

## 10KV Male to SHV Plug Cable RG303HV Coax in 36 Inch



### FMCA9781-36

#### Configuration

- Connector 1: 10KV Male
- Connector 2: SHV Plug
- Cable Type: RG303HV

#### Features

- 69% Phase Velocity
- FEP Jacket

#### Applications

- General Purpose
- Laboratory Use

#### Description

The 10KV male to SHV plug 36 inch cable using RG303HV coax, part number FMCA9781-36, from Fairview Microwave is in-stock and ships same day. This Fairview 10KV to SHV cable assembly has a male to plug gender configuration with 50 ohm RG303HV coax. 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 SHV is 2500.

#### Mechanical Specifications

##### Cable Assembly

Length	36 in [914.4 mm]
Width/Diameter	0.5 in [12.7 mm]
Weight	0.39 lbs [176.9 g]

##### Cable

Cable Type	RG303HV
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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 Male	SHV Plug
Specification	MIL-STD-202	MIL-STD-348A
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Contact Material and Plating	Beryllium Copper, Gold/Tri-Metal	Brass, Gold
Contact Plating Specification		30 µin minimum
Dielectric Type	PE (HD)	PTFE
Body Material and Plating	Brass, Nickel Over Copper	Brass, Nickel
Body Plating Specification		100 µin minimum
Coupling Nut Material and Plating	Brass, Nickel Over 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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### FMCA9781-36

#### Typical Performance Data

#### How to Order

Part Number Configuration:

**FMCA9781**

**- xx**

**uu**

Unit of Measure:  
cm = Centimeters  
<blank> = Inches  
Length  
Base Number

Example: FMCA9781-12 = 12 inches long cable  
FMCA9781-100cm = 100 cm long cable

10KV Male to SHV Plug Cable RG303HV Coax in 36 Inch 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.

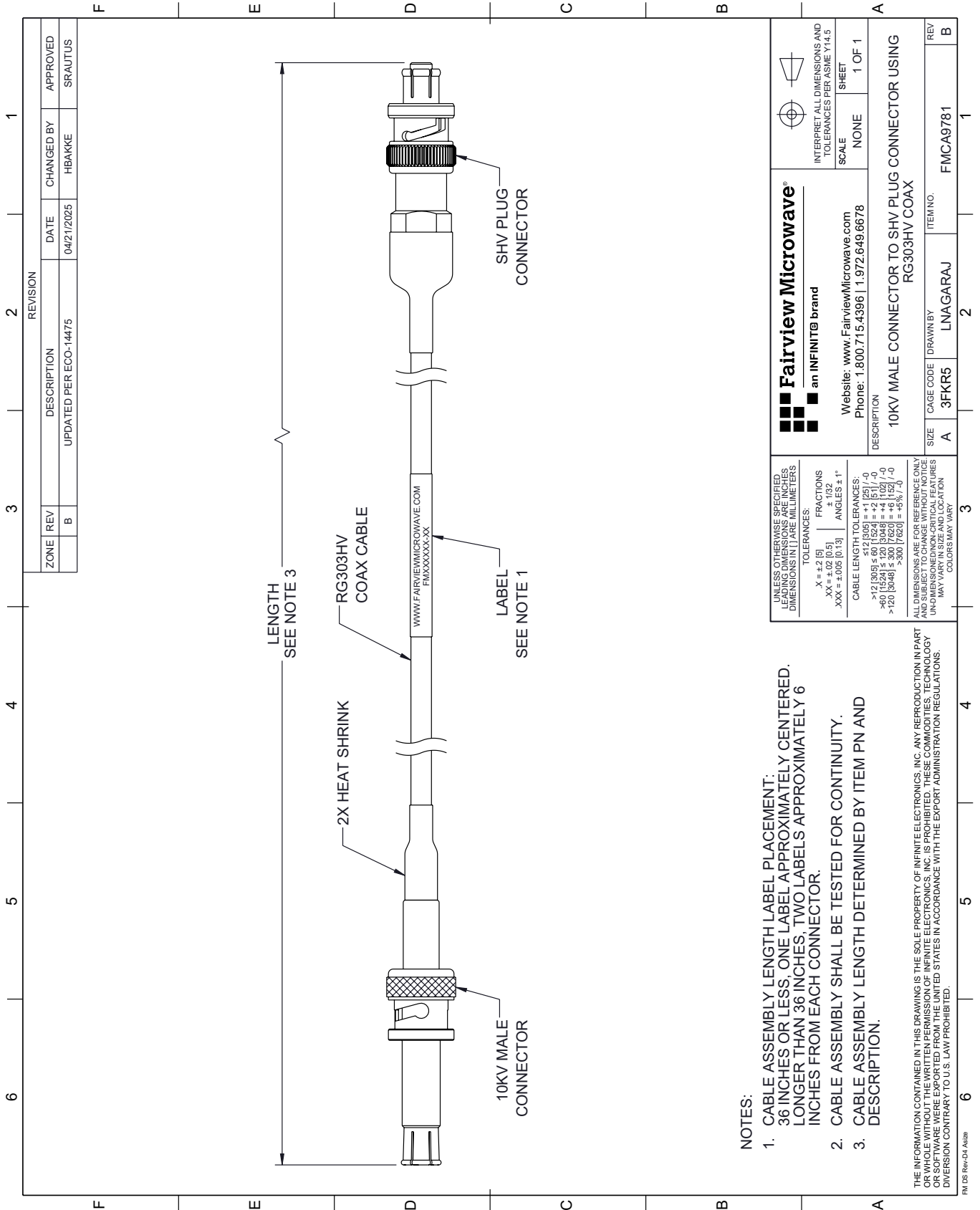
For additional information on this product, please click the following link: [10KV Male to SHV Plug Cable RG303HV Coax in 36 Inch FMCA9781-36](#)

URL: <https://www.fairviewmicrowave.com/10kv-male-to-shv-plug-cable-rg303hv-coax-in-36-inch-fmca9781-36-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.

# FMCA9781-36 CAD Drawing

10KV Male to SHV Plug Cable RG303HV Coax in 36 Inch



**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.

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FM DS Rev-D4 Alt2b

REVISION		DATE	CHANGED BY	APPROVED	
ZONE	REV	DESCRIPTION	DATE	CHANGED BY	APPROVED
	B	UPDATED PER ECO-14475	04/21/2025	HBAKKE	SRAUTUS

<p><b>Fairview Microwave</b> an INFINITB brand</p>		<p>INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5</p>
<p>Website: <a href="http://www.FairviewMicrowave.com">www.FairviewMicrowave.com</a> Phone: 1.800.715.4396   1.972.649.6678</p>		<p>SCALE: NONE SHEET: 1 OF 1</p>
<p>DESCRIPTION: 10KV MALE CONNECTOR TO SHV PLUG CONNECTOR USING RG303HV COAX</p>		
SIZE	CAGE CODE	ITEM NO.
A	3FKR5	LNAGARAJ
		REV B
		FMCA9781

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

TOLERANCES:  
 .X = ±.2 [5]  
 .XX = ±.02 [0.5]  
 .XXX = ±.005 [0.13]  
 FRACTIONS ± 1/32  
 ANGLES ± 1°

CABLE LENGTH TOLERANCES:  
 >12 [305] ≤ 60 [1524] = ±.1 [2.5] / -0  
 >60 [1524] ≤ 120 [3048] = ±.4 [10.2] / -0  
 >120 [3048] ≤ 300 [7620] = ±.6 [15.2] / -0  
 >300 [7620] = ±.8 [20.3] / -0

ALL DIMENSIONS ARE FOR REFERENCE ONLY. DIMENSIONS OF CRITICAL FEATURES MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY.