



LOW NOISE VOLTAGE AMPLIFIER

- Low Noise - Down to 1 nV/√Hz
- Bandwidth - from ≤ 200 Hz TO 12 MHz
- High Gain – up to 80 dB
- Adjustable Gain - over 20 dB



DESCRIPTION:

The **321A Series** are low noise voltage amplifiers designed for instrument and transducer applications in which high gain and low noise are required. Both low and high input impedances are available.

SPECIFICATIONS:

Input

Impedance 50 Ω (Add -50 to part number.)
4.7 k Ω (Add -4.7k to part number.)
Capacitance <10 pF

Output

Load $\geq 50 \Omega$
Swing 16 V pk-pk into 1 k Ω
12 V pk-pk into 50 Ω

Gain

Trimpot adjustable over 20 dB

Polarity

Inverting (Add -INV to part number.)
Non-inverting (Add -NI to part number.)

Power

± 15 VDC at 28 mA typical (no load)

Temperature

0° to +70°C

Connections

Input/Output BNC
Power Filter feed-thru pins and ground lug

Size

3.12" x 1.50" x 1.09"

Specifications subject to change without notice.

APPLICATIONS:

Transducer Amplifiers, Instrumentation Amplifiers

		MODEL NUMBER		
		GAIN (1)		
		20-40 dB	40-60 dB	60-80 dB
BANDWIDTH $\pm 20\%$	≤ 200 Hz - 3.5 MHz	-----	-----	321A-3
	≤ 200 Hz - 6.5 MHz	-----	321A-2	-----
	≤ 200 Hz – 12 MHz	321A-1	-----	-----
NOISE $\pm 20\%$	Voltage Noise (Shorted Input)	2.5 nV/ $\sqrt{\text{Hz}}$	1.7 nV/ $\sqrt{\text{Hz}}$	1 nV/ $\sqrt{\text{Hz}}$

Typical Part Number:	321A-2-50-INV =	Bandwidth:	≤200 Hz - 6.5 MHz
		Gain:	40 dB – 60 dB
		Noise:	1.7 nV/√Hz
		Input Impedance:	50 Ω
		Polarity:	Inverting

