

## SMA Male to N Female Bulkhead Cable LMR-400-UF Coax



**FMCA100247**

### Configuration

- Connector 1: SMA Male
- Connector 2: N Female Bulkhead
- Cable Type: LMR-400-UF
- Coax Flex Type: Flexible

### Features

- Max Frequency 8 GHz
- Shielding Effectivity > 90 dB
- 85% Phase Velocity
- Double Shielded
- TPE Jacket

### Applications

- General Purpose
- Laboratory Use

### Description

The SMA male to type N female bulkhead cable using LMR-400-UF coax, part number FMCA100247, 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-400-UF coax. Fairview Microwave's flexible RF cable assemblies are ideal for applications where tight bends and continual flexure are required. The FMCA100247 SMA male to type N female cable assembly operates to 8 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		8	GHz
VSWR			1.4:1	
Velocity of Propagation		85		%
RF Shielding	90			dB
Group Delay		1.2 [3.94]		ns/ft [ns/m]
Capacitance		23.9 [78.41]		pF/ft [pF/m]
Inductance		0.06 [0.2]		uH/ft [uH/m]
DC Resistance Inner Conductor		1.07 [3.51]		Ohms/1000ft [Ohms/Km]
DC Resistance Outer Conductor		1.65 [5.41]		Ohms/1000ft [Ohms/Km]

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### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Jacket Spark			8,000	Vrms

### Specifications by Frequency

Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
		Frequency	500	1000	2000	4000	8000	MHz	
FMCA100247	Custom Lengths Available	Insertion Loss (Typ.)	0.035	0.05	0.072	0.094	0.13	dB/ft	
			0.12	0.17	0.24	0.31	0.43	dB/m	
FMCA100247-12	12 inch	Insertion Loss (Typ.)	0.24	0.25	0.28	0.3	0.33	dB	0.247
FMCA100247-24	24 inch	Insertion Loss (Typ.)	0.27	0.3	0.35	0.39	0.46	dB	0.334
FMCA100247-36	36 inch	Insertion Loss (Typ.)	0.31	0.35	0.42	0.49	0.59	dB	0.421
FMCA100247-60	60 inch	Insertion Loss (Typ.)	0.38	0.45	0.56	0.67	0.85	dB	0.595
FMCA100247-300	300 inch	Insertion Loss (Typ.)	1.08	1.45	2	2.55	3.45	dB	2.335

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:	0.247 pounds
Additional Weight per Inch:	0.00725 pounds

### Mechanical Specifications

#### Cable Assembly

Width/Diameter	0.5 in [12.7 mm]
Weight	0.247 lbs [112.04 g]

#### Cable

Cable Type	LMR-400-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	0.405 in [10.29 mm]
One Time Minimum Bend Radius	1 in [25.4 mm]
Repeated Minimum Bend Radius	4 in [101.6 mm]
Bending Moment	0.38 lbs-ft [0.52 N-m]
Flat Plate Crush	20 lbs/in [0.36 Kg/mm]
Tensile Strength	160 lbs [72.57 Kg]

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Connectors

Description	Connector 1	Connector 2
Type	SMA Male	N Female Bulkhead
Specification		MIL-STD-348A
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Mating Cycles		500
Contact Material and Plating	Brass, Gold	Brass, Gold
Contact Plating Specification		30 µin minimum
Dielectric Type	PTFE	PTFE
Body Material and Plating	Brass, Gold	Brass, Tri-Metal
Coupling Nut Material and Plating	Brass, Gold	
Hex Size	5/16 inch	
Torque	3 in-lbs 0.34 Nm	

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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**FMCA100247**

### Typical Performance Data

### How to Order

Part Number Configuration:

**FMCA100247**

**- xx**

**uu**

Unit of Measure:

cm = Centimeters

<blank> = Inches

Length

Base Number

Example: FMCA100247-12 = 12 inches long cable  
FMCA100247-100cm = 100 cm long cable

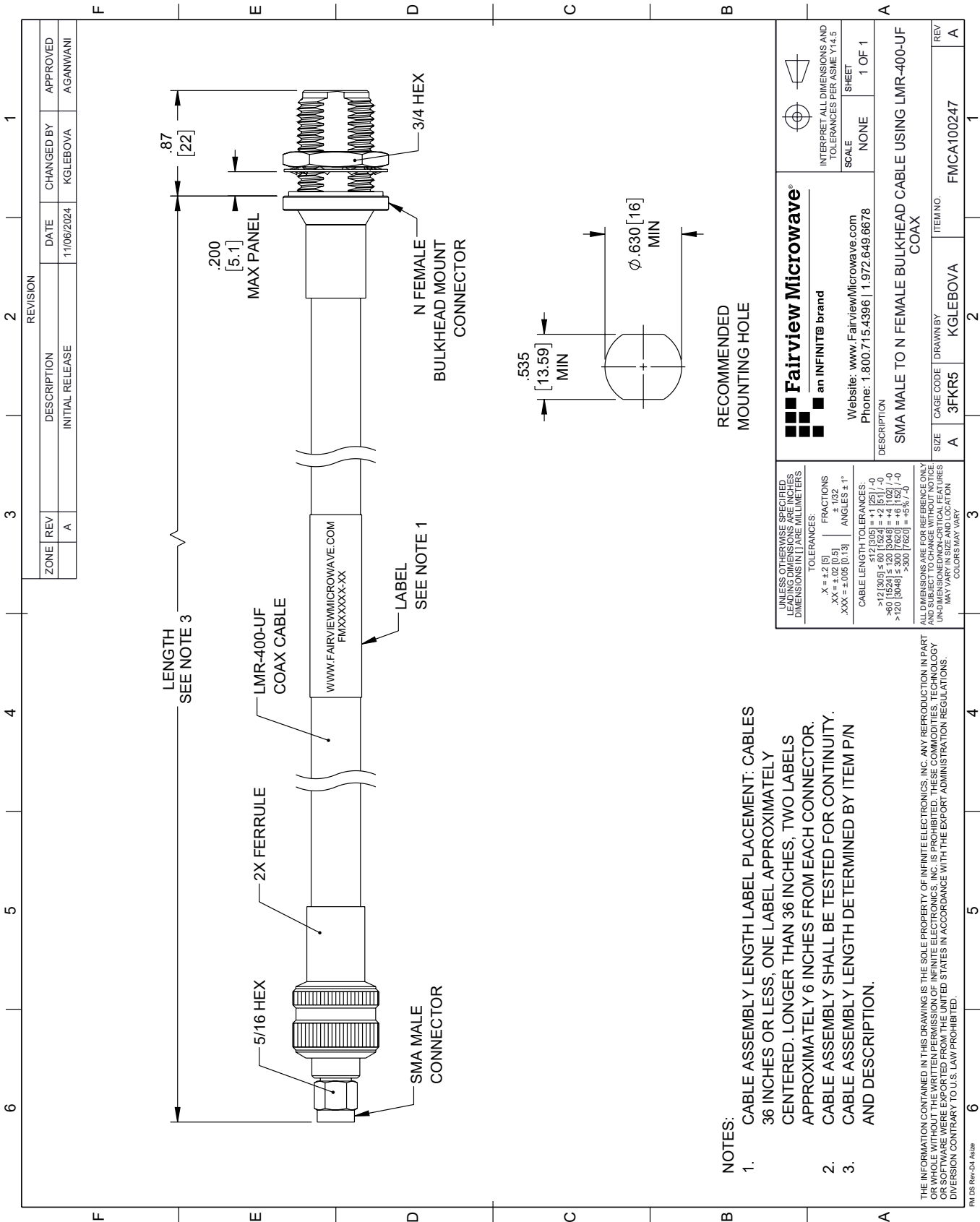
SMA Male to N Female Bulkhead Cable LMR-400-UF Coax from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [SMA Male to N Female Bulkhead Cable LMR-400-UF Coax FMCA100247](https://www.fairviewmicrowave.com/sma-male-to-n-female-bulkhead-cable-lmr-400-uf-coax-fmca100247-p.aspx)

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FMCA100247 CAD Drawing
SMA Male to N Female Bulkhead Cable LMR-400-UF Coax



- 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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