

N Male to N Male Low PIM Cable Using 1/4 inch Superflexible Coax, LF Solder



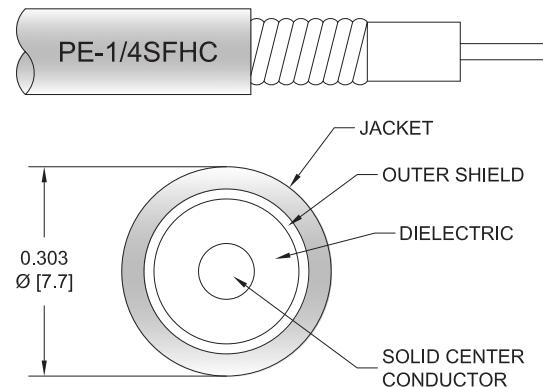
PE3C0124LF

Configuration

- Connector 1: N Male
- Connector 2: N Male
- Cable Type: 1/4" Superflexible
- Coax Flex Type: Corrugated

Features

- Max Frequency 3 GHz
- Low PIM: -160 dBc Max
- Shielding Effectivity > 120 dB
- 82% Phase Velocity
- PE Jacket



Applications

- General Purpose
- Laboratory Use
- Low PIM Applications

Description

Pasternack's PE3C0124LF type N male to type N male cable using 1/4 inch superflexible coax is part of our full line of RF components available for same-day shipping. Pasternack's corrugated RF cable assemblies are ideal for applications where durability and high power are needed. This Pasternack type N to type N cable assembly has a male to male gender configuration with 50 ohm corrugated 1/4" superflexible coax. The PE3C0124LF type N male to type N male cable assembly operates to 3 GHz. Our low PIM design also offers excellent passive intermodulation performance with PIM levels better than -160 dBc.

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		3	GHz
VSWR			1.21:1	
Velocity of Propagation		82		%
RF Shielding	120			dB
Passive Intermodulation			-160	dBc
IM3 (2x43dBm Tones) at 850 MHz or 1900 MHz				
using 2x20W tones				
Capacitance		24.4 [80.05]		pF/ft [pF/m]
Inductance		0.059 [0.19]		uH/ft [uH/m]
DC Resistance Inner Conductor		3.2 [10.5]		Ohms/1000ft [Ohms/Km]
DC Resistance Outer Conductor		2.53 [8.3]		Ohms/1000ft [Ohms/Km]

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Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Operating Voltage (DC)			1,700	Vdc
Dielectric Withstanding Voltage (AC)			2,500	Vrms
Dielectric Withstanding Voltage (DC)			900	Vdc
Jacket Spark			2,000	Vrms

Specifications by Frequency

Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
			Frequency					MHz	
PE3C0124LF	Custom Lengths Available	Insertion Loss (Typ.)	0.016	0.027	0.039	0.058	0.107	dB/ft	
			0.06	0.09	0.13	0.2	0.36	dB/m	
PE3C0124LF-12	12 inch	Insertion Loss (Typ.)	0.22	0.23	0.24	0.26	0.31	dB	0.422
PE3C0124LF-24	24 inch	Insertion Loss (Typ.)	0.24	0.26	0.28	0.32	0.42	dB	0.464
PE3C0124LF-36	36 inch	Insertion Loss (Typ.)	0.25	0.29	0.32	0.38	0.53	dB	0.506
PE3C0124LF-48	48 inch	Insertion Loss (Typ.)	0.27	0.31	0.36	0.44	0.63	dB	0.548
PE3C0124LF-60	60 inch	Insertion Loss (Typ.)	0.28	0.34	0.4	0.49	0.74	dB	0.59

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 dB
Loss due to Connector 2:	0.1 dB
Base Weight:	0.422 pounds
Additional Weight per Inch:	0.0035 pounds

Mechanical Specifications

Cable Assembly

Width/Diameter	0.5 in [12.7 mm]
Weight	0.422 lbs [191.42 g]

Cable

Cable Type	1/4" Superflexible
Impedance	50 Ohms
Inner Conductor Type	Solid
Inner Conductor Material and Plating	Copper Clad Aluminum
Dielectric Type	PE (F)
Number of Shields	1
Shield Layer 1	Helically Corrugated Copper Tube
Jacket Material	PE, Black
Jacket Diameter	0.303 in [7.7 mm]
One Time Minimum Bend Radius	0.5 in [12.7 mm]
Repeated Minimum Bend Radius	1 in [25.4 mm]
Typical Flex Cycles	20
Tensile Strength	79 lbs [35.83 Kg]

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Connectors

Description	Connector 1	Connector 2
Type	N Male	N Male
Specification	IEC 60169-16	IEC 60169-16
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Contact Material and Plating	Spring Copper, Silver	Spring Copper, Silver
Contact Plating Specification	5 µm minimum	5 µm minimum
Dielectric Type	PTFE	PTFE
Outer Conductor Material and Plating	Brass, Nickel	Brass, Nickel
Outer Conductor Plating Specification	5 µm minimum	5 µm minimum
Body Material and Plating	Brass, Tri-Metal	Brass, Tri-Metal
Body Plating Specification	2 µm minimum	2 µm minimum
Coupling Nut Material and Plating	Brass, Nickel	Brass, Nickel
Coupling Nut Plating Specification	5 µm minimum	5 µm minimum
Hex Size	19 mm	19 mm

Environmental Specifications

Operating Range Temperature -40 to +85 deg C

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

Plotted and Other Data

Notes:

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PE3C0124LF

Typical Performance Data

How to Order

Part Number Configuration:

PE3C0124LF - xx uu

PE3C0124LF: Base Number
 - xx: Length
 uu: Unit of Measure:
 cm = Centimeters
 <blank> = Inches

Example: PE3C0124LF-12 = 12 inches long cable
 PE3C0124LF-100cm = 100 cm long cable

N Male to N Male Low PIM Cable Using 1/4 inch Superflexible Coax, LF Solder 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: [N Male to N Male Low PIM Cable Using 1/4 inch Superflexible Coax, LF Solder PE3C0124LF](#)

URL: <https://www.pasternack.com/n-male-to-n-male-low-pim-cable-using-1-4-inch-superflexible-lf-solder-pe3c0124lf-p.aspx>

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PE3C0124LF CAD Drawing

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