



## BNC Male to SSMC Plug Cable 12 Inch Length Using RG178 Coax

### RF Cable Assemblies Technical Data Sheet

**PE3C4397-12**

#### Configuration

- Connector 1: BNC Male
- Connector 2: SSMC Plug
- Cable Type: RG178

#### Features

- SSMC Cable Assembly Max. Operating Frequency of 1 GHz
- Small SSMC cable connection form factor (50% smaller than SMA, radially)
- Reliable threaded coupling
- In stock and ready to ship

#### Applications

- SSMC Cable General Purpose Test
- Data Acquisition Systems
- A/D Conversion Systems
- Ultra Wideband Digital Receivers
- Software defined radio (SDR)

#### Description

Pasternack's SSMC cable assemblies are part of our full line of RF components available for same-day shipping. These SSMC cable assemblies are designed to connect SSMC system components and test connections, delivering signal frequencies as high as 12.4 GHz. Our family of SSMC cables can also be used to connect SSMC ports on data acquisition systems, A/D modules or SSMC coax patch panels. If none of our standard options fit your application, you can specify your own custom SSMC cable assembly using Pasternack's online Cable Creator.

Our SSMC cable assembly datasheet specifications and drawing with dimensions are shown below in this PDF. Pasternack's broad catalog of RF, microwave and millimeter wave cable assemblies allow designers to configure and customize their signal connections however they like. Whether the need is to provide SSMC cabling for a data acquisition system, or simply create a custom cable assembly configuration, Pasternack has the right cable assemblies for the job. Pasternack can also expertly build your custom cable assemblies for you and ship same day.

#### Electrical Specifications

| Description             | Minimum | Typical      | Maximum | Units        |
|-------------------------|---------|--------------|---------|--------------|
| Frequency Range         | DC      |              | 1,000   | MHz          |
| VSWR                    |         |              | 1.44:1  |              |
| Velocity of Propagation |         | 70           |         | %            |
| Capacitance             |         | 29.4 [96.46] |         | pF/ft [pF/m] |
| Operating Voltage (AC)  |         |              | 250     | Vrms         |

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [BNC Male to SSMC Plug Cable 12 Inch Length Using RG178 Coax PE3C4397-12](#)



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#### Specifications by Frequency

| Description           | F1   | F2   | F3    | F4 | F5 | Units |
|-----------------------|------|------|-------|----|----|-------|
| Frequency             | 100  | 400  | 1,000 |    |    | MHz   |
| Insertion Loss (Typ.) | 0.34 | 0.48 | 0.65  |    |    | dB    |

#### Mechanical Specifications

##### Cable Assembly

|          |                    |
|----------|--------------------|
| Length*  | 12 in [304.8 mm]   |
| Diameter | 0.57 in [14.48 mm] |

##### Cable

|                                      |                            |
|--------------------------------------|----------------------------|
| Cable Type                           | RG178                      |
| Impedance                            | 50 Ohms                    |
| Inner Conductor Type                 | Stranded                   |
| Inner Conductor Material and Plating | Copper Clad Steel, Silver  |
| Dielectric Type                      | PTFE                       |
| Number of Shields                    | 1                          |
| Shield Layer 1                       | Silver Plated Copper Braid |
| Jacket Material                      | FEP, Tan                   |
| Jacket Diameter                      | 0.072 in [1.83 mm]         |
| Repeated Minimum Bend Radius         | 0.4 in [10.16 mm]          |

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**Connectors**

| Description                        | Connector 1     | Connector 2            |
|------------------------------------|-----------------|------------------------|
| Type                               | BNC Male        | SSMC Plug              |
| Specification                      | MIL-STD-348A    |                        |
| Impedance                          | 50 Ohms         | 50 Ohms                |
| Mating Cycles                      |                 | 500                    |
| Contact Material and Plating       | Brass, Gold     | Beryllium Copper, Gold |
| Contact Plating Specification      | 30 µin minimum  | MIL-G-45204            |
| Dielectric Type                    | PTFE            | Teflon                 |
| Body Material and Plating          | Brass, Nickel   | Beryllium Copper, Gold |
| Body Plating Specification         | 100 µin minimum | MIL-G-45204            |
| Coupling Nut Material and Plating  | Brass, Nickel   | Beryllium Copper, Gold |
| Coupling Nut Plating Specification | 100 µin minimum | MIL-G-45205            |
| Torque                             |                 | 1.75 in-lbs [0.2 Nm]   |

**Mechanical Specification Notes:**

\*All cable assemblies have a length tolerance of 1.5% or  $\pm 3/8$ ", whichever is greater.

**Environmental Specifications**

**Temperature**

Operating Range -55 to +165 deg C

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

**Plotted and Other Data**

Notes:

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**PE3C4397-12**

**How to Order**

Part Number Configuration:

**PE3C4397**

**- xx**

**uu**

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

Example: PE3C4397-12 = 12 inches long cable  
PE3C4397-100cm = 100 cm long cable

BNC Male to SSMC Plug Cable 12 Inch Length Using RG178 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.

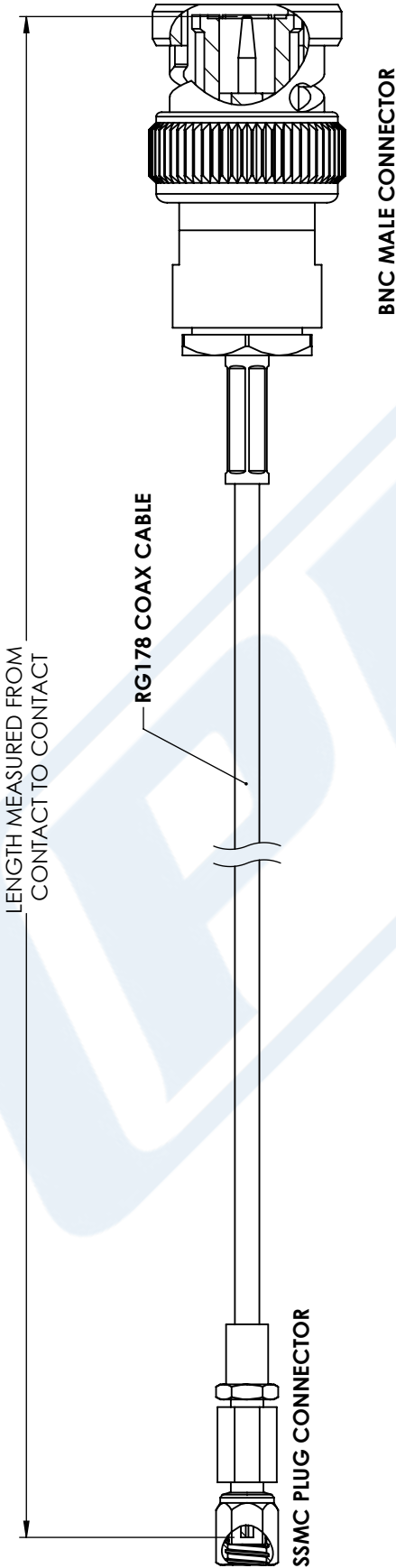
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [BNC Male to SSMC Plug Cable 12 Inch Length Using RG178 Coax PE3C4397-12](https://www.pasternack.com/bnc-male-ssmc-plug-rg178bu-cable-assembly-pe3c4397-12-p.aspx)

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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.

PE3C4397-12 CAD Drawing

BNC Male to SSMC Plug Cable 12 Inch Length Using RG178 Coax



| STANDARD TOLERANCES |        |
|---------------------|--------|
| .X                  | ±0.2   |
| .XX                 | ±0.01  |
| .XXX                | ±0.005 |

\*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

PE

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THE ENGINEER'S RF SOURCE

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|           |          |
|-----------|----------|
| DWG TITLE | PE3C4397 |
| CAGE CODE | 53919    |

|                                                                                                                                                                                    |          |       |        |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------|--------|
| NOTES:<br>1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.<br>2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME<br>3. DIMENSIONS ARE IN INCHES [mm]. |          |       |        |
| CAD FILE                                                                                                                                                                           | 08/31/17 | SCALE | N/A    |
| SIZE                                                                                                                                                                               | A        |       | CN2245 |