

**.070 Low Loss Semi-Rigid Coax Cable with
Copper Outer Conductor and Microporous PTFE
76.5 pct VoP Dielectric, Straight Sections**



FMBC003-BULK

Configuration

- Low Loss Semi-Rigid Cable
- 1 Shield(s)

Features

- Continuous Copper Outer Conductor
- Phase Stability vs. Temperature
- Low Density PTFE Dielectric
- Reduces Stress on Connectors
- High Isolation
- Supplied in 5 foot maximum straight lengths

Applications

- Microporous Cable Assemblies
- Low Loss Interconnects
- High Isolation Cables
- Surface Mount
- Semi-Rigid Coaxial Cables

Description

Low loss .070 semi-rigid coax cable, part number FMBC003, from Fairview Microwave is in-stock and ships same day. This .070 inch diameter semi-rigid cable features a microporous PTFE dielectric and operates to a maximum frequency of 72 GHz. The outer conductor of this semirigid low loss coaxial cable is constructed from a continuous copper tube which minimizes attenuation and maximizes RF shielding performance. The microporous (low density) PTFE dielectric also reduces attenuation and offers the added benefits of phase stability vs. temperature and improved thermal stability.

Improved thermal stability of this microporous semi-rigid cable allows it to be soldered with minimal dielectric expansion and stress on the connectors. Fairview's low loss semi-rigid coax with microporous PTFE, FMBC003, datasheet with specifications and outline drawing are shown in the PDF below. Our extensive offering of RF, microwave and millimeter wave connections allow designers to configure and customize their signals however they like. From creating phase stable connections to reducing cable attenuation, Fairview Microwave has the right cable solutions to meet your needs.

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		72	GHz
Impedance		50		Ohms
Velocity of Propagation		76.5		%
Power@ 1GHz			188	Watts

Performance by Frequency Band

Description	F1	F2	F3	F4	F5	Units
Frequency	0.5	1	5	10	18	GHz
Attenuation, Typ	13.2	18.6	42	60	81	dB/100ft
	43.31	61.02	137.8	196.85	265.75	dB/100m
Input Power (CW), Max	265	188	83	58	43	Watts

Description	F6	F7	F8	F9	F10	Units
Frequency	26.5	40	50	65		GHz

**.070 Low Loss Semi-Rigid Coax Cable with
Copper Outer Conductor and Microporous PTFE
76.5 pct VoP Dielectric, Straight Sections**



FMBC003-BULK

Description	F6	F7	F8	F9	F10	Units
Attenuation, Typ	99	123	138.8	160		dB/100ft
	324.8	403.54	455.38	524.93		dB/100m

Mechanical Specifications

Weight	0.008 lbs/ft [0.01 kg/m]
Min. Bend Radius (Installation)	0.25 in [6.35 mm]

Construction Specifications

Description	Material and Plating	Diameter
Inner Conductor	Copper, Silver, 1 Strand	0.02 in [0.51 mm]
	ASTM B-298	
Conductor Type	Solid	
Dielectric	Microporous PTFE	0.059 in [1.5 mm]
Outer Conductor	Copper	0 in [0 mm]

Environmental Specifications

Temperature	
Operating Range	-65 to +250 deg C

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

Plotted and Other Data

Notes:

.070 Low Loss Semi-Rigid Coax Cable with Copper Outer Conductor and Microporous PTFE 76.5 pct VoP Dielectric, Straight Sections 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: [.070 Low Loss Semi-Rigid Coax Cable with Copper Outer Conductor and Microporous PTFE 76.5 pct VoP Dielectric, Straight Sections FMBC003-BULK](#)

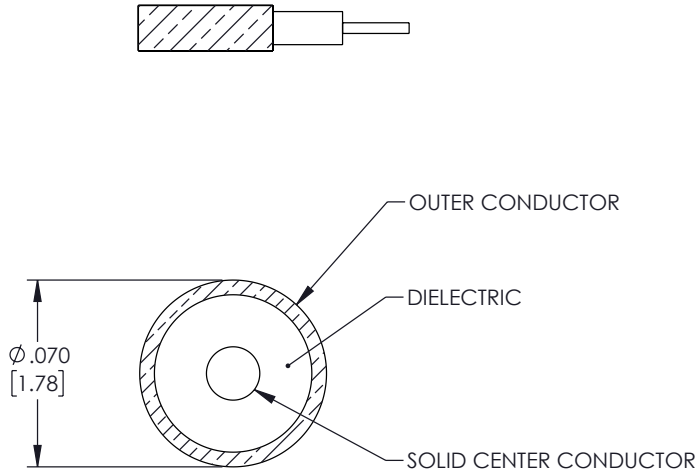
URL: <https://www.fairviewmicrowave.com/0.070-low-loss-semirigid-coax-cable-copper-straight-fmbc003-bulk-p.aspx>

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.

FMBC003-BULK CAD Drawing

.070 Low Loss Semi-Rigid Coax Cable with Copper Outer Conductor and Microporous PTFE 76.5 pct VoP Dielectric, Straight Sections

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	03/24/2022	AGANWANI



THESE COMMODITIES, TECHNOLOGY OR SOFTWARE WERE EXPORTED FROM THE UNITED STATES IN ACCORDANCE WITH THE EXPORT ADMINISTRATION REGULATIONS. DIVERSION CONTRARY TO U.S. LAW PROHIBITED.



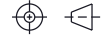
TITLE

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

TOLERANCES: CABLE LENGTH (L) TOLERANCES:

.X = ± .2 [.508]	FRACTIONS ± 1/32	L ≤ 12 [305] = +1 [25] / -0
.XX = ± .02 [.51]	ANGLES ± 1°	12 [305] < L ≤ 60 [1524] = +2 [51] / -0
.XXX = ± .005 [.13]		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



THE INFORMATION AND DESIGN IN THIS DOCUMENT IS THE PROPERTY OF FAIRVIEW MICROWAVE CORPORATION. ALL RIGHTS RESERVED.

SHEET 1 OF 1

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

SCALE

N/A

SIZE	CAGE CODE	DRAWN BY	ITEM NO.	REV
A	3FKR5	DZINN	FMBC003-BULK	A

T-Rev.D