



1.85mm Male to 1.85mm Female Adapter, Stainless Steel, Engineering Grade

RF Adapters Technical Data Sheet

PE91603

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

Description

Pasternack's PE91603 1.85mm male to 1.85mm female adapter is part of our full line of RF components available for same-day shipping. The 1.85mm connector mates mechanically with commercially available 2.4mm connectors. Our 1.85mm to 1.85mm adapter has a male to female gender configuration built of durable stainless steel in an engineering grade design. PE91603 1.85mm male to 1.85mm female adapter operates to 70 GHz. The PE91603 Pasternack RF adapter can also be used as a connector saver to extend equipment life.

RF adapters are often used to enable connections between two connector types that would otherwise not mate. Certain adapter configurations can also be used to protect connectors on expensive equipment where the number of connect/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. Pasternack 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	Minimum	Typical	Maximum	Units
Frequency Range	DC		70	GHz
VSWR		1.35:1		
Dielectric Withstanding Voltage (AC)			500	Vrms
Insulation Resistance	5,000			MOhms

Performance 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

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [1.85mm Male to 1.85mm Female Adapter, Stainless Steel, Engineering Grade PE91603](#)



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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]	7.08 to 9.74 in-lbs 0.80 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]

Material Specifications

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

Environmental Specifications

Temperature

Operating Range -55 to +105 °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:

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1.85mm Male to 1.85mm Female Adapter, Stainless Steel, Engineering Grade from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

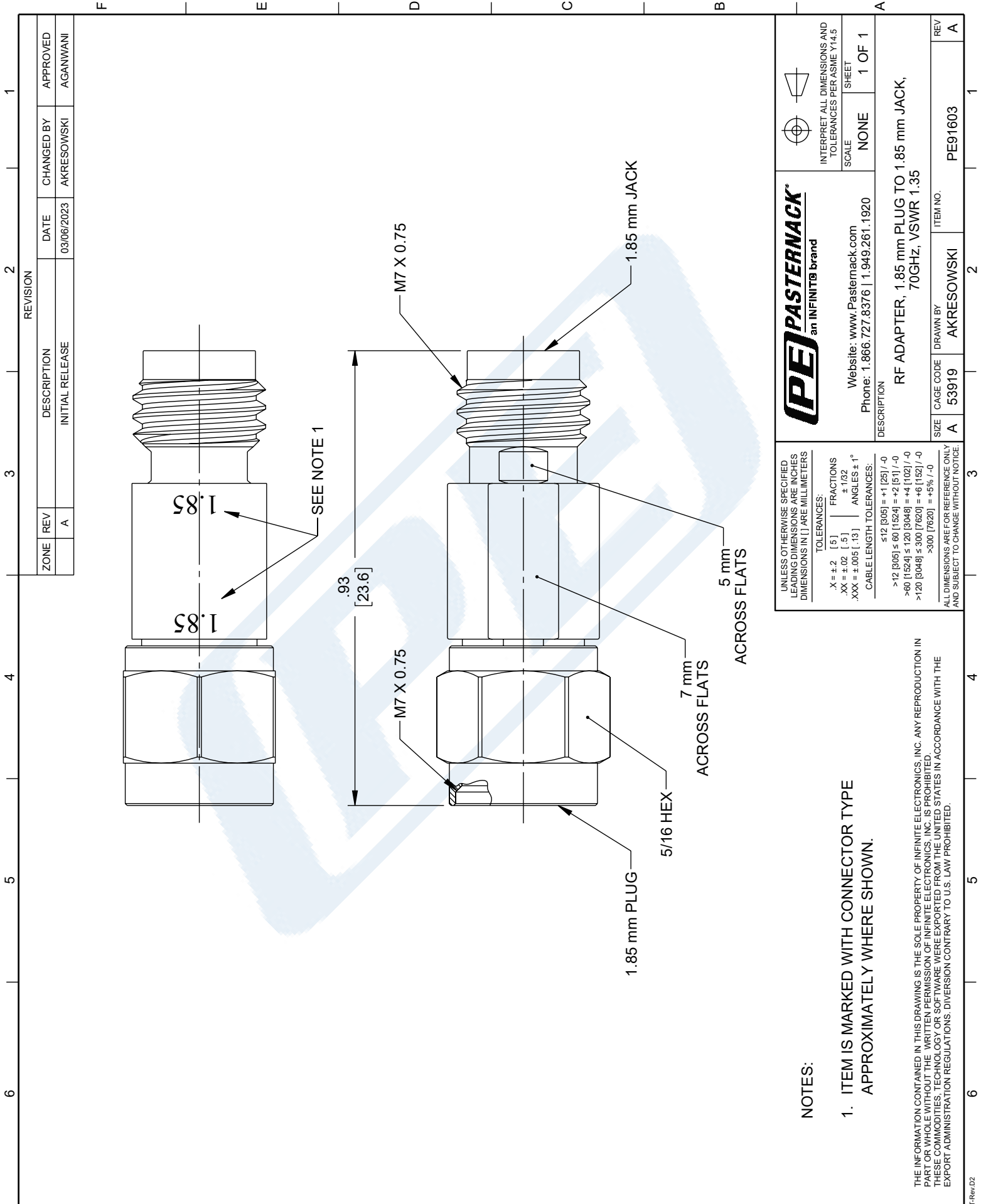
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [1.85mm Male to 1.85mm Female Adapter, Stainless Steel, Engineering Grade PE91603](https://www.pasternack.com/1-85mm-male-to-1-85mm-female-adapter-stainless-steel-engineering-grade-pe91603-p.aspx)

URL: <https://www.pasternack.com/1-85mm-male-to-1-85mm-female-adapter-stainless-steel-engineering-grade-pe91603-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. Pasternack reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack does not assume any liability arising out of the use of any part or documentation.

PE91603 CAD Drawing

1.85mm Male to 1.85mm Female Adapter, Stainless Steel, Engineering Grade



REVISION		DATE	CHANGED BY	APPROVED
ZONE	REV	DESCRIPTION		
	A	INITIAL RELEASE	AKRESOWSKI	AGANWANI

PE PASTERNAK
an INFINITO brand

Website: www.Pasternack.com
Phone: 1.866.727.8376 | 1.949.261.1920

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	53919	AKRESOWSKI	PE91603

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

TOLERANCES:
 .X = ±.2 [.5] FRACTIONS ±.1032
 .XX = ±.02 [.5] ANGLES ± 1°
 .XXX = ±.005 [.13]
 CABLE LENGTH TOLERANCES:
 ≤12 [305] = +1 [25] / -0
 >12 [305] ≤ 60 [1524] = +2 [51] / -0
 >60 [1524] ≤ 120 [3048] = +4 [102] / -0
 >120 [3048] ≤ 300 [7620] = +6 [152] / -0
 >300 [7620] = +5% / -0

ALL DIMENSIONS ARE FOR REFERENCE ONLY AND SUBJECT TO CHANGE WITHOUT NOTICE.

NOTES:

1. ITEM IS MARKED WITH CONNECTOR TYPE APPROXIMATELY WHERE SHOWN.

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