

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

### PE3C8509/WP

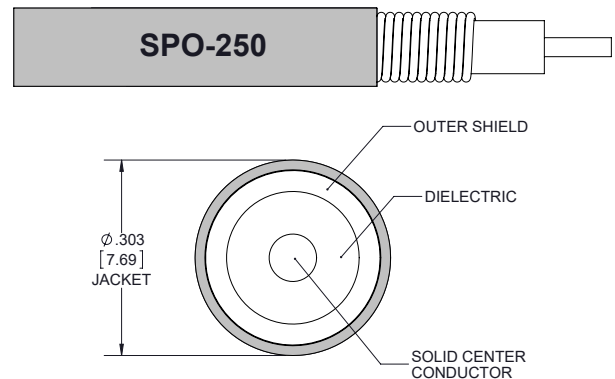


#### Configuration

- 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

The Pasternack PE3C8509/WP is a weatherproof low loss cable assembly that comes with type N male connection with weatherproof boot on one end and type N female on the other. Pasternack's RF coaxial cable assembly products are designed for typical use, production, laboratory test and measurement, defense/military, aerial antenna towers, etc. The low loss cable has a 50 Ohm impedance and is specifically ready for quicker shipment than most in the industry can provide.

This weatherproof low loss RF cable assembly operates at a maximum frequency of 6 GHz. Our RF cable assembly has a PE jacket with 0.303 inches diameter. The type N male to type N female cable assembly PE3C8509/WP is built with SPO-250 coax, which has a flexible design. This RF cable assembly with 0.5 inches diameter has copper clad aluminum as cable's inner conducting material and foam PE dielectric type. The weatherproof boot low loss cable can operate at a temperature range of -40 to 85 degrees C. Additional dimensions, specifications, and CAD drawings for this PE3C8509/WP low loss RF cable are available on our downloadable PDF datasheet.

Pasternack stocks a wide selection of weatherproof low loss cable assemblies that ship the same business day as ordered from our warehouse. Make your online purchase right now to take advantage of our same-day shipping. For further information on similar products, our expert technical support and knowledgeable sales team can help you get the ideal type N male to type N female cable assembly as per your requirements.

#### 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]

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**PE3C8509/WP**

**Electrical Specifications**

Description	Minimum	Typical	Maximum	Units
Inductance		0.054 [0.18]		uH/ft [uH/m]

**Specifications by Frequency**

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**

Width/Diameter .5 in [12.7 mm]  
 Weight 0.849 lbs [385.1 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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**PE3C8509/WP**

**Typical Performance Data**

**How to Order**

Part Number Configuration:

**PE3C8509/WP**

**- xx**

**uu**

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 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 Using SPO-250 Coax with Times Microwave Components PE3C8509/WP](#)

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

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PE3C8509/WP CAD Drawing

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