

Fire Rated Low Loss 7/16 DIN Male to 7/16 DIN Male Cable
TCOM-240-FR Coax With Times Microwave Components



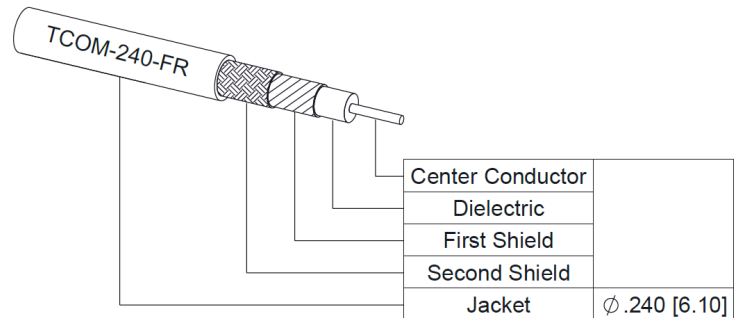
FMCA100167

Configuration

- Connector 1: 7/16 DIN Male
- Connector 2: 7/16 DIN Male
- Cable Type: TCOM-240-FR
- Coax Flex Type: Flexible

Features

- Max Frequency 6 GHz
- Shielding Effectivity > 100 dB
- 84% Phase Velocity
- Double Shielded
- PE Jacket
- 500 Mating Cycles



Applications

- General Purpose
- Laboratory Use

Description

The 7/16 DIN male to 7/16 DIN male cable using TCOM-240-FR coax, part number FMCA100167, from Fairview Microwave is in-stock and ships same day. This Fairview 7/16 DIN to 7/16 DIN cable assembly has a male to male gender configuration with 50 ohm flexible TCOM-240-FR coax. Fairview Microwave's flexible RF cable assemblies are ideal for applications where tight bends and continual flexure are required. The FMCA100167 7/16 DIN male to 7/16 DIN 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		84		%
RF Shielding	100			dB
Group Delay		1.21 [3.97]		ns/ft [ns/m]
Capacitance		24.2 [79.4]		pF/ft [pF/m]
Inductance		0.06 [0.2]		uH/ft [uH/m]
DC Resistance Inner Conductor		3.2 [10.5]		Ohms/1000ft [Ohms/Km]
DC Resistance Outer Conductor		2.06 [6.76]		Ohms/1000ft [Ohms/Km]

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Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Jacket Spark			5,000	Vrms

Specifications by Frequency

Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
			Frequency					MHz	
FMCA100167	Custom Lengths Available	Insertion Loss (Typ.)	0.037	0.052	0.076	0.123	0.197	dB/ft	
			0.13	0.18	0.25	0.41	0.65	dB/m	
FMCA100167-12	12 inch	Insertion Loss (Typ.)	0.24	0.26	0.28	0.33	0.4	dB	0.126
FMCA100167-24	24 inch	Insertion Loss (Typ.)	0.28	0.31	0.36	0.45	0.6	dB	0.171
FMCA100167-36	36 inch	Insertion Loss (Typ.)	0.32	0.36	0.43	0.57	0.8	dB	0.216
FMCA100167-48	48 inch	Insertion Loss (Typ.)	0.35	0.41	0.51	0.7	0.99	dB	0.261
FMCA100167-60	60 inch	Insertion Loss (Typ.)	0.39	0.46	0.58	0.82	1.19	dB	0.306

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:	0.126 pounds
Additional Weight per Inch:	0.00375 pounds

Mechanical Specifications

Cable Assembly

Width/Diameter	0.5 in [12.7 mm]
Weight	0.126 lbs [57.15 g]

Cable

Cable Type	TCOM-240-FR
Impedance	50 Ohms
Inner Conductor Type	Solid
Inner Conductor Material and Plating	Copper
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	0.24 in [6.1 mm]
One Time Minimum Bend Radius	0.75 in [19.05 mm]
Repeated Minimum Bend Radius	2.5 in [63.5 mm]
Bending Moment	0.25 lbs-ft [0.34 N-m]
Flat Plate Crush	20 lbs/in [0.36 Kg/mm]
Tensile Strength	80 lbs [36.29 Kg]

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Connectors

Description	Connector 1	Connector 2
Type	7/16 DIN Male	7/16 DIN Male
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Mating Cycles	500	500
Contact Material and Plating	Spring Copper, Silver	Spring Copper, Silver
Contact Plating Specification	196µ in. minimum	196µ in. minimum
Dielectric Type	Teflon	Teflon
Body Material and Plating	Brass, Tri-Metal	Brass, Tri-Metal
Body Plating Specification	78µ in. minimum	78µ in. minimum
Coupling Nut Material and Plating	Brass, Tri-Metal	Brass, Tri-Metal
Coupling Nut Plating Specification	78µ in. minimum	78µ in. minimum
Hex Size	1 1/4 Inch	1 1/4 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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FMCA100167

Typical Performance Data

How to Order

Part Number Configuration:

FMCA100167

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Example: FMCA100167-12 = 12 inches long cable
FMCA100167-100cm = 100 cm long cable

Fire Rated Low Loss 7/16 DIN Male to 7/16 DIN Male Cable TCOM-240-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.

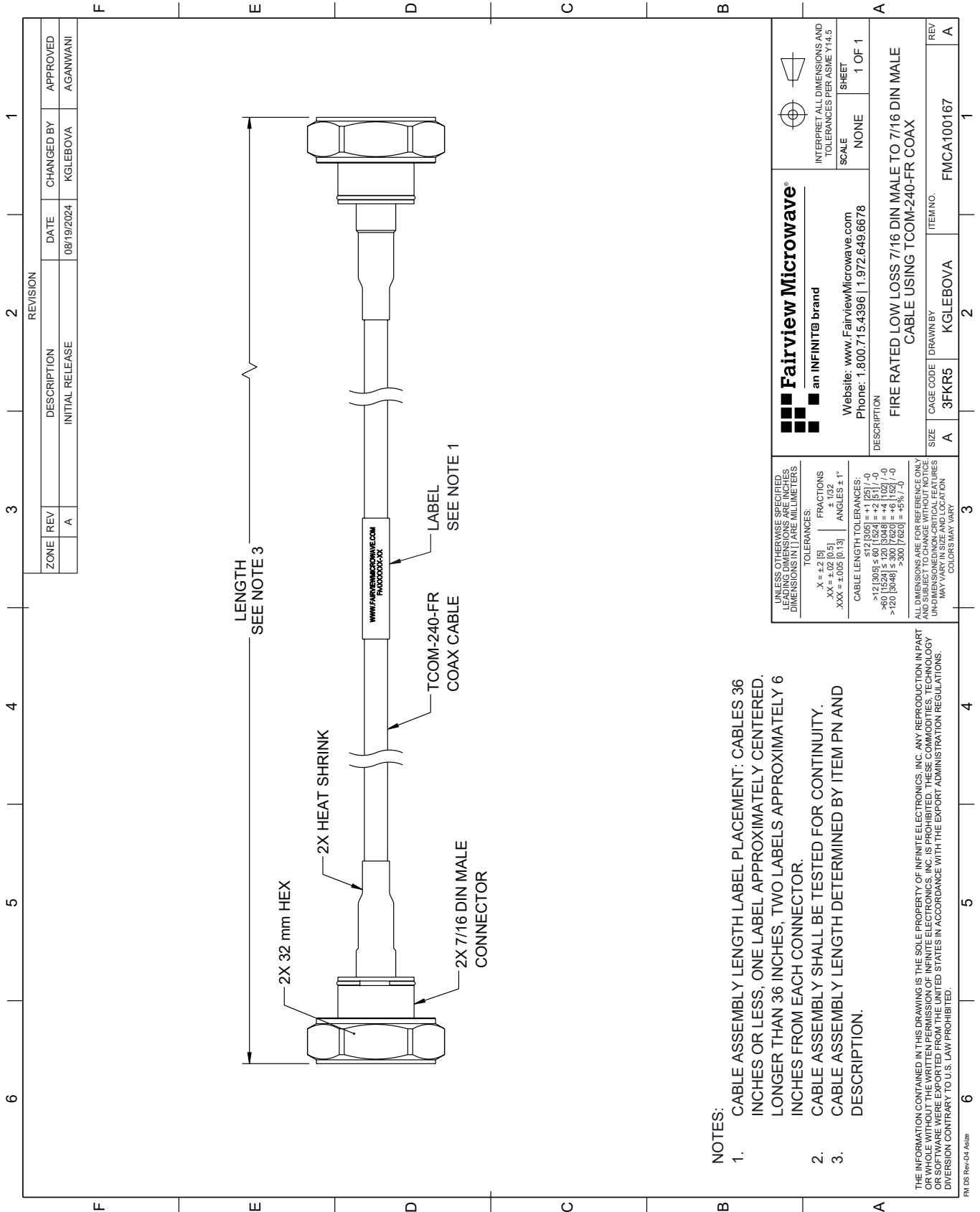
For additional information on this product, please click the following link: [Fire Rated Low Loss 7/16 DIN Male to 7/16 DIN Male Cable TCOM-240-FR Coax With Times Microwave Components FMCA100167](#)

URL: <https://www.fairviewmicrowave.com/fire-rated-low-loss-7-16-din-male-to-7-16-din-male-cable-tcom-240-fr-coax-with-times-microwave-components-fmca100167-p.aspx>

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FMCA100167 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 Alt2b

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

<p>Fairview Microwave® an INFINIT® brand</p> <p>Website: www.FairviewMicrowave.com 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>>12 [305] ≤ 60 [1524] = ±.1 [25] / -0</p> <p>>60 [1524] ≤ 120 [3048] = ±.4 [102] / -0</p> <p>>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 7/16 DIN MALE TO 7/16 DIN MALE CABLE USING TCOM-240-FR COAX	A 3FKR5	FMCA100167
DRAWN BY	CAGE CODE	REV
KGLEBOVA		A