

## 12G SDI 75 Ohm HD-BNC Male to 75 Ohm HD-BNC Male Cable 75 Ohm 4694R-GR Coax in 72 Inch

The 75 ohm HD-BNC male to 75 ohm HD-BNC male 72 inch cable using 75 ohm 4694R-GR coax, part number FMCA2604/GR-72, from Fairview Microwave is in-stock and ships same day. This Fairview HD-BNC to HD-BNC cable assembly has a male to male gender configuration with 75 ohm flexible Belden 4694R-GR coax. Fairview Microwave's flexible RF cable assemblies are ideal for applications where tight bends and continual flexure are required. The FMCA2604/GR-72 HD-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.)	0.45	0.56	0.78	1.04	1.58	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\* 72 in [182.88 cm]  
Weight 0.15 lbs [68.04 g]

#### Cable

Cable Type Belden 4694R-GR  
Impedance 75 Ohms



### Configuration:

- HD-BNC Male
- HD-BNC Male
- Belden 4694R-GR

### 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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[sales@fairviewmicrowave.com](mailto:sales@fairviewmicrowave.com)

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	0.274 in [6.96 mm]

**Connectors**

Description	Connector 1	Connector 2
Type	HD-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:

**FMCA2604/GR - xx uu**

cm = Centimeters  
 <blank> = Inches  
 Length

Example: FMCA2604/GR-12 = 12 inches long cable  
 FMCA2604/GR-100cm = 100 cm long cable

12G SDI 75 Ohm HD-BNC Male to 75 Ohm HD-BNC Male Cable 75 Ohm 4694R-GR Coax in 72 Inch 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 HD-BNC Male to 75 Ohm HD-BNC Male Cable 75 Ohm 4694R-GR Coax in 72 Inch FMCA2604/GR-72](#)

URL: <https://www.fairviewmicrowave.com/12g-sdi-75-ohm-hd-bnc-male-to-75-ohm-hd-bnc-male-cable-75-ohm-4694r-gr-coax-in-72-inch-fmca2604-gr-72-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
A	INITIAL RELEASE	4/29/22
		APPROVED AGANWANI

  

FMCA2604/JZ (ZZ = CABLE COLOR DESIGNATION)	COAX CABLE COLOR
FMCA2604/BK	BLACK
FMCA2604/BL	BLUE
FMCA2604/GR	GREEN
FMCA2604/OR	ORANGE
FMCA2604/RD	RED
FMCA2604/VL	VIOLET
FMCA2604/WH	WHITE
FMCA2604/YW	YELLOW

  

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±116.0 [ 2946.0] / -0            L = 528.0 [ 13411.2] ±174.0 [ 4415.2] / -0            L = 576.0 [ 14630.4] ±261.0 [ 6645.6] / -0            L = 624.0 [ 15849.6] ±391.5 [ 9912.7] / -0            L = 672.0 [ 17068.8] ±587.25 [ 14821.5] / -0            L = 720.0 [ 18288.0] ±880.8 [ 22380.0] / -0            L = 768.0 [ 19507.2] ±1321.2 [ 33570.0] / -0            L = 816.0 [ 20726.4] ±2011.8 [ 51192.0] / -0            L = 864.0 [ 21945.6] ±3017.7 [ 76764.0] / -0            L = 912.0 [ 23164.8] ±4526.55 [ 115140.0] / -0            L = 960.0 [ 24384.0] ±6789.825 [ 172980.0] / -0            L = 1008.0 [ 25603.2] ±10184.7375 [ 259272.0] / -0            L = 1056.0 [ 26822.4] ±15277.10625 [ 388908.0] / -0            L = 1104.0 [ 28041.6] ±22915.66 [ 581412.0] / -0            L = 1152.0 [ 29260.8] ±34373.49 [ 869112.0] / -0            L = 1200.0 [ 30480.0] ±51560.4 [ 1303680.0] / -0            L = 1248.0 [ 31699.2] ±77340.6 [ 1969920.0] / -0            L = 1296.0 [ 32918.4] ±114513.9 [ 2912640.0] / -0            L = 1344.0 [ 34137.6] ±171770.85 [ 4368960.0] / -0            L = 1392.0 [ 35356.8] ±257656.275 [ 6548640.0] / -0            L = 1440.0 [ 36576.0] ±382183.2 [ 9744000.0] / -0            L = 1488.0 [ 37795.2] ±566363.7 [ 14316000.0] / -0            L = 1536.0 [ 39014.4] ±840199.05 [ 21473280.0] / -0            L = 1584.0 [ 40233.6] ±1243790.475 [ 31708800.0] / -0            L = 1632.0 [ 41452.8] ±1837140.9 [ 46521600.0] / -0            L = 1680.0 [ 42672.0] ±2730491.325 [ 69528000.0] / -0            L = 1728.0 [ 43891.2] ±4024741.7 [ 102816000.0] / -0            L = 1776.0 [ 45110.4] ±5928992.075 [ 150432000.0] / -0            L = 1824.0 [ 46329.6] ±8643242.425 [ 218496000.0] / -0            L = 1872.0 [ 47548.8] ±12467492.775 [ 317088000.0] / -0            L = 1920.0 [ 48768.0] ±17911743.125 [ 456288000.0] / -0            L = 1968.0 [ 49987.2] ±25866000.0 [ 657984000.0] / -0            L = 2016.0 [ 51206.4] ±37330250.375 [ 947136000.0] / -0            L = 2064.0 [ 52425.6] ±53294500.725 [ 1364160000.0] / -0            L = 2112.0 [ 53644.8] ±77858751.075 [ 1977600000.0] / -0            L = 2160.0 [ 54864.0] ±111023001.425 [ 2852160000.0] / -0            L = 2208.0 [ 56083.2] ±156787251.775 [ 4022400000.0] / -0            L = 2256.0 [ 57302.4] ±225151502.125 [ 5721600000.0] / -0            L = 2304.0 [ 58521.6] ±324115752.475 [ 8294400000.0] / -0            L = 2352.0 [ 59740.8] ±463678252.825 [ 11884800000.0] / -0            L = 2400.0 [ 60960.0] ±663740753.175 [ 16953600000.0] / -0            L = 2448.0 [ 62179.2] ±944303253.525 [ 23952000000.0] / -0            L = 2496.0 [ 63398.4] ±1325365753.875 [ 33528000000.0] / -0            L = 2544.0 [ 64617.6] ±1846908254.225 [ 47424000000.0] / -0            L = 2592.0 [ 65836.8] ±2639933254.575 [ 67296000000.0] / -0            L = 2640.0 [ 67056.0] ±3751475754.925 [ 95712000000.0] / -0            L = 2688.0 [ 68275.2] ±5291538255.275 [ 136416000000.0] / -0            L = 2736.0 [ 69494.4] 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/ -0            L = 3408.0 [ 86563.2] ±748648313260.525 [ 20640000000000.0] / -0            L = 3456.0 [ 87782.4] ±1052693813260.875 [ 28464000000000.0] / -0            L = 3504.0 [ 89001.6] ±1450741313261.225 [ 39456000000000.0] / -0            L = 3552.0 [ 90220.8] ±2002788813261.575 [ 53760000000000.0] / -0            L = 3600.0 [ 91440.0] ±2762836313261.925 [ 73824000000000.0] / -0            L = 3648.0 [ 92659.2] ±3810883813262.275 [ 101280000000000.0] / -0            L = 3696.0 [ 93878.4] ±5206931313262.625 [ 138720000000000.0] / -0            L = 3744.0 [ 95097.6] ±7091978813262.975 [ 191680000000000.0] / -0            L = 3792.0 [ 96316.8] ±9706025813263.325 [ 264960000000000.0] / -0            L = 3840.0 [ 97536.0] ±13246072813263.675 [ 365280000000000.0] / -0            L = 3888.0 [ 98755.2] ±18121147813264.025 [ 500160000000000.0] / -0            L = 3936.0 [ 99974.4] ±24841222813264.375 [ 686400000000000.0] / -0            L = 3984.0 [ 101193.6] ±34096297813264.725 [ 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-0            L = 6720.0 [ 170688.0] ±1334101080056022813284.675 [ 127680000000000000000000.0] / -0            L = 6768.0 [ 171907.2] ±1794101105056022813285.025 [ 176832000000000000000000.0] / -0            L = 6816.0 [ 173126.4] ±2414101355056022813285.375 [ 245760000000000000000000.0] / -0            L = 6864.0 [ 174345.6] ±3254101605056022813285.725 [ 343680000000000000000000.0] / -0            L = 6912.0 [ 175564.8] ±4454101855056022813286.075 [ 480960000000000000000000.0] / -0            L = 6960.0 [ 176784.0] ±6054102105056022813286.425 [ 667200000000000000000000.0] / -0            L = 7008.0 [ 178003.2] ±8114102355056022813286.775 [ 924480000000000000000000.0] / -0            L = 7056.0 [ 179222.4] ±10814102605056022813287.125 [ 1276800000000000000000000.0] / -0            L = 7104.0 [ 180441.6] ±1441410285056022813287.475 [ 1768320000000000000000000.0] / -0            L = 7152.0 [ 181660.8] ±1921410310056022813287.825 [ 2457600000000000000000000.0] / -0            L = 7200.0 [ 182880.0] ±2561410560056022813288.175 [ 3436800000000000000000000.0] / -0            L = 7248.0 [ 184099.2] ±3501410810056022813288.525 [ 4809600000000000000000000.0] / -0            L = 7296.0 [ 185318.4] ±4801411060056022813288.875 [ 6672000000000000000000000.0] / -0            L = 7344.0 [ 186537.6] ±6501411310056022813289.225 [ 9244800000000000000000000.0] / -0            L = 7392.0 [ 187756.8] ±8661411560056022813289.575 [ 12768000000000000000000000.0] / -0            L = 7440.0 [ 188976.0] ±11361411810056022813289.925 [ 17683200000000000000000000.0] / -0            L = 7488.0 [ 190195.2] ±15061412060056022813290.275 [ 24576000000000000000000000.0] / -0            L = 7536.0 [ 191414.4] ±19961414560056022813290.625 [ 34368000000000000000000000.0] / -0            L = 7584.0 [ 192633.6] ±26561417060056022813290.975 [ 48096000000000000000000000.0] / -0            L = 7632.0 [ 193852.8] ±35561419560056022813291.325 [ 66720000000000000000000000.0] / -0            L = 7680.0 [ 195072.0] ±48561422060056022813291.675 [ 92448000000000000000000000.0] / -0            L = 7728.0 [ 196291.2] ±66161424560056022813292.025 [ 127680000000000000000000000.0] / -0            L = 7776.0 [ 197510.4] ±89161427060056022813292.375 [ 176832000000000000000000000.0] / -0            L = 7824.0 [ 198729.6] ±119161429560056022813292.725 [ 245760000000000000000000000.0] / -0            L = 7872.0 [ 199948.8] ±158161432060056022813293.075 [ 343680000000000000000000000.0] / -0            L = 7920.0 [ 201168.0] ±209161457060056022813293.425 [ 480960000000000000000000000.0] / -0            L = 7968.0 [ 202387.2] ±285161482060056022813293.775 [ 667200000000000000000000000.0] / -0            L = 8016.0 [ 203606.4] ±391161507060056022813294.125 [ 924480000000000000000000000.0] / -0            L = 8064.0 [ 204825.6] ±533161532060056022813294.475 [ 1276800000000000000000000000.0] / -0            L = 8112.0 [ 206044.8] ±717161557060056022813294.825 [ 1768320000000000000000000000.0] / -0            L = 8160.0 [ 207264.0] ±959161582060056022813</p>
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