

Low Loss Space 2.92mm Female Bulkhead to 2.92mm Female Bulkhead Cable FM-R135LL Coax



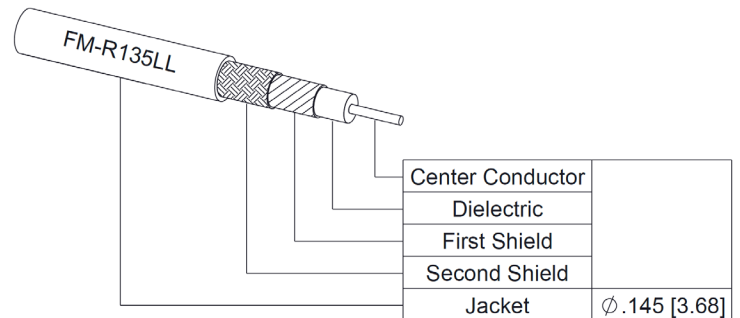
FMCA100019

Configuration

- Connector 1: 2.92mm Female Bulkhead
- Connector 2: 2.92mm Female Bulkhead
- Cable Type: FM-R135LL
- Coax Flex Type: Flexible

Features

- Max Frequency 40 GHz
- Shielding Effectivity > 100 dB
- 82% Phase Velocity
- Double Shielded
- ETFE Jacket
- Up to 300 Mrad of Radiation Resistance
- Low Outgassing (TML <1%, CVCM <1%) per ASTM E-595
- Operating Temperature -65 to +150 Deg C
- Built in a Facility with < 100,000 Particles/sq ft
- Built to IPC-A-620 Class 3



Applications

- General Purpose
- Laboratory Use
- Vacuum Environments
- Low Earth Orbit (LEO)
- Space (Exploration, Launches, Maintenance, Stations)
- Ground Systems
- Satellites

Description

The 2.92mm female bulkhead to 2.92mm female bulkhead cable using FM-R135LL coax, part number FMCA100019, from Fairview Microwave is in-stock and ships same day. This Fairview 2.92mm to 2.92mm cable assembly has a female to female gender configuration with 50 ohm flexible FM-R135LL coax. Fairview Microwave's flexible RF cable assemblies are ideal for applications where tight bends and continual flexure are required. The FMCA100019 2.92mm female to 2.92mm female cable assembly operates to 40 GHz. Our RF cable assembly with 2.92mm 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 100 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		40	GHz
VSWR			1.4:1	
Velocity of Propagation		82		%
RF Shielding	100			dB

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Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Capacitance		25 [82.02]		pF/ft [pF/m]

Specifications by Frequency

Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
			Frequency					MHz	
FMCA100019	Custom Lengths Available	Insertion Loss (Typ.)	0.161	0.237	0.35	0.528	0.808	dB/ft	
			0.53	0.78	1.15	1.74	2.66	dB/m	
FMCA100019-12	12 Inch	Insertion Loss (Typ.)	0.37	0.44	0.55	0.73	1.01	dB	0.076
FMCA100019-18	18 Inch	Insertion Loss (Typ.)	0.45	0.56	0.73	1	1.42	dB	0.09
FMCA100019-24	24 Inch	Insertion Loss (Typ.)	0.53	0.68	0.9	1.26	1.82	dB	0.103
FMCA100019-100CM	100 CM	Insertion Loss (Typ.)	0.73	0.98	1.35	1.94	2.86	dB	0.136
FMCA100019-200CM	200 CM	Insertion Loss (Typ.)	1.26	1.76	2.5	3.67	5.51	dB	0.221

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:	0.076 pounds
Additional Weight per Inch:	0.00217 pounds

Mechanical Specifications

Cable Assembly

Width/Diameter	0.437 in [11.1 mm]
Weight	0.076 lbs [34.47 g]

Cable

Cable Type	FM-R135LL
Impedance	50 Ohms
Inner Conductor Type	Solid
Inner Conductor Material and Plating	Copper, Silver
Dielectric Type	PTFE
Number of Shields	2
Shield Layer 1	Silver plated copper
Shield Layer 2	Silver plated copper
Jacket Material	ETFE, Black
Jacket Diameter	0.145 in [3.68 mm]
One Time Minimum Bend Radius	1.08 in [27.43 mm]

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Connectors

Description	Connector 1	Connector 2
Type	2.92mm Female Bulkhead	2.92mm Female Bulkhead
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Contact Material and Plating	Beryllium Copper, Gold	Beryllium Copper, Gold
Contact Plating Specification	30 µin minimum	30 µin minimum
Dielectric Type	PTFE	PTFE
Body Material and Plating	Stainless Steel, Passivated	Stainless Steel, Passivated

Environmental Specifications

Operating Range Temperature -65 to +150 deg C

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

Plotted and Other Data

Notes:
Values at 25°C, sea level.

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FMCA100019

Typical Performance Data

How to Order

Part Number Configuration:

FMCA100019

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Example: FMCA100019-12 = 12 inches long cable
FMCA100019-100cm = 100 cm long cable

Low Loss Space 2.92mm Female Bulkhead to 2.92mm Female Bulkhead Cable FM-R135LL 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.

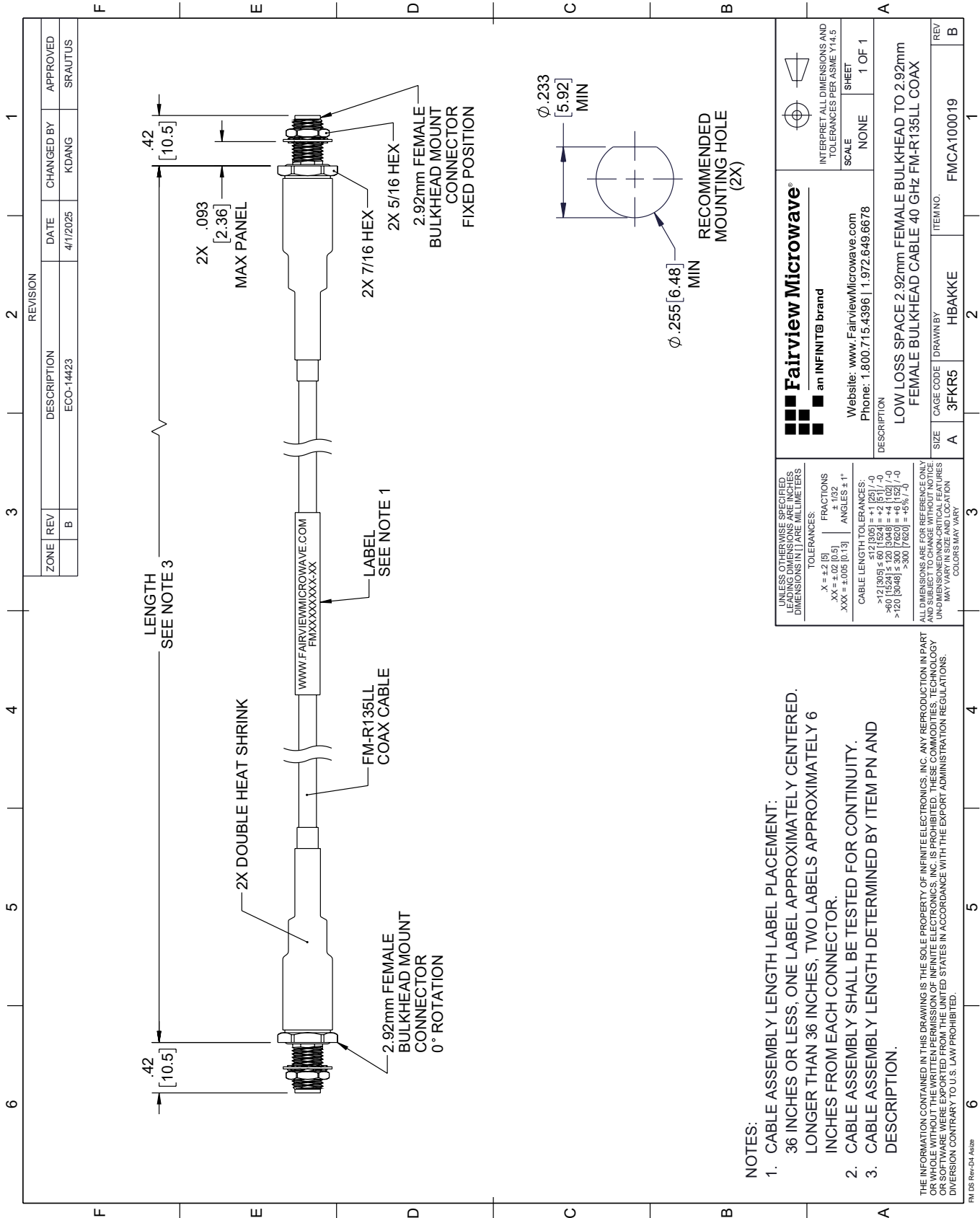
For additional information on this product, please click the following link: [Low Loss Space 2.92mm Female Bulkhead to 2.92mm Female Bulkhead Cable FM-R135LL Coax FMCA100019](#)

URL: <https://www.fairviewmicrowave.com/low-loss-space-2.92mm-female-bulkhead-to-2.92mm-female-bulkhead-cable-fm-r135ll-coax-fmca100019-p.aspx>

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FMCA100019 CAD Drawing

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NOTES:

1. 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.
2. CABLE ASSEMBLY SHALL BE TESTED FOR CONTINUITY.
3. CABLE ASSEMBLY LENGTH DETERMINED BY ITEM PN AND DESCRIPTION.

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FM DS Rev-D4 A12/25

UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES, DIMENSIONS IN [] ARE MILLIMETERS	
TOLERANCES:	FRACTIONS
.X = ±.2 [5]	± 1/32
.XX = ±.02 [0.5]	± 1/32
.XXX = ±.005 [0.13]	ANGLES ± 1°
CABLE LENGTH TOLERANCES:	
>12 [305] ≤ 60 [1524]	± 1 [25] / -0
>60 [1524] ≤ 120 [3048]	± 4 [102] / -0
>120 [3048] ≤ 300 [7620]	± 8 [203] / -0
ALL DIMENSIONS ARE FOR REFERENCE ONLY. UNDIMENSIONED NON-CRITICAL FEATURES MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY.	

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INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5		SCALE: NONE SHEET: 1 OF 1
DESCRIPTION: LOW LOSS SPACE 2.92mm FEMALE BULKHEAD TO 2.92mm FEMALE BULKHEAD CABLE 40 GHz FM-R135LL COAX		
SIZE: A	CAGE CODE: 3FKR5	DRAWN BY: HBAKKE
ITEM NO.: FMCA100019		REV: B