

1 Watt RF Termination for Cryogenic Application, DC to 18 GHz With SMA Male Input Stainless Steel Body



PE6TR1201

Features

- Cryogenic Operating Temperature Range -265.15 to 125 deg °C
- DC to 18 GHz Range
- 1 Watt Average Input Power
- VSWR <1.15:1
- SMA Male Coaxial Interface

Applications

- Quantum Computing
- Precision Measurements
- Instrumentation
- Prototyping and Characterization

Description

Pasternack's PE6TR1201 is an RF termination (also called RF load or dummy load) that operates from DC to 18 GHz and handles up to 1 Watt (CW). Our SMA termination/load has a male gender. PE6TR1201 SMA load termination offers 1.15:1 VSWR max. The PE6TR1201 termination is specially designed and manufactured for cryogenic applications with RF performances guaranteed at 4 kelvin. RF load / termination are indispensable components in many RF, microwave and millimeter wave systems where signal reflections from unused ports can potentially damage the device or reduce the signal integrity. By using a terminator on an unused port with a matched load (dummy load), the incident energy will be absorbed with minimal reflection. These termination components are commonly used to terminate devices such as couplers, circulators, and switches. They are also widely used in measurement systems to ensure accurate results. Pasternack offers a huge selection of RF, microwave and millimeter wave terminations up to 65 GHz with excellent performance over the entire operating range and power handling capabilities up to 800 Watt (CW).

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		18	GHz
Impedance		50		Ohms
VSWR, Input		1.1:1	1.15:1	
Input Power (CW)			1	Watt
Power derates linearly from 45°C to <10°C @ 125°C				
Input Power (Peak)			500	Watts
5 µSec PW, <1% duty cycle				

Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	DC to 12.4	12.4 to 18				GHz
VSWR, Input Max	1.1:1		1.15:1			

Mechanical Specifications

Size

Length	0.35 in [8.89 mm]
Width	0.31 in [7.87 mm]
Height	0.31 in [7.87 mm]
Weight	0.005 lbs [2.27 g]

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Configuration	
Connector	SMA Male

Material Specifications

Description	Material	Plating
Connector 1 Contact	Beryllium Copper	Gold
Insulation	Teflon	
Outer Conductor	Passivated Stainless Steel	Gold
Coupling Nut	Passivated Stainless Steel	Gold
Housing	Passivated Stainless Steel	

Environmental Specifications

Temperature	
Operating Range	-269.15 to +125 deg C

Compliance Certifications

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

Plotted and Other Data

Notes:

1 Watt RF Termination for Cryogenic Application, DC to 18 GHz With SMA Male Input Stainless Steel Body 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 Watt RF Termination for Cryogenic Application, DC to 18 GHz With SMA Male Input Stainless Steel Body PE6TR1201](#)

URL: <https://www.pasternack.com/1-watts-sma-male-feed-thru-load-18-ghz-pe6tr1201-p.aspx>

The information contained within 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 Enterprises reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack Enterprises does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack Enterprises does not assume liability arising out of the use of any part or document.

PE6TR1201 CAD Drawing

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