

Low Loss N Male to N Female Weatherproof Cable LMR-400 Coax in 48 Inch with Times Microwave Components



FMC00408/WP-48

Configuration

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

Features

- Max Frequency 6 GHz
- Shielding Effectivity > 90 dB
- 85% Phase Velocity
- Double Shielded
- PE Jacket
- Silicone Connector Boot
- IP68 Rated

Applications

- General Purpose
- Laboratory Use

Description

The type N male to type N female 48 inch cable using LMR-400 coax, part number FMC00408/WP-48, from Fairview Microwave is in-stock and ships same day. This Fairview type N to type N cable assembly has a male to female 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 FMC00408/WP-48 type N male to type N female cable assembly operates to 6 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		6	GHz
VSWR			1.4:1	
Velocity of Propagation		85		%
RF Shielding	90			dB
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]
Dielectric Withstanding Voltage (DC)			2,500	Vdc

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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					MHz	
FMC00408/WP	Custom Lengths Available	Insertion Loss (Typ.)	0.057	0.028	0.041	0.068	0.108	dB/ft	
			0.19	0.1	0.14	0.23	0.36	dB/m	
FMC00408/WP-24	24 In	Insertion Loss (Typ.)	0.24	0.26	0.29	0.34	0.42	dB	0.0823
FMC00408/WP-36	36 In	Insertion Loss (Typ.)	0.26	0.29	0.33	0.41	0.53	dB	0.89
FMC00408/WP-48	48 In	Insertion Loss (Typ.)	0.28	0.32	0.37	0.48	0.64	dB	0.957
FMC00408/WP-60	60 In	Insertion Loss (Typ.)	0.3	0.34	0.41	0.54	0.74	dB	1.024

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: 0.756 pounds
- Additional Weight per Inch: 0.00558 pounds

Mechanical Specifications

Cable Assembly

- Length: 48 in [121.92 cm]
- Width/Diameter: 0.5 in [12.7 mm]
- Weight: 0.957 lbs [434.09 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
- 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]

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Connectors

Description	Connector 1	Connector 2
Type	N Male	N Female
Option	Weatherproof Boot	
Specification		MIL-STD-348
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Contact Material and Plating	Brass, Gold	Copper, Gold
Contact Plating Specification	50 µin minimum	
Dielectric Type	PTFE	PTFE
Outer Conductor Material and Plating		Brass, Tri-Metal
Body Material and Plating	Brass, Tri-Metal	Brass, Tri-Metal
Body Plating Specification	150 µin minimum	
Coupling Nut Material and Plating	Brass, Tri-Metal	
Coupling Nut Plating Specification	150 µin minimum	
Boot Material	Silicone	Silicone

Environmental Specifications

Operating Range Temperature	-40 to +85 deg C
Ingress Protection (IP) Rating	IP68

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

Plotted and Other Data

Notes:
Values at 25°C, sea level.

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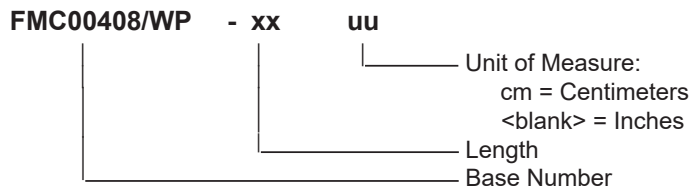


FMC00408/WP-48

Typical Performance Data

How to Order

Part Number Configuration:



Example: FMC00408/WP-12 = 12 inches long cable
FMC00408/WP-100cm = 100 cm long cable

Low Loss N Male to N Female Weatherproof Cable LMR-400 Coax in 48 Inch with Times Microwave Components 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.

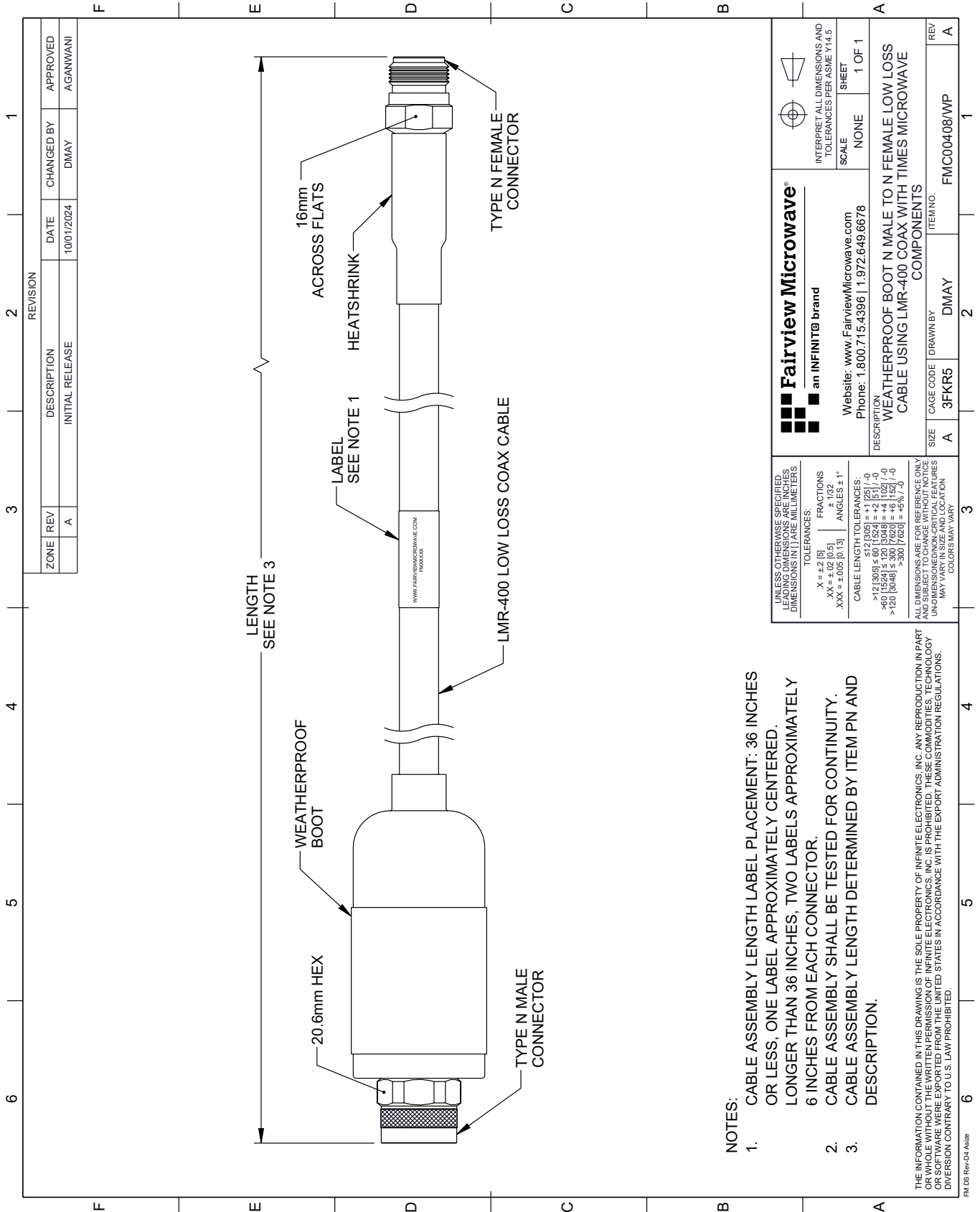
For additional information on this product, please click the following link: [Low Loss N Male to N Female Weatherproof Cable LMR®-400 Coax in 48 Inch with Times Microwave Components FMC00408/WP-48](https://www.fairviewmicrowave.com/low-loss-n-male-to-n-female-weatherproof-cable-lmr-400-coax-in-48-inch-with-times-microwave-components-fmc00408/wp-48)

URL: <https://www.fairviewmicrowave.com/low-loss-n-male-to-n-female-weatherproof-cable-lmr-400-coax-in-48-inch-with-times-microwave-components-fmc00408/wp-48-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.

FMC00408/WP-48 CAD Drawing

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Fairview Microwave® an INFINIT® brand Website: www.FairviewMicrowave.com Phone: 1.800.715.4396 1.972.649.6678		INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5 SCALE NONE SHEET 1 OF 1
DESCRIPTION WEATHERPROOF BOOT N MALE TO N FEMALE LOW LOSS CABLE USING LMR-400 COAX WITH TIMES MICROWAVE COMPONENTS		
SIZE A	CAGE CODE 3FKR5	DRAWN BY DMAY
ITEM NO. FMC00408/WP		REV. A

UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES, DIMENSIONS IN [] ARE 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 [2.5] / -0
 >60 [1524] ≤ 120 [3048] = ±.4 [102] / -0
 >120 [3048] ≤ 300 [7620] = ±.6 [15.2] / -0

ALL DIMENSIONS ARE FOR REFERENCE ONLY. UNDIMENSIONED/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 ASSEMBLY SHALL BE TESTED FOR CONTINUITY.
 - CABLE ASSEMBLY LENGTH DETERMINED BY ITEM PN AND DESCRIPTION.

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