

Waterproof IP68 N Male (Plug) to N Female (Jack) Bulkhead Low Loss Cable 50 CM Length Using SPO-250 Coax with Times Microwave Components

PE3C8509/WP-50CM

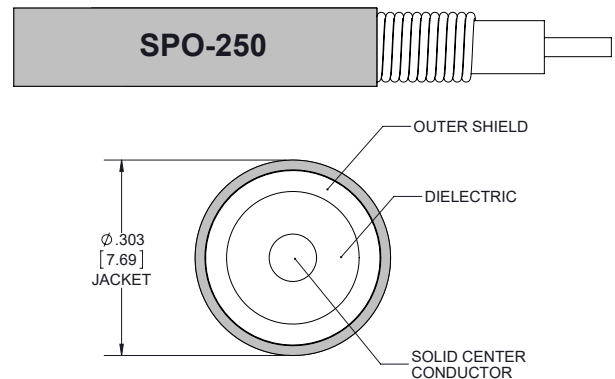


Configuration

- Connector 1: N Male
- Connector 2: N Female Bulkhead
- Cable Type: SPO-250
- Coax Flex Type: Flexible

Features

- Max Frequency 6 GHz
- Low PIM: -160 dBc Max
- 83% Phase Velocity
- PE Jacket
- Silicone Connector Boot
- IP68 Rated



Applications

- General Purpose
- Laboratory Use

Description

Pasternack's PE3C8509/WP-50CM type N male to type N female bulkhead 50 cm cable using SPO-250 coax is part of our full line of RF components available for same-day shipping. Pasternack's flexible RF cable assemblies are ideal for applications where tight bends and flexure are required. This Pasternack type N to type N cable assembly has a male to female gender configuration with 50 ohm flexible SPO-250 coax. The PE3C8509/WP-50CM type N male to type N female cable assembly operates to 6 GHz. Our RF cable assembly with type N bulkhead interface allows designers to create external connections on their product enclosures, and can be used in a variety of other rack mount and panel mount applications.

Custom versions of most RF cable assemblies can be built and shipped same day. Custom cable assembly lengths can be obtained by specifying the desired length on the web site at time of order or by contacting a sales representative. Other available RF cable assembly value added services include connector orientation or clocking, heat shrink booting and custom labeling. RF testing can also be performed to document the electrical performance of your cable assembly.

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		6	GHz
VSWR			1.4:1	
Velocity of Propagation		83		%
Passive Intermodulation			-160	dBc
IM3 (2x43dBm Tones) at 850 MHz or 1900 MHz				
Capacitance		24 [78.74]		pF/ft [pF/m]
Inductance		0.054 [0.18]		uH/ft [uH/m]

Specifications by Frequency

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Part Number	Length	Description	F1	F2	F3	F4	Units	Weight (lbs)
		Frequency	500	1000	2500	6000	MHz	
PE3C8509/WP	Custom Lengths Available	Insertion Loss (Typ.)	0.042	0.06	0.103	0.166	dB/ft	
			0.14	0.2	0.34	0.55	dB/m	
PE3C8509/WP-12	12 Inch	Insertion Loss (Typ.)	0.22	0.26	0.37	0.52	dB	0.849
PE3C8509/WP-24	24 Inch	Insertion Loss (Typ.)	0.26	0.32	0.47	0.68	dB	0.896
PE3C8509/WP-36	36 Inch	Insertion Loss (Typ.)	0.3	0.38	0.57	0.85	dB	0.943
PE3C8509/WP-60	60 Inch	Insertion Loss (Typ.)	0.39	0.5	0.78	1.18	dB	1.037
PE3C8509/WP-50CM	50 CM	Insertion Loss (Typ.)	0.24	0.3	0.43	0.62	dB	0.88

The insertion loss data for the base model does not include loss due to the connectors. Each length includes insertion loss due to the connectors.

Loss due to Connector 1: 0.1*SQRT(FGHz) dB
 Loss due to Connector 2: 0.1 dB
 Base Weight: 0.849 pounds
 Additional Weight per Inch: 0.00391 pounds

Mechanical Specifications

Cable Assembly

Length 19.685 in [500 mm]
 Width/Diameter .5 in [12.7 mm]
 Weight 0.88 lbs [399.16 g]

Cable

Cable Type SPO-250
 Impedance 50 Ohms
 Inner Conductor Type Stranded
 Inner Conductor Material and Plating Copper Clad Aluminum
 Dielectric Type Foam PE
 Outer Conductor 1 Material and Plating Copper, Corrugated
 Jacket Material PE
 Jacket Diameter 0.303 in [7.7 mm]
 One Time Minimum Bend Radius 1 in [25.4 mm]
 Bending Moment 0.5 lbs-ft [0.68 N-m]

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Connectors

Description	Connector 1	Connector 2
Type	N Male	N Female Bulkhead
Option	Weatherproof Boot	
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Contact Material and Plating	Phosphor Bronze, Silver	Phosphor Bronze, Silver
Contact Plating Specification	196 µin minimum	200 µin minimum
Dielectric Type	PTFE	PTFE
Outer Conductor Material and Plating		Brass, Tri-Metal
Outer Conductor Plating Specification		100 µin minimum
Body Material and Plating	Brass, Tri-Metal	Brass, Tri-Metal
Body Plating Specification	118 µin minimum	100 µin minimum
Coupling Nut Material and Plating	Brass, Tri-Metal	
Coupling Nut Plating Specification	118 µin minimum	
Boot Material	Silicone	Silicone

Environmental Specifications

Operating Range Temperature	-40 to +85 deg C
Ingress Protection (IP) Rating	IP68

Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:
Values at 25°C, sea level.

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Typical Performance Data

How to Order

Part Number Configuration:

PE3C8509/WP

- xx

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Unit of Measure:
cm = Centimeters
<blank> = Inches
Length
Base Number

Example: PE3C8509/WP-12 = 12 inches long cable
PE3C8509/WP-100cm = 100 cm long cable

Waterproof IP68 N Male (Plug) to N Female (Jack) Bulkhead Low Loss Cable 50 CM Length Using SPO-250 Coax with Times Microwave Components from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Waterproof IP68 N Male \(Plug\) to N Female \(Jack\) Bulkhead Low Loss Cable 50 CM Length Using SPO-250 Coax with Times Microwave Components PE3C8509/WP-50CM](https://www.pasternack.com/waterproof-ip68-n-male-plug-to-n-female-jack-bulkhead-low-loss-cable-50-cm-length-using-spo-250-pe3c8509-wp-50cm-p.aspx)

URL: <https://www.pasternack.com/waterproof-ip68-n-male-plug-to-n-female-jack-bulkhead-low-loss-cable-50-cm-length-using-spo-250-pe3c8509-wp-50cm-p.aspx>

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PE3C8509/WP-50CM CAD Drawing

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