

## 2.2-5 Male to 2.2-5 Female Low PIM Cable 100 CM Length Using TFT-5G-402 Coax Using Times Microwave Components

### FMCA2331-100CM



#### Configuration

- Connector 1: 2.2-5 Male
- Connector 2: 2.2-5 Female
- Cable Type: TFT-5G-402
- Coax Flex Type: Flexible

#### Features

- Max Frequency 3 GHz
- Low PIM: -160 dBc Max
- Shielding Effectivity > 80 dB
- 76% Phase Velocity
- Double Shielded
- FEP Jacket
- 100 Mating Cycles

#### Applications

- General Purpose
- Laboratory Use
- Low PIM Applications
- Indoor and Outdoor Use
- Plenum Rated Applications

#### Description

The 2.2-5 male to 2.2-5 female 100 cm cable using TFT-5G-402 coax, part number FMCA2331-100CM, from Fairview Microwave is in-stock and ships same day. This Fairview 2.2-5 to 2.2-5 cable assembly has a male to female gender configuration with 50 ohm flexible TFT-5G-402 coax. Fairview Microwave's flexible RF cable assemblies are ideal for applications where tight bends and continual flexure are required. Our low PIM design offers excellent passive intermodulation performance with PIM levels better than -160 dBc. The FMCA2331-100CM 2.2-5 male to 2.2-5 female cable assembly operates to 3 GHz. The double shielding of this Fairview cable assembly provides excellent shielding effectiveness of better than 80 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                                | Minimum | Typical | Maximum | Units |
|--------------------------------------------|---------|---------|---------|-------|
| Frequency Range                            | DC      |         | 3       | GHz   |
| VSWR                                       |         |         | 1.4:1   |       |
| Velocity of Propagation                    |         | 76      |         | %     |
| RF Shielding                               | 80      |         |         | dB    |
| Passive Intermodulation                    |         |         | -160    | dBc   |
| IM3 (2x43dBm Tones) at 850 MHz or 1900 MHz |         |         |         |       |

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### Electrical Specifications

| Description | Minimum | Typical     | Maximum | Units        |
|-------------|---------|-------------|---------|--------------|
| Capacitance |         | 26.7 [87.6] |         | pF/ft [pF/m] |

### Specifications by Frequency

| Description           | F1   | F2  | F3   | F4   | F5   | Units |
|-----------------------|------|-----|------|------|------|-------|
| Frequency             | 0.25 | 0.5 | 1    | 2.5  | 5.8  | GHz   |
| Insertion Loss (Typ.) | 0.33 | 0.4 | 0.56 | 0.97 | 1.47 | dB    |

#### Electrical Specification Notes:

The Insertion Loss data above is based on the performance specifications of the coax and connectors used in this assembly. The Insertion Loss includes an estimated insertion loss of 0.1\*SQRT(FGHz) dB per connector.

### Mechanical Specifications

#### Cable Assembly

|                |                     |
|----------------|---------------------|
| Length         | 39.37 in [100 cm]   |
| Width/Diameter | 0.665 in [16.89 mm] |

#### Cable

|                                      |                    |
|--------------------------------------|--------------------|
| Cable Type                           | TFT-5G-402         |
| Impedance                            | 50 Ohms            |
| Inner Conductor Type                 | Solid              |
| Inner Conductor Material and Plating | Copper             |
| Dielectric Type                      | PTFE               |
| Number of Shields                    | 2                  |
| Jacket Material                      | FEP, Blue          |
| Jacket Diameter                      | 0.16 in [4.06 mm]  |
| One Time Minimum Bend Radius         | 0.75 in [19.05 mm] |

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### Connectors

| Description                           | Connector 1              | Connector 2              |
|---------------------------------------|--------------------------|--------------------------|
| Type                                  | 2.2-5 Male               | 2.2-5 Female             |
| Impedance                             | 50 Ohms                  | 50 Ohms                  |
| Configuration                         | Straight                 | Straight                 |
| Mating Cycles                         | 100                      | 100                      |
| Contact Material and Plating          | Beryllium Copper, Silver | Beryllium Copper, Silver |
| Contact Plating Specification         | 200 µin                  | 200 µin                  |
| Dielectric Type                       | PTFE                     | PTFE                     |
| Outer Conductor Material and Plating  |                          | Beryllium Copper, Silver |
| Outer Conductor Plating Specification |                          | 100 µin                  |
| Body Material and Plating             | Brass, Silver            | Brass, Silver            |
| Body Plating Specification            | 100 µin                  | 100 µin                  |
| Coupling Nut Material and Plating     | Brass, Tri-Metal         |                          |
| Coupling Nut Plating Specification    | 100 µin                  |                          |
| Torque                                | 26 in-lbs 2.94 Nm        | 26 in-lbs 2.94 Nm        |

### Environmental Specifications

Operating Range Temperature -40 to +125 deg C

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

### Plotted and Other Data

Notes:

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### FMCA2331-100CM



#### Typical Performance Data

#### How to Order

Part Number Configuration:

**FMCA2331**

**- xx**

**uu**

Unit of Measure:  
cm = Centimeters  
<blank> = Inches  
Length  
Base Number

Example: FMCA2331-12 = 12 inches long cable  
FMCA2331-100cm = 100 cm long cable

2.2-5 Male to 2.2-5 Female Low PIM Cable 100 CM Length Using TFT-5G-402 Coax Using Times Microwave Components 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: [2.2-5 Male to 2.2-5 Female Low PIM Cable 100 CM Length Using TFT-5G-402 Coax Using Times Microwave Components FMCA2331-100CM](https://www.fairviewmicrowave.com/low-pim-2.2-5-male-to-2.2-5-female-cable-tft-5g-402-coax-in-100-cm-using-times-microwave-components-fmca2331-100cm-p.aspx)

URL: <https://www.fairviewmicrowave.com/low-pim-2.2-5-male-to-2.2-5-female-cable-tft-5g-402-coax-in-100-cm-using-times-microwave-components-fmca2331-100cm-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.

FMCA2331-100CM CAD Drawing

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