

## SMA Male to TNC Female Bulkhead Cable FM-SR141TB Coax in 12 Inch with LF Solder

The SMA male to TNC female bulkhead 12 inch cable using FM-SR141TB coax, part number FMCA2139-12, from Fairview Microwave is in-stock and ships same day. This Fairview SMA to TNC cable assembly has a male to female gender configuration with 50 ohm formable FM-SR141TB coax. Fairview Microwave's formable RF cable assemblies provide an alternative to costly pre-formed semi-rigid assemblies since they are hand formable. The FMCA2139-12 SMA male to TNC female cable assembly operates to 6 GHz. Our RF cable assembly with TNC bulkhead interface allows designers to create external connections on their product enclosures, and can be used in a variety of other rack mount and panel mount applications.

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  |             | 6     | GHz          |
| VSWR                    |     |             | 1.4:1 |              |
| Velocity of Propagation |     | 69.5        |       | %            |
| RF Shielding            | 100 |             |       | dB           |
| Group Delay             |     | 1.43 [4.69] |       | ns/ft [ns/m] |
| Capacitance             |     | 29 [95.14]  |       | pF/ft [pF/m] |

### Performance by Frequency

| Description           | F1    | F2   | F3    | F4    | F5    | Units |
|-----------------------|-------|------|-------|-------|-------|-------|
| Frequency             | 0.25  | 0.5  | 1     | 2.5   | 6     | GHz   |
| Insertion Loss (Typ.) | 0.379 | 0.45 | 0.524 | 0.646 | 0.901 | dB    |

#### Electrical Specification Notes:

The Insertion Loss data above is based on the performance specifications of the coax cable and connectors used in this assembly. The Insertion Loss includes an estimated insertion loss of 0.1 dB per connector.

### Mechanical Specifications

#### Cable Assembly

Length\* 12 in [304.8 mm]  
 Diameter 0.69 in [17.53 mm]

#### Cable

Cable Type FM-SR141TB  
 Impedance 50 Ohms  
 Inner Conductor Type Solid  
 Inner Conductor Material and Plating Copper, Silver  
 Dielectric Type PTFE



### Configuration:

- SMA Male
- TNC Female Bulkhead
- FM-SR141TB

### Features:

- Max Frequency 6 GHz
- Shielding Effectivity > 100 dB
- 69.5% Phase Velocity
- Dimensionally and electrically the same as standard, solid outer conductor semi-rigid coax
- Cable may be formed by hand and does not require special tools to bend
- May be formed more than once without damaging the outer conductor
- High RF Shielding >100 dB
- 100% Hi-pot and continuity tested
- 100% VSWR tested to max frequency of assembly
- Standard and custom lengths ship the same day

### Applications:

- General Purpose
- Laboratory Use

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|                                      |                               |
|--------------------------------------|-------------------------------|
| Outer Conductor Material and Plating | Tinned Copper Composite Braid |
| Outer Conductor Diameter             | 0.141 in [3.58 mm]            |
| One Time Minimum Bend Radius         | 0.315 in [8 mm]               |
| Repeated Minimum Bend Radius         | 1.57 in [39.88 mm]            |

**Connectors**

| Description                     | Connector 1                | Connector 2            |
|---------------------------------|----------------------------|------------------------|
| Type                            | SMA Male                   | TNC Female             |
| Mount Method                    |                            | Bulkhead               |
| Impedance                       | 50 Ohms                    | 50 Ohms                |
| Contact Material & Plating      |                            | Beryllium Copper, Gold |
| Dielectric Type                 |                            | PTFE                   |
| Body Material & Plating         | Brass, Gold                | Brass, Nickel          |
| Coupling Nut Material & Plating | Passivated Stainless Steel |                        |
| Hex Size                        | 5/16 in.                   |                        |
| Torque                          | 8 in-lbs 0.9 Nm            |                        |

## Mechanical Specification Notes:

\*All cable assemblies have a length tolerance of 1.5% or  $\pm 3/8"$ , whichever is greater.

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

**Plotted and Other Data**

Notes:

- Values at 25°C, sea level.

**How to Order**

Part Number Configuration:

**FMCA2139 - xx uu**

 cm = Centimeters  
 <blank> = Inches

Length

 Example: FMCA2139-12 = 12 inches long cable  
 FMCA2139-100cm = 100 cm long cable

SMA Male to TNC Female Bulkhead Cable FM-SR141TB Coax in 12 Inch with LF Solder from Fairview Microwave has same day shipment for domestic and International orders. Our RF, microwave and fiber optic products maintain a 99% availability and are part of the broadest selection in the industry.

Click the following link to obtain additional part information: [SMA Male to TNC Female Bulkhead Cable FM-SR141TB Coax in 12 Inch with LF Solder FMCA2139-12](https://www.fairviewmicrowave.com/sma-male-tnc-female-cable-fm-sr141tb-coax-fmca2139-12-p.aspx)

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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.



