



2.4mm Male to 2.4mm Male Cable Using PE-P086HF Coax In 36 Inch Length

## RF Cable Assemblies Technical Data Sheet

**PE3C5984-36**

### Configuration

- Connector 1: 2.4mm Male
- Connector 2: 2.4mm Male
- Cable Type: PE-P086HF

### Features

- Max Frequency 40 GHz
- 70% Phase Velocity
- Double Shielded
- FEP Jacket
- 500 Mating Cycles

### Applications

- General Purpose
- Laboratory Use

### Description

Pasternack's PE3C5984-36 2.4mm male to 2.4mm male 36 inch 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 2.4mm to 2.4mm cable assembly has a male to male gender configuration with 50 ohm flexible PE-P086HF coax. The PE3C5984-36 2.4mm male to 2.4mm male cable assembly operates to 40 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.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [2.4mm Male to 2.4mm Male Cable Using PE-P086HF Coax In 36 Inch Length PE3C5984-36](#)



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### Electrical Specifications

| Description                          | Minimum | Typical      | Maximum | Units        |
|--------------------------------------|---------|--------------|---------|--------------|
| Frequency Range                      | DC      |              | 40      | GHz          |
| VSWR                                 |         |              | 1.5:1   |              |
| Velocity of Propagation              |         | 70           |         | %            |
| Capacitance                          |         | 29.4 [96.46] |         | pF/ft [pF/m] |
| Operating Voltage (AC)               |         |              | 335     | Vrms         |
| Dielectric Withstanding Voltage (AC) |         |              | 1,000   | Vrms         |

### Specifications by Frequency

| Description           | F1   | F2   | F3   | F4  | F5   | Units |
|-----------------------|------|------|------|-----|------|-------|
| Frequency             | 2.5  | 5    | 10   | 20  | 40   | GHz   |
| Insertion Loss (Typ.) | 1.26 | 1.82 | 2.66 | 3.9 | 5.91 | dB    |

#### Electrical Specification Notes:

The Insertion Loss data above is based on the performance specifications of the coax and connectors used in this assembly. The Insertion Loss includes an estimated insertion loss of 0.1\*SQRT(FGHz) dB per connector.

### Mechanical Specifications

#### Cable Assembly

Length\* 36 in [914.4 mm]

Weight 0.056 lbs [25.4 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                               | 2.4mm Male                         | 2.4mm Male                         |
| Impedance                          | 50 Ohms                            | 50 Ohms                            |
| Mating Cycles                      | 500                                | 500                                |
| Contact Material and Plating       | Beryllium Copper, Gold over Nickel | Beryllium Copper, Gold over Nickel |
| Contact Plating Specification      | 50 µin minimum                     | 50 µin minimum                     |
| Dielectric Type                    | PEI                                | PEI                                |
| Body Material and Plating          | Beryllium Copper, Gold over Nickel | Beryllium Copper, Gold over Nickel |
| Body Plating Specification         | 50 µin minimum                     | 50 µin minimum                     |
| Coupling Nut Material and Plating  | Passivated Stainless Steel         | Passivated Stainless Steel         |
| Coupling Nut Plating Specification | ASTM-A582                          | ASTM-A582                          |
| Hex Size                           | 5/16 inch                          | 5/16 inch                          |
| Torque                             | 8 in-lbs [0.9 Nm]                  | 8 in-lbs [0.9 Nm]                  |

### Environmental Specifications

#### Temperature

Operating Range -65 to +150 deg C

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

### Plotted and Other Data

Notes:

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [2.4mm Male to 2.4mm Male Cable Using PE-P086HF Coax In 36 Inch Length PE3C5984-36](#)



## 2.4mm Male to 2.4mm Male Cable Using PE-P086HF Coax In 36 Inch Length

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**PE3C5984-36**

#### How to Order

Part Number Configuration:

**PE3C5984**

- **xx**

**uu**

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

Example: PE3C5984-12 = 12 inches long cable  
PE3C5984-100cm = 100 cm long cable

2.4mm Male to 2.4mm Male Cable Using PE-P086HF Coax In 36 Inch Length 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: [2.4mm Male to 2.4mm Male Cable Using PE-P086HF Coax In 36 Inch Length PE3C5984-36](https://www.pasternack.com/2.4mm-male-to-2.4mm-male-cable-36-iAch-leAgth-usiAg-pe-p086hf-pe3c5984-36-p.aspx)

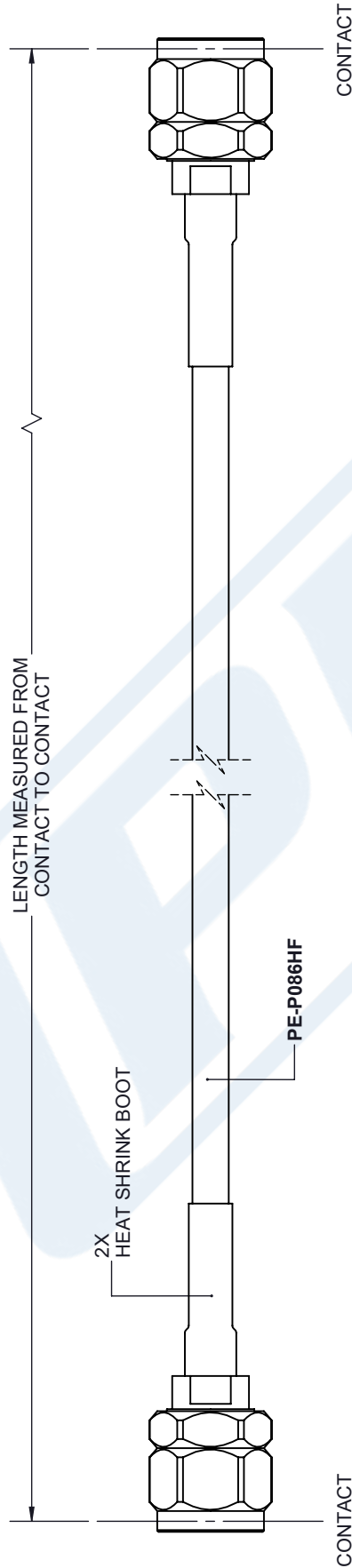
URL: <https://www.pasternack.com/2.4mm-male-to-2.4mm-male-cable-36-iAch-leAgth-usiAg-pe-p086hf-pe3c5984-36-p.aspx>

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# PE3C5984-36 CAD Drawing

2.4mm Male to 2.4mm Male Cable Using PE-P086HF Coax In 36 Inch Length

| REVISIONS |                 |           |            |
|-----------|-----------------|-----------|------------|
| REV.      | DESCRIPTION     | DATE      | APPROVED   |
| A         | INITIAL RELEASE | 11/5/2021 | A. GANWANI |



2.4mm MALE

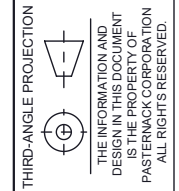
2.4mm MALE

UNLESS OTHERWISE SPECIFIED  
LEADING DIMENSIONS ARE INCHES  
DIMENSIONS IN [ ] ARE MILLIMETERS

| TOLERANCES:                                     |                        |
|-------------------------------------------------|------------------------|
| X = ± 2                                         | [.008]                 |
| .XX = ± .02                                     | [.51]                  |
| .XXX = ± .005                                   | [.13]                  |
| ANGLES ± 1°                                     |                        |
| CABLE LENGTH (L) TOLERANCES:                    |                        |
| L ≤ 12                                          | [305] = +1 [25] / -0   |
| 12 [305] < L ≤ 60                               | [1524] = +2 [51] / -0  |
| 60 [1524] < L ≤ 120                             | [3048] = +4 [102] / -0 |
| 120 [3048] < L ≤ 300                            | [7620] = +6 [152] / -0 |
| 300 [7620] < L                                  | = +5% / -0             |
| ALL DIMENSIONS SHOWN<br>ARE FOR REFERENCE ONLY. |                        |



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|-------|-----|----|---|
| SHEET | 1   | OF | 1 |
| SCALE | N/A |    |   |
| REV   | A   |    |   |

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