

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



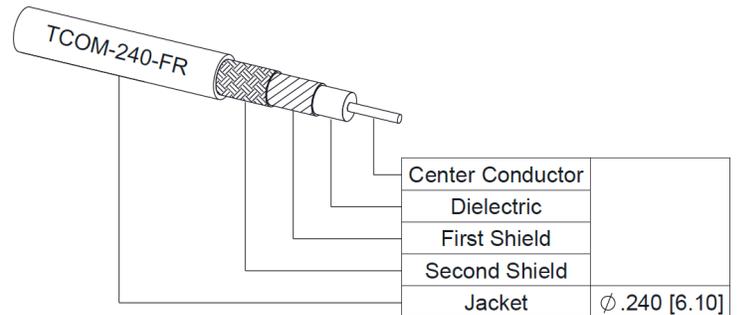
FMCA100161

Configuration

- Connector 1: N Male
- Connector 2: SMA 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 type N male to SMA male cable using TCOM-240-FR coax, part number FMCA100161, from Fairview Microwave is in-stock and ships same day. This Fairview type N to SMA 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 FMCA100161 type N male to SMA 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	
FMCA100161	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	
FMCA100161-12	12 inch	Insertion Loss (Typ.)	0.24	0.26	0.28	0.33	0.4	dB	0.153
FMCA100161-24	24 inch	Insertion Loss (Typ.)	0.28	0.31	0.36	0.45	0.6	dB	0.198
FMCA100161-36	36 inch	Insertion Loss (Typ.)	0.32	0.36	0.43	0.57	0.8	dB	0.243
FMCA100161-48	48 inch	Insertion Loss (Typ.)	0.35	0.41	0.51	0.7	0.99	dB	0.288
FMCA100161-60	60 inch	Insertion Loss (Typ.)	0.39	0.46	0.58	0.82	1.19	dB	0.333

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:	0.153 pounds
Additional Weight per Inch:	0.00375 pounds

Mechanical Specifications

Cable Assembly

Width/Diameter	0.5 in [12.7 mm]
Weight	0.153 lbs [69.4 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	N Male	SMA Male
Specification	MIL-STD-348	MIL-STD-348
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Contact Material and Plating	Brass, Gold	Beryllium Copper, Gold
Contact Plating Specification		ASTM B488
Dielectric Type	PTFE	PTFE
Outer Conductor Material and Plating		Passivated Stainless Steel, Gold
Body Material and Plating	Brass, Tri-Metal	Passivated Stainless Steel, Gold
Body Plating Specification		SAE-AMS-2700
Coupling Nut Material and Plating	Brass, Tri-Metal	Passivated Stainless Steel
Coupling Nut Plating Specification		SAE-AMS-2700

Environmental Specifications

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

Plotted and Other Data

Notes:

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FMCA100161

Typical Performance Data

How to Order

Part Number Configuration:

FMCA100161

- xx

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Unit of Measure:
cm = Centimeters
<blank> = Inches
Length
Base Number

Example: FMCA100161-12 = 12 inches long cable
FMCA100161-100cm = 100 cm long cable

Fire Rated Low Loss N Male to SMA 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.

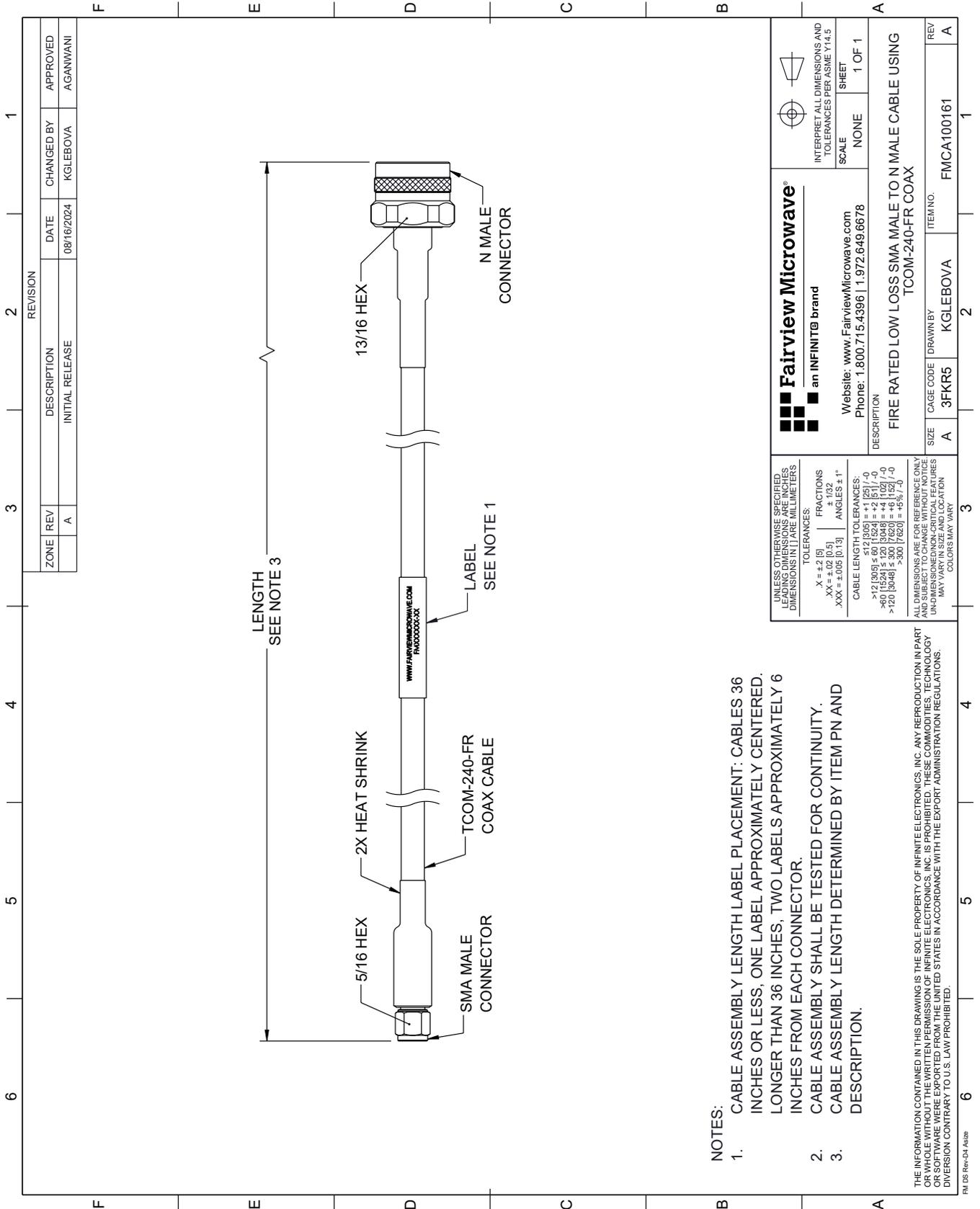
For additional information on this product, please click the following link: [Fire Rated Low Loss N Male to SMA Male Cable TCOM-240-FR Coax With Times Microwave Components FMCA100161](#)

URL: <https://www.fairviewmicrowave.com/fire-rated-low-loss-n-male-to-sma-male-cable-tcom-240-fr-coax-with-times-microwave-components-fmca100161-p.aspx>

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FMCA100161 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 Alt26

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<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>>300 [7620] = ±.8 [203] / -0</p>		
<p>ALL DIMENSIONS ARE FOR REFERENCE ONLY. UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE NON-CRITICAL FEATURES. DIMENSIONS MAY VARY.</p> <p>COLORS MAY VARY.</p>		
<p>DESCRIPTION</p> <p>FIRE RATED LOW LOSS SMA MALE TO N MALE CABLE USING TCOM-240-FR COAX</p>		<p>REV: A</p>
<p>SIZE: A</p>	<p>CAGE CODE: 3FKR5</p>	<p>ITEM NO.: FMCA100161</p>
<p>DRAWN BY: KGLEBOVA</p>	<p>1</p>	<p>2</p>
<p>3</p>	<p>4</p>	<p>5</p>
<p>6</p>	<p>6</p>	<p>6</p>