

Performance Comparison of Adjustable Attenuator High Precision and Delay



Article Overview

High-precision adjustable attenuators provide precise amplitude control with flat insertion loss, while programmable delay devices offer fine timing adjustments with low jitter and phase error, each optimized for different RF/microwave applications.

Adjustable High-Precision Attenuators

Function and Performance: Adjustable attenuators, such as the ACST 536x series, are passive waveguide devices designed for precise amplitude control across wide frequency ranges (50–500 GHz) with flat insertion loss response. They can achieve attenuation values up to 25 dB, with high repeatability and minimal impact on signal integrity. These devices are optimized for low amplitude ripple and high precision, making them suitable for calibration, signal leveling, and test setups in high-frequency systems. **Key Metrics:**

- Frequency Range: 50–500 GHz
- Attenuation Range: Up to 25 dB
- Insertion Loss: Flat across the band, typically low (

Article Content

Fixed vs Step vs Variable Attenuator Selection | RF Essentials

How to choose between a fixed attenuator, a step attenuator, and a variable attenuator. Learn performance tradeoffs, accuracy, and

Performance Comparison of Adjustable Attenuator High Precision and

DSA5-2 China High Precision Adjustable Attenuator factory and Digital Attenuators with High Attenuation Range and Accuracy

Optical Attenuators – fixed, variable, VOA, high-power, fiber-optic ...

Different types of attenuators operate based on absorption, reflection, or polarization effects. Absorbing filters are simple but limited

RF Coaxial Attenuators and Terminations

Engineered for precision and durability, RF Coaxial Attenuators and Terminations help ensure optimal system performance and

Comparing Millimeter-Wave Variable Attenuator Technologies

A Comparison of Millimeter-Wave Variable Attenuator Technologies Electronically tunable variable attenuators are useful for signal

A 6-Bit Attenuator Design with High Attenuation Accuracy and Low ...

In this paper, a 6-bit attenuator is designed based on GaAs 0.15 μm pHEMT process, in which different attenuation structures are

Attenuators | Amplifiers and Active Devices | Electronics Textbook

Attenuators weaken or attenuate the high level output of a signal generator, for example, to provide a lower level signal for something

RF Attenuators

Over 400 coaxial, surface mount, and MMIC attenuator models for 50-Ohm & 75-Ohm system including fixed attenuators, high

RF Demystified: What is an RF Attenuator?

This article covers the basics of attenuator ICs, including the various types, design configurations, and key specifications you'll need

What is RF Attenuator: Types, Benefits & Manufacturers

An RF attenuator is a passive component that reduces signal power without significantly distorting waveform characteristics.

High Power Attenuator Performance Over Frequency

High Power Attenuator Performance Over Frequency Tech Note Tuning, physical layout, power handling and design account for the

Variable Attenuators

Variable tee, pi and bridged-tee attenuators For the tee, pi and bridged tee attenuators, because there are two resistive elements R1

GigaBaudics Electronic Instrumentation

GigaBaudics has delivered ultra-high-performance, multi-GHz programmable delay lines, attenuators and RF switching products for

A W-Band Waveguide Adjustable Attenuator Based on Quadrature

In this work, a novel full W-band waveguide reflection-based adjustable attenuator (WRAA) based on quadrature hybrid couplers

RF Attenuators | Analog Devices

Analog Devices' RF attenuators are available in a broad range of architectures and form factors, giving designers the flexibility to

A Highly-Linear Differential Attenuator with Discrete Control

Designing highly linear attenuators is an important and time-consuming task. The article presents the results of designing and

Microsoft Word

Adjustable Attenuator 536x is a family of variable passive waveguide attenuators based on ACST high-precision manufacturing

A 10–20 GHz 6-Bit High-Accuracy Digital Step Attenuator with Low ...

In order to meet the low phase error required, this paper proposed an ultra-broadband 6-bit digital step switched-type attenuator

Contact Us

For more information, pricing, or custom solutions, please contact us:

Website: <https://www.gmarkconstruction.co.za>

Email: sales@gmarkconstruction.co.za

Phone: +31-6-15-38-72-94

Address: Herengracht 456, 1017 BS Amsterdam, Netherlands

This document is for informational purposes only. Specifications subject to change without notice.

