

Low Loss SMA Male to TNC Male Cable LL142 Coax with LF Solder

The SMA male to TNC male cable using LL142 coax, part number FMCA1245, from Fairview Microwave is in-stock and ships same day. This Fairview SMA to TNC cable assembly has a male to male gender configuration with 50 ohm flexible LL142 coax. Fairview Microwave's flexible RF cable assemblies are ideal for applications where tight bends and continual flexure are required. The FMCA1245 SMA male to TNC male cable assembly operates to 18 GHz. The triple shielding of this Fairview cable assembly provides excellent shielding effectiveness of better than 95 dB. Fairview High performance test cables boast 83% phase velocity and offer excellent low loss performance up to 18 GHz. The FMCA1245 cable assemblies use durable stainless steel connectors and an FEP jacket. The connector/cable interface has double heat-shrink booting which provides added strain relief while increasing the durability of the cable assembly. The low attenuation per foot in a 0.195 inch diameter cable creates a cable that has good flexibility while offering industry leading loss characteristics. All FMCA1245 cable assemblies are 100% RF tested to ensure the VSWR and insertion loss specifications meet or exceed Fairview's published electrical specifications.

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 |
| Insertion Loss | | | 0.4 1.31 | dB dB |
| Velocity of Propagation | | 83 | | % |
| RF Shielding | 95 | | | dB |
| Capacitance | | 25 [82.02] | | pF/ft [pF/m] |

Performance by Frequency

| Description | F1 | F2 | F3 | F4 | F5 | Units |
|-----------------------|------|------|------|------|------|-------|
| Frequency | 1 | 2 | 4.5 | 9 | 18 | GHz |
| Insertion Loss (Max.) | 0.1 | 0.14 | 0.2 | 0.29 | 0.4 | dB/ft |
| | 0.33 | 0.46 | 0.66 | 0.95 | 1.31 | dB/m |
| Insertion Loss (Typ.) | 0.07 | 0.1 | 0.16 | 0.23 | 0.33 | dB/ft |
| | 0.23 | 0.33 | 0.52 | 0.75 | 1.08 | dB/m |

Electrical Specification Notes:

Insertion Loss does not include the loss of the connectors. Insertion Loss is estimated as 0.05dB x SQRT(Frequency GHz) per connector.



Configuration:

- SMA Male
- TNC Male
- LL142

Features:

- Max Frequency 18 GHz
- Shielding Effectivity > 95 dB
- 83% Phase Velocity
- Triple Shielded
- FEP Jacket
- 83% Velocity of Propagation (Vop)
- Shielding effectiveness >95 dB
- Maximum VSWR is < 1.45:1 to 18 GHz
- Minimum Bend Radius of 1 inch
- Operating Temperature range of -55 to +125°C
- 100% RF Tested
- Custom lengths available

Applications:

- General Purpose
- Laboratory Use
- Long Run coaxial cable applications
- Antenna testing
- Low loss system cables

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
sales@fairviewmicrowave.com

Mechanical Specifications
Cable Assembly

Length* 0 in [0 mm]
 Weight 0.056 lbs [25.4 g]

Cable

Cable Type LL142
 Impedance 50 Ohms
 Inner Conductor Type Solid
 Inner Conductor Material and Plating Copper, Silver
 Dielectric Type PTFE
 Number of Shields 3
 Shield Layer 1 Silver Plated Copper Tape
 Shield Layer 2 Aluminum Polyester
 Shield Layer 3 Silver Plated Copper Wire
 Jacket Material FEP, Green
 Jacket Diameter 0.195 in [4.95 mm]

One Time Minimum Bend Radius 1 in [25.4 mm]

Connectors

| Description | Connector 1 | Connector 2 |
|---------------------------------|----------------------------|----------------------------|
| Type | SMA Male | TNC Male |
| Specification | MIL-STD-348 | MIL-STD-348 |
| Impedance | 50 Ohms | 50 Ohms |
| Contact Material & Plating | Beryllium Copper, Gold | Beryllium Copper, Gold |
| Contact Plating Spec. | ASTM-B488 50μ In. Min | ASTM-B488, 50μ In. Minimum |
| Dielectric Type | PTFE | PEI |
| Body Material & Plating | Passivated Stainless Steel | Passivated Stainless Steel |
| Body Plating Spec. | SAE-AMS-2700 | SAE-AMS-2701 |
| Coupling Nut Material & Plating | Passivated Stainless Steel | Passivated Stainless Steel |
| Coupling Nut Plating Spec. | SAE-AMS-2700 | SAE-AMS-2701 |
| Hex Size | 5/16 Inch | 9/16 Inch |
| Torque | 8 in-lbs | 0.9 Nm |

Environmental Specifications
Temperature

Operating Range -55 to +125 deg C

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:

FMCA1245 - xx uu



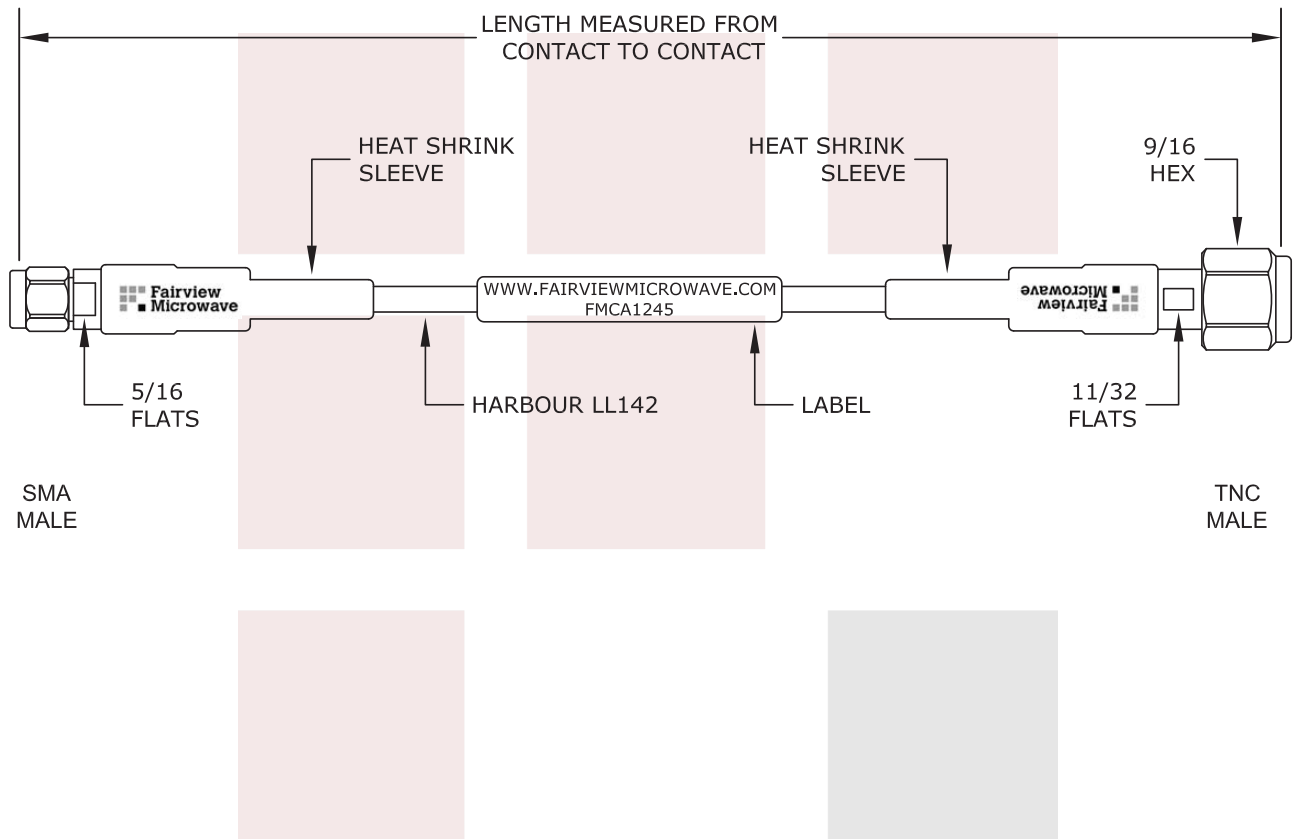
Example: FMCA1245-12 = 12 inches long cable
FMCA1245-100cm = 100 cm long cable

Low Loss SMA Male to TNC Male Cable LL142 Coax with LF Solder 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 Loss SMA Male to TNC Male Cable LL142 Coax with LF Solder FMCA1245](#)

URL: <https://www.fairviewmicrowave.com/low-loss-sma-male-tnc-male-cable-ll142-coax-fmca1245-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.



NOTE:
LABEL FOR CABLE LENGTHS 48" OR SHORTER TO BE CENTERED. LONGER THAN 48" WILL BE 6" AWAY FROM CONNECTOR.

| | | | | | |
|---|--------|---|---|--------------------|------|
| FAIRVIEW MICROWAVE INC. ALLEN, TX 75013 WWW.FAIRVIEWMICROWAVE.COM | | NOTES: 1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL. 2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME. 3. DIMENSIONS ARE IN INCHES [mm]. | | | |
| TITLE Low Loss SMA Male to TNC Male Cable LL142 Coax with LF Solder | | DWG NO FMCA1245 | | CAGE CODE 3FKR5 | |
| CAD FILE | 072116 | SHEET | | SCALE | N/A |
| | | SIZE | A | | 2233 |