

## RA SMA Male to N Female Bulkhead Cable LMR-100 Coax in 50 CM

The RA SMA male to type N female bulkhead 50 cm cable using LMR-100 coax, part number FMC00304-50CM, from Fairview Microwave is in-stock and ships same day. This Fairview SMA to type N cable assembly has a male to female gender configuration with 50 ohm flexible LMR-100A coax. Fairview Microwave's flexible RF cable assemblies are ideal for applications where tight bends and continual flexure are required. The FMC00304-50CM SMA male to type N female cable assembly operates to 5.8 GHz. The right angle SMA interface on the LMR-100A cable allows for easier connections in tight spaces. Our RF cable assembly with type N bulkhead interface allows designers to create external connections on their product enclosures, and can be used in a variety of other rack mount and panel mount applications. 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	Min	Typ	Max	Units
Frequency Range	DC		5.8	GHz
VSWR			1.4:1	
Velocity of Propagation		66		%
RF Shielding	90			dB
Group Delay		1.54 [5.05]		ns/ft [ns/m]
Capacitance		30.8 [101.05]		pF/ft [pF/m]
Inductance		0.077 [0.25]		uH/ft [uH/m]
DC Resistance Inner Conductor		81 [265.75]		$\Omega$ /1000ft [ $\Omega$ /Km]
DC Resistance Outer Conductor		9.5 [31.17]		$\Omega$ /1000ft [ $\Omega$ /Km]
Jacket Spark			2,000	Vrms

### Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency	0.25	0.5	1	2.5	5.8	GHz
Insertion Loss (Typ.)	0.49	0.57	0.69	0.95	1.35	dB

#### Electrical Specification Notes:

The Insertion Loss data above is based on the performance specifications of the coax cable and connectors used in this assembly. The Insertion Loss includes an estimated insertion loss of 0.1 dB for the straight connector and 0.2 dB for the right angle connector.

### Mechanical Specifications

#### Cable Assembly

Length\* 19.69 in [500.13 mm]



### Configuration:

- SMA Male Right Angle
- N Female Bulkhead
- LMR-100A

### Features:

- Max Frequency 5.8 GHz
- Shielding Effectivity > 90 dB
- 66% Phase Velocity
- Double Shielded
- PVC Jacket

### Applications:

- General Purpose
- Laboratory Use

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Diameter 0.807 in [20.5 mm]

#### Cable

Cable Type	LMR-100A
Impedance	50 Ohms
Inner Conductor Type	Solid
Inner Conductor Material and Plating	Copper Clad Steel
Dielectric Type	PE
Number of Shields	2
Shield Layer 1	Aluminum Tape
Shield Layer 2	Tinned Copper Braid
Jacket Material	PVC, Black
Jacket Diameter	0.11 in [2.79 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]

#### Connectors

Description	Connector 1	Connector 2
Type	SMA Male	N Female
Mount Method		Bulkhead
Specification	MIL-STD-348A	MIL-STD-348A
Impedance	50 Ohms	50 Ohms
Contact Material & Plating	Brass, Gold	Beryllium Copper, Gold
Contact Plating Spec.	50 µin minimum	30 µin minimum
Dielectric Type	PTFE	PTFE
Outer Cond Material & Plating		Brass, Nickel
Outer Cond Plating Spec.		100 µin minimum
Body Material & Plating	Brass, Nickel	
Body Plating Spec.	100 µin minimum	
Coupling Nut Material & Plating	Brass, Nickel	
Coupling Nut Plating Spec.	100 µin minimum	
Hex Size	5/16 inch	3/4 inch

#### Mechanical Specification Notes:

\*All cable assemblies have a length tolerance of 1.5% or  $\pm 3/8"$ , whichever is greater.

#### Environmental Specifications

##### Temperature

Operating Range	-40 to +85 deg C
Storage Range	-70 to +85 deg C

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

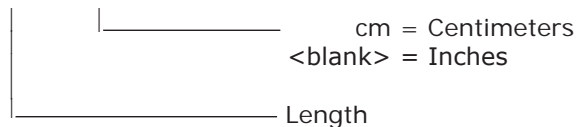
#### Plotted and Other Data

Notes:

## How to Order

Part Number Configuration:

**FMC00304 - xx uu**



Example: FMC00304-12 = 12 inches long cable  
FMC00304-100cm = 100 cm long cable

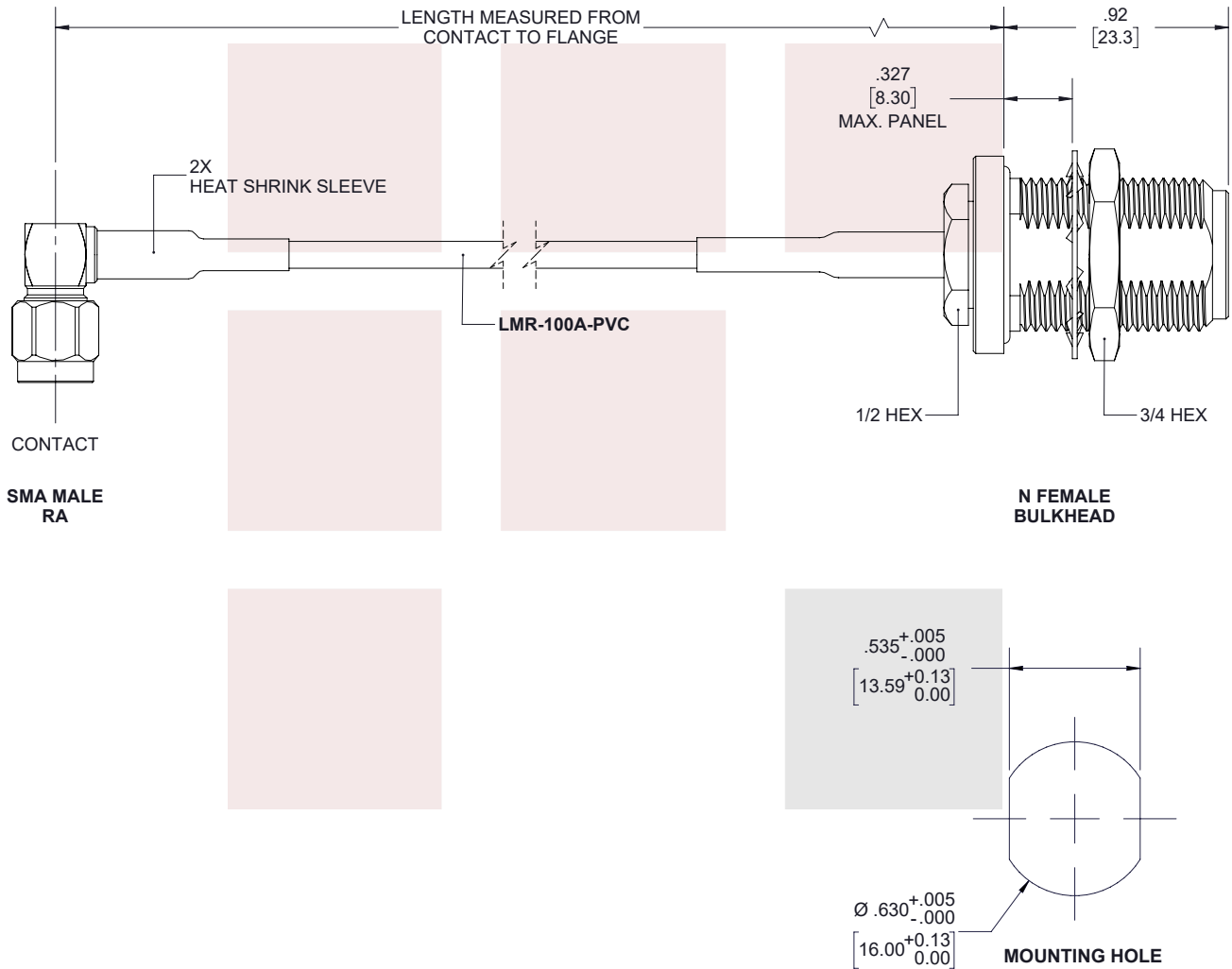
RA SMA Male to N Female Bulkhead Cable LMR-100 Coax in 50 CM from Fairview Microwave has same day shipment for domestic and International orders. Our RF, microwave and fiber optic products maintain a 99% availability and are part of the broadest selection in the industry.

Click the following link to obtain additional part information: [RA SMA Male to N Female Bulkhead Cable LMR-100 Coax in 50 CM FMC00304-50CM](https://www.fairviewmicrowave.com/ra-sma-male-n-female-cable-lmr100-coax-fmc00304-50cm-p.aspx)

URL: <https://www.fairviewmicrowave.com/ra-sma-male-n-female-cable-lmr100-coax-fmc00304-50cm-p.aspx>

The information contained in 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 any liability arising out of the use of any part or documentation.

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	2/18/2020	S.ELLIS



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TITLE

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Coax in 50 CM

UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES  
DIMENSIONS IN [ ] ARE MILLIMETERS

TOLERANCES:

.X = ±.2 [5.08] FRACTIONS  
.XX = ±.02 [.51] ± 1/32  
.XXX = ±.005 [.13] ANGLES ± 1°

CABLE LENGTH (L) TOLERANCES:

L ≤ 12 [305] = +1 [25] / -0  
12 [305] < L ≤ 60 [1524] = +2 [51] / -0  
60 [1524] < L ≤ 120 [3048] = +4 [102] / -0  
120 [3048] < L ≤ 300 [7620] = +6 [152] / -0  
300 [7620] < L = +5%L / -0

THIRD-ANGLE PROJECTION



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SHEET 1 OF 1

SCALE

N/A

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

SIZE  
A

CAGE CODE  
3FKR5

DRAWN BY  
K.DANG

ITEM NO.  
FMC00304

REV  
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T-Rev.D