

## Low PIM 7/16 DIN Male to RA N Male Cable TFT-5G-402 Coax in 150 CM Using Times Microwave Components



### FMCA2509-150CM

#### Configuration

- Connector 1: 7/16 DIN Male
- 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 7/16 DIN male to RA type N male 150 cm cable using TFT-5G-402 coax, part number FMCA2509-150CM, 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 FMCA2509-150CM 7/16 DIN male 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.)	0.49	0.61	0.78	1.14	1.66	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 dB per 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]

**Connectors**

Description	Connector 1	Connector 2
Type	7/16 DIN Male	N Male Right Angle
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Right Angle
Contact Material and Plating	Brass, Silver	Brass, Silver
Contact Plating Specification	5 µm	5 µm
Dielectric Type	PTFE	PTFE
Body Material and Plating	Brass, Tri-Metal	Brass, Tri-Metal
Body Plating Specification	3 µm	3 µm
Coupling Nut Material and Plating	Brass, Tri-Metal	Brass, Tri-Metal
Coupling Nut Plating Specification	3 µm	3 µm
Torque	22.083 ft-lbs 29.95 Nm	10 in-lbs 1.13 Nm

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**FMCA2509-150CM**

**Environmental Specifications**

Operating Range Temperature -55 to +150 deg C

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

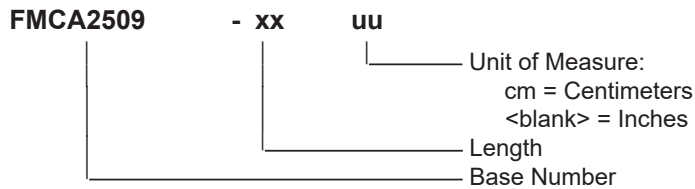
**Plotted and Other Data**

Notes:

**Typical Performance Data**

**How to Order**

Part Number Configuration:



Example: FMCA2509-12 = 12 inches long cable  
FMCA2509-100cm = 100 cm long cable

Low PIM 7/16 DIN Male to RA N Male Cable TFT-5G-402 Coax in 150 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.

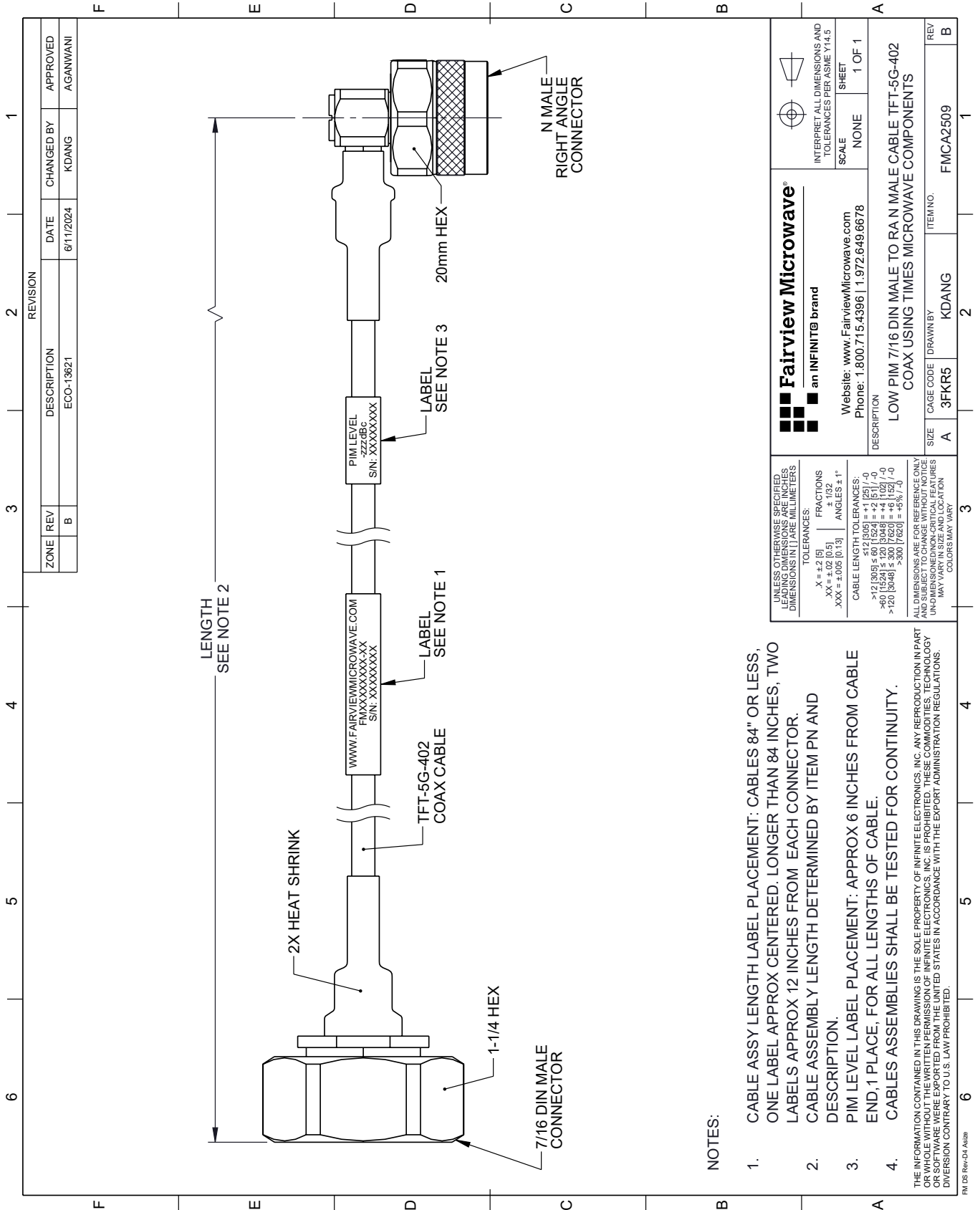
For additional information on this product, please click the following link: [Low PIM 7/16 DIN Male to RA N Male Cable TFT-5G-402 Coax in 150 CM Using Times Microwave Components FMCA2509-150CM](#)

URL: <https://www.fairviewmicrowave.com/product/rf-cable-assemblies/low-pim-7-16-din-male-to-ra-n-male-cable-tft-5g-402-coax-in-150-cm-using-times-microwave-components-fmca2509-150cm.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.

# FMCA2509-150CM CAD Drawing

Low PIM 7/16 DIN Male to RA N Male Cable TFT-5G-402 Coax in 150 CM Using Times Microwave Components



REVISION		DATE	CHANGED BY	APPROVED
ZONE	REV			
	B	6/11/2024	KDANG	AGANWANI
DESCRIPTION				
ECO-13621				

**Fairview Microwave**  
an INFINITE brand

Website: [www.FairviewMicrowave.com](http://www.FairviewMicrowave.com)  
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: LOW PIM 7/16 DIN MALE TO RA N MALE CABLE TFT-5G-402 COAX USING TIMES MICROWAVE COMPONENTS

SIZE: A  
CAGE CODE: 3FKR5  
DRAWN BY: KDANG  
ITEM NO.: FMCA2509

UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES, DIMENSIONS IN [ ] ARE MILLIMETERS.

TOLERANCES:  
 .X = ±.2 [5]  
 .XX = ±.02 [0.5]  
 .XXX = ±.005 [0.13]  
 FRACTIONS: ± 1/32  
 ANGLES: ± 1°

CABLE LENGTH TOLERANCES:  
 <12 [305] ≤ 60 [1524] = ±.1 [25] / -0  
 >60 [1524] ≤ 120 [3048] = ±.4 [102] / -0  
 >120 [3048] ≤ 300 [7620] = ±.6 [152] / -0  
 >300 [7620] = ±.8 [17.8]

ALL DIMENSIONS ARE FOR REFERENCE ONLY. UNDIMENSIONED/NON-CRITICAL FEATURES MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY.

**NOTES:**

- 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.
- CABLE ASSEMBLY LENGTH DETERMINED BY ITEM PN AND DESCRIPTION.
- PIM LEVEL LABEL PLACEMENT: APPROX 6 INCHES FROM CABLE END, 1 PLACE, FOR ALL LENGTHS OF CABLE.
- CABLES ASSEMBLIES SHALL BE TESTED FOR CONTINUITY.

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FM DS Rev-D4 Alt2b