

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

### FMCA100353



#### Configuration

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

#### Features

- Max Frequency 18 GHz
- Shielding Effectivity > 100 dB
- 69.5% Phase Velocity
- FEP Jacket

#### Applications

- General Purpose
- Laboratory Use

#### Description

The 1.85mm male to SMA male cable using FM-SR086TBJ coax, part number FMCA100353, from Fairview Microwave is in-stock and ships same day. This Fairview 1.85mm to SMA 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 FMCA100353 1.85mm male to SMA male cable assembly operates to 18 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		18	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]

#### Specifications by Frequency

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Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
		Frequency	1000	2000	4500	9000	18000	MHz	
FMCA100353	Custom Lengths Available	Insertion Loss (Typ.)	0.225	0.306	0.508	0.759	1.122	dB/ft	
			0.74	1.01	1.67	2.5	3.69	dB/m	
FMCA100353-6	6 In	Insertion Loss (Typ.)	0.26	0.31	0.44	0.6	0.84	dB	0.03
FMCA100353-9	9 In	Insertion Loss (Typ.)	0.31	0.39	0.57	0.79	1.12	dB	0.035
FMCA100353-12	12 In	Insertion Loss (Typ.)	0.37	0.47	0.7	0.98	1.4	dB	0.04
FMCA100353-18	18 In	Insertion Loss (Typ.)	0.48	0.62	0.95	1.36	1.96	dB	0.051
FMCA100353-24	24 In	Insertion Loss (Typ.)	0.59	0.77	1.21	1.74	2.52	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: 0.1 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	SMA Male
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Mating Cycles	500	
Contact Material and Plating	Beryllium Copper, Gold over Nickel	Brass, Gold over Nickel
Contact Plating Specification	50 µin minimum	
Dielectric Type	PEI	PTFE
Body Material and Plating	Beryllium Copper, Gold over Nickel	Brass, Gold over Nickel
Body Plating Specification	50 µin minimum	
Coupling Nut Material and Plating	Passivated Stainless Steel	Passivated Stainless Steel
Coupling Nut Plating Specification	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

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

Plotted and Other Data

Notes:

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### FMCA100353



#### Typical Performance Data

#### How to Order

Part Number Configuration:

**FMCA100353**

**- xx**

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

Length  
Base Number

Example: FMCA100353-12 = 12 inches long cable  
FMCA100353-100cm = 100 cm long cable

1.85mm Male to SMA 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 SMA Male Cable FM-SR086TBJ Coax FMCA100353](https://www.fairviewmicrowave.com/1.85mm-male-to-sma-male-cable-fm-sr086tbj-coax-fmca100353-p.aspx)

URL: <https://www.fairviewmicrowave.com/1.85mm-male-to-sma-male-cable-fm-sr086tbj-coax-fmca100353-p.aspx>

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FMCA100353 CAD Drawing
1.85mm Male to SMA Male Cable FM-SR086TBJ Coax

