

Low Loss Space 2.92mm Male to 2.92mm Male Cable FM-R135LL Coax

FMCA100017

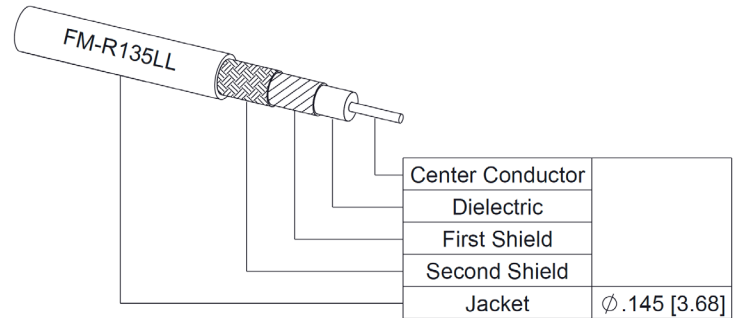


Configuration

- Connector 1: 2.92mm Male
- Connector 2: 2.92mm Male
- 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 male to 2.92mm male cable using FM-R135LL coax, part number FMCA100017, from Fairview Microwave is in-stock and ships same day. This Fairview 2.92mm to 2.92mm cable assembly has a male to male 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 FMCA100017 2.92mm male to 2.92mm male cable assembly operates to 40 GHz. 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
Capacitance		25 [82.02]		pF/ft [pF/m]

Specifications by Frequency

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Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
		Frequency	2500	5000	10000	20000	40000	MHz	
FMCA100017	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	
FMCA100017-12	12 Inch	Insertion Loss (Typ.)	0.37	0.44	0.55	0.73	1.01	dB	0.064
FMCA100017-18	18 Inch	Insertion Loss (Typ.)	0.45	0.56	0.73	1	1.42	dB	0.078
FMCA100017-24	24 Inch	Insertion Loss (Typ.)	0.53	0.68	0.9	1.26	1.82	dB	0.091
FMCA100017-100CM	100 CM	Insertion Loss (Typ.)	0.73	0.98	1.35	1.94	2.86	dB	0.124
FMCA100017-200CM	200 CM	Insertion Loss (Typ.)	1.26	1.76	2.5	3.67	5.51	dB	0.209

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:	0.064 pounds
Additional Weight per Inch:	0.00217 pounds

Mechanical Specifications

Cable Assembly

Width/Diameter	0.36 in [9.14 mm]
Weight	0.064 lbs [29.03 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]

Connectors

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

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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.

Typical Performance Data

How to Order

Part Number Configuration: **FMCA100017 - xx uu**

Unit of Measure:
cm = Centimeters
<blank> = Inches
Length
Base Number

Example: FMCA100017-12 = 12 inches long cable
FMCA100017-100cm = 100 cm long cable

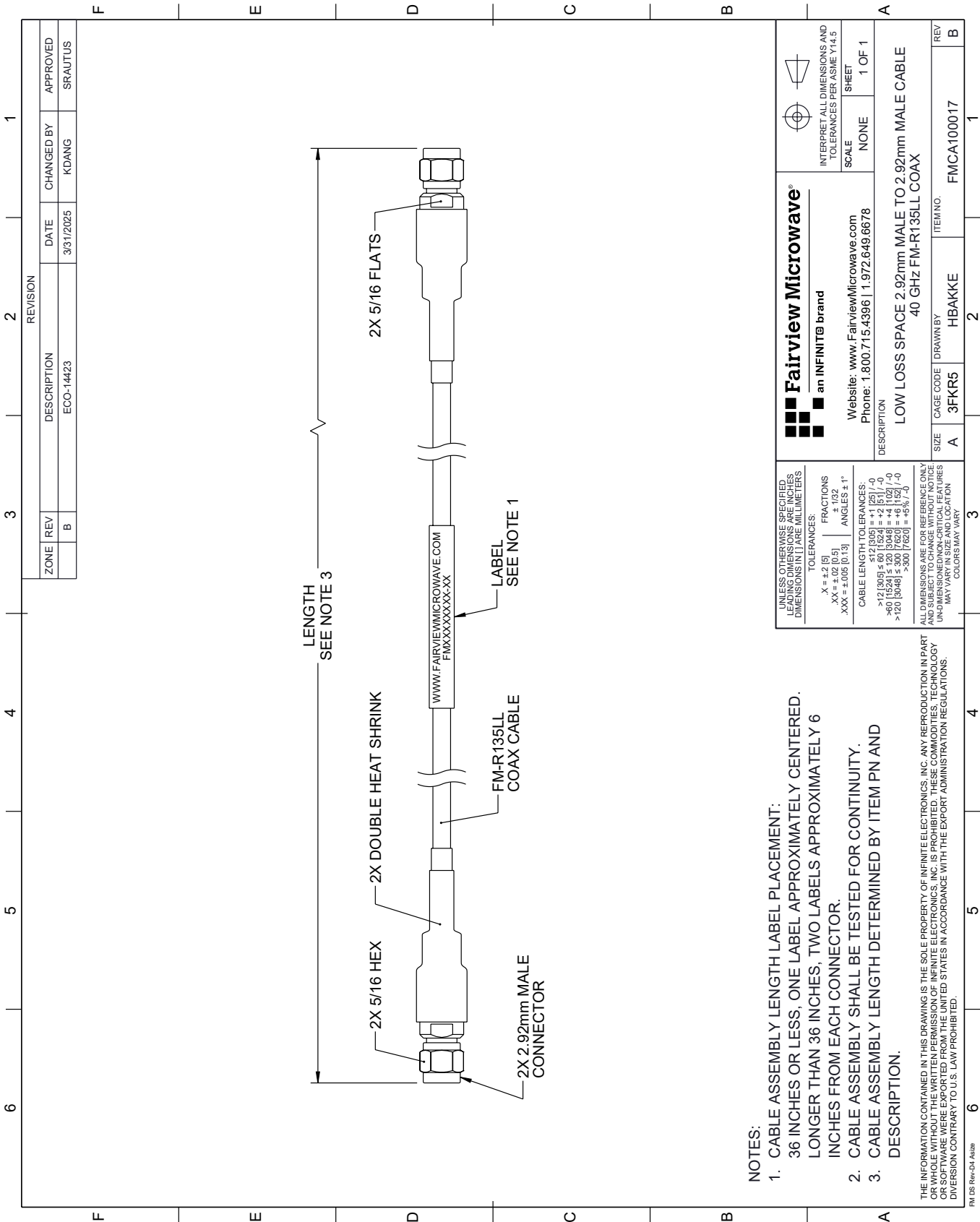
Low Loss Space 2.92mm Male to 2.92mm Male Cable FM-R135LL Coax from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [Low Loss Space 2.92mm Male to 2.92mm Male Cable FM-R135LL Coax FMCA100017](#)

URL: <https://www.fairviewmicrowave.com/low-loss-space-2.92mm-male-to-2.92mm-male-cable-fm-r135ll-coax-fm-ca100017-p.aspx>

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FMCA100017 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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DIMENSIONS IN [] ARE MILLIMETERS.

TOLERANCES:
X = ±.2 [5]
.XX = ±.02 [0.5]
.XXX = ±.005 [0.13]
FRACTIONS: ± 1/32
ANGLES: ± 1°

CABLE LENGTH TOLERANCES:
≤ 12 [305] = ±.01 [25]
> 12 [305] ≤ 60 [1524] = ±.02 [51]
> 60 [1524] ≤ 120 [3048] = ±.04 [102]
> 120 [3048] ≤ 300 [7620] = ±.06 [152]
> 300 [7620] = ±.08 [203]

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