

Low Loss N Male to RA N Male Cable LMR-400-DB Coax

FMC00098



Configuration

- Connector 1: N Male
- Connector 2: N Male Right Angle
- Cable Type: LMR-400-DB
- Coax Flex Type: Flexible

Features

- Max Frequency 6 GHz
- Shielding Effectivity > 90 dB
- 85% Phase Velocity
- Double Shielded
- PE Jacket

Applications

- General Purpose
- Laboratory Use

Description

The type N male to RA type N male cable using LMR-400-DB coax, part number FMC00098, 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-DB coax. Fairview Microwave's flexible RF cable assemblies are ideal for applications where tight bends and continual flexure are required. The FMC00098 type N male to type N male cable assembly operates to 6 GHz. The right angle type N interface on the LMR-400-DB 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		6	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		1.39 [4.56]		Ohms/1000ft [Ohms/Km]
DC Resistance Outer Conductor		1.65 [5.41]		Ohms/1000ft [Ohms/Km]

Low Loss N Male to RA N Male Cable LMR-400-DB Coax

FMC00098



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	250	500	1000	2500	5800	MHz	
FMC00098	Custom Lengths Available	Insertion Loss (Typ.)	0.02	0.03	0.041	0.068	0.108	dB/ft	
			0.07	0.1	0.14	0.23	0.36	dB/m	
FMC00098-12	12 inch	Insertion Loss (Typ.)	0.25	0.28	0.31	0.37	0.46	dB	0.341
FMC00098-24	24 inch	Insertion Loss (Typ.)	0.27	0.3	0.35	0.44	0.57	dB	0.412
FMC00098-36	36 inch	Insertion Loss (Typ.)	0.29	0.33	0.39	0.5	0.67	dB	0.482
FMC00098-48	48 inch	Insertion Loss (Typ.)	0.31	0.36	0.43	0.57	0.78	dB	0.552
FMC00098-60	60 inch	Insertion Loss (Typ.)	0.33	0.39	0.47	0.64	0.89	dB	0.622

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:	0.06 x sqrt(fGHz) dB
Loss due to Connector 2:	0.2 dB
Base Weight:	0.341 pounds
Additional Weight per Inch:	0.00584 pounds

Mechanical Specifications

Cable Assembly

Weight	0.341 lbs [154.67 g]
--------	----------------------

Cable

Cable Type	LMR-400-DB
Impedance	50 Ohms
Inner Conductor Type	Solid
Inner Conductor Material and Plating	Copper Clad Aluminum
Dielectric Type	PE (F)
Number of Shields	2
Shield Layer 1	Aluminum Tape
Shield Layer 2	Tinned Copper Braid
Jacket Material	PE, 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	0.5 lbs-ft [0.68 N-m]
Flat Plate Crush	40 lbs/in [0.71 Kg/mm]
Tensile Strength	160 lbs [72.57 Kg]

Low Loss N Male to RA N Male Cable LMR-400-DB Coax

FMC00098



Connectors

Description	Connector 1	Connector 2
Type	N Male	N Male Right Angle
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Right Angle
Contact Material and Plating	Brass, Gold	Beryllium Copper, Gold
Contact Plating Specification	3 µin minimum	50 µin minimum
Dielectric Type	PTFE	PTFE
Body Material and Plating	Brass, Nickel	Brass, Tri-Metal
Body Plating Specification	100 µin minimum	78.74 µin minimum
Coupling Nut Material and Plating	Brass, Nickel	Brass, Tri-Metal
Coupling Nut Plating Specification	100 µin minimum	78.74 µin minimum
Torque		44 in-lbs 4.97 Nm

Environmental Specifications

Operating Range Temperature -40 to +85 deg C

Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:

Low Loss N Male to RA N Male Cable LMR-400-DB Coax



FMC00098

Typical Performance Data

How to Order

Part Number Configuration:

FMC00098

- xx

uu

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

Length
Base Number

Example: FMC00098-12 = 12 inches long cable
FMC00098-100cm = 100 cm long cable

Low Loss N Male to RA N Male Cable LMR-400-DB 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: [Low Loss N Male to RA N Male Cable LMR-400-DB Coax FMC00098](https://www.fairviewmicrowave.com/low-loss-n-male-to-ra-n-male-cable-lmr-400-db-coax-fmc00098-p.aspx)

URL: <https://www.fairviewmicrowave.com/low-loss-n-male-to-ra-n-male-cable-lmr-400-db-coax-fmc00098-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 implement 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.

FMC00098 CAD Drawing
Low Loss N Male to RA N Male Cable LMR-400-DB Coax

