

## 1.85mm Male to 2.4mm Male Cable 100 CM Length Using FM-103FLEX Coax

The 1.85mm male to 2.4mm male 100 cm cable using FM-103FLEX coax, part number FMCA1979-100CM, from Fairview Microwave is in-stock and ships same day. This Fairview 1.85mm to 2.4mm 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 FMCA1979-100CM 1.85mm male to 2.4mm male cable assembly operates to 50 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  |             | 50    | 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             | 2.5  | 5    | 10   | 20   | 50   | GHz   |
| Insertion Loss (Max.) | 1.63 | 2.27 | 3.2  | 4.62 | 7.65 | dB    |
| Insertion Loss (Typ.) | 1.5  | 2.08 | 2.93 | 4.22 | 6.97 | 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
- 2.4mm Male
- FM-103FLEX

### Features:

- Max Frequency 50 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          | 50,000               |

**Connectors**

| Description                     | Connector 1                                     | Connector 2                |
|---------------------------------|---|----------------------------|
| Type                            | 1.85mm Male                                     | 2.4mm 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**

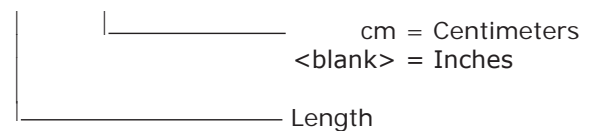
Notes:

- Values at 25°C, sea level.

**How to Order**

Part Number Configuration:

**FMCA1979 - xx uu**



Example: FMCA1979-12 = 12 inches long cable  
 FMCA1979-100cm = 100 cm long cable

1.85mm Male to 2.4mm 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 2.4mm Male Cable 100 CM Length Using FM-103FLEX Coax FMCA1979-100CM](https://www.fairviewmicrowave.com/1.85mm-male-2.4mm-male-FM-103FLEX-cable-assembly-FMCA1979-100cm-p.aspx)

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