



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

TECHNICAL DATA SHEET

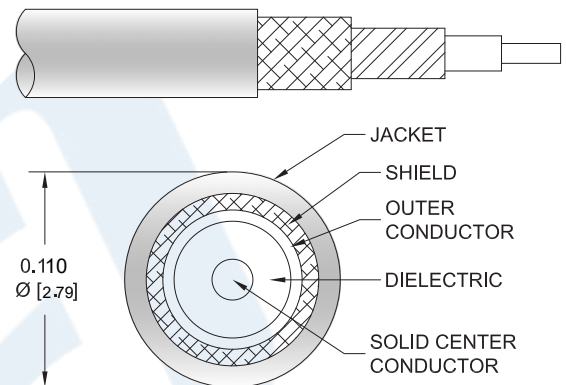
PE3W01163

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 PE3W01163 SMA male 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 male to jack gender configuration with 50 ohm flexible LMR-100A coax. The PE3W01163 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 Low Loss Cable Using LMR-100 Coax PE3W01163](#)



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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

Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
			Frequency						
PE3W01163	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	
PE3W01163-24	24 inch	Insertion Loss (Typ.)	0.33	0.43	0.53	0.68	1.21	dB	0.035
PE3W01163-36	36 inch	Insertion Loss (Typ.)	0.4	0.55	0.7	0.92	1.71	dB	0.044
PE3W01163-48	48 inch	Insertion Loss (Typ.)	0.46	0.66	0.86	1.16	2.21	dB	0.053
PE3W01163-100CM	100 cm	Insertion Loss (Typ.)	0.41	0.58	0.75	0.99	1.85	dB	0.047
PE3W01163-200CM	200 cm	Insertion Loss (Typ.)	0.62	0.96	1.29	1.78	3.5	dB	0.077

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:	0.026 pounds
Additional Weight per Inch:	0.00075 pounds

Mechanical Specifications

Cable Assembly

Weight 0.026 lbs [11.79 g]

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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 Male Threaded	FAKRA Jack Push-On
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
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

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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How to Order

Part Number Configuration:

PE3W01163

- **xx**

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

Example: PE3W01163-12 = 12 inches long cable
PE3W01163-100cm = 100 cm long cable

SMA Male 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.

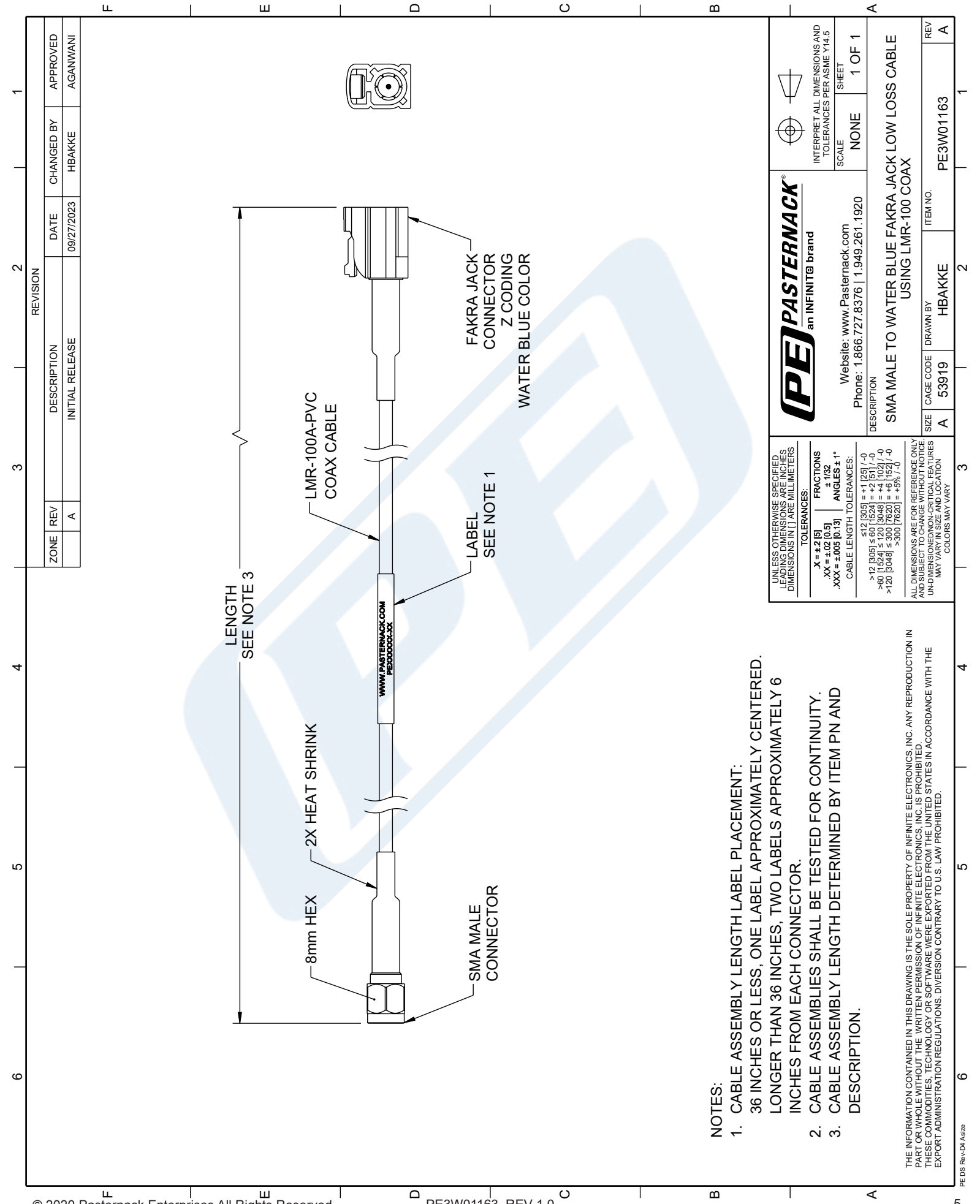
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URL: <https://www.pasternack.com/sma-male-to-fakra-jack-low-loss-cable-using-lmr-100-pe3w01163-p.aspx>

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.

PE3W01163 CAD Drawing

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



NOTES:

1. 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.
2. CABLE ASSEMBLIES SHALL BE TESTED FOR CONTINUITY.
3. CABLE ASSEMBLY LENGTH DETERMINED BY ITEM PN AND DESCRIPTION.

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

		INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5 SCALE: NONE SHEET: 1 OF 1	
Website: www.Pasternack.com Phone: 1.866.727.8376 1.949.261.1920		DESCRIPTION: SMA MALE TO WATER BLUE FAKRA JACK LOW LOSS CABLE USING LMR-100 COAX	
SIZE: A	CAGE CODE: 53919	DRAWN BY: HBAKKE	ITEM NO.: PE3W01163
UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE IN INCHES DIMENSIONS IN [] ARE IN MILLIMETERS		ALL DIMENSIONS ARE FOR REFERENCE ONLY UNLESS OTHERWISE NOTED. DIMENSIONS IN NON-CRITICAL FEATURES MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY.	
TOLERANCES: .X = ±.2 [5] .XX = ±.02 [0.5] .XXX = ±.005 [0.13]		FRACTIONS: ±.732 ANGLES ± 1° CABLE LENGTH TOLERANCES: <12 [305] ±.1 [2.5] / -0 >12 [305] ≤ 60 [1524] = ±.2 [5] / -0 >60 [1524] ≤ 120 [3048] = ±.4 [10.2] / -0 >120 [3048] ≤ 300 [7620] = ±.6 [15.2] / -0 >300 [7620] = ±.5% / -0	