

## Engineering Grade 1.85mm Male (Plug) to 1.85mm Female (Jack) Adapter with Stainless Steel Body

1.85mm male to 1.85mm female adapter part number FMAD1603 from Fairview Microwave is in-stock and ships same day. This Fairview 1.85mm to 1.85mm adapter has a male to female gender configuration and is built of durable stainless steel in an engineering grade design. FMAD1603 1.85mm male to 1.85mm female adapter operates to 70 GHz. The 1.85mm connector mates mechanically with commercially available 2.4mm connectors. Our 1.85mm to 1.85mm RF adapter can also be used as a connector saver to extend equipment life.

RF adapters can be used to enable connections between two connector types that would otherwise not mate. Certain RF adapter configurations can also be used to protect connectors on expensive equipment where the number of connect and disconnect cycles is high. An RF, microwave, or millimeter wave adapter is connected to the equipment and the commonly changed connection is made with the adapter which can be easily replaced when it wears out after high usage; such adapters are referred to as connector savers. Fairview Microwave also offers bulkhead, panel mount, hermetically sealed, reverse polarity, and isolated ground adapter varieties to serve all of your RF, microwave and millimeter wave needs.

### Electrical Specifications

Description	Min	Typ	Max	Units
Frequency Range	DC		70	GHz
VSWR		1.35:1		
DWV (AC)			500	Vrms
Insulation Resistance	5,000			MOhms

### Specifications by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	DC to 4	4 to 8	8 to 15	15 to 35	35 to 70	GHz
Insertion Loss, Max	0.1	0.141	0.194	0.296	0.418	dB

Electrical Specification Notes:  
 Values at sea level

### Mechanical Specifications

#### Size

Length	0.93 in [23.60 mm]
Width	0.31 in [7.90 mm]
Height	0.31 in [7.90 mm]
Weight	0.02 lbs [9.07 g]

Description	Connector 1	Connector 2
Type	1.85mm Male	1.85mm Female
Polarity	Standard	Standard
Mating Cycles, Min	500	500
Mating Torque	7.08 to 9.74 in-lbs [0.80 to 1.10 Nm]	7.8 to 9.74 in-lbs [0.88 to 1.10 Nm]
Contact Captivation Axial Force, Min	4.5 lbs [2.04 kg]	4.5 lbs [2.04 kg]
Coupling Proof Torque	15 in-lbs [1.7 Nm]	15 in-lbs [1.7 Nm]



### Configuration:

- 1.85mm Male Connector 1
- 1.85mm Female Connector 2
- 50 Ohm
- Engineering Grade Design
- Straight Body Geometry

### Features:

- Gold Plated Beryllium Copper Contact
- Max VSWR of 1.35:1 up to 70 GHz

### Applications:

- Connector Saver
- General Purpose Test

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[sales@fairviewmicrowave.com](mailto:sales@fairviewmicrowave.com)

**Material Specifications**

Description	Connector 1	Connector 2
Type	1.85mm Male	1.85mm Female
Contact Material	Beryllium Copper	Beryllium Copper
Contact Plating	Gold	Gold
Insulation Material	PPO	PPO
Outer Contact Material		Beryllium Copper
Outer Contact Plating		Gold
Body Material	Stainless Steel	Stainless Steel
Body Plating	Passivated Stainless Steel	Passivated Stainless Steel
Coupling Nut Material	Beryllium Copper	
Coupling Nut Plating	Gold	

**Environmental Specifications**
**Temperature**

Operating Range

-55 to +105 deg C

Humidity

MIL-STD-202, Method 206

Thermal Shock

MIL-STD-202, Method 107, Condition B

Salt Spray

MIL-STD-202, Method 101, Condition B

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

**Plotted and Other Data**

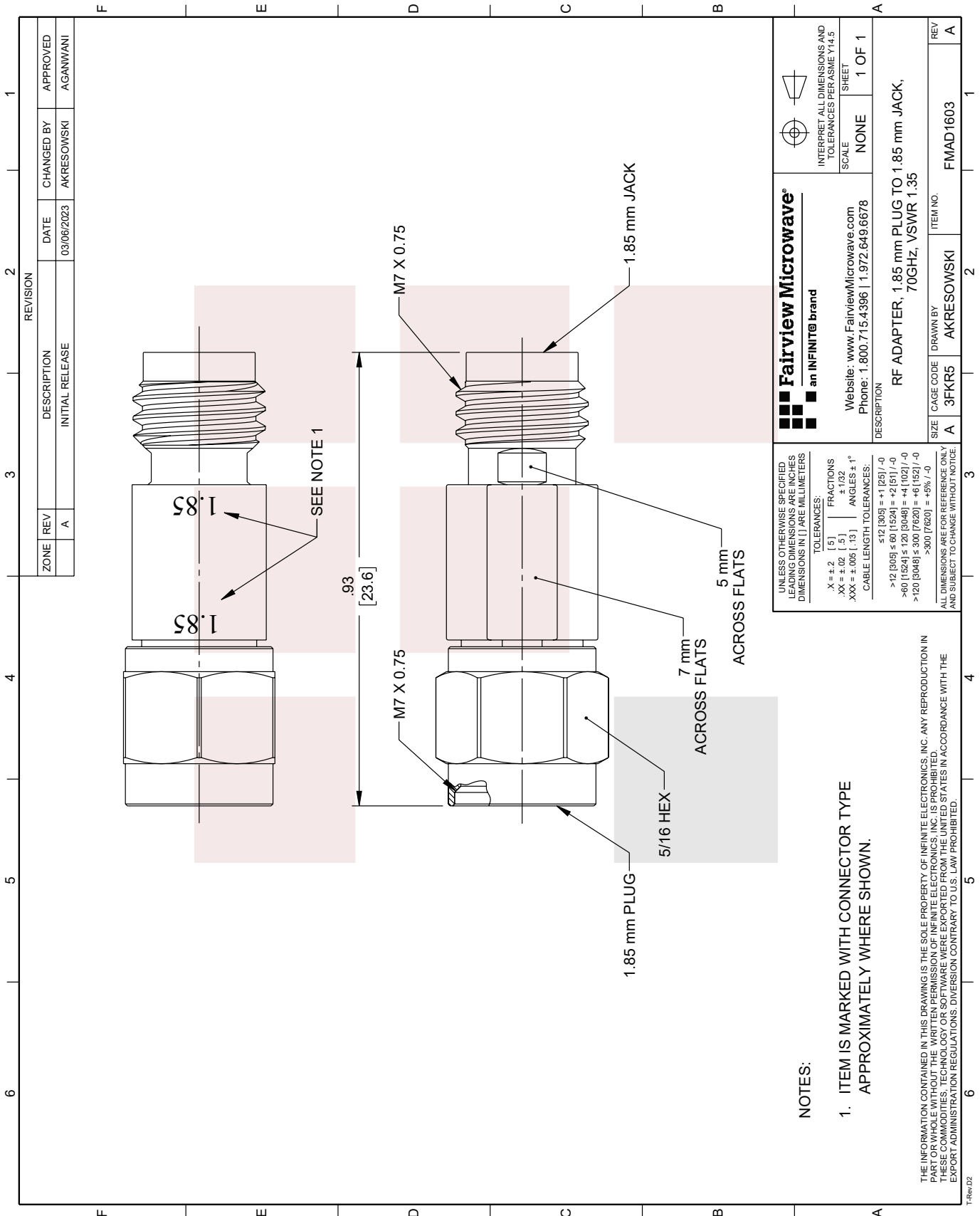
Notes:

Engineering Grade 1.85mm Male (Plug) to 1.85mm Female (Jack) Adapter with Stainless Steel Body 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: [Engineering Grade 1.85mm Male \(Plug\) to 1.85mm Female \(Jack\) Adapter with Stainless Steel Body FMAD1603](#)

URL: <https://www.fairviewmicrowave.com/1-85mm-male-to-1-85mm-female-adapter-mil-std-202-method-206-stainless-steel-engineering-grade-fmad1603-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.



ZONE		REVISION		DESCRIPTION		DATE		CHANGED BY		APPROVED	
	A			INITIAL RELEASE		03/06/2023		AKRESOWSKI		AGANWANI	

**Fairview Microwave**  
an INFINIT<sup>®</sup> brand

Website: [www.FairviewMicrowave.com](http://www.FairviewMicrowave.com)  
Phone: 1.800.715.4396 | 1.972.649.6678

UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES. DIMENSIONS IN [ ] ARE MILLIMETERS.

TOLERANCES:  
 .X = ±.2 [ .5]  
 .XX = ±.02 [ .5]  
 .XXX = ±.005 [ .13]  
 FRACTIONS: ± 1/32  
 ANGLES: ± 1°

CABLE LENGTH TOLERANCES:  
 ≤ 12 [305] ≤ 60 [1524] = +2.61 / -0  
 > 60 [1524] ≤ 120 [3048] = +4.102 / -0  
 > 120 [3048] ≤ 300 [7620] = +6.152 / -0  
 > 300 [7620] = +5% / -0

INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5  
SCALE: NONE SHEET: 1 OF 1

DESCRIPTION: RF ADAPTER, 1.85 mm PLUG TO 1.85 mm JACK, 70GHz, VSWR 1.35

SIZE	CAGE CODE	DRAWN BY	ITEM NO.
A	3FKR5	AKRESOWSKI	FMAD1603

**NOTES:**

- ITEM IS MARKED WITH CONNECTOR TYPE APPROXIMATELY WHERE SHOWN.

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