

## 12G SDI 75 Ohm BNC Male to 75 Ohm HD-BNC Male Cable 75 Ohm 4694R-BK Coax

The 75 ohm BNC male to 75 ohm HD-BNC male cable using 75 ohm 4694R-BK coax, part number FMCA2602/BK, from Fairview Microwave is in-stock and ships same day. This Fairview BNC to HD-BNC cable assembly has a male to male gender configuration with 75 ohm flexible Belden 4694R-BK coax. Fairview Microwave's flexible RF cable assemblies are ideal for applications where tight bends and continual flexure are required. The FMCA2602/BK BNC male to HD-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 RF cable assembly value added services including connector orientation or clocking, heat shrink booting and labeling are also available. RF testing can also be performed to document the electrical performance of your cable assembly.

### Electrical Specifications

Description	Min	Typ	Max	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

### Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency	0.5	1	2.5	5	12	GHz
Insertion Loss (Typ.)	0.041	0.059	0.096	0.139	0.23	dB/ft
	0.13	0.19	0.31	0.46	0.75	dB/m

#### 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

Weight 0.1 lbs [45.36 g]

#### Cable

Cable Type Belden 4694R-BK  
Impedance 75 Ohms  
Inner Conductor Type Solid



### Configuration:

- BNC Male
- HD-BNC Male
- Belden 4694R-BK

### 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

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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, Black
Jacket Diameter	0.274 in [6.96 mm]

## Connectors

Description	Connector 1	Connector 2
Type	BNC Male	HD-BNC Male
Impedance	75 Ohms	75 Ohms
Contact Material & Plating	Brass, Gold	Brass, Gold
Contact Plating Spec.	10 µin minimum	10 µin minimum
Dielectric Type	PTFE	PTFE
Outer Cond Material & Plating	Brass, Nickel	Brass, Nickel
Outer Cond Plating Spec.	50 µin minimum	50 µin minimum
Body Material & Plating	Brass, Nickel	Brass, Nickel
Body Plating Spec.	100 µin minimum	100 µin minimum
Seal Gasket Material	Silicone	

## 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.

## How to Order

Part Number Configuration: **FMCA2602/BK - xx uu**

cm = Centimeters

<blank> = Inches

Length

Example: FMCA2602/BK-12 = 12 inches long cable  
 FMCA2602/BK-100cm = 100 cm long cable

12G SDI 75 Ohm BNC Male to 75 Ohm HD-BNC Male Cable 75 Ohm 4694R-BK Coax from Fairview Microwave has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% availability and are part of the broadest selection in the industry.

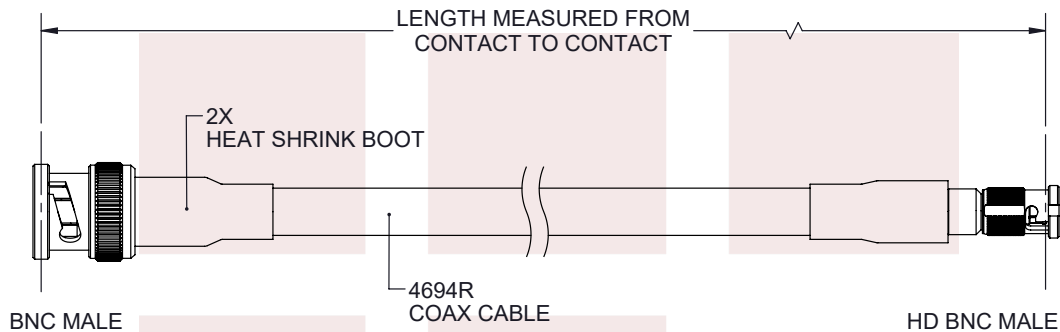
Click the following link to obtain additional part information: [12G SDI 75 Ohm BNC Male to 75 Ohm HD-BNC Male Cable 75 Ohm 4694R-BK Coax FMCA2602/BK](https://www.fairviewmicrowave.com/12g-sdi-75-ohm-bnc-male-to-75-ohm-hd-bnc-male-cable-75-ohm-4694r-bk-coax-fmca2602-bk)

URL: <https://www.fairviewmicrowave.com/12g-sdi-75-ohm-bnc-male-to-75-ohm-hd-bnc-male-cable-75-ohm-4694r-bk-coax-fmca2602-bk-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. Fairview Microwave reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Fairview Microwave does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Fairview Microwave does not assume any liability arising out of the use of any part or documentation.



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



FMCA2602/ZZ (ZZ = CABLE COLOR DESIGNATION)	COAX CABLE COLOR
FMCA2602/BK	BLACK
FMCA2602/BL	BLUE
FMCA2602/GR	GREEN
FMCA2602/OR	ORANGE
FMCA2602/RD	RED
FMCA2602/VL	VIOLET
FMCA2602/WH	WHITE
FMCA2602/YW	YELLOW

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<p><b>Fairview Microwave</b> an INFINIT<sup>®</sup> brand</p>	UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [ ] ARE MILLIMETERS		THIRD-ANGLE PROJECTION 	
	TOLERANCES:		CABLE LENGTH (L) TOLERANCES:	
TITLE  12G SDI 75 Ohm BNC Male to 75 Ohm HD-BNC Male Cable 75 Ohm 4694R-BK Coax	.X = ±.2 [ .508]	FRACTIONS ± 1/32	L ≤ 12 [305] = +1 [25] / -0	THE INFORMATION AND DESIGN IN THIS DOCUMENT IS THE PROPERTY OF FAIRVIEW MICROWAVE CORPORATION. ALL RIGHTS RESERVED. SHEET 1 OF 1
	.XX = ±.02 [ .51]	ANGLES ± 1°	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%L / -0	
ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.				SCALE N/A
SIZE A	CAGE CODE 3FKR5	DRAWN BY HBAKKE	ITEM NO. FMCA2602/ZZ	REV A

T-Rev.D