KEYSIGHT TECHNOLOGIES (AGILENT HP)

8498A

The Keysight (Agilent/HP) 8498A (Option 030) is a high-power, fixed coaxial attenuator designed for RF and microwave applications from DC to 18 GHz. Offering 30 dB of attenuation with an accuracy of □1 dB across the entire band, the 8498A is rated for 25 Watts of continuous average power and up to 500 Watts of peak power. It features distinctive "human engineered" cooling fins to keep surface temperatures safe for operators during high-power continuous operation.

SPECIFICATIONS

Physical

Operating Temperature	Up to 95 °C (power derating applies above 25 °C) °C
Dimensions (W×H×D)	Ø 59.7 mm × 151.4 mm mm
Weight	0.45 kg kg

RF Performance Specifications

Frequency Range	DC to 18 GHz
Nominal Attenuation	30 dB
Attenuation Accuracy	±1.0 dB (DC to 12.4 GHz), ±1.5 dB (12.4 to 18 GHz)
Impedance	50 Ω (nominal)
Maximum VSWR (DC to 8 GHz)	1.15
Maximum VSWR (8 to 12.4 GHz)	1.25
Maximum VSWR (12.4 to 18 GHz)	1.30

Power Handling & Thermal Ratings

Maximum Average Input Power	25 W
Maximum Peak Input Power (DC to 5.8 GHz)	500 W
Maximum Peak Input Power (5.8 to 18 GHz)	125 W
Peak Power Pulse Width	5 µs
Peak Power Duty Cycle	0.05%
Directionality	Unidirectional (high-power RF input should be applied to the Type-N male connector)
Cooling System	Convection-cooled "human engineered" cooling fins

Mechanical & Connector Specifications

Connector Type - Port 1 (Input)	Type-N male
Connector Type - Port 2 (Output)	Type-N female

Ordering & Part Number Configuration

Base Part Number	8498A

Performance

Power Coefficient	< 0.001 dB/dB/W
Temperature Coefficient	< 0.0001 dB/dB/°C

Operating Conditions

Power Derating	Linearly derated to 5 W @ 95 °C for temperatures above 25 °C

TECHNOLOGY

Coaxial Passive Attenuator

APPLICATIONS

RF and microwave high-power signal attenuation, transmitter testing, and instrument protection