

## Low PIM 4.1/9.5 Mini DIN Female to 7/16 DIN Male Cable TFT-402 Coax Using Times Microwave Components

The 4.1/9.5 Mini DIN female to 7/16 DIN male cable using TFT-402 coax, part number FMCA2414, from Fairview Microwave is in-stock and ships same day. This Fairview 4.1/9.5 Mini DIN to 7/16 DIN 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 FMCA2414 4.1/9.5 Mini DIN female to 7/16 DIN 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] |       | $\Omega/1000\text{ft}$ [ $\Omega/\text{Km}$ ] |
| DC Resistance Outer Conductor |     | 5.6 [18.37] |       | $\Omega/1000\text{ft}$ [ $\Omega/\text{Km}$ ] |

### Performance by Frequency

| Description           | F1    | F2    | F3    | F4    | F5    | Units |
|-----------------------|-------|-------|-------|-------|-------|-------|
| Frequency             | 0.25  | 0.5   | 1     | 2.5   | 5.8   | GHz   |
| Insertion Loss (Typ.) | 0.052 | 0.076 | 0.108 | 0.173 | 0.267 | dB/ft |
|                       | 0.17  | 0.25  | 0.35  | 0.57  | 0.88  | dB/m  |

#### Electrical Specification Notes:

Insertion Loss does not include the loss of the connectors. Insertion Loss is estimated as  $0.1 * \text{SQRT}(\text{FGHz})$  dB for the female connector and 0.1 dB for the male connector.

### Mechanical Specifications

#### Cable Assembly

Diameter 1.25 in [31.75 mm]

#### Cable

Cable Type TFT-402



### Configuration:

- 4.1/9.5 Mini DIN Female
- 7/16 DIN 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

Fairview Microwave  
 301 Leora Ln., Suite 100  
 Lewisville, TX 75056  
 Tel: 1-800-715-4396 / (972) 649-6678  
 Fax: (972) 649-6689  
[www.fairviewmicrowave.com](http://www.fairviewmicrowave.com)  
[sales@fairviewmicrowave.com](mailto:sales@fairviewmicrowave.com)

|                                      |                            |
|--------------------------------------|----------------------------|
| Impedance                            | 50 Ohms                    |
| 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                            | 4.1/9.5 Mini DIN Female | 7/16 DIN Male          |
| Impedance                       | 50 Ohms                 | 50 Ohms                |
| Mating Cycles                   | 500                     |                        |
| Contact Material & Plating      | Phosphor Bronze, Silver | Brass, Silver          |
| Contact Plating Spec.           | 200 µin                 | 5 µm                   |
| Dielectric Type                 | PTFE                    | PTFE                   |
| Outer Cond Material & Plating   | Brass, Tri-Metal        |                        |
| Outer Cond Plating Spec.        | 80 µin                  |                        |
| Body Material & Plating         | Brass, Tri-Metal        | Brass, Tri-Metal       |
| Body Plating Spec.              | 80 µin                  | 3 µm                   |
| Coupling Nut Material & Plating |                         | Brass, Tri-Metal       |
| Coupling Nut Plating Spec.      |                         | 3 µm                   |
| Torque                          |                         | 22.083 ft-lbs 29.95 Nm |

**Environmental Specifications**
**Temperature**

Operating Range -55 to +85 deg C

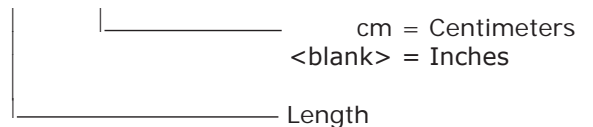
**Compliance Certifications** (see [product page](#) for current document)

**Plotted and Other Data**

Notes:

**How to Order**

Part Number Configuration:

**FMCA2414 - xx uu**

 Example: FMCA2414-12 = 12 inches long cable  
 FMCA2414-100cm = 100 cm long cable

Low PIM 4.1/9.5 Mini DIN Female to 7/16 DIN Male Cable TFT-402 Coax 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.

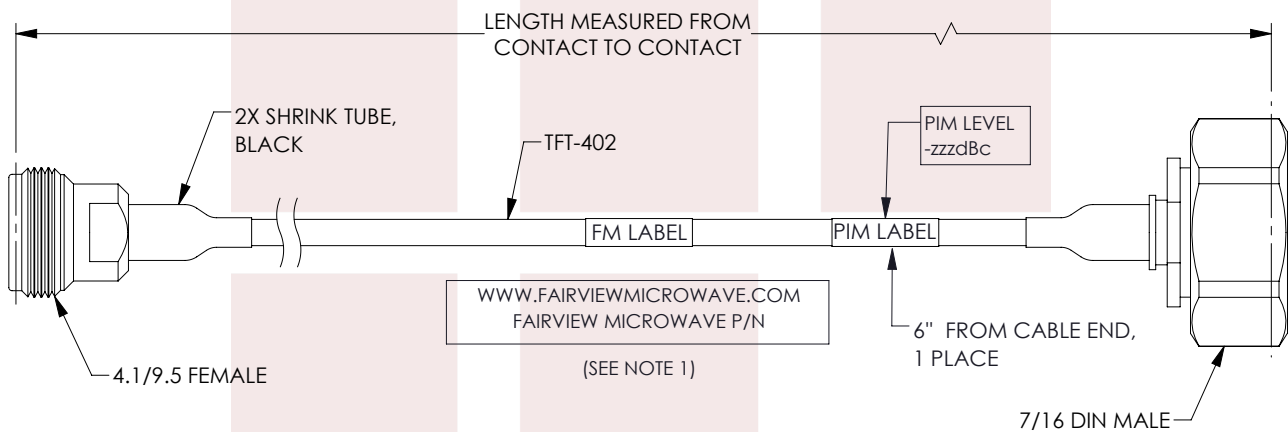
Click the following link to obtain additional part information: [Low PIM 4.1/9.5 Mini DIN Female to 7/16 DIN Male Cable TFT-402 Coax Using Times Microwave Components FMCA2414](#)

URL: <https://www.fairviewmicrowave.com/low-pim-4.1-9.5-mini-din-female-7-16-din-male-cable-tft-402-coax-fmca2414-p.aspx>

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| REVISIONS |                 |            |          |
|-----------|-----------------|------------|----------|
| REV.      | DESCRIPTION     | DATE       | APPROVED |
| A         | INITIAL RELEASE | 06/04/2021 | AGANWANI |



**NOTES:**

1. CABLES 84" AND UNDER HAVE 1 LABEL CENTERED.  
CABLES OVER 84" HAVE 2 LABELS, ONE AT EACH END  
12.0" FROM THE FRONT OF THE CONNECTOR.

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|  |  |                        |  |                          |              |
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| <p>TITLE</p> <p>Low PIM 4.1/9.5 Mini DIN Female to 7/16 DIN Male Cable TFT-402 Coax Using Times Microwave Components</p> | <p>SIZE A</p>  | <p>CAGE CODE 3FKR5</p> | <p>DRAWN BY MVEERAPPAN</p>   | <p>ITEM NO. FMCA2414</p> | <p>REV A</p> |

T-Rev.D