

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



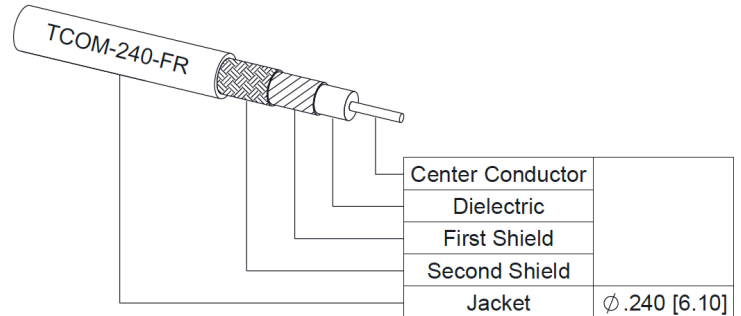
FMCA100163

Configuration

- Connector 1: BNC Male
- Connector 2: BNC Male
- Cable Type: TCOM-240-FR
- Coax Flex Type: Flexible

Features

- Max Frequency 4 GHz
- Shielding Effectivity > 100 dB
- 84% Phase Velocity
- Double Shielded
- PE Jacket



Applications

- General Purpose
- Laboratory Use

Description

The BNC male to BNC male cable using TCOM-240-FR coax, part number FMCA100163, from Fairview Microwave is in-stock and ships same day. This Fairview BNC to BNC 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 FMCA100163 BNC male to BNC male cable assembly operates to 4 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		4	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	
FMCA100163	Custom Lengths Available	Insertion Loss (Typ.)	0.019	0.037	0.052	0.076	0.155	dB/ft	
			0.07	0.13	0.18	0.25	0.51	dB/m	
FMCA100163-12	12 inch	Insertion Loss (Typ.)	0.22	0.24	0.26	0.28	0.36	dB	0.109
FMCA100163-24	24 inch	Insertion Loss (Typ.)	0.24	0.28	0.31	0.36	0.51	dB	0.154
FMCA100163-36	36 inch	Insertion Loss (Typ.)	0.26	0.32	0.36	0.43	0.67	dB	0.199
FMCA100163-48	48 inch	Insertion Loss (Typ.)	0.28	0.35	0.41	0.51	0.82	dB	0.244
FMCA100163-60	60 inch	Insertion Loss (Typ.)	0.3	0.39	0.46	0.58	0.98	dB	0.289

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: 0.109 pounds
 Additional Weight per Inch: 0.00375 pounds

Mechanical Specifications

Cable Assembly

Width/Diameter 0.5 in [12.7 mm]
 Weight 0.109 lbs [49.44 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	BNC Male	BNC Male
Specification	MIL-STD-348	MIL-STD-348
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Contact Material and Plating	Brass, Gold	Brass, Gold
Dielectric Type	PTFE	PTFE
Body Material and Plating	Brass, Nickel	Brass, Nickel
Coupling Nut Material and Plating	Brass, Nickel	Brass, Nickel

Environmental Specifications

Operating Range Temperature -40 to +85 deg C

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

Plotted and Other Data

Notes:

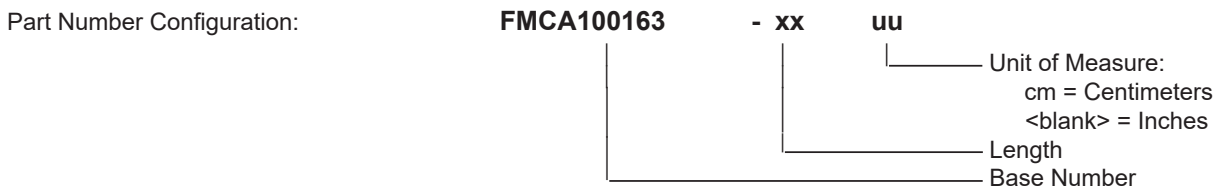
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Typical Performance Data

How to Order



Example: FMCA100163-12 = 12 inches long cable
FMCA100163-100cm = 100 cm long cable

Fire Rated Low Loss BNC Male to BNC 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 BNC Male to BNC Male Cable TCOM-240-FR Coax With Times Microwave Components FMCA100163](#)

URL: <https://www.fairviewmicrowave.com/fire-rated-low-loss-bnc-male-to-bnc-male-cable-tcom-240-fr-coax-with-times-microwave-components-fmca100163-p.aspx>

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FMCA100163 CAD Drawing

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