

1 M Plenum Rated 4.3-10 to Type N M/F Bulkhead  
SPP-250-LLPL Low PIM Cable Jumper



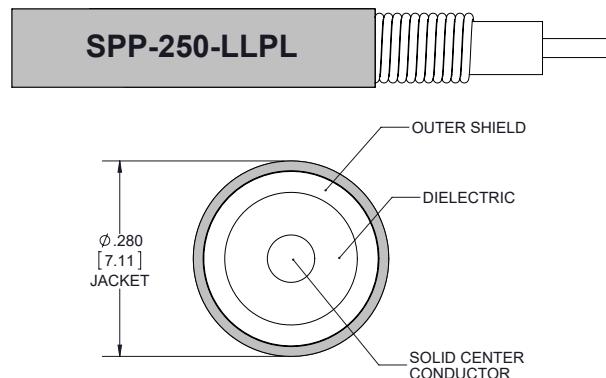
## CASPP250LLPL022-1M

### Configuration

- Connector 1: 4.3-10 Male
- Connector 2: N Female Bulkhead
- Cable Type: SPP-250-LLPL

### Features

- Max Frequency 5.8 GHz
- Low PIM: -160 dBc Max
- UL 910 Plenum Rated
- FEP Jacket
- Shielding Effectivity > 100 dB
- 100% Tested with PIM Test Results Marked on Cable
- 1.25 Inch Minimum Bend Radius
- Low Loss with Excellent VSWR



### Applications

- Distributed Antennas Systems (DAS)
- Low PIM Applications
- Plenum Installations
- Multi-Carrier Communication Systems

### Description

PolyPhaser CASPP250LLPL022-1M is a 1 M Plenum Rated 4.3-10 to Type N M/F Bulkhead SPP-250-LLPL Low PIM Cable Jumper built using high quality components by skilled technicians to ensure a reliable product. The 4.3-10 Male to Type N Female Bulkhead jumper connections are designed to industry standard interface dimensions to ensure superior performance. These low PIM corrugated cable assemblies are durable and plenum rated for applications that require these parameters. All PolyPhaser cable assemblies are available for same day shipment to fulfill your urgent needs. This high-quality RF coaxial assembly is perfect in many RF Interconnect applications such as plenum installations, low PIM applications, distributed antenna systems (DAS), and many other RF systems. The CASPP250LLPL022-1M 4.3-17 to Type N low PIM cable assembly is the perfect companion to PolyPhaser line of products, particularly when used as an antenna jumper.

The quarter inch low PIM plenum rated coax used in these 4.3-17 to Type N assemblies is a .250 inch diameter copper corrugated coax with a blue FEP jacket. This cable's PTFE dielectric is low loss material with a phase velocity of 76% and offers excellent passive intermodulation (PIM) performance better than -160 dBc. The construction of the quarter inch copper corrugated jumper results in a minimum bend radius of 1.25 inches. The cable assembly's combination of 4.3-17 to Type N M/F Bulkhead and Times Microwave's SPP-250-LLPL low PIM plenum rated cable supports a maximum operation frequency of 5.8 GHz. Each cable assembly is installed with heat shrink booting on each end and a PIM label with the measured PIM level. You can find detailed performance specifications in the product datasheet. All PolyPhaser assemblies are tested and inspected prior to shipping.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications:  
1 M Plenum Rated 4.3-10 to Type N M/F Bulkhead SPP-250-LLPL Low PIM Cable Jumper **CASPP250LLPL022-1M**

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## CASPP250LLPL022-1M

### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		5.8	GHz
VSWR			1.4:1	
Velocity of Propagation		76		%
RF Shielding	100			dB
Passive Intermodulation		-165	-160	dBc
Capacitance		27 [88.58]		pF/ft [pF/m]
Inductance		0.067 [0.22]		uH/ft [uH/m]
DC Resistance Inner Conductor		3 [9.84]		$\Omega/1000ft$ [ $\Omega/Km$ ]

### Specifications by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency	0.45	0.7	1	2.5	5.8	GHz
Insertion Loss (Max.)	0.29	0.34	0.38	0.56	0.82	dB

Electrical Specification Notes:

PIM test results vary between cables

The Insertion Loss data above is based on the performance specifications of the coax used in this assembly. The Insertion Loss includes an estimated insertion loss of  $0.1 * \text{SQRT}(F\text{GHz})$  dB per connector.

### Mechanical Specifications

#### Size

Length	39.37 in [100 cm]
Diameter	0.94 in [23.88 mm]
Weight	0.41 lbs [185.97 g]

#### Cable

Cable Type	SPP-250-LLPL
Impedance	50 Ohms
Inner Conductor Type	Solid
Inner Conductor Material and Plating	Copper, Bare
Dielectric Type	PTFE
Number of Shields	1
Shield Layer 1	Helically Corrugated Copper Tube
Outer Conductor Material and Plating	Copper
Outer Conductor Diameter	0.25 in [6.35 mm]

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## CASPP250LLPL022-1M

Jacket Material	FEP, Blue
Jacket Diameter	0.28 in [7.11 mm]
One Time Minimum Bend Radius	1.25 in [31.75 mm]
Bending Moment	0.8 lbs-ft [1.08 N-m]

### Connectors

Description	Connector 1	Connector 2
Type	4.3-10 Male	N Female Bulkhead
Impedance	50 Ohms	50 Ohms
Contact Material and Plating	Phosphor Bronze, Silver	Phosphor Bronze, Silver
Contact Plating Specification	200 $\mu$ in	196 $\mu$ in
Dielectric Type	PTFE	PTFE
Outer Conductor Material and Plating		Brass, Tri-Metal
Outer Conductor Plating Specification		118 $\mu$ in
Body Material and Plating	Brass, Tri-Metal	Brass, Tri-Metal
Body Plating Specification	80 $\mu$ in	118 $\mu$ in
Coupling Nut Material and Plating	Brass, Tri-Metal	
Coupling Nut Plating Specification	80 $\mu$ in	
Torque	44.25 in-lbs [5 Nm]	10 in-lbs [1.13 Nm]

### Environmental Specifications

#### Temperature

Operating Range	-55 to +200 deg C
Storage Range	-55 to +200 deg C
Plenum Rating	UL910

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## **CASPP250LLPL022-1M**

### **Compliance Certifications**

#### **Plotted and Other Data**

Notes:

- Values at 25°C, sea level.

PolyPhaser protects and increases the reliability of global RF communications networks, including transportation, telecommunications, defense, security and industrial applications, with superior RF surge protection technologies including DC Block, DC Pass and Ultra Low PIM. Backed by responsive service and expert technical support PolyPhaser continually expands its product offering and services to serve engineers' urgent needs for RF components in mission critical communication networks.

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URL: <https://www.polyphaser.com/1-m-plenum-rated-4.3-10-to-type-n-m-f-bulkhead-spp-250-llpl-low-pim-cable-jumper-p.aspx>

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**CASPP250LLPL022-1M CAD Drawing**