

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



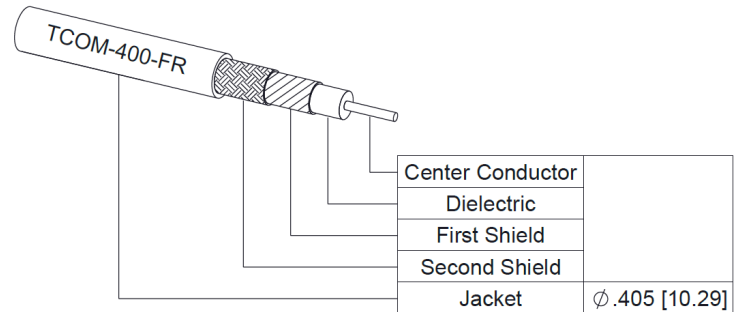
FMCA100172

Configuration

- Connector 1: N Male Right Angle
- Connector 2: N Male Right Angle
- Cable Type: TCOM-400-FR
- Coax Flex Type: Flexible

Features

- Max Frequency 10 GHz
- Shielding Effectivity > 100 dB
- 85% Phase Velocity
- Double Shielded
- PE Jacket
- 500 Mating Cycles



Applications

- General Purpose
- Laboratory Use

Description

The RA type N male to RA type N male cable using TCOM-400-FR coax, part number FMCA100172, from Fairview Microwave is in-stock and ships same day. This Fairview type N to type N 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 FMCA100172 type N male to type N male cable assemblies operate to 10 GHz. The right angle type N interfaces on the TCOM-400-FR cable allow for easier connections in tight spaces. 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		10	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]

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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					MHz	
FMCA100172	Custom Lengths Available	Insertion Loss (Typ.)	0.03	0.044	0.072	0.092	0.157	dB/ft	
			0.1	0.15	0.24	0.31	0.52	dB/m	
FMCA100172-12	12 inch	Insertion Loss (Typ.)	0.43	0.45	0.48	0.5	0.56	dB	0.352
FMCA100172-24	24 inch	Insertion Loss (Typ.)	0.46	0.49	0.55	0.59	0.72	dB	0.432
FMCA100172-36	36 inch	Insertion Loss (Typ.)	0.49	0.54	0.62	0.68	0.88	dB	0.512
FMCA100172-48	48 inch	Insertion Loss (Typ.)	0.52	0.58	0.69	0.77	1.03	dB	0.592
FMCA100172-60	60 inch	Insertion Loss (Typ.)	0.55	0.62	0.76	0.86	1.19	dB	0.672

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:	0.2 dB
Loss due to Connector 2:	0.2 dB
Base Weight:	0.352 pounds
Additional Weight per Inch:	0.00666 pounds

Mechanical Specifications

Cable Assembly

Width/Diameter	0.5 in [12.7 mm]
Weight	0.352 lbs [159.66 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	N Male Right Angle	N Male Right Angle
Impedance	50 Ohms	50 Ohms
Configuration	Right Angle	Right Angle
Mating Cycles	500	500
Contact Material and Plating	Brass, Gold	Brass, Gold
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
Hex Size	13/16 inch	13/16 inch
Torque	30 in-lbs 3.39 Nm	30 in-lbs 3.39 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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Typical Performance Data

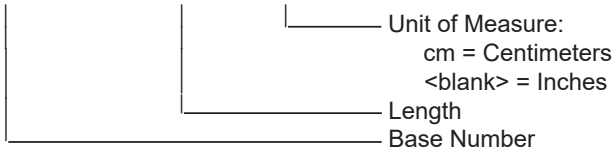
How to Order

Part Number Configuration:

FMCA100172

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Example: FMCA100172-12 = 12 inches long cable
FMCA100172-100cm = 100 cm long cable

Fire Rated Low Loss RA N Male to RA N 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 RA N Male to RA N Male Cable TCOM-400-FR Coax With Times Microwave Components FMCA100172](#)

URL: <https://www.fairviewmicrowave.com/fire-rated-low-loss-ra-n-male-to-ra-n-male-cable-tcom-400-fr-coax-with-times-microwave-components-fmca100172-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.

FMCA100172 CAD Drawing

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