

SMA Male to SMA Male Cable LL142 Coax with Heat Shrink in 12 inch length

The SMA male to SMA male 12 inch cable using LL142 coax, part number FMC00646-12, from Fairview Microwave is in-stock and ships same day. This Fairview SMA to SMA 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 FMC00646-12 SMA male to SMA male cable assembly operates to 18 GHz. The triple shielding of this Fairview cable assembly provides excellent shielding effectiveness.

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 | | | 1.35:1 | |
| Velocity of Propagation | | 80 | | % |
| 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 (Typ.) | 0.28 | 0.39 | 0.59 | 0.84 | 1.2 | 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 $0.1 * \sqrt{FGHz}$ dB per connector.

Mechanical Specifications

Cable Assembly

| | |
|---------|---------------------|
| Length* | 12 in [304.8 mm] |
| Weight | 0.046 lbs [20.87 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 |



Configuration:

- SMA Male
- SMA Male
- LL142

Features:

- Max Frequency 18 GHz
- 80% Phase Velocity
- Triple Shielded
- FEP Jacket
- 500 Mating Cycles

Applications:

- General Purpose
- Laboratory Use

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Jacket Diameter 0.195 in [4.95 mm]
Repeated Minimum Bend Radius 0.975 in [24.77 mm]

Connectors

| Description | Connector 1 | Connector 2 |
|---------------------------------|------------------------------------|----------------------------|
| Type | SMA Male | SMA Male |
| Specification | MIL-STD-348 | MIL-STD-348 |
| Impedance | 50 Ohms | 50 Ohms |
| Mating Cycles | 500 | 500 |
| Contact Material & Plating | Beryllium Copper, Gold over Nickel | |
| Contact Plating Spec. | 50 µin minimum | 50 µin minimum |
| Dielectric Type | PTFE | PTFE |
| Body Material & Plating | Passivated Stainless Steel | Passivated Stainless Steel |
| Body Plating Spec. | SAE-AMS-2700 | SAE-AMS-2700 |
| Coupling Nut Material & Plating | Passivated Stainless Steel | Passivated Stainless Steel |
| Coupling Nut Plating Spec. | SAE-AMS-2700 | SAE-AMS-2700 |
| Hex Size | 5/16 inch | 5/16 inch |
| Torque | 7 in-lbs 0.79 Nm | 7 in-lbs 0.79 Nm |

Environmental Specifications
Temperature

Operating Range -55 to +165 deg C

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

Plotted and Other Data

Notes:

How to Order

Part Number Configuration:

FMC00646 - xx uu

cm = Centimeters
<blank> = Inches
Length

Example: FMC00646-12 = 12 inches long cable
FMC00646-100cm = 100 cm long cable

SMA Male to SMA Male Cable LL142 Coax with Heat Shrink in 12 inch length 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.

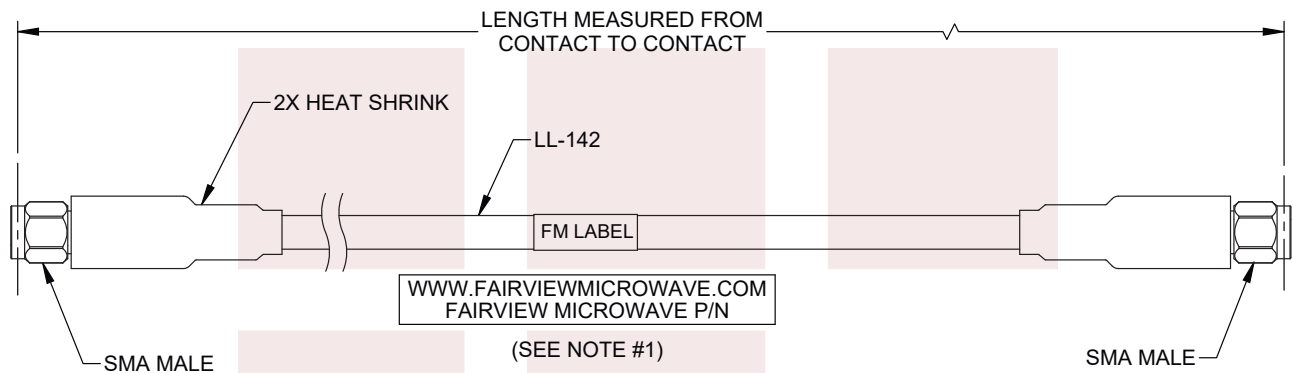
Click the following link to obtain additional part information: [SMA Male to SMA Male Cable LL142 Coax with Heat Shrink in 12 inch length FMC00646-12](#)

URL: <https://www.fairviewmicrowave.com/sma-male-to-sma-male-cable-ll142-coax-in-12-inch-fmc00646-12-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.





| REVISIONS | | | |
|-----------|-----------------|------------|----------|
| REV. | DESCRIPTION | DATE | APPROVED |
| A | INITIAL RELEASE | 11/11/2021 | SRAUTS |



- NOTES:
1. CABLES 36" AND UNDER HAVE 1 LABEL CENTERED.
CABLES OVER 36" HAVE 2 LABELS, ONE AT EACH END
6.0" FROM THE END OF THE CONNECTOR.

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| | | | | | | |
|--|---|---|---|---|----------------------|----------|
|  Fairview Microwave an INFINIT [®] brand | UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [] ARE MILLIMETERS | | THIRD-ANGLE PROJECTION  | | | |
| | TOLERANCES: | | CABLE LENGTH (L) TOLERANCES: | | | |
| .X = ±.2 [5.08] FRACTIONS ± 1/32 .XX = ±.02 [.51] ± 1/32 .XXX = ±.005 [.13] ANGLES ± 1° | | L ≤ 12 [305] = +1 [25] / -0 12 [305] < L ≤ 60 [1524] = +2 [51] / -0 60 [1524] < L ≤ 120 [3048] = +4 [102] / -0 120 [3048] < L ≤ 300 [7620] = +6 [152] / -0 300 [7620] < L = +5%L / -0 | | THE INFORMATION AND DESIGN IN THIS DOCUMENT IS THE PROPERTY OF FAIRVIEW MICROWAVE CORPORATION. ALL RIGHTS RESERVED. SHEET 1 OF 1 | | |
| TITLE SMA Male to SMA Male Cable LL142 Coax with Heat Shrink in 12 inch length | | | SCALE N/A | | | |
| ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY. | | SIZE A | CAGE CODE 3FKR5 | DRAWN BY DMAY | ITEM NO. FMC00646 | REV A |

T-Rev.D