

Low PIM N Male to N Male Cable TCOM-240 Coax With Times Microwave Components

FMCA100097

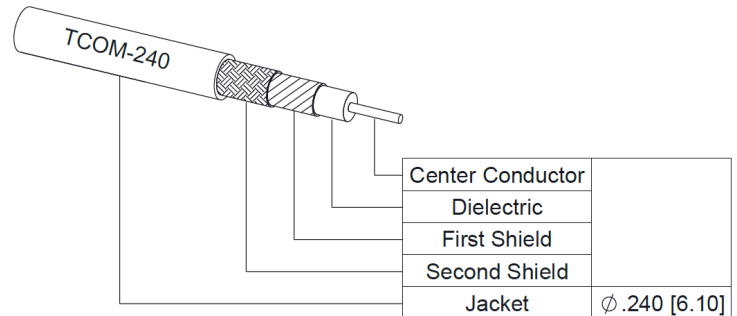


Configuration

- Connector 1: N Male
- Connector 2: N Male
- Cable Type: TCOM-240
- 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
- Low PIM Applications

Description

The type N male to type N male cable using TCOM-240 coax, part number FMCA100097, from Fairview Microwave is in-stock and ships same day. This Fairview type N to type N cable assembly has a male to male gender configuration with 50 ohm flexible TCOM-240 coax. Fairview Microwave's flexible RF cable assemblies are ideal for applications where tight bends and continual flexure are required. Our low PIM design offers excellent passive intermodulation performance. The FMCA100097 type N male to type N 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]
Passive Intermodulation		-155		dBc
IM3 (2x43dBm Tones) at 850 MHz or 1900 MHz				
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	
FMCA100097	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	
FMCA100097-12	12 inch	Insertion Loss (Typ.)	0.53	0.55	0.57	0.62	0.69	dB	0.21
FMCA100097-24	24 inch	Insertion Loss (Typ.)	0.57	0.6	0.65	0.74	0.89	dB	0.24
FMCA100097-36	36 inch	Insertion Loss (Typ.)	0.61	0.65	0.72	0.86	1.09	dB	0.27
FMCA100097-48	48 inch	Insertion Loss (Typ.)	0.64	0.7	0.8	0.99	1.28	dB	0.3
FMCA100097-60	60 inch	Insertion Loss (Typ.)	0.68	0.75	0.87	1.11	1.48	dB	0.33

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:	0.245 dB
Loss due to Connector 2:	0.245 dB
Base Weight:	0.21 pounds
Additional Weight per Inch:	0.0025 pounds

Mechanical Specifications

Cable Assembly

Width/Diameter	0.5 in [12.7 mm]
Weight	0.21 lbs [95.25 g]

Cable

Cable Type	TCOM-240
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 Male
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Mating Cycles	500	500
Contact Material and Plating	Brass, Silver	Brass, Silver
Dielectric Type	PTFE	PTFE
Body Material and Plating	Brass, Tri-Metal	Brass, Tri-Metal
Coupling Nut Material and Plating	Brass, Tri-Metal	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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FMCA100097

Typical Performance Data

How to Order

Part Number Configuration: **FMCA100097** **- xx** **uu**

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

Length

Base Number

Example: FMCA100097-12 = 12 inches long cable
FMCA100097-100cm = 100 cm long cable

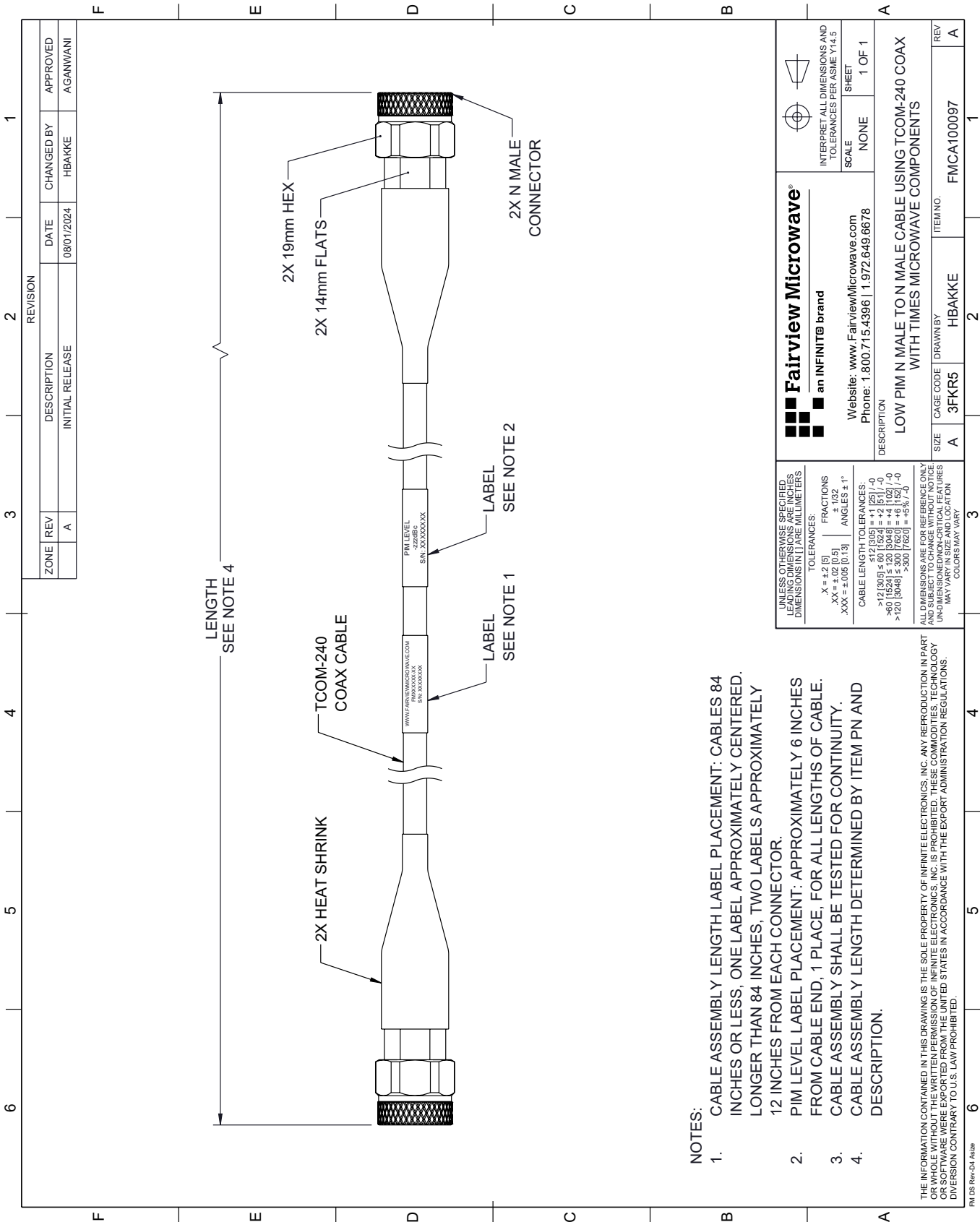
Low PIM N Male to N Male Cable TCOM-240 Coax With Times Microwave Components from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [Low PIM N Male to N Male Cable TCOM-240 Coax With Times Microwave Components FMCA100097](#)

URL: <https://www.fairviewmicrowave.com/low-pim-n-male-to-n-male-cable-tcom-240-coax-with-times-microwave-components-fmca100097-p.aspx>

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FMCA100097 CAD Drawing
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- NOTES:
1. CABLE ASSEMBLY LENGTH LABEL PLACEMENT: CABLES 84 INCHES OR LESS, ONE LABEL APPROXIMATELY CENTERED. LONGER THAN 84 INCHES, TWO LABELS APPROXIMATELY 12 INCHES FROM EACH CONNECTOR.
2. PIM LEVEL LABEL PLACEMENT: APPROXIMATELY 6 INCHES FROM CABLE END, 1 PLACE, FOR ALL LENGTHS OF CABLE.
3. CABLE ASSEMBLY SHALL BE TESTED FOR CONTINUITY.
4. CABLE ASSEMBLY LENGTH DETERMINED BY ITEM PN AND DESCRIPTION.

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Table with 4 columns: UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES, DIMENSIONS IN [] ARE MILLIMETERS; TOLERANCES: X = ±.2 (5), XX = ±.02 (0.5), XXX = ±.005 (0.13); FAIRVIEW MICROWAVE; LOW PIM N MALE TO N MALE CABLE USING TCOM-240 COAX WITH TIMES MICROWAVE COMPONENTS; and a revision table.