

Fire Rated Low Loss SMA Male to SMA Male Cable TCOM-400-FR Coax With Times Microwave Components

FMCA100173

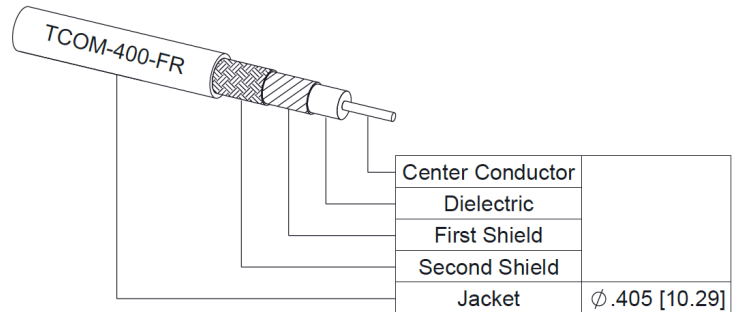


Configuration

- Connector 1: SMA Male
- Connector 2: SMA Male
- Cable Type: TCOM-400-FR
- Coax Flex Type: Flexible

Features

- Max Frequency 6 GHz
- Shielding Effectivity > 100 dB
- 85% Phase Velocity
- Double Shielded
- PE Jacket
- 500 Mating Cycles



Applications

- General Purpose
- Laboratory Use

Description

The SMA male to SMA male cable using TCOM-400-FR coax, part number FMCA100173, from Fairview Microwave is in-stock and ships same day. This Fairview SMA to SMA cable assembly has a male to male gender configuration with 50 ohm flexible TCOM-400-FR coax. Fairview Microwave's flexible RF cable assemblies are ideal for applications where tight bends and continual flexure are required. The FMCA100173 SMA male to SMA male cable assembly operates to 6 GHz. The double shielding of this Fairview cable assembly provides excellent shielding effectiveness of better than 100 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		6	GHz
VSWR			1.4:1	
Velocity of Propagation		85		%
RF Shielding	100			dB
Group Delay		1.2 [3.94]		ns/ft [ns/m]
Capacitance		23.9 [78.41]		pF/ft [pF/m]
Inductance		0.06 [0.2]		uH/ft [uH/m]
DC Resistance Inner Conductor		1.39 [4.56]		Ohms/1000ft [Ohms/Km]
DC Resistance Outer Conductor		1.47 [4.82]		Ohms/1000ft [Ohms/Km]
Dielectric Withstanding Voltage (DC)			500	Vdc

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Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Jacket Spark			8,000	Vrms

Specifications by Frequency

Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
		Frequency	250	500	1000	2500	6000	MHz	
FMCA100173	Custom Lengths Available	Insertion Loss (Typ.)	0.021	0.03	0.044	0.072	0.117	dB/ft	
			0.07	0.1	0.15	0.24	0.39	dB/m	
FMCA100173-12	12 inch	Insertion Loss (Typ.)	0.23	0.23	0.25	0.28	0.32	dB	0.182
FMCA100173-24	24 inch	Insertion Loss (Typ.)	0.25	0.26	0.29	0.35	0.44	dB	0.262
FMCA100173-36	36 inch	Insertion Loss (Typ.)	0.27	0.29	0.34	0.42	0.56	dB	0.342
FMCA100173-48	48 inch	Insertion Loss (Typ.)	0.29	0.32	0.38	0.49	0.67	dB	0.422
FMCA100173-60	60 inch	Insertion Loss (Typ.)	0.31	0.35	0.42	0.56	0.79	dB	0.502

The insertion loss data for the base model does not include loss due to the connectors. Each length includes insertion loss due to the connectors.

Loss due to Connector 1:	0.1 dB
Loss due to Connector 2:	0.1 dB
Base Weight:	0.182 pounds
Additional Weight per Inch:	0.00666 pounds

Mechanical Specifications

Cable Assembly

Width/Diameter	0.5 in [12.7 mm]
Weight	0.182 lbs [82.55 g]

Cable

Cable Type	TCOM-400-FR
Impedance	50 Ohms
Inner Conductor Type	Solid
Inner Conductor Material and Plating	Copper Clad Aluminum
Dielectric Type	PE (F)
Number of Shields	2
Shield Layer 1	Silver Plated Copper Braid
Shield Layer 2	Tinned Copper Braid
Jacket Material	PE, Black
Jacket Diameter	0.405 in [10.29 mm]
One Time Minimum Bend Radius	1 in [25.4 mm]
Repeated Minimum Bend Radius	4 in [101.6 mm]
Bending Moment	0.5 lbs-ft [0.68 N-m]
Flat Plate Crush	40 lbs/in [0.71 Kg/mm]
Tensile Strength	160 lbs [72.57 Kg]

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Connectors

Description	Connector 1	Connector 2
Type	SMA Male	SMA Male
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Mating Cycles	500	500
Contact Material and Plating	Brass, Gold	Brass, Gold
Contact Plating Specification	50µ" Minimum	50µ" Minimum
Dielectric Type	Teflon	Teflon
Body Material and Plating	Brass, Tri-Metal	Brass, Tri-Metal
Coupling Nut Material and Plating	Brass, Tri-Metal	Brass, Tri-Metal
Torque	7 in-lbs 0.79 Nm	7 in-lbs 0.79 Nm

Environmental Specifications

Operating Range Temperature -40 to +85 deg C

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

Plotted and Other Data

Notes:

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FMCA100173

Typical Performance Data

How to Order

Part Number Configuration:

FMCA100173

- xx

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

Example: FMCA100173-12 = 12 inches long cable
FMCA100173-100cm = 100 cm long cable

Fire Rated Low Loss SMA Male to SMA Male Cable TCOM-400-FR Coax With Times Microwave Components 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: [Fire Rated Low Loss SMA Male to SMA Male Cable TCOM-400-FR Coax With Times Microwave Components FMCA100173](#)

URL: <https://www.fairviewmicrowave.com/fire-rated-low-loss-sma-male-to-sma-male-cable-tcom-400-fr-coax-with-times-microwave-components-fmca100173-p.aspx>

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FMCA100173 CAD Drawing

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