

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



FMCA9989

Configuration

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

Features

- Max Frequency 5.8 GHz
- Shielding Effectivity > 90 dB
- 70% Phase Velocity
- Double Shielded
- PE Jacket

Applications

- General Purpose
- Laboratory Use

Description

The type N male to type N male cable using LMR-400 coax, part number FMCA9989, 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 coax. Fairview Microwave's flexible RF cable assemblies are ideal for applications where tight bends and continual flexure are required. The FMCA9989 type N male to type N male cable assembly operates to 5.8 GHz. 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		5.8	GHz
VSWR		1.4:1		
Velocity of Propagation		70		%
RF Shielding	90			dB
Capacitance		29 [95.14]		pF/ft [pF/m]

Specifications by Frequency

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



FMCA9989

Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
			Frequency	500	1000	2500	5000	5800	
FMCA9989	Custom Lengths Available	Insertion Loss (Typ.)	0.03	0.04	0.068	0.098	0.108	dB/ft	
			0.1	0.14	0.23	0.33	0.36	dB/m	
FMCA9989-12	12 inch	Insertion Loss (Typ.)	0.12	0.17	0.26	0.37	0.4	dB	0.221
FMCA9989-24	24 inch	Insertion Loss (Typ.)	0.15	0.21	0.33	0.47	0.51	dB	0.289
FMCA9989-36	36 inch	Insertion Loss (Typ.)	0.17	0.25	0.4	0.57	0.62	dB	0.356
FMCA9989-48	48 inch	Insertion Loss (Typ.)	0.2	0.29	0.47	0.67	0.73	dB	0.423
FMCA9989-60	60 inch	Insertion Loss (Typ.)	0.23	0.33	0.53	0.76	0.83	dB	0.49

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: 0.06 x sqrt(fGHz) dB
 Base Weight: 0.221 pounds
 Additional Weight per Inch: 0.00559 pounds

Mechanical Specifications

Cable Assembly

Weight 0.221 lbs [100.24 g]

Cable

Cable Type LMR-400
 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, Blue
 Jacket Diameter 0.405 in [10.29 mm]
 One Time Minimum Bend Radius 0.25 in [6.35 mm]
 Repeated Minimum Bend Radius 1 in [25.4 mm]
 Bending Moment 0.1 lbs-ft [0.14 N-m]
 Flat Plate Crush 10 lbs/in [0.18 Kg/mm]
 Tensile Strength 15 lbs [6.8 Kg]

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



FMCA9989

Connectors

Description	Connector 1	Connector 2
Type	N Male	N Male
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Contact Material and Plating	Brass, Gold	Brass, Gold
Contact Plating Specification	3 µin minimum	3 µin minimum
Dielectric Type	PTFE	PTFE
Body Material and Plating	Brass, Nickel	Brass, Nickel
Body Plating Specification	100 µin minimum	100 µin minimum
Coupling Nut Material and Plating	Brass, Nickel	Brass, Nickel
Coupling Nut Plating Specification	100 µin minimum	100 µin minimum

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 N Male Cable LMR-400 Coax



FMCA9989

Typical Performance Data

How to Order

Part Number Configuration:

FMCA9989

- **xx**

uu

Unit of Measure:

cm = Centimeters

<blank> = Inches

Length

Base Number

Example: FMCA9989-12 = 12 inches long cable
FMCA9989-100cm = 100 cm long cable

Low Loss N Male to N Male Cable LMR-400 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.

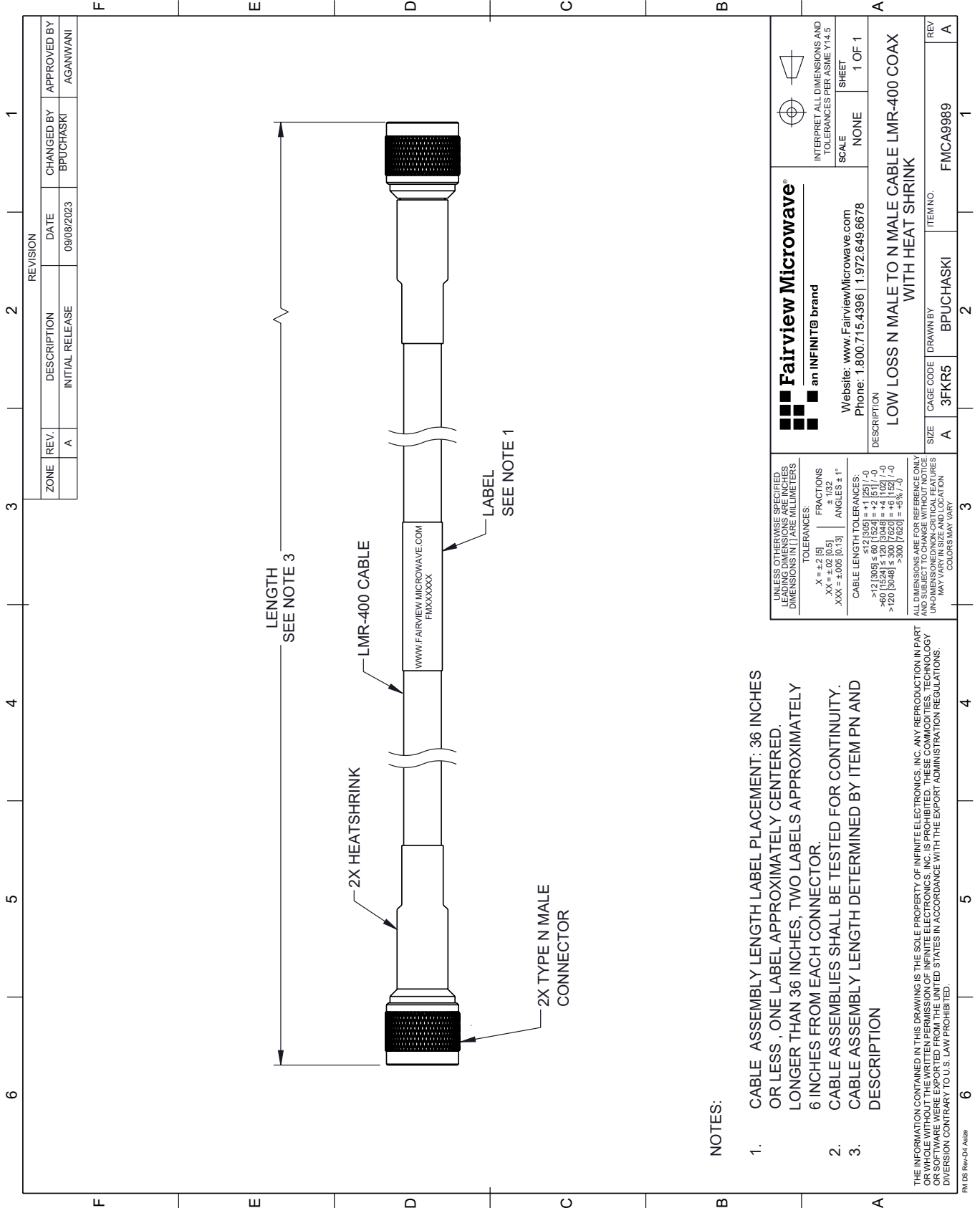
For additional information on this product, please click the following link: [Low Loss N Male to N Male Cable LMR-400 Coax FMCA9989](#)

URL: <https://www.fairviewmicrowave.com/low-loss-n-male-to-n-male-cable-lmr-400-coax-fmca9989-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.

FMCA9989 CAD Drawing

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



REVISION		DATE	CHANGED BY	APPROVED BY
ZONE	REV.	DESCRIPTION		
	A	INITIAL RELEASE	BPUCHASKI	AGANWANI

 Fairview Microwave® an INFINIT® brand		 INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5 SCALE NONE SHEET 1 OF 1
Website: www.FairviewMicrowave.com Phone: 1.800.715.4396 1.972.649.6678		
DESCRIPTION LOW LOSS N MALE TO N MALE CABLE LMR-400 COAX WITH HEAT SHRINK		
SIZE	CAGE CODE	ITEM NO.
A	3FKR5	FMCA9989

UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES AND TRAILING DIMENSIONS ARE IN MILLIMETERS. TOLERANCES: .X = ±.2 [5] .XX = ±.02 [0.5] .XXX = ±.005 [0.13] FRACTIONS ± 1/32 ANGLES ± 1° CABLE LENGTH TOLERANCES: <12 [305] ≤ 60 [1524] = ±.1 [25] / -0 >60 [1524] ≤ 120 [3048] = ±.4 [102] / -0 >120 [3048] ≤ 300 [7620] = ±.6 [152] / -0 >300 [7620] = ±.6% / -0 ALL DIMENSIONS ARE FOR REFERENCE ONLY. UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE FOR THE CENTERLINE OF THE CABLE. DIMENSIONS OF NON-CRITICAL FEATURES MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY.
--

- NOTES:
- CABLE ASSEMBLY LENGTH LABEL PLACEMENT: 36 INCHES OR LESS, ONE LABEL APPROXIMATELY CENTERED. LONGER THAN 36 INCHES, TWO LABELS APPROXIMATELY 6 INCHES FROM EACH CONNECTOR.
 - CABLE ASSEMBLIES SHALL BE TESTED FOR CONTINUITY.
 - CABLE ASSEMBLY LENGTH DETERMINED BY ITEM PN AND DESCRIPTION

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF INFINITE ELECTRONICS, INC. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF INFINITE ELECTRONICS, INC. IS PROHIBITED. THESE COMMODITIES, TECHNOLOGY OR SOFTWARE WERE EXPORTED FROM THE UNITED STATES IN ACCORDANCE WITH THE EXPORT ADMINISTRATION REGULATIONS. DIVISION CONTRARY TO U.S. LAW PROHIBITED.