

Fire Rated MCX Plug to SMA Male Right Angle Low Loss Cable Using LMR-100-FR Coax



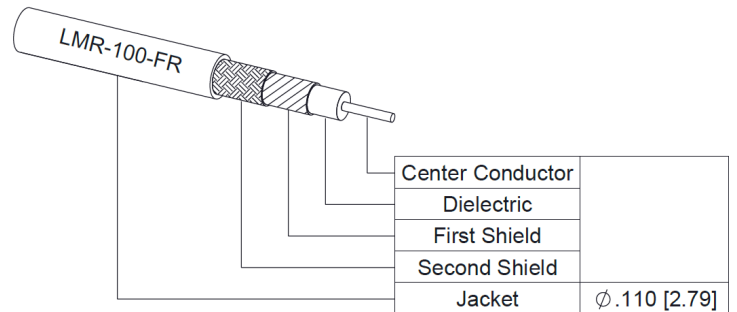
PE3W15837

Configuration

- Connector 1: MCX Plug
- Connector 2: SMA Male Right Angle
- Cable Type: LMR-100A-FR
- Coax Cable Group: 8
- Coax Flex Type: Flexible

Features

- Max Frequency 3 GHz
- Shielding Effectivity > 90 dB
- 66% Phase Velocity
- Double Shielded
- FRPE Jacket



Applications

- General Purpose
- Laboratory Use

Description

Pasternack's PE3W15837 MCX plug to SMA male right angle cable using LMR-100-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 MCX to SMA cable assembly has a plug to male gender configuration with 50 ohm flexible LMR-100A-FR coax. The PE3W15837 MCX plug to SMA male cable assembly operates to 3 GHz. The right angle SMA interface on the LMR-100A-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		3	GHz
VSWR			1.4:1	
Velocity of Propagation		66		%
RF Shielding	90			dB
Group Delay		1.54 [5.05]		ns/ft [ns/m]
Capacitance		30.8 [101.05]		pF/ft [pF/m]
Inductance		0.077 [0.25]		uH/ft [uH/m]
DC Resistance Inner Conductor		81 [265.75]		Ohms/1000ft [Ohms/Km]
DC Resistance Outer Conductor		9.5 [31.17]		Ohms/1000ft [Ohms/Km]

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Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Jacket Spark			2,000	Vrms

Specifications by Frequency

Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
			Frequency					MHz	
PE3W15837	Custom Lengths Available	Insertion Loss (Typ.)	0.07	0.115	0.165	0.24	0.432	dB/ft	
			0.23	0.38	0.55	0.79	1.42	dB/m	
PE3W15837-24	24 Inch	Insertion Loss (Typ.)	0.44	0.53	0.63	0.78	1.17	dB	0.043
PE3W15837-36	36 Inch	Insertion Loss (Typ.)	0.51	0.65	0.8	1.02	1.6	dB	0.052
PE3W15837-48	48 Inch	Insertion Loss (Typ.)	0.58	0.76	0.96	1.26	2.03	dB	0.061
PE3W15837-100CM	100 CM	Insertion Loss (Typ.)	0.53	0.68	0.85	1.09	1.72	dB	0.055
PE3W15837-200CM	200 CM	Insertion Loss (Typ.)	0.76	1.06	1.39	1.88	3.14	dB	0.085

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:	0.2 dB
Base Weight:	0.034 pounds
Additional Weight per Inch:	0.00075 pounds

Mechanical Specifications

Cable Assembly

Width/Diameter	0.5 in [12.7 mm]
Weight	0.034 lbs [15.42 g]

Cable

Cable Type	LMR-100A-FR
Impedance	50 Ohms
Inner Conductor Type	Solid
Inner Conductor Material and Plating	Copper
Dielectric Type	PE
Number of Shields	2
Shield Layer 1	Aluminum Tape
Shield Layer 2	Tinned Copper
Jacket Material	FRPE, Black
Jacket Diameter	0.11 in [2.79 mm]
One Time Minimum Bend Radius	0.25 in [6.35 mm]
Repeated Minimum Bend Radius	1 in [25.4 mm]
Bending Moment	0.1 lbs-ft [0.14 N-m]
Flat Plate Crush	10 lbs/in [0.18 Kg/mm]
Tensile Strength	15 lbs [6.8 Kg]

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Connectors

Description	Connector 1	Connector 2
Type	MCX Plug	SMA Male Right Angle
Specification	CECC 22220	MIL-STD-348A
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Right Angle
Contact Material and Plating	Brass, Gold	Brass, Gold
Contact Plating Specification	30 µin minimum	50 µin minimum
Dielectric Type	PTFE	PTFE
Body Material and Plating	Brass, Nickel	Brass, Nickel
Body Plating Specification	100 µin minimum	100 µin minimum
Coupling Nut Material and Plating		Brass, Nickel
Coupling Nut Plating Specification		100 µin minimum
Hex Size		5/16 inch
Torque		3 in-lbs 0.34 Nm

Environmental Specifications

Operating Range Temperature -40 to +85 deg C

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

Plotted and Other Data

Notes:

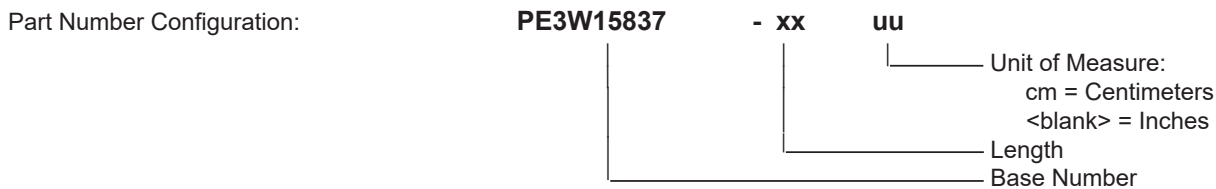
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Typical Performance Data

How to Order



Example: PE3W15837-12 = 12 inches long cable
PE3W15837-100cm = 100 cm long cable

Fire Rated MCX Plug to SMA Male Right Angle Low Loss Cable Using LMR-100-FR 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.

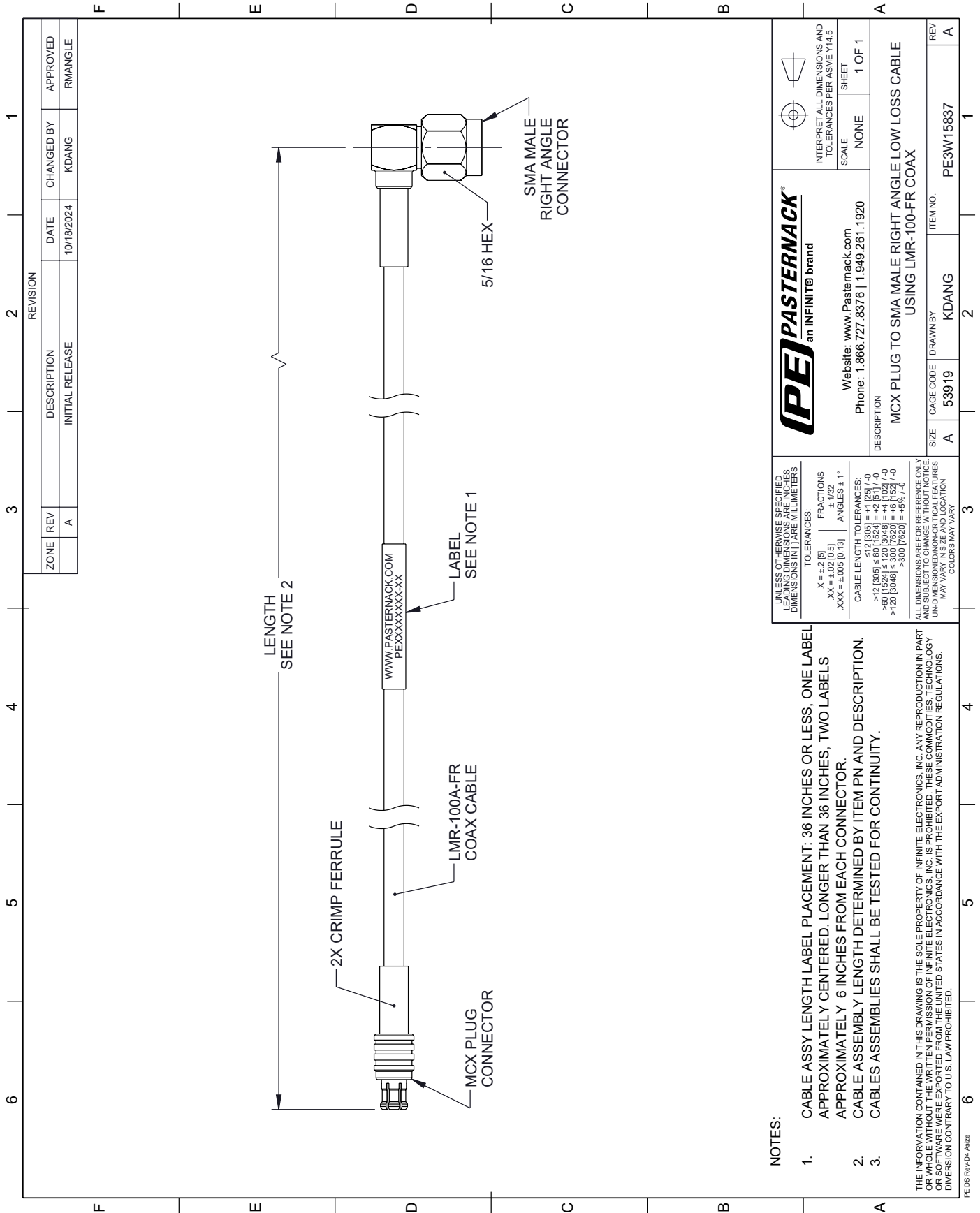
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Fire Rated MCX Plug to SMA Male Right Angle Low Loss Cable Using LMR-100-FR Coax PE3W15837](https://www.pasternack.com/fire-rated-mcx-plug-to-sma-male-right-angle-low-loss-cable-using-lmr-100-fr-pe3w15837)

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PE3W15837 CAD Drawing

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NOTES:

1. CABLE ASSY LENGTH LABEL PLACEMENT: 36 INCHES OR LESS, ONE LABEL APPROXIMATELY CENTERED. LONGER THAN 36 INCHES, TWO LABELS APPROXIMATELY 6 INCHES FROM EACH CONNECTOR.
2. CABLE ASSEMBLY LENGTH DETERMINED BY ITEM PN AND DESCRIPTION.
3. CABLES ASSEMBLIES SHALL BE TESTED FOR CONTINUITY.

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TOLERANCES:	FRACTIONS
.X = ±.2 [5]	± 1/32
.XX = ±.02 [0.5]	± 1/64
.XXX = ±.005 [0.13]	ANGLES ± 1°
CABLE LENGTH TOLERANCES:	
>12 [305] ≤ 60 [1524] = +1 [25] / -0	
>60 [1524] ≤ 120 [3048] = +4 [102] / -0	
>120 [3048] ≤ 300 [7620] = +5 [127] / -0	
>300 [7620] = +5 [127] / -0	
ALL DIMENSIONS ARE FOR REFERENCE ONLY UNLESS OTHERWISE SPECIFIED. DIMENSIONS ON CRITICAL FEATURES MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY.	

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Website: www.Pasternack.com Phone: 1.866.727.8376 1.949.261.1920		
DESCRIPTION MCX PLUG TO SMA MALE RIGHT ANGLE LOW LOSS CABLE USING LMR-100-FR COAX		
SIZE A	CAGE CODE 53919	DRAWN BY KDANG
REV A	ITEM NO. PE3W15837	