

Low PIM 2.2-5 Female to N Female Cable TFT-402 Coax in 50 CM Using Times Microwave Components

The 2.2-5 female to type N female 50 cm cable using TFT-402 coax, part number FMCA2524-50CM, from Fairview Microwave is in-stock and ships same day. This Fairview 2.2-5 to type N cable assembly has a female to female 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 FMCA2524-50CM 2.2-5 female to type N female 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]		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.)	0.24	0.3	0.38	0.55	0.78	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 $0.1 \cdot \text{SQRT}(\text{FGHz})$ dB for the 2.2-5 connector and 0.1 dB for the N connector.

Mechanical Specifications

Cable Assembly

Length*	19.68 in [499.87 mm]
Diameter	0.665 in [16.89 mm]



Configuration:

- 2.2-5 Female
- N Female
- 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	2.2-5 Female	N Female
Impedance	50 Ohms	50 Ohms
Mating Cycles	100	500
Contact Material & Plating	Beryllium Copper, Silver	Phosphor Bronze, Silver
Contact Plating Spec.	200 µin	5 µm
Dielectric Type	PTFE	PTFE
Outer Cond Material & Plating	Beryllium Copper, Silver	Brass, Tri-Metal
Outer Cond Plating Spec.	100 µin	3 µm
Body Material & Plating	Brass, Silver	Brass, Tri-Metal
Body Plating Spec.	100 µin	3 µm
Torque	26 in-lbs 2.94 Nm	10 in-lbs 1.13 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:

FMCA2524 - xx uu

_____ cm = Centimeters
 _____ <blank> = Inches
 _____ Length

Example: FMCA2524-12 = 12 inches long cable
 FMCA2524-100cm = 100 cm long cable

Low PIM 2.2-5 Female to N Female Cable TFT-402 Coax in 50 CM 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 Female Cable TFT-402 Coax in 50 CM Using Times Microwave Components FMCA2524-50CM](https://www.fairviewmicrowave.com/low-pim-2.2-5-female-n-female-cable-tft-402-coax-fmca2524-50cm-p.aspx)

URL: <https://www.fairviewmicrowave.com/low-pim-2.2-5-female-n-female-cable-tft-402-coax-fmca2524-50cm-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.



REV. A

DESCRIPTION

DATE

APPROVED

INITIAL RELEASE

07/12/2021

SRAUTUS

LENGTH MEASURED FROM CONTACT TO CONTACT

2X SHRINK TUBE, BLACK

TFT-402

TYPE N FEMALE

2.2-5 FEMALE

WWW.FAIRVIEWMICROWAVE.COM
FAIRVIEW MICROWAVE P/N
S/N: XXXXXXXXXX

SEE NOTE 1

SEE NOTE 2

PIM LEVEL
-zzzdBc
S/N: XXXXX

2.2-5 FEMALE

NOTES:

1. CABLES 84" AND UNDER HAVE 1 LABEL CENTERED. CABLES OVER 84" HAVE 2 LABELS: ONE AT EACH END, 12" FROM THE FRONT OF THE CONNECTOR.

2. PIM LABEL LOCATED 6" FROM CABLE END, 1 PLACE FOR ALL LENGTHS OF CABLE.

Fairview Microwave

an INFINITE brand

TITLE

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SHEET 1 OF 1

TOLERANCES:

CABLE LENGTH (L) TOLERANCES:

X ± 2 [8.08] FRACTIONS 12 [1509] < 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% / 0

XX ± 1.02 [.51] ANGLES ± 1°

XXX ± 1.005 [.5]

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

SCALE

N/A

SIZE

A

CAGE CODE

3FRR5

DRAWN BY

DFRISIELLO

ITEM NO.

FMCA2524

REV

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