

# SCE18110101-50CM DATA SHEET

# SMA Male to SMA Male Cable LL142 Coax in 50 CM with LF Solder

The SMA male to SMA male 50 cm cable using LL142 coax, part number SCE18110101-50CM, 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 SCE18110101-50CM SMA male to SMA 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 SCE18110101 cable assemblies use durable stainless steel connectors and an FEP jacket. The connector/cable interface has double heatshrink 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 SCE18110101 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**

| Min | Min Typ    |        | Units              |
|-----|------------|--------|--------------------|
| DC  |            | 18     | GHz                |
|     |            | 1.35:1 |                    |
|     | 83         |        | %                  |
| 95  |            |        | dB                 |
|     | 25 [82.02] |        | pF/ft [pF/m]       |
|     | DC         | DC 83  | DC 18 1.35:1 83 95 |

### **Performance by Frequency**

| Description           | F1   | F2   | F3   | F4   | F5   | Units |
|-----------------------|------|------|------|------|------|-------|
| Frequency             | 1    | 2    | 4.5  | 9    | 18   | GHz   |
| Insertion Loss (Max.) | 0.58 | 0.64 | 0.74 | 0.88 | 1.06 | dB    |
| Insertion Loss (Typ.) | 0.53 | 0.58 | 0.67 | 0.78 | 0.94 | dB    |

#### **Mechanical Specifications**

#### **Cable Assembly**

Length\* 19.685 in [500 mm] Weight 0.12 lbs [54.43 g]

Cable

Cable Type LL142 Impedance 50 Ohms



## **Configuration:**

- SMA Male
- SMA 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 < 1.35:1 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

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# SCE18110101-50CM **DATA SHEET**

Inner Conductor Type

Inner Conductor Material and Plating

Dielectric Type Number of Shields

Shield Layer 1 Shield Layer 2 Shield Layer 3

Jacket Diameter

Jacket Material

Solid

Copper, Silver

PTFE 3

Silver Plated Copper Tape Aluminum Polyester Silver Plated Copper Wire

FEP, Green

0.195 in [4.95 mm]

Repeated Minimum Bend Radius 1 in [25.4 mm]

#### **Connectors**

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

SCE18110101 - xx uu cm = Centimeters <br/><br/>lank> = Inches - Length

Example: SCE18110101-12 = 12 inches long cable

SCE18110101-100cm = 100 cm long cable

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SMA Male to SMA Male Cable LL142 Coax in 50 CM 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.

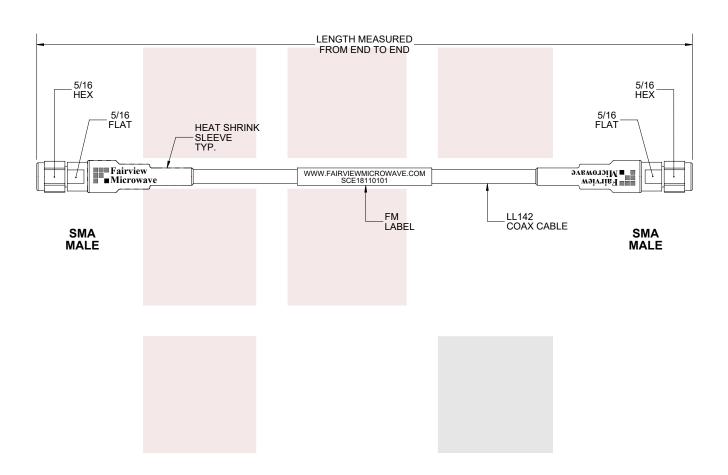
Click the following link to obtain additional part information: SMA Male to SMA Male Cable LL142 Coax in 50 CM with LF Solder SCE18110101-50CM

URL: https://www.fairviewmicrowave.com/sma-male-to-sma-male-cable-ll142-coax-in-50-cm-with-lf-solder-sce18110101-50cm-p.aspx



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STANDARD TOLERANCES

.X  $\pm 0.2$ .XX  $\pm 0.01$ .XXX  $\pm 0.005$ 

\*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

| 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]. |              |      |                 |        |      |
|--|---|--------------|------|-----------------|--------|------|
| SMA Male to SMA Male Cable LL142 Coax in 50 CM with LF Solder      | DWG NO SCE18110101  |              |      | CAGE CODE 3FKR5 |        |      |
|  | CAD FILE 071717   | SHEET 1 OF 1 | SCAL | E N/A           | SIZE A | 9999 |