

Low Loss Test 1.85mm Female to 1.85mm Female Cable FM-TC142A Coax

FMCA11038

Configuration

- Connector 1: 1.85mm Female
- Connector 2: 1.85mm Female
- Cable Type: FM-TC142A
- Coax Flex Type: Flexible

Features

- Max Frequency 67 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 1.85mm female to 1.85mm female cable using FM-TC142A coax, part number FMCA11038, from Fairview Microwave is in-stock and ships same day. This Fairview 1.85mm to 1.85mm cable assembly has a female to female gender configuration with 50 ohm flexible FM-TC142A coax. Fairview Microwave's flexible RF cable assemblies are ideal for applications where tight bends and continual flexure are required. The FMCA11038 1.85mm female to 1.85mm female cable assembly operates to 67 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		67	GHz
VSWR			1.5:1	
Velocity of Propagation		77		%
Phase Stability with Flexure		19		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	5000	10000	20000	40000	67000	MHz	
FMCA11038	Custom Lengths Available	Insertion Loss (Typ.)	0.456	0.655	0.98	1.439	1.925	dB/ft	
			1.5	2.15	3.22	4.73	6.32	dB/m	
FMCA11038-12	12 In	Insertion Loss (Typ.)	0.68	0.98	1.43	2.08	2.75	dB	0.416
FMCA11038-24	24 In	Insertion Loss (Typ.)	1.14	1.63	2.41	3.52	4.67	dB	0.432
FMCA11038-36	36 In	Insertion Loss (Typ.)	1.6	2.29	3.39	4.95	6.6	dB	0.448
FMCA11038-100CM	100 CM	Insertion Loss (Typ.)	1.72	2.47	3.67	5.36	7.14	dB	0.452
FMCA11038-150CM	150 CM	Insertion Loss (Typ.)	2.47	3.54	5.28	7.72	10.3	dB	0.478

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: 0.416 pounds
 Additional Weight per Inch: 0.00133 pounds

Mechanical Specifications

Cable Assembly

Width/Diameter 0.5 in [12.7 mm]
 Weight 0.416 lbs [188.69 g]

Cable

Cable Type FM-TC142A
 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 0.141 in [3.58 mm]
 Repeated Minimum Bend Radius 0.98 in [24.89 mm]

Connectors

Description	Connector 1	Connector 2
Type	1.85mm Female	1.85mm 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 +85 deg C

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

Plotted and Other Data

Notes:

Typical Performance Data

How to Order

Part Number Configuration: **FMCA11038 - xx uu**

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

Length

Base Number

Example: FMCA11038-12 = 12 inches long cable
FMCA11038-100cm = 100 cm long cable

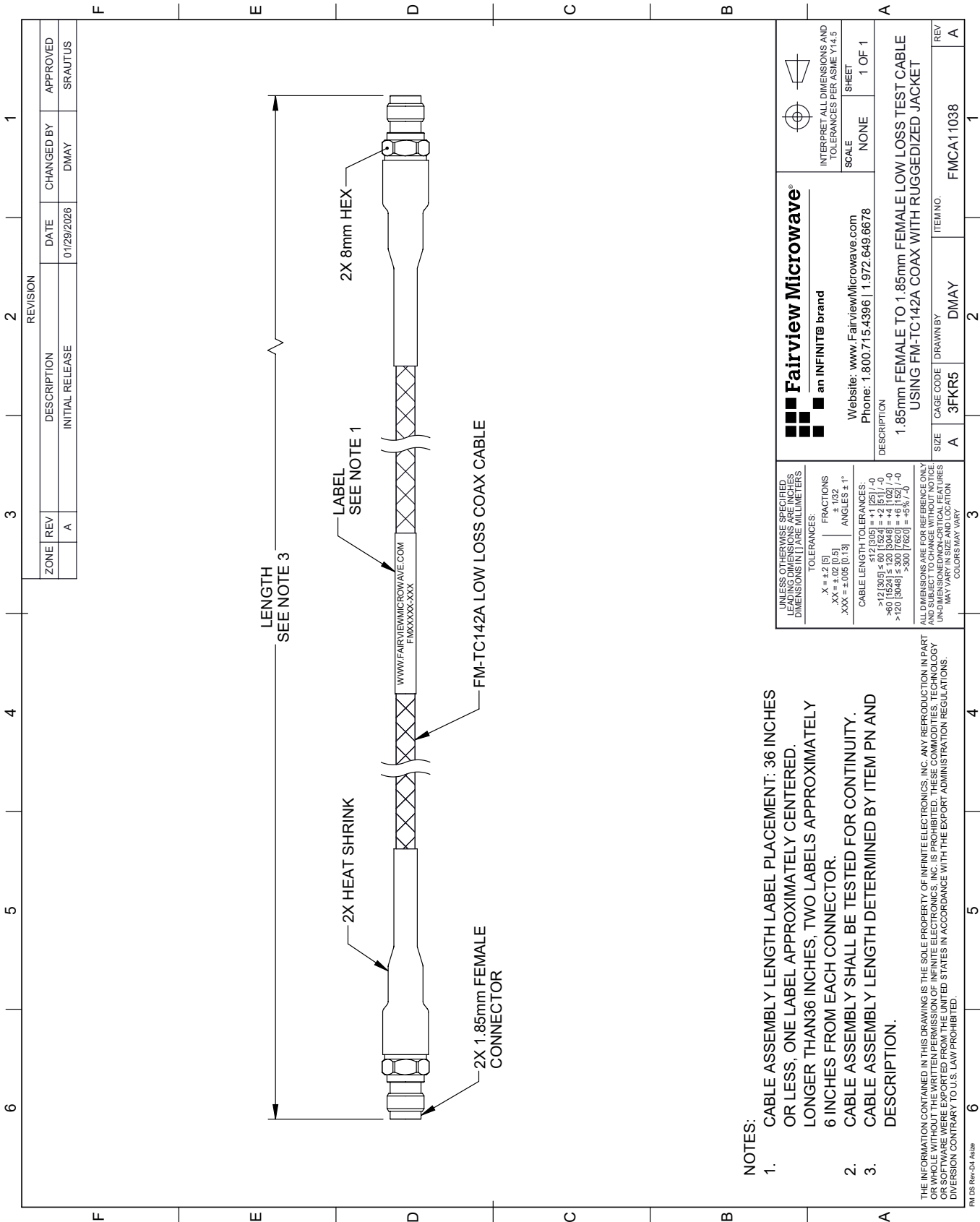
Low Loss Test 1.85mm Female to 1.85mm Female Cable FM-TC142A Coax from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [Low Loss Test 1.85mm Female to 1.85mm Female Cable FM-TC142A Coax FMCA11038](#)

URL: <https://www.fairviewmicrowave.com/low-loss-test-1.85mm-female-to-1.85mm-female-cable-fm-tc142a-coax-fm-ca11038-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.

FMCA11038 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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UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN INCHES. LEADING DIMENSIONS ARE IN INCHES. DIMENSIONS IN [] ARE 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] .XX = ±.02 [0.5] .XXX = ±.005 [0.13]		FRACTIONS ± 1/32 ANGLES ± 1°		SHEET 1 OF 1	
CABLE LENGTH TOLERANCES:		DESCRIPTION 1.85mm FEMALE TO 1.85mm FEMALE LOW LOSS TEST CABLE USING FM-TC142A COAX WITH RUGGEDIZED JACKET		REV A	
>12 [305] ≤ 60 [1524] = ±.2 [5] / -0		SIZE A		CAGE CODE 3FKR5	
>60 [1524] ≤ 120 [3048] = ±.4 [102] / -0		DRAWN BY DMAY		ITEM NO. FMCA11038	
>120 [3048] ≤ 300 [7620] = ±.6 [152] / -0		COLORS MAY VARY		1	