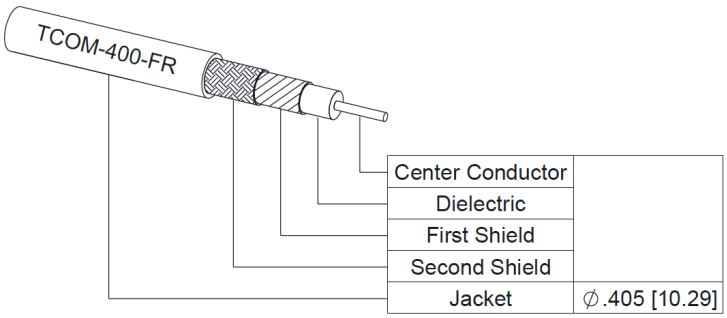
Fire Rated Low Loss N Male to N Male Cable TCOM-400-FR Coax With Times Microwave Components



FMCA100170

Configuration

- Connector 1: N Male
- Connector 2: N 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

Applications

- General Purpose
- Laboratory Use

Description

The type N male to type N male cable using TCOM-400-FR coax, part number FMCA100170, 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 FMCA100170 type N male to type N 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]

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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	
FMCA100170	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	
FMCA100170-12	12 inch	Insertion Loss (Typ.)	0.23	0.23	0.25	0.28	0.32	dB	0.282
FMCA100170-24	24 inch	Insertion Loss (Typ.)	0.25	0.26	0.29	0.35	0.44	dB	0.362
FMCA100170-36	36 inch	Insertion Loss (Typ.)	0.27	0.29	0.34	0.42	0.56	dB	0.442
FMCA100170-48	48 inch	Insertion Loss (Typ.)	0.29	0.32	0.38	0.49	0.67	dB	0.522
FMCA100170-60	60 inch	Insertion Loss (Typ.)	0.31	0.35	0.42	0.56	0.79	dB	0.602

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:	0.282 pounds
Additional Weight per Inch:	0.00666 pounds

Mechanical Specifications

Cable Assembly

Width/Diameter	0.5 in [12.7 mm]
Weight	0.282 lbs [127.91 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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Fire Rated Low Loss N Male to N Male Cable TCOM-400-FR Coax With Times Microwave Components



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Connectors

Description	Connector 1	Connector 2
Type	N Male	N Male
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Contact Material and Plating	Brass, Gold	Brass, Gold
Contact Plating Specification	50 µ in. minimum	50 µ in. minimum
Dielectric Type	PTFE	PTFE
Body Material and Plating	Brass, Tri-Metal	Brass, Tri-Metal
Body Plating Specification	150 µ in. minimum	150 µ in. minimum
Coupling Nut Material and Plating	Brass, Tri-Metal	Brass, Tri-Metal
Coupling Nut Plating Specification	150 µ in. minimum	150 µ in. minimum
Hex Size	13/16 inch	13/16 inch

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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FMCA100170

Typical Performance Data

How to Order

Part Number Configuration: **FMCA100170 - xx uu**

- uu — Unit of Measure:
  - cm = Centimeters
  - <blank> = Inches
- xx — Length
- FMCA100170 — Base Number

Example: FMCA100170-12 = 12 inches long cable
FMCA100170-100cm = 100 cm long cable

Fire Rated Low Loss N Male to 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 N Male Cable TCOM-400-FR Coax With Times Microwave Components FMCA100170

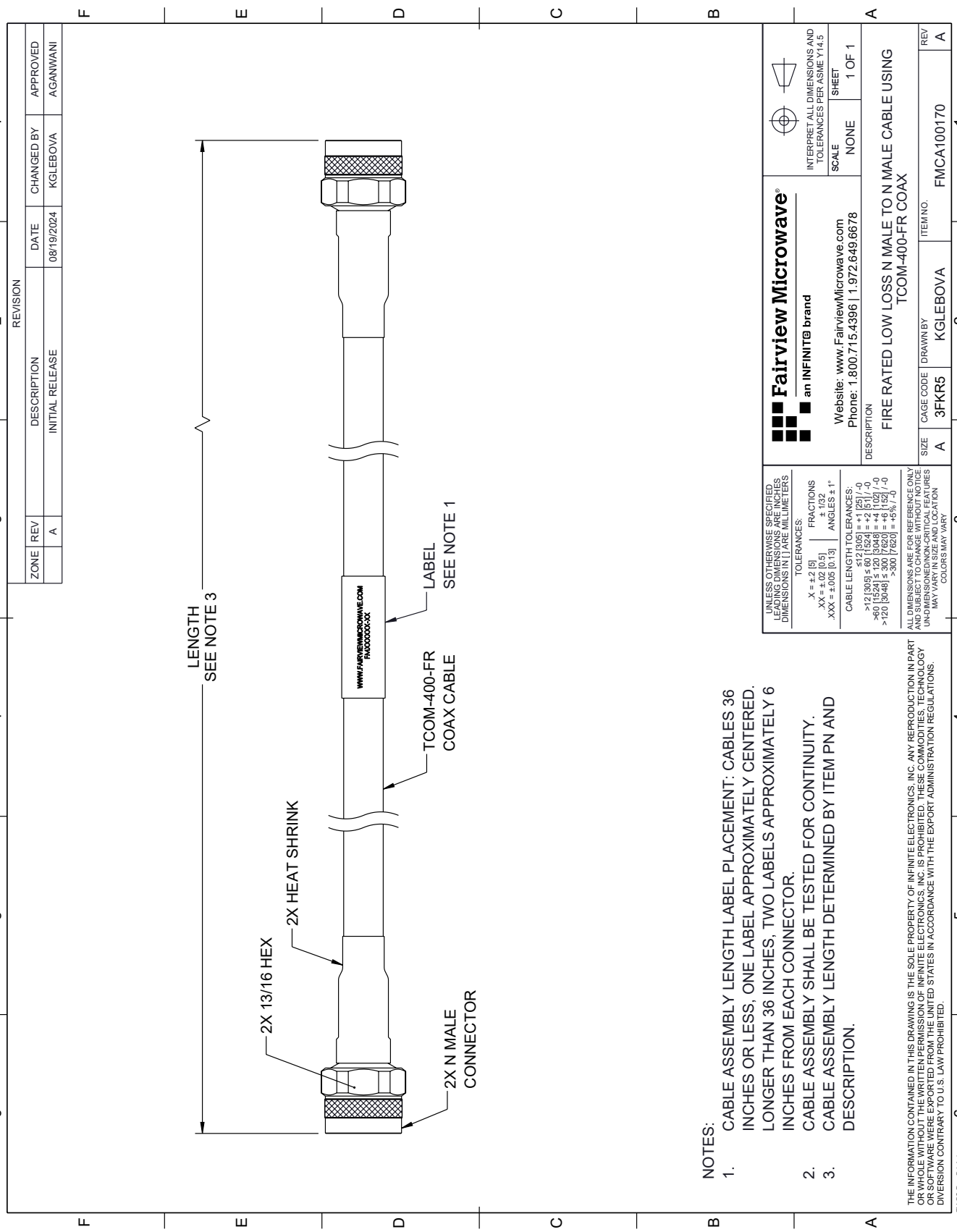
URL: https://www.fairviewmicrowave.com/fire-rated-low-loss-n-male-to-n-male-cable-tcom-400-fr-coax-with-times-microwave-components-fmca100170-p.aspx

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FMCA100170 CAD Drawing

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