



1.85mm Male to 1.85mm Male Low Loss  
Cable 18 Inch Length Using 047 Coax

**RF Cable Assemblies Technical Data Sheet**

**PE3C6487-18**

**Configuration**

- Connector 1: 1.85mm Male
- Connector 2: 1.85mm Male
- Cable Type: PE-SR047TNLL

**Features**

- Max Frequency 70 GHz
- 76.5% Phase Velocity
- 500 Mating Cycles
- Maximum Cable Assembly Length of 5 Feet

**Applications**

- General Purpose
- Laboratory Use

**Description**

Pasternack's PE3C6487-18 1.85mm male to 1.85mm male 18 inch cable using 047 coax is part of our full line of RF components available for same-day shipping. Pasternack's semi-rigid RF cable assemblies are ideal for high performance applications and can be formed, using proper tooling, to the routing pattern required. This Pasternack 1.85mm to 1.85mm cable assembly has a male to male gender configuration with 50 ohm semi-rigid PE-SR047TNLL coax. The PE3C6487-18 1.85mm male to 1.85mm male cable assembly operates to 70 GHz.

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      |         | 70      | GHz   |
| VSWR                    |         |         | 1.4:1   |       |
| Velocity of Propagation |         | 76.5    |         | %     |

**Specifications by Frequency**

| Description           | F1   | F2  | F3  | F4   | F5   | Units |
|-----------------------|------|-----|-----|------|------|-------|
| Frequency             | 0.5  | 5   | 10  | 18   | 26.5 | GHz   |
| Insertion Loss (Typ.) | 0.38 | 1.2 | 1.7 | 2.29 | 2.82 | dB    |

Electrical Specification Notes:

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [1.85mm Male to 1.85mm Male Low Loss Cable 18 Inch Length Using 047 Coax PE3C6487-18](#)

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The Insertion Loss data above is based on the performance specifications of the coax cable used in this assembly. The Insertion Loss includes an estimated insertion loss of  $0.04 \cdot \sqrt{\text{FGHz}}$  dB maximum per connector.

### Mechanical Specifications

#### Cable Assembly

Length\* 18 in [457.2 mm]  
Diameter 0.35 in [8.89 mm]

#### Cable

Cable Type PE-SR047TNLL  
Impedance 50 Ohms  
Inner Conductor Type Solid  
Inner Conductor Material and Plating Copper, Silver  
Dielectric Type Microporous PTFE  
Number of Shields 1  
Outer Conductor Material and Plating Copper, Tin

One Time Minimum Bend Radius 0.125 in [3.18 mm]

#### Connectors

| Description                       | Connector 1            | Connector 2            |
|-----------------------------------|------------------------|------------------------|
| Type                              | 1.85mm Male            | 1.85mm Male            |
| Impedance                         | 50 Ohms                | 50 Ohms                |
| 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                            | 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: [1.85mm Male to 1.85mm Male Low Loss Cable 18 Inch Length Using 047 Coax PE3C6487-18](#)

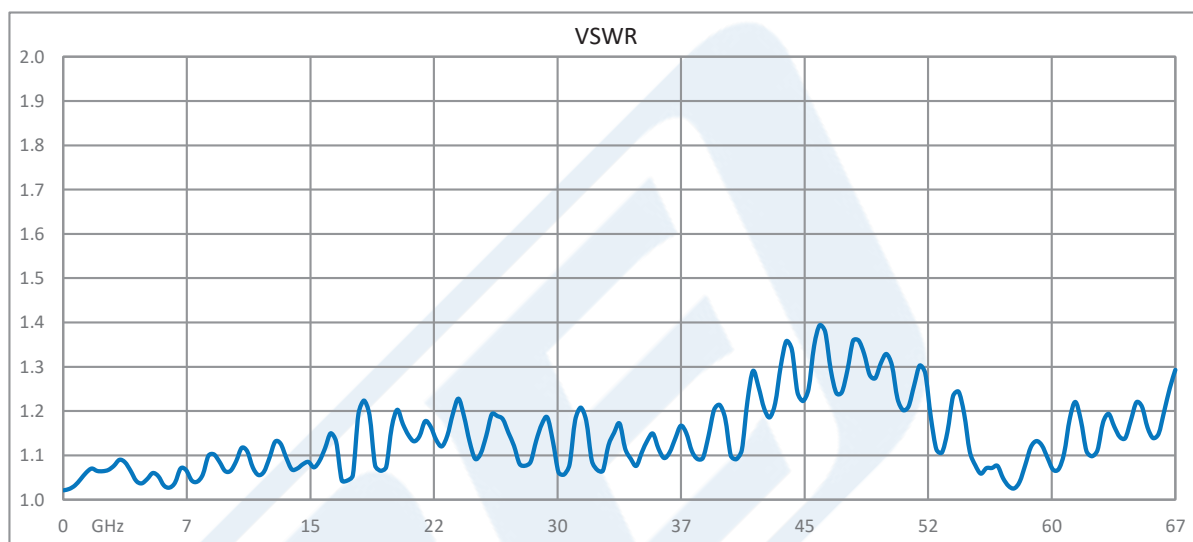


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Typical Performance Data



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**PE3C6487-18**

### How to Order

Part Number Configuration:

**PE3C6487**

- **xx**

**uu**

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

Example: PE3C6487-12 = 12 inches long cable  
PE3C6487-100cm = 100 cm long cable

1.85mm Male to 1.85mm Male Low Loss Cable 18 Inch Length Using 047 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.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [1.85mm Male to 1.85mm Male Low Loss Cable 18 Inch Length Using 047 Coax PE3C6487-18](#)

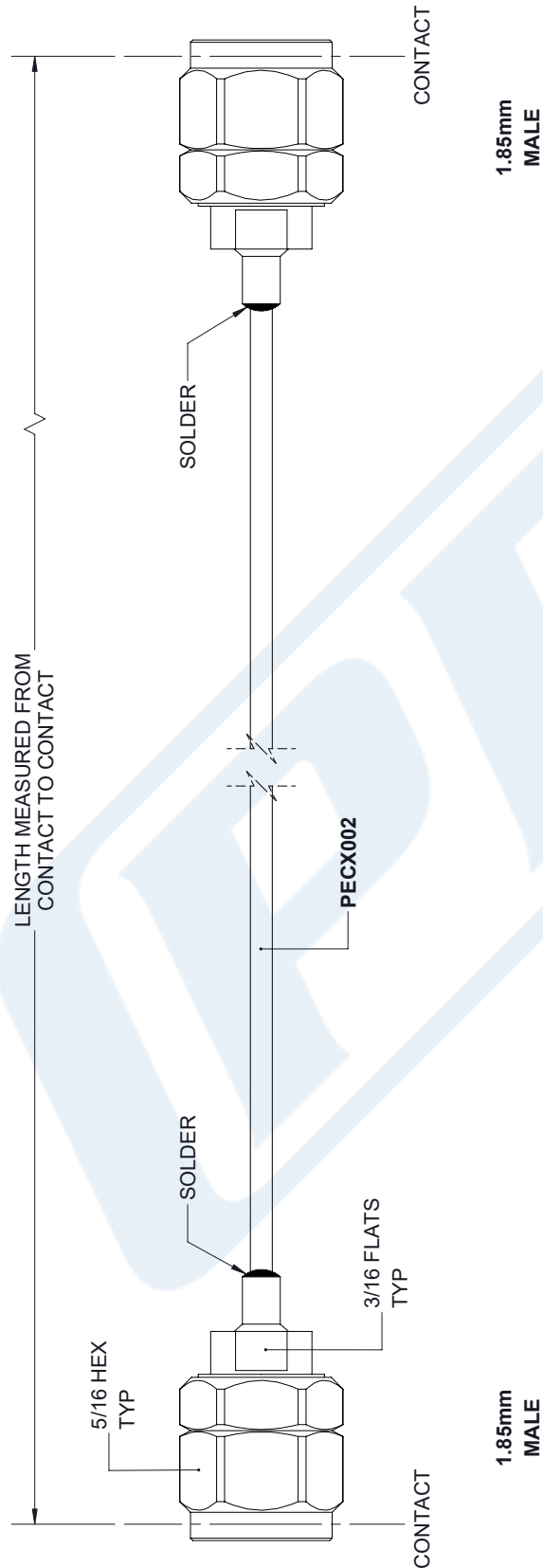
URL: <https://www.pasternack.com/1.85mm-male-1.85mm-male-047-cable-assembly-pe3c6487-18-p.aspx>

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# PE3C6487-18 CAD Drawing

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| REVISIONS |                 |          |          |
|-----------|-----------------|----------|----------|
| REV.      | DESCRIPTION     | DATE     | APPROVED |
| A         | INITIAL RELEASE | 09/11/19 | S.ELLIS  |



|                                                                                                                                                                                                                                     |  |                                                                                                                                                                                                                                                                                    |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
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| SHEET 1 OF 1<br>SCALE N/A                                                                                                                                                                                                           |  | REV A                                                                                                                                                                                                                                                                              |  |
| SIZE A<br>CAGE 53919<br>DRAWN BY K.DANG<br>PART NUMBER PE3C6487                                                                                                                                                                     |  | UNLESS OTHERWISE SPECIFIED<br>LEADING DIMENSIONS ARE INCHES<br>DIMENSIONS IN [ ] ARE MILLIMETERS<br>TOLERANCES:<br>X±.2 [5.08]<br>XX±.01 [.25]<br>XXX±.005 [.13]<br>FRACTIONS<br>±.132<br>ANGLES ± 1°<br>ALL DIMENSIONS SHOWN<br>ARE FOR REFERENCE ONLY.<br>THIRD-ANGLE PROJECTION |  |

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