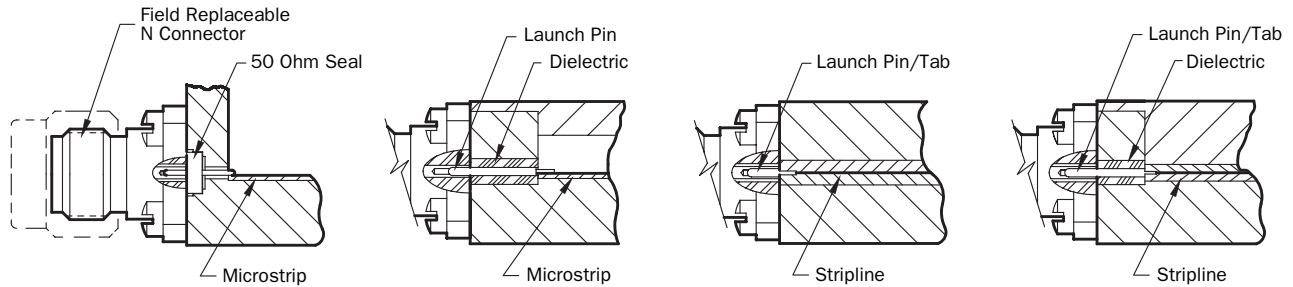
N Jack (Socket Contact)				
LTR	Inches (Millimeters)			
	Minimum		Maximum	
A	.317	(8.05)	.320	(8.13)
B	.336	(8.53)	.344	(8.74)
C	.054	(1.37)	.055	(1.40)
D	.192	(4.88)	.207	(5.24)
E	.357	(9.07)	.361	(9.17)
F	.120	(3.05)	.123	(3.12)
G	.620	(15.752)	.625	(15.88)
H	.055	(1.40)	.070	(1.78)
J	.175	(4.45)	.200	(5.08)
	Inch	(mm)	Inch	(mm)

N Plug (Pin Contact)				
LTR	Inches (Millimeters)			
	Minimum		Maximum	
A	.313	(7.95)	.315	(8.00)
B	.634	(16.10)	.642	(16.31)
C	.0635	(1.613)	.0660	(1.676)
D	.400	(10.16)	.410	(10.41)
E	.016	(0.41)	.060	(1.52)
F	.225	(5.71)	.230	(5.84)
G	.158	(4.01)	.168	(4.27)
	Inch	(mm)	Inch	(mm)

Note: Interface I.A.W. MIL-PRF-39012 and MIL-STD-348, Figures 304-1 and 304-2.

Specifications

Applications



Available Accessories:

See Launch Accessories Section.

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

Electrical:

- Mode Free Through 18.0 GHz
- Low VSWR: DC to 18.0 GHz.....1.15:1 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. 304-1 and 304-2
- Raised Metal Grounding Ring for 360° Metal-to-metal Contact

Environmental:

- Temperature: -55° C to +165° C



N Series DC to 18.0 GHz

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N JACK (FEMALE) 4 HOLE .500" SQUARE	Technical drawing of N Jack (Female) 4 Hole .500 inch Square connector. Side view shows dimensions: .625-24 UNEF-2A, .380, .080, .740, .003 TYP. Front view shows dimensions: .625 DIA., .340 TYP., .500 SQ., .102 DIA 4 PL, .245 DIA, .003 TYP. Labels include REF. PLANE, METAL CONTACT RING, and REAR SOCKET *.	<table><tr><th>*ACCEPTS PIN DIA.</th><th>Connector No.</th></tr><tr><td>.036</td><td>312-14SF</td></tr><tr><td>.020</td><td>312-15SF</td></tr><tr><td>.018</td><td>312-16SF</td></tr><tr><td>.015</td><td>312-17SF</td></tr></table>	*ACCEPTS PIN DIA.	Connector No.	.036	312-14SF	.020	312-15SF	.018	312-16SF	.015	312-17SF
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.036	312-14SF											
.020	312-15SF											
.018	312-16SF											
.015	312-17SF											
N JACK (FEMALE) 4 HOLE .687" SQUARE	Technical drawing of N Jack (Female) 4 Hole .687 inch Square connector. Side view shows dimensions: .625-24 UNEF-2A, .380, .080, .740, .003 TYP. Front view shows dimensions: .625 DIA., .340 TYP., .500 TYP., .687 SQ., .125 DIA 4 PL, .290 DIA, .875 DIA, .003 TYP. Labels include REF. PLANE, METAL CONTACT RING, and REAR SOCKET *.	<table><tr><th>*ACCEPTS PIN DIA.</th><th>Connector No.</th></tr><tr><td>.036</td><td>312-04SF</td></tr><tr><td>.020</td><td>312-05SF</td></tr><tr><td>.018</td><td>312-06SF</td></tr><tr><td>.015</td><td>312-07SF</td></tr></table>	*ACCEPTS PIN DIA.	Connector No.	.036	312-04SF	.020	312-05SF	.018	312-06SF	.015	312-07SF
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.020	312-05SF											
.018	312-06SF											
.015	312-07SF											
N JACK (FEMALE) 4 HOLE 1.0" SQUARE	Technical drawing of N Jack (Female) 4 Hole 1.0 inch Square connector. Side view shows dimensions: .625-24 UNEF-2A, .380, .080, .740, .003 TYP. Front view shows dimensions: .625 DIA., .340 TYP., .500 TYP., 1.0 SQ., .138 DIA 4 PL, .290 DIA, 1.25 DIA, .003 TYP. Labels include REF. PLANE, METAL CONTACT RING, and REAR SOCKET *.	<table><tr><th>*ACCEPTS PIN DIA.</th><th>Connector No.</th></tr><tr><td>.036</td><td>312-00SF</td></tr><tr><td>.020</td><td>312-01SF</td></tr><tr><td>.018</td><td>312-02SF</td></tr><tr><td>.015</td><td>312-03SF</td></tr></table>	*ACCEPTS PIN DIA.	Connector No.	.036	312-00SF	.020	312-01SF	.018	312-02SF	.015	312-03SF
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.036	312-00SF											
.020	312-01SF											
.018	312-02SF											
.015	312-03SF											
N PLUG (MALE) 4 HOLE 1.0" SQUARE	Technical drawing of N Plug (Male) 4 Hole 1.0 inch Square connector. Side view shows dimensions: .875, .080, .900, .003 TYP. Front view shows dimensions: .718 TYP., 1.0 SQ., .138 DIA 4 PL, .290 DIA, 1.25 DIA, .003 TYP. Labels include REF. PLANE, METAL CONTACT RING, and REAR SOCKET *.	<table><tr><th>*ACCEPTS PIN DIA.</th><th>Connector No.</th></tr><tr><td>.036</td><td>311-03SF</td></tr><tr><td>.020</td><td>311-04SF</td></tr><tr><td>.018</td><td>311-05SF</td></tr><tr><td>.015</td><td>311-09SF</td></tr></table>	*ACCEPTS PIN DIA.	Connector No.	.036	311-03SF	.020	311-04SF	.018	311-05SF	.015	311-09SF
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.018	311-05SF											
.015	311-09SF											
N JACK (FEMALE) THREAD-IN WAVEGUIDE	Technical drawing of N Jack (Female) Thread-In Waveguide connector. Side view shows dimensions: .740 [18.80], .380 [9.65], .740 [18.80], .06 [1.5], .24 [6.1], .4375-28 UNEF-2A, .625-24 UNEF-2A, WRENCH FLAT 11/32" [8.73] ACROSS FLATS. Front view shows dimensions: .355 [9.02], .115 [2.92], .050 [1.27], .360 SURFACE CONTACT. Labels include REF. PLANE, METAL CONTACT RING, and REAR SOCKET *.	<table><tr><th>Probe Size</th><th>Connector No.</th></tr><tr><td>.050D x 740L</td><td>320-14SF</td></tr></table>	Probe Size	Connector No.	.050D x 740L	320-14SF						
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.050D x 740L	320-14SF											

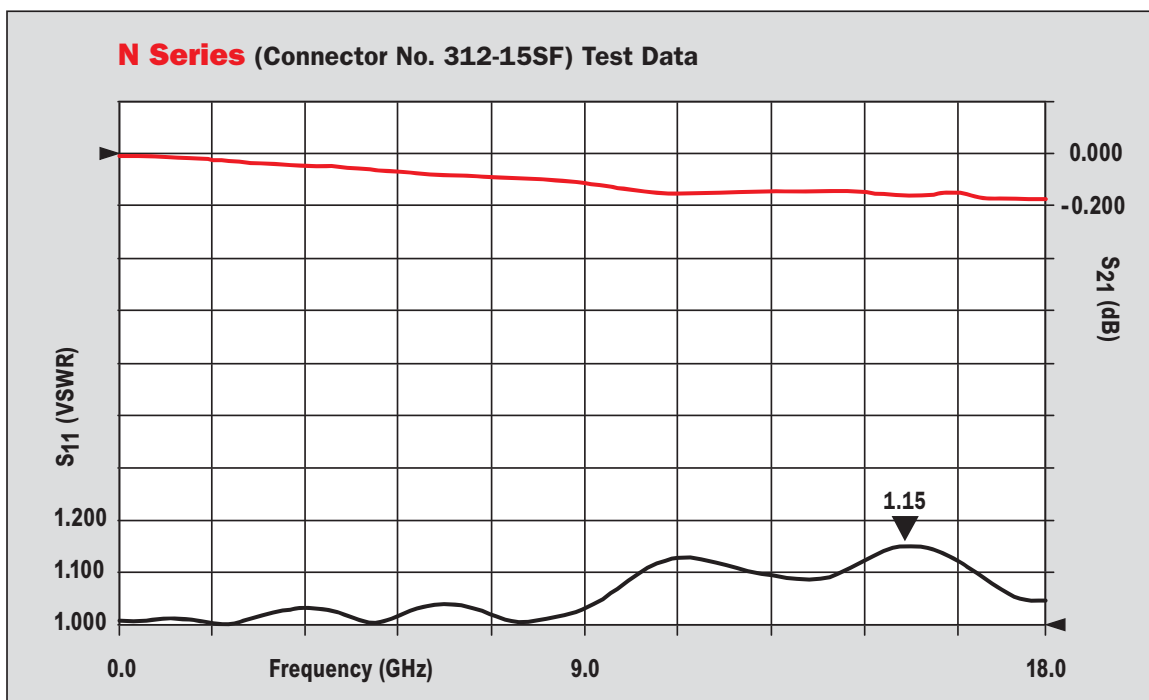
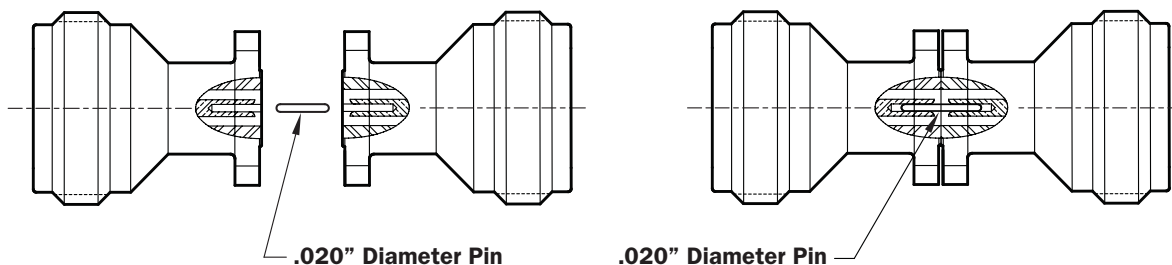
Typical Test Data

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 18.0 GHz. Taking the square root of the peak VSWR will provide the value for a single connector.



Connector No. 312-15SF with .020" Test Pin



$$\sqrt{1.15} = 1.07 \text{ Maximum for each connector}$$