

## 1.85mm Male to 1.85mm Male Cable 50 CM Length Using FM-103FLEX Coax

The 1.85mm male to 1.85mm male 50 cm cable using FM-103FLEX coax, part number FMCA1978-50CM, 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 FMCA1978-50CM 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.)	1.24	1.7	2.41	3.48	4.55	dB
Insertion Loss (Typ.)	1.14	1.57	2.21	3.18	4.15	dB

### Mechanical Specifications

#### Cable Assembly

Length*	19.685 in [500 mm]
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

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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 50 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 50 CM Length Using FM-103FLEX Coax FMCA1978-50CM](https://www.fairviewmicrowave.com/1.85mm-male-1.85mm-male-FM-103FLEX-cable-assembly-FMCA1978-50cm-p.aspx)

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