

Fire Rated SMA Female to SMA Male Low Loss Cable
Using LMR-195-FR Coax with HeatShrink



RF Cable Assemblies Technical Data Sheet

PE3W04116/HS

Configuration

- Connector 1: SMA Female
- Connector 2: SMA Male
- Cable Type: LMR-195-FR

Features

- Max Frequency 5.8 GHz
- Shielding Effectivity > 90 dB
- 76% Phase Velocity
- Double Shielded
- FRPE Jacket

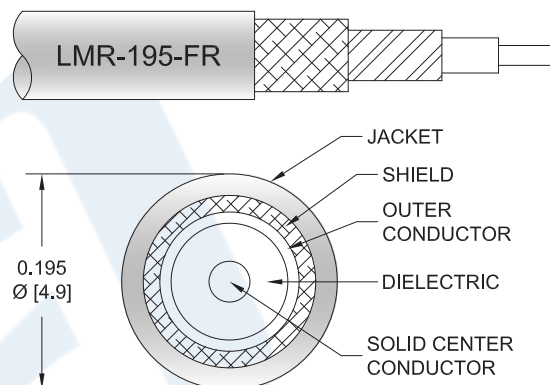
Applications

- General Purpose
- Laboratory Use

Description

Pasternack's PE3W04116/HS SMA female to SMA male cable using LMR-195-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 female to male gender configuration with 50 ohm flexible LMR-195-FR coax. The PE3W04116/HS SMA female 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 Female to SMA Male Low Loss Cable Using LMR-195-FR Coax with Heat-Shrink PE3W04116/HS](#)



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Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		5.8	GHz
VSWR			1.4:1	
Velocity of Propagation		76		%
RF Shielding	90			dB
Group Delay		1.27 [4.17]		ns/ft [ns/m]
Capacitance		25.4 [83.33]		pF/ft [pF/m]
Inductance		0.064 [0.21]		uH/ft [uH/m]
DC Resistance Inner Conductor		7.6 [24.93]		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.)	0.057	0.081	0.116	0.19	0.299	dB/ft
	0.19	0.27	0.38	0.62	0.98	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 0.046 lbs [20.87 g]

Cable

Cable Type LMR-195-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]

One Time Minimum Bend Radius 0.5 in [12.7 mm]

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Repeated Minimum Bend Radius	2 in [50.8 mm]
Bending Moment	0.2 lbs-ft [0.27 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 Female	SMA Male
Specification		MIL-STD-348A
Impedance	50 Ohms	50 Ohms
Contact Material and Plating	Beryllium Copper, Gold	Brass, Gold
Contact Plating Specification	50µ in. minimum	50 µin minimum
Dielectric Type	PTFE	PTFE
Body Material and Plating	Brass, Nickel	Brass, Nickel
Body Plating Specification	100µ in. 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

Temperature

Operating Range	-40 to +85 deg C
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Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:

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RF Cable Assemblies Technical Data Sheet

PE3W04116/HS

How to Order

Part Number Configuration:

PE3W04116/HS

- **xx**

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

Example: PE3W04116/HS-12 = 12 inches long cable
PE3W04116/HS-100cm = 100 cm long cable

Fire Rated SMA Female to SMA Male Low Loss Cable Using LMR-195-FR Coax with HeatShrink 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.

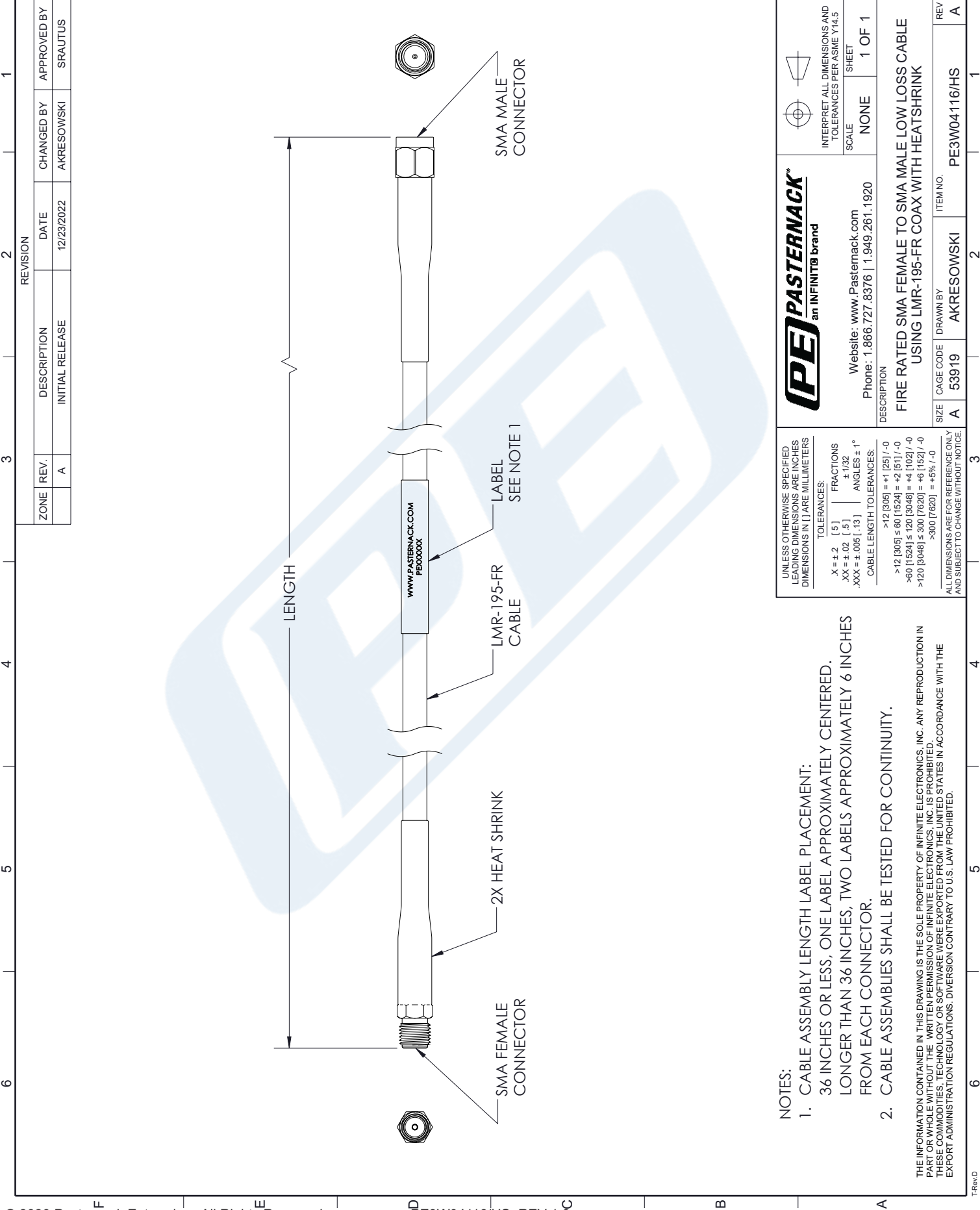
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Fire Rated SMA Female to SMA Male Low Loss Cable Using LMR-195-FR Coax with HeatShrink PE3W04116/HS](https://www.pasternack.com/fire-rated-sma-female-to-sma-male-low-loss-cable-using-lmr-195-fr-with-heatshrink-pe3w04116-hs)

URL: <https://www.pasternack.com/fire-rated-sma-female-to-sma-male-low-loss-cable-using-lmr-195-fr-with-heatshrink-pe3w04116-hs-p.aspx>

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PE3W04116/HS CAD Drawing

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NOTES:

1. CABLE ASSEMBLY 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 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
.XX = ± .02 [.5]	± 1/32
.XXX = ± .005 [.13]	ANGLES ± 1°
CABLE LENGTH TOLERANCES:	
>12 [305] = +1 [25] / -0	
>12 [305] ≤ 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	

 <div>Website: www.Pasternack.com Phone: 1.866.727.8376 1.949.261.1920</div>		 <div>INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5</div>		SHEET 1 OF 1	
DESCRIPTION FIRE RATED SMA FEMALE TO SMA MALE LOW LOSS CABLE USING LMR-195-FR COAX WITH HEATSHRINK		SCALE NONE			
SIZE A	CAGE CODE 53919	DRAWN BY AKRESOWSKI	ITEM NO. PE3W04116/HS	REV A	