

## Low Loss SMA Male to SMA Female Bulkhead Cable LMR-195 Coax in 12 Inch

The SMA male to SMA female bulkhead cable using LMR-195 coax, part number FMC00117-12, from Fairview Microwave is in-stock and ships same day. This Fairview SMA to SMA cable assembly has a male to female gender configuration with 50 ohm flexible LMR-195 coax. Fairview Microwave's flexible RF cable assemblies are ideal for applications where tight bends and continual flexure are required. The FMC00117-12 SMA male to SMA female cable assembly operates to 5.8 GHz. Our RF cable assembly with SMA 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. The double shielding of this Fairview cable assembly provides excellent shielding effectiveness of better than 90 dB.

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.



### Configuration:

- SMA Male
- SMA Female Bulkhead
- LMR-195

### Features:

- Max Frequency 5.8 GHz
- Shielding Effectivity > 90 dB
- 80% Phase Velocity
- Double Shielded
- PE Jacket

### Applications:

- General Purpose
- Laboratory Use
- Antenna Installations
- Land Mobile Radio & Other Communication Systems
- Cellular & Wi-Fi Systems

### Electrical Specifications

Description	Min	Typ	Max	Units
Frequency Range	DC		5.8	GHz
VSWR			1.4:1	
Velocity of Propagation		80		%
RF Shielding	90			dB
Group Delay		1.27 [4.17]		ns/ft [ns/m]
Capacitance		25.4 [83.33]		pf/ft [pF/m]
Inductance		0.064 [0.21]		uH/ft [uH/m]
DC Resistance Inner Conductor		7.6 [24.93]		Ω/1000ft [Ω/Km]
DC Resistance Outer Conductor		4.9 [16.08]		Ω/1000ft [Ω/Km]
Jacket Spark		3,000		Vrms

### Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency	0.25	0.5	1	2.5	5.8	GHz
Insertion Loss (Typ.)	0.25	0.28	0.31	0.38	0.49	dB/ft
	0.82	0.92	1.02	1.25	1.61	dB/m

#### 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 for the straight connector

### Mechanical Specifications

#### Cable Assembly

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**Cable**

Cable Type	LMR-195
Impedance	50 Ohms
Inner Conductor Type	Solid
Inner Conductor Material and Plating	Copper
Dielectric Type	PE (F)
Number of Shields	2
Shield Layer 1	Aluminum Tape
Shield Layer 2	Tinned Copper Braid
Jacket Material	PE, Black
Jacket Diameter	0.195 in [4.95 mm]

One Time Minimum Bend Radius	0.5 in [12.7 mm]
Repeated Minimum Bend Radius	2 in [50.8 mm]
Bending Moment	0.2 lbs-ft [0.27 N-m]
Flat Plate Crush	15 lbs/in [0.27 Kg/mm]
Tensile Strength	40 lbs [18.14 Kg]

**Connectors**

Description	Connector 1	Connector 2
Type	SMA Male	SMA Female
Mount Method		Bulkhead
Specification		MIL-STD-348A
Impedance	50 Ohms	50 Ohms
Contact Material & Plating	Brass, Gold	Beryllium Copper, Gold
Contact Plating Spec.	ASTM B488	50 $\mu$ in minimum
Dielectric Type	PTFE	PTFE
Outer Cond Material & Plating	Passivated Stainless Steel	Passivated Stainless Steel
Body Material & Plating	Passivated Stainless Steel	
Coupling Nut Material & Plating	Passivated Stainless Steel	
Hex Size	5/16 Inch	5/16 inch

**Environmental Specifications**
**Temperature**

Operating Range	-40 to +85 deg C
Storage Range	-70 to +85 deg C

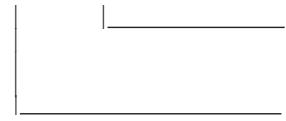
**Compliance Certifications** (see [product page](#) for current document)

**Plotted and Other Data**

Notes:

**How to Order**

Part Number Configuration:

**FMC00117 - xx uu**


cm = Centimeters  
 <blank> = Inches  
 Length

Example: FMC00117-12 = 12 inches long cable  
 FMC00117-100cm = 100 cm long cable

Low Loss SMA Male to SMA Female Bulkhead Cable LMR-195 Coax in 12 Inch 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.

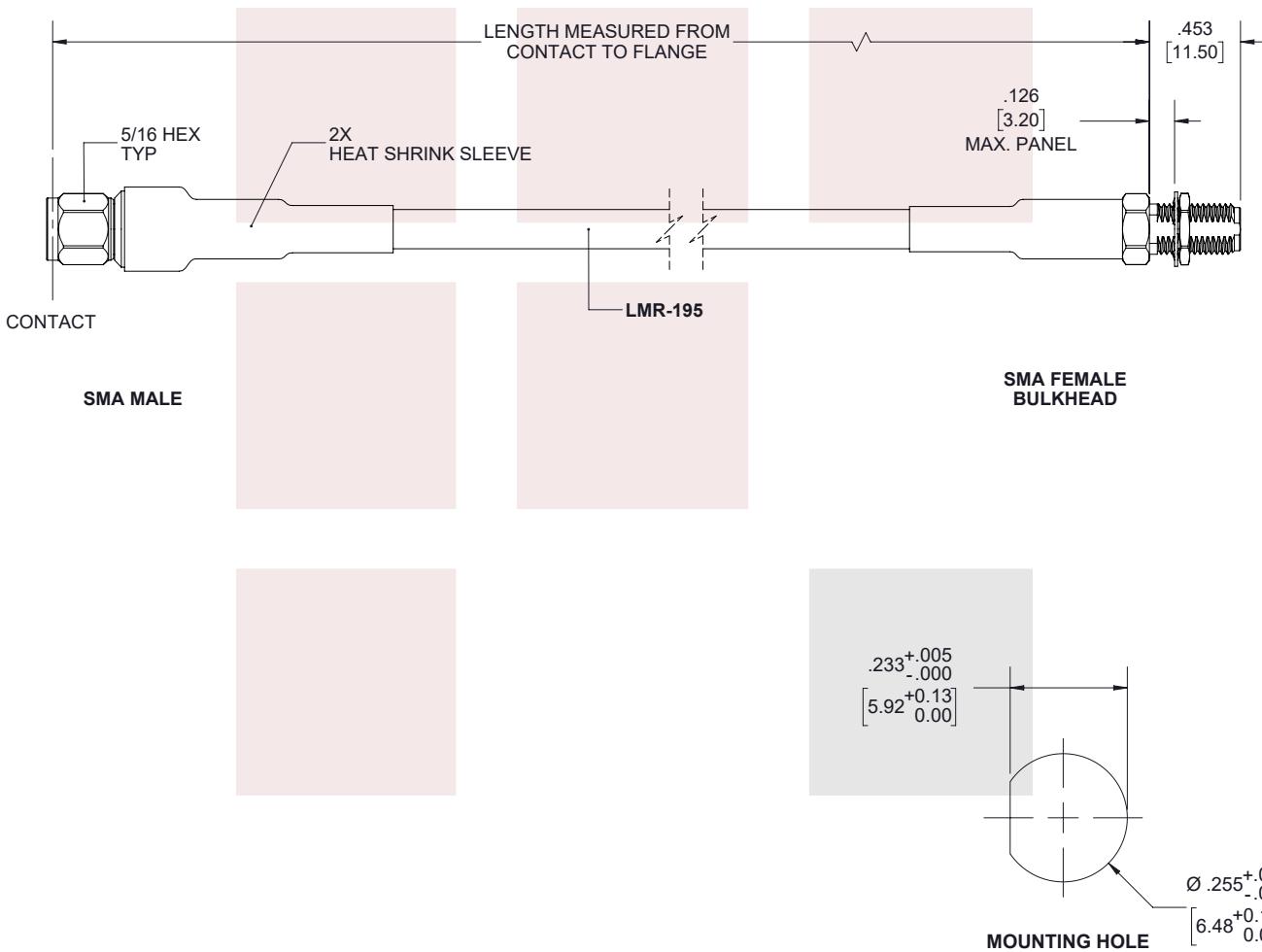
Click the following link to obtain additional part information: [Low Loss SMA Male to SMA Female Bulkhead Cable LMR-195 Coax in 12 Inch FMC00117-12](#)

URL: <https://www.fairviewmicrowave.com/low-loss-sma-male-sma-female-cable-lmr195-coax-fmc00117-12-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	2/10/2020	S.ELLIS



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	TOLERANCES:	CABLE LENGTH (L) TOLERANCES:	
.X = ± 2 [5.08] FRACTIONS .XX = ± .02 [.51] ± 1/32 .XXX = ± .005 [.13] ANGLES ± 1°		L ≤ 12 [305] = +1 [25] / -0 60 [1524] < L ≤ 120 [3048] = +4 [102] / -0 120 [3048] < L ≤ 300 [7620] = +6 [152] / -0 300 [7620] < L = +5%L / -0	
ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.		SCALE	N/A
SIZE A	CAGE CODE 3FKR5	DRAWN BY K.DANG	ITEM NO. FMC00117
			REV A

T-Rev.D