

SMA Male to Water Blue FAKRA Jack Cable 39.3 Inch  
Length Using LMR-100 Coax , LF Solder



RF Cable Assemblies Technical Data Sheet

PE3C2597LF-100CM

**Configuration**

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

**Features**

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

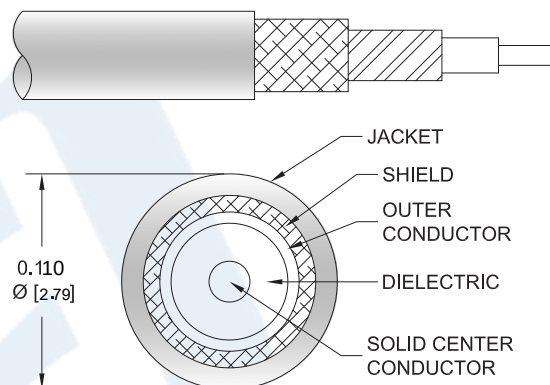
**Applications**

- General Purpose
- Laboratory Use

**Description**

Pasternack's PE3C2597LF-100CM SMA male to water blue FAKRA jack 39.3 inch 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 PE3C2597LF-100CM 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.



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 Water Blue FAKRA Jack Cable 39.3 Inch Length Using LMR-100 Coax , LF Solder PE3C2597LF-100CM](#)



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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]   |         | Ω/1000ft [Ω/Km] |
| DC Resistance Outer Conductor |         | 9.5 [31.17]   |         | Ω/1000ft [Ω/Km] |
| Jacket Spark                  |         |               | 2,000   | Vrms            |

#### Specifications by Frequency

| Description           | F1   | F2   | F3   | F4   | F5   | Units |
|-----------------------|------|------|------|------|------|-------|
| Frequency             | 0.1  | 0.25 | 0.5  | 1    | 4    | GHz   |
| Insertion Loss (Max.) | 0.38 | 0.43 | 0.52 | 0.69 | 1.71 | dB    |

#### Electrical Specification Notes:

The Insertion Loss data above is based on the performance specifications of the coax used in this assembly. Insertion Loss is estimated as 0.1 dB per connector.

#### Mechanical Specifications

##### Cable Assembly

|          |                     |
|----------|---------------------|
| Length*  | 39.3 in [998.22 mm] |
| Diameter | 0.37 in [9.4 mm]    |

##### 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]   |

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|                              |                        |
|------------------------------|------------------------|
| 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 Male           | FAKRA Jack            |
| Specification                        | MIL-STD-348A       |                       |
| Impedance                            | 50 Ohms            | 50 Ohms               |
| Configuration                        | Straight           | Straight              |
| Contact Material and Plating         | Brass, Gold        | Phosphor Bronze, Gold |
| Contact Plating Specification        | 30 µin minimum     |                       |
| Dielectric Type                      | PTFE               | PTFE                  |
| Outer Conductor Material and Plating |                    | Brass, Nickel         |
| Body Material and Plating            | Brass, Nickel      | Plastic               |
| Body Plating Specification           | 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

#### Compliance Certifications (see [product page](#) for current document)

#### Plotted and Other Data

Notes:

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## SMA Male to Water Blue FAKRA Jack Cable 39.3 Inch Length Using LMR-100 Coax , LF Solder

### RF Cable Assemblies Technical Data Sheet

PE3C2597LF-100CM

#### How to Order

Part Number Configuration:

**PE3C2597LF**

- **xx**

**uu**

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

Example: PE3C2597LF-12 = 12 inches long cable  
PE3C2597LF-100cm = 100 cm long cable

SMA Male to Water Blue FAKRA Jack Cable 39.3 Inch Length Using LMR-100 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.

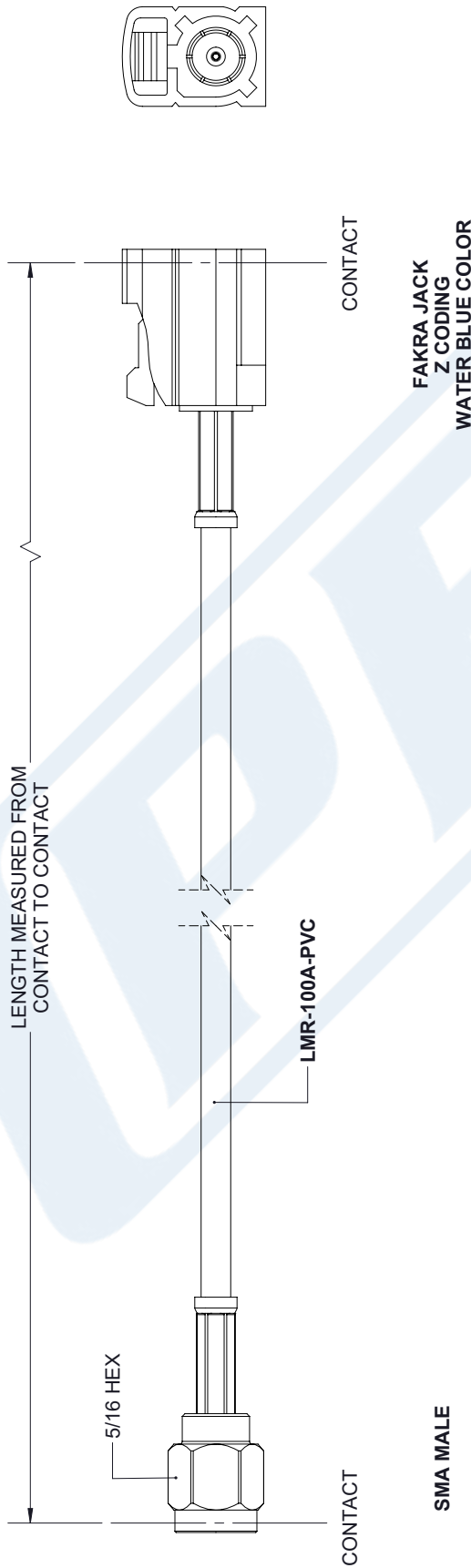
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URL:

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.

# **PE3C2597LF-100CM CAD Drawing** **SMA Male to Water Blue FAKRA Jack Cable 39.3 Inch** **Length Using LMR-100 Coax , LF Solder**

| REVISIONS |                 |           |          |
|-----------|-----------------|-----------|----------|
| REV.      | DESCRIPTION     | DATE      | APPROVED |
| A         | INITIAL RELEASE | 8/20/2020 | S.ELLIS  |



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

**TOLERANCES:**

|               |       |             |
|---------------|-------|-------------|
| .X = ± .2     | [.08] | FRACTIONS   |
| .XX = ± .02   | [.51] | ± 1/32      |
| .XXX = ± .005 | [.13] | ANGLES ± 1° |

**CABLE LENGTH (L) TOLERANCES:**

|                             |            |      |
|-----------------------------|------------|------|
| L ≤ 12 [305]                | ± .1 [25]  | / -0 |
| 12 [305] < L ≤ 60 [1524]    | ± .2 [51]  | / -0 |
| 60 [1524] < L ≤ 120 [3048]  | ± .4 [102] | / -0 |
| 120 [3048] < L ≤ 300 [7620] | ± .6 [152] | / -0 |
| 300 [7620] < L              | ± .5% L    | / -0 |

ALL DIMENSIONS SHOWN  
 ARE FOR REFERENCE ONLY.

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|      |           |          |            |
|------|-----------|----------|------------|
| SIZE | CAGE CODE | DRAWN BY | ITEM NO.   |
| A    | 53919     | K.DANG   | PE3C2597LF |

THIRD-ANGLE PROJECTION

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|       |     |    |   |
|-------|-----|----|---|
| SHEET | 1   | OF | 1 |
| SCALE | N/A |    |   |
| REV   | A   |    |   |