

Low Loss RA N Male to N Male Cable LMR-400-UF Coax with LF Solder



FMCA100248

Configuration

- Connector 1: N Male Right Angle
- Connector 2: N Male
- 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 RA type N male to type N male cable using LMR-400-UF coax, part number FMCA100248, 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 LMR-400-UF coax. Fairview Microwave's flexible RF cable assemblies are ideal for applications where tight bends and continual flexure are required. The FMCA100248 type N male to type N male cable assembly operates to 8 GHz. The right angle type N interface on the LMR-400-UF cable allows for easier connections in tight spaces. 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]
Operating Voltage (AC)			1,000	Vrms

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Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Dielectric Withstanding Voltage (AC)			2,500	Vrms
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	
FMCA100248	Custom Lengths Available	Insertion Loss (Typ.)	0.035 0.12	0.05 0.17	0.072 0.24	0.094 0.31	0.13 0.43	dB/ft dB/m	
FMCA100248-12	12 inch	Insertion Loss (Typ.)	0.34	0.35	0.38	0.4	0.43	dB	0.308
FMCA100248-24	24 inch	Insertion Loss (Typ.)	0.37	0.4	0.45	0.49	0.56	dB	0.395
FMCA100248-36	36 inch	Insertion Loss (Typ.)	0.41	0.45	0.52	0.59	0.69	dB	0.482
FMCA100248-60	60 inch	Insertion Loss (Typ.)	0.48	0.55	0.66	0.77	0.95	dB	0.656
FMCA100248-300	300 inch	Insertion Loss (Typ.)	1.18	1.55	2.1	2.65	3.55	dB	2.396

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:	0.2 dB
Loss due to Connector 2:	0.1 dB
Base Weight:	0.308 pounds
Additional Weight per Inch:	0.00725 pounds

Mechanical Specifications

Cable Assembly

Width/Diameter	0.5 in [12.7 mm]
Weight	0.308 lbs [139.71 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	N Male Right Angle	N Male
Specification	MIL-STD-348A	MIL-STD-348
Impedance	50 Ohms	50 Ohms
Configuration	Right Angle	Straight
Mating Cycles	500	
Contact Material and Plating	Brass, Gold	Brass, Gold
Contact Plating Specification	30 µin minimum	ASTM-B488
Dielectric Type	PTFE	PTFE
Body Material and Plating	Brass, Tri-Metal	Brass, Nickel
Body Plating Specification		ASTM-B689
Coupling Nut Material and Plating	Brass, Tri-Metal	Brass, Nickel
Coupling Nut Plating Specification		ASTM-B689

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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FMCA100248

Typical Performance Data

How to Order

Part Number Configuration: **FMCA100248** **- xx** **uu**

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

Length

Base Number

Example: FMCA100248-12 = 12 inches long cable
FMCA100248-100cm = 100 cm long cable

Low Loss RA N Male to N Male Cable LMR-400-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 RA N Male to N Male Cable LMR-400-UF Coax with LF Solder FMCA100248](#)

URL: <https://www.fairviewmicrowave.com/low-loss-ra-n-male-to-n-male-cable-lmr-400-uf-coax-with-lf-solder-fm-ca100248-p.aspx>

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FMCA100248 CAD Drawing
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