

## Low PIM RA 7/16 DIN Male to N Male Cable TFT-5G-402 Coax in 24 Inch Using Times Microwave Components



### FMCA2512-24

#### Configuration

- Connector 1: 7/16 DIN Male Right Angle
- Connector 2: N Male
- 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 RA 7/16 DIN male to type N male 24 inch cable using TFT-5G-402 coax, part number FMCA2512-24, from Fairview Microwave is in-stock and ships same day. This Fairview 7/16 DIN to type N cable assembly has a male 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 FMCA2512-24 7/16 DIN male to type N male cable assembly operates to 5.8 GHz. The right angle 7/16 DIN 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 |         |         |         |       |

## Low PIM RA 7/16 DIN Male to N Male Cable TFT-5G-402 Coax in 24 Inch Using Times Microwave Components



### FMCA2512-24

#### 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.) | 0.29 | 0.36 | 0.46 | 0.66 | 0.96 | 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 0.12 dB for the right angle connector and  $0.1 \cdot \sqrt{F(\text{GHz})}$  dB for the straight connector.

#### Mechanical Specifications

##### Cable Assembly

Width/Diameter 1.25 in [31.75 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]

Low PIM RA 7/16 DIN Male to N Male Cable TFT-5G-402 Coax in 24 Inch Using Times Microwave Components



FMCA2512-24

Connectors

| Description                        | Connector 1               | Connector 2      |
|------------------------------------|---------------------------|------------------|
| Type                               | 7/16 DIN Male Right Angle | N Male           |
| Impedance                          | 50 Ohms                   | 50 Ohms          |
| Configuration                      | Right Angle               | Straight         |
| Mating Cycles                      |                           | 500              |
| Contact Material and Plating       | Brass, Silver             | Brass, Silver    |
| Contact Plating Specification      | 200 µin                   | 200 µin          |
| Dielectric Type                    | PTFE                      | PTFE             |
| Body Material and Plating          | Brass, Tri-Metal          | Brass, Tri-Metal |
| Body Plating Specification         | 100 µin                   | 80 µin           |
| Coupling Nut Material and Plating  | Brass, Tri-Metal          | Brass, Tri-Metal |
| Coupling Nut Plating Specification | 100 µin                   | 80 µin           |
| Torque                             | 22.083 ft-lbs 29.95 Nm    | 15 in-lbs 1.7 Nm |

Environmental Specifications

Operating Range Temperature -40 to +125 deg C

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

Plotted and Other Data

Notes:

## Low PIM RA 7/16 DIN Male to N Male Cable TFT-5G-402 Coax in 24 Inch Using Times Microwave Components



### FMCA2512-24

#### Typical Performance Data

#### How to Order

Part Number Configuration:

**FMCA2512**

**- xx**

**uu**

Unit of Measure:

cm = Centimeters

<blank> = Inches

Length

Base Number

Example: FMCA2512-12 = 12 inches long cable  
FMCA2512-100cm = 100 cm long cable

Low PIM RA 7/16 DIN Male to N Male Cable TFT-5G-402 Coax in 24 Inch 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.

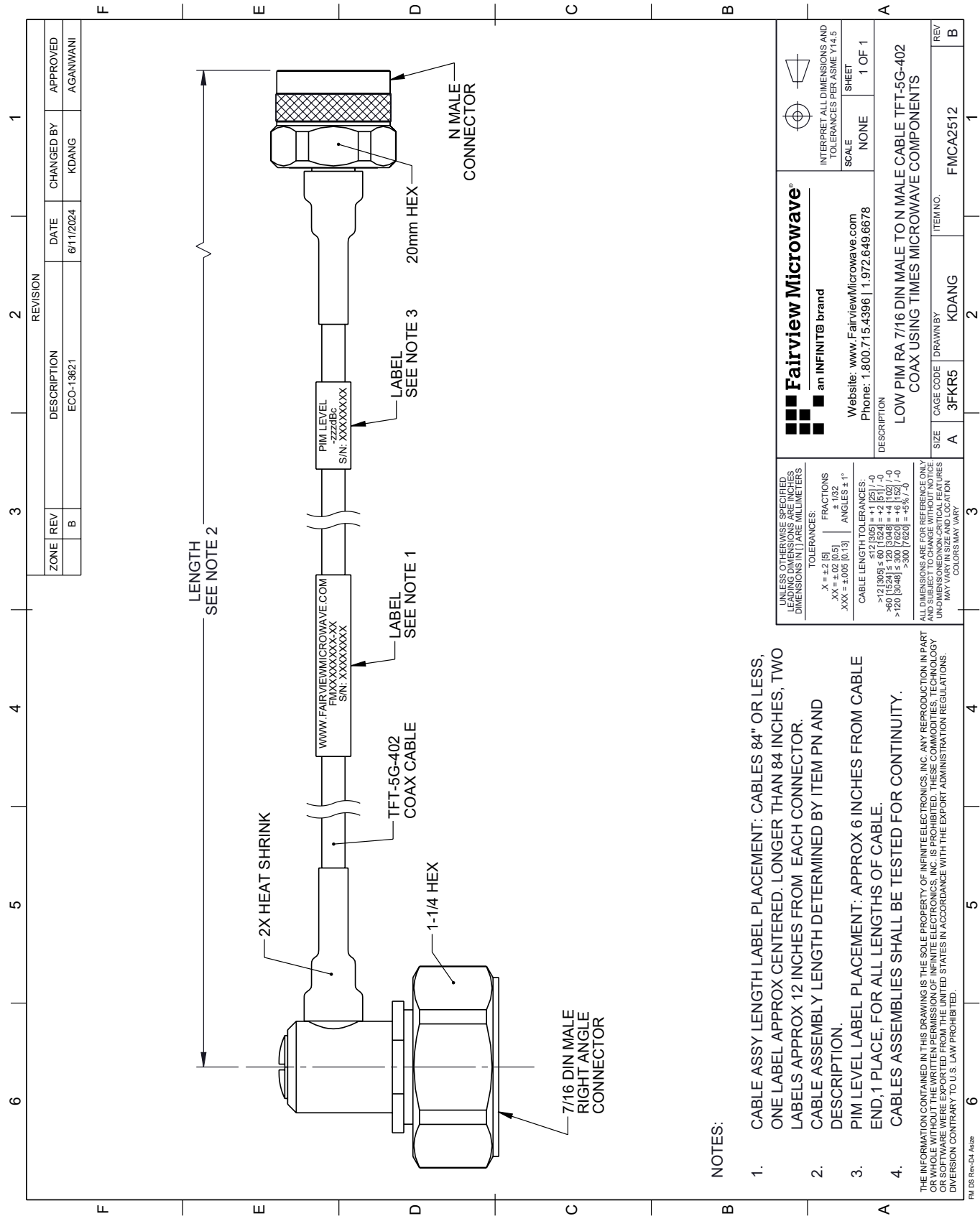
For additional information on this product, please click the following link: [Low PIM RA 7/16 DIN Male to N Male Cable TFT-5G-402 Coax in 24 Inch Using Times Microwave Components FMCA2512-24](#)

URL: <https://www.fairviewmicrowave.com/product/rf-cable-assemblies/low-pim-ra-7-16-din-male-to-n-male-cable-tft-5g-402-coax-in-24-inch-using-times-microwave-components-fmca2512-24.html>

The information contained within this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part in order to implement improvements. Fairview Microwave reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Fairview Microwave does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Fairview Microwave does not assume liability arising out of the use of any part or document.

FMCA2512-24 CAD Drawing

Low PIM RA 7/16 DIN Male to N Male Cable TFT-5G-402 Coax in 24 Inch Using Times Microwave Components



| REVISION |     |             |           |
|----------|-----|-------------|-----------|
| ZONE     | REV | DESCRIPTION | DATE      |
|          | B   | ECO-13621   | 6/11/2024 |
|          |     | KDANG       | AGANWANI  |

LENGTH  
SEE NOTE 2

FAIRVIEW  
MICROWAVE.COM

PIM LEVEL  
-zzzzdBc  
S/N: XXXXXXXXX

LABEL  
SEE NOTE 1

20mm HEX

N MALE  
CONNECTOR

|                                                                                                             |           |                                                                                                                             |          |                                                        |
|-------------------------------------------------------------------------------------------------------------|-----------|-----------------------------------------------------------------------------------------------------------------------------|----------|--------------------------------------------------------|
| <b>Fairview Microwave®</b><br>an INFINITI® brand                                                            |           | Website: <a href="http://www.FairviewMicrowave.com">www.FairviewMicrowave.com</a><br>Phone: 1.800.715.4396   1.972.649.6678 |          | INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5 |
| SCALE                                                                                                       |           | NONE                                                                                                                        |          | SHEET 1 OF 1                                           |
| DESCRIPTION<br>LOW PIM RA 7/16 DIN MALE TO N MALE CABLE TFT-5G-402<br>COAX USING TIMES MICROWAVE COMPONENTS |           |                                                                                                                             |          |                                                        |
| SIZE                                                                                                        | CAGE CODE | DRAWN BY                                                                                                                    | ITEM NO. | REV                                                    |
| A                                                                                                           | 3FKR5     | KDANG                                                                                                                       | FMCA2512 | B                                                      |