

## Low Loss SMA Male to SMA Male Cable LL142 Coax and RoHS

The SMA male to SMA male cable using LL142 coax, part number SCE18110101, 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 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 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 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

Description	Min	Typ	Max	Units
Frequency Range	DC		18	GHz
VSWR			1.35:1	
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	0.1	0.2	0.3	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 0.1dB per connector.



### 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
- RoHS and REACH Compliant
- 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](http://www.fairviewmicrowave.com)  
[sales@fairviewmicrowave.com](mailto:sales@fairviewmicrowave.com)

## Mechanical Specifications

### Cable Assembly

Diameter	0.37 in [9.4 mm]
Weight	0.085 lbs [38.56 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]
Repeated Minimum Bend Radius	1 in [25.4 mm]

### Connectors

Description	Connector 1	Connector 2
Type	SMA Male	SMA 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 50 $\mu$ In. Min	ASTM-B488 50 $\mu$ In. 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	8 in-lbs 0.9 Nm	8 in-lbs 0.9 Nm

## Environmental Specifications

### Temperature

Operating Range	-55 to +125 deg C
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## 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  
                                        <blank> = Inches  
└──────────────────────────────────┘ Length

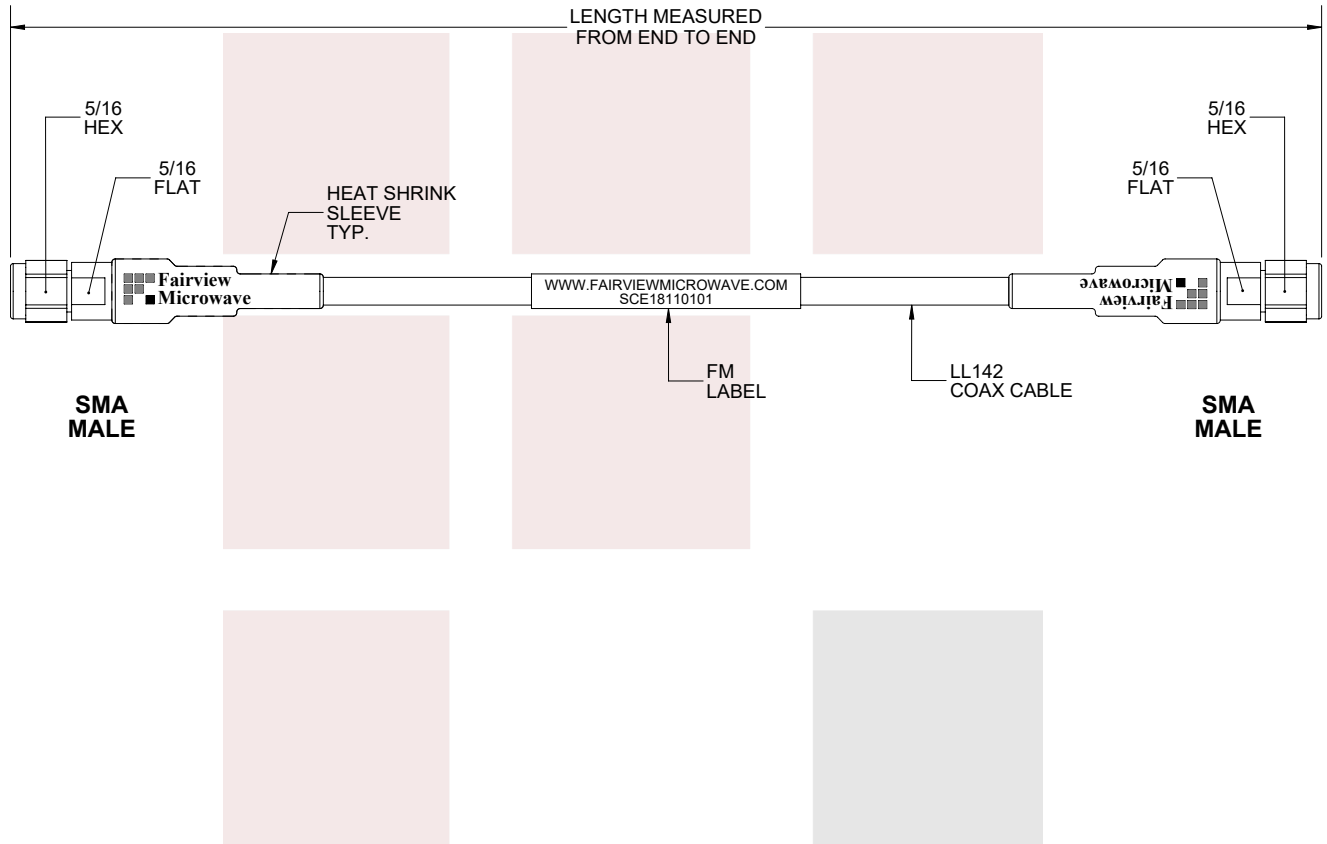
Example: SCE18110101-12 = 12 inches long cable  
SCE18110101-100cm = 100 cm long cable

Low Loss SMA Male to SMA Male Cable LL142 Coax and RoHS 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 SMA Male Cable LL142 Coax and RoHS SCE18110101](https://www.fairviewmicrowave.com/low-loss-sma-male-sma-male-cable-ll142-coax-sce18110101-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.



STANDARD TOLERANCES	
.X	±0.2
.XX	±0.01
.XXX	±0.005

\*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

<b>FAIRVIEW MICROWAVE INC.</b> 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 SMA Male Cable LL142 Coax and RoHS		DWG NO SCE18110101		CAGE CODE 3FKR5
CAD FILE	071717	SHEET	1 OF 1	SCALE N/A SIZE A 9999