



## SMA Female to Water Blue FAKRA Jack Low Loss Cable Using LMR-100 Coax

### TECHNICAL DATA SHEET

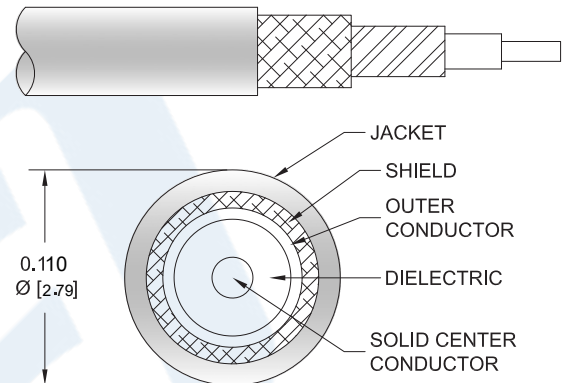
PE3C3045

#### Configuration

- Connector 1: SMA Female
- 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 PE3C3045 SMA female to water 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 female to jack gender configuration with 50 ohm flexible LMR-100A coax. The PE3C3045 SMA female 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.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SMA Female to Water Blue FAKRA Jack Low Loss Cable Using LMR-100 Coax PE3C3045](#)



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#### 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]   |         | $\Omega$ /1000ft [ $\Omega$ /Km] |
| DC Resistance Outer Conductor |         | 9.5 [31.17]   |         | $\Omega$ /1000ft [ $\Omega$ /Km] |
| Jacket Spark                  |         |               | 2,000   | Vrms                             |

#### Specifications by Frequency

| Part Number    | Length                   | Description           | F1        | F2   | F3   | F4   | F5   | Units | Weight (lbs) |
|----------------|--------------------------|-----------------------|-----------|------|------|------|------|-------|--------------|
|                |                          |                       | Frequency |      |      |      |      |       |              |
| PE3C3045       | Custom Lengths Available | Insertion Loss (Typ.) | 0.06      | 0.12 | 0.17 | 0.24 | 0.5  | dB/ft |              |
|                |                          |                       | 0.21      | 0.38 | 0.55 | 0.79 | 1.65 | dB/m  |              |
| PE3C3045-24    | 24 inch                  | Insertion Loss (Typ.) | 0.33      | 0.43 | 0.53 | 0.68 | 1.21 | dB    | 0.032        |
| PE3C3045-36    | 36 inch                  | Insertion Loss (Typ.) | 0.4       | 0.55 | 0.7  | 0.92 | 1.71 | dB    | 0.041        |
| PE3C3045-48    | 48 inch                  | Insertion Loss (Typ.) | 0.46      | 0.66 | 0.86 | 1.16 | 2.21 | dB    | 0.05         |
| PE3C3045-100CM | 100 cm                   | Insertion Loss (Typ.) | 0.41      | 0.58 | 0.75 | 0.99 | 1.85 | dB    | 0.044        |
| PE3C3045-200CM | 200 cm                   | Insertion Loss (Typ.) | 0.62      | 0.96 | 1.29 | 1.78 | 3.5  | dB    | 0.074        |

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:                | 0.023 pounds   |
| Additional Weight per Inch: | 0.00075 pounds |

#### Mechanical Specifications

##### Cable Assembly

Weight 0.023 lbs [10.43 g]

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SMA Female to Water Blue FAKRA Jack Low Loss Cable Using LMR-100 Coax PE3C3045](#)



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#### 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]        |

#### Connectors

| Description                          | Connector 1            | Connector 2           |
|--------------------------------------|------------------------|-----------------------|
| Type                                 | SMA Female Threaded    | FAKRA Jack Push-On    |
| Specification                        | MIL-STD-348            |                       |
| Impedance                            | 50 Ohms                | 50 Ohms               |
| Configuration                        | Straight               | Straight              |
| Mating Cycles                        | 100                    |                       |
| Contact Material and Plating         | Beryllium Copper, Gold | Phosphor Bronze, Gold |
| Dielectric Type                      | PTFE                   | PTFE                  |
| Outer Conductor Material and Plating | Brass, Nickel          | Brass, Nickel         |
| Body Material and Plating            | Brass, Nickel          | Plastic               |

#### Environmental Specifications

##### Temperature

Operating Range -40 to +85 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: [SMA Female to Water Blue FAKRA Jack Low Loss Cable Using LMR-100 Coax PE3C3045](#)



## SMA Female to Water Blue FAKRA Jack Low Loss Cable Using LMR-100 Coax

### TECHNICAL DATA SHEET

PE3C3045

#### How to Order

Part Number Configuration:

PE3C3045

- xx

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

Example: PE3C3045-12 = 12 inches long cable  
PE3C3045-100cm = 100 cm long cable

SMA Female to Water 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.

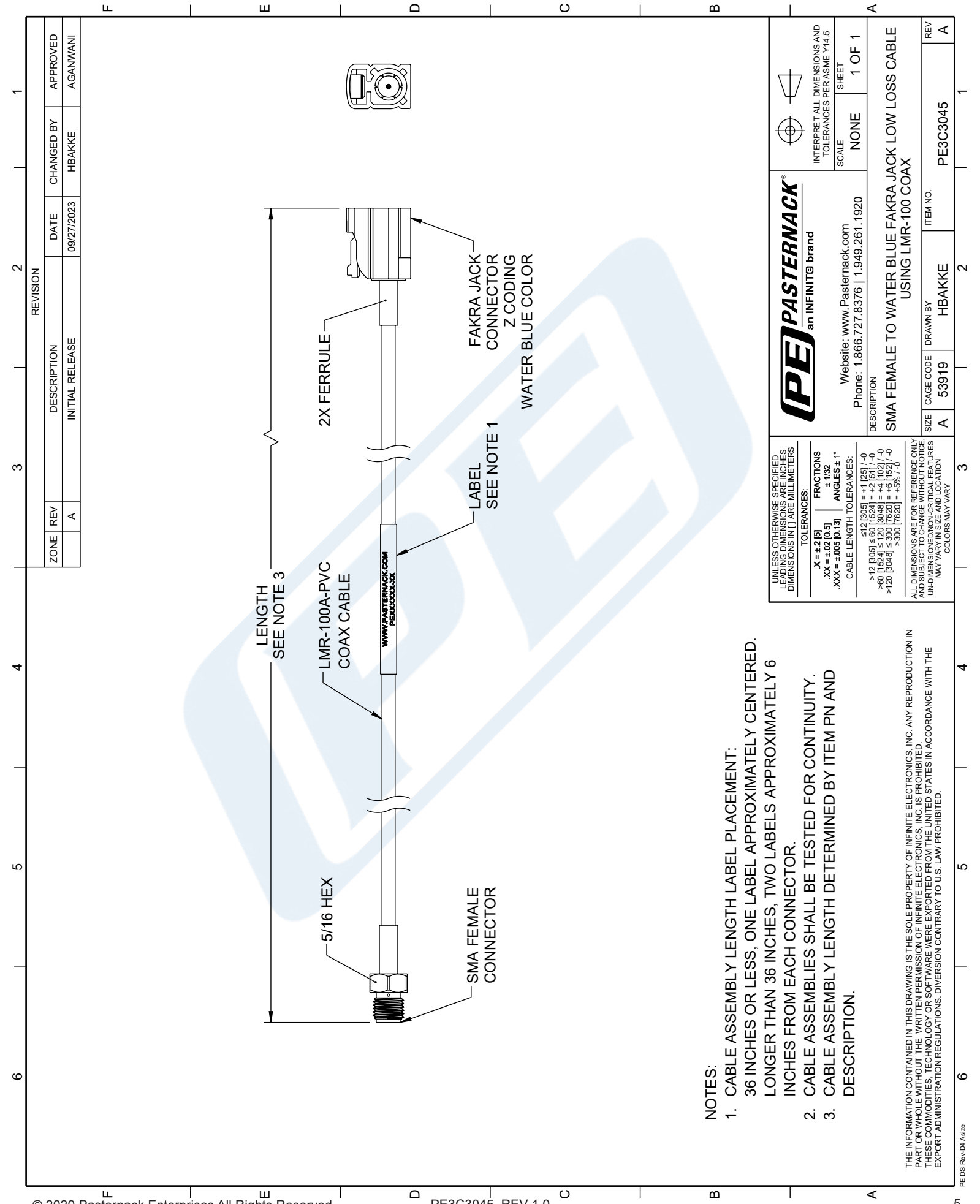
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URL: <https://www.pasternack.com/sma-female-to-fakra-jack-low-loss-cable-using-lmr-100-pe3c3045-p.aspx>

The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. Pasternack reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack does not assume any liability arising out of the use of any part or documentation.

# PE3C3045 CAD Drawing

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



| ZONE | REV | DESCRIPTION     | DATE       | CHANGED BY | APPROVED |
|------|-----|-----------------|------------|------------|----------|
|      | A   | INITIAL RELEASE | 09/27/2023 | HBAKKE     | AGANWANI |

|   |                 |   |                   |
|---|-----------------|---|-------------------|
|   |                 | INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5<br>SCALE NONE SHEET 1 OF 1       |                   |
| Website: www.Pasternack.com<br>Phone: 1.866.727.8376   1.949.261.1920 |                 | DESCRIPTION<br>SMA FEMALE TO WATER BLUE FAKRA JACK LOW LOSS CABLE<br>USING LMR-100 COAX |                   |
| SIZE A  | CAGE CODE 53919 | DRAWN BY HBAKKE   | ITEM NO. PE3C3045 |

UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE IN INCHES DIMENSIONS IN [ ] ARE IN MILLIMETERS

TOLERANCES:

|                     |                          |
|---------------------|--------------------------|
| X ± 0.015           | FRACTIONS ± 1/32         |
| .XX ± 0.02 [0.5]    | ANGLES ± 1°              |
| .XXX ± 0.005 [0.13] | CABLE LENGTH TOLERANCES: |

<12 [305] ± 0.1 [25] / -0  
 >12 [305] ≤ 60 [1524] ± 0.2 [51] / -0  
 >60 [1524] ≤ 120 [3048] ± 0.4 [102] / -0  
 >120 [3048] ≤ 300 [7620] ± 0.6 [152] / -0  
 >300 [7620] ± 0.8 [203] / -0

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

- 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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