

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



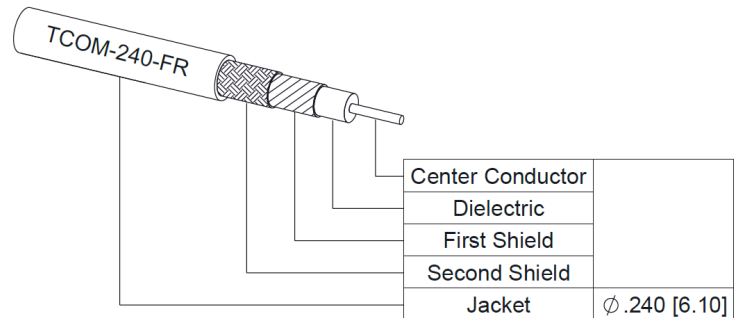
FMCA100155

Configuration

- Connector 1: N Male
- Connector 2: N Female Bulkhead
- 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 type N female bulkhead cable using TCOM-240-FR coax, part number FMCA100155, from Fairview Microwave is in-stock and ships same day. This Fairview type N to type N cable assembly has a male to female 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 FMCA100155 type N male to type N female cable assembly operates to 6 GHz. Our RF cable assembly with type N bulkhead interface allows designers to create external connections on their product enclosures, and can be used in a variety of other rack mount and panel mount applications. 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	
FMCA100155	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	
FMCA100155-12	12 inch	Insertion Loss (Typ.)	0.42	0.44	0.46	0.51	0.58	dB	0.224
FMCA100155-24	24 inch	Insertion Loss (Typ.)	0.46	0.49	0.54	0.63	0.78	dB	0.269
FMCA100155-36	36 inch	Insertion Loss (Typ.)	0.5	0.54	0.61	0.75	0.98	dB	0.314
FMCA100155-48	48 inch	Insertion Loss (Typ.)	0.53	0.59	0.69	0.88	1.17	dB	0.359
FMCA100155-60	60 inch	Insertion Loss (Typ.)	0.57	0.64	0.76	1	1.37	dB	0.404

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: 0.28 dB
 Base Weight: 0.224 pounds
 Additional Weight per Inch: 0.00375 pounds

Mechanical Specifications

Cable Assembly

Width/Diameter 0.5 in [12.7 mm]
 Weight 0.224 lbs [101.6 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	N Female Bulkhead
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		50 μinches
Dielectric Type	PTFE	PTFE
Outer Conductor Material and Plating		Brass, Tri-Metal
Outer Conductor Plating Specification		80 μinches
Body Material and Plating	Brass, Tri-Metal	Brass, Tri-Metal
Coupling Nut Material and Plating	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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Typical Performance Data

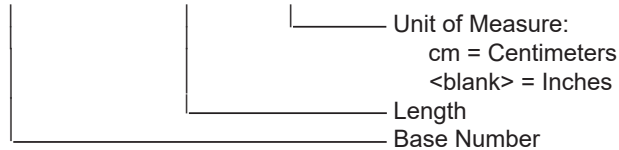
How to Order

Part Number Configuration:

FMCA100155

- xx

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Example: FMCA100155-12 = 12 inches long cable
FMCA100155-100cm = 100 cm long cable

Fire Rated Low Loss N Male to N Female Bulkhead 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.

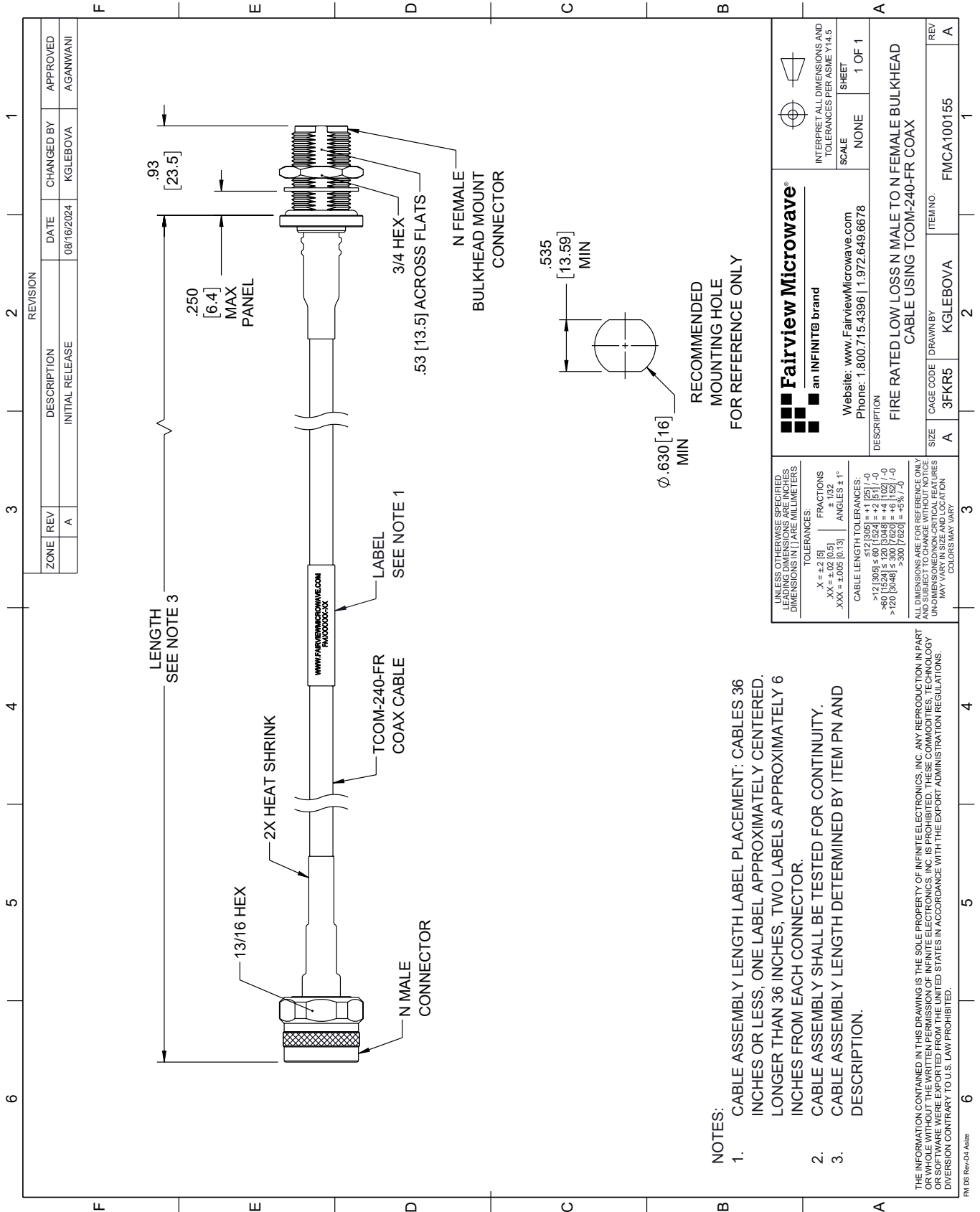
For additional information on this product, please click the following link: [Fire Rated Low Loss N Male to N Female Bulkhead Cable TCOM-240-FR Coax With Times Microwave Components FMCA100155](https://www.fairviewmicrowave.com/fire-rated-low-loss-n-male-to-n-female-bulkhead-cable-tcom-240-fr-coax-with-times-microwave-components-fmca100155)

URL: <https://www.fairviewmicrowave.com/fire-rated-low-loss-n-male-to-n-female-bulkhead-cable-tcom-240-fr-coax-with-times-microwave-components-fmca100155-p.aspx>

The information contained within this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part in order to impliment improvements. Fairview Microwave reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Fairview Microwave does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Fairview Microwave does not assume liability arising out of the use of any part or document.

FMCA100155 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	DESCRIPTION	INITIAL RELEASE	
	A			AGANWANI

 Fairview Microwave® an INFINIT® brand		Website: www.FairviewMicrowave.com Phone: 1.800.715.4396 1.972.649.6678	INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5 SCALE: NONE SHEET: 1 OF 1
DESCRIPTION: FIRE RATED LOW LOSS N MALE TO N FEMALE BULKHEAD CABLE USING TCOM-240-FR COAX			
SIZE	A	CAGE CODE	3FKR5
DRAWN BY	KGLEBOVA		ITEM NO.
REV	FMCA100155		A

UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES, DIMENSIONS IN [] ARE MILLIMETERS.

TOLERANCES:
 .X = ±.2 (5)
 .XX = ±.02 (0.5)
 .XXX = ±.005 (0.13)
 FRACTIONS ± 1/32
 ANGLES ± 1°

CABLE LENGTH TOLERANCES:
 ≤ 12 (305) ±.005 (0.125) / -0
 > 12 (305) ≤ 60 (1524) = +.2 (5) / -0
 > 60 (1524) ≤ 120 (3048) = +.4 (102) / -0
 > 120 (3048) ≤ 300 (7620) = +.8 (20) / -0

ALL DIMENSIONS ARE FOR REFERENCE ONLY. UNDIMENSIONED NON-CRITICAL FEATURES MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY.