



Fire Rated SMA Male to SMA Male Low Loss Cable Using LMR-200-FR Coax With Times Microwave Components

RF Cable Assemblies Technical Data Sheet

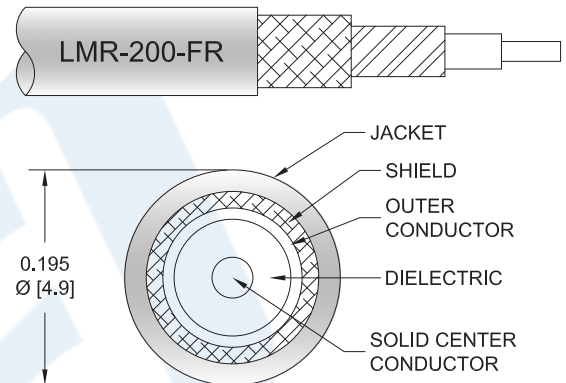
PE3C5990

Configuration

- Connector 1: SMA Male
- Connector 2: SMA Male
- Cable Type: LMR-200-FR

Features

- Max Frequency 5.8 GHz
- Shielding Effectivity > 90 dB
- 83% Phase Velocity
- Double Shielded
- FRPE Jacket



Applications

- General Purpose
- Laboratory Use

Description

Pasternack's PE3C5990 SMA male to SMA male cable using LMR-200-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-200-FR coax. The PE3C5990 SMA male to SMA male cable assembly operates to 5.8 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: [Fire Rated SMA Male to SMA Male Low Loss Cable Using LMR-200-FR Coax With Times Microwave Components PE3C5990](#)



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Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		5.8	GHz
VSWR			1.4:1	
Velocity of Propagation		83		%
RF Shielding	90			dB
Group Delay		1.22 [4]		ns/ft [ns/m]
Capacitance		24.5 [80.38]		pF/ft [pF/m]
Inductance		0.061 [0.2]		uH/ft [uH/m]
DC Resistance Inner Conductor		5.36 [17.59]		Ω /1000ft [Ω /Km]
DC Resistance Outer Conductor		4.9 [16.08]		Ω /1000ft [Ω /Km]
Jacket Spark			3,000	Vrms

Specifications by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency	0.25	0.5	1	2.5	5.8	GHz
Insertion Loss (Typ.)	0.05	0.073	0.1	0.17	0.26	dB/ft
	0.16	0.24	0.33	0.56	0.85	dB/m

Electrical Specification Notes:

Insertion Loss does not include the loss of the connectors. Insertion Loss is estimated as 0.1 dB per connector.

Mechanical Specifications

Cable Assembly

Weight 0.1 lbs [45.36 g]

Cable

Cable Type LMR-200-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 Braid
 Jacket Material FRPE, Black
 Jacket Diameter 0.195 in [4.95 mm]

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 Low Loss Cable Using LMR-200-FR Coax With Times Microwave Components PE3C5990](#)



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One Time Minimum Bend Radius	0.5 in [12.7 mm]
Repeated Minimum Bend Radius	2 in [50.8 mm]
Bending Moment	2 lbs-ft [2.71 N-m]
Flat Plate Crush	15 lbs/in [0.27 Kg/mm]
Tensile Strength	40 lbs [18.14 Kg]

Connectors

Description	Connector 1	Connector 2
Type	SMA Male	SMA Male
Specification	MIL-STD-348	MIL-STD-348
Impedance	50 Ohms	50 Ohms
Contact Material and Plating	Beryllium Copper, Gold	Beryllium Copper, Gold
Contact Plating Specification	ASTM B488	ASTM B488
Dielectric Type	Teflon	Teflon
Body Material and Plating	Passivated Stainless Steel	Passivated Stainless Steel
Body Plating Specification	SAE-AMS-2700	SAE-AMS-2700
Coupling Nut Material and Plating	Passivated Stainless Steel	Passivated Stainless Steel
Coupling Nut Plating Specification	SAE-AMS-2700	SAE-AMS-2700
Hex Size	5/16 Inch	5/16 Inch

Environmental Specifications

Temperature

Operating Range -40 to +125 deg C

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

Plotted and Other Data

Notes:

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 Low Loss Cable Using LMR-200-FR Coax With Times Microwave Components PE3C5990](#)



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PE3C5990

How to Order

Part Number Configuration:

PE3C5990

- **xx**

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

Example: PE3C5990-12 = 12 inches long cable
PE3C5990-100cm = 100 cm long cable

Fire Rated SMA Male to SMA Male Low Loss Cable Using LMR-200-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.

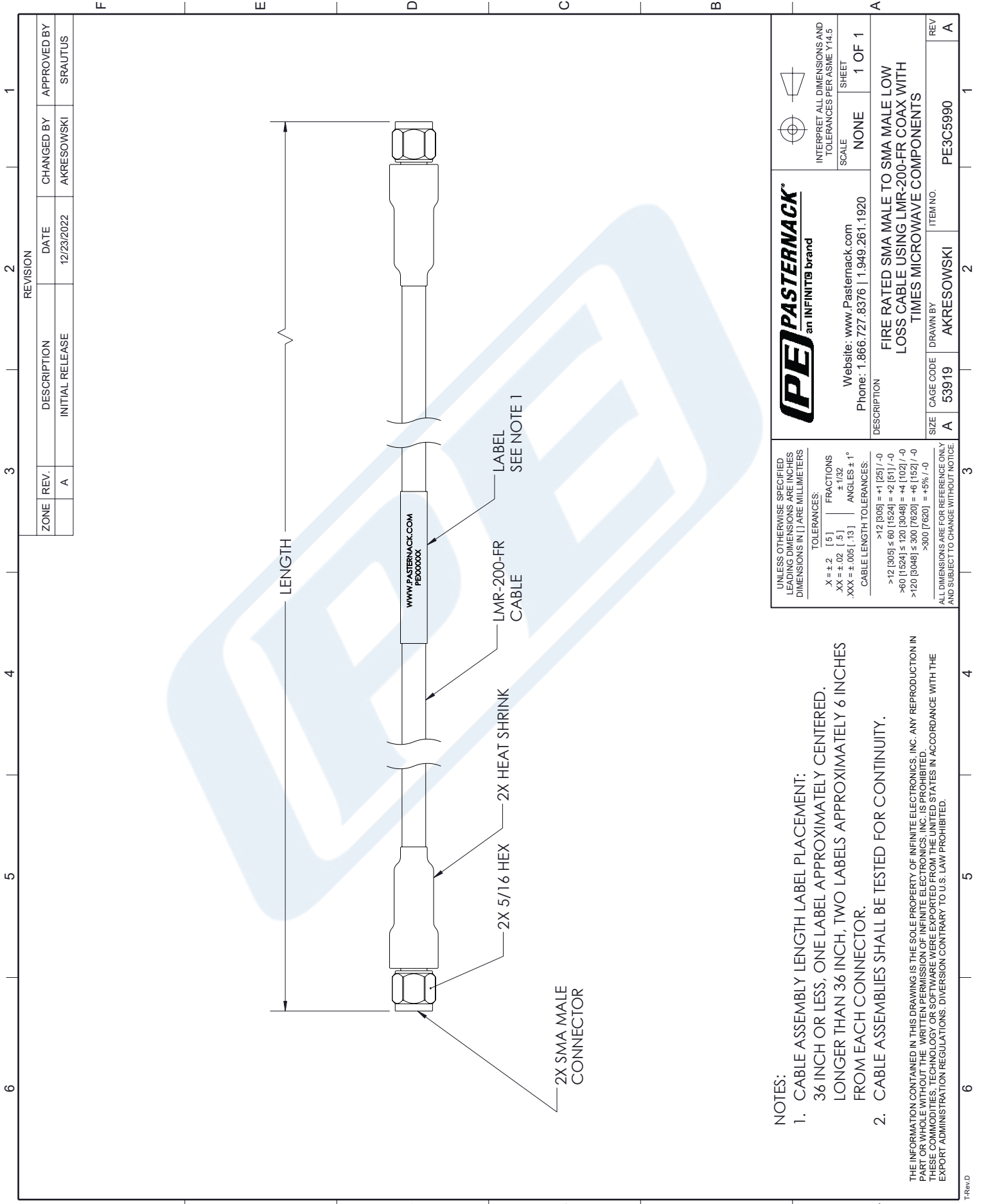
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URL: <https://www.pasternack.com/fire-rated-sma-male-to-sma-male-low-loss-cable-using-lmr-200-fr-pe3c5990-p.aspx>

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PE3C5990 CAD Drawing

Fire Rated SMA Male to SMA Male Low Loss Cable Using LMR-200-FR Coax With Times Microwave Components



- NOTES:**
- CABLE ASSEMBLY LENGTH LABEL PLACEMENT: 36 INCH OR LESS, ONE LABEL APPROXIMATELY CENTERED, LONGER THAN 36 INCH, TWO LABELS APPROXIMATELY 6 INCHES FROM EACH CONNECTOR.
 - CABLE ASSEMBLIES SHALL BE TESTED FOR CONTINUITY.

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UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [] ARE MILLIMETERS	
TOLERANCES:	
X = ± .2 [.5]	FRACTIONS ± 1/32
.XX = ± .02 [.5]	ANGLES ± 1°
.XXX = ± .005 [.13]	CABLE LENGTH TOLERANCES:
	>12 [305] = +1 [25] / -0
	>60 [1524] = +2 [51] / -0
	>60 [1524] ≤ 120 [3048] = +4 [102] / -0
	>120 [3048] ≤ 300 [7620] = +6 [152] / -0
	>300 [7620] = +5% / -0
ALL DIMENSIONS ARE FOR REFERENCE ONLY AND SUBJECT TO CHANGE WITHOUT NOTICE	

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Website: www.Pasternack.com
Phone: 1.866.727.8376 | 1.949.261.1920

DESCRIPTION: FIRE RATED SMA MALE TO SMA MALE LOW LOSS CABLE USING LMR-200-FR COAX WITH TIMES MICROWAVE COMPONENTS

SCALE: NONE
SHEET: 1 OF 1

INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5

SIZE	CAGE CODE	DRAWN BY	ITEM NO.	REV
A	53919	AKRESOWSKI	PE3C5990	A

REVISION		DATE	CHANGED BY	APPROVED BY		
ZONE	REV.	DESCRIPTION	INITIAL RELEASE	12/23/2022	AKRESOWSKI	SRAUTUS
	A					