

6G SDI 75 Ohm 1.0/2.3 Male to 75 Ohm 1.0/2.3 Male Cable 75 Ohm 1694A-RD Coax

The 75 ohm 1.0/2.3 male to 75 ohm 1.0/2.3 male cable using 75 ohm 1694A-RD coax, part number FMCA2678/RD, 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-RD coax. Fairview Microwave's flexible RF cable assemblies are ideal for applications where tight bends and continual flexure are required. The FMCA2678/RD 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.)	0.03	0.043	0.063	0.103	0.177	dB/ft
	0.1	0.14	0.21	0.34	0.58	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 1694A-RD
Impedance 75 Ohms
Inner Conductor Type Solid



Configuration:

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

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, Red
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/RD - xx uu

cm = Centimeters
 <blank> = Inches

Length

Example: FMCA2678/RD-12 = 12 inches long cable
 FMCA2678/RD-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-RD 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.

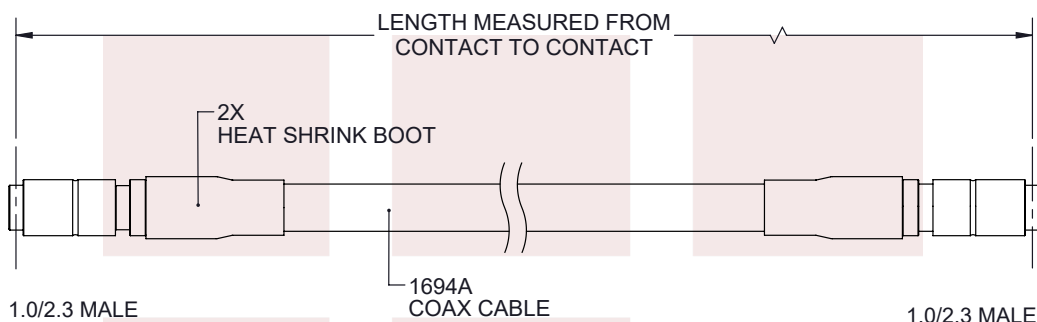
Click the following link to obtain additional part information: [6G SDI 75 Ohm 1.0/2.3 Male to 75 Ohm 1.0/2.3 Male Cable 75 Ohm 1694A-RD Coax FMCA2678/RD](https://www.fairviewmicrowave.com/6g-sdi-75-ohm-1.0-2.3-male-to-75-ohm-1.0-2.3-male-cable-75-ohm-1694a-rd-coax-fmca2678-rd-p.aspx)

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



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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TITLE

6G SDI 75 Ohm 1.0/2.3 Male to 75 Ohm 1.0/2.3 Male
Cable 75 Ohm 1694A-RD Coax

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

TOLERANCES:

CABLE LENGTH (L) TOLERANCES:

.X = ± 2 [5.08]	FRACTIONS
.XX = $\pm .02$ [.51]	$\pm 1/32$
.XXX = $\pm .005$ [.13]	ANGLES $\pm 1^\circ$

$$\begin{aligned} L \leq 12 [305] &= +1 [25] / -0 \\ 12 [305] < L \leq 60 [1524] &= +2 [51] / -0 \\ 60 [1524] < L \leq 120 [3048] &= +4 [102] / -0 \\ 120 [3048] < L \leq 300 [7620] &= +6 [152] / -0 \\ 300 [7620] < L &= +5\% / -0 \end{aligned}$$

THIRD-ANGLE PROJECTION



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SHEET 1 OF 1

SCALE	N/A
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ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY

SIZE	CAGE CODE	DRAWN BY	ITEM NO.	REV
A	3FKR5	HBAKKE	FMCA2678/ZZ	A