

## TNC Male to RA TNC Male Cable FM141FLEX Coax in 24 Inch

The TNC male to RA TNC male 24 inch cable using FM141FLEX coax, part number FMCA1044-24, from Fairview Microwave is in-stock and ships same day. This Fairview TNC to TNC cable assembly has a male to male gender configuration with 50 ohm flexible FM141FLEX coax. Fairview Microwave's flexible RF cable assemblies are ideal for applications where tight bends and continual flexure are required. The FMCA1044-24 TNC male to TNC male cable assembly operates to 18 GHz. The right angle TNC interface on the FM141FLEX cable allows for easier connections in tight spaces. The double shielding of this Fairview cable assembly provides excellent shielding effectiveness of better than 90 dB. Our new series of flexible cables use high performance FM141FLEX coax and are terminated with a new low profile connector design. These high performance flexible cables are an ideal choice for many applications including in-rack RF devices where tight bends and continual flexure might be required. Our FM141FLEX is a flexible coax alternative to semi-rigid coax and has a solid PTFE resulting in a 69.5% phase velocity. This series features a smooth wall formed by the braid-over-spiral-ribbon design and has similar performance to a solid wall RG402 semi-rigid RG402 cable.

These FM141FLEX cables are similar to our existing SCA1814 cables. The heavier duty SCA1814 test cables have similar electrical performance, but include a heavy duty strain relief mechanism and extra booting material as well as a thick wall SMA connector to increase the ruggedness of the SCA1814 cables for use in more demanding test environments.

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  |              | 18     | GHz          |
| VSWR                    |     |              | 1.45:1 |              |
| Return Loss             |     |              | 14.72  | dB           |
| Velocity of Propagation |     | 69.5         |        | %            |
| RF Shielding            | 90  |              |        | dB           |
| Group Delay             |     | 1.44 [4.72]  |        | ns/ft [ns/m] |
| Capacitance             |     | 29.4 [96.46] |        | pF/ft [pF/m] |
| Operating Voltage (AC)  |     | 335          |        | Vrms         |

### Performance by Frequency

| Description           | F1    | F2    | F3     | F4     | F5 | Units |
|-----------------------|-------|-------|--------|--------|----|-------|
| Frequency             | 3     | 6     | 12     | 18     |    | GHz   |
| Insertion Loss (Max.) | 0.8   | 1.15  | 2.25   | 2.15   |    | dB    |
| VSWR (Max.)           | 1.2:1 | 1.3:1 | 1.45:1 | 1.45:1 |    |       |
| Power Handling (Max.) | 215   | 150   | 105    | 88     |    | W     |



### Configuration:

- TNC Male
- TNC Male Right Angle
- FM141FLEX

### Features:

- Max Frequency 18 GHz
- Shielding Effectivity > 90 dB
- 69.5% Phase Velocity
- Double Shielded
- FEP Jacket
- 500 Mating Cycles
- Typical TNC VSWR 1.31:1 to 18 GHz
- Shielding effectivity > 90dB  
One time minimum bend radius: 0.4 inch

### Applications:

- General Purpose
- Laboratory Use
- High Performance RF equipment interconnect
- Flexible in cabinet or in the rack requirements
- Inside the box RF routing
- General purpose lighter duty lab use

Fairview Microwave  
301 Leora Ln., Suite 100  
Lewisville, TX 75056  
Tel: 1-800-715-4396 / (972) 649-6678  
Fax: (972) 649-6689  
[www.fairviewmicrowave.com](http://www.fairviewmicrowave.com)  
[sales@fairviewmicrowave.com](mailto:sales@fairviewmicrowave.com)

**Mechanical Specifications**
**Cable Assembly**

|         |                      |
|---------|----------------------|
| Length* | 24 in [609.6 mm]     |
| Weight  | 0.1945 lbs [88.22 g] |

**Cable**

|  |                            |
|--|----------------------------|
| Cable Type                             | FM141FLEX                  |
| Impedance                              | 50 Ohms                    |
| Inner Conductor Type                   | Solid                      |
| Inner Conductor Material and Plating   | Copper Clad Steel, Silver  |
| Dielectric Type                        | PTFE                       |
| Number of Shields                      | 2                          |
| Shield Layer 1                         | Silver Plated Copper Tape  |
| Shield Layer 2                         | Silver Plated Copper Braid |
| Outer Conductor 1 Material and Plating | Silver Plated Copper Tape  |
| Outer Conductor 2 Material and Plating | Silver Plated Copper Braid |
| Jacket Material                        | FEP                        |
| Jacket Diameter                        | 0.163 in [4.14 mm]         |
| One Time Minimum Bend Radius           | 0.4 in [10.16 mm]          |
| Repeated Minimum Bend Radius           | 1.58 in [40.13 mm]         |

**Connectors**

| Description                     | Connector 1            | Connector 2            |
|---------------------------------|------------------------|------------------------|
| Type                            | TNC Male               | TNC Male               |
| Impedance                       | 50 Ohms                | 50 Ohms                |
| Mating Cycles                   | 500                    | 500                    |
| Contact Material & Plating      | Beryllium Copper, Gold | Beryllium Copper, Gold |
| Dielectric Type                 | PTFE                   | PTFE                   |
| Body Material & Plating         | Brass, Nickel          | Brass, Nickel          |
| Coupling Nut Material & Plating | Brass, Nickel          | Brass, Nickel          |
| Hex Size                        | 9/16 Inch              | 9/16 Inch              |

**Environmental Specifications**
**Temperature**

Operating Range -40 to +150 deg C

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

**Plotted and Other Data**

Notes:

**How to Order**

Part Number Configuration:

**FMCA1044 - xx uu**

 \_\_\_\_\_ cm = Centimeters  
 <blank> = Inches

\_\_\_\_\_ Length

Example: FMCA1044-12 = 12 inches long cable  
 FMCA1044-100cm = 100 cm long cable

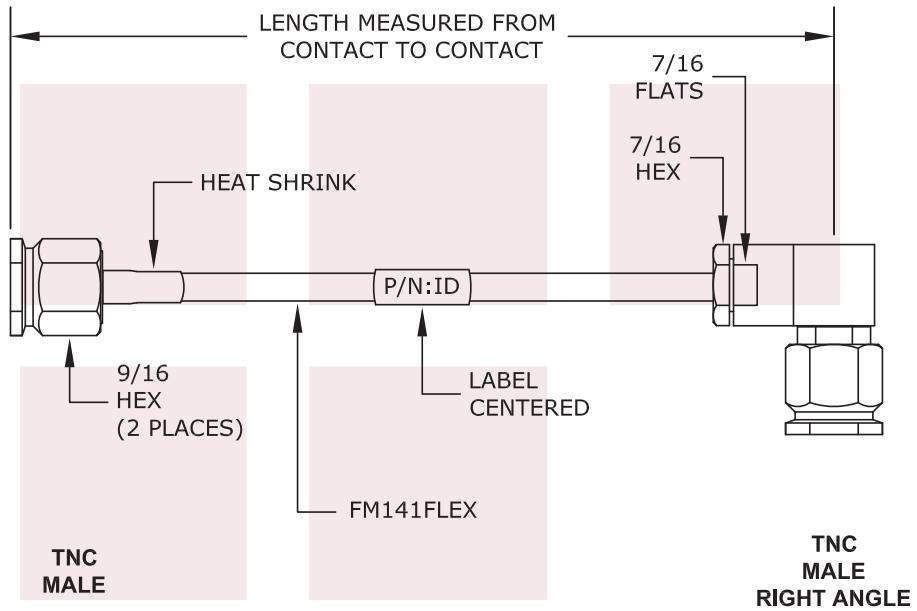
TNC Male to RA TNC Male Cable FM141FLEX Coax in 24 Inch from Fairview Microwave has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% availability and are part of the broadest selection in the industry.

Click the following link to obtain additional part information: [TNC Male to RA TNC Male Cable FM141FLEX Coax in 24 Inch FMCA1044-24](#)

URL: <https://www.fairviewmicrowave.com/tnc-male-ra-tnc-male-cable-fm141flex-coax-fmca1044-24-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.





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|--|--|--|--------------------------|-----------------------|---------------------|
| <b>FAIRVIEW MICROWAVE INC.</b><br>ALLEN, TX 75013 <a href="http://WWW.FAIRVIEWMICROWAVE.COM">WWW.FAIRVIEWMICROWAVE.COM</a> |  | <small>NOTES:</small><br>1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.<br>2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME.<br>3. DIMENSIONS ARE IN INCHES [mm]. |                          |                       |                     |
| <small>TITLE</small><br>TNC Male to RA TNC Male Cable FM141FLEX Coax in 24 Inch  | <small>DWG NO</small><br><b>FMCA1044</b> | <small>CAGE CODE</small><br><b>3FKR5</b>   |                          |                       |                     |
|  | <small>CAD FILE</small> 041515           | <small>SHEET</small>   | <small>SCALE</small> N/A | <small>SIZE</small> A | <small>2233</small> |