

40kV Flexible RG303 High Voltage Coax Cable Single Shielded with Red PUR Jacket

# RG303HV-BULK

### Configuration

- Flexible Cable
- 1 Shield(s)

#### **Features**

- · Voltage rating up to 40kV
- Low Signal Attenuation

### **Applications**

- Semiconductor Testing
- Radar Systems
- Broadcast Stations

### Description

- Robust Insulation
- · Flexible and Durable
- Research and Development
- Military and Defense

RG303HV part number from Pasternack is a coax cable that is flexible. Fairview Microwave's flexible coax RF cable has an im-pedance of 50 Ohm and PE dielectric. Our RG303HV coax cable is constructed with a 0.169-inch jacket made of FEP. Our coax cable from Pasternack has a maximum frequency of 3000 MHz. This red colored coax cable has a 0.138-inch shield layer of Silver Copper. Additional specifications for this RG303HV single-shielded RF coaxial cable are on our downloadable PDF datasheet above. Our RG303HV coax cable has a maximum operating temperature of 200 degrees C. This 40kV red colored flexible RF cable with a 50 Ohm impedance has a typical insertion loss/maximum attenuation of 0.22 dB/ft at a frequency of 3000 MHz. The RG303HV flexible RF cable has a silver center conductor with a copper clad aluminum conductor plating.

The RG303 high-voltage RF cable is engineered specifically for radio frequency applications that require the handling of extremely high voltages. With a rated voltage of 40kV, this cable is designed to safely and efficiently transmit high-voltage RF signals. It is commonly utilized in industrial applications where reliable and robust RF signal distribution is critical. The RG303 cable is constructed with high-quality insulation materials and conductors to minimize signal loss and ensure optimal performance. Adhering to safety guidelines and proper installation practices are essential when working with this cable to maintain electrical safety and preserve signal integrity.

Fairview Microwave RG303HV coax cables are part of over 40,000 RF, microwave, and millimeter wave components. These flexible RF cables and our other RF parts are available for same-day shipping worldwide. Custom RF cable assemblies using RG303HV other coax can be built and shipped the same business day as well.

## **Electrical Specifications**

| Description                          | Minimum | Typical    | Maximum | Units        |
|--------------------------------------|---------|------------|---------|--------------|
| Frequency Range                      | DC      |            | 3       | GHz          |
| Impedance                            |         | 50         |         | Ohms         |
| Operating Voltage (AC)               |         |            | 1,400   | Vrms         |
| Operating Voltage (DC)               |         |            | 40,000  | Vdc          |
| Dielectric Withstanding Voltage (AC) |         |            | 1,900   | Vrms         |
| Nominal Capacitance                  |         | 28.65 [94] |         | pF/ft [pF/m] |
| Test Voltage (Conduc-                |         | 80         |         | kVoc/1min    |
| tor/Braid)                           |         |            |         |              |
| Test Voltage (Spark                  |         | 15         |         | kVac         |
| Test, Core)                          |         |            |         |              |





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## **RG303HV-BULK**

**Electrical Specifications** 

| Description              | Minimum | Typical | Maximum | Units |
|--------------------------|---------|---------|---------|-------|
| Test Voltage (Spark      |         | 5       |         | kVac  |
| Test, Jacket)            |         |         |         |       |
| Test Voltage (Type Test) |         | 64      |         | kVoc  |

## Performance by Frequency Band

| Description      | F1   | F2    | F3    | F4    | F5 | Units    |
|------------------|------|-------|-------|-------|----|----------|
| Frequency        | 0.05 | 0.4   | 1     | 3     |    | GHz      |
| Attenuation, Typ | 2.48 | 7.35  | 12.09 | 22.52 |    | dB/100ft |
|                  | 8.14 | 24.11 | 39.67 | 73.88 |    | dB/100m  |

## **Mechanical Specifications**

| Diameter                        | 0.169 in [4.29 mm}       |
|---------------------------------|--------------------------|
| Weight                          | 0.027 lbs/ft [0.04 kg/m] |
| Min. Bend Radius (Installation) | 0.787 in [19.99 mm]      |
| Min. Bend Radius (Repeated)     | 1.77 in [44.96 mm]       |

### **Construction Specifications**

| Description     | Material and Plating                 | Diameter           |
|-----------------|--------------------------------------|--------------------|
| Inner Conductor | Silver, Copper Clad Aluminum, Strand | 0.037 in [0.94 mm] |
| Dielectric      | FEP                                  | 0.116 in [2.95 mm] |
| First Shield    | Silver Copper                        | 0.138 in [3.51 mm] |
| Jacket          | FEP, Red                             | 0.169 in [4.29 mm] |

### **Environmental Specifications**

**Temperature** Operating Range

-65 to 200 deg C

Compliance Certifications (see product page for current document)

### **Plotted and Other Data**

Notes:

1) All tests preformed in accordacne with MIL-DTL-17 (current issue).

2) All materials are RoHS and REACH compliant.



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40kV Flexible RG303 High Voltage Coax Cable Single Shielded with Red PUR Jacket 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: 40kV Flexible RG303 High Voltage Coax Cable Single Shielded with Red PUR Jacket RG303HV-BULK

URL: https://www.fairviewmicrowave.com/rg303-flexible-coax-cable-fep-jacket-rg303hv-bulk-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 impliment 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.

## **RG303HV-BULK CAD Drawing**

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