

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



FMC00128

Configuration

- Connector 1: SMA Female Bulkhead
- Connector 2: TNC Male
- Cable Type: LMR-195
- Coax Flex Type: Flexible

Features

- Max Frequency 4 GHz
- Shielding Effectivity > 90 dB
- 80% Phase Velocity
- Double Shielded
- PE Jacket

Applications

- General Purpose
- Laboratory Use

Description

The SMA female bulkhead to TNC male cable using LMR-195 coax, part number FMC00128, from Fairview Microwave is in-stock and ships same day. This Fairview SMA to TNC 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 FMC00128 SMA female to TNC male cable assembly operates to 4 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.

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		4	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]		Ohms/1000ft [Ohms/Km]
DC Resistance Outer Conductor		4.9 [16.08]		Ohms/1000ft [Ohms/Km]

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Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Jacket Spark			3,000	Vrms

Specifications by Frequency

Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
			Frequency					MHz	
FMC00128	Custom Lengths Available	Insertion Loss (Typ.)	0.03	0.06	0.081	0.116	0.239	dB/ft	
			0.12	0.19	0.27	0.39	0.79	dB/m	
FMC00128-12	12 inch	Insertion Loss (Typ.)	0.24	0.26	0.29	0.32	0.44	dB	0.075
FMC00128-24	24 inch	Insertion Loss (Typ.)	0.27	0.32	0.37	0.44	0.68	dB	0.098
FMC00128-36	36 inch	Insertion Loss (Typ.)	0.31	0.38	0.45	0.55	0.92	dB	0.12
FMC00128-48	48 inch	Insertion Loss (Typ.)	0.34	0.43	0.53	0.67	1.16	dB	0.142
FMC00128-60	60 inch	Insertion Loss (Typ.)	0.37	0.49	0.61	0.78	1.4	dB	0.164

The insertion loss data for the base model does not include loss due to the connectors. Each length includes insertion loss due to the connectors.

Loss due to Connector 1:	0.1 dB
Loss due to Connector 2:	0.1 dB
Base Weight:	0.075 pounds
Additional Weight per Inch:	0.00184 pounds

Mechanical Specifications

Cable Assembly

Weight 0.075 lbs [34.02 g]

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]

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Connectors

Description	Connector 1	Connector 2
Type	SMA Female Bulkhead	TNC Male
Specification	MIL-STD-348A	MIL-STD-348A
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Contact Material and Plating	Beryllium Copper, Gold	Brass, Gold
Contact Plating Specification	50 µin minimum	30 µin minimum
Dielectric Type	PTFE	PTFE
Outer Conductor Material and Plating	Passivated Stainless Steel	
Body Material and Plating		Brass, Nickel
Body Plating Specification		100 µin minimum
Coupling Nut Material and Plating		Brass, Nickel
Coupling Nut Plating Specification		100 µin minimum
Hex Size	5/16 inch	

Environmental Specifications

Operating Range Temperature -40 to +85 deg C

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

Plotted and Other Data

Notes:

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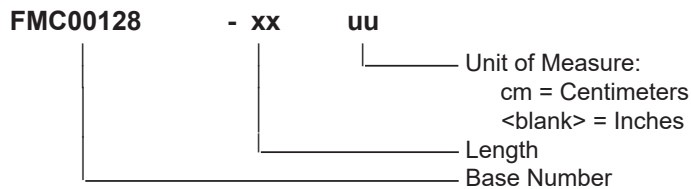


FMC00128

Typical Performance Data

How to Order

Part Number Configuration:



Example: FMC00128-12 = 12 inches long cable
FMC00128-100cm = 100 cm long cable

Low Loss SMA Female Bulkhead to TNC Male Cable LMR-195 Coax from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

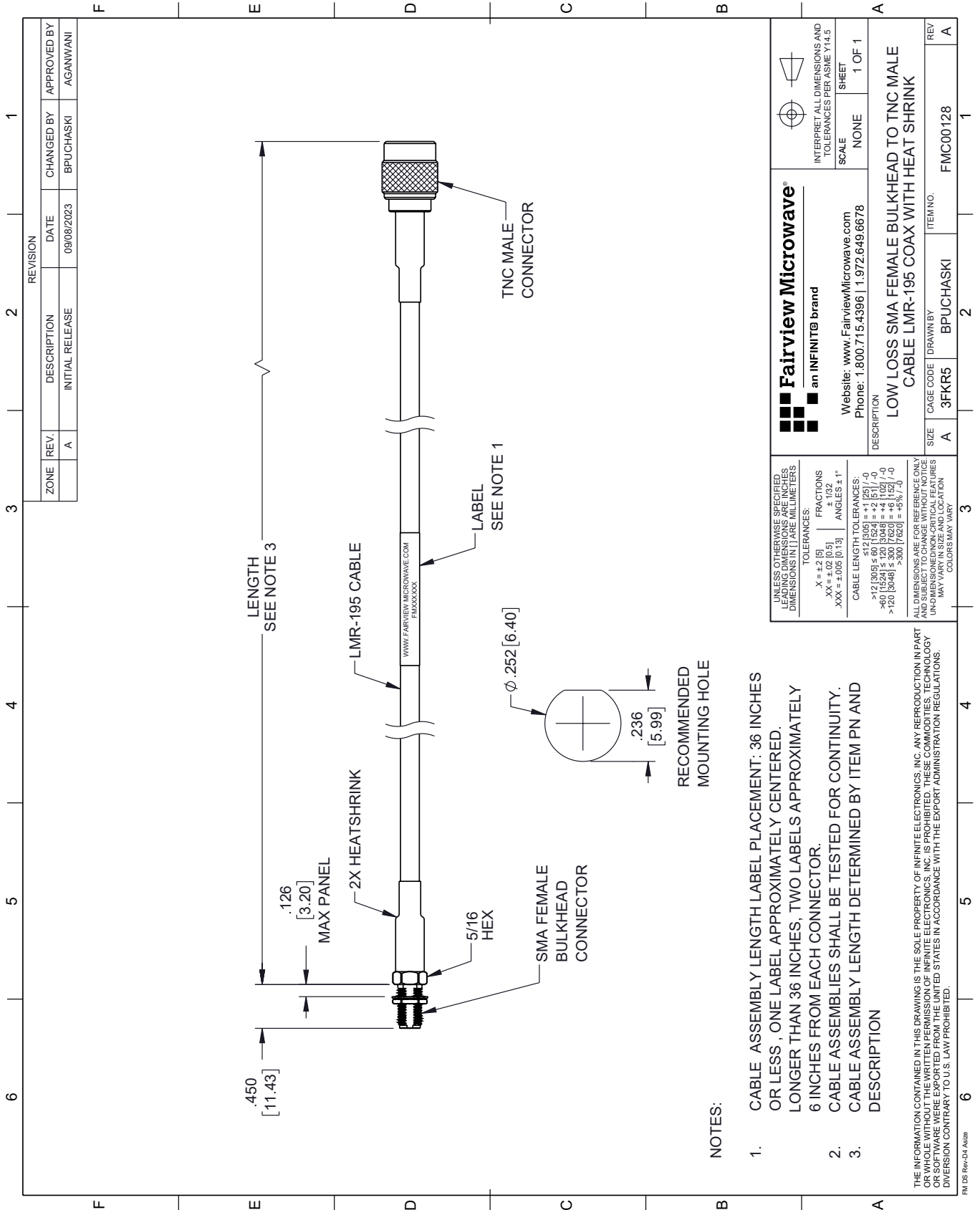
For additional information on this product, please click the following link: [Low Loss SMA Female Bulkhead to TNC Male Cable LMR-195 Coax FMC00128](#)

URL: <https://www.fairviewmicrowave.com/low-loss-sma-female-bulkhead-to-tnc-male-cable-lmr-195-coax-fmc00128-p.aspx>

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FMC00128 CAD Drawing

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



REVISION		DATE	CHANGED BY	APPROVED BY
ZONE	REV.	DESCRIPTION		
	A	INITIAL RELEASE	BPUCHASKI	AGANWANI

 an INFINIT® brand		Website: www.FairviewMicrowave.com Phone: 1.800.715.4396 1.972.649.6678	INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5 SCALE: NONE SHEET: 1 OF 1
DESCRIPTION LOW LOSS SMA FEMALE BULKHEAD TO TNC MALE CABLE LMR-195 COAX WITH HEAT SHRINK			
SIZE	CAGE CODE	ITEM NO.	REV
A	3FKR5	FMC00128	A

- NOTES:**
- CABLE ASSEMBLY LENGTH LABEL PLACEMENT: 36 INCHES OR LESS, ONE LABEL APPROXIMATELY CENTERED. LONGER THAN 36 INCHES, TWO LABELS APPROXIMATELY 6 INCHES FROM EACH CONNECTOR.
 - CABLE ASSEMBLIES SHALL BE TESTED FOR CONTINUITY.
 - CABLE ASSEMBLY LENGTH DETERMINED BY ITEM PN AND DESCRIPTION

UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES AND DIMENSIONS IN [] ARE MILLIMETERS.

TOLERANCES:

X = ±.2 [5] FRACTIONS ± 1/32
 .XX = ±.02 [0.51] ANGLES ± 1°
 .XXX = ±.005 [0.13]

CABLE LENGTH TOLERANCES:

>12 [305] ≤ 60 [1524] = ±.12 [3.05] / -0
 >60 [1524] ≤ 120 [3048] = ±.4 [102] / -0
 >120 [3048] ≤ 300 [7620] = ±.8 [20.3] / -0

ALL DIMENSIONS ARE FOR REFERENCE ONLY. UNDIMENSIONED/NON-CRITICAL FEATURES MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY.

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