

## SMA Female Bulkhead to SMA Male Cable Using RG316-DS Coax with HeatShrink



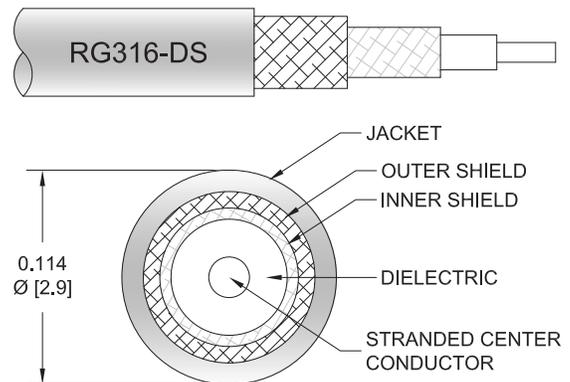
### PE3973/HS

#### Configuration

- Connector 1: SMA Female Bulkhead
- Connector 2: SMA Male
- Cable Type: RG316-DS
- Coax Flex Type: Flexible

#### Features

- Max Frequency 3 GHz
- Shielding Effectivity > 85 dB
- 70% Phase Velocity
- Double Shielded
- FEP Jacket



#### Applications

- General Purpose
- Laboratory Use

#### Description

Pasternack's PE3973/HS SMA female bulkhead to SMA male cable using RG316-DS 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 SMA to SMA cable assembly has a female to male gender configuration with 50 ohm flexible RG316-DS coax. The PE3973/HS SMA female to SMA male cable assembly operates to 3 GHz. Our RF cable assembly with SMA 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 85 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		3	GHz
VSWR		1.4:1		
Velocity of Propagation		70		%
RF Shielding	85			dB
Capacitance		29.4 [96.46]		pF/ft [pF/m]

#### Specifications by Frequency

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### PE3973/HS

Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
			Frequency		100	250	500	1000	
PE3973/HS	Custom Lengths Available	Insertion Loss (Typ.)	0.08	0.13	0.194	0.29	0.535	dB/ft	
			0.27	0.42	0.64	0.96	1.76	dB/m	
PE3973/HS-6	6 inch	Insertion Loss (Typ.)	0.25	0.27	0.3	0.35	0.47	dB	0.028
PE3973/HS-12	12 inch	Insertion Loss (Typ.)	0.29	0.33	0.4	0.49	0.74	dB	0.035
PE3973/HS-24	24 inch	Insertion Loss (Typ.)	0.37	0.46	0.59	0.78	1.27	dB	0.05
PE3973/HS-36	36 inch	Insertion Loss (Typ.)	0.45	0.59	0.79	1.07	1.81	dB	0.064
PE3973/HS-48	48 inch	Insertion Loss (Typ.)	0.53	0.72	0.98	1.36	2.34	dB	0.078

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:	0.035 pounds
Additional Weight per Inch:	0.00117 pounds

### Mechanical Specifications

#### Cable Assembly

Weight 0.035 lbs [15.88 g]

#### Cable

Cable Type	RG316-DS
Impedance	50 Ohms
Inner Conductor Type	Stranded
Inner Conductor Material and Plating	Copper Clad Steel, Silver
Dielectric Type	PTFE
Number of Shields	2
Shield Layer 1	Silver Plated Copper Braid
Shield Layer 2	Silver Plated Copper Braid
Jacket Material	FEP, Tan
Jacket Diameter	0.114 in [2.9 mm]
One Time Minimum Bend Radius	0.59 in [14.99 mm]
Repeated Minimum Bend Radius	1.57 in [39.88 mm]

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### PE3973/HS

#### Connectors

Description	Connector 1	Connector 2
Type	SMA Female Bulkhead	SMA Male
Specification		MIL-STD-348A
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Contact Material and Plating	Beryllium Copper, Gold	Brass, Gold
Contact Plating Specification	QQ-C-530	30 µin minimum
Dielectric Type	Teflon	PTFE
Body Material and Plating	Brass, Nickel	Brass, Nickel
Body Plating Specification	QQ-B-626	100 µin minimum
Coupling Nut Material and Plating		Brass, Nickel
Coupling Nut Plating Specification		100 µin minimum
Hex Size		5/16 in
Torque		5 in-lbs 0.57 Nm

#### Environmental Specifications

Operating Range Temperature -55 to +165 deg C

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

#### Plotted and Other Data

Notes:

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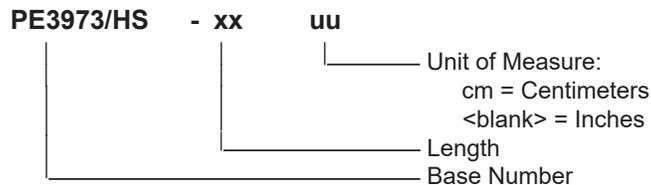


### PE3973/HS

#### Typical Performance Data

#### How to Order

Part Number Configuration:



Example: PE3973/HS-12 = 12 inches long cable  
PE3973/HS-100cm = 100 cm long cable

SMA Female Bulkhead to SMA Male Cable Using RG316-DS 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.

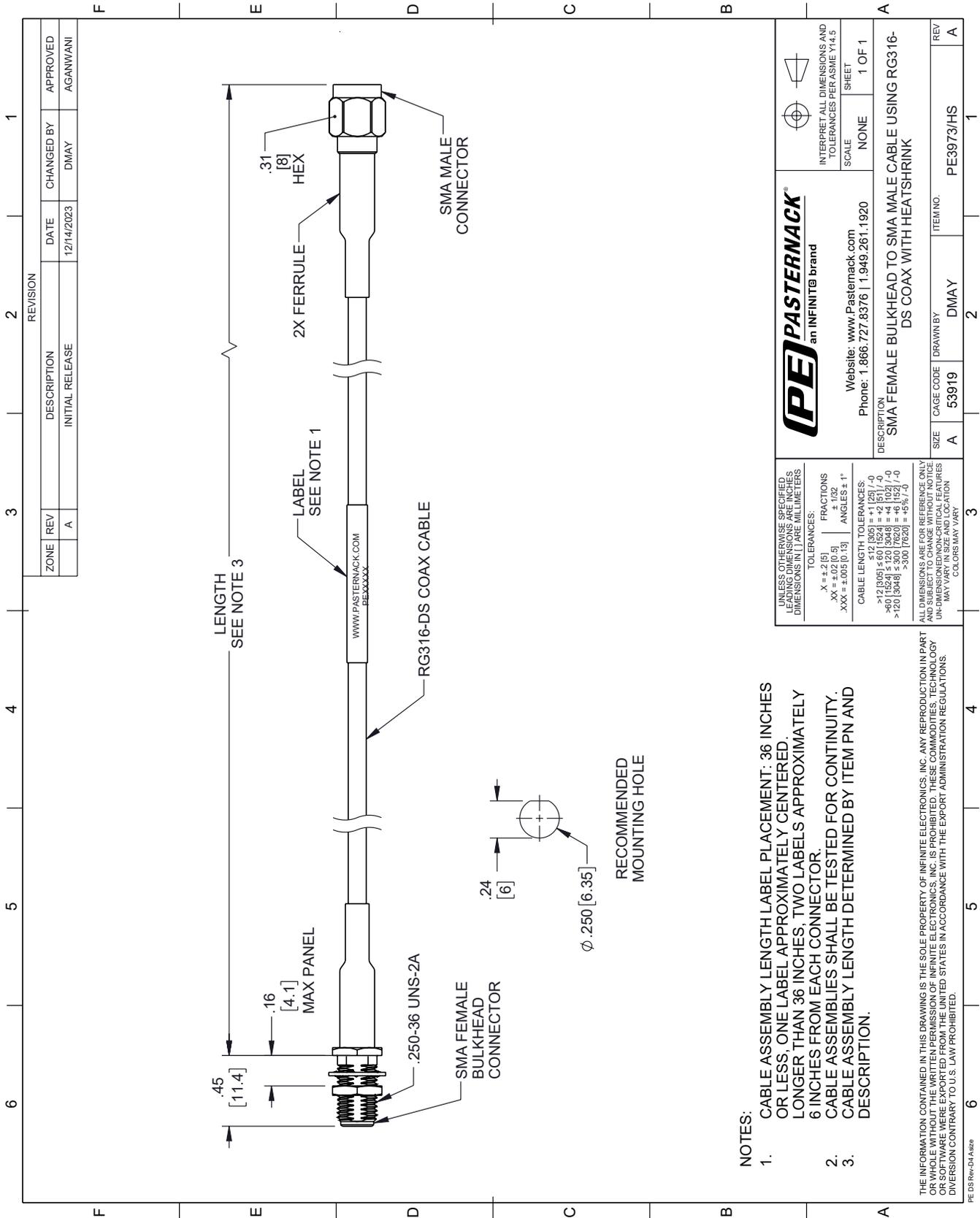
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SMA Female Bulkhead to SMA Male Cable Using RG316-DS Coax with HeatShrink PE3973/HS](#)

URL: <https://www.pasternack.com/sma-female-bulkhead-to-sma-male-cable-using-rg316-ds-with-heatshrink-pe3973-hs-p.aspx>

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# PE3973/HS CAD Drawing

SMA Female Bulkhead to SMA Male Cable Using RG316-DS Coax with HeatShrink



**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. CABLE ASSEMBLIES SHALL BE TESTED FOR CONTINUITY.
3. 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	
Website: <a href="http://www.Pasternack.com">www.Pasternack.com</a> Phone: 1.866.727.8376   1.949.261.1920		DESCRIPTION: SMA FEMALE BULKHEAD TO SMA MALE CABLE USING RG316-DS COAX WITH HEATSHRINK	
UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE 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] = +1 [25] / -0 > 12 [305] ≤ 60 [1524] = +2 [51] / -0 > 60 [1524] ≤ 300 [7620] = +4 [102] / -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. CALL US IF YOU VARY.		SIZE: A CAGE CODE: 53919 DRAWN BY: DMAY ITEM NO.: PE3973/HS	REV: A