

75 Ohm 6G SDI 1.0/2.3 Male to 1.0/2.3 Male Cable Assembly using 1694A-BK Coax, 1 FT



**LCCA30802/BK-FT1**

**Configuration**

- Connector 1: 1.0/2.3 Male
- Connector 2: 1.0/2.3 Male
- Cable Type: Belden 1694A-BK

**Features**

- Meets SMPTE ST 2081-1
- 6Gb/s Transmission
- Cost Effective

**Applications**

- 6G-SDI, Video, and Broadband UHDTV
- Broadband Internet Delivery
- Broadcast A/V
- 4K/8K Video Equipment
- Medical Equipment Requiring High Speed Video
- HD Cameras



**Description**

L-com's LCCA30802/BK-FT1 is a 75 Ohm 6G SDI 1.0/2.3 male to 1.0/2.3 male cable assembly using 1694A-BK coax, 1 FT and ships same-day. These flexible RF cable assemblies are ideal for applications where flexure is required. Our L-com 1.0/2.3 to 1.0/2.3 cable assembly has a male to male gender configuration with 75 Ohm flexible 1694A-BK series coax and 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. The shielding of this 1.0/2.3 cable is comprised of aluminum polyester.

Custom versions of this 1.0/2.3 male to 1.0/2.3 male cable, along with the rest of L-com's other RF assemblies, can also be built and shipped same day. Other available RF cable assembly value added services from L-com 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. Contact a sales representative for testing or custom RF cable quotes. Part number LCCA30802/BK-FT1 L-com 75 Ohm 6G SDI 1.0/2.3 Male to 1.0/2.3 Male Cable Assembly using 1694A-BK Coax, 1 FT data sheet PDF includes details of the RF product specifications, CAD drawing(s) and dimensions below.

**Electrical Specifications**

| Description | Minimum | Typical | Maximum | Units |
|-------------|---------|---------|---------|-------|
|-------------|---------|---------|---------|-------|

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**LCCA30802/BK-FT1**

|                               |    |              |                       |
|-------------------------------|----|--------------|-----------------------|
| 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]     | Ohms/1000ft [Ohms/Km] |
| DC Resistance Outer Conductor |    | 3.8 [12.47]  | Ohms/1000ft [Ohms/Km] |
| Operating Voltage (AC)        |    | 300          | Vrms                  |

**Specifications by Frequency**

| Description           | F1   | F2   | F3   | F4   | F5   | Units |
|-----------------------|------|------|------|------|------|-------|
| Frequency             | 0.25 | 0.5  | 1    | 2.5  | 6    | GHz   |
| Insertion Loss (Typ.) | 0.23 | 0.25 | 0.27 | 0.31 | 0.38 | 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   | 12 in [304.8 mm]  |
| Diameter | 0.5 in [12.7 mm]  |
| Weight   | 0.1 lbs [45.36 g] |

**Cable**

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

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## LCCA30802/BK-FT1

### 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 -20 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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**LCCA30802/BK-FT1**

**How to Order**

Part Number Configuration:

**LCCA30802/BK - xx uu**



Example: LCCA30802/BK-12 = 12 inches long cable  
LCCA30802/BK-100cm = 100 cm long cable

75 Ohm 6G SDI 1.0/2.3 Male to 1.0/2.3 Male Cable Assembly using 1694A-BK Coax, 1 FT from L-com has same day shipment for domestic and International orders. L-com is a leading manufacturer of wired and wireless connectivity products and committed to in-stock availability and same day shipping. Our portfolio includes coaxial cable assemblies, connectors, adapters and custom products as well as lightning and surge protectors, NEMA rated enclosures, and an RF product line which includes antennas, amplifiers, passive, and active components.

The information contained within 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 impliment improvements. L-com reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. L-com does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and L-com does not assume liability arising out of the use of any part or document.ontained within 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 impliment improvements. L-com reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. L-com does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and L-com does not assume liability arising out of the use of any part or document.

L-com CAD Drawing

| REVISIONS |                 |                      |
|-----------|-----------------|----------------------|
| REV.      | DESCRIPTION     | DATE                 |
| A         | INITIAL RELEASE | 5/2/22               |
|           |                 | APPROVED<br>AGANWANI |

  

LENGTH MEASURED FROM CONTACT TO CONTACT

1.0/2.3 MALE

1694A COAX CABLE

1.0/2.3 MALE

  

| LCCA30802/ZZ<br>(ZZ = CABLE COLOR DESIGNATION) | COAX CABLE COLOR |
|--|------------------|
| LCCA30802/BK                                   | BLACK            |
| LCCA30802/BL                                   | BLUE             |
| LCCA30802/BR                                   | BROWN            |
| LCCA30802/GR                                   | GREEN            |
| LCCA30802/GY                                   | GRAY             |
| LCCA30802/OR                                   | ORANGE           |
| LCCA30802/RD                                   | RED              |
| LCCA30802/VL                                   | VIOLET           |
| LCCA30802/WH                                   | WHITE            |
| LCCA30802/YW                                   | YELLOW           |

  

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

**TOLERANCES:**

|              |        |             |
|--------------|--------|-------------|
| .X = ±.2     | [5.08] | FRACTIONS   |
| .XX = ±.02   | [.51]  | ± 1/32      |
| .XXX = ±.005 | [.13]  | ANGLES ± 1° |

**CABLE LENGTH (L) TOLERANCES:**

|                             |                |
|-----------------------------|----------------|
| L ≤ 12 [305]                | ± 1 [25] / -0  |
| 12 [305] < L ≤ 60 [1524]    | ± 2 [61] / -0  |
| 60 [1524] < L ≤ 120 [3048]  | ± 4 [102] / -0 |
| 120 [3048] < L ≤ 300 [7620] | ± 6 [152] / -0 |
| 300 [7620] < L = ∞          | ± 9% L / -0    |

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

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THIRD-ANGLE PROJECTION

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SHEET 1 OF 1

SCALE N/A

  

| SIZE | CAGE CODE | DRAWN BY | ITEM NO.     | REV |
|------|-----------|----------|--------------|-----|
| A    | 43321     | HBAKKE   | LCCA30802/ZZ | A   |

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