

Low Loss SMA Male to RA N Male Cable LMR-400-DB Coax With Times Microwave Components



FMC00116

Configuration

- Connector 1: SMA 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 SMA male to RA type N male cable using LMR-400-DB coax, part number FMC00116, from Fairview Microwave is in-stock and ships same day. This Fairview SMA 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 FMC00116 SMA 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]

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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	
FMC00116	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	
FMC00116-12	12 inch	Insertion Loss (Typ.)	0.32	0.33	0.35	0.37	0.41	dB	0.315
FMC00116-24	24 inch	Insertion Loss (Typ.)	0.34	0.36	0.39	0.44	0.52	dB	0.386
FMC00116-36	36 inch	Insertion Loss (Typ.)	0.36	0.39	0.43	0.51	0.63	dB	0.456
FMC00116-48	48 inch	Insertion Loss (Typ.)	0.38	0.42	0.47	0.58	0.74	dB	0.526
FMC00116-60	60 inch	Insertion Loss (Typ.)	0.4	0.44	0.51	0.64	0.84	dB	0.596

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:	0.2 dB
Base Weight:	0.315 pounds
Additional Weight per Inch:	0.00584 pounds

Mechanical Specifications

Cable Assembly

Weight 0.315 lbs [142.88 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]

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Connectors

Description	Connector 1	Connector 2
Type	SMA 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	50µin Minimum	50µin Minimum
Dielectric Type	Teflon	PTFE
Body Material and Plating	Brass, Tri-Metal	Brass, Tri-Metal
Body Plating Specification		78.74 µin minimum
Coupling Nut Material and Plating	Brass, Tri-Metal	Brass, Tri-Metal
Coupling Nut Plating Specification		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 SMA Male to RA N Male Cable LMR-400-DB Coax With Times Microwave Components

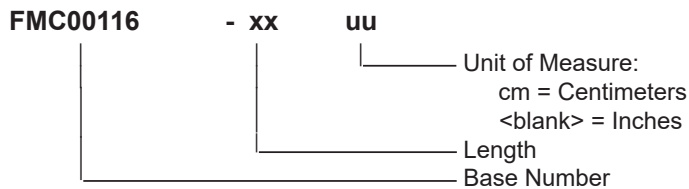


FMC00116

Typical Performance Data

How to Order

Part Number Configuration:



Example: FMC00116-12 = 12 inches long cable
FMC00116-100cm = 100 cm long cable

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

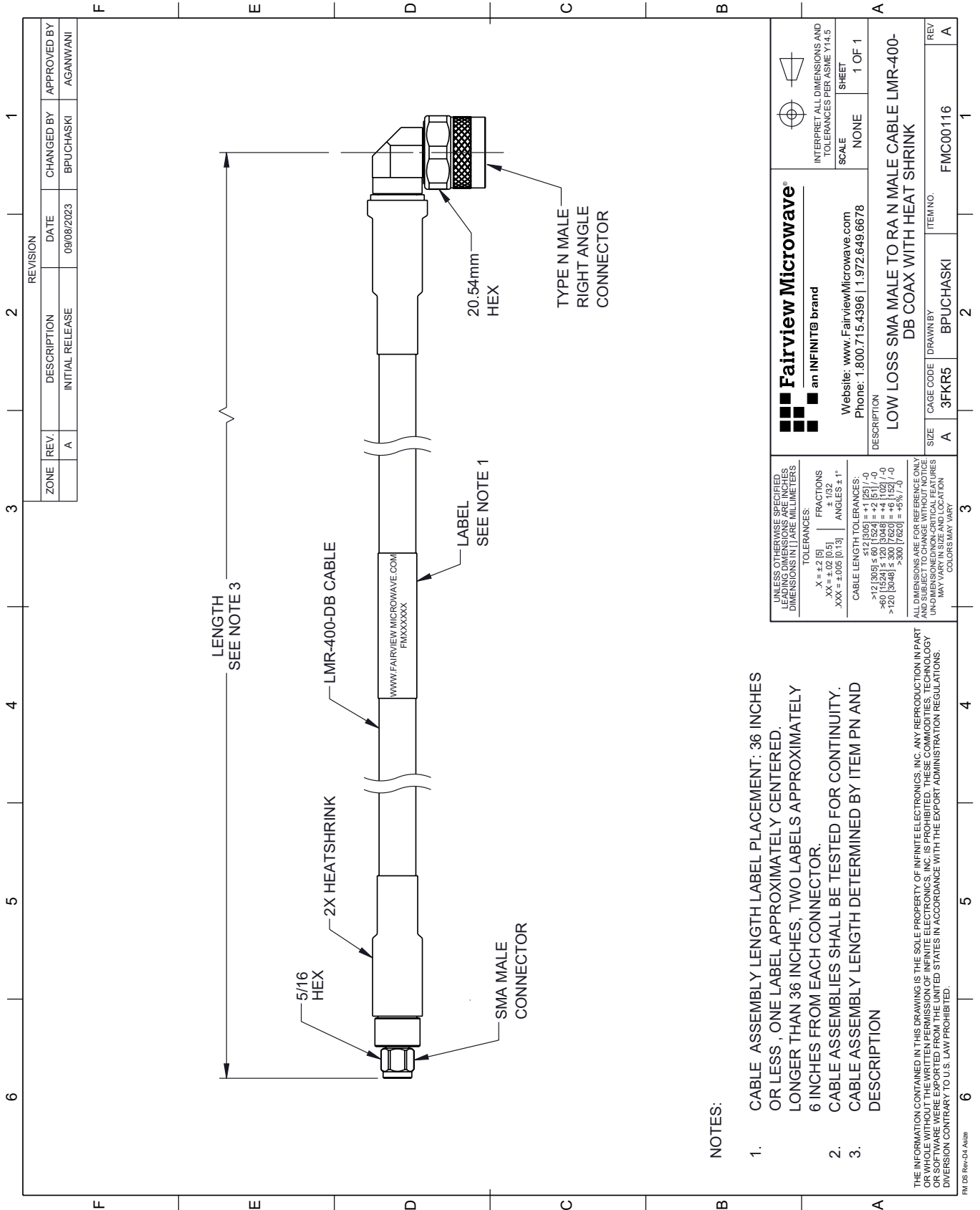
For additional information on this product, please click the following link: [Low Loss SMA Male to RA N Male Cable LMR-400-DB Coax With Times Microwave Components FMC00116](https://www.fairviewmicrowave.com/low-loss-sma-male-to-ra-n-male-cable-lmr-400-db-coax-with-times-microwave-components-fmc00116)

URL: <https://www.fairviewmicrowave.com/low-loss-sma-male-to-ra-n-male-cable-lmr-400-db-coax-with-times-microwave-components-fmc00116-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.

FMC00116 CAD Drawing

Low Loss SMA Male to RA N Male Cable LMR-400-DB Coax With Times Microwave Components



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

 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 LOW LOSS SMA MALE TO RA N MALE CABLE LMR-400-DB COAX WITH HEAT SHRINK			
SIZE	CAGE CODE	DRAWN BY	ITEM NO.
A	3FKR5	BPUCHASKI	FMC00116

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

UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES. DIMENSIONS IN [] ARE MILLIMETERS.
 TOLERANCES:
 .X = ±.2 [5] FRACTIONS ± 1/32
 .XX = ±.02 [0.5] ANGLES ± 1°
 .XXX = ±.005 [0.13]
 CABLE LENGTH TOLERANCES:
 >12 [305] ≤ 60 [1524] = ±.125 [-0 / +0]
 >60 [1524] ≤ 120 [3048] = ±.1 [0.2] [-0 / +0]
 >120 [3048] ≤ 300 [7620] = ±.5% [-0 / +0]
 ALL DIMENSIONS ARE FOR REFERENCE ONLY. UNDIMENSIONED NON-CRITICAL FEATURES MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY.

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