Low Loss Test 2.4mm Female to 2.4mm Female Cable FM-TC154 Coax

FMCA11020

Configuration

- Connector 1: 2.4mm Female
- Connector 2: 2.4mm Female
- Cable Type: FM-TC154
- Coax Flex Type: Flexible

Features

- Max Frequency 40 GHz
- 77% Phase Velocity
- Double Shielded
- High Temperature Resin 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 female to 2.4mm female cable using FM-TC154 coax, part number FMCA11020, from Fairview Microwave is in-stock and ships same day. This Fairview 2.4mm to 2.4mm cable assembly has a female to female gender configuration with 50 ohm flexible FM-TC154 coax. Fairview Microwave's flexible RF cable assemblies are ideal for applications where tight bends and continual flexure are required. The FMCA11020 2.4mm female 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

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Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
		Frequency	2500	5000	10000	20000	40000	MHz	
FMCA11020	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	
FMCA11020-12	12 In	Insertion Loss (Typ.)	0.31	0.45	0.64	0.93	1.36	dB	0.429
FMCA11020-24	24 In	Insertion Loss (Typ.)	0.49	0.71	1.02	1.5	2.22	dB	0.458
FMCA11020-36	36 In	Insertion Loss (Typ.)	0.67	0.97	1.41	2.07	3.07	dB	0.487
FMCA11020-100CM	100 CM	Insertion Loss (Typ.)	0.72	1.04	1.51	2.23	3.31	dB	0.495
FMCA11020-150CM	150 CM	Insertion Loss (Typ.)	1.02	1.47	2.14	3.16	4.71	dB	0.542

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:	0.04*SQRT(FGHz)	dB
Loss due to Connector 2:	0.04*SQRT(FGHz)	dB
Base Weight:	0.429	pounds
Additional Weight per Inch:	0.002416	pounds

Mechanical Specifications

Cable Assembly

Width/Diameter	0.5 in [12.7 mm]
Weight	0.429 lbs [194.59 g]

Cable

Cable Type	FM-TC154
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	High Temperature Resin
Jacket Diameter	0.213 in [5.41 mm]
Repeated Minimum Bend Radius	0.98 in [24.89 mm]

Connectors

Description	Connector 1	Connector 2
Type	2.4mm Female	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	Passivated Stainless Steel
Body 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: **FMCA11020 - xx uu**

- uu — Unit of Measure:
  - cm = Centimeters
  - <blank> = Inches
- xx — Length
- FMCA11020 — Base Number

Example: FMCA11020-12 = 12 inches long cable
FMCA11020-100cm = 100 cm long cable

Low Loss Test 2.4mm Female to 2.4mm Female Cable FM-TC154 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 Female to 2.4mm Female Cable FM-TC154 Coax FMCA11020

URL: https://www.fairviewmicrowave.com/low-loss-test-2.4mm-female-to-2.4mm-female-cable-fm-tc154-coax-fm-ca11020-p.aspx

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FMCA11020 CAD Drawing

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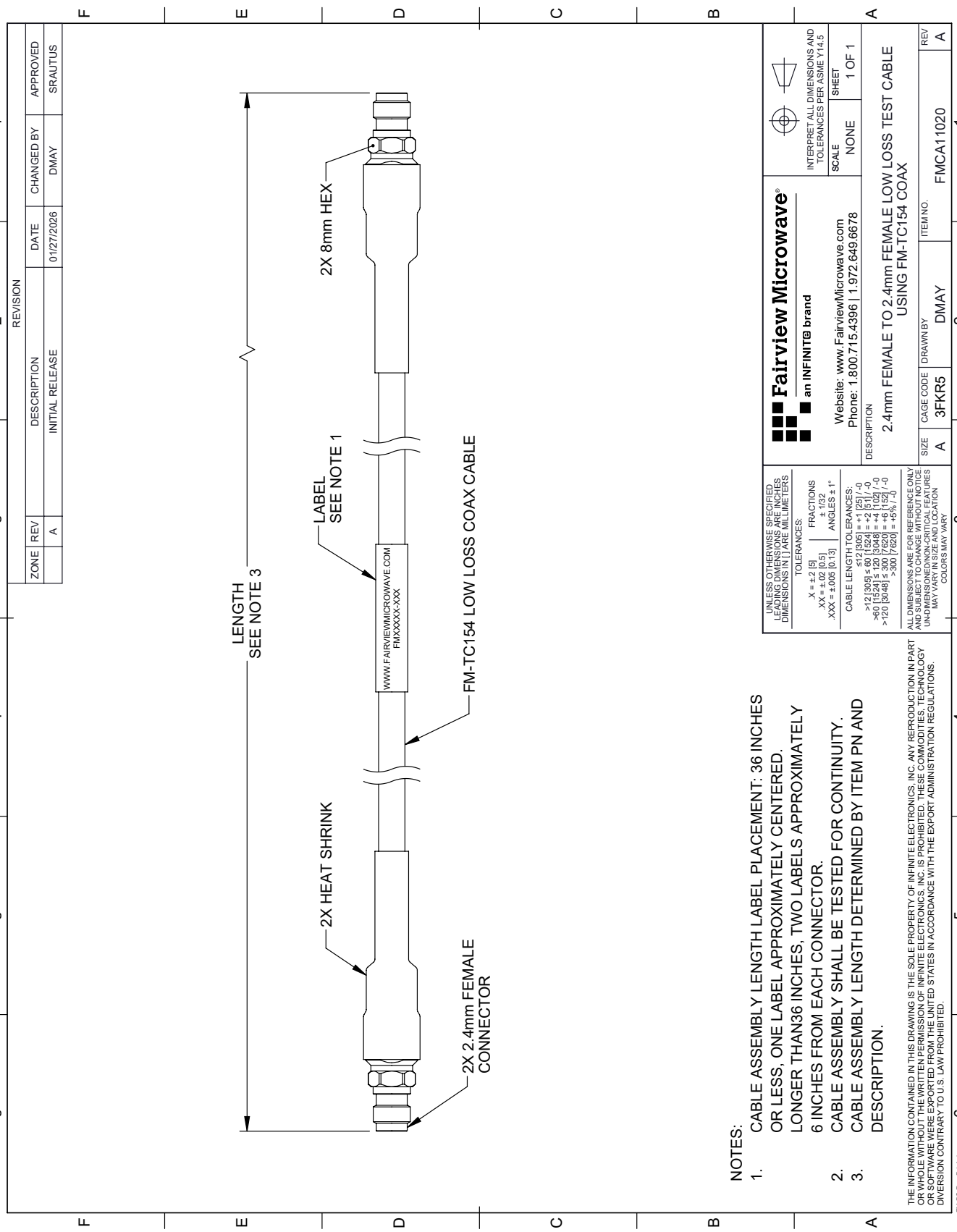

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