

## Low Loss SMA Male to N Female Bulkhead Cable LMR-240-UF Coax with LF Solder

**FMCA100224**



### Configuration

- Connector 1: SMA Male
- Connector 2: N Female Bulkhead
- Cable Type: LMR-240-UF
- Coax Flex Type: Flexible

### Features

- Max Frequency 6 GHz
- Shielding Effectivity > 90 dB
- 84% Phase Velocity
- Double Shielded
- TPE Jacket

### Applications

- General Purpose
- Laboratory Use

### Description

The SMA male to type N female bulkhead cable using LMR-240-UF coax, part number FMCA100224, from Fairview Microwave is in-stock and ships same day. This Fairview SMA to type N cable assembly has a male to female gender configuration with 50 ohm flexible LMR-240-UF coax. Fairview Microwave's flexible RF cable assemblies are ideal for applications where tight bends and continual flexure are required. The FMCA100224 SMA 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 90 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			1.3:1	
Velocity of Propagation		84		%
RF Shielding	90			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		4.28 [14.04]		Ohms/1000ft [Ohms/Km]
DC Resistance Outer Conductor		3.89 [12.76]		Ohms/1000ft [Ohms/Km]
Operating Voltage (AC)			333	Vrms

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### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Operating Voltage (DC)			500	Vdc
Dielectric Withstanding Voltage (AC)			1,000	Vrms
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	
FMCA100224	Custom Lengths Available	Insertion Loss (Typ.)	0.046	0.066	0.096	0.155	0.212	dB/ft	
			0.16	0.22	0.32	0.51	0.7	dB/m	
FMCA100224-12	12 inch	Insertion Loss (Typ.)	0.25	0.27	0.3	0.36	0.42	dB	0.135
FMCA100224-24	24 inch	Insertion Loss (Typ.)	0.3	0.34	0.4	0.51	0.63	dB	0.168
FMCA100224-36	36 inch	Insertion Loss (Typ.)	0.34	0.4	0.49	0.67	0.84	dB	0.2
FMCA100224-60	60 inch	Insertion Loss (Typ.)	0.43	0.53	0.68	0.98	1.26	dB	0.264
FMCA100224-300	300 inch	Insertion Loss (Typ.)	1.35	1.85	2.6	4.08	5.5	dB	0.904

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:	0.135 pounds
Additional Weight per Inch:	0.00267 pounds

### Mechanical Specifications

#### Cable Assembly

Width/Diameter	0.5 in [12.7 mm]
Weight	0.135 lbs [61.23 g]

#### Cable

Cable Type	LMR-240-UF
Impedance	50 Ohms
Inner Conductor Type	Stranded
Inner Conductor Material and Plating	Copper
Dielectric Type	PE (F)
Number of Shields	2
Shield Layer 1	Aluminum Tape
Shield Layer 2	Tinned Copper Braid
Jacket Material	TPE, 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	0.13 lbs-ft [0.18 N-m]
Flat Plate Crush	13 lbs/in [0.23 Kg/mm]
Tensile Strength	80 lbs [36.29 Kg]

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Connectors

Description	Connector 1	Connector 2
Type	SMA Male	N Female Bulkhead
Specification	MIL-STD-348A	MIL-STD-348A
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Mating Cycles		500
Contact Material and Plating	Beryllium Copper, Gold	Brass, Gold
Contact Plating Specification	50 µin minimum	30 µin minimum
Dielectric Type	PTFE	PTFE
Body Material and Plating	Brass, Gold	Brass, Tri-Metal
Body Plating Specification	3 µin minimum	
Coupling Nut Material and Plating	Brass, Gold	
Coupling Nut Plating Specification	3 µin minimum	
Hex Size	5/16 inch	

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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### FMCA100224

#### Typical Performance Data

#### How to Order

Part Number Configuration: **FMCA100224**    **- xx**    **uu**

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

Length

Base Number

Example: FMCA100224-12 = 12 inches long cable  
FMCA100224-100cm = 100 cm long cable

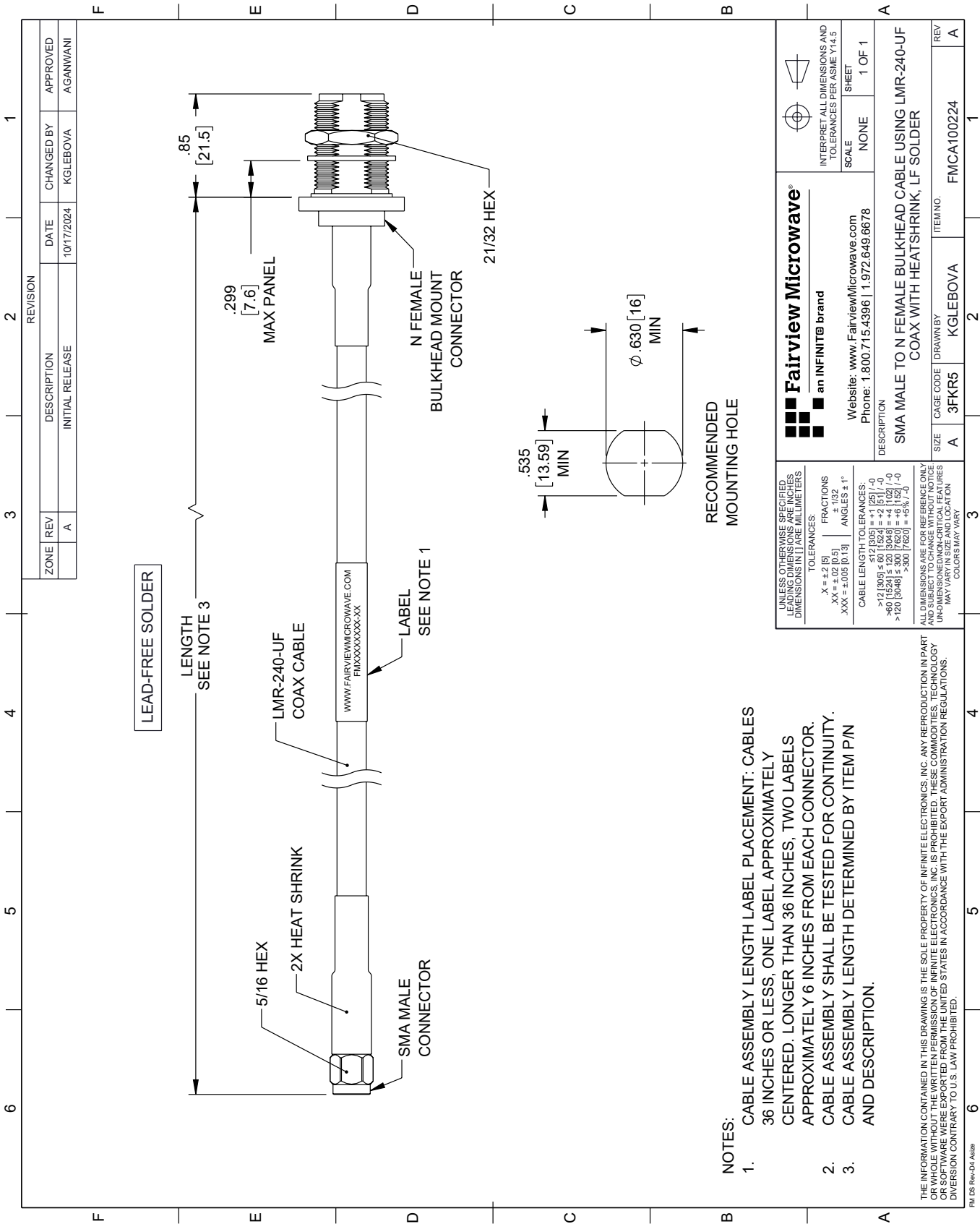
Low Loss SMA Male to N Female Bulkhead Cable LMR-240-UF Coax with LF Solder from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [Low Loss SMA Male to N Female Bulkhead Cable LMR-240-UF Coax with LF Solder FMCA100224](#)

URL: <https://www.fairviewmicrowave.com/low-loss-sma-male-to-n-female-bulkhead-cable-lmr-240-uf-coax-with-lf-solder-fmca100224-p.aspx>

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FMCA100224 CAD Drawing
Low Loss SMA Male to N Female Bulkhead Cable LMR-240-UF Coax with LF Solder



- 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 P/N AND DESCRIPTION.

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