

1.85mm Male to 1.85mm Male Cable 100 CM Length Using FM-103FLEX Coax

The 1.85mm male to 1.85mm male 100 cm cable using FM-103FLEX coax, part number FMCA1978-100CM, from Fairview Microwave is in-stock and ships same day. This Fairview 1.85mm to 1.85mm cable assembly has a male to male gender configuration with 50 ohm flexible FM-103FLEX coax. Fairview Microwave's flexible RF cable assemblies are ideal for applications where tight bends and continual flexure are required. The FMCA1978-100CM 1.85mm male to 1.85mm male cable assembly operates to 65 GHz. The triple 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		65	GHz
VSWR			1.4:1	
Velocity of Propagation		76		%
RF Shielding	90			dB
Capacitance		26 [85.3]		pF/ft [pF/m]
Inductance		65 [213.25]		uH/ft [uH/m]
Input Power (Peak)			550	Watts

Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency	5	10	20	40	65	GHz
Insertion Loss (Max.)	2.27	3.2	4.62	6.75	8.89	dB
Insertion Loss (Typ.)	2.08	2.93	4.22	6.15	8.1	dB

Mechanical Specifications

Cable Assembly

Length*	39.37 in [100 cm]
Diameter	0.375 in [9.53 mm]

Cable

Cable Type	FM-103FLEX
Impedance	50 Ohms
Inner Conductor Type	Stranded
Inner Conductor Material and Plating	Copper, Silver
Dielectric Type	PTFE
Number of Shields	3
Shield Layer 1	Silver Plated Copper
Shield Layer 2	Conductive Tape



Configuration:

- 1.85mm Male
- 1.85mm Male
- FM-103FLEX

Features:

- Max Frequency 65 GHz
- Shielding Effectivity > 90 dB
- 76% Phase Velocity
- Triple Shielded
- ETFE Jacket

Applications:

- General Purpose
- Laboratory Use

Fairview Microwave
 301 Leora Ln., Suite 100
 Lewisville, TX 75056
 Tel: 1-800-715-4396 / (972) 649-6678
 Fax: (972) 649-6689
www.fairviewmicrowave.com
sales@fairviewmicrowave.com

Shield Layer 3	Silver Plated Copper
Jacket Material	ETFE, Gray
Jacket Diameter	0.103 in [2.62 mm]

One Time Minimum Bend Radius	0.32 in [8.13 mm]
Repeated Minimum Bend Radius	0.96 in [24.38 mm]
Typical Flex Cycles	500,000

Connectors

Description	Connector 1	Connector 2
Type	1.85mm Male	1.85mm Male
Impedance	50 Ohms	50 Ohms
Contact Material & Plating	Beryllium Copper, Gold	Beryllium Copper, Gold
Contact Plating Spec.	ASTM-B488 50µ In. Min ASTM-B488 50µ In. Minimum	
Dielectric Type	PPO	PPO
Body Material & Plating	Passivated Stainless Steel	Passivated Stainless Steel
Body Plating Spec.	SAE-AMS-2700	SAE-AMS-2700
Coupling Nut Material & Plating	Passivated Stainless Steel	Passivated Stainless Steel
Coupling Nut Plating Spec.	SAE-AMS-2700	SAE-AMS-2700
Hex Size	5/16 Inch	5/16 Inch
Torque	8 in-lbs 0.9 Nm	8 in-lbs 0.9 Nm

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 -45 to +125 deg C

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

Plotted and Other Data

Notes:

- Values at 25°C, sea level.

How to Order

Part Number Configuration:

FMCA1978 - xx uu

_____ cm = Centimeters
 _____ <blank> = Inches
 _____ Length

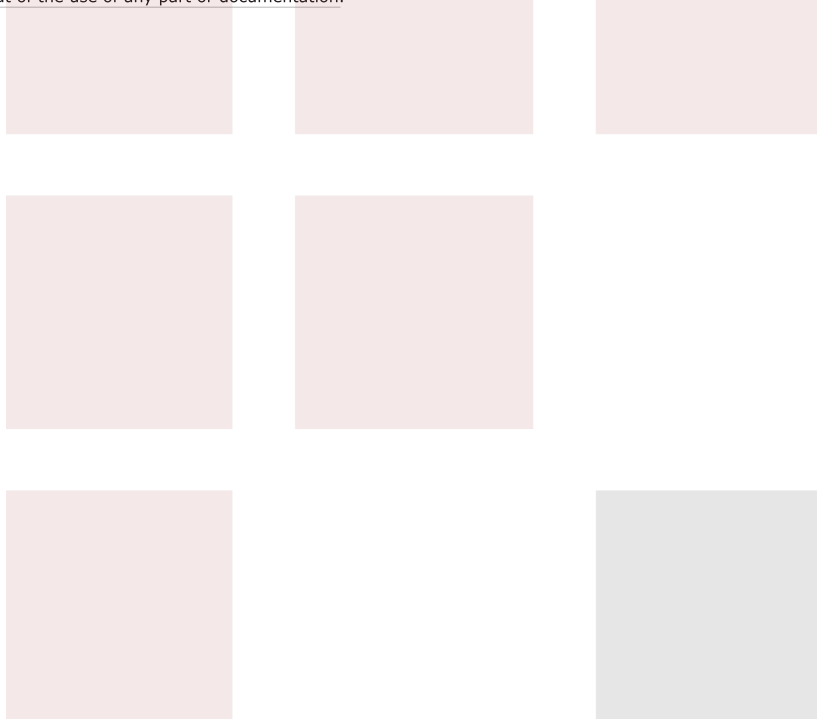
Example: FMCA1978-12 = 12 inches long cable
 FMCA1978-100cm = 100 cm long cable

1.85mm Male to 1.85mm Male Cable 100 CM Length Using FM-103FLEX Coax 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.

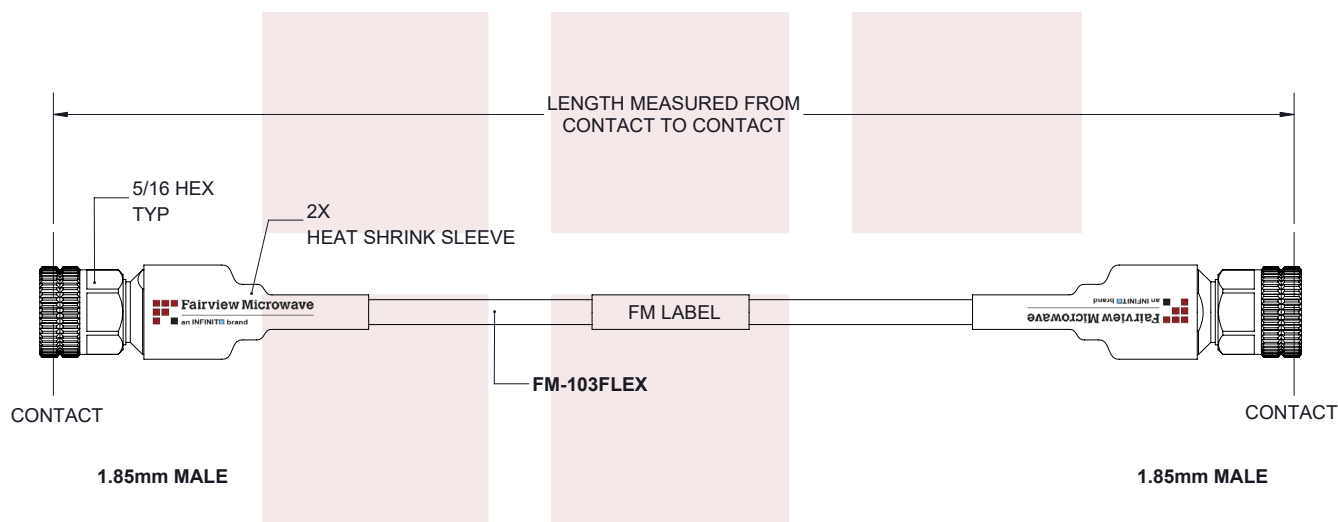
Click the following link to obtain additional part information: [1.85mm Male to 1.85mm Male Cable 100 CM Length Using FM-103FLEX Coax FMCA1978-100CM](https://www.fairviewmicrowave.com/1.85mm-male-1.85mm-male-FM-103FLEX-cable-assembly-FMCA1978-100cm-p.aspx)

URL: <https://www.fairviewmicrowave.com/1.85mm-male-1.85mm-male-FM-103FLEX-cable-assembly-FMCA1978-100cm-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	11/08/19	S.ELLIS



FM LABEL:

www.FAIRVIEWMICROWAVE.com
FMCA1978

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TITLE

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Using FM-103FLEX Coax

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

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

THIRD-ANGLE PROJECTION



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SHEET 1 OF 1

SCALE

N/A

SIZE	CAGE CODE	DRAWN BY	PART NUMBER	REV
A	3FKR5	K.DANG	FMCA1978	A

T-Rev.D