

SMA Male to SMA Male Cable Using PE-P086HF Coax, 26.5 GHz



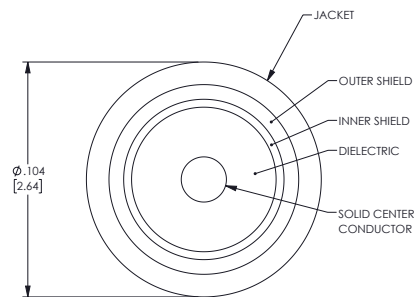
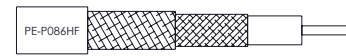
PE3W20812

Configuration

- Connector 1: SMA Male
- Connector 2: SMA Male
- Cable Type: PE-P086HF
- Coax Flex Type: Flexible

Features

- Max Frequency 26.5 GHz
- 70% Phase Velocity
- Double Shielded
- FEP Jacket
- 500 Mating Cycles



Applications

- General Purpose
- Laboratory Use

Description

Pasternack's PE3W20812 SMA male to SMA male cable using PE-P086HF 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 male to male gender configuration with 50 ohm flexible PE-P086HF coax. The PE3W20812 SMA male to SMA male cable assembly operates to 26.5 GHz. The double shielding of this Pasternack cable assembly provides excellent shielding effectiveness.

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 | | 26.5 | GHz |
| VSWR | | | 1.4:1 | |
| Velocity of Propagation | | 70 | | % |
| Capacitance | | 29.4 [96.46] | | pF/ft [pF/m] |

Specifications by Frequency

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| Part Number | Length | Description | F1 | F2 | F3 | F4 | F5 | Units | Weight (lbs) |
|--------------|--------------------------|-----------------------|-----------|-------|-------|-------|-------|-------|--------------|
| | | | Frequency | | 1000 | 2000 | 4500 | 9000 | |
| PE3W20812 | Custom Lengths Available | Insertion Loss (Typ.) | 0.192 | 0.277 | 0.429 | 0.631 | 1.181 | dB/ft | |
| | | | 0.63 | 0.91 | 1.41 | 2.08 | 3.88 | dB/m | |
| PE3W20812-6 | 6 In | Insertion Loss (Typ.) | 0.18 | 0.26 | 0.39 | 0.56 | 1.01 | dB | 0.019 |
| PE3W20812-12 | 12 In | Insertion Loss (Typ.) | 0.28 | 0.4 | 0.6 | 0.88 | 1.6 | dB | 0.025 |
| PE3W20812-24 | 24 In | Insertion Loss (Typ.) | 0.47 | 0.67 | 1.03 | 1.51 | 2.78 | dB | 0.038 |
| PE3W20812-36 | 36 In | Insertion Loss (Typ.) | 0.66 | 0.95 | 1.46 | 2.14 | 3.96 | dB | 0.051 |
| PE3W20812-48 | 48 In | Insertion Loss (Typ.) | 0.85 | 1.23 | 1.89 | 2.77 | 5.14 | dB | 0.064 |

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: 0.04*SQRT(FGHz) dB

Loss due to Connector 2: 0.04*SQRT(FGHz) dB

Base Weight: 0.025 pounds

Additional Weight per Inch: 0.00108 pounds

Mechanical Specifications

Cable Assembly

Width/Diameter 0.5 in [12.7 mm]
Weight 0.041 lbs [18.6 g]

Cable

Cable Type PE-P086HF
Impedance 50 Ohms
Inner Conductor Type Solid
Inner Conductor Material and Plating Copper Clad Steel, Silver
Dielectric Type PTFE
Number of Shields 2
Shield Layer 1 Silver Plated Copper Tape
Shield Layer 2 Silver Plated Copper Braid
Jacket Material FEP, Blue
Jacket Diameter 0.104 in [2.64 mm]
One Time Minimum Bend Radius 0.52 in [13.21 mm]

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Connectors

| Description | Connector 1 | Connector 2 |
|-----------------------------------|------------------------|------------------------|
| Type | SMA Male | SMA Male |
| Impedance | 50 Ohms | 50 Ohms |
| Configuration | Straight | Straight |
| Mating Cycles | 500 | 500 |
| Contact Material and Plating | Beryllium Copper, Gold | Beryllium Copper, Gold |
| Contact Plating Specification | ASTM-B488 | ASTM-B488 |
| Dielectric Type | PTFE | PTFE |
| Body Material and Plating | Beryllium Copper, Gold | Beryllium Copper, Gold |
| Body Plating Specification | ASTM-B488 | ASTM-B488 |
| Coupling Nut Material and Plating | Steel | Steel |
| Torque | 7 in-lbs 0.79 Nm | 7 in-lbs 0.79 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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PE3W20812

Typical Performance Data

How to Order

Part Number Configuration:

PE3W20812

- xx

uu

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

Example: PE3W20812-12 = 12 inches long cable
PE3W20812-100cm = 100 cm long cable

SMA Male to SMA Male Cable Using PE-P086HF Coax, 26.5 GHz 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.

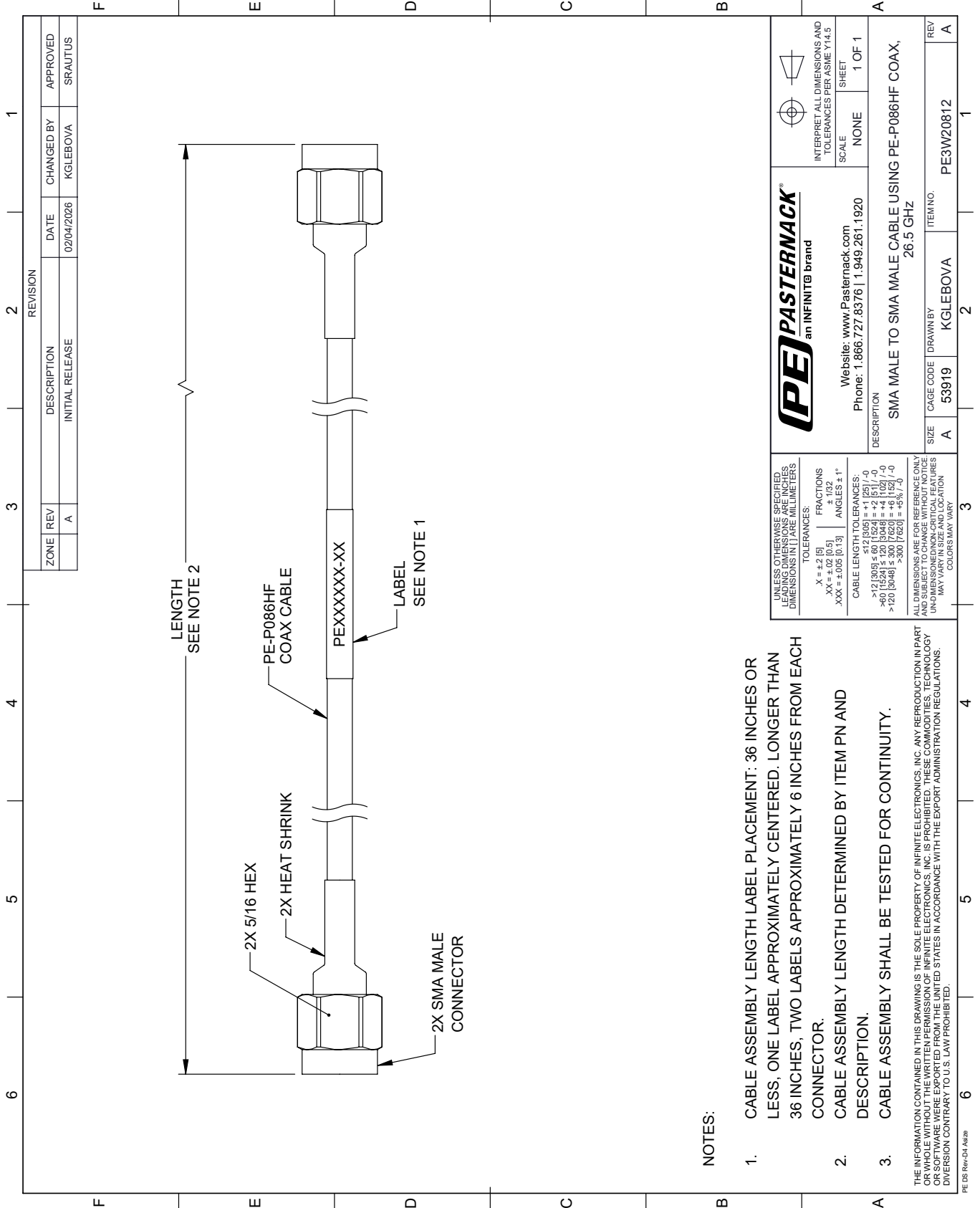
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SMA Male to SMA Male Cable Using PE-P086HF Coax, 26.5 GHz PE3W20812](#)

URL: <https://www.pasternack.com/sma-male-to-sma-male-cable-using-pe-p086hf-pe3w20812-p.aspx>

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PE3W20812 CAD Drawing

SMA Male to SMA Male Cable Using PE-P086HF Coax, 26.5 GHz



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 ASSEMBLY LENGTH DETERMINED BY ITEM PN AND DESCRIPTION.
3. CABLE ASSEMBLY SHALL BE TESTED FOR CONTINUITY.

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PE DS Rev-04 Add2

| REVISION | | DATE | CHANGED BY | APPROVED |
|-----------------|-----|------------|------------|----------|
| ZONE | REV | | | |
| | A | 02/04/2026 | KGLEBOVA | SRAUTUS |
| DESCRIPTION | | | | |
| INITIAL RELEASE | | | | |

| | | | |
|---------------------------------------------------------------------------------------------------------------|-----------|--------------------------------------------------------|-----------|
| | | INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5 | |
| | | SCALE | SHEET |
| Website: www.Pasternack.com Phone: 1.866.727.8376 1.949.261.1920 | | NONE | 1 OF 1 |
| DESCRIPTION SMA MALE TO SMA MALE CABLE USING PE-P086HF COAX, 26.5 GHz | | | |
| SIZE | CAGE CODE | DRAWN BY | ITEM NO. |
| A | 53919 | KGLEBOVA | PE3W20812 |
| REV | | | A |

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. LEADING DIMENSIONS ARE IN MILLIMETERS. 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] ≤ 60 [1524] = ±.1 [25] / -0
 >60 [1524] ≤ 120 [3048] = ±.4 [102] / -0
 >120 [3048] ≤ 300 [7620] = ±.5 [12.7] / -0
 >300 [7620] = ±.5 [12.7] / -0

ALL DIMENSIONS ARE FOR REFERENCE ONLY. DIMENSIONS OF CRITICAL FEATURES MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY.