



### **FMCA3181**

#### Configuration

Connector 1: 1.0/2.3 Plug
Connector 2: SMA Male
Cable Type: LMR-195
Coax Flex Type: Flexible

#### **Features**

- · Max Frequency 4 GHz
- · Shielding Effectivity > 90 dB
- · 80% Phase Velocity
- · Double Shielded
- · PE Jacket

#### **Applications**

General Purpose

· Laboratory Use

### **Description**

The 1.0/2.3 plug to SMA male cable using LMR-195 coax, part number FMCA3181, from Fairview Microwave is in-stock and ships same day. This Fairview 1.0/2.3 to SMA cable assembly has a plug to male gender configuration with 50 ohm flexible LMR-195 coax. Fairview Microwave's flexible RF cable assemblies are ideal for applications where tight bends and continual flexure are required. The FMCA3181 1.0/2.3 plug to SMA male cable assembly operates to 4 GHz. The double shielding of this Fairview cable assembly provides excellent shielding effectiveness of better than 90 dB.

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
Frequency Range	DC		4	GHz
VSWR			1.4:1	
Velocity of Propagation		80		%
RF Shielding	90			dB
Group Delay		1.27 [4.17]		ns/ft [ns/m]
Capacitance		25.4 [83.33]		pF/ft [pF/m]
Inductance		0.064 [0.21]		uH/ft [uH/m]
DC Resistance Inner Conductor		7.6 [24.93]		Ohms/1000ft [Ohms/Km]
DC Resistance Outer Conductor		4.9 [16.08]		Ohms/1000ft [Ohms/Km]





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## **Electrical Specifications**

Description	Minimum	Typical	Maximum	Units
Jacket Spark			3,000	Vrms

#### **Specifications by Frequency**

Description	F1	F2	F3	F4	F5	Units
Frequency	0.1	0.25	0.5	1	4	GHz
Insertion Loss (Typ.)	0.035	0.057	0.082	0.116	0.239	dB/ft
	0.11	0.19	0.27	0.38	0.78	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** 

Width/Diameter 0.5 in [12.7 mm] Weight 0.06 lbs [27.22 g]

Cable

Cable Type LMR-195 Impedance 50 Ohms Inner Conductor Type Solid

Inner Conductor Material and Plating Copper Dielectric Type PE(F) Number of Shields

Shield Layer 1 Aluminum Tape Shield Layer 2 **Tinned Copper Braid** 

Jacket Material PE, Black

0.195 in [4.95 mm] Jacket Diameter One Time Minimum Bend Radius 0.5 in [12.7 mm] Repeated Minimum Bend Radius 2 in [50.8 mm]

**Bending Moment** 0.2 lbs-ft [0.27 N-m] Flat Plate Crush 15 lbs/in [0.27 Kg/mm] Tensile Strength 40 lbs [18.14 Kg]





## **FMCA3181**

#### **Connectors**

Description	Connector 1	Connector 2
Туре	1.0/2.3 Plug	SMA Male
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Contact Material and Plating	Brass, Gold	Brass, Gold
Contact Plating Specification	30 μin minimum	ASTM B488
Dielectric Type	PTFE	Teflon
Body Material and Plating	Brass, Nickel	Passivated Stainless Steel
Body Plating Specification	100 µin minimum	
Coupling Nut Material and Plating		Passivated Stainless Steel
Hex Size		5/16 Inch

## **Environmental Specifications**

Compliance Certifications (see product page for current document)

## **Plotted and Other Data**

Notes:

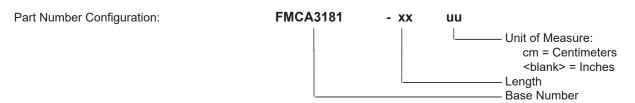




## **FMCA3181**

#### **Typical Performance Data**

#### **How to Order**



Example: FMCA3181-12 = 12 inches long cable

FMCA3181-100cm = 100 cm long cable

Low Loss 1.0/2.3 Plug to SMA Male Cable LMR-195 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: Low Loss 1.0/2.3 Plug to SMA Male Cable LMR-195 Coax FMCA3181

URL: https://www.fairviewmicrowave.com/low-loss-1.0-2.3-plug-to-sma-male-cable-lmr-195-coax-fmca3181-p.aspx

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