# Reverse Polarity SMA Plug to SMA Male Low Loss Cable Using LMR-LW240 Coax, LF Solder

## PE3W16242LF

### Configuration

- Connector 1:  SMA Plug Reverse Polarity
- Connector 2:  SMA Male
- Cable Type: LMR-LW240
- Coax Flex Type: Flexible

### Features

- Max Frequency 8 GHz
- Shielding Effectivity > 90 dB
- 83% Phase Velocity
- Double Shielded
- PE Jacket

### Applications

- General Purpose
- Laboratory Use

### Description

Pasternack's PE3W16242LF reverse polarity SMA plug to SMA male cable using LMR-LW240 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 reverse polarity SMA to SMA cable assembly has a plug to male gender configuration with 50 ohm flexible LMR-LW240 coax. The PE3W16242LF reverse polarity SMA plug to SMA male cable assembly operates to 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.

### Electrical Specifications

| Description | Minimum | Typical | Maximum | Units |
|---|---|---|---|---|
| Frequency Range | DC | | 8 | GHz |
| VSWR | | | 1.4:1 | |
| Velocity of Propagation | | 83 | | % |
| RF Shielding | 90 | | | dB |
| Group Delay | | 1.21 [3.97] | | ns/ft [ns/m] |
| Capacitance | | 24.2 [79.4] | | pF/ft [pF/m] |
| Inductance | | 0.06 [0.2] | | uH/ft [uH/m] |
| DC Resistance Inner Conductor | | 3.2 [10.5] | | Ohms/1000ft [Ohms/Km] |
| DC Resistance Outer Conductor | | 14.4 [47.24] | | Ohms/1000ft [Ohms/Km] |
| Jacket Spark | | | 5,000 | Vrms |

### Specifications by Frequency





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## PE3W16242LF

| Part Number | Length | Description | F1 | F2 | F3 | F4 | F5 | Units | Weight (lbs) |
|---|---|---|---|---|---|---|---|---|---|
| | | Frequency | 500 | 1000 | 2000 | 4000 | 8000 | MHz | |
| PE3W16242LF | Custom Lengths Available | Insertion Loss (Typ.) | 0.056 | 0.08 | 0.115 | 0.117 | 0.163 | dB/ft | |
| | | | 0.19 | 0.27 | 0.38 | 0.39 | 0.54 | dB/m | |
| PE3W16242LF-12 | 12 inch | Insertion Loss (Typ.) | 0.26 | 0.28 | 0.32 | 0.32 | 0.37 | dB | 0.052 |
| PE3W16242LF-24 | 24 inch | Insertion Loss (Typ.) | 0.32 | 0.36 | 0.43 | 0.44 | 0.53 | dB | 0.078 |
| PE3W16242LF-36 | 36 inch | Insertion Loss (Typ.) | 0.37 | 0.44 | 0.55 | 0.56 | 0.69 | dB | 0.103 |
| PE3W16242LF-48 | 48 inch | Insertion Loss (Typ.) | 0.43 | 0.52 | 0.66 | 0.67 | 0.86 | dB | 0.128 |
| PE3W16242LF-60 | 60 inch | Insertion Loss (Typ.) | 0.48 | 0.6 | 0.78 | 0.79 | 1.02 | dB | 0.153 |

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: | 0.052 | pounds |
| Additional Weight per Inch: | 0.00209 | pounds |

### Mechanical Specifications

**Cable Assembly**

| | |
|---|---|
| Width/Diameter | 0.5 in [12.7 mm] |
| Weight | 0.052 lbs [23.59 g] |

**Cable**

| | |
|---|---|
| Cable Type | LMR-LW240 |
| Impedance | 50 Ohms |
| Inner Conductor Type | Solid |
| Inner Conductor Material and Plating | Copper |
| Dielectric Type | Foam PE |
| Number of Shields | 2 |
| Shield Layer 1 | Aluminum Tape |
| Shield Layer 2 | Aluminum |
| Jacket Material | PE, Black |
| Jacket Diameter | 0.24 in [6.1 mm] |
| One Time Minimum Bend Radius | 0.75 in [19.05 mm] |
| Repeated Minimum Bend Radius | 2.5 in [63.5 mm] |
| Bending Moment | 0.25 lbs-ft [0.34 N-m] |
| Flat Plate Crush | 20 lbs/in [0.36 Kg/mm] |
| Tensile Strength | 80 lbs [36.29 Kg] |

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### Connectors

| Description | Connector 1 | Connector 2 |
|---|---|---|
| Type | SMA Plug Reverse Polarity | SMA Male |
| Impedance | 50 Ohms | 50 Ohms |
| Configuration | Straight | Straight |
| Mating Cycles | | 500 |
| Contact Material and Plating | Beryllium Copper, Gold | Brass, Gold |
| Dielectric Type | PTFE | PTFE |
| Body Material and Plating | Brass, Gold | Brass, Gold |
| Coupling Nut Material and Plating | Brass, Gold | Brass, Gold |
| Hex Size | 5/16 inch | 5/16 inch |
| Torque | 3 in-lbs 0.34 Nm | 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:

# Reverse Polarity SMA Plug to SMA Male Low Loss Cable Using LMR-LW240 Coax, LF Solder

## PE3W16242LF

### Typical Performance Data

### How to Order

Part Number Configuration: **PE3W16242LF - xx uu**

- uu — Unit of Measure:
  - cm = Centimeters
  - <blank> = Inches
- xx — Length
- PE3W16242LF — Base Number

Example: PE3W16242LF-12 = 12 inches long cable
PE3W16242LF-100cm = 100 cm long cable

Reverse Polarity SMA Plug to SMA Male Low Loss Cable Using LMR-LW240 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.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: Reverse Polarity SMA Plug to SMA Male Low Loss Cable Using LMR-LW240 Coax, LF Solder PE3W16242LF

URL: https://www.pasternack.com/reverse-polarity-sma-plug-to-sma-male-low-loss-cable-using-lmr-lw240-lf-solder-pe3w16242lf-p.aspx

# PE3W16242LF CAD Drawing

Reverse Polarity SMA Plug to SMA Male Low Loss Cable Using LMR-LW240 Coax, LF Solder