

高带宽隔离放大器

Introduction

The High-Bandwidth Isolation Amplifier is an analog signal isolation device developed by Startorus Fusion for high-speed signal isolation in fusion experiment and similar scenarios. The isolation amplifier features a bandwidth of DC to 50 MHz, with the single-channel model supporting $\pm 5V$ input and 3000 VDC isolation voltage, while the 8-channel model supports $\pm 2.5V$ input and 1500 VDC isolation voltage. The input impedance design minimizes errors introduced by the signal source internal resistance, and noise suppression measures are designed internally to reduce system noise. The product line offers both single-channel and 8-channel configurations, designed as a compact and portable aluminum alloy enclosure for easy operation.

8-Channel configurations



Single-Channel configuration



Parameter

Parameter	Single-Channel	8-Channel
Number of Channels	1	8
Bandwidth	DC~50 MHz(-3 dB)	
Gain	1	
Accuracy	0.5%	
Input Voltage Range	±5V	±2.5V
Output Voltage Range	±5V	±2.5V
Input Impedance	50 Ω	1 MΩ
Isolation Voltage	3000 VDC	1500 VDC

Applications

The High-Bandwidth Isolation Amplifier is widely applicable to industrial measurement and control systems in power, electronics, petrochemicals, steel, and other industries, providing electrical isolation for equipment protection and ensuring system stability and reliability.

The product line offers both single-channel and 8-channel configurations, which can be flexibly selected based on system requirements to meet diverse application scenario isolation needs.