



75 Ohm HD-BNC Male to 75 Ohm 1.0/2.3 Male 12G SDI  
Cable 12 Inch Length Using 75 Ohm 4694R-VL Coax

## RF Cable Assemblies Technical Data Sheet

**PE3C8745/VL-12**

### Configuration

- Connector 1: HD-BNC Male
- Connector 2: 1.0/2.3 Male
- Cable Type: Belden 4694R-VL

### Features

- Max Frequency 12 GHz
- 84.5% Phase Velocity
- PVC Jacket
- Meets SMPTE ST 2082-1
- Backwards Compatible with 2081-1
- 12Gb/s Transmission
- Cost Effective

### Applications

- General Purpose
- Laboratory Use
- 12G-SDI, Video, and Broadband UHDTV
- Broadband Internet Delivery
- Broadcast A/V
- 4K/8K Video Equipment
- Medical Equipment Requiring High Speed Video
- HD Cameras

### Description

Pasternack's PE3C8745/VL-12 75 ohm HD-BNC male to 75 ohm 1.0/2.3 male 12 inch cable using 75 ohm 4694R-VL 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 HD-BNC to 1.0/2.3 cable assembly has a male to male gender configuration with 75 ohm flexible Belden 4694R-VL coax. The PE3C8745/VL-12 HD-BNC male to 1.0/2.3 male cable assembly operates to 12 GHz and enables 12Gb/s data transfer rates for high resolution uncompressed video signal transmission. These products offer 4K and Ultra-HD quality signals that meet SMPTE Standard 2082-1.

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: [75 Ohm HD-BNC Male to 75 Ohm 1.0/2.3 Male 12G SDI Cable 12 Inch Length Using 75 Ohm 4694R-VL Coax PE3C8745/VL-12](#)



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### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		12	GHz
VSWR			1.5:1	
Velocity of Propagation		84.5		%
Group Delay		1.2 [3.94]		ns/ft [ns/m]
Capacitance		15.9 [52.17]		pF/ft [pF/m]
Inductance		0.106 [0.35]		uH/ft [uH/m]
DC Resistance Inner Conductor		6.4 [21]		$\Omega$ /1000ft [ $\Omega$ /Km]
DC Resistance Outer Conductor		2.8 [9.19]		$\Omega$ /1000ft [ $\Omega$ /Km]
Operating Voltage (AC)			300	Vrms

### Specifications by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency	0.5	1	2.5	5	12	GHz
Insertion Loss (Typ.)	0.25	0.26	0.3	0.34	0.43	dB

#### Electrical Specification Notes:

The Insertion Loss data above is based on the performance specifications of the coax and connectors used in this assembly. The Insertion Loss includes an estimated insertion loss of 0.1 dB per connector.

### Mechanical Specifications

#### Cable Assembly

Length\* 12 in [304.8 mm]

Weight 0.1 lbs [45.36 g]

#### Cable

Cable Type Belden 4694R-VL

Impedance 75 Ohms

Inner Conductor Type Solid

Inner Conductor Material and Plating Copper, Silver

Dielectric Type HDPE

Number of Shields 1

Shield Layer 1 Aluminum Polyester

Shield Layer 2 Tinned Copper

Jacket Material PVC, Violet

Jacket Diameter 0.274 in [6.96 mm]

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### Connectors

Description	Connector 1	Connector 2
Type	HD-BNC Male	1.0/2.3 Male
Impedance	75 Ohms	75 Ohms
Contact Material and Plating	Brass, Gold	Brass, Gold
Contact Plating Specification	10 $\mu$ in minimum	10 $\mu$ in minimum
Dielectric Type	PTFE	PTFE
Outer Conductor Material and Plating	Brass, Nickel	Brass, Gold
Outer Conductor Plating Specification	50 $\mu$ in minimum	3 $\mu$ in minimum
Body Material and Plating	Brass, Nickel	Brass, Nickel
Body Plating Specification	100 $\mu$ in minimum	100 $\mu$ in minimum

### Environmental Specifications

#### Temperature

Operating Range

-30 to +75 deg C

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

### Plotted and Other Data

Notes:

- Values at 25°C, sea level.

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## RF Cable Assemblies Technical Data Sheet

**PE3C8745/VL-12**

### How to Order

Part Number Configuration:

**PE3C8745/VL - xx uu**

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

Example: PE3C8745/VL-12 = 12 inches long cable  
PE3C8745/VL-100cm = 100 cm long cable

75 Ohm HD-BNC Male to 75 Ohm 1.0/2.3 Male 12G SDI Cable 12 Inch Length Using 75 Ohm 4694R-VL 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: [75 Ohm HD-BNC Male to 75 Ohm 1.0/2.3 Male 12G SDI Cable 12 Inch Length Using 75 Ohm 4694R-VL Coax PE3C8745/VL-12](https://www.pasternack.com/75-ohm-hd-bnc-male-to-75-ohm-1.0-2.3-male-12g-sdi-cable-12-inch-length-using-75-ohm-4694r-vl-coax-pe3c8745/vl-12)

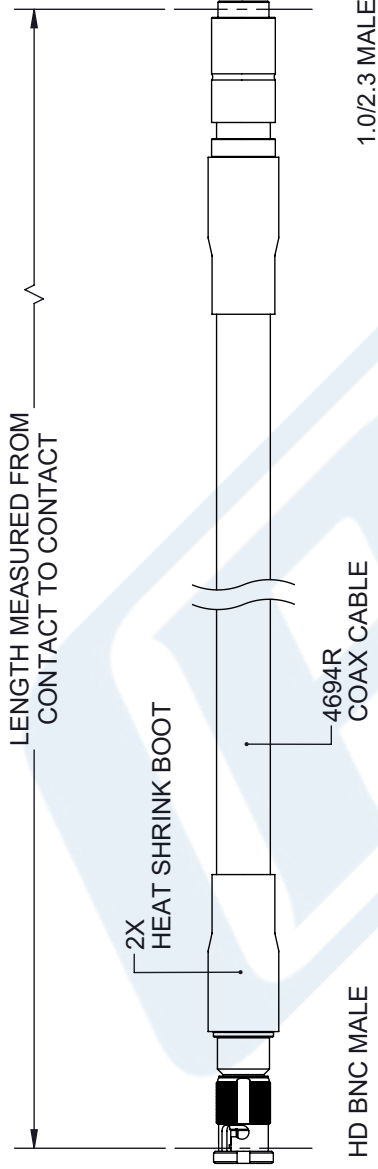
URL: <https://www.pasternack.com/75-ohm-hd-bnc-male-to-75-ohm-1.0-2.3-male-12g-sdi-cable-12-inch-length-using-4694r-vl-pe3c8745-vl-12-p.aspx>

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# PE3C8745/VL-12 CAD Drawing

## 75 Ohm HD-BNC Male to 75 Ohm 1.0/2.3 Male 12G SDI Cable 12 Inch Length Using 75 Ohm 4694R-VL Coax

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	4/29/22	AGANWANI



PE3C8745/ZZ (ZZ = CABLE COLOR DESIGNATION)	COAX CABLE COLOR
PE3C8745/BK	BLACK
PE3C8745/BL	BLUE
PE3C8745/GR	GREEN
PE3C8745/OR	ORANGE
PE3C8745/RD	RED
PE3C8745/VL	VIOLET
PE3C8745/WH	WHITE
PE3C8745/YW	YELLOW

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

**TOLERANCES:**

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

**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% / -0

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

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THIRD-ANGLE PROJECTION

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SHEET 1 OF 1

SCALE N/A

SIZE A    CAGE CODE 53919    DRAWN BY HBAKKE    ITEM NO. PE3C8745/ZZ    REV A

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