

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

**FMCA100171**

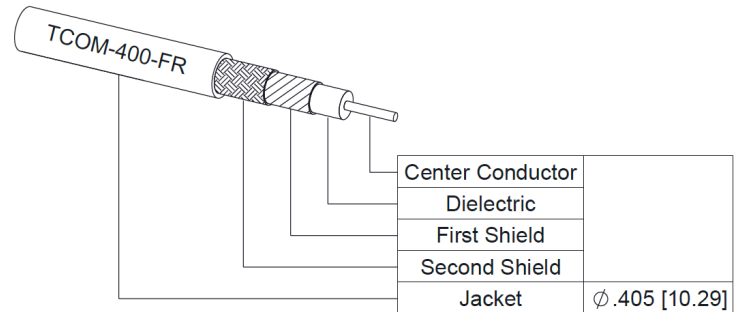


### Configuration

- Connector 1: N Male
- Connector 2: N Male Right Angle
- 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



### Applications

- General Purpose
- Laboratory Use

### Description

The type N male to RA type N male cable using TCOM-400-FR coax, part number FMCA100171, 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 FMCA100171 type N male to type N male cable assembly operates to 6 GHz. The right angle type N interface on the TCOM-400-FR cable allows 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		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]

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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	
FMCA100171	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	
FMCA100171-12	12 inch	Insertion Loss (Typ.)	0.33	0.33	0.35	0.38	0.42	dB	0.317
FMCA100171-24	24 inch	Insertion Loss (Typ.)	0.35	0.36	0.39	0.45	0.54	dB	0.397
FMCA100171-36	36 inch	Insertion Loss (Typ.)	0.37	0.39	0.44	0.52	0.66	dB	0.477
FMCA100171-48	48 inch	Insertion Loss (Typ.)	0.39	0.42	0.48	0.59	0.77	dB	0.557
FMCA100171-60	60 inch	Insertion Loss (Typ.)	0.41	0.45	0.52	0.66	0.89	dB	0.637

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:	0.2 dB
Base Weight:	0.317 pounds
Additional Weight per Inch:	0.00666 pounds

### Mechanical Specifications

#### Cable Assembly

Width/Diameter	0.5 in [12.7 mm]
Weight	0.317 lbs [143.79 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	N Male Right Angle
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Right Angle
Mating Cycles		500
Contact Material and Plating	Brass, Gold	Brass, Gold
Contact Plating Specification	50 µ in. minimum	
Dielectric Type	PTFE	Teflon
Body Material and Plating	Brass, Tri-Metal	Brass, Tri-Metal
Body Plating Specification	150 µ in. minimum	
Coupling Nut Material and Plating	Brass, Tri-Metal	Brass, Tri-Metal
Coupling Nut Plating Specification	150 µ in. minimum	
Hex Size	13/16 inch	13/16 inch
Torque		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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### FMCA100171

#### Typical Performance Data

#### How to Order

Part Number Configuration: **FMCA100171**    **- xx**    **uu**

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

Length

Base Number

Example: FMCA100171-12 = 12 inches long cable  
FMCA100171-100cm = 100 cm long cable

Fire Rated Low Loss 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 N Male to RA N Male Cable TCOM-400-FR Coax With Times Microwave Components FMCA100171](#)

URL: <https://www.fairviewmicrowave.com/fire-rated-low-loss-n-male-to-ra-n-male-cable-tcom-400-fr-coax-with-times-microwave-components-fmca100171-p.aspx>

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