

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



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]

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



FMCA3181

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	2
Shield Layer 1	Aluminum Tape
Shield Layer 2	Tinned Copper Braid
Jacket Material	PE, Black
Jacket Diameter	0.195 in [4.95 mm]
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]

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

FMCA3181



Connectors

Description	Connector 1	Connector 2
Type	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:

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



FMCA3181

Typical Performance Data

How to Order

Part Number Configuration: **FMCA3181** **- xx** **uu**

Unit of Measure:
cm = Centimeters
<blank> = Inches

Length

Base Number

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>

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.

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

