



75 Ohm HD-BNC Male to 75 Ohm HD-BNC Male
6G SDI Cable Using 75 Ohm 1694A-GR Coax

RF Cable Assemblies Technical Data Sheet

PE3C8816/GR

Configuration

- Connector 1: HD-BNC Male
- Connector 2: HD-BNC Male
- Cable Type: Belden 1694A-GR

Features

- Max Frequency 6 GHz
- 82% Phase Velocity
- PVC Jacket
- Meets SMPTE ST 2081-1
- 6Gb/s Transmission
- Cost Effective

Applications

- General Purpose
- Laboratory Use
- 6G-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 PE3C8816/GR 75 ohm HD-BNC male to 75 ohm HD-BNC male cable using 75 ohm 1694A-GR 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 HD-BNC cable assembly has a male to male gender configuration with 75 ohm flexible Belden 1694A-GR coax. The PE3C8816/GR HD-BNC male to HD-BNC male cable assembly operates to 6 GHz and enables 6Gb/s data transfer rates for high resolution uncompressed video signal transmission. These products offer 4K and Ultra-HD quality signals that meet SMPTE Standard 2081-1.

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 HD-BNC Male 6G SDI Cable Using 75 Ohm 1694A-GR Coax PE3C8816/GR](#)



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Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		6	GHz
VSWR			1.5:1	
Velocity of Propagation		82		%
Group Delay		4.06 [13.32]		ns/ft [ns/m]
Capacitance		16.2 [53.15]		pF/ft [pF/m]
Inductance		0.347 [1.14]		uH/ft [uH/m]
DC Resistance Inner Conductor		6.4 [21]		Ω/1000ft [Ω/Km]
DC Resistance Outer Conductor		3.8 [12.47]		Ω/1000ft [Ω/Km]
Operating Voltage (AC)			300	Vrms

Specifications by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency	0.25	0.5	1	2.5	6	GHz
Insertion Loss (Typ.)	0.03	0.043	0.063	0.103	0.177	dB/ft
	0.1	0.14	0.21	0.34	0.58	

Electrical Specification Notes:

Insertion Loss does not include the loss of the connectors. Insertion Loss is estimated as 0.1 dB per connector.

Mechanical Specifications

Cable Assembly

Length*	[]
Weight	0.1 lbs [45.36 g]

Cable

Cable Type	Belden 1694A-GR
Impedance	75 Ohms
Inner Conductor Type	Solid
Inner Conductor Material and Plating	Copper, Bare
Dielectric Type	PE
Number of Shields	1
Shield Layer 1	Aluminum Polyester
Shield Layer 2	Tinned Copper
Jacket Material	PVC, Green
Jacket Diameter	0.274 in [6.96 mm]

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Connectors

Description	Connector 1	Connector 2
Type	HD-BNC Male	HD-BNC Male
Impedance	75 Ohms	75 Ohms
Contact Material and Plating	Brass, Gold	Brass, Gold
Contact Plating Specification	10 µin minimum	10 µin minimum
Dielectric Type	PTFE	PTFE
Outer Conductor Material and Plating	Brass, Nickel	Brass, Nickel
Outer Conductor Plating Specification	50 µin minimum	50 µin minimum
Body Material and Plating	Brass, Nickel	Brass, Nickel
Body Plating Specification	100 µin minimum	100 µin minimum

Environmental Specifications

Temperature

Operating Range

-20 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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How to Order

Part Number Configuration:

PE3C8816/GR - xx uu

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

Example: PE3C8816/GR-12 = 12 inches long cable
PE3C8816/GR-100cm = 100 cm long cable

75 Ohm HD-BNC Male to 75 Ohm HD-BNC Male 6G SDI Cable Using 75 Ohm 1694A-GR 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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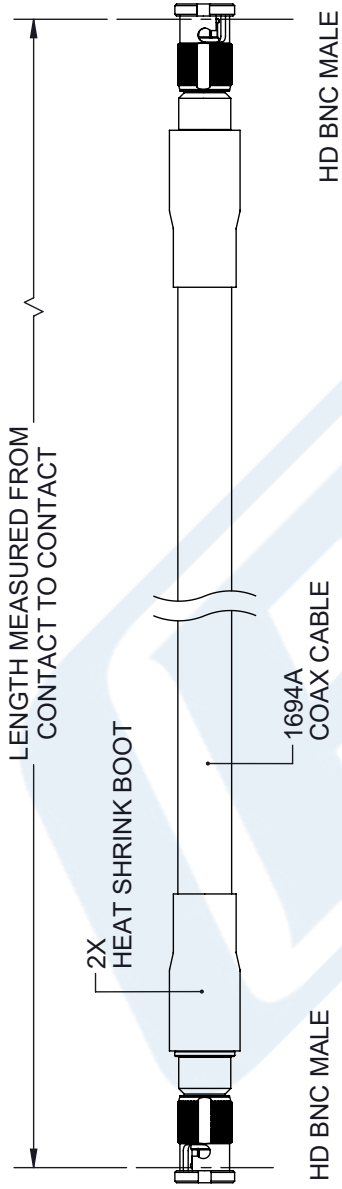
URL: <https://www.pasternack.com/75-ohm-hd-bnc-male-to-75-ohm-hd-bnc-male-6g-sdi-cable-using-1694a-gr-pe3c8816-gr-p.aspx>

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.

PE3C8816/GR CAD Drawing

75 Ohm HD-BNC Male to 75 Ohm HD-BNC Male 6G SDI Cable Using 75 Ohm 1694A-GR Coax

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



PE3C8816/ZZ (ZZ = CABLE COLOR DESIGNATION)	COAX CABLE COLOR
PE3C8816/BK	BLACK
PE3C8816/BL	BLUE
PE3C8816/BR	BROWN
PE3C8816/GR	GREEN
PE3C8816/GY	GRAY
PE3C8816/OR	ORANGE
PE3C8816/RD	RED
PE3C8816/VL	VIOLET
PE3C8816/WH	WHITE
PE3C8816/YW	YELLOW

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

TOLERANCES:

.X = ±.2 [.008] 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	CAGE CODE	DRAWN BY	ITEM NO.	REV
A	53919	HBAKKE	PE3C8816/ZZ	A

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