

### CASPP250LLPL053-10M



#### Configuration

Connector 1: 4.3-10 Male
Connector 2: NEX10 Male
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

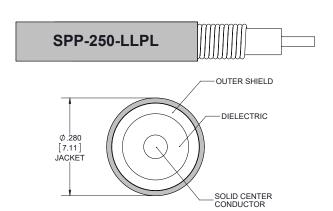
- Plenum Installations
- Multi-Carrier Communication Systems

# **Description**

PolyPhaser CASPP250LLPL053-10M is a 10 M Plenum Rated 4.3-10 to NEX10 M/M 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 NEX10 Male 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, distributed antenna systems (DAS), low PIM applications, and many other RF systems. The CASPP250LLPL053-10M 4.3-18 to NEX18 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 4.3-18 to NEX18 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 4.3-18 to NEX18 M/M 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: 10 M Plenum Rated 4.3-10 to NEX10 M/M SPP-250-LLPL Low PIM Cable Jumper CASPP250LLPL053-10M







#### CASPP250LLPL053-10M

#### **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]		Ω/1000ft [Ω/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.)	1.38	1.74	2.07	3.4	5.33	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\*SQRT(FGHz) dB per connector.

#### **Mechanical Specifications**

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Length 393.7 in [10 m] Diameter 0.87 in [22.1 mm] Weight 2.47 lbs [1.12 Kg]

#### Cable

SPP-250-LLPL Cable Type Impedance 50 Ohms Inner Conductor Type Solid Inner Conductor Material and Plating Copper, Bare Dielectric Type PTFE Number of Shields

Shield Layer 1 Helically Corrugated Copper Tube Copper

Outer Conductor Material and Plating

**Outer Conductor Diameter** 0.25 in [6.35 mm]

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#### CASPP250LLPL053-10M

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	
Туре	4.3-10 Male	NEX10 Male	
Impedance	50 Ohms	50 Ohms	
Mating Cycles		500	
Contact Material and Plating	Phosphor Bronze, Silver	Brass, Silver	
Contact Plating Specification	200 µin	100 µin	
Dielectric Type	PTFE	PTFE	
Body Material and Plating	Brass, Tri-Metal	Brass, Tri-Metal	
Body Plating Specification	80 μin	100 µin	
Coupling Nut Material and Plating	Brass, Tri-Metal	Brass, Tri-Metal	
Coupling Nut Plating Specification	80 µin	100 µin	
Torque	44.25 in-lbs [5 Nm]	13.28 in-lbs [1.5 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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# **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/10-m-plenum-rated-4.3-10-to-nex10-m-m-spp-250-llpl-low-pim-cable-jumper-p.aspx

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# CASPP250LLPL053-10M CAD Drawing

