

## Low PIM 2.2-5 Female to N Male Cable TFT-402 Coax in 24 Inch Using Times Microwave Components

The 2.2-5 female to type N male 24 inch cable using TFT-402 coax, part number FMCA2522-24, 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-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 FMCA2522-24 2.2-5 female to type N male cable assembly operates to 5.8 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                   | Min | Typ         | Max   | Units                            |
|-------------------------------|-----|-------------|-------|----------------------------------|
| Frequency Range               | DC  |             | 5.8   | GHz                              |
| VSWR                          |     |             | 1.4:1 |                                  |
| Velocity of Propagation       |     | 76          |       | %                                |
| RF Shielding                  | -80 |             |       | dB                               |
| Passive Intermodulation       |     |             | -160  | dBc                              |
| Capacitance                   |     | 26.7 [87.6] |       | pF/ft [pF/m]                     |
| DC Resistance Inner Conductor |     | 8.5 [27.89] |       | $\Omega$ /1000ft [ $\Omega$ /Km] |
| DC Resistance Outer Conductor |     | 5.6 [18.37] |       | $\Omega$ /1000ft [ $\Omega$ /Km] |

### Performance by Frequency

| Description           | F1   | F2  | F3   | F4   | F5   | Units |
|-----------------------|------|-----|------|------|------|-------|
| Frequency             | 0.25 | 0.5 | 1    | 2.5  | 5.8  | GHz   |
| Insertion Loss (Typ.) | 0.21 | 0.3 | 0.42 | 0.67 | 1.02 | 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\* 24 in [609.6 mm]  
 Diameter 0.808 in [20.52 mm]

#### Cable

Cable Type TFT-402  
 Impedance 50 Ohms



### Configuration:

- 2.2-5 Female
- N Male
- TFT-402

### 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

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|                                      |                            |
|--------------------------------------|----------------------------|
| Inner Conductor Type                 | Solid                      |
| Inner Conductor Material and Plating | Copper, Silver             |
| Dielectric Type                      | PTFE                       |
| Number of Shields                    | 2                          |
| Shield Layer 1                       | Silver Plated Copper Braid |
| Shield Layer 2                       | Tinned Copper Braid        |
| Jacket Material                      | FEP, Blue                  |
| Jacket Diameter                      | 0.16 in [4.06 mm]          |
| One Time Minimum Bend Radius         | 0.75 in [19.05 mm]         |

### Connectors

| Description                     | Connector 1              | Connector 2      |
|---------------------------------|--------------------------|------------------|
| Type                            | 2.2-5 Female             | N Male           |
| Impedance                       | 50 Ohms                  | 50 Ohms          |
| Mating Cycles                   | 100                      | 500              |
| Contact Material & Plating      | Beryllium Copper, Silver | Brass, Silver    |
| Contact Plating Spec.           | 200 µin                  | 200 µin          |
| Dielectric Type                 | PTFE                     | PTFE             |
| Outer Cond Material & Plating   | Beryllium Copper, Silver |                  |
| Outer Cond Plating Spec.        | 100 µin                  |                  |
| Body Material & Plating         | Brass, Silver            | Brass, Tri-Metal |
| Body Plating Spec.              | 100 µin                  | 80 µin           |
| Coupling Nut Material & Plating |                          | Brass, Tri-Metal |
| Coupling Nut Plating Spec.      |                          | 80 µin           |
| Torque                          | 26 in-lbs 2.94 Nm        | 15 in-lbs 1.7 Nm |

### Environmental Specifications

#### Temperature

Operating Range -40 to +125 deg C

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

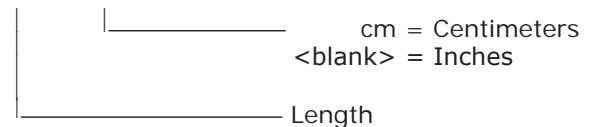
### Plotted and Other Data

Notes:

### How to Order

Part Number Configuration:

**FMCA2522 - xx uu**



Example: FMCA2522-12 = 12 inches long cable  
 FMCA2522-100cm = 100 cm long cable

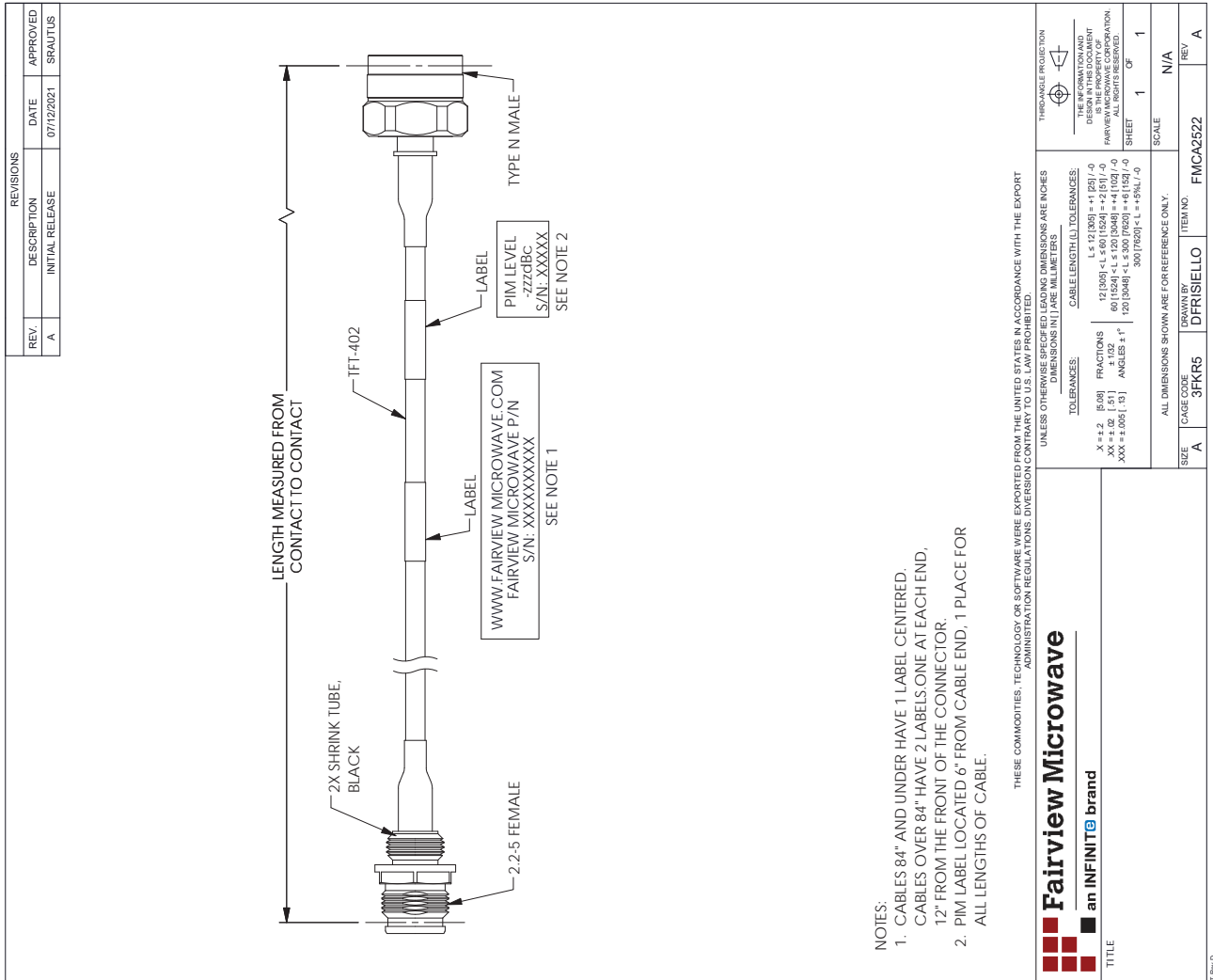
Low PIM 2.2-5 Female to N Male Cable TFT-402 Coax in 24 Inch Using Times Microwave Components from Fairview Microwave has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% availability and are part of the broadest selection in the industry.

Click the following link to obtain additional part information: [Low PIM 2.2-5 Female to N Male Cable TFT-402 Coax in 24 Inch Using Times Microwave Components FMCA2522-24](#)

URL: <https://www.fairviewmicrowave.com/low-pim-2.2-5-female-n-male-cable-tft-402-coax-fmca2522-24-p.aspx>

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