

## Fire Rated SMA Male to SMA Male Right Angle Low Loss Cable Using LMR-240-FR Coax with Times Microwave Components



### PE3W16883

#### Configuration

- Connector 1: SMA Male
- Connector 2: SMA Male Right Angle
- Cable Type: LMR-240-FR
- Coax Flex Type: Flexible

#### Features

- Max Frequency 6 GHz
- Shielding Effectivity > 90 dB
- 83% Phase Velocity
- Double Shielded
- FRPE Jacket

#### Applications

- General Purpose
- Laboratory Use

#### Description

Pasternack's PE3W16883 SMA male to SMA male right angle cable using LMR-240-FR 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 SMA to SMA cable assembly has a male to male gender configuration with 50 ohm flexible LMR-240-FR coax. The PE3W16883 SMA male to SMA male cable assembly operates to 6 GHz. The right angle SMA interface on the LMR-240-FR cable allows for easier connections in tight spaces. The double shielding of this Pasternack cable assembly provides excellent shielding effectiveness of better than 90 dB.

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		6	GHz
VSWR			1.4:1	
Velocity of Propagation		83		%
RF Shielding	90			dB
Group Delay		1.21 [3.97]		ns/ft [ns/m]
Capacitance		24.2 [79.4]		pF/ft [pF/m]
Inductance		0.06 [0.2]		uH/ft [uH/m]
DC Resistance Inner Conductor		3.2 [10.5]		Ohms/1000ft [Ohms/Km]
DC Resistance Outer Conductor		3.89 [12.76]		Ohms/1000ft [Ohms/Km]

Fire Rated SMA Male to SMA Male  
Right Angle Low Loss Cable Using LMR-240-FR Coax with Times Microwave Components



## PE3W16883

### Electrical Specifications

Description	Minimum	Typical					Maximum	Units
Jacket Spark						5,000		Vrms

### Specifications by Frequency

Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
		Frequency	250	500	1000	2500	6000	MHz	
PE3W16883	Custom Lengths Available	Insertion Loss (Typ.)	0.039	0.055	0.079	0.129	0.204	dB/ft	
			0.13	0.19	0.26	0.43	0.67	dB/m	
PE3W16883-12	12 Inch	Insertion Loss (Typ.)	0.39	0.41	0.43	0.48	0.56	dB	0.078
PE3W16883-24	24 Inch	Insertion Loss (Typ.)	0.43	0.46	0.51	0.61	0.76	dB	0.117
PE3W16883-36	36 Inch	Insertion Loss (Typ.)	0.47	0.52	0.59	0.74	0.97	dB	0.156
PE3W16883-48	48 Inch	Insertion Loss (Typ.)	0.51	0.57	0.67	0.87	1.17	dB	0.195
PE3W16883-60	60 Inch	Insertion Loss (Typ.)	0.55	0.63	0.75	1	1.37	dB	0.234

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:	0.25 dB
Base Weight:	0.078 pounds
Additional Weight per Inch:	0.15583 pounds

### Mechanical Specifications

#### Cable Assembly

Width/Diameter	0.5 in [12.7 mm]
Weight	0.078 lbs [35.38 g]

#### Cable

Cable Type	LMR-240-FR
Impedance	50 Ohms
Inner Conductor Type	Solid
Inner Conductor Material and Plating	Copper
Dielectric Type	Foam PE
Number of Shields	2
Shield Layer 1	Aluminum Tape
Shield Layer 2	Tinned Copper
Jacket Material	FRPE, Black
Jacket Diameter	0.24 in [6.1 mm]
One Time Minimum Bend Radius	0.75 in [19.05 mm]
Repeated Minimum Bend Radius	2.5 in [63.5 mm]
Bending Moment	0.25 lbs-ft [0.34 N-m]
Flat Plate Crush	20 lbs/in [0.36 Kg/mm]
Tensile Strength	80 lbs [36.29 Kg]

Fire Rated SMA Male to SMA Male  
Right Angle Low Loss Cable Using LMR-240-FR Coax with Times Microwave Components



**PE3W16883**

### Connectors

Description	Connector 1	Connector 2
Type	SMA Male	SMA Male Right Angle
Specification	MIL-STD-348	
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Right Angle
Mating Cycles		500
Contact Material and Plating	Beryllium Copper, Gold	Brass, Gold
Contact Plating Specification	ASTM B488	50 $\mu$ in minimum
Dielectric Type	Teflon	PTFE
Body Material and Plating	Passivated Stainless Steel	Passivated Stainless Steel
Body Plating Specification	SAE-AMS-2700	
Coupling Nut Material and Plating	Passivated Stainless Steel	Passivated Stainless Steel
Coupling Nut Plating Specification	SAE-AMS-2700	
Torque		7 in-lbs 0.79 Nm

### Environmental Specifications

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

### Plotted and Other Data

Notes:

Fire Rated SMA Male to SMA Male  
Right Angle Low Loss Cable Using LMR-240-  
FR Coax with Times Microwave Components

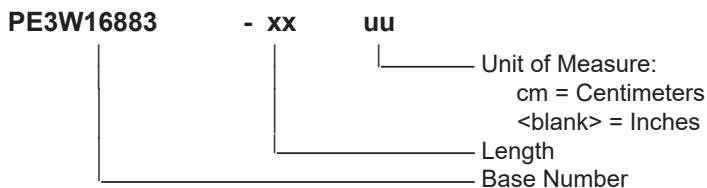


## PE3W16883

### Typical Performance Data

### How to Order

Part Number Configuration:



Example: PE3W16883-12 = 12 inches long cable  
PE3W16883-100cm = 100 cm long cable

Fire Rated SMA Male to SMA Male Right Angle Low Loss Cable Using LMR-240-FR Coax with Times Microwave Components 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.

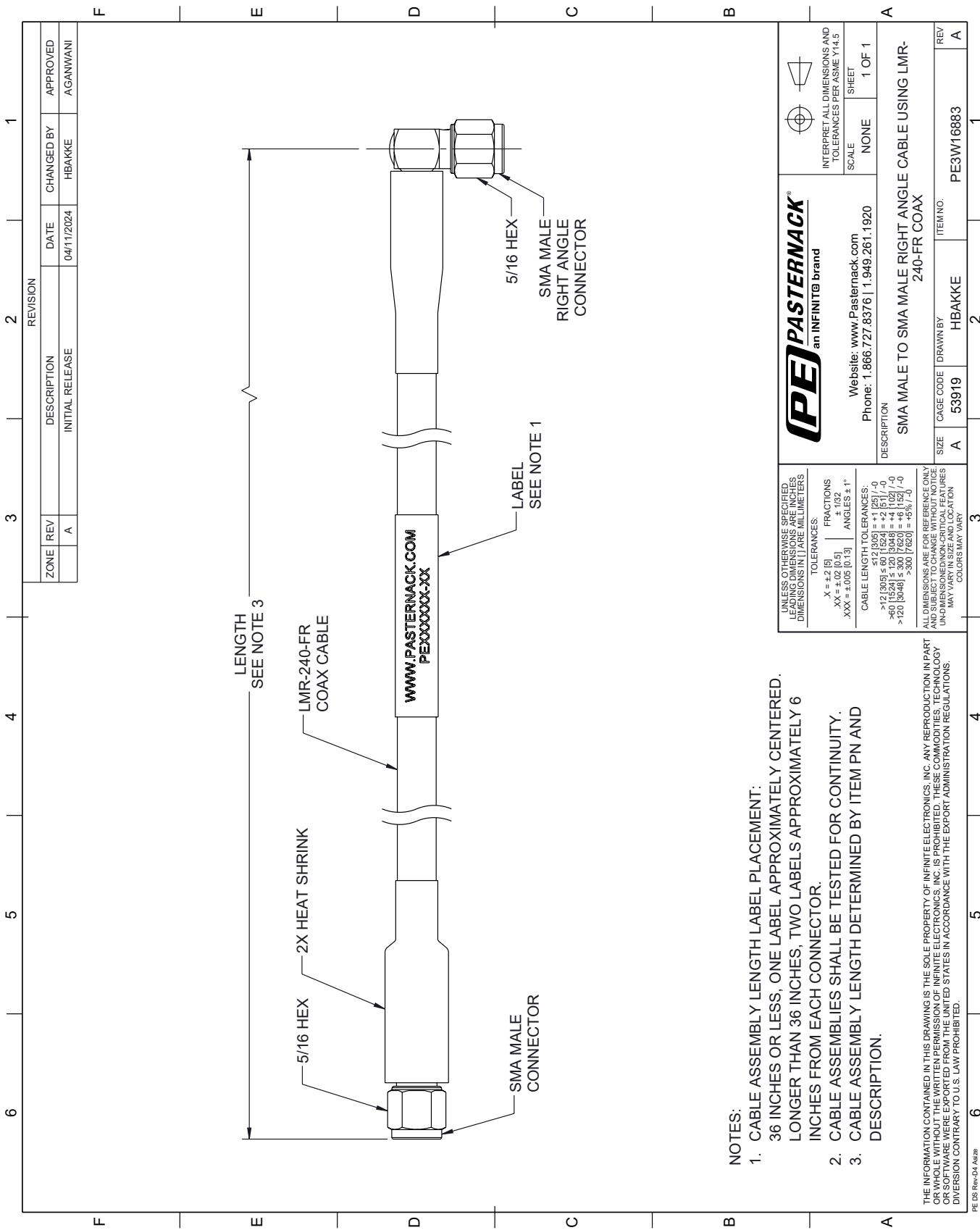
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Fire Rated SMA Male to SMA Male Right Angle Low Loss Cable Using LMR-240-FR Coax with Times Microwave Components PE3W16883](#)

URL: <https://www.pasternack.com/fire-rated-sma-male-to-sma-male-low-loss-cable-using-lmr-240-fr-pe3w16883-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 implement 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.

## PE3W16883 CAD Drawing

## Fire Rated SMA Male to SMA Male Right Angle Low Loss Cable Using LMR-240-FR Coax with Times Microwave Components



**NOTES:**

36 INCHES OR LESS, ONE LABEL APPROXIMATELY CENTERED.  
LONGER THAN 36 INCHES, TWO LABELS APPROXIMATELY 6  
INCHES FROM EACH CONNECTOR.

2. CABLE ASSEMBLIES SHALL BE TESTED FOR CONTINUITY.

3. CABLE ASSEMBLY LENGTH DETERMINED BY ITEM PN AND  
DESCRIPTION

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 SOFTWARE, WHERE EXPORTED FROM THE UNITED STATES, IN ACCORDANCE WITH THE EXPORT ADMINISTRATION REGULATIONS, DIVERSION CONTRARY TO U.S. LAW PROHIBITED.

240-FR COAX					REV A
SIZE A	CAGE CODE 53919	DRAWN BY HBAKKE	ITEM NO. PE3W16883		

© 2023 Infinite Electronics, Inc. Pasternack is a registered trademark of Infinite Electronics, Inc.

+1 (866) 558-2786 | sales@pasternack.com | [pasternack.com](http://pasternack.com)