

2.92mm Female Bulkhead to 2.92mm Female Bulkhead Low Loss Space Cable 18 Inch Length Using PE-R135LL Coax



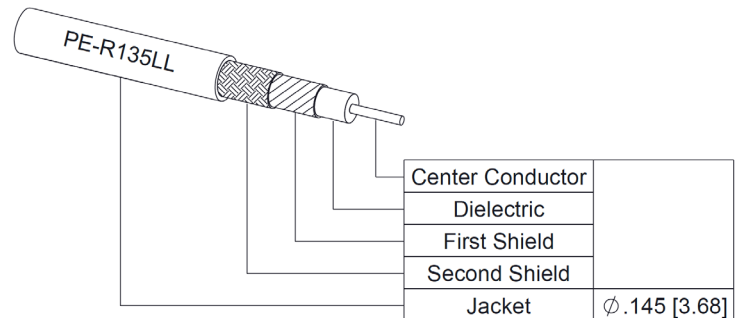
PE3C100019-18

Configuration

- Connector 1: 2.92mm Female Bulkhead
- Connector 2: 2.92mm Female Bulkhead
- Cable Type: PE-R135LL
- Coax Flex Type: Flexible

Features

- Max Frequency 40 GHz
- Shielding Effectivity > 100 dB
- 82% Phase Velocity
- Double Shielded
- ETFE Jacket
- Up to 300 Mrad of Radiation Resistance
- Low Outgassing (TML <1%, CVCM <1%) per ASTM E-595
- Operating Temperature -65 to +150 Deg C
- Built in a Facility with < 100,000 Particles/sq ft
- Built to IPC-A-620 Class 3



Applications

- General Purpose
- Laboratory Use
- Vacuum Environments
- Low Earth Orbit (LEO)
- Space (Exploration, Launches, Maintenance, Stations)
- Ground Systems
- Satellites

Description

Pasternack's PE3C100019-18 2.92mm female bulkhead to 2.92mm female bulkhead 18 inch cable using PE-R135LL 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 2.92mm to 2.92mm cable assembly has a female to female gender configuration with 50 ohm flexible PE-R135LL coax. The PE3C100019-18 2.92mm female to 2.92mm female cable assembly operates to 40 GHz. Our RF cable assembly with 2.92mm 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. The double shielding of this Pasternack cable assembly provides excellent shielding effectiveness of better than 100 dB.

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		40	GHz
VSWR			1.4:1	
Velocity of Propagation		82		%
RF Shielding	100			dB

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Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Capacitance		25 [82.02]		pF/ft [pF/m]

Specifications by Frequency

Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
			Frequency					MHz	
PE3C100019	Custom Lengths Available	Insertion Loss (Typ.)	0.161	0.237	0.35	0.528	0.808	dB/ft	
			0.53	0.78	1.15	1.74	2.66	dB/m	
PE3C100019-12	12 Inch	Insertion Loss (Typ.)	0.37	0.44	0.55	0.73	1.01	dB	0.076
PE3C100019-18	18 Inch	Insertion Loss (Typ.)	0.45	0.56	0.73	1	1.42	dB	0.09
PE3C100019-24	24 Inch	Insertion Loss (Typ.)	0.53	0.68	0.9	1.26	1.82	dB	0.103
PE3C100019-100CM	100 CM	Insertion Loss (Typ.)	0.73	0.98	1.35	1.94	2.86	dB	0.136
PE3C100019-200CM	200 CM	Insertion Loss (Typ.)	1.26	1.76	2.5	3.67	5.51	dB	0.221

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:	0.076 pounds
Additional Weight per Inch:	0.00217 pounds

Mechanical Specifications

Cable Assembly

Length	18 in [457.2 mm]
Width/Diameter	0.437 in [11.1 mm]
Weight	0.09 lbs [40.82 g]

Cable

Cable Type	PE-R135LL
Impedance	50 Ohms
Inner Conductor Type	Solid
Inner Conductor Material and Plating	Copper, Silver
Dielectric Type	PTFE
Number of Shields	2
Shield Layer 1	Silver plated copper
Shield Layer 2	Silver plated copper
Jacket Material	ETFE, Black
Jacket Diameter	0.145 in [3.68 mm]
One Time Minimum Bend Radius	1.08 in [27.43 mm]

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Connectors

Description	Connector 1	Connector 2
Type	2.92mm Female Bulkhead	2.92mm Female Bulkhead
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Contact Material and Plating	Beryllium Copper, Gold	Beryllium Copper, Gold
Contact Plating Specification	30 µin minimum	30 µin minimum
Dielectric Type	PTFE	PTFE
Body Material and Plating	Stainless Steel, Passivated	Stainless Steel, Passivated

Environmental Specifications

Operating Range Temperature -65 to +150 deg C

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

Plotted and Other Data

Notes:
Values at 25°C, sea level.

PE3C100019-18 CAD Drawing

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