

Low Loss .141 Semi-Rigid Coax Cable, Copper Outer Conductor, Microporous PTFE 76.5 pct VoP Dielectric, Straight Sections



PECX007-BULK

Configuration

- Low Loss Semi-Rigid Cable

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 PECX007 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 34 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, PECX007 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		34	GHz
Impedance		50		Ohms
Velocity of Propagation		76.5		%
Power@ 1GHz			580	Watts

Performance by Frequency Band

Description	F1	F2	F3	F4	F5	Units
Frequency	0.5	1	5	10	18	GHz
Attenuation, Typ	7.5	10.5	24	34	46	dB/100ft
	24.61	34.45	78.74	111.55	150.92	
Input Power (CW), Max	820	580	240	170	130	Watts

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Description	F6	F7	F8	F9	F10	Units
Frequency	20					GHz
Attenuation, Typ	52					dB/100ft
	170.6					dB/100m
Input Power (CW), Max	115					Watts

Mechanical Specifications

Weight	0.031 lbs/ft [0.05 kg/m]
Min. Bend Radius (Installation)	0.5 in [12.7 mm]

Construction Specifications

Description	Material and Plating	Diameter
Inner Conductor	Copper, Silver, 1 Strand ASTM B-298	0.04 in [1.02 mm]
Conductor Type	Solid	
Dielectric	Microporous PTFE	0.118 in [3 mm]
Outer Conductor	Copper	0.141 in [3.58 mm]

Environmental Specifications

Temperature	
Operating Range	-65 to +200 deg C

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

Plotted and Other Data

Notes:

Low Loss .141 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.

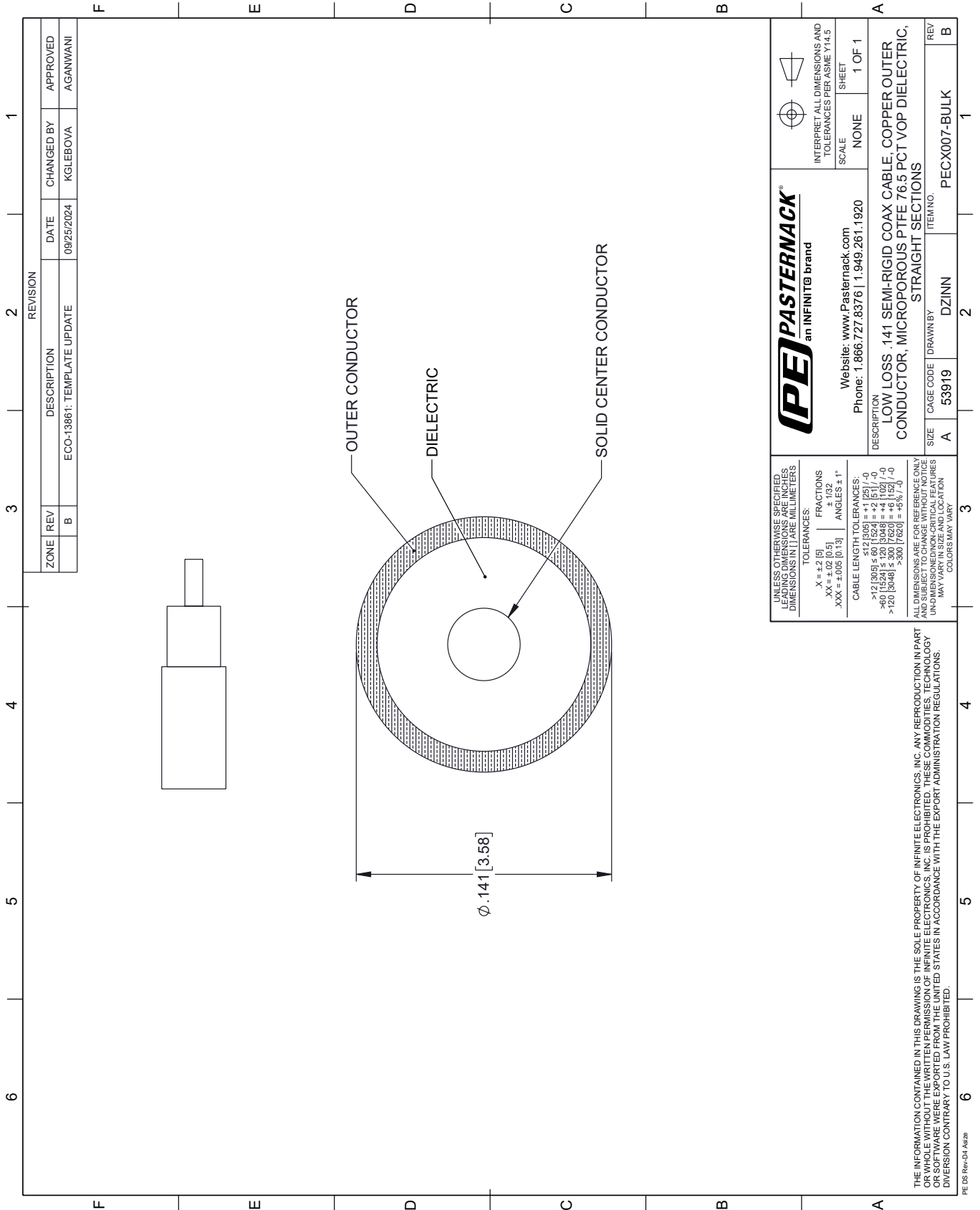
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Low Loss .141 Semi-Rigid Coax Cable, Copper Outer Conductor, Microporous PTFE 76.5 pct VoP Dielectric, Straight Sections PECX007-BULK](#)

URL: <https://www.pasternack.com/low-loss-semirigid-141-coax-cable-copper-straight-pecx007-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.

PECX007-BULK CAD Drawing

Low Loss .141 Semi-Rigid Coax Cable, Copper Outer Conductor, Microporous PTFE 76.5 pct VoP Dielectric, Straight Sections



REVISION		DATE	CHANGED BY	APPROVED	
ZONE	REV	DESCRIPTION	DATE	CHANGED BY	APPROVED
	B	ECC-1386: TEMPLATE UPDATE	09/25/2024	KGLEBOVA	AGANWANI

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INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5

SCALE: NONE
SHEET: 1 OF 1

DESCRIPTION: LOW LOSS, .141 SEMI-RIGID COAX CABLE, COPPER OUTER CONDUCTOR, MICROPOROUS PTFE 76.5 PCT VOP DIELECTRIC, STRAIGHT SECTIONS

SIZE	CAGE CODE	DRAWN BY	ITEM NO.
A	53919	DZINN	PECX007-BULK

REV B

UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES. DIMENSIONS IN [] ARE MILLIMETERS.

TOLERANCES:
 .X = ±.2 [5]
 .XX = ±.02 [0.5]
 .XXX = ±.005 [0.13]

FRACTIONS: ± 1/32
 ANGLES: ± 1°

CABLE LENGTH TOLERANCES:
 <12 [305] ≤ 60 [1524] = ±1 [25] / -0
 >60 [1524] ≤ 120 [3048] = ±4 [102] / -0
 >120 [3048] ≤ 300 [7620] = ±5% / -0

ALL DIMENSIONS ARE FOR REFERENCE ONLY. UNDIMENSIONED/NON-CRITICAL FEATURES MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY.

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