

## SMA Male to SMPS Female VITA 67.3 Cable Using PE-047SR Coax



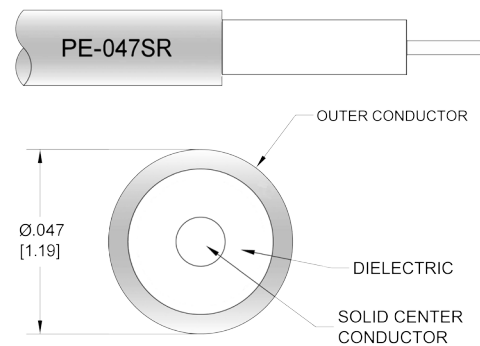
### PE3C10820

#### Configuration

- Connector 1: SMA Male
- Connector 2: SMPS Female
- Cable Type: PE-047SR
- Coax Flex Type: Semi-Rigid

#### Features

- Max Frequency 18 GHz



#### Applications

- General Purpose
- Laboratory Use

#### Description

Pasternack's PE3C10820 SMA male to SMPS female cable using PE-047SR 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 SMA to SMPS cable assembly has a male to female gender configuration with 50 ohm semi-rigid PE-047SR coax. The PE3C10820 SMA male to SMPS female cable assembly operates to 18 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		18	GHz
VSWR			1.4:1	

#### Specifications by Frequency

SMA Male to SMPS Female VITA  
67.3 Cable Using PE-047SR Coax



**PE3C10820**

Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
			Frequency		1000	2000	4500	9000	
PE3C10820	Custom Lengths Available	Insertion Loss (Typ.)	0.4	0.5	0.75	1.2	1.78	dB/ft	
			1.32	1.65	2.47	3.94	5.84	dB/m	
PE3C10820-6	6 In	Insertion Loss (Typ.)	0.35	0.43	0.59	0.85	1.21	dB	0.015
PE3C10820-9	9 In	Insertion Loss (Typ.)	0.45	0.55	0.77	1.15	1.65	dB	0.016
PE3C10820-12	12 In	Insertion Loss (Typ.)	0.55	0.68	0.96	1.45	2.1	dB	0.017
PE3C10820-18	18 In	Insertion Loss (Typ.)	0.75	0.93	1.34	2.05	2.99	dB	0.019
PE3C10820-24	24 In	Insertion Loss (Typ.)	0.95	1.18	1.71	2.65	3.88	dB	0.021

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: 0.1 dB  
 Loss due to Connector 2: 0.05\*SQRT(FGHz) dB  
 Base Weight: 0.0169 pounds  
 Additional Weight per Inch: 0.00034 pounds

**Mechanical Specifications**

**Cable Assembly**

Width/Diameter 0.5 in [12.7 mm]  
 Weight 0.017 lbs [7.71 g]

**Cable**

Cable Type PE-047SR  
 Impedance 50 Ohms  
 Inner Conductor Type Solid  
 Inner Conductor Material and Plating Copper Clad Steel, Silver  
 Dielectric Type PTFE  
 Number of Shields 1  
 Outer Conductor 1 Material and Plating Copper  
 Jacket Material Tan  
 Repeated Minimum Bend Radius 0.05 in [1.27 mm]

SMA Male to SMPS Female VITA  
67.3 Cable Using PE-047SR Coax



**PE3C10820**

**Connectors**

Description	Connector 1	Connector 2
Type	SMA Male	SMPS Female
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Mating Cycles	500	
Contact Material and Plating	Beryllium Copper, Gold over Nickel	Beryllium Copper, Gold
Contact Plating Specification	MIL-G-45204	
Dielectric Type	PTFE	PTFE
Outer Conductor Material and Plating		Beryllium Copper, Gold
Body Material and Plating	Brass, Gold	Passivated Stainless Steel
Body Plating Specification	MIL-G-45204	
Coupling Nut Material and Plating	Passivated Stainless Steel	
Coupling Nut Plating Specification	ASTM-A380	
Hex Size	5/16 inch	
Torque	8 in-lbs 0.9 Nm	

**Environmental Specifications**

Operating Range Temperature -55 to +100 deg C

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

**Plotted and Other Data**

Notes:

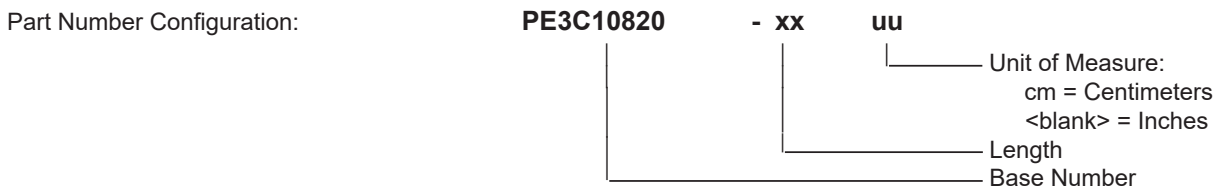
SMA Male to SMPS Female VITA  
67.3 Cable Using PE-047SR Coax



**PE3C10820**

**Typical Performance Data**

**How to Order**



Example: PE3C10820-12 = 12 inches long cable  
PE3C10820-100cm = 100 cm long cable

SMA Male to SMPS Female VITA 67.3 Cable Using PE-047SR 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.

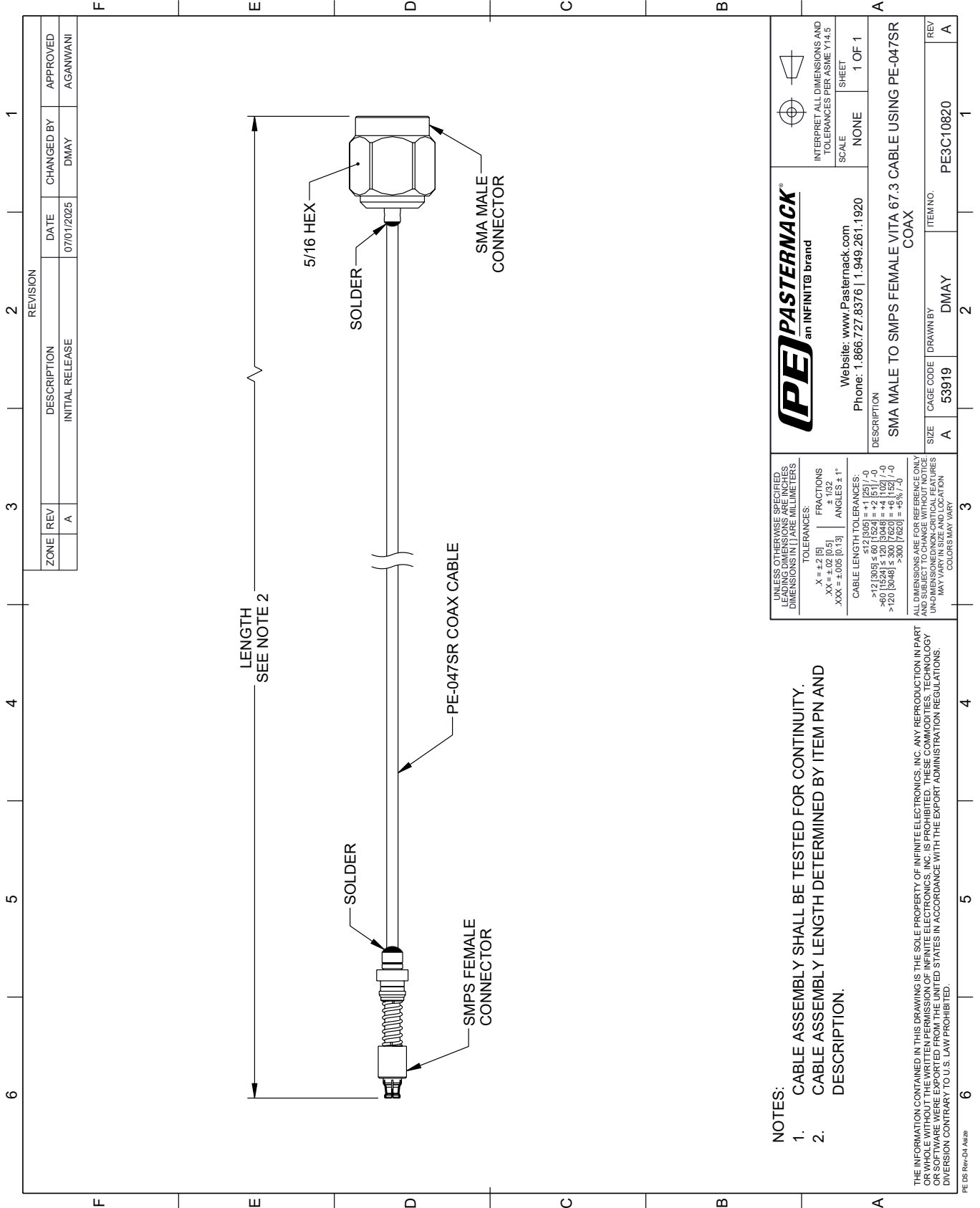
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SMA Male to SMPS Female VITA 67.3 Cable Using PE-047SR Coax PE3C10820](https://www.pasternack.com/sma-male-to-smps-female-vita-67.3-cable-using-pe-047sr-pe3c10820-p.aspx)

URL: <https://www.pasternack.com/sma-male-to-smps-female-vita-67.3-cable-using-pe-047sr-pe3c10820-p.aspx>

The information contained within 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 impliment improvements. Pasternack Enterprises reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack Enterprises does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack Enterprises does not assume liability arising out of the use of any part or document.

# PE3C10820 CAD Drawing

SMA Male to SMPS Female VITA 67.3 Cable Using PE-047SR Coax



REVISION		DATE	CHANGED BY	APPROVED
ZONE	REV			
	A	07/01/2025	DMAY	AGANWANI
DESCRIPTION				
INITIAL RELEASE				

**NOTES:**

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

**UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES AND TRAILING DIMENSIONS ARE IN MILLIMETERS**

**TOLERANCES:**  
 .X = ±.2 [5] FRACTIONS ±.132  
 .XX = ±.02 [0.5] ±.132  
 .XXX = ±.005 [0.13] ANGLES ± 1°

**CABLE LENGTH TOLERANCES:**  
 <math>\le 12 [305]</math> ±.60 [15.24] = ±.2 [5.1] / -0  
 <math>> 12 [305]</math> ±.60 [15.24] = ±.2 [5.1] / -0  
 <math>\le 60 [1524]</math> ±.120 [3.048] = ±.4 [10.2] / -0  
 <math>> 60 [1524]</math> ±.120 [3.048] = ±.4 [10.2] / -0  
 <math>\le 300 [7620]</math> ±.300 [7.620] = ±.6 [15.24] / -0

ALL DIMENSIONS ARE FOR REFERENCE ONLY. UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS. COLORS MAY VARY.

**PE PASTERNAK®**  
 an INFINITE® brand

Website: [www.Pasternack.com](http://www.Pasternack.com)  
 Phone: 1.866.727.8376 | 1.949.261.1920

INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5

SCALE NONE SHEET 1 OF 1

DESCRIPTION  
 SMA MALE TO SMPS FEMALE VITA 67.3 CABLE USING PE-047SR COAX

SIZE	CAGE CODE	DRAWN BY	ITEM NO.
A	53919	DMAY	PE3C10820

REV A

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF INFINITE ELECTRONICS, INC. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF INFINITE ELECTRONICS, INC. IS PROHIBITED. THESE COMMODITIES, TECHNOLOGY OR SERVICES ARE EXPORTED FROM THE UNITED STATES IN ACCORDANCE WITH THE EXPORT ADMINISTRATION REGULATIONS. DIVERSION CONTRARY TO U.S. LAW PROHIBITED.

PE DS Rev-04 Add2