

Low PIM 4.1/9.5 Mini DIN Female to RA N Male Cable TFT-402 Coax Using Times Microwave Components

The 4.1/9.5 Mini DIN female to RA type N male cable using TFT-402 coax, part number FMCA2421, from Fairview Microwave is in-stock and ships same day. This Fairview 4.1/9.5 Mini DIN 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 FMCA2421 4.1/9.5 Mini DIN female to type N male cable assembly operates to 5.8 GHz. The right angle type N interface on the TFT-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	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]		Ω /1000ft [Ω /Km]
DC Resistance Outer Conductor		5.6 [18.37]		Ω /1000ft [Ω /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 $0.1 \cdot \sqrt{\text{FGHz}}$ dB for the straight connector and 0.1 dB for the right angle connector.

Mechanical Specifications

Cable Assembly

Diameter 0.374 in [9.5 mm]



Configuration:

- 4.1/9.5 Mini DIN Female
- N Male Right Angle
- 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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Cable

Cable Type	TFT-402
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	N 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		10 in-lbs 1.13 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:

FMCA2421 - xx uu

cm = Centimeters

<blank> = Inches

Length

Example: FMCA2421-12 = 12 inches long cable
 FMCA2421-100cm = 100 cm long cable

Low PIM 4.1/9.5 Mini DIN Female to RA N 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.

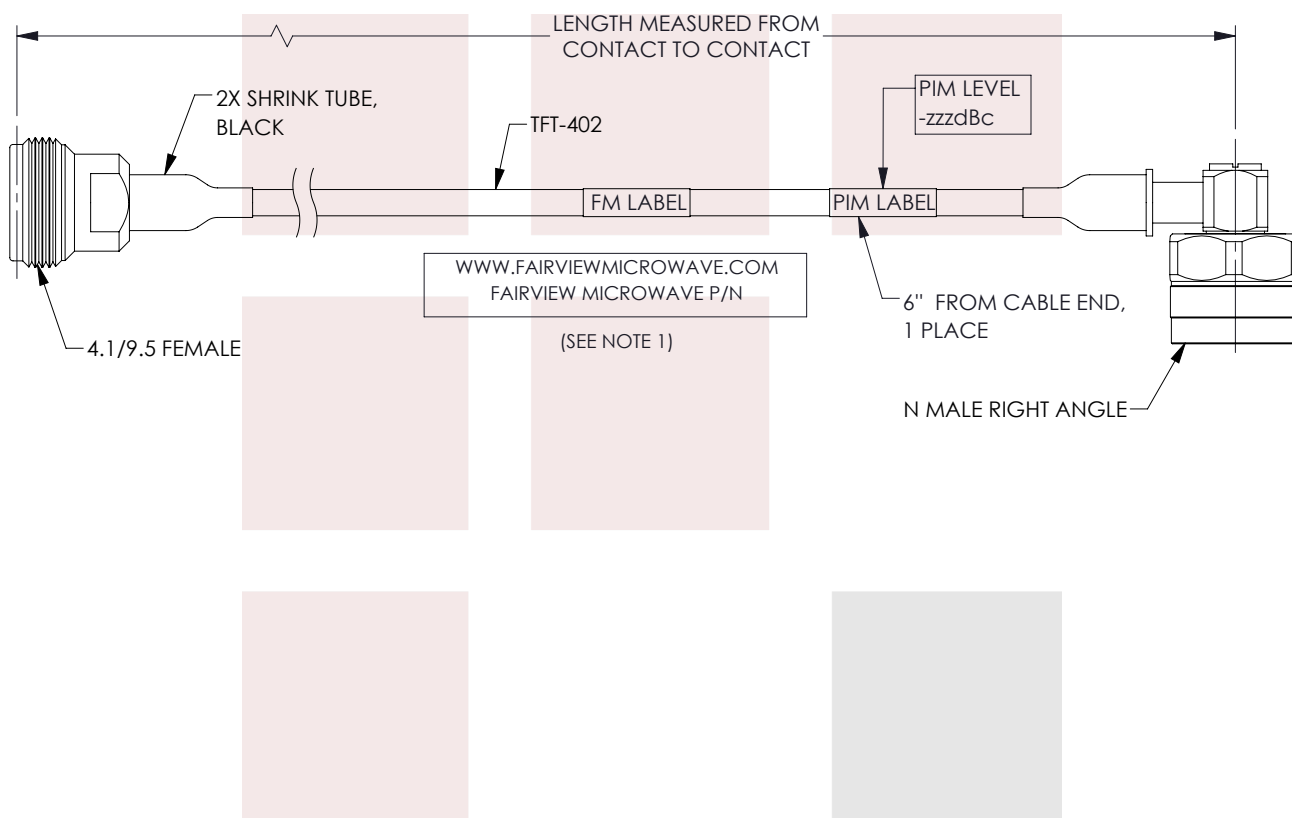
Click the following link to obtain additional part information: [Low PIM 4.1/9.5 Mini DIN Female to RA N Male Cable TFT-402 Coax Using Times Microwave Components FMCA2421](https://www.fairviewmicrowave.com/low-pim-4.1-9.5-mini-din-female-ra-n-male-cable-tft-402-coax-fmca2421-p.aspx)

URL: <https://www.fairviewmicrowave.com/low-pim-4.1-9.5-mini-din-female-ra-n-male-cable-tft-402-coax-fmca2421-p.aspx>

The information contained in 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 any liability arising out of the use of any part or documentation.



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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TITLE

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TFT-402 Coax Using Times Microwave Components

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

TOLERANCES:

.X = ±.2 [.508] FRACTIONS
.XX = ±.02 [.51] ± 1/32
.XXX = ±.005 [.13] ANGLES ± 1°

CABLE LENGTH (L) TOLERANCES:

L ≤ 12 [305] = +1 [25] / -0
12 [305] < L ≤ 60 [1524] = +2 [51] / -0
60 [1524] < L ≤ 120 [3048] = +4 [102] / -0
120 [3048] < L ≤ 300 [7620] = +6 [152] / -0
300 [7620] < L = +5%L / -0

THIRD-ANGLE PROJECTION



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SHEET 1 OF 1

SCALE

N/A

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

SIZE	CAGE CODE	DRAWN BY	ITEM NO.	REV
A	3FKR5	MVEERAPPAN	FMCA2421	A

T-Rev.D