

Low Loss Test 2.4mm Male to 2.4mm Female Cable FM-TC154A Coax

FMCA11025

Configuration

- Connector 1: 2.4mm Male
- Connector 2: 2.4mm Female
- Cable Type: FM-TC154A
- Coax Flex Type: Flexible

Features

- Max Frequency 40 GHz
- 77% Phase Velocity
- Double Shielded
- Ruggedized Aramid yarn Jacket
- Excellent Phase and Loss Stability with Flexure
- Low Loss Performance

Applications

- General Purpose
- Test & Measurement
- Laboratory Use
- VNA Test Port Extenders
- Semiconductor Probe Testing
- Precise Bench-Top Testing
- Lab and Production Testing

Description

The 2.4mm male to 2.4mm female cable using FM-TC154A coax, part number FMCA11025, from Fairview Microwave is in-stock and ships same day. This Fairview 2.4mm to 2.4mm cable assembly has a male to female gender configuration with 50 ohm flexible FM-TC154A coax. Fairview Microwave's flexible RF cable assemblies are ideal for applications where tight bends and continual flexure are required. The FMCA11025 2.4mm male to 2.4mm female cable assembly operates to 40 GHz. The double shielding of this Fairview cable assembly provides excellent shielding effectiveness.

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		77		%
Phase Stability with Flexure		14		Degrees
Loss Stability with Flexure		0.1		dB

Specifications by Frequency

Low Loss Test 2.4mm Male to 2.4mm Female Cable FM-TC154A Coax

FMCA11025

Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
		Frequency	2500	5000	10000	20000	40000	MHz	
FMCA11025	Custom Lengths Available	Insertion Loss (Typ.)	0.18	0.262	0.383	0.568	0.853	dB/ft	
			0.6	0.86	1.26	1.87	2.8	dB/m	
FMCA11025-12	12 In	Insertion Loss (Typ.)	0.31	0.45	0.64	0.93	1.36	dB	0.432
FMCA11025-24	24 In	Insertion Loss (Typ.)	0.49	0.71	1.02	1.5	2.22	dB	0.464
FMCA11025-36	36 In	Insertion Loss (Typ.)	0.67	0.97	1.41	2.07	3.07	dB	0.496
FMCA11025-100CM	100 CM	Insertion Loss (Typ.)	0.72	1.04	1.51	2.23	3.31	dB	0.505
FMCA11025-150CM	150 CM	Insertion Loss (Typ.)	1.02	1.47	2.14	3.16	4.71	dB	0.557

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: 0.4*SQRT(FGHz) dB
 Loss due to Connector 2: 0.4*SQRT(FGHz) dB
 Base Weight: 0.432 pounds
 Additional Weight per Inch: 0.002667 pounds

Mechanical Specifications

Cable Assembly

Width/Diameter 0.5 in [12.7 mm]
 Weight 0.432 lbs [195.95 g]

Cable

Cable Type FM-TC154A
 Impedance 50 Ohms
 Inner Conductor Type Stranded
 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 Braid
 Jacket Material Ruggedized Aramid yarn
 Jacket Diameter 0.213 in [5.41 mm]
 Repeated Minimum Bend Radius 0.98 in [24.89 mm]

Low Loss Test 2.4mm Male to 2.4mm
Female Cable FM-TC154A Coax

FMCA11025

Connectors

Description	Connector 1	Connector 2
Type	2.4mm Male	2.4mm Female
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Contact Material and Plating	Beryllium Copper, Gold	Beryllium Copper, Gold
Dielectric Type	Polystyrene	Polystyrene
Outer Conductor Material and Plating		Passivated Stainless Steel
Body Material and Plating	Passivated Stainless Steel	Passivated Stainless Steel
Coupling Nut Material and Plating	Passivated Stainless Steel	

Environmental Specifications

Operating Range Temperature -40 to +100 deg C

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

Plotted and Other Data

Notes:

Low Loss Test 2.4mm Male to 2.4mm Female Cable FM-TC154A Coax

FMCA11025

Typical Performance Data

How to Order

Part Number Configuration: **FMCA11025 - xx uu**

Unit of Measure:
cm = Centimeters
<blank> = Inches

Length

Base Number

Example: FMCA11025-12 = 12 inches long cable
FMCA11025-100cm = 100 cm long cable

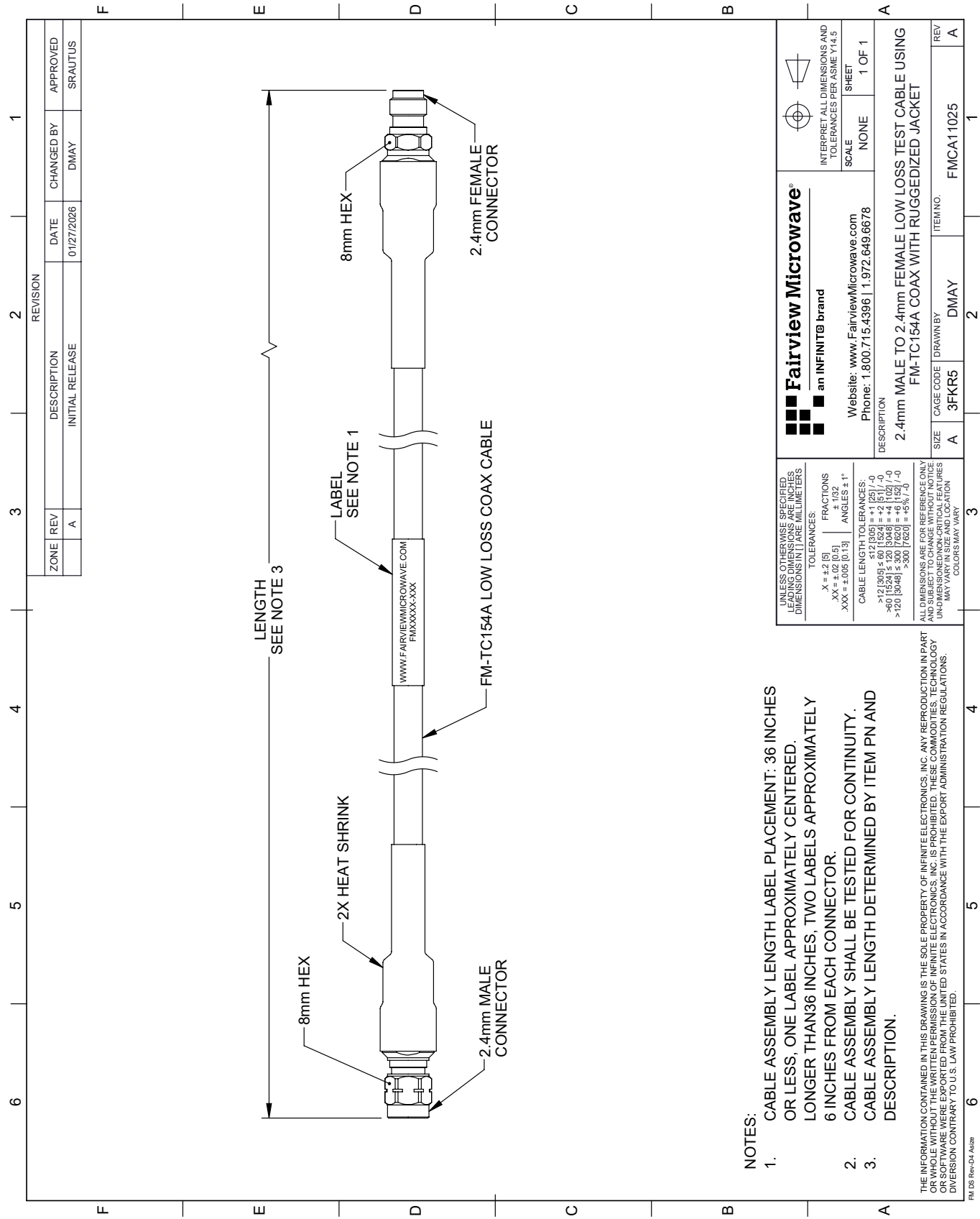
Low Loss Test 2.4mm Male to 2.4mm Female Cable FM-TC154A Coax from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [Low Loss Test 2.4mm Male to 2.4mm Female Cable FM-TC154A Coax FMCA11025](#)

URL: <https://www.fairviewmicrowave.com/low-loss-test-2.4mm-male-to-2.4mm-female-cable-fm-tc154a-coax-fm-ca11025-p.aspx>

The information contained within 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 liability arising out of the use of any part or document.

FMCA11025 CAD Drawing
Low Loss Test 2.4mm Male to 2.4mm Female Cable FM-TC154A Coax



- 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.

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. DIMENSIONS IN [] ARE IN MILLIMETERS.		Fairview Microwave® an INFINITI® brand		INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5	
TOLERANCES:		Website: www.FairviewMicrowave.com Phone: 1.800.715.4396 1.972.649.6678		SCALE: NONE	
X = ±.2 [5]		FRACTIONS: ± 1/32		SHEET: 1 OF 1	
.XX = ±.02 [0.5]		ANGLES ± 1°			
.XXX = ±.005 [0.13]		CABLE LENGTH TOLERANCES:			
		>12 [305] ≤ 60 [1524] = ±.1 [25] / -0			
		>60 [1524] ≤ 120 [3048] = ±.1 [25] / -0			
		>120 [3048] ≤ 300 [7620] = ±.1 [25] / -0			
		>300 [7620] = ±.1 [25] / -0			
ALL DIMENSIONS ARE FOR REFERENCE ONLY. DIMENSIONS SHALL BE TO THE CENTER OF THE CABLE. UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. DIMENSIONS IN [] ARE IN MILLIMETERS. COLORS MAY VARY.		DESCRIPTION: 2.4mm MALE TO 2.4mm FEMALE LOW LOSS TEST CABLE USING FM-TC154A COAX WITH RUGGEDIZED JACKET			
		SIZE: A		CAGE CODE: 3FKR5	
		DRAWN BY: DMAY		ITEM NO: FMCA11025	
				REV: A	