



75 Ohm BNC Male to 75 Ohm BNC Male 12G SDI Cable
12 Inch Length Using 75 Ohm 4855R-GR Coax

RF Cable Assemblies Technical Data Sheet

PE3C8749/GR-12

Configuration

- Connector 1: BNC Male
- Connector 2: BNC Male
- Cable Type: Belden 4855R-GR

Features

- Max Frequency 12 GHz
- 82% 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 PE3C8749/GR-12 75 ohm BNC male to 75 ohm BNC male 12 inch cable using 75 ohm 4855R-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 BNC to BNC cable assembly has a male to male gender configuration with 75 ohm flexible Belden 4855R-GR coax. The PE3C8749/GR-12 BNC male to BNC 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 BNC Male to 75 Ohm BNC Male 12G SDI Cable 12 Inch Length Using 75 Ohm 4855R-GR Coax PE3C8749/GR-12](#)



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Electrical Specifications

| Description | Minimum | Typical | Maximum | Units |
|-------------------------------|---------|--------------|---------|----------------------------------|
| Frequency Range | DC | | 12 | GHz |
| VSWR | | | 1.5:1 | |
| Velocity of Propagation | | 82 | | % |
| Group Delay | | 1.2 [3.94] | | ns/ft [ns/m] |
| Capacitance | | 16.3 [53.48] | | pF/ft [pF/m] |
| Inductance | | 0.107 [0.35] | | uH/ft [uH/m] |
| DC Resistance Inner Conductor | | 19.7 [64.63] | | Ω /1000ft [Ω /Km] |
| DC Resistance Outer Conductor | | 3.9 [12.8] | | Ω /1000ft [Ω /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.) | 0.28 | 0.31 | 0.38 | 0.45 | 0.62 | 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 4855R-GR

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, Green

Jacket Diameter 0.159 in [4.04 mm]

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Connectors

| Description | Connector 1 | Connector 2 |
|---------------------------------------|-----------------|-----------------|
| Type | BNC Male | 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

-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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How to Order

Part Number Configuration:

PE3C8749/GR - xx uu

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

Example: PE3C8749/GR-12 = 12 inches long cable
PE3C8749/GR-100cm = 100 cm long cable

75 Ohm BNC Male to 75 Ohm BNC Male 12G SDI Cable 12 Inch Length Using 75 Ohm 4855R-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.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [75 Ohm BNC Male to 75 Ohm BNC Male 12G SDI Cable 12 Inch Length Using 75 Ohm 4855R-GR Coax PE3C8749/GR-12](https://www.pasternack.com/75-ohm-bnc-male-to-75-ohm-bnc-male-12g-sdi-cable-12-inch-length-using-75-ohm-4855r-gr-coax-pe3c8749-gr-12)

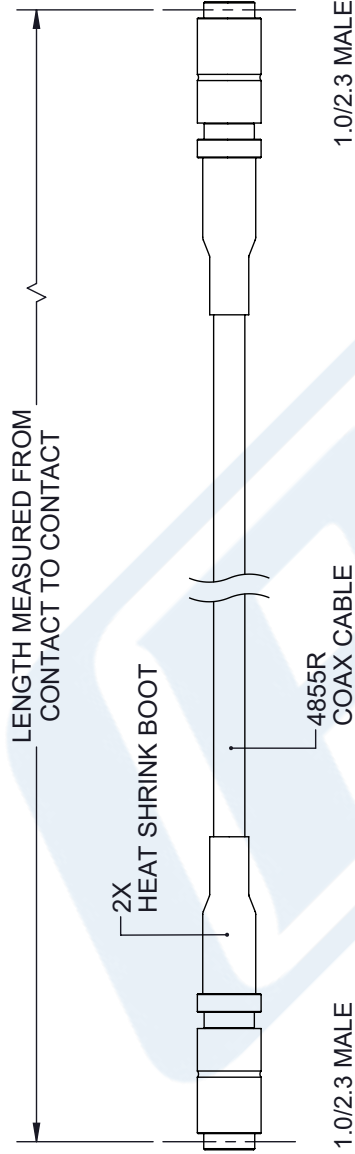
URL: <https://www.pasternack.com/75-ohm-bnc-male-to-75-ohm-bnc-male-12g-sdi-cable-12-inch-length-using-4855r-gr-pe3c8749-gr-12-p.aspx>

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.

PE3C8749/GR-12 CAD Drawing

75 Ohm BNC Male to 75 Ohm BNC Male 12G SDI Cable 12 Inch Length Using 75 Ohm 4855R-Coax

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



| PE3C8749/ZZ (ZZ = CABLE COLOR DESIGNATION) | COAX CABLE COLOR |
|---|------------------|
| PE3C8749/BK | BLACK |
| PE3C8749/BL | BLUE |
| PE3C8749/GR | GREEN |
| PE3C8749/OR | ORANGE |
| PE3C8749/RD | RED |
| PE3C8749/VL | VIOLET |
| PE3C8749/WH | WHITE |
| PE3C8749/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 | CAGE CODE | DRAWN BY | ITEM NO. | REV | REV |
| A | 53919 | HBAKKE | PE3C8749/ZZ | N/A | A |

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