



MCX Plug to SMA Female Cable 36 Inch Length  
Using LMR-100 Coax , LF Solder

RF Cable Assemblies Technical Data Sheet

PE3W08203LF-36

### Configuration

- Connector 1: MCX Plug
- Connector 2: SMA Female
- Cable Type: LMR-100A

### Features

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



### Applications

- General Purpose
- Laboratory Use

### Description

Pasternack's PE3W08203LF-36 MCX plug to SMA female 36 inch cable using LMR-100 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 female gender configuration with 50 ohm flexible LMR-100A coax. The PE3W08203LF-36 MCX plug to SMA female cable assembly operates to 3 GHz. 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.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [MCX Plug to SMA Female Cable 36 Inch Length Using LMR-100 Coax , LF Solder PE3W-08203LF-36](#)



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#### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		3	GHz
VSWR			1.45:1	
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]		Ω/1000ft [Ω/Km]
DC Resistance Outer Conductor		9.5 [31.17]		Ω/1000ft [Ω/Km]
Jacket Spark			2,000	Vrms

#### Specifications by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency	0.1	0.25	0.5	1	3	GHz
Insertion Loss (Max.)	0.38	0.41	0.5	0.65	1.25	dB

#### Electrical Specification Notes:

The Insertion Loss data above is based on the performance specifications of the coax used in this assembly. Insertion Loss is estimated as 0.1 dB per connector.

#### Mechanical Specifications

##### Cable Assembly

Length*	36 in [914.4 mm]
Diameter	0.312 in [7.92 mm]

##### Cable

Cable Type	LMR-100A
Impedance	50 Ohms
Inner Conductor Type	Solid
Inner Conductor Material and Plating	Copper Clad Steel
Dielectric Type	PE
Number of Shields	2
Shield Layer 1	Aluminum Tape
Shield Layer 2	Tinned Copper Braid
Jacket Material	PVC, Black
Jacket Diameter	0.11 in [2.79 mm]

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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]

**Connectors**

Description	Connector 1	Connector 2
Type	MCX Plug	SMA Female
Specification	CECC 22220	MIL-STD-348
Impedance	50 Ohms	50 Ohms
Contact Material and Plating	Brass, Gold	Gold
Contact Plating Specification	30 µin minimum	MIL-G-45204
Dielectric Type	PTFE	PTFE
Body Material and Plating	Brass, Nickel	Brass, Nickel
Body Plating Specification	100 µin minimum	QQ-N-290

**Environmental Specifications**

**Temperature**

Operating Range -40 to +85 deg C

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

**Plotted and Other Data**

Notes:

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### RF Cable Assemblies Technical Data Sheet

PE3W08203LF-36

#### How to Order

Part Number Configuration:

**PE3W08203LF**

- **xx**

**uu**

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

Example: PE3W08203LF-12 = 12 inches long cable  
PE3W08203LF-100cm = 100 cm long cable

MCX Plug to SMA Female Cable 36 Inch Length Using LMR-100 Coax , LF Solder 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.

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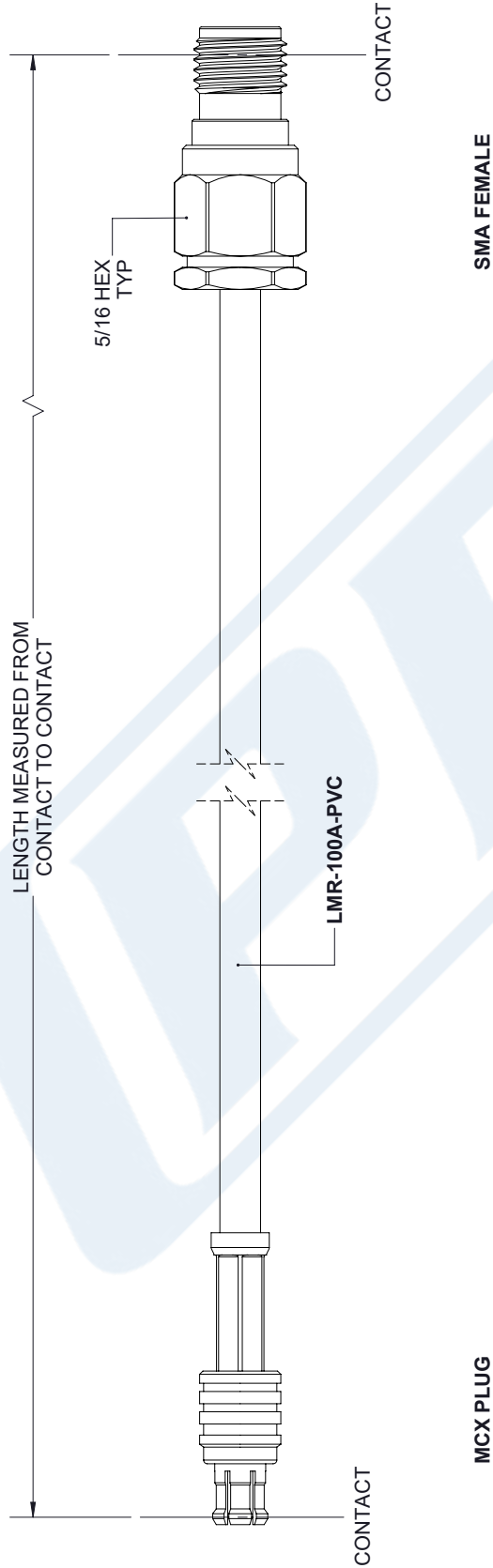
URL:

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.

# PE3W08203LF-36 CAD Drawing

MCX Plug to SMA Female Cable 36 Inch Length Using LMR-100 Coax , LF Solder

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	8/20/2020	SELLIS



<p>UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [ ] ARE MILLIMETERS</p> <p>TOLERANCES:</p> <table border="1"> <tr> <td>.X = ± .2</td> <td>[.08]</td> <td>FRACTIONS</td> </tr> <tr> <td>.XX = ± .02</td> <td>[.51]</td> <td>± 1/32</td> </tr> <tr> <td>.XXX = ± .005</td> <td>[.13]</td> <td>ANGLES ± 1°</td> </tr> </table> <p>CABLE LENGTH (L) TOLERANCES:</p> <table border="1"> <tr> <td>L ≤ 12 [305]</td> <td>± .1 [25]</td> <td>/ -0</td> </tr> <tr> <td>12 [305] &lt; L ≤ 60 [1524]</td> <td>± .2 [51]</td> <td>/ -0</td> </tr> <tr> <td>60 [1524] &lt; L ≤ 120 [3048]</td> <td>± .4 [102]</td> <td>/ -0</td> </tr> <tr> <td>120 [3048] &lt; L ≤ 300 [7620]</td> <td>± .6 [152]</td> <td>/ -0</td> </tr> <tr> <td>300 [7620] &lt; L</td> <td>± .5% L</td> <td>/ -0</td> </tr> </table> <p>ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.</p>		.X = ± .2	[.08]	FRACTIONS	.XX = ± .02	[.51]	± 1/32	.XXX = ± .005	[.13]	ANGLES ± 1°	L ≤ 12 [305]	± .1 [25]	/ -0	12 [305] < L ≤ 60 [1524]	± .2 [51]	/ -0	60 [1524] < L ≤ 120 [3048]	± .4 [102]	/ -0	120 [3048] < L ≤ 300 [7620]	± .6 [152]	/ -0	300 [7620] < L	± .5% L	/ -0	<p>THIRD-ANGLE PROJECTION</p> <p>THE INFORMATION AND DESIGN IN THIS DOCUMENT IS THE PROPERTY OF PASTERNAK CORPORATION ALL RIGHTS RESERVED.</p> <p>SHEET 1 OF 1</p> <p>SCALE N/A</p>	
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<p><b>PASTERNACK</b> an INFINITI brand</p> <p>Pasternack Enterprises, Inc. P.O. Box 16759, Irvine, CA 92623. Phone: 1.949.261.1920   1.866.727.8376 Fax: 1.949.261.7451 Website: www.pasternack.com E-mail: sales@pasternack.com</p>		<p>SIZE A CAGE CODE A 53919 DRAWN BY K.DANG ITEM NO. PE3W08203LF REV A</p>																									

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