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# **High Frequency Operational Amplifier**

Tech ID: 21433 / UC Case 2009-257-0

#### **BRIEF DESCRIPTION**

A high frequency operational amplifier that exhibits precision gain at high frequencies and has record high bandwidth and linearity at a given operating power.

### **BACKGROUND**

Since conventional operational amplifiers (op-amps) are unstable at high gains at high frequencies and may require complementary technology for implementation, there is a need for an op-amp that surmounts both of these obstacles in order to increase performance and decrease production costs.

### **DESCRIPTION**

Researchers at the University of California, Santa Barbara have developed a high frequency operational amplifier. It exhibits precision gain at high frequencies and has record high bandwidth and linearity at a given operating power.

Because it doesn't require complementary devices, production costs are decreased, and the op-amp tolerates a wide range of external input and output impedances. It is applicable in a wide range of both analog and digital electronics.

### **ADVANTAGES**

- ▶ Precision gain at high frequencies
- Record high bandwidth at a given operating power
- ▶ Record high linearity at a given operating power
- ▶ Decreased production costs due to a design lacking the need for complementary technology
- ► High tolerances of external input and output impedances

### **APPLICATIONS**

- Operational Amplifiers
- ► Analog and Digital Electronics

This technology is available for licensing. U.S. Patent No. 7,898,333.

## PATENT STATUS

Country Type Number Dated Case

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### OTHER INFORMATION

#### **KEYWORDS**

Operational amplifier,

indtelecom

### **CATEGORIZED AS**

- **▶** Engineering
- **▶** Communications
  - ▶ Other

### **RELATED CASES**

2009-257-0

**Issued Patent** 

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