



75 Ohm HD-BNC Male to 75 Ohm 1.0/2.3 Male 6G SDI  
Cable 36 Inch Length Using 75 Ohm 1694A-YW Coax

## RF Cable Assemblies Technical Data Sheet

**PE3C8817/YW-36**

### Configuration

- Connector 1: HD-BNC Male
- Connector 2: 1.0/2.3 Male
- Cable Type: Belden 1694A-YW

### 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 PE3C8817/YW-36 75 ohm HD-BNC male to 75 ohm 1.0/2.3 male 36 inch cable using 75 ohm 1694A-YW 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 1694A-YW coax. The PE3C8817/YW-36 HD-BNC male to 1.0/2.3 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 1.0/2.3 Male 6G SDI Cable 36 Inch Length Using 75 Ohm 1694A-YW Coax PE3C8817/YW-36](#)



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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]     |         | $\Omega$ /1000ft [ $\Omega$ /Km] |
| DC Resistance Outer Conductor |         | 3.8 [12.47]  |         | $\Omega$ /1000ft [ $\Omega$ /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.) | 0.29 | 0.33 | 0.39 | 0.51 | 0.74 | 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\* 36 in [914.4 mm]

Weight 0.1 lbs [45.36 g]

#### Cable

Cable Type Belden 1694A-YW

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, Yellow

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 µin minimum  | 10 µin minimum  |
| Dielectric Type                       | PTFE            | PTFE            |
| Outer Conductor Material and Plating  | Brass, Nickel   | Brass, Gold     |
| Outer Conductor Plating Specification | 50 µin minimum  | 3 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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**PE3C8817/YW-36**

### How to Order

Part Number Configuration:

**PE3C8817/YW - xx uu**

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

Example: PE3C8817/YW-12 = 12 inches long cable  
PE3C8817/YW-100cm = 100 cm long cable

75 Ohm HD-BNC Male to 75 Ohm 1.0/2.3 Male 6G SDI Cable 36 Inch Length Using 75 Ohm 1694A-YW 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 6G SDI Cable 36 Inch Length Using 75 Ohm 1694A-YW Coax PE3C8817/YW-36](https://www.pasternack.com/75-ohm-hd-bnc-male-to-75-ohm-1.0-2.3-male-6g-sdi-cable-36-inch-length-using-75-ohm-1694a-yw-pe3c8817-yw-36)

URL: <https://www.pasternack.com/75-ohm-hd-bnc-male-to-75-ohm-1.0-2.3-male-6g-sdi-cable-36-inch-length-using-1694a-yw-pe3c8817-yw-36-p.aspx>

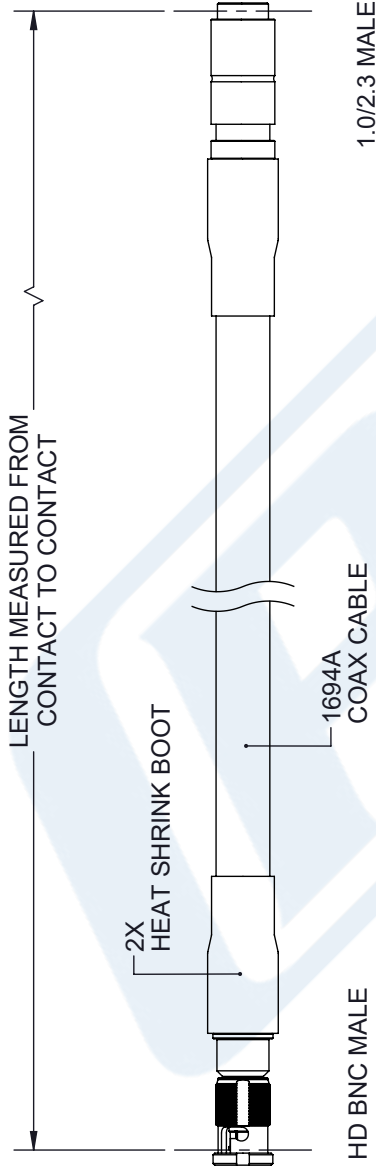
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# PE3C8817/YW-36 CAD Drawing

## 75 Ohm HD-BNC Male to 75 Ohm 1.0/2.3 Male 6G SDI Cable

### 36 Inch Length Using 75 Ohm 1694A-YW Coax

| REVISIONS |                 |                      |
|-----------|-----------------|----------------------|
| REV.      | DESCRIPTION     | DATE                 |
| A         | INITIAL RELEASE | 4/29/22              |
|           |                 | APPROVED<br>AGANWANI |



| PE3C8817/ZZ<br>(ZZ = CABLE COLOR DESIGNATION) | COAX CABLE COLOR |
|---|------------------|
| PE3C8817/BK                                   | BLACK            |
| PE3C8817/BL                                   | BLUE             |
| PE3C8817/BR                                   | BROWN            |
| PE3C8817/GR                                   | GREEN            |
| PE3C8817/GY                                   | GRAY             |
| PE3C8817/OR                                   | ORANGE           |
| PE3C8817/RD                                   | RED              |
| PE3C8817/ML                                   | VIOLET           |
| PE3C8817/WH                                   | WHITE            |
| PE3C8817/YW                                   | YELLOW           |

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

**TOLERANCES:**

.X = ±.2 [ .508]      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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|                            |   |              |           |
|----------------------------|---|--------------|-----------|
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| CAGE CODE                  | DRAWN BY  | ITEM NO.     | REV       |
| A                          | 53919 HBAKKE  | PE3C8817/ZZ  | A         |

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