PASTERNACK
an INFINITE brand

7/16 DIN Male to 7/16 DIN Male Low PIM Cable Using 1/2 inch Superflexible Coax with HeatShrink

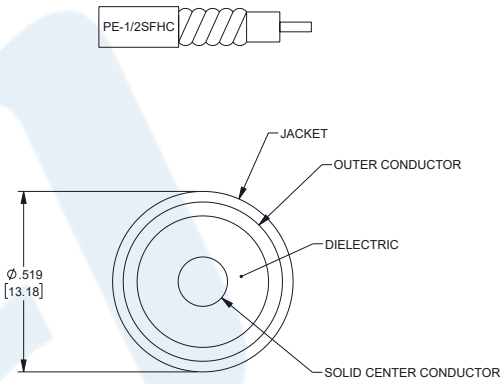
TECHNICAL DATA SHEET PE39970/HS

Configuration

- Connector 1: 7/16 DIN Male
- Connector 2: 7/16 DIN Male
- Cable Type: 1/2" Superflexible
- Coax Flex Type: Corrugated

Features

- Max Frequency 3 GHz
- Shielding Effectivity > 120 dB
- 82% Phase Velocity
- PE Jacket



Applications

- General Purpose
- Laboratory Use
- Low PIM Applications

Description

Pasternack's PE39970/HS 7/16 DIN male to 7/16 DIN male cable using 1/2 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 7/16 DIN to 7/16 DIN cable assembly has a male to male gender configuration with 50 ohm corrugated 1/2" superflexible coax. The PE39970/HS 7/16 DIN male to 7/16 DIN male cable assembly operates to 3 GHz. Our low PIM design also offers excellent passive intermodulation performance.

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.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: 7/16 DIN Male to 7/16 DIN Male Low PIM Cable Using 1/2 inch Superflexible Coax with Heat-Shrink PE39970/HS

Pasternack Enterprises, Inc. • P.O. Box 16759, Irvine, CA 92623
Phone: (866) 727-8376 or (949) 261-1920 • **Fax:** (949) 261-7451
Sales@Pasternack.com • Techsupport@Pasternack.com

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Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		3	GHz
VSWR			1.1:1	
Velocity of Propagation		82		%
RF Shielding	120			dB
Capacitance		25.3 [83.01]		pF/ft [pF/m]
Inductance		0.059 [0.19]		uH/ft [uH/m]
DC Resistance Inner Conductor		0.91 [2.99]		Ω/1000ft [Ω/Km]
DC Resistance Outer Conductor		1.08 [3.54]		Ω/1000ft [Ω/Km]

Specifications by Frequency

Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
		Frequency	100	250	500	1000	3000	MHz	
PE39970/HS	Custom Lengths Available	Insertion Loss (Typ.)	0.01	0.02	0.02	0.03	0.06	dB/ft	
			0.04	0.05	0.08	0.12	0.21	dB/m	
PE39970/HS-24	24 inch	Insertion Loss (Typ.)	0.22	0.23	0.25	0.27	0.33	dB	0.809
PE39970/HS-48	48 inch	Insertion Loss (Typ.)	0.24	0.26	0.3	0.34	0.46	dB	1.017
PE39970/HS-60	60 inch	Insertion Loss (Typ.)	0.25	0.28	0.32	0.37	0.52	dB	1.121
PE39970/HS-150CM	150 cm	Insertion Loss (Typ.)	0.25	0.28	0.32	0.37	0.52	dB	1.112
PE39970/HS-200CM	200 cm	Insertion Loss (Typ.)	0.27	0.3	0.36	0.43	0.62	dB	1.283

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:	0.704	pounds
Additional Weight per Inch:	0.00867	pounds

Mechanical Specifications

Cable Assembly

Weight	0.704 lbs [319.33 g]

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Cable

Cable Type	1/2” Superflexible
Impedance	50 Ohms
Inner Conductor Type	Solid
Inner Conductor Material and Plating	Copper Clad Aluminum
Dielectric Type	PE (F)
Number of Shields	1
Outer Conductor Material and Plating	Helically Corrugated Copper Tube
Jacket Material	PE, Black
Jacket Diameter	0.535 in [13.59 mm]
One Time Minimum Bend Radius	0.6 in [15.24 mm]
Repeated Minimum Bend Radius	1.18 in [29.97 mm]
Typical Flex Cycles	20
Tensile Strength	157 lbs [71.21 Kg]

Connectors

Description	Connector 1	Connector 2
Type	7/16 DIN Male Threaded	7/16 DIN Male Threaded
Specification	IEC 61169-4	IEC 61169-4
Impedance	50 Ohms	50 Ohms
Contact Material and Plating	Spring Copper, Silver	Spring Copper, Silver
Contact Plating Specification	5 µm minimum	5 µm minimum
Dielectric Type	TPX	TPX
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	32 mm	32 mm
Torque	22.083 ft-lbs [29.95 Nm]	22.083 ft-lbs [29.95 Nm]

Environmental Specifications

Temperature

Operating Range	-40 to +85 deg C

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Compliance Certifications (see product page for current document)

Plotted and Other Data

Notes:

How to Order

Part Number Configuration: **PE39970/HS - xx uu**

- uu — Unit of Measure:
  - cm = Centimeters
  - <blank> = Inches
- xx — Length
- PE39970/HS — Base Number

Example: PE39970/HS-12 = 12 inches long cable
PE39970/HS-100cm = 100 cm long cable

7/16 DIN Male to 7/16 DIN Male Low PIM Cable Using 1/2 inch Superflexible Coax with HeatShrink 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.

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URL: https://www.pasternack.com/7-16-din-male-to-7-16-din-male-low-pim-cable-using-1-2-inch-superflexible-with-heatshrink-pe39970-hs-p.aspx

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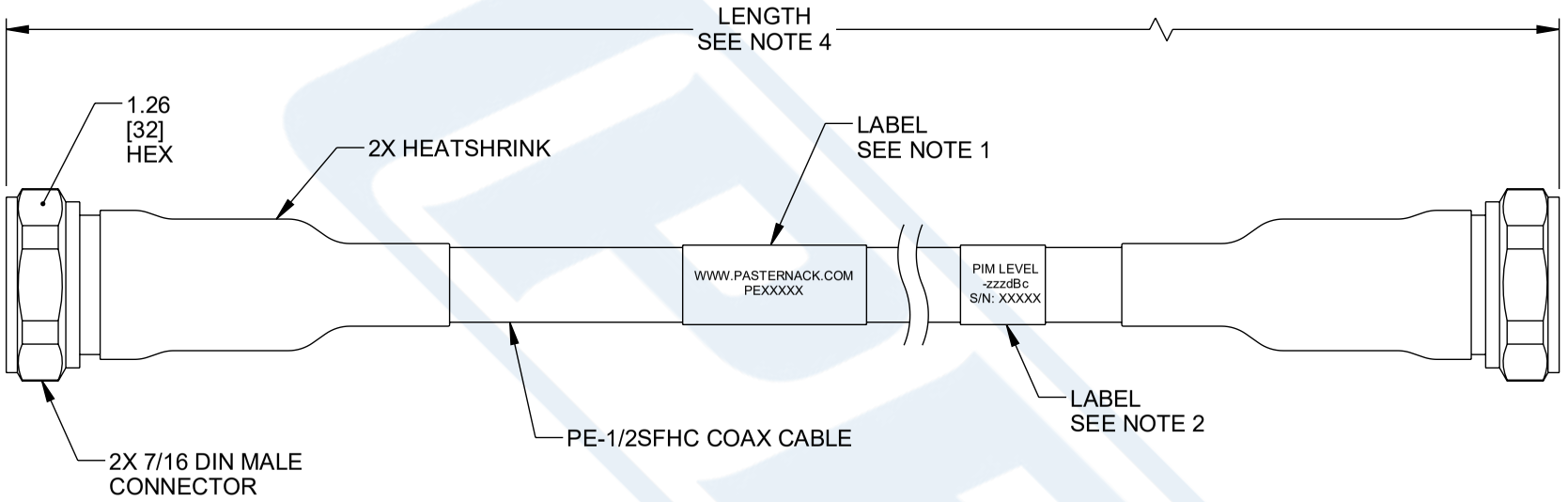
REVISION					
ZONE	REV	DESCRIPTION	DATE	CHANGED BY	APPROVED
	A	INITIAL RELEASE	10/05/2023	DMAY	AGANWANI



NOTES:

1. CABLE ASSEMBLY LENGTH LABEL PLACEMENT: 36 INCHES OR LESS, ONE LABEL APPROXIMATELY CENTERED. LONGER THAN 36 INCHES, TWO LABELS APPROXIMATELY 6 INCHES FROM EACH CONNECTOR.
2. PIM LEVEL LABEL PLACEMENT: APPROXIMATELY 6 INCHES FROM CABLE END, 1 PLACE, FOR ALL LENGTHS OF CABLE.
3. CABLE ASSEMBLIES SHALL BE TESTED FOR CONTINUITY.
4. CABLE ASSEMBLY LENGTH DETERMINED BY ITEM PN AND DESCRIPTION.

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

TOLERANCES:

.X = ±.2 [5] | FRACTIONS ± 1/32
.XX = ±.02 [0.5] | ANGLES ± 1°
.XXX = ±.005 [0.13]

CABLE LENGTH TOLERANCES:

≤12 [305] = +1 [25] / -0
>12 [305] ≤ 60 [1524] = +2 [51] / -0
>60 [1524] ≤ 120 [3048] = +4 [102] / -0
>120 [3048] ≤ 300 [7620] = +6 [152] / -0
>300 [7620] = +5% / -0

ALL DIMENSIONS ARE FOR REFERENCE ONLY AND SUBJECT TO CHANGE WITHOUT NOTICE.
UN-DIMENSIONED/NON-CRITICAL FEATURES MAY VARY IN SIZE AND LOCATION
COLORS MAY VARY

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INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5

SCALE	SHEET
NONE	1 OF 1

DESCRIPTION
7/16 DIN MALE TO 7/16 DIN MALE LOW PIM CABLE USING 1/2 INCH SUPERFLEXIBLE COAX WITH HEATSHRINK

SIZE	CAGE CODE	DRAWN BY	ITEM NO.	REV
A	53919	DMAY	PE39970/HS	A

PE39970/HS REV 1.0

PE DS Rev-D4 Asize

PE39970/HS CAD Drawing

7/16 DIN Male to 7/16 DIN Male Low PIM Cable Using 1/2 inch Superflexible Coax with HeatShrink