

SLPA-5000 Series Preamplifier

Small signal amplification

Ultra low noise

High gain



Applications

Used for infrared sensor detection

Used for detecting weak magnetic field sensor

Used for optical detection of phototransistors

Introduction

SLPA-5000 series is a preamplifier for very small signal detection, powered by the SLPA-5000 preamplifier low-noise power supply (optional). There are several models based on frequency, gain, input resistance, etc.

Model	SLPA-5210	SLPA-5220	SLPA-5310	SLPA-5320	SLPA-5410
Bandwidth (-3dB)	1kHz~5MHz	1kHz~5MHz	1kHz~10MHz	1kHz~10MHz	1kHz~20MHz
Input resistance	50Ω	50Ω	50Ω	50Ω	50Ω
Input conversion Noise voltage	Less than $0.7nV/\sqrt{Hz}$ (1kHz) 0.5nV/ \sqrt{Hz} typ (1k~1MHz)	Less than $1.7nV/\sqrt{Hz}$ (1kHz) 1.5nV/ \sqrt{Hz} typ (1k~1MHz)	Less than $0.7nV/\sqrt{Hz}$ (100kHz) 0.5nV/ \sqrt{Hz} typ (10k~1MHz)	Less than $1.7nV/\sqrt{Hz}$ (100kHz) 1.5nV/ \sqrt{Hz} typ (10k~1MHz)	Less than $1.2nV/\sqrt{Hz}$ (100kHz) 0.9nV/ \sqrt{Hz} typ (10k~1MHz)
Input conversion / Noise current	7pA/ \sqrt{Hz} typ (10kHz)	13pA/ \sqrt{Hz} typ (10kHz)	7pA/ \sqrt{Hz} typ (10kHz)	13pA/ \sqrt{Hz} typ (10kHz)	7pA/ \sqrt{Hz} typ (10kHz)
Maximum output voltage	2 Vp-p (50Ω)	2 Vp-p (50Ω)	2 Vp-p (50Ω)	2 Vp-p (50Ω)	2 Vp-p (50Ω)
Output impedance	50Ω	50Ω	50Ω	50Ω	50Ω
Voltage gain	46 dB	60 dB	46 dB	60 dB	46 dB
Size (W * H * D)	135*70*25mm				

Model	SLPA-5420	SLPA-5510	SLPA-5520	SLPA-5610	SLPA-5620
Bandwidth (-3dB)	1kHz~20MHz	1kHz~50MHz	1kHz~50MHz	1kHz~100MHz	1kHz~100MHz
Input resistance	50Ω	50Ω	50Ω	50Ω	50Ω
Input conversion Noise voltage	Less than $1.9\text{nV}/\sqrt{\text{Hz}}$ (100kHz) $1.2\text{nV}/\sqrt{\text{Hz}}$ typ (10k~1MHz)	Less than $1.2\text{nV}/\sqrt{\text{Hz}}$ (100kHz) $0.9\text{nV}/\sqrt{\text{Hz}}$ typ (10k~1MHz)	Less than $1.9\text{nV}/\sqrt{\text{Hz}}$ (100kHz) $1.2\text{nV}/\sqrt{\text{Hz}}$ typ (10k~1MHz)	Less than 1.2 $\text{nV}/\sqrt{\text{Hz}}$ (100kHz) $0.9\text{nV}/\sqrt{\text{Hz}}$ typ (10k~1MHz)	Less than $1.9\text{nV}/\sqrt{\text{Hz}}$ (100kHz) $1.2\text{nV}/\sqrt{\text{Hz}}$ typ (10k~1MHz)
Input conversion / Noise current	$13\text{pA}/\sqrt{\text{Hz}}$ typ (10kHz)	$7\text{pA}/\sqrt{\text{Hz}}$ typ (10kHz)	$13\text{pA}/\sqrt{\text{Hz}}$ typ (10kHz)	$7\text{pA}/\sqrt{\text{Hz}}$ typ (10kHz)	$13\text{pA}/\sqrt{\text{Hz}}$ typ (10kHz)
Maximum output voltage	2 Vp-p (50Ω)	2 Vp-p (50Ω)	2 Vp-p (50Ω)	2 Vp-p (50Ω)	2 Vp-p (50Ω)
Output impedance	50Ω	50Ω	50Ω	50Ω	50Ω
Voltage gain	60 dB	46 dB	60 dB	46 dB	60 dB
Size (W * H * D)	135*70*25mm				

SLPA-5000 preamplifier low noise power supply (option)

Specification

Name	SLPA-5000 Preamplifier Low Noise Power Supply
Supply Voltage	AC220V±10%, 50Hz
Output Voltage	DC15V
Maximum Output Current	200mA
Output Noise Voltage	< 50μVrms (10Hz to 20MHz)
Fuse	0.5A/250V
Operating Temperature	0°C~45°C
Storage Temperature	-20°C~50°C
Humidity	≤80%RH, non-condensing

Appendix

Modle	SLPA-5000
Description	Preamplifier Low Noise Power Supply
Accessories	1*Three-core power cord, 1*LEMO (0B FGG 2-pin) power cord, 1*Fuse, 1*Product Manual, 1*Certificate, 1*Packing List, 1*Ex-Factory Test Report.
Contact	sales@salukitec.com