

## 2.2-5 Male to 2.2-5 Female Low PIM Cable 60 Inch Length Using TFT-5G-402 Coax Using Times Microwave Components



### FMCA2331-60

#### 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 60 inch cable using TFT-5G-402 coax, part number FMCA2331-60, 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 FMCA2331-60 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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**FMCA2331-60**

**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.)	0.45	0.54	0.75	1.32	1.98	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  $0.1 \cdot \sqrt{f(\text{GHz})}$  dB per connector.

**Mechanical Specifications**

**Cable Assembly**

Length	60 in [152.4 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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**FMCA2331-60**

**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 60 Inch 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.

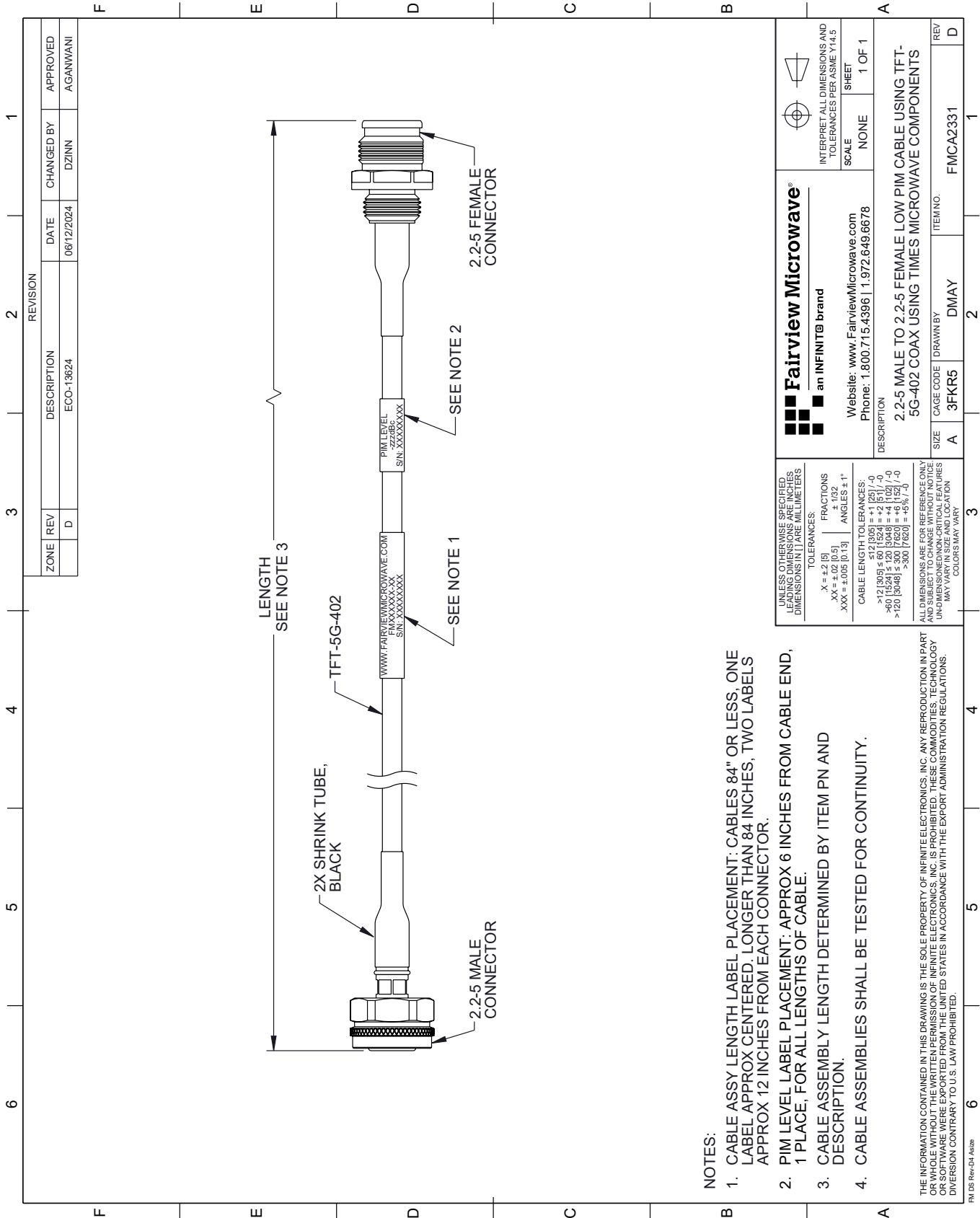
For additional information on this product, please click the following link: [2.2-5 Male to 2.2-5 Female Low PIM Cable 60 Inch Length Using TFT-5G-402 Coax Using Times Microwave Components FMCA2331-60](https://www.fairviewmicrowave.com/low-pim-2.2-5-male-to-2.2-5-female-cable-tft-5g-402-coax-in-60-inch-using-times-microwave-components-fmca2331-60)

URL: <https://www.fairviewmicrowave.com/low-pim-2.2-5-male-to-2.2-5-female-cable-tft-5g-402-coax-in-60-inch-using-times-microwave-components-fmca2331-60-p.aspx>

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# FMCA2331-60 CAD Drawing

2.2-5 Male to 2.2-5 Female Low PIM Cable 60 Inch Length Using TFTT-5G-402 Coax Using Times Microwave Components



**NOTES:**

1. CABLE ASSY LENGTH LABEL PLACEMENT: CABLES 84" OR LESS, ONE LABEL APPROX CENTERED. LONGER THAN 84 INCHES, TWO LABELS APPROX 12 INCHES FROM EACH CONNECTOR.
2. PIM LEVEL LABEL PLACEMENT: APPROX 6 INCHES FROM CABLE END, 1 PLACE, FOR ALL LENGTHS OF CABLE.
3. CABLE ASSEMBLY LENGTH DETERMINED BY ITEM PN AND DESCRIPTION.
4. CABLE ASSEMBLIES SHALL BE TESTED FOR CONTINUITY.

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FM DS Rev-D4 Alt2b

ZONE	REV	DESCRIPTION	DATE	CHANGED BY	APPROVED
	D	ECO-13624	06/12/2024	DZINN	AGANWANI

<p>Fairview Microwave® an INFINIT® brand</p> <p>Website: <a href="http://www.FairviewMicrowave.com">www.FairviewMicrowave.com</a> Phone: 1.800.715.4396   1.972.649.6678</p>		<p>INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5</p> <p>SCALE: NONE</p> <p>SHEET: 1 OF 1</p>
<p>UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES AND TRAILING DIMENSIONS ARE IN MILLIMETERS</p> <p>TOLERANCES:</p> <p>.X = ±.2 (5)      FRACTIONS ±.132</p> <p>.XX = ±.02 (0.5)      ANGLES ± 1°</p> <p>.XXX = ±.005 (0.13)</p> <p>CABLE LENGTH TOLERANCES:</p> <p>&gt;12 (305) ≤ 60 (1524) = ±.1 (25) / -0</p> <p>&gt;60 (1524) ≤ 120 (3048) = ±.4 (102) / -0</p> <p>&gt;120 (3048) ≤ 300 (7620) = ±.6 (15) / -0</p>		<p>DESCRIPTION: 2.2-5 MALE TO 2.2-5 FEMALE LOW PIM CABLE USING TFTT-5G-402 COAX USING TIMES MICROWAVE COMPONENTS</p>
<p>ALL DIMENSIONS ARE FOR REFERENCE ONLY. UNDIMENSIONED NON-CRITICAL FEATURES MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY.</p>	<p>SIZE: A</p> <p>CAGE CODE: 3FKR5</p> <p>DRAWN BY: DMAY</p> <p>ITEM NO.: FMCA2331</p>	<p>REV: D</p>