

Fire Rated SMB Plug to SMB Plug Low Loss Cable
Using LMR-100-FR Coax with HeatShrink, LF Solder



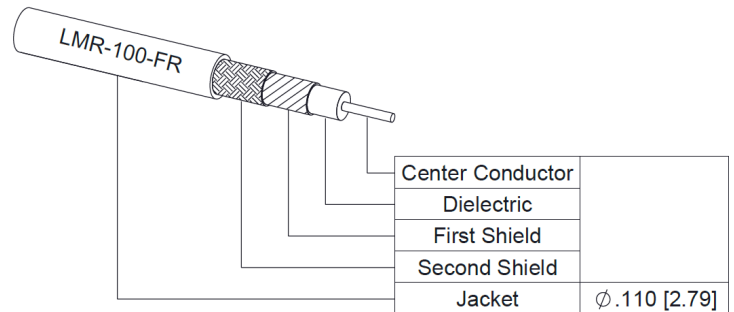
PE3W19083LF/HS

Configuration

- Connector 1: SMB Plug
- Connector 2: SMB Plug
- Cable Type: LMR-100A-FR
- 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 PE3W19083LF/HS SMB plug to SMB plug 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 SMB to SMB cable assembly has a plug to plug gender configuration with 50 ohm flexible LMR-100A-FR coax. The PE3W19083LF/HS SMB plug to SMB plug 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.

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 | |
| PE3W19083LF/HS | 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 | |
| PE3W19083LF/HS-24 | 24 In | Insertion Loss (Typ.) | 0.34 | 0.43 | 0.53 | 0.68 | 1.07 | dB | 0.042 |
| PE3W19083LF/HS-36 | 36 In | Insertion Loss (Typ.) | 0.41 | 0.55 | 0.7 | 0.92 | 1.5 | dB | 0.051 |
| PE3W19083LF/HS-48 | 48 In | Insertion Loss (Typ.) | 0.48 | 0.66 | 0.86 | 1.16 | 1.93 | dB | 0.06 |
| PE3W19083LF/HS-100CM | 100 CM | Insertion Loss (Typ.) | 0.43 | 0.58 | 0.75 | 0.99 | 1.62 | dB | 0.054 |
| PE3W19083LF/HS-200CM | 200 CM | Insertion Loss (Typ.) | 0.66 | 0.96 | 1.29 | 1.78 | 3.04 | dB | 0.084 |

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: | 0.1 dB |
| Base Weight: | 0.033 pounds |
| Additional Weight per Inch: | 0.00075 pounds |

Mechanical Specifications

Cable Assembly

| | |
|----------------|---------------------|
| Width/Diameter | 0.5 in [12.7 mm] |
| Weight | 0.024 lbs [10.89 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 | SMB Plug | SMB Plug |
| Specification | MIL-STD-348A | MIL-STD-348A |
| Impedance | 50 Ohms | 50 Ohms |
| Configuration | Straight | Straight |
| Contact Material and Plating | Beryllium Copper, Gold | Beryllium Copper, Gold |
| Contact Plating Specification | 30 µin minimum | 30 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 | Brass, Nickel |
| Coupling Nut Plating Specification | 100 µin minimum | 100 µin minimum |

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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PE3W19083LF/HS

Typical Performance Data

How to Order

Part Number Configuration:

PE3W19083LF/HS - xx uu



Example: PE3W19083LF/HS-12 = 12 inches long cable
PE3W19083LF/HS-100cm = 100 cm long cable

Fire Rated SMB Plug to SMB Plug Low Loss Cable Using LMR-100-FR Coax with HeatShrink, 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.

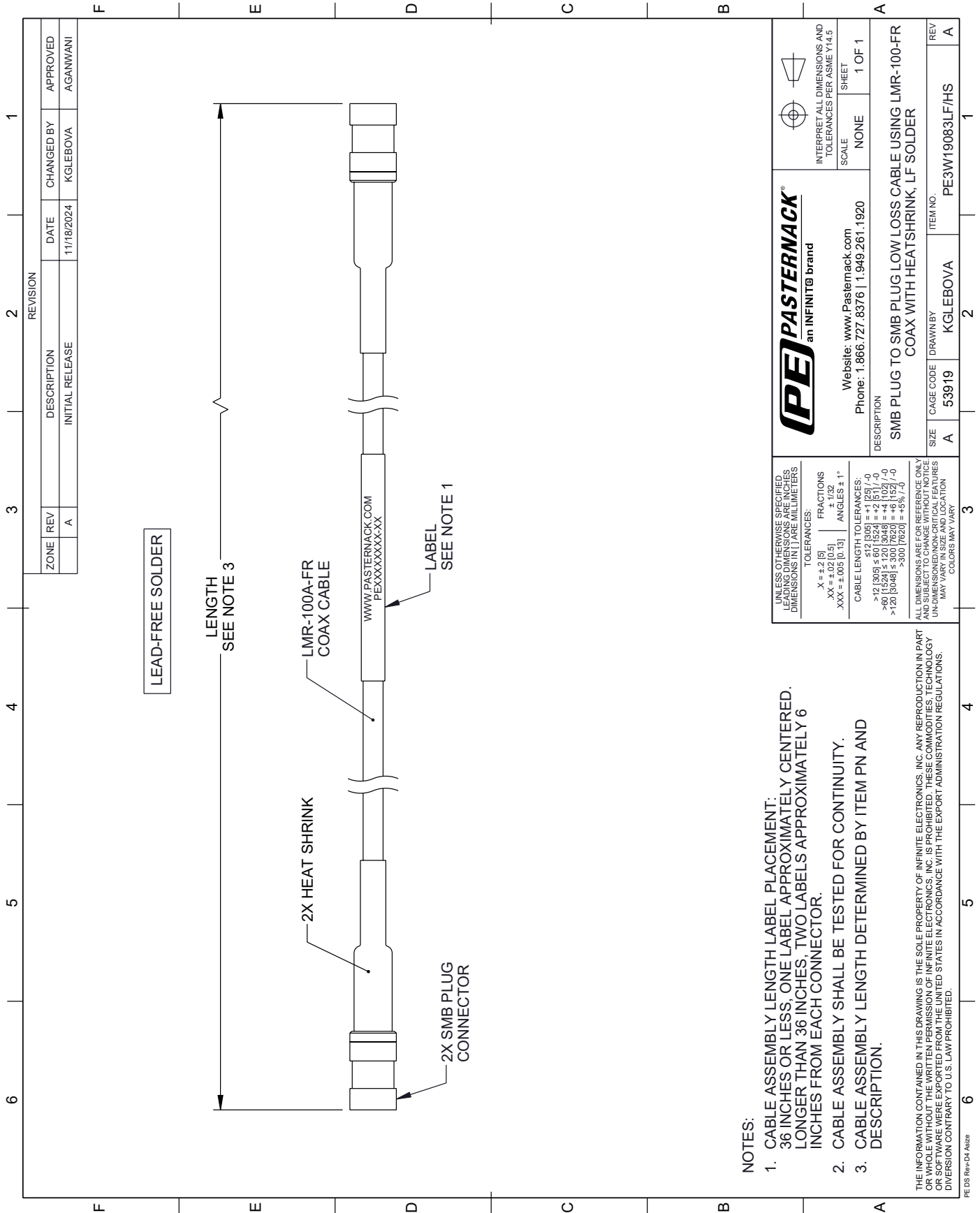
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Fire Rated SMB Plug to SMB Plug Low Loss Cable Using LMR-100-FR Coax with HeatShrink, LF Solder PE3W19083LF/HS](#)

URL: <https://www.pasternack.com/fire-rated-smb-plug-to-smb-plug-low-loss-cable-using-lmr-100-fr-with-heatshrink-lf-solder-pe3w19083lf-hs-p.aspx>

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PE3W19083LF/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 ASSEMBLY SHALL BE TESTED FOR CONTINUITY.
 3. CABLE ASSEMBLY LENGTH DETERMINED BY ITEM PN AND DESCRIPTION.

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|  PASTERNAK an INFINIT [®] brand | | Website: www.Pasternack.com Phone: 1.866.727.8376 1.949.261.1920 |
| UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN PAREMILLIMETERS | | INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5 |
| TOLERANCES: .X = ±.2 [5] FRACTIONS ± 1/32 .XX = ±.02 [0.5] ANGLES ± 1° .XXX = ±.005 [0.13] | | SCALE NONE SHEET 1 OF 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 | | DESCRIPTION SMB PLUG TO SMB PLUG LOW LOSS CABLE USING LMR-100-FR COAX WITH HEATSHRINK, LF SOLDER |
| ALL DIMENSIONS ARE FOR REFERENCE ONLY UNLESS OTHERWISE SPECIFIED. DIMENSIONS ON CRITICAL FEATURES MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY. | | ITEM NO. PE3W19083LF/HS DRAWN BY KGLEBOVA |