

6 dB Fixed Attenuator, 1.0 mm Male to 1.0 mm Female Rated to 0.5 Watts Up to 110 GHz

RF Fixed Attenuators Technical Data Sheet

PE7454-6

Features

- DC to 110 GHz Frequency Range
- 1.0 mm Connectorized Design
- Attenuation 6 dB
- Max Power 0.5 Watts (CW)
- Typical VSWR of 1.8:1

Applications

- Instrumentation
- Precision Measurements
- Prototyping and Characterization
- Production Systems

Description

Pasternack carries a wide range of fixed attenuators with a broad selection of attenuation levels, frequency ranges, and power dissipation ranges. RF microwave attenuators (also known as RF pads) lower the amplitude of a signal (attenuate) a known amount and can be used in a wide variety of applications. These attenuator pads are used when a signal needs to be reduced to protect measurement equipment or other circuitry, to extend the range of power meters and amplifiers, and to impedance match circuits by reducing the VSWR seen by adjacent components. RF attenuators can prevent signal overload in amplifiers, receivers and detectors, adjusting the signal level to a range that is optimal.

Few RF components are as commonly used as fixed coaxial attenuators, and Pasternack carries one of the largest in-stock varieties and ships them same day. The 6 dB Fixed Attenuator PE7454-6 is rated to 0.5 Watts and operates from DC to 110 GHz. The versatile coaxial package uses 1.0 mm male to 1.0 mm female connectors.

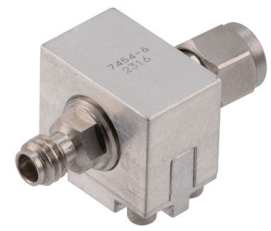
Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		110	GHz
Impedance		50		Ohms
Nominal Attenuation		6		dB
VSWR		1.8:1	2.5:1	
Input Power, CW			0.5	Watts
Derated linearly to 10% @ 100°C from 25°C				

Specifications by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	DC to 26.5	26.5 to 40	40 to 60	60 to 110		GHz
VSWR, Max	1.35:1	1.55:1	1.65:1	2.5:1		
Attenuation Accuracy, Typ	0.75	1	1.5	1.5		dB

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [6 dB Fixed Attenuator, 1.0 mm Male to 1.0 mm Female Rated to 0.5 Watts Up to 110 GHz PE7454-6](#)



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Mechanical Specifications

Size

Length	0.5 in [12.7 mm]
Width/Diameter	0.92 in [23.37 mm]
Height	0.46 in [11.68 mm]
Weight	0.02 lbs [9.07 g]
Body Material and Plating	Passivated Stainless Steel

Configuration

Design	Fixed, Bi-Directional
Package Style	Connectorized

Connectors

Description	Connector 1	Connector 2
Type	1.0mm Male	1.0mm Female
Contact Material and Plating	Beryllium Copper, Gold	Beryllium Copper, Gold
Dielectric Type	Teflon	Teflon
Body Material and Plating	Passivated Stainless Steel	Passivated Stainless Steel

Environmental Specifications

Temperature

Operating Range	-55 to +100 deg C
Storage Range	-55 to +100 deg C

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

Plotted and Other Data

Notes:

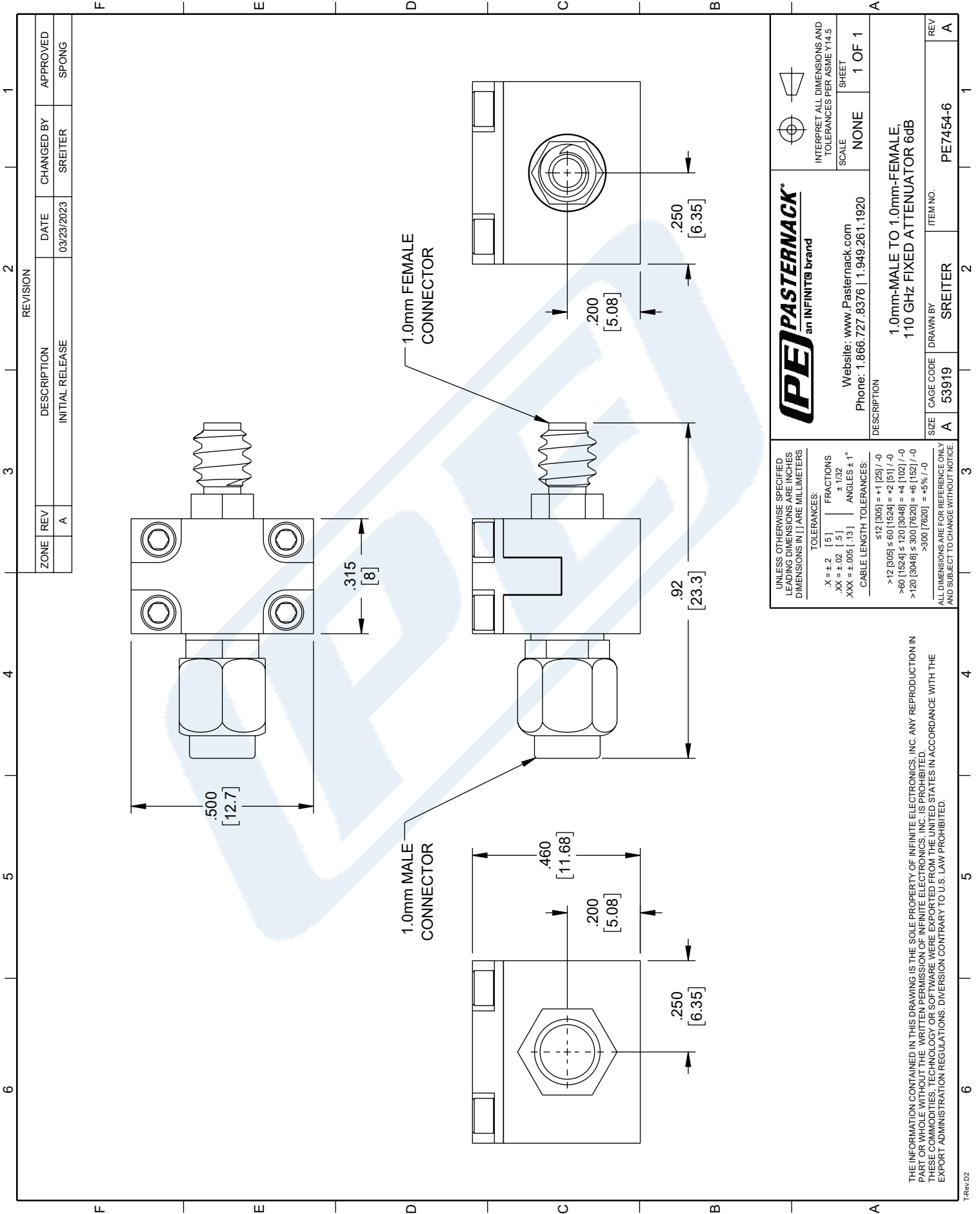
6 dB Fixed Attenuator, 1.0 mm Male to 1.0 mm Female Rated to 0.5 Watts Up to 110 GHz from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [6 dB Fixed Attenuator, 1.0 mm Male to 1.0 mm Female Rated to 0.5 Watts Up to 110 GHz PE7454-6](#)

URL: <https://www.pasternack.com/6db-fixed-1.0mm-male-1.0mm-female-0.5-watts-attenuator-pe7454-6-p.aspx>

PE7454-6 CAD Drawing

6 dB Fixed Attenuator, 1.0 mm Male to 1.0 mm Female
Rated to 0.5 Watts Up to 110 GHz



ZONE	REV	DESCRIPTION	DATE	CHANGED BY	APPROVED
A		INITIAL RELEASE	03/23/2023	SREITER	SPONG

PASTERNAK an INFINITI [®] brand	INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5 SCALE: NONE SHEET: 1 OF 1
	Website: www.Pasternack.com Phone: 1.866.727.8376 1.949.261.1920
DESCRIPTION: 1.0mm-MALE TO 1.0mm-FEMALE, 110 GHz FIXED ATTENUATOR 6dB	
SIZE: A CAGE CODE: 53919 DRAWN BY: SREITER ITEM NO.: PE7454-6	REV: A

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

TOLERANCES:

X = ±.2 [5] | FRACTIONS ± 1/32
 .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 [182] / -0
 >300 [7620] = ±5% / -0

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

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