EPAD Electrically Programmable Analog Device

Announcing the....

ALD 1108E & **ALD 1110E**
Quad and Dual EPADs
(Electrically Programmable Analog Devices)

Definition of **EPAD**

EPAD stands for Electrically Programmable Analog Device. It is a new classification of analog integrated circuits developed by Advanced Linear Devices. The ALD1108E/ ALD1110E are the quad/dual EPADs designed to be monotonically preprogrammed or programmed in-system. Once programmed and set, the set voltage and current levels are stored indefinitely inside the device as a precisely controlled non-volatile stored charge, and are not affected during normal operation of the device, even when the device power is off.

Applications include electronic systems used in telecommunications, instrumentation, medical devices and industrial process control systems. Designers can automate the electrically trimming function and simplify the manufacturing and control process by electrically altering an analog circuit transfer function without resorting to a system microcontrollers, RAMs and ROMs, EPROMs, data converters and an entire overhead of circuit and system functions. In many applications where there is a need to eliminate moving mechanical parts, or where access to a trimpot is no longer available, such as in an epoxy potted module, adjustment of circuit parameters with EPADs is a simple and economical solution.

Benefits

- Simple, elegant single-chip solution to trimming voltage/current values
- Easy and economical to use
- Direct in-circuit active element operation and programming
- Use in environmentally sealed circuits via remote programming
- Improved reliability, dependability, dust and moisture resistance
- Automation capability in measurement and control systems
- User programmability of standard or custom configuration
- Micropower consumption operation
- Available in standard PDIP, CDIP (hermetic) and SOIC packages

Features

- Operates from 1.2V, 3V, 5V to 10V
- Very high resolution -- average resolution of 0.1 mV
- Wide dynamic range -- current levels from 0.1µA to 3000µA
- Voltage adjustment range from 1.0V to 3.0V in 0.1mV steps
- Typical 10 years drift of < 2mV
- Zero Temperature Coefficient current level at 68µA
- Tight matching and tracking of on-resistance between different devices
- No mechanical moving parts -- high G-shock tolerance

Applications

- Precise electronic calibration
- Automatic voltage trimming/ setting
- Remote voltage programming of inaccessible nodes
- Electrically adjust resistive load
- Temperature compensated current sources and current mirrors
- Electrically trim/calibrate current sources
- Zero Temperature Coefficient voltage/ current bias circuits
- Microprocessor based process control systems
- Portable terminals and instruments
- Programmable gain amplifiers
- Sensor and transducer bias and signal conditioning

Send me more information on the ALD1108E/ALD1110E Quad/Dual EPADs (Electrically Programmable Analog Device)

Name _____

Title _____

Company _____

Address _____

City/State/Zip _____

Phone ( ) _____

Fax ( ) _____

E-mail _____

Needs ❑ Immediate ❑ 3-6 Months ❑ 6+ months

Industry _____

Application(s) _____

For faster response, fax this side to (408) 747-1286 or call us at (408) 747-1155. E-mail: sales@aldinc.com

Introducing a **NEW EPAD Technology**

Heralded as a breakthrough in analog circuit development, the EPAD system developed by Advanced Linear Devices is an innovative approach that essentially replaces the conventional methods used to tune an analog circuit or to adjust trim pots.

The EPAD programming system empowers the analog designer to automate precision trimming. Equipped with ALD's EPAD programmer unit (E100), Adapter Module (EA100 series), IBM-compatible personal computer and a power supply, the designer can electrically adjust and program EPADs (Electrical Programmable Analog Devices) within seconds. Once programmed, these components are very stable and retain their values indefinitely.

ADVANCED LINEAR DEVICES, INC.