

SMA Male to Blue FAKRA Jack Low Loss Cable Using LMR-100 Coax



PE3W04244

Configuration

- Connector 1: SMA Male
- Connector 2: FAKRA Jack
- Cable Type: LMR-100A
- Coax Flex Type: Flexible

Features

- Max Frequency 4 GHz
- Shielding Effectivity > 90 dB
- 66% Phase Velocity
- Double Shielded
- PVC Jacket



Applications

- General Purpose
- Laboratory Use

Description

Pasternack's PE3W04244 SMA male to blue FAKRA jack 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 SMA to FAKRA cable assembly has a male to jack gender configuration with 50 ohm flexible LMR-100A coax. The PE3W04244 SMA male to FAKRA jack cable assembly operates to 4 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 | | 4 | 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 | |
| PE3W04244 | Custom Lengths Available | Insertion Loss (Typ.) | 0.064 | 0.115 | 0.165 | 0.24 | 0.502 | dB/ft | |
| | | | 0.21 | 0.38 | 0.55 | 0.79 | 1.65 | dB/m | |
| PE3W04244-24 | 24 Inch | Insertion Loss (Typ.) | 0.48 | 0.58 | 0.68 | 0.83 | 1.36 | dB | 0.034 |
| PE3W04244-36 | 36 Inch | Insertion Loss (Typ.) | 0.55 | 0.7 | 0.85 | 1.07 | 1.86 | dB | 0.043 |
| PE3W04244-48 | 48 Inch | Insertion Loss (Typ.) | 0.61 | 0.81 | 1.01 | 1.31 | 2.36 | dB | 0.052 |
| PE3W04244-100CM | 100 CM | Insertion Loss (Typ.) | 0.56 | 0.73 | 0.9 | 1.14 | 2 | dB | 0.046 |
| PE3W04244-200CM | 200 CM | Insertion Loss (Typ.) | 0.77 | 1.11 | 1.44 | 1.93 | 3.65 | dB | 0.075 |

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: | 0.25 dB |
| Loss due to Connector 2: | 0.1 dB |
| Base Weight: | 0.025 pounds |
| Additional Weight per Inch: | 0.07833 pounds |

Mechanical Specifications

Cable Assembly

| | |
|----------------|---------------------|
| Width/Diameter | 0.5 in [12.7 mm] |
| Weight | 0.025 lbs [11.34 g] |

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] |
| 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 | SMA Male | FAKRA Jack |
| Impedance | 50 Ohms | 50 Ohms |
| Configuration | Straight | Straight |
| Color | | BL |
| Contact Material and Plating | Brass, Gold | Phosphor Bronze, Gold |
| Contact Plating Specification | 15 µin minimum | |
| Dielectric Type | PTFE | PTFE |
| Outer Conductor Material and Plating | | Brass, Nickel |
| Body Material and Plating | Brass, Nickel | Plastic |
| Body Plating Specification | 200 µin minimum | |
| Coupling Nut Material and Plating | Brass, Nickel | |
| Coupling Nut Plating Specification | 200 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:

SMA Male to Blue FAKRA Jack Low Loss Cable Using LMR-100 Coax



PE3W04244

Typical Performance Data

How to Order

Part Number Configuration:

PE3W04244

- **xx**

uu

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

Example: PE3W04244-12 = 12 inches long cable
PE3W04244-100cm = 100 cm long cable

SMA Male to Blue FAKRA Jack Low Loss Cable Using LMR-100 Coax 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.

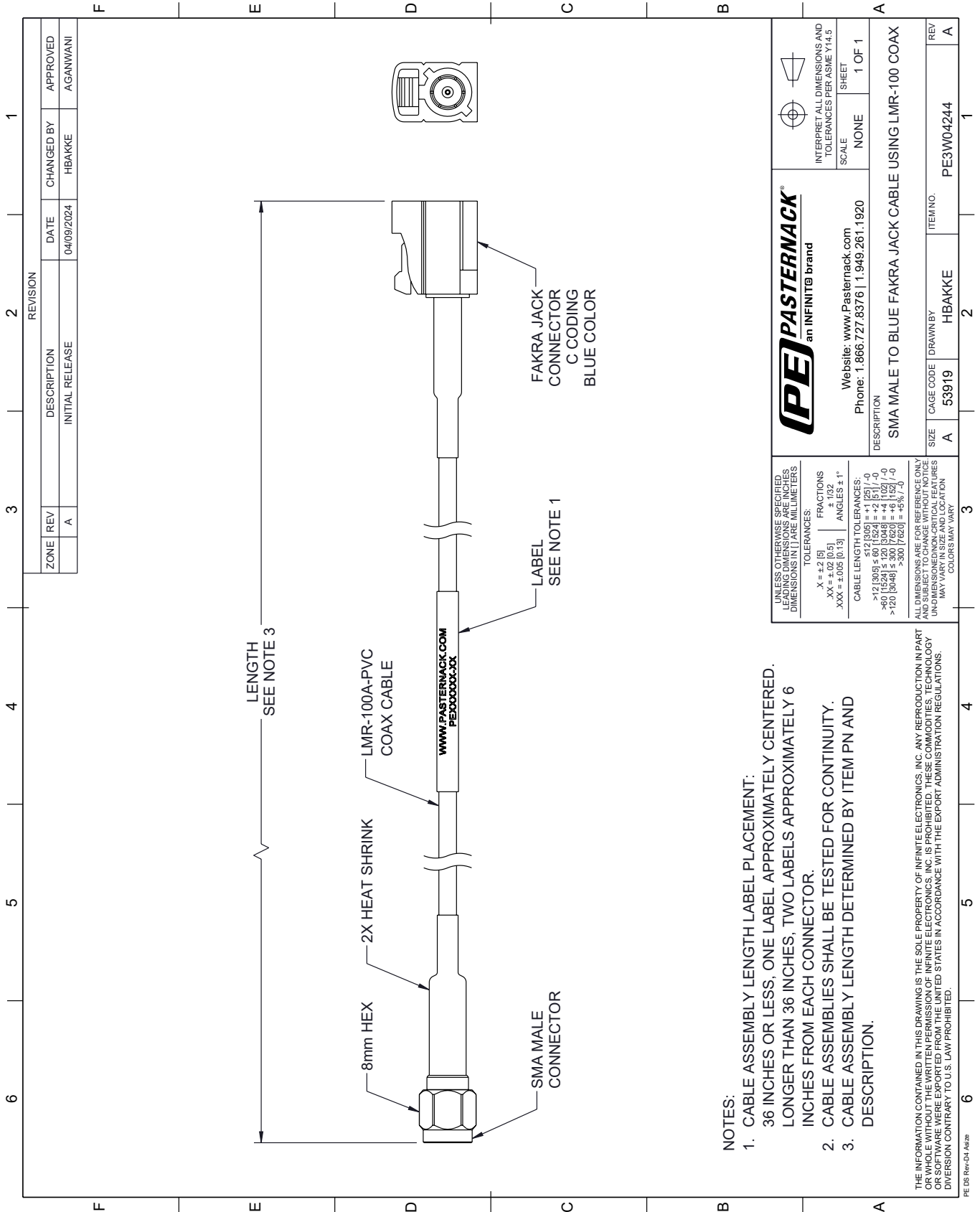
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SMA Male to Blue FAKRA Jack Low Loss Cable Using LMR-100 Coax PE3W04244](https://www.pasternack.com/sma-male-to-fakra-jack-low-loss-cable-using-lmr-100-pe3w04244-p.aspx)

URL: <https://www.pasternack.com/sma-male-to-fakra-jack-low-loss-cable-using-lmr-100-pe3w04244-p.aspx>

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PE3W04244 CAD Drawing

SMA Male to Blue FAKRA Jack Low Loss Cable Using LMR-100 Coax



| REVISION | | DATE | CHANGED BY | APPROVED |
|-----------------|-----|------------|------------|----------|
| ZONE | REV | | | |
| | A | 04/09/2024 | HBAKKE | AGANWANI |
| DESCRIPTION | | | | |
| INITIAL RELEASE | | | | |

UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES AND TRAILING DIMENSIONS ARE IN MILLIMETERS

TOLERANCES:

| | |
|---------------------|------------------|
| .X = ±.2 [5] | FRACTIONS ± 1/32 |
| .XX = ±.02 [0.5] | ANGLES ± 1° |
| .XXX = ±.005 [0.13] | |

CABLE LENGTH TOLERANCES:

| | |
|-------------------------|------------|
| <12 [305] | ±.1 [2.5] |
| >12 [305] < 60 [1524] | ±.2 [5.1] |
| >60 [1524] < 120 [3048] | ±.4 [10.2] |
| >120 [3048] | ±.8 [20.3] |

ALL DIMENSIONS ARE FOR REFERENCE ONLY. UNDIMENSIONED/NON-CRITICAL FEATURES MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY.

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SCALE: NONE
SHEET: 1 OF 1

INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5

| | | | |
|-------------|--|-----------|-----------|
| DESCRIPTION | SMA MALE TO BLUE FAKRA JACK CABLE USING LMR-100 COAX | | |
| SIZE | A | CAGE CODE | 53919 |
| DRAWN BY | HBAKKE | ITEM NO. | PE3W04244 |
| REV | A | | |

- NOTES:**
- 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.
 - CABLE ASSEMBLIES SHALL BE TESTED FOR CONTINUITY.
 - CABLE ASSEMBLY LENGTH DETERMINED BY ITEM PN AND DESCRIPTION.

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