

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



### FMCA2531-100CM

#### Configuration

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

#### Features

- Max Frequency 5.8 GHz
- Low PIM: -160 dBc Max
- Shielding Effectivity > 80 dB
- 76% Phase Velocity
- Double Shielded
- FEP Jacket

#### Applications

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

#### Description

The 2.2-5 female to RA type N male 100 cm cable using TFT-5G-402 coax, part number FMCA2531-100CM, from Fairview Microwave is in-stock and ships same day. This Fairview 2.2-5 to type N cable assembly has a female to male 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 FMCA2531-100CM 2.2-5 female to type N male cable assembly operates to 5.8 GHz. The right angle type N interface on the TFT-5G-402 cable allows for easier connections in tight spaces. 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      |         | 5.8     | 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.) | 0.34 | 0.45 | 0.59 | 0.89 | 1.31 | 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  $0.1 \cdot \sqrt{\text{FGHz}}$  dB for the straight connector and 0.1 dB for the right angle 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 Female             | N Male Right Angle |
| Impedance                             | 50 Ohms                  | 50 Ohms            |
| Configuration                         | Straight                 | Right Angle        |
| Mating Cycles                         | 100                      |                    |
| Contact Material and Plating          | Beryllium Copper, Silver | Brass, Silver      |
| Contact Plating Specification         | 200 µin                  | 5 µm               |
| 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, Tri-Metal   |
| Body Plating Specification            | 100 µin                  | 3 µm               |
| Coupling Nut Material and Plating     |                          | Brass, Tri-Metal   |
| Coupling Nut Plating Specification    |                          | 3 µm               |
| Torque                                | 26 in-lbs 2.94 Nm        | 10 in-lbs 1.13 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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### FMCA2531-100CM

#### Typical Performance Data

#### How to Order

Part Number Configuration: **FMCA2531 - xx uu**

Unit of Measure:  
cm = Centimeters  
<blank> = Inches

Length

Base Number

Example: FMCA2531-12 = 12 inches long cable  
FMCA2531-100cm = 100 cm long cable

Low PIM 2.2-5 Female to RA N Male Cable TFT-5G-402 Coax in 100 CM 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: [Low PIM 2.2-5 Female to RA N Male Cable TFT-5G-402 Coax in 100 CM Using Times Microwave Components FMCA2531-100CM](#)

URL: <https://www.fairviewmicrowave.com/product/rf-cable-assemblies/low-pim-2.2-5-female-to-ra-n-male-cable-tft-5g-402-coax-in-100-cm-using-times-microwave-components-fmca2531-100cm.html>

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