

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



### FMCA2331

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

**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.)	0.07	0.08	0.11	0.2	0.3	dB/ft
	0.23	0.26	0.36	0.66	0.98	dB/m

Electrical Specification Notes:

Insertion Loss does not include the loss of the connectors. Insertion Loss is estimated as  $0.1 \cdot \sqrt{FGHz}$  dB per connector.

**Mechanical Specifications**

**Cable Assembly**

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:

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

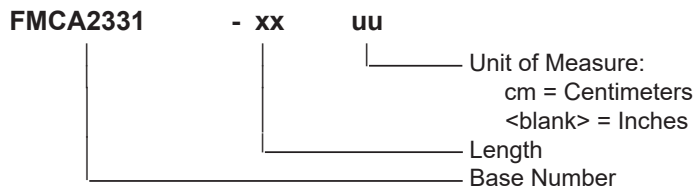


**FMCA2331**

**Typical Performance Data**

**How to Order**

Part Number Configuration:



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 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.

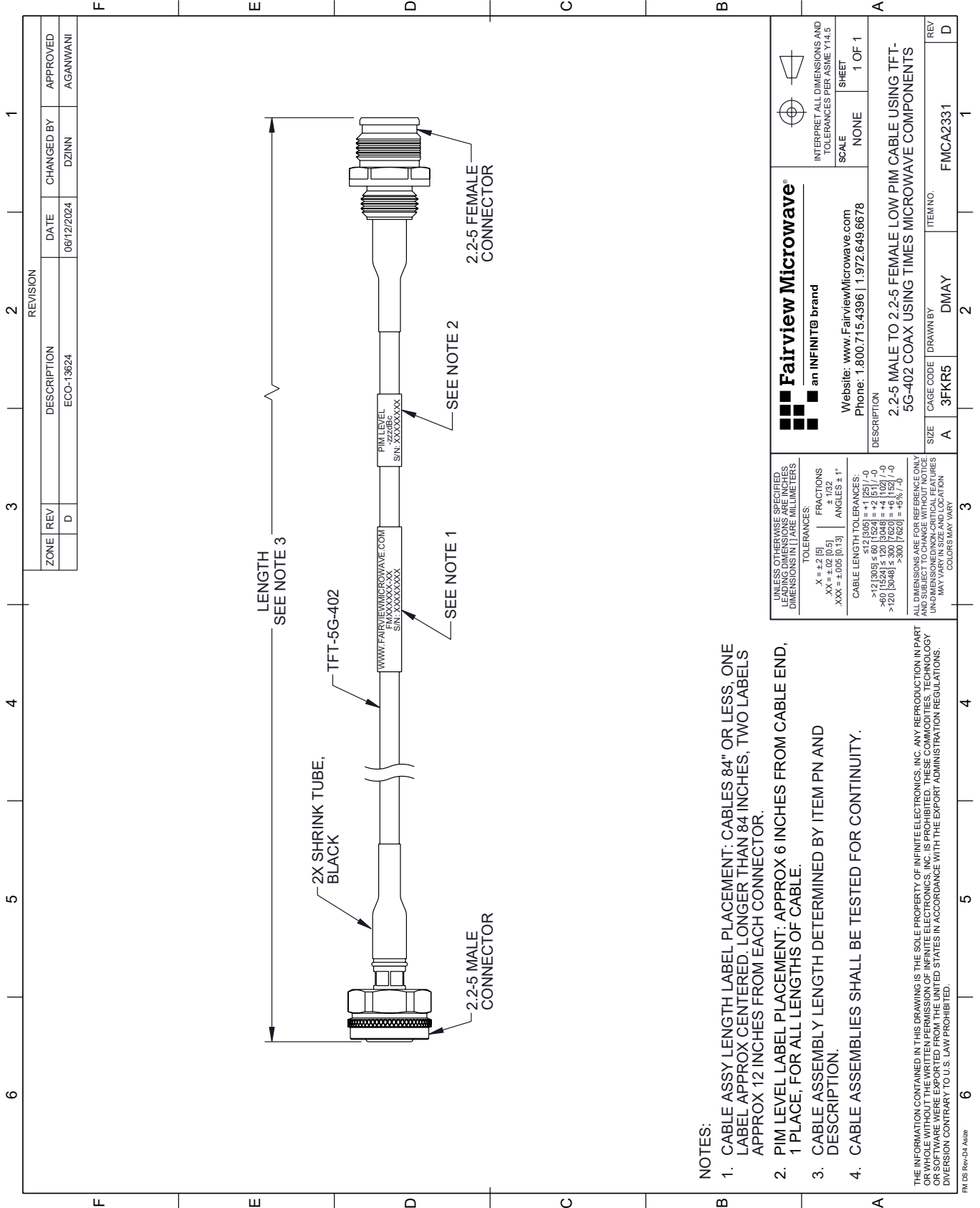
For additional information on this product, please click the following link: [2.2-5 Male to 2.2-5 Female Low PIM Cable Using TFT-5G-402 Coax Using Times Microwave Components FMCA2331](https://www.fairviewmicrowave.com/low-pim-2.2-5-male-to-2.2-5-female-cable-tft-5g-402-coax-using-times-microwave-components-fmca2331-p.aspx)

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

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# FMCA2331 CAD Drawing


## 2.2-5 Male to 2.2-5 Female Low PIM Cable Using TFT-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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UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES. DIMENSIONS IN [ ] ARE MILLIMETERS.		INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5
TOLERANCES: .X = ±.2 [5] .XX = ±.02 [0.5] .XXX = ±.005 [0.13]		SCALE: NONE SHEET: 1 OF 1
FRACTIONS: ± 1/32 ANGLES: ± 1°		
CABLE LENGTH TOLERANCES: <12 [305] ≤ 60 [1524] = ±.1 [25] >12 [305] ≤ 60 [1524] = ±.2 [5] >60 [1524] ≤ 120 [3048] = ±.4 [102] >120 [3048] ≤ 300 [7620] = ±.8 [20]		
ALL DIMENSIONS ARE FOR REFERENCE ONLY. UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS. COLORS MAY VARY.		
DESCRIPTION 2.2-5 MALE TO 2.2-5 FEMALE LOW PIM CABLE USING TFT-5G-402 COAX USING TIMES MICROWAVE COMPONENTS	SIZE A	CAGE CODE 3FKR5
DRAWN BY DMAY	ITEM NO. FMCA2331	REV D