

## 1.85mm Male to RA Mini SMP Female Cable FM-SR086TB Coax



### FMCA100335

#### Configuration

- Connector 1: 1.85mm Male
- Connector 2: Mini SMP Female Right Angle
- Cable Type: FM-SR086TB
- Coax Flex Type: Formable

#### Features

- Max Frequency 20 GHz
- 69.5% Phase Velocity

#### Applications

- General Purpose
- Laboratory Use

#### Description

The 1.85mm male to RA Mini SMP female cable using FM-SR086TB coax, part number FMCA100335, from Fairview Microwave is in-stock and ships same day. This Fairview 1.85mm to Mini SMP cable assembly has a male to female gender configuration with 50 ohm formable FM-SR086TB coax. Fairview Microwave's formable RF cable assemblies provide an alternative to costly pre-formed semi-rigid assemblies since they are hand formable. The FMCA100335 1.85mm male to Mini SMP female cable assembly operates to 20 GHz. The right angle Mini SMP interface on the FM-SR086TB cable allows for easier connections in tight spaces.

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		%
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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**FMCA100335**

Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
			Frequency	1000	2000	4500	9000	20000	
FMCA100335	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	
FMCA100335-6	6 In	Insertion Loss (Typ.)	0.21	0.29	0.45	0.65	1.01	dB	0.025
FMCA100335-9	9 In	Insertion Loss (Typ.)	0.26	0.36	0.58	0.84	1.31	dB	0.028
FMCA100335-12	12 In	Insertion Loss (Typ.)	0.32	0.44	0.7	1.03	1.61	dB	0.03
FMCA100335-18	18 In	Insertion Loss (Typ.)	0.43	0.59	0.96	1.41	2.21	dB	0.036
FMCA100335-24	24 In	Insertion Loss (Typ.)	0.54	0.74	1.21	1.79	2.81	dB	0.041

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: 0.05\*SQRT(FGHz) dB  
 Base Weight: 0.03 pounds  
 Additional Weight per Inch: 0.00084 pounds

**Mechanical Specifications**

**Cable Assembly**

Width/Diameter 0.5 in [12.7 mm]  
 Weight 0.03 lbs [13.61 g]

**Cable**

Cable Type FM-SR086TB  
 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 Copper, Tin  
 Repeated Minimum Bend Radius 0.78 in [19.81 mm]

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**FMCA100335**

**Connectors**

Description	Connector 1	Connector 2
Type	1.85mm Male	Mini SMP Female Right Angle
Specification		MIL-STD-348A
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Right Angle
Mating Cycles	500	
Contact Material and Plating	Beryllium Copper, Gold over Nickel	Beryllium Copper, Gold
Contact Plating Specification	50 µin minimum	
Dielectric Type	PEI	PTFE
Outer Conductor Material and Plating		Beryllium Copper, Gold
Body Material and Plating	Beryllium Copper, Gold over Nickel	Brass, Gold
Body Plating Specification	50 µin minimum	
Coupling Nut Material and Plating	Passivated Stainless Steel	
Coupling Nut Plating Specification	ASTM-A582	
Hex Size	5/16 inch	
Torque	8 in-lbs 0.9 Nm	

**Environmental Specifications**

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

**Plotted and Other Data**

Notes:

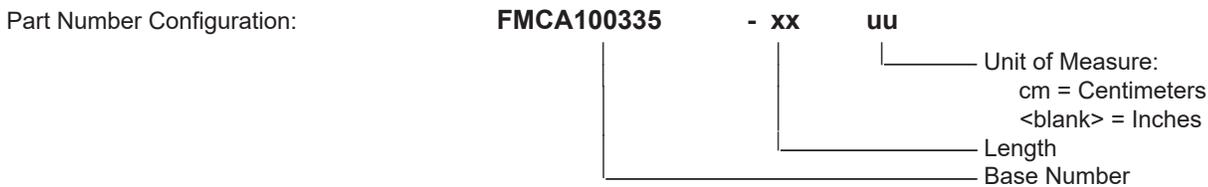
1.85mm Male to RA Mini SMP Female  
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**FMCA100335**

**Typical Performance Data**

**How to Order**



Example: FMCA100335-12 = 12 inches long cable  
FMCA100335-100cm = 100 cm long cable

1.85mm Male to RA Mini SMP Female Cable FM-SR086TB 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.

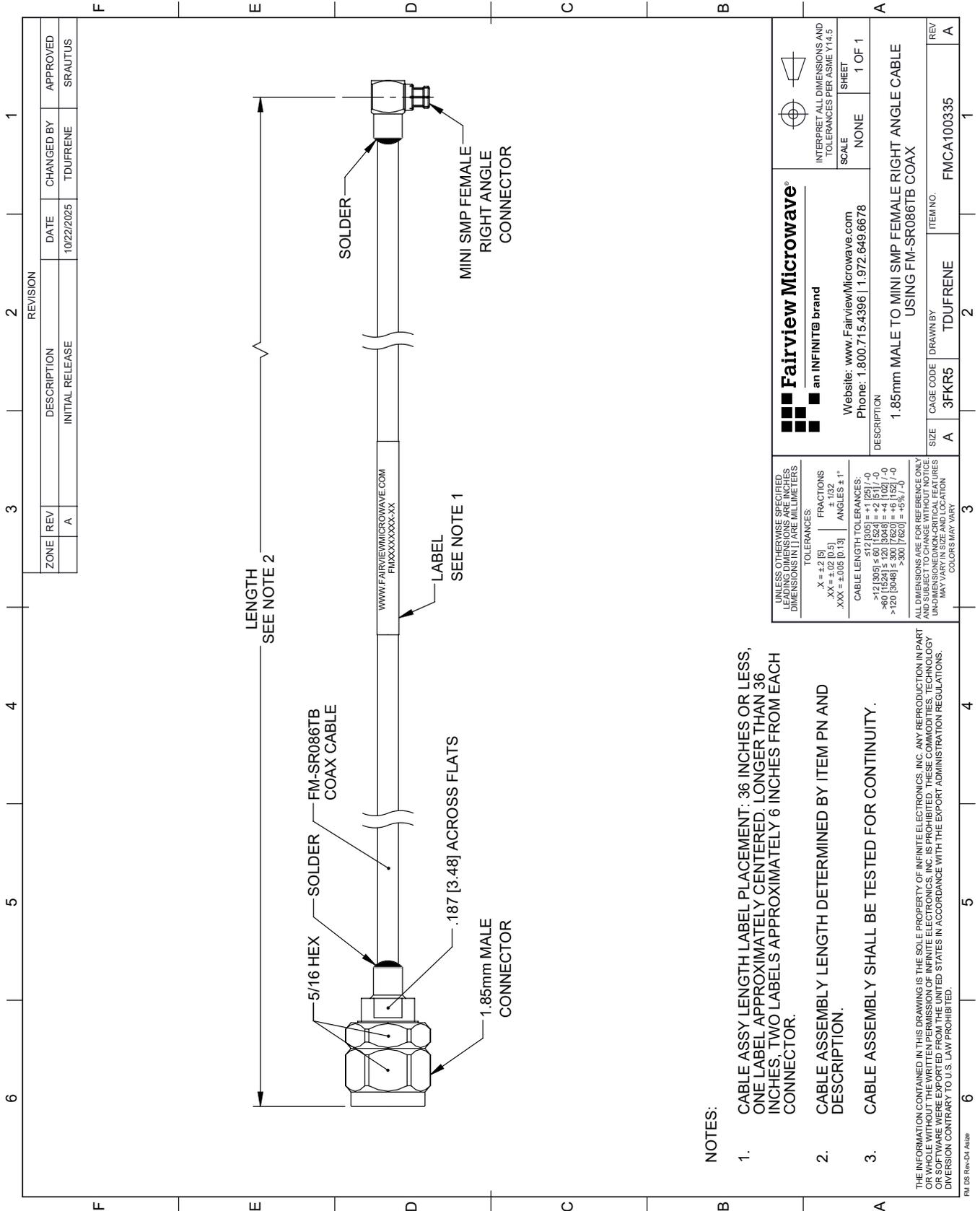
For additional information on this product, please click the following link: [1.85mm Male to RA Mini SMP Female Cable FM-SR086TB Coax FMCA100335](#)

URL: <https://www.fairviewmicrowave.com/1.85mm-male-to-ra-mini-smp-female-cable-fm-sr086tb-coax-fmca100335-p.aspx>

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# FMCA100335 CAD Drawing

1.85mm Male to RA Mini SMP Female Cable FM-SR086TB Coax



**NOTES:**

1. CABLE ASSY 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 LENGTH DETERMINED BY ITEM PN AND DESCRIPTION.
3. CABLE ASSEMBLY SHALL BE TESTED FOR CONTINUITY.

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FM DS Rev-D4 Add

REVISION		DATE	CHANGED BY	APPROVED
ZONE	REV	10/22/2025	TDUFRENE	SRAUTUS
	A			
DESCRIPTION				
INITIAL RELEASE				

<p>Fairview Microwave® an INFINIT® brand</p> <p>Website: <a href="http://www.FairviewMicrowave.com">www.FairviewMicrowave.com</a> Phone: 1.800.715.4396   1.972.649.6678</p>		<p>INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5</p> <p>SCALE: NONE</p> <p>SHEET: 1 OF 1</p>
<p>UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES AND UNLEADING DIMENSIONS ARE IN MILLIMETERS</p> <p>TOLERANCES:          .X = ±.2 (5)      FRACTIONS ±.132          .XX = ±.02 (0.5)      ANGLES ± 1°          .XXX = ±.005 (0.13)</p> <p>CABLE LENGTH TOLERANCES:          &gt;12 (305) ≤ 60 (1524) = ±.1 (25) / -0          &gt;60 (1524) ≤ 120 (3048) = ±.4 (102) / -0          &gt;120 (3048) ≤ 300 (7620) = ±.1 (25) / -0          &gt;300 (7620) = ±.5 (12.7)</p> <p>ALL DIMENSIONS ARE FOR REFERENCE ONLY. DIMENSIONS OF NON-CRITICAL FEATURES MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY.</p>		
DESCRIPTION	SIZE	ITEM NO.
1.85mm MALE TO MINI SMP FEMALE RIGHT ANGLE CABLE USING FM-SR086TB COAX	A	FMCA100335
CAGE CODE	DRAWN BY	REV
3FKR5	TDUFRENE	A