



SMA Male to SMA Male Low PIM Cable Using 1/4 inch Superflexible Coax with HeatShrink

TECHNICAL DATA SHEET

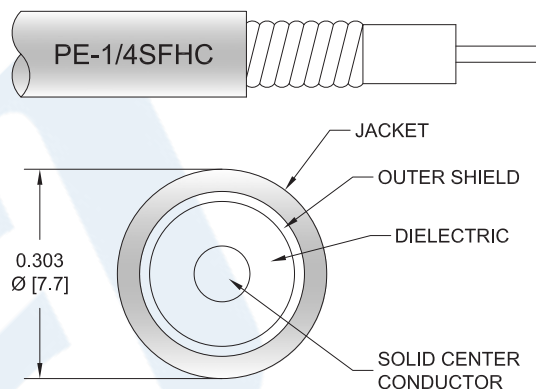
PE3C7863/HS

Configuration

- Connector 1: SMA Male
- Connector 2: SMA Male
- Cable Type: 1/4" 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 PE3C7863/HS SMA male to SMA 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 SMA to SMA cable assembly has a male to male gender configuration with 50 ohm corrugated 1/4" superflexible coax. The PE3C7863/HS SMA male to SMA 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: [SMA Male to SMA Male Low PIM Cable Using 1/4 inch Superflexible Coax with HeatShrink PE3C7863/HS](#)



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Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		3	GHz
VSWR			1.4:1	
Velocity of Propagation		82		%
RF Shielding	120			dB
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]		Ω /1000ft [Ω /Km]
DC Resistance Outer Conductor		2.53 [8.3]		Ω /1000ft [Ω /Km]
Jacket Spark			2,000	Vrms

Specifications by Frequency

Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
		Frequency	100	250	500	1000	3000	MHz	
PE3C7863/HS	Custom Lengths Available	Insertion Loss (Typ.)	0.02	0.03	0.04	0.06	0.11	dB/ft	
			0.06	0.09	0.13	0.19	0.36	dB/m	
PE3C7863/HS-12	12 inch	Insertion Loss (Typ.)	0.22	0.23	0.24	0.26	0.31	dB	0.082
PE3C7863/HS-24	24 inch	Insertion Loss (Typ.)	0.24	0.26	0.28	0.32	0.42	dB	0.124
PE3C7863/HS-36	36 inch	Insertion Loss (Typ.)	0.25	0.28	0.32	0.38	0.53	dB	0.166
PE3C7863/HS-48	48 inch	Insertion Loss (Typ.)	0.27	0.31	0.36	0.43	0.63	dB	0.208
PE3C7863/HS-60	60 inch	Insertion Loss (Typ.)	0.28	0.33	0.39	0.49	0.74	dB	0.25

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:	0.282 pounds
Additional Weight per Inch:	0.0035 pounds

Mechanical Specifications

Cable Assembly

Weight 0.082 lbs [37.19 g]

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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]

Connectors

Description	Connector 1	Connector 2
Type	SMA Male Threaded	SMA Male Threaded
Impedance	50 Ohms	50 Ohms
Contact Material and Plating	Brass, Silver	Brass, Silver
Dielectric Type	PTFE	PTFE
Body Material and Plating	Brass, Tri-Metal	Brass, Tri-Metal
Coupling Nut Material and Plating	Brass, Tri-Metal	Brass, Tri-Metal

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:

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TECHNICAL DATA SHEET

PE3C7863/HS

How to Order

Part Number Configuration:

PE3C7863/HS

- **xx**

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Unit of Measure:
cm = Centimeters
<blank> = Inches
Length
Base Number

Example: PE3C7863/HS-12 = 12 inches long cable
PE3C7863/HS-100cm = 100 cm long cable

SMA Male to SMA Male Low PIM Cable Using 1/4 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.

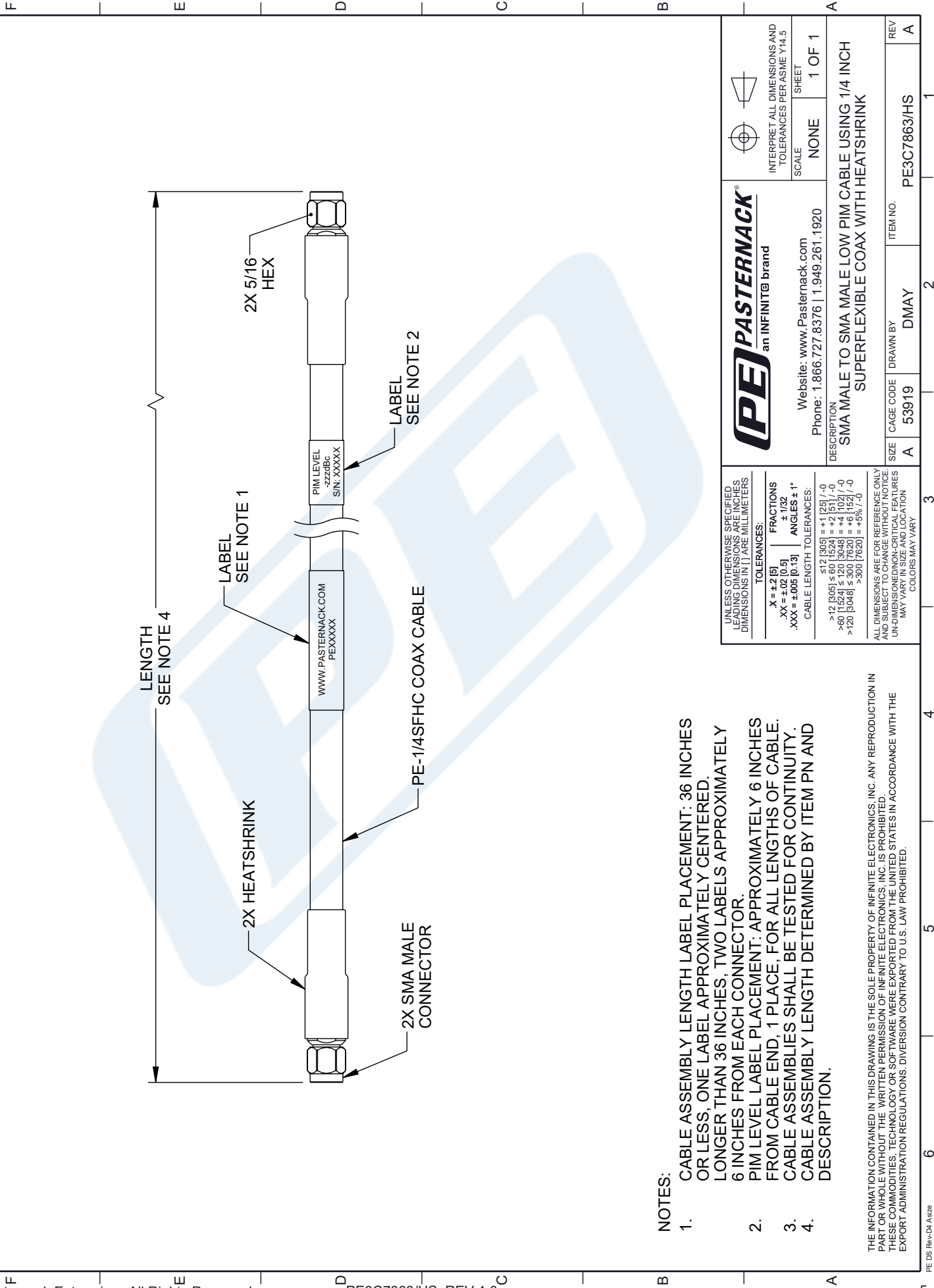
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URL: <https://www.pasternack.com/sma-male-to-sma-male-low-pim-cable-using-1-4-inch-superflexible-with-heatshrink-pe3c7863-hs-p.aspx>

The information contained in 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 reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack does not assume any liability arising out of the use of any part or documentation.

PE3C7863/HS CAD Drawing


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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.

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INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5

SCALE: NONE

SHEET: 1 OF 1

DESCRIPTION:
SMA MALE TO SMA MALE LOW PIM CABLE USING 1/4 INCH SUPERFLEXIBLE COAX WITH HEATSHRINK

SIZE	CAGE CODE	DRAWN BY	ITEM NO.	REV
A	53919	DMAY	PE3C7863/HS	A

UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE INCHES, DIMENSIONS IN [] ARE MILLIMETERS	
TOLERANCES:	FRACTIONS
.X = ±.2 [5]	± 1/32
.XX = ±.02 [0.5]	± 1/64
.XXX = ±.005 [0.13]	± 1/128
CABLE LENGTH TOLERANCES:	ANGLES ± 1°
<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
ALL DIMENSIONS ARE TO CENTER UNLESS OTHERWISE SPECIFIED
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE INCHES
DIMENSIONS IN [] ARE MILLIMETERS
DIMENSIONS MAY VARY