

## 2.92mm Male to 2.4mm Male Cable 60 Inch Length Using FM-103FLEX Coax

The 2.92mm male to 2.4mm male 60 inch cable using FM-103FLEX coax, part number FMCA1977-60, from Fairview Microwave is in-stock and ships same day. This Fairview 2.92mm 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 FMCA1977-60 2.92mm male to 2.4mm male cable assembly operates to 45 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  |             | 45    | 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   | 45    | GHz   |
| Insertion Loss (Max.) | 2.38 | 3.36 | 4.77 | 6.93 | 10.87 | dB    |
| Insertion Loss (Typ.) | 2.18 | 3.07 | 4.36 | 6.32 | 9.9   | dB    |

### Mechanical Specifications

#### Cable Assembly

|          |                   |
|----------|-------------------|
| Length*  | 60 in [152.4 cm]  |
| Diameter | 0.38 in [9.65 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:

- 2.92mm Male
- 2.4mm Male
- FM-103FLEX

### Features:

- Max Frequency 45 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](http://www.fairviewmicrowave.com)  
[sales@fairviewmicrowave.com](mailto: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                            | 2.92mm 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:

**FMCA1977 - xx uu**

|  |  |                  |
|--|--|------------------|
|  |  | cm = Centimeters |
|  |  | <blank> = Inches |
|  |  | Length           |

Example: FMCA1977-12 = 12 inches long cable  
 FMCA1977-100cm = 100 cm long cable

2.92mm Male to 2.4mm Male Cable 60 Inch 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: [2.92mm Male to 2.4mm Male Cable 60 Inch Length Using FM-103FLEX Coax FMCA1977-60](https://www.fairviewmicrowave.com/2.92mm-male-2.4mm-male-FM-103FLEX-cable-assembly-FMCA1977-60-p.aspx)

URL: <https://www.fairviewmicrowave.com/2.92mm-male-2.4mm-male-FM-103FLEX-cable-assembly-FMCA1977-60-p.aspx>

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REVISIONS

| REV. | DESCRIPTION     | DATE     | APPROVED |
|------|-----------------|----------|----------|
| A    | INITIAL RELEASE | 11/08/19 | S.ELLIS  |

5/16 HEX  
TYP

2X  
HEAT SHRINK SLEEVE

CONTACT

2.92mm MALE

Fairview Microwave

an INFINITE brand

FM-103FLEX

FM LABEL

2.4mm MALE

CONTACT

LENGTH MEASURED FROM  
CONTACT TO CONTACT

FM LABEL:

www.FAIRVIEWMICROWAVE.com

FMCA1977

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TITLE

2.92mm Male to 2.4mm Male Cable 60 Inch Length  
Using FM-103FLEX Coax

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

TOLERANCES:

.X = ±.2 [ .508 ]

.XX = ±.02 [ .51 ]

.XXX = ±.005 [ .13 ]

FRACTIONS

± 1/32

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

THIRD-ANGLE PROJECTION

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SHEET 1 OF 1

SCALE N/A

SIZE A

CAGE CODE 3FKR5

DRAWN BY K.DANG

PART NUMBER FMCA1977

REV A

T-Rev.D

301 Leora Ln., Suite 100, Lewisville, TX 75056 | Tel: 1-800-715-4396 / (972) 649-6678 / Fax: (972) 649-6689

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