

Fire Rated Low Loss SMA Male to TNC Male Cable TCOM-240-FR Coax With Times Microwave Components

FMCA100162

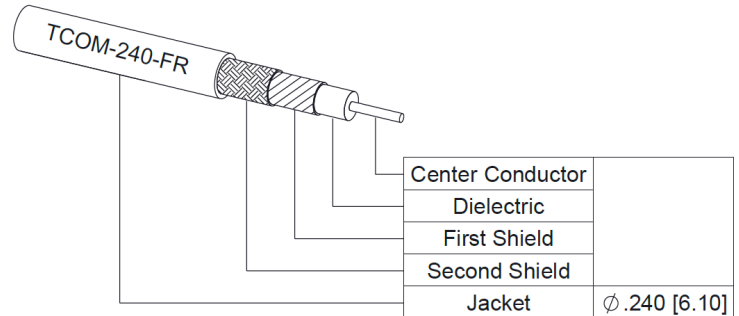


Configuration

- Connector 1: SMA Male
- Connector 2: TNC 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



Applications

- General Purpose
- Laboratory Use

Description

The SMA male to TNC male cable using TCOM-240-FR coax, part number FMCA100162, from Fairview Microwave is in-stock and ships same day. This Fairview SMA to TNC 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 FMCA100162 SMA male to TNC 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	250	500	1000	2500	6000	MHz	
FMCA100162	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	
FMCA100162-12	12 inch	Insertion Loss (Typ.)	0.44	0.46	0.48	0.53	0.6	dB	0.117
FMCA100162-24	24 inch	Insertion Loss (Typ.)	0.48	0.51	0.56	0.65	0.8	dB	0.162
FMCA100162-36	36 inch	Insertion Loss (Typ.)	0.52	0.56	0.63	0.77	1	dB	0.207
FMCA100162-48	48 inch	Insertion Loss (Typ.)	0.55	0.61	0.71	0.9	1.19	dB	0.252
FMCA100162-60	60 inch	Insertion Loss (Typ.)	0.59	0.66	0.78	1.02	1.39	dB	0.297

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:	0.3 dB
Base Weight:	0.117 pounds
Additional Weight per Inch:	0.00375 pounds

Mechanical Specifications

Cable Assembly

Width/Diameter	0.5 in [12.7 mm]
Weight	0.117 lbs [53.07 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	SMA Male	TNC Male
Specification	MIL-STD-348	
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Mating Cycles		500
Contact Material and Plating	Beryllium Copper, Gold	Brass, Gold
Contact Plating Specification	ASTM B488	50 µinch
Dielectric Type	PTFE	Teflon
Outer Conductor Material and Plating	Passivated Stainless Steel, Gold	
Body Material and Plating	Passivated Stainless Steel, Gold	Brass, Tri-Metal
Body Plating Specification	SAE-AMS-2700	80 µinch
Coupling Nut Material and Plating	Passivated Stainless Steel	Brass, Tri-Metal
Coupling Nut Plating Specification	SAE-AMS-2700	80 µinch
Torque		8 in-lbs 0.9 Nm

Environmental Specifications

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

Plotted and Other Data

Notes:

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FMCA100162

Typical Performance Data

How to Order

Part Number Configuration: **FMCA100162** **- xx** **uu**

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

Length
Base Number

Example: FMCA100162-12 = 12 inches long cable
FMCA100162-100cm = 100 cm long cable

Fire Rated Low Loss SMA Male to TNC 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 SMA Male to TNC Male Cable TCOM-240-FR Coax With Times Microwave Components FMCA100162](#)

URL: <https://www.fairviewmicrowave.com/fire-rated-low-loss-sma-male-to-tnc-male-cable-tcom-240-fr-coax-with-times-microwave-components-fmca100162-p.aspx>

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FMCA100162 CAD Drawing

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