

## Low PIM 2.2-5 Female to N Male Cable

### TFT-402 Coax in 100 CM Using Times Microwave Components

The 2.2-5 female to type N male 100 cm cable using TFT-402 coax, part number FMCA2522-100CM, from Fairview Microwave is in-stock and ships same day. This Fairview 2.2-5 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 FMCA2522-100CM 2.2-5 female to type N 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]		$\Omega$ /1000ft [ $\Omega$ /Km]
DC Resistance Outer Conductor		5.6 [18.37]		$\Omega$ /1000ft [ $\Omega$ /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.)	0.28	0.4	0.56	0.89	1.36	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 per connector.

#### Mechanical Specifications

##### Cable Assembly

Length*	39.37 in [100 cm]
Diameter	0.808 in [20.52 mm]

##### Cable

Cable Type	TFT-402
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#### Configuration:

- 2.2-5 Female
- N 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

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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 Male
Impedance	50 Ohms	50 Ohms
Mating Cycles	100	500
Contact Material & Plating	Beryllium Copper, Silver	Brass, Silver
Contact Plating Spec.	200 µin	200 µin
Dielectric Type	PTFE	PTFE
Outer Cond Material & Plating	Beryllium Copper, Silver	
Outer Cond Plating Spec.	100 µin	
Body Material & Plating	Brass, Silver	Brass, Tri-Metal
Body Plating Spec.	100 µin	80 µin
Coupling Nut Material & Plating		Brass, Tri-Metal
Coupling Nut Plating Spec.		80 µin
Torque	26 in-lbs 2.94 Nm	15 in-lbs 1.7 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:

**FMCA2522 - xx uu**

cm = Centimeters  
 <blank> = Inches

Length

Example: FMCA2522-12 = 12 inches long cable  
 FMCA2522-100cm = 100 cm long cable

Low PIM 2.2-5 Female to N Male Cable TFT-402 Coax in 100 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 Male Cable TFT-402 Coax in 100 CM Using Times Microwave Components FMCA2522-100CM](https://www.fairviewmicrowave.com/low-pim-2.2-5-female-n-male-cable-tft-402-coax-fmca2522-100cm-p.aspx)

URL: <https://www.fairviewmicrowave.com/low-pim-2.2-5-female-n-male-cable-tft-402-coax-fmca2522-100cm-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

INITIAL RELEASE

DATE

APPROVED

SBRAUTUS

REVISIONS

07/12/2021

LENGTH MEASURED FROM CONTACT TO CONTACT

2X SHRINK TUBE, BLACK

2.2-5 FEMALE

TFT-402

TYPE N MALE

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

SEE NOTE 1

SEE NOTE 2

PIM LEVEL  
-zzzdBc  
S/N: XXXXX

LABEL

LABEL

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.

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THREADED PROJECTION

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SHEET 1 OF 1

SCALE

N/A

SIZE

A

CAGE CODE

3PFR5

ITEM NO.

FMCA2522

REV

A

Fairview Microwave

an INFINITE brand

TITLE

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