

2.4mm Male (Plug) Connector For .047 SR Cable, Solder

2.4mm male connector with solder/solder attachment for .047 SR, part number SMC24-047M, from Fairview Microwave is in-stock and ships same day. This 2.4mm male connector operates up to a maximum frequency of 50 GHz and offers good VSWR of 1.3:1.

Fairview's 2.4mm male connector SMC24-047M datasheet specifications and outline drawing are shown in this PDF below. Our extensive offering of RF, microwave and millimeter wave connectors allows designers to configure and customize their signal connections however they like. From providing an I/O for a board design to creating a custom cable assembly configuration, Fairview Microwave has a connector solution to meet your needs. Fairview Microwave also has the expertise to build your custom cable assemblies for you and ship them same-day.

Electrical Specifications

Description	Min	Typ	Max	Units
Frequency Range	DC		50	GHz
VSWR			1.3:1	

Electrical Specification Notes:
 Values at +25°C, sea level.
 Insertion loss: 0.05 x sqrt(fGHz) dB.

Mechanical Specifications

Size	
Length	0.53 in [13.46 mm]
Weight	0.0105 lbs [4.76 g]
Mating Cycles	500 Cycles

Material Specifications

Description	Material	Plating
Contact	Beryllium Copper	Gold MIL-G-45204
Insulation	Oxide-Noryl	
Body	Passivated Stainless Steel	

Environmental Specifications

Temperature

Operating Range	-55 to +100 deg C
Vibration	MIL-STD-202, Method 204, Condition D (20 G's)



Configuration:

- 2.4mm Male Connector
- 50 Ohms
- Straight Body Geometry
- .047 SR Interface Type
- Solder/Solder Attachment
- 5/16 inch Hex

Features:

- Operating Frequency of 50 GHz Max.
- Good VSWR of 1.3:1
- Gold Plated Beryllium Copper Contact
- Contact plating according to MIL-G-45204

Applications:

- General Purpose Test
- Custom Cable Assemblies

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Salt Spray

MIL-STD-202, Method 101, Condition B, 5% Salt Solution

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

Plotted and Other Data

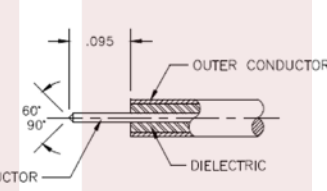
Notes:

Assembly Instruction

1.

1.0 PREPARATION OF CABLE:

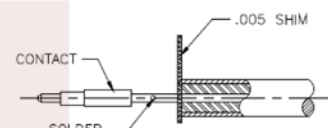
- 1.1 Trim cable to dimensions shown.
- 1.2 File blunt end of cable inner conductor to a 60°/90° Cone.
- 1.3 Remove burrs and sharp edges from outer conductor with scotch brite.
- 1.4 Dip prepared end of cable into flux, then into solder pot approx. 1/2 inch. Forming a thin coat of tin on the outer and inner conductor.
(Remove Excess solder if needed) clean with solvent.



2.

2.0 SOLDERING OF CENTER CONTACT TO INNER CABLE CONDUCTOR.

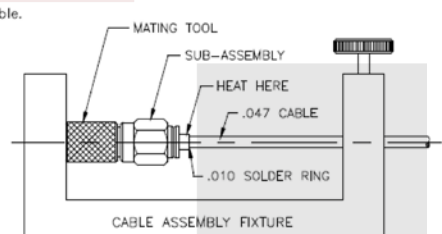
- 2.1 Place shim on center conductor resting firmly against Cable Dielectric.
- 2.2 Heat center contact and slide it over inner conductor to rest firmly against shim.
- 2.3 Solder contact as shown using 60/40.
- 2.4 Remove excess solder and clean with solvent.



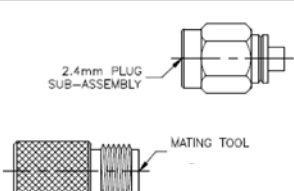
3.

3.0 SOLDERING OF CABLE SUB-ASSEMBLY TO BODY.

- 3.1 Form a ring (360°) with .010 solder around cable.
- 3.2 Thread mating tool into connector.
- 3.3 Insert cable Sub-Assembly into back of connector Housing until it bottoms. Place into Fixture and clamp cable to prevent movement while soldering.
- 3.4 Using resistive soldering iron, heat housing (Holding Downwards) until solder flows evenly around cable and housing.
- 3.5 Remove Mating tool and clean solder joint with solvent (alcohol). Verify that solder is FREE of voids.
- 3.6 Inspect center contact length from Reference Plane (.056/.054)

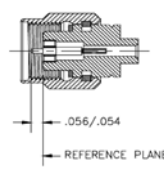


•CAUTION: Avoid using cleaning fluids containing halogenated and aromatic hydrocarbons, these chemicals can cause damage to the center conductor support bead. (Use Isopropyl Alcohol for Cleaning Procedures.)



2.4mm PLUG
SUB-ASSEMBLY

MATING TOOL



.056/.054

REFERENCE PLANE

REFERENCE PLANE

2.4mm Male (Plug) Connector For .047 SR Cable, Solder 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.

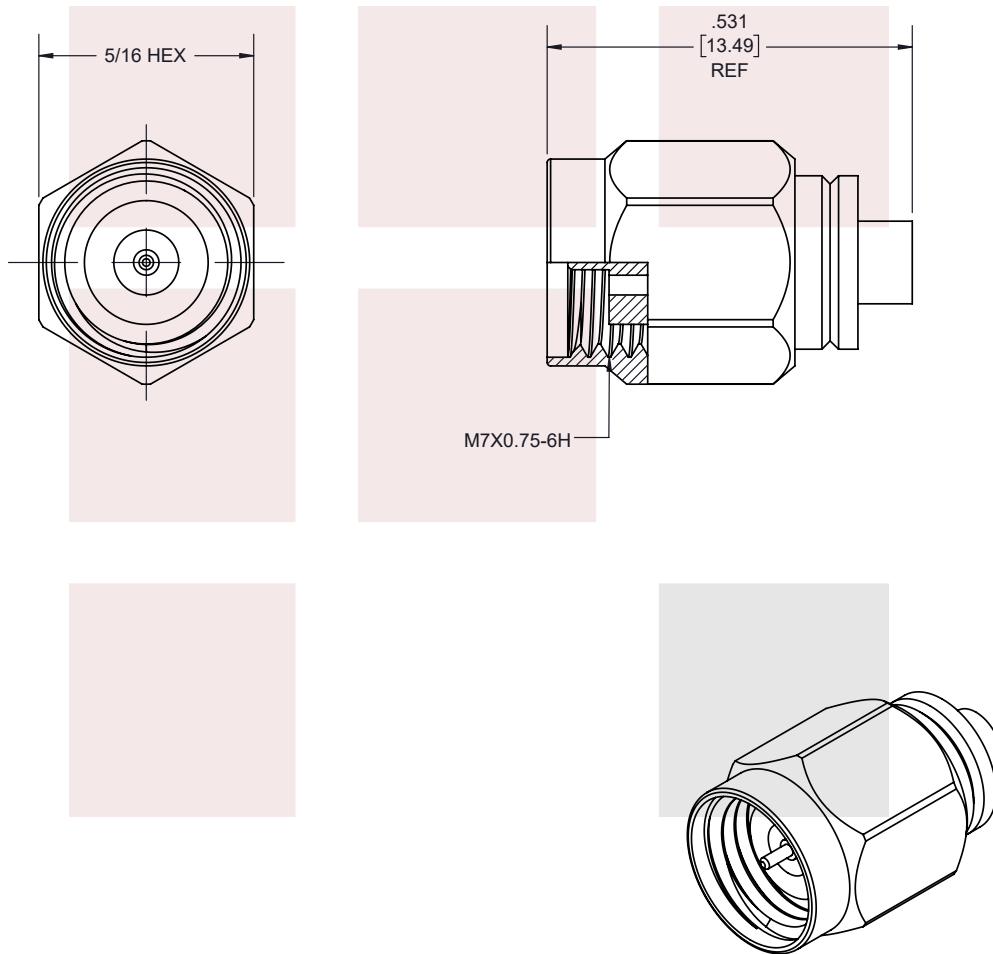
For additional information on this product, please click the following link: [2.4mm Male \(Plug\) Connector For .047 SR Cable, Solder SMC24-047M](#)

URL: <https://www.fairviewmicrowave.com/2.4mm-male-standard-.047-sr-connector-smc24-047m-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
B	SMC24-047M 20220615	6/15/2022	A. GANWANI



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TITLE
2.4mm Male (Plug) Connector For .047 SR Cable,
Solder

UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [] ARE MILLIMETERS		THIRD-ANGLE PROJECTION	
TOLERANCES:		 THE INFORMATION AND DESIGN IN THIS DOCUMENT IS THE PROPERTY OF FAIRVIEW MICROWAVE CORPORATION. ALL RIGHTS RESERVED.	
FRACTIONS: $\pm 1/32$ ANGLES $\pm 1^\circ$		CABLE LENGTH (L) TOLERANCES: $L \leq 12$ [305] = +1 [25] / -0 12 [305] < $L \leq 60$ [1524] = +2 [51] / -0 60 [1524] < $L \leq 120$ [3048] = +4 [102] / -0 120 [3048] < $L \leq 300$ [7620] = +6 [152] / -0 300 [7620] < $L = +5\%L / -0$	
ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.			
SIZE	CAGE CODE	DRAWN BY	ITEM NO.
A	3FKR5	K.DANG	SMC24-047M
SHEET 1 OF 2			SCALE N/A
REV A			

T-Rev.D