

Low Loss .070 Semi-Rigid Coax Cable, Copper Outer Conductor, Microporous PTFE 76.5 pct VoP Dielectric, Straight Sections



PECX003-BULK

Configuration

- Low Loss Semi-Rigid Cable
- 1 Shield(s)

Features

- Continuous Copper Outer Conductor
- Low Density Microporous Dielectric
- Phase Stability vs. Temperature
- Mechanical Stability vs. Temperature
- High Isolation
- Supplied in 5 foot maximum straight lengths

Applications

- Low Loss Cabling
- Phase Matched Microporous Cables
- High Isolation Interconnects
- Surface Mount Cabling
- Semi-Rigid Cable Assemblies

Description

Pasternack's PECX003 low loss semi-rigid coax with copper outer conductor and microporous dielectric is part of our full line of RF components available for same-day shipping. This low loss semi-rigid coaxial cable operates to a maximum frequency range of 72 GHz. The outer conductor is served by a continuous copper tube which provides extremely high levels of RF shielding and low attenuation. The low density microporous dielectric of this semi rigid coax reduces the dielectric losses and also provides more phase stability over temperature when compared to solid PTFE dielectric. An additional benefit of the microporous dielectric is its mechanical stability over temperature. Unlike solid PTFE, this low density PTFE material can handle soldering heat with minimal or no measurable extrusion on the ends of the cable. This minimizes stress on connectors and allows for more predictable termination on PCB, surface mount applications.

Our microporous dielectric low loss semi-rigid coax cable, PECX003 datasheet specifications and drawing with dimensions are shown below in this PDF. Pasternack's broad catalog of RF, microwave and millimeter wave interconnects allows designers to configure and customize their signal connections however they like. Whether the need is to provide a high isolation, phase stable signal path or simply create a custom cable assembly configuration, Pasternack has the right cable for the job. Pasternack can also expertly build your custom cable assemblies for you and ship same-day.

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		72	GHz
Impedance		50		Ohms
Velocity of Propagation		76.5		%
Power@ 1GHz			188	Watts

Performance by Frequency Band

Description	F1	F2	F3	F4	F5	Units
Frequency	0.5	1	5	10	18	GHz
Attenuation, Typ	13.2	18.6	42	60	81	dB/100ft
	43.31	61.02	137.8	196.85	265.75	dB/100m
Input Power (CW), Max	265	188	83	58	43	Watts

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Description	F6	F7	F8	F9	F10	Units
Frequency	26.5	40	50	65		GHz
Attenuation, Typ	99	123	138.8	160		dB/100ft
	324.8	403.54	455.38	524.93		dB/100m

Mechanical Specifications

Weight	0.008 lbs/ft [0.01 kg/m]
Min. Bend Radius (Installation)	0.25 in [6.35 mm]

Construction Specifications

Description	Material and Plating	Diameter
Inner Conductor	Copper, Silver, 1 Strand	0.02 in [0.51 mm]
	ASTM B-298	
Conductor Type	Solid	
Dielectric	Microporous PTFE	0.059 in [1.5 mm]
Outer Conductor	Copper	0 in [0 mm]

Environmental Specifications

Temperature	
Operating Range	-65 to +250 deg C

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

Plotted and Other Data

Notes:

Low Loss .070 Semi-Rigid Coax Cable, Copper Outer Conductor, Microporous PTFE 76.5 pct VoP Dielectric, Straight Sections 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: [Low Loss .070 Semi-Rigid Coax Cable, Copper Outer Conductor, Microporous PTFE 76.5 pct VoP Dielectric, Straight Sections PECX003-BULK](#)

URL: <https://www.pasternack.com/low-loss-semirigid-070-coax-cable-copper-straight-pecx003-bulk-p.aspx>

The information contained within this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part in order to implement improvements. Pasternack Enterprises reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack Enterprises does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack Enterprises does not assume liability arising out of the use of any part or document.

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