

## SMA Male to SMA Male Cable FM-SR086TBJ Coax in 48 Inch

The SMA male to SMA male 48 inch cable using FM-SR086TBJ coax, part number FMCA2116-48, from Fairview Microwave is in-stock and ships same day. This Fairview SMA 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 FMCA2116-48 SMA 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	Min	Typ	Max	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]		$\Omega/1000\text{ft}$ [ $\Omega/\text{Km}$ ]
DC Resistance Outer Conductor		10.2 [33.46]		$\Omega/1000\text{ft}$ [ $\Omega/\text{Km}$ ]

### Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency	1	2	4.5	9	18	GHz
Insertion Loss (Typ.)	1.1	1.42	2.23	3.24	4.69	dB

#### Electrical Specification Notes:

The Insertion Loss data above is based on the performance specifications of the coax cable and connectors used in this assembly. The Insertion Loss includes an estimated insertion loss of 0.1 dB per connector.

### Mechanical Specifications

#### Cable Assembly

Length*	48 in [121.92 cm]
Diameter	0.315 in [8 mm]

#### Cable

Cable Type	FM-SR086TBJ
Impedance	50 Ohms
Inner Conductor Type	Solid
Inner Conductor Material and Plating	Copper Clad Steel, Silver
Dielectric Type	PTFE



### Configuration:

- SMA Male
- SMA Male
- FM-SR086TBJ

### Features:

- Max Frequency 18 GHz
- Shielding Effectivity > 100 dB
- 69.5% Phase Velocity
- FEP Jacket
- Dimensionally and electrically the same as standard, solid outer conductor semi-rigid coax
- Cable may be formed by hand and does not require special tools to bend
- May be formed more than once without damaging the outer conductor
- High RF Shielding >100 dB
- 100% Hi-pot and continuity tested
- 100% VSWR tested to max frequency of assembly
- Standard and custom lengths ship the same day

### Applications:

- General Purpose
- Laboratory Use

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Outer Conductor 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]

### Connectors

Description	Connector 1	Connector 2
Type	SMA Male	SMA Male
Impedance	50 Ohms	50 Ohms
Contact Material & Plating	Brass, Gold over Nickel	Brass, Gold over Nickel
Dielectric Type	PTFE	PTFE
Body Material & Plating	Brass, Gold over Nickel	Brass, Gold over Nickel
Coupling Nut Material & Plating	Passivated Stainless Steel	Passivated Stainless Steel
Hex Size	5/16 inch	5/16 inch
Torque	8 in-lbs 0.9 Nm	8 in-lbs 0.9 Nm

### Mechanical Specification Notes:

\*All cable assemblies have a length tolerance of 1.5% or  $\pm 3/8"$ , whichever is greater.

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

### Plotted and Other Data

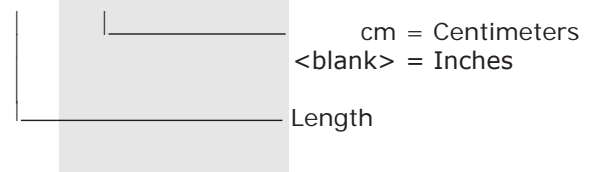
#### Notes:

- Values at 25°C, sea level.

### How to Order

Part Number Configuration:

**FMCA2116 - xx uu**



Example: FMCA2116-12 = 12 inches long cable  
 FMCA2116-100cm = 100 cm long cable

SMA Male to SMA Male Cable FM-SR086TBJ Coax in 48 Inch from Fairview Microwave has same day shipment for domestic and International orders. Our RF, microwave and fiber optic products maintain a 99% availability and are part of the broadest selection in the industry.

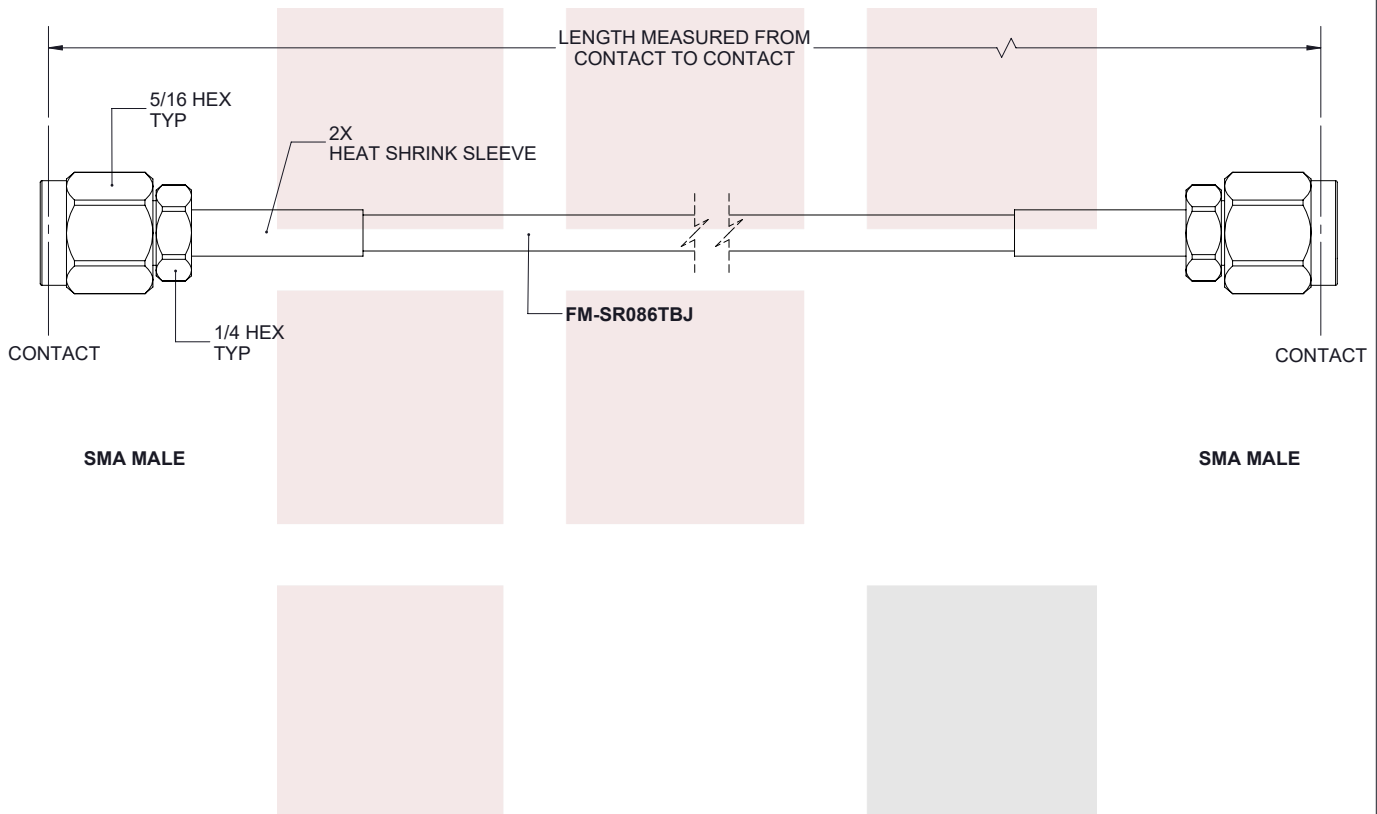
Click the following link to obtain additional part information: [SMA Male to SMA Male Cable FM-SR086TBJ Coax in 48 Inch FMCA2116-48](#)

URL: <https://www.fairviewmicrowave.com/sma-male-sma-male-cable-fm-sr086tbj-coax-fmca2116-48-p.aspx>

The information contained in 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 any liability arising out of the use of any part or documentation.



REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	11/26/19	S.ELLIS



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TITLE  
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UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES  
DIMENSIONS IN [ ] ARE MILLIMETERS

TOLERANCES:		CABLE LENGTH (L) TOLERANCES:	
X = ± 2 [ .508 ]	FRACTIONS ± 1/32	L ≤ 12 [ 305 ] = +1 [ 25 ] / -0	
.XX = ± .02 [ .51 ]	ANGLES ± 1°	12 [ 305 ] < L ≤ 60 [ 1524 ] = +2 [ 51 ] / -0	
.XXX = ± .005 [ .13 ]		60 [ 1524 ] < L ≤ 120 [ 3048 ] = +4 [ 102 ] / -0	
		120 [ 3048 ] < L ≤ 300 [ 7620 ] = +6 [ 152 ] / -0	
		300 [ 7620 ] < L = +5%L / -0	

THIRD-ANGLE PROJECTION  
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SHEET	1	OF	1
SCALE	N/A		

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.				
SIZE	CAGE CODE	DRAWN BY	PART NUMBER	REV
A	3FKR5	K.DANG	FMCA2116	A

T-Rev.D