

## Low Loss SMA Female to BNC Female Cable RG174 Coax in 50 CM

The SMA female to BNC female 50 cm cable using RG174 coax, part number FMC00312-50CM, from Fairview Microwave is in-stock and ships same day. This Fairview SMA to BNC cable assembly has a female to female gender configuration with 50 ohm flexible RG174 coax. Fairview Microwave's flexible RF cable assemblies are ideal for applications where tight bends and continual flexure are required. The FMC00312-50CM SMA female to BNC female cable assembly operates to 1 GHz.

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		1,000	MHz
VSWR			1.4:1	
Velocity of Propagation		66		%
Capacitance	31.08	[101.97]		pF/ft [pF/m]

### Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency	50	100	250	500	1,000	MHz
Insertion Loss (Typ.)	0.27	0.33	0.42	0.55	0.72	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 per connector.

### Mechanical Specifications

#### Cable Assembly

Length\* 19.68 in [499.87 mm]

#### Cable

Cable Type RG174  
 Impedance 50 Ohms  
 Inner Conductor Type Stranded  
 Inner Conductor Material and Plating Copper Clad Steel  
 Dielectric Type PE  
 Number of Shields 1  
 Shield Layer 1 Tinned Copper Braid  
 Jacket Material PVC, Black  
 Jacket Diameter 0.11 in [2.79 mm]



### Configuration:

- SMA Female
- BNC Female
- RG174

### Features:

- Max Frequency 1 GHz
- 66% Phase Velocity
- PVC Jacket

### Applications:

- General Purpose
- Laboratory Use

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## Connectors

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

## Environmental Specifications

### Temperature

Operating Range -40 to +80 deg C

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

## Plotted and Other Data

Notes:

## How to Order

Part Number Configuration:

**FMC00312 - xx uu**

Example: FMC00312-12 = 12 inches long cable  
 FMC00312-100cm = 100 cm long cable

cm = Centimeters  
 <blank> = Inches  
 Length

Low Loss SMA Female to BNC Female Cable RG174 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: [Low Loss SMA Female to BNC Female Cable RG174 Coax in 50 CM FMC00312-50CM](#)

URL: <https://www.fairviewmicrowave.com/low-loss-sma-female-bnc-female-cable-rg174-coax-fmc00312-50cm-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	2/24/2020	S.ELLIS

1/4 HEX

2X HEAT SHRINK SLEEVE

RG174

CONTACT

SMA FEMALE

LENGTH MEASURED FROM CONTACT TO CONTACT

BNC FEMALE

CONTACT

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TITLE		TOLERANCES:		CABLE LENGTH (L) TOLERANCES:	
Low Loss SMA Female to BNC Female Cable RG174 Coax in 50 CM		.X = ±.2 [ .51 ]		L ≤ 12 [305] = +1 [25] / -0	
		.XX = ±.02 [ .51 ]		12 [305] < L ≤ 60 [1524] = +2 [51] / -0	
		.XXX = ±.005 [ .13 ]		60 [1524] < L ≤ 120 [3048] = +4 [102] / -0	
		FRACTIONS ± 1/32		120 [3048] < L ≤ 300 [7620] = +6 [152] / -0	
		ANGLES ± 1°		300 [7620] < L = +5%L / -0	
		ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.			
SIZE	CAGE CODE	DRAWN BY	ITEM NO.	REV	
A	3FKR5	K.DANG	FMC00312	A	

T-Rev.D