



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

RF Cable Assemblies Technical Data Sheet

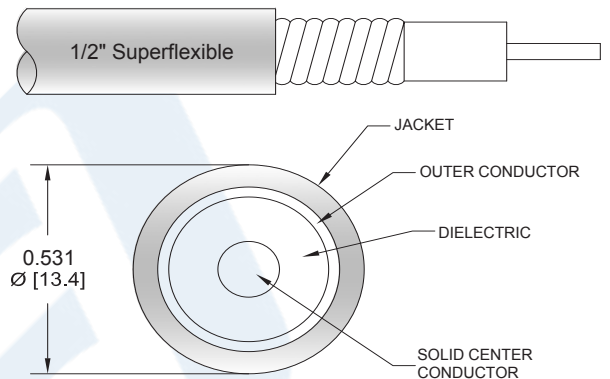
PE39803

**Configuration**

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

**Features**

- 1/2" Flexible and 1/2" Superflexible cable
- 100% RF and PIM Tested
- Low Insertion Loss
- Low Return Loss at 2.7 GHz
- -160 dBc PIM Rating
- Velocity of Propagation at 82%



**Applications**

- General Purpose
- Laboratory Use
- Low PIM Applications

**Description**

Pasternack's corrugated cable assemblies are ideal for applications where durability and high power are needed. These high quality 50 ohm cable assemblies are constructed with a solid copper clad aluminum inner conductor, a foam dielectric, corrugated copper tube, and a tough polyethylene jacket. The solid inner and outer conductors are designed to help minimize intermodulation distortion (IMD) in communications applications. Durability is ensured thanks to the injection molded boot on the connectors for added strain relief. Our carefully selected assemblies provide the highest quality on the market with PIM ratings of -160 dBc and low return loss. Available in 1/2" flexible and 1/2" superflexible cable types in 7/16 DIN and type N connector configurations.

**Electrical Specifications**

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		2.7	GHz
Return Loss			-26	dB
Velocity of Propagation		82		%
Passive Intermodulation			-160	dBc
Capacitance		24.4 [80.05]		pF/ft [pF/m]
Inductance		0.06 [0.2]		uH/ft [uH/m]
DC Resistance Inner Conductor		0.92 [3.02]		Ω/1000ft [Ω/Km]
DC Resistance Outer Conductor		1.13 [3.71]		Ω/1000ft [Ω/Km]

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, LF Solder, RoHS PE39803](#)



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### Specifications by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency	1	2.2	2.7			GHz
Insertion Loss (Typ.)	0.032 [0.1]	0.05 [0.16]	0.056 [0.18]			dB/ft [dB/m]
Return Loss (Max.)	-30	-28	-26			dB

#### Electrical Specification Notes:

Insertion loss does not include the loss of the connectors.  
 Insertion loss is estimated as  $0.05 \times \sqrt{f(\text{GHz})}$  dB per connector.  
 Passive intermodulation is measured with two 20W tones.

### Mechanical Specifications

#### Cable Assembly

Diameter 0.535 in [13.59 mm]

Weight 0.7 lbs [317.51 g]

#### 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)

Outer Conductor Material and Plating Helically Corrugated Copper Tube

Outer Conductor Diameter 0.484 in [12.29 mm]

Jacket Material PE, Black

Jacket Diameter 0.531 in [13.49 mm]

One Time Minimum Bend Radius 0.59 in [14.99 mm]

Repeated Minimum Bend Radius 1.18 in [29.97 mm]

Typical Flex Cycles 20

Flat Plate Crush 85.6 lbs/in [1.53 Kg/mm]

Tensile Strength 225 lbs [102.06 Kg]

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### Connectors

Description	Connector 1	Connector 2
Type	7/16 DIN Male	7/16 DIN Male
Impedance	50 Ohms	50 Ohms
Contact Material and Plating	Brass, Silver	Brass, Silver
Dielectric Type	PTFE	PTFE
Outer Conductor Material and Plating	Brass, Tri-Metal	Brass, Tri-Metal
Body Material and Plating	Brass, Tri-Metal	Brass, Tri-Metal
Coupling Nut Material and Plating	Brass, Tri-Metal	Brass, Tri-Metal
Hex Size	32 mm	32 mm
Torque	18.417 ft-lbs [24.97 Nm]	18.417 ft-lbs [24.97 Nm]

Mechanical Specification Notes:

\*All cable assemblies have a length tolerance of 1.5% or  $\pm 3/8"$ , whichever is greater.

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

### Plotted and Other Data

Notes:

- Values at 25°C, sea level.

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, LF Solder, RoHS PE39803](#)



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PE39803

### How to Order

Part Number Configuration:

PE39803

- xx

uu

Unit of Measure:

cm = Centimeters

<blank> = Inches

Length

Base Number

Example: PE39803-12 = 12 inches long cable  
PE39803-100cm = 100 cm long cable

7/16 DIN Male to 7/16 DIN Male Low PIM Cable Using 1/2 inch Superflexible Coax with HeatShrink, LF Solder, RoHS from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% availability and are part of the broadest selection in the industry.

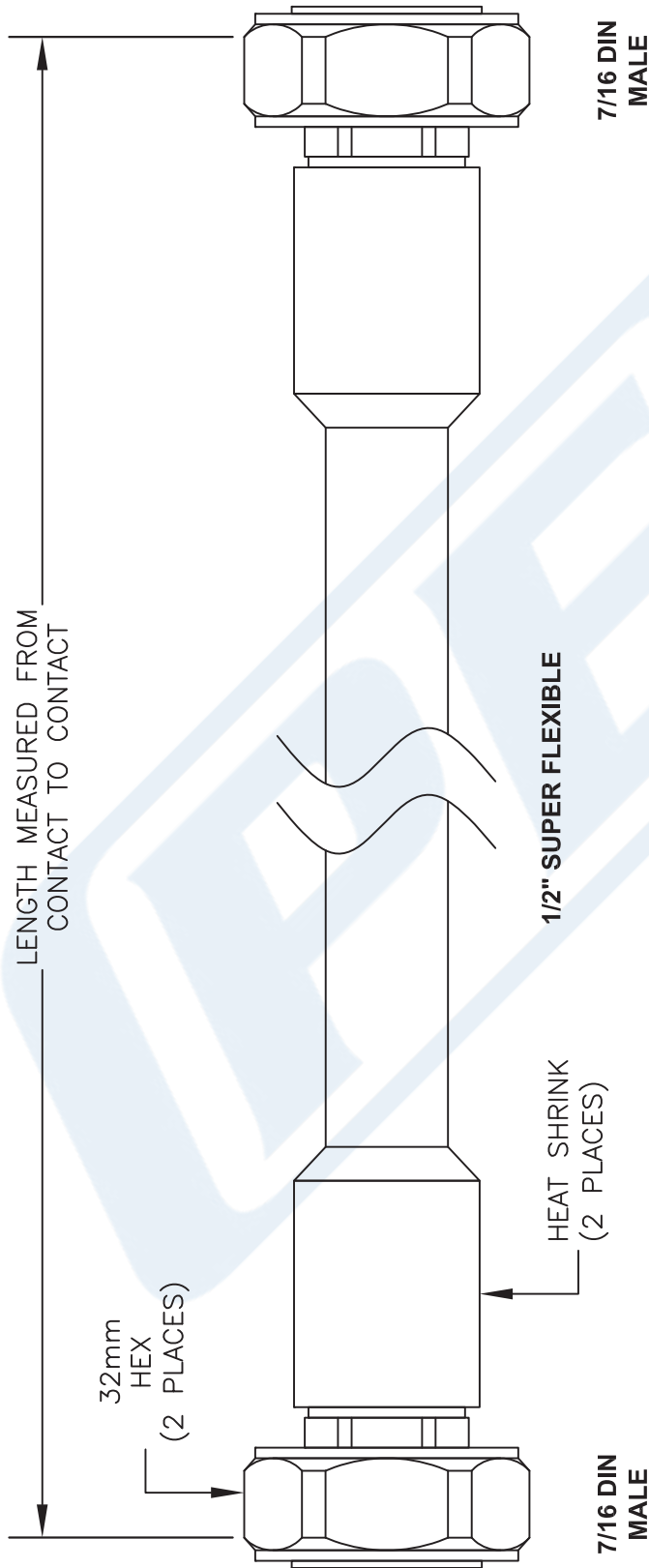
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [7/16 DIN Male to 7/16 DIN Male Low PIM Cable Using 1/2 inch Superflexible Coax with HeatShrink, LF Solder, RoHS PE39803](https://www.pasternack.com/7-16-DIN-Male-to-7-16-DIN-Male-Low-PIM-Cable-Using-1-2-inch-Superflexible-Coax-with-HeatShrink-LF-Solder-RoHS-PE39803)

URL: <https://www.pasternack.com/7-16-MALE-7-16-MALE-1-2-Super-Flexible-Cable-PE39803-p.aspx>

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# PE39803 CAD Drawing

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



STANDARD TOLERANCES	
.X	±0.2
.XX	±0.1
.XXX	±0.05

\*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

NOTES:  
 1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.  
 2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME.  
 3. DIMENSIONS ARE IN INCHES [mm].

DWG TITLE  
**PE39803**

FSCM NO. 53919

CAD FILE 110916

SCALE N/A

SIZE A

41742

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