1.85mm Male to 1.85mm Male Cable FM-SR086TBJ Coax



FMCA100342

Configuration

- Connector 1: 1.85mm Male
- Connector 2: 1.85mm Male
- Cable Type: FM-SR086TBJ
- Coax Flex Type: Formable

Features

- Max Frequency 20 GHz
- Shielding Effectivity > 100 dB
- 69.5% Phase Velocity
- FEP Jacket
- 500 Mating Cycles

Applications

- General Purpose
- Laboratory Use

Description

The 1.85mm male to 1.85mm male cable using FM-SR086TBJ coax, part number FMCA100342, from Fairview Microwave is in-stock and ships same day. This Fairview 1.85mm to 1.85mm cable assembly has a male to male gender configuration with 50 ohm formable FM-SR086TBJ coax. Fairview Microwave's formable RF cable assemblies provide an alternative to costly pre-formed semi-rigid assemblies since they are hand formable. The FMCA100342 1.85mm male to 1.85mm male cable assembly operates to 20 GHz.

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		20	GHz
VSWR			1.4:1	
Velocity of Propagation		69.5		%
RF Shielding	100			dB
Group Delay		1.43 [4.69]		ns/ft [ns/m]
Capacitance		29 [95.14]		pF/ft [pF/m]
DC Resistance Inner Conductor		65.7 [215.55]		Ohms/1000ft [Ohms/Km]
DC Resistance Outer Conductor		10.2 [33.46]		Ohms/1000ft [Ohms/Km]
Operating Voltage (AC)			335	Vrms

Specifications by Frequency

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Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
		Frequency	1000	2000	4500	9000	20000	MHz	
FMCA100342	Custom Lengths Available	Insertion Loss (Typ.)	0.225	0.306	0.508	0.759	1.2	dB/ft	
			0.74	1.01	1.67	2.5	3.94	dB/m	
FMCA100342-6	6 In	Insertion Loss (Typ.)	0.2	0.27	0.43	0.62	0.96	dB	0.03
FMCA100342-9	9 In	Insertion Loss (Typ.)	0.25	0.35	0.56	0.81	1.26	dB	0.035
FMCA100342-12	12 In	Insertion Loss (Typ.)	0.31	0.42	0.68	1	1.56	dB	0.04
FMCA100342-18	18 In	Insertion Loss (Typ.)	0.42	0.58	0.94	1.38	2.16	dB	0.051
FMCA100342-24	24 In	Insertion Loss (Typ.)	0.53	0.73	1.19	1.76	2.76	dB	0.061

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:	0.04	pounds
Additional Weight per Inch:	0.00167	pounds

Mechanical Specifications

Cable Assembly

Width/Diameter	0.5 in [12.7 mm]
Weight	0.04 lbs [18.14 g]

Cable

Cable Type	FM-SR086TBJ
Impedance	50 Ohms
Inner Conductor Type	Solid
Inner Conductor Material and Plating	Copper Clad Steel, Silver
Dielectric Type	PTFE
Number of Shields	1
Outer Conductor 1 Material and Plating	Tinned Copper Composite Braid
Jacket Material	FEP, Black
Jacket Diameter	0.105 in [2.67 mm]
One Time Minimum Bend Radius	0.5 in [12.7 mm]
Repeated Minimum Bend Radius	0.787 in [19.99 mm]

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Connectors

Description	Connector 1	Connector 2
Type	1.85mm Male	1.85mm Male
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Mating Cycles	500	500
Contact Material and Plating	Beryllium Copper, Gold over Nickel	Beryllium Copper, Gold over Nickel
Contact Plating Specification	50 µin minimum	50 µin minimum
Dielectric Type	PEI	PEI
Body Material and Plating	Beryllium Copper, Gold over Nickel	Beryllium Copper, Gold over Nickel
Body Plating Specification	50 µin minimum	50 µin minimum
Coupling Nut Material and Plating	Passivated Stainless Steel	Passivated Stainless Steel
Coupling Nut Plating Specification	ASTM-A582	ASTM-A582
Hex Size	5/16 inch	5/16 inch
Torque	8 in-lbs 0.9 Nm	8 in-lbs 0.9 Nm

Environmental Specifications

Operating Range Temperature	-55 to +125 deg C

Compliance Certifications (see product page for current document)

Plotted and Other Data

Notes:

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FMCA100342

Typical Performance Data

How to Order

Part Number Configuration: **FMCA100342 - xx uu**

- uu — Unit of Measure:
  - cm = Centimeters
  - <blank> = Inches
- xx — Length
- FMCA100342 — Base Number

Example: FMCA100342-12 = 12 inches long cable
FMCA100342-100cm = 100 cm long cable

1.85mm Male to 1.85mm Male Cable FM-SR086TBJ 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: 1.85mm Male to 1.85mm Male Cable FM-SR086TBJ Coax FMCA100342

URL: https://www.fairviewmicrowave.com/1.85mm-male-to-1.85mm-male-cable-fm-sr086tbj-coax-fmca100342-p.aspx

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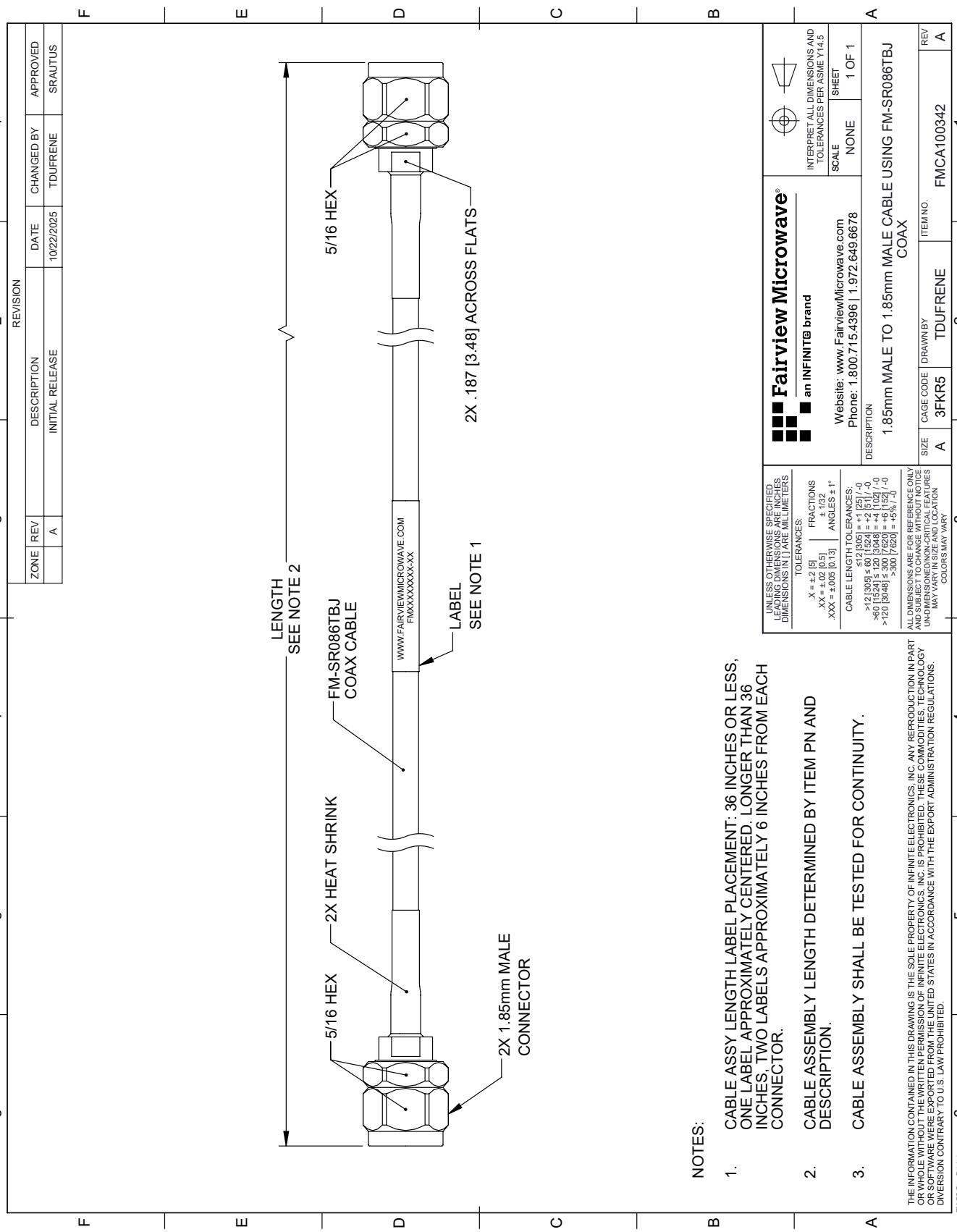
FMCA100342 CAD Drawing

1.85mm Male to 1.85mm Male Cable FM-SR086TBJ Coax



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