

6G SDI 75 Ohm 1.0/2.3 Male to 75 Ohm 1.0/2.3 Male Cable 75 Ohm 1694A-BK Coax in 120 Inch

The 75 ohm 1.0/2.3 male to 75 ohm 1.0/2.3 male 120 inch cable using 75 ohm 1694A-BK coax, part number FMCA2678/BK-120, from Fairview Microwave is in-stock and ships same day. This Fairview 1.0/2.3 to 1.0/2.3 cable assembly has a male to male gender configuration with 75 ohm flexible Belden 1694A-BK coax. Fairview Microwave's flexible RF cable assemblies are ideal for applications where tight bends and continual flexure are required. The FMCA2678/BK-120 1.0/2.3 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 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		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]			Ω/1000ft [Ω/Km]
DC Resistance Outer Conductor	3.8 [12.47]			Ω/1000ft [Ω/Km]
Operating Voltage (AC)			300	Vrms

Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency	0.25	0.5	1	2.5	6	GHz
Insertion Loss (Typ.)	0.5	0.63	0.83	1.23	1.97	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*	120 in [304.8 cm]
Weight	0.3 lbs [136.08 g]

Cable

Cable Type	Belden 1694A-BK
Impedance	75 Ohms
Inner Conductor Type	Solid



Configuration:

- 1.0/2.3 Male
- 1.0/2.3 Male
- Belden 1694A-BK

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

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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, Black
Jacket Diameter	0.274 in [6.96 mm]

Connectors

Description	Connector 1	Connector 2
Type	1.0/2.3 Male	1.0/2.3 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, Gold	Brass, Gold
Outer Cond Plating Spec.	3 µin minimum	3 µin minimum
Body Material & Plating	Brass, Nickel	Brass, Nickel
Body Plating Spec.	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.

How to Order

Part Number Configuration:

FMCA2678/BK - xx uu

cm = Centimeters
 <blank> = Inches

Length

Example: FMCA2678/BK-12 = 12 inches long cable
 FMCA2678/BK-100cm = 100 cm long cable

6G SDI 75 Ohm 1.0/2.3 Male to 75 Ohm 1.0/2.3 Male Cable 75 Ohm 1694A-BK Coax in 120 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: [6G SDI 75 Ohm 1.0/2.3 Male to 75 Ohm 1.0/2.3 Male Cable 75 Ohm 1694A-BK Coax in 120 Inch FMCA2678/BK-120](https://www.fairviewmicrowave.com/6g-sdi-75-ohm-1.0-2.3-male-to-75-ohm-1.0-2.3-male-cable-75-ohm-1694a-bk-coax-in-120-inch-fmca2678-bk-120-p.aspx)

URL: <https://www.fairviewmicrowave.com/6g-sdi-75-ohm-1.0-2.3-male-to-75-ohm-1.0-2.3-male-cable-75-ohm-1694a-bk-coax-in-120-inch-fmca2678-bk-120-p.aspx>

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REV.

DESCRIPTION

DATE

APPROVED

A

INITIAL RELEASE

4/29/22

AGANWANI

LENGTH MEASURED FROM CONTACT TO CONTACT

2X HEAT SHRINK BOOT

1694A COAX CABLE

1.0/2.3 MALE

1.0/2.3 MALE

FMCA2678/ZZ (ZZ = CABLE COLOR DESIGNATION)	COAX CABLE COLOR
FMCA2678/BK	BLACK
FMCA2678/BL	BLUE
FMCA2678/BR	BROWN
FMCA2678/GR	GREEN
FMCA2678/GY	GRAY
FMCA2678/OR	ORANGE
FMCA2678/RD	RED
FMCA2678/VL	VIOLET
FMCA2678/WH	WHITE
FMCA2678/YW	YELLOW

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Fairview Microwave

an INFINITE brand

TITLE

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

TOLERANCES:

CABLE LENGTH (L) TOLERANCES:

.X = ±.2 [.51] FRACTIONS
.XX = ±.02 [.51] ± 1/32
XXX = ±.005 [.13] ANGLES ± 1°

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%L / -0

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

SIZE
A

CAGE CODE
3FKR5

DRAWN BY
HBAKKE

ITEM NO.
FMCA2678/ZZ

REV
A

THIRD-ANGLE PROJECTION

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SHEET 1 OF 1

SCALE N/A