



## N Female to SMA Male Low PIM Cable Using 1/4 inch Superflexible Coax

### RF Cable Assemblies Technical Data Sheet

**PE3W14156**

#### Configuration

- Connector 1: N Female
- Connector 2: SMA Male
- Cable Type: 1/4" Superflexible

#### Features

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

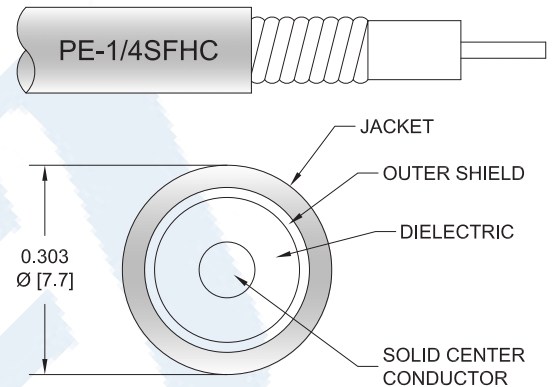
#### Applications

- General Purpose
- Laboratory Use
- Low PIM Applications

#### Description

Pasternack's PE3W14156 type N female to SMA male 12 inch 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 type N to SMA cable assembly has a female to male gender configuration with 50 ohm corrugated 1/4" superflexible coax. The PE3W14156 type N female 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: [N Female to SMA Male Low PIM Cable Using 1/4 inch Superflexible Coax PE3W14156](#)



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**Electrical Specifications**

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		3	GHz
VSWR			1.5:1	
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**

Description	F1	F2	F3	F4	F5	Units
Frequency	0.1	0.25	0.5	1	3	GHz
Insertion Loss (Typ.)	0.016	0.027	0.039	0.058	0.107	dB

**Electrical Specification Notes:**

Insertion Loss does not include the loss of the connectors. Insertion Loss is estimated as 0.1 dB per connector.

**Mechanical Specifications**

**Cable Assembly**

Weight 0.184 lbs [83.46 g]

**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]

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**Connectors**

Description	Connector 1	Connector 2
Type	N Female	SMA Male
Specification	IEC 60169-16	
Impedance	50 Ohms	50 Ohms
Mating Cycles	500	
Contact Material and Plating	Spring Copper, Silver	Brass, Silver
Contact Plating Specification	5 µm minimum	
Dielectric Type	PTFE	PTFE
Outer Conductor Material and Plating	Brass, Nickel	
Outer Conductor Plating Specification	5 µm minimum	
Body Material and Plating	Brass, Tri-Metal	Brass, Tri-Metal
Body Plating Specification	2 µm minimum	
Coupling Nut Material and Plating		Brass, Tri-Metal

**Environmental Specifications**

**Temperature**

Operating Range -40 to +85 deg C

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

**Plotted and Other Data**

Notes:

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**RF Cable Assemblies Technical Data Sheet**

**PE3W14156**

**How to Order**

Part Number Configuration:

**PE3W14156**

- **xx**

**uu**

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

Example: PE3W14156-12 = 12 inches long cable  
PE3W14156-100cm = 100 cm long cable

N Female to SMA Male Low PIM Cable Using 1/4 inch Superflexible Coax 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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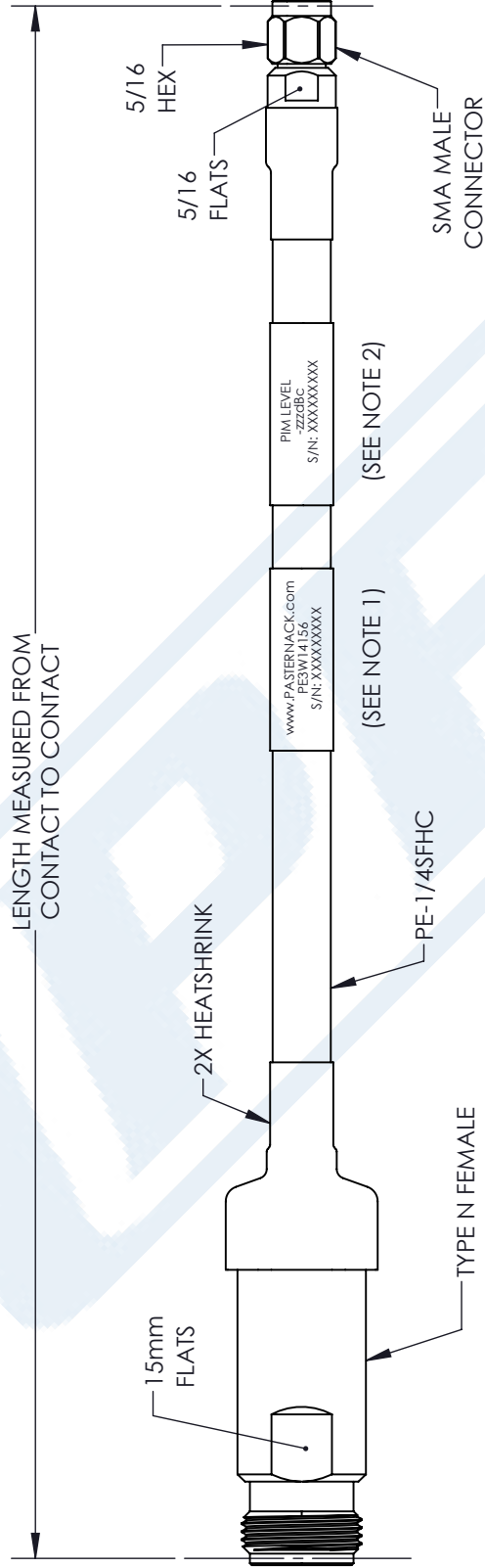
URL: <https://www.pasternack.com/n-female-to-sma-male-low-pim-cable-12-inch-length-using-1-4-inch-superflexible-pe3w14156-p.aspx>

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.

# PE3W14156 CAD Drawing

N Female to SMA Male Low PIM Cable Using 1/4 inch Superflexible Coax

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	08/10/2022	AGANWANI



<p>UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [ ] ARE MILLIMETERS</p> <p>TOLERANCES:</p> <p>.X = ±.2 [ .008 ]    FRACTIONS ±.1/32          .XX = ±.02 [ .51 ]    ANGLES ± 1°          .XXX = ±.005 [ .13 ]</p> <p>CABLE LENGTH (L), TOLERANCES:          L ≤ 12 [305] = +1 [25] / -0          12 [305] &lt; L ≤ 60 [1524] = +2 [51] / -0          60 [1524] &lt; L ≤ 120 [3048] = +4 [102] / -0          120 [3048] &lt; L ≤ 300 [7620] = +6 [152] / -0          300 [7620] &lt; L = +5% / -0</p> <p>ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.</p>	<p><b>PE PASTERNAK</b> an INFINITI brand</p> <p>Pasternack Enterprises, Inc.          P. O. Box 16759, Irvine, CA 92623.          Phone: 1.949.261.1920   1.866.727.8376          Fax: 1.949.261.7451          Website: www.pasternack.com          E-mail: sales@pasternack.com</p>	<p>THIRD-ANGLE PROJECTION</p> <p>THE INFORMATION AND DESIGN IN THIS DOCUMENT IS THE PROPERTY OF PASTERNAK CORPORATION ALL RIGHTS RESERVED.</p> <p>SHEET 1 OF 1</p> <p>SCALE N/A</p>
	<p>SIZE A</p> <p>CAGE CODE 53919</p> <p>DRAWN BY BPUCHASKI</p> <p>ITEM NO. PE3W14156</p>	<p>REV A</p>

- NOTES:
- CABLES 84" AND UNDER HAVE 1 LABEL CENTERED. CABLES OVER 84" HAVE 2 LABELS, ONE AT EACH END 12.0" FROM END OF CONNECTOR.
  - 6" FROM CABLE END, 1 PLACE, FOR ALL LENGTHS OF CABLE.
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