



1.0/2.3 Plug to BNC Female Low Loss Cable Using LMR-195 Coax

TECHNICAL DATA SHEET

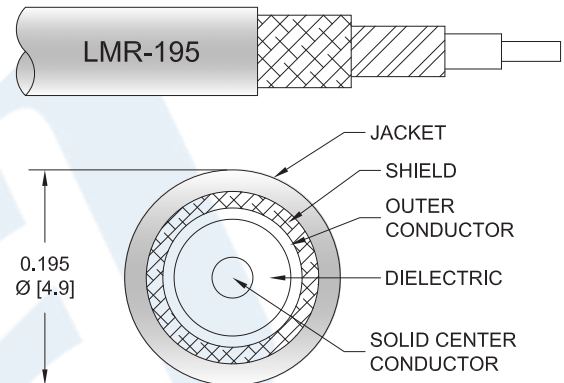
PE3W02451

Configuration

- Connector 1: 1.0/2.3 Plug
- Connector 2: BNC Female
- Cable Type: LMR-195
- Coax Flex Type: Flexible

Features

- Max Frequency 4 GHz
- Shielding Effectivity > 90 dB
- 80% Phase Velocity
- Double Shielded
- PE Jacket



Applications

- General Purpose
- Laboratory Use

Description

Pasternack's PE3W02451 1.0/2.3 plug to BNC female cable using LMR-195 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 1.0/2.3 to BNC cable assembly has a plug to female gender configuration with 50 ohm flexible LMR-195 coax. The PE3W02451 1.0/2.3 plug to BNC female 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: [1.0/2.3 Plug to BNC Female Low Loss Cable Using LMR-195 Coax PE3W02451](#)



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Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		4	GHz
VSWR			1.4:1	
Velocity of Propagation		80		%
RF Shielding	90			dB
Group Delay		1.27 [4.17]		ns/ft [ns/m]
Capacitance		25.4 [83.33]		pF/ft [pF/m]
Inductance		0.064 [0.21]		uH/ft [uH/m]
DC Resistance Inner Conductor		7.6 [24.93]		Ω /1000ft [Ω /Km]
DC Resistance Outer Conductor		4.9 [16.08]		Ω /1000ft [Ω /Km]
Jacket Spark			3,000	Vrms

Specifications by Frequency

Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
		Frequency	100	250	500	1000	4000	MHz	
PE3W02451	Custom Lengths Available	Insertion Loss (Typ.)	0.035	0.057	0.081	0.116	0.237	dB/ft	
			0.12	0.19	0.27	0.39	0.78	dB/m	
PE3W02451-12	12 inch	Insertion Loss (Typ.)	0.34	0.36	0.39	0.42	0.54	dB	0.07
PE3W02451-24	24 inch	Insertion Loss (Typ.)	0.37	0.42	0.47	0.54	0.78	dB	0.093
PE3W02451-36	36 inch	Insertion Loss (Typ.)	0.41	0.48	0.55	0.65	1.02	dB	0.115
PE3W02451-48	48 inch	Insertion Loss (Typ.)	0.44	0.53	0.63	0.77	1.25	dB	0.137
PE3W02451-60	60 inch	Insertion Loss (Typ.)	0.48	0.59	0.71	0.88	1.49	dB	0.159

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:	0.2 dB
Base Weight:	0.07 pounds
Additional Weight per Inch:	0.00184 pounds

Mechanical Specifications

Cable Assembly

Weight 0.07 lbs [31.75 g]

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Cable

Cable Type	LMR-195
Impedance	50 Ohms
Inner Conductor Type	Solid
Inner Conductor Material and Plating	Copper
Dielectric Type	PE (F)
Number of Shields	2
Shield Layer 1	Aluminum Tape
Shield Layer 2	Tinned Copper Braid
Jacket Material	PE, Black
Jacket Diameter	0.195 in [4.95 mm]
One Time Minimum Bend Radius	0.5 in [12.7 mm]
Repeated Minimum Bend Radius	2 in [50.8 mm]
Bending Moment	0.2 lbs-ft [0.27 N-m]
Flat Plate Crush	15 lbs/in [0.27 Kg/mm]
Tensile Strength	40 lbs [18.14 Kg]

Connectors

Description	Connector 1	Connector 2
Type	1.0/2.3 Plug Push-On	BNC Female Bayonet
Specification		MIL-STD-348A
Impedance	50 Ohms	50 Ohms
Mating Cycles		500
Contact Material and Plating	Brass, Gold	Brass, Gold
Contact Plating Specification	30 µin minimum	30 µin minimum
Dielectric Type	PTFE	PTFE
Body Material and Plating	Brass, Nickel	Brass, Nickel
Body Plating Specification	100 µin minimum	100 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:

PE3W02451

- **xx**

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

Example: PE3W02451-12 = 12 inches long cable
PE3W02451-100cm = 100 cm long cable

1.0/2.3 Plug to BNC Female Low Loss Cable Using LMR-195 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: [1.0/2.3 Plug to BNC Female Low Loss Cable Using LMR-195 Coax PE3W02451](#)

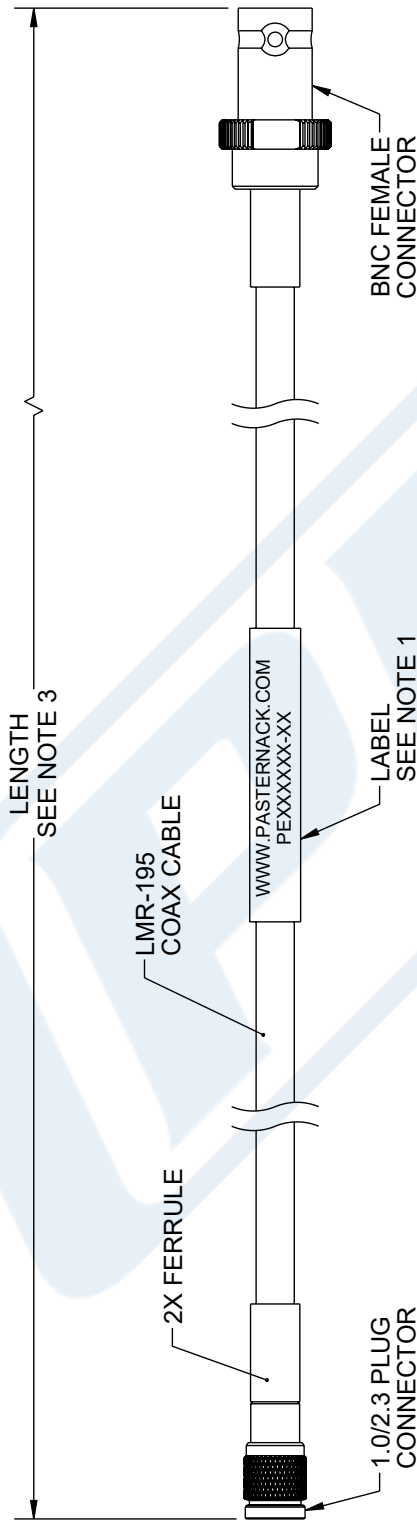
URL: <https://www.pasternack.com/1.0-2.3-plug-to-bnc-female-low-loss-cable-using-lmr-195-pe3w02451-p.aspx>

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.

PE3W02451 CAD Drawing

1.0/2.3 Plug to BNC Female Low Loss Cable Using LMR-195 Coax

REVISION			
ZONE	REV	DESCRIPTION	DATE
	A	INITIAL RELEASE	10/3/2023
			CHANGED BY
			AGANWANI



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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UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE INCHES, TRAILING DIMENSIONS IN MILLIMETERS		PE PASTERNAK an INFINITI® brand		INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5	
TOLERANCES:		Website: www.Pasternack.com Phone: 1.866.727.8376 1.949.261.1920		SCALE NONE	
X = ±.2 [5] .XX = ±.02 [0.5] .XXX = ±.005 [0.13]		FRACTIONS ± 1/32 ANGLES ± 1°		SHEET 1 OF 1	
CABLE LENGTH TOLERANCES:		DESCRIPTION 1.0/2.3 PLUG TO BNC FEMALE LOW LOSS CABLE USING LMR-195 COAX			
<12 [305] = ±.1 [25] / -0 >12 [305] ≤ 60 [1524] = ±.2 [51] / -0 >60 [1524] ≤ 120 [3048] = ±.4 [102] / -0 >120 [3048] ≤ 300 [7620] = ±.6 [152] / -0 >300 [7620] = ±.5% / -0		ALL DIMENSIONS ARE FOR REFERENCE ONLY ALL DIMENSIONS ARE TO CENTER UNLESS OTHERWISE SPECIFIED UNLESS OTHERWISE SPECIFIED, DIMENSIONS MAY VARY IN SIZE AND LOCATION COLORS MAY VARY			
SIZE A		CAGE CODE 53919		ITEM NO. PE3W02451	
DRAWN BY KGLEBOVA		REV A			