

Low Loss Test 2.4mm Male to 2.4mm Male Cable FM-TC177A Coax

FMCA11033

Configuration

- Connector 1: 2.4mm Male
- Connector 2: 2.4mm Male
- Cable Type: FM-TC177A
- Coax Flex Type: Flexible

Features

- Max Frequency 50 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 male cable using FM-TC177A coax, part number FMCA11033, from Fairview Microwave is in-stock and ships same day. This Fairview 2.4mm to 2.4mm cable assembly has a male to male gender configuration with 50 ohm flexible FM-TC177A coax. Fairview Microwave's flexible RF cable assemblies are ideal for applications where tight bends and continual flexure are required. The FMCA11033 2.4mm male to 2.4mm male cable assembly operates to 50 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		50	GHz
VSWR			1.45:1	
Velocity of Propagation		77		%
Phase Stability with Flexure		15		Degrees
Loss Stability with Flexure		0.1		dB

Specifications by Frequency

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Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
		Frequency	2500	5000	10000	20000	50000	MHz	
FMCA11033	Custom Lengths Available	Insertion Loss (Typ.)	0.224	0.326	0.473	0.686	1.178	dB/ft	
			0.74	1.07	1.56	2.26	3.87	dB/m	
FMCA11033-12	12 In	Insertion Loss (Typ.)	0.39	0.55	0.79	1.14	1.89	dB	0.422
FMCA11033-24	24 In	Insertion Loss (Typ.)	0.61	0.88	1.27	1.82	3.07	dB	0.444
FMCA11033-36	36 In	Insertion Loss (Typ.)	0.84	1.21	1.74	2.51	4.25	dB	0.466
FMCA11033-100CM	100 CM	Insertion Loss (Typ.)	0.9	1.3	1.87	2.7	4.58	dB	0.421
FMCA11033-150CM	150 CM	Insertion Loss (Typ.)	1.27	1.83	2.65	3.83	6.51	dB	0.508

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: 0.05*SQRT(FGHz) dB
 Loss due to Connector 2: 0.05*SQRT(FGHz) dB
 Base Weight: 0.422 pounds
 Additional Weight per Inch: 0.00183 pounds

Mechanical Specifications

Cable Assembly

Width/Diameter 0.5 in [12.7 mm]
 Weight 0.422 lbs [191.42 g]

Cable

Cable Type FM-TC177A
 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 0.177 in [4.5 mm]
 Repeated Minimum Bend Radius 0.98 in [24.89 mm]

Connectors

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

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Environmental Specifications

Operating Range Temperature -40 to +100 deg C

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

Plotted and Other Data

Notes:

Typical Performance Data

How to Order

Part Number Configuration: **FMCA11033 - xx uu**

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

Length

Base Number

Example: FMCA11033-12 = 12 inches long cable
FMCA11033-100cm = 100 cm long cable

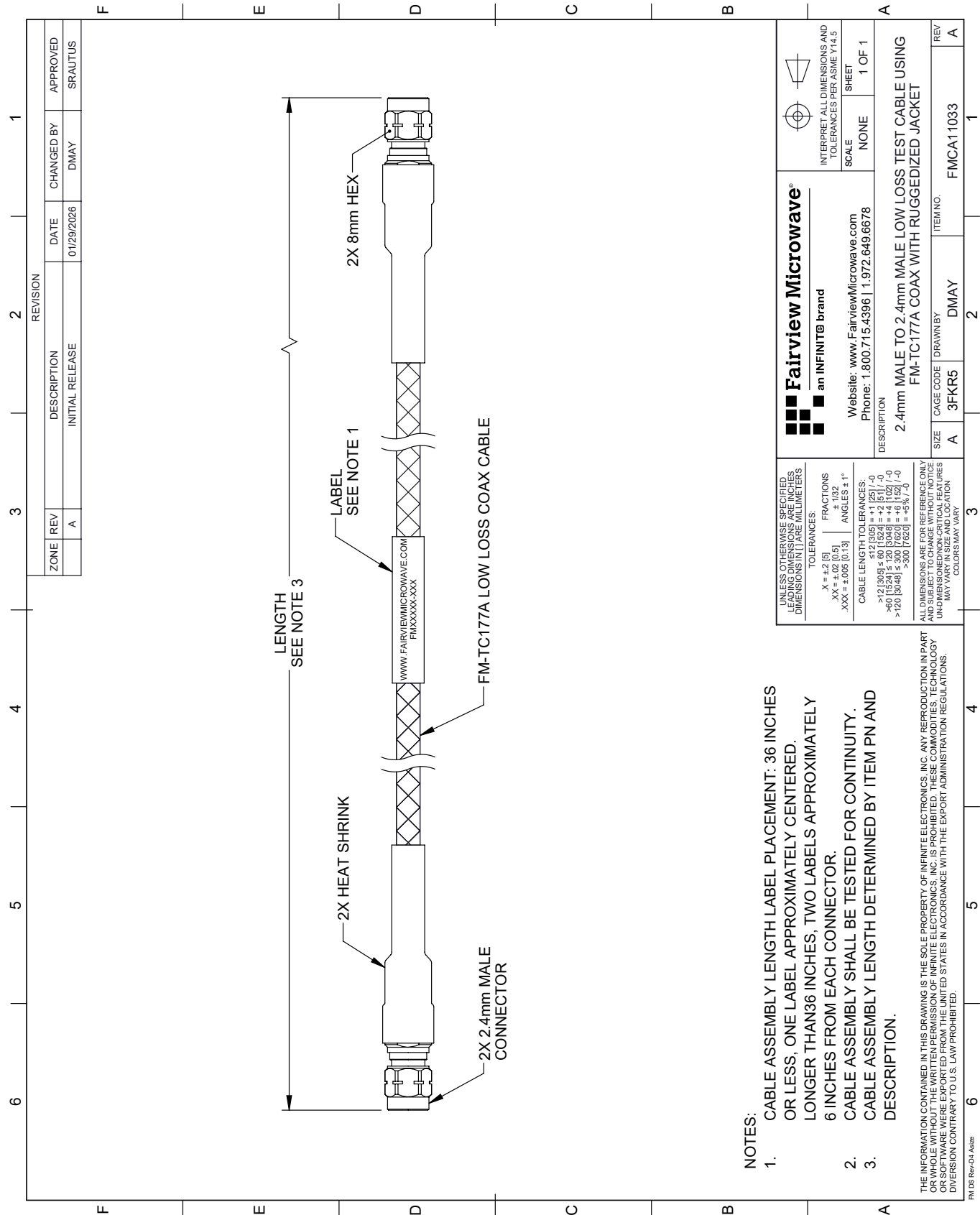
Low Loss Test 2.4mm Male to 2.4mm Male Cable FM-TC177A Coax from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [Low Loss Test 2.4mm Male to 2.4mm Male Cable FM-TC177A Coax FMCA11033](#)

URL: <https://www.fairviewmicrowave.com/low-loss-test-2.4mm-male-to-2.4mm-male-cable-fm-tc177a-coax-fm-ca11033-p.aspx>

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FMCA11033 CAD Drawing
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- 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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