

Low Loss SMA Female Bulkhead to RA SMA Male Cable LMR-195 Coax

The SMA female bulkhead to RA SMA male cable using LMR-195 coax, part number FMCA3178, from Fairview Microwave is in-stock and ships same day. This Fairview SMA to SMA cable assembly has a female to male 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 FMCA3178 SMA female to SMA male cable assembly operates to 5.8 GHz. The right angle SMA interface on the LMR-195 cable allows for easier connections in tight spaces. 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.

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.)	0.057	0.081	0.115	0.19	0.299	dB/ft
	0.19	0.27	0.38	0.62	0.98	dB/m

Electrical Specification Notes:

Insertion Loss does not include the loss of the connectors. Insertion Loss is estimated as 0.1 dB for the straight connector and 0.2 dB for the right angle connector.

Mechanical Specifications

Cable Assembly

Weight 0.06 lbs [27.22 g]



Configuration:

- SMA Female Bulkhead
- SMA Male Right Angle
- LMR-195

Features:

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

Applications:

- General Purpose
- Laboratory Use

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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 Female	SMA Male
Mount Method	Bulkhead	
Specification	MIL-STD-348	MIL-STD-348A
Impedance	50 Ohms	50 Ohms
Contact Material & Plating	Beryllium Copper, Gold	Brass, Gold
Contact Plating Spec.	50 µin minimum	50 µin minimum
Dielectric Type	PTFE	PTFE
Body Material & Plating	Brass, Gold	Brass, Gold
Body Plating Spec.	3 µin minimum	3 µin minimum
Coupling Nut Material & Plating		Brass, Gold
Coupling Nut Plating Spec.		3 µin minimum
Hex Size		5/16 inch
Torque		3 in-lbs 0.34 Nm

Environmental Specifications
Temperature

Operating Range	-20 to +80 deg C
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Compliance Certifications (see [product page](#) for current document)

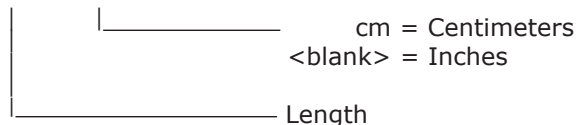
Plotted and Other Data

Notes:

How to Order

Part Number Configuration:

FMCA3178 - xx uu



Example: FMCA3178-12 = 12 inches long cable
FMCA3178-100cm = 100 cm long cable

Low Loss SMA Female Bulkhead to RA SMA Male Cable LMR-195 Coax 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 Female Bulkhead to RA SMA Male Cable LMR-195 Coax FMCA3178](#)

URL: <https://www.fairviewmicrowave.com/low-loss-sma-female-bulkhead-to-ra-sma-male-cable-lmr-195-coax-fm-ca3178-p.aspx>

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