



75 Ohm 1.0/2.3 Male to 75 Ohm 1.0/2.3 Male 12G  
SDI Cable Using 75 Ohm 4855R-VL Coax

## RF Cable Assemblies Technical Data Sheet

**PE3C8749/VL**

### Configuration

- Connector 1: 1.0/2.3 Male
- Connector 2: 1.0/2.3 Male
- Cable Type: Belden 4855R-VL

### 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/VL 75 ohm 1.0/2.3 male to 75 ohm 1.0/2.3 male cable using 75 ohm 4855R-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 1.0/2.3 to 1.0/2.3 cable assembly has a male to male gender configuration with 75 ohm flexible Belden 4855R-VL coax. The PE3C8749/VL 1.0/2.3 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 1.0/2.3 Male to 75 Ohm 1.0/2.3 Male 12G SDI Cable Using 75 Ohm 4855R-VL Coax PE3C8749/VL](#)



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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.)	0.075	0.108	0.172	0.249	0.412	dB/ft
	0.25	0.35	0.56	0.82	1.35	

#### 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 4855R-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	0.159 in [4.04 mm]

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### Connectors

Description	Connector 1	Connector 2
Type	1.0/2.3 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, Gold	Brass, Gold
Outer Conductor Plating Specification	3 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

-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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**PE3C8749/VL**

### How to Order

Part Number Configuration:

**PE3C8749/VL - xx uu**

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

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

75 Ohm 1.0/2.3 Male to 75 Ohm 1.0/2.3 Male 12G SDI Cable Using 75 Ohm 4855R-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 1.0/2.3 Male to 75 Ohm 1.0/2.3 Male 12G SDI Cable Using 75 Ohm 4855R-VL Coax PE3C8749/VL](#)

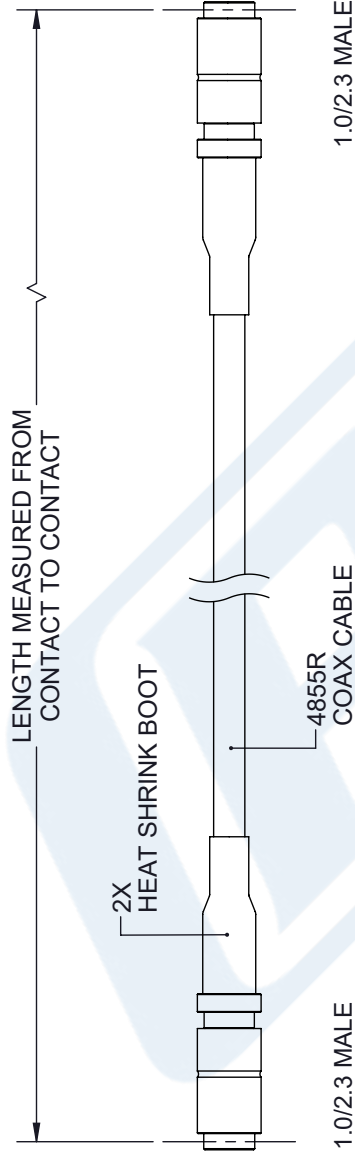
URL: <https://www.pasternack.com/75-ohm-1.0-2.3-male-to-75-ohm-1.0-2.3-male-12g-sdi-cable-using-4855r-vl-pe3c8749-vl-p.aspx>

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# PE3C8749/VL CAD Drawing

75 Ohm 1.0/2.3 Male to 75 Ohm 1.0/2.3 Male 12G SDI  
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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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SCALE N/A

REV A

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