

Water Blue FAKRA Plug to FAKRA Jack Low Loss Cable Using PE-C100-LSZH Coax with HeatShrink



PE3C5059/HS

Configuration

- Connector 1: FAKRA Plug
- Connector 2: FAKRA Jack
- Cable Type: PE-C100-LSZH
- Coax Flex Type: Flexible

Features

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

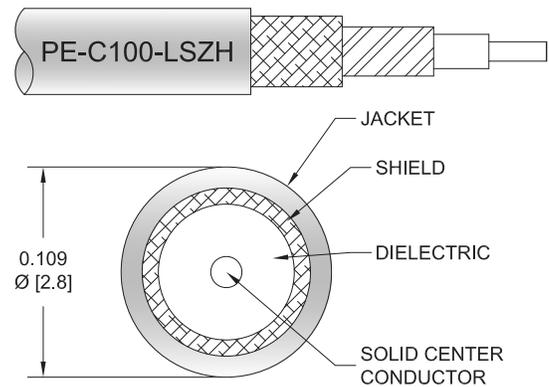
Applications

- General Purpose
- Laboratory Use

Description

Pasternack's PE3C5059/HS water blue FAKRA plug to FAKRA jack cable using PE-C100-LSZH 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 FAKRA to FAKRA cable assembly has a plug to jack gender configuration with 50 ohm flexible PE-C100-LSZH coax. The PE3C5059/HS FAKRA plug 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		1.62 [5.31]		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]
Operating Voltage (AC)			335	Vrms
Dielectric Withstanding Voltage (AC)			800	Vrms

Water Blue FAKRA Plug to FAKRA Jack Low Loss Cable Using PE-C100-LSZH Coax with HeatShrink



PE3C5059/HS

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						
PE3C5059/HS	Custom Lengths Available	Insertion Loss (Typ.)	0.07	0.115	0.167	0.24	0.522	dB/ft	
			0.23	0.38	0.55	0.79	1.72	dB/m	
PE3C5059/HS-12	12 In	Insertion Loss (Typ.)	0.27	0.32	0.37	0.44	0.73	dB	0.022
PE3C5059/HS-24	24 In	Insertion Loss (Typ.)	0.34	0.43	0.54	0.68	1.25	dB	0.033
PE3C5059/HS-36	36 In	Insertion Loss (Typ.)	0.41	0.55	0.71	0.92	1.77	dB	0.043
PE3C5059/HS-48	48 In	Insertion Loss (Typ.)	0.48	0.66	0.87	1.16	2.29	dB	0.053
PE3C5059/HS-60	60 In	Insertion Loss (Typ.)	0.55	0.78	1.04	1.4	2.81	dB	0.063

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:	0.022 pounds
Additional Weight per Inch:	0.00084 pounds

Mechanical Specifications

Cable Assembly

Width/Diameter	0.5 in [12.7 mm]
Weight	0.012 lbs [5.44 g]

Cable

Cable Type	PE-C100-LSZH
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	LSZH, Black
Jacket Diameter	0.109 in [2.77 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]

Water Blue FAKRA Plug to FAKRA Jack Low Loss Cable Using PE-C100-LSZH Coax with HeatShrink



PE3C5059/HS

Connectors

Description	Connector 1	Connector 2
Type	FAKRA Plug	FAKRA Jack
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Color	WB	WB
Mating Cycles		300
Contact Material and Plating	Phosphor Bronze, Gold	Phosphor Bronze, Gold
Dielectric Type	PTFE	PTFE
Outer Conductor Material and Plating	Brass, Nickel	Brass, Nickel
Body Material and Plating	Plastic	Plastic

Environmental Specifications

Operating Range Temperature -40 to +85 deg C

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

Plotted and Other Data

Notes:

Water Blue FAKRA Plug to FAKRA Jack Low Loss Cable Using PE-C100-LSZH Coax with HeatShrink

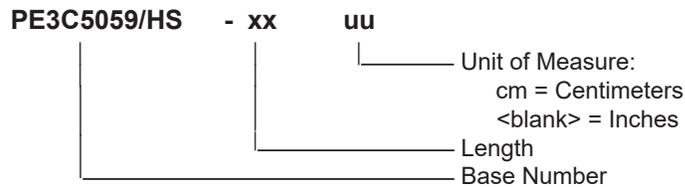


PE3C5059/HS

Typical Performance Data

How to Order

Part Number Configuration:



Example: PE3C5059/HS-12 = 12 inches long cable
PE3C5059/HS-100cm = 100 cm long cable

Water Blue FAKRA Plug to FAKRA Jack Low Loss Cable Using PE-C100-LSZH Coax with HeatShrink 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.

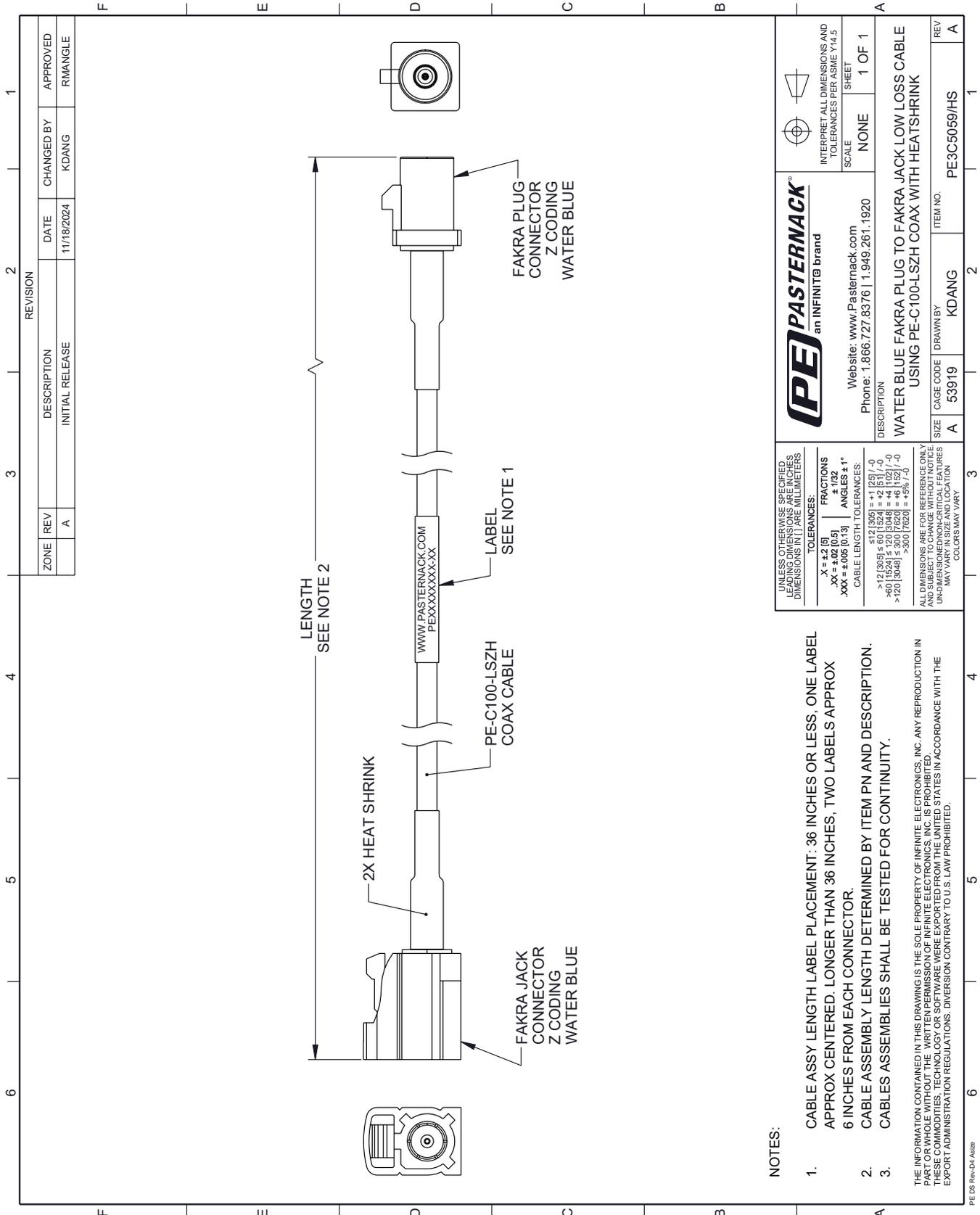
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Water Blue FAKRA Plug to FAKRA Jack Low Loss Cable Using PE-C100-LSZH Coax with HeatShrink PE3C5059/HS](https://www.pasternack.com/fakra-plug-to-fakra-jack-low-loss-cable-using-pe-c100-lszh-with-heatshrink-pe3c5059-hs-p.aspx)

URL: <https://www.pasternack.com/fakra-plug-to-fakra-jack-low-loss-cable-using-pe-c100-lszh-with-heatshrink-pe3c5059-hs-p.aspx>

The information contained within 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 Enterprises reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack Enterprises does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack Enterprises does not assume liability arising out of the use of any part or document.

PE3C5059/HS CAD Drawing

Water Blue FAKRA Plug to FAKRA Jack Low Loss Cable Using PE-C100-LSZH Coax with HeatShrink



NOTES:

- CABLE ASSY LENGTH LABEL PLACEMENT: .36 INCHES OR LESS. ONE LABEL APPROX CENTERED. LONGER THAN .36 INCHES. TWO LABELS APPROX .6 INCHES FROM EACH CONNECTOR.
- CABLE ASSEMBLY LENGTH DETERMINED BY ITEM PN AND DESCRIPTION.
- CABLE ASSEMBLIES SHALL BE TESTED FOR CONTINUITY.

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF INFINITE ELECTRONICS, INC. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF INFINITE ELECTRONICS, INC. IS PROHIBITED. THESE COMMODITIES, TECHNOLOGY OR SOFTWARE WERE EXPORTED FROM THE UNITED STATES IN ACCORDANCE WITH THE EXPORT ADMINISTRATION REGULATIONS. DIVERSION CONTRARY TO U.S. LAW PROHIBITED.

PE DS Rev-D4-A320