

## Low PIM 2.2-5 Female to RA N Male Cable TFT-402-LF Coax Using Times Microwave Components

The 2.2-5 female to RA type N male cable using TFT-402-LF coax, part number FMCA2531, 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-LF 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 FMCA2531 2.2-5 female to type N male cable assembly operates to 5.8 GHz. The right angle type N interface on the TFT-402-LF 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]

### Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency	0.25	0.5	1	2.5	5.8	GHz
Insertion Loss (Typ.)	0.057	0.083	0.117	0.19	0.295	dB/ft
	0.19	0.27	0.38	0.62	0.97	dB/m

#### Electrical Specification Notes:

Insertion Loss does not include the loss of the connectors. Insertion Loss is estimated as  $0.1 * \sqrt{f(\text{GHz})}$  dB for the straight connector and 0.1 dB for the right angle connector.

### Mechanical Specifications

#### Cable Assembly

Diameter 0.665 in [16.89 mm]

#### Cable

Cable Type TFT-402-LF  
 Impedance 50 Ohms



### Configuration:

- 2.2-5 Female
- N Male Right Angle
- TFT-402-LF

### 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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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	2.2-5 Female	N Male
Impedance	50 Ohms	50 Ohms
Mating Cycles	100	
Contact Material & Plating	Beryllium Copper, Silver	Brass, Silver
Contact Plating Spec.	200 µin	5 µm
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	3 µm
Coupling Nut Material & Plating		Brass, Tri-Metal
Coupling Nut Plating Spec.		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)

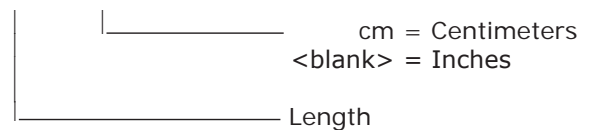
**Plotted and Other Data**

Notes:

**How to Order**

Part Number Configuration:

**FMCA2531 - xx uu**



Example: FMCA2531-12 = 12 inches long cable  
FMCA2531-100cm = 100 cm long cable

Low PIM 2.2-5 Female to RA N Male Cable TFT-402-LF 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 2.2-5 Female to RA N Male Cable TFT-402-LF Coax Using Times Microwave Components FMCA2531](#)

URL: <https://www.fairviewmicrowave.com/low-pim-2.2-5-female-ra-n-male-cable-tft-402-lf-coax-fmca2531-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.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	07/12/2021	SRAUTIS

LENGTH MEASURED FROM CONTACT TO CONTACT

TFT-402-LF

2.2-5 FEMALE

2X SHRINK TUBE, BLACK

LABEL  
WWW.FAIRVIEWMICROWAVE.COM  
FAIRVIEW MICROWAVE P/N  
S/N: XXXXXXXXXX  
SEE NOTE 1

LABEL  
PIM LEVEL  
-zzzdBc  
S/N: XXXXX  
SEE NOTE 2

TYPE N MALE  
RIGHT ANGLE

**NOTES:**

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

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DIMENSIONS IN INCHES		DIMENSIONS IN MILLIMETERS	
TOLERANCES:	FRACTIONS	CABLE LENGTH (L) TOLERANCES:	THROUGH-DRILL PRODUCTION
X +0.2	[.03]	L ± 0.008	
XX ± 0.02	[.51]	12 [305] <L ≤ 60 [1524] ± 0.010	THE INFORMATION AND DIMENSIONS SHOWN ON THIS DRAWING IS THE PROPERTY OF FAIRVIEW MICROWAVE. ALL RIGHTS RESERVED.
XXX ± 0.005	[.13]	60 [1524] <L ≤ 120 [3048] ± 0.012	1 OF 1 SHEET
		120 [3048] <L ≤ 300 [7620] ± 0.015	
		300 [7620] <L ≤ 588 [14931]	

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

SIZE	DRAWING NO.	ITEM NO.	REV.
A	3PKRS	DPRISIELLO	FMCA2531

SCALE: N/A

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