

## Fire Rated Low Loss 4.3-10 Male to 4.3-10 Male Cable TCOM-400-FR Coax With Times Microwave Components



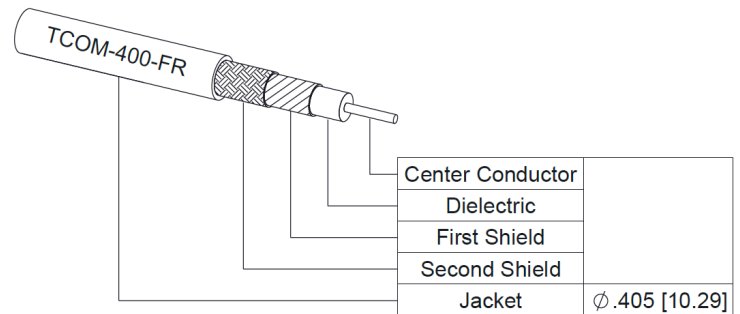
### FMCA100168

#### Configuration

- Connector 1: 4.3-10 Male
- Connector 2: 4.3-10 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 4.3-10 male to 4.3-10 male cable using TCOM-400-FR coax, part number FMCA100168, from Fairview Microwave is in-stock and ships same day. This Fairview 4.3-10 to 4.3-10 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 FMCA100168 4.3-10 male to 4.3-10 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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**FMCA100168**

**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	
FMCA100168	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	
FMCA100168-12	12 inch	Insertion Loss (Typ.)	0.23	0.23	0.25	0.28	0.32	dB	0.272
FMCA100168-24	24 inch	Insertion Loss (Typ.)	0.25	0.26	0.29	0.35	0.44	dB	0.352
FMCA100168-36	36 inch	Insertion Loss (Typ.)	0.27	0.29	0.34	0.42	0.56	dB	0.432
FMCA100168-48	48 inch	Insertion Loss (Typ.)	0.29	0.32	0.38	0.49	0.67	dB	0.512
FMCA100168-60	60 inch	Insertion Loss (Typ.)	0.31	0.35	0.42	0.56	0.79	dB	0.592

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:	0.272 pounds
Additional Weight per Inch:	0.00666 pounds

**Mechanical Specifications**

**Cable Assembly**

Width/Diameter	0.5 in [12.7 mm]
Weight	0.272 lbs [123.38 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	4.3-10 Male	4.3-10 Male
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Mating Cycles	500	500
Contact Material and Plating	Brass, Silver	Brass, Silver
Dielectric Type	PTFE	PTFE
Body Material and Plating	Brass, Tri-Metal	Brass, Tri-Metal
Coupling Nut Material and Plating	Brass, Tri-Metal	Brass, Tri-Metal

**Environmental Specifications**

Operating Range Temperature -40 to +85 deg C

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

**Plotted and Other Data**

Notes:

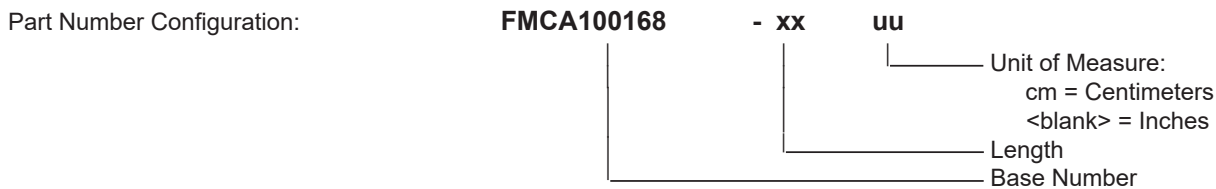
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**FMCA100168**

**Typical Performance Data**

**How to Order**



Example: FMCA100168-12 = 12 inches long cable  
FMCA100168-100cm = 100 cm long cable

Fire Rated Low Loss 4.3-10 Male to 4.3-10 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.

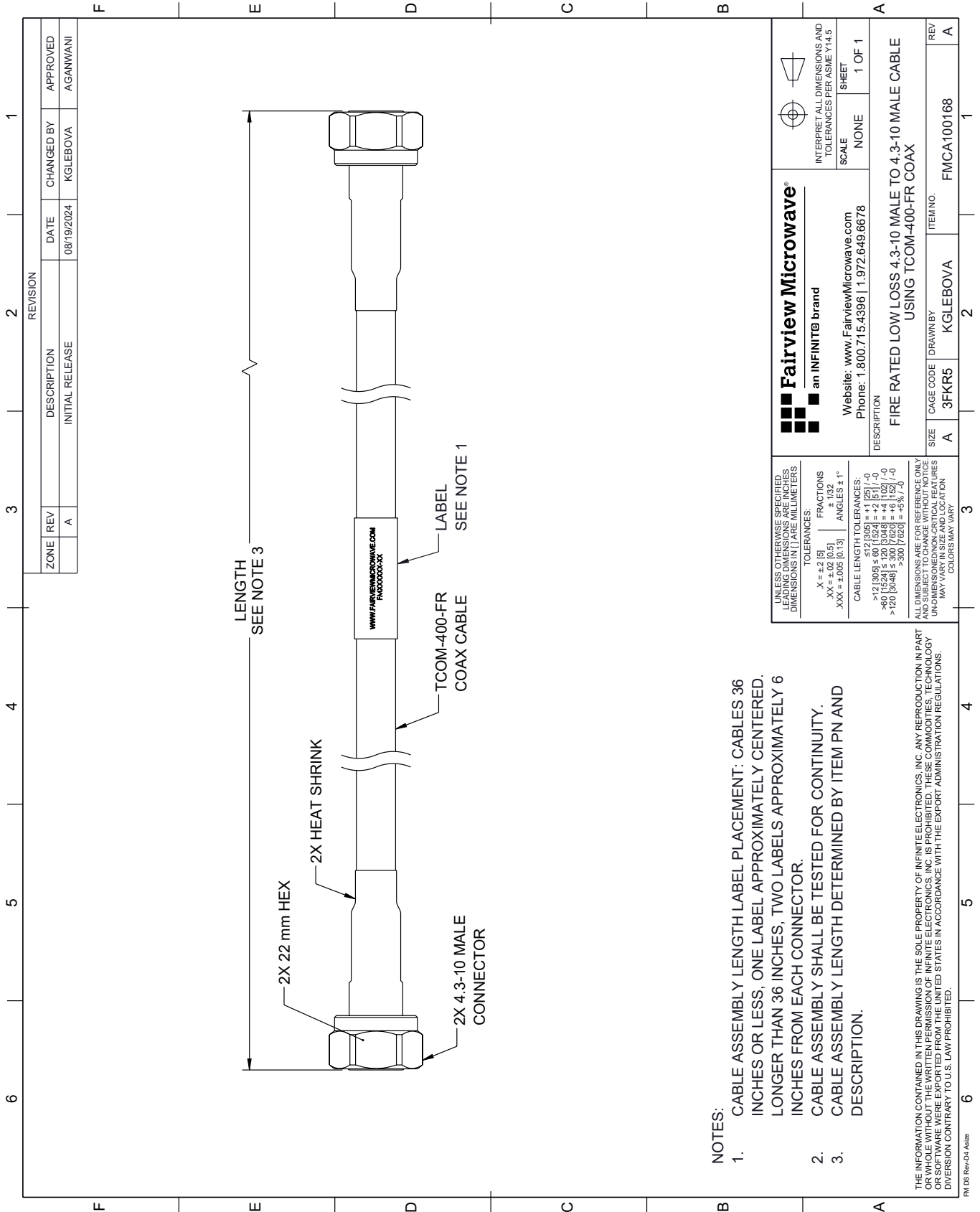
For additional information on this product, please click the following link: [Fire Rated Low Loss 4.3-10 Male to 4.3-10 Male Cable TCOM-400-FR Coax With Times Microwave Components FMCA100168](#)

URL: <https://www.fairviewmicrowave.com/fire-rated-low-loss-4.3-10-male-to-4.3-10-male-cable-tcom-400-fr-coax-with-times-microwave-components-fmca100168-p.aspx>

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# FMCA100168 CAD Drawing

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**NOTES:**

1. CABLE ASSEMBLY LENGTH LABEL PLACEMENT: CABLES 36 INCHES OR LESS; ONE LABEL APPROXIMATELY CENTERED. LONGER THAN 36 INCHES, TWO LABELS APPROXIMATELY 6 INCHES FROM EACH CONNECTOR.
2. CABLE ASSEMBLY SHALL BE TESTED FOR CONTINUITY.
3. CABLE ASSEMBLY LENGTH DETERMINED BY ITEM PN AND DESCRIPTION.

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FM DS Rev-D4 A42bz

REVISION		DATE	CHANGED BY	APPROVED
ZONE	REV			
	A	08/19/2024	KGLEBOVA	AGANWANI
DESCRIPTION				
INITIAL RELEASE				

<p><b>Fairview Microwave®</b> an INFINIT® brand</p> <p>Website: <a href="http://www.FairviewMicrowave.com">www.FairviewMicrowave.com</a> Phone: 1.800.715.4396   1.972.649.6678</p>		<p>INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5</p> <p>SCALE: NONE</p> <p>SHEET: 1 OF 1</p>
<p>UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES, DIMENSIONS IN [ ] ARE MILLIMETERS.</p> <p>TOLERANCES:</p> <p>.X = ±.2 [5]      FRACTIONS ± 1/32</p> <p>.XX = ±.02 [0.5]      ANGLES ± 1°</p> <p>.XXX = ±.005 [0.13]</p> <p>CABLE LENGTH TOLERANCES:</p> <p>&lt;12 [305] ≤ 60 [1524] = ±.1 [25] / -0</p> <p>&gt;60 [1524] ≤ 120 [3048] = ±.4 [102] / -0</p> <p>&gt;120 [3048] ≤ 300 [7620] = ±.6 [152] / -0</p>		
<p>ALL DIMENSIONS ARE FOR REFERENCE ONLY. UNDIMENSIONED/NON-CRITICAL FEATURES MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY.</p>		
DESCRIPTION	SIZE	ITEM NO.
FIRE RATED LOW LOSS 4.3-10 MALE TO 4.3-10 MALE CABLE USING TCOM-400-FR COAX	A 3FKR5	FMCA100168
CAGE CODE	DRAWN BY	REV
A	KGLEBOVA	A