

1.85mm Male to 3.5mm Female Bulkhead Cable FM-SR086TBJ Coax

FMCA100350



Configuration

- Connector 1: 1.85mm Male
- Connector 2: 3.5mm Female Bulkhead
- 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 3.5mm female bulkhead cable using FM-SR086TBJ coax, part number FMCA100350, from Fairview Microwave is in-stock and ships same day. This Fairview 1.85mm to 3.5mm cable assembly has a male to female 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 FMCA100350 1.85mm male to 3.5mm female cable assembly operates to 20 GHz. Our RF cable assembly with 3.5mm bulkhead interface allows designers to create external connections on their product enclosures, and can be used in a variety of other rack mount and panel mount applications.

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)			250	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	
FMCA100350	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	
FMCA100350-6	6 In	Insertion Loss (Typ.)	0.26	0.31	0.44	0.6	0.88	dB	0.04
FMCA100350-9	9 In	Insertion Loss (Typ.)	0.31	0.39	0.57	0.79	1.18	dB	0.045
FMCA100350-12	12 In	Insertion Loss (Typ.)	0.37	0.47	0.7	0.98	1.48	dB	0.05
FMCA100350-18	18 In	Insertion Loss (Typ.)	0.48	0.62	0.95	1.36	2.08	dB	0.061
FMCA100350-24	24 In	Insertion Loss (Typ.)	0.59	0.77	1.21	1.74	2.68	dB	0.071

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: 0.1 dB
 Base Weight: 0.05 pounds
 Additional Weight per Inch: 0.00167 pounds

Mechanical Specifications

Cable Assembly

Width/Diameter 0.5 in [12.7 mm]
 Weight 0.05 lbs [22.68 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	3.5mm Female Bulkhead
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 over Copper
Contact Plating Specification	50 µin minimum	
Dielectric Type	PEI	PPO
Body Material and Plating	Beryllium Copper, Gold over Nickel	Stainless Steel, Passivated
Body Plating Specification	50 µin minimum	
Coupling Nut Material and Plating	Passivated Stainless Steel	Stainless Steel, Passivated
Coupling Nut Plating Specification	ASTM-A582	
Hex Size	5/16 inch	
Torque	8 in-lbs 0.9 Nm	7.1 in-lbs 0.8 Nm

Environmental Specifications

Operating Range Temperature -55 to +105 deg C

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

Plotted and Other Data

Notes:

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Typical Performance Data

How to Order

Part Number Configuration: **FMCA100350** **- xx** **uu**

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

Length

Base Number

Example: FMCA100350-12 = 12 inches long cable
FMCA100350-100cm = 100 cm long cable

1.85mm Male to 3.5mm Female Bulkhead 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 3.5mm Female Bulkhead Cable FM-SR086TBJ Coax FMCA100350](#)

URL: <https://www.fairviewmicrowave.com/1.85mm-male-to-3.5mm-female-bulkhead-cable-fm-sr086tbj-coax-fm-ca100350-p.aspx>

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FMCA100350 CAD Drawing
1.85mm Male to 3.5mm Female Bulkhead Cable FM-SR086TBJ Coax

