

## 10KV Female Bulkhead to MHV Male Cable RG303HV Coax



### FMCA9776

#### Configuration

- Connector 1: 10KV Female Bulkhead
- Connector 2: MHV Male
- Cable Type: RG303HV

#### Features

- 69% Phase Velocity
- FEP Jacket

#### Applications

- General Purpose
- Laboratory Use

#### Description

The 10KV female bulkhead to MHV male cable using RG303HV coax, part number FMCA9776, from Fairview Microwave is in-stock and ships same day. This Fairview 10KV to MHV cable assembly has a female to male gender configuration with 50 ohm RG303HV coax. Our RF cable assembly with 10KV bulkhead interface allows designers to create external connections on their product enclosures, and can be used in a variety of other rack mount and panel mount applications. Our 10kV high voltage RF cable assemblies are designed to handle higher voltages and minimize the risk of electric shock. Both the connectors used in this cable assemblies have recessed contact design to withstand unmated higher voltage. These cable assemblies are commonly used in applications where high voltage transmission and RF signal integrity are critical. These cable assemblies are constructed with high-quality insulation materials capable of withstanding higher voltages, ensuring safety and preventing electrical breakdown. Our cable assemblies are built with durable and flexible materials to withstand harsh environmental conditions and repetitive movements, ensuring reliable performance over extended periods.

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             | Minimum | Typical | Maximum | Units |
|-------------------------|---------|---------|---------|-------|
| Velocity of Propagation |         | 69      |         | %     |
| Operating Voltage (DC)  |         |         | 700     | Vdc   |
| Test Voltage (DC)       |         |         | 2,500   | V     |

Electrical Specification Notes:

Values at 25°C, sea level. Maximum Test Voltage of MHV is 2500.

#### Mechanical Specifications

##### Cable Assembly

|                |                    |
|----------------|--------------------|
| Width/Diameter | 0.5 in [12.7 mm]   |
| Weight         | 0.168 lbs [76.2 g] |

##### Cable

|            |         |
|------------|---------|
| Cable Type | RG303HV |
|------------|---------|

## 10KV Female Bulkhead to MHV Male Cable RG303HV Coax

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|                                      |                              |
|--------------------------------------|------------------------------|
| Impedance                            | 50 Ohms                      |
| Inner Conductor Material and Plating | Silver, Copper Clad Aluminum |
| Dielectric Type                      | FEP                          |
| Number of Shields                    | 1                            |
| Jacket Material                      | FEP                          |
| Jacket Diameter                      | 0.169 in [4.29 mm]           |
| Repeated Minimum Bend Radius         | 0.788 in [20.02 mm]          |

### Connectors

| Description                        | Connector 1           | Connector 2     |
|------------------------------------|-----------------------|-----------------|
| Type                               | 10KV Female Bulkhead  | MHV Male        |
| Specification                      | MIL-STD-202           | MIL-STD-348A    |
| Impedance                          | 50 Ohms               | 50 Ohms         |
| Configuration                      | Straight              | Straight        |
| Contact Material and Plating       | Brass, Gold/Tri-Metal | Brass, Gold     |
| Contact Plating Specification      |                       | 30 µin minimum  |
| Dielectric Type                    | PE (HD)               | PTFE            |
| Body Material and Plating          | Brass, Tinned Copper  | Brass, Nickel   |
| Body Plating Specification         |                       | 100 µin minimum |
| Coupling Nut Material and Plating  | Brass, Tinned Copper  | Brass, Nickel   |
| Coupling Nut Plating Specification |                       | 100 µin minimum |

### Environmental Specifications

**Compliance Certifications** (see [product page](#) for current document)

### Plotted and Other Data

Notes:  
Values at 25°C, sea level.

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### FMCA9776

#### Typical Performance Data

#### How to Order

Part Number Configuration:

**FMCA9776**

**- xx**

**uu**

Unit of Measure:

cm = Centimeters

<blank> = Inches

Length

Base Number

Example: FMCA9776-12 = 12 inches long cable  
FMCA9776-100cm = 100 cm long cable

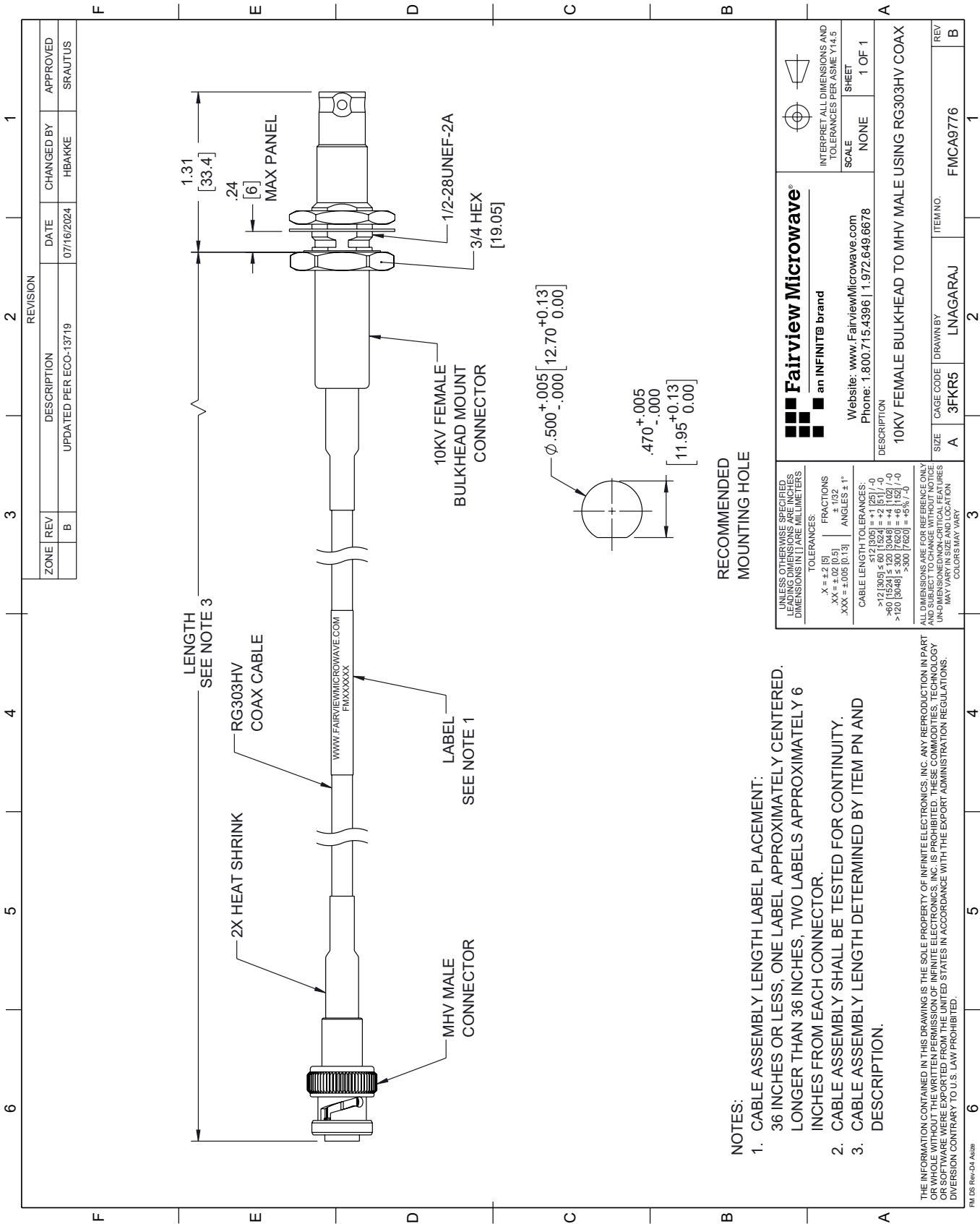
10KV Female Bulkhead to MHV Male Cable RG303HV Coax from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [10KV Female Bulkhead to MHV Male Cable RG303HV Coax FMCA9776](https://www.fairviewmicrowave.com/10kv-female-bulkhead-to-mhv-male-cable-rg303hv-coax-fmca9776-p.aspx)

URL: <https://www.fairviewmicrowave.com/10kv-female-bulkhead-to-mhv-male-cable-rg303hv-coax-fmca9776-p.aspx>

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 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 liability arising out of the use of any part or document.

FMCA9776 CAD Drawing
10KV Female Bulkhead to MHV Male Cable RG303HV Coax



RECOMMENDED MOUNTING HOLE

- NOTES:
1. CABLE ASSEMBLY LENGTH LABEL PLACEMENT: 36 INCHES OR LESS, ONE LABEL APPROXIMATELY CENTERED. LONGER THAN 36 INCHES, TWO LABELS APPROXIMATELY 6 INCHES FROM EACH CONNECTOR.
2. CABLE ASSEMBLY SHALL BE TESTED FOR CONTINUITY.
3. CABLE ASSEMBLY LENGTH DETERMINED BY ITEM PN AND DESCRIPTION.

|  |  |  |  |  |  |
|--|--|--|--|--|--|
| Fairview Microwave®<br>an INFINITI® brand  |  | Website: www.FairviewMicrowave.com<br>Phone: 1.800.715.4396   1.972.649.6678 |  | INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5 |  |
| UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN INCHES. DIMENSIONS IN [ ] ARE MILLIMETERS.   |  | TOLERANCES:  |  | SCALE: NONE  |  |
| X = ±.2 [5]  |  | FRACTIONS: ± 1/32  |  | SHEET: 1 OF 1  |  |
| .XX = ±.02 [0.5]   |  | ANGLES: ± 1°   |  |  |  |
| .XXX = ±.005 [0.13]  |  | CABLE LENGTH TOLERANCES:   |  |  |  |
|  |  | >12 [305] ≤ 60 [1524] = ±.1 [25] / -0  |  |  |  |
|  |  | >60 [1524] ≤ 120 [3048] = ±.1 [25] / -0                                      |  |  |  |
|  |  | >120 [3048] ≤ 300 [7620] = ±.1 [25] / -0                                     |  |  |  |
|  |  | >300 [7620] = ±.1 [25] / -0  |  |  |  |
| ALL DIMENSIONS ARE FOR REFERENCE ONLY. UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. DIMENSIONS IN [ ] ARE MILLIMETERS. DIMENSIONS MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY. |  | DESCRIPTION: 10KV FEMALE BULKHEAD TO MHV MALE USING RG303HV COAX             |  |  |  |
| SIZE: A  |  | CAGE CODE: 3FKR5   |  | ITEM NO: FMCA9776                                      |  |
| DRAWN BY: LNAGARAJ   |  |  |  |  |  |
| REV: B   |  |  |  |  |  |