



1.85mm Male to 1.85mm Male Low Loss  
Cable 12 Inch Length Using 070 Coax

RF Cable Assemblies Technical Data Sheet

PE3C6491-12

### Configuration

- Connector 1: 1.85mm Male
- Connector 2: 1.85mm Male
- Cable Type: PE-SR070TNLL

### 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 PE3C6491-12 1.85mm male to 1.85mm male 12 inch cable using 070 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-SR070TNLL coax. The PE3C6491-12 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	1	5	10	18	GHz
Insertion Loss (Typ.)	0.2	0.28	0.63	0.9	1.21	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 12 Inch Length Using 070 Coax PE3C6491-12](#)



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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  $0.04 \times \sqrt{\text{FGHz}}$  dB maximum per connector.

**Mechanical Specifications**

**Cable Assembly**

Length\* 12 in [304.8 mm]  
Diameter 0.35 in [8.89 mm]

**Cable**

Cable Type PE-SR070TNLL  
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 0.25 in [6.35 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:

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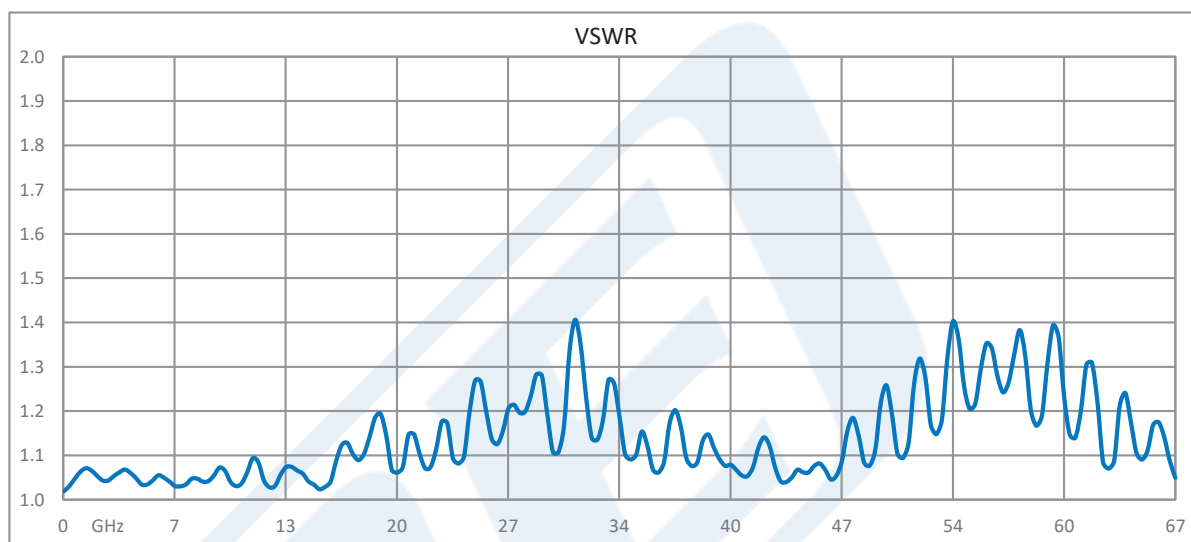


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Typical Performance Data



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PE3C6491-12

**How to Order**

Part Number Configuration:

**PE3C6491**

- **xx**

**uu**

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

Example: PE3C6491-12 = 12 inches long cable  
PE3C6491-100cm = 100 cm long cable

1.85mm Male to 1.85mm Male Low Loss Cable 12 Inch Length Using 070 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 12 Inch Length Using 070 Coax PE3C6491-12](#)

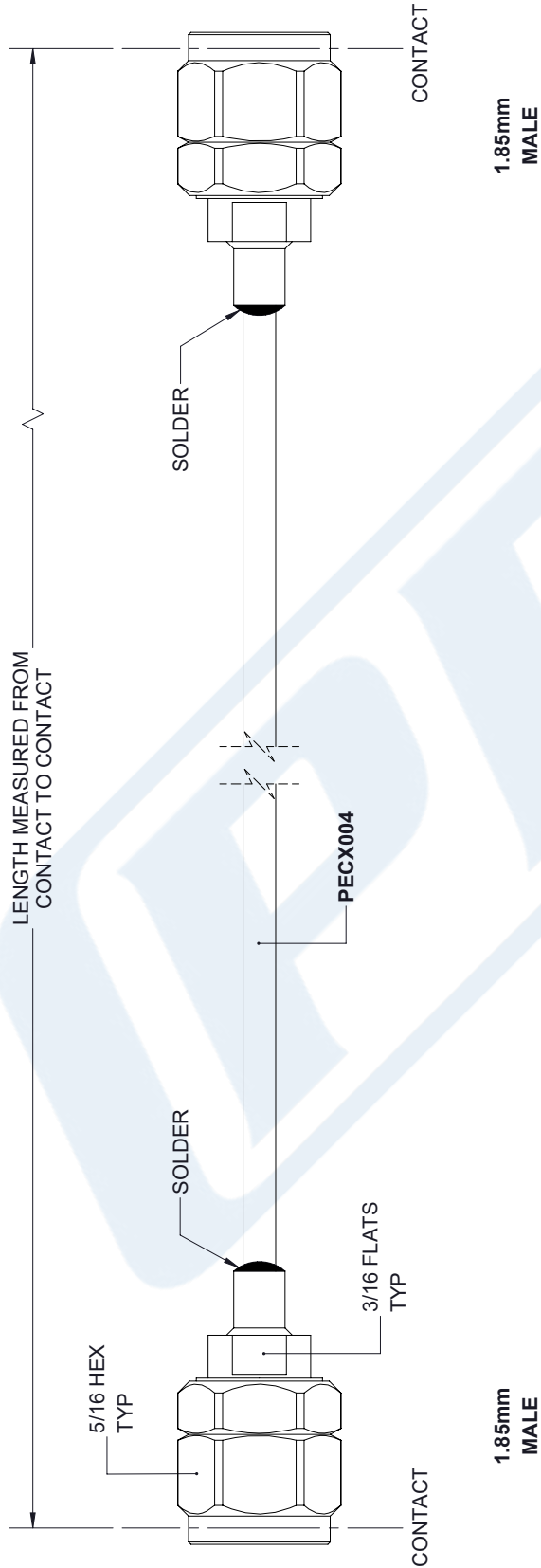
URL: <https://www.pasternack.com/1.85mm-male-1.85mm-male-070-cable-assembly-pe3c6491-12-p.aspx>

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.

# PE3C6491-12 CAD Drawing

1.85mm Male to 1.85mm Male Low Loss Cable 12 Inch Length Using 070 Coax

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	09/11/19	SELLIS



UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [ ] ARE MILLIMETERS	
TOLERANCES:	FRACTIONS
X±.2 [5.08]	±.132
.XX±.01 [.25]	±.13
.XXX±.005 [.13]	ANGLES ± 1°
ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.	
THIRD-ANGLE PROJECTION	

<b>PE PASTERNAK</b> an INFINITO brand	
Pasternack Enterprises, Inc. P.O. Box 16759, Irvine, CA 92623. Phone: 1.949.261.1920   1.866.727.8376 Fax: 1.949.261.7451 www.pasternack.com   e-mail: sales@pasternack.com	
SIZE	53919
CAGE	K.DANG
DRAWN BY	PE3C6491
PART NUMBER	REV
A	A

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SHEET	1 OF 1
SCALE	N/A

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